THE UNIVERSITY
OF ILLINOIS
LIBRARY
610.5
BR
1906'
[redacted]

The person charging this material is responsible for its return on or before the **Latest Date** stamped below.

Theft, mutilation, and underlining of books are reasons for disciplinary action and may result in dismissal from the University.

University of Illinois Library

JUL 30 1969

BUILDING USE ONLY

NOV 18 1997

NOV 18 1997

L161—O-1096

THE

British Medical Journal.

THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

EDITED BY

DAWSON WILLIAMS, M.D.,

LIBRARY OF THE UNIVERSITY OF ILLINOIS

ASSISTED BY

CHARLES LOUIS TAYLOR.

VOLUME I 1906.

JANUARY TO JUNE.

London:
PRINTED AND PUBLISHED AT THE OFFICE OF THE BRITISH MEDICAL ASSOCIATION,
429, STRAND, W.C.

INDEX TO VOLUME I FOR 1906.

A.

Abbe, Ernest, memorial to, 32
Abbot, A. C.: *Principles of Bacteriology*, rev., 1225
Abdominal aorta, thrombosis of (Francis Hawkins), 1280
Abdominal cancer. *See* Cancer
Abdominal conditions simulating acute intestinal obstruction (George Heaton), 142, 364
Abdominal diseases, importance of anaesthesia by lumbar injection in operations for (Henry Percy Dean), 1086; correspondence on, 1194
Abdominal injury, severe (E. Deanesly), 1341
Abdominal operations, four severe (W. H. Battle), 1039
Abdominal pregnancy. *See* Pregnancy
Abdominal resistance (James MacMunn), 1464
Abdominal section and suture in treatment of three cases of ruptured uterus (Harrison Cripps), 1270
Abdominal surgery, review of books on, 924
Abdominal tuberculosis. *See* Tuberculosis
Aberdeen Graduates' Society. *See* Society
Aberdeen, prevention of consumption in, 887
Aberdeen University. *See* University
Aberdeen University Anatomical Society. *See* Society
Aberystwith, guardians in, 824; contract practice in, 1055
Abolition of boards of guardians. *See* Guardians
Abortifacient, lead as (A. St. Lawrance-Burke), 259; (Arthur Hall and W. B. Ransom), 428; (W. Wrangham), 556; (F. W. Jollye), 620; correspondence on, 355; leading article on, 456; death from, 764; and the decreasing birth-rate, 1080. *See also* Diachylon, Lead
Abortion, missed (?), 630
Abortion, does diachylon affect the infant when it fails to produce? (R. Heelis, F. H. Jacob, and S. R. Trotman), 257
Abortion, criminal, sublimate injections in, 1063
Abraham, P. S.: Psoriasis and its treatment, 842
Abrahams, B.: Adiposis dolorosa, 741
Abram, J. Hill: New remedy for diabetes, 205
Abrogation of the Aliens Act, 701
Abscess, amoebic, of liver, two cases of (Leonard Rogers and Captain Roger P. Wilson), 1397
Abscess of appendix with severe haemorrhage (J. D. Malcolm), 502
Abscess, hepatic, etiology of, 420
Abscess, prostatic, and congestion, treatment of (James MacMunn), 859
Abscess, subphrenic, complicating empyema: resection of ribs (Edward W. Archibald), 1148
Absinthe, sale of, 219; forbidden in Belgium, 694
Abstainers, total, comparative mortality of, 463; and life assurance, 753
Academic dress for foreign Paris graduates, 809
Académie des Sciences, prizes offered by, 165
Academy, Royal, of Medicine in Ireland, 202, 260, 323, 442, 503, 622, 741, 804, 862, 979, 1280, 1346, 1402: fractures of os calcis and astragalus (Professor Bennett) 202; cancer of the oesophagus with secondary growths in the heart (Travers Smith), 202; hydrocephalus (Dr. O'Carroll), 203; gastro-enterostomy (R. Charles B. Maunsell), 260; partial gastrectomy for pyloric tumour (William Taylor), 261; diagnosis, treatment and pathology of empyema (W. G. Smith, Sir Thornley Stoker, Dr. Earl), 323; sequel to an attack of eclampsia (J. Spencer Sheill), 442; vaccination (Sir John William Moore), 503; abdominal and pelvic tuberculosis, discussion on, 622; cirrhosis of liver (Dr. Drury and Dr. Taylor), 741; anaemia splenica infantum (T. Gillman Moorhead), 741; pneumococcus vaccine (J. B. Coleman), 742; exhibits, 804, 979, 1280, 1346; treatment of acute peritonitis (Edward H. Taylor), 862; keratosis (W. J. Thompson), 862; bradycardia (Dr. Finny), 862; leukaemia (Dr. Parsons), 862; enucleation of the prostate (Sir William Thomson), 1346; Section of Medicine, exhibition of cases, 1346; tubal pregnancy (Alfred Smith), 1402; intussusception (E. Hastings Tweedy), 1402; puerperal morbidity (E. Hastings Tweedy), 1402
Accident insurance, 659
"Accoucheur," title of, 175
Acetonuria, post-anaesthetic (Lewis Beesly), 1142
Achondroplasia (Guthrie Rankin and Ernest C. Mackay), 1103, 1518
Acid, influence of, on guinea-worm larvae encysted in cyclops (Robert T. Leiper), 19
Acidity and alkalinity in malignant disease, 38
Acquittal, 1321
Act, the Aliens, 453, 656, 701; its objects, 453; rejection of undesirable aliens, 453: expulsion of undesirable aliens, 453; duties of medical inspector of aliens, 453; duties of medical officers of health, 454; results of the operation of the Act, 454; abrogation of, 701
Act, Infant Life Protection, 1897, 396; deputation to Under-Secretary of Home Affairs, 396
Act, the Lunacy, recent prosecutions under, 159
Act, the Midwives, 110, 287, 811, 1055; general election and, 110; conviction under, at Sheffield, 287; practical suggestions for reducing the puerperal death-rate (Percy Rose), 811; the Act in Norfolk, 812; payment of medical men called in to assist midwives, 1055
Act, the Superannuation, public vaccinators and, 897
Act, the Vaccination, 1322, 1446
Actinomycosis (A. Fullerton), 322
Action against a medical man, *Hobson* v. *Bicknell*, 286; for blindness after glaucoma, 476; in France for review of thesis, 646; for negligence, 636, 655, 1256; of a specialist, 774; for alleged slander, 833; for fees, 952; against a herbalist, 1506; of a locum tenens, 1567
Action, Scottish lunacy, 39, 56
Acts, Merchant Shipping, 762
Acts, the Pharmacy, prosecution under, 348
Acurasion in treatment of aortic aneurysm (Mr. Morrison), 559
Adamkiewicz, Professor: *Der Krebs und die "Goldene Statue,"* rev., 1046
Adams, Thomas Rutherford, obituary notice of, 115
Addinsell, A.: Chronic infective metritis, 862
Addison, Christopher (editor): *Ellis's Demonstrations of Anatomy*, rev., 88
Addison's disease, apparently arrested (Dr. Herringham), 261; case of at Cork, 591
Adenoids, five hundred operations for (Cecil Shaw), 1156
Adeno-lipomatosis (H. D. Rolleston), 261
Adenomata of adrenals and extreme sclerosis of aorta (F. Parkes Weber), 1281
Adenomatous polypus of cervix (F. E. Taylor), 83
Adirondack cottage sanatorium, 810
Administrative control of pulmonary phthisis, 632
Adnexa, hernia of. *See* Hernia
Adrenalin in treatment of pleuritic effusion (William Ewart and Flora Murray), 973
Adrenals, adenomata of. *See* Adenomata
Adulterated butter, 103
Adulteration as a fine art, 103; of food, 703
Advertisements, trade, great names in, 952; doctors' names in, 1310
Advertising, medical, 418, 599, 656, 657, 834, 952, 1017, 1444
Advertising opticians. *See* Opticians
Adye-Curran, Lieutenant-Colonel F. G., appointed J.P. for county of Dublin, 1411
Aërial convection of small-pox, 59
Afghanistan, plague in, 349
Africa, general service medal, 117, 1443
Africa, South. *See* South
"After-care Association." *See* Association
Age-limit for professors, 406
Agra, health report for 1904, 1069
Agreements not to practise, 538, 775
Agricultural hygiene, 1056
Aikman, John: Arteries during some infectious diseases, 920
Air, impure, fight against in Vienna, 109
Albany, State of, history of medicine in, 750
Albert-Weil, E.: *Manuel d'Electrothérapie et d'Electrodiagnostic*, rev., 1226
Albumen in the urine, significance of small quantities of (Robert W. Burnet), 126
Albuminoid bodies, constitution of, 168
Albuminous molecule, constitution of, 221
Albuminuria in pregnancy (Arthur J. Sharp), 439
Alchemy and chemistry, review of books on, 1347
Alcohol, effects of, public notices with regard to, 103; effects of on the cardio-vascular system, 405; value of, 1184
Alcohol and lunacy, 468; and crime, 749; in Egypt, 1053
Alcoholism, and irresponsibility, 584: secret treatment of, 825; industrial (W. C. Sullivan), 1412
Alderson, F. Herbert: Administrative control of pulmonary phthisis, 769
Alderson, Reginald: General anaesthetics and their administration, 83
Alderson, Wilfrid E.: congenital absence of external auricle, 500
Alexander, Victor George, appointed J.P. for Johannesburg, 875
Alexander memorial prize, 1506
Alford, Frederick Stephen, obituary notice of, 1015
Algiers, British medical literature in, 899
Aliens Act. *See* Act
Alkalinity and acidity in malignant disease, 38
Allan, Alexander: Haemorrhagica neonatorum, 384
Allan, J.: Painless labour, 619; Ethyl chloride as a general anaesthetic, 715, 949
Allan, J.: Reports case of croupous pneumonia, 860; heterochromia iridis, 977, 1219
Allbutt, T. Clifford: Three cases of arterial disease, 5, 169, 295; *System of Medicine by Many Writers*, rev., 562; sarsaparilla in syphilitic cachexia, 710; angina pectoris without apparent disease of the heart or blood vessels, 919, 1070
Allen, F. J.: New treatment for "housemaid's knee," subcutaneous rupture of enlarged bursae, 198
Allen, R. W.: Bacteriology of a common cold, 1131, 1254, 1565
Almanack, illustrated health, 631
Alopecia areata, non-contagiosity of, 1010
Amalgamation of London medical societies. *See* Societies
Ambulance lectures, 119
Ambulance Challenge Shield, 1197
Ambulance service at Cardiff, 409, 1067; at Liverpool, 763; for London, 84, 694, 1366; at Rhondda, 104, 347; in Sydney, 102; in Vienna, 231
America. *See* United States
American football, 344
American meat imports, question in Parliament, 1433
American Medicine, 888
American Ministry of Public Health, proposed, 345
American universities. *See* Universities
Amoebic abscess. *See* Abscess
Amputation of leg at 94, with an account of a new operation (C. W. Branch), 1339
Amputation of both ovaries, effects of, 883
Amsterdam, special correspondence from, 291; Medical and Physical Society, 291; railway extension works and use of caissons, 291
Anaesthesia, chemistry of, 101
Anaesthesia before the law, 282, 1310
Anaesthesia, local, case of suprapubic cystotomy under (Gilbert J. Arnold), 21
Anaesthesia, local, case for (L. Erasmus Ellis), 621

Anaesthesia by lumbar injection in operations for acute abdominal diseases (Henry Percy Dean), 1086 ; correspondence on, 1194
Anaesthesia, lung complications after operations with (G. E. Armstrong), 1141
Anaesthesia, precautions before, 1447
Anaesthetic, ethyl chloride as. *See* Ethyl chloride
Anaesthetic, stovaine as an, 202, 1099
Anaesthetics and renal activity (W. H. Thompson), 608, 667
Anaesthetics, general, and their administration (Reginald Alderson), 83 : action of on the lower forms of life (F. J. Keeble), 326
Anaesthetists and coroners, 480
Anaesthetists for the R.A.M.C., unqualified, 586, 648
Anarchist, psychology of the, 1365
Anatomy, review of books in, 88, 565, 927, 1532
ANDERSON, E. GARRETT : Administration of vaccination, 1011
ANDERSON, J. FORD : Proposed central pay hospital for London, 711 ; proposed general hospital at Putney, 830
ANDERSON, Sir THOMAS MCCALL, complimentary dinner to, 163
Anencephalic monsters (F. W. King), 797
Anencephalous monster (E. C. Edwards), 1530
Aneurysm of the aorta treated by acurasion (Mr. Morrison), 559
Aneurysm, gluteal (Mr. Morrison), 559
Aneurysm, popliteal, excision of (Mr. Morrison), 559
Aneurysm of the thoracic aorta, double (Fleet-Surgeon D. McNabb), 142
Angina pectoris without apparent disease of the heart or blood vessels (E. Curtin), 858 ; (T. Clifford Allbutt), 919
Angina pectoris and allied conditions, relation of to an arterio-cardiac reflex having its origin in the abdomen (William Russell), 301 ; leading article on, 338 ; correspondence on, 410, 473, 535, 600, 650, 713, 1013, 1070
Angina, pronunciation of, 152, 450, 646
Angio-neurotic oedema (W. H Lowman), 858 ; ichthyol in (Frederick C. Forster), 976 ; case of (Dr. Garrod), 1039 ; correspondence on, 959, 1019
Angio-sarcoma of breast (H. Betham Robinson), 742
Anglo-Japanese alliance, 39
ANGUS, H. BRUNTON : Torsion of pedicle of an ovarian dermoid in a child, 199
Anilin poisoning amongst dyers, 37
Animal parasites. *See* Parasites
Animal Vaccination. *See* Vaccination
Ankylostoma duodenale, review of books on, 686
Ankylostomiasis, campaign in Belgium, 102 : review of books on, 1045 ; useful study of in *Arbeiten aus dem kaiserlichen Gesundheitsamte*, 1353
ANLEY, F. E. : *Ascaris lumbricoides* and appendicitis, 677
Annali della Facoltà di Medicina, rev., 1285
Anointing the sick, 1309
Anonymous letter. *See* Letter
Answers, medical advice with, 583, 639. 1017
Anthrax, at Redditch, 286 ; death from in Liverpool, 599 ; at Bradford, 823 ; in Birmingham, 1437
Anthrax infection, relationship of the temperature to the opsonic curve in (J. Freeman), 144
Anthropology, criminal, and Thug skulls, 1428
Anticigarette movement in Birmingham, 449 ; in America, 1179
Antidiphtherial serum. *See* Serum
Antimalarial campaign at Ismailia, 360 ; in Corsica, 1310
Antipodes, patent medicines at the, 40
Antiquackery Congress. *See* Congress
Antirabic Institute in Bordeaux, 753 ; in Vienna, 934
Antistreptococcus serum. *See* Serum
Antithyroid serum. *See* Serum
Antitoxin, and diphtheria, 753 ; in treatment of diphtheria, 1382
Antitubercle effort, co-ordination in, 402
Antitubercle Society. *See* Society
Antituberculosis movement at the Cape, 515
Antityphoid inoculation, 1126
Antityphoid serum. *See* Serum
Antivaccination, and the general election, 96 ; in Parliament, 1126 (leading article), 935 ; and Mr. Arnold Lupton, M.P. (leading article), 936. 997, 1378 ; controversy on, 942 ; in Canada, 1006. *See also* Vaccination
Antivaccination League, 520. 694
Antivenenes, snake-poison, 818
Antivivisectionists, and the hospitals. 53, 111, 170, 233, 292 ; sweet reasonableness of, 699 ; meeting in Austria, 769 ; in Germany, 876
Antivivisection Society. *See* Society
Antwerp, international exposition at, 398
Aorta, abdominal, thrombosis of (Francis Hawkins), 1280
Aorta, sclerosis of, with adenomata of adrenals (F. Parkes Weber), 1281
Aorta, thoracic, double aneurysm of (Fleet Surgeon D. McNabb), 142
Aortic aneurysm. *See* Aneurysm
Aortic insufficiency (Seymour Taylor), 1461
Apes, syphilization of, 168 ; transmissibility of syphilis to (Albert S. Grünbaum and Ralph D. Smedley), 607
Apothecaries' Hall, Ireland, 177, 358, 718 ; dinner, 177 ; examination for diploma, 358 ; spring examinations, 718
Apothecaries' Society, 60, 119, 239. 537, 776, 954, 1256 ; pass lists, 119, 239, 537, 776, 954, 1256 ; membership of, 60 ; Gillson research scholar, 537
Appeal, an, 1080, 1200, 1260
Appeal for information, 720
Appeal to instrument makers, 1200
Appendicitis and *Ascaris lumbricoides* (F. E. Anley), 677
Appendicitis, complicated case of (Sir Edmond S. Stevenson), 787
Appendicitis, alleged epidemicity of (leading article), 815 ; correspondence on, 947, 1193, 1254
Appendicitis and gangrene of appendix as separate diseases (J. I. Malcolm), 1531
Appendicitis, causes of increase of, 1448
Appendicitis, mimicry of by enterospasm (Herbert P. Hawkins), 65
Appendicitis, muco-membranous typhlocolitis mistaken for, Professor Dieulafoy on diagnostic and operative errors in, 1373
Appendicitis, operation for, 600
Appendicitis with ovarian cystoma (John T. Hewetson), 789
Appendicitis due to *Oxyuris vermicularis* (Wm. Carson), 501
Appendicitis, pelvic, importance of rectal examination (George E. Armstrong), 70
Appendicitis causing acute peritonitis (Byrom Bramwell), 781
Appendicitis, review of books on, 1164
Appendicitis simulated by torsion of omentum, 883
Appendix, abscess of. *See* Abscess
Appendix, inflammation of caused by a foreign body (C. Mansell Moullin), 1340
Appendix, nematodes and (H. L. Whale), 1100
Appendix produces obstruction of the bowel (R. W. Leeming and Mitchell Innes Dick), 379
Appendix, perforation of causing diffuse peritonitis (Charles A. Morton), 71
Appendix, vermiform, primary malignant disease of (H. D. Rolleston and Lawrence Jones), 501
Appointments, vacant, warning notice as to, 223
Aqua tofăna, pronunciation of, 570
Arabia, plague in, 1353
ARCHIBALD, EDWARD W. : Subphrenic abscess complicating empyema, resection of ribs, cure, 1148
ARCHIBALD, WILLIAM : Infectivity of enteric fever, 1338
Arctic regions, medical observations in the, 283
ARDAGH, WILLIAM A. : Argyrol in ulcerative colitis, 80
Area of practice, 1567
Argyrol in ulcerative colitis (William A. Ardagh), 80
ARMSTRONG, Dr., death of, 227
ARMSTRONG, GEO. E. : Pelvic appendicitis and the importance of rectal examination, 70 ; Lung complications after operations with anaesthesia, 1141
Army, British, medical service of, 40, 60, 117, 223. 239, 284, 416, 511, 585, 593, 647, 702, 822, 874, 1135, 1197, 1256, 1320, 1443, 1498, 1506 ; improvement of, 40 ; admission to, 60 ; Africa general service medal, 117, 1443 ; medical service of the Thibet mission, 223 ; title of "Brigade-Surgeon-Lieutenant-Colonel," 239 ; result of recent examinations, 284 ; examinations for promotion. 416 ; volunteers and the medical reserve, 511 ; correspondence on, 593, 890 ; army medical reserve, 585, 702 ; unqualified anaesthetists for, 586 ; new nursing home for, 586 ; military operations in Nigeria, 647 ; surgery in the R.A.M.C., 647 ; War Office scheme for a medical reserve, 760 ; question in Parliament, 822 ; treatment of venereal disease in, 874 ; travelling expenses (Medical Boards), 1135 ; Army Medical Service, 1197 ; ambulance challenge shield, 1197 ; Royal Army Medical Corps, examination for promotion to Lieutenant-Colonel, 1197 ; head quarters of the Army Medical Service, 1197 ; vaccination in, 1248 ; promotion in the R.A.M.C., 1249 ; operations in the Bahr-el-Ghazal Province, 1256 ; yeomanry medical certificates of unfitness, 1320 ; tinned meat for, 1434, 1499 ; nursing in, 1498 ; Alexander memorial prize, 1506 ; sanitary organization of, 1506 ; volunteers. *See* Volunteers
Army, Chinese, organization of on modern lines, 32
Army, French, health of, 956
Army, Indian, medical service of, annual dinner in London, 1506 ; regulations for, 1508
Army, Japanese, medical arrangements of, 819 ; Preservation of health in, 1175
Army medical civilian reserve, 354. 415, 593
Army medical establishment, 816, 822
Army medical reform, 1359, 1364, 1431
Army medical reserve. *See* Army, British
Army medical service, sanitary function of, 1359, 1364
Army medical vote in the Commons (leading article), 816. *See also* 822
Army nursing (leading article), 1549
Army, United States, medical corps of, 934
ARNOLD, GILBERT J. : Case of suprapubic cystotomy under local anaesthesia, 21
Arrhythmia with bradycardia. *See* Bradycardia
Artaxerxes, hall of in Westminster, 522
Art, medicine in, 154
Art, sanitary influence of, 517
Arterial disease, three cases of (T. Clifford Allbutt), 5 ; correspondence on, 113, 169, 235. 411, 536
Arteries during some infectious diseases (John Aikman), 920
Arterio-sclerosis, treatment of (Sir James Barr), 121 ; (J. Mackenzie), 319 ; correspondence on, 540
Arthritic diathesis, 1439
Arthritis accompanying purpura and visceral lesions (A. F. Elliott), 920
Arthritis, pneumococcic (W. Bernard Secretan and William Wrangham), 915 ; (Stanley Raw), 1400
Artificial limbs, 50
Ascaris lumbricoides and appendicitis (F. E. Anley), 677
Ascites, frequent tapping for (Prideaux Selby), 620 ; long-standing (Thos. Duncan), 1157
Aseptic syringe, 449
Aseptic technique at Toronto, 1006
Asepticism, Japanese zeal for, 660
Asexual development of the *Spirillum obermeieri* (W. H. Cox), 1400
ASHBY, HENRY : At what age should a cleft of the palate be closed ? 352
Ashton, small-pox at, 21
Aspirin, 113, 174 ; in rheumatism, 1199
Assam, health of, 1190
Assessors, medical, 518
Assistants, unqualified, employment of, 298
Assistant's doorplate, 175
Association, "After-care," 455
Association, American Antituberculosis, 218
Association, American Climatological, Transactions, rev., 1166
Association, American Medical, 1413 ; fifty-seventh annual session, 1413 ; president's address, 1413 ; the oration on medicine, 1414 ; the oration on surgery, 1414
Association, American Medical Editors', annual meeting, 1547
Association of American Physicians, Transactions, rev., 870
Association, Asylum Workers', annual meeting, 1369
Association, Berlin Anglo-American, 84
Association, British, 463, 934
Association, British Child Study, 530
Association, British Laryngological, Rhinological, and Otological, meeting and cases, 146, 683, 1222
Association, the British Medical, 1243
Association, British Medical, annual meeting at Toronto, 227, 271, 331, 345, 394, 871, 1121, 1231, 1243, 1294, 1355, 1443, 1386, 1491, 1543 ; annual meeting at Leicester, 761 ; history and situation of Toronto, 271 ; hospitals and asylums, 272 ; university buildings, 273 ; the University of Toronto, 331 ; parks, 273 ; the Toronto Exhibition, 273 ; resorts in and about Toronto, 273 ; how to reach Toronto, 274 ; railway rates, 274 ; accommodation, 274 ; hotels, 274 ; public buildings, 332 : transatlantic journey, 333 ; transcontinental tour, 333 ; Atlantic ocean passage, 394 ; special railway and steamship rates in Canada, 394 ; tours by the Canadian Pacific Railway, 394 ; sport in Canada, 871 ; Canadian scenery, 1231. 1294, 1355 ; invitation to go to Chicago and inspect the meat factories, 1433 ; the journey to Toronto, 1386 ; alterations in programme, 1491 ; the trip to Vancouver, 1491, 1543 ; the booking of passages, 1491 ; Reception Committees at Quebec and Montreal, 1543 ; railway certificates, 1543
Association, British Medical, Annual Representative Meeting, 1495. *See also* Supplement Index
Association, British Medical : Bath and Bristol Branch, 1038 ; meeting, specimens and papers, 1038
Association, British Medical : Birmingham Branch, 142, 321, 382, 559, 621, 860, 1156 ; osteo-enchondroma of wrist (Mr. Morrison), 142 ; abdominal conditions simulating acute intestinal obstruction (Mr. Heaton), 142 ; the vesical sphincter (Mr. Leedham-Green), 142 ; brain surgery (Mr. Milward), 321 ; xerosis of conjunctiva (Jameson Evans), 321 ; acute colitis (Mr. Gamgee), 322 ; congenital obliteration of the bile ducts (Dr. Emanuel), 322 ; fat necrosis in acute pancreatitis (Frank Barnes), 322 ; bullet wound of thigh (Dr. Plummer), 382 ; gastro-jejunostomy for hour-glass stomach (Mr Gamgee), 382 ; diagnosis in uterine cancer (Thomas Wilson), 382 ; medical inspection of school children (W. R. Jordan), 382 ; radical operation on both frontal sinuses (Wilfrid Glegg), 559 ; excision of popliteal aneurysm (Mr. Morrison), 559 ; aortic aneurysm treated by acurasion (Mr. Morrison), 559 ; gluteal aneurysm (Mr. Morrison), 559 ; retrograde intussusception (Mr. Haslam), 559 ; uterine myoma (J. W. Taylor), 559 ; sacculated kidney (J. W.

Taylor), 559; endothelioma of the brain (Mr. Barling), 621; cranial meningocele (Mr. Barling), 621; transposition of viscera (Stacey Wilson), 621; ruptured kidney (George Heaton), 621; inhalation (Dr. Foxwell), 621; treatment of uterine myoma (J. F. Jordan), 621; tachycardia (Dr. Emanuel), 860; syphilitic disease of lung (Douglas Stanley), 860; interscapulo-thoracic amputation (Gilbert Barling), 860; precocious development (Mr. Milward), 861; congenital heart disease (Dr. Kauffmann), 861; election of chairman, 1156; spasmus nutans (Dr. Emanuel), 1156; waxy degeneration of thyroid (Dr. Miller), 1156; cases and specimens, 1156

Association, British Medical: Border Counties Branch, 1101; treatment of narcomania (D. Wilkins), 1101; Cantwell's operation for epispadias (J. W. Crerar), 1101; specimens (Norman Maclaren), 1101

Association, British Medical: British Guiana Branch, 800; president's address, 800; vote of thanks, 801

Association, British Medical: Ceylon Branch, 390; the *Journal* of the Branch, rev., 309, 988

Association, British Medical: Edinburgh Branch, South-Eastern Counties Division, 922; meeting and papers, 922

Association, British Medical: Lancashire and Cheshire Branch, Council of, 1132

Association, British Medical: Metropolitan Counties Branch, meeting of delegates, 1415; Hampstead Division, meeting and exhibition of cases, 1102

Association, British Medical: New South Wales Branch, 1250; annual meeting, 1250

Association, British Medical: Northern Counties of Scotland Branch, 801; clinical meeting, 801

Association, British Medical: North of England Branch, 1279; treatment of heart disease (George Murray), 1279

Association, British Medical: Oxford and Reading Branch, Oxford Division, 739; meeting and cases, 739

Association, British Medical: South-Eastern Branch, Brighton Division, 381, 921; specimens, 381, and cases, 921; bacilluria (F. G. Bushnell), 381; *Bilharzia haematobia* (Dr. Benham), 922

Association, British Medical: South-Eastern Branch, Portsmouth Division, 921; spring clinical meeting, 921

Association, British Medical: South-Eastern Branch, Isle of Thanet Division, 440; clinical meeting, 440

Association, British Medical: South-Wales and Monmouthshire Branch, 260, 739, 1102; clinical meeting, 260; *x* rays in treatment of fracture (Lynn Thomas), 739; purulent nasal discharge (Dr. Paterson), 739; abdomino-perineal excision of rectum (William Sheen), 739; demonstration, 739; acute symptoms in left iliac region (William Sheen), 1102

Association, British Medical: South-Western Branch, 200, 323; heart disease (W. Gordon), 200; ruptured pyosalpinx (Russell Coombe), 200; reports on post-mortem examinations (R. V. Solly), 200; acute haemorrhagic pancreatitis (E. J. Toye), 200; pathological specimens, 201; diseases of the pituitary glands (Sir Victor Horsley), 323; vote of thanks, 323

Association, British Medical: Staffordshire Branch, 1341; complete removal of outer wall of frontal sinus for chronic empyema (E. Deanesly), 1341; wry-neck (E. Deanesly), 1341; radical operation for necrosis of lower end of femur (E. Deanesly), 1341; fractured patella (E. Deanesly), 1341; severe abdominal injury (E. Deanesly), 1341; treatment of tuberculous ulcers of intestine (E. Deanesly), 1342; fractured pelvis, with ruptured urethra (E. Deanesly), 1342; excision of rectum and prostate for cancer (E. Deanesly), 1342; removal of lower jaw, tongue, and floor of mouth (E. Deanesly), 1342; radical cure of enormous hernia by Kocher's method (E. Deanesly), 1342; cerebral tumour (J. A. Codd), 1342; specimens (E. Deanesly), 1342; uric acid calculi (Dr. Cookson), 1342; pyonephrosis (W. F. Cholmeley), 1342; tubal mole (W. F. Cholmeley), 1342; tuberculous disease of femur (W. F. Cholmeley), 1343; appendical concretion in an infant (W. F. Cholmeley), 1343; diffuse carcinoma of stomach (Dr. Codd), 1343; congenital macrodactyly (Dr. Codd), 1343; diaphragm compressor and tubeholder (Dr. Codd), 1343

Association, British Medical: Ulster Branch, 322, 1156; gynaecological cases (Professor Byers), 322; iodide of potassium eruption (H. L. McKisack), 322; uterine myoma (Dr. Dempsey), 322; compound fracture of skull (A. Fullerton), 322; actinomycosis (A. Fullerton), 322; coxa vara (J. Singleton Darling), 323; cases, 323; specimens, 1156; hysterectomy (J. G. Cooke), 1156; cholecystotomy (J. G. Cooke), 1156); acute pancreatitis (J. G. Cooke), 1156; malignant stricture of colon (J. G. Cooke), 1156; emphysematous gangrene of leg (J. G. Cooke), 1156; dry iodine catgut (J. G. Cooke), 1156; five hundred operations for adenoids (Cecil Shaw), 1156; early infant management (Dr. Bernard), 1157; long-standing ascites (Thomas Duncan), 1157; rodent ulcer (W. B. Hunter), 1157

Association, British Medical: Yorkshire Branch, Bradford Division, 922; conjoint general meeting, 922

Association, British Medical, proposed charter, 698; correspondence on, 1075. *See also* Supplement Index

Association, British Medical: Clinical and scientific proceedings, 142, 200, 260, 321, 381, 440, 559, 621, 739, 800, 860, 921, 1038, 1156, 1279, 1341

Association, British Medical, Direct Representatives and, 1300

Association, British Medical: Liverpool and Birkenhead Divisions, dinner, 763

Association, British Medical, finances of, 1191, 1316, 1374, 1441, 1502, 1561

Association, British Medical, founder of, 27

Association, British Medical, head quarters of, 1014, 1075, 1134, 1192, 1255, 1378

Association, British Medical, library, management of, and social intercourse at head office, 648

Association, British Medical, past, present and future of (Hugh R. Ker), 1528

Association, British Medical, Royal Charter for, 1495; leading article on, 1548. *See also* Supplement Index

Association, British Medical: Science Committee: Report xciv, Anaesthetics and renal activity (W. H. Thompson), 608, 667; Report xcv, Bacteriology of summer diarrhoea of infants (H. de R. Morgan), 908

Association, British Medical, staff, dinner to, 753

Association, British Medical Temperance, 1068

Association of British Postal Medical Officers, 753

Association of Certifying Factory Surgeons and the general election, 106

Association for Prevention of Consumption, National, 47, 586, 699; meeting of Cork Branch, 47; annual report of Leeds Branch, 589; annual meeting, 692

Association, Convalescent Homes, 533

Association, Devonshire Nursing, 454

Association, District Nursing, 589

Association, Durham University Medical Graduates, 1322

Association, Fifeshire Medical, 1186

Association, Garden City, 689

Association, German, of Internal Medicine, 515

Association, German, of Public Health, 615

Association, Home Nursing, Staffordshire, 1067

Association, Incorporated Medical Practitioners', annual meeting, 1492

Association, International Medical, to Contribute to the Suppression of War, 595, 753

Association, Irish Medical, annual meeting, 1188, 1314, 1435; dinner, 1435; meeting of North Down Branch, 1251; Belfast and District Branch, 1371

Association, Irish Medical Schools and Graduates, annual meeting, 692

Association of Male Nurses, 1179

Association of Medical Diplomates of Scotland, annual dinner, 523

Association of Medical Men receiving Resident Patients, 857

Association, Medical Peace, International, 126

Association of the Medical Press, International, conference at Lisbon, 1114

Association of Medical Women, Scottish, 766

Association, Medico-Psychological, of Great Britain and Ireland, 54, 115, 174, 568, 876, 1040, 1100, 1105, 1412; apology to Dr. Graham Crookshank, 54; correspondence on, 115, 174; provincial quarterly meeting, 568; meeting of Northern and Midland Division, 876; mental disorders of pregnancy (Nathan Raw), 1040; histology of some cerebral tumours (John Richards), 1041; training and registration of the asylum nurse (Dr. Harding), 1041; next examination, 1100; instincts (W. H. B. Stoddart), 1105; resolution of sympathy, 1412; lunacy administration in Ireland (W. R. Dawson), 1412; epilepsy and changes in the blood and nervous system (John Turner), 1412; industrial alcoholism (W. C. Sullivan), 1412; dinner, 1412

Association, Metropolitan Provident Medical, annual meeting, 1543

Association, Miners', and Pendlebury district, 1054

Association, National, for Welfare of Feeble-minded, annual meeting, 1497

Association, Poor-law Medical Officers' of England and Wales, 1570

Association of Public Vaccinators and the general election, 106

Association of Registered Medical Women, 203, 445, 981, 1223; alopecia areata (Mrs. Savill), 445; treatment of chronic constipation by electricity (Miss Stoney), 445; extreme Trendelenburg position (Miss Thorne), 445; treatment of ringworm by *x* rays (Mrs. Savill), 981; pharyngeal tonsil as a channel of infection in tuberculosis (Miss Ivens), 981; therapeutic inoculation of bacterial vaccines (Miss Chambers), 1223; papers, 1223

Association, Roads Improvement, 1170

Association, Rural Midwives', third annual meeting, 1117

Association, St. John Ambulance, at Birmingham, 944. *See also* Ambulance

Association of Sanitary Inspectors, annual dinner, 517

Association of Scientists and Medical Practitioners, German, 269

Association, Scottish Poor-law Medical Officers', annual meeting, 164

Association, Ulster Fisheries and Biological, 348

Association, Volunteer Medical, 1506

Assurance against partial disablement, 1140, 1199, 1349

Assurance. *See* Life

Asthma and mucous colic, 235

Aston, health of, 709

Astragalus, fractures of (Professor Bennett), 202

Asylum, Armagh, annual report, 289

Asylum attendants and lunacy, 703

Asylum, Baldovan, for Imbecile Children, 1476

Asylum, Belfast, proposed extension of, 525

Asylum, Cheddleton, 43

Asylum, Cork District, annual report, 526; fatality at, 707

Asylum, Darenth, and London water supply, 1126

Asylum, Derby Borough, annual report, 1446

Asylum, Down County, 46

Asylum, Dundee District, abnormally small viscera in an adult (Henry C. Martin), 1279

Asylum, East Sussex County, statistics, 57

Asylum, Edinburgh Royal, annual meeting, 528

Asylum estimates in Ireland, 408

Asylum fatality, 707

Asylum finance in Canada, 1006

Asylum, Fulbourn, report on outbreak of enteric at, 1120

Asylum, Govan District Hawkshead, Paisley, annual report, 1446

Asylum, Inverness District, annual report, 1136

Asylum, Kilkenny District Lunatic, 1556

Asylum, Limerick, 468

Asylum, Middlesbrough Borough, report, 1445

Asylum, Midlothian and Peebles, case of rupture of heart (James P. Sturrock), 500

Asylum at Newport, opening of, 290

Asylum nurse. *See* Nurse

Asylum, Richmond District, question in Parliament, 1311

Asylum, Surrey County, annual report, 1445

Asylum, York, new, 41

Asylums, Birmingham City, private patients at, 709

Asylums, Continental, conditions under which lunatics are received in (Marcus Wyler), 78

Asylums, cost of, 1432

ATKINS, SIDNEY, E.: Life assurance without medical examination, 236

ATKINSON, F. P.: Treatment of common cold, 20

ATKINSON, STANLEY B., appointed J.P. for County of London, 1412

Atlas of Illustrations of Clinical Medicine, Surgery, and Pathology, rev., 1468

Atoxyl in treatment of human trypanosomiasis, (John L. Todd), 1037

Atrophy, muscular (A. E. Garrod), 1039

Atrophy of the phalanges of the hands with joint lesions (Bertram Watson), 553

Atropine poisoning, unusual case of (L. A. Parry), 798

Attendance upon the families of medical men, 834; upon a medical man, 896

Attractions of the medical profession, 1369

Auditory meatuses, occlusion of both external (A. B. Northcote), 798; correspondence on, 899

Aural cases in general practice (Stephen Paget), 248

Auricle, external, congenital absence of (Wilfred E. Alderson), 500

Australian climate, advantages of, 888

Australasia, notes from, 47; hospitals in, 47; lunacy in New South Wales, 48

Australasian Medical Congress. *See* Congress

Australia, plague in, 218, 1056, 1293, 1491; practice in, 1323

Australia, West, health of Fremantle, 1069

Austria, cancer in, 100; ordinance as to surgical operations in, 175; medical profession in, 210; proposed Ministry of Health in, 224; pharmacopoeia of, 226; women as university lecturers in, 245; age limit for professors, 406; medical students in, 679; preparations for a general strike of country doctors in, 710; medical legislators in, 814; cremation in, 1069; crèches in, 1421. *See also* Vienna

Authors, a warning to, 1292

3411[illegible]1

Auto-intoxication, its relation to certain cardio-vascular disorders (H. Batty Shaw), 1081, 1153, 1277
Automobile Club holds a series of tyre trials, 397
Automobiles, exposition of, 51; for medical men, 586. *See also* Motor
Axis traction, 208

B.

BACCELLI, Professor GUIDO: Festival in honour of, 938; on doctors in Imperial Rome, 989
Bacillary dysentery. *See* Dysentery
Bacillary treatment of enteritis, 647
Bacilli, counting, 1534
Bacilli, typhoid and colon, 773, 831
Bacilli tubercle, which have been killed by heat, danger of ingestion of, 592
Bacilluria (F. G. Bushnell), 381
Bacillus coli, two cases of cholecystitis treated by inoculations with (A. E. Wright and S. T. Reid), 143
Bacillus coli and *Bacillus typhosus*, new method of differentiating (L. S. Dudgeon), 143
Bacillus typhosus, phagocytosis of (Captain W. S. Harrison), 680
Bacillus, paracolon, found in the urine (W. Mair), 438
Bacteriological standard for milk, 452; examination of the London water supply, 512
Bacteriology, elementary, books for, 180, 240; review of books on, 1225
Bacteriology of summer diarrhoea of infants (H. de R. Morgan), 908; of a "common cold." *See* Cold.
BADCOCK, HENRY J. F., receives Government grant for successful vaccination, 1279
Bad debts, 477
Bad Salzschlirf, 870
Bag-opener, hygienic, 1447
Bahr-el-Ghazal Province, the operations in the, 1256
BAIN, Dr.: Treatment of uncomplicated cholelithiasis, 264
BAIN, WILLIAM: *The Physiology and Therapeutics of the Harrogate Waters, Baths, and Climate Applied to the Treatment of Chronic Disease*, rev., 563
BAINES, MATTHEW, obituary notice of, 1569
BAIRD, JOHN: Double uterus, cervix, and vagina, 1161
Bakeries in London, movement to promote cleanliness in, 934
Baldovan Asylum. *See* Asylum
BALLANCE, C. A.: Elected foreign corresponding member Paris Société de Chirurgie, 284; a protest, 300
BALLINGHALL, GEORGE A.: Influence of posture on the normal cardiac sounds and on normal cardiac dullness, 170
Bananas, 1370
Bangor, contract practice in, 1055
Banks medal and prize, 1558
BANKS, Sir WILLIAM, sale of library of, 1416, 1499
BANNERMAN, Lieutenant-Colonel W. B.: (Editor) *Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India. Serumtherapy of Plague in India*, 644
Bantu folk lore, 1245
BARBIERI, DOMENICO, bequeaths money for a memorial to Theodore Billroth, 454
BARBOUR, Dr.: Twisted pedicle, 1221; Fatty inverted uterus, 1221
BARCLAY, J. W.: Malthusianism and the declining birth-rate, 278
BARENDT, F. H.: Scabies, 979
BARKER, A. E. J.: Treitz's hernia complicating gastro-enterostomy, 801
BARLING, GILBERT: Observations on pancreatic necrosis, with report of two cases, 436; Endothelioma of brain, 621; Cranial meningocele, 621
BARNES, FRANK: Fat necrosis in acute pancreatitis, 322
BARNES, HENRY: Appreciation of Sir Willoughby Wade, 1380
BARNETT, H. NORMAN: Aspirin, 174
Barometric pressure on man, influence of increased (M. Greenwood), 912
BARR, Sir JAMES: Treatment of arteriosclerosis, 121; Angina pectoris, 410; and Thomas Young, 510
BARR, J. STODDART, reports two cases of grave complications of purulent ear disease, 799
Barracks, insanitary, 1434
BARRATT, J. O. WAKELIN: On chemiotaxis, 129
Barry, health of, 347; new hospital for, 824
BARTEL, JULIUS: *Die Infectionswege bei der Fütterungstuberculose*, rev., 329
Bartlett, Deputy Inspector-General Walter Frederick Cope, obituary notice of, 179
BARTON, G. A. H.: Ethyl chloride as a general anaesthetic, 771
BARWELL, HAROLD: Surgical treatment in tuberculous laryngitis, 505
BASHFORD, E. F.: Illustrations of propagated cancer, 1211
Basic meningitis. *See* Meningitis
BASSETT-SMITH, Fleet Surgeon P. W.: Some clinical features of Mediterranean fever, with particular reference to cardiac complications, 313
BASTIAN, H. CHARLTON: The origin of life, 629
Basutoland, native hospitals in, 154
BATEMAN, Surgeon-Colonel DANIEL FREDERICK, obituary notice of, 1136
BATESON, VAUGHAN: Personal identification by means of finger-print impressions, 1029
Bath for application of heat and light energy, 1469
Baths, irritation of skin after, 719, 779
BATTESON, J.: Treatment of acute parotitis, 81
BATTLE, W. H.: Post-auricular fistula, 1039; four severe abdominal operations, 1039; extensive ulceration of mouth, 1039; method of operation for radical cure of femoral hernia, 1160
BAUDRY, S.: *Blessures de l'Oeil à la Suite d'Accidents du Travail*, 404
Bavaria, proposed serum institute in, 215
BEALE, LIONEL SMITH, obituary notice of, 836; estate of, 1034
BEAM, WILLIAM: *Select Methods in Food Analysis*, rev., 809
BEARD, J.: Action of trypsin upon the living cells of Jensen's mouse-tumour, 140
BEATSON, G. T.: *Ambulance Handbook on the Principles of First-aid to the Injured*, rev., 928
BEATSON, Dr.: Cicatricial keloid, 325
BEATTY, JAMES: Hospital for advanced cases of consumption, 833
BEDDARD, A. P.: *Practical Physiology*, rev., 867
BEDDOE, JOHN: Relative brain-weights of man and woman, 291, 474; Fish-eating and leprosy in the Orkneys and Shetland, 1134
Bedwellty District Council, 290
BEEBE, S. P.: *Outlines of Physiological Chemistry*, rev., 868
BEESBY, LEWIS: Post-anaesthetic acetonuria, 1142
BEHRING, Professor von: Antituberculous vaccination of bovines, 51; Bovine tuberculosis and milk, 410
BELCHER, JOHN: A disclaimer, 626
Belfast, health of, 104, 348, 642, 1188, 1311, 1371, 1559; Lord Lieutenant in, 825; Royal Victoria Hospital, annual meeting, 825; consumption in, 944, 1129; municipal loans, 1188; retirement of M.O.H. for, 1188, 1312; the new M.O.H., 1250; high death-rate in, 1311; post-graduate instruction in, 1371
Belfast Lough, discharge of sewage into, 945
Belgian Medical Guild House, 161
Belgium, ankylostomiasis campaign in, 102; prohibition of absinthe in, 694; cremation in, 828
BELL, R. HAMILTON: Colour of hair in ovarian dermoids, 1377
BELL, W. BLAIR: Female genital activity, 1104
Belladonna, idiosyncrasy to, 1019
BELOT, J.: *Radiotherapy in Skin Disease*, rev., 985
Benefit scheme, a new medical, 1080
Bengal, health of, 645
BENHAM, CHARLES H.: Bacteriology of a "common cold," 1023, 1193
BENHAM, Dr.: *Bilharzia haematobia*, 922
BENNETT, Professor: Fractures of os calcis and astragalus, 202
BENNETT, Sir WILLIAM, resignation of, 162
BENNION, J. M.: Case of adhesive mediastino-pericarditis, 316
Bequests to hospitals and medical charities, 32. 54. 219, 229. 257. 347. 349, 390, 397, 515. 566, 578, 579, 592, 628, 631, 684, 746, 750. 799. 933. 934, 951. 971. 973. 978, 989. 930. 995, 1010, 1034, 1056, 1075, 1105, 1117, 1138, 1142, 1163, 1170, 1178, 1179, 1238, 1303, 1329, 1353, 1415, 1469, 1518, 1547
Berck-sur-Mer, the beginnings of, 459
BERGER, E.: *Les Troubles Oculaires d'origine Génitale chez la Femme*, rev., 687
BERGMANN, Professor ERNST VON, elevated to a seat in the Prussian House of Lords, 244
Beri-beri, fatal case of acute cardiac (Hamilton Wright), 1095
BERKELEY, COMYNS: Uncontrollable vomiting in pregnancy, 203
Berlin, special correspondence from, 108, 168, 410, 1316, 1373, 1560; social medicine, 108; compulsory insurance and professional secrecy, 108; Professor Fischer on the constitution of albuminoid bodies, 168; syphilization of apes, 168; hospital charges, 168; a model lying-in and children's institute, 168; Professor von Behring on bovine tuberculosis and milk, 410; death of Professor Gusserow, 410; law as to professional secrecy, 1316; a co-operative hospital, 1316; the Institute for Hydrophobia, 1316; professional secret of a deceased patient, 1373; results of sanatorium treatment, 1373; Rudolph Virchow Hospital, 1560; proposed municipal memorial to Virchow, 1561; Virchow's bust at the Pathological Institute, 1561
Berlin, medical supervision of schools in, 158; and Birmingham contrasted, 386, 596; tropical medicine in, 523; first aid in, 922
BERNARD, Dr.: Early infant management, 1157
BERNSTEIN, J.: Acute phlegmonous gastritis, 441; Doubling of spinal cord, 441
BERRY, JAMES: Congenital aperture in centre of palate, 261; At what age should a cleft of the palate be closed? 353, 649
BERRY, RICHARD J. A.: *Surface Anatomy*, rev., 927
BERRY, WILLIAM: *Lectures to Teachers on the Prevention of Infectious Diseases*, rev., 986
BEST, R. H.: *Brassworkers of Berlin and Birmingham*, rev., 386
BEVERS, EDMUND C.: Compression of the median nerve, 381
BIANCHI, LEONARDO: *Textbook of Psychiatry*, rev., 1282
Bicornate uterus. *See* Uterus
Bicycle saddles for ladies, 1079, 1139, 1199, 1259, 1572
Bicycles, motor. *See* Motor
BIDWELL, L. A., appointed full surgeon to West London Hospital, 631; *Handbook of Intestinal Surgery*, rev., 1224
BIER, Professor, awarded Kussmaul prize, 631; declines Chair of Surgery at Heidelberg, 1167
Bier's method of treating acute inflammation (Charles W. Cathcart), 383
Bile ducts, congenital obliteration of (Dr. Emanuel), 322
Bile passages, surgery of, 167
Bilharzia causing polypoid tumour of cervix uteri (Janet G. Horwood and A. J. Milne), 557
Bilharzia haematobia (Dr. Benham), 922
Bill, Compensation Act Amendment, 1558
Bill, Coroners, 703
Bill, Cruelty to Animals, 640
Bill, the Education, and physical training, 1247
Bill, Education of Afflicted Children (Ireland), 1248
Bill, Fatal Accidents (Scotland), 1126, 1500
Bill, Infectious Diseases (Ireland), 1500
Bill, Juvenile Smoking, 640, 1312, 1500. *See also* Smoking
Bill, Notice of Accidents, 584, 587
Bill, Nurses Association, 766
Bill, Nurses Registration, 1499
Bill, Patent Medicines, 1186
Bill, Poisons and Pharmacy, 753
Bill, Prevention of Corruption, 587, 703, 823
Bill, Public Health, 512; General Medical Council and, 511
Bill, Public Health Acts Amendment, 762
Bill, Public Health Officers, 1312, 1434
Bill, Pure Beer, 703
Bill, Pure Food and Drugs, 958
Bill, Removal of Offensive Matter, 1556
Bill, Sale of Butter, 703
Bill, Workmen's Compensation, 761, 885, 1187
Billroth, Theodor, memorial to, 454
Bills, Pharmacy, 703
Bio-chemistry, recent progress in, 342
Biological aspects of the cancer problem, 881
Biology and physical degeneration, 700
BIRD, JOSEPH, obituary notice of, 1196
Birmingham, notes from, 42, 163, 229, 286, 347, 409, 530, 589, 709, 764, 943, 1066, 1372, 1437; statistical report of the General Hospital, 42; the Midland Institute, 163; Birmingham Lying-in Charity, 163; Children's Police Court, Birmingham, 163; the new Parliament, 229; adult institution for deaf and dumb, 229; bequest to hospitals, 229, 347; Birmingham birth-rate, 286; anthrax at Redditch, 286; Midland Counties Home for Incurables, 286; the mentally deficient, 286; alleged false death certificate, 347; City of Birmingham Analyst's report, 347; Bromsgrove Hospital, annual meeting, 347; proposed enlargement of Queen's Hospital, 409; annual report of, 709; University of Birmingham, 530; Birmingham District Nursing Society, 530; British Child Study Association, 530; cerebro-spinal meningitis in, 589; health of during 1905, 589; a tramp's bedroom, 590; overcrowding of Aston Infirmary, 590; the General Hospital, 156th annual report, 709; skin department, 1372; Moseley Hall Convalescent Home, 709; private patients at the City Asylums, 709; health of Aston, 709; lady health visitors, 764; City Analyst's report, 764; Hospital Saturday Fund, 943; Birmingham Medical Institute, 943; public health lectures, 944; St. John Ambulance Association, 944; school hygiene, 1066; infants in elementary schools, 1066; Birmingham and Midland Free Hospital for Sick Children, 1066; Birmingham and Midland Hospital for Women, 1067; Staffordshire Home Nursing Association, 1067; health of Coventry, 1372; Medical Benevolent Society, 84th annual report, 1372; cases of anthrax, 1437; open spaces in Birmingham, 1437
Birmingham, anticigarette movement in, 449; and Berlin contrasted, 386, 596
BIRT, Lieutenant-Colonel C.: Dysentery in South Africa, 680; Mediterranean fever in South Africa, 976
Birth registration. *See* Registration
Birth-rate of Birmingham, 286

Birth-rate, declining (A. Newsholme and T. C. H. Stevenson), 268; (J. W. Barclay), 278; (Hugh R. Jones), 804; abortifacients and, 1080
Births, notification of, 762, 1256
Bishop, T. H.: Impaction of hatpin in male urethra, 141
Black Prince, H.M.S., on view, 219, 579
Black, Surgeon-Major W. T., reminiscences of, 930
Blacker, George: Dilatation of cervix uteri with Bossi's dilator, 203
Blackwood, Arthur, obituary notice of, 898
Bladder disease, cystoscopic appearances in (David Newman), 726
Bladder, extroversion of (Alfred Austin Lendon), 961; (H. Simpson Newland), 964; (C. J. Bond), 1151; (James C. Hoyle), 1340
Bladder, foreign body in, recovery (reported by M. B. Ray), 1464
Bladder, idiopathic (?), intraperitoneal rupture of (Lachlan Fraser), 921
Bladder, intraligamentary, in women, 1185
Bladder over-extension, extreme (Dr. J. Hugo Hamman) 141
Bladder tumours. *See* Tumours
Bladder and urethral injections (James MacMunn), 1401
Blake, Sir Henry A.: On malaria in Mutwal, 1109
Bland-Sutton, J.: Secondary (metastatic) carcinoma of ovaries, 1216
Bleasdale, Robert: Tobacco poisoning in a child, 1155
Bleuler, E.: *Affektivität, Suggestibilität, Paranoia*, rev., 1531
Blind, care of, 508; aids for the, 521
Blindness after glaucoma, action for, 476
Blitz, "Professor," 820
Bloch, Iwan, grant to, 449, 570
Blood corpuscles, diffusion of red, through solid nutrient agar (Surgeon H. C. Ross), 1027; correspondence on, 1194, 1318
Blood, opsonic power of (T. R. Bradshaw and E. E. Glynn), 1104
Blood, pathology of, review of books on, 24
Blood pressure and capillary circulation (A. Haig), 82
Blumenthal, Phillip M., *Die sociale Bekampfung der Tuberkulose als Volkskrankheit in Europa und Amerika. Denkschrift der Tuberkulose, Kommission der Pirogoff. Gesellschaft russischer aerzte vorgelagt und dem viii. Pirogoff aerztl. Kongress Gewidmet*, rev., 329
Blumfeld, J., ethyl chloride as a general anaesthetic, 830
Board of Education and attendance at school of children under 5 years of age, 69
Board, Local Government, on whole-time public vaccinators, 718, 776, 835: report on epidemic of typhoid at Lincoln, 754; report on outbreak of enteric at Fulbourn Asylum, 1120; report to, on sulphur dioxide as applied to the destruction of rats (John Wade), 1427
Boards of Guardians and overseers' medical orders, 297. *See also* Guardians
Board, Metropolitan Asylums, and a motor ambulance service, 84; card of instructions *re* ambulance service, 631; *re* diphtheria mortality, 1547
Board, Midwives, 1302, 1376, 1439, 1563
Boarding out, 1500
Bohemia, pensions for medical officers in, 1374
Bolivia, medical education in, 690
Bombay, health of, 1129
Bond, C. J.: Colour of hair in ovarian dermoids, 351; extroversion of bladder, 1151
Bond, Francis T.: Administration of vaccinations, 1011
Bone, B. Mayhew: Ventrifixation, 737
Bone disease in children, acute (Edmund Owen), 241
Bone, transplantation of from same subject (reported by A. M. Dryden), 1101
Bonn University. *See* University
Bonney, William A.: Proposed general hospital at Putney, 830, 951
Bonney, Victor: Chorïon-epithelioma of congenital origin, 1160
Books, infective, 167
Booth, Oscar M.: Acute yellow atrophy of liver following influenza, 1155
Bordeaux, Antirabic Institute in, 753
Borderland of insanity. *See* Insanity
Borel, Dr.: On the laws regulating emigration, 471
Boric-menthol ester, 1407
Bossi's dilator in dilatation of cervix uteri (George Blacker), 203
Botany, cryptogamic, 659
Bottles, broken glass in, 1324
Bottone, S. R: *Radium and all about it*, rev., 627
Bouchard, Professor, promoted to rank of Grand Officer of Legion of Honour, 337, 471
Bovine tuberculosis. *See* Tuberculosis
Bovines, Behring's antituberculous vaccination of, 51
Bowel obstruction produced by the appendix (R. W. Leeming and Mitchell Innes Dick), 379
Bowlby, Anthony A.: Surgical complications of tabes dorsalis, 1021
Bowles, Robert L., appointed J.P. for Gloucestershire, 1113
Box, C. R.: Bronchiectasis in childhood, 83; *Clinical Applied Anatomy*, rev., 927; Pulmonary embolism, 1280
Boyd, Francis: Rectal feeding, 383
Bradford, anthrax at, 823
Bradford, E. H: Treatise on *Orthopaedic Surgery*, rev., 869
Bradley, Michael McWilliams, obituary notice of, 1505
Bradshaw, Surgeon-Major-General A. F.: *Catherine Grace Loch, Royal Red Cross, Senior Ladv Superintendent Queen Alexandra's Military Nursing Service for India*, rev., 565
Bradshaw, T. R.: Cardiac hypertrophy in Graves's disease, 324; opsonic power of the blood, 1104
Bradycardia (Dr. Finny), 862; bradycardia, with arrhythmia and epileptiform seizures (John Magee Finny), 967; correspondence, 1200
Brain surgery (Mr. Milward), 321
Brain weight, 119, 180
Brain-weights of man and woman, the relative, correspondence on, 232, 291, 352, 413, 474, 479, 536, 650
Braine, Carter: Experiences of anaesthetics in 200 consecutive cases of prostatectomy, 562
Braithwaite, Alice: *Plain Dinners, a Help to a Uric Acid Free Diet; the Starchy Foods in Health and Sickness*, rev., 1108
Bramwell, Byrom: Case of tuberculous disease of lungs and larynx, 363; Acute peritonitis due to appendicitis, 781
Branch, C. W.: Successful amputation of leg at 94 years, with an account of a new operation, 1339
Branch, W. J.: Papain in malignant growths, 1439
Branch surgeries and the title of "Dr.," 1136
Branch telephones, 598
Branchial fistula. *See* Fistula
Brassworkers of Berlin and Birmingham, a Contrast, rev., 386
Braun, M.: *Animal Parasites of Man*, rev., 1045
Braxy and louping-ill, pathology of, 1472
Brazil, plague in, 218, 767
Bread and milk, 759
Breast, cancer of. *See* Cancer
Breast, swellings of, their diagnosis and treatment (Andrew Clark), 185
Breton, M.: On the danger of ingestion of tubercle bacilli which have been killed by heat, 592
Brewster Sessions at Leeds, 470
Bridges, John Henry, death of, 1555
Brierley, J. Brassey: Parliamentary representation of St. Andrew's and Edinburgh Universities, 110
Brigade-Surgeon-Lieutenant-Colonel, title of, 239
Brillat-Savarin, death of, 570
Briscoe, J. F.: Head quarters of the Association, 1192
Bristol, notes from, 43, 229, 530, 764, 886; milk and tuberculosis, 43; dirty dairy farm, 43; Bristol Royal Infirmary, 229, 530; physical education, 531; fortieth annual meeting of Royal Hospital, 764; proposed university of, 886
British Central Africa, cancer in, 812
British degeneracy, foreign opinion of, 300
British Honduras, Colonial Office report, 49
British Medical Association. *See* Association
British Medical Benevolent Fund. *See* Fund
British Medical Journal (leading article), 33; copyright of, 162; Supplement of. *See* Supplement
British medical literature in Algiers, 899
British New Guinea, cancer in, 812
British officer attacked by sleeping sickness, 1062
British Pharmacopoeia. See Pharmacopoeia
British Union for Abolition of Vivisection. *See* Vivisection
Broadbent, G. H.: Representatives' deputies, 833; rebuilding of 429, Strand, 1014, 1378; General Medical Council election, 1442
Broadbent, John F. H.: Arterial diseases, 235
Broadbent, Walter: Cervical ribs and their effects on the great vessels of the neck, 1033
Brock, W. J.: *Sanitary Laws of Scotland and Principles of Public Health*, rev., 1044
Broden, A.: *Publications de la Société d'Etudes Coloniales de Belgique; La Trypanomiase chez l'Européen*, rev., 746
Brodrick, St. John: Medical science and military strength, 1359; leading article on, 1364
Broken glass in bottles, 1324
Bromley, insanitation at, 703
Brompton Hospital. *See* Hospital
Bronchiectasis in childhood (C. R. Box), 83
Bronchus, foreign body in, 768
Bronner, Dr.: Modern mastoid operation, 1162
Brook, W. F.: Impaction of hatpin in male urethra, 80
Brook, W. H. B.: Glycosuria in pregnancy, 1404
Broom, John: Infectivity of inherited syphilis, 1502
Brosnan, Hugh, obituary notice of, 237
Brouardel, P.: *Traité d'Hygiène*, rev., 448, 1043; *Les Blessures et les Accidents du Travail*, rev., 505; retirement of, 1311
Brown, A. Cassels: Pellagra, 444
Brown, George: Selection of candidates for the General Medical Council election, 890
Brown, Dr. John: Correspondence with Thackeray and others, 1416
Brown, W. Carnegie: Degeneration of the myocardium in hot climates, 1462
Browne, Dr. Langley, portrait of, 1125
Browne, Miss Sidney J., retirement of, 1063
Browne, Sir Thomas, skull of, 157, 942
Browne, Surgeon-General William, appointed Companion of the Order of the Indian Empire, 32
Bruce, J. Mitchell: Action and uses of digitalis in cardiac failure, 8
Bruce, William: Parochial medical officers in Scotland, 832
Brunton, Sir Lauder: Physical training and domestic hygiene, 287
Bryant, John Henry, obituary notice of, 1319
Bubonic plague. *See* Plague
Buchanan, G. B.: Acute ascending paraplegia, 145
Buchanan, George, obituary notice of, 1078
Buchanan, Leslie: Injuries to eyes of child during labour, 145
Buchanan, R. M.: Typhoidal cholecystitis, 385
Buchanan, R. J. M.: Sanatorium treatment of consumption, 22; case of pulmonary tuberculosis, 444
Buckley, Charles W.: Case of secondary carcinomatous growths simulating tuberculous hip-joint disease and miliary tuberculosis, 193
Buckmaster, George A.: *Morphology of Normal and Pathological Blood*, rev., 1532
Budget, the, 1064; correspondence on, 1072. *See also* Income Tax
Buffalo, cancer research in, 1228
Building by-laws in rural districts, 156
Buist, R. C.: Sir John Batty Tuke and the medical profession, 51; Parliamentary representation of the University of London, 109; Finances of the Association, 1191, 1374, 1562
Bulford camp, question in Parliament, 1187
Bulkley, L. Duncan: *On the Relation of Diseases of the Skin to Internal Disorders*, rev., 1285
Bullet wound of thigh (Dr. Plummer), 382
Bulletins et Mémoires de la Société de Médecine et de Chirurgie de Bordeaux, rev., 1285
Bulloch, W.: A disclaimer, 1567
Burdett, Sir Henry: *Burdett's Hospitals and Charities, 1906, being the Yearbook of Philanthropy and the Hospital Annual*, rev., 686; home hospitals, 829
Burdon-Sanderson, Sir John, estate of, 94
Burg, Van der, death of, 215
Bürger: *Die biologische Bedeutung der Eierstöcke nach Entfernung der Gebärmutter: experimentelle und klinischen Studien*, rev., 984
Burial place of Harvey. *See* Harvey
Burmah, health of, 1190
Burne, J. G., obituary notice of, 956
Burnet, James: Therapeutic action of the iodides, 1041
Burnet, Robert W.: Significance of small quantities of sugar and of albumen in the urine, 126
Burnet, Swan M., obituary notice of, 356
Burn-Murdoch, T. M.: Infant feeding in theory and practice, 473
Burns, John: On vaccination, 36, 1258; On infant mortality, 1422
Burnside, Douglas Massey, obituary notice of, 1078
Busch, Zum: Mediastinal sarcoma treated by Roentgen rays, 741
Busfield, James: Series of cases of icterus neonatorum in a family, 20
Bushnell, F. G.: Parliamentary representation and the medical profession, 110; Bacilluria, 381; Leucocythaemia, leucocythaemia without lymphatic enlargement, 441; Bacteriology of a common cold, 1254
"Butcher's meat," 1497
Butlin, Henry T.: Very early conditions of cancer of the tongue, 1201
Butter, adulterated, 103; cocoanut oil in, 529
Buxton, B. H.: *Outlines of Physiological Chemistry*, rev., 868
Buzzard, E. F.: Post-traumatic haemorrhage from superior longitudinal sinus without fracture of skull, 623
Byers, Professor: On Ulster sayings and folklore, 104; gynaecological cases, 322; on Lord Dufferin as a speaker, 750

C.

Cachexia, syphilitic. *See* Syphilitic
Caesarean section *in extremis*, 1062
Caesarean section, *post-mortem* (Peter Tytler), 1100

Caissons, use of and railway extension works in Amsterdam, 291
Calcareous concretions in the tonsils, 1019
Calcium chloride and epistaxis (Arthur Todd-White), 198; (H. S. Ware), 439; correspondence on, 360, 1020
Calcium chloride as a preventive of eruptions after serum injection in diphtheria, 471
Calcium chloride in haemorrhage, 1199
Calcium salts in chilblains (G. Arbour Stephens), 797; correspondence on, 959, 1020, 1038, 1377; further use of, 1377
Calculi, intrahepatic (H. R. Vachell and W. Mitchell Stevens), 434
Calcutta, health officership of, 165
CALEY, H. A.: Some clinical features of the several types of colitis, 1330
CALMETTE, M: On the danger of the ingestion of tubercle bacilli which have been killed by heat, 592; New method of vaccination against tuberculosis. 1501
CALOT, F.: *Traité Pratique de Technique Orthopédique*, rev., 328; *Technique du Traitement de la Luxation Congénitale de la Hanche*, rev., 328
CALVIN, JOHN, medical history of, 881
CAMAC, C. N. B., and Professor Osler, 889
Cambridge, study of special diseases at, 518, 814
Cambridge University. *See* University
CAMERON, JAMES: Midwifery of the present day, 831
Cambridge, celebrations at, 1309; the question of Greek at, 1309; University. *See* University
Cammidge's pancreatic reaction in the urine, P. J. Cammidge, 594, 622, 1150 (C. Lovatt Evans), 436; correspondence on (P. J. Cammidge), 594: an improved method (P. J. Cammidge), 1150
Campagna, malaria in, 753
CAMPBELL, ALFRED W.: *Histological Studies in the Localization of Cerebral Function*, rev., 84
CAMPBELL, HARRY: Arterial disease, 113, 294, 411, 536
CAMPBELL, MALCOLM: Case of measles in the puerperium, 315
Campbell-Pope Memorial Fund. *See* Fund
Canada, notes from, 227, 465, 525, 766, 1005; annual meeting of the British Medical Association, 227; tuberculosis camp for Montreal, 227: supervision of nostrums, 227; golden wedding of Sir James Grant, 465; University of Toronto, new convocation hall, 525; Nurses' Association Bill, 766; cleaning of railway carriages, 766; insurance commission, 767; severe outbreak of typhoid at Fort William, 767; the late Dr. Matthew Wallace, 767; pulmonary tuberculosis in provincial asylums, 767; "patent medicines," 1005; prevention of consumption, 1005; Royal Sanitary Institute. 1005; hospitals for infectious disease, 1005; aseptic technique at Toronto, 1006; antivaccination, 1006; sanitation in a mining town, 1006: epidemic cerebrospinal meningitis, 1006: isolation of measles. 1006; asylum finance, 1006
Canada, Ministry of Health for, 397; sport in, 871; scenery in. 1231. *See also* Association, British Medical
Cancer, abdominal, simultaneous excision of two-thirds of the stomach, the anterior face of the pancreas, and the transverse colon for (Charles P. Childe), 194
Cancer in Austria, 100
Cancer of everted bladder, 1374
Cancer of breast, medical aspects of (William Osler), 1; and its spread into the lymphatics (Charles Barrett Lockwood), 181; diagnosis and treatment of (Andrew Clark), 185: early recognition of (G. Lenthal Cheatle), 1205
Cancer in the colonies, 812
Cancer contagion and cancer inoculation (H. Lawrie), 198
Cancer cure in South Africa, 758
Cancer, Doyen's serum in (Alexander Paine and J. D. Morgan), 740
Cancer, early diagnosis and early operation in (leading article), 1241
Cancer, etiology of, 899
Cancer, excision of rectum and prostate for (E. Deanesly), 1342
Cancer, heterotypical mitoses in, 185
Cancer Institute at Heidelberg, 219, 1424
Cancer, International Conference on, 1534
Cancer of lower lip, radical operation for (J. Hutchinson, jun.). 1214
Cancer, mammary. *See* Cancer of Breast
Cancer, mouse. *See* Mouse-tumour
Cancer of oesophagus, with secondary growths in the heart (Travers Smith), 202
Cancer of ovaries, secondary (metastatic) (J. Bland-Sutton), 1216
Cancer problems, physiological notes on (Sir Willoughby Wade), 606; biological aspects of, 881
Cancer, propagated (E. F. Bashford), 1211
Cancer, pseudo-parasites of (A. S. Grünbaum), 626
Cancer "Remedies," composition of some, 1238
Cancer research, in Germany, 753, 1228: Blue book on the scheme, 812; and the Post Office, 822; organization of in Great Britain, 1227; in the United States, 1228; problems of (leading article), 1242
Cancer, radiumtherapy in, 1010
Cancer, removal of lower jaw, tongue, and floor of mouth for (E. Deanesly). 1342
Cancer, review of books on, 148, 267
Cancer of stomach, review of a series of operations for (B. G. A. Moynihan), 370; discussion on, 383; diffuse (W. F. Cholmeley), 1343
Cancer, syphilis and some protozoa (J. Jackson Clarke), 1274
Cancer of thyroid gland (A. C. Hudson), 1159
Cancer of tongue, early conditions of (Henry T. Butlin), 1201
Cancer, trypsin in (J. A. Shaw Mackenzie's method), 240; (Thomas Ligertwood). 318; (A. Howard Pirie), 318; (George E. Keith), 419; correspondence on, 715
Cancer of male urethra, primary (S. G. Shattock), 441
Cancer, uterine, immediate diagnosis in (Thomas Wilson), 382, 545; (address on by F. Bowreman Jessett), 443
Cancer of uterus, advantage of abdominal route in operations for (Mrs. Scharlieb), 1161
Cancer of vermiform appendix (H. D. Rolleston and Lawrence Jones), 501
Cancer. *See also* Carcinomatous epithelioma, Malignant growths, Sarcoma
Candidates for General Medical Council. *See* Council
CANON, Dr.: *Die Bakteriologie des Blutes bei Infektionskrankheiten*, rev., 24
CANTLIE, JAMES: Representation of Universities of Glasgow and Aberdeen. 166; On the dangers of tropical diseases, 1334
Cantwell's operation for epispadias (J. W. Crerar), 1101
Canvassing (leading article), 1304
Canvassing by doctors' wives, 238; for appointments, 298; for practice, 1137
Cape Colony, notes from, 827; statistics of insanity, 827
Cape of Good Hope, antituberculosis movement at, 515
Capillary circulation and blood pressure (A. Haig), 82
Carbon monoxide, death from, 530
Carcinoma. *See* Cancer
Carcinomatous growths, secondary, simulating tuberculous hip-joint disease and miliary tuberculosis (Robert E. Lord and Charles W. Buckley), 193
Cardiac sounds, influence of posture on, 112, 170, 236, 411, 771. *See also* Heart
Cardiff, Museum, 44; ambulance service at, 409; Infirmary (*see* Infirmary): Medical Society (*see* Society); alien paupers at, 1372; health of, 1478
Cardio-vascular disorders, relation of auto-intoxication to (H. Batty Shaw), 1081, 1153, 1277
Cardio-vascular system, effects of alcohol on, 405
CARGILL, L. V.: Miliary tuberculosis, 1465
CARL THEODOR of Bavaria, H.R.H. Duke, 455
Carlsbad, proposed *Kurhaus* at, 1362
CARMICHAEL, E. SCOTT: Varieties of hernia in children, 254: Cerebral haemorrhage from dystocia, 441, inguinal hernia in the female, 1103; Hernia of the adnexa, 1221
CARMICHAEL, Colonel JAMES CHARLES GORDON, obituary notice of, 237
Carpenters, dust and tubercle among, 768
CARRIÈRE, CARRON DE LA, and voyage d'études médicales, 870, 1424
CARRION, DANIEL: A martyr to science, 226
CARSON, Mr.: Appendicitis due to *Oxyuris vermicularis*, 501
Carswell-Gilchrist Fund. *See* Fund
CASKIE, WILLIAM A.: Puerperal eclampsia, 1161
CASPARI, CHARLES: *National Standard Dispensatory*, rev., 808
CASTELLANI, ALDO: Early diagnosis of typhoid fever, 1071
Cataract, congenital (Mr. Nettleship and Monteith Ogilvie), 1465
Cataract extraction, intracapsular (Lewis McMillan), 145
Catarrh, acute, 115
Catarrh, plea for the investigation of, 120. *See also* Cold, Coryza
Catarrhal deafness (F. Faulder White), 556
CATHCART, CHARLES W.: Acute inflammation and passive congestion, 383
Catgut, dry iodine (J. G. Cooke), 1156
CATON, RICHARD: Hippocrates and the newly-discovered Health Temple of Cos, 571
CARDWELL, EBER: Hypertrophy of pylorus with stenosis successfully treated with thiosinamine, 379
Cavendish Lecture. *See* Lecture
CAVERHILL, THOMAS F. S.: Compulsory notification of pulmonary phthisis, 929
Cavernous sinus. *See* Sinus
Census of the British Empire, 637, 748
Census of London. *See* London
Census, quinquennial, in France, 592
Central Emergency Fund. *See* Fund
Cerebellar tumour. *See* Tumour
Cerebellum, eyes and ears, association between, 463
Cerebral function, review of books on, 84
Cerebral haemorrhage. *See* Haemorrhage
Cerebral hemisphere supplying both sides of the body, case of one (G. H. Grills), 1033
Cerebral rheumatism. *See* Rheumatism
Cerebral tumours. *See* Tumours
Cerebro-spinal fever, infectivity of (Reginald Farrar), 1040
Cerebro-spinal meningitis in Germany, 277; in Birmingham, 589; in Canada, 1006; in Glasgow, 1372, 1560; in Austria, 1374
Cerebro-spinal pressure, rhythmical variations in (E. Gladys Kensington, with note by Frank Eve), 553
Certificates of death (*see* Death); for accident insurance companies, 599; sick, given by unqualified practitioners, 774; for insurance companies, 1196, 1567; medical (*see* Medical)
Certificates, school, 1076, 1137, 1256
Certificates, vaccination. *See* Vaccination
Cervical ribs. *See* Ribs
Cervix, adenomatous polypus of (F. E. Taylor), 83
Cervix uteri, dilatation of, with Bossi's dilator (George Blacker), 203; polypoid tumour of due to bilharzia (Janet G. Horwood and A. J. Milne). 557
Ceylon, cancer in, 813; Colonial Office Report on, 1007
CHALMERS, A. K. (editor): *Public Health Administration in Glasgow: A Memorial Volume of the Writings of J. Burn Russell*, rev., 805
CHAMBERS, HERBERT W.: An army medical civilian reserve, 354
Chances of practice abroad, 933
Changeable patient, 995
CHANTEMESSE, A.: *Les Actualités Médicales, Moustiques et Fièvre Jaune*, rev., 330; On the laws regulating emigration, 471
CHAPLIN, ARNOLD: *Science and Art of Prescribing*, rev., 1533
CHAPMAN, PAUL M.: Some experiments in densimetry, 614
Charcot's disease of thumb (P. Maynard Heath), 262
Charge dismissed, 1076
Charge of negligence, 833
Charge of negligence dismissed, 297
Charity Organization Society. *See* Society *and* Societies
Charlatanism, medical, in Germany (Otto Neustätter), 1348, 1410, 1470, 1538
Charles I, head of, 209: note on, 240
CHARLES, J. R.: Fright in its relation to disease, 325
CHARLES, Sir RICHARD HAVELOCK, made K.C.V.O., 702: appointed Physician in Ordinary to Prince of Wales, 1248
CHARLES, THOMAS EDMONSTON, obituary notice of, 596
Charter for the Association. *See* Association
CHEATLE, G. LENTHAL: Early recognition of cancer of breast, 1205
Chelsea Clinical Society. *See* Society
Cheltenham Waters, inauguration of the Central Spa, 1541
Cheltine diabetic food, 569
Chemiotaxis (J. O. Wakelin Barratt), 129
Chemical and medical supplies and Irish Boards of Guardians, 1187
Chemistry of anaesthesia. *See* Anaesthesia
Chemistry, proteid, review of books on, 1284
Chemists' certificates to patients, 118
Chemists, prescribing, 895, 1017
Chemists, relations with, 298; and the Early Closing Act in Australia, 888
CHESTNUTT, JOHN, obituary notice of, 778
CHEVERS, MARTIN J.: Treatment of branchial fistula, 974
CHIARI, Professor, accepts invitation to succeed Professor von Recklinghausen in chair of pathology at Strassburg, 1424
Chicago delicacies, 1307, 1381, 1433
Chicago food products, 1507
Chicago, decline of typhoid fever in, 689; homoeopathy in, 1433
Chicken-pox in Liverpool, 763
CHIENE, GEORGE L.: Stovaine as a spinal and local anaesthetic, 202
Chilblains, calcium salts in (G. Arbour Stephens), 797; correspondence, 959, 1020, 1038
CHILDE, CHARLES P.: Simultaneous excision of two-thirds of the stomach, the anterior face of the pancreas, and the transverse colon for carcinoma, 194
Childbirth after colotomy (Thomas E. Mitchell), 499
Child insurance, 524
Child life, wastage of. *See* Mortality, infantile
Child Study Association. *See* Association
Childhood, care of, in Nice, 799
Children, acute bone disease in (Edmund Owen), 241
Children, convalescent, verminous heads of, 1565
Children, defective, practical demonstrations for teachers of, 337
Children, diseases of, review of books on, 925
Children, food fever in (Eustace Smith), 307; correspondence on, 420, 780
Children, mental census of, in Staffordshire, 531
Children, periodic vomiting and acetonaemia in (Vincent Dickinson), 205
Children, pressure stasis in, 709

Children, school attendance under 5 years of age, 69. *See also* School
Children, stillborn, 103, 1260
Children, underfed, 41; at Leeds, 41, 409; at Newport, 408
Children, training of nerve centres in (Eric Pritchard), 505
Children, varieties of hernia in (E. Scott Carmichael), 254
Children's police-court, Birmingham, 163
CHILDS, CHRISTOPHER: Typhoid fever in United States volunteer encampments, 624
Chinese army, organization of on modern lines, 32
Chinese, College of Medicine. *See* College of Medicine
CHISHOLM, WILLIAM, obituary notice of, 716
Chitral Valley, endemic goître in, 861
CHITTENDEN, RUSSELL H.: *Physiological Economy in Nutrition, with Spectal Reference to the Minimal Proteid Requirement of the Healthy Man: An Experimental Study* (leading article on), 399
Chloroform, discoverer of, 810
Chloroform, mask for administration of, 89, 1469
Chloroform in consumption (James Holmes), 198; (H. de C. Woodcock), 557; correspondence on, 660
Chloroform narcosis, 608
Cholecystitis treated by inoculations with *B. coli* (A. E. Wright and S. T. Reid), 143
Cholecystitis, typhoidal (J. W. Findlay and R. M. Buchanan). 385
Cholecystostomy (J. G. Cooke), 1156
Cholelithiasis, treatment of uncomplicated (Dr. Bain), 264
CHOLMELEY, W. J.: Pyonephrosis, 1342; tubal mole, 1342; tuberculous disease of femur, 1343; appendical concretion in an infant, 1343
Chorea considered as cerebral rheumatism (Sir Dyce Duckworth), 1454
Chorion-epithelioma (John Phillips), 384; of congenital origin (Victor Bonney), 1160
Christian Science before the coroner, 598, 1195, 1321; trial of George Robert Adcock, 1547; question in Parliament, 1187
CHURCH, Sir W. S.: Convalescent Homes Association, 533
City of London Directory, rev., 809
Civil hospital training for volunteers. *See* Volunteers
Civil practitioners and military work, 38, 102
Clackmannan, Pretoria Pit, disaster at, 398
CLARK, ANDREW: Swellings of the breast, their diagnosis and treatment, 185
CLARKE, J. JACKSON: *Congenital Dislocation of the Hip*, rev., 328; note on syphilis, cancer, and some protozoa, 1274
CLARKE, J. MICHELL, *Hysteria and Neurasthenia*, rev., 627
CLARKE, R. H.: The antivivisectionists and the hospitals, 170. 293
Clavicle, excision of (Herbert Snow), 258
CLAY, JOHN: Two cases of ruptured duodenal ulcer, 1334
CLAYTON, J. S.: Industrial lead poisoning, 310
Clean money, 658
Cleft palate, at what age should it be closed? (R. W. Murray), 245; correspondence on, 352, 533, 649, 716; palliation of, 420
Cleft palate, review of books on, 206
CLEMENCEAU, M.: 750
CLEMOW, FRANK G.: Mycetoma (Madura foot) in the Yemen, 918
Climates, English and Italian, 180
Clinical anatomy. *See* Anatomy
Clinical diagnosis. *See* Diagnosis
Clinical medicine. *See* Medicine
Clinical societies. *See* Society
Clinical therapeutics in Paris, 1121
CLOSE, Lieutenant-Colonel CHARLES STRATHERNE, obituary notice of, 117
Club elections, corrupt practices in, 952
Club practice, 767
Club surgeons as members, 599
COATS, GEORGE: Congenital anterior staphyloma, 443; orbital encephalocele, 625
Cocaine, sale of, 174
COCHRANE, C.: Rural insanitation, 772
COCKLE, WALTER P., awarded grant for successful vaccination, 1179
Cocoanut oil in butter, 529
CODD, J. A.: Cerebral tumour, 1342; Diffuse carcinoma of stomach, 1343; Congenital macrodactyly, 1343; Diaphragm compressor and tube holder, 1343
Cod-liver oil, malt and guaiacol, 1469
Cod-liver oil and hypophosphites, emulsion of, 1469
COHEN, SOLOMON SOLIS: *System of Physiologic Therapeutics*, rev., 870
Coincidence or impression? (T. D. Manning), 978; (C. A. Ensor), 1200; (Thomas F. Henly), 1384; (D. O. Fountaine), 1572
COIRCE, ARAN: The ideal diet, 829
Colalin, 687
COLBECK, E. H.: *Science and Art of Prescribing*, rev., 1533
Cold, common, treatment of (F. P. Atkinson), 20. *See also* Catarrh, Coryza
"Cold, common," bacteriology of (Charles H. Benham), 1023; correspondence on, 1131, 1193, 1254, 1318, 1439, 1565
COLEMAN, J. B.: Pneumococcus vaccine, 742
COLEMAN, Dr. J. B., in an unpleasant law suit, 1314; sympathy with, 1436
COLERIDGE, Lord, 693
COLERIDGE, STEPHEN: Antivivisectionists and the hospitals, 233, 293; the confusion of, 360; on tour, 939, 1014, 1074
COLES, A. C.: *The Blood, How to Examine and Diagnose its Diseases*, rev., 24
Colic, treatment of (Denham C. Woods), 1279
Colic mucous. *See* Mucous
Colitis, some clinical features of the several types of (H. A. Caley), 1330
Colitis, membranous, in infancy (E. Cautley), 83
Colitis, ulcerative, argyrol in (William A. Ardagh), 80
College, Emmanuel, Cambridge, annual commemoration of benefactors, 1552
College, Epsom, records of some old boys, 515; leading article on, 697; resignation of Sir Constantine Holman, 1239, 1424
College, King's, 58, 537, 658, 775, 953; appointments, 1240.
College, Livingstone: Dangers of tropical diseases (James Cantlie), 1334
College, Medical Graduates' and Polyclinic, annual meeting, 769
College, Medical, for the United Provinces (India), 165
College of Medicine for Chinese at Hong Kong, 349; at Peking, 876
College, Queen's, Belfast, better equipment fund, 165; inaugural public meeting, 289; Dunville lectures at, 591; annual dinner, 706
College, Royal, of Physicians of Edinburgh, 59, 119, 177, 348, 417, 1138; annual election meeting, 59; quarterly meeting, 417; examiners for the licence, 59; examiners for the membership, 59; examiners for diploma in public health, 119; Morison lectures, 177, 348, 407, 1138; introduction of Fellows, 417, 1138; admission to the Fellowship, 417; admission to the membership, 417, 1138; admission to the licence, 417, 1138; annual report regarding laboratory, 1138; conjoint committee of management of triple qualification, 1138
College, Royal, of Physicians of Ireland, 177, 337, 897; Reuben Harvey memorial prize, 177; special meeting, 337; election of Fellows, 897; admission of members, 897
College, Royal, of Physicians of London, 299, 897, 1076, 1197; announcements, 299, 897; membership, 299, 1076; licence, 299, 897, 1076; diplomas in public health, 299; communications, 299, 897, 1077, 1198; the curriculum in midwifery, 299; University of Birmingham, 299; Central Midwives Board, 299; reports, 299, 897, 1077, 1198; library, 299, 1077; presidential address, 897; election of president, 897; fellowship, 1077, 1197; Murchison scholarship, 1077; international congress on school hygiene, 1197; General Medical Council, 1198
College, Royal, of Science (leading article), 581. *See also* University of London
College, Royal of Surgeons of Edinburgh, 1251, 1256; meeting, 1256
College, Royal, of Surgeons of England, 119, 177, 416, 897, 1187, 1198, 1311, 1320, 1370, 1505, 1555, 1570; Begley studentship, 119, 897; fellowship examination, 177, 1570; Court of Examiners in Dental Surgery, 177; Hunterian orator for 1907, 177; International Medical Congress at Lisbon, 177; pass list, 177; diplomas, 416, 1505; burial place of William Harvey, 416; Bradshaw Lecturer, 416; Central Midwives Board, 416; British Dental Association, 416; awards of prizes, 897; honorary Fellows, 897; the Fellowship, 897; question in Parliament, 1187; introductions, 1198; diploma of membership, 1198; Central Midwives Board, 1198; Fellows' subscription dinner, 1198; the Walker prize, 1198; the Council of, 1311, 1320, 1370, 1433; history of the College, 1505; examiners for the ensuing year, 1505; admission of women to the College examinations, 1506; anthropometrical survey, 1506; election of members of Council, 1506, 1555
College, Royal of Surgeons in Ireland, 417, 467, 537, 776, 944, 954, 1138, 1314, 1320, 1444, 1508; deputation to Lord Lieutenant, 417; annual dinner, 467; Fellowship examination, 537; appointments, 776; election of examiners, 944, 954, 1138; meeting of Fellows, 1138; annual meeting, 1314; pass lists and degrees, 1320; annual report, 1444; election of officers, 1444; memorial picture, 1508
College, Royal, of Veterinary Surgeons, 1492; annual dinner, 1492
College, Trinity, Dublin, 58, 641, 705, 776, 835, 897; pass lists and degrees, 776, 835, 897; extern examiners, 58; Archbishop Walsh on, 641, 705, 765; proposed inquiry, 706
College, University, Aberystwith, 825
College, University, London, 58, 176, 299, 658, 718, 896, 1381, 1444, 1569; physiological optics, 299; lectures on parasitic protozoa, 299; annual general meeting, 718; the new hospital, 896; new medical school buildings, 896, 1444; a register of former students, 896; summer session, 896; appointments, 1381
College, University of South Wales and Monmouthshire, 44, 590; eighth annual meeting of the Association, 229; meeting of Council, 408
COLLIE, R. J.: *First Aid in Accidents*, rev., 389; *Questions and Answers on First Aid*, rev., 1285
COLLINS, CHURTON, on "electrocute," 810
COLLINS, TREACHER: Cyst of the orbit, 1104
COLLINS, Sir WILLIAM, on systematic instruction in ophthalmology, 1061
COLLYNS, ROBERT T. POOLE, obituary notice of, 1568
Colombia, Republic of, leprosy in, 523
Colon, importance of the (M. S. Monier-Williams), 787; correspondence on, 947; malignant stricture of (J. G. Cooke), 1156
Colon bacilli and typhoid, 773, 831
Colonial medical legislation, 39
Colonies, cancer in, 812
Colotomy, childbirth after (Thomas E. Mitchell), 499
Colotomy, transverse *versus* inguinal (L. McGavin), 142
Colour blindness in Littrow, 50
Colour phenomena, review of books on, 928
Colour photography, application of to clinical medicine, 29
Columbia, new military hospital in (Walter Reed), 406
Coma and food poisoning (A. D. Kennard), 80; (Charles Mercier), 141; (Rupert Waterhouse), 258
Committee, Branch Contract, South Wales and Monmouthshire, and Emergency Fund, 691
Committee, Penal Cases, 1249
Committee, Police and Sanitary, 703
"Common cold." *See* Cold
Companies, use of statutory titles by, 1182, 1186, 1302
Company practice, 1247
Competing for club appointments, 775
Compulsory Greek. *See* Greek
Compulsory insurance. *See* Insurance
Compulsory removal of infectious patient, 57
Compulsory revaccination, 1309
Compulsory vaccination. *See* Vaccination
Concentration camps and war medals, 1015
Condemnation of a medical practitioner, 598
Condylotomy for cure of genu valgum (Walter C. Stevenson), 18
Confusion of Mr. Coleridge, 360. *See also* Coleridge
Congress, Antiquackery, 1065, 1298, 1356, 1366; bonesetters, 1356; magnetizers, 1356; clerical quackery, 1357; nursing quackery, 1357; barbers and hairdressers, 1357; prescribing chemists, 1357; repetition of prescription, 1357; illegal practice by opticians, medical electricians, dentists, and midwives, 1357; midwives, 1358; practice of medicine by pharmacists, 1358; illegal practice by foreign doctors, 1358; illegal practice by medical men, 1258; social factors leading to quackery, 1359; position and status of midwives, 1359; proposed central office for suppression of quackery, 1359; votes of thanks, 1359; general impressions, 1359
Congress, Antitrachoma, 219
Congress, Australasian Medical, and patent medicines, 40
Congress, British universities in Edinburgh, 287
Congress of cranks, 719
Congress of Criminal Anthropology, International, 398
Congress, Dermatological, 1530
Congress of Experimental Psychology, 454
Congress of French-speaking Alienists, 767
Congress, French-speaking Medical, in Canada, 337
Congress, French, of Surgery, 621
Congress, German, of Internal Medicine, 631, 1047
Congress for Aid of the Insane, International, 99
Congress, International, of Applied Chemistry, 319
Congress, International, of Hygiene and Demography, 1002
Congress, International, of Laryngology, 579
Congress, International Medical, 33, 99, 150, 274, 397, 515, 568, 631, 637, 751, 821, 991, 1051, 1111, 1171, 1286, 1324, 1350, 1408, 1550; correspondence on, 1324; first impressions of Lisbon, 991; hotels, 991; the new medical school, 991; opening of the Congress, 992; the King's speech, 992; official greetings, 993; speeches of delegates, 993; reception at the medical school, 993; work of the Sections, 994; the Sections, 1286, 1350, 1408; general impression of the Sections, 1051; defects of organization, 1051; demonstrations, 1052; Hospital of S. José, 1111; Bacteriological Institute, 1111; attendance at the Congress, 1111; the bull fight, 1111; garden party at the palace, 1112; reception at the Geographical Society, 1112; death of Dr. Mascaro, 1112; next meeting of the Congress, 1112; future Congresses, 1113; prizes, 1113; closing meeting, 1113; reception by the Municipal Council, 1113; other festivities, 1113; sanitary state of Lisbon, 1171; hospital for infectious diseases, 1171; sanitary inspection of cattle and food, 1172; water supply, 1172; drainage, 1172; inspec-

tion of industries, 1172; prisons, 1172; criminal lunatics, 1172; Lisbon Asylum, 1172; Leper Hospital, 1173; a tuberculosis dispensary, 1173; hospital for women and children, 1174; other hospitals, 1174; the morgue, 1174; doctors' signs, 1174; the Sections, 1286, 1350; anatomy, 1286; physiology, 1286; pathology and bacteriology, 1286; therapeutics, 1288; medicine, 1350; paediatrics, 1351; neurology, 1351; dermatology, 1352; surgery, 1352; surgery of the urinary passages, 1352; ophthalmology, 1408; laryngology, otology, and stomatology, 1408; obstetrics, 1408; hygiene, 1408; military medicine, 1408; forensic medicine, 1408; colonial and naval medicine, 1409; general conferences, 1409; lantern demonstrations, 1409; garden party at Monserrate, 1409; resolution, 1550
Congress, International, for Welfare and Protection of Children, 934
Congress, Italian, of Physical Therapeutics, 631
Congress, Latin-American Medical, 1376
Congress of Medical Electrology, International, 94
Congress, Pan-Hellenic Medical, 1424; fifth meeting, 1424
Congress of Physiotherapy, meeting in Brussels, 274
Congress, Sanitary, in Rome: Professor Baccelli on doctors in imperial Rome, 989
Congress on School Hygiene, 814
Congress for Suppression of Illegal Practice of Medicine. *See* Congress, Antiquackery
Congress, Surgical, German, 377
Congresses of the year, 398
Conjoint Board in England, 177, 417, 954, 1198; pass lists, 177, 417, 954, 1198
Conjoint Board in Ireland, 177, 299, 537, 776, 897, 1198; pass lists, 177, 299, 537, 776, 897, 1198
Conjoint Board in Scotland, 299, 954, 1077, 1198; pass lists, 299, 954, 1077, 1198
Conjunctivae, acute oedema of, 840
Consultants as decoys, 995; and club doctors, 1017
Consultants' obligations. *See* Obligations
Consulting room in hotel, 896
Consumption. *See* Tuberculosis
Consumption sanatoriums. *See* Sanatoriums
Contract practice notices. *See* Warning Notices. Club practice, 767; Railway Provident Society, 870, 946; consultants as decoys, 995; a changeable patient, 995; Miners' Association and Pendlebury District, 1054; Coventry, 1055; Bangor, 1055; Aberystwith, 1055; public medical service, 1176; fees for accidents, 1543
Consumptive girls, employment of, 1508
Contract practice and Poor-law Commission. *See* Poor Law
Contracts not to practise, 1445, 1567
Convalescent Home for Children at West Kirby, 646; at Edinburgh, 704, 1007
Convalescent Home, Yarrow, 857
Convalescent Homes Association. *See* Association
Conviction upheld, 1556
Convictions under the Medical Act, 1858, 716
Convulsions, general, in early infancy induced by the taking of food (Eustace Smith), 1338
Cooke, Charles J.: Medicine and the mercantile marine, 654
Cooke, J. G.: Hysterectomy, 1156; Cholecystotomy, 1156; Acute pancreatitis, 1156; Malignant stricture of colon, 1156; Emphysematous gangrene of leg, 1156; Dry iodine catgut, 1166
Cookson, Dr.: Uric acid calculi, 1342
Coombe, Russell: Ruptured pyosalpinx, 200
Cooper, Arthur: Some unusual variations of the erythematous syphilide, 316; Sarsaparilla in syphilitic cachexia, 770
Cooper, George, resigns seat on London County Council, 524
Cooper, Ludford: Elephantiasis neuromatosis, 444
Co-ordination in antitubercle effort, 400
Copeman, S. Monckton: Report to Local Government Board on outbreak of enteric fever at Fulbourn Asylum, 1120
Copernicus, 449, 889
Copper alginate (Albert Gresswell and George Gresswell), 1464
Copyright of the British Medical Journal, 162
Corbett, Thomas, estate of, 1303
Corby, Dr.: Case of empyema treated by Estlander's operation, 980
Core, Dr., obituary notice of, 1078
Cork, county, proposed sanatorium for consumptives in, 467, 886; Public Health Congress in, 1476; prevention of consumption in. *See* Tuberculosis
Cork guardians and *post-mortem* examinations, 1314
Corkhill, J. G. G.: Case of posterior basal meningitis with few cerebral symptoms, 734
Corner, Edred M.: Torsion of the omentum, 143; Immediate and remote results of the high operation for varicocele, 191
Coroner, North Wales, remarkable allegations, 297
Coroner, qualification of, 834
Coroner, reform of the, 760
Coroner's court, 1444; payment of witnesses other than medical at, 117
Coroners Bill. *See* Bill
Coroner's court, 1321
Coroners' jurisdiction, 1552
Coroners and medical witnesses, 237, 1321
Corpus luteum, development and retrogression of (Cuthbert Lockyer), 264
Correctness of the *Medical Register*, 1427
Corrupt practices in club elections, 952
Corsica, antimalaria campaign in, 1310
Coryza following ingestion of quinine, 420. *See also* Cold, Catarrh
Cos, Hippocrates and the newly-discovered Health Temple of (Richard Caton), 571
Costa, John C. da: *Clinical Hematology*, rev., 24
Costly curiosity, 1448
Cotter, Dr.: Ectopic gestation, 1040; Obscure abdominal symptoms in a man, 1040
Cotton, W.: Influence of *x* rays upon treatment of fractures and dislocations, 1134
Council of Childhood Society. *See* Society
Council, General Medical, 389, 512, 698, 1185, 1249, 1300; *Minutes of*, rev., 389; report of proceedings of (George Jackson), 512; Public Health Bill, 512; Irish Poor-law medical officers, 512; coming election to, 698, 1442; selection of candidates for, 829, 890, 946, 1072, 1132, 1378; (leading article on), 996; eighty-third session, 1249; President's address, 1249; examinations for admission to the services, 1249; Penal Cases Committee, 1249; disciplinary cases, 1249, 1301; degree in public health, 1249; medical curriculum, 1300; education of medical students in midwifery, 1300; inspection and visitation of examinations, 1300; direct representation and the British Medical Association, 1300; voting for direct representatives, 1301; American Dental Institute, 1301; a dental company, 1301; sale of a practice, 1301; use of professional titles by companies, 1302; sight-testing opticians Bill, 1302; finance, 1302; Midwives Board, 1302; *British Pharmacopoeia*, 1302
Council of Lancashire and Cheshire Branch. *See* Association
Council, London County: Deputation to Presidents of Board of Agriculture and Local Government Board, 523; and midwifery scholarships, 876
Counterblast to euthanasia, 760
Couthon, medical monograph on, 215
Counting bacilli, 1534
Coutts, J. A.: Infantile scurvy, 561; Pasteurized milk and infant feeding, 1131
Coventry, health of, 1372
Covering, alleged, 477, 598, 657
Cowan, J. M.: Results of infectious diseases on the vessels, 805
Cox, Alfred: Selection of candidates for the General Medical Council Election, 829, 1072
Cox, W. H.: Asexual development of the *Spirillum obermeieri*, 1400
Coxa vara (J. Singleton Darling), 323
Cranks, Congress of. *See* Congress
Craven, R. Musgrave: The Budget, 1072
Crawford, Colonel D. G., and a history of the Indian Medical Service, 750
Crèches, leading article on, 1425; for the nursing staff of hospitals in Paris, 108; for the poor in London, 1056; in France, 1421; in Germany, 1421; in Austria, 1421; in Russia, 1421; in Portugal, 1422; in Roumania, 1422; feeding babies in, 1504
Crèches, educational (Dr. Niven), 1423
Cremation in Great Britain, 162, 579, 1303; in Massachusetts, 208; in Leicester, 579; in Belgium, 829; in Austria, 1069; in France, 1362; in India, 1439
Crerar, J. W.: Cantwell's operation for epispadias, 1101
Creusot, reduction of infant mortality at, 1125
Crime and alcohol, 749
Criminal anthropology. *See* Anthropology
Criminal cases, examination of patients in, 298
Criminal responsibility, review of books on, 445
Cripples' Guild, 1253
Cripples, home for feeble-minded, 899
Cripps, Harrison: Three cases of ruptured uterus treated by abdominal section and suture, 1270
Crofton, Captain William Jones, obituary notice of, 179
Cromwell, Oliver, fatal illness of, 1020
Crookes, Sir William, and "Bichat the Physiologist," 449
Crookshank, F. Graham, apology to, 54; the Medico-Psychological Association, 174
Croom, Sir Halliday: Heteroplastic ovarian grafting, 1465
Croupous pneumonia. *See* Pneumonia
Cruelty to Animals Bill. *See* Bill
Crusade for the salvation of man, 820
Cryoscopy and its practical use in medicine and surgery (O. C. Gruner), 626
Cryptogamic botany, 659
Cuba, health of, 219
Cullen, W.: *Ambulance Illustrated*, rev., 986
Cullingworth, Charles J.: General Election and the Midwives Act, 110; On the therapeutic value of sarsaparilla in syphilis, 791, 899; *Oliver Wendell Holmes and the Contagiousness of Puerperal Fever*, 889
Cumming, Hamilton: Thermal methods, 864
Cummins, Dr.: Case of cystic tumour, 263
Cunning, J.: Post-traumatic haemorrhage from superior longitudinal sinus without fracture of skull, 623
Cunningham, D. J.: *Textbook of Anatomy*, rev., 1532
Cunningham, H. H. B.: Semilunar gap in lens, 444
Curare, relationship of some plants to (Gordon Sharp), 803
Curette for puerperal uterus, 1353
Curette, uterine, dangers of, 1061
Curie, M., refuses Legion of Honour, 1109
Curious conjunction, 780
Currie, Dr., action against, 636, 655
Curtin, E.: Angina pectoris without apparent disease of heart or blood vessels, 858, 1013
Cutaneous diphtheria. *See* Diphtheria
Cutaneous manifestations of acquired syphilis (Arthur Whitfield), 264
Cycling and sanitation, 1429
Cyst, burrowing tubo-ovarian, with remarks on its pathogenesis (W. Sampson Handley), 1517
Cyst of common bile duct (Frederic Eve), 802
Cyst, dermoid, of thorax (Captain W. Selby), 621
Cyst of the orbit (Treacher Collins and Johnson Taylor), 1104
Cystic disease of liver and kidneys, combined (C. A. MacMunn), 199
Cystic tumour. *See* Tumour
Cystoma, ovarian, with appendicitis (John T. Hewetson), 789
Cystoscope, the (David Newman), 661, 726
Cystotomy, suprapubic, case of, under local anaesthesia (Gilbert J. Arnold), 21
Cysts, implantation (Mackenzie Davidson), 1104
Cysts, thin-walled, spermaceti for operations on, 154
Cytorrhyctes luis (Siegel) and the *Spirochaeta pallida* (Alex. MacLennan), 258
Czermak and the discovery of the laryngoscope, 937

D.

Da Costa. *See* Costa
Da Cunha, E: *Portuguese Self-taught*, rev., 509
Dairy, scarlet fever at a, 239
Dairy farms, dirty, 43
Dalrymple Home for Inebriates, 1299
Daniel, W. Clement, obituary notice of, 116
Daniels, C. W., pleads for scientific study of native drugs and poisons (Malayan), 1475; tinned food in the tropics, 1503
Darling, J. Singleton: Coxa vara, 323
Darnell, C. K., presentation to, 1476
Darnell Fund. *See* Fund
Darwinism, books for lecture on, 59, 117
David, Dr.: *Etudes sur le Traitement des Fractures des Membres*, rev., 1042
David Lewis Epileptic Colony, 470
Davidson, James Mackenzie: Diagnostic value of *x* rays, 137; radium in rodent ulcer, 1104
Daviel, the ophthalmic surgeon, 1109
Davies, A. Newton: Heterochromia iridis, 1100
Davies, H. Havelock: Separation of an epiphysis, 259
Davis, W. J.: *Brassworkers of Berlin and Birmingham*, rev., 386
Dawson, W. R.: Lunacy administration in Ireland, 1412
Deaf, oral instruction of, 1492
Deaf and dumb, adult institution for, 229
Deaf and dumb, residual hearing in (Kerr Love), 144
Deafness, catarrhal (F. Faulder White), 556
Dean, Henry Percy: Importance of anaesthesia by lumbar puncture in operations for acute abdominal diseases, 1086
Deanesly, E.: Complete removal of outer wall of frontal sinus for chronic empyema, 1341; wry-neck, 1341; radical operation for necrosis of lower end of femur, 1341; severe abdominal injury, 1341; fractured patella, 1341; treatment of tuberculous ulcers of intestine, 1342; fractured pelvis with ruptured urethra, 1342; excision of rectum and prostate for cancer, 1342; removal of lower jaw, tongue, and floor of mouth, 1342; radical cure of enormous hernia by Kocher's method, 1342; specimens, 1342
Death certificate given by practitioner with American diploma, 1288
Death certificate, alleged false, 347; forgery of, 476
Death certificates, 418, 538
Death-rates, corrected, 296; phenomenally low, 585
Death, sensation of, 818, 950, 1020

Deaths in the profession abroad. 57, 117, 179, 356, 416, 476, 597, 778, 898, 1015, 1196, 1320, 1567
DEAVER, JOHN B.: *Enlargement of Prostate*, rev., 983; *Appendicitis*, rev., 1164
Decapsulation of kidney. *See* Kidney
DE FABECK. *See* Fabeck
Defaulters, Directory of. *See* Directory.
Deformity of lower limbs (E. F. Gordon Tucker), 555
Degeneracy, neuralgia and (P. C. Smith), 494
Degeneration of the myocardium in hot climates (W. Carnegie Brown), 1462
Degeneration, physical. *See* Physical
Degree in public health, 1249
Degrees; non-registrable. *See* Non-registrable
DE GRANDMAISON. *See* Grandmaison
Degrees, use of non-registrable, 1137
DELÉPINE, SHERIDAN: The typhoid and colon bacilli, 773
DEMETRIADI, L.: The army medical services, 593
DEMPSEY, Dr.: Uterine myoma, 322
Densimetry, some experiments in (Paul M. Chapman), 614
Dental Annual and Directory, rev., 1043
Dental Company. 1301
Dental elevator, 566
Dental Institute, The American, 1301
Dental practice, qualified and unqualified, 755
Dental surgeon required, 579
Dental surgeons and dentists in Austria, 532
Dentists, unqualified, relations with, 834
Dentistry, practice of by medical men, 834
Dentists' Register, rev., 1046
Dermatological Society. *See* Society
Dermatology. *See* Skin
Dermoid cyst of thorax (Captain W. Selby), 621
Dermoid, ovarian, in a child, torsion of pedicle in (H. Brunton Angus), 199
Dermoids, ovarian, colour of hair in (C. J. Bond), 351, 419; (S. G. Shattock), 1218; (R. Hamilton Bell), 1377
DESTOT, Dr., *Le Poignet et les Accidents du Travail, Etude Radiographique et Clinique*, rev., 266
Deutsche medizinische Wochenschrift's warning to authors, 1292
Devonshire Nursing Association. *See* Association
DEWAR, THOMAS F.: *On the Sanitation of Armies on Active Service in the Field*, rev., 746
Diabetes in infants (C. L. Fraser), 1340
Diabetes, new remedy for (J. Hill Abram), 205
Diabetes insipidus, traumatic, relation of, to glycosuria (H. S. French and C. B. Ticehurst), 623
Diabetic foods, 569
Diachylon as an abortifacient, plumbism from ingestion of (Arthur Hall and W. B. Ransom), 428; (W. Wrangham), 556; (F. W. Jollye), 620; leading article on, 456; deaths from, 764. *See also* Abortifacient
Diachylon, does it affect the infant when it fails to produce abortion? (R. Heelis, F. H. Jacob, and S. R. Trotman), 257
Diachylon, lead poisoning from (A. E. Little), 499
Diachylon as a poison, question in Parliament, 884
Diagnosis, clinical, position of pathology with regard to (A. W. Mayo Robson), 601
Diaphragm, sprain of, 960
Diaphragm compressor and tube holder (J. A. Codd), 1343
Diaries, notes on, 89
Diarrhoea, hill (F. P. Maynard), 141
Diarrhoea, summer, of infants, bacteriology of (H. de R. Morgan), 908; correspondence on, 1075, 1131
Dichotomy, 952
DICK, MITCHELL INNES: Obstruction of the bowel produced by the appendix, 379
Dickens's doctors, 1050
DICKINSON, VINCENT: Periodic vomiting and acetonaemia in children, 205
DICKINSON, W. G.: Proposed general hospital at Putney, 774, 895
Dictionary, new English, medical terms in, 101
Diet (Chalmers Watson), 683
Diet, disease, and vagrancy, 634
Diet in pregnancy, 1508
Diet, the ideal. 829
Diet, prison, 1434
Diet, value of proteid (leading article), 399; correspondence on, 540
Dietary of pregnant women for limitation of growth of fetus, 779
Dietetics and hygiene, 1447
DIEULAFOY, Professor: On diagnostic and operative errors in cases of muco-membranous typhlo-colitis mistaken for appendicitis, 1373
Digestive disorders, review of books on, 1164
Digitalis in cardiac failure, action and uses of (J. Mitchell Bruce), 8
Digitalis, squill, and strophanthus, action of on the heart, 1494
Dilatation of heart and some other points in cardiac pathology (Samuel West), 1455
DINGWALL-FORDYCE, A.: Rickets in relation to duration of lactation, 971
Dionine in ophthalmic practice (James Hinshelwood), 1098
Diphtheria and antitoxin, 753
Diphtheria, antitoxin treatment of, 1382
Diphtheria, treatment of (T. Basil Rhodes), 375; correspondence on, 900
Diphtheria, calcium chloride as a preventive of eruptions after serum injections in, 471
Diphtheria, cutaneous, four cases of (R. Heelis and F. H. Jacob), 556; correspondence, 780
Diphtheria, tonsillitis in convalescence from (J. D. Rolleston), 1152
Diplococcus pneumoniae causing puerperal septicaemia (G. Bellingham Smith and N. I. Spriggs), 1272
Direct representation in Ireland, 46, 164, 228, 289, 348, 406, 466; in Scotland, 287, 529, 590; increase in number of, 1384
Direct representatives, and the British Medical Association, 1300; voting for, 1301
Directory of defaulters, 126
Disciplinary cases. 1249. 1301
Disclaimers, 538, 626, 1567
Disease, diet and vagrancy, 634
Disease, food factor in. *See* Food
Disease, prevention of importation of in Liverpool, 1478
Diseases of children. *See* Children
Diseases of German East Africa, 884
Disinfectants, standardization of, 1018
Disinfection, the utility of, 819
Disinfection of ships (John Wade), 1427
Dislocations, what influence has the use of *x* rays had on treatment of? (J. Lynn Thomas), 1034; correspondence on, 1134
Dispensaries, the Liverpool, 588; the Manchester, and the profession, 1237
Dispensary doctors, salaries of, 46, 228, 526, 592, 765, 823, 1008, 1311; grievances of the Kerry, 349; in Limerick, 592, 765, 826, 1008; question in Parliament, 823, 1311; and Tralee guardians, 1008
Dispensary, Irish, equipment of, 46
Dispensary, Leeds Public, 41, 346, 470, 1127, 1557; appointments, 346, 470, 1557; post-graduate courses at, 1127
Dispensary, provident, 477
Dispensary, Rusholme Provident, 40, 173
Dispensary, Tambour Branch (Sitapur District, Oudh), case of dermoid cyst of thorax (Captain W. Selby), 621
Dispensing on the metric system, 420
Dispensing of poisonous liniments, 357
District medical officer's claim for pension, 57, 175; appointments, 776
District Nursing Society. *See* Society. Association. *See* Association.
Divonne, Jura, as a health resort, 990
Dixon, Walter E., *A Manual of Pharmacology*, rev., 745
"Doctor" or "medical practitioner"? 757, 888
"Doctor," title of, 175, 238, 418, 598, 657; wrongful use of, 418; and branch surgeries, 1136
Doctor and guardians, 408
Doctors, in the United States, number of, 813; Mr. Bernard Shaw on, 1181; and literary style. 1230
Doctors' latin, 459, 989
Doctors' names in advertisements, 1310
Doctrine of signatures, a new, 521
Döderlein, Professor, and modern methods of antiseptics, 1180
DODGSON, H.: Case of rupture of kidney, 977
DODSON, ARTHUR E.: Case of central rupture of perineum, 859
Dogs as sewermen, 153
Domestic hygiene. *See* Hygiene and Physical Training
DONNAN, F. G.: Surface tension of urine, 355
DONNAN, W. D.: Surface tension of urine, 355
Doorplate, assistant's, 175
DOPTER, M.: Serum treatment of bacillary dysentery, 592
Dorsal vertebrae, laminectomy in caries of (Dr. Fortescue), 204
Dorsal or posterior, 235
Double uterus, cervix, and vagina (John Baird), 1161
DOUGLAS, C. E.: Midwifery of the present day, 1255
DOUGLAS, JOHN J.: Dislocation of metatarsus, 741
DOUGLAS, Captain: Note on plague vaccines, 802
Dourine or mal de coït of the horse (F. W. Mott), 1281
Dowie deposed, 821
DOYEN, M.: 1124; his experiences as a patient, 160
Doyen's serum. *See* Serum
Drink, sale of by prescriptions, 174
Drug, idiosyncrasies in relation to official dosage (C. O. Hawthorne), 309
Drug treatment of inebriety, 223, 350, 514, 839
Druggists, Sunday rest for, 679
Drugs, pure, 958
Drugs, synthetic, review of books on, 685
DRURY, Dr., cirrhosis of liver, 741
DRYDEN, A. M.: Reports case of transplantation of bone from the same subject, 1101; nasal deformities and paraffin injections, 1155
Dublin, post-graduate courses in, 1251, 1436
DUCKWORTH, Sir DYCE: Sarsaparilla in syphilitic cachexia, 770; chorea considered as cerebral rheumatism, 1454
DUDGEON, L. S.: New method of differentiating *B. typhosus and B. coli*, 143; *Bacteriology of Peritonitis*, rev., 508
DUFFERIN, Lord, as a speaker, 750
DUFTON, HENRY TEMPEST: Case of exophthalmic goître, 914
DUGUID, W. R.: Series of cases of icterus neonatorum, 319
Duke of Connaught's challenge shield, 1015
DUKE, Deputy-Inspector-General VALENTINE, obituary notice of, 838
DUKES, Mr., fatal accident to, 1492
DUKES, T. ARCHIBALD: Antivivisectionists and the hospitals, 234
Duma. *See* Russia
DUNCAN, THOS.: Long-standing ascites, 1157
Dundee Infirmary. *See* Infirmary
DUNLOP, J. C.: Occupation mortalities in Scotland, 622
DUNN, R. C.: Hernia in infants and young children, 1039
Dunville lectures. *See* Lectures
Duodenal hernia. *See* Hernia
Duodenal ulcer. *See* Ulcer
DURCK, HERMANN: *Beiträge zur pathologischen Anatomie der Pest*, rev., 330
Durham University. *See* University
Dust, street, dangers of, 232
Dust and tubercle among carpenters and laundry workers, 768
DUTTON, J. EVERETT, stained glass window to, 226
DUTTON, THOMAS: Sarsaparilla and syphilis, 1075
Duty of medical officer of health. *See* Medical
DWYER, Lieutenant-Colonel CHARLES EDWARD, obituary notice of, 838
Dyers, aniline poisoning among, 37
Dysentery in temperate climates (leading article), 1493
Dysentery, bacillary, serum treatment of (MM. L. Vaillard and Dopter), 592
Dysentery, endemic sporadic (with Shiga's bacillus) in England (Robert Saundby), 1325, 1503; correspondence on, 1564
Dysentery in South Africa (Lieutenant-Colonel C. Birt), 680
Dystocia, cerebral haemorrhage from (E. S. Carmichael), 441
Dystrophy of tabes. *See* Tabes

E.

Ear, middle, operation for chronic suppuration of (W. S. Syme), 250. *See also* Otology
Ear disease, purulent, grave complications of (reported by J. Stoddart Barr), 799
EARL, Dr., discussion on empyema, 323
Early medical works, 1499
Ear-syringing, apparatus for, 747
Ears, eyes, and cerebellum, association between, 463
East Africa, Professor Koch's investigations in, 31; relapsing fever in (leading article), 695
East Africa, German. *See* German
East Sussex Asylum. *See* Asylum
Ebbw Vale dispute, 44, 1558
EBSTEIN, Professor, retirement of, 277
ECCLES, W. MCADAM: *Clinical Applied Anatomy*, rev., 927
Eclampsia, thyroid in, followed by puerperal melancholia (W. E. Fothergill), 144; sequel to an attack of (J. Spencer Sheill), 442; cases of (Professor Jardine), 1221
Eclampsia, puerperal (William A. Caskie), 1161; lumbar puncture in (F. Proud), 678; decapsulation of kidney in, 1368
EDGCOMBE, WILFRID: *Physiology and Therapeutics of the Harrogate Waters, Baths and Climate applied to the Treatment of Chronic Disease*, rev., 563
Edinburgh, Graduates' Club, in Sheffield, 287, 763; clinical medicine and surgery in, 465, 527; prevention of consumption in, 704, 766, 1371; post-graduate work in, 1007, 1250; public health of, 1068; Harveian festival in, 1250; hospitals, junior posts in, 1313; children's holiday fund, 1313; Sir Henry Littlejohn's annual report on health of, 1477
Edinburgh University. *See* University
EDKINS, J. S.: *Practical Physiology*, rev., 867
EDMUNDS, W.: *Sound and Rhythm*, rev., 1226
Education Bill. *See* Bill
Education Board. *See* Board
Educational value of failures (leading article), 695
EDWARDS, E. C.: An anencephalous monster, 1530
EDWARDS, F. SWINFORD: *Carcinoma of the Rectum: its Diagnosis and Treatment*, rev., 267
Efficiency in hospital management, 1059
Egypt, plague in, 218, 1056; *Records of the Egyptian Government School of Medicine*, rev., 686; Lord Cromer's report on, 1053; and tropical medicine, 1130
Egyptian archaeology, 810

EHRLICH, P.: *Diseases of the Blood*, rev., 265
EISSENDECK, Dr.: *Etudes sur le Traitement des Fractures des Membres*, rev., 1042
Election, the General, and the medical profession (leading article), 35, 110, 155; notes on, 106, 230; antivaccination and, 96; motor car law and, 52; British Medical Association, and, 106; Association of Public Vaccinators, 106; Association of Certifying Factory Surgeons, 106; and Universities, (*see* University Constituencies): medical candidates, 107; and the Midwives Act, 110; legal candidates, 154
Electrical quackery, 758
"Electrocute" or "electrocide," 810
Electrolysis of urethral strictures (S. B. Selhorst), 674; of uterine fibroids, 719
Electrolysis of water-pipes, lead poisoning from (Geo. A. E. Roberts), 139
Electro-therapeutics, 59; review of books on, 1226
Elephantiasis, clinical history of, 1139; congenital, 1323
Elephantiasis (pseudo) of vulva (reported by Douglas E. Finlay), 81
ELKINGTON, J. S. C.: The white man in the tropics, 820
ELLETT, G. G.: Spelling of "arythmia," 1546
ELLIOTT, A. F.: Purpura accompanied by arthritis and visceral lesions, 920
ELLIS, Inspector-General H. M., granted relative rank of vice-admiral, 32
ELLIS, L. ERASMUS: Case for local anaesthesia, 621
ELPHICK, Major HARRY WILLIAM, obituary notice of, 1320
EMANUEL, Dr.: Congenital obliteration of bile ducts, 322; tachycardia, 860; spasmus nutans, 1156
Embolism, pulmonary (C. R. Box), 128; (George Walker), 1530
Emigration, laws regulating, in France, 471
EMMERICH, RUDOLF: *Die Entstehungen der Gelsenkirchener Typhus Epidemie von 1901*, rev., 1107
Emphysema, surgical, 1079
Emphysematous gangrene of leg (J. G. Cooke), 1155
Employment of consumptive girls, 1508
Empress Frederick Institution for post-graduation study, 510
Employment of collectors, 56
Empyema, discussion on diagnosis, treatment, and pathology of (Walter Smith, Sir Thornley Stoker, Dr. Earl), 323; case of treated with antistreptococcus serum (reported by H. Muir Evans), 799
Empyema, chronic, complete removal of outer wall of frontal sinus for (E. Deanesly), 1341
Empyema, complicated by subphrenic abscess (Edward W. Archibald), 1148
Emulsifying agent, quillaia as (Lawrence F. Hemmans), 318; correspondence on, 480
Emulsion of cod-liver oil and hypophosphites, 1469
Encephalocele, orbital (J. Herbert Parsons and George Coats), 625
Endemic sporadic dysentery. *See* Dysentery
Enema, pronunciation of, 270
Enema, holdfast, 148
Engine sparks, 780
England, length of medical curriculum in, (*see* Medical); mortality in prisons in, 823; goître in (John Spurway), 1037; cremation in, 1303
England and Wales, vital statistics (1905), 238; local expenditure in, 239
ENGLISH, CRISP: Carcinoma of both breasts, 325
English ethnology, 1550
English and Italian climates. *See* Climates
Englishwoman's Year Book and Directory, rev., 208
Enteric fever. *See* Fever
Enteritis, bacillary treatment of, 647
Enterospasm, reality of, and mimicry of appendicitis (Herbert P. Hawkins), 65; (A. Fells), 318; and intestinal obstruction (Bruce C. Kelly), 977
Entrance examination for works club, 719
Enucleation of fibromyoma of uterus during pregnancy (J. Stewart), 548
Enucleation of the prostate for haemorrhage (Sir William Thomson), 188, 1346; correspondence on, 354
Enuresis and its treatment (Hugh Thursfield), 901; causes and treatment of (Percy G. Lewis), 903
Envelopes, telltale, 1019
Epidemic stomatitis. *See* Stomatitis
Epilepsy, offer of prize for essay on etiology of, 50
Epilepsy, pathology of (John Turner), 496; and changes in the blood and nervous system (John Turner), 1412
Epilepsy, reflex, and operation (E. Laurie Robinson), 920
Epileptics, care of, 75, 478; home for at Maghull, 1557; marriage of (leading article), 877
Epiphysis, separation of (H. Havelock Davies), 259
Epiplopexy (T. K. Munro and A. N. M'Gregor), 923
Epispadias, Cantwell's operation for (J. W. Crerar), 1101
Epistaxis and calcium chloride (Arthur Todd-White), 198; (H. S. Ware), 439; correspondence on, 360
Epithelioma of the vulva (Dr. Lewers), 1103. *See also* Cancer
Epsom College. *See* College
Erepsin in cancer, 715
Errata, 180, 277, 294, 360, 684
Erysipelas as a notifiable disease, 1257
Erythema after veronal (W. Kenneth Wills), 498
Erythema papulatum, high-frequency currency in (Alex. Gregor), 679
Erythematous syphilide, unusual variations of (J. M. Bennion), 316
Esperanto, letter from Dr. Dor and remarks on, 270; an international language, 404, 510, 646
"Estoral," 1407
Eternal mother-in-law, 960
Ether, mask for administration of, 89
Ether narcosis (W. H. Thompson), 667
Ethnology, English, 1550
Ethyl chloride, note on (H. Astley Knight), 618; behaviour of (F. Herbert Wallace), 1339
Ethyl chloride as a general anaesthetic, position of and mortality from (W. J. McCardie), 616; correspondence on, 715, 771, 830, 892, 949, 1139; leading article on, 1056
Ethyl chloride anaesthesia, case of danger during (A. J. Fairlie Clarke), 679; correspondence on, 1020
Ethyl chloride, death under, 538 (reported by G. S. Haynes), 558; correspondence on, 660
Ethyl-chloride inhaler, 809
Ethyl chloride and chloroform mixture as a substitute for pure chloroform (Harvey Hilliard), 22
Ethyl-ether inhaler, 449
Etiquette, medical. *See* Medical
Eucalyptus poisoning (Edgar C. Myott), 558; (J. Orr), 1085; correspondence on, 1020
Euthanasia, 638, 817; counterblast to, 760
EVANS, C. LOVATT: Cammidge's pancreatic reaction in urine, 436
EVANS, HERBERT L.: Suggestions for further use of calcium chloride, 1377
EVANS, H. MUIR: Reports case of empyema treated with antistreptococcus serum, 799
EVANS, JAMESON: Xerosis of conjunctiva, 321
EVATT, G. J. H.: The reform of the *Medical Register*, 173; Naval and military medical society in London, 594
EVE, F. C.: Observations on the blood changes in a case of splenectomy, 320
EVE, FRANK: Rhythmical variations in cerebro-spinal pressure, 553
EVE, FREDERIC: Surgical treatment of gastroptosis, 784; large cyst of common bile duct 802
Evolution and conscience, 776
Evolution in relation to disease (J. T. C. Nash), 682. *See also* Darwinism
EWART, Sir JOSEPH, death of, 94; obituary notice of, 178; will of, 694
EWART, WILLIAM: Steps in the evolution of treatment of serous pleurisy, 22; "Interrupted circulation" as a therapeutic agent, 201; Pleuritic effusion treated with adrenalin by the preliminary intraserous injection method, 973
Examination of bodies, 1137; for admission to the services, 1249
Examination of patients in criminal cases. *See* Criminal
Examinations, inspection and visitation of, 1300
Excretion, ingestion and metabolism during and after pregnancy, 1534
Exophthalmic goître. *See* Goître
Experiments on living animals, 1544
Experiments on animals. *See* Vivisection
Expert evidence, 238
Explosive epidemics of typhoid, 754
External auricle. *See* Auricle
Extrauterine gestation. *See* Gestation
Extroversion of bladder. *See* Bladder
Eye accidents and compensation (Simeon Snell), 844
Eye diseases, important symptoms in (A. Maitland Ramsay), 847
Eye, review of books on, 206, 1405
Eyelid, the third (William Robertson), 81
Eyelids, acute oedema of (Simeon Snell), 262
Eyes, simulation of injuries of, received at work, 404
Eyes of child, injuries to during labour (Leslie Buchanan), 145
Eyes, ears, and cerebellum, association between, 463
Eyesight, defective, of school children, 347, 825
Eyesight-testing opticians. *See* Opticians
Eyesight tests in the navy, 1434
Eyton Williams bequest, 825

F

FABECK, Surg.-General WILLIAM FREDERICK DE, obituary notice of, 237
Factors of success, 520
FAGGE, C. H.: At what age should a cleft of the palate be closed? 534
FAIDHERBE, Dr.: *Etudes sur le Traitement des fractures des membres*, rev., 1042
Failure, educational value of, 695
FAIRBANK, H. A. T.: At what age should cleft of the palate be closed? 533
FAIRLIE-CLARKE, A. J.: Case of danger during ethyl chloride anaesthesia, 679
Fallopian tube, rupture of pregnant (reported by W. Silverwood Richardson), 440
False personation. *See* Personation
False registration, 1444
Family infected with syphilis (W. R. Grove), 1400
Fango, 959
FARQUHAR, J.: Rapid cure for lumbago, 499
FARRAR, REGINALD: Infectivity of cerebro-spinal fever, 1040
Far-seeing precaution, 180
Fat necrosis in acute pancreatitis (Frank Barnes), 322
Fatal illness of Oliver Cromwell, 1020
FAYRER, Sir JOSEPH: Appreciation of Thomas Edmondston Charles, 596
Fee for attendance on complications after confinement, 776
Fee, doctor's and obstetric emergencies, 172
Fee of maternity nurse, 834
Fee for temporary treatment of fractured thigh, 776
Fee for premature confinement followed by death, 658
Feeble-minded, care of, 238, 478, 531, 539, 580, 1240; (*see also* Supplement Index); training schools for, 539; leading article on, 580; of middle class, correspondence on, 712; care of in Scotland, 826; Royal Commission on in Scotland, 1436, 1477; Dr. Ashby's report on (for 1905), 1167; Lancashire and Cheshire Society announces vacancies for limited number of children, 1240; Baldovan Asylum for, 1476; National Association for Care of, annual meeting, 1497; proposed industrial colony for, 1497
Feeble-minded children and adults, 102
Feeble-minded cripples, home for, 899
Feeding babies in crèches, 1504
Feeding bottle, 600
Feeding, infant. *See* Infant
Feeding of prize babies, 480
Fees, action for, 952
Fees in accident cases, 1444, 1543
Fees for ambulance lecture, 119
Fees for consultation, 599
Fees, inquest, and *locum tenens*, 834
Fees received by *locum tenens*, 1017
Fees for lunacy certificates in Scotland, 1076
Fees, medical, in Nottingham, 277; in speculative actions, 297; at inquests, 774
Fees, medical witnesses in Scotland, 1567
Fees for police calls, 118
Fees, public vaccination, 1134
Fees of medical witnesses, 477; a warning, 357
Feet, fever in. *See* Fever
FELIX, JULES: *Les Epidémies et les Maladies Contagieuses au XXe Siècle, Conferences données à l'Institut des hautes études de l'Université Nouvelle de Bruxelles*, rev., 1106
FELLS, A.: Enterospasm, 318
Female genital activity (W. Blair Bell), 1104
Female medical graduates in Switzerland, 398; in Germany, 515
Femoral hernia. *See* Hernia
Femur, tuberculous disease of (W. F. Cholmeley), 1343
FENWICK, BEDFORD: Pregnancy complicated by fibroids, 443
FENWICK, HURRY: The accurate delineation of tuberculous foci in early disease of the kidney in women before operation is undertaken, 196
FENWICK, SOLTAU: Serum treatment of gonorrhoeal infections and purpura haemorrhagica, 979
FERGUSON, JAMES HAIG: *Handbook of Obstetric Nursing*, rev., 1407
FERNIE, W. T.: *Meals Medicinal*, rev., 807
FERRIER, DAVID: Tabes dorsalis, 721, 792, 851
FERRIER, PAUL: *La Guérison de la Tuberculose, basée sur l'Etude des cas de Guérison spontanée*, rev., 927
Fertility, human, decline of (A. Newsholme and T. C. H. Stevenson), 268
Fetal malformation (G. N. Turner), 1161
Fetus anencephalus: two cases within three months (F. W. King), 797
Fetus in utero, radiograph of (Heywood Smith), 384
Feuchtersleben, centenary of, 1253
Fever cases, exposed, 163
Fever, enteric, explosive epidemics of (leading article), 754
Fever, enteric, and hereditary syphilis (J. D. Rolleston), 312
Fever, enteric, infectivity of (William Wright and William Archibald), 1338
Fever, enteric, recent investigations in Germany, 938
Fever, enteric, early diagnosis of (leading article), 339; correspondence on, 1071; in an infant (H. S. Jones), 439; aid to prognosis in (Robert M. Simon), 620; in United States volunteer encampments (Christopher Childs), 624; serumtherapy in, 647; measles complicating (Cecil F. Lillie), 678; and spring water, 709; at Fort William, 767; and colon bacilli, 773; mild case of, 1020; in Chicago, 689

"Fever in the feet," 1259
Fever, food, in children (Eustace Smith), 307; correspondence on, 420, 780
Fever, haemoglobinuric, in Syria (E. W. Gurney Masterman), 314
Fever, Malta, observations on (Staff Surgeon Reid), 802; incubation period of (E. H. Ross), 975; fourth report of commission on, 999
Fever, Mediterranean, clinical features of (Fleet Surgeon P. W. Bassett-Smith), 313; on South Africa (Lieutenant-Colonel C. Birt), 976
Fever, puerperal, prevention of, 761
Fever, scarlet, at a dairy, 239; complications of (William Hunter), 421; correspondence on, 720; "oral sepsis in," 534, 1376; and midwifery practice, 636, 770, 960; and the puerperium (T. S. Harris), 737
Fever, scarlet, larval (J. M. Fortescue-Brickdale), 198
Fever, relapsing, in East Africa (leading article), 695
Fever, yellow, and mosquitos, 639; *Prevention of*, rev., 870; in Honduras, 995; researches on in America, 1122
Fez, health of, 1404
Fibroids complicating pregnancy (Bedford Fenwick), 443
Fibroids, uterine, in advanced age (W. S. A. Griffith), 83; treated by electrolysis and *x* rays, 719
Fibromyoma of uterus, undergoing sarcomatous change (W. S. A. Griffith and Herbert Williamson), 82; enucleation of during pregnancy (J. Stewart), 548
FIEDLER, H. G.: *First German Course for Science Students*, rev., 1166
FILIPPI, ANGIOLO, obituary notice of, 356
Finances of the Association. *See* Association, Head Quarters, Rebuilding
FINDLAY, J. W.: Typhoidal cholecystitis, 385; (for Dr. Munro) case of syringomyelia, 923
FINDLAY, Dr. WILLIAM, poem by, 153
Finger-nails, separation of from their matrix, 839, 1019
Finger-print impressions, personal identification by (Vaughan Bateson), 1029
FINLAY, DOUGLAS E.: Reports case of pseudo-elephantiasis of vulva, 81
FINNY, JOHN MAGEE: Bradycardia, 862; bradycardia, with arrhythmia and epileptiform seizures, 967
First aid in time of war, 337; for injured legislators, 720; in Berlin, 922; review of books on, 928, 1225, 1285
FISCHER, Professor B.: On the constitution of the albuminoid bodies, 168
FISCHER, HERMANN: *Leitfaden der Kreigchirurgischen Operations und Verbandstechnik*, rev., 88
FISHER, THEODORE: Some functions of the omentum, 235
Fish-eating and leprosy in the Orkneys and Shetlands, 948, 1071, 1134
Fistula, branchial, treatment of (Martin J. Chevers), 974
Fistula, post-auricular (W. H. Battle), 1039
FITZGERALD, M. O.: Convalescent Homes Association, 533
Fixation of the stapes (Urban Pritchard) (leading article on), 1180
Flannel-shirt club, 454
FLECK, DAVID: Inebriety as a physical disease, 113
FLEMMING, CHAS. E. S.: Arterial diseases, 411
FLETCHER, Dr. ROBERT, banquet to at Washington, 510
FLINT, AUSTIN: *Handbook of Physiology*, rev., 867
Folie à deux (?) (Charles Mercier), 735
Folie à deux et folie circulaire, 950
Folk medicine in Scotland, some survivals of, (Dr. Rorie), 385
Food factor in disease, 951
Food fever in children (Eustace Smith), 307; correspondence on, 420, 780
Food poisoning and coma (A. D. Kennard), 80; (Charles Mercier), 141; (Rupert Waterhouse), 258
Food, pure, 958
Food refined. *See* Refined
Food, stagnation of in the stomach (Alexander McPhedran), 367
Food values, method for indicating, 1552
Food-stuffs, port inspection of, 1315
Football, American, 344
FORDYCE, W.: Bicornate uterus, 441
Foreign body in the bronchus, 768; in the appendix causing inflammation (C. Mansell Moullin), 1340; in the bladder (reported by M. B. Ray), 1464
Foreign lunacy law. *See* Lunacy
Foreign medical practice, chances of, 933
Foreign medical visitors, 817
Foreign opinion of British degeneracy, 300
Foreign Paris graduates, academic dress for, 809
Foreign practitioners, recognition of, 657
Formosa, plague in, 767
FORSTER, FREDERICK C.: Ichthyol in angioneurotic oedema, 976
FORTESCUE, Dr.: Laminectomy in caries of dorsal vertebrae, 204
FORTESCUE-BRICKDALE, J. M.: Larval scarlet fever, 198; importance of the colon, 947
Fort William, typhoid fever at, 767
FORTIN, Dr.: *Manuel Pratique pour le choix des Verres de Lunettes et l'Examen de la Vision*, rev., 1406
FOSTER, Sir WALTER, sworn a member of the Privy Council, 36; note on, 229
FOTHERGILL, E. ROWLAND: Central Emergency Fund, 111; Finances of the Association, 1502
FOTHERGILL, W. E.: Thyroid in eclampsia followed by puerperal melancholia, 144
FOULERTON, A. G. R.: Pathology of streptothrix infections, 802
Four Welsh Spas, rev., 1469
FOWLER, C. OWEN: Scarlet fever and midwifery practice, 770
FOWLER, J. KINGSTON: Treatment of taenia, 841
FOX, R. HINGSTON: Calcium salts in chilblains and other serous haemorrhages, 1038
FOXWELL, Dr.: Inhalation, 621
Fracture, *x*-rays in treatment of (J. Lynn Thomas), 739
Fractured humerus. *See* Humerus
Fractures, review of books on, 1467
Fractures, what influence has the use of *x*-rays had upon treatment of? (J. Lynn Thomas), 1034; correspondence on, 1134
Fractures and dislocations, review of books on, 1042
Fractures of os calcis and astragalus (Professor Bennett), 202
France, increase of students in, 283; mortality from tuberculosis in, 350, 522, 586; medical senators in, 394, 640, 1240; population of, 455; women doctors allowed to compete for post of physician to lunatic asylums, 694; Red Cross organization, 873; opium smoking at the naval ports of, 990; leprosy in the Middle Ages, 1292; cremation in, 1362; crèches in, 1421
FRANCIS, ALEXANDER: Angina pectoris, 535
FRANÇOIS, E.: *Anémie des Mineurs, Etiologie, Sémeiologie, Prophylaxie, Organisation Médicale*, rev., 1045
FRÄNKEL, SIGMUND: *Die Arzneimittel-Synthese auf Grundlage der Beziehungen zwischen chemischen Aufbau und Wirkung*, rev., 685
FRANKLIN, BENJAMIN, 1474
FRANKLIN, G. COOPER, dinner to, 1060
FRASER, C. L.: Diabetes in infants, 1340
FRASER, LACHLAN: Case of idiopathic (?) intraperitoneal rupture of bladder, 921
FRASER, Sir THOMAS: Case of myxoedema, 488
FRANZE, PAUL C.: *Technik Wirkungen und Indikationen de Hydro-Electrotherapie bei Anomalien des Kreislaufs*, rev., 448
Freckles, cure for, 952
Fremantle, health of, 1068
FREEMAN, J.: Relationship of the temperature to the opsonic curve in acute anthrax infection, 144
FREETH, H.: Varicella bullosa, 679
Freezing tissues for sectioning, simple method (A. F. Stanley Kent), 798
FRENCH, H.: Mitral stenosis and pregnancy, 1402
FRENCH, H. S.: Relation of traumatic diabetes insipidus to glycosuria, 623
French academic visit, 1361
French apothecaries' oath, 1551
French army. See Army
French sleeping sickness expedition, 1186
Freshwater Bay, Isle of Wight, as a health resort, 990
FRIEDENWALD, JULIUS: *Dietetics for Nurses*, rev., 808
Friendly lead, 717
Friendly societies in New South Wales, 105
Friendly Societies' Medical Alliance (leading article), 998
Frontal sinuses, illumination of, 509; radical operation on both (Wilfrid Glegg) 559; complete removal of outer wall of, for chronic empyema (E. Deanesly), 1341
FROSSARD, EMILIEN E.: Idiosyncrasy to mushroom poisoning, 319
FULLERTON, A.: Compound fracture of skull, 322; actinomycosis, 322
FULLERTON, ANDREW: Wound of thoracic duct, 1389
Fund, British Medical Benevolent, 93, 210, 513, 752, 1049, 1239
Fund, Campbell-Pope Memorial, 1260
Fund, Cancer Research. See Cancer
Fund, Carswell-Gilchrist, 756
Fund, Central Emergency, 37, 111; South Wales and Monmouthshire Branch Contract Committee and, 691
Fund, Children's Holiday, at Edinburgh, 1313
Fund, the Darnell, 1068, 1128, 1189, 1252, 1314, 1371, 1436
Fund, Factory Girls' Country Holiday, 875
Fund, George Brown Testimonial, 600, 1508
Fund, Hospital Saturday, annual meeting, 875; at Birmingham, 943
Fund, Hospital Sunday, distribution of in Leeds, 285, 346; in London, 397, 1492; in Dublin, 886; in Glasgow, 887
Fund, Howes, 32
Fund, A. E. Jones, 1260, 1324, 1384, 1448
Fund, King's Hospital, donations to, 813; annual general meeting, 875
Fund, Institute of Medical Sciences, 775
Fund, National for Irish Nurses, 1188
Fund, Royal Medical Benevolent of Ireland, 1068, 1435
Fund, Salomonsohn, first award, 658
Fund, Trained Nurses' Annuity, 454
Fund, Workpeople's Hospital, in Leeds, 529

G.

GALABIN, Dr.: Tubal mole associated with sarcoma of ovary, 83
Galashiels, Jubilee Nurses' Institute at, 945; consumptive sanatorium at, 1313
GALBIATI, GENNARO, on animal vaccination, 1546
Gall bladder, indications and contra-indications for removal of (A. W. Mayo Robson), 430; diagnosis of disease of, 839, 960
Gall stones (Rushton Parker), 1039
GALLI, GIOVANNI: *Como Posso Mantenermi Sano e Prolungarmi la Vita*, rev., 26
Galton-Bertillon system in Portugal, 736
GAMGEE, Mr.: Acute colitis, 322; gastro-jejunostomy for hour-glass stomach, 382
Gangrene of leg, emphysematous (J. G. Cooke), 1156
Gaps in the skull. See Skull
GARCIA, MANUEL, and the discovery of the laryngoscope, 937
Garden City Association. See Association
Garden suburb, Hampstead, 639
GARDNER, H. BELLAMY: Ethyl chloride as a general anaesthetic, 715
GARDNER, JAMES: Occipito-posterior presentations, 713
GARLAND, ALBERT I.: Salicin in acute rheumatism, 439
GARNHAM, RICHARD, obituary notice of, 476
GARRETT, J. H.: Rural depopulation and the housing question, 894
GARROD, A. E.: Associated congenital malformations, 624; muscular atrophy, 1039; angio-neurotic oedema, 1039
Gastrectomy for pyloric tumour, partial (William Taylor), 261
Gastric dilatation and pneumonia, acute (Parkes Weber), 1280
Gastric ulcer. See Ulcer
Gastritis, acute phlegmonous (J. Bernstein), 441
Gastro-enterostomy (R. Charles B. Maunsell), 260; Treitz's hernia complicated by (A. E. J. Barker), 801
Gastro-jejunostomy (F. C. Wallis), 802
Gastro-jejunostomy for hour-glass stomach (Mr. Gamgee), 382
Gastroptosis, surgical treatment of (Frederic Eve), 784
Gastrostomy, patency of oesophagus re-established after, 1155, 1324
Gateshead, health of, 1253
GATTIE, WILLIAM H: *Lunacy Practice: a Practical Guide for the Certification and Detention of Persons of Unsound Mind*, rev., 389
GEDDES, GEORGE: Occipito-posterior presentation, 549
GEIKIE, Sir ARCHIBALD: Story of Sir William Gull, 930
GÉLINEAU, E., obituary notice of, 778
GEMMELL, SAMSON: Pseudo-hypertrophic paralysis, 324
General election. See Election
General Medical Council. See Council
General practitioners and hospital residents, 999
Genito-urinary diseases, review of books on, 983
GENTLES, T. L., retires from post of one of the medical officers of the Derby Union, 337
Genu valgum, condylotomy for (Walter C. Stevenson), 18
GEOGHEGAN, FRANCIS J.: Midwifery of the present day, 1012
Geographical distribution of tropical and non-tropical diseases, 1448
Germ-free operations (leading article), 1180
German Association of Internal Medicine, 515
German East Africa, sleeping sickness in, 471; diseases of, 884
German Imperial Board of Health, recent investigations on typhoid fever, 938
Germany, social medicine in, 108; increase of students in, 283; psychological medicine in, 317; mortality from tuberculosis in, 350, 522, 586; female medical students in, 515; military medical service in, 523; specialists in, 752; cancer research in, 752; medical profession in, 828; antivivisection in, 876; establishment of bureau for foreign students in, 884; cancer research in, 1227; medical charlatanism in (Otto Neustätter), 1348, 1410, 1470, 1538; prevention of consumption in, 1373; crèches in, 1421
GERRARD, P. N.: *Vocabulary of Malay Medical Terms*, rev., 1046
Gestation, extrauterine, diagnosis in, 710; case of repeated, on the same side (Alexander Goodall), 1272
GIFFEN, G. H., *Students' Manual of Medical Jurisprudence and Public Health*, rev., 1406

Gilbert, Thomas, obituary notice of, 1313
Gilchrist, Percy C., lunacy inquiry on, 774
Giles, Peter: Army Medical Civilian Reserve, 415, 593
Gilgit valley, goître in, 861
Girgenti inebriate reformatory, 1475
Given, J. C. M.: Haematology of pregnancy and the puerperal state, 205
Gladstone, R. J.: Relative brain weights of men and women, 352, 536
Glamorgan, sanitation in, 709; County Council, report of M.O.H., 1437
Glanders in horse and man (W. Hunting), 263
Gland, pituitary, diseases of (Sir Victor Horsley), 323
Glands, tuberculous, tuberculin in treatment of (Mr. Gray), 204
Glasgow Graduates' Club, North of England, dinner, 529; at Manchester, 590; in London, 1303
Glasgow, post-graduate classes at, 164, 945; Sunday Fund (*see* Fund); new corporation reception house, 887; spring graduation ceremonies, 1007; cerebro-spinal fever in, 1372
Glasgow Infirmary. *See* Infirmary
Glasgow Ophthalmic Institution. *See* Institution
Glaucoma, action for blindness after, 476
Glaucoma, diagnosis of (A. J. Sinclair), 1403
Glegg, Wilfrid: Radical operation on both frontal sinuses, 559
Gloves at *post-mortem* examinations, 960
Gluteal aneurysm. *See* Aneurysm
Glycolytic ferment, action of on malignant growths, 1245
Glycosuria in pregnancy (W. H. B. Brook), 1404
Glycosuria, relation of traumatic diabetes insipidus to (H. S. Trench and C. B. Ticehurst), 623
Glynn, E. E.: Opsonic power of the blood, 1104
Goat, properties of an antityphoid serum obtained from (Allan Macfadyen), 905
Goat's milk, 1124
Gogarty, Henry Alexander, obituary notice of, 1078
Goître, endemic, in Chitral and Gilgit valleys (Agency-Surgeon R. McCarrison), 861
Goître in England (John Spurway), 1037
Goître, exophthalmic, treated by antithyroid serum (G. Newton Pitt), 326; case of (Henry Tempest Dufton), 914; correspondence on, 1011
Goldberger: Researches on yellow fever, 1122
Gold Coast, sanitation on, 885
"Gold cure," supervision of, 281
Golf tournament, medical, 899, 1384
Gonorrhoeal infections, serum treatment of (Soltau Fenwick and Porter Parkinson), 979
Goodall, Alexander: Case of repeated extrauterine gestation on the same side, 1272
Goodsall, D. H.: *Diseases of the Anus and Rectum*, rev., 267
Goodwin, Major T. H. J. C.: Military hygiene on active service, 343
Gordon, M. H.: Bacteriology of a common cold, 1193, 1318
Gordon, Dr. W.: Heart disease, 200
Gordon, Dr. W.: Effect of violet infusion on malignant growths, 382
Gordon, W.: Income-tax reform, the burden of the professional classes, 174; correspondence on, 1130; influence of posture on normal cardiac sounds, 236, 771
Gore, W. R.: Rebuilding of 429, Strand, 1075
Goss, William Henry: Death of, 163
Gossage, Alfred M.: Tonicity of heart muscle, 53
Goulder, Frank Samuel, obituary notice of, 1443
Goulstonian lecture. *See* Lectures
Gout, the Pope on the treatment of, 1370
"Gouty albuminuria," review of books on, 985
Gouty urines, clinical estimations of purin bodies in (I. Walker Hall), 128
Gowers, Sir William R.: Dystrophy of tabes and the problem of trophic nerves, 1267
Graham, William, obituary notice of, 116
Grandmaison, F. de: *L'Albuminurie Goutteuse*, rev., 985
Grant, Angus John, obituary notice of, 179
Grant, Sir James, golden wedding of, 465
Grants in aid, 537
Granuloma pudendi, etiology of (K. S. Wise), 1274; (J. Maitland), 1463
Grateful patients, 343
Graves's disease, cardiac hypertrophy in (T. R. Bradshaw), 324; serumtherapy of, 719, 839
Gray, H. W.: Tuberculin in treatment of tuberculous glands, 204; Tuberculin in treatment of tuberculous knee, 204; Vaccine treatment in surgery, 622
Gray, B Kirkman: *A History of English Philanthropy: From the Dissolution of the Monasteries to the taking of the First Census*, rev., 564
Great Britain, cremation in, 162
Greaves, Francis L. A.: Treatment of perforating typhoid ulcers, 373
Greece, consumption in, 639
Greek, compulsory, 50, 775, 1309; the question of, at Cambridge, 1309
Greek medicine, relation of early Greek philosophy to, 931
Green, A. Stanley: Early diagnosis of pulmonary tuberculosis by Roentgen rays, 650
Greene, Arthur: Proposed Bill to legalize the practice of opticians, 52, 654
Greener, Michael Hindmarsh, obituary notice of, 55
Greenwich, Seamen's Hospital. *See* Hospital
Greenwood, C. H.: Finances of the Association, 1503
Greenwood, M.: Influence of increased barometric pressure on man, 912
Gregor, Alex.: High-frequency current in erythema papulatum, 678
Greig, Captain E. D. W.: Sleeping sickness in Uganda, 201
Gresswell, Albert: Copper alginate, 1464
Gresswell, George: Copper alginate, 1464
Greves, E. Hyla: State registration of nurses, 711
Grey hair, cause of, 1382
Griffith, W. S. A.: Fibromyoma of uterus undergoing sarcomatous change, 82; uterine fibroids in advanced age, 83
Grills, G. H.: Case of one cerebral hemisphere supplying both sides of the body, 1033
Grossmann, Karl: Lepra ophthalmica, 11
Groves, W. R.: A family infected with syphilis, 1400, 1501
Grünbaum, Albert S.: Dorsal or posterior, 235; general sarcomatosis of pia mater, 441; transmissibility of syphilis to apes, 607
Pseudo-parasites of cancer, 626
Gruner, O. C.: Cryoscopy and its practical use in medicine and surgery, 626
Guardians, and their medical officers, 1001, 1008; abolition of boards of, 1078
Guardians, Cork, and *post-mortem* examinations, 1314
Guérin, M.: New method of vaccination against tuberculosis, 1501
Guernsey, report on lunacy administration in, 1289
Guillery, H.: *Die Wirkungen von Arzneimitteln und Giften auf das Auge*, rev., 687
Guilloux, Dr.: *Etudes sur le traitement des fractures des membres*, rev., 1042
Guinea-worm larvae encysted in cyclops, influence of acid on (Robert T. Leiper), 19
Gull, Sir William, anecdote of, 930
Gullan, A. Gordon: Acute nephritis (morbus brightii) and its treatment, 444
Gusserow, Adolf, death of, 410
Guthrie, Dr.: Case of syphilis, 325
Guthrie, L.: Extreme obesity with precocious puberty, 1039; Paralysis of left sixth and paresis of left seventh nerves, 1039
Guyon, M., anecdote of, 750
Gwynne, Charles Nelson, obituary notice of, 1319
Gynaecological cases (Professor Byers), 322
Gynaecological Society. *See* Society
Gynaecology, operative, evolution of (Lloyd Roberts), 204; review of books on, 984

H

Haab, O.: *Lehmann's Medicin Handatlanten*, Bd. 18, *Atlas der Ausserlich Sichtbaren Erkrankungen des Auges*, rev., 1406
Habershon, S H.: Convalescent Homes Association, 533
Haeckel as a medical practitioner, 180
Haematology of pregnancy and the puerperal state, J. C. M. Given), 205
Haemoglobinuric fever. *See* Fever
Haemoptysis, vaso-dilatation in (Edwin Temple Smith), 917
Haemorrhage, calcium chloride in, 1199
Haemorrhage, cerebral, from dystocia (E. S. Carmichael), 441
Haemorrhage, enucleation of the prostate for. *See* Prostate
Haemorrhage, intracranial, in the newborn, 342 (J. Cameron Turnbull), 677
Haemorrhage, post-traumatic, from superior longitudinal sinus without fracture of skull (E. F. Buzzard and J. Cumming), 623
Haemorrhagic pancreatitis (E. J. Toye), 200; (F. W. Baker Young), 324
Haemorrhagica neonatorum (Alexander Allan), 384
Haig, A.: Capillary circulation and blood pressure, 82
Hair, colour of in ovarian dermoids (C. J. Bond), 351, 419; (S. G. Shattock), 1218; (R. Hamilton Bell), 1377. *See also* Dermoids
Hairdressing saloons, regulations of, 767
Hale, Henry E.: Medical Epitome Series—*Anatomy*, rev., 986
Halford, Sir Henry, and opening of Charles I coffin, 240
Hall, Arthur: Plumbism from the ingestion of diachylon as an abortifacient, 428
Hall, Dr.: Leucocythaemia, 441; Leucocythaemia without lymphatic enlargement, 441
Hall, F. J. Vincent: Choice of candidates for General Medical Council, 1132
Hall, I. Walker: Clinical estimations of purin bodies in gouty urines, 128
Hall, W. Winslow: *Needs of Man*, rev., 1166
Hall of Artaxerxes at Westminster, 522
Hallows, Stuart: Head quarters of the Association, 1134, 1255
Hamburg Institute of Tropical Diseases, 219
Hamman, D. J. Hugo: Extreme bladder overextension, 141
Hampstead garden suburb, 639
Hand, Frederick Harold, obituary notice of, 778
Hand, injuries to the (J. A. Mackenzie), 385
Handley, W. Sampson: Case of burrowing tubo-ovarian cyst, with remarks on its pathogenesis, 1517
Hands, atrophy of phalanges of, with joint lesions (Bertram Watson), 553
Hands, disinfection of, 25
Hanson, R. J. E.: *Golden Rules for Instructors*, rev., 928
Harding, Dr.: Training and registration of the asylum nurse, 1041
Hare, Francis: *The Food Factor in Disease*, rev., 806; letter on, 951
Hare, Hobart Amory: *National Standard Dispensatory*, rev., 808
Hare-lip, review of books on, 206. *See also* Cleft Palate
Harris, P S.: scarlet fever and the puerperium, 737
Harrison, Edward, reports case of splenectomy, 320
Harrison, Reginald, honour conferred upon, 406; Egypt and tropical medicine, 1130
Harrison, Captain W. S.: Phagocytosis of *Bacillus typhosus*, 680
Harrogate waters, review of books on, 563
Hartley, Percival Horton-Smith, appointed member fifth class Royal Victorian Order, 1499
Harveian festival in Edinburgh, 1251
Harveian Society. *See* Society
Harvey, William, burial place of, 414, 540
Hashish in Egypt, 1053
Haslam, Mr.: Retrograde intussusception, 559
Hastings, Sir Charles, 27
Hatch, Eleanor Mary, Royal Red Cross conferred upon, 397
Hatpin impacted in male urethra (C. Hamilton Whiteford), 20; (W. F. Brook), 80; (T. H. Bishop), 141; (Joseph A. W. Pereira), 141; (Horace Wilson), 180; (H. Taylor), 380; (Arthur G. Johnson), 380
Haultain, Francis W. N.: *Handbook of Obstetric Nursing*, rev., 1407
Hawkins, Francis: Thrombosis of abdominal aorta, 1280
Hawkins, Herbert P.: Reality of enterospasm and its mimicry of appendicitis, 65
Hawthorne, C. O.: Drug idiosyncrasies in relation to official dosage, 309
Haynes, G. S., reports case of death under ethyl chloride, 558
Hayward, Thomas Ernest, obituary notice of, 1504
Head quarters, of the Association. *See* Association *and* Rebuilding
Head quarters of the Army Medical Service. *See* Army, British
Head of Charles I., 209
Health resorts, near Lisbon, 813; notes on various, 870, 990, 1049, 1285
Heart, action of digitalis, squill, and strophanthus on, 1494
Heart disease, present position of treatment of by baths and exercise (Alexander Morison), 442; treatment of (George Murray), 1279
Heart disease, congenital (Dr. Kauffmann), 861; F. J. Poynton, 1458
Heart, dilatation and hypertrophy of, and some other points in cardiac pathology (Samuel West), 1455
Heart failure, action and uses of digitalis in (J. Mitchell Bruce), 8
Heart muscle, tonicity of, 53
Heart of a Pharaoh, 693, 1000
Heart, rupture of (James P. Sturrock), 500
Heart surgery, 1010
Heat a mode of motion, 4
Heat, influence of on evolution of tetanus, 108
Heath, P. Maynard: Charcot's disease of thumb, 262
Heaton, George: Abdominal conditions simulating acute intestinal obstruction, 142, 364; Ruptured kidney, 621
Hebblethwaite, S. M.: *Notes on General Practice*, rev., 330
Heelis, R.: Four cases of cutaneous diphtheria, 556
Heidelberg, cancer institution at, 219
Heinemann, Paul G.: *A Laboratory Guide in Bacteriology*, rev., 266
Hellier, J. B.: Pelvis deformed by infantile paralysis, 204
Heelis, R.: Does diachylon affect the infant when it fails to produce abortion? 257
Helferich, H.: *Atlas und Grundriss der traumatischen Fracturen und Luxationen*, rev., 1467
Helme, T. Arthur: Council of Lancashire and Cheshire Branch, 1132

Helsingfors, tuberculosis in, 57
Hemianopsia, bitemporal (D. J. Wood), 262
Hemmans, Laurence F.: Quillaia as an emulsifying agent, 318
Henderson, E. E.: Growth on the upper palpebral conjunctiva, 444
Henoch's purpura, case of (J. A. Noel Longley), 859
Hepatic abscess. *See* Abscess
Herbert, Deputy-Surgeon-General Henry Carden, obituary notice of, 597
Hereditary syphilis. *See* Syphilis
Heredity, review of books on, 207; and myopia (C. Worth), 626
Heredity or insanity, 651
Herman, Dr.: Uterine contraction without retraction; nervous hyperpyrexia, 1403
Herman, G. E.: Prevention of difficult labour, 1509
Hernia of the adnexa (E. Scott Carmichael), 1221
Hernia in children, varieties of (E. Scott Carmichael), 254; (R. C. Dunn), 1039
Hernia, right duodenal (E Percy Paton), 801
Hernia, femoral, method of operation for radical cure of (W. H. Battle), 1160
Hernia, inguinal (R. W. Murray), 1039, 1390
Hernia, inguinal, in the female (E. S. Carmichael), 1103
Hernia, strangulated duodenal, 882
Hernia, radical cure of, results of operation (J. Hutchinson, jun.), 742
Hernia, radical cure of an enormous, by Kocher's method (E. Deanesly), 1342
Hernia, Treitz's complicating gastro-enterostomy (A. E. J. Barker), 801
Herringham, Dr.: Apparently arrested Addison's disease, 261; transverse myelitis, with recovery, 262
Herschell, George: *Indigestion*, rev., 807
Heterochromia iridis (John Allan), 977; (A. Newton Davies), 1100; (James A. Ross), 1100; (R. Henslowe Wellington), 1219; (W. Clark Souter), 1219
Heteroplastic ovarian grafting (Sir Halliday Croom), 1465
Hewat, Matthew L.; *Bantu Folk Lore*, rev., 1245
Hewetson, John T.: Case of large ovarian cystoma, with twisted pedicle, complicated by suppurative appendicitis, 789
Hewlett, T.: Serumtherapy, 681, 740
Heyden, von Robert: *Das Chlorom*, rev., 389
Hiccough, persistent, with uraemia (reported by W. A. Rees), 738
Hickey, Dr., death of, from typhus fever, 47
Hicks, H. T.: Mitral stenosis of pregnancy, 1402
Highet, John, obituary notice of, 237
High-frequency current in erythema papulatum (Alex. Gregor), 678
Hildesheim, O.: Prognosis in posterior basic meningitis, 733
Hill diarrhoea. *See* Diarrhoea
Hill, L.: *Practical Physiology* rev, 867
Hilliard, Harvey: Ethyl chloride and chloroform as a substitute for pure chloroform, 22
Hillier, Alfred: Parliamentary representation of the Universities of Edinburgh and St. Andrews, 52
Hindu medical literature, 988
Hinshelwood, James: Dionine in ophthalmic practice, 1098
Hip-joint disease, tuberculous, simulated by secondary carcinomatous growths (Robert E. Lord and Charles W. Buckley), 193
Hippocrates and the newly-discovered Health Temple of Cos (Richard Caton), 571
Hobday, Professor: Specimens of disease of the testis in the horse, 1281
Hobson *v.* Bicknell, 286
Holdfast enema, 148
Holland, C. Thurstan: *X*-ray diagnosis of kidney-stones, 324
Holland, Sydney: Antivivisectionists and the hospitals, 170, 294
Hollander, Bernard, 1429: a specialist in human nature, 1503
Holmes, James: Chloroform in consumption, 198
Home hospitals. *See* Hospitals
Homén, E. A.: *Arbeiten aus dem pathologischen Institut der Universität Helsingfors*, rev., 628
Homoeopathy in Chicago, 1433
Honduras, yellow fever in, 995
Hong Kong, notes from, 349; College of Medicine for Chinese, 349
Hong Kong, plague in, 49, 218, 349, 578, 767, 946, 1056, 1293, 1353, 1492; public health of, 105; cancer in, 812
Hopkins, F. G.: Certain problems in urinary excretion, 560
Horn, Robert, obituary notice of, 838
Horrocks, Peter: On ventrifixation, 353, 475; Midwifery of the present day, 541
Horse, dourine or mal de coït of (F. W. Mott), 1281; specimens of disease of testis of (Professor Hobday), 1281
Horsley, Sir Victor: Elected a foreign associate of the Paris Société de Chirurgie, 284; Diseases of the pituitary gland, 323
Horwood, Janet G.: Polypoid tumour of cervix uteri due to bilharzia, 557
Hospital, Addenbrooke's Cambridge, case of death under ethyl chloride (reported by G. S. Haynes), 558
Hospital "Atheist," 900
Hospital, Ayr County, case of croupous pneumonia (reported by John Allan), 860
Hospital, Belfast Ophthalmic, 945
Hospital, Birmingham General, statistical report, 42; case of danger during ethyl chloride anaesthesia (A. J. Fairlie-Clarke), 679; 156th annual report, 709; skin department, 1372
Hospital, Birmingham and Midland Free, for Sick Children, history of, 1066
Hospital, Bolingbroke, an appeal, 7; extension of, 1117; case of uraemia with persistent hiccough, death (reported by W. A. Rees), 738
Hospital, Boscombe and West Hants, Royal: Case of rupture of pregnant Fallopian tube, ovum being under a month old (reported by W. Silverwood Richardson), 440
Hospital, British Ophthalmic, Jerusalem, report, 814
Hospital, Brompton, for Consumption, new scheme by, 341, 402
Hospital, Bromsgrove, annual meeting, 347
Hospital, Bucknall Isolation, subsidence of, 1253
Hospital Calcutta Medical College, new surgical block, 588
Hospital, Cancer, Glasgow, report, 643; meeting, 1372
Hospital, Cancer, London, report, 958; Middlesex, 1227; Fulham, 1228, 1324; Liverpool, 1228
Hospital cases, trivial, 337
Hospital charges, in Berlin, 168
Hospital, Charing Cross, 85th annual meeting, 778
Hospital for Chest Diseases, City of London, annual festival dinner, 1179
Hospital, Children's, Belfast, annual meeting, 289
Hospital, Children's, Dublin, 826
Hospital for children at Liverpool, a country, 1008
Hospital for Children, Pendlebury, annual report, 1315
Hospital, Children's, Royal Edinburgh, convalescent home for, 704
Hospital for Children, Shadwell, annual court of governors, 778
Hospital for tuberculous children in the country, 694
Hospital for advanced cases of consumption, 853
Hospital for Consumption, Royal Edinburgh, annual meeting, 1560
Hospital for Consumption, Liverpool, annual meeting, 824
Hospital for Consumption, the Royal National, festival dinner, 876
Hospital, Co-operative, in Munich, 1316
Hospital, Cork County, 1129
Hospital, Cork District, 945, 1129
Hospital, Cowasjee Jehangir Civil, Surat: Case of sarcoma of lachrymal gland (reported by E. F. Gordon Tucker), 1220
Hospital for Epilepsy and Paralysis, annual meeting, 1446
Hospital, Essex and Colchester General, 957
Hospital, Evelina, for Sick Children, annual meeting of governors, 1056
Hospital, Eye, Royal Manchester, annual report, 285
Hospital, Forster Green for Consumption, Belfast, annual meeting, 348
Hospital, Glasgow, for Diseases of Ear, Nose and Throat: Two cases of grave complications of purulent ear disease (reported by J. Stoddart Barr), 799
Hospital, Galashiels Cottage, 705
Hospital gangrene, 168
Hospital, German, Dalston, new convalescent home and open-air sanatorium for, 1085
Hospital, Guys, appointments, 1117
Hospital, Hampstead General, 711, 817, 957, 1001, 1109, 1193
Hospital, Hampstead Infants', 1302
Hospital, Hawick Cottage, 945
Hospital for Incurables, Liverpool, 646; Royal Edinburgh, 827
Hospital, Infectious, Bradwell, 163
Hospital, Infectious, Bucknall, 43
Hospital, the Italian, annual general meeting, 1018; appointments, 1179
Hospital, King's College, donation to, 1117; appointments, 1240; Elizabethan bazaar in aid of, 1240. *See also* College, King's
Hospital, Liverpool City, appointment of medical superintendent, 103; Liverpool City Isolation, opening, 1067; funds of, 1557
Hospital Lock (Female), Harrow Road: Case of pseudo-elephantiasis (reported by Douglas E. Finlay), 81
Hospital, London, Medical College, 177, 358
Hospital, proposed central pay for London, 711
Hospital, Lowestoft: Case of empyema treated with antistreptococcus serum (reported by H. Muir Evans), 799
Hospital, Lying-in, City of London, 1210
Hospital, Lying-in, Liverpool, 824
Hospital, Lying-in, Newcastle-upon-Tyne, 469
Hospital management, 29; leading article on, 1059
Hospital, Maternity, Belfast, annual meeting, 525
Hospital for mental diseases, St. Andrew's, Northampton, annual report, 1136
Hospital, Merthyr Guest, 450
Hospital, Middlesex, annual concert of the musical society, 753; Cancer Charity, 1227
Hospital, Monkstown, co. Dublin, 826
Hospital, National for Paralysed and Epileptics, annual meeting, 1136
Hospital officers as witnesses at inquests, 717
Hospital, Orthopaedic, Dublin, 826
Hospital out-patient reform. *See* Out-patient
Hospital, Poplar, annual report, 907
Hospital, Porth Cottage, subscriptions to, 337
Hospital, Putney General, proposed, 688, 774, 830, 895, 951
Hospital, Queen Charlotte's Lying-in, report, 778, 1369
Hospital, Queen's, Birmingham, proposed enlargement, 409; annual report, 709
Hospital, Queen's Jubilee, changes its name to Kensington General Hospital, 813
Hospital, Ramsgate General: Case of intestinal obstruction (reported by J. P. S. Jamieson), 860
Hospital residents and general practitioners, 999
Hospital, Royal Dental, 957
Hospital, Royal, for Diseases of the Chest, 835
Hospital, Royal Eye, Southwark, annual meeting, 1017
Hospital, Royal Free, report, 778
Hospital, Royal London Ophthalmic, annual report, 778
Hospital, Royal National Orthopaedic, annual meeting, 835
Hospital, Royal Prince Alfred, Sydney, extension of nursing home, 105, 410
Hospital, Royal Victoria, Belfast, 46, 408, 825
Hospital, St. Bartholomew's, 358; Luther Holden Research Scholarship, 358; view day, 1056, 1117
Hospital, St. George's, meeting to consider selling the site of, 1547
Hospital, St. Thomas's, portrait of Treasurer presented to the Hospital, 160; *Reports*, rev., 986
Hospital, Samaritan, Belfast, 642
Hospital, Samaritan, Liverpool, 646
Hospital, Seamen's, Greenwich, 211; new school of clinical medicine at, 211; "At Home," 1240
Hospital Ship *Maine*, Royal Navy, case of double aneurysm of the thoracic aorta (Fleet Surgeon D. McNabb), 142
Hospital, Stanley (Liverpool), annual meeting, 708; proposed appointment of a qualified female practitioner on the staff, 708; a clinical school for women, 708
Hospital subscribers' letters, 102, 337, 395
Hospital, Swansea, 1252
Hospital, Throat and Ear, Newcastle, 42
Hospital, Torbay: Case of suprapubic cystotomy under local anaesthesia (reported by Gilbert J. Arnold), 21
Hospital, University College, 176; new buildings for advanced medical studies, laying of foundation stone, 1297; fatal accident to a house-physician at, 1492
Hospital, West London, case of tetanus (reported by A. Scott Williams), 1340
Hospital for Women, Birmingham, bequest to, 229; thirty-fifth annual meeting, 1067
Hospital for women, the new London, 957; thirty-fourth annual meeting, 957
Hospital for Women and Children, Leeds, annual meeting, 346
Hospital for Women and Children; the Ulster, at Belfast, 945
Hospital, the Virchow, 226, 1560
Hospital, Westminster, medical school of, 118
Hospital, Wolverhampton and Staffordshire General: Case of combined cystic disease of liver and kidneys (C. A. MacMunn), 199
Hospital for Women, Chelsea, thirty-fifth anniversary meeting, 1179
Hospital for Women and Children, Leeds, 346, 589
Hospital, York County, removal of right lobe of thyroid (Mr. Jalland, from notes by Dr. Mackenzie), 978
Hospitals, antivivisectionists and, 53, 111, 170, 233, 292
Hospitals in Australasia, 47
Hospitals in Basutoland, native, 154
Hospitals, bequests to. *See* Bequests
Hospitals and charities, review of books on, 686
Hospitals, Dublin, inspection of, 1559
Hospitals, Edinburgh, junior posts in, 1313
Hospitals, general, and sanitary authorities, 958
Hospitals, home, 760, 829, 890
Hospitals for infectious diseases, 658; in Canada, 1005
Hospitals, isolation, 1198; utility of, 942
Hospitals, military, surgical operations in, 232
Hospitals, Paris, crèches for nursing staff of, 108
Hospitals, public, paying patients in, 952, 1553
Hospitals, State, of Vienna, 1010
Hospitals, volunteer military, nursing in, 1479
Hospitals, women residents at, 410

Hospitals, works, 839
Hot climates, degeneration of the myocardium in (W. Carnegie Brown), 1462
Hour-glass contraction followed by dilatation of stomach (J. E. Spicer), 624
Hour-glass stomach. *See* Stomach
House of Commons procedure, 582. *See also* Parliament
"Housemaid's knee," new treatment for (F. J. Allen), 198; correspondence on, 540
Housing in Ireland, 1494
Housing of the poor in Vienna, 1254
Housing, rural. *See* Rural
How to treat a rival living at a distance, 357
Howes fund. *See* Fund
Hoyle, James C.: Extroversion of bladder, 1340
Hoyt, D. M.: Effect of alcohol on the cardiovascular system, 405
Hubbard, Lieutenant-Colonel H. W., obituary notice of, 356
Hudson, A. C.: Carcinoma of thyroid gland, 1159
Huggard, W. R.: *A Handbook of Climatic Treatment, including Balneology*, rev., 1043
Huguier, Alphonse: *Traitement des Ankyloses par la Résection Arthropédique et l'Interposition Musculaire*, rev., 328
Hume, G. H., presentation to, 468
Humerus, displacement of head of, certain injuries associated with (Robert Jones), 1385
Humerus, fractured, splint for, 389
Humour, sense of, is it a hindrance to success? 462
Humpty Dumpty, 821
Humphreys, F. R.: Hampstead General Hospital, 711
Hungary, school medical officers in, 448
Hunter, William: Complications of scarlet fever, 421; Oral sepsis in scarlet fever, 1376
Hunter, W. B.: Rodent ulcer, 1157
Hunterian Society. *See* Society
Hunting, W.: Glanders in horse and man, 263
Hurst, C. H.: *Junior Course of Practical Zoology*, rev., 1046
Hurter, H. R.: Blood condition in leukaemia, 444
Hutchinson, Jonathan: Fish-eating and leprosy in the Orkneys, 948; Infectivity of inherited syphilis, 1502
Hutchinson, J., jun: Results of operation for radical cure of hernia, 742; Radical operation for cancer of lower lip, 1214; Discussion on syphilis, 1343
Hutchison, Robert, *Clinical Methods*, rev., 148; *Food and the Principles of Dietetics*, rev., 806
Hydrocephalus (Dr. O'Carroll), 203
Hydropathic establishments, medical directors of, 952
Hydrophobia, institute for in Germany, 1316
Hygiene, agricultural, 1056
Hygiene and dietetics, 1447
Hygiene, domestic, 287
Hygiene, international exhibition of, 94, 265
Hygiene, military, on active service, 343
Hygiene, practical work in, 158
Hygiene, review of books on, 1044. *See also* Public health
Hygiene, school. *See* School
Hygienic bag-opener, 1447
Hygienic exposition in Vienna. *See* Vienna
Hypertrophy of heart (Samuel West), 1455
Hypertrophy of pylorus. *See* Pylorus
Hypnotic suggestion, treatment by (A. Betts Taplin), 979
Hypnotism and the press, 780
Hysterectomy (J. G. Cooke), 1156
Hysteria, doubtful case of (Henry Waldo), 21
Hysteria, review of books on, 627

I.

Ice, regulations for sale of, 768
Iceland moss in throat affections, 629
Ichthyol in angio-neurotic oedema (Frederick C. Forster), 976
Icterus neonatorum, series of cases of in a family (James Busfield), 20; (W. R. Duguid), 319
Ideal diet. *See* Diet
Identification by teeth, 343; by finger-print impressions (Vaughan Bateson), 1029
Idiopathic (?) intraperitoneal rupture of bladder (Lachlan Fraser), 921
Idiosyncrasy to mushroom poisoning. *See* Mushroom
Idiosyncrasy to belladonna. *See* Belladonna
Illness, insurance against. *See* Insurance
Illumination of frontal sinuses, 509
Imaginary cures for imaginary diseases, 1554
Imbeciles. *See* Feebleminded
Immigration and regeneration, 1368, 1441
Implantation cysts. *See* Cysts
Impostors, 240
Impression or coincidence? (T. D. Manning), 978; (C. A. Ensor), 1200; (Thomas F. Henly), 1384; (D. O. Fountaine), 1572
Impure air. *See* Air
Income tax, 240, 300, 359, 479, 1018, 1079, 1139, 1323; superannuation deductions and, 1323
Income-tax reform: the burden of the professional classes, 91; (leading article on), 97, 1057; correspondence on, 174, 300, 1130; memorandum from Dr. Gordon (of Exeter), 1169
Inder, W. T.: *On Active Service with the St. John Ambulance Brigade*, rev., 566
India, notes from, 165, 588, 644, 1069, 1129, 1438; new medical college for the United Provinces, 165; health officership of Calcutta, 165; new surgical block of the Medical College Hospital, Calcutta, 588; serum-therapy of plague, 644; health of Bengal, 645; health of City of Calcutta, 645; United Provinces of Agra and Oudh, report for 1904, 1069; report for year 1904 on the Punjab, 1129; on Bombay, 1129; for Madras, 1190; on Burmah, 1190; on Assam, 1190; *x*-ray institute in, 1438; scientific cremation in, 1439
India, plague in, 49, 218, 349, 478, 578, 767, 945, 1055, 1353, 1491; pioneer of military nursing in, rev., 565; *Scientific Memoirs* by officers of the medical and sanitary departments, rev., 746; mortality in prisons in, 823; trained nurses for, 1551
Indian Medical Service, 1508
Indian Pasteur Institute at Kasauli, 994
Individualities of the insane, 167
Indo-Chinese opium trade, 1312
Industrial alcoholism (W. C. Sullivan), 1412
Industrial lead poisoning. *See* Lead
Inebriate reformatory, the Girgenti, 1475
Inebriates, Dalrymple Home for, 1299
Inebriety as a physical disease, 113; drug treatment of, 223, 350, 514, 839; mental aspect of, 873
Infancy, membranous colitis in (E. Cautley), 83; general convulsions in, induced by the taking of food (Eustace Smith), 1338
Infant feeding in theory and practice, 172, 473, 652
Infant feeding and pasteurized milk, 1070
Infant Life Protection Act. *See* Act
Infant management (Dr. Bernard), 1157
Infant mortality. *See* Mortality
Infant, typhoid fever in (H. S. Jones), 439
Infanticide, 779
Infantile giantism, case of in Austria, 1070
Infantile paralysis. *See* Paralysis
Infantile scurvy. *See* Scurvy
Infants' milk dépôt. *See* Milk
Infants, bacteriology of summer diarrhoea of (H. de R. Morgan), 908; correspondence on, 1075, 1131
Infants, diabetes in (C. L. Fraser), 1340
Infants, newborn, intracranial haemorrhage in, 342
Infants in elementary schools, 1066
Infectious case, compulsory removal of, 57
Infectious diseases in Swiss hotels, 342; in Egypt, 1053; review of books on, 1106
Infectious hospital. *See* Hospital *and* Hospitals
Infective books, 167
Infectivity of enteric fever. *See* Fever, enteric
Infectivity of inherited syphilis. *See* Syphilis
Infirmary, Aston, overcrowding at, 590
Infirmary, Belfast Poor-law, 165
Infirmary, Bristol Royal, 229, 530; doubtful case of hysteria (Henry Waldo), 21
Infirmary, Cardiff, 825, 1009, 1189
Infirmary, Cork North Charitable, 1129
Infirmary, Derbyshire Royal: Case of eucalyptus poisoning (Edgar C. Myott), 558
Infirmary, Dundee Royal, Christmas festivities, 45
Infirmary, Edinburgh Royal, 465, 527, 642, 813, 887, 1189, 1251, 1372, 1462, 1560; clinical medicine and surgery in, 465, 527; vacancies at, 527; meeting of managers, 642, 813; assistant gynaecologists at, 887; discipline in, 1189, 1251; post-graduate courses in, 1250; Residents' Club, annual general meeting, 1372; reappointments to staff, 1463; offers of a convalescent home to, 1560
Infirmary, Glasgow Royal, and St. Mungo's College, 408; appointments, 591; post-graduate courses, 1250; annual report, 1313
Infirmary, Glasgow Western, annual report, 45
Infirmary, Harrogate: Case of foreign body in bladder, recovery (reported by M. B. Ray), 1464
Infirmary, Hull Royal: Case of splenectomy (reported by Edward Harrison, with observations on the blood changes by F. C. Eve), 320
Infirmary, Ingham, annual meeting, 957
Infirmary, Leeds, 346, 409, 470, 763, 1557; appointments at, 346, 470, 1557; statistics at, 409; 138th report, 763; salaries of resident medical officers, 1557; changes in the medical faculty, 1557
Infirmary, Liverpool Royal, annual meeting, 285
Infirmary, Manchester Royal, 259; case of localized osteomalacia (Philip Talbot), 259
Infirmary, Newcastle Royal, Christmas festivities, 41; various cases treated, 41; new buildings, 42, 1252; torsion of pedicle of an ovarian dermoid in a child (H. Brunton Angus), 199
Infirmary, North Riding, Middlesbrough' case of sarcoma of nose (G. Victor Miller)' 321
Infirmary, North Staffordshire, 42, 1558
Infirmary, Paisley Royal Alexandra, case of transplantation of bone from the same subject (reported by A. M. Dryden), 1101
Infirmary, Radcliffe, Oxford, compression of the median nerve (Edmund C. Bevers), 381
Infirmary, St Marylebone; Case of cerebral basal tumour (John R. Lunn) 1401
Infirmary, St. Paul's Eye and Ear (Liverpool), 943
Infirmary, Salop (Shrewsbury), foreign body removed from the substance of the tongue (John Saffley), 558
Infirmary, Stockport, report, 957
Infirmary surgeon, charges against, 642
Infirmary, Tynemouth Victoria Jubilee, case of idiopathic (?) intraperitoneal rupture of bladder, 921
Infirmary, Victoria, Glasgow, 164
Infirmary, Warrington, 824
Infirmary, Windsor Royal, case of exomphalos, operation, recovery (W. F. Lloyd) 1220
Infirmary, Wolverhampton Eye, 778
Inflammation, acute, and passive congestion (Charles W. Cathcart), 383
Influenza in the Middle Ages, 693
Influenza with peculiar complications, 119
Influenza, discussion on varieties and sequelae of, 1105
Influenza, acute yellow atrophy of liver following, 1155
Ingestion, excretion, and metabolism during and after pregnancy, 1534
Ingleby lectures. *See* Lectures
Inguinal hernia. *See* Hernia
Inhaler, ethyl-ether, 449
Injections, bladder and urethral (James MacMunn), 1401
Injections of insoluble mercury, dangers of, 291
Injured, immediate treatment of severely, 894
Injuries during labour. *See* Labour
Injuries, remote effects of, 1447
Inoculation, antityphoid. *See* Antityphoid
Inquest fees. *See* Fees
Inquests, medical evidence at, 298, 358, 774
Inquests on patients dying long after an accident, 1445
Inquisition in lunacy, 774
Insane persons, individualities of, 167
Insanitary barracks. *See* Barracks
Insanitary conditions in a village, 1322
Insanitation, rural (*see* Rural); at Somers Town, 640; at Bromley, 703
Insanity in West Wales, 290; in Cape Colony, 827
Insanity, borderland of (G. H. Savage), 489
Insanity, incipient and the Lunacy Law Amendment, 98
Insanity and murder (T. Claye Shaw), 1162
Inspection of meat and food products, 1555
Inspectors of midwives. *See* Midwives
Institute, Birmingham Medical, 943
Institute, Jubilee Nurses', Galashiels, 945
Institute of Medical Sciences, University of London, 586
Institute, Royal Sanitary, 454; annual dinner, 1179; in Canada, 1005
Institution, Glasgow Ophthalmic, report, 1127
Institution, Liverpool Medical, 22, 205, 324, 445, 561, 682, 742, 804, 923, 979, 1039, 1104; sanatorium treatment of consumption (R. J. M. Buchanan and C. J. Macalister), 22; new remedy for diabetes (J. Hill Abram), 205; haematology of pregnancy and the puerperal state (J. C. M. Given), 205; complications of pneumonia and their treatment (Nathan Raw), 205; acute haemorrhagic pancreatitis (F. W. Baker Young), 324; posterior vertebral tuberculosis (K. W. Monsarrat), 324; cardiac hypertrophy in Graves's disease (T. R. Bradshaw), 324; *x*-ray diagnosis of kidney stones (C. Thurston Holland), 324; acute yellow atrophy of liver (Nathan Raw), 444; influence of *x*-rays on nitrogenous metabolism in leukaemia (Owen T. Williams), 444; blood condition in leukanaemia (H. R. Hurter), 444; exhibits, 561; appendicitis (Frank T. Paul), 561; myelopathic albumose in the urine (Dr. Bradshaw), 682; total haematemesis (Ernest Glynn), 682; congenital anophthalmos and orbital cyst (Karl Grossmann), 682; angioma of the pinna (Hugh E. Jones and Mr. Stockdale), 682; chorea (Charles Macalister), 742; congenital umbilical hernia (R. C. Dun), 742; intravenous injection of formic aldehyde for pulmonary tuberculosis (F. W. Baker Young), 742; diminishing birthrate (Hugh R. Jones), 804; tropical abscess of liver (G. P. Newbolt), 804; pathological meeting, 923; scabies (F. H. Barendt), 979; treatment by hypnotic suggestion (A. Betts Taplin), 979; gall stones (Rushton Parker), 1039; oblique inguinal hernia (R. W. Murray), 1039; female genital activity (W. Blair Bell), 1104; opsonic power of the blood (T. R. Bradshaw and E. E. Glynn), 1104
Institution, Royal Masonic for Boys, 840
Insurance agreements, 719
Insurance commission, 767
Insurance companies, and the medical profession, 751; certificates for, 1196

Insurance, compulsory, and professional secrecy, 108
Insurance against illness, 900. 959
International Medical Congress. *See* Congress
"Interrupted circulation" as a therapeutic agent (W. Ewart), 201
Interscapulo-thoracic amputation (Gilbert Barling), 860
Intestinal obstruction, acute (Mr. Sherren), 501 ; case of (reported by J. P. S. Jamieson), 860 ; and enterospasm (Bruce C. Kelly), 977
Intestinal ulcer. *See* Ulcer
Intestine, resection of one half of the, 1374
Intracapsular cataract extraction. *See* Cataract
Intracranial haemorrhage. *See* Haemorrhage
Intracranial tumour. *See* Tumour
Intrahepatic calculi. *See* Calculi
Intraligamentary bladder. *See* Bladder
Intrauterine sound, a hollow, 566
Intussusception (E. Hastings Tweedy), 1402 ; retrograde (Mr. Haslam), 559
Iodide of potassium eruption (H. L. McKisack), 322
Iodides, therapeutic action of (James Burnet), 1041
Iodoform injection of tuberculous joints, 600
Ireland, notes from, 46. 104, 164, 227, 288, 348, 408, 466, 525, 591 641, 705, 765, 825, 886, 944, 1008, 1068, 1128, 1188, 1251, 1314, 1371, 1435, 1476. 1558 ; equipment of an Irish dispensary, 46 ; Down District Asylum, 46 ; Royal Victoria Hospital, Belfast, 46, 408 825 ; Dr. J. C. Martin, Portrush, 46 ; election of a direct representative, 46, 164, 228, 289, 348, 466 ; salaries of dispensary doctors, 46, 228, 526, 765, 826, 1008 ; Cork Branch of the National Association for Prevention of Consumption, 47 ; a tie, 47 ; another martyr, 47 ; health of Belfast, 104, 348, 642, 1129, 1188, 1314, 1371, 1558 ; Belfast Poor-law Infirmary, staff of, 165 ; Queen's College, Belfast, better equipment fund, 165 ; annual dinner, 706 ; inaugural meeting, 289 ; Professor Byers on Ulster sayings and folklore, 104 ; representation of East Belfast, 165 ; the Spiddal case, 227 ; a tragedy (death of Dr. Armstrong), 227 ; Cork Union Infirmary and Fever Hospital, report of Local Government Board Inspector, 288 ; Ulster Medical Society, 288, 706 ; Belfast Hospital for Sick Children, 289 ; Armagh Lunatic Asylum, 289 ; Dr. M. A. MacDonnell, 289 ; Viceregal appointments, 289 ; Forster Green Hospital for Consumption, Belfast, annual meeting, 348 ; Ulster Fisheries and Biological Association, 348 ; Prosecution under the Pharmacy Acts, 348 ; grievances of Kerry dispensary doctors, 349 ; asylum estimates, 408 ; epidemic of measles and whooping-cough at Newtownards, 408 ; annual dinner at the Royal College of Surgeons, 466 ; proposed sanatorium for consumption in county Cork, 467, 886 ; alcohol and lunacy, 468 ; Limerick Lunatic Asylum, 468 ; addresses to the Viceroy, 468 ; Belfast Maternity Hospital, annual meeting, 525 ; report, 642 ; proposed extension of Belfast Asylum, 525 ; Cork District Lunatic Asylum, 526 ; Dunville lectures at Queen's College, 591 ; notification of consumption at Cork, 591 ; case of Addison's disease, 591 ; Limerick Board of Guardians and dispensary medical officers' salaries, 592, 765, 826, 1008, 1371 ; Royal University of Ireland, 641, 705, 886, 1008 ; Archbishop Walsh on Trinity College, Dublin, 641, 705, 765 : charges against an infirmary surgeon, 642, 707 ; proposed inquiry at Trinity College, 706 ; a regrettable occurrence, 707 ; an asylum fatality, 707 ; university question in, 765, 826 : school hygiene, 765 ; Tughan *v.* Darnell, 826, 1068, 1128, 1314 : Dublin Orthopaedic Hospital, 826 : Children's Hospital, Dublin, 826 ; Monkstown Hospital, co. Dublin, 826 ; Dublin Hospital Sunday Fund, 886 ; Tuberculosis and its prevention, 944 : Royal College of Surgeons, election of examiners, 944 ; consumption in Belfast, 944 : discharge of sewage into Belfast Lough, 945 ; Ulster Hospital for Women and Children, Belfast, report, 945 ; Belfast Ophthalmic Hospital, annual meeting, 945 ; Cork District Hospital, 945 ; Tralee guardians and the British Parliament, 1008 ; Darnell Fund, 1068, 1128, 1189, 1252, 1371, 1436, 1476 ; Royal Medical Benevolent Fund, 1068 ; British Medical Temperance Association, 1068 ; death-rate from consumption in Belfast, 1129 ; Cork, North, Charitable Infirmary and County Hospital, 1129 ; Cork District Hospital, 1129 ; Irish Medical Association, annual meeting, 1188, 1314, 1435 : meeting of North Down Branch, 1251 ; meeting of Belfast and District Branch, 1371 : National Fund for Irish Nurses, 1188 ; and interesting technicality, 1188 ; Medical Officer of Health of Belfast, 1188, 1252, 1314 ; public conference on health of Belfast, 1188 ; Belfast municipal loans, 1188 ; post-graduate courses in Dublin, 1251 ; a recent law suit, 1314 ; Royal College of Surgeons of Ireland, 1314 ; Cork Board of Guardians and *post-mortem* examinations, 1314 ; post-graduate instruction in Belfast, 1371 ; Irish Medical Benevolent Fund Society, 1435 ; Dr. J. B. Coleman, 1436 ; post-graduate course at Dublin, 1436 ; presentation to Dr. C. K. Darnell, Bangor, 1476 ; public health congress at Cork, 1476 ; Banks medal and prize, 1588 ; inspection of Dublin hospitals, 1588
Ireland, open-air treatment of consumption in, annual meeting of the Royal National Hospital for Consumption for, 747 ; vaccination certificates in, 897 ; lunacy administration in (W. R. Dawson), 1412 ; housing in, 1494 ; increase of consumption in, 1556 ; medical relief on loan in, 1556
IRELAND, WILLIAM W.: *The Life of Sir Harry Vane the Younger : With a History of the Events of His Time*, rev., 1107
Iris, Heterochromia of. *See* Heterochromia
Irish dispensary. *See* Dispensary
Irish Poor-law medical officers. *See* Poor-law
Irish Medical Schools' and Graduates' Association. *See* Association
Irish Poor-law Medical Service. *See* Poor-law
Irish University. *See* University
Iron hand of Goetz von Berlichingen, 646
IRVING, JOHN : Painless labour, 737
Ismailia, antimalarial campaign at, 360
Isthmian Canal. *See* Panama
Isolation of consumptives. *See* Tuberculous patients
Isolation hospitals. *See* Hospitals
Italian climate. *See* Climate
Italian Public Health Bulletin, 277
Italy, British practitioners in, 101 ; medical profession in, 148 ; medical politics in, 398 ; physical education in, 693 ; malaria in the Campagna, 753 ; Red Cross Society in, 915, 1362

J

JACKSON, B. D. : *Glossary of Botanic Terms, with their Derivation and Accent*, rev., 1107
JACKSON, GEORGE : Report on proceedings of the General Medical Council, 512
JACKSON, HENRY : Medical pedigree of, 283
JACOB, E. L., obituary notice of, 1568
JACOB, F. H. : Does diachylon affect the infant when it fails to produce abortion ? 257 ; Four cases of cutaneous diphtheria, 556
JACOBI, MARY PUTNAM, obituary notice of, 1568
JALLAND, Mr. : Removal of right lobe of thyroid (from notes by Dr. Mackenzie), 978
Jam, preservatives in, 763
Jamaica, notes from, 645 ; lunacy in, 645 ; report of Medical Superintendent, 645
Jamaica, cancer in, 813
JAMES, CORAM : Acute catarrh, 115
JAMES, Captain S. P. : *Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India*, rev., 746
JAMIESON, J. P. S., reports case of intestinal obstruction, 860
Japan, Red Cross Society in, 160, 210 ; leprosy in, 197 ; medical services of, 882 : plague in, 349 : reciprocity with (leading article), 1304
Japanese army. *See* Army
Japanese honour for British lady, 219
Japanese lady professor of medicine, 986
Japanese losses in the war, 1360
Japanese medical staff, losses in, 225
Japanese navy. *See* Navy
Japanese zeal for asepticism, 660
JARDINE, Professor : Cases of eclampsia, 1221
Jaundice. *See* Icterus
Jaw, lower, severe punctured wound of (E. G Wales), 1276
Jenner Society. *See* Society
JENNINGS, Major J. WILLES : *With the Abyssinians in Somaliland*, rev., 26
Jensen's mouse-tumour. *See* Mouse-tumour
Jerusalem, medicine in, 1184
JESSETT, F. BOWREMAN : Address on cancer of uterus, 443
JOHNSON, ARTHUR G. : Impaction of hatpin in male urethra, 380
JOHNSON, R. MCKENZIE : Finances of the Association, 1316
JOLLY, WILLIAM A. : Physiology of mammalian reproduction, 405
JOLLYE, F. W. : Plumbism from ingestion of lead as an abortifacient, 620
Jones fund. *See* Fund
JONES, H. D. M. SPENCE : Administration of vaccination, 1011
JONES, HUGH R. : On the diminishing birth-rate, 804
JONES, H. S. : Typhoid fever in an infant, 439
JONES, KENNETH H. : Primary sarcoma of liver, 1463
JONES, LAWRENCE : Primary malignant disease of vermiform appendix, 501
JONES, Sir PHILIP SYDNEY : Presentation to, 410
JONES, ROBERT : A disclaimer, 538
JONES, ROBERT : Certain injuries commonly associated with displacement of the head of the humerus, 1385
JORDAN, BERT : Midwifery of the present day, 1012
JORDAN, J. F. : Treatment of uterine myoma, 621
JORDAN, W. R. : Medical inspection of school children, 382
JOURNAL and *Answers* scheme, 583, 639, 1017
Juvenile Smoking Bill. *See* Bill

K.

Kala-azar, review of books on, 742 ; papers o 1199
Kasauli, Indian Pasteur Institute at, 994
Kashmir, surgery of sarcoma in (Arthur Neve), 1217
KASTLE, J. H., on the properties of ozone, 1184
KAUFFMANN, Dr. : Congenital heart disease, 861
KEALY, JOHN ROBERT, obituary notice of, 597
KEEBLE, F. J. : Action of anaesthetics on lower forms of life, 326
KEETLEY, C. B. : Relation of the medical profession to war, 472
KEITH, A. : Relative brain-weights of man and woman, 292, 474
KELLY, BRUCE C. : Enterospasm and intestinal obstruction, 977
KELVIN, Lord, and mediaeval stories of magicians, 93
KEMPER, G. W. H. : On the world's anatomists, 1416
KENNARD, A. D. : Food poisoning and coma, 80
KENNARD, C. P. : (Editor) *The British Guiana Medical Annual for 1905*, rev., 1406
KENSINGTON, E. GLADYS : Rhythmical variations in cerebro-spinal pressure, 553
KENT, A. F. STANLEY : Simple method of freezing tissues for sectioning, 798
KENYON, G. H. : Rapid cure for lumbago, 81
KEOGH, Surgeon-General A. H. : Relation of the medical profession to war, 361
KER, HUGH R. : Proposed general hospital at Putney, 830, 951 ; Past, present, and future of the British Medical Association, 1528
Keratosis (W. J. Thompson), 862
Kerry dispensary doctors, grievances of, 349
Kidney, decapsulation of in puerperal eclampsia, 1368
Kidney disease, tuberculous foci in early (Hurry Fenwick), 196
Kidney, rupture of (H. Dodgson), 977
Kidney, sacculated (J. W. Taylor), 559
Kidney stones, x-ray diagnosis of (C. Thurston Holland), 324
Kidneys, cystic disease of (C. A. MacMunn), 199
Kidneys, cystoscopic appearance in diseases of (David Newman), 726
Kidneys, tuberculosis of (Professor Zuckerkandl), 710
KING, health of the, 340
KING, F. W. : Fetus anencephalus, two cases within three months, 797
KINGDON, JOHN ABERNETHY, obituary notice of, 179
King's College. *See* College
King's Sanatorium. *See* Sanatorium
KINGSFORD, A. BERESFORD : Ethyl chloride as a general anaesthetic, 892
Kingswood Sanatorium, 824
KIRTON, REGINALD C., receives permission to wear insignia of Imperial Ottoman Order of Osmanieh, 995
KLEIN, Dr. : A new plague prophylactic, 155
Knee, tuberculous, tuberculin in (Mr. Gray), 204
KNIGHT, H. ASTLEY : Notes on ethyl chloride, 618
KOCH, Professor ROBERT : Investigations in East Africa, 31 ; and the Nobel Prize, 152 ; and the suppression of tuberculosis (leading article), 279 ; Ordre pour le Mérite conferred upon, 1370
KOCHER, Professor, at the Medical Society of London, 1247 ; the pathology of the thyroid gland, 1261
KÖHLER, F. : *Tuberkulin und Organismus*, rev., 628
Korean medical textbooks, 646
KRAEPELIN, EMIL : *Lectures on Clinical Psychiatry*, rev., 1283
KRAMER, H. : Infant feeding in theory and practice, 172
KREHL, LUDOLF : *Principles of Clinical Pathology*, rev., 148
KRUEGER, RICHARD : *Die Phocomelie und ihre Uebergänge ; eine Zusammenstellung sämtlicher bisher veröffentlichten Fälle und Beschreibung einiger neuer Fälle*, rev., 982
KUSY, von. *See* Von
KYLE, H. G. : Hydatid cyst of liver, 325
KYNOCH, Professor : Ovariotomy after delivery, 1465

L.

LABARTHE, L. DE MELIER DE : *Le Celluloïde en Orthopédie*, rev., 329
Laboratory handbooks, reviews, 266

Laboratory, pedagogic, 463
Labour, difficult, prevention of (G. E. Herman), 1509
Labour, injuries to eyes of child during (Leslie Buchanan), 145; ovariotomy during labour (Herbert R. Spencer), 384; injuries during (J. Lewis Owen), 557
Labour, management of (C. E. Purslow), 1512
Labour, missed, 460
Labour, painless (J. Allan), 619; (John Irving), 737; (W. J. Young), 859; correspondence on, 779, 1020
Lachrymal gland, sarcoma of. *See* Sarcoma
Lactation, influence of ovaries on, 240
Lactation, rickets in relation to duration of (A. Dingwall-Fordyce), 971; (John Allan), 1219
Ladies' bicycle saddles. *See* Bicycle
Ladies Health Society. *See* Society
Lady health visitors in Birmingham, 764
Laminaria tents (Sir William Sinclair), 1103
Laminectomy in caries of dorsal vertebrae (Dr. Fortescue), 204; in traumatic paraplegia (L. McGavin), 261
LANDOUZY, Professor: Dust and tubercle among carpenters and laundry workers, 768
LANE, W. ARBUTHNOT: *Cleft Palate and Hare-lip*, rev., 206; *Operative Treatment of Fractures*, rev., 1467
LANGDON, THOMAS CHARLES, obituary notice of, 55
LANGMEAD, Dr.: Associated congenital malformations, 624
Langmjolk, 539, 839
Language, international. *See* Esperanto
LANGWILL, H. GRAHAM: Medicine and the Mercantile Marine, 1011
LAPPONI, Dr., on hypnotism, 1416
LARKIN, F. CHARLES: Finances of the Association, 1317
Larval scarlet fever. *See* Fever, scarlet
Laryngeal complications of phthisis (E. F. Trevelyan), 864
Laryngitis, tuberculous, surgical treatment in (Harold Barwell), 505
Laryngological Association. *See* Association
Laryngological Society. *See* Society
Laryngoscopy, discovery of (leading article), 937
Larynx, tuberculous disease of. *See* Tuberculous contusion of, 1010
LATHAM, ARTHUR: Union of London Medical Societies, 415
LATOUCHE, reports case of rupture of spleen, 1554
Laundry workers, dust and tubercle among, 768
LAURENS, GEORGE: *Chirurgie Oto-rhino-laryngologique*, rev., 808
LAURIE, JAMES: Suprapubic prostatectomy, 144
Law, professional usage and the, 815, 899
Law as to professional secrecy, 1316
LAW, R. R.: Case of necrosis of testicle, 1219
LAW, W. F., presidential address (British Guiana Branch), 800
LAWRIE, H.: Cancer contagion and inoculation, 198
Law's Handbook to the Charities of London, rev., 1046
LAWSON ARNOLD: Congenital anterior staphyloma, 443
LAWSON, C. W.: Angina pectoris, 713
LAZARUS, A.: *Diseases of the Blood*, rev., 265
Lead as abortifacient (A. St. Lawrance-Burke), 259; (Arthur Hall and W. B. Ransom), 428; (W. Wraugham), 556; (F. W. Jollye), 620; leading article on, 456; correspondence on, 355
Lead poisoning from taking diachylon (A. E. Little), 499
Lead poisoning from electrolysis of water pipes (George A. E. Roberts), 139
Lead poisoning, industrial (J. S. Clayton), 310; in North Staffordshire, 1253
Leading articles: The BRITISH MEDICAL JOURNAL, 33; international medical congress, 33; medical profession and the general election, 35, 95, 155; medical members of Parliament, 95; antivaccination and the general election, 96; the profession and the income tax, 97; incipient insanity and the Lunacy Law Amendment, 98; new plague prophylactic, 155; building by-laws in rural districts, 156; prevention of measles in schools, 220; constitution of the albuminous molecule, 221; instruction to midwives, 222; duration of the medical curriculum, 278; Malthusianism and the declining birth-rate, 278; suppression of tuberculosis, 279; rural insanitation, 338; new theory of angina pectoris, 338; early diagnosis of typhoid fever, 339; Marmorek's serum for tuberculosis, 340; value of proteid diet, 399; medical inspection of schools, 400; co-ordination in antitubercle effort, 402; use of diachylon as an abortifacient, 456; primary intestinal tuberculosis, 456; national vitality, 457; rural housing, 516; sanitary influence of art, 517; medical assessors, 518; mentally defective children, 580; out-patient reform in London, 581; Royal College of Science, 581; administrative control of pulmonary phthisis, 632; value of rectal feeding, 633; vagrancy, diet, and disease, 634; educational value of failures, 695; relapsing fever in East Africa, 695; Epsom College, 697; explosive epidemics of typhoid, 754; lunacy amendment and the boarding-out system, 754; life-saving in mines, 756; professional usage and the law, 815; alleged epidemicity of appendicitis, 815; army medical vote in the Commons, 816; marriage of epileptics, 877; action of tetanus toxin, 878; medical inspection of school children, 878; antivaccination in Parliament, 935; Mr. Arnold Lupton, M.P., 936, 997; question of priority, 937; selection of candidates for the General Medical Council, 996; compulsory vaccination, 997; Friendly Societies' Medical Alliance, 998; the income tax inquiry, 1057; ethyl chloride as a general anaesthetic, 1058; efficiency in hospital management, 1059; spread of trypanosomiasis, 1118; Mr. Arnold Lupton's defence, 1119; pollution of underground waters, 1120; germ-free operations, 1180; progress of otology, 1180; Mr. Bernard Shaw on doctors, 1181; early diagnosis and early operation in cancer, 1241; problems of cancer research, 1242; canvassing, 1304; reciprocity with Japan, 1304; teaching of midwifery, 1363; sanitary function of the Army Medical Service, 1364; psychology of the anarchist, 1365; crèches, 1425; the student life, 1425; methods of modern science, 1426; dysentery in temperate climates, 1493; the action of digitalis, squill, and strophanthus upon the heart, 1494; housing in Ireland, 1494; the proposed Royal Charter, 1548; the profession and the public in America, 1548; army nursing, 1549
League, National Antivaccination, 520, 694
League, National, for Physical Education, 32, 94, 530, 1183
League, National Temperance, 32
Leamington as a health resort, 1285
LECHE, A. V.: Patency of oesophagus re-established after gastrostomy, 1155
Lecture, the Cavendish, 1412
Lectures, Dunville, 591
Lectures, the Goulstonian, 1081, 1153, 1277
Lectures, the Ingleby, 1512
Lectures in the London colleges, 161
Lectures, the Lumleian, 721, 792, 851
Lectures, the Morison, 177, 348, 407
LEECH, HENRY RICHARD, presentation to, 397; obituary notice of, 716
LEEDHAM-GREEN, Mr.: The vesical sphincter, 142
Leeds, notes from, 41, 285, 346, 470, 529, 589, 763, 886, 1127, 1557; Leeds Public Dispensary, 41; appointments at, 346, 470, 1557; Post-graduate courses at, 1127; the Dental School, 41; dinner of past and present medical students, 41; feeding of poor children, 41; distribution of the Hospital Sunday Fund, 285; milk from the public health point of view, 285; Royal Infirmary, appointments at, 346, 470, 763, 1557; 138th report, 763; Hospital for Women and Children, annual meeting, 346, 589; distribution of Hospital Sunday Fund, 346; the Brewster Sessions, 470; cocoanut oil in butter, 529; annual report of medical officer of health, 529; workpeople's hospital fund, 529; Association for Prevention of Consumption, 589; District Nursing Association, 589; Aberdeen Graduates' Society, annual dinner, 886; salaries of resident medical officers, 1557; changes in the Faculty of Medicine, 1557
Leeds, water supply of, 103
LEEMING, R. W.: Obstruction of bowel produced by the appendix, 379
LEESON, J. R.: Midwifery of the present day, 831
LEFFMANN, HENRY: *Select Methods in Food Analysis*, rev., 809
Leg, successful amputation of at 94, with an account of a new operation (C. W. Branch), 1339
Legal conditions of the medical use of the Roentgen rays, 231
Legislation in lunacy. *See* Lunacy
Leicester, cremation in, 579; annual meeting, at, 761
LEIPER, ROBERT T.: Influence of acid on guinea-worm larvae encysted in cyclops, 19
LEISHMAN, Lieutenant-Colonel W. B.: Method of enumerating leucocytes, 680
Leishman-Donovan bodies, development of, 583
Leith, infants' milk dépôt at, 766
LEMOINE, G.: *Traité de Pathologie Interne*, rev., 1165
LENDON, ALFRED AUSTIN: *Nodal Fever (Febris Nodosa)*, rev., 25; Extroversion of the bladder with special reference to extraperitoneal transplantation of the ureters into the rectum, 961
Lepra ophthalmica (Karl Grossmann), 11
Leprosy, in Japan, 197; in New South Wales, 465; in Republic of Colombia, 523; in the Philippines, 922; in France in the Middle Ages, 1292; pathology of, 463; notes on, 659; and fish-eating in the Orkneys and Shetlands, 948, 1071, 1134
LESLIE, A. MURRAY, received order of "Officier d'Académie Française," 1424
Letter, anonymous, 779
Leucocytes, method of enumerating (Lieutenant-Colonel W. B. Leishman), 680
Leucocythaemia treated by *x* rays (W. B. Ransom), 620
Leucocythaemia, and leucocythaemia without lymphatic enlargement (F. G. Bushnell and Dr. Hall), 441
Leukaemia (Dr. Parsons), 862
LEUTHOLD, RUDOLF VON, memorial to, 930
LEVADITI, C.: Histology of congenital syphilis, 757
LEVY, A. G.: Ethyl chloride as a general anaesthetic, 892
LEVY, LEONARD A.: *Radium and other Radio-active Elements*, rev., 627
LEWERS, Dr.: Epithelioma of the vulva, 1103
LEWIN, L.: *Die Wirkungen von Arzneimitteln und Giften auf das Auge*, rev., 687
LEWIS, C. J.: *Natality and Fecundity, a Contribution to Demography*, rev., 685
LEWIS, PERCY G.: Causes and treatment of enuresis, 903; *Care and Management of Delicate Children*, rev., 925
Lewis, the sanitation in, 1434
LEYDEN, JOHN, and the East India Company, 810
Liability of wife, 717
Liability of *x*-ray operator. *See X* ray
Liability for malpractice, 896
Libel on medical man, 598
Library at head office. *See* Association
Licence for surgery boy, 418
Lids, oedema, 840
LIÉBAULT, memorial to, 398
Life assurance without medical examination, 114, 173, 236, 355, 653; and the medical profession, 1180, 1383; and total abstinence, 753
Life-saving in mines, 756
Life table for the city of Norwich, 225
LIGERTWOOD, THOMAS: Trypsin in cancer, 318
Light treatment, new development of, 282
Light treatment of disease, 215. *See also* Roentgen, *X* Rays, Radiography
LILLIE, CECIL F.: Measles complicating enteric fever, 678
Lime salts in tuberculosis, 889, 959
Limerick Board of Guardians and medical officers' salaries, 592, 826, 1008, 1371
LINDEN, Fräulein, appointed second assistant in anatomical institute at Bonn, 1303
LINDLEY, Dr. the Hon. LENNOX, order of the "Temsal" conferred on, 1492
Lip, cancer of. *See* Cancer
Lipomata, multiple (H. D. Rolleston), 261
Lisbon, health resorts near, 813
Lisbon, congress at. *See* Congress, International Medical
Lisbon, National Library, 1177
LISTER, Lord, 80th birthday, 884
LISTER, THOMAS D.: A disclaimer, 538
LITERARY NOTES, 50, 93, 152, 215, 270, 336, 390, 449, 510, 570, 646, 693, 750, 810, 888, 930, 988, 1049, 1108, 1177, 1229, 1292, 1354, 1416, 1474, 1546; notices of new books and new editions, 152, 270, 336, 390, 449, 510, 570, 810, 888, 930, 988, 1049, 1108, 1177, 1354, 1416, 1474; collection of medical papyri acquired by Berlin Royal Museum, 50; offer of prize for essay on etiology of epilepsy, 50; artificial limbs, 50; compulsory Greek, 50; Littrow and colour blindness, 50; complete edition of Skoda's writings, 93; American Universities, by Dr. Reichel, 93; Lord Kelvin and mediaeval stories of magicians, 93; a seventeenth-century quack, 93; resurrection of the *Guyoscope*, 152; pronunciation of angina, 152, 450, 646; of enema, 270; of aqua tofāna, 570; Dr. Frederick Taylor on the spleen and its sufferings, 153; Dr. William Findlay ("George Umber"), poem by, 153; George Pernet on the light treatment of disease, 215; medical monograph on Couthon by Henri Magenot, 215; death of Dr. van der Burg, editor of *Janus*, 215; Michael Servetus, 270; Esperanto, 510, 646; (letter from Dr. H. Dor and remarks), 270; extracts from the diaries of Bishop Nicolson, 336; *Guy's Hospital Gazette* and "Sammy," 336; "Reminiscences" of Lettsom, 390; new medical journals in France and Germany, 390; *Journal* of the Ceylon Branch of the British Medical Association, 390; Lovely London in the Old Hall of Charterhouse, 390; grant to Dr. Iwan Bloch, 449; Sir William Crookes and Bichat, 449; Copernicus, 449, 889; sale of the Library of the Institut de Bibliographie, 510; sale of the library of the late Edward Truman, 510; Sir James Barr and Thomas Young, 510; *Progress: Civic, Social, and Industrial*, 510; banquet to Dr. Robert Fletcher at Washington, 510; edict against quackery at Treves, 510; Empress Frederick Institution for Post-graduate Medical Study, 510; "Sir Donald" Ross, 570; Tobias Smollett's degree, 570; statistics of theses presented in all French faculties, 570; death of Dr. Brillat-Savarin, 570; Berlin Society of Science awards Iwan Bloch £25, 570;

medical canonized saints, 570 ; MS. of *Rab and his Friends*, 646 ; iron hand of Goetz von Berlichingen, 646 ; Korean medical textbooks, 646 ; action for review of a thesis, 646 ; medical assessors, 646 ; viscera of Rameses II, 693 ; influenza in the Middle Ages, 693 ; legal and other reminiscences of Dr. George H. Savage, 693 ; Mr. Bernard Shaw and antivaccination, 694 ; M. Clemenceau, 750 ; Colonel D. G. Crauford and a history of the Indian Medical Service, 750 ; sea-sickness and poetry, 750 ; Lord Dufferin as a speaker, by Professor Byers, 750 ; anecdote of Sir Benjamin Ward Richardson, 750 ; Samuel B. Ward on the history of medicine in the State of Albany, 750 ; Oxford folio Shakespeare and Professor Osler, 810 ; "electrocute" or "electrocide," 810 ; John Leydon and the East India Company's service, 810 ; Adirondack Cottage Sanatorium, Saranac City, new York State and the *Journal of Outdoor Life*, 810 ; discoverer of chloroform, 810 ; Egyptian archaeology, 810 ; new book by Professor Osler, 888 ; "general practitioner" or "doctor," 888 ; *American Medicine*, change in, 888 ; Dr. Santini, "a coleopteron," 889 ; Dr. Camac and Professor Osler, 889 ; *Oliver Wendell Holmes and the Contagiousness of Puerperal Fever*, 889 ; *Journal of Abnormal Psychology*, 930 ; *Philippine Journal of Science*, 930 ; memorial to Rudolf von Leuthold, 930 ; story of Sir William Gull, 930 ; reminiscences of Surgeon-Major W. T. Black, 930 ; Hindu medical literature by Dr. Sinnetamby, 988 ; doctors' latin, 989 ; beginning of medicine in University of Pennsylvania, 989 ; Professor Baccelli on doctors in Imperial Rome, 989 ; booksellers' catalogues, 1049 ; *Crusade against Consumption*, 1049 ; *Paris Medical Journal*, 1049 ; Sir Samuel Wilks and John Wesley's *Primitive Physick*, 1050 ; and Professor Sharpey, 1177 ; Pajot the famous Paris obstetrician, 1050 ; Philip Syng Physick, 1050 ; Dickens and doctors, 1050 ; the deafness of Pierre de Ronsard, 1108 ; Dr. A. T. H. Waters on his memories of the medical profession, 1108 ; Daviel, the ophthalmic surgeon, 1109 ; M. Curie refuses Legion of Honour, 1109 ; Sir Henry A. Blake on malarial fever in Mutwal, 1109 ; spelling of Professor Elie Metchnikoff's name, 1177, 1292 ; spelling of *Spirochaeta*, 1177 ; spelling of paramecium, 1177 ; 1230 ; of "arythmia," 1230, 1546 ; satire on Professor Mata, 1177 ; Lisbon National Library, 1177 ; the great sea serpent, 1177 ; Hearne's *Collections* (Stories of Oxford), 1229 ; doctors and literary style, 1230 ; Professor Lombroso's scientific jubilee, 1230 ; correction of mistake as to Sir Boyle Roche, 1292 ; *Deutsche medizinische Wochenschrift's* warning to authors, 1292 ; society for study of history of the sciences and of medicine in Berlin, 1292 ; leprosy in France in the Middle Ages, 1292 ; Sir William Ramsay on patriotism in the universities, 1292 ; Proceedings of American Society of Tropical Medicine, 1354 ; use of the word "optician," 1354 ; the Mudie of medical literature, 1354 ; Sir John Robinson, story of, 1354 ; Madame de Sévigné and the ritual for the cure of rheumatism, 1354 ; sale of Sir William Banks's library, 1416 ; Dr. John Brown's correspondence with Thackeray and others, 1416 ; Dr. Lapponi on hypnotism, 1416 ; the *World's Anatomists*, 1416 ; report of Joint Committee on Proteid Nomenclature, 1416, 1474 ; the Psyllians and immunity against snake poison, 1474 ; Benjamin Franklin, 1474 ; award of Dr. Steele's prize for best essay on humanism, 1475 ; plea for scientific study of native drugs and poisons (Malayan), by C. W. Daniels, 1475 ; Empiricism and popular remedies (Paris thesis), 1475 ; animal vaccination, by Gennaro Galbiati, 1546 ; the *International Library*, 1546 ; *Wochenschrift für Sociale Medizin, Hygiene, und Medizinalstatistik*, 1546 ; note on Tertullian, 1546 ; *Pereant qui ante nos nostra dixere*, 1547

Literary style. *See* Style

LITTEN, M. : *Diseases of the Kidneys and Spleen : Haemorrhagic Diathesis*, rev., 265

LITTLE, A. E. : Lead poisoning from taking diachylon, 499

LITTLEJOHN, Mr. HARVEY, appointed to Chair of Forensic Medicine at Edinburgh University, 347

LITTLEJOHN, Sir HENRY, resignation of, 227, 827 ; annual report on health of Edinburgh, 1477

Live birth and survival, 477

Liver abscess. *See* Abscess

Liver, cystic disease of (C. A. MacMunn), 199

Liver, acute yellow atrophy of, following influenza, 1155

Liver, primary sarcoma of (Kenneth H. Jones), 1463

Liverpool, notes from, 103, 285, 588, 646, 708, 763, 824, 945, 1008, 1067, 1478, 1557 ; appointment of supervisor of midwives, 103 ; public notices with regard to the effect of alcohol, 103 ; burial ground for the south end, 103 ; appointment of medical superintendent at City Hospital, 103 ; Royal Infirmary, annual meeting, 285 ; the Northern Hospital, annual meeting, 286 ; Hospital Sunday, 286 ; action against a medical man, Hobson *v.* Bicknell, 286 ; School of Tropical Medicine, 588 ; Liverpool dispensaries, 588 ; Samaritan Hospital for Women, 646 ; Hospital for Incurables, 646 ; Children's Convalescent Home, West Kirby, 646 ; the Stanley Hospital : annual meeting, proposed appointment of a qualified female practitioner on the staff, 708 ; a clinical school for women, 708 ; isolation of consumptives, 708, 943 ; Liverpool and Birkenhead Divisions, dinner, 763 ; preservatives in jam, 763 ; ambulance competitions, 763 ; chickenpox, 763 ; Consumption Hospital and Kingswood Sanatorium, 824 ; Ladies' Charity and Lying-in Hospital, 824 ; St. Helen's Corporation and consumptive patients, 824 ; Warrington Infirmary, proposed enlargement, 824 ; sleeping sickness, 943 ; St. Paul's Eye and Ear Infirmary, 943, country hospital for children, 1008 ; City Isolation Hospital, opening, 1067 ; prevention of importation of disease in, 1478 ; Liverpool Hospital funds, 1557

Liverpool Medical Institution. *See* Institution

Liverpool School of Tropical Medicine. *See* Tropical

Liverpool steam tugs, outbreak of malaria on, 38

Living animals, experiments on, 1544

Livingstone College. *See* College

Llanelly water, 764

Llantrisant, report of medical officer of health for, 1127

Llantwit Fardre, report of medical officer of health for, 1127

LLOYD, W. F. : Case of exomphalos, operation, recovery, 1220

LOANE, M. : *Simple Introductory Lessons in Midwifery*, rev., 1407

Local education authorities and the feeding of school children, 1496

Local Government Board. *See* Board

Loch, Catherine Grace, rev., 565

LOCKE, GEORGE, appointed J.P. for county borough of Hastings, 1547

LOCKWOOD, CHARLES BARRETT : Carcinoma of the breast and its spread into the lymphatics, 181

LOCKYER, CUTHBERT : Development and retrogression of the corpus luteum, 264

Locomotor ataxy, a specialist in, 1382

Locum tenens and inquest fees, 834 ; and legal fees, 1566 ; action of, 1567

Locusts, a plague of, 149

LOEB, JACQUES : *The Dynamics of Living Matter*, rev., 1405

LOEWY, ROBERT : *Les troubles oculaires d'origine génitale chez le femme*, rev., 687

LOMBROSO, Professor, scientific jubilee of, 1230

London ambulance service. *See* Ambulance

London, census of, 460

London Charities, Herbert Fry's Royal Guide to, rev., 268

London County Council and scholarships in midwifery, 876

London, health of, 162, 1056 ; public health report for 1904, 334, 451

London, East, water supply of, 1065

London, proposed central pay hospital for, 711

London medical societies. *See* Societies

London, out-patient reform in (leading article), 581

London Port Sanitary Authority, 1123

London, sanatoriums for. *See* Sanatorium

London School of Clinical Medicine. *See* Medicine

London School Hygiene, report of Medical Officer of Health to Education Committee, 89

London, tuberculosis in, 341 ; compulsory notification of, 863

London University. *See* University

London water, 344, 1065, 1126 ; bacteriological examination of, 512

Longevity, case of in Madrid, 809. *See also* Old age

LONGLEY, J. A. NOEL : Case of Henoch's purpura, 859

LONGTON, EDWARD JOHN, obituary notice of, 655

LOOSS, A. : *Anatomy and Life-History of the Agchylostoma Duodenale*, rev., 686

LORD, ROBERT E. : Case of secondary carcinomatous growths simulating tuberculous hip-joint disease and miliary tuberculosis, 193

LORY, A. G. B., award for successful vaccination, 1163

Louping-ill and braxy, pathology of, 1472

LOVE, KERR : Residual hearing in deaf and dumb, 144

LOVETT, R. W. : *Treatise on Orthopaedic Surgery*, rev., 869

LOVIBOND, JOSEPH, W. : *Introduction to the Study of Colour Phenomena*, rev., 926

LOWE, GODFREY, elected honorary secretary Lincoln Automobile Club, 515

Lower jaw. *See* Jaw

LOWMAN, W. H. : Angio-neurotic oedema, 858

LOWNE, B. T. : Midwifery of the present day, 949

LOWSON, GEORGE, obituary notice of, 416

LUCAS-CHAMPIONNIÈRE, J. : Promoted Commander in the Order of the Legion of Honour, 471

LUDWIG FERDINAND of Bavaria, H.R.H. Prince, distinction conferred upon by King of Spain, 397

LUKE, T. D. : Unqualified anaesthetists for the R.A.M.C., 648 ; Anaesthesia by lumbar injection in operations for acute abdominal diseases, 1194

Lumbago, rapid cure for (G. H. Kenyon), 81 ; (J. Farquhar), 499 ; correspondence on, 660, 720, 900

Lumbago, treatment of, 840

Lumbar injection, importance of anaesthesia by, for abdominal diseases (Henry Percy Dean), 1086 ; correspondence on, 1194

LUMSDAINE, Surgeon-General John, obituary notice of, 898

LUMSDEN, Major JOHN STEWART SHEPHERD, obituary notice of, 838

Lumbar puncture, 359 ; in puerperal eclampsia (F. Proud), 678

Lumleian lectures. *See* Lectures

Lunacy Act. *See* Act

Lunacy action, Scottish, 39, 86, 1068, 1251, 1559

Lunacy administration in Guernsey, 1289 ; in Ireland (W. R. Dawson), 1412

Lunacy amendment and the boarding-out system, 754

Lunacy, inquisition in, 774

Lunacy in Jamaica, 645

Lunacy law amendment and incipient insanity, 98

Lunacy law, foreign (Marcus Wyler), 78

Lunacy, legislation in, 335

Lunacy in New South Wales, 48

Lunatic Asylum. *See* Asylum

LUNDIE, R. A. : Spasm of the retinal artery, 622

Lung complications after operations with anaesthesia (G. E. Armstrong), 1141

Lung, syphilitic disease of (Douglas Stanley), 860

Lungs, tuberculous disease of. *See* Tuberculous

LUNN, J. R. : Molluscum fibrosum, 261

LUNN, JOHN R. : Congenital synostosis of radio-ulnar articulations, 499 ; cerebral basal tumour : double white atrophy : death after seventeen years, 1401

LUPTON, ARNOLD, M.P., and antivaccination (leading article), 936, 997, 1566 ; defence of (leading article), 1119 ; letter from, 1133, 1378

Lupus erythematosus, 120

Luther Holden Scholarship, 102

Lying-in Charity, Birmingham, 163

Lying-in hospital in Germany, a model, 168. *See also* Hospital Maternity

Lymphangiectodes (G. Pernet), 1038

Lymphatics of head and neck, review of books on, 982

M.

MACALISTER, C. J. : Sanatorium treatment of consumption, 22

MACALISTER, DONALD : Honorary degree of Doctor of Laws conferred upon, 1186

MACCALLUM, JOHN BRUCE, obituary notice of, 955

MCCARDIE, W. J. : Position of and mortality from ethyl chloride as a general anaesthetic, 616, 949 ; management of library and facilities for social intercourse at head office, 648

MCCARRISON, Agency-Surgeon R. : Endemic goître in Chitral and Gilgit valleys, 861

MACARTNEY, Sir HALLIDAY, obituary notice of, 1442

MCCAW, JOHN : Infant feeding in theory and practice, 652

MCCRUDDEN, FRANCIS H. : *Uric Acid*, rev., 1347

MACDONALD, D. M. : *Ambulance Examination Questions*, rev., 26

MACDONALD, J. S. : Diffusion of red blood corpuscles through solid nutrient agar, 1194

MACDONNELL, Dr. M. A., health of, 289

MACFADDEN, A. W. J., appointed assistant inspector of foods, 1002

MACFADYEN, ALLAN : Properties of an antityphoid serum obtained from the goat, 905

MCGAVIN, L. : Transverse *versus* inguinal colotomy, 142 ; traumatic paraplegia treated by laminectomy, 261

M'GREGOR, A. N. : Epiplopexy, 923

MACGREGOR, JESSIE MACLAREN, obituary notice of, 838

MCILROY, A. LOUISE : Pregnancy in a Graafian follicle, 1346

MACILWAINE, John E., appointed certifying surgeon to Belfast district, 477

Mackay, Ernest C.: Achondroplasia, 1103, 1518
Mackay, Lieutenant Gordon Stewart, obituary notice of, 898
McKendrick, Professor, rumoured retirement of, 1189
McKendrick, J. S.: Chronic mediastinitis, 144
Mackenzie, Dr.: Notes on a case of removal of right lobe of thyroid under care of Mr. Jalland, 978
McKenzie, Dan: Local anaesthetic action of stovaine, 1099
Mackenzie, J.: Arterio-sclerosis, 319
Mackenzie, J. A.: Injuries to the hand, 385
Mackenzie, James: Meaning and mechanism of visceral pain, 1449, 1523
McKerron, Dr.: Cerebellar tumour, 205
Mackey, Edward: Aspirin, 113
Mackie, J.: Influence of nasal diseases on lower respiratory tract, 803
Mackinnon, Dr. A. D., receives royal licence to accept and wear insignia of second class of Brilliant Star of Zanzibar, 579
McKinnon, Surgeon-General David Reid, obituary notice of, 956
McKisack, H. L.: Iodide of potassium eruption, 322
Maclaren, Norman: Shows some beautiful specimens, 1101
Maclean, Dr.: Abdominal pregnancy, 863
MacLennan, Alex.: Preliminary note upon the *Cytorrhyctes luis* (Siegel) and the *Spirochaeta pallida*, 258; On the *Spirochaeta pallida* and its variations, 1090
Macleod, J. J. R.: *Practical Physiology*, rev., 867
MacMahon, Marshal, medical ancestry of, 479
McMillan, Lewis: Intracapsular cataract extraction, 145
McMullen, John: Occipito-posterior presentations, 978
MacMunn, C. A.: Case of cystic disease of liver and kidneys, 199
MacMunn, James: Treatment of prostatic abscess and congestion, 859; bladder and urethral injections, 1401; abdominal resistance, 1464
McNabb, Fleet Surgeon D.: Case of double aneurysm of the thoracic aorta, 142
MacPhail Andrew: *Essays on Puritanism*, rev., 1533
McPhedran, Alexander: Stagnation of food in the stomach, 367
Macrodactyly, congenital (J. A. Codd), 1343
McWeeney, E. J.: Discovery of Shiga's bacillus in English dysentery, 1564
Madeira, plague in, 159. 225: denial of plague in, 403; health of, 295; correspondence on, 354
Madras, health of, 1190
Madrid, school of criminology at, 753
Madura foot in the Yemen (Frank G. Clemow), 918; correspondence on. 1260. 1401
Magenot, Henri: Medical monograph on Couthon, 215
Maghull, home for epileptics at, 1557
Magistrate, medical. *See* Medical
Magistrates and vaccination certificates, 885
Magnan, Dr., jubilee of, 876
Mair, W.: Note on paracolon bacillus found in the urine, 438
Maitland, J.: Etiology of granuloma pudendi, 1463
Major, Herbert Coddington, presentation to, 694
Malaria on Liverpool steam tugs, 38; in the Campagna, 753: in Egypt, 1053; in Mutwal, 1109; new return of, 1194
Malay States, cancer in, 813; plea for scientific study of drugs and poisons in (C. W. Daniels), 1475
Malcolm, J. D.: Appendix abscess with severe haemorrhage, 502: Peritonitis and the *Staphylococcus albus*, 626; Complete removal of multilocular cyst of pancreas, 1160; Appendicitis and gangrene of appendix as separate diseases, 1531
Mal de coït of the horse (F. W. Mott), 1281
Malformations, associated congenital (A. E. Garrod and Dr. Langmead), 624
Malformed males, four in one family, 1038
Malignant disease. *See also* Cancer
Malignant disease, acidity and alkalinity in, 38; of vermiform appendix, 501
Malignant growths, effect of violet infusion in (W. Gordon). 382; action of glycolytic ferment on, 1245; papain in, 1439. *See also* Cancer
Mallam, Henry Parr, obituary notice of, 296
Malpractice, liability for, 896
Malta fever. *See* Fever
Malthusianism and the declining birth-rate (leading article), 278
Malthusian League, methods of, 1137
Mammalian reproduction, physiology of. 405
Man, influence of increased barometric pressure on (M. Greenwood), 912
Manchester and Salford, notes from, 42. 103, 285, 470, 590, 1315; the Victoria University, 42 (*see also* University); adulteration as a fine art, 103; a Manchester mortuary, 103; Royal Eye Hospital and the University, 285; universal military training, 285; David Lewis Epileptic Colony, 470; Glasgow graduates, 590; port inspection of foodstuffs, 1315: Children's Hospital, Pendlebury, annual report, 1315
Manchester, provident dispensaries and the profession in, 1237
Mandl: *Die biologische Bedeutung der Eierstöcke nach Entfernung der Gebarmutter; experimentelle und klinischen Studien*, rev., 984
Manley, Herbert: State registration of nurses, 711
Mann, Gustav: *Chemistry of the Proteids*, rev., 1284
Manning, T. D.: Impression or coincidence? 978
Manson, Sir Patrick: *Lectures on Tropical Diseases, being the Lane Lectures for 1905*, rev., 745
Mant, H. T.: Tetany apparently cured by use of thyroid substance, 262
Manus vara, congenital, 109
Margate as a health resort, 1049
Marmorek's serum. *See* Serum
Marnoch, Mr.: Charcot's disease of knee-joint, 205
Marriage of epileptics (leading article), 877
Marriage, regulation of, 605
Marsdin, F.: Rural depopulation and the housing question, 894
Marshall, A. Milnes: *Junior Course of Practical Zoology*, rev., 1046; *The Frog: an Introduction to Anatomy, Histology, and Embryology*, rev., 1046
Marshall, C. F.: Infectivity of inherited syphilis, 1565
Marshall, Francis H. A.: Physiology of mammalian reproduction, 405
Marshall, John J. de Zouch: Volunteer medical organization, 890
Martin, Henry C.: Case of abnormally small viscera in an adult, 1279
Martin, Dr. J. C., illness of, 46
Martin, John Michael Harding, obituary notice of, 777
Martin, Sydney: Acute tuberculous pleurisy, 502
Martyr to science, 226
Marwedel, Georg: *Gründriss und Atlas der Allgemeinen Chirurgie*, rev., 1284
Mary Tudor, medical history of, 941
Matcaro, Dr., death of, 1112
Mask for administering mixtures of ether and chloroform or ether alone, 89
Masonic institution. *See* Institution
Massachusetts, cremation in, 208
Massey, G. Betton: *Conservative Gynaecology and Electro-Therapeutics: A Practical Treatise on the Diseases of Women and their Treatment by Electricity*, rev., 984
Massy, Brigade-Surgeon-Lieutenant-Colonel George, obituary notice of, 1320
Masterman, E. W. Gurney: Haemoglobinuric fever in Syria, 314
Mastoid operation, modern (Dr. Bronner), 1162
Masturbation, 479
Mata, Professor, satire on. 1177
Materia medica and therapeutics, review of books on, 870
Mathison, Arthur J.: Treatment of lobar pneumonia, 1401
Matthews, Valentine: Relation of the medical profession to war, 594; civil hospital training for men of the R.A.M.C. (Vols.). 1441
Maunsell, R. Charles B.: Gastro-enterostomy, 260
Mauritius, plague in, 49, 218, 349, 578, 767, 946
May, Charles H.: *Manual of Diseases of the Eye*, rev., 1406
Maylard, A. Ernest: *Abdominal Pain, its Causes and Clinical Significance*, rev., 924
Maynard, F. T.: Hill diarrhoea, 141
Mayne, Dr., charges against, 642, 707
Mayou, M. S.: *The Changes Produced by Inflammation of the Conjunctiva*, rev., 1405; Miliary tuberculosis, 1465
Meals for school children. *See* School
Mears, F. C.: Midwifery of the present day, 773, 1013, 1565
Measles, control of, 216: (leading article on), 220; at Newtownards, 408; complicating enteric fever (Cecil F. Lillie), 678; isolation of, 1006
Measles in the puerperium (Malcolm Campbell), 315
Meat and food products, inspection of, 1555
Meat inspection at Cardiff, 1190
Meat unfit for human consumption, 1077
Median nerve, compression of (Edmund C. Bevers), 381
Mediastinal sarcoma. *See* Sarcoma
Mediastinitis, chronic (J. S. McKendrick), 144
Mediastino-pericarditis, adhesive (J. M. Bennion), 316
Medical advertising. *See* Advertising
Medical advice with *Answers*, 583, 639; in ladies' newspapers, 1137
Medical advice gratis, 357, 834
Medical aid associations, 835
Medical ancestry of Marshal MacMahon. *See* MacMahon
Medical arrangements of the Japanese army, 819
Medical assessors (leading article), 518, 646
Medical attendance, on workhouse officials, 417, 538; on guest, 598; at a boys' school, 959
Medical benefit scheme. *See* Benefit
Medical biographies in local directories 1567
Medical certificates, 775, 896
Medical charlatanism in Germany. *See* Charlatanism
Medical charges, 476
Medical charities, bequests to. *See* Bequests
Medical congress. *See* Congress
Medical corps of army. *See* Army
Medical curriculum, actual length of in England, 275: leading article on, 278; and the General Medical Council, 1300
Medical Defence Union, 1123, 1258
Medical Diplomates' Association. *See* Association
Medical directors of hydropathic establishments, 952
Medical Directory, 210
Medical education, a sidelight on, 1306
Medical education in Bolivia, 690
Medical electricity, 1553; review of books on, 985
Medical ethics, 834
Medical etiquette, 118, 598, 717, 1017, 1257
Medical evidence at inquests. *See* Inquests
Medical examination, a vicarious, 900
Medical faculty in Turkey, a new, 1285
Medical golf tournament, 899, 1384
Medical Graduates' College and Polyclinic. *See* College
Medical Guild House, Belgian, 161
Medical history of John Calvin, 881; of Mary Tudor, 941
Medical homes for private patients, 118
Medical inspection of school children. *See* Schools
Medical interviews in lay press, 895
Medical legislators in Austria, 814
Medical legislation, Colonial, 39
Medical magistrates, 515, 694, 875, 1179, 1362, 1411, 1412, 1547
Medical members of Parliament (leading article), 95
Medical members of School Boards and fees for certificates, 834
Medical men and the Victoria Cross, 455; course of school hygiene for, 475; connexion of, with limited liability companies, 477: automobiles for (*see* Motor); practice of dentistry by, 834, 1076; as municipal candidates, 896, 1017; as insurance agents, 952
Medical missionaries, 440, 1195
Medical mortality in America, 958
Medical Notes in Parliament. *See* Parliament
Medical observations in the Arctic regions, 283
Medical officer to a fever hospital, obligations of, 357
Medical officers, district. *See* District
Medical officers and guardians. *See* Guardians
Medical officers of health, whole-time and half-time, 100; duties of, 239; correspondence on, 1074; of South Wales, reports of, 469; position of, 1432
Medical officers' deputies, 358
Medical officers, parochial, in Scotland, 175, 658, 832, 1132
Medical officers, poor law. *See* Poor law
Medical papyri at Royal Museum, Berlin, 50
Medical pedigree of a professor of Greek, 283
Medical politician, 300
Medical politics in Italy, 398
Medical practice abroad, chances of, 933; in Persia, 1492
"Medical practitioner" or "Doctor"? 757, 888
Medical practitioner, condemnation of, 598; should he undertake a fire insurance agency? 657; newspaper advertising by, 657
Medical practitioners in Italy, 101, 148: in Austria, 210. 1069; imperial organization of in Austria, 1069; Sunday rest for, 281, 415
Medical profession and the general election (leading article), 35: and Parliamentary representation, 110, 155; miners and, 37; and Sir John Batty Tuke, 51, 110: and the income tax, 91; leading article in 97 in 1906, 210; relation of to war (Surgeon-General A. H. Keogh), 361: correspondence on, 472, 594: in Victoria, 643; in Germany, 828; in Wales and the University, 1246; President Roosevelt on, 451: and insurance companies, 751; attractions of, 1369; and the public in America, 1548; and life assurance *See* Life
Medical Register, reform of, 173; review of, 687: correctness of, 1427
Medical relief on loan in Ireland, 1556
Medical Rolands and pharmaceutical Olivers, 75
Medical canonized saints, 570
Medical School of Oxford. *See* Oxford
Medical science and military strength, 1359, 1364, 1431
Medical senators, 231: in France, 394, 640
Medical service, public. *See* Public
Medical services of Japan, 882
Medical service of the army, President Roosevelt on, 225 (*see also* Army); of the Thibe Mission, 223
Medical Sickness and Accident Society. *See* Society
Medical societies. *See* Societies

Medical students, in Swiss universities, 454; instruction in nursing for, 455; in Austria, 679
Medical superintendent, right of to charge fees, 895
Medical supervision of schools. *See* Schools
Medical and surgical appliances, notices of, 30, 89, 148, 208, 389, 449, 509, 566, 629, 687, 747, 990, 1469, 1534
Medical terms in the new English Dictionary, 101, 879
Medical testimonials in trade advertisements, 118, 775, 1444
Medical witnesses, and Coroners. *See* Coroners
Medical witnesses, fees of. *See* Fees
Medical witnesses and inquest. *See* Inquest
Medicine in art, 154; in the East, 876; in Jerusalem, 1184
Medicine, clinical, application of colour photography to, 29
Medicine, clinical, new school of, 211, 461, 879
Medicine and the mercantile marine, 585, 654, 1011
Medicine and politics in America, 100 162
Medicine, review of books on, 146, 1165
Medico-Chirurgical Societies. *See* Society
Medico-Historical exhibition in London, 1303
Medico-Legal and Medico-Ethical, 56, 117, 174, 237, 297, 356, 418, 476, 538, 598, 655, 716, 774, 833, 895, 952, 1017, 1076, 1136, 1195, 1256, 1321, 1382, 1444, 1506, 1566; employment of collectors, 56; Scottish lunacy law, 56; payment of witnesses other than medical at coroner's court, 117; supersession by a consultant, 117, 656; supersession, 656, 1017, 1382, 1567; patients and partners, 118; medical etiquette, 118, 598, 717, 1017, 1257; medical homes for private patients, 118; obligations of a consultant, 118, 238; chemists' certificates to patients, 118; professional secrecy, 118, 298, 1321; medical testimonials in trade advertisements, 118, 775, 1444; fees for police calls, 118; sale of drink by prescription, 174; sale of cocaine, 174; Austrian ordinance as to surgical operations, 175; assistant's doorplate, 175; title of "accoucheur," 175; title of "Doctor," 175, 238, 418, 598, 657; personation of a medical practitioner, 237, 716; coroners and medical witnesses, 237, 297, 717, 774, 1321; uncertified midwives, 238; value of a practice, 238, 1321, 1507; expert evidence, 328; canvassing by doctors' wives, 238; charge of negligence dismissed, 297; charge of negligence, 1256; medical fees in speculative actions, 297; North Wales coroner, remarkable allegations, 297; employment of unqualified assistants, 298; public mortuaries, 298; relations with chemists, 298; allocation of partnership receipts, 298; medical evidence at inquests, 298, 358, 717, 775; canvassing for appointments, 298; examination of patients in criminal cases, 298; a skin specialist, 356; medical advice gratis, 357; obligations of a medical officer to a fever hospital, 357; fees of medical witnesses, a warning, 357; how to treat a rival living at a distance, 357; dispensing of poisonous liniments, 357; wrongful use of the title of "Dr.," American electrician fined at Bristol, 418; licence of surgery boy, 418; newspaper ophthalmology, 418; medical advertising, 418, 477, 599, 656, 834, 952, 1017, 1444; certificates of death, 418, 476, 538, 775; liability of *x*-ray operator, 418, 477; action for blindness after glaucoma, 476; secret commissions, 476, 656; medical charges, 476; forgery of death certificates, 476; regulation of proprietary medicines, 477; live birth and survival, 477; medical witnesses' fees, 477, 1507; connexion of medical men with limited liability companies, 477; bad debts, 477; information to the police, 477; a provident dispensary, 477; alleged covering, 477, 598, 657; oysters and sewage, 538, 834; death under ethyl chloride, 538; agreements not to practise, 538, 775; a disclaimer, 538, 1567; Christian Science before the coroner, 598, 1195; libel on a medical man, 598; midwife in the coroner's court, 598; condemnation of a medical practitioner, 598; medical attendance on guest, 598; Branch telephones, 598; fees for consultation, 599; club surgeons as members, 599; certificates for accident insurance companies, 599; action for negligence, verdict for defendants, 655; Aliens Act, 656; should a medical practitioner undertake a fire insurance agency? 657; methods of a nursing home, 657; recognition of foreign medical practitioners, 657; newspaper advertising by medical practitioners in the Colonies, 657; convictions under the Medical Act 1858, 716; liability of wife, 717; a friendly lead, 717; hospital officers as witnesses at inquests, 717; messages received, 717; an inquisition in lunacy, 774; sick certificates given by unqualified practitioners, 774; medical witness and inquest, 774; action of a specialist, 774; medical certificates, 775, 896; competing for club appointments, 775; dental practice, qualified and unqualified, 775; action for alleged slander, 833; charge of negligence, 833; medical ethics in a small town, 834; partnership agreements, 834, 1196; medical members of school boards and fees for certificates, 834; practice of dentistry by medical men, 834, 1076; relations with unqualified dentist, 834; fee of maternity nurse, 834; midwifery engagements, 834; locum tenens and inquest fees, 834; qualification of coroner, 834; attendance upon families of medical men, 834; medical aid associations, 835; medical interviews in lay press, 895; prescribing chemists, 895, 1017; right of medical superintendent to charge fees, 895; medical men as municipal candidates, 896, 1017; liability for malpractice, 896; consulting room in hotel, 896; attendance on medical man, 896; action for fees, 952; cure for freckles, 952; paying patients in public hospitals, 952; medical men as insurance agents, 952; medical directors of hydropathic establishments, 952; dichotomy, 952; great names in trade advertisements, 952; corrupt practices in club elections, 952; senile decay or disease? 953; consultants and club doctors, 1017; the JOURNAL and *Answers'* scheme, 1017; obligations of an anaesthetist, 1017; fees received by locum tenens, 1017; charge dismissed, 1076; slanderous statements, 1076; partnership doorplates, 1076; fees for lunacy certificates in Scotland, 1076; school certificates, 1076, 1137, 1256; branch surgeries and the title of "Dr.," 1136; canvassing for practice, 1137; use of non-registrable degrees, 1137, 1321; methods of the Malthusian league, 1137; examination of bodies, 1137; medical advice in ladies' newspapers, 1137; Christian scientists, 1195, 1321; the Peculiar People, 1196, 1256, 1566; touting, 1196; sight-testing opticians, 1196; certificates for insurance company, 1196, 1567; telephones and branch surgeries, 1256; partnership complication, 1256; notification of births, 1256; an acquittal, 1321; coroner's court, 1321; a specialist in locomotor ataxy, 1382; false registration, 1444; the coroner's court, 1444; fees in accident cases, 1444; inquests on patients dying long after an accident, 1445; contracts not to practise, 1445, 1567; action against a herbalist, 1506; starting in practice, 1507; a conviction upheld, 1566; *locum tenens* and legal fees, 1566; the action of a *locum tenens*, 1567; newspaper notices of medical practitioners, 1567; a village wonder, 1567; medical witnesses' fees in Scotland, 1567; value of appointments, 1567; area of practice, 1567; medical biographies in local directories, 1567
Medico-Psychological Association. *See* Association
Mediterranean fever. *See* Fever
Membranous colitis. *See* Colitis
Meningitis, posterior basic, prognosis in (O. Hildesheim), 733; case of, with few cerebral symptoms (J. G. G. Corkhill), 734
Meningitis, cerebro-spinal. *See* cerebro-spinal
MENOCAL, R.: *Contribution à l'étude de la funiculite lymphotoxique dans les pays chauds*, rev., 745
Mental aspect of inebriety, 873
Mental census of children. *See* Feeble-minded
Mental disease and syphilis (G. H. Savage), 1344
Mental disorders of pregnancy. *See* Pregnancy
Mentally-defective children (leading article), 580. *See also* Feeble-minded
Mercantile marine and medicine. *See* Medicine
Merchant Shipping Acts. *See* Acts
MERCIER, CHARLES: Food poisoning and coma, 141; *Criminal Responsibility*, rev., 445; Folie à Deux (?) 735
Mercury, insoluble, dangers of injections of, 291
MEREWETHER, Staff Surgeon ALWORTH EDWARD, obituary notice of, 838
MERVEILLE, Dr.: *Etude sur le traitement des fractures des membres*, rev., 1042
Metabolism, ingestion and excretion during and after pregnancy, 1534
Merthyr Tydfil, report of medical officer of health for, 1127, 1315
"Messages Received," 717
METCHNIKOFF, Professor ELIE, spelling of the name of, 1177, 1292; on the prophylaxis of syphilis, 1183, 1431
Method for indicating food values, 1552
Methods of modern science, 1426
Metric system, dispensing on, 420
Metritis, chronic infective (A. Addinsell), 862
Metropolitan Asylums Board. *See* Board
Mexico as a winter health resort, 284
MEYER, GEORGE: *Erste ärztliche Hülfe*, rev., 26: *Das Rettungs und Krankenbeförderungswesen in Deutsche Reiche*, rev., 1225
Middle ear. *See* Ear
Middlesex, Sanatorium for. *See* Sanatorium
Midland Counties Home for Incurables, 286
Midland Institute, resignation and appointment, 163
Midland Medical Union, fifth annual meeting, 389
Midwife in coroner's court, 598
Midwifery in Edinburgh. *See* University, Edinburgh
Midwifery, education of medical students in, 1300
Midwifery engagements, 834
Midwifery extraordinary, 1080
Midwifery practice and scarlet fever, 636, 770, 960
Midwifery of the present day (Peter Horrocks), 541; correspondence on, 649, 659, 712, 773, 831, 892, 949, 960, 1012, 1020, 1073, 1132, 1199, 1255, 1259, 1324, 1382, 1448, 1572
Midwifery or operating case with sterilizer, 509
Midwifery scholarships, 876
Midwifery, teaching of (leading article), 1363; correspondence on, 1565
Midwives Act. *See* Act
Midwives Board. *See* Board
Midwives, appointment of supervisor of, at Liverpool, 103; instruction of (leading article), 222; uncertified, 238; in Monmouthshire, 408; inspectors of, 1308, 1318, 1376
MIKULICZ, Professor von, monument to, 345
MILES, CHARLES H.: Midwifery of the present day, 1132
Miliary tuberculosis. *See* Tuberculosis
Military hospitals. *See* Hospitals
Military hygiene on active service, 343
Military medical service in Germany, 523
Military strength and medical science, 1359, 1364, 1431
Military training, universal, 285, 1004
Military work, civil practitioners and, 38, 102
Milk, bacteriological standard for, 452
Milk dépôt for infants at Leith, 766; (W. Robertson on), 1103
Milk, goat's, 1122
Milk, pasteurized, and infant feeding, 1070, 1131
Milk from the public health point of view, 285
Milk and tuberculosis, 43, 410, 828. *See also* Tuberculosis *and* Tubercle
MILLER, Dr.: Waxy degeneration of thyroid, 1156
MILLER, G. VICTOR: Case of sarcoma of the nose, 321
MILLIGAN, W. A.: Pyelonephritis of pregnancy, 82
MILNE, A. J.: Polypoid tumour of cervix uteri due to bilharzia, 557
MILWARD, Mr.: Brain surgery, 321; Precocious development, 861
Mind and matter (T. Claye Shaw), 1335; correspondence on, 1508
Miner's anaemia. *See* Ankylostomiasis
Miners, and the medical profession, 37; health and safety of, 1322
Mines, life-saving in, 756
Mining accidents in North Staffordshire in 1905, 1316
Ministry of Health in Austria, proposed, 224; for Canada, 397
Ministry of Public Instruction: Records of the Egyptian Government School of Medicine, rev., 686
Missed abortion? 630
Missed labour, 460
Mission, London Bible Women and Nurses', 1056
Missionaries, medical, 440
MITCHELL, THOMAS E.: Childbirth after colotomy, 499
Mitoses in cancer, heterotypical, 185
Mitral stenosis and pregnancy (H. French and H. T. Hicks), 1402
Model Ladies' Health Society. *See* Society
Model market that failed, 1561
Modern fashions in Surgery. *See* Surgery
"Modern Surgical Technique," 1384
MOLE, HAROLD: Surgical anatomy of the temporal bone, 325
Mole, tubal (W. F. Cholmeley), 1342; associated with sarcoma of ovary (Dr. Galabin), 83
Molecule, albuminous, constitution of, 221
Molluscum fibrosum (J. R. Lunn), 261
Money, clean, 653
MONIER-WILLIAMS, M.S.: Importance of the colon, 787
Monmouthshire, midwives in, 408
MONRO, T. K.: Epiplopexy, 923; syringomyelia, 923
MONSARRAT, K.: Parliamentary representation of the Universities of Edinburgh and St. Andrews, 51; Posterior vertebral tuberculosis, 324
MONTAIGNE, and the doctrine of suggestion, 1367
MONTEAGLE, HENRY: Midwifery of the present day, 1132
Montevideo, vital statistics for, 694
Montreal, tuberculosis camp for, 227
MOORE, J. E. S.: *The Maiotic Process in Mammalia*, rev., 566
MOORE, Sir JOHN WILLIAM: On vaccination, 503; On compulsory revaccination, 1309
MOORHEAD, T. GILLMAN: Anaemia splenica infantum, 741

Moreton, Thomas, obituary notice of. 355
Morgan, D. J.: Value of Doyen's serum in malignant disease, 740
Morgan, H. de R.: Bacteriology of summer diarrhoea of infants, 908, 1131
Morison, Alexander: Present position of the treatment of heart disease by baths and exercise, 442; angina pectoris, 535, 713
Morison lectures. *See* Lectures
Morison, Rutherford: Some functions of the omentum, 76
Morris, Henry, dinner to, 464
Morris, R. Owen: Parliamentary representation of St. Andrews and Edinburgh Universities, 110
Morrison, Mr.: Osteo-enchondroma of wrist, 142: Excision of popliteal aneurysm, 559; Aortic aneurysm treated by acurasion, 559; Gluteal aneurysm, 559
Morse, Nathan Clark: *Post-operative Treatment*, rev., 1224
Mortality, at the Transvaal mines, 640: in prisons in England and India, 823; medical, in America, 958: phthisis, 958
Mortality, infantile, in Scotland, 288, 1189; prevention of, report of Medical Officer of Health for City of London, 358; at Creusot, 1125; question in Parliament, 1125, 1500; conference on, 1248, 1303, 1422; John Burns on, 1422
Morton, Charles A.: Diffuse peritonitis from perforation of appendix, 71
Mortuaries, public, 298
Mortuary, Manchester, 103
Moseley Hall Convalescent Home, annual report, 709
Mosny, E.: *Traité d'Hygiène*, rev., 448, 1043
Mosquitos, extermination of, 389, 973, 1101; and yellow fever, 639
Most, August: *Die Topographie des Lymphgefässapparates des Kopfes und des Halses in ihrer Bedeutung für die Chirurgie*, rev., 982
Mother-in-law, the eternal, 960
Motor-car law and the general election, 52
Motor bicycles, 1447, 1571
Motor cars on the instalment principle, 523
Motor cars for medical men, 60, 120, 586, 884; cost of, 300, 360, 515, 884, 1407, 1571; licence, 539
Motor omnibuses in London, 934
Motor paralysis. *See* Paralysis
Motor traffic, 1051
Motorists, a warning to, 480. *See also* Automobile
Mott, F. W.: Dourine or mal de coït of the horse, 1281
Moullin, C. Mansell: Specimens of uterine myoma, 443; Inflammation of appendix caused by a foreign body, 1340
Mouse-tumour, Jensen's, action of trypsin upon the living cells of (J. Beard), 140; correspondence on, 360
Mouth, serumtherapy by. *See* Serumtherapy
Mouth, extensive ulceration of (W. H. Battle), 1039
Mowat, James, obituary notice of, 1443
Moxey, Vincent: Recent surgical methods in the treatment of certain forms of paralysis, 771
Moxon, William, obituary notice of, 654
Moynihan, B. G. A.: Review of a series of operations for cancer of stomach, 370, 383; *Abdominal Operations*, rev., 924; Acute peritonitis due to duodenal ulcer, 946; Report on 282 operations for non-malignant diseases of the stomach, 1221
Mr. Coleridge on tour. *See* Coleridge
Muco-membranous typhlo-colitis mistaken for appendicitis, Professor Dieulafoy on diagnostic and operative errors in cases of, 1373
Mucosa, nasal and uterine, connexion between, 1254
Mucous colic and asthma, 235
Mudie of medical literature, 1354
Muir, M. M. Pattison: *Story of Alchemy and the Beginning of Chemistry*, rev., 1347
Muir, Professor: Four cases of cirrhosis of liver with primary cancer, 324
Mumford, James G.: *Surgical Aspects of Digestive Disorders*, rev., 1164
Munich, interesting statistics of, 219; cooperative hospital in, 1316
Municipal by-laws, 359
Murder and insanity. *See* Insanity
Murphy, Sir Shirley F.: Report on the health of London, 334, 451
Murray, David Christie: The antivivisectionists and the hospitals, 53, 171, 224, 292
Murray, Flora: Pleuritic effusion treated with adrenalin by the preliminary intraserous injection method, 973
Murray, George: Treatment of heart disease, 1279
Murray, Milne, memorial to, 704
Murray, R. W.: At what age should a cleft of the palate be closed? 245, 716; Etiology and treatment of oblique inguinal hernia, 1039, 1390
Muscular atrophy. *See* Atrophy
Mushroom poisoning, idiosyncrasy to (Emilien E. Frossard), 319
Mutwal, malaria in, 1109
Mycetoma (Madura foot) in the Yemen (Frank G. Clemow), 918; correspondence on, 1260, 1401
Myelitis, transverse, with recovery (Dr. Herringham), 262
Myocardium, degeneration of in hot climates (W. Carnegie Brown), 1462
Myoclonus (Frederick Taylor), 201
Myoma of uterus. *See* Uterus
Myopia and heredity (C. Worth), 626
Myott, Edgar C.: Case of eucalyptus poisoning, 558
Myxoedema, case of (Sir Thomas Fraser), 488

N.

Nachtel, Henri, on street ambulances, 1498
Naevus of tongue, cavernous (H. M. Rigby), 262
Nagel, J. D.: *Nervous and Mental Diseases*, rev., 1283
Napoleon and compulsory vaccination, 1297
Narath, Albert, appointed to Chair of Surgery in University of Heidelberg, 1547
Narcomania, treatment of (Dr. Wilkins), 1101
Nasal deformities and paraffin injections, 1155
Nasal diseases, influence of on lower respiratory tract (J. Mackie), 803
Nasal dilators, 30, 990
Nasal and uterine mucosa, connexion between, 1254
Nasal septum, submucous excision of deviations and spurs of (StClair Thomson), 1531
Nash, Elwin H. T.: Finances of the Association, 1561
Nash, J. T. C.: Shellfish, seaweed, and sewage, 439: Evolution in relation to disease, 682; Typhoid and colon bacilli, 831; Summer diarrhoea of infants, 1075
Natal, malignant disease in, 277; cancer in, 813
Natality and fecundity, review of book on, 685
National Temperance League. *See* League
National vitality (leading article), 457
Natural history slides, 120
Naval and Military Medical Society. *See* Society
Naval service, universal. *See* Service
Navy, Japanese, preservation of health in, 1175
Navy, royal, medical service of, 60, 117, 358, 416, 587; admission to, 60; prospects in the service, 117, 358, 416; questions in Parliament, 587, 1438
Navy, United States, medical service of, 101
Neal, James: Choice of candidates for the General Medical Council, 1132
Necrosis of lower of end femur, radical operation for (E. Deanesly), 1341
Necrosis, pancreatic (Gilbert Barling), 436
Necrosis of testicle (R. R. Law), 1219
Neftel, William B., obituary notice of, 416
Negligence, charge of. *See* Charge
Neisser, Clemens: Individualities of insane persons, 167
Nematodes and the appendix (H. L. Whale), 1100
Nerve, the median, compression of (Edmund C. Bevers), 381
Nerve centres in children, training of (Eric Pritchard), 505
Nerves, paralysis of left sixth and paresis of left seventh (L. Guthrie), 1039
Nerves, trophic. *See* Trophic
Nervous mimicry, 539
Netter, Dr.: On calcium chloride as a preventive of eruptions after serum injection in diphtheria, 471
Nettleship, Mr.: Congenital cataract, 1465
Neumann, L. G.: *Parasitic Diseases of Animals*, rev., 25
Neuralgia and degeneracy (P. C. Smith), 494
Neurasthenia, treatment of (Guthrie Rankin), 492; correspondence on, 659
Neurasthenia, degeneracy and mobile organs (P. C. Smith), 494
Neurasthenia, review of books on, 627
Neuritis, multiple symmetrical peripheral, causing widespread motor paralysis (Frederick W. Price), 914
Neuritis in phthisis (Joseph Stark), 1464
Neurofibromatosis, typical, 169
Neustätter, Otto: Medical charlatanism in Germany, 1348, 1410, 1470, 1538
Neve, Arthur: Surgery of sarcoma in Kashmir, 1217
New remedies, notes on, 687
Newbiggin, T. Duncan: Post-office medical officers, 1319
Newbolt, G.: Enucleation of prostate for haemorrhage, 354; gangrene of the toes, 444; tropical abscess of liver, 804
Newborn, intracranial haemorrhage in, 342; (J. Cameron Turnbull), 677
Newcastle-upon-Tyne, notes from, 41, 468, 529, 708, 825, 1066, 1252; the Royal Infirmary: Christmas festivities, 41; tetanus at, 41; caisson disease at, 41; changes in the staff, 41: new buildings, 42, 1252; Durham University: Degrees conferred, 1066; the Throat and Ear Hospital, 42; gastric ulcer, 42; University of Durham College of Medicine: dinner of past and present students, 468; presentation to Dr. G. H. Hume, 468; new wing and summer classes, 1066: opening of a Rowton house, 469; lying-in hospital, 469; North of England Glasgow University Club banquet, 529; death from carbon monoxide, 530; North of England Edinburgh University Graduates' Club banquet, 708; Northumberland and Durham Medical Society, 825; secret treatment of alcoholism, 825; expected visit of the King, 825, 1252; Baron Takaki, 1066, 1252; health of Gateshead, 1252
New growths in the rectum, extirpation of, 1070
Newland, H. Simpson: Extroversion of the bladder: its treatment by extraperitoneal implantation of the ureters into the rectum, 964
Newman, David: The cystoscope, 661, 726
Newman, George: *Hygiene and Public Health*, rev., 1044
New 'pathy, 1000
Newport insanitary houses in, 104; underfed children at, 408; water supply, 764; new mortuary at, 824
Newsholme, A.: Decline of human fertility in the United Kingdom and other countries as shown by corrected birth-rates, 268
New South Wales, notes from, 48, 105, 410, 465, 887; lunacy in, 48; Friendly Societies in, 105; Royal Prince Alfred Hospital, Sydney, 105, 410; Sydney Ambulance and Transport Corps, 105; bubonic plague in, 105, 888; women residents in general hospitals, 410; Sir Philip Sydney Jones, presentation to, 410; leprosy in, 565; restrictions on the importation of opium, 465; women resident medical officers in general hospitals, 887; advantages of the Australian climate, 888; vital statistics, 888; chemists and the Early Closing Act, 888
Newspaper advertising by medical practitioners in the colonies, 657
Newspaper notices of medical practitioners, 1567
Newspaper ophthalmology, 418
Newspaper prescribing, 1260
Newtownards, measles and whooping-cough at, 408
New York, pneumonia in, 219. *See also* United States
New Zealand, Public Health Minister, dinner to, 280; practice in 1571
Nice, school hygiene in, 797
Nicolson, Bishop, extracts from the diaries of, 336
Nigeria, military operations in, 647
Nitch, Cyril A. R.: Immediate and remote results of the high operation for varicocele, 191
Nitrometer for clinical estimation of urea, 208
Nitze, Maximilian, death of, 597; obituary notice of, 777
Niven, Dr.: Educational crèches, 1423
Noc, F.: *Technique de Microbiologie Tropicale*, rev., 745
Nocard, Professor, monument to, 1547
Non-alcoholic wine, 1353
Non-magnetic steel alloys (Simeon Snell), 1465
Non-registrable degrees, use of, 1137, 1321
Non-tuberculous and phthisical males, comparison between (W. C. Rivers), 1394
Noorden, K. von: *Diseases of the Blood*, rev., 265
Norfolk, Midwives Act in, 812
Northcote, A. B.: Case of occlusion of both external auditory meatuses, 798
North of England Glasgow University Club banquet, 529; Edinburgh University Club banquet, 708
North Staffordshire, notes from, 42, 163, 229, 531, 1253, 1316, 1558; Christmas festivities at the infirmary, 42; unemployed or ergophobic? 42; Potteries Cripples' Guild, 42, 1253; Cheddleton Asylum, 43; Bucknall Infectious Hospital, 43; potter and scientist—William Henry Goss, 163; exposing fever cases, 163; Bradwell Infectious Hospital, 163; tramp wards, 229; mental census of children, 531; lead poisoning, 1253; subsidence of a hospital, 1253; local mining accidents in, 1905, 1316; special meeting at the infirmary, 1558; Compensation Bill and lead workers, 1558
Northumberland, colliery disputes in, 403
Northumberland and Durham Medical Society. *See* Society
Northumberland miners and their medical officer, 698
Norwich, life table for the city of, 225
Nose and ear, review of books on, 868
Nose, sarcoma of (G. Victor Miller), 321
Nose, valuation of, 458
Nostrums, supervision of, 227

NOTHNAGEL, Professor, memorial to, 631, 769; lectures, 769

Nothnagel's Encyclopaedia of Practical Medicine, rev., 265

Notice of Accidents Bill. *See* Bill

Notification of phthisis. *See* Tuberculosis

Nottingham, medical fees in. *See* Fees

Notification of case sent to hospital, 478; of birth. *See* Births

Not well enough to stay in hospital, 420

Nova Scotia, reciprocity with, 1184, 1447

Nova et Vetera, 27, 149, 209, 931, 987, 1178, 1297; the founder of the British Medical Association, 27; a plague of locusts, 149; the head of Charles I, 209; relation of early Greek philosophy to Greek medicine, 931; John Wesley on the art of healing, 987; physicians of Western Islands, 1178; Napoleon and compulsory vaccination, 1297

Nurse, asylum, training and registration of (Dr. Harding), 1041

Nurse training schools, 1362

Nurses' Association Bill (in Canada), 766

Nurses, course of instruction for in Vienna, 109

Nurses in an emergency, 240

Nurses' Fund. *See* Fund

Nurses, Queen Victoria's Jubilee Institute for, Scottish Branch, 104

Nurses, registration of, 587, 711, 895, 1430, 1471, 1499

Nurses, trained, for India, 1551

Nursing in the army, 1498, 1549

Nursing home, new army, 586

Nursing home, methods of, 657

Nursing homes, public, 635

Nursing, instruction in for medical students, 455

Nursing in volunteer military hospitals, 1497

Nutmeg poisoning, 539

O.

Oath, French apothecaries', 1551

Obesity, extreme, with precocious puberty (L. Guthrie), 1039

Obesity, is a remedy for a patent medicine? 1240

Obesity, thyroid in treatment of, 1019

Obituary notices, 55, 115, 178, 236, 295, 355, 416, 476, 596, 654, 716, 777, 836, 898, 954, 1015, 1078, 1135, 1196, 1257, 1319, 1379, 1442, 1504, 1568

Obligations of a consultant, 118, 238, 1567; of an anaesthetist, 1017; of a substitute, 1137

Obstetrical societies. *See* Society

Obstruction of bowel. *See* Bowel

O'CARROLL, Dr.: Hydrocephalus, 203

Occipito-posterior presentation (George Geddes), 549; John McMullen, 978; correspondence on, 713, 893

Occupation mortalities in Scotland (J. C. Dunlop), 622

Ochronosis, study of, 1308

Ocular symptoms of intracranial tumour (A. W. Ormond), 622

ODIER, M.: Action of glycolytic ferment on malignant growths, 1245

ODLING, T. F., obituary notice of, 837

Oedema, angio-neurotic (W. H. Lowman), 858; correspondence on, 959, 1019; ichthyol in (Frederick C. Forster), 976; case of (A. E. Garrod), 1039

Oedema, of the eyelids (Simeon Snell), 262; of lids and conjunctivae, 840

Oesophagus, cancer of. *See* Cancer

Oesophagus, patency of, re-established after gastrostomy, 1155, 1324

OGILVIE, MONTEITH: Congenital cataract, 1465

Old age, Sir Samuel Wilks on, 1305

Old-age pensions, cost of, 524

OLIVER CROMWELL. *See* Cromwell

OLIVER, THOMAS: Elected honorary corresponding member Amsterdam Medical and Physical Society, 291; elected honorary corresponding member, Société Médicale des Hôpitaux de Paris, 1547

Omentum, some functions of the (Rutherford Morison), 76; correspondence on, 235

Omentum, torsion of (H. Irving Pinches and Edred M. Corner), 143

Omentum, torsion of simulating appendicitis, 883

OPENSHAW, T. H.: Congenital absence of fibula and congenital coxa vara, 741

Operating case with sterilizer, 509

Ophthalmia in Egypt, 1053

Ophthalmic practice, dionine in (James Hinshelwood), 1098

Ophthalmology: Past and Present (Simeon Snell), 550; reviews of books on, 687

Ophthalmology, systematic instruction in, 1061

Opium, restrictions on the importation of in New South Wales, 465; in the Philippines, 821; in French naval ports, 990; in Indo-China, 1312

Opsonic power of the blood (T. R. Bradshaw and E. E. Glynn), 1104

"Optician," use of, 1354

Opticians, advertising, a warning to the public, 158

Opticians, proposed Bill to legalize the practice of, 52, 654, 1302

Opticians, sight testing, 1196, 1432

O'REGAN, Staff-Surgeon, obituary notice of, 1320

Oral instruction of the deaf, 1492

"Oral sepsis" in scarlet fever, 534, 1376

Orbit, cyst of (Treacher Collins and Johnson Taylor), 1104

Orbital encephalocele (J. Herbert Parsons and George Coats), 625

Order of St. John of Jerusalem, appointments, 1492

Ordnance factories, vaccination in, 1500

Organization of the profession. *See* Warning notices

Organotherapy, review of books on, 447

Orient Steam Navigation Company, programme of summer cruises, 995

Origin of life (H. Charlton Bastian), 629

Orkneys, fish eating and leprosy in, 948, 1071, 1134

ORMOND, A. W.: Ocular symptoms of intracranial tumour, 622

ORR, J.: Eucalyptus poisoning, 1085

Orthopaedic surgery, review of books on, 328, 869; scope and limitations of, 462

ORTON, G. HARRISON: Early diagnosis of pulmonary tuberculosis by Roentgen rays, 649

OSLER, WILLIAM: Medical aspects of carcinoma of breast, 1; *Principles and Practice of Medicine*, rev., 146; elected member of the Athenæum Club, 586; and the Oxford Folio Shakespeare, 810; new book by, 888; and Dr. Camac, 889; farewell address to Canadian and American students (leading article), 1425

Os calcis, fractures of (Professor Bennett), 202

Osteo-enchondroma of wrist (Mr. Morrison), 142

Osteomalacia, case of localized (Philip Talbot), 259

Osteopathy, Bill for legalization of in America, 454

O'SULLIVAN, Dr.: Chronic diarrhoea simulating sprue, 803; two cases of poisoning—strychnine and phosphorus, 980

O'SULLIVAN, DANIEL A.: Proposed Royal Charter, 1075

Otological Society. *See* Society

Otology, progress of (leading article), 1180. *See also* Stapes, fixation of

Otorrhoea, treatment of, 1324

Otorrhoea, chronic, treatment of (E. Furness Potter), 561. *See also* Ear

Oudh, report on health of, 1069

Out-patient reform in London (leading article), 581

Ovarian cystoma with appendicitis (John T. Hewetson), 789

Ovarian dermoid. *See* Dermoid

Ovaries, effects of amputation of both, 883

Ovaries, cancer of. *See* Cancer

Ovaries, influence of on lactation, 240

Ovariotomy during labour (Herbert R. Spencer), 384; after delivery (Professor Kynoch), 1465

OWEN, EDMUND: Acute bone disease in children, 241

OWEN, J. LEWIS: Injuries during labour, 557

Oxford and dissections in the eighteenth century, 1229

Oxford Medical School, 1479, 1495; medicine in mediaeval Oxford, 1479; the Oxford of Sydenham, 1479; Oxford's medical benefactor, 1479; other benefactors, 1480; a decaying school, 1480; a revival, 1481; medical Oxford to-day, 1482; the Oxford medical student, 1482; course of study and examinations, 1483; the teaching and the teachers, 1484; the Museum, 1485; the various departments, 1486; the Botanic Garden, 1487; the Radcliffe Library, 1488; the Radcliffe Infirmary, 1488; post-graduate courses, 1490; further departments wanted, 1490; endowments, 1490; the Oxford degree as an asset, 1491; prizes, 1491; the Oxford graduate in practice, 1491, 1523

Oxford folio Shakespeare, 810

Oxford University. *See* University

Oxford Year-book and Directory, rev., 448

Oxyuris vermicularis causing appendicitis, 501

Oysters and sewage, 538, 834

Ozone, properties of, 1184

P.

PAGET, STEPHEN: Aural cases in general practice, 248

Pain, toxic theory of, 880

Pain, visceral, meaning and mechanism of (James Mackenzie), 1449, 1523

PAINE, ALEXANDER: Value of Doyen's serum in malignant disease, 740

Painless labour. *See* Labour

PAJOT, the famous Paris obstetrician, 1050

Palate, congenital aperture in centre of (James Berry), 261

Palate, cleft. *See* Cleft

Palermo, 1362

Panama Canal, sanitation at, 224

Pancreas, complete removal of multilocular cyst of (John D. Malcolm), 1160

Pancreatic necrosis (Gilbert Barling), 436; (P. J. Cammidge), 622, 1150; correspondence on, 594

Pancreatitis, acute (Dr. Cooke), 1156; fat necrosis in (Frank Barnes), 322

Pancreatitis, acute haemorrhagic (E. J. Toye), 200; (F. W. Baker Young), 324

Papain in malignant growths, 1439

Papyri, medical. *See* Medical

Parabolic fluid, 1199

Paracolon bacillus found in the urine (W. Mair), 438

Paradox in paternity, 351

Paradoxical temperature, 1200, 1448

Paraffin injections and nasal deformities, 1155

Paralysis, general, of the insane (W. Ford Robertson), 348

Paralysis of left sixth and paresis of left seventh nerves (L. Guthrie), 1039

Paralysis, infantile, pelvis deformed by (J. B Hellier), 204

Paralysis, motor, due to multiple symmetrical peripheral neuritis (Frederick W. Price), 914

Paralysis, recent surgical methods in treatment of certain forms of (A. H. Tubby), 481, 771; correspondence on, 595, 771

Paramecium or paramoecium, 1177

Paraplegia, acute ascending (G. B. Buchanan), 145

Paraplegia, traumatic, treated by laminectomy (L. McGavin), 261

Parasites, animal, review of books on, 25

Paris, special correspondence from, 51, 108, 167, 231, 291, 350, 471, 647, 768, 828, 889, 1010, 1191, 1373, 1501; Behring's antituberculous vaccination in bovines, 51; prophylaxis of syphilis, 51; exposition of automobiles, 51; influence of heat on the evolution of tetanus, 108; crèches for the nursing staff of hospitals in Paris, 108; chair of clinical therapeutics, 108; surgery of the bile passages, 167; infective books, 167; legal conditions of the medical use of the Roentgen rays, 231; medical senators, 231; dangers of injections of insoluble mercury, 291; mortality from tuberculosis in France and Germany, 350; a paradox in paternity, 351; Professor Chantemesse and Dr. Borel on the laws regulating emigration, 471; Dr. Netter on calcium chloride as a preventive of eruptions after serum injections in diphtheria, 471; Legion of Honour, 471; bacillary treatment of enteritis, 647; serumtherapy in typhoid fever, 647; Professor Landouzy on dust and tubercle among carpenters and laundry workers, 768; opening lecture of Professor Robin, 768; regulations for sale of ice, 768; plan of organization for fight against tubercle in Paris, 768; tuberculosis and its prophylaxis, 828; tubercle bacilli in milk, 828; tuberculosis treated by lime salts, 889; surgery of the heart, 1010; radiumtherapy of cancer, 1010; non-contagiosity of alopecia areata, 1010; the strikes and the medical societies, 1191; succussion in pyopneumothorax, 1191; Professor Dieulafoy on diagnostic and operative errors in cases of mucomembranous typhlo-colitis mistaken for appendicitis, 1373; MM. Calmette and Guérin on a new method of vaccination against tuberculosis, 1501; Report of Tuberculosis Commission, 1501; notification of whooping-cough, 1501

Paris, Antiquackery Congress in, 1298; psychological institute in, 1303; University. *See* University

PARK, WILLIAM HALLOCK: *Pathogenic Micro-organisms, including Bacteria and Protozoa*, rev., 1225

PARKER, RUSHTON: Gall stones, 1039

PARKES, LOUIS: Compulsory notification of phthisis in London, 863

PARKINSON, C. H. W.: Sir John Batty Tuke and the medical profession, 51

PARKINSON, PORTER: Serum treatment of gonorrhoeal infections and purpura haemorrhagica, 979

Parliament, medical notes in, 464, 524, 587, 640, 703, 761, 822, 884, 1003, 1064, 1125, 1248, 1311, 1433, 1499, 1555; the Parliament of 1906, 464; King's speech, 464; Government Bills, 464; private members' Bills, 464; Juvenile Smoking Bill, 464, 524, 640, 1312, 1500; tuberculosis in animals, 464, 885, 1187; debate on the Address, 524; parliamentary medical committee, 524; University of London, 524; Thames pollution, 524; child insurance, 524; cost of old age pensions, 524; course of business, 524, 1248, 1556; vivisection, 587, 640, 822, 885, 1064, 1187, 1311, 1499; Poor-law Commission, 587, 885; Naval Medical Service, 587; registration of nurses, 587; Notice of Accidents Bill, 587; Prevention of

Corruption Bill, 587, 703, 823; provision of meals for school children, 587; Cruelty to Animals Bill, 640; quack medicines, 640; vivisection, a Government inquiry promised, 640; insanitation in Somers Town, 640; mortality in the Transvaal mines, 640; ventilation at the Pimlico clothing factory, 640, 703; Poor-law children, 640; pharmacy Bills, 703; Coroners Bill, 703; vaccine lymph, 703, 885; adulteration of food, 703; Sale of Butter Bill, 703; Pure Beer Bill, 703; asylum attendants and lunacy, 703; insanitation at Bromley, 703; police and Sanitary Committee, 703; Workmen's Compensation Bill, 761, 885, 1187; vaccination, 762, 823, 885, 1126; Merchant Shipping Acts, 762; Public Health Acts Amendment Bill, 762; physique of recruits for yeomanry and volunteers, 762; notification of births, 762; the committee of medical members, 822; cancer research and the Post Office, 822; the Army Medical Establishment, 822; Volunteer Medical Service, 823; vaccination officers and the guardians, 823, 885; dispensary doctors in Ireland, 823, 1065, 1311; treatment of sick prisoners, 823; mortality in prisons in England and India, 823; anthrax at Bradford, 823; diachylon as a poison, 884; tuberculous pork, 885; insanitary condition of the Lewis, 885; sanitation on the Gold Coast, 885; public vaccinators and their fees, 885; vaccination debate, 885; compulsory vaccination, 1003; the Budget, 1064; Irish Poor-law medical officers, 1065; rural housing, 1065, 1126; sleeping sickness, 1065, 1187; East London water supply, 1065; notification of phthisis in Scotland, 1125; infantile mortality, 1125, 1500; vaccination of teachers, 1126; antivaccination, 1126; vaccination exemption, 1126; antityphoid inoculation, 1126; London water, 1126; vaccination prosecutions, 1126; Darenth Asylum and the London water supply, 1126; fatal accidents in Scotland, 1126, 1500; use of statutory titles by companies, 1186; experiments on animals (*see* Vivisection); Christian Scientists, 1187; Royal College of Surgeons, 1187; chemical and medical supplies and Irish boards of guardians, 1187; Bulford Camp, 1187; Education of Afflicted Children (Ireland) Bill, 1248; deaths attributed to vaccination, 1248; vaccination in the army, 1248; Post Office and vaccination, 1249, 1555; promotion in the R.A.M.C., 1249; Richmond District Lunatic Asylum, 1311; high death-rate in Belfast, 1311; the sailor and his rum, 1312; vaccination of recruits, 1312; deaths of vaccinated persons from small-pox, 1312; increased cost of vaccination, 1312; Indo-Chinese opium trade, 1312; Public Health Officers Bill, 1312, 1434; business after Whitsuntide, 1312; American meat imports, 1433; tinned meat for the army, 1434, 1499; insanitary barracks, 1434; eyesight tests in the navy, 1434; prison diet, 1434; sanitation in the Lewis, 1434; physical health in elementary schools, 1499; Nurses' Registration Bill, 1499; boarding out, 1500; Fatal Accidents and Sudden Death Inquiry (Scotland) Bill, 1500; salaries of Scottish medical officers, 1500; vaccinal condition of small-pox patients, 1500; vaccination in ordnance factories, 1500; Infectious Diseases (Ireland) Bill, 1500; inspection of meat and food products, 1555; increase of consumption in Ireland, 1556; medical relief on loan in Ireland, 1556; Kilkenny District Lunatic Asylum, 1556; Removal of Offensive Matter Bill, 1556; New Technological College and London University, 1556

Parliament, the new, 281, 337; antivaccination in (leading article), 935

Parliamentary Medical Committee, 524

Parliamentary representation and the medical profession, 110, 155, 281

Parliamentary representation of universities. *See* University constituencies

Parliamentary vote and women graduates. *See* Women

Parochial medical officers. *See* Medical officers

Parotitis, acute, treatment of (J. Batteson), 81

PARRY, J. H., obituary notice of, 1015

PARRY, L. A.: Unusual case of atropine poisoning, 798

PARSEY, E. W.: Choice of candidates for the General Medical Council, 1132

PARSONS, Dr.: Leukaemia, 862

PARSONS, J. HERBERT: *The Pathology of the Eye*, rev., 206; Orbital encephalocele, 625

Partial disablement, assurance against. *See* Assurance

Partnership agreements, 834, 1196

Partnership doorplates, 1076

Partnership receipts, allocation of, 298

Passive resistance in Austria, 351, 471, 710

PASSOW, A.: *Die Verletzungen des Gehörorgans*, rev., 869

Past, present and future of the British Medical Association (Hugh R. Ker), 1528

Pasteur Institute at Kasauli, 994

Pasteurized milk. *See* Milk

Patella, fractured (E. Deanesly), 1341

Patent medicines at the Antipodes, 40; in Canada, 1005; in the United States, 1186

Pathological societies. *See* Society

Pathology, position of with regard to clinical diagnosis (A. W. Mayo Robson), 601

'Pathy, a new, 1000

Patients and partners, 118

PATON, D. MONTGOMERIE: Serumtherapy by the mouth, 1032

PATON, D. NOEL: *Essentials of Human Physiology*, rev., 867

PATON, E. P.: Bony tumour of skull, 741; Right duodenal hernia, 801

PATON, STEWART: *Psychiatry*, rev., 1282

PATTON, W. S.: Mycetoma (Madura foot in the Yemen, 1401

PAUL, FRANK T.: Appendicitis, 561

PAUL, GEORGE P.: *Nursing in Acute Infectious Fevers*, rev., 1347

Pauper consumptives, sanatorium treatment for, 418

Pay hospital for London. *See* Hospital, London

Paying patients in public hospitals. *See* Hospitals, public

Payment of medical men called in to assist midwives, 1055

Payment of witnesses other than medical at the coroner's court, 117

PAYTON, THOMAS, obituary notice of, 956

PEARSON, Dr.: Tuberculous kidney and ureter, 263; Fibroid tumours, 803

PEARSON, C. YELVERTON: *Modern Surgical Technique in its Relation to Operations and Wound Treatment*, rev., 1224

PEARSON, KARL: Relative brain-weights of man and woman, 232, 413, 650

Peculiar people, 1196, 1256, 1566

Pedagogic laboratory, 463

Pedicle, twisted (Dr. Barbour), 1221

Pelvic appendicitis. *See* Appendicitis

Pelvic tuberculosis. *See* Tuberculosis

Pelvis deformed by infantile paralysis (J. B. Hellier), 204

Pelvis, fractured, with ruptured urethra (E. Deanesly), 1342

PEMBREY, M. S.: *Practical Physiology*, rev., 867

Penal Cases Committee, 1249

PENDLEBURY, HERBERT S.: Union of London medical societies, 415

Pendlebury district and the Miners' Association, 1054

Pennsylvania University. *See* University

Pensions for medical officers in Bohemia, 1374

PEREIRA, FERNANDO GILBERTO: *Spirochaeta pallida*, rev., 565

Pereant qui ante nos nostra dixere, 1547

PEREIRA, JOSEPH A. W.: Impaction of hatpin in male urethra, 141

Perforating ulcers. *See* Ulcers

Perimetritis, pneumococcal, 659

Perineum, central rupture of (Arthur E. Dodson), 859; correspondence on, 1140

Peripheral neuritis, 60; case of multiple symmetrical, causing widespread motor paralysis (Frederick W. Price), 914

Peritonitis, acute, treatment of (Edward H. Taylor), 862

Peritonitis, acute, due to appendicitis (Byrom Bramwell), 781; due to duodenal ulcer (B. G. A. Moynihan), 946

Peritonitis from perforation of appendix (Charles A. Morton), 71

Peritonitis and the *Staphylococcus albus* (J. D. Malcolm), 626

PERKS, C.: *Brassworkers of Berlin and Birmingham*, rev., 386

PERNET, GEORGE: Light treatment of disease, 215; Ringworm cured by exposure to *x* rays, 1038; Lymphangiectodes, 1038

Persia, plague in, 218, 702, 1293, 1353; medical practice in, 1492

Personal identification. *See* Identification *and* Fingerprints

Personation, false, 226, 237, 716

Peru, plague in, 767, 1056

PETRUNKEWITSCH, Dr. MICHAEL, returned to Russian Imperial Duma, 1186

PETTENKOFER'S theory of the etiology of typhoid fever, rev., 1107

Phagocytosis of *Bacillus typhosus* (Captain W. S. Harrison), 680

Phagocytosis of red corpuscles (A. E. Wright), 143

Pharmacology, review of books on, 745

Pharmacopoeia, Austrian, 226, 769; British, 1302; as standard, 1430; Belgian, 1474

Pharmacy Acts. *See* Acts

Pharmacy Bills. *See* Bills *and* Bill, Poisons

Pharmacy in Egypt, 1054

Pharaoh, heart of, 693, 1000

Phenacetin, 839

Philadelphia, beginnings of the medical faculty in, 989

PHILIP, R. W.: Organization and co-ordination of effort against tuberculosis, 472

PHILIPPI, F. A.: Sunday rest for medical practitioners, 415

Philippines, opium question in, 821; leprosy in, 922; health conditions in, 934

PHILLIPS, JOHN: Chorion-epithelioma, 384

Phlegmonous gastritis. *See* Gastritis

Phthisis. *See* Tuberculosis

Phthisical and non-tuberculous males, comparison between (W. C. Rivers), 1394

Physical degeneration, biology and, 700

Physical efficiency and the teeth, 934

Physical Education League. See League

Physical health in elementary schools, 1499

Physical training (Sir Lauder Brunton), 287; and the Education Bill, 1247

Physicians of Western Islands, 1178

Physick, Philip Syng, 1050

Physiological notes on cancer problems (Sir Willoughby Wade), 606

Physiology of mammalian reproduction, 405

Physiology, review of books on, 867

Physique of recruits for yeomanry and volunteers, 762

Pia mater, general sarcomatosis of (A. S. Grünbaum), 441

PICKARD, RANSOM: Implantation cysts, 1104

Pigs, tuberculous, pork from, 658

PILCHER, A. H.: Antidiphtherial serum by mouth, 379

Pimlico Clothing Factory, ventilation at, 640, 703

PINCHES, H. IRVING: Torsion of omentum, 143

PINKUS, F.: *Diseases of the Blood*, rev., 265

PIRIE A. HOWARD: Trypsin in cancer, 318

PITT, G. NEWTON: Treatment of exophthalmic goître by antithyroid serum, 326

PITTA, C. A. M.: Health of Madeira, 354

Pituitary gland. *See* Gland

Plague, prevalence of, 49, 218, 349, 478, 578, 767, 945, 1055, 1293, 1353, 1491; in Afghanistan, 349; in Arabia, 1353; in Australia, 218, 1056, 1293, 1491; in Brazil, 218, 767; in Egypt, 1056; in Formosa, 767; in Hong Kong, 49, 218, 349, 578, 767, 946, 1056, 1293, 1353, 1492; in India, 49, 218, 349, 478, 578, 644, 767, 945, 1055, 1353, 1491; in Japan, 349; in Madeira, 159, 225; denial, 403; in Mauritius, 49, 218, 349, 578, 767, 946; in New South Wales, 105, 888; in Peru, 767, 1056; in Persia, 218, 702, 1293, 1353; in Queensland, 1491; in Russia, 218, 349; in South Africa, 49, 218, 478, 767, 946, 1293; in Spain, 349; in Zanzibar, 218

Plague, serumtherapy of, 644

Plague of locusts, 149

Plague prophylactic, a new, 155

Plague vaccines (Captain Douglas), 802

Plants, relationship of to curare (Gordon Sharp), 803

PLATEL, Dr.: *Etudes sur le traitement des fractures des membres*, rev., 1042

Platform "cures," 1306

Platt, Thomas, obituary notice of, 55; estate of, 397

Pleurisy, serous, treatment of (William Ewart), 22

Pleurisy, tuberculous (Sidney Martin), 502

Pleuritic effusion treated with adrenalin (William Ewart and Flora Murray), 973

Plumbers' Company examinations, 32

Plumbism. *See* Lead

PLUMMER, Dr.: Bullet wound of thigh, 382

PLUMPTRE, Surgeon-Major FRANCIS HENRY, obituary notice of, 1015

Pneumatic tyres. *See* Tyres

Pneumococcal perimetritis, 659

Pneumococcic arthritis (W. Bernard Secretan and William Wrangham), 915; (G. D. Trevor-Roper), 978

Pneumococcus vaccine (J. B. Coleman), 742

Pneumonia, complications of, and their treatment (Nathan Raw), 205

Pneumonia and acute gastric dilatation (Parkes Weber), 1280

Pneumonia in New York, 219

Pneumonia, croupous (reported by John Allan), 860

Pneumonia, lobar, treatment of (Arthur J. Mathison), 1401

Pneumonia, traumatic (H. L. E. Wilks), 679

Poetry and sea-sickness, 750

Poisoning, anilin (*see* Anilin); atropine (*see* Atropine); eucalyptus (*see* Eucalyptus); food (*see* Food); lead (*see* Lead); mushroom (*see* Mushroom); nutmeg (*see* Nutmeg); by sodium arsenite (*see* Sodium)

Poisonous liniments, dispensing of, 357

Poisons Bill. *See* Bill

Police, information to, 477

Police and Sanitary Committee. *See* Committee

Policlinico at Rome, festival in honour of Professor Baccelli, 938

POLITZER, ADAM, awarded Cross of Commander of Greek Royal Order of the Redeemer, 154

Polypoid tumour. *See* Tumour

Polypus, adenomatous, of cervix (F. E. Taylor), 83

PONTOPPIDAN, Professor ERIK: *What Venereal Diseases Mean and How to Prevent Them*, rev., 208

Pontypool sewerage, 290; report of medical officer of health, 469

Pontypridd, overcrowding at, 1373

Poor-law children, 640

Poor-law Commission and contract practice, 52, 111, 174, 415, 475, 595, 653, 714, 772, 891, 951

Poor-law Medical Officers' Association. *See* Association

Poor-law medical officers, Irish, 512, 1065

Poor-law medical officers, superannuation of, 239, 1135
Poor-law Medical Service, Scottish, deputation, 1121; salaries of the officers, 1500
Poor-law, Royal Commission on, 157, 226, 398, 587, 835, 1078, 1496
POPE, the, on the emancipation of women, 1125; on the treatment of gout, 1370
POPE, FRANK M.: Registration of nurses, 894
POPE, HARRY CAMPBELL, obituary notice of, 116
Popliteal aneurysm. *See* Aneurysm
Pork from tuberculous pigs, 658, 885
Port inspection of foodstuffs, 1315
Port Sanitary Authority of London. *See* London
PORTER Dr.: Pyuria in the female, 144
Porthcawl, report of medical officer of health, 1067
Portugal, Galton-Bertillon system in, 736; crèches in, 1422
Post-graduate classes in Glasgow, 164, 945, 1250; in Edinburgh, 1007, 1250; in Leeds, 1127; in Dublin, 1251, 1436; in Belfast, 1371
Post-graduate courses, 1245
Post-mortem examinations, reports on (R. V. Solly), 200; gloves at, 960
Post-nasal syringe, 1353
Post-office and cancer research, 822; and vaccination, 1249, 1555
Post-office amenities, 480, 540, 720
Post-office medical officers, 1319, 1441
Posture, influence of on normal cardiac sounds and cardiac dullness, 112, 170, 236, 411
POTTER, E. FURNESS: Treatment of chronic otorrhoea, 561
Potter and scientist, 163
Potteries Cripples' Guild, 42
Pouter-Pigeon, 1441
POYNTON, F. J.: Congenital heart disease, 1458
POZZI, Professor: Effects of amputation of both ovaries, 883
Practical work in hygiene, 158
Practice in Australia, 1323; in New Zealand, 1571
Practice abroad, chances of, 933
Practitioners. *See* Medical
Precocious development (Mr. Milward), 861
Pregnancy, abdominal (Dr. Maclean), 863
Pregnancy, albuminuria in (Arthur J. Sharp), 439
Pregnancy, diet in, 1508
Pregnancy, enucleation of fibro-myoma of uterus during (J. Stewart), 548
Pregnancy complicated by fibroids (Bedford Fenwick), 443
Pregnancy, glycosuria in (W. H. B. Brook), 1404
Pregnancy in a Graafian follicle (A. Louise McIlroy), 1346
Pregnancy, haematology of (J. C. M'Given), 205
Pregnancy, ingestion, excretion, and metabolism during and after, 1534
Pregnancy, mental disorders of (Nathan Raw), 1040
Pregnancy, mitral stenosis and (H. French and H. R. Hicks), 1402
Pregnancy, pyelonephritis of (W. A. Milligan), 82
Pregnancy, tubal (Alfred Smith), 1402; three cases of (C. Hamilton Whiteford), 1271
Pregnancy, uncontrollable vomiting in (Comyns Berkeley), 203
Pregnant women, dietary for, for limitation of growth of fetus, 779
Prepuce, male, function of, 839
Prescribing chemists. *See* Chemists
Prescription, sale of drink by, 174
Prescriptions, tax on, 168
Pressure stasis in children, 709
Prevention of Corruption Bill. *See* Bill
PRICE, FREDERICK W.: Case of widespread motor paralysis due to multiple symmetrical peripheral paralysis, 914
PRIESTLEY, ELIZA: A model market that failed, 1561
PRINGLE, J. HOGARTH: Closure of gaps in the skull, 246
Priority, question of, 937
Prison diet. *See* Diet
Prison mortality. *See* Mortality.
Prichard the Poisoner, rev., 865
PRITCHARD, ERIC: Training of nerve centres in children, 505
PRITCHARD, URBAN: Fixation of the stapes, 1157
Prize babies, feeding of, 480
Prizes offered by the Académie des Sciences, 165
Problems of pronunciation, 152, 270
Profession and the public in America, 1548
Professional secrecy, 118, 298, 1321, 1373; compulsory insurance and, 108; law as to in Germany, 1316, 1373
Professional usage and the law (leading article), 815; correspondence on, 899
Professors, age limit for, 406
Proprietary medicines, regulation for, 477
Prostate, enucleation of for haemorrhage (Sir William Thomson), 188, 1346; correspondence on, 354; epithelial tumours of (H. Upcott), 1163
Prostate, review of books on, 983
Prostatectomy, suprapubic (James Laurie), 144
Prostatic abscess. *See* Abscess
Prostatic enlargement, spontaneous relief of, 540
Proteid diet, value of (leading article), 399; correspondence on, 540
Proteid nomenclature, 1416, 1474
Protest, 300
Protheroe, Deputy Inspector-General Edward Schaw, obituary notice of, 476
Protozoa, syphilis and cancer (J. Jackson Clarke), 1274
PROUD, F.: Lumbar puncture in puerperal eclampsia, 678
Provident dispensary. *See* Dispensary
PROWSE, J. SKARDON: General Medical Council election, 1378
Pruritus ani, 1323
Pseudo-elephantiasis. *See* Elephantiasis
Psoriasis, and its treatment (P. S. Abraham), 842; correspondence on, 1140
Psychiatry, reviews of books on, 1282
Psychical research in America, 102
Psychological Institute in Paris, 1303
Psychological medicine in Germany, 317
Psychology of the anarchist, 1365
Public Health Bill. *See* Bill
Public health lectures in Birmingham, 944
Public health of London (Sir Shirley Murphy's report), 334, 451
Public health and Poor-law medical services, 57, 175, 238, 296, 358, 417, 478, 538, 599, 658, 718, 776, 835, 897, 958, 1078, 1077, 1134, 1198, 1257, 1322, 1381, 1446, 1507, 1570; tuberculosis in Helsingfors, 57; compulsory removal of infectious case, 57; district medical officer's claim for pension, 57, 175; parochial medical officers in Scotland, 175, 658; vital statistics in England and Wales (1905), 238; care of the feeble-minded, 238, 478; local expenditure in England and Wales, 239; duty of a medical officer of health, 239; scarlet fever at a dairy, 239; superannuation of Poor-law medical officers, 239, 1135; corrected death-rates, 296; registration of births, 296; school closure, 297; Board of Guardians and overseers' medical orders, 297; medical officers' deputies, 358; prevention of infantile mortality, 358; voluntary notification of consumption, 417, 958, 1077; medical attendance on workhouse officials, 417, 538; sanatorium treatment for pauper consumptives, 418; notification of case removed to hospital, 478; consumption sanatoriums for London, 538; death from anthrax in Liverpool, 599; pork from tuberculous pigs, 658; infectious diseases hospitals, 658; fee for premature confinement followed by death, 658; clean money, 658; Local Government Board on whole-time public vaccinators, 718, 776, 835; death from rupture of intestinal ulcer, 718; relations of public vaccinators with other practitioners, 718; evolution and conscience, 776; fee for attendance on complications after confinement, 776; district medical officers' appointments, 776; fee for temporary treatment of fractured thigh, 776; vaccination certificates in Ireland, 897; public vaccinators and the Superannuation Act, 897, 1018; phthisis mortality, 958; sanitary authorities and general hospitals, 958; Pure Food and Drugs Bill, 958; medical mortality in America, 958; vaccination awards, 1018, 1135; standardization of disinfectants, 1018; vaccination under the Act of 1898, 1077; meat unfit for human consumption, 1077; abolition of Boards of Guardians, 1078; Royal Commission on Poor Laws, 1078; prevention of consumption, 1134; public vaccinators' fees, 1134; question of compulsory vaccination, 1135; isolation hospitals, 1198; erysipelas as a notifiable disease, 1257; certification of vaccination by other practitioners, 1257; Vaccination Act: The conscientious objector, 1322; health and safety of miners, 1322; vaccination statistics, 1322; insanitary conditions in a village, 1322; Chicago delicacies, 1381; certificates of revaccination, 1446; Chicago food products, 1507; vaccination, successful, 1507; Poor-law Medical Officers' Association of England and Wales, annual meeting, 1570
Public Health Acts Amendment Bill. *See* Bill
Public Health Officers Bill. *See* Bill
Public health, review of books on, 1044
Public medical service and the alternative, 832, 1176
Public mortuaries. *See* Mortuaries
Public schools, sleep at. *See* Sleep
Public vaccinators. *See* Vaccinators
Puerperal death-rate, practical suggestions for reducing (Percy Rose), 811
Puerperal eclampsia. *See* Eclampsia
Puerperal fever. *See* Fever
Puerperal morbidity (E. Hastings Tweedy), 1402
Puerperal septicaemia due to *Diplococcus pneumoniae* (G. Bellingham Smith and N. I. Spriggs), 1272
Puerperal uterus. *See* Uterus
Puerperium, measles in (Malcolm Campbell), 315; scarlet fever and (P. S. Harris), 737
Puff prophetic, 406
PULLIN, Dr. T. H. S., completes fifty years' service, 694
Pulmonary embolism (C. R. Box), 1280; (George Walker) 1530
Pulsatilla, 779
Punjab, health of the, 1129
PURDON, E. B., appointed certifying surgeon for Belfast district, 477
PURDON, HENRY S., obituary notice of, 296
Pure Beer Bill. *See* Bill
Pure Food and Drugs Bill, *See* Bill
Purin bodies in gouty urines (I. Walker Hall), 128
Purinometer, 300
Purpura accompanied by arthritis and visceral lesions (A. F. Elliott), 920
Purpura haemorrhagica, serum treatment of (Soltau Fenwick and Porter Parkinson), 979
Purpura, Henoch's (J. A. Noel Longley), 859
PURSLOW, C. E.: Management of a case of labour, 1512
PURVES *v.* CARSWELL AND GILCHRIST, 39, 56, 1068 1559
Putney Hospital. *See* Hospital
Pyaemia, is rheumatism an attenuated? 1368
Pyelonephritis of pregnancy (W. A. Milligan), 82
PYE-SMITH, P. H.: The arthritic diathesis, 1439
Pyloric tumour. *See* Tumour
Pylorus, hypertrophy of with stenosis, successfully treated with thiosinamine (Eber Caudwell), 379
Pyonephrosis (W. F. Cholmeley), 1342
Pyopneumothorax, succussion in, 1191
Pyuria in the female (Dr. Porter), 144

Q.

Quack, a seventeenth century, 93
Quack medicines, questions in Parliament, 640; advertisement and sale of, 899, 1260
Quacks in Germany. *See* Charlatanism
Quackery, war against, 100; edict against, 510; electrical, 758; congress against. *See* Congress, antiquackery
Queen Victoria memorial in the Riviera, 694
Queen Victoria's Jubilee Institute for Nurses. *See* Nurses
Queensland, plague in, 1491
Question of priority, 937
Quillaia as an emulsifying agent (Lawrence E. Hemmans), 318; correspondence on, 480
Quinine, coryza following ingestion of, 420
Quinine, fall in price of, 1370
Quinine and aspirin in rheumatism, 1199

R.

R.A.M.C., unqualified anaesthetists for, 586, 648; surgery in, 647; scheme for reserve for, 702; promotion in, 1249. *See also* Army, British
Rab and His Friends, M.S. of, 646
Rabies in Egypt, 1054
Radiograph of fetus in utero (Heywood Smith), 584
Radiography in fractures and dislocations, review of books on, 266
Radiotherapy, review of books on, 985
Radio-ulnar articulations, congenital synostosis of (John R. Lunn), 499
Radium in rodent ulcer (Mackenzie Davidson), 1104
Radium and radio-activity, review of books on, 627
Radiumtherapy of cancer, 1010
Raffles at the Comedy Theatre, 1303
Rahere Lodge, 631
Railwaymen's ambulance shield, 1067
Railway carriages, cleansing of, in Canada 766
Railway extension works and use of caissons in Amsterdam, 291
RAMESES II, preservation of viscera of, 693, 1000
RAMSAY, A. MAITLAND: Treatment of detachment of the retina, 262; Important symptoms in eye diseases, 847
RAMSAY, Sir WILLIAM: On patriotism in the universities, 1292
RANDALL, PHILIP N.: Modern fashions in surgery, 114
RANKIN, GUTHRIE: Treatment of neurasthenia, 492; Achondroplasia, 1103, 1518
RANSOM, W. B.: Plumbism from the ingestion of diachylon as an abortifacient, 428; leucocythaemia treated by x rays, 620
RANSOM, W. H.: *The Inflammation Idea in General Pathology*, rev., 1468
Rats and plague, 888; sulphur dioxide in the destruction of, 1427
RAVEN, HUGH M.: Verminous heads of convalescent children, 1565
RAW, NATHAN: Complications of pneumonia and their treatment, 205, yellow atrophy of the liver, 444; mental disorders of pregnancy, 1040
RAW, STANLEY: Case of pneumococcic arthritis, 1400

RAWLING, LOUIS BATHE: *Landmarks and Surface Markings of the Human Body*, rev., 928
RAY, M. B., reports case of foreign body in bladder, recovery, 1464
RAYMOND, J. H.: *Human Physiology*, rev., 868
Rays, various, effect of on trypanosomes (R. Ross), 798
Rebuilding of 429, Strand, 1014, 1075, 1134, 1191, 1192, 1255, 1378, 1572
Reciprocity with Nova Scotia, 1184, 1447; with Japan, 1304
RECKLINGHAUSEN, VON, announced retirement of, 753
Recklinghausen's disease (G. A. Sutherland), 1038
RECKZEH, PAUL: *Berliner Arzneiverordnungen*, rev., 809
Recruits, for yeomanry and volunteers, physique of, 762; vaccination of, 1312
Rectal feeding (Francis Boyd), 383; leading article on, 633
Rectum, abdomino-perineal excision of (William Sheen), 739
Rectum diseases, review of books on, 267
Rectum, extirpation of new growths in, 1070
Red blood corpuscles. *See* Blood
Red Cross organizations, 462; in France, 873
Red Cross Society in Japan, 160, 210; in Italy, 915, 1362
Redditch, anthrax at, 286
REDMOND, C. STENNETT: Finances of the Association, 1442
REES, FERDINAND: Midwifery of the present day, 712
REES, W. A.: Reports case of uraemia with persistent hiccough, death, 738
Reeves's operation. *See* Genu valgum
Refined food and folly, 461; correspondence on, 660
Reflex, arterio-cardiac, having its origin in the abdomen, relation of angina pectoris and allied conditions to (William Russell), 301
Reflex epilepsy. *See* Epilepsy
Reform of the coroner, 760
Reform of the *Medical Register*. *See* Medical
Regeneration and immigration, 1368, 1441
Registration of births, 296
Registration of nurses. *See* Nurses
REID, G. ARCHDALL: *Principles of Heredity*, rev., 207
REID, Staff-Surgeon S. T.: Notes on two cases of cholecystitis treated by inoculations with *B. coli*, 143; Observations on Malta fever, 802
Relapsing fever. *See* Fever
Relation of early Greek philosophy to Greek medicine, 931
Relation of the medical profession to war (Surgeon-General A. H. Keogh), 361; correspondence on, 472, 594
Relations with chemists. *See* Chemists
Relations with unqualified dentists. *See* Dentists
Renal activity and anaesthetics (W. H. Thompson), 608, 667
Renal disease, chronic, treatment of (Samuel West), 502
RENSHAW, CHARLES J.: appointed delegate at Lisbon Congress, 813; Finances of the Association, 1375; General Medical Council election, 1442
RENSHAW, HAROLD: Painless labour, 737
RENTON, Dr.: Coxa vara after operation, 324; Cholecystcolostomy, 324
RENTON, JAMES CRAWFORD: *Contributions to Clinical Surgery*, rev., 1284
RENTOUL, J. L.: Antistreptococcus serum, 556
Report on administration in London with regard to meat of pigs affected by tuberculosis, 658
Report on brassworkers of Berlin and Birmingham, 386
Report of the Public Health Committee of the London County Council submitting the Report of the Medical Officer of Health of the County for the year 1904, 334, 451
Representatives' deputies, 833
Reserve, an Army Medical. *See* Army
Residual hearing in deaf and dumb (Kerr Love), 144
Retina, treatment of detachment of (A. Maitland Ramsay), 262
Retinal artery, spasm of (R. A. Lundie), 622
Rheumatic diseases, review of books on, 507
Rheumatism, is it an attenuated pyaemia? 1368
Rheumatism, aspirin and quinine in, 1199
Rheumatism, acute, salicin in (Albert I. Garland), 439
Rheumatism, cerebral, chorea considered as (Sir Dyce Duckworth), 1454
Rheumatism, Madame de Sévigné on ritual for the cure of, 1354
RHODES, JNO. MILSON: Imbeciles and feeble-minded of middle class, 712; Central Midwives Board, 1376, 1563
RHODES, T. BASIL: Treatment of diphtheria, 375
Rhondda Ambulance Association, 104, 347; a suspected water supply, 469
Rhythmical variations in cerebrospinal pressure (E. Gladys Kensington, with note by Frank Eve), 553
Ribs, cervical, and their effects on the great vessels of the neck (Walter Broadbent), 1033
RICHARDS, JOHN: Histology of some cerebral tumours, 1041
RICHARDSON, Sir BENJAMIN WARD: Anecdote of, 760
RICHARDSON, W. SILVERWOOD: Reports case of rupture of pregnant Fallopian tube, ovum being under one month old, 440
Rickets in relation to duration of lactation (A. Dingwall-Fordyce), 971; (John Allan), 1219
RIDDELL, J. SCOTT: Tetanus after bullet wound, 205; Faecal incontinence, 205
RIDDELL, Miss, Japanese honour conferred upon, 219, 277
Rider's sprain, 659
RIGBY, H. M.: Cavernous naevus of tongue, 262
Ringworm, treatment of, 1260
Ringworm, *x*-ray treatment of (Gerald Sichel), 256; (G. Pernet), 1038; correspondence on, 359, 419, 539, 840, 960, 1019, 1080
RIVERS, W. C.: Comparison of phthisical and non-tuberculous males, 1394
ROBB, THOMAS D., awarded Dr. Steele's prize for best essay on humanism, 1475
ROBERTS, E. J.; Burial place of Harvey, 414
ROBERTS, GEORGE A. E.: Lead poisoning from electrolysis of water pipes, 139
ROBERTS, FREDERICK T.: *Theory and Practice of Medicine*, rev., 147
ROBERTS, LLOYD: Evolution of operative gynaecology, 204
ROBERTS, Lord: On universal military training, 285
ROBERTSON, Captain GEORGE, C. I., obituary notice of, 1569
ROBERTSON, WILLIAM: The third eyelid, 81
ROBERTSON, W.: Infants' milk dépôts, 1103
ROBERTSON, W. FORD: Pathology of general paralysis of the insane, 348
Robin, Albert, appointed professor in chair of clinical therapeutics, 108; on mortality for tuberculosis in France and Germany, 350; opening lecture of, 768
ROBINSON, E. LAURIE: Reflex epilepsy and operation, 920
ROBINSON, H. BETHAM: Case of angio-sarcoma of breast, 742
Robinson, Sir John, story of, 1354
ROBSON, A. W. MAYO: Indications and contra-indications for removal of gall bladder, 430; Recent surgical methods in treatment of certain forms of paralysis, 595; Position of pathology with regard to clinical diagnosis, 601
ROCHE, Sir BOYLE, a correction, 1292
ROCHE, Captain JAMES VALENTINE, obituary notice of, 55
ROCKEFELLER Institute, scholarships, 398; *Studies from*, rev., 986
RODEN, PERCY AUSTIN, appointed J.P. for borough of Droitwich, 1362
Rodent ulcer, radium in (Mackenzie Davidson), 1104
Roentgen-ray burns, damages from, 1253
Roentgen rays, legal conditions of the medical use of, 231; early diagnosis of pulmonary tuberculosis by, 650, 831, 949; in treatment of mediastinal sarcoma (Zum Busch), 741; in surgery, 1252. *See also* Light, Radiography, *X* Rays
ROGERS, LEONARD: Two cases of amoebic abscess of liver, 1397
ROLLESTON, H. D.: Multiple lipomata (adeno-lipomatosis), 261; Primary malignant disease of vermiform appendix, 501 (and T. Clifford Allbutt) *System of Medicine by Many Writers*, rev., 562
ROLLESTON, J. D.: Hereditary syphilis and enteric fever, 312; Antidiphtherial serum by mouth, 738; Tonsillitis in convalescence from diphtheria, 1152
Rome, inauguration of Policlinico, festival in honour of Professor Baccelli, 938
Rome, imperial, and the medical profession, 989
RONSARD, PIERRE DE, deafness of, 1108
ROOSEVELT, President, and the "force of life," 161; on the medical service of the army, 225; on the medical profession, 451; on the prevention of tuberculosis, 940
ROOTH, JAMES: Death from enlarged thymus gland, 737
RÖPKE, FRIEDRICH: *Die Verletzungen der Nase und deren Nebenhölen, nebst Anleitung zur Begutachtung ihrer Folgezustände*, rev., 868
RORIE, Dr.: Some survivals of folk medicine in Scotland, 385
ROSE, Dr.: Lorenz's operation for dislocated hip, 205; Removal of head of humerus, 205
ROSE, PERCY: The Midwives Act, practical suggestions for reducing the puerperal death-rate, 811; inspectors of midwives, 1318
ROSEMANN, R.: *Landois's Lehrbuch der Physiologie des Menschen mit besonderen Berucksichtigung der praktischen Medizin*, rev., 867
ROSENAU: Report on yellow fever in America, 1122
Roseola, syphilitic. *See* Syphilitic
ROSS, "Sir Donald," 570
ROSS, E. H.: Incubation period of Malta fever, 975
ROSS, Surgeon H. C.: Diffusion of red blood corpuscles through solid nutrient agar, 1027, 1318
ROSS, JAMES A.: Heterochromia iridis, 1100
ROSS, R.: Effect of various rays on trypanosomes, 798; Note on diffusion of red blood corpuscles through solid nutrient agar, 1029; The new malaria return, 1194
Ross-shire, consumption sanatorium for, 945
Rotherham, prevention of consumption at, 1134
ROUGHEAD, WILLIAM (editor): *Trial of Dr. Pritchard*, rev., 865
ROUGHTON, E. W.: Perforated gastric ulcer treated by evisceration and irrigation, recovery, 1159
Roumania, crèches in, 1422
ROUX, M.: On the prophylaxis of syphilis, 1183
ROWTHORN, W. H.: Lead as an abortifacient, 355
Rowton House opened at Newcastle-upon-Tyne, 469
Royal Commission on Care of Feeble-minded. *See* Feeble-minded
Royal Commission on Poor-law. *See* Poor-law
Royal Sanitary Institute. *See* Institute
RUHRÄH, JOHN: *Dietetics for Nurses*, rev., 808; *Manual of Diseases of Infants and Children*, rev., 926
Rupture (*see* Hernia) of Fallopian tube (*see* Fallopian); of spleen (*see* Spleen)
Ruptured uterus. *See* Uterus
Rural depopulation, 700; correspondence on, 894
Rural districts, building by-laws in, 156; whole-time medical officers of health in. *See* Medical Officers of Health
Rural housing (leading article), 516; question in Parliament, 1065, 1126; note on, 1423
Rural insanitation, 338, 414, 475, 652, 772, 951
BUSBY, HENRY H.: *National Standard Dispensatory*, rev., 808
Rusholme Provident Dispensary. *See* Dispensary
RUSSELL, HARRY WILLIAM: *Relative Time of Infection of the Lungs and Bronchial Glands in Guinea-pigs Inoculated with Tuberculous Material*, rev., 926
Russell, J. Burn, Memorial Volume of the Writings of, rev., 805
RUSSELL, WILLIAM: Relation of angina pectoris and allied conditions to an arterio-cardiac reflex having its origin in the abdomen, 301, 473, 650
Russia, plague in, 218, 349; Imperial Duma, medical men in, 1186; crèches in, 1421

S.

Sacculated kidney. *See* Kidney
SACHS, B.: *Treatise on Nervous Diseases of Children*, rev., 925
SAFFLEY, JOHN: Foreign body removed from the substance of the tongue, 558
Sailors and their rum, 1312
St. Bartholomew's Hospital. *See* Hospital
St. Helen's Corporation and consumptive patients, 824, 943
St. John Ambulance classes, 419. *See also* Ambulance *and* Association
St. John of Jerusalem, order of. *See* Order
ST. LAWRANCE-BURKE, A.: Lead as abortifacient, 259
St. Luke's Home for Dying Poor, 1547
St. Thomas's Hospital. *See* Hospital
Sale, of drink by prescription, 174; of cocaine, 174
Sale of a practice, 1301
Sale of Butter Bill. *See* Bill
Salicin in acute rheumatism (Albert T. Garland), 439
"Sammy and our mammy," 336. *See also* Wilks, Sir Samuel
SAMWAYS, D. W.: Influence of posture on normal cardiac sounds and cardiac dullness, 112, 411
Sanatorium for consumption, in Westmorland, annual meeting, 346; proposed, for county Cork, 467, 886; for London, 538, 814; the Kingswood, 824; for Ross-shire, 945; for Middlesex, 1179; for workers, 1240; at Galashiels, 1313; results in Germany, 1373; at Holt in Norfolk, 1547
Sanatorium furniture, 509
Sanatorium, King Edward VII, 1186, 1417; opening of by the King, 1417
Sanatorium treatment of consumption. *See* Tuberculosis
SANDBACH, F. E.: *First German Course for Science Students*, rev., 1166
Sanitary authorities and general hospitals, 958
Sanitary function of the Army Medical Service, 1359, 1364
Sanitary influence of art, 517

Sanitary inspector as family doctor, 945

Sanitation at the Isthmian Canal, 224; in Glamorgan, 709; of armies in the field, rev., 746; on the Gold Coast, 885; in the Lewis, 885; in a mining town, 1004; in Egypt, 1053; and rural housing, 1428; and cycling, 1429; in the Lewis, 1434

Sanitary organization in the Army. *See* Army, British

SANTINI, Dr., "a coleopteron," 889

Sarcoma of lachrymal gland (reported by E. F. Gordon Tucker), 1220

Sarcoma of liver, primary (Kenneth A. Jones), 1463

Sarcoma, mediastinal, treated by Roentgen rays (Zum Busch), 741

Sarcoma of nose (G. Victor Miller), 321

Sarcoma, round-celled (Dr. Steven), 385

Sarcoma, surgery of in Kashmir (Arthur Neve), 1217. *See* also Cancer

Sarcomatosis of pia mater (A. S. Grünbaum), 441

Sarsaparilla decoction, 300, 359

Sarsaparilla in syphilitic cachexia, 710, 770, 899, 960, 1075; (Charles J. Cullingworth), 791

SARWEY, O.: *Bakterologische Untersuchungen über Hände-Desinfektion und ihre Endergebnisse für die Praxis*, rev., 25

SAUNDBY, ROBERT, appointed J.P. for county of Warwick, 515; home hospitals, 890; Endemic sporadic dysentery (with Shiga's bacillus) in England, 1325, 1503

SAVAGE, G. H.: Borderland of insanity, 489; Legal and other reminiscences, 693; Syphilis and mental disease, 1344

SAW, FRANCIS ALBERT, appointed Secretary of Royal Institute of Public Health, 1303

Scabies (F. H. Barendt), 979

Scarlet fever. *See* Fever

SCHAMBERG, JAY F.: *Acute Contagious Diseases*, rev., 1106

SCHARLIEB, Mrs.: Advantages of abdominal route in operations for cancer of uterus, 1161

SCHAUDINN, FRITZ, death of, 1555

SCHMIDT, LOUIS E., *Genito-urinary and Venereal Diseases*, rev., 983

SCHMORL, G.: *Die pathologisch-histologischen Untersuchungsmethoden*, rev., 266

School certificates. *See* Certificates

School children, defective eyesight in, 347; spectacles for, 1540; medical inspection of (W. R. Jordan), 382; leading article, 878; provision of meals for, 587; local education authorities and the feeding of, 1496; teeth of, 919; medical examination of in Austria, 1010. *See also* Children *and* Schools.

School of Clinical Medicine. *See* Medicine

School closure, 297, 1000

School hygiene, teaching of in Vienna, 109

School hygiene, 89, 216, 391, 1558; report of M.O.H. to London Education Committee, 89; control of measles, 216, (leading article on), 220; report of education medical officer for Surrey, 391; course of for medical men, 475; report of M.O.H. for Stockport, 574; in Ireland, 765; in Nice, 797; in Birmingham, 1066

School medical officers in Hungary, 448

Schools, elementary, infants in, 1066; physical health in, 1499

Schools, medical inspection of, leading article, 400; in Berlin, 158; in the Transvaal, 398; Professor Howard Marsh on, 940; in Austria, 1010

Schools, special, in Manchester, 1182. *See also* School *and* Children

SCHRYVER, S. B.: *Chemistry of the Albumens*, rev., 1284

SCHWALBE, ERNST: *Die Morphologie der Missbildungen des Menschen und Tiere*, rev., 982

SCHWEINITZ, G. E. DE: *Diseases of the Eye*, rev., 1405

Sciatia, treatment of, 840

Science Committee. *See* Association, British Medical

Scientific cremation in India, 1439

Scientific memoirs of Indian medical officers, rev., 746

SCOLES, THEOPHILUS E. SAMUEL: *Glimpses of the Ages, or the "Superior" and "Inferior" races so-called, discussed in the light of Science and History*, rev., 1404

Scotland, notes from, 45, 104, 163, 227, 287, 347, 407, 465, 526, 591, 642, 704, 766, 826, 945, 1007, 1068, 1127, 1189, 1251, 1313, 1436, 1476, 1559; midwifery and gynaecology in Edinburgh, 45; quatercentenary of Aberdeen University, 45, 287; Aberdeen University Anatomical Society, 45; Lord Rector's assessor, Aberdeen, 45; Western Infirmary, Glasgow, annual report, 45; Dundee Royal Infirmary, 45; Queen Victoria's Institute for Nurses, Scottish Branch, 104; Sir Thomas McCall Anderson, 163; Scottish Poor-law Medical Officers' Association, 164; Victoria Infirmary, Glasgow, 164; Post-graduate classes in Glasgow, 164, 945, 1250; resignation of Professor Sir Henry Littlejohn, 227, 827; Royal Medical Society, Edinburgh, annual dinner, 227, 407; women graduates and the Parliamentary election, 227, 287, 407, 704; election of direct representative in Scotland, 287, 528, 591; British Universities Congress in Edinburgh, 287; small-pox in Scotland, 288; wastage of child life, 288, 1189; Chair of Forensic Medicine in the University of Edinburgh, 347; Scottish university constituencies, 348; Royal College of Physicians of Edinburgh, Morison Lecture, 348, 407; Royal Infirmary and St. Mungo's College, 408; clinical medicine and surgery in Edinburgh, 465, 527; Lord Rector at Aberdeen, 526; fight against tropical disease, 527; vacancies at the Edinburgh Royal Infirmary, 527; Royal Edinburgh Asylum for the insane, annual meeting, 528; Royal Infirmary, Glasgow, appointments, 591; annual report, 1313; Edinburgh University students and Sir William Turner, 642; Edinburgh Royal Infirmary, 642; discipline at, 1189, 1251; Residents' Club, 1372; Edinburgh Charity Organization Society, 642; administrative control of pulmonary phthisis, 642; penalty on letting houses in which infected persons have been lodging, 642; Glasgow Cancer Hospital, annual report, 643, 1372; memorial to the late Dr. Milne Murray, 704; treatment of consumption in Edinburgh, 704, 766, 1371; Convalescent Home for Royal Hospital for Sick Children, Edinburgh, 704, 1007; Galashiels Cottage Hospital, 705; Scottish Association of Medical Women, 766; Infants' Milk Depôt, Leith, 766; Home for Feeble-minded Children, 826; Royal Edinburgh Hospital for Incurables, 827; sanitary inspector as family doctor, 945; Jubilee Nurses' Institute, Galashiels, 945; Cottage Hospital, Hawick, 945; consumption sanatorium for Ross-shire, 945; post-graduate work in Edinburgh, 1007, 1250; spring graduation ceremonies in Glasgow, 1007; Scottish lunacy law—Purves *v.* Carswell and Gilchrist, 1068, 1251, 1559; public health of Edinburgh, 1068; Glasgow Ophthalmic institution, 1127; Scottish volunteers ambulance trophy, 1128; Aberdeen Medico-Chirurgical Society, 1128; rumoured retirement of Professor McKendrick of Glasgow, 1189; discipline in the Edinburgh Royal Infirmary, 1189, 1251; infantile mortality, 1189; Royal College of Surgeons, Edinburgh, 1251; Edinburgh Harveian Festival, 1251; death of Mr. Thomas Gilbert, 1313; junior posts in Edinburgh hospitals, 1313; consumption sanatorium at Galashiels, 1313; Edinburgh Children's Holiday Fund, 1313; cerebro-spinal fever in Glasgow, 1372, 1560; Royal Commission on Care of Feeble-minded, 1436, 1477; Baldovan Asylum for Imbecile Children, jubilee report, 1476; Sir Henry Littlejohn's annual report (on Edinburgh), 1477; offers of a convalescent home to Edinburgh Royal Infirmary and the Admiralty, 1560; Royal Victoria Hospital for Consumption, Edinburgh, annual meeting, 1560

Scotland, parochial medical officers in, 175, 832, 1132; small-pox in, 288; some survivals of folk medicine in (Dr. Rorie), 385; Medical Diplomates Association (*see* Association): occupation mortalities in (J. C. Dunlop), 622; administrative control of pulmonary phthisis, 632, 642; notification of phthisis in, 1125; fatal accidents in, 1126

Scotometer, a new (Priestley Smith), 626

SCOTT, A. L.: Midwifery of the present day, 892

SCOTT, D. J.: Life assurance without medical examination, 355

SCOTT, J. GEDDES: Health of Madeira, 295

SCOTT, W. SAWERS: Parliamentary representation of St. Andrews and Edinburgh Universities, 172

Scottish lunacy action, 39, 56, 1038, 1251

Scottish Poor-law Medical Service. *See* Poor Law

SCRINI, Dr.: *Manuel Pratique pour le choix des Verres de Lunettes et l'Examen de la Vision*, rev., 1406

SCUDDER, CHARLES LOCKE: *Treatment of Fractures, with Notes upon a few Common Dislocations*, rev., 1042

Scurvy, Infantile (J. A. Coutts), 561

Sea-serpent, the great, 1177

Sea-sickness and poetry, 750

Seaweed, shellfish, and sewage (J. T. C. Nash), 439

Secret commission, 476, 656

SECRETAN, W. BERNARD: Pneumococcic arthritis, 915

Sectioning, simple method of freezing tissues for (A. F. Stanley Kent), 798

SELBY, PRIDEAUX: Frequent tapping for ascites, 620

SELBY, Captain W.: Dermoid cyst of thorax, 621

SELHORST, S. B.: Treatment of cicatricial strictures of the urethra with the electrolytic needle, 674

SELLS, H. T.: Inspectors of midwives, 1376

SEMON, Sir FELIX: Unusual manifestations of syphilis in the upper air passages, 61; sarsaparilla and syphilitic cachexia, 771

SENATOR, H.: *Diseases of the Kidneys and Spleen: Haemorrhagic Diathesis*, rev., 265

Senile decay or disease, 953

Sensation of death. *See* Death

SENN, NICHOLAS: Medical observations in the Arctic regions, 233

Separation of finger nails from their matrix. *See* Finger Nails

Septic thrombosis of cavernous sinus (Simeon Snell), 262

Septicaemia, puerperal. *See* Puerperal

SEQUIERA, JAMES H., a disclaimer, 1567

Serous pleurisy. *See* Pleurisy

Serum, antidiphtherial, by mouth (A. M. Pilcher), 379; (J. D. Rolleston), 738; correspondence on, 839

Serum, antistreptococcus (J. L. Rentoul), 556; case of empyema treated by (reported by H. Muir Evans), 799

Serum, antithyroid, in exophthalmic goître (G. Newton Pitt), 326

Serum, antityphoid, obtained from the goat, properties of (Allan Macfadyen), 905

Serum, Doyen's, in malignant disease (Alexander Paine and D. J. Morgan), 740

Serum injection in diphtheria, calcium chloride as a preventive of eruptions after, 471

Serum Institute, proposed, in Bavaria, 215

Serum, Marmorek's, for tuberculosis, 340, 420

Serumtherapy, of plague, 644; in typhoid fever, 647; discussion on (T. Hewlett), 681, 740; of Graves's disease, 719, 839; by the mouth (D. Montgomerie Paton), 1032

Serum treatment of bacillary dysentery (MM. Vaillard and Dopter), 592; of gonorrhoeal infection and purpura haemorrhagica (Soltau Fenwick and Porter Parkinson), 979

SERVETUS, MICHAEL, 270

Service, universal naval and military, 285, 1004, 1571

Severely injured and their immediate treatment, 894

SÉVIGNÉ, Madame de, and the ritual for cure of rheumatism, 1354

Sewage, shellfish and seaweed (J. T. C. Nash), 439; oysters and, 538, 834; discharge of, into Belfast Lough, 945

Sewerage schemes at Pontypool, 290

SHARP, ARTHUR J.: Albuminuria in pregnancy, epistaxis, conjunctival haemorrhage, 439

SHARP, GORDON: Relationship of some plants to curare, 803

SHARPEY, Professor, stories of, 1108, 1177

SHATTOCK, S. G.: Primary carcinoma of male urethra, 441; Colour of hair in ovarian dermoids, 1218

Shaving saloons, regulation of, 767

SHAW, CECIL: Five hundred operations for adenoids, 1156

SHAW, GEORGE BERNARD: As an unconscientious objector, 520; and antivaccination, 694; on doctors, 1181

SHAW, H. BATTY: Tetany apparently cured by use of thyroid substance, 262; *Organotherapy, or Treatment by Means of Preparations of Various Kinds*, rev., 447; auto-intoxication: its relation to certain cardio-vascular disorders, 1081, 1153, 1277

SHAW, LAURISTON E.: Proposed general hospital at Putney, 830

SHAW, T. CLAYE: Insanity and murder, 1162; mind and matter, 1335

SHAW-MACKENZIE, J. A.: *Nature and Treatment of Cancer*, rev., 148; trypsin and erepsin in cancer, 715

SHEEN, WILLIAM: Abdomino-perineal excision of rectum, 739; Acute symptoms in left iliac region, 1102; Civil hospital training for men of the R.A.M.C. (Vol.): a suggestion, 1293

Sheffield, notes from, 287, 762; chair of pathology, 287; domestic hygiene (Sir Lauder Brunton), 287; Edinburgh graduates' club dinner, 217, 763; conviction under the Midwives Act, 287; diachylon as an abortifacient, 764

Sheffield University. *See* University

SHEILL, J. SPENCER: Sequel to an attack of eclampsia, 442

SHELDON, WILLIAM, obituary notice of, 237

Shellfish, seaweed and sewage (J. T. C. Nash), 439

SHENNAN, THEODORE: Relation of *Spirochaeta pallida* to syphilis, 202

SHERRAN, Mr.: Acute intestinal obstruction, 501

Shetlands, fish-eating and leprosy in, 1071, 1134

Shield, Duke of Connaught's challenge, 1015

Shiga's bacillus, 1325; in English dysentery, 1503, 1564

Shore, Lieutenant-Colonel Robert, awarded Kaiser-i-Hind medal of first class, 32

SHUFFLEBOTHAM, FRANK, appointed J.P. for borough of Newcastle-under-Lyme, 1179

SIBTHORPE, Surgeon-General **CHARLES**, obituary notice of, 1196, 1257

SICHEL, GERALD: *X*-ray treatment of ringworm, 256

Sick, anointing the, 1309

Sick certificates. *See* Certificates

Sick prisoners, treatment of, 923

Sidelight on medical education, 1306

Sidmouth, Devon, as a health resort, 990

SIEGEL, J., first award of Salomonsohn Fund to, 678

Sierra Leone, cancer in, 813

Sight-testing opticians. *See* Opticians

Signatures, new doctrine of, 521
SILVESTRI, E. DE: *Come si Evita e si Cura la Tuberculosi*, rev., 330
SIMON, ROBERT M.: Aid to Prognosis in typhoid fever, 620
SIMPSON, BARBOUR: Stereoscope in teaching obstetrics, 144
SIMPSON, Major DAVID, obituary notice of, 956
SIMPSON, W. J., appointed to inquire into and report on sanitary condition of Singapore, 884
Simulation of injuries of the eyes received at work, 494
SINCLAIR, A. J.: Diagnosis of glaucoma, 1403
SINCLAIR, Sir WILLIAM: Ventrifixation, 190, 412; laminaria tents, 1103
SINCLAIR, WILLIAM J.: Central Midwives Board, 1439
"Sinew which shrank," 1018, 1140
Singapore, new medical school at, 1006
SINGER, CHARLES, appointed R.M.O. Government General Hospital, Penang, 753
SINNETAMBY, Dr. M.: On Hindu medical literature, 988
Sinus, cavernous, septic thrombosis of (Simeon Snell), 262
Sinus, frontal. *See* Frontal
SKAE, H. TRAILL: Fish-eating and leprosy in the Orkneys and Shetlands, 1070
SKELDING, JOSEPH, obituary notice of, 716
Skin diseases, review of books on, 25. 1285
Skin, irritation of, after baths, 719, 779
Skin specialist, a, 356
SKODA, JOSEPH, 93
Skull, closure of gaps of (J. Hogarth Pringle), 246
Slander, action for. *See* Action
Slanderous statements, 1076
Sleep, hours of at public schools, 120
Sleeping Car Company, 80
Sleeping sickness, in the Soudan, 702: in Africa generally, 943: question in Parliament, 1065; offer of prize by King of the Belgians for the discovery of a cure for, 1547. *See also* Trypanosomiasis
Sleeping sickness in Uganda (Captain E. D. W. Greig), 201; in German East Africa, 471; French expedition for investigation of, 1186; question in Parliament, 1065, 1187
SMAILES, ROBERT, obituary notice of, 1569
Small-pox, aërial convection of, 59
Small-pox, cost of, 1122: deaths of vaccinated persons from, 1312; at Ashton, 21; in Scotland, 288; in Somerset, cost of, 1122; vaccinal condition of patients suffering from, 1500
SMEDLEY, RALPH D.: Transmissibility of syphilis to apes, 607
SMITH, A. DUNCAN (editor): *Trial of Madeleine Smith*, rev., 327
SMITH, ALFRED: Tubal pregnancy, 1402
SMITH, EDWIN TEMPLE: Vaso-dilatation in haemoptysis, 917
SMITH, EUSTACE: Food fever in children, 307; general convulsions in early infancy induced by the taking of food, 1338
SMITH, G. BELLINGHAM: Case of puerperal septicaemia due to *Diplococcus pneumoniae*, 1272
SMITH, HERBERT A.: *Folie à deux et folie circulaire*, 950
SMITH, HEYWOOD: Radiograph of a fetus *in utero*, 384
Smith, Madeleine, Trial of, rev., 327
SMITH, P. C.: Neurasthenia, degeneracy and mobile organs, 494
SMITH, PRIESTLEY: A new scotometer, 626
SMITH, THOMAS DAVIDSON, obituary notice of, 597
SMITH, TRAVERS: Cancer of oesophagus with secondary growth in heart, 202
SMITH, WALTER, discussion on empyema, 323
SMITH, WILLIAM R.: Universities of Glasgow and Aberdeen, 166
Smoking, juvenile, 464, 524, 640, 1555. *See also* Bill
SMOLLETT, TOBIAS, medical degree of, 570
Snake-poison antivenenes, 818
SNELL, SIMEON: Septic thrombosis of cavernous sinus, 262: Acute oedema of eyelids, 262; ophthalmology, past and present, 550; eye accidents and compensation, 844; non-magnetic steel alloys, 1465
SNOW, HERBERT: Excision of the clavicle, 258
Soap, a household, 747
Social medicine in Germany, 108; in Bavaria, 494
Societies, Charity Organization, conference of, 1353
Societies, friendly. *See* Friendly
Societies, Medical, of London, proposed amalgamation of, 281, 415, 540; a disclaimer, 626; anniversary dinner, 631
Societies, Medical, of New York, consolidation of, 7
Societies, Medical, of Paris, the strikes and, 1191
Societies, Red Cross, International Conference of, 999
Society, Aberdeen Graduates', annual dinner at Leeds, 886
Society, American Ophthalmological, *Transactions*, rev., 1406
Society, American Roentgen Ray, 1356
Society of Anaesthetists, 326, 562; action of anaesthetics on the lower forms of life (F. J. Keeble), 326: experiences of anaesthetics in 200 consecutive cases of prostatectomy (Carter Braine), 562
Society, Anatomical, Aberdeen University, 45
Society, Antitubercle, 660
Society, National Antivivisection, annual meeting, 1246
Society of Apothecaries. *See* Apothecaries
Society, British Balneological and Climatological, 442, 683, 864, 875; present position of the treatment of heart disease by baths and exercises (Alexander Morrison), 442: diet (Chalmers Watson), 683; thermal methods (Hamilton Cumming), 864; provincial meeting, 875
Society, Charity Organization, Edinburgh, 642
Society, Clinical, Chelsea, 22, 205, 505, 681, 1117; steps in the evolution of the treatment of serous pleurisy, with special reference to the preliminary intraserous injections methods (William Ewart), 22; ethyl chloride and chloroform mixture as a substitute for pure chloroform (Harvey Hilliard), 22; periodic vomiting with acetonaemia in children (Vincent Dickinson), 205; surgical treatment in tuberculous laryngitis (Harold Barwell), 505; training of nerve centres in children (Eric Pritchard), 505; serumtherapy, discussion on (T. Hewlett), 681, 740; annual dinner, 1117
Society, Clinical of London, 142, 261, 383, 445, 501, 623, 741, 801, 863, 1038, 1159, 1280; transverse versus inguinal colotomy (L. McGavin), 142; torsion of the omentum (H. Irving Pinches and Edred M. Corner), 143; multiple lipomata (adeno-lipomatosis), (H. D. Rolleston), 261; molluscum fibrosum (J. R. Lunn), 261; traumatic paraplegia treated by laminectomy (L. McGavin), 261; congenital aperture in centre of palate (James Berry), 261; apparently arrested Addison's disease (Dr. Herringham), 261; transverse myelitis with recovery (Dr. Herringham), 262; Charcot's disease of the thumb (P. Maynard Heath), 262; tetany apparently cured by thyroid substance (H. T. Mant and H. Batty Shaw), 262; cavernous naevus of tongue (H. M. Rigby), 262; surgical treatment of carcinoma of stomach (B. G. A. Moynihan), 383; a correction, 445; acute intestinal obstruction (Mr. Sherren), 501; appendicitis due to *Oxyuris vermicularis* (Mr. Carson), 501; appendix abscess with severe haemorrhage (J. D. Malcolm), 502; relation of traumatic diabetes insipidus to glycosuria (H. S. French and C. B. Ticehurst), 623; post-traumatic haemorrhage from superior longitudinal sinus without fracture of skull (E. F. Buzzard and J. Cunning), 623; dilatation of stomach following hour-glass contraction (J. E. Spicer), 624; associated congenital malformations (A. E. Garrod and Dr. Langmead), 624; mediastinal sarcoma treated by Roentgen rays (Zum Busch), 741; bony tumour of skull (H. G. Turney and E. P. Paton), 741; adiposis dolorosa (B. Abrahams), 741; dislocation of metatarsus (John J. Douglas), 741; fixation of omentum for ascites (W. G. Spencer), 741; spleno-medullary leukaemia (Dr. Voelcker), 741; congenital absence of fibula and congenital coxa vara (T. H. Openshaw), 741; Treitz's hernia complicating gastro-enterostomy (A. E. J. Barker), 801; right duodenal hernia (E. Percy Paton), 801; large cyst of common bile duct (Frederic Eve), 802: gastro-jejunostomy (F. C. Wallis), 802; clinical meeting, 863, 1038; von Recklinghausen's disease (G. A. Sutherland), 1038; spontaneous fracture of tarsus (Parkes Weber), 1038; ringworm cured by exposure to *x* rays (G. Pernet), 1038; lymphangiectodes (G. Pernet), 1038; post-auricular fistula (W. H. Battle), 1039; four severe abdominal operations (W. H. Battle), 1039; extreme obesity with precocious puberty (L. Guthrie), 1039; muscular atrophy (A. E. Garrod), 1039; angioneurotic oedema (A. E. Garrod), 1039; paralysis of left sixth and paresis of left seventh nerves (L. Guthrie), 1039; extensive ulceration of mouth (W. H. Battle), 1039: cystic tumour of spermatic cord (Cuthbert Wallace), 1159; carcinoma of thyroid gland (A. C. Hudson), 1159; perforated gastric ulcer treated by evisceration and irrigation: recovery (E. W. Roughton), 1159: complete removal of multilocular cyst of pancreas (John D. Malcolm), 1160; thrombosis of abdominal aorta (Francis Hawkins), 1280; pulmonary embolism, (C. R. Box), 1280; acute gastric dilatation and pneumonia (Parkes Weber), 1280
Society, Clinical, Newcastle-upon-Tyne, election of officers, 946
Society, Council of Childhood, annual report, 1362
Society, Dermatological, of London, 145, 503, 744, 980, 1222; meeting and cases, 145, 503, 744, 1222; acneiform eruption (Edward Stainer), 980; papillary naevus (Willmott Evans), 980; lichen planus annulatus (E. Graham Little), 981
Society, District Nursing, at Birmingham, 530
Society, Electro-Therapeutic, British, fourth annual general meeting, 337
Society, Epidemiological, 263, 624, 682, 1040, 1281: glanders in horse and man (W. Hunting), 263; typhoid fever in United States volunteer encampments (Christopher Childs), 624; evolution in relation to disease (J. T. C. Nash), 682; *Transactions*, rev., 870; infectivity of cerebro-spinal fever (Reginald Farrar), 1040; yellow fever operations in New Orleans in 1905 (Rubert Boyce), 1281
Society, Gynaecological, British, 154, 443, 980, 1161, 1465: annual dinner, 154; pregnancy complicated by fibroids (Bedford Fenwick), 443; uterine myoma (Mansell Moullin), 443; cancer of uterus (F. Bowreman Jessett), 443; cases of myoma (A. E. Giles), 980; myoma of uterus (Frederick Edge), 980; pregnant uterus and myoma (Frederick Edge), 980; uterine myoma (Smallwood Savage for Professor Taylor), 980; adeno-carcinoma (Dr. Macnaughton-Jones), 980; spindle-celled sarcoma (F. Bowreman Jessett), 980; advantage of the abdominal route in operations for cancer of uterus (Mrs. Scharlieb), 1161; exhibition of specimens, 1465
Society, Harveian, 325, 626, 1160; case of syphilis (Dr. Guthrie), 325: leontiasis ossea (Dr. Squire), 325; carcinoma of both breasts (Crisp English), 325; pulmonary stenosis (John Broadbent), 326; clinical meeting and exhibition of cases, 626, 1160
Society, Health, Borough of St. Marylebone, 515
Society, National Health, 1247
Society, Hunterian, 146, 744, 863, 1343; meeting and cases, 146, 744; pathological meeting, 863: discussion on syphilis (Jonathan Hutchinson, jun.), 1343: syphilis and mental disease (G. H. Savage), 1344; visceral syphilis (Hale White), 1344; congenital syphilis (G. F. Still), 1345
Society, Incorporated, of Medical Officers of Health (Metropolitan Branch), compulsory notification of phthisis in London (Louis Parkes), 863
Society, Irish Medical Benevolent Fund, annual meeting, 1435
Society, Model Ladies' Health, annual report, 151
Society, the Jenner, report, 1060
Society, Laryngological, of London, 144, 684, 744, 1041, 1281; annual meeting, 144; exhibits, 684, 744, 1041, 1281
Society, London and Counties Medical Protection, annual general meeting, 1115
Society, Medical Benevolent, 84th annual report, 1372
Society, Medical, Cardiff, lecture on exophthalmic goître by Professor Kocher, 1372
Society, Medical, Kidderminster, meeting and exhibition of cases, 1531
Society, Medical, Launceston, 767; and club practice, 767
Society, Medical, of London, 83, 203, 277, 442, 502, 629, 682, 742, 1160, 1247; chronic membranous colitis in infancy (E. Cautley), 83; bronchiectasis in childhood (C. R. Box), 83; uncontrollable vomiting in pregnancy (Comyns Berkeley), 203; dilatation of the cervix uteri with Bossi's dilator (George Blacker), 203; bequest to, 277; clinical meeting, 442; treatment of chronic renal disease (Samuel West), 502; acute tuberculous pleurisy (Sidney Martin), 502; the origin of life (H. Charlton Bastian), 629; papers, 682; cases, 1160; results of operation for radical cure of hernia (Jonathan Hutchinson, jun.), 742; angio-sarcoma of breast (H. Betham Robinson), 742; election of officers, 1160; method of operation for radical cure of femoral hernia (W. H. Battle), 1160; Professor Kocher at annual conversazione, 1247
Society, Medical, Manchester, 562, 684, 923; cases, 562, 684; present treatment of syphilis (Lieutenant-Colonel E. Butt), 923
Society, Medical, Midland, 326, 560; meeting and cases, 326, 560
Society, Medical, Northumberland and Durham, 42, 825
Society of Medical Officers of Health, jubilee celebrations, 1166
Society, Medical, Oldham, 385, 1347; injuries to the hand (J. A. Mackenzie), 385; exhibition of cases, 1347
Society, Medical, Ulster, 288, 445, 706, 804; clinical meeting, 445; fifth meeting, 706; demonstrations, 804
Society, Medical and Physical, Amsterdam, 291
Society, Medical Sickness and Accident, 32, 336, 579, 876, 1117
Society, Medical Sickness, Annuity, and Life Assurance Friendly, 1239
Society, Medical and Surgical, Cork, 263, 562, 684, 743, 803, 980, 1040; cystic tumour (Dr. Cummins), 263; tuberculous kidney and ureter (Dr. Pearson), 263; cases, 562; erratum, 684; vesical calculus (Dr. Cotter), 743; repeated excision of knee-joint (Dr. Cummins), 743; Addison's disease (Dr. Cummins), 743; perforated gastric ulcer (Dr.

Booth), 743; fibroid tumours (Professor Pearson), 803; chronic diarrhoea simulating sprue (Dr. O'Sullivan), 803; two cases of poisoning—strychnine and phosphorus (P. T. O'Sullivan), 980; case of empyema treated by Estlander's operation (Dr. Corby), 980; ectopic gestation (Dr. Cotter), 1040; obscure abdominal symptoms in a man (Dr. Cotter), 1040; acute appendicitis (H. R. Townsend), 1040
Society, Medico-Chirurgical, Aberdeen, 204, 385, 503, 1128; laminectomy in caries of dorsal vertebrae (Dr. Fortescue), 204; tuberculin in the treatment of tuberculous glands (Mr. Gray), 204; tuberculin in the treatment of tuberculous knee (Mr. Gray), 204; cerebellar tumour (Dr. McKerron), 205; Lorenz's operation for dislocated hip (Dr. Rose), 205; removal of head of humerus (Dr. Rose), 205; tetanus after bullet wound (J. Scott Riddell), 205; faecal incontinence (J. Scott Riddell), 205; Charcot's disease of knee-joint (Mr. Marnoch), 205; some survivals of folk medicine in Scotland (Dr. Rorie), 385; psoriasis vulgaris (J. F. Christie), 503; ten cases of puerperal eclampsia (R. G. McKerron), 504; shortness of the cord as a cause of delay in labour (Dr. Howie), 504; surgical treatment of ileocolitis (Dr. Rose), 504; last meeting of session, 1128
Society, Medico-Chirurgical, Bristol, 325, 561; surgical anatomy of the temporal bone (Harold Mole), 325; why defective nasal respiration impedes growth and development (Watson Williams), 325; hydatid cyst of liver (H. G. Kyle), 325; fright in its relation to disease (J. R. Charles), 325; specimens, 561; arthritis of erythema nodosum (J. O. Symes), 561; prognosis in pulmonary tuberculosis (J. J. S. Lucas), 562; colitis polyposa (Carey Coombs), 562
Society, Medico-Chirurgical, Edinburgh, 201, 383, 622, 1103, 1403; sleeping sickness in Uganda (Captain E.D W. Greig), 201; stovaine as a spinal and local anaesthetic (George L. Chiene), 202; relation of *Spirochaeta pallida* to syphilis (Theodore Shennan), 202; rectal feeding (Francis Boyd), 383; acute inflammation and passive congestion (Charles W. Cathcart), 383; spasm of the retinal artery (R. A. Lundie), 622; vaccine treatment in surgery (H. W. Gray), 622; occupation mortalities in Scotland (J. C. Dunlop), 622; infants' milk dépôts (W. Robertson), 1103; inguinal hernia in the female (E. S. Carmichael), 1103; diagnosis of glaucoma (A. J. Sinclair), 1403; tumours of the bladder (David Wallace), 1403
Society, Medico-Chirurgical, Glasgow, 145, 324, 385, 505, 684, 805, 923, 1161, 1222, 1346; acute ascending paraplegia (G. B. Buchanan), 145; injuries to eyes of child during labour (Leslie Buchanan), 145; intracapsular cataract extraction (Lewis McMillan), 145; pseudo-hypertrophic paralysis (Samson Gemmell), 324; four cases of cirrhosis of liver with primary cancer (Professor Muir), 324; coxa vara after operation (Dr. Renton), 324; cholecystcolostomy (Dr. Renton), 324; cicatricial keloid (Dr. Beatson), 325; round-celled sarcoma (Dr Steven), 385; exhibition of cases, 505, 684, 1161, 1222, 1346; results of infectious diseases on the vessels (J. M. Cowan), 805; clinical aspects of arterial disease (J. Lindsay Steven), 805
Society, Medico-Chirurgical, Leeds and West Riding, 626, 803, 864, 1162; pathological meeting, 626; pseudo-parasites of cancer (A. S. Grünbaum), 626; cryoscopy and its practical use in medicine and surgery (O. C. Gruner), 626; exhibits, 626, 1163; clinical meeting, 803; laryngeal complications of phthisis (E. F. Trevelyan), 864; modern mastoid operation (Dr. Bronner), 1162; epithelial tumours of prostate (H. Upcott), 1163
Society, Medico-Chirurgical, Nottingham, 83, 264, 504, 631, 683, 803, 923, 981; general anaesthetics and their administration (Reginald Alderson), 83; cutaneous manifestations of acquired syphilis (Arthur Whitfield), 264; naevus treated with radium (F. H. Jacob), 504; gastroenterostomy (A. R. Anderson), 504; exhibits, 683, 923, 981; influence of nasal diseases on the lower respiratory tract (J. Mackie), 803
Society, Medico-Chirurgical, West London, 82, 337, 561, 863, 1105, 1412; meeting and cases, 82, 863; twenty-fourth anniversary dinner, 337; infantile scurvy (J. A. Coutts), 561; treatment of chronic otorrhoea (E. Furness Potter), 561; clinical meeting, 863; discussion on varieties and sequelae of influenza, 1105; the Cavendish lecture, 1412
Society, Medico-Legal, 1162; discussion on insanity and murder (T. Claye Shaw), 1162
Society, Naval and Military Medical, in London, proposed, 594
Society, New Sydenham, *Atlas of Illustrations of Medicine, Surgery, and Pathology*, rev., 1468
Society, Obstetrical, Edinburgh, 144, 240, 441, 1221, 1465; thyroid in eclampsia followed by puerperal melancholia (W. E. Fothergill), 144; the stereoscope in teaching obstetrics (Barbour Simpson), 144; pyuria in the female (Dr. Porter), 144; note on, 240; bicornate uterus (W. Fordyce), 441; cerebral haemorrhage from dystocia (E. S. Carmichael), 441; hernia of the adnexa (E. Scott Carmichael), 1221; cases of eclampsia (Professor Jardine), 1221; twisted pedicle (Dr. Barbour), 1221; fatty inverted uterus (Dr. Barbour), 1221; ovariotomy after delivery (Professor Kynoch), 1465; heteroplastic ovarian grafting (Sir Halliday Croom), 1465
Society, Obstetrical, of London, 82, 384, 397, 626, 862, 1103, 1403; fibro-myoma of uterus undergoing sarcomatous change (W. S. A. Griffith and Herbt. Williamson), 82; pyelonephritis of pregnancy (W. A. Milligan), 82; adenomatous polypus of cervix (F. E. Taylor), 83; uterine fibroids in advanced age (W. S. A. Griffith), 83; tubal mole associated with sarcoma of ovary (Dr. Galabin), 83; ovariotomy during labour (Herbert R. Spencer), 384; radiograph of fetus in utero (Heywood Smith), 384; chorion-epithelioma (John Phillips), 384; annual address, 384; election of officers, 397; peritonitis and the *Staphylococcus albus* (J. D. Malcolm), 626; chronic infective metritis (A. Addinsell), 862; abdominal pregnancy (Dr. Maclean), 863; epithelioma of vulva (Dr. Lewers), 1103; laminaria tents (Sir William Sinclair), 1103; uterine contraction without retraction, nervous hyperpyrexia (Dr. Herman), 1403; glycosuria in pregnancy (W. H B. Brook), 1404
Society, Obstetrical and Gynaecological, Glasgow, 262, 384, 683, 1161, 1346; meeting and specimens shown, 262, 683; haemorrhagica neonatorum (Alexander Allan), 384; fetal malformation (G. N. Turner), 1161; notes on a case of parturition in a patient with double uterus, cervix, and vagina (John Baird), 1161; puerperal eclampsia (William A. Caskie), 1161; pregnancy in a Graafian follicle (A. Louise McIlroy), 1346
Society, Obstetrical, and Gynaecological, North of England, 204, 504, 682, 1041, 1221; evolution of operative gynaecology (Lloyd Roberts), 204; pelvis deformed by infantile paralysis (J. B. Hellier), 204; dinner, 204; subacute pyaemia (A. Cuff), 504; fibroid uteri (H. Briggs and D. Willett), 504; fibromata (A. Donald), 504; myomatous uterus (A. W. W. Lea), 504; angiomatous fibromyoma uteri (Blair Bell), 504; retroperitoneal tumour (Blair Bell), 504; ruptured tubal pregnancy (W. Walter), 504; exhibition of cases, 682, 1041, 1221
Society, Ophthalmological, of the United Kingdom, 262, 443, 625, 1104, 1465; septic thrombosis of cavernous sinus (Simeon Snell), 262; acute oedema of eyelids (Simeon Snell), 262; treatment of detachment of the retina (A. Maitland Ramsay), 262; bitemporal hemianopsia (D. J. Wood), 262; congenital anterior staphyloma (Arnold Lawson and George Coats), 443; myopia (Holmes Spicer), 443; superficial punctate calcareous deposit on cornea (Holmes Spicer), 444; elephantiasis neuromatosis (Ludford Cooper), 444; growth on upper palpebral conjunctiva (E. E. Henderson), 444; double detachment of retina (Sydney Stephenson), 444; semilunar gap in the lens (H. H. B. Cunningham), 444; orbital encephalocele (J. Herbert Parsons and George Coats), 625; a new scotometer (Priestley Smith), 626; heredity and myopia (C. Worth), 626; radium in rodent ulcer (Mackenzie Davidson), 1104; implantation cysts (Ransom Pickard), 1104; cyst of the orbit (Treacher Collins and Johnson Taylor), 1104; congenital cataract (Mr. Nettleship and Monteith Ogilvie), 1465; non-magnetic steel alloys (Simeon Snell), 1465; miliary tuberculosis (L. V. Cargill and S. Mayou), 1465
Society, Orthopaedic, German, 545
Society, Otological, of the United Kingdom, 325, 560, 1157, 1531; meeting and cases, 325, 560, 1531; fixation of the stapes (Urban Pritchard), 1157
Society of Paedology, foundation of in Austria, 532
Society, Pathological, of London, 143, 326, 441, 560, 562, 680, 802, 1041, 1160, 1223, 1281; notes on two cases of cholecystitis treated by inoculations with *B. coli* (A. E. Wright and S. T. Reid), 143; phagocytosis of red corpuscles (A. E. Wright), 143; new method of differentiating *B. typhosus* and *B. coli* (L. S. Dudgeon), 143; relationship of the temperature to the opsonic curve in acute anthrax infection (I. Freeman), 144; pathological meeting, 326; laboratory meeting, 1041, general sarcomatosis of the pia mater (A. S. Grünbaum), 441; leucocythaemia, leucocythaemia without lymphatic enlargement (F. G. Bushnell and Dr. Hall), 441; acute phlegmonous gastritis (J. Bernstein), 441; doubling of the spinal cord (J. Bernstein), 441; primary carcinoma of the male urethra (S. G. Shattock), 441; certain problems in urinary secretion (F. G. Hopkins), 560; a correction, 562, 1223; method of enumerating leucocytes (Lieutenant-Colonel W. B. Leishman), 680; dysentery in South Africa (Lieutenant-Colonel C. Birt), 680; phagocytosis of *Bacillus typhosus* (Captain W. S. Harrison), 680; the pathology of streptothrix infections (A. G. R. Foulerton), 802; note on plague vaccines (Captain Douglas), 802; observations on Malta Fever (Staff-Surgeon Reid), 802; chorion-epithelioma of congenital origin (Victor Bonney), 1160; specimens, 1160; dourine or mal de coït of the horse (F. W. Mott), 1281; symmetrical adenomata of the adrenals and extreme sclerosis of the aorta (F. Parkes Weber), 1281; specimens of disease of the testis in the horse (Professor Hobday), 1281
Society, Pathological, of Manchester, 264, 743, 1163; development and retrogression of the corpus luteum (Cuthbert Lockyer), 264; meeting and cases, 743, 1163
Society, Pathological and Clinical, Glasgow, 144, 502, 743, 981, 1222; residual hearing in deaf and dumb (Kerr Love), 144; suprapubic prostatectomy (James Lawrie), 144; cases, 144, 1222; kala-azar (R. M. Buchanan), 502; chorion-epithelioma (J. K. Kelly), 502; teratoma of tongue (James H. Nicoll), 503; supernumerary lobe of liver (James A. Adams), 743; malignant disease of the duodenum (A. E. Maylard), 981; aneurysm of the splenic artery (T. K. Monro), 981; tuberculosis of the uveal tract (A. M. Ramsay and Hugh Walker), 981
Society, Pharmaceutical, 1168; use of statutory titles by companies, 1168
Society, Railway Provident, 870, 946
Society, Red Cross, British, public meeting, 1223, 1555
Society for Relief of Widows and Orphans of Medical Men, 154, 995; annual meeting, 1114
Society, the Royal, 405; *Philosophical Transactions*, 405; ladies' conversazione, 1496
Society, Royal Botanic, receives £1,000 from Dr. Robert Barnes, 162
Society, Royal Medical, Edinburgh, 227, 407; annual dinner, 227, 407
Society, Royal Medical and Chirurgical, 82, 201, 382, 501, 569, 622, 740, 861, 979, 1103, 1221, 1402, 1531; capillary circulation and blood pressure (A. Haig), 82; myoclonus (Frederick Taylor), 201; "interrupted circulation" as a therapeutic agent (W. Ewart), 201; effect of violet infusion on malignant growths (W. Gordon), 382; primary malignant disease of the vermiform appendix (H. D. Rolleston and Lawrence Jones), 501; annual general meeting, 569; ocular symptoms of intracranial tumour (A. W. Ormond), 622; improved method of obtaining the "pancreatic" reaction in the urine (P. J. Cammidge), 622; value of Doyen's serum in malignant disease (Alexander Paine and D. J. Morgan), 740; endemic goître in Chitral and Gilgit valleys (Agency-Surgeon R. McCarrison), 861; serum treatment of gonorrhoeal infections and purpura haemorrhagica (Soltau Fenwick and Porter Parkinson), 979; achondroplasia (Guthrie Rankin and Ernest C. Mackay), 1103; report on 282 operations for non-malignant diseases of the stomach (B. G. A. Moynihan), 1221; mitral stenosis and pregnancy (H. French and H. R. Hicks), 1402; appendicitis and gangrene of the appendix as separate diseases (J. D. Malcolm), 1531; submucous excision of deviations and spurs of the nasal septum (StClair Thomson), 1531
Society, Royal Meteorological, annual general meeting, 162
Society, Royal Statistical, the decline of human fertility in the United Kingdom and other countries as shown by corrected birth-rates (A. Newsholme and T. C. H. Stevenson), 268; comment on by Dr. McWalter, 449
Society for the Study of Disease in Children, 265, 744, 1105, 1223; meeting and exhibits, 265, 744, 1105, 1223
Society, Therapeutical, 264, 326, 803, 1041; uncomplicated cholelithiasis and its treatment (Dr. Bain), 264; treatment of exophthalmic goître by antithyroid serum (G. Newton Pitt), 326; native and other plants having some relationship to curare (Gordon Sharp), 803; therapeutic action of the iodides (James Burnet), 1041
Society, University College, Colston, annual dinner, 886
Society, Zoological, meetings, 32, 995
SODDY, F.: *Radio-activity*, rev., 627
Sodium arsenite, poisoning by, 759
SOLLY, R. V.: Reports on *post-mortem* examinations, 200
Solurol, 687
Somers Town, insanitation at, 640
SOMERVILLE, W. F.: Influence of high-frequency currents on the surface temperature of the body, 923
SOMMER, ERNST: *Anatomischer Atlas in stereoskopischen Roentgenbildern*, rev., 565
SOMMERVILLE, D.: *Practical Sanitary Science: A Handbook for the Public Health Laboratory*, rev., 1044
Soudan, sleeping sickness in, 702; Lord Cromer's report on administration in, 1053
Souls and shadows, 779
Sound, hollow intrauterine, 566
SOUPAULT, MAURICE: *Traité des Maladies de l'Estomac*, rev., 23

SOUTER, WM. CLARK: Heterochromia iridis, 1219
South Africa, plague in, 49, 218, 349, 478, 578, 767, 946, 1293; dysentery in (Lieutenant-Colonel C. Birt), 680; cancer cure in, 758; Mediterranean fever in (Lieutenant-Colonel C. Birt), 976
South Australia, notes from, 767; regulation of hairdressing and shaving saloons, 767
South Wales, notes from, 44, 103, 163, 289, 347, 408, 469, 591, 709, 764, 824, 1009, 1067, 1127, 1189, 1252, 1315, 1437, 1478, 1558; University College of South Wales and Monmouthshire, 44, 229, 408, 590; Cardiff Museum, 44; Cardiff Infirmary, 825, 1009, 1189; Ebbw Vale dispute, 44, 1558; stillborn children, 103; proposed Welsh Water Board, 103; insanitary houses at Newport, 104; Rhondda Ambulance Associations, 104, 347; colliery difficulty, 163; Welsh water supplies, 229, 290, 764; University College Old Students' Association, 229; increase of vagrants, 229; University of Wales, special meeting of Court, 289, 1252; correspondence with Board of Education, 1372; Pontypool sewerage, 290; report of medical officers of health, 469; Bedwellty District Council, 290; insanity in West Wales, 290; new asylum at Newport, 290; defective eyesight in school children, 347; public health of Barry, 347; doctors and guardians, 408; midwives in Monmouthshire, 408; underfed school children at Newport, 408; St. John Ambulance Brigade at Cardiff, 408; a suspected water supply at Rhondda, 469; report of medical officers of health, 469, 590; sanitation in Glamorgan, 709; typhoid fever and spring water, 709; Llanelly water, 764; Newport water supply, 764; new mortuary at Newport, 824; Aberystwith guardians, 824; new hospital for Barry, 824; University College, Aberystwith, 825; eyesight of school children, 825; Eyton Williams bequest, 825; railwaymen's ambulance shield, 1067; report of M.O.H. for Porthcawl Union, 1067; reports of medical officers of health, 1127; whooping-cough at Swansea, 1190; meat inspection at Cardiff, 1190; Roentgen rays in surgery, 1252; Swansea Hospital 1252; report on Merthyr Tydfil, 1315; Cardiff Medical Society, 1372; alien paupers at Cardiff, 1372; overcrowding at Pontypridd, 1373; Glamorgan County Council, 1437; health of Cardiff, 1478; hygiene in schools, 1558
Spain, plague in, 349; prevention of tuberculosis in, 734
Spain, South, as a holiday resort, 397
Spasm of the retinal artery (R. A. Lundie), 622
Spasmus nutans (Dr. Emanuel), 1156
Specialist in human nature, 1429, 1503
Specialists in Germany, 752
Spectacles for school children, 1540
Speed mania, 1001
Spelling, 1177, 1230, 1292, 1546
SPENCER, HERBERT R.: Ovariotomy during labour, 384
SPENCER, W. G.: Fixation of omentum for ascites, 741
Spermaceti for operations in thin-walled cysts, 154
Spermatic cord, cystic tumour of (Cuthbert Wallace), 1159
Sphincter, the vesical (Mr. Leedham-Green), 142
SPICER, HOLMES: Myopia, 443; Superficial punctate calcareous deposit on cornea, 444
SPICER, J. E.: Dilatation of stomach following hour-glass contraction, 624
Spiddal case, 227
Spinal cord, doubling of (J. Bernstein), 441
Spirillum obermeieri, a sexual development of (W. H. Cox), 1400
Spirochaet*a* or spirochaet*e*, 1177
Spirochaeta pallida, 1139
Spirochaeta pallida, *Cytorrhyctes luis* (Siegel) and (Alex. MacLennan), 258
Spirochaeta pallida, relation of to syphilis (Theodore Shennan), 202; and the syphilitic placenta, 880
Spirochaeta pallida and its variations (Alex MacLennan), 1090
Spleen and its sufferings (Dr. Frederick Taylor), 153
Spleen, rupture of, splenectomy: recovery, 1554
Splenectomy, case of (reported by Edward Harrison, with observations on the blood changes by F. C. Eve), 320
Splint for fractured humerus, 389
Sporadic dysentery. *See* Dysentery
Sport in Canada, 871
Sprain of the diaphragm, 960
SPRIGGS, N. I.: Case of puerperal septicaemia due to *Diplococcus pneumoniae*, 1272
Spring water. *See* Water
SPURGIN, H. B.: Vaccination, 1378
SPURWAY, JOHN: Goître in England, 1037
Squill, digitalis and strophanthus, action of on the heart, 1494
SQUIRE, Dr.: Leontiasis ossea, 325
SQUIRE, J. EDWARD: *Preservation of Health and Hygiene of the Home*, rev., 986
Stagnation of food in the stomach (Alexander McPhedran), 367
Standardization of disinfectants, 1018
STANLEY, DOUGLAS: Syphilitic disease of lung, 860
Stapes, fixation of the (Urban Pritchard) 1157; (leading article on), 1180
STARK, JOSEPH: Neuritis in phthisis, 1464
Starting in practice, 1507
Stasis, pressure, in children, 709
State hospitals. *See* Hospitals
State registration of nurses. *See* Nurses
Statutory titles, use by companies, 1182, 1186
Steel alloys, non-magnetic (Simeon Snell), 1465
STEELE-PERKINS, CHARLES EDWARD, obituary notice of, 777
STELWAGON, HENRY W.: *Treatise on Diseases of the Skin*, rev., 1285
STEPHENSON, SYDNEY: Double detachment of the retina, 444
Sterescope in teaching obstetrics (Barbour Simpson), 144
STEVEN, J. LINDSAY: Clinical aspects of arterial disease, 805
STEVEN, Dr.: Round-celled sarcoma, 385
STEVENS, G. ARBOUR: Calcium chloride in chilblains, 797
STEVENS, W. G.: Illustrated Health Almanack, 631
STEVENS, W. MITCHELL: Case of intrahepatic calculi, 434
STEVENSON, Sir EDMOND S.: Complicated case of appendicitis, 787
STEVENSON, T. C. H.: Decline of human fertility in the United Kingdom and other countries as shown by corrected birth-rates, 268
STEVENSON, WALTER C.: Investigation of the mechanism of condylotomy for cure of genu valgum, 18
STEWART, J.: Enucleation of fibro-myoma of uterus during pregnancy, 548
STEWART, WILLIAM ROBERT HENRY, obituary notice of, 837
STILL, G. F.: Congenital syphilis, 1345
Stillborn children, 103, 1260; twin, 1447
STIMSON, LEWIS A.: *Practical Treatise on Fractures and Dislocations*, rev., 1042
STOCKMANN, VON WILK: *Ueber Gummiknoten im Herzfleische bei Erwachsenen*, rev., 1165
Stockport, report of medical officer of health on school hygiene, 574
STOKER, Sir THORNLEY: Discussion on empyema, 323
Stokes-Adams syndrome, 638
Stomach, cancer of. *See* Cancer
Stomach, dilatation of following hour-glass contraction (J. E. Spicer), 624
Stomach diseases, review of books on, 23; report on 282 operations for non-malignant (B. G. A. Moynihan), 1221
Stomach, hour-glass, gastro-jejunostomy for (Mr. Gamgee), 382
Stomach, stagnation of food in (Alexander McPhedran), 367
Stomach, x rays in examination of, 351
Stomatitis, epidemic, 839, 899
Stone in kidney. *See* Kidney
Stovaine as a spinal and local anaesthetic (George L. Chiene), 202
Stovaine as a local anaesthetic (Dan McKenzie), 1099
Street accidents, 455, 814
Street ambulances, 1498
Street dust. *See* Dust
Strenuous President and the "force of life," 161
Streptothrix infections, pathology of (A. G. R. Foulerton), 802
STRETTON, J. LIONEL: Feeding babies in crèches, 1504
Strictures of urethra. *See* Urethra
Strike of Austrian country doctors. *See* Passive resistance
Strikes and the medical societies, 1191
Strophanthus, digitalis and squill, action of on the heart, 1494
STRUBELL, ALEXANDER: *Der Aderlass. Eine Monographische Studie*, rev., 509
STUART, G. H.: Post Office medical officers, 1441
Student life, 1425
Students, increase of in France and Germany, 283
Study of ochronosis, 1308
STURROCK, JAMES P.: Case of rupture of heart, 500
Style, literary, doctors and, 1229
Sublimate injections and criminal abortion, 1063
Subphrenic abscess. *See* Abscess
Succussion in pyopneumothorax, 1191
Sugar in the urine, significance of small quantities of (Robert W. Burnet), 126
SULLIVAN, W. C.: Industrial alcoholism, 1412
Sulphur dioxide in the destruction of rats on board ship, 1427
Sunday rest for medical practitioners, 281, 415; for druggists, 679
Superannuation Act. *See* Act
Superannuation of Poor-law medical officers. *See* Medical
Supersession, 117, 656, 1017, 1382, 1567; by a consultant, 117; position of consultant, 656
Supplement, the, 284, 345
Suprapubic prostatectomy. *See* Prostatectomy
Suprarenal gland, disagreeable effect of, 300
Surgery of the bile passages, 167
Surgery of the heart, 1010
Surgery, modern fashions in, 114
Surgery in the R.A.M.C., 647
Surgery, Roentgen rays in, 1292
Surgery, review of books on, 1284
Surgical convalescents, 1382
Surgical demonstrations in Vienna, 109
Surgical emphysema. *See* Emphysema
Surgical jubilee, 351
Surgical operation, Austrian ordinance as to, 175
Surgical treatment of paralysis. *See* Paralysis
Surrey, school hygiene in, 391
SUTHERLAND, G. A.: Von Recklinghausen's disease, 1038; Pasteurized milk and infant feeding, 1070
Suture materials, new, 219
Swab holder, double, 629
Swansea, whooping-cough at, 1190
Swimming bath, vegetable growth in, 1323
Swiss hotels, infectious diseases in, 342
Swiss universities, medical students in, 454
Switzerland, female medical graduates in, 398
Sydney Ambulance and Transport Corps, 105
Sydney, notes from, 1250, 1438; annual meeting of the New South Wales Branch of the British Medical Association, 1250: Sydney University commemoration, 1250; pulmonary tuberculosis in, 1438
SYME, W. S.: Indications for operation for chronic suppuration of middle ear, 251
SYMES, J. ODERY: *The Rheumatic Diseases*, rev., 507
Syndrome, Stokes-Adams, 638
Synostosis of radio-ulnar articulations, congenital (John R. Lunn), 499
Syphilis, discussion on (Jonathan Hutchinson, jun.), 1343
Syphilis, acquired, some unusual variations of the erythematous syphilide in (Arthur Cooper), 316
Syphilis in apes, transmissibility of, 168; (Albert S. Grünbaum and Ralph D. Smedley), 607
Syphilis and cancer and some protozoa (J. Jackson Clarke), 1274
Syphilis, congenital (G. F. Still), 1345; histology of, 757
Syphilis, cutaneous manifestations of acquired, 264
Syphilis, experimental, 94
Syphilis, a family infected with (W. R. Grove), 1400, 1428; correspondence on, 1501
Syphilis, hereditary, and enteric fever (J. D. Rolleston), 312
Syphilis, inherited, infectivity of, 1501, 1565
Syphilis, investigation of, 398
Syphilis and mental disease (G. H. Savage), 1344
Syphilis, prevention of, 1431
Syphilis, prophylaxis of, 51, 1183
Syphilis, relation of *Spirochaeta pallida* to (Theodore Shennan), 202
Syphilis in upper air passages, unusual manifestations of (Sir Felix Semon), 61; correspondence on, 419
Syphilis, visceral (Hale White), 1344
Syphilitic cachexia, sarsaparilla in, 710, 770, 899, 960, 1075; (Charles J. Cullingworth), 791
Syphilitic placenta and the *Spirochaeta pallida*, 880
Syphilitic roseola, unusual variations of (Arthur Cooper), 316
Syphilization of apes, 168, 607
Syria, haemoglobinuric fever in, 314
Syringe, aseptic, 449
Syringe, post-nasal, 1353
Syringomyelia (J. W. Findlay for Dr. Munro), 923

T.

Tabes dorsalis (David Ferrier), 721, 792, 851
Tabes dorsalis, surgical complications of (Anthony A. Bowlby), 1021
Tabes, dystrophy of, and the problem of trophic nerves (Sir William R. Gowers), 1267
Tachycardia (Dr. Emanuel), 860
Taenia, treatment of (J. Kingston Fowler), 841
TAKAKI, Baron, 753, 1063, 1066, 1116, 1175, 1186, 1252; on the preservation of health in the Japanese navy and army, 1175; honorary degree of Doctor of Civil Law conferred upon, 1186; at Newcastle-on-Tyne, 1252
TALBOT, PHILIP: Case of localized osteomalacia, 259
TAPLIN, A. BETTS: Treatment by hypnotic suggestion, 979
TARNOWSKY, Dr., obituary notice of, 1320
Tarsus, spontaneous fracture of (Parkes Weber), 1038
Tasmania, public health work in, 1069
Tattoo marks, removal of, 1382
Tax on prescriptions, 168
TAYLOR, D.: Cirrhosis of liver, 741
TAYLOR, EDWARD H.: Treatment of acute peritonitis, 862
TAYLOR, FREDERICK: Inaugural address at Midland Medical Society on the spleen and its sufferings, 153; myoclonus, 201
TAYLOR, F. E.: Adenomatous polypus of cervix, 83

TAYLOR, HENRY P.: Occipito-posterior presentation, 893
TAYLOR, H.: Impaction of hatpin in male urethra, 380
TAYLOR, JOHNSON: Cysts of orbit, 1104
TAYLOR, J. W.: Uterine myoma, 559; sacculated kidney, 559
TAYLOR, ROBERT W.: *Practical Treatise on Sexual Disorders of the Male and Female*, rev., 448
TAYLOR, SEYMOUR: Aortic insufficiency, 1461
TAYLOR, W. BRAMLEY, appointed J.P. for county of London, 694
TAYLOR, WILLIAM: Partial gastrectomy for pyloric tumour, 261
Tea shops, 1308
Teeth, identification by, 343
Teeth of school children, 919
Teeth, physical efficiency and, 934
Telephone subscribers, a warning, 719
Telephones, branch, 598; and branch surgeries, 1256
Telephonic consultation, payment of, 168
Tell-tale envelopes, 1019
Temperance beverage, 1324
Temperature, paradoxical. *See* Paradoxical
Teratology, review of books on, 982
TERTULLIAN, 1546
TERWAGNE, Dr.: *Portez-vous bien! notions élémentaires d'hygiene populaire et rationale*, rev., 26
Testicle, necrosis of (R. R. Law), 1219
Testimonials, medical. *See* Medical
Tetanus, case of (reported by A. Scott Williams), 1340; case of, a correction, 1448
Tetanus, influence of heat on the evolution of, 108
Tetanus toxin, action of, 878
Tetany apparently cured by use of thyroid substance (H. T. Mant and H. Batty Shaw), 262
Thames pollution, 524
Therapeutic action of the iodides (James Burnet), 1041
Thermal methods (Hamilton Cumming), 864
Theses presented to all French medical faculties, statistics of, 570
Thibet mission, medical service of, 223
Thigh, bullet wound of (Dr. Plummer), 382
Thiosinamine in hypertrophy of pylorus with stenosis (Eber Caudwell), 379
Third eyelid. *See* Eyelid
THOM, ALEXANDER, obituary notice of, 236
THOMAS, ARTHUR M.: Midwifery of the present day, 892
THOMAS, J. LYNN: *X* rays in treatment of fracture, 739; What influence has the use of *x* rays had upon fractures and dislocations? 1034
THOMAS, J. W.: *Ventilation, Lighting, and Heating of Dwellings*, rev., 1108
THOMPSON, W. H.: Anaesthetics and renal activity, 608, 667
THOMPSON, W. J.: Keratosis, 862
THOMSON, Dr., awarded grant for successful vaccination 1110
THOMSON, FREDERIC: "Oral sepsis" in scarlet fever, 534
THOMSON, STCLAIR: Submucous excision of deviations and spurs of the nasal septum, 1531
THOMSON, Sir WILLIAM: Enucleation of the prostate for haemorrhage, 188, 1346
Thoracic duct, wound of (Andrew Fullerton), 1389
Thorax, cyst of. *See* Cyst
THRESH, J. C.: *Preservatives in Food and Food Examination*, rev., 1466
Throat affections, Iceland moss in, 629
Thrombosis of abdominal aorta (Francis Hawkins), 1280
Thrombosis, septic. *See* Septic
Thrombosis, progressive venous (M. W. Williams), 1100
Thug skulls, criminal anthropology and, 1428
THURSFIELD, HUGH: Enuresis and its treatment, 901
Thymus gland, death from enlarged (James Rooth), 737; carcinoma of (A. C. Hudson), 1159; pathology of (Professor Kocher), 1261
Thyroid in eclampsia followed by puerperal melancholia (W. E. Fothergill), 144
Thyroid, removal of right lobe of (Mr. Jalland, from notes by Dr. Mackenzie), 978
Thyroid in obesity, 1019
Thyroid, waxy degeneration of (Dr. Miller, 1156
Thyroid substance in tetany (H. T. Mant and H. Batty Shaw), 262
TICEHURST, C. B.: Relation of traumatic diabetes insipidus to glycosuria, 623
Tinned food in the tropics, 1503
Tinned meat for the army, 1434, 1499
TISNOB, A. N.: Poor-law Commission and contract practice, 653
Title of "accoucheur." See Accoucheur
Title of "doctor." *See* Doctor
Titles, professional, use of by companies, 1302
Tobacco poisoning in a child, 1155
TODD, J. L.: Lecture on sleeping-sickness, 943; treatment of human trypanosomiasis by atoxyl, 1037
TODD-WHITE, ARTHUR: Epistaxis and calcium chloride, 198
Tongue, cancer of. *See* Cancer
Tongue, foreign body removed from substance of (John Saffley), 558
Tonicity of heart muscle. *See* Heart
Tonsillitis in convalescence from diphtheria (J. D. Rolleston), 1152
Tonsils, calcareous concretions in, 1019
"Too sick to be nussed," 600
Toronto, annual meeting of British Medical Association at. *See* Association
Toronto, aseptic technique at, 1006
Torsion of omentum. *See* Omentum
Torsion of pedicle of an ovarian dermoid in a child (H. Brunton Angus), 199
Torticollis or wryneck (A. H. Tubby), 1387
Touting, 1196
TOWNSEND, H. R.: Case of acute appendicitis, 1040
Toxic theory of pain, 880
TOYE, E. J.: Acute haemorrhagic pancreatitis, 200
Tracheotomy, unusual cases of, 1324
Trade advertisements. *See* Advertisements
Trained nurses. *See* Nurses
Tralee guardians and the British Parliament, 1008
Tramp wards, 229
Tramps' bedrooms, 590
Transplantation of bone: from same subject (reported by A. M. Dryden), 1101
Transvaal, medical inspection of schools in, 398; mortality in the mines, 640
Traumatic pneumonia. *See* Pneumonia
Travelling expenses (medical Boards), 1135
TREHARNE, LLEWELLYN, death of, 219
Treitz's hernia. *See* Hernia
TREVELYAN, E. F.: Laryngeal complications of tuberculosis, 864
TREVES, Sir FREDERICK: Accepts office of consulting surgeon to Royal Dental Hospital, London, 56; Rectorial address at Aberdeen, 520; On physical culture at Battersea Polytechnic Gymnasium, 1303; On teashops, 1308
TREVOR-ROPER, G. D.: Painless labour, 737; Pneumococcic-arthritis, 978
Triumph of red tape, 660
Trinity College, Dublin. *See* College
"Trinity College Dublin Lodge, No. 3153," 631
Trophic nerves, problem of and the dystrophy of tabes (Sir William R. Gowers), 1267
Tropical disease, the fight against, 527
Tropical diseases, review of books on, 745; dangers of (James Cantlie), 1334
Tropical and subtropical diseases, geological distribution of, 1448
Tropical Medicine, Liverpool School of, seventh annual report, 567, 588; donation to, 1179
Tropical Medicine, London School of, pass-lists, 58, 1016
Tropical medicine in Berlin, 523
Tropical medicine in Egypt, 1130
Tropics, white man in, 820; tinned food in, 1503
TROTMAN, S. R.: Does diachylon affect the infant when it fails to produce abortion? 257
TROTTER, Surgeon-Major JOHN WILLIAM, obituary notice of, 1569
Trypanosomes, effect of various rays on (R. Ross), 798
Trypanosomiasis, a correction, 1200
Trypanosomiasis, spread of (leading article), 1118
Trypanosomiasis, human, treated by atoxyl (John L. Todd), 1037. *See also* Sleeping sickness
Trypsin in cancer, J. A. Shaw-Mackenzie's method, 240; (Thomas Ligertwood), 318; (A. Howard Pirie), 318; (George E. Keith), 419; correspondence on, 715
Trypsin, action of upon the living cells of Jensen's mouse-tumour (J. Beard), 140; correspondence on, 360
Tubal mole. *See* Mole
Tubal pregnancy. *See* Pregnancy
TUBBY, A. H.: Recent surgical methods in treatment of certain forms of paralysis, 481, 771; Torticollis in wry neck, 1387
Tubercle bacilli, danger of ingestion of, which have been killed by heat (MM. Calmette and Breton), 592; and milk, 828
Tubercle and dust among carpenters and laundry workers, 768
Tuberculin in treatment of tuberculous glands (Mr. Gray, 204; in treatment of tuberculous knee (Mr. Gray), 204
Tuberculin, review of books on, 628
Tuberculosis, abdominal, 622
Tuberculosis in American schools, 94
Tuberculosis in Belfast, 1129; in Helsingfors, 57
Tuberculosis in animals, 464
Tuberculosis, bovine, and milk, Professor von Behring and, 410
Tuberculosis, bovine, Professor Theobald Smith on, 701
Tuberculosis, bovine, question in Parliament, 1187
Tuberculosis camp for Montreal, 227
Tuberculosis, chloroform in (James Holmes), 198; (H. de C. Woodcock), 557; correspondence on, 660
Tuberculosis Commission, report, 1501
Tuberculosis, compulsory notification of (Thomas F. S. Caverhill), 929; voluntary notification of, 958
Tuberculosis in Greece, 639
Tuberculosis, human and bovine, Professor Theobald Smith on, 701
Tuberculosis, intestinal, primary (leading article), 456
Tuberculosis of kidneys (Professor Zuckerkandl), 710
Tuberculosis, laryngeal complications of (E. F. Trevelyan), 864
Tuberculosis, lime salts in treatment of, 889, 959
Tuberculosis in London, 341; compulsory notification of in London (Louis Parkes), 863; in Edinburgh, treatment of, 704, 766
Tuberculosis, Marmorek's serum in, 340, 420
Tuberculosis, miliary (L. V. Cargill and S. Mayou), 1465; simulated by secondary carcinomatous growths (Robert E. Lord and Chas. W. Buckley), 193
Tuberculosis and milk, 43, 828
Tuberculosis, mortality from in France and Germany, 350, 522, 586
Tuberculosis in Doncaster, 958
Tuberculosis, neuritis in (Joseph Stark), 1464
Tuberculosis, notification of, 417, 814, 863, 1077, 1125
Tuberculosis, open-air treatment of, in Ireland, 747
Tuberculosis, organization and co-ordination of effort against, 472, 768
Tuberculosis, pelvic, 622
Tuberculosis, prevention of, in London, 341; in Leeds, 519; in Cork, 591, 886; in Spain, 734; in the City of Edinburgh, 766, 1371; in Aberdeen, 887; President Roosevelt on, 940; in Dublin, 944; in Belfast, 944; in Scotland, 945; in Canada, 1005; in Rotherham, 1134; in Germany, 1373; increase of in Ireland, 1556
Tuberculosis, prophylaxis of, 828
Tuberculosis, pulmonary, administrative control of, in Scotland (leading article), 632, 642; correspondence on, 769
Tuberculosis, pulmonary, early diagnosis of, by Roentgen rays, 650, 831, 949
Tuberculosis, pulmonary, in provincial asylums in Canada, 767
Tuberculosis, pulmonary, in Sydney, 1438
Tuberculosis, reviews of books on, 329, 388, 926
Tuberculosis, sanatorium treatment of (R. J. M. Buchanan and C. J. Macalister), 22; for paupers, 418. *See also* Sanatorium
Tuberculosis, suppression of (leading article), 279; correspondence on, 472
Tuberculosis, posterior vertebral (K. W. Monsarrat), 324
Tuberculosis, vaccination against, new method (MM. Calmette and Guérin), 1501
Tuberculosis, voluntary notification of. *See* Tuberculosis, Notification
Tuberculous disease of lungs and larynx (Byrom Bramwell), 361
Tuberculous foci in early disease of kidney (Hurry Fenwick), 196
Tuberculous glands, tuberculin in treatment of (Mr. Gray), 204
Tuberculous laryngitis, surgical treatment of (Harold Barwell), 505
Tuberculous knee, tuberculin in treatment of (Mr. Gray), 204
Tuberculous patients, isolation of, 708, 824, 943
Tuberculous pigs, pork from, 658, 885
Tuberculous pleurisy, acute (Sidney Martin), 502
Tubo-ovarian cyst. *See* Cyst
TUCKER, E. F. GORDON: Deformity of lower limbs, 555; reports case of sarcoma of lachrymal gland, 1220
TUCKWELL, HENRY MATTHEW, obituary notice of, 654
TUGHAN *v.* DARNELL, 826, 1128. *See also* Fund, Darnell
TUKE, Sir JOHN BATTY, and the medical profession, 51
TULEY, HENRY ENOS: *Pediatrics; a Manual for Students and Practitioners*, rev., 926
TULLOCH, Lieutenant FORBES, attacked by sleeping sickness, 1062; death of, 1492; obituary notice of, 1568
TULLOCH, Deputy Surgeon-General JOHN, obituary notice of, 1015
Tumour, cerebellar (Dr. McKerron), 205; (J. A. Codd), 1342
Tumour, cerebral basal (John R. Lunn), 1401
Tumour, cystic, of spermatic cord (Cuthbert Wallace), 1159
Tumour, intracranial, ocular symptoms of (A. W. Ormond), 622
Tumour, mouse. *See* Mouse tumour
Tumour, polypoid, of cervix uteri due to bilharzia (Janet G. Horwood and A. J. Milne), 557
Tumour of prostate, epithelial (H. Upcott), 1163
Tumour, pyloric, partial gastrectomy for (William Taylor), 261
Tumours of bladder (David Wallace), 1403

Tumours, cerebral, histology of (John Richards), 1041
Tumours, coexistence of different, in one patient, 533
Tuning-fork tests, 720
TURBAN, K.: *Diagnosis of Tuberculosis of the Lungs, with special reference to the early stages*, rev., 926
TÜRCK and the discovery of the laryngoscope, 987
Turkey, a new medical faculty in, 1235
TURNBULL, J. CAMERON: Intracranial haemorrhage in the newborn, 677
TURNER, DAWSON: *Manual of Practical Medical Electricity*, rev., 985
TURNER, G. N.: Fetal malformation, 1161
TURNER, JOHN: Pathology of epilepsy, 496; epilepsy and changes in the blood and nervous system, 1412
Turner, Sir William, and Edinburgh University students, 642
TURNEY, H. G.: Bony tumour of skull, 741
TUTTLE, JAMES P.: *Treatise of Diseases of Anus, Rectum, and Pelvic Colon*, rev., 1108
TWEEDY, E. HASTINGS: Intussusception, 1402; Puerperal morbidity, 1402
Twin, stillborn, 1447
Typhoid agglutometer, 629
Typhoid bacillus, vitality of, 419
Typhoid and colon bacilli, 773, 831
Typhoid, fever. *See* Fever. Enteric ulcers. *See* Ulcers.
Typhoidal cholecystitis. *See* Cholecystitis
Tyres, pneumatic or solid, 479
TYSON, JAMES: *The Practice of Medicine*, rev., 1165
TYTLER, PETER: *Post-mortem* Caesarean section, 1100

U.

Uganda, sleeping sicknesss in (Captain E. D. W. Greig), 201
Ulcer, duodenal, causing acute peritonitis, 946
Ulcer, duodenal, ruptured (John Clay), 1334
Ulcer, gastric perforated, treated by evisceration and irrigation (E. W. Roughton), 1159
Ulcer, intestinal, rupture of, 718
Ulcer, rodent, radium in (Mackenzie Davidson), 1104
Ulcerative colitis. *See* Colitis
Ulceration of mouth. *See* Mouth
Ulcers, perforating typhoid, treatment of (Francis L. A. Greaves), 373
Ulcers, tuberculous, of intestine (E. Deanesly), 1342
Ulster sayings and folklore, 104
Uncertified midwives. *See* Midwives
Underfed children. *See* Children
Underground waters, pollution of, 1120
Undue influence, 1122
Unemployed or ergophobic? 42
United Provinces (India), new medical college for, 165; report for 1904, 1069. *See also* India
United States of America; tuberculosis in schools, 94; medicine and politics in, 100, 162; naval medical service of, 101; psychical research in, 102; directory of defaulters, 126; cremation in Massachusetts, 208; pneumonia in New York, 219; football in, 345; proposed Ministry of Public Health, 345; extermination of mosquitos, 389, 973, 1101; new military hospital in (Walter Reed), 406; Bill for legalization of osteopathy, 454; care of the blind in, 508; regulation of marriage in, 605; typhoid fever in the Volunteer encampments (Christopher Childs), 624; history of medicine in State of Albany 750; care of childhood in, 799; number of doctors in, 813; medical corps of the army, 934; medical mortality in, 958; Pure Foods and Drugs Bill, 958; research on yellow fever in, 1122; anti-cigarette legislation in, 1179; Patent Medicine Bill, 1186; cancer research in, 1228; the profession and the public in (leading article), 1548
Universities, American, 93
Universities, patriotism in, 1292
University of Aberdeen, 45, 287, 526, 537, 896; pass lists and degrees, 896; quatercentenary of, 45, 287; Lord Rector's assessor, 45; Lord Rector's address, 526; University Court, 537; Geddes Memorial Fund, 537; gifts to the museum, 537; accounts for the year, 537; gifts to the library, 537; fees in arts, 537; spring graduation ceremony, 896
University of Birmingham, 530, 1016, 1570; annual meeting of Court of Governors, 530; lectures, 1016; pass lists and degrees, 1570
University of Bonn, foundation of Chair of Medicine, 94
University of Bristol, promised contributions to, 1492
University of Cambridge, 58, 175, 239, 299, 358, 416, 478, 537, 599, 657, 717, 775, 896, 1016, 1076, 1137, 1197, 1320, 1381, 1443, 1505, 1569; pass lists and degrees, 58, 175, 239, 299, 358, 478, 599, 657, 717, 896, 1016, 1076, 1137, 1197, 1320, 1443, 1505, 1569; appointments, 416, 537, 775, 1381; Committee for the Study of Special Diseases at, 519; compulsory Greek, 775, 1016; Quick Professorship in Biology, 775; readership in hygiene, 775; examiners, 1016; advanced classes, 1137; readership in hygiene, 1320
University College. *See* College
University constituencies, 49, 51, 106, 109, 110, 166, 167, 230, 287, 348; Edinburgh and St. Andrews, 49, 51, 348; correspondence on, 51, 110, 167, 172, 230; Glasgow and Aberdeen, 106, 348; correspondence on, 166, 230; London, 49, 106; correspondence on, 109
University of Dublin, 1138; pass lists and degrees, 1138
University of Durham, 468, 599, 1016, 1066, 1076, 1138; College of Medicine, dinner to past and present students, 468; presentation to G. H. Hume, 468; new wing and summer classes, 1066; pass lists and degrees, 599, 1016, 1066, 1076, 1138
University of Edinburgh, 45, 175, 347, 642, 717, 835, 1016, 1115, 1505, 1570; pass lists and degrees, 835, 1016, 1570; midwifery and gynaecology at, 45; annual report for 1905, 175; Chair of Forensic Medicine, 347; university students and Sir Wm. Turner, 642; University Court, 717; General Council, 1115; report of business committee, 1115; medical curriculum, 1115; Carnegie Trust, 1116; finance, 1116; number of students, 1116; general and experimental psychology, 1505
University of Glasgow, 529, 953, 1570; pass lists and degrees, 953; North of England Glasgow University Club banquet, 529; proposed degree in pharmacy, 1570
University of Heidelberg, 631, 694; awards, Kussmaul Prize, 631; donation to cancer research at, 694
University question in Ireland, 765, 826
University of Jena, 350th anniversary of, 753
University of Leeds, 776, 1570; pass lists and degrees, 776, 1570
University of Liverpool, 599, 835, 1256, 1570; pass lists and degrees, 835; degrees in dental surgery, 599; department of experimental medicine, 1256; civic grant, 1570; research diploma, 1570
University of London, 58, 118, 176, 299, 358, 416 478, 524, 537, 586, 599, 657, 717, 775, 835, 896, 953, 1016, 1138, 1256, 1381, 1443, 1556, 1569; pass lists and degrees, 416, 478, 657, 717, 1381; meeting of Senate, 58, 416, 657, 953; recognition of teachers, 58, 657, 953; lectures in the physiological laboratory, 58; University College, 58, 176, 299, 658, 718, 896, 1138, 1444, 1569; physiological optics, 299; lectures on parasitic protozoa, 299; annual general meeting, 718; new hospital, 896; new medical school buildings, 896, 1444; register of former students, 896; summer session, 896; appointments, 1138, 1381; lectures, 1138; King's College, 58, 537, 658, 775, 953; London School of Tropical Medicine, pass lists, 58, 1016; Westminster Hospital Medical School, 118; Convocation, 176, 599, 1138, 1569; report of Standing Committee, 176; University College Hospital, 176, 896; University College School, 176; proposed Union Society, 176; University of London athletic sports, 176; promotion of higher learning and research, 176; London Hospital Medical College, 177, 358, 835, 1138; St. Bartholomew's Hospital: Luther Holden Research Scholarship, 358; physiological laboratory, 416, 657, 953; chair of protozoology, 416, 953; award of university medals, 416; scholarships, 478; question in Parliament, 524; Institute of Medical Sciences, 586, 775, 953; increased facilities for higher learning and research, 599; death of Sir John Burdon-Sanderson, 657; board of studies in veterinary science, 657; jubilee of University of Melbourne, 657; matriculation examination, 657; Jodrell chair of zoology, 896; appointments, 896, 953; Emeritus professor of zoology, 896; awards, 896; panel of lecturers in physiology, 953; entry to the M.S. examination, 953; St. George's Hospital medical school, the Young lectures, 1256; annual report, 1443; finance, 1443; matriculation, 1443; medical education, 1443; Congress of School Hygiene, 1444; new technical college and, 1556; Clerk of Convocation, 1569; the Standing Committee, 1569; the statutes, 1569; examinations in science, 1569; membership of Convocation, 1569
University, McGill, confers honorary degree on Dr. Donald MacAlister, 1186
University of Oxford, 58, 118, 239, 299, 358, 478, 657, 717, 953, 1016, 1076, 1137, 1255, 1320; pass-lists and degrees, 58, 118, 239, 358, 478, 717, 1137, 1320; Romanes lecture, 299, 1320; natural science scholarships, 299, 478, 1016; Radcliffe travelling fellowship, 299, 1016; university representative on the Council of the Lister Institute, 657; Radcliffe Infirmary Committee for appointments, 657; diploma in anthropology, 953, 1076; degree days, 1016; examination days, 1016; Fellowship at Merton College, 1016; examination in preventive medicine, 1076; Sibthorpian professorship, 1137; post-graduate course in ophthalmology, 1255; appointment of examiners, 1320. *See also* Oxford
University of Paris, official report, 995; chair of clinical therapeutics at, 1121
University of Pennsylvania, beginnings of the medical school at, 989
University, Royal, of Ireland, 641, 705, 886, 1008, 1138, 1197; pass-lists and degrees, 1138, 1197
University of Sheffield, 177, 287; chair of pathology, 177, 287; domestic hygiene (Sir Lauder Brunton), 287
University of Sydney, commemoration, 1250
University of Toronto, 525, 1505; new Convocation Hall, 525; new buildings, 1505
University, Victoria, Manchester, 42, 776; pass-lists and degrees, 776
University of Vienna, 934
University of Wales, 289, 1076, 1246, 1252, 1372; special meeting of the Court, 289, 1252; proposed degrees in medicine, 1076; and the profession, 1246; correspondence with Board of Education, 1372
Unqualified assistants. *See* Assistants
UPCOTT, H.: Epithelial tumours of prostate, 1163
Upper air passages, unusual manifestations of syphilis in (Sir Felix Semon), 61; correspondence on, 419
URATA, Miss TADA: Japanese Government confers honorary title of Professor of Medicine on, 986
Urea, nitrometer for clinical estimation of, 208
Urethra, male, primary carcinoma of (S. G. Shattock), 441
Urethra, male, hatpin impacted in (C. Hamilton Whiteford), 20; (W. F. Brook), 80; (T. H. Bishop), 141; (Joseph A. W. Pereira), 141; (Horace Wilson), 180; (H. Taylor), 380; (Arthur G. Johnson), 380
Urethra, strictures of, treated with electrolytic needle (S. B. Selhorst), 674
Urethral and bladder injections (James MacMunn), 1401
Uric acid calculi (Dr. Cookson), 1342; review of books on, 1347
Urinary excretion, certain problems in (F. G. Hopkins), 560
Urine, Cammidge's pancreatic reaction in (C. Lovatt Evans), 436; (P. J. Cammidge), 622; correspondence on, 594; an important method of performing (P. J. Cammidge), 1150
Urine, paracolon bacillus found in (W. Mair), 438
Urine, significance of small quantities of sugar and of albumen in (Robert W. Burnet), 126
Urine, surface tension of, 355
Urines, gouty, purin bodies in (I. Walker Hall), 128
Uterine cancer. *See* Cancer
Uterine contraction without retraction: Nervous hyperpyrexia (Dr. Herman), 1403
Uterine curette, dangers of, 1061
Uterine fibroid. *See* Fibroid
Uterine and nasal mucosa, connexion between, 1254
Uterus, bicornate (W. Fordyce), 441
Uterus, fatty inverted (Dr. Barbour), 1221
Uterus, fibromyoma of. *See* Fibromyoma
Uterus, myoma of (J. W. Taylor), 559; (J. F. Jordan), 621
Uterus, puerperal, curette for, 1353
Uterus, ruptured, three cases of, treated by abdominal section and suture (Harrison Cripps), 1270
Utility of disinfection, 819

V.

Vaccinal condition of small-pox patients, 1500
Vaccinated five times successfully, 780
Vaccination Act. *See* Act
Vaccination awards (successful), 1018, 1135, 1163, 1179, 1279, 1412, 1507
Vaccination, compulsory, leading articles on, 936, 997; questions in Parliament, 762, 823, 885, 936, 997, 1003, 1126, 1248; Napoleon and, 1297; compulsory, question of, 1135; John Burns on, 36, 1258; Sir John William Moore on, 503, 1309; popular lectures on, 752; certificates of, and the magistrate, 885; certificates in Ireland, 897; administration of, correspondence on, 1011; under the Act of 1898, 1077; of teachers, 1126; exemption, 1126; prosecutions, 1126; Mr. Arnold Lupton

and, 1133, 1378, 1566; correspondence on, 1378; public vaccination fees, 1134; deaths attributed to, 1248; in the army, 1248, 1312; post office and, 1249, 1555; certification of by other practitioners, 1257; increased cost of, 1312; deaths of vaccinated persons from smallpox, 1312; statistics, 1322; certificates of revaccination, 1446; in ordnance factories, 1500
Vaccination against tuberculosis, new method of (MM. Calmette and Guérin), 1501
Vaccination, animal (Gennaro Galbiati), 1546
Vaccination officers and the guardians, 823, 885
Vaccine lymph, 703, 885
Vaccine, pneumococcus (J. B. Coleman), 742
Vaccine treatment in surgery (H. W. Gray), 622
Vaccinators, public, relations of with other practitioners, 718; Local Government Board on whole time, 718, 835; fees of, question in Parliament, 885; and the Superannuation Act, 897, 1018
VACHELL, H. R.: Case of intrahepatic calculi, 434
Vagrancy, diet and disease (leading article on report of Departmental Committee on Vagrancy), 634
Vagrants increase of in South Wales, 229
VAILLARD, L.: Serum treatment of bacillary dysentery, 592
Value of appointments, 1567
Value of a practice, 238, 1321, 1507
Van der Burg, Dr., death of, 215
VAN DE VELDE, TH. H.: *Ueber den Zusammenhang zwischen Ovarialfunction, Wellenbewegung und Menstrualblutung und ueber die Entstehung des sogenannten Mittelschmerzes*, rev., 984
Varicella bullosa (H. Freeth), 679
Varicocele, immediate and remote results of the high operation for (Edred M. Corner and Cyril A. R Nitch), 191
Vaso-dilatation in haemoptysis (Edwin Temple Smith), 917
Vegetable growth in swimming bath, 1323
Venereal disease, review of books on, 208, 983
Venereal disease, treatment of in the army, 874
Venous thrombosis. *See* Thrombosis
Ventilation at the Pimlico Clothing Factory. *See* Pimlico
Ventrifixation (Sir William Sinclair), 190, 412; (B. Mayhew Bone), 738; correspondence on, 353, 474
Verniform appendix. *See* Appendix
Verminous heads of convalescent children, 1565
Veronal followed by erythema (W. Kenneth Wills), 498
Vesical sphincter. *See* Sphincter
VIBERT, Ch.: *Les Accidents du Travail*, rev., 507
Vicarious medical examination, 900
Viceregal appointments, 289
Victoria, notes from, 643; the medical profession, 643
Victoria Cross, fiftieth anniversary of institution of, 277; medical men and, 455
Victoria University, Manchester. *See* University
Vienna, special correspondence from, 109, 168, 231, 351, 471, 532, 709, 768, 1010, 1069, 1253, 1374; course of instruction for nurses, 109; surgical demonstrations, 109; fight against impure air, 109; congenital manus vara, 109; teaching of hygiene in public schools, 109; tax on prescriptions, 168; payment for telephonic consultations, 168; solitary case of hospital gangrene, 168; typical neurofibromatosis, 169; Vienna street ambulance corps, 231; death of Dr. von Kusy, 232; surgical operations in military hospitals, 232; dangers of street dust, 232; a surgical jubilee, 351; passive resistance amongst country practitioners, 351, 471, 710; examination of the stomach by *x* rays, 351; dental surgeons and dentists, 532; foundation of a society of paedology, 532; coexistence of different tumours in one patient, 533; pressure stasis in children, 709; Professor Zuckerkandl on tuberculosis of the kidneys, 710; diagnosis of extrauterine gestation, 710; preparations for a general strike of country doctors, 710; foreign body in the bronchus, 768; new edition of the *Pharmacopoeia*, 769; proposed Nothnagel lectures, 769; meeting of antivivisectionists, 769; State hospitals of, 1010; contusion of the larynx, 1010; medical examination of school children, 1010; cremation in Austria, 1069; imperial organization of practitioners, 1069; case of infantile giantism, 1070; extirpation of new growths in the rectum, 1070; damages for *x*-ray burns, 1253; centenary of Feuchtersleben, 1253; housing of the poor, 1254; connexion between nasal and uterine mucosa, 1254; carcinoma of everted bladder, 1374; resection of one-half of the intestine, 1374; outbreak of cerebro-spinal meningitis, 1374; pensions for medical officers in Bohemia, 1374
Vienna, Hygienic Exposition at, 154; Antirabic Institute in, 934
Village, insanitary conditions, 1322
Village wonder, 1567
Vin Pesqui Urané, 1382
Violet infusion, effect of on malignant growths (W. Gordon), 382
VIRCHOW, RUDOLF, proposed municipal memorial to, 1561; bust of, at Pathological Institute, 1561
Virchow Hospital. *See* Hospital
Viscera of Rameses II, 693
Viscera, abnormally small in an adult (Henry C. Martin), 1279
Visceral lesions accompanying purpura and arthritis (A. F. Elliott), 920
Visceral pain. *See* Pain
Visceral syphilis. *See* Syphilis
Vital statistics in England and Wales (1905), 238; in Sydney, 858
Vivisection, questions in Parliament, 587, 640, 822, 885, 1064, 1187, 1311, 1499; a Government inquiry promised, 640
Vivisection, British Union for Abolition of, eighth annual meeting, 1174, 1181. *See also* Antivivisection, Society, and Coleridge
VOELCKER, Dr.: Spleno-medullary leukaemia, 741
Voluntary notification of consumption, 417
Volunteer Ambulance School of Instruction, 1076
Volunteer ambulance trophy, Scottish, 1128
Volunteer Medical Association, 1506
Volunteer Medical Organization, 578, 648, 702, 890, 1124, 1135, 1197, 1244, 1307; question in Parliament, 823
Volunteer military hospitals, nursing in, 1497
Volunteers, civil hospital training for men of the R.A.M.C., a suggestion (William Sheen), 1293; correspondence on, 1441
Volunteers and the Army Medical Reserve, 511, 578
Volunteers, Royal Army Medical Corps, 579, 835, 1076, 1135, 1197, 1506; field night by London companies, 579; smoking concert, 835; parade, 1506; march of, 1566
Vomiting with acetonaemia in children, periodic (Vincent Dickinson), 205
Vomiting in pregnancy, uncontrollable (Comyns Berkeley), 203
VON KUSY, Dr., death of, 232
Voyage d'Etudes Médicales, 870, 1362, 1424
Vulva, epithelioma of (Dr. Lewers), 1103
Vulva, pseudo-elephantiasis of (reported by Douglas E. Finlay), 81

W.

WADE, JOHN: Report to Local Government Board on destruction of rats on board ship with sulphur dioxide, 1427
WADE, Sir WILLOUGHBY: Physiological notes on the cancer problems, 606; death of, 1366; obituary notice of, 1379
WAGGETT, ERNEST, appointed surgeon to throat, ear, and nose department at Charing Cross Hospital, 1056
WALDO, HENRY: Doubtful case of hysteria, 21
Wales. *See* South Wales
WALES, E. G.: Severe punctured wound of lower jaw, 1276
WALES, GEORGE FREDERICK, estate of, 1170
WALKER, C. E.: *The Maiotic Process in Mammalia*, rev., 566
WALKER, GEORGE: Pulmonary embolism, 1530
WALKER, Surgeon-General JAMES PATTISON, obituary notice of, 476, 954
WALKER, T. J., proposed testimonial to, 814
WALLACE, CUTHBERT: Cystic tumour of spermatic cord, 1159
WALLACE, DAVID: Tumours of bladder, 1403
WALLACE, F. HERBERT: Behaviour of ethyl chloride, 1339
WALLACE, J. SIMS: *Rôle of Modern Dietetics in the Causation of Disease*, rev., 88
WALLACE, MATTHEW, death of, 767
WALLIS, F. C.: Gastro-jejunostomy, 802
WALSH, Archbishop, and Trinity College, Dublin, 641, 705
WALSHAM, HUGH: Early diagnosis of pulmonary tuberculosis by Roentgen rays, 831
WALTERS, F. R.: *Sanatoria for Consumptives*, rev., 388
Wanted, assurance against partial disablement, 1140
War medals and concentration camps, 1015
War Office scheme for a medical reserve, 760. *See also* Army, British
War, relation of the medical profession to (Surgeon-General A. H. Keogh), 361; correspondence on, 472, 594; international medical association to contribute to the suppression of, 595, 753
WARE, H. S.: Epistaxis and calcium chloride, 439
Warning to medical motorists, 480; to medical men, 1020, 1140, 1200
Warning notices as to vacant appointments, etc., 223, 340, 403, 458, 518, 582, 637, 691, 699, 761, 822, 876, 941, 1002, 1054, 1244, 1551: as to the Leigh Infirmary and other controversies, 280; the dispute in Northumberland, 403; Bangor, 691; Sheffield, 692. *See also* Supplement Index, Contract Practice
WARREN, Deputy-Inspector-General THOMAS ROBERT, obituary notice of, 1135
Warren triennial prize, 540
Water Board, proposed Welsh, 103
Water, spring, and typhoid fever, 709
Water supply, of Leeds, 103; of London, 344, 1126; bacteriological examination of, 512; of East London, 1065; of Wales, 229, 290
WATERHOUSE, RUPERT: Food poisoning and coma, 258
WATERS, A. T. H.: On his memories of the medical profession, 1108
WATERSTON, DAVID (Editor): *Edinburgh Stereoscopic Atlas of Anatomy*, rev., 565
WATKINS, ARNOLD: *From Farm to Forum; or, Young Africa*, rev., 1468
WATSON, BERTRAM: Case of atrophy of the phalanges of the hands with joint lesions, 553
WATSON, CHALMERS: Alleged epidemicity of appendicitis, 947, 1254
WAUGH, GEORGE: At what age should a cleft of the palate be closed? 533
WEBER, Sir HERMANN: *On Means for the Prolongation of Life*, rev., 1469
WEBER, PARKES: Spontaneous fracture of tarsus, 1038; acute gastric dilatation and pneumonia, 1280; symmetrical adenomata of the adrenals and extreme sclerosis of the aorta, 1281
WEEK, THE: Right Honourable Sir Walter Foster, 36; President of the Local Government Board on vaccination, 36; Central Emergency Fund, 37; miners and the medical profession, 37; anilin poisoning amongst dyers, 37; fatal outbreak of malaria on Liverpool steam tugs, 38; acidity and alkalinity in malignant disease, 38; civil practitioners and military work, 38, 102; Anglo-Japanese Alliance, 39; Colonial medical legislation, 39; Scottish lunacy action, 39; army medical services, 40; patent medicines at the Antipodes, 40; Rusholme Provident Dispensary, 40; International Medical Congress, 99, 637, 821; International Congress for aid of Insane, 99; Austrian Cancer Committee, 100; medicine and politics in America, 100, 162; war against quackery, 100, 1366; whole-time and part-time medical officers of health, 100; British practitioners in Italy, 101; United States Naval Medical Service, 101; medical terms in the New English Dictionary, 101, 879; chemistry of anaesthesia, 101; feeble-minded children and adults, 102; ankylostomiasis campaign in Belgium, 102; psychical research in America, 102; Luther Holden Scholarship, 102; hospital subscribers' letters, 102; Sir Thomas Browne's skull, 157, 942; Royal Commission on the Poor Law, 157, 226; practical work in hygiene, 158; medical supervision of schools in Berlin, 158; advertising opticians: a warning to the public, 158; plague in Madeira, 159, 225; a denial of plague in Madeira, 403; recent prosecutions under the Lunacy Act, 159; Red Cross Society in Japan, 160; treasurer of St. Thomas's Hospital, 160; M. Doyen's experiences as a patient, 160; the strenuous President and the "Force of Life," 161; lectures in the London colleges, 161; Belgian Medical Guild House, 161; cremation in Great Britain, 162; health of London, 162; copyright of the BRITISH MEDICAL JOURNAL, 162; warning notice as to appointments vacant, 223, 280, 340, 403, 438, 518, 582, 637, 691, 699, 761, 822, 941, 1002, 1244, 1551; drug treatment of inebriety, 223; medical service of the Thibet Mission, 223; proposed Ministry of Health in Austria, 224; sanitation at the Isthmian Canal, 224; life table for the city of Norwich, 225; President Roosevelt on the medical service of the army, 225; losses in the Japanese medical staff, 225; a martyr to science, 226; case of false personation, 226; Austrian Pharmacopoeia, 226; Virchow Hospital, 226; New Zealand Public Health Minister, 280; warning notices as to the Leigh Infirmary and other controversies, 280; proposed amalgamation of the London medical societies, 281; the new Parliament, 281; Sunday rest for medical practitioners, 281; supervision of the "gold cure," 281; anaesthesia before the law, 282; new development of the light treatment, 282; Greek professor's medical pedigree, 283; medical observations in the Arctic regions, 283; increase of students in Germany and France, 283; Mexico as a winter health resort, 284; The SUPPLEMENT, 284, 345; health of the King, 340; tuberculosis in London, 341; the Brompton scheme, 341; recent progress in bio-chemistry, 342; intracranial haemorrhage in the newborn, 342; infectious diseases in Swiss hotels, 342; identification by teeth, 343; military hygiene on active service, 343; grateful patients, 343; London water, 344; American football, 344; proposed American Ministry of Public Health, 345; the late Professor von Mikulicz, 345; annual meeting at

Toronto, 345, 1121, 1243; simulation of injuries of the eyes received at work, 404; an international language, 404; effect of alcohol on the cardio-vascular system, 405; physiology of mammalian reproduction, 405; election of a direct representative for Ireland, 406; the puff prophetic, 406; age-limit for professors, 406; valuation of the nose, 458; doctors' Latin, 459; beginnings of Berck-sur-Mer, 459; missed labour, 460; census of London, 460; refined food and folly, 461; London School of Clinical Medicine, 461, 879: scope and limitations of orthopaedic surgery, 462; is a sense of humour a hindrance to success? 462; Red Cross organizations, 462; pedagogic laboratory, 463; association between ears, eyes, and cerebellum, 463; comparative mortality of total abstainers, 463; pathology of leprosy, 463; committee for the study of special diseases at Cambridge, 519; factors of success, 520; Mr. Bernard Shaw as an unconscientious objector, 520; aids for the blind, 521; new doctrine of signatures, 521; mortality from phthisis in France and Germany, 522; Hall of Artaxerxes in Westminster, 522; Association of Medical Diplomates of Scotland, 523; German Military Medical Service, 523; leprosy in the Republic of Colombia, 523; tropical medicine in Berlin, 523; motor cars on the instalment principle, 523; House of Commons and its procedure, 582; medical advice with *Answers*, 583, 639: development of the Leishman-Donovan bodies, 583; alcoholism and irresponsibility, 584: Notice of Accidents Bill, 1906, 584; medicine and the Mercantile Marine, 585; Army Medical Reserve, 585; phenomenally low death-rates, 585; unqualified anaesthetists for the R.A.M.C., 586; mortality from phthisis in France and Germany, 585; new army nursing home, 586: Institute of Medical Sciences, University of London, 586: automobiles for medical men, 586; public nursing homes, 635; scarlet fever and midwifery practice, 636; census of the British Empire, 637; Stokes-Adams syndrome, 638; euthanasia, 638, 817; mosquitos and yellow fever, 639; Hampstead garden suburb, 639; consumption in Greece, 639; proposed application for a Charter, 698; coming election to the General Medical Council, 698; Northumberland miners and their medical officers, 698; the sweet reasonableness of the antivivisectionist, 699; biology and physical degeneration, 700: rural depopulation, 700; abrogation of the Aliens Act, 701; human and bovine tuberculosis, 701; scheme for a reserve R.A.M.C., 702; volunteer medical organization, 702, 1124, 1244, 1307; plague in Eastern Persia, 702; sleeping sickness, 702; Carswell-Gilchrist Fund, 756: "medical practitioner" or "doctor"? 757: histology of congenital syphilis, 757; electrical quackery, 758: cancer cure in South Africa, 758; poisoning by sodium arsenite, 759: bread and milk, 759: counterblast to euthanasia, 760; the reform of the coroner, 760; War Office scheme for a medical reserve, 760; home hospitals, 760: prevention of puerperal fever, 761; annual meeting at Leicester, 761; Hampstead General Hospital, 817, 1001: foreign medical visitors, 817: sensation of death, 818; snake poison antivenenes, 818; medical arrangements of the Japanese army, 819; utility of disinfection, 819: a crusade for the salvation of man, 820; white man in the tropics, 820: humpty dumpty, 821; opium question in the Philippines, 821; toxic theory of pain, 883; syphilitic placenta and the *Spirochaeta pallida* 180: biological aspects of the cancer problem, 881: medical history of John Calvin, 881; strangulated duodenal hernia, 882: medical services of Japan, 882: effects of amputation of both ovaries, 883: torsion of omentum simulating appendicitis, 883; diseases of German East Africa, 884: motors for medical men, 884; inauguration of the Policlinico at Rome: festival in honour of Professor Guido Baccelli, 938; recent investigations on typhoid fever, 938; Mr. Coleridge on tour, 939; the American President and the prevention of consumption, 940; medical inspection in elementary schools, 940; medical history of Mary Tudor, 941; utility of isolation hospitals, 942; antivaccination controversy, 942; Sir Thomas Browne's skull, 942; international conference of Societies of the Red Cross, 999: Malta fever, 999; hospital residents and general practitioners, 999: a new 'pathy, 1000; school closure, 1000; heart of a Pharaoh, 1000; guardians and their medical officers, 1001; speed mania, 1001; international congress of hygiene and demography, 1002; President of the Association, 1060; Jenner Society, 1060: dangers of the uterine curette, 1061; motor traffic, 1061; systematic instruction in ophthalmology, 1061; Caesarean section *in extremis*, 1062; British officer attacked by sleeping sickness, 1062; sublimate injections and criminal abortion, 1063: an interesting visitor, 1063; Scottish Poor-law medical service, 1121: clinical therapeutics, 1121; American research on yellow fever, 1122; undue influence, 1122; cost of small-pox, 1122; London Port Sanitary Authority, 1123; Medical Defence Union, 1123; goat's milk, 1124; Dr. Doyen, 1124; Pope and the emancipation of women, 1125; reduction of infant mortality at Creusot, 1125; special schools in Manchester, 1182; use of statutory titles by companies, 1182; prophylaxis of syphilis, 1183; National League of Physical Education, 1183: value of alcohol, 1184; properties of ozone, 1184: medicine in Jerusalem, 1184; reciprocity with Nova Scotia, 1184; General Medical Council, 1185: intraligamentary bladder in women, 1185: Fifeshire Medical Association, 1186; French sleeping sickness expedition, 1186; the King's Sanatorium, 1186; the British Medical Association, 1243; post-graduate courses, 1245; Bantu folklore, 1245: action of glycolytic ferment on malignant growths, 1245: the University and the profession in Wales, 1246; National Antivivisection Society, 1246; Professor Kocher at the Medical Society of London, 1247; Education Bill and physical training, 1247; National Health Society, 1247; company practice, 1247; conference on infantile mortality, 1248; Sir Samuel Wilks on old age, 1305; sidelight on medical education, 1306; platform "cures," 1306; Chicago delicacies, 1307; inspectors of midwives, 1308; study of ochronosis, 1308; tea shops, 1308; anointing the sick, 1309: a Cambridge celebration, 1309; question of Greek at Cambridge, 1309; compulsory vaccination, 1309; doctors' names in advertisements, 1310; anaesthesia before the law, 1310; antimalaria campaign in Corsica, 1310; retirement of Professor Brouardel, 1311; Council of the Royal College of Surgeons of England, 1311, 1370, 1433; Congress of Quackery, 1366; ambulance service for London, 1366; Sir Willoughby Wade, 1366; Montaigne and the doctrine of suggestion, 1367: decapsulation of the kidney in puerperal eclampsia, 1368; is rheumatism an attenuated pyaemia? 1368; immigration and regeneration, 1368; attractions of the medical profession, 1369; Queen Charlotte's Lying-in Hospital, 1369; Asylum Workers' Association, 1369; bananas, 1370; the Pope on the treatment of gout, 1370; fall in the price of quinine, 1370; disinfection of ships, 1427; correctness of the *Medical Register*, 1427: rural housing and sanitation, 1428; criminal anthropology and Thug skulls, 1428; infectivity of inherited syphilis, 1428; cycling and sanitation, 1429; a specialist in human nature, 1429: *British Pharmacopoeia* as standard, 1430: nurses' registration, 1430: army medical reform, 1431; prevention of syphilis, 1431; eyesight-testing opticians, 1432; position of medical officers of health, 1432: cost of asylums, 1432; practitioners and the law of negligence, 1433; homoeopathy in Chicago, 1433; Oxford as a medical school, 1495; proposed application for a charter, 1495; Annual Representative Meeting, 1495; local education authorities and the feeding of school children, 1496; the Royal Society, 1496; Royal Commission on the Poor Laws, 1496; nursing in volunteer military hospitals, 1497; "butcher's meat," 1497; proposed industrial colony for feeble-minded, 1497; street ambulances, 1498: nursing in the army, 1498; early medical works, 1499; resolutions of the International Medical Congress, 1550; English ethnology, 1550: trained nurses for India, 1551: French apothecaries' oath, 1551: method for indicating food values, 1552; the coroners' jurisdiction, 1552; Emmanuel College, Cambridge, 1552; medical electricity, 1553: paying patients in hospitals, 1553; imaginary cures for imaginary diseases, 1554; rupture of spleen, splenectomy, recovery, 1554: British Red Cross Society, 1555: juvenile smoking, 1555

Weigel, Louis A., obituary notice of, 1569

Welch, William M.: *Acute Contagious Diseases*, rev., 1106

Weller, George, obituary notice of, 355

Wellington, R. Henslowe: *The King's Coroner*, rev., 1163: heterochromia iridis, 1219

Welsh, James, obituary notice of, 1258

Welsh water supplies *See* Water

Wesley, John: On the art of healing, 986; Sir Samuel Wilks on, 1050

West, Samuel: Treatment of chronic renal disease, 502; Dilatation and hypertrophy of the heart and some other points in cardiac pathology, 1455

West, William Augustus, obituary notice of, 237

West African medical staff, some grievances of, 1572

Western, G. T.: A disclaimer, 1567

Western Islands, physicians of, 1178

West Indies, 290; Colonial Office reports for 1904-5, 290

Westmorland, notes from, 346: sanatorium for consumption, annual meeting, 346

West Wales, insanity in, 290

Whale, H. L: Nematodes and the appendix, 1100

Wheelhouse, C. G.: Appreciation of Sir Willoughby Wade, 1380

Whetham, W. C. D.: *Recent Development of Physical Science*, rev., 627

Whisky, test cases, 515, 1547

Whitaker, Henry, retirement of, 1188

Whitaker's Almanac, Supplement, rev., 330

Whitby, E. Vickers: Midwifery of the present day, 1073

Whiteford, C. Hamilton: Impaction of hatpin in male urethra, 20; the severely wounded and their immediate treatment, 894

White, F. Faulder: Catarrhal deafness, 556

White, G. B. Mower: Whitlow and its treatment, 423

White, J. William: *Genito-urinary Surgery and Venereal Diseases*, rev., 983

White, R. Prosser: Bacteriology of a common cold, 1439

White, W. Hale: Exophthalmic goître, 1011; visceral syphilis, 1344

White man in the tropics, 820

Whitelegge, B. A.: *Hygiene and Public Health*, rev., 1044

Whitfield, Arthur: Cutaneous manifestations of acquired syphilis, 264

Whiteford, C. Hamilton: Three cases of tubal pregnancy, 1271

Whiting, A.: *Lecture on the Diagnosis of Functional Nervous Disease*, rev., 986

Whitlow and its treatment (G. B. Mower White), 423

Whole-time medical officers. *See* Medical

Whooping-cough in Newtownards, 408; at Swansea, 1190; notification of, 1501; arrested by shock, 1572

Wield, David, obituary notice of, 116

Wigan, Charles, re-elected Chairman, Urban District Council of Portishead, 1167

Wightman, C. F.: *Questions and Answers on First Aid*, rev., 1285

Wilkins, Dr.: Treatment of narcomania, 1101

Wilks, H. L. E.: Traumatic pneumonia, 679

Wilks, Sir Samuel: "Sammy and our mammy," 336; on John Wesley's *Primitive Physick*, 1050; on Professor Sharpey, 1177; on old age, 1305

Williams, Anna W.: *Pathogenic Micro-organisms, including Bacteria and Protozoa*, rev., 1225

Williams, A. Scott, reports case of tetanus, recovery, 1340

Williams, Charles Theodore, appointed member Fourth Class Royal Victorian Order, 1499

Williams, J. Price: Alleged epidemicity of appendicitis, 1193

Williams, M. W.: Progressive venous thrombosis, 1100

Williams, Tom A.: Heredity or insanity, 651

Williams, T. Owen: Leukaemia, 444

Williams, Watson: Why defective respiration impedes growth and development, 325

Williams, W. Wilfred: Midwifery of the present day, 713

Williamson, Herbert: Fibro-myoma of uterus undergoing sarcomatous change, 82

Williamson, Joseph: Acute yellow atrophy of liver following influenza, 1155

Williamson, R. T.: Courses of school hygiene for medical men, 476

Willis, H. G.: *Radium and other Radio-active Elements*, rev., 627

Willis, J. D.: Public medical service and the alternative, 832

Willis, W. Kenneth: Erythema after veronal, 598

Wilson, Horace: Impaction of hatpin in male urethra, 180

Wilson, J. C. (Editor): *Modern Clinical Medicine: Infectious Diseases*, rev., 1106

Wilson, Roger P.: Two cases of amoebic abscess of liver, 1397

Wilson, R. W.: Proposed General Hospital at Putney, 830, 951

Wilson, Stacey: Transposition of viscera, 621

Wilson, S. Wesley: Head quarters of the Association, 1192

Wilson, Thomas: Diagnosis in uterine cancer, 382; immediate diagnosis in uterine cancer, 545

Wilson, Thomas Duddington, obituary notice of, 654

Wine, non-alcoholic, 1353

Wingate-Saul, W., obituary notice of, 295

Wise, K. S.: Etiology of granuloma pudendi, 1274

Wochenschrift für sociale Medizin, Hygiene und Medizinalstatistik, 1546

Wolstenholme, R. H.: Finances of the Association, 1441, 1503

Wolter, von Friedreich: *Die Entstehungsursachen der Gelsenkirchener Typhus Epidemie*, rev., 1107

Women, emancipation of, the Pope and, 1125

Women graduates and the parliamentary election, 227, 287, 407, 705

Women residents in general hospitals, 410, 887

Women as university lecturers, 245

Wood, D. J.: Bitemporal hemianopsia, 262

Wood, E. Stanley, awarded grant for efficient vaccination, 1412

Wood, Frederick, estate of, 1046

Wood, H. C.: Effect of alcohol on the cardio-vascular system, 405

610.5
BR
1906

THE

British Medical Journal.

THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

LONDON: SATURDAY, JANUARY 6TH, 1906.

An Address
ON THE
MEDICAL ASPECTS OF CARCINOMA OF THE BREAST.*

BY WILLIAM OSLER, M.D., F.R.S.,
REGIUS PROFESSOR OF MEDICINE, OXFORD.

THE physician sees carcinoma of the breast at two periods. Hoping against hope, and dreading the knife, women consult him, rather than the surgeon, about a "lump" which they have noticed. But far more important are the numerous and unhappy victims of the late internal metastases. Having for some years been much interested in the subject I have collected notes of cases, one series of which I have already published.[1]

The cases may be considered under two divisions.

I.—THE CONDITION OF THE BREAST ITSELF.

Apart from definite tumour or cyst, the consulting physician does not often see patients with trouble in the breast. Sometimes, indeed, he overlooks the true nature of a case by omitting the examination of the breast, forgetting that extensive general lesions may be associated with a small latent carcinoma. Such an instance I have reported (in the paper referred to). A woman, aged 29, was admitted with enlargement of the right cervical and axillary glands and a pleural effusion on the same side. Naturally enough the condition was supposed to be tuberculous. She made no complaint of the breast, nor was it examined. The true nature of the trouble was only discovered *post mortem*, when there was found in the breast on the same side a carcinoma not much larger than a walnut.

The importance of the character of the examination is well illustrated in Case VII of my first series; a large, powerfully-built man had suffered for some months with symptoms of disease of the spinal cord, and becoming paraplegic on his way home from Florida was admitted to the Johns Hopkins Hospital. When stripped for examination, as I looked at him from the foot of the bed, my attention was at once attracted to the greater prominence of the right breast. He had not noticed it himself, nor had his physician. It was the seat of a quite large carcinoma, and his remarkable spinal cord symptoms were due to metastases.

Mastitis Carcinomatosa.

An important local condition leading to error in diagnosis is a diffuse inflammatory infiltration of the breast, extending rapidly beyond its limits, and even involving the side of the chest, the shoulder, and the arm. The cases have been described by Volkmann, Billroth, Aiken, and others. Both breasts may be involved, and the appearance may be that of a diffuse, rapidly-spreading inflammation, rather than of a new growth. Charbonnier gives a very good account of the cases in his essay, *Cancer Aigu du Sein*, Paris, 1900, and mentions instances in which the most distinguished surgeons have been in doubt; indeed, the breast has been incised for acute phlegmon. In two-thirds of the cases both breasts have been involved. The following case differs from others which I have found in the literature in the more chronic course, but it presented the same extraordinary appearance of a diffuse inflammatory condition, but widely spread beyond the breast. Shortly after I saw this patient there was a brief report of a similar case shown at one of the Paris societies, but both sides were involved, and the infiltrated areas met in front and extended behind almost to the spine.

Diffuse Inflammatory Infiltration of Right Breast, Right Side of Thorax and of the Arm.

May 11th, 1903, Dr. Friedenwald brought to see me Mrs. U., aged about 40, a very healthy-looking woman, who had had for several months swelling of the right breast and right arm. It began gradually without very much pain in June, 1902, and had progressively increased. When stripped the patient presented a very remarkable appearance. The right breast was enormously enlarged, uniformly inflamed, and a reddened infiltration extended to the clavicle, to the sternum, and below almost to the costal margin. Laterally it reached into the axilla. The right arm and hand were greatly swollen, and the skin of the upper arm was uniformly red and oedematous. The lower arm and hand were oedematous and swollen but not red. On palpation the infiltrated skin over the thorax was brawny and hard. It pitted a little, and the erythema was rapidly replaced. Over the shoulder and biceps there was the same red, brawny infiltration. The skin of the entire arm was firm and hard; and, while it pitted on deep pressure, there was evidently an intense subcutaneous infiltration. The breast was everywhere uniform, tense, and brawny, but no nodules could be felt. There was a very hard, infiltrated area at the anterior axillary fold. Above the right clavicle an enlarged gland could be felt, and there was a smaller one just beneath the clavicle. The glands could not be felt in the axilla.

Altogether the patient presented an extraordinary appearance, and the question was raised as to the presence of malignant disease. I inclined strongly to the belief that it was one of those forms of diffuse carcinoma which had spread chiefly in the subcutaneous tissues. Dr. Halsted saw the case and was of the same opinion. Dr. Friedenwald tells me that throughout the summer she grew progressively weaker and thinner; before death the erythema and swelling reduced, so that the glandular enlargements could be more readily seen and the nature of the case became quite evident.

II. METASTASES. A.—*Intrathoracic.*

Direct extension through the chest walls to the pleura with secondary involvement of the lymphatic glands, more rarely disease of the lung itself, is one of the most common of the sequelae of carcinoma of the breast. Pleurisy with effusion may come on insidiously, with the only symptom an increasing shortness of breath. In other instances there are severe pains with signs of involvement of the pleura itself by extension. The following cases illustrate the common type of pleuritic involvement.

---

* Delivered before the Leamington Medical Society.

Carcinoma of breast, concealed or unsuspected: Marked, long-standing neurasthenia: Onset with pains in the back and legs, thought at first to be due to pleurisy.

Nov. 20th, 1901. I saw this afternoon with Dr. Brinton Mrs. W., aged about 48, a large, stout woman, who complained of great pain in the back and legs. Dr. Brinton had known her for many years and had treated her repeatedly for nervous attacks, but she had been in other hands, and he had only seen her recently, and detected a large tumour of the left breast. Within a few weeks the pains in the back had increased, there was inability to lie down, and she had increasing difficulty in using her legs. The patient was sitting on the side of the bed, in great distress. There was a large, flat carcinoma of the left breast, with marked involvement of the axillary glands. There was pain down the spine, but no region of special swelling or tenderness. The left side of the chest was flat on percussion, the tactile fremitus was absent, and there was a very feeble distant respiratory murmur. The heart was pushed over and there were signs of pleural effusion. She could move her legs and could stand, but only with assistance, and she had much difficulty in taking a few steps. There were no disturbances of sensation. The knee jerks were increased. The pains were chiefly in the spine and down the legs, and were evidently of a very severe character. The patient died a few months later.

It is not always easy to say how much effusion is present in the pleura. I saw with Dr. Stavely in Washington Mrs. L., aged about 60, whose right breast had been removed three years before. A local recurrence took place a year ago. For three months she had had a cough with increasing shortness of breath. The slightest exertion caused the most severe dyspnoea. She was a remarkably healthy-looking woman, propped up in bed, slight cyanosis, moderate dyspnoea. Both arms were swollen, the right a little red, not coloured. There was a large recurrence in the scar, and a flat infiltration beneath the right pectoral fold, and extending into the axilla. On percussion the manubrium was flat, and there was a wooden dullness over the whole of the front of the chest on the right side and behind from the spine of the scapula. The heart did not appear to be dislocated. The breath sounds were feeble; fremitus was absent. The extensive flatness over the manubrium and the widespread local recurrences on the chest wall made it probable that the features were in great part due to extension of the disease in the pleura and mediastinal tissues. No fluid was withdrawn on puncture.

It is not always easy to say whether the pleurisy is really of a cancerous nature or not. I saw such a case with Dr. John Philips and Dr. Cross a few months ago. The pleurisy was not extensive, and there were no signs of effusion, but it was accompanied with a great deal of pain and signs of local recurrence.

The glandular metastases within the thorax are very common and associated with all the distressing pressure symptoms of tumour. There may be no local recurrence and no physical signs, though, as a rule, the mediastinal tissues are involved and there is flatness on percussion and, not infrequently, disease of the sternum itself. The glands above the clavicle may be enlarged. The literature contains many cases of this sort, and they are among the most distressing witnessed in practice. An extraordinary circumstance is the fact that even the mediastinal growth, with penetration of the manubrium, may undergo involution, as occurred in Case V of my first series. I have seen very few instances of carcinoma of the lungs secondary to that of the breast. The organ may be involved especially when the carcinoma extends from the costal to the visceral pleura. Scattered nodules are not very rare, but I have never seen a case in which the symptoms appeared directly due to the involvement of the lungs alone.

B.—*Abdominal.*

The peritoneum may be involved by direct extension, and the cases are not very infrequent in which there is a recurring carcinomatous ascites. Indeed, the breast tumour may be latent, or the patient may have concealed it and have no suspicion that the abdominal symptoms have anything whatever to do with it. This was the history of Case XII of the first series. The omentum and lymph glands may be involved, forming large, irregular tumours which may be felt only after the fluid has been withdrawn.

Metastasis to the liver is perhaps more frequent than to any other organ, but it is not always associated with symptoms, and it is more commonly of *post-mortem* than of clinical interest. It occurred in 241 of the 735 *post-mortem* examinations in cases of cancer of the breast collected by Stephen Paget.[2] The liver becomes enlarged, irregular, nodular, and the patient is deeply jaundiced, with all the features of secondary carcinoma. In the following remarkable case the small tumour of the breast proved to be secondary.

Carcinoma of the Gall Bladder: Metastases in the Liver; Jaundice: Secondary Carcinoma in the Right Breast.

Sarah H., aged 64, a stout, well-nourished woman, was admitted with deep jaundice and pain in the abdomen, symptoms which had persisted for some months. She was a very stout woman, and it was impossible to make a satisfactory examination. The cause of the jaundice was doubtful. On examination one day I noticed at the edge of the left pectoral fold attached to the breast a small, hard tumour. This was removed and proved to be an adeno-carcinoma. Under these circumstances, we naturally thought that it was the primary growth, but the *post-mortem* examination showed a primary adeno-carcinoma of the gall bladder with metastases in the liver and lung. The small tumour of the right breast was also secondary.

C.—*Cerebral.*

The symptoms may be caused either by metastasis to the bones of the skull or to the brain itself. In my first paper I referred to a number of cases in the literature, and reported an instance. The following additional cases have come under my observation. In Case XVI, seen with Dr. Keown, the right breast was removed two years previously. For three months there had been gradual anaemia, loss of weight, headache, disturbance of vision, and difficulty in walking. There were double optic neuritis and an irregular, staggering gait, very suggestive of tumour of the cerebellum. I heard subsequently that the ataxia became much more pronounced.

On June 21st, 1904, I was consulted by Dr. J. R. Jameson about a remarkable case—a woman, aged 68, who had always enjoyed good health, but who had had the left breast removed by Dr. Allen of Cleveland seven years before. About three months ago she complained of numbness in the fingers of the left hand, which persisted. One month ago, without any warning, she had a typical attack of Jacksonian epilepsy, beginning in the fingers and extending to the forearm, the arm and shoulder, and finally to the muscles of the leg and foot on the same side, without any loss of consciousness. Gradually there was loss of power on the left side, which became complete. She gradually became comatose. When I last heard she was rapidly failing.

As in the case reported in my first paper, the symptoms of cerebral tumour may follow years after removal of the breast, or in a patient with old atrophic scirrhus. In the following case there was a remarkable scirrhous tumour of the breast which had persisted for years. The association of the hemiplegia with pains in the abdomen and swelling left, I think, but little doubt that the symptoms of the case were due to metastases.

May 12th, 1904. I saw to-day, through the kindness of Dr. J. H. Musser, Mrs. J., aged 76. The patient was in bed, looked pale, was quite conscious, and could talk, though with a little thickness. The left side of the body was paralysed. There was no disturbance of sensation. The paralysis had come on gradually within ten days without special pain in the head. The abdomen was full and large, the intestines distended with gas. The left lobe of the liver was enlarged and palpable, but no definite masses were felt. There was a great deal of pain in the upper region of the abdomen on deep pressure, and there was a distinct friction along the costal margin.

The left breast presented a very extraordinary appearance. It was smaller than the right. On the surface, extending directly across the situation of the nipple, there was a reddish scar at least 3 in. in length by about 1¼ in. in breadth, looking like the cicatrix of a fresh wound. It was perfectly smooth and dry. On palpation this was felt to be the surface of a large, flat carcinoma, feeling about the size of the two hands, board-like and hard, with very definite margins, and little or no infiltration of the adjacent tissues; no adherence to the ribs. The glands in the axilla and above the clavicle were not involved.

The patient had a remarkable history. Fully forty years ago she had a trouble in the left breast, which ever since has at intervals been sore, and she had always been very apprehensive of any blows or injuries. The nipple was affected and gradually became retracted. About five years ago there was a change in the breast, which gradually became smaller and harder. There has been no ulceration, but gradually of late the surface of the skin has become scar-like. She has been failing in health only for the past four or five months, and within three months has had a series of attacks of pain in the upper part of the abdomen and swelling and distension, with marked gastric features and putty-like stools, but no definite jaundice. The paralysis came on gradually about ten days ago.

A fourth case with cerebral symptoms I saw December 10th, 1902, with Dr. Kerr of Washington. The case is interesting in another respect, as Dr. Halsted thought it one of two cases which he had seen in which the axillary glands were involved and removed before any tumour could be detected in the breast. I saw her, three months after the second operation, for an acute pneumonia, having nothing to do with the cancer. The subsequent history showed this to be the case. At the time of my visit the axilla had become inflamed and swollen, and there was evidently a recurrence. She improved, and went to Canada for the summer, but one day, at the dinner table, she had a convulsion. Not long after it was noticed that in walking the right leg was dragged. She gradually became completely paralysed on the right side and aphasic. There were intense headaches. She died in coma August 13th.

D.—*Spinal.*

The most common and the most serious, as entailing a maximum of suffering, are the lesions of the spine. Of the 29 cases in my series, 10 presented spinal symptoms. The anatomical lesions may be gathered from a brief statement of the autopsy in Case VIII—a man from whom the right breast was removed September 21st. For four months he had paroxysms of severe pains in the back, radiating in the course of the eighth and tenth ribs, with the gradual onset of a spastic paraplegia. Opposite the seventh dorsal body a saddle-shaped mass, 2 cm. by 1 cm., projected into the spinal canal, compressing the cord at this level. There were other small nodules projecting into the canal from the fifth to the seventh vertebrae. It is important to note the small size of the tumours which caused the paraplegia and the intense pains.

The frequency of metastases in the spine has been noted by all observers, and Billroth has somewhere remarked that they are more common in the atrophic form of scirrhus of the breast, and that the cases are frequently seen by physicians for spinal-cord disease without any suspicion of the true nature of the disease. It is rare to see kyphosis. The secondary growths may become sclerotic and shrink with the disappearance of the symptoms of pressure on the cord, as in Cases V and VI of my first series. Any part of the spine may be involved. One of my cases had for several months cervical neuralgia before the latent scirrhus of the breast was discovered. The sacrum or the sacro-iliac region of one side may be attacked. The literature is too rich in cases (as may be seen in the *Index Catalogue*, both series) to make any special references, but I may call the reader's attention to the writings of Charcot[3] and to the monographs of T. W. Nunn and of A. Marmaduke Sheild.

The symptoms usually occur in two stages. In the first or neuralgic stage, following removal of the breast for cancer—it may be a few months or a couple of years—the patient begins to have pains in the back and side, indefinite in character, and often ill-defined, as to the position. She gets nervous and, as she may look very well and strong, the symptoms are not infrequently put down to neurasthenia or hysteria. There is a general hyperaesthesia, an exalted sensibility to jarring movements, or in turning in bed the pain is much aggravated. In several patients the recumbent position at once gave relief, but any movement was followed by pain. For months these symptoms may persist without the slightest sign of organic change. It is a period of distressing doubt to the physician, and of great misery to the patient, who may be allowed to suffer in the belief that she is simply nervous or hysterical. Or the question may come up for a second operation for recurrence, or for tumour of the other breast. Such a case was referred to me by Dr. Moody, of Winnipeg—a woman, aged 37, had had the right breast removed, and a second operation for recurrence. Three months after the operation the other breast was attacked, and at the same time she began to have pains in the back and legs, and occasionally in the joints. At times they had been severe enough to require a hypodermic injection of morphine. The question was as to the existence of new growths elsewhere, as operation in the other breast had been advised. The examination was negative, and she looked a very healthy woman. She had had for many years neuralgic attacks, and on several occasions lumbago, so that I could not feel at all certain that the pains were due to metastases. The operation was performed, and she was for a time much better. I have not heard of the subsequent history.

A distressing and not very rare feature in this stage is an outbreak of shingles which occurred in Case VI. Romieu has collected a series of cases from the literature.[4]

Gradually there is an increase in the severity of the pains, which may come in crises of the most agonizing character, requiring large doses of morphine for relief. While as a rule the pains are thoracic or lumbar, they may at first be sciatic, shooting down one or both legs. For months, or even throughout the course, there may be no disturbances of motion or of sensation. The reflexes are often exaggerated in this stage, but not more than is often seen in neurasthenia.

In a majority of the cases the second or paralytic stage is reached—a pressure paraplegia, usually of the spastic type. The onset may be rapid, and within a few days the patient may be unable to walk. More often it is a slow affair, many months elapsing before there is complete paralysis. Disturbances of sensation, other than pain, are rare. Cramps in the muscles are common, and there are painful spasms in which the legs are drawn up forcibly. Finally, there is the well-known picture of paraplegia dolorosa. In rare cases only one leg is paralysed.

I saw a few weeks ago, with Dr. Brooks, a patient who had had a breast removed for cancer four years ago, and a second operation for recurrence this summer. For more than a year she had had pains in the right leg, believed to be sciatica, and a gradual wasting, with loss of power. She was a thin, delicate-looking woman. The right leg was wasted, particularly in the gluteal and upper parts. She could not lift it from the bed or stand upon it. The sensation was perfect. Nothing could be made out in the examination of the spine or the sacro-iliac regions. *Per rectum* some hard, nodular bodies could be felt above the fundus of the uterus, but their nature was doubtful. With such a history, and the recent recurrence of the cancer, there could be no question as to the cause of the right monoplegia.

One of the most remarkable features in the history of carcinoma is the spontaneous involution sometimes met with in the secondary tumours. Cases V and VI of my series, both with spinal symptoms, were still alive at the time of report, April, 1901. In Case V the primary tumour was removed in October, 1897. A year later the patient had a secondary growth in the right eye, pains in the back and legs, an extensive pleural effusion on the right side, and at the junction of the manubrium and the gladiolus a distinct tumour. She became greatly emaciated, was confined to bed, and had agonizing pains in the legs and the sides. For months she was in a desperate condition. Towards the autumn of 1899 the pains lessened, she was able to move her legs better. She could get out of bed and began to walk about the house and grounds. There was a distinct kyphosis of the fourth and fifth dorsal spines, and the back was stiff. The tumour of the manubrium had disappeared entirely. The vision of the right eye, which had been almost lost, improved. There was a local recurrence in the left breast, but it had not increased. In the summer of 1900 she improved still further, and was able to be out, and even drove herself. During the winter of 1900-1 she was very comfortable. She still had pains in the back and side, for which she had to take morphine. In the summer of 1901 she began to have some shortness of breath. There were a few local skin recurrences. She gradually failed, and died on November 10th, 1901, three years after the first appearance of the secondary growths.

Case VI is in some respects even more remarkable. The primary operation was in February, 1898. In August, 1899, she began to have the usual nerve-root pain, and in November she had a severe attack of herpes on the left side. After a winter of great suffering she became completely paraplegic, and for weeks was desperately ill. In July she was moved to the country, and she began to get better. The paraplegia disappeared, and she regained control of the bladder and bowels. She walked stiffly, with the back bowed; but from this time on until her death in January, 1903, she had no further paralysis. She took about 3 gr. of morphine daily. When the paraplegia existed there were nodules about the scar, and the glands in the neck were enlarged, but they progressively diminished in size. One skin nodule ulcerated and never entirely healed, but gave her no trouble. Four months before her death she had anorexia with vomiting, and stiffness of the right arm, but there was no recurrence of the paraplegia, nor did the secondary tumours increase in size. The patient lived for between three and four years after the onset of a paraplegia, due, there can be no question, I think, to pressure of a secondary mass in the spine.

Even more remarkable cases are on record, in which multiple secondary tumours have gradually disappeared. The cases reported by Pearce Gould[5] and Vulpian[6] illustrate recovery from conditions apparently the most desperate, with a gradual subsidence of the secondary masses. In the cases the subsequent histories of which are here given, the morphine seemed to have had a very beneficial influence on the general condition, and it may have helped to keep in check the progress of the disease.

E.—*Bones.*

The frequency of metastasis to the bones has been noted by all writers. In a few rare instances there is widespread generalization in the bones, as in the cases reported by Brunon[7] and Firket.[8]

In many of the cases with brain and spinal cord symptoms the lesion is in the bones, causing pressure. The long bones are not so often involved. In the following remarkable case spontaneous fracture of the thigh bone occurred at the seat of the secondary growth.

On December 1st, 1901, I saw at Mount Clemens, Michigan, Mrs. M., aged about 47. The patient was an exceedingly nervous woman, but otherwise had enjoyed fairly good health. In the spring of the year she had had rheumatic pains in different regions, but there had been nothing to call attention to the condition of her breast. She went to Cuba, where she remained for three months, returning in October. The pains had rather increased, but were still somewhat indefinite in character, and were thought to be rheumatic, and as some of her friends had received great benefit at Mount Clemens, she decided to go there for a course of the baths. A few days before leaving it was accidentally discovered that she had a tumour of the left breast, about which she had known for some time, but had never spoken. She had had some pains in the legs and in the back, but she was able to get about. The pains were, I believe, more marked in the left leg. On getting into the sleeping-car to go to Mount Clemens she had stepped up two steps, but on trying to get up the third she had an agonizing pain in the left leg, and had to be helped in, and throughout the night on the car her sufferings were excruciating. This was between two and three weeks before I saw her. From that time on she was confined to bed, could scarcely move the left leg without the most agonizing pain, and it was only with the greatest difficulty that she could be carried on a sheet to take the baths.

The condition was as follows: A healthy-looking woman, very neurotic and emotional, in an agony of apprehension lest her leg should be removed. She was not at all cachectic. There was a large carcinoma of the left breast, with secondary involvement of the glands of the axilla. The left leg was strongly flexed and everted. She could not voluntarily move it, but she could, with the other foot, straighten the leg a little from the knee. The middle and upper part of the left thigh was visibly larger than the right. On palpation the lymph glands were not enlarged. There was no special tenderness, but there was evidently swelling and enlargement of the upper part of the thigh bone. Any attempt to straighten the thigh or to move it from its everted position caused the most agonizing pain.

It was suggested that she probably had a new growth in the upper part of the thigh, possibly about the neck of the thigh bone, and that she had had a fracture with dislocation at the time of getting into the sleeping car. She was taken back to New York, where she saw Dr. W. T. Bull, who concurred in the diagnosis of secondary carcinoma of the thigh bone. Nothing could be done, and the patient gradually failed in health and died a few months later.

In the following case the scapula was involved three years after removal of the breast: Mrs. N., aged 52, seen December 30th, 1901. She had had old valvular disease of the heart, and it was for this I was asked to see her. Incidentally it was mentioned that she had had her left breast removed three years previously by Dr. Tiffany for cancer.

She had been an energetic, active woman, and since the operation had apparently been in good health. Three weeks ago, while in Washington one evening, she had a sudden severe pain in the right side, of sufficient intensity to require morphine. She had not been well since, having a great deal of pain, chiefly in the right side of the chest. Last Thursday, five days ago, it lessened on the right side and became very intense on the left.

She was a well-nourished woman, a little pale, sweating profusely. The pulse was under 90, a little collapsing. She had signs of quite an extensive operation in the left breast. There was marked mitral insufficiency, and a loud, rough systolic murmur in the aortic area. There was impaired resonance at the base of the right lung, and numerous fine râles. There were no glands enlarged above the clavicle or in the axilla. Examining from behind, one was immediately struck by the difference in appearance between the two scapulae. The left was enlarged uniformly, chiefly in the upper half. It was not specially painful. There were no secondary masses in the ribs.

The bones of the hands and feet are not often involved—in not one of the 650 autopsies analysed by Stephen Paget. I was consulted in July, 1904, by Dr. Neagle about a patient who had had two recurrences within eighteen months after a primary operation. She then began to have pain and tenderness in the thumb of the right hand, the metacarpal bone of which enlarged, forming a solid fusiform tumour. The inner end of the right clavicle gradually became enlarged and tender, and at the last report the left knee and ankle had become involved—evidently a case of widespread generalization in the bones.

In many cases of internal metastases in cancer of the breast the symptoms are obscure or there are features which make the diagnosis doubtful. Scarcely enough stress is laid in works on surgery upon the terminal stages of cancer with the tragic events of which the general practitioner is left to battle alone. Amid the sad failures of our art these cases stand out in strong relief. An early diagnosis of the condition and an early recognition of its hopelessness may lessen the terrible ordeal of the poor victim, and mitigate not only her sufferings, but those of the near relatives. Morphine, enough morphine! given freely and without fear, in doses sufficient to keep the patient comfortable, affords the only possible relief. The radical operation as now performed, if performed early, should lessen enormously the proportion of these distressing cases with internal metastases.

NOTES AND REFERENCES.

[1] *American Medicine*, April, 1901. [2] *Lancet*, 1889, i. [3] *Oeuvres Complètes*, Tome II, 116. [4] *Zona dans le Cancer du Sein*, Lyons, 1900. [5] *Clinical Society's Transactions*, vol. xxx. [6] *Gaz. des Hôp.*, 1885. [7] *Progrès Médical*, 1884. [8] *Bulletin Soc. Anat. de Paris*. 1885, lvi.

HEAT A MODE OF MOTION.—Sir William Gowers has unearthed in the *Medulla Medicinae* of Professor J. A. Van der Linden, published in 1642, the following statement: "Calor est minutissimarum materiae partium motus in se reverberatus," and has written to *Nature* to ask whether there are any other contemporary anticipations of "heat a mode of motion."

A Clinical Lecture

ON

THREE CASES OF ARTERIAL DISEASE.*

By T. CLIFFORD ALLBUTT, M.D., F.R.S.,

REGIUS PROFESSOR OF PHYSIC IN THE UNIVERSITY OF CAMBRIDGE.

GENTLEMEN,—The young woman whose case will occupy the first part of our lecture this morning has been repeatedly a patient in the wards of this hospital, and also, I think, more than once in St. Thomas's Hospital, under the care of Dr. Hawkins. I believe I may venture to say that in the interpretation of this case I have the advantage of Dr. Hawkins's agreement. X. Y., now aged about 28, came first into the Addenbrooke's Hospital four or five years ago, and the account of her illness which she then gave has been repeatedly verified. Before her admission she had been in service as housemaid in one of the houses of a large public school. On a certain morning she helped to lift a bedstead. She is, as you see, an ill-developed girl of no great physical strength, and on making this unusual effort she felt a sudden pain or sense of distress in the chest under the sternum. She was carried to bed faint and ill, and from that time until recently she has been unfit not only for her proper duties but for any kind of bodily exertion whatever; the slightest effort being followed by a renewal of the substernal pain and of the distress. Up to the date of this accident, except for some anaemia, her health had been fairly good. She was admitted to this hospital soon after the accident, and on the first occasion she remained with us for many weeks; afterwards, as her distressing symptoms continued for a much longer period of time, she returned to our care more than once, and, as I have said, was meanwhile received once or twice in the wards of St. Thomas's Hospital for the same malady. Thence it was that Dr. Hawkins, being much interested in the case, was so good as to write to me about her. At a later date she came once more into this hospital, and finally, as her health became gradually re-established, she attended here, regularly or occasionally, as an out-patient. She is now restored to something like health—that is to say, she has no complaint to make to you; and she has been kind enough to attend here to-day only for the purpose of our clinical demonstration.

To return to her symptoms on admission: she was then suffering from paroxysms of intense pain having its origin, as I have said, under the upper and mid sternum —a pain attended with a peculiar crushing agony, as if the breast were in a vice, and with a sense of impending death, due, I believe, to a powerful afferent impression upon the cardiac centre. The pain radiated from its substernal origin down the left arm to the elbow, or, when more severe, to the ulnar side of the left hand. When severest it would extend in like manner to the right arm. During the first stage of her illness—a stage which lasted for many weeks, or I think I may even say for some months—these paroxysms recurred almost continually, constituting what some of you may have heard me call in similar cases the *status anginosus*. Very slight bodily movements, or a little mental excitement, sufficed to arouse these attacks of pain; and it was only by means of specific remedies—by the nitrites especially—that her sufferings could be mitigated.

As this incessant distress told upon her powers of endurance, the difficulties of the case were increased more and more; her self-control was weakened, the pain of the attacks, or even the mere dread of them, threw her into states of anxiety and apprehension which brought her into a condition of fretfulness so persistent that it was difficult at times to say how much of her minor distresses were due to the primary causes, and how much to the unhinging of her mind and nervous system. But of the interpretation of the main features of her malady—namely, that she was suffering from angina pectoris in its most typical form and extreme degree—there was no doubt whatever.

On physical examination, the only sign which I need now recall for you was a loud systolic murmur at the base of the heart, carried into the arteries of the neck. There has been no regurgitant murmur at any time. With the heart, beyond some functional disorder which under ordinary circumstances would have been of little moment, no definite fault could be found during this first period of her illness. The accessible arteries of the body seemed to the touch to be free from disease, and the arterial blood pressure was not increased.

From the time of her first admission to the present date the story may be briefly summed up as one of a very slow recovery, the attacks of pain becoming less frequent and less severe. For many months,* she now tells us, she has been entirely free from anginal attacks, and her health is fairly satisfactory. I may add that, as the specific pains subsided, her mind and her powers of self-control became re-established; and, as you see, she is now natural and self-possessed in bearing.

But to-day physical examination of the heart will tell us another and somewhat different story. When you proceed, as you shall now do, to examine the heart, you will find the left ventricle considerably hypertrophied; the systolic murmur still persists at the base of the heart, and I will add that it is louder and more prolonged than before. Moreover, on laying the hand upon the upper part of the sternum you will find a strong vibratory thrill with the cardiac systole, which thrill, I think, was scarcely perceptible in the first few weeks of the illness, but has since become more and more evident. There are no signs of aneurysm. The case is, then, one of aortic stenosis, with compensatory hypertrophy of the left ventricle. Apparently the compensation is sufficient, so that, for the present at any rate, the patient is free from discomfort; and, although avoiding much physical stress, she is occupied in the quieter duties of life. There is now no reason to fear that her life will be cut short prematurely.

In its main lines the interpretation of this case is not difficult. The strong bodily effort of lifting the bedstead, perhaps by causing a sudden rise of arterial pressure in a young woman of weak frame, and perhaps originally with some aortic hypoplasia, seems to have done some injury in the aortic area. As neither then nor since has any murmur of aortic regurgitation been heard, it would scarcely seem that this injury fell directly upon the aortic valve; it would seem rather to have injured the aorta near its origin, and there to have set up inflammatory changes which extended to the valve and orifice, so that, in the course of time, a stenosis of the orifice was established. With the healing of the lesion the pain, at first so agonizing, gradually abated and disappeared. On the precise form of the lesion it is not easy to give an opinion; I must content myself with reminding you that not infrequently in *post-mortem* examinations rents or splits of the inner coat of the aorta have been discovered; it may be that in this instance some such rent took place just above the aortic orifice and valve, which were gradually invaded by the consequent inflammatory process. Some lesion at any rate at the origin of the aorta made it abnormally sensitive, so that normal blood pressures produced a characteristic pain which in the majority of such cases requires some excess of arterial pressure to call it forth. I do not draw any parallel between this case and cases of aortic aneurysm, because in aneurysm there are nearly always morbid conditions precedent—such as syphilis—which in this case, to the best of our knowledge, were absent. Nor can I tell you why an aneurysm did not form in this case. Although the parts, so far as we can tell, are now thoroughly healed, and the pains have all ceased, yet of course the heart is permanently, if not as yet very gravely, damaged.

The diagnosis, then, is acute angina pectoris in its most typical form.† You may wonder how it happened that a patient suffering from this disease in so intense and prolonged a form survived, and has even made, so far as the angina pectoris is concerned, a complete recovery. The reason is this, that throughout the illness the cardiac muscle was healthy. The complete and satisfactory compensation which has taken place is a sufficient evidence of normal cardiac conditions. Intense peripheral pain, such, for example, as the passing of a gall stone in a person otherwise healthy, or, experimentally, such a shock in an animal as irritation of the central end of a cut sciatic nerve, or even a sudden slap on the epigastrium, may, it is true, by reflex inhibition arrest even a healthy heart, but of course still more readily a heart which is something less than healthy; a heart, let us suppose, which, by disease of the coronary arteries, is deteriorated in muscular value. But fortunately in man arrest in death of a sound heart by peripheral pain is a very unusual event. In two cases at least I have seen it, one of them being a healthy young matron who died suddenly during a violent attack of gall stone; after death the stone was found in the duct, and all other organs were normal. The heart of the patient before us, then, being a sound one, weathered the storms. When the heart is healthy angina pectoris may not be, and usually is not, a fatal disease. One of the worst acute cases I have seen, a case as typical and as severe as of this young woman, though not so prolonged, was in a Selwyn undergraduate under the care of Mr. Arthur Cooke for acute rheumatism with aortic valvulitis and aortitis, due, as we surmised, to basic pericarditis. So far as the angina pectoris was concerned, he likewise recovered completely. Such also was the happy issue of a case in a middle-aged man of very severe recurrent angina pectoris, due probably to influenzal aortitis, whom I saw with Dr. Humphry. I have collected indeed a large number of cases in my own sphere of experience in which angina pectoris, even continuous and severe, ended in complete recovery; and this, moreover, in not a few elderly persons; though of course as life goes on the chances are that by disease of its vessels the heart becomes less and less able to withstand powerful inhibitory influences.

---

*These three cases were brought forward on three several occasions, but for brevity's sake the three lectures are condensed into one. My thanks are, now and always, due to my colleagues, Dr. Bradbury and Dr. Humphry, for the generous way in which they allow me to select cases for my lectures from their wards.

* Now perhaps a year or two (December, 1905).

† It seems necessary to remind some readers that by a "disease" we mean a group of symptoms which recurs with approximate constancy, and to which therefore we find it convenient to attach a label or name; moreover that, as similar events must result from similar causes, no approximately constant group of symptoms can result from different causes. Angina pectoris is a remarkably constant group of symptoms, and accordingly its cause is so far constant—namely, a morbid state of the first portion of aorta under a blood pressure absolutely or relatively excessive. "Tobacco angina" and "pseudo-

Now by cases such as these we learn that angina pectoris is not a disease of the heart; it is a disease of the first part of the aorta; it is the mortality of it which depends upon cardiac disease, and this is a contingent feature. I will take the opportunity of reinforcing the truth that the pain of angina pectoris is not a pain of the cardiac area, as in the discussion of cases—and, indeed, in the description of textbooks—is so often alleged, for such is the effect of a prepossession in loading our mental dice. On the other hand the not uncommon pain of heart disease, and especially of hearts under dilating stresses, is in the cardiac area; but this is not an intense and paroxysmal pain: it is a weary and more or less continuous aching. The pain of angina pectoris, which ranges from a sense of tightness and oppression ("stenocardia") scarcely amounting to pain, but imperiously arresting the patient in his walk, up to the violent degrees of it in chronic cases, and in acute cases such as the patient before you, is always seated, not in the cardiac area, but in the area of the upper sternum, and is, in its extremer degrees, as if the sternum were pressed inwards by an iron bar. Again, I must impress upon you that dyspnoea is no feature of angina pectoris; on the contrary, in the attack, respiration is arrested by reflex inhibition. A few weeks ago a gentleman, aged 73, was sent to me by his medical attendant with the diagnosis of angina pectoris. The story was that, being so far as he knew in health, on ascending an incline he was suddenly pulled up, not with substernal pain, but with dyspnoea and a not intolerable epicardial uneasiness. The physical signs were those of an inconstant mitral regurgitation and of dilatation of the left ventricle. We were able to assure him therefore, to his consolation, that the attack was not one of angina pectoris—a diagnosis which is now verified by the results of treatment with digitalis and exercises. There has been no recurrence of the "attack," only the usual variations of a failing heart.

The second case to which I will draw your attention is that of an agricultural labourer, 55 years of age, who is sent up to us, before any complete examination has been made of him, simply with the record of "mitral regurgitation." We will proceed to examine him. For a weather-beaten man he looks somewhat anaemic, his lips are pale and bluish. On glancing almost instinctively at his ears, we are surprised to find them not dusky in colour but pallid. Again, on looking at the neck, where we expected to find some distension of the veins, we see no such distension; the veins of the neck are not remarkable. We observe, however, another feature of his neck which is of great importance for the diagnosis, namely, that the sterno-mastoid muscles on both sides are very tense and hypertrophied. Evidently he has been suffering from a chronic difficulty of breathing, and for a considerable time. On examining his chest we find that, during quiescence, thoracic breathing is scarcely perceptible, while abdominal breathing is exaggerated. On telling him to take a deep breath the thorax is rather lifted than expanded. The form of the chest is not much altered. On listening to his heart there is, it is true, a murmur of mitral regurgitation; but there is no oedema of the feet, no enlargement of the liver nor tenderness on palpation under the ribs, nor other signs of rise of pressure on the venous side. Instead, then, of the dusky ears, swollen and pulsating jugular veins, puffy ankles and tumid liver of mitral insufficiency we find a condition of arterial anaemia and an emphysema which is rather of the atrophic than of the voluminous form. That some mitral regurgitation exists is indubitable, but probably slight in degree—the mere loudness of a murmur is no guide to the degree of regurgitation—and not sufficient to bring about any evident clinical symptoms.

Now let us go a little farther. On examining his brachial and radial arteries and the dorsalis pedis, we find the arterial pressure low and the arteries not very well filled; but the vessels themselves to the touch are thick, tortuous, and uneven, as though the walls were the seat of some irregular deposits. This man presents a good example of what I have distinguished as the involutionary form of "arterio-sclerosis." With it emphysema is commonly associated, and, as I have often said to you, this association is something more intimate than a mere coincidence of two kinds of senile change. Now, if this patient had been submitted to a candidate for examination he might have given us a diagnosis of mitral regurgitation only; and, in answer to our questions on treatment, have proposed to us the administration of digitalis. I think you will have inferred, from the manner in which this case has been brought before you, that, although this patient has mitral regurgitation, he is not suffering from mitral regurgitation; indeed, no specific cardiac treatment is required. Clinically, his disease is not mitral regurgitation but primary senile arterio-sclerosis and emphysema.

This involutionary form of arterio-sclerosis I find—and I am reinforced in this opinion since I came to live in this rural district—to be very prevalent among the agricultural labourers; it seems in them to come on earlier than in the middle and upper classes of life, and, speaking generally, to advance more frequently to its extremer degrees. Why this should be so I cannot offer you even a surmise; it may be due to hard conditions of life, but the agricultural labourer is better fed than he was a generation ago. It may be due to some accumulation of hereditary tendencies by intermarriage, or to continuous exposure to cold without a sufficiently generous diet. Syphilis is not very prevalent among the agricultural people; and alcohol, even if, taken alone, it be one of the causes of arterio-sclerosis—which I regard as a very doubtful proposition—probably plays a much smaller part in agricultural than in urban populations. It is when other and more specific causes of arterio-sclerosis are at work that alcohol becomes their formidable ally. This, the primary, form of arterial degeneration is, as I have often told you, compatible with long, even with very long, if very unavailing, senescence. During this period the arteries may become almost grotesquely tortuous and deformed, the organs of the body undergoing a coincident atrophy; but, as the blood pressure is continuously moderate, the heart does not

---

angina" are not angina pectoris in the clinical sense, as toothache is not, nor colic. In my Lane Lectures of 1896 I described a somewhat definite group of symptoms which seemed to me then to be an aberrant form of angina pectoris. But the pain is across the epigastrium; and although it is attended with apprehension, and is of ill omen, it is not extreme in degree, it does not radiate, the patient can cry out, there is some dyspnoea, and it is not dispelled by nitrites. I now believe these attacks to be primarily cardiac.

dilate, and the blood vessels of the brain are liable rather to obliteration than to rupture.

When we turn to this third patient, however, we find both the present conditions and the story of his past to be essentially very different from those of the second. This man's age is 52, he is a fat, high-coloured man, and herein presents a strong contrast to the previous patient. He does not work on the land, but in some commercial occupation. He has lived well and taken alcohol freely. During the last few months he has complained of shortness of breath, and you will observe that he begins to pant on the comparatively slight effort of taking off his coat. You will note this in cases of chest disease, as you may note manual disabilities in diseases of the nervous system. His ears, you see, are dusky; the veins of his neck are rather large and oscillating, his liver is tumid, and you will perceive on palpation a slight oedema about the shins and ankles. The heart is very large and labouring, and you may presently hear an inconstant murmur of mitral regurgitation. Over the bases of his lungs behind the resonance to percussion is imperfect, and the respiratory murmur, because of intercellular oedema, is deficient; some little intracellular oedema gives rise also to a few crepitations there, on deep inspiration. The urine is scanty, of high specific gravity and lateritious; it contains a "trace" of albumen.

On turning our attention to the upper sternum, we find the arch of the aorta too perceptible above it, and on percussion the area of it is extended 3 or 4 cm. to the right in the first space. The subclavian arteries beat heavily and are somewhat displaced, and in this area there is a persistent systolic murmur. That the thoracic aorta is lengthened we infer from the arc of the cardiac swing, which is almost doubled in extent. On following the arteries into the arms, we find these vessels much thickened throughout the whole of their course, and the radial arteries also are leathery and tortuous. The pulse is large, and although you might hesitate to estimate even roughly the degree of blood pressure—because the larger an artery the more is the sense of increased pressure, whether increased or not—yet you will not fail to observe that the wave does not normally subside between the beats, but gives to your finger the impression which is known as that of the "sustained pulse." I inform you, however, that by means of the sphygmometer we have learnt that, in spite of the yielding heart, his systolic arterial pressure is still fully 200 mm. It is remarkable in cases of this kind that, even in the latter stages of the malady, the pressure, if lower than in the earlier stages, usually maintains a high figure.

In this case we may safely assume that the arterial pressure has been considerably higher than its present record—probably 230 to 250 mm. Here, then, is another case of arterio-sclerosis indeed, but a case of a disease very different from that of the previous patient. In this patient we have to deal with a *secondary arterio-sclerosis*, which I have named that of hyperpiesis; with an injury done to the vessels by the strain of an excessive arterial blood pressure acting upon these blood vessels for a number of years—five or six at least, probably more. The blood-pressure is now beginning to fall, but with no advantage to the patient; on the contrary, this fall is ominous of dissolution, for it depends not upon any diminution of the causes in which this high pressure originally took its origin—causes, namely, of peripheral resistance—but upon the failure of the heart which, after years of excessive effort, finds itself at last unable to continue an unequal strife. When dyspnoea appears, such a patient has entered the last stage of his pilgrimage.

Now in both these forms, in the arterio-sclerosis of involutionary degeneration, as in that of hyperpiesis, the aorta is practically always the first seat of atheromatous change; and, speaking generally, the arteries of the mesenteric area come next to the aorta in liability to this alteration. But, although the subjects of involutionary arterio-sclerosis, like other people, are not immune from periods of hyperpiesis, the arterio-sclerosis itself is not the cause of the elevation. In patients of the involutionary class the arterial pressure, as I have demonstrated to you again and again, and as you may see for yourselves abundantly in any workhouse, is moderate, or indeed even low—absolutely so, or low for the time of life in the particular case. You are aware that in the advancing years of normal persons the arterial pressures range rather higher than in the third and fourth decades.

In normal elderly persons, however, and in elderly persons the subjects of arterio-sclerosis without initial hyperpiesis, the arterial pressure may rise occasionally, on the intervention of those obscure causes which produce it at times in any, perhaps in all, of us. Many and many are the cases in old folks, whether with thick or normal arteries, in whom, when certain discomforts, such as confusion or aching of head, sluggishness, depression of spirits especially of a morning, "biliousness," sleeplessness, call attention to the circulation, hyperpiesis is discovered. As yet the condition is so little realized and anticipated, that it is overlooked again and again; I had almost said more often than not. When detected, a course of calomel and other appropriate remedies dispels a temporary resistance of some kind, the arterial pressure falls to the normal, the fear of an apoplexy is averted, and the patient is set on the way again towards the fulfilment of his days.* But with those elders who suffer from hyperpiesis, who have so suffered persistently for a long time, the tale is a different one. During the first years of its establishment it is not inconsistent with apparently good health. When detected, by vigilant treatment the pressure may be reduced again and again, but not in all cases; in not a few of them, when of no long standing, it may be got rid of completely, more especially in persons not beyond middle life; but if of some standing it recurs again and again, and the patient dies, more or less prematurely, of apoplexy, of cardiac failure, or, as it sometimes happens, of an intercurrent pneumonia. These patients do not, as do the subjects of primary or involutionary arterio-sclerosis with moderate blood pressures, survive uncrippled into the seventh decade—unless, I repeat, the malady has been detected and combated in good time.

In children periods of hyperpiesis, with headache, coated tongue, foul breath, dyspepsia, loss of appetite, rings under the eyes, languor, low spirits, are by no means uncommon, and are curable by gentle mercurials and the like. In some of these children the stomach is large and squelchy. Whether such children are those individuals who become the subjects of hyperpiesis in later life is more than I can tell you.

In conclusion, I may remind you of the cases of my third, or extrinsically toxic, class of arterio-sclerosis. These I show you from time to time in the wards or in this lecture room, cases of arterio-sclerosis consequent upon such infections as diphtheria, syphilis or typhoid fever, or, again, in such chronic diseases as diabetes and plumbism. Recently I showed you such a case of general arterio-sclerosis in a diabetic girl, aged 14. In her, as in the majority of such cases, excepting the plumbic, the pressure was normal, or at any rate not elevated; strictly speaking, it was rather subnormal for her age. Thus to you, as to my classes for many years in Leeds and in Cambridge, I have been demonstrating almost daily the error of the doctrine that rise of arterial pressure is the consequence of arterio-sclerosis; how far it may co-operate in this direction is another question, but as it is one of no great importance I regret the less the postponement of it to another day.

---

* For some brief notes as to treatment I may refer, among other of my papers on this subject, to the *Trans. Hunt. Soc.*, 1895, and to the *Trans. Med. Chir. Soc.*, vol. 86, 1903.

CONSOLIDATION OF NEW YORK MEDICAL SOCIETIES.—At a special meeting of the Supreme Court, held at Rochester on December 9th, Judge Davy signed an order consolidating the Medical Society of the State of New York and the New York State Medical Association. By this act the medical profession of New York is united in one body. The members of the county societies become members of the district branches and of the State society; thus the new body has a membership of over 6,000. Negotiations towards the accomplishment of this end have been in progress for the last four years.

THE Governors of the Bolingbroke Hospital are making an active endeavour to obtain the £30,000 which are required to convert the institution into a general hospital. Towards this amount nearly £5,000 has been collected, of which £2,000 has been contributed by King Edward's Hospital Fund for London.

A Clinical Lecture

ON THE

ACTION AND USES OF DIGITALIS IN CARDIAC FAILURE.

DELIVERED AT THE HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON,

BY **J. MITCHELL BRUCE, M.A., LL.D. (HON.),**
M.D., F.R.C.P.,

CONSULTING PHYSICIAN TO THE HOSPITAL AND TO THE CHARING CROSS HOSPITAL.

GENTLEMEN,—It is but seldom that the record of the course of a single case of cardiac disease, or indeed of any disease, for a few weeks furnishes material for a clinical lecture to practical post-graduate medical men like you. I feel that I ought to introduce my subject this afternoon with an apology for such an attempt; and you will forgive me also, I trust, if I speak in a straight, plain, dogmatic fashion, treating you, as it were, like students round a bed. This is the necessary result of our having to consider the details of the treatment of an individual patient who has already left the hospital. I have not the patient here, but I have behind me a chart which exhibits graphically the course of his disease as far as it concerns us this afternoon, including more particularly the action and uses of digitalis. I propose to demonstrate to you the observations thus recorded, and to discuss them serially and as a whole.

The case itself was full of interest pathologically, but I will not dwell on this aspect of it, except so far as is necessary to illustrate certain points in the action and uses of cardiac remedies. The patient was a man of 27, a 'bus conductor, who was under my care in Charing Cross Hospital from November, 1903, to February, 1904, suffering from failure of the heart with dropsy in connexion with valvular disease of rheumatic origin. The valvular lesions were mitral incompetence, mitral stenosis and aortic incompetence, with well-marked physical signs, including the characteristic murmurs, in addition to which a tricuspid systolic murmur was also audible. On admission, November 23rd, the patient was cyanosed and suffered from orthopnoea, praecordial distress, and extensive oedema; the pulse was extremely irregular in force and rhythm, 94 beats reaching the wrist per minute; the liver enlarged and pulsating. You will observe that in every respect the case was an ordinary one, and I need only add that the evidence was that the heart had failed in consequence of exposure and exertion. This was the second occasion on which compensation had broken down within a few years.

The patient was at once put on what may be called our routine treatment for cases of the kind. He was in bed, and properly nursed; he had a somewhat dry, solid diet, including fish, chicken, bread and butter, light pudding; and to this was added from 1½ oz. to 3 oz. of brandy per diem. After an immediate dose of 3 gr. of calomel, followed by white mixture, he was given half a drachm of compound jalap powder every morning, and he took 10 minims of tincture of digitalis with potassium acetate and tincture of nux vomica every four hours. A proper record was kept of the daily observations made in connexion with the case, and those which were expressed numerically were represented in the form of a chart, which I will now show you, omitting the temperature curve, which does not concern us now. The two curves which you see represent respectively the pulse-rate and the volume of urine passed; and it is by these curves that I wish to order my discussion of the action of the remedies employed.

The first striking feature of the urine curve is its low range for the first week. It starts, you will observe, at 16 fluid ounces on the man's admission, reaches a maximum of not more than 30 fluid ounces on the fifth day of treatment, and falls again to 23 fluid ounces on the seventh day. This was a most disappointing result. After a whole week of thorough treatment with the remedies which I have mentioned there was no diuresis. It is true that, as you will see by the other curve, the pulse-rate had begun to fall, so that the digitalis appeared to have begun to act upon the heart, but so far no impression was made on the kidneys. I have called this a disappointing result, for our experience is that diuresis as the effect of digitalis in cardiac failure occurs by the middle of the first week of treatment. However, this disappointment is a convenient feature of our case for my present purpose. It serves to demonstrate to us with uncommon clearness the first point which I desire to make in our discussion—namely, that the diuresis produced by digitalis in ordinary doses of the pharmacopoeial preparations does not make its appearance for several days.

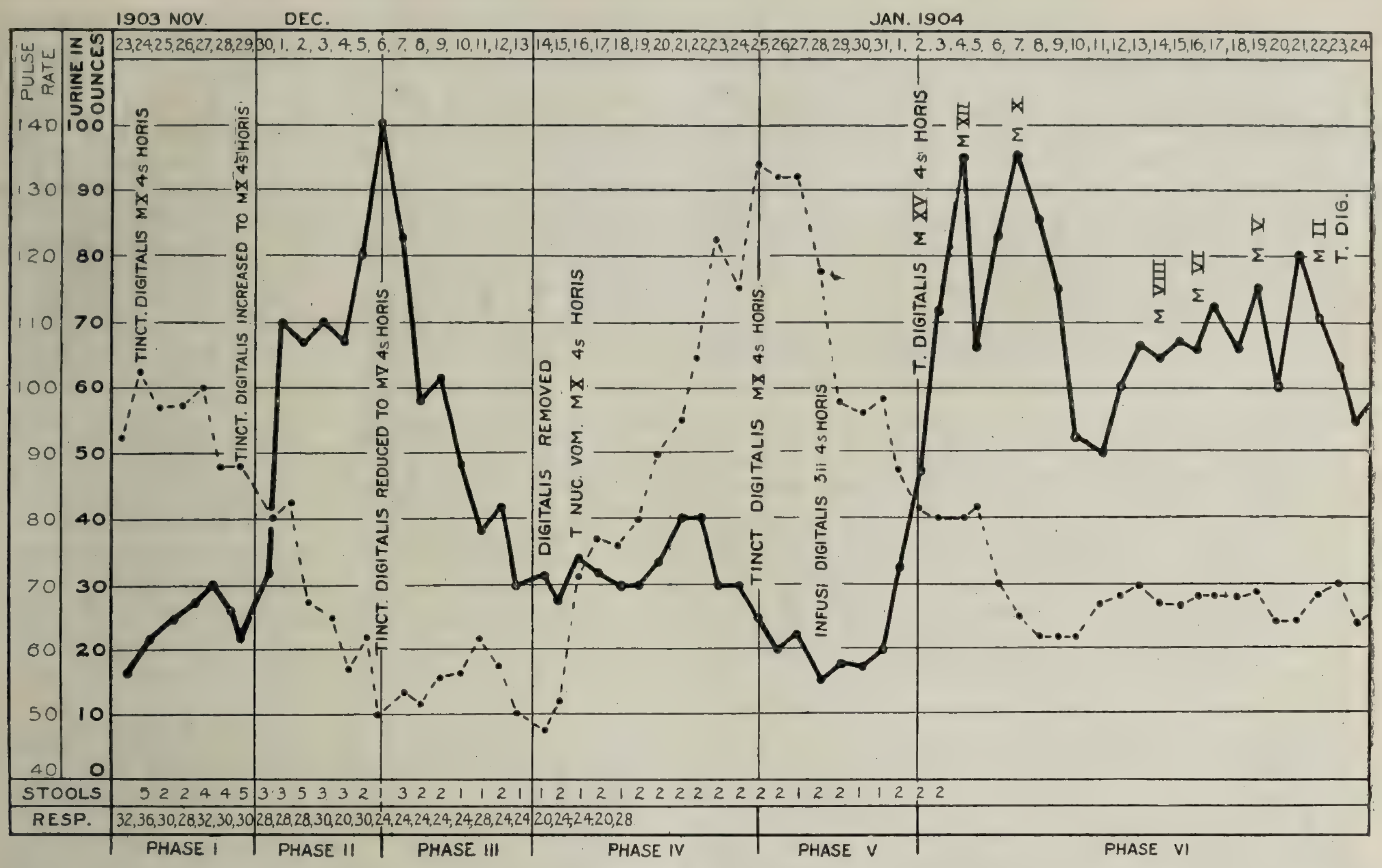
This slowness of action of digitalis must be distinctly appreciated. We must be prepared for this, powerful and trustworthy drug as it is. As we have just seen, it begins to steady the heart meanwhile and to relieve distress; but that striking change in the whole aspect of the case which attends profuse diuresis does not occur for the first two or three days. Two practical considerations follow on this fact. The first of these is that during this preliminary period, or period of suspense, other more rapidly active drugs usually have to be given, including caffeine, ether, ammonia, and strychnine. The second practical consideration is that we must be prepared to wait patiently for the diuretic action of the drug to be displayed. We must not hastily conclude that it is useless if it have not produced a rapid effect like strychnine subcutaneously or a dose of ether. Digitalis takes days to increase the flow of urine. To convince yourselves on this point you have only to look at the smaller charts which I hand round. In all of these you will observe that the urine curve invariably remains low for two or three days.

But to return to our own case. The fourth, fifth, sixth and seventh days passed, and no diuresis had made its appearance. If one feel anxious and become sceptical of the value of digitalis, as one may be tempted to do, on the third day, what was one to think of a drug that had made no impression on the kidneys by the seventh day? It would not have been altogether unreasonable to conclude that it was useless and that it must be dropped for something more efficacious.

This brings me to the second phase of the case. On the seventh day, instead of removing the digitalis, from distrust of it, I gave it more freely. Finding the volume of urine only 23 fluid ounces, I raised the dose of tincture of digitalis by a half—that is, to 15 minims every four hours. The effect was striking. Next day 35 fluid ounces were secreted; on the following day 70 fluid ounces; and after keeping on this level for four days the amount rose to 80 and then to 100 fluid ounces. Thus my action was justified by the result. The end that we had been working for from the first was attained; the kidneys were rapidly clearing off the arrears of excretion; the dropsy disappeared, and the patient was relieved. We had learned another lesson—that digitalis to be useful must be given freely.

This is an all-important point. If we are to get real good from digitalis in cardiac failure, it is very little use giving a moderate dose. If we are to get real good from it, we must not be afraid to use enough. I insist on this point because I find it is quite usual for digitalis to be given in 5 minim doses three times a day, or perhaps six times a day. Undoubtedly 10 minims every four hours in the majority of cases should and do suffice. But here is an instance where it required a much larger dose, and from which we are justified in coming to the conclusion that the discredit into which digitalis has fallen amongst certain authorities may have been due to their not having given enough.

But there is another aspect of this part of our subject. When a full dose of digitalis, such as 10 minims of the tincture every four hours, has been given for several days, and the pulse is found small, irregular and frequent, the drug might be regarded as not only useless, but as worse than useless—as positively dangerous, and accountable for the wretched state of the heart and pulse. The toxic action of digitalis might be believed to have been developed: the patient supposed to be being poisoned by a drug that kills by paralysing the heart. This would be an entire error, and an unfortunate one. I have just shown you the effect of the largely increased dose on the urine curve; now look at the pulse curve. Instead of remaining frequent and feeble and irregular, the pulse, you observe, fell to 50 when the excretion rose to 100 fluid ounces, and



at the same time it became more ample in its wave and more regular.

This is entirely in accord with my experience. I believe that I can recognize what may be called a digitalis heart and pulse when I meet with them—the effects of prolonged free administration of this remedy. Along with the characteristic pulse there is a sort of sledge-hammer quality of the cardiac impulse and first sound; the ventricle bangs, as it were, against the chest wall and the stethoscope. The acceleration and irregularity of the heart which characterize the toxic degree of digitalis action of the textbooks are not met with clinically. Therefore, my rule, and the rule I would recommend you to follow, in cardiac failure is not to be deterred by a small irregular pulse from pushing your remedy, and, instead of cutting off the digitalis, to give more. When digitalis does not produce diuresis in cardiac failure, do not discard it lightly: continue it in increased doses.

But there is a limit to the usefulness and safety of the most valuable of therapeutic measures, and I thought so in this patient's case when I had reached the fourteenth day of treatment, when the diuresis was profuse, and the pulse had fallen to 50. My house physician, my students and myself were impressed all the more strongly with the conviction that we had gone far enough in this direction when we tested the condition of the heart with the stethoscope. You remember that the patient had aortic regurgitation (with other lesions); and now that the heart was so infrequent, we heard the period of normal diastolic silence filled by an extremely prolonged blowing murmur, which brought home to us not only that digitalis "slows" the heart by lengthening diastole, but that in doing so it increases the duration (and therefore the amount) of diastolic reflux if the aortic valves be incompetent. The demonstration in our patient was extraordinarily complete. Although I am not one of those who dread giving digitalis for failing heart in aortic incompetence, I felt that the time had come to reduce the dose; and I did so, giving but 5 minims instead of 15 every four hours.

We now enter upon the third phase of our observations, and we shall find it as instructive as the first and second phases. To begin with, the volume of urine steadily fell off to 80, 60, 50, 40, and finally to 30 fluid ounces. I questioned whether this fall could be solely referred to the reduction of the diuretic drug. The dropsy had been practically removed by this time, and since there was no effusion to remove, and as the diet remained "dry," the urinary excretion necessarily declined. That this was the correct explanation appeared to be proved by the striking fact that the pulse continued to be infrequent, usually under 60, for about another week, and, indeed, at the end of that time fell to 48. The dose of digitalis, smaller though it was, appeared to maintain such an amount of the drug in the body (once it had been, as it were, saturated with it) that the heart remained under its influence. Accordingly, on the twenty-second day of our observations, trusting that we had overcome the dropsy, I removed digitalis entirely, nux vomica alone being given.

Let us consider the phenomena of the phase which we had now reached, the fourth phase of the case. The pulse rose steadily from 48 through 54, 78, 90, and 106 to 124, and became irregular and smaller. In the same time the excretion of urine remained constant for a few days, rose to 40 fluid ounces for two days only, and then fell steadily to 26 fluid ounces—the same amount as on the day of the patient's admission. He became ill again, and dropsy reappeared in the lower limbs. Manifestly the influence of our treatment on the heart and kidneys, whilst it had been very powerful, was not maintained. It had sufficed to clear off the arrears, but it had not sufficed to establish the smallest reserve, nor indeed to supply an ordinary amount of what might be called working capital. Within a few days of its deprival of the assistance of digitalis the heart was already in fresh difficulties, although in every other respect the treatment remained unchanged; and after eleven days it was failing rapidly.

It appears from this observation that digitalis, although its action on the heart persists for days after its reduction, must be continued for a certain length of time if the benefits it has effected are to be maintained. It ought not to be suddenly withdrawn. We removed it in the present instance, as I have said, because the pulse had fallen to 48, and the diastolic pause with its striking murmur of aortic reflux somewhat alarmed us. We departed from the rule which the practitioner had learned long ago to observe, to reduce slowly the dose of digitalis after relieving with it the urgent manifestations of cardiac failure, and we believed at the time that we were right in departing from it, but now we found that we were wrong. We therefore determined to correct our error by resuming digitalis; and accordingly, on December 25th (the thirty-third day of treatment) the patient was once more ordered 10 minims of tincture of digitalis every four hours, the dose, you will observe, with which the treatment had been begun.

The fifth phase of observations was thus commenced.

For three days the pulse remained uninfluenced, running at 135, irregular, small, and feeble. Still, its rise was checked. But the volume of urine, instead of rising, continued to fall, until it reached 22 fluid ounces. Thus once more we learned that digitalis does not appreciably influence the urinary secretion for two or three days. At this point in the history of the case an interesting observation was made. In my absence from the wards on December 28th—that is, on the fourth day of return to the drug—my colleague, Dr. Galloway, substituted 2 fluid drachms of the infusion of digitalis for the 10-minim dose of the tincture, giving it, like the other, every four hours. The pulse now improved, falling to 96. But there was no diuresis; and on the seventh day from the return to digitalis, first as tincture and then as infusion, the volume of urine was only 20 fluid ounces, after falling, indeed, to 16 fluid ounces.

Thus the experience of the very first week of treatment was exactly repeated: you will remember that that also was nothing better than a secretion of 23 fluid ounces on the seventh day of the use of the same dose of digitalis. Once more, then, we learned the lesson which was taught us by the first phase of this case: that less than a certain dose of digitalis (different, no doubt, in different instances) fails to produce diuresis in cardiac dropsy. We had hoped that a more moderate dose might suffice in the second course of the drug, but we were disappointed. I therefore ordered once more, on the forty-first day of our observations, the dose which had proved successful originally—15 minims of the tincture every four hours; and therewith we commenced the sixth phase of the case.

The effect of the increased dose was very striking, as you will see by the chart. The pulse fell and continued to fall in frequency, until on January 9th (forty-eighth day) it was as low as 65. The dropsy again disappeared. Most striking of all, the amount of urine secreted immediately rose, until on the forty-fourth day it had again reached 96 fluid ounces, from which high level it naturally fell after a few days, maintaining, however, the excellent volume of about 65 ounces for nearly a fortnight. Cardiac distress and dyspnoea subsided, and the whole condition of the patient improved steadily, this time, happily, to remain satisfactory until he left the hospital several weeks later, able to resume work. Thus the diuretic action of a sufficient dose of digitalis was clearly demonstrated a second time. On this occasion we were careful not to try to be independent of it prematurely. We remembered the lesson we had learned: we reduced the dose very gradually, and continued to give the drug for weeks on end, with the free diuresis which I have just mentioned as a result. We had in this a demonstration of the fact that the effect of digitalis, once obtained, can be maintained indefinitely—that (in contrast with morphine, for example) digitalis in its action is not characterized by toleration but by accumulation.

I have conducted you through the ups and downs of this interesting chart, and have submitted the different observations, of which it is a graphic record, as simply as possible to your consideration. Let me now collect in systematic order the conclusions which we have felt ourselves justified to reach, and which I believe to be legitimate and temperate.

The first conclusion is obvious—that digitalis is a diuretic in cardiac dropsy. I suppose there is no one here who entertains a doubt on this point after noting the very low ebb of the urine in certain phases of the case and the profuse diuresis in the others; but, lest there be a sceptic among you, I will return to the subject presently.

Our second conclusion was that the diuresis produced by digitalis in ordinary doses of the pharmacopoeial preparations of the drug does not make its appearance before the third or fourth day of administration. The third conclusion, you remember, was that digitalis to be useful in cardiac dropsy is to be given in full doses. The next lesson that we learned was that when digitalis fails to produce diuresis in cardiac dropsy the use of it is not to be abandoned, but it is to be given in larger doses. The small irregular pulse which is met with in cases of cardiac failure under treatment with digitalis is not an effect of an excessive but evidence of an insufficient dose of the drug, and, instead of being a contraindication, is an indication for its continued administration, probably in larger doses. This is an extremely important conclusion, and one which in practice you may hesitate to follow. When you find your patient still very ill, the dropsy increasing, and the pulse very frequent and irregular, you may well ask yourselves the questions, "Have I given too much? Is not this the toxic action of digitalis?" You can unhesitatingly answer "No." The toxic effect of digitalis clinically is an entirely different one from that.[1]

Another practical consideration that we reached was that digitalis which is acting or has acted as a diuretic in cardiac failure must not be suddenly removed, and must be slowly, not rapidly, reduced in dose before its final removal—that is, continued for some time after the disappearance of dropsy. If in our case, instead of reducing the dose, as I did, at once to 5 minims, and then removing it altogether, I had reduced it first to 12½ minims, and then to 10, and so on, the probability is that we should have had no return of the dropsy.

The next point of which I would remind you is that the change in the characters of the pulse, particularly the reduction of its frequency, in response to digitalis precedes the appearance of diuresis, and persists after its disappearance.

We have now arrived at a subject on which there is a division of opinion. In our case I demonstrated to you that failure of the heart in association with aortic incompetence was beneficially, as well as safely, treated with doses of digitalis sufficiently large to reduce the frequency of the pulse to 48 and greatly lengthen diastolic reflux.

You are aware that it has been maintained by some authorities on disease of the heart that digitalis should not be given in aortic incompetence, because the diastole may become so much prolonged by slowing of the cardiac rhythm that regurgitation is dangerously increased, and the patient may perish of circulatory failure by "bleeding from the aorta into the left ventricle." All I need say at present is—there are the facts before you: a man whose pulse was reduced to 48 by digitalis, and who had an extremely loud and long diastolic murmur, was safely and perfectly relieved by the treatment; and this experience is confirmed by that of authorities equally as good as those who maintain that digitalis is dangerous in these cases. If you have a patient with a failing heart in aortic incompetence do not hesitate to give him digitalis.

To these conclusions I may now add one or two of a more general character.

All the incidents of the course of this case go to support the view that digitalis has what is called a "cumulative" action, or, more correctly, that it has to accumulate in the body, and reach either a certain amount or a sufficient degree of activity before its diuretic effect is appreciable. This has long been recognized. The question naturally arises whether the same degree of activity might not be secured far more quickly, say within one day instead of three days, or in an hour, or in a few minutes, by giving heroic doses of the tincture or of the infusion, or by administering digitalin or other of its constituents. Dr. Alexander Morison[2] has recently recommended the first of these methods, giving up to half-drachm doses of the tincture "every four hours until a definite effect is produced upon the action, force, and capacity of the dilated and failing heart." This, he says, may require the continuous administration in such doses of the combined tinctures of strophanthus and digitalis, until 200 to 300 minims have been taken. Dr. Morison would appear to have found that, after all, the administration of a 30-minim dose does not produce diuresis short of thirty-six hours, that is, before the third day.

Digitalin is said by the French authors to be highly efficacious. I show you here the curve of the diuretic effect of Nativelle's crystallized digitalin in a case of cardiac failure in chronic valvular disease and adherent pericardium. You will observe that diuresis was not established before the sixth day, and not until the ordinary (but of course moderate) dose of $\frac{1}{240}$ gr. once a day had been doubled. The curve as a whole bears a close resemblance to our ordinary digitalis curve. Here I may as well say that experiments on animals have demonstrated that of the three most important active principles of the digitalis group in ordinary doses commonly tested, and occasionally used therapeutically, as diuretics, digitoxin is the slowest, taking sixty hours to affect the secretion sensibly (whilst it is exceedingly toxic); that digitalin takes twenty-four hours; and strophanthin only a few hours.

The rate of accumulation is, therefore, different in the three substances. Thus, strophanthin would appear to be the body that we are in search of when we wish to obtain a speedy result.[3]

Lastly, I have already asked whether I have amongst my audience a thoroughgoing sceptic of medicinal treatment in general, and of the action and uses of digitalis in particular. It is quite open to him to question the whole of these results as far as I have attributed them to digitalis. He might contend with some show of reason that this case would have done just as well without digitalis at all—that is, on rest, nursing, warmth, proper diet, and attention to the elementary functions of life. This at least is a favourite position for some of our friends to take up with respect to drugs; nor can we always deny the impeachment, and prove that they are wrong. But we can do so in the present instance without hesitation. Let me refer once more to our chart. You observe that for the first seven days the patient enjoyed the advantages of those non-medicinal measures, the value of which I am the last person in the world to question, and yet the urinary secretion did not exceed a good pint. That did not look like a useful or indeed a promising effect of rest, comfort, nursing, and diet; and it was not bettered until the larger dose of digitalis was introduced into the system. And if our supposititious friend be still sceptical, let me direct his attention to the fourth phase and to the fifth and sixth phases of the case, as I have numbered them. In the fourth phase the only variation in the patient's circumstances was removal of digitalis; the nursing, feeding, and his other surroundings remained unchanged. But the diuresis ceased, the pulse rose, and the dropsy returned. In the next two phases, the only variation in the patient's circumstances was the restoration of digitalis, first in moderate and then in full doses. But the pulse fell, the diuresis returned, the dropsy disappeared for good, and eventually compensation was restored.

This evidence is incontrovertible. It fulfils both the positive and the negative conditions of proof. Let me repeat, however, that I do not undervalue the actions of non-medicinal remedies in failure of the heart. To do so, or to overestimate in the smallest degree the benefit to be looked for from drugs in this morbid condition, would prove our ignorance of the elementary principles of the management of what is in great measure a mechanical problem—the restoration of the capacity of the heart to carry on the circulation from a condition of insufficiency. More than that, I maintain that in every case of cardiac failure our investigation of it ought not to stop short at the diagnosis of failure (far less at the diagnosis of a particular lesion), but should include the determination of the cause of failure; and that the particular cause, when it has been determined, must be dealt with, whether it be physical exertion, starvation, dissipation, emotional distress, heart poisoning (for example, with tobacco), functional strain, or what not. In a certain number of cases it will be found that no digitalis whatever is required.

It is only a corollary to this conclusion to add that when compensation has been restored in chronic valvular disease of the heart, the non-medicinal measures to which I have just referred must be intelligently continued for a considerable length of time in order to establish it. As I have already said, a reserve must be accumulated in the myocardium—that natural reserve of force, that normal capacity for work other than a minimum, without which compensation after being restored cannot be maintained. Here is a great difficulty with us as practitioners. Our patients are naturally desirous—and, unhappily, many of them are compelled—to resume work prematurely; and the invaluable effects of treatment, including those of digitalis, are too often thrown away. A store of energy can never be reacquired until the heart has had a certain number of weeks of complete rest after the disappearance of the last trace of dropsy.

I desire to conclude this very elementary discourse with one more bit of practical advice which our chart fully endorses. This advice is expressed in three words, which though thus few appear to be easily forgotten—*Measure the urine.* The volume of urine proves to be a ready, accurate, and sufficient index both of the patient's condition and progress, and of the value or usefulness of your remedies, yet the measurement of it is strangely neglected in family practice. Now you and I might often be in doubt about our cardiac patient's physical signs and symptoms, and about his state as a whole, and we might differ with each other in our interpretation of his pulse, for the characters of the pulse are often exceedingly difficult to estimate and to employ as therapeutic guides, but there can never be any question about the amount of urine secreted. It is easily measured; it is expressed numerically; its variations are delicate in degree and yet readily appreciated and significant; and I trust that I have been able to show you by this chart that it is a true index of the progress of your case, particularly of the action and use of digitalis.

REFERENCES.

[1] Koehnhorn, *Viertsschr. f. gerichtl. Med.*, Neue Folge, 1876, p. 278. [2] Morison, *Lancet*, January 30th, 1904, p. 291. [3] Fraenkel, A. (Badenweiler), Vergleich. Untersuch. u. d. kumulative Wirkung d. Digitaliskoerper, *Arch. f. Exp. Path. u. Pharm.*, Bd. li.

A Clinical Study
OF
LEPRA OPHTHALMICA,
WITH A DESCRIPTION OF CASES EXAMINED AT THE LEPER HOSPITAL IN LAUGARNES, ICELAND, IN 1901 AND 1904.*

(WITH SPECIAL COLOUR PLATE.)

BY **KARL GROSSMANN, M.D., F.R.C.S.E.,**
OPHTHALMIC SURGEON, STANLEY HOSPITAL, LIVERPOOL.

THE following is an account of observations made at the Leper Hospital in Laugarnes, Iceland, during two visits made for the purpose in 1901 and 1904. My object was not only to form some idea of the frequency of leprous affections of the eye and its adnexa, but also to note any changes that had taken place in the course of the three years' interval.

Owing to the pernicious nature of leprosy it was to be expected that a considerable percentage of patients would have succumbed to their malady in the time between 1901 and 1904. As a matter of fact about one-third of the inmates of the hospital had died.

I am indebted for the possibility of making these observations, first and foremost, to the ever-ready help of my friend Dr. Saemundur Bjarnhjethinsson, who acted most indefatigably as guide and interpreter in the often very fatiguing work, and, secondly, to the nursing staff for unremitting help. Lastly, in 1904, my friend Mr. G. F. Mason was of great assistance to me as amateur secretary. To all of them my sincere thanks.

The hospital has accommodation for sixty patients. Out of the 59 cases seen in 1901 I found only 39 in the hospital in 1904. In addition to these 39 there were 21 others, bringing the number up again to 60, so that in 1901 and 1904 I saw altogether 80 patients. When the Leper Hospital was opened in November 1898, there were about 180 leprous patients in the country out of a population of about 60,000, scattered over the coast line of an island larger than Ireland.

Since the leprosorium has been able to provide a sort of non-compulsory semi-isolation for 60 inmates a decrease of between 25 and 33 per cent. of cases has resulted, and there is every reason to hope that the disease will die out in Iceland at a not too far distant date. In Iceland, as elsewhere, the nodular form (lepra tuberosa) is both more plentiful and severer than the nervous form—called, not very happily, lepra anaesthetica. Of the 59 patients seen in 1901 there were 34 suffering from the nodular and 25 from the anaesthetic form. In 1904 I found that of the former 16 had died, of the latter only 4, so that there were 18 nodular survivors to 21 anaesthetic ones. The figures are given below in Table No. II.

Likewise, the progress of the disease is more rapid and more pernicious in the nodular form, both generally and as far as ophthalmic leprosy is concerned. With regard to the latter, I found that every one of the 18 nodular cases seen on both occasions had become worse—some very considerably worse in 1904—while of the 21 cases of lepra anaesthetica no sign of progress of the disease could be detected in the eyes of 3 patients (see Footnote to Table IV). This lesser degree of virulence is shown also in the fact that in taking the average age of the 80 patients examined by me that of the anaesthetic form is greater than that of the nodular form, although in this respect the comparatively small number of patients (80) is not sufficient to do more than throw out a suggestion for further inquiries in this direction.

---

* Read at the Annual Meeting of the British Medical Association at Leicester, July 28th, 1905, and followed by a demonstration of lantern slides in natural colour photographs.

With regard to ophthalmic leprosy, I come to the conclusion, from observations made in Iceland and elsewhere, that in lepra tuberosa the eyes become specifically affected in *all* cases, provided the patient live long enough, whereas in lepra anaesthetica the eyes may remain unaffected if the nerves supplying the adnexa of the eye remain free. The nodular form of leprosy generally affects the adnexa first, supercilia and lids, and attacks the eye itself later, though the eye may be affected while no nodular infiltration of the lids is present.

When the eye itself is the seat of the leprous infiltration, or more accurately, when the episcleral tissue is attacked, the appearance is so characteristic that it cannot be mistaken for anything else. The pericorneal region of the sclera generally in a quarter or half its circumference becomes a pale, greyish-yellow colour, quite anaemic, and the slightly translucent and raised part looks like ivory. This infiltration has a tendency to spread, especially laterally, so as gradually to surround the whole cornea, but it also often encroaches on the cornea itself, which thereby becomes opaque in the affected region.

The anaesthetic form of leprosy has no such characteristic or specifically leprous appearance: the affection of the fifth nerve produces anaesthesia of the conjunctiva, and even of the cornea, and if the facial nerve is attacked, wholly or in part, lagophthalmos results, as well as all the consequences of the eye being unprotected from injury.

With regard to the treatment, there is no question about the possibility of giving great relief in individual cases by treating the various disturbances symptomatically. Suggestions could be given only under the existing circumstances, the patients not being under my own care. There seems to be hardly any doubt that the spread of the leprous infiltration can be retarded, if not arrested, in a certain direction by the creation of a barrier of cicatricial tissue, such as is produced by a corneal or pericorneal incision, for the purpose of arresting the tendency of an episcleral infiltration before it spreads into the cornea proper.

I am here giving my notes of the 39 cases, first as taken in 1901, and then in 1904.

I had no trial case of spectacle lenses at my disposal on either of my visits, and the vision was noted down in 1901 only when Dr. Saemundur Bjarnhjethinsson took it for me shortly after I had left Iceland. The notes he sent me are given in the last column of Table No. I. The patients are given in the same order as in the big Table No. I—namely, in the numerical order of the Hospital Register (column 1 of Table I), which is arranged according to the date of admission of the patient to the hospital. After the register number follow the initials of the patient's name, sex, age, and form of leprosy.

I kept to the numbers of the Hospital Register for identification, both because names are sometimes represented in duplicates or oftener; and, secondly, because any other publication about that hospital refers to the same numbers. Just after this paper was written, such a publication appeared in *Lepra, Bibliotheca Internationalis*, vol. v, Fasc. 3, p. 144, from the pen of my friend Dr. Bjarnhjethinsson, on some rare localizations of the nodular form. There are a good many of the patients described in that article whose ophthalmic condition is given here, among others a photograph of the back view of the head of No. 62. There is also a description of No. 84, given by printer's error as No. 74.

In 1901 I made attempts at taking some photographs in natural colours. The apparatus was, however, not in good working order, and the atmospheric and other conditions were so unfavourable that the results were practically *nil*. The length of time required by the exposure through the red colour filter was so great that no patient would have kept his head still enough for a sharp image to be procured, even if a proper head rest and a well-trained staff of assistants had been available. In 1904 an improvement in the apparatus and greater experience, with the ready help of my friend Mr. Mason, enabled me to obtain a few dozen successful exposures, of which some samples are reproduced and accompany this paper.

In Iceland, as in Norway, it is very difficult to procure pathological material for microscopic examination. I have however, been able to obtain four eyes in what appeared to be fairly good condition, and the result of my examination of these will be published in due course.

CASES SEEN BOTH IN 1901 AND 1904.

Case 8.—S. J., Female, 67. Lepra Anaesthetica.

July, 1901. Frontal muscle normal, also the corrugator. Skin of forehead normal, as well as growth of the hair. Lagophthalmos right and left, right more pronounced, both lower lids paralysed, right ectropion. On closing the eyes gently, owing to the lower lids being dragged down, there is a gap on the R. of 5 mm. and on the L. of 3 mm. Complete closing of the lids can just be effected with great effort. Eyebrows and cilia normal. Conjunctivitis of R. lower lid due to the ectropion, moderate amount of mucous secretion partly dried on upper cilia, lower canaliculus is slit. Iris: L. old iritis and synechiae. Lens capsule opaque, ophthalmoscopy impracticable. R. iris normal with exception of a white spot on the pupillary margin. Anaesthesia R., skin of forehead slightly affected, conjunctivae still less so, cornea normal, L. altogether normal.

August, 1904. R. lagophthalmos increased. R. lid when gently closed gapes about 7 mm., L. as before. R. eye does not close even when forced, and L. can barely be closed even with effort. Conjunctival catarrh almost disappeared. R. and L. corneae: Sensation practically normal, but in both infiltrations in lower quadrants. R. cornea in lower quadrant, horizontal white infiltration, partly ulcerating. Lens grey but still transparent, anterior chamber shallow, fundus normal. L. white infiltration in lower quadrant of cornea, not ulcerating. Anterior chamber deeper than R., pupil narrowed, adherent with white exudations. Lens opaque, fundus not accessible owing to narrowness of pupil.

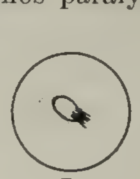
Case 10.—O. G., Male, 43. Lepra Anaesthetica.

July, 1901. Frontal muscle normal, also skin of forehead and hair. Conjunctivae slightly hyperaemic (possibly due to patient's occupation of stone breaking). L. large pinguecula inwards; eyes otherwise normal; vision normal. Patient affected principally with anaesthesia of both legs.

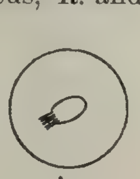
August, 1904. Legs better; hands beginning to be affected. Face: Muscles normal, sensitiveness of skin normal, except R. upper lid. R. and L. slight conjunctivitis, especially where the lids are open. Vision normal; hypermetropia R. and L.

Case 21.—O. E., Male, 53. Lepra Anaesthetica.

July, 1901. Bedridden; all frontal muscles paralysed, forehead smooth, no wrinkles. Hair normal, except extreme scantiness of lower cilia. Sensitiveness of forehead only slightly impaired, a little more so to the right of inner side of nose. Upper lids normal, lagophthalmos paralyticus, R. and L., 6 to 7 mm. R. and L. lower ectropion, lachrymation increased, moderate photophobia. Conjunctivae of lower lids inflamed, ocular conjunctiva almost normal. R. cornea with ulcerating cicatrices; L. cornea the same, especially in lower half. Iritic adhesions R. and L.; R. pupil narrow, obliquely oval, inwards and downwards a white exudation. L. pupil larger, also oval, and synechiae. Patient has used atropine up to two days ago. I suggested tarsorrhaphia, followed by iridectomy R. and L. later on.



R

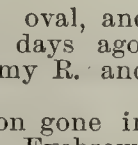


L

August, 1904. Worse in every respect; sensation gone in upper part of face; skin smooth and shining. Eyebrows normal, lashes defective in upper and almost absent in lower lids. Lagophthalmos R. and L., ectropion in both lower lids, R. complete, L. almost complete. Eyes gape about 9 mm. Lower half of corneae R. and L. ulcerated in both lower halves; vision reduced accordingly in R., and especially in L. eye. Bedridden. I advised tarsorrhaphia, as before. With atropine the L. pupil dilates irregularly, but becomes fairly wide; the right pupil remains narrower and is occluded by exudation. Vision R. fairly good, L. very bad. Ophthalmoscopic examination not borne.

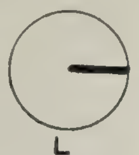
Case 27.—M. Th., Female, 44. Lepra Anaesthetica.

July, 1901. Frontal muscle and skin normal. Eyebrows very scanty; cilia fine, but otherwise not abnormal; lids close well; skin of the lids has lost all sensitiveness on the temporal half of upper lids, conjunctivae and corneae scarcely affected. Slight conjunctivitis R. and L. Cornea, R. outwards and downwards; old facets and maculae; L. normal. Iris, R. down and outwards, a small, narrow synechia, up and inwards a large broad one with capsular opacity underneath.



R

Lens: R., slightly opaque; L. a grey horizontal streak under the anterior capsule. Fundus, R. not quite clear, otherwise normal; L., small cone, disc not sharply defined in upper and lower circumference. During ophthalmoscopic examination, slight nystagmus.



August, 1904. Frontal muscles, L. slightly, and R. very much more affected, corrugator completely paralysed, eyebrows absent, cilia of both lower lids almost disappeared; right eye does not close, gaping 3 mm. in inner half. Sensation: R. greatly reduced towards temple; L. sensation reduced in left lower lid, also greatly reduced in both conjunctivae, especially inwards. R. owing to the lagophthalmos, cornea in lower half completely ulcerated, also iritis with posterior synechia; L. pupil reacts badly, cornea, etc., clear. Lens, R. eye with marked spokes; vision L. good, R. very bad. Open to treatment.

Case 28.—O. O., Female, 48. Lepra Anaesthetica.

July, 1901. Everything normal, cornea, iris, fundus, etc., only marked gerontoxon R. and L.

August, 1904. Skin of face and hair quite normal. Hair still almost black, lagophthalmos R. and L. lower lids, R. 9 mm., L. gaping 8 mm. when closed. Both lower lids filled with tears, both lower canals are slit, but ineffectively. Besides marked gerontoxon and marked reaction of pupil, shallowness of anterior chamber remarkable in both eyes. Beginning cataract R. and L. Everything else, including sensitiveness, normal.

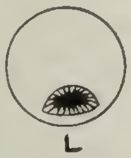
Case 31.—E. I., Male, 40. Lepra Anaesthetica.

July, 1901. Frontal muscles normal, as well as skin, only over the inner half of the eyebrows, slight erythema. Eyebrows very scanty, cilia very fine and blonde and not too plentiful. Conjunctivae hyperaemic, slight catarrh. Corneae normal R. and L., also sensation.

August, 1904. Frontal and corrugator muscles perfect, sensitiveness normal, no erythema of skin or over eyebrows. Eyebrows very thin, eyelashes of lower lids almost absent. Conjunctivae normal. Cornea, L. clear, except for arcus senilis, anterior chamber shallow, pupil quite narrow, completely occluded, iris of atrophied appearance, vision still fair. R. cornea clear, iris normal, except for vertical oval pupil. Fundus clear.

Case 33.—F. J., Female, 59. Lepra Anaesthetica.

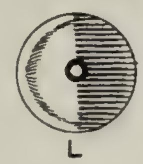
July, 1901. Both frontal and corrugator muscles weak, but still acting. Skin of forehead slightly erythematous; the glabella shows no furrows, muscles not acting in that part. L., lagophthalmos gaping 5 to 6 mm. Growth of hair normal throughout. Sensitiveness in face normal, also in lids. Conjunctival catarrh slight in R., more developed in L., where the conjunctiva of the drooping lower lid is very hypertrophic. L., beginning lower paralytic ectropion. Ocular conjunctiva, R. with marked venous hyperaemia, L. less marked. Cornea, L., superficial ulcer, spreading to pupillary area; centre of ulcer opaque, clearing up towards limbus; R. normal. Iris normal. Lagophthalmos should be treated immediately.



August, 1904. Frontal muscle movable in outer part only, corrugator completely immovable, glabella smooth and polished, sensation still maintained. L. eye lagophthalmos; the upper lid does not close, the lower lid trembles, gaping in inner half about 6 mm., where the lower lid is ectropionized. R. eye fairly normal. L. cornea: infiltration completely filling lower quadrant, fading towards limbus. With focal illumination cornea near centre shows slight opacities not visible by daylight. Pupil narrow; lens slightly obscured. L. lower canal has been slit; R. eye normal. Hair everywhere normal. Lagophthalmos should be treated.

Case 35.—I. J., Female, 41. Lepra Tuberosa.

July 1901. Frontal muscles acting, though badly. Skin of forehead atrophied and smooth, hair absent there. Skin of eyebrows cicatrized, superciliae missing. Both upper lids with nodular thickening of margins, especially R. outer half. Lower lids normal, cilia of upper lids almost absent, in lower lids scanty. Conjunctivae anaemic, increased lachrymation. Episclera R. upwards and outwards, slight leprous infiltration; L. upwards, outwards, and downwards leprous infiltration, which in outer quadrant is very dense, yellowish brown, and thick, and covers the cornea up to the inner margin of the pupil. R. cornea normal; L. clear only in inner lower quadrant, otherwise everywhere infiltrated; in the outer half the infiltration increases the nearer it approaches the episcleral infiltration. Even in the clear quadrant there is a ring-shaped opacity near to and parallel with the corneal margin. Iris: L. pupil very narrow, completely occluded, pupillary margin adhering, the pupil filled by a hard, white, central, polar cataract. Iris: R. pupil very narrow, but round, hardly dilates in the dark room at all. Fundus: R. as far as can be seen through the narrow pupil the lens is clear, fundus well recognizable, and normal. Vision good, reading easy. L. ophthalmoscopic examination impossible. I suggest L. keratotomy and iridectomy inwards.



August, 1904. Frontal and corrugator muscles still working, but very badly. Whole face without hair, except in L. upper and lower and R. upper lid, where a few straggling hairs are still to be seen. Whole face bluish-brown infiltrated, especially glabella, nose, and cheeks; bridge of nose sunk. Lids fairly normal in size, but margins of upper lids thickened, especially outwards. Lower lids almost normal. Conjunctivae anaemic, otherwise fairly normal. Episclera R., infiltrated, upwards, outwards, and inwards, also slightly downwards. Noticeable increase of infiltration since 1901.

Cornea: R. infiltrated everywhere except in lower quadrant (much worse than before). Iris: R. completely adherent all round, pupil contracted to a point, closed by grey exudations. Vision: R., only hand movements; L., leprous infiltration of episclera spread to cornea. The latter quite flat, lower and outer half opaque, quite white except inwards, and crescent-shaped downwards and upwards, leaving a semitransparent part, through which, with focal illumination, iris can be recognized as fairly normal. Pupil no longer visible. Vision of L. eye nil. I suggest iridectomy for R. eye, as still promising improvement.

Case 36.—K. E., Female, 49. Lepra Anaesthetica.

July, 1901. Skin of forehead almost hairless, supraciliary region erythematous; skin of forehead and lids have greatly-reduced sensitiveness, also conjunctiva of L. eye. Sensitiveness of R. conjunctiva normal, lids otherwise normal. Supercilia missing, and only few cilia left. Episclera R. and L. injected; cornea, R. a large opacity in outer and lower quadrant; L. a symmetrical opacity still more developed than in R. eye. The opacities in both corneae, of a white appearance, look rather due to an ulcer than to leprous infiltration. Iris, R. and L., with posterior synechiae. Pupil, very narrow, does not dilate. Vision poor, fundus cannot be recognized. Iridectomy R. and L. strongly advised.

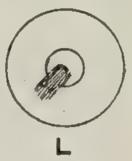
August, 1904. Skin of face quite hairless, except for a few odd lashes in left upper lid. Chin smooth and shining. R. eyebrow, nose, cheek, and upper lip covered with white scars; wrinkles all over forehead. Forehead and lids not sensitive; conjunctivae equally insensitive R. and L. Corneae, sensitiveness greatly reduced; both are covered with scars in lower half. R. pupil occluded, fairly narrow with grey exudation; L. pupil quite narrow, occluded with thick white exudation. Lagophthalmos, L. eye, in a very slight degree. Vision in R. eye poor, L. only quantitative. Iridectomy strongly advised.

Case 37.—V. E., Female, 43. Lepra Anaesthetica.

July, 1901. (This patient has now—November, 1904—two sisters and a brother in the hospital.)

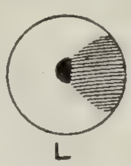
Frontal muscles and hair normal. Slight erythema of eyebrows. Sensitiveness of skin of lids reduced R. and L., of conjunctivae, L. only. Both corneae normal; iris, R. normal; L., old synechia. L. fundus veiled, R. normal as far as can be seen. For the L. I advised iridectomy if necessary, after atropine.

August, 1904. Frontal muscle in order, corrugator defective. Eyebrows covered with thin lanugo. Lashes normal; skin of eyebrows of normal appearance. Sensitiveness of skin of lids reduced. Conjunctivae: R. fairly normal, L. inflamed outwards. In both eyes large pingueculae inwards and outwards, filling the opening of the lids, reminding in colour of leprous episcleral infiltration. L. iris adherent posteriorly; R. pupil also adherent in inner quadrant. Vision good. Since 1901 anaesthesia has increased in arms and leg; left leg amputated.

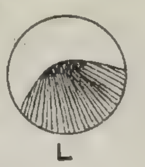


Case 39.—S. B., Female, 42. Lepra Tuberosa.

July, 1901. Frontal muscle moves freely, corrugator with difficulty. Skin of forehead and glabella wrinkled, smooth only over the nose. No leprous infiltration, only two groups of acne. Hair very fine lanugo, eyebrows flat cicatrices, no supercilia, R. upper eyebrow has cicatricial ectropion in outer half, the ectropionized conjunctiva covered with scabs. R. lower lid closes fairly well. R. conjunctiva slightly inflamed, R. eyeball atrophied. L. eyelids similar to R., but in a lesser degree, lower lid almost normal. Cilia absent. L. a shallow episcleral infiltration downwards, surrounded by dense conjunctival injection. L. cornea already clouded all over, in the outer quadrant quite opaque. Pupil free. Vision, hand movements only. Iridectomy strongly advised.



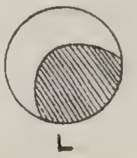
August, 1904. Frontal muscle almost completely immovable, corrugator totally so. Skin of forehead and glabella smooth, no wrinkles. Over root of nose acne-like red pimples, scars due to old burns running from root to middle of nose and at right angles from one cheek to the other across the nose. Face completely devoid of hair. R. eye same as before, eyeball atrophied, cornea disappeared except for a small spot of greenish colour, 4 mm. in diameter. R. upper conjunctiva ectropionized upwards and outwards, and covered with dried secretion. L. upper lid similar to R.; a few eyelashes remain in margin of upper lid. Upper lids do not close, owing to scar contractions. L. conjunctiva fairly normal, L. cornea transparent in upper and inner half outwards and downwards, a



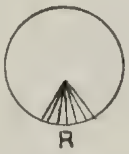
white, leprous infiltration, raised, and yellowish towards periphery. Iris almost in contact with cornea, pupil visible only from inwards and upwards. Iris, as far as visible, of normal appearance. Vision quantitative. Laryngotomy was performed three years ago. Iridectomy probably useless now.

Case 44.—Th. E., Female, 32. Lepra Tuberosa.

July, 1901. Frontal muscle normal, corrugator cannot be moved. Skin of forehead slightly erythematous, very fine lanugo. Skin of eyebrows, glabella lids, and root of nose thickened and oedematous. Nose sunk in. From eyebrows downwards the whole face is crimson. Supercilia missing, upper lids thickened at margin, lower lids normal. Cilia absent, with the exception of a few fine blonde hairs growing in a wrong direction in right upper lid, causing irritation. Catarrhal conjunctivitis with strong lachrymation. L. worse than R. R. cornea downwards, a wedge-shaped opacity. L. eyeball atrophied, cornea shrunk five years ago. The disease commenced ten years ago. Iris R. shows narrow pupil completely adherent. lens appears grey. Fundus veiled, not well recognizable. Iridectomy should be performed at once.



August, 1904. Frontal muscle acts well, corrugator not at all. Skin of forehead smooth, eyebrows and lashes absent. In the face only the finest lanugo present. Forehead, eyebrows, lids, nose, both cheeks and upper lip strongly erythematous and oedematous. L. eye nearly closed with swelling, bridge of nose completely sunk in. Tuberosities have disappeared, anaesthesia increased, especially in glabella, but also in eyelids. R. eye: Fairly normal, various opacities in cornea, pupil narrow occluded by exudation; lower trichiasis of the few remaining lashes; fundus not visible; vision fairly good. Left eye: Cornea quite atrophied and flattened, white in centre, iris still visible in contact with cornea; vision *nil*. Iridectomy strongly advised for R. eye.



Case 47.—S. Z., Male, 47. Lepra Tuberosa.

July, 1901. Frontal muscle free, also corrugator. On forehead a few purple-brown nodules. Lower lip and hands very much disfigured by similar nodules. Supercilia and cilia disappeared or reduced to one each; eyebrows R. and L. with strong nodular infiltrations covered with crusts, especially L. Upper lids R. and L. thickly infiltrated with nodules, the R. upper lid in the centre particularly affected by a nodule protruding 1 cm., covered with crusts. Both lower lids fairly normal. R. eyeball: buphthalmic ectasia, cornea opaque, tension + 2. L. eyeball: atrophied, cornea flattened, degenerated. Conjunctivae anaemic, otherwise normal. L. eye tension — 1.

August, 1904. Very much worse. Lips enormously swollen, ulcerating; other parts of the face the same. Totally blind, examination not possible.

Case 49.—A. J., Male 43. Lepra Tuberosa.

July, 1901. Facies leonina. Skin of face yellowish-brown, tingeing to violet. Frontal muscles still movable in spite of enormous infiltration. Skin of forehead hairless, covered with nodules, divided by deep furrows, the same with skin of eyebrows. Hairless. Skin of both upper lids beset with thick nodules, lower lid, L., shows beginning infiltration in outer half. Cilia missing, conjunctivae anaemic. R. episclera shows upwards and inwards beginning shallow, yellow infiltration. The whole sclera R. and L. yellow (icteric); in L. eye outwards episcleric infiltration. Corneae, R. and L., a broad crescent in upper half of fine white dots and patches; in lower half only fine nebula. Pupil in both eyes moving with difficulty, R. narrow, L. narrower still. Fundus cannot be recognized in L. eye; in R. eye chorioditic patches, to be seen with difficulty. Atropine advised, then iridectomy, especially for L. eye.

August, 1904. Face no longer shows leonine appearance, covered with crusts of broken-down nodules; colour, yellowish brownish blue. Frontal muscles act well, and are hampered only by scars and nodules; lids thickened with nodules in middle of upper margin, L. ulcerated. L. cornea covered with thick yellow infiltrations except in inner quadrant. Anterior chamber shallow in both eyes. Episclerae infiltrated throughout; worst in outer part of L. eye. R. cornea fairly transparent in centre and inwards. Vision: R. fairly good; L. very bad. Laryngotomy was performed about a year ago. Dark room examination impossible.

Case 51.—Th. H., Male, 13. Lepra Anaesthetica.

July, 1901. Frontal muscles and skin normal; also growth of hair. Eyebrows thin in outer half. Lids, conjunctivae, cornea, and irides of both eyes normal; sensibility normal.

August, 1904. Everything normal in face and eyes.

Case 52.—S. K. P., Male, 15. Lepra Anaesthetica.

July, 1901. Only R. frontal muscle sound, L. acts feebly, the corrugator not at all. L. facial nerve paralysed, hair normal, slight erythema over L. eyebrow. Sensation of L. side of forehead, and lids reduced; R. normal. Skin of lids and conjunctivae normal, L. lagophthalmos gaping 6 to 8 mm. Corneae and irides normal; L. aqueous, not so clear as R. Fundus: L. slightly veiled, otherwise normal; R. normal.

August, 1904. R. frontal muscle impaired in action, L. almost completely paralysed. L. facial nerve paralysed; hair normal. Both eyebrows slightly erythematous; sensibility fairly normal; lagophthalmos same as before. L. conjunctiva congested and full of tears owing to paralytic lagophthalmos. Left lower canaliculus has been slit, but without effect. L. cornea with thin superficial opacities outwards and downwards in the exposed part. Iris normal; hypermetropia in both eyes.

Case 55.—F. A., Male, 24. Lepra Tuberosa.

July, 1901. Skin of forehead smooth and hairless, partly marked with thick scars. Hyperaesthetic. Cilia and supercilia missing, lids thickened. Both eyeballs form a completely degenerated brownish-violet mass, with strong venous conjunctival hyperaemia. Conjunctivae and sclerae have quite lost their natural appearances. Eyes very prominent, corneae flattened, scarcely to be recognized as such by the blood vessels, which form thick marginal loops there. R. and L. eyes quite alike, painful to the touch. I suggest enucleation to relieve the pain.

August, 1904. Face hairless except a few lashes and a few hairs on upper lip and chin. Skin covered with fine wrinkles, mealy. Both eyes atrophied; totally blind.

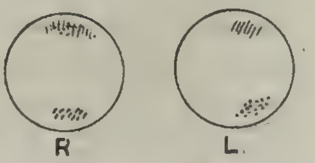
Case 58.—J. Th., Male, 32. Lepra Tuberosa.

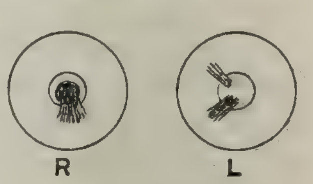
July, 1901. Frontal muscles acting well in spite of large nodular infiltrations. Skin of forehead light yellowish-brown with nodules. Hair almost completely absent from forehead, eyebrows and lids. Sensibility normal. Face covered with nodules. L. upper lid has two superficial flat nodules in the middle, margin of R. upper lid moderately thickened, lower lids nearly normal. Conjunctivae anaemic. Slight episcleral infiltration, R. inwards, L. upwards. Cornea, R. slight opacity inwards, L. at upper margin. Iris, both pupils slightly distorted, otherwise no changes visible. Sight has been bad since childhood.

August, 1904. Frontal and corrugator muscles act well, though hampered by nodules. Whole face covered with nodules, which are smaller than before. Upper lids covered with thick nodules, R. ulcerated, L. episclera in outer half, completely covered with yellow infiltration, in a lesser degree up and downwards; more again inwards. Cornea, L. and outer half, white infiltrations, also a crescent inwards. Pupil oblique oval, R. pupil vertical oval. Both corneae clearer in inner than outer halves, although even in inner halves white spots are plentiful. Posterior synechia in both eyes. Lens in R. eye transparent, except for some iritic deposits. Vision, R. fairly good, L. bad, although episcleral infiltration in L. eye is less advanced than in R. eye. Fundus in neither eye easily recognizable without dilatation of pupil.

Case 60.—Th. Th., Female, 48. Lepra Tuberosa.

July, 1901.—Skin of face bronze-coloured. R. frontal muscle acting, L. not at all. Skin of forehead wrinkled on the R. and L. Corrugator acting. Forehead and glabella infiltrated, void of hair. Eyebrows beset with nodules throughout; these are flat. Supercilia almost missing, only present in inner lower corners. Margins of both upper lids thickened; lower lids normal. Cilia absent in middle of R. upper lid, where nodular infiltration is thickest. Conjunctivae sound. Episcleritis in upper quadrant shows light, yellowish infiltration, spreading flat into R. and L. corneae. Cornea: R., downwards a small group of fine brown deposits on Descemet's membrane; outwards a white deposit; upwards, superficial diffuse opacities. L., downwards same as R., but broader; upper half covered with superficial streaky and spotty opacities. Iris: R., a brown synechia downwards, button-shaped, occupying almost the whole area of the narrow pupil; pupil reacts to light. L., two brown synechiae inwards upwards and inwards downwards; lens transparent as far as visible; optic discs normal R. and L. Iridectomy advised for later on for both eyes.





August, 1904. Face brownish-purple in colour, nodules in face much flatter; only R. frontal muscle movable, corrugator the same. Lids infiltrated, especially in outer half of upper lids, episclera very anaemic, also conjunctivae. Episcleral lepromata, especially upwards and outwards in both eyes. R. cornea completely white and opaque; L. cornea covered with a white infiltration, quite opaque in the outer, but still transparent in the inner half, showing pupil there nearly closed and forming a narrow horizontal slit. Vision: R., hand movements only; L., fingers at 3 yards. Iridectomy should be performed in the L. eye inwards.

Case 62.—S. S., Male, 35. Lepra Tuberosa.

July, 1901. Use of frontal muscles greatly hindered by strong nodular infiltration on forehead. Skin bluish-brown. Large nodules on eyebrows, inner half symmetrically covered with crusts. R. and L. supercilia absent. Lids freely movable, margin of both upper lids thickened with nodules. L. lower lid beginning to be affected. Sensibility disturbed at the inner end of L. eyebrow and at root of nose. Lashes absent. Conjunctivae markedly anaemic; R. otherwise normal. L. episclera outward and downward taken up by thick infiltration, which encroaches on cornea far beyond the pupil and covers it. This infiltration is flat, very vascular, and of a yellowish-brown. Dr. Saemundur reports that this was, a year ago, a large prominent nodule that has flattened spontaneously. R. cornea normal. Keratotomy strongly recommended, to be followed by iridectomy upwards and inwards.

August, 1904. Frontal muscles free as far as nodules will admit of; face everywhere badly infiltrated excepting lower lids. Eyebrows and lashes absent, except a few in R. upper and lower lid. L. conjunctiva yellow, L. cornea totally covered by yellow infiltration, leaving free only a very narrow crescent of corneal tissue. Vision nil. R. eye of normal appearance; cornea clear, with only slight haze on surface of lower inner half; anterior chamber very shallow. Pupil obliquely oval from out and down, to up and inwards.

Case 65.—R. O., Female, 47. Lepra Tuberosa.

July, 1901. Frontal muscles sound, skin erythematous, glabella slightly infiltrated. Skin of both eyebrows full of nodules, red, easily cyanotic. Hair of eyebrows fallen out, replaced by fine lanugo. Margins of both upper lids attacked by nodules, especially in outer half; those of lower lids also slightly infiltrated. Cilia thin, conjunctivae hyperaemic. Episcleritis: L., a broad infiltration of a dirty yellowish-red colour that surrounds the cornea, except on the inner quadrant. In the outer quadrant it overhangs the cornea in the shape of a thick fold. R. episcleral infiltration almost completely surrounds cornea, overhanging it in the outer quadrant. Cornea in R. and L. in the upper part shows thin opacities except the corneal margin, which is densely infiltrated from the episclera. Irides normal, also lens and fundus.

August, 1904. The whole face cyanotic and anaemic. Frontal muscle acts well, action of corrugator hindered by the nodules. Glabella and eyebrows strongly infiltrated with nodules, congested, but mainly cyanotic; likewise the nose. L. upper lid more affected than before, and more than R. now; margins of both lower lids slightly thickened, especially towards outer angle. Eyebrows and lashes disappeared. Conjunctivae anaemic. Episclera, R. and L., yellowish-brown infiltration of before still pronounced. In upper outer quadrants both corneae affected and attacked by the scleral leproma. Iris, etc., normal.

Case 66.—H. G., Male, 37. Lepra Tuberosa.

July, 1901. Frontal muscles acting, skin of forehead infiltrated with flat nodules, violet-brown in colour, cyanotic. Skin of eyebrows also with flat infiltrations, partly cicatrized. Supercilia and cilia almost completely absent. Sensation normal. Upper lids infiltrated, L. upper lid partly ulcerated, lower lids only slightly affected. Conjunctivae very anaemic. Both corneae very much clouded, with white points and thin opacities. Episclera somewhat suspicious, iris as far as can be recognized normal. Pupil free. Fundus not well definable, R. better than L. Optical iridectomy proposed for R. eye.

August, 1904. Nodules almost all broken down and cicatrized. Iritis on both sides. Corneae almost opaque throughout R. and L. R. eye in outer margin, L. eye in upper inner quadrant; iridectomy might still be efficient. Patient often complains of severe pain in eyeballs and temples.

Case 68.—G. R., Female, 42. Lepra Anaesthetica.

July, 1901. Frontal and corrugator muscles still acting slightly, skin of forehead shows over the inner end of both eyebrows a symmetrical erythema of a diffuse pink, disappearing under the pressure of a finger, afterwards becoming redder. Patient not anaemic and skin of normal appearance, no lagophthalmos. Supercilia only present on inner third, and scanty there. Cilia R. and L. in upper lids fine, in lower finer still. Skin of outer half of R. lower lid has greatly reduced sensation and the opening of the lid is a little larger than L. Accordingly, the R. ocular conjunctiva has reduced sensibility outwards and downwards. Fundus R. and L. normal, during examination, slight horizontal nystagmus becomes apparent.

August, 1904. Erythema over eyebrows much less noticeable. Cilia of lower lids nearly disappeared; sensitiveness improved in the face. Nystagmus disappeared. R. cornea clear; pupil not round but movable; R. wider than L.; pupil partly adherent, does not react well to light. Left cornea and pupil the same as R.

Case 69.—G. S., Male, 54. Lepra Anaesthetica.

July, 1901. Bedridden, strong photophobia. Moves neither frontal nor corrugator muscles. Sensibility impaired in forehead, eyebrows, lids, preserved only at root of nose. Skin of forehead smooth, no furrow nor erythema. Supercilia scanty in outer half, otherwise normal. Skin of upper lids thickened. Paralytic lagophthalmos R. and L., R. gapes 10 to 12 mm. L. ankyloblepharon, R. upper lid advanced trichiasis from slight entropion; R. lower lid drooping, paralyzed. Conjunctiva, R. catarrhal. R. cornea, lower half occupied by scar of an old ulcer, pupil visible only in upper half, where cornea remains still transparent. Iris, as far as can be seen, of normal appearance. (Patient could not be ophthalmoscoped.) L. conjunctiva xerotic, lower lid altogether ankylosed. Cilia of both lower lids absent, except a few in outer half. Conjunctiva in upper part very hyperaemic; cornea, opening of eye covered with yellow dried-up crusts; upper part of cornea still translucent, marked trichiasis in upper lid, and slight entropion. I suggest R. tarsorrhaphia, afterwards iridectomy.

August, 1904. Sensitiveness of forehead and glabella reduced. Frontal and corrugator muscles paralysed. Both eyes xerotic. Lower half of eyes completely ankylosed with lower lids; upper conjunctival sacs still preserved. Both sides marked trichiasis. Left cornea opaque, except in upper quadrant, where it is still translucent. R. similar, but not quite so bad. Vision: L., quantitative; R., hand movements. I advise R. iridectomy and plastic operation.

Case 72.—E. E., Male, 33. Lepra Tuberosa.

July, 1901. Anaemic, cyanotic. Frontal muscles acting, skin of forehead slightly infiltrated, especially over eyebrows, with flat nodules. Supercilia missing, only traces of lanugo and cilia. Skin of lids normal, but margin of upper lids thickened in outer halves. Lower lids normal. Conjunctivae of lower lids anaemic, yellow; episclera normal. Cornea, R. upper half covered with fine spots and streaks of opacity. Iris normal, optic discs inwards and upwards blurred.

August, 1904. Muscles acting, nodules on eyebrows, supercilia and cilia absent. Nodules on L. upper lid in centre and outwards greater than in R. eye. Conjunctivae anaemic. R. pupil horizontal oval, otherwise everything normal. Vision good.

Case 74.—G. J., Female, 55. Lepra Anaesthetica.

July, 1901. Everything normal except hands. Presbyopia.

August, 1904. Both corneae normal except for marked gerontoxon. Pupils react badly to light and are not quite round. Lenses grey though transparent. All ten fingers missing.

Case 83.—S. G., Male, 15. Lepra Anaesthetica.

July, 1901. Frontal skin and muscles normal, also hair. Eyes quite normal.

August, 1904. Patient had been sent away as cured previous to this date.

Case 84.—J. N., Male, 27. Lepra Tuberosa.

July, 1901. Frontal skin yellowish-brown; scarcely a trace of lanugo. Eyebrows with thick nodular infiltration. Skin of forehead only diffusely infiltrated. Frontal muscle acting. Supercilia absent; cilia, only a few in lower lids. Sensibility normal. Skin of upper lids thickened in outer part of margin. Lower lids normal. Conjunctivae of upper lids normal, of lower lids strongly hyperaemic. Episclera, R. and L., in upper part, slight yellow infiltration. Cornea, R. and L., thin shallow opacities in upper quadrants. Iris normal; fundus, R. normal; L., outer margin of disc with choroiditic changes.

August, 1904. Face bronze blue. Eyebrows, nose, cheeks, lips, chin, and left ear covered with thick nodules. Head bald in patches. Oedema of root of nose, partly covering eyes inwards. Eyebrows with ulcerating nodules. Conjunctivae, R. and L. slightly congested. Corneae: L., very thin opacities upwards, otherwise normal; R., opacity upwards much thicker than L. Iris, R. quite clear, showing structure remarkably well. Pupil, both R. and L., of medium width, not round, but vertically oval.

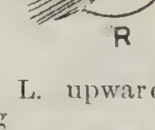
Case 85.—J. J., Male, 31. Lepra Anaesthetica.

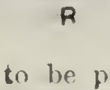
July, 1901. Frontal muscles normal, skin erythematous, sensibility normal, hair remarkably plentiful. Skin of lids, conjunctivae, cornea, iris and fundus quite normal.

August, 1904. L. eye slight conjunctivitis; R. eye removed two and a half years ago owing to accident with gunshot.

Case 86. E. J., Male, 36. Lepra Tuberosa.

July, 1901. Skin of forehead brown-purple, muscles normal. Infiltration in forehead and eyebrows. R. eyebrow covered with crusts. Hair missing on forehead, almost completely in R. eyebrow, in L. scanty and degenerated. Sensibility normal. Margins of all four lids infiltrated. Conjunctivae anaemic, no catarrh. Episclera R. upward and inwards slightly infiltrated; outwards a thick yellowish brown, vascular infiltration occupying whole outer corneal quadrant. Episclera L. upwards inwards and outwards infiltrated and encroaching on cornea. Cornea R. otherwise clear, except where shown in diagram; L. cornea clouded upwards. Iris R. a mushroom-shaped synechia, pupil narrow. L. pupil vertically distorted. L. aqueous dull, fundus both R. and L. indistinct. I suggest R. iridectomy after the use of atropine, also keratotomy.

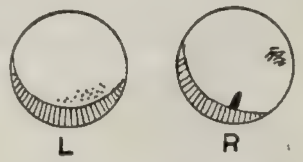


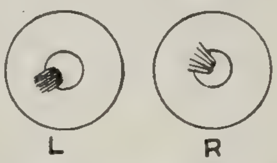


August, 1904. Two years ago tracheotomy had to be performed. Nodules of face reduced, face partly covered with scabs. Frontal muscles normal. Thick nodules on upper eyelids, specially centre of margins. L. eye episcleral leproma outwards and inwards, the outside one growing into cornea, and obscuring outer half. R. eye symmetrically affected, only worse. Old iritis in both eyes. Vision: Scarcely sees fingers at distance of 1 ft. Dark room examination not possible. Iridectomy perhaps still beneficial.

Case 87.—K. F., Female, 45. Lepra Tuberosa.

July, 1901. Glabella occupied by flat infiltrations of yellow colour. The whole face cyanotic. Supercilia R., a few still remaining inwards and outwards; L., only some lanugo remaining. Some old flat infiltrations on skin of forehead. Margins of R. lids thickened, especially outer half of upper lid; cilia missing in centre of upper lid; outward and inward, irregular, growing in bundles. Margins of L. upper and lower lids also thickened with nodules, not quite as bad as R. Cilia also slightly better preserved than in R. eye. Conjunctiva of R. lid hyperaemic; L. not quite so much so. L. ocular conjunctiva with marked venous stasis of the posterior conjunctival vessels, especially downwards and outwards. L. cornea slightly crowded throughout with fine spots and streaks, especially noticeable in lower quadrant, a group of round, white spots the size of a pin's head. The whole lower half of the corneal margin shows a yellowish-grey infiltration that looks like a new growth in the iris angle. R. cornea clearer than L., in inner quadrant a superficial macula; in lower quadrant a small white spot from which an infiltration similar to that of the L. eye invades the margin. L. iris shows old synechia; pupil narrow, not dilated by atropine. A brown synechia stretches to centre of pupil. Ophthalmoscopic examination impossible. R. also shows signs of old iritis, upwards and outwards, pupillary margin adhering with brown pigment. The lenses show a number of small white spots. R. fundus slightly veiled, otherwise normal.





August, 1904. Much worse than before. Eyebrows disappeared; scaly yellow infiltrations on skin of eyebrows. R. upper lid infiltrated with thick yellow leproma, also large nodule above margin. Lower lid R. slightly thickened, L. the same. Lashes retained only in L. upper lid.

R. cornea almost completely obscured by white infiltrations; free only downwards and inwards. Anterior chamber deep, iris recognizable, also pupil, which is very narrow, completely adherent and closed by grey exudation. Tears overflow easily, especially noticeable when taking photos in the open.

L. eyeball slightly atrophic; L. cornea shrunk after perforation, is now flat, and covered with thick leucoma. Iris scarcely visible in that eye. Patient in very much worse condition than before, laryngotomy became necessary a year ago. Iridectomy strongly advisable.

Case 88.—A. Th., Female, 59. Lepra Anaesthetica.

July, 1901. Frontal muscles normal, skin of forehead erythematous over eyebrows. Hair normal, a little thin on outer corner of L. lower lid. Slight lagophthalmos R. and L.; R. beginning ectropion with strong lachrymation, L. lower lid blepharitic in outer half. Conjunctivae of both lower lids hyperaemic, thickened, and hyperaesthetic, also conjunctivitis of both upper lids. Cornea and iris normal R. and L. Fundus R. and L. small conus outwards.

August, 1904. Corrugator muscle impaired. Slight erythema over eyebrows. L. lower lid slightly ectropionized; conjunctivae inflamed in both eyes. Increased sensitiveness to light probably due to this. Corneae normal, both pupils oval.

Case 90.—R. S., Female, 39. Lepra Tuberosa.

July, 1901. Frontal muscles acting, but hindered by infiltration. Face yellowish-brown. Forehead and glabella studded with large, broad, raised nodules; hair of forehead absent, also lanugo. In skin of eyebrows, large nodules, yellowish-brown. Supercilia absent, except for a few at inner angles. The middle of the margins of both upper lids occupied by thick nodules, cilia absent there. Otherwise margin of both upper lids fairly normal; lower lids normal. Conjunctivae very anaemic. Episclera normal R. and L. pinguecula. Cornea and iris normal. Vision good.

August, 1904. R. inner canthus, large episcleral infiltration of both eyes. Cornea, R. and L. quite clear. The tuberculous infiltration of face and lids very much worse than before. Patient died four weeks after this examination.

Case 91.—A. A., Male, 65. Lepra Anaesthetica.

July, 1901. Frontal muscles normal, skin normal, also hair. Lower lashes very fine and almost colourless. Skin above eyebrows slightly erythematous, skin of eyebrows yellow. Supercilia almost completely gone, sensibility, cornea, conjunctiva, iris, fundus, normal.

August, 1904. No change in face, everything normal but conjunctivitis. One toe has been amputated.

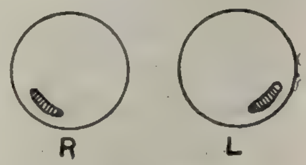
Case 92.—Th. H., Male, 20. Lepra Anaesthetica.

July, 1901. Muscles of face normal. Skin of forehead and glabella slightly erythematous. Hair normal, also sensibility, conjunctivae, corneae and iris. R. disc in upper portion of margin a little indistinct, retinal veins very wide. Vision good.

August, 1904. Patient ran away shortly before this visit.

Case 93.—K. G., Female, 45. Lepra Anaesthetica.

July, 1901. Frontal muscle slightly affected, corrugator weak. Skin of forehead normal, also hair. Anaesthesia of skin cannot be ascertained, owing to insufficient answers of patient. R. and L. paralytic lagophthalmos, which gapes R. 3 mm., L. 6 mm. Ectropion of inner half of lower lid, L. more developed than R. Conjunctival catarrh in lower part of both eyes with accumulation of secretion, especially R. Cornea in lower outer quadrant near margin has a white scar. In L., also symmetrically situated, iris free, fundus normal.



EXPLANATION OF SPECIAL COLOUR PLATE.

The plate accompanying this paper is a mechanical "process" reproduction of photographs taken in natural colours. A short account of natural colour photography is given on p. 29 of this issue.

The six portraits given here, three male and three female, have been chosen from a large number taken, and for the purpose of demonstration preference is given to the tuberous form. The descriptions given here are copied from my notes.

No. 109.—Th. Th. S., male, aged 32. Lepra Tuberosa.

August, 1904. Forehead covered with brown patches, fresh nodules, and old bluish-white scars. Eyebrows likewise. Nose, cheeks, and lips with fresh nodules. Eyebrows almost hairless: upper lids L. thickened and infiltrated with nodules; L. eyebrow in outer half overhanging oedematous upper lid, which is generally half closed. In the inner and lower part of L. episclera, a large brownish leproma encroaching upon cornea. This has large veins and a number of small round yellow deposits under epithelium. Pupil forms a fairly-wide vertical oval, reaching far downwards like natural coloboma. R. eye inwards a small brown, outwards a large yellow episcleral leproma; R. posterior synechia downwards, lens not quite transparent. Fundus apparently normal. L. two very broad posterior synechiae, partly giving way under atropine during the time of my visit. White deposits on lens capsule. Examination difficult. The attack of iritis set in only recently. (See also *Lepra*, v, 3, p. 157.)

No. 122.—S. J., male, aged 37. Lepra Tuberosa.

This is typical *facies leonina*, bed-ridden, whole face pale slaty-brown, very anaemic. Thick nodules all over face. Eyebrows overhanging, a big scar on glabella. Margins of upper lids beginning to thicken in outer half. Pupils quite narrow. The whole eye gives the impression of an artificial ivory eye. Marked gerontoxon downwards R. and L., upper limbus also opaque, looks suspiciously like leproma. Eyebrows hairless, cilia scanty, especially in upper lids. Horizontal nystagmus. Vision has never been good, pupils too narrow to admit of ophthalmoscopic examination.

No. 62.—S. S., male, aged 37. Lepra Tuberosa.

The description of this case is given above, both for 1901 and 1904. This patient kept particularly still; his photograph therefore came out very well. A full-face photograph of the same patient (not reproduced here) came out equally well.

No. 8.—S. J., aged 67, female. Lepra Anaesthetica.

Description given in text above. The photograph shows the right lagophthalmos (facial paralysis) very well. I have other photographs of the same patient, in which both hands are shown, with mutilated fingers.

No. 116.—G. S. F., female, aged 69. Lepra Tuberosa.

August, 1904. Large nodules on forehead, especially overhanging bags in outer half of eyebrows. Margin of upper lids with thick infiltrations. Conjunctivae of lids yellow and congested. Ocular conjunctiva yellow and anaemic, especially in R. eye. Beginning leproma all round cornea in R. eye; inwards and outwards in L. eye. Cornea and media clear. R. iris not as clear as L., owing to iritis four months ago. R. pupil horizontally oval; L. pupil normal. Frontal muscles acting; presbyopic; requires glasses for reading.

No. 35.—I. J., female, aged 41. Lepra Tuberosa.

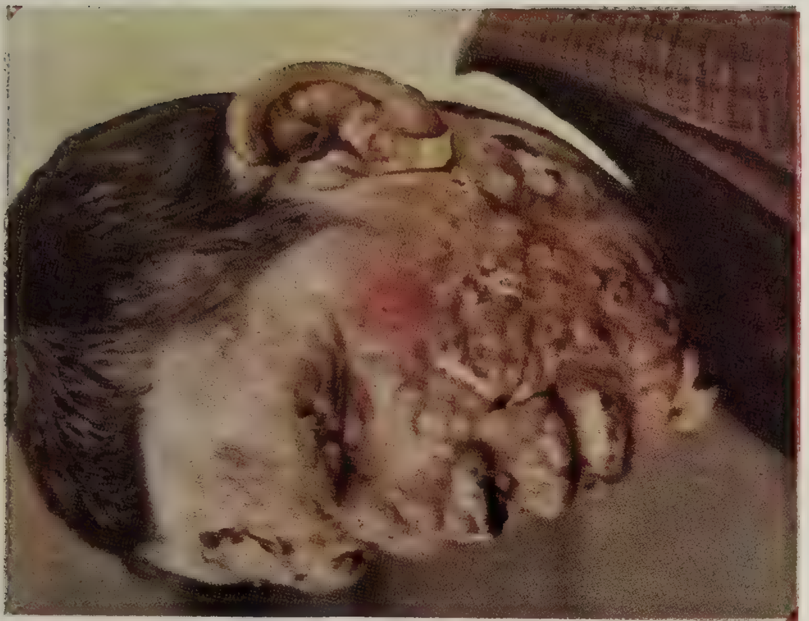
Description given in text for 1901 and 1904. (See also *Lepra*, v, 3, p. 150.)

August, 1904. Corrugator muscle very weak, action much reduced. Sensation in upper part of face quite absent to light touch. Lagophthalmos, R. 7 mm., L. 6 mm. Ectropion of R. lower lid increased in inner half, L. beginning inside. Catarrh of both eyes greatly improved as compared with before. Cornea shows raised infiltrations, not ulcerating. R. pupil much wider than L. Neither quite regularly round; reaction to light very poor. Fundus barely recognizable, as patient is highly sensitive and hysterical, and constantly rolls her eyes up.

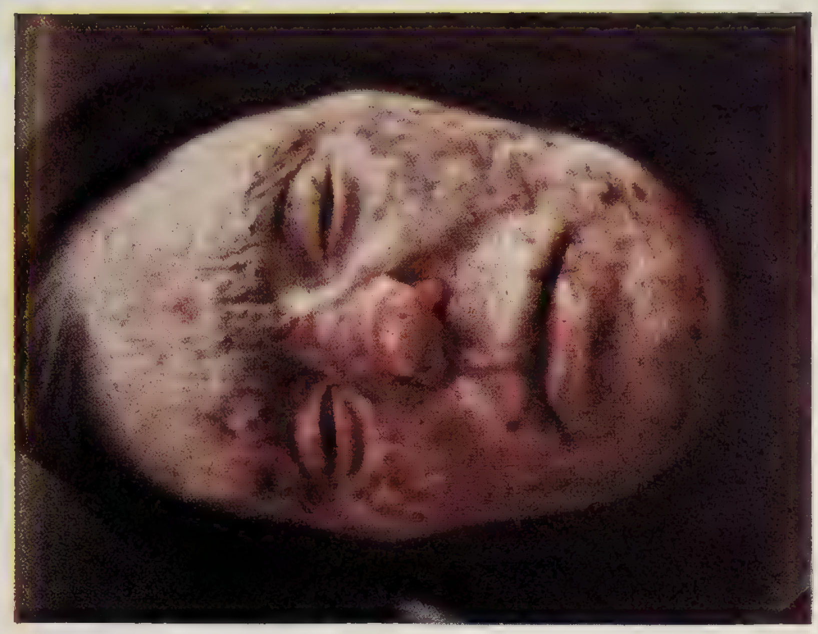
Case 94.—J. J., Male, 30. Lepra Tuberosa.

July, 1901. Frontal muscle acting, but not well under control; corrugator normal. Forehead with nodular infiltrations, glabella almost free. Eyebrows covered with very thick nodules. Hair normal, only supercilia; R. in the centre, L., towards temple, absent. Margins of both upper lids thickened, R. and L. nodules in centre, where cilia are

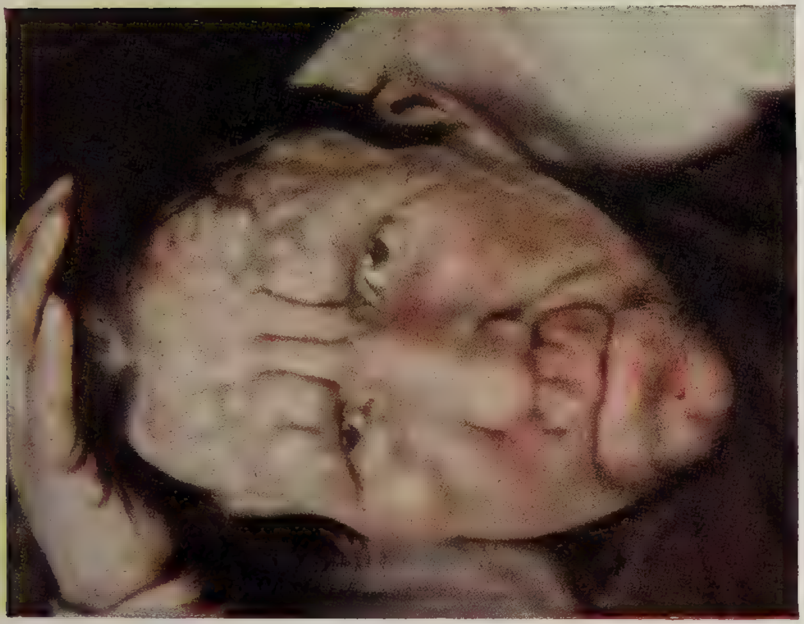
TO ILLUSTRATE DR. GROSSMANN'S PAPER ON LEPRA OPHTHALMICA.



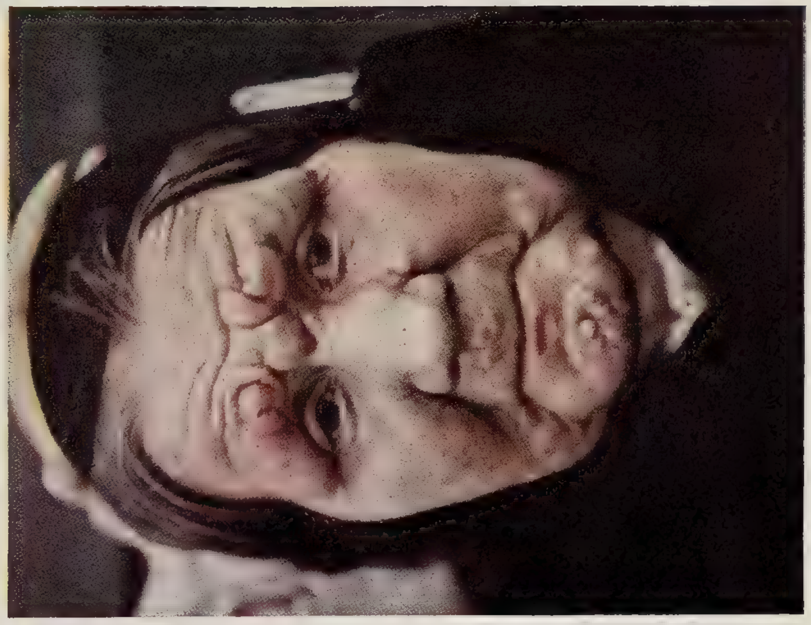
No. 62



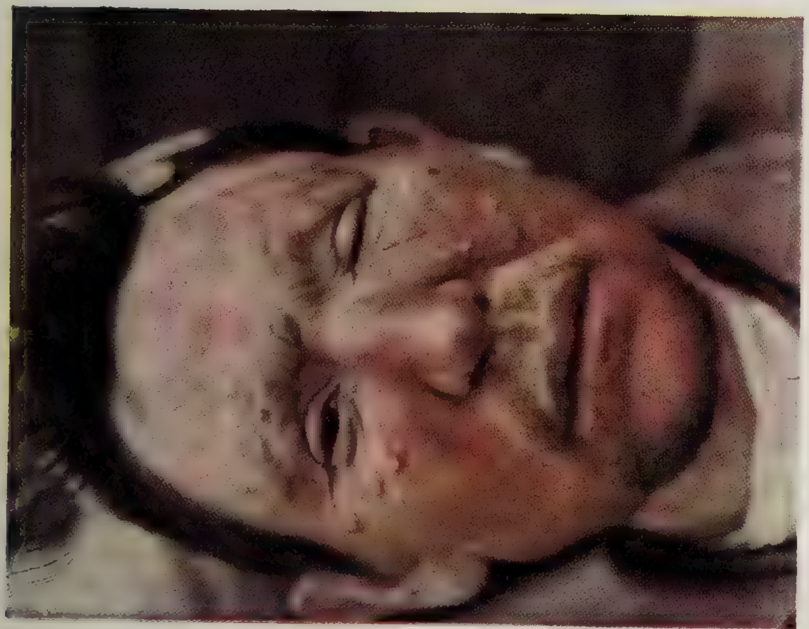
No. 35



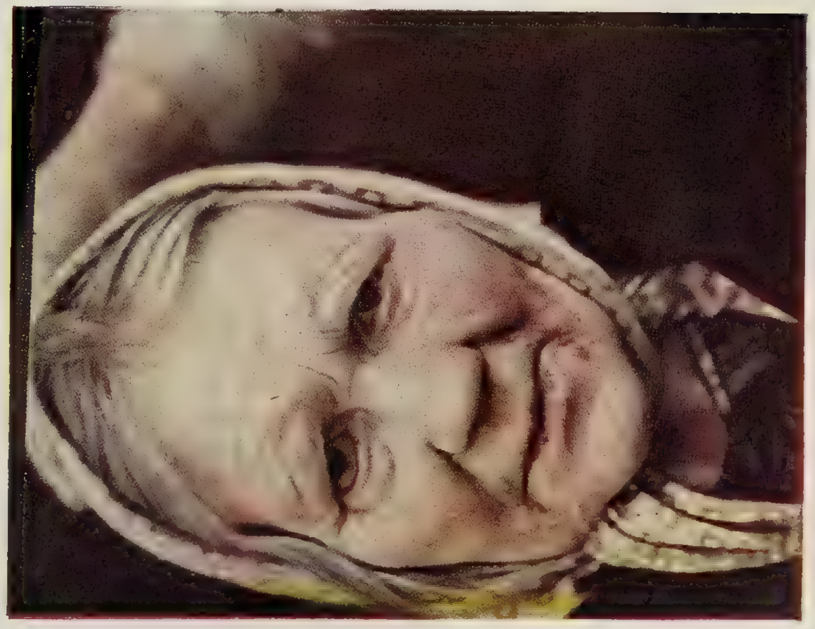
No. 122



No. 116



No. 109



No. 8

[FROM COLOUR PHOTOGRAPHS BY THE AUTHOR.]

TABLE I.

Patients seen in 1901 only.

Number of Hospital Register.	Sex.	Age.	Form of Leprosy.	Eye Affected.		Adnexa Affected.		Beginning of Disease.	Admission to Hospital.	Relatives Affected.	Married.	Children (if any).		Vision in 1901.	
												Living.	Dead.	Right.	Left.
1	M.	11	T.	R.	L.	R.	L.	1895	Oct. 10, 1898	Mother	No				
5	M.	67	T.	R.	L.	R.	L.	1892	Oct. 11, ,,		Yes	1	3	$\frac{1}{2}$	$\frac{1}{4}$
11	F.	49	T.	R.	L.	R.	L.	1890	Oct. 14, ,,	Sister	No			$\frac{1}{4}$	0
14	F.	29	T.	R.	L.	R.	L.	1891	,, ,, ,,	Sister	No			$\frac{1}{3}$	$\frac{1}{10}$
15	F.	55	T.	R.	L.	R.	L.	1895	,, ,, ,,		No	1		0	$\frac{1}{2}$
24	M.	66	A.	R.	L.	R.	L.	1878	Oct. 17, ,,		No			$\frac{1}{15}$	$\frac{1}{15}$
42	F.	44	T.	R.	L.	R.	L.	1890	Oct. 31, ,,		Yes	6		Finger	0
43	F.	38	T.	—	—	R.	L.	1893	,, ,, ,,		No	2		1	1
56	M.	31	T.	R.	L.	R.	L.	1893	,, ,, ,,	2 brothers	Yes			0	0
57	M.	36	T.	R.	L.	R.	L.	1882	,, ,, ,,	Grandmother and sister's son	No			Quant.	0
63	M.	45	T.	R.	L.	R.	L.	1892	Feb. 9, 1899		Yes	3		$\frac{1}{4}$	$\frac{1}{3}$
64	F.	35	T.	R.	L.	R.	L.	1892	Feb. 22, ,,		No			$\frac{1}{20}$	$\frac{1}{30}$
70*	M.	28	T.	R.	L.	R.	L.	1893	July 12, ,,		No				
73	F.	40	T.	R.	L.	R.	L.	1898	,, ,, ,,	Mother	Yes	6	3	1	1
75	M.	35	T.	R.	L.	R.	L.	1895	July 18, ,,		No			$\frac{1}{7}$	Finger.
78	F.	59	A.	R.	L.	R.	L.	1893	Oct. 7, ,,		No			Finger	Finger.
79	M.	35	A.	R.	L.	R.	L.	1887	Nov. 14, ,,		No				
81	M.	35	A.	—	L.	R.	L.	1894	Nov. 22, ,,	Cousin	No	1	1	$\frac{1}{2}$	$\frac{1}{8}$
89	F.	38	T.	R.	L.	R.	L.	1895	July 14, 1900		No			1	$\frac{1}{4}$
97	M.	37	T.	R.	L.	R.	L.	1895	May 10, 1901	Father (?) and Brother	Yes	2		$\frac{1}{4}$	$\frac{1}{18}$
Patients seen in 1901 and in 1904.															
8	F.	67	A.	R.	L.	R.	—	1870	Oct. 13, 1898		No		2	$\frac{1}{2}$	$\frac{1}{2}$
10	M.	43	A.	R.	L.	R.	L.	1896	,, ,, ,,		Yes	8		1	1
21	M.	53	A.	R.	L.	R.	L.	1893	Oct. 16, ,,		No	1		$\frac{1}{8}$	$\frac{1}{8}$
27	F.	44	A.	R.	L.	R.	L.	1894	Oct. 20, ,,	Uncle	No			$\frac{1}{3}$	$\frac{1}{2}$
28	F.	48	A.	—	—	R.	L.	1892	,, ,, ,,		No			1	1
31	M.	40	A.	—	L.	—	L.	1883	Oct. 27, ,,		No			1	1
33	F.	59	A.	—	L.	R.	L.	1887	,, ,, ,,	Sister	No			$\frac{1}{8}$	$\frac{1}{6}$
35	F.	41	T.	R.	L.	R.	L.	1893	,, ,, ,,	Grandmother and Cousin	Widow	2		$\frac{1}{3}$	Finger.
36	F.	49	A.	R.	L.	R.	L.	1886	Oct. 31, ,,	Father and 4 sisters and brothers	Yes	4	1	$\frac{1}{6}$	$\frac{1}{60}$
37	F.	43	A.	R.	L.	R.	L.	1886	,, ,, ,,	Father and 4 sisters and brothers	No	1		1	1
39	F.	42	T.	R.	L.	R.	L.	1879	,, ,, ,,		Yes	3	4	0	Quant.
44	F.	32	T.	R.	L.	R.	L.	1890	,, ,, ,,	Father and 4 sisters and brothers	No			$\frac{1}{9}$	0
47	M.	47	T.	R.	L.	R.	L.	1884	,, ,, ,,		No			Quant.	Quant.
49	M.	43	T.	R.	L.	R.	L.	1890	,, ,, ,,		No			1	$\frac{1}{2}$
51	M.	13	A.	—	—	—	—	1893	,, ,, ,,	Mother (No. 39)	No			1	1
52	M.	15	A.	—	L.	R.	L.	1891	,, ,, ,,	Father	No			1	1
55	M.	24	T.	R.	L.	R.	L.	1891	,, ,, ,,	Brother	No			0	0
58	M.	32	T.	R.	L.	R.	L.	1893	,, ,, ,,	Cousin	Yes			$\frac{1}{2}$	1
60	F.	48	T.	R.	L.	R.	L.	1893	Jan. 19, 1899		No	1	1	$\frac{1}{2}$	$\frac{1}{2}$
62	M.	35	T.	R.	L.	R.	L.	1893	,, 26, ,,	Uncle and brother	No			1	Quant.
65	F.	47	T.	R.	L.	R.	L.	1895	Mar. 4, ,,		No	3		$\frac{1}{2}$	$\frac{1}{2}$
66	M.	37	T.	R.	L.	R.	L.	1895	,, 13, ,,		Yes			$\frac{1}{12}$	$\frac{1}{18}$
68	F.	42	A.	R.	L.	R.	L.	1894	May 10, ,,	Father	No			$\frac{1}{2}$	$\frac{1}{2}$
69	M.	54	A.	R.	L.	R.	L.	1872	June 5, ,,		No			Quant.	0
72	M.	33	T.	R.	L.	R.	L.	1887	July 12, ,,	Father and 4 sisters and brothers	No			1	1
74	F.	55	A.	—	—	—	—	1873	,, ,, ,,		Widow	1	2	1	1
83	M.	15	A.	—	—	—	—	1899	June 15, 1900	Mother	No			1	1
84	M.	27	T.	R.	L.	R.	L.	1896	July 3, ,,		No			1	1
85†	M.	31	A.	—	L.	—	—	1899	July 14, ,,	[Grandfather	No	4		1	1
86	M.	36	T.	R.	L.	R.	L.	1896	,, ,, ,,		No	1		$\frac{1}{36}$	$\frac{1}{3}$
87	F.	45	T.	R.	L.	R.	L.	1889	,, ,, ,,	Aunt	No			$\frac{1}{6}$	$\frac{1}{10}$
88	F.	59	A.	R.	L.	R.	L.	1888	,, ,, ,,	Cousin	Widow	1	2	$\frac{1}{2}$	$\frac{1}{2}$
90	F.	39	T.	R.	L.	R.	L.	1893	,, ,, ,,		Yes	6	1	1	1
91	M.	65	A.	—	—	—	—	1899 (?)	July 31, ,,		Yes	4	2	1	1
92‡	M.	20	A.	—	—	—	—	1892	Aug. 31, ,,		No	1		1	1
93	F.	45	A.	R.	L.	R.	L.	1888	,, ,, ,,		Yes	4		$\frac{1}{3}$	$\frac{1}{2}$
94	M.	30	T.	R.	L.	R.	L.	1898	Oct. 7, ,,		Yes	4		1	1
95	M.	41	A.	—	—	R.	L.	1870	Nov. 19, ,,		No			1	1
96	M.	18	T.	R.	L.	R.	L.	1894	Dec. 2, ,,	Father	No			1	1

Patients seen in 1904 only.

Number of Hospital Register.	Sex.	Age.	Form of Leprosy.	Eye Affected.		Adnexa Affected.		Beginning of Disease.	Admission to Hospital.
100	F.	33	T.	R.	L.	R.	L.	1899	July 25, 1901
102	F.	37	A.	—	—	R.	L.	1901	Dec. 2. ,,
103	M.	20	T.	R.	—	R.	L.	1898	May 21, 1902
106	M.	37	T.	R.	L.	R.	L.	1899	June 24, ,,
107	F.	58	T.	R.	L.	R.	L.	1901 (?)	July 6, ,,
108*	M.	40	T.	R.	L.	R.	L.	1892	July 11, ,,
109	M.	32	T.	R.	L.	R.	L.	1895	Aug. 22, ,,
111	M.	35	T.	R.	L.	R.	L.	1900	Nov. 6, ,,
113	M.	42	T.	R.	L.	R.	L.	1896	Jan. 10, 1903
114	M.	38	T.	R.	L.	R.	L.	1897	May 27, ,,
115	F.	47	T.	R.	L.	R.	L.	1902	June 25, ,,
116	F.	69	T.	R.	L.	R.	L.	1892 (?)	July 14, ,,
118	F.	26	T.	R.	L.	R.	L.	1901	,, ,, ,,
119	F.	42	T.	R.	L.	R.	L.	1901	,, ,, ,,
120*	M.	39	T.	R.	L.	R.	L.	1900	July 17, ,,
121	M.	51	T.	R.	L.	R.	L.	1894	Aug. 3, ,,
122	M.	41	T.	R.	L.	R.	L.	1897	Aug 31, ,,
124	F.	62	T.	R.	L.	R.	L.	1902	Nov. 3, ,,
125	M.	25	T.	R.	L.	R.	L.	1898	April 23, 1904
126	M.	36	T.	R.	L.	R.	L.	1901	July 14, ,,
127	M.	40	A.	—	—	—	—†	1900 (?)	,, ,, ,,

* Refused examination. † Cyst of left frontal sinus.

T.=tuberosa; A.=anaesthetica.
* Died August, 1901.
† Left eye lost through accident.
‡ Ran away shortly before my second visit.

TABLE II.—*General Statistics.*

	Lepra Tuberosa.			Lepra Anaesthetica.			Both Forms Added.
	M.	F.	Total	M.	F.	Total	
Patients seen in 1901..	19	15	34	14	11	25	59
Of these had died before August, 1904	8	8	16	3	1	4	20
Survivors in 1904 ..	11	7	18	11	10	21	39
New patients in 1904 ...	12	7	19	1	1	2	21
Giving inmates in hospital in 1904	23	14	37	12	11	23	60
Patients seen by me altogether in 1901 and 1904	31	22	53	15	12	27	80

TABLE III.—*Statistics of Eyes Affected.*

	Lepra Tuberosa.			Lepra Anaesthetica.			Both Forms Added.
	M.	F.	Total	M.	F.	Total	
Of the patients seen altogether in 1901 and 1904, namely	31	22	53	15	12	27	80
The eyes had been affected in	31	21	52	8	9	17	69
The eyes had not been affected in	—	1	1	7	3	10	11
The adnexa had been affected in	31	22	53	9	11	20	73
The adnexa had not been affected in	—	—	—	6	1	7	7

TABLE IV.—*Showing Progress of the Ophthalmic Manifestations of the Disease from 1901 to 1904.*

	Lepra Tuberosa.			Lepra Anaesthetica.			Both Forms Added.
	M.	F.	Total	M.	F.	Total	
Of the patients affected in 1901, namely	11	7	18	11	10	21	39
The disease had made progress in 1904 in	11	7	18	8	10	18	36
There was no change in 1904 in	—	—	—	3*	—	3*	3*

*Two boys of 13 and 15 years of age respectively had remained unaffected. The third patient, 20 years old, had run away, "home," shortly before my arrival in 1904, but was reported not to have been affected as regards his eyes.

missing, latter otherwise thin. Sensibility normal. Conjunctiva of R. lower lid very anaemic; R. episclera shows beginning yellow infiltration downwards; in L. eye also upwards. Cornea, R. and L., in upper quadrant thin white spots and fine white patches. Fundus normal.

August, 1904. Muscles of forehead perfect. Nodules in upper lids increased, especially R. Outer parts of eyebrows overhanging. For the last three months L. acute iritis. Ocular conjunctiva very red, with pericorneal injection. Cornea fairly clear; iris dull, atrophic; pupil contracted, forms a triangular spot which is closed completely by exudation. Vision of L. eye nil. R. eye: both palpebral conjunctivae rather yellow; upper part of cornea occupied by whitish infiltration, lower half clear. Iris fairly normal; pupil forms a vertical oval. Vision good. L. iridectomy advised.

Case 95.—S. S., Male, 41. Lepra Anaesthetica.

July, 1901. Frontal muscles normal, hair also with exception of lashes of lower lids. Sensation normal. Slight conjunctival catarrh in both eyes, otherwise normal. When looking towards the right, horizontal nystagmus occurs. R. pupil reacts well to light, L. not so well. R. fundus normal, L. disc somewhat neuritic in appearance. Strong hypermetropia. Convex glasses ordered.

August, 1904. Sensitiveness normal, everything else normal except slight conjunctivitis. Lower lids puffy; in extreme lateral direction of eyes nystagmus appears R. and L. Hypermetropia R. and L. + 6.

Case 96.—K. G., Male, 18. Lepra Tuberosa.

July, 1901. Frontal muscles acting, though patient cannot well control the innervation. Skin of forehead covered with numerous small purple nodules. Lanugo there very fine and scanty. Skin of eyebrows likewise studded with the purple nodules. In the middle of the L. a crust. Supercilia mostly fallen out, those remaining very fine. Margins of all eyelids normal. Skin of upper lid R., outward, shows beginning of thickening; L. to a smaller degree. L. lower lid has a long purple nodule to the outer side of the middle. Sensation normal. Both lower palpebral conjunctivae hyperaemic, no catarrh. Episclera in lower part of both eyes, thin, yellow infiltration; to a lesser degree in the upper part. Cornea, iris, fundus, etc., normal.

August, 1904. Face dark bluish bronze in colour. Eyebrows, forehead, nose, lips and chin covered with nodules, also centre of both upper lids. Ocular conjunctiva yellow and pale. Episcleral leproma R. and L. now in horizontal meridian, increased as compared with before. Vision good. Cornea, etc., normal.

AN INVESTIGATION OF THE MECHANISM OF CONDYLOTOMY FOR THE CURE OF GENU VALGUM (REEVES'S OPERATION).

By WALTER C. STEVENSON, M.D., B.CH., D.P.H.DUB. UNIV.

ASSISTANT SURGEON DR. STEEVENS'S HOSPITAL, DUBLIN; DEMONSTRATOR OF ANATOMY, DUBLIN UNIVERSITY.

THIS investigation was carried on by means of taking a series of x-ray photographs in a case of knock-knee requiring the operation on both knees. The patient was treated by Mr. Swan in the Orthopaedic Hospital, Dublin.* I am indebted to Mr. Swan for the opportunity of assisting him at the operation, and of subsequently examining the patient.

The skiagrams, one of which (Fig. 3) is reproduced here, illustrate some facts which may be of interest in the treatment of knock-knee.

To facilitate the description of the results obtained Figs. 1 and 2 were constructed by photographing a paper model, which was itself obtained as a tracing of the bones in a skiagram of the left limb before operation. In order to render the model illustrative of the operation, the paper tracing was divided into two pieces along the line of displacement which occurs in the operation, as shown by the skiagrams. One piece, cut out in thin paper, and appearing shaded, represents the diaphysis of the femur less that portion which is separated by the osteotome. The second piece, appearing light in the figure, represents the lower epiphysis of the femur, the resected portion of the diaphysis, and the bones of the leg.

The path of the osteotome through the lower and inner portion of the diaphysis towards the intercondylic notch lies between A B above and A′ B′ below in Fig. 1; the two lines being, before displacement occurs, of necessity in apposition with one another.

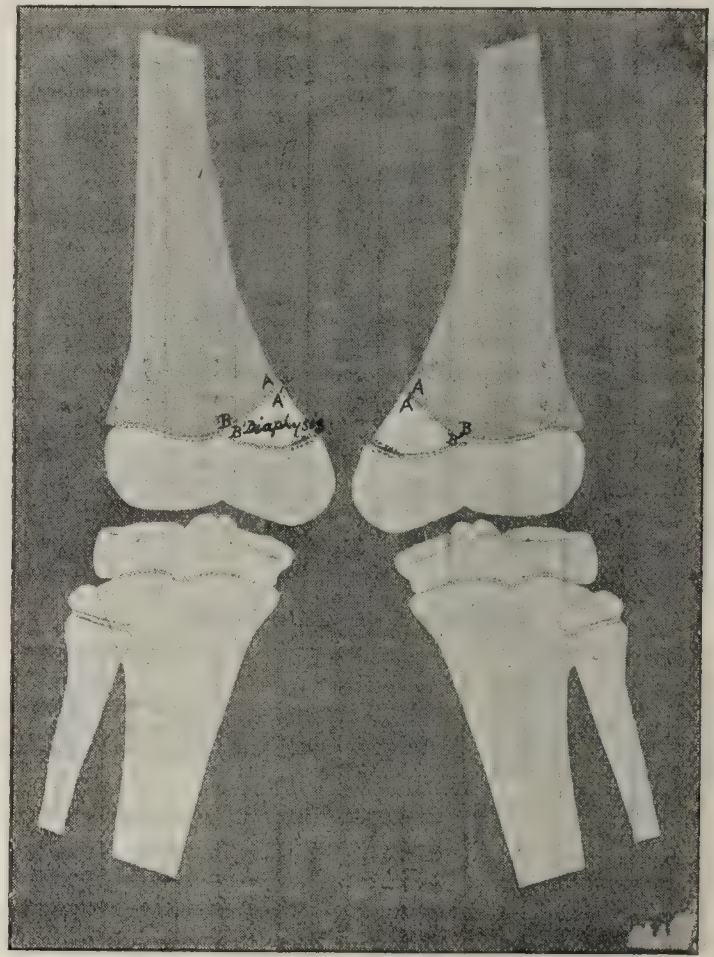


Fig. 1.—Diagram showing the path of the osteotome through the diaphysis of the femur, between A B and A′ B′.

Fig. 2 illustrates the position of the parts after the operation is complete. If the outline of the inner border of the femur be traced downwards, the point marked A in Fig. 2 will be found situated about the centre of the resected portion of the diaphysis. Approximately at right angles to this outline the line A B is seen in Fig. 2 and indistinctly in Fig. 3. The inner portion of the line A′ B′ stands out in both the model and the photographs. In the skiagrams the continuation of this line is seen as an irregular shadow through the shaft of the femur. In the original of Fig. 3 the new internal lower end of the diaphysis appears exactly as if it were received into a depression of the resected portion of the diaphysis.

---

* A description of the operation will be found in the *Transactions* of the Academy of Medicine of Ireland, 1885, vol. 3, p. 183, in a paper entitled "Condylotomy by the Osteotome for the Treatment of Knock-Knee." By R. L. Swan, F.R.C.S., Surgeon to the Orthopaedic Hospital. In this paper Mr. Swan reports on 129 knees successfully treated by this operation.

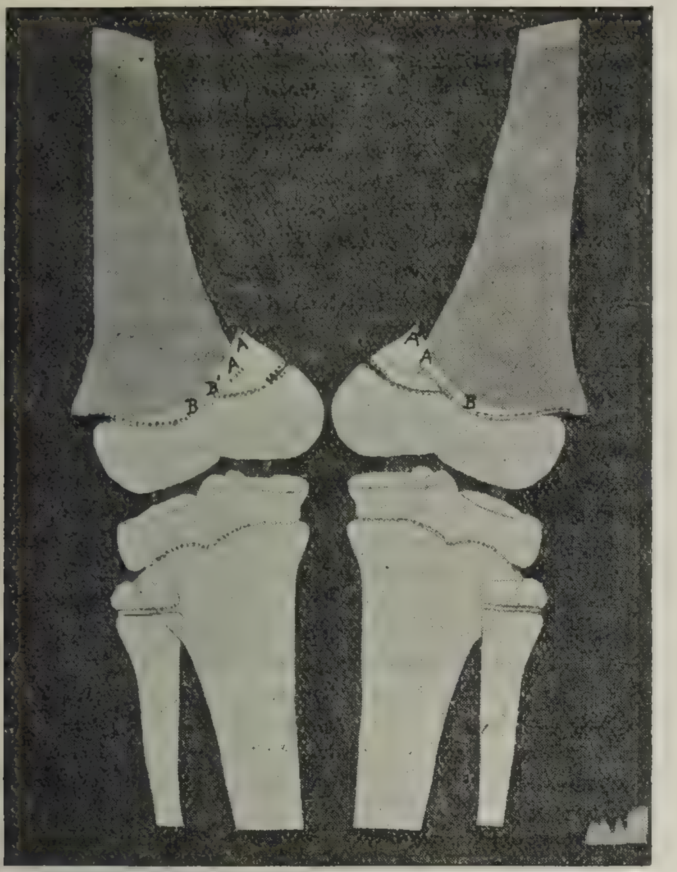


Fig. 2.—Diagram showing the position of the parts when the operation is complete.

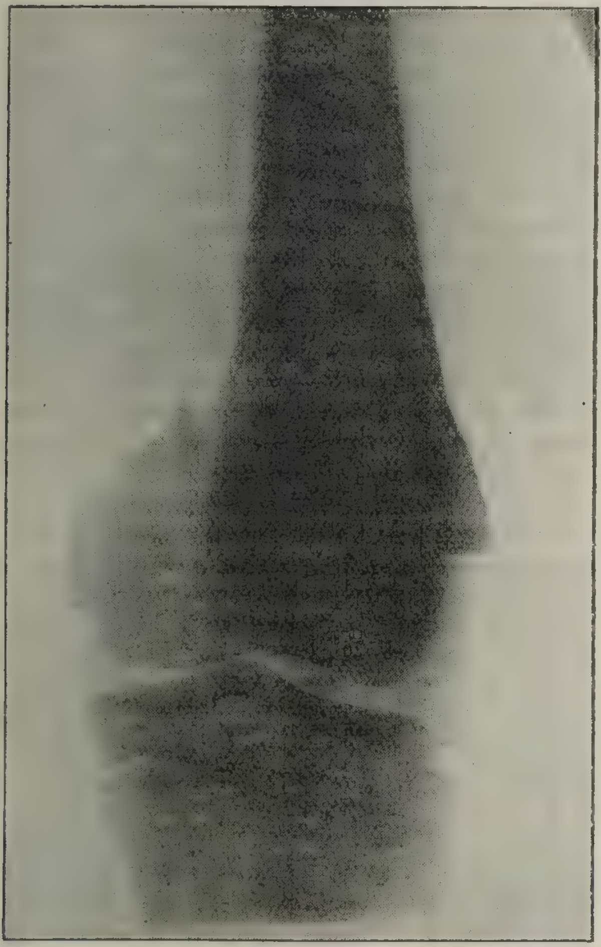


Fig. 3.—Skiagram of the right knee nineteen days after operation. (Taken with the plate behind the limb.)

The study of the evidence presented by the skiagrams and illustrated diagrammatically in Fig. 2, shows us that the alterations brought about by the operation are somewhat as follows:

1. The inferior epiphysis of the femur retains its relation to the resected portion of the diaphysis, and the two together may be described as the lower fragment in a complete fracture.

2. The lower fragment is dislocated inwards, causing the diaphysis to project outwards beyond the external condyle. (Vide Fig. 3.)

3. The lower fragment is also rotated upwards and inwards round an antero-posterior axis passing through the epiphysial line in the neighbourhood of the intercondylic notch. This displacement is more clearly understood if we consider the direction of the forces applied in straightening the limb. The above rotation or tilting up of the lower fragment has the following consequences: (*a*) The separation of the epiphysis from the diaphysis externally; (*b*) the impaction of the compact tissue of the lower end of the upper fragment into the cancellous tissue of the resected portion of the diaphysis in the lower fragment, and the approximation of the line A B to the epiphysial line; (*c*) the assumption of a more vertical position of the internal portion of the epiphysial line.

4. The relations of the tibia to the condyles of the femur are not materially altered.

5. The relation of the external to the internal condyle is unaltered. The latter is not fractured through, although the osteotome penetrates the inferior epiphysis of the femur near the intercondylic notch.

In conclusion, these skiagrams appear to show the importance, in rectifying genu valgum, of being able to produce a displacement of the ununited epiphysis, and possibly also in treating other similar deformities.

THE INFLUENCE OF ACID ON GUINEA WORM LARVAE ENCYSTED IN CYCLOPS.

By ROBERT T. LEIPER, M.B., F.Z.S.,
HELMINTHOLOGIST AT THE LONDON SCHOOL OF TROPICAL MEDICINE.

THE practical study of dracontiasis, one of the oldest known and, in some regions, the most prevalent of tropical diseases, has been singularly neglected.

Although not a fatal disease or one which attracts much sympathy, its incidence nevertheless is commonly the precursor of much suffering and physical incapacity. Modern methods of treatment are at once so unsatisfactory and necessarily prolonged and so inaccessible to the vast majority of sufferers that it can only be from the application of prophylactic measures that the diminution or eradication of the disease is to be expected.

In dracontiasis a knowledge of the life-history of the *Filaria medinensis*, and particularly of the stage and manner of its entrance into the human body, must form the essential basis on which such measures may be framed, yet Manson appears to be the only observer who has made any important contribution to Fedschenko's original discovery of cyclops as the intermediate host thirty-six years ago.

Based on many theoretical considerations, but especially influenced by the recent discovery that the young stages of certain worms, such as *Ankylostomum duodenale* and *Strongyloides intestinalis*, make their way into the body of their host through the follicles of the skin, modern scientific opinion has become more and more prepared to postulate a like mode of entry in dracontiasis, while at least one authority has suggested that a second intermediate host might even be necessary. In view of the fact that a discussion in which these theories were in turn maintained took place on this subject at the last annual meeting of the British Medical Association, and was recently fully reported in the BRITISH MEDICAL JOURNAL, thus attracting considerable attention, I am induced to publish somewhat in advance an observation made by me while studying this disease on the Gold Coast, which seems to throw suggestive light on the question.

The embryos of *Filaria medinensis* during the first fortnight of their stay in the body-cavity of cyclops—that is, during their entire metamorphosis—continue to exhibit active vermicular movements. They also not infrequently change in position. During the third and fourth week, however, these changes gradually cease, and ultimately the larva lies almost wholly quiescent. If a cyclops containing such a larva be placed on a slide in a very small drop of water, and if, while it is being watched under the low power of the microscope, there be added some 0.2 per cent. hydrochloric acid, representing the acidity of the gastric juice, a remarkable change will be seen to take place. The cyclops is gradually killed, showing little motion beyond a few tremors of the antennae and rami. On the other hand, as the acid penetrates, the apparently quiescent filaria regains its former activity. At first slowly, but with every moment with increasing strength and rapidity, it coils, stretches, and recoils, until at last, having divested itself of what probably is the remains of a very delicate cuticle, it bursts into the general body cavity of the now moribund cyclops, and in a very short time completely destroys the organized contents by its increasingly violent motions. The larva is soon seen to be testing with obvious purpose every joint of the cuticular integument. At one moment it is attempting to advance along the entire length of a narrow antenna, at the next it may be found attacking one or other of the prolongations of the bifurcated tail. Retreating again, it will endeavour to ascertain the patency of the anus, the genital openings, or the mouth. By one or other of these apertures, or, in some cases, it may be by a rupture of the cuticle, the young worm eventually reaches the exterior, and there swims about with great rapidity like a minute snake. One specimen, watched for three hours, continued with brief rests, in which it coiled and uncoiled, to manifest the same marvellous vitality.

In contrast, other cyclops containing embryos of the same date of infection, and in all respects similar to those used in the above experiments, were kept alive for a further period of two weeks—that is, until 6 weeks old—but their contained larvae did not exhibit change either in complexity or in gross increase in size. Some of these cyclops died in the meantime, but the guinea-worm embryos did not appear to escape; they were also found dead.

This experiment seems to indicate—in so far as an artificial experiment may—that the *Filaria medinensis* is introduced while still in a quiescent state in the body of cyclops into the stomach of the human host, whence, on being set free by the influence of the gastric juice, it proceeds to its further development within the body.

MEMORANDA:
MEDICAL, SURGICAL, OBSTETRICAL.

A SERIES OF CASES OF ICTERUS NEONATORUM IN A FAMILY.

AFTER an extensive perusal of the literature on the subject of icterus neonatorum I have come to the conclusion that the following cases are worthy of publication. The series appears to be unique as regards the number of deaths, the rapidity with which death ensued, and from the fact that there were intervening cases of recovery. Amongst the hitherto reported instances the nearest in correspondence with these is the example recorded in Ashby and Wright's *Diseases of Infancy and Childhood.* In that case the first two infants remained alive and well and were not jaundiced, but the third, fourth, fifth and sixth infants died from the ninth to the eleventh day.

Mrs. L., a woman of the working class, suffered from small-pox in early life, but has otherwise always been a well-nourished and healthy woman. She was married at 17, and her husband, apart from occasional rheumatism, has manifested no evidence of constitutional disease. The children were all born at full term between the mother's eighteenth and thirty-fourth year of age.

The first, a boy, did not suffer from jaundice, but died at 5 months from bronchitis.

The second, a girl, suffered from jaundice, but recovered.

The third, fourth, and fifth suffered from jaundice, and died. These cases occurred before I knew the family.

The sixth labour presented no unusual feature, but by the second day the infant—a boy—began to show signs of jaundice, which gradually deepened into almost a copper colour, and death followed a comatose condition about the eighth day.

The seventh, a girl, and the eighth, a boy, also suffered from intense jaundice, but recovered. These cases were treated from birth with a small dose of calomel, followed by large and repeated doses of castor oil, together with a soda and rhubarb mixture. The success which apparently followed my treatment in these two cases led me to anticipate a favourable termination to the ninth pregnancy, but in this I was disappointed, as the infant, a very fine well-nourished boy, died from jaundice on the fourth day. In this case I was permitted to make a *post-mortem* examination, but, apart from the bile-stained condition of all the organs, I could discover no morbid condition. The gall bladder contained bile, but was not distended, and the bile duct was not occluded.

The tenth, a girl, I did not see until about six hours after birth, but it was then markedly jaundiced, and in spite of the treatment, which had apparently been successful in the seventh and eighth cases, it died early on the fourth day. The second, seventh, and eighth children, although all suffered from jaundice for a few days after birth, are now alive and very fine children. They show no evidence of specific taint. Any suspicion of syphilis being the cause of the trouble was negatived by the *post-mortem* appearances, and also by the fact that the disease, whatever its pathology, does not show any diminution of intensity after the lapse of fifteen years, but rather tends to a more rapidly fatal issue. As the mother is still far from the end of the child-bearing period, I shall be glad to receive any hints or suggestions as to future treatment of mother or infant should pregnancy again occur.

JAS. BUSFIELD, M.R.C.S., L.R.C.P., F.I.C.

Clapham Park, S.W.

IMPACTION OF A HATPIN IN THE MALE URETHRA.

I WAS called into the country recently to see in consultation a young man, aged 16. A few hours previously, while pushing a blackheaded hatpin head first down his urethra, he had lost his hold on the point of the pin, and it slipped out of sight. At the time of my examination, the head could be felt in the perineum 5 in. from the external meatus; the point had perforated the urethra and lay in the peri-urethral tissues, 1½ in. from the meatus. I removed the pin in the following way: The patient having been anaesthetized, pressure was made in the perineum, posterior to the head of the pin, so as to prevent it passing further up the urethra, at the same time causing the point to perforate the skin of the penis on its under surface. The shaft of the pin was then withdrawn through the skin puncture until the head prevented further progress. The point was then depressed towards the perineum, and the pin, measuring 3½ in., removed by pushing it head first through the external meatus. Recovery was uneventful.

This little manœuvre, although a recognized procedure, is hardly so well known as it deserves to be, since it is the only method which can be relied on to save a patient who has the point of a pin embedded in the periurethral tissues from the risk of damage to his urethra by the use of forceps or from the performance of an external urethrotomy.

C. HAMILTON WHITEFORD, M.R.C.S., L.R.C.P.

Plymouth.

THE TREATMENT OF A COMMON COLD.

IN the case of an ordinary head cold the quickest result, in my experience, is obtained by giving 30 minims of sp. ether. nit. and 30 drops of sp. ammon. aromat. in 1 oz. of water, repeating the dose in two and then every four hours. Three or four doses are generally sufficient to put a stop to the discharge. Should the discharge happen to be thick when first seen, then a snuff composed of 1 gr. of cocaine, 2 gr. of menthol, and 100 gr. of boric acid quickly effects a rapid cure. When the cold has run down into the trachea, as shown by a tickling of the throat whenever a long breath is taken, then a mixture of liq. ammon. acet. ʒij, sp. ether. nit. ♏x in 1 oz. of water, every four hours, rapidly gives the required relief.

Bexhill-on-Sea. F. P. ATKINSON.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC.—Sir Felix Semon, K.C.V.O., will deliver the opening lecture of the winter session of the Medical Graduates' College and Polyclinic, at 22, Chenies Street, W.C., on Tuesday, January 9th, at 5.15 p.m. The subject will be Some Unusual Manifestations of Syphilis in the Upper Air Passages. All members of the medical profession interested in this subject are cordially invited to be present.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

BRISTOL ROYAL INFIRMARY.

A DOUBTFUL CASE OF HYSTERIA.

(By HENRY WALDO, M.D., M.R.C.P., Senior Physician to the Infirmary.)

A FEMALE patient, aged 16, was found by her mother two days before admission in an apparently unconscious condition. When brought to the Infirmary on June 1st, 1904, by her doctor, she was moaning, and tossing her limbs about in an aimless fashion. She had never had a similar attack before. The following are the notes of the case.

State on Admission.—Pulse 50, slow, volume good; respirations 20. She cannot be persuaded to put out her tongue. Lungs normal; heart normal; liver and spleen not felt; no ascites; abdomen resonant on percussion. She keeps her eyelids constantly closed, and offers great resistance to opening them. Conjunctivae suffused; pupils small, left larger than right; sluggish reaction to light. Knee-jerks exaggerated and equal; plantar reflexes of flexor type. There is considerable analgesia in the legs, and she is constantly tossing her limbs about. Takes her food well; she has no difficulty in swallowing. Urine, acid reaction; specific gravity, 1030; no albumen, no sugar.

Progress.—Temperature ranged from normal to 103° F. There were no signs of cerebral irritation or paralysis till ten days after admission, when internal squinting was very noticeable (when she thinks she is unobserved the squint disappears). Has had incontinence of both urine and faeces since admission. The ears, examined with speculum, are normal. She can still be roused to say "Yes" or "No" and when annoyed will say "Don't." The reflexes changed somewhat, that of the cornea being very active, but the knee-jerks sluggish.

Consultation.—About a fortnight after admission the patient was seen by my colleague, Dr. Shaw, who makes nervous diseases a speciality. He was of opinion that the squint and incoordinate movements of the eyes were genuine, and also that there was some facial paralysis (right). He thought there was sufficient evidence of some organic cerebral lesion. At this date the night nurse maintained that the girl was much more conscious at night than she allowed it to be supposed by day. She would not allow her legs to be extended on her flexed thighs (Kernig's sign). The skin did not mark readily on pressure and the back did not require special attention. On June 26th, 1904, the right arm was obviously paralysed from the shoulder, and for the first time since admission the patient did not lie with her head turned to the right and was a little more awake. Some cerebro-spinal fluid which was obtained by lumbar puncture contained large diplococci, not in cells; they were negative to Gram's and were probably contamination organisms. On July 13th, 1904, the left femoral vein was found blocked. The heart had been carefully watched since admission and there was no sign suggesting endocarditis. July 20th, 1904. She seemed quite sensible, but there was no return of power in right arm. She was not incontinent.

Result.—August 9th, 1904. She was now talking coherently, but was suspicious of answering questions. The left leg was still weak and dragged as she walked. Early in September she was discharged.

REMARKS.—She was readmitted during November, 1905, complaining of headache. She had been quite well since leaving the infirmary about a year ago, excepting that the right arm had remained weaker than the left; this weakness was obvious. Her optic discs were rather white, and stood out remarkably in bold relief. The vessels, however, were of average size, and the sight and fields good. Dr. Ogilvy did not consider the discs passed the limit of "normal," and he tells me their globular appearance was due to the very dark pigment in the retinae. I am afraid the notes I have given are rather imperfect, but I may sum them up as follows: The patient remained apparently partially unconscious, with incontinence of urine and faeces, for about two months, and the only lasting symptom was the partial loss of power in the right arm—purely motor paresis. I admit that there may be a brain lesion accounting for this, but after watching the patient through the illness I should be doubtful about it. This case seems perhaps to illustrate Stokes's dictum, "That there is no single nervous symptom which may not and does not occur independently of any appreciable lesion of the brain, nerves, or spinal cord." Sooner or later this is brought home to each one of us.

THE TORBAY HOSPITAL.

A CASE OF SUPRAPUBIC CYSTOTOMY UNDER LOCAL ANAESTHESIA.

(Reported by GILBERT J. ARNOLD, F.R.C.S.Eng., Hon. Surgeon to the Hospital.)

A SINGLE woman, aged 38, was admitted on November 1st, 1905. On the previous day she had passed a hairpin up her urethra; it slipped from her grasp, and was lost within the bladder. Her only complaint on admission was of slight soreness on passing urine.

Condition on Examination.—She was screened and photographed with *x* rays, but the pin could not be seen.

On November 2nd she was examined under a general anaesthetic, and a sound passed; it was thought to strike the foreign body, but the impression conveyed was somewhat equivocal. The urethra was dilated with Hegar's dilators, but the hairpin could not be felt with the index finger in the bladder, or touched with forceps or other instruments. No after-inconvenience was experienced by the patient, who maintained control of her urine.

A few days later a sound was again passed, and the hairpin was struck.

Operation and Result.—Nothing further was done until November 9th, when the bladder was opened by a hypogastric incision and a small hairpin removed. The bladder was sutured, and the patient made an uninterrupted recovery. No general anaesthetic was employed, but a sterile solution containing eucaine hydrochloride, sodium chloride, and "hermoine" was injected by means of an ordinary all-glass hypodermic syringe, first endermically, and then the subcutaneous and deeper tissues were successively infiltrated with the solution. The skin over the exact line of the incision was chilled (not frozen) by an ethyl-chloride spray, in order to render the insertion of the needle painless.

REMARKS.—The employment of local infiltration analgesia in this case was all that could be desired, both from the point of view of patient and operator. The amount of discomfort or pain which the patient felt was so small as to be negligible, and she afterwards told me that she preferred this method to taking a general anaesthetic, of which, as noted, she had had recent experience. I have for a considerable time employed local infiltration analgesia in selected cases, and especially have I done so since reading Connell's admirable article on local anaesthesia.[1]

Hairpins are not infrequently encountered within the female bladder, and urethral dilatation and extraction by means of forceps or a blunt hook with the aid of a finger is the method of treatment usually recommended. A cystoscopic examination, by determining the position and direction of the long axis of the hairpin, would do much to facilitate such procedure, but a cystoscope was not available in dealing with the case here reported.

A good example, showing at the same time the difficulties and ease with which a hairpin can be removed *per vias naturales* has been reported at length by G. H. Porter,[2] who at his first attempt with chloroform anaesthesia failed. He then contented himself by obtaining gradual but free dilatation of the urethra by means of sponge tents, and subsequently easily removed the hairpin by the combined use within the bladder of a finger and a narrow pair of forceps. In Porter's case the hairpin, after a sojourn of only eleven days within the bladder, was found to be "considerably coated with phosphatic deposits." An interesting case of removal of a hairpin by hypogastric incision was reported at a meeting of the Paris Surgical Society.[3] In this case the hairpin not only served as a nucleus of a large calculus, but had caused a phlegmonous inflammation of the cavity of Retzius.

I am indebted to Mr. H. K. Lacey, House-Surgeon, who made notes of the case, and assisted me with the operation.

REFERENCES.

[1] *Annals of Surgery*, vol. ii, 1903. [2] *Dublin Quarterly Journal*, November, 1863. [3] *Lancet*, April 1st, 1905.

THE small-pox outbreak in Ashton, near Manchester, is spreading with rapidity, so much so that the new hospital at Hartshead is taxed to its utmost capacity, as there are 27 cases in it. The medical officer states that in Hurst several cases occurred in one house; all the patients were unvaccinated.

REPORTS OF SOCIETIES.

LIVERPOOL MEDICAL INSTITUTION.

Sir James Barr, M.D., President, in the Chair.

Thursday, December 21st, 1905.

The Sanatorium Treatment of Consumption.

Dr. R. J. M. Buchanan and Dr. C. J. Macalister opened a discussion on the question, Is the Sanatorium Treatment of Consumption Worth While?

Dr. Buchanan said that in consumption, as in other infective processes, some internal power was working towards recovery, and much might be done by stimulating this power to action, or in assisting it when inactive. In all cases of phthisis, especially in the early stages, treatment was urgently called for, and was usually followed by marked benefit. He pointed out the principles upon which the treatment of consumption should be based, and said these were indicated by our knowledge of etiological factors, and the principles of hygienic and dietetic treatment, which were true, honest, sensible and right, and demanded the advocacy of all true, honest, sensible, and right-minded members of the medical profession. These principles of treatment admitted of no discussion, and were best carried out in a sanatorium worthy the name, by a medical man who thoroughly believed in them and enforced them in a systematic and exact manner, with the due amount of respect which their truth and importance demanded. Dr. Buchanan's personal experience of sanatorium treatment enabled him to say that he knew of no treatment so invigorating, so sensible, and so trustworthy, and which held out so much hope and encouragement, or which afforded so great a prospect of success.

Dr. Macalister said his experience of sanatorium treatment had been disappointing, for although many of the cases had been sent in the early stages of the disease, in nearly every instance a relapse had subsequently occurred. He commented upon the utter futility of treating the poor in sanatoriums, and pointed out that those patients who subsequently died of phthisis did so in much the same period as they would have done had they never been in one of these institutions. The death-rate from phthisis had not diminished to any great extent since the advent of the sanatorium treatment, and judging from the figures of those who kept careful records in the pre-sanatorium days, the recovery-rate and the death-rate of the disease were about the same as in patients treated in sanatoriums. Dr. Macalister thought that many of the most successful sanatorium cases represented patients in whom a strong tendency to recover existed, and mentioned his experience with patients presenting this tendency. He thought the personal factor had more to do with recovery than any special line of treatment. He advocated the construction of inexpensive buildings for sanatoriums, so that more money might be devoted to the maintenance of a larger number of cases, both early and more advanced. He thought the best way of dealing with the problem was to endeavour to prevent the disease by exercising much stringency, with reference to known elements of infection, and by adequate disinfection of dwellings inhabited by persons suffering from phthisis.

Mr. Colin Campbell thought it unfortunate that, after ten or twelve years of sanatorium treatment, facts remained so few and statistics so inconclusive and contradictory. The utmost confusion still existed as regards the classification of cases and vagueness in the reports of the various forms of "cures," so called, obtained. Favourable results lay somewhere between the 60 per cent. of "economic cures" reported from Germany and 3 out of 38 reported from Heswall, in which the disease was "arrested."

Dr. G. A. Crace-Calvert said statistics of sanatorium results were adversely affected by the very short stay many patients made; often six weeks or less, by the kind of work to which a patient had to return, and by the surroundings, often the most unsuitable, to which patients returned. He emphasized the necessity of sending early cases to the sanatorium, for the great majority did excellently, and it was wise to send such patients to the sanatorium first and to the country afterwards, because they then early learnt how to carry out treatment, and much valuable time was saved.

Dr. Ernest Nevins considered that as Poor-law authorities and other public bodies were being urged to erect sanatoriums, the phrase "worth while" should be judged from the point of view of social economy, in which case the decision would be unfavourable. Many sanatorium enthusiasts had admitted that results were unsatisfactory, but the blame was thrown on the patients, who were "unsuitable." The conditions necessary to make a case "suitable" were impossible for the vast majority of consumptives, and it was little or no use teaching a man a mode of life which his social circumstances would never allow him to carry out.

Dr. W. B. H. Wood, Dr. T. R. Glynn, Dr. A. L. Morgan, Dr. W. B. Warrington, Dr. Nathan Raw, Dr. A. G. Gullan, Dr. E. T. Davies, and the President also took part in the discussion.

Chelsea Clinical Society.—At a meeting on December 19th, Dr. J. Barry Ball (President) in the chair, Dr. William Ewart read a paper entitled *Steps in the Evolution of the Treatment of Serous Pleurisy, with Special Reference to the Preliminary Intraserous Injections Method.* Little progress, he said, was made until the beginning of the nineteenth century, owing to the absence of clinical methods of diagnosis before Laënnec's discovery of auscultation. Three periods might be distinguished in the evolution of treatment during the nineteenth century—(1) from 1800 to 1834 the treatment was purely medical; paracentesis was hardly ever practised; (2) from 1834 to 1869 (from Davies to Dieulafoy) paracentesis gradually came into fashion; this was a mixed period, partly medical and partly surgical; (3) from 1869 onwards the treatment became almost exclusively surgical. Among the chief steps in improved surgical procedure might be mentioned: The exploratory puncture introduced by Davies (1834); the use of the siphon, suggested by Carson in 1830, and ultimately elaborated by Potain and by Sir Richard Douglas Powell; the construction of the aspirator by Stansky in 1841, and its final improvement by Dieulafoy in 1869 and by Potain in 1872. In medical therapeutics the English school took the lead in advocating the common-sense principle of feeding instead of starving the sick. But the "expectant treatment," derived from the scepticism of science on the one hand, and of Hahnemann on the other, rapidly gained ground, and paved the way for a growing neglect of drug treatment. The most recent step was the method published by Sir James Barr, which included not only the injection of air, but the after-injection of adrenalin, and which might therefore be regarded as a consistent medico-surgical method. This combination was also a feature of the further instalments suggested in the paper in the direction of "after-treatment" and in that of "preliminary treatment." Much might be effected medicinally by way of preparation before paracentesis, to ensure successful reabsorption of the remnants of the effusion. But the "preliminary intraserous injections method" provides in addition a local preparatory treatment of the pleura. Hitherto adrenalin had been used as in Sir James Barr's method, but other agents might become available. The preliminary injection was apt, however, as in a case narrated, to lead to rapid reabsorption without tapping. It may therefore in a proportion of cases prove to be in itself a method of cure.—Dr. Harvey Hilliard read a paper entitled *Ethyl Chloride and Chloroform Mixture as a Substitute for Pure Chloroform.* It was very generally admitted that chloroform was in many respects the most desirable form of anaesthetic, although ether was, on account of its greater safety, more largely used, especially in London. It was evident, therefore, that if by any means chloroform could be made as safe as ether, it would be very largely employed for anaesthesia. Having on many occasions given ethyl chloride both before and during the administration of chloroform, he had observed that there was much less of the depression and other unfavourable symptoms than when chloroform alone was given. By mixing ethyl chloride with the chloroform in certain proportions he believed that all the ill effects of the latter were obviated, and that in the mixture thus obtained we had an anaesthetic which combined the convenience and general advantages of chloroform with the safety of ether.

REVIEWS.

DISEASES OF THE STOMACH.

The treatise on diseases of the stomach,[1] the latest and the most important of the books written by the late Dr. Soupault, is worthy to be the monument and memorial of his life-work; it makes us feel more acutely the loss to practical medicine and the Medical School of Paris caused by his untimely death.

The volume is founded upon the course of post-graduate lectures which for many years the author delivered to classes of medical practitioners, and fortunately he had almost completed its preparation for the press before he was called away. One chapter only existed in the form of numerous notes; these have been put together by his pupil, M. Leven, who had worked with him for several years and than whom no one was more competent to reproduce faithfully the doctrines of his deceased master. The work owes much to the collaboration of Professor H. Hartmann, who has written in his accustomed excellent style a clear summary of the conditions in which surgical intervention is justifiable in diseases of the stomach; Professor Linossier and Drs. Pariset and Salignat of Vichy have described the general and special treatment of stomach diseases by mineral waters; Dr. Binet of Vichy has written the section on diet; and the chapters on electro-therapeutics, massage, and the formulae used by Dr. Soupault, have been prepared by the other collaborators. The first portion of the book deals with the methods of examining the patient, and describes these in considerable detail, giving the results of all the most recent methods, including radioscopy, many of which can only be employed under exceptional circumstances. The method described for ascertaining the size of the stomach by radioscopy is to cause the patient to swallow a large, hard pill of bismuth, which is then made to roll about into different positions, and its shadow marked upon the skin at different points, these points being finally united by lines drawn from one to the other. The author draws attention to some observations of J. Ch. Roux, which prove that it is impossible to rely upon the seat of pain as giving a correct indication of the position of a gastric ulcer, for during life he marked the seat of pain with nitrate of silver on the skin of six patients, and then at the *post-mortem* examination drove a stylet through the mark right down to the vertebral column; subsequent dissection showed that the painful spot did not correspond to the pylorus or to any definite part of the stomach—in fact, that organ was often not transfixed by the gimlet—but it constantly corresponded with the coeliac axis and the nervous plexuses which surround it.

The description of the different methods of examining the chemistry of the stomach is very complete, and, if anything, errs on the side of excessive elaboration, being far beyond what is within the reach of those practitioners who have not a laboratory at hand.

The author is very clear in his explanation of a much misunderstood subject, the origin of stomach gas. He states that a large part is introduced by the mouth and the oesophagus, either with the saliva or with food and drink; he admits that it is possible that intestinal gases may enter the stomach by the pylorus, and this is most likely to occur in the presence of marked constipation or intestinal obstruction; but he does not accept the theories of certain writers that gas may be exhaled from the vessels in the wall of the stomach. Finally, while allowing that stomach gases may result from modifications undergone by food during digestion, especially under the influence of microbial ferments, he contends that the gases which originate in this way are small in quantity under normal conditions, and only acquire some intensity in disease; he winds up this section by saying: "Most authors attribute the principal importance to this last cause of the production of gas. We believe for our part that they exaggerate the part it plays." In another place (page 224) he elaborates this view, and gives the various chemical and clinical reasons for his opinion, although he might have laid greater stress upon the commonest cause of aerophagy, namely, imperfect mastication so often the consequence of defective teeth.

There are so many points of interest in this volume, that many must perforce be passed over, confining our attention to those which are of the greatest practical importance. One of these is the value to be attributed to pain coming on sometimes after food, which has been very generally accepted as significant of hyperchlorhydria; quantitative analyses of the gastric juice, however, fail to confirm this hypothesis, and M. Soupault considered that it can be no longer maintained in view of the fact that even when the secretion of the stomach acid is excessive all the symptoms may disappear after the performance of a gastro-enterostomy, although this operation has no effect in diminishing the secretion. The opinion to which Soupault inclined in this, as in so many other questions where stomach pain is involved, was in favour of spasm of the pylorus as the direct cause of the pain, although he regarded the association of a hyperaesthetic state of the gastric mucous membrane as contributing to the production of this reflex spasm. He was not, however, on this account inclined to admit that all cases of severe pain are best treated by surgical intervention, but would limit it to those cases in which there is definite evidence of food stasis. From a somewhat considerable experience, we can support the author in his disagreement with Schreiber and his followers, who have stated that in the majority of healthy individuals 5 to 30 c.cm. of gastric juice may be found in the stomach twelve hours or fifteen hours after taking food.

M. Soupault's views on the relation of the lesions of the mucous membrane of the stomach to pernicious anaemia—to which, however, he attributes only a moderate degree of influence—would no doubt have been modified had he been acquainted with the recently-published paper on the subject by Dr. Faber of Copenhagen.

Of considerable practical interest are his observations on the influence of bicarbonate of soda on the gastric secretion. It is well known that Trousseau taught that the prolonged use of alkalies led to a morbid condition which he called the alkaline cachexia, the dread of which, if not very present to the minds of medical men, is certainly by no means absent from those of the public who are often disposed to regard with considerable hesitation treatment which involves the prolonged use of alkalies. On the other hand, the medical profession is fully aware of the great benefits to be derived from their use, and it is therefore satisfactory to learn that the author, from a long series of researches made in association with Dr. Binet, came to the conclusion that bicarbonate of soda taken in a sufficient dose neutralizes the gastric juice and after a temporary excitement checks its secretion, but that at the end of many months, or even years, the gastric chemistry has remained just as it was, or varied within very narrow limits. For example, he gives the case of a patient who had suffered from symptoms of ulcer of the pylorus for six years, and during that time had taken an average of 100 grams ($3\frac{1}{3}$ oz.) daily, yet the gastric juice of this patient showed the presence of 2.70 per mille of hydrochloric acid, which is about the average of that observed in cases of this kind. Whilst admitting the existence of congenital hypertrophic stenosis of the pylorus, Soupault considered it much more rare than certain authors claim, and that it does not always lead to serious results; if present to a marked degree in infants, it causes severe symptoms and is very likely to prove fatal if not relieved, but in adults this condition is met with at the *post-mortem* examination of subjects who have not presented during life any serious symptoms.

The morbid anatomy of the organic lesions of the stomach is very well described, and illustrated by excellent drawings.

The question of dyspepsia is discussed at length. Setting aside all those cases which may be attributed to structural lesion, the author rejected the opinion very popular in France and supported especially by Professor Robin, that the common cause of dyspepsia is excessive secretion of gastric juice, and attributed it to nervous hyperaesthesia of the gastric mucous membrane.

An interesting summary is given of the results of surgical operations in cancer, showing that many cases have survived the operation for from two to eight years without relapse. One case is related from his own experience. The patient had a recurrence at the end of three and a half years, and he was still watching six patients without recurrence after six years, five years, four years, four years, three years, and two years respectively. Even more remarkable is the long duration of life which has been seen after gastro-enterostomy without removal of the growth, where the patient has remained in good health for from two to five years; no doubt under these conditions there is a natural suspicion of the correctness of the diagnosis, but the progress of the disease, and, in certain cases, microscopical examination, leave no room for doubt.

---

[1] *Traité des Maladies de l'Estomac.* [Treatise on Diseases of the Stomach.] Par le Dr. Maurice Soupault, avec la collaboration de MM. H. Hartmann, G. Linossier, Cautru, Delherm, Gouriu, G. Leven, Binet, Pariset, et L. Salignat. 111 figures, noires et coloriées, dans le texte. Paris: J. B. Baillière et Fils. 1905. (Demy 8vo, pp. 880., 111 illustrations. F. 20.)

We cannot conclude our notice of this valuable addition to the literature of diseases of the stomach without a word of praise for the excellent illustrations, both coloured and black and white.

PATHOLOGY OF THE BLOOD.

OUR knowledge of the part played by the blood stream in the dissemination of infective micro-organisms is still very imperfect, and therefore we welcome the appearance of Dr. CANON's book on the bacteriology of the blood in infectious diseases,[2] in which he puts together in a systematic manner what is known on the subject. The first part of the volume deals with each disease in turn, where a bacterial cause is known or suspected, and discusses its relationship to the vascular system. On the bacteriology of acute rheumatism and rheumatic endocarditis Dr. Canon maintains an attitude of cautious scepticism; he holds that the specific cause of rheumatism has not yet been discovered and suggests that the diplococci and streptococci which have been found in association with the disease are no more than secondary infections, though he admits that some of these organisms possess bacteriological characters which differentiate them from other streptococci. In dealing with tuberculosis Dr. Canon discusses the statement that the micro-organism of this disease is occasionally productive of genuine endocarditis; he does not agree with this view, but explains alleged cases of this condition in a similar way to Baumgarten, who pointed out that tubercle bacilli, when circulating in the blood, readily become entangled in a fibrinous deposit which may become adherent to the cardiac valves, and so mislead people into believing that they have found a condition of endocarditis due to the direct action of the tubercle bacillus. He compares the tubercle bacillus, in this respect, to the diphtheria bacillus and points out that neither organism is capable of multiplying in the blood stream or producing a condition of either septicaemia or endocarditis. Particular stress is laid upon the dissemination of typhoid bacilli by the blood stream, which, Dr. Canon holds, takes place in every case of typhoid fever. He therefore recommends that cultures from the blood should be made in order to clear up the diagnosis when the Widal reaction gives a doubtful result, and when the question of "paratyphoid" infection is under consideration. Dr. Canon has made a special study of the blood in attacks of influenza, and finds that in acute cases with severe general symptoms the influenza bacillus can be demonstrated microscopically in blood preparations. Cultures, however, are generally failures, owing to the bactericidal action of the blood on this organism; they only succeed in the rare cases, found only in children, of genuine influenza septicaemia.

The second part of the volume deals mainly with the portals of entry into the organism of those bacteria which may afterwards make their way into the blood, and with the mechanism of their subsequent excretion. The dangers of infection through the tonsils are pointed out, and some of the vexed questions concerning alimentary tract infection are discussed. Dr. Canon's opinion is that in particularly severe intestinal infection a general bacterial dissemination may arise even without gross intestinal lesions, as, for example, in the streptococcal enteritis of infants; but he considers that under normal conditions, or in cases of less severe intestinal infection, not accompanied by lesions to the epithelium, bacteria cannot penetrate the intestinal wall, or gain access to the blood stream. He admits, however, that in infantile life the conditions which enable bacteria to penetrate the intestinal wall more readily arise than in the case of the adult. The human body rids itself in various ways of bacteria which have gained access to the blood stream. In many instances the parasites are killed and disintegrated within the blood channels; those which escape destruction in this way are to a large extent eliminated, as Dr. Canon points out, by means of the kidneys. The urinary apparatus appears to be the most important excretory system, though elimination may also occasionally take place in the bile, the milk, and possibly in the sweat. But it is mainly owing to their destruction within the blood capillaries of various organs that the body is able to overcome the inimical parasites which gain access to the circulation. In his concluding chapters Dr. Canon deals with local infections which have arrived at the seat of disease by way of the blood stream. In this connexion he points out that it is much more common than is generally supposed for pathogenic bacteria to gain access to the circulation at one time or another, and that then, if the body possesses a *locus minoris resistentiae*, whether it be the bones, the joints, or a damaged heart valve, this will very probably be the place where infection sets in. He recognizes, very properly, that the lymph channels have also to be considered, and that these are probably the paths of infection in many cases of meningitis. In particular, it seems likely that epidemic cerebrospinal meningitis is frequently occasioned by the passage of the meningococcus from the upper nasal tracts into the meninges by way of the lymph channels. But for the meningitis of influenza, which generally sets in at a late stage of the disease, Dr. Canon thinks a haematogenous origin is more probable. We have said enough to show that the author has produced a most interesting study in clinical pathology. His book possesses the further merit of comprising an extensive survey of recent literature on the subject of blood infection, together with a lengthy list of references.

We have already made a favourable reference to the second edition of Dr. COLES's volume on *The Blood*[3] published in 1902. A third edition has now appeared, and the author, pursuing his original plan of giving simple, brief accounts of the blood changes in the more common diseases in which notable changes occur, has again been successful. Without writing an exhaustive account of the various subjects discussed, he has contrived to gather together all fresh developments in the study of the blood, especially in the direction of parasitology. A good account is given of trypanosomiasis and sleeping sickness, and of the Leishman-Donovan body, of the pirosoma of bovine malaria, and of the haemosporidia of birds. We question the wisdom of attempting to maintain a distinction between leucocythaemia and chloroma which is based simply on clinical differences, the blood pictures in the two conditions being practically identical.

DR. DA COSTA's *Clinical Hematology*[4] is a more ambitious treatise, and may well claim a prominent position amongst the best and most authoritative accounts of the blood in disease. The second edition has been enriched by conclusions deduced from a large number of blood examinations—over 10,000—made since 1902, the date of the first edition. The author has succeeded not only in bringing his volume more into touch with the investigations carried out before that year, but has also added much new information derived from more recent literature. An admirable account of haemolysins has been added, and the author has introduced a set of diagrams as ingenious as any we can remember to have seen devised for the purpose of explaining the side-chain theory of Ehrlich and the modifications which it has had to undergo as a result of recent investigations. The author has been most watchful over recent blood investigations, and the treatment of the subjects of trypanosomiasis, kala-azar, opsonins, and cyanotic polycythaemia is very satisfactory. Should this latter disorder be called Osler's disease? Priority surely belongs to Drs. Saundby and Russell.

---

[2] *Die Bakteriologie des Blutes bei Infektionskrankheiten.* Von Dr. med. Canon. Jena: Gustav Fischer. 1905. (Royal 8vo., pp. 252. M 5.)

[3] *The Blood: How to Examine and Diagnose its Diseases.* By A. C. Coles, M.D., D.Sc. Third edition. London: J. and A. Churchill. 1905. (Demy 8vo, pp. 354, 7 coloured plates. 10s. 6d.)

[4] *Clinical Hematology.* Second edition. By John C. da Costa, jun., M.D. London: Rebman, Limited. 1905. (Demy 8vo, pp. 591, nine full-page coloured plates, three charts, and sixty-four other illustrations.)

ERYTHEMA NODOSUM.

Dr. A. A. Lendon of Adelaide, in his book on *Nodal Fever (Febris Nodosa)*,[5] recently published, has put together the results of his observations on erythema nodosum, with a view to reaffirming the opinion he advanced in a paper which appeared in 1890. His contention is that the morbid condition dealt with is an acute infectious specific fever, and the carefully-collected evidence he brings forward is well worth examining. That erythema nodosum is a form of erythema multiforme is a view that has been insisted on by many dermatologists; but, on the other hand, various observers have maintained that erythema nodosum was a separate entity altogether. Certainly, Schulthess's observations, pursued for twelve years and published in 1895, point to the great probability of the latter view. The same writer has also demonstrated the duality of erythema nodosum and of rheumatic fever. Dr. Lendon very justly says that it is as misleading to talk of pains in the joints in erythema nodosum as being rheumatic, in the strict sense of the term, as it would be to argue that the arthritis which sometimes occurs in gonorrhoea is a proof of its rheumatic nature. Pains and swellings about the limbs and joints may occur in a variety of infections. As to Demme's investigations and the bacillus he describes in cases of severe erythema, it must be mentioned that in the two instances in which the bacillus was found the nodose erythema was accompanied by purpura and multiple gangrene, and therefore did not quite come into the category of erythema nodosum as usually met with. Again, von Düring in a series of over 100 cases of erythema multiforme did not observe in any of them symptoms of erythema nodosum. There is still another point—namely, that erythema nodosum has been stated to occur in a variety of infections and intoxications, such as endocarditis, tonsillitis, malaria, syphilis, diphtheria, and even in soft chancre. Iodides, bromides, and antipyrin have also been looked upon as causes of the eruption. Whether in such cases we are dealing with true cause and effect or accidental coincidences, or symptoms arising from one and the same cause, are aspects of the matter which must not be lost sight of. From the foregoing it will be seen that the etiology and essential nature of erythema nodosum are not yet settled. Dr. Lendon's contribution to the question is therefore opportune. When it is understood that he has done his work under some difficulties and without the assistance of a well-stocked medical library, the merit of the book will be all the more appreciated. On the other hand, his observations have the advantage of coming first hand, as it were.

DISINFECTION OF THE HANDS.

In these days of aseptic ideals every contribution towards the reconciliation of theory and practice is welcome. The pamphlet issued by Professor Sarwey of Tübingen recounts his bacteriological studies in the disinfection of the hands and their practical application,[6] and appears to consist essentially of replies to critics, whilst the practical outcome is an added burden to the ceremonial procedure of the surgeon approaching an operation. The hands, says Dr. Sarwey, with conviction, cannot be sterilized; gloves can! But the necessity for a hundred pages of refutation and explanation is in itself evidence against the unqualified reliability of his dictum; and, further, even if the impossibility of sterilizing the hands be admitted the problem is but little advanced. To take Dr. Sarwey's own routine procedure: He bids one scrub the hands and arms in hot water for five minutes by the clock in many changes of water and using a medicated soap; then again for five minutes in 2 per cent. lysoform-alcohol, or 1 in 500 alcoholic solution of sublimate. Thus far, by his own showing, one has not succeeded in sterilizing the hands, and the sterile gloves are brought forth. But by what digital gymnastics is one to get the gloves into place without infecting them? And with that feat safely accomplished, it still remains to change them if by any chance during the course of the operation the thin indiarubber is torn or cut. It is quite true that the whole aseptic system is founded upon the habitual use of precautions actually needed in a small proportion of cases only; because the saving in that small proportion outweighs the expenditure of time and trouble in the majority, for which there is not the same imperative need for minute precaution; and therefore, if the use of gloves would save one case in a hundred or in a thousand, their use is unquestionably indicated. But, as a matter of fact, the irreducible minimum of sepsis from this source is a negligible quantity, and, where gloves are worn, it will often be rather for the protection of the hands of the operator than for the greater safety of the patient. It must be borne in mind that what applies to the skin of the operator's hands holds also for the skin of the patient in the operation area; if lavage and chemical disinfection will not suffice to rid the one of micro-organisms, neither will it be effective in the case of the other, and since the most successful attempt can only prove an approximation to absolutely aseptic conditions, the disadvantages of gloves acquire an importance to which they would not otherwise be entitled; these disadvantages are mechanical and can be minimized by usage but not eliminated. The method of Ahlfeld (the opponent of Sarwey), which merely insists upon the use of alcohol at some stage in the mechanical and chemical disinfection of the hands, is one which gives completely satisfactory results. The volume contains a careful bibliography.

ANIMAL PARASITES.

Professor Neumann has long been known as the European authority on the Ixodidae, and his work on the *Parasites and Parasitic Diseases of Domesticated Animals*[7] is familiar to veterinarians. It was published in an English translation by Colonel Fleming in 1892, and a second edition is now presented to the public by Professor Macqueen. It is not only to the veterinary profession that the book appeals. The full descriptions given of many of the animal parasites, more especially of the acarids and the worms will prove of assistance to members of the medical profession. There is an introductory chapter dealing with parasitology generally, wherein it is explained that with the exception of a few fungoid diseases, the work is confined to animal parasites. The latter are described under the headings of the portions of the body they usually attack. These headings comprise eight books, each of which is subdivided into chapters, and these again into articles, thereby systematizing the information. But in any system dealing with disease by regions, a certain amount of overlapping necessarily occurs; for instance, an animal attacking the skin may communicate a haematozoon; thus we find Texas fever in the chapter dealing with acariases. The value of the work lies, however, more especially in the descriptions of parasites, for it brings before us in a convenient form a mass of information relating to their forms and habits which will prove of great assistance to investigators of disease causation. An extensive bibliography furnishes references to monographs, wherein those desiring to study details may find material; this will, it is hoped, in a future edition be connected with the text by reference numbers, for by some such means alone can a bibliography prove of full value to students, and not merely a record of the erudition of the author. More especially will references be useful in the case of those parasitic conditions which herein are not fully considered. The book is remarkably free from misprints and similar blemishes. An anachronism, however, such as "Manson, a physician at Hong Kong" (p. 541), which was perhaps passable in 1892, does not read well in the year of grace 1905. The index, too, fails to do complete justice as a guide to the subjects treated of. But in spite of this the reader will gather from this treatise a mass of information not to be acquired elsewhere in so handy a form, relating to factors in the production of disease which are daily being found to possess an importance unsuspected by a former generation.

---

[5] *Nodal Fever (Febris Nodosa).* By Alfred Austin Lendon, M.D., Lecturer on Obstetrics, and Clinical Lecturer on Diseases of Children, University of Adelaide. London: Baillière, Tindall, and Cox. 1905. (Demy 8vo, pp. 98. 5s.)

[6] *Bakterologische Untersuchungen über Hände-Desinfektion und ihre Endergebnisse für die Praxis.* Von Dr. med. O. Sarwey, Professor in Tübingen. Berlin: A. Hirschwald. 1905. (Demy 8vo, pp. 91. M. 2.40.)

[7] *Parasitic Diseases of Animals.* A treatise on the parasites and parasitic diseases of domesticated animals. By Professor L. G. Neumann. Translated by George Fleming, C.B., LL.D., F.R.C.V.S. Second edition. 1905. Edited by Professor James Macqueen. London: Baillière, Tindall and Cox. 1905. (Demy 8vo, pp. 715, 365 illustrations. 21s.)

SOMALILAND.

Major J. Willes Jennings, D.S.O., R.A.M.C., has, with the assistance of Dr. Christopher Addison, Lecturer on Anatomy in Charing Cross Hospital Medical School, written a book[8] which, if it is somewhat lacking in the literary graces, gives a very racy and high-spirited account of one of the Somaliland expeditions, incidentally affording a good deal of information as to the manners and customs of the Somalis, Abyssinians, and Gallas. In 1903 a fresh expedition was planned against the Mullah, who by a curious mistranslation was called Mad, and the Emperor Menelik of Abyssinia having requested the service of two British medical officers, Major Jennings and Captain H. N. Dunn were attached to the staff of Colonel Rochfort, C.B., who was the British representative with the Abyssinian Expeditionary Force. Colonel Rochfort vouches for the accuracy of the description of the military operations, but they were inconclusive and to the non-military reader rather incomprehensible, and therefore uninteresting; on the other hand, the description which Major Jennings has compiled of the country and its people, and of the Abyssinian force, is both informing and interesting. He gives an engaging portrait of Ras Makunnan, the Viceroy of Menelik in Harrar, but that town itself seems to present the worst features of overcrowding and insanitation.

In Harrar there is a hospital and a leper home. The hospital, maintained at the expense of Ras Makunnan, contains nine wards with concrete floors and whitewashed walls; the beds are of the ordinary European type, and the latrines are in a separate outbuilding with a modified cesspool arrangement. It is under the direction of a French medical man from Guadeloupe. The leper hospital, consisting of forty-nine huts and one stone-built main building, was established by French missionary priests in 1900.

They stated that there were about 8,000 lepers in Abyssinia, mostly Gallas, the anaesthetic type being more common than the tuberculous. The priests, according to Major Jennings, had no doubt as to the contagiousness of leprosy; husband and wife certainly transmitted from one to another, and union between two leprous patients produced a doubly-severe form of the disease. They were uncertain as to hereditary transmission, and felt sure that when leprosy developed in infancy contagion was commonly present. They did not accept the fish theory, on the ground that Abyssinians, Gallas and Somalis rarely eat fish, the rivers being dry for a great part of the year.

On the whole, Somaliland, in spite of its dreary aridity, seems to be a fairly healthy country; dysentery is rare, and malaria scarcely known in the highlands. Assistant Surgeon W. A. M. Wakeman, who has spent six years in the country, informed the author that an enormous number of persons suffered from a cestode intestinal parasite, owing, as he believed, to the habit of eating raw or half-cooked beef. Kusso grows in the Abyssinian highlands, and the parasite is called Kousso in recognition it is said of the virtues of the plant; but the converse seems more probable. The natives recognize the superior efficacy of male fern, coming long distances to get capsules of the extract, of which Mr. Wakeman dispenses as many as 5,000 in a year. The native medical profession in Abyssinia appears to have reached a stage foretold for this country, every practitioner being a specialist, for rheumatism, for stomach-ache, or for hystero-epilepsy, which appears to be very common and to be caused by a species of exorcism.

It is a curious circumstance that, while the Somali woman wears all her hair—in a net if she be married—the Somali man shaves his head and goes about exposed to the tropical sun, without apparently any protection whatever, a fact of which those who believe in the microbial theory of sunstroke may make a mental note.

Major Jennings makes light of the hardships, and makes the most of the sport, but as taxpayers our readers will be disposed to agree with him in the hope that the day is far distant when this country will spend more valuable lives and treasure in extending its influence over Somaliland and its inhabitants.

---

[8] *With the Abyssinians in Somaliland.* By Major J. Willes Jennings, D.S.O., R.A.M.C., and Christopher Addison, M.D., F.R.C.S. London: Hodder and Stoughton. 1905. (Demy 8vo, pp. 265. 10s. 6d.)

NOTES ON BOOKS.

Popular Hygiene.

With the alluring title, how to keep healthy and live long,[1] Professor Giovanni Galli's book, of which the second edition now reaches us, undertakes to indicate to the Italian seeker after hygienic truth the path he should tread. Dedicated to Queen Elena—"an example to all Italian mothers of the civil and domestic virtues"—it is addressed to the laity in general and to the heads of households in particular, and may be described as an excellent little volume, full of sound common-sense instruction on the hygiene of the home. It ranges over a good deal of ground, from the moral training of the youth down to the best dentrifice, and on all points is sound enough. Professor Galli is very modern in his ideas, and is never tired of proclaiming air, cleanliness, and exercise as the three persons of his hygienic *credo*. He even has leanings towards the tenets of the "hatless brigade," but cannot accept vegetarianism. The English, he says, are a great nation, and eat a beefsteak with their potato, and the Irishman with his potato only is therefore naturally subject to them. This is a question we need not pause to discuss here. We will only say that if Professor Galli's readers follow his instructions they will put themselves in the best conditions for the attainment of the ideal indicated by his title.

According to the publisher of *Portez-vous bien!* Dr. Terwagne's dainty brochure on popular hygiene,[2] this third edition has been demanded by an enthusiastic public. We can believe this when we are told that "whoever follows the advice contained in this popular book will be able to dispense with the physician." The text consists of a collection of all the well-known truisms on the subject of air, light, bathing, diet, etc., recounted by the author with a certain genial optimism which is quite engaging. The accuracy of the "scientific" parts may be judged from the statements that *x*-rays are luminous, that oxygen is as necessary to plants as to animals, and that amoebae are among the ordinary constituents of dust. The book is not meant for medical men, and we cannot recommend it to their patients in this country, whatever its vogue in France be.

First Aid.

First aid in accidents and sudden illness is a subject which is now largely taught to the public and on which there are innumerable elementary textbooks. First aid as rendered by the medical man depends largely on the resourcefulness of the individual. That a second edition of Dr. Meyer's book on first medical aid[3] has been called for so soon after the appearance of the first seems to prove not only that a handbook on emergency treatment was a recognized want in Germany, but that Dr. Meyer has been successful in supplying this requirement in a satisfactory manner. In reviewing the first edition (British Medical Journal, May 30th, 1903, p. 1262) we recommended the book to the notice of the profession, and as it has been thoroughly revised and some new matter added the second edition should prove most useful. If there is any fault to find, it is that it is too complete for rapid reference in an emergency. In its present form it is probably not intended for this purpose.

Dr. Macdonald's *Ambulance Examination Questions*[4] consists of a series of questions without answers on the subjects taught in lectures on first aid. These are grouped under different headings indicating the various kinds of injuries, etc. There is also a list of injuries and accidents which the student may use for testing his practical work. Finally, there are a few simple "problems" in diagnosis and treatment with "solutions," in which the nature of the answer is suggested rather than detailed. The author has found these and similar questions useful in his classes, and they may be useful to other teachers and students of first aid.

---

[1] *Como Posso Mantenermi Sano e Prolungarmi la Vita.* By Professor Giovanni Galli. Second edition. Milan: Ulrico Hoepli. 1905. (Cr. 8vo, pp. 501; 62 illustrations. L. 4.)

[2] *Portez-vous bien! notions élémentaires d'hygiène populaire et rationale.* Par Dr. Terwagne. Troisième Edition. Gand: Société Co-opérative; and Paris: Vigot Frères. 1905. (Demy 8vo; pp. 115.)

[3] *Erste ärztliche Hülfe.* Von George Meyer. Second edition. Berlin: A. Hirschwald. 1905. (Demy 8vo, pp. 482. M.8.)

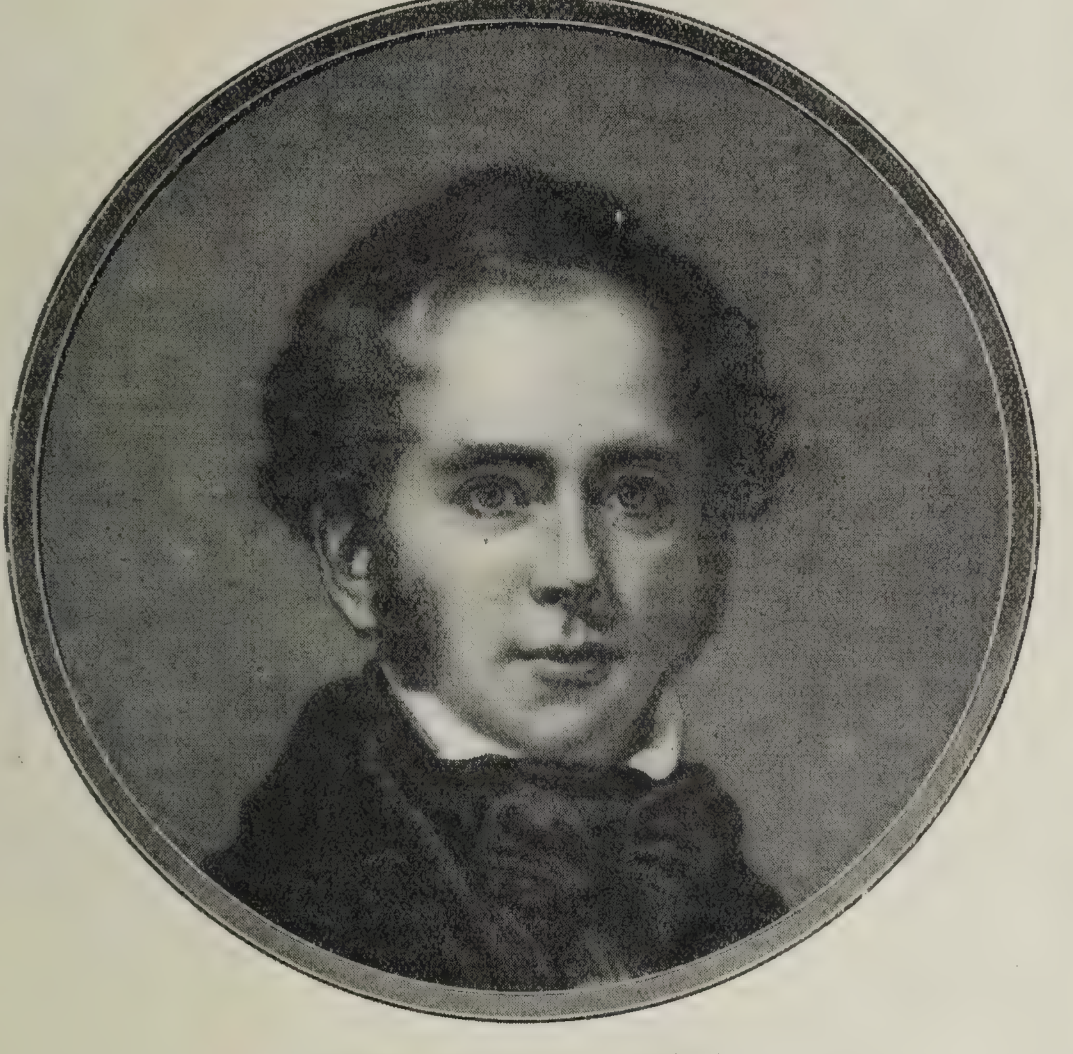
[4] *Ambulance Examination Questions;* being a catechism on Warwick and Tunstall's *First Aid to the Injured and Sick.* By D. M. Macdonald, M.B. Bristol: John Wright and Co. 1905. (Fcap. 8vo, pp. 30. 6d.)

Nova et Vetera.

THE FOUNDER OF THE BRITISH MEDICAL ASSOCIATION.

THE British Medical Association was founded at a meeting of the profession held on July 19th, 1832, at the Worcester Infirmary. Its founder was Charles Hastings, then one of the physicians to the Infirmary, and a man, although then only in his thirty-ninth year, who already had a distinguished record as an experimental physiologist and as a practical physician. At the present time when the Association which he brought into existence has readjusted and extended the scope of its practical work both in science and in politics, it will not be inopportune to recall some of the main facts of his career.

Charles Hastings was the sixth son of the Rev. James Hastings, Rector of Martley in Worcestershire, and was descended from the family of Hastings long settled at Daylesford in the same county, which had already given Warren Hastings to the State. Charles Hastings was born at Ludlow on January 11th, 1794, and received his early education at the Grammar School at Martley. He seems to have earned the reputation of a somewhat idle boy, more given to field sports than to books; but at the age of 16 he was apprenticed to Mr. Jukes and Mr. Watson, surgeons practising at Stourport, and made so good an impression by his diligence and abilities that two years later his friends determined to put forward his name as a candidate for the appointment of house-surgeon to the Worcester Infirmary which was about to become vacant. As a preparation for this he was sent for a few months to walk the hospitals in London. On his return to Worcester he was, while still only in his 19th year, elected house-surgeon to the Infirmary after a keenly-contested election by a majority of one vote. He discharged the routine duties of the office with much ability, working very zealously, keeping notes of all cases, and starting a pathological museum. At this time he came much under the influence of Dr. Wilson Philip,[*] one of the physicians of the infirmary, who had a considerable reputation as a physiologist. Under his inspiration he made a number of experiments on the functions of the cerebral, spinal, and ganglionic systems, with special reference to the nervous mechanism of the stomach and the functions of the vagus nerve. In 1815 he resigned the appointment of house-surgeon, and matriculated in the University of Edinburgh, where he attended the lectures of Gregory, Munro, and Duncan, as well as those of Hope in chemistry and of Gordon in physiology. He was somewhat handicapped by delicate health, but in his second year at Edinburgh found time to resume his scientific investigations, his attention being now directed to ascertaining whether the arteries, capillaries and veins possessed an independent contractile power, a matter then much under dispute. In the course of these inquiries he made many observations of the capillaries with the microscope, an instrument then comparatively little employed, and it is said that he was the only student in the University of Edinburgh at that time who possessed a microscope.



Charles Hastings, anno aetatis 46.

After a time he was appointed clinical clerk to Dr. Home, and being much distressed by defects in the cleanliness and diet of the Royal Infirmary, induced a fellow-student, Dr. Sims, who had been House-Surgeon to the Manchester Infirmary, to bring the matter to the notice of the Society of Friends. The result was the appointment of a committee of inquiry, with Jeffrey, the first editor of the *Edinburgh Review*, as president; the report of this Committee led to many improvements, without, perhaps, increasing the popularity of the young reformer with his elders. That his merits were appreciated by his contemporaries is shown by the fact that he was elected President of the Royal Medical Society, to which he communicated the result of his researches into the physiology of the blood vessels. His thesis for the Doctorate was entitled *De vi contractili vasorum.* Having on the score of delicate health declined the proposal of friends to put his name forward as a candidate for the office of teacher of physiology, rendered vacant by the death of Dr. Gordon, he obtained in 1818 the appointment of Physician to the Worcester Infirmary. Two years later he published *A Treatise on Inflammation of the Mucous Membrane of the Lungs*, in which he embodied an account of experimental inquiry into the action of the blood vessels, and an essay entitled *An Inquiry into the Nature of Inflammation*.

Within a few years of settling in Worcester his practice as a physician became very extensive, and made such calls upon his time and energy that "he was sensibly impressed with the baneful influence upon his mind of the tendency to degenerate into a mere receiver of fees and of the science to sink into the trade of the profession. On looking round, he could find no institution in the provinces to engage the attention of a cultivator of medical science. True it was that many great stars had shone in the provinces and had thrown much light upon medicine, but the profession, as a body, was disjointed, and no attempt had ever been made to give to provincial medicine a local habitation and a name."[*]

---

[*] Alexander Philip Wilson Philip had a chequered career. He studied medicine in Edinburgh, graduated in 1792, and afterwards practised and lectured on medicine there for a few years. He settled in Winchester in 1799, but removed to Worcester in 1802 on his appointment to be physician to the infirmary. He was a diligent worker in experimental and clinical medicine, and his writings, especially those on dyspepsia and on fevers, and an experimental inquiry into the laws of the vital functions, having made his name well known, he removed in 1817 to London. He was elected a Fellow of the Royal College of Physicians in 1834, and in the following year delivered the Goulstonian Lectures on the Influence of the Nervous System in Disease. He resided in Cavendish Square, and enjoyed a large and as was supposed lucrative practice. In his old age he became involved in pecuniary difficulties, and in 1842 retired to Boulogne, where he died, as is believed, in 1851.

[*] These words are quoted from a long biography in the *Lancet* published during the lifetime of Hastings (August 23rd, 1851), and affording strong internal evidence that the facts were supplied—if, indeed, the biography was not written—by himself.

His first attempt to meet this want was the foundation with the help of some friends of the *Midland Medical and Surgical Reporter*, the first number of which appeared in 1828.* It was a quarterly publication, and was carried on for four years with considerable success. After three volumes had been published it was resolved to adopt a more comprehensive plan, correspondence with the subscribers of the *Midland Reporter* having shown that there was a widespread desire that members of the profession residing in the provinces should unite themselves into an association, friendly and scientific, and that this association should have for main object the diffusion and increase of medical knowledge in every department of science and practice. With the assistance of Dr. Barlow of Bath, Dr. Hastings drew up a prospectus in which the principal objects of the proposed association were stated as follows :†

1. Collection of useful information, whether speculative or practical, through original essays, or reports of provincial hospitals, infirmaries, or dispensaries, or of private practice.

2. Increase of knowledge of the medical topography of England through statistical, meteorological, geological, and botanical inquiries.

3. Investigation of the modifications of endemic and epidemic diseases in different situations and at various periods so as to trace, so far as the present imperfect state of the art will permit, their connexions with peculiarities of soil or climate, or with the localities, habits, and occupations of the people.

4. Advancement of medico-legal science through succinct reports of whatever cases may occur in provincial courts of judicature.

5. Maintenance of the honour and respectability of the profession generally in the provinces by promoting friendly intercourse and free communication of its members and by establishing among them the harmony and good feeling which ought ever to characterize a liberal profession.

Rules were drawn up for the government of the Association, and together with the prospectus widely circulated among members of the profession in the provinces. Finally, a general meeting, which all legally qualified members of the profession resident in the provinces were invited to attend, was held at the Worcester Infirmary on July 19th, 1832. The chair was taken by Dr. Johnstone, of Birmingham, a physician who had practised for over half a century, and the meeting unanimously resolved to form the Provincial Medical and Surgical Association, and that it should hold an annual meeting in the various principal towns of the kingdom, at which addresses should be read on scientific subjects. Dr. Johnstone was chosen President and Dr. Carrick (Senior Physician to the Bristol Infirmary), President-Elect; Dr. Charles Hastings and Mr. James F. Sheppard (Senior Surgeon to the Worcester Infirmary), were elected Secretaries. A Council was also appointed, and among its members were practitioners residing in Cheltenham, Gloucester, Winchester, Exeter, Oxford, Manchester, Liverpool, Chester, Shrewsbury, Hereford, Monmouth, Swansea, Denbigh, Sunderland, Huddersfield, Sheffield, Warwick, Wolverhampton, Cambridge, Norwich, and Brighton.

Not many of the names of those who served on this first Council are remembered, but we find those of Dr. James Bardsley, Dr. William Charles Henley, Mr. Thomas Turner, and Mr. C. T. Thackrah, of Manchester ; Mr. William Hey, of Leeds ; Dr. J. Kidd, Regius Professor of Physic in the University of Oxford ; Dr. T. S. Traill, Professor of Medical Jurisprudence in the University of Edinburgh ; and Mr. Thomas Fowke, of Wolverhampton, whose grandson, Mr. Francis Fowke, was through so many eventful years the General Secretary of the Association.

Dr. Hastings delivered the inaugural address to the meeting, and briefly indicated the directions in which the new association might immediately proceed to add to medical knowledge, referring in detail to some of the questions in physiology, pathology, and therapeutics, then particularly calling for investigation. He also enlarged upon the opportunities for prosecuting the study of medical topography, in which he included vital statistics. He called upon his hearers not to indulge in useless theoretical disquisitions but "in the true spirit of inductive philosophy, to be vigilant in the collection of facts, and cautious in drawing conclusions from them." He concluded his address with the following peroration:

"Gentlemen, you will, at any rate, admit that the objects I have thus hastily introduced to the notice of the meeting, are worthy of deep meditation. The contemplation of them appears to me, indeed, to open to us, a vast and unbounded prospect, and to beget high and lofty thoughts of our future proceedings. I may be sanguine in my expectations, but I cannot help indulging the gratifying, the cheering, the delightful thought, that if we engage in this undertaking, as we are bound to do, by the obligations which our profession imposes upon us, with the zeal and alacrity of men anxious for the good of mankind, the Association must be of some use ; must have a direct tendency to extend the empire of knowledge, and to increase our power over disease.

'Valeat quantum valere debet.'"

Hastings was by natural bent and by the circumstances of his life well qualified to appreciate the important part that the study and advancement of clinical and scientific medicine should play in the work of such an association as that of which he was the founder, but he was equally alive to the necessity for the Association giving attention to the amelioration of the material conditions under which practitioners of medicine labour, and to the better adjustment of their relations to the State and to the public. In the inaugural address, from which we have already quoted, he said :

"It is likewise admitted on all hands that the organization of the profession which obtains is not what it ought to be, for the whole system of medical polity in this country is both defective and erroneous. Opinions differ widely as to the evils and remedies, but few are found to commend the existing state of things. This subject is closely connected with the advancement of science, for if the profession were constituted as it ought to be, and as reason and sound principles dictate, the harmony that would be thus established among the several departments could not fail to prove a direct means of their co-operating more cordially and efficiently in extending the science and improving the practice."

---

* The library of the British Medical Association does not contain copies of this periodical. The three volumes would be an interesting addition.

† The *Transactions of the Provincial Medical and Surgical Association*, vol. i, p. 10.

From the first the Association turned its attention to questions affecting the public health and the status of the medical profession in this country. At the first annual meeting the Association directed the secretaries, of whom Hastings was one, to present a memorial to the Parliamentary Committee then sitting urging the importance of recording causes of death in the provincial registers of mortality. At the fourth annual meeting, in Manchester in 1836, a committee appointed at the annual meeting at Oxford in the previous year presented an able and elaborate report on "the best means of affording medical relief to the sick poor, more especially with reference to the operation of the new Poor-law Act," and the Association resolved to petition Parliament, pointing out that "a remuneration calculated to ensure proper attendance, a mode of appointment not derogatory to the profession, regulations for the prompt supply of medical relief to the destitute sick, and a general supervision of the medical department of the Poor-law administration by competent persons, were essential to the interests and welfare of all parties concerned."

The first Medical Reform Committee of the Association was appointed at the fifth annual meeting, at Cheltenham in 1837, as it was believed that legislative proposals affecting the medical profession were about to be made, and in the following year this committee presented a report and a form of petition was agreed on in favour of the establishment of a single examining and licensing body in each of the divisions of the Kingdom. It was not, however, until the annual meeting in 1858 that the Association was in a position to adopt a vote of thanks to the Right Hon. W. F. Cooper, M.P., "for his able and persevering exertions in the cause of medical reform, which exertions have mainly secured the enactment of the Medical Act just passed." Sir Charles Hastings was one of the first members nominated by the Crown to represent it on the Medical Council created by that Act; he served for one term of five years and then retired owing to failing health.

The gratitude of the members of the Association to Sir Charles Hastings was shown in many ways. At the annual meeting of the Association in Liverpool in 1839 his portrait in oils—painted by R. B. Faulkner—was presented by the members to Mrs. Hastings, and the portrait here given is reproduced from an engraving of the oil painting by S. W. Reynolds. In 1843, on resigning the office of Secretary, he was appointed President of the Council and Treasurer, and in 1849, when the Association met in Worcester, he was chosen President. In the following year, owing to representations made by members of the Association to the Government, the honour of knighthood was conferred upon him.

Sir Charles Hastings's interests extended beyond medicine and physiology to other departments of natural knowledge. He was one of the founders of the Worcester Natural History Society, one of the earliest of the county societies which have done so much to encourage a love of Nature. This society, owing largely to the influence and exertions of Hastings himself, has formed a valuable museum. In 1834 he published a volume of *Illustrations of the Natural History of Worcestershire*, and at a later date he published an account of the Salt Springs of Worcestershire. In 1882 his bust in marble by Brock was presented to the City of Worcester and placed in the public library.

He died after a long illness on July 30th, 1866, in the seventy-third year of his age.

HOSPITAL MANAGEMENT.—The prize of £100 and a silver cup offered by Mr. Edgar Speyer for the best essay on the economical management of an efficient voluntary hospital has been awarded to Mr. Godfrey H. Hamilton, Secretary of the National Hospital for the Paralysed and Epileptic, London. The judges state that another essay, bearing the motto, "Dum Spiro Spero," was nearly equal in merit. The competition was open to all hospital secretaries and assistant secretaries in England, Scotland, and Ireland; twenty essays were sent in.

THE APPLICATION OF COLOUR PHOTOGRAPHY TO CLINICAL MEDICINE.

WITH this issue the BRITISH MEDICAL JOURNAL not only appears in somewhat different guise by reason of its change of size and type, but for the first time presents to its readers a practical demonstration of the application of colour photography to clinical medicine. When we look through the older numbers of the JOURNAL we find that it is about eighteen years since the woodcuts, then exclusively used, were first supplemented by the process block made from photographic representations. The latter have gradually taken the place of the woodcut, which is now used only in exceptional cases. The reason for this preponderating appearance of the photographic illustration process is obvious: more accurate drawing, a complete rendering of detail, and an almost unbiassed and objective representation of anatomical facts can be obtained by the photographic plate, which can be much less disputed than the subjective rendering by drawing and woodcut.

After 1888 we find the photographic process gradually replacing the old line drawing, wherever possible, in medical literature, as well as in the illustrated press generally.

The advance made in this direction during the past eighteen years has been enormous, and the advantage to scientific literature, and especially to teaching, can hardly be overestimated. But, great as it has been, it has often been felt that a further step was even more desirable—the objective reproduction of an image in its natural colours.

This desideratum, so eagerly looked for at the end of the last century, has been realized at the beginning of the twentieth by the three-colour process of natural colour photography.

Leaving untouched the unsolved mysteries and unfathomed depths of colour perception and colour-theory, unsolved mainly because of the unbridged chasm that separates the physiologist from the physicist with regard to the question of colour perception, we find, in dealing with the practical question of colour photography that we can reproduce any particular colour by a combination of three specially selected colours. The selection of these three special colours is in so far arbitrary, as any amount of different sets of three colours can be devised, that is, if we call the three colours A, B, and C, any amount of different A's can be selected, but to each a definite B and C corresponds, and for practical purposes would have to be always the same for the same A.

Seldom, if ever, do we have to deal with the prismatic colours in nature, unless indeed we want to photograph the rainbow itself. We will therefore consider only the two methods that have been successfully used for practical purposes, the Ives method and the Shepherd process. Both methods are similar in the production of their negatives, but vary considerably in the treatment of their positives.

The negatives are taken as follows: For each picture three separate negatives are taken, identical in form, but each is exposed through a different colour filter, through a red, a green, and a violet-blue glass respectively. These three negatives are best taken by means of a repeating back, and are made side by side on one plate.

From this plate with the three negatives, three positives are printed. In the Ives process the positives are printed on a glass plate of the same size as the negative plate, so that the three positives are side by side on the plate. The picture is produced by means of a specially-constructed lantern, so arranged by partially-coated mirrors that the light penetrates in suitable proportions the three colour filters, identical in colour with those through which the three negatives have been taken. The three positives are then thrown on to the same spot of a white screen. The colour filters are so chosen that, when the light falls through the red, the green, and the blue light without hindrance, white light is produced. If through red and green only, yellow is produced; through red and blue, purple; through green and blue, blue-green; any intermediate shades and tints are produced by the gradation of one or more coloured lights according to the silver deposit on the respective positive. Thus, if the object to be photographed had a white portion, this white portion will act on all three negatives taken through the three colour filters, and will on development produce a thick black deposit, and will produce on each of the three positives a corresponding free space, through which the light of all three colours passes without hindrance, and when superimposed on the same spot of the screen will form a white spot again. Or, again, if a red object be photographed, it will affect the negative taken through the red screen as if it were white, will on development produce a thick black deposit, and will produce a blank space on the positive where the red light passes without hindrance. But the second negative will not be affected, because the green colour filter will not allow the red light to pass, and the same, though in a minor degree, will take place with the third negative taken through the blue filter. Therefore no deposit will be formed on the second, and only very little on the third negative, and on the corresponding positives a dense deposit will be formed on the second positive, and an almost equally thick deposit on the third positive. The result will be that the picture on the screen will be formed by the full amount of red light passing through the blank space of the first positive, while the green light of the second positive is totally, and the blue light of the third positive is almost totally, excluded, ultimately giving a bright red spot on the positive. In this way the colours of the original object are reproduced with astonishing reality.

Beautiful as the pictures produced by the Ives process are, they have the disadvantage that for their production they require a specially-constructed projecting lantern. They can be seen only on the screen in an obscured room, and cannot be reproduced or printed. This latter drawback is obviated in the Sanger-Shepherd process. If the term may be permitted, the Ives process gives us a virtual, the Sanger-Shepherd process a real, positive. The negatives are taken practically in the same manner through three similar though not identical colour screens. The positives, however, are produced in a different manner—not by coloured light, but by real colours. For this purpose each of the three positives are printed in the colour complementary to that of the colour screen of the corresponding negative.

The positive of the negative taken through the red colour filter is tinted in the complementary dark blue, or as it is called "minus red," the positive of the negative taken through the green screen is printed in the complementary pink ("minus green"), and the positive of the negative taken through the blue-violet screen is printed in the complementary yellow ("minus blue"). The three positives were originally intended for lantern slides. The "minus red" positive is an ordinary lantern slide, tinted a beautiful transparent Prussian blue, the "minus green" and the "minus blue" positives are made as gelatine reliefs on thin celluloid films and stained pink and yellow respectively. The three stained positives are then carefully registered, and form a lantern slide positive, giving an exact reproduction of the colours of the original object.

The Prussian blue forms the principal part of the compound positive; and all the other colours for the positive stains as well as for the colour screens have been selected to suit it because it is a colour stable, transparent, and easily produced.

The production of the Shepherd positive is the reverse of the Ives positive. In the Ives positive the superposition of red, green, and blue light gives white; in the Shepherd process the superposition of the blue, pink, and yellow stain gives black. Taking, again, the examples given above, a white patch in the original gives a black silver deposit in each of the three negatives, and a corresponding blank patch on each of the three stained positives. The light of the lantern passes the compound positive at that spot without hindrance, and the result is a white patch on the screen. A red patch of the original produces, exactly like a white patch, a thick black deposit on the first negative taken through the red screen, but does not react at all on the negative taken through the green screen, and only a little on the negative taken through the violet-blue screen. The result is that a corresponding blank patch appears on the "minus red" or cyanide blue positive, a deeply-coloured patch appears on the "minus green" or pink positive, and a slightly-tinted patch on the "minus blue" or yellow positive. The compound positive will therefore consist of a pink + yellow patch, which appears red, the exact red of the original. In this way every colour of the original will be found to be reproduced.

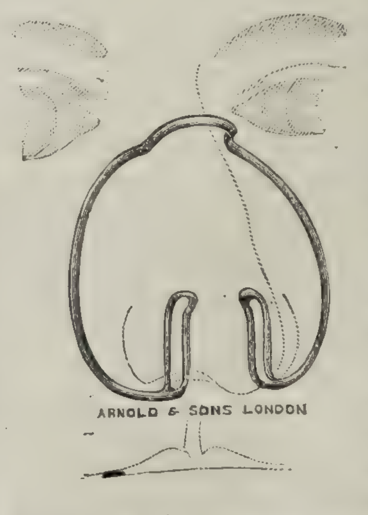
The technique is complicated and requires a great deal of careful and patient manipulation. The taking of the negatives alone makes a severe claim on the patience of the operator. When we consider that the principal and most important of the three negatives is exposed through a screen of a colour that is usually employed in the red lamp of the dark room for screening off all actinic rays from the ordinary sensitive plate, it is easily understood that the exposure for the particular negative will have to be proportionately long; then the other two negatives have to be taken, and during all this time the object, in this instance of colour photography, reproduced in the special plate by which Dr. Karl Grossmann's paper on lepra ophthalmica is illustrated this week, the patient, must remain absolutely still, or else the three negatives will not be identical in outline, and the three positives will not register, which means a spoilt picture. The difficulty can be only overcome first by making the plates highly sensitive for coloureed light, and secondly, by using lenses admitting of a very wide diaphragm, such as F 4.5. Thus it has become possible to produce sharp pictures of living objects with an exposure that is about 500 times longer than an ordinary black-and-white photograph would require under the same circumstances.

The Shepherd process has further this great additional advantage: that besides transparencies such as lantern slides, positives may also be printed on white paper by making blocks direct from the three positions, and printing them, carefully superimposed, in the corresponding three colours, after the manner of chromo-lithographic printing. The special plate accompanying Dr. Grossmann's paper has been produced in this way. Its realistic rendering of the originals speaks for itself, and we congratulate Dr. Grossmann on the results obtained. We only regret that, owing to the costliness of the printing of so large an edition as that of the British Medical Journal, we had to limit ourselves to the selection of six portraits out of the large number in Dr. Grossmann's collection.

But although multiple colour printing will always remain expensive, colour photography enables us to reproduce objectively the finest shades and the most diversified tints, without the biassing subjective intervention of the artist. Its application to clinical medicine will be invaluable, and its use only limited, at least for the near future, by the as yet large cost of production, and still more of reproduction.

MEDICAL AND SURGICAL APPLIANCES.

A Nasal Dilator.—The nasal dilator shown in the engraving is made by Messrs. Arnold and Sons, of West Smithfield, E.C., in three sizes and several strengths. It is usually, we are informed, self-retaining, and if when first used it shows any tendency to slip, it can be kept in place by plaster. In order to prevent it pressing uncomfortably on the junction of the bony and cartilaginous portion of the nose, the ends are given an inward curve. The instrument has been made to the order of Mr. F. H. Burton Brown, M.D.Oxon., Clinical Assistant in the Aural Department of the London Hospital, who as regards some practical points has received some advice from Mr. Hunter Tod. He has caused it with advantage to be worn during sleep by patients who, either from temporary or permanent causes, would otherwise be mouth-breathers, such as adults with narrow anterior nares, those with stuffy colds, and adynamic cases of typhoid, etc. In children especially, whose cartilages tend to fall in if there be interference with proper respiration, this dilator, he finds, when worn at night, breaks the vicious circle induced by mouth-breathing, and gives the parts a chance of resuming their natural shape.



PROFESSOR KOCH'S INVESTIGATIONS IN EAST AFRICA.

In the *Deutsche medizinische Wochenschrift* for November 23rd, 1905, Professor Koch publishes a preliminary account of scientific observations which he has made in East Africa since December, 1904.

Relapsing Fever.

This disease, as met with in German East Africa, only differs in a few points from the European form. The short duration of each attack is particularly noticeable, and also the small number of spirochaetes found in the peripheral blood stream. The African spirochaetes appear to Professor Koch to be, on the average, longer than the European organisms, and they often exhibit clear spaces, which suggest that they multiply by transverse division. Monkeys can be infected without fail when subcutaneously inoculated with the blood of patients, and the disease so produced is generally severe, or even fatal. Professor Koch has not succeeded in infecting cattle, dogs, or other experimental animals. Infection, as is well known from the work of Dutton, is conveyed by ticks, and may be experimentally transmitted by means of these parasites to monkeys. When a tick has sucked the blood of an infected human being or monkey, the spirochaetes do not at once multiply, but disappear in the course of a few days from the stomach of their host; but on careful investigation it is found that in a certain number of the ticks the spirochaetes are demonstrable on the surface of the ovary. In this situation they are to be found in large numbers, and have evidently undergone considerable multiplication. After the ticks have laid their eggs the spirochaetes may be found in the contents of the eggs, and the young ticks which are hatched out from these are capable of infecting monkeys. Professor Koch regards it as probable that in German East Africa, where the disease is endemic, the natives usually make a recovery from the infection in early life, and subsequently are more or less immune, or at least are insusceptible to severe infection. As the simplest way for Europeans to protect themselves against infection, he recommends the precaution of not pitching their tents on places which have previously been occupied.

Piroplasma Bigeminum.

In order to study the development of this organism, which is the cause of Texas fever, it is necessary to examine on several successive days the gastric contents of ticks which have obtained their fill of blood from an infected animal. The pear-shaped parasite leaves the red-blood corpuscle and extends itself longitudinally, whilst one of its two chromatin bodies passes to the anterior end of the parasite and forms a dark-coloured projection. The other chromatin mass remains about the middle of the parasite and is less compact in its appearance. In the next place radial processes appear beneath the pointed extremity. These are at first two or three in number, but later on become more numerous. The other end of the parasite also becomes pointed, and the general contour of the organism is angular, with radial processes. From the second day onwards, in addition to the above-described forms, there are frequently observed pairs of individuals which are joined by their posterior ends, thus presenting the appearance of a single body possessing at either extremity a chromatin body from which a radial mass of processes emanates. This phase is suggestive of copulation. At a later stage there appear globular forms; to the inner wall of these portions of chromatin are attached, and at one portion of the periphery of the wall the chromatin forms a pointed projection. It appears as though these globular forms were the derivatives of parasites which had copulated and had lost their radial processes. Those parasites which possess radial processes have a marked tendency to unite into groups, which may consist of from three to ten or more individuals. In the eggs of infected ticks pyriform bodies are often found which are from three to four times the size of the piroplasma as it occurs in the blood of cattle. Professor Koch has been able to demonstrate the development of *Piroplasma bigeminum* in *Rhipicephalus australis*, *R. evertsi*, and *Hyalomma aegyptium*, but only in adult specimens which have sucked their fill of blood and in their eggs.

Coast Fever in Cattle.

The parasites of Coast Fever differ in so many characteristics from the well-known examples of *Piroplasma* found in the bovine, dog, and horse that it appears probable that they do not belong to the same species. They do not show the regular paired forms which are so characteristic of *Piroplasma*. On the contrary, in Coast Fever the rule is to find the parasites divided into groups of four, which are arranged in the form of a cross. This arrangement is not found with the genuine *Piroplasma*; but it has been observed by von Dschunkowski, in Transcaucasian Russia, in the disease which he terms tropical piroplasmosis. It is also known that, apart from genuine piroplasmosis, horses are susceptible to a disease in which the parasites assume the cross form. Professor Koch therefore suggests that the diseases in which this peculiar formation is present should be grouped together. A further characteristic of Coast Fever is that in the spleen and lymphatic glands peculiar globular forms (the full description of which the author reserves for a later publication) are found in large numbers. These forms are so regularly demonstrable in the spleen and glands, even before the parasite has made its appearance in the blood, that Professor Koch considers they may be useful for the early diagnosis of the disease in slaughtered animals. The early developmental stages in the tick of the parasite of coast fever are similar to those of *Piroplasma bigeminum* as regards the production of angular forms with radiating processes. The organisms are however, smaller, and the angles and processes are not so numerous as in the latter parasite. But, notwithstanding these differences, the developmental histories of the two parasites closely resemble each other.

Tsetse Flies and Trypanosomes.

It is generally considered that *Glossina morsitans* is the fly which transmits the tsetse disease. Of the eight hitherto described varieties of *Glossina*, six have been found in German East Africa, namely—*Glossina fusca*, *morsitans*, *pallidipes*, *tachinoides*, *palpalis*, and *longipennis*. *Glossina morsitans* is only scantily distributed, but *fusca* is very common, and is met with wherever the tsetse disease occurs. According to Professor Koch's experience the flies which spread the disease are *morsitans*, *pallidipes*, and *fusca*; and, of these, the principal agent is *fusca*. On examining the watery fluid expressed from the proboscis of this last variety, he found in many of his specimens large numbers of trypanosomes. The facts that this fluid was quite from blood corpuscles, that the trypanosomes were much more numerous in it than when met with in the blood, and that they were in different stages of development, make it, he thinks, clear that these flies do not, as hitherto supposed, transmit the disease by direct transference of the blood of an infected animal to a sound animal; but that, as in the case of malarial parasites, the trypanosomes pass through a developmental stage in their intermediate hosts. This latter theory was confirmed by examining the stomach of those insects in which the proboscis contained trypanosomes, the result of the examination being that, even when the stomach was quite free from blood, large numbers of trypanosomes, in different stages of development, were discovered in this organ. Professor Koch's investigations into the developmental processes of the trypanosome in *Glossina* show that the organisms infested with the blood of the bitten animal rapidly multiply in the stomach by longitudinal division, and attain a considerable increase of size. At the same time a remarkable differentiation takes place. Some of the large trypanosomes increase greatly in thickness, exhibit an abundant protoplasm which takes a blue stain, and possess a large, rounded, chromatin body, which is loosely reticulated; others present a remarkably slender appearance, with no blue-staining protoplasm, and possess a long, slender, very dense chromatin body. This differentiation into two types is comparable to the differentiation of malarial parasites at the commencement of their sexual period, and the suggestion is made that the stout forms represent the female trypanosomes and the slender forms the male. Stout forms with multiple nuclei are often found. These perhaps represent fertilized females. Professor Koch is inclined to think, though he had not actually observed the process, that the multinucleated forms split up into a number of daughter trypanosomes, corresponding to the number of their nuclei. These very young forms he has often found in infected flies. They consist at first of simple, globular, nucleated cells, and then exhibit gradual phases of transition to the typical structure of a developed trypanosome. It is noteworthy that in the fluid from the proboscis, in addition to the varieties of form above described, organisms occur which appear identical with those found in the blood. Probably, therefore, it is through these last that infection takes place; and it is significant that the attempts to infect rats with trypanosomes taken from the stomachs of flies have yielded negative results. Infection of *Glossina* with trypanosomes does not appear to take place unless the disease in the animal which it bites is of long standing; when the fly bites a resistent animal in which the disease is of long standing and where the number of parasites in the blood is scanty, the insect is more likely to be infected than when it bites a recently-infected bovine in which the circulating parasites are numerous. This is a curious fact, and points to the necessity of some modification of the parasite, not yet understood, in the animal organism before the trypanosome is capable of pursuing its cycle of development in *Glossina*.

MEDICAL NEWS.

At a meeting of the Japan Society at 20, Hanover Square, at 8.30 p.m. on Wednesday evening next, Miss Ethel McCaul will read a paper, illustrated by lantern slides, on the Red Cross Society in Japan.

The Director-General of the Royal Navy Medical Service, Inspector-General H. M. Ellis, K.H.P., F.R.C.S., has been granted the relative rank of Vice-Admiral from January 1st.

The jubilee of the National Temperance League, which occurs this year, will be celebrated in London in October by a conference; the sitting on one day will be devoted to the subject of science and education.

The Chesterfield Lecture at the St. John's Hospital for Diseases of the Skin, Leicester Square, W.C., will be given on January 11th, the subject being bullous and vesicular eruptions.

We are requested to announce that the endowment fund now being raised for the family of the late Professor G. B. Howes, F.R.S., will shortly be closed, and all intending contributors are asked to send their contributions without delay to the Treasurer, Mr. Frank Crisp, at 17, Throgmorton Avenue, London, E.C.

The late Mrs. Isabella Elder of Govan has bequeathed £50,000 as an endowment fund to the Executive Committee of the Cottage Nurses' Training Home, in connexion with the Elder Cottage Hospital at Govan founded by the testatrix, and a residence with about half an acre of ground in South Avenue, Govan.

The opening lecture of the spring session of the North-East London Post-Graduate College will be delivered by Mr. John Langton at 4.30 p.m. on January 12th at the Tottenham Hospital, N. The afternoon clinical lectures throughout the session are free to all qualified medical practitioners.

Surgeon-General William Richard Browne, M.D., I.M.S., Surgeon-General with the Government of Madras, has been appointed a Companion of the Order of the Indian Empire, and Lieutenant-Colonel Robert Shore, M.D., I.M.S., Residency Surgeon, Mewar, has been awarded the Kaiser-i-Hind medal of the first-class for public service in India.

We learn from *Nature* that a Committee of leading representatives of science in many parts of the world has been formed with the object of placing a monument to the memory of the late Professor Ernst Abbe at Jena on a site between the Volkshaus erected by him and the optical works to the development of which he devoted his life. As Zeiss's instruments are used in almost all parts of the world it may be said that Abbe has a monument in every laboratory, but there may be grateful physiologists and pathologists who would like to send their subscriptions to Dr. Gustav Fischer, Jena.

The necessary legal formalities having been completed, the Council of the National League for Physical Education and Improvement held its first meeting on December 28th, 1905. The object of the League is to deal with the causes that tend to impair the health of the nation by federating the various agencies at present engaged in that work in different parts of the country, and by starting them where necessary. The Council meeting was well attended, and its chief business was to elect an Executive Council which will be presided over by the Bishop of Ripon. Among the medical practitioners who are members of the Executive Council may be mentioned Professor Howard Marsh, Sir Hugh Beevor, Sir Lauder Brunton, and Mr. Andrew Clark. The League recognizes that it must rely largely upon the personal aid of women, and among the members of the Executive Council are Mrs. Scharlieb, M.D., and Mrs. Watt Smyth, the author of *Physical Deterioration*.

Seven operative plumbers, who have passed the Plumbers' Company examinations in the technology of plumbing and workmanship in the honours grade were recently admitted to the freedom of the Company. In his address on this occasion the Master reminded the new freemen that they were binding themselves by the old oath of allegiance of the Company to maintain its best traditions and good craftsmanship and loyal citizenship wherever their work might be done, and that it would be their duty to maintain a high standard of plumbers' work and to improve the hygiene of the community.

At a recent meeting of the Zoological Society of London Mr. Oldfield Thomas, F.R.S., exhibited the tail-vertebrae of a dormouse of the genus *Eliomys*, which showed the phenomenon, hitherto unrecorded among mammalia, of the regeneration of a bony structure in case of accident. The tail had been accidentally broken completely off at about half its length, and the caudal vertebra, in this case the twelfth, which had been broken across, had grown out into a slender styliform appendix, 15 mm. in length, and rather less than 1 mm. in diameter, the normal vertebrae of this part of the tail measuring about 6 by 2 mm. On further search, two other specimens exhibiting the same structure were found, and it appeared, therefore, that dormice, like lizards, were able partly to regenerate their tails when these important balancing organs got accidentally broken.

A very interesting account of the progress which is being made by the Chinese in the organization of an army on modern lines has been given by a special correspondent of the *Times* who was recently with General Nogi in the Russo-Japanese war. Manœuvres to which military representatives of the chief Powers were invited were held this autumn near Tientsin, when some 35,000 men were engaged. After praising the organization and discipline of the force, the correspondent states that considerable progress has been made in the establishment of a medical department; a field hospital transported by pack-ponies follows each brigade, and every battalion is accompanied by a batch of stretcher-bearers. The medical branch of the service is one of the most recently organized, but already the Red-Cross and medical establishments are on a large scale, and stringent orders in regard to the sanitary condition of barracks have been promulgated. A veterinary service has also been instituted, and a school has been established in which 100 students are being educated in veterinary science. It may be that the correspondent takes too sanguine a view, and it is difficult to believe that the organization of a medical department can have advanced so far remembering the small number of Chinese who have been trained in Western medicine. We believe that the majority of those employed have received their education at the College at Tientsin.

The Medical Sickness and Accident Society.—The usual monthly meeting of the Executive Committee of the Medical Sickness Annuity and Life Assurance Society was held at 429, Strand, London, W.C., on December 29th. The chair was taken by Dr. J. Brindley James. As usual at this season of the year a long list of claims required the attention of the Committee. With few exceptions, however, the sickness claims experienced by the Society for some time past have been of a light nature, and the gain during the summer and autumn of 1905 has more than balanced the heavy expenditure in sickness which was incurred in the spring. To insure economy in the management of the business the Committee spend no money in advertising in the ordinary manner, and therefore the steady growth in the number of the new proposals received is evidence that the advantages offered by the Society are recognized by those who have joined it, and they in turn introduce it to their medical friends. Over 3,000 sick pay cheques are sent out in the course of a year. Prospectuses and all particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

British Medical Journal.

SATURDAY, JANUARY 6th, 1906.

THE BRITISH MEDICAL JOURNAL.

The changes made in the type and printing of the British Medical Journal with this issue will, it is believed, materially increase the ease and comfort with which it may be read. The history of the Journal is given in the biographical notice of the founder of the Association on page 27. It will be seen that the first efforts of Sir Charles Hastings to bring workers in medicine in the provinces into relations with each other was the foundation of a quarterly periodical called the *Medical and Surgical Reporter*, the first number of which appeared in 1828. Encouraged by the success of this enterprise, but feeling that it fell far short of attaining the ideal he had in view, Hastings in 1832 issued to medical men practising in the provinces a proposal to unite themselves into a friendly and scientific association; at a general meeting of the profession held at the Worcester Infirmary on July 19th, 1832, the Provincial Medical and Surgical Association was founded, and for some years afterwards issued an annual volume of *Transactions*. In 1840 two members of the Association, Dr. Green and Dr. Streeten, founded the *Provincial Medical Journal* and carried it on for three years; the enterprise was then taken over by the Association, and the journal became its organ. It appeared under the name of the *Provincial Medical and Surgical Journal* from 1843 to 1852. At the annual meeting in 1856 the title of the Association was by a unanimous vote changed to the British Medical Association, and with the first volume of 1857 the journal appeared with the title British Medical Journal, by which it has long been well known throughout the world.

It is difficult to put the mind back to the conditions of practice at the time when the Association was founded. Hastings, in his inaugural address to the Foundation Meeting at Worcester, said that "The facilities of "communication too between distant towns, both per- "sonally and by letter, are so much greater than formerly "that the very distance at which many of the members "may reside from each other will oppose but a slight "barrier to our undertaking." But this must be regarded rather as a prophetic utterance than as a statement of actual fact, for the first railway between Liverpool and Manchester had been opened less than two years before, and the first long line, that connecting these two cities with Birmingham, was not commenced until 1833.

In the actual practice of medicine many of the methods and appliances which are now essential in everyday work were then unknown; the stethoscope though its value was beginning to be appreciated by a few far-seeing men, was looked upon by the bulk of the profession as a scientific toy, and the thermometer had been used only by a few physiological experimenters and one or two clinical observers. The ophthalmoscope was undiscovered, and the laryngoscope still undreamed of. The value of the microscope in physiological and clinical research was appreciated only by a few, of whom the founder of the British Medical Association was one. So little was its value understood that when William Sharpey was appointed Professor of Physiology at University College in 1836, his was almost the only microscope in London, and his demonstrations were attended by many men who had long passed out of the stage of studentship. There is now, or was until recently, preserved at University College a table with a circular band of brass let into it. Sharpey having adjusted the specimen passed round the microscope, which, carried on a long arm fitted to the centre of the table, travelled smoothly along the brass band. The application of chemistry to physiology and pathology was in its infancy; even the examination of urine was not part of the routine of ordinary practice, but was the boast of a few advanced physicians. The science of bacteriology was unborn, and its practical applications to the principles of surgery and to public health, by which the genius of Pasteur and Lister has revolutionized this department of practice, were undreamed of.

The policy of the Association has been to make its official organ a first-rate medical journal, reflecting the progress in the art of medicine and in the sciences upon which it depends or to which it is related. The increased activity in every department of medicine, whether clinical or experimental, the rapid growth of the biological and physical sciences, the discovery of new departments which almost deserve to rank as separate sciences, and the extension of the British Empire, placing upon the nation the obligation of studying the diseases of tropical climes, has led inevitably to a great increase of bulk. The Journal was enlarged in 1867 soon after the appointment of the late Mr. Ernest Hart to be editor. Great improvements have been made in the periodical press since that date, and it was felt that the time had come when the Journal should share in this advance so far as circumstances allowed. Since 1867 the scope of the Journal has been very greatly widened and the number of pages in each weekly issue increased. In 1868 the two volumes contained 1,334 pages, in 1905 the volume for the first half of the year contained 1,913 pages, and that for the second half 2,246 pages. The epitome of current medical literature was added in 1892, and in 1903 the publication of a Supplement to contain records of the political and ethical work of the Association and documents bearing upon these matters was commenced. This supplement was at first issued at irregular intervals, but as the work of the Association and its Committees and Branches grew, it was found possible in 1905 to arrange for the publication of a Supplement every week. In this way members are kept informed of the work which is being done by the British Medical Association to maintain the honour and interests of the medical profession.

THE INTERNATIONAL MEDICAL CONGRESS.

We learn from a recent article in *A Medicina Contemporanea*, the Editor of which is Professor Miguel Bombarda, the moving spirit in the organization of the forthcoming International Medical Congress, that the preparations for the meeting, which is to be held at Lisbon in April next, are making satisfactory progress. The meetings, with the exception of the opening and closing ceremonies, are to be held in the Medical School of Lisbon, which is being got ready for the purpose, and no pains, we are assured, will be spared to prevent the confusion and annoyance which afforded well-grounded cause for complaint at some previous Congresses. The Portuguese Government is giving its active assistance, as well as its patronage, and the Organizing Committee is doing all in its power to make the arrangements complete and perfect in every detail. We congratulate Professor Miguel Bombarda and his colleagues on their energy and public spirit, and we hope their efforts will be crowned with success. There are, however, certain defects in the organization of the Congress, to which reference has already been made in the BRITISH MEDICAL JOURNAL; as these are of a nature to impair the representative character of the forthcoming meeting, and even to endanger the future existence of the Congress, we think it may be well to discuss them somewhat more fully.

One of the points to which we wish to call attention is the confusion of tongues, an evil which first showed itself in an acute form at Rome and has continued ever since. A congress which conducts its work in half-a-dozen languages repeats the story of the Tower of Babel, and the result must be failure in what is the real object of the Congress, however much it may be hidden by the brilliancy of official ceremonies, receptions, banquets and social festivities. Men preside at discussions of which they can gather only a shadowy outline, or listen with what semblance of intelligent interest they can contrive to papers of which they do not understand a single word. The natives of the country in which the meeting is held are apt to take advantage of the situation and make their language predominant, thus destroying the international character of the meeting. Sir Edwin Cornwall, Chairman of the London County Council, who has announced his intention of organizing an International Congress of Municipalities, speaks light-heartedly of the linguistic difficulty, saying that it is overcome in the case of other international congresses. If his scheme is ever realized he will learn that this is by no means the case.

There should at most be three official languages—French, English, and German; these have a special claim, not only because they are most widely spoken, but because they are the languages in which the great bulk of scientific work throughout the world is published. We are still far from the only other possible solution of the difficulty—the restoration of Latin as the *lingua franca* of scientific intercourse. There are, of course, the artificial languages, of which Esperanto at the present moment is the most widely advertised. But, as we have said before more than once, Esperanto is as troublesome for the ordinary Englishman to learn as French, and when learnt nothing has been acquired but a mixed "pigeon" jargon without a literature and without any of the associations of a human speech that has been naturally evolved.

A more serious source of weakness lies in the very constitution of the Congress. Beginning with a high ideal of scientific and practical usefulness, it is now in danger of degenerating into a gathering in which the social will by degrees overwhelm the scientific element. It has outgrown its original organization, and nothing has been done for its reform. To understand the position, a glance at the history of the Congress is necessary; and here, most opportunely, we get help from Professor C. Posner of Berlin. In a thoroughly documented article which appeared in the *Berliner klinische Wochenschrift* of September 4th, 1905, that distinguished writer traced the evolution of the Congress. Originally it was, like the French Republic, one and indivisible. It had no sections, all business being transacted and all scientific work done by the Congress as a whole. At the first meeting, which was held in Paris in 1867, the Congress as an undivided body dealt with such diverse subjects as the anatomy and physiology of tubercle; the causes of death after surgical operations; the mercurial treatment of syphilis, and the expression of the fetus. At the next meeting, held in Florence in 1869, the same plan was followed. At Vienna in 1873 the Congress discussed in full session such questions as vaccination, syphilis and prostitution, quarantine, an international pharmacopoeia, and the social position of medical practitioners. Even at that time, however, the specialization made necessary by the rapid growth of medical science began to make its influence felt, and at Vienna for the first time a wish was expressed that special subjects should be discussed in special sections; indeed a first step was taken unofficially in that direction by the psychiatrists and medico-legal experts, who held separate meetings in the intervals between the sittings of the Congress. Two years later, at Brussels, there were Sections of Internal Medicine and Pathological Anatomy; Surgery; Obstetric Medicine; Biology, Anatomy and Physiology; Public Medicine, Hygiene, Forensic Medicine, Statistics; Ophthalmology; Otology, and Pharmacology. Since then the sectional arrangement has become established, and the number of sections has tended naturally to increase. It is, however, as Professor Posner points out, doubtful whether the convenience of this arrangement is not to some extent counterbalanced by the fundamental change which the fissiparous multiplication of sections has wrought in the constitution of the Congress; though still *formaliter* a definite organism, it is tending more and more to become *materialiter* an aggregation of more or less heterogeneous bodies.

It seems at first to have been thought that the Congress would be accepted by statesmen and law-givers as the official mouthpiece of medical science. But inasmuch as no Government pays heed to suggestions unless they are reinforced either by ballot boxes or by bayonets, the pronouncements of the Congress on matters of public health had as little effect as those of the Peace Conference at The Hague. Throwing up the part of medical adviser to the universe in despair, the Congress then subsided into the less ambitious but not less necessary rôle of a World's Fair of discoveries in medical science and inventions in the art of healing. The story of the various sections, if it could be fully told here, would afford curious illustrations of the ebb and flow of medical opinion. Sections spring into being as new regions of knowledge are opened up; with the advance of science some of these throw off branches which soon display a vigorous independent life; others are after a time reabsorbed into the parent stem. Others, again, undergo vicissitudes explicable only by local and temporary conditions, or perhaps by the personal vagaries of an Organizing Committee.

Of all the recognized forms of specialism none has had a more chequered career in its relations to the Congress than laryngology; and as its history serves to point the moral we wish to enforce, we may be allowed briefly to refer to it once more. It was at the London Congress in 1881 that laryngology, which till then had been looked upon as a pariah by the Brahmins of medicine, first gained for itself, not without difficulty, the status of a reputable caste. It was, however, attached as a satellite to the Section of Medicine. At the next Congress, held in Copenhagen in 1884, it first attained the rank of an independent section. From the Washington Congress, held in 1887, owing to family jars in the profession of America, most European laryngologists stayed away. At Berlin, in 1890, laryngology again had a section to itself. Thus its position in the International Medical Congress might have been thought to be assured. At Rome in 1894, however, an attempt was made to force it into an undesired partnership with otology; this however was defeated. But from that time till now the opposition to the independence of laryngology has been revived by the Organizing Committees of successive Congresses. At Moscow in 1897 it was proposed to attach a subsection comprising laryngology, otology, and dentistry as an appendage to the Section of Surgery and Ophthalmology, and it was only with difficulty that the Organizing Committee was induced to make separate sections of laryngology and otology. Again, in Paris in 1900, laryngology and otology were relegated to subsections, but after a struggle each of them succeeded in establishing its claim to a section. Justly irritated by these repeated attempts to place them in a subordinate position, the laryngologists and otologists at the Paris Congress passed a resolution affirming their determination to insist on their independence at all future Congresses; this was conveyed to the proper official quarter with the request that it should be transmitted as an instruction to the General Secretary of the next Congress. The organizers of the Madrid Congress paid no attention to the wishes thus expressed, but after a struggle the concession of separate sections was wrung from them. The Organizing Committee of the Lisbon Congress in the first instance fashioned a many-headed monster, in the shape of a Section of Oto-laryngo-rhino-stomatology! It was pointed out, however, that this would be as troublesome a creation as the man made by Frankenstein; and it has now, by special grace, been divided into three subsections, of which rhino-laryngology is one, otology another, and dentistry a third. In this position the matter remains, and the Organizing Committee have let the remonstrances of all the leading societies of laryngology pass by them like the idle wind. The consequence is, as was stated in the BRITISH MEDICAL JOURNAL some time ago, that the most prominent representatives of laryngology in Great Britain and Germany have declared their intention of taking no part in the Congress, and there is reason to believe that their example will be followed by all the foremost laryngologists and otologists of other countries.

We have chosen the relations of laryngology with the Congress as the best example of the variations and permutations to which the minds of Organizing Committees are liable. Other instances of caprice might be quoted, but we need not labour the point. The remedy is as obvious as it is simple. The Congress is, in theory, a permanent body; but there is no real continuity in administration. The arrangements are virtually left to an Organizing Committee chosen from the profession of the country in which the Congress is to be held. This is right, and necessary, as far as local details are concerned, but the members of an Organizing Committee are only the local executive of the Congress, and with the termination of the particular meeting for which they are responsible their authority ceases and determines. It is clear that suitable machinery is required for the continuous direction of the general organization and policy of the Congress. Professor Posner suggests that for this purpose a permanent bureau should be formed of the Presidents of the several National Committees, and that in the interval between one Congress and another this International Bureau should keep itself in close touch with the local Organizing Committee. In this way mistakes would be prevented, for instance in the choice of men as Presidents of Sections, such as are inevitable when everything is managed by a body necessarily ignorant of circumstances that have to be taken into account in arranging such matters. Professor Posner's suggestion seems to us feasible, but we should be inclined to give each National President power to select another member of his Committee as a coadjutor. The appointment of a permanent Secretary would also be useful for the maintenance of the character and traditions of the Congress; such an official would be a link of continuity in the existence of the Congress, and by his special knowledge and experience would greatly facilitate the smooth working of its organization.

The question has been asked, Has the International Medical Congress outlived its usefulness? Whatever the answer to be given to this question may be, it may safely be predicted that, unless some reforms in its constitution in the directions indicated are made, its unwieldy bulk and defective organization will surely bring about a general breakdown. Already, as we have shown, processes of disintegration are at work. The multiplicity of languages is tending more and more to make the meetings international only in name. The inept policy of snubbing special sections must inevitably end in the breaking away of these and the formation of international congresses of their own. The Congress is, or should be, a concrete example of the essential unity of medicine in all the manifold directions of its activity. If, through mismanagement, it loses its character of universality, it will cease to fulfil any purpose useful either to science or to the medical profession.

THE MEDICAL PROFESSION AND THE GENERAL ELECTION.

THE question is being asked, What is the duty of members of the medical profession at the general election? The question must be considered from two points of view—the duty of medical practitioners to the profession, and the duty of the profession to the public. There is no real conflict between these two duties. It is the duty of every elector to give expression to his settled convictions on public questions during the discussions which precede an election, and to give effect to them at the polling stations. General politics at the present time are in a very confused state, and a conscientious elector may, during the contest now about to take place, find it difficult to know on which side his vote should be cast. A general election is at best only a very rough way of getting at the opinion of the country. There is no such thing as the representation of minorities, except by the rough average of the balance of all results in individual constituencies throughout the country. There is all the more reason, therefore, to consider carefully the attitude of candidates towards these great social questions in which the medical profession is specially interested and upon which it is peculiarly competent to guide medical opinion.

The SUPPLEMENT for this week contains a series of brief memoranda on the legislative and administrative reforms in which the medical profession is more especially concerned, and it is believed that much can be done to assist in their realization through representations made at this time. Many candidates now before the constituencies are new to political life and many who have already occupied seats have never had these questions properly placed before them. Every one of the proposals put forward would, if adopted, be to the public advantage; not one is conceived in the selfish interests of the medical profession alone. We may take that which stands first in the list, the Medical Acts Amendment Bill, since it might at first sight seem to be designed to benefit the profession rather than the public. Sir John Simon, though the greater part of his life's work was done as a permanent official, was a statesman who had a strong grasp of the relations of the medical profession to the public. He recognized, when public health legislation was still in its infancy, that a well-organized profession was an essential element in a well-regulated State. He realized that the first step towards an efficient public-health system was that the State should be able to rely upon the services of a competent body of medical practitioners to advise central and local administrators and to discharge the elementary function of certifying the cause of death of every citizen. Unfortunately, owing to defects in the Medical Act of 1858, left unremedied in the amending Act of 1886, even this simple object has not been attained; for in every district there are many uncertified deaths, and in some where quackery is rampant the proportion of uncertified deaths is so large as to be a reproach to our civilization. The Association seeks to obtain these necessary reforms by means of a Medical Acts Amendment Bill, and by amendments of the law with regard to death registration. The Medical Acts Amendment Bill seeks also to carry one step further the equalization of qualifications by establishing a system of State examination in medicine, surgery, and obstetrics. Incidentally it proposes to remedy other defects which experience has shown to exist in the working of the Medical Acts, as is more fully explained in the explanatory memorandum and abstract of the Bill published in the Supplement, p. 4.

Two of the other reforms desired by the Association have direct reference to public-health administration; one calls for a reorganization of the Local Government Board, the central Government department entrusted with the administration of most but not all public-health matters. Mr. Balfour, then Prime Minister, introduced into the House of Commons at the end of last session a Bill to make the Local Government Board an office of a Secretary of State, thereby responding to one of the suggestions of the Association on this subject. This change, while tending to enhance the importance in the official hierarchy of the President of the Local Government Board in England, would stop far short of the reforms desired by the Association, which include the establishment of an effective Board, having among its members medical, engineering, legal, and Poor-law experts, upon the analogy of the Board of Admiralty and of the Local Government Board of Scotland. An associated change also desired is that which would give medical officers of health and sanitary inspectors in England and Wales the security of tenure possessed by medical officers of health in Scotland and in London. The Association also desires that the conditions under which Poor-law medical officers in Scotland and in Ireland are now appointed should be improved. In Scotland a departmental committee has already reported in favour of the proposal that Poor-law medical officers should enjoy security of tenure, and be removable only with the consent of the Local Government Board; but in Ireland no such official sanction to the proposal has been given, and the recent Act with regard to the conditions under which the Imperial contribution to the salaries of medical officers are paid has tended to render their position even more disadvantageous.

Other questions in which the medical profession is interested are set out in the document printed in the Supplement, but there are in addition two matters to which reference may be made. One is the nature of the alterations which are to be made in the regulations for motor cars; the signs of the times point to the probability that before many years are past a motor car will be almost a necessity for successful practice, at least in country districts, and the profession is therefore interested in pointing out to candidates for Parliament the propriety of giving serious attention to the representations which are being made on behalf of the owners of motor cars. Finally, it appears that candidates are being invited to give pledges in favour of the views of antivivisection societies, and some have even thought fit to appear on public platforms, where they have endorsed the most extravagant misrepresentations of the agents of these societies. It is a matter for individual consideration whether the circumstance that a candidate accepts as true the "platform facts" of the antivivisectionists, and therefore permits himself to be the vehicle of abominable charges against the medical profession, does not at least raise a doubt whether he can be trusted adequately to examine other questions and form a sound and reliable opinion upon them.

THE RIGHT HONOURABLE SIR WALTER FOSTER.

The King, on the advice of the Prime Minister, has directed that Sir Walter Foster, M.D., M.P. for the Ilkeston Division of Derbyshire, shall be sworn a member of the Privy Council. We believe that this is the first occasion on which a member of the medical profession has received this honour in recognition of political eminence. During the twenty years for which he has been a member of the House of Commons Sir Walter Foster has devoted himself to the advocacy of social reforms, including matters so important to the welfare of the people and the public health as the housing of the working classes, increased efficiency in Poor-law administration, improvement of local government, and the regulation of dangerous trades. The great services which Sir Walter Foster rendered to the country when Parliamentary Secretary to the Local Government Board in guarding it successfully against the threatened invasion of cholera in 1893 will not have been forgotten. Although cholera broke through the outer line of defence in 1893, and got into the country in 64 cases, yet in 42 instances it was stamped out with a single secondary case, and in only 5 cases did it spread beyond 10 cases. The total loss was 135 deaths, while in 1849 the country lost 53,293 lives, in 1854 it lost 20,097 lives, and in 1866 it lost 14,378 lives. If the mortality in England in 1893 had been in proportion to that in 1856, the least fatal of previous invasions, instead of 135 deaths we should have had 19,965. Thus practically 20,000 lives were saved by the efficiency of the sanitary service in the single year of 1893. Sir Walter Foster's conspicuous services on this occasion and the whole direction of his political work seemed to mark him out for the Presidency of the Local Government Board in Sir Henry Campbell-Bannerman's Cabinet, but party exigencies have apparently stood in the way, and we believe that he found it impossible to accept an office which would have taken him out of the sphere of his life's work.

THE PRESIDENT OF THE LOCAL GOVERNMENT BOARD ON VACCINATION.

Last week reference was made to the satisfactory attitude of Mr. John Burns, the new President of the Local Government Board, regarding various public questions which will now come under his administrative sway. Our paragraph was based on the *Times* report of the speech of Mr. Burns to his constituents at Battersea. That report made no mention of a question put to him regarding vaccination which we find referred to in the *Daily Telegraph*. It appears that the following question was sent up at the end of the meeting, "Will "Mr. Burns vote for the repeal of the Vaccination "Acts?" and that the answer was, "Personally, I have "always been opposed to vaccination, and I shall do "my best in the direction of my own private views." In this reply there is already a hint of the responsibilities of office, and it will be very interesting to learn how by-and-by Mr. Burns will deal with the subject. The fact that any competent and unbiassed man, free from mental twist, has "always been opposed to vaccination" can mean nothing else than that he has not made himself sufficiently acquainted with the facts; and we decline to believe that the new President of the Local Government Board will take action on so important a matter without fully mastering all sides of the subject. As a politician, his views on personal liberty may influence his attitude to the legal enforcement of an invaluable preventive of a dangerous and infectious disease, but on the question of evidence as to whether vaccination does prevent small-pox Mr. Burns will find that there can be no real dispute. When the late Lord Herschell, a great legal authority on Mr. Burns's side of politics, set himself seriously to study the matter as Chairman of the Royal Commission on Vaccination, the conclusions at which he arrived as to the antivariolous power of vaccinia were simply those to which hard facts had already forced the medical profession throughout the world. True, this did not prevent Lord Herschell from recommending an exemption clause, but avowedly that recommendation was made in the interests of vaccination. Meantime, the new President will find himself face to face with the duty of administering the existing Vaccination Acts, and his acceptance of office must be taken as evidence that he is prepared to perform the functions which belong to the office.

A CENTRAL EMERGENCY FUND.

THE Council of the British Medical Association, at its last meeting, determined that a central emergency fund, to be created by voluntary contributions, should be formed for dealing with disputes between the profession and organized bodies of the community, whether in relation to contract practice or other matters. The fund will be under the control of the Medico-Political Committee of the British Medical Association, which will be empowered to make grants either to any individual practitioner to assist him in maintaining any position in which the Association should have decided to support him, or to compensate him for loss incurred through taking action approved by the Association. Grants may also be made to any Division or Branch to assist it in defraying expenses incurred in the conduct of local disputes. The Medico-Political Committee is further authorized to expend money for any purpose which it deems necessary or advisable for the promotion of the general objects of the fund. All members of the profession are invited to contribute, and subscriptions may be sent to the Medical Secretary, and may be paid yearly, quarterly, monthly, or weekly, as may be convenient to the subscriber, who may earmark his contribution for use in a specific dispute or for application to special methods of carrying out the objects of the fund. The inception of the fund was due to a recognition of the fact that loyalty to the recommendations of the Association in cases of dispute as to contract practice might entail serious loss and hardship upon individuals; but, as is more fully explained in the scheme published in the SUPPLEMENT of this week, p. 6, it will not be limited to such cases, but can be applied to defraying expenses incurred in a locality in resisting attempts to interfere with the independence and efficiency of the profession.

THE MINERS AND THE MEDICAL PROFESSION.

WITH the commencement of the New Year the struggle for reduction of fees between the northern coal miners and the medical men begins. There have been several letters in the local press in regard to the dispute. The Miners' Association proposes that the 33 per cent. which was advanced in medical fees five years ago should cease, and that there should be a return to the payments which were in vogue in 1900, just prior to the period when the miners' wages rose 60 per cent. above the basis rate. There have been several attempts to bring about a reconciliation of the disputants, but so far without success. For the last five years the payment to the medical man has been 9d. a fortnight, and this includes attendance after accidents. It is understood that the miners will refuse to have more than the old rate of 6d. a fortnight deducted from their pay, and the medical men have given instructions that those refusing to pay 9d. will be attended only on payment of the usual private fee of 2s. 6d. for each attendance paid at the time. The profession in the district is, we believe, quite unanimous, and it is obvious that the fee of 4½d. a week is a minimum below which it is unreasonable to expect the medical and surgical attendance required. The struggle is one in which the whole profession should back up the medical men in the locality. It is a struggle in which the medical profession is really seeking to increase the efficiency of the services it renders, for it has been clearly established that the old rate is unremunerative. It is to be hoped that no medical man outside the district who cannot know all the circumstances will be beguiled into accepting the terms now offered by the miners. The difficulty must be settled in the district, and if the medical profession is only true to itself there can be no doubt about the issue. As it is, the miners are not unanimous, two or three large collieries having resolved to go on paying the rate of 9d. a fortnight, which has been in force for the last five years.

ANILIN POISONING AMONGST DYERS.

A MEMORANDUM has just been issued by the Home Office calling the attention of those engaged in the dyeing industry to the dangers attendant on the use of anilin oil and alkaline bichromates in the production of the so-called "fast blacks." The result of observations made by the Chief Medical Inspector of Factories, in seven dye works, was that out of 60 persons employed in the mixing, preparing and dyeing processes, 28 (47 per cent.) were found to present a pale, grey or blue colour of the lips, 34 (57 per cent.) characteristic pallor, and 5 scars as the result of previous work in chrome or of injury to the skin; out of 82 employed in the chroming, washing, drying and other processes, 28 (34 per cent.) showed the same condition of the lips, 16 (20 per cent.) exhibited pallor, and 11 (14 per cent.) present or past effects of chrome. Other common symptoms found were headache, indigestion and heartburn, distaste for food, drowsiness, tremor and slight weakness of grasp. It is also pointed out that extreme cyanosis and unconsciousness have been known to occur. The ill effects of working in the bichromate solution noted were papular eruptions, ulcerations, and scars. Attention is directed to the application of Sections LXXIV and LXXV of the Factory Act requiring exhaust ventilation, washing accommodation and separate rooms for taking meals, and suitable provision of this nature is required to be made. In addition, it is stated that no person suffering from rash or ulcer should be allowed to come into contact with the bichromate, and that persons weighing bichromate crystals or ladling out the prepared anilin liquor should wear indiarubber gloves. It is also suggested that mixing should be done in a separate room; that water might be introduced first into the tank, then the hydrochloric acid and then the anilin oil, to lessen the vapour; that no person should remain in the mixing room whilst chemical action is proceeding; and that a notice be posted in the works drawing attention to the need for special care. Attention was first directed to the dangers of this particular process in a paper contributed by Dr. W. F. Dearden to the Section of Industrial Hygiene at the Manchester Meeting of the British Medical Association in 1902, and it is satisfactory to note that this evidently practical contribution is likely to prove productive of substantial benefit to the workers in an important industry.

FATAL OUTBREAK OF MALARIA ON LIVERPOOL STEAM TUGS.

The practical work of Major Ross and the Liverpool School of Tropical Medicine in dealing with the causes of malarial fever has doubtless done much to diminish the terrible mortality from that disease, which made the West Coast of Africa to be known as the white man's grave. Whatever may be the case in the future—and there is good reason to hope that what has been done hitherto is only the earnest of what will be done—the dangers of a sojourn on the West Coast are still very real, a fact brought home forcibly by a recent occurrence in connexion with the placing of a large floating dock at Forcados, on the West Coast. The two Liverpool tugs *Cruiser* and *Blazer* were recently employed to tow the dock from England to Forcados, where they left it and started on the return journey to England. Shortly afterwards several cases of malaria broke out on both steamers. They put into Madeira, where certain members of the crew were left ashore for medical treatment; three of them died. On the arrival of the tug *Cruiser* at Liverpool two more deaths were reported as having occurred during the voyage home from Madeira. The officers of the port sanitary authority made an investigation, and came to the conclusion that these deaths were, as the others, undoubtedly due to malaria.

ACIDITY AND ALKALINITY IN MALIGNANT DISEASE.

In a paper recently read before the Royal Society, Professor B. Moore, Dr. H. E. Roaf, and Mr. E. Whitley state that previous investigations have shown that in nearly all cases of malignant disease, no matter where the malignant growth happens to be situated, free hydrochloric acid is either completely absent from the gastric contents or is greatly reduced in amount. In explanation of this phenomenon it is suggested that there is an increased alkalinity of the blood-plasma, and that consequently the hydrogen ion concentration in the plasma is so far reduced that the oxyntic cells are no longer able to separate an acid secretion from it. In the endeavour to throw some light on this theory they have investigated the effects of alterations in the concentration of hydrogen and hydroxyl ions respectively, upon the growth and cell division of an organism in which cell multiplication was rapidly taking place. They selected for this purpose the fertilized eggs of a species of sea-urchin (*Echinus esculentus*), which could easily be subjected to changes in the acidity and alkalinity of the medium in which they were living. It was found that the addition of small amounts of alkalies or alkaline salts, such as di-sodium phosphate, caused at first an increase in the rate of growth and division; but as the amount was increased the newly-formed cells exhibited a marked tendency to irregularity in size and shape. Nuclear division grew to be in advance of cytoplasmic division, so that the cells became multinucleated. When the alkali was further increased both cell division and nuclear division ceased. Accompanying the increased stimulus to nuclear division given by the dilute alkali there were found many of the atypical forms of mitosis which are described in malignant growths. Of these abnormalities special attention is called to the following: (1) Multiple nuclei in the same actively-dividing cell; (2) multipolar mitosis; (3) asymmetrical mitosis, leading to unequal distribution of chromosomes in the two daughter cells; (4) reduction in length of the chromosomes and reduction in their number to about one half; (5) arrangement of the chromatin in circles, each of which showed a number of thickenings. No such increased growth or stimulus to nuclear division was given by the addition to the normal medium of equally small amounts of acid. It was found that from the beginning the addition of even the minutest amount of acid had an inhibitory effect upon growth and nuclear division. In connexion with this work, it may be mentioned that at the same meeting of the Royal Society a paper was read in which Mr. E. Whitley pointed out that the eggs of the plaice (*Pleuronectes platessa*) are much more readily killed by an increase of acidity than by an increase of alkalinity in their normal medium.

CIVIL PRACTITIONERS AND MILITARY WORK.

Even with the help of a properly-constituted reserve the Royal Army Medical Corps will in time of war be quite inadequate for the discharge of the duties which fall upon it at home in time of peace. It is clear that it will be necessary to have recourse to the aid of civil practitioners, and it is well therefore that some system of training should be provided for those who offer their services in the kind of work they will have to do should the occasion arise. Not long ago a number of medical practitioners, nearly all resident in the West London district, expressed their willingness to render such assistance as they could within their own district, provided they were instructed in the duties they would be called upon to perform. A request that such instruction should be provided was privately addressed to the Director-General of the Army Medical Services. With the object of meeting this demand the Director-General has arranged for a short course of lectures and demonstrations to be given at the West London Hospital on alternate Saturdays at 4 p.m., commencing January 20th. An endeavour will be made to give a broad and practical view of the subject without going too much into detail. Medical men residing in West London who may wish to attend the course are requested to apply by letter to Dr. H. W. Chambers, 101, Goldhawk Road, W. The course, which is free, is under the direction of Colonel James, Superintendent of the Royal Army Medical College, and the size of the class will necessarily be limited. Similar courses will be given at the Army Medical College, and, it is hoped, elsewhere. It must be understood that neither the staff of the West London Hospital nor that of the Post-graduate School have officially anything to do with the scheme. The hospital has been chosen as the place of instruction owing to the convenience of its situation, and the two or three members of the staff who have agreed to help in the teaching will do so simply in their private and personal capacity. The medical practitioners at whose request the Director-General has consented, that the course should be started are anxious that it should be made clear that in taking this step they are not seeking to point the way to the profession at large; they are merely doing their best to fit themselves for the discharge of duties which they have undertaken to fulfil should the occasion arise. Nevertheless, we may be allowed to commend their patriotic spirit, and to express a hope that the example which they are setting will be widely followed wherever there are opportunities for the kind of instruction that is needed being given.

THE ANGLO-JAPANESE ALLIANCE.

IN the BRITISH MEDICAL JOURNAL of December 30th, 1905, we gave an account, founded on a report published in the *Sei-I-Kwai Medical Journal*, of the warm welcome given to the medical officers of Admiral Noel's fleet on the occasion of its visit to Japan. We have since received a letter from Fleet Surgeon George Hewlett, of H.M.S. *Bonaventure*, the Senior Medical Officer of the Fleet, in which he speaks enthusiastically of the splendid hospitality extended to him and his brother officers. In addition to all the leading official representatives of the Imperial services and the medical profession in Japan, practically all the medical practitioners of Tokyo took part in welcoming the British officers. "Nothing," says Fleet Surgeon Hewlett, "was too good for us; we were right royally treated, "and the whole thing made a profound impression "on us." Student interpreters were told off to attend them; the only drawback to their perfect enjoyment was that, being among a most interesting people who were lavishing kindness upon them, they were unable to converse directly with their generous hosts. Baron Takaki, indeed, who is a Fellow of the Royal College of Surgeons of England, and some others speak English perfectly, but with most of their Japanese entertainers the guests could fraternize only through an interpreter. The medical officers took their turns with the other officers in attending the official and other receptions given to the fleet in Japan, but Fleet Surgeon Hewlett says none surpassed that of the medical profession either in the splendour and variety of the entertainments provided, or in the hearty friendliness with which the British officers were received. In the name of the medical profession of this country we thank our brethren of Japan for the magnificent welcome given by them to our brethren of the Royal Navy. Medicine knows no frontiers nor difference of race, and no political alliance is needed to make medical men of all countries feel members of one family. We cannot help feeling, however, that some part of the cordiality with which our officers were received was due to the fact that we are allies.

COLONIAL MEDICAL LEGISLATION.

WHILST in the mother country the prospect of obtaining an efficient amendment of the laws governing medical practice seems as remote as ever, British colonies are setting us an example in passing much more robust measures. The Colonial Secretary communicated to the General Medical Council ordinances which have lately been propounded in the Straits Settlement and in Ceylon, in both of which not only is the act of practice by unregistered persons prohibited, but the prohibition is couched in such terms as to render conviction of the offender as easy as possible; for it is laid down that professing to practise or holding oneself out as ready and willing to treat patients shall constitute, in the eyes of the law, an act of practice, and thus the always difficult task of getting a bona-fide patient to come forward as a witness, or the employment of an inquiry agent who submits himself or herself as a patient, will not be necessary. New Zealand has quite recently passed an amending Act, the text of which was published in the BRITISH MEDICAL JOURNAL, December 2nd, 1905, p. 1464. It will greatly strengthen the position of the profession in that colony. Hitherto the Registrar has been obliged to register all persons who hold a qualification recognized in their own country, and this has led to the influx of a good many Americans possessed of diplomas obtained under conditions which fall very far short of those required in the United Kingdom and in the colony itself. Now, however, only qualifications of the New Zealand University or those admissible to the United Kingdom *Register* can claim registration. All others are subject to scrutiny: that is to say, graduates of a foreign university may present themselves for the final examination of the New Zealand University, or the possessor of the diploma must satisfy the Governor in Council that his qualification is equal in status to that of the New Zealand University, but the course of professional study must have extended over not less than five years. The provision for the removal of names from the register is application to the Supreme Court by the President of the British Medical Association of New Zealand or his deputy, a recognition of the status of the Association which must be gratifying. The grounds upon which such application may be made are fraud in the obtaining of registration, the cancellation of a diploma by the body which granted it, or the erasure of the name by the General Medical Council of Great Britain. This arrangement is peculiar to this Colony, and the British Medical Association is placed in a position somewhat analogous to that of the Incorporated Law Society in this country. But, except as to the question of fraudulent registration the task of inquiry into any delinquency does not appear to be imposed upon any authority in the Colony, unless indeed that is provided for in the earlier Act of 1869, of which we have not a copy before us. The amending Act has not been obtained without a long struggle, for attempts at improved legislation were begun twenty years ago. Two years ago a Bill similar to that which has now passed into law was abandoned by the Government owing to the opposition of the Friendly Societies who were then fighting the club surgeons in Auckland by importing diplomates from some of the smaller universities in the United States. The new Act has been passed with the co-operation of the Labour party, and it is hinted that their experience in Auckland has had something to do with their readiness to pass a law containing more stringent provisions.

A SCOTTISH LUNACY ACTION.

FOR forty-five years there has been no action in the Scottish Law Courts against any member of the medical profession on account of lunacy certificates for the detention of a patient in a hospital for the insane. That record has now been broken. During the months of November and December, 1905, a civil action lasting eight days was heard in the Court of Session before Lord Pearson, brought by William Purves, a Clyde pilot, against Dr. Carswell and Dr. Marion Gilchrist of Glasgow for £10,000 damages in the case of each of them. They had signed medical certificates in September, 1903, under which Purves was placed in Gartnavel Asylum, where he remained under treatment for four months. He was discharged by warrant of the Sheriff of Lanarkshire as being sufficiently recovered in January, 1904, subject to certain precautions. A very large number of lay witnesses testified to Purves's sanity before he was placed in the asylum. Two medical men, neither of whom had seen him at that time, also gave evidence. When the case for the defence was reached, evidence was given as to Purves's insanity and as to his threats to shoot a friend of his whom he believed to have been criminally intimate with his wife, and as to his violence to his wife and son. Not a particle of trustworthy evidence was given as to there being any reason for Purves's suspicions of the fidelity of his wife, and his conduct was proved to have been riotous, irritating, and dangerous. Both Dr. Carswell and Dr. Gilchrist had taken a great deal of trouble about his case. They had examined him repeatedly, and had taken every reasonable measure to avoid certifying him—by medical treatment and by sending him to the country. The medical certificates were in proper form according to the Scottish Lunacy Law, and the "facts indicating insanity" observed by both doctors were full and sufficient. On his admission to Gartnavel Dr. Oswald had found him to be insane, and adduced ample facts at the trial to prove this. Dr. Clouston and Dr. Joseph Bell gave expert testimony as to the sufficiency of the certificates, and as to the urgent necessity for asylum care in the state Purves was in when taken to that institution, both for his own treatment and for the safety of the public. Lord Pearson, on December 12th, 1905, gave judgement for the doctors and against Purves on all the issues. The case is one which shows the urgent necessity for a change in the law of Scotland so that medical men doing their duty under the law shall be protected from such vexatious actions. The law of Scotland does not allow any such action after the lapse of a year after the patient has left an asylum, but it has no provision, such as was found necessary in England, which enables a Judge of the High Court to stop such actions *ab initio*. Had such a provision existed, Drs. Carswell and Gilchrist would have been saved endless worry. The profession in Scotland will have to make an urgent representation to the new Secretary for Scotland to provide the same or still more effectual protection against such actions as exists in England. Otherwise no lunacy certificates will be obtainable there. No wise man will run the risks involved in certifying any patient for an asylum if he may thereby be subjected to such vexatious actions. Probably the Scottish Medical Corporations will initiate proceedings to have the law altered, and the profession will, no doubt, willingly take steps to show its sympathy for Drs. Carswell and Gilchrist by resolutions and by liberal subscriptions towards paying the heavy legal expenses to which they have been so unjustly subjected for no fault or omission of their own. Much indignant comment is being made as to the conduct of the medical men who gave evidence in favour of the pursuer's case. Fortunately it was so weak and irrelevant that it helped the defence.

ARMY MEDICAL SERVICES.

FROM time to time readers of the BRITISH MEDICAL JOURNAL have been informed as to the vicissitudes of a Bill for the improvement of the Army Medical Service which has been before the United States Legislature. For some time past there has been a dearth of candidates for the service, and the Bill provides, among other things, for a quicker flow of promotion and for a satisfactory adjustment of the question of rank. It has the approval of the Secretary of State for War, and President Roosevelt sent a message to Congress urging the importance of the matter and strongly recommending the passage of the Bill. The Bill has, however, been the victim of a series of accidents of a kind to which we are too well accustomed in our own august Mother of Parliaments, and it is still among the "innocents" that may be slaughtered at the behest of the Herod of party tactics. Major-General Leonard Wood has recently addressed a letter to the Secretary for War strongly urging the passage of the Bill without further delay. General Wood points out that the experience of the United States in the war with Spain should be sufficient to render a recurrence of the conditions then prevalent impossible. He says that first-class men in sufficient numbers cannot be secured under the present conditions of promotion. He is opposed to the employment of contract surgeons on the ground that the system is a makeshift and a very expensive one. So also, he adds, is the policy of expanding the medical department in time of war through the employment of inexperienced civilian medical men. "These gentlemen, whatever their professional attainments, know little of army methods or of handling large bodies of men." *Mutato nomine*, this might be said with equal truth of our own service. When is the scheme of an efficient reserve for which the country has waited so long to be rescued from the War Office pigeonhole in which it is gathering the dust of oblivion?

PATENT MEDICINES AT THE ANTIPODES.

IN an interesting address on State Medicine and Medical Ethics delivered by Mr. G. A. Syme from the Presidential Chair of the Section of State Medicine and Medical Ethics at the Australasian Medical Congress held in Adelaide last September, he recalled the circumstances under which the New Zealand Parliament passed an Act authorizing regulations to be framed making it compulsory that the formulae of all "patent' and proprietary medicines should be printed on the bottle, and that if any poison were contained in the preparation the bottle must be labelled accordingly. The manufacturers of these preparations and their agents raised such a protest and brought such influence to bear that the regulations were modified to the extent that the formula instead of being placed on the bottle was to be lodged with the Health Department. The manufacturers still objected, and as no further alterations could be obtained they decided not to send their preparations to New Zealand. Mr. Syme sees in this evidence that the vendors of patent medicines clearly realize that once the real nature and commercial value of their preparations became publicly known, there could be no demand for them at the extravagant prices at which they are sold. We would add, Happy country! which has got rid of this pestilential traffic; but we wonder what our halfpenny press would say if any legislator were bold enough to venture to propose a Bill which would deprive them of a large part of their receipts. Some day the public may wake up to the desirability of taking action to check the sale of preparations which are either poisonous or fraudulent, as those which are neither would have nothing to fear from such a law.

RUSHOLME PROVIDENT DISPENSARY.

To the vast majority of private citizens it is repugnant to come before the public as active instruments in bringing an offending person or institution to justice. Those who have the courage to discharge this duty lay those for whom they act under a heavy obligation, and the public spirit which they show entitles them to the gratitude of the community whose interests they defend. It is with great pleasure, therefore, that we learn that at a recent meeting of the Council of the Lancashire and Cheshire Branch a special vote of thanks was passed to Dr. W. Sawers Scott and Dr. John Featherstone, of Fallowfield, Manchester, for their invaluable services in connexion with the case of the Rusholme Provident Dispensary which was brought before the General Medical Council. Dr. Sawers Scott took a great deal of trouble in getting up the case, while Dr. Featherstone performed a highly disagreeable duty in swearing an affidavit which was of the greatest service. The thanks accorded to these gentlemen by the Lancashire and Cheshire Branch will, we doubt not, be joined in by the rest of the Association and should be echoed by the whole profession.

Leeds.

LEEDS PUBLIC DISPENSARY.

As was stated in this column on December 9th, 1905, the increase of the work of this institution involved by the taking over of the Leeds Southern Dispensary called for an increase in the number of the honorary staff. At a special meeting of the Election Committee the following appointments were made. To the new post of honorary surgeon in charge of cases of disease of the throat and nose, the Committee appointed Mr. Alex. D. Sharp, M.D.(Brux.), F.R.C.S.Edin. Dr. Sharp will work in the main building north of the river. To the Southern Branch of the Dispensary there have been appointed as honorary medical officers with charge of medical cases, Mr. Sydney Clark, L.R.C.P., M.R.C.S., and Mr. J. Gordon Sharp, M.D.Edin,, and as honorary medical officers with charge of surgical cases, Mr. W. McGregor Young, M.A., M.D., Ch.M.Glasg., and Mr. A. Mackenzie, M.A., M.B., B.C.Cantab. These four gentlemen will be responsible for the work in the two new districts south of the river. The exact limits of these two districts have yet to be mapped out, but the result may be so far anticipated as to warrant the statement that a greatly increased area will be brought within the visiting district of the institution.

THE DENTAL SCHOOL.

Those who are interested in the development of the dental school will be gratified to learn that the Council of the Royal College of Surgeons of England have decided to recognize the dental practice of the institution as fulfilling the requirements of Clause 7, Section 1 of the Regulations for the Licence in Dental Surgery. That this recognition comes at the end of only a few months of the existence of the department is at once a source of satisfaction to its promoters and a tribute to the excellence of the organization.

DINNER OF PAST AND PRESENT LEEDS MEDICAL STUDENTS.

The twenty-seventh annual dinner of the past and present students of the Leeds Medical School was held on December 7th, 1905. Dr. Bodington, the Vice-Chancellor of the University, was a most excellent and popular chairman, and all who were present showed by the manner in which they responded to his toast, which was proposed in singularly felicitous tones by Professor Barrs, that his efforts and his work in connexion with the recent momentous changes which have led to the inauguration of the Leeds University are most fully appreciated and valued by the faculty of medicine. The dinner was attended by 107, which is a smaller number than usual, and it was regretted that a good many members of the staff were unfortunately prevented from being present.

THE FEEDING OF POOR CHILDREN.

In April of last year an account was given in these columns of Mr. William Hall's investigations on the effects of the different forms of diet commonly given to Gentile and to Jewish children of the poorer classes, and of his organization of an extensive "experiment" in the direction of supplying some of the poorest children in the city with at first one and then with two meals a day. The results were, it will be recollected, very striking. It will be of interest to many to learn that Mr. Hall has steadily continued his work, and has somewhat extended its scope. He is now supplying 300 meals per day at one of the schools in the poorest district of the city. Those who are fed, however, come not only from that one school, but from one or two others. The meals consist of 170 dinners and 130 breakfasts. Of the latter 100 are free, and the schoolmasters have discretionary powers to recommend the proper recipients of these. The 170 dinners and the remaining 30 breakfasts are paid for in the following manner: If a child comes to the school on the Monday morning and pays 5d. he gets a breakfast and a dinner on each of the five school days. Thirty children avail themselves of this arrangement. Dinner alone is provided daily for the school week to any child who pays 3d. on the Monday, and this is taken advantage of by 140 children. Mr. Hall estimates that the cost of the meals works out to 2d. for the breakfast and dinner together, the cost of the former being rather below and that of the latter rather above one penny. The meals are thus provided to the children at about half cost price. I learn that Mr. Hall's work has been attended with such gratifying success that the scheme is to be considerably extended, and certain negotiations are being entered upon, of which, when they are completed, I hope to give an account in these columns.

York.

NEW LUNATIC ASYLUM.

THE need for increased accommodation for mental patients at York has been felt for some years. Some time ago the Corporation purchased 156 acres of land mainly in the parish of Naburn but partially in that of Water Fulford, and on this there is now approaching completion a building which has been planned on generous lines, with ample provision for extension. At present the buildings occupy an area of 2½ acres. Healthy occupation will be secured for the able-bodied inmates by the existence of a farm house and steadings and of arable and pasture land adjoining. In addition to the administration block there are six ward blocks with a present accommodation for 362 patients. The large recreation room is heated and ventilated on the plenum system, the wards by means of steam radiators and an exhaust system worked by fans in extraction towers. The estimated cost of the institution when fully equipped is £133,000. The present building itself is put down at £90,453, the land and cost of its purchase £14,034, furnishing £7,000, isolation hospital £915, and planting and fencing grounds, etc., £473. This leaves a good margin for the contemplated future extensions, which will bring up the accommodation to that for 486 patients.

Newcastle-upon-Tyne.

THE ROYAL INFIRMARY.

Christmas Festivities.

THE Christmas festivities at the Royal Infirmary were of more than an ordinary character. At the principal event of the day—the Christmas dinner—Mr. Orde, the house governor, was ably assisted by the resident staff, while the proceedings were graced by the presence of Sir G. H. Philipson, Dr. Hume, Sir Riley Lord, and several members of the House Committee. In the afternoon variety entertainments and concerts were provided for the patients by Dr. Wm. Hume, who was ably assisted by Messrs. Hope, McDowall, Bailey, Lunn, Tate, and others. The energy and heartiness displayed by the resident medical and surgical staff did much to make the day a bright and cheerful one for the inmates, who were not slow to show their appreciation of the thoughtful consideration extended to them. Through the liberality of the Governors and friends of the institution in providing evergreens, the assistance of the clinical clerks and the nurses, aided by the artistic taste of several of the patients, the wards were more lavishly and beautifully decorated on this occasion than for many years past. In the children's wards there were the usual Christmas trees.

Tetanus.

Allusion was made recently to 4 cases of tetanus that had been under treatment in the Infirmary. Since then three of the patients have died. Antitetanus serum was tried but without success. The bacteriological report upon the catgut has not yet been received.

Caisson Disease.

A caisson worker recently died in the infirmary. He had been an in-patient for fifteen months and was paralysed in both lower extremities. The details of the case will probably be published after the coroner's inquest.

Changes in the Staff.

Dr. John Clay having been appointed Assistant Surgeon to the Royal Infirmary in succession to Mr. H. B. Angus, promoted to the full staff, Mr. J. W. Heslop, M.B., M.S. (Dunelm.), M.R.C.S., has been elected a Surgical Registrar to the institution. So far Mr. Heslop has quite fulfilled the expectations that were entertained of him as a student. All his friends unite in wishing him success now that his foot is on the lowest rung of the ladder.

The New Buildings.

Satisfactory progress continues to be made with the new infirmary buildings. Externally the Armstrong College of Science seems to be quite finished. Its handsome exterior is much admired. The new wing of the College of Medicine is now externally completed, and is sure to be found a most useful addition for practical work. As the hoarding has been taken down, the beauty and proportion of this structural addition to the College can at once be realized, while the words "Heath Wing" in large letters on the building are a fit and proper recognition of the generosity of the donor, the late Professor Geo. Yeoman Heath.

THE THROAT AND EAR HOSPITAL.

Since the removal of the Throat and Ear Hospital from Clayton Street to its own building in Ryehill, the hospital has had an unusually prosperous career. With its twelve beds for in-patients, the work has materially increased, while the services rendered to the suffering public by the medical staff have been much appreciated in the district.

GASTRIC ULCER.

The last meeting of the Northumberland and Durham Medical Society was one of the most interesting of the session. The evening was entirely set aside for a discussion upon the diagnosis and treatment of gastric ulcer. To Dr. R. A. Bolan was assigned the honour of introducing the subject from the medical point of view, and to Mr. Albert E. Morison that of dealing with the matter from its surgical aspect. Among those who joined in the debate were the President, Dr. Modlin, Dr. James Smith, Professor Oliver, Drs. Gowans and Beattie, and Messrs. Rutherford Morison, Angus, Richardson, and others.

Manchester.

THE VICTORIA UNIVERSITY,

THE University session reopens on January 9th. At the end of last term the Union, according to custom, held a grand soirée in the University Buildings, Whitworth Hall, all the laboratories being open for the occasion. In the latter the undergraduates displayed a large number of botanical, zoological, and physiological subjects. Amongst the last the exhibition of the play of the valves in the heart of an ox lit up by electric light seemed to attract much attention. Professor Harold Dixon gave an illustrated lecture on the visit of the British Association to South Africa. The soirée was attended by nearly one thousand persons.

Birmingham.

THE STATISTICAL REPORT OF THE GENERAL HOSPITAL.

THE statistical report of the General Hospital, Birmingham, shows that during the year 1904, 4,979 in-patients were treated. Of these 267 were in the hospital on January 1st, 1,265 were admitted with recommendations, and 3,447 without recommendations, as they were accidents and urgent cases. Of the in-patients 2,557 were reported as cured, and 1,273 as relieved; 220 were unrelieved and incurable; 170 were transferred to the Jaffray Branch Hospital; and 475 died. The number of out-patients admitted with recommendations was 20,387, and those admitted without recommendations amounted to 40,975, making a total of 66,341 out-patients for the year.

The number of medical in-patients was 1,403, and of these 193 died. The diseases which head the list are: enteric fever, 56 cases; bronchopneumonia, 76 cases; lobar pneumonia, 57 cases; chronic nephritis, 36 cases. There were 18 persons brought in dead on the medical side.

The number of surgical in-patients was 3,311, and of these 282 died. There were 2 cases of tetanus, both of which died. Out of 75 cases of affections of the breast, 2 were cases of sarcoma, and 1 of carcinoma in the male. With regard to appendicitis, 194 cases were treated, and 21 died. There were 163 burns and scalds, and 65 of the persons suffering from these injuries died. Four persons were brought in dead, following injuries. Of the operations performed in the hospital, the nature and the result, and also the name of the operator, are given in 1,975 cases.

The number of in-patients treated in the gynaecological ward was 194, and of these 13 died. The gynaecological operations numbered 158.

The registered number of administrations of anaesthetics was 3,001, being an excess of 177 on the total for 1903, the increase being almost wholly in the in-patient department. There were five deaths during anaesthesia; two of these occurred in children in the last stage of diphtherial dyspnoea, during the administration of chloroform for tracheotomy. One death resulted after the administration of ethyl chloride to a man, aged 67, suffering from dyspnoea and a large breaking down malignant swelling in the neck. Artificial respiration restored him, but while the dressings were being applied he struggled violently, became blue, and died. Malignant glands were found to compress the air passages, and the left vocal cord was swollen and oedematous. Another death under chloroform occurred in a man aged 28, who suffered from an old empyema for which partial excision of several ribs was intended. He had practically only one lung, the heart was greatly displaced and bound down, very fatty, and the right side greatly dilated; the left pleura was extremely thickened and contracted, and the liver showed marked fatty degeneration. A death also occurred in a fat girl, aged 18, during the administration of E_2C_1. She was suffering from cellulitis of the neck. There was old endocarditis, and the cardiac muscle was fatty. The other organs were fatty, and there was also old general adhesive peritonitis.

The report of the *X*-Ray and Light Department shows that 90 cases of lupus, rodent ulcer, cancer, and various skin diseases have been treated, and over 2,500 applications of the *x* rays and light administered with satisfactory results.

In the dental department 504 cases were treated.

At the Jaffray Branch Hospital 218 cases were treated, 76 cured, 49 much relieved, 22 relieved, 6 unrelieved, 7 died, and 9 were transferred to the General Hospital, 49 remaining in hospital.

North Staffordshire.

CHRISTMAS FESTIVITIES.

MARKED improvement in both the iron and steel and the potting trades has added zest to the time-honoured Christmas festivities in public institutions as well as in private life. At the North Staffordshire Infirmary, no effort was spared by the staff to make the season as bright as possible for the patients. The mean theft of 11 lb. of tobacco, ready for distribution amongst the inmates of the Stoke Workhouse and Infirmary, substituted a slight cloud of another form for the soothing one the guardians had in view for the intended recipients.

UNEMPLOYED OR ERGOPHOBIC?

The Hanley Distress Committee opened a register of unemployed persons, but only 13 names were entered in a week. A further meeting advised that the register should be made more widely known, and the entry was increased to 40 in three weeks. Of these, barely a third were employable. The population of Hanley is 65,000. Improved trade on the one hand, and possibly "ergophobia" on the other, will account for these figures. The Government has declined to allow the formation of a Distress Committee by the Stoke-on-Trent Corporation on the ground that it is now unnecessary. The Stone Board of Guardians has solved a difficult problem, judging from the salutary effects of the tasks imposed in the new tramp wards; for the workhouse master reports that the number of tramps passing through the casual wards for the half year just completed was 959, against 4,039 for the corresponding half year of 1904, showing a decrease of 3,080.

POTTERIES CRIPPLES' GUILD.

The exhibition and sale, at Dickinson's Gallery, New

Bond Street, of work done by the Potteries Cripples' Guild, under the auspices of the Duchess of Sutherland and the Countess of Huntingdon, afforded the public an opportunity of seeing and purchasing the artistic and useful metal-work and artificial flowers which are produced by the cripples. Two round silver-backed mirrors were shown, reproduced from the antique, one being for the Queen and the other for the Duchess of Sutherland.

The Cheddleton Asylum.

Additional accommodation is needed at the already large county asylum at Cheddleton, which at present has 618 beds. The Staffordshire County Council has applied for the Local Government Board's sanction to a loan of £75,214 for the necessary enlargement.

The Bucknall Infectious Hospital.

An extension of the Infectious Diseases Hospital at Bucknall, which is under the control of the Hanley, Stoke, Fenton, and Longton Joint Hospital Board, has been opened. The additions, largely rendered necessary by reason of Longton joining the Board, comprise a new pavilion of thirty-six beds and an enlargement of the administrative block, the cost amounting to £8,000.

Bristol.

Milk and Tuberculosis.

In the Bristol Corporation Act of 1905 there are several important sections which indicate that the authorities are fully alive to the dangers of tuberculous infection of milk, and intend to protect the public as far as the law will allow. Like most cities of any size, the milk supply is drawn from a very large area outside the jurisdiction of the city authorities, but the present Act is an attempt to prevent the sale of milk drawn from a cow with tuberculosis of the udder. Section 41 renders any one who knowingly sells, or suffers to be sold, or uses for human consumption, such milk liable to a fine not exceeding £10. Any seller of milk for human consumption who fails to isolate a cow known to be diseased may be fined £5; and Section 43 applies to a dairyman supplying milk from a cow affected with, or even suspected of, having tuberculosis, making it his duty to notify the fact to the medical officer of health, under a penalty of £2. Section 44 grants permission to the medical officer of health, or officers authorized by the Corporation, to take samples of milk produced, sold or intended to be sold, both in and outside the city, in the latter case a justice's order being required. Section 45 authorizes the medical officer of health, accompanied by a veterinary surgeon, to enter a dairy within the city and inspect the cows, and if he has reason to suspect any cow to be suffering from tuberculosis of the udder, to have the cow milked there and then, and to take samples of the milk. If the medical officer of health is of opinion that tuberculosis is carried, or likely to be carried, to citizens by milk from a dairy in the city, he and the veterinary surgeon shall report to the Corporation, and the dairyman shall, on twenty-four hours' notice, appear to show cause why an order should not be made requiring him not to supply milk. Like powers may be exercised in regard to dairies outside the city, on a justice's order. Subsections apply to reasonable assistance of the officers in discharge of the duties, and the withdrawal of orders and non-liability for breach of contract if the breach is due to the order. Under Section 46 a dairyman is allowed to appeal against an order or refusal to withdraw an order to the city justices or of outside the city to the Board of Agriculture and Fisheries. Section 47 provides for compensation if the order is made without due cause or for unreasonable refusal to withdraw it. Several other sections referring to public notice being given, etc., have been added to the poster that has been affixed in public places through the city. This Act must be looked on as a great advance in public health, insuring at least a supply of milk free from tuberculosis, and rendering those selling contaminated milk liable to penalties which are none too severe, considering the offence.

Dirty Dairy Farms.

Following the above, it will not be out of place to notice the special report published in the report of the medical officer of health for 1904 on farms, cowsheds, milkshops, and dairies added to the city in that year. The numbers added were: Farms and cowsheds, 36; dairies and milkshops, 15; making the totals for the whole of the city 79 of the former and 1,015 of the latter. The new ones added were scattered over a large area, several lying almost on the boundaries of Avonmouth, while in two cases the cowsheds were inside the city and the farmhouses outside.

The medical officer of health calls attention to the difficulties of efficient inspection when the farms are so scattered. In these 36 farms and cowsheds were 565 cows, varying in the farms from 60 to 3. Speaking generally, the conditions were entirely satisfactory or incapable of improvement in no instance; they were classified as fit 1, reasonably fit 12, unfit 23. In the report are reproductions of photographs taken to show the general conditions. In one farm, behind a low shed in which the cows were milked, is seen an "immense wall of manure and a foul, scummy pool of yard drainage and manure soakage"—a most uninviting spot. At another farm the photograph shows "wooden-fronted sheds, also foul and uneven yard surface, with large manure heap and foul pools" in the front, and at the back a condition equally disgusting. A third farm had a small wooden shanty draining on to land at the end of the shed. The place was overcrowded, with no light or ventilation, and the yard had pools of foul water. At yet another farm the photograph shows a large roofed-in manure pit, said to be several feet deep, full of manure and foul fluid, into which the sheds and surrounding ground drain. These reproductions are worthy of a more extensive publication to awaken the public to the disgusting state the farms from which they get their milk are in. The chief defects the inspectors found were defective buildings and drainage, absence of light and ventilation, want of cleanliness in yards, sheds, and cattle, in provision for clean vessels, overcrowding, and water supply. Structural defects consisted of wooden sheds or partitions, often very foul and saturated with foul matter, rough stone, and unprotected bricks. In one or two instances the walls had been coated with a layer of tar and paraffin 4 ft. to 5 ft. high, an efficient and cheap covering. The flooring, as a rule, was of brick or stone, in some cases allowing fair drainage (in one none) to a pipe or to a yard, many of the latter containing large pools of offensive water. In most cases ventilation was defective, the sheds being hot and close. With the management of the farms great fault is found; while in some it was evident that attempts had been made to clean up, in others

> cleanliness appeared to be a thing almost undreamt of, walls being plastered with filth and doors equally dirty, while in several sheds the roofs and rafters are decorated with the accumulated cobwebs of years hanging from them in funereal-hued festoons.

It appeared that attempts to clean the udders of the cows were seldom carried out. "It was common to find the quarters of the animals caked with dried dung and dirt."

In a few cases the arrangements for cleaning the cans were good, but in most they were very deficient. Only one had a boiler with steam jets for scalding. The worst case of overcrowding was one in which twenty cows were housed in a place only large enough for eleven. Most had the company's water, but others used wells—one shudders to think what the water was like—one used rain water, and others had no water at all! One farm could not use the local water, as it was brackish, so carted water from a "grossly-polluted" well from a neighbouring farm. Fourteen well waters were analysed; seven were polluted with sewage. The report says the condition of the well waters disclosed by analysis is "disquieting"—a remark fully confirmed by the report. The medical officer of health draws comparisons between the rigid inspection of new slaughter-houses and of cowsheds, pointing out at what a disadvantage the sanitary authority is placed with regard to the latter, being obliged to register any one wishing to carry on the business, no matter what condition the premises he intends using may be in. What is required is that the licence should only be granted to the person who intends to produce or sell, refusing a licence till the premises are fit. The frequently-noticed placard "Registered Dairy" is misleading, conveying an idea that the premises are satisfactory to the sanitary authority.

The dairies and milkshops proved to be fairly kept, care being exercised in most cases in cleansing and storing milk vessels. The report very properly says that the conditions at the farm are of more importance, though proper storage at the retail establishments must not be neglected. In most instances the owners of the properties have done their best to meet the requirements of the authorities, but there is still a great deal to be done.

South Wales.

The University College of South Wales and Monmouthshire.

Sir Alfred Thomas's presidency of the University College of South Wales and Monmouthshire expires next year, and as the new president has to be elected at the February meeting steps have already been taken to secure a successor. There is a general feeling in the Court of Governors in favour of the election of the Earl of Plymouth, who has always taken a keen interest in the College. Lord Plymouth is already a Vice-President, and his election to the presidency would give unqualified satisfaction, not only to the Court of Governors, but to all Welshmen who take an interest in higher education in the Principality. The past-presidents are the late Lord Aberdare, the late Marquess of Bute, Dean Vaughan, and Lord Tredegar.

The Cardiff Museum.

At a meeting of the Cardiff Museum Committee, held on 22nd December, the curator presented an estimate of receipts and expenditure for next year. There is a balance in hand of £860. The chairman stated that it was intended to spend £450 on Welsh objects alone. Their friends who were opposed to the draft of the charter for the National Museum could see that they were doing something for Welsh objects in the Cardiff Municipal Museum.

The Ebbw Vale Dispute.

Owing to the fact that the statements in the South Wales papers referring to the Ebbw Vale doctor's question were more or less inaccurate, the following statement of the facts has recently appeared in the *South Wales Daily News:*

Sir,—On behalf of the medical staff of the Ebbw Vale Workmen's Doctors' Fund, and on behalf of the British Medical Association, may we correct through your columns the erroneous impression which the reports of the meeting on December 4th of the subscribers to the fund are likely to convey as regards the present position of the staff and of the Association in their negotiations with the committee of the fund?

To make clear that position we must briefly state the history of the negotiations since the intervention of the Association in March last. In April a deputation from the staff and from the Association met the Committee and explained the general nature of our objections. As a result of this interview and subsequent correspondence, it was agreed that representatives of the two sides should meet in conference with the object of arriving at a modification of the present scheme which should be acceptable to both. Three such conferences took place and, the points of agreement and difference being thus ascertained in detail, a series of definite proposals for reform were drawn by the Association and forwarded in August for the consideration of the Committee. In the covering letter the Association stated its willingness, after receiving the written reply of the Committee to these proposals, to send representatives to a further conference on any points that the Committee might think it desirable to discuss. The Committee replied by a simple indication of those points in the proposals of the Association which they did not accept, but absolutely ignored the suggestion of negotiation on the points of difference. After careful consideration of the reply of the Committee, the Association, desirous of an amicable adjustment, if possible, wrote on November 10th to the following effect: That while there were certain points upon which they could not modify the position indicated by their proposals, there were others which they were prepared to reconsider if the Committee could furnish the necessary evidence on questions of fact, others again which the Association believed could be easily adjusted in a conference, and finally there were some points which the Association was prepared to waive for the sake of an amicable settlement. The points which we must press were stated—namely, (*a*) The constitution, under the rules of the fund, of a medical committee to represent the staff in their relations with the Committee of Management; (*b*) the formation of a guarantee fund for the salaries of the medical staff; and (*c*) that rules of the fund, affecting the staff (which constitute the contract of engagement) should not be altered without their consent. The points upon which we desired definite information (and which with that information we were prepared to consider) were as to the number of the staff and their salaries. The information desired was with respect to the amount of work which each officer would be required to do, that is, the population to be attended and the distances to be travelled.

The only reply we have received to this most conciliatory letter was a curt intimation on December 5th that mass meetings of the subscribers had considered "the proposals of the Association," and had rejected them *en bloc.*

Now, it would appear incredible were it not proved by the report of these meetings and by documentary evidence that the only "proposals of the Association" submitted by the Committee to those whom they represent were those of August; that no reference was made to the covering letter in which those proposals were stated to be forwarded "for consideration," and an offer made to confer upon them; and no reference was made to the letter of November 10th and the contained offer of negotiation.

We do not merely protest against this suppression as unfair treatment of the Association as a body with whom the Committee had been in negotiation. The Committee is simply an executive body acting for those by whom it is elected. The subscribers to the fund were, we submit, entitled to have a complete statement of the "proposals of the Association" to date. By suppressing our covering letter of August 16th, and our letter of November 10th, the Committee has misrepresented to the subscribers the position of the Association, and gravely misled them as to the issues at stake.

As regards the points which are actually at issue we note further one or two remarks reported to have been made by members of the Committee at the mass meeting which call for comment. Mr. Burrows is reported to have said that the medical men demanded representation on the Committee of Management, and Mr. Llew. Carter that we desired to obtain the lion's share of the management. These gentlemen know perfectly well, and should have stated that all we ask is that the staff, instead of having to be dealt with as individuals by the management, should have a right to be heard through a committee of themselves. How trade unionists can justify this refusal to their own employés of a right for which they have so strenuously contended in their relations with their employers one cannot understand.

As to Mr. Vyce's statement concerning staff and salaries, we need only refer your readers to the above account of our letter of November 10th. We are quite prepared to modify our proposals when the Committee produces reasons in the shape of facts which are or ought to be in their possession.

Surely it is not unreasonable to ask that they should tell us what work each doctor is to be expected to do. On what other basis can salaries be calculated?

With respect to the guarantee fund, it is well known that in times past colliery and works doctors have been willing in times of strikes, and at other times when no pay was forthcoming, nevertheless to continue to attend those who had employed them. These, however, were doctors who received the full contribution of those who employed them. The position of medical men who are engaged at fixed salaries is entirely different. Why should they be expected to attend gratuitously if there should be no funds in hard times? We propose therefore (in the interests of the workmen as much as of the doctors) that a reserve fund should be created, to be kept at the level of one year's salaries, and that it should be placed in the hands, not of the doctors, but of trustees appointed by the workmen, by the Ebbw Vale Company, and by the doctors. Thus the workmen would secure themselves medical attendance in times of distress.

The proposals which the workmen have apparently been induced to reject *en bloc* are therefore reduced practically to these: (*a*) The well-known trade-union rule that the employés should have a right to deal with their employers not only as individuals, but through representatives of their Union or Association; (*b*) that salaries should be fixed, not arbitrarily, but according to work to be done; (*c*) that there should be some kind of guarantee that the workmen should have medical attendance in times of distress.

It is on these grounds that the Committee have now dismissed the whole of their present staff, and the Ebbw Vale workmen are asked in three months to make an entire change in their medical officers.

That there may be a pause for reflection before such a grave step is finally taken, we have been instructed again to draw the attention of the Committee to those conciliatory suggestions which they have ignored and suppressed.

With the same object, this letter has been written as a means of informing the subscribers to the fund and the public of the true position.—We are, etc.,

W. J. Greer,
Honorary Secretary Monmouthshire Division
British Medical Association.
J. Smith Whitaker,
Medical Secretary of the British Medical
Association.

Newport, Dec. 20th, 1905.

Scotland.

MIDWIFERY AND GYNAECOLOGY IN EDINBURGH.

EMERITUS PROFESSOR A. R. SIMPSON, of Edinburgh University, was until his resignation in the autumn of last year Professor of Midwifery and Diseases of Women and Children in that University—a somewhat comprehensive title that and one obviously crying aloud for subdivision. Midwifery, gynaecology, paediatrics, are all intimately connected, complete knowledge of one necessitating knowledge also of the other two, yet each and all offer the fullest scope for the constant devoted study of an ardent worker.

Since the appointment of Professor Simpson in 1870 the development in each of these subjects has been enormous and in none less than in gynaecology. To-day the gynaecologist is a surgeon, in 1870 he was a physician, and thus a revolution has taken place in the practice of this branch of medicine.

The sphere for work in midwifery and paediatrics has also immensely developed, and though in neither case the change has been so revolutionary as in gynaecology, yet it is more than sufficiently great to mark out the two as obviously distinct and separate branches of study, and it is sincerely to be hoped that ere long a separate lecturer on paediatrics will find his place in the University ranks.

Since the resignation of Professor Simpson, it has been decided that in addition to the Professor of Midwifery there will also be an independent lecturer on gynaecology, and thus the process of division has commenced. The new lecturer, in addition to systematic lectures, will doubtless have ample facilities in the recently extended Gynaecological Department of the Royal Infirmary for giving clinical instruction in his subject, while the Professor of Midwifery, by his connexion with the Royal Maternity and Simpson Memorial Hospital, has a large field for practical instruction. In connexion with instruction in this latter hospital, considerable alterations have recently been undertaken which it is hoped will ensure more thorough practical training of the students. A residence connected with the hospital has been obtained for their use, which will enable them to be within call at all hours, and so see a much larger number of cases than formerly was possible.

THE QUATERCENTENARY OF ABERDEEN UNIVERSITY.

The joint Committees of Aberdeen University and the Aberdeen Town Council met on December 22nd to consider the programme in connexion with the celebrations of the quatercentenary of the University.

Principal Lang, who presided, stated that he was very highly gratified at the hearty reception that the town council had given to the request to appoint a Committee to co-operate with the University authorities in making the quatercentenary celebrations and the important event of the visit of the King successful. He felt sure that the city would rise to the occasion, and that everything would be brought to a most successful issue.

A general discussion took place as to the celebrations, and as to what part the city and the University would take. A general outline of the proposals made was given, but nothing will be definitely decided until both parties have had time to consider what would be best for the general interests. The programme includes a religious service at the commencement, a dinner to all the delegates, a torchlight procession, a *conversazione*, dinners by different societies in the city, a symposium by the students, a ball by the students, and a dinner to the leading guests by the town council. It is understood that the corporation will carry out the arrangements for the King's visit in regard to the first part of the day, and the University the arrangements for the celebrations later in the day.

ABERDEEN UNIVERSITY ANATOMICAL SOCIETY.

At the last meeting of this Society, held in the Anatomical Theatre, Marischal College, Professor Reid being in the chair, Dr. K. H. Spittal, Demonstrator in Anatomy, read a paper describing the chief characteristics of several New Guinea skulls recently presented to the Anatomical Museum by Dr. Craigen, Chief Medical Officer in British New Guinea. The lecturer first referred to the normal features of a New Guinea skull, chief among these being the dolichocephalic and microcephalic types, with the common occurrence of Wormian bones. He then described the decorations on the skulls, consisting of carving, painting, and elaborate ornamentation with clay and seeds. The latter half of the meeting was occupied with the description of a large number of anatomical variations found by the dissectors in anatomy.

THE LORD RECTOR'S ASSESSOR, ABERDEEN.

Sir Frederick Treves, Lord Rector of the University, has appointed Mr. J. E. Crombie, of Parkhill, to be his assessor in the University Court. This appointment will meet with the unanimous approval of the students, with whom Mr. Crombie is very popular. Mr. Crombie acted as assessor for Mr. (now Baron) Ritchie during his term of office as Lord Rector.

WESTERN INFIRMARY, GLASGOW.

The annual report of the Western Infirmary for the year 1904-5 has now been issued. It shows that the numbers being treated are gradually increasing. In the dispensary, the number of outdoor patients was 24,577, representing 110,157 visits. The resident patients treated in the wards numbered 6,179, giving a daily average of 444.73. The number of patients treated at the dispensary is more than that of the preceding year by 2,567, while the indoor cases show an increase of 47. The average period of residence for each patient was 26.27 days. The number of deaths was 464, or 8.12 per cent. of all the cases treated to a termination; but of the fatal cases 143 were of such a hopeless nature that the patients died within forty-eight hours of admission. If these deaths be deducted the death-rate is reduced to 5.76 per cent. The financial statement shows that the ordinary income was £175 more than in the previous year. The income is largely made up by subscriptions from employés in public works, warehouses, offices, etc., whose contributions form about 30 per cent. of the ordinary income. The ordinary expenditure exceeded the ordinary income by £9,445. The extraordinary income amounted to £23,887, which enabled the managers to meet the deficiency in the ordinary income, and also to transfer a sum of £7,121 to the New Dispensary Buildings Account. Two beds have also been endowed in perpetuity during the past year. The management cost for each bed fully occupied was £69 8s. 2d., while the average cost of each patient was £4 19s. 11d. Both sets of figures show a decrease on the sums required in the preceding year.

The new wing in course of construction is approaching completion, and this will provide accommodation for 50 to 60 patients, which will do something to relieve the congestion in the wards and diminish the number of patients waiting to obtain admission into the hospital, who, during the past year, had averaged about 400 a day.

DUNDEE ROYAL INFIRMARY.

On December 29th the pleasant rites and ceremonies of Christmas gift-day were celebrated in the Children's Ward of the Dundee Royal Infirmary. Mr. James Guthrie presided, Sir William Ogilvy Dalgleish, president of the institution, delivered an address in which he said there seemed to be some misconception as to the kind of treatment which the giver of the new building for cancer wished to make its wards available. Some people seemed to think that all parties suffering from cancer were to be admitted and to be retained, but that was not so. The beds were intended in the first place for such persons as could be treated with some prospect of more or less prolonged relief, and obviously incurable cases, if admitted at any time for the relief of pressing symptoms, were not to be retained after those symptoms had been alleviated. Such satisfactory results had been obtained since the installation five years ago of the electrical apparatus for the treatment of cancer of the skin, lupus, and similar diseases that one ward, measuring 76 ft. by 25 ft., in the new building was to be devoted to this branch of the work, and Mr. Caird had undertaken the cost of furnishing it with all the necessary appliances and apparatus, consisting of several *x*-ray coils, a high-frequency instrument, Finsen lamps of the most recent pattern, a Wimshurst machine, a vibrator, and an electric bath. The cost of these instruments would not be less than £500. Thus the accommodation for the electric treatment of patients would be brought in every way up to date, and it was to be hoped that those who benefited by this somewhat costly special department would contribute something towards its upkeep according to their means.

Ireland.

The Equipment of an Irish Dispensary.

The Local Government Board in Ireland supplies to the medical officers of its dispensary service a certain equipment which is obtainable by requisition. Requisitions have to be sent in on a prescribed form on which is given a list of all the apparatus and instruments which may be ordered. In the event of a medical officer requiring to be supplied with an article not on the prescribed list a separate requisition must be made, and reasons given therewith why it is considered necessary, and why none of the articles on the prescribed list are suitable to the case. If such extra articles are procured by the guardians, the cost of them has to be defrayed entirely out of the rates. The list, therefore, represents what the Local Government Board considers a proper and sufficient equipment for its dispensary and workhouse hospital service. Considered from this point of view, it exhibits some deficiencies for which we are unable to imagine a satisfactory explanation. Neither dispensary nor hospital is supplied, for example, with the necessary appliances for transfusion, without which a medical man would be rash and culpable if he undertook practice in general and midwifery in particular. The dispensary doctor again is not supposed, we see, to require an ether inhaler, although his more fortunate *confrère* at the hospital is permitted to order one (Ormsby's), while a gag is not thought necessary to either. No provision is made for the examination of the eye, the ear, the throat, or the nose. The dispensary doctor has no ophthalmoscope, nor if he is attached to a hospital has he the use of an eye speculum or other eye instruments of any kind. Should he wish to examine the ear he must be content with his unaided eyes, and should he require to treat any ear affection his treatment is necessarily confined to what he can do with a brass syringe. The Eustachian tube is altogether out of his reach; he has no catheter and no Politzer's bag. He is in no better case should his patient have some affection of the nasal chambers, say a polypus; there is no nasal speculum to hand, nor if there were has he any mirror to use with it, nor a snare with which to remove the growth. True, with a burst of prodigality, he is permitted to order hare-lip pins, but this is the nearest approach he can make to the nose.

The larynx again is outside his province, as he cannot command a laryngoscope, and the oesophagus is also a closed channel to him; a foreign body must remain there, for no probang, coin catcher, or other instrument has he to remove it. It is truly astonishing to find such articles wanting in what is evidently supposed to be a proper equipment for a dispensary or a hospital. Is the dispensary doctor supposed to supply them out of his princely income of some £80 to £180 per annum, and is he supposed to find funds from the same source to provide a microscope? We do not suggest that the equipment is defective in all respects. What instruments are listed appear to be obtainable in good quality, but the deficiencies are numerous. A medical officer to a workhouse hospital has no doubt occasionally to proceed to operate on a case of acute intestinal obstruction; how, we ask, is he to set out on his task with confidence when he has no intestinal clamps, and even the greatest enthusiast on simple suture will admit that a Murphy button sometimes saves time in a way that saves life. We do not think it necessary here to go fully into the question as to what additions require to be made before the equipment could be considered adequate; we have, however, given sufficient examples to prove that the Local Government Board ought to entrust the revision of the list to some competent authority without delay.

Down District Asylum.

In Dr. Courtney's report of inspection of the Down District Asylum for November last reference is made to the extensive structural additions to the new gas plant, and to the additional water supply from the new wells; 397 men and 320 women are on the books; the deaths have all been from natural causes; the only zymotic disease which appeared was dysentery, of which there were 8 cases, one fatal; 27 per cent. of the men and 48 per cent. of the women were usually employed.

Royal Victoria Hospital, Belfast.

Although the accounts and report of the hospital are not yet made out, enough is known to satisfy the Board that a very satisfactory report will be forthcoming in March. There will be a balance of about £600, although a new unit of 32 beds was opened in the beginning of the year; the total expenditure will be about £12,600, and the average about £62 per bed. The coal bill is about £830, which, even with the new unit, is £70 less than the previous year, and £400 less than the original estimate; the electric bill is £350, as against Birmingham's £900. The plenum system of ventilation and heating and the hot-water supply still give the greatest satisfaction, and the general administration is carried on with unusual facility, owing largely to the structural arrangements.

Dr. J. C. Martin, Portrush.

Many professional and lay friends have heard of the prolonged illness of Dr. Martin of Portrush, who has been layed up now for so many months with rheumatism. It was with great pleasure that his recovery, though tardy, was spoken of. On Christmas Day he was the recipient of a handsome presentation from some of his many friends of a beutiful silver casket, suitably inscribed, and filled with 250 sovereigns. Dr. Martin is an ex-President of the Ulster Branch of the British Medical Association, and most popular with all classes, and the members of the Branch, with others, tender him their hearty congratulations and their best wishes for the New Year.

The Election of a Direct Representative.

With the opening of the new year the interest in the election of direct representative on the General Medical Council increases. As we have already stated, the nominations will take place on January 18th, and so far the only candidates are the sitting member, Sir William Thomson, and Dr. Kidd of Enniskillen. The voting papers will be issued between January 22nd and 25th, and the last day for return of these will be February 2nd. Sir William Thomson has issued a further address with a long list of supporters. After referring to his work on the Council, he points out the services he rendered in helping to secure legitimate titles for the officers of the Royal Army Medical Corps, and the further work which he did when serving as a member of the War Office Reorganization Committee, "which resulted in popularizing the Army Medical Service and placing it on a sound and attractive basis." He also states that it was on his "motion that the Examining Board was formed of representatives from the various countries of the United Kingdom, instead of being composed, as formerly, of physicians and surgeons exclusively from London." He states the circumstances under which he was enabled to bring before the General Medical Council the main grievances of the Irish dispensary doctors. "It was," he says, "the first time that such a statement had been made there." In conclusion, he says: "I do not attempt to place before you a list of illusory changes, and to ask your support on a promise to vote for the impossible. I ask for your support rather upon what I have done."

The Salaries of Dispensary Doctors.

The medical officers of the Clonakilty Union recently submitted to the guardians, at their request, a statement of the grounds upon which they claimed an increase of salary. They pointed out that the salaries are practically what they were 30 years ago, while the private practice had become much less. The Local Government Board had asked the several unions to fix a graduated scale, and this had been adopted in the case of 51 out of 72 dispensary medical officers in co. Cork. The salaries in this union were the lowest in the country, while the charge on the rates for medical services was also the lowest, namely, 1¾d. in the £, more than half of which is refunded by Government. Dr. O'Clery was unable to attend, but in a letter he mentioned that his salary was £80 a year. The patients daily under treatment varied from 65 to 90. Twenty-five cases of fever—mostly typhus—were treated during the year. Various recommendations were made at the guardians' meeting, but the proposal to fix a scale was defeated by 17 to 9. Then a proposal that an increase of £10 be made, but that no further increase be granted, was carried. The medical officers very properly declined this proposal.

At Dunmanway Union it was proposed "that an immediate increase of £30 be granted to each dispensary officer, and a quinquennial increase at the rate of £10 till the maximum sum of £175 is reached, and that the workhouse medical officer get an immediate increase of £10 till a maximum of £135 is reached." A long discussion followed, and the mover suggested that the immediate increase should be £20, and this was carried by 11 to 6. Notice, however, was at once given that the decision be rescinded.

At Gorey Union the guardians have unanimously voted an increase of £20 to the annual salary of £100 at present paid to Dr. Stephenson as medical officer to the workhouse infirmary.

In the Newry Union a committee of the guardians recommended unanimously that the ten dispensary medical officers should have a salary of £140, increasing by £5 every five years, the maximum to be £170, the arrangement to be retrospective; but after a discussion the proposal was defeated by 23 to 11.

The guardians of Waterford Union have appointed a committee to report upon a letter which the medical officers have forwarded to the Board, claiming an increase of salary.

Cork Branch of the National Association for Prevention of Consumption.

The Lord Mayor of Cork presided at the second annual general meeting of the Cork Branch of the National Association for the Prevention of Consumption, and there was a large attendance of the medical profession as well as prominent members of the general public.

Dr. D. J. O'Connor read the annual report, which contained an account of useful work done during the year. When the branch was started the principal objects which it set itself to accomplish were briefly:

1. The better housing of the poor.
2. The establishment of a free sanatorium for the treatment of early cases of pulmonary consumption amongst the poor of the county and city of Cork.
3. The provision of one or more homes for advanced cases.
4. The dissemination of knowledge as to the nature of consumption, its infectious character, etc.
5. The adoption of a system of notification.

As regards the question of housing of the poor it is gratifying to be able to state there has been no necessity for any efforts on the part of the Association in this matter, as the corporation has in hand a large scheme of labourers' dwellings, and much progress has been made with the buildings during the past year. Since the last annual meeting the Joint Hospital Board appointed to deal with the erection and management of the sanatorium, has held several meetings. The important question of a site which occupied their attention for some time has now been settled, subject to an inquiry by the Local Government Board as to its suitability.

With regard to the establishment of one or more homes in the country for advanced cases of consumption, the Poor-law Reform Commission has recently held an inquiry in Cork into the question of workhouse reform, and amongst other matters has considered the possibility of amalgamating some of the workhouses in the country. It seems probable that some of the workhouses will be done away with, and the recommendations of the Branch that these workhouses might be used as homes for incurable cases of consumption was received in a most sympathetic manner.

The educational work of the Branch has been carried on under the chairmanship of Dr. Windle, President of Queen's College, and much practical work has been done in a quiet way. The offensive and dangerous habit of spitting, especially in covered places such as railway carriages, tramcars, etc., being a fertile source of the spread of consumption, the efforts of the Association have been directed towards checking this nuisance as far as possible. Largely owing to the efforts of the Dublin Branch of the Association, the Board of Trade has sanctioned a by-law making it a punishable offence to spit in any railway carriage or covered railway platform or waiting room. The Cork Committee have induced the different local companies to display notices to this effect in a prominent manner in their stations and carriages, and also to call attention to the dangerous nature of the habit. The work of distributing pamphlets on the nature and prevention of consumption to hospitals, dispensaries, etc., has been continued during the year.

The question of notification of consumption has also advanced a step during the year, for the corporation has yielded to the solicitations of the Branch, and has agreed to voluntary notification. By this means infected areas will be more quickly recognized, information will be given to patients and their friends as to the means to be adopted to limit the disease to those already affected, and the rooms occupied by the consumptive patient will be disinfected at the public expense by the sanitary authorities. The Committee also hope that before long the corporation will appoint a bacteriologist to examine the expectoration of poor patients with suspicious symptoms, so that the disease may be recognized as early as possible while there is a chance of saving the patient's life.

The whole report shows that the Committee is still actively engaged in trying to eradicate a disease which is more prevalent in Cork than in any part of the United Kingdom. The report is signed by Dr. P. J. Cremen, Chairman of Branch, who still continues to take a keen interest in its working.

A Tie.

The post of Assistant Resident Medical Superintendent to the Limerick District Lunatic Asylum, rendered vacant by the appointment of Dr. P. Coffey to be Resident Medical Superintendent to Maryborough Asylum, has caused the Board some trouble to fill, not from lack of candidates for the office, but from the fact that on the three different occasions in which the Board met to make the appointment there was a tie in the voting. On the first two occasions the candidates were Drs. Roberts, Coffey, and Irwin, and in the final poll Drs. Roberts and Coffey tied and fresh elections were ordered, the Chairman declining, on the advice of Dr. O'Neill, R.M.S., to give a casting vote. On the last occasion the same three candidates were proposed, and on the first poll Dr. Coffey received seven votes and Drs. Roberts and Irwin six each. A second poll was then taken between Drs. Roberts and Irwin as to which should go to the final poll. This resulted in nine votes for Dr. Irwin and eight for Dr. Roberts, who then fell out. On the final poll there were nine votes each for Drs. Irwin and Coffey, and Dr. O'Neill again advised that the Chairman had no casting vote. The Chairman (Dr. Connery, J.P.) said he had looked into the matter and found that he had a casting vote. He therefore declared Dr. Irwin elected. Lord Emly, the Mayor and other members protested, but the Chairman adhered to his ruling, and it was eventually agreed by seven votes to three that Dr. Irwin should enter on the duties of the office forthwith, pending the sanction or otherwise of the election by the Lord Lieutenant.

Another Martyr.

The Spiddal (co. Galway) district has gained an unenviable notoriety in regard to its medical officers. Dr. Hickey has just died of typhus in Galway Fever Hospital, the disease having been contracted from one of his poor patients. Thus in the past ten years no less than six dispensary doctors in charge of Spiddal district have died in harness. The salary is £150 a year, but practically there is no private practice. The country is peopled by colliers, who are for the most part miserably housed, and infectious outbreaks are common. For undertaking the charge of such a district a medical man receives £150, and £15 as sanitary officer. He cannot insure his life, and one wonders how he can make ends meet. An artisan is better off. Wherefore we strongly advise that there should be no candidates for such an appointment until a salary is fixed commensurate with the labour and with the terrible risks to life.

Australasia.

Hospitals in Australia.

In his address to the Section of State Medicine and Medical Ethics of the Australasian Medical Congress, Mr. G. A. Syme said that Professor Senn of Chicago, when visiting Australia a little time ago, said to him, "You have far too many hospitals and charitable institutions in Australia in proportion to your population." This observation is correct, for according to Mr. Bruck the total number of available beds in 1899 was 11,280, while the average number occupied was only 7,809. There is reason to suppose a large proportion of those who took advantage of the hospitals could have afforded to pay for medical attendance at home if they had not been able to obtain, as Mr. Syme says, palatial buildings, luxurious comforts, and the attendance in an honorary capacity of the most eminent men in the profession. For to a large extent it is the very excellence of the public hospitals that causes them to be abused.

Lunacy in New South Wales.

The Growth of Insanity.

The annual report of the Inspector-General of the Insane in New South Wales (Dr. Eric Sinclair) for the year 1904 shows that the number of insane persons under official cognizance in this State on December 31st, 1904, was 5,097. These were distributed over the seven hospitals for the insane (5,010), the three licensed houses (65), and boarded out in the South Australian hospitals (22). The total number gives an increase of 147 on that of the previous year; and though the increase is less than that of either 1903 (263) or 1902 (199), it is considerably above the average for the past twenty years, namely, 128. For the future, Dr. Sinclair says, an annual increase of at least 150 must be expected and provided for. The proportion of the insane to general population was 1 to 286, which is almost the same ratio (1 to 285) as that of England and Wales for the same year. The proportion in New South Wales for the preceding year was 1 to 289, and 1 to 288 for England and Wales. A more valuable index, however, to the growth of insanity is afforded by the ratio of admissions to population. This, with trifling fluctuations, has steadily increased from 1 in 1.912 in 1897 to 1 in 1,432 in 1904. This latter figure gives a proportion of admissions to population of 6.98 per 10,000 as contrasted with 6.56 per 10,000 for England and Wales, thus showing that whilst the proportion of insane to population is very slightly less in New South Wales than in England, the proportion of admissions, or of occurring insanity, is somewhat greater. Admissions by transfer from other hospitals are not included in the above figures.

Accommodation.

In his report last year Dr. Sinclair called attention to the serious overcrowding of the hospitals, which if continued, he said, would prove fatal to the reputation which had been built up for the Department by years of careful work, and pointed out the difficulty of treatment under such conditions, and further the relation of overcrowding and insufficient ventilation to the spread of pulmonary consumption. We regret, therefore, to note that he has again this year to indicate this serious defect. At the beginning of the year there was accommodation for 4,494 persons, while 4,688 were in residence, and at the end of that year, with no additional accommodation, the patients in residence had increased by 104, leaving an excess of 298 over the beds provided. Works have since been put in hand at Rydalmere and Gladesville, but as these will not provide more than about 150 beds, these will be taken up by the increase of 1905, and leave matters no better than before. No class of patient, perhaps, suffers more from overcrowding than the insane, and in none does it militate more disastrously against their effectual treatment. Dr. Sinclair's strictures are certainly warranted by the facts, and should not be long disregarded.

Admissions.

During the year 1,020 cases were admitted to the hospitals and licensed houses, of whom 884 were admitted for the first time during the year. The number admitted for the first time is the highest recorded, but the readmissions (136) are considerably less than those of the previous year. Of the total admissions, 614 of whom were males and 406 females, 324 were natives of Great Britain, 623 were natives of New South Wales and other colonies, 18 were natives of France and Germany, 13 were Chinese, and 42 natives of other countries. The admissions were classified as to the forms of mental disorder into: Mania of all kinds 555, melancholia of all kinds 218, dementia of all kinds 71, congenital or infantile defect 92, epileptic insanity 35, and general paralysis 49. As to the probable causal factors in these cases, alcoholic intemperance was assigned in 149, or 14.6 per cent., venereal disease in 18, previous attacks in 139, pregnancy and the puerperal state and lactation in 36, puberty, old age, and the menopause in 74, opium poisoning in 7, epilepsy in 41, phthisis in 7, other bodily diseases in 67, and "moral" causes in 186. Hereditary influences were ascertained in 81, and congenital defect in 86.

Discharges, Deaths, etc.

During the year there were discharged from the hospitals and the licensed houses 438 as recovered, giving a recovery-rate on admissions and readmissions of 42.94 per cent., which is higher than the average for the past ten years, namely, 41.82 per cent., or the 36.67 of England and Wales. There were also 67 discharged as relieved, 154 transferred, 5 escaped and were not recaptured, and there were 370 deaths. The deaths, which give a percentage death-rate on the average numbers resident of 7.69, were due in 149 cases to cerebro-spinal diseases, including 59 deaths from general paralysis. As in England, the deaths from general paralysis show a decided upward movement. There were 104 deaths from chest diseases, including 37 from pulmonary consumption. The deaths from pulmonary consumption were thus not in undue proportion to the total deaths, forming only 10 per cent. of the whole; but as no mention is made in the table of other forms of tuberculous disease it cannot be taken as an index to the total tuberculous death-rate. The deaths from various abdominal diseases numbered 68, including 24 from dysentery and diarrhoea and 23 from inflammation and ulceration of the stomach, intestines, and peritoneum. There were 26 deaths from old age and debility, 1 from accident, and 5 from suicide, one of these latter having taken poison before admission. A somewhat serious epidemic of dysentery occurred at Parramatta during the summer of 1903-4, and at the same time a smaller number of isolated cases occurred in some of the other hospitals. The cases at Parramatta numbered 79, and of these 22 died. The epidemic was serious, Dr. Sinclair states, because of the crowded condition of the wards and the difficulty of isolation. Isolation tents were erected in the grounds, and by the care and diligence of Dr. Williamson the disease was eventually brought under control. There were also 4 deaths from erysipelas, 1 from typhoid fever, and 1 from influenza. There were 28 more or less serious accidents during the year and 42 escapes, all of whom, with the exception of the 5 already mentioned, returned to hospital within a short time of their escape.

Cost.

The amount expended on the maintenance of patients during 1904 was £139,974 19s. 8d., being a reduction of £11,334 16s. 7d. on the previous year. The annual cost per patient, deducting collection, was £24 12s. 4¾d., or 9s. 5¾d. per week. This statement, however, leaves out of count other outlays, amounting to £7,148 2s. 11d., disembursed for the maintenance of the patients in the South Australian Hospitals and the reception house at Darlinghurst and also for the upkeep of the pathological laboratory and other administrative expenses.

Reception House for the Insane, Darlinghurst.

The statistics of this institution are not included with those of the hospitals and licensed houses hereinbefore epitomized, as the patients are for the most part only admitted for temporary care and treatment on their way to the hospitals. The number in the reception house on December 31st, 1903, was 14; there were admitted 788 during the year, and 23 remained on December 31st, 1904. There were thus 802 under care during the year. These were made up of two classes—those under certificates of insanity (370) and those under remand under Section 7 of the Lunacy Act of 1898 (432). Of those under certificate 8 recovered, 361 were sent to hospitals for the insane, and 1 remained at the end of the year, while of the 432 on remand, 268 were discharged as recovered, 145 were sent to the police-court certified as insane, and returned to the reception house, 1 escaped, and 18 remained at the end of the year. Of the total number, 22 were admitted twice during 1904, and 26 had been previously inmates, most of these recurrences being due to drink.

Reception House, Newcastle.

A table furnished by Dr. Sinclair shows that there were 54 patients in all under care during 1904 at this institution. Of these 26 were admitted under certificate and the remainder on remand. The whole of the certificated cases were transferred to asylums, and of the remands 3 were discharged recovered from the police-court, 24 were sent to the police-court and returned to the reception house under certificate, and 1 remained at the end of the year. Dr. Sinclair considers that these reception houses have done good and useful work, 279 cases having been discharged as recovered during the year. The aim of these reception houses is evidently different from most elsewhere, thus explaining the fact that the recovery-rate, calculated on the admissions (33.13 per cent.), is considerably lower than that of the mental hospitals of this State. The report of the Inspector-General contains information relating to the observation wards of His Majesty's gaols at Darlinghurst and Parramatta, for which we would refer inquiries to the report itself.

British Honduras.

IN the Colonial Office Report on British Honduras for 1904, now issued, some significant figures are given of the vital statistics of the various races inhabiting the colony. Taking the number of deaths for every 100 births during the five-year period from 1900 to 1904 inclusive, it appears that 107 Indians die, 41 Caribs, and 51 negroes. This would seem to point to the disappearance of the Indian; but, curiously enough, the report contains no comment on the facts. The figures concerning the Caribs are a little misleading to those unacquainted with the colony, who might conclude from them that this now hopelessly dwindling race is here doing well; but the truth is that these so-called Caribs, though descendants of the true Caribs originally immigrant from the West India Islands, have long ago become so mixed as ethnologically to be quite unworthy of the name. The population of the colony is close upon 40,000, and the birth statistics show a steady increase of illegitimacy—from 36 per cent. in 1897 to 44 per cent. in 1904. The total birth-rate per mille is 37.81, and the death-rate 24.93, which cannot be considered heavy for a tropical climate of a trying kind, for malaria and dysentery stand at the top of the death-rate list. The wet season is from April to August inclusive, though there is a considerable rainfall during every month, the average annual total for the last twenty years being about 80 in. It is noteworthy that during 1904 the male births exceeded the female by 92.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the weeks ended November 25th and December 2nd, 1905, the deaths from plague in India amounted to 2,836 and 2,890 respectively. The principal figures were: Bombay Presidency, 1,122 and 1,059; Bengal, 267 and 470; the Punjab, 337 and 346; Central Provinces, 196 and 158; United Provinces, 372 and 478; Central India, 121 and 73; Rajputana, 18 and 16; Kashmir, 5 and 5; Madras Presidency, 55 and 61; Mysore State, 102 and 85; Hyderabad State, 166 and 55; Burma, 75 and 84. On December 2nd, 1905, the North-West Frontier Province and Beluchistan were free of plague.

SOUTH AFRICA.

During the weeks ended November 25th, December 2nd and 9th, 1905, no fresh cases of plague were met with in man in any town or district of Cape Colony. On December 9th one case of plague remained under treatment at Port Elizabeth. At Port Elizabeth alone a few rats and mice were found to be plague-infected during the week in question.

MAURITIUS.

During the weeks ended December 14th, 21st, and 28th, 1905, the fresh cases of plague numbered 8, 5, and 2; the deaths from the disease amounted to 7, 3, and 2 respectively.

HONG KONG.

During the week ended December 23rd, 1905, there were 3 fresh cases of plague reported in Hong Kong; the deaths from the disease numbered 3.

THE UNIVERSITY CONSTITUENCIES.

EDINBURGH AND ST. ANDREWS.

THE candidates for this constituency are Sir John Batty Tuke, M.D., the sitting member, and Mr. J. St. Loe Strachey, editor of the *Spectator*. The views of both candidates on the reforms desired by the British Medical Association were fully stated by them in the BRITISH MEDICAL JOURNAL of December 2nd, 1905, p. 1475. As statements have been made to the disadvantage of Sir John Batty Tuke with reference to his absence from the General Medical Council during the discussion on the Rusholme Dispensary, the Chairman of the Medico-Political Committee and the Chairman of the Public Health Committee of the British Medical Association have thought it right to state (p. 51), in justice to Sir John Batty Tuke, that his absence on that occasion was due to the fact that, at the request of the British Medical Association, he had undertaken to introduce to the President of the Local Government Board the deputation to support the Public Health Bill prepared by the Association to give security of tenure to medical officers of health. They further state that Sir John Batty Tuke has supported the British Medical Association on every occasion on which his support has been sought.

GLASGOW AND ABERDEEN.

The candidates in this constituency are Sir Henry Craik, K.C.B., M.A.Oxon., LL.D.Glasgow and St. Andrews, Secretary of the Scottish Education Department from 1885 to 1904, and Professor W. R. Smith, M.D.Aberdeen, D.Sc. Edinburgh, Mayor of Holborn, and a member of the Metropolitan Asylums Board.

The medical profession in Liverpool and the neighbourhood includes a considerable number of graduates of the Universities of Glasgow and Aberdeen, and Professor Smith gave an address to the medical members of the constituency at the Medical Institution on December 28th, the chair being occupied by the President of the Institution, Sir James Barr, who in introducing the candidate said that in that institution the only politics they knew were medical politics. The two universities ought certainly to be represented by one of their own graduates. Professor Smith had come forward on a requisition signed by 1,600 graduates. Glasgow had held the representation for twenty-five years, and Aberdeen was now entitled to a turn. Now that there was an opportunity to return a medical man the chance ought not to be allowed to pass, the medical profession being but scantily represented in the House of Commons, though many questions of sanitary science came under its consideration. Medical men wanted an amendment to the Medical Acts, and they wished to raise the standard of medical examinations. To attain these objects and to represent the graduates of the two universities they had in Professor Smith an excellent candidate.

Professor SMITH said that, while he had been openly selected by the senior electoral Association, his opponent was brought forward much later and without previous intimation to the Association, which had asked for a conference and a public discussion of the question of representation. It seemed a disgrace to the two Universities if they could not find one among their 10,000 graduates to represent them; he had insisted on a requisition bearing 1,000 names, and 1,300 were forthcoming, while many others had been added. The chief objection to his candidature was an anonymous postcard complaining that he was not born in Scotland. Though of Scotch ancestry he was born in Kent—a circumstance not within his own control. Being a graduate of one of these universities and a medical man, he was in touch with the wants of the universities and the needs of the various faculties. He held degrees in several faculties, but was chiefly a medical man. He thought that the Volunteer Medical Service should be properly organized, and that efficient military training might be provided for medical officers connected with the Volunteers. Pointing to the impracticability of ever electing many medical men to Parliament, he said that it would be his care to watch the progress of the Medical Acts Amendment Bill and other Bills in which the universities and the medical profession, together with the interests of the public health, were concerned. The candidate was accorded a vote of confidence and thanks, the Chairman being also thanked.

It is announced that Professor Smith will address a meeting of graduates at the College of Medicine, Newcastle-on-Tyne, on Monday next, at 4.30 p.m.

LONDON.

The candidates are the sitting member, Sir Michael Foster, K.C.B., M.D.Lond., formerly Professor of Physiology in the University of Cambridge, and Sir Philip Magnus, B.Sc., B.A.Lond., who, we are requested to state, has been adopted by the Liberal Unionist and Conservative Associations of the University.

Sir Michael Foster is a member of the Liberal party, but seeks re-election primarily as a representative of science and higher education and on the ground of public health, a subject in which he more particularly interests himself.

LITERARY NOTES.

THE Berlin Royal Museum has acquired a large collection of recently-discovered medical papyri which will be published in due course. The contents, which are of the most varied description, give striking proof of the activity of medical thought in ancient Egypt. Among the papyri are two on which letters from Hippocrates are inscribed.

At the fifth annual meeting of the American National Association for the Study of Epilepsy, held in the Academy of Medicine, New York, on November 29th, 1905, Dr. W. P. Spratling, President, announced that the Association offered a prize of £60 for the best essay on the Etiology of Epilepsy. Members of the medical profession in any country may compete for this prize. The award will be made in November, 1906, but all essays submitted must be sent in by September 1st. Details as to conditions governing the award may be obtained from Dr. Spratling, Superintendent of the Craig Colony for Epileptics, Sonyea, Livingstone County, N.Y.

With reference to a paragraph on artificial limbs in antiquity which appeared in this column in our issue of November 4th, 1905, "W." writes that the Irish Annals tell that Nuadha, King of the Tuatha de Danaan, defeated the Firbolgs in a great battle at South Moytura, but lost an arm in the fight. Dianceth the Healer made for the mutilated monarch a silver arm with movable fingers. From this Nuadha was named Airgeadhlamh, or the silver-handed. It is recorded that his wound took seven years to heal, a delay which the higher criticism would probably attribute to the presence of sequestra.

We have opposed the retention of "compulsory Greek" as a needless obstacle in the path of the student of science or medicine who wishes to take a degree at Cambridge. But we have always held that Greek as an optional subject is a first-rate instrument in the training of the mind for the pursuit of science as for other spheres of intellectual activity. We are pleased to find this view strongly confirmed by so distinguished an authority as Dr. Frederick B. Loomis, professor of biology in Amherst College. Writing in the New York *Independent*, Professor Loomis states that his experience in teaching biology has convinced him that the classical students do a better grade of work in the subject than do the scientific. All his classes, he says, are composed of a mixture of both sorts, and during the first three years the scientific students were given a half-year of zoology before the classicals came in with them, the latter even with the handicap doing as good or better work. The chief difference, he states, is in the character of the work presented, "the tendency being for the classicals to turn out more accurate and thorough results." He attributes this superiority to the mental discipline enforced by the study of Greek. He goes on to express the belief that this is due to the better training obtained by the study of a language like Greek than is possible from a modern language. He holds that there are two main reasons why the Greek is the better—the first inherent in the language, due to its greater complexity, and yet exact usage; the second to the manner in which the two are taught, French or German being taught with the literary and artistic use emphasized. The second reason, he says, may be left with the mere statement, usually agreed to, that French and German are not as thoroughly taught in the secondary schools as are Greek and Latin. Greek is considerably more complex in structure than modern languages, and when a student works out Greek sentences, extracting from each word its exact meaning by focussing on it this considerable number of tests, he cannot but concentrate his thought. The Professor says that this taking of a word, and from each modification of its ending drawing a correct conclusion, is the sort of training which develops accuracy that is the requisite of a natural science. There is so much in such a science as zoology which attracts the attention and is of popular interest that the tendency is to learn merely statements about the animals. This, however, does not train the mind or develop a scientific thinker. Both are done by taking a fact and focussing on it the wealth of other facts and principles until a logical conclusion is reached in regard to the relation and bearing of the particular feature. "The weakness of the mass of the so-called scientific students," adds Professor Loomis, "is their inability to concentrate, also the tendency to be easily satisfied." He concludes that the mental exercise in acquiring Greek is as much superior to the mental exercise in acquiring French or German "as swimming is superior to walking as a physical exercise."

As all well-reasoned opinions should be considered, we think it right to give the views of a divergent authority. The writer of From a College Window in the *Cornhill Magazine* for January deals with the defects of classical education as it now is. The reason, he says, why intellectual cynicism sets in is because the boys as they go on feel that they have mastered nothing. They have been set to compose in Greek and Latin and French; the result is that they have no power of composing in any of these languages, when they might have learnt to compose in one. Meanwhile, they have not had time to read any English to speak of, or to be practised in writing it. They know nothing of their own history or of modern geography; and the blame is not with them if they find all knowledge arid and unattractive. The writer would try all sorts of experiments. He would make boys do easy *précis* writing; and give a simple printed correspondence and tell them to analyse it would be to give them a task in which the dullest would find some amusement. He would read a story aloud, or a short episode of history, and require them to retell it in their own words. Or he would relate a simple incident and make them write it in French; make them write letters in French. And it would be easy thus to make one subject play into another, because they could be made to give an account in French of something that they had done in science or history. At present each of the roads—Latin, Greek, French, mathematics, science—leads off in a separate direction, and seems to lead nowhere in particular. He adds that the classicists make the mistake of thinking that only through literature, and, what is more, the austere literature of Greece and Rome, can this sense be developed. He has a deep admiration for Greek literature, which he thinks one of the brightest flowers of the human spirit, and he thinks it well that any boy with a real literary sense should be brought into contact with it. He does not think so highly of Latin literature, in which there are very few writers of the first rank. But to many boys the path to literary appreciation cannot lie through Latin or even Greek because the old language hangs like a veil between them and the thought within. To some boys the enkindling of the intellectual soul comes through English literature, to some through history, to some through a knowledge of other lands, which can be approached by geography. To some through art and music; and of these two things, says the writer, we trifle with the latter and hardly touch upon the former.

Professor Turner of Oxford, reviewing in *Science* Professor Simon Newcomb's *Reminiscences of an Astronomer*, quotes a curious example of the utterly erroneous conclusions to which colour blindness may lead scientific critics. The well-known astronomer, Father Hell, was many years ago accused by Littrow of forging records of observations of the Transit of Venus. By careful and prolonged study of the original manuscripts, Newcomb was led to suspect that Littrow could not see differences in colours between inks, and on inquiry he learnt that the accuser was colour blind. "No further research," says Newcomb, "was necessary. For half a century the astronomical world had based an impression on the innocent but mistaken evidence of a colour-blind man respecting the tints of ink in a manuscript."

SPECIAL CORRESPONDENCE.

PARIS.

Behring's Antituberculous Vaccination of Bovines.—The Prophylaxis of Syphilis.—Exposition of Automobiles.

LIKE the tongue in Æsop's fable, France will have been for Professor Behring at once the worst and the best. The singular adventure of the German scientist will be within the recollection of readers. Unaccustomed to French ways, ill-advised or ill-inspired, he went thoughtlessly to work in such a way as to throw discredit on his discoveries. In proclaiming prematurely to the world, without possibility of proof, the sensational announcement that he had conquered tuberculosis, the Marburg professor only succeeded in awakening suspicions on all sides; the most indulgent critics, without wishing to believe that it was all a piece of bluff, were driven to think that Behring was simply the victim of a gigantic illusion. The true scientific spirit which does not allow its wish to become the father of its thought, conforms itself to the maxim—

> Sapiens nil affirmat quod non probat.

This I venture to complete by a French proverb which finds an apt application here: "Tout vient à point à qui sait attendre." As a matter of fact, proof did come a few weeks later. Behring seems to have realized that part of his programme which concerns the antituberculous vaccination of bovines. The experiment was carried out at Melun under the control of two men eminently competent in veterinary science—Professor Vallée and M. Rossignol. A historic detail that will interest many is the fact that M. Rossignol was formerly delegated to supervise Pasteur's famous experiment on vaccination against anthrax. The details of the experiment have been published in all the journals, medical and political, and therefore need not be repeated. It may be pointed out, however, that vaccination by Behring's method does not confer absolute immunity. But the degree of resistance of animals inoculated against tuberculosis is really very considerable. This is a magnificent result, and the medical public would have appreciated and applauded it most heartily without there being any need of preliminary booming. Having said this, we may be allowed to express the wish that human tuberculosis may be conquered as soon as possible. To comfort us in waiting for this, let us again quote a popular proverb, "On fait ce qu'on peut; on n'est pas des boeufs"—a fact which in the circumstances is very regrettable.

In the matter of vaccination there is a form of the procedure which interests the human more than the bovine race, namely, that directed against the *Spirochaeta pallida*. The Pasteur Institute has already told us of certain prophylactic measures which are said to be very efficacious in the case of animals. In a series of experiments Metchnikoff and Roux have shown that it is possible to cause abortion of the chancre following inoculation of syphilitic virus on the eyelid of a chimpanzee by carrying out mercurial inunction less than one hour after the infecting contacts. (A curious point is that a solution of sublimate has not the same protective action.) This is indeed practical prophylaxis, and it is to be wished that it may prove to be efficacious in man. What is still better, certain indications seem to warrant a hope that attempts at vaccination might possibly be successful in producing immunity against the disease.

An exposition of automobiles is now being held in the Grand Palais in Paris. Without repeating the threadbare joke that the automobile runs people down for the benefit of surgeons, it may be said that, if one may judge from the number of machines exhibited, the conjecture may be hazarded that business in that line will be pretty brisk in 1906. Every variety of motor, heavy and light, is on show. Among them are several models which by their strength, endurance, and cheapness seem fitted at last to supply the motor so long dreamt of by medical practitioners. There is the superb 120-h.p. for the prince of science; the handsome 40-60-h.p. for the man far up on his way to the top of the ladder; then comes the modest 10 to 16-h.p. for those still on the lowest rungs. For those less favoured by fortune, who cannot afford a private motor, there is the automobile omnibus for certain routes, and even petroleum pleasure boats for the summer. The automobile will in future be a very convenient means of classification for patients, who will no longer run the risk of making a mistake in the choice of a doctor. There will be no difficulty in distinguishing between a great consultant, who drives up with the whole power of his 120-h.p., and the small practitioner who goes about in a "puff-puff," or makes his rounds in the humble and inconvenient 'bus. Of course there may sometimes be a slight difference in "marks" in the case of automobiles as of doctors, but that is a matter in which the patient must use his power of discrimination for himself.

CORRESPONDENCE.

SIR JOHN BATTY TUKE AND THE MEDICAL PROFESSION.

SIR,—The action of Sir John Batty Tuke in leaving the meeting of the General Medical Council on the occasion of the discussion on the Rusholme Dispensary has given rise to a misapprehension which might operate unfairly against his candidature for the Universities of St. Andrews and Edinburgh, and the Medico-Political Committee of the British Medical Association has instructed us to state the facts of the case.

These are:

1. That Sir John Batty Tuke left the meeting by special permission of the Chairman and at the request of the British Medical Association for the purpose of introducing to the President of the Local Government Board the deputation in support of the Public Health Bill prepared by the Association to give security of tenure to medical officers of health.
2. That this had been arranged before it was known that the discussion on the Rusholme Dispensary would be taken at that time.

The Central Council has given instructions that in the case of every member of Parliament who has conspicuously supported or opposed the policy of the profession in Parliament, and is a candidate, particulars of his action should be furnished to each medical constituent. As this could not be done by circular in the case of university constituencies, we take the present opportunity of making it known to the profession that Sir John Batty Tuke has supported the British Medical Association on every occasion on which such support has been sought.—We are, etc.,

R. C. BUIST,
Chairman of the Medico-Political Committee of the British Medical Association.
C. H. W. PARKINSON,
Chairman of the Public Health Committee of the British Medical Association.

January 3rd.

PARLIAMENTARY REPRESENTATION OF THE UNIVERSITIES OF EDINBURGH AND ST. ANDREWS.

SIR,—A determined attack is being made to oust Sir John Batty Tuke from his seat as member for the Universities of St. Andrews and Edinburgh, and to resist this attack medical graduates must resolutely close up their ranks. One of the most crying needs of the profession is increased representation in the House of Commons, and if a layman is elected in the place of Sir John Batty Tuke we shall lose one of our most valuable and strenuous supporters. It is inconceivable that medical graduates will allow such a deplorable accident to happen. Whatever the promises of Mr. St. Loe Strachey may be there is no doubt that it is as a so-called "free-fooder" that he aspires to Parliamentary honours, and that to the medical profession his value in Parliament would be as nothing compared with that of Sir John Batty Tuke. We can all exercise our votes in our respective Divisions for "free food," "tariff reform," "Home Rule," etc., but when the chance offers of returning a medical representative to Parliament, especially one who has already proved himself a champion of the needs of the profession, all differences on other matters should surely be sunk by the medical graduates of the Universities.—I am, etc.,

K. MONSARRAT, M.B.Edin., etc.

Liverpool, Dec. 30th, 1905.

SIR,—There are not many constituencies in which medical men have a preponderating vote; but the Universities of Edinburgh and St. Andrews do constitute one of the few in which medical men may, if they so desire, insure that they are represented in the House of Commons by a man distinguished in medicine.

The graduates and voters of these Universities have two candidates to choose from at the coming election. The one, Sir John Batty Tuke, is a graduate of Edinburgh University and a distinguished medical man. The other, Mr. St. Loe Strachey, has neither of these important, and I might add almost essential, qualifications for the representation of this constituency. What, then, are his special claims to displace an Edinburgh graduate and man of science in the representation of the Universities of Edinburgh and St. Andrews? It is true he has won some distinction as a literary man, and, further than that, we have his own assurance that on political questions he is a Unionist, who, in the majority of public questions before the country, will support the Liberal party.

Surely, whatever our individual views on party politics may be, such an ambiguous political attitude as this cannot be allowed to outweigh the undoubted qualifications which Sir Batty Tuke possesses.

Medicine is poorly enough represented in the House of Commons at present, and the least a body of medical voters can do is to see that one of the few medical men in the House shall not be turned out by a gentleman whose principal claim to consideration on the part of the electorate appears to be that politically he is neither "flesh, fowl, nor good red herring."—I am, etc.,

ALFRED HILLIER, M.D.Edin.

Markyate Cell, Markyate, Herts, Dec. 28th, 1905.

MOTOR-CAR LAW AND THE GENERAL ELECTION.

SIR,—As the General Election is close at hand, all medical motorists both present and prospective should approach their various candidates in order to obtain some amendments on motor legislation in favour of the profession.

The principal point, in my opinion, is that relating to taxation. I think we have a distinct grievance in being taxed at all for the more or less modest horse-drawn vehicle in which we go our daily rounds, and, if the tax on the medical man's motor be not abolished, it should at most amount to £1 1s. for a car, and 15s. for a tricar or bicycle.

Another point relates to the compulsory lighting of all vehicles at night. There must be few country doctors who cannot tell of narrow escapes from collision with some unlighted vehicle, and this is a danger that will grow with the increasing use of motor cars.—I am, etc.,

Dec. 30th, 1905. RUSTICUS.

THE POOR-LAW COMMISSION AND CONTRACT PRACTICE.

SIR,—It is greatly to be hoped that the Association will, through its recently-appointed Committee, secure united action of the profession in placing before the Poor-law Commission the chief reforms required in the relations between the State and those members of the medical profession who undertake the treatment of paupers. The entire question of the Poor-law medical service must be thoroughly discussed and judiciously reformed, it being remembered that whatever changes are made now will probably remain in force during the whole of the next generation. The relations between the workhouse and the infirmary, between Poor-law dispensaries and the out-visiting of paupers in their own homes, and above all the relations between the Poor-law system and voluntary hospitals need the most careful and complete consideration unless we are content to muddle through indefinitely with a chaotic want of system which is a disgrace to our vaunted civilization.

But I am particularly concerned now only in pointing out the desirability of securing that the principles of contract medical practice so admirably worked out by various Committees of the Association, and now approved by the Representative Meeting, shall be insisted upon in the reorganized Poor-law medical service. If it is important that the profession should protect itself from sweating by medical aid associations and friendly societies, surely it is equally desirable that we should be protected from insufficient payment by the State for services rendered.

The distribution of the work of visiting Poor-law patients in their own homes amongst all the members of the profession resident in the parish and willing to take part in it should prove no more difficult than the distribution of provident work amongst the members of a public medical service, or of contract industrial work amongst the practitioners in the district. This Poor-law medical work is distinctly contract work, and its disadvantages and dangers are greater than those of other contract work because of the greater power and wealth of the employer. But we could not hope to persuade the State voluntarily to adopt this reform were it not possible to show how much the service was likely to be improved by increasing the number of the medical officers and introducing a proper spirit of competition amongst them. At the outset it would not be necessary to increase the cost to the State. The remuneration at present paid to one officer would be divided amongst all those sharing in the work in proportion to the amount of work done by each. But it would be much easier when this contract work is put upon a proper basis to bring pressure on the State to ensure that there shall be a reasonable proportion between the work done and the remuneration received.—I am, etc.,

January 2nd. PROFESSIONAL UNION.

THE PROPOSED BILL TO LEGALIZE THE PRACTICE OF OPTICIANS.

SIR,—There have been several letters in the BRITISH MEDICAL JOURNAL lately pointing out the advisability of laying before candidate M.P.'s at the coming election the Medical Acts Amendment Bill and its objects. It would be highly advisable to bring also to their notice, and before voting find out their disposition towards, the Bill which the British Optical Association is hoping to pass through Parliament in order to establish a new kind of hybrid medical man, *legally* qualified to practise sight-testing and prescribing of glasses.

Assuming that every member and would-be member of Parliament has inscribed on his ideal banner the motto *Salus populi suprema lex*, and acts up to it, he cannot do otherwise than oppose to his utmost this Bill, when it is explained to him that as well might the maker of trusses pose as a surgeon whose speciality is hernia; that optical errors are in many cases intimately bound up with diseases of the eye and general system, in a way that only medical men who have a knowledge of the anatomical, physiological, and pathological conditions concerned can elucidate and properly treat; that owing to many of these opticians calling themselves "Optologist," "Eyesight Specialist," "Refractionist," and names of that sort, and putting "B.O.A." (British Optical Associate) and other similar letters after their name, a considerable number of the public mistake them not only for medical men, but for medical men especially qualified to deal with eye troubles! Finally, that putting aside all the above, and assuming for the moment that it is the optical error *only* that need be determined, even then the optician must frequently absolutely fail; for it is a well-recognized medical fact that in a very large proportion of cases previous special medical treatment of the eye is required before it is possible to determine accurately the optical error.

Some may think that such a preposterous Bill would never be let through Parliament, and is not worthy of even the trouble of opposition; but no doubt those running the Bill are a combined and a good business party and not without influence, and it is marvellous how Bills sometimes "slip through" unexpectedly. I am glad, therefore, to notice in your leading article of November 25th, 1905, that the British Medical Association promises its opposition, and doubtless too the Royal Colleges of each division will not be behind the times or neglectful of the interests of their members, but will up and act. The Ophthalmological Society of the United Kingdom is also mentioned by you as being likely to help, and naturally one would in a general way conclude that it would be the very first body to act in the matter, but I am sorry to say that their Council inform me that the subject has been fully considered by them, and they do not deem it expedient to take action in the matter. The reason for this inactivity has not so far been revealed. —I am, etc.,

Norwich, Jan. 1st. ARTHUR GREENE.

ON THE TONICITY OF HEART MUSCLE.

SIR,—In the issue of the BRITISH MEDICAL JOURNAL for December 30th, 1905, we have to welcome another of Dr. Mackenzie's illuminating articles on the heart. In this he rightly calls attention to the important part played by the tonicity of the muscle fibres of the heart under normal and abnormal conditions, and shows how depression of this tonicity is probably the most important factor in the causation of dilatation, functional murmurs, and pulsation of the veins of the neck.

The functions of cardiac muscle, rhythmic building-up of a stimulating substance, excitability, contractility, conductivity, and tonicity may each be separately affected by external causes, but a change in any one of them probably influences, to a greater or less extent, all the others. This is especially likely to be true of the function of tonicity, which differs from the others in its resemblance to an actual contraction. The muscular contraction destroys for a time all these functions except tonicity, therefore we would expect tonicity to have an influence in the same direction, which influence would show itself by depressing the other functions, or—what is the same thing—by delaying their recovery. It has been pointed out that the tonicity of the fibres is greatest in certain places where it is most required; for instance, round the valves. We may extend this theory of regional tonicity and assume that, as a whole, it is greatest in the ventricles, less in the auricles, and least in the great veins. It is possible, therefore, should this assumption prove to be well founded, that the regular progression of the cardiac contraction from great veins to auricles, and then to ventricles, depends on such regional tonicity. We know that the isolated sinus venosus, auricles, and ventricles each beat with a rhythm of their own, of which that of the sinus is the most frequent, that of the ventricles the least. When the various parts are joined together, the sinus imposes its more frequent rhythm on the others. It is said that the stimulating substance is formed more quickly in the sinus than elsewhere, but may this not be due to its formation in auricles and ventricles being delayed by their greater tonicity?

With depression or abolition of tone the stimulating substance should be built up more rapidly in the ventricles, and at the same time the excitability should be increased so that a point would at length be reached when the sinus would no longer dominate the rhythm, and later the point of physiological stimulation would probably be transferred to the ventricles. Owing to the greatly-increased excitability the rate of the heart should be decidedly augmented. Increased excitability should also render the chambers specially liable to be stimulated by extraneous causes giving rise to extra-systoles, and these might start from more than one point, causing a complex type of irregularity in which it would be difficult to recognize the extra-systoles as such. The above description applies exactly to what happens in dilatation of the heart, as Dr. Mackenzie has so beautifully shown. This theory, too, explains what I have long found to be a stumbling-block in the interpretation of Dr. Mackenzie's curves from dilated hearts giving what he calls the ventricular type of jugular pulse. It was difficult to understand previously the production of a cardiac rhythm above the normal rate which started from the ventricles, although isolated ventricles in a condition of complete heart block only beat at 28 to 36 per minute. Conductivity and contractility with lessened tone should be heightened, but they may be depressed from other causes—for example, the action of the noxious influence that depresses tonicity may be directly injurious to these functions. Contractility again would be adversely affected by the dilatation of the cavities causing the fibres to contract at a mechanical disadvantage.

Digitalis, as Dr. Mackenzie points out, acts primarily on the tonicity of the cardiac muscle fibres. It would therefore be expected to depress the rate of production of the stimulating substance, to depress excitability, contractility, and conductivity. With regard to the first two points, there would, I think, be no difference of opinion, the depression of these functions leading to the well-known diminution of the cardiac rate and lessening of irregularity; it might also lead to a transference of the stimulating point from the ventricles back to its normal position in the great veins. The contractility may appear to be increased, but this, as Dr. Mackenzie shows, is clearly due to the increased rest afforded to muscle fibres by the decreased rapidity of the rhythm. Under certain circumstances the contractility is injuriously affected, resulting in the pulsus alternans. Conductivity, too, is benefited by the decreased rate, giving more time for recovery, thus counteracting the depressing effect of the increased tone, but when this function has been previously damaged digitalis depresses it further.

I have shown that the clinical facts derived from dilatation of the heart and from the administration of digitalis are strongly in favour of the view I have taken of the tone of the cardiac muscle. It remains to be seen whether other facts will support or prove antagonistic.—I am, etc.,

ALFRED M. GOSSAGE, M.B., F.R.C.P.

London, W., Dec. 31st, 1905.

THE ANTIVIVISECTIONISTS AND THE HOSPITALS.

SIR,—In the BRITISH MEDICAL JOURNAL of December 23rd, 1905, I am cited by name as one of the henchmen in the train of the Hon. Stephen Coleridge. As things really are I am quite content to be thus described, but if your estimate of Mr. Coleridge's purpose were even in a moderate degree accurate, I would not permit my name to be associated with it for an hour. Mr. Coleridge's supporters are naturally implicated in the charges brought against him, and I desire, as one of them, to be allowed to say that I should regard any attempt to cripple the finances of the hospitals as a crime worthy of the most sweeping condemnation. Our wishes may be stated very simply, and in unmistakable terms. We desire to see the funds which are subscribed for the relief of suffering devoted to that purpose, and to that purpose only. We desire to show that the association between the hospitals and the schools has been, and will be, inimical to the flow of charity, because one of the practices of the schools is distasteful to the feelings of many of the charitable. There are two essential points of difference. You believe that the nature of the sufferings by which man is afflicted may be understood as the result of an examination into the organism of the inferior animals. We regard your case as being not proven. You believe that your intellectual superiority confers upon you the right to inflict pain upon the lower creatures for the advantage of the human race. We are opposed to that belief. To say that we, on our side, are willing to admit that the medical profession is animated by the best of motives is to affirm a commonplace, and to affirm it in very inadequate terms. But we demand the same consideration for ourselves. You claim that you are moved by humanitarian ideals. So do we. From opposite sides of the circle of belief we move on convergent tracks towards a common hope—the decreasing result of the great scourge of pain. All the charges of packing meetings and of firing from under a flag of truce are no more than the froth and foam of controversy. It is just as fair for us to ask our friends to help us, either by direct vote or by proxy, as it is for you to beat up your own forces. As for the want of warning of Mr. Coleridge's resolution at the late meeting at the Mansion House, the fact is that the whole question was hung up by common consent a year ago, with the perfect understanding that its discussion would be renewed last week. The preparedness of the Council was proved by their preliminary meeting with the Lord Mayor to devise means by which the expected propositions should be decisively rejected.

But the point which I personally desire to accentuate, if I may trust to your courtesy and patience, is just this: If the members of the medical profession were as familiar with the provisions of the Cruelty to Animals Act as its professed opponents are compelled to be, they would join us to a man in at least one part—and that the most important—of our crusade. That Act is not what the pathologists of England intended it to be. It is not what they would allow it to be if the urgent and manifold duties which call them elsewhere allowed the ordinary practitioners of surgery time to examine its provisions for themselves. Personally, nothing shall persuade me to believe that any but an extreme minority of experimenters on the living animal avail themselves of all the powers conferred upon them by the Act. But the truth remains that there would not be the remotest chance of a conviction under the Act if it were proved to the hilt that any physical atrocity conceivable by the mind of man had been perpetrated by a fully-certified experimenter and continued for any length of time. I have gone through the Act with a searchlight, a microscope, and a fine-tooth comb, and I challenge disproof of this assertion. I am so convinced of the humanity of the medical practitioners of this country that I am content to make my appeal to them through their recognized official organ. Erase this blot from the Statute Book and you draw our sting. We are still at war upon a vital point, but you deprive us of the power to urge—as we now do legitimately and rightly—that the leaders of the medical profession appear to endorse an Act of Parliament which makes cruelty possible, and the punishment of the most heinous offence of that nature impossible, so long as the offender is certificated.

I will venture to suggest the means by which the animus which now rules either side in this discussion might be avoided. I do so in the belief that it will be found acceptable by the friends of pathological research themselves. Create a Board of physiological inquiry and a school in which its pursuits may be followed, under the control of the whole body of experimenters. Last year 32,000 experiments were made. Many of these were purely repetitive, and many more were on overlapping lines, as, for instance, where 8,000 inoculations for cancer were performed within the year. There are more than 300 licensed experimenters, and these are scattered from John o' Groats to Land's End. It is idle to suppose that two inspectors can maintain an adequate watch over all these. If the whole body of experimenters worked together, the public confidence in the legitimacy and necessity of their operations—from your point of view—would be at once secured. Under an Act which forbids nothing, and under which the inspectors appointed by the Home Secretary cannot possibly visit each laboratory more than once or twice a year, an equal confidence in the individual experimenter cannot be inspired.

The establishment of such a Board and such a school of research would assure the popular mind that nothing was being done without a definite scientific purpose, and that no needless pain (from the pathological student's point of view) was inflicted. We, on our side, would welcome the establishment of the institution here suggested; first, because it would narrow the circle of painful experiment; next, because it would confine experiment within the limits beyond which the humane inquirer will not pass; and next, because we think that in the end it would lead to at least a partial acceptance of our contention that in the majority of cases the result of experiment on the lower organisms affords an inefficient and sometimes misleading guide to the student of human pathology. This is a vital point, and it will be recognized by the medical profession. It is one thing to ask us to rely upon the honour of a body of professional men, and another to ask us to rely upon that of an unknown individual upon whom there is absolutely no restraint, and who cannot violate any law against cruelty to animals, because there is no law for their protection from which he cannot shelter himself beneath his certificate.

The outlying question of hospital finance may be settled to everybody's satisfaction by a turn of the hand. The Hon. Sydney Holland proved beyond a doubt by his speech at the Mansion House that all the money wanted for medical education and research is to be had for the asking. We think it ought, as a matter of mere justice, to be asked for separately. Mr. Holland does not merely admit—he proclaims—that his appeal for a discretionary fund succeeded beyond his hope. He cannot believe, in the face of his own experience, that a separate appeal would be less successful.

In short, Sir, it appears to me to be possible to adjust our minor and most troublesome differences without abating a jot of principle on either side. If that be possible it is on all counts advisable. When all is said, the worst that can be urged against us is that we take a mistaken view of the rights of science. To tell us that we desire to cripple the hospitals is manifestly unjust. Our wish is that the indigent sufferer shall enjoy the usufruct of every penny which is subscribed for him. In our desire that the Animals Act shall be so amended as to eliminate the possibility of causeless and useless cruelty we are as sure of the sympathy of the medical profession as we are of that of the most sentimental old lady who subscribes to the *Zoophilist* or the *Animals' Friend.*—I am. etc.,

West Kensington, Dec. 25th. DAVID CHRISTIE MURRAY.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

IN a report of the proceedings of the Medico-Psychological Association of Great Britain and Ireland, held on November 16th, 1905, which appeared in the BRITISH MEDICAL JOURNAL of November 25th, p. 1400, it was stated that Dr. Graham Crookshank read a paper on Evolution in its Relation to Psychiatry, concluding that the physical and psychical might, with the addition of a little advanced biology, be explained on a theory not very different from Leibnitz's formula of "pre-established harmony." Dr. Graham Crookshank writes that if this statement be intended as a report he can only deny that it represents in any way anything he did or wished to imply. No mention was made in his paper from first to last of psychiatry, biology, Leibnitz, or pre-established harmony. Dr. Graham Crookshank goes on to say: "If, however, the statement be intended as a criticism, I can only deny its relevance to anything I said or implied. The very commonplace premisses to what I had to say were (1) that 'explanations' of the psychical and physical are alike unphilosophic and misleading. (2) That in the study of insanity it is as well to start without making any metaphysical assumptions whatever, and always to bear in mind the limitations to what we actually can know. I venture to say—what I thought was pretty well admitted—that the doctrine of parallelism, as enunciated by Dr. Hughlings Jackson, appeared to be the simplest and best expression of what we actually *know* as to the relation between states of consciousness and nervous states. I went on to say—what is also pretty clear—that the attitude of mind adopted by Dr. Jackson towards these matters is virtually the attitude adopted by Spencer, Huxley, and many others; and that it follows naturally, to one who also adopts this attitude, that the psychical and physical phenomena of insanity should be studied without confusion in thought and expression. But in any case, the study of the psychical phenomena of insanity must embrace a study of the order in which, in insanity, sums of states of consciousness occur. And, to one who has read what Dr. Jackson and the late Dr. Anderson, amongst others, have written, it seems clear that this order is that which has been called the order of dissolution. Any point that my paper may have had lies in an attempt to show that, if in progressive insanity the sums of states of consciousness are arranged in the 'order of dissolution,' the truth of the generalization made by Sankey many years ago, that insanity is a process passing through successive stages of melancholia, mania, dementia and amentia, in invariable order, is thrown into very high relief. What this has to do with 'psychiatry,' biology (elementary or advanced), Leibnitz, and pre-established harmony, I cannot conceive. It did not seem to me that the philosophic agnosticism of Spencer, Huxley, and Jackson could be by any one confounded with an adherence to the two-clock 'theory' of Leibnitz; or that, after going out of the way to deprecate the use of terms which suggest the materialistic monism of Haeckel and his school, I should be accused of reading a paper on evolution in its relation to 'psychiatry.'"

We deeply regret that the views expressed by Dr. Graham Crookshank should have been so grossly misrepresented in the BRITISH MEDICAL JOURNAL, and we hereby tender him an apology for the travesty of his paper which appeared. The report was published exactly as received, from a gentleman who has done this kind of work for us for years, though, of course, this does not in any way lessen our responsibility. We have explained to Dr. Graham Crookshank privately how the unfortunate "derangement of epitaphs" occurred, and we hope he will now regard the incident as closed. It will interest many readers to know that his paper will be published in full in the January number of the *Journal of Mental Science.*

MR. FREDERICK KITCHEN, formerly of Castle Street, Liverpool, has, among other charitable bequests, left the sum of £4,650 to the Stanley Hospital, Liverpool. Mr. Alexander William Mills, architect, of Manchester, has bequeathed £2,000 to the Manchester Royal Infirmary and £500 each to St. Mary's Hospital, Manchester, the Altrincham Provident Dispensary, the Manchester Hospital for Consumption and Diseases of the Throat, and the Hospital for Incurables at Mauldeth Hall, Heaton Mersey.

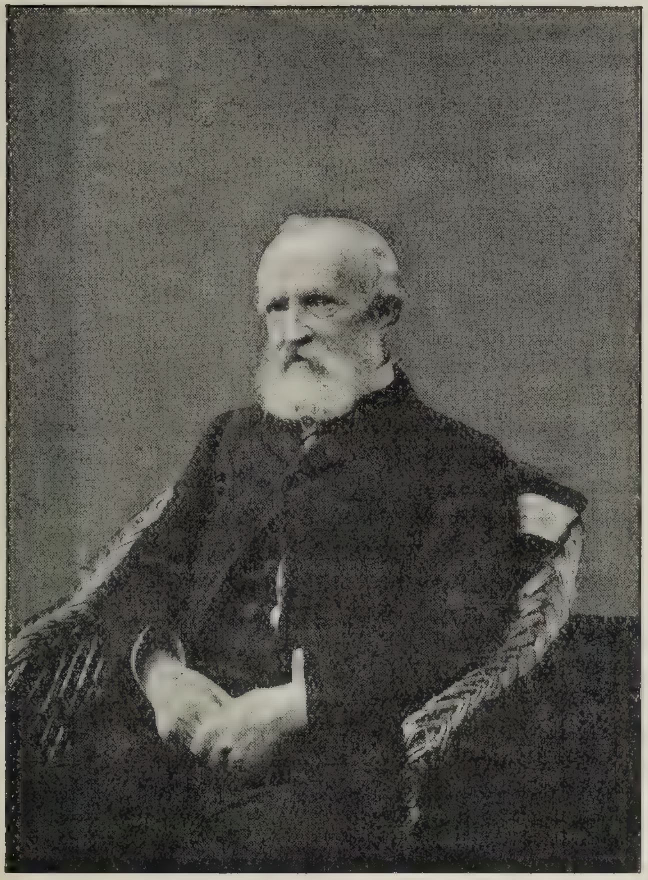
OBITUARY.

THOMAS CHARLES LANGDON, F.R.C.S.,

CONSULTING SURGEON TO THE ROYAL HANTS COUNTY HOSPITAL, WINCHESTER.

MR. THOMAS CHARLES LANGDON died at his residence, Northgate House, Winchester, suddenly at 9 p.m. on December 18th, 1905. His health had not been satisfactory for some little time past, but in spite of that, he carried on his practice to the last, and was at work practically up to the time of his death.

Thomas Charles Langdon was the third son of Mr. Thomas Langdon, Surgeon of Brampton, Devon. He was educated at Crewkerne Grammar School, and afterwards entered as a student at St. Bartholomew's Hospital, London, taking the diplomas of M.R.C.S.Eng., L.S.A. Lond., and L.M. in 1858. He then became House Surgeon at St. Bartholomew's Hospital. In the year 1860 Mr. Langdon was appointed House Surgeon to the Royal Hants County Hospital, Winchester, which post he held for three years. In 1863 he passed the examination, and was admitted a Fellow of the Royal College of Surgeons of England.



Mr. Langdon, after resigning the post of House-Surgeon of the County Hospital, Winchester, started private practice on his own account in that city, and in the year 1864 was elected Honorary Surgeon to the Royal Hants County Hospital, which post he held for upwards of forty years, resigning in 1904. On his retirement from the active staff of the hospital, the Chairman of the Committee, Mr. Warner, proposed the following resolution: "That the thanks of the Court be accorded to T. C. Langdon, Esq., F.R.C.S., for the valuable services which he has rendered the hospital during a period of forty years, and that he be appointed an Extraordinary Consulting Surgeon of this hospital." This was seconded by Mr. William Portal (now Sir W. Portal, Bart.), and carried unanimously; after the meeting Mr. Portal presented Mr. Langdon with a service of plate in an oak case, on the lid of which a silver plate bore the following inscription: "Presented by the Governors and other friends of the Royal Hants County Hospital, Winchester, to Thomas Charles Langdon, Esq., F.R.C.S., in grateful recognition of his valuable services as Honorary Surgeon of that institution for upwards of forty years."

In 1873 Mr. Langdon was appointed Medical Officer of Health for the City of Winchester, being the first Medical Officer of the City under the Public Health Acts. He held the appointment up to the time of his death. In this capacity Mr. Langdon worked very hard, and was held in the highest esteem by all who came in contact with him and his work. He was also Medical Superintendent of the Victoria Hospital for Infectious Diseases, built and equipped under his direct supervision, and took the greatest possible interest in its working.

Mr. Langdon, together with three other members of the medical profession in the South of England—Dr. Ward Cousins, Dr. Manning, and Dr. Trend—formed the Southern Branch of the British Medical Association in 1872. He also served on the Parliamentary Bills Committee. He was President of the Southern Branch and Honorary Secretary and Treasurer of the Winchester Division for upwards of twenty years. On his retirement from the post of Secretary and Treasurer last year, he was elected Chairman of the Division. Mr. Langdon always took a very keen interest in the British Medical Association, and it was entirely to his untiring energies that the Winchester Division owes its success.

Mr. Langdon was for many years medical officer to the Winchester Lying-in Charity, resigning the post only a year ago. He took great interest in the Midwives Act, and as medical officer of health was prominent in bringing it into force in Winchester.

In 1869 he was appointed one of the District Medical Officers of the Winchester Poor-law Union and Public Vaccinator for the city, and held both of these appointments up to the day of his death. He was also one of the Medical Officers of the Winchester Provident Dispensary.

For the last forty-two years Mr. Langdon has devoted himself entirely to his practice, denying himself even much-needed rest and recreation. If ever a man was respected it was he, and now that he has laid down his arms his friends will treasure recollections of him as an honourable and God-fearing gentleman. Until the very day of his death he had been in active work, and he literally died in harness. His death has cast a gloom over the whole neighbourhood. His straightforwardness and devotion to duty will ever form a bright example, and will always be remembered by those who were at any time his colleagues. It was impossible to know Langdon without recognizing his whole-hearted devotion to his work, his love of justice and truth, and his high sense of duty. In short, he was a Christian and a gentleman in the real sense of the words, and an example of the best type of general practitioner. To his family we tender our sincere sympathy.

THOMAS PLATT, M.R.C.S.,

CONSULTING SURGEON TO THE OLDHAM INFIRMARY.

WE regret to record the death of Mr. Thomas Platt, at his residence in Oldham, on December 29th, 1905, at the ripe age of 73. Mr. Platt was the oldest surgeon in Oldham, and had been in practice there for nearly half a century. He was prominently connected with the Oldham Infirmary, of which he was a Consulting Surgeon and Honorary Treasurer. Mr. Platt studied at the Manchester School of Medicine, and took his diploma in 1855. He showed a great and active personal interest in the Oldham workshops for the blind, and was a contributor to the Ragged Schools, while he also assisted other charitable institutions, as well as relieved many cases of poverty. Mr. Platt was Post-Office Surgeon, and formerly one of the local Public Vaccinators. He was a member of the Oldham Division of the British Medical Association, and was appointed to the Commission of the Peace in January 1877. He was a native of Bredbury.

WE have to record the sudden death, on December 26th, 1905, of Dr. MICHAEL HINDMARSH GREENERof Cardiff from acute pneumonia at the age of 47. Dr. Greener was the son of the Rev. Robert Greener of Alnwick. He was educated at Tain Academy and at Glasgow University, where he obtained the degrees of M.B., C.M., with high commendation. He was a member of the Cardiff Division of the British Medical Association, and had been in practice in Cardiff for twenty years. His professional relationships were always of the happiest description. To his patients, to whom he had endeared himself by his kindness, skill, and invariable courtesy, his loss is a personal one; while among his fellow medical men there is not one who was not his friend. His partnership was a particularly happy one, the majority of the patients not minding which partner attended them. Dr. Greener was buried at Dinas Cross, in Pembrokeshire, where he had recently bought a small estate. He leaves a widow and two children.

CAPTAIN JAMES VALENTINE ROCHE, Royal Army Medical Corps, died on November 20th, 1905, through injuries received while riding in a race at Lucknow a week previous.

He was appointed Lieutenant in the Royal Army Medical Corps, January 29th, 1901, and Captain January 29th, 1904. He served in the South African war in 1901-2, and was present at operations in the Transvaal, the Orange River Colony, and Cape Colony, and had received the Queen's medal with five clasps.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE EMPLOYMENT OF COLLECTORS.

E. M.—The warning of the General Medical Council is directed *inter alia* against registered medical practitioners employing or sanctioning the employment of agents or canvassers for the purpose of procuring persons to become their patients. It would not, therefore, apply to a collector employed to collect club subscriptions with definite orders not to canvass, provided that the collector obeyed his instructions; there is, of course, an obligation on a medical practitioner employing such a collector to see that the orders as to not canvassing are obeyed. The following rule has been adopted by several Divisions of the Association and has been approved by the Central Ethical Committee and Council:

> "*Canvassing.*—No member shall canvass or knowingly allow others to canvass on his behalf for patients.
>
> "N.B.—Experience shows that the employment of persons paid by commission to collect for medical aid societies and clubs frequently results in canvassing, and medical practitioners who act as medical officers to societies or clubs who employ collectors, paid by commission, and medical practitioners who themselves employ collectors so paid, in connexion with private clubs, are reminded that they thereby incur the danger of being deemed to have violated this rule."

SCOTTISH LUNACY LAW.

Purves v. Carswell and Gilchrist.

During the month of November, 1905, Lord Pearson, in the Court of Session at Edinburgh, heard evidence and counsel in the action, brought by William Purves, river pilot, Glasgow, against Dr. Marion Gilchrist and Dr. John Carswell, both of Glasgow, for damages for alleged unprofessional conduct in certifying the pursuer as of unsound mind, with the result that he was incarcerated in Gartnavel Asylum, Glasgow. The amount of damages claimed from each defender was laid at £10,000. It appeared that the pursuer had entertained suspicions of his wife's fidelity, had uttered threats of violence, and had on at least one occasion created a disturbance. He had suffered from insomnia, and was in a condition of mental excitement. He was seen by Dr. Marion Gilchrist, who stated that since 1899 she had been the family physician of the Purveses; he was also seen by Dr. Carswell, specialist in mental cases, who, at Dr. Gilchrist's request, took over charge of Purves.

Dr. John Dunlop of Glasgow, called by counsel for the pursuer, stated that he had been in practice in Glasgow for thirty years, and that he had known the pursuer since 1900; in 1902 Mrs. Purves complained to him of her husband's cruelty and bad temper, and again in February, 1903. He was again called in on May 6th, 1903, when there had been a fight between the pursuer and his son; he was consulted again on May 26th because of pursuer's sleeplessness. He then considered that his mind was fairly balanced, and would not have certified him as a person fit for an asylum when he saw him. In cross-examination, Dr. Dunlop said that he regarded pursuer's suspicions of his wife as ridiculous.

Medical expert evidence was given for the pursuer by Sir Henry Littlejohn, who expressed the opinion that there was not sufficient ground for sending the pursuer to an asylum; he had seen him once since the trial began. In cross-examination, he said that if Dr. Carswell saw the pursuer six times between August 6th and September 2nd for the purpose of judging his mental condition and progress, that gave him ample opportunity for judging.

Dr. G. M. Cullen (Edinburgh) also gave evidence.

The defence was that the certificates were granted in good faith in the ordinary course of professional duty without negligence, and that they were justified by the pursuer's mental condition at the time. Evidence was given by Mrs. Purves, who spoke of her husband's violence and unreasonable jealousy.

Dr. Carswell said that he had been acting in the promotion of a movement for the treatment of mental diseases outside asylums. He saw the pursuer with Dr. Gilchrist on August 6th, 1903; he considered that the pursuer was in a condition of morbid insane excitement periodic in character, but suggested that further treatment should be tried, and that it was not desirable to admit the pursuer to an asylum. He saw the pursuer again on the following day, when he was in a reasonable mood but depressed. He saw him again on August 8th and 9th; on the latter day he was again in an excited condition. On September 2nd, the pursuer called upon him greatly agitated, and declared that he would shoot the man against whom he entertained suspicions. He gave a certificate that the pursuer was suffering from mental excitement and was unfit for duty, and required a rest for at least a month. A specific request for a certificate to admit the pursuer to an asylum was made to him on September 4th.

Dr. Oswald, Physician-Superintendent, Glasgow Royal Asylum, said he saw the pursuer on the day of his admission, September 10th, and after observing him sent, on September 19th, a report to the Board of Lunacy in which he certified that the pursuer was suffering from mania with delusions, and that in his opinion he was a person of unsound mind, and a fit and proper person for treatment in an asylum. He improved very considerably during the first three weeks of his stay; after a month he had a distinct relapse and suffered from emotional fits; his mental condition on his admission and for some time afterwards was such that if he had been away from control he would have endeavoured to carry out the threats he had made.

Dr. Marion Gilchrist also gave evidence.

The trial lasted for many days, and a legal question arose, owing to Lord Pearson having in the interval succeeded Lord Adam as one of the Judges of the First Division; the court, however, having considered the matter were unanimously of opinion that it was competent for Lord Pearson to proceed with the case to a conclusion. The following judgement was accordingly delivered:

The Lord Ordinary having tried the cause and having heard counsel for the parties, and having considered the evidence adduced by the parties and the debate thereon, finds in fact as follows:

1. That the pursuer was taken to Gartnavel Lunatic Asylum on September 10th, 1903, and therein detained by virtue of a warrant of the Sheriff-Substitute of Lanarkshire at Glasgow, dated September 5th, 1903, proceeding on a petition at the instance of the pursuer's wife, dated September 4th, 1903, accompanied by two certificates granted by the defenders.
2. That the certificates were granted after and following upon several interviews recently had with the pursuer and with other persons conversant with his mental state and his recent mental history.
3. That the certificates were granted after and following upon an independent interview with and examination of the pursuer had by the defenders on September 2nd, 1903.
4. That the certificates, while bearing the true date of the last-mentioned interview were in fact written out and signed by the defenders on September 4th.
5. That the certificates truly set forth the facts as observed by the defenders and as communicated to them by others.
6. That the certificates were not granted wrongfully nor without due inquiry or examination.
7. That on September 2nd and 4th, and also on September 5th and 10th, the pursuer was insane and suffering from an attack of subacute mania, with homicidal tendency, and was a proper patient for admission to and detention in Garnavel Asylum.
8. That during his detention the pursuer gradually recovered his mental balance, and on or about December 11th, 1903, petitioned the Sheriff for liberation, and that after inquiry had in the Sheriff Court, he was found by the Sheriff-Substitute of Lanarkshire at Glasgow on January 7th, 1904, to be a fit subject for liberation, and was liberated accordingly on January 8th, 1904.

We are asked to state that the defence was conducted by the Medical and Dental Defence Union of Scotland, Limited, but that as Drs. Carswell and Gilchrist were not members of the Union at the time when the cause of action emerged they were required to give an undertaking for payment of the costs of the proceedings.

Lord Rothschild has accepted the office of President and Sir Frederick Treves that of Consulting Surgeon to the Royal Dental Hospital of London.

HOSPITAL AND DISPENSARY MANAGEMENT.

EAST SUSSEX COUNTY ASYLUM, HELLINGLY.

LAST year saw the practical completion of this large asylum and villas, opened first for the reception of patients on July 21st, 1903, and finally occupied throughout in August, 1904. It consists of a main building, a hospital for acute cases, four villas each accommodating 30 patients, a children's villa accommodating 60 children and 15 adult working patients, and an isolation hospital, etc. With the exception of the children's villa, all are intended for working patients, and being apart from the main buildings special small privileges are permitted. They are, the Medical Superintendent, Dr. F. R. P. Taylor, says, most comfortably furnished, heated by open fires, and have a homelike appearance which adds much to their attractiveness, and also—we should imagine—their curative value. The children's villa has already been found to be a boon to the institution and is entirely staffed by female nurses. The Acute Hospital has given, Dr. Taylor says, eminently satisfactory results. Practically all the patients are admitted to this building, and the large majority of those discharged "recovered" never mix with the chronic insane. The smaller number of patients permits a much greater individual attention and care which, coupled with the increased facility of classification, cannot but have ultimately a beneficial effect on the recovery rates.

There were in the asylum on January 1st, 1904, 754 patients, and on December 31st there remained 1,017. During the year 458 cases were admitted, of whom 17 were private patients. There were also 14 patients transferred from the pauper to the private class, making in all 31 new private cases for the year. From the number of applications for admission to this class, it is evident, Dr. Taylor says, that the asylum is meeting a distinct want, and he hopes that there may be erected shortly a special hospital or two villas for private patients who are unable to meet the charges of an ordinary private asylum. There is undoubtedly much room for this kind of provision in many parts of the country, and its establishment here should prove a distinct gain, not only to the patients, but to the funds of the institution.

Of the total number of 458 admissions, 220 were fresh cases, the remaining 238 being transfers from other asylums. These transfers were in the main irrecoverable, but even amongst the fresh cases many were old and feeble patients, 23.7 per cent. of the males and 21 per cent. of the females being over 60 years of age, and only 50 of the 220 fresh cases offered a good prospect of recovery on admission. Of the total number of admissions 82 belonged to the first class (first attack within three months of admission), 48 to the second class (first attack above three and within twelve months of admission), and all the remainder were either not first attacks, congenital cases, or of over twelve months' duration on admission. They were classified as to forms of mental disorders into: Mania of all kinds, 200; melancholia of all kinds, 83; dementia, 83; general paralysis, 17; acquired epilepsy, 22; and cases of congenital or infantile defect, 53. We note that whilst the cases of congenital or infantile defect formed 11.5 per cent. of the admissions, they formed 15.7 per cent. of the total numbers remaining at the end of the year. The proportion of these to total admissions contrasts very markedly with that for the whole of England and Wales, which for the five years 1899-1903 was 5.4 per cent., and supports the remark made by Dr. Taylor in his report for 1903 (noted by us at the time) that his district supplied a low proportion of cases of gross dementia but a high proportion of cases of mild amentia, depending, he considered, on the comparative absence of "stress" in country villages and frequent intermarriage. To these factors might be added the migration from country districts of the young and vigorous elements of the population. As to the probable causes of insanity among the admissions, alcoholic intemperance was assigned in 34, or only 7.4 per cent., and venereal disease in but 3 (0.6 per cent. of the admission, and less than one-fifth of the general paralytics). Hereditary influences were ascertained in 127, or 27.7 per cent. This ratio, however, relates to the total admissions, and includes the transfers whose histories were not dependable or indeed, at times, obtainable. Careful inquiry into the history of the 220 fresh admissions showed the presence of hereditary influences in no less than 47.6 per cent., contrasting with the figures of the London asylums, which give for 1903 a ratio ranging from 10 to 28 per cent. Concerning the other etiological factors, "moral" causes were ascribed in 55, previous attacks in 82, periodic causes in 72, lactation and the puerperal state in 11, other bodily disorders in 34, congenital causes in 36, and in 131 no cause could be assigned.

During the year 79 were discharged as recovered, giving a recovery-rate on admissions, exclusive of transfers, of 35.27 per cent., 30 as relieved, 16 as not improved, 1 as not insane; and there were 69 deaths, giving a percentage death-rate on the average numbers resident of 7.2.

In 20 cases the deaths were due to cerebro-spinal diseases, including 8 cases of general paralysis; in 20 to chest diseases, including 7 cases of tuberculosis; in 4 cases to abdominal diseases; in 16 to old age, and the remainder to general or other local diseases. Two inquests were held during the year, the general health was very good, and the asylum was remarkably free from any serious accident, there having been only three fractures from accidental falls. This latter point is of interest, because no restraint or seclusion was employed during the year.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

TUBERCULOSIS IN HELSINGFORS.

IN his pamphlet, *Om Tuberculos Mortaliteten i Helsingfors, 1881-1900* (Helsingfors, 1902), Dr. J. W. Runeberg discusses and tabulates the statistics illustrating the age, sex, and death-rates of the average population (60,000) of Helsingfors, with particular reference to the incidence of tuberculosis. The mean death-rate has been 20.5 per 1,000 inhabitants living per annum; tuberculosis is responsible for 21.6 per cent. of this death-rate. The figures are tabulated and discussed in great detail, and show that the number of deaths from tubercle is steadily diminishing in the town.

Death by pulmonary tuberculosis is slightly more frequent from December to May (53.6 per cent.), while tuberculous meningitis is much commoner (61.8 per cent.) during these months than it is in June to November. The author shows that comparison of the tuberculosis mortalities of the different quarters of the town with the figures representing the relative densities of their populations, proves that the more open parts of the town are only from one-fifth to one-half as liable to tuberculous invasion as the more densely-inhabited areas are. The mortality among women has been only three-quarters of that among men, the difference in the figures have been greater in the case of pulmonary tuberculosis than it is with tuberculous meningitis. About half the people dying between the ages of 20 and 40 die of tuberculosis in Helsingfors; the disease is responsible for about one-third of the deaths occurring between the ages of 10 and 20 and 40 and 60; while only one death in twelve among persons dying between the ages of 60 and 80 is due to tuberculosis.

COMPULSORY REMOVAL OF INFECTIOUS CASES.

THE section which governs "compulsory" removal of infectious cases is Section CXXIV of Public Health Act 1875. It states that where a suitable hospital exists, any person suffering from any dangerous infectious disorder and who is without proper lodging or accommodation, that is, cannot be properly isolated at home, may be removed by order of a Justice to such hospital at the cost of the local authority. A medical certificate is necessary and the formal consent of the superintending body of the hospital. If a person is in a common lodging house he may be removed with similar certificates by order of the local authority.

DISTRICT MEDICAL OFFICER'S CLAIM FOR PENSION.

RETIRED writes saying that he has held appointments as district medical officer and public vaccinator for forty years continuously (since 1865), that he is 62 years of age, and has been obliged to resign on account of ill-health. He is now informed that his right to a pension under the Superannuation Act depends on the decision of the Board of Guardians.

*** If our correspondent is strictly correct in his statement that he has served as district medical officer for full forty years (that he has been public vaccinator has no bearing on the question), he can claim superannuation allowance quite irrespective of his state of health at the time of his resignation. If, however (by misfortune), his service should have been in any way short of forty years, it would then be necessary for him to prove to the satisfaction of the guardians that his resignation was a consequence of his having become incapable of discharging his duties with efficiency by reason of some permanent infirmity of mind or body.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. van der Burg, of Leyden, a recognized authority on tropical diseases, aged 65; Sanitary Privy Councillor Dr. Leopold Barschall, a well-known practitioner of Berlin, aged 80; Dr. William S. Forbes, Professor of General Descriptive and Surgical Anatomy in the Jefferson Medical College, Philadelphia, and framer of the original Anatomy Act of Philadelphia, which legalized the securing of subjects for dissection throughout the State, aged 74; and Dr. Th. Piéchaud, Professor of Surgical Diseases of Children in the University of Bordeaux.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Preliminary Examinations in Science.

The following candidates have been approved by the Examiners:

In Mechanics and Physics.—A. Booth, G. C. Boyd, M. de G. Boyd, C. E. N. Bromehead, A. J. B. Carrington, G. C. Clarence, H. E. Cullis, R. R. Enfield, C. R. Featherstone, R. J. Fletcher, P. L. Gibson, N. F. Hallows, A. H. Harries, T. B. Heaton, J. K. Hepburn, G. R. Hookham, J. B. Hucklebridge, J. M. Mason, M. Odling, W. J. Pearson, J. B. Reynish, I. P. Venner, V. S. von Dembski, D. F. Wünsch.

In Physics.—C. W. Armstrong, A. D. S. Arundel, T. B. Batchelor, J. L. Birley, R. B. C. Briscoe, P. R. Fairclough, H. J. H. Foreshew, C. L. Garton, M. R. Lawrence, S. F. Moore, H. G. Morris.

In Chemistry.—H. M. Bond, L. C. Boyd, C. E. N. Bromehead, C. H. Budd, A. M. Carr-Saunders, C. F. Cranswick, H. E. Cullis, V. C. H. Dearden, G. C. Dixon, R. R. Enfield, C. R. Featherstone, H. J. H. Foreshew, A. D. Gardner, P. L. Gibson, H. A. Gilbert, N. F. Hallows, C. H. L. Harper, A. H. Harries, T. B. Heaton, S. Hibbert, J. P. Hucklebridge, M. R. Lawrence, D. P. McDonald, L. N. Morrison, M. Odling, A. P. Orde-Ward, R. C. Ozanne, C. H. Pearson, J. B. Purnell-Edwards, J. B. Reynish, J. Russell, H. B. Simpkins, E. A. Smythies, W. H. Thornton, I. P. Venner, V. S. von Dembski, J. T. Wills, C. C. Wilson, D. F. Wünsch.

In Botany.—T. B. Batchelor, A. R. Chavasse, A. W. Donaldson, H. G. Farmer, J. K. Hepburn, L. E. Meinertzhagen, P. le F. Nortjé, H. M. Pope, E. A. Smythies, A. Stanger.

UNIVERSITY OF CAMBRIDGE.

Michaelmas Examinations for Medical and Surgical Degrees.

The following candidates have been approved in the subjects indicated:

First Examination: Chemistry and Physics.—C. K. Bancroft, Trin.; H. G. Baynes, Trin.; F. S. Bedale, Cla.; C. H. B. Booth, King's; A. W. Bourne, Down.; H. H. Brown, Cai: E. G. S. Cane, Jes.; R. G. Canti, B.A., King's; F. G. Chandler, Jes.; K. J. A. Davis, B.A., King's; H. T. Depree, Cla.; C. Ede, King's; W. G. Emmett, Cai.; A. G. Evans, Trin.; A. E. Evans, Joh.; G. W. B. Garrett, Cai.; E. M. Grace, Christ's; L. S. M. Habich, Joh.; B. C. Haller, B.A., Trin.; J. B. Hance, Christ's; J. R. Heath, Trin.; A. E. Herman, King's; L. C. D. Irvine, Emm.; G. James, Joh.; A. C. Johnson, Down.; G. G. Johnstone, King's; T. H. Just, Trin.; H. D. Lauder, Cai.; G. H. S. Letchworth, Pemb.; D. N. Macleod, Cai.; J. R. Marrack, Joh.; W. G. Marsden, Emm.; G. W. Morrice, Trin.; R. S. Morshead, Trin.; G. A. Morton, Queens'.; B. A. Playne, Pemb.; H. B. Pope, Cai.; E. Rayner, Pemb.; E. C. Rayner, Cai.; H. H. Richardson, Joh.; W. D. Ross, King's; S. H. Rouquette, King's; A. C. Roxburgh, Trin.; W. A. Russell, Emm.; H. B. G. Russell, Sid. Suss.; H. W. Scott, Cla.; G. B. Sutton, Pemb.; R. H. Vicary, Cai.; G. T. C. Watt, Cai.; J. B. A. Wigmore, Cai.; C. R. Wright, Christ's.

Elementary Biology.—P. Ballard, Cath.; C. K. Bancroft, Trin.; F. S. Bedale, Cla.; A. W. Bourne, Down.; E. G. S. Cane, Jes.; R. G. Canti, B.A., King's; F. G. Chandler, Jes.; K. J. A. Davis, B.A., King's; H. T. Depree, Cla.; W. G. Emmett, Cai.; A. G. Evans, Trin.; G. W. B. Garrett, Cai.; A. Griffith-Williams, Trin.; B. C. Haller, B.A., Trin.; T. L. Hardy, H. Selw.; J. Harrison, B.A., Christ's; L. C. D. Irvine, Emm.; A. C. Johnson, Down.; G. G. Johnstone, King's; W. H. Jones, B.A., Christ's; T. H. Just, Trin.; C. C. Kerby, Trin.; M. Maclaren, Trin.; W. G. Marsden, Emm.; O. de B. Marsh, Pemb.; G. A. Morton, Queens'; F. A. Powell, Trin.; E. Rayner, Pemb.; E. C. Rayner, Cai.; W. J. Richardson, H. Selw.; F. E. W. Rogers, Emm.; W. D. Ross, King's; H. S. Rouquette, King's; A. C. Roxburgh, Trin.; W. A. Russell, Emm.; C. M. Ryley, Emm.; L. W. K. Scargill, M.A., Trin. H.; H. C. S. Starkey, Down.; J. Ll. M. Symns, Cai.; H. A. Williams, Emm.

Second Examination: Human Anatomy and Physiology.—J. W. Adams, Cai.; G. E. Alderson, Cai.; D. Allan, B.A., Joh.; F. R. Armitage, B.A., Pemb.; C. C. H. Binns, Cai.; H. Bowring, B.A., King's; W. Boys-Stones, B.A., Cai.; R. D. D.-D. Brownson, B.A., Joh.; H. T. H. Butt, B.A., Christ's; F. G. Caley, B.A., Pemb.; W. N. Child, B.A., Christ's; A. J. Clark, King's; C. N. Coad, B.A., Joh.; M. Donaldson, B.A., Trin.; H. B. Elton, B.A., Cai.; R. Fisher, Sid. Suss.; H. G. Frean, B.A., Joh.; H. D. Gillies, B.A., Cai.; A. H. Habgood, B.A., Jes.; W. Harmens, B.A., Trin.; E. H. V. Hodge, B.A., Cla.; W. C. Hodges, B.A., Trin. H.; A. N. Hodges, Queens'; C. C. Holman, Cai.; B. Hughes, B.A., H. Selw.; H. E. Humphrys, B.A., Cai.; E. M. Lauderdale, B.A., Cai; R. J. B. Leney, Cai; C. K. McKerrow, B.A., Cla.; R. H. Mawhood, B.A., Trin.; R. M. Moore, B.A., Joh.; H. M. D. Nicoll, Cai.; A. E. Rayner, B.A., Cai.; H. G. Rice, Joh.; F. A. Roper, B.A., Trin.; E. N. Russell, Trin.; F. S. Scales, B.A., Jes.; A. L. H. Smith, Cai.; H. C. Snell, B.A., Cai.; H. E. S. Stivens, B.A., Trin.; L. B. C. Trotter, B.A., Cla.; R. M. Vick, B.A., Jes.; C. St. A. Vivian, B.A., Cai.; J. Walker, B.A., Cla.; W. E. Wallis, B.A. Cla.; H. B. Wilson, B.A., Pemb.; P. F. Wilson, B.A., Cai.; W. B. Wood, B.A., Jes.; S. Wood, B.A., Christ's; C. S. E. Wright, B.A., Emm.

Third Examination: Pharmacology and General Pathology.—A. Abrahams, Emm.; R. R. Armstrong, Trin.; H. T. Ashby, B.A., Emm.; A. S. B. Bankart, B.A., Trin; B. P. Campbell, B.A., Cla.; J. R. C. Canney, B.A., Christ's; W. J. Carr, B.A., Trin.; A. E. A. Carver, B.A., Cai.; S. P. Chan, Cai.; S. Churchill, B.A., Trin.; F. Clayton, B.A., Trin.; R. Cox, B.A., Cai.; A. H. Crook, B.A., Christ's; R. Davies-Colley, B.A., Emm.; H. E. T. Dawes, B.A., Joh.; B. Day, B.A., Cai.; A. T. Densham, B.A., Joh.; H. Dimock, B.A., Sid. Suss.; G. H. Dunn, B.A., Pemb.; H. B. Ellison, B.A., Cai.; D. Embleton, B.A., Christ's; M. F. Emrys-Jones, B.A., Cai.; N. M. Fergusson, B.A., Magd.; G. W. Goodhart, B.A., Trin.; W. B. Grandage, B.A., Cla.; F. W. W. Griffin, B.A., King's; R. E. V. Hale, B.A., Cai.; A. Hamilton, B.A., Christ's; O. Heath, B.A., Trin.; G. Hoffmann, B.A., Cai.; W. M. Jeffreys, B.A., Trin.; N. W. Jenkin, B.A., Christ's; W. S. Leicester, B.A., Emm.; J. T. Macnab, B.A., Christ's; J. Mellanby, M.A., Emm.; W. H. Orton, B.A., Trin.; H. B. Owen, B.A., Cai.; E. E. Paget-Tomlinson, Trin. H.; W. G. Parkinson, B.A., Emm.; H. Parsons, B.A., Cai.; R. C. Priest, B.A., Cai.; R. E. Priestley, B.A., Cai.; C. E. Redman, B.A., Pemb.; L. W. Sharp, B.A., Cai.; O. R. Smale, B.A., Cai.; E. R. Stone, B.A., Emm.; A. C. Sturdy, Pemb.; R. Svensson, B.A., Cai.; H. H. Taylor, B.A., Pemb.; F. B. Treves, B.A., Cai.; R. W. S. Walker, B.A., Trin.; C. E. Whitehead, B.A., Cai.

Third Examination: Surgery, Midwifery, and Medicine.—C. Akerman, B.A., Cai.; E. D. Anderson, B.A., Pemb.; A. D. Brunwin, M.A., Trin.; M. A. Cassidy, B.A., Cla.; G. H. U. Corbett, B.A., King's; G. L. Cox, B.A., Christ's; F. D. Crew, B.A., Emm.; L. G. Davies, B.A., Trin.; A. H. Falkner, B.A., Pet.; J. N. F. Fergusson, B.A., Joh.; S. Gooding, M.A., Joh.; H. T. Gray, B.A., Trin.; S. L. Harke, B.A., Pemb.; W. H. Hastings, B.A., Trin.; S. A. Henry, B.A., Trin.; F. S. Hewitt, B.A., Cai.; R. F. V. Hodge, B.A., Emm.; A. B. Howitt, B.A., Cla.; C. L. Isaac, B.A., Joh.; F. A. G. Jeans, M.A., Joh.; W. D. Keyworth, B.A., H. Selw.; J. C. Lawton-Roberts, B.A., Cla.; C. N. L. Brocq, B.A., Pemb.; W. E. Lee, B.A., Trin.; F. F. Leighton, B.A., Joh.; C. Lillingston, B.A., Pemb.; G. H. K. Macalister, B.A., Joh.; A. H. Miller, B.A., Trin.; W. P. Morgan, M.A., Cla.; T. M. Neatby, M.A.; W. H. Newton, B.A., Emm.; G. W. de P. Nicholson, M.A., Jes.; W. H. Orton, B.A., Trin.; H. B. Owen, B.A., Cai.; C. H. W. Page, M.A., Corp. Chr.; C. T. Scott, M.A., Sid. Suss.; F. Shingleton-Smith, B.A., King's; G. C. E. Simpson, B.A., Joh.; J. M. Smith, B.A., Christ's; R. S. Taylor, B.A., Down.; W. P. Williams, B.A., Down.

TRINITY COLLEGE, DUBLIN.

School of Physic.

The following is a list of Extern Examiners in the Faculty of Medicine appointed to act for one year from January 1st:

Clinical Medicine.—A. R. Parsons, M.D.

Practice of Medicine.—Wallace Beatty, M.D.

Clinical Surgery.—Sir A. Chance, F.R.C.S.I.

Ophthalmology.—Louis Werner, M.B.

Midwifery and Gynaecology.—R. D. Purefoy, M.D.

Mental Diseases.—H. K. Abbott, M.D.

Pathology.—Professor J. Lorrain Smith, M.D.

Institutes of Medicine.—Professor C. S. Sherrington, M.D.

Anatomy.—Professor J. Symington, M.D.

Dental Surgery and Mechanics.—A. W. W. Baker, M.D.; G. W. Yeates, M.B.

Dental Anatomy.—W. G. T. Story, M.B.

Vital Statistics and Public Health Acts.—The Registrar-General for Ireland.

Sanitary Engineering.—W. Kaye Parry, M.A.

The above list was in our last week's issue incorrectly described.

UNIVERSITY OF LONDON.

Meeting of the Senate.

A meeting of the Senate was held on December 13th, 1905.

Recognition of Teachers.

The following were recognized as teachers of the University:

King's College: Dr. StClair Thomson (Laryngology); Dr. Howard S. Willson (Bacteriology).

St. Bartholomew's Hospital: Dr. H. Morley Fletcher (Diseases of Children); Dr. W. P. Herringham (Medical Jurisprudence); Dr. J. A. Ormerod (Dermatology); Dr. Richard Gill and Dr. E. W. Willett (Anaesthetics).

London Hospital: Dr. F. J. Smith (Medical Jurisprudence).

Guy's Hospital: Dr. H. L. Eason (Ophthalmology).

St. Mary's Hospital: Mr. W. H. C. Greene (Surgery).

Charing Cross Hospital: Mr. Peter Lewis Daniel (Diseases of Children).

Hospital for Sick Children: Mr. Theodore Thompson (Diseases of Children).

Mr. Herbert Willoughby was provisionally recognized as a teacher of physiology at King's College.

Lectures in the Physiological Laboratory.

A course of eight lectures on tissue-respiration by J. Barcroft, M.A., B.Sc., will be given during the Lent term on Tuesdays, beginning January 16th, at 5 p.m.

A course of eight lectures on respiration, by M. S. Pembrey, M.A., M.D., will be given on Fridays, commencing January 19th, at 5 p.m.

Cards of admission to these lectures can be obtained free by any member of the London school of medicine on application to the Academic Registrar.

University College.

A course of biological chemistry suitable for candidates in Branch F of the Institute of Chemistry and for B.Sc. Honours candidates will be held by Mr. R. H. Aders Plimmer, D.Sc., in the Physiological Department during the second and third terms. A special course in the methods employed for the study of bacteria, yeast, and moulds will be held, if required, in the Bacteriological Department of the College during the second and third terms.

King's College.

Eight lectures on proteids, by Professor T. Grigor Brodie, F.R.S., and Professor Halliburton, F.R.S., will be given on Mondays, commencing January 15th, at 4 p.m.

Two lectures by Dr. C. J. Martin, F.R.S., Director of the Lister Institute, on some aspects of the physiological defence against invasion by micro-organisms will be given on Mondays, March 12th to 19th, at 4 p.m.

These lectures are free to members and students of King's College, to internal students of the University, and to medical practitioners on presentation of their cards.

London School of Tropical Medicine.

The following candidates have passed the examination held in December, 1905:

*Dr. J. M. Collyns, *Dr. H. M. Sauzier, *Dr. J. C. S. McDouall (Colonial Service), *Surgeon E. R. Whitmore (U.S. Army), Dr. J. W. Arthur, Captain J. Booth-Clarkson (Natal Medical Corps), Dr. H. L. Burgess (Colonial Service), Dr. H. Carlaw (Colonial Service), Dr. R. Cope (Colonial Service), Dr. R. Denman (Colonial Service), Dr. A. C. Falkiner, Dr. J. D. Finlay (Colonial Service), Lieutenant C. W. Holden, R.A.M.C., Miss J. Hogg, M.B., Captain T. C. Lauder, R.A.M.C., Dr. E. C. Lindsey (Colonial Service), Dr. M. Ramsay (Colonial Service), Dr. A. R. Rendle (Colonial Service), Dr. A. C. Rendle (Colonial Service), Dr. L. Sells, Dr. R. Small (Colonial Service), Dr. A. J. T. Swann (Colonial Service), Miss F. M. Wakefield, M.B., Dr. P. Wykesmith (Colonial Service).

* With distinction.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

ANNUAL ELECTION MEETING.

AT a meeting of the Royal College of Physicians of Edinburgh, Dr. John Playfair was re-elected President of the College, Dr. Thomas S. Clouston, Vice-President; and Sir Thomas R. Fraser, Sir John Batty Tuke, Dr. Charles E. Underhill, Dr. James Ritchie, and Dr. R. W. Philip were elected to the Council, with the President and Vice-President. The Council subsequently made the following appointments for the ensuing year:

Treasurer.—Peter A. Young, M.D.

Secretary.—Harry Rainy, M.D.

Librarian.—D. Berry Hart, M.D.

Curator of Research Laboratory.—Sir John Batty Tuke, M.D.

I. EXAMINERS FOR THE LICENCE.

First Board.

Physics.—Dawson Turner, M.D., and Alfred Daniell, D.Sc.

Chemistry.—W. G. Aitchison Robertson, M.D., and John Gibson, Ph.D.

Biology.—John Macmillan, M.B., and J. Beard, D.Sc.

Second Board.

Anatomy.—Sir James A. Russell, M.B., and Joseph R. Whitaker, M.B.

Physiology.—D. Noël Paton, M.D., and J. Craufurd Dunlop, M.D.

Third Board.

Pathology.—Robert A. Fleming, M.D., Francis D. Boyd, M.D., and Stuart MacDonald, M.B.

Materia Medica.—J. Murdoch Brown, M.D., G. Lovell Gulland, M.D., and Harry Rainy, M.D.

Final Board.

Medicine.—Andrew Smart, M.D., James O. Affleck, M.D., Chas. E. Underhill, M.B., W. Allan Jamieson, M.D., Alex. James, M.D., Byrom Bramwell, M.D., G. A. Gibson, M.D., J. Graham Brown, M.D., Alexander Bruce, M.D., Wm. Russell, M.D., G. H. Melville Dunlop, M.D., add R. W. Philip, M.D.

Midwifery.—D. Berry Hart, M.D., A. H. F. Barbour, M.D., F. W. N. Haultain, M.D., J. W. Ballantyne, M.D., J. Haig Ferguson, M.D., and James Lamond Lackie, M.D.

Medical Jurisprudence and Public Health.—James Andrew, M.D., P. A. Young, M.D., James Carmichael, M.D., J. Allan Gray, M.D., R. S. Aitchison, M.D., and C. J. Lewis, M.D.

Insanity.—Sir John Batty Tuke, M.D., T. S. Clouston, M.D., John Macpherson, M.D., and John Fraser, M.B.

II. EXAMINERS FOR THE MEMBERSHIP.

A. R. Simpson, M.D., Andrew Smart, M.D., Andrew Davidson, M.D., Sir Thomas R. Fraser, M.D., John Wyllie, M.D., James Andrew, M.D., Sir John Batty Tuke, M.D., T. S. Clouston, M.D., J. J. Kirk Duncanson, M.D., P. A. Young, M.D., James O. Affleck, M.D., John Playfair, M.D., Charles E. Underhill, M.B., W. Allan Jamieson, M.D., Alexander James, M.D., Peter M'Bride, M.D., Byrom Bramwell, M.D., G. A. Gibson, M.D., Sir J. Halliday Croom, M.D., D. Berry Hart, M.D., Sir James A. Russell, M.B., W. S. Greenfield, M.D., J. J. Graham Brown, M.D., A. H. F. Barbour, M.D., Alex. Bruce, M.D., James Ritchie, M.D., William Russell, M.D., G. H. Melville Dunlop, M.D., N. T. Brewis, M.B., R. W. Philip, M.D., John Thomson, M.D., J. Haig Ferguson, M.D., G. Lovell Gulland, M.D., W. G. Aitchison Robertson, M.D., John Macpherson, M.D., Norman Walker, M.D., William Elder, M.D., Charles Jas. Lewis, M.D., Harry Rainy, M.D., K. Mackenzie Downie, M.D., William Fordyce, M.D., Claude Buchanan Ker, M.D.

AËRIAL CONVECTION OF SMALL-POX.—The subject of the spread of small-pox occasioned by small-pox hospitals during 1900-1904 was brought before the Epidemiological Society in April last, as already noted in the columns of the BRITISH MEDICAL JOURNAL by Dr. G. S. Buchanan; and in the discussion which was opened by Dr. Newsholme, the views of many of those who have given special attention to the question found expression. The complete series of contributions has now been reprinted from the *Transactions* of the Society, and is issued separately, as it is believed that many of those interested in the subject will be glad to have a complete summary of present-day opinion upon it. Copies may be obtained from the Secretaries of the Society, 1, Chandos Street, Cavendish Square. Price 1s.; post free 1s. 2½d.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESSS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—

EDITOR,	GENERAL SECRETARY AND MANAGER,
2631, Gerrard.	2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

CHLOASMA asks for advice in the treatment of brown pigment spots on the forehead close to the hair; the patient is an unmarried lady aged 29, who is slightly anaemic, but otherwise in good health. There is no pigmentation elsewhere. The usual remedies for chloasma, including peroxide of hydrogen, have been used, but the pigmentation has become more marked.

GYMNASIUM AND SWIMMING BATH.

C. F. W. would be glad if any readers could give him the names of any towns which possess a combined gymnasium and swimming bath, the swimming bath for use in the summer, a floor to be put over it in the winter so that it could be used as a gymnasium and drill hall. The probable cost of erection and the subsequent cost of upkeep would be welcomed.

THE SECRETION OF SWEAT.

N. A., a medical practitioner, writes: I am 38 years of age and physically perfectly sound with the exception of hyperhydrosis. So excessively do I sweat that if I walk, ride, or cycle any short distance I must nearly always change my vest and shirt to prevent taking cold; the consequence is I take very little exercise and am driven almost everywhere. Now, during the last twelve months an entirely different condition of affairs takes place: on some occasions, for no apparent reason, my skin becomes perfectly dry for twenty-four hours or more, and I cannot sweat, with the following results: At periods averaging about an hour between I am visited with an almost uncontrollable desire for sleep which lasts three to four minutes; this, in addition to a general drowsiness different to my normal state of health—no pain, no sugar, no albumen, but the greatest inconvenience, as the desire for sleep comes either indoors or out. I have no vomiting, bowels well open, and appetite good. I can find no record of any such case, and I should be for ever grateful to any of your readers who can help me to elucidate these extraordinary conditions.

ANSWERS.

EVOLUTION.—It is not very easy to say what book would be the best to use in preparation for a popular lecture on Darwinism, with special reference to the probable origin of man. There are hundreds of books and essays on Darwinism. We cannot call to mind at the moment anything which exactly meets the requirements mentioned, but would recommend *Darwinism and Lamarckism*, by the late F. W. Hutton (London: Duckworth and Co. 1899. 3s. 6d.), and *The Last Link*, by Ernst Haeckel, translated by Dr. Gadow (London: A. and C. Black. 1898. 2s. 6d.). The former book is somewhat loosely written, and contains some errors, but is easy reading.

ELECTRO-THERAPEUTICS.

ELECTRICITY.—The following list of recent books may be of use to our correspondent: *Medical Electricity*, by H. Lewis Jones, M.D., fourth edition (London: H. K. Lewis, 1904, 12s. 6d.); *A Manual of Practical Medical Electricity*, by Dawson Turner, M.D., fourth edition (London: Baillière, Tindall and Cox, 1904, 10s. 6d.); *Radiotherapy in Skin Disease*, by Dr. J. Belot, translated by W. D. Butcher, M.R.C.S. (London: Rebman Limited, 1905, 17s.); *The Practical Application of the Roentgen Rays in Therapeutics and Diagnosis*, by W. A. Pusey, M.D., and E. W. Caldwell, B.S., second edition (London: W. B. Saunders and Co., 1904, 21s.); *An International System of Electro-Therapeutics*, by H. R. Bigelow, M.D., and G. B. Massey, M.D., second edition (London: Henry Kimpton, 1902, 25s.); *A Handbook of Electro-Therapeutics*, by Dr. Erb, translated by A. De Watteville, M.D., which, though an old book, is well worth attention. Morton's *Essentials of Medical Electricity*, price 4s. 6d., would be useful for a beginner.

ADMISSION TO NAVY AND ARMY.

DIGIT.—We believe that the removal of a toe would not *per se* disqualify a candidate for the army. As regards the navy, we understand that, provided the power of walking, etc., were not in any way interfered with, it is probable that the removal of the second toe would not disqualify a boy for the navy; a definite opinion, however, could not be given; the decision would depend upon the results of an examination of the boy's foot after the operation.

Our correspondent might consider whether the removal of the toe is absolutely necessary. We are advised that a successful excision of the head of the proximal phalanx gives a good result as a rule, and does not leave a gap which later on causes distortion of the big toe, and consequently interferes with the functions of the foot.

PERIPHERAL NEURITIS.

C. E. W. writes: The case mentioned by "Puzzled" in the BRITISH MEDICAL JOURNAL of December 23rd, p. 1687, would appear to be one of neuritis. This affection was quite rare, but has become common since the advent of influenza, as Sir Samuel Wilks has pointed out. Neuritis is generally considered to be of rheumatic nature. During the attacks of pain relief can be afforded by wrapping up the limb in spongiopiline, or cotton-wool steeped in hot water, and covering this with dry flannel, etc. Belladonna or aconite liniment should be rubbed in. A "continuous" current from a Leclanché battery should be applied down the arm (10 to 20 cells). Phenacetin and caffeine during a painful paroxysm, or potassium bromide and belladonna in full doses give relief. Strychnine with quinine are valuable remedies. About seven or eight years ago I had a sharp attack of neuritis, following influenza, which seized me first in my right arm, and then in both legs (sciatica). My right leg was paralysed for ten days, and I had to use an elastic catheter for three days. Altogether, I was invalided for two months. Fortunately I belong to the Medical Sickness Assurance Society, which helped to procure an easy mind.

IF "Scotus" will forward a copy of the article to which he refers we shall be in a better position to reply to him usefully.

LETTERS, NOTES, etc.

MOTOR CARS FOR MEDICAL MEN.

C. N. T. writes: For the last six months I have worked an extensive country practice in one of the most hilly districts of the West of England with a Speedwell Company's car. I purchased through a reliable agent one of their 10-h.p. two-cylinder cars last June without having had any previous experience of motoring. The mechanism of these cars is simple, and the important parts easily accessible, so that my groom and myself had no difficulty in managing the car after a few days' tuition. The weak points of my car were the ignition and the connecting together of brake and clutch. The former I soon remedied by a Prested coil and Darop sparking plugs. The latter I find a nuisance, even unto this date. When letting in the clutch to start with the brake sometimes applies itself and stops the engine. The strong points are the engine and the differential gear. The former is beautifully balanced, and will take four up any hill I have yet met with; while the latter is a very fine piece of workmanship. A detachable tonneau I have found most useful, as it is so easily removed or replaced when required to carry four. Having extra strong Clincher pneumatic tyres, I have never yet had a puncture. To any country practitioner beginning motoring I would commend these reliable and cheap cars.

DIFFERENTIAL writes: In answer to the inquiry of "Cautious," and also to some extent of "Jacobus," I should like to say that I have driven one of the Rover Company's 100-guinea cars for about 1,800 miles, and am more than satisfied with the results. I am no novice in motoring, as I began with a Voiturette of a well-known foreign make four years ago. It gave me about one hour's work in the garage for every five miles it carried me, and consumed in expert repairers' fees a very considerable sum, while it consumed the owner's time and temper to a still more alarming extent. I exchanged it for a motor-cycle, which I still have, and which has done splendid work both alone and with a side-car.

This year, after careful investigation, I purchased one of the 6-h.p. cars which the Rover people make for 100 guineas. I had extra large Dunlop tyres, which added £5 to the cost, and which have been an excellent investment, for I have only had seven punctures so far, which is a low average for any car on the roads I have travelled over. I have used the car not only for my practice but also for touring, and my wife and I, with 100 lb. of luggage up, have covered 125 miles in a day with ease.

The car is thoroughly well-built in every detail, and does not contain a single trace of cheap work as far as I have been able to make out. It is very light, much more roomy than most cars at double its price, well-sprung, and extremely simple. The motor itself is extraordinarily flexible for a single cylinder car, very much more so than other single-cylinder cars at higher prices which I have driven.

The clutch is one of the best of many good points, for it is so gentle that I frequently start on the level on top speed without the least jerk or strain on the motor, yet the clutch has never once slipped, nor have I needed to adjust it. The gear-changing mechanism is beautifully made, and when I examined the whole of it the other day I could hardly discover any traces of wear.

The control is simplicity itself—in fact, too simple for my taste, as one lever regulates the speed of the motor by controlling both throttle and ignition. This is an excellent arrangement for the novice, but eliminates a certain amount of skill in driving which a more experienced hand acquires.

The brakes are very powerful, and on one or two occasions have saved me from serious collisions when my lamps were burning badly at night. The wire wheels are splendid, and I would not exchange them for artillery wheels under any consideration. On one occasion when we were touring, a ditch 18 in. wide for gas-pipe repairs stretched almost across the road. We were coming down a hill fairly fast, and did not see it till it was impossible to stop. We bumped over that ditch, and if any artillery wheels in creation would have withstood that jerk I should be interested to see them. I note that the company are marketing a special model at £120, making a feature of the artillery wheels, but for the practitioner's use I consider the wire wheels far superior.

I may say that a lad of 14 keeps the car clean, and attends to oiling, etc., and any minor adjustments necessary I have no difficulty in doing myself.

I think "Cautious" can most safely invest his 100 guineas, and rely upon getting a car that is (1) well made from end to end, (2) powerful enough for any hill, (3) fairly fast (twenty-three miles per hour) on the level, (4) simple to manage and simple to look after, (5) silent (as small cars go), (6) very smart in appearance, (7) remarkably economical in use.

THE REVOLUTIONARY CAR.

ADAM writes: I see by the letter of "Antimotor" in the BRITISH MEDICAL JOURNAL of December 30th, 1905, that he has noted a new phase of "the motor," and he writes as smarting under the disadvantage of not having a motor. I feel sure that your readers would be glad to know if it is *only* because "one of our number has purchased a motor" that he captures the "very best patients." This distinctly opens up a new phase of "the motor." If a "doctor," irrespective of his capabilities, qualifications, or what not, has only to "purchase a motor," and so capture "the very best patients," what a boom there will be in the motor trade!

THE MEMBERSHIP OF THE SOCIETY OF APOTHECARIES.

DR. C. ADOLPHE K. RENSHAW (Sale, Cheshire) writes: Subsequently to obtaining the diploma of the Society of Apothecaries I was elected a member, and in due course sent in the usual form to the Editors of the *Medical Directory*, including the fact of membership. On noticing the omission of the membership after my name, I wrote to the Editors asking the reason, and received the following reply, which ought to be widely known:

"29th December, 1905.

"Dear Sir,—In reply to your letter of the 28th inst., we have to say that we purposely omitted the membership of the Society of Apothecaries, as this is not a medical qualification. The membership has been inserted in the past, but it is our intention to omit this in future.—Yours faithfully,

"(Pp. the Editors)

"CHARLES JACKSON."

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	£0 4 0
Each additional line	0 0 6
A whole column	2 13 4
A page...	8 0 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

A Lecture

ON

SOME UNUSUAL MANIFESTATIONS OF SYPHILIS IN THE UPPER AIR PASSAGES.

DELIVERED AT THE LONDON POLYCLINIC ON TUESDAY, JANUARY 9TH, 1906,

BY SIR FELIX SEMON, K.C.V.O.,

PHYSICIAN-EXTRAORDINARY TO HIS MAJESTY THE KING.

GENTLEMEN,—There is no more trite expression than the ever-reiterated designation of syphilis as "protean" in its manifestations, yet it would be hard, I venture to say, to point to any affection in which we have voluntarily bound ourselves to more rigid formalism than in our notions regarding the classification and the treatment of the various stages of that disease. It is an axiom religiously believed in, that we must distinguish between primary, secondary, and tertiary manifestations, separated from one another by certain limitations of time, which are, after all, purely conventional, and when we have decided upon registering an individual case as coming within one of these categories, we again feel it to be our duty to prescribe mercury for the first and second of these stages and iodide of potassium for the third. A convention of this kind could of course not have arisen if experience had not taught us that on the whole it answered practical requirements, and far be it from me to shake well-founded belief in the results of such practical experience. From time to time, however, it is well to be reminded that exceptions occur to almost every rule, and that to insist too rigidly upon convention is not wise. Many years ago I published under a title[1] similar to the one given to this lecture some instances of rare manifestations of syphilis in the upper air passages, which did not fit into the generally adopted scheme, and having recently had within a comparatively short time the opportunity of seeing a further number of such unusual cases, I avail myself of this opportunity to bring them before the notice of the profession. As they all have occurred in private practice, I shall, for obvious reasons, not give any particulars which could lead to identification of the patients, and for the same reasons shall not mention the names of the practitioners who were good enough to send me the patients or were otherwise concerned in the management of the cases themselves.

1. *Precocious Tertiary Syphilis of Throat and Tongue of Malignant Type.*

A gentleman was sent to me by his medical adviser with a letter from which I abstract the following statements: A year ago the patient got a hard chancre. It had only just appeared when his doctor saw him. He put him on full doses of mercury at once. None of the ordinary secondary symptoms ever appeared, but the patient got a tremendously swelled throat and tongue, and was badly salivated, ropes of saliva pouring out of his mouth. The soft palate became oedematous, the tonsils, on each of which a large ulcer appeared, almost met in the middle, and the patient was very ill generally. The medical attendant considered the phenomena as mercurial. Mercury being left off, the ulceration gradually improved, the salivation diminished, and the patient went away to recoup, but returned with his throat again deeply ulcerated.

In consultation with a specialist the affection was considered to be of the nature of secondary syphilis; a return to mercury was advised and practised, with the result that the ulceration, as on the first occasion, grew rapidly worse, and the patient became very ill. Mercury was again abandoned, and the patient was treated with "ordinary throat applications." Temporary improvement occurred, but a month or so afterwards fresh ulceration broke out in the throat. On renewed consultation mercury was again advocated and used, with exactly the same result as previously, namely, that the ulceration immediately became much worse, and that the patient was again very ill. Mercury being discontinued, he very slowly and gradually recovered, and was then sent to a great authority on syphilis who, it was stated, took an intermediate view between syphilis and mercurial ulceration, and considered the former to belong to the phagedaenic type. He advised the use of iodide of potassium, which, however, the patient was "unable to take in ordinary doses." All this information was given in a letter, the tone of which was perfectly despairing; the writer, who obviously took the greatest possible interest in his patient, had evidently on each occasion, when, either on his own initiative or following the advice of his consultants, he had tried antispecific remedies, particularly mercury, been so much frightened by the extreme violence of the resulting local symptoms and their bad effect upon the general health of his patient, that he had become firmly convinced that the ulceration was of an exclusively mercurial character, and although he laid the case with the greatest fairness before me, it was quite obvious that his own conviction had become so firmly established that no arguments would easily shake it.

The patient was a pale, unhealthy-looking man, evidently in pain, whose speech was guttural and indistinct, his frequent endeavours at swallowing the saliva, which was constantly produced in large quantities, being accompanied by signs of great distress.

On examination, I found the following condition: There was extensive scarring owing to destructive ulceration of the mucous membrane of the palate and fauces, resulting in adhesions, on the one hand between the soft palate and the posterior wall of the throat, and on the other, of the pillars of the fauces with the sides of the tongue. The uvula was entirely destroyed, and there were two perforations—a larger one above, a smaller one below—in the middle line, the larger one of which represented the only communication between the nasopharyngeal and oral cavity. The tongue showed evidence of old ulceration and was fissured; the epiglottis was partially thickened, more particularly on the right side, and on this part, as well as on the sides of the fauces, there was still some active superficial ulceration. The interior of the larynx was free. There was no disease in the nose, the cervical glands were hardly enlarged at all, and there was no skin eruption.

From the appearance described there was no doubt in my mind that the affection was of a purely syphilitic character, tertiary in nature, although appearing at an unusually early time, and revealing a most unusual idiosyncrasy on the part of the patient against antispecific remedies, particularly against mercury. I wrote in this sense to the patient's medical adviser, and mentioned in anticipation of the natural objection that the throat affection had occurred at a time much prior to the usual occurrence of tertiary symptoms, that I had in 1882 described in the *Lancet* a case in which gummata developed in the larynx within the first year from the primary infection, and that I had on the same occasion quoted a case of Mauriac's, in which as early as two and a half months after the primary infection an evolution of gummata took place, and a statement of Zeissl's that he had seen a nodular syphilide four months after the primary infection. At the same time I proposed that the patient should be sent to Aix-la-Chapelle with the primary object of eliciting the opinion of one of the authorities of that place as to the differential diagnosis between mercurialism and syphilis, and, in second line, of the patient's being treated there for syphilis in the event of the opinion being in favour of the manifestations being specific. This advice was adopted.

The opinion of the physician at Aix-la-Chapelle, taken quite independently of me, entirely coincided with my own. He considered the case one of precocious malignant tertiary syphilis, two instances of which affecting the nose he had previously observed himself. He at first tried to treat the patient with iodipine preparations, and made four injections of 25 per cent. iodipine, each containing ½ oz. of the drug, this remedy being chosen because, in the experience of my friend at Aix, this form of iodine is equally mild and efficacious. The result was no more successful than had been the mercury and iodine treatment at home. On the day after the last injection the patient got a painful swelling of the tongue. The tongue itself, as well as the soft palate, became covered with a dirty yellowish deposit in the area where previously simple erosions had been present. This condition got daily worse, and ultimately the entire affected region of mucous membrane became changed into a mass of rather deep and intensely painful ulcers, the general health at the same time deteriorating rapidly. The ulcers were painted with a 10 per cent. solution of nitric acid. Under this treatment they became cleaner, but showed no tendency to heal. From this result of the iodipine treatment the Aix physician became even more convinced than he had been before that he had to deal with a case of malignant syphilis, as in such cases in his experience the inefficiency of mercury and iodine preparations is quite characteristic. The present case additionally, he stated, belonged to a rare variety which he had previously observed, and which is characterized by a tuberculin-like effect of iodine preparations. In such cases the reaction, which ordinarily is quite insignificant, manifests itself by a furious inflammation. This very reaction, in his opinion, made it even more certain that we had to deal with a case of lues, inasmuch as, although mercury may produce ulcerative lesions, such have never been observed under the administration of iodine preparations, often though they be administered, to non-syphilitic persons.

Acting upon this opinion Zittmann's sarsaparilla decoction was prescribed for the patient with immediate and brilliant results. For twenty-six days he daily took in the morning 7 oz. of the stronger Zittmann's decoction, and in the evening 7 oz. of the weaker decoction. This was followed for ten days by Kobert's* sarsaparilla decoction, and finally he took the two Zittmann preparations for another fortnight. Under this treatment his general health improved from day to day, the ulcers cicatrized in the most desirable manner, and ultimately were replaced by a solid scar. The patient's articulation became much more distinct, he could eat without difficulty and pain, and during the whole time hardly ever suffered from diarrhoea. He was discharged with the advice to take Kobert's decoction for another fortnight, and afterwards to discontinue for a time all treatment. When I saw him on his return I found a most pleasing improvement; a dense cicatrix united the remnants of the soft palate with the lateral wall of the pharynx down to the level of the epiglottis. In its midst there was one sharp-cut perforation, and the uvula, as already stated, had completely perished. There was no active ulceration in the pharynx and the larynx was normal. The patient's general appearance and articulation were infinitely better than before he went to Aix. Since then, so far as I know, he has remained perfectly well.

2. *Tertiary Syphilis of Larynx and Trachea followed by Isolated Tertiary Syphilis of the Nasopharyngeal Cavity.*

A married lady was brought to me on account of gradually increasing loss of voice and dyspnoea, which had come on, it was stated, during the preceding ten days, after a bronchial catarrh. The patient complained of loss of voice and some slight difficulty in swallowing, but, curiously enough, did not attach any importance to the difficulty in breathing, although this was clearly manifested by distinct stridor even during quiet respiration. Tuberculosis had been suspected on account of the laryngeal appearances to be described presently, but two examinations of the sputum made by the Clinical Research Association had failed to disclose any bacilli. There was no history whatever of syphilis.

On examination of the almost aphonic patient it was seen that the left half of the larynx was fixed, and that the left vocal cord, which was distinctly oedematous, was bent outwards in its posterior part. The right vocal cord, which was quite white, moved normally. A long way down into the trachea it was seen that from the walls of the tube on both sides reddish projections extended into the interior, those on the left side projecting more than those on the right. The calibre of the tube was thereby narrowed to such a narrow split that it was surprising that the patient had not got even greater dyspnoea. The larynx made no respiratory excursions. There was tenderness on pressure over the front part of the cricoid cartilage. On examination of the chest the tracheal stridor was found to be conducted all over the chest, and nothing else could be heard. There was no skin eruption.

In spite of the absence of a syphilitic history I diagnosed gummatous infiltration of the larynx and trachea, and sent the patient at once to a home, where she was put to bed with a Leiter's tube round her neck, whilst iodide of potassium in 10-gr. doses and liquor hydrarg. perchloridi in 1-drachm doses three times a day were prescribed for her. It was explained to her and her husband that tracheotomy might become necessary, unless the disease quickly yielded to the treatment prescribed. Fortunately, already on the next day the stridor had somewhat diminished, the patient having passed a good night. From the second day onwards mercurial inunctions according to Zeissl's plan were instituted. This consists, as I have described in the *Lancet*, 1882, in the following: "Twenty grains of mercury ointment were daily rubbed into various parts. On the first day the ointment was applied to the skin of the neck over the larynx, second day to the inner surfaces of both upper arms, third day to the inner surfaces of both thighs, fourth day to the inner surfaces of both forearms, fifth day to the inner surfaces of both calves, sixth day to the skin over both loins, seventh day to the skin of the back." This series is to be repeated four times in the same order, each series being preceded and followed by a warm bath, and astringent gargles being used as a matter of course during the whole time.

Under this treatment both the subjective and objective symptoms described rapidly disappeared, and six days after the first consultation practically no trace of the previous serious illness could be detected in either larynx or trachea. The patient went home, but was urgently admonished to continue the inunction treatment for another month. Whether this advice was strictly followed I am unable to say. At any rate, hardly three months later the patient began to suffer from sudden deafness and suppurative otitis media in both ears. At the same time an obstruction to breathing existed, which was located between the nose and throat, and a large ulcerating swelling, evidently of gummatous nature, was found to cover the vault of the pharynx and the upper part of its posterior wall. These manifestations again quickly yielded to mercury and iodide of potassium. In view, however, of the fact that twice within a short time gummata had formed in such dangerous situations, I strongly advised the patient to go to Aix-la-Chapelle, in order to be radically cured, if possible. The patient followed my advice, was energetically treated with inunctions and at the same time with injections of iodipine, whilst local applications of nitrate of silver were made in the pharynx and nasopharynx to promote quicker healing. Under this treatment complete recovery ensued. The patient six months afterwards once more went to Aix-la-Chapelle to undergo a short inunction treatment as a prophylactic, and has ever since remained perfectly well.

3. *Early Fibroid Infiltration of Pharynx and Larynx in a Case of Obstinate Recurring Secondary Syphilis.*

The patient was a gentleman, who had been very liable to tonsillitis and pharyngitis for many years. Some years previously he had a hard chancre in the urethral orifice and hard glands in the groins. Hydrargyrum cum creta was given in 1-gr. doses three times daily for four months, under which treatment the chancre and inguinal glands soon disappeared. Hardly any secondary rash occurred, but about six months after the primary infection his throat began to trouble him, his voice became hoarse, and he had difficulty in swallowing. He was then sent to me, and I found a characteristic mucous patch on his right tonsil, whilst the corresponding region on the left tonsil looked suspicious. In the larynx there was marked diffused general thickening of the epiglottis and of the arytaenoid cartilages, and the vocal cords were congested. The aspect of the larynx was such that, without the history of syphilis, one would have thought rather of the pseudo-oedematous swelling often ushering in laryngeal tuberculosis than of syphilis, but the fact that a characteristic pharyngeal affection existed at the same time, and that, further, the laryngeal swelling was of a much more dusky colour than is usually seen in laryngeal tuberculosis, militated against the tuberculous theory. In addition, on careful examination of the lungs no evidence of tuberculous disease was found, and the absence of constitutional symptoms, except some emaciation which was admitted, seemed to point in the same direction. All the same, the possibility of a combination of syphilis and tuberculosis was not lost sight of. From the very first, however, I inclined rather to the belief that this was a case of syphilis pure and simple, appearing in the larynx in the somewhat unusual form of early general fibroid thickening, than a combination of syphilis and tuberculosis.

---

* The formula of this preparation is the following: Place 1 kg. of sarsa root in coarse powder in a closed vessel with 4 kg. of distilled water, and set aside for three hours, occasionally stirring; heat and keep boiling for one hour, then press out. Repeat this once more. Evaporate the combined decoctions until there remains 1 litre (quart), mix well with an equal volume of alcohol (90 per cent.), wash out the residue with boiling alcohol (90 per cent.) $\frac{1}{2}$ litre, strain through flannel and filter, evaporate to $\frac{1}{2}$ litre or less. Establish the quantity of parilli and sarsaponia according to the method of v. Schulz-Christophson, and adjust the strength of the finished product either by evaporating or by adding distilled water, so that it shall contain 2 per cent. of the above glycosides.

The weight and temperature of the patient were registered carefully for a while, and his sputum was repeatedly examined for tubercle bacilli. The results were perfectly negative, and the idea of the presence of a combination between tuberculosis and syphilis could therefore be entirely abandoned.

Whilst the syphilitic phenomena in the pharynx were of such a fleeting character that they varied almost from day to day, the aspect of the larynx remained for a time stationary, in spite of continued treatment by oral administrations of mercury, and the patient ultimately decided to go to Aix-la-Chapelle. There he underwent energetic mercurial inunction treatment, with the result that the general infiltration of the larynx very much decreased, and he returned greatly improved. Shortly afterwards, however, fresh mucous patches appeared in the pharynx, a roseolar eruption broke out on his skin, and so considerable an increase of the infiltration of the larynx was noted that I feel sure that nobody seeing the patient then for the first time would have doubted that the condition represented the infiltration stage of laryngeal tuberculosis. He complained of pain in the shin bones, occipital headache, and a general feeling of malaise. Together with these phenomena syphilophobia of a marked type developed. He commenced to take note of the smallest objective and subjective symptoms in his case, and became greatly depressed. Renewed physical and bacteriological examinations not having afforded the least evidence of the existence of tuberculosis, Kobert's sarsaparilla decoction was given, but without effecting any improvement. The patient's syphilophobia had by that time increased to such a degree that it became extremely difficult to manage the case. At last iodide of potassium was tried, which I had so far fought shy of, because in view of the already existing infiltration of the larynx I had feared that possibly it might produce laryngeal oedema. Its effects, however, were very pleasing. The infiltration materially decreased, the skin eruption disappeared, the difficulty in swallowing, which previous to the administration of the iodide had returned with increased severity, quite vanished, and the patient's voice, which at that time was very hoarse, became natural again. At the same time his general health very much improved, he became more hopeful, and matters at last took a more favourable turn. Quite recently I have heard that under the continuation of liberal doses of iodides his throat symptoms were kept in abeyance as long as he was under observation, but that until the very end he continued to be very nervous about himself, and was always on the look-out for every little adverse symptom.

4. *Tertiary Syphilis of the Larynx manifested particularly by Periodical Inflammation, with production of Ephemeral Papillomatous Excrescences.*

A gentleman consulted me on account of persistent hoarseness, from which he had suffered for a long time. He at once stated that thirteen years previously he had had a hard chancre, and had since then frequently suffered from cutaneous eruptions and ulceration of the tongue. On examination nothing wrong could be detected on the skin, on the tongue, in the mouth, or in the pharynx, but there was considerable thickening, inflammation, and ulceration of the epiglottis, the free edge of which showed several deeply-cut ulcers. The mucous membrane over the arytaenoid cartilages also was greatly inflamed and thickened. The movements of the left arytaenoid were deficient. The vocal cords were changed into two rounded cylindriform bodies, but were not ulcerated.

As there could be no doubt that the patient was suffering from syphilitic disease of the larynx of a serious type, and as he had repeatedly and for a long time taken mercurial preparations by the mouth without obtaining a cure, I advised him to start at once for Aix-la-Chapelle in order to undergo a thorough inunction treatment. He followed my advice, with the result that a very considerable general improvement took place; the vocal cords lost their roller-like appearance, and appeared merely slightly congested when he returned, and the thickening about the left arytaenoid cartilage became much diminished, although its movements were not entirely regained. After his return he took for some time hydrargyrum oxydulatum tannicum (5 gr. daily) in the form of pills. Unfortunately, however, the improvement was not of long duration. About fifteen months after his return I saw him again, when he spoke with an extremely thick voice, and there was occasional inspiratory stridor. He had had several apparently rather severe choking fits. On examination the epiglottis was seen to be considerably more thickened than it had been, and the outward movements of both vocal cords, particularly of the left, were very deficient. There was also some fresh ulceration on the epiglottis, and the general thickening of the mucous membrane over the arytaenoids had increased. I was afraid that the case would turn into one of those serious instances of general fibroid syphilitic laryngitis in which often ultimately tracheotomy and the constant wearing of a tube become necessary, and strongly advised that he should immediately return to Aix and go again through a thorough inunction treatment. To this he agreed.

The report from Aix was this time not so satisfactory as after his first visit. The patient during his stay contracted acute bronchitis after which the infiltration of the epiglottis increased to nearly double its former size. Although some improvement of this condition took place when the bronchitis subsided, the epiglottis remained much more thickened than it had been previously. The arytaenoid cartilages diminished in size under the influence of the mercurial inunctions, but now for the first time nodular excrescences made their appearance upon the vocal cords. Before leaving Aix the patient was advised to take sarsaparilla decoction for some time after his return.

When I saw him after his arrival here the appearances were even less favourable than I should have anticipated from the Aix report. The epiglottis itself was less swollen than I had ever seen it, and there was no trace of active ulceration. The mucous membrane over the arytaenoids, however, was still much thickened, and considerable swelling was seen in the front parts of the ventricular bands, so much so that at first sight it looked as if these parts had actually grown together. There was also a great deal of irregular nodular fibroid thickening of the left vocal cord and in the interarytaenoid fold, as well as of the posterior part of the right vocal cord. Curiously enough, there was no dyspnoea, but the voice was certainly not so good as it had been the previous winter. On examination of the chest nothing wrong could be detected.

From this time onward the disease changed its character in the most remarkable manner. Whilst previously its manifestations had been mostly of the nature of apparently fibroid, deep-seated infiltration, and to some extent of ulceration, these phenomena for a considerable time receded, and were indeed at times conspicuous by almost complete absence. Their place, however, was unfortunately taken by a periodical sprouting of irregular pale excrescences, occasionally condylomatous, but more frequently papillomatous, in shape, which arose sometimes more slowly, sometimes with almost incredible rapidity, from almost any part of the interior of the larynx, but most frequently from the vocal cords themselves, from the interarytaenoid fold, and from the ventricular bands. After having been in existence for variable lengths of time, they then always completely disappeared, sometimes spontaneously, sometimes under the influence of antispecific treatment, either gradually or quickly, just as they had made their appearance. In fact, the aspect of the larynx varied at different times like the figures of a kaleidoscope, and unless I had had the privilege of following these changes up myself, I should not have considered it possible that such grave alterations, as I repeatedly had the opportunity of observing, could be followed by such an almost complete restitution of normal conditions. I need hardly say that the subjective symptoms corresponded with the objective ones. Whilst during those periods when the larynx was filled almost completely with excrescences the voice was extremely hoarse or even almost aphonic, and the respiration noisy and stridulous, in the free intervals there was hardly any hoarseness and the breathing was quite free. These ups and downs were of course attended with a good deal of anxiety and excitement. Several times tracheotomy seemed to be almost immediately required, and more than once I was greatly tempted to remove part, or the whole, of the obstructing masses by intralaryngeal operations. What induced me to withhold my hand was tne ever repeated observation that the growths after all always disappeared either spontaneously, or, more frequently, under the direct influence of constitutional treatment; and what prevented me particularly from having recourse to intralaryngeal instrumentation was the consideration that syphilitic scars, as is well known, have a great tendency to extreme contraction. For this reason I was afraid that wounds produced by intralaryngeal removal of the excrescences might lead to lasting stenosis.

Several years passed with such fluctuations as those described. The patient frequently went to Aix, and was each time very considerably benefited, although unfortunately never lastingly cured. Yet there never seemed to be any tendency towards the establishment of irreparable grave changes in the larynx, and never during the time that he was under my care did syphilitic manifestations occur in any other part of the body. In a report which I sent to my friend at Aix several years after the patient had been under my observation I find the following note: "I am surprised beyond measure at the enormous improvement which has recently taken place in the condition of the larynx. The swelling of the epiglottis and of the arytaenoid cartilages, the mobility of the vocal cords, and the shape of the latter are so astonishingly improved, that, with all my previous experience, I have never seen such a change for the better as has taken place in this case; and, indeed, I should have considered such an improvement impossible to occur after so much apparently organic infiltration, if I had not seen it with my own eyes. Quite corresponding with this objective improvement the voice, when I saw him a few weeks ago, was marvellously better."

Unfortunately, again, this improvement was not destined to last long. At Aix fresh excrescences appeared on the vocal cords with such astounding rapidity that tracheotomy at one time was considered unavoidable, and I was requested to hold myself in readiness to perform it. Again, however, a sudden improvement—almost overnight—occurred, and the operation could again be postponed.

At that time the patient sought other aid, and for a time I lost sight of him. Later on I was informed that a few months after his last visit to Aix a fresh aggravation took place, and that at last tracheotomy had to be performed under circumstances of great distress, the stenosis having attained an extreme degree before relief was given. The patient then underwent a long series of intralaryngeal operations, partly of a cutting, partly of a caustic, nature, in the course of which a very large quantity of new growths were stated to have been removed. Throughout all that time he had to wear his cannula on account of the still existing stenosis. Recently he returned to me, when I took the following notes:

Crico-tracheotomy has been performed. The patient is still wearing his tube, although it is corked up. The epiglottis is slightly thickened and a little irregular, but not markedly so. The left cord stands almost motionless near the middle line, and is only very slightly abducted during forced inspiration. There is considerable adhesion between its anterior third and that of the right vocal cord. The latter is clotted together with the right ventricular band into one reddish mass. The right arytaenoid cartilage is very little abducted in inspiration. The chink of the glottis is reduced to a very narrow, irregular gap in the posterior part of the organ, through which occasionally the shining silver cannula can be seen. The voice is reduced to an absolutely toneless whisper. No active disease can be seen at present in the larynx, and it is stated that for about a year's time no active manifestations of syphilis have made their appearance. Tracheoscopic examination does not reveal any mischief below the level of the vocal cords.

The patient was very anxious to get rid of his tube. His present medical adviser, however, very properly seemed to hesitate on account of the risk of sudden obstruction of the narrow glottis in the event of an acute catarrh. I strongly supported this cautious attitude in view of both the existing stenosis and the possibility of further attacks of the disease itself, and suggested that under all circumstances before an attempt were made to lastingly remove the tube, the adhesions in the front part of the larynx should be split with a cutting dilator, and for a long time dilating tubes, such as Schroetter's, should be introduced into the larynx with a view of further and sufficiently enlarging the calibre of the glottic aperture. At the same time I stated that I considered it possible that the voice might become a little stronger when the adhesions had been divided, although of course restoration of natural voice could hardly ever be hoped for.

Remarks.

The four cases just narrated well illustrate, I think, the thesis from which I started, that is, that whilst ordinarily it is easy enough to follow the established canons with regard to the diagnosis and treatment of manifestations of syphilis in the upper air passages, yet cases occur in which it is imperative not to be fettered by rigid formulas, and to judge anomalous instances on their own merits only, and not on the strength of general rules. Apart from enforcing this general lesson, each of the four cases offers some important points for consideration. In the first case it is the occurrence of severe tertiary lesions so shortly after the primary infection, and the uselessness, not merely, but the direct deleteriousness of the recognized antispecifics, which confer a particular interest upon it. As to the precocious occurrence of tertiary symptoms, this is, as already stated, although a rare, yet a by no means unheard-of occurrence. Much more exceptional is the damaging effect exercised upon syphilitic lesions by both mercurial and iodine preparations. So tangibly serious were the effects of mercury in this case, that there is little room for wonder that the distinguished practitioner who sent the patient to me for an opinion became firmly convinced that the phenomena seen by him were actually due to mercurial poisoning, a view to which he even now adheres. My reasons for thinking otherwise are the following:

First, we all are familiar with the effects of mercurial poisoning when appearing in the throat; we know the stomatitis, the profuse ptyalism, the ulceration of the interior of the cheeks, the fungosity of the gums, and the decay of the teeth; but I am not aware that ever a case has been described in which conditions such as those observed in this case—destructive ulceration of the mucous membrane of the palate and fauces, loss of the uvula, perforation of the hard and soft palate, extensive ulceration of the tongue, extensive cicatricial adhesions—have ever been observed as a result of mercurial poisoning.

Secondly, as already stated, it is of great importance that damaging influence was exercised upon the process, not only by mercurial but also by iodine preparations, and here it is particularly noteworthy, as insisted upon by the physician at Aix-la-Chapelle, that actual ulceration followed the administration of iodine, whether administered by the mouth or by subcutaneous injections, a result never produced in ordinary cases of idiosyncrasy against iodine preparations. However violent the symptoms of iodism may be—I have seen several very instructive instances of the kind—active ulceration has never been amongst them.

Thirdly, it is particularly important that twice in this case, before the patient came and saw me, active ulceration had made its reappearance spontaneously a long time after mercury had been discontinued.

Fourthly and lastly, the condition left behind after the period of ulceration is so absolutely characteristic of the ravages of tertiary syphilis, that I feel sure that every experienced observer who were to see the patient now for the first time would, without a second's hesitation, declare that the lesions were due to tertiary syphilis.

I therefore feel perfectly justified in bringing the case under your notice as an instance of malignant, precocious tertiary syphilis, and in recommending to you in similar cases not to persist with the administration of mercury and iodides, but to have recourse to sarsaparilla in the form of Zittmann's and Kobert's decoctions.

The second case—the one in which tertiary syphilis of the larynx, and especially of the trachea, was followed by isolated syphilis of the nasopharyngeal cavity—offers a good illustration of the truth of the, if somewhat cynical, yet excellent, advice: "Whenever you have to do with a particularly obscure case, think of syphilis as a possible cause." Here was a married lady of unimpeachable antecedents and without the least history of syphilis, who at a mature age suddenly developed the serious symptoms described. It is the absence of the syphilitic history to which I would particularly draw your attention, and from which I would again deduce the lesson, which I have been endeavouring to enforce on more than one previous occasion—namely, to trust to the evidence of your own eyes rather than to the absence of a characteristic history. From what has come under my own notice on a good many occasions, I think it is desirable that this necessity should periodically be emphasized. At the same time, I would take the opportunity of urging the need of the utmost caution, when dealing with such cases, to guard against any imprudent expression of opinion as to the nature of the case you have to deal with. In no class of cases are tact and diplomacy more required than when dealing with syphilis in married people, and the attendant should always remember that a single incautious remark of his may for ever destroy the happiness of a family. When remembering the incidents of the case now under consideration, the necessity of such a warning is very deeply impressed upon me. Quite apart from these points, the case is also remarkable for the fact that one not very common localization of tertiary syphilis—namely, gummatous infiltration of the trachea—was followed within a very short time by an even rarer one—namely, the formation of a gumma in the nasopharyngeal cavity.

In the third case two points deserve special attention—namely, first, the occurrence of extensive infiltration of the larynx shortly after infection, and at a time when the ordinary phenomena of the second stage, namely, roseola on the skin and mucous patches in the pharynx, were still present; and, secondly, the terrible syphilophobia to which the patient became a victim after repeated recurrences of the disease. With regard to the first point, I would say that in my own opinion this was a case in which secondary and tertiary symptoms intermixed—an occurrence the possibility of which ought always to be kept in mind. Ordinarily, in secondary syphilis of the larynx the phenomena are simply those of erythema; more rarely do we meet with formation of condylomata and with actual superficial ulceration. I have never previously seen so extensive an infiltration of the larynx take place in genuine secondary syphilis, nor am I aware that such has ever been described. Another reason why I am inclined to look upon the laryngeal phenomena observed in this case as belonging to the tertiary period is the failure of mercury to prevent recurrence of the symptoms, whilst the disease, as long as the patient was under observation, was kept under control by iodine preparations. I am sorry I cannot say what ultimately became of the patient, my endeavours to trace him having failed. Whilst one could not help sympathizing greatly with the poor man in his recurring tribulations, the syphilophobia which he developed ultimately became almost as trying to his medical advisers as to himself. In such cases the medical attendant must not merely be an adviser of the body, but also of the soul. Some unfortunate syphilophobes fall into a condition of melancholy, others become quite frenzied, and not merely threaten but are actually apt to commit suicide. Under such circumstances it is the duty and the privilege of the medical adviser to maintain courage, to cheer up, and to always hold out the hope of ultimate and lasting recovery. A despondent attitude on the part of the medical attendant is the surest way to drive the patient into utter despair.

The last case is, without exception, the most unusual instance of syphilis in the upper air passages which I have ever met. I have made it a point to look through literature with a view of discovering whether ever a similar case had been described, but have not found one. Whatever the causes were which repeatedly produced new growths—which almost completely filled the patient's larynx, then made them disappear, leaving the organ but little disfigured, and then again and again produced fresh crops, to be followed by similar disappearance—I am quite unable to say. Nor can I explain, in view of the long interval before the patient's last visit, in precisely what manner the present condition of his larynx has come about.

In conclusion, gentlemen, let me say that the simple narrative I have given illustrates, I think, better than any elaborate commentaries how little one single form of antisyphilitic treatment can claim to be universally successful in all cases. In the great majority of my own cases of syphilis of the upper air passages methodical inunction treatment has been most successful, and I trust this more than any other method. Yet you have heard that in 2 out of these 4 cases it failed. The therapeutic lesson to be derived from the experiences gained in these 4 cases, it seems to me, is that as in diagnosis so in the treatment of syphilis, it must be our aim to individualize when the ordinary canons show themselves insufficient to cope with the particular case, and not to insist on preconceived notions of any kind.

REFERENCE.

[1] On Some Rare Manifestations of Syphilis in the Larynx and Trachea, *Lancet*, 1882.

THE REALITY OF ENTEROSPASM AND ITS MIMICRY OF APPENDICITIS.

By HERBERT P. HAWKINS, M.D.Oxon., F.R.C.P.,
PHYSICIAN TO, AND LECTURER ON MEDICINE AT, ST. THOMAS'S HOSPITAL.

I BELIEVE it must be allowed that the appendix is sometimes excised unnecessarily, or, to put it in terms of absolute truth, there are certainly patients whose symptoms are the same after as before this operation. It is now a common practice to excise the appendix, almost as a precautionary measure, with greater freedom and on more slender evidence of disease than was the case a few years ago. The evidence which is considered sufficient to justify excision often amounts to nothing more than pain and perhaps tenderness in the right iliac fossa. The absence of evidence of any peritoneal infection and the fact that no definite febrile attack has ever been observed are not considered of sufficient importance to justify delay. In the main I believe this practice is right. But it must be confessed that in many instances of this kind the diagnosis is guesswork, and I think there can be no doubt that in some cases the excised appendix is innocent. There must be risk of mistake when a diagnosis must needs be based not on physical signs but on such variable features as the character and locality of pain. Putting on one side the rare cases where there has been patent error and confusion with biliary or renal colic, movable kidney, or disease of the uterine appendages, we are left with a more numerous class of patient, in whom, though none of these other troubles are present, the symptoms for which the appendix has been excised continue unaltered after that operation. If these disappointed patients are studied, it is difficult to come to any other conclusion than that their disorder is functional and has no basis of structural change in intestine or elsewhere. It would save trouble if they could be recognized before rather than after excision of the appendix, and an attempt to define them may so find an excuse.

Functional disorders of the stomach receive some slight attention in our textbooks, but similar conditions of the intestine are as a rule unnoticed. The student completes his fifth year with the impression that the intestine is a lowly tube of mean function, and that consequently it is hardy and uninfluenced by defective states of other organs. He couples it up mentally with pictures of gross matters such as hernia, obstruction, and carcinoma. If he subsequently holds a resident appointment, he may become aware that there is a nervous side to intestinal disease. But intestinal neuroses diminish in frequency as we descend the social scale, and he may pass six months in a hospital and meet with no example of the kind. As a rule, he learns in years of private practice that there is much abdominal pain which has no name and does not kill.

The known functions of the intestine are motor, sensory, secretory, and absorptive. If a functional disorder is defined as being a quantitative or qualitative alteration in one or more of those functions, not dependent on any gross or microscopical change in the intestine, a large group is tentatively formed. Among many minor ailments the group comprises the common form of constipation, nervous diarrhoea, enteralgia, enterospasm, and mucous colic (formerly termed colitis). Without going into their speculative side, and rather prejudging the matter, it may be said that pathological facts are few, but I believe that the purely nervous theory of their origin (Ewald) has the whole weight of the evidence behind it. The last three forms—enteralgia, enterospasm, and mucous colic—may be regarded as the three chief intestinal neuroses—sensory, motor, and motor-secretory respectively. They are closely related, and individual cases may be difficult to classify. The motor and motor-secretory forms often appear in the same patient.

These three neuroses, local manifestations of an imperfect nervous constitution, are especially interesting at the present time. They are of common occurrence. One is tempted to believe that they are increasing in frequency. They are at this moment particularly worthy of study, owing to the advance of abdominal surgery, not because they are amenable to surgical treatment, but rather because they need protection.

Though they are comparatively small matters in themselves, they derive importance from the fact that they are all attended with abdominal pain. It is not always easy to distinguish them from more serious conditions which require an operation. Especially with appendix-disease are they likely to be confounded. In their nature and origin they have no single point in common with appendicitis, but superficially they may bear a close resemblance to it. If the symptoms lie on the left side, carcinoma of the sigmoid flexure may certainly be suspected. Though this is a less common error, explorations have been performed with this idea, which perhaps might have been avoided.

If we consider these three neuroses only from the point of view of their resemblance to more serious disease, enteralgia and mucous colic can be briefly dismissed. There should be little likelihood of mistake. Enterospasm, however, I believe is a more common source of error.

ENTERALGIA.

The occurrence of a pure intestinal neuralgia is probable, but it cannot be proved. It is certainly rare. It is comparable with tic douloureux. It is as completely independent of any intestinal change as are the abdominal crises of tabes. The pain is generally central. It occurs in short, sharp attacks, quite as severe as a biliary or renal colic, and it is equally attended with sweating and some collapse. It may simulate the onset of peritonitis or of acute intestinal obstruction. But vomiting is not a marked feature; the abdomen is retracted rather than distended, and there is little, if any, interference with the action of the bowels. While one may have firm belief in the occurrence of such an enteralgia, it must be confessed that it is hardly possible to distinguish it from enterospasm, except by actual inspection through an abdominal opening. The ability to separate the one form from the other is less useful, however, than the power of distinguishing both of them from more serious abdominal disease requiring surgical treatment.

The following case is an instance of such an abdominal pain. It is difficult to imagine that these attacks spread over so many years could be otherwise than functional in origin.

Case 1. Paroxysms of Abdominal Pain for Sixteen Years in a Man of Otherwise Good Health.

A man aged 33, a clerk, stated that he had been liable to attacks of severe abdominal pain for sixteen years, some three or four attacks having occurred every year. Each attack lasted from 2 to 7 days, but the attack itself was made up of several separate paroxysms lasting a few hours. He described the pain as being always situated in a 2 in. circle just above but including the umbilicus. It varied in severity, occasionally permitting him to continue his work, but commonly keeping him at home. It had been so severe that he had cried aloud. He felt as if he was "tied up in a knot." He found the greatest comfort from sitting up and leaning forward. Once only was there vomiting, and then he was sick repeatedly for a whole day. There was never any shivering, and probably no rise of temperature, but he had occasionally broken out into a sweat. The attacks came on suddenly with no discoverable cause and no warning. Many began at night. They had no relation to meals. Between the attacks his bowels acted regularly. He was a strongly-built man of 13 st., of healthy appearance leading a healthy life—a notable oarsman in his district. His mother died insane. He had had no serious illness apart from these attacks. He came into St. Thomas's Hospital for observation and electrical treatment. No sign or suspicion of gross disease was discovered, and it was clear from what we saw that his account of his attacks was correct and unvarnished. Nothing was ever felt along the line of the colon. It is curious that one attack observed in hospital was accompanied by a general erythema, and, after this disappeared, it was found that *tâche cérébrale* could be obtained in perfection on chest and abdomen, so that one could write upon his skin with the finger-nail. High-frequency currents seemed as if they were going to effect a cure, but I believe his attacks recurred on leaving hospital.

MUCOUS COLIC.

The motor-secretory form is common, sharply defined, and easily recognized. The symptoms require no description. A mistake need not occur if the patient can be kept under observation for a time. But if a diagnosis is to be made merely from the account of attacks of pain as given by the patient, it is easy to fall into error. On the nervous theory mucous colic is an enterospasm combined with secretory perversion. It has a close analogy (perhaps even a relationship) with asthma. In both neuroses there is a spastic element combined with the secretion of an abnormal mucinoid material, there is the same capriciousness of onset, and the same mysterious dependence on trifling external conditions and on the mental state. The two neuroses may alternate in the same patient, as in three cases that I have watched. In one case they occurred simultaneously, a sort of combined bronchial-intestinal asthma. In the family history of patients suffering from mucous colic a tendency to asthma can sometimes be traced.

In the usual type of case, where the trouble is confined to the lower part of the descending colon, the diagnosis is assured. But if the pain is in the right side, and the stools have not been examined by patient or physician, the appendix must inevitably come under suspicion. Only in one of many instances that I have seen has the removal of the appendix had any apparent influence on the subsequent course of the mucous colic, which continued unchecked.

ENTEROSPASM.

It is generally allowed that without any change in the intestinal wall one or more sections of the intestine may exhibit a purposeless tetanic contraction. It is thereby converted into a hard, nearly solid, cord, pale and bloodless. This spastic state is apparently capricious in its coming and going, but its dependence on the mental state is not to be doubted, and must be utilized in its treatment. The spasm may be short, acute and intensely painful, producing a train of symptoms which cannot (without actual inspection of the bowel) be distinguished from those of an enteralgia. Or with less violence it may be of much greater duration and may result in a steady ache or discomfort which will last off and on for weeks or months at a time. The colon is more commonly affected than the small intestine. Of the colon any part may enter upon the spastic state, but the first and last parts are particularly prone to be so affected. It follows that the resulting symptoms appear in the anatomical regions which are associated with the appendix and the sigmoid flexure respectively. There is good reason to believe that this spasm is often accompanied by a simultaneous inhibition at other points of the bowel, so that normal peristalsis is completely perverted.

The following case may be taken as an example of severe enterospasm, coupled with, and in part responsible for, attacks of obstinate constipation.

Case 2. Attacks of Enterospasm spread over Forty Years. Abdominal Exploration.

A man aged 54, insurance agent, was admitted into St. Thomas's Hospital in November, 1900. He presented an extraordinary history of intermittent constipation. He remembered that when he was a lad he was laid up with an attack of constipation, vomiting, abdominal pain and distension. After this there was a period of fourteen years during which the bowels acted regularly, or, at any rate, any constipation was slight and easily managed. At the age of 27 he had a similar attack, and spent some weeks in a hospital under treatment. Every three or four years since then he had had an attack of the same kind, each one lasting two or three months. All manner of purgatives would fail, the abdomen became distended, and enemata alone could produce any effect. In one of these the question of exploratory operation was put to him and declined. Between the attacks constipation had been slight or absent.

He came into hospital on account of one of these attacks, which was already of longer duration than any that he had had before. It began in July. The onset was gradual. He began to fail to get a daily action of the bowels, and had recourse, as usual, to purgatives. By their means he obtained at first watery stools, but enemata soon became necessary. The abdomen became distended from time to time, and pain was felt. Latterly the distension had persisted. He declared that he was seldom free from pain, which was aggravated by taking food and by defaecation. He seldom passed a day without vomiting. He had been confined to bed for some two months, living mainly on beef-tea and fish, and was of opinion that he had lost 2 st. in weight.

His work seemed to entail much worry, and resulted in a rather precarious livelihood. He was clearly a nervous man, easily worried and depressed, and inclined to prefer the gloomy side of all things, including his own ailments; but it was a sober, hard-working life that he led.

On examination he was seen to be ill-nourished, but not pale or cachectic. His weight was 8 st. 12 lb.; it should have been 11 st. He was depressed and careworn. The abdomen was uniformly distended, measuring 31 in. at the umbilicus. No intestinal coils or peristaltic movements were visible, and very little peristalsis could be heard with the stethoscope. It was uniformly resistant everywhere to the touch. It seemed slightly tender in all parts, but he invariably winced when deep pressure was made over the left iliac fossa. Normal resonance was obtained everywhere. The rectum was thrown into folds, not capacious, and empty but for a few small scybala. The tongue was large, flabby, and coated with dirty white fur. There was no sign of disease elsewhere.

Between November 23rd and December 22nd there was little change to record. The bowels could just be induced to act by enemata, but the result was seldom satisfactory. Castor oil would fail sometimes: sometimes it would produce several small stools, in which pellets of mucus were seen. He was very unwilling to take it, owing to the pain which resulted. He was frequently sick, and a milk diet seemed to suit him best, as he had no appetite. The abdomen became more distended, reaching 33½ in. in circumference, and it was singularly hard, though normally resonant in all parts. The tenderness over the descending colon never varied. He slept badly, complained much of headache, and was always gloomy and morose. It is noteworthy that the pain was not of the paroxysmal character which occurs in mechanical obstruction of the bowels. It seemed rather to be a nearly continuous sense of discomfort or tightness, temporarily made worse by the taking of food and by defaecation.

The problem, then, was to determine the cause of such a constipation with great abdominal distension, which could occur thus in definite attacks spread over forty years with intervening periods of comparative comfort. My surgical colleague, Mr. Makins, opened the abdomen below the umbilicus in the middle line. The small bowel was found to be distended and hyperaemic, but neither the distension nor the redness approached to the conditions generally found in cases of actual obstruction. There was no sign of peritonitis, past or present, no adhesions, and no new growth or twisting. The clue to the understanding of the symptoms was found in the state (1) of 4 in. of the bowel at the junction of descending colon and sigmoid flexure, and (2) of about 7 in. of the small intestine. This portion of the colon was of a pale-grey colour, bloodless, strongly contracted and narrowed down to the size of a man's forefinger. The narrowed part passed abruptly into the normal parts above and below. The affected section of the small intestine presented the same appearance. It was pale, contracted, and narrowed, when flattened out being about ⅝ in. in breadth. The line of demarcation of this contracted part from the distended and reddened bowel above and below was sharply defined, but there was no such strangulation line as would indicate previous incarceration or twisting, and in fact this part of the bowel was discovered lying free in a central position in the abdomen. During manipulation of the contracted bowel gas was forced into it from the distended part, with the result that it gradually resumed under our eyes its normal size and normal colour. But before the abdomen was closed a small part of the previously-affected section began again to become narrowed and bloodless.

He remained in the hospital for six weeks after this, and, on the whole, his condition improved. He gained some weight, the vomiting ceased, and he got back to an ordinary diet. But the bowels remained a source of trouble, enemata and castor oil being necessary from time to time, and he never owned to being free from abdominal discomfort, although the distension subsided. He was treated with valerianate of zinc, electricity, and massage. He continued to improve slowly after leaving the hospital, but he has had subsequent similar attacks.

One can hardly doubt that the trouble in this patient arose from enterospasm, occurring here and there in large and small intestine, probably combined with simultaneous inhibition at other points, and it seems improbable, considering his long history and his good health in other respects, that there was any structural change in the bowel or elsewhere.

If this explanation of his case is admitted it may be possible to see a similar origin in such a case as is detailed below. But we must then allow that a functional enterospasm may be a sharp and violent process after the fashion of lead colic or a tabetic crisis.

Case 3. Attacks of Acute Enterospasm with some Resemblance to Peritonitis. Abdominal Exploration.

A girl aged 12 was admitted into St. Thomas's Hospital in July, 1905, on the third day of her illness. On July 4th she came away from school in the morning feeling uneasy in the abdomen. In the afternoon she returned to school, but she vomited, and was sent home again. From this time up to admission she was repeatedly sick, and suffered severe pain in the abdomen, so that she frequently screamed at the height of the paroxysms. The bowels were open on the day before the illness, but not afterwards.

It was found that she had had seven or eight similar attacks in the last two years, each one beginning suddenly without discoverable cause and lasting from three to seven days. In each attack the pain had been intense, colicky, not continuous, but in long paroxysms rising and falling. With this there occurred severe vomiting, headache and absolute constipation. Between the attacks as a rule the bowels acted fairly regularly.

On admission on July 7th she looked extremely ill with sunken eyes. The pulse was 100 of low tension, the tongue dry but slightly furred, the lips dry and covered with sordes, the temperature 99.8°, respiration 20, mostly thoracic. The abdomen was uniformly tender and rather rigid, but perhaps there was less rigidity than is common in general peritonitis; the upper half had slight respiratory movement, the lower half was motionless; resonance was normal; some gurgling was heard with the stethoscope, but no persistalsis was seen; it was certainly not distended but rather hollowed as in meningitis.

In spite of the history and the rather odd abdomen, it was thought wise to explore. No sign of disease was found. But the small intestine showed extreme local irritability. The mere handling of it or tapping it with a scalpel was sufficient to excite active contractions. She recovered quickly, but a month later she was back again in hospital with a slighter attack of the same kind.

I have seen three other cases which could be accurately described in the same words. In two of these immediate operation was under discussion, but was fortunately negatived. Recovery was complete in a few days.

If the spastic nature of these cases is admitted, it may be legitimate to ascribe a similar origin to a more common form of abdominal pain of less violence but greater duration. I have the notes of 35 patients, whose sole trouble (large enough in their estimation) was some degree of abdominal pain or discomfort, long continued or occurring in short attacks. Whether the spastic origin of these cases is credited or not, they certainly seem to form a definite clinical picture which can be recognized. I believe that in all of them the seat of the pain was some part of the colon, though there is no absolute proof of this. I have excluded from the list all certain cases of mucous colic, though doubtless some of them were mucus-passers at times.

Of these 35, 6 had had the appendix removed before I saw them, without thereby gaining any relief from their symptoms. Five others had their appendix removed on my recommendation as a precautionary measure. Being wise after the event, I believe that the appendix was innocent, and the colon at fault in all these 11 cases. One man had previously had an exploration of the sigmoid flexure before I saw him, when nothing abnormal was found. In another case I advised against an exploratory operation, but I believe it was subsequently performed with a negative result.

Eighteen were males and 17 were females. Of the latter it is noteworthy that only 3 were married. Of the males all except 2 worked with the head. Among them were 2 bank-managers, 3 clerks, an ironfounder, an accountant, a medical student, and a land agent. Of the females only 1—a music teacher—could be said to have any occupation; the rest had abundance of leisure. The age is curiously constant, and corresponds to the period of life when the inherited temperament is first tested under pressure, and its strength or weakness is revealed. The age of the males ranged from 20 to 46, and that of the females from 21 to 48, but most of the older patients had a history dating back for many years.

Speaking generally, such patients may be intelligent and industrious, but they are none the less emotional. They are neurasthenic in the sense that the nervous power is rapidly exhausted by exertion of body or mind, and is but slowly restored. Secondary depression is a common outcome, and hypochondriasis is often within sight. Eight of these patients were noted as being obviously nervous and depressed. Two were practically hypochondriacs. Some certainly took their trouble calmly, and made the best of it. A few—all women—betrayed some pride in it, and used superlatives in describing their symptoms.

As regards their past history, it is curious that two men had had temporary loss of power in one limb, presumably functional. One of these said that at the age of 24 he "broke down altogether," and was obliged to take a long rest. One man, who had at one time apparently recovered, relapsed at once on the sudden death of a brother-in-law. Two men were liable to real migraine. One female, I believe, had become addicted to morphine. All of them had a long history of constipation, either continuous for years or in attacks. Some seemed to live by enemata alone, and were never parted from the necessary apparatus. With one exception the constipation was most obstinate when the pain or discomfort was at its worst. The exception was a female, who during the attacks of pain passed several (up to five a day) small pencil-shaped stools, narrowed and shaped by anal spasm.

None of them presented any obvious sign of disease apart from the abdominal trouble, though I think that a few of the women had some general visceroptosis. Two were stout, five were of normal weight, and the rest were spare or ill nourished. Most of them had lost weight recently. One man had lost as much as 2 st. in four months, an anxious creature perpetually fearing the worst. Loss of weight in an individual attack is common, and it should not by itself give rise to suspicion of new growth or serious disease.

"Pain" is the word used by these patients. I expect "discomfort" would describe it more accurately. It seems to be commonly a dull ache, easily borne for a time, but as one can well understand becoming less tolerable after a spell of some weeks or months. Two patients used the word "cramp" to describe it. One called it a "stitch." One spoke of "wind that would never pass," and another of a "weight in the left side." Sometimes, however, it is more acute, approaching nearer to the condition described in Case 3. One woman said that she "had walked about moaning." Two or three acute attacks of pain in the right iliac fossa, although they may be unaccompanied by fever or any real illness, must always arouse a suspicion of appendicitis. The women seemed to suffer most because of their lack of occupation. Some men could forget it in work or play. As a rule exercise does not aggravate it, but is often beneficial by engaging the attention. One man forgot it when he was riding. Another was worried by it in the early morning, but he played golf comfortably through the rest of the day. But if it is severe and is of long duration, a man may give up exercise through lack of energy and inclination. One man of sedentary occupation was most uncomfortable (discomfort in the right iliac fossa) when he was sitting at a desk leaning forward. Several said that they could not lie at night on the affected side. It is perfectly clear—some intelligent patients had noticed it—that an attack may be precipitated by shock, anxiety, worry, or even a run of work under pressure. I could find no other exciting cause, though one woman said she always expected an attack when the wind was in the east.

As regards the duration of the trouble, the extremes read thus: One man had had bouts of what he called pain in the left iliac fossa, lasting for two or three months at a time, on three or four occasions in the last ten years. When I saw him in this condition, all that part of the left colon that can be grasped was felt as a hard narrow cord. At the other end of the scale comes a young man who had had some three or four attacks of pain in the right iliac fossa in a year, each lasting a few days, apparently not attended with fever, and certainly not with any real feeling of illness. For this his appendix had been excised. When I saw him, some months after the operation, he had just had another attack, at which he expressed some surprise. Often the patient's history of abdominal pain runs into years. The longest individual continuous attack had lasted for eight months, during which the patient (clearly truthful) said he had hardly passed a day without being conscious of some discomfort in the right iliac fossa. Whether the attack is long or short, dull ache or sharp pain, right-sided or left-sided, the whole group seems to hang together as owning one cause.

In 12 cases the pain or ache was always confined to the left iliac fossa or left flank. In 13 it was similarly placed on the right side. In 4 cases it was central. In 2 cases it was located about the umbilicus at the beginning of an attack, and subsequently shifted to the left flank. One patient said that it always "travelled" in this path. In 4 cases it was sometimes on the right side, and sometimes on the left.

As a rule, the discomfort is distinctly relieved by a satisfactory action of the bowels, but such an action is difficult to get, and strong, irritating purgatives aggravate it. Sometimes defaecation is said to be painful; but whether this is so or not, it entails much straining and muscular effort. The stools are commonly narrowed into pencils or ribbons—the effect, I believe, more of anal than of colonic spasm. Pressure, or at any rate massage, will sometimes give relief in the slighter cases, and a hot bath may have a great effect. It is not uncommon for a patient to be aroused early in the morning by the left-sided discomfort. The normal act of defaecation is essentially a reflex movement, which, though it is controlled by the will, is started by the entrance of faecal matter into the rectum. During an attack this class of patient experiences no such rectal stimulus. He has no natural desire whatever to go to stool. The place of the normal rectal sensation is taken by a feeling of discomfort and tightness in the left iliac fossa, and the rectum is empty and thrown into folds, often with spasm of the sphincter. A very common complaint is the want of any of the natural sense of relief that should follow an action of the bowels. Even if a fair result is obtained, the patient is left with the feeling that the process is not over, and subsequent futile attempts at evacuation are made. In the worst cases nausea is felt occasionally, but there is seldom any vomiting.

In offering evidence that the trouble in these patients is indeed due to spasm of the bowel, it must be confessed that there is no proof of such an origin; but the findings in Case II make it probable. Further, in nearly all of these cases some part of the colon can be felt as a hard cord about the size of a man's forefinger. This is more common in the left iliac fossa than elsewhere. It is a most striking physical sign when it is met with above the umbilicus, the affected part being presumably the transverse colon, but I have found this only on one occasion. It occurs also in the right flank in association with right-sided pain, and when this is the case the caecum is often greatly distended, doughy, or squashy, so that its complete outline can be traced under the palm of the hand. Here as elsewhere the affected part is tender on pressure, but if it is situated on the right side there is not the definite wincing on deep pressure such as occurs at McBurney's point in disease of the appendix. When it is on the left side, the spastic part of the colon is very easily felt. It may end abruptly above and below, or its two extremities may pass beyond reach into the flank and pelvis respectively. It can be rolled from side to side. It is usually tender. It varies in hardness and distinctness from day to day. It may persist for days together unaltered, or may disappear suddenly. I have never felt the contracted part to undergo any such alteration in size or hardness under examination, as is common in intussusception and not uncommon in the portion of bowel just above a growth.

In a few cases, which there is no reason to separate from the others, no contracted bowel could be felt. But if a patient is kept under observation contraction can be felt on one day and not on another.

The bowel above the spastic part does not apparently become dilated. There is reason to believe that its action is inhibited. The contracted colon should be regarded only as a palpable evidence of disordered peristalsis and not as a mechanical cause of obstruction. Spasm will produce tumour, pain, loss of weight, and ill-health, but not the whole train of symptoms associated with intestinal obstruction. No peristalsis is seen or felt, and the abdomen is seldom distended. These points may be of use, because it is possible to confound a spastic left colon with a growth of the sigmoid flexure. One of my cases had been explored before I saw him, presumably with this idea. I had arranged for an exploration in a similar case in St. Thomas's Hospital, never doubting that there was a growth, but in the interval the tumour disappeared. Another case is worth mentioning, though it cannot be regarded as a purely functional spasm, inasmuch as there was an ulcer in the rectum.

Case 4. Spastic Colon. Abdominal Exploration.

A woman, aged 53, was admitted into St. Thomas's Hospital in December, 1903. In August of that year she began to experience pain in the left iliac fossa. She described it as feeling at first like a stitch. It was aggravated by walking and relieved by rest, so that she spent October and November mostly in bed. The pain increased in severity and it was not diminished by a pessimistic doctor who told her that she had cancer. Constipation was troublesome throughout the illness. There was no pain on defaecation, but relief was experienced. She was occasionally sick. She was a grey-haired, careworn woman, and she had lost 9 lb. of weight in four months. The abdomen was flaccid and easy to examine. In the left iliac fossa was a hard bar about 3 in. in length by 1 in. in breadth, always tender and nearly always present and well defined. The most free evacuation we could procure with castor oil and enemata produced no alteration in it. It seemed clear to me that the tumour was a spastic colon. But after a stay in hospital of a month, the condition was unchanged, the loss of weight continued, and the pain increased in severity, reaching occasionally such a degree that she cried aloud with it and morphine became necessary. Mr. Wallace, therefore, at my request, explored the left iliac fossa, with a negative result. But a small ulcer was found in the rectum 1½ in. above the anus, which may have played a part in producing the spasm, and this was excised. She improved slowly, and by May, 1904, was apparently well.

SUMMARY.

Whether the spastic nature of these cases is allowed or not, I think the following summary may be maintained as true:

1. That it is not uncommon for men and women in equal proportions to begin in early adult life to suffer from abdominal pain.
2. That from the absence of all evidence of organic disease and the long duration of many of the cases, it is unlikely that there is any structural change in the intestine or elsewhere.
3. That such patients are neurotic or neurasthenic, and that the abdominal trouble varies directly with the mental state.
4. That the pain may occur in short, sharp attacks; or may last for months at a time as an ache or discomfort.
5. That, whether it is short and sharp, or long and wearing, the pain is usually seated in the right or left iliac fossa or the immediate neighbourhood.
6. That in both situations the pain may lead to the idea that more serious disease is present, as affecting chiefly the appendix, and to a less extent the sigmoid flexure.

Dealing only with this spasm-pain when it occurs on the right side and its distinction from appendicitis, we have little concern with a real attack of local appendicular peritonitis with fever. The distinction here is easily made. Doubt only arises when the patient presents himself for an opinion as to the advisability of ridding himself of his appendix, and in coming to a decision we have to rely entirely on his own story, no verified details of the attack being available.

The chief difficulty lies in distinguishing between the spastic pain and those attacks of pain or uneasy sensations in the right iliac fossa which undoubtedly occur in connexion with a diseased appendix, before ever the peritoneum has become affected. Even in these cases a few words from a doctor who has observed an attack and knows its characters are worth more than an hour's talk with the patient. It is in these cases that the appendix is sometimes removed, and thereafter the symptoms have been found to continue unaltered. It would be a gain if only it were generally allowed that not all pain in the right side is due to disease of the appendix, but may have such a comparatively harmless nature as is here suggested. That position being reached, I believe a correct diagnosis would be arrived at more uniformly than is now the case if the past history as well as the story of a recent attack were minutely investigated. The true nature might be realized from such points as the long duration of the pain or discomfort, the circumstances of its coming and going, the complete absence of fever, a similar trouble on the left side at some earlier date, the observation of mucus passing, and the tangible evidence of colon spasm.

Though excision of the appendix is sometimes performed unnecessarily, as is shown by the subsequent recurrence of pain, it does not follow that in all such cases the wrong course has been pursued. One may feel fairly confident that a right-sided pain is of spastic origin and not due to disease, yet it may be wise to remove the appendix. All the circumstances must be considered. If the patient is so placed as to be able to lead a healthy life under observation, it may be perfectly safe to wait. Further observation will certainly make the case clear, though passive waiting while a doctor makes up his mind is seldom appreciated by the patient. If, on the other hand, he lives out of the reach of reasonably skilled attention, it may be wiser to be on the safe side and remove the appendix. The work and occupation of the patient must likewise be considered. Also, there is no disguising the fact that patients exist whose intelligence is of such an order that if suspicion has once been cast upon the state of their appendix they will not rest satisfied until it is excised. Finally, in cases in which the pain is probably of the functional kind, and yet the possibility of appendix disease cannot be excluded, it is certainly helpful to the physician if the appendix has already been removed. In carrying out his course of treatment he can then act more freely than if a doubtful appendix were still present.

THE Board of Education have had under consideration the questions connected with the attendance at public elementary schools of children under 5 years of age. In view of the many difficulties which the matter presents, it has been decided to reconsider the advisability of laying before Parliament the Minute which had been proposed for modifying the system of grants in respect both of children under 5 and of the other scholars in public elementary schools. This decision involves a reconsideration by the Board of the manner in which some measure of relief can best be afforded to those areas where the burden of the education rate is especially heavy.

Clinical Remarks
ON
PELVIC APPENDICITIS
AND THE
IMPORTANCE OF RECTAL EXAMINATION.

By **GEO. E. ARMSTRONG, M.D.,**
SURGEON, MONTREAL GENERAL HOSPITAL, CANADA.

I would include under the term "pelvic appendicitis" those cases in which the diseased area of the appendix lies over or below the brim of the true pelvis, and in which the pelvic peritoneum is primarily involved. I have had to do with a number of such cases and they bear such a close resemblance to each other that I think they form a fairly distinctive group.

Every third-year student knows the location of the so-called McBurney's point, and the importance attached to it clinically. Those who see a large number of cases soon learn that the point of maximum tenderness is by no means fixed, but is determined by the locus of the disease. The location of the diseased appendix in any case is indicated by the point or region of maximum tenderness, that is, if the case is examined early while the disease is limited to the appendix and its immediate neighbourhood. This knowledge is constantly made use of at the bedside in making diagnoses. For instance, if the tenderness is more marked in the loin, one may take it as evidence that the appendix is turned upwards behind the caecum; if near the median line, that the appendix lies more internally than usual. It seems necessary to find a tender point over the presumably diseased appendix to enable one to make a diagnosis of appendicitis, and in the early stage while the disease is localized the other symptoms of appendicitis without a point of tenderness do not generally permit or warrant a definite diagnosis.

The mortality is high in the group of cases I have designated by the term "pelvic appendicitis." One, and the chief, reason for this high mortality is failure to make the diagnosis early. The misleading feature in these cases is absence of a characteristically tender point. Pressure over McBurney's point does not cause pain, nor does pressure over any of the more usual situations. Only deep pressure over the hypogastric and pelvic regions causes distress. The reason is that the distal and diseased end of the appendix lies just over the pelvic brim, and is not easily directly pressed upon. In the early stage, when the disease is confined to the appendix only, deep pressure touches the sensitive spot, and if now a careful examination be made per rectum and by conjoined manipulation, an indefinite suspicion may be changed into a positive diagnosis.

In looking over the symptoms and diagnostic points of acute appendicitis, as enumerated in the surgical textbooks published in English, German, or French, I am surprised at the infrequency of mention and insistence upon a rectal and bimanual examination as a routine measure in physical examination. I think it should certainly be practised in all doubtful cases of appendicitis and in all obscure abdominal conditions. Another striking symptom in this group of cases is the facial expression. In two instances it was the most prominent symptom present, the temperature and pulse being normal, and the apparent abdominal condition not one to cause alarm; indeed, the expression was so drawn and anxious that I have kept these patients in bed when otherwise they might have been allowed up.

I know of no group of cases that give such surprises to the attendants as this of pelvic appendicitis. The diagnosis of appendicitis may have been given as the probable one; as the twelve-hour intervals pass the patient improves, and the diagnosis of appendicitis may be questioned or abandoned. On the fourth, fifth, or sixth day, without warning, there occurs accession of pain, and there rapidly develops a generalized septic peritonitis, and almost before the attendant and family realize it the patient is in a hopeless state, with abdominal distension, a rapid shabby pulse, cold extremities, cold perspiration, and vomiting. The only chance of saving them is immediate operation the moment the evidences of spreading develop. The progress of the infection is so rapid that, as a rule, relief comes sufficiently early only in those under observation in hospital wards.

One evening a young woman of 17 was admitted to one of my wards with some abdominal pain and more or less general abdominal tenderness, not especially marked at any one point. These symptoms had been present for five days. The diagnosis outside had been appendicitis. There were no urgent symptoms, and ice bags were placed over the abdomen. At my visit on the following day I was told that the patient was much better and would not need operation. The temperature was 99.5°, and the pulse 104. The upper part of the abdomen was soft and not tender; there was no particular tenderness over McBurney's point. Deep pressure over the hypogastric region caused a feeling of distress and was resisted. On passing the fingers into the rectum and pressing forward, the girl winced and complained that it hurt her. Bimanual examination was distinctly painful. I operated at once and found the tip of a rather long appendix hanging over the brim of the pelvis, gangrenous and perforated, and lying in a small walled-off pocket of pus. The appendix was removed, the pus wiped away, and the patient made a good recovery.

Without a rectal and bimanual examination this case might quite likely have drifted along until the little walled-off abscess ruptured, and then it is a question if her life would have been saved. There were at the time no other symptoms present that seemed to call for immediate operation.

On February 4th, 1887, a young man aged 22 years was admitted to the Montreal General Hospital complaining of griping pain in the abdomen and rectal tenesmus. There was no vomiting. He said it was the same pain that he had had a year before during an attack of typhoid fever. He was sent to a medical ward. On admission there was slight, if any, tenderness in the right iliac region, and no rigidity. The abdomen was somewhat distended and tympanitic. The temperature was 100° F. Three days later I was asked to see him, and found by rectal examination a smooth even mass partially filling the pelvis, and advised operative measures. On the two following days there were frequent passages of small quantities of mucus, with pain down both thighs. He was transferred to the surgical side on February 9th, and I operated at 8 p.m. The pelvis was full of pus held down by intestine, omentum, and adhesions; a small abscess was evacuated at the site of the appendix; the appendix itself was a mass of slough. There was no communication between the small abscess at the site of the appendix and that in the pelvis. The patient made an uninterrupted recovery.

Had not a rectal examination been made I doubt not that this case would have gone on until one or other abscess perforated and infected the peritoneum.

A somewhat similar case was that of a young girl aged 19, admitted to the Montreal General Hospital, February 1st, 1897. She gave a history of having suffered from ill-defined abdominal pain for a period of four days. A little rounding up of the abdomen and moderate tenderness on pressure over the pelvic area were present. Rectal examination found Douglas's pouch filled by a soft elastic swelling, very decidedly tender on pressure. The temperature was normal and the pulse 76. She said that she had vomited a good deal. The facial expression was anxious. On opening the abdomen it was thought at first that an error in diagnosis had been made. I then placed the patient in the Trendelenburg position, and after guarding the abdomen carefully by swabs I gradually approached the mass which I had felt per rectum. Very soon there was an escape of pus, and I found embedded in a small abscess cavity the distal end of a long appendix hanging over the brim, and in a sloughy and gangrenous condition.

Here again rectal examination contributed to the establishment of a diagnosis and to the saving of a life.

A young man, aged 28, was admitted to the General Hospital on November 10th, 1902. A diagnosis of appendicitis had been made by his family physician, Dr. Reddy. Two weeks before he had felt a pain in the epigastrium, which lasted a few minutes and then passed away. On admission, he stated that after breakfast on the previous day he was seized with a sharp pain in the region of the stomach and vomited. He remained in bed all that day. On examination there was present a little tenderness in the epigastrium, to the right of the umbilicus and over the pelvic region. Rectal and bimanual examination was very painful; no definite mass could be made out. The temperature was 101° and the pulse 100. I concurred in the diagnosis, and thought it wise to watch the case for a little, hoping that he would recover from the present attack, when the appendix could be removed with greater safety in the interval. On the third day his temperature became normal and his pulse 82. The abdominal and rectal tenderness had disappeared. The same condition obtained on the fourth and fifth days. When I made my visit on the morning of the sixth day he asked to be allowed up; his temperature was normal and his pulse 72. Pressure over the abdomen and over the appendix caused no pain. By rectal and bimanual examination there was felt high up an indistinct fullness, nothing definite, and he did not complain of my hurting him. The only symptom that caused me any anxiety was his face; it wore an anxious expression. Leaving careful instructions that I was to be called if there was complaint of pain, I went into another ward. In less than half an hour the message came. The man was complaining of severe pain in the lower abdomen. I returned to him at once, and found that now there was very decided tenderness on pressure over the hypogastrium. My first examination had probably precipitated the rupture. As soon as possible I opened the abdomen, and found the end of a long appendix hanging over the brim of the pelvis. In the distal end were two concretions, and on the proximal side of the concretion a small perforation. He made an excellent recovery.

I might report many more illustrative cases. Unfortunately many of these are past relief when admitted to the hospital. This is largely due to the difficulty in diagnosis, and perhaps more to their deceptive course. A small perforation may occur, become walled off by adhesions, and lie in such a position that the usual examination of the abdomen does not detect it. How often the consulting surgeon is told by the family physician that at one visit the patient was to all appearances doing well and without ominous symptoms, and at the next visit evidenced more or less generalized peritonitis, and the patient in a semi-collapsed state!

On December 9th, 1904, I saw in consultation with Dr. W. Grant Stewart, a man 36 years of age, who gave the following history. Two years ago he had typhoid fever. This was followed by a condition thought to be tuberculous peritonitis. He was off work for seven or eight months. He described the onset of the present attack in the following words:

"Three days ago I was trying to lift a piece of machinery by using a plank as a lever, and resting my stomach against it. I was rather sore that evening, but was all right the next day, Wednesday. Early Thursday morning, while in bed, I vomited. Got up at the usual time, took a cup of coffee and a bit of toast, and went to the factory. Did not feel able to work, and started almost at once to return home. On the way I vomited from the rear end of the tramcar."

Dr. Stewart saw him at 5 p.m. on Thursday, and found him complaining of some epigastric pain; no marked tenderness. Temperature and pulse normal. The following morning his condition was much the same; temperature, 99.5°; pulse, 100. In the afternoon there was tenderness on deep pressure lower down over the pelvis; temperature, 100.5°; pulse, 112. When I saw him that evening the abdomen was somewhat rounded up, but there was very little tenderness at any point. Deep pressure over the pelvic region caused some uneasiness. By rectal examination the end of the fingers could feel high up an indistinct sense of a mass, which was tender, and, on pressing forward, he said that it hurt him considerably. There being no improvement in his condition on the following morning (Saturday), Dr. Stewart sent him into the hospital, where he could be kept under observation. At noon, Saturday, I examined him most carefully, and could make out no definite tenderness, except per rectum. There was no vomiting, and he felt much better, and asked for more to eat. There was present only two symptoms, slight abdominal fullness and rectal tenderness—these two symptoms and the clinical history. His temperature was 99° and the pulse 80. There was a good deal of distress in urinating.

I advised him to submit to immediate operation. "Well," he replied, slapping his abdomen, "I seem pretty well here, to have an operation, but I suppose you know best." Students and house-surgeons showed by their facial expression what they hardly cared to say—that I was most radical in advising an immediate operation with so few symptoms. On opening the abdomen I found an unusually long appendix. The proximal two-thirds seemed almost normal; the distal third dipped down over the brim of the pelvis, and was in part gangrenous, and contained a faecal concretion, on the proximal side of which was a small perforation. This diseased end lay in a small walled-off abscess. Perfect recovery.

On Monday, December 26th, 1904, a young man, aged 33, was brought to me by Dr. Edgar of North Hatley. The condition was thought to be appendicitis. The illness was of ten days' duration. There had not been much pain but a good deal of vomiting. He complained of discomfort amounting almost to pain when he vomited. At the onset there had been pretty general abdominal tenderness. Dr. Edgar said, "he had been tender everywhere except over the appendix." On admission to the hospital there was considerable distension of the abdomen, together with a moderate degree of rigidity. The only place where there was any tenderness was on very deep pressure over the pelvic region, and there it was very little indeed. There was certainly no tenderness over the usual situation of the appendix nor in the right loin. Per rectum there could be felt a distinct mass which was exceedingly tender. The slightest pressure of the fingers forward caused him to complain loudly and draw away.

Operation on the tenth day of illness and twenty-four hours after recurrence of sharp pain. When I opened the abdomen with the patient in the Trendelenburg position, and the intestines pushed out of the way, I could see nothing abnormal on looking into the pelvis except that there were two coils of small intestine which, although somewhat reddened and rather distended, were evidently adherent below. After carefully protecting the general peritoneal cavity I gradually separated the coils of intestine from below and found a perforated gangrenous appendix lying in an abscess cavity behind the bladder.

In this case the caecum had slid down and become a pelvic organ. Pain and distress during micturition, especially towards the end of the act, are very generally complained of in this condition. Recovery is sometimes slow. The abscess walls are largely those of the true pelvis and are fixed and unyielding.

These clinical histories resemble each other in several particulars. There is the usual sudden onset of pain, and generally some nausea and perhaps vomiting. The pain is often more generalized than is usually the case. There will be only moderate elevation of temperature and acceleration of pulse. Tenderness on pressure, not marked, is complained of more when deep pressure is made over the pelvic region than over the more usual situations of the appendix. The diagnosis at the onset is probably appendicitis, but the attendant does not feel certain about it. In twenty-four or forty-eight hours the symptoms have improved, and the diagnosis becomes still more uncertain. Then there occurs quite suddenly after a period of two, three, or four days of an apparently normal convalescence, a sharp recrudescence, peritonitis develops, generally rapidly, and the condition of the patient soon becomes alarming.

My special plea is that a routine rectal and bimanual examination by fully establishing an uncertain diagnosis would suggest earlier operative treatment and lower the death-rate in this variety of disease.

In operating upon these cases I have found the Trendelenburg position of great value. The small intestines can be carefully protected and the deep pelvic cavity brought into view. In this way one is able to proceed to the different stages of the operation with much more assurance of not doing injury to the already inflamed parts and the infected area can be made clean with greater precision and certainty. Drainage is always necessary. Convalescence is usually slow. In only two instances have I thought it necessary to establish dependent drainage through the vagina. In one of these cases another surgeon had operated six weeks before and had carried a drainage tube from the bottom of the pelvis up through his lateral abdominal incision. A considerable cavity persisted with a good deal of purulent discharge. At his request and with his assistance I passed a tube up through the vault of the vagina into the pelvic cavity. We both thought that the dependent drainage was an advantage, but the cavity did not close entirely until three months later.

DIFFUSE PERITONITIS FROM PERFORATION OF THE APPENDIX: ITS DIAGNOSIS AND TREATMENT, WITH A RECORD OF 14 CASES WITH 12 RECOVERIES.

By CHARLES A. MORTON, F.R.C.S.,

PROFESSOR OF SURGERY IN UNIVERSITY COLLEGE, BRISTOL, SURGEON TO THE BRISTOL GENERAL HOSPITAL AND THE HOSPITAL FOR CHILDREN AND WOMEN.

IN the *Bristol Medico-Chirurgical Journal* a few years ago[1] I published a paper on 40 cases of appendicitis, and in the September[2] number of the same journal one based on the records of 115 more cases. In the last series were 14 cases of operation for diffuse peritonitis and 6 of general peritonitis, and I purpose in this paper to give an abstract of the cases of diffuse peritonitis, and to make some remarks on their diagnosis and treatment. The first case was fully reported in the *Lancet* for 1901,[3] and Cases III and IV in the BRITISH MEDICAL JOURNAL for 1902.[4]

It may be asked at once, What is the difference between diffuse peritonitis and general peritonitis? I think the difference is a very important one. By general peritonitis I mean cases in which the whole peritoneal cavity is involved; by diffuse peritonitis I mean a peritonitis spreading widely in the lower abdomen, and not merely suppuration localized just round the appendix. Such cases are frequently called general peritonitis, but this is misleading, for if once the upper abdomen is involved the prognosis is much worse. In all my cases of diffuse peritonitis the infection was widespread, usually involving the pelvis and often the whole lower abdomen, without localization of the pus, yet it would not be correct to call them cases of general peritonitis. In my 6 cases of general peritonitis the mortality was very great; only 1 case recovered. There are every now and again cases in which from the very first the whole peritoneal cavity is involved, but in many the peritonitis is for a time confined to the lower part. Such cases I call diffuse peritonitis, and it should be our aim to check the spread of the infection before the upper abdomen is reached.

Case I.

Mr. G., aged 44. Illness began December 4th, 1900, with right-sided abdominal pain, and this soon became very severe. and later on extended into the perineum and penis. There was no vomiting at any time. I saw him in consultation with Dr. Barrett Roue on December 4th. On the 6th there was more diffused abdominal distension and tenderness, though the pulse was only 80, and the temperature had never risen above 100°, and I decided to operate. Earlier in the case there had been rigidity and tenderness in the appendix region only. There was a history of three previous attacks within a year. On dividing the external oblique aponeurosis I found much oedema in the connective tissue beneath. On dividing the peritoneum a very red and distended caecum presented, and from beneath this I evacuated a small collection of pus, which was only retained there by the presence of surrounding distended coils of intestine. I next passed a sponge on a holder down into the true pelvis, and on withdrawing it a large quantity of thick pus escaped from the pelvis, which was then thoroughly sponged out. All the coils of intestine which presented in the wound were very red and had exudation of lymph on them. The appendix was perforated close to its attachment to the caecum, and I removed it. It was almost free from adhesions. A very long glass drainage tube was placed in the pelvis, another in the right loin, and a small one against the stump of the appendix, and gauze wicks were placed in the tubes. With rectal feeding only, for forty-eight hours, and occasional hot turpentine enemata, he progressed satisfactorily. The glass drainage tubes were changed for rubber ones, and these were left out on the fifth day. A few weeks after the operation recovery was complete.

Case II.

Mr. N., aged 25. Seen with Dr. McKenzie, March 31st, 1901, on the sixth day of his illness. Pain severe at first, had continued, and there had been occasional vomiting. There was general abdominal distension and tenderness, and increased resistance in the lower part, but no lump or special tenderness in the appendix region; but per rectum there was a soft tender bulging. He was removed to the hospital, and I operated a few hours after first seeing him. His pulse was then 128, and he was inclined to get livid at times. I made the incision I usually make in such cases at the outer border of the rectus, low down, and found pus in the peritoneal cavity. I packed a sponge into the wound, and covered it with a clean carbolized towel, and then, after sterilizing the hands, and with clean instruments, made an incision in the linea alba above the umbilicus, to see if the upper abdomen was also affected. I did not find it involved. On returning to the lower abdomen I found extensive collections of pus in the right iliac fossa and pelvis, and lymph-covered coils of intestine in all parts. The appendix was completely gangrenous, and was removed. His pulse got worse during the operation, and he had two hypodermic injections of strychnine, but at the end it was much as at the beginning; his colour was very bad. He did not, however, live long after. As there was general abdominal distension and tenderness, and his breathing was interfered with, before operation, even though the higher incision did not reveal peritonitis in the upper abdomen, it is quite possible it was present.

Case III.

L. M., female, aged 26. Seen with Dr. F. Peake, August 25th, 1901, on third day of illness, which commenced with pain across umbilical region, gradually increasing, and then becoming localized to appendix region. Vomiting had continued from the onset. Micturition caused much pain in the lower abdomen. The lower two-thirds of the abdomen was distended, tympanitic and very tender, and the breathing was entirely thoracic. Pulse 100 and fairly good. She was at the time I saw her in much pain, and the face was drawn and anxious. She was removed to the hospital, and I operated the same day. On opening the peritoneal cavity by the usual incision at the outer border of the right rectus, pus escaped which had been lying between the abdominal wall and some coils of very red and distended intestine beneath; much stinking pus was sponged up out of the pelvis, and a perforated appendix which had been lying over the pelvic brim, removed. I had to turn out several greatly inflamed and distended coils to get at the appendix. All the coils seen were in this condition. I did not explore the upper abdomen as the physical signs of peritonitis had been confined to the lower two-thirds. Glass drainage tubes containing gauze wicks were inserted in various directions, after thorough sponging out. She was much relieved by the operation, but on the second day after it she had troublesome vomiting, although hot turpentine enemata and rectal feeding only were employed. After this she passed flatus freely and made a steady recovery. A month after the operation the wound was quite superficial only, and she was very well.

Case IV.

A. W., male, aged 21. Seen with Dr. F. Peake October 1st, nine hours after the onset of the pain. The pain had been very severe in the appendix region, and vomiting very frequent, but the pain was lessening when I saw him. The right lower abdomen was very rigid and tender; there was no distension, and the rigidity and tenderness were strictly confined to the appendix region, but his breathing was almost entirely thoracic. His pulse was only 80, and his temperature normal. The case seemed to be an ordinary appendicitis, with severe onset. I advised operation, but he would not consent, until the pain became very severe again, and he was admitted to hospital fourteen hours after the onset. By this time the rigidity of the abdominal wall had become general, but there was no distension. Pulse was 112, and temperature had not reached 101°. I operated an hour after admission; on opening the peritoneal cavity free pus lying over the caecum escaped. The caecum was much inflamed and lymph-covered, and a very large quantity of pus was present in the right loin and the pelvis. The small intestine had not become greatly inflamed, but would doubtless in a few hours if the patient had not been operated on then. A perforated appendix, lying on the outer aspect of the caecum, was removed. After thorough sponging, glass drainage tubes with gauze wicks were inserted into the right loin and the pelvis. There was great difficulty in getting a discharge of flatus after the operation, though he was greatly relieved by it. Some vomiting returned on the second night. After repeated doses of calomel and hot turpentine enemata (some of which were retained), he at last began to pass flatus freely, and from this time he steadily improved. He was discharged a month and a few days after the operation, with only a small granulation spot on the scar.

Case V.

W. H., male, aged 21. Pain began across the lower abdomen on the evening of March 6th, 1902, and had been increasing up to the time of admission. It had been more on the right than the left side. There had been no vomiting at any time. Micturition had caused hypogastric pain. He was first seen by Dr. F. Peake on the 9th, and sent by him to me at the hospital the same day. There was no distension of the abdomen, and no special tenderness, and no lump in the appendix region, but the lower third was very tender, and did not move with respiration, and a rectal examination revealed marked tenderness on pressure upwards. Pulse 100, and temperature 100°. Dr. Peake found it 102° earlier in the day. I operated a few hours after admission. There was pus in the pelvis and right loin, and red lymph covered coils of intestine occupied the lower abdomen. The perforated appendix lay in the pelvic brim, and I removed it. An incision in the linea alba did not disclose any peritonitis then. Every precaution was taken as to cleaning hands and using fresh instruments in making this incision. The lower abdomen was thoroughly sponged, and glass drainage tubes with gauze wicks inserted in various directions. The condition of the lower abdomen improved at once, but some distension, tenderness, and rigidity appeared higher up. This also soon subsided. He was fed at first by nutrients, and the usual hot turpentine enemata given to encourage discharge of gas. About a month after the operation he was quite well.

Case VI.

Mr. T., aged 61. Seen in consultation with Dr. Barfield Adams, March 25th, 1903. He had had some pain in the right lower abdomen for about two days, but it had only been very severe that day. There had been no vomiting. The lower abdomen was distended and very hard and tender, and did not move with respiration. Earlier in the day, before the pain became so very severe, Dr. Adams had felt a lump in the right iliac region. Pulse 100, and temperature never above 100°. Operation was undertaken six hours after onset of the very severe pain. As the rigidity of the abdominal wall disappeared under the anaesthesia the lump could be again felt. On opening the peritoneal cavity pus escaped and more was sponged out of the pelvis. All the coils of intestine seen were inflamed and distended, and around the perforated appendix they were lymph-covered. The lump had been formed by some thickened omentum. The appendix was removed, and the usual sponging and drainage carried out. He did well from the time of the operation, and made a good recovery in about a month from that date. The usual rectal feeding and hot turpentine enemata were employed during the first few days after the operation.

Case VII.

W. L., male, aged 19. Admitted to General Hospital at midnight on May 2nd, 1903, with a history of two days' illness. Pain at first all over the abdomen, had become localized to the appendix region, and had increased from the onset. He had only vomited once after taking some brandy. I saw him first at 1 a.m. next day, and found the whole abdomen rigid and tender, and slightly distended, and the lower part did not move with respiration; pulse 96, temperature 99°. I operated at 2 p.m. As the abdominal wall relaxed under the anaesthetic a lump could be felt in the right iliac fossa. On opening the abdomen the condition present in most of these cases was found, free pus escaped, more was sponged out of the pelvis and the right loin, the coils of intestine seen were much inflamed, and the appendix was found perforated, and removed. An incision above the umbilicus did not reveal any infection of the upper abdomen. The sponging of the lower abdomen, and insertion of glass drainage tubes with wicks was carried out. The tenderness and rigidity of the abdomen did not return after the operation, but the distension became very great, though some flatus was passed, and there was not much sickness. However, he died on the third day after operation, and great distension of all the coils was found, with the exception of a few dark ones in his pelvis. No cause for the mechanical obstruction was found. There had been no spread of the peritonitis to the upper abdomen.

CASE VIII.

A. C., female, aged 43, was sent to me at the General Hospital, July 31st, 1903, by Dr. Brew of Chew Magna. There had been increasing pain in the right lower abdomen for three days, but no vomiting. There was tenderness and rigidity in the appendix region, and very little general distension was present. Pulse, 100; temperature, 100°. There was nothing to indicate more than a localized appendicitis. A vaginal examination only revealed some tenderness on movement of the cervix and none on pressure in the right lateral fornix, nor could any tenderness be made out per rectum. On opening the abdomen pus escaped, and was sponged up from all parts of the lower abdomen and pelvis, and the coils of intestine were inflamed and lymph-covered. The top of the appendix lay down in the pelvis and was gangrenous and perforated, and I removed it. During recovery from the abdominal condition she got some phlebitis in the left groin, but she was able to go home about a month from the operation. As to whether the scar was sound, or any sinus remained, the notes are not quite clear.

CASE IX.

F. T., aged 10, girl, was admitted to a medical ward at the General Hospital on January 7th, 1904, with the history that she was taken ill the previous night with abdominal pain and vomiting. On admission the pain was general, but tenderness had been localized in the right lower abdomen. I saw her on the 8th; the pain, but not the vomiting, had continued, and the child was frequently moaning with it. Pulse, 130; temperature, 102°. The whole belly was very tender, and the lower part was distended, but there was not any marked rigidity anywhere, and no swelling was present. I operated the same evening, and found free pus in the lower abdomen and pelvis, with inflamed and lymph-covered coils. The appendix lay over the right sacro-iliac joint, and I removed it. It was not perforated, but was inflamed with a patch of lymph in its wall and a sloughy condition of the mucous membrane at its tip. I could satisfy myself in this case that the peritonitis had not extended to the upper abdomen without making a higher incision. A large split rubber drainage tube, containing a gauze wick, was inserted as far as the bottom of the pelvis. The abdominal symptoms quickly subsided after the operation, but suppuration persisted for some time, although the appendix had been removed. She was discharged quite well two months after the operation.

CASE X.

A. S., aged 10, boy, admitted to General Hospital, April 1st, 1904, with history that pain began in the lower abdomen three days before with vomiting. When seen by me soon after admission he gave signs of pain at frequent intervals, and when asked where it was, always pointed to the left side of the lower abdomen. The abdomen was distinctly distended, and moved very little with respiration; the lower two-thirds were rigid and tender, and the tenderness was most marked in the hypogastrium. Pulse, 88; temperature, 100°. I opened the abdomen a few hours after admission and evacuated free purulent fluid, and found inflamed and lymph-covered coils occupying the right lower abdomen and pelvis. The appendix lay on the inner side of the caecum, near the pelvic brim, and around it was a collection of stinking pus, and another such collection in the pelvis. The appendix was removed and, after thorough sponging, split rubber drainage tubes were inserted in various directions in the lower abdomen. There was no return of symptoms after the operation, with the exception of a little secondary rise of temperature from re-collection of pus in the pelvis after the pelvic drainage tube had been removed, but the pus discharged, and he made a slow recovery. He left the hospital on May 20th, with only a small spot of granulation tissue in the scar.

CASE XI.

H. T., aged 21, male, admitted to General Hospital November 10th, 1904, with history that abdominal pain had commenced in the umbilical region thirty-six hours before; later on it had changed its locality to the appendix region. There had been frequent vomiting from the onset of the pain. There had been pain with micturition in the hypogastrium. I saw him an hour after his admission to the hospital. He was in much pain in the appendix region, and tenderness was marked there, but the whole abdomen was board-like and slightly tender, but not distended. There was very little abdominal breathing, and although the abdomen generally was not very tender, pressure upwards, on rectal examination revealed marked tenderness. Pulse, 100; temperature, normal. I operated a few hours later, and on opening the abdomen, free pus escaped, and more was sponged up from the pelvis and left lower abdomen; the coils in the lower abdomen were inflamed and lymph-covered. A separate incision higher up in the abdomen (made with the usual precautions) did not show any extension of the peritonitis to that part. A perforated appendix, lying under the caecum, was removed, and the lower abdomen well sponged out, split rubber drainage tubes with gauze wicks being inserted. An ounce of solid magnesium sulphate dissolved in a little water was injected into the caecum through the stump of the appendix. This injection did not cause any action of the bowels, but he passed flatus freely after the operation. He steadily improved after the operation, and was discharged a few weeks later.

CASE XII.

F. A., female, aged 20, admitted to General Hospital, November 13th, 1904, with a history of five days' pain in the abdomen, which, after the onset, became localized on the left side, and frequent vomiting, nearly every day. The whole abdomen was tightly distended, but not rigid. Tenderness was not very marked anywhere, but was, like the pain, most marked in the left lower abdomen. No swelling could be felt in the abdomen. Rectal examination did not detect any swelling; there was some tenderness of and around the cervix. Temperature 103.4° F., pulse 120. I operated a few hours after admission, and on opening the abdomen pus escaped, and lymph-covered coils were seen to occupy the lower abdomen; a large collection of pus was shut up in Douglas's pouch, and another abscess lay over the right sacro-iliac joint. The appendix lay under the caecum and was perforated. It was removed. Lymph-covered coils were drawn down from even as high as the splenic region, but a sponge on holder introduced into the upper abdomen did not reveal the presence of any pus there. The lower abdomen was well sponged out and freely drained. There was a good deal of shock at the end of the operation. She had very free discharges of flatus and faeces after the operation with hot turpentine enemata, and even without, and her condition very rapidly improved; but her convalescence was protracted, and she was not discharged until the end of January, 1905, and then there was a line of granulation in the scar.

CASE XIII.

P., male, aged 22. Seen with Dr. Kerfoot at 2 p.m., November 23rd, 1904. There was a history of twenty-six hours' diffuse abdominal pain, which had been very severe at times, but had been relieved by opium. He had vomited several times. The whole abdomen was rigid and distended, and there was hardly any abdominal breathing. There was tenderness in the appendix region and a little in the hypogastrium, but no tenderness per rectum. Pulse 104, temperature 101° F. He was admitted to the hospital the same afternoon, and I operated at 5.30 p.m. On opening the abdomen a large quantity of pus flowed out and the coils in the lower abdomen were much distended, red, and lymph-covered, and several had to be turned out to give room for sponging. A perforated appendix was found at the pelvic brim, and was removed. An incision above the umbilicus revealed a little pus just under the incision, but a clean sponge on holder passed into the splenic and hepatic regions came away dry. The whole lower abdomen was thoroughly sponged and drained. Pulse was very bad at the end of the operation, but quickly improved. His condition steadily improved after the operation, and he was discharged early in January, but the scar was not quite sound then. It was so when seen again in March.

CASE XIV.

S. T., male, aged 17, was sent to me at the General Hospital by Dr. F. Peake, and admitted February 9th, 1905, with the history of four days' general abdominal pain and occasional vomiting, but he had continued work as a sailor up to the day before admission, and on that day came by train from Swansea to Bristol. Neither flatus nor motion had passed since the commencement of the pain. The whole abdomen was distended, and the lower two-thirds were both rigid and tender, and the epigastrium was the only part which moved with respiration. Every few minutes he would get a paroxysm of pain, then the abdomen would become board-like. Temperature 102°, pulse 112. There was a very tender hydrocele on the left side, which the boy said had only formed in the last twenty-four hours, though it had done so on several previous occasions. I operated a few hours after admission, evacuated pus from all parts of the lower abdomen, which was occupied by very distended red coils with lymph on them. Several coils had to be turned out before I could get room to reach the appendix, which was found perforated and lying on the inner side of the caecum, and was removed. Several coils of small intestine were firmly adherent to the back of the bladder by recent thick lymph, and one was twisted into a volvulus and was quite empty. There was evidently mechanical obstruction in addition to the peritonitis. I wonder the boy had not been frequently vomiting. He became too bad during the operation to explore the condition of the upper abdomen; the lower abdomen was well sponged and drained. The fluid in the tunica vaginalis would not return into the abdomen with pressure. The prospect just after the operation seemed bad, as faecal vomiting, though not present before operation, set in next day, but it soon ceased, and from that time he passed flatus, and his abdominal condition steadily improved, and he was discharged in six weeks, with only a few patches of superficial granulation tissue in the scar. When seen again, in May, he was quite well and the scar sound. Soon after the operation, with a secondary rise of temperature, he got much pain and inflammatory redness of the left scrotum, and a considerable quantity of pus was evacuated from the left tunica vaginalis. This pus was as offensive as the pus from within the abdomen, and was evidently an infection through a very small patent funicular process.

It may be well to consider in what way the symptoms of this diffuse peritonitis either resemble or differ from those of well-localized appendicitis. In ordinary localized appendicitis the pain often begins as a general abdominal pain, or in the epigastrium, or the umbilical region, and only later on "settles," as the patients express it, in the appendix region; in other cases the pain begins in the appendix region. I may describe the position of the pain in exactly the same way in these cases of diffuse peritonitis. In some a general abdominal pain was present at first, and then "settled" in the appendix region, in others it was from the first in the appendix region, and in others, again, it remained from the first a general abdominal pain. There is, then, nothing distinctive in the position of the pain in these cases, although, if the pain remains as a general abdominal pain, it may perhaps be regarded as an indication of widespread infection, yet we must remember that it may be only a distinction of time, and we know how uncertain this may be. A very large number of cases of appendicitis with and without a widespread infection have general pain for a variable period. It is important to note that in Case XII the pain, which was at first general, became subsequently localized, not in the right, but in the left lower abdomen, and that the tenderness was also most marked there. The appendix lay on the right side, but there was pus in the pelvis, though no special focus of inflammation existed on the left side. In connexion with this case I may mention that I have operated on an appendix abscess on the left side of the abdomen. The appendix lay across the top of the sacrum, and the tip had perforated on the left side.

I should like to call attention to the remarkable position of the pain in Case I. It extended from the abdomen into the perineum and penis. There was pus in the pelvis. I have also known the rectum, the anus, and the testis, as the seat of pain in appendicitis.

In ordinary well localized appendicitis my experience is that in a few cases there is never any vomiting, but that in the majority vomiting occurs at the onset (sometimes with diarrhoea), and that in a small number it lasts for days. This was also so in these cases of diffuse peritonitis. It is a very significant fact that in no less than 4 out of the 14 cases there was no vomiting at any time, and we must not be misled into thinking that without vomiting the case cannot be a grave one. In the other cases the vomiting tended to persist more than it does in ordinary appendicitis. In ordinary well-localized appendicitis there is always some temperature found if a very careful record is kept, and the pulse is usually, though not always, increased in frequency. A pulse remaining at 120 and upwards we regard as a serious indication in an adult. In these 14 cases, when seen by me, there was very little temperature in several, though it may have been higher at an earlier period of the illness; in two adults the pulse was not more than 80, and in a boy of 10 not more than 88, and in some others not more than 100. Hence it is a mistake to suppose that a very serious infection of the peritoneum has not occurred if a patient's pulse is not above 80. This I pointed out when I published the records of the first few cases.

I have not referred in my abstracts of these 14 cases to the condition of the bowels. Sometimes there was absolute constipation, both as to flatus and faeces, but more often not; and we must not regard the passage of flatus and faeces as an indication that peritonitis is not extensive.

Then with regard to the physical conditions. In ordinary well-localized appendicitis the tenderness, if at first almost general, soon becomes localized to the right side of the abdomen, either over the ascending colon, if the appendix happens to lie under it, or to the usual position of the appendix; or, if the appendicitis is pelvic, it may be most marked on a rectal examination. But in these 14 cases in only 2 was tenderness confined to the appendix region; in several it was general, and in the rest over the lower abdomen. This diffusion of the tenderness, then, is of some value as a diagnostic sign. Of course, in estimating the extent of tenderness, we have to be very careful, for some patients say a part is tender when really all they mean is that it is not very comfortable to have any pressure made on it.

General tympanitic distension of the abdomen is rare in well-localized appendicitis, at any rate to a marked extent, though I have seen a very considerable amount present in this condition. In some of the 14 cases it was quite marked but was not present in all, and in a few was present only in the lower abdomen.

In well-localized appendicitis, if rigidity of the belly wall is present at all, it is confined to the region of the inflamed appendix, though this may be anywhere on the right side in the lower two-thirds of the abdomen. Rigidity in these 14 cases was a very variable sign; in several cases it was entirely absent, in some cases quite localized to the appendix region, in others general, and in others, again, only present in the lower abdomen. When present it does not always pass off when anaesthesia is complete enough to cut the skin, and the rest of the abdominal wall is quite relaxed. In most of the cases the abdomen moved with respiration much less than in the normal condition, and in a few hardly moved at all. Increased resistance on palpation is too indefinite to be considered in this analysis of the signs presented by the disease. The condition found on rectal examination is, however, of considerable importance. In one case the great tenderness on pressure upwards in any direction from the rectum largely influenced me in making the diagnosis of a serious diffuse infection. It is very necessary to distinguish any discomfort caused by the introduction of the finger and real tenderness on deep pressure from within the rectum; the latter is often felt as pain in the abdomen.

Then, again, in some of these cases a soft bulging swelling can readily be felt per rectum, in the position of a distended bladder, in the male, and in the same position in the female or in Douglas's pouch; when in the position of the bladder it may be needful to pass a catheter to make quite sure it is not a distended bladder; but it is usually much more tender, and there is not necessarily a dull hypogastric swelling. It is due to coils of inflamed and thickened bowel adherent in the pelvis, and such coils may or may not enclose a collection of pus, and you can rarely be sure from the feel of the swelling, though of course in very late cases it may be clear that fluid is present. On the other hand, in Case VIII a vaginal and rectal examination did not reveal the seriousness of the infection, and in Case XIII there was no tenderness per rectum, so that absence of tenderness per rectum may be present with an extensive pelvic peritonitis. In writing of the position of the pain in these cases of diffuse peritonitis I might have referred to the fact that it is not at all uncommon to get pain in the hypogastrium with micturition in both sexes, just as it is in pelvic peritonitis in women from other causes.

I think it will be evident from what I have written that often some of the classical signs and symptoms of peritonitis may be absent, and signs may be absent even in the lower abdomen; moreover, in Case VIII there was nothing to suggest anything more than well-localized appendicitis, nor in Case IV at the time when I first saw him, and in Case V it was only the marked tenderness over the lower abdomen and per rectum which indicated the serious nature of the case. I am quite certain that all cases of diffuse peritonitis cannot at an early stage be distinguished from well-localized appendicitis; that is, the gravity of the case, the widespread nature of the infection, cannot be told by the signs and symptoms present.

I do not intend to discuss the question of operation in appendicitis in this paper, as I have done so fully in another published last month in the *Bristol*

Medico-Chirurgical Journal, but I must point out that our inability to recognize the wide diffusion of the mischief in some of these cases must be taken into very serious consideration in deciding whether or not to operate on all well-marked cases of acute appendicitis. In none of these cases was there any definite swelling in the appendix region. As has been said by other surgeons, cases without such swelling are often the most serious. In one of the cases the appendix was not actually perforated (Case IX); it was inflamed and had lymph exudation on it, and the mucous membrane at the tip was in a sloughy condition. In another case although there was extensive suppuration in the pelvis yet the perforated appendix lay on the outer side of the caecum, showing that it does not always lie in the more dangerous position on the inner side when this serious infection occurs. In Case XIV the coils of small intestine were so kinked by adhesions to the back of the bladder that actual mechanical obstruction was produced.

I have recently published four other cases[5] of mechanical obstruction associated with appendicitis, but this case was not included, as no vomiting was present at the time of operation, and therefore I thought we could hardly regard the case clinically as one of mechanical obstruction associated with peritonitis, though perhaps it might be so regarded. It is the only case with such a combination of conditions in which I have had a successful result after operation. In the same case it may be worth while to call attention to the occurrence of the suppuration in the tunica vaginalis in connexion with the abdominal suppuration.

The essential conditions of success in dealing with these cases of diffuse peritonitis are early operation, removal of the appendix, thorough sponging, and free drainage. "Early operation" is, perhaps, rather a vague term. I do not mean that unless we operate within twenty-four hours of the onset the patient will die; many of my cases show that operation several days after the onset may succeed; but it is most important to cut short the spread of peritonitis before it reaches the upper abdomen, for once it involves this part I feel sure the prognosis becomes very bad indeed. In all these cases I removed the appendix. There is no fear of breaking down Nature's barriers around the pus, as in cases of well-localized appendicitis. Nature has failed to form any such barrier, and the infection is spreading widely. In general peritonitis flushing may be a more effectual means of cleansing the peritoneum than sponging, but we must not flush these cases, or we may disseminate the pus into the upper abdomen. Our sponging, however, must be most thorough, and our drainage equally so. I have given up the use of glass drainage tubes in these cases. We often have to put long drainage tubes in various directions, and sometimes across the abdomen, and I believe that with glass ones used in this way there is a risk of a coil of gut getting caught under the tube. Possibly this was the cause of the obstruction found *post-mortem* in Case VII. A glass tube extending from an opening in the middle line low down into the pelvis would not cause such obstruction, but a glass tube reaching from an incision in the appendix region into the pelvis might readily do so. I always use a large split rubber tube, such as Mr. Mayo Robson has advocated in certain cases, in abdominal surgery, with a gauze wick inside; fluid, but not bowel or omentum, will readily enter the tube at any part, and they are more quickly prepared than the wick drains advocated by Moris of New York, which I used to use, and which resembled a cigarette made of gauze and oiled-silk "protective." I have given up the practice of injecting a purgative into the bowel through the stump of the appendix, as I find hot turpentine enemata given after the operation more effectual. I regard such enemata as a most important part of the after treatment. They must be as hot as the nurse can comfortably bear her hand in. In the first twenty-four to forty-eight hours after the operation I give nothing but a little water by mouth, and feed the patient by nutrients only, given every four hours, and half an hour before each nutrient is given, one of the hot turpentine enemata are given. The great thing is to get a free discharge of flatus. If you succeed the patient generally goes on well. In some cases, even if you give these enemata and calomel and saline purgatives in large doses, you get no result for some time, and then usually after one or two thoroughly hot turpentine enemata gas at last passes, and the distension and vomiting subside. From the very first moment one of these cases comes under my care, all through the operation, and for many days after, I take care that the body slopes from the chest to the pelvis, in order that pus may not, by gravity at any rate, ascend to the upper abdomen. I usually make an incision through the outer border of the right rectus low down, so that both the pelvis and left lower abdomen, as well as the appendix region, can be reached, and if I fear the peritonitis may already have spread to the upper abdomen I make a separate incision above the umbilicus, in the linea alba, and explore. In order that this may be done without risk of infecting this region if not already infected, certain duplicate instruments and sponges are always prepared, the first wound is carefully covered over with a carbolized towel, and the hands thoroughly washed and carbolized again. It is best at once to close the upper wound and cover it with dry gauze and collodion. I admit that by making such an incision you cannot completely exclude the presence of peritonitis in the upper abdomen, but by pulling on the transverse colon and the stomach, and putting a clean sponge on holder up into the splenic and hepatic regions, you may pretty well tell whether it has reached the upper part or not.

It is impossible to increase the length of this paper by details of the 6 cases of general peritonitis due to disease of the appendix which occurred in the same period of time. In the one which recovered there was what might almost be called an "ascites of pus." Free sponging and drainage, together with removal of the appendix, was carried out. All the fatal cases could probably have been saved if operation in an earlier stage had been possible. In one of the fatal cases the patient was thought by the doctor in charge of the case to have almost recovered from an attack of appendicitis, when an abscess at the pelvic brim ruptured and set up a peritonitis general from the first; in another the patient was supposed by the medical man in charge to be going on quite satisfactorily in an ordinary attack of appendicitis, when general infection occurred; in yet a third the patient was under medical treatment for four days without recognition of the serious condition present, and I only got the chance of operating on the fifth day; in another case three days were lost before operating, as the case was under treatment before admission as one of lead poisoning; and the fifth fatal case was not operated on until the fourth day, as the day before she was supposed by the doctor who attended her to be decidedly better. Several of these cases show how dangerous an infection may occur when the patient either seems to be progressing favourably, or even improving, and should be remembered by those who think it is always easy to tell when a case of appendicitis is serious or is "going wrong."

References.

1 1900, p. 330. 2 1905. 3 Vol. i, p. 1134. 4 Vol. i, p. 225. 5 *Bristol Medico-Chirurgical Journal*, September, 1905, p. 227.

Medical Rolands and Pharmaceutical Olivers.—Two hostile petitions are being circulated in Iowa for signatures, and will later be presented as Bills before the State legislature. The medical practitioners pray that pharmacists be restrained from counter prescribing, while the pharmacists ask that doctors be forbidden to make up prescriptions.

The Care of Epileptics.—At the fifth annual meeting of the National Association for the Study of Epilepsy and its Treatment, held at New York Academy of Medicine on November 29th, 1905, the President of the Association, Dr. W. P. Spratling, of the Craig Colony at Sonyea, New York, said there are in the United States 150,000 sufferers from epilepsy, 14,000 of whom live in the State of New York. Less than 1,100 of that number are at present under treatment in the Craig Colony, where the want of additional accommodation is making itself urgently felt. Epilepsy, said Dr. Spratling, can be cured in a considerable proportion of cases if the disease is taken in time and treated properly for a period of two or three years. A special report was read which showed that satisfactory progress is being made in the United States in the management of epilepsy. Legislative action in the matter has been taken by the States of Ohio, New York, Massachusetts, New Jersey, Pennsylvania, Texas, and Indiana.

Remarks

ON SOME

FUNCTIONS OF THE OMENTUM.*

By RUTHERFORD MORISON, F.R.C.S.,

SENIOR SURGEON, NEWCASTLE-ON-TYNE ROYAL INFIRMARY.

For years I have taught that the omentum has important functions, and to impress this upon students I have called it the "abdominal policeman." There can be no doubt that it travels about in the abdomen with considerable rapidity, and is attracted by some sort of information to neighbourhoods in which mischief is brewing.

The object of this communication is to add a further contribution to the subject.

The accompanying diagrams, for which I am indebted to my colleague, Mr. W. G. Richardson, are intended to illustrate conditions which we have met with in the abdomen, and serve to point out some of the uses of the omentum, and they illustrate my meaning better than I could convey it by a formal paper. Though to all surgeons the facts illustrated must be quite familiar, I am not aware that their importance has previously been fully recognized.

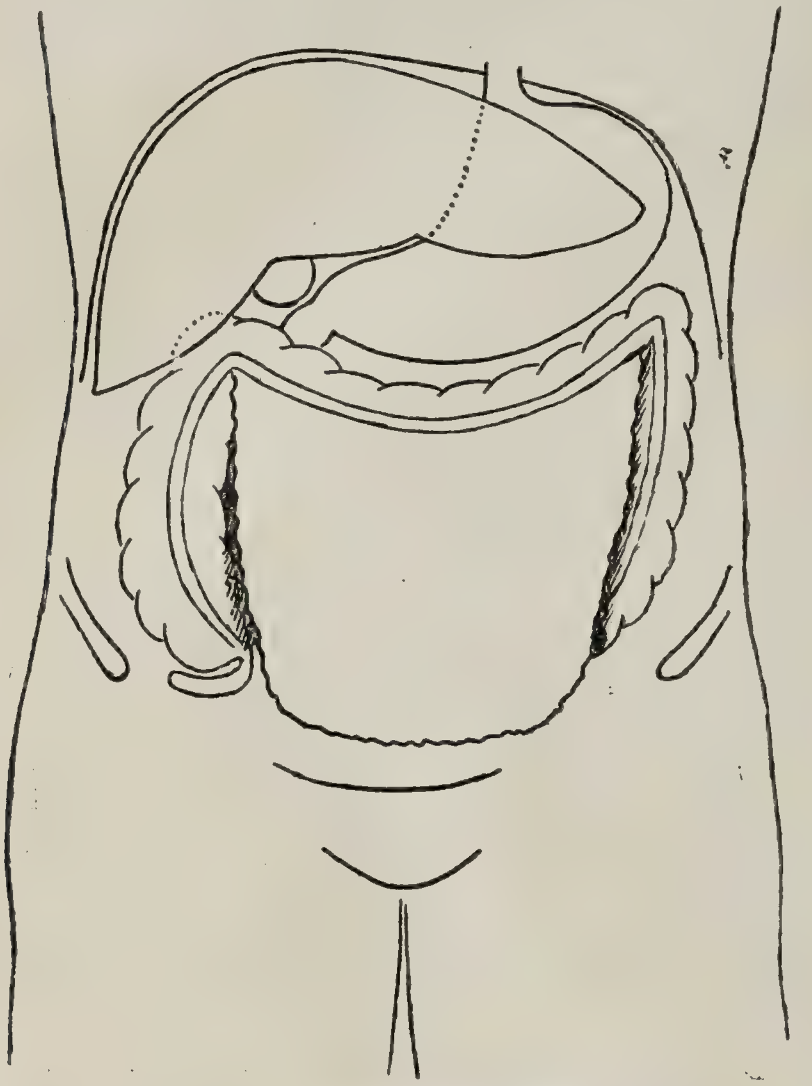


Fig. 1.—Normal omental apron.

Fig. 1 represents the normal omentum forming a protecting pad for the small intestine. Figs. 2, 3, and 4 relate to omentum in hernial sacs. In both inguinal and femoral regions I have found a cork of omentum blocking the hernial openings so firmly that radical cure was effected by its means. More than once when the condition of the patient was so serious as to demand haste I have returned a portion of strangulated bowel from a hernia in such bad condition to the abdomen that leakage from it was to be expected if it had not previously been wrapped up in omentum. The result has justified my confidence in its protecting power.

Fig. 5 illustrates how the omentum does not allow trifling obstacles to interfere with its migrations or its desire to adhere to some special site.

Figs. 8, 9, and 10 show some of the relations of the omentum found in cases of appendicitis, which would be a much more serious disease but for the omentum. I have found the wholly gangrenous appendix entirely wrapped up in omentum, and so shut off from the general peritoneum, and an abscess, which was causing little disturbance, had the perforated appendix in its cavity and its walls entirely composed of omentum. Abscesses in connexion with the vermiform appendix are locked up, and the pus is mostly prevented from escaping into the general peritoneal cavity by the omentum. In this connexion I would like to say that from the appearance of the omentum it is possible to foretell what may be found underneath it. When covering and retaining pus, it is thickened, vascular; in the early stages oedematous, and later firmly adherent.

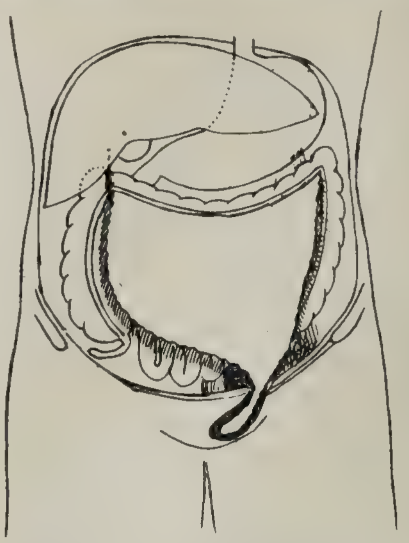


Fig. 2.—Omentum occluding the sac of an inguinal hernia.

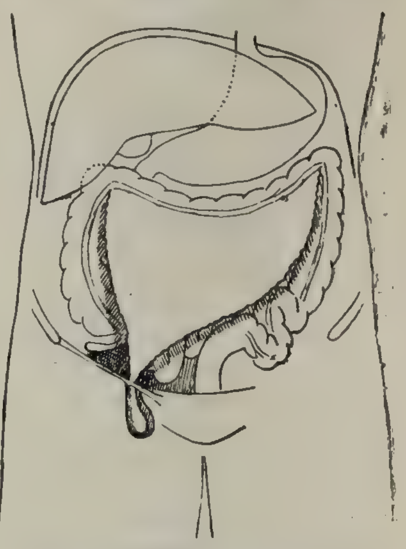


Fig. 3.—Omentum occluding a femoral hernial sac.

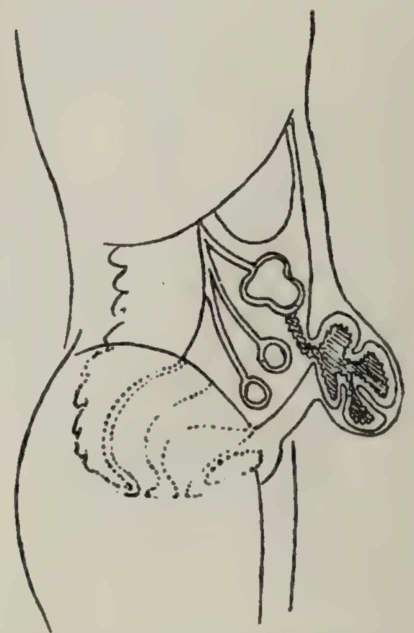


Fig. 4.—Omentum occluding the sac of an umbilical hernia.

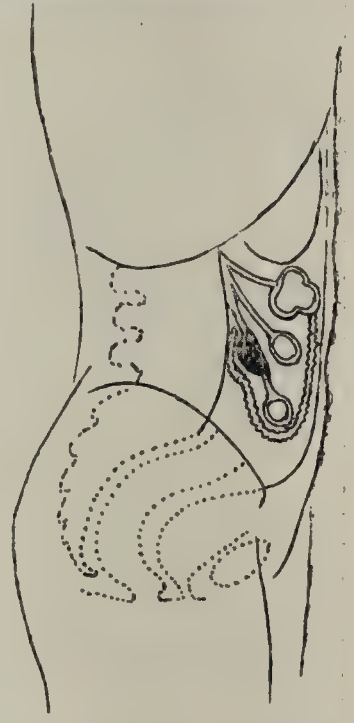


Fig. 5.—Omentum guarding a suppurating gland in the mesentery of the small intestine.

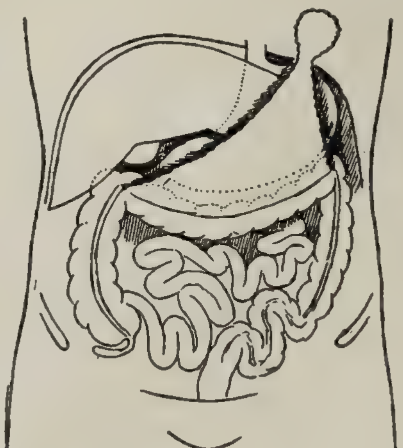


Fig. 6.—Omentum occluding a hole in the diaphragm.

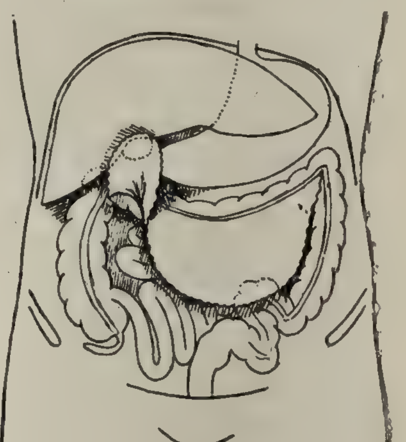


Fig. 7.—Omentum isolating a suppurating gall bladder.

Figs. 11, 12, and 13 explain the not infrequent occurrence of intra-abdominal abscess in connexion with malignant disease of the bowel—a condition which may be disastrous to patient, diagnostician, and operator. In these cases, underneath the adherent omentum and surrounded by pus, the perforated malignant growth will be found.

---

* Read at the Autumn Meeting of the North of England Branch of the British Medical Association.

Fig. 14 represents a condition in which the promptitude of the omentum may be most readily recognized.

In a very few hours after the damage has been inflicted the omentum surrounds and adheres to the injured intestine.

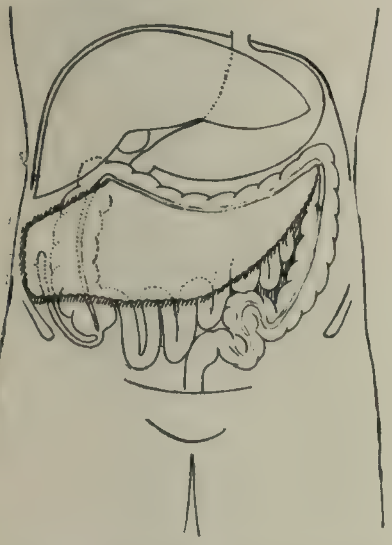


Fig. 8.—Omentum isolating the appendix in the flank.

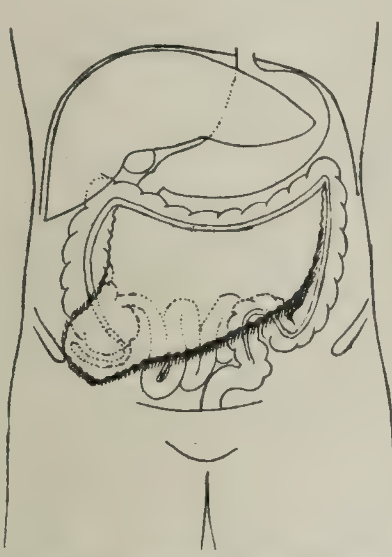


Fig. 9.—Omentum isolating the appendix in the iliac fossa.

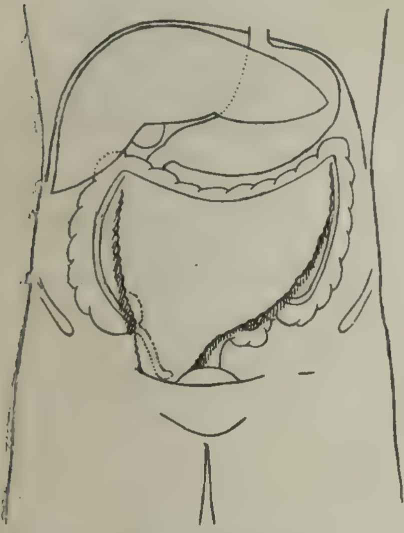


Fig. 10.—Omentum isolating the appendix in pelvis.

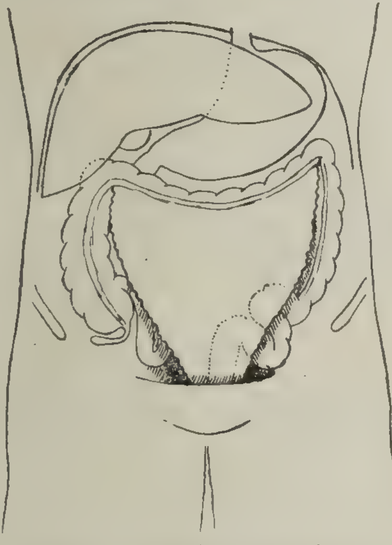


Fig. 11.—Omentum guarding a malignant ulcer of the rectum.

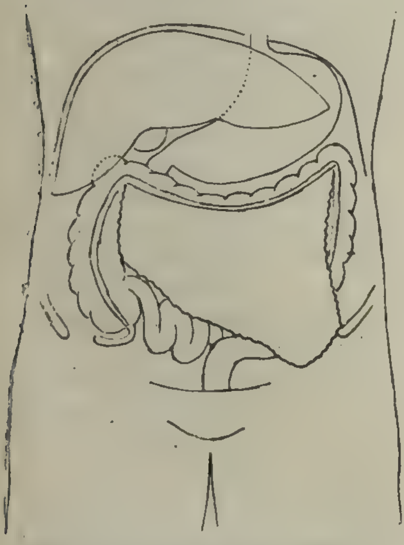


Fig. 12.—Omentum guarding a malignant ulcer of the sigmoid flexure of the colon.

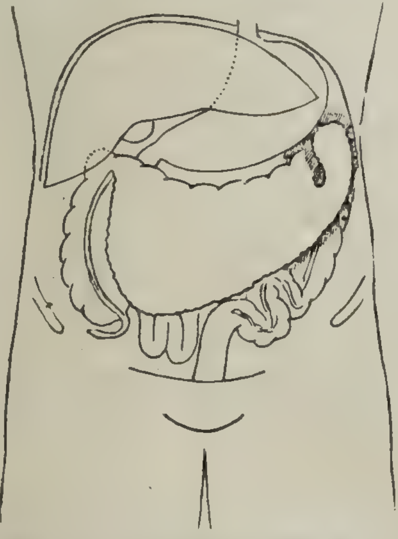


Fig. 13.—Omentum guarding a malignant ulcer of the colon.

Figs. 7, 16, and 17 illustrate the migrating capacity possessed by the omentum, which has to turn upwards to achieve its object. Sufferers from gall stones are as much indebted to the omentum as those with appendicitis, and the appearance of the typical oedematous, vascular, omental bed in which a gangrenous gall bladder lies must have impressed itself upon every surgeon who has seen it.

Fig. 15 covers a multitude of conditions peculiar to the female pelvis. The usual relation of the omentum to ovarian and fibroid tumours is that it lies above and around them. If on opening the abdomen omentum is seen in front of and covering the tumour, it may be taken for granted that there is something wrong.

I have recently operated on a uterine fibroid which seemed to be an exception to this rule. The omentum was spread all over the front of this large tumour, and was not adherent. Section of it after removal proved it to be a striking example of red degeneration. Leaking ectopic gestations and other dangerous pelvic leakages are frequently converted into comparatively harmless and encysted collections by the omentum.

Before concluding I would like to refer shortly to the capacity the omentum seems to specially possess for the formation of new blood vessels.

Not a month ago I operated on a patient with two dermoid ovarian tumours. That of one side possessed a normal pedicle; the second one, equally large and well nourished, was entirely wrapped up in omentum and had no connexion with the pelvis. That it was ovarian was made evident by the discovery of an old stump on one side of the uterus and absence of the ovary from its normal situation. The connexion between the ovary and the omentum was so close as to require for its separation cutting over the greater part, and the vigour of the vascular supply between the two made the operation troublesome.

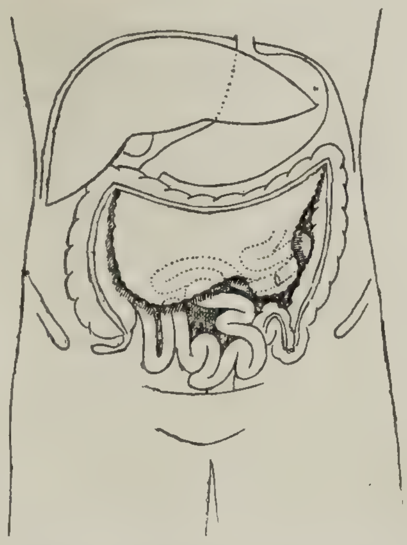


Fig. 14.—Omentum surrounding an injured piece of small intestine.

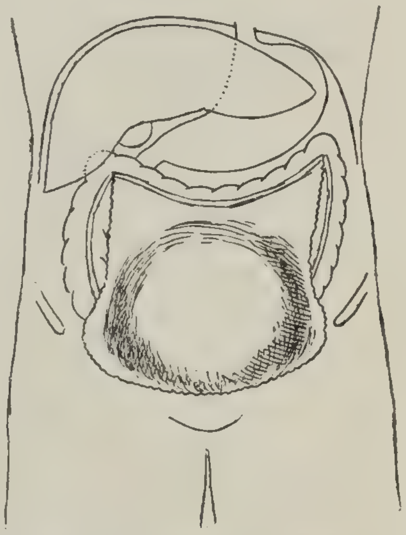


Fig. 15.—Omentum isolating a pelvic tumour, degenerating myoma, ovarian cyst, ectopic gestation, pyosalpinx, etc.

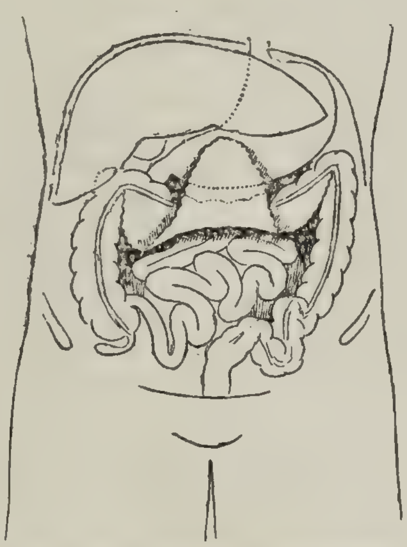


Fig. 16.—Omentum sealing an ulcer of the stomach.

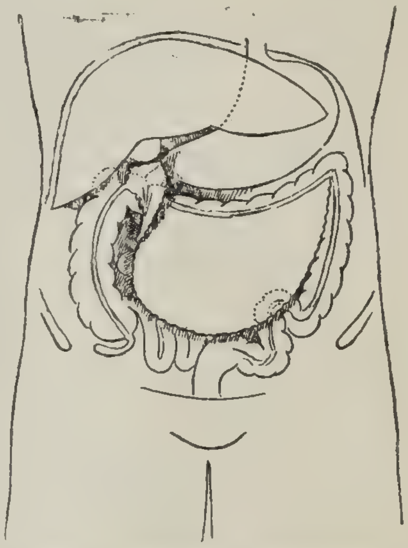


Fig. 17.—Omentum sealing an ulcer of the duodenum.

Time does not allow of more than a statement of my belief that the size which uterine fibroids may attain to is limited by their poor vascular supply. If, however, from any cause omentum should become adherent, they may reach enormous dimensions. The largest I ever removed was of the subperitoneal variety, and had a thin and narrow pedicle below, but above was capped by omentum, which carried to it at least half a dozen arteries of the size of the brachial.

In the discussion which followed the reading of the paper, Drs. BEATTIE and BURN and J. DRUMMOND were inclined to think that the position of the omentum had a mechanical causation, and not that it was endowed with the intelligence and power to seek the site of injury and disease.

In reply, Mr. Morison adhered to his opinion that there was something more than a mechanical causation in the movement of the omentum, and likened its movement to that of a jelly-fish.

A PRÉCIS OF THE CONDITIONS UNDER WHICH LUNATICS ARE RECEIVED IN CONTINENTAL ASYLUMS,

WITH A SPECIAL NOTE ON VOLUNTARY BOARDERS.

By MARCUS WYLER, LL.D.,
BEXHILL-ON-SEA.

A.—Introductory Note.

In making any comparison of English and Continental lunacy law the student must be constantly aware of two inherent characteristics of English law which distinguish it from the laws of almost every other country. First, the law of this country is a compound of Poor Law and lunacy law; and, secondly, it combines public and private law.

1. Continental lunacy law everywhere recognizes no distinction between pauper and private patients. There are differences in point of fact, but they only concern the payment of expenses. Pauper lunatics may be maintained in all institutions where private patients are received, provided that the relieving authorities are prepared to defray the expenses. (The possibility of maintaining a pauper patient in licensed houses is, of course, excluded by the risk that his maintenance might not be paid for.) Another point under this heading concerns the question whether a pauper lunatic may be received as a voluntary boarder in a public asylum, provided the asylum receives voluntary boarders at all. On this point the regulations of the various Continental States differ. In some States regulations as to the reception of voluntary boarders imply the consent of the relieving authority. When, however, such restrictions do not exist, as in certain Swiss cantons, a pauper lunatic may be received as a voluntary boarder by the medical head of the State asylum, and the relieving authority is liable for his maintenance.

2. Continental lunacy law carefully discriminates between insanity in its public aspect—that is, as a state of health which requires treatment either on the patient's account or in the interests of public order—and insanity in its relation to private law—that is, as a state of mind which debars or impedes the patient's management of his own affairs. The French Law of 1838 was expressly passed to make the commitment of lunatics independent of the "interdiction" (putting under the care of a guardian and family council) of the Code Napoléon (Act 489 s.s.). This naturally does not prevent that law and those of Belgium, Geneva, Neuchâtel, Vaud, from settling the questions of provisional guardianship and civil ability of the confined lunatic. Wherever else the "interdiction" (Entmündigung) is confused with confinement (and we know that this actually occurs) it is the result of a misinterpretation of the law. Recent German decrees try to eliminate this character of German lunacy law.

B.—Forms of Reception in Lunacy Institutions Generally.

Continental laws know as a rule three distinct kinds of admission in institutions for the insane. They may be called, as in England, reception on petitions, summary reception and urgency reception. The reception after inquisition is only feasible in Belgium in the same way as in England. In France the necessity for asylum treatment has always to be proved, although Art. 510 of the Code Napoléon allows the family council to dispose of their insane. The said three methods of confinement do not, however, correspond entirely with English notions. The fourth way of reception, "der freiwillige Eintritt," the admission as a voluntary boarder, will form the special object of this paper.

I.—The Regular Form of Reception: Reception on Petition.

a. The nearest approach to the English form of reception is met with in Holland, Spain, and Hungaria, and also in a part of Italy.* In Hungaria this mode of confinement is only prescribed for "private asylums" (licensed houses). Whilst in Holland the justice of the peace (Kantonrechter)—that is, the same judicial authority as in England, Scotland, and some American States—decides, if possible, on the basis of one medical certificate, in Spain the proceedings take always the form of a lawsuit, in which a defendant of liberty is opposed to the petitioner, the relatives of the alleged lunatic to be heard if possible. In Holland the Court of Arrondissement (second instance or authority) can be appealed to in case of dismissal of petition. While in England and Holland the decision of the judge opens a period of provisional confinement (for one month, after which in Holland the judge decides once more upon a definite commitment for one year), the Spanish decree is the final act of a provisional confinement for observation of three or six months.

b. The reception is granted by the highest administrative authority of an asylum. This form of confinement only refers to public asylums. It is applied in the Grand Duchies of Baden (where the Minister for Home Affairs grants admission to the Heidelberg Clinic) and Hesse (for Aliens, Minister; for Hessians, Provincial Governor). In the Mecklenburg and Berlin asylums the "Kuratorium" (or Board of Trustees) of the institution, and in the States of Saxe-Weimar, Bavaria, Würtemberg, Russia, Servia, Geneva, and the Prussian provinces a member of the Government performs a like office. In Finland the Medical Council, and in the Canton de Vaud (Law of 1901-4) the Lunacy Commission decide the reception. The documents and formalities are, on the whole, the same as in the following group.

c. In most of the Swiss cantons (namely, Aargau, Basle, Schaffhausen, Berne, St. Gall, Grisons, Lucerne, Ticino, Thurgau, Zürich), moreover in France, Belgium (owing to its laws being derived from the French law), Denmark, Austria, Norway, Sweden, and Saxony, the head of a public establishment for the insane receives himself the alleged lunatic or lunatic when the necessary proofs have been shown to him.

The requisites under *b* and *c* are, in short, the following:

1. *The Petition for Reception.*

This is, naturally, always required. It is not, however, always to be addressed to the authority that decides upon the reception. Sometimes (as in Hesse) the director of an asylum gets the petition from one, the lower, authority (Kreisamt), and transfers it with his remarks to the higher authority (Provincial Government) which decides on it. (All these forms are purely bureaucratic and add nothing to the securities of liberty.) This petition can be presented by natural or collective persons. Among natural persons we note the guardian of a person "alieni juris" (Vormund, Curateur). In Mecklenburg the *Vormund* of an "entmündigter Geisteskranker" (insane person under Committee) is entitled to present the petition as the next person after the father. In Aargau, Baden, Bavaria, etc., the Vormund can act jointly with the relations or separately. In Berne he is entitled to do so only after the relations. Some legislatures empower all relations without discrimination to present the petition. Others enumerate the persons in different succession. France, Belgium, Neuchatel, Geneva, nearly like England.

The collective persons of public law (Borough, Urban, Councils, Relief Authorities), can sometimes act jointly with the relations, elsewhere only failing these.

2. *The Medical Certificate.*

In Servia an alleged lunatic can only be committed to the State Asylum by decree of the Home Secretary. To ascertain the mental state of the alleged lunatic he dispatches three medical men to his house. In Spain two certificates are required even for provisional confinement. Everywhere else one medical certificate suffices.

Some laws simply speak of a medical man, "Arzt" (Swiss Cantons), others require the medical man to be a medical practitioner, "patentierter Arzt," "medecin diplomé," etc. (Berne, Belgium, Bremen, Denmark, France, St. Gall, Vaud, etc.).

---

*Italy has not got a common lunacy law. The laws by which the former parts of United Italy were governed are still partly valid. In some provinces there are provincial statutes; in others there are different statutes for individual establishments.

A third group speak of a doctor recognized in the country as such (Holland, Prussia, Baden). Most German States demand that the certificate be issued by a "chartered" doctor (Amts-, Kreis-, Bezirks-Arzt) as in Baden, Bavaria, Hesse, Prussia, Austria, and Würtemberg. There are also, as in England, certain facts which disqualify for issuing a certificate. Forms are prescribed for certificates in some Swiss cantons and in some German States. In other States the law stipulates that the certificate must contain certain things, ranging from "stating the mental deterioration" to "qualifying the insanity" and "giving reasons for which confinement is demanded." The latter phrase in diverse wordings is, with the exception of the French law, only to be found in quite recent laws (Belgium, Zürich, 1889; Geneva, 1895; Prussia, Licensed Houses, 1901; Vaud, 1901).

3. In most laws and decrees which have been carefully thought out before they were passed it is required to establish the identity of a person about to be committed.

4. Some laws provide still further for other inquiries into the state of mind of the alleged lunatic. In Sweden and Saxe-Weimar evidence is asked from the clergyman whose parishioner the alleged lunatic is. Some German States and Swiss cantons permit certain subaltern officials to hold an inquest on the mental frame of the alleged lunatic. In Würtemberg the Provincial Government is granted nearly the same power of investigation in doubtful cases as is the judicial authority in England.

5. Most laws and decrees, with the exception of a few which are in every way deficient, order that the reception be notified to some authority. In several Swiss and German States with utterly defective laws this is a mere bureaucratic form, which adds in no way to the welfare of the lunatic. In others it constitutes the means of entering the patient on the registers of the inspectorate. (For instance, Holland: notification to the Burgomaster of the patient's last domicile and to the Attorney-General.)

France: Private Asylums.

Three days after receiving the notification the Prefect of the department dispatches one or more "hommes de l'art" to the asylum, who are required to furnish a report forthwith. Similar instructions are given in Neuchâtel and Vaud.

Geneva knows only of provisional receptions as regular form of confinement. The orders expire at the end of three months, when a medical officer of the institution has to submit a circumstantial report on each case to the Lunacy Council. This Commission either discharges the patient or else confirms the reception order for another period of six months. The order must be renewed for each patient every six months.

II.—URGENCY RECEPTION ORDERS (PROVISORISCHE AUFNAHME; INTERNEMENT PROVISOIRE).

In cases of urgency, most Continental States empower the chief medical officer of an asylum to admit the alleged lunatic on petition, accompanied by one medical certificate.

In France, Hamburg, the German and Swiss University Clinics, Austria, Servia, Russia, and Würtemberg (here only if the patient is brought to the asylum without previous notice) the Director may receive an alleged lunatic on sight without a medical certificate, and these laws do not contain any article to the effect that a medical man not connected with the establishment is to visit the detained person subsequently. No special proofs of the urgency are required. Some States, however—Austria, Russia, Servia—demand in such cases an immediate notification of the reception. In Holland the burgomaster of a borough can put a dangerous lunatic under provisional custody for eight days, notification to be made to the Attorney-General; the latter provides for regular commitment. A person can also put himself under the custody of the burgomaster.

In a second group, chiefly consisting of the Swiss cantons, it is laid down that a medical certificate is to be made out a short time after the reception. Any doctor not belonging to the medical staff is entitled to write the certificate. In most Swiss cantons notice is given to the chartered doctor (Bezirksarzt; to this group belongs also Belgium). Most of the other States require a certificate together with the petition for reception. Whereas the grounds on which the allegation of urgency rests have, in the States above mentioned, to be considered by the Director on his own responsibility, the German group (Hesse, Baden, Würtemberg—the latter for cases in which a patient is not brought directly to the establishment), with the exception of the university clinics, demand special proofs of urgency besides the certificate. In Prussia (exc. Owinsk) the authority of control alone is empowered to receive a lunatic even in cases of urgency. Finally, we mention the Hungarian statute empowering the relations of a person to put the same under "observation." An investigation is made by members of the Sanitary Board. If such observation be held in the State Asylum and lunacy be stated, the committed person will remain in the asylum, notification to be made to the judicial authority.

III.—SUMMARY RECEPTION ORDERS (PLACEMENTS D'OFFICE).

These do not exist in all States. Some laws only recognize such mode of reception in certain cases—neglect, danger to the public, probability of suicide, etc.—and in these the public authorities—police, borough or rural councils, Government officers—are entitled to propose the reception (Holland, the Attorney-General). In some countries the proceedings in such cases are slower than in the ordinary way.

The summary reception order is a typically Swiss institution. In some cantons the only requisite is a police report stating the circumstances of the case; other cantons demand a brief certificate. The source of these proceedings lies in the French Lunacy Law of 1838, according to which the prefect or the mayor of a borough is entitled to commit a person to an asylum if his or her state "compromettrait l'ordre public ou la sûreté des personnes," and similarly in Belgium (Authority of Commitment, Borough Council; by order, the Burgomaster). Whereas in Switzerland there are no special guarantees for a lunatic committed as above, there are special provisions for a person committed by a Maire or Préfet in France. The head of an asylum where a person is "placée d'office" is to send every six months a circumstantial report to the prefect; the latter decides on the patient's remaining in the establishment.

IV.—VOLUNTARY BOARDERS IN LUNATIC ASYLUMS (DER FREIWILLIGE EINTRITT.)

1. Where the law does not decide the contrary, licensed houses are free to receive voluntary boarders. These, of course, must be allowed to leave the house whenever they choose. They are not subject to the restrictions under which the other patients stand, unless the law decides that any such person, being a lunatic and known as such, be subject to certain restrictions.

2. Where the law does not state explicitly that lunatics may be received as boarders in public asylums, the directors of such asylums cannot receive boarders under any condition. All Continental laws and decrees state that asylums are provided for lunatics, and that a lunatic can only enter them under certain conditions. The conditions (forms of reception) enumerated after such declarations are the only ones possible. The people who have passed some of those laws have not always been aware of this. Hence it happens that a section of the Belgian decree of 1874 (Règlement organique) speaks of boarders, whereas the same decree in a previous section, as well as the law of 1873 upon which it is based, enumerate limitatively the persons to be received in asylums, without ever speaking of boarders.

3. Not all Prussian asylums, but only those of Rhenish Prussia, are permitted to take boarders. Hamburg, and several (probably most) German university clinics admit boarders; so do the Cantons of Aargau, Berne, Grisons, Ticino, Thurgau, and Zürich. In Geneva and Vaud the person who wishes to submit to treatment voluntarily is especially mentioned as one who may form a petition. The proceedings of reception are, however, the same as with other patients. The same state of things results implicitly from the Dutch and Swedish laws.

4. Several States admit boarders to asylums upon oral or written declarations alone that they submit voluntarily to treatment. Some of them require information establishing the identity of the patient. To this group belong Belgium, Berne, Thurgau, Ticino, Würtemberg, Zurich.

A second group of laws require a medical certificate even for boarders—Thurgau (for licensed houses), Aargau, Grisons, Hamburg, Prussia, Saxony. In Rhenish Prussia each case has to be submitted to the consent of the Provincial Governor. The medical certificate in Rhenish Prussia and Saxony must prove the utility for the patient of asylum treatment.

For Prussian licensed houses a certificate is required showing (*a*) that the person about to be received understands the meaning of his step, and (*b*) that he is a person fit to enter the house (considering that he must be released on his own application).

There are sometimes special guarantees of liberty in the form of notification to the authorities. It is noteworthy that in Prussia the reception is to be notified confidentially (vertraulich) to the police, which means that the patient is not a lunatic in the strict sense of the word. As Prussia, however, is lacking in an efficient control in lunacy, this fact has not the importance that it would have elsewhere.

Discharge of Voluntary Boarders.

1. Where the law does not say anything to the contrary, it is necessary that a voluntary boarder be discharged on his simple request. Theoretically he must be set free even if he be dangerous to himself or to others. Once at liberty he can be brought back to the asylum by summary order. In fact, however, there are only two Swiss cantons (Berne and Aargau) where a boarder must be set at liberty on his simple request. In Germany it is only in Saxony where such an imperative order is given. In Thurgau and Zürich the boarder can be detained, if his state has deteriorated, until his relations or friends are informed. The latter may, if necessary, proceed at once to the ordinary petition of reception.

2. *Aargau, Grisons, Thurgau, Ticino* say that boarders must be discharged on request, provided they are not dangerous. The law does not say explicitly, but implies, that the State authorities who can bring about compulsory confinement should be informed. Würtemberg stipulates that if a boarder become dangerous his friends must be asked to give their consent to the regular confinement. If they refuse it, and also in all doubtful cases, the decision of the Medical Council (Medizinal Kollegium) is to be called for.

3. *Prussia (Licensed Houses).*—If the patient become dangerous, he can only be set at liberty on petition of his legal representative (father, guardian). The decree seems not to take into consideration cases of patients in their own right. Yet it certainly speaks of them *sub voce* reception of boarders. If, according to the medical officer of the establishment, the patient's state requires asylum treatment, it is necessary to bring about the provisional reception. Similarly, in Zurich (licensed houses). The Canton de Vaud allows a boarder to leave the establishment at any time (en tout temps). But if his state has so deteriorated "qu'il ne peut sortir sans inconvenient pour lui-même ou pour autrui" (that he cannot leave without inconvenience for himself or others), the Lunacy Commission provides for his reception in another public or private asylum (Loi 1901, Art. 23). This ingenious idea seems to be a nearly perfect solution of a great theoretical difficulty. The submission to a voluntary treatment for a time implies that the person who has consented to it must be discharged after the expiration of the time. But if the person aforesaid has become a lunatic requiring care something must be done. The removal to another asylum under new conditions (as ordinary patient) seems to be (theoretically) the best solution.*

To Dr. R. Cunyngham Brown, who suggested to me the writing of this essay, I beg to make acknowledgement of my indebtedness both for his interest in it and for his help to make my English somewhat more readable.

---

* A complete enumeration of the text of the laws on which this précis is based is to be found in the *Psychiatrisch-Neurologische Wochenschrift*. (Halle: Marhold. 1905. No. 2. Seite 24.) A copy has been placed in the library of the British Medical Association.

THE Sleeping Car Company announce that they have arranged to run the Calais-Mediterranean train de luxe daily in connexion with the 11 a.m. train from Victoria, and direct carriages in connexion with the same train from Calais to Avignon, Port Bou and Barcelona on Wednesdays and Saturdays.

MEMORANDA:
MEDICAL, SURGICAL, OBSTETRICAL.

ARGYROL IN ULCERATIVE COLITIS.

D. S., aged 27 years, an anaemic girl leading a sedentary life, had a first attack of ulcerative colitis in November, 1903. It was apparently the result of a cold caught through standing some hours in a damp garden. She was laid up for four months, and was treated with salol and boracic injections, and finally recovered. A second attack occurred in the middle of last August, and was accompanied by free haemorrhage, vomiting, nausea, and sleeplessness. The same treatment was followed, but the patient was unable to take much food owing to the vomiting and nausea, and steadily lost ground. I then tried argyrol, as suggested by Dr. W. Murrell in the *Medical Annual*, 1905—that is, after first washing out with boracic lotion, injected by tube and funnel 1½ pint of a 1 per cent. solution of argyrol at a temperature of 80° F. This was retained for about one hour, and the result was beyond all expectation. There has been no haemorrhage since except a little slightly-stained mucus thirteen days later with a constipated evacuation. All symptoms of vomiting and nausea ceased, the patient ate and slept well, and now, three weeks later, is downstairs.

Haslemere. WILLIAM A. ARDAGH, M.D.

IMPACTION OF A HAT-PIN IN THE MALE URETHRA.

BY a curious coincidence, I yesterday, at the Swansea Hospital, removed a hat-pin from a male urethra, and to-day the first thing I notice, on opening this week's BRITISH MEDICAL JOURNAL, is an account of a similar case by Dr. C. Hamilton Whiteford. The little manœuvre which was so successful in his case apparently does not always come off, especially if oedema be present or the point embedded in the roof of the urethra. In case of failure, however, removal can be effected by an even simpler procedure, so that the necessity for so comparatively severe an operation as external urethrotomy should rarely, if ever, occur.

The patient, a man aged 50—probably at the time more or less under the influence of drink—introduced the pin at 8 p.m. on January 4th, to ascertain, he states, the cause of an obstruction. When seen yesterday, January 6th, at 11.30, the spherical glass head was readily detected well to the back of the perineum, while the point could be felt embedded in the upper wall of the urethra at the level of the corona. The fore part of the penis was becoming oedematous, and the whole organ was in a semi-erect condition. Under an anaesthetic, by forcibly depressing the glans, the point was made to emerge at its posterior border. The shaft was then withdrawn; but owing to the obliquity of its entrance into the roof of the urethra, and the density of the tissue in which it lay, it was found impossible to reverse its direction without severely lacerating the urethra. The pin, which measured 7 in. in length, was therefore broken off short, and after the protruding fractured end had been rounded off, by means of the serrated surface of the blade of a Spencer-Wells forceps used as a file, was manipulated back into the urethra, whence it was at once removed with a fine pair of forceps introduced into the meatus.

Swansea, Jan. 7th. W. F. BROOK, F.R.C.S.

FOOD POISONING AND COMA.

C. P., aged 22, a waiter, after having eaten a hearty supper, consisting of fish, meat, wine, etc., and a quantity of ices, complained of headache, and half an hour after he vomited and fell down unconscious. This occurred at about 11 p.m., and he was admitted to this hospital at 8 o'clock the next morning.

State on Admission.—He was quite comatose and breathing stertorously, and his friends reported he had been in the same condition all night. All the reflexes, including the conjunctival reflex, were absent. The pupils were contracted; pulse 120, very weak; temperature normal, extremities cold; the bladder was distended, and dullness could be elicited as high up as the umbilicus.

Treatment and Progress.—The urine was drawn off and found to be free from albumen. Five grains of calomel was placed on his tongue. He remained in the same condition till about 12 o'clock, when he passed a large motion and vomited. The quantity of vomit was large. It consisted chiefly of undigested food, salad, etc. After this his reflexes gradually returned.

Result.—The next day he felt better, but his temperature was up to 102° F. and some bronchopneumonia was found at both bases. This cleared up in the course of a day or two, and the patient left the hospital quite well ten days after admission.

I have to thank Dr. Leonard Williams for permission to publish the case.

A. D. Kennard, F.R.C.S.E., L.R.C.P.Lond.
French Hospital, Shaftesbury Avenue, W.C.

THE THIRD EYELID.

I have recently met a very perfect example of that rare vestigium, a third eyelid. The subject was an adult male Indian of Dravidian stock, who displayed no other physical defect. This supernumerary eyelid was situated under the right upper eyelid, and protruded, when the eye was in natural function, 2 mm. beyond the margin of the natural lid. This exposed part led to the discovery; it was darker than the rest of the structure, which approximated to the colour of the conjunctiva. It was normally sensitive and cartilaginous to the touch. Of the thickness of a sixpence, it evenly and completely followed the contour and movement of the upper lid, lying closely over the globe without fold or corrugation on either surface, and with a clean-cut margin at its periphery.

From a perusal of the above it will be recognized I had to do with an example of the plica semilunares or membrana nictitans of birds and reptiles. To me it was a striking display of Nature's creative force with only a memory of the structure in the distant past. It will be remembered that the conjunctiva is developed from the surface epiblast, and that the membrana nictitans divides the conjunctival sac into two portions in birds and reptiles.

I think it will be admitted that this survival is a striking proof, perhaps unique of its kind, of the evolutionary element in Nature. Environment, I suppose, would be cited in this connexion.

Durban, Natal. William Robertson, M.D.

TREATMENT OF ACUTE PAROTITIS.

For some years I have been in the habit of treating cases of acute parotitis by painting the swelling with iodine and administering iodide of potassium internally. The disease appears to be so favourably modified, and its duration so shortened by this method, that I venture to press it on the notice of fellow-practitioners, more especially as I do not find the iodide treatment for the acute disease suggested in any of the ordinary textbooks, or any reference to it in my copy of *Neale's Digest.*

Goldhawk Road, W. J. Batteson.

A RAPID CURE FOR LUMBAGO.

The usual methods of treating lumbago being uncertain and mostly unsatisfactory, I am anxious to make known the following simple, certain, and speedy mode of treating this painful affection, which I have used for many years and never known to fail. It consists in the local application of tartarated antimony. This is most easily effected by thoroughly rubbing into the painful part unguentum antimonii tartarati *B.P.*, twice a day until the pustules characteristic of antimony make their appearance. By this time the pain is greatly relieved if not quite gone, and the patient is practically well. Along with this local treatment it is advisable to administer a saline aperient mixture containing sodium salicylate. The number of applications of the ointment required depends greatly on the thoroughness with which it is rubbed in. If this is well done one or two applications are usually sufficient. It is prudent to warn the patient not to continue having the ointment rubbed in longer than necessary to relieve the pain, or after a fair crop of pustules have come out, as this makes the skin unnecessarily sore and ulcerated; also not to let the ointment be used for any other purpose. I have known the remains of a box of this unguent handed on by a grateful and well-meaning patient to a friend for him to apply to his inflamed leg, with a not very satisfactory result.

G. H. Kenyon, M.D., C.M.Edin.
Lower Kingswood, near Reigate.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

FEMALE LOCK HOSPITAL, HARROW ROAD.

CASE OF PSEUDO-ELEPHANTIASIS OF VULVA.

(Reported by Douglas E. Finlay, M.B., B.S.Lond., M.R.C.S., L.R.C.P., late House-Surgeon.)

The following case is, I think, of interest, in view of those which were mentioned in the British Medical Journal some little time ago.

N. E., unmarried, aged 22 years, a laundress, was admitted to Lock Hospital, Harrow Road, W., in November, 1902, complaining of a swelling between the thighs, which interfered with her walking, pain in lower part of back, and frequent micturition. Six years previously she had been treated at the same hospital for vaginal discharge, with oedema of both labia majora, especially the left, which was about the size of her fist; pustular syphilide, few rupial lesions, and abscess of the right breast. Before leaving, about the end of August, active signs of syphilis had disappeared, and she was well except for slight swelling of the left labium majus. Since then this swelling had increased in size, more so during the last four months; the right labium had increased in size, vaginal discharge returned, and micturition had become frequent. The left-sided swelling had prevented her getting about, and had become painful and tender, with dragging pain in back. She had never been abroad, and gave no history of other illnesses. Her father was dead, her mother alive and healthy; three brothers and one sister were alive, four brothers had died in infancy. The patient drank beer and spirits, but preferred the latter.

State on Examination.—She was found to be poorly nourished; eight months ago weighed 10 st. 7 lb.; now about 9 st.; teeth decayed, skin sallow, several ulcerated patches on backs of hands, over olecranon processes, pigmentation marks surrounding white scars on legs and thighs. She was more comfortable sitting, with swelling supported on seat of chair. When standing, a large, hard, brown, pendulous mass was seen arising from left side of vulva, involving left labia majus and minus, base being about 3 in. long. The surface was wrinkled, in places warty, with areas of superficial ulceration, with foul bases and indurated edges, in places fissures with moist obnoxious discharges. Whole mass was very tender. At upper end of base, warty tissue gave place to smooth hard skin above clitoris, continuous with warty tissue over right labium majus, which was slightly swollen. The distance from upper border of symphysis pubis to lower margin of growth, measured vertically, was 10½ in., greatest circumference 17½ in., breadth 8½ in., and length after removal 8 in. There were hard small glands in both groins, axillae, supraclavicular and suboccipital regions. A soft systolic murmur was heard at heart's apex and in left axilla. Urine did not contain albumen or sugar.

Progress.—The patient was kept in bed, fed up, given mercury and iodides, hot baths, and ulcers treated locally. In few weeks ulcers had healed, tenderness of growth gone, general health improved, but there was no change in size of growth, and micturition was still frequent. At operation the whole mass on left side was removed by making an incision from clitoris to about midway between tuber ischii and anus externally, and internally an incision along inner side of labium minus. By undermining the skin the anterior part of wound was closed, and posterior part left for drainage. The bleeding, which was profuse, was controlled by pressure forceps and cautery. The wound healed well and the patient improved, and when I last saw her was well, except for the swelling of right labium majus, and was continuing antisyphilitic treatment.

Remarks.—I have heard since from Mr. Ward, under whose care the patient was, and whom I have to thank for permission to use these notes, that the growth of the right labium majus grew rapidly and was removed by him. It is interesting, I think, that the growth in both labia appeared to be quite uninfluenced by specific treatment, although the other signs of syphilis reacted promptly. The first tumour removed showed masses of fibrous tissue with a considerable number of blood vessels, and looked on section much like a hard fibroid of the uterus.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir R. Douglas Powell, Bart., K.C.V.O., M.D., F.R.C.P., President, in the Chair.

Tuesday, January 9th, 1906.

Capillary Circulation and Blood Pressure.

Dr. A. Haig read a paper on this subject, in which he said that among the possible causes of the definite relation between capillary circulation and blood pressure were contraction of the arterioles shutting off the blood from the capillaries and obstruction in the capillaries themselves. The hypertrophy of the coats of the arteries was not the cause of high blood pressure, but its result. The possibility of obstruction in the capillary circulation was considered, and it was suggested that it might result from a change in the blood. There was a constant relation between the amount of uric acid in the blood, the rate of the capillary circulation, and the height of the blood pressure. It was possible to control the capillary circulation by controlling uric acid, and one of the objects of the paper was to discuss the relation between the quantity of uric acid in the blood and the rate of the capillary circulation. As to the capillary circulation in relation to drug action, it was pointed out that all drugs that increased the uric acid in the blood slowed the capillary circulation, and all that diminished the uric acid in the blood quickened the capillary circulation. After explaining various clinical and pathological phenomena in accordance with these views, the final conclusion drawn was that uric acid controlled the capillary circulation of the whole body throughout life, and that its effect was probably mechanical and due to its presence in the blood stream hindering the passage of the blood through the small capillaries.

Dr. F. Parkes Weber said he had endeavoured in various patients to determine the viscosity coefficient of the blood, and the results so far as they went seemed to show that the viscosity depended mainly on the number of red blood corpuscles present. In a case of splenomegalic polycythaemia the viscosity coefficient was 11.5 when over 9,000,000 corpuscles were in the blood, in another case 11.8, and in a third 6.7, but the latter had been influenced by frequent venesection. In a recent case of cyanosis it was 6.5 when over 6,000,000 red blood corpuscles were present. In a case of aneurysm it was 4, but there were less than 4,000,000 red cells present. Was it not possible to employ a viscosity tube in order to investigate the effect of colloid uric acid in influencing the passage of fluid through a capillary tube?

Mr. J. D. Malcolm was not able to follow the reasoning in the paper which led to the conclusion that the vascular obstruction was in the capillaries; he believed it was in the small arterioles. The effect of a contraction of the arteries would not be to force the blood through obstructed capillaries, but would accentuate any such obstruction. To get the capillary pressure raised it was necessary that the arterioles should be dilated. The irritant, whether uric acid or some other substance, probably acted on the arterioles.

Dr. F. Hare referred to the relation of uric acid to migraine. Attacks might be relieved, he had found, by a diet that actually increased the amount of uric acid in the blood; he therefore thought that the purin intake was not an essential factor in migraine. The variations in uric acid excretion in migraine were probably effects and not causes of the attack.

Dr. Haig, in his reply, said he thought that the body had unlimited power of storing uric acid and, in respect of some patients, the simile of a pillar of salt represented no exaggeration.

West London Medico-Chirurgical Society.—At a meeting held on Friday, January 5th, Dr. G. P. Shuter, who was in the chair, referred in feeling terms to the irreparable loss that the Society had suffered by the sudden death of Dr. Campbell Pope, one of its original members. The following cases were then shown: Dr. Bontor: An apparently *Pernicious Anaemia*, which had much improved under treatment, consisting mainly of increasing doses of arsenic and salol.—Mr. Keetley: *Ruptured Quadriceps Extensor Cruris* in an old man, treated by suture; also *A Crushed Kidney* removed from a young lady for haemorrhage; the organ had been completely torn into two parts. The patient made a satisfactory recovery.—Dr. Seymour Taylor: *Probable Gumma of the Pons Varolii.*—Dr. Phineas Abrahams: an unusual case of *Lupus Erythematosus.*—Leonard Dobson: *Lupus*, which after being very obstinate to treatment by scraping and *x* rays, had been much improved by kataphoresis.—Dr. Arthur Saunders: *Progressive Muscular Atrophy;* also *Rickets*, with an unusual form of deformity of the arms.—Mr. Estlett Baldwin: *Congenital Elevation of the Scapula.*—Dr. Andrew Elliott: *Embolism of Arteria Centralis Retinae.*—Dr. Garry Simpson: *Congenital Ichthyosis.* A discussion followed the exhibition of most of the cases, and a large number of members took part.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, January 3rd, 1906.

W. R. Dakin, M.D., F.R.C.P., President, in the Chair.

Fibro-myoma of the Uterus Undergoing Sarcomatous Change.

Drs. W. S. A. Griffith and Herbert Williamson related a case.

The patient, aged 56, was admitted into St. Bartholomew's Hospital suffering from sarcoma of the uterus. Six years previously she had attended as an out-patient at the same hospital on account of an abdominal tumour, which was diagnosed as a fibro-myoma of the uterus. *Post mortem* the uterus was found to contain several fibro-myomata, in one of which was growing a sarcoma. Secondary deposits were present in both lungs.

The authors discussed the various conditions under which sarcoma and fibro-myoma might coexist in the same uterus. They pointed out the difficulty of arriving at a definite conclusion as to the frequency of the association. They found no difficulty in accepting the doctrine that a tumour originally innocent might become malignant, and concluded that the specimen shown was an example of a fibro-myoma undergoing sarcomatous change.

Dr. R. Hamilton Bell mentioned that the case of fibro-myoma undergoing sarcomatous change, which had been shown to the Society by Dr. Tate two months ago, had been considered by the Pathology Committee, and that they had declared themselves unable to pronounce definitely in favour of the sarcomatous change. On the other hand, the pathological department of St. Thomas's Hospital entertained no doubt on the point.

Dr. Herbert Spencer believed that sarcoma of the uterus was commoner than was generally supposed, and that it was often difficult to distinguish from fibroid. He considered the presence of large or giant cells of considerable value in distinguishing between sarcoma and an inflamed fibroid. He mentioned two cases which at the time of operation were regarded as simple fibroids, but which on subsequent examination and on the development of secondary growths proved to be sarcomatous.

Dr. Williamson, in reply, agreed that when the presence of giant cells could be demonstrated the tumour was probably of a malignant nature.

Pyelonephritis of Pregnancy.

Dr. W. A. Milligan recorded a case in which the left kidney was affected during the second pregnancy in a woman of 23. The symptoms set in six weeks before delivery, and three weeks after a large amount of pus was evacuated from the much-distended pelvis and ureter of the kidney, which was slightly disorganized. The wound was drained and a gradual cure was effected. No stone could be detected and the urine was acid throughout. In a subsequent pregnancy no recurrence of the previous trouble took place. The causation of this condition was discussed and the opinion of various writers on the subject was quoted.

Dr. R. Drummond Maxwell recorded a case of a woman, aged 25, who, when four months pregnant with her first child, was found to be passing pus in the urine. She was placed on milk diet, and the symptoms subsided, so that she was allowed to return home. But in the twenty-sixth week of pregnancy she was received back into hospital with return of the same symptoms, and delivery was induced, without, however, effecting much improvement. A fluctuating renal swelling was then detected in the left loin. A large pyonephrotic abscess was discovered, from which a considerable amount of friable calculus was removed.

Adenomatous Polypus of the Cervix.

Dr. F. E. Taylor showed microscopic sections of a polypus springing from the cervix uteri. The polypus was the size of a pigeon's egg, and had been removed from a woman aged 53 on account of haemorrhage of five years' duration. Microscopically, it was seen to consist of masses of glandular tissue surrounded by richly cytogenic lymphadenoid connective tissue.

Dr. Amand Routh had seen several of such polypi growing from high up in the cervical canal, where muscular and glandular tissues intermingle.

Dr. Herbert R. Spencer said that these adeniferous fibroid polypi were not at all uncommon, and he thought it a mistake to call them adenomata.

Uterine Fibroids in Advanced Age.

Dr. W. S. A. Griffith related two cases of calcified fibroids which it had become necessary to remove on account of pressure symptoms, one in a patient of 73, the other aged 69. In each case complete relief followed operation.

Tubal Mole Associated with Sarcoma of Ovary.

Dr. Galabin showed the left tube containing a mole and corresponding ovary (which was sarcomatous) removed, together with the appendix of the opposite side, from a woman of 46, who had had five children. The left ovary was nearly solid, but recent section showed a few very small cysts. He thought it probable that transperitoneal migration of the ovum must have occurred.

Dr. Fairbairn said that he considered that the specimen should be classed as a fibroma and not as a sarcoma of the ovary. He thought that there was ovum-bearing tissue on the outside of the tumour, and consequently that there was no need to assume that transperitoneal migration of the ovum had taken place.

MEDICAL SOCIETY OF LONDON.

W. Pasteur, M.D., F.R.C.P., Vice-President, in the Chair.

Monday, January 8th, 1906.

Chronic Membranous Colitis in Infancy.

Dr. E. Cautley read a paper in which he expressed the view that chronic colitis was rare, and usually the sequel of an acute attack. Cases of chronic colitis were divided into catarrhal colitis, including the so-called mucous, muco-membranous, or membranous colitis, and was characterized by loose stools and the presence of masses of mucus looking like slime, jelly, or white of egg. Ulcerative colitis, which might be of two kinds, follicular and catarrhal. The former was merely a common sequel of acute ileo-colitis in infants; the latter might occur at any age. The stools contained blood and a variable amount of slime. Membranous colitis was the rarest variety of all. This was regarded as sometimes a sequel of the catarrhal form, and this view was supported by a prolonged case which was described, in which membrane was not found in the stools until six months after the onset of the catarrhal colitis. A favourable view of the issue of chronic colitis in children was expressed, based on the scarcity of *post-mortem* evidence. In regard to treatment, much stress was laid on the importance of a diet which was nutritious in quality without leaving much waste material, on careful nursing and general hygiene, rest in bed in severe cases, attention to the general health, and drug treatment by the mouth and anus. Castor oil and salines were recommended, with bismuth and creasote. Colon irrigations with salines, boric acid, tannic acid, and silver nitrate were also advised. The possibility of securing more efficient irrigation by openings into the caecum and appendix was mentioned.

The Chairman thought irrigations of plain boiled water might be of value even in membranous cases.

Dr. C. W. Chapman advocated the use of small doses of copper sulphate in intestinal cases, and alluded to the causal influence of chill.

Dr. A. Voelcker said cases of membranous colitis in children must be very rare. In catarrhal cases the use of milk was of great value in preference to artificial foods. The good effect of giving oil was probably mechanical.

Dr. Porter Parkinson agreed that medicines by the mouth were of little value; the addition of bicarbonate of soda to the irrigating fluid was useful.

Bronchiectasis in Childhood.

Dr. C. R. Box read a paper on this subject, excluding those varieties which resulted from the pressure of caseous glands or the impaction of foreign bodies in the bronchi. An examination of specimens of honeycombed lungs in children had led him to the conclusion that some of the cavities were dilated bronchioles, some dilated atria and infundibula, and others the result of the breaking down and discharge into a bronchiole of bronchopneumonic patches. The striking resemblance of the cavities to those of an ordinary saccular bronchiectasis was pointed out. From a clinical point of view cases of bronchiectasis in children might be divided into three groups, namely, cases of honeycombed lung in which there was no associated bronchopneumonia at the time of examination, and consequently the disease produced no characteristic signs; those in which bronchopneumonia coexisted and cavernous signs appeared during the progress of the disease; and those in which the condition was old standing and associated with fibrosis of the lung and flattening of the chest. The remarkable variation of the physical signs and skiagraphic appearances induced in cases belonging to the last category by emptying the bronchial tubes was described, and treatment by systematic inversion and the administration of syrup of garlic and cod-liver oil or of creasote and maltine was advocated.

The Chairman and Dr. Voelcker discussed the paper, and Dr. Box replied.

Nottingham Medico-Chirurgical Society.—At a meeting held on January 3rd, Mr. T. Geraty, Treasurer, in the chair, Dr. Reginald Alderson read a paper on *General Anaesthetics and their Administration.* Dealing first with nitrous oxide, he emphasized the advantages of giving air or oxygen along with the gas, thus avoiding cyanosis, jactitation, and other objectionable features which occurred if given pure; a longer anaesthesia was obtained in this way, and the combination was better suited than gas alone for old people and young children. About thirty fatalities had been recorded by Hewitt from gas given alone. The 3-way stopcock manufactured by Barth enabled the administrator to give gas, air, or the combination at will, and to pass from one to another in a moment when desired. With regard to chloroform, various masks and inhalers were alluded to, and the greater safety of the Vernon-Harcourt inhaler shown to compensate for its complicated and cumbersome nature. With chloroform the number of fatalities was still surprisingly large, though only 1 in 3,000 cases. Of these, more than 50 per cent. occurred before the actual operation had begun, and in a large proportion the heart was found quite healthy *post mortem*. Attention was drawn to the conclusions of Embley of Melbourne, and especially the observations that a failure of blood-pressure always precedes respiratory failure, and that during the induction period the latter occurs quite as frequently after heart failure as before it. Difficulties under chloroform might be divided into (1) those due to asphyxial causes, and (2) those due to chloroform toxaemia pure and simple. Idiosyncrasy played some part, while certain surgical procedures had a marked tendency to reflexly depress respiration. The induction period was undoubtedly the most dangerous. With regard to ether, that prepared from rectified spirit appeared to possess no real advantage over that made from methylated spirit. The open, semi-open, and closed methods of administration were alluded to, and the cases unsuitable for ether enumerated. The Ormsby inhaler had certain advantages over the Clover, owing to the small bore of the latter, which, however, had recently been much improved in sundry details. Fatalities under this anaesthetic were only 1 in 16,000 cases, or less than one-fifth the mortality-rate of chloroform, and such deaths were often more attributable to the operation than to the anaesthetic. Lobar pneumonia sometimes occurred after ether, and the advantages of the ether-chloroform sequence were pointed out, especially for long operations. Ethyl chloride was most valuable for short operations, but inferior in point of safety to gas, and its after-effects were more pronounced. Somnoform and ethyl bromide had no advantage over ethyl chloride. The latter was to some extent lethal and could not be used indiscriminately in place of gas by unskilled persons, as was sometimes supposed. Mixtures such as A.C.E. or chloroform and ether in other proportions avoided some of the disadvantages of either singly, while the proportion of fatalities due to them was intermediate between that of chloroform and ether. The chloroform-ether sequence was not to be recommended as a routine practice. The staff of the Massachusetts General Hospital found at the present time that chloroform or any mixture containing it was decidedly more dangerous than ether, and hence used the latter whenever possible. In their experience gas was decidedly more trustworthy than ethyl chloride.—Mr. T. Geraty thought the anaesthetic should always be chosen with reference to the particular patient. People were very unwilling to bear pain nowadays, and perhaps anaesthetics were sometimes used unnecessarily.—Dr. C. H. Cattle found ether decidedly safer, and it was easier to follow the different stages of anaesthesia with it.—Mr. E. J. O'Mullane from a very large experience strongly advocated the advantages and safety of chloroform in labour cases. With regard to operations generally the operator should never begin until the patient was properly under.—Dr. B. R. B. Truman could not agree that chloroform was always suitable in labour nor for children, who often resisted violently.—Dr. F. H. Jacob thought the lateral position usual in labour might partly account for the additional safety attributed to the anaesthetic in such cases.—Dr. F. R. Mutch spoke of the great value of the A.C.E. mixture in long abdominal operations. The high pelvic position used for many such operations enabled the patient to undergo a lengthy anaesthesia without the slightest anxiety. Raising the jaw was frequently all that was necessary to improve faulty respiration. It was the anaesthetist's province to decide when an operation should be begun or suspended. The sudden loss of consciousness and cessation of respiration with ethyl chloride was somewhat alarming.—Dr. J. W. Scott considered there was real danger in ethyl chloride if misused. It was quite a mistake to try to secure with it an anaesthesia lasting fifteen minutes for such operations as hernia. Given with a prop in the mouth asphyxial symptoms speedily vanished, as the drug was very rapidly eliminated. It was a useful preliminary to ether.—Messrs. H. Blandy, A. R. Tweedie, and A. Fulton continued the discussion.—In reply, Dr. Alderson strongly censured the practice of telling patients there was no danger, and they were only going to have "a whiff" of chloroform. One man's experience was no guarantee as to the safety of any anaesthetic, and the experience of the world generally was in favour of ether as compared with chloroform. He did not consider chloroform justifiable in dental cases, and ethyl chloride should never be used where nitrous oxide would serve as well.

At the last meeting of the Metropolitan Asylums Board the ambulance committee reported that experiments made had confirmed them in the opinion previously expressed as to the suitability of motor traction for the purposes of the Board's ambulance service, and that arrangements were being made to completely equip the South-Western station not only with motor ambulances and omnibuses, but also with a properly fitted workshop.

The Berlin Anglo-American Association.—We have received the annual report of the Anglo-American Medical Association in Berlin for the year ending July last. It is therefore quite out of date, but we are informed that a list of all available post-graduate courses in Berlin will shortly be published by this Association, which was founded in 1903 to give information to British and American physicians wishing to study in Berlin with regard to post-graduate work in the university, clinics, and hospitals. Further information can be obtained from the founder and President, Dr. J. H. Honan, Lützowstrasse 78, Berlin, W.

REVIEWS.

LOCALIZATION OF CEREBRAL FUNCTION.

Dr. Alfred W. Campbell's important monograph, entitled *Histological Studies on the Localization of Cerebral Function*,[1] is a monument of patient industry, and is valuable, not so much on account of breaking new ground (although this is by no means wanting) as for a more detailed and in many instances more defined knowledge of the histological structure of the cortex cerebri in relation to localization of function. The keynote of its importance and utility is, in the words of the author, "the piecing together our disjointed knowledge of the structure of the cortex cerebri," and the giving to neurological science a descriptive atlas of the microscopic cell and fibre architecture of the whole of the cerebral hemispheres. In accomplishing this object, Dr. Campbell has rendered a signal service to neurologists and students of mental diseases. Investigators can now examine any part of the cerebral cortex in disease, and, provided they adopt the methods laid down by Dr. Campbell, they can ascertain what are the changes in cells and fibres by comparing their preparations with the admirable illustrations and descriptive text of the same.

In the preface, the author acknowledges the great assistance he has received from Professor Sherrington, and it is not too much to say that the experimental researches upon the anthropoid apes' brains carried out by Sherrington and Grünbaum have been the corner stone in these histological studies.

Material and Methods.

Chapter I deals with the material and methods of examination. The material used is divided into three categories—namely: normal human, normal comparative, and pathological. It is unfortunate that six out of the eight used and judged by the author as normal, were obtained from persons who died while of unsound mind in Rainhill Asylum. The author, however, states that "whereas it would have been better to have obtained brains from sane people, yet the objections to their use were based more upon sentiment than reality." This we are quite ready to believe, but it is a confession indeed that so experienced a histologist as Dr. Campbell should be unable by his methods to determine histological changes in the brains of persons of undoubtedly unsound mind. The outlook, therefore, for histological investigation explaining the ultimate cause of mental disorders, as distinct from defect of mind or loss of mind, is not very hopeful; so far histological observations have not thrown much light upon the causation of mental derangement, and the only definite evidence forthcoming with regard to mental disease is a failure of cells and fibres in amentia and a decay of cells and fibres in dementia. We are, therefore, not surprised to find that upon those very parts of the brain, which are spoken of as "silent," Dr. Campbell does not by his histological studies throw any new light which experimental and clinical anatomical observations have not already shed.

As illustrating the vast amount of work which Dr. Campbell has put into this admirable research, it may be mentioned that each human brain has been cut into fifty or sixty blocks of 5 c.cm.; the blocks were then numbered and sections of the thickness of 25μ were taken at intervals of 1 mm., subsequently stained for cells and fibres and then mounted. Microscopic drawings were then made to scale, the low power at a magnitude of 80.1 and the high power at 480.1. In a footnote to the introduction the author states "that in more than one case I have converted an entire cerebral hemisphere into serial sections, and alternately stained these for nerve cells and fibres." Such labour is almost beyond comprehension, and if the author really means what he implies it is of doubtful utility. It might be doubted if chrome-hardened celloidin embedded sections $25\ \mu$ thick really show "the cell morphology and lamination to perfection."

Dr. Campbell very properly (on pp. 5, 7, and 28) points out the necessity of giving correct orientation details, and remarks that the work of Kaes, Cajal, and Hammerberg is notably deficient in such details. But some of the illustrations in his own work show that the author compares two sections not taken from corresponding parts of convolutions; among others we may cite Plate XII, Fig. 1—audito-sensory fibres—apparently from a flat or side surface. Fig. 2, audito-psychic, is apparently from an apex, whereby a fallacious appearance of depth is given to the latter, as well as relative differences in the position of the cross fibres, which probably would not exist if exactly corresponding parts could have been taken.

---

[1] *Histological Studies on the Localization of Cerebral Function.* By Alfred W. Campbell, M.D., Pathologist to the Asylums Board of the County of Lancaster. Published by the aid of a subsidy from the Royal Society. Cambridge: University Press. 1905. (Demy 4to, pp. 380. 18s.)

Again, the author's illustration of the comparative fibre wealth in the prefrontal region will be considered by many experts to be an under-estimate. In regard to micrometric measurements, we can hardly believe the statement he makes on p. 155 that in the cortex of his temporal, Type I, the fusiform cell layer (the polymorphic of others) is quite 1 mm. deep.

Lamination.

In Chapter II a good account of the cortical fibre arrangement is given and of cell lamination. It would have been better in our opinion to have restricted the term "layers" to the fundamental ones, those which are laid down in the developing embryo. Hence the pyramidal layer should really be considered as one layer with specialization of parts in certain regions. What the author calls "the internal layer of large pyramids" would be better avoided to save confusion with function.

Precentral or Motor Area.

Chapter III deals with the precentral or motor area; the author confirms the work of Bevan Lewis and Clarke as regards the distribution of the Betz cells, and we here take the opportunity of remarking that this valuable histological research, published in the *Proceedings* of the Royal Society, 1878, has not received sufficient recognition. It practically anticipated by twenty-five years the delimitation of the motor area in man to the ascending frontal convolution, which, since the invaluable experiments of Sherrington and Grünbaum upon the anthropoid apes, is now generally accepted. Dr. Campbell has shown that the distribution of the Betz cells accords exactly with the area which responds to unipolar excitation. This histological examination affords a connecting link by which the experimental observations may with certain assurance be applied to the human brain. In this chapter also the author, by a series of valuable observations on seven cases of amputation of limbs with atrophy of Betz cells, strengthens the application of the experimental work on the anthropoid ape to that of man by showing that these cells are atrophied in those regions which presided over the movements of the lost limb. The author also shows that the Betz cells are atrophied in amyotrophic lateral sclerosis. Previous observers had noted the atrophy of these cells, but as they acquiesced in the generally-accepted idea that the central convolutions were both motor, they did not localize this atrophy to the Betz cells, as Dr. Campbell has been able to do from his knowledge of Professor Sherrington's results. For the same reason, Acquisto and Pusateri had previously described an atrophy of the large pyramidal cells in amputation cases, not specially mentioning the Betz cells, although it is obvious they meant these cells.

Post-central or Sensory Area.

Chapter IV deals with the post-central or sensory area. In it the author points out the existence of large pyramidal-shaped cells, and he attempts on Fig. 6, page 74, to indicate differences between motor and non-motor cells. We question very much whether any one would have listened more to Dr. Campbell than they did to Dr. Bevan Lewis as to what cells are motor and non-motor in the central convolutions, if it had not been for the conclusive experimental researches above mentioned. On page 84, the author recommends Flechsig to re-examine his sections, for he does not agree with him that sensory fibres pass to the ascending frontal convolution.

Pages 85 to 97 deal with pathological conditions, which the author considers to have an important bearing regarding the functions of the post-central convolutions. He describes changes in that convolution especially affecting the large pyramidal cells, but not apparently the granular (or stellate) layer. He doubts the results of Jendrassik's observations because his cases were suspected tabo-paralysis; but two of Campbell's own cases were admittedly of this character, and another case of which the hemisphere was sent to him by Dr. Mott was certainly not free from suspicion in this respect, as the following quotation from the *Archives of Neurology*, vol. ii, shows:

> The complete examination of this brain will occupy the subject of a future communication, being one of considerable interest. Is this a case of wasting of physiologically correlated structures, or is it the lesion of a case of arrested general paralysis? The patient was admitted for mania, and the brain was described as showing patchy thickening of the pia arachnoid membrane over the frontal and central convolutions.

We feel this important observation requires confirmation in a case that has not been in an asylum.

On Visuo-Sensory and Visuo-Psychic Areas.

In Chapter V the author has mapped out these areas and shown that Bolton's delimitation of the former is correct, and that the circumjacent cortex named by Bolton visuo-psychic, in contradistinction to visuo-sensory, occupies the rest of the occipital lobe. We fail to understand why he should therefore speak of it as "my visuo-sensory and my visuo-psychic region." Dr. Campbell has shown that the visuo-sensory or striate area extends far on to the external surface of the occipital lobe in the anthropoid ape.

The Temporal Lobe and its Functions.

In Chapter VI the author shows that the primary auditory field has a characteristic cell and fibre structure, which, on account of the existence of coarse fibres running especially in a horizontal direction, and the large size of the suprastellate pyramidal cells, distinguishes it from the skirt of cortex, which he terms audito-psychic, and which he differentiates by cell and fibre architecture from the remainder of the temporal lobe. These two areas correspond with the primary and intermediary myelogenic zones mapped out by Flechsig. Dr. Campbell discourses at considerable length upon the subject of deafness, word-deafness, and amnesia, and concludes the chapter with the following somewhat remarkable paragraph (p. 173):

> On the question of the separate cortical localization of a "word-hearing" centre in the left angular gyrus, histology affords negative information. Similarly, concerning a differentiation of the auditory area in correspondence with other faculties, such as the recognition of tones of low and high pitch and of musical sounds, histology cannot be of any assistance until more guiding clinical data are forthcoming.

We should like to ask whether Dr. Campbell felt seriously disappointed when he was unable to discover a histological patch by which pitch and tone are recognized, or that his histological researches on a few brains afforded only negative information of the separate cortical localization of a word-hearing centre in the left "gyrus angularis." We can only say that if he had stated that he had obtained positive information upon this point, we should have doubted the value of histological studies in cerebral localization.

The author does not mention or discuss the localization in the seat of consciousness of the impressions conveyed by the external auditory from the semicircular canals by which orientation in the three dimensions of space is effected. Anton and Zingerle locate this function in the frontal lobe, and Mott in the Bowman Lecture suggests that the increased development of the frontal lobe in the anthropoid apes may be connected with the increasing development of the erect posture and the more complex adaptation required. This is effected by a fusion of equipoisal sensations from the semicircular canals with visual and oculo-motor combined with tactile and kinaesthetic impressions from the head and neck, trunk, and lower limbs. The important observations of Professor William James on dizzy and non-dizzy deaf-mutes is of great importance in connexion with this subject. Horsley and Clarke, in their valuable experimental research on the cerebellum, state:

> The temporo-pontine bundle occupying the outer fifth of the cerebral peduncle finds origin in the middle third of the temporal lobe and terminates in the pons (frontal segment, according to unpublished experiments by Beevor and Horsley).

Now, inasmuch as the temporal pallium is the seat of projection of the auditory paths, it is not unreasonable to regard it, rather than the excito-motor gyri, as being also the area in which the vestibular sensations are represented. This view of the pallial vestibular representation has also received the authoritative support of Charles K. Mills, who, in his most recent diagram (*Medical News*, November 5th, 1904), figures equilibratory perception and orientation in the posterior third of the temporal lobe (second and third gyri). But this part of the temporal cortex, according to Dr. Campbell, in no way differs histologically from Type III, which is found over all the temporal lobe, except the posterior third of the first temporal convolution, where is situated the primary auditory sensory centre, with its skirt of auditory psychic cortex.

The Limbic Lobe.

In Chapter VII, pp. 174-198, general considerations of function of the limbic lobe and olfactory area are dealt with; but the author admits that although much has been achieved by the histological researches of Arnold, Meynert, Betz, Bevan Lewis, Obersteiner, Hammarberg, Kaes, and Kolliker, finally rendered complete by the researches of Calleja and Ramon y Cajal, "yet there seems practically nothing further to be learnt concerning the actual morphology and arrangement of the cell and fibre elements resident in the cortex, yet the exact cortical localization of the olfactory and gustatory centres is sadly wanting." This is because accurate clinico-anatomical observations have not yet been forthcoming.

On page 195, in summary and conclusions, Paragraph 3, the author states:

> On histological grounds it seems permissible to assign independence to the area of cortex covering the wall and lip of the fissura hippocampi, a subdivision which receives Ramon y Cajal's acquiescence.

This would have been more correctly expressed by Dr. Campbell stating that he agreed with Ramon y Cajal, it is a literary mistake which puts the cart before the horse.

Dr. Campbell upon histological grounds does not agree with Horsley and Schäfer's observations that the gyrus fornicatus is connected with body sensibility and he makes the following statement (p. 196):

> 6. In addition to other peculiarities of fibre arrangement and cell lamination the cortex of the gyrus fornicatus is remarkable for being completely destitute of fibres and also cells of large size.

But even if this be so, it is no proof, only an assumption. The concurrence of large cells with large fibres in the projection areas around the primary fissures is natural; the large fibres are probably descending axons from the large cells subserving the function of movement or primary association of sensory centres. This does not in any way prove that the afferent cortico-petal sensory fibres are necessarily coarse when they are reaching their termination, for they might have previously split up into a brush of fibrils; the absence of any definite layer of stellate cells is perhaps more convincing. The appearance of the cortex as shown in Plate XIX is quite different from the type of archipallial cortex of the lobus pyriformis and hippocampus with its little clusters of cells in the second layer.

Dr. Campbell points out that in two parts the structure of the cortex of the gyrus fornicatus diverges from the common type, approximating that of the hippocampal region. Again, comparative anatomists have noticed the great development of the gyrus fornicatus in osmotic animals. Zuckerkandl noticed maldevelopment of this particular area in congenital absence of the olfactory bulb, and, thirdly, Flechsig shows that it is one of the early medullated fields. Ramon y Cajal is, however, of opinion that the gyrus fornicatus has no direct olfactory association. Histological studies by Dr. Campbell do not appear to afford us any further information than that in the limbic cortex of the anthropoid ape human characters are closely followed, and such confessions as the following (p. 194) show only too clearly that histological studies of the human cortex are confirmative in nature and only of value as regards localization of function after clinico-anatomical or experimental observations have—as the author says—"given guiding lines."

> Reviewing the situation from the histological standpoint, we are driven to confess that while our knowledge of the normal histology of the olfactory apparatus, and of the parts which probably govern this function is very complete, more pathological evidence of a definite and confirmatory character would be gladly welcomed.

Again, on page 196:

> Although possessing such a distinctive structure the physiological significance of the cornu ammonis is little understood.

We venture to think that comparative microscopic anatomy in the mammalian series will throw light upon this interesting subject.

The Parietal Region.

In Chapter VIII the author deals with the parietal region, in which the higher functions of mind probably have their anatomical substratum. Here histological studies fail to show anything more than that

> Structurally its cortex possesses all the cell laminae of, and a similar arrangement of nerve fibres to, the intermediate postcentral area, but it differs in containing a smaller number of special large pyramidal cells and of large medullated nerve fibres; it is also peculiar in showing a more perfect reduplication of the line of Baillarger.

The boundaries, however, are not very definite and the characteristics of this region, which is of great psychological interest, are not very clear. In reference to the parietal lobe Dr. Campbell makes (p. 207) the extraordinary statement: "A homologous area can be traced phylogenetically throughout the vertebrate series." This is rather a sweeping statement for an authority who has examined the ape, cat, dog, and pig's brain, and we are not aware that anybody has done it in the series of mammals, much less mammals, birds, fishes, reptiles, and amphibians.

The Intermediate Precentral Area.

In Chapter IX, which deals with this area, the author points out that in the precentral area the whole radiary zone is filled with an extremely rich plexus of large medullated fibres running in all directions. In the "intermediate" area remnants of the plexus are visible, and the constituents are similar as regards size and position, but there is an enormous reduction in their number. The large medullated fibres must be the axons of the large pyramidal cells and the Betz cells. Seeing that the Betz cells are absent in the intermediate precentral area, it is not surprising that these very coarse fibres disappear. It is of interest to note that the stellate or granular cells, as in the precentral area, do not form a distinct lamina.

The author believes that the intermediate precentral area has not a dual function any more than the precentral area. He regards the precentral area proper as the middle or second level of Hughlings Jackson, and that the intermediate precentral cortex forms a very important part of the highest or third level. It seems to us that all through the work Dr. Campbell does not recognize sufficiently the significance of the supragranular (or suprastellate) layer of pyramidal cells, which is ontogenetically and phylogenetically of later origin. He regards the intermediate precentral area as associated with the execution of complex skilled movements, of movements in which consciousness or volition takes an active part, as opposed to automatic movements. Does he mean that the associated groupings form the physical basis of complex conscious or volitional movements which take place in the intermediate precentral area are then transmitted to the precentral (motor) area, or that the origins of the efferent tracts for these particular movements are actually in the intermediate precentral itself? It is not quite clear what the author means (p. 217) by "the precentral, or as we may *now* call the primary cortical motor area." This, we think, assumes more than any histological evidence justifies. Are we to assume that the precentral cortex in which the Betz cells are located, and which represents the excitable cortex, may be discharged by innervation currents arising in the intermediate precentral cortex, which by unipolar excitation is not excitable, or that although by this method experimentally inexcitable and in spite of the absence of Betz cells, it is nevertheless motor? Although not very clear on the point, this seems to be the attitude Dr. Campbell takes up when he cites the experiments of Beevor and Horsley as regards excitability by faradization of this intermediate precentral area. If, however, the argument is applicable to this region, then Beevor and Horsley's experiments also supported the idea that the post-central was motor, and the limitation of the motor area to the region in which Betz cells are found is not on a sound basis.

The granules or stellate cells (which are probably intercalary neurons of the second type of Golgi) are much more abundant behind the central fissure than in front. This is suggestive of the probability that the main arrival platform of incoming stimuli is behind the central fissure and the main departure platform in front. The author argues against sensori-motor areas in the central convolutions, but there is positive proof of their existence in the half vision centres of the occipital lobes which represent Munk's conscious involuntary reflex or Hughlings Jackson's middle level. That leads us to the very pertinent question: Is there that precise limitation in the motor area which unipolar excitation suggests and which Campbell attempts to support by histological observation on amputation cases? If so, why is it that ablation of the whole leg area does not cause any permanent paralysis? even the hand (which is the best example of unilateral representation) is not paralysed after ablation of the hand area in the anthropoid ape; a degeneration of the direct tract (which is really a prolongation of the pyramids down the cord to the upper dorsal region) results, but according to Sherrington there is simultaneously a degeneration of the crossed and homolateral pyramidal tracts in the lateral column down as far as the lumbar region. We can interpret these facts by supposing that the direct fibres which pass by the anterior commissure to the spinal motor cells of the opposite anterior horn in the lower cervical and upper dorsal region are especially concerned with movements of the hand and the degenerate fibres which can be traced down each lateral column are concerned with trunk movements. The lesion must either be not a pure lesion of the hand area, or there is overlapping. We incline to the latter view, seeing that a partial recovery of movement soon occurs, even after the whole area which upon unipolar excitation yields hand movements has been removed. Thus experimental research may denote foci of concentration of efferent projection neurons rather than absolute localization. On page 34 he accepts the dictum of Bevan Lewis that the largest nerve cells are those which have to transmit their innervation currents the longest distance. That is to say, size depends upon length of axon. We venture to express the opinion that that is not the principal cause, otherwise there should be proportionally great difference in the relative size of homologous motor neurons of such widely different-sized animals as a camel and a guinea-pig. As Mott has indicated in the Bowman Lecture, the size of a nerve cell depends upon the thickness and number of the fibrils which pass through the cell, and therefore the points of contact which it makes by means of its dendrons and axon with other neurons. The fundamental plan in the musculature of all mammals being similar, size of animal does not make much difference.

Dr. Campbell, in discussing cortical structure in relation to speech function, states (page 223):

> We must assume from clinical evidence that the cortex covering the small area of Broca does not wholly represent the seat of government of the motor element in speech.

He advances the hypothesis that because all three parts of the inferior frontal—namely, pars orbitalis, pars triangularis, and pars basilaris—have a similar structure, therefore, if speech is to be abolished by a superficial cortical lesion, the whole of the combined area must be affected. Another reason, which he asserts can be advanced to explain why a limited but penetrating lesion in the area of Broca produces motor aphasia in its complete form, is that the associations between all this cortex and the direct oral, lingual, and laryngeal centres, placed along the lower end of the ascending frontal convolution, suffer interruption. Experimental observation, whether by stimulation or ablation in the anthropoid apes, are negative as regards the existence of any special function of cortex of the base of the inferior frontal convolution. Campbell also considers that in the cheirographic centre a higher control is exercised over the more direct motor elements resident in the hand centre of the precentral area. He then formulates the following law:

> In the "intermediate precentral" cortex there is a sequential deposition of centres for the control of higher evolutionary movements, following the same order from above downwards as that observed in the "precentral area" proper.

Frontal and Prefrontal Areas.

In Chapter X the author considers that part of the frontal lobe which is uncovered by "intermediate precentral" and limbic cortex. This he divides into frontal, and that on the tip which he terms prefrontal. The results of this chapter are summed up by the author (page 248):

> 7. Without adding materially to our knowledge of the functions of the frontal lobes histology throws light on some of the observations of previous observers.
>
> 9. No explanation of the truth that stimulation of the frontal lobe produces eye movements can be given, but the area lies within the "frontal" field and the field has its analogy in the human brain.

This confession is disappointing in relation to histology and localization, for we are of opinion that these motor eye centres shown by Grünbaum and Sherrington as having a wide area of distribution not only in the frontal (according to their diagram) but in Campbell's prefontal region as well, are of great importance in connexion with fixation and attention, as Mott and Schäfer's experiments on bilateral faradization of the brain in Macacus showed. The author remarks on page 244 that Kaes noticed many of the peculiarities of fibre arrangement detailed in this chapter, but his diagram fails to convey a clear idea of topographical relations, hence his work is left out of consideration. Also on page 246:

> I have digressed more than I intended to discuss these conclusions of Bolton and Schaffer, but I have felt that it was important to take more than a passing notice of them because they might be converted into unsound capital by those, unpractised in histological research, who are investigating the functions of the brain, and particularly those of the frontal lobe.

We can only say that such severe criticisms of good work by most competent authorities will doubtless not pass unchallenged. In fact, as before stated, it may be questioned whether there is that degree of paucity of fibre wealth and deficiency in cell structure which the author figures in Plate XXIII.

The Island of Reil.

In Chapter XI the author completes the first and main part of the work by a description of the Island of Reil, which he divides into two areas—an anterior and a posterior. The former pertains to a type of cortex found in the lobus pyriformis and gyrus fornicatus, owing to the presence of two layers of large chromophilous cells of spindle form. There is an absence of large fibres. The posterior portion pertains to the common temporal type of cortex, and is therefore probably auditor. Phylogenetically the insula is old, and it plays a more important part in primitive mammals than in man and the higher apes. Histology does not support the view that the insula is connected with speech functions.

The Addendum.

Like the postscript of a long letter, this is, we consider, the most valuable portion of this very interesting and important work. It is more concise, precise, and easier to follow, as it deals with histological studies of the localization of cerebral function in the simpler brain of the cat, dog, and pig, compared with that of man. We make no doubt that if Dr. Campbell had to rewrite this work he would begin with the simpler brains of these lower animals and lead up to the primates.

In Part I the author gives an account of the histological characters of the various regions of the cortex in these three types of mammals. In Part II he deals with a consideration of the functions and homologies of the areas described. He comes to the conclusion that the cruciate sulcus is not the homologue of the upper part of the Rolandic fissure, but a small fissuret which marks the cessation of the Betz cells and a change in the fibre arrangement. As on page 121 the author maintains that in the anthropoid, as the result of altered mechanical conditions, the vertical fissure of Seitz is dislocated outwards to become the simian external calcarine fissure, or sulcus intrastriatus lateralis. Why it should not be the converse we fail to see. With the general expansion of the cortex, especially the parietal in man, mechanical alterations are more likely to arise, and, in consequence, push it inwards, especially as Eliot Smith and others have shown that low types of human brains show very frequently this sulcus intrastriatus lateralis. This part of the work should be read by all who are interested in the comparative histology of the cerebral cortex. It is impossible in a review to deal with the matter in an adequate manner, embodying as it does much valuable information and research.

General Reflections.

The same may be said with regard to the concluding portions entitled "General Reflections." In this Dr. Campbell first points out the architectural stability of the primary sense areas; even though as in man the sense of smell has become of minor importance and the lobus pyriformis has dwindled down to a fraction of its earlier representation, yet a superficial microscopic inspection will fail to distinguish sections of one from the other. This statement, however, hardly accords with the next paragraph, where he discusses the undeveloped character of the giant Betz cells in the pig and assumes that they have undergone retrograde changes as a result of a confined life. Later, he points out the great expansion of the frontal lobe in man as compared with lower types of mammals, although just along the anterior margin of the motor cortex of the carnivora there is a fringe somewhat similar to the intermediate precentral area.

In conclusion, although we think it is premature to assert that finality has been reached as regards the histological structure of the human cerebral cortex, yet Dr. Campbell's work is most complete and thorough, and of the greatest value to the neurologist. It should be studied by all interested in cerebral function and structure.

To those who may not have time to read the maze of histological details and references to the work of previous observers upon this intricate subject we can commend the summary at the end of each chapter, to which is added a complete list of references. The greatest assistance will also be found in understanding the cell and fibre structure of the most complex and highly differentiated matter in Nature by studying the twenty-nine admirably-executed plates.

MILITARY SURGERY.

Dr. Hermann Fischer, in his work on the elements of field surgical operations and dressings,[1] after a sketch of modern projectiles and their action on the tissues, in which no description is undertaken of the various weapons used by uncivilized races with which the Germans have latterly come into contact, gives a short account of the medical arrangements in the field. Here the arrangements of the first aid dressing stations, and of the principal dressing stations which absorb them, seem to be of a more elaborate character than those to which we are accustomed, or are likely to obtain on actual service in the field. The author delegates to them functions which should be more properly assigned to the field hospitals, which he very correctly says are to be placed as near as possible to the dressing stations. Behind the field hospitals are the reserve hospitals. These are of the nature of stationary hospitals. The size and organization is nowhere defined; they are supposed to be replete with every requirement for good aseptic surgery.

We have dwelt on this portion, although it only occupies one page of the work, because the only distinction between field and other surgery is to be found in the abnormal conditions in which the army surgeon finds himself, and these abnormal conditions do not appear always to be kept in view by the author. We do not find sufficient evidence of personal field experience in the instructions contained in Part I dealing with the dressing station; gypsum bandages, for instance, are too frequently recommended, while the splints illustrated both here and elsewhere are often antiquated and cumbrous. The scope of the surgery laid down for the field hospitals embraces too frequently sequelae which should only become apparent far down the line of communications; thus, we only begin to think of baths at Wiesbaden when the time for invaliding comes, and this should not occur while the patient is in a field hospital; neither is the latter unit adapted to carrying out intermittent digital pressure for "exophthalmus pulsans traumaticus." The list of contents has escaped revision, and is consequently no guide to this edition. We do not note many misprints, but on page 13, 6.5 m. is given as the breadth of the sublimate bandage, instead of 6.5 centimetres.

ELLIS'S ANATOMY.

About twenty years ago *Ellis's Demonstrations of Anatomy*[2] was one of the two books which were used, almost exclusively, in the dissecting rooms in England and Scotland, as guides to the dissection of the human body. Even at that time the book was not well adapted to the sequence of dissections adopted in Scotland, and as other manuals, directly intended to facilitate the work of Scottish students, appeared, Ellis's demonstrations fell into disuse in Scotland. As the Scotch plan of dissection was gradually adopted in England the applicability of the English book became limited even in its own country, and for some years the book has not been frequently seen in the hands of students of anatomy simply because, in spite of its excellence, it did not meet the requirements of the day.

The volume, in its new form, appears under the editorship of Dr. Christopher Addison, of Charing Cross Hospital Medical School, and its subject matter is entirely rearranged, so that the book is now in conformity with the methods in use in the majority of dissecting rooms both in this country and in other countries where the English language is in use. Many of the illustrations present in the old volume have been retained in the new edition and some of them have been rendered clearer and more useful by the introduction of colours. Many new figures have been added, particularly in the section on the abdomen, in which Dr. Addison has introduced his own method of subdividing the cavity into regions. This method has many points to recommend it, and it will no doubt find favour amongst students since it is based upon extremely simple data. The introduction of small figures of bones, on which the muscular attachments are indicated by coloured lines, is to be commended, for it will certainly facilitate the dissector's work. It is to be regretted, however, that all the indicating lines are not quite correct; correctness can scarcely be claimed for the outer head of the triceps in Fig. 21, or for the pectineus, adductor magnus and vastus internus in Fig. 61. Small defects of this description often cause much trouble, for students will naturally wonder how it is that the adductor brevis does not take a larger part in the formation of the floor of Scarpa's triangle if so large a space exists between the lower border of the pectineus and the upper border of the adductor longus as is depicted in Fig. 21. Such small blemishes, however, scarcely detract from the many excellencies of the book, which will, no doubt, receive a warm welcome from students on account of its compactness, clearness, and the fact that all the information necessary for dissecting-room purposes is contained in one volume. Dr. Addison is certainly to be congratulated on the result of his attempt to make an old and valued book again available for general use.

FOOD AND TEETH.

The views put forward by Dr. Sim Wallace in his book on the *Rôle of Modern Dietetics in the Causation of Disease*[3] must be already familiar to many of our readers, as most of the material here collected has been previously published in various medical and dental journals, while a paper read at the Oxford Meeting of the Association contained a good summary of his line of thought. Dr. Sim Wallace is a practising dentist, and has naturally been led to consider dietetics in their relation to the preservation of the teeth. He fully recognizes the widespread destruction of the teeth of the present inhabitants of this country, and he seeks an explanation for it in the highly-artificial diet which a mistaken civilization has imposed upon the people. He complains that our food is so well cooked and prepared that the teeth have nothing left to do, and that in the absence of any fibrous elements of food their interstices remain clogged with the remnants of starchy meals which readily undergo acid fermentation, with consequent destruction of the enamel and caries of the teeth. The remedy for this is not in his opinion to be found in the use of tooth-brushes and antiseptic mouth-washes, but in a return to a more natural kind of food. He recognizes fairly enough that medical practitioners generally see patients with disordered digestions, and that their dietetic rules are constructed for the sick, but he complains that by a very excusable but erroneous extension these rules have been applied to the healthy, and especially to the feeding of young children, from whose diet all those articles which should be retained in order to exercise the jaws in mastication, and to develop and maintain a sound set of teeth, have been eliminated. The methods advocated for infants' feeding are summed up in this passage, with which the book concludes:

---

[1] *Leitfaden der Kriegschirurgischen Operations und Verbandstechnik.* Von Dr. Hermann Fischer. Zweite Auflage. Berlin: A. Hirschwald. 1905. (Demy 8vo, pp. 170. M. 4.)

[2] *Ellis's Demonstrations of Anatomy.* 12th Edition. Revised and edited by Christopher Addison, M.D., B.S.Lond., F.R.C.S. London: Smith, Elder and Co. 1905. (Demy 8vo, pp. 861. 306 illustrations. 12s. 6d.)

[3] *The Rôle of Modern Dietetics in the Causation of Disease.* By J. Sim Wallace, M.D., D.Sc., L.D.S. London: Baillière, Tindall and Cox. 1905. (Demy 8vo, pp. 87, 2s. 6d.)

> Thus when there are no teeth the child should have no solid food, and its instinct to suck should be allowed gratification at its mother's breast; when the front teeth appear together with the instinct to gnaw, it should be allowed to gnaw as well as to suck; when the first molar teeth appear it should be allowed to supplement the gnawing and sucking, and to use them to grind or masticate its food. When it gets the second molars it should be allowed to bite off its food with its front teeth and masticate it with the molars, for it has a complete set of teeth and they are there to be used. Nothing could be simpler, nothing could be more easily learnt both by mother and child, and nothing could, I believe, be more excellently arranged for the transition from a milk diet to the natural foods for which the human organism is so well adapted.

We believe that there is substantial truth in this teaching that the degeneration of teeth is in part due to the widespread use of soft carbohydrate food and the disuse of the harder and tougher kinds of food employed by our forefathers, associated as it is with a national neglect of the care of the teeth, for nations like the Japanese and the Bengalese live equally on soft well-cooked carbohydrates, yet preserve their teeth by the habit of making a toilet of the mouth after each meal. It seems to us that it would be more easy to introduce such habits than to check the use of the kind of food to which the people have been accustomed, so far at least as adults are concerned, but we agree that there should be a return to a more natural plan in the feeding of children.

NOTES ON BOOKS.

DIARIES.

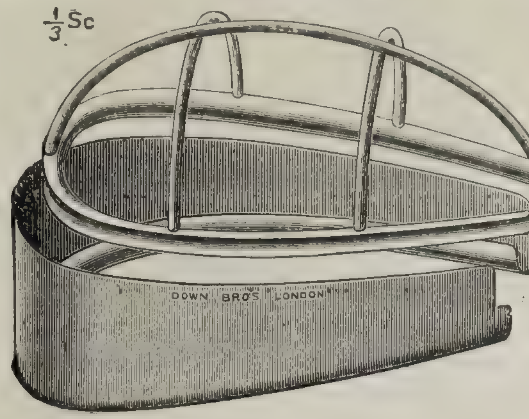
The City Diary (London: *City Press.* Price 1s.) is an interleaved desk diary containing much information of interest to persons having business in or with the City of London; it now appears for the forty-third time.

We have received from Messrs. Eason and Son, Mid Abbey Street, Dublin, some specimens of their diaries; one is a desk diary, foolscap size, provided with an alphabetical index for cross reference, and showing six days on an opening. A convenient diary is that called the *Every Hour Diary*, with space to enter appointments during every hour from 9 a.m. to 6 p.m. They also print small copy diaries with thumbnail index, which are wonderfully complete for the price, 1d.

The *Chemist's Annual* (2s. 6d. net) for 1906 makes its first appearance. It has been prepared by the staff of the *Pharmaceutical Journal* for presentation to members of the Pharmaceutical Society, and is edited by Mr. JOHN HUMPHREY. It contains a number of notes for dispensers, a dictionary of pharmaceutical synonyms, and additions to the *Pharmaceutical Journal* Formulary contain such entries as neuralgia mixture, neuralgic or nerve mixture, neuralgic essence, neuralgia powders, pain exterminator, cold, fever, and influenza mixture, infant's carbolic diarrhoea mixture, and hysteria draught, which appear to show that the Pharmaceutical Society expects pharmacists to prescribe very active drugs.

MEDICAL AND SURGICAL APPLIANCES.

Mask for Administering Mixtures of Ether and Chloroform, or Ether Alone.—Dr. W. J. McCardie (Birmingham) writes: This mask, which is of Rosthorn's pattern, is an excellent one. Its shape is well shown in the illustration. It differs from the original in being stronger, and in that there is no spout at the lower end to carry away superfluous liquid from the gutter, and that the flange is made deeper, in order to protect the wires and to lessen somewhat the evaporating surface of gauze. The gutter serves to collect liquid which might run over on to the patient's face. When the $E_2 C_1$, or A C E mixture are to be administered, it is advisable to cover the frame with six layers of gauze, and to leave a margin of ½ in. or ¾ in. inside the inhaler. It is to be remembered that gauze will hold a surprising amount of fluid. Ether can be easily given by the drop method, as described by Witzel (though no such large mask as he uses is needed), to weakly people and children when using six layers of gauze, but for stronger patients twelve layers of gauze, with a larger inside margin turned up inside the mask, should be used. The mask fits very nicely almost any face. It was made for me by Messrs. Down Bros., of St. Thomas's Street, S.E., and they have well carried out my wishes in every detail.



SCHOOL HYGIENE.

LONDON.

PHYSIQUE AND ENVIRONMENT.

IN the Report of the Medical Officer to the London Education Committee, to which reference has already been made (December 23rd, p. 1657) under the heading Physical Conditions, Dr. Kerr gives the results of a special investigation made by Dr. C. J. Thomas, assisted by the head master of a certain school, with a view to discovering the causes of variation in the physical conditions of children within the limits of that school. The head master took great pains to investigate the home conditions, and Dr. Thomas reports that one of the dominant characteristics of the population around is on the one hand its stationary habit as opposed to the migrating tendencies of some other districts, and its steady poverty on the other. Each of the 405 boys was carefully weighed and measured without boots, and a note was made of the condition of the teeth and a general estimate of the personal cleanliness and sufficiency of clothing as a basis for determining the home conditions of neglect or otherwise from external evidence. The teacher of each class added an estimate of mental capacity. Each case which after the determination of the primary inquiry showed any marked deviation from the normal was specially investigated with the help of the head master.

CLOTHING.

Taking clothing as the best indication, from external evidence, of poverty grading, the boys were given marks from 1 to 5, according as conditions passed from the very worst to the very best.

	No.	Percentage.
1. The clothing of the scantiest possible, for example, one ragged coat buttoned up and practically nothing found beneath it, and boots either absent or represented by a mass of rags tied upon the feet	30	... 7.4
2. Clothing insufficient to retain animal heat, and needing urgent remedy; boots leaking	141	... 34.8
3. Clothing poor, but passable; an old and perhaps ragged suit, with some attempt at proper underclothing—usually of flannelette	187	... 45.9
4. Well clad. Stuff suit, good boots, with a flannel under-garment, or a guernsey; poor, but sufficient ...	48	... 11.8
5. Very well clad	1	... —

The 30 boys of the first class showed considerable failure to reach the average weight for their age of the school; the average shortage per boy for his age being as much as 0.7 kilogram. The effect upon weight was more striking than upon height, as the average failure in height was 1 centimetre. The 141 boys of the second class worked out at exactly the average. The well-clad boys of the 4th and 5th class (49) showed an average excess per age-weight of 0.54 kilogram and age-height of 1.8 centimetres.

Cleanliness.

Want of cleanliness was next taken as evidence of home neglect. The marking again was from 1 to 5, as from the very worst to the very best.

	No.	Percentage.
1. Very dirty and verminous	45	11.0
2. Clothes and body dirty, but not verminous	141	34.7
3. Passably clean for boys	172	42.5
4. Clean, above the average, for boys	48	12.0
5. Unexceptionable	—	—

Here, again, the very lowest class fell distinctly short of the average age-weight for each boy. The 45 verminous boys averaged less by 0.55 kilo. and 1.1 cm. than the average weight and height for each age of the school. The second class worked out to exactly normal, while the 48 clean boys were considerably above the average height —to as much as 1.7 centimetres.

These results tend to show, perhaps, no more than the effect of poverty, although the excessive shortage of weight in the worst-clad class suggests that insufficiency of clothing is a definite factor in producing malnutrition, the insufficient food-energy being first taxed to keep up the animal heat.

Mental Capacity as Affected by Physique.

The mental capacity was gauged by the class teachers. The marks 1 to 5 were given in the following manner:

	No.	Percentage.
1. Very dull and backward	23	5
2. Below the average	70	17
3. Average intelligence	173	43
4. Above the average	98	24
5. Brilliant	41	10

It must be remembered that the actual mentally defective were already weeded out and sent to special schools. No correlation can be established between mental capacity and physique in this school; the 93 below average intelligence correspond with the average age, weight, and height for the school. The 98 boys given as above the average (Class 4) have a decided advantage in physique, 1.5 centimetres in height and 0.5 kilo. in weight, the exceptionally brilliant boys (numbering 41), however, are actually slightly below the average physique—a quarter of a kilogram in weight and 0.4 centimetre in height.

The Effect of Overcrowding upon Physique.

The following table is given:

	No. of cases.	Average divergence from normal age physique of the school. Weight (kilos).	Height (cms.).
Living in 1-roomed tenements	15	— 1.3	— 2.6
,, 2 ,, ,,	70	0	— 1
,, 3 ,, ,,	35	0	+ 1
,, 4 ,, ,,	84	+ 1.3	+ 2

Here, again, we see that only at the extremes can any effect be made out upon the physique; more important than the number of rooms, of course, is the number of occupants per room:

No. per Room.	No. of Cases.	Average Divergence. Weight.	Height.
1 — 2	41	+ 0.5	+ 1.5
2 — 3	66	0	0
3 — 4	39	0	— 0.3
4 — 5	16	0	— 0.7
More than 5 ...	10	— 3.5	— 7.6

There is seen here a slight effect only until we reach the serious overcrowding of more than five to a room, when the divergence becomes startling.

Nineteen boys in the school were the sons of widows. They nevertheless showed somewhat better physique than the average, being on an average 1.4 centimetres taller and 0.3 kilo. heavier. In many cases, unfortunately, it must be observed that the father is a parasitic member of the family, accounting for more than he brings in, and taking the food out of the children's mouths.

Another point of interest tending to show that it is necessary to look far back in the life-history for the causes of poor physique is the fact that where the parents are reported to have sunk from a higher stratum of the community the children are usually of excellent physique compared with the aboriginal denizens of the neighbourhood.

One of the most potent causes of ill-nutrition is undoubtedly the necessity for mothers to leave their homes to go out to work. The added income of the family thus obtained is not repaid by increased physique of the children, who practically never get a properly prepared meal.

Of 124 boys who were conspicuously above the average in physique, the figures were:

Mother Works.	Mother keeps the House.	Mother Dead.
13	109 ...	2

Of 110 boys conspicuously below the age average, a similar inquiry gave this result:

Mother Works.	Mother keeps the House.	Mother Dead.
57	44 ...	9

Thus of the well-nourished children 87.9 per cent. had the benefit of maternal care, while of the ill-nourished 40 per cent. only were in like case. The probability is that the damage is to a great extent done in the first year of life, the percentage of mothers who go out to work probably closely approximating to those who fail to suckle their children, as the following consideration also helps to emphasize.

Infantile Illness and Physique in Childhood.

The greatest effect upon the life capital of the population is produced by the infantile mortality, which in some years actually kills off during the first year 1 in 5 of all children born; the question naturally arises, What is its effect upon the survivors—do the weakly ones get killed off and only the strong muddle through, or does the adverse environment which slaughters 1 in 5 have a maiming effect upon those left?

In a very interesting chart given in the report, the London curve of infantile mortality was obtained and superimposed upon the physique curve, but the result gave little indication of any effect. When, however, the infantile mortality for the parish in which the school is situate was charted above the physique curve, an absolute correspondence was observed. The children born in a year when infantile mortality is low showed an increased physique, rising nearest to the normal in the extraordinarily good year 1892; and those born in the years of high mortality showed a decreased physique.

This gives an indication of great importance to those engaged in anthropometric surveys; the year of birth should be carefully noted. Hitherto the age has been alone noted, and children measured in different years at the same age have been charted together, and thus the effects of such conditions have been smoothed out and lost. The infantile mortality varies in the same year very considerably, even in neighbouring parishes, and in this particular parish is dissimilar from any other in London.

It appears certain, therefore, that in years of high infantile mortality the conditions, to which one in five or six of the children born are sacrificed, have a maiming effect upon the other four or five. What these conditions are requires the fullest investigation; and whether they be dependent on climate, custom, ignorance, the laws of the land or conditions of labour, they are of interest not merely to educational authorities but to every right-minded citizen who has the welfare of his country at heart, and the urgency of bringing all the forces at our disposal to play upon this, the ugliest blot on our civilization, is more than ever apparent.

Table of Infantile Mortalities.

	1892.	1893.	1894.	1895.	1896.
London	154 ...	163 ...	143 ...	165 ...	161
St. Saviour's ...	187 ...	154 ...	145 ...	205 ...	213
St. George's ...	174 ...	206 ...	186 ...	198 ...	181
Newington ...	172 ...	176 ...	158 ...	201 ...	184
Camberwell ...	155 ...	161 ...	148 ...	164 ...	156
Lambeth	135 ...	149 ...	133 ...	152 ...	136

In compiling curves to bring out these and similar facts, it is necessary to make certain that one is dealing in the first place with a stationary population, and in the second place that the infantile mortality figures used should be those of the area corresponding to the district from which the school draws its pupils, conditions which at present it is very difficult to satisfy except in a few localities.

INCOME-TAX REFORM: THE BURDEN OF THE PROFESSIONAL CLASSES.

It has long been recognized that the income tax presses with great severity on the professional classes, and repeated proposals have been made to remedy the inequality. The subject has been referred to in our columns from time to time, and so recently as July 29th last we printed a letter from Dr. Gordon of Exeter, suggesting that active steps should be taken by the medical profession to protest against the unfair burden. The attention of Parliament has frequently been drawn to the matter, but successive Chancellors of the Exchequer have held out no hopes of legislation, and, indeed, have usually referred to the subject only to dismiss any proposed remedy as inexpedient or impracticable. Now that the country is once more in the throes of a general election, the time is ripe for taking up the question with parliamentary candidates, with the view of obtaining from them a promise to support any measures tending to remove the existing anomalies.

The grievance is as old as the tax itself, and consists in the taxation of all classes of income—whether permanent or temporary, whether certain or uncertain—at the same rate. The reform which has met with the greatest amount of support is the introduction of a system of differentiation for the purposes of taxation between incomes derived from personal exertion and incomes from spontaneous sources, such as property in land or investments in the public funds. It will be interesting to trace, briefly, the history of the income tax and of the inquiries which have on several occasions been instituted into its working, with the view of ascertaining how far the principle of differentiation has already entered into our fiscal system, and how far a case for the differential treatment of professional incomes can be made out.

Historical.

The Income Tax Act of 1799 imposed a general tax on income at rates rising to a maximum of 10 per cent. on incomes of £200 and upwards. Into the details of this tax it is unnecessary to enter; but it may be noted in passing that abatements of duty were allowed according to the number of the taxpayer's family, also that deductions were permitted for allowances to relations, and for premiums paid for life assurance. One of the chief objections to the scheme of the tax was that every person called upon to make a return had to disclose the whole of his income from every source, and, in doing so, to enter into many details of an extremely private character. In 1803 the tax was recast, and the principle of taxing income at the source adopted, but the abatements to persons having more than two children were retained. Three years later further alterations were made, when the distinction in favour of large families was discontinued, and disappeared finally from the fiscal system of this country. The tax itself was repealed at the termination of the Napoleonic wars, and was not reimposed until the early part of the reign of Queen Victoria.

The Existing System.

Sir Robert Peel's Act of 1842 was in the main a reprint of that of 1806, and imposed for a period of three years a tax which has been continued by successive enactments to the present time. The Act of 1842 is still in force, and is indeed the principal Act under which the impost is now levied. As is well known, it provides for no differential treatment of professional incomes. The rates of duty have varied from 1s. 4d. at the time of the Crimean War to 2d. in 1874, when Mr. Gladstone announced his intention of abolishing the tax, if the general election of that year resulted in his return to power. In the event, the party led by him suffered defeat at the polls, and nothing more was heard of the proposal.

Reforms Proposed.

In the sixty-four years which have elapsed since the reimposition of the tax in 1842 three important Committees have been appointed to inquire into its working, and the results of their labours are recorded in several bulky volumes. Although the two earlier Committees reported more than fifty and forty years ago respectively, their deliberations are so pertinent to the question under consideration that their work must be referred to in some detail.

The Committee of 1851.

The strong Committee of 1851-2 included such men as the then Chancellor of the Exchequer, the President of the Board of Trade, Cobden, and Disraeli. The two volumes of evidence published show that the question of differentiation received a good deal of attention, the sentiments of the professional classes being expressed by several witnesses. It was suggested that all incomes should be capitalized, and that the amount of tax to be charged should vary with the ascertained capital value of the income. The most important pronouncement, however, was that of John Stuart Mill, whose evidence fills forty pages of the Blue Books, and who remarked at the outset that it seemed to him to be the chief defect of the tax that it did not make any distinction between temporary and permanent incomes, or between precarious and certain incomes. Mill did not favour the plan of capitalizing, and taxing each income according to its selling value, considering that such a scheme gave too great an advantage to the possessors of temporary incomes. He thought the tax should not be in proportion to means only, but that wants also should be taken into consideration. On this principle, and having regard to the fact that the owners of temporary incomes are frequently called upon to save something to provide for the future either of themselves or of their dependents, Mill advocated the taxation of such incomes at a lower rate than permanent incomes. He conceived the true principle of the equality of taxation to be that it should, as far as possible, demand an equal sacrifice from all; and went on to suggest an abatement of one-fourth to temporary incomes, considering that that fraction represented roughly the proportion which the owners of such incomes might with prudence be expected to save. But the great economist went still further. With regard to incomes which were both temporary and precarious (a description that particularly applies to the incomes of the professional classes), he suggested that an additional rebate should be granted, so that, in some cases, the differentiation in favour of such incomes might be as much as 50 per cent. Other witnesses put forward proposals on similar general lines, but differing considerably in detail from Mill's scheme, some of them being so complicated as to render their condemnation inevitable. Owing to the imminence of the prorogation of Parliament, the Committee decided to report the evidence taken to the House of Commons without expressing their own views, and we have therefore no certain knowledge of the conclusions to which they might have come.

The Select Committee of 1861.

In 1861 a second Select Committee of the House was appointed to inquire into the income tax. Its report, issued in August of the same year, contains these passages:

> The attention of your Committee . . . has been mainly directed to a scheme . . . the principal features of which appear to be as follows: . . . (2) A proposal to divide all incomes into two classes, of which the one should comprise incomes called spontaneous, and the other incomes called industrial; and to tax the former upon the full amount of the net income, and the latter upon two-thirds of that amount. . . . Your Committee, however . . . have arrived at the conclusion that the plan . . . does not afford a basis for the practicable and equitable readjustment of the income tax. . . .
>
> This tax having now been made the subject of investigation before two Committees, and no proposal for its amendment having been found satisfactory, your Committee are brought to the conclusion that the objections which are urged against it are objections to its nature and essence rather than to the particular shape which has been given to it.
>
> Your Committee also feel that it would be unjust to make any alteration in the present incidence of the income tax without at the same time taking into consideration the pressure of other taxation upon the various interests of the country. . . .

The proposals which the Committee thus rejected were those of the Chairman, Mr. J. G. Hubbard, who had given very full and careful consideration to the subject. In the draft report prepared by him he writes:

> The witnesses representing the medical profession insist upon the hardship of professional men, gaining their livelihood from day to day by the exercise of their brains, and in accordance with the state of their health, being taxed like

those who have no such anxiety regarding their means of livelihood.

And, later, he proposes the following recommendation :

> Your Committee are of opinion that the unequal pressure of the present tax on skill and intelligence may fairly be redressed by a diminished assessment of one-third in the amount of industrial incomes. . . .

Three other draft reports were submitted by individual members. In Mr. Lowe's draft it is stated that Mr. Hubbard himself denounced a graduated income tax—"that is, a tax 'bearing in a heavier ratio on large than on small incomes,' as one of the 'errors of Socialism,' and as 'destructive of the rights of property'"; that a remission of one-third of the tax to a person because it is his duty to save, is really based on the assumption that he is "less wealthy" than the owner of an income to which no such duty is considered to attach; and the additional income tax which is imposed to make up for such remission is quite as much an attempt to favour the less wealthy at the expense of the more wealthy, as a graduated income tax. Mr. Lowe therefore condemned Mr. Hubbard's proposals for a differential tax. Mr. Sotheron Estcourt proposed to differentiate only in favour of actual savings—namely, by extending the remission granted in respect to life assurance premiums as far as one-fourth instead of the existing one-sixth of the whole income; and a general conclusion was introduced into his draft to the effect that the tax was in its nature unequal, arbitrary, and unsatisfactory; that it was not possible to correct, or even materially to soften, these defects; and that the only practicable remedy lay, in ordinary times, in keeping the rate of duty low, and so minimizing inequalities which, it was asserted, could not be altogether removed. Sir Stafford Northcote prepared a draft report on which the report adopted by the Committee appears to have been based.

While the conclusions of the majority of the Committee were of the negative character mentioned above, it is clear that there was a general, though not unanimous, recognition that industrial incomes were called upon to bear more than their fair share of the national burden; and from the tenor of much of the evidence, and the various draft reports, it would appear that the objections to differentiation were felt to be practical rather than theoretical.

The Committee of 1904.

The third and last Committee was appointed in 1904, but its terms of reference were narrow, and did not include the subject of differentiation.

Colonial and Foreign Systems.

Colonies.

Turning from the proceedings of Parliamentary Committees to the actual working systems of British Colonies and foreign nations, it is interesting to find that both graduated and differentiated taxes have been imposed, and are in force in several countries.

The British Colonies presenting the best examples of this are South Australia and Queensland. In South Australia incomes from personal exertion enjoy a remission of about 50 per cent. as compared with spontaneous incomes; and the tax is also graduated in some slight degree, the highest rates applying only to incomes exceeding £800.

A similar system of differentiation and graduation is in force in Victoria, the differentiation in favour of industrial incomes being 50 per cent. as in South Australia, and the graduation advancing by three stages of £500 each to £1,500, beyond which amount incomes are taxable at the highest rates. There is also a system of abatements applicable to very small incomes.

The system in operation in Queensland follows that of the two Colonies just mentioned to the extent of the 50 per cent. differential treatment of industrial incomes, but the graduation, which, as in Victoria, ranges up to incomes of £1,500, is more complicated in its details.

In New South Wales and New Zealand an income tax is levied, but in neither case is it differential.

In the recently imposed tax at the Cape of Good Hope there is a very limited differentiation against income from dividends of joint stock companies, as compared with all other classes of taxable income.

The Dominion of Canada has no income tax, although particular provinces have imposed one for municipal purposes.

Foreign States.

The various systems in force in foreign States are admirably summarized in the introductory report to a Blue Book published in the autumn of last year, by Mr. Bernard Mallet, one of the Commissioners of Inland Revenue,* from which source much of the following information is taken.

Where a system of differentiation is in operation in foreign States it is effected in various ways :

1. By the combination with an income tax of an additional tax on capital or property. The best examples of this are found in Prussia, Saxony, and Würtemberg, and in some of the Swiss cantons.
2. By means of separate taxes, one affecting industrial incomes alone, and the other affecting property alone, the two taxes being arranged with the object of effecting differentiation. This system is in force in the Netherlands, Bavaria, and a number of Swiss cantons.
3. By an income tax on income derived from different sources at different rates. The only important examples of this method are the income taxes on personalty in Italy and Spain.
4. By the operation of separate compensatory taxes on property or transactions dealing with property, such as legacy duties, house taxes, stamp duties, etc. Examples are to be found in the United Kingdom, France, Norway, Italy, Spain, the Netherlands, etc. This system provides only a very rough method of differentiation, and, in many cases, operates as a differential tax without having been designed to do so.

Many foreign countries have also a graduated tax in operation, for particulars of which reference must be made to the Blue Book quoted above.

A Differential Tax: Pros and Cons.

The foregoing facts seem to show, not only that a differential tax has been admitted on all sides to be theoretically justifiable, but also that the difficulties likely to be encountered in working it are not insuperable. Proposals to introduce such a tax have been met by the answer that it would be impracticable, that the system would necessarily be so complex as to be incomprehensible, and so inquisitorial as to meet with condemnation at the hands of all right-thinking Britons. It is, however, difficult to believe that a practicable and equitable scheme for working a differential tax could not be evolved by some of our permanent officials, if Parliament could be brought to sanction it; and there is some reason to suppose that the real reasons for much of the opposition lie in other directions, and that it comes from interested persons—from the plutocrat, against whom the discrimination would inevitably be made.

At least one scheme for a differential income tax has been formulated, a scheme which might be adopted in this country without disturbing the fundamental basis of the system at present in operation. The author is Mr. T. Hallett Fry, who points out† that in the existing system all taxable income is classified under one or other of five "schedules"—A, B, C, D, and E. Schedule A, relating to income from property in land, and Schedule C, to income from public revenues, deal only with "spontaneous" income, to which the higher of the scales which might be expected to be introduced into a differential system would apply. Schedule B, relating to the profits of the farmer, and Schedule E, under which fall the emoluments of public officials, deal only with "industrial" incomes, to which the lower scale would naturally be applicable. There remains the difficult Schedule D, which has reference to income from trades, professions, employments, interest, and casual profits. It would be necessary to divide the assessments under this schedule into two parts, one comprising income from interest, dividends of trading companies, etc., and the other relating to income derived from personal exertion; and to tax the former class on the higher, and the latter on the lower, scale. The real difficulties involved in these proposals would lie in the making of this division in an equitable and yet practical manner; but its propounder asserts that it could be done, although some anomalies would necessarily remain.

---

* Reports from His Majesty's Representatives Abroad Respecting Graduated Income Taxes in Foreign States. (Wyman and Sons, Limited. 1905.)

† See the chapter on "Industrial and Spontaneous Income" in *The Recovery and Adjustment of Income Tax*, by T. Hallett Fry. (Jordan and Sons, Limited. 1905.)

It would carry us too far to examine in detail the scheme outlined above, which is noteworthy because it provides for the grafting of a differential tax on the existing system. It is, therefore, not open to some of the objections which have been urged against other proposals for the introduction of a differential tax—namely, that the salutary system of charging income at the source would have to be abandoned, with a resulting increase in the opportunities for the practice of fraud and evasion. Whatever particular plan may be ultimately accepted as the most feasible, the medical profession would welcome the boon, and would not be inclined to cavil at trifles if their main grievance against the tax were removed.

BRITISH MEDICAL BENEVOLENT FUND.

At the monthly meeting of the Committee of Management, Mr. G. F. Franklin, F.R.C.S., President of the British Medical Association, was elected a Vice-President. The following Secretaries of Branches and Divisions of the British Medical Association were appointed honorary local secretaries: Dr. Merry (Eastbourne), Mr. Todd (Sunderland), Dr. Cole (Warwick and Leamington), Mr. Fardon (Birkenhead). Other honorary local secretaries appointed were Dr. Rawlings (Dorking), Dr. Walker (Worthing), and Dr. Halley (Dundee).

Two annuities of £20 had become vacant and were filled up. A long list of applications for grants was considered; twenty-two applicants received relief, for which purpose £210 was voted.

The following is a short abstract of the cases relieved:

1. Widow, aged 54, of L.R.C.P., L.R.C.S.Irel. No income, and practically incapacitated by the loss of her right hand; children unable to help. Relieved once, £5. Voted £12 in twelve monthly instalments.

2. Widow, aged 37, of L.R.C.P., L.R.C.S.Edin. Unprovided for at husband's death seven years ago, and endeavours to support herself by taking lodgers. Two children, both at institutions, and help is required to defray the expenses of having them home for the holidays. Voted £5 in one sum.

3. Widow, aged 40, of L.S.A., who recently died after a long illness. Death vacancy unsaleable, and furniture seized by creditor. Applicant hopes to get only child, a boy aged 10, to Epsom College, and then to obtain a situation as housekeeper or companion. Voted £12 in twelve monthly instalments.

4. Daughter, aged 47, of late M.R.C.S. No income, and unable to seek employment because obliged to constantly attend an aged mother, an annuitant of this fund. Voted £12 in twelve monthly instalments.

5. Daughter, aged 58, of late M.D.Edin. Obtained a living for several years as a governess or companion, but has recently been obliged to give up a post in order to nurse two elder and infirm sisters. Voted £12 in twelve monthly instalments.

6. Wife, aged 47, of M.D.Edin., who is now confined to an asylum. No income; two children aged 10 and 9; lets lodgings. Relieved three times—£22. Voted £6 in six monthly instalments, with leave to apply again in six months' time.

7. Widow, aged 38, of M.B., M.Ch. Quite unprovided for at husband's death four years ago, and has since endeavoured to support herself, two children and a mother by needlework. Applicant thinks that if she can get back to the town where she is known, she might take a cheap cottage and make a living by dressmaking. Relieved three times—£32. Voted £15 to move her family and furniture as proposed.

8. Widow, aged 58, of L.R.C.P., L.R.C.S.Edin. Has maintained herself by sewing for some years but is now crippled by rheumatism. Relieved seven times—£69. Voted £12 in twelve monthly instalments.

9. Widow, aged 65, of M.R.C.S.Eng., L.S.A. Had a little capital at husband's death twenty years ago but exhausted it in bringing up children, and now entirely dependent on an old friend who makes a small weekly allowance, which may cease at any time. Relieved three times—£32. Voted £10 in two instalments at intervals of six months.

10. Widow, aged 54, of L.R.C.P.Edin. No income; lets lodgings; only child barely self-supporting. Relieved three times—£34. Voted £12 in twelve monthly instalments.

11. Widow, aged 68, of M.D.Lond., who was for many years senior physician to a London hospital. Only income two small annuities. Relieved once—£8. Voted £8 in four quarterly instalments.

12. Daughter, aged 51, of late M.D., L.S.A. Maintained herself as a governess for thirty-two years, but permanent occupation is now impossible on account of increasing ill-health. Relieved four times—£44. Voted £12 in twelve monthly instalments.

13. Daughters, aged 87 and 82, of late M.R.C.S. For many years kept a small school but are now dependent on friends. Relieved twelve times—£180. Voted £15 in twelve monthly instalments.

14. Widow, aged 62, of M.R.C.S., L.S.A. For many years has maintained herself by nursing, but is no longer able to earn. Only income an annuity of £20 from a charity. Relieved seven times, £45. Voted £6 in twelve monthly instalments.

15. Widow, aged 63, of M.D.Aberd., M.R.C.S.Eng. No income; slight uncertain help from friends; children do not help. Relieved five times, £66. Voted £12 in twelve monthly instalments.

16. Widow, aged 48, of M.R.C.S., L.S.A. No income; has brought up four children by the help of friends and this Fund. Relieved nine times, £109. Voted £5 in one sum.

17. L.S.A., aged 62. Exhausted a small capital in an unsuccessful attempt to establish a practice. Endeavours to support himself and an invalid wife by locum tenencies or assistantships, but finds great difficulty in getting work on account of his age, and this year has only had engagements for three months. Relieved once, £12. Voted £5 in one sum.

18. Daughter, aged 61, of late L.S.A. Quite incapacitated by rheumatoid arthritis. Only income £20 per annum from the Hospital for Incurables. Relieved four times, £36. Voted £6 in two instalments.

19. Widow, aged 62, of M.R.C.S., L.S.A. No income; is an annuitant of Epsom College; health indifferent, and has recently had to undergo an operation. Relieved twice, £24. Voted £5 in one sum.

20. Daughter, aged 58, of late F.R.C.S. Has lost her sight, and is dependent on small yearly grants from charities. Relieved once, £6. Voted £6 in six instalments.

21. Widow, aged 52, of L.R.C.P., L.M.Edin. No income, lets lodgings; five children, but none able to help. Relieved eight times, £92. Voted £10 in two instalments at intervals of six months.

22. Widow, aged 38, of M.R.C.S., L.S.A. No income; five children aged 17 to 9; endeavours to support herself and family by taking boarders. Relieved five times, £70. Voted £12 in twelve instalments.

Subscriptions will be thankfully received by the Treasurer, Dr. Samuel West, 15, Wimpole Street, London, W.

LITERARY NOTES.

In connexion with the centenary of the birth of Joseph Skoda, reference to which was lately made in the British Medical Journal, the Vienna Medical Society has decided to issue a complete edition of the famous physician's writings. A committee has been formed for the purpose of carrying this scheme into execution: it consists of Professors Chrobak, von Schrötter, von Neusser, Benedikt, and Heitler, with Professors Neuburger and Töply as representatives of the historical sciences. In this edition will be collected Skoda's lectures in the University of Vienna, the articles contributed by him in his younger days to medical journals, and the special scientific opinions and judgements often delivered by him, together with the other published works of the great clinician.

The December number of the *University Review* opens with an interesting article on American universities by Dr. Reichel, Principal of the University College of North Wales. Speaking of graduation he says that among us a habit of mind has been inherited from the old London University of regarding ability to pass an examination as the true test of training. From this incubus the American university is almost wholly free. A student gets his degree for the regular work he does throughout his university course, and though there is a test at the end, that test hardly ever takes the form of a cumulative examination in all that he has been studying for two or three years, often it is a thesis. The rest of the number, as usual, surveys university mankind from China to Peru.

In Sir Mountstuart Grant Duff's latest *Notes from a Diary* (1896-1901) he relates that Lord Kelvin once said to him that he thought many of the mediaeval stories about the sudden disappearance of magicians, who were supposed naturally enough to be carried off by the Devil, had a real foundation. In an age when chemistry was most imperfectly understood, men would be constantly trying experiments, which even very young students would now know to be certain to lead to terrific results.

Dr. Nestlen of Neckarsulm has unearthed a curious document relating to a seventeenth-century quack from the archives of the Duchy of Württemberg. This is a report, dated August 17th, 1648, from the Governor of Nürtingen to Duke Eberhard at Strassburg, that two days before a foreign "doctor" had appeared in the town and had asked to have a space allotted to him for a booth at the fair to be held in the following month. The "doctor" was accompanied by a woman and three servants, and he went about the town like a gay cavalier arrayed in scarlet with silver trimmings, and, though he had no horse, wearing boots and spurs. He seemed to have got the permission asked for and to have found plenty of victims among the simple folk of Nürtingen. Something, however, seems to have interfered with his business, for he appears to have left the town hurriedly in the evening in his slippers, he and his female companion making their exit by different gates. His advertisement shows that he was an eye "specialist." His nostrum is described in the following lines:

Feniculum, verbena, rosa, cheligena, ruta
Ex his fiet Aqua, quae lumina reddit acuta.

We are not exactly aware, as Mr. Micawber would say, what "cheligena" may be, but think it must be an error for "chelidonia." By the marvellous virtues extracted by a new hitherto unheard-of process of distillation of fennel, vervain, rose, celandine, and rue, all men on the face of the earth who are blind, or in whom the carbuncle of the eye has ceased to sparkle, may recover their sight. The quack denounces spectacles which cause "dull, bloody, red, running, hot, rheumy eyes." He vaunts his nostrum as a specific for foreign bodies such as sand or salt in the eyes, for epiphora and other troubles. One to three drops are to be applied night and morning with the finger to the eyelids or in the corner of the eye. It is warranted to be harmless, and is said to be sure to "clarify a man's dark, thick, and bloody sight in a short time." The use of it will leave no man defective in vision as long as he lives in this world. The quacks of old had evidently little to learn in the matter of advertisement from their modern brethren, but they had not the vast field of publicity now open to such enterprise in the newspapers.

CONTRACT MEDICAL PRACTICE.

Notice as to Districts in which Disputes Exist.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 52.

MEDICAL NEWS.

A Chair of Social Medicine has been founded in the University of Bonn. It has been accepted by Dr. Rumpf, Professor of Internal Medicine, and sometime Director of the Medical Section of the General Hospital at Hamburg.

A course of lectures on the nervous system will be given by the Gresham Professor of Medicine, Dr. E. Symes Thompson, at Gresham College, Basinghall Street, on January 23rd, 24th, 25th, and 26th, at 6 p.m. on each day; the lectures are free to the public.

The fifth Automobile Show will be held at the Crystal Palace from January 26th to February 3rd. Intending purchasers will have an opportunity of testing the merits of the various cars and motor bicycles in the grounds of the Palace.

The third International Congress of Medical Electrology and Radiology will, as already stated, be held at Milan this year from September 5th to 9th. Information as to membership may be obtained from Dr. Herschell, 36, Harley Street, London, W.

Sir John Burdon-Sanderson, late Regius Professor of Medicine in the University of Oxford, who died November 23rd last, left estate of the gross value of £35,255, with net personalty £35,106. He bequeaths £2,000 as an endowment for the Pathological Laboratory at Oxford to provide for pathological research.

We regret to announce the death of Sir Joseph Ewart, M.D., formerly Mayor of Brighton, which occurred on January 10th. Sir Joseph, who was a retired Deputy Surgeon-General of the Indian Army, was in his 75th year. We hope to publish a notice of his career in a later issue.

The introductory address of the Spring course of post-graduate lectures, held at 7, Fitzroy Square, the Central Out-patient Department of the Mount Vernon Hospital, will be delivered by Dr. E. F. Trevelyan, of the University of Leeds, on Thursday, January 18th, at 5 p.m. The subject selected is "Modern Methods of Diagnosis and Treatment of Pulmonary Tuberculosis." Medical practitioners of both sexes and senior students are invited to attend.

A meeting of the Executive Council of the National League for Physical Education and Improvement was held on January 10th, when a memorandum on the future work of the League by Mrs. Watt Smyth and suggestions by Colonel Hendley were considered and directed to be circulated. It was arranged that in future meetings of the Executive Council should be held once a month. The sum of £250 has been bequeathed to the League by the late Mr. E. M. Denny.

Tuberculosis in American Schools.—The School Management Committee of the Chicago Board of Education recently adopted, without a dissenting vote, a resolution calling for the appointment of a committee to draft a rule providing for the exclusion from the public schools of all victims of tuberculosis. The committee are also empowered to present a plan for the medical examination of all suspicious pupils, with a view to determining whether or not they should be denied seats in the schoolroom.

International Hygiene Exhibition.—An international exhibition will be held under the patronage of the King of Italy at Milan in 1906, on the occasion of the opening of the Simplon Tunnel. It will include a section of hygiene embracing general hygiene, public health, sanitary services, rural and industrial hygiene. The programme occupies twenty-two pages. A special branch of the section will be devoted to tuberculosis. This part of the exhibition will comprise all that relates to the etiology, diffusion and prophylaxis of tuberculosis, and to institutions for the treatment of sufferers from the disease. The exhibition will be open from April to November. A meeting of the Italian National Antituberculosis Congress will be held at the same time. The President of the Sanitary Commission is Professor Luigi Magiagalli, while Dr. Francesco Gatti will preside over the Antituberculosis Congress.

Experimental Syphilis.—In the latest account of their researches on the production of experimental syphilis in anthropoids (*Ann. de l'Instit. Pasteur*, November 25th, 1905), Drs. Metchnikoff and Roux state that the chimpanzee is the animal in which the closest analogy to the human disease can be reproduced. The susceptibility of this animal is beyond question. In twenty-two chimpanzees inoculated with syphilitic virus derived from various sources they have not met with a single failure, the lesions produced in every case being absolutely typical. The incubation period varied from fifteen to forty-nine days, and averaged thirty days. Eight out of the twenty-two animals presented secondary lesions, including, in the case of three, mucous plaques on the lips, palate, and tongue. Several cases developed a typical psoriasis palmaris. The period of incubation of the secondary lesions—that is to say, the time elapsing from the appearance of the primary lesions to the appearance of papules or mucous plaques—varied from nineteen to sixty-one days, with an average of thirty-three days. Of the fourteen animals which did not develop secondary symptoms, some had been inoculated with attenuated virus and some died before the lapse of the requisite incubation period. In the case of one animal which developed secondary symptoms the disease assumed a severe type. The hair came off all over the body, and the bare skin exhibited a very abundant crop of papules covered with white scales. Later on these lesions ulcerated. Finally, the animal fell into a condition of extreme cachexia and died. Bacteriological examination of the ulcerated papules revealed an abundance of various micro-organisms, particularly cocci, and it is therefore considered probable that death may have been due to a secondary non-syphilitic infection. In several of the animals paralytic symptoms appeared during the secondary stage, but these cleared off in the course of a few weeks. *Post-mortem* examinations on the animals which died—an event due in most cases to bronchopneumonia—failed to reveal any sign of tertiary syphilis. The efforts of the authors to devise a means of conferring immunity have not, so far, met with any conspicuous success, but work is still being carried on with a view to this object.

British Medical Journal.

SATURDAY, JANUARY 13TH, 1906.

MEDICAL MEMBERS OF PARLIAMENT.

AT the present moment there are no M.P.'s and not even the boldest political prophets will make any very confident forecast of the result of the appeal to the constituencies, beyond a general expression of opinion that the present Government will be maintained in office. The number of medical men who sat in the last House of Commons was very limited, and we know that the profession as a whole is anxious that in the House to be elected during the next fortnight there should be a larger representation of the profession. At present there are, we believe, twenty-one medical men before the constituencies; the House dissolved this week contained nine medical men, and some of them displayed little or no interest in the medical questions which came before Parliament.

Among those whose names occur at once as having taken an active part are the Right Hon. Sir Walter Foster, Sir John Batty Tuke, Sir Michael Foster, Dr. Hutchinson, and Dr. Ambrose; all of them are seeking re-election. That the name of Dr. Farquharson, who so loyally served the profession in the House of Commons until his health broke down, does not reappear at this election is a matter of regret not only to innumerable personal friends, but to the profession at large. He was Chairman of the Public Health and Medical Committee of Members of the House of Commons, and the withdrawal of his influence will be severely felt. This Committee was formed by Sir Michael Foster and Dr. Hutchinson at the suggestion of the British Medical Association early in 1904, and at its first meeting on March 8th, 1905, in addition to Dr. Farquharson there were present Sir John Batty Tuke, Dr. Rutherfoord Harris, Dr. Hutchinson, and Sir Michael Foster, who undertook to serve as honorary secretary.

Sir Michael Foster, who has represented the University of London since 1900, has won for himself a position of influence in the House of Commons, and his opinion on questions affecting the public health has commanded the respect of both parties. Sir Thomas Barlow states in another column (p. 106) the grounds upon which Sir Michael Foster appeals for a renewal of the confidence of the graduates of the University; and the Chairman of the Medico-Political Committee of the British Medical Association (p. 109) recalls that Sir Michael Foster has strongly supported all efforts for the improvement of vaccination and has pledged himself to support the Public Health Bill promoted by the Association to give security of tenure to medical officers of health; in academic affairs he stands for the new spirit which has revivified the University of London.

Sir John Batty Tuke, during the time that he has represented the Universities of Edinburgh and St. Andrews, has supported the British Medical Association on every occasion on which such support has been sought. An attempt was made to discredit him in the eyes of the medical electors, on the ground that he was absent from the General Medical Council during the discussion of the charge with regard to the Rusholme Dispensary. As the Chairman of the Medico-Political Committee explained last week (p. 51), he was absent in order to fulfil a promise which he had given to the British Medical Association to introduce an important deputation to the then President of the Local Government Board. We understand that the facts are now fully recognized on all hands. With regard to his action in the House of Commons, we find that he has shown a practical interest in the reforms desired by the British Medical Association: he introduced the Revaccination Bill into the House of Commons; he backed the Public Health Bill to give security of tenure to medical officers of health; he introduced a Bill to assimilate the law in England and Wales with the law in Scotland for dealing with those cases of incipient insanity which now cause so much anxiety to general practitioners, and he introduced another Bill to give power to deal with non-criminal inebriates and the subjects of other drug habits, a class of patients hardly less embarrassing. He has also backed Bills to give Scottish Poor-law medical officers security of tenure, and has taken other opportunities of advocating their cause. As Chairman of the Education Committee of the General Medical Council, he has done eminently useful work for the profession, and his experience has convinced him that the one-portal system is desirable in the public interest, that the Council should have complete control over the registration and education of medical and dental students, including the fixing of the standard of preliminary general education, and that an increase of direct representatives is desirable; he has given practical evidence of his conviction that the practice of medicine and dentistry by unregistered persons or by companies, and the signing of medical certificates by unregistered persons, should be more completely prevented by introducing into the House of Commons Bills to prevent the practice of medicine and dentistry respectively by companies. Sir John Batty Tuke is therefore, in regard to the legislative programme of the British Medical Association, a "whole hogger," and those medical graduates who oppose his election have to rely, as may be seen by reference to our correspondence columns, on the rather remote effect which his opinions on tariff reform may possibly be conceived to have on the public health by increasing the price of food.

Sir Walter Foster, whose political eminence has been recognized recently by his inclusion in the Privy Council, was one of the first to attempt to arouse the profession to a sense of its duty to itself and to the public by the address on the Political Powerlessness of the Medical Profession, delivered in 1883, which marked an epoch in the slow political development of the profession; the share which it had in bringing about the growth of interest in these departments of the work of the British Medical Association has perhaps never been quite adequately recognized. Sir Walter Foster has often been asked to give his assistance in the promotion of reforms desired by the British Medical Association in which he has held most important offices, and never in vain. As a Minister holding office for a too brief period, he was able to give during the threatened invasion of cholera in 1893 a practical demonstration of what a medical administrator can do to save the country from untold loss of life and money. He is a candidate once more for the industrial constituency which he has represented for the past eighteen years, and the medical profession as a whole will, we believe, ardently desire that he may again be successful.

Dr. Hutchinson, during the short period for which he has sat as the representative of the Rye Division of Sussex, has shown that he is most cordially in sympathy with the legislative measures desired by the Association, and has supported in every way the interests of the public health and the aspirations of the medical profession. In particular he introduced the Public Health Bill to give security of tenure to medical officers of health, and opposed certain measures inimical to the best interests of the public and the profession. He took great interest in the formation of the Public Health and Medical Committee of Members of the House of Commons, and his defeat would be a distinct loss to that House. Dr. Ambrose is an Irish member who by his attitude during the debates on the Midwives Bill showed that he was ready and willing to champion the interests of the medical profession and very capable of doing so with effect. We regret that the name of Dr. E. C. Thompson, of Omagh, cannot be added to our list, but we understand that he is not standing at this election.

We are quite aware that there is a feeling of dissatisfaction in the minds of many members of the profession with the work accomplished by medical members in the House of Commons. These critics fail to take account of the difficulty of inducing the House of Commons to legislate. The august Mother of Parliaments has many respectable qualities, but speedy legislation is not one of them. The opportunities for obstruction are almost infinite, and the strongest Governments, with all the facilities which the rules of the House afford to them, have failed to pass their most important measures. The odds against the private member are enormous. First he has to run the chances of the ballot, the blind fate which in nine cases out of ten nips his good intentions in the bud; even if fortune attends him at the first stage his troubles have but begun, and at every subsequent stage his Bill may be wrecked by the wiliness of his opponents, or by some momentary indiscretion on his own part. Only by a singular combination of good luck and good management can he hope to see his bantling attain to maturity in the Statute Book. The most has been made of any failure in tactics or error in judgement. Critics are apt to forget how the fierce light which beats about the green benches tends to bring into undue prominence every incident. Often a member of Parliament is in the position of the golfing tiro on the tee; he has thirty-seven several things to think about, and the thirty-seventh part of a second to do his thinking in. But the essential thing for members of the medical profession to ask themselves is whether in essentials the medical candidates whose names have been mentioned are or are not in sympathy with the aspirations of the profession for the public weal. We believe that in every instance the reply of the impartial student of events must be in the affirmative.

ANTIVACCINATION AND THE GENERAL ELECTION.

THE general election is naturally responsible for a more than usual degree of antivaccination activity, and naturally also the propagandist methods of the leaguers are characterized by all their customary unscrupulosity. In a recent issue[1] we exposed in some detail the falsity of certain fresh allegations regarding small-pox in the German army to which currency had been given by the *Vaccination Inquirer*, and, through it, by a letter writer in a West Bromwich newspaper. The *Inquirer* has avoided all reference to our article in its last two monthly issues, and the General Election will be over before its next number is due. It would seem, however, that the letter-writing ring had been "warned off" the fictions in question, which, in presence of our antidote, are no longer useful for poisoning the public mind, but would rather bring obloquy on those who might repeat them.

But the armoury of antivaccination is by no means limited to one poisoned weapon. A correspondent sends us a leaflet which has been issued in connexion with the candidature of Mr. Arnold Lupton for representation of the parliamentary division of Sleaford, Lincolnshire, in opposition to Mr. Chaplin, who was President of the Local Government Board when the Vaccination Act of 1898 was passed. Mr. Lupton has offered, if any elector in the Division can prove a serious or substantial error in the statements of facts, a reward of £1 for each separate mistake. We know not who is to be referee, but demonstration of falsity is not a whit more difficult than with regard to ordinary antivaccinist allegations. The leaflet, which is duly authenticated by the name of a printer in Sleaford, contains several sections, of which the first is entitled Vaccination, and one paragraph is as follows:

> ROYAL COMMISSION, SECOND REPORT, p. 278.—"3,953 revaccinated soldiers in the British Army suffered from small-pox, of whom 391 died of the disease."

The quotation marks are as in the leaflet. It is simply untrue that any such words appear at page 278 of the Second Report of the Royal Commission on Vaccination. The statement in the leaflet is unquestionably a falsehood, as any one having access to the Report can ascertain at once, and if the challenge is fairly made there should not be the slightest difficulty in earning the forfeit, which should be handed over to the Jenner Society or the Imperial Vaccination League.

But we go much further. It is proverbially unsafe to assert a negative, yet we have no hesitation in absolutely denying that the Royal Commission on Vaccination in any one of its reports ever wrote as quoted in the leaflet. And, reckless as were the antivaccinators' witnesses before the Commission, we shall not insult them by believing, until Mr. Arnold Lupton quotes chapter and verse containing the words in question, that any single one of the hundred and eighty or thereabouts who gave evidence was guilty of making this false statement before the Commission.

The assertion in the leaflet is false not only in form but in substance. On page 278 of the Second Report there is a table showing the admissions and deaths from small-pox among soldiers in the army in the United Kingdom, Colonies, India, and Egypt respectively in the long period of twenty-nine years, 1860 to 1888 inclusive, and if all these are added together, the totals are 3,910 admissions and 391 deaths. The author of the leaflet gives the attacks, not as 3,910, but as 3,953, from which it appears that he cannot even do correctly a sum in simple addition, or else, which is more likely, that he is relying on some previous blunderer, though posing as having himself referred to the Report. But that is a trivial and common deception amongst opponents of vaccination, and the real question is, Who said that these 3,910 soldiers were revaccinated? Certainly *not* the Royal Commission, and Mr. Lupton must accept the responsibility for the invention, or interpolation, until he is able to transfer it to other shoulders. Systematic revaccination of all recruits dates from 1858, and the statistical table begins in 1860. It is obvious that by 1860 only a small fraction of the army consisted of such recruits, and the table shows that in the first five years of the twenty-nine the total cases were 1,368, while in the last five years (1884-8 inclusive) the total was only 497. But in addition, and with reference to the fact that small-pox has not even yet entirely disappeared from the army, it has to be noted that in the army:

---

[1] BRITISH MEDICAL JOURNAL, November 25th, 1905, p. 1410.

> It has been stated that the percentage of unsuccessful vaccinations is often as high as 20 to 30 per cent. It is certain that soldiers are often disposed to withdraw, if possible, the vaccine matter, and thus to prevent vaccinia ensuing on the operation.

This is a genuine quotation from the Royal Commission, and if Mr. Lupton will not accept the word of the Commission, notwithstanding the leaflet's bogus quotation from it, he will surely fall in with the testimony of Mr. William Tebb, ex-President of the Antivaccination Society, who recorded long ago how a sentry on duty, who was also an antivaccinist, said to him: "Some of "us say what is not true, that we were vaccinated, "say, two years ago, when they let us alone." Moreover, just as in Germany small-pox is sometimes contracted from adjoining countries like Russia, where vaccination is neglected, so our soldiers in India and Egypt are apt to be specially exposed to infection, and it was the army in these countries that furnished six-sevenths of the cases in the last five years of the table.

Another statement in the leaflet is the following:

> It is calculated that 100,000 people are killed every year in our country alone by vaccination.

This paragraph follows that already quoted. But who made the calculation? The forfeit will not easily be won here. It will be open to Mr. Lupton to say that he himself was the calculator, or possibly he can get the President of the Antivaccination League, or some one of his numerous vice-presidents, to father the wild absurdity. The fact is that with regard to about fifty deaths in a year in England and Wales some mention has been made of vaccination in the death certificate. That an antivaccinist should assume that in every such case vaccination was the actual cause of death, and should then multiply each case by 2,000, so as to obtain the total of 100,000, is not in the least surprising to any one acquainted with the utter disregard of reason and probability which seizes the victims of the antivaccination craze. The total annual deaths in England and Wales are a little over 500,000, so that to vaccination is attributed very nearly one-fifth of the whole, and the total infantile vaccinations in a year are about 700,000, so that even if 100,000 be added to these to represent revaccinations, the allegation is that one vaccination in every eight is fatal. No such arithmetic is to be found outside of Bedlam or of the Lupton election leaflet.

If other indications are desired of the depth of Mr. Lupton's ignorance and height of his credulity and recklessness with regard to the whole subject of vaccination, they may refer to previous numbers of the BRITISH MEDICAL JOURNAL,[1] where his misstatements regarding German small-pox are dealt with, and where also he is given full space for a letter in which he attempts to defend himself.

It appears, however, from the leaflet that importance is attached to medical authority, and in order to influence the Sleaford electors four medical opinions are quoted against vaccination, and in doing so one of the four men quoted from has conferred on him a medical degree which no university has ever given him. That is of no consequence except as illustrating the antivaccinist's incurable incapacity for truth and accuracy, even in the veriest trivialities which have any relation to his monomania. But seeing that Mr. Lupton does appear to admit that medical opinion is of moment with regard to this medical subject, why does he not quote for the information of his hoped-for constituents the declaration of over 1,100 medical officers of health—men whose daily work consists in fighting preventable disease—that vaccination is essential for the prevention of small-pox?

It is impossible for the BRITISH MEDICAL JOURNAL to nail to the counter every fiction promulgated during the General Election by the adherents of antivaccination. Those to which we have referred here and in the JOURNAL of November 25th are perhaps mere samples of what is being published from Land's End to John O'Groats. Taken as a whole, they constitute a kind of propagandism in which, in addition to direct falsehood, *suppressio veri* contends for chief place with *suggestio falsi*, without either of them obtaining a decisive victory over the other.

The BRITISH MEDICAL JOURNAL knows no politics; it is neither Liberal nor Conservative, Unionist nor Home Ruler, Free Trader nor Protectionist, but where the public health is concerned it has a right to be heard. It asks that candidates for Parliament shall not, for the sake of catching votes, demean themselves by giving pledges for relaxation of those measures which a century of world-wide experience proves to be the only reliable barrier against one of the most loathsome diseases that can afflict humanity. It asks voters to refuse to be cheated of their votes by such misstatements as are being circulated at Sleaford. And it asks members of the medical profession throughout the United Kingdom to do their utmost, each in his own locality, to prevent electors being deceived by antivaccinist candidates, and to prevent candidates being deceived by local antivaccinists or by agents of the Antivaccination League, as to what is and what is not the truth about vaccination.

THE PROFESSION AND THE INCOME TAX.

WE print elsewhere an article dealing with the income tax in its relation to the professional classes. In the Eighties and early Nineties, when the rates of duty were low, the burden of the worker was borne with that patience which is said to be characteristic of the British taxpayer; but with the imposition of the high rates in force during the past six years, and the prospect of their continuance for an indefinite time to come, the question of the just apportionment of the tax has become one of pressing importance. The grievance of the professional man is succinctly expressed by John Stuart Mill, who in his evidence before the Income-Tax Committee of 1851-2 said: "If two persons have equal incomes, and "one of them can afford to spend the whole of that "income while the other is called upon to make a "certain reserve to meet future wants, to demand "from these two persons the same annual sum is "to require from them not an equal but an unequal "sacrifice."

The income of a member of the professional classes is obtained only by means of arduous personal labour following a lengthy period of expensive training. It either ceases altogether or is very greatly diminished by his illness or death. He has consequently so to use it as not only to provide for himself and his family during his lifetime, but also, if he is a reasonably prudent man, to secure a competence for his widow, and frequently to make some provision for his children after his death. He cannot spend the whole of his income, but his neighbour in receipt of an income of equal amount from permanent investments is able to enjoy the dividends as they accrue without thought of the future. If, therefore, these two persons are required to pay the same annual tax to the State, the sacrifice demanded from them is not equal, but unequal.

---

[1] Feb. 13th, 1904 (1) p. 378, and (2) p. 381, and February 27th, 1904, (1), p. 508, and (2) p. 517.

There is another aspect of the case which should not be overlooked. In order to qualify for his vocation the professional man, or his parent on his behalf, has to spend a considerable sum on his education and training. The subsequent return, in the shape of professional profits, should be regarded partly as the reward of skill and labour, and partly as the repayment of the capital sum laid out in order to obtain it. Looked at in this way, the profits of the professional man are not wholly income in the strict sense of the term, and the part which really represents the return of capital should not be treated as income for the purposes of taxation.

It has been said that under the present system both temporary and permanent incomes are taxed only as long as they respectively last, that the professional man's tax ceases with his death, but the tax on income from an invested sum may continue for ever, and, therefore, equality of taxation is best secured by charging equal incomes with the same amount of tax without regard to the character of such incomes. This argument, however, begs the whole question, for it can only be upheld on the assumption that taxation should be in proportion to means, and that wants should not be taken into account. Another argument frequently used is that the allowance of a deduction from the assessment of the amounts of life assurance premiums paid is a sufficient differentiation in favour of that part of a professional man's income which he is required to save, and is indeed to be preferred to a system of differential rates of tax, because it only exempts income from taxation in so far as it is actually used to make provision for the future. The answer is that the allowance for life assurance premiums is made from the assessments on all classes of income alike; it is not confined to the assessment of the worker's income, but is granted also to the owner of property, the fundholder, and the receiver of dividends. It is an exemption in favour of actual savings, but not a differentiation in favour of the savings of the worker. It is sometimes stated that the separate taxes on property in force in this country, such as the death duties, operate as a differential tax against capital, and therefore in favour of the worker. That this is the case to a limited extent cannot be denied, but such differentiation is accidental rather than designed, and its compensatory action is too rough and general to be considered as providing a satisfactory remedy for the inequalities of the income tax.

The Income Tax Committee of 1861 came to the conclusion that the objections urged against the tax are "objections to its nature and essence rather than to the "particular shape which has been given to it," and for this and other reasons they declined to endorse the scheme put forward by their chairman for its amendment. One member was so impressed with the imperfections of the present system that he could think of no remedy short of the repeal of the tax, and it is well known that this view was held by Mr. Gladstone until his death. The abolition of the impost has, however, passed beyond the range of practical politics; and it is but a poor answer to a complainant to tell him that his grievance is admitted, but that there are so many anomalies inherent in the existing system that it is hopeless to attempt to remove any of them.

A differential income tax is in operation in several British Colonies and foreign States, and is not found to be unworkable. Were such a tax introduced into this country the burden which presses with such severity on the professional classes would lose much of its weight, and an admitted grievance be removed. That anomalies and inequalities in other directions would remain is not denied, and it might or might not be possible to devise means of removing them; but the worker should not be debarred from any amelioration of his lot by the fact that he is not the only member of the community who has reason to complain of the unfairness in the incidence of the tax.

No better time for raising the question than the present could easily be chosen. Candidates for parliamentary honours are now before the constituencies, and experience has taught that the candidate is more ready to listen to the views of the electors, and to promise to assist in the promotion of their aims and objects, before the polling day than afterwards, when his election or rejection is an accomplished fact. Much good may be done by interviewing candidates, by obtaining pledges from them, and by heckling them at public meetings; but if any useful result is to follow, if any advance is to be made towards the attainment of the desired end, immediate action must be taken, or the opportunity will be lost and may not recur for several years.

INCIPIENT INSANITY AND LUNACY LAW AMENDMENT.

THAT the earlier the treatment is begun the greater the prospect of recovery is as true of the insanities as of other diseases, probably, indeed, more true; yet it must be acknowledged that, in this country at least, in no other form of disease is appropriate treatment so tardily initiated and so difficult of attainment. This evil is due partly to the general and very natural reluctance on the part of the patients and their relatives to admit insanity, or, having admitted it, to let it be published abroad; and partly to the meticulous care with which the law safeguards personal liberty, and, as the late Sir John Sibbald said, hedges round with statutory precautions the admission of patients to asylums. The consequence is that in most cases the disorder is already inveterate before proper measures can be taken for its remedy. The natural results are, a recovery-rate lower than it need be, particularly among the rate-aided patients, the continual evasion of the law by the well-to-do, and deficient clinical instruction regarding incipient insanity. In Scotland a permissive clause has been in operation since 1866, authorizing a physician, on his own certificate, which is not sent to the Commissioners in Lunacy, but is held as a protective instrument by the person who has care of the patient, to place a patient whose insanity is not confirmed in any private house, and under any guardian he may choose, for a period not exceeding six months for care and treatment. The advantages of this are obvious, and have been frequently pointed out. Amendment of the English law in the direction of a relaxation of the restrictions which hamper the treatment of unconfirmed cases of insanity has been, as our readers are aware, proposed on more than one occasion. At the present moment this and other cognate matters—such as the much-needed powers of certification in cases of morphinism, cocainism, alcoholism, and other drug habits—is under the consideration of the Lunacy Subcommittee of the British Medical Association. The Attorney-General's Bill to amend the Lunacy Acts of 1905 made, it will be remembered, provision for the temporary care of incipient lunatics; but as it required notification to the Commissioners, and visitation of the patients by the Commissioners if they should think it desirable, and, further, that only one patient should be received at the same time and that the certificate, which holds good for six months, may not be renewed within six months of its expiration, it has been felt that its limitations must prejudice very seriously the result of its operation. So much so, that when in 1904 this question was raised at the meeting of the Home Relief Congress at Edinburgh, the notification of these cases of incipient or unconfirmed insanity was strenously opposed by Dr. Clouston and the late Sir John Sibbald and the motion in favour of the proposed legislation withdrawn.

The whole question is of considerable importance; it affects the welfare of great numbers of persons, and indirectly other matters of equal consequence, such as the formation of special mental hospitals and psychiatric clinics. The invaluable effect of the Continental clinics on the progress of psychiatry is beyond dispute, and the effect of similar provision here, as an important supplement to the teaching carried on at our great asylums, equally outside question. As will appear from the précis of the conditions under which lunatics are received into Continental asylums, by Mr. Marcus Wyler, LL.D., printed in another part of this issue, lunacy law in this country differs in so many particulars from the laws of most Continental States that close copies of their clinics would probably be impossible, even if such exact imitation were otherwise desirable. In this relation we would like to draw attention to Dr. Wyler's abstract under "Urgency Reception Orders (Provisorische Aufnahme)" of the laws relating to German and Swiss university clinics, from which it appears that in most of these the Director can admit patients on sight, without any medical certificate, without any stipulation as to the subsequent visitation of the patient by any other medical man, and without any special proof of urgency. With the exception of the university clinics, however, special proofs of urgency are required besides the certificate, under this form of reception. Under "Voluntary Boarders" (der freiwillige Eintritt) it is to be noted that when the law does not decide the contrary licensed houses are free to receive voluntary boarders, as are, of course, the university clinics. In some States no certificate is required for these cases, in others medical certificates are compulsory. Theoretically voluntary boarders should be discharged on request, but in point of fact this is not done, whenever danger to the public might result. For particulars as to this and other points of interest, such as notification to a higher authority, stigmatized by Dr. Wyler as in some German States merely a bureaucratic form, we must refer inquirers to his valuable paper. Dr. Wyler is not a medical man but a jurist, who has contributed many papers on comparative lunacy law to the Continental medical press; the article now published cannot fail to be of service to all interested in this question, particularly at the present time when steps for the amendment of lunacy law are being taken.

◆

THE INTERNATIONAL MEDICAL CONGRESS.

AT a meeting of the German International Medical Congress Committee held at Berlin a few days ago some important proposals for the future conduct of the Congress were made by Professor Waldeyer and Professor C. Posner. One of these was that an International Bureau should be established, which should continue in activity in the intervals between the meetings. This Bureau should consist of the Presidents of the previous and of the future Congresses, and all the Presidents of the several National Committees. The head quarters of the Bureau should be in Paris. Its business should be to maintain the continuity of the Congress, and to co-operate with the Organizing Committee in the arrangement of the programme as far as concerns the division into sections, and the choice of reporters, Honorary Presidents, etc. In support of this proposal it was pointed out that the need of a Court which by its international character would be enabled to prevent or adjust differences of opinion between the Organizing Committee and the representatives of the various special branches of medicine, is seriously felt. At the same time, the existence of such an international Court would make it possible to arrive at a general agreement as to the relations of the great International Congress with the international special congresses and the meetings of the medical societies in different countries. It was further proposed that in future the International Medical Congress should be held, not as hitherto, every three, but every five years. It was urged that it is now recognized on all sides that in recent years the International Medical Congress has diminished in importance. This is said to be mainly due to the too rapid sequence of these gatherings, and it is considered that the holding of meetings at longer intervals would not only make more careful preparation possible, but would encourage the devotion of greater energy and zeal to the solution of scientific problems which now have lost their interest for such meetings owing to their too frequent recurrence. Moreover, less frequent meetings would make the choice of a place of meeting easier. It was suggested that, if the proposals were approved, of the German Committee should bring them under the notice of the other National Committees with the request that, if they agreed with the proposals, they should give expression to their views. At the same time it was suggested that the Committees should be invited to consider in what country and in what city the Sixteenth International Medical Congress should be held. Resolutions in the sense of the proposals of Professors Waldeyer and Posner were unanimously adopted by the German Committee. They will be forwarded to the Organizing Committee with the request that they may be submitted to the Congress for discussion at the Lisbon meeting. Our own views, which are in substantial agreement with those embodied in the resolutions of the German Committee, were expressed in a leading article published last week. The vital point in the whole question is that, if the Congress is to justify its continued existence, it must be truly international in character. This it cannot be if the arrangement of the scientific work is left in the hands of an Organizing Committee in whose counsels local interests and personal jealousies must inevitably play a part, and whose sense of perspective and relative values is apt to be disordered by the fact that they see things from a standpoint exclusively or mainly national.

INTERNATIONAL CONGRESS FOR THE AID OF THE INSANE.

AN International Congress for the Aid of the Insane will be held at Milan this year from September 26th to 30th. The President of the Organizing Congress is Professor Augusto Tamburini, the General Secretary Professor G. Cesare Ferrari. The members of the British Committee are Dr. H. Bond, Superintendent of the London County Colony for Epileptics at

Ewell; Dr. Outterson Wood, Dr. Robert Jones, Dr. H. J. McEvoy, Dr. C. A. Mercier, and Dr. Percy Smith. The questions proposed for discussion are the following: The progress made in the assistance of the insane, especially family assistance, in different countries from 1902, the date of the Antwerp Congress, till now; the organization of observation departments in asylums and colonies, surveillance, and isolation; the methods which have given the best results; the assistance of convalescent lunatics; the assistance of certain classes of insane persons (frenasthenics, epileptics, alcoholics, subjects of moral insanity); psychiatric and neuropathological ambulances and dispensaries; popular sanatoriums for neuropaths; the economic and social results of the progress of assistance for the insane, especially the boarding-out system; the function of the State in regard to the assistance of the insane. Dr. Frank, director of the Münsterlingen Asylum in Switzerland, will propose the establishment of an international bureau for the scientific study of the efficient causes of insanity and the best means of prevention. The Organizing Committee will suggest the study of a method of collecting international statistics of lunacy that will in time develop into a central bureau created by the Congress. An excursion through Italy will be arranged to afford the members of the Congress an opportunity of visiting a certain number of lunatic asylums.

THE AUSTRIAN CANCER COMMITTEE.

AT a recent meeting of the Vienna Medical Society Professor Chrobak presented a report of the doings of the Committee formed on December 2nd, 1904, in regard to the study of cancer. The Committee appointed consisted of Professors Chrobak, von Eiselberg, Hochenegg, von Neusser, Nothnagel, Schauta, von Schrötter, and Drs. Breuer and Teleky, and afterwards co-opted Professors Escherich, Riehl, von Frisch, A. Fraenkel, and Wertheim as additional members. The Committee has prepared a pamphlet bearing the title *Principiis Obsta*, a copy of which is to be sent by the Ministry of the Interior to every medical practitioner in Austria. In this pamphlet stress is laid on the necessity of early operation in cases of malignant disease, and the symptoms of commencing cancer of the lip, tongue, mouth, larynx, breast, stomach and intestine, genito-urinary tract and female genitals are very fully described. The importance of microscopic examination is insisted upon, and practitioners are urged to do all they can to prevent their patients from falling into the hands of quacks. The fact that they so often do so is attributed partly to the negligence of practitioners who, it is said, not infrequently accept examinations made by midwives as sufficient. Professor A. Fraenkel is the editor of the pamphlet.

MEDICINE AND POLITICS IN AMERICA.

"THE spoils to the conqueror" is a principle that finds universal application in American politics. Every change of administration, national or local, is followed by a scramble for the loaves and fishes. Whether it is an embassy or a village post-office, every appointment is given by the dominant party to political supporters, who may or may not be the best fitted to hold it. Medical appointments are no exception to this rule. Superintendents of lunatic asylums are not infrequently chosen, not for their knowledge of mental diseases, but for their political opinions. One of the results of the victory of "Tammany" in New York has been the removal of Dr. Darlington from the office of medical officer. The medical practitioners of Kansas have just had an instructive lesson in the esteem in which the profession is held by politicians. Believing that in the interest of the public welfare the State Medical Society should have a voice in the choice of members of the State Board of Health and the State Board of Examination and Registration, they explained their views to the Governor. It seems to have been borne in upon them by that functionary that this was a delusion. He paid no heed whatever to their representations, but appointed men of his own choice. Possibly the Governor may have an inborn gift for the discernment of modest merit in practitioners who for some reason are not considered by their professional brethren the most suitable for the discharge of duties of the most serious importance to the public welfare, but his act is greatly resented by the profession of Kansas. They complain that he regards them as a negligible quantity simply because they have not "flocked before him and pestered his life with importunities." They mean in future to take an active part in politics, and their first move is to be a systematic attempt to prevent the Governor's renomination and election. We wish them success, for he seems to have placed party feeling above the common weal, and besides he has put a deliberate slight on the medical profession. *Mutatis mutandis*, the story has a moral for us which we hope will be acted on at the coming election.

THE WAR AGAINST QUACKERY.

ON November 10th and 11th, 1905, the Dutch Association for the Repression of Quackery celebrated the twenty-fifth year of its existence. The most notable feature of the proceedings was an address delivered by Mr. van Elk, in which he suggested a scheme of international warfare against quackery. In the discussion which followed Dr. Reissig of Hamburg said that it was not by words but by deeds that the war should be carried on; he therefore proposed the immediate formation of an international committee for the purpose. The meeting approved of the proposal, and appointed Mr. Attorney Lind, and Messrs. van Gelder, Treub, and van Elk, representing Holland, and Drs. Rumpe, of Krefeld, and Reissig of Hamburg, representing Germany, a Provisional Committee with instructions to draw up a plan of action to be submitted to a meeting of delegates early in 1906. In Germany an important step has been taken by the Leipzig Medical Association. That body, which was founded only five years ago for the protection of medical interests, has a membership of some 18,000, and estimates that owing to the support it was able to give to the profession there was an increase of £400,000 in the payments made by sickness insurance societies to their medical officers during last year. The Association has now appointed a Committee to organize a scheme by which, in co-operation with local medical societies and with the German Society for the Repression of Quackery, an active war may be waged against unqualified practitioners of medicine of all kinds.

WHOLE-TIME AND PART-TIME MEDICAL OFFICERS OF HEALTH.

SINCE 1872, when the appointment of medical officers of health was made obligatory upon sanitary authorities in England and Wales, great strides have been made in the department of medicine. Special study in epidemiology and a training in administrative methods are now absolutely necessary for those medical officers of health who have charge of large and densely-populated areas, if they desire to call to their aid all the resources available for the prevention of disease. It is not by any means desirable, however, that this work should become too specialized, and Mr. C. H. Watts Parkinson in his presidential address to the Southern Counties Branch of the Incorporated Society of Medical Officers of Health puts forth a timely warning against men entering the public health service without having had any experience of general practice, though he very properly admits that every candidate for a public health appointment should possess the technical knowledge necessary, and should obtain a diploma in State medicine or public health. There is a tendency nowadays to assume that all medical officers of health should be debarred from general practice, but the address, which deals with many matters of public health interest, demonstrates that it is not impossible for a general practitioner to be at the same time a successful and earnest medical officer of health.

BRITISH PRACTITIONERS IN ITALY.

The proposal to exclude foreign doctors from the rights and privileges of medical practice in Italy is a thorn in the flesh of the Italian Government, and must be a bore to the majority of members of the Chamber of Deputies. Signor Santini once more brought the matter before the Chamber quite recently. He wanted to know what steps the Italian Foreign Office had taken to secure reciprocity of recognition for Italian doctors abroad. The Under Secretary for Foreign Affairs replied that the Italian Government had long been in communication with other Governments in regard to this question, but that almost all of them had replied courteously yet firmly in the negative. The Prime Minister, Signor Fortis, thereupon stated that, for his part, he would never deprive foreign visitors to Italy of the right to consult doctors of their own nationality. While fully agreeing with him as to the wisdom of this course, we may be allowed to point out for the instruction of our excellent contemporary the *Morning Post*, from which we take the substance of a paragraph headed "English Doctors in Italy," that the matter does not now concern us. "Let the galled jade wince; our "withers are unwrung." Italian medical degrees are now recognized by the General Medical Council provided they are conferred by approved universities, and the names of several practitioners holding none but Italian degrees are on the *Medical Register*, and they have all the privileges enjoyed by British practitioners. We may add that we are scarcely surprised that this fact was unknown to an English newspaper, for not long ago we convicted one of the leading medical journals of Italy of similar ignorance.

THE UNITED STATES NAVAL MEDICAL SERVICE.

In his annual message to congress Mr. Roosevelt, speaking of the medical service of the United States Navy, says it is not reasonable to expect successful administration in time of war of a department which lacks a third of the number of officers necessary to perform the medical service in time of peace. "We need men," he adds, "who are not merely doctors; they must be "trained in the administration of military medical "service." Once more we recommend the doctrine here preached by the President of the United States to the Admiralty and the War Office. We have preached it ourselves for years without waking officialdom from its slumber; possibly they may be induced to listen to the warning voice of the man who among living rulers seems to understand most thoroughly the vital importance of a well-organized medical service fully equipped for war.

MEDICAL TERMS IN THE NEW ENGLISH DICTIONARY.[1]

The January part of this great dictionary deals with a section of the *Re's*. The first term with special medical relations that meets the reader is *Reins;* its first meaning is kidneys, its second the loins or the region of the kidneys, and its third ("in or after Biblical use") the seat of the feelings or affections. "The Reynes or "Kidneys," writes an author of 1586, "make grosse and "ill' blouid;" and Philip Barrough, in his *Method of Physic* (1596), said: "The reines are vexed with inflamma- "tion for diverse causes." The noun as well as the verb *Relapse* has a medical meaning; it is defined as "the "fact of falling back again into an illness after a "partial recovery," or "as the return of a disease or "illness during the period of convalescence." An illustrative quotation of the year 1584 gives the not unnecessary advice: "After that time to sleepe and eat "at pleasure, yet measurably for feare of relaps." Another group of words with a medical significance is that containing *Relax*, *Relaxant*, *Relaxation*, *Relaxative*, *Relaxed*, *Relaxer*, and *Relaxing*. "He" (Cullen) "considered the practice of warm bathing the most power- "ful Emollient and the most considerable Relaxant." In 1626 Bacon wrote: "Bathing or Anointing give a "Relaxation or Emollition;" and Salmon, in 1671, is quoted as saying: "Relaxers are such as loosen any "member distended through cold, dryness, or repletion "of wind." An obsolete use of the word *Relieve* is to rise again—for example, from childbed—as in the illustrative quotation from *Melusine* (*c.* 1500): "Whan the lady "had ended the terme of her child-bed, and that she "was releuvd." *Reluctation* has the meaning of "resistance," and used to be employed in a medical sense thus: "The Stomock upon their Ingestion doth "not firmly close, but with some sort of Reluctation." *Remedy*, *Repercussion*, *Remollient*, *Repurgate*, and *Resanate* might all be referred to, but space forbids, and we close this part of Dr. Murray's interesting work, "but with "some sort of reluctation."

THE CHEMISTRY OF ANAESTHESIA.

In a communication read before the Royal Society recently Professor B. Moore and Dr. H. E. Roaf produced additional evidence in support of their conclusion, based on previous researches, that anaesthetics form unstable compounds or aggregates with the proteids of the tissue cells, and that anaesthesia is due to a paralysis of the chemical activities of the protoplasm as a result of these combinations. These unstable compounds or aggregations only persist so long as the pressure of the anaesthetic in the blood is maintained. A comparison has been made of the solubility in serum and in water of chloroform, ethyl ether, ethyl acetate, amyl alcohol, amyl acetate, benzol, and xylol. In every case it was found that the solubility was higher in serum than in water, and that at a certain concentration, definite for each anaesthetic, opalescence and commencing precipitation of proteid took place. The details of the experiments with chloroform are particularly interesting. At equal concentration of chloroform in water or saline solution on the one hand, and serum, haemoglobin, or the tissues (brain, heart, muscle, and liver) on the other, the vapour pressure was found to be always higher in the former than in the latter. The curve connecting vapour pressure and concentration proved to be, in the case of water and saline solution, a straight line; whilst in the case of serum, haemoglobin, and the tissue proteids it was a curve, owing to the fact that association took place, especially at the higher concentrations. Comparative determinations of vapour pressure and concentration, in serum and brain tissue and in ethereal extracts of these which were equal in concentration of lipoid, showed that it was the proteid of the tissue which combined with the anaesthetic. The results obtained by the vapour-pressure and the solubility determinations were confirmed by observing the effects of the addition of chloroform upon the lowering of the freezing point. Determinations of the changes in electrical conductivity caused by the addition of chloroform indicated that, accompanying the combination of the anaesthetic with the proteid, a splitting off of electrolytes took place.

---

[1] *A New English Dictionary on Historical Principles.* Edited by Dr. James A. H. Murray. Reign—Reserve. Vol. viii. By W. A. Craigie, M.A. January 1st, 1906. Oxford: The Clarendon Press; London, Edinburgh, Glasgow, New York, and Toronto: Henry Frowde.

FEEBLE-MINDED CHILDREN AND ADULTS.

IT would seem that in the two Counties Palatine (Lancashire and Cheshire) the problem of the care of the mentally deficient, only in the stage of discussion in the South of England, has been successfully tackled so far as is practicable by voluntary agencies. Recently we reviewed the operations of the Royal Albert Asylum at Lancaster,[1] and now we have before us the report for 1905 of the Incorporated Lancashire and Cheshire Society for the Permanent Care of the Feeble-minded, founded some years ago chiefly by the energy of Miss Dendy to provide residential care and education for children from Manchester and surrounding districts certified as needing special instruction under the Act of 1899, with the view to their being induced to become permanent colonists at Sandlebridge. The report furnishes a satisfactory account of the last year's operations; the finances are in a healthy condition, and the number of subscribers continues to increase, though more support is required to enable the Committee to proceed with their plans of development. Twenty-nine girls are in residence at the girls' house, and we believe (though the report does not tell us) about the same number of boys at the other residential home. Recently a farmhouse near by has been acquired for the accommodation of eighteen to twenty boys over 16, when school age terminates. There is besides a school building used by both sexes, and His Majesty's Inspector (Dr. Eichholz) reports that "the children are well cared for in every "way, and they have made excellent progress both physi-"cally and mentally during the past year." Two new houses, for boys and girls respectively, are in course of erection, in aid of which a building grant of £2,000 has been received from the Cheshire County Council, on condition that a certain number of defective children from that county are admitted. We are told that "over fifty authorities have tried to make "arrangements for sending cases to Sandlebridge." It must be remembered that the principal feature of the work of the Lancashire and Cheshire Committee is that it is permanent in its character, and that, to enable them to provide for the older inmates not only residential homes but the necessary training in varied industries, a largely-increased income will be needed, as no Government grants are available for those over 16 years of age. It is to be hoped that the report of the Royal Commission now sitting will render easier the self-imposed tasks of those who are working for the welfare of the feeble-minded, whether under the Education Acts, as at Sandlebridge, or under the Idiots Act, as at Lancaster; and it would seem that some co-ordination of their respective spheres of work would be economical and to the interest of all concerned.

THE ANKYLOSTOMIASIS CAMPAIGN IN BELGIUM.

IN the course of his report on the Liége district, incorporated in a recent Blue Book on the trade of Belgium, Mr. Vice-Consul Leeds points out the most important factor which made for success in the ankylostomiasis campaign carried out in the mining districts of that country so vigorously during 1904 and 1905, and with such beneficial results. He shows that the chief measure which more than any other was responsible for the diminution in the outbreak was the method adopted for paying the sick workmen during their enforced idleness. At first the miner drew 1 fr. 50 c. a day on the doctor's certificate that he was suffering from the disease, and continued to do so provided he was absent from work not less than four weeks. There was then no attempt made to get him to go in for a complete cure, and to show that he was free from parasites, and the funds voted by the provincial council were therefore practically wasted. It was not till the miners' dispensaries were established that the rule was made that the miner should draw 1 fr. 50 c. daily, irrespective of the time he was invalided, and this permitted of a prolongation of treatment until the cure was complete. The statistics of the success of the dispensaries need not be again given here. It is sufficient to mention that while at the beginning of 1904 rather over 40 per cent. of the miners were found to be affected, at five of the largest mines there are now no cases of the disease.

CIVIL PRACTITIONERS AND MILITARY WORK.

IT was announced in the JOURNAL of January 6th, that courses of instruction in the work of the army medical officer would be given at the West London Hospital to civil practitioners who wished to be prepared to meet the emergencies of a possible war. The opening lecture will be given at the hospital at 4 p.m. on January 20th, by the Director-General of the Army Medical Services, Surgeon - General A. H. Keogh, C.B. The subject will be "The constitution of the army, its "organization, government, and staff; the constitution "and general scope of duties of the Army Medical Ser-"vice and its relation to other branches, its status and "power of command."

PSYCHICAL RESEARCH IN AMERICA.

THE American Institute of Scientific Research, which has recently been incorporated, will take for its province the study of abnormal psychology. It is to be under the direction of Professor James H. Hyslop, and it is intended that the institute shall be something like the Salpêtrière under Charcot and Pierre Janet. It is proposed to study loss of the sense of personal identity, persistent hallucination, amnesia, psychic epilepsy, melancholia, and paranoia.

THE LUTHER HOLDEN SCHOLARSHIP.

THE first election to the Luther Holden Scholarship at St. Bartholomew's Hospital will take place shortly. The Scholarship, which was founded by the bequest of the late Mr. Luther Holden, Consulting Surgeon to the Hospital, will be of the annual value of 100 guineas, and will be awarded by election. Candidates must hold a British qualification to practise surgery, obtained not more than three years before first election to the scholarship, and must have been students at St. Bartholomew's Hospital for at least three years. The scholar will be elected for one year, and be eligible for re-election for a second or third year, and will be required by the regulations which have been drawn up to carry out, either in the United Kingdom or abroad, such research work in surgery as may be approved by the electors. A report of the work done must be sent by the scholar to the Dean of the Medical School one month before the expiration of the year.

HOSPITAL SUBSCRIBERS' LETTERS.

WE understand that the Charity Organization Society is arranging for a discussion on this subject, to be held early in February under the presidency of the Chairman of Council, Sir E. Brabrook. Representatives from the Hospital Sunday and Hospital Saturday Funds will be invited to take part. Mr. Nelson Hardy has promised to open the discussion with a paper. Further particulars will be announced later.

THE Wightman Lecture of the Society for the Study of Disease in Children will be delivered on Friday, May 18th, by M. Auguste Broca, Professeur Agrégé, Surgeon to the Hôpital des Enfants-Malades, and President of the Société de Pédiatrie of Paris, upon the Diagnosis and Treatment of Appendicitis in Children.

---

[1] BRITISH MEDICAL JOURNAL, December 23rd, 1905.

Manchester and Salford.

ADULTERATION AS A FINE ART.

IN his annual report the public analyst of Salford states that Salford stands very high as regards freedom from food adulteration. Looking back over a period of thirty-three years as analyst of the borough, he remarks that where, as in early years, the difficulty was to find pure samples, the difficulty is now to find impureness. In bygone years the work was much easier, for the adulterations were more flagrant; now they are conducted on scientific principles, and it requires greater labour and skill to detect adulteration.

Adulteration has now become a fine art, and the adulterators have got to know what the analyst relies on in certifying samples as being adulterated. They now employ chemists to circumvent the public analysts. Nowhere is this shown better than in the manufacture of the so-called fatted butter.

The analyst makes the suggestion that it should be made illegal to mix butter with water or milk powder, and that inspectors should be allowed to visit butter factories in order to ascertain if fat or oil foreign to butter are on the premises.

A MANCHESTER MORTUARY.

A timely and respectful representation was made to the deputy coroner by Dr. Redmond in regard to what he described as the disgraceful mortuary, or so-called mortuary, at Cavendish Street, Manchester. In asking the deputy coroner to call the attention of the Corporation authorities to the state of matters, Dr. Redmond said that he did not think in all his experience he had conducted a *post-mortem* examination under such difficult or almost impossible circumstances. There was no natural light, and the room was lighted by gas. There were no facilities for making a *post-mortem* examination and it was impossible to make one properly. The coroner said he would see that the complaint as to the unsatisfactory condition of the mortuary was forwarded to the Corporation authorities.

Liverpool.

APPOINTMENT OF SUPERVISOR OF MIDWIVES.

AT the last meeting of the Liverpool City Council on the recommendation of the Health Committee, it was resolved to appoint Dr. A. A. Mussen, the Assistant Medical Officer of Health, to undertake the general supervision of midwives in the city under the Midwives Act, 1902, for twelve months, at a salary of £100 per annum, in addition to his present salary of £450 per annum.

PUBLIC NOTICES WITH REGARD TO THE EFFECTS OF ALCOHOL.

At the same meeting it was resolved by 58 votes to 14 that public notices should be posted throughout the city setting forth the mischief caused by alcohol, and that arrangements should be made to that effect at a cost not exceeding £50.

BURIAL GROUND FOR THE SOUTH END.

It was also resolved to purchase an estate at Allerton, comprising upwards of 233 acres of land, for use as a burial ground for the south end of the city. The estate is considerably larger than is needed at present, but as the owners refused to divide it, and the price asked—£50,000—was very moderate, it was considered advisable to purchase it.

APPOINTMENT OF MEDICAL SUPERINTENDENT AT CITY HOSPITAL.

On the recommendation of the Port Sanitary and Hospitals Committees, Dr. Claude Rundle, M.D.Lond, D.P.H., was appointed Medical Superintendent at the City Hospital, Fazakerley, at a salary of £400 per annum, increasing by £50 yearly to £600, with house, coal and lighting.

Yorkshire.

PROSECUTIONS FOR THE SALE OF ADULTERATED BUTTER.

FOUR firms have been summoned at Hull, under the Food and Drugs Act, for having sold butter adulterated with foreign fat. In each case the butter had been imported from Holland. The cases were dealt with separately. In the first case there was a discrepancy between the analysis conducted by the Government officials and that of Mr. James Baynes, Analyst to the City of Hull. Mr. Baynes stated that he had found nothing inconsistent with the qualities of perfectly pure butter. He also stated that there was no Government standard for butter in this country, and that the only regulation he knew of was that there should not be more than 16 per cent. of water. In deciding against the defendant, the Stipendiary said he must be guided by the analysis of the Government officials, who had had the advantage of making it at an earlier date than the analyst who was called for the defence. In view of the heavy expense to which the defendant had been put, the small fine of 20s., including costs, was imposed. Fines were imposed in the other cases as well. In none of the cases does there appear to have been any intention on the part of the defendants to impose on the public.

At the Selby Petty Sessions a firm of grocers and provision merchants were summoned for selling butter "which was not of the nature and substance required by the purchaser." The evidence was to the effect that a pound of butter, for which the sum of 1s. 3d. had been paid, was found to contain 4.4 per cent. more water than that allowed by the regulations of the Board of Agriculture. A fine of 5s. was imposed, exclusive of costs, which amounted to £2 4s. 6d.

THE WATER SUPPLY OF LEEDS.

In the matter of its water supply Leeds is more happily situated than many towns which are suffering from a scarcity in consequence of the drought of November. The reservoirs at present contain 150 days' supply, as compared with 156 days' supply at the same time last year. The amount stored was 2,696,000,000 gallons last year, and this year it amounts to 2,592,000,000. The average daily consumption in Leeds is 16,000,000 gallons.

For some time the Corporation of Leeds have had under consideration a scheme for the afforestation of the Washburn valley estate. This estate includes a large tract of country used as a collecting area in connexion with the Leeds water supply. The report of a subcommittee shows that work of a preliminary character has now been carried out at Swinsty Moor, and tree-planting has been commenced, about forty men, mostly engaged through the unemployed bureau, being at present employed on it. The total number of trees to be planted this year on Swinsty Moor is 360,750, and comprises spruce, Corsican pine, larch, Scotch fir, beech, sycamore, mountain elm, ash, black and white alder. During the next five years it is intended to plant a total area of 851 acres.

South Wales.

STILLBORN CHILDREN.

AT a meeting of the Barry Works Committee held on January 5th, a revised list of burial fees was returned by the Local Government Board, who desired an alteration. In the original draft it was proposed to charge 2s. 6d. for the interment of a stillborn child and 10s. 6d. for a child under one month, but the Board desired that the charge should be uniform. A member said he thought the proposal would lead to a lot of bodies being buried in back gardens. Eventually it was agreed to make a uniform charge of 5s.

PROPOSED WELSH WATER BOARD.

Mr. C. H. Priestley, Waterworks Engineer, reported to the Cardiff Works Committee, at their meeting on January 5th, upon several Parliamentary Bills about to be promoted by South Wales companies. In regard to the Cardiff Gas Company's Bill to extend their gas supply to several parishes to which the Cardiff Corporation send water, Mr. Priestley urged the desirability of the insertion of a protective clause to prevent the gas pipes being laid in too close proximity to the water pipes. He made a similar recommendation in reference to the Merthyr Gas Company's Bill. In regard to the project of the Glamorgan County Council, Mr. Priestley said there could be little doubt that so far as the provision of a better water supply to many of the districts in South Wales was concerned something required to be done, and it was only by the combination of the small districts, as suggested, and the formation of Water Boards that it was possible to deal with the problem on a satisfactory basis. It was questionable, however, whether the inclusion of a number of counties in addition to Glamorgan would better the chances of the Bill passing, especially as some of the counties had already expressed opinions unfavourable to it. The intention to make two distinct authorities, (1) the County Council itself, and (2) the South Wales Water Committee, both having practically the same powers, was certain to lead to friction between the authorities, and imperil the continuity of action so desirable in a scheme of this description. It did not appear that there would be much advantage to the city of Cardiff in joining the South Wales Committee, Cardiff having already fully provided for itself in the gathering ground at Taff Fawr, which was capable of being utilized to a large extent should the population increase. At the same time protective clauses should be inserted in any Act to make it absolutely impossible for any committee to interfere with the Corporation gathering grounds. The report was approved, and directed to be handed on to the Parliamentary Committee.

Insanitary Houses in Newport.

The Newport Sanitary Committee have decided to appoint a subcommittee to visit and report on houses alleged to be in a dilapidated or insanitary condition.

Rhondda Ambulance Associations.

General Sir Charles Warren, K.C.M.G., has presented a handsome shield for competition among Rhondda Ambulance Associations. It is a magnificent piece of work, measuring about 2 ft. 6 in. in length and about half a yard in width. It has a framework of polished ebony, with a massive plate on the escutcheons, bearing engraved characters indicating the purposes for which the shield is intended.

Scotland.

Queen Victoria's Jubilee Institute for Nurses: Scottish Branch.

Many and varied are the causes conducing to the entering of the portals of the nursing profession; many are the failures, deserved and undeserved; many the disappointments and disillusionments; and many the instances of superficial, half-hearted attention to uncongenial duties; but very many more are the lives nobly spent in whole-hearted devotion to laborious work, bright examples of truest charity, winning little material recompense or reward, gaining little praise and commendation, but lives fruitful of help and blessing, influences of good, and valuable alike to the individual, the community, and the race.

In this latter category we can unquestionably place the great majority, if not all, of the nurses connected with the Scottish Branch of Queen Victoria's Jubilee Institute. The amount of good work done by these nurses since the inauguration of the Institute 18 years ago can hardly be over-estimated. The recent report for the year ending October 31st, 1905, shows that during that period 112,391 visits were paid, and 5,653 patients were nursed in Edinburgh and Leith alone. In carrying out this work a band of 25 nurses has been engaged, and consequently the average number of daily visits paid by any one nurse numbers somewhere about 12 or 13. The great majority, nearly 3,700, of these cases were put under the nurses' care by medical men, the various dispensaries supplying the next largest number, 800. As there are now 268 nurses working throughout Scotland the value of the institution is strikingly evident. In the report we read "The minimum training of Queen's nurses in Scotland is two years in a general hospital approved by the Council, six months in the district training home (with attendance at courses of lectures and training in monthly nursing); and for superintendents and for nurses going to country districts three months in a maternity hospital." These, therefore, are obviously thoroughly trained nurses, doing work of the highest order—facts which any medical man who has worked with them will be the first to corroborate. During the past year several new branches have been formed throughout the country, and it is devoutly to be desired that during 1906 the expansion of the work may be even greater, so that before long there may be no corner of Scotland unblessed by its Jubilee nurse. When that time comes the sick poor everywhere will have a trusty friend and able helper, a guide and advocate for healthfulness and healthy living, while the medical man will find himself assisted by a trusted co-operator, by whose means and through whose efforts his duties and his offices are rendered more efficient and more complete.

Ireland.

Health of Belfast.

At the last meeting of the City Council, held on January 1st, the Medical Superintendent Officer of Health reported that 54 cases of typhoid fever, 60 of simple continued fever, and 77 of scarlatina had been notified; 798 births and 553 deaths had been registered; the annual death-rate from all causes was 20.1; that for children under 1 year old 3.5; the deaths from chest affections were unusually low, owing to the mildness of the climate.

In the discussion on the minutes of the Health Committee, a Councillor raised the question of Inspector Reynold's report, which showed that on the Stoneyford catchment area of the water supply, "the liquid matter of the manure heap flows over the surface of the ground into a watercourse. At the upper side of the dwelling-house the cowshed is situated within a few feet of the stream. This stream is part of the Belfast water supply." "The liquid from the privies gets into the watercourse." There are other statements of a like nature. Inspector Reynold concludes his report by saying: "I may say that I have made reports on above houses at intervals during the past seven years, and the sanitary condition of the premises is as bad as ever it was." An alderman, who was also a Water Commissioner, said that not a drop of these contaminated streams came into the Belfast water supply, being turned into a by-wash. It appeared that the sanitary authority was the Lisburn Rural District Council, and the Belfast Council had no power to put the law in force. The Chairman of the Health Committee said that the Water Commissioners had been approached before; that they had said that the water flowed into Lough Neagh; he pitied the people who drank Lough Neagh water, and thought it was now the duty of the Local Government Board to investigate the matter. The minutes were adopted. At a subsequent meeting of the Health Committee the question of the notification of infectious cases was discussed, and it was considered desirable to impress upon the medical profession the necessity for complying strictly with the terms of the Infectious Diseases Notification Act.

Professor Byers on Ulster Sayings and Folklore.

Professor Byers delivered a lecture on this subject before the Belfast Natural History and Philosophical Society on the evening of January 4th. He pointed out that many sayings referred to the proverbially uncertain weather; many were severe, ironical, or sarcastic. Of a mean person it was said, "He would skin a louse for the hide and tallow"; of one who had no bowels of compassion it was said, "He has no heart at all—he has only a chicken's gizzard"; a boastful person is told, "Ye're a big man but a wee coat fits ye." The lecturer gave some examples of Ulster "bulls": A medical man is often told on entering a house and inquiring about the patient, "Is he better?" "Oh yes, sir; he is better and up, but he is not down yet." A man who was married met a friend who had just joined the army of Benedicks, and asked him, "Well, William, and what sort of wife did ye get?" His friend sorrowfully replied, "She's a regular tartar"; to which came the amusing reply, "Be very thankful ye're so well off, for I've got the crame o' tartar." A maid servant was being sent in an emergency for some medicine; being very dilatory, she was told by her mistress, "If you don't hurry, ye'll be back before ye're out!"

New South Wales.

FRIENDLY SOCIETIES IN NEW SOUTH WALES.

THE report of the Registrar of Friendly Societies for the years 1903-4 has only just been presented to Parliament, but, though somewhat belated, it contains some interesting information as to the progress and experiences of these societies in New South Wales. In commenting on the progress made by the different Orders, the Registrar remarks that it "is somewhat remarkable that the Australian Natives' Association lost 14 branches." This is not at all remarkable to the medical profession in this State, since the profession, as represented by the New South Wales Branch of the British Medical Association, has never ceased to wage war against the encroachments of this organization, which has no claim whatever on the medical profession for attendance at club rates, and which is really a political organization with medical benefits attached to make it "go." The decrease in the number of the branches of this institution is an object lesson to members of the profession on what can be accomplished in defending their rights if they will only stand together. At the end of 1903 the total membership of the Friendly Societies amounted to 94,044, of whom 82,137 were entitled to benefits. In 1903 there were 15,718 persons sick for an aggregate term of 93,439 weeks, and the sick pay drawn amounted to £74,017. Nearly 20 per cent. of those in full membership obtained sick assistance. The average illness lasted 5.9 weeks, at a cost of 15s. 10d. a week. During the same year there were 703 deaths, and £22,441 was paid as funeral benefits, or about 4s. 10d. a head of the membership. For the same year £78,858 was paid for medical attendance and medicine, or about 17s. a head. The total receipts were £396,562, and the expenditure £239,429. Reference is made in the report to the tendency to misuse the funds of these societies in the way of using the sick and funeral funds to meet the expenses of management; in no less than 270 management accounts at the end of 1903 the benefit funds had been wrongfully used. A comparison is made between the funds and membership of the Friendly Societies in the various States. Victoria leads with 101,717 members, with an average of £14 10s. 1d., while New South Wales has 94,044 members, having each £9 1s. 1d. to their credit.

A new branch dispensary is being erected for the Sydney United Friendly Societies at Redfern. The foundation stone was laid by the Premier, and the Earl of Jersey, who was also present, spoke of the advantages of these societies. For the year ended September 30th last 140,126 prescriptions for 80,477 patients were dispensed at the various Friendly Societies' dispensaries in the city. There are 19 societies, with 127 lodges and 9,723 members, in Sydney and suburbs.

ROYAL PRINCE ALFRED HOSPITAL, SYDNEY.

Extension of Nursing Home.

Some thirteen years ago Lord Jersey, when Governor of this State, opened the Nurses' Home in connexion with the Royal Prince Alfred Hospital, and on November 23rd, 1905, advantage was taken of the presence of Lord and Lady Jersey in Sydney to lay the foundation stone of the additional buildings which will be required for the nurses, in consequence of the large additions which have recently been made to the hospital itself. These additions have increased the accommodation by 200 beds, and an increased nursing staff is required. The ceremony was performed by Lord Jersey, with full Masonic rights. Such a ceremony has not been performed in Sydney for many years. Professor Anderson Stuart, the Chairman of the Board of Directors of the hospital, gave an account of the present condition of the hospital, and Lord Jersey made a speech appropriate to the occasion.

SYDNEY AMBULANCE AND TRANSPORT CORPS.

The Civil Ambulance and Transport Corps is now a most valuable aid in the public medical work of Sydney. At the annual meeting held recently under the chairmanship of the President, Professor Anderson Stuart, the report stated that 2,790 cases had been attended to during the year. Of these, 584 were conveyed to the Sydney Hospital, 396 to the Royal Prince Alfred Hospital, and the remainder to the other various public and private hospitals, and to their homes. The year's work was a record for the institution. Since the formation of the brigade over 17,400 persons had received the benefit of their services. Last year a reduced scale of charges was adopted for persons employing the services of the corps and for those in a position to pay, it being considered that adequate remuneration should be obtained from the well-to-do who had the benefit of the experienced help of the corps. At the same time the institution continues to give gratuitous help to the poor requiring transport to hospitals, or in cases of accidents, first aid, etc. It is one of the features of this institution that all its medical officers, lecturers, and examiners must be members of the British Medical Association.

BUBONIC PLAGUE.

Rats infected with plague continue to be found at intervals in the neighbourhood of the wharves in Darling Harbour, and the possibility of an outbreak of the disease among human beings is kept constantly in view by the Board of Health. A French mail steamer left Sydney on November 6th for Marseilles, touching at various ports. On the day after leaving Adelaide in South Australia an outbreak of plague occurred, and a number of dead rats were found on board. On reaching Fremantle, in West Australia, three of the crew were found to be suffering from this disease. As plague is not known to exist at any port between Sydney and Fremantle, it is presumed that the infection was received while the steamer was in Sydney, or else she had become infected in Noumea, New Caledonia, from which port she started on her homeward journey. In any case it is somewhat disquieting, since it implies that there is a possibility of plague being introduced to Sydney, in spite of the precautions which are being taken, or else that vessels lying at Sydney wharves can be infected. The Board of Health have been notified of a fresh outbreak of the disease at Honolulu, and the strictest regulations are being enforced against vessels arriving from that port.

Hong Kong.

PUBLIC HEALTH.

SOME very startling facts regarding the sanitary circumstances of the colony of Hong Kong are revealed in the report of the health officer, Dr. Francis Clark, for the year 1904. The colony covers an area of some 48 square miles, and comprises a population of 361,206, of which 342,306 is Chinese; mostly inhabitants of the City of Victoria, in some districts of which great overcrowding exists, the number of persons per acre in one exceeding 900; 72.9 per cent. are males, and 50.2 between the ages of 20 and 45. The white population numbers 13,106, of whom 6,991 are civilians, and the remainder soldiers and sailors; 50,000 of the Chinese live in boats. The year was, as regards weather, normal. The rainfall of Hong Kong is gradually diminishing, and this causes some apprehension regarding the water supply. The fall of 1904 was 80.41 in.—a little above the average. The general birth-rate was 3.3 per 1,000; for non-Chinese it was 13.9, and for Chinese it was 4.4. The infant mortality among the latter is appalling, and 572 bodies of infants under 1 year were found in convents, on the streets or in the harbour. Adding these to the registered births the rate rises to 4.4 and the proportion of infant deaths to births reaches 784 per 1,000. Excluding them, deaths of infants exceed births. Of the registered births 621 were males and 321 females; of the "dumped" bodies 203 were males and 369 females. Nervous diseases, convulsions, tetanus, and trismus, are the chief causes of infant deaths. The management and feeding of infants are evidently outrageously bad. In one *post-mortem* examination ruptured stomach was found, caused by an excess of solid food. The death-rate of the year was 18.29, and excluding plague, 16.79. The Chinese rate was 17.18. This low mortality is explained partly by the age of the population and partly by the practice of returning to China when taken seriously ill. In many instances the dead are left in houses or thrown on the streets, hillsides, or into the harbour; 674 such cases were taken to the public mortuary, of which 63 per cent were "dumped." Chest diseases account for nearly one-fourth of the mortality, and a large proportion of these is caused by phthisis.

Malarial fever causes a considerable proportion of deaths, but owing to antimalarial measures the number of malarial deaths is declining. Nervous diseases are very fatal, particularly among infants. Beri-beri and plague caused numerous fatalities, and there were slight outbreaks of cholera and small-pox; 129 deaths from enteric fever were registered, 54 among Europeans, 55 among Chinese, and 20 among other Asiatics. Dr. Clark maintains that the adult Chinese is comparatively immune, and attributes this to attacks in childhood; he gives facts in support of both opinions.

The report gives evidence of active sanitary administration and effort, more especially in the direction of relieving overcrowding, improving dwellings, and cleansing.

The General Election.

NOTES.

THE BRITISH MEDICAL ASSOCIATION.

BY direction of the Central Council, on the recommendation of the Medico-Political Committee, action is being taken to bring to the notice of those medical practitioners who are concerned the previous action as regards legislation affecting the medical profession of members of the late Parliament who are again offering themselves for election.

The matters affecting the profession or public health recently brought to the notice of Parliament have been as follows:

Vaccination.
Vivisection.
Security of tenure of medical officers of health.
Pharmacy Acts Amendment Bill.
Accident (Mines and Factories) Bill, by which it was proposed to transfer to lay inspectors the work now done by factory surgeons, work which in the opinion not only of the medical profession but of representatives of the Labour Party requires medical knowledge.

In the case of every member of the late Parliament who opposed or supported the policy of the profession in reference to these matters and who is again offering himself for election his medical constituents are being notified by the Association of the action which he took.

ASSOCIATION OF PUBLIC VACCINATORS.

The Association of Public Vaccinators has issued to every parliamentary candidate in England and Wales a pamphlet entitled *The Prevention of Small-pox*, recalling the conclusions of the Royal Commission on Vaccination, explaining the advantages of revaccination, and quoting the experience of Germany. The address of the Association is 1, Mitre Court, Temple, E.C.

THE ASSOCIATION OF CERTIFYING FACTORY SURGEONS.

The Council of the Association of Certifying Factory Surgeons has issued to all certifying surgeons in the country a letter inviting them to bring to the notice of candidates for election to Parliament certain questions in which Certifying Factory Surgeons are particularly interested. The candidate is invited to promise to resist any further attempt to abolish the sixty years old statutory requirement to have the causation of all preventable factory accidents systematically investigated by the factory surgeon; he is also invited to express an opinion in favour of the establishment of an advisory council to the Government on all legislative and administrative points concerning public health, to be constituted of representatives from State departments and medical corporations, including the official organization of the Certifying Factory Surgeons. He is further asked to express approval of the extension of the present medical inspection of young persons over 16 years of age for factories, to cover re-examination at stated periods, and to include young persons employed in coal mines and workshops, and women returning to work after childbirth. Attention is also called to the unprofessional character of the fee (6d.) now paid for the medical examination and certificate of health under the Factory Act.

UNIVERSITY OF LONDON.

We have received the following communication from Sir Thomas Barlow, Bart., M.D., Chairman of the Committee formed to promote the re-election of Sir Michael Foster, K.C.B., M.D., F.R.S., as representative of the University of London:

"When at the last election Sir M. Foster was persuaded to come forward as a candidate his supporters included graduates of both political parties, who considered that the University could not better use its privilege of representation than by enabling the House of Commons to have among its members a man who combined with great scientific and literary attainments much administrative knowledge and a distinguished personality. Graduates in medicine and science might be considered to have had special reasons for desiring his return. They were acquainted with Sir Michael's position as a physiologist; they knew what he had done as Secretary of the Royal Society and in other ways to promote scientific and medical research, and to press the importance of questions of science and public medicine upon Government departments; they knew also his good work on Royal Commissions (vaccination, sewage disposal and pollution of rivers, etc.). The support which Sir Michael then received, however, was in no way sectional. It was general, and given by graduates of all faculties in Convocation.

"The confidence of Sir Michael Foster's supporters has been justified by events, notwithstanding that the record of the late Parliament was singularly poor in discussions and legislation on matters relating to science and medicine, and that Sir Michael was for some time handicapped by a period of very indifferent health. It is no small matter to be readily listened to in the House of Commons. Sir Michael has on many occasions intervened in debates on subjects as to which he possesses special knowledge, and it is beyond question that on those matters he has come to secure the 'ear of the House' and has influenced its decisions. This was notably shown by his appeal for scientific consideration in connexion with the 'Beer Bill,' in debates on vivisection, and on matters affecting the Public Health service. Sir M. Foster has organized the Public Health Committee of the House of Commons, and has acted as its Secretary. Largely owing to his influence a Committee was appointed to deal with legislation regarding the State registration of nurses. He has served first as a member and afterwards as chairman of the Committee on the ventilation of the House of Commons, and in this work has superintended a series of experimental observations with a view to the improvement of the present system. He has spoken on lunacy questions, and has consistently worked together with Sir J. Tuke in keeping watch on all questions affecting public health. Sir Michael has taken a prominent part in representations to Government departments on various matters where science and administration are alike concerned; and in such matters, as also in organizing the extensive research work of the Royal Commission on Tuberculosis, of which he is Chairman, his position in Parliament has added to his influence.

"In the opinion of Sir Michael's supporters, the likelihood of greater attention to questions of internal reform and development in the coming Parliament makes his re-election of importance not only for the University but for the country, and his Committee trust that, as before, he will be supported by graduates who belong to both of the political associations of the University."

Communications may be addressed to Sir Michael Foster's committee-rooms, 84, Chancery Lane, W.C.

UNIVERSITIES OF GLASGOW AND ABERDEEN.

Mr. D. M. A. Chalmers, Honorary Secretary of the Aberdeen University Unionist Association, 18, Golden Square, Aberdeen, writes to controvert the statement by Professor Smith, reported in the BRITISH MEDICAL JOURNAL of last week, page 49, to the effect that the electoral association by which he was selected is the senior of the University associations. Mr. Chalmers states that the Association of which he is Honorary Secretary has existed since 1868, has acted in co-operation with the Unionist candidates since that date, and has been in close communication with the similar Association in Glasgow, and with the branch Association in London.

It was to the Chairman of this Association and of the sister Association in Glasgow that Mr. Campbell, the retiring member, intimated his intention of not seeking re-election. Mr. Chalmers states that Sir Henry Craik was selected as a candidate at a meeting of the committee of each Association duly convened and largely attended. The choice was subsequently ratified by largely-attended meetings of the electors, and was notified to graduates by letter on November 8th, 1904.

On Monday last Professor Smith addressed the graduates of Glasgow-Aberdeen Universities, at the College of Medicine, Newcastle-upon-Tyne. The chair was occupied by Professor T. Oliver, who, in his introductory remarks, said he thought the honour of representing the two Universities in the next Parliament should fall to Aberdeen, since for more than a quarter of a century that distinction had belonged to Glasgow. Professor Smith was a graduate of Aberdeen University. There are occasions in Parliament when questions concerning the health of the people generally had to be discussed and when the interests of the medical profession specially are concerned. For these and other reasons medical men particularly should not lose this opportunity of returning to Parliament a gentleman of Professor Smith's scientific and medical attainments. Professor Smith, who was enthusiastically received, gave a spirited and instructive address, in which he remarked that Parliamentary representation of universities was for the graduates and not the universities. He also detailed at length the origin of the dual electoral association, and stated that the senior association, of which he was the nominee, was that which was in sympathy with the aspirations of the graduates. Dr. Smith expressed himself at considerable length in regard to the burning questions of the day.

Professor W. R. Smith's election address contains the following passages:

I am in full sympathy with the desire for legislation in connexion with the Medical Profession, which is practically without representation in Parliament, and which, from the extremely rare occasions it is possible for a Medical Practitioner to become a candidate, is likely to remain so.

I would support measures—

(*a*) For the amendment of the constitution of the General Medical Council and the reorganization of its powers.

(*b*) For the improvement of Death Registration and the law relating to Coroners.

(*c*) For the amendment of the Midwives Act.

(*d*) For giving Security of Tenure to Scottish Poor-law Officers, making them removable from office only with the consent of the Local Government Board.

(*e*) For giving adequate Salaries and Superannuation to Irish Poor-law Officers.

(*f*) For giving Security of Tenure to Provincial Medical Officers of Health.

In these and in other ways I should wish to be of service to the Medical Profession and its practitioners.

ST. PANCRAS, WEST.

Sir William J. Collins, M.D., Chairman of the London Education Committee, who is the Liberal candidate for West St. Pancras, has been approached by members of the profession resident in the constituency, and has returned answers to the questions on parliamentary subjects affecting the medical profession which were published in the SUPPLEMENT of January 6th.

Sir William Collins says that he is strongly in favour of a much larger proportion of the General Medical Council being directly-elected representatives of practitioners, and has endeavoured to promote the one-portal system.

With regard to death registration and coroners' law, he states that he has twice acted as spokesman of deputations to the late Lord Chancellor, which pointed out that no death should be registered except upon production of medical certificates in statutory form of the fact that the death has actually occurred, and of its cause, or upon a coroner's order, and urged the appointment of medical assessors in each coroner's district, with a proviso that a fee should be paid to any medical witness who could help to elucidate the cause of death. He is also in favour of the certification and registration of stillbirths.

With regard to the Public Health Bill, he considers that medical officers of health and sanitary inspectors in England and Wales should have the same security of tenure as county medical officers, that the qualification of medical officers of health in England and Wales should be raised, and that medical officers of health and sanitary inspectors should be placed on the same footing as Poor-law medical officers with regard to superannuation.

After serving on the Royal Commission on Vaccination he came to the conclusion that vaccination and revaccination should be voluntary, not compulsory. Neither the principle nor the practice in respect to the conscientious objector approved themselves to him.

He is in favour of the appointment of a Royal Commission to investigate the present central administration of public health.

As to the Midwives Act, he considers that it requires a great deal of amendment, and would favourably consider the proposal to make provision for the payment of medical men called in under the requirements of the Act to assist midwives in emergencies.

With regard to incipient insanity, he considers that receiving houses should be tried for such cases. As to habitual inebriety and drug habits, he is in favour of such amendment of the law as would make inebriate reformatories available for inebriates not at present eligible under the Acts.

He is in favour of giving greater security of tenure to Poor-law medical officers in Scotland, and would favourably consider legislative and administrative changes to provide adequate salaries and superannuation for Poor-law medical officers in Ireland.

With regard to medical inspection of school children, he doubts the wisdom of seeking further legislative powers, as much is being done and can be done administratively at present.

CHELSEA.

A deputation appointed at the last meeting of the Chelsea Division of the British Medical Association has ascertained that Messrs. Horniman and Whitmore, the two candidates for Chelsea, are favourably inclined to all the propositions set forth by the Association.

MIDDLESEX, BRENTFORD.

Dr. H. V. Rutherford, Liberal candidate for this division, states in his election address that he is in favour of the proposed Medical and Dental and Pharmacy Amendment Bills.

DERBYSHIRE, ILKESTON.

The Right Honourable Sir Walter Foster, M.D., is standing in the Liberal interest for this division, which he has represented for eighteen years. He has unremittingly endeavoured to promote in every way in his power the interests of the public health and the medical profession in matters coming before Parliament. His services to the profession in these respects have been so numerous that they cannot be set forth in detail, but must be well known to all members of the profession. (See also the BRITISH MEDICAL JOURNAL, January 6th, p. 36.)

SUSSEX, RYE.

Dr. C. F. Hutchinson, who was elected representative of this division at the by-election in 1903, is standing again in the Liberal interest. Dr. Hutchinson, as a member of the House of Commons, has supported in every way in his power the interests of the public health and the medical profession. He rendered special service by introducing the Public Health Bill to provide security of tenure for medical officers of health, by opposing certain Bills which the British Medical Association considered prejudicial, and by inducing the late President of the Local Government Board to receive a deputation from the Association regarding the reorganization of that Board.

LINCOLNSHIRE, SLEAFORD.

The Right Honourable Henry Chaplin, who has represented this division since 1885, and who was President of the Local Government Board from 1895 to 1900, and introduced and passed the Vaccination Act, 1898, is opposed by Mr. Arnold Lupton, who is an avowed anti-vaccinationist. We deal elsewhere (p. 96) with this gentleman's so-called challenge to supporters of vaccination.

SPECIAL CORRESPONDENCE.

PARIS.

Académie de Médecine: The Influence of Heat on the Evolution of Tetanus.—Crèches for the Nursing Staff of Hospitals in Paris.—The Chair of Clinical Therapeutics.

AT the first meeting of the Académie de Médecine in the new year, the President for 1906, M. Guénist, occupied the chair, and, in the absence of the retiring President, read a summary of the work accomplished in 1905, and of the original communications which have been analysed in the BRITISH MEDICAL JOURNAL.

M. Kelsch presented a report by M. Roux and himself on a contribution to the study of tetanus and the influence of heat, by M. Vincent. This investigation was suggested to M. Vincent by the case of a man who succumbed to a very acute attack of tetanus; the point of entrance of the microbe could not be found, the patient having but a few insignificant excoriations already cicatrized. The patient, six or seven days prior to the attack, had taken a walk in the sun in very hot weather, and on his return had had fever, insomnia, and a violent headache. M. Vincent thought that the cause which favoured the infection was possibly the resulting raised temperature of the body, and he determined to look for experimental proof. He took a guinea-pig, and injected ⅕ c.cm. of a culture of the bacillus in spores, and freed of toxin; the animal was placed in the incubating room at 40° C., and the temperature taken every half-hour. A control guinea-pig, to which he injected the same dose, was left in its cage at the ordinary temperature of the air. The first guinea-pig was withdrawn from the incubating room when the thermometer marked 42° C.; the general condition was not apparently changed, and after a few hours its temperature returned to normal. Two or three days later the first signs of tetanus appeared; death followed rapidly, with all the symptoms of splanchnic tetanus. The control animal did not develop the disease. To produce an acute and generalized tetanus it is not necessary that the inoculation should be immediately followed by the application of heat. Heat has provoked infection in guinea-pigs which had been inoculated thirty, forty, and even sixty days previously, and it is thus evident that the tetanus bacillus inserted in the spore state under the skin can remain in a latent state for relatively lengthy periods. It is thus easy to understand why in human pathology it is often so difficult to find the point of entrance of the bacillus, the wound having been healed for a long time. The bacteriological examination of the guinea-pigs brought to light other new points in the history of experimental tetanus. In man tetanus is the type of local infections, and the microbe is only found in the wound which served as point of entrance. In the guinea-pigs which died of the very acute form of the disease, all the tissues, and even the blood when taken in very small quantities, gave cultures of the bacillus of Nicolaïer in every case. Heat may entirely change the usual pathogenic conditions of this affection and create a state of receptivity in which the bacillus becomes generalized throughout the body of the infected animal. Heat appears to be the most energetic of the conditions which favour the development of tetanus. M. Vincent considers that this result is due to diminished resistance on the part of the animal subjected to heat, and not to an increased energy in the microbe, neutralizing the defensive forces of the organism and paralysing the phagocytes. To prove this point, M. Vincent carried out a second series of experiments on guinea-pigs to study the effects of elevation of temperature on the leucocytes in the animal's blood. As soon as the temperature of the animals reaches 42.5° C. to 43° C. a leucolysis occurs affecting especially the phagocytes, the polynuclear and large mononuclear cells. The polynuclear cells abandon the spores, and thus the multiplication of the microbe throughout the organism becomes possible, explaining the rapidity and generalization of the disease. To what extent are these conclusions applicable to man? Heat and sunstroke favour the infection in man as in animals, for medical geography shows that tetanus reaches its maximum frequency and gravity in hot countries, especially in the tropics. The influence of high temperatures also influences the gravity of dysentery, tropical malaria and typhoid fever. The pathogenenic influence of heat on typhoid fever is shown in the annual incidence of the disease in Algeria; it is at its minimum during the first five months of the year, increases suddenly with the rise of temperature in June, reaches its maximum in August or September, and then falls gradually from October on to January. This annual evolution follows exactly that of malaria. It is, moreover, when the temperature is at its maximum in Algeria that the most grave forms of the disease appear, with rapid evolution and nearly always a fatal termination; it is there, also, that the endemic disease, contrary to its usual habit, attacks the older and acclimatized inhabitants.

M. Mesureur, the Director of the Assistance Publique, has recently decided to create *crèches* in the hospitals in Paris for the use of the nurses. Up to the present time the married nurses, on giving birth to a child, were obliged to place it out to nurse in the country, with the result that the child as often as not died. The first *crèches* are to be opened at the Hospitals of St. Antoine and Ivry, and nurses in other hospitals who become mothers will be temporarily transferred to one of these hospitals. They will thus be able to feed their offspring at the breast at regular intervals, the child being kept in the *crèche*; during the night, that the nurses may have proper rest, the infants will be fed with sterilized milk. M. Mesureur is thus following the example set by several large manufacturers who have started *crèches* in connexion with their works, to which the mothers go at regular intervals to feed their infants, taking them home again when the day's work is done.

Dr. Albert Robin has been appointed Professor in the Chair of Clinical Therapeutics, recently created in the Faculty of Medicine by the generosity of the Duc de Laubat.

BERLIN.

Social Medicine.—Compulsory Insurance and Professiona Secrecy.

A NEW seminary for what is called in German "Sociale Medizin"—that is to say, medicine in relation to the masses—is to be opened at the beginning of February. Its object will be to spread amongst medical men, officers of health, and advanced medical students the knowledge of sociological medical institutions and the ways and means by which medical men can make use of them for the advantage of patients. The courses, which are to be free, will include inspection of the different institutions and study of their practical working, under the guidance of specialists, and also lectures on the great workpeople's insurance organization, with practical examples of certificates, demands for aid, etc.

The German society for combating venereal disease has addressed a memorial to the Imperial Chancellor, Count von Bülow, praying that henceforth secrecy should not only be exacted from medical men and their assistants, and from chemists and chemists' assistants, but should likewise be binding on the managing staff and clerks of hospitals and all public organizations for accident—or sick—insurance and for poor relief. The memorial points out that whereas heretofore only medical men and assistants knew of the patient's disease officially, recent legislation has largely increased the number of persons having official cognizance of it. The claims of the insured on State insurance organizations and sick clubs are based on the medical expert's certificate; and it is this certificate, with its information as to cause and character of the disease, and of the therapeutic measures required for its cure, that enables such organizations to do their work promptly and efficiently. But these communications have to pass through the hands of numerous officials and junior clerks, none of whom are bound to secrecy; and not only may this give the patient a feeling of uneasiness and lead to dangerous concealment of symptoms, but it also places the medical man himself in a false position; for, while he is bound to secrecy as regards his patient's disease, he is, nevertheless, forced professionally to disclose its nature to third persons from whom no discretion is required.

VIENNA.

A Course of Instruction for Nurses.—Surgical Demonstrations.—The Fight against Impure Air.—Congenital Manus Vara.—The Teaching of Hygiene in Public Schools.

With a view of encouraging young women to devote their time and abilities to the nursing of the sick, courses of instruction are to be given in the general hospital during the winter months, each course extending over a period of eight weeks, with three hours of practical teaching every week. The instruction will be given by special physicians, and it is hoped that persons of the better class of people will take advantage of this opportunity. As the new clinics in course of erection are not far from completion, a large number of new nurses will be required for them. The present system of nursing is in a deplorable state as far as private nursing is concerned, as hitherto only women of not very high intellectual and social standing adopted this occupation. A change was effected by Billroth and Gersuny, who succeeded in persuading several young ladies to take up hospital nursing; but the number of clever, educated, and trustworthy nurses is still rather small. Lately Sisters of Mercy have superseded private nurses in a great many wards, but they are not to any great extent available for private nursing. On the completion of the courses the hospital will award a medal with "the Red Cross" to candidates who pass a severe examination.

Another novel institution is the surgical demonstration in the operating theatre of the clinic of Professor Hochenegg, which will be held every other Wednesday evening. Admission is free to every practitioner, and any surgeon can demonstrate private and hospital cases. It is proposed to show only such cases as are to be met with in everyday practice, without going into the details of scientific and descriptive exactness. The main point is to supply practitioners with useful hints on diagnosis and treatment. All the surgeons of the Vienna hospitals have consented to help Professor Hochenegg in his endeavour. At the first demonstration it was found that the hall was almost too small for the number of those who attended.

The smoke nuisance has lately become so troublesome that measures must be adopted to combat it. The orographic peculiarity of Vienna—the city being stretched southward from the Danube, and the winds coming mostly from the north and west—has an unpleasant consequence. The town is growing towards the west and north, and new factories are constantly being erected; the railway lines and terminus are also in the same direction. All smoke is thus carried by the prevailing winds towards the central parts of the city. Complaints have been lodged by private companies against the offending corporations, and the latter have now adopted a smoke-destroying apparatus, or have been on the look-out for smokeless machines. The town council has worked out a plan to prevent the erection of factory chimneys in the districts lying in the direction of the wind, and offers special advantages to manufacturers who employ electric power on their plants. The local railway lines are in course of reconstruction for electric traction, so as to eliminate also this source of smoke. The use of "brown coal" in the houses cannot, however, be stamped out, as the difference of price forces the great majority of households to employ it instead of the dearer but less smoke-producing "black coal." Another source of contamination of the air—horse dung—which used to be found in nearly every street, has now been greatly diminished by the abolition of horse trams. For about a year only electric traction trams have been in use.

A very rare case of congenital deformity was exhibited by Dr. Handek at the last meeting of the Viennese Medical Society. The patient, aged 2½ years, was the subject of "manus vara" (contractura carpi manus). The child had been born normally at term, but the mother had noticed that there were no "waters." The midwife immediately drew the attention of the parents to the appearance of the hands. The wrist is, on both hands, flexed; the fingers are also flexed, but not fixed in that position. The elbows and shoulder-joints are normal. There is very marked pes equino-varus on each side; the knee and hip are normal. The movements of all joints, except those mentioned as affected, are normal. Voluntary extension of the fingers was possible only in a slight degree; passive extension is easily effected, except on the three last left fingers, where the flexor tendons are shortened. The condition has been gradually improved by the parents by pushing small balls under the fingers, increasing their size by degrees, until at present the child is able to grasp several things. The lower limbs are not fit for walking on account of the malformation. The tendon reflexes are normal, the sensibility to faradic and galvanic currents somewhat reduced. In addition the child presents a slight hydrocephalus and nystagmus, which diminishes when the child is looking intently at anything. The mouth is constantly open, interfering with eating and drinking. Radioscopic examination shows that there is no defect in the ossification of the radius or ulna or the carpal bones. Only 55 such cases are on record. The cause of such malformations seems to be of double nature—first, a cerebral inflammation or anomaly; and, secondly, a mechanical factor, the absence of the amniotic liquid exposing the fetus to the pressure exerted by the uterine walls. The treatment consists in massage, electricity, static and faradic currents, active and passive movements, and splints. The pes equino-varus requires a *redressement forcé* under an anaesthetic and a bandage with plaster-of-paris.

A new Bill has been promulgated by the Ministry for Education, in which regulations for the elementary schools have been introduced bearing upon medical reforms. The clause provides that children suffering from infectious diseases must stay at home; but great care must be taken to prevent infection by children—convalescents, brothers and sisters of sick children—who, without being ill themselves, may convey the disease to others. Another enacts that hygiene must be taught in the lower classes of the elementary schools, and instruction given as to the danger of the abuse of alcohol and tobacco. A novel feature is the creation of the school doctor, who by the new law is entitled to give his opinion in all matters medical, as far as regards school hygiene. He can overrule any other order given by a non-medical authority. The manifold duties of the school doctor are enumerated, but the question of payment is not even mentioned. It is to be feared that the condition will not lead to improvement, and that such appointments will not be given to the practitioners, but placed on the shoulders of the already overburdened police or district officer of health.

CORRESPONDENCE.

PARLIAMENTARY REPRESENTATION OF THE UNIVERSITY OF LONDON.

Sir,—In carrying out the instructions of the Central Council to acquaint the medical constituents of members of the late Parliament who are seeking for re-election of the past action taken by such candidates in respect of matters affecting public health or the medical profession, it has been found impracticable to circularize the voters in university constituencies.

On behalf of the Medico-Political Committee of the Association, I beg therefore to make known to the medical electors of the London University the services which have been rendered by Sir Michael Foster in the matters in question.

Sir Michael Foster cordially supported the Association in the effort to organize a Public Health Committee of members of the House of Commons, a body whose opportunities for usefulness were somewhat restricted under the special circumstances of the late Parliament, but which it is hoped may be organized on similar lines in future, and may be productive of great benefit to the public health.

Sir Michael Foster strongly supported all efforts for the improvement of vaccination, and pledged his support to the Public Health (Security of Tenure) Bill.—I am, etc.,

R. C. Buist,
Chairman of the Medico-Political Committee.

Strand, W.C., Jan. 10th.

PARLIAMENTARY REPRESENTATION OF ST. ANDREWS AND EDINBURGH UNIVERSITIES.

SIR,—What is the attack on Sir Batty Tuke referred to by your correspondent in Saturday's issue of the BRITISH MEDICAL JOURNAL? I know of none. There was some misunderstanding during the last session of the General Medical Council with regard to his attitude towards the penal case from Rusholme, and Sir John was blamed for leaving the Council chamber before the decision had been given. Immediately the facts spoken of in the JOURNAL were made clear, an ample apology was promptly made, and that to my knowledge before anything had been said or done to prejudice the candidate.

It is unfortunate that Mr. Monsarrat does not tell us why we should resolutely close up our ranks in support of the sitting member.

Sir John Batty Tuke reminds us that he has been in Parliament six years. His committee should tell us that, and give us a detailed account of his action in the House during that period. I presume, like myself, the other medical graduates have been asked to support Sir John Batty Tuke because he is a distinguished graduate of our university, and holds a very high position in the profession. In his address Sir John Tuke tells us that he is a follower of Mr. Balfour, but we don't want followers, we want leaders, and we are certainly entitled to look to those at the head of the profession for the much-needed reforms in every direction of medical work.

In view of Sir John's record in Parliament I cannot support his candidature, and I ask my fellow-graduates to help those of us who are making a determined effort to return Mr. St. Loe Strachey as our representative. He is a man of affairs, has an intimate knowledge of the requirements of the medical profession, and will be in the front rank on any question that he undertakes.

With us he believes that what is for the good of the profession is best also for the community.—I am, etc.,

Old Trafford, Jan. 10th. JAS. BRASSEY BRIERLEY.

SIR,—Mr. Monsarrat thinks he has made a discovery and rushes into print to proclaim it. 'Tis a pity to waste his energy thus, for everybody who knows anything of politics knows that Mr. St. Loe Strachey is first and foremost a Free Trader. It is equally well known to the graduates of both Universities that Sir John Batty Tuke is a supporter of Mr. Balfour (who gave his blessing to Mr. Chamberlain) and is therefore a Protectionist, no matter how clever the word-juggling may be.

Mr. Strachey is neither ignorant of our needs nor unsympathetic to our aspirations. He grasps the great fact that our aspirations and the interests of the community are identical. To have such a layman to advocate our claims in Parliament will disarm much of the suspicion with which the advocacy of medical reforms by medical men is regarded by Parliament. A capable, respected layman will influence his colleagues in favour of our aspirations where professional advocacy will be looked upon with distrust. Those members of the profession who heard Mr. Strachey speak in Liverpool have no misgivings as to his capacity to watch over their interests. Had Mr. Monsarrat been present, even he might have been lifted out of the "parochialism" displayed in his letter. To hear the old lady crying out that her bonnet box was missing when entering the lifeboat, was no more ludicrous than to hear doctors discussing whether an educated layman (who is a Free Trader) or a professional gentleman (who is a Protectionist) should be supported without paying any attention to the outstanding question of once and for all by an overwhelming majority laying the ogre of Protection so that it may not rise again. —I am, etc.,

R. OWEN MORRIS, J.P., M.A., M.D., etc., Edin.
Birkenhead, Jan. 9th.

THE GENERAL ELECTION AND THE MIDWIVES ACT.

SIR,—In this week's SUPPLEMENT to the BRITISH MEDICAL JOURNAL there are some suggestions for questioning parliamentary candidates on certain medico-political matters including the Midwives Act (see p. 3). It is most desirable that candidates should be urged to promote legislation in regard to the payment of medical practitioners when they are called in to the assistance of midwives; but, in putting the matter before them, it is highly important that the facts should be stated correctly. The memorandum on the subject issued by the Medico-Political Committee of the Association is not quite correct in its statement of the facts.

There is no mention in the Midwives Act of any obligation on the part of midwives to call in registered medical practitioners. The Midwives Act enjoins upon the Central Midwives Board the duty of framing rules for regulating and "restricting within due limits the practice of midwives," and it is under the rules so framed and duly approved by the Privy Council that it has become the duty of a midwife not, as the memorandum says, "to call in registered medical practitioners in certain emergencies," but to advise "that a registered medical practitioner be sent for," which is a very different thing. The rules of the Central Midwives Board have certainly for the time being all the force of a statutory obligation. But they are only in force for three years from the time they were passed, and they can be altered without an Act of Parliament, which would not be the case if the matters in question were dealt with in the Act itself.

But the most serious error in the memorandum is the statement that the patient has no power of veto as to the summoning of a medical practitioner. As a matter of fact, there is nothing whatever in the Act or in the Board's rules to deprive the patient and her husband of their power of veto. The midwife's responsibility ends when she has given the advice, and has explained that the rules forbid her under the circumstances to attend the case alone. It then rests with the patient and her relatives to act upon the advice or not as they think proper. It would be a tremendous interference with the liberty of the subject to force a doctor upon an unwilling patient, and neither Parliament nor Privy Council would ever sanction such a proceeding.

I write to call attention to these misstatements because we shall only weaken our case if we present it inaccurately.—I am, etc.,

London, W., Jan. 7th. CHARLES J. CULLINGWORTH.

*** We have referred Dr. Cullingworth's letter to the Chairman of the Medico-Political Committee of the British Medical Association, who has furnished us with the following memorandum:

> In the memoranda for submission to candidates for Parliament every effort was made to state the points as concisely as possible, and in this particular instance qualifying words necessary for literal accuracy have, perhaps, been omitted, but in substance the position is as stated in the memorandum.
>
> With respect to the first point mentioned by Dr. Cullingworth, it is true that the statute itself does not contain directions to midwives; but rules made by a Government Department under powers conferred by statute have the same effect as if contained in the statute, and in the present instance it is hardly conceivable that the Privy Council would sanction a departure from the principle that a midwife must refuse to attend alone cases that her training does not qualify her to undertake.
>
> With regard to Dr. Cullingworth's second instance of alleged misstatement in the memorandum of the Committee, the effect of the regulations at present is that the midwife must register the fact of medical attendance having been summoned, and must not continue to attend the case if medical attendance is not obtained.
>
> The only choice for the patient being, therefore, between summoning a medical practitioner and being left absolutely unattended, her power of veto is of so theoretical a character as to be negligible for practical purposes.

PARLIAMENTARY REPRESENTATION AND THE MEDICAL PROFESSION.

SIR,—It is clear that Mr. K. Monsarrat, M.B.Edin., in his plea in the BRITISH MEDICAL JOURNAL of January 6th for the return of Sir John Batty Tuke as a member for the Universities of St. Andrews and Edinburgh, does not overstate the case when he says "one of the most crying needs of the profession is increased representation in the House of Commons."

Your editorial, "The medical profession and the general election" of January 6th, clearly says, as Sir John Simon recognized long ago, that the interests of the medical profession are, above all other professions, those of the public; the ultimate destiny of this great body of educated men is to act as a force for the prevention of disease and in the interests of health. At present it may be said to lie inert, a Colossus with its functions undeveloped and its energies latent; a giant with feet of clay. It is thus a matter for warm congratulation that the Right Hon. Sir Walter Foster, M.D., M.P., has been sworn a member of the Privy Council, but as a member of the Cabinet and Public Health Minister, a medical statesman would have far greater power for action in the prevention of disease.

Is it asking too much of the Council of the British Medical Association and of medical members of Parliament to promote the placing of political power in medical hands?

Such a Minister would doubtless shun those bitter personalities which statesmen still consider necessary to attract attention to the merits of their wares, or the demerits of others, and would equally cultivate a scientific and business-like method of considering national affairs. What glaring instances daily occur of the feuds and animosities incidental to the party system; how many unsubstantiated statements run riot; and how fiction luxuriates! It is probably true that people must be rendered discontented with their condition in order to gain the desire of changing it, and a more potent stimulus to carry forward calmly and dispassionately the mind of man in multitudes to great improvements, is required than the slow progress of knowledge can afford. But the stimulus should be wholesome and plain, good food rather than alcohol.

Not the least among the advantages of medical representation in the Cabinet would be that of the friendly sentiments which unite the medical profession of all countries, which is well seen in international medical congresses, which appear to have been imitated for peace at The Hague and by the Chairman of the London County Council for municipalities. The present public-health policy of most countries, if such may be said to exist, is comparable to that of abstaining from food until the pangs of hunger or the distress of starvation compels the taking of nourishment.—I am, etc.,

Brighton, Jan. 9th. F. G. BUSHNELL.

CENTRAL EMERGENCY FUND.

SIR,—All who realize that no attempt to negotiate should be made before being certain that there is a state of preparedness for war, will welcome the proposal made that there should be some special fund for that purpose. But having agreed on that principle the mode by which it is now thought desirable to carry it out cannot by any means be considered satisfactory.

Passing over the many omissions and commissions, such as ignoring the necessity for local self-help being the only pass to obtain a grant, elevating a Committee above our Central Council (a most undesirable precedent), and so on, I would draw attention to the fact that the whole scheme is to be a voluntary one, that non-members are to benefit, and that—according to paragraph 4B—part of the fund is to be used for clerical and similar expenses.

Who are the members of the profession who are likely to benefit by the scheme? Undoubtedly the middle general practitioner class; the very ones who at present find it takes them all their time to make both ends meet. The appeal is therefore to them especially.

What will they probably think? (1) that the Association at the present moment holds over £100,000 of their funds sunk in freehold property in the Strand; (2) that the offices there thus have a face value of at least £3,000 a year rent; (3) that we are not getting value for our money; (4) that in addition the Association is annually putting by between £3,000 and £4,000.

What will they probably say? (1) We fail to see any necessity to call on us further for any voluntary subscription until you have proved 25s. a year subscription is not ample to help towards the formation of the fund; (2) get rid of, or mortgage, those extravagantly expensive premises, obtaining others on entirely different principles, and use our money for what it was intended and subscribed—the maintenance of the honour and interests of the profession and scientific development—by giving an annual grant of several thousand pounds to home and colonial emergency funds; (3) if there are to be such funds then they should not be saddled with any expenses, as you propose, as these can be legitimately met out of the Association funds if you will introduce a by-law based on Article 5 as amended at Leicester; and (4) no non-member should be helped out of the fund unless his action benefits members of the Association.—I am, etc.,

Southfields, Jan. 8th. E. ROWLAND FOTHERGILL.

THE POOR-LAW COMMISSION AND CONTRACT PRACTICE.

SIR,—If my contract work is to be divided up among all the medical men in the parish, my income will at once fall to a figure at which I shall be quite unable to make ends meet. I shall have to sell the remnants of my practice at a great deal less than I paid, and spend the rest of my working life doing *locum;* after that, I suppose, the workhouse.

I sincerely hope that the mischievous proposals of "Professional Union" will come to naught.—I am, etc.,

January 6th. SELF-PRESERVATION.

THE ANTIVIVISECTIONISTS AND THE HOSPITALS.

SIR,—Mr. D. Christie Murray's letter on the above subject in the BRITISH MEDICAL JOURNAL of January 6th is an interesting document in several respects. It seems to suggest that the opponents of vivisection have, for the time being, abandoned in despair the method of vituperation which has so far exposed only themselves to the contempt of the more enlightened sections of the public, and called in to their assistance one who is widely known as the wielder of a graceful pen. As far as what I may perhaps be pardoned for describing as "the junction of the upper and middle thirds" of his letter, Mr. Murray's communication seems to be full of sweet reasonableness, culminating in the admission that "the medical profession is animated by the best of motives," and that "from opposite sides of the circle of belief we move on convergent tracks towards a common hope."

Such language marks a great change from the not distant time when the late Frances Power Cobbe published in one of the great monthly reviews her article entitled "Schadenfreude," which maintained the thesis that vivisectionists were animated by that kind of lust for blood that is associated with perverted sexual instinct. For his courtesy Mr. Murray is not entitled to gratitude, since courtesy is usually assumed in the ordinary relations of life, but the fact that an avowed antivivisectionist can address himself politely to the medical profession deserves recognition nevertheless.

On reading further, however, it appears that while Mr. Murray retains his sweetness to the end the reasonableness has evaporated. For what is Mr. Murray's complaint? Simply this, that the law provides no penalty for possible atrocities committed by certificated experimenters—by the very class, that is, which he has himself confessed to be animated by the highest motives, which he describes as rushing to join hands with himself and Mr. Coleridge and the others along converging paths of the "circle of belief," a circle, by the way, new to us, but which we suppose must be one of the famous nine. Why should the law thus insult the admired of Mr. Murray by providing a penalty for an offence which on his own showing they would never commit?

> Sue for a debt he never did contract,
> And cannot answer—Oh, the sorry trade!

However, as though this dilemma had occurred to him, Mr. Murray explains further on that "It is one thing to ask us to rely upon the honour of a body of professional men, and another to ask us to rely upon that of an unknown individual upon whom there is absolutely no restraint, etc., etc."

This passage unfortunately shows that all the foregoing amenities were but cant, as, indeed, the passage is itself. For what is that corporate conscience on which Mr. Murray is so willing to rely but the sum of all the consciences of those unknown individuals, certificated and uncertificated, whom his imagination seems to paint as lurking in wait for the turned back of the inspector to commit nameless and useless cruelties on defenceless animals?

There are over 300 experimenters, Mr. Murray informs us, scattered about between Land's End and John o' Groats, and he is perturbed by the thought that the two inspectors cannot have their eyes on all of them at the same moment. Moreover, as though distance were an absolute bar to any intercourse among pathologists, he assumes that the 8,000 inoculations of cancer were necessarily on "overlapping lines." For this state of affairs Mr. Murray has a remedy of transcendent simplicity. Collect your experimenters from over the face of the country and put them in a compound. For the word "compound," which has come to have a sinister meaning for many Englishmen, it is true that he substitutes the prettier phrase, "Board of Physiological Inquiry and School." As Mr. Murray prophesies that the formation of such a "Board" housed in a single "school" would "assure the popular mind that no needless pain was inflicted . . . would narrow the circle of painful experiment . . . would confine experiment within the limits beyond which the humane inquirer will not pass, and . . . would lead to at least a partial acceptance of our contention" that experiments on animals afford an inefficient and often misleading guide to human pathology, we are surely justified in assuming that the new institution will be equipped and financed by the various antivivisection societies. Then, indeed, the thing will be delightfully simple, and no doubt the various universities and other teaching bodies will unite in driving their professors of physiology and pathology into Mr. Murray's "compound."

In conclusion, I should like to point out to Mr. Murray that a very rudimentary knowledge of physiological, and especially of pathological, methods would have shown him that it is the very fact that certain of the lower animals have a different reaction towards certain toxins from that of human beings that makes them valuable as reagents. That in fact it is just those elements which to the uninstructed seem certainly misleading, which give to the experimental method its value. But perhaps if the antivivisectionists have voluntarily abandoned the bludgeon of abuse it would be asking too much to expect them further to disarm and relinquish the all-important weapon of ignorance.—I am, etc.,

Leigh, Jan. 6th. FRED. E. WYNNE, M.B.

THE INFLUENCE OF POSTURE ON THE NORMAL CARDIAC SOUNDS AND ON THE NORMAL CARDIAC DULLNESS.

SIR,—Dr. W. Gordon, replying in the BRITISH MEDICAL JOURNAL of December 30th, 1905, to my letter of December 9th, 1905, seems unwilling to accept the view I maintained, that the recumbent or erect positions "probably have, on the whole very little influence on the weight of the blood upon the aortic and pulmonary valves." He says, as regards the aorta, "the descending portion would certainly act as the long tube of a siphon if the blood could run out of it below as fast as it can rush against the valves above when it closes them."

Theory and experiment readily show, however, that the rate at which liquid can escape from the long tube of a siphon is not what determines its claim to the title and action of a siphon. The negative pressure at the mouth of the small arm depends only on the specific gravity of the liquid and the excess length of the long arm resolved vertically, and is present whether there be a flow or not.

Tie a thin rubber sheet over the free end of the long arm, after filling the siphon in a bath of water, and hold the siphon up. The water does not rush, nor show any tendency even to flow or drop, from the open short arm. Make a pin hole in the rubber sheet, water escapes slowly by it, and air bubbles gently up the short arm to replace it; remove the sheet, and air rushes in by the short arm, chasing the water before it. The pressure is negative at the mouth of the short arm, and in it the water tends to move upwards in all conditions of flow from the long.

Obviously, therefore, the capillary resistance does not, as Dr. Gordon's letter suggests, change the physical principle involved, and if the weight of liquid in the descending aorta is greater than the weight of liquid in the ascending first part, and it is, then in the erect position, the pull onwards will be greater than the pull backwards, the circulation will be aided and the heart helped.

An objection apparently far more serious, which I rightly expected Dr. Gordon might urge, is that the vessels are not rigid but elastic tubes. The practical effect as affecting the heart and circulation is, however, much the same as if they were. In the erect position the blood in descending arteries has its flow aided by its weight; by the amount it is so aided the obstacle to the elastic recoil of the arteries is decreased. This relieves the heart in just the same manner as if the arteries were rigid tubes, for in both cases there is less pressure for it to overcome. If the heart does not take advantage of this decreased resistance and continues to work as before, the vessel walls will not fall in, but the blood pressure in descending vessels will increase, for the blood at any point will now have two impulsive forces acting on it—that due to the heart, which is constant, and that due to the weight of the column of blood above the point considered, which increases the lower down—that is, the nearer the feet—the point is.

Now, on the whole, there is in the arteries and other vessels as much blood ascending as descending, and in the erect position half the blood of the body has a series of vertical components of pressure (p_1, p_2, p_3, etc.) acting downwards, due to gravity and aiding the descending flow; the other half has an exactly equal series of vertical components (p_1, p_2, p_3), also acting downwards, opposing the ascending flow; and these two being exactly equal and opposite, and acting on equal masses, neutralize one another. The useful rise of pressure due to weight in the descending vessels is, therefore, employed in overcoming the opposing rise of pressure due to weight in the ascending vessels, and the work of the heart and resistance to be overcome by it when the position of the body passively alters remain unaffected.

I believe we should grasp what is taking place in the circulation and best understand how gravity and siphonage are acting if we regarded the vessels as semi-rigid. A looped soft rubber tube, containing a twisted wire to keep it open, can act and be used as a siphon, just as a rigid tube can. If instead of the wire we use liquid pressure to keep the tube open, it will similarly act as a siphon, and any pressure changes produced in it by altered position will be transmitted throughout. It is in this way the aorta acts as a siphon. The weight of blood in the long descending arm and its descending branches in the erect position tends to produce a fall of pressure or vacuum towards the top of the column in the aorta, and this must ease the flow from the short ascending arm. The rise of pressure in the vessels whose contents are ascending must be also transmitted through the vascular columns to the top of the aorta, and resist or neutralize the tendency for the pressure to fall. In other words, no pressure change occurs, and the heart's work becomes *cet par* independent of the body posture.

Of course the distribution of pressures other than at the cardiac orifices alters considerably with altered attitudes; thus, in the erect position the blood pressure would fall towards the head and increase towards the feet in consequence of the action of gravity, and blood pressure in the head would increase and in the feet would diminish by reversing their relative positions, but the pressure at and the work of the heart would be practically unaffected.

Similarly with the pulmonary circuit. It matters nothing to the heart whether the lungs be above or below it; if half the blood be falling and half rising the work added to the heart on the one hand, is taken off on the other, and its labour is constant.

I have hitherto referred merely to the hydrostatic physical problem. The vital problem is quite another matter, and may operate to increase or decrease the heart's work according to circumstances. Thus L. Hill says: "The splanchnic vasomotor system is entrusted with the important duty of compensating the hydrostatic effects of gravity brought about by changes in the posture of the body."[1]

Dr. Gordon, in his paper in the BRITISH MEDICAL

---

[1] Sherrington in *Allbutt's System*, vol. v, p. 478.

JOURNAL of March 15th, 1902, and in his late communication to the Royal Medical and Chirurgical Society, supposes that the changes in the cardiac and haemic murmurs which he observes when the erect or recumbent positions are asumed are due to the increase or decrease in the weight of the blood columns above the heart. For murmurs produced inside the heart—that is, at the auriculo-ventricular orifices—his suggested explanation may be correct, as the blood would fall as well as be forced into an inferior chamber free to receive it. For "the venous hum of anaemia" it would also be true, since gravity aids the falling column in the jugulars, and is probably the chief force in the erect position impelling it. (It should not be forgotten incidentally that this falling column also aids the rising column in the carotid by at least getting out of its way.)

For the changes produced by the erect or recumbent positions, in the murmurs of the aortic and pulmonary orifices, it is most undesirable and unnecessary to accept Dr. Gordon's explanation. He says that the murmur of aortic stenosis is often considerably increased by recumbency, and he suggests that it is due to the "weight" of blood above the valves being decreased. It is more probably due to the body in repose demanding less blood, and having to keep up a less "head" of blood in the aorta in consequence not of recumbency but of rest. Perhaps, however, the cause of the change lies in another direction altogether, for Dr. Gordon says, *re* aortic regurgitation, "here posture has remarkably little effect," which, on his theory, is remarkably strange. Why should the weight of blood in the erect position decrease the murmur of aortic stenosis and not increase that of regurgitation; and why should a small gravity change on either side of the auriculo-ventricular valves change the intensity of the murmur there, as Dr. Gordon affirms, and a large gravity change in the aorta not alter the aortic regurgitant murmur?

Similarly, Dr. Gordon says that gravity should in the upright position decrease the force of flow "from right ventricle to pulmonary artery," and he concludes that the pulmonary haemic murmur should, "if a real pulmonary forward murmur," be greatly decreased, as he finds to be the case; and so vice versa. Here, again, the increased pressure in the pulmonary artery is not due to gravity, but to the extra work involved in maintaining the erect position; the blood has to circulate more rapidly, and a higher pulmonary arterial pressure has to be maintained in consequence.

I think, if Dr. Gordon looks to this increase and decrease of arterial pressure due to work or rest to explain the murmur changes at the aortic and pulmonary valves, it will help him as much as his theory of variable weights which appears so improbable physically. Within the heart it is different, and, so far as I can see, it strains no laws of physics to suppose, with Dr. Gordon, that increased or decreased blood pressure, due to whether the weight of blood in one heart chamber aids or hinders its passage into another below or above it, may account for the observed murmur changes. Thanking Dr. Gordon for the personal courtesy of his last letter, I am, etc.,

Mentone, Jan. 4th. D. W. SAMWAYS.

INEBRIETY AS A PHYSICAL DISEASE.

SIR,—I have read with much interest Dr. Mann's paper in the BRITISH MEDICAL JOURNAL of December 30th, 1905, page 1691, and appreciate the lucid manner in which the subject is dealt with. Inebriety is now a subject much discussed, and as there is still a want of unanimous opinion on many points, I think we should not hesitate to communicate our experience and state our views regarding it.

Under its etiology Dr. Mann says: "Perhaps no association is more commonly observed than tubercle or the tuberculous habit, and it is remarkable in how large a number of cases a family history of tubercle is found to occur." I infer from this statement that he considers tubercle to be one of the commonest causes of inebriety; and it is here that I beg to state that my experience leads me to differ from him.

Over forty years ago it was suggested by several writers that the use of spirituous liquors was productive of consumption and tuberculous disease. In the report on alcoholism in the hospital of Paris by M. Jacquet in the *Presse Médicale*, December, 1899, it was stated that "Of the 252 patients with pulmonary tuberculosis, 71.4 per cent. were alcoholics before the appearance of any symptoms of the disease; and the members of the Committee found the per cent. of alcoholics among their own tuberculous cases still higher, being from 88 to 90 per cent." Writers on the subject of recent years seem to be well agreed that alcoholism is one of the chief predisposing causes of tuberculosis, and it has been my experience to confirm this view.

I am inclined to think that possibly Dr. Mann may have confused cause and effect in several of the causes he mentions.—I am, etc.,

DAVID FLECK, M.B., B.Ch.

Brentry Certified Inebriate Reformatory, Westbury-on-Trym,
Bristol, Jan. 2nd.

ARTERIAL DISEASE.

SIR,—In his clinical lecture published in the BRITISH MEDICAL JOURNAL of January 6th Professor Clifford Allbutt refers to a primary or "involutionary" form of arterio-sclerosis in which the arterial pressure is not increased. This form, he tells us, is "compatible with long, even with very long, if very unavailing, senescence. During this period the arteries may become almost *grotesquely tortuous* and deformed, the organs of the body undergoing a coincident atrophy, but, as the *blood pressure is continuously moderate*, the heart does not dilate, and the blood vessels of the brain are liable rather to obliteration than to rupture" (italics my own). It would thus appear that we cannot accept arterial tortuosity as evidence of long-continued high blood pressure. I have long known that localized tortuosities—as of one or both temporal arteries—may occur in subjects of low arterial tension, and such cases admit, I believe, of a simple explanation; but I must confess to having regarded a more generalized tortuosity of the arteries as indicating a supernormal pressure of long duration. To this conclusion I have been led by the following reasoning:

1. Arterial tortuosity, when pathological, signifies increase in the length of the vessel.
2. Such increase in length is due to a stretching of the vessel lengthwise, just as arterial dilatation is due to a lateral stretching.
3. Stretching of a thickened and consequently strong artery can only be brought about by increased pressure from within.

The value of this argument depends, I take it, upon the truth or untruth of the second of these propositions. The alternative supposition, I presume, is that in the cases under consideration the vessel is not *stretched* but *grows* lengthwise. This is a point on which I at least need enlightenment, and I would therefore venture to ask Professor Allbutt if he would kindly supplement his valuable lecture by some remarks in regard to it.—I am, etc.,

London, W., Jan. 6th. HARRY CAMPBELL.

ASPIRIN.

SIR,—As one interested in this remedy since its first preparation by Messrs. Bayer—the introducer of it to the profession in these parts at a Branch meeting (BRITISH MEDICAL JOURNAL, April, 1902), and the reporter of many cases illustrating its value (*Lancet*, November, 1903)—may I be permitted a few remarks about Dr. Dockray's interesting case in the JOURNAL of December 30th, 1905, p. 1692?

He records a "marked effect on all sensory cranial nerves, numbness of gums, tongue, and pharynx, and slight ptosis." Now, authorities up to recent date—Cushny, 1900; R. B. Wild (in H. White's System), 1902—specially note as to salicylic acid (which we may take as the *vera causa* of physiological effect, the difference between the two compounds being mainly one of absorption and elimination): "There is no evidence of any action upon peripheral nerves or muscles." Certainly in a very large experience I have never seen any, unless we reckon relief of pain which is probably central.

Again, he says: "The middle-ear inflammation was, I think, entirely due to the drug." Surely this is too positive a conclusion. Granted that it may exceptionally cause some tympanic congestion, erythematous patches, oedema, or sore throat (G. Merck's *Reports*, 1904), to credit it with alone causing a severe and not uncommon form of inflammation seems scarcely warranted; the case would be unique. Has Dr. Dockray considered the possible alternative diagnosis of influenza, or even chill, with consequent otitis?

Also, allowing that some of the symptoms may be due to the drug, may I ask if he can guarantee the purity of the preparation used? There is a good deal of "aspirin" now dispensed in form of substitution products, some of which may quite possibly contain the isomeric creasotic acids which so complicated the effects of salicylates on their first introduction. In my own mind I thus explained Barnett's two cases with carboluria, etc.

Whenever possible I prescribe Bayer's, not only as being the original, but also because on visiting their great factory at Elberfeld, I had every opportunity of seeing the care of their processes—a civility which I am glad to take this occasion of acknowledging.

To Dr. Dockray's suggestion that the early dose should be 7½ gr., there can be no objection beyond that it may mean some delay in relief, but I should like to add that from doses of 15 gr. to 20 gr. given 3 to 4 hourly for days together, to numerous cases, neither I nor my house-physicians nor ward sisters have seen any ill effect of importance; only occasionally slight tinnitus from full doses, and in one case sickness from 30 gr. placed dry on the tongue; occasionally also I have heard in private practice of dyspepsia caused by ordinary doses, but due, I think, to some fault in administration, deficient acid, etc. In these cases, again, I have not been sure of the purity of the drug.—I am, etc.,

Edward Mackey, M.D.,
Hove. Senior Physician, Sussex County Hospital.

MODERN FASHIONS IN SURGERY.

Sir,—May a mere Boeotian from the outer darkness of general practice be allowed to protest against the methods advocated by Mr. Lynn Thomas in his address under the above title, which appeared in the British Medical Journal of December 23rd, 1905, embellished with a photograph of either a plasterer with severe gumboils or an acolyte of some new-fangled Vehmgerichte? From his remarks the author evidently has a lurking suspicion that these methods will eventually be looked upon as "extravagances of fashion," but I beg to ask at once whether asepticism in its latest developments has not already been carried far beyond the region of "organized common sense," and degraded to the level of a fetish. The obsession is, I know, widespread, for a far more elaborate ritual is insisted upon in some parts of the world, notably in Germany and the United States, where the operator has to undergo complete ablution and to don special clothing and shoes before he can assume the sacrificial vestments. One had hoped that the sound practical common sense, so thoroughly characteristic of British medicine hitherto, would have consigned these exaggerations to the limbo of mistaken ideals, but apparently the trail of the serpent is over many of our great and eminent operators, for one of the very foremost in a recent article takes pains to relate his various devices to avoid touching wounds with his hands.

Why all this pother about the operator's hands? Surely it is a case of *trop de zèle*, for Dr. Horrocks—no mean authority—has made it perfectly clear that, after finishing attendance upon a septic case, a man is fit to go on with midwifery practice in twenty minutes, the interval being devoted to careful and thorough personal disinfection. Klemms's painstaking researches on the disinfection of the skin fully confirm this, for he found that, although complete sterilization of the skin is not practicable, the danger of infection by the hands, like the danger of infection by the air, is practically *une quantité négligeable*.

Of course, the earnest investigator is able, by dint of diligent grubbing and vigorous scraping of the fingers, to obtain in specially prepared nutrient media more or less scanty growths of one or more of the bacteria commonly infecting the skin, but the hands when at work in a wound are not being subjected to a process of rasping by the tissues. Granting that by some possible, though highly improbable, chance two or three bacteria do get washed off the hands into the wound, the intruders do not find themselves snugly installed in a glass tube with plenty of food and warmth, and with nothing to hinder them from waxing fat in comfort; on the contrary, though food and warmth are present, they are in such desperate case with overwhelming odds against them that their lives are speedily forfeit. This consideration leads to the very pertinent inquiry as to whether these aseptic Macaronies—the Beaux Brummels of modern surgery—accept phagocytosis as an actual fact. Their elaborate ritual seems rather to suggest that they look upon the living body as a mass of easily putrescible matter, in such unstable equilibrium that a mere breath is sufficient to start it off a-brewing Devil's broth. The services of our old and valued friend, the *vis medicatrix Naturae*, are belittled, if not ignored. Our latter-day Exquisites also appear to have entirely forgotten that hospitals are no longer the virulent pest houses they were before "the great revolution of glorious and immortal memory."

Mr. Lynn Thomas calls the present state of things "a republic of asepsis." If the methods he advocates are really necessary, we shall soon be ground down beneath the heel of an oligarchy composed of ultra-Listerian aristocrats.—I am, etc.,

Bromley, Kent, Jan. 9th. Philip N. Randall, M.B.Lond.

LIFE ASSURANCE WITHOUT MEDICAL EXAMINATION.

Sir,—Please allow me to point out to "A Disgusted Practitioner" (British Medical Journal, December 30th, 1905, p. 1722) that my letter was in nowise contradictory. I have not refused "half-guinea fees," but a half-guinea fee; offers of half-guinea fees have not been made to me galore. Again, I am only willing to carry out "certain small" insurances at the humble fee of half a crown. Many of these any number of medical men do every day, but usually for offices who pay larger fees for larger insurances. I need not specify any particular office, but the industrial forms required to be filled up for a few pounds do not entail more than a few minutes in examining the proposer and filling up the form. I have had no experience of those forms with seventy questions, the fee for filling in which is half a crown, but at least one man in a district will be found to do it, therefore the others must follow. Did those smaller offices bring forward some such small form requiring little physical examination, but which would be quite sufficient to protect them as well as preventing imposition on poor ignorant people, by getting them to insure others and then often refusing to settle; then, as fees stand now, alas! "the humble half-crown" would be princely as compared with a halfpenny (I have often wondered why not a farthing?) per week for children's clubs, for instance. "A Disgusted Practitioner" must not think for one moment that I, and many more of the members of the profession, do not actually loathe having to accept the beggarly fees existent in many cases, and groan under the slavery of clubs, the very working of which takes away all one's dignity and sense of independence, but there are the fundamental and prosaic, perhaps primitive, necessities of having to eat, of having to wear clothes, of requiring a roof over one's head, and so, however much one revolts against the whole thing, one has to fall into line. The underseller is, and ever will be, with us.

Those small companies who assure without examination have, of course, a perfect right to do so should they wish, and they doubtless find that the money lost on "bad" lives is more than compensated by what they save in not having to pay for medical examinations. In many of the "bad" lives the usual procedure is to try to bluff the people out of being paid altogether, and, if that fails, to offer them back their premium as a sort of "placebo." There ought to be some way of protecting these poor, ignorant people, who are imposed upon by the touting agents, as about all that is explained to them is that for such and such a small sum such and such an amount will be paid at the death, and, as one woman informed me, "she did it so as to be able to get decent mournings for herself and two children." We need not help the small companies to get out of their obligations, entered into by their accredited agents by stating the "duration" of the illness. Again, I say, studiously leave that out. If the agents were prosecuted about twice for obtaining money under false pretences—it seems nothing less—then it would soon end. I do not suppose one could get at the company, as it hedges itself carefully enough, and in some cases so many premiums have to be paid to ensure payment of the money at death.

Another nuisance connected with these cases is, that a club patient will come and ask for two or three extra certificates besides that of death for the Registrar, and in our present "free" condition we dare not ask or insist on payment for these, otherwise the all-powerful Committee is held up, and we may lose this valuable and lucrative club, "as Dr. So-and-so down the street is quite ready to give certificates for nothing." I only mentioned the "humble half-crown" as a fee for small work, knowing that there were any number of men ready to accept it, and I daresay, less. It is far, very far from what most of us would wish, or are "willing" to do, but a certain number could not stem the tide of the short-sighted and criminal policy of cheap fees.

I travelled inside an electric car the other day, it was nearly full of women carrying babies, a patient of mine amongst them. I said jokingly, "Where have all you women been to, a mothers' meeting?" "No, sir," answered she, "we have been to Dr. So-and-so having our babies vaccinated, he charges a shilling and 'puts on' one mark!"—I am, etc.,

January 2nd. INSURANCE.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

SIR,—In regard to the comments under the above heading in the BRITISH MEDICAL JOURNAL of January 6th, p. 54, wherein you acknowledge the three lines of comment upon a paper read before the Society, and reported in your issue of November 25th, 1905, p. 1400, to be a "travesty," I cannot believe that you are either fair to yourself or generous to the "gentleman who has done this kind of work for us for years," and for the reason that the only error (probably accidental) in this summary was to ascribe to him and not to his critic the remarks adumbrated and in regard to which at the time of its discussion no reply was made.

I have before me (and enclose herewith) a copy of the agenda for this meeting, in which the title of the paper is announced as "A Note on Evolution; the Study of Mental Disorders." If this title be incorrectly condensed into "Evolution in its Relation to Psychiatry," then I fail to apprehend the meaning of words!

The paper referred to was read for discussion, but the only critic very properly, but tragically, urged that the only possible progress in the study of mental disorders must be based upon a practical biological knowledge and not upon metaphysics. It needs no demonstration to convince any student in this department that from the "subjective analysis of mind with hypotheses" known to Aristotle until the "philosophical Copernicanism" of Kant there was no progress in psychiatry. It is only since the appeal to "experience without assumptions" that psychology and psychiatry have advanced. Indeed, were it not for the practical comparative study of physical processes rather than for Kantian and other metaphysics, psychology and psychiatry would have remained as unrevealed a territory as in the palmy days of Spurzheim and Gall. That this opinion was generally shared at the meeting was evident from the remarks of the only other speaker, who deprecated discussion upon abstract themes as unprofitable until members had read the paper.

A feeling of injustice to a deserving reporter with whom much sympathy is felt prompts me to crave the hospitality of your columns for an explanatory statement.—I am, etc.,

January 8th. JUSTICE.

ACUTE CATARRH.

SIR,—May I add the following history as a corollary to Dr. Haig's letter on the above subject in the BRITISH MEDICAL JOURNAL of December 23rd, 1905?

For very many years I was exceedingly subject to the ordinary acute nasal and pharyngeal catarrh, picking it up from almost any patient whom I visited with the complaint, and generally having a very aggravated attack. At this period I was also suffering from acute attacks of gout, recurring with fair regularity every three or four months, and so, six and a half years ago, I commenced to follow out the suggestion of Dr. Haig and excluded from my diet all meat and fish and eggs, and practically found tea no longer wanted. Since that time my gout has vanished, and I have become apparently immune to ordinary catarrh. So nearly complete is this immunity, that when the other members of my family and household, from the domestic cat upwards, have been infected, and the whole house has resounded with sneezes and been cloudy with bacilli, the latter have found no suitable soil on my nasal mucous membrane, as a rule; occasionally, if the dose has been very excessive, and I have realized a few of the premonitory signs with which I used to be so familiar, I have found that free and full dosing with sodium salicylate put an end to the trouble within forty-eight hours.

When also I have been able to apply similar treatment to my patients it has been invariably successful, failing only in those cases where the patient preferred his "cold" to the symptoms sometimes produced by the salicylate. Started reasonably early this drug will reduce the duration to two or three days instead of a week or ten days, which would, I suppose, about represent the duration of an ordinary cold. I have not had the opportunity of seeing Dr. Haig's article in *International Clinics*, but was first led to give salicylate under these circumstances by realizing the immunity from catarrh which I have enjoyed during my six years of purin-free dietary, and also that a relapse to an ordinary diet, during my holidays, was almost invariably followed by either a mild arthritis or fibrositis or an ordinary cold, either of which could be instantly relieved and cut short by sodium salicylate.—I am, etc.,

London, N.W. CORAM JAMES.

OBITUARY.

THOMAS RUTHERFORD ADAMS, M.D., J.P.,

CHAIRMAN OF THE CROYDON DIVISION OF THE BRITISH MEDICAL ASSOCIATION.

IN the last week of the old year passed away Thomas Rutherford Adams, Chairman of the Croydon Division of the South-Eastern Branch, a well-known and respected member of the body of general practitioners. By birth an Irishman—son of Thomas R. Adams of Kilmoganny, co. Kilkenny—the years of his active working life were spent in England. He received his medical education at Westminster, became L.S.A. in 1860, carried off prizes for medicine, surgery, and midwifery, became M.R.C.S.Eng. in 1861, L.R.C.P.Lond. in 1863, and M.D.Brux. in 1865. He was House-Surgeon at Westminster Hospital and also at the Great Northern Central Hospital. Later on he became a Fellow of the Obstetrical Society, London, and a Member of the British Medical Association, and contributed various reports to medical journals. About 1863 he settled in Croydon, and joined Dr. H. Strong in his practice. Just at that time the Croydon General Hospital was being founded; Adams joined in the movement, became one of the Founders and one of the first members of the Honorary Medical Staff. This position he held for twenty-five years, then becoming one of the Consulting Staff and Member of Committee. In 1869 he was appointed Public Vaccinator for the District of Croydon.

Dr. Adams took a warm interest in local affairs, was a Life Member of the Croydon Literary and Scientific Society, and Director of the Croydon Gas Company. In Freemasonry he was a well-known Brother, Past-Master of St. Mary's Lodge, one of the oldest in England, the members of which at one time consisted solely of medical men. When Croydon became incorporated into a borough, the Lord Chancellor appointed Dr. Adams Justice of the Peace.

Croydon and the medical profession has lost one who was widely known and highly esteemed, an unassuming man, of genial nature and practical kindness of disposition, popular with his patients, and appreciated by the poor of the district, for whom he was always ready to do a kind turn.

A great believer in the efforts of the British Medical Association to benefit his profession, he always made a point of attending local and Branch meetings, and sincere will be the regret of his medical brethren as they realize that his genial presence can no more assist in making their reunions so pleasant and agreeable as they have been in the past.

The attendance at the funeral was a mark of public appreciation, the service at the old Parish Church being largely attended. In addition to the general public, came the Mayor, members of Corporation, public officials, magistrates, and a large body of members of the medical profession.

HARRY CAMPBELL POPE, M.D., B.S.Lond., F.R.C.S.Eng.

We regret to record the sudden death from heart failure of Dr. H. Campbell Pope, on January 2nd, at his residence, Goldhawk Road, Shepherd's Bush, London, at the age of 56. He was the only son of the late Edward Pope, M.R.C.S., of Tring, Hertfordshire, and was born there in 1849. He was educated at Haileybury College, and at the Liverpool School of Medicine, where he studied four years, and became resident clinical assistant in the Royal Infirmary to Mr. E. Bickersteth. Thence he passed to University College, London, and obtained the diplomas of M.R.C.S. and L.S.A. in 1871. He continued his studies for some years subsequently, and graduated M.B.Lond. (with honours) in 1873, B.S. in 1874, and M.D. in 1878. He also became F.R.C.S. in 1876. For a year he was House Surgeon to the Seamen's Hospital, Greenwich, and subsequently for four years he filled the posts of medical tutor and demonstrator of anatomy at Queen's College, Birmingham.

In 1876 he settled in practice at Shepherd's Bush, and soon came to take an active part in the many public medical questions of the day. He became member of Council of the Obstetrical Society, and of the Medical Society of London, was an original member of the Gynaeological Society, and served on its Council. He took an active part in the foundation of the West London Medico-Chirurgical Society, of which he was successively Honorary Vice-President and President; he was also Editor of its *Proceedings* in the year 1885-6. His contribution "The Beginnings of Disease" formed his inaugural Presidential address to the Society in 1889. In 1894 he read an important memoir on diphtheria, its causes, diagnosis, symptoms, complications and treatment, and the precautions to be followed for its prevention, especially in times of epidemic prevalence. He also read papers on inguinal colotomy, diseases of the pancreas, and the feeding of infants in health and sickness.

He filled for a time the post of Honorary Secretary to the Medical Defence Union, and was a member of its Council at his death. He attended the last Council meeting on December 22nd, and appeared then to be in his usual health. In this, as in all the other affairs which engaged his attention, he gave most efficient help on many critical occasions, and his colleagues found his friendship real. When the new Constitution of the British Medical Association came into working in the early summer of 1903, Dr. Campbell Pope was chosen as the first Chairman of the Kensington Division, consisting then of over 400 members, and his excellent tact and business habits helped much to launch the Division on a prosperous career.

He was Medical Officer to the London County Council Fire Brigade, Parks Police, etc.; and Physician to the Jewish Rescue Home. He was also a prominent member of the choir of St. Luke's Church, Uxbridge Road, and frequently took part in concerts in connexion with Church institutions. He was, in fact, a man of wide sympathies and varied intelligence, and a strenuous worker, and was very highly esteemed by the persons of all classes of society with whom he came into contact. He has left a widow and several children, with whom the deepest sympathy is felt.

The funeral service was read on January 5th at St. Luke's Church, where a large and reverent congregation assembled; and the burial subsequently took place at the Hammersmith Cemetery. Amongst the members of the medical profession who were at the church were many old friends, including Dr. Fredk. T. Roberts, and Mr. F. Lawrance and Mr. W. H. Lamb, M.B., Chairman of the Kensington Division of the British Medical Association.

DAVID WIELD, M.D.Edin.,

HONORARY ASSISTANT SURGEON, HOSPITAL FOR SICK CHILDREN, BRISBANE.

We regret to learn from Dr. A. B. Brockway, the Acting Honorary Secretary of the Queensland Branch, of the death of Dr. David Wield, who for the past year has held the office of Honorary Secretary of that Branch.

Dr. Wield graduated as M.B., C.M.Edin. in 1891, taking the M.D. in 1894. He was Mackenzie Prizeman and Medallist in Surgery and Materia Medica of the University of Edinburgh, and afterwards continued his studies in Berlin and Berne.

Dr. Wield practised for some time at Stow-on-the-Wold, Gloucestershire, but gave up his work there about five years ago and proceeded to Australia, owing to symptoms of tuberculosis, for the treatment of which he had been advised to live in Australia. On his arrival in Queensland he took charge of the "Contract Plague Hospital," and soon afterwards commenced private practice in Brisbane. He held the appointments of Honorary Medical Officer to the Children's Hospital, the Lady Bowen Maternity Hospital, and Assistant Gynaecologist to the Brisbane Hospital. During his short residence in Brisbane he had won the esteem and affection of every one with whom he came in contact.

On November 19th, 1905, he succumbed to pneumonia after an illness of only a week. His funeral was attended by a very large number of medical men. He leaves a widow and two children to mourn their loss.

WILLIAM GRAHAM, M.D., J.P.,

MIDDLETON, CHESHIRE.

We regret to announce the death, on January 4th, of Dr. Graham of Middleton, at the age of 51. Dr. Graham was born at the village of Drumbo, in the north of Ireland. After studying at an academy in Belfast, he went to Dublin, and in 1874 obtained the degree of M.D. of the R.U.I. and the M.Ch. in 1883. He also studied in Edinburgh and at Owens College, Manchester, obtaining the D.P.H. of Victoria University in 1890. After graduating, Dr. Graham settled in Middleton, where he built up a most successful practice. He was a member of the British Medical Association and J.P. of the borough of Middleton. His great interest was the cause of public health, and as Medical Officer of Health he strove for nearly a quarter of a century to make the conditions of life better and for the improvement of the sanitary conditions of the district. He published papers on *Smoke Abatement*, *Pauperism in Relation to Public Health*, and on *Small-pox*. Dr. Graham took a great interest in education and was a keen Liberal. Owing to ill health, he ceased from active practice a little over a year ago. He leaves a widow and two children to mourn his loss.

Amidst signs of deep mourning on the part of a large number of friends was laid to his rest at Epsom, on Thursday last, Dr. W. **Clement Daniel**, who had died there on December 30th, 1905, after a short illness at the age of 65 years. Dr. Daniel, who had received his medical education at the University of Heidelberg and at Guy's Hospital, settled forty years ago at Epsom and soon gained there and in the surrounding district a large practice by his skill, his gentleness, and his great sympathy with all suffering. He retained to the end the confidence and the attachment of his patients, both rich and poor, all of whom testify to the sorrowing widow and her family their grief at the loss which they have sustained. Not the less sincere is the regret of the local and other practitioners who knew him. Indeed, of his many sterling qualities, not the least remarkable was the one that he never made an enemy. Besides translations in the early part of his career for the Sydenham Society, Dr. Daniel, although a highly cultivated and good observer, contributed little to medical literature. His time was fully occupied by his practice and also by the superintendence of a private lunatic asylum which he had taken over from the late Mr. Stilwell. His spare moments were devoted to the study of history and archaeology, especially of that part of Surrey.

The death is reported of Mr. J. C. Kershaw, of Leeds, on January 4th. The deceased studied at Leeds and the Middlesex Hospital, and took the diploma of M.R.C.S.Eng. in 1885, and that of L.R.C.P.Edin. in 1886. Though his health had been much impaired during the last eighteen months, he had been occupied in the work of his profession until quite lately. Mr. Kershaw was a man of singularly quiet and unassuming manners, patient and gentle, and of unvarying kindness. He leaves a widow and six young children.

Lieutenant-Colonel Charles Stratherne Close, R.A.M.C. (retired), died on December 30th, 1905, at Evelyn Mansions, Westminster, aged 68. He joined the Army Medical Service as Assistant Surgeon, October 1st, 1862; became Surgeon, March 1st, 1873; Surgeon-Major, April 28th, 1876; was granted the rank of Lieutenant-Colonel, October 1st, 1882; and made Brigade-Surgeon-Lieutenant-Colonel, December 21st, 1887. He retired from the service May 29th, 1892. He had no war record in the Army Lists.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Emanuel Kusy, Ritter von Dubrav, Head of the Austrian Sanitary Department, and formerly President of the Austrian Public Health Society, aged 61; Dr. Thouvenet, Professor in the Medical School of Limoges; Dr. Adolf Sachsalber, Extraordinary Professor of Ophthalmology in the University of Graz; Dr. Domenico Chiara, sometime Professor of Obstetric Medicine and Gynaecology at Florence; Dr. P. Abramytscheff, Lecturer on Syphilis and Dermatology in the Military Medical Academy of St. Petersburg; Dr. Karl Hodlmöser, Head of the Internal Department of the Bosnia-Herzegovina Public Hospital at Sarafewo, aged 32; Dr. Delame, Member of the French Chamber of Deputies; and Dr. Ezra H. Wilson, of the Brooklyn Health Department, a well-known bacteriologist, aged 47.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

AFRICA GENERAL SERVICE MEDAL.

The King has been pleased to approve of the Africa general service medal, with clasps, being granted to the forces employed in the undermentioned successful military operations, provided that the claims of the officers and men are approved by the Army Council:

The medal, with clasp "N. Nigeria 1903-4," will be granted to all officers and men under the command of Captain G. C. Merrick, D.S.O., Royal Artillery, in the Bassa Province, against the Okpotos, between December 23rd, 1903, and March 12th, 1904, both dates inclusive.

The medal, with clasp "N. Nigeria 1904," will be granted to all officers and men who took part in the following expeditions: (*a*) Under the command of Lieutenant S. B. B. Dyer, D.S.O., 2nd Life Guards, in the Dakkakerri country, in March, 1904; (*b*) under the command of Lieutenant (local Captain) P. H. Short, Gloucestershire Regiment, against the Pagan tribes who occupy the country north of Wase on the high road from the Benue to Bauchi, between March 25th and April 18th, 1904, both dates inclusive; (*c*) under the command of Captain G. C. Merrick, D.S.O., Royal Artillery, against the people of Semolika, in October, 1904; (*d*) under the command of Lieutenant I. G. Sewell, Royal Fusiliers, against the Kilba tribe, north of the Yola, in July, 1904.

The medal, with clasp "S. Nigeria 1903," will be granted to all officers and men who took part in the undermentioned expeditions: (*a*) Under the command of Brevet Colonel A. F. Montanaro, C.B., Royal Artillery, on the Nun River, from September to October 1st, 1903; (*b*) under the command of Brevet Major A. M. N. Mackenzie, Royal Artillery, in the Eket District, between September 16th and 25th, 1903, both dates inclusive; (*c*) under the command of Major A. M. N. Mackenzie, Royal Artillery, in the Mkpani country, from December 1st to 5th, 1903, both dates inclusive.

The medal, with clasp "S. Nigeria 1903-4," will be granted to all officers and men under the command of Brevet Major I. G. Hogg, D.S.O., 4th Hussars, who took part in the expedition against the towns Osea, Oriri, and N'doto, between December 24th, 1903, and January 15th, 1904, both dates inclusive.

The medal, with clasp "S. Nigeria, 1904," will be granted to all officers and men who took part in the undermentioned expeditions: (*a*) Under the command of Brevet Colonel A. F. Montanaro, C.B., Royal Artillery, and Captain H. C. Macdonald, Argyll and Sutherland Highlanders, in the Northern Ibibio District, between January 12th and March 31st, 1904, both dates inclusive; (*b*) under the command of Brevet Major I. G. Hogg, D.S.O., 4th Hussars, against the natives of Asaba Hinterland, between January 17th and April 25th, 1904, both dates inclusive; (*c*) under the command of Brevet Major I. G. Hogg, D.S.O., 4th Hussars, in the Kwale country, between March 21st and April 24th, 1904, both dates inclusive; (*d*) under the command of Brevet Major H. M. Trenchard, Royal Scots Fusiliers, in the Owerri District, on the right bank of the Imo River, in March, 1904; (*e*) under the command of Captain H. H. Sproule, 4th Cavalry (Indian Army), and Lieutenant R. D. Whigham, Lancashire Fusiliers, at Obokum, and the patrol under Brevet Major H. M. Trenchard, Royal Scots Fusiliers, between February 3rd and June 3rd, 1904, both dates inclusive.

Those already in possession of the Africa general service medal will receive the clasp only.

ROYAL NAVY MEDICAL SERVICE.

Prospects in the Service.

Hope writes: As there is now appearing an advertisement for candidates for surgeons in the Royal Navy, I think it just as well strongly to advise any, who may feel inclined to join, not to present themselves until the Admiralty has shown its hand and they have some idea under what conditions they will serve. At present the Naval Medical Department is in a far worse state than the Army Medical Service has been for the past twenty years, and it cannot be made satisfactory until it is thoroughly reorganized.

The Medical Director-General is little more than a figurehead, and in the service afloat the medical officer, however, much he may be in earnest about his work, is usually treated (officially) with the utmost contempt. Any suggestions he may have to offer in connexion with matters of sanitation and hygiene are almost invariably ignored. The Civil Advisory Board has increased the number of instruments, dressings, etc., and placed them on a fairly satisfactory footing, but no means have been devised by which officers can be kept in a fairly satisfactory state to use the same. Of course they know nothing at all about life on board ship, and can do nothing to improve the present deplorable insanitary condition of our ships.

Surgeons, on first joining, are usually kept at home, eating their hearts out, in appointments where they have nothing to do except the dullest of routine work, and they are also being constantly shifted at the shortest notice. Senior officers in the service afloat find themselves often doing routine work, taking turns with young surgeons who frequently were not born when they themselves joined the service.

The entirely unsatisfactory state of our department in the service is universally recognized among ourselves, but, as in the navy generally, we are not much given to air our grievances in public. No self-respecting man who knows the service will, I think, dream for a moment of entering under existing conditions; but there may be admirers of the navy who would wish to join so glorious a service, and it is these whom I would advise to inquire thoroughly before committing themselves.

If questioned, and answering without any ulterior motive, I am sure that practically all medical officers would advise any one against entering at present.

I hope that some other medical officers who know the service will take up the tale and endeavour to make intending candidates reconsider their position, because it is only by stopping the supply of surgeons that the needed reform can be obtained.

MEDICO-LEGAL AND MEDICO-ETHICAL.

PAYMENT OF WITNESSES OTHER THAN MEDICAL AT THE CORONER'S COURT.

L. H. asks whether ordinary witnesses are entitled to be paid for their attendance when summoned to give evidence at inquests? He cites a case in which two witnesses lost a day's work and were told by the coroner's officer that no remuneration was allowable.

*** The medical witness's fees are defined by Statute Law, but all other witnesses are paid under a schedule of fees made by the county council, and these vary from 1s. to 3s. 6d. a day, according to the time they are detained and the discretion of the coroner. In the case mentioned witnesses should have made application to the coroner himself before leaving the court.

SUPERSESSION BY A CONSULTANT.

H. writes: I have been family doctor and friend to a certain family for some ten years. I have on two occasions called in a general practitioner, who acts also as a "specialist," to let them have the benefit of his special knowledge, and have each time requested him to continue his attendance until his patient recovered; the last time was six months ago. His acquaintance with the family was solely due to my introduction. A misunderstanding arose which affected my friendship with the head of the family. I then accidentally heard that the above doctor was attending him for a slight general ailment and was showing him marked attention. An interval of a few weeks elapsed, during which I visited another member of the family, though I believe not with the sanction of the father, who said nothing to me during my attendance. I now have a letter from the father to say that he has called in the above doctor to take my place as doctor to the family, and I have since heard that visits are being paid regularly. (1) Have I any reason to think that the doctor in question has not acted in accordance with professional usage? (2) If so, what course ought he to have pursued, and (3) what should he do now?

*** If the practitioner who acted as consultant obtained his introduction to the family solely through our correspondent, and as he had been called in consultation so recently as six months, he should have felt himself precluded from accepting the patients as his own. He should have declined on the ground that he could not supersede our correspondent after having been called in consultation by him, and if he has made this mistake, he ought still to give up the family, for it is most desirable in the interests of the public that there should be no discouragement of the practice of medical men seeking the assistance of a neighbour who happens to possess special knowledge and skill, as would be the case if they had reason to fear that by such an introduction they may lose the patient.

PATIENTS AND PARTNERS.

J. A. N. writes that a medical practitioner, while acting for his partner, went to see a patient of the latter who refused his services. His partner had been sent for by name, and he wishes to know if a fee could be claimed from the patient, and what would be the correct attitude of the doctor who was sent for.

*** No fee is due from the patient, and the best attitude to assume would be to make no claim, and take no notice of the occurrence. Many patients will decline to see a doctor they do not send for, and it would be unreasonable to expect them to pay under such circumstances.

MEDICAL ETIQUETTE.

ATHENRY asks: (1) Is there any objection to the enclosed label?

Mr. ————
Physician, Surgeon, Accoucheur,
[Address]
Two tablespoonsful of this Mixture to be taken
every four hours.
Surgery Hours:
Mornings, 9 to 10.30; Evenings, 6 to 8;
Afternoons, 2 to 3.
Vaccination every Tuesday from 10 to 11 a.m.

(2) Is it the correct thing for a principal to put his assistant's name on a brass plate on his premises; he is not a partner, only assistant. Mr. So-and-So, Physician and Surgeon? (3) Being L.R.C.S.I. and L.R.C.P.I., can I prefix the word "Dr." before my name? (4) Are we allowed to wear any particular kind of gown?

*** (1) Objection is constantly taken to such labels, which obviously serve the purposes of advertisement. (2) There is no objection to putting the assistant's name on a plate on the premises if he is a registered practitioner. (3) The diplomas mentioned confer no right to the title of "Dr." (4) This question had better be addressed to the Registrars of the Colleges.

MEDICAL HOMES FOR PRIVATE PATIENTS.

PROFESSOR SAUNDBY writes to draw our attention to the booklet being circulated with this title. It contains classified lists of consultants and specialists, amongst whom he finds his own name; it has been published without his previous consent being asked, and he has no doubt that this is equally true of the other members of the profession whose names appear in these lists. He is writing to the publishers of the work to have his name withdrawn.

THE OBLIGATIONS OF A CONSULTANT.

X. writes: A. and B. are in partnership. Y. is offended with A. because he will not give up his holiday to attend her in her confinement. B. attends her (for A.), and the confinement is normal in every way. On A.'s return, Y. refuses to be attended by him, and B. continues for some eight or nine months to see her occasionally, having A.'s full consent to consider the patient as his own. Five months after the weaning of Y.'s baby her periods have not returned, and B. is doubtful about her being pregnant. A week later, Y.'s husband writes that he is anxious to have the point settled, if possible, and asks B. for the names of two or three specialists. B. eventually hears from one of the three whose names he gave, and is told by him he considers Y. is pregnant. In conversation later, B. hears from the specialist that he does not know whom Y. is going to have to attend her in her confinement. B. has recently heard from outside sources that the specialist attended the case himself. Is this ethical behaviour on the part of the specialist?

*** The specialist should not have attended the lady without B.'s consent; but, when the conversation took place between the specialist and B. as to who was to attend Y., there would seem to have been an opportunity for making it clear that B. regarded himself as the lady's medical attendant, and under ordinary circumstances expected to attend her.

CHEMISTS' CERTIFICATES TO PATIENTS.

A **MEDICAL** correspondent sends us a certificate given by the managing director of a firm of chemists. The certificate, with the omission of names, reads as follows:

.... is suffering from a sharp attack of tonsillitis and I consider he should keep quiet at home for at least five days. He will soon be all right, but temperature is rather high. There is no need for further advice.
(Signed)..............................

The following day the patient was seen by our correspondent and his partner, who both arrived at the opinion that the disorder could not be distinguished from diphtheria without a bacteriological examination. Two such examinations were made with negative results.

*** We agree with our correspondent that this does not excuse the conduct of the chemist who gave such a certificate as that quoted. We think that the Pharmaceutical Society would do well, in the interests of the calling which it represents, to look into cases of this kind, and to represent to pharmacists the impropriety of treating patients under the circumstances mentioned, and giving certificates as to the nature of their illness.

PROFESSIONAL SECRECY.

CATFORD.—We are sorry to receive our correspondent's complaint. It is universally recognized as a grave breach of professional propriety for a medical practitioner to repeat any communication from a patient which has been made to him in his professional capacity.

MEDICAL TESTIMONIALS IN TRADE ADVERTISEMENTS.

EMPYEMA sends us a cutting from a newspaper of an advertisement of a well-known aperient powder which takes the form of a letter from a medical practitioner whose name, qualifications and address, are given in full and whose name in large type is displayed at the top. He asks whether this "does not come under the designation of advertising, as to his mind it is nothing less than flagrant."

*** We do not think that the General Medical Council would regard this as advertising; nevertheless, it is objectionable, and the Ethical Committee has been doing its best for some years to restrain such practices. We will hand our correspondent's letter to the Medical Secretary.

FEES FOR POLICE CALLS.

XMAS, called late at night in a seaside resort by the police to attend a woman alleged to have been murderously attacked by her husband, who subsequently attempted suicide, spent four hours (from 12 to 4 a.m.) in attendance on the two cases, sending the husband to hospital and stitching and bandaging the wife's wounds. He also subsequently attended her for two months, and expected the police authorities to pay the bill. It cannot be too widely known that the police, if responsible at all, are only so for the first call, and that if, as in this case, the patient has independent means, the duty falls on him or her, and not on the public. In this case the wife having been deserted by her husband, but having separate property of her own, our correspondent should instruct a solicitor to apply to her for the amount of his bill, and if it is not paid, have the case tried in the county court.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

The following degrees have been conferred:

Doctor of Medicine.—T. R. C. Whipham.

Bachelors of Medicine and Surgery.—H. Frankish, H. H. Baker, H. L. Tidy, R. C. Jewesbury, J. S. C. Douglas, H. C. Squires.

UNIVERSITY OF LONDON.

WESTMINSTER HOSPITAL MEDICAL SCHOOL.

THE second term of Dr. Bertram Abrahams's course of lectures on applied physiology will begin on Thursday next, January

18th, at 5 p.m. The course is free to graduates and students of the University, and to qualified practitioners; the lectures are delivered at the Westminster Hospital Medical School, Caxton Street, near St. James's Park Station.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE BEGLEY STUDENTSHIP.

THE Royal College of Surgeons has issued the regulations relating to the Begley Studentship in Surgery and Anatomy. This studentship, which is tenable for three years, has been established by funds left for that purpose by the late Mrs. Jane Begley of Hammersmith, wife of the late Dr. William Chapman Begley who died in April, 1887, at the age of 84. He was born in 1803 at Dun Cormac, New Ross, Wexford. The early loss of his father threw upon him the care of a mother and two sisters, but in spite of straitened circumstances he pursued an arts course at Trinity College, Dublin, and obtained the degree of M.A. He subsequently studied medicine, and proceeded to the degree of M.D. He obtained the diploma of M.R.C.S. in 1830 and in 1872 was elected F.R.C.P.Lond.

Dr. Begley was for thirty-four years in charge of the male department of the Hanwell Asylum. During this long period of service his utmost endeavours were exerted to advance the usefulness of his position and to add to the improvements of this great institution. But he had previously been in practice in Derbyshire in medical charge of a cotton factory.

The regulations relating to the Begley Studentship specify that it will consist of the dividends derived from the Begley Bequest—£20 per annum—and will be tenable for three years. The studentship will be awarded in April, 1906, and thereafter triennially, or at such time as any studentship may become vacant. It will be open, on the occasion of the first award, to any candidate admitted to the Second Examination of the Conjoint Examining Board in England, held in April, 1906, and will be awarded to the candidate obtaining the highest number of marks in the anatomical part of the examination. If two or more candidates in the anatomical part of the examination obtain an equal number of marks, reference shall be made to the marks obtained by them respectively in the physiological part of the examination, and on the combined result the adjudication shall be made; and, if their marks shall still be equal, it shall be open to the two senior examiners in anatomy appointed by the Royal College of Surgeons to call upon such candidates to present themselves for further examination, or to take such steps as may enable them to adjudicate in the matter.

The stipend will be paid yearly, and the student will receive the first instalment within three months after the award of the studentship, and will be required, before payment of the second and third instalments respectively, to send to the Secretary of the College a certificate from the Dean of his medical school to the effect that his conduct has been satisfactory, and that he has been applying himself diligently to his studies.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

(Continued from page 59.)

III. EXAMINERS FOR DIPLOMA IN PUBLIC HEALTH.

First Examination.

Chemistry.—W. G. Aitchison Robertson, M.D.
Bacteriology.—James Taylor Grant, M.D.
Physics.—Dawson Turner, M.D.
Metereology.—Charles James Lewis, M.D.

Second Examination.

Epidemiology and Endemiology.—Claude Buchanan Ker, M.D., and W. Leslie Mackenzie, M.D.
Practical Sanitation.—J. Allan Gray, M.D., and William Robertson, M.D.
Sanitary Law, Vital Statistics, and Statistical Methods.—Sir James A. Russell, M.B., and James Craufurd Dunlop, M.D.
Registrar.—Harry Rainy, M.D.
Superintendeut of Laboratory.—D. Noël Paton, M.D.
Clerk.—Alex. Sholto Douglas, W.S.
Auditor.—John Wilson Brodie, C.A.
Sub-Librarian.—F. C. Nicholson, M.A.

Extraordinary Meeting.

At an Extraordinary Meeting of the College held on Tuesday, December 19th, 1905, the College unanimously appointed Dr. James C. Affleck and Dr. Charles E. Underhill to be representatives of the College on the Board of Management of the Royal Infirmary.

SOCIETY OF APOTHECARIES OF LONDON.

PRIMARY EXAMINATION.

Part I.

THE following candidates passed in the subjects indicated:

Biology.—W. M. Scott.
Chemistry.—G. F. Malden, R. S. Minchin.
Materia Medica and Pharmacy.—I. Pulteney, W. M. Scott.

Part II.

Anatomy.—J. Brierley, R. S. Carey, D. M. Hunt, J. A. Laughton, H. E. Middlebrooke, F. G. Middleton, H. S. Naylor, G. Packham, B. Robertshaw, R. Rowlands.
Physiology.—J. Brierley, R. S. Carey, J. A. Laughton, H. S. Naylor, B. Robertshaw, R. Rowlands.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESSS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—

EDITOR,	GENERAL SECRETARY AND MANAGER,
2631, Gerrard.	2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

ANSWERS.

W. H. M. writes: In answer to "Alien" (BRITISH MEDICAL JOURNAL, December 16th, 1905, p. 1624), to recommend strict sexual abstinence for two months at least, and give three times daily potassii permanganatis gr. ij, kaolin gr. ij, vaseline q. s.; fiat pil.

G. P. writes to suggest that the following works would be useful to "Evolution": *The Story of Creation*, by Edward Clodd (London: Longmans, Green, and Co., 1890, 3s. 6d.), and *Pioneers of Evolution*, by Edward Clodd (London: Grant Richards, 1897, 5s.); also cheap editions (London: Watts and Co., 6d. and 1s. each); also *An Easy Outline of Evolution*, by Dennis Hird (London: Watts and Co., 2s. 6d.).

AMBULANCE LECTURES.

CANCRUM.—(*a*) The usual fee for lecturing on first aid is one guinea for each meeting, which includes about an hour's lecture and a further half-hour or more of practical instruction; (*b*) we know of no public fund for the payment of the fees; (*c*) a useful textbook is *First Aid to the Injured and Sick*, by F. J. Warwick, B.A., M.B., M.R.C.S., and A. C. Tunstall, M.D., F.R.C.S.E. (Bristol: John Wright and Co. 1903. 2s. 6d.) Our correspondent might communicate with the Secretary of the St. John Ambulance Association, St. John's Gate, Clerkenwell, London, E.C.

BRAIN WEIGHT.

C. M. B.—To calculate the brain weight approximately by cranial measurements taken on the living subject, measure the length, breadth, and auricular height in millimetres. Having obtained the measurements, calculate the capacity of the cranium by the following formulae devised by Dr. Alice Lee:

$$\text{Male capacity} = 0.000337(\text{length}-11)(\text{breadth}-11)(\text{height}-11) + 406.01\,;$$

$$\text{Female capacity} = 0.000400(\text{length}-11)(\text{breadth}-11)(\text{height}-11) + 206.60.$$

The result is stated as cubic centimetres, and the capacity in cubic centimetres being known, the approximate weight of the brain may be calculated by Manouvrier's formula:

Brain weight in grams = cranial capacity in c.cm. × 0.87.

INFLUENZA, WITH PECULIAR COMPLICATIONS.

OMEGA writes: In reply to "Puzzled" (BRITISH MEDICAL JOURNAL, September 2nd, 1905, p. 540), I was called to see patient, about the time at which he writes, aged 45, and suffering from what seemed to be a chill, followed by slight tonsillitis on the right side. He was up and about in a few days, but had a rather severe relapse, with pains in back and limbs, severe headache, great difficulty of swallowing, and loss of sleep. One might call this influenza of the nervous type, but there was only slight, if any, fever. These symptoms lasted for about a week, when, coincident with their disappearance, all the symptoms of bulbar paralysis at an advanced stage suddenly presented themselves. There was no convulsion, but the patient could not protrude his tongue, could not whistle nor blow naturally, the velum did not arch up when sounding A, fluids regurgitated, solids collected at the sides and had to be pushed into the pharynx with the handle of a spoon, speech became quite unintelligible—the greater the effort the greater the unintelligibility. Aphonia was present to a marked degree, he wasted, and became exceedingly nervous and depressed. No other form of paralysis was present. A nutritious diet was prescribed. At the end of a month the patient began to make very gradual progress, and to go about and attend to his business. The ability to swallow, and speech, returned too. He has now (four months) put on flesh, and assumed a healthy look; the speech defect is slight, but still very noticeable. Tonics would unquestionably be good in this case, but he declined to take any. Was this a neuritis or poisoning of the nuclei in the medulla of the nerves supplying the parts affected? Was it a case of acute bulbar paralysis (apoplectic form)? If such cases usually recover I should say the latter, and such also was the case of "Puzzled." I take it that no one recovers from the pseudobulbar form, which is of cerebral origin.

LUPUS ERYTHEMATOSUS.

J. D. writes: In reply to "R. C.," I have had some very satisfactory results from the biniodide treatment, with occasional curetting of bad spots. One girl, a hospital case, got Finsen light treatment for nine months, with little if any benefit. I then adopted the biniodide treatment, and in a few weeks was able to send her out to continue the treatment at home. "R. C." should begin with 1 in 1,000, and gradually increase the strength as he finds the patient's skin will bear it. The solution should be applied on gauze covered with protective, and left on all night, and the nightly application may have to be continued for months, supplemented with occasional curetting. I am bound to admit that in some cases the biniodide does no good, while in others it acts like a charm.

DR. THOMAS HAYES, Rathkeale, co. Limerick, writes: Remove the scales from the spots, and touch with stick of chloride of zinc once a week. If necessary, apply dry flour afterwards. Apply a dressing of boric acid and olive oil after a few days.

LETTERS, NOTES, etc.

MOTOR CARS FOR PROFESSIONAL USE.

DR. C. N. THOMAS (Lydney) writes: The inquiry mentioned in the BRITISH MEDICAL JOURNAL of December 30th, 1905, p. 1713, and carried out by *L'Auto* in France, is a novel one, and the method by which that paper arrives at its results is still more novel. It is difficult to see how by adding numbers together and dividing the result that it is possible to ensure that a car of a certain power will do the work of a certain practice. It appears like an attempt to fit a square man in a round hole. Surely the two points a purchaser considers, or should consider, on buying an automobile are: (1) The amount of outlay he is willing to make; (2) the motor that is best suited for traversing the district in which his practice lies. The minimum outlay at which a purchaser can expect to get a good car is £250. If he is willing to spend £250 to £300, a car can be obtained that will give the buyer every satisfaction. A car with one cylinder is cheaper to run than a two or four-cylinder car. If his practice lies in a level district a two-seated 6-h.p. car will easily do the work, such as the Wolseley or De Dion. If the district is hilly, a 10-h.p. two-cylinder car is necessary if one wishes to maintain a fair speed and ascend hills on rough roads comfortably. Cars of this power usually have a tonneau fitted, and for an extra £5 this can be made detachable, which is a great saving in the winter, when the roads are wet and muddy. A satisfactory 10-h.p. car can be purchased for less than £300. I agree with our French confrères, who are not in favour of high-powered, multi-cylindered machines of elaborate workmanship. One does not need an expensive touring car to work a practice with. It is true that a small four-cylinder car can be purchased for a sum less than £300, but they are too flimsy for hard work, and cannot be depended on. A practitioner I am acquainted with has run a small four-cylinder car for three months. In that time two differential gears have gone, not to speak of numerous repairs, and the pain of seeing your car drawn home by horse traction.

Six months ago I bought my first automobile. Neither my groom nor myself had any previous experience of motoring. We have never left our car by the wayside. Our new steed has always brought us home. No one need now hesitate in joining our ranks if he will exercise ordinary care. Automobilism has really made a country practitioner's life worth living.

B. H. writes: I notice that many of your correspondents on this interesting subject give glowing accounts of the performances of this car or that at the end of about six months' use. I have had a little Runabout in daily use for the last six months, covering about 1,500 miles, and giving every satisfaction, but I shouldn't think of publishing its performances during so short a period. If some gentlemen who have had their cars in daily use for a year and upwards would give their experiences, it would be a far better guide to intending purchasers. Any car worthy of the name ought to go well for six months, but it is the probable length of service that is of importance to medical men of moderate means.

DR. GRAHAM RENSHAW (Sale, Manchester) writes: I have now for some time employed a two-seated 5-h.p. Baby Peugeot car, which I find well up to its work and perfectly reliable, although in continual use over all surfaces and in all weathers. There was at first some little difficulty with loose screws and with the ignition, due merely to inexperience; a touch with the screwdriver or a turn of the trembler screw in these days sets everything right. But of course a car has to be studied and very thoroughly. I went through a fifteen months' apprenticeship on a 2½ Brown motor cycle before purchasing the car. The Brown, by the way, is similarly a very reliable motor cycle, especially for a medical man. I use, and shall continue to use, acetylene lamps for night work; pneumatic tyres, if with reinforced treads, will seldom puncture.

THE TREATMENT OF CORYZA.

DR. HOWARD W. REYNOLDS (Sea Point, Cape Colony) writes: Having just read the letters in the BRITISH MEDICAL JOURNAL of November 18th and 25th on "A Plea for Investigation of Catarrh," I am led to wonder whether your correspondents have ever tried the treatment of coryza by opium. I have used this on myself for the last five years, perhaps fifteen times altogether, with unvarying success. I simply take 20 or 25 drops of laudanum on going to bed directly the cold is felt, and put an extra blanket on my bed. I invariably awake in the morning with all acute symptoms gone, and simply have a purulent discharge for three or four days without any discomfort. I have tried this on several patients, usually with success, but in some cases the patients tell me that the effects of the opium are worse than the disease. Personally, I do not find it so, and so am able to keep free from the unpleasant symptoms which previously affected me very badly. Readers will find the treatment in detail in Burney Yeo's book on medical treatment, whence I obtained it.

DR. J. ALLAN (Edinburgh) writes: Associated with many cases of common colds, one often finds "Eustachian deafness" a most annoying and disagreeable complication for the patients. In my experience the best and quickest remedy for this is some preparation containing menthol and cocaine. This I prescribe as an ointment in preference to a snuff which is, in my opinion, much more irritating to the patient. The prescription I give consists of menthol 3 gr., cocaine 2 gr., and vas. opt. to ʒiv. A little of this is painted on the nasal mucous membrane as far back as possible several times a day. The effect is to cause a free flow of secretion, which before was absent or very scanty. The patient soon loses his dull and stupid look, and his sense of hearing is gradually restored. I consider that the menthol given in the form of an unguent is quite as efficient as if given in the form of a snuff, and the effect can be obtained in a manner much less distressing and far more agreeable to the patient.

NATURAL HISTORY SLIDES.

WE have received from Messrs. W. Butcher and Sons, of Farringdon Avenue, an example of their latest production in the way of natural history lantern slides. These slides, which are sold at the very low rate of 2s. per set of eight, represent various natural history specimens, including insects, fishes, reptiles, birds, and mammals, each species being set off by a suitable background. Each slide is coloured, and thus gives a better idea of the object represented. Included in the price of 2s. per set is a printed reading, which gives a short description of each slide. These slides will undoubtedly aid the efforts made nowadays to develop the powers of observation of the rising generation by arousing an interest in natural objects.

HOURS OF SLEEP AT PUBLIC SCHOOLS.

DR. THOMAS DUTTON (London) writes: In my letter on this subject in the BRITISH MEDICAL JOURNAL, December 30th, 1905, p. 1727, I made two slight errors. I wrote "School Hygiene in the same work"; it should have been in "Domestic Hygiene," and the leader in the *Daily Telegraph*, 1893 (not 1894).

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	£0 4 0
Each additional line	0 0 6
A whole column	2 13 4
A page...	8 0 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

An Address

ON THE

TREATMENT OF ARTERIO-SCLEROSIS.

Delivered at the Opening of the Session 1905-6 of the Liverpool Medical Institution.

By Sir **JAMES BARR, M.D., F.R.C.P., F.R.S.E.,**
THE PRESIDENT,
SENIOR PHYSICIAN LIVERPOOL ROYAL INFIRMARY; LECTURER ON CLINICAL MEDICINE, UNIVERSITY OF LIVERPOOL; PRESIDENT, LANCASHIRE AND CHESHIRE BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

The Treatment of Arterio-Sclerosis.

After my last address on arterio-sclerosis I received numerous requests to deal with the treatment of this disease, a disease which kills more men in the prime of life and vigour of manhood than any other. In compliance with these demands, I shall now make an attempt which I hope may attain some measure of success. In order to disarm criticism, and to prevent diappointment, I may at once say that I have got no serum, or elixir of life, and those who wish to accept my advice as to the best means of prolonging life will not find any simple solution of the problem in this address. If men were only as anxious to live well as they are to live long, they would perhaps more frequently attain their desire. There have been recently so many apostles of longevity, that I would hesitate even to appear in their ranks were it not for the force of circumstances, yet Disraeli said, "Man is not the creature of circumstances; circumstances are the creatures of man. We are free agents, and man is more powerful than matter."

Sir James Crichton-Browne thinks that in order to attain a century man must go back to the soil and live a more primeval life, but I intend to preach no such retrograde doctrine. Life to me is an incessant struggle, and as a mere existence it would not be worth having. Emerson said: "Life must be lived on a higher plane. We must go up to a higher platform, to which we are always invited to ascend, then the whole aspect of things changes." I am not merely concerned with any useless attainment of longevity, but with the prolongation and efficiency of life. I am dealing with the treatment of a disease which cuts short many of our best and ablest lives. I am concerned with the maintenance of the vitality and manhood of the nation. When a life ceases to be efficient it can retire into obscurity or be withdrawn from circulation, and receive an old-age pension. Metchnikoff's idea to make use of our old men—when the ideal existence is attained—by turning them into jurymen, and magistrates, and judges, and politicians, is a very happy thought, and more practical than the anaesthetic chamber of Professor Osler.

Herbert Spencer says: "Perfect correspondence would be perfect life. Were there no changes in the environment, but such as the organism had adapted changes to meet, and were it never to fail in the efficiency with which it met them, there would be eternal existence and eternal knowledge." The chances of any of you attaining to this ideal state of existence in this sphere are very remote, and I cannot honestly say that such a consummation is either desirable or devoutly to be wished. Medical officers of health devote a great deal of attention to the environment, and to a certain extent are successful in the saving of inefficient lives, or those who are not capable of adapting themselves to the environment; but we, as medical practitioners, have got to go many steps further and improve the efficiency of that wonderfully adaptable organism, the human frame. In so doing we have to start from the earliest inception, from the fertilization of the ovum. I had a patient once who ascribed his neurasthenic state to the fact that his mother was in poor health when he was conceived. There can be no doubt that heredity is an important factor in determining the efficiency and the length of life, yet we have all got to make the best of what we have. "Man," says Emerson, "is physically, as well as metaphysically, a thing of shreds and patches, borrowed unequally from good and bad ancestors, and a misfit from the start." While it is impossible to attain the ideal of the American who said that a man cannot be too careful in the selection of his parents, yet we must remember that one generation can influence the next for good or evil. Those who wilfully produce the physically and mentally unfit commit a crime against society, a crime which will be often repeated until the body politic becomes sufficiently evolved to regulate these matters. Then we may hope for advancement, and not require Royal Commissions to find out the causes of the degeneracy of the race. At present society is ruled by sentiment rather than reason, otherwise we should not allow such a disease as syphilis, which ruins the constitutions of myriads and their progeny, to run rampant throughout the land. There is perhaps no other disease which has such disastrous effects on the blood vessels, effects which are almost impossible to eradicate. I said, in my last address, that the vigorous man has very little reason to find fault with his progenitors for his gouty tendency, as he has largely in his own hands his power to modify his ancestral tendencies, but the unfortunate syphilitic has his own constitution ruined and his offspring handicapped in the race of life. It is possible that the race may eventually become adapted to this environment, and this process of adaptation has, no doubt, been going on for centuries; but before the race becomes immune to this fearful scourge by the slow process of evolution, enormous sacrifices must yet be endured.

In my last address I entered very fully into the mode of production of arterio-sclerosis, but as the first and most essential part of the treatment of any disease is to remove the cause, I shall now deal with the etiology of the affection so far as it helps to the elucidation and clear comprehension of its treatment. Pawlow says: "It is only when the full etiology of disease is known that the medicine of our day can become the medicine of the future—that is to say, hygiene in its widest sense."

I have just said that the most potent disease in the production of arterial degeneration is syphilis, but the treatment of that affection is too well known by our profession to require any comments from me. Thayer[1] has pointed out the part played by typhoid fever in the induction of arterio-sclerosis, and to many other infectious processes, such as acute rheumatism, diphtheria, septicaemia, influenza, malaria, etc., must be accredited a similar rôle in the etiology of nutritional changes in the vessel walls. For some time I have suspected the toxin of the *B. coli* as an important factor in the causation of arterial degeneration, and recently, at my suggestion, my clinical assistant, Dr. John Hay, has been examining the agglutinating powers of the blood of various patients on the *B. coli*, with the following results:[2]

I have examined the blood of 54 persons in order to determine what percentage would agglutinate a culture of *B. coli*. With two exceptions the *B. coli* used was the *B. coli* (Escherisch), while in those two exceptions the *B. coli* was grown from the urine of the patient.

In all, the dilution of the serum was 1 in 30, and the hanging drop was watched for an hour and the result noted; in 43 of the 54 cases the hanging drop was watched for a further hour, and the result again noted.

The results obtained are as follows: Of the 54
16, or 29½ per cent., gave a positive reaction in one hour;
12, or 22½ per cent., ,, partial ,, ,,
26, or 48 per cent., ,, negative ,, ,,
In 28, or 52 per cent., there was clumping partial or complete in one hour.

Of the 43 which were observed for two hours,
20, or 46½ per cent., gave a positive reaction;
11, or 25½ per cent., ,, partial ,,
12, or 28 per cent., ,, negative ,,
so that in 31, or 72 per cent., there was clumping, partial or complete.

Of these 54 cases, 15 were patients suffering from arterio-sclerosis; on considering these alone we find that
8, or 53⅓ per cent., gave a positive reaction;
1, or 6⅔ per cent., ,, partial ,,
6, or 40 per cent., ,, negative ,,
Here in 9, or 60 per cent., there was clumping, partial or complete.

If we eliminate those cases in which there is arterio-sclerosis, and consider the remaining 39, we find that:
8 only, or 20½ per cent., gave a positive reaction;
11, or 28¼ per cent., ,, partial ,,
and 20, or 51¼ per cent., ,, negative ,,
Nineteen in all, or 46¾ per cent., gave clumping, partial or complete.

Comparing these two latter classes, it is noteworthy that 53⅓ per cent. of those suffering from arterio-sclerosis gave complete clumping, as against 20½ per cent. of those who were free from arterio-sclerosis.

On tabulating these results according to age periods one finds the following:

Age.	Positive Reaction.	Partial.	Negative.
13 patients under 30 years	2	4	7
15 ,, between 30 and 40 years	2	4	9
7 ,, between 40 and 50 years	3	0	4
19 ,, of 50 years and over ...	9	4	6

This, worked out in percentages, gives:

Age.	Positive.	Partial.	Negative.	Agglutination Complete and Partial.
	Per Cent.	Per Cent.	Per Cent.	Per Cent.
Under 30 years ...	15.4	30.8	53.8	46.2
Between 30 and 40 years	13.3	26.6	60.0	40.0
Between 40 and 50 years	43.0	0.0	57.0	43.0
50 years and over ...	47.0	21.0	31.6	68.4

The most noticeable feature in these tables is the definite increase in the percentage of those causing an agglutination (partial or complete) at and beyond the age of 50.

The above results corroborate the findings of Christophers, and also those of Johnson and Goodall, as to the very general power of the blood to cause some degree of agglutination of the *B. coli*. Christophers examined the blood of 23 individuals, using dilutions varying from 1 in 20 to 1 in 200, and in every case, with one exception, he noted agglutination. Johnson and Goodall, dealing with mental cases and working with a dilution of 1 in 100, showed that the mental patients gave a higher percentage of positive reactions than normal individuals, and that among the mental cases those suffering from melancholia gave a higher percentage of positive reactions than those affected by mania.

No doubt these results do not prove how far the toxin of the *B. coli* is an agent in the production of the arterio-sclerosis, but they are sufficiently suggestive to warrant further observations. Metchnikoff, in his interesting work on *The Nature of Man*, says:

> Some very large parts of our alimentary canal must be regarded as useless inheritances, bequeathed to us by our animal ancestors. It is no longer rash to say that not only the rudimentary appendage and the caecum, but the whole of the large intestine, are superfluous, and that their removal would be attended with happy results. So far as digestion goes, the latter portion of the alimentary tract is of little importance. Even from the point of view of absorption of the products of digestion, its importance is strictly secondary. Stagnation is a familiar cause of disease, and is the probable cause of the frequency of cancer of the stomach. Of 10,537 cases of cancer of all parts of the digestive tract recorded in the Prussian hospitals, 4,288, or more than 40 per cent., affected the stomach. The latter organ is one that the human body would do well to be rid of. It is not so useless as the large intestine, since it is the chief seat of digestion of the albuminous substances, but the small intestine could take its place.

He evidently thinks that if man, in the process of evolution, could get rid of his stomach and large intestine he would more frequently reach old age. Personally I am very pleased that I have got a stomach, and plenty of what Pawlow calls "appetite juice," as I abominate those concentrated essences and artificial foods with which clever business men exploit the public and the medical profession. Even from a physiological standpoint the majority of them are more pernicious to longevity than the products of a first-class cook, and not so palatable. Although we are obliged to put up with the existence of our large intestine, I cannot see any justifiable reason why any one should convert it into a cesspool. However, if Metchnikoff, or any one else, wishes to get rid of it, there are plenty of enterprising surgeons in the present day who will gladly oblige him. It is highly probable that the greater frequency of appendicitis in youth is due to the body not having acquired immunity against the *Bacillus coli*, and if, as I suspect, the toxin of that organism is a factor in the production of degenerative changes in the blood vessels, there is further reason why stagnation should not be allowed to occur in the large bowel. Metchnikoff's views on the temperance question seem to be sound, and for the benefit of some of my friends I cannot forbear quoting them:

> While the large intestine, acting as an asylum of harmful microbes, is a source of intoxication from within, the aberrant instinct of man leads him to poison himself from without with alcohol and ether, opium and morphine. The widespread results of alcoholism show plainly the prevalent existence in man of a want of harmony between the instinct of choosing food and the instinct of preservation.

Sydney Smith said:

> Man could direct his ways by plain reason, and support his life by tasteless food; but God has given us wit, and flavour, and brightness, and laughter, and perfumes, to enliven the days of man's pilgrimage and to charm his pained steps over the burning marl.

Although I am anxious to direct your lives according to the dictates of reason, I have no wish to deprive you of all the sweets of life for the mere sake of prolonging existence.

Lead.

Among mineral poisons, lead must be specially mentioned as a cause of arterio-sclerosis, from its direct action on the vessels, and indirectly from its frequent association with gout and chronic granular kidneys.

Pressor Agents.

In my previous address I showed that high arterial tension is the precursor of arterio-sclerosis, hence we should regulate the use of all pressor agents, such as caffeine, theine, theobromine, adrenalin, digitalis, purin bodies, etc. Such chronic diseases as myxoedema, diabetes, gout, ergotism, saturnism, give rise to high blood pressure and arterial degeneration.

Alcohol.

Alcohol is frequently credited as one of the most potent agents in the production of arterio-sclerosis, but it has really got very little to do with it, except so far as it is concerned in the production of gout. It leads to fatty changes in the muscle of the heart and in the middle coat of the vessels. When large quantities of weak alcoholic fluids are drunk, as by German beer drinkers, there is a vasomotor paresis and the blood vessels are dilated, the weight of fluid in circulation is increased, the venous pressure is raised, and the diastolic pressure in the heart and arteries is augmented. These effects give rise to a huge dilated and hypertrophied heart, and there may be fatty changes in the media, but there is not much thickening of the intima. Alcoholics get primary degeneration of the nerve centres, and teetotalers often suffer from sclerosis of the cerebral vessels and secondary degeneration. Dr. Richard Cabot, of Boston, says that "the alcoholic origin of arterio-sclerosis is a myth." And among French physicians Lancereaux and Duclos entirely exclude it as a cause.

Nitrogenous Foods.

So far as arterio-sclerosis is concerned, the excessive use of nitrogenous food kills more adult men than alcohol. After witnessing one of the great temperance advocates of the last century dine, I stated that he would not live three years, and he was dead within two. This man by his excessive eating had brought on cardio-vascular changes. But all teetotalers are not excessive meat eaters, and many claim that as a class they eat less nitrogenous food than those who imbibe alcohol. This is probably correct, and I have no doubt that a good deal of the mischief which is put down to alcohol should be credited to nitrogenous waste products. Those who wish to see this, or a somewhat similar view, pushed to an extreme degree, had better read Dr. Haig's work on *Uric Acid in Causation of Disease*. He looks upon uric acid as an end-product in metabolism, which works mischief in every direction, and he ascribes to it nearly all the ills to which flesh is heir. If his views were generally accepted, they would reduce the pathology of disease to very simple proportions. Fortunately uric acid is not an end-product, and those who have got healthy metabolism, and take plenty of exercise, need not be too particular as to what they eat, provided they do not eat too much of anything. Dr. Walker Hall[3] has shown that "exogenous purins are, as a rule, badly metabolized by gouty individuals"; hence in such cases we should prescribe purin-free foods such as milk, eggs, butter, and cheese. Excessive nitrogenous waste products in the blood raise the arterial tension and lead to degenerative changes in the intima. Walker Hall has further shown that about 50 per cent. of the endogenous and exogenous purin bodies are oxidized to uric acid, and 50 per cent. are further broken down and excreted as urea or intermediate bodies. As uric acid is very difficult to eliminate, and when in excess leads to deleterious effects on the cardio-vascular system, it is important to see that there is no retention within the system. This is best attained by not adding any great excess in the ingesta. I can refer you to the work of our colleague, Dr. W. Gordon Little, on *Purin Formation, and the Solubilities of Uric Acid in the Plasma.*

Age.

Arterio-sclerosis is usually a disease of late adult life, and differs essentially from the degenerative changes in senile vessels. In the latter the changes start as fatty degeneration of the media, which may eventually become calcified, but the intima and adventitia escape, except so far as primary sclerotic changes accompany or precede the senile. The trite saying of Cazalis, that "a man is as old as his arteries," is one of those half-truths which readily catch on, and is now projected by many as a kind of self-evident axiom. Many men are very much older than their arteries, and their tissues, especially the higher cerebral centres, often degenerate irrespective of the blood supply; while many others preserve their mental activities even with very degenerate vessels. The late Sir James Paget long ago pointed out that the leaf of a plant, which has neither nerves nor blood vessels, degenerates symmetrically.

Dr. J. H. Bryant and Dr. W. Hale White have recorded a unique case[4] of calcification of the arteries, and obliterative endarteritis, associated with hydronephrosis, in a child aged 6 months. The right foot was gangrenous, and the changes in the anterior tibial artery extreme. The hydronephrosis was supposed to be congenital. The child was fed at the breast for the first two months, and on cow's milk for the last four.

Sex.

The disease is much more common in men than in women, because they live more freely, suffer more frequently from syphilis, have more mental worry and anxiety, are more exposed, and are subjected to much greater physical strain. In men the distribution of the sclerosis in the vessels is more general. Women have not got the continued physical strain of men, but they are very liable to sudden increases of blood pressure from emotional causes, hence in them the aorta suffers more than the peripheral vessels. It is like the effect of suddenly turning a stop-cock in a water-pipe connected with the main supply; it is the larger pipes which get the chief stress. You are not now allowed to put such a tap in a main water-pipe, but it is rather more difficult to legislate for the vaso-motor system in an emotional individual.

In women who have borne many children the long-continued high blood pressure and cardiac hypertrophy give rise to a general arterio-sclerosis. Those women who consume large quantities of nitrogenous food and take little exercise are very liable to general sclerosis and granular kidneys.

Physical Strain.

This is a potent factor in causing high arterial tension and cardiac hypertrophy, leading to early degeneration, as is often well exemplified in athletes and in our labouring population. In the man who has been an athlete in youth, and has had great cardiac hypertrophy, there may be early cardiac degeneration out of all proportion to the affection of the vessels, but in the labourer the cardiac hypertrophy is not usually in excess of the requirements of the daily work, and is called forth by the high blood pressure, and in such cases the degeneration of the vessels is ahead of that of the heart. On the other hand, exercise in moderation increases metabolism and often counteracts the pernicious effects of high living. Life means action; without activity there might be existence, but nothing worthy of the name of life. Professor Bunge says: "The mystery of life lies hidden in activity."

Cold.

Even very extreme cold does not raise the general blood pressure sufficiently high to give rise to general arterio-sclerosis, but the long-continued contraction of the superficial vessels and their vasa vasorum leads to degenerative changes. Hence in labourers the sclerosis of the peripheral vessels is often far in excess of that of the internal. A similar condition occurs in sailors, but, as they are usually well fed and have hard work, the arterio-sclerosis is more general.

Race.

Worry, anxiety, and all forms of mental strain are powerful factors in the production of arterio-sclerosis. Such causes as these may account for the early degeneration of American men. At the age of 60 the majority of them are old, whether they be ready for the lethal chamber or no. If by that time they have not acquired a sufficient competency to make their friends take an interest in them, they soon take their exit from this sphere. They probably find some truth in the statement of Paul Bert regarding the aged: "They deserve congratulations, care, and consideration, but the prolongation of their lives does not demand any special solicitude from society." So far as my experience goes, the American women wear better. With respect to alcohol the Americans are essentially a temperate race—they cannot afford to be anything else—but they consume large quantities of nitrogenous food. This tendency to early degeneracy of the individual does not affect the vitality of the race, because they have left their mark on posterity long before degeneration sets in. We have here got a good example of the law of demand and supply, as we now find this subject engaging the attention of a host of American physicians, including such men as Osler, Thayer, Welch, Stengel, Stanton, Richard Cabot, Whittaker, Brush, George Dock, Frank Billings, and others.

Personally I do not know much about the Eastern races, but those who live on fruits and farinaceous foods in the West and East Indies are said to be remarkably free from arterio-sclerosis. On the other hand, Englishmen who live in India and consume large quantities of nitrogenous food are liable to the disease, although the warm climate should be in their favour.

TREATMENT.

Diet.

Under the head of etiology I think I have fairly laid down the lines of prevention; but when we come to treat of the established disease, the first subject which must engage our attention is the question of diet. There is no doubt in my mind that the vast majority of men in this country, and a considerable number of women, eat far too much nitrogenous food. One of the best and most scientific correctives of recent years to this tendency is the remarkable work of Professor Chittenden on *Physiological Economy in Nutrition.* He has clearly demonstrated that all classes of men, including athletes, can not only live, but enjoy perfect health and strength with mental and bodily vigour, and maintain nitrogenous equilibrium, on one-half or one-third of the proteid food in the standard dietaries of Voit and others, and on less than a quarter of the proteid material which is regularly consumed by those who live to eat. I am not writing a review of Professor Chittenden's work, which I can strongly recommend to your study, but his general conclusions seem to me so sound that I think I cannot do better than quote them in their entirety:

> When this investigation, the results of which have been detailed in the foregoing pages, was first planned, it was intended to be simply a physiological study of the minimal proteid requirements of the healthy man, extended over sufficient time to render the results of scientific and practical value. There were no special theories involved, no special system of dietetics in view, but the object was simply to ascertain experimentally the minimum amount of proteid or albuminous food necessary for the maintenance of health and strength, under ordinary conditions of life. The impression on the mind of the writer was that there was no satisfactory scientific evidence to support the views held by most, if not all, physiologists regarding the needs of the body for food, especially nitrogenous or proteid food, and that the dietary standards universally adopted by scientific men were of very questionable accuracy, being founded mainly upon the customs and habits of mankind rather than upon any systematic study of what the actual necessities of the body are.
>
> The results attained have certainly thrown a great deal of light upon the question of minimal proteid requirements, and the experimental study has been throughout a purely physiological one; but as the work has progressed the writer

> has been more and more impressed with the importance and significance of the results in their bearing upon the broader problem of general physiological economy in nutrition. There is no question, in view of our results, that people ordinarily consume much more food than there is any real physiological necessity for, and it is more than probable that this excess of food is in the long run detrimental to health, weakening rather than strengthening the body, and defeating the very objects aimed at.
>
> Confining our conclusions to general statements, it may be said that our results, obtained with a great diversity of subjects, justify the conviction that the minimal proteid requirements of the healthy man under ordinary conditions of life is far below the generally accepted dietary standards, and far below the amounts called for by the acquired taste of the generality of mankind. Expressed in different language, the amount of proteid or albuminous food needed daily for the actual physiological wants of the body is not more than one-half that ordinarily consumed by the average man. Body-weight (when once adjusted to the new level), health, strength, mental and physical vigour, and endurance can be maintained with at least one-half of the proteid food ordinarily consumed; a kind of physiological economy, which, if once entered upon intelligently, entails no hardships, but brings with it an actual betterment of the physical condition of the body. It holds out the promise of greater physical strength, increased endurance, greater freedom from fatigue, and a condition of well-being that is full of suggestion for the betterment of health.
>
> Physiological economy in nutrition means temperance, and not prohibition. It means full freedom of choice in the selection of food. It is not cereal diet nor vegetarianism, but it is the judicious application of scientific truth to the art of living, in which man is called upon to apply to himself that same care and judgement in the protection of his bodily machinery that he applies to the mechanical products of his skill and creative power.
>
> Food requirements must of necessity vary with changing conditions, but with due recognition of this fundamental principle, all the results so far obtained in this investigation, with a great variety of persons, point to the conclusion that the real demands of the body for proteid food do not exceed 50 per cent. of the amount generally consumed. One-half of the 118 grains of proteid food called for daily by the ordinary dietary standards is quite sufficient to meet all the real physiological needs of the body, certainly under ordinary conditions of life; and with most individuals, especially persons not leading an active out-of-door life, even smaller amounts will suffice. Excess means waste; but of far greater importance is the unnecessary strain placed upon the body by this uncalled-for excess of food material, which must be got rid of at the expense of energy that might better be conserved for more useful purposes.
>
> Further, the total consumption of food by the average individual, non-nitrogenous as well as nitrogenous, is considerably greater than the real needs of the body demand, although here we must give heed to the varying requirements of the body incidental to the varying degrees of activity. The man whose work is mainly mental has no real need for high fuel values in his daily ration. For such a man, a high potential energy in the daily intake of food is an incubus and not a gain. Body equilibrium can be maintained on far less than 3,000 calories a day by the brain worker, and in the interest of health, strength, and vigour, as well as scientific truth, why teach the doctrine that a healthy man needs, on an average, food-stuffs to furnish 3,000 calories or more a day, with 16 to 18 gr. of nitrogen in the form of proteid? Moreover, as our experiments have clearly indicated, even the man who is called upon to perform considerable physical work has no apparent need for a fuel value in his food of 3,000 calories a day. No doubt the man who works at hard labour for ten or twelve hours a day will require a larger intake of fats and carbohydrates, sufficient to yield even more than 3,000 calories, but this is not true of the moderate worker, nor of the average man whose work is in large measure mental rather than physical.

Among those who are devoting attention to proteid metabolism, there must also be specially mentioned Otto Folin and Professor Lafayette B. Mendel in America; in this country Professor Halliburton, Professor Schäfer, Dr. I. Walker Hall, and our colleagues, Professor Moore and Dr. W. Gordon Little.

As a pioneer in simple diet, and not much of it, I must mention Dr. George S. Keith. I have more than once recommended his works, *A Plea for a Simple Life* and the *Fads of an Old Physician*. Although these works make no pretence to scientific accuracy, they evince the foresight of a shrewd and keen observer. Dr. Keith was unorthodox enough to practically condemn the use of all drugs. Some medical men without their pharmacopoeia would be as helpless as many clergymen without the devil. Their stock-in-trade would have disappeared.

The health of the individual, like his religion, depends originally, not on himself, but on the circumstances of his birth and surroundings, on the health of his progenitors, on the care taken of him before he can do anything to guide himself, and then on making the best of the bodily condition in which he finds himself.

As a good example of the effects of diet in arterio-sclerosis, I may mention the case of a lady whom I saw many times with Dr. A. C. E. Harris in 1892. Her arteries were very rigid, and there was advanced granular degeneration of the kidneys, with a secretion of pale limpid urine of a specific gravity usually 1004 and an excretion of urea always less than ½ per cent. She had uraemic convulsions, and became totally blind from haemorrhages into the retina and vitreous. On this latter account she was seen many times by Mr. Shears. She was placed on a diet of carbohydrates (including fruit) and fats; and for over two years the only proteid which she got was that contained in Frame food and the milk in which it was cooked. I believe she was afterwards occasionally allowed a little fish or other animal proteid, but never to any great amount. She steadily improved and got about, her eyesight returned, the kidneys to a considerable extent recovered their functional activity, and there was a fair excretion of urea. At the end of five years after her uraemic convulsions she died from a pontine haemorrhage.

Professor Moore has shown that vegetable proteid is not so readily assimilated as animal proteid, but in such cases as the above that is an advantage, as you do not want more proteid absorbed than is absolutely necessary for repair of tissues or the maintenance of nitrogenous equilibrium.

Although I recommend a diet of low proteid value for healthy adults and for those suffering from arterio-sclerosis, yet for growing youths whose tissues are not fully developed I think there should be a very liberal allowance of nitrogenous material. In order to maintain their tissue-proteid in a high state of activity, there should be a large quantity of circulating proteid in the fluids of the body. As Professor Bunge says:

> Children have to build up their organism, and to form a large amount of proteid; adults have only to maintain the previous store, performing their muscular work with the carbohydrates.

There are, however, many diseases in which we wish to rouse up tissue metabolism where a large supply of proteids is absolutely essential. Witness the marvellous effects of the Weir Mitchell treatment in many cases of neurasthenia. I have often seen, with the most happy results, weak, fragile women of about 80 lb. to 100 lb. weight excreting 600 gr. to 1,000 gr. of urea daily under this treatment. Of course, in such cases you have to make certain of the functional activity of the kidneys. A large supply of proteid increases the metabolism, not only of the nitrogenous, but also of the non-nitrogenous elements of the tissues; hence, when I wish to rouse up tissue metabolism, I allow a liberal supply of proteid material, sometimes even in arterio-sclerosis, for a definite period, but in all such cases I first make a careful examination of the urine.

Milk.

Metchnikoff says:

> The lactic acid microbes produce large quantities of acid and so hinder the multiplication of the organisms of putrefaction. Putrefaction takes place rapidly, in spite of the presence of the lactic acid microbes, if there be added soda to macerations of meat or milk. Such facts explain how it is that lactic acid frequently stops some cases of diarrhoea, and why treatment with lactic acid is so useful in maladies associated with putrefaction of the intestinal contents. It makes intelligible, moreover, the medicinal value of fermented milk.

These statements are in accord with my experience. I frequently prescribe buttermilk in typhoid fever and in other cases of intestinal sepsis; and many years ago I proved to my own satisfaction the injurious effects of the alkaline tablets which Burney Yeo recommends to be added to the milk in cases of typhoid fever. Perhaps in Burney Yeo's practice the acid chlorine mixture neutralizes the alkalies. Metchnikoff further says:

> It is plain that the slow intoxications that weaken the resistance of the higher elements of the body and that strengthen the phagocytes may be arrested by the use of kephir, or, still better, of soured milk. The latter differs from kephir in that it contains no alcohol, and alcohol in course of time diminishes the vitality of some important cells in the body. The presence of a number of the lactic acid bacteria is

inimical to the growth of the bacteria of putrefaction, and so is of great service to the organism.

He evidently here refers to the macrophages, which, he says, "play a very important part in bringing about senile decay." Buttermilk has long been a favourite beverage of my own, but as time rolls on I am inclined to think that its utility becomes less on account of the large amount of lime which it contains. It is true that the acid has a decalcifying effect, and probably in this form not much of the lime is absorbed, certainly less than in the form of new milk. When I take buttermilk with my luncheon it is accompanied by stewed fruit, so the injurious effect of the lime is still further neutralized. It is perhaps not generally known that milk contains more calcium than lime water; hence many a man, who would be rather shocked at a prescription of three or four pints of lime water daily, freely orders an even greater quantity of new milk.

New milk is essential for children, and is useful in many diseases, when we wish to increase the amount of calcium in the blood—such as cases of haemorrhage, many cases of pneumonia, and the acute stage of typhoid fever—but for the ordinary adult its utility is somewhat limited. Dr. A. E. Wright has done much admirable work on the lime salts in the blood, and I have much pleasure in referring you to his excellent papers in the *Lancet* and in the *Transactions of the Pathological Society*. I know there are many who assert that the tissues will only take up what lime they require, but I am afraid the tissues have often no discretion in the matter. I think, therefore, it is very important in many cases to pay attention to the directions of Dr. Wright for the examination of the blood for lime salts. I have seen ossification of the costal cartilages in a man of 27 years, produced, in my opinion, by long-continued fixing of the chest with a spinal support.

Mastication.

It is not only important what you eat, but how you eat. From time immemorial medical men have enjoined their patients to eat slowly, but whether they always practise what they preach is quite another question. The two great apostles of the present day of thorough mastication and insalivation of food are Mr. Horace Fletcher and Dr. E. H. van Someren. It seems that Mr. Fletcher adopted this method of eating from watching the late Mr. W. E. Gladstone dine. No doubt there are many others still quite ready to follow such an example. Mr. Gladstone had a long and honourable life, how far due to his method of eating I cannot say, and as for its utility, I think that may be safely left to posterity to judge. In two very interesting papers in the *Lancet* of May 20th and 27th, 1905, Mr. Hubert Higgins, following the nomenclature of Gegenbauer, asks the momentous question—Is man poltophagic or psomophagic? He gives some good reasons why man should be poltophagic in practice. Sir Michael Foster, in a report on the practice of Mr. Horace Fletcher and Dr. van Someren, said:

> The adoption of the habit of thorough insalivation of food was found in a consensus of opinion to have an immediate and very striking effect upon appetite, making this more discriminating and leading to the choice of a more simple dietary, and, in particular, reducing the craving for flesh food. The appetite, too, is beyond all question fully satisfied with a dietary which had a total considerably less in amount than with ordinary habits is demanded.

A very good rule is never to eat until you have an appetite, then eat slowly, masticate thoroughly, and never eat to repletion. If you follow this rule, you can afford to please your palate without much risk of ulterior consequences. As Pawlow says: "Appetite is the first and mightiest exciter of the secretory nerves of the stomach."

Possibly there has been too great a tendency of recent years to exclude as far as possible all purin bodies from our diet. Dr. George Oliver says, in his extremely valuable Oliver-Sharpey Lectures on "Tissue Lymph Circulation":[5]

> It seems to me that these facts demonstrate that such bodies as uric acid, creatin, creatinin, xanthin, glycogen, and sodium chloride perform an important function in nutrition, for during digestion they act as distributors of lymph to all the tissues, an office which the nutrient constituents themselves (proteids, fats, and carbohydrates) are incapable of discharging. As inquiry goes forward it may discover other substances possessing this physiological property associated with our food elements. Nature has, with a wise intent, widely distributed these active chemical agents through most of our food-stuffs and beverages, thus turning even her waste products to the best account—the nutrition of the organism. Unfortunately man, in his efforts to improve Nature so often turns these benefactors into malefactors. Besides these lymph factors introduced from without, there are supplies of the same materials generated within us. It will be shown, too, that exercise, sleep, and variations of temperature are important physiological conditions for the autogenous supply of tissue lymph. It is not improbable that in some subjects the endogenous production of lymph factors may exceed the physiological average, when an adjustment can only be effected by a limitation of the exogenous supply.

Exercise.

On many occasions I have pointed out the evil effects of stress and strain, and I now equally emphasize the importance of activity for the maintenance of health. Different forms of exercise are suited to different individuals, according to their age, physical development, etc. Sir Hermann Weber, in his lecture on Means for the Prolongation of Life,[6] entered very fully into this subject, and his remarks will well repay perusal. So long as the exercise is not excessive for the individual, the more one gets out-of-doors the better. There is no exercise for the right side of the heart like mountain climbing, and none more invigorating than that obtained on a glacier. However, persons of advancing years, before taking exercise at high altitudes, should consult a medical man. I can refer you to the writings of the late Dr. Alfred Loomis and Dr. Theodore Zangger.[7] The latter says:

> Rapid ascents to a high altitude are very injurious to patients with arterio-sclerosis, and the mountain railways up to 7,000 feet and 10,000 feet are positively dangerous to an unsuspecting public, for many persons between the ages of 45 and 70 years consider themselves to be hale and healthy, and are quite unconscious of having advanced arterio-sclerosis, and, perchance, contracted kidneys.

Baths.

The baths of Harrogate, which are perhaps unsurpassed in this country or abroad, often do much good. I must also mention those of Llandrindod Wells, Buxton, Bath, Saltburn, Nantwich, Aix-les-Bains, Vichy. The baths of Nauheim, and the Nauheim baths divested of the charlatanism which often accompanies them, have frequently a very favourable effect on the blood vessels. The observations on blood pressure at Nauheim have, I think, been almost invariably made with Gaertner's tonometer, and therefore, in my opinion, will have to be rewritten. More than twenty years ago I pointed out that the blood pressure in the arterioles and smaller vessels was no indication of the pressure within the larger vessels. When the arterioles dilate, the pressure in the larger vessels falls, but the lateral pressure within the arterioles themselves is increased and the velocity is diminished. Practically all the writers of recent years on blood pressure have left out of account the important question of velocity. The subject of the effects of baths would itself give ample scope for an address, and had better be left to those more immediately concerned with balneology.

Drugs.

Pawlow says:

> It can hardly be doubted that scientific, that is to say ideal, medicine can only take its proper position as a science when, in addition to an experimental physiology and pathology, there has also been built up an experimental therapeutics.

Professors of therapeutics had better look to their laurels lest the physiologists take this much-neglected work out of their hands.

There are two classes of drugs which I very seldom prescribe—digestive agents and hypnotics. If a man cannot eat or sleep there is something wrong with him—he requires to be treated, not palliated. In this disease the man eats too much, and when his digestion fails he can readily subsist on some hot water until his appetite returns. In these cases insomnia depends on high blood-pressure from whatever cause arising, and it is much better to remove the cause than treat a symptom.

Thyroid.

The thyroid preparations are extremely useful in arterio-sclerosis. Dr. George Oliver showed that thyroid dilated the arteries, and some years ago I performed a series of experiments on myself which demonstrated that it increased tissue metabolism. Of course, it must not be pushed to the extent of producing thyroidism, as then the excited heart becomes exhausted and dilated in its futile attempts to maintain tension in unfilled arteries.

Iodine.

Iodine is often more valuable than thyroid, as its metabolic effects, as shown by Professor Stockman, are attained by its stimulating action on the thyroid gland. I have seen two cases of exophthalmic goître produced by the rather excessive use of iodine. Both these cases got rapidly well on the stoppage of the drug. As a rule I prefer for medicinal use the tincture of iodine and the syrup of iodine and tannic acid to the more stable iodides. The latter, however, are more easily prescribed in compound mixtures.

Adrenalin.

This remedy raises arterial tension, and is, as a rule, injurious in arterio-sclerosis, but when combined with thyroid or iodine it occasionally does good by maintaining arterial tone and stimulating the heart.

Citrates.

Dr. A. E. Wright has shown that the citrates have a decalcifying effect on the blood. At first they lessen its coagulability, but, after prolonged use, this again increases, and Dr. Wright believes that this is due to the citrates dissolving the lime salts out of the tissues.

Benzoates.

The benzoates have long been favourite remedies with me, especially where the kidneys are involved. I have frequently seen uraemic convulsions cease under their free administration. They are said to convert uric acid into the more soluble hippuric acid, and I believe they also eliminate other purin bodies. Like the salicylates, they have a cholagogue action.

Sulphates and Sulphites.

The sulphate and hyposulphite of sodium, sulphate of magnesium, and numerous purgative mineral waters have a good effect in clearing out the intestinal tract and in lowering blood pressure.

Chlorides.

The chlorides are pressor agents, and consequently their use should be limited. Calcium chloride should be avoided unless there be some indication for its use, such as a severe haemorrhage or cardiac failure. Sodium chloride should only be taken by gouty individuals in limited quantities.

Depressor Agents.—Dr. George Oliver has added some valuable agents for lowering blood pressure to our armamentarium, such as the hippurates of ammonium and sodium, lichenin, leucin, and Witte's peptone. The nitrites are exceedingly valuable for emergencies, but their effects are too evanescent to render them desirable for constant use.

Ladies and gentlemen, my wish is that your lives whether long or short, may be characterized by efficiency'.

REFERENCES.

[1] *The American Journal of the Medical Sciences*, March, 1904. [2] Note on the Agglutinating Power of the Blood, by John Hay, M.D. [3] The Purin Bodies of Food Stuffs, 1903. [4] *Guy's Hospital Reports*, vol. lv. [5] *The Lancet*, April 30th, 1904. [6] BRITISH MEDICAL JOURNAL, December 5th, 1903. [7] *The Lancet*, June 17th, 1899, and June 20th, 1903.

THE INTERNATIONAL MEDICAL PEACE ASSOCIATION.—The first official banquet of the International Medical Peace Association, founded by Dr. J. A. Rivière, of Paris, to help in the suppression of war, was held on December 15th, 1905, Dr. Rivière, the President, in the chair. The speakers, among whom were Professor Langlois, Dr. Bérillon and Professor Richet, dwelt on the prominent part in bringing about the reign of universal peace which the medical profession throughout the world is destined to play by its social influence. The Association, which was founded only a year ago, has already a membership of more than 600 members, all belonging to the medical profession.

A DIRECTORY OF DEFAULTERS.—It has already been stated in the BRITISH MEDICAL JOURNAL that the medical practitioners of St. Louis recently decided to publish a directory of defaulters for their own protection. The first edition of this directory will, it is said, contain the names of some 15,000 persons who have forgotten to settle their doctors' bills. The work, which will be entitled the *St. Louis Medical Credit Guide*, will be kept up to date by the issue of a monthly sheet, and will be revised once a year.

An Address

ON THE

SIGNIFICANCE OF SMALL QUANTITIES OF SUGAR AND OF ALBUMEN IN THE URINE.

READ BEFORE THE ILFORD MEDICAL SOCIETY.

By **ROBERT W. BURNET, M.D., F.R.C.P.,**

CONSULTING PHYSICIAN, GREAT NORTHERN CENTRAL HOSPITAL;
PHYSICIAN, LONDON LIFE ASSOCIATION; HON. PHYSICIAN
TO H.R.H. THE PRINCE OF WALES.

MY attention was first attracted to the question of slight albuminuria in youths by having to see the successful candidates who had just passed a severe competitive examination. The number who had a small amount of albumen in the urine was considerable, somewhere about 1 in 12. In most it proved to be transient, but in a few it persisted. What the after-history of these lads was I cannot tell, as I was unable to follow it out. My attention has also for some time been directed to cases in which a trace of sugar is found, like the albumen, almost unexpectedly, at all events almost accidentally. What significance are we to attach to the finding of small and not persistent quantities of albumen and of sugar in the urine?

I desire to omit from consideration those cases in which on the one hand there is indubitable evidence of renal degeneration or of diabetes on the other. The cases we now want to consider are totally distinct from those in which there is evidence of mischief of either sort; this has already been indicated above by the fact stated that the condition is often accidentally discovered.

Whether these cases of slight albuminuria or of glycosuria are not, in some instances at least, related to those showing signs of actual disease; whether, indeed, in some, it is only a question of the different stages of the clinical history; whether, in other words, permanent pathological changes do not in some cases develop or become evident later on, is one of the questions we have to ask ourselves not infrequently in trying to arrive at a diagnosis and prognosis when dealing with these patients.

The two conditions—the presence of albumen and of sugar in the urine—may at first sight appear totally distinct and may not seem to have much, if any, connexion one with the other, but I think that closer examination will show that both conditions may arise, if not from the same causes, at least under similar circumstances. These are cases in which by reason of strain, of long continued severe mental exertion, anxiety, or other such cause, the metabolic processes have been disturbed, the digestive functions have become disordered, and the nutritive activities seriously hampered, with the result that we find our patient more or less out of health, and although most probably we cannot put our finger on any definite sign of actual organic disease, we feel that things are not going rightly, are not working smoothly, and on examining the urine we find a certain amount of albumen or of sugar, or of both. We see this condition mostly in the young and in my experience mostly in males.

Another class of case, which I mention only to put it on one side, is one with which we are all familiar—namely, persons of pronounced gouty type, whose urine contains a trace of albumen, and who at times also pass small quantities of sugar, which, under treatment, and under favourable conditions of diet and climate, disappear, to recur again if health becomes disturbed; and if our patient attains to old age, as these persons not infrequently do, to become more or less persistent, but never acute, and counting only for so much evidence of general and gradual degeneration, to be summed up under the head of "senile change." These cases form a class by themselves.

ALBUMEN.

We sometimes hear the term "physiological albuminuria" employed. I may say at once that I doubt the justice of the term. I doubt, indeed I deny, the existence of physiological albuminuria. I believe that since normal urine admittedly contains no albumen, all albuminuria is pathological, I mean in the widest sense. That there may be no evidence of course or progressive change associated with its appearance I grant, and where there are no evidences of organic disease, where after a time it disappears, and health is apparently entirely restored, we may call it functional, for want of a better term; but that there are abnormal conditions of nutrition, of digestion and of the circulation of the kidney, involved in its appearance, I have myself no doubt. Because these disturbances are temporary and slight and are recovered from, we do not therefore need to doubt their existence.

Different explanations have at different times been offered. Probably no one explanation is wholly right or applicable to all cases. Writing as long ago as 1881, Austin Flint, a careful and sound pathologist, recognizing disturbance of circulation as a cause, observed that:

> While spasm of the small arteries of the kidney has not been actually demonstrated as a pathological occurrence in man, it is assumed to exist in a variety of conditions which are attended by, or followed by, slight temporary albuminuria.

That acute and careful observer, Dr. Osler, the recently appointed Professor of Medicine at Oxford, says:

> In a normal condition of the kidney only the water and the salts are allowed to pass from the blood. When albuminous substances transude there is probably disturbance in the nutrition of the epithelium of the capillaries of the tuft, or of the cells, surrounding the glomerulus.

He goes on to state his opinion that the presence of albumen in the urine, in any form and under any circumstances, may be regarded as indicative of change in the renal or glomerular epithelium, a change, however, which may be transient, slight, and unimportant, depending upon variations in the circulation or upon the irritating effects of substances taken with the food or temporarily present.

One more quotation only before I pass on. Butler in his *Diagnostics of Internal Medicine* (pp. 631-633) says:

> Probably the presence of albumen in the urine always implies some interference with the integrity of the epithelial cells of the glomeruli of the tubules, which epithelium, when intact, prevents the passage of the proteids of the blood into the urine. Speaking of the so-called functional albuminuria, he says, "a large proportion of these cases recover after a time, but in some the albuminuria becomes persistent, the pulse tension is increased, and organic changes develop."

Enough has been said, I think, to lead us to hesitate before we look too lightly upon the occurrence of even traces of albumen in the urine, but, on the other hand, unless we have evidence of increased tension in the arteries, or of casts, etc., showing epithelial desquamation, we need not take too serious a view of these cases. Formerly, no doubt, all such patients were supposed to have Bright's disease; then a reaction set in, and those cases of temporary albuminuria were spoken of too lightly as of little or no consequence. My point is this—where we find small quantities of albumen without any other signs of disease, while we cannot ignore or make too light of the matter, we are wise if we pause and wait, meanwhile putting our patients under as favourable conditions as possible in regard to work, environment, and diet. My belief is that, under favourable circumstances, most of them do well, but that, under conditions the reverse of favourable, a certain number, at least, drift on into organic disease.

The unfavourable conditions comprise strain, over-anxiety, overwork, unsuitable clothing, exposure to chills, unwholesome food, and the free use of alcoholic stimulants. Where it can be attained a sea voyage is often attended by excellent results; if this course cannot be followed a change to a mild equable climate is good, and if the patient cannot leave home then let him lead a quiet, simple life, avoiding exposure to changes of temperature, hot rooms, late hours, and over-fatigue. Attention to diet is necessary, not only as to what the patient eats, but seeing to it that meals are not hurried, and that there are no long fasts and no large meals, or, in other words, that the food is simple and light, and that it is divided into small or moderate meals.

These means give him the best chance for the restoration of the disturbed equilibrium between supply and demand, that is, between the ingoings and the excretion of waste. I will give an example of the sort of case I mean, one that I have been able to follow for the last 15 years.

In 1889 I saw a young man who was manifestly out of health, though in a somewhat vague and indefinite way. He had been an active boy at a public school, entering into games, and having usually quite good health. Suddenly his life was altered. He went into his father's business, and being a conscientious, somewhat sensitive lad, he not only set himself diligently to learn his work, but did not avail himself of all the liberty he might have had as regards relaxation and exercise; his life suddenly became sedentary. For some little time before I saw him he had gradually been losing his former good health and sense of well-being; he was depressed; he had not the same strength and energy as he used to have; he suffered from constipation, and he felt the cold weather try him in a way he had never before felt. Physical examination revealed no evidence of organic disease in chest, etc., but on examining the urine it was found to be of specific gravity 1020, and contained a trace of albumen and of sugar. He was able to carry out a scheme which proved successful; he went away to a mild south-west coast place, then he went for a long voyage, and he has now for a number of years been in the enjoyment of excellent health, while he keeps up a moderate amount of exercise.

Another example, I might here mention, is curious and interesting, as, apparently, the nervous conditions were so unstable that the very fact of coming up for examination was enough to bring on temporary albuminuria.

A young man came before me some few years ago to be examined for life insurance. He did not look strong, and though there was no evidence of cardiac weakness his circulation was languid. A little albumen was found in the urine, but no sugar. He was advised to come up again in a few months' time. Meanwhile I communicated, with his doctor, who treated him and made frequent examinations of the urine, reporting it after a time free from albumen. The proposer, therefore, came up again, and again there was albumen in the specimen passed at the time of examination. The same process was repeated several times, the doctor writing to me that he found albumen present after each time the patient had been up to town for examination, and that it gradually diminished, and in a few days disappeared.

That is a case in which I should give a guarded prognosis; the slightness of the cause seems to me to indicate grave instability, and I should be afraid that later on organic changes will follow.

As regards the significance of albuminuria from the point of view of life insurance, I am not prepared to go as far as those who say that all proposers whose urine shows any albuminuria should be refused, but I do not consider that they can be classed as first-rate lives, even when all traces of albumen have ceased and remained absent for some considerable time. I think they should be postponed and given the chance of coming up again, when, if the albumen has disappeared and the physical condition is in every way satisfactory, they may probably be accepted at an increased rate.

SUGAR.

With regard to traces of sugar in the urine in the same class of patients of whom we have already been speaking, I look upon the appearance of sugar as indicating more serious disturbance in the nutritive processes than is shown by a trace of albumen. I do not mean that it at all necessarily implies any permanent organic change. I do not think it does, but the appearance of sugar in the urine in young people does mean that for the time being the powers of digestion and the working out of the chemical equations in the system are not at all satisfactory. In middle-aged people I do not think that a small amount of sugar is of such grave import; it is usually found in what are termed free livers, a synonym often for large eaters who also consume a considerable quantity of alcohol. The late George Johnson spoke of them as "people in whom the taste for rich food had survived the power of digesting it." I have seen the sugar entirely disappear in some cases when the habitual constipation that accompanied it had been overcome.

One young man whom I know had some years ago a trace of sugar in the urine for some time. It was, I believe, due to over-training, and especially to trying to train and to work hard at business involving a considerable mental strain as well. He had got into the habit of eating largely of meat and had kept it up too long after the special exertion—in this case rowing—had ceased. A careful diet and an improved condition of the action of the bowels led to the disappearance of all unpleasant symptoms. He remains well, but has to be careful to guard against constipation, and he has given up hard rowing.

We are told that whenever the sugar in the systemic blood exceeds a definite amount (about 0.2 per cent.) it is discharged by the kidneys, producing glycosuria. We can therefore easily realize that, given circumstances such as I have narrated in the foregoing cases, the occurrence of glycosuria is just what we should expect. Sugar in the urine of young persons, even without the presence of any symptoms of diabetes, such as wasting, thirst, etc., is a much more important matter than when occurring in people past middle life, and in some cases, I fear, could we follow out the clinical history, would be found to end in diabetes.

We have at present no definite means of arriving at a sound prognosis, but if there has been some distinct breach of the laws of healthy living—a breach that can be overcome—and if the response on the part of the system is ready and complete when the cause has been removed, then I think we can take a hopeful view.

I have recently seen a rather delicate boy of one of our public schools whose urine showed a trace of sugar but no albumen. He had worked very hard during the term before Christmas, and when at home for the holidays seemed tired, thin, and not up to the mark. Examination showed a trace of sugar in the urine. I felt that the only thing was to advise his removal from school for a term, to diet him carefully, and to have the urine looked to periodically for some time to come. I confess that I am somewhat uneasy as to the future history in this lad's case, although at present he keeps well.

Another case I may mention, because the patient is doing well, and it is now eight years since I first saw him.

He was then 22, out of health, and the urine, of moderate density, contained a trace of albumen and of sugar. Last year the patient's general condition was satisfactory, and the urine was free from albumen and from sugar.

The occurrence of sugar in the urine in young subjects must always occasion us some anxiety, even if it does not persist, for the reason that we feel that there is a risk of its passing on to diabetes, a disease so often rapidly fatal in the young.

CONCLUSIONS.

1. I think it may be said that the presence of albumen in any appreciable amount in the urine is not normal or physiological, but that it does not necessarily imply coarse pathological change, and that it does not necessarily mean that the existing disturbance of function is permanent or progressive. At the same time, it cannot be denied that a certain number of cases which at first are rightly placed in the above category do later on show signs of definite organic kidney disease.

2. That the presence of sugar in the urine in any appreciable quantity is abnormal, that in the young it is of serious import, and that if persistent, it is likely to lead on to diabetes; that in people past middle life, and especially in those of gouty type, it is of less consequence and usually yields to treatment more or less speedily, to recur, however, in some cases, under conditions similar to those under which it first appeared.

3. That the presence of both albumen and of sugar in the urine indicates serious disturbance in the metabolic processes, calling for relief to the nervous strain which the patient may have been undergoing, and an adjustment as far as can be of his environment, but that under favourable conditions these patients may continue in at least fair average health for many years.

CLINICAL ESTIMATIONS OF PURIN BODIES IN GOUTY URINES, ETC.

By I. WALKER HALL, M.D.,

LECTURER IN PATHOLOGY, VICTORIA UNIVERSITY OF MANCHESTER;
PATHOLOGIST TO THE SALFORD ROYAL HOSPITAL AND TO
THE CHILDREN'S HOSPITAL, PENDLEBURY.

DESPITE the numerous publications upon the metabolism in gout and the allied conditions, the advance towards the real etiology of the disease is very slow. For practical purposes it still is necessary to confine our attention to the eliminated products, although, from the theoretical standpoint, the intermediary changes of metabolism now form the chief centre of interest. The substances resulting from the decomposition of proteids and nucleins by bacteria and ferments are at present being carefully investigated, and already it has been demonstrated that certain micro-organisms and ferments possess the power of breaking down amino-purins into simpler substances and of oxidizing the latter into uric acid. Evidence has also been adduced to show that in extracts of the spleen, lung, liver, intestine, muscle, and kidney, there exist hydrolytic ferments which, in the presence of a sufficiency of oxygen, are able to transform the amino-purin to an oxy-purin, and finally to uric acid. In kidney, muscle, and liver extracts ferments which are able to break up the newly-formed uric acid are thought to be present. Whether such conditions obtain in the living organs is not yet determined. Ferments are able, we know, to act in a reverse direction, and therefore the effects of their action intra vitam may be quite different from that ascertained from extracts of organic tissues. The relation of the ferments to the large quantities of hypoxanthin produced in the muscle tissues during ordinary muscular contraction is also at present undetermined.

During the period necessary for the accumulation of facts ascertained by experimental investigation and of the records of the elimination of endogenous purins, we may do something towards the betterment of the gouty individual by an endeavour to introduce an element of exactness into the measures for dietetic treatment. If, in the meantime, we agree to practically neglect uric acid in regard to the etiology of gout, we cannot yet overlook its importance in regard to treatment, since it expresses the degree of hepatic sufficiency and thus indicates the amount of tissue reaction to the general toxaemia. There are numberless theories from which our choice of causation may be made, but the only, or almost only, well-grounded reason for prophylactic measures is the presence of an excess of uric acid in the tissues. So far as we know to-day, we are unable to prescribe any medicinal treatment which directly affects the deposited uric acid. We are, therefore, driven to regard dietetic treatment as the at present only available resource, and to recognize its great possibilities. The determination of the individual capabilities for certain foods has already mitigated the severity and recurrence of the attacks in many cases of gout. The value of the exact estimation of the individual factor, as opposed to the haphazard construction of dietaries, lies in the fact that it is of supreme importance to the gouty individual that he should be sufficiently nourished, and that his daily food should approach, as nearly as possible, the régime to which he has been heretofore accustomed. A knowledge of the "personal powers" often permits a greater choice of foods than one may dare to allow when giving empirical directions. When the patient is able, within certain limits, to follow his fancies and usual habits, his mental condition is less constrained than is the case with a patient who is placed under a rigid or a severely-restricted dietary. This recognition of the mental factor is of much comfort and importance to the gouty patient, and possibly tends to sustain the nervous control of the liver functions.

Since 1902,[1] when I first suggested the determination of the individual powers of assimilation for purin substances, I have had the opportunity of examining many gouty cases for this purpose, and have had the satisfaction of observing a retardation of the course of the disease and a diminution in the number of the acuter manifestations. I append an example, additional to those recorded in 1903.[2] The Table I indicates the procedures followed and precautions observed.

TABLE I.

Days.	Dietary.	Urinary Purin Nitrogen.
1	Diet of milk, bread, cheese, eggs, milk, oats, etc.	0.2010
2	,, ,, ,, ,, ,, ,, ,, ,,	0.1560
3	,, ,, ,, ,, ,, ,, ,, ,,	0.1600
4	Plus ¼ lb. beefsteak=0.25 gram purin nitrogen	0.2560
5	Purin-free diet again	0.1760
6	,, ,, ,,	0.1650
7	,, ,, ,,	0.1560
8	Plus ½ lb. beefsteak about=0.50 gram purin nitrogen	0.2463
9	Purin-free diet	0.1560
10	,, ,,	0.1800
11	Plus ¼ lb. beefsteak=0.28 gram purin nitrogen	0.2445

In this case it will be observed that, while the addition of 4 oz. of best beefsteak (weighed raw) was followed by an immediate output of about 38 per cent. of the purin ingested, the addition of 8 oz. of beef resulted in an output of only 16 per cent., the remainder being retained in the system. Taking 40-55 per cent. as an average normal output, it will be at once seen that this patient could well deal with 3 oz. of steak or its equivalent in other less purin rich meats, and that the intake of flesh meats need not be further restricted. As a matter of fact, some six months later another estimation showed that the tolerance capacity was increased; the allowance of flesh meat was accordingly raised, and the intestinal agencies continued adequately to discharge their functions.

It is, of course, a great advantage when these determinations can be made by exact laboratory methods. As such processes, however, are very tedious and entail the use of apparatus not always available, I suggested, in 1901,[3] an instrument—the purinometer—by means of which the rougher clinical estimations could be made. An extended experience with this method of sedimentation has revealed certain drawbacks, but it has also shown that for ordinary purposes sufficient accuracy may be obtained by it. The following figures, additional to those already published,[4] have been kindly supplied to me by independent workers:

TABLE II.

Total Purin Nitrogen (Purinometer).	Uric Acid Nitrogen (Hopkins's Method).	Purin Bases Nitrogen (Calculated by Difference).
0.2164	0.1735	0.0429
0.1776	0.1632	0.0144
0.1831	0.1702	0.0129
0.1716	0.1531	0.0185
0.1732	0.1410	0.0322

TABLE III.

Purin Nitrogen (Purinometer).	Uric Acid Nitrogen (Hopkins's Method).	Purin bases Nitrogen (Calculated by Difference).
0.1629	0.1365	0.0264
0.1423	0.1095	0.0328
0.1319	0.1054	0.0265
0.1284	0.1095	0.0189
0.1367	0.1140	0.0227
0.1673	0.1344	0.0328
0.1795	0.1435	0.0360
0.1556	0.1293	0.0263
0.1496	0.1381	0.0115
0.1468	0.0753	0.0715
0.1401	0.0812	0.0588
0.1903	0.0976	0.0929

These results, which accord with a vast number of similar estimations made by myself, show that the readings yielded by the purinometer fairly approximate to those obtained by Hopkins's method.

Rilalowski, however, in a St. Petersbùrg dissertation submitted in 1904, records a series of results obtained by the purinometer, by Hopkins's and by Salkowski's methods, and considers that the purinometer is only suitable for coarse estimations, since it yields an error of from — 50 to + 50 per cent. (For the interpretation of the Russian text I am indebted to Docent Dr. B. Slowtzoff, St. Petersburg.) Rilalowski also mentions several disadvantages, all of which were anticipated and allowed for when the instrument was graduated, and were included in the original description of it. He proposes to modify the instrument by substituting for the two-chambered tube a single graduated measure, into which the phosphate-freed urine is placed for treatment with the silver solution. No values for his new graduations are appended. The purinometer was originally designed in order to obviate the use of two separate tubes and the necessary filtering, etc.

Rilalowski relies chiefly upon the following figures (see Table IV), taken from his Table III.

In this table the purinometer is compared with Salkowski's method for uric acid, Hopkins's method being used to control the estimations by Salkowski's method. For absolute comparison, Rilalowski determines the purin bases by Salkowski's method, and adds together the quantities of uric acid and purin bases in order to arrive at the total purin bodies.

If for a moment we leave the purinometer out of the question we may note the experiences of Rilalowski with the methods of Salkowski and Hopkins. In a few instances the results obtained are very similar, but in others the figures represent differences of — 33 to + 96.8 per cent. Yet these two methods are usually recognized as the best available methods for the estimation of urinary uric acid, and in skilled hands they yield almost identical results. If the findings of the purinometer are judged by the estimations of uric acid or of the total purins obtained with Salkowski's processes, the method of Hopkins is made to appear far less reliable than that used for the purinometer. On the other hand, if we accept the figures obtained with Hopkins's method, then Salkowski's are equally at fault.

TABLE IV.

Total Purins (Purinometer).	Uric Acid (Salkowski).	Uric Acid (Hopkins).	Percentage Difference between Hopkins and Salkowski.
0.2340	0.1480	0.1480	
0.1112	0.1425	0.1472	+ 3.5
0.0802	0.1426	0.1446	+ 1.4
0.0661	0.2974	0.3075	+ 3.4
0.5382	0.3066	0.3143	+ 2.3
0.2231	0.0920	0.0613	−33.0
0.0720	0.0920	0.1680	+82.0
0.2004	0.1026	0.2030	+96.0
0.1125	0.1268	0.1066	−16.0
0.2340	0.1266	0.1840	+45.0
0.1170	0.0590	0.1263	+11.0
0.1248	0.0746	0.1083	+45.0
0.0546	0.2304	0.3056	+32.0
0.1365	0.2634	0.1926	−36.0
0.1768	0.2881	0.3380	+17.0

It may be conceded that the principle of sedimentation from urine is not capable of yielding absolutely accurate results. The density and constitution of pathological urines are constantly changing, thus tending to alter the rate and extent of precipitation. By sedimentation it is not to be expected that results can be obtained that shall be comparable with those afforded by the usual laboratory methods. But although the changed conditions may be marked in different urines, they are more or less constant in individual cases, so that the principle of sedimentation permits relative, if not actual, estimations to be made with sufficient accuracy for clinical purposes.

If the following precautions are taken, the user of the instrument will obtain information sufficiently indicative for the prescription of purin-rich or purin-free dietaries.

The talc used in making up the solutions must be finely ground pure talc and not "prepared French chalk."

After adding each solution the apparatus should be vigorously shaken and the precipitate then allowed to settle.

The final sediment should be uniform. If small gaps appear or the precipitate does not uniformly fill the lumen of the tube, then the apparatus should be again shaken, and the precipitate be allowed again to settle.

The reading should always be taken the same number of hours after precipitation.

The urine should be taken from a mixed sample of the total daily urine.

If albumen is present it is better, although not absolutely necessary, for it to be removed by boiling in the usual manner.

The apparatus must always be kept away from the light during the estimation. It is well for the instrument to be cleaned immediately after use, in order to avoid the formation of a sediment upon the sides of the glass tube.

When not in use the stopper and the plug of the stopcock should be kept apart from the tube, or kept loosely in position by the interposition of a piece of thin paper.

REFERENCES.

[1] *Purin Bodies of Foodstuffs*, Sherratt and Hughes, 1902, and Second Edition, 1903, p. 124. [2] *Practitioner*, 1903, vol. lxxi, No. 1, p. 79. [3] BRITISH MEDICAL JOURNAL, vol. ii, November 1st, 1902. [4] *Purin Bodies of Foodstuffs*, p. 147.

[The manuscript of this paper was received by the Editor on October 14th, 1905.]

ON CHEMIOTAXIS.

BY J. O. WAKELIN BARRATT, M.D., B.SC.LOND.,

BRITISH MEDICAL ASSOCIATION RESEARCH STUDENT.

[From the Physiologisches Institut, University of Göttingen.]

HISTORICAL.

THE study of chemiotaxis—the taxis or arrangement of motile organisms induced by chemical substances—was first commenced about twenty years ago. Historically, it may be said to take its origin to a considerable extent out of investigations on the allied phenomenon of galvanotaxis exhibited by free-swimming organisms. It is, therefore, desirable to refer briefly to the researches which have been carried out upon galvanotaxis before passing to those which have been directed to chemiotaxis.

Galvanotaxis was first observed by Hermann[1] (1885) in connexion with embryonic frogs, but he did not carry his observations very far, and the first exhaustive study of this remarkable phenomenon was made by Verworn[2] (1889), who, selecting the simplest organisms as likely to offer the most favourable opportunity of investigating both the manifestations and the conditions of production of galvanotaxis, carried out a series of beautifully-contrived experiments on free-swimming infusoria, and laid the foundations of our present knowledge of this process. Verworn studied galvanotaxis by placing water containing the infusoria in question in a cell, constructed by placing small bars of clay upon a microscope slide (Fig. 1). Outside this cell non-polarisable electrodes were placed, between which an electric current was allowed to pass. When paramoecia are examined in this way it is found that on closure of the current they at once arrange themselves with the oral extremity pointing to the cathode, and the aboral end directed to the anode, and they then swim in the direction of the cathode. On reversing the current a change of movement in the opposite direction occurs. Verworn found that galvanotaxis was exhibited by many rhizopoda, flagellata, ciliata, and bacteria, some of which turned to the cathode, others to the anode. The nature of this peculiar response of living organisms to the constant current formed the subject of further investigations by Ludloff[3] (1895-6) Jennings[4] (1897), Loeb and Budgett[5] (1897), Pearl[6] (1900), Carlgren[7] (1900), Dale[8] (1901), and Wallengren[9] (1902-3). The mechanism of the orientation followed by swimming to the cathode (in the case of paramoecium) was studied by Jennings. Loeb and Budgett sought to show that the movement to the cathode was conditioned by the production, during passage of the current, of alkali at the posterior (aboral) and acid at the anterior (oral) end of the organism; and it had been shown by Jennings that paramoecia under appropriate conditions of experiment move towards an acid liquid and away from an alkaline liquid. Considerable attention was now directed to the chemiotaxis of free-swimming infusoria. Attention also began to be directed to the behaviour of solid particles suspended in a liquid. Such particles may possess an electric charge, in which case they move to one of the electrodes of a constant battery immersed in the liquid. Such movement can be reversed by the addition of electrolytes to the liquid. Dale found that a similar reversal of the galvanotaxis of opalina and nyctotherus, infusoria existing in the frog's intestine, was obtained by changing the reaction of the liquid in which these organisms were placed, and that colpidium and paramoecium exhibited a reversed galvanotaxis on the addition of sodium chloride; but living organisms were considered not to be at all comparable to inert particles, owing to the obviously active, and not merely passive, character of their response to the constant current. It was shown by Coehn[10] (1897) that such colloids as starch and dextrin moved towards the cathode, and Hardy[11] (1899) found that the movement of colloidal proteid could be reversed by the addition of small amounts of acid or of alkali. Höber[12] (1904) showed that under suitable conditions of experiment red blood cells were charged electrically, and Coehn and Barratt[13] (1905) showed that paramoecia possess a positive charge at the oral end, causing orientation of the organism, and leading to its movement, partly passive, partly active, to the cathode; they also found that galvanotaxis occurred when the fall of potential in the liquid containing the paramoecia was too small (0.2 volt) to cause electrolysis, and thus that the possibility of acid and alkali being produced at the opposite ends of the organism is excluded.

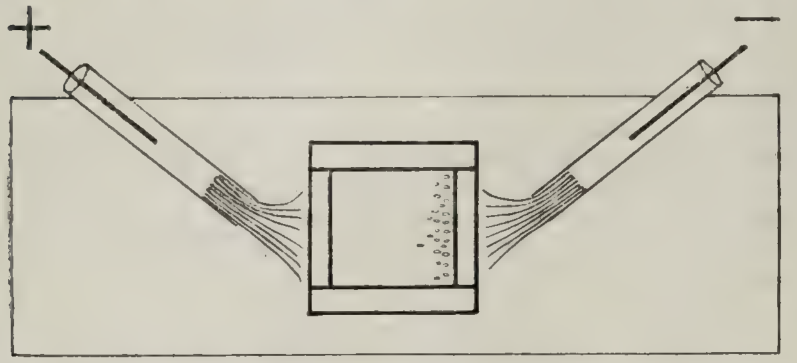


Fig. 1.—A small cell is constructed upon a microscope slide by means of bars of porous clay. Outside the cell are placed two non-polarisable electrodes. If paramoecia are put inside the cell they swim towards the cathode during passage of the current.

Chemiotaxis, which, as will readily be understood from the foregoing, is so closely associated with galvanotaxis, has been most often studied in connexion with infusoria. Two methods of observation have been most frequently employed: Fluid containing the infusoria is placed in a glass cell (Fig. 2), into which one end of a narrow tube containing the fluid to be tested dips; or a drop of the fluid to be tested is introduced into the cell by means of a fine pipette. The attraction or repulsion of the organisms in respect of the liquid tested is observed under a low power of the microscope. In this way chemiotaxis of acids, alkalies, and salts has been studied. It was found by Loeb and Budgett[14] that alkalies caused, in addition to their chemiotactic action, swelling of the cell protoplasm of paramoecia, recalling the swelling at the cathodic extremity caused by the constant current, and it may also be mentioned incidentally that concentrated saline solutions cause shrinking of the cell protoplasm. Dale[15] (1900) showed that in the organisms he employed a parallelism between chemiotactic and galvanotactic response existed. Garrey[16] (1900), working in J. Loeb's laboratory, studied, in the course of a very interesting research, more minutely the influence of individual ions in bringing about chemiotactic phenomena. But processes indicative or suggestive of chemiotaxis are by no means confined to infusoria. Buchner[17] (1890) investigated the conditions under which inflammatory exudations were caused by bacterial toxins, and came to the conclusion that the latter attracted leucocytes, and the conditions under which chemiotaxis of leucocytes in inflammatory states occurs were further studied subsequently by Massart and Bordet[18] (1890). The phagocytosis of red blood cells first described by Metchnikoff and subsequently investigated by Sawtchenko[19] (1902) and Barratt[20] (1905) has been attributed to chemiotaxis of leucocytes by sensibilized red blood cells, and a similar explanation of the phagocytosis of bacteria is equally tenable.

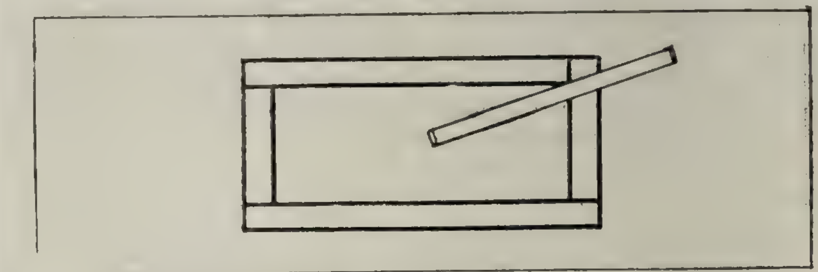


Fig. 2.—A cell containing paramoecia is made upon a microscope slide. In order to observe chemiotaxis, a glass tube of narrow bore, containing acid, alkali, or other liquid, is placed with its lower end dipping into the cells.

Again, in fertilization of the ovum, the movement of the spermatozoon to the ovum is conjectured to be another example of chemiotaxis[21]. Thus it is seen that chemiotaxis has been invoked to furnish the key to some of the supremely important processes of cell defence against bacteria and bacterial products, and of fertilization, but it must be conceded that before the occurrence of chemiotaxis as a determining factor in these processes can be regarded as established, more information is needed as to the exact mode in which these phenomena occur. Obviously the correctness of such deductions depends upon the completeness with which the conditions under which the simplest phenomena attributable to chemiotaxis take place are determined, for otherwise speculation is apt to take the place of ascertained fact. And here it may be observed that no consensus of opinion exists even in reference to the nature of the reaction of ciliated protozoa to acid and alkaline liquids, which are perhaps the simplest phenomena of this character and have received the largest amount of study, and yet are still a subject of discussion. Thus in opposition to the more usually received opinion, namely, that a true chemiotaxis takes place, Jennings[22] looks upon the response of paramoecia as a special motor response, which is independent of the kind of stimulus used, and holds that no true chemiotaxis takes place. It is clear that need exists for further investigation of the exact conditions under which the response of paramoecia to acids and alkalies occurs, and that such an investigation forms a necessary adjunct to research upon the more complex processes referred to above in which chemiotaxis appears to play an important rôle. It was therefore determined, as a preliminary to later observation on wandering cells, to study the nature of the action of acids and alkalies upon the living protoplasm of paramoecia, and in particular to endeavour to ascertain if the process in question is a chemical process, or is merely physical or physico-chemical in character.[23] The present paper will also deal with a reinvestigation, in the light of the knowledge thus gained, of the chemiotaxis of paramoecium in respect of acids and alkalies.

The Interaction of Protoplasm with Acid and Alkali.

In experiments with paramoecia, four data are required in order to define the conditions under which the experiments are made. In the first place, the concentration of the acid and alkaline solutions whose chemiotaxis is being tested must be accurately ascertained; in the second place, the character of the liquid in which the paramoecia are contained must be known; in the third place, the weight of the paramoecia used must be determined; and, lastly, the condition of the organisms employed must be as nearly as possible the same in the various series of experiments.

The concentration of the acid and alkaline solutions used for experiments on chemiotaxis has in the past been usually given in percentage form. This does not, however, without further calculation, permit of a comparison of the relative number of molecules contained in the different solutions employed. It is therefore better to give instead the molecular strength, for, as will be seen later, solutions which produce an equal effect upon paramoecia differ widely in respect of percentage composition, this depending upon the molecular weight of the acids and alkalies employed, but, with few exceptions, are of equal or of very nearly equal molecular strength. In Tables I to VIII the concentration is equivalent.*

It is equally important to know the composition of the fluid in which the paramoecia employed for experiment are preserved. If the paramoecia during experiment remain in hay infusion or in some other culture medium, it is necessary to know the molecular and ionic concentration of this liquid, its reaction and its capacity for taking up acid and alkali. Data of this kind are given in the next section. In the experiments detailed in this section the paramoecia were always kept in distilled water during experiment, so that these data are not required.

The weight of the paramoecia employed was determined by filling the tube of a haemocrit up to a convenient level with paramoecia, and then shaking the organisms out of the tube into water and counting them.† In this way the average volume of the individual paramoecia employed was ascertained, and by counting the total number of organisms used in a given experiment the total volume of paramoecia was calculated. From this the total weight was determined by multiplying the volume by the specific gravity of paramoecia, for which Jensen's estimate[24] of 1.25 is taken. It is necessary to make a haemocrit determination with each batch of paramoecia, since the size of paramoecia is liable to great variation. If, however, it is merely necessary to ascertain that the weight of the paramoecia employed is inconsiderable compared with that of the acid or alkali used, and therefore insufficient to affect the concentration of the latter to an appreciable extent, it is sufficient to count the paramoecia employed.

The paramoecia used for experiment were separated from the medium in which they were cultivated by means of centrifugalization, and were preserved in distilled water for at least twenty-four hours before use. Shortly before commencing an experiment they were again washed with distilled water.

A further practical point of considerable importance in these experiments is to use apparatus made of glass, which is as little soluble in water as possible. The need for this precaution will be obvious when it is mentioned that the solutions of acid and alkali employed (cf. Tables I to IV) are of necessity very dilute. For this reason all the beakers, test tubes, and capillary tubes used were constructed of Jena combustion glass.

In testing the action of acids and alkalies upon living paramoecia concentrations which rapidly killed the organisms were, as far as possible, avoided, for with such liquids obviously the action of acid and alkali might continue to be exerted upon the protoplasm after death. The solutions employed were therefore not greater than the minimal lethal concentration, by which is meant that concentration which killed the paramoecia in from ten to thirty minutes. The concentration of the strong mineral acids—hydrochloric, nitric, and sulphuric—which is fatal to paramoecia within this period of time, varies with different batches of paramoecia from 0.0001 n. (in the case of hydrochloric acid a 0.0004 per cent. solution) to 0.0003 n., and for the hydrates of potassium and sodium from 0.001 n. (in the case of potassium hydrate a 0.006 per cent. solution) to 0.003 n. The lethal concentration of the weaker acids—formic, lactic, oxalic, tartaric, phosphoric, citric, and acetic—and of the hydrates of lithium, calcium, strontium, and barium lie somewhat below the above limits. On referring to the tables it will be seen that the concentrations employed usually allowed of the majority of the paramoecia used remaining alive at the end of the experiment, though usually so far injured that most were dead an hour later. Here attention may be called to an interesting sidelight which the study of the lethal concentration of acids and alkalies[25] throws upon the action of these substances on living protoplasm. It was found that the weaker acids are as toxic as, or more toxic than, the strong mineral acids, yet the ionic concentration of the former in equally lethal strength is less than that of the latter, from which it may be surmised that the action of acids upon living protoplasm is a chemical one in which both positive and negative ions disappear, and that the effect on living protoplasm is in part dependent upon the negative ion. Clearly, if the action of acids were catalytic and dependent upon the $H+$ ions, the concentration of the latter would be the same for all equally lethal concentrations, but this is not so. The extremely weak electrolytes carbonic acid, carbolic acid, boric acid, and hydrocyanic acid, are considerably less toxic than the acids already referred to: their action upon the protoplasm of paramoecia would appear to be of a different order from that of the strong mineral acids, and their ionic concentration in equally lethal solutions is relatively as well as actually low. Similarly, it would appear that the lethal character of the bases is dependent on a chemical action, that both the $OH-$ ions and the cations are involved, and that $Ba++$ and $Sr++$ ions conveyed a more lethal character to the effect on living protoplasm than an equivalent number of $K+$ and $Na+$ ions.

The crucial experiments which were made to determine the nature of the action of acids and alkalies upon living protoplasm, were carried out with the aid of the apparatus shown diagrammatically in Fig. 3. If paramoecia, previously carefully washed in distilled water, and then suspended in acid or alkali of lethal, or slightly sublethal,

Table I.—*Examples of Corrected Galvanometer Readings taken from Table 2.*

Experiment.	Acid Employed.	In Concentration of	Difference of Galvanometer Readings at Beginning and End of Experiment.		
			Experiment with Paramoecia.	Control Experiment with Wash-water.	Corrected Difference.
3	Hydrochloric acid	0.0001 n.	− 0.8	− 0.30	− 0.50
7	Nitric acid	0.0003 n.	− 1.2	− 0.30	− 0.90
11	Sulphuric acid	0.0001 n.	0.00	− 0.05	0.00
13	Formic acid	0.0001 n.	− 0.32	+ 0.10	− 0.42
17	Lactic acid	0.0001 n.	− 0.40	− 0.25	− 0.15
18	Oxalic acid	0.0001 n.	− 0.25	− 0.15	− 0.10
20	Tartaric acid	0.0001 n.	− 0.50	− 0.13	− 0.37
23	Phosphoric acid	0.0002 n.	− 0.70	0.00	− 0.70
24	Citric acid	0.0001 n.	0.00	0.00	0.00
28	Acetic acid	0.00015 n.	− 0.30	0.00	− 0.30

---

* Carbonic and boric acids in the concentration suitable for this investigation are dissociated like binary compounds, and their concentration is therefore reckoned in gramme-molecules per litre.

† By means of a suitable modification of the Thoma-Zeiss method applied to the enumeration of red blood-cells.

TABLE II.—*Diminution of Concentration of Acid Solutions Brought About by Living Paramoecia.*

Experiment.	Paramoecia Living at End of Experiment.	Temperature. ° C.	Acid Employed.	In Concentration of	Change of Concentration during Experiment.	Number of Paramoecia and Amount of Liquid Introduced into the Apparatus c, (Fig. 3).	Equivalent Absorption of Hydrochloric Acid in per Cent. of Protoplasm used.
1	98 per cent.	19.0	Hydrochloric	0.0001 n.	— 5.8 per cent. in 20 min.	162,000 in 20 c.cm.	0.003 per cent.
2	92 ,,	24.0	,,	0.00015 n.	—12.3 ,, 15 ,,	140,000 ,, 24 ,,	0.012 ,,
3	87 ,,	23.0	,,	0.0001 n.	—12.9 ,, 3 ,,	70,000 ,, 19 ,,	0.013 ,,
4	71 ,,	19.0	,,	0.0001 n.	—16.8 ,, 25 ,,	92,000 ,, 20 ,,	0.013 ,,
5	71 ,,	18.0	,,	0.0001 n.	0.0 ,, 30 ,,	117,000 ,, 20 ,,	0.000 ,,
6	95 ,,	15.5	Nitric	0.00013 n.	— 6.7 ,, 30 ,,	150,000 ,, 21 ,,	0.004 ,,
7	90 ,,	14.0	,,	0.0003 n.	—18.0 ,, 7 ,,	108,000 ,, 20 ,,	0.036 ,,
8	70 ,,	14.0	,,	0.0003 n.	— 9.0 ,, 8 ,,	93,000 ,, 20 ,,	0.021 ,,
9	100 ,,	16.5	Sulphuric	0.0001 n.	— 5.0 ,, 20 ,,	58,000 ,, 18 ,,	0.006 ,,
10	91 ,,	18.0	,,	0.0001 n.	0.0 ,, 30 ,,	127,000 ,, 20 ,,	0.000 ,,
11	90 ,,	16.0	,,	0.0001 n.	—11.3 ,, 16 ,,	55,000 ,, 15 ,,	0.011 ,,
12	85 ,,	14.0	,,	0.00015 n.	—13.8 ,, 8 ,,	64,000 ,, 20 ,,	0.023 ,,
13	98 ,,	16.5	Formic	0.0001 n.	— 5.7 ,, 20 ,,	18,000 ,, 19 ,,	0.022 ,,
14	98 ,,	16.5	,,	0.0001 n.	— 6.0 ,, 40 ,,	46,000 ,, 18.5 ,,	0.009 ,,
15	90 ,,	15.5	,,	0.0001 n.	—28.8 ,, 15 ,,	86,000 ,, 18 ,,	0.022 ,,
16	90 ,,	15.5	Lactic	0.0002 n.	— 3.0 ,, 7 ,,	65,000 ,, 20 ,,	0.007 ,,
17	81 ,,	22.5	,,	0.0001 n.	—13.9 ,, 10 ,,	22,000 ,, 18 ,,	0.042 ,,
18	99 ,,	19.5	Oxalic	0.0001 n.	—18.8 ,, 13 ,,	53,000 ,, 30 ,,	0.039 ,,
19	85 ,,	15.5	,,	0.0001 n.	— 9.7 ,, 15 ,,	68,000 ,, 16 ,,	0.008 ,,
20	85 ,,	22.5	Tartaric	0.0001 n.	— 1.0 ,, 10 ,,	30,000 ,, 18 ,,	0.002 ,,
21	70 ,,	22.5	,,	0.0001 n.	— 5.0 ,, 13 ,,	36,000 ,, 18 ,,	0.009 ,,
22	97 ,,	22.5	Phosphoric	0.0001 n.	— 5.0 ,, 15 ,,	26,000 ,, 19 ,,	0.013 ,,
23	93 ,,	19.5	,,	0.0002 n.	—23.4 ,, 10 ,,	40,000 ,, 18 ,,	0.077 ,,
24	97 ,,	19.5	Citric	0.0001 n.	— 0.0 ,, 20 ,,	56,000 ,, 20 ,,	0.000 ,,
25	93 ,,	22.5	,,	0.0001 n.	— 0.0 ,, 20 ,,	28,000 ,, 18 ,,	0.000 ,,
26	73 ,,	20.5	,,	0.0001 n.	—14.8 ,, 8 ,,	72,000 ,, 20 ,,	0.015 ,,
27	99 ,,	16.5	Acetic	0.0001 n.	— 5.7 ,, 20 ,,	61,000 ,, 19 ,,	0.007 ,,
28	92 ,,	19.5	,,	0.00015 n.	—11.5 ,, 10 ,,	35,000 ,, 16 ,,	0.030 ,,
29	90 ,,	14.0	,,	0.00035 n.	— 2.7 ,, 29 ,,	28,000 ,, 11.5 ,,	0.014 ,,

TABLE III.—*Diminution of Concentration of Alkaline Solutions Brought About by Living Paramoecia.*

Experiment.	Paramoecia Living at end of Experiment.	Temperature. ° C.	Base Employed.	In Concentration of	Change of Concentration during Experiment.	Number of Paramoecia and Amount of Liquid introduced into the Apparatus c (Fig. 3).	Equivalent Absorption of Potassium Hydrate in per Cent. of Protoplasm used.
1	99 per cent.	18.0	Potassium hydrate	0.001 n.	— 4.1 per cent. in 35 min.	250,000 in 20 c.cm.	0.02 per cent.
2	75 ,,	21.5	,, ,,	0.0011 n.	— 3.3 ,, 15 ,,	7,000 ,, 20 ,,	0.58 ,,
3	20 ,,	21.0	,, ,,	0.0007 n.	— 8.7 ,, 10 ,,	77,000 ,, 20 ,,	0.08 ,,
4	0 ,,	14.0	,, ,,	0.002 n.	—21.4 ,, 15 ,,	140,000 ,, 20 ,,	0.35 ,,
5	100 ,,	16.5	Sodium hydrate	0.001 n.	— 7.8 ,, 20 ,,	90,500 ,, 20 ,,	0.10 ,,
6	78 ,,	16.0	,, ,,	0.001 n.	—15.9 ,, 10 ,,	46,000 ,, 18.5 ,,	0.36 ,,
7	57 ,,	16.0	,, ,,	0.001 n.	—18.4 ,, 12 ,,	28,000 ,, 17.5 ,,	0.65 ,,
8	0 ,,	13.0	,, ,,	0.003 n.	— 7.5 ,, 10 ,,	160,000 ,, 14 ,,	0.11 ,,
9	100 ,,	19.0	Lithium hydrate	0.001 n.	— 2.7 ,, 10 ,,	9,100 ,, 18 ,,	0.32 ,,
10	94 ,,	15.0	,, ,,	0.001 n.	— 1.2 ,, 30 ,,	26,000 ,, 18 ,,	0.05 ,,
11	94 ,,	15.0	,, ,,	0.001 n.	— 4.8 ,, 25 ,,	113,000 ,, 20 ,,	0.05 ,,
12	97 ,,	19.0	Calcium hydrate	0.001 n.	—14.5 ,, 10 ,,	26,000 ,, 18 ,,	0.56 ,,
13	88 ,,	18.0	,, ,,	0.001 n.	— 5.8 ,, 16 ,,	51,000 ,, 19 ,,	0.12 ,,
14	67 ,,	17.5	,, ,,	0.0013 n.	— 6.8 ,, 5 ,,	7,000 ,, 16 ,,	0.11 ,,
15	28 ,,	18.0	,, ,,	0.0013 n.	—11.6 ,, 10 ,,	11,000 ,, 19 ,,	1.12 ,,
16	93 ,,	17.5	Strontium hydrate	0.0005 n.	—12.5 ,, 20 ,,	8,000 ,, 16 ,,	0.65 ,,
17	91 ,,	19.0	,, ,,	0.001 n.	— 7.8 ,, 10 ,,	17,000 ,, 17 ,,	0.44 ,,
18	0 ,,	15.0	,, ,,	0.001 n.	— 7.3 ,, 11 ,,	60,000 ,, 18 ,,	0.12 ,,
19	51 ,,	19.0	Barium hydrate	0.001 n.	— 7.0 ,, 10 ,,	22,000 ,, 17 ,,	0.32 ,,
20	46 ,,	19.0	,, ,,	0.001 n.	— 7.5 ,, 5 ,,	15,000 ,, 19 ,,	0.53 ,,
21	28 ,,	13.5	,, ,,	0.001 n.	—10.0 ,, 5 ,,	37,000 ,, 17 ,,	0.26 ,,
22	28 ,,	21.5	,, ,,	0.001 n.	—26.3 ,, 30 ,,	147,000 ,, 20 ,,	0.21 ,,

TABLE IV.—*Diminution of Concentration of Acid and Alkaline Solutions Brought About by Living Paramoecia: Determinations Made with the Aid of a Palladium-hydrogen Concentration Cell.*

Experiment.	Paramoecia living at end of Experiment.	Temperature. ° C.	Acid or Base Employed.	In Concentration of	Electromotive force of Concentration Cell.	Change of Concentration at end of Experiment.	Number of Paramoecia Employed.	Equivalent Absorption of Hydrochloric Acid or Potassium Hydrate in per Cent. of Protoplasm used.
1	55 per cent.	24.5	Hydrochloric acid	0.000133 n.	+0.0264 volt } at end of 15 min.	—65 per cent.	106,000	0.08 per cent.
2	10 ,,	22.0	,, ,,	,, ,,	+0.0237 ,, 10 ,,	—61 ,,	35,000	0.22 ,,
3	11 ,,	22.0	,, ,,	,, ,,	+0.0237 ,, 6 ,,	—61 ,,	31,000	0.25 ,,
4	88 ,,	22.0	,, ,,	0.000067 n.	+0.0176 ,, 14 ,,	—50 ,,	11,000	0.30 ,,
5	92 ,,	22.0	,, ,,	,, ,,	+0.0302 ,, 28 ,,	—70 ,,	36,000	0.13 ,,
6	78 ,,	24.0	Sulphuric acid	,, ,,	+0.0133 ,, 24 ,,	—42 ,,	17,000	0.16 ,,
7	70 ,,	24.0	,, ,,	,, ,,	+0.0262 ,, 40 ,,	—67 ,,	24,000	0.18 ,,
8	83 ,,	24.0	,, ,,	,, ,,	+0.0233 ,, 27 ,,	—62 ,,	28,000	0.14 ,,
9	70 ,,	24.0	,, ,,	,, ,,	+0.0187 ,, 21 ,,	—55 ,,	13,000	0.27 ,,
10	82 ,,	22.0	Potassium hydrate	0.00067 n.	—0.0344 ,, 9 ,,	—75 ,,	64,000	1.14 ,,
11	72 ,,	20.0	,, ,,	0.00033 n.	—0.0660 ,, 16 ,,	—92 ,,	25,000	1.79 ,,
12	76 ,,	20.0	,, ,,	,, ,,	—0.0682 ,, 11 ,,	—92 ,,	23,000	1.95 ,,
13	85 ,,	20.0	,, ,,	,, ,,	—0.0363 ,, 8 ,,	—76 ,,	50,000	0.74 ,,
14	70 ,,	20.0	Sodium hydrate	0.00067 n.	—0.0341 ,, 13 ,,	—98 ,,	57,000	1.07 ,,
15	78 ,,	21.0	,, ,,	,, ,,	—0.0315 ,, 6 ,,	—97 ,,	45,000	2.11 ,,
16	27 ,,	21.0	,, ,,	,, ,,	—0.0475 ,, 7 ,,	—85 ,,	36,000	2.35 ,,
17	85 ,,	22.0	,, ,,	0.00033 n.	—0.0354 ,, 10 ,,	—76 ,,	27,000	1.40 ,,

strength, are placed in the apparatus C, and the relative conductivity of the liquid tested by momentarily closing the circuit formed by the accumulator A and galvanometer G, and noting the galvanometer reading,* it is found that the conductivity of the liquid in C shows a steady diminution as the experiment proceeds, while the paramoecia soon become sluggish in their movements, or cease to move. If the acid or alkaline solution placed in C is made up with distilled water containing no paramoecia, then a much slower fall of conductivity takes place, or the conductivity may remain constant during the period of experiment. If the acid or alkaline solution is made up with the distilled water which has been used for washing the paramoecia before the experiment, a more marked fall takes place, which is, however, less than that occurring when paramoecia are placed in C. It is therefore necessary to correct the actual experiment, in which paramoecia suspended in acid or alkaline liquid are placed in C, by means of control experiments, in which wash-water and acid or alkaline solution are placed in C, the fall of conductivity noted in the control experiment during the period of observation being subtracted from that taking place in the actual experiment in the same period of time. The extent of these corrections is given in Table I, in which the corrections required for some of the experiments, selected at random, given in Table II, are exhibited. The corrections amount to an average of about 28 per cent. of the uncorrected result. They are obviously too high, since the wash-water contains more dissolved matter capable of taking up acid and alkali than the fresh distilled water in which the paramoecia are placed after washing would contain. The latter would, however, also probably receive some dissolved material derived from paramoecia accidentally injured during the process of washing, and it has therefore been thought better to make use of over-corrected results than to neglect applying any corrections whatever.

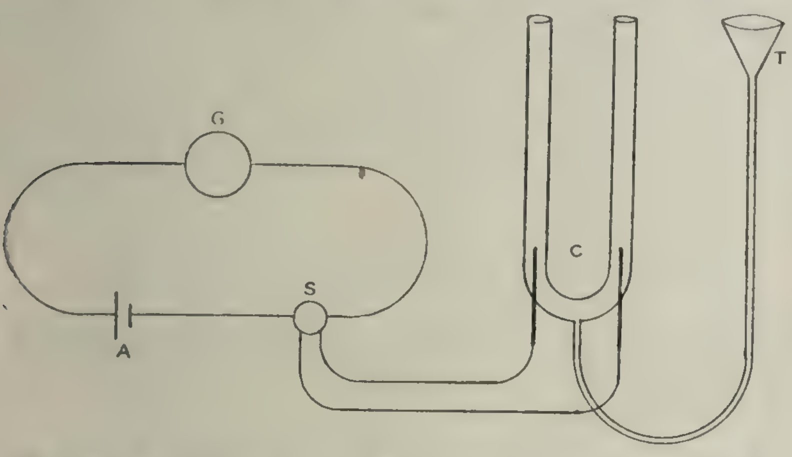


Fig. 3.—A, accumulator; G, galvanometer; S, reversible key for closing current in either direction; C, U-tube containing platinum electrodes; T, glass funnel.

The extreme dilution of the acid and alkaline solutions employed for experiment (Tables II and III) renders titration of these solutions by ordinary volumetric methods unsuitable. It was found, however, easy to judge of any accidental error in making up the solutions by noting the extent of the initial galvanometer deflection (G, Fig. 3) when the same difference of potential of the accumulator A was maintained in a series of experiments, the extent of the deflections given by the varying concentrations of acid and alkaline liquid introduced into C in control experiments having previously been carefully determined. In this way it was easy to ascertain, at the time of commencing an experiment, if the solutions employed possessed the desired concentration.

In Table II a series of twenty-nine experiments, corrected in the manner above described, is given, in which paramoecia are exposed in the apparatus C (Fig. 3) to the action of acids. These experiments show (omitting for the present Experiments 5, 10, 24, and 25, which will be again referred to later) a diminution of the acid, measured by the fall of conductivity during the period of experiment, lasting from three to forty minutes, of from 1 per cent. to 28.8 per cent. (Table II, col. 6). From this disappearance of acid in the presence of paramoecia, it follows that the action of acid upon protoplasm is a chemical action in which acid is used up. Moreover, since, as will be seen on reference to col. 2, the paramoecia remain for the most part (70 per cent. to 100 per cent.) living at the close of the experiment, it is seen that this action is exerted upon living protoplasm. The duration of the experiment was determined by the appearance of the paramoecia; as soon as their movements seemed to be diminishing in vigour the experiment was brought to an end, the paramoecia were removed from the apparatus C (Fig. 3) and without any delay counted, special note being taken of the percentage of dead paramoecia. The experiments were made at room temperature—14° C. to 24° C.—some being made in the spring, some in the hot summer months. The number of paramoecia put into the apparatus C (Fig. 3) varied (col. 7, Table II) from 18,000 to 162,000, and the amount of liquid in which they were contained from 11.5 c.cm. to 30 c.cm. In consequence of these variations in the individual experiments a close comparison of the results given in col. 6 is not attainable without reduction to a common standard. In order, therefore, to afford an idea of the relative amounts of protoplasm and acid reacting, there is given in the last column of Table II the amount of acid absorbed by one hundred parts of protoplasm in the different experiments.

To render the comparison more easy, and to avoid the inconvenience caused by the difference in molecular weight exhibited by different acids, these results are calculated for equivalent amounts of hydrochloric acid. By multiplying the figures given in col. 8 by 0.274, the number of gram-molecules of acid per kilogram of protoplasm is obtained, but the percentage form given in the table is practically the more convenient. From these results it will be seen that the living protoplasm of paramoecium absorbed 0.003 per cent. to 0.077 per cent. of its weight of hydrochloric acid or of equivalent amounts of other acids during the period of experiment. The proportion of acid reacting is thus very small,* but it must be recollected that in these experiments the living protoplasm has not taken up the maximum amount of acid; to determine the latter is impracticable, owing to the impossibility of separating the action of acid on living from that on dead protoplasm, if the action is continued after more than a small number of the paramoecia have become motionless.

A similar series of experiments made with alkaline liquids is given in Table III. Owing to the diminished toxicity of alkalies as compared with acids, stronger concentrations could be employed—namely, from 0.0005 n. to 0.003 n. In other respects the experiments do not differ materially from the former series. In these experiments, as in those with acids, a diminution of concentration of alkali in the presence of living protoplasm took place, amounting to from 1.2 per cent. to 26.3 per cent. of the alkali originally present in the apparatus C (Fig. 3). It is clear, therefore, that alkalies, like acids, attack living protoplasm by entering into a chemical reaction with it, in the course of which the alkali is used up. In the last column of Table III a calculation is made of the equivalent amount of potassium hydrate entering into reaction with 100 parts of living protoplasm. This ranges from 0.02 per cent. to 1.12 per cent., but these amounts of course do not represent the maximum amounts which can react upon living paramoecia. Since paramoecia give off carbon dioxide,[26] it became necessary to calculate the maximum amount of this substance which might be given off during the period of experiment, and this was found not to exceed in any experiment an amount capable of neutralizing 10 per cent. of the alkali introduced into C (Fig. 3). The amount actually produced was probably much smaller than the calculated maximum, so that the accuracy of the results given in Table III is not impaired to any serious extent by any carbon dioxide produced during the period of experiment.

Comparing Tables II and III, it will be noted that the amount of acid taken up by the living protoplasm of paramoecia is much less than that of alkali, as would be expected from the greater toxicity of the former. The ratio of equally lethal concentrations of mineral acid and caustic alkali is approximately 1 : 14, while the average ratio of the concentration of the acid and alkali reacting in Tables II and III with living protoplasm is 1 : 16, or if gram-molecules per kilogram of protoplasm are taken, 1 : 10.5.

---

* This is more convenient than determining the actual conductivity by means of Kohlrausch's method, and permits at the same time of the condition of the paramoecia being readily observed by the readiness or sluggishness with which galvanotaxis takes place.

* If calculated for dry protoplasm, the percentages would, of course be correspondingly higher.

It is to be observed that the rate of diminution of conductivity after the addition of paramoecia to acid and alkaline liquids was very rapid at first, so that some difficulty was experienced in making the first galvanometer reading. The rate of disappearance of acid and alkali then rapidly diminished, the chief fall of conductivity occurring during the first ten to fifteen minutes, and the rate of fall afterwards becoming slow, while the paramoecia at the same time usually became sluggish in their movements, so that it was not generally practicable to continue the experiments for periods exceeding twenty minutes.

Owing to the extremely dilute solutions necessarily made use of in these experiments, and the small amounts of fluid employed, the usual procedures of quantitative analysis were not available. After many attempts had been made to determine the nature of the action of acids and alkalies upon living protoplasm by means of experiments which were purely qualitative in character,[27] the method above described was ultimately chosen as affording quantitative data. Subsequently the above work was repeated, another method being employed, which will now be described, and which is more delicate while avoiding some of the inconveniences of the method depicted in Fig. 3.

The essential feature of these new estimations is the use of palladium-hydrogen electrodes in order to ascertain the fall of concentration of acid and alkali which takes place in the presence of paramoecia. The apparatus employed is shown diagrammatically in Fig. 4. D is an accumulator having a potential of about two volts; C, a coil rheostat, and W, a resistance box, were so arranged that between the two ends of C a potential difference of 0.1 volt existed. By means of the sensitive galvanometer G the potential difference of the two palladium-hydrogen electrodes in the concentration cell K could be neutralized after Poggendorff's method by means of a sliding contact with C. In charging and using the palladium-hydrogen electrodes the directions given by Fraenkel[28] were followed. In making an experiment acid (or alkaline) solutions of equal concentration were placed in the apparatus K, consisting of two vertical tubes connected by a horizontal cross-piece provided with a stop-cock, not shown in the figure. Into one of the tubes paramoecia, carefully washed in distilled water as in the previous experiments, were also placed. Since both tubes contained at the commencement of an experiment the same concentration of acid or alkali, no difference of potential between the palladium-hydrogen electrodes at first exists. Immediately after mixture a rapidly-increasing potential difference between the electrodes appears, which after a time increases more and more slowly. The experiments were in every case brought to a close as soon as a distinct defect of movement of the paramoecia could be recognized. To enable the determination of the difference of potential to be more readily made a neutral salt (sodium chloride or sulphate) was added in 0.02 n. concentration in all experiments recorded in Table IV, except 14 and 15. The difference of concentration between the two tubes of the apparatus K (Fig. 4,) was calculated from the formula,

$$\pi = \frac{\mathrm{R\,T}}{\mathrm{F}} \ln \frac{\mathrm{C}}{\mathrm{C}_1}$$

where R is the gas constant (8.31), T is the absolute temperature, and F the electric charge of a gram-ion (96580). If the temperature of experiment is 22° C., then

$$\pi = \frac{8.31 \times (273 + 22) \times 2.3026}{96580} \log. \frac{\mathrm{C}}{\mathrm{C}_1}$$

$$= 0.058 \log. \frac{\mathrm{C}}{\mathrm{C}_1}$$ C being the initial concentration, C_1 being the concentration of the acid in the tube containing paramoecia, at the close of the experiment.* If no neutral salt is added to the solutions placed in K the formula

$$\pi = \frac{2\mathrm{n.}\ \mathrm{R\,T}}{\mathrm{F}} \ln \frac{\mathrm{C}}{\mathrm{C}_1}$$

must be used, in which "n" is the transport number of the cation of the acid.

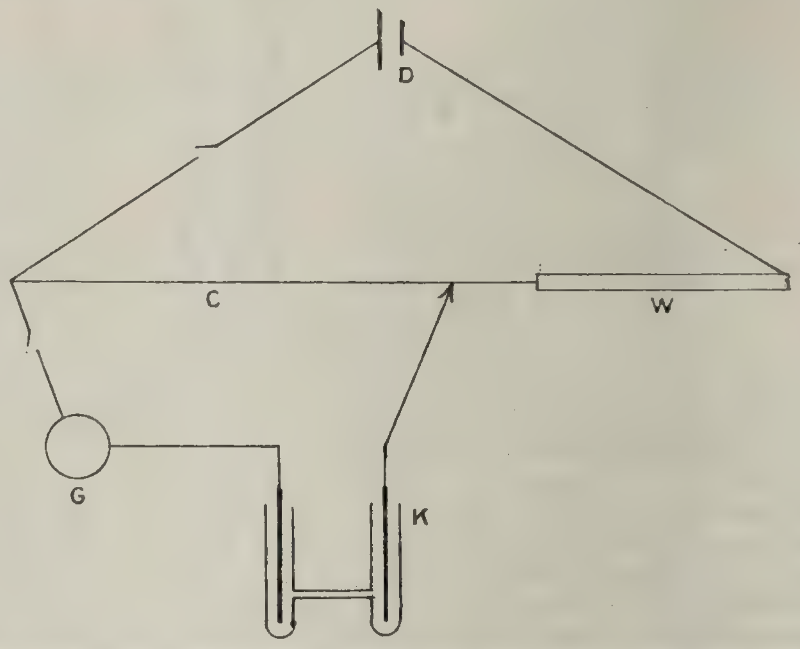


Fig. 4.—C, wire resistance with sliding contact; W, resistance-box D, accumulator; K, concentration cell; G, galvanometer.

In Table IV a series of determinations made with palladium-hydrogen electrodes, but in other respects conducted as in the previous experiments, is given. These experiments show, like the former ones, that acid and alkali react with living protoplasm, and are used up in the process. It is seen, also, that a much greater disappearance of acid (42 per cent. to 70 per cent., column 7) and alkali (75 per cent. to 98 per cent.) is observed than in the former series. The amount of acid and alkali which in these experiments reacted with living protoplasm, when expressed in percentage terms of the latter, is likewise much higher than in Tables II and III, amounting to 0.08 per cent. to 0.30 per cent. for acid and 0.74 per cent. to 2.35 per cent. for alkali, the averages being 0.19 per cent. and 1.57 per cent. as against 0.20 per cent. and 0.32 per cent. in the former tables.

Before passing to consider these differences further, attention may be called to the fact that hydrogen-palladium electrodes measure directly not the concentration of the whole acid or alkali employed, but only the $H+$ and $OH-$ ionic concentration. An attempt to measure the change of concentration of the cations of the alkalies or the anions of the acids is not at present practicable, except in the case of hydrochloric acid, where the $Cl-$ ions may be measured by means of calomel electrodes. Such measurements were carried out, and led to the remarkable result that the $Cl-$ ions, instead of diminishing when paramoecia were immersed in hydrochloric acid of lethal or slightly sublethal concentration, actually increased in amount. The cause of this increase was found on further investigation to be due to the discharge of electrolytes from the injured protoplasm of the paramoecia into the liquid surrounding them. That this is so can readily be shown by adding carefully-washed paramoecia in sufficient amount to dilute nitric acid and boiling. The boiled liquid is found to turn cloudy on the addition of silver nitrate, while when a control experiment with the distilled water used for washing the paramoecia is made no cloudiness or only a faint trace is visible.

The discharge of electrolytes by dead protoplasm* explains, in part at any rate, the low results obtained in Tables II and III, in which the fall of conductivity does not represent the whole of the diminution of concentration caused by paramoecia, owing to the lessening of the reduction of conductivity brought about by the discharge of electrolytes into the fluid. The same fact affords also an explanation of the circumstance already alluded to—that in some of the experiments recorded in Table II no diminution of conductivity was brought about by paramoecia. The extent of the error introduced by this behaviour of paramoecia cannot be estimated owing to the impossibility of determining the actual amounts of electrolytes discharged, these being too small to be estimated by ordinary chemical methods. It is to be observed that the paramoecia were present in considerable excess compared with the acid and alkali. As this point may be of interest to the reader, the relative amounts of paramoecia and acid or alkali present in the experiments in Table IV are given in Table V. The average ratio of paramoecia to acid is 335 : 1 and to alkali 66 : 1.

---

* In Experiment 3, for example, $\pi = 0.0237$ volt. Therefore $\frac{0.0237}{0.058} = 0.408 = \log. \frac{\mathrm{C}}{\mathrm{C}_1}$ that is, $\frac{\mathrm{C}}{\mathrm{C}_1} = 10^{\cdot 408} = 2.56$, but $\mathrm{C} = 0.000133$. Therefore $\mathrm{C}_1 = \frac{0.000133}{2.56} = 0.000052$. Since $\frac{0.000133}{0.000052} = \frac{100}{39}$, the reduction of concentration is 61 per cent.

* It is well known that the conductivity of protoplasm increases after death. The resistance of tissues rich in cells is considerably diminished after their protoplasm has been coagulated by heat

TABLE V.—*Showing the Relation of Paramoecia to Acid and Alkali employed in the Experiments given in Table IV.*

Number of Experiment.	Weight of Paramoecia Employed.	Weight of Acid or Alkali Employed.	Ratio of Weight of Paramoecia to that of Acid or Alkali.
1	60.2 mg.	0.073 mg. hydrochloric acid	823 : 1
2	19.9 ,,	0.073 ,, ,, ,,	273 : 1
3	17.6 ,,	0.073 ,, ,, ,,	231 : 1
4	6.3 ,,	0.036 ,, ,, ,,	175 : 1
5	20.4 ,,	0.036 ,, ,, ,,	567 : 1
6	9.7 ,,	0.049 ,, sulphuric acid	202 : 1
7	13.6 ,,	0.049 ,, ,, ,,	278 : 1
8	15.9 ,,	0.049 ,, ,, ,,	324 : 1
9	6.8 ,,	0.049 ,, ,, ,,	139 : 1
10	37.4 ,,	0.56 mg. potassium hydrate	67 : 1
11	14.2 ,,	0.28 ,, ,, ,,	50 : 1
12	13.1 ,,	0.28 ,, ,, ,,	47 : 1
13	28.4 ,,	0.28 ,, ,, ,,	101 : 1
14	32.4 ,,	0.40 ,, sodium hydrate	81 : 1
15	25.6 ,,	0.40 ,, ,, ,,	54 : 1
16	20.4 ,,	0.40 ,, ,, ,,	51 : 1
17	15.3 ,,	0.20 ,, ,, ,,	76 : 1

CHEMIOTAXIS OF PARAMOECIA.

Up to the present the action of acids and alkalies upon living protoplasm has alone been studied, and has been shown to be of the nature of a chemical reaction in which acid and alkali are used up, and not a merely catalytic process like the action of acids in inverting cane sugar for example, in which the concentration of acid remains unchanged. It now remains to investigate the action of acids and alkalies in influencing the movement or aggregation of paramoecia, having regard to the data enumerated at the beginning of the preceding section as necessary to define the conditions of experiment, data which have usually left out of consideration or imperfectly given in most published researches. In addition, in all the experiments about to be described, control experiments have at the same time been performed (by employing tubes of the same size and shape as those containing acid or alkali, but filled with the same fluid as that in which the paramoecia are immersed). Finally an attempt has been made to give an approximately quantitative character to these observations made upon the chemiotaxis of paramoecia.

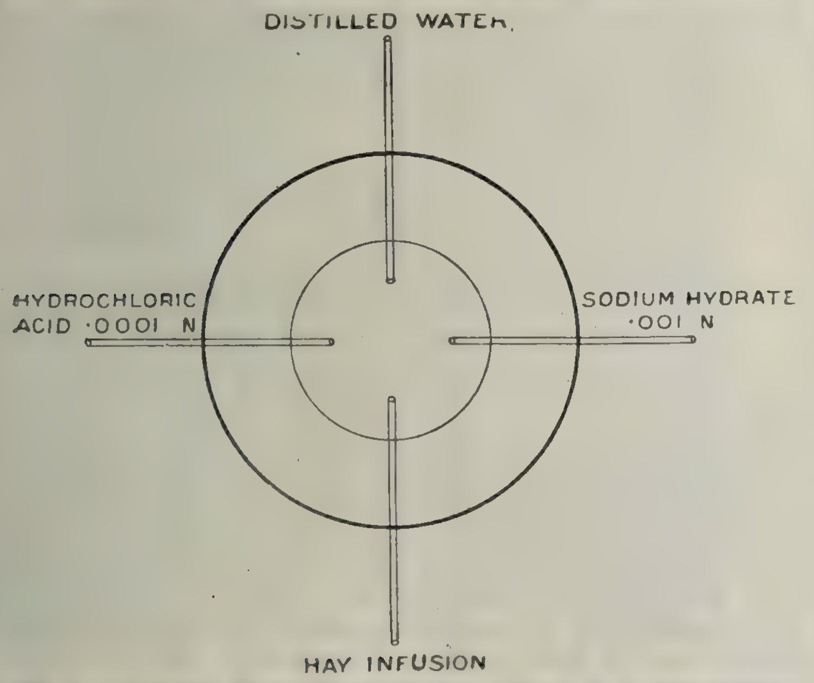


Fig. 5.—The outer circle represents the outline of a watch-glass, which is filled, to the extent indicated by the inner circle, with fluid containing paramoecia. Four glass tubes are placed in the watch-glass, containing respectively (1) hydrochloric acid solution; (2) distilled water; (3) solution of sodium hydrate; and (4) hay infusion.

The experiments were made by placing paramoecia at room temperature in a watch-glass (Fig. 5) in which were laid obliquely, with the lower end only dipping in the watch-glass, tubes made of Jena combustion glass, containing the acid or alkaline fluid to be tested. The tubes had an internal diameter varying from 0.3 mm. to 0.8 mm.; in each individual experiment, however, the tubes were cut from the same piece, and were of the same diameter. At the end of thirty minutes the tubes were removed and the paramoecia they contained counted. At the same time, in every experiment, an answer to the question, What would happen if the tubes were filled, not with acid or alkali, but with the fluid (distilled water or hay infusion) in which the paramoecia contained in the watch-glass were immersed? was provided by the use of control tubes as already mentioned. By comparing the results obtained in the actual and in the control experiments, the chemiotaxis of paramoecia is determined and may be expressed in an approximately quantitative form by stating the number of paramoecia present in the testing tube, at the close of the experiment, in percentage terms of those present in the control tube. The acid or base introduced into the testing tubes was of lethal or sublethal concentration. The fluid in the watch-glass, in which the paramoecia were immersed, was in some of the experiments distilled water (Table VI), but since in some of the published experiments on the chemiotaxis of paramoecia the culture liquid has sometimes been employed, the experiments were repeated with paramoecia contained in the hay infusion in which they had been cultivated (Table VII). In addition, experiments were made in which the chemiotaxis of paramoecia in distilled water towards tubes filled with hay infusion was noted, as also that of paramoecia in hay infusion towards tubes filled with distilled water (Tables VI and VII).

TABLE VI.—*Experiments upon Chemiotaxis made with Paramoecia in Distilled Water, the Arrangement shown in Fig. 5 being Employed.*

Experiment.	Acid or Base Employed.	Concentration of Acid or base.	Number of Paramoecia Present at End of Thirty Minutes in Tube containing		
			Acid or Base.	Distilled Water.	Hay Infusion.
1	Hydrochloric acid	0.0001 n.	2	80	1
2	,, ,,	0.00002 n.	80	150	2
3	Nitric acid	0.0001 n.	41	200	0
4	,, ,,	0.00002 n.	20	0	0
5	Sulphuric acid	0.0001 n.	130	110	2
6	,, ,,	0.00002 n.	80	83	0
7	Formic acid	0.0001 n.	180	120	0
8	,, ,,	0.00002 n.	110	48	0
9	Oxalic acid	0.0001 n.	90	160	0
10	,, ,,	0.00002 n.	96	156	0
11	Acetic acid	0.0002 n.	2	113	0
12	,, ,,	0.00004 n.	76	55	0
13	Boric acid	0.25 n.	0	60	1
14	,, ,,	0.05 n.	19	83	0
15	Hydrocyanic acid	0.30 n.	0	71	1
16	,, ,,	0.06 n.	31	23	0
17	Potassium hydrate	0.001 n.	0	198	0
18	,, ,,	0.0002 n.	0	6	0
19	Sodium hydrate	0.001 n.	0	80	—
20	,, ,,	0.0002 n.	85	151	2
21	Lithium hydrate	0.001 n.	5	120	0
22	,, ,,	0.0002 n.	25	48	0
23	Calcium hydrate	0.001 n.	0	110	2
24	,, ,,	0.0002 n.	0	80	0
25	Strontium hydrate	0.001 n.	0	113	0
26	,, ,,	0.0002 n.	3	55	0
27	Barium hydrate	0.001 n.	0	160	0
28	,, ,,	0.0002 n.	0	153	0
29	Ammonium hydrate	0.0005 n.	1	60	1
30	,, ,,	0.0001 n.	97	83	0
31	Aniline	0.05 n.	1	71	1
32	,,	0.01 n.	0	23	0

The four conditions of experiment mentioned in the previous section require but little further consideration here. With respect to the first condition, it may be mentioned that very little loss of concentration by diffusion of the liquid contained in the tubes is to be feared, for if the tubes were filled with coloured liquid they preserved their colour unchanged during the period of experiment. With regard to the fourth condition, it is to be observed that the experiments recorded in Tables VI and VII were made with paramoecia taken from the same stock jar as those employed in Table VII, and that both series of experiments were carried out at the same time.

Before passing to these experiments, the physico-chemical characters of the hay infusion must be described. They were investigated in the following way: In the first place the molecular concentration of the liquid was determined be ascertaining by means of a Beckmann's apparatus, the lowering of its freezing point. This was found to correspond to a 0.031 n. solution (completely undissociated). Next, the conductivity of the hay infusion was determined. Since the ions present were unknown, the ionic concentration could not be calculated from the conductivity, but an idea of the degree of the ionic concentration may be obtained by calculating the ionic concentration of sodium chloride, which possesses the same conductivity, and this, which amounted to 0.0114 n., will be adopted as approximately representing the actual ionic concentration. Next, the amount of acid which the hay infusion was capable of neutralizing before its reaction became acid with methyl-orange as indicator was determined, and was found to correspond to a 0.011 n. solution of hydrochloric acid. Similarly, the amount of alkali which required to be added to the hay infusion before its reaction became alkaline to phenolphthalein was found to correspond to a 0.0024 n. solution of potassium hydrate. Finally, the $H+$ and $OH-$ concentration was determined by means of palladium-hydrogen electrodes, and was found to be almost exactly the same as that of pure water, the hay infusion being, therefore, a neutral fluid. The above results may conveniently be summarized as follows:

Total molecular concentration	0.031 n.
Ionic concentration... ... (approximately)	0.0114 n.
Concentration of bases combined with weak acids	0.011 n.
Concentration of weak acids, free or combined with weak bases	0.0024 n.
$H+$ ionic concentration	0.00000014 n.
$OH-$ ionic concentration	0.0000009 n.

The method employed in these experiments, that of introducing into a liquid containing paramoecia tubes filled with the solutions to be tested (Fig. 5), was adopted in preference to that of introducing drops of solution or tubes filled with fluid much above the minimum lethal concentration, because, although in the latter modes of experimenting the grouping of paramoecia is often highly characteristic, yet the exact conditions of experiment, in respect of acid and base, as the experiment proceeds are uncertain.

When experiments after the method shown in Fig. 5 are made, the attention of the observer is at once struck by the circumstance that paramoecia frequently pass in large numbers into the tubes of acid and alkali. The density of the population of paramoecia which the tubes possess at the end of half an hour will be appreciated if the actual number of paramoecia given in Tables VI and VII is noted and it is borne in mind that the average content of the tubes is only about 12 cubic millimetres. If therefore no control experiments were made the conclusion would naturally be arrived at that a strong positive chemiotaxis was exerted by the acid and alkaline contents of the tubes upon paramoecia. When, however, the number of paramoecia passing into control tubes is noted, it is found to be still greater. This is very noticeable when the paramoecia in the watch-glass are contained in hay infusion and it is also marked when distilled water is used, though in this case in some of the experiments, to be referred to later, the relation is reversed (cf. Table VIII).

From the above observations it is clear that no conclusion can safely be drawn from experiments upon chemiotaxis, unless at the same time control experiments are made, and hesitation must be felt in accepting the conclusions which in the past have been drawn from observations unaccompanied by control experiments. It would be interesting to speculate upon the cause of the passage of paramoecia in such large numbers into the control tubes, but this would considerably increase the length of this paper and will, therefore, be deferred until further data have been obtained respecting the physical conditions present in such experiments.

The next point which calls for attention is the disinclination of paramoecia in distilled water to enter tubes containing the hay infusion in which they were originally cultivated, and for paramoecia in hay infusion to pass into tubes containing distilled water. The negative taxis observed is very strong in the former case (Table VI), but is also marked in the latter (Table VII). It is obvious that here we have to do with phenomena dependent upon change of concentration, the chemical composition of the fluids used being apparently of less importance than their physico-chemical properties. Neither hay infusion nor distilled water can be regarded as properly speaking toxic, since paramoecia can live in either (in distilled water for seven to fourteen days). It is to be noted that paramoecia in distilled water are more sensitive to change of osmotic tension than is the case when immersed in hay infusion (cf. Tables VI and VII.)

TABLE VII.—*Experiments upon Chemiotaxis made with Paramoecia in Hay Infusion, the Arrangement shown in Fig. 5 being Employed.*

Experiment.	Acid or Base Employed.	Concentration of Acid or Base.	Number of Paramoecia Present at End of Thirty Minutes in Tube containing		
			Acid or Base.	Distilled Water.	Hay Infusion.
1	Hydrochloric acid	0.0001 n.	5*	50*	37*
2	,, ,,	0.00002 n.	216	62	169
3	Nitric acid	0.0001 n.	1	4	25
4	,, ,,	0.00002 n.	2	6	35
5	Sulphuric acid	0.0001 n.	2	1	28
6	,, ,,	0.00002 n.	40	0	45
7	Formic acid	0.0001 n.	70	3	273
8	,, ,,	0.00002 n.	83	60	163
9	Oxalic acid	0.0001 n.	60	56	208
10	,, ,,	0.00002 n.	167	85	203
11	Acetic acid	0.0002 n.	18	0	110
12	,, ,,	0.00004 n.	63	33	218
13	Boric acid	0.25 n.	19	25	120
14	,, ,,	0.05 n.	40	66	211
15	Hydrocyanic acid	0.30 n.	0	27	25
16	,, ,,	0.06 n.	24	61	183
17	Potassium hydrate	0.001 n.	0	4	25
18	,, ,,	0.0002 n.	0	6	35
19	Sodium hydrate	0.001 n.	1**	51**	36**
20	,, ,,	0.0002 n.	60	60	169
21	Lithium hydrate	0.001 n.	45	3	267
22	,, ,,	0.0002 n.	55	60	158
23	Calcium hydrate	0.001 n.	0	1	28
24	,, ,,	0.0002 n.	3	0	45
25	Strontium hydrate	0.001 n.	35	0	110
26	,, ,,	0.0002 n.	21	33	222
27	Barium hydrate	0.001 n.	3	56	208
28	,, ,,	0.0002 n.	55	86	203
29	Ammonium hydrate	0.0005 n.	10	25	120
30	,, ,,	0.0001 n.	78	60	212
31	Aniline	0.05 n.	1	27	25
32	,,	0.01 n.	2	62	180

* At the end of sixteen minutes. ** At the end of twenty minutes.

We now return to the influence of acids and alkalies upon the movement and aggregation of paramoecia. As already mentioned, their influence is generally to reduce the number of paramoecia entering the testing tubes.

TABLE VIII.—*Giving the Number of Paramoecia passing into Tubes of Acid and Alkali in Tables VI and VII, in Percentage of the Number of Paramoecia passing into the Corresponding Control Tubes (containing Distilled Water in Table VI, and Hay Infusion in Table VII).*

Acid or Base.	Paramoecia in Distilled Water placed in Watch-glass.		Paramoecia in Hay Infusion placed in Watch-glass.	
	Stronger Concentration.	Weaker Concentration.	Stronger Concentration.	Weaker Concentration.
Hydrochloric acid ...	2.5	53.3	13.5	127.8
Nitric acid...	20.5	—	4.0	5.7
Sulphuric acid	118.0	96.4	7.2	88.9
Formic acid	130.0	230.0	25.6	51.0
Oxalic acid...	54.2	61.5	28.8	82.3
Acetic acid...	1.8	138.0	16.4	28.9
Boric acid	0.0	22.9	15.8	18.9
Hydrocyanic acid ...	0.0	135.0	0.0	13.1
Potassium hydrate ...	0.0	0.0	0.0	0.0
Sodium hydrate	0.0	56.3	2.8	35.5
Lithium hydrate... ...	4.2	52.2	16.9	34.8
Calcium hydrate... ...	0.0	0.0	0.0	6.7
Strontium hydrate ...	0.0	5.5	31.8	9.5
Barium hydrate	0.0	0.0	1.4	27.1
Ammonium hydrate ...	1.7	116.8	8.3	36.8
Aniline	1.4	0.0	4.0	1.1

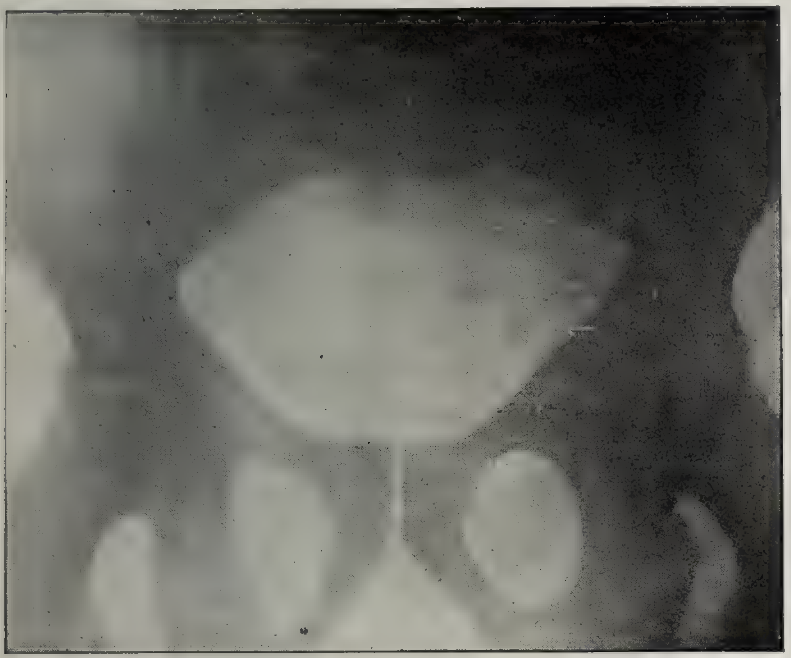


Fig. 1.—Case II (*a*). Small stone in ureter.

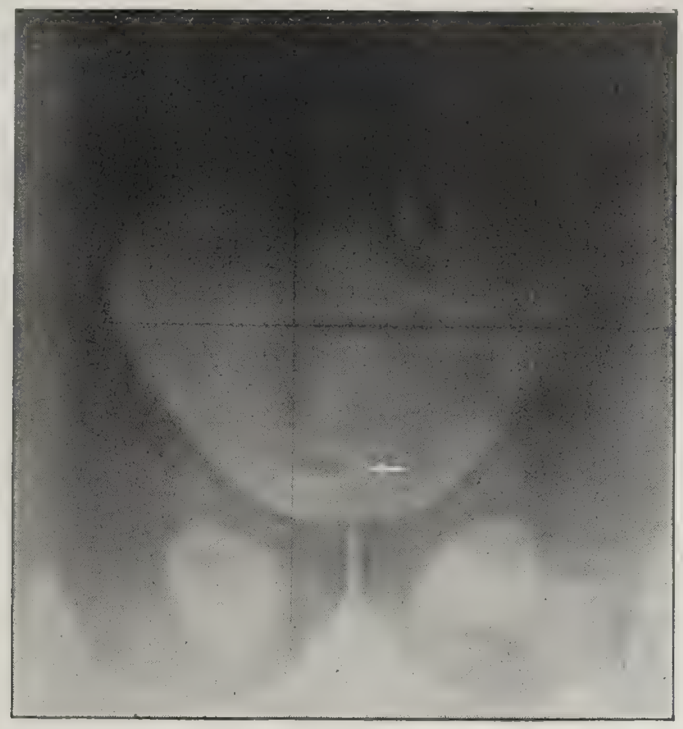


Fig. 2.—Case II (*b*). Stone has passed down into the bladder.

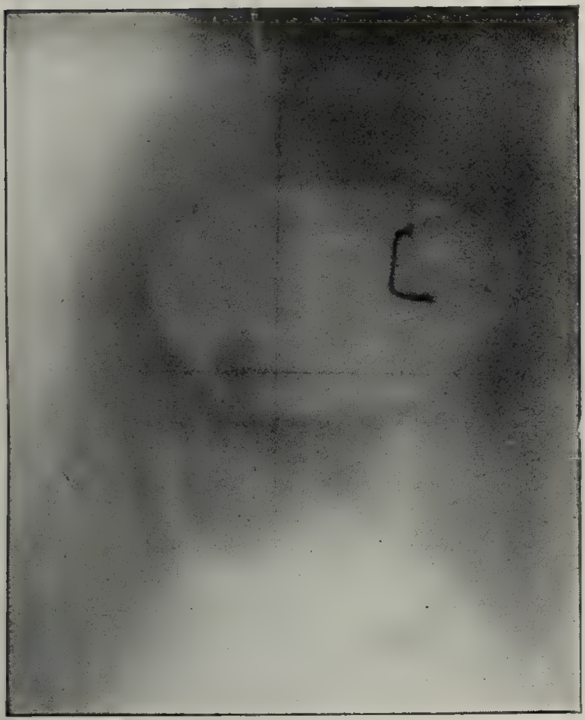


Fig. 3.—Case III. Large stone in lower end of ureter.

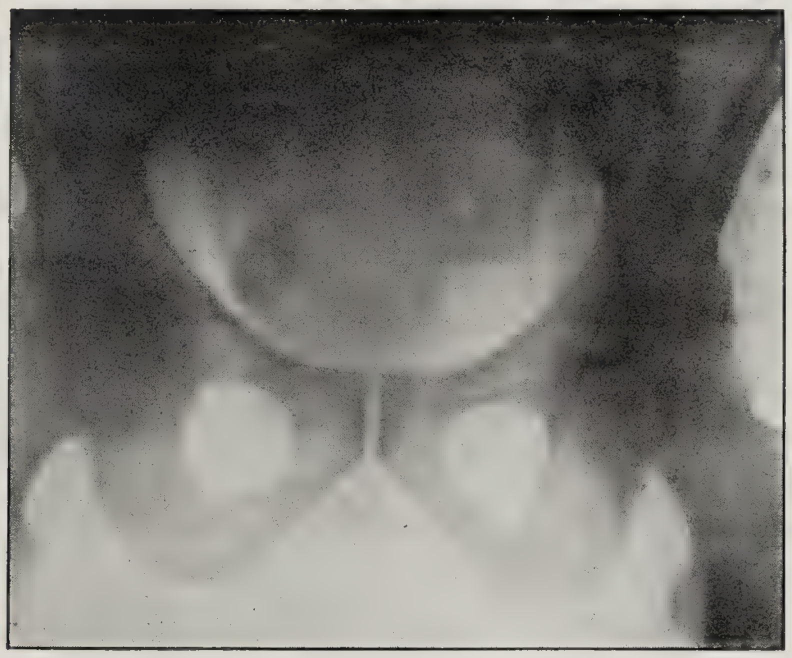


Fig. 4.—Case IV. Large stone in ureter.

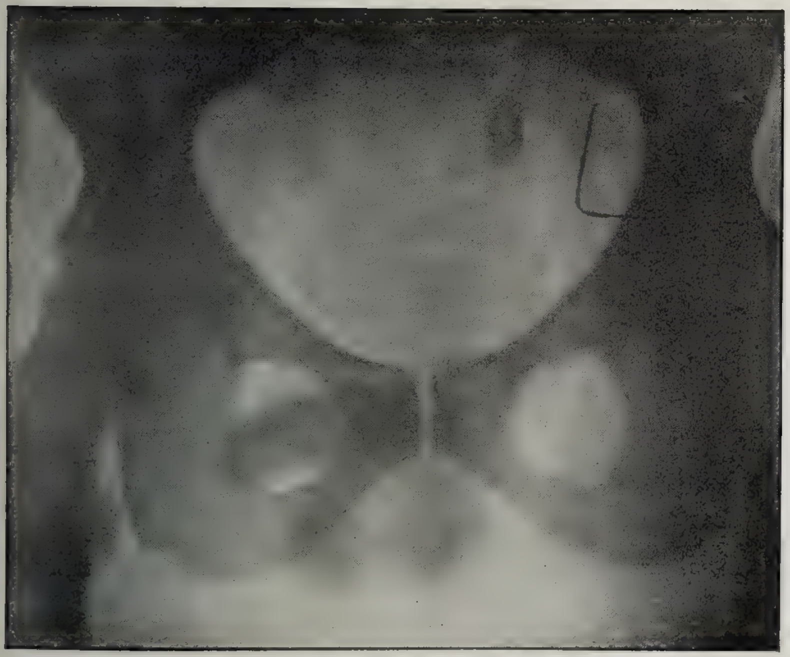


Fig. 6.—Case VII. Large stone in left ureter.

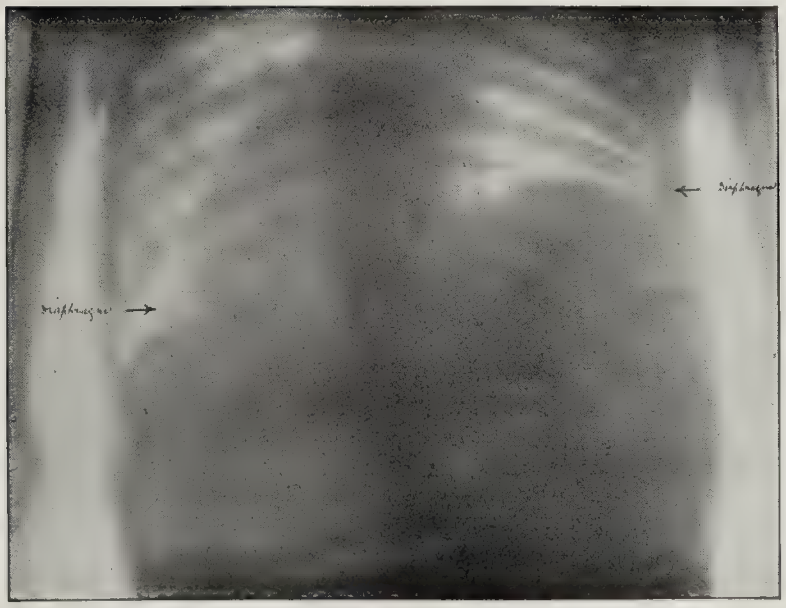


Fig. 7.—Subdiaphragmatic abscess, right side.

TO ILLUSTRATE MR. J. MACKENZIE DAVIDSON'S PAPER.

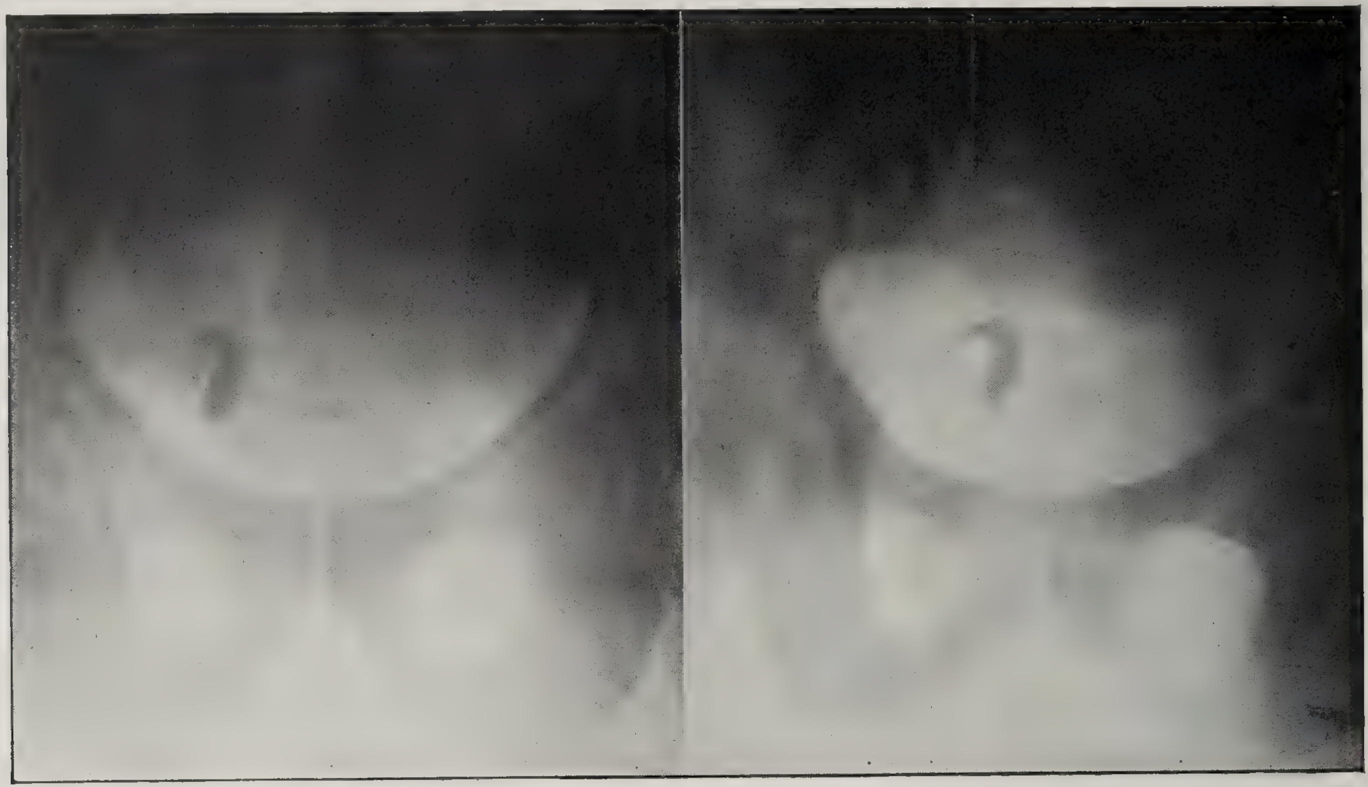


Fig. 5.—Case V. Stereoscopic photograph ; should be viewed with a lenticular stereoscope.

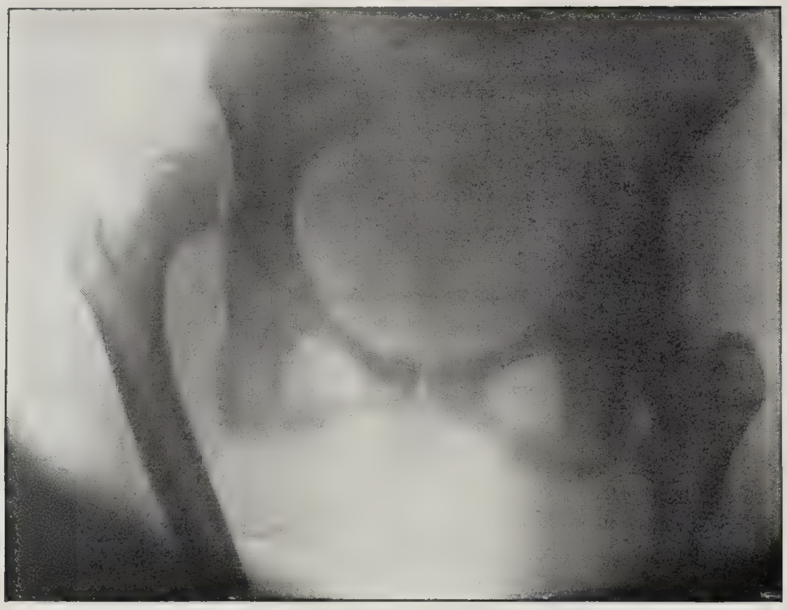


Fig. 8.—Case VII (*a*). Congenital dislocation of hip-joint before operation.

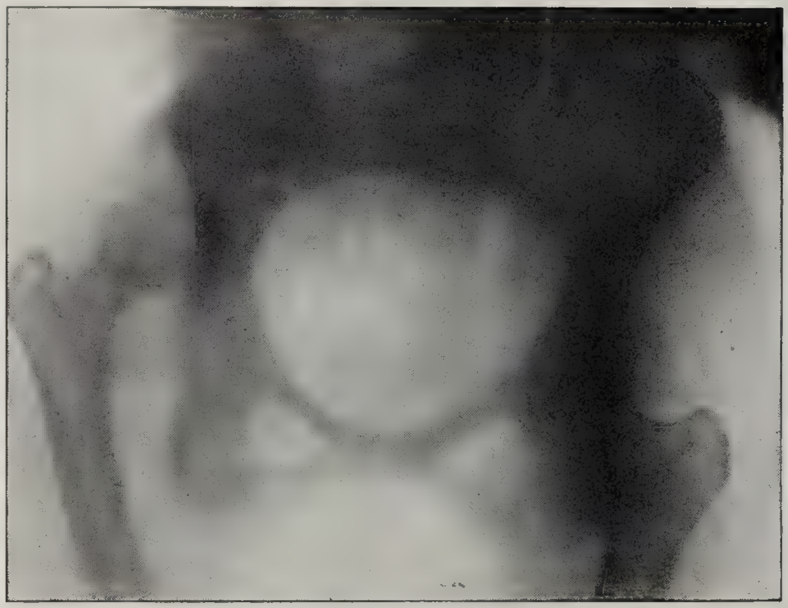


Fig. 9.—Case VII (*a*). After operation.

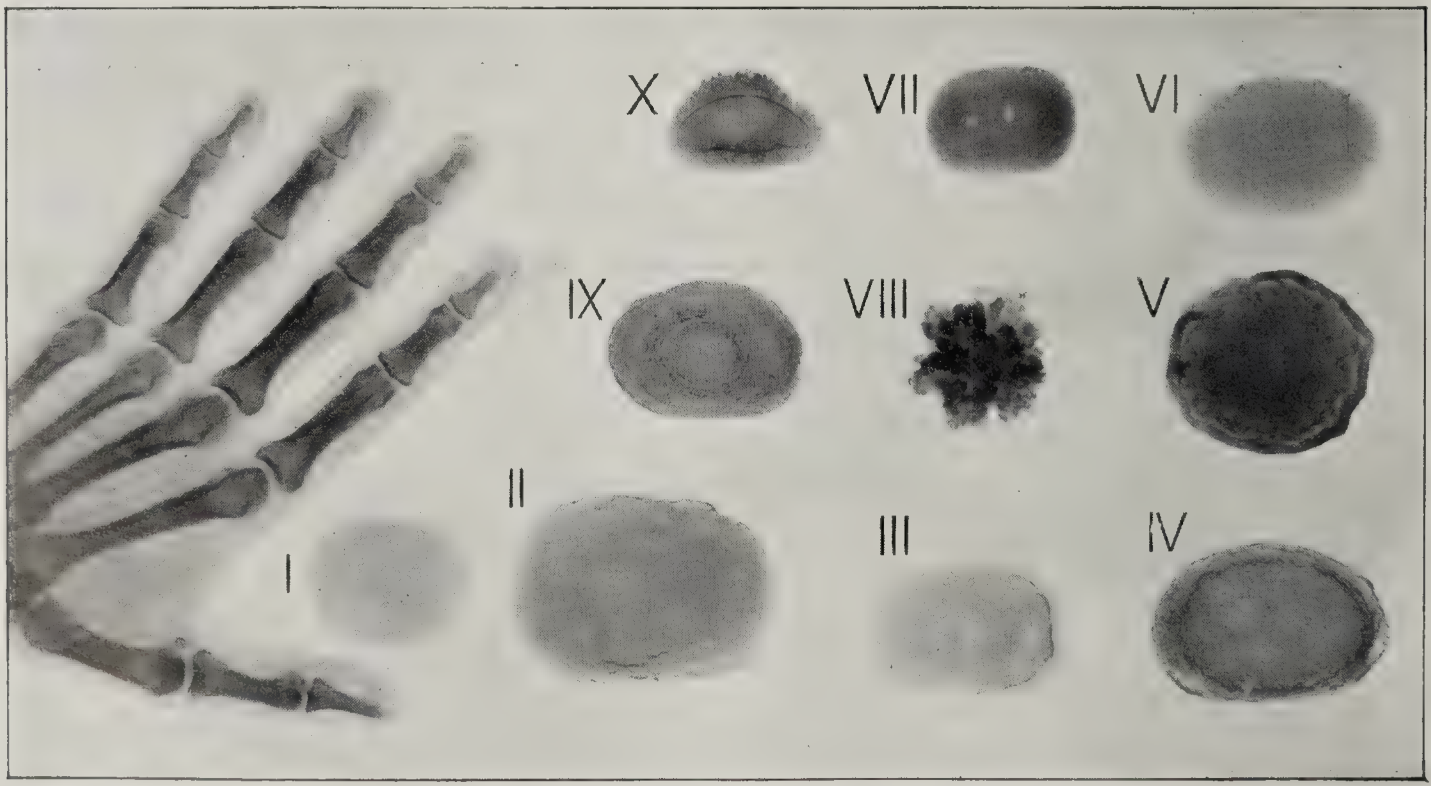


Fig. 10.—Relative opacity of calculi.

I. Uric acid.
II. Uric acid.
III. Biliary calculus.
IV. Uric acid surrounded by impure urate of ammonia.
V. Oxalate of lime and urate of ammonia.
VI. Cystic oxide.
VII. Phosphate of lime.
VIII. Mulberry calculus.
IX. Urate of ammonia and phosphate and carbonate of lime.
X. Cystine and a layer of oxalate of lime.

TO ILLUSTRATE MR. J. MACKENZIE DAVIDSON'S PAPER.

This is clearly seen in Table VII, and in Table VI it is also seen, though in some experiments more paramoecia pass into the tubes containing acid than into the control tubes. (Compare also Table VIII.) At first I regarded the latter as evidence of a true positive chemiotaxis, but subsequently I found myself compelled to abandon this view, since further experiments showed that the tendency to pass into tubes containing acids in greater numbers than into control tubes was not a constant, but merely an occasional, feature of such experiments, and that if several experiments are averaged, the number of paramoecia entering tubes containing acids is less than that entering the control tubes. A somewhat similar feature is exhibited in Table VII. Here it is seen that the number of paramoecia entering tubes of distilled water is in most experiments less than that entering tubes of hay infusion, the former being on the average only about one quarter as numerous as the latter; but four exceptions occur, namely, Experiments 1, 15, 19, 31, in which the number of paramoecia entering amounted to respectively 135 per cent., 108 per cent., 143 per cent., and 108 per cent. of those passing into the control tubes. A two-fold variability is inseparable from experiments on chemiotaxis: first, the variability in successive experiments, partly due to change in the condition of the paramoecia, which unfortunately cannot be kept constant from day to day, or even from hour to hour, and partly to the next factor; secondly, variations involving the individual tubes employed in the same experiment, attributable to undetected variations in the conditions of experiment. The chance of the latter occurring is obviously greater the weaker the concentration employed; if hyper-lethal concentrations are used strong negative chemiotaxis is alone observed. The variability which is present in successive experiments places a difficulty in the way of determining the relative influence of individual acids and alkalies upon paramoecia. From the single experiments given in Tables VI and VII no conclusion can be drawn. A comparison of the chemiotaxis of acids and alkalies in equilethal concentration in respect of paramoecia in distilled water (cf. Table VIII), however, shows that the latter are more negatively chemiotactic than the former. In equi-molecular concentration this difference is no longer marked.

In all experiments on the chemiotaxis of paramoecia a difference of osmotic pressure comes into play, to which in part the phenomena of chemiotaxis are due.[29] This occurs, for example, in the experiments recorded in Table VII, in which the paramoecia were immersed in hay infusion. If the paramoecia passing into the tubes containing distilled water are compared with those passing into acid and alkali, it is seen that the latter are less than the former for the stronger concentrations, but that the difference is inconsiderable with the weaker concentrations. In these experiments obviously difference of osmotic pressure plays a share in the taxis noted. In Table VI the difference of concentration, that is, of osmotic pressure, is greater for the stronger alkalies than for the stronger acids, and the chemiotaxis is also greater, but the difference of concentration is less than that between hay infusion and water. In practice, however, since it is as yet impossible to separate the physico-chemical from the purely chemical effect of acids and alkalies, the term chemiotaxis must be understood to include both, and whenever the composition of the fluid to be tested is stated, the characters of the liquid in which the paramoecia are contained should also be given.

The foregoing observations may be summarized as follows:

1. Paramoecia pass readily into tubes containing acid and alkaline solutions of sublethal concentration, but pass still more readily into control tubes containing the same liquid as that in which the paramoecia are immersed.
2. Only negative chemiotaxis appears to be exerted by acids and alkalies upon paramoecia. This negative chemiotaxis is marked in alkaline solutions of lethal concentration, and is slighter in acid solutions of lethal concentration.
3. There is no parallelism between (*a*) the lethal concentration of acids and alkalies for paramoecia, and (*b*) the chemiotaxis of paramoecia in respect of acids and alkalies.
4. The taxis of paramoecia is modified when these organisms are transferred from hay infusion to distilled water.
5. Chemiotaxis is not to be explained simply by reference to the acidity or alkalinity of the solutions employed. Mere change of concentration is an important factor in its production.
6. Negative chemiotaxis does not necessarily indicate that the liquid tested acts injuriously upon the organisms employed.

In conclusion, I must express my indebtedness to Professor Verworn, in whose laboratory the above research was conducted; to Professor Nernst, who kindly permitted me to make the physical measurements in the Physiko-chemisches Institut in Göttingen, and also to Professor Coehn, at whose suggestion palladium-hydrogen electrodes were employed.

REFERENCES.

[1] Eine Wirkung galvanischer Ströme auf Organismen, *Pflüger's Archiv f. d. ges. Physiol.*, Bd. 37, p. 457. [2] Die polare Erregung der Protisten durch den galvanischen Strom, *Pflüger's Archiv f. d. ges. Physiol.*, Bd. 45, p. 1, and Bd. 46, p. 267. [3] Untersuchungen über den Galvanotropismus, *Pflüger's Archiv f. d. ges. Physiol.*, Bd. 59, p. 525, and Bd. 63, p. 121. [4] Reactions of Ciliate Infusoria, *Journ. of Physiol.*, vol. xxi, p. 258; the Mechanism of the Motor Reactions of Paramecium, *Amer. Journ. of Physiol.*, vol. ii. p. 311; On the Movements and Motor Reflexes of the Flagellata and Ciliata, ibid., vol. iii, p. 299; The Laws of Chemiotaxis in Paramecium, ibid., vol. ii, p. 355. [5] Zur Theorie des Galvanotropismus, *Pflüger's Archiv f. d. ges Physiol.*, Bd. 65, p. 525: also (Jacques Loeb), ibid., Bd. 65, p. 308: also (Jacques Loeb and S. S. Maxwell), ibid., Bd. 63, p. 121. [6] Studies on Electrotaxis, *Amer. Journ. of Physiol.*, vol. iv, p. 96. [7] Uber die Einwirkung des constanten Galvanischen Stromes auf niedere Organismen, *Arch. f. Anat. u. Physiol.*, Physiol. Abth. Jahrg. 1900, p. 49. [8] Galvanotaxis and Chemiotaxis of Ciliate Infusoria, *Journ. of Physiol.*, vol. xxvi, p. 291. [9] Zur Kenntnis der Galvanotaxis, *Zeitschr. f. allg. Physiol.*, Bd. 2, p. 342. [10] *Zeitschr. f. Electroch.*, Bd. iv, p. 63. [11] On the Coagulation of Proteid by Electricity, *Journ. of Physiol.*, vol. xxiv, p. 288. [12] Resorption und Kataphorese, *Pflüger's Archiv f. d. ges. Physiol.*, Bd. 101, p. 607; Weitere Mitteilungen über Ionenpermeabilitat bei Blutkörperchen, ibid., Bd. 102, p. 196. [13] Uber Galvanotaxis vom Standpunkte der Physikalischen Chemie, *Zeitschr. f. allg. Physiol.*, Bd. 5, p. 1. [14] Loc. cit. [15] Loc. cit. [16] The Effect of Ions upon the Aggregation of Flagellated Infusoria, *Amer. Journ. of Physiol.*, vol. iii, p. 291. [17] Die chemische Reizbarkeit der Leukocyten und deren Beziehung zur Entzündung und Eiterung, *Berl. klin. Woch.*, 1890, No. 47: cf. also Ueber pyogene Stoffe in der Bakterienzelle, ibid., 1890, No. 30. [18] Le chimiotaxisme des leucocytes et l'infection microbienne, *Annales de l'Institut Pasteur*, 1890. [19] Du rôle des immunisines (fixateurs) dans la phagocytose, *Annales de l'Institut Posteur*, T. 16, p. 106. [20] The Phagocytosis of Red Blood Cells., *Proc. Roy. Soc.*, Series B, vol. 76, p. 524. [21] The External Phenomena of Fertilization, Buller, *Quart. Journ. of Micro. Science*, 1902, vol. xlvi, p. 115. [22] *Amer. Journ. of Physiol.*, vol. ii, p. 339. [23] A brief outline of this inquiry is given in the BRITISH MEDICAL JOURNAL, 1905, vol. ii, p. 17. [24] Die absolute Kraft einer Flimmerzelle, *Pflüger's Archiv f. d. ges. Physiol.*, Bd. 54, 1893, p. 537. [25] BRITISH MEDICAL JOURNAL, 1905, vol. ii, p. 17, Table I; also *Proc. Roy. Soc.*, 1904, vol. lxxiv, p. 100. [26] Die kohlensäureproduktion von Paramäcium aurelia, *Zeitschr. f. allg. Physiol.*, 1905, Bd. 5, S. 10. [27] Die Wirkung von Säuren und Basen auf lebende Paramäcien, *Zeitschr. f. allg. Physiol.*, 1904, Bd. 4, S. 438. [28] Eine neue Methode zur Bestimmung der Reaktion des Blutes, *Pflüger's Archiv f. d. ges. Physiol.*, Bd. 96, 1904, p. 601. [29] Jean Massart, Sensibilité et Adaptation des Organismes à la Concentration des Solutions Salines, *Archives de Biologie*, 1899, T. 9, p. 515.

THE DIAGNOSTIC VALUE OF X RAYS.*

BY JAMES MACKENZIE DAVIDSON, M.B., C.M.ABERD.,

MEDICAL OFFICER IN CHARGE OF ROENTGEN-RAY DEPARTMENT, ROYAL OPHTHALMIC HOSPITAL AND CHARING CROSS HOSPITAL.

TEN years have passed since *x* rays came into use in medical and surgical work, but there are many who do not yet realize the proper way of employing them, or their necessary limitations.

In this connexion, the main point I wish to urge is the importance of always taking *x*-ray photographs stereoscopically. Some slides will be thrown upon the screen to illustrate this point, as also some stereoscopic transparencies.

An *x*-ray photograph produced by a good focus tube is often so clear that it is not easy to realize that it is only a shadow of the object which was interposed between the tube and the plate, and that the apparent relative positions of the parts by no means represent the actual positions.

In the BRITISH MEDICAL JOURNAL of January 1st, 1898, however, I described a method of precise localization; and again, on December 3rd, 1899, I published an illustrated article on *x*-ray stereoscopy. Later I applied my method of localization to ophthalmic work, and found that the position of exceedingly minute particles of metal or glass can be determined in the eyeball or orbit to the $\frac{1}{50}$th of an inch. Several cases of this kind are reported in the *Transactions of the Ophthalmological Society of the United Kingdom*.

I regret that this communication is the last one on the last day of the Meeting. Had it been earlier, members interested would have had an opportunity of studying several stereoscopic photographs which would have been placed on view; as it is, only those present now will be able to verify my statements by actual observation.

---

* Read before the Section of Medicine at the Annual Meeting at Leicester, July 28th, 1905.

I will at once proceed to describe some cases which will illustrate the diagnostic value of x rays.

Renal Cases.

The symptoms in these are often very puzzling, and it is important to decide, if possible, not only if a stone be present, but also to determine its size and position.

This first slide shows a variety of calculi and shows how they vary in opacity to x rays. The opacity of a substance is in proportion to its atomic weight. If the chemical composition of a calculus is known, then its relative opacity is known. The heavier the atom the more opaque it is to x rays—hence gold, lead, platinum and bismuth are all very impenetrable. Aluminium, owing to the very light weight of its atom, is very transparent. Carbon, hydrogen, oxygen, and nitrogen, of which our bodies are chiefly composed, are very transparent. The phosphorus and calcium in bones account for their showing so well in contrast with skin and muscle.

Uric acid and urate of ammonia calculi are almost as transparent as flesh, as can be seen by contrasting the difference between them and the hand—whereas oxylate of lime, phosphate of lime, and even a cystic oxide calculus are fairly opaque, owing to the sulphur atom weighing 32 in it. It is quite likely, therefore, that a small uric acid calculus in a stout patient cannot be differentiated by x rays and so may escape detection. Slides of cases will now be thrown upon the screen.

Case I.

The first case is that of a lady, Mrs. M., who for some years suffered from rather obscure symptoms, and had had many consultations and many diverse opinions. Her kidneys had been x-rayed, and nothing found. I also x-rayed her kidney region, and found nothing abnormal; but when I photographed her pelvis I found two stones, one above the other, and almost in contact in her right ureter. They do not show very clearly in this slide, but if you will look at the stereoscopic slide reduced you will be able to see them unmistakably, and following the bend of the ureter in the region in which they are situated. These were not only localized precisely, but the exact size of each was estimated and proved correct when they were removed by the late Mr. Allingham—a brilliant operator whose untimely death we all deplore. A good recovery ensued, but later on pain, etc., recurred. I made another x-ray examination, and this time found the ureters free, but a large stone in the right kidney which previously I had failed to detect. It is likely that the removal of the stones in the ureter altered the physical conditions, and made it possible for the x rays to reveal it. This stone was removed, followed by a good recovery; but pain and large quantities of pus were passed. Finally, the kidney was removed, and now the patient is quite well. It would, of course, have been best to remove the kidney in the first instance; but the next slide is of a case in marked contrast to this one, and well illustrates the value of conservative surgery.

Case II.

Mr. P., sent to me by Mr. Edward Ward of Leeds. The history shortly is as follows: A large stone, almost a complete cast of the pelvis of the right kidney, and many small ones, were removed by Mr. Ward. Indeed the tissue seemed so much damaged that he nearly removed the kidney itself. This, fortunately, he did not do, because some time afterwards his left kidney became inflamed and Mr. Ward incised it for pyonephrosis, and the haemorrhage was so terrific that no search for a stone at the time was possible. On July 28th, 1903, x rays show the kidneys free from calculus but a small one is shown in the left ureter, close to the bladder. I strongly urged him to be x-rayed again later on before returning to his surgeon (as he was going South for a holiday). On August 31st, 1903, the stone had passed into the bladder as shown in the adjacent picture. Mr. Edward Ward crushed it and the patient is now well.

Case III.

Mr. D. Had stones removed from the bladder suprapubically. No relief. Symptoms extended over twenty-five years, and several opinions obtained—"atony of the bladder," "vesical tumour," etc.; x rays cleared up the diagnosis as I found a large stone, 34 mm. long by 19 mm. broad, in the ureter, just as it entered the bladder. Sir William Bennett removed it successfully suprapubically.

Case IV.

Mr. M. D. This gentleman suffered from obscure renal symptoms for over twenty years. Had had consultations with the celebrated surgeons, Butcher of Dublin, and Sir Henry Thompson. Finally Mr. Hurry Fenwick sent him to me and here you observe a huge stone in his ureter, which Mr. Fenwick removed with complete success.

Case V.

C. D. This is an unfortunate case, sent to me after a sudden typical attack of real colic on his right side, with a request to examine his kidneys. This was done. Negative result, except that in the right side (the affected one) there was a vague degree of diffuse opacity in the kidney region as compared with the sound left side. On photographing his ureter and bladder regions you will observe the result on the screen. There is a curved opaque mass in the position of his right ureter; in fact, it may well be a kink in the ureter loaded with débris. On consultation with his physician, who examined the negatives with me, it was agreed that the opacity was probably in the ureter close to the bladder, and that as all acute symptoms had subsided he had better take Contrexéville or other waters, and be x-rayed again in about six weeks. I went abroad immediately afterwards, and on my return in a fortnight was surprised to find that just after I left a surgeon had been consulted, who, contrary to the physician's wish, operated immediately. It appears he opened the kidney, and believes he passed a probe into the bladder, and declared that there was nothing in the ureter; suppuration and thrombosis followed. The patient refused to be x-rayed again, and now declares that x rays produced, to quote his own phrases, a "false photograph" and a "photograph of something that never existed," and "was the cause of all his misfortunes."

This case well illustrates the importance of caution on the part of surgeons, and the advisability of careful consultation with their colleagues who devote their time specially to x-ray work. To make an incision several inches away from the part where x rays reveal the presence of an abnormality is hardly wise, and certainly unfair to x rays. The stereoscopic picture (reproduced in plate) in this case absolutely proves that the opacity is either in the right ureter near the bladder, or in its immediate neighbourhood. Of course, if the operation was to be done at all (and in this case it should have been delayed) it should have been performed like the one in Case II, in which the two stones were removed successfully from the ureter in a few minutes.

Case VI.

Miss S. This case, sent to me by Mr. Hurry Fenwick, had opacities shown, some of which might have been in the ureters, and so I suggested to Mr. Fenwick to catheterize the ureters, either with a wire inside the catheter or with a catheter made with any suitable material of heavy atomic weight added—such as antimony which is used in ordinary red rubber tubing. You see the result in this slide. The opaque bodies are free from the ureters, and proved to be tuberculous glands. The outline of the bladder is here well shown by its being filled with air. I wish to call your attention to a stereoscopic slide—which you can view afterwards—where a small opacity was located as either in the ureter or immediately adjacent. Mr. Fenwick catheterized it, and on photographing it it was clearly seen to be outside the ureter, but immediately adjacent to it. It proved to be a patch of atheroma on an artery. These two cases have been illustrated recently in a paper by Mr. Fenwick in the British Medical Journal.

Case VII.

Mr. B. Sent to me by Mr. Watson Cheyne. His kidney had been opened for pyonephrosis six years ago. He now has a large fistula, and has to wear a portable urinal, a large tube being worn in his side into the kidney. The cause of this is seen in the large calculus in the ureter higher up than usual.

In this connexion I should like to mention a very instructive case of Captain G. This gentleman in February, 1901, was just on the eve of having his kidney explored when Sir Dyce Duckworth and Dr. Guthrie Rankin thought it advisable to have him examined by means of x rays. I could find no stone in his kidney, but in his ureter on the affected side I found three very small calculi like beads, with an interval of about ½ in. between each, one was quite close to the bladder. The operation was abandoned and he went to Contrexéville, passed the three stones, and has been quite well ever since.

Case VIII.

Dr. H. This gentleman had been operated on some time ago for supposed stricture of the urethra with indifferent success. Mr. Reginald Harrison felt a stone in the prostate; he sent him to me, and two were revealed as shown in the slide, and Mr. Harrison successfully removed them.

Miscellaneous Cases.

Case I.

This slide shows a large aneurysm of the aorta. Screen examination is most useful in these cases, and during bright weather the only satisfactory way to do this is to have a small absolutely dark tent, inside of which the observer should be in total darkness for at least ten minutes, so as to allow the retina to accommodate itself to the perception of the shadows cast on the fluorescent screen, which is placed against one side of this tent. This plan has the additional advantage of allowing all the manipulation of the apparatus, etc., to be done in the light.

CASE II.

Dr. Dundas Grant brought this patient, who had a diverticulum in her oesophagus. We observed her swallow bismuth emulsion by means of the screen; most of it went down the oesophagus, but some of it ran into a small oesophageal pouch shown in the slide. It has been successfully removed by Dr. Dundas Grant.

CASE III.

Another case of Dr. Dundas Grant's showing probing of the frontal sinuses from the nose. Lateral view and front view are shown.

CASE IV.

Case of Master H. Subdiaphragmatic abscess, right side. Screen examination showed right side of diaphragm immobile on respiration, and bulged upwards. Stereoscopically showed a bulging cone in the middle of diaphragm; operation: ninth rib resected, abscess found and drained. Complete recovery.

CASE V.

Lord F. shows a shot in orbit after having injured eyeball in transit. Eyeball was therefore not enucleated.

CASE VI.

Half the portal vein injected shows that vascularly the liver is divided into two halves. Mr. James Cantlie held this opinion, and he injected and brought this specimen, which fully confirms his view.

CASE VII.

A young girl, aged 16, had congenital dislocation of the hip-joint. She went to Vienna, and was operated on; on her return I again photographed her; result showed the same condition, except that the epiphysis of the head of the femur has been injured. The mother was assured that the operation had improved the condition greatly, and, on inquiring if they did not use *x* rays to verify their results, she was informed that they were quite unnecessary. The pictures speak for themselves, comment is quite unnecessary.

I trust that these cases are sufficient to illustrate the great diagnostic value of *x* rays, but to make an accurate and reliable diagnosis it is necessary for the physicians and surgeons to work together with their colleagues who devote themselves to *x*-ray research.

Quite recently an interesting case has come under my observation, which so well illustrates the value of *x* rays as an aid to diagnosis that, with the permission of the Editor, a short account of it is here added. For the notes of the case I am indebted to Dr. Parkinson.

Mr. P., aged 54, was under treatment by Sir Patrick Manson for several months previous to June 1st, 1905, for malaria, from which he had suffered twenty years ago in India. In May he found himself losing weight and energy and suffering from frequent rises in temperature in the evenings. He was treated for malaria and rheumatism, but did not improve. When examined on June 1st he had pains shooting down both legs, pain in sacro-iliac joint in the evenings, along crest of ilium and along the seventh intercostal space. There was no tenderness in the kidneys, but recurrent lumbago. The urine was examined frequently and found normal. He did not improve under treatment, and was sent to Buxton towards the end of June by advice of Sir Hermann Weber.

At Buxton no improvement took place, and he soon began to suffer more lumbar pain, the temperature rising every night and profuse perspirations following, and his strength and weight began to fall rapidly. While at Buxton there were three consultations with London physicians, the diagnosis being "malaria with rheumatism" and "acute lumbago associated with endocarditis." He was brought to London six weeks ago, much emaciated and apparently in a critical condition. The pain became exceedingly severe. Sir Patrick Manson requested me to make an *x*-ray examination to ascertain if it could throw any light upon the case. I found the patient looking ill and dreading the paroxysms of pain. His chart showed an evening temperature of 103°.

X-ray negatives were taken of the chest, abdomen and pelvis, and nothing abnormal was shown except a distinct opacity in the left kidney region. A consultation with Sir Thomas Barlow, Sir Patrick Manson, and myself took place. The clinical symptoms did not in any way confirm the *x*-ray diagnosis, and so it was decided to repeat the *x*-ray examination next day. The same result followed: an opacity exactly like a renal calculus appeared in all the negatives in the left kidney region. It was arranged that Mr. Godlee, in spite of absence of clinical symptoms, should explore this region. This was done, and a small cyst was found in the left kidney, which was evacuated, and then the whole kidney was excised on account of malignant disease. There was a stone in its centre, or possibly a degeneration of the tumour. (The specimen has not yet been properly examined and reported upon.)

This case well shows the value of *x* rays even in cases where their use seems likely to be of little or no service.

LEAD POISONING FROM ELECTROLYSIS OF WATER PIPES.

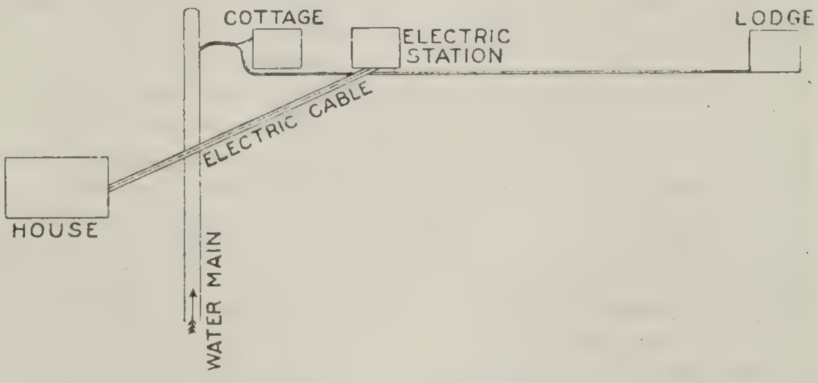
By GEO. A. E. ROBERTS, M.R.C.S., L.S.A., D.P.H.,

M.O.H. WINCHESTER RURAL DISTRICT COUNCIL.

A FEW months ago I was called to see a man who was suffering from unmistakable signs of lead poisoning. This was found to be caused by the water which he was drinking, which contained 0.14 gr. lead to the gallon.

The water is supplied by a water company to a very large area. It is of great organic purity, and is obtained from a deep well in the chalk. The total hardness is reduced from about 14° to 6°. In every instance the service pipes are of lead, and the water has never before been known to attack them so as injuriously to affect the water. It was noticed that the water from the tap at the cottage was slightly turbid, whereas normally it is quite bright.

A piece of the lead service pipe was cut out near the cottage and examined. On the interior could be seen patchy lumps of what proved to be lead carbonate. The lumps projected about $\frac{1}{8}$ in. above the internal surface of the pipe, and could be easily brushed off with the finger as a white powder. No doubt the turbidity of the water was due to this powder in suspension.



The cottage was the entrance lodge to a large house situated some 200 yards away, and midway between the two was an electric-light station which supplied the house but not the lodge. It was thought by the water company's consulting engineer that the lead in the water was due to electrolysis, caused by a leak from the electric cable.

The water main is situated in a road between the large house and the electric station. From the main a lead service pipe about 150 yards long supplies the lodge, and on its way branches to the electric station, and to another cottage close to it. The pipe from the main to the electric station was put in two years ago, but it was only continued to the lodge six months since.

The electric current is supplied to the house by means of an insulated positive main and an uninsulated copper strip return; the latter is supposed to be earthed at each end, but both are enclosed in a wooden trough and embedded in bitumen. The cable passes about 18 in. above the old portion of the service pipe near the electric station. After numerous tests by a firm of electricians employed by the company a leak of 1.8 volts was discovered, and this in their opinion was sufficient to cause the electrolysis.

The lead service pipe was examined at various points, and was found to be most affected near the lodge, whereas close to the electric station it was hardly affected at all. The electricians account for this by the fact that the difference of potential between the pipe and the earth would become greater the farther away one gets from the source of leakage. The old portion of the pipe was also examined where it passes beneath the cable but was not at all affected, owing, it was supposed, to a protective coating of oxide having formed. Only the inside of the pipe was affected, the outside showing no sign of deposit or corrosion.

Needless to say, numerous samples of water were tested from other houses in the neighbourhood, including one from a cottage a few yards away from the electric station, but no lead was found. If a small leakage of electricity (1.8 volts) can produce electrolysis in this way, it seems to me that in towns which have large electric installations, with networks of cables and water pipes, such a thing should be more common. I am told that the Board of Trade regulations for earth return on tramways allow a difference of potential on the return circuit of 7 volts. Also, is it not a common thing to use a water pipe as an earth for telephones and electric bells? On placing a voltmeter between the cut ends of the lead pipe I obtained a deflection of about $\frac{1}{10}$ of a volt; this amount I could also get in my own laboratory by connecting the gas and water pipe, as also in a town ten miles away supplied with the same water.

THE ACTION OF TRYPSIN UPON THE LIVING CELLS OF JENSEN'S MOUSE-TUMOUR.

A PRELIMINARY NOTE UPON A RESEARCH MADE (WITH A GRANT FROM THE CARNEGIE TRUST)

BY J. BEARD, D.Sc.,
UNIVERSITY LECTURER IN COMPARATIVE EMBRYOLOGY,
In the Research Laboratory of the Royal College of Physicians, Edinburgh.

THE experiments were undertaken to determine in the first place three points—(1) the action of trypsin upon the living cells of a carcinoma such as Jensen's mouse-tumour; (2) to test the truth of the conclusion advanced by me in 1902[1] that cancer was an irresponsible trophoblast; and (3) the length of treatment and number of injections of trypsin necessary to destroy the tumour.

The inoculations from a Jensen mouse tumour were made by Dr. H. Wade on October 10th, 1905, and the first injections (into the tumour mass) were commenced on November 15th.* By this time some seven or eight mice had well-marked tumours. Of these, two were taken for treatment, and along with them was placed a "control mouse," which was living when the second "trypsin mouse" was killed. The remaining stock of mice with the tumour may also be regarded as controls. The preparation of trypsin employed (Fairchild Bros. and Foster's) was that originally dispensed to Dr. John A. Shaw-Mackenzie's prescription by Mr. F. W. Gamble, and it was with great generosity supplied gratis by Messrs. Allen and Hanburys for these experiments. This firm sent the solution in two strengths—3 per cent. and 5 per cent.—containing no antiseptic such as phenol.

The first difficulty was to decide upon some dose to be tried, and after one injection into each mouse of 2 minims of a 2½ per cent. solution—made by dilution with sterilized distilled water—all the later ones were of 2 minims of a 1½ per cent. solution. The reason for the change was that on the day after the first injection both mice were found in coma and quite cold, with legs in the air. In a warm incubator they recovered, and we did not experience the like result in them again or in the control mouse at any time. After this alarming experience—due, perhaps, to auto-intoxication by some other of the products of the tumour (? an alcohol), as "extracted and digested" by the large dose of trypsin—it was decided to reduce the dose by more than one-half, for in the first instance the amount of the trypsin solution had exceeded that of water. One of the mice weighed 17 grams, and, taking the weight of an average man at 70 kilos, or 154 English pounds, one hundred times the maximum dose (30 minims) ever employed by Shaw-Mackenzie or any other physician in cases of inoperable cancer in man had in the first instance been given to the two mice! The minute size of the "patients," $\frac{1}{4000}$ of a man, must be the excuse for this error.

After ten days, when four injections in all had been made into each mouse, one of them was found dead by the laboratory servant. The *post-mortem* examination made by Dr. Wade revealed no cause of death. But for the presence of a tumour mass the mouse appeared to be quite healthy. The laboratory attendant thought that it had got caught between the cage and food vessel, and so (? when intoxicated) had caused its own death. The microscopical examination demonstrated that every single cell of the tumour was in degeneration, fully half of them being represented by shapeless masses of particles, probably remains of nuclei, and all the rest were mere skeletons of cells. Even these seemed in very many cases to be crumbling and falling rapidly away, as though in a hurry to quit the scene. The somatic tissues of this mouse, as represented by the leucocytes and connective-tissue stroma cells, were quite normal, and in the following instance also.

In the case of the second "trypsin mouse" the treatment was continued until Thursday, December 7th. In this period of twenty-two days in all nine injections of trypsin were made. On this date one of the other control mice, but not that living with the "trypsin mouse," died of its tumour, and it was then resolved to kill the "trypsin mouse." The tumour was at once exposed, an incision made into it, and the whole with a piece of skin preserved in 5 per cent. corrosive sublimate. Before the mouse was killed it was noted that the skin over the tumour was in necrosis. At the time this was set down to phenol in the trypsin solution, but afterwards it was ascertained that the solution contained no antiseptic of this kind. In the case of the control mouse, which died of its cancer, the tumour was quite as large as the terminal phalanx of a man's thumb, while in that of the second "trypsin mouse" it was only as big as a lentil. Microscopically, this latter apology for a tumour was in advanced degeneration, shrinking away to nothingness, and quite harmless. It appeared probable to us that, at the time we killed it, its "cure" from cancer was not far distant, and the microscopical examination confirmed this opinion. Even without further treatment the tumour would in all probability have been absorbed shortly or its remains cast out.

The experiments will be resumed as soon as the stock of mice with tumours has been replenished.

Though the number of experiments is small, already they have established what in advance I knew that they would. This degeneration of an asexual structure (a malignant tumour or trophoblast) under intestinal (tryptic) digestion I have witnessed again and again in past years.[2] The experiments were not needed to convince me that trypsin would cause a cancer to degenerate in the same way that it does that of the trophoblast, etc., in normal development. How such a conclusion can be arrived at is, I know, a mystery to many. It is solely by the use of the comparative morphological and physiological method, of which my departed friend, Professor George Bond Howes, was so ardent an exponent.[3]

In advance I know that, no matter how often we repeat this experiment, even with much smaller doses, the like results will invariably be obtained. In the nature of things it must be so, for in the cancer ferment, malignin, and in trypsin we have an antithesis of ferments, of which the latter is the more powerful. For reasons which cannot be entered upon now, it appears to be certain that the action of trypsin upon the cancer cell is to pull down the cancer albumin—a living substance—and the cancer ferment—malignin—produced by this. Apart from its origin and apart from the parasitic theories proper, the extant theories of the nature of cancer come under three headings—germinal or gametoid, trophoblastic or asexual generation, and embryonic or somatic. In addition to their confirmation of the conclusion that trypsin is the substance which will destroy the cancer cell with ease, and without danger to the individual (Beard and Shaw-Mackenzie), these experiments go far to prove that in its nature cancer is neither germinal nor somatic, for trypsin, the architect of the soma, does not in life destroy the soma or sexual individual or its sexual products, whilst its action is direct and utterly ruinous upon trophoblast or asexual generation.

---

* My sincere thanks are due, and are hereby rendered, to Dr. H. Wade, F.R.C.S.E., for his great kindness in making the successful inoculations with the Jensen mouse adeno-carcinoma, and for performing the injections on my behalf. It is right to add that, in spite of my entreaties to him to agree to a joint authorship of the research, he declined for private reasons, which I can fully appreciate, while not admitting their cogency.

REFERENCES.

[1] *Lancet*, June 21st, 1902. [2] The Cancer Problem, *Lancet*, February 4th, 1905. [3] See G. B. Howes's Belfast address, Section D, Brit. Assoc. Adv. Sci., 1902.

MEMORANDA:
MEDICAL, SURGICAL, OBSTETRICAL.

FOOD POISONING AND COMA.

A CASE very similar to that reported by Dr. Kennard[1] came under my notice a few years ago. A lady had given a luncheon party, the viands for which had been prepared by a confectioner. None of the persons who partook of the lunch were ill after it. At supper the same night the lady had some of the viands left from lunch. She was a very moderate and fastidious eater, but may perhaps have supped more heartily than usual. When her husband went to bed he found her comatose. In great alarm he telephoned for her doctor, and on his return to her bedside found her writhing and heaving in a strange manner, but still comatose. Suddenly her writhings and heavings culminated in most violent vomiting, so violent that some of the vomit flew out of the open window, about 4 ft. distant. As soon as the vomiting ceased she returned completely to her senses, and suffered no further ill-effects. What was the *rationale* of the coma? It seems that it can scarcely be attributable to any presence of ptomaine or other poison in the blood, but must have been due to the mere presence of indigestible food in the stomach. Was it an exaggeration of the drowsiness we are all apt to experience after a full meal? Sleep pushed to excess is coma.

London, W. CHAS. MERCIER.

IMPACTION OF A HAT-PIN IN THE MALE URETHRA.

THE cases reported by Dr. C. Hamilton Whiteford (p. 20) and Mr. W. F. Brook (p. 80) recall to me a similar one that I located about twelve years ago, when Senior House-surgeon to the Royal Portsmouth Hospital. The patient, a young man about 25 years of age, introduced the pin to try to overcome a spasmodic retention of urine. Before admission to the hospital an attempt had been made, under an anaesthetic, to remove the pin with a pair of forceps, failure resulting from the pin point penetrating the urethral wall, as soon as any traction was made. On admission the penis was partly erect, and the head of the pin could be felt well back in the perineum, while the point was about an inch below the corona. Removal was easily effected without an anaesthetic by the simple expedient of passing the reverse end of a metal catheter, which had no eyelets on its side, down the urethra far enough to cover the point of the pin. No difficulty was then experienced in pushing the pin upwards by means of the head in the perineum. I should think that the case of a clinical thermometer might be used with equal success. The pin measured just 6 in. in length.

Bedford Park, W. T. H. BISHOP, M.D., C.M.

THE two cases recorded in the current and penultimate numbers of the BRITISH MEDICAL JOURNAL recall to my mind one that came under my notice at the Exeter City Workhouse six months ago. A man, 55 years of age, was in the habit of passing a large hat-pin into his urethra with the object of removing some supposed obstruction. This time the pin slipped in beyond his reach. On seeing him a few minutes later I found that the point of the pin was from 3 to 4 lines from the meatus, and was free in the canal. I could not get a firm hold of it with a pair of bow dressing forceps. On making the patient lie down, and placing the thumb just below the head of the pin in the perineum, the point was brought within the grasp of the forceps, and the pin drawn out. A little force had to be used in extracting the head from the meatus, which caused a little bleeding. No anaesthetic was necessary, and no further trouble ensued. The little manœuvre of getting the patient to lie down and carrying the penis over towards the abdomen advanced the point of the pin towards the meatus, and facilitated extraction.

Exeter. JOSEPH A. W. PEREIRA, M.D.

HILL DIARRHOEA.

THE discussion on hill diarrhoea and sprue at the Tropical Section of the British Medical Association's meeting at Leicester, reported in the BRITISH MEDICAL JOURNAL of November 11th, 1905, is of much interest to medical men in India, and no doubt Mr. Cantlie's meat juice treatment will receive wider trial than it has yet had. Dr. Andrew Duncan's opinion as to the cause of the disease, agreeing with that expressed some years ago by Colonel Dyson, will not, I think, receive much support. In Darjeeling mica has been practically banished from the water supply, yet hill diarrhoea is still often met with. One understands also that it occurs in hill stations where mica is not a constituent of the water. Moreover, the water drinkers in Darjeeling, women and children, rarely suffer from the disease. In the nearly two years I was civil surgeon of Darjeeling and in charge also of large European schools, I scarcely ever saw the disease in women or children, though treating numerous cases in men. All must agree with Colonel Dyson that "officers on coming up from the plains at once take more exercise and so get more thirsty," not *more* thirsty, however, than after exercise in the hot plains. He might have added they get more hungry too. The drink taken, however, rarely contains any mica. The sequence of events usually is that men arrive from the hot plains with digestions impaired by the intense heat and poor food obtainable. They at once eat heartily and take severe exercise, often showing indiscretion in not wearing warm enough clothing, or in not changing at once when hot and perspiring after playing squash or polo. In this way their digestions are overtaxed and their livers became congested; diarrhoea naturally follows. If properly dieted and clothed, etc., the diarrhoea stops, but if recurring chills are not avoided, or if the patient's health has been seriously undermined in the plains, the diarrhoea continues and sprue may develop. Sending the patient a few thousand feet down usually stops the diarrhoea, but not always.

Attributing hill diarrhoea to mica seems to me likely to lead to the observance of unnecessary precautions and to the neglect of very necessary ones.

F. P. MAYNARD, M.B., F.R.C.S.,
Calcutta, Nov. 30th, 1905. Major, I.M.S.

EXTREME BLADDER OVER-DISTENSION.

ON September 9th, 1905, I was called to see a man aged 80 suffering from retention of urine. From his relatives I learned that up to a month ago he could pass his water readily, but that since then only a few drops had come away daily. I found him in bed propped up with pillows. He could speak sensibly, and showed no signs of coma or delirium. Pulse 90, temperature 100° F., respirations 30. Tongue covered with a brown fur; breath bad. Twitchings of the left thumb. Both legs very oedematous. He complained of much pain over the abdomen and of great thirst. There were signs of congestion at the bases of both lungs.

On examination of the abdomen a tumour was felt extending from the pubes to the xiphi-sternum. The abdominal walls were extremely tense, and the skin showed signs of cracking. The flanks were resonant on percussion. As a catheter could not be passed he was aspirated above the pubes, and 260 oz. of urine were drawn off. The urine was clear except towards the end of the operation. The patient lived four days, and a catheter was passed daily. A partial *post-mortem* examination was performed and the following conditions were noted: The bladder was found to occupy the abdominal cavity up to midway between the umbilicus and xiphi-sternum. It was firmly adherent to the abdominal wall and the surrounding viscera, and could not be separated without tearing of its walls. The walls were very thin. The ureter and pelves of the kidneys were greatly dilated. There were no deposits or calculi in the bladder. The middle lobe of the prostate was found much enlarged and projecting over the vesical opening of the urethra. The size of the bladder, as also the quantity of urine—260 oz.—drawn off at one time was remarkable. So, too, was the fact that the urine showed no evidence of septicity and that the patient did not die sooner of uraemia.

---

[1] BRITISH MEDICAL JOURNAL, January 13th, p. 80.

Victoria West, C.C. D. J. Hugo Hamman, M.B., Ch.B.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ROYAL NAVY HOSPITAL SHIP *MAINE*.

A CASE OF DOUBLE ANEURYSM OF THE THORACIC AORTA.

(By Fleet Surgeon D. McNabb.)

[Forwarded by the Director-General.]

R. C., aged 36, was admitted to the Hospital ship *Maine* on October 3rd, 1905, for passage to England, suffering from Mediterranean fever, and also presenting symptoms of aortic regurgitation.

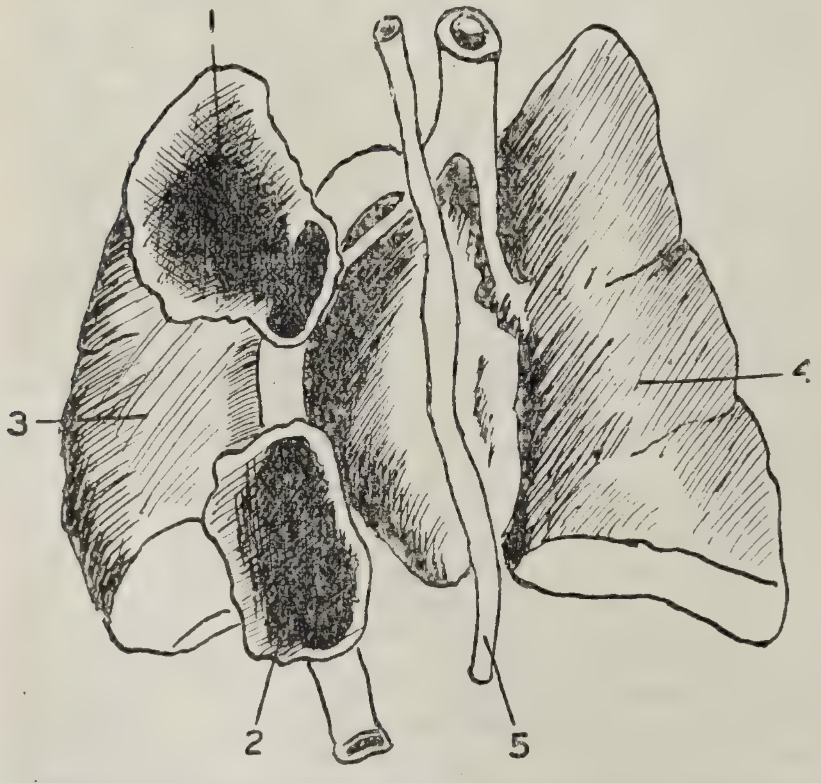
State on Admission.—He complained of vague pains in the left lumbar region, none in the chest, and he was inclined to sit up in bed owing to the discomfort when lying down. He said he could not turn round on his side owing to the pains in his body. Examination of the chest showed both lungs clear in front. The heart sounds were distant, but no murmur could be detected either at the apex or in the aortic area. Owing to bad weather experienced on leaving port a very detailed examination, particularly from the point of view of auscultation, was impossible.

Progress.—At 1.55 a.m. on October 5th patient coughed up about 8 oz. of bright red blood, his breathing became laboured, his pulse failed, and he died at 2.20 a.m.

A *post-mortem* examination was carried out at 11 a.m. on October 5th, and the following notes taken:

Heart.—Pericardium not inflamed, and contained about 4 oz. of light straw-coloured fluid. The organ was pallid, and showed no signs of hypertrophy. Valves normal.

Lungs.—Both were adherent to the parietes. The left pleural cavity was full of dark clotted blood. On the right side were a few tough adhesions but no extravasation. On removing the parts two large aneurysms were found to occupy the greater part of the descending thoracic aorta, there being a space of about 2 in. of more or less healthy arterial wall between them.



1. Upper aneurysm burst into left lung. 2. Lower aneurysm opened in detaching aorta. 3. Left lung. 4. Right lung. 5. Oesophagus. (Sketch made from parts after removal.)

Remarks.—The upper and smaller aneurysm, which had destroyed the upper half of the upper lobe of the left lung, and from which its walls were indistinguishable, was about the size of an orange, and had eroded the bodies of the third, fourth, fifth, and sixth dorsal vertebrae. The lower sac was somewhat larger, and, from the state of the contained clot much older than the upper one, and had eroded the tenth, eleventh, and twelfth dorsal vertebrae. The walls were intimately blended with surrounding structures, and were consequently somewhat destroyed in ascertaining the condition, but there appeared to be no extension into the abdomen. This lower aneurysm was intact when the chest was opened, and the bursting of the upper one was the immediate cause of death.

These notes are from those supplied by Surgeon J. McDonald, R.N., under whose care the man was.

A sketch of condition as seen after removal of parts is attached.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BIRMINGHAM BRANCH.

Sir Thomas Chavasse, M.D., President, in the Chair.

Birmingham, Thursday, January 11th.

Osteo-enchondroma of Wrist.—Mr. Morrison showed a woman who had a large growth on the wrist, which he took to be an osteo-enchondroma suitable for removal.

Abdominal Conditions simulating Acute Intestinal Obstruction.—Mr. Heaton read a paper entitled "Clinical Observations on Some Acute Abdominal Conditions which resemble in their Symptoms Acute Intestinal Obstruction," of which the following is an abstract: Symptoms of acute obstruction simulated by a variety of abdominal disorders—colic, acute peritonitis, appendicitis, tuberculous peritonitis, haemorrhagic pancreatitis, embolism and thrombosis of the mesenteric vessels, rotated ovarian cyst, acute torsion of an undescended testicle, rupture of ectopic gestation sac. Remarks on some of these conditions, with illustrative cases.—The paper was discussed by the President and Messrs. Morrison and Leedham-Green, and Mr. Heaton replied.

The Vesical Sphincter.—Mr. Leedham-Green read a paper on the Vesical Sphincter and the Mechanism of the Closure of the Urinary Bladder. He briefly reviewed our knowledge concerning the constrictor muscles in connexion with the bladder and urethra, and the opinions held as to the part these muscles played in maintaining the closure of the bladder. He criticized the theory, put forward by Finger, that the internal vesical sphincter was too weak a muscle to withstand the pressure of the urine and prevent its escape from the distended bladder, and that, as that organ filled, the pressure of the urine gradually caused the elasticity of the neck of the bladder and the vesical sphincter to yield, thus allowing the fluid to enter the posterior portion of the prostatic urethra, and so form a bladder-neck. Mr. Leedham-Green exhibited a number of radiographs of the pelves of certain persons, taken after the bladders had been distended with a suspension of bismuth, clearly showing that, whether it was fully distended or not, the outline of the organ was oval and not pear-shaped, and the urethra was sharply cut off from the bladder, without the suggestion of a "bladder-neck," as described by Finger.—The paper was discussed by the President and Drs. Melson and White, and Mr. Leedham-Green replied.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

H. H. Clutton, M.A., M.C., F.R.C.S., President, in the Chair.

Friday, January 12th, 1906.

Transverse versus Inguinal Colotomy.

Mr. L. McGavin read a paper in which he remarked that the operations designed for the relief of ulceration and permanent obstruction of the large bowel left patient and surgeon nothing better than a "Hobson's choice." The feeling commonly expressed that death was preferable to colotomy had too long retarded the progress of surgery in this direction. Doubtless colotomy had at one time been too readily resorted to. Much might be done in apparently hopeless cases by palliative treatment; such a case, under the author's care, was reported. In cases genuinely requiring colotomy the operator had choice of three routes

—namely, lumbar, iliac, and transverse. In the first, the operation presented greater difficulty, the spur was inferior, and the position of the new anus inconvenient. In the second, prolapse was of frequent occurrence, and difficulty existed, owing to the yielding nature of the abdomen in that locality, in applying sufficient pressure to control the motions. Transverse colotomy, to which little attention had been paid by surgeons, was, it was contended, a better operation, since prolapse seldom occurred; a good spur was always obtainable, a sphincter could be fashioned, the bowel could subsequently be more easily reconstituted if such procedure was deemed advisable, and the greater resistance of the subcostal space provided by the presence of costal cartilages, liver, and rectus muscle enabled the firm pressure of a belt to be easily applied, so that the escape of faecal matter was under perfect control. The supposition that the greater fluidity of the contents of the transverse colon contraindicated this operation was denied, as was also the idea, commonly held, that the subcostal space was a more unpleasant site for the new anus. Mr. McGavin read notes of three cases under his care, and advocated a more extended application of the operation, especially where there was the prospect of many years of life still before the patient.

The PRESIDENT said that nowadays he never saw prolapse after inguinal colotomy, and did not even employ any apparatus. To utilize the rectus was now the rule in iliac operations.

Mr. HARRISON CRIPPS had performed over 600 inguinal colotomies, but only about a dozen transverse ones. Lumbar colotomy was now obsolete. The three difficulties after colotomy were (1) prolapse, which was now rare, as it could be prevented by not making the wound too low, by leaving no slack bowel above the wound, and by carefully making the opening of the right size; (2) the escape of faecal matter, which was combated by keeping the intestinal contents in a due degree of solidity, and was more easily attainable with an opening in the sigmoid flexure than in the transverse colon; (3) 20 to 30 per cent. of the cases were troubled by decomposing mucoid secretion in the distal part of the gut. This secretion was treated in inguinal colotomy by syringing through, but in transverse colotomy the distance between the opening and the anus made this treatment impracticable. Consequently, he thought the transverse operation should only be done where the obstruction was too high to permit inguinal colotomy.

Mr. T. OPENSHAW endorsed Mr. Cripps's remarks.

Dr. W. H. B. BROOK (Lincoln) asked if in obstruction in the splenic flexure short-circuiting would not be the better treatment.

Mr. MCGAVIN replied, and said that in his cases anastomosis was out of the question as the sigmoid was not patent.

TORSION OF THE OMENTUM.

Messrs. H. IRVING PINCHES and EDRED M. CORNER contributed reports of two cases:

CASE I.—Male, aged 48. Right inguinal hernia for thirty-seven years; truss worn for thirty-three years. The hernia came down whenever the truss was removed; it was easily reduced and never caused pain. Onset of symptoms with slight pain in inguinal region; hernia irreducible. Pain increased in severity and tumour became larger; no vomiting; bowels open two days after onset. On third day temperature 99°, pulse 102. Tumour extremely tender, soft, and doughy to touch; irreducible; no impulse on coughing. Lower part of abdomen and inguinal region became extremely tender, and skin reddened over this area. Tissues felt thickened over tumour as if from inflammation. Diagnosis: Torsion of omentum in hernial sac. Operation: Over inguinal canal the tissues were subacutely inflamed, the hernial sac was thickened. In the sac was a small mass of dark friable omentum twisted upon itself three times; omentum not nipped at internal ring; tumour removed. Recovery.

CASE II.—Male, aged 45. Left inguinal hernia was present, which had only been noticed a few days. A small, tender, hard, rounded lump of omentum felt just outside external ring; irreducible. Diagnosis: Left, direct inguinal epiplocele. Operation: Direct hernia found, but, owing to large amount of subperitoneal fat, sac difficult to identify. Contained omentum was adherent to sac, about the size of a walnut, and had a stalk. There was a haemorrhagic cyst within it. It was not strangulated. Although a twist of the pedicle was not seen, there was every physical and symptomatic reason to suggest its presence. This was the only example of possible torsion of the omentum in a direct inguinal hernia.

Two more published cases were quoted, bringing the number of known cases of torsion of the omentum to 57.

The PRESIDENT discussed the significance of strangulation and torsion, and commented on the occurrence of torsion elsewhere in the abdomen.

Dr. FORBES-ROSS asked wherein lay the interest of distinguishing clinically the condition from appendicitis, as the diagnosis could in each case be decided by operation.

Mr. W. G. SPENCER asked how the diagnosis in the case reported had been arrived at. There was no *a priori* reason why torsion should not occur in femoral herniae, and he had seen similar conditions in such herniae.

Mr. PINCHES, in reply, said that strangulation involved constriction by the neck of the hernia. The diagnosis in his case was arrived at by finding an inflamed hernia with extensive tenderness of the abdominal wall in a patient previously suffering from a freely-moving hernia.

PATHOLOGICAL SOCIETY OF LONDON.

Dr. A. E. WRIGHT, Vice-President, in the Chair.

Tuesday, January 16th, 1906.

NOTES ON TWO CASES OF CHOLECYSTITIS TREATED BY INOCULATIONS WITH B. COLI.

DR. A. E. WRIGHT and Staff-Surgeon S. T. REID briefly recounted the above cases. In one, cholecystotomy was carried out for calculi. The sinus continued to discharge, and in order to raise the opsonic index of the patient's blood to enable him to cope with the *B. coli* infection, an inoculation of 200,000,000 colon bacilli was made. The sinus closed, and bile was discharged into the duodenum. On two subsequent occasions exacerbations of the local inflammation, necessitating reopening of the sinus, occurred, and were similarly treated, and with similar improvement. The bacillus used for the inoculations was raised from the discharge from the gall bladder. In the second case, operated upon for calculus in the bile duct, and in which a fistula persisted, 100,000,000 of colon bacilli were used as an inoculation, with good results, the jaundice and other symptoms disappearing. The most delicate test of jaundice was the coloration of the blood serum; this was superior to an examination of the urine.

PHAGOCYTOSIS OF RED CORPUSCLES.

Dr. A. E. WRIGHT had observed the occurrence of this in a case of cellulitis of the neck, and in one of pneumococcal cystitis. In the first, the pneumococcus was cultivated from a slough, which was discharged from a brawny swelling at the root of the neck. The leucocytes were observed in many instances to have ingested red cells. In the second case the same was true; and normal blood serum with leucocytes also produced phagocytosis of the red cells of this patient. The author thought the phenomenon indicated a damage done to the red cells by the toxin, yet not sufficient to lead to haemolysis; the leucocytes then, possibly by a simple process (without the question of opsoninism coming in), attacked and devoured the injured elements. Part of the anaemia of fevers might possibly be due to such a process.

A NEW METHOD OF DIFFERENTIATING B. TYPHOSUS AND B. COLI.

Mr. L. S. DUDGEON read a preliminary communication on the use of urotropin medium as a means of diagnosis between *Bacillus typhosus* and *Bacillus coli*. From a series of experiments he found that the most suitable strengths of urotropin were 0.1 per cent., 0.5 per cent., and 1.0 per cent., more especially in a broth medium. He had also employed the same strengths of urotropin in agar, both for slants and for plating. He had experimented with cultures of *Bacillus typhosus* obtained from two cases of bone abscesses, and stock cultures isolated from the spleen in cases of typhoid fever. The results were constant. *Bacillus typhosus* grew well in 0.1 per cent. urotropin broth, fairly well in 0.5 per cent., but the growth was delayed; 1 per cent. urotropin broth was always sterile, whereas *Bacillus coli* obtained from cases of peritonitis and cystitis gave an abundant growth in 0.1 per cent. and 0.5 per cent., and a fair growth in 1 per cent. If a tube of 1 per cent. urotropin broth was inoculated with the typhoid bacillus and incubated at 37° C. for twenty-four hours, and then considerably diluted (twice and three times), and then reincubated, no growth resulted in any case. A paratyphoid bacillus (Kral) was found to grow well on 0.1 per cent. urotropin agar, a very slight and delayed growth occurred in 0.5 per cent., while only one colony was obtained on 1 per cent. at the end of eleven days' incubation at 37° C. A paratyphoid bacillus (L.) gave a good growth in 0.1 per cent. urotropin broth, a fair growth in 0.5 per cent., and a faint growth in 1 per cent., which was considerably delayed. A paratyphoid bacillus (S.) gave a similar result in 0.1 per cent. and 0.5 per cent., but failed to grow in 1 per cent. urotropin broth. *Bacillus pyocyaneus* gave an abundant growth in all three strengths of the urotropin medium. The author stated that these experiments were being continued and various modifications were being tried.

THE RELATIONSHIP OF THE TEMPERATURE TO THE OPSONIC CURVE IN ACUTE ANTHRAX INFECTION.

Mr. J. FREEMAN. The experiments were carried out on rabbits. The spores of the bacillus were used, as the length of the filaments made it impossible to estimate the phagocytosis. The charts, noted hourly, showed that rise in temperature corresponded with rise of the opsonic index, suggesting an association between the two phenomena. Towards the end of life, although the bacillus invaded the blood, the opsonic index continued to rise; this did not at present allow of an explanation.

EDINBURGH OBSTETRICAL SOCIETY.

J. W. BALLANTYNE, M.D., President, in the Chair.

Wednesday, January 10th, 1906.

THYROID IN ECLAMPSIA FOLLOWED BY PUERPERAL MELANCHOLIA.

DR. W. E. FOTHERGILL, in a paper communicated by the SECRETARY, reported a case of eclampsia followed by puerperal melancholia, which was treated with thyroid substances. Eclamptic fits occurred during labour. Forceps were applied, and blood was allowed to escape by immediate separation of the placenta. At this time the pulse tension was very high. Sixteen hours after delivery a severe fit occurred. The patient was placed in the wet pack, and 16 oz. of blood was removed by venesection. For a time there was no return of the eclamptic seizures, but after some hours the patient became unconscious. Venesection and the wet pack were again used, and again the patient's condition improved and the fits ceased. The albumen which had been present in the urine disappeared by degrees. On the fourteenth day of the puerperium the patient complained of headache. Her temperature rose to 105° F., though the pulse rate was only 46 beats per minute. Melancholia developed soon afterwards. The patient was given 5 gr. of thyroid substance thrice daily. The pulse became more rapid, and the patient gradually improved, though for a time speech and memory remained defective. Ultimately a perfect recovery resulted from the administration of the thyroid substance.

THE STEREOSCOPE IN TEACHING OBSTETRICS.

Dr. BARBOUR SIMPSON gave a demonstration of the uses of the stereoscope in the teaching of obstetrics and gynaecology. By means of this apparatus the various stages in minor and major operations could be demonstrated to a large number of students.

PYURIA IN THE FEMALE.

Dr. PORTER communicated a paper in which he stated that, as a result of observations on 300 cases, he found pus and bacteria in 80 specimens. This condition of the urine he found to be commoner in married women. On investigating the urine in children he also found pus and bacteria present in many cases, the germ usually present being the *B. coli communis*. Dr. Porter called attention to the investigations of Dr. Campbell of Belfast, who found that 135 out of 372 specimens of urine obtained from women contained pus and bacteria, the latter being either staphylococci, streptococci, or gonococci. Dr. Porter found that though *B. coli communis* were present in some cases the reaction of the urine was alkaline and not acid. He believed that pyuria might be present and not give rise to any symptoms which would call attention to the condition of the urinary tract. As regards the alkalinity of the urine, in some cases he believed that the cause of this reaction lay in the diminished formation of dihydrogen phosphate. He believed that leucorrhoea could cause pyuria; the discharge became infected by *B. coli communis* when it persisted. He was also of opinion that many cases of puerperal septicaemia could be traced to this septic leucorrhoeal discharge. In some cases which he had investigated he found the same species of germ in the urine and in the uterine discharge. The commonest germ was the *B. coli communis*.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

Professor MUIR, M.D., President, in the Chair.

Monday, January 8th, 1906.

RESIDUAL HEARING IN DEAF AND DUMB.

DR. KERR LOVE gave a demonstration of the methods employed to show the existence of residual hearing in the deaf and dumb. He explained the methods adopted in teaching the pupils—(1) oral method, (2) manual method, (3) oro-acoustic method—and referred to the necessity of good eyesight, good intelligence, and to the effect of the presence of hearing in the acquisition of speech. The materials which the teacher had to deal with were those of the congenitally deaf and the acquired deaf; and the objects of the teacher to restore the deaf child to intercourse with the largest number of his fellows, and to enable him to interpret the largest number of ideas. The clinical study of the material showed that in 25 per cent. of the children valuable residual hearing was present. The bell, whistles, tuning forks, and Galton's whistle were used in testing the children. Seven illustrative cases were shown to the Society.

SUPRAPUBIC PROSTATECTOMY.

Dr. JAMES LAURIE described a case of suprapubic prostatectomy. The patient was a man aged 77, whose bladder symptoms dated for about seven months, and in whom a large sarcomatous growth, weighing 2 lb. 6 oz., was present. The tumour was successfully removed, and the patient has made satisfactory progress. The specimen and microscopical preparations were shown by the PRESIDENT.

CHRONIC MEDIASTINITIS.

Dr. J. S. MCKENDRICK read notes of a case of marked paroxysmal dyspnoea occurring in a patient with double aortic disease, and wherein, after death, were disclosed striking appearances of chronic mediastinitis.

The patient, a man aged 65, for several months before his death suffered from severe paroxysms of dyspnoea of a pseudo-anginous character. The cardiac dullness was increased, and a mitral systolic and double aortic murmurs were present. There was a general atheromatous condition of the vessels, and the urine showed evidence of chronic Bright's disease. The attacks of dyspnoea became more frequent towards the end of the illness, and symptoms of failing heart ensued. The *post-mortem* examination showed complete obliteration of the pericardium, hypertrophy of the heart with dilatation of the mitral valve, atheroma of aortic curtains with stenosis of the valve and a dilated atheromatous aorta. The right lung was adherent, and in the right axillary region there was a large thick fibro-cartilaginous and calcareous mass in the pleura, while at this site a similar nodule of the size of a marble was embedded in the surface of the lung. The lungs were oedematous, and the abdominal organs showed chronic passive hyperaemia, and the kidneys, in addition, an advanced chronic interstitial nephritis.

CASES.

Dr. ALEXANDER NAPIER showed (*a*) a case of lupus verrucosus which was being treated by curettage and tuberculin injections; (*b*) a case of transposition of the viscera. The patient, a married woman, aged 26, was admitted to hospital suffering from acute rheumatism, and on physical examination the liver was found to be entirely on the left and the spleen and heart on the right side.

LARYNGOLOGICAL SOCIETY OF LONDON.—At the annual meeting held on January 12th, Mr. CHARTERS J. SYMONDS, President, in the Chair, the following were elected as officers and members of the Council for 1906: *President*, Mr. Charters J. Symonds; *Vice-Presidents*, Dr. F. Wilcox, Dr. J. D. Ball, Dr. William Hill, Dr. Watson Williams; *Honorary Treasurer*, Mr. H. B. Robinson; *Honorary Librarian*, Dr. StClair Thomson; *Honorary Secretaries*, Dr. H. J. Davis, Dr. W. Jobson Horne; *Members of Council*, Sir Felix Semon, Mr. Philip de Santi, Dr. J. Middlemass Hunt, Mr. S. Paget, Dr. Atwood Thorne. At the ordinary meeting held subsequently Dr. W. H. KELSON exhibited a case of sinus of the chin, and also one of ulceration of the left vocal cord of an obscure nature occurring in a man aged 28. Sir FELIX SEMON exhibited a patient, aged 74, in whom a tracheal cannula had been permanently worn for twenty-seven years for incomplete bilateral paralysis of the post-crico-arytenoid muscles which had remained unchanged all that time.—Dr. DUNDAS GRANT exhibited a case of extensive ulceration of the pharynx of a syphilitic nature, and also skiagrams illustrating the treatment of frontal sinus suppuration by irrigation.—Dr. J. B. BALL exhibited a case of ulceration of the pharynx and larynx of an epitheliomatous nature, the points of interest being the very early involvement of the glands and the appearance of an ulcerating mass behind the tonsil, the disease having originated in the larynx.—Dr. E. A. PETERS showed a specimen of a tumour attached to the base of the sphenoid which presented under the microscope the structure of a fibro-angioma.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

J. WALKER DOWNIE, M.B., F.F.P.S., Vice-President, in the Chair.

Friday, January 12th, 1906.

ACUTE ASCENDING PARAPLEGIA.

DR. G. B. BUCHANAN read notes of a fatal case of acute ascending paraplegia occurring in a man of 49, suffering from prostatic hypertrophy complicated with pyuria.

The patient had become somewhat rapidly ill during the three weeks previous to admission to hospital. Both kidneys were enlarged to about twice their natural size. When examined with the cystoscope the bladder was found deeply sacculated, but apparently not inflamed, the prostate appearing as a projecting mass. The right ureter was gaping and discharged a flocculent fluid, and the left was somewhat swollen and oedematous. The urine contained a little albumen and a deposit of pus; tubercle bacilli were searched for, but not detected. The patient did not seem in any way disturbed by the examination, which was conducted without anaesthesia; but two days later he was a little sick in the morning, and had a slight shivering fit in the afternoon, though by 6 o'clock he seemed well again. At 8 p.m. the house-surgeon was called to see him, and found that he could not move his feet or legs, and by 11 p.m. the paralysis had spread to the hand to the extent that he could only move it slightly. At this time the legs and the abdomen were completely paralysed and flaccid. The plantar reflex was normal, but the knee-jerks were absolutely gone. Sensation to pain, touch, and locality was normal. At 12.30 the arms and hands became absolutely paralysed. The breathing became irregular, approaching the Cheyne-Stokes character, and the intercostals were evidently paretic. At 1.15 a.m. the breathing became laboured and the patient died. Pupils were normal in size and reaction all the time; consciousness was perfect to the last, and no pain was felt anywhere. The temperature was subnormal throughout, except just before death, when it reached 99.4°.

The question of etiology in this case was made more difficult by the impossibility of obtaining permission for an autopsy. It was suggested that the passage of an instrument in a patient who had recently been losing health with his urinary system already obviously diseased, might have induced an increased absorption of poisons into the blood, leading to a profound intoxication of the cord without giving any precursory signs. Attention was drawn to an important paper read by Dr. Walker, of Peterborough, before the Clinical Society of London last year, in which he recorded 3 cases of fatal ascending paralysis occurring in the course of chronic cystitis, and remarked that no writer previously had associated such cases with Landry's paralysis. "Urinary paraplegia" had been recognized by Stanley in 1833, and indeed by Troja as far back as 1780, and since that time has been the subject of much debate, especially as regarded its pathology. Walker, on the basis of Leyden's deductions on "urinary paralysis," and Farquhar Buzzard's on Landry's paralysis, concluded that his cases were due to myelitis from infection through the medium of the nerves supplying the bladder or kidneys. A study of Buzzard's researches, however, showed that there were good grounds for believing that the majority of the cases of Landry's paralysis was due not so much to an inflammation as to an acute intoxication of the cord by poisons reaching it by means of the blood or other channels. Charcot recognized three forms of "urinary paralysis": (1) due to myelitis, (2) due to purely reflex causes and transitory in character, and (3) due to lesions of the lumbar nerves, following direct infection from the urinary organs; and it seemed proper that a fourth should now be added—namely, one due to acute intoxication of the cord, with primary degeneration of its ganglion cells.

Dr. W. HUNTER deprecated the use of the term "Landry's paralysis" for such conditions, as being neither sufficiently descriptive nor constant in its meanings, and preferred the expression "acute ascending paralysis." He also gave some particulars of a case, recently under his observation, of a boy who died of this condition following sore throat. In his case the ganglion cells were degenerated, but no microbes were detected in any of the sections.

INJURIES TO EYES OF CHILD DURING LABOUR.

Dr. LESLIE BUCHANAN read a paper on Injuries to the Eyes of the Child during Labour. These accidents generally occurred where forceps were applied above the brim in cases of rickets. The child's eyes were forced outwards, and might be pressed against the promontory of the sacrum or against the blade of the forceps. The following lesions were met with: Complete extrusion of the globe; fracture of the orbital plates, with or without injury to the optic nerves; haemorrhages into the retina, or into the anterior chamber, from injury to the iris; corneal opacities; and ecchymosis of the eyelids. Rupture of the recti muscles might be the explanation of their so-called congenital absence, and high degrees of astigmatism might be caused by birth injuries to the cornea.

Dr. B. WOLFF, of Berlin, said there was no danger to the eye with an after-coming head. This method, however, increased the danger of damage to the skull.

Dr. THOMSON described some cases of traumatic keratitis of the newborn. A transient haze was due to oedema. When the haze increased to a maximum and then diminished, leaving vertical stripes, rupture of the posterior elastic lamina was found. The permanent haze was due to the scar tissue formed.

INTRACAPSULAR CATARACT EXTRACTION.

Dr. LEWIS McMILLAN read notes of four cases of intracapsular cataract extraction as recommended by Major Smith, of India. A large corneal incision and a good conjunctival flap were necessary. He concluded that in selected cases good results might be got, but for ordinary cases the combined method was safer. In Case 1 the result was perfect. In Case 2 the pupil was displaced upwards and there was a subconjunctival prolapse of vitreous. In Cases 3 and 4 the operation was finished by the combined method, in Case 3 because the lens was caught in the wound, in Case 4 on account of escape of vitreous.

DERMATOLOGICAL SOCIETY OF LONDON.—At a meeting held on January 10th, Dr. JAMES GALLOWAY in the chair, Dr. H. RADCLIFFE CROCKER showed a case for diagnosis. The patient was an Australian gentleman, aged 59, who had always enjoyed robust health. The eruption had appeared four years ago as a nearly generalized dermatitis which had been diagnosed as eczema. Many forms of treatment had been tried, and the skin had been entirely cleared of eruption at least three times, but it had always recurred. When shown the patient was suffering from a very severe attack. The trunk over the back and front was of a deep scarlet colour, the limbs and face less red and with a moderate degree of fine desquamation. The eruption was everywhere quite dry, although the patient complained of very profuse and repeated sweatings. Itching had been a marked feature in the earlier history, but the present sensations were those of burning and smarting. The skin was thickened in some parts, notably on the chest and back, but in other parts it was not at all thickened. Close examination revealed the presence of minute papules like those of lichen planus, even on the surfaces where the eruption appeared as uniform red patches. The exhibitor was of opinion that the case was probably an instance of parakeratosis or lichen variegatus, and the majority of members assented with this diagnosis.—Mr. **Malcolm Morris** showed a case of lymphangioma circumscriptum in a man in whom the disease had begun at the age of 17. Over the external surface of the right thigh and buttock there were the typical grouped deep-seated vesicles. It was interesting to note that the eruption had disappeared after an attack of lymphangitis following a feverish disease like influenza. The patient had also had a patch of hypertrophied lichen planus which had been entirely dispersed by *x*-ray treatment.—Dr. **James Galloway** showed a man with a circinate eruption on the wrist, palm and dorsum of the right hand, and on the right forearm. The man had had syphilis twenty-three years ago, and Dr. J. J. Pringle, who was present, recognized him as a patient who had been under his care for syphilis ten years ago. The circinate lesions for which he was shown had made their appearance two months ago. It was generally agreed that these were due to lichen planus and were unconnected with the previous attack of syphilis. There were no lesions on the mucosa.—Dr. **Graham Little** showed a woman, aged 34, who had two patches about the size of a sixpence on the inner side of the right knee which had persisted for seven months. These patches were itchy, a little raised and reddish-blue in colour, and the diagnosis of lichen planus was offered in explanation of them. But in the mouth there were some small buff-coloured deep-seated deposits which were shown by the exhibitor as an example of the disease of the mucosa of the mouth described by Fordyce. The case had been brought up to elicit opinions as to whether these lesions of the mouth could be ascribed to lichen planus which was admittedly present on the leg. It was the general opinion that the mouth lesions were not due to lichen planus, and several members agreed that it was probably the same condition as had been described by Fordyce.

Hunterian Society.—At a pathological meeting held on January 10th, Dr. **Fred. J. Smith**, President, in the chair, Dr. J. P. **Zum Busch** showed a dermoid about the size of a cherry adherent to the lip of an appendix vermiformis. The appendix and dermoid were removed four months after a double oöphorectomy, on account of severe and persistent pain. The dermoid contained fat, hair, and bone. Dr. Zum Busch asked for opinions as to the origin of the dermoid. Dr. H. **Russell Andrews** thought that the presence of other than epiblastic tissues—for example, bone—proved that the dermoid must have had some connexion with the ovary. Dr. **Richard Warren** agreed. A short discussion followed, in which the **President** and Drs. **Zum Busch** and **Andrews** took part, on the etiology of thrombosis after abdominal operations.—Dr. H. **Russell Andrews** showed a large hydrosalpinx, removed with a uterus affected with carcinoma of the cervix, spreading into the vagina. Abdominal hysterectomy was performed, with removal of the upper third of the vagina. In answer to questions, he said he thought Wertheim's method a good one in cases of advanced carcinoma of the cervix, but unnecessarily severe in early cases. Dr. Andrews also showed a specimen of tubal abortion, a mole lying half in and half out of the abdominal ostium. He preferred abdominal section to the vaginal operation for tubal pregnancy, chiefly on account of the difficulty met with occasionally in dealing with fresh haemorrhage occurring during operation by the vaginal route.—Dr. W. A. **Milligan** showed a photograph and drawing of a specimen of tubal abortion.—Dr. **Lewis Smith** showed a hydatid cyst of the liver, which perforated the diaphragm and formed a large cavity in the right lung, which opened into the right bronchus. The diagnosis had been confirmed during life by finding hooklets in the sputum. A favourite collie had shared the patient's rooms for many years. Dr. Lewis Smith dwelt on the important part played by dogs and watercress in hydatid disease in England. Dr. Lewis Smith also showed a specimen of hour-glass stomach found *post mortem* in a patient with carcinoma of the rectum. The constriction between the larger cardiac and the smaller pyloric pouch was so tight that water could be forced through only with difficulty. The constriction was due to an old gastric ulcer.

British Laryngological, Rhinological, and Otological Association.—At a meeting held on January 5th, Dr. **Woods**, the President, read a paper on the dental saliva ejector as a surgical instrument. He said he had had seven years' experience of the instrument in private work and in the New Richmond Hospital since its completion five years ago. Instead of getting the patient to blow the nose and then wiping away what remained with pledgets of cotton-wool, it was simply necessary to touch the blood, mucus, or pus with the point of the instrument, and everything was spirited away, more thoroughly, more quickly, and with less trouble and discomfort both to operator and patient. The instrument was of great value for removing blood during extensive operations about the mouth and throat; but the instrument was perhaps at its best in cleft palate operations. The blood as it gravitates to the nose and naso-pharynx was taken up by the ejector, and sponging was all but unnecessary. This was a point of some importance, as even with skilled anaesthetists sponging might excite vomiting. The ejector would sometimes be found of great value in the treatment of wounds after operation, especially in bladder cases. Mr. Herring informed him that he had found it very useful after suprapubic cystotomy.—Among several clinical cases and specimens shown were:—Dr. **Frederick Spicer**: Congenital malformation of the soft palate. Dr. **Buckland Jones**: Paralysis of larynx and soft palate, which had come on suddenly six months ago; no history of diphtheria or syphilis. Dr. **Dan Mackenzie**: An auricle removed for epithelioma of posterior surface.

REVIEWS.

TWO TEXTBOOKS OF MEDICINE.

Osler's Principles and Practice.

It is with the greatest satisfaction that we welcome the sixth edition of Professor **Osler**'s volume on the *Principles and Practice of Medicine*.[1] Since the publication of the first edition this work has steadily grown in favour. Every few years, and recently annually during the past thirteen years, the author has produced what is little less than a complete reference book to the progress of the medical science of the whole world. To say this is to say a great deal; but more is due to Professor Osler, for no publication shows more admirably than does this one the personal influence of a great medical teacher upon the earnest workers, clinical and pathological, who have gathered around him. We know of no work on medicine which is more stimulating to the reader than the various editions of this volume, which have steadily continued to reflect the advances made by workers in this country, in America, and on the Continent. It may be, and probably is, true that the earlier students of medicine will be dismayed by finding that with each new edition there is an increasing tendency to fill the volume with more and more references to work which is new and in many cases insufficiently tried; such a student would probably be more satisfied with a less ambitious treatise, which contented itself with bringing before his notice facts and methods which have been long and well established. Further, the general practitioner will regret that he does not get more practical guidance in the symptomatic treatment of various disorders, which, defying all attempts at elucidation, continue nevertheless to be exacting puzzles to all practically-minded physicians; he will see no advantage in perusing much that is to be found in the new first section—namely, that dealing with the effects of animal parasites, including such tropical disorders as trypanosomiasis and kala-azar. Such objections, however, would not be sound, for no serious student of medicine can afford to ignore any manifestation of disease whatever the nature of the agent. Moreover, so vast has the interest of the British nation become in countries having every kind of climate, that it is necessary that medical students should arm themselves with a thorough knowledge of the diseases which arise in them, for they may continue or recur at home. Supposing, however, that the mere inability to find time for such study was sufficient reason for a medical student to ignore the accounts of rarer diseases, he will still be amply repaid by making this volume his constant guide. He will find very few instances in which Professor Osler fails to put his finger on difficulties which are practical and important. No doubt he will discover that a single writer is unable to give equal attention to all the branches of modern medicine, but Professor Osler himself, recognizing this fact, has not hesitated to invite the assistance of workers whose opportunities of study in various directions have been greater than his own. No writer has succeeded more admirably than Professor Osler in showing that progress in medicine is intimately associated with advance in anatomical, physiological, and pathological knowledge; and if the more conservative reader finds that prominence is given to such advances more than is usual, he must also admit that Professor Osler has succeeded in presenting a textbook which preserves much that is highly treasured amongst us, for he has, whenever practicable, endeavoured to put before the reader pictures of the various clinical types of disease. One obvious criticism will occur to every one, and that is that frequently Professor Osler, in his desire to give the latest information—for example, of treatment—exposes himself to the charge of being not so much a guide as to the best that can be done for each disease, as to being a reviewer of what is most recent; we might like to know, for example, what Professor Osler himself thinks of the value of a polyvalent serum in the treatment of scarlet fever. To expect any single writer to try all and sundry methods of treatment and to pass a verdict upon them would, however, be manifestly absurd; and we must be grateful for the information that in other observers' hands the mortality in scarlet fever has by such methods been reduced from 14.5 per cent. to 8 per cent. To turn attention to the sixth edition is, however, perhaps, more our duty than to discuss the particular methods which Professor Osler has adopted in writing this treatise, especially when such methods have long enough ago shown that he has supplied a great want. The section dealing with typhoid fever, which has been justly credited as being one of the best accounts in English of this disease, has been largely rewritten, and maintains its high character. The desquamation of scarlet fever begins at an earlier period than Professor Osler would lead us to expect, for a branny appearance on the cheeks and neck may occur much earlier than the seventh or eighth day—a time when the more obvious desquamation on other parts of the body is visible. The account given of pneumonia is especially interesting, because the writer reveals—for the first time, we believe, in this treatise—the methods of his class teaching, whereby he fires enthusiasm in his pupils and secures to his readers admirable analytical reports on diseases which came to his notice at Johns Hopkins Hospital. A useful section on diarrhoeal disease in children shows the relationship of these disorders to the bacillus discovered by Shiga as a cause of bacillary dysentery, the organisms in both groups of disease being nearly identical; the value of sterilization of feeding bottles, etc., in the prevention of diarrhoea of children comes with all the more force by reason of the investigations carried out through the liberality of Mr. Rockefeller. In the discussion of pulmonary tuberculosis it would have been well to refer to the various stages of disease as defined by Turban of Davos; not only is it important to know whether there is ulceration and excavation of the lungs, but it is necessary for prognosis to know the extent of disease as shown by the number of lobes involved. The modest success of L. Brown in treating the disease with tuberculin has received great support at the hands of German workers, notably of Petruschky. The sections dealing with gout and diabetes mellitus are especially valuable, and we would commend to the reader the paragraph dealing with Cohnheim's recent investigation on the interaction of pancreatic and muscle extracts in glycolysis, an observation which at present, at any rate, has not been confirmed by other observers. No mention is made of the occurrence of mucous colitis as a sequel to appendicitis, but the reports from the various London hospitals discussed recently before the Royal Medical and Chirurgical Society show its possibility. As an example of Professor Osler's method of turning to practical account in the elucidation of disease the advances in anatomy, we would commend to the reader the description of Stokes-Adams's disease and the bearing of the observation of His upon the existence of a narrow band of muscular tissue connecting auricle and ventricle which has hitherto been denied. Nor have the experimental investigations of Sherrington and Grünbaum escaped Professor Osler's observation; the motor area of the cortex lies entirely in front of the fissure of Rolando, and the observations of Cushing in men have confirmed these results. Some confusion is caused in the section dealing with tabes dorsalis by the use of the term "dorsal" when the term "posterior" might, as is usual, have been used to describe the various columns of white matter lying between the posterior horns of the grey matter of the cord. It is not necessary to describe at greater length this admirable treatise; we conclude by congratulating Professor Osler upon the value of this last edition, and trust that he will, in his new capacity as Regius Professor of Medicine in the University of Oxford, maintain the high character of this most helpful publication.

---

[1] *The Principles and Practice of Medicine.* By William Osler, M.D., F.R.S., Regius Professor of Medicine, University of Oxford: Honorary Professor of Medicine, Johns Hopkins University. Sixth edition. London: Sidney Appleton; and New York: D. Appleton and Co. 1905. (Demy 8vo, pp. 1156, charts and illustrations. 21s.)

Roberts's Theory and Practice.

Whilst extending a hearty welcome to Dr. Osler's treatise on medicine, which has proved so acceptable to the medical profession, we are bound to confess also that we turn with feelings of the greatest satisfaction to the tenth edition of Dr. ROBERTS's well-known treatise, *The Theory and Practice of Medicine*.[2] It is now eleven years since the last edition of this work appeared, and Dr. Roberts has chosen a most suitable period at which to publish not a mere new edition, but what is virtually a new book; so radical have been the changes made and so very modern the treatment of the subject that those to whom Dr. Roberts's work has been a constant guide may well feel that the author has accomplished a stupendous task. To those who like to find treatment discussed with full regard to the needs of the busy practitioner Dr. Roberts's book will, as hitherto, prove most acceptable. To have combined with these practical advantages a complete account of all the more modern pathological generalizations which have so largely revolutionized medicine is, indeed, a great and important work. Dr. Roberts has essayed the duty with excellent results, and the youngest and most severely critical medical student will find practically a complete digest of all the latest discoveries in the pathology of disease. To the teacher of medicine these two volumes will prove invaluable, and probably will arouse feelings of laudable envy, for Dr. Roberts's large experience of disease, derived from many years' work at a general and special hospital in London, as well as at the Liverpool Northern Hospital, has given him such ample practical knowledge that he is able to weigh judiciously the importance from the clinical standpoint of the great advances in modern pathological inquiry. Too often, we fear, the writers of treatises on medicine forget that their works are mostly used by medical students. To those of us who have not yet forgotten the utter dismay with which we faced the ponderous tomes which were to become our companions during clinical work, the opening pages of this treatise will show how well the writer has avoided the charge of suddenly plunging his readers into an apparently bottomless pit of clinical experience. We commend the wisdom with which he has defined the meaning of words which otherwise would puzzle the beginner, and he has spared no pains to give a short but adequate account of the more common pathological principles upon which medicine is based. Nor does Dr. Roberts scruple to still make use of expressions which to the ultra-scientific mind would suggest too great a respect for those dark periods in medical study in which pathology had not shed as much light as it has at the present day. The use of the terms "mere" or "simple fever," and "impairment or want of tone," may cause a feeling of hesitancy on the part of the readers, but no practical physician, even when blessed with the aid of the clinical laboratories which now form part of our hospitals, will fail to admit that these expressions, though they are a confession of ignorance, have yet a use in medicine. We should be more inclined to object to the retention of many rather antiquated and inadequate illustrations which, though carefully chosen from the most classical and approved sources, hardly convey to the reader correct impressions in the light of modern observation. This and a further defect of too great a fondness for long numbered lists of causes may well be excused on the ground that the writer and his many readers in the past have not found them objectionable. Amongst the many examples of the way in which Dr. Roberts has modernized his treatise, we may call attention to the eminently satisfactory account of blood diseases, renal disease, yellow fever, diabetes mellitus, gout, Graves's disease, and of the numerous investigations, both clinical and pathological, which have resulted in converting cholelithiasis into a disease of infectious origin, and which have made the pancreas and its disorders a subject of first-class importance. We know of few accounts of the study of the diseases of the nervous system which are at the same time replete with the newer investigations such as those of Mott, Sherrington, and others, and yet give full prominence to the clinical investigations of Hughlings Jackson, Gowers, Bastian, and others who have helped to make modern neurology a study of the most entrancing character. When we turn to these subjects, in which Dr. Roberts has had such a varied experience that he has long been recognized as an expert, we find the teacher at his very best. We would commend to the reader the sections dealing with lung and heart disease, with abdominal disease, and with the various pathological changes met with in the mediastinum, neoplasms, aneurysms, etc., which prove such difficult subjects to the student, young or old. Nothing could be more admirable than the way in which the writer deals with the subjects of prognosis and treatment of pulmonary tuberculosis, and if we differ from the opinions set forth as to the great importance of heredity in pulmonary tuberculosis or as to the occurrence of a primary tuberculous laryngitis, we are reminded by a brief but effective account of von Behring's theories as to the origin of tuberculosis that Dr. Roberts is not merely led by clinical consideration but holds opinions which have been thoroughly weighed in the light of recent investigation. Space prevents us from calling further attention to this admirable treatise, and we conclude by once more commending it to medical students and to practitioners as a most reliable treatise on modern medicine, and one which reflects very truly contemporary British opinion.

---

[2] *The Theory and Practice of Medicine.* By Frederick T. Roberts, M.D., B.Sc., F.R.C.P., Emeritus Professor of Medicine and Clinical Medicine at University College, etc. Tenth Edition. London: H. K. Lewis. 1905. In Two Volumes. (Demy 8vo, pp. 1396. 26s.)

CLINICAL MANUALS.

The well-known manual, *Clinical Methods*,[3] by Messrs. Hutchison and Rainy, now appears in a third edition, which is thoroughly justified by its popularity and by the care taken by the authors to keep it thoroughly abreast of modern developments in clinical investigation. This task is no light one, for so numerous are the advances made in this department that much time must have been required to put them all to the test, and prove their permanent value and capability of clinical application. It has been found necessary to make considerable alterations and additions, but fortunately this has not involved an addition of more than twenty pages. Among the more recently developed methods of investigation, sphygmomanometry occupies a chief place, and the authors have taken the opportunity of discussing the advantages and drawbacks of the various instruments used for this purpose. The technicalities of staining blood films are well described, as well as the modes of examination for trypanosomata and the Leishman-Donovan bodies. The chapter on clinical bacteriology has been revised, and in parts wholly rewritten by Dr. James Beattie. Probably the authors feel that the clinical value of opsonic tests in the therapeutic application of tuberculin and other bacterial derivations is not sufficiently proved to be included. In view of the recent work of Sherrington and Grünbaum, the disposition of the motor areas, as indicated on page 414, needs further revision. We heartily congratulate the authors on the completeness of this edition, and commend it to our readers as being one of the most useful books of its kind.

As we pointed out in the review of the third edition (British Medical Journal, March 4th, 1905, p. 481), Professor Krehl's book on pathology[4] is a valuable aid to the interpretation of clinical phenomena in the light of physiological research. The work has now been made accessible to readers unacquainted with German by Dr. A. W. Hewlett. His translation, under the title of *The Principles of Clinical Pathology*, presents the material of the German work in a slightly abbreviated form, and contains a few additions, enclosed within parentheses, for which the translator is responsible. With these alterations we have no fault to find. The omission of a large number of the copious German references contained in the original also seems justifiable on the ground that the translation is mainly intended for those to whom these references would be unintelligible. The passages of Dr. Hewlett's translation which we have compared with the original text are carefully done and accurately represent the sense of the author.

NOTES ON BOOKS.

The Treatment of Cancer.

When two observers approaching a subject from different directions arrive at an identical conclusion the impression produced on the minds of others must be strong. This is what has happened with regard to the use of trypsin as an agent for arresting the growth of cancer. Dr. J. A. Shaw-Mackenzie has explained his theory and conclusions briefly in our columns, and has stated them more fully in a small work on the *Nature and Treatment of Cancer*.[5] The most interesting parts of the book are the chapters in which his own theory and that of Dr. Beard as to the probable action of the pancreatic ferments on cancer are discussed, and certain cases reported in which the administration of trypsin subcutaneously and by the mouth appeared to bring about arrest and retrogression of recurrent cancerous growths. Dr. Shaw-Mackenzie states his arguments and conclusions temperately and modestly, and the results of the experiments reported by Dr. Beard at p. 55 afford, so far as they go, confirmation of the theory that trypsin has a striking disintegrating action on cancer.

Mr. Reginald Harrison has printed in a pamphlet his Mitchell Banks Memorial Lecture entitled Retrospects and Prospects relating to University Life.[6] The pamphlet is illustrated by a photogravure reproduction of the presentation portrait of Sir William Mitchell Banks painted by the Hon. John Collier.

MEDICAL AND SURGICAL APPLIANCES.

Holdfast Enema.—Messrs. W. H. Bailey and Son, Oxford Street, send us an enema for the use of travellers; it is made of red rubber, and fits into a small enamelled basin, which is packed in an ordinary sponge bag. The special novelty about the enema is the application to the end to be placed in the basin of the principle of the sucker so dear to, at any rate, a former generation of schoolboys. The end to be placed in the solution has a hollow indiarubber disc, and, when this is pressed against the bottom of the basin, it adheres so firmly that the basin may be lifted up without detaching it. The device is simple, it overcomes an annoying difficulty, and we see no reason why it should not be adopted generally, and not by travellers only.

The Medical Profession in Italy.—According to *Il Policlinico* the total number of medical practitioners in Italy is 21,104, of whom 7,035 labour in their vocation in large cities, and 14,068 in the provinces. The places where doctors most do congregate are Naples and Rome. The city of Naples has 1,107, the province 290; there are 763 in the Eternal City itself, and 375 in the province of Rome. Milan has 935, of whom 635 practise in the city; Turin has 573 and the province 338. The province in which the number of practitioners is smallest is that of Sondrio, which has 65.

---

[3] *Clinical Methods.* By Robert Hutchison, M.D., F.R.C.P., and Harry Rainy, M.A., F.R.C.P.Edin., F.R.S.E. Third Edition. London: Cassell and Co., Limited. 1905 Fcap. 8vo, pp. 646, 150 illustrations. 9 coloured plates. 10s. 6d.)

[4] *The Principles of Clinical Pathology.* By Dr. Ludolf Krehl. Authorized translation from the third German edition by Albion Walter Hewlett, M.D. London: J. B. Lippincott and Co. 1905. (Demy 8vo, pp. 504. 21s.)

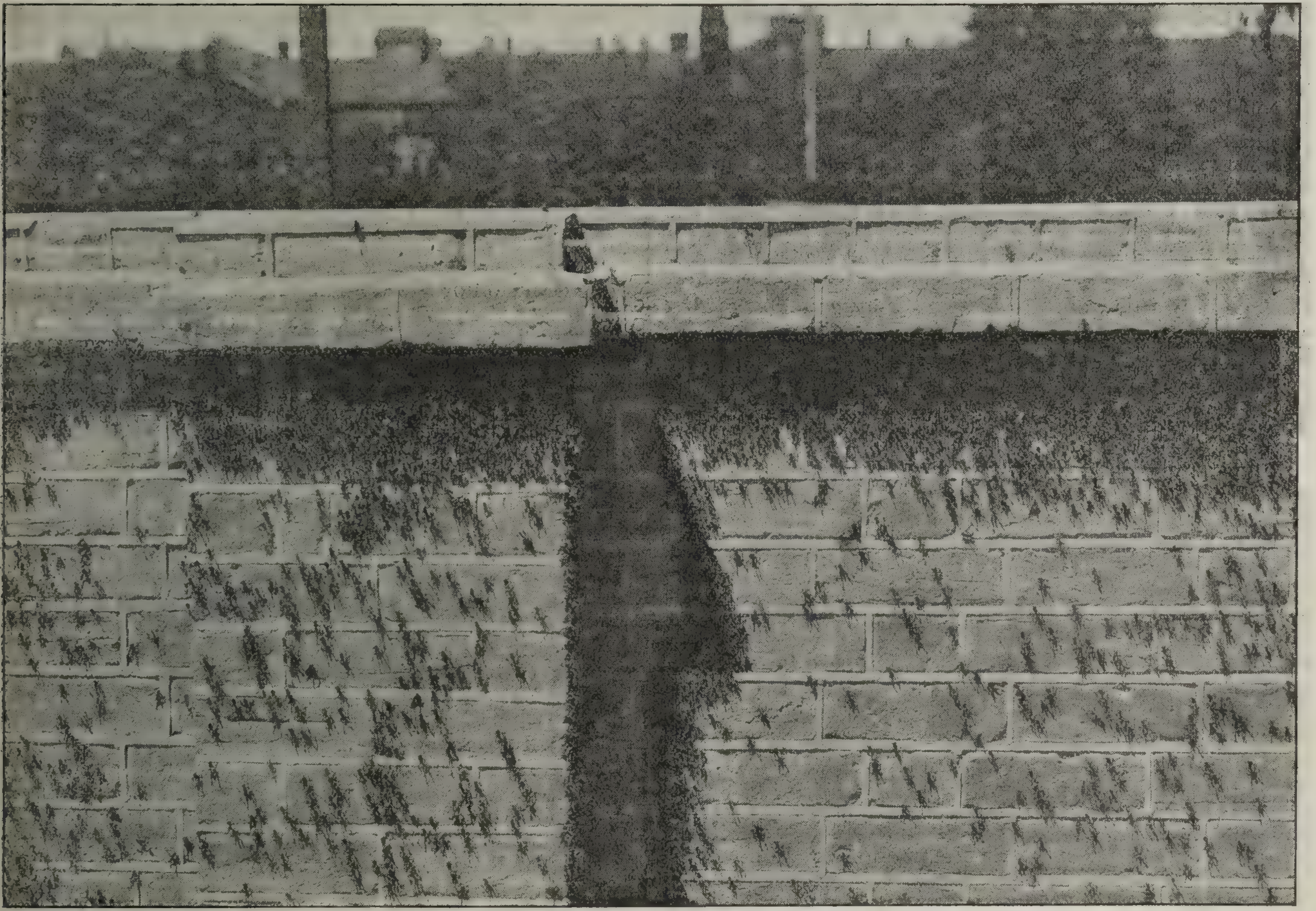
[5] *The Nature and Treatment of Cancer.* By J. A. Shaw-Mackenzie M.D.Lond. Second Edition. London: Baillière, Tindall, and Cox 1905. (Cr. 8vo, pp. 91. 2s. 6d.)

[6] British Medical Journal, December 23rd, 1905, p. 1625.

Nova et Vetera.

A PLAGUE OF LOCUSTS.

By mails just received we learn that at the beginning of December the inhabitants of Kimberley were suffering from an invasion of locusts, millions upon millions of which roll on in huge armies, eating up every green thing, even every blade of grass, as they go. Everywhere they are to be found: on the public roads, covering the walls of houses, creeping in at windows and doors. Our illustration, which is reproduced from a photograph taken on the spot and kindly lent to us by Mr. Nelson Hardy, shows them in millions upon the hospital wall, from which it is but a step, as it were, to the hospital garden. It is no great consolation to sufferers from their devastations to know that individually these insects have beautiful wings, which when they are flying in swarms give them the appearance of a shower of snow.



Locusts on the Wall of the Kimberley Hospital.

According to the *Encyclopaedia Britannica*, in its general acceptance the term "locust" is strictly applicable only to certain insects of the order *Orthoptera*, family *Acrydiidae*. With the term "locust" is universally associated the idea of a very destructive insect, and, therefore, many orthopterous species that cannot be considered true locusts, have had the term applied to them In North America it has even embraced certain *Hemiptera-Homoptera* belonging to the *Cicadidae*, and in some parts of England cockchafers are so designated. In Europe and the greater part of the Old World the best known migratory locust is that which is scientifically termed *Pachytylus migratorius*. It is to this species that the numerous records of devastations in Europe mainly refer, but it is probably not less destructive in many parts of Africa and Asia. It is considered probable that the arid steppes of Central Asia are the home of the insect; the area of permanent distribution is enormous, that of occasional distribution still greater. The former area extends from the parallel of 40° N. in Portugal, rising to 48° in France and Switzerland, passing into Russia at 55°; thence continuing across the middle of Siberia, north of China and Japan; thence south to the Fiji Islands, to New Zealand and North Australia; thence again to Mauritius and over all Africa to Madeira. As regards exceptional distribution, the insect occasionally appears in the British Isles, where it has been seen as far north as Edinburgh; it also sometimes appears in Scandinavia, and it has probably been seen up to 63° N. in Finland.

Of the biology of the locust it need only be said that the females excavate holes in the earth wherein the eggs are deposited—regularly arranged in a long cylindrical mass enveloped in a glutinous secretion. The young larvae hatch and at once enter on their career of destruction. Even when their wings are still rudimentary their locomotive powers are extensive and their capacity for mischief is very considerable, for their voracity is great. When winged and perfect the migratory instinct becomes developed, and their powers of destruction are immense. The distance particular swarms may travel depends upon the strength of impulse, the quantity of food, and many other causes. A thousand miles may be taken as a moderate estimate; sometimes it is very much more. When an extensive swarm temporarily settles in a district, all vegetation rapidly disappears, and then hunger urges the insects on another stage. Such is their voracity that it has been tolerably well ascertained that the large Old World species, although undoubtedly phytophagous, are often compelled by hunger to attack at least dry animal substances, and even cannibalism is said to be the outcome of a failure of other food.

The finest description of a plague of locusts is that given by Cardinal Newman in *Callista*. He had clearly been at great pains to "get up" the subject, and his account is confirmed by scientific authorities. The picture is drawn by a master hand, and some readers to whom it may be unknown, will, we think, be glad to have it brought under their notice.

The description is of a visitation in a Roman colony on the northern coast of Africa.

"The plague of locusts, one of the most awful visitations to which the countries included in the Roman empire were exposed, extended from the Atlantic to Ethiopia, from Arabia to India, and from the Nile and Red Sea to Greece and the North of Asia Minor. Instances are recorded in history of clouds of the devastating insect crossing the Black Sea to Poland and the Mediterranean to Lombardy. It is as numerous in its species as it is wide in its range of territory. Brood follows brood, with a sort of family likeness, yet with distinct attributes.

* * * * * *

"Even one flight comprises myriads upon myriads passing imagination, to which the drops of rain or the sands of the sea are the only fit comparison; and hence it is almost a proverbial mode of expression in the East (as may be illustrated by the sacred pages to which we just now referred), by way of describing a vast invading army, to liken it to the locusts. So dense are they, when upon the wing, that it is no exaggeration to say that they hide the sun, from which circumstance, indeed, their name in Arabic is derived. And so ubiquitous are they when they have alighted on the earth, that they simply cover or clothe its surface.

"This last characteristic is stated in the sacred account of the plagues of Egypt, where their faculty of devastation is also mentioned. The corrupting fly and the bruising and prostrating hail had preceded them in that series of visitations, but *they* came to do the work of ruin more thoroughly. For not only the crops and fruits, but the foliage of the forest itself, nay, the small twigs and the bark of the trees are the victims of their curious and energetic rapacity. They have been known even to gnaw the door-posts of the houses. Nor do they execute their task in so slovenly a way that as they have succeeded other plagues, so they may have successors themselves. They take pains to spoil what they leave. Like the harpies, they smear every thing that they touch with a miserable slime, which has the effect of a virus in corroding, or, as some say, in scorching and burning it. And then, as if all this were little, when they can do nothing else, they die—as if out of sheer malevolence to man, for the poisonous elements of their nature are then let loose and dispersed abroad and create a pestilence; and they manage to destroy many more by their death than in their life.

* * * * * *

"And now they are rushing upon a considerable tract of that beautiful region of which we have spoken with such admiration. The swarm to which Juba pointed grew, and grew till it became a compact body, as much as a furlong square; yet it was but the vanguard of a series of similar hosts, formed one after another out of the hot mould or sand, rising into the air like clouds, enlarging into a dusky canopy, and then discharged against the fruitful plain. At length the huge innumerous mass was put into motion, and began its career, darkening the face of the day. As became an instrument of divine power, it seemed to have no volition of its own; it was set off, it drifted, with the wind, and thus made northwards, straight for Sicca. Thus they advanced, host after host, for a time wafted on the air, and gradually declining to the earth, while fresh broods were carried over the first, and neared the earth, after a longer flight, in their turn. For twelve miles did they extend from front to rear, and their whizzing and hissing could be heard for six miles on every side of them. The bright sun, though hidden by them, illumined their bodies, and was reflected from their quivering wings; and as they heavily fell earthward they seemed like the innumerable flakes of a yellow-coloured snow. And like snow did they descend—a living carpet, or rather pall—upon fields, crops, gardens, copses, groves, orchards, vineyards, olive woods, orangeries, palm plantations, and the deep forests, sparing nothing within their reach, and, where there was nothing to devour, lying helpless in drifts, or crawling forward obstinately, as they best might, with the hope of prey. They could spare their 100,000 soldiers twice or thrice over, and not miss them; their masses filled the bottoms of the ravines and hollow ways, impeding the traveller as he rode forward on his journey, and trampled by thousands under his horse-hoofs. In vain was all this overthrow and waste by the roadside; in vain their loss in river, pool, and watercourse. The poor peasants hastily dug pits and trenches as their enemy came on; in vain they filled them from the wells or with lighted stubble. Heavily and thickly did the locusts fall; they were lavish of their lives; they choked the flame and the water, which destroyed them the while, and the vast living hostile armament still moved on.

"They moved right on, like soldiers in their ranks, stopping at nothing, and straggling for nothing; they carried a broad furrow or wheel all across the country, black and loathsome, while it was as green and smiling on each side of them and in front, as it had been before they came. Before them, in the language of prophets was a paradise; and behind them a desert. They are daunted by nothing; they surmount walls and hedges, and enter enclosed gardens or inhabited houses. A rare and experimental vineyard has been planted in a sheltered grove. The high winds of Africa will not commonly allow the light trellis or the slim pole; but here the lofty poplar of Campania has been possible, on which the vine plant mounts so many yards into the air that the poor grape-gatherers bargain for a funeral pile and a tomb as one of the conditions of their engagement. The locusts have done what the winds and lightning could not do, and the whole promise of the vintage, leaves and all, is gone, and the slender stems are left bare. There is another yard, less uncommon, but still tended with more than common care; each plant is kept within due bounds by a circular trench round it, and by upright canes on which it is to trail; in an hour the solicitude and long toil of the vine-dresser are lost and his pride humbled. There is a smiling farm; another sort of vine, of remarkable character, is found against the farmhouse. This vine springs from one root, and has clothed and matted with its many branches the four walls; the whole of it is covered thick with long clusters which another month will ripen; on every grape and leaf there is a locust.

* * * * * *

"Nor have they any reverence for the villa of the civic decurion or the Roman official. The neatly arranged kitchen-garden, with its cherries, plums, peaches, and apricots, is a waste; as the slaves sit round, in the kitchen in the first court, at their coarse evening meal, the room is filled with the invading force, and news comes to them that the enemy has fallen upon the apples and pears in the basement, and is at the same time plundering and sacking the preserves of quince and pomegranate, and revelling in the jars of precious oil of Cyprus and Mendes in the storerooms. They come up to the walls of Sicca, and are flung against them into the ditch. Not a moment's hesitation or delay; they recover their footing, they climb up the wood or stucco, they surmount the parapet, or they have entered in at the windows, filling the apartments, and the most private and luxurious chambers, not one or two like stragglers at forage or rioters after a victory, but in order of battle, and with the array of an army. Choice plants or flowers about the *impluvia* and *xysti*, for ornament or refreshment, myrtles, oranges, pomegranates, the rose and the carnation, have disappeared. They dim the bright marbles of the walls and the gilding of the ceilings. They enter the triclinium in the midst of the banquet; they crawl over the viands and spoil what they do not devour. Unrelaxed by success and by enjoyment, onward they go; a secret mysterious instinct keeps them together, as if they had a king over them. They move along the floor in so strange an order that they seem to be a tessellated pavement themselves, and to be the artificial embellishment of the place; so true are their lines, and so perfect is the pattern they describe. Onward they go, to the market, to the temple sacrifice, to the baker's stores, to the cook shops, to the confectioner's, to the druggist's; nothing comes amiss to them; wherever man has aught to eat or drink, there are they, reckless of death, strong of appetite, certain of conquest."

The International Medical Congress.—The Pacific Steam Navigation Company will issue first-class tickets to Lisbon and back to members and their wives journeying to the International Medical Congress at Lisbon at the rate of £10 16s.; single tickets will be issued at £6 16s., an abatement of 15 per cent. on the tariff rate of £8. The company's twin screw R.M.S. *Oropesa*, 5,303 tons, is due to leave Liverpool at noon on April 12th, and will land passengers at Lisbon on the morning of Wednesday, April 18th, the day before the Congress opens. On the voyage from Liverpool, which occupies five and a half days, the steamer visits the ports of La Rochelle-Pallice, four miles from La Rochelle; Corunna, the burial place of Sir John Moore; Carril, and Leixoes (for Oporto).

A MODEL LADIES' HEALTH SOCIETY.

The annual report of the Ladies' Public Health Society, in union with the Manchester and Salford Sanitary Association, is a very interesting and instructive document. From the sketch it contains of the general outlines of the work of the Society, it appears that its work extends over certain of the poorer parts of Manchester and Salford, which are divided into districts, twenty-three in all, with defined boundaries, in each of which there lives a paid worker called a health visitor. Each of the districts is under the supervision of one or more voluntary workers called lady superintendents. There are twenty-three health visitors who work throughout the municipalities of Manchester and Salford. The Society is aided financially by the Corporation of Manchester, which pays the salaries of nine visitors, and the Corporation of Salford, which pays the salaries of four visitors. The salaries of the remaining visitors are paid out of the income of the Society, derived from voluntary contributions and donations.

The voluntary helpers superintend, in conjunction with the medical officers of health, the work of the visitors, hold weekly meetings for women in their districts and visit in the districts. The visitors spend their time in visiting the dwellings in their district. Each visitor has instructions to visit a house where there is a case of consumption, to see that the disinfecting of the house is carried out properly. This she does, showing the inmates how the sanitary authorities' orders are to be carried out, often herself helping in the work.

Again, the visitor is instructed to go to a house where there is a young baby. She has then to see whether or not the baby is fed and clothed properly, and at the same time she observes the condition of the house, to see whether it is in a clean, well-ventilated, and sanitary condition. A systematic visitation of all babies born in the district is maintained until they are a year old. When not employed in any such special work, the visitors continue the house-to-house visitation. Instances of overcrowding, stopped drains, structural defects, are reported to the authorities at the Health Office. The visitors notice the condition of the walls of the dwellings and outhouses, and in very many instances get the tenants to whitewash their walls. Lime and brushes are supplied free by the town for this purpose, and are kept at the houses of the visitors. Dr. Niven states that during the year the health visitors have been enabled to get 8,984 rooms, yards, etc., thoroughly cleansed and whitewashed. The system links individual voluntary effort with municipal work, and herein lies the secret of its strength. If ordinary means of persuading and educating to a right course of action fail, there is the power of the civic authority to which to appeal. The work of making the cottage homes healthy can only be effective by co-operation with the sanitary authorities and the people themselves. The Society occupies the ground midway between these two influences. It has been said that a people cannot be made moral, it is very true that they cannot be made healthy, by law. The law can do a great deal, and the Society endeavours to supplement its deficiencies.

The training of the women of the poorer classes to become good wives and mothers is regarded as a large and essential part of the Society's work. Four of the visitors were given special preventive work during the summer by the medical officer of health in connexion with the prevalence of diarrhoea, the percentage of deaths occurring from this cause in the poorer districts of Manchester being very high. The selected visitors were directed to make special inquiries as to the causes of diarrhoea, with a view to such remedial action as might be possible. Dr. Niven had stated in his report for the year that "there can be no doubt that food is the medium of transference," consequently an exhaustive inquiry was necessary not only as to the character and condition of the food before it entered the house, but as to every circumstance by which the food might be infected after it reached the house.

To each selected visitor was assigned a certain number of houses in the districts, the worst area being chosen in each case. They examined all these houses carefully inside and outside and reported concerning the sanitary conditions, these, where necessary, being put right with as little delay as possible. In one district, of 100 houses visited, 52 were found to be insanitary. The four visitors continued to visit the chosen houses as frequently as possible, often daily, in order to make a continual observation and report as to conditions, in order to get these remedied when defective. Among the conditions investigated were the kind of food given, the manner of its storage, and, in the case of artificially-fed infants, the kind of bottle used, and how it was cleaned. All the conditions which might be supposed to bear more directly on the production of summer diarrhoea were inquired into and reported upon. Cleanliness and proper food, properly prepared, are the greatest factors in its prevention. As a direct result from this special work, a good deal of overcrowding has been stopped, and few or no deaths from this special cause took place within the selected areas.

The fact that the Society is chiefly engaged in preventive work of this kind is thought to account for the lack of sufficient interest in its work. This withholding of sympathy is evidenced by the difficulty in obtaining money and helpers. It is impossible for those who know the value of the work to understand how it is that, in a huge city like Manchester, enough ladies cannot be found anxious or even willing to help, nor how it is that there should be any scarcity of money. The Committee think, were the objects of the Society thoroughly grasped, its work would appeal strongly to every woman, however sentimental she might be, and certainly to every practical man.

People in general are more ready to remove an evil than to prevent one. In the one case the results are tangible, in the other they are vague and uncertain of proof. People will gladly give money and help, for instance, to get a child into a hospital to have its eyes put right, and to pay for the spectacles it may require, but they will not give the same amount of time and money and service to provide that such child in the future shall not require any such expenditure. People do not realize that remedial measures, excellent and necessary though they are, are of small use in building up a healthy, happy race of people. The Committee appeals to the people of Manchester and Salford to aid in banishing ignorance, remembering that so long as the poorer classes in the community are suffered to remain ignorant and unhelped, so long the community fosters an evil which, directly or indirectly, certainly affects the well-being of all classes. By lessening ignorance and prejudice, infectious disease and the danger arising therefrom is lessened.

Again, by caring for the health of the babies the future need for hospitals is lessened, and a healthier race in the future assured. An improperly nourished child will pay the penalty in the future, not only in its own person, but in its children. The Society, by its method of becoming acquainted with the people and getting to know them as friends, has special opportunities of seeing things that need remedying, and can judge whether it is the province of the tenants themselves, the landlord or the municipal authorities to apply the remedy. One woman said that she had never had her bedroom window shut night or day since her lady superintendent had given an address on "fresh air."

The addresses given at the mothers' meetings are very well received and the advice contained in them frequently taken. In one district addresses on the following subjects were given during the year: "Hints upon nursing—for example, on making poultices; changing sheets upon an invalid's bed; what to do in cases of illness until the doctor comes; disinfecting after fever, etc., the cutting out and making of clothes, especially garments for children, giving patterns and cost of each when made; on the preparation of food, giving recipes for simple, wholesome, inexpensive dishes." Instruction on the effect of alcohol is, and has always been, a part of the work, and the report of the Committee on Physical Deterioration stated that the Society was able to "give special attention to saving young mothers from the temptation to drink." In connexion with the housing question, the visitors come into contact, in visiting, with a great evil, the practice of letting a house in single furnished rooms to tenants. These rooms are frequently overcrowded and very unhealthy. The furniture and bedding are handed on from tenant to tenant, often in a filthy condition. This evil is much worse in some districts than others. In some parts of the town the trouble is serious, and it is hoped that steps will soon be taken to remedy the existing state of things.

Though it is the practice of the Society to avoid giving alms as far as may be, yet the constant visiting maintained renders the visitors singularly well able to judge where relief is really necessary and where it will do permanent good. Through seeing the people at all times and seasons they can distinguish the deserving from the undeserving. The really deserving poor will very often never ask for relief; they have to be sought out and given it. The following extract from a district report will illustrate the sort of help the Society desires to give:

> The thing to do when a mother is found suckling a child on a diet utterly inadequate for herself alone is to give milk to the mother. We have provided some few women in this case with a pint a day with the most excellent results on both mother and child. Incidentally it is educative, as few such women have ever tasted milk in quantity, and very few really believe that it is actually food. If one can ensure that the mother really drinks the milk, it is difficult to see that this form of giving can possibly do harm. One woman, after having it some time, said she did not need to have it given any more as her husband was in work again, and she could get it for herself. That is the sort of woman worth helping in time of need.

The Committee express gratification at the extent with which work on the lines of that of the Manchester and Salford Ladies' Public Health Society is spreading in other towns. The inquiries received are frequent and increasing. In several instances the members of the Committee have visited other towns, by request, and have given accounts of what is being attempted in Manchester.

For the guidance of those who may be stimulated by the success of this Society to establish similar societies in other towns, the rules and regulations of the Manchester and Salford Society are reproduced here.]

OBJECT OF THE SOCIETY.

To popularize sanitary knowledge among all classes.

Means to be Employed.

Personal visitation of districts represented to the Committee as requiring special attention. This in certain cases supplemented by the employment of health visitors.

The formation in those districts of mothers' meetings, where opportunity is given for health and sanitary addresses in plain words, and where this teaching can be followed up and impressed on the women by the ladies who personally know them, and habits of thrift and cleanliness can be encouraged and fostered.

Sanitary lectures by ladies to visitors among the poor and others.

The distribution of sanitary books and tracts, and various other agencies, as they may from time to time present themselves.

Rules.

The business of the Society shall be carried on by a Working Committee, consisting of twelve or more ladies, the Lady Superintendents, Lady Lecturers, and Hon. Treasurer and Secretary, and others.

The Working Committee shall meet on the first Wednesday in each month in order to transact business.

At the Committee meetings four members shall form a quorum.

No rule shall be adopted or altered without notice at a previous meeting.

Occasional meetings shall be held to receive reports from the several districts, to examine the health visitors' reports, and to afford opportunity for friendly intercourse.

The lady collectors are invited to the March and October meetings, at which finance shall be the first subject on the agenda, and they have the right to vote on financial subjects only.

The friends of the Society shall meet annually, in January, when the report of the Committee for the past year shall be read.

The Committee shall in no case incur expenses for which the Society has not the funds.

The salaries shall be paid at the monthly meeting.

The accounts shall be balanced and closed at the end of each year.

A Lady Superintendent shall be provided for each health visitor, and as far as possible each lady superintendent shall be aided by assistants who will thus, by degrees, be trained to the work.

An attendance at eight out of twelve consecutive meetings of the Working Committee is obligatory on its members, and any lady superintendent failing in attendance shall be held liable to have the grant to her health visitor withdrawn unless satisfactory reasons for absence are given.

No additional health visitor shall be engaged unless her salary is guaranteed.

Lady Superintendents must send in their annual report not later than the 30th November.

Rules and Instructions for the Guidance of the Health Visitors.

The health visitors must be approved and engaged by the Committee.

They must live in their district.

They must go through the course of instruction considered necessary by the Committee to fit them for their work.

The health visitors are required to work six hours daily, Saturdays excepted. Each one is required to write a daily report of work done.

They must visit from house to house, irrespective of creed or circumstances, in such localities as their superintendents direct.

They must carry with them the carbolic powder, explain its use, and leave it where it is accepted; direct the attention of those they visit to the evils of bad smells, want of fresh air, impurities of all kinds; gives hints to mothers on feeding and clothing their children; where they find sickness, assist in promoting the comfort of the invalid by personal help, and report such cases to their superintendent. They must urge the importance of cleanliness, thrift, and temperance on all possible occasions. They are desired to get as many as possible to join the mothers' meetings of their districts, to use all their influence to induce those they visit to attend regularly at their respective places of worship, and to send their children to school.

In their daily report they must—

- I. Mention general sanitary state of house visited.
  - (*a*) Number of rooms and number of occupants.
  - (*b*) Presence of bad smells; if present, are they such as to arise from deficient ventilation, or from bad drainage.
  - (*c*) State of the walls and floors.
- II. Report upon general mode of living, especially with regard to personal and general cleanliness.
- III. Report upon the feeding of children, especially of those under two years old.
  - (*a*) Is the baby nursed by the mother, or partly nursed and partly fed by hand? If the latter, state upon what it is fed.
- IV. Report upon any case or cases of illness in the house.
  - (*a*) Nature of disease. If contagious, when and how supposed to have been contracted.
  - (*b*) How many of the family are affected.
  - (*c*) Is there a doctor in attendance? If so, state how far and in what way they have assisted the people in carrying out his orders with regard to sanitary precautions.

LITERARY NOTES.

PROFESSOR KOCH is said to have decided to apply the Nobel prize recently awarded to him to the publication of a complete edition of his scientific writings.

Mr. William Heinemann has in preparation an English translation of the second German edition of Professor von Noorden's *Lehrbuch des Stoffwechsels*, which is now passing through the press in Germany. The translation, which is entitled *A Handbook of Metabolism*, is edited by Dr. Walker Hall of Manchester, and will be published in the spring, as soon as is practicable after publication of the original. The first edition was issued in 1895, and was soon exhausted. In addition to Professor von Noorden, Drs. Magnus Levy, Weintraud, Embden, and others have contributed to the forthcoming volume.

We welcome the resurrection of the *Guyoscope*, which in former years did something to prevent an eclipse of the gaiety of Guy's. It announces its reappearance as follows:

> Once more the *Guyoscope*, like the morning sun, rises resplendent with outstretched wings, to gladden a darkened world with its warmth and light, and the angry seas of censure break impotently on its massive front.

While admitting that the metaphors are a bit mixed, it adds that "the idea is alright (*sic*) anyhow." Our contemporary has renewed its youth very successfully, but we hope it will show its juvenility in other ways than in spelling. "Alright" was, we believe, good Anglo-Saxon, but it is condemned by modern lexicographic oracles as obsolete. The *Guyoscope* in its new incarnation is guaranteed for a run of six consecutive numbers, but, with the editor, we hope that it may exist for a much longer period.

In regard to the quantity of the *i* in "angina," which was referred to under the head of "Problems of Pronunciation" in the BRITISH MEDICAL JOURNAL of December

30th, 1905, an anonymous correspondent quotes against us the verse:

Verum angīna tibi mistum sale poscit acetum,

said to be from the *De Medicina Praecepta Saluberrima* of Serenus "quoted in an old Jesuit Gradus, a splendid old repertoire." We were further referred to Forcellini and Facciolati. We are aware that the former makes the *i* long, and from that great authority it is not unlikely that the customary usage had its origin. In connexion with this subject we may be allowed to reproduce a note which appeared in the JOURNAL of April 7th, 1900:

In a recent number of the *St. George's Hospital Gazette*, Dr. John W. Ogle quotes the narrative of an interesting dream—which, as Byron said, was not all a dream—of the late Archbishop Benson. In 1879 the Archbishop, who kept a diary in which he seems, like Laud, to have recorded his dreams, awoke one morning with a pain in his chest, which had, he says, caused him an odd dream. He dreamt that he had been suffering so severely that Mr. Sharp, his doctor, had been sent for. After examining him the doctor told him he had angīna pectoris. The Archbishop in his dream exclaimed with indignation, "angĭna, angĭna, angĭna, if you please." And he woke repeating "angĭna." He was so struck by his dream that he related it to his family at breakfast. The impression of the dream grew so strong upon him that he said to himself how odd it would be if it were angĭna after all, and if the dream were a relic of some correction upon the ordinary pronunciation which he had found and forgotten. He loked up Forcellini and found angīna. But about a week after the dream he dined in hall at Trinity, sitting at the right hand of the Master; H. A. J. Munro, Professor of Latin in the University of Cambridge, sat next to him. The conversation turned on the death of Arnold, the famous headmaster of Rugby. Munro said to Benson, "Did he not suffer greatly for some hours before he died?" Benson replied, "Yes, he died of angīna pectoris." Munro smiled grimly, and said softly, "Of angĭna, as we now call it." Benson remembered his dream, but did not mention it; he merely said, "Do we? why so?" Munro replied:

There are only two passages where it occurs in verse; one is in Lucilius: "Una angĭna sustulit hora," and the old editors were so persuaded that it was angīna that they spoilt the hexameter itself by altering it to "uno angīna abstulit hora." It occurs also in Serenus Samonicus at the beginning of a line: "Angĭna tum vero," and there, too, the editors changed it into "Tum angīna autem," or something of the kind.

The following communication, addressed to Dr. Ogle by Professor R. B. Clifton, of Oxford, adds further testimony in favour of angĭna:

I have consulted the Rev. A. Walton about "angina," and he has made inquiries from other scholars. They consider the evidence in favour of the short *i*. Dr. Murray, in the new Dictionary, gives both pronunciations, but states that angĭna is correct. He told me he had no doubt about the *i* being short, and that he had specially consulted Professor Robinson Ellis, Corpus Professor of Latin at Oxford, on the subject. You will find the evidence in Lewis and Short's Latin Dictionary. They make the *i* short. The word does not seem to occur often in classical works, at all events in poetry, but it appears in a line of Lucilius quoted by Nonius in *Plautus*, and in Quintus Serenus Samonicus. According to Dr. Murray the last of these three instances is the most conclusive as to the quantity.

In an inaugural address delivered to the Midland Medical Society on November 9th, which appears in the *Birmingham Medical Review* for November, Dr. Frederick Taylor deals with the spleen and its sufferings. He gives an interesting account of the views about that mysterious organ that were held in past times. He quotes Plautus, who makes one of his characters say, "I am done for. I have a splenetic heart (cor lienosum), for now it is bounding." Another complains that his spleen is causing sedition in his economy, while a third says he walks about begirt by his spleen as by a belt, and he feels as if he were carrying twin boys in his belly. It may be conjectured that the last speaker was suffering from malarious enlargement of the spleen. In the fourth century Lactantius refers to the teaching of the doctors that the emotion of joy is in the spleen. Coming to later times, it is interesting, says Dr. Taylor, to note that, although the term "spleen" was generally used as expressive of ill-temper or depression, there are passages in Shakespeare in which it is used with an exactly opposite meaning. Of some thirty times in which the spleen is mentioned, always with reference to emotion, in nearly a fourth of the cases the emotion is joyful; in a somewhat larger proportion, malice or anger, and, in eight cases, excitement or anger. As instances of the first, Dr. Taylor quotes from the *Taming of the Shrew:*

Haply my presence
May well abate the over merry spleen
Which otherwise would grin into extremes.

In *Troilus and Cressida* Ulysses represents Achilles as saying:

I shall split all
In pleasure of my spleen.

Again in *Measure for Measure* Isabel speaks of angels weeping:

Who with our spleens
Would all themselves laugh mortal

As examples of the use of the term "spleen" to express hate, we have Wolsey saying to Queen Catherine in *Henry VIII:*

I have no spleen against you.

The Cardinal also describes Anne Boleyn as a "spleeny Lutheran." Brutus in *Julius Caesar* says:

You shall digest the venom of yr spleen
Though it do split you.

Of its use as denoting excitement, we have Worcester in *King Henry IV* speaking of

A harebrained Hotspur, governed by a spleen.

In *King John* we find:

Oh, I am scalded with my violent motion
And spleen of speed to see yr Majesty.

In Molière's *Femmes Savantes* Chrysale uses spleen as synonymous with spite:

Il faut qu'enfin j'éclate
Que je lève le masque, et décharge ma rate.

The *Glasgow Medical Journal* for January contains a poem addressed to the Glasgow Eastern Medical Society on the occasion of its annual symposium, December 5th, 1905, by Dr. William Findlay, well known as a writer under the pen-name of "George Umber." The note of conviviality is struck in the first stanza:

Our necks for ae nicht out the tether
An' in the finest social feather,
Ance mair we G.E.M.'s foregether
The table roun',
Wi' story, sang, drinks, smokes an' blether
Our cares to droun.

The poet goes on to justify this in the spirit of the old maxim, *Dulce est desipere in loco.* He thinks that even patients will allow a brief surcease of toil to the hard-worked doctor:

Nor will, I'm sure, the public grudge
This relaxation to their drudge,
Wha at their ca' they own mun drudge
By nicht or day;
But, Lord! let him be loth to budge,
See what they 'll say!

The poet, however, reminds his hearers that they do not always meet to play. At other times

Our Wednesday nichts to science dear
We set apart;
An' grave, discuss, wi' mind austere,
The healer's art.

They "cases show in every guise"; they read "notes, brief or driegh"; "'bout microbes talk in sage conclave"; and do all that medical societies exist for.

An' whiles a slees-town specimen
Frae thorax or frae abdomen
O' ane wham Death short syne did sen'
To his lang hame,
We demonstrate to show the men
'Twas no our blame.

With a graceful tribute to old comrades and friends whose places at the board are now filled by others, and a prayer for the prosperity and well-being of those that still sit at the feast, Dr. Findlay concludes a poem as tenderly humorous in feeling as it is cunningly wrought in form.

DOGS AS SEWERMEN.—At a recent meeting of the French Consultative Committee of Hygiene, Professor Gariel presented a report on a new scheme of drainage for Nice. The most novel feature in the plan is a proposal to use specially-trained dogs to carry from one end of the sewer to the other a rope by which a brush can be drawn for the cleansing of the pipes.

MEDICAL NEWS.

AT a meeting of the Medical Society of London on Monday next, at 8.30 p.m., gynaecological papers will be read.

A MEETING of the Committee of the International Association of Scientific Academies will be held at Vienna on May 30th, 1906.

THE Cross of Commander in the Greek Royal Order of the Redeemer has been conferred on Dr. Adam Politzer, the distinguished professor of otology in the University of Vienna.

THE lectures at the Children's Hospital, Great Ormond Street, will be resumed on Thursday, January 25th, when Mr. T. H. Kellock will give a lecture on abscesses in connexion with spinal caries.

MR. JONATHAN HUTCHINSON, F.R.S., will give the Hunterian Lecture before the Hunterian Society at the London Institution, Finsbury Circus, on Wednesday next, at 8.30 p.m., the subject being Reminiscences of the Hunterian Society.

MR. T. FISHER UNWIN gives notice that he has removed his publishing office from Paternoster Square to 1, Adelphi Terrace, W.C., stating that the centre of the London book-producing world is now to be found somewhere near Charing Cross.

THE annual meeting of the British Electro-Therapeutic Society will be held at 11, Chandos Street, London, W., on Friday, January 26th, when the President, Dr. Donald Baynes, will deliver an address and there will be an exhibition of new appliances.

ACCORDING to the *Law Journal*, the number of legal candidates at the General Election in England, Wales, and Scotland was 160, but about one-third were barristers who have never been more than nominally members of the Bar. Among the candidates were more than 50 K.C.s and over 30 solicitors. The number of medical candidates in England, Wales, and Scotland was, we believe, 20.

MEDICINE IN ART.—An Exposition of the History of Medicine in Art will take place at Berlin on the occasion of the opening of the Kaiserin Friedrich-Haus from the end of February to the middle of April. The Exhibition will comprise original paintings, copper plates, book plates, statues, medals, old illustrated books and manuscripts, relating to medicine and its profession, Roman and other ancient surgical instruments found in Germany, etc. The Exhibition will be under the direction of Dr. Hollander of Berlin (3 Kleiststrasse), to whom communications on the subject should be addressed.

HYGIENIC EXPOSITION AT VIENNA.—An exposition of inventions, appliances, and other objects connected with hygiene, personal and public, will take place under the patronage of the Archduke Leopold Salvator in Vienna in March and April, 1906. Among the members of the Honorary Committee are Professor von Esmarch, of Kiel; Professors von Leyden and Rubner, of Berlin; Professors Freiherr von Eiselberg, Schauta, von Stoffella, Benedikt, and von Wagner, of Vienna; Dr. Neumayer, Deputy Burgomaster, Staff-Surgeon-General Professor Kratschmer, and Professor Schattenfroh, President of the Vienna Institute of Hygiene.

NATIVE HOSPITALS IN BASUTOLAND.—The annual Colonial Office report on Basutoland records a bad agricultural year owing to the destruction of the wheat crop by drought, while the rains also came too late for the maize and millet. Nevertheless it appears to have been an unusually healthy season, epidemic disease being practically non-existent. The Government hospital at Maseru treated 376 in-patients during the twelve months, and over 6,000 out-patients, in addition to the performing of 10,095 vaccinations. When the hospital was first opened there was considerable doubt whether the Basutos would avail themselves of its advantages, but the experiences of the past year show that double the present number of beds could often be filled, and the principal medical officer makes application for the enlargement of the hospital and the appointment of a house-surgeon. The native hospitals at the other four stations, though doing excellent work and affording treatment to over 10,000 patients during the year, are still of the most primitive description, and the Commissioner now recommends a grant for the erection of an efficient and well-equipped hospital in the Leribe district. It is stated that the number of lunatics and lepers is increasing, or, at all events, that such cases are now more frequently brought to official notice, and it is imperative that the question of their custody and treatment should be definitely settled before very long.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—A quarterly Court of Directors of the above Society was held on Wednesday, January 10th, at 11, Chandos Street, Cavendish Square, Sir Thomas Smith, Bart., Vice-President, in the chair. Sixteen members were present. One new member was elected, and one resignation accepted. The secretary reported that he had paid the sum of £603 to the annuitants of the charity as a Christmas present. The sum of £1,376 was voted to be distributed, as half-yearly grants, among the fifty-four widows and nineteen orphans in receipt of grants. Seven letters had been received during the past quarter from widows asking for relief, but this had to be refused owing to the fact that their late husbands had not been members of the Society. Full particulars of the Society, and proposed forms for membership, may be obtained from the Secretary at the offices of the Society. Membership is restricted to registered medical practitioners who at the time of their election are living within a radius of twenty miles from Charing Cross.

SPERMACETI FOR OPERATIONS ON THIN-WALLED CYSTS.—Sixteen years ago the first edition of Professor Pozzi's widely-known *Traité de Gynécologie* appeared. In the paragraphs on the diagnosis, pathology, and treatment of the common labial cyst, developed from the vulvo-vaginal gland, the author dwelt on the difficulties encountered by the surgeon who endeavoured to dissect out the thin cyst wall entire. Laceration of the cyst almost invariably occurred—an accident which increased the operator's difficulty in attaining his aim, whilst the disadvantages of leaving behind a portion of cyst wall are evident. Pozzi advocated a practice which he found very satisfactory for ensuring the total extirpation of the tumour. The cyst is first tapped with a hydrocele trocar, emptied, and washed out with hot water, so as to clear out all traces of its glairy contents. Then spermaceti, recently melted in a water bath, is injected into the cavity of the cyst. When the cyst is fairly distended, ice is placed on the adjacent integuments. At the end of a few minutes the tumour forms a hard mass, which, under local anaesthesia by cold and cocaine, can be readily dissected out entire. Pozzi has of late modified this method ("Kyste séreux de la glande de Bartholin extirpé par le procédé de la solidification préalable," *Annales de Gynéc. et d'Obstét.*, December, 1905, p. 754). He finds that it is more satisfactory to inject the spermaceti heated to 40° C. (104° F.) on the night before operation. It is quite liquid at 104° F., and will solidify satisfactorily inside the cyst, where the temperature is a few degrees lower. By the next day the cyst forms a hard ball, easily extirpated entire.

BRITISH GYNAECOLOGICAL SOCIETY.—The annual dinner of the British Gynaecological Society was held on January 17th at the Café Monico, London, with Dr. W. Alexander of Liverpool in the chair. After the usual loyal toasts had been duly honoured, Dr. T. W. Eden proposed "The British Gynaecological Society," and observed that gynaecology had passed from the chrysalis stage of a doubtful branch of medicine into the butterfly stage of a well-acknowledged branch of surgery. The Chairman, in responding to the toast, claimed that the Society during its existence of twenty-one years had advanced the study of gynaecology. He referred with pride to the fact that its Fellows numbered nearly 500 and announced that they were willing to join with the Obstetrical Society in the amalgamation scheme under which it was proposed to join all the medical societies in London into one Royal Academy of Medicine. The toast of "The Services" was proposed by Dr. H. MacNaughton Jones and acknowledged by Surgeon-General Keogh, Director-General of the Army Medical Department, who, in the course of his remarks, said that he thought the profession did not recognize what an important influence it exerted upon the fighting capacity of the army or upon the success of campaigns. He dwelt on the fact that the medical profession has a definite relation to war, and pointed out that a campaign without a medical department was bound to end in failure. The army had on its force a large number of women, and the best efforts were made to supply the most skilled expert advice possible for them. One of the provisions under the new arrangements included the training of a certain number of gynaecologists, and the hospitals at Aldershot proved that the results had been all that could be desired. Mr. Bowreman Jessett submitted the toast of "The Visitors," to which Dr. F. J. Smith, President of the Hunterian Society, and Mr. Reginald Harrison responded.

British Medical Journal.

SATURDAY, JANUARY 20TH, 1906.

MEDICAL MEMBERS AND CANDIDATES.

THE number of medical men who have been successful at the polls down to Wednesday evening is four. Sir W. J. Collins, who has been successful in West St. Pancras, defeating the old member by a substantial majority, is an ophthalmic surgeon, and has gained a high reputation as an administrator during his long term of office as a member of the London County Council, over which he once presided; he now holds the very important and influential office of Chairman of the Education Committee of the County of London. We had the opportunity of publishing last week a statement of his attitude towards the reforms desired by the British Medical Association; as will have been observed, he is in general sympathy on all points except with regard to vaccination, which he holds should be voluntary, and not compulsory. Dr. G. J. Cooper, who has won the seat in Bermondsey, has represented that division in the London County Council since its formation; he is Chairman of the Public Health Committee of the Council, and therefore enters Parliament with a large experience of public life. He has been for many years engaged in general practice in the district which he is now called upon to represent. Dr. Rutherfoord Harris, who is a member of the medical profession, but is better known as a South African financier, has retained the seat in Dulwich.

Sir George Scott Robertson, K.C.S.I., who has won the seat in Central Bradford, retired from the Indian Medical Service with the rank of Lieutenant-Colonel after a very distinguished career under the Indian Foreign Office. In 1890-1, he travelled in the then almost unknown country of Kaffiristan, making friends of the wild hillmen and bringing back much valuable information on the topography of the country afterwards embodied in his work on *The Kaffirs of the Hindu Kush*. In 1893 he was sent on a political mission to Chitral, and two years later he endured the famous siege of that fortress. He received the honour of K.C.S.I. in recognition of his political services.

Our columns during the last few weeks have borne testimony to the keen interest excited by the controversy for the representation of the Universities of Edinburgh and St. Andrews. The Chairmen of the Medico-Political and Public Health Committees of the British Medical Association have stated that Sir John Batty Tuke has supported the Association on every occasion in which such support has been sought, and we have ventured to point out that, as an M.P., he has shown a practical interest in certain of the reforms desired by the Association, that he has expressed himself in favour of others, and that therefore he was deserving of the support of those medical graduates who think that, more especially in a university constituency, party politics may be subordinated to the wider and deeper issues in which the medical profession is more particularly interested. This view, more strongly stated, has found expression in letters addressed to the Editor, and has been severely criticized by other correspondents. Both Dr. Glover and Professor Sims Woodhead consider that a medical man should be guided solely by his views on the main political issues of the election, in this instance the fiscal question. They urge, therefore, that medical graduates should sink their medical predilections, and vote for Mr. St. Loe Strachey as a Unionist and a Free Trader.

The graduates of the University of London have had during the past week the converse problem to solve. The medical candidate, Sir Michael Foster, is a Liberal and a Free Trader, and many medical graduates, resenting what they regard as a change of attitude on general political issues, have opposed Sir Michael Foster, and have either voted for his opponent as a Conservative or abstained. The poll remains open until Friday afternoon.

The contest for the representation of the Universities of Glasgow and Aberdeen has been complicated by the appearance at the last moment of a Liberal or Radical candidate, Professor A. F. Murison, an Aberdeen graduate, now Professor of Roman Law and Jurisprudence in University College, London. The graduates, therefore, have before them a medical man in Professor W. R. Smith, of London, an educational expert in Sir Henry Craik, K.C.B., and a lawyer in Professor Murison. Professor W. R. Smith, who informs us that he stands as a Liberal Unionist and a Free Trader, is a member of the Council of the British Medical Association, and, as such, well acquainted with the reforms desired by it. The extract from his election address published last week (p. 107) shows that he is favourable to these reforms in principle. Those medical men who believe that they are justified in allowing their vote to be influenced by medical considerations have therefore reason to look upon his candidature with favour.

The return of Dr. Ambrose for West Mayo is unopposed, and he will, we hope, take the lead in asking the new House of Commons to introduce reforms into the Poor-law administration of Ireland, especially with regard to medical relief and the position of dispensary medical officers.

Many members of the profession as of the general public will have seen with regret the defeat of Sir Conan Doyle, M.D., who made a plucky fight as Liberal Unionist candidate for Hawick Burghs. Dr. Rankine Dawson, who stood in the same interest for East Edinburgh, has met with a like fate.

Excluding the Universities, there remain twelve medical candidates for constituencies which have not polled at the time we go to press, for the name of Lieutenant-Colonel A. Hickman Morgan, D.S.O., late R.A.M.C., who is Conservative candidate for the Isle of Wight, should be added to the list previously published. Political prophets seem to think that the chances of six of these candidates are good, so that, again excluding the University candidates, there seems to be a probability that the number of medical men in the new House of Commons may be about ten. The total number of members is 670.

A NEW PLAGUE PROPHYLACTIC.

IN a preliminary report[1] to the Local Government Board Dr. Klein describes a new method of obtaining a prophylactic against plague. He claims for his preparation that it overcomes two important disadvantages to be found in the prophylactics hitherto regarded as most reliable, that is to say, the difficulty of preservation and the difficulty of securing uniform efficacy of dosage.

---

[1] London: Wyman and Sons; Edinburgh: Oliver and Boyd; Dublin: E. Ponsonby. 1d.

Dr. Klein's discovery is the outcome of some interesting experiments. During an investigation of the vitality of the plague bacillus in the tissues of animals dead of plague, he dried preparations of the infected organs over sulphuric acid, and found that, after the bacilli originally contained in them had been killed in the process of drying, emulsions of the material when injected in definite amounts into mice and rats, was capable of causing the death of the animals within twenty hours or less, although *post-mortem* examination proved that plague bacilli were not present in their tissues. When, again, smaller amounts of material were injected, the animals, after being temporarily ill, recovered, and then proved, on inoculation with virulent plague bacilli, to be refractory against plague infection. The inference, therefore, was that the dried plague organs, though not containing any living bacilli, were imbued with a powerful plague toxin, which was capable, in appropriate dosage, of serving as a prophylactic. Furthermore, Dr. Klein found that he could produce in the guinea-pig, by cutaneous inoculation, what he terms the "subacute form" of the disease, in which death is delayed until between the fourth and the ninth days, and necrotic changes are found after death in the bubo, spleen, liver, and lungs. Sections of these necrotic nodules showed that while the central parts of the nodules were crowded with *Bacillus pestis*, the peripheral areas, although markedly necrotic, contained few, if any, bacilli. Dr. Klein's inference is that, as in the necrotic action of diphtheria toxin on a mucous membrane, so here this peripheral necrosis was caused, not by the mere presence of bacilli, but by the toxin produced by them.

Encouraged by these observations, he instituted an extensive series of experiments with the object of finding out the most suitable tissues to select for the preparation of his proposed prophylactic and the most efficacious way of drying it. The result was to show that the necrotic nodules in the bubo, spleen, lung, and liver of guinea-pigs which had died of subacute plague, when finely minced with aseptic precautions, spread out in thin layers in sterile glass dishes and dried over sulphuric acid at 46 to 47° C., yield a material which is readily prepared, is of uniform and reliable efficacy, and, in the discoverer's opinion, is in every way superior to all other plague prophylactics.

A guinea-pig of from 300 to 400 grams in weight will yield from 5 to 7 grams of dry powder, which is equivalent to from 400 to 600 protective doses for an adult rat. The material, after three days' exposure in thin layers over sulphuric acid—a period which was found more than sufficient to kill all the plague bacilli present—is rubbed down to a fine powder in a sterile mortar and then stored in a wide-mouthed bottle. If the bottle is plugged with a glass stopper and sealed with paraffin, the powder can be preserved in a dry state for an indefinite period. In preparing the prophylactic for use, the desired amount of powder is weighed out, emulsified in warm, sterile, distilled water, and then injected subcutaneously. The efficacy of the material is not due merely to the presence of dried plague bacilli; this is proved by the fact that an amount of dead bacilli from cultures considerably larger than the quantity contained, say, in 10 mg. of dry spleen material, possesses neither the same toxic effect as the latter nor an equal immunizing efficacy. Compared with Haffkine's prophylactic, Dr. Klein's powder is stated to be much more potent in conferring immunity on the adult rat, the requisite dose being from 10 to 15 mg.; with Haffkine's material, on the other hand, 5 c.cm., though densely turbid with flakes and masses of bacilli, fails to immunize, and the dose has to be brought up to 10 c.cm. before the desired effect is produced.

But 10 c.cm. of Haffkine's prophylactic, Dr. Klein points out, is, according to the statistics in India and elsewhere, at least double the dose required for the protection of an adult human being. He assumes, therefore, that from 5 to 7 mg. of his dried preparation would suffice as an adequate prophylactic dose for the human subject. On this estimate he calculates that a single large guinea-pig would yield between 800 and 1,000 human doses of his new prophylactic, an amount equal to from 3 to 5 litres of Haffkine's fluid.

Whether Dr. Klein's sanguine anticipations will be realized remains to be seen, but his work is interesting and ingenious, and we look forward to the publication of his detailed report; it would, however, be premature to assume, without ample corroboration, that the new prophylactic is likely to replace those at present in use.

BUILDING BY-LAWS IN RURAL DISTRICTS.

ALTHOUGH there may be some difference of opinion as to whether the scarcity of labourers' dwellings in the rural districts is due to the enforcement of over-stringent by-laws few will be found to contest the statement that some control should be exercised over the erection of these buildings. Communications which have been addressed by the Local Government Board during the past year or two to private individuals as well as to sanitary authorities have made it apparent that the Board is desirous of adapting building regulations and by-laws to suit the circumstances of particular districts, and the Board has recently addressed a circular letter to the rural district councils in England and Wales expressing its desire that no obstacles should exist which can properly be avoided in the way of an extension of housing accommodation, whether by local authorities or by private persons. The district councils are asked to review the circumstances of their districts for the purpose of seeing whether any modification of the present series of model by-laws is desirable, and the Board hints that it will be prepared to consider by-laws of a more elastic character than those which it has prepared for urban and for rural districts.

This is a step distinctly in the right direction, and can only meet with the approval of all those who are concerned in the administration of the Public Health Acts in country districts. Over and over again a suggested reform has been defeated because its opponents have argued that the conditions of town life and of country life differ to so great an extent that it is impossible to administer a rural district on the same lines as an urban. The admission of the Board that there are essential differences will at once disarm such criticism in the future, and will help forward sanitary improvements in country districts.

While welcoming the action of the Board in the interests of purely rural localities, it is necessary to utter a word of warning lest in those districts which are today rural, but next year will become essentially urban, official sanction should be given to the erection of dwellings which will rapidly become slums and have to be dealt with in a drastic fashion as unhealthy areas. We do not doubt that the Board will give full consideration to this very important aspect of the question.

It is of interest to inquire how many rural district councils have already considered it necessary to adopt by-laws with respect to new buildings, and we have fortunately at hand a Return which was called for by Mr. Henry Hobhouse in the last session of Parliament. This document, which is of a detailed character, shows that in the 595 rural districts in England and Wales in the middle of 1905 building by-laws were in force in less than two-thirds—actually in 385 districts, and in only 263 did such regulations apply to the whole of the districts concerned. There were thus 210 rural districts entirely without building by-laws, and 122 in which they applied to portions of the districts only. It is not a little striking to find that the counties in which there is a preponderance of districts with by-laws in force are just those in which a county medical officer of health has been appointed. For example, in Cheshire there is only one district without by-laws, and there are no districts without them in the counties of Durham, Lancashire, and Middlesex, all with county medical officers of health, while in Cornwall, Devonshire, Monmouthshire, and Somerset, where there are no county medical officers of health, out of an aggregate of 56 rural districts there are only 22 in which by-laws are in force.

◆

SIR THOMAS BROWNE'S SKULL.

THE cult of relics is an instinct deeply implanted in human nature, as is shown by the jealous care with which nations as well as private devotees treasure relics of great men and famous animals. Nelson's breeches are, or used to be, on view at Greenwich; there are, we believe, two collectors who claim to be in possession of Cromwell's head; Gambetta's heart is kept in a casket; and a hoof of Eclipse—whose noble blood, according to Professor Ray Lankester, can be traced through nearly every horse now running on the English turf—is preserved by the Jockey Club in an appropriately precious setting. The cult is harmless enough as long as it does not violate the still deeper human instinct of respect for the relics of humanity. To this treatment of his tenement of clay, the most famous man has an equal right with the most obscure. The curse pronounced by Shakespeare on him that moved his bones, absurd as it may be to the materialistic philosopher, expresses a feeling still general enough to be entitled to consideration. No one knew better than the author of *Hamlet* the fate that awaits the "noble dust" of the greatest hero; his objection to the rifling of his grave was only a sentiment. A sentiment of this kind should, however, be held sacred. What doom Shakespeare would have pronounced on any one who placed his bones in a museum we can only faintly conjecture. As far as we know, his "honoured bones" have been left to turn to dust in the quiet of their original resting-place. But for those of another glory of our literature a different fate was reserved. It is evident that in regard to the profanation of his remains Sir Thomas Browne shared the feeling of Shakespeare; he speaks with horror of the bones of the dead being "knav'd out of their graves" as "tragical abominations." What would have been his feeling could he have foreseen that his own skull would be the subject of an abomination tragical beyond anything his imagination could picture? For his skull was not only "knav'd" out of the grave, but made a show in a museum among specimens of disease and deformity, monstrous births and horrible deaths. Doubtless when his coffin was broken open by a workman's pick, it was a feeling of reverence that led to the skull being placed in the museum of the Norwich Hospital. Many of Browne's admirers, however, must always have felt that this was not a fitting resting-place. At the celebration of the tercentenary of Browne's birth held at Norwich last October, free utterance was given to that feeling by Bishop Mitchinson, Master of Pembroke College, Oxford, who preached at the service held in St. Peter Mancroft. He said he could hardly conceive it possible that the citizens of Norwich should have inflicted such an indignity upon one of their most distinguished fellow-citizens as was done in removing his skull from its only proper resting-place in the church where his body was buried. It may be remembered that immediately after the celebration Mr. Edmund Owen, in a letter to the *Times*, urged that the skull should be restored to the grave, its place in the museum being taken by a perfect plaster cast. This suggestion was supported by the BRITISH MEDICAL JOURNAL in an article which appeared in the issue of October 28th, 1905. We are glad, therefore, to learn that there is reason to hope that those in whose keeping the relic now is may not be indisposed to accept the suggestion. In doing this they will be following a precedent which it may be interesting to recall. When the coffin of Charles I was accidentally discovered in St. George's Chapel, Windsor, in 1813, it was opened in the presence of the Prince Regent and others, among whom was Sir Henry Halford, who was physician to four English Sovereigns. Halford has left an account of the finding and examination of the remains. It was found after the coffin had been soldered up that the lower portion of the vertebra (fourth cervical) which had been severed by the axe, had become separated and been overlooked. The Prince Regent presented the relic to Sir Henry Halford, who had it enclosed in a case of lignum vitae lined with gold, with a Latin inscription inside the lid. The relic was occasionally shown to persons interested, and this gave rise to somewhat severe comment. Sir Henry Halford's descendant, therefore, being made somewhat uncomfortable by the possession of the relic, gave it into the hands of our present Gracious Sovereign, then Prince of Wales, who returned it to the vault, where it lies in its case on the coffin of the "Royal Martyr." We commend this example to the custodians of the skull of the author of the *Religio Medici*. We feel strongly that the restoration of Sir Thomas Browne's skull to his grave in St. Peter Mancroft would be a graceful act of reparation and a fitting crown to the homage offered to his memory in the tercentenary celebration.

ROYAL COMMISSION ON THE POOR LAW.

THE Royal Commission on the Poor Laws and Relief of Distress has, we learnt, sent out a circular to some medical officers and other persons of experience asking the recipients to point out generally any serious defects in the Poor Law and to suggest remedies. We understand that the Commission has determined to begin with a consideration of the central administration and then to pass on to questions of local administration. Having taken evidence on these two departments of the subject, it will then be ready to receive evidence from associations especially interested in Poor-law questions. It will therefore probably be some months—possibly many months—before the Commission will be prepared to receive evidence on medical subjects. The Council of the British Medical Association has appointed a Poor-law Special Committee to obtain information with regard to the very many points on which the medical profession is especially qualified to speak with authority, and to submit evidence to the Commission when the proper time comes. Questions will, we understand, be circulated by this Committe to parochial medical officers direct, and also to the honorary secretaries of Divisions and Branches of the British Medical Association; they will relate to the effect of the present Poor Law on the medical profession and to the experience of the medical profession concerning the influence of the present Poor Law on the community. The members of the Committee resident in England and Wales, Scotland, and Ireland respectively have been constituted national subcommittees, and have been authorized to modify the general question with a view to adapting them to the circumstances of each country.

PRACTICAL WORK IN HYGIENE.

THE Ladies' Public Health Society which works in union with the Manchester and Salford Sanitary Association is so thoroughly well organized that it has seemed desirable to give a full account of its operations and to print the rules under which it works. This account (p. 151) is based on the forty-fourth annual report of the Society. The admirable work which it is doing is more or less known to all interested in public health matters, but there are many societies all over Great Britain struggling to do the same sort of work, spending time and money in seeking to popularize sanitary knowledge among all classes, and many of them may find useful information and guidance from the practice and the rules of the Manchester and Salford Society. The plan followed by this Society of dividing up the area into districts appears to be especially useful. Not only does it ensure knowledge being equally distributed over a wide area, but in a large town prevents a health society not rich enough to advertise itself, from being unknown to a large proportion of the inhabitants. The Society instead of being managed by a general Committee which meets occasionally and works through a secretary in a central office, is under the guidance of a number of ladies, each one of whom takes an active interest in its work in her own district. This produces a feeling of emulation with other ladies who are in charge of other districts and all are stimulated to use their best endeavours and to do the best possible work. Further, each lady superintendent of a district gets to know the people in that district and to understand their particular requirements. A glance at the rule regarding attendances of the working committee, which is composed of the lady superintendents of the districts, will prove that members of it must be seriously disposed to work. The members of the Working Committee must attend at least eight out of twelve consecutive meetings, under the very effective penalty that a lady superintendent failing to attend without sufficient reason may see the grant for the health visitor in her district withdrawn. The salaried health visitors who work under the lady superintendents must go through a course of instruction considered by the Committee necessary to fit them for their work, and are required to make comprehensive daily reports.

MEDICAL SUPERVISION OF SCHOOLS IN BERLIN.

DR. ARTHUR HARTMANN has recently issued a report on the work of the medical officers of schools in Berlin during the year 1904-5. It contains a large amount of interesting information, which, it is hoped, will supply a stimulus for a further development of that work. He begins by calling attention to the fact that in no town of the German Empire is the inspection of so many classes entrusted to one medical officer as in Berlin. Whereas there is in Aachen 1 officer to 30 classes, in Frankfort-on-the-Main 30, in Magdeburg 18, and in Hanover only 12, in Berlin each medical officer has to supervise no fewer than 127 classes. It can readily be understood, therefore, that the results of the medical inspection of schools are less satisfactory than elsewhere. In regard to the admission of new children, the medical officer in Berlin sees only the cases which appear doubtful to the rector or the President of the School Committee. The other children come first under observation in the first six weeks of the school year, a delay which may of course entail the rejection of children who have previously been admitted. The medical officers have found that it is impossible to make a thorough preliminary examination of all children in more than eight, or at most nine, schools. In the year covered by the report the average number of examinations made by each officer was 960. About 8 per cent. of the children were rejected as compared with 12.3 and 9.7 per cent. in the two previous years; 20.4 per cent. were kept under observation. For the special classes for backward children, 702 were examined; for the courses for stammerers, 320. Dr. Hartmann's report shows that many reforms have been made in the hygienic conditions of the schools—in class rooms, benches, ventilation, lighting, and sanitary accommodation. In connexion with hygienic instruction given on such things as the prevention of infectious diseases, especially tuberculosis, the influence of occupation on health, and the abuse of alcohol, it is startling to learn that in one school 31.9 per cent. of the girls and 34.4 per cent. of the boys drank beer every day, while 1.8 per cent. of the girls and 4 per cent. of the boys took daily drams of schnapps. Dr. Hartmann urges that a large increase in the number of medical officers is absolutely necessary. He holds that no officer should have charge of more than six schools. Dr. Arons, a member of the Municipal Council, goes even further, for he proposes that the number of schools under the supervision of one medical officer should never exceed two.

ADVERTISING OPTICIANS: A WARNING TO THE PUBLIC.

A CORRESPONDENT in a country town sends some particulars of a case to illustrate the way in which the members of the public who consult advertising opticians without the advice of medical practitioners may suffer in pocket if not in health. He writes that a firm of well-known London opticians advertised last April in the local papers that their representative would attend on a certain day at an address in his town to see persons requiring spectacles. One of his patients saw the man, who supplied her with a pair of spectacles for which she paid three guineas. Last September this patient consulted our correspondent because she said the glasses were useless. He prescribed a pair of + 2 D, with which she said she could see quite well. The optician's account, which has been sent to us, is for "One pair 9 ct. gold curl spec-"tacles with special lenses for constant wear," and with this is given a form of guarantee in the following words: "We hereby agree to retest the sight and alter the lenses of a pair of gold curl spectacles purchased this day, free of charge, whenever the eyes alter under their use." These spectacles have been submitted to an ophthalmic surgeon, who reports that the lenses are:

R. Sph. + 0.50	L. Sph. + 0.50
Cyl. − 0.50 ↘ 50°	Cyl. − 0.25 ↙ 40°

He adds: "These glasses have a plus and a minus "sphere and cylinder in each, the one all but neutralizing "the other, so that anyhow one would not expect them "to do any good, and the frames strike me as being of "the commonest, and distinctly roughly made," so that the charge of three guineas made for them must have left a considerable margin of profit. He directs attention to the cautious way in which the guarantee is worded, that they will change the glasses when the eyes alter "under their use." The eyes would alter under their use no more than they would alter by looking through a piece of window glass. He says further that the same firm advertises largely a spectacle glass impervious to x rays, innocent members of the public being apparently not expected to remember that they are not living under an x-ray tube; the glasses in this particular pair of spectacles, tested with the x rays and screen, have been found not at all impervious; the lenses appear to be precisely the same as any other optician would supply. Upon the form of guarantee, possibly as evidence of the status of the firm concerned, there is an engraving of a star, in the centre of which is a cross surmounted by a crown and overlaid by an anchor, while under it are the words "Order of the Cross for Naval Merit." Whatever this may be, it has, so far as we can ascertain, nothing whatever to do with the British navy.

THE PLAGUE IN MADEIRA.

It is by no means easy to get information with regard to the outbreak of plague in Madeira, nor are the Lisbon medical papers, apparently, any better informed. "No "one," says *A Medicina Contemporanea*, "has the least "knowledge of what has taken place. It is known that "cases have occurred in Funchal, and that considerable "alarm has been aroused, but how far the malady has "spread and what steps have been taken to arrest it, it "is apparently impossible to discover." So far back as the middle of December it seems that there were about six persons convalescent from the disease in the lazaretto, whence also sundry individuals were released under injunction to report themselves for nine days. It is noteworthy that, after a period of reported quiescence the epidemic seems to have manifested fresh activity The local papers, however, only furnish incomplete and contradictory news, while the authorities limit their published information to statements apparently intended to throw dust in the eyes of the public. What is still more serious is that they do not officially recognize the disease as plague, and in the *Heraldo da Madeira* the President of the Commercial Association of Funchal announced that he was authorized by the Governor of the island to declare that the rumours concerning the health of the city were happily unfounded, and that while a few sporadic cases of "infectious fevers" had occurred, these had been effectively isolated. This *démenti* is strongly denounced by the Lisbon medical press as contrary to the Paris International Sanitary Convention of 1903. According to the latest news available, further cases of plague have occurred in Madeira. Messrs. Forwood Brothers have communicated to Reuter's Agency a telegram received from their agent at Funchal to the effect that the populace forcibly released certain persons described as "imaginary plague patients" from the lazaretto on January 7th, and that the general health is exceptionally good. The island papers are beginning to reflect the alarm felt by the people, and are insisting on the necessity of proper precautionary measures for combating the outbreak. This is, perhaps, more or less due to the fact that certain vessels, and among them some flying the Portuguese flag, have refused to communicate with the shore. The worst of the matter is, not that the plague has broken out so much as that it has remained so long unrecognized. The first cases notified appear to have been by no means really the first, and hence the failure of the sanitary authorities to cope with the situation. The mischief, however, is done, and the chief thing now is to take every possible means to avert the consequences. Madeira depends very largely upon its foreign visitors, be they health or pleasure seekers, for its prosperity, and it is of vital importance to the island that so formidable a malady should be stamped out without loss of time. This there should be no difficulty in doing if energetic measures be taken. Funchal has no wharves, and nothing that can be really called a slum, and the Madeiran is docile enough if properly managed. Such management is, nevertheless, sometimes awanting, and appears to have been so in this instance, for it is stated that the sanitary authorities, in visiting a case or cases reported at Ponta do Pargo, the extreme western point of the island, and distant twenty miles or more from Funchal, were received with showers of stones.

RECENT PROSECUTIONS UNDER THE LUNACY ACT.

In the local press are particulars of two very recent prosecutions in Sussex by the Treasury, at the instance of the Commissioners in Lunacy, and under the Lunacy Act. In the first case, the fault alleged was the taking charge of a lunatic for payment at an address unlicensed and not under the provisions of the Lunacy Act 1890, Section 315. The medical witness who had examined this patient under an order from the Lord Chancellor, "gave in detail his reasons for forming the "opinion that the patient was of unsound mind, and "added that the defendant told him the lady had been "with her as a paying patient for five years, and that "she came as an epileptic," and in cross-examination maintained that he considered this patient a certifiable lunatic. For the defence, evidence was tendered to the general effect that the case was one of epilepsy, and had been attended for years as epileptic, asthmatic, and bronchitic; and that there was no reason that the patient should have been certified as a lunatic. Besides the above, medical evidence was called for the defence, and testified to enfeeblement of the intellect of the patient by the physical disease already mentioned. In cross-examination, the medical witnesses for the defence admitted the unsoundness of mind of the patient, but opposed the view that the case was one certifiable under the Lunacy Act. In the result, the magistrates decided that there must be a conviction, and were of opinion that at the date referred to the patient was of unsound mind within the meaning of the Lunacy Act; that there was, however, no suggestion that she had been treated otherwise than properly, kindly, and carefully, and they decided that the case would be rightly met by a small fine and costs. In the second case the same defendant was summoned, also at the instance of the Commissioners in Lunacy, for taking charge of a lunatic at another unlicensed house in a different locality; and as in the former case, not under the provisions of the Lunacy Acts. This patient was a boy, aged about 16 years, and stated to be epileptic and kleptomaniacal. The medical evidence for the prosecution appears to have been founded on an examination which happened to be made shortly after the patient had had an epileptic seizure. Again there was a conflict of medical evidence as to the interpretation to be properly put on the mental state of the patient. In the result, the magistrates did not consider there was sufficient evidence to convict, and the case was dismissed, but costs were disallowed to the defendant. In these cases there was much dispute as to the words "unsoundness of mind" and "person of unsound mind" as used in the Lunacy Act, which defines "lunatic" in the Act as meaning *an idiot or person of unsound mind*. We do not think that it would serve any useful practical purpose to discuss the phraseology of the Act as regards "person of unsound mind," a term of long standing, and one that has been both praised and condemned. Without entering on a futile and barren controversy, we may say that it holds place; that it is very widely accepted, and used by the medical profession, as is shown by the fact that many, and probably an overwhelming majority, of the persons over whom care and control are exercised under the Lunacy Acts in this country, were, by choice, described in the relevant medical certificates, as being "persons of unsound mind." In the nature of things it is unlikely that any law can be framed on the subject not liable to bear hardly in a few cases. Strict enactments are undoubtedly necessary for the prevention, or, failing prevention, for diminishing the duration and number of cases of improper dealing with mental disease outside of the Lunacy Acts. And at the present moment we are looking forward to a promising addition to the statutes of certain simple and easy provisions for temporary cases of patients suffering from certain forms of mental unsoundness, which we may legitimately hope will secure suitable provision for many persons whose milder symptoms may be thus more promptly, yet efficiently, dealt with.

THE RED CROSS SOCIETY IN JAPAN.

AT the last meeting of the Japan Society Miss Ethel McCaul delivered an interesting address on the Red Cross Society in Japan. The lecture hall of the Royal Medico-Chirurgical Society was filled to overflowing with an influential audience, and the chair was occupied by Count H. Mutsu, the First Secretary of the Japanese Embassy. The first part of the address consisted chiefly of a review of the domestic life of the women of Japan. It appears that the Red Cross Society in Japan is far in advance of all others. Very wisely it was placed immediately under Government, so that in times of peace a million members with their hospitals, hospital ships, doctors, nurses, stretcher bearers, and lay workers are equipped and fully trained according to the Japanese Army Regulations. In times of war they are therefore available at a few hours' notice. The head quarters of the Red Cross Society are in Tokio, and from thence the local branches receive all instructions. All Governors and Mayors in Japan are representatives of the Society, and are authorized to hold meetings, and generally to develop the work. In this manner members are recruited from every social grade and from every corner of the Japanese Empire. In each district a local branch is established, the members subscribing yearly from 6s. to £20. Miss McCaul particularly emphasized the national character of the work and the admirable way it is kept alive in time of peace. The Japanese have perceived that to make their Red Cross Society a permanent success they must make it a necessity in the daily life of the masses. In order to arrive at this result, numerous Red Cross hospitals have been built throughout Japan, all of which are used in time of peace as hospitals which are free with the exception that in each paying patients are admitted to those wards which in war time are reserved for officers. The monopoly of training the army nurses is in the hands of the Red Cross Society. The two hospital ships built by the Red Cross Society are not kept in expensive idleness, but are hired out as passenger steamers. The Society keeps this splendid corps in a practical manner before the public by means of the hospitals and hospital ships and the training of the army nurses. The national success of the Society is further secured by utilizing the sentiments and energy of the women of the country, who become members of the Ladies' Volunteer Nursing Association. In most countries such a force is allowed to drift in an aimless fashion, causing much chaos, friction, and extravagance, but in Japan it is so guided and directed that it renders immense service to the country. The Ladies' Volunteer Nursing Association is entirely under the control of the Red Cross Society and its members are drawn from all grades of society. Training is given to make the members a reliable support in time of war, as the Association undertakes the probationary part of military nursing in the base hospitals. The association is practically the factory and workroom of the Red Cross Society, which undertakes to provide the Government with the necessary comforts for the sick and wounded. The organization is so perfect, that throughout the war between Russia and Japan there was not the slightest hitch, and the required articles were provided with the promptness and regularity of a business firm. Miss McCaul, in pointing out the proud position the women of Japan hold in their Red Cross Society, drew attention to the lessons to be learnt from thoughtful and prudent organization and co-operation, and deplored the lack of union in the methods followed in this country. Colonel Macpherson, of the Royal Army Medical Service, gave some interesting details with regard to the organization of the Medical Service of the Japanese army, and how its work was supplemented by means of the Red Cross Society in times of war. In moving a vote of thanks to Miss McCaul, which was duly seconded and passed with acclamation, Professor G. S. Longford described how the Japanese in the late war carefully preserved the personal property of the dead Russian soldiers, and endeavoured in every possible manner to communicate with relatives, so that the property might be restored to them. Professor Longford contrasted this humane procedure with the barbarous ferocity shown by the Japanese to all prisoners of war before 1868, when, at the instigation of the late Dr. W. Willis, who accompanied a Japanese force operating against some rebels, the Japanese authorities commenced to treat wounded soldiers and prisoners with humanity. Therefore, according to Professor Longford, the initiation of the movement in Japan that has culminated in the present enlightened treatment of military prisoners and wounded men must be ascribed to the influence of a British medical man.

THE TREASURER OF ST. THOMAS'S HOSPITAL.

ON Tuesday afternoon, in the New Governors' Hall, St. Thomas's Hospital, a portrait of the treasurer—Mr. J. G. Wainwright, J.P.—was presented to the hospital to hang in the hall. The portrait was painted by Mr. J. H. F. Bacon, A.R.A., for the many admirers of the treasurer among the governing body and medical and surgical staff, as a recognition and a permanent record of his untiring efforts to advance the interests of the hospital. The artist is to be congratulated on having produced a most speaking likeness. The Lord Mayor, who for many years as a governor has taken an active part in the administration of the hospital, referred to the great work Mr. Wainwright had done in the forty years he had been a governor, for sixteen of which he was almoner, and for the last sixteen treasurer. During this latter period, by his great exertions all the empty wards have been reopened, a large part of the hospital remodelled in accordance with modern requirements, and many new departments added. His ideal had been the highest standard of excellence to enable the best work possible to be done. The Lord Mayor then unveiled the portrait and presented it to the hospital. Mr. Ambrose Boyson, the senior almoner, who was in the chair, accepted it, and expressed the pleasure the governors and staff felt in being able to hand down such a testimony of the good work of the treasurer. Dr. Seymour Sharkey, the senior physician, then presented a second portrait, not an exact replica, to Mrs. Wainwright, and the treasurer, speaking with considerable feeling, acknowledged the gift on behalf of his wife and family. Mr. Seth Taylor proposed and Mr. Clutton, the senior surgeon, seconded a vote of thanks to the Lord Mayor, which he acknowledged. Mr. Bonham Carter, in conclusion, moved a vote of thanks to the chairman.

M. DOYEN'S EXPERIENCES AS A PATIENT.

READERS of *Barnaby Rudge* will remember the terror shown by Dennis, who had "worked off" so many, when the rope was round his own neck, and the jeer of his companion in misfortune, "See the hangman when it comes home to him!" We do not wish to apply this as a parable to members of our own craft, but our poor human nature being what it is, it is inevitable that we should feel a particular interest in the case of a famous surgeon whose victories over disease have won for him innumerable triumphs, when he himself comes under the knife for the very disease which he has so often conquered. Besides, the record of a medical practitioner's experience as a patient should have a special value as coming from a trained observer with the keenest interest in the case. M. Doyen, whose surgical skill is known to all men who read the newspapers, has lately been operated on for appendicitis, and naturally, as soon as he was able to receive visitors, he was made the subject of an interview which was published in the *Echo de Paris*. The representative of that journal found the illustrious patient seated in an armchair, near which was a table heaped with letters and telegrams from anxious admirers. M. Doyen told his visitor that as soon as the diagnosis was made he sent for his former pupil Dr. Rousselle, of Rheims, whom he asked to operate at once. M. Doyen himself saw that all the preparations were complete, and he himself administered the anaesthetic. He used ethyl chloride, and in ten to fifteen seconds, when he felt himself "going," he gave the word to the surgeon. M. Doyen, indeed, admits that a few drops of chloroform were administered to him afterwards, but virtually he would seem to have done everything himself except the actual operation. When he recovered consciousness he insisted on examining his appendix in a bottle—a beautiful instance of the professional instinct, strong in what may be called adverse circumstances. It is satisfactory to learn that M. Doyen suffered no pain after the operation, only a little smarting in the wound. His experiences as a patient are after all very much like those of ordinary people. The chief point of interest is the fact that he, the hero of so many a bloody battle against disease, the separator of united twins, the gelder of lions—the king of surgeons operating on the king of beasts!—should himself have been overcome by an ailment which has so often yielded to a touch of his knife. We congratulate him on his recovery, and hope he may long live to adorn a newspaper tale in the intervals between daring feats of human and zoological surgery.

THE STRENUOUS PRESIDENT AND THE "FORCE OF LIFE."

MR. ROOSEVELT, if we may judge from a message from New York published by the *Standard* of January 16th, has entered on a campaign against quackery. It is characteristic of the strenuous President that he has begun by attacking one of the biggest strongholds of the enemy. Two directors of the Force of Life Company, which is described as a "vast advertising quack concern," have on his initiative been arrested. The charge is that the company has used the Post Office with intent to defraud. It was stated in the BRITISH MEDICAL JOURNAL some time ago that an effort was about to be made by the United States Government to prevent the circulation through the post of fraudulent advertisements, but no great result seemed to be expected from the measure. The President's action, therefore, seems to have special significance, as it appears to indicate that a serious effort is to be made to prevent abuse of the postal machinery for the promotion of quackery. The Force of Life Company has, it is said, a million patients, or one-eightieth of the population of the United States, on its books, and among its officials are, or were till lately, numbered presidents and directors of banks, trust companies, an ex-governor, and other persons of leading if not of light. The capital is said to be a million dollars. Of the kind of business carried on by the company the following specimens are given: One defendant claims the power of raising the dead, this being based on the statement of a Colorado woman that her body was prepared for the grave, as being dead, and that he made her heart beat again. She now admits that she never lost a day's work in her life. The sale of "ray" capsules was also part of the business. These resembled small cartridge shells, the contents of which, it was alleged, were worth £100,000 per pound. They were merely held near a glass of water, and then the water was drunk. A piece of glass placed under the bed casters was prescribed for rheumatism; an onion for sore throat; and the rind of ham for pains in the back. President Roosevelt has never been afraid of facing the giants of commercial corruption, race prejudice, and social evil. We are pleased, therefore, to see him take the field against another monster which nowhere raises its head so high or preys with such ferocity on human health and happiness as in the United States. Quackery is the wickedest form of fraud, and the American people, though proverbially cute, is also singularly credulous. It therefore requires to be protected against its own folly, and it may be thankful that it has an efficient protector in its President. With all our heart we wish Mr. Roosevelt complete success in his most useful and public-spirited enterprise.

LECTURES IN THE LONDON COLLEGES.

THE arrangements for the usual courses of lectures at the Royal College of Physicians of London are as follow: The Milroy Lectures, by Dr. W. H. Hamer, Medical Officer (General Purposes) to the London County Council, on epidemic disease in England, the evidence of variability and of persistency of type, will be delivered on March 1st, 6th, and 8th; the Goulstonian Lectures, by Dr. H. Batty Shaw, assistant physician to University College Hospital, on auto-intoxication, on March 13th, 15th, and 20th; the Lumleian Lectures, by Dr. D. Ferrier, F.R.S., on tabes dorsalis, on March 22nd, 27th, and 29th; and the Oliver-Sharpey Lectures, by Dr. E. I. Spriggs, assistant physician to St. George's Hospital, on the bearing of metabolism experiments upon the treatment of some diseases, on April 3rd and 5th. At the Royal College of Surgeons of England the Hunterian Lectures, on gastric surgery, will be given by Mr. H. J. Paterson, F.R.C.S., on February 19th, 21st, and 23rd; on some points in the surgical anatomy of the temporal bone from birth to adult life, by Dr. A. H. Cheatle, F.R.C.S., assistant aural surgeon to King's College Hospital, on February 26th, 28th, and March 2nd; and on phlebitis and thrombosis, by Mr. Warrington Haward, F.R.C.S., on March 5th, 7th, and 9th. The Erasmus Wilson Lectures, will be given by Mr. James Sherren, F.R.C.S., assistant surgeon to the London Hospital, on the distribution and recovery of peripheral nerves studied from instances of division in man, on March 12th, 14th, and 16th. The Arris and Gale Lectures will be given by Mr. J. H. Watson, F.R.C.S., demonstrator of anatomy in the University of Birmingham, and by Mr. S. W. Curl, M.D., M.R.C.S., physician to the Essex and Colchester Hospital. The subject of Mr. Watson's lectures is the viscosity of the blood; they will be given on March 19th and 21st. The subject of Dr. Curl's lecture, to be delivered on March 23rd, is the arterial pulse: its physiology and pathology.

A BELGIAN MEDICAL GUILD HOUSE.

ON December 10th a fine building to be called La Maison des Médecins was opened to the accompaniment of much oratory, expressing the noblest sentiments of professional fraternity, at Brussels under the auspices of the College of Medical Practitioners, a body constituted for the defence of professional interests and recognized by the State. Professor Spehl, President of the College, presided at the ceremony, and amongst those present were M. Beco, General Secretary of the Ministry of Agriculture; M. Demot, Burgomaster of Brussels, and Dr. Merveille, President of the Medical Federation. The building is situated in a part of the city where the ancient guilds had their halls under the shadow of the Hôtel de Ville and the royal palace. It was described by Professor Dubois-Havenith, a former president of the College, as being not a place where a severe tribunal will sit in judgement, but a family dwelling for the profession under the rule of a paternal authority which will promote the reign of peace among practitioners by maintaining a high standard of ethics. Dr. Merveille, speaking in the name of 2,500 members of the Medical Federation, gave his blessing to the "House" in which he saw a striking manifestation of the solidarity of the medical profession.

CREMATION IN GREAT BRITAIN.

There is no marked progress in the employment of cremation as a means of disposing of the dead in this country to record this year. For the following information we are indebted to the courtesy of Mr. Herbert T. Herring, Medical Referee of the Cremation Society of England. The total number of cremations in Great Britain during the year 1905 was 600 as against 566 in 1904 and 475 in 1903. It is to be noted, however, that whereas in 1904 there were only nine crematories at work, in 1905 there were twelve. The cremations were distributed among these as follows: Golder's Green, Hampstead, 252; Woking, 95; Manchester, 100; Liverpool, 35; Glasgow, 35; Hull (Municipal), 15; Darlington, 4; Leicester (Corporation), 16; Birmingham, 22; Leeds (Municipal), 16; Ilford (City of London), 9; Bradford (Corporation), 1. The three chief centres of cremation in this country are therefore Golder's Green, Woking, and Manchester. The total number of cremations carried out at Woking from the date of its opening, twenty years ago, to the end of 1905 is 2,748; those performed at Golder's Green number 635. The total number of cremations performed in Great Britain since the first crematorium was established at Woking in 1885 is 5,018. During 1905 two new crematories have been opened—one at Leeds, the other at Bradford. A third is in process of construction at Sheffield under the auspices of the corporation. It may be of interest to recall the order in which the several crematories have been established. Next to Woking, which is the oldest foundation, comes Manchester, opened in 1892; then follow Glasgow (1895), Liverpool (1896), Hull and Darlington (1901), Leicester and Golder's Green (1902), Leeds (Municipal), Bradford and the City of London Corporation at Ilford (1905). Slow, therefore, though the progress of cremation is in regard to numbers, the fact that the area of operations is gradually extending shows that it is making steady headway. It is gratifying as indicating the growing education of public bodies in this matter, to note that so many municipalities have within the last few years recognized cremation as a method of disposal of the dead for the adoption of which the public may fairly claim to have facilities provided.

THE HEALTH OF LONDON.

We have received the annual report of the Public Health Committee of the London County Council for 1904 submitting the report of the Medical Officer of Health (Sir Shirley F. Murphy) and the Medical Officer for Education (Dr. Kerr). The combined reports and appendices make a bulky volume. We have already had the opportunity of referring at some length to Dr. Kerr's report, and we shall hope to deal with Sir Shirley Murphy's report in an early issue. In this issue we can do no more than note that the death-rate for 1904 for the administrative County of London rose from 15.2 to 16.1, but is still much below the decennial average. The infant mortality also rose from 130 to 144 per 1,000 births. The most noteworthy points dwelt upon in the report are, perhaps, the remnant of the small-pox epidemic, the increase of the number of deaths from measles, and the decrease in typhoid fever. Important sections of the report deal with administrative action in respect of milk supply, by-laws for houses let in lodgings, workshop sanitation, the sale of unsound food, etc. Dr. Hamer's special report on the conditions of the ice trade and a special report on watercress are printed as appendices. It is clear that the co-ordinating work of the London County Council as a sanitary authority steadily grows.

MEDICINE AND POLITICS IN AMERICA.

In a paragraph under this heading, which appeared in the British Medical Journal of January 13th, it was stated that "one of the results of the victory of "'Tammany' in New York has been the removal of Dr. "Darlington from the office of medical officer." We took this statement from a responsible medical journal of New York. We are glad to learn, however, that Dr. Darlington has been reappointed Commissioner of Health of New York City at a salary of 7,500 dollars (£1,500). The conjecture may perhaps be hazarded that the original statement represented what was assumed from past experience to be the intention of the victor in the great struggle for the Mayoralty. It is now announced, however, that the new Mayor has abjured "Tammany" and all its works, and the reappointment of the Health Commissioner may be a sign of the new order of things.

THE COPYRIGHT OF THE "BRITISH MEDICAL JOURNAL."

Among the advertisements in this issue of the British Medical Journal will be found a formal apology by an instrument company for reprinting without permission an article published some years ago in the Journal. Articles published in the Journal are copyright, and the Editor and Manager, under the authority of the Council, are prepared to take steps to prevent the improper use of such articles whenever the facts are brought to notice.

Dr. Robert Barnes has presented £1,000 to the Royal Botanic Society in memory of his father, Mr. Philip Barnes, one of the founders.

Sir William Bennett having resigned the office of Senior Surgeon to St. George's Hospital, in consequence of the pressure of private engagements, has been appointed by a special Court of Governors a Consulting Surgeon, in recognition of the services which he has rendered to the institution as Surgeon and Assistant Surgeon.

At the annual general meeting of the Royal Meteorological Society, held on January 17th, Mr. Richard Bentley, the President, delivered an address on meteorology in daily life, in the course of which he laid stress on the increasing urgency of safeguarding the water supply, pointing out that while in the reign of William the Conqueror there were barely 2 millions of inhabitants in these islands, and no water then used for sanitation or manufactures, to-day the population has risen to over 42 millions, and most of the surface lands had either been drained or built over.

Birmingham.

THE MIDLAND INSTITUTE.

DR. WILLIAM WRIGHT has resigned the office of Lecturer in Hygiene at the Midland Institute, owing to his appointment of Lecturer in Anatomy at the Middlesex Hospital, London. Mr. R. A. Lyster, D.P.H., has been appointed to succeed Dr. Wright. The new lecturer is Lecturer in Hygiene and Public Health in the University of Birmingham, and is author of the textbooks on the subject which are now in use in the classes at the Midland Institute.

BIRMINGHAM LYING-IN CHARITY.

The Birmingham Lying-in Charity acquired some time ago a freehold site near the General Hospital for a central home, but adequate accommodation appeared impossible for the intended hospital. Mr. Barrow Cadbury now offers the adjoining site to the Charity on condition that suitable space be left around for light and air. The plans for the new institution will be proceeded with at once.

THE CHILDREN'S POLICE COURT, BIRMINGHAM.

The report of the Children's Police Court since its establishment in April, 1905, has just been published. The chief differences of practice in the new court from the ordinary police courts are: (1) The children are brought by their parents or guardians and are classed according to the offence in different waiting rooms; (2) no offender hears the case against another; (3) no child is placed in the dock; (4) a separate entrance is provided for children apart from adults. There have been 632 cases heard thus, and of these 380 were adjourned on promises of good behaviour. In 47 cases fines of 1s. to 5s. were inflicted; 36 cases of housebreaking were discharged with cautions, and in 47 of these cases the parents were bound over for good behaviour. Only 9 boys and 1 girl were sent to a reformatory. It is found by the Bench that the children are much more ready to give information and to reply to questions than they were formerly when awed by a crowded police court and a large number of police and officials. The attendance of parents and guardians is also very beneficial. Fines have been inflicted on 34 parents for allowing their children to beg in the street, and for conducing, by neglect, to the children breaking by-laws relative to street trading. It is suggested that "probation" officers should be established who should visit young offenders from time to time when their cases are adjourned and report on their behaviour and guide them a little in life.

North Staffordshire.

POTTER AND SCIENTIST.

BY the death of William Henry Goss of Stoke and Barthomley the district has lost one whose name was carried far and wide by the products of his art. Born in the metropolis in 1833, his early career was moulded by Copeland, one time Lord Mayor of London. The success Mr. Goss attained in his "bodies" and glazes may be largely attributed to his wide knowledge of chemistry. He was a Fellow of the Geological and the Royal Microscopical Societies, and took a deep interest in the North Staffordshire Field Club. Amongst the more recent of his numerous writings are a *Review of Modern Science and Modern Thought*, in the form of letters to his friend, the late Mrs. Andrews, sister of General Gordon; and *Primitive Man and His Work*. An extensive and varied collection at Ashfield, Stoke, is one result of a lifelong thirst for the beautiful in pottery and other handicrafts.

EXPOSING FEVER CASES.

At Stoke County Court recently two youths were prosecuted by the Newcastle Rural Council for exposing themselves while suffering from scarlet fever. The proceedings arose in consequence of a slight outbreak of scarlet fever in Newcastle, the source of which was traced to milk supplied from a farm where the defendants worked; they were found to be desquamating, at once isolated in a room at the farmhouse, and told to remain there pending arrangements for their removal to hospital. The youths, however, went off, each to a different district. In court they said that the farmer had ordered them off, and the case was adjourned for a week, for the attendance of the farmer. The adjourned prosecution included the farmer and his wife for causing the boys to be exposed, and their son for aiding and abetting in the offence. As the result, the case against the boys was withdrawn, and the three remaining defendants were fined £5 each and costs.

BRADWELL INFECTIOUS HOSPITAL.

At the last meeting of the Committee of the Bradwell Hospital, which is the isolation hospital for Burslem, Tunstall, Wolstanton, Kidsgrove, and Smallthorne, the Medical Officer submitted some statistics for a period of three years, stating that these figures compared favourably with those of similar institutions, and proved that infectious diseases could be satisfactorily treated without resorting to costly and elaborate structures. The mortality of 283 cases of scarlet fever was 2.8 per cent.; and of 214 cases of diphtheria 9.8 per cent.

South Wales.

A COLLIERY DIFFICULTY.

A MEETING of Blaina Colliery workmen residing in the Brynmawr district was held at the Market Hall, Brynmawr, on January 13th, to consider the question of medical attendance. The press was excluded. It is proposed to divide the Blaina Federation District into four divisions, instead of two as at present—namely, Blaina, Nantyglo, Brynmawr, and Llanelly (Brecon); that there shall be a Workmen's Medical Fund, which shall appoint the medical men for the respective districts, pay them, and provide drugs. At present the poundage is paid direct to two practitioners. The meeting decided that a ballot of the workmen should be taken. A meeting of the Blaina men will be held in a week's time to consider the proposed scheme.

Scotland.

SIR THOMAS MCCALL ANDERSON.

A COMPLIMENTARY dinner to Sir Thomas McCall Anderson was held in the Windsor Hotel, Glasgow, on January 11th, to celebrate Sir Thomas's long services as a teacher of medicine in Glasgow extending over forty years, and the knighthood recently conferred upon him. Under the presidency of Sir Hector Cameron, a large gathering assembled, representative of the profession in the west of Scotland, and including many old pupils and former clinical residents and assistants of the guests of the evening.

The toast of the evening was proposed by the Chairman, and was most cordially received. In responding, Sir Thomas said that he felt diffidence in addressing a company assembled to do him honour—an honour deeply gratifying to him, though altogether unexpected and unlooked-for. After thanking Sir Hector Cameron for the flattering terms in which he had proposed his health, Sir Thomas went on to say that words failed him to give adequate expression to his deep sense of gratitude to all for having invited him to be their guest. He appreciated the honour all the more as he saw there many men who had already made their mark in the profession, and had contributed materially to the sum of medical knowledge. He saw, also, that the majority of the company present had at some period or other been pupils of his, most of them at the University, some of them in the dear old Andersonian—that institution founded many years ago under the title of "Anderson's University" by his granduncle. He was glad to know that, in migrating to the West end of the town, Anderson's College was continuing its career of usefulness, and having a reflex beneficial influence upon the medical school of the University, which was the main desire of Professor Anderson in founding Anderson's University. Sir Thomas hoped that he might infer from the presence of so many of his old pupils that, with all his faults, he had at least never spared in his endeavours to guide them aright during their student career. He took this opportunity of publicly thanking his old residents in the Royal and Western Infirmaries for their invaluable services. Any success he might have had as a teacher of clinical medicine would have been impossible without their never-failing assistance and co-operation. Though conscious of his many shortcomings, he might say that throughout his professional life he had worked hard and zealously, without which no genuine success was possible, and he was glad to recollect that he had never had any serious disagreement with any of his professional brethren in Glasgow or the West of Scotland. With regard to the honour recently conferred upon him by the King, he appreciated far more the approval of his professional brethren as shown by their presence there that night, and of the countless letters and telegrams of congratulation which he had received from all parts. He fancied that one reason why he had been selected for that honour was that he held the oldest medical chair in the University, and was the senior medical professor. He had been the medium by which the Government had conveyed a delicate compliment to the great medical school of Glasgow, whose reputation never stood so high as it did at the present day.

SCOTTISH POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

The annual meeting of the Scottish Poor-law Medical Officers' Association was held at St. Enoch's Hotel, Glasgow, on January 12th, and was well attended by town and country members.

Annual Report.

The annual report pointed out that it was the duty of every Poor-law medical officer to bring the grievances of the service before the candidates for election to Parliament in his own constituency. Warm thanks were expressed to Mr. Cathcart Wason and Mr. Alexander Cross for the trouble they had taken, and the earnest desire was expressed that both might again be returned to Parliament. The Bill to amend the Local Government (Scotland) Act having been blocked, never had a chance of second reading, but it was proposed to introduce it again. The number of vacant appointments announced during the year was fewer than usual owing, the committee believed, to the action of the Association rendering it more difficult for defaulting parish councils to get suitable candidates. The practice of advertising the facts with regard to such authorities regularly in the BRITISH MEDICAL JOURNAL and the *Lancet*, and occasionally in the *Scotsman* and *Glasgow Herald* had been continued. The report stated that the Chairman of the Association, Dr. Gilbert Campbell, had been co-opted a member of the Scottish Committee of the British Medical Association, and Dr. W. L. Muir, the Secretary, had been appointed one of the two Representatives of Scotland on the Poor-law Special Committee of the British Medical Association. These two gentlemen would formulate evidence and apply to be heard as witnesses before the Royal Committee on the special grievances of Scottish Poor-law medical officers, and on the present Poor-law as affecting the general public. Reference was made to two actions in the Court of Sessions, one in the North of Scotland for alleged malpractice, which had been settled out of court; the other against one of the Glasgow medical officers for signing a lunacy certificate, in which the court found on all grounds in favour of the medical officer. In this connexion the report pointed out to the members the desirability of joining one of the medical defence associations.

The financial statement showed a satisfactory balance in hand, and the report and balance-sheet were approved.

Secretary's Report.

The Secretary reported that after purging the roll of all members dead or resigned, or whose address could not be ascertained, there remained 265 members. It was stated that some of these had failed to pay their subscriptions for a number of years. Letters were read to the meeting showing the number and variety of subjects on which the Secretary had been consulted during the course of the year.

The members of the Committee were re-elected, and a vote of thanks passed to the Chairman.

The Secretary of the Association is Dr. W. L. Muir 1, Seton Terrace, Glasgow.

VICTORIA INFIRMARY, GLASGOW.

The new pavilion of the Victoria Infirmary was formally opened on January 13th by Lady Blytheswood in the presence of a distinguished company. Mr. Cameron Corbett presided and gave some interesting facts in the history of the infirmary. In 1888 the first sod was cut, and the first building, which only provided accommodation for eighty-four patients, was opened in 1890. Two years later the nurses' home was opened, and in 1893 further accommodation for 70 more patients was added. The next important step was the building of the Bellahouston Dispensary in Kingstown, with money gifted by the Bellahouston trustees. Subsequently a convalescent home, providing for twenty-four patients, was secured. Despite the increased accommodation, further extension was required, and in 1902 twenty-one more beds were added. Yet in the next year there was a daily average of 100 patients awaiting admission. Consequently the Governors did not hesitate to provide still further accommodation, and in 1903 commissioned their architect to prepare plans for four additional wards capable of accommodating about eighty patients, and bringing the total number of beds up to 260. Altogether the sum of £300,000 had been expended, half of which went on land and buildings and the rest for maintenance. More than 23,000 patients had been treated in the infirmary since it was opened. It is calculated that the new accommodation will probably entail each year an additional £6,000 for maintenance. The additions will cost £30,000, of which £17,000 has already been subscribed.

The new pavilion is four stories in height, and on each floor accommodation is provided for eighteen patients in a large ward, while in addition there is a small side ward with a single bed, giving a total of seventy-six extra beds. Connected with the wards are large semicircular day rooms having a direct southern exposure, and lighted by five large windows opening on to a balcony. The bathrooms and lavatories are placed in sanitary towers. The plenum system of ventilation has been adopted.

POST-GRADUATE CLASSES IN GLASGOW.

The first lecture and demonstration in the course of post-graduate instruction at the Royal Infirmary, Glasgow, the institution of which was announced in the BRITISH MEDICAL JOURNAL of December 30th, 1905, will be given by Dr. David Newman on February 1st, at 4.30 p.m., when he will give a demonstration on cystoscopy and the method of illustrating cystoscopic appearances by means of the opaque projector.

Ireland.

ELECTION OF DIRECT REPRESENTATIVE IN IRELAND.

SIR WILLIAM THOMSON, the sitting member, and Dr. Kidd, of Enniskillen, have been duly nominated for election as direct representative for Ireland on the General Medical Council. A third candidate, Dr. Laffan, of Cashel, has been mentioned, but we have not received any official notification that he intends to stand. On December 2nd we published a communication from Dr. Laffan in which he enumerated four matters on which he considered the profession in Ireland should insist and stated that he was ready to support any candidate "selected by a public meeting without any reference either to his polemics or politics," and concluded by appealing "to the Cork doctors outside the Queen's College folk to summon a meeting of the provincial men in their city." Since then we have received no further communication on the subject. At the last election Dr. Laffan contested the seat with Sir William Thomson, who defeated him by 1130 votes to 245. The main opposition on the present occasion is very active, and it is impossible to say what the result will be, although those able to form a judgement believe that Sir William Thomson will retain his seat, in view of the work which he has done for the dispensary medical officers in Ireland and the knowledge of the Council's work which he has acquired after many years' service.

The voting papers will be issued to the 2,800 electors between the 22nd and 25th January, and all papers must be returned before Friday, 2nd February. The count will take place on the third, and probably finish on the same day.

It is right to warn voters that they should read the directions on the voting paper and strictly adhere to them. The initials of the voter must be put opposite the name of the person for whom he votes.

Inattention to the rules means the loss of the vote. This has been seen in all elections, and it is surprising to find that so many blunder in a very simple procedure.

REPRESENTATION OF EAST BELFAST.

Dr. J. D. Williamson, J.P., City Councillor, Belfast and Helen's Bay, has been waited upon by a deputation, who asked him to contest East Belfast in the parliamentary election against Mr. Wolff, the present representative. Dr. Williamson, however, refused, giving as his reason that nothing should be done to imperil the Unionist cause.

THE STAFF OF THE BELFAST POOR-LAW INFIRMARY.

At the weekly meeting of the Belfast Board of Guardians on January 9th, the Infirmary Committee report was moved by Dr. Ritchie and seconded by Dr. MacIntosh. It recommended the appointment of two visiting medical officers instead of one, as successors to the late Dr. Lynass; it is felt that the strain of the work, especially the surgical work, must have hastened Dr. Lynass's end; and one of the new men was to be purely surgical. The report and recommendation were based on the advice of the present medical officers and the medical men on the Board; over 1,700 patients have to be attended by four medical men, one of whom is an ophthalmic surgeon. After some discussion, however, it was decided not to increase the number of visiting medical officers.

QUEEN'S COLLEGE, BELFAST.

Better Equipment Fund.

A meeting of the Executive Committee of the fund was held in the College on January 12th, with Sir Otto Jaffé in the chair. It was decided to vest the funds in seven trustees for the benefit of the College, who shall act under the instructions of the Allocation Committee. The Investment Committee reported that they had invested over £20,000 in approved trustee stock. An Allocation Committee was then formed, and it was resolved to ask the College Council to draw up a complete scheme showing the precise object to which the income of the fund should be devoted, and that this scheme should be considered by the Committee.

India.

A NEW MEDICAL COLLEGE FOR THE UNITED PROVINCES.

For many years past there have been no additions to the four medical colleges of India at which a complete medical training for university degrees and qualifications is given by a highly-qualified staff of professors, specially-selected Indian Medical Service officers. The present colleges are situated at the three Presidency towns of Calcutta, Bombay and Madras, and at Lahore, the capital of the Punjab, but it has recently been proposed to start a separate medical college for the United Provinces of Agra and Oudh, and to place it at Lucknow, the capital of Oudh, where so many wealthy native landowners reside. Under the fostering care of the Lieutenant-Governor, Sir James La Touche, and of the Inspector-General of Civil Hospitals, Colonel R. D. Murray, I.M.S., rapid progress has been made in collecting money for this purpose, no less than ten lakhs of rupees (£70,000) having already been subscribed, while enthusiastic meetings in support of the scheme are being held all over the province. This very ready response on the part of the people is very gratifying and in marked contrast to the hopelessness of obtaining subscriptions for hospitals from the rich natives of Calcutta, in which town the vast proportion of money collected for even native hospitals is obtained from the European inhabitants. As a result the foundation stone of the new hospital for the medical college was laid by the Prince of Wales, a site having been chosen near the old Machchi Bhawan fort and the Victoria Park, on the borders of the native city, yet not far from the civil lines where the European officials reside. Much time and labour will be required to bring this great scheme to maturity, but a most promising start has been made, and this populous and enlightened province may be trusted to carry it through with credit to itself and to European medicine.

THE HEALTH OFFICERSHIP OF CALCUTTA.

Eight years ago, on the retirement of Professor Simpson from the Health Officership of Calcutta, Dr. Neild Cook was appointed in his place, having previously held a similar post for several years in Madras. After five years' service his appointment was renewed for three years more, and during the whole of this long period he has done excellent work in a post of great difficulty. Yet at a recent meeting of the Municipal Commissioners, at which only about one-third of the total number of members was present, it was decided by a large majority to give Dr. Cook six months' notice, and to advertise the appointment, on the ostensible ground that he was not the man to carry out the proposed reorganization of the health department consequent on the plague officers being once more placed under the Corporation instead of directly under the Local Government. Yet, strange to say, no charges of incompetence have been brought forward to justify the dismissal of the health officer, while it is proverbially unwise to swop horses while crossing a stream, as the municipal authorities propose to do. Much sympathy is felt for Dr. Cook, who is thus cast adrift after over fifteen years' public-health work in large Presidency towns of India without even the opportunity of ascertaining the reasons for the treatment allotted to him or the chance of defending himself. The intention of the Municipal Commissioners with regard to filling up the post are not yet known, but, under the circumstances just mentioned, it is extremely unlikely that they will be able to get any well-qualified health officer to come out from England to take up such a thorny and uncertain post, although under different circumstances Bombay recently obtained an excellent man from England. An officer from the plague department, who has twice acted for a month or so in the post, is likely to be a candidate for it, but it is also considered possible that the Government may intervene and appoint a service officer, making his position independent of the votes of the Municipal Commissioners. Whether a highly-qualified service man can be induced to give up his prospects in the ordinary line of the service for the onerous position of Health Officer of Calcutta remains to be seen.

CONTRACT MEDICAL PRACTICE.

NOTICE AS TO DISTRICTS IN WHICH DISPUTES EXIST.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 56

PRIZES OFFERED BY THE ACADÉMIE DES SCIENCES.—Among the prizes offered by the Paris Académie des Sciences for the period 1907-1911 are several for work in the domain of medicine and surgery. Of these may be mentioned the Monthyon prize of £100, which is awarded annually to the author of books or discoveries considered to be most useful to the art of healing; the Barbier prize (£80) awarded annually to the author of a valuable discovery—surgical, medical, pharmaceutical, or botanical—having relation to the healing art; the Bellion prize awarded annually to scientific workers "who shall have written works or made discoveries beneficial to the health of man or useful for the amelioration of the human race"; and the Bréant prize (£4,000) for the discovery of a cure for Asiatic cholera or of the causes of the disease. The interest of the capital will be given to any one who shall be judged to have advanced the knowledge in regard to cholera or any other epidemic disease.

The General Election.

UNIVERSITIES OF GLASGOW AND ABERDEEN.

PROFESSOR A. F. MURISON, Professor of Roman Law and Jurisprudence in University College, London, has come forward unexpectedly at the last moment as a candidate. He is an Aberdonian and was educated at the Grammar School and University of Aberdeen, where he took the degree of M.A.

The nominations took place on Monday last, when Sir Henry Craik, K.C.B., Professor W. R. Smith, and Professor A. F. Murison were duly nominated.

With reference to the communication from Mr. D. M. A. Chalmers, noted in the BRITISH MEDICAL JOURNAL of last week, page 106, we have received the following letter from Professor W. R. Smith:

SIR,—I notice in the BRITISH MEDICAL JOURNAL of January 13th (p. 106) that Mr. D. M. A. Chalmers controverts my statements made in Aberdeen on Saturday, the 6th inst.

I give the facts verified by the original documents now before me and which I will willingly place at your disposal, and I will with confidence then leave the matter with my fellow graduates.

1. September 21st, 1900, at the last general election Mr. Campbell issued his address to the graduates. That address contained no allusion to any association whatever, and was unaccompanied by any recommendation from any association, or, indeed, any one person connected with the universities constituency. It was assumed, therefore, and I think rightly assumed, that no association existed. Indeed, if such an association existed, why did it not disclose itself, and why has it allowed the registers of the universities to get into such a condition that over a thousand graduates will possibly at this election lose their votes through the inaccuracy of their addresses? It is true a committee was formed to promote Mr. Campbell's return twenty-six years ago. I was a member of it, but I have never heard during the thirty years I have been a graduate of Aberdeen of any association being in existence.

2. It was felt by many influential graduates at this time that if the universities representation was worth preserving it was worth looking after, and, consequently, an association was formed under the title of the Universities of Glasgow and Aberdeen Conservative and Liberal-Unionist Association, with the Duke of Richmond and Gordon—the then Chancellor of Aberdeen University—as President, and by a circular dated November, 1900, every graduate of the two universities was invited to join, which they did in large numbers. The association was duly registered at the central offices.

3. December 17th, 1900.—Doubtless stimulated by this action, I find a circular with this date issued to a few gentlemen by Mr. Harvie Anderson of Glasgow, who was Mr. Campbell's agent, intimating that "on December 12th, 1900, it was agreed that a Conservative and Liberal-Unionist Association should be formed here (Glasgow) in connexion with the universities constituency." A circular of a like nature was issued by Mr. Chalmers to Aberdeen graduates.

4. March 5th, 1901.—Notices in precisely identical terms were issued for meetings to be held in Aberdeen and Glasgow respectively—in Aberdeen on March 16th, 1901, and in Glasgow on March 27th, 1901—signed respectively by Mr. Harvie Anderson and Mr. Chalmers, with the view "of approving of a constitution and appointing office-bearers." These notices were accompanied by a postcard, to be returned, "if you approve of the formation of the association." From the above it will be evident that the association formed in November, 1900, is clearly senior to that constituted in March, 1901.

5. April 23rd, 1904.—Mr. Campbell intimated to the chairman of the senior association his intention not to seek re-election, at the same time giving the names of Mr. Chalmers and Mr. Harvie Anderson as gentlemen who would be interested in the matter in Aberdeen and Glasgow.

6. April 26th, 1904.—These gentlemen were written to by the senior association, seeking co-operation and suggesting a conference to discuss the qualifications desirable to seek in a candidate.

7. May 12th, 1904.—A communication was received from Mr. Harvie Anderson of Glasgow, and subsequently one from Mr. Chalmers of Aberdeen, intimating that on that day Sir Henry Craik had been selected as a candidate (his name was announced as such in the papers on May 13th), and adding that a conference could then be arranged. I make no comment on the obvious discourtesy of the few gentlemen who met in Aberdeen and Glasgow, other than to say that such was their anxiety to thrust Sir Henry Craik upon the notice of the graduates, that they took no heed to the fact that he had no connexion with the university constituency, and that he would be unable to contest the seat, if it became vacant prior to January 1st, 1905, holding as he did a Government appointment.

8. June 3rd, 1904.—A conference was held at the Westminster Palace Hotel, at which a large number of graduates attended, Sir James King, Bart., of Glasgow, being in the chair. The qualifications of a suitable candidate were generally discussed and approved; with not one of these did Sir Henry Craik comply, and on the Chairman intimating, in reply to a question, that that gentleman's candidature could not be reconsidered by those responsible for it, the conference dispersed.

9. The senior association then approached various gentlemen possessing the qualifications thus generally approved, and it was not until October, 1904, that I was asked to become a candidate. I intimated that I would only consent to the suggestion if my name met with the approval of the graduates, who were to be communicated with, and a committee was formed consisting of at least a thousand of such graduates. These conditions being fulfilled I placed my services at the disposal of my fellow graduates.

I have thus given a full statement of the facts.

In conclusion, may I be permitted to say I am deeply sensible of the great responsibility attending upon the office I seek? I am sincerely desirous of helping the medical profession in Parliament, and my membership of the Council of the British Medical Association will enable me to be in touch with the wishes of that body and its Committees, and in this way I trust to be of real service to our great Association of medical practitioners.—I am, etc.,

WILLIAM R. SMITH, M.D.

74, Great Russell Street, Bloomsbury Square, W.C.,
16th January, 1906.

Dr. James Cantlie, Honorary Secretary of Professor Smith's Election Committee, writes from 37, Russell Square, W.C., under date January 16th, as follows: Will you allow me to draw the attention of the graduates of the above Universities to the fact that the voting papers for the above election will be sent to the addresses as they appear in the Register of the General Councils in the calendars of the above Universities, and if any alteration has been made in any case in the residence, and the same not intimated to the Registrar of the University, immediate notice should be given to the Postmaster of the district of the old residents to redirect all letters to the graduate's new address, or the vote will be lost?

I am induced to make this representation as I find the registers of the Universities most seriously inaccurate.

Any graduate in the Royal Navy or of the Royal Army Medical Corps, or who is usually resident abroad, and who does not appear from his address as entered on the Register to be resident within the United Kingdom or the Channel Islands, and who may now be at home, may apply to the Registrar of his University to send a voting paper to him to an address within the United Kingdom or Channel Islands, and he will thus be enabled to exercise his privilege of voting.

May I also be allowed to say on behalf of Professor William R. Smith's Committee that they earnestly hope the medical graduates of both political parties will unite in supporting Professor Smith's candidature, and thus secure for the Universities a medical representative, and for the British Medical Association one who would be practically a direct representative of that Association, as he is a member of its Council, and would thus be in touch not only with the views of that body, but those of its various Committees, the value of which would obviously be great to all the members of our great Association?

We have also received a letter from Sir James Barr, in the course of which he writes:

I am very pleased to see that the Medico-Political Committee of the British Medical Association are doing some good work in connexion with the General Election in bringing before the candidates the requirements of the medical profession, and I hope this process of education will go on until the medical profession becomes a real political power. At present, owing to the want of cohesion, we have got practically no influence, and any candidate can easily afford to disregard the views of our Association.

The medical profession should take an example from the representatives of labour, and try and get some of our own members, whatever be their particular views on general politics, into Parliament. The medical graduates of the Universities of Glasgow and Aberdeen have now an excellent opportunity of returning a medical man to the House of Commons in the person of Professor Smith, M.D. Dr. Smith is a Unionist and Free Trader, and notwithstanding the fact that I am, and have always been, a Protectionist, and one who firmly believes in the necessity of tariff reform in this country, I am a warm supporter of Professor Smith. I sincerely hope that my professional brethren of these two Universities will rally round him, and secure his triumphal return as our representative.

UNIVERSITIES OF EDINBURGH AND ST. ANDREWS.

We have received a large number of letters with reference to the contest in this constituency between Sir John Batty Tuke and Mr. J. St. Loe Strachey.

Mr. Monsarrat, in the course of a reply to the letters of Dr. Brassey Brierley and Dr. Owen Morris in our last issue, writes: Until medical men use their influence to return to the House of Commons members of their own profession sufficient in numbers and eminence to make themselves felt as a power to be reckoned with, the prospect of improving the regulation of medico-political matters in this country will remain remote. There is no necessity for citing instances of the present practical impotence of the medical profession politically speaking, although the British Medical Association and some of the medical members of the House have succeeded lately in making some progress towards altering this state of affairs.

Dr. J. Grey Glover desires to protest against Mr. Monsarrat's doctrine that medical graduates of a university in the use of their university vote should sink all their differences on other matters and vote for the medical candidate as such. He holds that this is tantamount to saying that while an ordinary vote is given for use in regard to the great public questions of the day, the university vote is given for advancing the interests of our special faculty or profession. He dissents from this doctrine, which he considers would imperil the principle of university representation.

Professor Sims Woodhead (Cambridge) writes in a similar strain. As one deeply interested in the physical and social welfare of the nation, and believing that vital national interests are at stake, he declares himself a strong supporter of Mr. St. Loe Strachey.

Professor Saundby of Birmingham, on the other hand, while recognizing that Mr. St. Loe Strachey as a politician professes opinions with which he entirely concurs, desires to see Sir John Batty Tuke elected, because he thinks the interests of our profession, in the case of such a seat, are more than party politics.

Individualities of Insane Persons.—Dr. Clemens Neisser (*Individualität und Psychose.* Berlin: A. Hirschwald. 1906. Price 60 pf.) in an address read before a mixed audience at Meran, brings forward a number of arguments from fact and analogy for the more careful study of the individualities of insane persons from a psychological point of view. He mentions the recently-established science of graphology (the science of handwriting) as a branch of the differential psychology that should, he thinks, be encouraged; and he believes that much improvement in the treatment of insanity is to be expected from increased attention to the mental attitude and psychical processes of each individual case of insanity.

SPECIAL CORRESPONDENCE.

PARIS.

The Surgery of the Bile Passages.—Infective Books.

According to the great philosopher Fontenelle, unlucky persons are those who have made wrong calculations. Every one knows that the word "calculation" comes from the Latin *calculus*, a little stone. Long before Fontenelle the ancients used to mark happy days with a white and unhappy days with a black stone. "Bilious" people are very unhappy; they are apt to see everything in the most sombre colours. Perhaps as a consequence they become the subjects of troublesome calculi. These are not indeed wholly black; there are grey, brown, red, and lighter shades. But what is worse than the variety of their tints is their deplorable habit of taking up their quarters in regions whence it is very difficult to dislodge them. They are the despair both of patients and doctors. By the side of brilliantly-successful eliminations, due to the *vis medicatrix* much more than to our therapeutics, there are lamentable failures in dealing with calculi impacted in the cystic, the hepatic, or the common bile duct. The impotent potion must in that case give place to the bistoury. According to the most recent reports of the Société de Chirurgie, it appears that surgeons should have recourse more frequently than they do to active intervention. Cholecystotomy, choledochotomy, cholecystenterostomy, serve to show the possible complexities of the situation which has to be faced; and the problem of the calculus may present difficulties unsuspected in current arithmetic. The rule of three comprises the patient, the calculus, and the surgeon. This rule is simple when the operator can determine the exact situation of the calculus and remove it with ease. It is, however, terribly compound when there is, if not an unknown, at any rate an invisible term—the calculus. The reports to which reference is made show us that biliary calculi may lodge so high up in the hepatic duct that the most masterly incisions may fail to reveal their whereabouts. What will be said when it is known that our ablest surgeons have been deceived in their anticipations, and have been able to find the *corpus delicti* only in the liver itself, or to discover it in an unusual situation at the *post-mortem* examination? If the anatomical abnormality recently pointed out of a gall bladder embedded in the substance of the liver be taken into account, it will be recognized that the surgery of the biliary passages might deserve a place amongst the most difficult operations of the calculus—of probabilities.

A master of irony has said that he did not love virtuous persons because very often they clothed their moral qualities with an unattractive physical exterior, and the cultivation of the soul made them neglect the care of the body. Perhaps what has been said of good people might be applied to good books. From the very fact of their goodness they are turned over with daily and nightly hand, and passed from one reader to another. If in this manner they gain a varnish of reputation, they usually thereby lose all their lustre. As it is mostly good people who read good books, the latter get from contact with the former a little of that colour, if not that odour, of sanctity which contemporary science, to which nothing is sacred, has taken the liberty of analysing. Science has recognized that good books may, in regard to their physical qualities, vary from the dirty to the repulsive and even to the dangerous. We all know the story of a letter told by the great master Trousseau in his clinical lectures. A young girl convalescent from scarlet fever wrote to one of her friends. The girl, doubtless, filled her letter with a thousand tender messages, but in addition to these she enclosed in it hundreds of morbific scales, with the result that the friend to whom she wrote caught the disease in turn. If a letter can do this, what may not be done by a book? While a letter goes only to one person, the class-book passes from teachers to pupils and circulates among the latter. A book from a lending library goes about from family to family. The better it is the more it will be sought for, and consequently the greater opportunity it will have of doing mischief. It may easily stuff itself with staphylococci from cases of furunculosis, with streptococci from cases of erysipelas, with the unknown germs of small-pox, scarlatina, and the rest. It can readily be understood that a circulating focus of microbes, like the infected book, has attracted the attention of the hygienist. In view of a communication from Dr. Lop, of Marseilles, recording a school epidemic attributable to books, the Paris Academy of Medicine has asked Dr. Josias to draw up a report on practical methods of disinfecting books. It appears that this is not particularly easy. Formol fumigations are recognized as inadequate; antiseptic sprays, as well as the processes of sterilization in common use, are fatal to the paper. There is indeed fire which purifies everything; but that procedure, if radical enough, is scarcely economical. In the report of the Academy of Medicine it is stated that England and Scotland have perfect methods of disinfecting books. Possibly it may be stated in London and Edinburgh that the problem has nearly been solved in France. This sort of thing is too common in regard to the great questions of practical hygiene. There are measures which the scientific societies should insist upon in the name of the public safety. Every one is fully agreed as to the urgent need of decisive and speedy action, but the execution of a scheme is not always so simple a matter as the formulation of a precept: "Do not spit on the ground; do not wet your fingers in turning over the leaves of books; get the furniture and the copybooks in schools, and the paper in offices disinfected; do this; do that"; and so on. While academicians vote or debate, life goes on in its groove of routine and unhealthiness in France as elsewhere.

BERLIN.

Professor Fischer on the Constitution of the Albuminoid Bodies.—Syphilization of Apes.—Hospital Charges.—A Model Lying-in and Children's Institute.

The address which Professor B. Fischer was announced to deliver before the German Chemical Society last week excited an interest quite exceptionally keen in Berlin scientific circles. Every seat in the large hall of the Hofmann House was filled on the occasion, and among the audience the well-known faces of many eminent physiologists and medical celebrities gave evidence of the fact that "the constitution of the albuminoid bodies" is a problem as interesting and important to the biologist as to the chemist; for all life is bound up with albumen. Hitherto Fischer's fame has rested chiefly on his research connected with the synthesis of sugar. As to the albumen inquiry, in which he and his fellow-workers have been engaged for years, and of which he gave an account in his recent address, it may at once be said that it represents a long series of the most subtle and masterly synthetic experiments. The molecule of albumen is extremely complex, and Fischer's method was, therefore, to start from its products of decomposition which can be obtained by chemical and fermentative action. These are the peptones, the albumoses, and the amino-acids, the latter being of all the least complex. By coupling together these amino-acids, which Fischer calls polypeptides, he obtained albuminous bodies showing the reactions of genuine peptones. For instance, these bodies can be molecularly broken up by the aid of pancreatic juice. There can be no doubt that Fischer's researches have placed the chemistry of albuminoid bodies on a new and higher level, but it must be added that Fischer himself thinks the final realization of the synthesis of albumen still far, far off, and that endless labour will be required before full light can be thrown on the chemical nature of albumen.

Another address of general interest was that on the syphilization of apes delivered a few evenings after Fischer's by Professor Neisser, of Breslau, before the Berlin Dermatological Society. Since Metchnikoff's primary experiments, not a few attempts have been made to inoculate anthropoid apes with syphilitic virus. Professor Neisser's experiments were carried out in Batavia, and were made on about 900 animals—orang-outangs, gibbons, etc. He considers that his experiments have proved the identity of human and ape syphilis, and have further proved that the lower apes are much less susceptible to the poison than the anthropoid apes. The invariable presence of *Spirochaeta pallida*, first observed by Schaudinn, Neisser takes as showing a fixed relation of this organism to syphilis.

The Berlin magistrates have decided to raise hospital charges for all patients who live out of Berlin. From April 1st all such adult persons will be charged cost price—that is, 4 marks 20 pfening (4s. 2d.), instead of 2 m. 50 pf. (2s. 6d.) as heretofore; and their children 3 m. 35 pf. (3s. 3½d.). These raised prices have no influence on the scale on which the indigent are paid for.

In honour of the German Emperor and Empress's approaching silver wedding, and to carry out one of the favourite ideas of the Empress, Charlottenburg has decided to erect a small model lying-in and infants' institute. There are to be 30 beds for women expecting confinement, who are to be allowed to stay on until their child is three months old, and 30 beds for infants to be fed artificially. The mothers, during the time of their stay, are to learn how to arrange their diet and mode of life, so as to have a supply of wholesome milk for their baby, and how best to treat the child as it grows up; and in the department for artificial feeding the most scrupulous attention is to be given to periodical examination of cows and dairy, to the cooling and sterilization of milk and vessels, etc., so that in time a basis may be formed for the establishment of fixed rules to regulate the rational feeding of infants.

VIENNA.

A Tax on Prescriptions.—Payment for Telephonic Consultations.—An Antiquackery Society.—A Solitary Case of Hospital Gangrene.—Typical Neurofibromatosis.

A novel source of income for the benefit of the orphans and widows of medical practitioners has been proposed in medical circles and has been brought to the notice of the Committee of the Medical Council. It is proposed to impose a tax of 1 heller—equal to half a farthing—for each time a prescription is dispensed. The stamps for this tax would be supplied to the apothecary by the different branches of the Medical Council, and the apothecary or the dispensing chemist would be bound to affix one of these stamps to the prescription every time it is presented. The sum is so trifling that it would not be a burden even if a family were to have a hundred prescriptions made up in the year. On the other hand, it may be estimated that at least 15,000 prescriptions are dispensed daily in the whole empire. This would mean an income of about £4,000 a year to the fund, from which donations, loans, and other pecuniary help could be given to the family of doctors. The idea has been received with very mixed feelings. Whilst the public did not take much notice of it, the Society of Apothecaries has expressed positive hostility to the proposal, while several medical chambers and medical societies have expressed an adverse opinion on ethical grounds. The necessity of materially increasing the funds is obvious, as social policy is an absolute want. The public, which so often requires the aid of the practitioner without paying heed to the dangers to which he is exposing himself, must be just enough to help in providing for the destitute family if the breadwinner dies without means.

The extensive use of the telephone has led to a rather curious lawsuit. A very busy practitioner had in several instances been asked by telephone to give his opinion as to the continuance or otherwise of treatment of patients seen by him a day or two before. When sending in his bill he charged these consultations like other ordinary consultations, and the patient declined to pay. The judge, after hearing several experts, decided that not only the time but also the experience and knowledge of the practitioner had to be paid for, and that opinions given by telephone are as valuable as those given to the patient by word of mouth. The patient had to pay the fee and the costs of the action.

At a recent meeting of the Surgical Society of Vienna Dr. Lichtenstern showed a man, aged 64, the subject of prostatic hypertrophy. He was operated upon through the perineum, and the result was very satisfactory. Six days after the operation, when changing the dressings, the surgeon observed in the middle of the sacral region a black spot about the size of a pea, which had not been there long, as the temperature had gone up to 104° only two hours before. The perineal wound itself was in a perfectly healthy condition. The patient was at once isolated. The black spot increased within twenty hours to the size of a man's hand. The skin in the affected region was dry, black, sharply defined by a yellow margin from the red, infiltrated neighbourhood, which in its turn was marked off from the normal skin by a white line. Smears taken from the margin showed the Gram positive bacilli, which, according to Vincent and Matzenancs, are the cause of hospital gangrene. The wound progressed favourably, although at first it extended deeply and the whole of the skin and connective tissue of the affected area was destroyed, so that the os sacrum was visible with its ligaments and muscles. After six months a granulating area of the size of about a crownpiece is still visible. The etiology of the infection is not quite clear, as the case was a solitary one, and no case of hospital gangrene has been known in Vienna for years. The interesting point of the case is the localization on the sacrum and the fact that the operation wound itself remained unaffected.

A typical case of the well-known but rare condition called neurofibromatosis, or multiple fibroma, was shown by Dr. zum Busch, assistant in the Dermatological Clinic. The whole surface of the body, especially the back and the breast, is occupied by tumours of the size of a pinhead to an egg. They are all globular and have a broad base, some have a short pedicle; the largest are lobar in texture. The colour is that of normal skin, only a few are a little livid; the surface is smooth. The tumours are very soft, elastic, like empty sacs to the touch. There are also very numerous atheroma of the skin present, besides many pigmented areas like very large ephelides. The patient is also a little affected in his brain functions, a point which is also often noticed in this disease. No treatment has been tried, for special reasons. Arsenic given by injection or in Fowler's solution seems to do good in many cases of this kind.

CORRESPONDENCE.

ARTERIAL DISEASES.

SIR,—Besides the letter from Dr. Harry Campbell in the BRITISH MEDICAL JOURNAL of January 13th, page 113, I have received some private letters on the subjects of my lecture on *Three Cases of Arterial Disease* which you were so good as to publish on the 6th inst. Of the several subjects discussed in these letters I must restrict myself to two; and first let me answer Dr. Campbell's question concerning tortuosity in the arteries of my "involutionary mode" of arterio-sclerosis, a mode of which high arterial pressure is not a character.

I believe that the causes of this conspicuous alteration do not differ in any essential respect from those in the hyperpietic arterio-sclerosis in the mode, that is, of which excessive pressure is a character. In both modes, as Dr. Campbell remarks of the high pressure cases, the tortuosity is due to elongation of the artery chiefly, but not wholly; some part of this effect—and this more especially in the involutionary mode—is due to the asymmetrical distribution of the degenerative patches in the vascular wall, whereby the vessel yields twists unevenly. The tortuosity of the temporal arteries, to which Dr. Campbell refers as observable even in comparatively young and healthy persons, is due, I think, to lack of supporting tissues; these vessels lie on the table of the skull without packing in soft parts. The effect of loss of packing we see in other arteries as soon as they begin to curve; for as on each diastole the curve straightens the vessel leaps becomes, as we say, "locomotory"; and as this proceeds the more the vessel lashes and becomes detached from its supports.

Now in respect of elongation under pressure; that this, still to follow Dr. Campbell, should come about under abnormally high pressures, speaks for itself—the vessel is continually stretched at least up to, and frequently beyond, its limits of elasticity. Thus its resilience fails; it "gives." Next, let us suppose the equation changed on the other side; if the pressure be normal or even, if you please, below normal, but the resilience of the vessels diminished, we shall get a similar result; for the pressure may be relatively in excess—relatively to the diminished elasticity and tone of the vessel concerned. Furthermore, as in the involutionary form, the distribution is more patchy so the contortion will be the greater.

Here, however, the factor of tone has to be considered. I am sometimes called pedantic because I object to the term "arterial *tension*." Pressure in a tube may ordinarily, it is true, be expressed in terms of tension—that is, if the tube be not a living one; if, however, the tube be an artery endowed with nerves, the factor of tone is a considerable interference. For instance, as I have often pointed out, in some cases of hyperpiesis we have not the large, leathery artery, but a small and wiry one. In these cases—which we may often, but not exclusively, see in granular kidney—the vessel does not become tortuous till late, or possibly not at all; because, by their intenser tone, the coats of the arteries are protected from injurious degrees of dilatation. In aortic regurgitation, on the other hand, tone usually is, or seems to be, in defect, so that in this disease the effects of tension are always conspicuous.

The one other matter to which I will advert is the suggestion that Thoma was before me in explaining arterio-sclerosis as an effect of high blood pressure, in place of the usual interpretation that high pressures are the effect of a pre-existent sclerosis, apparent or "latent;" alterations of the walls of the arteries which have indeed some, but quite a secondary and subordinate, effect on the blood pressure. On priority, as mere priority, I would not detain your readers, nor even much concern myself; but, if on the pretext of priority, Thoma's interpretation is to prevail, serious misconceptions may arise, for by no means do I accept Professor Thoma's interpretation. With all respect to an able and eminent pathologist, I must disagree with much of Professor Thoma's physics, a disagreement in which I am fortified by certain animadversions published a few years ago by Dr. Gibson of Edinburgh. It is sufficient now to say that Professor Thoma has not drawn the clinical distinctions between the several forms of arterio-sclerosis which are essential to my hypotheses. Again, I am no disciple of Thoma's doctrine that arterio-sclerosis is "an effort of Nature, by the thickening of their walls, to compensate" dilatation in the vessels. I consider that his experiments in this direction are inconclusive, and that his conception is a metaphysical one.

I have long rebelled in silence against the term "compensation," even when used in diseases of the heart—in silence, because it seems hopeless to stop a customary use, although, like all other false implications, it works some insidious evil. Professor Thoma's doctrine is to the effect that Nature, finding a brick out of the wall of an artery, dabs in some mortar to fill up the space; a process which is compared with the partial hypertrophies which come about in diseases of the valves of the heart. Surely, if teleology of this kind may have a place in human reason, its place is not in scientific analysis.

If an incidental force impinges upon a moving equilibrium, the equilibrium will be overthrown unless some corresponding internal readjustment be possible to it. In living bodies such readjustments are taking place incessantly, but by no means in any or all directions. They depend upon the capital or reserve of the parts concerned in the readjustment; when such reserve is available a readjustment takes place, when not, not. Now, structure and function being but different aspects of the same thing, the dynamical assumes statical form; if the capacity be there, structure and function make each other reciprocally. A ridge of bone to which a very active muscle is attached increases in size, but we do not call this readjustment "compensation." The healthy heart is readjusting itself, not in valvular disease alone, but every hour, as this or that extraordinary demand comes upon it and is met by liberation of energy and concomitant afflux of material—an afflux which may increase, and often does, till it becomes visible to the eye. Thus muscular arteries under more than ordinary dilating stresses grow in muscle, even visibly, just as a chamber of the heart will do.

Let us apply these truths to the tunica intima; this coat, between the pinch of excessive pressure within and of excessive tone without, may hypertrophy; to speak metaphorically, under Nature's guidance it may grow stronger; but so far as I know we have no evidence that such a normal increase comes about. If we assume that the intima exhibits no such reserve capacity, or but little, it will suffer between the hammer and the anvil many microscopic lesions, and for local repairs inflammatory reactions will be set up. Now the imprisonment of these inflammatory products may perchance, by plumping out the wall, be advantageous here or there for a while; but to say that beyond these local reactions Nature has an eye to the dimensions of the arterial system, and so on to the hydraulics of the circulation, seems to me to be—in mathematical language—absurd. In involutionary arteriosclerosis, indeed, the diameters of the arteries are but too often contracted injuriously, even to obliteration of considerable vascular areas.—I am, etc.,

Cambridge, Jan. 16th. T. CLIFFORD ALLBUTT.

THE INFLUENCE OF POSTURE ON THE NORMAL CARDIAC SOUNDS AND ON THE NORMAL CARDIAC DULLNESS.

SIR,—I was much surprised to read a passage in a letter from Dr. Samways on the above subject in the BRITISH MEDICAL JOURNAL of December 9th. He says: "The aorta itself is a siphon, having the first part as the shorter arm, and the more upright a siphon is placed the more rapidly liquid flows from the shorter to the longer arm." Now, with all deference, I would beg to point out that the aorta cannot act as a siphon because the latter depends entirely for its action upon the pressure of the atmosphere upon the surface of the fluid in the vessel which is being emptied by its means. Place an air-tight lid on the vessel, and the siphon will at once cease to act. And the heart itself is quite isolated from atmospheric pressure by the walls of the thorax. Again he says, "The recumbent or upright positions probably have, on the whole, very little influence on the weight of the blood upon the aortic and pulmonary valves, hydrostatic siphonage relieving the heart of any appreciable trouble on that account." But if siphonage were an important function of the aorta, how about an acrobat "standing on his head?" Surely he would risk a speedy death from embarrassment of the heart from the sudden stoppage of the siphonage, for no siphon will act uphill.—I am, etc.

GEORGE A. BALLINGHALL, M.D.

St. Leonards-on-Sea, Jan. 2nd.

THE ANTIVIVISECTIONISTS AND THE HOSPITALS.

SIR,—Allow me, please, to answer Mr. David Christie Murray's letter headed "The Antivivisectionists and the Hospitals."

He writes that he would regard any attempt to cripple the finances of hospitals as a crime, and that the only desire of the antivivisectors is to see that the funds which are subscribed for the relief of suffering are devoted to that purpose, and to that purpose only. Very kind of them, but unfortunately not true—see Mr. Coleridge's evidence before Sir Edward Fry's Commission, where he frankly admitted that his object was to stop money being given to schools where there was vivisection, and that had it not been for this vivisection we should "never have heard of Stephen Coleridge" in the matter.

As regards the first excuse for his existence, does he not know—of course he does—that Mr. Coleridge, his leader, has each year issued a "guide for the charitable," and does he not know that this charming publication holds up as unworthy of being helped not only those hospitals which have schools connected with them, and to which money may, or may not, have been given in the past, but also all hospitals which have any licensed vivisector on their staff, though no vivisection is done or can be done at them, and though the holders of the licences may not have used them for years? Can Mr. Murray be so innocent as to believe that the object of this guide is any other than to induce people to drop their subscriptions to all these hospitals? Does he not know—if not, West Kensington, from which he writes, must be the resting-place of the most guileless man in London—that the object of this guide is to frighten us who are responsible for these branded hospitals by seeing our subscriptions fall off, into being weak enough to give up what we believe to be right? So far the guide has had the very opposite effect in the hospitals I am connected with, and I do not feel at all alarmed. Does he think that the few people whom this guide succeeds in stopping giving to a branded hospital give to any other? Not at all. I happen to be chairman of a hospital which has no school and no licensed vivisector on the staff, and when in answer to an appeal of mine I get a refusal (generally couched in language which would make one cross if it did not excite pity) on the ground that there is vivisection at the London Hospital School, I gently, and in the most courteous way, offer the Poplar Hospital. Then I get no reply. Not one single subscriber has ever withdrawn a subscription in consequence of the guide, though they have all received copies. But this does not alter its obvious intention; it only emphasizes the limits of its success.

Now as to his second point: "We desire to see the funds which are subscribed for the relief of suffering devoted to that purpose and to that purpose only." Yet he and his leader howl with rage because I have publicly stated that "not one farthing of money given to the London Hospital shall be given to the school." Therefore if this is his sole desire it is accomplished. But will this satisfy him? Of course not, because the hospitals and schools have survived his attack. His leader and he (see his article in *Contemporary Review* of December, 1905, and my reply in the January *Contemporary*) wax eloquent because at the London Hospital we have started a discretionary fund. This action of ours secures that no money will ever go to the school unless the donor expressly desires that it should do so, and then only if the managers of the hospital think it necessary. Does Mr. Murray seriously think that he can justify any attempt to dictate to any one how he may spend his money? He is good enough to say that he thinks any money needed for the school should be asked for separately, and that this is a "matter of mere justice." Justice to whom? To the donor, or to Mr. David Christie Murray, or to Mr. Coleridge? Mr. Murray admits that there is nothing wrong in giving money to a school if a donor wishes to do so. Then please, Mr. Murray, may I not, if I choose, in future, give money to people whom I can trust to spend it as they think best? Why am I to be compelled to allocate my money to the school which may not want it, or the hospital, provided I believe there are men more competent than myself to divide it as their experience tells them it is needed? It is really not worth further discussion, as the attack on the Discretionary Fund must be dropped by any one who has the smallest sense of any logical position.

Just one word about the Mansion House meeting. Mr. Murray endeavours to defend Mr. Coleridge's conduct in carefully and wilfully withholding all notice of his resolutions by writing that they were by "mutual consent hung up a year ago." But is this candid? He knows quite well that the resolutions moved by Mr. Coleridge were different to the one he proposed a year ago. He knows that not only was no notice sent to the Secretary, but that, writing only ten days before the meeting, Mr. Coleridge never mentioned any intention to move anything, though he protested against the action of the Fund in making a grant to the school hospitals. Mr. Coleridge makes excuse that, shortly before the meeting, he spent a week-end at the house of one of the honorary secretaries, Mr. Gilliat. But, if he ever mentioned to Mr. Gilliat what he intended to do, Mr. Gilliat never told the Secretary, and assumed, of course, I presume, that Mr. Coleridge had adopted the usual course.

More than this. Mr. Murray knows quite well that we, the Council, had no idea what resolutions Mr. Coleridge was going to move because he has made boast that he was accidentally (!) present at a *private* meeting of the Council held just before the general meeting. I may add that he accidentally (!) stayed to the end of it, and has thought it consistent with the conduct of a gentleman to communicate what he then heard to the Press! But owing to this accident he knows quite well that the main subject of discussion was speculation as to what Mr. Coleridge *was* going to move and as to how we should meet various contingencies.

You have often pointed out the "methods of controversy" of the antivivisectionists, but I think Mr. Murray's action almost establishes a record on methods of conduct.—I am, etc.,

January 11th. SYDNEY HOLLAND.

SIR,—I regret that I only saw Mr. Christie Murray's letter a day or two ago, but there are a few points in it to which I should like to draw attention with your permission. He "desires to be allowed to say" that he "should regard any attempt to cripple the finances of the hospitals as a crime worthy of the most sweeping condemnation"; a view which he would have his readers believe is shared by Mr. Coleridge, for he says: "If your estimate of Mr. Coleridge's purpose were even in a moderate degree accurate I would not permit my name to be associated with it for an hour," from which it appears that whilst Mr. Murray is able to direct experimenters to the best methods of performing their own work his acquaintance with the antivivisection question is so recent that the crime of trying to cripple the finances of the hospitals in which Mr. Coleridge and Mr. Berdoe, the editor of *The Zoophilist* have so distinguished themselves, is quite new to him. Mr. Coleridge has specially directed his attacks against those hospitals which have any experimenters attached to them; but as this includes a large proportion of our leading hospitals, the restriction has not in any way crippled his energies. In a circular which he called "A Guide to the Charitable in the Disposition of their Gifts and Bequests," which he sent round to subscribers and others in 1901, he wrote as follows: "It would seem, therefore, that these venerable and sacred institutions . . . are passing into the hands of those who do not scruple to pervert their resources from the succour of the afflicted to the support of the laboratories and schools, wherein unoffending dumb creatures are ruthlessly tortured in the pursuit of a malignant and heartless science." But in this particular department Mr. Berdoe has surpassed his leader, owing to the fact, perhaps, that when a medical man undertakes the invidious task of fouling his own nest he has exceptional opportunities of doing it effectively, for the public credits him with knowledge and good faith.

In the book called *St. Bernards*, written with the evident purpose of discrediting our hospitals and depriving them of support, the art of defamation is fully illustrated. The hospital of the story is apparently the London, but it is said to be merely a type of the rest, and the attack is directed against hospitals generally and all associated with them. One surgeon is engaged in poisoning his wife; he is detected by another, who allows him to complete the crime because he wants to succeed to his post. The chief physician of the women's wards thus addresses a favourite assistant (third edition, p. 168): "Would you like to do a gastrotomy? You ought to do one or two before you leave; its a very pretty operation. I never knew a case survive more than a week, but there's nothing like trying; and if you pick out a case that must die anyway, you are welcome to use any of my cases that we can get to consent, and with Sister Agnes's help—Sister is capital at getting consent to anything; aren't you, sister?—it can generally be managed." On p. 160 is an account of a moribund patient who has been induced by wholesale lying to submit to a perfectly useless operation in his last moments, to gratify the impatience of a newly-fledged house-surgeon to perform his first capital operation. Every one is perfectly aware of the uselessness of the operation and the certainty that the patient will not survive it, and, to aggravate the situation, his wife, with a baby in her arms, is waiting in the hospital while her husband is murdered, to furnish sport for a gang of villainous young hooligans. I cannot ask for space for more quotations, but these are samples of the rest. According to the book, in this hospital, which is merely a type of the rest, every official, from the senior physician to the hall porter, the dressers, students, sisters, and nurses, are a band of unscrupulous wretches engaged in a conspiracy to maim and murder helpless patients for the mere enjoyment of a fiendish kind of sport. And this is the account by a medical man of our hospitals and profession! A criticism of the *Whitehall Review* is quoted on the cover of the book: "If half what he says is true then the hospital system is a crying disgrace to our civilization." Disgrace, indeed! Has Mr. Coleridge ever said a word, or taken a step to dissociate himself from the odious calumnies of his colleague. Far from it, he has done his best to divert subscriptions from our hospitals himself, and the campaign of slander has been carried on for years by the party which he leads. Mr. Murray has told us how he regards "attempts to cripple the finances of the hospitals," if that description does not apply to the proceedings of his friends, perhaps he will explain why.

May I add a short comment on the other two points in Mr. Murray's letter. "The Cruelty to Animals Act." We should all be grateful for Mr. Murray's proferred illumination of this if his own candle gave a little more light. I am not concerned to defend an Act which was largely due to antivivisectionist agitation, and is the one solitary achievement they can claim for all their years of agitation, the vast sums they have spent, their rivers of ink and torrents of talk, and which poor offspring of prodigious labour they characteristically denounce now as worse than useless; but I think Mr. Murray does even this poor Act an injustice. His searchlight, his microscope, and fine toothcomb have not enabled him to discover the tangible personality of the Home Secretary, on whose discretion the authors of the Act thought it reasonable to rely. "Any physical atrocity conceivable by the mind of man" (particulars from Mr. Berdoe) could only be legally "perpetrated by a fully-certified (*sic*) experimenter," if the Home Secretary were a fiend or a madman who had authorized the experimenter to perpetrate it. Presumably, our legislators thought the simultaneous existence of such a Home Secretary, and such an experimenter, associated for a common purpose, too remote a contingency to need any special provision. Mr. Murray thinks they were optimists; time will show.

His last suggestion I should not have regarded as a serious one if microscope, searchlight, or toothcomb could detect any humour in it. But, having failed, etc., I will only say there is no apparent reason why scientific investigators should be huddled into a concentration camp while novelists are at large. The advantage to the community of sending novelists, who abuse their gifts of fiction and romance to mislead their readers in matters of moment, to a solitary island where their writings would be submitted to the censorship of a competent scientific authority, is obvious enough; but we should hesitate to suggest it, for, though these people are mischievous, sectarian tyranny is worse.—I am, etc.,

January 14th. R. H. CLARKE.

SIR,—Mr. Wynne misunderstands a very simple proposition, the justice of which I should have thought would have been universally admitted. I urged that whilst no reasonable person has any doubt as to the humanity of the medical practitioners of this country as a body, the mere fact of a man having been entrusted with a full certificate for the performance of experiments upon the living animal affords no guarantee of his personal character. Mr. Wynne's studies in pathology may have endowed him with the fullest authority to sneer at my ignorance of that pursuit, though I take the liberty to say that it is somewhat less profound than he appears to fancy. But he has read his fellow men to poor purpose if he does not know that the lust of cruelty is a real thing in certain natures, and he does small justice to a reasonable request when he construes as an insult to a humane and honourable body of men the suggestion that there is something lacking in an Act of Parliament which makes no effective provision against the abuse of licence. There is no contradiction implied in the statement that whilst the great majority of pathologists in this country may be relied upon to spare their subjects pain, there may be one pathologist, or two or three or four, who find a pleasure in inflicting it. There is nothing insulting to the profession in the belief that here and there may be found a medical man who is capable of an action which he would willingly hide from the light of day. I yield to no man in my admiration for the courage, the devotion, the gentleness, the ardent and unceasing effort for the relief of suffering, which I myself have seen displayed upon the field of battle, in the tedious march of long trains of wounded men, and in many hospitals. I am not saying this for the first time. My letters from Plevna, Sofia, and Adrianople to the *Times*, whilst I acted as correspondent for that journal during the Russo-Turkish war, gave evidence enough of my appreciation of the noble band of men with whom I had the honour to be associated. There is scarcely a book of mine in which I have not laid some tribute at the feet of those who profess and follow the great art of healing. But I have spent my life in the study and portraiture of men, and I know that every great corporation includes within it men of all sorts, saint and hero, coward and scoundrel. Surely I insult nobody when I suggest that the medical men of Great Britain should accept some safeguard against the secret actions of a few who may not be worthy to be counted amongst them. Mr. Wynne does not dispute the fact that the Animals Act makes the most atrocious cruelty possible, and its punishment by law impossible. What I ask for the present is no more than such an amendment in the Act as would place the control of pathological research in the hands of the whole body of the pathologists themselves. I reiterate the contention which excites so much amusement in the mind of Mr. Wynne. We *can* repose a trust in the corporation which we cannot repose in every individual member of it. The same fine sense of humour which makes this self-evident little bit of fact so amusing to Mr. Wynne prompts him to the statement that I have substituted a prettier phrase for the word "compound," which he describes as having "a sinister meaning for many Englishmen." I really do not think I suggested anything like a compound, or that any "sinister meaning" can by any ingenuity be twisted into the proposal that a Board of Physiological Research should be instituted under the control of those who are interested in that research. I may attribute to that same sense of humour the rollicking suggestion that the various Antivivisection Societies should combine to finance my suggested school. The vis comica has reached such a development in Mr. Wynne that he is amused by the fact that I am "perturbed" by the certainty that two inspectors cannot keep an eye on all of more than three hundred experimenters who are scattered about the country from John o' Groats to Land's End. Yes. I am perturbed by the reflection that under an Act which licenses atrocity and proclaims the existence of inspectors a necessity the provision for inspection should be ridiculously inadequate.

The framers of the Bill saw the necessity for inspection, and it is one of our complaints that they have appointed inspectors who cannot conceivably inspect. And whilst Mr. Wynne is lamenting that I cannot relinquish the all-important weapon of ignorance, I find it disappointing that he should have written so carelessly where he tells me that a very rudimentary knowledge would have taught me one fact of importance, that it is impossible to guess whether the animal or the toxin is made valuable as a reagent. I suppose him to mean that the value of the toxin as a reagent is believed to be established by the fact that it operates in one way on the human subject and in another on certain of the lower animals. That, as it appears to me, is a question which is open to dispute. I do not see what I am to learn about human pathology from the fact that a pigeon is less susceptible to the action of opium than Mr. Wynne or myself, or the other fact that a goat can eat with impunity many things which would be fatal to either of us. The whole system of reasoning appears to me to be fallacious. I am perfectly willing to surrender the scheme I have suggested in favour of any more practicable or convenient. There are certain facts which are beyond dispute, and I submit that it is wiser to bend ourselves to their consideration than to indulge in any interchange of epithets. The infliction of unprofitable agony is made possible by English law. Do the pathologists themselves as a body desire that? The lust of cruelty is, fortunately, a very rare human passion, but medical men above all others know that it is a very real thing. The law offers a perfect shelter to whose who indulge in it. It gives them immunity if detected, and it provides no efficient supervision. Do the pathologists themselves as a body regard this as a satisfactory condition of things? If, as I most firmly believe, the vast majority of the profession in these islands will answer these two questions in the negative, they will have no reason to oppose the principle of the Bill which Mr. Stephen Coleridge will endeavour to have laid before the House of Commons in the course of the coming session. Mr. Wynne tells me—with less politeness than he might have used—that all my amenities are but cant. I beg to assure him that they are meant sincerely. I have an unshakable faith in the humanity of the majority—the overwhelming majority—of his fellow practitioners. But I should be a most patent ass if I pretended to a perfect faith in the humanity of every individual one of them. I am asking for protection from the abnormal man, and it is idle to contend that in doing so I mean to cast a slur upon his blameless colleagues.—I am, etc.,

London, W., Jan. 13th. DAVID CHRISTIE MURRAY.

INFANT FEEDING IN THEORY AND PRACTICE.

SIR,—I think it is high time that the subject of feeding of children should form an essential feature of the last year of medical studies. As far as I understand it is not taught in the universities and colleges as an essential, but forms part, perhaps, of the course at the Sick Children's Hospital. Now, the course at the Sick Children's Hospital is an optional one, being grouped with skin diseases and ear, nose, and throat diseases. One has to "take out" one of these three courses, and, of course, a great many men do not take out sick children's diseases.

Now, this arrangement seems to me absurd, since one of the most necessary things to know when one qualifies is the proper method of feeding children. One is confronted with this subject as soon as one enters general practice.

In my experience the vast majority of general practitioners do not know the scientific method of feeding children.

We find on looking up the statistics *re* infantile mortality that this is an ever-increasing quantity. Most medical men admit that a great amount of this infantile mortality is due to the improper feeding of the children.

A great step in the proper tackling of this question would be to have the subject of infantile feeding an integral part of the medical curriculum, so that every man on leaving his university for college would know this subject at any rate.

This letter, I hope, will encourage other men to express their opinions and let us all show a united front on the subject and compel the medical schools—which are very often very conservative—to act on the unanimous opinion of the medical fraternity.—I am, etc.,

January 10th. H. KRAMER, M.B.Edin.

OBSTETRIC EMERGENCIES AND THE DOCTOR'S FEE.

SIR,—May I ask for space for one last letter in reply to Dr. Maidlow? I think the quotation from *The Black Dwarf* applies quite as much to the guardians and the general public as to medical men. If the public were asked to subscribe to a fund for obstetric emergencies they would reply, "No; we leave those matters to the guardians." Dr. Maidlow implies in his first letter that the district medical officer is the most called upon to go to an emergency case. Why? If the patient obtains an order she is a pauper, and he would of course go, but if she is only "practically a pauper" he has no more to do with the case than has Dr. Maidlow himself. Might I venture to suggest that Dr. Maidlow should undertake the unpaid emergency cases? My deputy holds a large district adjacent to mine, and I also act as his deputy. It is well known in both districts that we will not attend on emergency cases without an order or the fee, and we are seldom asked to do so. When necessary I refer the messenger to the relieving officer who lives in my district about two miles from my house. My deputy has to depend on the overseers. We practically always get an order, as they dare not take the responsibility of refusing, and nothing has ever gone wrong with us. A very definite expression of opinion by the Local Government Board on this subject will be found in the BRITISH MEDICAL JOURNAL for December 13th, 1884, p. 1216. Every one who has to do with Poor-law matters should get and "get up" *Lumley's Medical Officers' Manual*. I think that you, sir, would not then be asked to reply to so many questions in the BRITISH MEDICAL JOURNAL. I have had sundry disputes with the Guardians which have been referred to the Local Government Board, and I have always won my case. I have hunted and shot with them afterwards and we have been none the worse friends. I repeat, the public will respect us if we are independent—not otherwise.—I am, etc.,

January 2nd. J. G. C.

⁂ This correspondence must now terminate.

PARLIAMENTARY REPRESENTATION OF ST. ANDREWS AND EDINBURGH UNIVERSITIES.

SIR,—As Sir John Batty Tuke had to some infinitesimal extent been prejudiced by a misapprehension of the cause of his leaving the Council meeting when a case of much interest to the profession and concerning an Edinburgh graduate was coming on I let pass without comment his and Dr. Buist's letters to the British Medical Journal; but when you lend all the weight of an editorial and leaded type to the repetition of the assertion that an attempt had been made to discredit the member for Edinburgh University with his electors, I claim the right to explain.

When Sir John brushed past on his way from the Council chamber I inquired why he left, especially as an Edinburgh graduate was on his trial, and was told that he had an objection to the spending of the Council's time on penal cases, and had expressed the opinion that the Council was not the body to deal with such cases.

Next day I took the trouble to specially call on my informant to ascertain if he were certain of his facts, and to get his leave to use them.

The information was used verbally to a single, one only, elector, a supporter of Sir John, who kindly ascertained the real cause of his absence, and within forty-eight hours of the first communication telephoned the explanation to me. Naturally I expressed my sincere regret for my mistake, and said that of course no further use would be made of the statement, and a letter to this effect was sent the same night to Sir John Tuke.

This, Sir, is the whole foundation for the repeated assertion that an attempt was being made to discredit the sitting member.

And, indeed, on quiet consideration I feel that the error was largely due to himself; he explained the reason of his absence to the President of the Council. Had he extended the same courtesy to the officials of the Defence Union, who were awaiting admission, representing some thousands of practitioners, and whom he actually passed, the mistake would never have arisen. As it was, his action confirmed the impression that while he might ably represent the University, he had failed to get into touch with the graduates, his electors. During his six years' tenure of office he has, so far as I, a graduate, am aware, on no occasion sought to put himself in communication with or learn the wishes of his medical electorate.

I must ask you to give some prominence to this explanation, not on my account, but as the right of Mr. Strachey, the straightforwardness of whose conduct of his contest with Sir John Tuke has been impugned by your leading article.—I am, etc.,

Withington, Jan. 16th. W. Sawers Scott.

⁂ We cannot admit that the leading article in the Journal of January 13th in any way impugned the straightforwardness of Mr. Strachey's conduct of the contest, and we desire most emphatically to repudiate any intention of making such a suggestion. Further communications with reference to this election will be found at p. 166.

THE RUSHOLME AND DISTRICT PROVIDENT DISPENSARY.

Sir,—In your report on page 333 of your Supplement of December 9th, 1905, of the proceedings of the General Medical Council in the case of Dr. Hamlet Lloyd Davies, the Rusholme and District Provident Dispensary is wrongly described as being a branch of the Manchester and Salford Provident Dispensaries Association. This is not so, as the Dispensary is not connected either with the Provident Dispensaries Association or the Manchester and Salford Charity Organization and District Provident Society.

Whilst writing, I desire to repeat what was stated in the letter the officers of the dispensary wrote to the solicitor of the General Medical Council—namely, that it is not a fact that the dispensary is "an association which systematically practises canvassing for the purpose of procuring patients."—I am, etc.,

Ernest Ashton, Honorary Secretary.

Rusholme, Jan. 9th.

⁂ The statement to which Mr. Ashton takes exception was contained in a letter written by the Medical Defence Union and read to the General Medical Council. We are informed that the Rusholme Dispensary was initiated by the same gentlemen as managed the Manchester and Salford Provident Dispensaries, but that Branches, while formed with the support and assistance of the central organization, are not affiliated until self-supporting. We are further informed that at present the Rusholme Dispensary is not self-supporting.

LIFE ASSURANCE WITHOUT MEDICAL EXAMINATION.

Sir,—How noteworthy is the fact that whenever a correspondent writes to the British Medical Journal to ventilate a grievance he generally indirectly acknowledges that he has not as yet grasped the purposes of Divisional and Branch meetings of the Association.

Reading in your issue of January 13th a letter over the signature "Insurance" I note the following, that a club patient will come to ask for two or three extra certificates besides that of death for the registrar. You dare not insist on payment, "as Dr. So-and-so," down the street, is quite ready to give certificates for nothing. Then when speaking of the humble half-crown as a fee for small work we are informed "that there are any number of men ready to accept it, and I daresay less." So that the hopeless condition of "Insurance" is that he is actually being sweated by members of his own profession.

What is his remedy? The question has merely to be raised at a Divisional meeting and a resolution passed as to minimum fees, which resolution must be binding upon all members of the profession in the Division. Yes! But "Insurance" may say, "We are not all members of the Association." The obvious retort is, "Then you should be," It is only by uniting as members of the Association that we can hope for reform. Even if there be a few non-members the Association is sufficiently powerful to bring these into line with the members as regards remuneration.

But we can go further. We can amalgamate our opinions by handing our resolutions to neighbouring Divisions and ask them to fall in line with us, which they will do if they rightly appreciate the just claims of their colleagues, and so, finally, we shall have a united Branch meeting. Our district will then be free from sweating and underselling, and so the movement might spread from Branch to Branch, and no club or insurance company could waive our demands. But we must be united and the best means of obtaining unity is not only to join the Association, but also use it, as it is intended it should be used, to further the interests of the profession at large. In a word, we medical men must be the dictators of terms to clubs and insurance companies instead of being dictated to by them and often accepting their terms unconditionally because we do not stand shoulder to shoulder in our demands for fair treatment. Instead of lamenting our lot and patiently enduring, let us be up and doing.—I am, etc.,

January 14th. Experientia.

THE REFORM OF THE *MEDICAL REGISTER*.

Sir,—So far back as 1890 I printed a paper of suggestions on the reform of the *Medical Register*, practically applying to it my experience with the *Army List*. The following are the suggestions:

1. *The existing "Register."*—This is a purely alphabetical list of persons on the register of the United Kingdom. It is like what an army list would be if it was simply an alphabetical list of officers without regimental or corps list. Such an army list would be of little practical use. When a regiment enters a command I desire to know the names of the officers *en bloc*, quite apart from the trouble of hunting them up in a long alphabetical list without regimental sections.

2. *Local and Sectional Index needed.*—When I addressed the Registrar of the General Medical Council on the subject of reform, I understood him to say that Parliament had fixed the form of the *Register* and Parliament alone could modify it. I have no desire to modify the existing alphabetical list, I wish simply to supplement it by a sectional index showing the names by groups. Thus I wish to see an army group of names, a navy group, and an Indian and Colonial Medical Services group. I desire to see the medical men of each city, borough, or county shown in a borough or county index.

3. *Removals, Transfers.*—I desire to see all additions to the *Register*—all removals, transfers, etc.—published monthly or quarterly by the General Medical Council and the lists sent to the press, which will publish such of the

information as may be of local interest, in the same way that it publishes extracts from the *War Office Gazette*.

4. *Cost and Form of "Register."*—I think a cheaper form of book like the monthly *Army List*, which costs 2s., would suit well for a book of only annual value. Perhaps such a cheaper book would be more saleable, and, by the larger sale, be less costly to publish. It is to be remembered also that when, forty-seven years ago, the *Register* was founded, the idea of State aid towards national efficiency was a very feeble plant indeed. To-day it is a tree of larger growth, and if, as we all believe, a correct and up-to-date register of trained medical men is a factor in efficiency, then State aid could be pressed for in so far as the cost of publishing the *Register* was concerned or a grant-in-aid asked for.

5. *The British Medical Association and the "Medical Register."*—I see no reason why the British Medical Association should not co-operate with the General Medical Council by helping to keep the *Register* up to date. I would ask each Division of the British Medical Association to invite one of its members to become an honorary registrar of his Division, and to furnish to the Medical Secretary of the British Medical Association a list of periodical changes in his Division. The Medical Secretary would compile these reports, and, with the authority of the Medico-Political Committee, send the information to the Registrar of the General Medical Council. Later on, when the public health medical service is more fully a State-paid service, the health officer of each district should act as deputy registrar of the General Medical Council.—I am, etc.,

London, S.W., Jan. 1st. G. J. H. EVATT.

THE POOR-LAW COMMISSION AND CONTRACT PRACTICE.

SIR,—I should like to assure "Self-Preservation" that he need have no fear that any existing appointment under the Poor Law would be brought into line with the Association's principles governing contract work without the consent of the present holder. The most ardent reformer would quail before the storm that would be aroused by such a proposal. But no injustice would be done to any individual if, as each Poor-law medical officership were vacated by resignation or death, the work of the appointment were thrown open to all medical men practising in the neighbourhood in the manner suggested in my former communication. It is gratifying to me to find that the first criticism of this proposal is prompted by an imaginary fear that it would clash with vested interests and that at present no objection is raised to it on public grounds.

It would be still more gratifying if some of those members of the Association who have worked to formulate the principles which should govern contract practice would in the columns of the BRITISH MEDICAL JOURNAL express their views on the possibility of applying these principles to Poor-law work. Can one doubt that the value that is put upon our work by the State has far more influence upon our professional position than that which is accorded to it by Friendly Societies and workmen's unions? Will any body assert that Poor-law medical officers are adequately remunerated for their services? Will not "Self-Preservation" take part in an attempt to secure for his successors proper payment by the State for the efficient medical treatment of paupers?—Yours, etc.,

January 15th. PROFESSIONAL UNION.

"INCOME TAX REFORM: THE BURDEN OF THE PROFESSIONAL CLASSES."

SIR,—I am very glad that you have called the attention of the profession to its income tax, just at the moment when action may be most effectively taken, and I have read with interest your able editorial and leader upon it. But as you have been so good as to mention my name, I feel it necessary to say that my proposal is not to amend the tax but to abolish it. The tax is wrong because the principle underlying it is wrong. The State does not protect income. I wish it did! It protects person and property, and each of these should pay for its protection in kind, person with work, property with money, and property should not be allowed to shift part of its just debt to the shoulders of the professional class.

The professional class is, generally speaking, the brain of the people, for the classes below them generally lack the opportunity, and the classes "above" them (so-called!) generally lack the industry, needed for high intellectual development. Yet the professional class is being penalized financially, because the classes below them are subsidized at its expense, whilst the classes "above" them make it pay part of their proper debt. It is no light thing to penalize the intelligence of an empire.

The income tax must be superseded by a property tax. This will no more stop saving than the income tax stops earning. A property tax will not drive capital out of the country because, so long as taxation is just, capital will not seek other lands, since those lands in the present temper of the world may soon be worse places for wealth than these islands.

Where there is a will there is a way, and I hope that all the professions will set to work to secure this reform.—I am, etc.,

Exeter, Jan. 15th. W. GORDON.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

SIR,—It was only a week ago that I was made fully aware of the circumstances which gave rise to this incident, and I hoped, with you, that it was now closed; but "Justice," proverbially blind, has lent her name to a pseudonymous letter, and I beg space for a brief statement—the last, so far as I am concerned.

1. It is well known that, whatever the letter written by "Justice" may seem to suggest, your reporter and the "only critic" were one and the same person.

2. No reply was made to his remarks, because the obvious feeling of the meeting indicated that none was called for.

3. The official shorthand writer's transcript of the kindly remarks made by the speaker, who deprecated premature discussion, show them to be totally incapable of sustaining the interpretation put upon them by "Justice," who, it has been suggested to me, was on this occasion not only blind but deaf.

4. To those who "apprehend the meaning of words," "psychiatry" connotes the greatest of all "metaphysical assumptions."

It had therefore no place in the title or substance of a paper which suggested that the study of insanity should be based on a recognition of the actual limits to our knowledge.—I am, etc.,

Barnes, S.W., Jan. 13th. F. GRAHAM CROOKSHANK.

ASPIRIN.

SIR,—Dr. Edward Mackey suggests that the symptoms produced in my two cases of articular rheumatism reported in the BRITISH MEDICAL JOURNAL were due to the drug (aspirin) not being pure, and he recommends the Bayer preparation.

I write now to say that it was the Bayer preparation that was prescribed, and in any case the impurity Dr. Mackey speaks of could not have produced the symptoms reported by me, other than the carboluria, which might possibly have been due to it.—I am, etc.,

Belfast, Jan. 13th. H. NORMAN BARNETT, F.R.C.S.

MEDICO-LEGAL AND MEDICO-ETHICAL.

SALE OF DRINK BY PRESCRIPTION.

IT is well known that druggists in Colorado have for some years past had on hand a number of blank signed prescriptions which they filled out after every sale of liquor. An ordinance has recently been passed in that State providing that a medical practitioner may give a prescription for liquor only in the regular practice of his profession. To give a prescription without making an examination and without a fee to a man who simply wants drink is a violation of the law, and renders the offending practitioner liable to a fine of from £20 to £60.

THE SALE OF COCAINE.

THE State of Minnesota has passed a stringent law enacting that no person shall sell or give away any cocaine hydrochlorate or any salts, or compound of cocaine, or preparation containing cocaine, except on the written prescription of a medical practitioner or dentist licensed under the laws of the State. No prescription containing cocaine shall be dispensed more than once, and each shall have written plainly on it the name and the address of the patient to be filed by the druggist, who shall not give a copy to the patient. This section is not to apply to wholesale sales in original packages by any dealer or manufacturer or wholesale dealer to a retail druggist, or licensed medical practitioner or dentist, provided that a label in English is attached to the package describing the proportion of cocaine contained. The punishment for the violation of this law is a fine of from £10 to £20, and imprisonment in the county gaol of not less than thirty nor more than ninety days. Further, the offender's licence will be revoked. The attorney for the county shall prosecute on any complaints of this character, and be authorized to examine the books for the purpose of tracing the sales of any of the articles mentioned.

AN AUSTRIAN ORDINANCE AS TO SURGICAL OPERATIONS.

THE Austrian Minister of the Interior has recently issued an ordinance that the names of all medical practitioners and other persons giving any kind of active assistance at surgical operations must be recorded in the reports of the cases. The occasion for this order is a case of death which resulted from the leaving of the compress in the pelvis of a patient who was operated upon in a private surgical home in Vienna. The trial which followed failed to disclose on whom the actual responsibility for the accident lay. In addition to the records of cases treated in private homes that have now to be kept, it will in future be required that in all cases of operation the names not only of the operator and his immediate assistants, but those of all other medical practitioners who take any part in the operation, so that their respective functions shall be clearly indicated. If persons not members of the medical profession have acted in any way as assistants their names must also be recorded.

ASSISTANT'S DOORPLATE.

ATHENRY writes to point out what he considers a discrepancy between the opinion expressed in the BRITISH MEDICAL JOURNAL on June 10th, 1905 (p. 1308), and that given in our answer to him last week, in which we stated that an assistant's name might be placed on a doorplate provided he is a registered practitioner.

⁂ We do not see that there is any discrepancy in the answer given last June; no opinion was expressed as to the propriety of the name appearing; it was merely stated that it was not customary, which is doubtless also quite true.

THE TITLE OF "ACCOUCHEUR."

T. W. B. asks, in reference to our recent statement, that the term accoucheur is not so frequently seen now on the doctor's door-plate as it was forty years ago, is not this omission unwise at the present day, if the qualified doctor desires to hold his own against the newly qualified midwife? Is there any reasonable objection to our adding the word "accoucheur" to the brass plate or "physician accoucheur" as in past times?

⁂ We merely stated what we believe to be a fact, but there is no reasonable objection to registered medical practitioners taking that title if they please.

THE TITLE OF "DOCTOR."

M.D.BRUX. writes: In your reply to "Athenry" you state that holders of the L.R.C.P.I. and L.R.C.S.I. diplomas have no "right" to the prefix "Dr." Notwithstanding this it seems to be the invariable custom in Ireland for all practitioners, excepting some consulting surgeons, to so style themselves. Many of them emphasize the prefix by having it spelt out in full. Some consulting surgeons in Dublin use the word "Surgeon" as a prefix, but one never sees a humble "Mr." on an Irish practitioner's doorplate.

⁂ Our correspondent may correctly state the common custom in Ireland, but we were speaking of "right" in the sense of special claim as compared with that of other medical diplomas. There is no legal objection to the use of the title by a registered medical practitioner.

DR. F. W. COLLINGWOOD also takes exception to the same answer, and complains of the attitude of the Ethical Committee upon this question; he states that the Attorney-General of Ireland has given an opinion in favour of the right to use this title by the diplomates of the Royal College of Physicians of Ireland.

⁂ We would point out that the Ethical Committee has merely followed the decision given by the Representative Meeting at Oxford, which we take to be the rule of the Association upon this question until it is reversed, although the draft Medical Acts Amendment Bill proposes to confer the right to use the title upon every registered practitioner.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

DISTRICT MEDICAL OFFICERS' CLAIM FOR PENSION.

RETIRED, to whose previous communication in reference to a pension we replied at page 57 of the BRITISH MEDICAL JOURNAL of January 6th, writes again, now stating that he never subscribed to the superannuation fund established under the Act of 1896, but he considers that under the old regulations he could claim a pension. He wishes to know whether, under these circumstances, the local Board of Guardians can refuse to grant the pension.

⁂ It is optional on the part of the guardians to grant any pension under the old regulations. If they decide to do so their action must be confirmed by the Local Government Board.

PAROCHIAL MEDICAL OFFICERS IN SCOTLAND.

ABOUT TO BE DISMISSED.—Parish councils in Scotland can dismiss medical officers "with or without cause" being given, and the Local Government Board has no power to interfere. The length of notice follows the usual rule in law—if the salary is paid monthly, a month's notice; if paid quarterly, three months' notice. Medical officers do not appear to have any other claim. The Bill promoted by the Scottish Poor-law Medical Officers' Association, and supported by the British Medical Association, would remedy this grievance; it has been persistently blocked, but will, we understand, be introduced again, when perhaps in a new Parliament it may have better fortunes.

UNIVERSITIES AND COLLEGES.

CAMBRIDGE UNIVERSITY.

THE following have been examined and approved for the degree of M.C.: C. B. Goulden, M.A., non-coll.; A. G. Wilson, B.A., Cai.

UNIVERSITY OF EDINBURGH.

ANNUAL REPORT FOR 1905.

Numbers of Students.

DURING the past year the total number of matriculated students (including 385 women) was 3,165, being 165 above the number for 1904, and the highest number reached for twelve years. Of this number, 982 (including 336 women) were enrolled in the Faculty of Arts, 290 (including 9 women) in the Faculty of Science, and 1,500 (including 25 women) in the Faculty of Medicine. Of the students of medicine, 677, or 45 per cent., belonged to Scotland; 336, or over 22 per cent., were from England and Wales; 119 from Ireland; 70 from India; 272, or over 18 per cent., from British Colonies; and 27 from foreign countries. These figures are interesting as showing a larger proportion of non-Scottish students of medicine than there has been of late years. Besides these matriculated students, 89 non-matriculated students have paid the 5s. entrance fee. The number of women attending extra-academical lectures with a view to graduation in medicine in the University was 89.

Degrees Conferred.

The following degrees were conferred during 1905: Master of Arts (M.A.), 153; Bachelor of Science (B.Sc.), 31; Doctor of Science (D.Sc.), 7; Bachelor of Medicine and Master in Surgery (M.B., Ch.B.), 192 (including 9 women); Doctor of Medicine (M.D.), 76 (including 2 women); Master of Surgery (Ch.M.), 1. The Special University Certificate in Diseases of Tropical Climates was conferred on 77 candidates (including 6 women). In addition to the customary conferment of honorary degrees at the ordinary graduation ceremonials, a special ceremonial took place on July 22nd, when the honorary degree of LL.D. was conferred upon his Excellency M. Paul Cambon, the French Ambassador, and upon nine eminent foreign and colonial surgeons, who were present in connexion with the celebration by the Royal College of Surgeons of Edinburgh of its fourth centenary.

The General Council.

The General Council of the University now consists of 9,870 graduates.

Fellowships, etc.

The total annual value of the university fellowships, scholarships, bursaries, and prizes now amounts to about £18,270, namely: In the Faculty of Arts, £10,755; in the Faculty of Science, £1,545; and in the Faculty of Medicine, £3,630. A number of bursaries are in the gift of private patrons, but the great majority of the university bursaries, prizes, etc., are awarded by the Senatus after competitive examination. In addition to the above, a sum of upwards of £600, being the income of the Earl of Moray Endowment Fund, is annually available for the encouragement of original research.

The Carnegie Foundation.

Although the Carnegie Foundation has, so far, had but little appreciable influence in increasing the number of students, it continues to be noticeable that many who avail themselves of the section of the scheme which provides for the payment of class fees, take out a larger number of classes than they would probably otherwise have done. Of those who have been appointed to Carnegie post-graduate fellowships and scholarships, and who have received grants in aid for research, a considerable proportion are graduates of the University of Edinburgh. In accordance with the scheme of allocation intimated in 1902, grants have been made in augmentation of the salaries of several of the university lecturers, and for the supply of apparatus to certain departments; while an annual grant of £1,000 is made to the library for the purchase of books, and a considerable sum has been paid in 1905 towards the cost of the new engineering building.

New Buildings.

Substantial progress has been made during the year with the scheme for the improvement and expansion of the university, and the engineering department has now moved into the new buildings in High School Yards. The university has also secured ground for the erection on an adjoining site of new buildings for the Natural Philosophy Department, and building operations will be begun early in the year.

New Lectureships, etc.

Dr. F. H. Marshall, Carnegie Fellow, has recently been appointed Lecturer on the Physiology of Reproduction, and early in the year is to give a short course upon this subject. A diploma in Tropical Medicine and Tropical Hygiene (D.T.M. and H.) has been instituted, and in connexion therewith Dr. J. H. Ashworth has been appointed to give a course of instruction on disease-carrying insects and venomous animals, and a course on Tropical Hygiene will shortly be given in the Public Health Department by the Professor and Dr. J. Buchanan Young. A new advanced course of twenty-five lectures in chemistry has also been authorized and will be given next summer session. Extended provision has also been made for the teaching of clinical surgery by the assignment to Professor Chiene of definite duties in that department.

Changes in the Teaching Staff.

In July last Professor A. R. Simpson, in his address as promoter at the graduation ceremonial, took leave of the University. Appointed in 1870 as Professor of Midwifery, in succession to his illustrious uncle, he has during the long period of thirty-five years worthily maintained the traditions of the Chair. Sir John Halliday Croom was in October last elected by the Curators of Patronage to fill the vacancy. The office of Dean of Faculty of Medicine, held by Professor Simpson for a period of about five years, has been filled by the appointment of Professor D. J. Cunningham.

Mr. W. Cramer, Ph.D., has become Lecturer in Chemical Physiology, in succession to Dr. John Malcolm, now Professor of Physiology in Otago University. Dr. George Mackay has succeeded Dr. G. A. Berry as University Lecturer on Diseases of the Eye.

Benefactions.

Among these may be noted a gift by Professor Crum Brown of over 2,000 specimens of pure chemical substances.

The Library.

Additions to the University library for 1905 numbered 6,077, being a small decrease from the previous year. They included gifts from the Japanese Government, Tokyo; the Liverpool School of Tropical Medicine, Cambridge University, and various American learned societies. The cataloguing of the library is now practically completed, the alphabetical arrangement of the entries and insertion of cross-references being at present proceeded with. The number of volumes dealt with, so far, in the general library is about 210,000; but in addition to these several departmental libraries have been catalogued, notably the physiological and other libraries, as have also been the medical books in the reading room of the new buildings. The cataloguing has brought to light a considerable number of incomplete works, and the want of others which it is thought a University library ought to possess; and the filling up of such gaps is being steadily kept in view, a grant made by the Carnegie Trustees for this purpose having placed the Library Committee in a more favourable position for doing so than was formerly the case. The question as to the printing of the catalogue will have to be considered as soon as the alphabetical arrangement of the entries is complete. Perhaps some generous donor may ere long be found willing to associate his name with this important work. The printing of a short catalogue of some 25,000 books in the library, for the use of students and readers generally, is now proceeding, and will, it is hoped, be completed within the present session. Ample space having been provided for new books for years to come by the introduction of a system of steel shelving on the ground floor of the library, the most urgent structural need now is a fireproof strong-room, and it is expected that the University authorities may soon be able to provide this indispensable item of library equipment.

The Students' Representative Council.

This important member of the body politic of the University celebrated its "majority" by a dinner and other interesting and successful functions in January last.

Edinburgh University Union.

Great progress has been made during the year with the completion of the extension of the University Union. It is expected that the whole of the buildings will be completed for occupation in October, 1906. The additional accommodation thereby provided consists of a large library, a reading and writing room available for use as a smaller hall, several new committee rooms, cloak rooms, etc.; the enlargement of the entrance hall, a large new kitchen and other service accommodation, etc., together with two fives-courts. Funds are still urgently needed, not only to meet the expenditure now being incurred, but to clear off existing debt, etc., the total amount still required being about £15,000, and the Committee of Management are trusting largely to friends of the Union and of the University to help them in eventually raising the whole of this sum, so that the completed Union may be ultimately free of debt.

UNIVERSITY OF LONDON.

Convocation.

A general meeting of Convocation was held at the University on Friday, January 12th. Sir E. H. Busk, M.A., LL.B., Chairman, presided.

The Report of the Standing Committee.

The report was presented by Dr. R. M. Walmsley, D.Sc., and adopted by the meeting.

University College Hospital.

The proposed statutes for the constitution and management of the hospital had been considered by the Standing Committee, who proposed certain recommendations for adoption by the meeting. These were moved by Dr. S. Russell Wells and Dr. R. Maguire. Two of the proposals were negatived, and the two following adopted after slight alteration and lengthy discussion:

> That the North London or University College Hospital or medical school attached thereto be forbidden to grant any special privileges to students from University College, or to give to such students any scholarships, prizes, or rewards which are not open on the same terms to all other medical students of the University.
>
> That the University should claim on behalf of University College all funds which have been devoted to all or any of the faculties other than that of medicine and such proportion of those funds devoted to medicine as is fairly attributable to the preliminary and intermediate medical studies.

University College School.

Dr. R. M. Walmsley moved several resolutions which had been proposed by the Standing Committee for inclusion in the statutes to be framed for the constitution and management of the school. Two of the proposals were rejected; but eleven were adopted with slight amendments by Convocation.

Proposed Union Society.

The report of the Standing Committee recommended that the name of the Society should be The University of London Union Society; that its objects should be to hold debates, and maintain a library and reading and writing rooms; that the President, Vice-President, and Junior Treasurer should be undergraduates, each serving for one term (the year consisting of three terms), and that the Senior Treasurer and the Secretary should be graduates, each serving for one year and re-eligible; that the Society should be managed by a Committee; that all graduates and undergraduates of the University (men or women) should be eligible for membership on payment of 5s. a year or of a life composition fee, and on being duly proposed to the Committee of Management; that the debates should be held once a week at the Society's rooms, or for the present at the University or at the Colleges in turn, as might be arranged; and that no theological question should be discussed.

Dr. T. Lambert Mears, LL.D., Deputy-Chairman of Convocation, proposed:

> That a Special Committee of Convocation be appointed to serve as a temporary Board, with power to organize the University of London Union Society on the lines suggested in the report, and to do all such things as may be necessary to hand it over as a duly constituted Society to the Government, which shall be appointed by the members of the Union.

This was duly seconded, and carried unanimously, and the Special Committee was appointed.

University of London Athletic Sports.

The members of the late Subcommittee on University Boat and Athletics were appointed a Special Committee to carry out certain objects, and, in particular, to organize, during the coming summer, University of London Athletic Sports.

Promotion of Higher Learning and Research.

The meeting was, on the motion of Dr. Russell Wells, adjourned to a date in February to be fixed by the Chairman, for the consideration of recommendations of the Standing Committee respecting the increased encouragement of higher learning and the establishment of research laboratories in the University in various branches of science, similar to the Physiological Laboratory which was established three years ago.

London Hospital Medical College.

A course of lectures on the physical chemistry of colloids, with special reference to immunity, will be given by Mr. J. A. Craw, one of the British Medical Association research scholars; the subject which he undertook to investigate was the physical chemistry of agglutination and toxin-antitoxin reaction. The course will consist of ten lectures, which will be delivered on Friday afternoons at 4.30 p.m., commencing on January 19th. The lectures will be given at the London Hospital Medical College, Mile End, E. (nearest station St. Mary's, Whitechapel, Metropolitan Railway), and are open to any member of a London school of medicine.

UNIVERSITY OF SHEFFIELD.

The Chair of Pathology.

The Council of the University have appointed Dr. Louis Cobbett Professor of Pathology in the University.

Dr. Cobbett received his medical education at Trinity College, Cambridge, and afterwards at St. Thomas's Hospital, London. He is a graduate in Arts and Medicine of Cambridge University, and a Fellow of the Royal College of Surgeons of England. After holding various resident medical posts at St. Thomas's Hospital, he devoted himself entirely to the study of pathology and bacteriology, and obtained the John Lucas Walker Studentship at Cambridge. In this capacity, and as Demonstrator of Pathology in the University, he had the advantage of working under the late Professors Roy and Kanthack. Dr. Cobbett has added considerably to our knowledge of the organisms causing diphtheria. For the last few years he has been engaged upon researches as to the relations of human and bovine tuberculosis, on behalf of the Royal Commission on Tuberculosis.

CONJOINT BOARD IN IRELAND.

The following candidates have passed the Third Professional Examination:

C. J. B. Dunlop, G. A. Francis, M. J. Glancy, D. J. Hanafin, A. Hipwell, W. E. Hitchins, J. Holmes, P. Holmes, W. S. Moorhead, A. A. Murphy, J. McGreal, H. V. McKeogh, M. H. O'Sullivan, E. P. Punch, and D. P. Walsh.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

Morison Lectures.

The Morison Lectures will be delivered in the hall, 9, Queen Street, by Dr. W. Ford Robertson on Wednesday, Friday, and Monday, January 24th, 26th, and 29th, at 5 p.m. The subject of the lectures this year is The Pathology of General Paralysis of the Insane.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

An ordinary quarterly Council was held on January 11th, Mr. John Tweedy, President, in the chair.

Fellowship Examination.

The following resolution was adopted by the Council:

"That the list of Universities whose graduates in Medicine and Surgery may present themselves for examination for the Fellowship, without first becoming members of the College, under the conditions of Paragraph 2 Section IV of the Regulations for the Fellowship, be amended by the substitution of 'Victoria University of Manchester' for 'Victoria University' and by the addition of the Universities of Liverpool, Leeds, and Sheffield."

Court of Examiners in Dental Surgery.

Mr. G. H. Makins was elected a member of the Court in the vacancy occasioned by the retirement of Mr. W. H. A. Jacobson.

Hunterian Orator for 1907.

Mr. H. T. Butlin was appointed Hunterian Orator for 1907.

International Medical Congress at Lisbon.

Mr. Mayo Robson was appointed to represent the College at the above Congress, to be held in April, 1906.

Pass List.

The following passed the Preliminary Science Examination for the Licence in Dental Surgery:

Part I Chemistry, Part II Physics. - R. Chapman, A. Cohen, H. Daw, W. H. Edmonds, W. E. Guilding, C. C. Jones, O. Keighley, I. Levy, A. B. Plank, E. E. Solomon, E. S. Tait.

CONJOINT BOARD IN ENGLAND.

The following gentlemen passed the First Examination of the Board in the subjects indicated:

Part I. *Chemistry.* Part II. *Physics.*—T. M. Bellew, G. W. Beresford, F. S. D. Berry, H. R. Brown, E. M. Browne, I. G. Cobb, K. F. R. Davison, A. Dias, C. R. Dudgeon, J. R. K. Fenning, R. F. Fuller, A. J. Graves, B. Grellier, G. H. C. St. G. Griffiths, A. M. Henry, D. E. J. S. Hughes, T. H. James, J. P. Jones, C. de C. W. Langdon, W. E. Latham, C. McIver, L. Milton, R. A. Pittard, H. Platts, G. L. Preston, A. B. Rosher, H. Stobie, E. L. Sturdee, S. W. Turtle, V. Vesselovsky, L. R. Warburton, P. D. Warburton, F. C. Wright.

Part III. *Elementary Biology.*—E. C. Beddows, G. W. Beresford, G. N. Brandon, J. H. Bulcock, R. E. R. Burn, J. S. Ellis, E. L. Z. Fickling, A. L. George, G. F. C. Harvey, D. E. J. S. Hughes, T. J. Killard-Leavey, M. D. A. Kureishi, A. F. C. Martyn, A. P. Nicolle, R. S. Overton, J. H. Owens A. C. Paterson, H. Platts, H. G. Steel, M. C. Thavara, F. St. B. Wickham, J. E. S. Wilson, R. Yood.

The following gentlemen have passed the examinations indicated:

First Examination.

Part IV. Practical Pharmacy.—G. D. Alexander, R. E. Apperly, P. Black, L. H. Booth, G. Bowen, H. V. Capon, R. M. Coalbank, H. C. Devas, J. McD. Eckstein, S. Falkner, J. E. Foreman, W. R. Greening, H. McC. Hanschell, D. G. Harries, W. de M. Hill, E. E. Isaac, C. S. Lee, H. H. Leeson, T. St. L. Leyshon, H. C. Malleson, V. L. Matthews, G. N. Montgomery, G. R. Phillips, I. M. Postlethwaite, A. T. Rivers, G. B. Scott, C. Tylor, H. R. S. Walford, A. G. Wells, J. C. Wootton.

Second Examination.

Anatomy and Physiology.—H. W. L. Allott, H. R. L. Allott, J. J. H. Beckton, A. C. B. Biggs, O. H. Bowen, C. J. Butler, D. H. Caine, K. K. Dadachanji, A. Davies, H. B. Farrant, A. G. V. French, F. A. French, C. I. Harmar, J. C. Harris, E. C. Holtom, A. W. Holthusen, H. G. Janion, H. B. Kent, S. H. Kingston, H. Lee, M. W. Morrison, M. A. Nicholson, B. C. N. O'Reilly, G. Packham, F. W. Quirk, A. D. Rope, A. B. Scott, C. F. Searle, W. S. Simpson, N. F. Sinclair, P. Sinnock, E. R. Sircom, S. S. Strahan, S. N. Tiwary, F. J. Wheeler, D. P. Williams.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

Reuben Harvey Memorial Prize.

The seventh triennial award of the Reuben Harvey Memorial Prize will be made on July 1st, 1906. The competition is open to all students of the various schools of medicine in Dublin recognized by the medical licensing bodies in Ireland, and also to graduates and licentiates of those bodies of not more than three years' standing from the date of their degree or licence. The prize, value £25, will be awarded to the writer of the essay (which must be illustrated by drawings or preparations) on a subject selected by the candidate evidencing original research in animal physiology or pathology. The essays, bearing fictitious signatures, must be lodged with the Registrar of the Royal College of Physicians of Ireland, Kildare Street, Dublin, by June 1st, 1906.

APOTHECARIES' HALL, IRELAND.

The Governor of the Apothecaries' Hall of Ireland, Colonel Adye Curran, F.R.C.S., entertained at dinner a large number of guests at the Gresham Hotel, Dublin, on January 13th.

After the toast of "Ireland's best friend, His Majesty the King," had been duly honoured, the Chairman gave that of "The Universities and Royal Colleges," and claimed that the Apothecaries' Hall had striven to co-operate with the Universities and Colleges in maintaining the reputation of the Irish medical profession.

The toast was acknowledged by the Provost of Trinity College, who said that the number of students at the College which had fallen below a thousand, had now risen to above eleven hundred.

Sir William Smyly, President of the Royal College of Physicians in Ireland, who also replied, said that those who were acquainted with the work of the Apothecaries' Hall valued the services which it had rendered.

Sir Arthur Chance, responding on behalf of the Royal College of Surgeons in Ireland, said that he had been opposed to the one-portal examining system because he thought it would be destructive to the Irish examining bodies.

Sir Christopher Nixon, who replied on behalf of the Royal University, protested against these observations, remarking that there were interests higher than those of the universities and colleges—namely, those of the profession and public at large.

Sir Thomas Myles, who also spoke, said that he had always been in favour of the conjoint diploma of the Royal College of Surgeons and the Apothecaries' Hall of Ireland.

Sir Charles Cameron, C.B., in proposing the toast of the Apothecaries' Hall, said it was the oldest medical incorporation in the British Empire. He described the work it had done, and expressed the pleasure with which he saw in the chair a gentleman who on retiring from the army had settled down at home and taken great interest in medical work.

The Governor, in the course of his response, said that the competition in the drug trade had become so keen that the contract for medicines to the Army Board and several unions in Ireland had to be relinquished by the Hall as it had been found impossible to supply genuine articles at the low contract rates now accepted by those bodies, a system which had necessitated the employment of analysts throughout the country.

OBITUARY.

SIR JOSEPH EWART, M.D., J.P.,

DEPUTY SURGEON-GENERAL, I.M.S., RET.

SIR JOSEPH EWART, who died at Brighton on January 10th, in his 75th year, was a man of multifarious activities. He did the State considerable service in India, and at home he proved himself a most useful citizen. Brighton owes much to his enlightened conduct of municipal affairs. He took an active interest in the welfare of the British Medical Association, and he was prominent as an educationalist and a politician. He had been in failing health for some time, but he did not take to his bed until a week before his death. He was buried at his native place in Cumberland.

Sir Joseph Ewart came of Scottish stock, but was born in Cumberland in 1831 at Holmhead, Newcastle, an estate which had been owned by his ancestors for many generations, and to which he himself succeeded on the death of his father. He received his preliminary education at the High School, Carlisle. It was the wish of his parents that he should enter the Presbyterian ministry, but he preferred medicine as a career. He began his professional studies at Anderson's College, Glasgow; thence he went to Guy's, where amongst his teachers he had Addison, Hilton, and Gull. He became a member of the Royal College of Surgeons in 1853, and in the same year graduated M.D. at the University of St. Andrews. In 1876 he became a Member of the Royal College of Physicians, of which he was elected a Fellow in 1881.

In 1854 young Ewart entered the East India Company's medical service. He was appointed Assistant Surgeon on the Bengal Establishment on December 20th, 1853, attaining the rank of Surgeon in 1865. He saw active service in the Mutiny with the Meywar Bheel Corps, upon which devolved the duty of helping to keep communications between Lord Canning in Calcutta and Sir John Lawrence in the Punjab. He was afterwards successively Professor of Physiology, Professor of Medicine, and Principal of the Calcutta Medical College. He was also Senior Physician to the College Hospital, and Senior Surgeon to the European General Hospital. To his professional care the Mysore Princes were entrusted. Dr. Ewart was for some time President of the Faculty of Medicine and a Member of the Senate of the Calcutta University, of which he was elected a Fellow in 1867. As a Municipal Commissioner and a Magistrate of Calcutta he helped in the promotion of a scheme of drainage and in securing a good water supply for the city. He is said to have been the first to note the occurrence of typhoid fever among natives of India. Dr. Ewart was President of the Bengal Social Science Association. In the latter capacity he was able to give active help to Miss Mary Carpenter in advancing the education of native women, and succeeded in enlisting the practical support of many leading natives in the movement. For his public services in various capacities he on several occasions received the special thanks of the Government.

In 1876 Dr. Ewart came home broken down in health by repeated attacks of fever and dysentery combined with hard work. In 1879, finding himself, much against his wish, unequal to the strain of further service in a tropical climate, he retired with the rank of Deputy Surgeon-General. He settled in Brighton, where he soon began to take an active part in local affairs. He became a member of the Corporation in November, 1884, and continued to serve on the Municipal Council till October, 1905. It was not long before he made his influence felt on the Council, where his ability and disinterested zeal for the welfare of the town were soon recognized. He was elected an alderman in 1893, and in the following year was called to the Mayoral chair, which he filled for three years in succession. On his resignation of the Aldermanship in 1905, the Council passed a resolution recording their sense of "the deep loss sustained by them through the retirement of one who, during the period of nearly twenty-one years, throughout which he was a member of the Council, so worthily maintained the best traditions of public life." His colleagues further assured Sir Joseph of their "high appreciation of the valuable services rendered by him to the inhabitants of the borough, particularly in connexion with the Mayoralty, the important duties of which he fulfilled during three successive years to the entire satisfaction of his colleagues and the inhabitants generally."

Sir Joseph Ewart's public life in Brighton was not confined to municipal affairs. In 1892 he was appointed a Justice of the Peace; he was also put on the Commission for his native county of Cumberland. He was always active in the cause of education. For more than twenty years he was a member of the Brighton and Preston School Board, of which he was for a time Vice-Chairman. On the constitution of the new Education Committee he was appointed a member, but by that time his health had so far broken down that he felt he could not discharge the duties thus thrust upon him. He accordingly resigned his seat at the end of July, 1903. He was for many years President of the Brighton Liberal and Radical Association. At the general election of 1895 he came forward as Liberal candidate for Brighton, but was unsuccessful. In the same year, Queen Victoria, at the suggestion of Mr. Gladstone, conferred on him the dignity of knighthood in recognition of his distinguished services in India and at home. Sir Joseph Ewart was connected with most of the charitable and philanthropic institutions of Brighton. He was a Governor of the Sussex County Hospital; a manager and consulting physician to the Royal Alexandra Hospital for Sick Children; a governor and manager of the Throat and Ear Hospital; and President of the Dental Hospital. He was in 1884 and again in 1885, President of the Brighton and Sussex Natural History and Philosophical Society.

While he was serving in India he was President of the Bengal Branch of the British Medical Association, and at the Annual Meeting of the Association held in Brighton in 1886 he was Vice-President of the Section of Medicine. At the annual meeting held in Carlisle in 1896 he was President of the Public Health Section; he took as the subject of his presidential address "The Lowering of the General Death-rate." He also took an active part in the proceedings of the meeting. Sir Joseph Ewart was a member of the Council of the South-Eastern Branch of the British Medical Association.

Sir Joseph Ewart made a number of contributions to medical literature. He had formerly been editor and proprietor of *Indian Annals of Medical Science*, and he was the author of *Vital Statistics of the European and Native Armies in India; Sanitary Condition of Indian Gaols; Catalogue of Pathological Preparations in Calcutta Medical College Museum; Review of the Treatment of Indian Diseases;* and *The Poisonous Snakes of India.* He was joint author of a *Report on Indian and Australian Snake Poisoning*, and contributed papers on "Phthisis in India" and on "Typhoid and Typhus Fever in India" to the *Indian Annual of the Medical Sciences.* A communication by him "On the Excessive Mortality among Women and Children of the European Army of India" was published in the *Transactions of the Epidemiological Society* (1883); and a paper on "The Progress of Sanitation at Brighton" appeared in the *London Medical Record.*

In 1856 Sir Joseph Ewart married Miss Madeline Lister, daughter of Major T. St. George Lister; she died in 1863, and he did not again marry. His sister kept house for him, and was of the greatest help to him in the discharge of the social duties inseparable from the office of Mayor. The brother and sister were devotedly attached to each other, and Miss Ewart's death was a blow from which, it is thought, he never really rallied.

Sir Joseph Ewart was a man of great strength of purpose and firmness in adherence to what he believed to be his duty. This quality showed itself in boyhood and in his refusal to attend the Cathedral service at Carlisle when he was at the High School. The head master gave him his choice of attending the services or leaving the school, but the boy ultimately had his way, and while he was at school attended the Presbyterian service. In India he on one occasion showed himself resolute in dealing professionally with the imperious John Lawrence. The Governor-General was making an official journey from Calcutta to Simla. He was in bad health at the time, and Dr. Ewart accompanied him as medical adviser. When the party arrived at Monghyr, Lawrence suffered such agony from an abscess in the external ear that Dr. Ewart pressed upon him the expediency of immediate operation. "Nothing of the sort!" growled Lawrence. The doctor, however, was firm, and induced the refractory patient to submit to the operation, with the result that he got immediate relief. Sir Joseph Ewart's decision of character was a most useful quality in India, but in municipal administration at home it showed itself in a slight tendency to autocratic rule. His transparent honesty of purpose, however, made those who knew him willing to shut their eyes to this little failing; and it was recognized by his fellow-citizens that his strenuousness and occasional over-zeal were the outcome of an unselfish devotion to the interests of the town to the service of which he gave a considerable part of his life.

JOHN ABERNETHY KINGDON, F.R.C.S.ENG.

STUDENTS of St. Bartholomew's of a former generation will learn with deep regret of the death of John Abernethy Kingdon who died at his chambers in Westminster from heart failure during sleep on January 5th, in the seventy-eighth year of his age.

His father was for many years a well-known surgeon practising in the City at 2, New Bank Buildings, Lothbury, where his son Abernethy was born in 1828. Abernethy Kingdon was baptised at St. Margaret's, Lothbury, where John Abernethy stood godfather. He was educated at St. Paul's School and St. Bartholomew's Hospital, and took the diploma of M.R.C.S. in 1849. Shortly after qualifying he was appointed House-Surgeon to the late Sir William Lawrence, an intimate friend of his father, for whom he entertained the deepest personal affection and the highest regard for his scientific attainments and surgical skill. Sir William on his part had great admiration for Kingdon's good work and untiring industry during his tenure of office.

After leaving the hospital he was appointed Surgeon to the City Dispensary at that time located in Queen Street, Cheapside, an appointment which he held for many years. In 1861 he was elected a Fellow of the Royal Medical and Chirurgical Society, in 1866-67 a member of the Council and a vice-president in 1872-73. Whilst a member of the Council he was elected a member of the Science Committee for the investigation of the action of the subcutaneous injection of drugs, an inquiry he pursued with the keenest interest. He was also a member of the Pathological Society.

It was, however, as Surgeon to the City of London Truss Society that his name was chiefly known in connexion with his professional career. Elected in 1858 he devoted the best part of his energy to the Society until his retirement in 1888. He contributed a valuable and well-thought-out paper to the Royal Medical and Chirurgical Society on The Causes of Hernia, published in the forty-seventh volume of that Society's *Transactions*. In this contribution he proved that the occurrence of hernia was due primarily to developmental defects and to pathological changes in the peritoneal reflections forming the suspensory ligaments of the abdominal viscera.

In 1861 he was elected a Fellow of the Royal College of Surgeons of England, but he took little interest in the unrestful politics of the electoral body. It was about this period that Kingdon took the largest share in resuscitating the fallen fortunes of the Abernethian Society, and it is due to his watchful care and untiring interest that the Society has attained the proud position it now holds in the Medical School of St. Bartholomew's.

He was an influential member of the Court of the Grocers' Company, and in 1883 he served the office of Master with great dignity and acceptance. He edited two volumes of the ancient history of this guild and the part it took in the work of the Reformation and in the question of "ancient weights and the custodianship of the standard weights and of the King's beam." So highly was his work regarded that the Court presented him with an address of appreciation enclosed in a silver casket.

Kingdon did not care for private practice from a surgical point of view. His chief professional work was that of medical officer to the Bank of England and many insurance societies; his reports were reckoned models of what medical reports should be.

His health had been visibly failing for the last year, but he never relaxed his professional and official duties.

A memorial service was held at St. Margaret's, Lothbury, of which he had been churchwarden for forty years, and the large attendance of his friends, including the Master and Court of the Grocers' Company, at this service afforded abundant testimony to the affectionate regard in which he was held. His body was laid to rest in Highgate Cemetery. Kingdon was never married, and only one brother, the Bishop of Fredericton, in the Province of Canada, survives him.

Kingdon was in many ways a remarkable man; he was chivalrous in every way and in its highest sense; he gave largely of his means to render others happy. He was reserved to all save his intimate friends, dignified and courteous at all times, and a loyal friend who never failed, even though it might be to his own hurt.

ANGUS JOHN GRANT, L.R.C.P.AND S.EDIN., L.F.P.S.G.

IT is with deep regret that we record the death, at the early age of 30, of Dr. Angus John Grant, of Haddington.

Dr. Grant was born at Pembroke, Ontario, Canada, in 1875. He obtained his early education at the Public and High Schools of Pembroke, and passed on to the McGill University, Montreal, where he graduated M.D., C.M., in 1896. He then came to Scotland, and after a short period of study in Edinburgh he obtained the triple qualifications of L.R.C.P. and S.Edin. and L.F.P.S.Glasg., and subsequently the degree of B.Sc. in Public Health from the University of Edinburgh. In 1896 he joined Dr. Bruce Ronaldson, of Haddington, as his assistant, and after a short time became his partner.

In this brief span of ten years in Haddington Dr. Grant's life-work was done. There it is that his loss is daily felt and mourned by those to whom he gave unsparingly the help of his skill and the comfort of his sympathy. Endowed with great personal charm and wonderful kindliness of heart and manner, the young physician soon gained the love and trust of all who came under his care, and the respect and admiration of his colleagues in the profession, who noted his brilliant, untiring, unostentatious work. It was with profound sorrow and a deep sense of the mysteriousness of the ways of Providence, that many who had watched the opening of so promising a career learned a few months ago that Dr. Grant had been stricken down by a hopeless illness. He died in Edinburgh on January 10th, and was buried in the churchyard of Haddington, amidst signs of general mourning of the community. His body was borne to its last resting-place by a detachment of the 7th Volunteer Battalion Royal Scots, with which he had been long connected as their Surgeon-Captain. He was a member of the Lothians Division of the British Medical Association.

DEPUTY INSPECTOR-GENERAL WALTER FREDERICK COPE BARTLETT died recently at Plymouth. Appointed Surgeon in the Royal Navy, October 17th, 1856, he became Staff Surgeon, June 17th, 1865; Fleet Surgeon, December 29th, 1877; and Deputy Inspector-General of Hospitals and Fleets, on retirement from the service, June 9th, 1887. In 1857, whilst Assistant-Surgeon of the *Raleigh*, he was wrecked on the China coast. During the China war in 1857-1860 he served in the hospital ship at Hong Kong, and received the China medal. He was Fleet Surgeon of the *Agincourt* during the Egyptian war in 1882, and was awarded the Egyptian medal and the Khedive's bronze star. He was in receipt of a Greenwich Hospital pension of £50 a year granted to him in 1903.

THE death is announced of Captain WILLIAM JONES CROFTON, M.B., retired Army Medical Staff, as having occurred on December 3rd, 1905, at Blackrock, co. Dublin. He joined the Army Medical Department as Surgeon-Captain, July 27th, 1887, and retired therefrom April 7th, 1892.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. G. W. Miltenberger, Emeritus Professor of Obstetrics in the University of Maryland, Baltimore, aged 86; Dr. Angelo Filippi, Professor of Forensic Medicine at Florence; Dr. P. Jacobs, af Cologne, the oldest medical practitioner in Germany, aged 96; Dr. Domenico Barbieri, of Vienna, a favourite pupil of Billroth, and the trusted assistant of the great surgeon, whom he accompanied to nearly every part of Europe whenever an important operation had to be performed, aged 60; and Dr. Ernst von Wolfring, sometime Professor of Ophthalmology in the University of Warsaw, aged 73.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 2, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESSS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—

EDITOR,	GENERAL SECRETARY AND MANAGER,
2631, Gerrard.	2630, Gerrard.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

G. E. D. asks whether Egypt is still considered the best place to send cases recovering from acute nephritis, and if Teneriffe (Orotava) and Palermo would be too moist in February and March.

*** Helouan in Egypt is probably as good a place as any for such a case in the months in question. The other places would probably do, but Helouan has the advantage that the climate is drier. At Palermo there are no English medical men. The question is whether the patient is sufficiently recovered for travelling.

CLIMATE FOR YOUNG RHEUMATIC.

X. Y. Z. would be glad if any readers could give him the names of any towns or counties of England which would be suitable for a young patient of rheumatic tendency to reside in. The patient has had endocardial and pericardial trouble, and suffers occasionally from attacks of tonsillitis. Hertfordshire has been suggested as a suitable county.

ELEMENTARY BACTERIOLOGY.

LUX asks to be recommended an elementary treatise on bacteriology suitable for a practitioner who wants a manual to aid him in his ordinary work. For general information Muir and Ritchie's *Manual of Bacteriology* (Third edition. Edinburgh and London: Young J. Pentland. 1902. 12s. 6d.) may be recommended. Bosanquet's *Serums, Vaccines, and Toxines in Treatment and Diagnosis* (London: Cassell and Co. 1904. 7s. 6d.) is a model of lucid exposition, and gives just the right amount of information, both theoretical and practical, for a busy practitioner who has no time to study serum therapeutics and allied subjects in lengthy and laborious detail.

ANSWERS.

THE Member of the British Medical Association of nearly thirty years' standing who sends to us anonymously a series of suggested extensions of the definition of "infamous conduct," is recommended to bring them to the notice of the Division of which he is a member.

BRAIN WEIGHT.

DR. CROCHLEY CLAPHAM (Mayfield, Sussex) writes: A simple way of determining the probable weight of the brain from external measurements of the living head is afforded by using what I have named the "cranial index." This index is described at p. 575 of Hack Tuke's *Dictionary of Psychological Medicine*, and is obtained by adding together: (1) The head circumference—above supraorbital ridges and over occipital protuberance; (2) antero-posterior arch—from occipital protuberance to root of nose; (3) transverse arch—from auditory meatus to auditory meatus over-vault. The sum of these three measurements taken in inches equals very nearly the weight in ounces of the brain contained in the head measured.

LETTERS, NOTES, etc.

IMPACTION OF HATPIN IN THE MALE URETHRA.

DR. HORACE WILSON (Ormskirk, Lancs.) writes: The two memoranda on the above subject which have recently appeared in the BRITISH MEDICAL JOURNAL recall to mind two similar cases which were published in the same JOURNAL on February 24th, 1900, by myself, and the following week by Mr. Arthur Hawley of Coventry. In Dr. Hawley's case the pin had broken, and the head and remaining portion were cleverly removed by him by means of a lady's curling tongs. In my own case exactly the same procedure was adopted as that of Mr. Hamilton Whiteford, with equally gratifying success. Although in Mr. Brooks's case the delay of forty hours made the extraction more difficult on account of oedema, in a recent case, the removal as chronicled by Mr. Whiteford and myself is a tolerably simple matter. The fact of four such cases being recorded seems to point to either a peculiar fascination in the hatpin for the purpose, or else that the insertion of foreign bodies is much commoner than supposed, and that the cases quoted above have come to one's notice owing to the smooth globulus head of the hatpin having a peculiar liability to slip out of reach when once within the grasp of the deep perineal muscles.

THE ENGLISH AND THE ITALIAN CLIMATES.

A VALUED correspondent who is spending the winter at Penzance writes: During the two winters I spent at ——— (mentioning a health resort on the Italian Riviera) I have not had such a day as this; although the sun in Italy is hot yet there is a want of freshness in the air. There is no tide on the Mediterranean, and thousands of the natives along the coast every morning turn out and empty all their sewage into the sea; they do not take it out in boats, but just throw it down on the edge of the waters, and though you may say that the sea is large and the water and the sands disinfect, yet it must be remembered that the sewage is emptied from thousands of small houses all along the coast every morning; I cannot but think that in time the shore must become sick. Then the washing places or the nooks in the streams where the women collect to wash clothes! I will not attempt to describe the smells. Italy is not all that it seems. I am sitting here with the windows wide open, and the thermometer is nearly 70°.

HAECKEL AS A MEDICAL PRACTITIONER.

IT is told of Ernest Haeckel, the famous biologist, that when he had taken the degree of Doctor of Medicine, his parents, seeing little chance of his earning a living by the pursuit of science, pressed him to engage in the practice of his profession. He obediently hired a consulting room at Würzburg, on the door of which he nailed a notice to the following effect: Hours of Consultation, every morning from 5 to 6. During the first—and last—year that he practised, the number of patients who presented themselves was just three. Haeckel records, with legitimate satisfaction, that none of them died of his treatment.

ASSURANCE COMPANIES AND THE MEDICAL PROFESSION.

OTHER correspondents have addressed us with regard to the Life and Health Assurance Association. One calls particular attention to the concluding paragraph of the letter published in the BRITISH MEDICAL JOURNAL of November 25th, 1905, p. 1436, inviting the medical man addressed to take out a policy on his own life.

Another correspondent sends us a letter from the manager of the association dated from the head office in Edinburgh, stating that he did not approve of the method pursued by Mr. Robins, and returning the premium which had been paid by our correspondent.

A FAR-SEEING PRECAUTION.

ACCORDING to the *South African Medical Record*, a Wynberg lady, recently describing to a friend the large practice of her favourite midwife, wound up by saying: "There is such a demand for her that if you want her you must engage her *eighteen months* beforehand."

ERRATUM.—In the report of the case of suprapubic cystotomy under local anaesthesia by Mr. G. J. Arnold, F.R.C.S., published January 6th, p. 21, second column, line 31 from top, for "hermoine" read "hemisine."

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	£0 4 0
Each additional line	0 0 6
A whole column	2 13 4
A page...	8 0 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

An Address
ON
CARCINOMA OF THE BREAST,
AND
ITS SPREAD INTO THE LYMPHATICS.

DELIVERED BEFORE THE READING PATHOLOGICAL SOCIETY.

BY **CHARLES BARRETT LOCKWOOD, F.R.C.S.,**
SURGEON TO ST. BARTHOLOMEW'S HOSPITAL.

IN spite of all the good work that has been done by anatomists, pathologists, and surgeons, I have, during the course of many operations for cancer of the breast, met with much that has not been explained. It is to be feared that we may not hope for clear light until the etiology of cancer is known. But, in the meantime, each addition to our knowledge of the manner in which cancer of the breast spreads adds to the efficiency of operations done for its extirpation.

Without this knowledge it is difficult to see how a complete removal can be accomplished. The spread of cancer along the lymphatics is, however, an erratic and complicated process, and I propose to tell you of the things which I have noticed. I think you will agree that some of them ought not to be dismissed without at least a passing thought.

VARIATIONS IN RAPIDITY.

The rapidity with which cancer spreads into the lymphatics depends to a large extent upon the position of the primary growth. When that is situated within a hollow muscular organ such as the urinary bladder, or gall bladder, the pause may be a long one—months or even years. But when the growth is in the mammary gland, which has no capsule, or the tongue, or in the pharynx, there is, I believe, hardly any interval of time between the onset of the growth and its spread into the neighbouring lymphatics.

For many years I have noted down the condition of the lymphatics whenever operating in malignant disease, and the above is not, I venture to think, an over-statement of the case. Some of the operations, too, have been done at unusually early stages, because, as I have said elsewhere,[1] it is my habit to make an immediate microscopical examination of suspicious tumours. In this way many are, of course, met with at their very earliest appearance, and even then the lymphatics have been involved.

For instance, a female had a small indurated ulcer of the left nipple. The ulcer looked and felt like a small Hunterian sore, but proved on microscopical examination to be cancerous. No enlargement of the axillary lymphatic glands could be seen or felt. After the whole mammary gland and both pectoral muscles had been removed, several enlarged lymphatic glands were found; the largest one was highest up, and adherent to the upper part of the axillary vein. It would not have been seen had the pectorals not been removed.* To those who have not realized how soon and how extensively the lymphatics become involved even in the earliest stages of malignant disease, the removal of the whole mammary gland, both of the pectoral muscles, and all the axillary fat and fascia may seem to have been an extensive procedure to adopt for a small carcinomatous ulcer of the nipple; and yet the end justified the means.

Here is another instance in which a very minute cancer was proved to be accompanied by rather extensive growth in the neighbouring lymphatics. A woman came complaining of occasional slight mucous discharge from the right nipple, which was slightly retracted. The whole of the right breast was larger than the left, but nothing unusual could be felt in it, except at the lower part of the areola. Here a very small soft nodule could with difficulty be felt. Slight pressure made this insignificant lump almost disappear, with the escape of a little mucus from the nipple. An incision brought to light a dilated duct ampulla, and the microscope there and then showed that it contained small carcinoma. The little sac which held the growth was not more than ¾ in. long and not much more than ¼ in. across its widest part. The minute growth projected into this from a small area of its wall.

The whole of the mammary gland and the pectoral fascia were then removed. A subsequent microscopical examination showed that this was necessary because—as I suspected—the gland contained other commencing duct carcinomata, although none could be seen with the naked eye. The tumour beneath the areola—the only one which was known to exist when the operation was done—seemed too small and too immature to have yet spread into the neighbouring lymphatic glands; besides, it was enclosed within the walls of the ampulla. Nevertheless, the axilla was explored, although no enlargement of its lymphatic glands could be seen or felt. Rather to my surprise, several enlarged ones were met with, and the microscope there and then revealed that they contained duct carcinoma. I removed as much of the axillary fat and lymphatic glands as could be done without taking the pectorals away. But on consideration, I regret now that those muscles were not removed. Without that step it is impossible to reach the lymphatic glands about the uppermost part of the axillary vein. These, as I shall presently describe, may become cancerous as soon as, or sooner than, those lower down. Thus, in the smallest carcinoma of the breast that I have ever seen, the neighbouring lymphatics were already cancerous. They probably had in them deposits which taken together equalled or exceeded in quantity the parent growth.

I believe that there is an idea abroad that these duct cancers are less malignant than the other kinds, which oftener grow in the breast. But my own clinical and pathological experience leads me to think that that is a dangerous delusion. For instance, a woman had a small duct carcinoma of the right breast. This, together with a part of the mammary gland, was removed by a surgeon, who considered that he was dealing with a favourable form of carcinoma. Two years later a recurrence necessitated the removal of the remainder of the breast, together with a part of two ribs and the subjacent pleura. The large gap was closed by bringing up a flap from the abdomen. The patient bore this severe operation very well indeed, and the pneumothorax must have departed in a very short time. This case had a curious sequel, for three months later a nodule of colloid carcinoma appeared in the left breast, which I removed, and afterwards there was reason to suppose that the right pleura was affected. Or, again, a part only of the right breast was removed in a London hospital for a duct carcinoma. Three years afterwards I had to do a complete operation for an extensive growth.

Further, another woman, upon whom I had done an extensive operation for duct carcinoma of the left breast, had a recurrence eight years afterwards in and about the scar. This has been called a recurrence, but in most cases it is more rational to say that the cancer left behind went on growing. Perhaps some think that duct cancer is more favourable, simply because it is removed earlier than other kinds. The sanious discharge from the nipple alarms the most careless, and impels them to seek advice.

Another instance shows not only that the lymphatics are involved at the earliest stages of cancer of the breast, but also that the growths in them may soon grow bigger than the one from which they sprung. A woman had a small, hard, movable nodule beneath the lower margin of the left areola. It was explored, and found to be a carcinoma. The nodule was barely half an inch across, but it sent out small prolongations. Some fullness could be seen in the axilla, and moderately enlarged glands could be felt beneath the great pectoral muscles. But when the breast and pectoral muscles had been removed a very large mass of cancerous glands was unexpectedly met with.

Such cases as these prove that from the earliest beginnings of cancer of the breast the disease has attacked the lymphatics. Although I have for a long time looked upon a carcinoma as a sort of lymphatic sponge with cancer cells growing in its meshes, yet the early spread into the surrounding lymphatics did not become clear to me until I had begun to make immediate microscopical examinations of even the smallest and most innocent-looking tumours of the breast, and to follow this up by a similar investigation of the neighbouring lymphatics. I am now aware that in no other way can the earliest stages of cancer of the breast be detected. The ordinary attempts at guessing usually succeed in advanced cases, but in the early ones lead to error, delay, and incomplete operations. An instance, which I have mentioned elsewhere, made a profound impression upon my mind.[2] A young woman, aged 29, was assumed to have a small chronic mammary tumour. This was removed and the microscope revealed that it was a cancer. Then a fresh operation had to be undertaken and, as had been suspected, cancer was found in the breast near the scar tissue of the original operation. The axillary lymphatics were also enlarged, but contained no visible carcinoma. Such instances cannot be very uncommon. I am acquainted with two exactly similar ones, and in which an immediate microscopical examination would have saved the anxiety and distress of a second operation.

---

* On this point see also Sheild: The Results of Operation in 60 Cases of Malignant Disease of the Breast. *Lancet*, March 8th, 1902, p. 643.

The method is so easy and accurate that I wonder it is not more frequently practised. An anaesthetic, an incision, removal of the small tumour, a frozen section stained with an aniline dye, and within from five to ten minutes a scientific—that is to say, a certain—diagnosis. Should the small tumour happily prove to be innocuous, the end is a limited incision, a small scar; but should it prove malignant, then a thorough operation can be done forthwith. The operator having seen the dread disease with scientific certainty, is nerved for a long and arduous toil, for it is requisite to take away the entire mammary gland, the pectoral muscles and their fasciae, the axillary fat and lymphatics, and the axillary fasciae.

THE MANNER.

Having discussed the time, let us now turn to the manner in which the lymphatics become involved in cancer of the breast. The presence of growths in the lymphatic vessels themselves cannot be seen during operations, except occasionally, in very advanced cases. More than once in neglected ones, and upon which I have been reluctantly compelled to operate, I have seen small, hard, white, knotted strings running through the intercostal spaces towards the anterior mediastinum. But, ordinarily, the lymphatics are removed along with the muscles, fasciae, and fat, and without any macroscopic evidence of cancer within their channels. Afterwards microscopic evidence of its presence may be, and often has been, obtained.

We turn, therefore, to the effects of the carcinoma upon the glands along the course of the lymphatics. Probably the first and most obvious effect produced is enlargement. Now, there is to my mind something very strange about this enlargement. I have over and over again chosen the largest from a group of enlarged axillary glands from a case of cancer of the breast, and have failed to identify cancerous cells or structures within its capsule, and this is quite an ordinary experience. It has been recorded by Stiles[3] in his admirable essay. My colleague, Dr. F. W. Andrewes, one of the most accurate of pathologists, allows me to say that he quite agrees that in cancer of the breast the axillary glands are sometimes enlarged without showing any microscopic evidence of cancer, and he adds that it is impossible to assert positively that cancer is absent from a given gland without examining serial sections of the entire gland, several thousand sections in number—which is practically impossible. But the ordinary routine methods gives, he thinks, a fair presumption of the absence of cancer. Here is some additional evidence upon the same point. The left breast, pectorals, axillary fascia, and axillary contents were removed for carcinoma. The axillary lymphatic glands were sent for examination. Mr. Ernest Shaw, whose histological skill is acknowledged, reported that the large glands did not contain cancer, but that some minute ones did. This, too, Mr. Shaw tells me, is an ordinary experience.

Mr. Bilton Pollard,[4] during his very successful operations for cancer of the intestine, had a similar experience. But here another thing may have happened. As every one knows, the almost inevitable course of cancer is growth, degeneration, ulceration, and sepsis.

In Mr. Pollard's cases the form of carcinoma was one which is particularly prone to early ulceration, and was situated in the midst of sepsis, which may or may not have caused the enlargement of those lymphatic glands in which no cancerous growth could be seen. But it is obvious that a living organism, such as a cancer is, must conform to physiological rules, and that its products must escape by its veins or by its lymphatics.

Taking into consideration the fact that a cancer is a sort of ductless gland opening freely into the lymphatic system, it is reasonable to fix upon the latter as the outlet. That that which enters the circulation through the lymphatic is very harmful is suggested by the marked accession of health and vigour which often follows the removal of the tumour and of the cancerous glands. To me this cannot be altogether accounted for by the relief of the mental anxiety and foreboding.

The naked eye is an untrustworthy guide, both to the nature of most tumours and to the growth in lymphatic glands. Whilst removing a carcinoma of the breast the lymphatic glands were found enlarged and hard as high as the subclavius tendon, and in the subclavian triangle. From these naked eye appearances it was assumed that they were filled with cancer undergoing degeneration. However, the subsequent microscopical examination showed that they were full of tubercle. This combination of tubercle and cancer has been occasionally met with. What is the meaning of it?

THE ORDER FOLLOWED.

I now come to another question, namely, the order in which the lymphatic glands became cancerous. It is natural for us to assume that cancer follows the course of the lymph stream upon its way from the breast to the nearest group of lymphatic glands. But to turn this generalization to account we must know the direction taken by the lymphatic vessels themselves, and then the direction of the lymph stream within their channels.

Further, we have to assume that the cancerous particles or cancerous lymph, or whatever it may be, passes along the lymphatic channels in the direction of the assumed course of the lymph stream. But my own clinical observations have led me to think that it is quite unsafe to begin with preconceived ideas on these three points, or, in other words, to assume that the cancer will spread in some preconceived direction, and linger in some particular group of lymphatic glands. For instance, our earliest knowledge of the arteries and veins tells us that they anastomose but scantily across the middle line. Hence we easily infer that the lymphatics do the same. But clinical observation soon teaches us the untruth of such an inference. There can be little doubt but that the lymphatics of the breasts intercommunicate across the sternum.

This allows, perhaps, of an explanation of such a case as this: A long-standing carcinoma of the left breast was removed, together with the pectoral muscles, the fasciae, and all the axillary fat and lymphatics. When this was done I could discover nothing wrong with the right mammary gland, but nine months afterwards a minute nodule was felt near its sternal edge, exactly opposite the tumour which had been removed. This minute growth was examined microscopically by the immediate method, and was a carcinoma of the same type as that which had been removed from the other breast. Is it right to think that that cancer had crossed over the sternum along the lymphatics from one mammary gland to the other? In this particular instance this, to me, seems the likeliest explanation; but soon another case of bilateral cancer will be described in which this explanation seems less likely, because the bilateral tumours were not of the same histological type.

I suppose that in the above instance the carcinoma may have grown from one breast to the other in the lymphatics which cross the sternum, or have been forced along them by the cutting and handling during the operation, or carried over before the operation was done in some regurgitant stream set up by the obstruction of the opposite axillary lymphatics. But this mysterious disease is full of puzzles, and will be until its etiology is known.

It would not be easy to explain the following instance of bilateral cancer by supposing that it had grown along the lymphatics or been carried as an embolus. I removed the left breast and pectorals and all the axillary lymphatics, together with a great quantity of others from the posterior triangle of the neck, for the ordinary form of scirrhus carcinoma. Eight months afterwards, the patient was much improved in health, and the left side was quite free from disease, but a small movable nodule had appeared in the right breast just beyond the outer edge of the areola.

The part of this nodule nearest the nipple was chronic mastitis pure and simple; that nearest the axilla was cancer. Although none could be felt, the axilla contained numerous cancerous lymphatic glands. Now the mammary lymphatics are so abundant and intercommunicate so freely, that it is possible that the cancer had passed along them over to the side of the breast furthest from the original growth; but to me it does not seem likely. Then which came first, the carcinoma or the mastitis? Did the carcinoma cause the mastitis or did it grow in a lobule already inflamed? An answer to these questions may be found in a similar combination of chronic mastitis and carcinoma which was met with in another case. Several of the breast lobules were enlarged and indurated. A nodule of cancer was found in one only. Obviously a constant cause ought to produce a constant effect; and cancer should have been found in all of the inflamed lobules. Probably the chronic inflammation only prepared the ground for the carcinoma in the breast, as it does sometimes in the tongue and elsewhere. Those who attempted to make a correct clinical diagnosis in this case of mastitis and carcinoma were much at variance.

Here is another fact which ought to make us cautious in thinking that the onset of cancer in the other breast is always due to lymphatic transmission, though it may be. I have told you about a case in which a portion of the chest wall was removed for recurrent duct carcinoma of the right breast. Within four months a carcinoma had grown in the left breast, but it was a spheroidal-celled carcinoma undergoing colloid change. Here it is difficult to suppose that a particle of the duct carcinoma had been carried across. But then, again, it may be quite wrong to look for a particulate cause for the various histological kinds of cancer. And here for a moment I may perhaps be allowed to digress, and say that it is rash to infer that when tumours grow in both mammary glands they will be of the same variety.

For example, I removed from the right breast, a cystic fibro-adenoma. Five years later another small tumour grew in the left breast. Although clinically it was exactly like the previous one, yet it proved to be a spheroidal-celled carcinoma. Again, a cancerous tumour had been removed from the right breast by a partial and futile operation. The tumour speedily grew again, but seemed yet within the possibility of complete removal. But whilst the carcinoma was growing in the remains of the right breast a tumour had appeared in the left. The outlook seemed as bad as could be, if, as seemed certain, both breasts were cancerous. But an immediate microscopical examination showed that the tumour in the left breast was a cystic adenoma, so after it had been taken away a complete operation was done for the carcinoma of the right side. More than a year afterwards this operation seemed to have been effectual.

What can be the meaning of these incidents? Why in the same person should one breast bring forth an innocent growth and the other a malignant one? It might save trouble to say that these were mere coincidences, but that would never help us to solve the riddle of this horrible, mysterious, and almost unknown disease.

Thus it is probable that cancer may cross in the lymphatic channels from one breast to the other, but it is evidently rash to assume that it may have done so in any particular instance of bilateral tumours.

I have already mentioned that lymphatics from the inner side of the breast may carry carcinoma into the mediastinal glands. I have only seen this in advanced cases, such as ought not to occur without an effort having been made to extirpate the disease in its earliest and more amenable stages. The admirable work of Mr. Handley[5] has also gone far to prove the growth of carcinoma from the breast along lymphatic channels which join with those of the abdomen mainly through the epigastric angle. Any one who realizes this must of necessity remove the lymphatic-bearing fascia which lies over the juncture of the great pectoral muscle and aponeurosis of the rectus abdominis. Indeed, in my later operations the rectus aponeurosis itself has been removed, bringing into view the fleshy origins of the muscle from the costal cartilages. This entails but a trifling addition to the extent of the operation, and would be amply repaid if the risks of intra-abdominal growth be lessened by it. The mammary gland is so widespread that it is not very far from the epigastric angle, and therefore, as every scrap of gland tissue has to be removed, but a slight extension of the incision is necessary.

AXILLARY INVASION.

I now come to the spread of carcinoma of the breast into the axilla. All will agree that this is usually as follows: First, it spreads into the pectoral group of axillary lymphatic glands, and which are so easily felt when enlarged at the lower edge of the pectoralis major. Thence the growth passes onwards into the glands, about the uppermost part of the axillary vein, and thence onwards into the subclavian. As the growth progresses, other groups become involved—that about the subscapular artery and vein, that about the lower end of the axillary and upper end of the brachial vessels. But in practice it is unsafe to assume that the lymphatics become cancerous in regular anatomical sequence.

On many occasions after having taken away the pectoral muscles, I have found considerable enlargement of the uppermost axillary glands, although the lowest pectoral ones seemed to have escaped. This anomaly can be explained upon anatomical grounds, for although the main bulk of the lymphatics of the breast enter the pectoral group of axillary glands, nevertheless others run upwards through the fibres of the pectoralis major, or between the sternal and clavicular heads, to empty into the uppermost axillary or subclavian glands. This important accessory lymphatic channel is described and depicted in Poirier, Cunéo, and Delamare's standard work on the lymphatics,[6] which has been well and clearly translated by Mr. Cecil H. Leaf, who has himself worked at this subject. I have found in Professor Poirier's work many anatomical explanations of the course of cancer along the lymphatics, which before I had only known from clinical observation.

I have been especially indebted in the case of the lymphatics of the tongue.[7] Grossmann[8] succeeded in injecting the accessory mammary lymphatic trunk which runs direct into the uppermost axillary or subclavian glands thrice in thirty subjects. I am inclined to think, on clinical grounds, that this may be too small a proportion. Disease may more readily disclose lymphatic channels than any method of injection, even than the excellent one of Gerota. Although after the removal of the pectorals it is rather the exception than the rule to find the uppermost axillary glands enlarged without any enlargement of the pectoral ones, nevertheless, it is by no means unusual to find them by far the biggest. This may, of course, be capable of other explanations, but one cannot help thinking that they must have got an early and independent supply of cancer short-circuited to them by a separate channel.

I may say that enlarged glands are not commonly met with superficial to the costo-coracoid membrane. Once, however, I met with a large mass lying upon it, and on several other occasions I had encountered two or three.

Enlarged cancerous glands may be met with in rather unexpected places. For instance, in a very advanced case one was found outside the coracoid process beneath the interval between the pectoralis major and deltoid. This gland was situated upon one of the trunks which collect lymph from the arm. According to Poirier[9] it was first described by Aubry, who says one, two, or three may be found, but not constantly (14 per cent. of cases according to Grossmann). It is rather difficult to guess how any of these become involved in cancer of the breast. Perhaps regurgitation takes place, or what is much more likely, there are loops of communication between these delto-pectoral lymphatics and those of the axilla.

It is hardly necessary to dwell upon the bearing which the above has upon clinical diagnosis and surgical treatment. Obviously, when the mammary gland contains a carcinoma—a fact which can easily be learnt by an immediate microscopical examination of the tumour—it is quite unsafe to infer that, because the lowest axillary glands are not enlarged, therefore the uppermost are not. In the beginning the enlargement of the uppermost axillary glands cannot be detected except by taking away the pectorals. In the later stages it usually causes a slight fullness of the infraclavicular fossa, but this can only be seen in those who are thin. It is not a sign to be waited for. Fortunately the removal of the pectorals is borne exceedingly well, and is followed by slight impairment of the usefulness of the arm.

Returning again to the axillary lymphatic glands, I propose now to speak of an almost outlying group which on more than one occasion has nearly been overlooked, although enlarged by cancerous growth. This small group is situated about the end of the axillary and beginning of the brachial vessels, and belongs, therefore, to the arm rather than the axilla. As a rule, the outer end of the incision made for removing the breast, pectoral muscles, and axillary contents falls short of these brachial glands, so that, unless the incision be especially carried down the arm for a little way, they will not be brought into view.

Nor can we reckon upon the presence of a continuous chain of enlarged glands along the axillary vessels to point the way to them. Deceptive intervals may intervene between groups of cancerous glands. There is a danger, too, that enlargement of the glands might not have been suspected in a place so remote from the breast tumour. Besides, the casual discovery of cancerous glands by the fallacious sense of touch is not to be implicitly relied upon. Thus, more than once, towards the end of a long operation, when, as a last precaution, the incision has been prolonged down the arm, and the enlarged brachial glands have come into view, I have felt a qualm at the thought lest they might have been overlooked. That would, in all probability, have rendered the whole proceeding futile. Such an incident has occurred but recently. The case was one of Paget's disease. The lymphatic glands were extensively involved, some being adherent to the axillary vein close to the subclavius tendon. The lowest lay over the brachial artery, and these were the ones which were almost overlooked. In another instance it is noted that the brachial glands could not be felt, although greatly enlarged, because the patient was so fat.

It is to be supposed that these brachial glands became cancerous by a process of growth from the axillary and pectoral ones. This would imply that the growth had taken place against the lymph stream, and past a number of lymphatic valves.

But there is another possibility. In Poirier (p. 238) we find it said:

> It is not rare to see a vessel, no matter from which of the lymphatic territories it may spring, end in a glandular group other than that which represents the usual terminus of the collectors of the territory in question; thus Nagel has seen one of the trunks coming from the subareolar plexus send a branch to a humeral gland before terminating in the supero-internal thoracic glands.

Presumably this is not a very common occurrence, but neither is marked enlargement of the humeral, or brachial glands, as they are better called.

There is yet another group of axillary glands situated over the subscapular vessels. But these are not at all likely to escape notice, and are removed as an invariable part of a modern operation. I have not seen the subscapular glands separately enlarged. But the growth of cancer in them may add to the difficulties of the operation, and render it less efficacious.

I have already spoken of a case in which a cystic adenoma was removed from the left breast and carcinoma from the right breast and axilla (p. 183). A futile attempt had been made to take away the carcinoma. In the axilla the disease was far spread, and the axillary vein had to be taken away with the adherent glands. But the most difficult and embarrassing step in the operation, and attended with much serious haemorrhage, was the removal of the adherent subscapular glands, and of cancer which had grown far backwards in the spaces above and below the triceps tendon. Through the upper quadrilateral space lymphatics from the deltoid and dorsal scapular muscles accompany the posterior circumflex vessels.

Here again is an instance of carcinoma spreading against the lymph stream. After the lapse of a year this operation seemed to have been successful; but, should the growth reappear near the neck of the scapula, nothing short of Berger's interscapulo-thoracic amputation would suffice. Truly that would be a heavy penalty to pay for a thoroughly inefficient operation, which the first one was.*

CERVICAL SPREAD.

After a time cancer of the breast spreads into the glands of the neck—usually a late step in the disease. Doubtless the growth nearly always spreads beneath the clavicle, from the uppermost axillary glands and lymphatics into those in the subclavian triangle. But there is a possibility that it may find a shorter way through lymphatics which cross in front of the clavicle along with that morphologically interesting vein, the jugulo-cephalic. According to Poirier, lymphatics have been seen by Grossmann passing over the clavicle from the uppermost axillary glands into the subclavian. Mascagni, too, has seen some of the lymphatics which ascend with the cephalic vein (delto-humeral), cross the clavicle, and enter the cervical glands.[10]

When we consider that some of the mammary lymphatics run straight upwards towards the clavicle; and, further, when we consider the abundant intercommunications between contiguous lymphatics, it is not difficult to believe that occasionally some of the mammary lymphatics may short-circuit themselves into the cervical by crossing over the clavicle. Clearly the subclavian lymphatic glands demand careful attention in every case of mammary carcinoma, whether the axillary are or are not enlarged. Indeed, some surgeons carry their distrust so far as to remove the subclavian glands in every case. I myself have not yet reached this stage. I content myself with a thorough dissection carried above and below the axillary and subclavian veins as far as can be reached by raising the clavicle upwards.

In most cases this dissection brings to light a gland which was hidden from sight underneath the great vein just where the subclavius muscle crosses it. Enlarged glands are occasionally found above the vein. Once I found several above and none underneath.

The sense of touch is a fallacious guide to the presence of enlarged glands in the subclavian triangle. Thrice I have explored it to seek for an enlarged gland, which I, and others, too, thought could be felt, and thrice have failed to find any. It is almost certain that the deception was caused by the posterior belly of the omo-hyoid in a state of rigid contraction. Mr. Sheild[11] says that the transverse processes of the lowest cervical vertebra have also led to error. One of my patients is well ten years after exploration, so that it is unlikely that an enlarged gland had been overlooked.

This brings us to another point—what ought to be done when carcinoma has spread to the cervical glands? I believe that opinions vary upon this point. Some take a pessimistic view, consider the patient doomed, and refrain from operating; others do not shrink from very extensive dissections of the neck.

But, after all, the dissection of the posterior triangle of the neck is not a very formidable undertaking for either the patient or the surgeon. It is true that it demands, on the part of the latter, skilled experience and thorough anatomical knowledge; but, granted these, the difficulties are by no means serious. After a flap has been turned off the triangle—for small cuts are useless and dangerous—a very searching dissection can be made. Next, the patients seem to suffer little from extensive dissections of either the anterior or of the posterior triangles of the neck. Moreover, the process of repair is rapid and attended with little pain or constitutional disturbance. Indeed I cannot help thinking that the difficulties and dangers of this step have been overrated. Even were this untrue, "the greater the evil, the more vigorous the remedy." Besides, cancer is a disease which varies greatly in its rate of progress. In the thin and abstemious it is often slow, and these are the ones in whom lymphatic enlargement is easiest to detect and easiest to remove.

For example, the right breast, pectoral muscles, the fasciae, the axillary contents, and subclavian lymphatic glands were removed from a spare woman, aged 49. At its commencement the small cancerous nodule had been seen by a surgeon. An immediate examination would have revealed its nature, and it would not have been allowed to spread into the cervical glands. Three years after the extensive removal this patient was quite well, and apparently free from disease. Another was not in some respects quite so fortunate. She had an ulcerated carcinoma of the left breast, and enlargement of the axillary and cervical lymphatic glands. A gland near the top of the posterior triangle of the neck was removed for immediate microscopical examination, and was seen to be full of carcinoma. Being so far from the breast, we thought it might have been tuberculous. The patient was young and vigorous, and anxious that an attempt should be made to relieve her from the pain and misery of an ulcerating carcinoma, and, one might add, from the imminent risk of dying of sepsis. During the dissection of the neck but few glands were met with along the internal jugular vein, nor about its junction with the subclavian. In other words, the state of affairs was not so bad as might have been expected. Eight months afterwards this unfortunate woman came with a small, movable nodule in the right mammary gland.

---

* This has since been carried out, and was followed by a rapid recovery.

This I have already mentioned, for it consisted of chronic mastitis and of carcinoma (p. 183). The woman's health being good, and all the left axilla and neck free from any trace of disease, an amputation of the right breast was done. Six months afterwards her condition was quite satisfactory.* But in yet another case the result was less propitious. At the age of 34 the right breast had been amputated for carcinoma. Then the disease grew in the lymphatic glands of the axilla and posterior triangle. In the infraclavicular fossa the mass of glands was immovably fixed. I might have been deterred by this had I not succeeded in removing a similar growth, and which had not returned after the lapse of three years. It took two hours and forty minutes to clear the axilla and posterior triangle. The subclavian veins and artery had to be removed to get away the fixed mass.

The operation was well borne, but the patient died three months afterwards without any local recurrence, but with evidences of growth in the osseous system. Dr. Casey informs me that in the house in which this patient lived her grandmother had died of abdominal cancer, and her grandfather of cancer of the lip.

Sometimes, too, these immovable glands are not so fixed as they seem to be. A woman who nine months before had had the left breast amputated for carcinoma, had a large gland apparently adherent to the head of the left clavicle, behind the attachment of the sterno-cleido-mastoid muscle. When that muscle had been reflected the gland was easily removed. She lived for more than three years, but at last died of cancer. The subclavian lymphatic glands were not enlarged, so that it is not easy to tell how the growth had got into that solitary gland almost in the upper aperture of the thorax: probably by some unrecognized short-circuit. Finally, I doubt whether any rules can be laid down for these operations in cervical cancer. That question has to be weighed and considered and decided for each individual case.

REFERENCES.

[1] The Early Microscopical Diagnosis of Tumours. By C. B. Lockwood, BRITISH MEDICAL JOURNAL, July 2nd, 1904. p. 5. [2] Loc. cit. [3] *The Surgical Anatomy of the Breast and Axillary Lymphatic Glands*, etc. Edinburgh, 1892, p. 24. [4] BRITISH MEDICAL JOURNAL, January 23rd, 1904, p. 175, et seq. [5] The Dissemination of Mammary Carcinoma, by W. Sampson Handley, *Lancet*, April 8th, 1905, p. 909, et seq. [6] *The Lymphatics*, Poirier and Cunéo, translated by Cecil H. Leaf. London: 1903, p. 215, et seq. Fig. 85, p. 235. [7] Secondary Infection of the Lymphatic Glands in Malignant Disease of the Tongue, by C. B. Lockwood, *Clin. Jour.*, June, 1904, p. 113, et seq. [8] Quoted by Poirier, p. 223, who also says this channel has been seen by Rieffel. [9] Loc. cit., p. 234. [10] Loc. cit., pp. 240, 245. [11] Loc. cit., p. 353.

---

* She has since had an extensive outburst of her disease upon the chest wall.

HETEROTYPICAL MITOSES IN CANCER.—Drs. Bashford and Murray, in a communication read before the Royal Society, state that their more recent investigations into the nuclear changes which occur in the dividing cells of cancerous growths have led them to modify their views. They now believe that the mitoses which they formerly regarded as confirming the occurrence of a heterotypical reducing division in cancer are in reality somatic mitoses, and they think that the occurrence of heterotypical mitoses in this disease requires further proof. Multipolar mitosis and other irregular forms of cell-division occur in cancer, but these phenomena do not supervene upon heterotypical mitosis; they are entirely independent of its presence, and of themselves suffice to account for the diminutions frequently occurring in the number of chromosomes in cancer throughout the vertebrates.

Remarks

ON

SWELLINGS OF THE BREAST, THEIR DIAGNOSIS AND TREATMENT.

READ AT THE MEETING OF THE ST. PANCRAS DIVISION OF THE METROPOLITAN COUNTIES BRANCH.

By ANDREW CLARK, F.R.C.S., D.Sc.,

SENIOR SURGEON TO THE MIDDLESEX HOSPITAL, PRESIDENT OF THE BRANCH.

WHEN your Chairman honoured me with an invitation to read a paper to this Division I at first demurred, on the ground that I had nothing new to put before you; but when he told me that this was not what was wanted, but a short, practical paper on an everyday subject—something that practitioners had to deal with in their daily work—I thought that I should be able to put something together that might be of sufficient interest to warrant my occupying your time, though I did not then decide what it should be. When I returned to my hospital work in October, I found 4 cases of enlargement of the breast just admitted, and it occurred to me that I might take as my subject Swellings of the Breast and their Treatment, as practitioners are frequently consulted for this condition, and although in many cases the diagnosis is very easy, there are some that present considerable difficulty, and I hope I may be able to offer you some hints or suggestions that you will find of use. Nine women out of ten when they get an enlargement of the breast begin to think about cancer, and we do not wonder at it, for it is so common; the majority go straight to the doctor, a few conceal their trouble, fearing they might be told they have cancer, and preferring to remain in, shall I say, happy ignorance. These cases were all sent as cancer, but they all presented different characteristics, though three out of the four turned out to be cancer. I will, in the first place, enumerate the various conditions that bring women to the doctor saying that they have a swelling or a lump in the breast—that is the way they generally put it—as they occur to me. First neuralgia, then mastitis, abscess, adenoma or fibro-adenoma, cysts of various kinds, and malignant disease, usually carcinoma. I think that includes all. Before commenting on each of these conditions separately, I would remark that there are many cases that after a more or less careful examination we can decide what is the matter, and decide with certainty, and knowing the nature have no hesitation in recommending the treatment that should be adopted; there are others that we cannot be quite certain about the exact diagnosis, but are quite satisfied that removal of the organ is the proper treatment; and there is a third class in which, after a very careful examination, we are not quite certain what the nature of the swelling is, though perhaps we can reduce it to one of two things—a chronic mastitis or a carcinoma—and we are somewhat perplexed, knowing that a few weeks' treatment will probably cure the former, or, at any rate, the patient will be none the worse if an operation is deferred; and that if the latter condition is present, any delay whatever gives the patient a worse chance of complete recovery. I am going to try and point out to you presently the signs by which you may come to a correct conclusion. There are some puzzling cases, as one of the four I have made the basis of these remarks. I was quite certain she had carcinoma or chronic mastitis, and inclining to the latter idea, decided to wait a week before operating. Very shortly further symptoms developed, which made the diagnosis of mastitis quite certain. Of the other three, one was a typical carcinoma, and another so like that disease that I had no doubt about it. The third, however, was a general induration of the whole breast in a woman of 50, and I had no doubt of the propriety of removing it, but until I had removed it and incised it I was not certain what it was. There are some cases where a preliminary incision, when the patient is ready for a more extensive operation if necessary, is the only course to pursue. I remember a case of this kind where the diagnosis was almost certain; a woman, over 40, with a very hard lump in the mamma, with retraction of nipple, enlarged axillary glands, but it was distinctly circumscribed. An incision was made, an ounce or so of pus let out, a drainage tube inserted, and the woman was well in a fortnight. I will now enumerate the typical signs of the conditions I have mentioned.

Neuralgia is rarely, if ever, met with except in neurotic young women, and is nearly always associated with menstrual trouble. The pain is more or less constant, but is always aggravated at the monthly periods. A patient in this condition often fancies she has cancer, and not a few, when the doctor tells them that there is really no tumour at all, will pinch up a bit of their breast and say, "Feel that, there is a distinct hard lump." The doctor places his hand flat on the breast, and no lump is to be felt; and the explanation that any breast can be made to appear to have a lump in it, and a demonstration of the fact by pinching up the other side, or even the other breast, will usually satisfy the patient. The examination of the mamma will sometimes reveal nothing beyond tenderness; in other cases there is marked general swelling, and in others, again, a small tumour—usually a fibro-adenoma—may be found, and its removal will effect a cure. In simple neuralgia general treatment is all that is required, and an assurance that the disease is not cancer, for the idea of this preys on the patient's mind and aggravates her trouble, and that a cure can be guaranteed.

Mastitis, the acute variety, is easily diagnosed by the general febrile symptoms that always accompany it. It is usually puerperal, but it must not be forgotten that it is not necessarily so; it occurs sometimes in the course of mumps, also after an injury, and occasionally as the breast is developing about the time of puberty.

Chronic Mastitis, however, which presents itself in more than one form, is a condition often most difficult to be certain about, and is more likely to be confused with carcinoma than anything else I know. For instance, a woman between 40 and 50 years of age comes to you with a lump in her breast, which she tells you she has had several months. One of the first things you ask her is, probably, why she has left it so long without treatment. The answer is that she was afraid to show it to a doctor lest she should be told it was cancer, or that it has just begun to be tender. You examine it; you find it hard, more or less circumscribed, the skin puckered over it, the nipple retracted, enlarged glands in the axilla, all signs of cancer, but it is tender, which cancer usually is not; it is not painful, which cancer generally is; and it is movable on the chest, which cancer often is for a considerable time. Such a case as this you may sometimes be absolutely unable to be certain about without an exploratory incision, and this should certainly be advised if a week's treatment does not enable you to come to a conclusion. Again, a woman between 40 and 50 years of age consults you, stating that her breast has been painful and tender for some weeks, and she has had shooting pains down the arm; the breast has gradually increased in size, and the nipple is getting drawn in. You examine her, and confirm to your satisfaction her statements; you then manipulate the breast, and find it hard, perhaps, in several places, possibly a definite tumour can be felt, but not distinctly circumscribed; the breast is movable on the pectoral muscle, the skin over it is not puckered, and enlarged glands can be detected in the axilla. Here we have some important signs of cancer, but, on the other hand, like the other suggested case, it is probably not cancer, but an interstitial mastitis, which occurs in women about the age suggested, being characterized by hypertrophy and thickening of the connective tissue, a sort of fibrous degeneration of the breast, and it may remain so; more commonly, however, this thickened tissue compresses the ducts and cysts form; if this is general, the diagnosis is easy, but, if it happen only in one segment of the breast, the diagnosis from carcinoma may be impossible without an exploratory incision, specially if the cyst wall is thick or the amount of fluid renders the cyst tense.

Abscess, like mastitis, when acute, presents no difficulty whatever in diagnosis or treatment, but you sometimes meet with a chronic localized abscess about which I will say a few words. It sometimes occurs in the course of pregnancy, sometimes it is of tuberculous origin, and sometimes a cyst will suppurate from a blow or other cause. The patient will tell you that it began as a lump, which slowly got larger, and very likely harder. On examination you see a retracted nipple; you feel a hard, generally circumscribed tumour in some part of the breast, and you feel enlarged glands in the axilla. This is very like early carcinoma, particularly if, as sometimes happens, the lump is of stony hardness, and there is entire absence of fluctuation, which thick walls distended with fluid will cause. Again, it is not unlike fibro-adenoma, though in this you rarely get a retracted nipple or enlarged glands. In such a case the only justifiable treatment I think is an incision under an anaesthetic, prepared to go further if necessary.

Adenoma and *Fibro-adenoma* I may mention together, the only difference being that the former, if it ever exists, is composed of pure breast tissue, and the latter, which is very common, is a mixture of breast and fibrous tissue. The so-called painful mammary tumour is of this variety, a growth which occurs in young women about the age of 20. It is generally single, but there may be two or three, usually about the size of a large cob-nut. There may be the history of an injury, but often there is not, and more or less pain is one of its characteristics. It is usually associated with anaemia, and also disordered menstruation, and the pain is often present only or exaggerated at the menstrual periods. It is always circumscribed, and sometimes seems to get encapsuled. It is embedded more or less deeply in the breast, is never accompanied by enlarged axillary glands or retracted nipple. I do not think this can ever be mistaken for anything else, certainly not for malignant disease, and can be satisfactorily cured by its excision and attention to the general health. I should add that there is another variety of fibro-adenoma which extends so as to involve the greater part or the whole of the breast, and develops numerous cysts. Of this I shall speak in connexion with cysts.

Cysts are very common causes of enlargement of the breast, and the first I will mention is the galactocele or milk cyst. It is the variety known as a retention cyst, and occurs chiefly in suckling women, but also in pregnancy, and occasionally at other times; in the latter condition the contents are not of the same milky character. A sore nipple is perhaps the commonest cause, but there may be contraction after cicatrization of a small ulcer or even after eczema and pressure thus created on a duct; milk may get inspissated at the orifice; anyhow, the secretion goes on forming and cannot get out and dilates the duct, thus forming a cyst. The following are the usual characteristics of this condition. It is generally about the size of a walnut, perhaps a little larger; it is movable, roundish in shape, situated near the nipple and single; it is sometimes very hard, particularly if it has been a good while in existence and has thick walls; it is apt to vary in size and, indeed, sometimes disappears altogether and possibly reappears on a future occasion. This latter characteristic renders the diagnosis more easy, but without it it may be mistaken for a fibro-adenoma or a chronic abscess; but as far as treatment goes this does not matter, as an operation is imperative, and if after incision a galactocele is discovered, drainage is all that is required.

Another variety is the involution cyst which occurs about the climacteric period, and is due to the obstruction of the small ducts; these cysts are sometimes single, more often multiple; occasionally they contain a clear serous fluid, and to this condition the term hydrocele of the breast has been applied. They commonly, however, contain a reddish-brown fluid, often of a more or less glairy nature, and there are not infrequently crystals of cholesterine to be seen in them. As a rule they are deeper in the breast than galactoceles, though they sometimes approach the surface and give it a nodular appearance; when they are like this there is not usually any difficulty in the diagnosis, but when deeper the following points may be mentioned as characterizing them: They are movable with the breast, the skin moves over them, the hardness is variable, depending on the amount of fluid and the thickness of the walls; thus, if there is more than one cyst, one point may be harder than another, they are usually painless, and there are no enlarged glands in the axilla. The size is no characteristic; they vary, I think, more than any other breast tumour. A careful examination will in the majority of these cases enable the practitioner to arrive at a correct diagnosis; it is only when there is a very tense single cyst that it may be mistaken for early carcinoma, and an incision under an anaesthetic will settle this question at once; the cyst will merely require dissecting out or draining, and in the other condition of course you must go further. As to the treatment of multiple cysts, I believe excision of the mamma to be the best thing. The condition occurs at a time of life when a woman does not so much mind losing her breast, and if some is left, more cysts are likely to occur and necessitate further operation. I should add that solid tumours sometimes undergo cystic degeneration—fibro-adenomata, for instance—and some of the largest cystic tumours met with in practice are of this nature. It is not uncommon to find cysts in sarcomata, but I believe these are usually due to haemorrhage into the tumour from rupture of a small vessel. In all these conditions of cystic degeneration of solid tumours there is a great tendency to intracystic growths, sometimes papillomata, sometimes malignant growths—in any case free removal is desirable, and in the former condition a favourable prognosis may be given with assurance.

Malignant disease is, I think, undoubtedly the commonest form of breast enlargements; at any rate, the moment a woman feels a lump in her breast she begins to think about cancer; some wisely get advice at once, and are either relieved of their anxiety or advised an early operation with every prospect of a permanent cure; others seem frightened that they will be told they have cancer, and prefer to remain in ignorance, or they are afraid of an operation, and alas! too often defer going to the doctor until it is too late to operate with any chance of a permanent cure, and sometimes until the disease has so far advanced that an operation cannot be undertaken.

Carcinoma is by far the commonest form of malignant disease, and it is usual now to describe it as of two varieties—acinous or glandular cancer and duct cancer. The terms "scirrhus" and "encephaloid" are not used by modern pathologists, but many surgeons still retain them for convenience, and it is a convenient way of distinguishing the hard and soft varieties of acinous cancer. Scirrhus is by far the most common. Out of the 4 cases I have alluded to 3 proved to be of this variety. Although before removal the diagnosis is sometimes difficult, a section of the tumour after its removal will enable the naked eye to discover what it is. It is not encapsuled, it sends processes into the adjacent breast tissue, it cuts like a piece of cartilage, and the cut surface is hard and rough and assumes a somewhat cup-shaped appearance; scraping produces a thick, milk-like secretion. Clinically it may be described as a single lump in any part of the breast, usually in a patient near the climacteric period, but it has been met with under 30, and in people over 50 it gets less and less frequent as age advances. It is very hard and not circumscribed, creeping as it were into the normal breast tissue. When it is near the nipple, that will be observed to be retracted, and wherever it is it draws the nipple out of the line of that of the other breast, the reason of this being that early in its course the skin over it gets more or less puckered, giving the impression of being adherent, and in a short time it becomes firmly adherent to the skin, and also to the tissues beneath the breast. Early in the disease, too, the lymphatic glands in the axilla will be noticed to be enlarged. Pain in most cases is a prominent symptom, though a few seem to be spared this, and the pain is of a peculiar characteristic sort, shooting through the breast, often described as being like knives going through it. It is not uncommon for the pain to be the first thing to attract the patient's notice and to take her to the doctor. The rate of growth varies with the age of the patient; the older she is the slower the growth, but in time ulceration always occurs if the tumour is left, and sooner or later the disease will go beyond the axillary glands and start secondary deposits in other parts of the body. There are numerous secondary complications in neglected cases depending on various circumstances, but of these I do not propose to speak.

The softer or encephaloid variety has less fibrous tissue in its composition, it is found in younger women, grows very much more rapidly, approaches the surface of the skin very early and presents a general enlargement with tension rather than puckering, the glands get early infected and enlarge rapidly and ulceration soon occurs. Duct cancer is not so common as acinous cancer; it usually occurs about the climacteric period, the gland tissue wastes and leaves the ducts which dilate and develop in their interior cancerous growths; the tumour increases slowly in size and presents many of the characteristics of a papillomatous cyst, it is usually situated near the nipple, and this body exudes a sero-sanious discharge; it seems altogether a more localized condition than the other variety, but if left it goes on to infect the lymphatic glands, after removal it is less likely to recur than the acinous variety. Treatment of cancer: I think I may without fear of contradiction say, that it is the universal opinion of surgeons at the present day that early and free removal is the proper treatment of cancer, and indeed is the only treatment that holds out any prospect of cure, and I think I may add that the modern method of operation results in a fair number of cases in a permanent cure. *X* rays, and other forms of light treatment, undoubtedly give temporary relief, but they seem to bring the cure to a certain point and then stop, but in cases that are decided to be inoperable this treatment should certainly be tried. As to violet leaves, molasses, and the hundred and one other things that have been recommended, I can only say that, as far as my experience goes, they are quite useless. It frequently happens that any new treatment relieves hopeless cases at first; at least, patients often say they have less pain and think they are better, though the doctor sees no evidence of it.

I have at the present moment in the Middlesex Hospital a very good exemplification of this. A woman about 50 was admitted some six months ago into the Cancer Wing, having had two operations performed elsewhere, and we found her with a large malignant ulcer occupying practically the whole of the front of the chest on the right side, laying bare the ribs and infiltrating the intercostal muscles. Further operation was quite out of the question, and so the violet treatment was employed both locally and internally. For a few weeks she expressed herself as being altogether better at each of my visits, but there was certainly no improvement to be seen in the ulcer, and it seemed to me to be slowly extending, though I did not tell her so. After a time she asked that the treatment might be altered, as she always suffered more pain after the local application; this was done, opiates being substituted internally, the wound being kept as clean as possible, and eucalyptus ointment applied. She has been now going on with this treatment some four months, the disease progressing very slowly.

Operation, then, when practicable, is the only safe method of dealing with cancer, but authorities differ as to the extent of operation necessary. All agree that the whole breast, including the nipple, must be removed, and in doing this the operator must bear in mind that there are often outlying portions of breast tissue in the neighbouring areolar tissue, and it is important that they should be removed. All, too, are agreed that the skin directly over and near the tumour must be sacrificed, whether adherent or not, as the lymphatic vessels from the tumour go to the skin; also that, as the lymphatics pass into the pectoral fascia, this must be removed, and if the tumour is adherent, the adjacent fibres of the pectoral muscle, and it is important to remember that there is a chain of lymphatics along the lower border of the pectoralis major muscle; therefore, the tissues here should be carefully dissected away. With a small early cancer some surgeons would go no farther than this; my experience, however, is—and I believe a great many share the same opinion—that it is wise to open the axilla and remove the fat and lymphatic chain from there, for the axillary glands get very early infected. I do not think that this either adds materially to the risk of the operation or to the length of time occupied in the healing process, or to the subsequent usefulness of the arm. The glands are often in close proximity to the axillary vein, and in dissecting them off it may be wounded, but if securely ligatured no harm need come of that. If a drainage tube is put in for twenty-four hours all effusion will escape and no sinus will be left, and, even if no drain is used and there is some pent-up effusion, it can be let out several days after the operation, and, provided asepticity is maintained, no harm will come of that. Some surgeons go further, and as a routine practice remove the pectoral muscles, some even dividing the clavicle. As regards the former practice it seems to me an unnecessary proceeding in the majority of cases, but occasionally it may be desirable, where there are a good many glands in the axilla which cannot be safely and entirely dissected out of the more or less cone-shaped pit the axilla presents when these muscles are intact. In elderly persons, more particularly where the growth is slow, a complete operation like this may effect a cure, but in younger women, with a rapidly-growing tumour, the probability is the relief will be only temporary; as a rule the younger the patient the more rapid is the growth of a cancer. As regards dividing the clavicle, I cannot think there are any cases in which this is expedient; when the supraclavicular glands are infected the chance of cure is very small, and quick recurrence is the rule; the division and partial removal of the clavicle adds much to the subsequent inconvenience of the patient. The most favourable cases for operation are those in which the tumour is small and growing slowly, and no enlarged lymphatic glands can be detected, but an operation may be undertaken with a fair prospect of giving a considerable respite, if not a complete cure, where the disease is more advanced and the glands distinctly enlarged, if the operation is done carefully on the lines I have indicated, but there are certain cases in which the surgeon will be wise to leave the patient alone. I would mention the following conditions: where there are enlarged lymphatic glands that cannot be removed; where the whole of the diseased tissues cannot be removed (except under special conditions that I will mention presently); when the cancer is disseminated through the skin forming a sort of breastplate on the chest—cancer *en cuirasse*, as it is often called—for here the lymphatics of the skin are so infected that it is hopeless to think of a thorough removal; and where there is evidence of any secondary deposit in internal organs. Some would add where the disease is atrophying, as it sometimes does in old people, but I think where the patient's general condition is such as to warrant an operation, and when she is not averse to it herself, it is wisest to remove even an atrophying cancer, for there is always the possibility of its taking an active growth and getting to the inoperable stage; and, further, the operation is attended with practically no risk, and takes away what is to many a source of mental worry.

Before I conclude the treatment of cancer I should like to say that there are, in my opinion, two conditions in which an operation may be advised with the idea of giving relief, though a cure cannot be hoped for; one is where there is a rapidly-growing ulcerating sloughing tumour which is causing great pain, and by its weight and offensive odour, or both, is making the patient wretched; this, if removable, it may be wise to remove, notwithstanding that there is glandular enlargement, or even secondary deposits. If a tumour of this kind is non-removable relief may be given by the application of what is called Fell's paste, the active ingredient of which is chloride of zinc; this often makes a dry eschar, checks the smell, and gradually diminishes the size of the tumour. The other is where in the earlier stage in a rapidly-growing tumour there is a good deal of oedema of the arm; clearing out the armpit may prevent that horribly painful and uncomfortable condition of oedematous arm that is sometimes met with in the later stages.

Sarcoma is rare and is met with as the round-celled and the spindle-celled variety; the former is a rapidly-growing infiltrating disease, sometimes it is encapsuled at first, but the capsule seems soon to give way. It occurs in comparatively young people, and presents itself as a roundish elastic swelling increasing rapidly in size, not as a rule attended by any puckering of the skin nor by any alteration in the normal condition of the nipple; it is frequently accompanied by enlargement of the glands and like growths of the kind in other places tends to infect the viscera, specially the liver. It has, as I remarked in speaking of cysts, a great tendency to cystic degeneration, and also to the formation of cysts by haemorrhage into its substance; the majority of so-called blood cysts are really sarcomata developing cysts in this way. I do not think that this disease can be mistaken for anything but the soft form of glandular cancer, and till removal a certain diagnosis cannot be made. The only treatment is early and free removal, but the prospect of non-recurrence is very slight. The spindle-celled variety is of slower growth, but otherwise it is clinically much like the other, though it rarely infects the glands or viscera. It should be treated by excision, and if it recurs it may be excised again, and this may be repeated as often as necessary; it generally remains local.

Examination of the Breast.

In conclusion, may I describe what appears to me to be the ideal way of examining a breast that is the subject of a swelling? From what I have said, you will appreciate the difficulty sometimes presented in coming to a correct diagnosis, and a practitioner should never be satisfied and should decline to commit himself to an opinion until he has made a complete local examination. The patient should preferably be seated in an ordinary chair, with her arms hanging down and the doctor seated opposite. If for any reason she has to be in bed, she should be placed flat on her back, with her head and shoulders slightly raised, and her arms lying beside her, the doctor standing at the left side of the bed; a shawl may be thrown loosely over the shoulders, otherwise the upper part of the body should be completely uncovered. Inspection is the first thing. The surgeon looks at the two breasts, noticing particularly any enlargement of either, or any puckering of the skin, also any alteration in the normal appearance of the nipple, and whether the two nipples are exactly opposite one another. He then places his hand flat on the affected breast, and carefully feels it all over. If he detects no tumour by manipulating in this way, he may be satisfied that there is not one. Should he feel a tumour, he will first notice whether it is tender or not, then satisfy himself whether it is circumscribed or diffuse. Then, by lightly moving his hand laterally to and fro, whether the skin is adherent to it; then whether it is adherent to the pectoral muscle; and to ascertain this it is well for an assistant to support the arm and alternately relax and tighten the pectoral. The next thing is to examine the tumour with the two forefingers, ascertain its relative hardness and decide whether there is fluctuation or not, and, lastly, the axilla and supraclavicular region should be examined for enlarged glands. In doing this the arm should be supported, and the muscles forming the axilla relaxed, and two fingers of the right hand employed. The whole axilla should be felt, more particularly the outer part, as there are usually glands found enlarged along the line of the axillary vein, if there are any. The forefinger should carefully feel the hollow above the clavicle and the back edge of the sterno-mastoid muscle. It is desirable also to examine the axilla of the unaffected side, as some people have enlarged glands from another cause, and the enlargement on the affected side may not be due to the condition of the breast.

ENUCLEATION OF THE PROSTATE FOR HAEMORRHAGE.

By Sir WILLIAM THOMSON, C.B.,
SURGEON RICHMOND HOSPITAL, DUBLIN; HONORARY SURGEON TO HIS MAJESTY THE KING.

I select this case from a further series of suprapubic operations because it presents certain uncommon features in its history and its course which must be of interest to many who are engaged in what is called urinary surgery.

A gentleman, aged about 57, was in 1901 suddenly the subject of haemorrhage from the bladder. He had not previously suffered in any way to account for it, and he was naturally startled to find that he had passed on this occasion what to him appeared to be pure blood. The haemorrhage only occurred after violent exercise or after riding or driving over rough roads. In 1902 in London he saw a physician, who suggested that he had stone in the kidney, and in consultation with another physician it was agreed that the patient should go to Contrexéville, and this he did. The bleeding, however, continued after smart exercise as before, and only then; and the patient consulted another physician in London, who thought there might be a stone, but he also feared there might be a villous growth in the bladder. A skiagraph was taken of the kidneys and of the bladder by a very skilled skiagraphist, but there was no visible evidence of calculus.

In 1903 the gentleman first consulted me and gave me the history of his case. He complained that exercise was usually followed by the presence of blood in the urine, usually just sufficient to stain the fluid. He had no pain of any kind in the loins, in the urethra, or in the bladder.

He had no difficulty in micturition, and could hold water for five hours during the day. He slept well, and on awaking at five or six o'clock, as was his habit, he passed water in a good stream. An examination of the rectum showed that the prostate was considerably enlarged. It was soft and smooth, and presented to the touch no character of malignancy.

The urine was frequently examined by Dr. Earl, and its general character was: Specific gravity ranging from 1018 to 1025, acid reaction, no albumen, urea from 8 to $10\frac{1}{2}$ gr. per oz., with a deposit of urates and some oxalate of lime crystals, epithelial cells from the urinary passages, and sometimes a few red corpuscles.

Skiagraphs of the kidneys were taken by Dr. Haughton, but nothing could be discerned to indicate the presence of stone. Later on I recommended the patient to see Mr. Henry Morris in London, and he agreed with me that although the character of the urine indicated stone somewhere, it would be unwise to make any exploratory operation in the circumstances. He could find no sign of mischief about the renal regions.

From this on to May last year the patient was intermittently under my care, never at any time complaining of anything save the occasional appearance of blood in the urine. I pointed out to him that in my opinion he was not suffering from villous tumour as had been thought possible, because it would probably have by this time produced symptoms which would be marked and severe. As to the kidneys, there was no evidence of stone in the repeated skiagraphs; and, moreover, if the bleeding depended upon a calculus in either, the mobility which produced haemorrhage would also produce pain. This brought the diagnosis down to stone in the bladder or to haemorrhage from the prostate. But there was no symptom of stone there save the occasional appearance of blood, which of course was not by itself conclusive; and as, for reasons special and personal, I did not wish to introduce a sound, I had only the condition of the urine to guide me. My opinion was that there might be a stone or stones lying in a post-prostatic pouch, and prevented by this from rolling to the neck of the bladder when the urine was discharged, and so producing pain. I pointed out that if it should become necessary to remove the prostate, any stones could be dealt with at the same time, but that there was no necessity to operate upon the gland in its then condition. There had never been any retention of urine, or need at any time to pass a catheter, but the need of micturition had become more frequent.

This was still the condition of affairs in May, 1905. I saw the patient on May 12th. In June he started on a holiday. In London a friend suggested that he should see a surgeon, and he did see one. The bladder was examined with a sound, but no stones could be found, but the prostate was found to be much enlarged. On examination by cystoscope was suggested; but the gentleman started for Contrexéville, and arrived there suffering for the first time from retention of urine. His physician had to introduce a catheter. He told the patient he should not have come, treated him for a few days, and sent him back. In London he was found to be suffering from cystitis, and was advised to return to Dublin at once, and accordingly he arrived on June 22nd, when I saw him. He was now very ill, with the usual symptoms. There was no blood, but the urine was alkaline, and very fetid; stringy mucus and pus were abundant. Careful washing out through a rubber catheter and other remedies resulted in acid urine for a few days, and then there was a relapse. I had to leave town on July 8th, and on the evening of that day he had a sudden and severe haemorrhage from the bladder. Sir Charles Ball was sent for in my absence. The bleeding continued at intervals, and Sir C. Ball saw him with me on July 11th. Various remedies were tried but without any marked result. The blood was bright, and came away in large quantities, and we were agreed that it came from the prostate. I had the advantage of seeing the patient with Sir C. Ball and Sir Francis Cruise several times, and we agreed that I should open the bladder above the pubis and enucleate the prostate. On July 15th the bleeding had somewhat decreased, and the patient was removed in an ambulance to a private hospital. Next morning, the bleeding not having ceased, we determined to operate, and this I did, Sir C. Ball, Sir Francis Cruise, Dr. J. O'Carroll, and Dr. Peacocke being present.

The bladder was opened in the usual way, and stones were detected in a post-prostatic pouch; they numbered 32. They were smooth and rounded, and about fourteen were of the size of large peas. They were subsequently found to be composed of oxalate of lime. The prostate was soft, and projected far into the bladder, the right lobe being the longer. The adhesions were very intimate, and it required a great deal of force to break these down. The gland weighed 2 oz.

There was a good deal of bleeding during the removal, but this was controlled by hot douching, and when the operation was ended haemorrhage had entirely ceased; it never recurred in any form. Considerable shock followed, but the patient made excellent progress, and was able to sit up on the fourteenth day. In four weeks he returned to his own residence. In the fifth week he had a sudden attack of rigors and vomiting, followed by profuse sweating. For a day he was delirious, and in a urinary case the symptoms were very alarming. But Sir Francis Cruise and I soon came to concur in the patient's own view—that he was suffering from an outburst of malarial fever, and he had quite recovered in three days.

There was some intermittent leakage from a pinhole opening, but it entirely ceased in September. He passes urine by the urethra in a full stream without the least irritation or pain, and can retain water for five or six hours without uneasiness. In October it was necessary to remove a painful portion of the cicatrix, which was the last to heal, and which covered a few drops of pus. From this the patient quickly recovered.

The case was one of difficulty, and in the end of great anxiety. The only signs present were occasional slight quantities of blood and an enlarged prostate. But of stone in the kidney or bladder the *x* rays gave no indication, and the only hint was derived from the presence of oxalate of lime crystals in the urine. There had never been any symptom of renal colic, or tenderness over the kidneys, nor was there any symptom or sign of stone in the bladder save a little blood which now and again appeared after exercise. But having found an enlarged prostate I could not exclude the possibility of there being calculi in the post-prostatic pouch.

I have mentioned that the bladder was sounded in London in June and that no stones were found. Had I, however, been aware of the intention to sound I should have given reasons for postponing that procedure in the special case; but of the proceedings in London I knew nothing, as no communication was made to me.

The haemorrhage, which broke out without any warning, was, with one exception, the most severe I have ever met with in like cases. It was obvious that although it had somewhat diminished we could not allow it to go on, and the only course was to deal with it directly by operation. A subsequent examination of the gland showed three patches of marked extravasation beneath the surface of the left lobe, and I have no doubt the haemorrhage had taken place there.

The removal of the enlarged prostate for existing alarming haemorrhage has not been before advocated or deliberately practised—at least, so far as I am aware. I do not doubt that when bleeding cannot be otherwise controlled it is the proper treatment. The surgeon is thus enabled to reach the source of the flow at once and to remove it.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m., except on Saturdays, when it closes at 2 p.m. Members can have their letters addressed to them at the office.

AT a meeting of the Neurological Society of the United Kingdom, to be held at the rooms of the Medical Society of London on Thursday next, at 8.30 p.m., Mr. W. Bateson, F.R.S., will read a paper on Mendelian heredity and its application to man.

ON VENTRIFIXATION:

WITH DETAILS OF A COMPLICATED CASE.

BY SIR WILLIAM J. SINCLAIR, M.D.,
MANCHESTER.

THE discussion on ventral fixation at the Obstetrical Society of London, reported in the BRITISH MEDICAL JOURNAL of December 16th, 1905, does not appear to present British gynaecology quite at its best. With the exception of Dr. Herman's admirable introduction, no address or contribution to the discussion appears to have contained much which resembled the fruits of reflection upon a varied experience.

It is easy finding fault and raising *a priori* objections, and the reader must mark a good deal of that sort of matter between the lines of the report. But the most striking contribution to our knowledge was probably that of the speaker who declared the chief indication for the operation in addition to complicated retroflexion to be the condition found in "cases of prolapse of the uterus in women at or past the menopause." In my humble judgement these are just the cases in which the operation is not indicated but altogether unjustifiable. My only experience of such cases has been in releasing the uterus from adhesions which were the result of eminently unsatisfactory operations performed recently or more remotely by others.

But the chief defect of the discussion appeared to me to have been the all-pervading influence of the logical fallacy of comparing unlike things. Under the collective term "ventral fixation" all sorts of operations, good and bad—chiefly the latter—appear to have been discussed and their results appraised, just as if the term implied some simple surgical act.

According to the report, Dr. Horrocks said that in cases of adhesions "the operation became much more difficult and dangerous," and even Dr. Herman, in speaking of adherent retroflexion of the uterus, stated that the operation was to be advised cautiously, because, among other reasons, "in these cases it was more dangerous."

The ground for these opinions I cannot imagine. I have read the report while preparing 100 cases of ventrifixation for publication. No case has given any anxiety in the early post-operation stage, and complete relief from symptoms has resulted in all save one doubtful case. The exception is that of a woman who presents all the anatomical conditions characteristic of cure. Her remaining symptoms are purely subjective, and, owing to domestic circumstances, she is under great temptation to remain an object of commiseration, and to postpone the evil day when she must cease to depend on her relations. It has occurred to me that under present circumstances an illustrative case involving all the supposed difficulties and dangers of ventrifixation might be of interest to your readers, and especially to members of obstetrical and gynaecological societies.

So far from acting in the belief that adhesions resulting from pelvic peritonitis add to the danger of ventrifixation, I have always assumed that a peritoneum which has been devastated by peritonitis is less likely to become infected than the virgin structure; and I must say that the results have appeared to support the theory and practice.

My "precursory communication," then, to literally translate the well-recognized German term, embraces the facts of the following case:

History.

M. D., aged 29, married five years, had two children, both living, eldest 4 years, youngest 2 years and 9 months. At her first confinement she was attended by a midwife, who was drunk all the time of the labour. The patient became very ill, but the midwife did not consent to seeking medical advice for five weeks. Dr. Floyd was then called in, and at once advised the patient to seek admission to Chorlton Union Hospital. She was there for eighteen weeks, and during the time she had "several" abscesses in her breasts opened by the visiting surgeon. The patient has never been well since her confinement. Her previous history is clear and simple. She began to menstruate at 15, was always regular, and had no dysmenorrhoea. She was married at 24, and became pregnant during the first year of her married life. She became pregnant a second time, and was in great distress during the whole period of gestation with pain in the "stomach," and especially in both groins. The symptoms continued without intermission until her confinement. At her second confinement she was attended by a nurse from Withington Workhouse Hospital. The nurse was very attentive and helpful, and the patient had a "good time." She was in bed for twenty-one days, had a great deal of trouble with her breasts, and was not able to suckle the child at all. From that time she has been always ailing until she came under treatment as an out-patient at the Southern Hospital early in 1904. She was continually uncomfortable, but she suffered severely at her menstrual periods, which were quite regular, and continued seven days. At these times she was just able to keep out of bed.

Condition on Admission.

Abdominal Examination.—Tenderness on palpation of hypogastrium, and especially in the left ilio-inguinal region, with involuntary resistance to manipulation; no tumour.

Vaginal Examination.—Lax vagina and pelvic floor; split cervix, with tender band stretching across left lateral fornix; acute retroflexion of the uterus; thickening and matting of tubes and ovaries on both sides.

After rest and tampons and the usual palliative treatment for over a month without any improvement, it was decided to perform the operation of ventrifixation, with as conservative treatment of the appendages as circumstances would permit. The patient was an emaciated, anaemic, and unhappy-looking little woman, and the first intention had been to remove the appendages on both sides; but, considering her age and certain social circumstances, the more conservative treatment was finally resolved upon.

Operation.

On July 6th, 1904, abdominal section was performed. The ovaries and tubes on both sides seemed to be hopelessly bound down by adhesions, and it was difficult to reach the fundus uteri, which, owing to adhesions, could be only obscurely felt in the lowest part of the pelvis. After the uterus had been to some extent released it was possible to gouge out the ovaries from their fossettes and to bring each in succession into view. On the right side the Fallopian tube was thickened, closed, with bulbous end, and firmly adherent to the ovary. On the left side the ovary was smaller, and covered with the usual red shreds of broken-down adhesion tissue; the tube was open, the fimbriae presenting an almost normal appearance.

The right ovary received attention first. Only a part of it, from one-half to one-third, appeared to contain follicles, the rest consisted of hard, sclerosed, white fibrous substance, with a verrucose surface. The hard portion was excised in the form of a wedge, and the edges of the hard tunic brought together by fine catgut sutures. The tunic of the ovary was punctured, and slight incisions made in two or three other places, the shreds of adhesive tissue were snipped or scraped off, and the remains of the ovary were then released and allowed to drop. The right tube was then incised from the end inwards along the upper margin for about one-third of its length, and a fine probe was passed along the canal till stopped by the wall of the uterus. In probing no force was used or required. Sutures were then introduced so as to bring together the serous and mucous layers of the wall of the tube round the incision, and the tube was dropped, having now a large ostium abdominale, and with it freedom of movement completely restored.

The left ovary was next treated in a similar manner. The proportion of sclerosed tissue was larger than in the right ovary, but it was not so hard. It was cut out in the same way as on the right, but perhaps it would have been sufficient to make incisions into the obviously thickened tunic of this ovary in order to eliminate its contribution to the sufferings of the patient. It was not necessary to interfere with the left Fallopian tube.

The uterus was now completely freed from the remaining adhesions, and the fundus was brought well up for inspection and the more obtrusive shreds of adhesion tissue were removed. The operation of ventrifixation was then performed with careful detail. This was a complete hysteropexis abdominalis. The vesico-uterine cavity was first closed by catgut sutures placed so as to give the largest possible amount of space for the bladder. The rest of the sutures were fine silk, so inserted as to draw upon the peritoneum and fascia only in order to retain the uterus in the position most nearly resembling the normal. The last sutures introduced included, in sequence, fascia and peritoneum, then uterus, and peritoneum and fascia. The highest were transverse, and reached rather higher than the upper limit of the lower half of the corpus uteri. These sutures were inserted exceptionally high up, owing to the extreme improbability of pregnancy ever occurring again.

The abdominal wound was closed in stages with catgut, fine silk, and silkworm gut. It is hardly necessary to add that all sutures penetrating the peritoneum were buried.

The last step in the operation was the introduction of a large Hodge pessary with glycerine bulb in order to prevent as far as possible the weight of the uterus from depending upon the sutures.

After-History.

The recovery was quite uneventful, the only point worth mentioning being some temporary irritation of the bladder beginning on July 19th.

Owing to the poor state of health of this patient on admission, she was kept in the hospital for rest and nursing until August 8th.

Posterior Colporrhaphy.

The patient was again admitted in the end of November in order to undergo the operation of posterior colporrhaphy. Her symptoms then appeared to result from dragging of the freely-movable uterus upon its artificial adhesions owing to the want of support from the pelvic floor. Menstruation since the operation had been regular, almost painless, and the period lasted only from three to four days. General health greatly improved. The operation of colporrhaphy was performed on December 14th, 1904. There was nothing in the operation or after-history worth recording. The patient was discharged apparently well on January 2nd, 1905, and was lost sight of until she presented herself as an out-patient in November, 1905, complaining of some discomfort in the region of the cicatrix. She was admitted for observation early in December, and was found to be pregnant about twelve weeks. Careful palpation of the cicatrix appeared to show that there was unusual dragging on the adhesions between the middle of the corpus uteri and the abdominal wall. The other symptoms were merely those characteristic of normal pregnancy.

It would be out of place to discuss principles and to generalize on the report of an individual case, however remarkable. Still my experience of a great variety of cases with wonderful similarity in the results leads me now, in calling attention to the operation of ventrifixation by means of a striking case to deprecate the pessimism running through the discussion to which reference has been made. I deplore also the *obiter dicta* tone of the pronouncements of men whose views might do so much good or harm among medical practitioners who fortunately have to be consulted before operations are decided upon. In reading many reports upon this operation from Europe and America, I find the judgement of Hofmeier comes nearest to my own conclusions:

> As the final result of observations carried on for a considerable series of years, it may be confidently stated that the operation of ventrifixura uteri properly carried out . . . has established for itself an eminently distinguished position in the treatment of displacements of the uterus, and that Olshausen, in introducing it, has conferred a great and permanent benefit upon operative gynaecology.

THE IMMEDIATE AND REMOTE RESULTS OF THE HIGH OPERATION FOR VARICOCELE,

WITH A REPORT ON THE EXAMINATION OF 100 CASES.

BY

EDRED M. CORNER,
M.B., B.C.CANTAB., F.R.C.S.,
SURGEON, OUT-PATIENTS, ST. THOMAS'S HOSPITAL; ASSISTANT SURGEON, HOSPITAL FOR SICK CHILDREN.

and

CYRIL A. R. NITCH,
M.S.LOND., F.R.C.S.,
RESIDENT ASSISTANT SURGEON, ST. THOMAS'S HOSPITAL.

As all surgeons know, it is exceedingly difficult to keep in touch with cases of varicocele after operation, chiefly owing to the fact that so many of the patients subsequently enter the public services. Consequently, though 100 cases do not seem very many on which to base the results of a common operation, yet, under the circumstances, the number is extremely gratifying, as even to see these more than 500 patients were written to. Before proceeding further, we desire to thank the surgical staff of St. Thomas's Hospital for their kindness and courtesy in permitting us to examine their cases. In all seen the high operation had been performed, and in the majority the wound had healed by first intention. After exposing the cord by a short incision the pampiniform plexus was isolated, ligatured in two places about 2 in. apart, and the intervening portion excised. In some cases the two ends were approximated by a suture which transfixed the stumps, whilst in others this little detail was neglected. This step is an important one from the patient's point of view. When the stumps are sewn together a continuous cord is the result, and we have known men refused admission to the army, police, etc., being told that their operation was a failure. It is better to omit this step in candidates for the services. The results of this operation may be conveniently divided into immediate and remote.

A. IMMEDIATE RESULTS.

Haemorrhage.

With modern methods of haemostasis this is a rare complication, and as such would have been omitted had it not an important bearing on the after result. Slight haemorrhage, such as would occur in connexion with a damaged vein, leads to the formation of a haematoma; this, by pressure upon the remaining veins of the pampiniform plexus, is a potent factor in producing oedema and thickening of the scrotum, subjacent tissues, and testis. In all the cases in our series where a post-operative haematoma was noted these changes were also found. In some instances, fortunately rare, haemorrhage is due to slipping of the ligatures, dependent upon a faulty knot or defective material. In those cases in which the divided ends of the pampiniform plexus are approximated by tying the ends of the proximal and distal ligatures together it is quite conceivable that the traction exerted by the testis would lead to the slipping of one of them. That this does occur has been proved from time to time, hence this method is to be deprecated. In two cases it was noted that the pelvis was filled with blood which had escaped from the retracted end of the spermatic artery projecting through a rent in the peritoneum. This naturally leads the surgeon to imagine that he has accidentally wounded the serous membrane at the primary operation. We believe, however, that such is not the case, and that the rent in the peritoneum is due to the pressure of the blood effused in the inguinal canal; when this escapes into the peritoneum the patient shows marked signs of severe internal haemorrhage together with a rapidly-increasing pelvic swelling.

The warning, if haemorrhage is occurring after an operation for varicocele, is that the patient complains of pain. The scrotum should always be examined when this complaint is made.

Orchitis.

Inflammatory changes in the testis were noted in several of the cases in our series (5.6 per cent.). In some the change was acute and occurred from the third to the sixth day, whilst in others it was either subacute or chronic, and was characterized by definite hardness and thickening of the testis. In no cases was suppurative orchitis recorded. If this form of orchitis is regarded as being due to the presence of pyogenic micro-organisms it is difficult to understand why the wound in all these cases healed by first intention; consequently, the only plausible explanation is that of passive hyperaemia following the sudden removal of some of the afferent and efferent blood vessels. The after result must now entirely depend on the collateral circulation. If it is rapidly and well developed, the testis returns to its normal size and all acute symptoms subside; but if, on the other hand, the collateral circulation is imperfect, then the testis and scrotal tissues are thickened permanently. This leads to the discussion of a third complication, namely:

Oedema and Thickening of the Scrotum, Enlargement of the Testis, and Hydrocele.

If these tissues are carefully examined about a week after the operation some alteration in their consistence will be noted in nearly all cases. In addition to this thickening, which affects the skin, scrotal tissues, and testis, a flaccid hydrocele will be frequently found. This, therefore, may be regarded as the germ of similar changes which will be described as "remote."

Suppuration.

Septic infection may nowadays be regarded as a comparatively rare complication. With aseptic methods the suppuration percentage at St. Thomas's Hospital, over a period of three years, works out at 4 per cent. This fact is mentioned in order to show that the remote results are not due to inflammatory induration of septic origin.

B. REMOTE RESULTS.

The Testis.

Of all the conditions found after the operation for varicocele none were so constant as changes in the consistence of the gland itself, which were due to the formation of fibrous tissue. In many instances this is easily demonstrated by the greater hardness of the testis as compared with its fellow. When present in lesser degree, it is recognized rather by loss of elasticity than by actual hardness, and is most readily detected by absence or impairment of the sensation of fluctuation yielded by the normal gland of the opposite side. Such fibrosis was sufficiently gross as to be recognized in 84 per cent. of the cases examined. This figure is too low, as in no less than eight cases the presence of a tense hydrocele prevented examination of the testis; and in more, a flaccid hydrocele rendered the observation very difficult to make. Therefore, without exaggeration, we may say that fibrosis of the testis was present in 90 per cent. of the cases. In order to ascertain, if possible, how much of this change was due to the varicocele and how much to the operation a large number of patients was examined before operation. Fibrotic hardening of the testis was found fairly frequently when the varicocele was large and had been present for many years, as in men over 30; but in boys and young men under 23 (who constituted fully nine-tenths of the number we examined after operation) the change was comparatively rare. From this it may be assumed that the changes which result from a varicocele of long duration are produced more rapidly and in greater degree by ligation of the veins.

The Epididymis.

The operative procedure of removing the pampiniform plexus produces an indirect effect upon the epididymis by increasing its blood supply, for the anastomotic return circulation is carried on largely by the deferential veins. Further, post-operative thrombosis may easily be produced in these veins by some injury inflicted upon them, in which case fibrosis of the epididymis will be more marked.

The estimation of these changes has been a very difficult matter, but we can definitely state that when the operation has been followed by signs of gross venous obstruction the epididymis is usually larger, harder, and more easily felt. If these signs persist, the corresponding changes in the testis are the more obvious. A further result of fibrosis of the epididymis will be mentioned later—the formation of spermatoceles.

Size of Testis.

In conducting the inquiry into the subsequent size of the testis it must be pointed out that our results are unchecked by knowledge of the gland prior to the operation. It is, however, a matter of general observation that the testis associated with a varicocele is smaller than that of the other side, yet examination after operation showed us that 55 per cent. were distinctly, and often greatly, larger. This increase of size, invariably associated with hardness and loss of elasticity, is probably due to a new formation of fibrous tissue such as is known to occur in connexion with chronic venous congestion or inflammation elsewhere, the presence of which is proved by the co-existence of swelling of the tissues, thickening of the scrotum, hydrocele, etc. What the subsequent spermatogenetic function or the procreative value of the enlarged testis is we cannot say, but it is highly probable that it is much diminished if not altogether lost.

In 21 per cent. of the cases the testis was obviously smaller, but whether this lesser size was present before operation we cannot say. In 16 per cent. the glands were of about the same size. This equality may have arisen from an increase in the bulk of the rather smaller testis, which is known to be commonly associated with a varicocele, and considering the great frequency of obvious enlargement this explanation would seem to be likely. In either case both these classes will contain glands which have or have not undergone any change. Therefore, regarded from the point of view that the operation precipitates results similar to those which the varicocele itself produces in the course of years, the testis is very unlikely to remain unaltered.

The Skin and Connective Tissue of the Scrotum.

The changes in the size of the testis appear to be related to the degree of venous obstruction caused by the operation. Signs of this obstruction are not seen alone in the testis, but also in the skin and tissues between the tunica vaginalis and the scrotum, as well as in the tunica vaginalis itself as already pointed out. These changes occur secondarily to the operation, the congestion in the tissues lasting so long as the anastomotic circulation is inadequate. It is of particular interest that such thickening of the scrotum and connective tissue, or the formation of a hydrocele, are very rarely seen to complicate a varicocele. Their occurrence after operation supports our suggestion that, if unwisely performed, the operation precipitates and magnifies all the signs and symptoms of venous obstruction which a varicocele itself might cause, and to obviate which we operate.

The tissues between the scrotum and the tunica vaginalis were noticeably thickened in 41 per cent. This figure is really too low, as the formation of a hydrocele obscures the observation. In 50 per cent. the scrotum was thicker on that side than on the other. Here again the percentage is too low, as hydroceles stretch the scrotum, making it appear thinner than it really is.

Hydrocele.

One other result of post-operative venous congestion which we will have to consider is that of passive distension of the tunica vaginalis with fluid, a process comparable with the oedema of the scrotum and other tissues. This hydrocele makes its appearance very shortly after operation and in some cases is noticeable within the first week. It is an unpleasant complication for the patient, apart from its presence and weight, because it will cause him to be refused for the services unless he undergoes another operation. The hydroceles consequent upon varicocele operations are of two kinds: one large and tense, which is noticed by the patient; the other small and flaccid, which is not noticed by the patient. The former were present in 8 per cent. of the cases, the latter in 15 per cent., making a total of 23 per cent. Although 8 per cent. were aware of their condition, the majority, in spite of the hydrocele, pronounced themselves better for the operation. This flaccid hydrocele is undoubtedly due to a chronic inflammatory condition of the tunica vaginalis following venous obstruction; in some instances it may depend upon any increase of vascularity in the part. For instance, one patient only developed a hydrocele after his marriage, eighteen months from the date of his operation. In another, the hydrocele only appeared two and a half years after the operation. The man was only 23 years of age and could give no cause for the appearance of the swelling. As there was no disease of the testicle the suggestion is, that in his case some vasomotor disturbance upset the unstable physiological equilibrium of the tunica vaginalis. Though as a general rule these hydroceles form early and, in some cases, disappear entirely, yet it is obvious that a man is not free from this complication for a considerable period.

Spermatocele.

The occurrence of two spermatoceles in our series would seem to be correlated with the fibrotic changes in the epididymis. They were apparently single and would seem to be associated with the venous congestion and fibrosis, though there must have been some local cause which determined the site of their formation. Hitherto the possibility of their occurrence as a remote result of the operation for varicocele has not been recognized.

Briefly, the history of the two cases is as follows:

A. P., aged 25, was operated on for varicocele in June, 1902. He was examined two and a half years later, when the left testicle was found to be half the size of the right, and on the top of the epididymis there was a spermatocele which he had not noticed. This was not present at the time of operation.

A. B., aged 33, underwent an operation for left varicocele in March, 1901. For two years he suffered with dull, aching pain. When seen in 1905 the left testis was slightly larger and harder than the right. His general health was "ever so much better." Unknown to him there was a spermatocele attached to the top of the globus major.

Hernia.

An inguinal hernia was present in 2 per cent. It is naturally uncertain if these herniae were due to the operation; still, if a large varicocele is removed, a large loose inguinal canal is left, through which a protrusion may take place easily. It would seem better to suture the inguinal canal when operating on large varicoceles.

Recurrence.

In 2 per cent. some recurrence of the varicocele was noted, but in neither instance was there any pain or discomfort therefrom. One other man was refused admission to the services, the thickened tissue being mistaken for a varicocele.

Thickening of Vas, Sensation, and General Results.

In 8 per cent. the vas deferens seemed to be thickened, and it is highly probable that this was more often the case but escaped observation. With regard to subjective sensations, 17 cases alone complained of any pain in the testis and 6 complained of pain in the scar. In none could any cause for the pain be discovered. Considerable difficulty was experienced in this part of the inquiry, particularly with respect to objective pain on account of imperfect education or dullness of the individuals. The sensation of the testis was unaltered in 84 per cent., definitely increased in 9 per cent., diminished in 5 per cent., and altogether lost in 2 per cent. Twenty-six out of the 100 reported themselves as neither better nor worse for the operation. At first sight this is disappointing, but it must be remembered that many operated upon at the desire of the "services" had little or no varicocele, and were ignorant of their condition until refused by the examining officer. It cannot be expected that even surgery can render happier those who suffer nothing. Only 4 definitely stated that they were worse for the operation, and the rest—70 per cent.—were definitely improved and well satisfied.

In conclusion, it must be mentioned that the comparatively high percentage of complications has doubtless arisen from the operation being entrusted almost invariably to the less experienced. In this way too large an amount of the pampiniform plexus has been removed. An authority has stated that it is his practice to remove all the veins which are enlarged. We cannot but think that such a proceeding is to be discouraged and condemned.

Summary of the Remote Effects of the Operation for Varicocele.

Testis harder	90	per cent.
Testis enlarged	55	,,
Testis same size as gland of other side...	16	,,
Testis smaller than gland of other side	21	,,
Thickening of the scrotum... ...	50	,,
Thickening of the tissues between the scrotum and the tunica vaginalis ...	41	,,
Tense hydrocele	8	,,
Flaccid hydrocele...	15	,,
Spermatocele	2	,,
Inguinal hernia	2	,,
Recurrence of varicocele	2	,,
Thickening of the vas deferens ...	+8	,,
Sensibility of testis, unaltered ...	84	,,
,, ,, increased ...	9	,,
,, ,, decreased ...	5	,,
,, ,, lost	2	,,

Patient's Opinion of the General Result.

Pleased and improved	70	per cent.
Unaltered (including many who never had any trouble)	26	,,
Stated themselves to have more trouble	4	,,

A CASE OF SECONDARY CARCINOMATOUS GROWTHS SIMULATING TUBERCULOUS HIP-JOINT DISEASE AND MILIARY TUBERCULOSIS.

BY

ROBERT E. LORD, M.D.LOND. (Colwyn Bay), and CHAS. W. BUCKLEY, M.D.LOND. (Buxton).

HISTORY.

MISS K., a sparely-built woman, aged 50 years, with no family history of tuberculous or malignant disease, and with a family and personal history of dyspepsia and rheumatism, had her left breast removed by an extensive operation in April, 1903, for a growth of over a year's standing. She remained well until December of the same year, when after exposure to cold and wet she had a typical attack of lumbago. Rest in bed, and antirheumatic treatment were followed by almost complete disappearance of the pain, which left the back, and moved to the outer side of the left hip. It soon, however, recurred, becoming worse, and paroxysmal in character, and after June, 1904, she was completely bedridden. About this time the limb took up a position of flexion, adduction, and internal rotation, and the pain, which had now acquired the starting character of that of hip-joint disease, was greatly increased by all movements of the joint and by pressure on the groin, but not by pressure upwards along the shaft of the femur. No definite bony enlargement or real shortening could be detected, and not more atrophy of muscles than could be accounted for by disuse.

At the end of October the total absence of loss of flesh and other signs of cachexia demanded a reconsideration of the diagnosis of secondary malignant disease, and in view of the long history of the case, the recurrence of rheumatic attacks in previous life, and the occurrence during her illness of pains which had yielded to antirheumatic treatment, it was decided to send her to Buxton, which was done on October 31st. Her condition then was as described above, with the addition that for a few nights her temperature had risen to 99°, and physical signs of slight general bronchial catarrh had appeared.

While being moved from bed to a carrying chair, before leaving her house in Colwyn Bay, she felt, and others heard, something give way in the hip; this was followed by excruciating pain. The following day at Buxton the trochanter was found to be displaced upwards, and the pain was extreme, and increased by all movement and by pressure upwards along the femur. After a few days' rest and galvanism the muscles became relaxed, and definite bony thickening around the trochanter could be felt. The temperature still remained 99° to 100° in the evening, and to the signs of general bronchitis were added bronchial breathing and crepitation at the right apex, and diminished air entry at the left base.

During the second and third weeks of her stay in Buxton there was marked general and local improvement, but at the end of this time signs of fluid appeared at the left base, and patches of bronchial breathing and râles became evident in both sides. The breathing became laboured on November 22nd, and was worse on the 23rd, though the percussion dullness extended only to the angle of the left scapula, and the heart was apparently not pushed over by the fluid. She rapidly became worse, and on the 25th, when seen by both of us, was obviously dying. The clinical picture then was one of acute miliary tuberculosis. There was extreme dyspnoea, both sides of the chest moved freely, and there were signs of fluid up to the angle of the left scapula; the heart was acting comparatively well, and its dullness did not pass to the right of the sternum; there were paralysis of the right orbicularis palpebrarum, and external squint of the same eye. She died during the night.

NECROPSY.

At the necropsy the lungs (especially the left) and the liver were studded with secondary nodules, the left pleural cavity contained about three pints of fluid and the right was obliterated by old adhesions. None of the other organs were obviously affected. The axilla was not opened, but no glands could be felt through the skin. The left hip showed two fractures of the head and neck, one of which had completely healed by bone and the other in places only by fibrous tissue. Both the bone and the articular cartilage were much eroded. The acetabulum also showed a vertical fracture extending into the pelvis, the edges of which overlapped and the adjacent articular cartilage was undermined. There was no attempt at repair of this fracture. The synovial membrane was not affected as far as could be seen by the naked eye, the joint contained no fluid and showed no overgrowth of any description, and no extra-articular changes were present either outside or inside the pelvis. Microscopical examination at Owens College, Manchester, proved the condition to be one of secondary carcinomatous growth.

REMARKS.

The total lack of loss of flesh and cachectic symptoms up to the last week of an illness due to malignant growths and lasting so long is most unusual, and seemed at one time to point away from malignancy or tubercle and towards a rheumatic arthritis, while the final symptoms inclined us to the diagnosis of tubercle.

A further fact pointing to a rheumatic condition was the very consistent relief to the pain given by the internal administration of aspirin and the external application of methyl salicylate. J. Ruhemann (*Deut. med. Woch.*, June 2nd, 1904, quoted in the *Medical Review*, November, 1904), however, strongly recommends aspirin for the relief of inoperable carcinoma, and his observation was certainly borne out by this case, and methyl salicylate has also recently been recommended for the same purpose, though we cannot now find the reference.

SIMULTANEOUS EXCISION OF TWO-THIRDS OF THE STOMACH, THE ANTERIOR FACE OF THE PANCREAS, AND THE TRANSVERSE COLON FOR CARCINOMA.

BY CHARLES P. CHILDE, B.A., F.R.C.S.,
ASSISTANT SURGEON, ROYAL PORTSMOUTH HOSPITAL.

As far as I am aware there has not been—in the English journals, at all events—a case recorded of the above operation, though I am perfectly open to correction on this point, not having had an opportunity of making an exhaustive examination of the literature on the subject. The greater portion of the transverse colon was excised at the same time as the stomach, not because it was itself involved in the disease, but on account of the necessity of sacrificing its blood supply in order to get wide of the growth.

B. P., aged 35, was sent to me at the end of September, 1905, by Dr. Archdall Reid, who was present at the operation.

History.

She stated that her mother died of cancer of the liver. She had had six children. Previously to her present illness she had always had good health, with no history of indigestion or symptoms pointing to gastric ulcer at any time. Twelve months ago she first noticed severe pain in the left hypochondrium and epigastrium, coming on generally within an hour of eating, and sometimes relieved by vomiting. She had steadily lost flesh, to the extent of about 3 st.; she had never vomited large quantities of food at long intervals, and had never vomited blood to her knowledge; nor had she passed any black stools except when taking medicine (bismuth). Latterly she had been reduced to entirely liquid food, being unable to retain anything else. The bowels were sometimes confined, at other times loose.

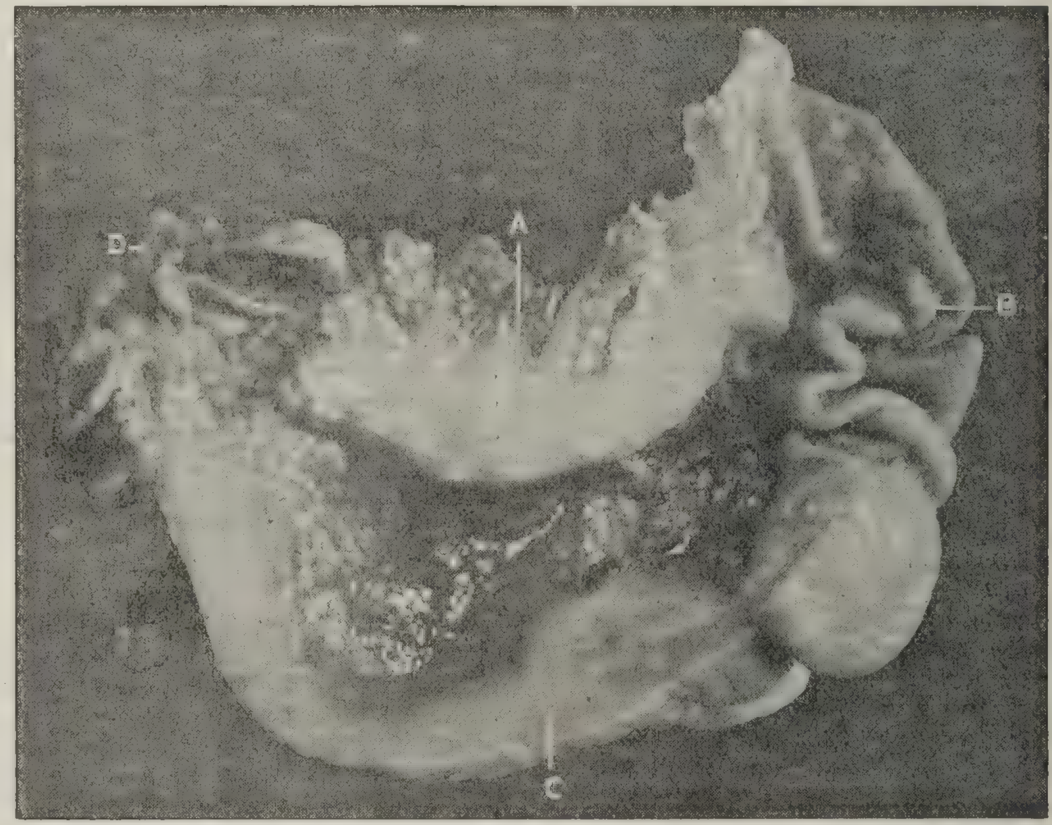


Fig. 1.—The stomach has been bisected longitudinally. The anterior half has been removed, and the growth is seen from the front. A, lesser curvature infiltrated with growth; C, greater curvature infiltrated with growth; B, healthy stomach wall cut across; D, healthy duodenum cut across.

Condition on Admission.

She was a cheery little woman, with pluck and confidence written on every feature—just such a patient as one likes to meet with for a severe operation; this makes a difference. She was very thin and pale, but had a cancerous cachexy. A hard, nodular tumour, the size of a small fist, occupied parts of the epigastric, umbilical, and right hypochondriac regions. It was freely movable, could be pushed over into the left hypochondrium, and descended slightly on inspiration. A tympanitic note was elicited over it, due, as was evident on opening the abdomen, to the transverse colon overlapping it; and a tympanitic note was obtained between its upper border and the liver. On inflating the stomach its lower border reached the level of the umbilicus. An examination of its contents showed an absence of free hydrochloric acid, and the presence of blood in small quantity. The liver was not enlarged. Vaginal and rectal examination were negative. The urine was normal.

The *diagnosis* was made of carcinoma, involving the stomach or transverse colon, or possibly both.

Although I did not feel very hopeful of being able to do much for her, yet she was very anxious that an attempt should be made. I thought perhaps, too, that the growth might be one of the transverse colon pressing on the stomach (though the absence of free HCl was against this), and capable of removal.

Operation.

After the usual preliminary preparation the abdomen was opened about 1 in. to the right of the median line on October 5th, 1905. The rectus was enucleated from its sheath and turned outwards. The tumour was found to involve about half the stomach, extending from the pylorus along the anterior and posterior walls, which it infiltrated widely. The transverse colon itself was not involved in the growth, but the blade of transverse mesocolon containing the middle colic artery was closely blended with the gastro-colic omentum, these two omenta, together with the posterior wall of the stomach and the anterior face of the pancreas, forming one inseparable mass behind. This, of course, was a very serious complication. Still, on careful examination, it was thought that the pancreas was not deeply involved, as the growth, together with the pancreas, could be moved quite freely. There were a few small hard glands in the gastro-hepatic omentum, close to the lesser curvature, but apart from these no glands could be seen or felt. The liver was normal in size and appearance, and no nodules could be felt or seen in it.

The disease, therefore, though extensive, appeared to be expending its force chiefly locally, and it was decided to make an attempt to remove it. It was evident that the blood supply to the transverse colon would have to be cut off, and that an enterectomy would form part of the operation. The plan sketched out in my mind was to remove the growth with the gastro-hepatic omentum containing the glands above, and the gastro-colic omentum and transverse mesocolon below, cutting it away from the pancreas behind; to close the openings in the duodenum and stomach; to perform posterior gastro-enterostomy between the cardiac end of the stomach and the jejunum; finally to excise the portion of the transverse colon whose blood supply had been cut off.

This operation was accordingly carried out in the following manner: The first part of the duodenum was freed behind and divided between two clamps well beyond the disease. The gastro-hepatic omentum, including the glands, was tied in section close to the liver and cut. The gastro-colic omentum and transverse mesocolon were similarly treated. The pyloric end of the stomach was now pulled forward and to the left, and a thin layer of the anterior surface of the pancreas snipped through with scissors, the bleeding points being secured as cut. I was in considerable fear at this stage of cutting the superior mesenteric artery, but succeeded in separating the tumour without this untoward accident. When the growth had been freed from the pancreas the stomach was clamped in two places well beyond the growth, and cut through. This completed the removal of the tumour, and, as far as could be judged, it was got clear away. About one-third of the stomach, at its cardiac end, was left behind. The duodenum was then closed with a double row of continuous sutures, and dropped in. The stomach was treated in like manner. Posterior gastro-enterostomy was next performed between the stomach and the commencement of the jejunum. It was now found that about 6 in. of the transverse colon had been deprived of its blood supply. It was accordingly excised, and an end-to-end anastomosis performed with a double row of sutures. This completed the operation, or rather series of operations, and the abdomen was closed.

After-history.

The patient was rather collapsed at the finish, and had an intravenous saline injection. She recovered quickly from the shock, was a little sick once, and the next morning looked almost as well as the day before the operation. The highest subsequent temperature was 99°. The stitches were taken out on the eighth day, when all was found soundly healed; she recovered, in fact, without giving one a moment's cause for anxiety.

Rectal feeding was entirely employed during the first forty-eight hours, as she did not seem to need anything by the mouth. After that she was by degrees fed with small quantities of fluids and Benger, and in a fortnight was taking light solid food. I exhibited her at the Divisional meeting at Portsmouth, together with the specimen, five weeks after the operation, when she was up and about, taking ordinary solid food of digestible quality and not in too large quantity, and rapidly gaining in weight and strength.

Description of the Parts Removed.

The accompanying reproductions of photographs taken for me by Mr. Arnold of Southsea show well the extent of the growth and the parts removed. The stomach was not at all dilated, and after removal the forefinger could be passed through the pylorus. The growth, which is well defined, is seen (Fig. 1) to be infiltrating along the anterior and posterior walls for about half their extent. There is no macroscopic ulceration of the mucous membrane. The condition found was in accordance with the symptoms before operation. There had not been symptoms of dilatation—vomiting of large quantities of food at intervals—and there had been no naked-eye haematemesis, though the microscope showed the presence of blood in the contents of the stomach.

Fig. 2 is a back view of the stomach, showing its attachment to the pancreas, and the matting together of the gastro-colic omentum and the mesentery of the transverse colon in the growth.

To complete the picture, Fig. 3 shows the portion of the transverse colon excised. A microscopic section demonstrated a carcinoma with abundance of fibrous stroma between the alveoli, and one of the glands examined exhibited carcinomatous deposits.

REMARKS.

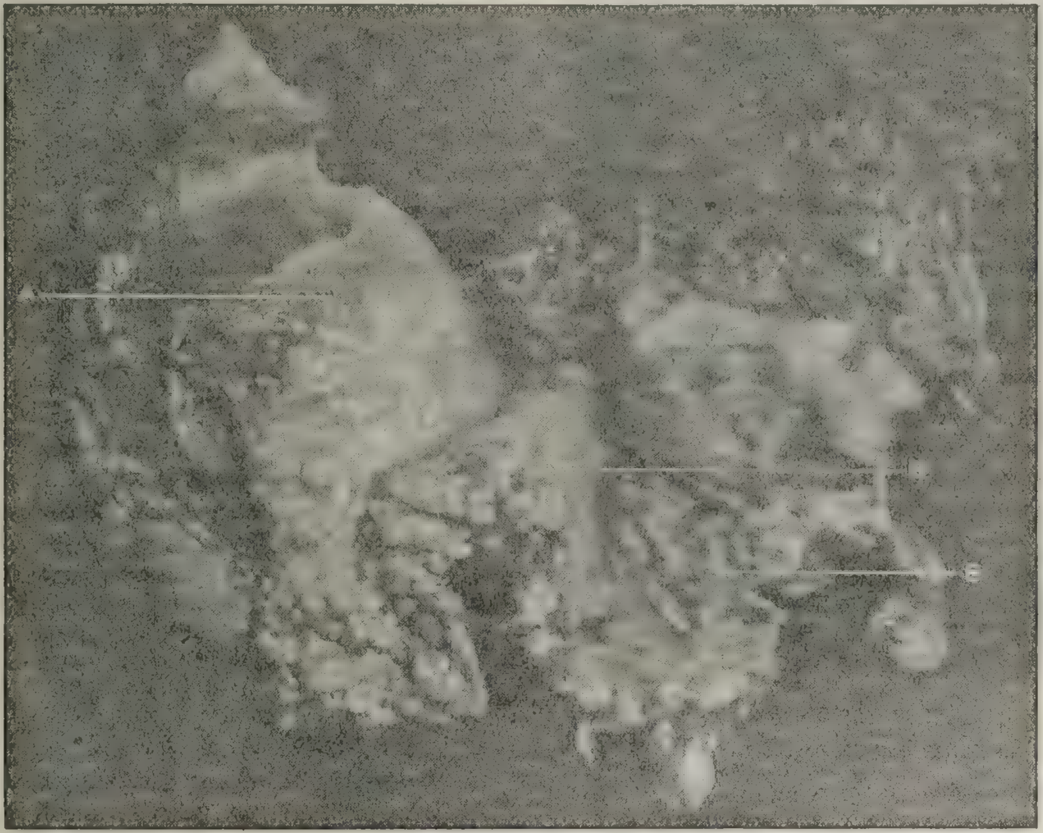


Fig. 2.—The stomach viewed from behind. The matting together of the posterior wall of the stomach, the anterior face of the pancreas, and the gastro-colic omentum and mesentery of the transverse colon are shown. A, posterior wall of stomach not adherent; B, B, where the growth, the pancreas, and the omenta were adherent.

The operation cannot be described as a complete gastrectomy, as enough stomach was left (about one-third) at the cardiac end after getting completely free of the disease to perform gastro-jejunostomy. It is held by some that by the time a tumour can be felt in the stomach the time for attempting a radical operation has gone by. From this view I emphatically dissent. Though it is too much to expect that the operation in the present instance will do more than prolong life and comfort for a time, the following point about cancer cannot be too strongly insisted upon. The clinical course of cancer, though conforming generally to a well-recognized type, varies within very wide limits. For instance, one often sees quite an insignificant-looking epithelioma in the mouth or on the lip, with extensive glandular infection in the neck. On the other hand, one finds, and not uncommonly, most extensive disease in the mouth, without a gland, or with hardly a gland, to be felt in the neck. In other words, in some cases the disease tends to rapid systemic infection, in others it seems to expend itself chiefly locally. This may be due to a mere accidental detachment of cells or otherwise, and their lodgement in neighbouring glands. Whatever be the cause the clinical fact is there. So that, while admitting that early diagnosis and early operation is the only treatment which will generally give satisfactory results, I hold that in individual cases, whatever the extent of the disease, if the surgeon thinks he can remove it, he should give his patient the choice of operation With certain death staring him in the face, the patient after having had the risks of the operation fairly laid before him, should be at liberty to take the chance, though it be only one in a thousand or one in ten thousand. One never knows beforehand that an apparently hopeless case is not going to turn out well. If I remember rightly Mr. Butlin emphasized this point in a recent account of his tongue cases in the BRITISH MEDICAL JOURNAL. I can fully confirm it, and other surgeons can no doubt do the same. To give one instance. I removed from a patient the floor of the mouth, 3 in. of the lower jaw, and part of the tongue, doing at the same time an extensive operation in the neck. The disease was proved microscopically to be epithelioma. If I had been asked at the time my opinion as to his future prospects I should certainly have given him but a few months without recurrence. Yet now, four years afterwards, he is absolutely free of disease, and, I have no doubt, cured. These cases are no doubt exceptional, and I must admit that the results of operation in the mouth, when the disease is far advanced, even though a most extensive operation be performed in the mouth as well as the neck, are disappointing as regards recurrence. Yet if only 1 in 20 or 1 in 40 escapes without recurrence it is worth the doing, if the patient likes to take the chance. It is one life saved from absolutely certain death.

Of course this line of argument will not recommend itself to the approval of the statistics-hunter. In my opinion lives are of more value than statistics. In this opinion I am inclined to think the patient, at all events, will concur.

With regard to the operation itself there is not very much to be said. The four openings in the gastro-intestinal tract—namely, those caused by the sections of the duodenum and stomach, the gastro-jejunostomy section, and the enterectomy section—were all closed with a double row of continuous silk suture, one haemostatic through all the coats, the other sero-muscular. No button or bobbin of any kind was used. All the openings proved watertight. The operation of closing the duodenal and stomach walls completely, and subsequently performing gastro-jejunostomy, seems a much sounder practice than attempting to join the duodenum to the stomach. I have never tried the latter plan, but it appears to me that to fit the duodenum on to the stomach, after pylorectomy or partial gastrectomy, must be more difficult and not so safe.

It is true that in the other plan there are three joins instead of one, but the joins are easily and safely made and without any tension on the stitches. Personally I would rather have half a dozen joins in my abdomen which I felt had been easily and safely made, than one which had given the surgeon any difficulty or was open to any suspicion.

It is important to look well to the blood supply of the transverse colon during operations involving the stomach wall, and to excise any portion whose nutrition has been interfered with.

In the present case there was no doubt, after the exposure of the parts, of the necessity of sacrificing the greater portion of the transverse colon. This, however, is quite exceptional, and the importance of not including the transverse mesocolon carrying the middle colic artery, while ligaturing the gastro-colic omentum (with its disastrous consequence, gangrene of the transverse colon) has been emphasized by other writers.

Last, but not least, early diagnosis, and in default of this early exploratory operation, is the real secret of success in these as in all cases of cancer, and one a consideration to which every other is of secondary importance.

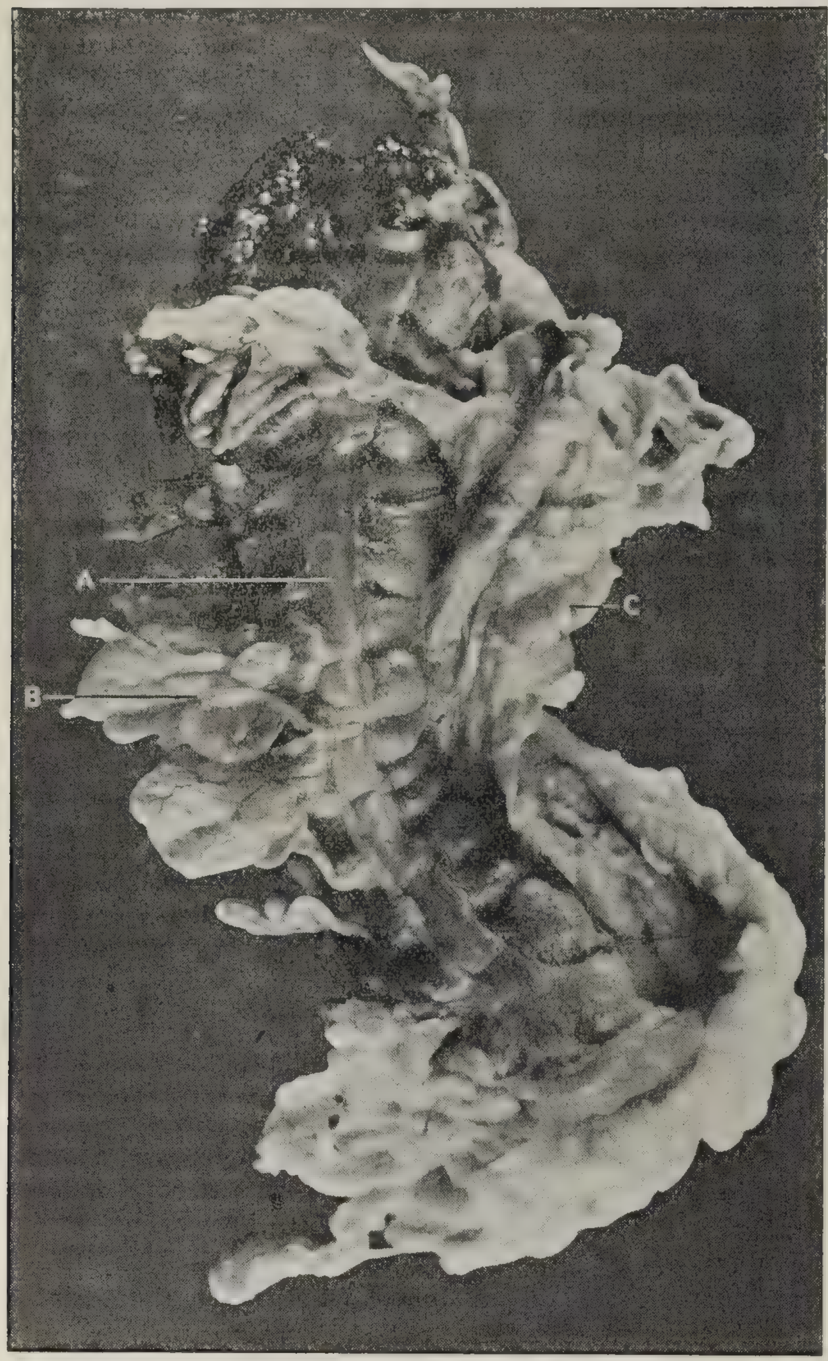


Fig. 3.—The portion of transverse colon excised, with the omenta attached. A, transverse colon showing longitudinal muscular band; B and C, omenta attached to it.

THE ACCURATE DELINEATION OF TUBERCULOUS FOCI IN EARLY DISEASE OF THE KIDNEY IN WOMEN BEFORE OPERATION IS UNDERTAKEN.*

(With Coloured Plate.)

By HURRY FENWICK, F.R.C.S.,

SURGEON TO AND A LECTURER ON CLINICAL SURGERY AT THE LONDON HOSPITAL.

From this brief clinical review of renal tuberculosis, and from my statistics of successful nephrectomy (1 death in 45 cases) which I have laid before you, you will agree with me that the diagnosis and treatment of a primary tuberculous kidney in women is comparatively easy, provided the patient has renal pain, a renal tumour, an evening temperature, tubercle bacilli in her urine, and that the cystoscope demonstrates a characteristic change in the orifice of her aching and enlarged kidney. This is an advance of the last decade. But I want you, gentlemen, to-day, to learn how to take a much greater step forward in the accurate detection of this disease—a step which I feel convinced marks real progress in the future conservative surgery of the kidney. I will show you how a diagnosis can be made in some cases in which the disease is *latent*, even when no pain or tenderness is felt in the kidney region, when no enlargement of the kidney can be discovered by the surgeon, when no tubercle bacilli in the urine can be found, when there is no guiding temperature —in fact, when no symptoms exist to help you to a correct diagnosis of kidney trouble at all—certainly none to permit you to assert definitely that tuberculosis of either or which kidney is present. So much I can teach you, but I am still more ambitious. I desire to demonstrate to you that you can in certain cases take pen or pencil and sketch with accuracy the areas of latent tuberculous disease in such a kidney, and mark you, not with diffidence, nor with hesitation, but with confidence and with certainty.

There is a woman, aged 44, in my operation ward, who was sent to me on September 21st, a little more than a fortnight ago, by Dr. J. Mackay of Halifax, for cystitis. She has had frequency and pain in micturition and pain in the perineal body for a year. There are no other symptoms, no pain in the loins, neither kidney can be felt. There is no temperature. The urine is acid and sterile—it contains small crystals of calcic oxalate—no tubercle bacilli. Dr. Eastes's full report is as follows:

Specimen.—Mrs. H., received September 21st, S.G., 1024, a distinct trace of albumen. Urates had separated but were dissolved by warmth before centrifugalizing. The deposit is chiefly composed of small crystals of calcic oxalate, frequently aggregated into small masses embedded in mucus. There are a very few granular tube casts, some red blood discs, and a small number of renal pelvic cells. There is no pus. No tubercle bacilli have been found.

Dr. Mackay suspected tuberculosis, but both his experts have failed to find the bacilli. Two London expert bacteriologists have examined for these bacilli at my request and have also failed to find them. This is so unusual in my tuberculous cases that I make an especial note of it. Thus the patient has no evidence, subjective or objective, of renal tuberculosis. But if you will come to No. 5 theatre I will cystoscope this patient, and demonstrate to you what I found a fortnight ago, when I examined her, namely, a displaced, retracted, left ureteric orifice, and a bladder which is only slightly eroded. On these two grounds alone I diagnose a left renal tuberculosis. I shall proceed further to draw for you a diagram of the exact state of her left kidney on the blackboard, marking those areas which I know to be affected by tuberculosis, and outlining the characteristic condition of her diseased renal pelvis, and the shape and calibre of her affected ureter. I shall then remove the left kidney without opening it, and after splitting it let you compare it with the sketch on the blackboard, so that you yourselves can judge whether my contention that an accurate appreciation of the disease in this kidney can be afforded by the cystoscope has been rightly urged or not. I may add, this patient was admitted yesterday, not for your edification nor to illustrate my lecture, but to be cured, if possible, of a dangerous disease. Moreover, I am not to-day doing anything unusual in making a blackboard diagram of latent kidney disease before operation. I now do this routinely, when I am certain of my facts.

[The patient was now anaesthetized, and the left ureteric orifice was shown by means of the cystoscope to each member of the class and the various visitors to the clinic. The opening was seen to be displaced, retracted and red, the left ureteric bar appearing as a broad, grooved, red fold (Plate D, E). The rest of the bladder was shown to be superficially eroded. A rough diagram of the kidney was then made on the blackboard. Three salient features were delineated.

1. Dense adhesions at the upper and lower poles. The middle third of the cortex was declared to be free from any adhesions.

2. The ureter was represented as greatly thickened (to the size of an ordinary lead pencil) and its calibre was declared to be narrowed.

3. A longitudinal section of the kidney was pictured so as to demonstrate a slightly dilated pelvis. The upper and the lower calyces were shaded to show that they were eroded by tuberculous ulceration, and from these erosions miliary tubercles were dotted in, as being sparsely scattered towards the cortex.

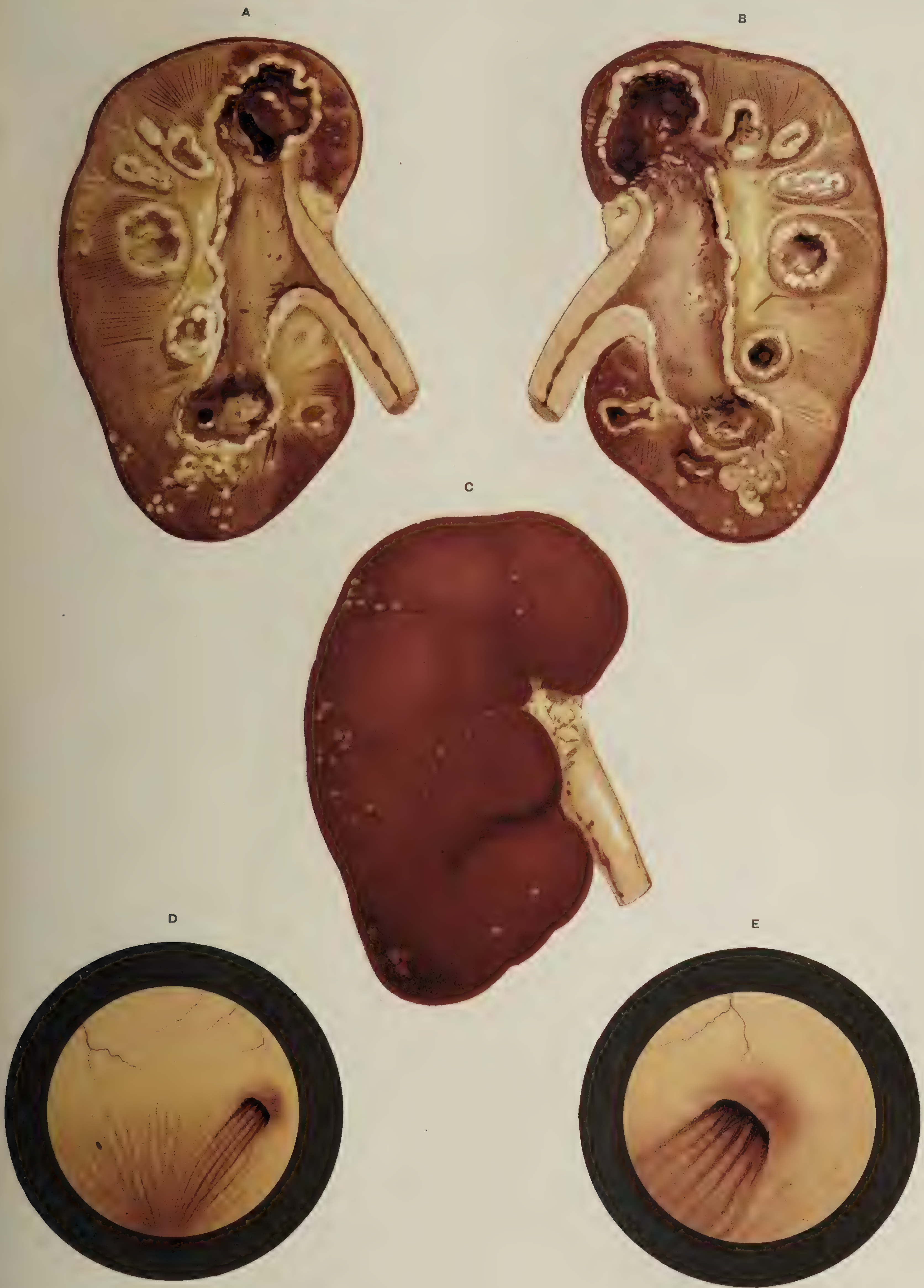
The middle third of the kidney was marked off as comparatively healthy.]

I should like to have supplemented this rough blackboard sketch with a letter I sent back with the patient to Dr. Mackay on September 21st, in which I drew a better

---

* An extract from a post-graduate demonstration in No. 5 Operating Theatre, October 9th, 1905.

PRE-OPERATIVE DELINEATION OF THE TUBERCULOUS KIDNEY BASED ON CYSTOSCOPIC FINDINGS.



stoscopic appearance of the trigone, showing broad red fold of the left interureteric bar and displaced "retracted" left ureteric orifice.

Magnified view of "retracted" left ureteric orifice.

LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

diagram, giving a little more detail, but I have not got it by me. (Dr. Mackay kindly returned it. Fig. 1.)

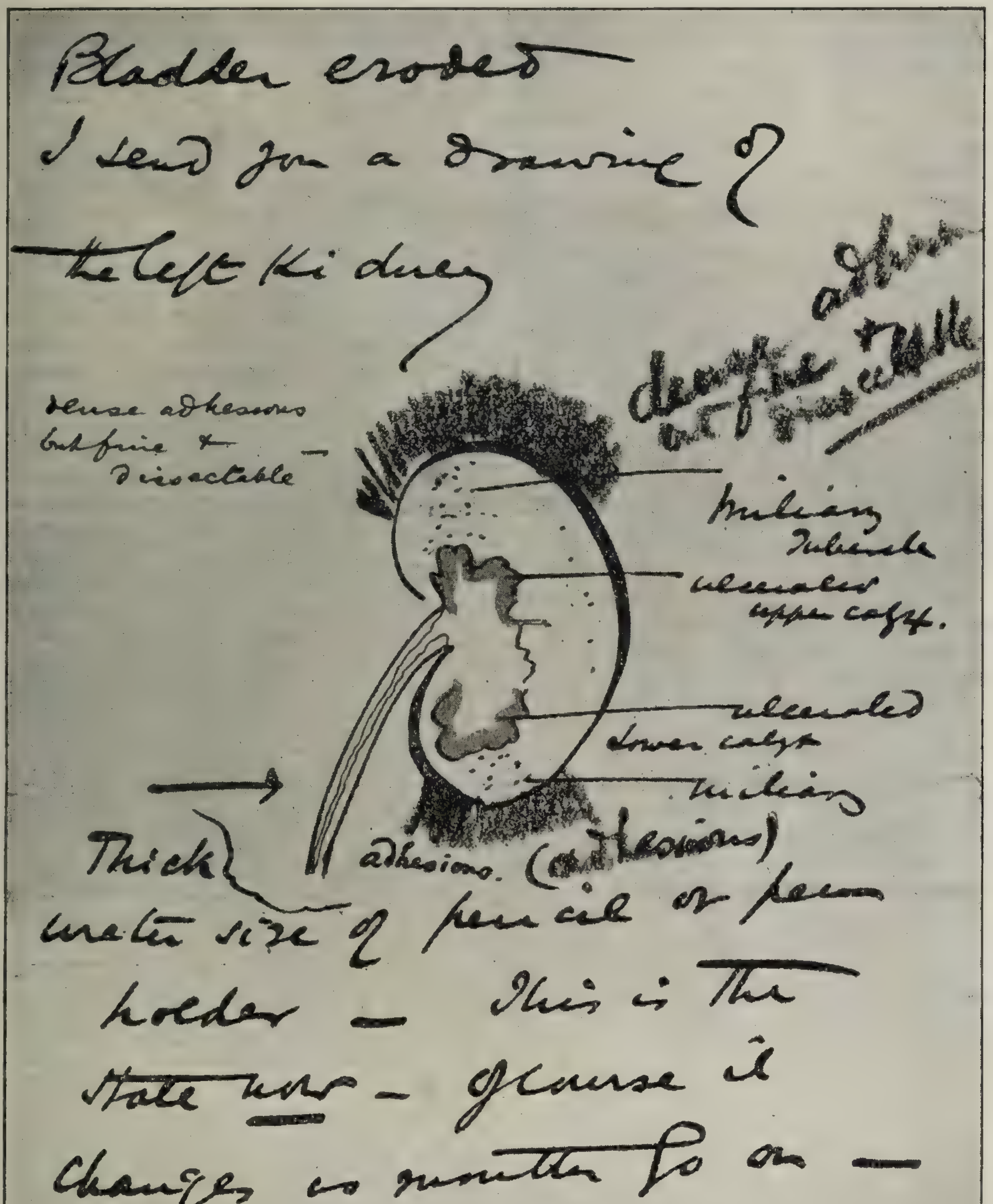
Operation.

The left kidney was then exposed by the usual lumbar incision, the healthy middle third of the cortex was shown (Plate c), the tough adhesions at the upper and lower poles were demonstrated and divided with scissors, and the kidney was removed. The organ was then split longitudinally, and compared with the pre-operatively made diagram, and found to agree even in the smallest detail. The specimen was painted next day by Danielsson (Plate a, b, Sectional halves. d, Cortex).

Three questions would present themselves, and these I attempt to answer:

1. What does a dragged out, "retracted" ureteric orifice denote?

I believe I am responsible for this term, and for establishing the fact that this condition is a very important feature of one class of tuberculous kidneys. I have entered very fully into the matter in my book on *Obscure Diseases of the Kidney*, pp. 171-181. I have known of it since 1885, and have now collected sufficient material of it in this great hospital to assert that when this condition is well marked it can be relied upon absolutely as indicating tuberculous infection of the corresponding kidney. But how does it afford the surgeon a knowledge of the kidney changes? I will give you the steps. The retracted, displaced, ureteric orifice points to a thickened ureter, shortening lengthwise. This involves narrowing and obstruction of the channel of the ureter. This again spells back-pressure of urine upon a thickened, unyielding pelvis, and a tough renal parenchyma, for all these kidneys are small and tough, and many show, microscopically, interstitial nephritis. This back-pressure on the pelvis invariably means that the upper and lower calyces will suffer, for I have remarked that the upper and lower poles of the kidney suffer first in all back-pressures, consequently the stress of the tuberculosis must fall chiefly on these traumatized areas. Hence they will be eroded. Spreading from the eroded ulcerated surfaces of the upper and lower calyces and radiating to the cortex there will be, if the stage be an early one, tuberculous changes. This latter means miliary tubercle and inflammation of that part of the cortex—namely, upper and lower poles of the kidney. This, again, invariably demands tough adhesions.



Bladder eroded

I send you a drawing of

the left kidney

Thick ureter size of pencil or pen holder — This is the state now — of course it changes as matters go on —

dense adhesions but free & dissectable
dense fine adhesions but dissectable
Miliary Tubercle
ulcerated upper calyx.
ulcerated lower calyx
Miliary
adhesions. (adhesions)

Fig. 1.—Half page of a letter sent to Dr. R. J. Mackay on September 22nd, 1905, in reference to Mrs. H. (Eighteen days before operation.)

Hence we build up our kidney little by little on the blackboard, only stipulating that the history is within the two years' duration and that the urine is sterile, for if septicity has started in such a kidney no prescience can foretell upon what areas the destructive changes will fall, or what alteration will ensue in the contour of the organ, and hence no diagram can be made before the operation if the urine be septic. You say, "How simple and easy it all is!" Quite so, but it has taken fifteen years to collect the facts upon which this simple diagram is drawn.

2. Does a retracted ureter always mean a thickened, lead-pencil-sized ureter which can be felt per vaginam? Yes, always; but remember, a thickened ureter is not always a retracted ureter. Hence when you feel a thickened ureter by the vagina or bowel, do not diagnose tuberculosis. You may and should suspect it, and should investigate the urine for bacilli, but do not jump to the conclusion that it must necessarily indicate tuberculosis. A thickened ureter merely means chronic ureteritis. It is the extreme shortening and retraction of the ureter and of the orifice which seems characteristic of this particular type of renal tuberculosis.

The third and last question is: Is it met with often and in both sexes? I have found it in only 18 per cent. of my proved cases of renal tuberculosis, and much more often in women than in men.

Now, lastly, gentlemen, you may say, *Cui bono?*—of what value is it to be able to draw, before operation, the exact condition of a tuberculous kidney? This knowledge may allow us in the future to resect the upper and lower poles, and to leave the healthy middle of the kidney to go on working for the good of the body. It is sound knowledge and it makes for progress in conservative surgery. We have only to recognize the disease early enough, and be prepared to act if the middle third of the kidney permits resection. This particular kidney did not permit me to resect, and you will note I anticipated this and found what I anticipated—namely, that there were commencing changes of tubercle in the middle third of the gland.

[The patient left the hospital healed and much relieved at the end of the third week.]

Leprosy in Japan.—It is stated that at the approaching session of the Imperial Diet of Japan legislation will be proposed with the object of enabling the Government to control the spread of leprosy.

MEMORANDA:
MEDICAL, SURGICAL, OBSTETRICAL.

EPISTAXIS AND CALCIUM CHLORIDE.

Mr. J., aged 60, a short, thick-set patient of a distinctly apoplectic type, with atheromatous arteries, sent for me on August 14th, 1905. I found him suffering from severe epistaxis, which had lasted two hours. The usual remedies, suprarenal, etc., were used, the haemorrhage ceased, and I kept him in bed for two days, and put him on mist. alb.

On August 17th, after he had been up an hour or two, he had a second attack worse than the first, which stopped without plugging. Such attacks continued off and on till October 1st. Apart from some rhinitis, there was no disease of the nares. The haemorrhage was always from the left side, and the ruptured vessel was high up above the usual seat of these haemorrhages.

The use of the actual cautery I did not advise, owing to the danger of apoplexy, which has followed in some cases so treated. At first no doubt the haemorrhage was beneficial. On October 1st he had another attack. I put him on calcium chloride gr. x three times a day, with a dose of mist. alb. every morning. I kept him on the calcium chloride about ten days, and he has not had a single attack of epistaxis since.

Although calcium chloride has been used successfully in haemoptysis by myself amongst others, and is doubtless well known, I have no recollection of hearing that it had been used in epistaxis, and I think that it may prove useful. Its use in this case was suggested to me by a recollection of a statement that the effect of chloride of calcium is to increase the coagulability of the blood.

Leytonstone. Arthur Todd-White.

A NEW TREATMENT FOR "HOUSEMAID'S KNEE": SUBCUTANEOUS RUPTURE OF ENLARGED BURSAE.

I have treated three bursae in my own person much after the fashion described by Dr. Buckley Pogson in the British Medical Journal of October 14th, 1905, p. 952. Twenty years ago my right bursa olecrani was largely distended, and got ruptured subcutaneously by accident, the result being a perfect cure. A year or two later the corresponding left bursa became similarly affected, and I ruptured it by striking it with a boot—though, may be, mere compression would have sufficed. Much more recently the right bursa patellae became distended, and I ruptured it by deliberately kneeling on it. The bursting gave not the slightest discomfort, the sensation merely suggesting the squashing of a gooseberry. There has been no recurrence of trouble in either instance. The bursa may tend to fill slightly again for a day or two after rupture; but the gentlest pressure suffices to drive the fluid out through the artificial opening, and apparently a free communication is soon established between the bursa and the adjacent lymphatics.

Cambridge. F. J. Allen.

CHLOROFORM IN CONSUMPTION.

At the present time, when so much is being written and spoken on the subject of consumption, I should like to draw attention to the use of chloroform in connexion with this disease.

When a student I was impressed by the good recoveries consumptive patients made from operations, only ere long to fall back into their old state of bad health and steady progress to the fatal end. The discovery of the bacilli of tuberculosis and the knowledge that chloroform is a parasiticide gave what seemed to me to be a clue: Was not the improvement due in a great measure to the wholesale slaughter of all free bacilli in the lungs, and the subsequent relapse due to the bacilli multiplying from those that were left, and not all due to the operation? Acting on this idea, I, when in general practice, used chloroform very largely as an inhalant mixed with a little eucalyptus oil and terebene to disguise the colour and smell. I let my patients have a Squire's inhaler to use for the drops. The results were almost uniformly good, but only as a palliative. The same was the experience of a medical friend, who unfortunately died long ago. Had I continued in general practice I should (long ere this) have tried the effects of using chloroform almost if not quite to the extent of complete anaesthesia. For very many years, however, I have not been called upon to treat a case of consumption, and have therefore not had an opportunity of doing so.

Of course the deep inhalation would have to be repeated on more than one occasion, and at comparatively short intervals to prevent the remultiplication of the bacilli. I have thought it likely that many bacilli will not be killed outright but so weakened as to fall an easy prey to the white blood corpuscles, when otherwise they might be too strong for them.

A very little consideration must show that chloroform being very volatile and a parasiticide must be an ideal drug for use in the lungs when bacilli are to be destroyed. I trust the drug will have a full and free trial, and the results published.

It is almost needless to add that I do not recommend chloroform to the exclusion of open air, good food, etc.

Ainsdale. James Holmes, M.D.

LARVAL SCARLET FEVER.

On September 3rd, 1905, I was asked to see a boy, aged 16, who was stated to have been unwell for some days, but had been going about until the previous day, when severer pain developed in the side, and led to my being summoned. The pain was aggravated by movement, coughing, or deep inspiration. I examined the chest, but could hear no rub; his temperature was 101° F., and he looked ill. There was a slight cough. I diagnosed pleurisy, and on inquiry learnt that seven days previously he had suffered from sore throat, and that his sister had likewise had a sore throat three weeks before my visit. This led to an examination of the sister. I found her hands and feet were desquamating, and both patients then stated that they had noticed a rash at the beginning of their illness which had subsequently disappeared. The boy's throat was injected and the tongue still rather raw and strawberry-like. He subsequently desquamated.

Although I was never able to detect a rub in the chest, I have no doubt that the boy was suffering from pleurisy, which seems to have begun on the sixth day of the disease. Osler mentions pleurisy as a rare complication, more often occurring during convalescence, and terminating in empyema. Fortunately in this case it cleared up under rest and counter-irritation. The case seems to me worth recording, not merely owing to the rarity of the complication, but owing to the fact that, except for its occurrence, both cases would probably have remained undiagnosed, as no medical man would have been called in.

J. M. Fortescue-Brickdale, M.A., M.D.Oxon.

Clifton.

CANCER CONTAGION AND INOCULATION.

In view of the recent authoritative statements in the British Medical Journal concerning cancer contagion and inoculation, the following suggestion may be of interest: Fourteen months ago I opened the abdomen of a man, aged 29 years, suffering from intestinal obstruction. For a few weeks previously he had suffered from colic and had difficulty in evacuating the bowels. I made a mesial incision of about 3 in., and found the sigmoid flexure, low down, nearly blocked and contracted for about 2 in. by a cancerous growth. Several lymphatic glands lying along the iliac vessels were white and hard. I brought the large bowel as high up on the sigmoid as possible to the surface through a lateral incision, subsequently opening it for relief of the obstruction. Before closing the mesial incision I tried to separate one of the involved lymphatic glands, but only succeeded in tearing it somewhat with my fingernail. The man is to-day very thin and cachectic-looking, and his cancer is considerably enlarged. At the upper end of the mesial scar, just under the skin, is a small, hard nodular growth about the size of a small marble, gradually enlarging. There does not seem to be any direct connexion between this and the original tumour, and it has occurred to me that it may be a transplantation from the gland I tried to remove, carried by my finger. If this be so, does it not suggest a possible explanation of recurrent cancer in many instances? Where the original tumour has been removed entire inside a mass of surrounding tissue, like a core of paper in a ball of worsted, there will be no possibility of transplantation, but where the tumour is broken into during an operation the risk of transplantation must be very great. In such a case small portions conveyed by the fingers or knife might easily find a suitable position on the raw surface for renewed growth, and hence the so-called recurrence.

Ramsbottom, Lancs. H. LAWRIE, M.B., C.M., D.P.H.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.

A CASE OF COMBINED CYSTIC DISEASE OF LIVER AND KIDNEYS.

(By C. A. MACMUNN, M.A., M.D.Dub., Honorary Physician and Pathologist to the Hospital.)*

THE patient, J. B., aged 46, engine-fitter by trade, was admitted to the General Hospital in February, 1903. The following notes were then taken:

Previous History.—Six years before had pleurisy in right side, otherwise always healthy. Denied syphilis. Was a married man with three children, wife healthy, no miscarriages. Had gonorrhoea when 18 years old. Never a teetotaler, but not a heavy drinker.

Present Illness.—Twelve months before admission he felt languid and tired, and for the last two months pain and discomfort in the abdomen set in. Had lost flesh and felt cramps in the hand. Had felt a fullness in stomach lately and pain when he stooped, and felt exhausted on any exertion. Never had swelling of the legs, nor pain in them, they only felt weak. Bowels regular, no abdominal pain, no blood in stools, never jaundiced, motions had always been healthy in colour.

Condition on Admission.—General wasting, all the muscles thin. Slightly yellow tinge in face and cachectic appearance. Skin of body rather brownish in tint. Mouth edentulous, breath heavy, tongue furred. Nothing abnormal in the chest; heart's apex-beat normal and its sounds fairly good and free from murmur. On examining the abdomen, general fullness was very marked. There was dullness on percussion to 1 in. below the umbilicus in mid line. On palpation a large mass was felt below the costal border to 1 in. below the umbilicus, corresponding to a much enlarged liver; surface of this felt irregular and knobby, its lower border was easily palpated, very firm, with irregular outline, and passed almost to the right iliac crest. This mass was not tender. In the left hypochondrium and lumbar region a large irregular mass could be felt passing down in the direction of the left groin, clearly being a distinct tumour from the liver; it was dull on percussion. Nothing abnormal could be found on rectal examination, and there were no enlarged glands anywhere. The urine was pale, clear, and gave a very faint trace of albumen, but was otherwise normal and passed in normal quantity.

Progress.—The patient never improved after admission, but did not appear to suffer any pain or discomfort.

Result.—He became steadily weaker, the abdomen became more and more distended, and fluid began to accumulate in it a few days before death; at the same time some oedema of the legs appeared. Respiration became embarrassed, numerous loud bubbling râles were heard in the lungs, and the patient rapidly died.

Post-mortem Examination.—Nothing abnormal was found in the lungs or heart. The abdominal cavity contained a small quantity of clear serous fluid. The liver was seen projecting $1\frac{1}{2}$ in. below the umbilicus, and its surface covered with small cysts; it weighed $12\frac{3}{4}$ lb. Its surface was entirely covered—except for a small portion in the region of the gall bladder—with clear, transparent cysts, varying in size from that of a Tangerine orange to that of a pea. The cysts were thin-walled and multilocular, in places grouped so as to give the appearance of a cluster of grapes. The left liver lobe was completely involved in this cystic change, so as to be quite translucent. The right liver lobe was in a similar condition. But near the gall bladder there was a small area of what appeared to be almost normal liver substance left, with here and there a cyst in it. The whole liver felt firm and rigid. The kidneys were both enormously enlarged, and presented an almost unique appearance. They were about 14 in. in length, and showed one mass of cysts covering their whole surface, as well as scattered throughout their substance on section. The cysts were closely studded all over the kidneys and beautifully coloured, some containing a clear yellow fluid, others a dark amber, and others a dark purple. These cysts were all clear and transparent, and almost gave the appearance of a substance covered with small closely-studded glass balls. The suprarenals were also involved in the general cystic state. The ureters were normal. On cutting into a kidney the whole substance contained nothing but multilocular cysts; no normal kidney substance was left, as far as the naked eye could see. The spleen and pancreas were normal, and there were no enlarged mesenteric glands. On microscopic examination of the contents of the cysts from both liver and kidneys, nothing indicative of a parasitic origin could be found.

REMARKS.—It was surprising how this man showed so few symptoms of such extraordinary cystic invasion of liver and kidneys, for hardly any hepatic or renal tissue was left, and yet he appeared to be fairly comfortable when he came into hospital. According to Blackburn[1] (up to the date of his paper in 1904) 41 cases of combined cystic disease of liver and kidney had been reported. He, like others, had difficulty in understanding how organs with no apparent relationship to each other, such as liver and kidneys, should be affected with cystic disease at the same time; and he—contrary to those who think that the disease may be considered "accidental" when it affects liver and kidneys—found that these organs have always been involved together. He states that one kidney only may be affected in the combined disease. Blackburn further states that while the smaller cysts are lined with epithelium, the larger ones are free from it, all traces being lost, and he notices the overgrowth of richly cellular tissue not only in the portal spaces, but also spreading between the lobules, an appearance well marked in the present case. Blackburn gives five theories as to the origin of the cysts in the liver, but as none have been proved correct, it is useless referring to them further.

Mr. J. Bland-Sutton,[2] in a recent paper, remarks that all cysts in the pathologic limitation of the term arise in pre-existing epithelium-lined spaces and ducts, even in ducts and canals of microscopic proportions; and he accepts the generally received opinion that these cysts in the liver arise in the bile canals. He further adds: "The most remarkable circumstance connected with general cystic disease of the liver is its occasional association with general cystic (congenital) disease of the kidneys, a condition due to ectasia of the uriniferous tubules. The cause of this cystic disease in the liver is even more uncertain than that in the kidney." Blackburn, already quoted, however, does not think that polycystic kidney is always congenital.[3] He distinguishes two forms—one in infants, the other in adults, seldom found before middle age, and he remarks that the co-existence of cysts in liver and kidney in so many cases must be more than an accidental relationship. This is an idea which may occur to any one who comes upon such a case as the present one.

REFERENCES.

[1] *Trans.Path.Soc. Lond.*, vol. lv, 1904. [2] BRITISH MEDICAL JOURNAL, November 4th, 1905, p. 1167, where a figure of a cystic liver is shown in section. [3] See also a paper by Milward, the Symptoms of Congenital Cystic Disease (Multiple Cystomata) of the Kidneys in Adults, etc., *Birm. Med. Rev.*, August, 1904.

THE ROYAL INFIRMARY, NEWCASTLE-ON-TYNE.

TORSION OF THE PEDICLE OF AN OVARIAN DERMOID IN A CHILD.

(By H. BRUNTON ANGUS, M.B., M.S.Durh., F.R.C.S.Eng., Honorary Surgeon.)

MANY cases have been reported of ovarian tumours in children, and in some of them torsion of the pedicle is noted; still the following case is worthy of record: M. A., aged 6 years, was admitted into the Royal Infirmary on July 6th, 1903, having been seized three days previously with abdominal pain and vomiting. The pain continued and the abdomen began to distend, but the vomiting ceased.

Condition on Admission.—The tongue was coated but moist, the temperature 99° F., the pulse 116. She passed a motion containing much bile. Nothing abnormal was found in the chest. *The abdomen on inspection* showed some distension to be present, and the abdominal movements to be restricted. *On percussion* dullness was evident above the pubes and in the right flank; the left flank was resonant. *On palpation* a distended bladder was felt, rigidity and pain were present on handling, especially in the right iliac region. *Per rectum* something was found to be bulging into the anterior wall. A diagnosis of appendicitis with exudate into pelvis was made.

Operation.—The same day the child was anaesthetized, and an ordinary oblique appendix incision made. The intestines were distended somewhat but not inflamed. The appendix lay behind and below the caecum, and was attached to a dark cystic swelling which occupied Douglas's pouch, to the wall of which it was adherent. On enucleating the tumour it proved to be the right ovary, and its pedicle was twisted two and a half times opposite the pelvic brim. Both appendix and ovary were removed, the stump of the appendix was buried in the caecal wall, the left appendages were normal. The abdomen was closed without drainage, the parietes being united in layers by interrupted catgut sutures.

---

* Communicated to the Birmingham Branch of the British Medical Association, December 14th, 1905.

The Parts Removed.—*The appendix* was 4 in. in length, the end being bulbous and inflamed where it had been attached to the ovary; *the right ovary*, which was the size of a duck's egg, was darkly congested, and contained curdy chocolate-looking material. It proved to be an ovarian dermoid, and the specimen is now in the University of Durham College of Medicine Museum.

Remarks.—The child seemed to be progressing favourably on the day following operation, and the pulse and temperature fell, but on July 8th (at 5 a.m.) she fell out of bed, was picked up unconscious, and died at 10.30 p.m., never having regained consciousness. On *post-mortem* examination the abdominal wound was found healthy, and the intestines pale and not distended. No fracture of the skull or visible laceration of the brain was found.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

SOUTH-WESTERN BRANCH.

George Jackson, F.R.C.S., President, in the Chair.

Exeter, Wednesday, January 10th.

Heart Disease.—Dr. W. Gordon read a paper on Advances in Our Knowledge of Heart Disease during the Past Year.

Ruptured Pyosalpinx.—Mr. Russell Coombe read notes of a case of Ruptured Pyosalpinx with an Unusual Complication.

Reports on Post-mortem Examinations.—Dr. R. V. Solly reported 3 cases from the Royal Devon and Exeter Hospital in which *post-mortem* examinations had been performed. The first case proved to be one of congenital opening in the septum ventriculi, with most extensive vegetations present, in the first part of the pulmonary artery. The pulmonary valves had disappeared. There was no endocarditis in the left side of the heart. There were recent infarcts in lungs and an old one in the spleen. A microscopical section of one of the vegetations was exhibited, showing a large number of micrococci. The case was one of the more chronic cases of malignant endocarditis where there were no metastatic abscesses or softening infarcts. A blood count had helped in forming a diagnosis, there being a distinct leucocytosis. The second case was that of a man aged 56, admitted suffering from extreme dyspnoea. There was a bronchocele present in close relation to the trachea on the left side. Tracheotomy was performed, but no relief was obtained, and the patient died the same day. On *post-mortem* examination, a large renal tumour was found, and secondary growths were also found in the lungs, liver, and mediastinal glands, which latter were the cause of the obstruction to the trachea. The bronchocele was an ordinary thyroid parenchymatous tumour. Microscopically the renal tumour, Dr. Solly believed, was a primary carcinoma of kidney, and the growths in lungs, liver, and mediastinal glands were secondary. The third case was that of a man aged about 30, who exhibited a peculiar condition like cellulitis of arm and shoulder, and later of definite periostitis and ostitis. He was in the hospital from July to November. Latterly definite paraplegia developed, and he died. *Post mortem* was found extensive periostitis and ostitis of humerus and growths of under surface of sternum and of lumbar spine. The latter growth had enveloped the aorta and had involved the spinal marrow. The glands in the portal fissure were also enlarged. The bony growths and also the enlarged glands in the portal fissure proved microscopically to be involved by spheroidal-celled carcinoma, but no primary growth was discovered. Dr. Solly also showed microscopical specimens of gonococci and pneumococci.

Acute Haemorrhagic Pancreatitis.—Dr. E. J. Toye (Bideford) read notes of a case.

J. H., a gentleman aged 58, had suffered for twenty years from a chronic granular kidney following acute nephritis. He had also suffered from chronic dyspepsia. He was in his usual health until December 11th, 1905. In the morning of that day he went hunting. After a brisk run he stood about and felt very cold. He then became suddenly dazed, and with difficulty remained on horseback. He shivered, and complained of pain and discomfort in the bowel. With difficulty he returned home, and after some brandy and a hot bath he went to bed. He was seen the same evening. He had vomited and the bowels had acted just before Dr. Toye's arrival. The vomit and faeces were not kept for inspection, but, from the patient's description, they did not present anything unusual. On examination he appeared quite comfortable. His tongue was clean. The temperature was normal; the pulse was 72 per minute. The heart and circulation showed the secondary signs of chronic Bright's disease. On examination of the abdomen the hepatic dullness was found normal. The abdominal walls moved freely on respiration. In fact, nothing abnormal was found excepting some tenderness on palpation in the epigastrium. On the two succeeding days nothing eventful occurred. There was no sickness, and no action of the bowels. On December 14th the patient appeared worse. The temperature was 100° F. He complained of epigastric pain, which was much worse even after dilute milk. The tongue was coated with a thick moist fur. The pulse was 88 per minute. On examination of the abdomen there was great resistance in the epigastric region, with tenderness. On percussion an area of dullness was made out occupying the upper part of the epigastrium, merging above into the hepatic and cardiac dullness. There was marked tenderness in the lower dorsal spines. The patient's condition remained much the same for the next few days. The temperature varied from normal to 100°. He suffered much abdominal discomfort, and it was obvious that he was becoming slowly worse. He was only very slightly jaundiced, and there was never any bile in the urine. On December 17th a large area of dullness could be percussed occupying the whole of the epigastrium. The tumour was tender, but no fluctuation could be detected. On the same date the bowels acted. The motions were copious and formed. They were clay-coloured, there being an entire absence of pigment. On the morning of December 19th the patient suddenly expired. No *post-mortem* examination was allowed. The urine and faeces were subjected to minute examination, and the following reports were obtained:—Urine acid, specific gravity 1020. Albumen, a decided trace; sugar absent. On microscopical examination casts were found. Pigment: The urine contains a minute trace of unaltered bile pigment, and its spectrum indicates the presence of pathological urobilin. Cammidge's test: The tests A and B as described by Dr. Cammidge were performed, but no crystals were found. Faeces: Almost complete absence of colour. It is deficient in stercobilin, but contains minute quantities of unaltered bile. There is a marked excess of fat and of putrefactive bacteria. There is no evidence of any defect in the digestion of starch or of nitrogenous matter, but these did not form part of the diet.

Dr. Toye pointed out that the chief interest of the case lay in the diagnosis, which at first was obscure and difficult. The symptoms were obviously characteristic of some lesion situated in the upper part of the abdomen. When the patient was first seen the following possibilities suggested themselves: Acute dyspepsia, appendicitis, intestinal obstruction, perforated duodenal ulcer, and biliary colic. The first two were at once dismissed; the onset and the illness were much too severe for the diagnosis of acute dyspepsia; the presence of pain in the epigastrium and its absence in the right iliac fossa excluded appendicitis; the free passage of flatus with a good action of the bowels put intestinal obstruction out of the question. It was much more difficult to exclude the remaining two conditions—perforated duodenal ulcer and biliary colic with impaction. As excluding perforation it was noted that there was no previous history of ulceration; that the hepatic dullness persisted, and that there was no haematemesis or melaena. Gall stones with impaction were rendered unlikely by the epigastric dullness and the absence of jaundice. The presence and extent of the epigastric dullness, together with the passing of clay-coloured stools, at once suggested the possibility of pancreatic disease, and taking into consideration the acuteness of the onset, that variety known as acute haemorrhagic pancreatitis. One could not but be struck with the similarity of the onset of the case to the description given by Fitz, who writes:

> Acute pancreatitis is to be suspected when a previously healthy person or sufferer from occasional attacks of indigestion is suddenly seized with violent pain in the epi-

gastrium, followed by vomiting and collapse, and in the course of twenty-four hours by a circumscribed epigastric swelling, tympanitic or resistant, with slight rise of temperature.

The presence of fatty stools was an important confirmation of the diagnosis. Faulty digestion of albuminous foods, or azotorrhoea, must exist in all pancreatic disorders. This is usually demonstrated by finding undigested muscular fibres in the stools. These formed, however, no part of the diet of the patient, and hence this sign could not be demonstrated. Cammidge's pancreatic test: This test, consisting of two reactions, A and B, was described by Dr. Cammidge in the Arris and Gale Lectures for 1904. The urine of the case under consideration did not give a positive reaction. Many observers, however, doubt the value of the test. Although the case lacked the confirmation of operation or of a necropsy, there would seem to be no reasonable ground for doubting the diagnosis of an acute pancreatic disorder, the opinion being based upon the following points: (1) The sudden onset, (2) the appearance of a characteristic epigastric tumour, (3) the presence of fatty stools without jaundice. It was of some interest to speculate upon the causes and processes at work in this case. The patient certainly suffered from two primary conditions which were put down as causes by Mayo Robson. They were (1) gastro-duodenal catarrh, (2) chronic granular kidney with atheroma. The atheroma would constitute the predisposing cause for the haemorrhage and the catarrh of the duodenum would be the source of infection. The method of treatment employed was symptomatic and expectant. The patient's condition, largely due to the antecedent nephritis, contraindicated operation. The local condition did not show the necessity for operation. There was no suppuration or progressive haemorrhage. The expectant treatment was justified by the result, as the fatal syncope was probably a complication and sequela of the kidney trouble. It would suffice to mention that pancreatic diseases must at present be looked upon as surgical conditions owing, no doubt, to the more active part which surgeons have taken in elucidating them.

Pathological Specimens.—Dr. R. V. SOLLY showed a large number of microscopical slides of gonococci and pneumococci.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Sir DYCE DUCKWORTH, M.D., F.R.C.P., Vice-President, in the Chair.

Tuesday, January 23rd, 1906.

MYOCLONUS.

DR. FREDERICK TAYLOR made a communication based on three cases of this disease. The first was that of a man who had been under observation for 30 years, in whom the clonic movements affected the head, neck, and trunk, but not the limbs. The second case was that of a man who had been under observation for 16 years. The muscles involved were those of the right side of the neck, the right upper limb, and the left loin. The third case was in a woman, the muscles arising from the internal condyle of the humerus on each side being affected.

Dr. FARQUHAR BUZZARD, alluding to the difficulty found in classifying cases of myoclonus, said the cases he had seen corresponded with the type described by Friedreich. He argued that in irregular muscular contractions the muscular irritability was at least as important as the condition of the nerve centres. It might be, as it had been suggested, that in myoclonus the irritability involved the fibrillary substance of muscle, and not the sarcoplasm as in Thomsen's disease.

Dr. C. E. BEEVOR said he thought the cases described in the paper were, like wry-neck, affecting another part. In the cases of myoclonus he had seen the movements were more shock-like, and single muscles contracted which could not be thrown into action separately by the will. It was probable that the lesion was in the spinal cord. He specially emphasized the importance of differentiating hysterical tremor from myoclonus.

Dr. F. E. BATTEN agreed that the tics should be separated from myoclonus. The latter term, he thought, should be limited to contraction affecting single muscles. He referred to the cases associated with epilepsy, and quoted a three-group classification of myoclonus—namely, those coexisting with other conditions, paramyoclonus, and those with epilepsy.

Dr. FREDERICK TAYLOR replied.

"INTERRUPTED CIRCULATION" AS A THERAPEUTIC AGENT.

DR. W. EWART in this paper described a method of treating affections of the joints, and particularly rheumatoid arthritis, on the type of the bloodless method in surgery. It consisted in first emptying the veins of blood by elevation and pressure, and then arresting for a short time the arterial as well as the venous circulation by an elastic ligature placed round the upper part of the limb. An "alterative action" on the circulation was induced, which had two phases corresponding to the opposite states of anaemia and of arterial flush, the first in the direction of absorption, the second in that of stimulation. Four to six applications might be made at one sitting, with a duration of two minutes each, and with intervals of one to two minutes; three applications at each sitting might suffice in most cases, and two sittings daily might be desirable. The clinical results had been great relief to the pain and tenderness during the stage of anaemia; no added pain, but a pleasant glow after the removal of the tourniquet; decided diminution in the size of any soft swellings due to fluid which sometimes was clearly perceptible after the first sitting: slow and gradual diminution in the size of the massive swellings; marked improvement in the mobility of joints free from ankylosis; whenever local anaesthesia was induced below the ligature great advantage was to be gained by the forcible and judicious manipulation of the stiffened joints. These results probably depended on the removal of stagnant tissue fluids and their subsequent replacement by pure arterial blood when the ligature was removed.

Sir DYCE DUCKWORTH had had experience of the method in rheumatoid arthritis and gonorrhoeal arthritis, and had seen some relief of the symptoms in some of the cases.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

J. O. AFFLECK, M.D., President, in the Chair.

Wednesday, January 17th, 1906.

SLEEPING SICKNESS IN UGANDA.

CAPTAIN E. D. W. GREIG, I.M.S., read this paper by invitation of the Society. He first dealt with the work of the Sleeping Sickness Commission of the Royal Society, of which he was a member. It was pointed out that the honour of discovering the etiology of sleeping sickness belonged to Colonel David Bruce, and not to Castellani. Captain Greig then dealt with the main clinical and pathological features of the disease, which was at first mainly a polyadenitis. This phase might last for years, but sooner or later the last stage was reached, when in addition to the enlargement of the lymphatic glands there were signs and symptoms of involvement of the nervous system. The method of recognizing the disease in its earliest stages, by recovering the parasite from the enlarged glands by puncture, first described by Greig and Gray, was mentioned. The ulcerated condition of the mucous membrane of the stomach, as noted by the same observers, was also described. The result of the investigations of the Commission proved that the sole cause of sleeping sickness is the *Trypanosoma gambiense.* It had also been proved that the disease was conveyed from the sick to the healthy by a species of tsetse fly, the *Glossina palpalis*, and possibly that it might also be conveyed by other varieties of *Glossina.* They showed that in Uganda the distribution of sleeping sickness and that of *Glossina palpalis* practically coincided. They further proved that the flies caught in the neighbourhood of the huts of patients suffering from sleeping sickness harboured the *Trypanosoma gambiense*, and were capable of infecting animals. The commission (Gray and Tulloch) had further shown that an enormous multiplication of the parasite took place in the alimentary canal of *Glossina palpalis* which had been infected. In about 10 per cent. of the flies caught near the houses of sleeping sickness patients the alimentary tracts contained a very large number of trypanosomes. The life-history of *Glossina palpalis* was described. A short account was also given of Captain Greig's investigations on the distribution of the fly and sleeping sickness in the Nile valley. The fly was not found further north than the point where the 4th degree cuts the Nile. No trace was found on the banks of the Nile in the Sudan. The lecture was fully illustrated by an excellent series of lantern slides.

Stovaine as a Spinal and Local Anaesthetic.

This paper was contributed by Mr. **George L. Chiene**, who pointed out that this substance, which was hydrochlorate of amyleine, was discovered by M. Fourneau in 1904. Stovaine possessed antithermic and antiseptic properties, and aqueous solutions of the body could be boiled without interfering with its properties. Its action in some cases was just as efficient as cocaine, while it was much less toxic. The after-effects of injecting this substance into the spinal canal were also less severe than those produced by cocaine. Mr. Chiene referred to the literature on this body, which is already extensive. He described the best method of introducing a solution of stovaine into the spinal canal in order to produce anaesthesia. The quantity of the drug employed varied from 2 to 10 cg. Anaesthesia commenced in the perineal region, then affected the toes and feet, and then gradually passed up the limb. The level to which anaesthesia rose and its duration depended as a rule on the amount of the drug injected. Mr. Chiene gave an analysis of 14 cases in which he had used this body to produce spinal anaesthesia. In most the results obtained were highly satisfactory. He had also used stovaine to produce local anaesthesia, and generally the results had been good.

The Relation of Spirochaeta Pallida to Syphilis.

Dr. **Theodore Shennan**, who read a paper on this subject, referred briefly to the history of the attempts to demonstrate the cause of syphilis. The discovery by Schaudinn and Hoffmann of spirochaetes of two varieties in syphilitic lesions was referred to. The rapidity and completeness with which this discovery had been recognized had been remarkable. Dr. Shennan next dealt with the best method for obtaining films for examination. He pointed out that the presence of a little blood in the film was an advantage, as *Spirochaeta pallida* frequently lay in relation to a red blood corpuscle. As spirochaetes were irregularly distributed, at least six films should be made. The *Spirochaeta pallida* occurred only in primary and secondary syphilitic lesions, principally in mucous patches, hard chancres, indolent buboes, and papules. It had been found less constantly in the roseolar rash and in the blood. It was present in congenital syphilitic children throughout the body, particularly in the spleen, liver, and suprarenal bodies. Metchnikoff had found it frequently in experimental lesions in monkeys, particularly in chimpanzees, and believed it to be the cause of syphilis. Dr. Shennan was of opinion that before one could be absolutely certain as to the causal relationship of spirochaetes to syphilis one required to know more about those bodies, and should have better means of distinguishing the numerous intermediate forms than existed at present. In examining cases at the Edinburgh Royal Infirmary, the author was most successful in obtaining specimens of *Spirochaeta pallida* (1) in hard chancres, (2) in closed papules, away from the genitals. He was unsuccessful in examination of indolent buboes, mucous patches, and blood. In conclusion, he expressed the opinion that from a survey of all the facts brought out by investigations conducted all over the world, there was ground for admitting the possibility of an etiological relationship between *Spirochaeta pallida* and syphilis.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Pathology.

Joseph O'Carroll, M.D., President, in the Chair.

Friday, January 5th, 1906.

Fractures of Os Calcis and Astragalus.

Professor Bennett, in presenting some specimens, said he regretted to be unable to state anything of the life-history of the cases. The first was a left os calcis which Professor Dixon kindly gave him this session, because the portion of bone forming the articular surface in front of the sustentaculum tali was wanting. The specimen agreed in many particulars with the case of Legouest, figured in the thesis of A. Ballenghien,[1] and was wanting in the fact that the little piece of bone had not been preserved. The next two specimens concerned the astragalus. Some five and twenty years ago he published a discussion on the supposed fracture of the tubercle of the astragalus whether it were a fracture or not or a vestige of the os trigonum tarsi.[2] He had multiplied specimens of this kind until now his series numbered eleven. He showed that night a united fracture of the same region of the bone, without doubt a fracture well and truly knit, but how caused he could not say. The anterior part of the tubercle with the groove for the tendon of the long flexor of the great toe had been broken and united with the minimum degree of deformity. The question which was most difficult of solution was, How did it get broken? By what force, direct or indirect? Lastly, he showed a specimen which he was again very hard set to read. He put it by in spirit last summer, puzzling over it to find some solution of its mysteries. While the summer passed the spirit sped away, and when he came back to his work almost all his mysterious signs of fracture had gone. He got a specimen in the following way: A student in his first year had dissected the lower extremity to the last shred, and had got the astragalus isolated neatly from the bones of the leg and from the tarsus, and, seeing him pass, asked him to look at "the fracture." The speaker agreed in his diagnosis. He said he could see no damage or trace of it in the bones of the leg or of the tarsus, and, for some reason being pressed for time, he was content to walk off with the bone. No one would give him credence for his diagnosis of fracture had he not put the specimen in water a few days ago, and so repaired the damage of the evaporated spirit. A fracture it was, taking effect on that part of the head of the bone that rested on the calcaneo-scaphoid ligament, and it had not passed to any deeper extent than the cartilage.

Cancer of the Oesophagus with Secondary Growth in the Heart.

Dr. **Travers Smith** exhibited some of the thoracic viscera of a man, aged 70, who had died under his care in the Whitworth Hospital of flat-celled cancer of the oesophagus. The growth had caused a very narrow stricture, and had grown by direct extension into the outer coat of the descending aorta. Numerous small secondary deposits were also found in the outer coat of the aorta, and the bronchial lymph glands were cancerous. Embedded in the wall of the left ventricle near the auriculo-ventricular groove was a secondary deposit the size of a large hazelnut, which on microscopical examination made by Dr. Earl showed typical flat-celled arrangement. There were no metastases of the disease below the diaphragm with the exception of a cancerous deposition in a single lymph gland situated under the peritoneum on the anterior aspect of the stomach near the oesophagus, and nearer the lesser curvature than the great. Stress was laid upon the frequency with which this gland was affected in internal, especially abdominal, cancer. Dr. Travers Smith spoke of the difficulty in fully explaining how the secondary deposit in this case had reached the heart.

The **President** said that an interesting point had been raised—namely, the dissemination backwards against the lymph stream. This must often happen also in various forms of tubercle. The particle must be supposed either to have gone against the stream or else had been carried by the subclavian, returned by the vena cava and going through the pulmonary system was deposited by the coronary artery in the heart.

Professor **Bennett** said the same thing must occur in cancer *en cuirasse*, as the cancer certainly did not follow the lymphatic stream.

Dr. **Little** said that in cases of tuberculous meningitis the original lesion was often found in the bronchial glands so that in such cases the infection must also travel against the stream.

Dr. **Travers Smith** briefly replied.

---

[1] Thèse par A. Ballenghien. July 20th, 1890. Page 126.

[2] *Journal of Anatomy.* Vol. xxi.

HYDROCEPHALUS.

Dr. **O'Carroll** showed a hydrocephalic brain of a boy aged 17 years, who had suffered for about six years from headaches and frequent subcomatose attacks lasting a few days. The cranium was not much larger than normal and was fully ossified. The ventricular cavities were considerably dilated, but not to the degree of thinning the brain substance excessively. The greatest thinning was at the lower anterior part of the lateral ventricle where the cortex was adherent to the underlying bone. During the last couple of months of life a colourless watery fluid, recognized to be cerebro-spinal fluid, used to drip freely from time to time from the left nostril. No thickening or occlusion of the pial curtain descending from the cerebellum to the medulla was found. It was evident that the serous discharge from the nostril came from the left ventricle by way of the adhesion of the temporo-sphenoidal lobe to the body of the sphenoid. During life the boy had been subnormal in intelligence, but by no means an imbecile; he had learned to read and write, and could perform simple mental calculations. He was of average height and weight, and the head was not abnormally large, but the sexual organs were poorly developed. The skin, of normal texture, seemed somewhat tightly drawn over the limbs as it ordinarily was on the outside of the thigh; but there was no scleroderma. There had been no ataxy. In walking his toes caught the ground now and again, and Babinski's toe-extension sign was present, while increased knee-jerk and ankle clonus were absent. There was no proof of hereditary syphilis; his birth had been instrumental. Dr. O'Carroll suggested that, as in other cases, hydrocephalus seemed to depend on obstruction of the posterior outlet of the ventricles; this might have started in obstruction of anterior fissural outlets by an early basal meningitis of adhesive character, the outlet reasserting itself recently in the nasal drip.

Dr. **Earl** described the appearance of the brain on making a *post-mortem* examination. There were a number of points on the anterior surface of the temporo-sphenoidal lobes where the brain was adherent to the bone. Also at one point on the lower surface of the left temporo-sphenoidal lobe there was a thin piece of brain left adherent, a small hole resulting. The membrane over the roof of the fourth ventricle did not appear to be thickened. The ventricles of the brain were generally distended, and the foramen of Munro was much enlarged. The sella turcica was very large, as a result of the ventricular distension, not of any change in the pituitary body, which was simply flattened out.

Dr. **Travers Smith** described a case which he believed to be chronic hydrocephalus in a girl aged 11. She had a distressed, anxious expression, and was completely paraplegic. Knee-jerks were lost. Legs and practically the whole trunk were anaesthetic. Pupils were widely dilated. Pulse 60. He did a lumbar puncture, and the cerebro-spinal fluid came away in a strong stream. It was clear, and contained no micro-organisms and practically no cells. He presumed that Dr. O'Carroll's case was one of hypersecretion of the ependyma, and he wondered if it had anything to do with the immature sexual organs, the condition of the skin and subcutaneous tissues.

Dr. **Moorhead** described a case in which hydrocephalus had occurred after pyrexia lasting for sixty days in a man aged 65. There was no obstruction to outflow, and there was increase of the subarachnoid fluid. The cerebro-spinal fluid was distinctly turbid, and he cultivated the *Bacillus coli communis* from it. He regarded the hydrocephalus as due to inflammation of the ependyma.

Dr. **Neil** also described a case in an infant, aged 3 weeks, from which he had removed 20 oz. of cerebro-spinal fluid through the occiput.

Dr. **O'Carroll**, in reply, said that although he had got no proof of syphilis in the case he had perhaps suspected it as being the cause. He did not know whether the condition of the skin could be associated with pituitary mischief or not.

Association of Registered Medical Women.—At a meeting on January 9th Miss **Aldrich-Blake**, M.D., M.S., in the chair, Miss **Scharlieb**, L.S.A., and Mrs. **Roger Watts** gave a demonstration of *Ju Jitsu*. Miss **Moffett**, M.D., read a short paper on *Life Assurance Without Medical Examination*, in which she pointed out that the practice was very common among the poorer classes. If the duration of illness stated on the death certificate exceeded the duration of the policy the companies raised difficulties as to payment, the practitioner was exposed to annoyance, and the patient's friends to loss. Reference was made to the recent correspondence on this subject in the British Medical Journal, and it was stated that as the Medical Act only requires the cause of death, and not the duration of illness, to be certified by the practitioner, the difficulty could be avoided by omitting any statement under the latter heading in the death certificate. Some discussion followed.

MEDICAL SOCIETY OF LONDON.

Sir T. **Lauder Brunton**, M.D., President, in the Chair.

Monday, January 22nd, 1906.

UNCONTROLLABLE VOMITING IN PREGNANCY.

Dr. **Comyns Berkeley** read a paper in which he classified vomiting in a pregnant woman under two headings: (1) Vomiting due to pregnancy; (2) vomiting associated with pregnancy. He subdivided vomiting due to pregnancy into (*a*) neurotic, and (*b*) toxaemic; and observed that in the vomiting of pregnancy neurosis was the chief factor in many cases, and it was claimed that a cure might be effected by suggestion. He considered that the severe pernicious vomiting of pregnancy, or hyperemesis gravidarum, was due to a toxaemia. It had been suggested that pernicious vomiting, acute yellow atrophy, and eclampsia might all be due to the same poison affecting the woman in different ways. Vomiting associated with pregnancy might be divided into two varieties—reflex and organic. Reflex vomiting was due to altered positions of the uterus, especially backward displacement. By organic vomiting he meant vomiting due to some definite disease in one or other organs of the body, and quoted as instances intestinal obstruction, ovarian tumours, etc. He drew particular attention to certain cases in which the cause of the vomiting was not at first diagnosable where fuller examination after induction of labour had failed to relieve the patient, showed that the condition was due not to toxaemia but to some other disease. Hyperemesis gravidarum was estimated to terminate fatally in about 50 per cent. of the cases receiving medicinal treatment only. But he thought that it might not be such a fatal disease as was supposed, and that if a *post-mortem* examination was made in every case that died the percentage mortality would be found to be less than it was now quoted, because the *post-mortem* examinations would disclose in some cases quite another cause of death. He urged that induction of labour should be undertaken earlier in these cases of hyperemesis gravidarum. Medical men were rightly jealous of the life of the unborn child, and it was a general opinion that abortion would save the patient no matter how long it was postponed, so that it was not an uncommon thing for induction to be postponed, in order that everything might be done to save the life of the child. The consequence was that when induction was performed in some cases it was too late, and the mother died, with the result that the statistics of the operation showed a greater percentage of fatality than was reasonable. He advised earlier induction of labour for the further reason that some of the patients who died after the induction of labour might have been saved if the uterus had been emptied sooner, not because they were in better condition for recovery, but because the cause of the vomiting (not being due to pregnancy at all) might have been discovered by the continuation of the vomiting giving rise to the necessity ot a further examination.

DILATATION OF THE CERVIX UTERI WITH BOSSI'S DILATOR.

Dr. **George Blacker** read a paper, in which he said that one of the most important questions the obstetrician had from time to time to answer was, What was the best method of rapidly dilating the cervical canal in cases where immediate delivery was indicated in the interests of the mother or of the child? Bossi's method of rapid artificial delivery had now been in use for some fifteen years; until the introduction of his dilator there was no certain and easy method which enabled the operator in practically all cases, whatever the condition of the cervical canal, to carry out dilatation of the cervix in a longer or shorter space of time, according to the urgency of the case to be dealt with. It was claimed for Bossi's method of rapid dilatation of the cervix with a metal dilator that it was certain and successful even in primiparae in whom the cervix had undergone no shortening or obliteration, and that such dilatation could be carried out with great rapidity. The use of the dilator involved no extra risk of septic infection. The rapidity with which the still unobliterated cervix could be dilated fully was demonstrated by the cases published by Bossi and others. The average length of time required in the cases in which the canal was intact at the time the operation was begun was twenty-four minutes, while in the cases in which it was partially obliterated at the commencement of the operation the time was eighteen minutes. Those figures showed that that was the most rapid method of dilating the cervical canal available, short of making incisions into the tissues or practising vaginal or Caesarean section. The after-histories of the recorded cases proved, further, that there was very little risk of sepsis, and, as a rule, the patients passed through a normal puerperium. The most serious objection that could be urged against the use of such a powerful dilator was the grave risk of tearing the tissues of the cervix as a result of the dilatation. It could not be denied that dangerous tears of the cervix might occur and had occurred, but long series of cases had been published in which no tears or only slight tears had resulted. In Bossi's dilator, therefore, they had a means of rapidly dilating the cervix, which was applicable both to cases in which the cervical canal was still intact and to cases in which it was partially dilated. As even in the most favourable conditions lacerations might occur, the dilator should only be used in the most urgent cases—that is to say, where grave danger to the life of the mother or to that of the child was indicated, and where rapid emptying of the uterus was likely to lessen such danger. Happily such cases were of very rare occurrence, and in such Bossi's method might be of use, but if used indiscriminately and without due care it was likely to cause serious injuries to the cervix, or even to the lower uterine segment.

Dr. Victor Bonney, in the discussion on the two papers, gave details of certain cases showing the importance of making a *post-mortem* examination as suggested by Dr. Comyns Berkeley.

After Dr. Comyns Berkeley had replied, Dr. George Blacker, in commenting on the paper by Dr. Comyns Berkeley, pointed out that in patients suffering from uncontrollable vomiting the careful analysis of the urine might indicate which were the toxic cases. He insisted on the importance of this measure because of the fatal nature of the toxic cases.

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

Friday, January 19th, 1906.

Annual General Meeting.

Election of President.

Dr. Richard Favell (Sheffield) was elected President for 1906.

The Evolution of Operative Gynaecology.

The retiring President, Dr. Lloyd Roberts (Manchester), in his valedictory address remarked that in the early days of operative gynaecology the operator aimed directly at the object to be gained. He roughly estimated the difficulties and dangers to be overcome, but did not elaborate improvement the need for which was as yet unknown. Hence the early methods were crude and devoid of niceties of execution. Then improvements were added until simplicity was overlaid with complexity, the attention of later operators being given to details, frequently at the expense of the unities of the operation. Finally, a reaction set in; complicated methods were abandoned, and a return was made to primitive simplicity shorn of its crudities. Thus directness of purpose gave place to elaboration of method, which in turn yielded to that effective simplicity which represented the high-water mark of applied knowledge. This central thought was illustrated by the speaker from the history of abdominal surgery in general, with special reference to Caesarean section. The operations for cancer of the uterus were reviewed, and the mode of dealing with the pedicle of ovarian tumours offered another example of the same thought. The speaker added that the same cycle which was observed in the evolution of gynaecological operations was being passed through by the operators themselves. The modern gynaecologist was evolved through the obstetric physician from the man midwife, and there was a tendency for him to give up his original function—that of attending labours. But as there must always be those who are exceptionally qualified to act as obstetricians the primitive usage would be reverted to and place would still be found for the obstetric physician—a specially skilled man midwife.

The Pelvis deformed by Infantile Paralysis.

Dr. J. B. Hellier (Leeds) showed a pelvis deformed as a result of infantile paralysis. There was deficient development of the os innominatum on the paralysed side and the normal flattening which takes place between birth and maturity was exaggerated on the sound side on which extra weight had been thrown. There was a difference of ½ in. between the oblique diameters at the brim. The outlet was much contracted, the ischial spines being 3¼ in. apart while the tip of the coccyx was within 1¾ in. of the symphysis and deviated ¾ in. to the right.

Dinner.

The usual dinner was held at the Queen's Hotel, Dr. Favell taking the chair.

ABERDEEN MEDICO-CHIRURGICAL SOCIETY.

Professor Ogston, M.D., President, in the Chair.

Thursday, January 11th, 1906.

Laminectomy in Caries of Dorsal Vertebrae.

Dr. Fortescue showed a girl, aged 10, who was admitted into the Sick Children's Hospital suffering from caries of the dorsal vertebrae, which was treated by laminectomy. On admission there was complete paralysis below the tenth dorsal vertebra, and almost complete loss of sensation. Disease was found to be limited to the spinous processes and laminae of the fifth and sixth dorsal vertebrae. These were removed and about 2 drachms of pus escaped from under the laminae of the fifth. Above and below were healthy. The wound healed within a fortnight. In a month partial control of the lower limbs had returned and she could feel pin-pricks as far as the knees. She had steadily improved since.

Tuberculin in the Treatment of Tuberculous Glands.

Mr. Gray showed two patients with tuberculous cervical glands, both of whom had been operated on before, and in one of whom the right shoulder-joint had been resected. They had now been treated with tuberculin R. ($\frac{1}{600}$ mg.) repeated every ten or twelve days. The glands had become softer and more discrete but not much reduced in size. In the case of the shoulder-joint, the movement had become much better than it had been since resection twenty-two months ago.

Tuberculin in the Treatment of Tuberculous Knee.

Mr. Gray also showed a boy with tuberculous disease of knee of two years' duration. He was first treated surgically; the trouble recurred four months ago, after injury. Tuberculin R. $\frac{1}{600}$ mg. was now used, and repeated every ten or twelve days. The sinus closed after the first injection, and there had been continuous improvement since, both in the joint and its functions.

Dr. Rose did not think there was anything unusual in the results; even apparently hopeless cases occasionally did well without tuberculin.

The President stated that his experience of the treatment had been good. There was a general improvement from the first, but he questioned if the doses were managed rightly. One was too apt to consider as analogous one's habits of drug-giving. It was questionable if increasing the dose of tuberculin R. did good. Personally he gave small doses and did not increase them. He had not observed a case in which there was no likelihood that the tubercle bacillus was still present.

Mr. Gray, in reply, said he had 20 or 30 cases of simple and mixed tuberculous infection. In the simple infections he had observed only good from the injections. In complicated infections improvement took place up to a certain point, where they either remained stationary or deteriorated. Probably better results would follow the use of mixed serums in those cases. The apparently hopeless cases which ultimately did well without tuberculin R. were probably cases of auto-inoculation.

Cerebellar Tumour.

Dr. McKerron showed 2 cases of cerebellar tumour, and 1 case in which there were no signs by which to localize the growth; the first case had a history of five and a half years' duration. The usual symptoms of headache and vomiting were first seen, followed soon by evidence of cerebellar growth, rapidly-increasing ataxia, cerebellar gait, and nystagmus. This condition lasted some months, then the patient commenced to improve. There had been no optic neuritis. He was now able to walk several miles a day.

Dr. A. W. Mackintosh suggested that the actual tumour was outside the cerebellum. The absence of optic neuritis, the implication of the facial nerves, and the total paralysis of the right side of the palate were in favour of this.

Dr. Lister mentioned 2 cases of old cerebellar growth, having histories of fifteen years and three years. They were in comparatively good health, but blind.

Lorenz's Operation for Dislocated Hip.

Dr. Rose showed a case of congenital dislocation of the right hip-joint successfully treated by Lorenz's method.

Removal of Head of Humerus.

Dr. Rose also showed a case of removal of 2½ in. of the head of the humerus, in which perfect movement resulted.

Tetanus after Bullet Wound.

Mr. J. Scott Riddell showed a case of tetanus after a bullet wound of foot. The tetanus had been treated with morphine and one injection of antitetanus serum. From the bullet the *Bacillus tetanus* had been cultivated, and a slide was shown.

Faecal Incontinence.

Mr. Riddell also showed a case of faecal incontinence from which the patient had suffered from birth. Hypodermics of strychnine into the sphincter, together with the internal administration of tonics and ergot, had brought about marked improvement.

Charcot's Disease of Knee-joint.

Mr. Marnoch showed a case of Charcot's disease of a knee-joint in a subject of locomotor ataxy.

LIVERPOOL MEDICAL INSTITUTION.

Frank T. Paul, F.R.C.S., President, in the Chair.

Thursday, January 18th, 1906.

A New Remedy for Diabetes.

Dr. J. Hill Abram read a note on the exhibition of secretin—the acid extract of duodenal mucous membrane—in cases of diabetes mellitus. Amongst other cases, Dr. Abram related one of well-developed diabetes in a young patient, who made an excellent recovery whilst taking secretin.

Professor Wm. Carter considered Dr. Abram's communication as full of encouraging possibilities in the treatment of a disease which, when occurring in patients as young as one of his, had always been regarded as fatal. He for one thanked him heartily for having unreservedly placed his method in their hands.

Dr. F. A. Pond related a case occurring in a young girl of 19. The patient was *in extremis* on the eighteenth day, but recovered completely under the exhibition of tr. digitalis and tr. nucis vomicae and the administration of sugar, by way of compensation for its loss.

Professor Moore, Dr. R. J. M. Buchanan, Dr. Stookes, Dr. E. T. Davies, Dr. Graham-Martin, and Dr. O. T. Williams also spoke.

The Haematology of Pregnancy and the Puerperal State.

Dr. J. C. M. Given read a paper on the Composition of the Blood in Pregnancy and the Puerperal State, based on the investigation of 12 cases in which the blood was examined before and after labour and at stated intervals during the lying-in period. A marked leucocytosis of the polymorphonuclear type occurred immediately after labour, and rapidly sank to normal by the end of the first week. A progressive increase in the number of the lymphocytes then occurred, until at the end of the second or third week they were more numerous than the polymorphonuclear cells. The influence of premature labour, stillbirth, albuminuria, etc., on the blood-count was noted.

The President expressed regret that time would not permit of any discussion.

Complications of Pneumonia and their Treatment.

Dr. Nathan Raw read a paper on the Complications of Pneumonia which he had met with in a total of 1,832 cases. He referred more especially to empyema, pericarditis, endocarditis, and the acute general infections produced by the pneumococcus, such as septicaemia, meningitis, arthritis, and peritonitis. Dr. Raw briefly referred to the treatment in each condition.

Professor Wm. Carter referred to two conditions in pneumonia not alluded to by Dr. Raw. One at the onset of the disease, where the engorgement was sometimes so general as to threaten life; the patient sat up, the right heart was over-distended, the pulse small, the face pale or livid, and the respiration laboured; in this condition bleeding was followed by speedy relief. The other was the violent delirium which sometimes suddenly followed the crisis; opium, which would possibly have killed the patient at an earlier stage, would then save his life. Thirdly, Dr. Carter thought that considering the intense coagulability of the exudate and the fact that it contained a large amount of calcium salts, preparations of this metal should not be administered at any stage of the disease.

Dr. J. Hill Abram said that in a healthy subject complications were less often seen than in almost any other infective disease. They were mainly due to previous damage, for example, pneumococcal endocarditis implanted upon old valvular trouble. Many complications, too, were due to secondary infections, as in a congenital heart case under his own care, where the infective trouble was proved to be streptococcal in nature. Dr. Abram had observed that the onset of pericarditis was often marked by orthopnoea. He was opposed to the use of the needle without preliminary exposure of the pericardial sac. The great difficulties of diagnosis had been pointed out by Trousseau. Dr. Abram could not agree that jaundice was often seen in right-sided cases; in the early stages jaundice was the result of toxaemia, and not serious, in the later stages it was often the expression of an infective cholangitis, and most deadly. He corroborated Dr. Carter's remark respecting delirium following the crisis, and recommended the use of opium combined with digitalis.

Dr. W. B. Warrington remarked that among the complications seen by him were: apical abscess of the lungs, the diagnosis being made by the persistent presence of elastic fibres in the sputum with diplococci and no tubercle bacilli; extensive and confluent haemorrhages under the skin, the autopsy revealing pneumonia only; gangrene of the lungs, and apparently primary pneumococcal meningitis. Dr. Warrington insisted on the importance of suspecting pyo-pericardium in cases of empyema in children which did not pursue a normal course, and alluded to the valuable papers of Dr. J. A. Coutts.

Dr. A. G. Gullan related two cases of pneumonia in which typical relapses occurred after twenty-four hours of normal temperature. These relapses both lasted about eight days, terminated by crises, and were accompanied by the physical signs of lobar pneumonia in another part of the lungs. Dr. Gullan also referred to the chronic pneumonia or permanent consolidation of the lobe affected, which occasionally followed acute lobar pneumonia, an example of which he had seen in a woman aged 54 years.

Dr. R. J. M. Buchanan, Dr. E. E. Glynn, Mr. Stockdale, Dr. E. T. Davies, Dr. J. Lloyd Roberts also took part in the discussion.

Chelsea Clinical Society.—At a meeting held on January 16th, Dr. J. Barry Ball, President, in the chair, Dr. Vincent Dickinson read a paper on *Periodic Vomiting* *with Acetonaemia in Children.* The onset of the disease, which had been described by a variety of names, was sudden and apparently causeless. It occurred in children of a nervous or arthritic diathesis, and continued at longer or shorter intervals, usually until puberty. There was no pain, the vomited material was of a watery character, and considerable in amount. It left but little after-effect, and health was established almost immediately the attack was over. There was always, at some period of the attack, an excessive quantity of acetone in the blood, usually discoverable in the urine. The origin of the disease was obscure. Some considered it to be a manifestation of the arthritic diathesis, others believed that it was due to a hyperacidity of the gastric juice, others ascribed it to the effect of the acetone in the blood, and others to a neurosis of a toxic origin; others thought that it was due to some functional hepatic defect, while Broca attributed it to a latent form of appendicitis. These various theories were fully discussed, the author considering that evidence, on the whole, was rather in favour of a neurotic origin. The prognosis was almost always favourable, but the treatment was at present in the experimental stage. Large doses of alkali had been tried with some success, also bromides and injections of morphine.

REVIEWS.

THE PATHOLOGY OF THE EYE.

WE are very glad to welcome Vol. ii of *The Pathology of the Eye*[1] which Mr. J. HERBERT PARSONS has now brought out. Its arrangement is similar to that of the previous volume, and the subjects dealt with in this part are the lens, vitreous, choroid, optic nerve, orbit, and lachrymal apparatus. In each subject the anatomy of the structure is first described, and then the pathological changes to which it is liable are given in detail, and the volume is profusely illustrated. The lens is a notoriously difficult structure to study, chiefly on account of the changes it undergoes when hardened for section cutting, but also owing to the difficulty in seeing with the microscope the changes that occur under pathological conditions. Some very good photographs are here given, and the development of the so-called secondary cataract is well illustrated. The different views that have been held as to the origin of lamellar cataract are given at length. The vitreous is not a structure in which pathological processes are very apt to occur, and the occurrence of parasites in it are rare in this country, yet they are frequently seen in other countries. The whole subject is dealt with fully and carefully. The information is well up to date, and all the recently-published cases are quoted. The diseases of the choroid, including as they do most of the important intraocular tumours, occupy a much larger space. Some excellent illustrations show the condition present in miliary and other forms of tubercle of the eye, while there is a short paragraph on the changes in the choroid met with in leprosy. A considerable amount of space is allotted to the occurrence of colloid bodies in the choroid. They are an extremely interesting development, and no one need look further than this chapter in order to find out all that is known regarding them. Ossification of the choroid is looked upon as the final stage of degeneration of the inflammatory deposits of plastic choroiditis; the bone which forms is always of the periosteal type, and is never developed from cartilage. Every possible variety of tumour of the choroid is mentioned, and the structure of most of the growths is illustrated by photomicrographs. Some particularly good ones show the structure and appearance of the metastatic carcinomata occasionally found in the choroid. The diseases of the retina of course occupy a considerable space. A very full account is given of wounds of the retina based on experimental work done by the author. Much attention is also devoted to the curious foldings which are sometimes found in the retina under certain conditions. Glioma of the retina is of course thoroughly described, colloid bodies are again discussed, and the other extremely rare primary tumours of the retina are mentioned. If clinical observers would examine sections of choroido-retinitis, or, if not, look at the very instructive illustrations in this book, they would have a much better grasp of the anatomical conditions which exist in this disease, and we should hear less of the futile discussion so often indulged in as to the actual structures involved in a patch of choroiditis seen ophthalmoscopically. The diseases of the optic nerve are chiefly inflammation and atrophy, and the primary intradural and extradural growths which are found here. A good description and photograph is given of the corpora amylacea which are occasionally found in the nerve. The orbit and lachrymal apparatus are dealt with in the last two chapters. The numerous tumours which have been found in the orbit give great scope for pathological observation, and they are here figured and described. The two volumes already published are of such extreme interest that we look forward with the greatest pleasure to reading those which are to follow. There is no book either in English or in any other language which can be compared with this. It is bound to be, for many years to come, the standard work on the pathology of the eye. It will be of the greatest use to all those who are working at ophthalmology; and the extensive references to the literature of the various subjects dealt with, representing an immense amount of work on the part of the author, will be welcomed by all those who have not the time or inclination to go through the laborious search which is usually necessary. When this involves, as so often happens, the reading of articles in unfamiliar languages, the assistance given by a book like this will be appreciated by all who have ever experienced the difficulties mentioned. It will be equally useful to ophthalmic surgeons in their daily practice.

CLEFT PALATE AND HARELIP.

WHEN Mr. ARBUTHNOT LANE writes on a subject, he places upon it the stamp of originality, and his essay on *Cleft Palate and Harelip*[2] is no exception. Note the sequence in the title—a sequence indicative of the order in which treatment is carried out, and quite in accord with modern teaching that the cleft in the palate be closed first, and the lip attended to at the same operation or later. The scope of the monograph is indicated in the preface:

> Many years have elapsed since I devised the operative procedure which I have employed in several hundreds of cases of cleft palate; I felt it might be of some general interest if I were to publish a *résumé* of various papers I have written.

The author's experience of this operation is very wide, and the explanation of his unique opportunities in this particular direction is found in the remark on page 44:

> As I tapped a perfectly new source, I was inundated with material, the mothers being delighted to have the deformity removed as early in life as possible.

"Early in life," and as early as possible after birth, is the time for staphylorrhaphy. This is Mr. Lane's contention, and on page 43 he gives cogent reasons in support of his practice. With most of them we are in accord, but the assertion that "the newly-born child is always healthy" is too sweeping. Some apparently healthy children at birth have a surprising way of showing traces of inherited disease two or three weeks later. But, apart from this point, we agree that Mr. Lane makes out a clear case for early and almost immediate operation.

Not content with supporting his proposition by clinical facts, the author devotes much of the book to an endeavour—and a very successful one—to place the "treatment on a thoroughly scientific basis." Before this can be done it is essential "to study in detail the factors that influence the growth of the naso-pharynx and of the mouth, and of the bones which surround these cavities." On the development of the naso-pharynx and on the freedom of the passage of air through it depends the success of operations on the palate and lip, so far as concerns perfection of speech. This is his thesis, and the words in the original are italicized—a custom of Mr. Lane's, and noticeable from the time when he commenced to write on surgical subjects. To some this method of drawing attention to the main point of the argument is pleasing, while others prefer to dispense with it. With the object of proving his point as to the development of the facial cavities the writer devotes the first fifteen pages to giving ample clinical and pathological data. On page 16 he gathers up his reins and drives straight on to the study of the mechanical influence which the passage of air through the naso-pharynx exerts upon its development and that of the bones of the face, and cites "superior protrusion," as known to dental surgeons, as an example of the effects of maldevelopment. Other facts, too, are given, but space does not permit us to go further into details.

---

[1] *The Pathology of the Eye.* By J. Herbert Parsons, B.S., D.Sc.Lond., F.R.C.S. Vol. ii—Histology. Part 2. London: Hodder and Stoughton. 1905. (Demy 8vo, pp. 392, 279 illustrations. 15s.)

[2] *Cleft Palate and Harelip.* By W. Arbuthnot Lane, M.S., F.R.C.S., Surgeon to Guy's Hospital and Senior Surgeon to the Hospital for Sick Children. London: The Medical Publishing Company. 1905. (Demy 4to, pp. 63. 51 illustrations.)

Mr. Lane represents the new school in this matter, while the writer in Treves's *System of Surgery* on the subject is a disciple of the old school, and naturally comes in for a fair amount of criticism.

The last eighteen pages describe in the fullest and most satisfactory manner exactly how the author carries out his operation, and many figures are given, so that the veriest neophyte has no difficulty in following each step. This fullness of detail and illustration is a great merit, since so many accounts of other forms of operation are hard to understand owing to the absence of drawings.

To sum up: apart from the facts that we think that what Mr. Lane has to say can be said in fewer words, and that we notice that theories and laws which he has put forth in other connexions appear in the text with an effort, we are of opinion that Mr. Lane has absolutely proved his contention, and rendered it quite clear, that early operation is the right course on every ground, developmental and otherwise; and, further, that delay in performing staphylorrhaphy until the third to the sixth year is fraught with most harmful results, and should not be permitted.

THEORIES OF HEREDITY.

FOR a time after the appearance of Darwin's *Origin of Species* practical biology almost ceased to exist, and biological philosophers took the field. Book after book upon speculative biology appeared, some valuable in opening up the subject of evolution, and many interesting; but speculative biology is no longer the fashion. Practicality has again become dominant, and heredity, variation, and their concomitants are research subjects.

Dr. ARCHDALL REID's book, *The Principles of Heredity*,[3] has therefore appeared at a bad time. It is the work of a theorist and a trained debater, and is not founded upon any practical research such as most biological essays at the present day claim as justification for their appearance.

The title of the book might lead one to expect a general review of our knowledge of heredity up to date, and in that respect the title is partly misleading. The earlier part of the book deals generally with the subject, but "A Theory of Heredity" would probably have been a more fitting title. Dr. Reid starts his preface by saying that there is a good deal that is new in the volume, yet there appears to be very few new facts. The main thesis seems to be the application of the principle of evolution by natural selection to civilization, the only new aspect of evolution being the part played by biparental reproduction. The argument is in many parts new, and Dr. Reid is an excellent advocate, but the facts upon which the arguments are based are, in the more general part of the book, mostly very old, by far the greater number of references being to Darwin's *Animals and Plants under Domestication*. This to some extent shows the small amount of work which has been done since Darwin's time upon the problem of heredity, but it would not be altogether fair to measure the progress of research by the references contained, because Dr. Reid has not always exhausted his subject. For instance, discontinuous variation or De Vries's mutation theory have not been discussed, and the line of work included under the name "Mendelism" is not considered of first importance in a book dealing with the principles of heredity. In biparental reproduction, when one of a pair of characters appears in the first generation to the exclusion of the other, and in the second generation the other character reappears, Dr. Reid refers to this latter character as being "dormant or latent" in the first generation, although the Mendelian terms "dominant" and "recessive" for such a pair of characters are well known. He does, indeed, refer to Mendelism in a note on p. 74, but his words clearly show that, as far as the main problem of heredity is concerned, the work of Mendel and his followers is, in his opinion, only of secondary importance.

Dr. Reid occasionally goes out of his way to show that some disproved ideas would not have affected his argument had they been true, as, for instance, when he discusses maternal impressions and telegony; and, on the other hand, he is often very dogmatic in his method of treatment.

The first chapter is upon theories of heredity, and we are given definitions of "inborn" and "acquired" characters. Dr. Reid is particularly careful to distinguish between these two classes of characters, but later himself falls into the mistake of confounding them. For instance, he considers that "an increased or decreased thickness or hairiness of the skin, a larger nose, a smaller mouth, a stronger heart, a weaker digestion, a broader foot, a narrower hand, a keener sight, a duller hearing, and so forth" are inborn characters (p. 6), although he quite recognizes that, from the point of view of heredity, the episode of birth is of no importance, since characters may be acquired *in utero* (p. 7). Again, we are told that it is impossible that the differences between members of a litter of pigs, kittens, or puppies can be due to the transmission of acquirements, "for in that case, since the sperms and ova were all under practically identical conditions, every suckling, kitten, or puppy would inherit (*sic*) nearly, if not quite, the same acquirements, and therefore would be all much alike" (p. 11). There is no known measure of the effect of environment upon organisms; and, seeing that no two bodies can occupy the same space, the several offspring *in utero* at least occupy different positions, and may well be subjected to differences of pressure, nourishment, etc.

We are here upon the verge of debateable ground. Dr. Reid apparently recognizes an inherent capacity for variation merely kept within bounds by natural selection, but it is possible to look upon evolution by natural selection from another point of view. We all recognize that change of environment causes, or tends to cause, variations to appear. This may be interpreted in two ways—either by saying that the inherent variability of the organism, released in certain directions from the eliminating process of natural selection, has freer play, or that the change of environment has interfered with the tendency of heredity which is always striving to make the offspring resemble the parent. Thus we can look upon variation as being due to the inability of heredity to compel the offspring to resemble its parent because of the interference of the environment. But it is also to be accounted for—according to Weismann and many others—by the competition between two heredities in biparental reproduction, that of the male ancestry with that of the female ancestry, the result being a compromise, so that neither the likeness to the male parent nor to the female parent is carried to the extreme. Upon this mixing of the heredities of two parents, *amphimixis*, Weismann believes that evolution chiefly depends for obtaining variations upon which natural selection can operate; but Dr. Reid holds a different view. He believes in the tendency of like to produce like, and that every stage in the parent is recapitulated in the offspring; this leads him to resuscitate what is now a rather out-of-date theory, that the development of the individual repeats the life-history of the race, the tendency nowadays being against seeing in the ontogeny any direct evidence as to phylogeny. He follows up this principle of recapitulation, which, as he says, is the crux of his theory, by describing biparental reproduction, not as the chief factor in producing progressive variation, but as the means by which progressive variation is controlled. He says: "Nothing in Nature is more certain than that the function of the biparental reproduction is to produce regressive variation; and nothing in science is more remarkable than that, in spite of plain, abundant, and conclusive evidence, it should so long have been regarded as the cause of progressive variations" (p. 75). Later on he says: "Biparental reproduction, indeed, is only another name for biparental selection. It is almost as important a factor in evolution as natural selection" (p. 85).

This will serve to show the chief novelty of Dr. Reid's amendment of the principle of evolution, and in it he appears to fall foul of much of the experimental heredity of the last few years.

---

[3] *The Principles of Heredity*. By G. Archdall Reid, M.B., F.R.S.E. London: Chapman and Hall. 1905. (Demy 8vo, pp. 359. 12s. 6d.)

When we come to the chapter upon "acquired immunity" we are on the outskirts of medicine, and Dr. Reid shows a grasp of the subject not quite so apparent in the earlier chapters. The rest of the book is excellent reading, and is well worked out, the main idea all through being to show the action of natural selection in connexion with man, his institutions, and his ailments. Our author points out, for instance, that the real solution of the drink problem must come from elimination, not of drink, but of the drunkard, and that the growing disproportion between the size of the child's head and the maternal pelvis is due to the preservation, among civilized races, of women who should be eliminated by natural selection. Narrow-hipped women and large-headed children have long been eliminated among savage races, and are consequently of rare occurrence, but the preservation of such women and children among civilized races is tending to make parturition become more and more difficult. These are not very hopeful conclusions, but it is no doubt time that they should be recognized.

As to the suggestion of the author that the main facts and conclusions of heredity should be taught, we venture to think there might be some difficulty in deciding what the main facts and conclusions are. Biologists are not at one upon the question of heredity, and the various sects, if we may so call them, have each sound reasons for holding their opinions. Heredity is rather a subject for the laboratory and the breeding pen than for the school and college.

THE PREVENTION OF VENEREAL DISEASE.

THE importance of prevention in the matter of venereal disease is well brought out in Professor ERIK PONTOPPIDAN's lectures to the students of the University of Copenhagen.[4] In dealing with such a subject before such an audience, the well-known Danish dermatologist has followed the example set by some of the German universities, as in Breslau, for instance, where addresses on these affections have for some years been delivered. It is an example which might with advantage be followed in this country. Ignorance of such matters has much to answer for. Apart from actual sexual questions, the fact that syphilis can be accidentally contracted cannot too often be insisted on. Were medical students informed of the possible dangers in this direction at the outset of their career, and the fact insisted on over and over again, cases of accidental infection among them might be reduced to a minimum. Again, the fact that gonorrhoea of the eye is a most serious complication is not sufficiently insisted on. All this ought to be fully explained to every medical student from the very first. Professor Pontoppidan's lectures were addressed to the students of all the faculties, and not to those of the medical faculty only. His great experience as late Surgeon-in-Chief to the Police Department of Copenhagen, and now as Chief Surgeon to the Western (Lock) Hospital of that city, enables him to speak with knowledge. He has dealt with his subject in a clear and common-sense way, and in such matters a plain, straightforward talk is more to the point than eloquent discourses composed of elaborate wrappings and no inside. "Where ignorance is bliss 'tis folly to be wise" is a dangerous principle to lean on. The terrible results of ignorance, especially among the young, are witnessed every day, yet the foolish old saw is constantly heard. No; knowledge is bliss, and it is folly to be ignorant, especially in the twentieth century. The lectures of the Danish professor are to be commended, although the translation leaves much to be desired in places. A number of facts of interest will be found in them relating to legislation. In Denmark a person knowingly communicating a venereal disease to another by sexual connexion can be imprisoned, and even punished by hard labour. This law only applies to extramarital circumstances. Moreover, every individual suffering from venereal disease has a right to be treated at the public expense, whether able to pay or not. This law obtains in the Scandinavian countries (Sweden and Norway) as well as in Denmark. It imposes on the patient the duty of being treated in a public institution or privately by a competent medical man, but this part of the law has in fact been inoperative.

NOTES ON BOOKS.

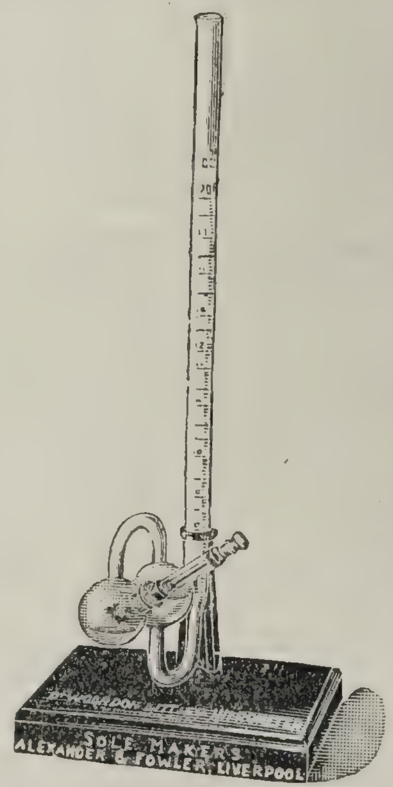
YEAR BOOKS.

As the *Englishwoman's Year Book and Directory*[1] for 1906 is the twenty-sixth issue, the editor, Miss Emily Janes, has some right to call it a hardy annual. It contains information with regard to most subjects interesting to women, from university education to cat-keeping, and from proof correcting to hockey. The information as to the medical profession appears to be sufficient to give a preliminary notion of the needs and perils of a medical student's career, and the classified list of medical women shows how large a proportion are resident in the Colonies or in the East. The annual is one which should be consulted by any young woman who is thinking about a way of earning her own living.

The *Writers' and Artists' Year Book*[2] for 1906 is intended as a directory for professional writers, artists, and photographers. It contains a list of periodicals, with, as a rule, some indication of the scope of the publication. There is a classified index intended to show the kind of contributions most likely to be accepted.

MEDICAL AND SURGICAL APPLIANCES.

A Nitrometer for Clinical Estimation of Urea.—The instrument here shown has been designed with a view to facilitate the estimation of urea for clinical purposes, by means of the hypobromide method. Its inventor, Dr. W. G. Little, Great Crosby, Liverpool, states that the novelty consists in measuring the nitrogen by means of a column of water which rises in a graduated tube, instead of measuring it by the volume of fluid displaced, as in other urometers. It takes very little time and trouble to make any observation with the instrument, and with a little practice it is quite easy with one ounce of fresh hypobromite to do several urines and to test the same urine several times in succession and take an average of the readings. In dealing with albuminous urines with this instrument the froth causes no trouble, even if a little passes over into the second bulb. There is therefore no delay in completing the observation by having to wait for the froth to clear away. Indeed, the permanence of froth becomes a very delicate test for albumen in the urine. Dr. Little has found this nitrometer especially useful not only in dealing with albuminous urines but also when a series of observations have to be made. It can be obtained from Messrs. Alexander and Fowler, surgical instrument makers, of Liverpool.



Axis Traction.—We have received from Dr. William Paulson of Loughborough, a traction handle, to be affixed to the fenestra of any ordinary forceps, so that the forceps is by it converted into an axis-traction forceps. A contrivance of this kind was the germ of Tarnier's invention; he started with an appliance of this kind, and then proceeded to make the attachment a permanent one. Dr. Paulson's invention may be useful to some who have ordinary forceps and care not to go to the expense of new axis-traction forceps. Messrs. Arnold and Sons, 31, West Smithfield, E.C., are the makers of the instrument.

CREMATION IN MASSACHUSETTS.—The Massachusetts Cremation Society reports that the number of cremations performed during 1905 was 225, as compared with 211 the previous year. Among the bodies cremated was that of Dr. James R. Chadwick, who was president of the Society.

---

[4] *What Venereal Diseases Mean and How to Prevent Them.* Five lectures given at the University of Copenhagen. By Professor Erik Pontoppidan. Translated from the Danish by W. Jessen. London: John Bale, Sons, and Danielsson. (Demy 8vo, pp. 79. 2s.)

[1] London: Adam and Charles Black. 2s. 6d.

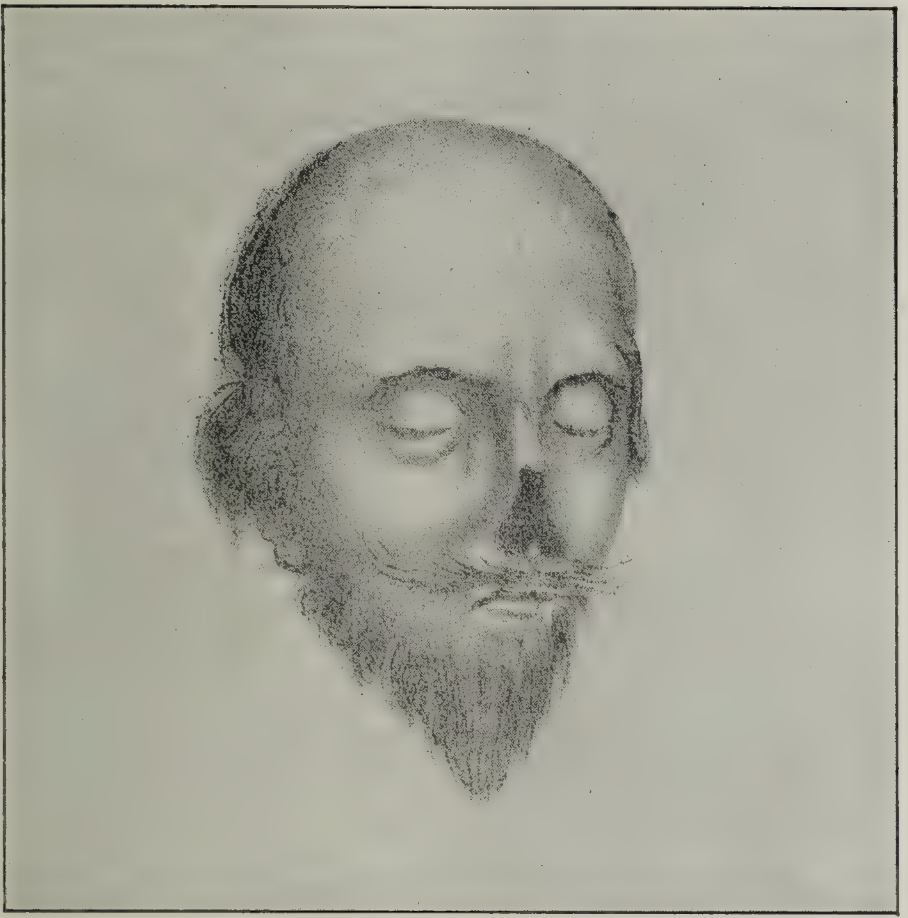
[2] London: Adam and Charles Black. 1s.

Nova et Vetera.

THE HEAD OF CHARLES I.

To the modern reader the mention of the head of Charles I. is perhaps more likely to recall poor Mr. Dick and his never-completed memorial than the dignified monarch to whom it belonged. That there are, however, some who are interested in the relic of the unfortunate king is shown by one or two inquiries which have been addressed to us in consequence of a reference made in the last issue of the BRITISH MEDICAL JOURNAL to the opening of his coffin in 1813. It has occurred to us, therefore, that a fuller account of that incident might be welcome to some of our readers.

The exact place of burial of the body of Charles I. in St. George's Chapel, Windsor, had been a problem to antiquarians. The account given by Clarendon in his *History of the Rebellion* and *Civil Wars in England*, was confused and contradicted that of the king's faithful attendant, Herbert, who had the body embalmed immediately after the execution, and took it to Windsor. There it was buried in a vault underneath the choir in which the bodies of Henry VIII and his third wife, Jane Seymour, were believed to be entombed. On completing a mausoleum which the Prince Regent, afterwards George IV, had built in the tomb-house in St. George's Chapel, it was found to be necessary to make a passage to it from under the choir. In the construction of this passage an opening was accidentally made in one of the walls of the vault of Henry VIII, and through that aperture the workmen saw not only the two coffins supposed to contain the remains of Henry and Jane Seymour, but a third covered with a black velvet pall. Information of this discovery was conveyed to the Prince Regent, who perceived that a doubtful point in history might be cleared up by opening up the vault. This was done on April 1st, 1813, the day after the funeral of the Duchess of Brunswick, in the presence of the Prince, the Duke of Cumberland, Count Münster, Sir Henry Halford, the Dean of Windsor, and Mr. B. C. Stevenson. Sir Henry Halford, in an account of the occurrence, which was certified by the Prince Regent as correct,* says that on removing the pall, a plain leaden coffin, with no appearance of ever having been enclosed in wood, and bearing the inscription, "King Charles, 1648," in large, legible characters, on a scroll of lead encircling it, immediately presented itself to the view. A square opening was made in the upper part of the lid sufficient to allow a clear view of the contents. These were an internal wooden coffin, very much decayed, and a body carefully wrapped up in cere-cloth, into the folds of which a quantity of unctuous or greasy matter, mixed with resin, as it seemed, had been melted, so as to exclude, as effectually as possible, the external air. The coffin was completely full; and from the tenacity of the cere-cloth, great difficulty was experienced in detaching it successfully from the parts which it enveloped. Wherever the unctuous matter had insinuated itself, the separation of the cere-cloth was easy; and when it came off, a correct impression of the features to which it had been applied was observed in the unctuous substances. At length the whole face was disengaged from its covering. The complexion of the skin was dark and discoloured. The forehead and temples had lost little or nothing of their muscular substance; the cartilage of the nose was gone; but the left eye, in the first moment of exposure, was open and full, though it vanished almost immediately; and the pointed beard, so characteristic of the period of the reign of King Charles, was perfect. The shape of the face was a long oval; many of the teeth remained; and the left ear, in consequence of the interposition of the unctuous matter between it and the cere-cloth, was found entire. It was difficult, says Halford, at that moment to withhold a declaration that, notwithstanding its disfigurement, the countenance did bear a strong resemblance to the coins, the busts, and especially to the pictures of King Charles I. by Vandyke, by which it had been made familiar to us. It is true, he admits, that the minds of the spectators were well prepared to receive this impression; but it is also certain that such a facility of belief had been occasioned by the simplicity and truth of Mr. Herbert's narrative, every part of which had been confirmed by the investigation, so far as it had advanced; and it will not be denied that the shape of the face, the forehead, an eye, and the beard are the most important features by which resemblance is determined. When the head had been entirely disengaged from the attachments which confined it, it was found to be loose, and, without any difficulty, was taken up and held to view. It was quite wet, and gave a greenish-red tinge to paper and to linen which touched it. Halford does not state that this liquid was blood, because he had not an opportunity of being sure that it was so, and he wished to record facts only, and not opinions. He believes it, however, to have been blood, in which the head rested. It gave to writing paper, and to a white handkerchief, such a colour as blood which has been kept for a length of time generally leaves behind it. Nobody present had a doubt of its being blood. As the King was embalmed immediately after decapitation Halford considered it probable that the large blood vessels continued to empty themselves for some time afterwards. He was aware that some of the softer parts of the human body, and particularly the brain, underwent, in the course of time, decomposition, and would melt. "A liquid, therefore, might be found after long interment, where solids only had been buried; but the weight of the head, in this instance, gave no suspicion that the brain had lost its substance; and no moisture appeared in any other part of the coffin, as far as we could see, excepting at the back part of the head and neck." The back part of the scalp was entirely perfect, and had a remarkably fresh appearance; the pores of the skin being more distinct, as they usually are when soaked in moisture, and the tendons and ligaments of the neck were of considerable substance and firmness. The hair was thick at the back part of the head, and, in appearance, nearly black. A portion of it, when it was cleaned and dried later, was of a beautiful dark brown colour. On the back part of the head it was more than an inch in length, and had probably been cut so short for the convenience of the executioner, or perhaps by the piety of friends soon after death, in order to furnish memorials of the unhappy king.



---

* It may be found in Sir Henry Halford's *Essays and Orations*, published in 1831.

On holding up the head to examine the place of separation from the body, it was evident that the muscles of the neck had retracted themselves considerably; and the fourth cervical vertebra was found to be cut through its substance transversely, leaving the surfaces of the divided portions perfectly smooth and even, an appearance which could have been produced only by a heavy blow, inflicted with a very sharp instrument, and which furnished the last proof wanting to identify King Charles the First. After this examination of the head, which served every purpose in view and without any examination being made of the body below the neck, it was immediately restored to its situation, the coffin was soldered up again, and the vault closed. The drawing here reproduced is said by Halford to be a faithful representation of the countenance of the king as seen by himself and the others present at the opening of his coffin.

There was no inscription on either of the other coffins. The larger one, which was believed to contain the body of Henry VIII, measured 6 ft. 10 in. in length, and had been enclosed in one made of elm 2 in. in thickness; this was decayed and lay in small fragments near. The leaden coffin appeared to have been beaten in with violence about the middle. In that part there was a considerable opening through which could be seen a skeleton; some beard remained on the chin, but there was nothing by which the person to whom the bones had belonged could be identified. The smaller coffin, supposed to contain the body of Jane Seymour, was not opened.

A very small mahogany coffin covered with crimson velvet, containing the body of an infant, had been laid on the pall covering King Charles's coffin. This, says Halford, is known to have been a stillborn child of the Princess George of Denmark, afterwards Queen Anne.

THE MEDICAL PROFESSION IN 1906.

Churchill's *Medical Directory* for 1906 contains the usual table showing the number and distribution of the medical practitioners whose names appear therein. The following table, compiled from previous issues of the *Directory*, shows for the last five years the gradual increase under the several lists. The years in the table are the dates of the several issues of the *Directory*, but the statistics, of course, show the numbers at some time in the autumn of the previous year:

	1902.	1903.	1904.	1905.	1906.
London	6,292	6.309	6,328	6,397	6,438
England (including London)	22.524	22,731	22,881	23,115	23,414
Wales	1,183	1,186	1,207	1,236	1,217
England and Wales	23,707	23,917	24,088	24,351	24,631
Scotland	3.645	3,680	3,696	3,733	3,785
Ireland	2,587	2,641	2,629	2,632	2,654
United Kingdom...	29,939	30,238	30,413	30,716	31,070
United Kingdom and Abroad	33,891	34,355	34,705	35,164	35,736
Total (including Navy, Army and Indian Services) ...	36,788	37,291	37,730	38,361	38,921

The population of England and Wales as ascertained by the census taken in April, 1901, was 32,527,843, the estimated population in the middle of 1905 was 34,152,977. This is an increase of a little over 5 per cent. The increase in the numbers of the medical profession in the same period was 924, equivalent to an increase of a little under 4 per cent.

The figures so far as they can be relied upon appear to indicate that the rate of increase in London, 2.3 per cent., has been considerably slower than in the rest of England, 4.6 per cent., and slightly lower also than in Wales, 3 per cent. (nearly).

The number of names on the *Medical Register* in 1904 was 38,492, as compared with 38,361 in the *Medical Directory* for 1905, which contains names reported in 1904. The agreement is sufficiently close to make it probable that we may draw deductions from the *Directory* as to the numbers of registered medical men and women engaged in ordinary practice in the United Kingdom, abroad, and in the Navy, Army and Indian Services in 1904. It appears, then, that no less than 11.5 per cent. of registered medical practitioners reside abroad, and that the officers of the three public services mentioned constituted 8 per cent. of the total.

BRITISH MEDICAL BENEVOLENT FUND.

The monthly meeting of the Committee was held at 84, Brook Street on January 16th. Eight cases were relieved, and £94 voted for the purpose. The widows of two medical men were elected to annuities of £20 each. Mr. J. Tubb-Thomas, of Trowbridge, was appointed an Honorary Local Secretary.

The following is a short abstract of the cases relieved:

Abstract of Cases Relieved at the January Meeting.

1. Widow, aged 60, of L.F.P.S.Glasg., who practised in Liverpool. No income; children unable to help; has endeavoured to support herself by nursing, but is now unable to get work on account of her age. Recommended by Dr. Arkle. Voted £12, in twelve instalments.

2. L.S.A., aged 60, who practises in London. Practice, once a very fair one, has gradually decreased owing to degeneration of neighbourhood, increase of competition, and applicant's ill health. Earnings now insufficient to pay for food and coals, and small capital quite exhausted. Four children, aged 16 to 10. Voted £18, in twelve instalments. Recommended by Mr. L. A. de Gébert.

3. Widow, aged 50, of M.B.Glasg., M.R.C.S.Edin., who practised in Cheshire. Since husband's death, twenty years ago, has supported herself by a small drapery business, but is now in difficulties owing to long illness of her youngest daughter. Recommended by Dr. William Carter. Voted £10, in two instalments.

4. Daughter, aged 68, of M.R.C.S., L.S.A., who practised in Hampshire, having been a coroner and a Justice of the Peace. Income £20 a year. Partially incapacitated by rheumatoid arthritis. Recommended by Mr. E. Eastes. Voted £12, in twelve instalments.

5. Daughters, aged 57 and 54, of M.R.C.S., L.S.A., who practised in Gloucestershire, were comfortably provided for, but lost their capital by lending it without proper security to a friend who died penniless. Only income is £10 a year each from a friend. Recommended by Dr. William Carter. Voted £12 in twelve instalments.

6. Daughter, age 69, of L.S.A., who practised in Durham. Only income £25 a year from a charity. Recommended by Dr. William Frew. Voted £6, in twelve instalments.

7. Daughter, aged 60, of M.R.C.S., L.S.A., who practised in Cornwall. No income. Rent of rooms paid by a friend. Unable to obtain work on account of age and deafness. Recommended by Dr. Paleman Best. Voted £12, in twelve instalments.

8. Daughter, aged 63, of M.R.C.S., who practised in Herefordshire. Has maintained herself for many years as companion, governess, etc., but is now unable to obtain permanent post. Recommended by Dr. R. G. P. Lansdown. Voted £12, in twelve instalments.

The Medical Profession in Austria.—The most recent official statistics show that at the beginning of the present year the total number of medical practitioners in Austria, not including Hungary, was 11,764, being just one less than in 1904. Of the whole number, 3,572 practise in Lower and 403 in Upper Austria, 138 in the province of Salzburg, 702 in Styria, 150 in Carinthia, 109 in Carniola, 369 in the Coast Province, 612 in Tyrol and Vorarlberg, 2,744 in Bohemia, 944 in Moravia, 246 in Silesia, 1,491 in Galicia, 154 in Bukowina, 142 in Dalmatia, 117 in Bosnia and Herzegovina. The numbers in the large towns are as follows: Vienna, 2,813; Linz, 69; Salzburg, 47; Graz, 275; Klagenfurth, 39; Laibach, 44; Trieste, 190; Innsbruck, 99; Prague, 367; Brunn, 168; Troppau, 46; Lemberg, 346; Czernowitz, 67; Zara, 22.

Personnel of the Japanese Red Cross Society.—The *personnel* employed by the Japanese Red Cross Society was, according to the *Sei-I-Kwai Medical Journal*, as follows: Directors, 5; chief surgeons, 6; surgeons, 347; pharmaceutists, 168; clerks, 191; assistant pharmaceutists, 6; chief female nurses, 239; chief male nurses, 110; chief stretcher-bearers, 3; female nurses, 2,026; male nurses, 643; stretcher-bearers, 144; temporarily-employed chief female nurses, 9; temporarily-employed chief male nurses, 2; temporarily-employed female nurses, 607; temporarily-employed male nurses, 472; making up 4,978 persons in all. Up to the end of September the Society had expended 516,000 yen. It has exhausted the greater part of its fund, and it still has to pay 10.000 yen for services rendered during the war.

THE NEW SCHOOL OF CLINICAL MEDICINE.

THE SEAMEN'S HOSPITAL, GREENWICH.

THE official announcement that Their Majesties the King and Queen will be present at the launching of H.M.S. *Dreadnought* at Portsmouth on Saturday, February 10th, will doubtless recall to many interested in the "mariners of England who guard our native seas" the memory of an older *Dreadnought* which has made the name dear to sailors throughout the world, and to all who have at heart the welfare of the brave men who go down to the sea in ships. There is something that quickens the British heart with a sympathetic thrill in the very sound of the name *Dreadnought*, in which there lingers an echo of old battles and the perils of the great deep faced by the "hearts of oak" who made the might of England felt in farthest seas. The old ship, when its fighting days were over, long served a peaceful but not less noble purpose in harbouring sick sailors without distinction of flag or race or colour. By a coincidence which is of good augury for the future, the hospital which for the last quarter of a century has taken the place while retaining the name of the old warship, has just been, so to speak, launched on a new and larger sea of humanitarian enterprise. As has been stated in the BRITISH MEDICAL JOURNAL, the Seamen's Hospital Society has taken steps to make its large and varied clinical resources available for the benefit of practitioners who wish to keep themselves abreast of the advance of the healing art in all its branches.

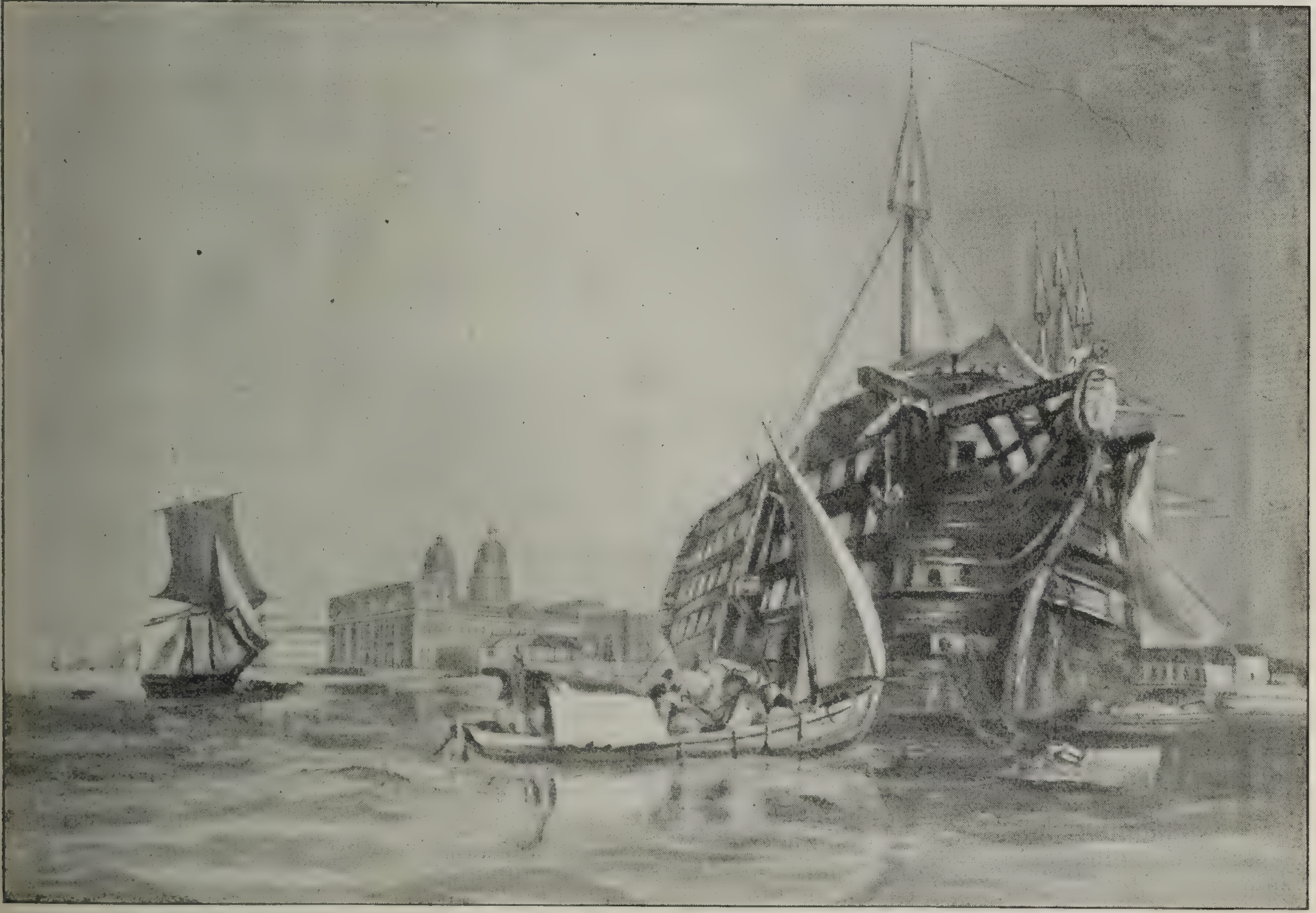


Fig. 1.—The old *Dreadnought*. From an old lithograph which hangs in the Board Room at Greenwich.

Some idea has been given in previous articles in the JOURNAL of November 11th, December 2nd, and December 16th, 1905, of the character and scope of the London School of Clinical Medicine. In view of the importance of the new development which, thanks to the spirit of enlightened philanthropy characteristic of the Seamen's Hospital Society, the *Dreadnought* is about to undergo, we think it well to place before our readers a fuller account both of the hospital and the newly-founded school than has yet been given.

THE OLD "DREADNOUGHT."

The Seamen's Hospital Society was evolved from a committee appointed to manage a fund raised in the winter of 1817-1818 for the temporary relief of distressed sailors, large numbers of whom were at that time wandering homeless about the streets of London. On the initiative of that Committee a public meeting was held at the City of London Tavern on March 8th, 1821, when it was decided that a permanent floating hospital for sick sailors should be established on the Thames. This institution was to be supported by voluntary subscriptions under the management of a committee. The hospital first had its local habitation on board the *Grampus*, a 50-gun ship, moored off Greenwich. It was soon found that the accommodation on that ship was quite inadequate to meet the demands for admission. Accordingly in 1830 the Government exchanged the *Grampus* for the *Dreadnought*, a 104-gun ship, which had captured a Spanish three-decker in Trafalgar Bay. The Society had it fitted up as a hospital in 1831. In 1857 the old ship, which was crumbling to decay and unwholesome from long saturation with the products of disease, was replaced by H.M.S. *Caledonia* (120 guns), the name of which was changed to *Dreadnought*.

THE MOVE ASHORE.

In 1833 the Committee, having received a bequest of nearly £60,000 from the late Mr. John Lyddeker, obtained an Act of Incorporation empowering them either to continue their establishment afloat or to build a hospital on shore. The necessity of moving the hospital to land had forced itself on the Society long before the move was actually made. Each ship in succession was moored in the most central and convenient station that could be found in the river off Greenwich. During the last years of the *Dreadnought's* existence as a hospital, the banks of the river on both sides were more and more invaded by iron-shipbuilding yards, and the constant noise of these establishments, jarring nerves and preventing sleep, was a serious hindrance to the recovery of the patients. Efforts were at various times made to find a place of mooring not open to these objections, but the crowded state of the river, the want of depth of the water, and the necessity of keeping the hospital in close touch with the shipping and the docks, presented difficulties which could not be overcome. The want of light was a further serious disadvantage; moreover, the difficulty of access was very troublesome to out-patients, and made it hard to get good nurses. In addition to these drawbacks, there was the radical objection, which the progress of hygiene tended more and more to emphasize, that a wooden structure with numerous irregular corners and dark places was unfitted for the purposes of a hospital. Picturesque and appropriate, therefore, as was the use of a floating ship as a hospital for sailors, there were so many practical hindrances to its comfort and efficiency that the Seamen's Hospital Society were driven to the conclusion that in the interests of the patients under their care it was necessary to move the hospital ashore. Of course, there were many who mourned the disappearance of the famous old ship, once so familiar a sight on the Thames; but however the change may have been regretted from a sentimental point of view, it was felt that it was high time that the patients should be transferred to more wholesome surroundings.

THE NEW HOSPITAL.

Soon after the decision was taken to move the hospital ashore, the Royal Hospital at Greenwich ceased to fulfil its original purpose as a home for naval pensioners. The Society took advantage of this opportunity to ask the Government to assign a part of that vast edifice for the use of the mercantile marine, which had long been compelled to contribute towards the support of the Greenwich Hospital without receiving any equivalent benefit. The Admiralty took four years to make up its mind on the matter, but at last, in 1870, it granted to the Society a lease of the infirmary, and adjoining Somerset Ward of Greenwich Hospital, at a nominal rent in lieu of the loan of the ship. The building, which is separate from the main edifice of Greenwich Hospital, was constructed, and had always been used for, work of the same kind as that carried on by the Society. On April 13th, 1870, the inmates of the *Dreadnought* were brought ashore to their new home.

The change from the cramped, dark quarters on board the old ship was great. In the ship there were but three wards, each containing from sixty to seventy beds. In the hospital there are eighty-eight wards, with an average number of three beds in each. In these small wards the patients enjoy quiet and comparative privacy. Moreover, the small wards, in the event of the occurrence of contagious diseases, can be disinfected, and kept empty for a sufficient time without interfering with the working of the hospital. The hospital has accommodation for 250 patients. It is a large quadrangular building, the east and west wings of which, two stories in height, are tenanted by patients. Down the centre of both floors in each wing runs a corridor, out of which open the wards on both sides. In the centre of the quadrangle are the kitchen and bath-rooms, so that in regard to administration each wing in case of need might form a perfectly distinct hospital. The out-patient department is conducted in the west wing, but plans are under consideration for a new block to be wholly devoted to out-patient work. On the south side the house recently occupied by Mr. Johnson Smith has been remodelled for the purposes of the school; it contains two laboratories, a pathological museum, a lecture room, and a library.

A PLACE OF HEALING AND A HOME.

Sailors, being proverbially careless of the future, and at the same time more exposed than most men to the slings and arrows of outrageous fortune, are generally unprepared for the contingencies of accident or illness. For this reason the Seamen's Hospital, unlike most others, keeps its patients until they have passed through the stage of convalescence and have regained health and strength to a degree enabling them again to work for their living. The hospital is thus for them a home as well as a place of healing. Nor does the charity of the Society end with the restoration of the sailor to the activity of the workaday world. He is also helped to find employment.

AN ERRONEOUS IMPRESSION.

We have dwelt on these distinctive features of the Seamen's Hospital in some detail because it is, we imagine, comparatively little known to the profession. And notwithstanding the splendid work which it is doing, it is in some danger of being forgotten by the public. Since the removal of the patients from the old *Dreadnought* there has been a great falling off in the amount of money bequeathed to the hospital. This diminution in what used to be an important source of revenue is believed to be the result of a notion which has somehow become impressed on the public mind that the Hospital is now solely, or in large part, supported by Government. The fact is, that no money whatever is received from the Government in the way of actual income, and the *Dreadnought*, the oldest harbour of refuge for sick sailors of all nations and all creeds in the world, depends mainly for its

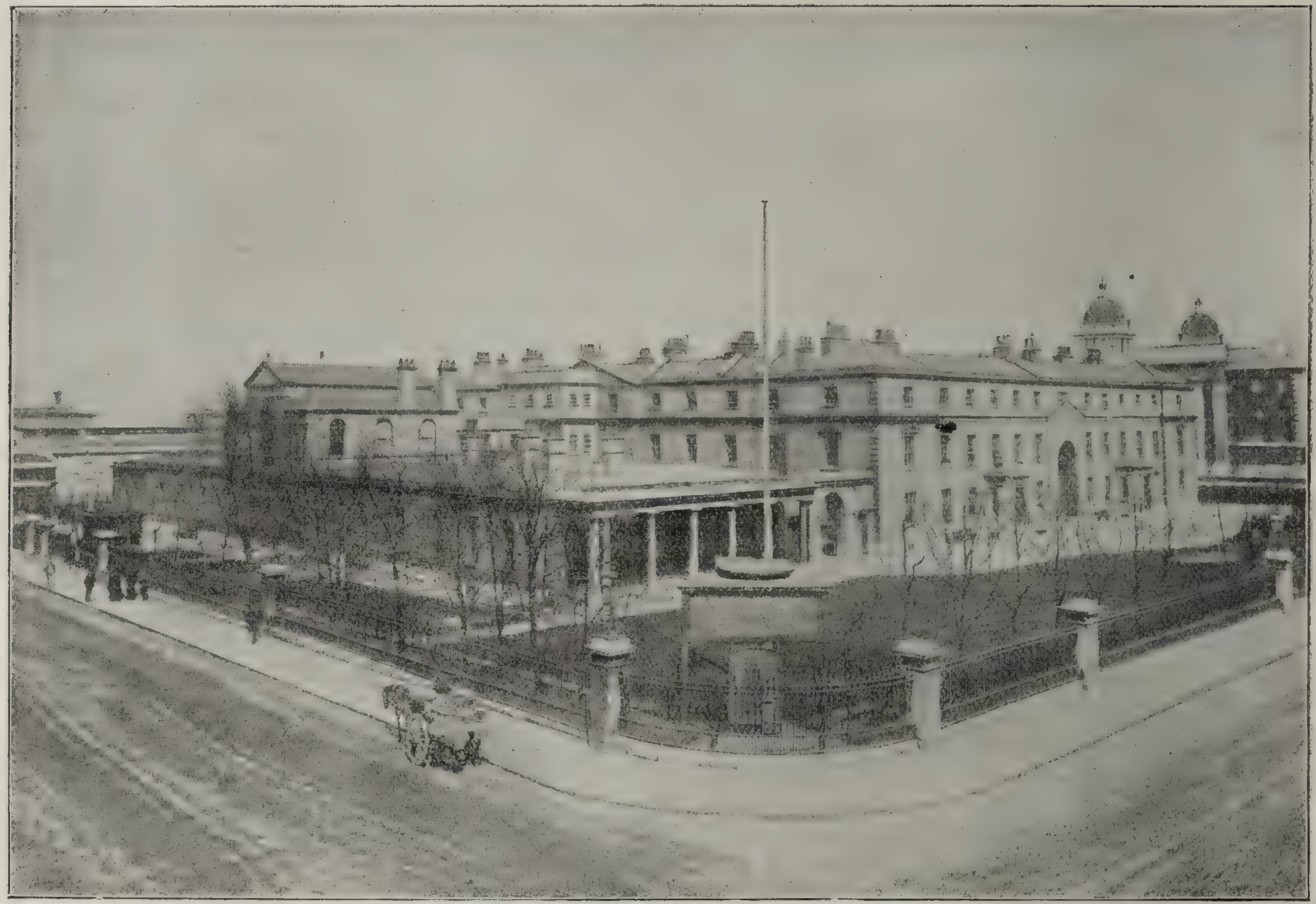


Fig. 2.—The Seamen's Hospital, Greenwich.

maintenance on the voluntary contributions of the charitable.

EXPANSION OF THE HOSPITAL.

During the quarter of a century that has elapsed since it came ashore in 1870, the hospital and its work have developed in various directions. In 1880 a dispensary was opened in the neighbourhood of the London Docks, which in 1891, as the shipping was moved further down the river, was transferred to the East India Dock Road. In 1890 a branch hospital was built between the Royal Victoria and Albert Docks. It originally contained 12 beds with a small out-patient department, but this accommodation was soon proved insufficient, and it was found necessary to increase the number of beds to 50, and to enlarge the out-patient department. In 1887 a dispensary was established at Gravesend, and cases requiring indoor treatment were drafted from this and from the East India Dock Road Dispensary to the wards of the Seamen's Hospital or the Branch Hospital at the Royal Albert Dock. During 1904 the total number of patients treated at the *Dreadnought* itself, at the Branch Hospital, and at the two dispensaries, was 26,052, which, according to the eighty-fourth annual report, may be taken as about the average. At the Greenwich Hospital alone, the number of in-patients during the year was 1,739, and of new out-patients 9,104. At the Branch Hospital at the Royal Victoria and Albert Docks, 560 in-patients and 10,860 new out-patients were treated. The new patients at the East India Dock Road Dispensary numbered 2,979, and at the Gravesend Dispensary there were 810.

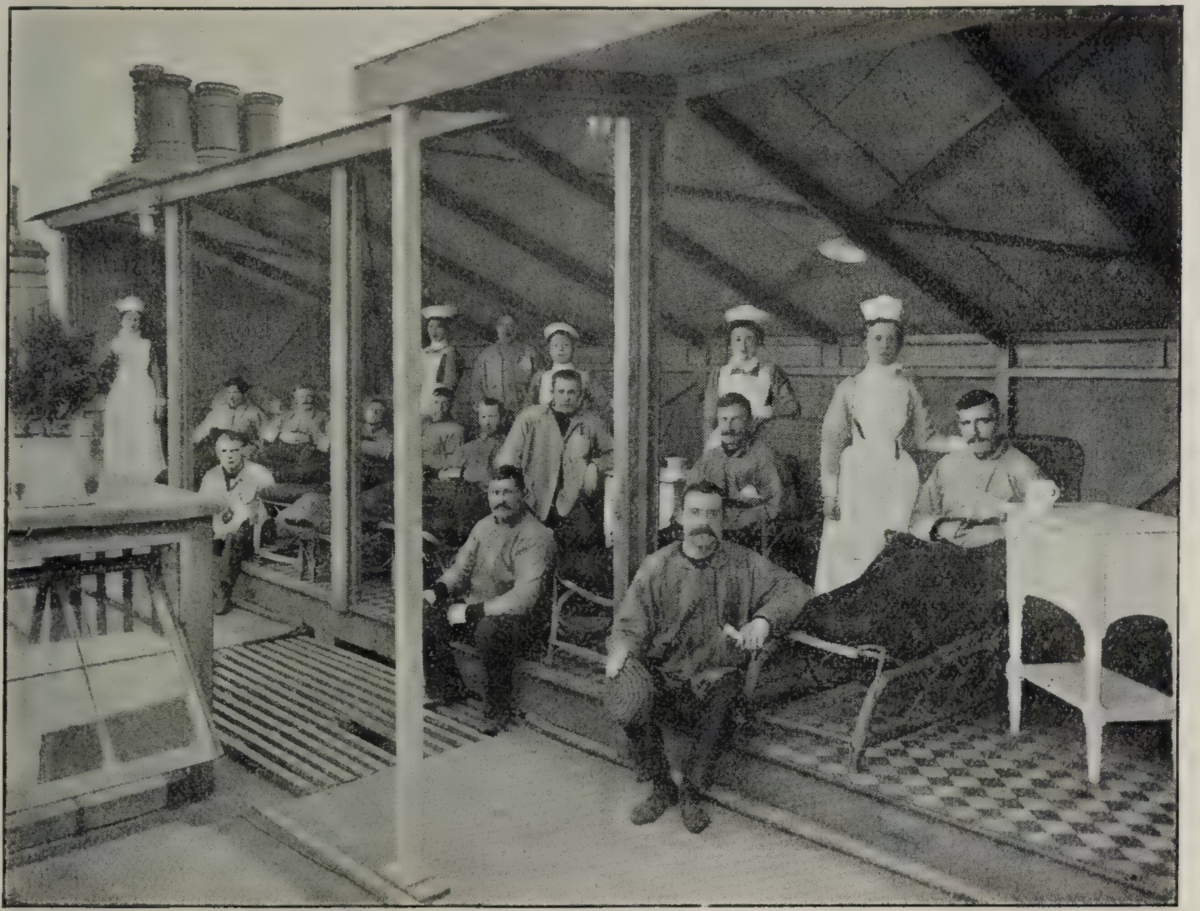


Fig. 3.—The Open-Air Treatment at the Dreadnought Hospital.

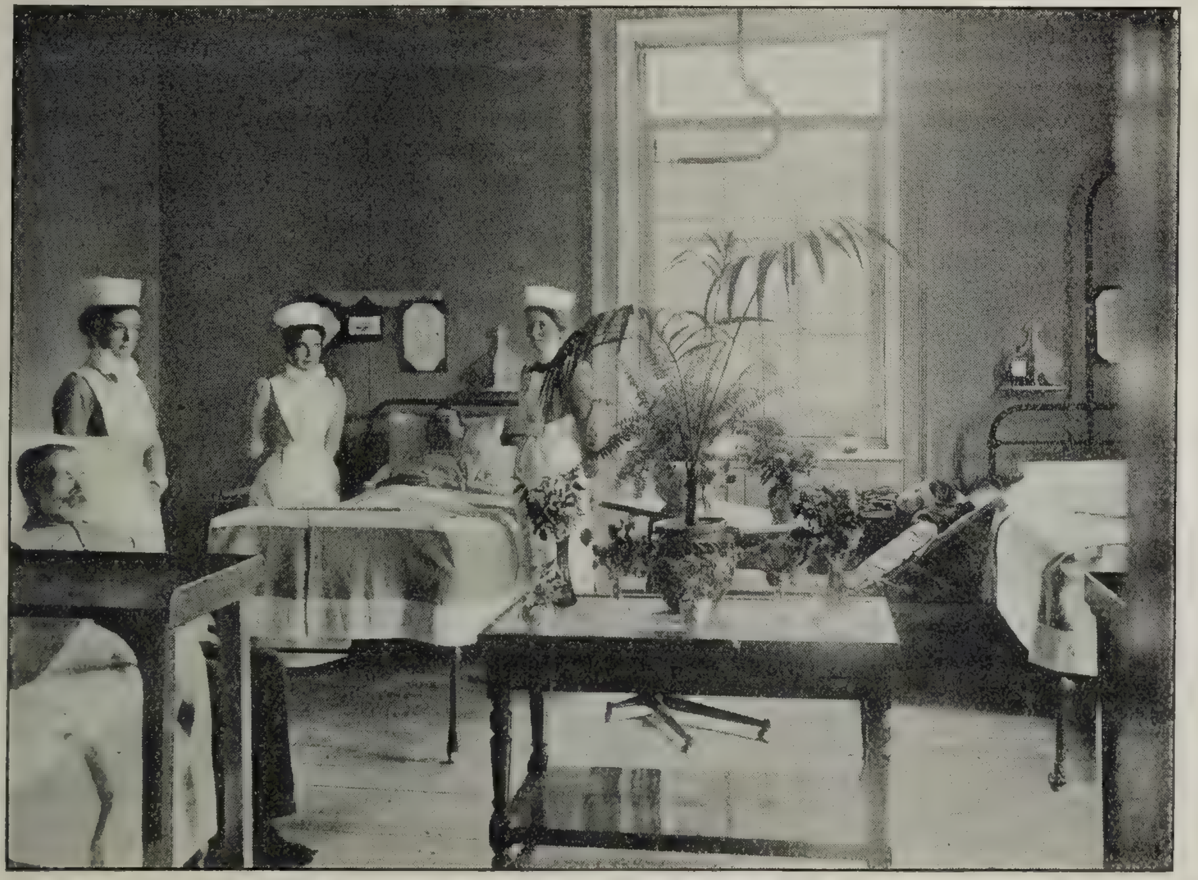


Fig. 4.—A Ward in the Dreadnought Hospital.

Of another development of the Society's work, the London School of Tropical Medicine, founded on the initiative of Mr. Chamberlain, and opened to students on October 1st, 1899, mention has on several occasions been made in the BRITISH MEDICAL JOURNAL. Nothing more need be said here than that it continues to fulfil the purpose of its establishment with conspicuous success.

LONDON SCHOOL OF CLINICAL MEDICINE.

It has already been stated that an expansion of the Seamen's Hospital in an entirely new direction has recently been accomplished. The establishment of a post-graduate school in connexion with the *Dreadnought* marks the dawn of a new era in the history of the institution. The school was founded in response to the ever-increasing demand for post-graduate teaching in London. Although the function of supplying such teaching is well discharged by the London Post-graduate Association, the Polyclinic, the West London Post-graduate College, and the North-East London Post-graduate College connected with the Tottenham Hospital, it was felt to be a pity that the large opportunities for clinical study offered by a hospital containing such an abundance and variety of cases of exceptional interest should be lost to medical education. Another consideration which had weight with the Seamen's Hospital Society was the fact, proved by universal experience, that the usefulness of a hospital in regard to the successful treatment of patients is vastly increased when the work is done under the eyes of critical observers. The presence of ordinary students is found to be a check against inefficiency and negligence, and quickens the energies of the medical and surgical staff to the highest pitch. Obviously the presence of qualified medical practitioners must be a still more powerful incentive. Moreover, the accommodation was often inadequate to the demands made upon the hospital by the class of sufferers whom the Society exists to relieve, and it was recognized that the establishment of a clinical school would necessitate an increase in the number of beds and a development of the out-patient department, and afford an opportunity for a general reorganization of the institution. It may be mentioned that before the Seamen's

Hospital Society came to a definitive decision the opinion of the medical profession as represented by many of its leading members was asked for, and was found to be favourable to the scheme. Several of the foremost men in the various provinces of practice gave a practical proof of their approval by consenting to take an active part in carrying it into effect.

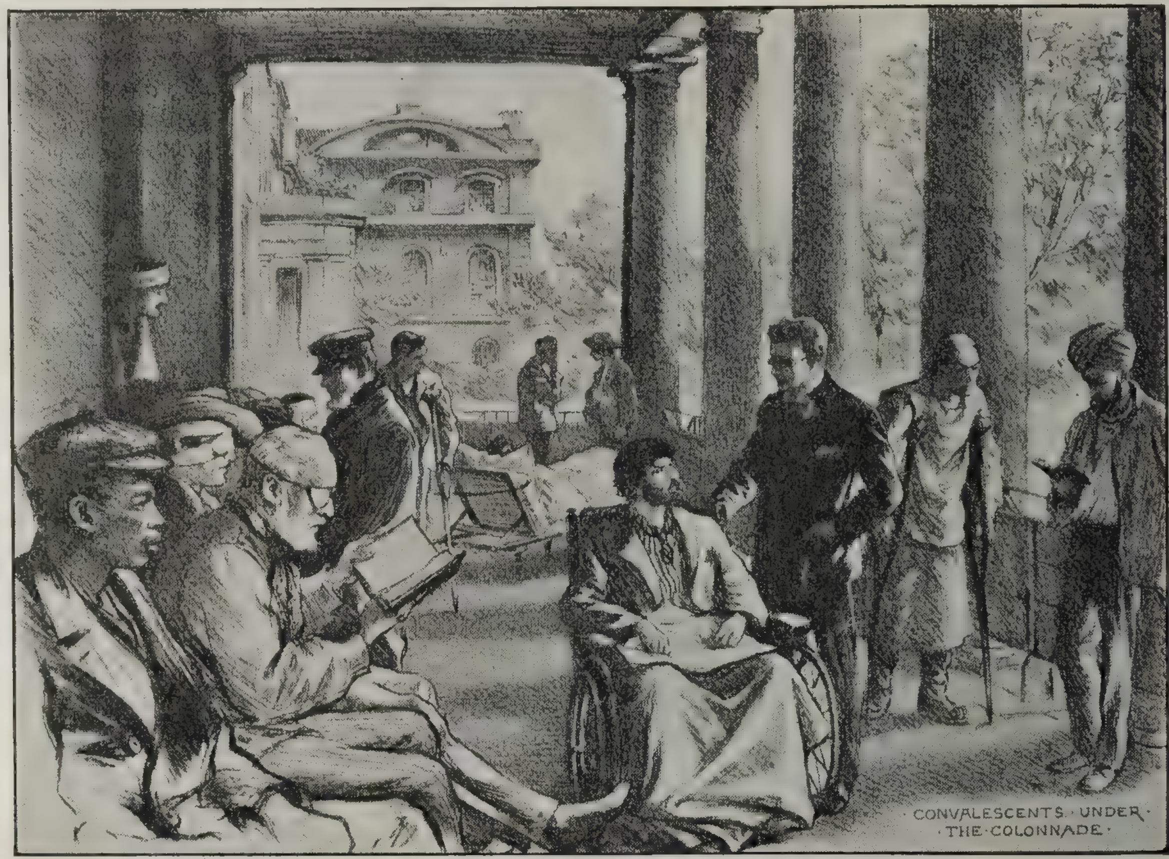


Fig. 5.—Colonnade.

The Staff.

The following list shows the constitution of the staff: *Physicians:* Sir Dyce Duckworth, M.D. LL.D., F.R.C.P.; Fredk. Taylor, M.D., F.R.C.P.; J. Rose Bradford, M.D., F.R.C.P., F.R.S.; R. Tanner Hewlett, M.D., M.R.C.P.; Guthrie Rankin, M.D., M.R.C.P. *Surgeons:* Sir William H. Bennett, K.C.V.O., F.R.C.S.; A. W. Mayo Robson, D.Sc., F.R.C.S.; Albert Carless, M.B., M.S., F.R.C.S.; William Turner, M.B., M.S., F.R.C.S.; Lawrie H. McGavin, F.R.C.S. *Ophthalmic Surgeon:* L. Vernon Cargill, F.R.C.S. *Surgeon for Diseases of the Skin:* Malcolm Morris, F.R.C.S. Edin. *Physician for Diseases of the Throat, Nose, and Ear:* StClair Thomson, M.D., F.R.C.P., F.R.C.S. *Physician in Charge of the Electrical Department:* James Mackenzie Davidson, M.B., C.M. *Dental Surgeon:* Kenneth W. Goadby, M.R.C.S., L.D.S. *Assistant Physicians:* S. Russell Wells, M.D., M.R.C.P.; A. Ernest Jones, M.D., M.R.C.P. *Assistant Surgeons:* Harold Burrows, M.B., B.S., F.R.C.S.; E. Rock Carling, M.B., B.S., F.R.C.S. *Assistant Ophthalmic Surg.:* Stephen Mayou, F.R.C.S. *Assistant Surgeon for Diseases of the Skin:* Wilfrid S. Fox, M.A., M.D., M.R.C.P. *Assistant Surgeon for Diseases of the Throat, Nose, and Ear:* S. A. Lawrence, F.R.C.S.

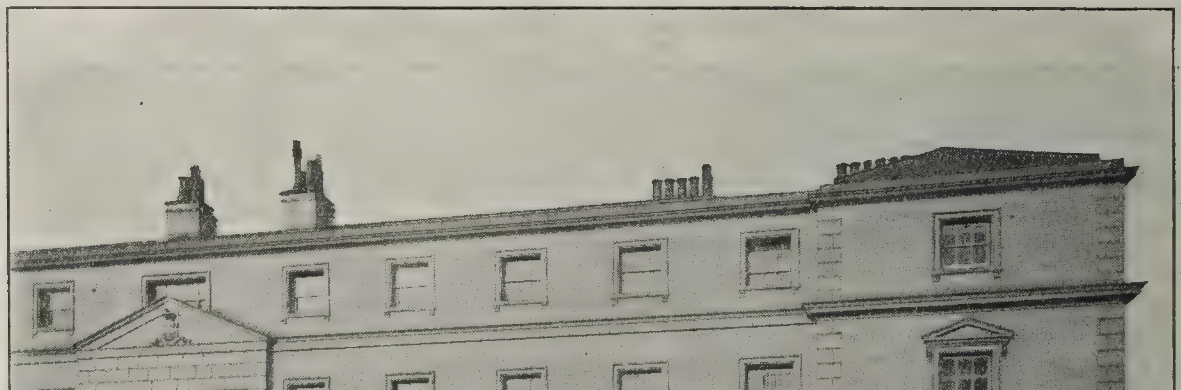


Fig. 6.—The School Building.

Extramural Lecturers.

Systematic teaching is given by the following extramural lecturers:—Diseases of the Nervous System: James Taylor, M.D., F.R.C.P. Mental Diseases: W. H. B. Stoddart, M.D., M.R.C.P. Hygiene and Public Health: W. J. R. Simpson, M.D., F.R.C.P., D.P.H. Applied Anatomy: James Cantlie, M.B., F.R.C.S. Gynaecology: William J. Gow, M.D., F.R.C.P.; Herbert Williamson, M.A., M.B., M.R.C.P. Surgical Diseases of Women; John Russell Howard, M.B., M.S., F.R.C.S. Medical Diseases of Women: Alexander Haig, M.A., M.D., F.R.C.P.; Robert O. Moon, M.D., M.R.C.P. Medical Diseases of Children: Charles O. Hawthorne, M.D., M.R.C.P; Thomas D. Lister, M.D., F.R.C.S., M.R.C.P. Surgical Diseases of Children: Herbert S. Pendlebury, M.A., M.B., F.R.C.S. Midwifery: Wm. Radford Dakin, M.D., F.R.C.P.; Robert Boxall, M.D., M.R.C.P. Operative Surgery (additional): W. Johnson Smith, F.R.C.S. A lecturer on anaesthetics has still to be appointed.

Affiliation of Special Hospitals.

In addition to the Seamen's Hospital, several special hospitals have become affiliated to the School for teaching purposes. These are the General Lying-in Hospital, York Road, for midwifery; the Royal Waterloo Hospital for Diseases of Children and Women, and the Bethlem Royal Hospital, for mental diseases. The large opportunities for observation and practical study offered by these institutions make the teaching equipment of the London School of Clinical Medicine unusually complete. Although the London School of Tropical Medicine is a distinct institution, students at the School of Clinical Medicine can avail themselves at a reduced fee of the educational advantages which it offers.

Courses of Instruction.

There will be three sessions in the year, each of ten weeks' duration. Practical courses will be given in the following subjects: The practice of medicine; the practice of surgery; diseases of the eye; diseases of the throat, nose, and ear; diseases of the skin; diseases of the nervous system; operative surgery; clinical pathology, microscopy, and bacteriology; mental diseases; radiography; dental surgery; the administration of anaesthetics; hygiene and public health; gynaecology; surgical diseases of women; surgical diseases of children; medical diseases of women; medical diseases of children; applied anatomy; and midwifery. Arrangements will also be made for a short vacation course of instruction in

September, if a sufficient number of students present themselves.

Besides the clinical demonstrations given in the wards and out-patient rooms, and the practical classes just enumerated, tutorial classes are conducted in medicine by the Medical Registrar, in surgery by the Surgical Registrar, and in pathology by the Pathologist. Owing to the relatively large number of unclaimed bodies there are exceptional facilities for acquiring skill in operative surgery.

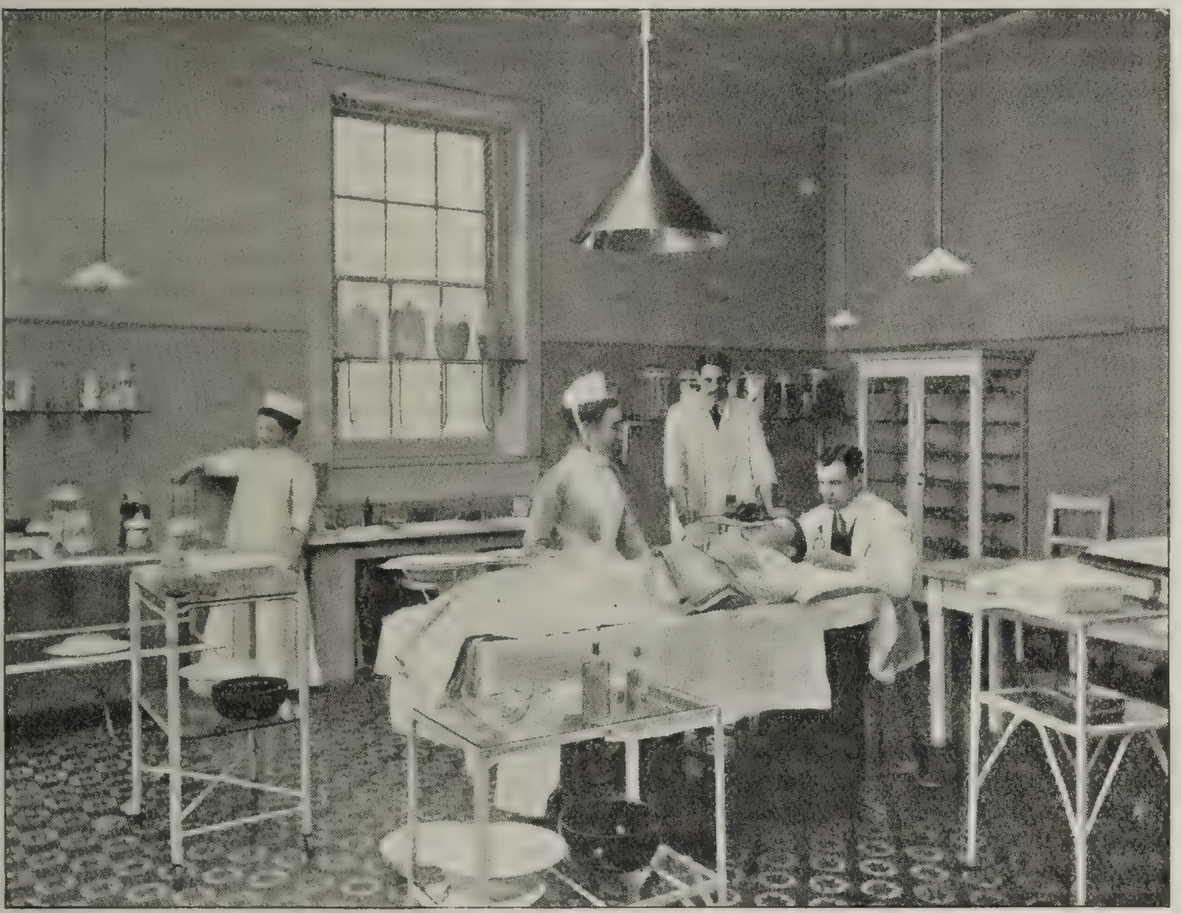


Fig. 7.—Operating Theatre.

Laboratories and Museum.

There are two pathological laboratories, each of which is fully equipped with the instruments and apparatus requisite for pathological work. It may be mentioned that the laboratory staff undertakes clinical investigations and supplies reports on urine, sputum, blood, faeces, and morbid specimens sent by practitioners for examination. The Museum, though small, contains specimens illustrating a considerable variety of diseases. An especially interesting feature is a collection of specimens of malposition of the fragments in fracture, showing the results of the rough-and-ready surgery which sailors have to endure at sea in ships which do not carry a surgeon. The contents of the Museum also include a collection of skulls, interesting from an ethnological point of view, made by Mr. Busk, who was at one time surgeon to the *Dreadnought*.

Certificates.

Certificates of attendance at the School are given at the end of each session. These are accepted for study leave by the Admiralty and, for special subjects, by the War Office. The Dreadnought Hospital is also recognized by the University of London as an institution from which certificates of post-graduation study for the higher degrees are accepted.

Conclusion.

It has only to be added that excellent arrangements are made for the convenience and comfort of students both within and without the walls of the hospital. The fullest information on all matters relating to the School is contained in a prospectus, which may be obtained from the Secretary, Mr. P. Michelli.

[The drawings of the old *Dreadnought* and of the Seamen's Hospital reproduced in this article are by Mr. Wayland of Blackheath. For the photographs from which the other illustrations were reproduced we are indebted to Mr. Michelli.]

LITERARY NOTES.

The January number of the *Quarterly Review* contains an article on the light treatment of disease by Mr. George Pernet. The author gives a lucid exposition of the principles on which the treatment is based, the methods of application, and the results, and sums up in a judicial spirit which has too often been conspicuously lacking in writers on the subject. He admits that some forms of lupus have so far defied Finsen's, as well as every other, method of treatment. He points out that since the advent of phototherapy there has been a tendency to imagine that before it there was no way of dealing with lupus. This, he says, is a mistake, inasmuch as some of the methods previously in use gave, and continue to give, good results.

In the British Medical Journal of October 21st, 1905, reference was made in this column to a work by Dr. A. Poncet, Professor of Clinical Surgery in the University of Lyons, and Dr. Leriche on the cases of Scarron, the first husband of Mme. de Maintenon, and Couthon, a prominent figure in the French Revolution. The disease from which they suffered was diagnosed by the authors to have been tuberculous rheumatism. A medical monograph on Couthon by Dr. Henri Magenot was presented by Professor Poncet to the Paris Academy of Medicine on January 2nd. Couthon, it appears, was fond of parading his infirmities before the public, and his ailments bulk large in his correspondence. His sufferings were real, however, and Dr. Mangenot sees signs of their influence in the febrile and morbid energy which he displayed in the suppression of the enemies of Robespierre's policy. According to him there is ample evidence that Couthon was tuberculous; the infection manifested itself in a number of joints before the lungs were invaded. About the age of 30 or 35, the first symptoms of pulmonary tuberculosis showed themselves, and about the same time Couthon became the subject of paraplegia, due, in Dr. Mangenot's opinion, to pachymeningitis of the lumbar enlargement of the spinal cord. The pachymeningitis had its origin in caries of the lumbar vertebrae.

We have learned with deep regret of the death of Dr. van der Burg, who succeeded the late Dr. Peypers in the editorship of our highly-esteemed contemporary *Janus*. Born in 1840, he studied medicine at Utrecht, and, after graduation, entered the army, and in the beginning of 1861 was ordered to Java. Soon after his arrival at Batavia he was appointed professor in the Medical School for Natives, and continued to hold that post till 1868, when he left the service. He then practised his profession in Batavia for eighteen years, returning to Europe in 1886. He embodied the fruits of his long experience in a work entitled *The Medical Practitioner in the Dutch Indies*, two volumes of which were published while he was in Java; a third appeared after his return to Europe. From 1888 to 1902 Dr. van der Burg was in charge of a hydrotherapeutic institute at Laag-Soeren; then he settled at Utrecht, where he continued to work at tropical hygiene and pathology. As editor of *Janus*, in which tropical medicine and antiquarianism are joined together in a somewhat ill-assorted union, he made it his aim to give greater prominence to medical geography.

Proposed Serum Institute in Bavaria.—The Bavarian Government has under consideration the establishment of a serum institute in connexion with one of the universities.

SCHOOL HYGIENE.

THE CONTROL OF MEASLES.

IN his report on the Education Committee of the London County Council for the year ending March 31st, 1905, Dr. Kerr, under the heading *Measles*, says:

Measles is the most fatal disease of childhood, and the one which plays the greatest havoc with school attendance. Two months after my appointment the late School Board approved of a scheme for a thorough inquiry in a limited area, to extend over about five years. The area selected was Woolwich, and the medical officer of health has co-operated, so that the measles history of each child is kept on a card from the day of its entering the infant school. In one half of this district it has been attempted to suppress every appearance of measles by rigorous class closure; in the other half individual exclusion is followed, and the schools are not closed if this can be avoided. The inquiry began in the autumn of 1902.

It was soon found that 50 per cent. of children had already had measles before coming to the Infants' Department, and 84 per cent. had it before passing out of the infant school. These figures will, of course, vary considerably according to whether the disease has been recently prevalent or not. The cards show at any time the susceptible material present in each class.

During the following year each outbreak was followed as well as possible, and the conclusion arrived at that the only successful cases of closure depended on closure on the appearance of the first case in a susceptible class, and experience showed that closure for measles, which hitherto had only been resorted to as a panic measure when the disease becomes prevalent, is, under such circumstances, of no avail. The necessity for the prompt notification of every case of measles became apparent, and the fact that where the head mistresses had special knowledge they prevented the spread of the disease in their schools, which suffered much less than the other schools.

Now, during the past year increasing duties have made it more difficult for Dr. Thomas to follow up this work, but he has had the aid of a sanitary inspector, and each school has had the measles cards duly filled in. The individual outbreaks have been analysed, and as Dr. Thomas has spent much time on the study of these outbreaks and the effects of school closure, his detailed report is so much worth careful study that it is printed *in extenso* as an appendix.

The generation we began with has not yet been followed through the infant school, but already much valuable information has been gathered. The inclusion of all the non-provided schools will help to remove an unknown factor in the districts under examination from the results yet to be obtained.

The teachers have now become educated to the value of the inquiry, and during the past year the card records are believed to have been fairly reliable. In the first outbreak detailed in 1904, that at Purrett Road, it is shown that 77 per cent. of the 57 per cent. unprotected were affected. It also shows the necessity of closure on the occurrence of the first case, closure at the appearance of the first "crop" being ineffective. Closure during the holidays at Easter did not prevent the dissemination of the disease out of school at Eglinton Road; at the same time, closure as usually applied would have appeared to have stopped the disease here, when in reality it would not possibly at the best have prevented 7 out of the 57 cases. Without any closure one or two cases appeared in every class at Burrage Grove without further extension, and at Maryon Park, where the cases were carefully gone into, 36 out of 115 could be definitely decided as infected out of school, one little maid of 5 being responsible for 11 out of school cases. Union Street, Mulgrave Place, and Conway Road give good examples of how an intelligent head mistress, with hygienic instincts and training, protected even babies' classes.

One very unsatisfactory case, from our point of view, was a child of 5 from a guardian's home, where, through mismanagement or ignorance, cases of measles appeared to have been treated whilst others attended the schools. This child, in spite of prompt and energetic measures, may be said to have caused at least 207 known cases in four schools, necessitating fourteen separate closures of rooms, or exclusions of non-protected children.

The almost explosive outbreaks at Deansfield Road and Timbercroft Road illustrate the evils of ill-ventilated and insanitary temporary buildings, and the necessity for increased floor allowance in these as compared with permanent buildings.

The balance of evidence preponderating in favour of closing is yet doubtful, even when the closure is applied at the earliest opportunity; later it is quite futile. Early closure involves closure on false alarms; then, again, the more successful it is the oftener it has to be repeated, and this interferes materially with educational progress.

Dr. Thomas states from the Woolwich experience that in towns measles will spread in classes where one-third are unprotected, and will recur until the unprotected are reduced to one-fifth.

School closure for measles can never take the place of teachers especially trained in school hygiene, imbued with the ideals that constitute a "sanitary conscience," and working in good hygienic surroundings.

Probably exclusion of non-protected individuals will be the ultimate solution of the attendance problem in face of a measles outbreak, and it is very doubtful whether exclusion of children, themselves unaffected but coming from affected households, is required in any except the infant departments.

THE INQUIRY AT WOOLWICH.

The inquiry made by Dr. Thomas in the Woolwich district brings out so many important and interesting points in the history of measles, we give Dr. Thomas's conclusions:

In an opening paragraph this officer says:

The inquiry into the spread of measles has been continued in the Woolwich district with the co-operation of Dr. Davies. Particular attention has been given to the incidence of cases in school outbreaks amongst the age groups, and amongst the protected and unprotected; it has been possible to do this with increasing certainty and facility since the teachers are becoming accustomed to the measles-history cards, and throughout the division practically every child now in an infants' department has had its measles history entered upon admission to the school.

Then follow analyses, accompanied by diagrams, of outbreaks of measles in a number of the Woolwich schools. These are all interesting as showing cause and effect, and may be studied with advantage.

General Statistics.

Dr. Thomas writes: The reliability of the histories of measles obtained on admission of children to school is a most important consideration. It has previously been pointed out (in the First Annual Report, 1903) that the similarity in the curves of the various schools, and the regular increase of the proportion of the children who have had measles as we pass from the age of 3 to that of 8 is strong presumptive evidence of the very considerable reliability of the histories. We may now apply a test from the facts gained by experience; this test depends, however, upon the amount of protection given by a previous attack of measles. Most observers agree that one attack protects the individual to a very considerable degree, probably in by far the greater majority of children the protection is absolute; but it is doubtful if a single observer would say this is invariably the case, and most medical men will assert they have seen second attacks. Let us assume, however, the position that the protection given by a first atack is absolute, and any second attack reported proves that the history of the first attack was an error. The distribution of the cases occurring during the past year amongst those reported to have had measles, and those reported not to have had measles is given in the accompanying table (p. 217):

Thus out of 627 cases of measles, only 48 had been reported to have had measles before, or 7.6 per cent. If we take the outside view that all the second attacks were children wrongly reported in the first instance, we have the error as 7.6 per cent. at the greatest. The probability is that the error is much less, and this is borne out by the successful cases of individual exclusion, to which reference will be made later.

The Question of Second Attacks.

Assuming that all the histories were correct, the second attacks would work out at 7.6 per cent.; they are probably,

Schools.	No. of Children with Known Histories.	No. Reported to have had Measles Previously.	No. Reported not to have had Measles.	Percentage of Unprotected.	Cases of Measles During Year.	No. said to be Second Attacks.	Percentage of Unprotected Children Attacked.	Percentage of Children Left without being Attacked.	Date of Opening.
Closing Schools—				Per Cent.			Per Cent.	Per Cent.	
Purrett Road ...	390	267	123	31.0	88	8	65.0	8.7	1888
The "Slade"... ...	316	209	107	32.0	57	4	50.0	15.5	1885
Ancona Road ...	599	282	177	32.0	75	2	41.0	18.0	1893
Timbercroft Road...	147	82	65	37.0	57	4	81.5	5.5	Temporary
Conway Road ...	589	437	152	26.0	23	3	13.2	21.0	1897
Earl Street	463	329	134	29.0	51	7	32.7	18.0	1875
Vicarage Road ...	403	241	162	40.0	57	3	33.3	25.0	1881
Deansfield Road ...	77	48	29	37.6	26	—	90.0	4.0	Temporary
Non-closing Schools—									
Eglinton Road ...	463	322	141	30.0	56	4	36.5	18.0	1886
Maryon Park ...	301	140	161	53.0	112	11	62.6	16.0	1896
Plum Lane	206	137	69	33.0	24	1	33.3	21.0	1904
Union Street ...	200	113	87	43.0	37	—	42.5	25.0	1884
Mulgrave Place ...	249	160	89	36.0	20	—	22.5	27.0	1894

as has been explained, less than this. In the case of Union Street the child who undoubtedly set up the disease was reported to have had measles before, and had been seen by a doctor, both before and upon this occasion; although there is not the least doubt that she carried the infection into school, yet no rash was seen upon her by the doctor or the mother; she had the coryza simply, and got pneumonia because the complaint was treated lightly and she was allowed to go out with inflamed bronchial passages. It is possible, therefore, that a person who has once had an attack may suffer from a slighter attack of true measles in which no rash appears; such a phenomenon is known in scarlatina and in small-pox, and there is no reason why it should not occur in measles; however, the question must remain open at present, but even if it does occur it must be so rare as to be negligible as a factor.

Another case of interest in this connexion is one which occurred at Conway Road on May 27th, 1904. Lilian L. was absent at the time a crop of measles was expected in the class. I visited her, and found she had a temperature, a cough, suffusion of the eyes, and Koplik's spots were present in the mouth, yet no rash appeared. The mother watched carefully, and I visited on several occasions, but no rash was to be seen. She was said to have had measles before. Another child in the same class at the same time, Daisy H., aged 6, under precisely similar circumstances, in addition to the same symptoms, had a very fleeting measles rash which might almost have been passed by unnoticed; she also had had measles previously.

The Effect of Class Closure.

An examination and comparison of the results in the closing and non-closing halves of Woolwich, given in the above table, shows that the percentage of unprotected cases attacked varied from 13.2 per cent. to 90 per cent. in schools where closure was resorted to at the earliest opportunity, and from 22.5 per cent. to 62.6 per cent. in schools where no closure was carried out. Amongst the former class, however, Timbercroft Road, with 81.5 per cent., and Deansfield Road, with 90 per cent., are temporary buildings. Excluding these, we still have Ancona Road, giving 41 per cent., The "Slade" 50 per cent., and Purrett Road 65 per cent. of cases—a range higher than the average of the non-closing schools. In these schools, however, the actual first case was missed, and closure only took place on the occurrence of the "first crop." In Earl Street and Vicarage Road, where earlier knowledge was obtained, they suffered to quite as great a degree during the year as in the average of non-closing schools, while at Conway Road, in which alone any striking difference is met (only 13.2 per cent. suffering), every other condition combined to arrest the spread, and the very low proportion of susceptible cases in attendance (26 per cent. of the whole) diminishes the value of the experience as a test of class closure—although here it must be evident that closure of classes helped.

In all these schools, however, measles tended to break out again and again, until the proportion of children was reduced to a certain degree (down to 25 per cent.), and this necessitated an amount of class closure which was ruinous to orderly and continuous education, some classes having to close as many times as thrice in six months, and many closures took place, both at these and other closing schools, owing to false alarms.

In the non-closing schools, on the other hand, only at Maryon Park is any untoward amount of measles to be noted, and here it is seen that a very large proportion of the children were unprotected (53 per cent.), which fully accounts for the excessive number of cases, which even here does not reach the percentage which was reached at Purrett Road.

It will be seen that this year's experience, therefore, does not show any great preponderance of balance in favour of closing, even when closure is applied at the earliest opportunity. Under present urban conditions measles will appear in a school and spread when the proportion of children unprotected exceeds a third of the whole number, and will not subside until the proportion is reduced to a fifth of the whole number. One thing certain is that closure can never take the place of good hygienic school conditions and its corollary, teachers especially trained in school hygiene with well-developed sanitary consciences.

The Spread of Measles as Affected by the Proportion of Children Unprotected.

An examination of the table shows that measles in general may be expected to appear and spread in a department when the number of children unprotected reaches about 33 per cent., and that usually, except where special conditions obtain, it ceases to spread when the proportion is reduced to 18 per cent.

The Spread of Measles as Affected by School Conditions.

The enormous value of healthy surroundings in school is shown by the fact that *caeteris paribus* the lighter, the airier, and the less crowded a school the less is the spread of measles.

In the two temporary schools of Timbercroft Road and Deansfield Road, in spite of closure at the very earliest knowledge of a single case of measles having occurred, we have the curious and melancholy parallel of 81.5 per cent. and 90 per cent. of the children unprotected attacked, and only 5.5 per cent. and 4 per cent. of total children left who have not had measles. These temporary buildings are incapable of even fair ventilation (I have found 30 parts per 10,000 of CO_2 in one), of proper warming or hygienic class arrangement, and in view of the experience here gained it would be well to insist upon a higher area of floor space per child than in permanent schools, while there can be no doubt that the minimum of floor space per child in all infant schools should be at least as great as in the older departments.

The Spread of Measles as Effected by the Attitude of the Teachers.

We have seen that unless the very first case of measles in a susceptible class is noted and reported closure of the class fails to arrest the spread of measles, so that even here the attitude of the teacher is of prime importance. It is unfortunate that a penny wise and pound foolish attitude has been forced upon teachers from outside, and when imbued with the ideals of increasing their average attendance by every means in their power, the rough and ready principle of accepting and retaining every child regardless of the condition of its health is prone to prevail in spite of its short-sighted nature. In schools driven on this plan much spread of disease is inevitable. When, however, as fortunately often obtains, the teacher, in spite of opposition, insists upon being governed by the higher ideals which we are learning to designate as the "sanitary conscience," measles is likely to spread to a much less degree, and where this conscientiousness is united with special knowledge and training in school hygiene it is probable that we have the greatest safeguard against the spread of disease it is possible to have, and where this is combined with the best hygienic surroundings it is probable that the conditions would be more effective than school closure in confining outbreaks to their smallest dimensions.

The Spread of Measles from Class to Class in School.

Usually the secondary attacks arising from a single case occur in more than one class-room, and the ideas obtained from a static survey of the isolated arrangement of class-rooms break down in view of the dynamic methods of infant school organization, in which sections of classes are combined for various purposes. It is probable, however, that in well-ventilated and organized schools the spread takes place more outside school hours than in the actual school-rooms where the children are under constant supervision. Thus at Maryon Park the infection spread from babies, not to babies, but from babies to the older children whose duty it was to superintend the comings and goings of the babies.

General Conclusions.

Dr. Thomas states that the general conclusions which the inquiry seems as a whole up to the present to justify are:

1. Measles at present in London only spreads in classes under 5 years of age, except in certain better-class districts. Seventy-five per cent. of children above 5 in infants' departments are protected.

2. Measles tends to spread whenever a class accumulates unprotected members to the extent of between 30 per cent. and 40 per cent., and when spread has begun it continues until the proportion is reduced to between 15 per cent. to 20 per cent. unprotected.

3. If children under 5 were excluded from school, closure for measles would not be necessary for some time in London, except in one or two special districts; if, however, this were successful in postponing attacks, the question would again become acute in a few years.

4. To deal efficiently with measles accurate knowledge is required; the measles history should be elicited for each child on admission to school. This should be done universally; if notification to school authority was made compulsory on every parent whose children attended school, our hands would be greatly strengthened. Unless the amount of susceptible material is fairly accurately known for each school, we shall only be working in the dark, as heretofore, and nothing of any value can be expected to accrue from our methods.

5. To effect any useful purpose, school closure must take place before the "first crop" falls. The old practice of waiting until the attendance fell to a certain limit was useless in arresting the spread of measles, and did absolutely no good.

6. The means of arresting spread of measles other than school closure are of enormous importance. To name two—sanitary buildings and training of teachers; these two factors probably have the greatest effect of all in determining the extent of spread of an outbreak.

7. Deaths often occur from ignorance on the part of parents. Circulars should be sent out wherever measles has appeared in a class—that is, on the incidence of the first case—begging mothers to notice colds, and upon the slightest suspicion of such symptoms to keep the child at home for a day or two. In this way measles would probably be checked to a far greater extent than has been effected by any other means. Instances have come to our notice where heartbroken mothers have stated that, had they known, they would have treated colds seriously of which they took no note, and thereby their children's lives would have been saved. I suggest that circulars be thus used during next year in Woolwich.

8. Measles *never* spreads in the boys' and girls' departments. There is no need to exclude children from infected homes who attend the upper departments. As a result of our inquiries, this has actually been carried out at Brighton, with satisfactory results.

9. There is too great a tendency to look at things from an "attendance" standpoint; this is one of the greatest evils with which we have to contend. The withdrawal by the Board of Education of Article 101* was the greatest piece of official folly ever perpetrated. If a whole department is closed the average attendance is not affected; but if on the score of health a single class is closed by order of Sanitary Authority, or by the Council's Medical Officer, it is supposed that the attendances are missed, and the effect upon the average attendance and consequent grant is enormous. We thus have great difficulty in carrying out our measures, as much opposition is often encountered to the necessary closure of a single class, while the unnecessary closure of a whole department is gladly borne or even welcomed.

10. This is an economic question which is not one of health at all; and when attendance has fallen to a certain percentage at which the loss of grant is so severely affected, the department should be automatically closed independently of the question of health. This percentage ought to be worked out.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the weeks ended December 9th, 16th and 23rd, the deaths from plague in India numbered 3,075, 3,247 and 3,170 respectively. The returns are markedly below those of 1904 for corresponding periods, when the deaths from plague stood at 17,439, 18,284, and 19,465 respectively. During the week ended December 23rd, 1905, the principal centres of plague in India were: Bombay Presidency, 720 deaths; United Provinces, 761; Bengal, 639; Central Provinces, 400; Punjab, 314; Mysore State, 124; Burmah, 77. The deaths from plague during December, 1905, were in the Bombay Presidency, 3,781, including Bombay, 39; in Bengal, 1,331, including Calcutta, 86; United Provinces, 1,275; Punjab, 1,021; Central Provinces, 969; Rajputana and Ajmer-Merwara, 65; Kashmir, 20; Mysore State, 446; Hyderabad State, 350; Central India, 184; and the Madras Presidency, 264. No plague reported elsewhere.

SOUTH AFRICA.

No fresh cases of plague in man or animals were discovered in any part of South Africa during the weeks ended December 16th and 23rd. One case of plague remained under treatment at Port Elizabeth on December 23rd, 1905.

MAURITIUS.

During the weeks ended January 5th, 12th, and 19th, the fresh cases of plague in Mauritius numbered 4, 4, and 1, and the deaths from the disease 4, 3, and 1 respectively.

HONG KONG.

During the weeks ended January 6th, the fresh cases of plague numbered 2 and the deaths from the disease 2.

RUSSIA.

From October 13th to November 2nd there occurred 58 fresh cases and 29 deaths from plague in several villages around Naryn, in the Steppes of Krighize.

BRAZIL.

In Rio de Janeiro from January 1st to October 22nd, 1905, the number of deaths from plague amounted to 91.

AUSTRALIA.

No fresh cases of plague in Queensland since that which was reported from Townsville on September 14th, 1905.

ZANZIBAR.

During the week ended October 14th, 15 fresh cases of plague were notified, with 8 deaths, from the disease. From October 29th to November 4th, 1905, 12 fresh cases were reported.

EGYPT.

A case of plague was reported in Alexandria on November 7th, 1905.

PERSIA.

Plague prevails, according to telegram dated January 22nd, in the Maisar District of the Province of Seistan, Persia; 99 per cent. of those attacked died.

AMERICAN ANTITUBERCULOSIS ASSOCIATION.—The American National Association for the Study and Prevention of Tuberculosis will hold its second annual meeting in Washington on May 17th, 18th, and 19th, 1906. Two new sections have been established, one on surgical tuberculosis, the other on tuberculosis in children.

MEDICAL NEWS.

An anonymous donor has presented £1,000 to Guy's Hospital for the purpose of endowing a bed in recognition of benefits received through a surgeon of the hospital.

The new cruiser H.M.S. *Black Prince* will be on view at the Victoria Docks, London, on Saturday afternoons, January 27th and February 3rd, and February 4th. A charge of 1s. admission will be made, and the proceeds will be divided between the Seamen's Hospital Society, the Poplar Hospital, and the West Ham Hospital.

Dr. Francis Warner will begin a course of twelve lectures on the study of children, under the auspices of the National Association for the Feeble-minded, at Denison House, Vauxhall Bridge Road, Westminster, on Monday next, January 29th, at 6 p.m. The course forms a part of the University Extension lectures of the University of London. Each lecture will last an hour, and afterwards a class will be held for those who wish to study the subject more fully. Further information can be obtained on application to the Secretary, Miss A. H. P. Kirby, 72-73, Denison House, Vauxhall Bridge Road, S.W.

Dr. Llewellyn Treharne, J.P., who for nearly thirty years practised at Cardiff and took a very active part in the public life of the town, died on January 10th at Portllanfraith. He obtained the diplomas of M.R.C.S.Eng. and L.S.A. in 1874, and was a member of the Cardiff Division of the British Medical Association. He had been ill for three or four years, and as a result he had had to give up the appointment he held as medical officer to Cardiff Gaol. The interment took place at the Cardiff New Cemetery on January 13th.

Some interesting statistics are furnished by Mr. Buchmann, H.B.M.'s Consul in Munich, with regard to the meat and beer consumption in that city. Throughout Bavaria the rise in price of butcher's meat has brought about a corresponding decrease in its consumption, and while from 1881 to 1885 the average amount annually consumed per head of the population in Munich was 200 lb., this rate fell in 1904 to 165 lb. per head. One result of this has been a considerable increase in the sale of horseflesh, and even in small provincial places, where horse butchers have hitherto been unknown, shops have been opened in the course of 1905. The consumption of beer is also markedly decreasing. In 1901 the annual average stood at 75 gallons per head of the population of Munich, but in 1904 it had fallen to 69 gallons. Passing to the wine output, the vintage of this latter year was distinctly good, indeed, quite excellent in the Palatinate, but it is noteworthy that the United Kingdom takes less and less German wine every year, and of late has been chiefly demanding low-priced wine of inferior quality. The sanitary progress of Munich has been very remarkable. Since the year 1870 the municipality have expended the sum of £2,750,000 sterling on improved water supply, drainage, hospitals, cemeteries, and slaughter-houses, and that the money has been well spent is manifest from a consideration of the death-rate. In 1871 this was 41 per mille, in 1881 it was 32, in 1891 it had fallen still further to 27, and in 1901 to 22. In the present report, which brings the statistics up to the end of 1904, the rate stands at 20.5, and there is no reason to believe that this steady improvement has ceased. Munich is developing rapidly, and is now the third largest of the German cities, Berlin and Hamburg being alone superior to it in size and population.

Japanese Honour for a British Lady.—The Emperor of Japan has conferred a medal with a blue ribbon on Miss Lyddel, a British lady, in recognition of her steady devotion since 1890 to work among the inmates of the leper asylum in Tokyo. The honour is said to be unprecedented.

New Suture Materials.—At the last annual meeting of the Association of Military Surgeons of the United States, Dr. Nicholas Senn, Surgeon-General of Illinois, called attention to new suture materials which he had obtained on a recent trip to Greenland. He presented future material made from the tendon of the whale, the walrus and the narwhal, and also presented a vegetable fibre from New Zealand, the use of which he recommended for superficial sutures.

A Cancer Institute at Heidelberg.—It is hoped that the Cancer Institute, in the foundation of which Professor Czerny has taken a leading part, will be opened at Heidelberg on the occasion of the Cancer Congress which is to be held there in the middle of September next. Already a sum of £35,500 has been contributed towards the cost, and the Government of the Grand Duchy of Baden and the University of Heidelberg have between them undertaken to maintain the Institute for at least fifty years.

An Antitrachoma Congress.—An Antitrachoma Congress is to be held at Palermo next April. Among the questions proposed for discussion are the anatomical conditions underlying the various clinical forms of conjunctival and corneal trachoma and follicular conjunctivitis; experimental researches on the contagiousness of trachoma; the general prophylaxis of the disease; the treatment of trachoma of the lachrymal passages; and the limits of surgical treatment in trachoma.

Hamburg Institute of Tropical Diseases.—The Hamburg Institute of Marine Pathology and Tropical Diseases is about to be considerably enlarged in order to meet the steadily-increasing demands made upon its resources. Both the teaching staff and the accommodation for workers will be increased; the course of study for medical officers of the army, navy, and Colonies will be extended, and the library enlarged. It is proposed to offer the post of Scientific Assistant in Zoology to Dr. Schaudinn.

The Sale of Absinthe.—A petition, to which 82,000 signatures are attached, of which 35,000 are those of men, has lately been presented to the State Council and Great Council of the Canton of Vaud in Switzerland, praying that the sale of absinthe may be forbidden. Professor Weber, President of the Swiss Society of Alienist Physicians, having been asked as to the opinion held in regard to absinthe by his brother specialists, submitted a schedule of questions on the subject to the members of the Society. Of 52 replies received, 51 express the belief that absinthe is a particularly poisonous drink, the sale of which should be prohibited as a matter of public utility.

Pneumonia in New York.—In the first of a series of lectures under the auspices of the New York Academy of Medicine, delivered on December 29th, 1905, Dr. Darlington, the Health Commissioner, after giving a number of statistics, said: "A fair conclusion is that the recent apparent increase of pneumonia has been mainly due to the transfer of part of the bronchitis mortality record to the pneumonia record, either as a matter of classification by registrars or of diagnosis by physicians, or both. While the figures do not bear out the belief that pneumonia is on the increase—showing, in fact, just the contrary to be true—we must remember that the general death-rate for all diseases has decreased by about one-fourth. The decrease in pneumonia, therefore, has not kept pace with the general improvement in the health of the inhabitants." Dr. Darlington then gave the results of a study of 321 cases of pneumonia in New York, in December, 1904, and January, 1905. Among these there were 56 deaths—7 in persons under 15 years old, 31 in the ages between 15 and 50, and 18 in persons over 50. The average mortality-rate was 20.5 per cent.

Health Conditions in Cuba.—A supplementary Consular Report on the trade of Cuba shows not only a very satisfactory condition of affairs from a statesman's point of view, but also an almost equally favourable sanitary outlook. The total number of births in the island, which in 1900 were some 43,000 have steadily increased to over 51,000, while the deaths have no less steadily decreased during the same periods from 28,779 to 23,776. The excess of births over deaths has thus just doubled in five years; and since a good deal of immigration takes place, averaging over 20,000 every year, there has been added to the population of the island during the quinquennial period just mentioned not very far short of a quarter of a million persons. The population at the end of 1905 may therefore be roughly put at about 1,840 000. For an island lying wholly within the tropics the death-rate is astonishingly low, being only 13.75 per mille on the estimated population for 1904. Even in Havana the rate is not particularly high. During 1904 the number of deaths in the city was 5,583, which on an estimated population of 273,000 gives 20.50 per mille. The city of Matanzas shows remarkably good returns, the death-rate for its 60,000 persons being 15.59. The satisfactoriness of these figures is no doubt in great measure due to the energetic work of the Americans in combating malaria and yellow fever. For nearly four years Cuba has been practically free from the latter malady; but it made its appearance again last October, being introduced from one of the southern ports of the United States, in some of which the disease has been very virulent, and up to the end of November, 1905, there had been 27 cases and 5 deaths in Havana. Speaking generally, tuberculosis appears to be the principal cause of death, and trismus among the new-born. One baby in every 40 dies from this disease.

British Medical Journal.

SATURDAY, JANUARY 27TH, 1906.

THE PREVENTION OF MEASLES IN SCHOOLS.

DR. KERR begins the section on measles in his last report to the London Education Committee with the statement that measles is the most fatal disease of childhood. He might have added that it is a disease the prevalence and fatality of which have not been much affected by modern sanitary improvements. We are enabled by the courtesy of the Registrar-General, extended to us through Dr. Tatham, to state that the corrected death-rate from measles in England and Wales per million persons living in the decennium 1891 to 1900 was 414, as compared with 406 for the decennium 1881-90. In London there has been some improvement, the rate having fallen from the huge figure of 634 in the earlier to 583 in the later decennium.

The nature of any attempt to bring the prevalence of measles under sanitary control must be determined by two facts in its natural history. The first is that the race has acquired little or no immunity to an attack of the disease, although it would appear that there is a certain increased power of resistance to its lethal effects; the second is that it is infectious at a very early stage. Statistics show that its mortality is very much greater in infancy and early childhood than at a later age. Henoch, for instance, had among cases of measles in hospital a mortality of 55.5 in children under 2 years of age, and of only 9.5 in children over that age. According to the last published report of the Registrar-General for 1903, 94 per cent. of the total deaths from measles were those of children under 5 years old. The number of deaths among children living at that age was equal to a rate of 2.26 per 1,000. In the ten years 1891-1900 the death-rate per million living among children under 5 years was 3,131, but among those between the ages of 5 and 10 years it was only 271, while in the next age-period (10 to 15 years) it had fallen to 23. These statistics, and others pointing the same moral might easily be quoted, make it clear that precautions which had no other effect than to postpone the age of attack would be worth taking.

The importance of the subject from the point of view not only of public health but of education, justifies the publication elsewhere in this issue of the conclusions of Dr. Kerr and Dr. Thomas, for the most part in their own words. The inquiry instituted in Woolwich in 1902, at the instance of Dr. Kerr, by the School Board for London, has been carried on since, under the London Education Committee, by Dr. Thomas, and Dr. Davies the medical officer of health. Owing to the circumstance that in the eastern half of the borough an attempt was made to suppress every appearance of measles in a school by rigorous class closure, while in the western half the system of excluding individual children was followed, the inquiry has something of the value of a scientific experiment. The result of the experiment in 1903 was interesting. The statistics showed that class closure had been much more costly in interfering with school work than the exclusion of individual children; in the eastern division of the borough 195 cases of measles had entailed a loss of 26,287 attendances, an average of 135 lost attendances for each case of measles; in the western division, 215 cases of measles had entailed a loss of 13,563 attendances, an average of 63 lost attendances for each case of measles. The loss of attendances under the system of individual attendance was thus less than half the loss under the other system of class or school closure.

Dr. Kerr pointed out last year that the ordinary history of measles in a school containing a number of children is somewhat as follows: A child who has contracted measles elsewhere attends school in an infectious state, and a certain number of other susceptible children thrown into more or less intimate contact with it catch the disease. Dr. Kerr calls the first case the seed, and the children infected by this child the first crop. The children of the first crop may act as seed for a second crop. If we have followed his argument from the facts recorded by Drs. Thomas and Davies correctly, he holds that closure, to be effectual, must take place before the first crop develops, that is to say, it must be carried out on the occurrence of the first case in a susceptible class. If it is deferred until the first crop has appeared, then the seed will have been so widely spread that practically all the susceptible children will have received the infection and will form the second crop. Owing to this there is a risk that the false conclusion may be drawn that the closure has stopped the epidemic, whereas the real reason is that the soil has been exhausted, all, or nearly all, the susceptible children having been attacked. If this theory be accepted, then the question naturally arises whether the exclusion of the susceptible children exposed to infection by the "seed," the children who will form the first crop, would not be a means of preventing the spread of measles through a class as effectual, or even more effectual, than school or class closure. For practical purposes it must be assumed that all children who have not already suffered from the disease are susceptible, so that to work the system of individual exclusion it is necessary to know the history of all the children in a class in respect to measles. This information can be obtained only through the hearty co-operation of the teachers. Dr. Kerr last year quoted two instances in which schools, fortunate in being under the direction of headmistresses possessing special knowledge of the means of preventing measles in schools, suffered much less than neighbouring schools. He is now able to state that teachers have become educated to the value of the inquiry into the history of the children, and the facts, which are recorded when the child is first admitted to the school on a card bearing its name, are believed to have been fairly reliable. These cards are, of course, kept up to date, so that when a child is noticed to be suffering from symptoms suggestive of measles, the teacher at once knows, by reference to the card index, how many susceptible children there are in the class, and it becomes possible to institute a system of individual exclusion without stopping the attendance of all the children in the school.

Dr. Kerr holds that the balance in favour of closure even at the earliest opportunity is doubtful, and that later it is without doubt futile. Moreover, early closure involves closure on false alarms, while the more successful it is the oftener it must be repeated and the more it interferes with education. His final conclusions are that in the exclusion of susceptible individuals in face of an outbreak of measles the ultimate solution of the problem will be found; that the exclusion of unaffected children from infected households is necessary only in infants' departments; and that "school closure for "measles can never take the place of teachers espe-"cially trained in school hygiene, imbued with the "ideals that constitute a 'sanitary conscience,' and "working in good hygienic surroundings."

THE CONSTITUTION OF THE ALBUMINOUS MOLECULE.

THE chemical constitution of the proteid or albuminous molecule is still for the future. But by degrees its complexity is being unravelled. An important step in the progress of this subject was made some years ago by Hofmeister, who showed that it is possible to prepare many of the proteids in a pure, that is crystalline, form. At Heidelberg Kossel and his colleagues are attacking the protamines, the simplest of the known proteids, and it cannot be doubted that this is a fruitful method to prepare the way for a correct knowledge of the more complex members of the group. Emil Fischer, who is well known for his work on the constitution of uric acid, and his synthesis of several of the sugars, has brought his great experience to bear on the problem, and for many years he and his colleagues have made interesting announcements on the results of their prolonged and laborious work. It is therefore not surprising that his recent address to the German Chemical Society mentioned by our Berlin correspondent last week should have been regarded as an important event in the history of science, and that his audience included biologists and physiologists as well as chemists.

Before it is possible to attempt a synthesis of any substance, it is an obvious preliminary necessity to possess a correct knowledge of its analytical cleavage products. This has naturally been the starting-point of Fischer's work on the proteids. He, with Abderhalden and other fellow-workers, is rapidly filling up the large gaps in our knowledge in this direction; every month numerous papers appear giving the names and proportions of the products obtained by the breakdown of various members of the large proteid family. Different proteids vary considerably not only in the relative proportions of these products, but also in their nature. Whether the cleavage is accomplished by means of digestive ferments or chemical reagents, the general order of these products is the same, though there may be differences in detail according to the method adopted. It is well known that the first effect is to produce proteids which have smaller molecules than the original native albumin; these are called albumoses. The next stage is the formation of the still smaller molecules of peptone, and finally the peptone breaks up into simple crystalline materials of known composition, which no longer give the typical proteid reactions.

These fall into the following groups:

(1) Mono-amino acids, such as glycine or glycocoll (amino-acetic acid), leucine (amino-caproic acid), aspartic acid (amino-succinic acid), and glutamic or amino-pyrotartaric acid. (2) Di-amino acids, such as lysine (diamino-caproic acid), arginine (guanidine-amino valeric acid, important from containing, like creatine, a urea radical), and histidine. The introduction of a second amino, or NH_2. group confers basic properties upon the acid, hence the name "hexone bases" sometimes applied to this group, hexone because all contain six atoms of carbon. (3) Aromatic amino-acids like phenylalanine, tyrosine (oxyphenylalanine), and tryptophane, the parent substance of indole and skatole. (4) Pyrimidine bases (thymine, cytosine), and pyrrolidine derivatives. (5) The sulphur-containing substance cystine (amino-thio-lactic acid). (6) Ammonia.

Such a list makes one realize the complicated nature of the proteid molecule, and the difficulties that fence around its investigation. The various nuclei exist preformed in the molecule, and are there linked in more or less complex chains.

But Fischer has done more than render such a list complete; he has discovered how the various members in the list are linked together in groups, and these groups he calls polypeptides. The last stage in the synthesis of albumin will be to link the polypeptides together, but Fischer himself is cautious enough to state that this final realization of his aim is still far off.

The polypeptides occupy in proteolysis a stage between the peptones and the final simpler amino-acids, and are discoverable in the digestion of albumin by gastric and pancreatic juice. The fact that many of the polypeptides have been made synthetically promises well that the actual synthesis of the proteid molecule may not be so distant as Fischer imagines.

The object of this article will be attained if we succeed in making plain what is meant by a polypeptide; and in order to render the subject intelligible even to those who have not followed the recent advances of organic chemistry, the examples selected will be the simplest members of the group. Acetic acid has the empirical formula $C_2H_4O_2$. This is usually written CH_3. COOH; that is to say, methyl (CH_3) united to carboxyl (COOH). If an amino group (NH_2) is introduced in place of one of the hydrogen atoms of the CH_3 radical, we have CH_2. NH_2. COOH, which is amino-acetic acid or glycine. Propionic acid has the formula C_2H_5. COOH, and its amino-derivative alanine is similarly C_2H_4. NH_2. COOH. In an exactly corresponding way leucine or amino-caproic acid is $C_5\ _{10}$. NH_2. COOH.

We may, however, write the formulae for these three typical amino-acids in a rather different way, as follows:

HNH. CH_2. COOH glycine.
HNH. C_2 H_4. COOH alanine.
HNH. C_5. H_{10}. COOH leucine.

In each, the first and last groups are the same; the middle group varies, and may be represented by R. The general formula for the mono-amino-acids is therefore:

HNH. R. COOH.

If we now link two of these together we get

$$\mathrm{HNH.\ R.\ CO}\boxed{\mathrm{OH\ \ H}}\mathrm{NH.\ R.\ COOH.}$$

What happens is that the hydroxyl (OH) of the carboxyl (COOH) group of one acid unites with one atom of the hydrogen in the next amino (HNH) group, and water is thus formed, as shown within the dotted lines, and the rest of the chain closes up, and the water is eliminated. In this way we get what is called a dipeptide; the names glycyl, alanyl, leucyl, etc., are given by Fischer to the NH_2. R. CO groups which replace the hydrogen atom of the next NH_2 group. Thus glycyl-glycine, glycyl-leucine, leucyl-alanine, alanyl-leucine, and numerous other combinations and permutations are obtained. If the same operation is repeated, we obtain tripeptides (leucyl-glycyl-alanine, alanyl-leucyl-tyrosine, etc.); then came the tetrapeptides, and so on; in the end, by coupling the chains sufficiently often and in appropriate order, Fischer has already obtained substances which give the reactions of a peptone.

The importance of work of this nature cannot be overestimated. It is necessarily most arduous, and all will look forward eagerly to still more important developments. What has been attempted in this article is merely to present the gist of the work with a few simple examples; its extraordinary complexity can only be comprehended by reading the papers which Fischer and his colleagues have published. Proteid constitution underlies the constitution of protoplasm; the interest of the question to physiologists and pathologists needs no comment, and the medical profession will unite with chemists in congratulating Professor Fischer on the public recognition which his work has met with in the award to him of the Nobel prize.

INSTRUCTIONS TO MIDWIVES.

THE legalized status given to midwives by recent legislation has forced upon many medical men the importance of having these women properly instructed. We have received a well got-up booklet of *Instructions to Midwives*,[1] compiled by "The Midwives' Supervising Committee of the Corporation of Manchester," and another issued by the "Salop Local Supervising Authority." These instructions are on the whole clear and good, though those who have to frame similar instructions may not follow them in every point. The midwife is told that she must have "her clothes and person strictly clean." Will any woman admit that she is dirty? In Manchester she must have a bath at home, and must take a bath regularly, at least twice a week; in Salop once a week is enough. This is excellent advice, but it restricts the calling of a midwife to persons who can afford a bath, and for the prevention of septic infection a bath twice a week is neither necessary nor effective. She is told to change her duty clothes as often as possible, especially dresses and aprons, and to have "separate storage for her duty clothes." It is not stated what, besides the dress and apron, are "duty clothes," and we doubt if many midwives will take the trouble to change all their underclothing before going to a case. The chief point to which exception can be taken is the instruction as to the prevention of ophthalmia. The midwife is told that "as the head "emerges, the eyes should be well wiped with lint dipped "in a warm solution of boracic acid." The strength of the solution is not stated in the Manchester book. The Salop midwife is told to "bathe" the eyes with a solution of a teaspoonful of boracic acid in half a pint of boiled water. Boracic acid is a very weak antiseptic. The directions Credé gave for the prevention of ophthalmia—directions which have proved successful wherever they have been put into practice—were not to wipe the outside of the eyelids or bathe the eyes, but to hold the lids open and drop in one drop of a 2 per cent. solution of silver nitrate. This subject was discussed by the Obstetrical Society of London in July, 1903, when a paper was read by Mr. Sydney Stephenson, who considered most carefully the different methods that had been proposed and carried out. He showed that the only method that in efficacy came near the silver nitrate solution advised by Credé was the use of a 1 per cent. solution of sublimate. It was pointed out in the discussion that the drawbacks of the use of silver nitrate were that it caused slight conjunctivitis, obliged the midwife to carry an additional bottle, and that the solution was unstable. Therefore some thought that the use of sublimate was preferable. No one was able to speak of the effect of a 1 per cent. solution in producing conjunctivitis, as those who had used that drug had employed weaker solutions; but whatever be the verdict, for or against a 1 per cent. sublimate solution, we think all who have gone into the matter will agree that to wipe the outside of the lids with boracic solution is useless. We notice also that the Manchester midwife is instructed to use 1 in 1,000 sublimate glycerine as a lubricant, and to disinfect the external parts with a 1 in 1,000 solution of sublimate. Our experience is that sublimate solutions of this strength applied to mucous membranes are apt to cause smarting. We should have preferred 1 in 2,000. The Salop midwife is told to use lysol or izal. She is instructed to at once put a pan of water on the fire, boil all the instruments that can be boiled, and leave them in the boiled water till required: an excellent rule.

We hope that other supervising authorities will show similar interest in the practical education of midwives under their supervision. There still seems plenty of room for such work. A correspondent in a Midland county asks us what he should do to check the mischief worked by an ignorant, dirty, and meddlesome midwife, registered because for some years she had dabbled in midwifery. As one of many instances of her disgusting practices, he states that she was caught in the act of washing a ruptured perineum with the very sponge she had just been using to wipe out the chamber utensil, having made no pretence of cleaning the sponge. In another case of severe puerperal septicaemia, saved only by the prompt use of antistreptococcus serum and by warning her off the premises, she asserted that the doctors were making an unnecessary fuss. He adds that, in every case in which he has been unfortunate enough to find this woman in attendance, the patient has suffered from high temperature, rigors, and other disquieting symptoms. This has, he adds, not only caused much anxiety to both doctor and patient, but entails upon the former as much attendance as any four ordinary confinements. A personal reprimand he finds has not the slightest effect, and he asks what authority can compel this "incarnation of sepsis" to mend her ways. The answer is that it is the special duty of the local supervising authority under the Act to exercise general supervision over all midwives practising within its area. The authority has the power to suspend any midwife from practice, if such suspension appears necessary in order to prevent the spread of infection, to investigate charges of malpractice, negligence, or misconduct, and should a prima facie case be made out to report the same to the Central Midwives Board.[2] If the Board decides that a prima facie case has been established, proceedings for the removal of the name of the midwife from the Roll and cancelling her certificate are commenced by the issue of a notice in writing to the accused by the Secretary, on behalf of the Central Board, and at the same time she is directed to forward her certificate to the Secretary pending the hearing of the case, and also to answer in writing the charges brought against her. The case is heard at a special meeting of the Board, at which the accused midwife may be represented or assisted by a friend or legal adviser, and she, or her representative, is entitled to cross-examine any witness appearing against her, to tender evidence in answer to the charge, and to address the Board upon the conclusion of the case; if the Board finds the charges against the accused midwife proved, and the offence cannot be dealt with by censure and caution, the Board directs its Secretary to remove the name of the midwife from the Roll and also to cancel her certificate.

---

[1] London: The Scientific Press, Ltd. 6d.

[2] See Section 8 of the Midwives Act, 1902.

Where the local supervising authority has appointed a medical adviser, the case should, in the first place, be stated to him, in the expectation that he will bring the facts before his authority. In counties where no such officer has been appointed, and the county council has not delegated its powers to a special committee or to the district councils, the complaint might be addressed to the medical officer to the county council, or, if there be no county medical officer, to the Chairman of the Public Health Committee. If the county council has delegated its powers, the complaint should be addressed to the Special County Midwives' Committee or the district council, as the case may be, in each instance through the medical officer, if there be one.

Another correspondent has written to us about certain superstitions which he finds believed and practised by midwives in rural England. They think it necessary to do what they call "breaking the nipple-strings" of the infant, which sets up a condition of mastitis; this is followed by the practice of "drawing off the milk" during the next ten days. In case of retained placenta many of them think that the proper thing is to pull on the cord—a bad practice, ineffective, and bringing danger of inversion of the uterus. Medical men who come across midwives who do such things should communicate with the local supervising authority.

◆

WARNING NOTICE AS TO APPOINTMENTS VACANT.

WE desire to call the attention of readers who may be looking out for appointments in connexion with clubs, the Poor-law service, or hospitals, to the warning notice which is published weekly in the advertisement columns of the BRITISH MEDICAL JOURNAL. The notice gives the name and address of the Honorary Secretary of the Branch or Division of the Association who will, in response to inquiries, supply information as to the nature of the dispute which renders it necessary to warn medical practitioners not to apply for appointments in the districts mentioned. Information can also be supplied by the Medical Secretary of the British Medical Association, 429, Strand, London, W.C.; but, as a rule, in the case of disputes in the United Kingdom, it will be better to apply direct to the Honorary Secretary of the Branch or Division. The first case mentioned on the list is that of the controversy in Northumberland and Durham in regard to appointments in connexion with collieries, bodies of miners or medical aid associations; some particulars as to the stage which the contest in this district has reached were given in the JOURNAL of January 6th, p. 37. Another district in which a dispute of a similar nature has arisen is at Ebbw Vale; a full statement of the circumstances will be found in the letter signed by the Honorary Secretary of the Monmouthshire Division and the Medical Secretary of the British Medical Association published in the JOURNAL of January 6th, p. 44. At Barrow-in-Furness the dispute has reference to friendly societies and shipbuilding works appointments. Other places in which disputes with regard to contract practice exist are Southampton, Bitterne and the neighbourhood; Portsmouth; Lowestoft; Aberaman and Bridgend in Glamorganshire; Abertysswg and Blaenavon in Monmouthshire; Solva in Pembrokeshire; and Cork. The notice from Cardiff has reference to appointments connected with collecting insurance societies, and it is important that medical men receiving communications from such societies hailing from Cardiff should communicate with the honorary secretary of the Division. Contract practice disputes are also in existence at Auckland, New Zealand; Pretoria, Transvaal; and in the Orange River Colony, South Africa. Before applying for a Poor-law appointment at Aberystwith, medical practitioners are invited to communicate with the Honorary Secretary of the South-West Wales Division. At Leigh (Lancashire) the Board of the hospital has placed itself in opposition to the medical practitioners; full information can be obtained on application to the Honorary Secretary of the Leigh Division.

DRUG TREATMENT OF INEBRIETY.

LAST April we felt it to be our duty to criticize the methods supposed to be pursued by the promoter or promoters of a home for the treatment of inebriety by drugs in Norwich.[1] It was then pointed out that it was a well understood rule that secret remedies cannot be countenanced by the medical profession, and that the offer of the promoter to show his prescriptions to any medical man interested did not fulfil the recognized and reasonable requirements of the medical profession. The members of the medical and surgical staff of the Norfolk and Norwich Hospital had already at that time resolved that it was undesirable for any member of the staff to lend his support to the proposed scheme, and the profession is much indebted to the medical men in Norwich for calling attention to the matter. The promoter, however, protested that he was anxious not to assume a position of antagonism to the medical profession, and professed his willingness to be advised and guided in the matter. The matter has been fully considered by the Ethical Committee of the Association, and the promoter has now given assurances satisfactory to that Committee and has promised that the homes established in London and in Norwich shall be conducted as nursing homes into which patients can be admitted to undergo such treatment as their medical attendants may consider most proper in each individual case. The advantage claimed for the homes is that treatment will be carried out under medical supervision by persons who have had special experience in managing inebriates. The treatment of inebriety by atropine and allied alkaloids combined, as a rule, with strychnine, is still upon its trial, and the attitude of the medical profession towards it will be one of sober reserve, well knowing the fallacies which have to be guarded against, but recognizing that any treatment honestly applied is worthy of careful study. It recognizes also, we believe, that no treatment by drugs alone can be expected to yield permanent results, and that in every case the general condition of the patient must be treated by general means, by simple dietary, by tonics, and by treatment of any obvious physical lesion, while his moral and mental fibre is built up by judicious management and sympathetic influences. Inebriety cannot be successfully treated by rule of thumb; there is no panacea, and the treatment suitable to every individual case must be instituted by the medical man in attendance, and carried out under his constant supervision.

THE MEDICAL SERVICE OF THE THIBET MISSION.

A REPORT on this service has been published by Lieutenant-Colonel L. A. Waddell, Indian Medical Service, and Principal Medical Officer, which presents points of unique interest. Starting from the railway at Siliguri, where a base hospital was formed, a number of sections of a field hospital were established at the chief posts in the long line of communication; but there was needless delay and difficulty in this, owing to the unit of the field hospital supplied being indivisible; this is rather surprising, because at home the field hospitals have long been organized expressly with the view of divisibility into sections, both as regards *personnel* and equipment. The chief difficulty encountered was the unsuitability of the sick transport and hospital equipment for traversing the lofty and rugged hill tracts; they had to be at once reduced in bulk and weight. This also might surely have been foreseen, because it has always, less or more, been experienced in Indian frontier campaigns. When the higher altitudes and steeper gradients were reached, the Indian kakars, or sick-bearers, of the plains, with their cumbrous doolies, were found to be entirely unsuited for such mountain service, and were replaced by Sikkimese and Thibetans, both, of course, wild and undisciplined; the former deserted wholesale, and the latter also in large numbers, until steadied by Garhwallis, hillmen from Naini Tal. So serious was the difficulty of sick-bearers that the report suggests the permanent enlistment of a few hillmen into the Army Bearer Corps, to form a disciplined nucleus for larger cadres in hill warfare. But the equipment was as unsuited as the bearers the regulation doolies and stretchers were far too heavy and unwieldy, and proved positively dangerous in negotiating sharp turns and corners in zigzag paths. The "Amesbury" dooly, much lighter and handier, was a great improvement; as were also chairs, constructed by Colonel Waddell, and carried on the backs of sturdy Thibetans. Later on a hammock devised by Major A. L. Aldridge, R.A.M.C., weighing only 24 lb. with canvas cover and two poles, and 15 lb. with one pole, was used with great success, and it is suggested it should replace the blanket stretcher now in regimental use. The Thibet expedition thus appears to have afforded valuable experience both as regards hospital equipment and *personnel* in hill warfare in high altitudes; much initiative and resource, to the credit of the medical service was shown in carrying the work through under great difficulties.

---

[1] BRITISH MEDICAL JOURNAL, April 29th, 1905, p. 950.

PROPOSED MINISTRY OF HEALTH IN AUSTRIA.

IN the Austrian House of Lords on December 19th Count Merveldt presented a report on a petition from the Medical Unions of Austria praying for the establishment of a Ministry of Public Health. Professor Toldt stated that it was supported by many weighty reasons, and he recommended that it should be submitted to the Government. He thought, however, that the medical unions had gone too far in asking for the establishment of a Ministry of Public Health. Nevertheless, he advised the House to urge the Government to give careful consideration to the arguments and suggestions put forward in the petition. Sanitary administration had made great progress in Austria during the past ten years. There were still, however, important deficiencies and imperfections which hindered the effective administration of existing laws, and placed serious difficulties in the way of the enactment of measures required for the welfare of the people. The petition laid special stress on the fact that sanitary administration was now in the hands of autonomous local authorities. Professor Toldt pointed out that there was also a risk that the framing of sanitary regulations might be left to bodies not possessing the necessary knowledge, and therefore incapable of bringing to the task the requisite interest. So far the petitioners were justified in asking that the sanitary administration should be to a certain extent centralized. What happened when laymen had to do with the making of sanitary regulations was, he said, illustrated not long ago by one of the legislative bodies of Vienna. The case was the giving of a relatively slight sum in prizes for vaccination. There was a danger of vaccination diminishing if these prizes were not awarded. It was decided by the legislative body in question, by a majority of only one vote, that these prizes should be awarded. Had it happened by any mischance that that one vote had not been forthcoming the consequence would have been that, at least during the current year, there would have been considerable difficulty in getting vaccination carried out in Lower Austria. Professor Toldt concluded by moving that the House should recommend to the consideration of the Government the representations made in the petition of the combined medical associations of Austria, showing the need of a thorough reform and an effective organization of the sanitary administration. The speech was received with great applause. Count Merveldt said that as Reporter of the Commission he could not go behind its conclusions on the proposal set forth in the petition. Nevertheless he agreed with Professor Toldt's remarks, and expressed a hope that in the future an improvement might be effected in the health department. The establishment of a central office for sanitary and medical administration would constitute a great progress, but a Ministry of Public Health was not required. On a vote being taken Professor Toldt's motion was carried.

SANITATION AT THE ISTHMIAN CANAL.

THE lengthy article on the Panama Canal contributed to the *Century Magazine* by Mr. Barclay Parsons is of particular interest, and brings our knowledge of the progress of the works completely up to date. With these we are not here concerned, but Mr. Parsons devotes some space to the health conditions prevailing. While the unfortunate company of which Lesseps was the promoter, and the equally ill-starred New Canal Company which succeeded it, turned their attention almost exclusively to the engineering problems confronting them, the American Government have been wise enough to realize that, if success is to attend their efforts in the task they have taken over, it is of the first importance that such reasonable conditions of health should be assured as are possible in a tropical climate. The mortality in the Lesseps period was appalling, and it used to be said that the canal would cost a life for every 6 ft. of its length. At that time there was no system of water supply or of sewers either at Colon or Panama, and the inhabitants depended for their water on cisterns or wells close to the undrained houses, while such sewage as did not go into the cesspools was thrown out into the streets. The numerous cisterns and surface pools were, of course, the main source of danger so far as malaria and yellow fever were concerned, but as if these were not sufficient, both cities were surrounded by extensive swamps which served as breeding places for the mosquitos. When the American Government took possession of the canal zone eighteen months ago the improvement of the sanitary conditions was the first thing taken in hand. That the necessary factors for general malarial infection were not wanting was abundantly evident from an examination of the inhabitants of many of the villages, which revealed the fact that an average of about 60 per cent. had the parasites in their blood. A mosquito war was accordingly commenced, and in order that it should be carried on under the best auspices the same medical officers were appointed for the task who met with such marked success in the Cuban yellow fever campaign. The difficulties they had to contend with were not few, and at the end of last year it was evident that not merely malarial fever, but a steadily increasing number of yellow fever cases were confronting them. Official delays threatened to paralyse all action, but President Roosevelt, with his accustomed energy, took the matter in hand, and sent out Governor Magoon, who set about the task with an indomitable spirit which was ultimately rewarded with success. The measures taken were astonishing in their thoroughness. The city of Panama was divided into eight districts, every house in the city was smoked with a mosquito-destroying fumigator, and every inhabitant was personally inspected each day. There were never many cases; the highest number—62—occurred in June last, and none have been recorded since mid-September. Of the 79 cases occurring among the canal employés, only 14 died. One of the first things aimed at was to establish a good water supply, and accordingly reservoirs were constructed tapping springs in the Culebra range—the central *massif*, it will be remembered, through which the canal has to pass. From these an excellent system of mains supplies Panama with a house-to-house distribution. A modern sewerage system has also been established, and cisterns and cesspools are alike being done away with, while the streets of the town are gradually being asphalted. Colon, too, is to have its waterworks system, and it is proposed to raise the whole surface of the town, which at present is only about 5 ft. above sea-level, in order to get sufficient fall for the sewage. The hospitals at Panama, Ancon, and Colon have been enlarged and put in order, and emergency hospitals established at various places, so that cases can at once be brought under treatment and isolated. As yet only about 10,000 workmen have been in employment, but it is stated that the death-rate is nearly as low as it would be under similar circumstances in the United States. The strength of the present régime lies in the fact that it is in Government hands, and that there need, therefore, be no playing to the public and no constructing of cheerful but fictitious balance sheets. They can afford to start on a thoroughly sound basis, and the wise sanitary precautions that have been taken should go far towards ensuring success.

LIFE TABLE FOR THE CITY OF NORWICH.

DR. COOPER PATTIN, the Medical Officer of Health of the City of Norwich, has added one more to the list of life tables prepared for local stock-taking in regard to life probabilities, which have in recent years enabled a much more accurate balancing of life accounts to be made than was practicable without such aid. The life table has been constructed by Dr. A. W. Tuxford, late of the Public Health Department of the City of Norwich, and he is to be congratulated on the success of his work. Both methods and results are clearly set out and accurately stated, the result being a most workmanlike life table; its value is high at present, and will become higher when the experience of a further ten years can be compared with it. The graphic method is adopted, and the charts attached to the life table show that the curves have been carefully drawn, and represent the natural curves of population and deaths respectively. The chief interest of a life table, however, attaches to the results displayed by it. During the ten years 1891-1900 the expectation of life at birth was less for males in Norwich than in England and Wales (−0.24 year), and less than in Brighton (−1.05 years), but was greater than that of London (+2.89 years). For females it was greater in Norwich than in the country generally (+0.68 year), and than in London (+3.08 years), but less than in Brighton (−1.78 years). During the first few years of life the Norwich figures were generally somewhat better than any others, owing to the low infantile mortality. With one exception, that of females in Brighton, they continued highest until the sixth decade, when the Brighton mean after-lifetime was the longest. For further detailed results and comparisons the life table itself must be consulted.

THE PLAGUE IN MADEIRA.

THE latest numbers to hand of the Lisbon medical journals give the most reliable news available of the condition of affairs in Madeira. It does not appear to be satisfactory. According to *A Medicina Contemporanea*, which expresses itself in terms of the strongest disapproval with regard to the action of the island authorities, the situation has grown more serious, not so much on account of the recrudescence of the malady as from the fact that the populace broke into the lazaretto and released its inmates. The troubles began on January 5th, when the authorities ordered the disinfection of a house which they stated to be inhabited by a girl suffering from tuberculosis. It was on the following day that the attack was made on the lazaretto and 22 suspects set at liberty, together, apparently, with a certain number of sick. How many we are not told, but it is stated that one of them was suffering from the pneumonic form of the disorder, and it seems that the guard connived at the action of the mob, as they had personal friends of their own among the suspects. The original outbreak of the disease, which is apparently termed "infectious pneumonia" by the officials, manifested itself in a single family composed of father, mother, three sons, and a lodger, and these all died, together with a neighbour who had come in to help in the nursing. The cruiser *Don Carlos* is now ordered to the island in case of further disturbances taking place. One reason, it is said, why the isolation measures in the lazaretto aroused the people to such fury was that not only was no communication of any kind permitted between the patients and their friends, but no bulletins whatever of the progress of the sick were given. Concealment of this kind, as the Lisbon papers rightly argue, can under no circumstances whatever be justified.

PRESIDENT ROOSEVELT ON THE MEDICAL SERVICE OF THE ARMY.

MR. ROOSEVELT loses no opportunity of expressing with characteristic vigour his sense of the dangers to an army in the field which arise from an inadequate medical service. His latest utterance on the subject was on January 10th, when he presented a medal of honour to an officer who rendered distinguished services during the Spanish war. Addressing those present, among whom were the Lieutenant-General, and the heads of all the staff department of the United States Army, and the Legislative Committee of the American Medical Association, he declared that if the United States were to go to war the next day the medical corps of the army would be absolutely crippled for want of a sufficient number of officers. The raising of an army of any magnitude would, he said, be followed by an immediate breakdown in the medical department, simply because at present the medical corps was numerically only fit to take care of about 40 per cent. of the regular army on a peace footing. The President added that if the American Government had to mobilize an army of volunteers, the country would, under present conditions, have to count upon widespread disaster through the shortcomings in the medical and sanitary arrangements rendered inevitable by the present lack of preparation. We have several times had occasion to commend the wise words of the President of the United States to our own War Office. Mr. Haldane is credited in some quarters with an intention to make "drastic changes" in our army; is it too much to hope that among these changes may be included such an increase in the number of officers of the Royal Army Medical Corps as will make it, with the help of an efficient reserve, equal to the emergencies of a great war?

LOSSES IN THE JAPANESE MEDICAL STAFF.

ACCORDING to the *Sei-I-Kwai Medical Journal*, the total loss of life among medical officers of the Japanese army and navy from the beginning of the war till the conclusion of peace was 70. Of these 29 were killed in action and 41 died of disease. The army suffered more heavily than the navy, the total loss being 56, of whom 19 were killed in battle. Among them were 1 surgeon-major, 3 surgeon-captains, 6 surgeon-lieutenants, and 9 surgeon-second-lieutenants. Among the 37 who succumbed to disease there were 2 surgeon-majors, 7 surgeon-captains, 7 surgeon-lieutenants, and 21 surgeon-second-lieutenants. The number of medical officers killed in action serves to show the severity of the fighting; during the Chino-Japanese war in 1894 and 1895 no surgeon was killed, and only 27 died of illness. In the navy the total loss of medical officers was 15, of whom no fewer than 10 were killed in action; among these were 2 fleet surgeons, 1 staff-surgeon, 3 surgeons, and 3 first-class assistant-surgeons. Of the 4 who died of disease, 3 were surgeons and 1 was a first-class-assistant-surgeon. During the Chino-Japanese war only 2 medical officers were killed, and there was no death from disease among the medical staff.

A MARTYR TO SCIENCE.

Antivivisectionists have often suggested that medical investigators should make experiments on themselves rather than on animals. They do not seem to be aware, or perhaps they shut their eyes to the fact, that investigators often do experiment on themselves; not a few have fallen victims to their zeal for knowledge. Among these martyrs of science was the Peruvian physician, Dr. Daniel Carrion, whose memory was celebrated by the Medical Society of Lima on October 5th, the day on which, twenty years ago, he gave his life for the establishment of a scientific truth. Carrion was convinced that Peruvian verruga and Croya fever were one and the same disease, although so different in their manifestations. This view seemed to be confirmed by experiments on animals, but these did not convince the medical world. To decide the matter once for all, he inoculated himself with the virus of the verruga, and as the fever developed in consequence, he wrote a graphic record of the disease as observed in himself. Scheube regards the disease as a severe form of yaws, modified, perhaps, by the high altitude of the regions in South America where only it occurs, and possibly by malaria.

ROYAL COMMISSION ON THE POOR LAW.

Criticisms on the composition of the Royal Commission on the Poor Law appointed by the last Government are multiplying. It has already been pointed out that it is seriously defective, owing to the fact that it contains no representative of the Poor-law Medical Service, nor any representative of the medical profession having actual experience of general practice. We hear, further, that in the North of England it is considered that the Commission is composed too largely of persons residing within the metropolitan area, only one member of it having any connexion with the North. At the last meeting of the Council of the Poor-law Unions Association much dissatisfaction was expressed with the composition of the Commission, and it was pointed out that one great part of its work will be to inquire as to the improvements needed in the treatment of the mentally and physically sick poor who now constitute so large a proportion of the total number of paupers under the care of the State. Three Committees appointed by the Local Government Board have sat recently, the Workhouse Dietary Committee, the Aged Poor Committee, and the Nursing in Workhouses Committee, and all did good work. There is also sitting at the present time a Royal Commission on the Feeble-minded, so that many persons of experience are inclined to believe that what was really wanted was not a Royal Commission to rove over the whole field of Poor-law administration, but a committee to inquire into the conditions of medical relief. We are informed that the constitution of the present Royal Commission will most probably be brought under the notice of Parliament at the earliest opportunity, and we may then learn whether it was constituted with and by the advice of the Local Government Board, or whether it was not arranged in another office with the view of soothing some susceptibilities and tiding over a temporary emergency.

THE CASE OF FALSE PERSONATION.

In another column we refer to the conviction of Charles Forbes at the County of London Sessions held last week. It will be noticed that the indictment charged the prisoner with fraud, and the efforts of the prosecution were directed to proving cases in which he had obtained money and goods by false pretences, the deception mainly consisting in the assumption of names and titles suggesting that Forbes was a well-known person of unquestionable financial stability. The interest of the case to the profession lies in the attempt of the prisoner to pass himself off as a qualified medical practitioner by personating a Dr. Forbes, whom he knew to be practising abroad. At common law false personation is punishable as a cheat or fraud; but it is also dealt with by statute in particular cases. Thus there are statutory provisions dealing with the false personation of soldiers and sailors in order to obtain wages or prize money due to them, and the false personation of the owners of certain stocks is by statute a felony punishable by penal servitude. Many statutes dealing with forgery also provide against false personation. It is probable that members of the profession who read the report of Forbes's conviction will agree that the sentence did not err on the side of severity. The judge rightly described his action in passing himself off on doctors as a qualified medical man, and attending to their patients, as "cruel," a view with which the jury were evidently in sympathy.

THE AUSTRIAN *PHARMACOPOEIA*.

A new edition, the eighth, of the Austrian *Pharmacopoeia* will come into force on July 1st. Among other changes it contains regulations as to the sale of new remedies. Substances or preparations which are newly placed on the market can, in the absence of an order of the Minister of the Interior to the contrary, be sold only to persons who produce a prescription by a medical practitioner. Drugs in special forms, such as tablets, capsules and pastilles, must not be sold by pharmacists in their original packages if they contain substances which cannot be sold without a medical prescription. Exceptions to this ordinance can be made only by permission of the Minister of the Interior.

THE VIRCHOW HOSPITAL.

The Virchow Hospital, which is to be opened in Berlin in the spring, will be one of the largest and most fully-equipped in the world. It will contain 2,000 beds for patients, and accommodation will also be provided for a staff of 650 persons, including resident medical officers, nurses, and servants. Within the precincts of the hospital there will be an institute of pathological anatomy, an institute of mechanotherapy, and a pavilion for radiography. There will also be a school for the children of attendants.

On January 19th the Dean of Chester unveiled, in the chancel of Bunbury Church, Cheshire, a stained glass window, the gift of the members of the Dutton family, in memory of their brother, Dr. J. Everett Dutton, who went out to Central Africa on a medical research expedition, and died of fever at Kosongo. The subject is "Christ Healing the Sick." Several representatives of the Liverpool School of Tropical Medicine were present at the ceremony.

Canada.

THE ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

THE Local Executive Committee of the annual meeting of the British Medical Association to be held in Toronto, August 21st to 25th, is making rapid progress with the arrangements, and we shall hope in an early issue to be able to publish a fuller statement of the arrangements made, and particulars of the opportunities which will be afforded for excursions to various parts of Canada. Dr. F. N. G. Starr of Toronto, one of the Honorary Local Secretaries, has had an interview with the Eastern Canadian Passenger Association in Montreal, an organization representing thirty-four lines of railway doing business in Canada and the United States; he was assurred that the railway companies interested were ready to make imporant concessions to members of the British Medical Association from this side of the water. The railways have promised to "grant one-half fare to all points in Canada and to certain ports of the United States, and to allow ample time for all such trips to be taken." We are further informed that first-class return tickets between a Canadian landing port and any point within the territory of the Eastern Canadian Passenger Association, which includes Toronto, will be charged one and one-third fares, provided that not less than fifty persons apply for such tickets; if more than 300 persons apply the return will be granted at a single fare; the first-class single fare from either Quebec or Montreal to Toronto will be £1 15s. 5d.; members obtaining the tickets on the special terms will not be required to travel together.

With regard to fares on the Atlantic steamships, we are advised that the various lines are not free to accept less than the minimum first-cabin fare, but that they will be ready to allot accommodation of a higher category for the minimum fare. Mr. F. W. Flanagan, General Passenger Agent of the Canadian Pacific Railway Company, 62-65, Charing Cross, London, S.W., informs us that an arrangement has been concluded whereby those who purchase first-cabin Canadian Pacific Line return tickets will have the option of returning by the Cunard Line from New York or Boston upon payment of the difference in fare, if any.

We hear from Professor Osler that there are a number of college halls in Toronto in which from eighty to a hundred men could be billeted, taking their meals in the university dining-room. He also tells us that many of the leading citizens in Toronto will be ready to invite members accompanied by their wives or daughters to stay with them as their guests.

A TUBERCULOSIS CAMP FOR MONTREAL.

The Montreal League for the Prevention of Tuberculosis has asked the City Council for a grant of land and financial aid to enable them to install a temporary camp for consumptives in the neighbourhood of that city.

THE SUPERVISION OF NOSTRUMS.

The Government of British Columbia has appointed a Commission to investigate the sale of patent medicines containing harmful ingredients, with a view to legislation for the protection of consumers against the evil consequences of these remedies. The step is the outcome of the recent death of an infant, which is said to have been poisoned by laudanum contained in a patent medicine.

Scotland.

THE RESIGNATION OF PROFESSOR SIR HENRY LITTLEJOHN.

SIR HENRY LITTLEJOHN, Professor of Forensic Medicine in Edinburgh University, has resigned the chair to which he was appointed on the resignation of the late Sir Douglas Maclagan in March, 1897. Sir Henry has held the post of Medical Officer of Health for Edinburgh since 1862. He has written much on public health questions, and he has worked indefatigably for the benefit of the city of Edinburgh. During the eight years of his professorship he has proved himself one of the foremost of university lecturers, and has gained in a remarkable degree the admiration and affection of his students. By them his departure from the University will be deeply regretted, and they and all who know him will join most heartily in wishing him God-speed in the work that still lies before him.

ROYAL MEDICAL SOCIETY, EDINBURGH.

The annual dinner of the Royal Medical Society of Edinburgh will be held in the Society's Hall on Wednesday, February 7th, when Professor Clifford Allbutt, M.D., LL.D., etc., will be the guest of the evening.

WOMEN GRADUATES AND THE PARLIAMENTARY ELECTION.

A point of no small interest has been raised in connexion with the parliamentary elections for the Scottish universities. All graduates, whether male or female, are on the registers of the General Councils of the universities from which the lists of parliamentary voters are taken. The women graduates maintain, therefore, that they are thereby entitled to vote for the parliamentary elections in connexion with the universities of which they are graduates. They also insist that there is nothing in the Acts regulating the universities' elections which shuts them out from that privilege and right. The Registrars, who send out the voting papers, are, on the other hand, of opinion that women graduates have no valid claim for the vote in question, and that they come under the category of those who are "subject to legal incapacity." In the statute dealing with the universities' elections, it is provided that "no person subject to any legal incapacity shall be entitled to vote at any election, or exercise any other privilege as a member of the general council of any university." It is understood that none of the registrars of the Scottish universities have sent out voting papers to women graduates in connexion with the elections, and it is said that in adopting this course they are acting on the highest and most competent legal advice. The registrars point out that if they had sent out voting papers to the women graduates, their votes would be objected to by the agents for the candidates. On the other hand, the women graduates maintain that it is the duty of the registrars to "forward to each voter, to his address as entered on the register of the General Council of the University, who shall appear from said address to be resident within the United Kingdom and the Channel Islands," the necessary voting paper. A provisional committee, of which Miss C. Macmillan is secretary, has called a meeting of the women graduates of the Scottish universities, to be held in Edinburgh on January 27th inst., to "consider their present position as parliamentary electors, and to appoint a committee to promote their interests."

Ireland.

THE SPIDDAL CASE.

IN the BRITISH MEDICAL JOURNAL of January 6th (p. 47) reference was made to the death of Dr. Hickey of Spiddal, who contracted typhus fever from a poor patient. We mentioned that he was the sixth dispensary doctor who had died in this district in the past ten years, and we recommended that no candidates should appear until a salary proportionate to the work and risk was offered. We regret to say that two candidates did present themselves. Dr. Lydon of Carna was elected. When the conditions of medical service in such districts were brought before the General Medical Council at its last meeting by Sir William Thomson, Sir Patrick Heron Watson asked why medical men went there when they could do better elsewhere. We confess to amazement. Here is a district of 65,000 acres, 23 miles long, with 6,000 peasants. The salary is £150 and £15 for sanitary duties. The medical officer out of this must provide a horse and car, a house, food and clothes for himself and family. There is no private practice. It certainly is a puzzle. Stone-breaking would probably be better; it certainly would be less risky.

A TRAGEDY.

We regret to learn that Dr. Armstrong of Castletown Bere, Bantry Bay, has shot himself while of unsound mind. Dr. Armstrong obtained his qualifications in 1876, and served for some years in the navy. After his retirement he practised in Manchester, and later on settled in Castletown, where his father had already been medical officer. The deceased gentleman had been much depressed of late. Much sympathy is felt for his widow.

The Election of Direct Representative in Ireland.

DR. LEONARD KIDD of Enniskillen has forwarded the enclosed correspondence between himself and Dr. Laffan of Cashel, with a request that it should be published.

I.

Enniskillen,
December 17th, 1905.

Dear Dr. Laffan,

Will you kindly inform me if you intend to be a candidate for the G.M.C. in February, 1906?

If you are a candidate, are you willing to accept the verdict of a preliminary poll (in which every practitioner resident in Ireland shall have the opportunity of voting) as between you, myself, and any other provincial candidate there may be, the defeated candidate or candidates to unconditionally promote the candidature of the one at the head of the poll?

Apparently you are not aware of the efforts I made in March of this year to have the question of the D.R. for Ireland discussed by the provincial men.

The circular of which I enclose a copy was sent to the Hon. Sec. of every Branch I.M.A. and Div. B.M.A. in Ireland.

Yours faithfully,
L. KIDD.

I incline to the suggestion that the expenses of the preliminary poll, if held, should be borne by the defeated candidate or candidates.

II.

Cashel,
December 21st, 1905.

Dear Dr. Kidd,

I have been urged to go on, but as I am less interested in myself than in the cause, I would gladly submit to a preliminary poll, but from that poll our enemies the classes should be excluded; I mean by the classes those connected with any school of medicine, clinical hospital, or examining Board. Another way of coming at it would be to require each preliminary voter to publicly pledge himself to vote against the metropolitan candidate. I agree with you that it is only by union that we can win, and though you don't see eye to eye with me in the programme outlined by me in the BRITISH MEDICAL JOURNAL, yet as our interests and our hates must need be the same, I should hope either to convert you or to find you coming forward with equally good proposals. You can make any use you like of this.

Yours truly,
T. LAFFAN.

III.

Enniskillen,
December 25th, 1905.

Dear Dr. Laffan,

I regret you do not see your way to accept a preliminary poll in which every registered practitioner resident in Ireland would have the opportunity of voting. We must therefore proceed on independent lines, but I hope one or other of us will break the spell of the Dublin monopoly. I can honestly say I have done my best for the cause of provincial representation, and repeatedly expressed my willingness to stand down in favour of a more eligible candidate.

You may not have seen the enclosed, which appeared in the *Freeman*, nor did I see any attempt on your part to justify the statement that you were opposed by "the entire Protestant element because you were a 'Papist.'"

You may remember that in 1886 you scored 195 votes and in 1901 245, whereas two other Roman Catholic gentlemen received a much heavier poll—namely, Dr. Corby of Cork 528 in 1891, and Dr. Cuming of Belfast 787 in 1896.

Yours faithfully,
L. KIDD.

[NOTE BY DR. KIDD.—In explanation of this letter, I may add Dr. Laffan wrote to the *Freeman's Journal*, November 15th, 1905, stating: "The whole Protestant element opposed me more than once for no other earthly reason than that I was a Papist. I replied challenging Dr. Laffan to justify this statement, quoting the figures given above, and saying it would seem the entire Roman Catholic element was opposed to him for some reason other than his religion. I sent Dr. Laffan a copy of this letter as published by the *Freeman*.]

IV.

Cashel,
December 27th, 1905.

Dear Dr. Kidd,

I regret that you should have thought proper to withdraw from your own offer. My letter was a letter of acceptance and nothing else, for nobody can call the limitation involved in shutting out from the poll supporters of the metropolitan candidates a refusal. Evidently you are less interested in obtaining the support of the masses and in advocating their grievances than in obtaining the empty position of a seat in a hostile body. I now call on you to publish the whole correspondence, and of course I will not trouble you with any future letters. I am now as free as if none had ever been exchanged.

Yours faithfully,
THOS. LAFFAN.

V.

December 28th, 1905.

Dear Dr. Laffan,

I beg to acknowledge receipt of your letter of December 27th, 1905. At present I have not the least intention of publishing the correspondence that has passed between you and myself, but if you do so I insist that you shall include the full text of my letters December 17th, 25th, and 28th, together with that of your letters to me.

I have not withdrawn from my original offer, on the contrary I still adhere to it. I asked you to agree to a preliminary poll in which every registered practitioner in Ireland was to have the opportunity of voting. In reply you made an entirely new proposition limiting the poll to a certain class and disfranchising another class and you call this an acceptance of my offer! To this fresh proposal I cannot and will not assent, and repeat that in thus rejecting your suggestion I do not withdraw from the pledge I made at the very commencement of my canvass.

I also asked you to agree that the candidate defeated in the preliminary poll should unconditionally support the man at the top of the trial poll—to this you did not favour me with any reply! Am I to take your silence, ignoring your published declaration against my candidature, as an "acceptance" of this condition of the preliminary poll?

Before plunging into further controversy it is due to your reputation to justify or, failing to do so, to withdraw the statements to which I have publicly and privately drawn your attention.

Yours faithfully,
L. KIDD.

January 12th, 1906.—I wired to Dr. Laffan, Are you a candidate?

Reply: I am not too late.—Laffan.

We have received from Dr. Laffan a postcard, as follows:

Cashel,
January 22nd, 1906.

I wrote to you that I was a candidate. An Ulster correspondent is, even in medical matters, not the most reliable person in the world!

Yours,
(Signed) T. LAFFAN.

⁂ We cannot trace the receipt of any such communication.

At a special general meeting of the Munster Branch of the British Medical Association, held at 74, South Mall, Cork, on January 20th, it was proposed by Professor Corby, and seconded by Professor Cummins, that the Branch recommend the candidature of Dr. Kidd as Direct Representative for Ireland on the General Medical Council.

Dispensary Medical Officers' Pay.

Two Irish Boards of Guardians which did not accede to the claims of their medical officers for increased pay have agreed to reconsider the whole question, in the hope that they may be able to arrive at a satisfactory arrangement. These are the guardians of Rathdrum and Mullingar Unions. This action has been taken on the suggestion of Surgeon-Colonel Flynn, one of the Medical Inspectors of the Local Government Board. At Mullingar the Inspector reminded the guardians that the Local Government Board had brought the matter before them, and in June, 1905, Dr. Kerrigan had asked them to consider it. Dr. Kelly had 30 years' service, Dr. McGrane 17, Dr. Daly 20, Dr. Kerrigan 25, Dr. Rowan 17. They had the same salary as when they first took office. Their duties were undoubtedly increasing. In some other unions a friendly agreement had been come to. He asked them to consider the matter that day four weeks.

Mr. Scally said they all knew the salaries were insufficient. An ordinary record or third-class clerk had a better salary than some of the doctors.

Chairman: When some of the dispensaries became vacant the salaries were cut down, and still we had plenty of applicants. It is the doctors' own fault.

Mr. Scally: It was not the fault of the doctors. It was the fault of the new Board that came in.

Chairman (to Dr. Flynn): Do you suggest any special salaries?

Dr. Flynn: No; there are about twenty-one unions which have formulated scales, the maximum being about £190 to £200.

Mr. Scally: There is not a member of the Board but is willing to deal fairly with the doctors.

Mr. Scally then gave notice that he and Mr. Donohoe would move that the matter of the scale of fees be considered on that day month.

Bristol.

THE BRISTOL ROYAL INFIRMARY.

STRENUOUS efforts are being made by the President and Committee of the Royal Infirmary to clear the institution of debt, and provide money to carry out many important alterations and improvements in the structure. To this end an influential meeting was held early in this month in the hall of the Society of Merchant Venturers. The Duke of Beaufort took the chair, and was supported by the Lord Mayor and High Sheriff of the City, the Right Hon. Lewis Fry, Sir Charles Cave, Sir Clifton Robinson, the President of the Bristol Chamber of Commerce, many leading citizens, and the medical staff of the institution. Letters of regret for absence were read from the Marquis of Bath, Earl Ducie, Lord Fitzhardinge, Sir Michael Hicks-Beach, Sir William Henry Wills (Lord Winterstoke), Sir Frederick Wills, Mr. Walter Long, and Mr. J. S. Fry. The treasurer and president explained the reasons for calling the meeting—namely, that for many years at the Royal Infirmary there had been a deficit, and in consequence the building and establishment had not really been equipped and sufficiently extended to keep up with the ever-increasing work. Sir George White read a correspondence he had had with Lady Smyth in connexion with his appeal to her for assistance. In the letters Lady Smyth at first expressed her regret that she did not see her way to give assistance, as past experience had shown that the institution could not be carried on without increasing indebtedness, and that further extension would only increase the difficulties; but, after an explanation from Sir George White that no addition was to be made, and that the money was required to pay off an accumulation of debts, and to only add what was urgently required in casualty and reception rooms, additional operating rooms, and a better mortuary, Lady Smyth expressed her sympathy in a practical way by sending a cheque for £1,000. The President further said that for the first time for forty-three years the infirmary was out of debt, but in face of the ever-increasing calls on its purse a much larger subscribers' list was needed in the future. In Bristol there were as many as 43,000 houses rated under £18 and 24,000 above, and he appealed to these householders to respond to this the only special call and send a donation. The list of donors shows that £15,552 was raised at the summer carnival—this includes £4,015 from Mr. S. White and £7,514 from Sir George White; that there has been one donation of £5,000, eight of £1,000, two of £500, forty-nine of sums from £300 to £100, and a large number of others from £52 to amounts under £2. Altogether £40,403 10s. has been obtained, and it only requires, therefore, £9,596 10s. to complete the sum needed.

Birmingham.

THE NEW PARLIAMENT.

IT is a matter of considerable interest to Birmingham that Sir Walter Foster, M.D., who has for the last eighteen years been M.P. for the Ilkeston Division of Derbyshire, is the first member of the profession in the United Kingdom to have been summoned to the Privy Council. Sir Walter is Consulting Physician to the General Hospital, and the honour which has been conferred upon him has caused great satisfaction to his medical brethren in Birmingham. Sir William Collins, M.D., M.S., who has just been elected M.P. for St. Pancras (West), belongs to an old Warwickshire family. His ancestor, Mr. William Collins, represented Warwick in the Thirties.

ADULT INSTITUTION FOR THE DEAF AND DUMB.

A meeting of deaf and dumb adults was held in the Young Men's Christian Association rooms in Birmingham on January 17th. The subject for consideration was the building of an institution for adult deaf and dumb persons. It was decided to make known to the public the urgent need of such an institution, and to appeal to them for funds to commence building. A Committee was elected to meet and confer with the Town Hall Committee and arrange with the latter what steps should be taken as regards the commencement of this work.

BEQUEST TO THE WOMEN'S HOSPITAL.

The late Mrs. Unite's bequest of £20,000 to the Birmingham Women's Hospital is the subject of an action in the Chancery Division of the High Court. The bequest was made "for rebuilding and equipment" of the hospital, but the building was finished before Mrs. Unite's death. The next-of-kin contend that such bequest fails and that they are entitled to the £20,000. The Hospital authorities maintain that for the building done this money is not payable, but that for "equipment" it is so payable, as also for any "rebuilding" that may be done hereafter. Mr. Justice Kekewich reserved his judgement.

South Wales.

WELSH WATER SUPPLIES.

THE Llandilo Rural District Council some time ago came to terms with the Llanelly Rural Council to provide a water supply in connexion with the Loughor scheme for Ammanford, Llandebie, and other places in the Llandilo Fawr Union, but owing to the demands made by the riparian owners the Llandilo Council at their meeting on January 13th decided to abandon all thoughts of a supply for Llanelly.

UNIVERSITY COLLEGE OLD STUDENTS' ASSOCIATION.

The eighth annual meeting of the Association of Past Students of the University College of South Wales and Monmouthshire was held on January 20th, Mr. W. Sheen, M.D., M.S., F.R.C.S., presiding. Several members were nominated for the representation of the Guild of Graduates on the University Court. A meeting under the auspices of the above association was held at the Girls' Intermediate School on the afternoon of the same day, when an address on "The Economics of University Education" was given by Sir Arthur W. Rücker, F.R.S., Principal of the London University. On the motion of Principal E. H. Griffiths, seconded by Mr. J. G. Davies, a hearty vote of thanks was accorded Sir Arthur Rücker for his able and interesting address. In the evening the annual conversazione was held and a most enjoyable time was spent.

INCREASE OF VAGRANTS.

At the meeting of the Newport (Mon.) Board of Guardians, held on January 20th, it was reported that there is still an increase in the number of tramps dealt with. During the fortnight the number relieved was 565, being an increase of 150 over the corresponding period of last year. Of the 565 dealt with, 208 were sent to lodging-houses.

North Staffordshire.

TRAMP WARDS.

IN the paragraph published in the JOURNAL of January 6th, page 42, it was stated that the Stone Board of Guardians found after imposing certain tasks in the new tramp wards that the number of tramps passing through the wards for the half-year was 959 against 4,039 in the corresponding half of 1904. A correspondent in Staffordshire has suggested that this diminution may have been attended by an increase in the number of tramps applying to the casual wards of other neighbouring unions. The statistics from Newcastle hardly bear out this view. We learn that during the six months ending Christmas, 1905, there were 1,994 vagrants as compared with 4,946 in the corresponding period of 1904, the decrease occurring simultaneously with that at Stone. At Stoke the number of vagrants in the second half of 1904 was 1,350, and in the corresponding period of 1905, 2,015, showing an increase of 665; but we are further informed that both in 1904 and in 1905 the numbers were much below the figures for earlier years, which used to be 5,000 or 6,000 even during labour days, but before the introduction of the separate-cell system and two nights' compulsory stay.

The General Election.

THE elections have gone badly for medical candidates. Sir Michael Foster, K.C.B., has been defeated at the University of London by a narrow majority of 24, and Dr. C. F. Hutchinson has failed to retain the seat for the Rye Division of Sussex, which he won at a by-election in 1903. Surgeon-General Evatt has failed to secure election in the Fareham Division of Hants, and Dr. J. Court has been equally unfortunate in North-East Derbyshire. On the other hand, Mr. R. J. Price has retained his seat for East Norfolk, Dr. V. H. Rutherford, who stood as a Liberal, has won the seat in the Brentford Division of Middlesex, and Dr. Rolland Rainey and Dr. Pollard, also Liberals, have been successful in replacing Conservatives as representatives of the Kilmarnock Burghs and the Eccles Division of Lancashire respectively.

UNIVERSITIES OF EDINBURGH AND ST. ANDREWS.

THE nomination of candidates for the representation in Parliament of the Universities of Edinburgh and St. Andrews took place on Monday, January 15th, in the Examination Hall of Edinburgh University. Principal Sir William Turner, Vice-Chancellor of the University, as returning officer, presided. Fully a hundred graduates were present. After the Vice-Chancellor had indicated the method of procedure in a University election, Professor Thomas Annandale nominated Sir John Batty Tuke, who, he said, had been a tried, trusted, and successful member for the Universities for nearly six years, had devoted his time and energies to his Parliamentary work, was a graduate of a Scottish University, and was a member of the medical profession. It was almost universally recognized that the members of the medical profession in Parliament were far too few, and therefore it was very essential that Parliament should receive distinguished members of the medical profession to assist in promoting, advocating, and encouraging those many matters which were now considered so important to the health and education of the people. Principal Stewart, St. Andrews, seconded the nomination.

Professor Shield Nicholson, in proposing Mr. J. St. Loe Strachey, said this was an occasion on which it was the duty of the constituents in those Universities to express an opinion upon the main points at issue in that general election. He was in complete agreement with all that had been said of the personal qualities of Sir John Batty Tuke. He would like to go so far as to say that in a university of that kind on ordinary occasions it might be advantageous that the representative should be a member of the medical profession. Professor Musgrove (St. Andrews) seconded.

The Vice-Chancellor then stated that, as a poll would now be necessary, he adjourned the sederunt until Monday, February 5th, when the poll would be opened, and would proceed on Monday 5th, Tuesday 6th, Wednesday 7th, and Thursday 8th February. On the first three days the poll would be kept open from 8 a.m. to 4 p.m. The poll would close on Thursday, February 8th, and no votes would be received that day after 10 a.m. Then the voting papers would be opened, the votes duly counted, and the announcement of the result made.

UNIVERSITIES OF GLASGOW AND ABERDEEN.

THE voting papers for the above election have now been issued and the triangular contest for the seat fairly entered upon. All the candidates have addressed meetings in Aberdeen recently and all were well received and got good audiences. A large amount of literature has been poured upon the electors, so that the views of the various candidates are easily ascertained. Opinion in Aberdeen is very much divided on the question of the candidates likely to be successful, though, perhaps, the majority seem to favour Sir Henry Craik's candidature. The medical vote is likely to be much more divided than one would have looked for with a medical man in the field. Professor Smith's rather late declaration in favour of Free Trade and the consequent loss of his Chairman, Sir William J. Sinclair, the discussion and clearing up of the vexed question of the claims to seniority on the part of the London Unionist Committee of the Universities and the local committees in Glasgow and Aberdeen, and the decision of the Central Unionist Association in favour of the Local Committee, all these have militated against Professor Smith's chances. Professor Murison will probably get the Free Trade vote, and the reception he got on Saturday at a large meeting in Aberdeen, under the chairmanship of Dr. Angus Fraser, augurs well for his success in Aberdeen. The fact, too, that a few years ago he stood for the Lord Rectorship and was defeated by a very few votes after a very keen contest will help him, since on that occasion he had the support of over three hundred students now graduates and having votes on the present occasion.

It may be noted that the voting papers now issued must be returned to the proper quarter—the Registrar of the respective Universities—on or before 10 a.m. on Tuesday, February 6th.

WE have received the following letter:—

SIR,—We are sure that our profession deprecates the use of the columns of the BRITISH MEDICAL JOURNAL for electioneering purposes, and we are convinced that you also are of this opinion. But we would ask leave to reply to Professor Smith's letter which appeared on January 20th last.

As regards paragraphs 1 and 2, we have to say that a Conservative Association in London in connexion with the parent associations in Glasgow and Aberdeen has been in existence some twenty-five years or more, and that two of us have been the honorary secretaries thereof. Professor Smith must have known of its existence, as he has received, or had sent to him, from time to time, invitations to its dinners and other functions.

This Association, consisting as it does of members of the medical as well as of the other faculties, organized the election, so far as the metropolitan electors were concerned, of Mr. Campbell, and also of his predecessors.

Professor Smith's Association is of his initiative. It was originated at 74, Great Russell Street, where are located the offices of the Institute of Public Health, of which the Professor is President. Professor Smith has been from the first Chairman of this Association, and in due course was put forward by it as its candidate for the Universities' seat. But the Unionist party leaders in the two Universities, having met in May, 1904, selected Sir Henry Craik as their candidate, and ignored Professor Smith's so-called "senior Association."

We have for some years inferred from some correspondence which we should like to see published, that Professor Smith was desirous of becoming a candidate for the seat when Mr. Campbell saw fit to retire; and for many months before the Professor received the favourable acquiescence to his candidature of "a thousand . . . . graduates," we knew at any rate that he contemplated coming forward as a candidate. This is a laudable ambition; but whether Professor Smith's abilities and position in the profession are such as to recommend him as Member for our Universities must be left to the graduates to decide.

Finally, so far as relates to Professor Smith's Association being "duly registered at the central office," we have to say that the formation of this society was certainly notified to the Central Conservative Office by Professor Smith, but the name of the Association has not been included in the official list of Unionist organizations, and is not recognized at the central office, and that there Sir Henry Craik is regarded as the official and Unionist candidate for the representation of the two Universities in Parliament.—We are, etc.,

J. MITCHELL BRUCE.
SEYMOUR TAYLOR.
JAMES GALLOWAY.
R. J. COLLIE.

January 22nd.

Professor W. R. Smith has sent us a letter, of which the following is a correct copy. Captain Middleton was at the time the chief agent of the Conservative party:

Conservative Central Office,
St. Stephen's Chambers,
Westminster, S.W.,
7th July, 1903.

Dear Sir,

I am much obliged for the particulars you have sent me of the Universities of Glasgow and Aberdeen Conservative and Liberal Unionist Association. I will see that the names are duly noted in our books, and they shall be added to the official list as soon as there is a reprint.

Yours faithfully,
Richd. W. E. Middleton.

James Cantlie, Esq.

We have received a further letter from Dr. J. Grey Glover, in which he states that we have slightly misrepresented his views. He writes:

> Other things being equal, I should prefer to vote for a medical man. But where the questions at issue are not medical, but of the first political and economic importance, and the non-medical candidate has views on such questions in accordance with those of the university voter and the medical candidate has not—and where the non-medical candidate shows a satisfactory sense of what is due from the Legislature to our profession—I am clear that all medical graduates who respect and wish well to university representation should not hesitate to vote for the non-medical candidate.

⁂ Has any general election taken place during the last hundred years in which party men have not considered the questions at issue to be of the first political and economic importance?

SPECIAL CORRESPONDENCE.

PARIS.

The Legal Conditions of the Medical Use of the Roentgen Rays.—Medical Senators.

In May, 1905, Professor Debove called the attention of the Académie de Médecine to the dangers to which man may be exposed through the use of the Roentgen rays by persons not legally authorized to practise medicine. A Commission was then appointed, consisting of Professors Brouardel, Debove, Gariel, Drs. Hanriot, Motet, C. Perier, Pouchet, with Dr. Chauffard as reporter, to report on the legal conditions of the medical use of the Roentgen rays. Dr. Chauffard has recently presented a very full report on the question. Since December, 1895, when Professor Roentgen first made known his discovery to the Physico-Medical Society of Wurtzburg, radiology has undergone a wonderful evolution. After the statement of the physical fact came its application successively to diagnosis, to empirical therapeutics, to experimental pathology, and lastly, to scientific therapeutics. Accidents, often serious, have followed the application of the Roentgen rays, but these have been very suggestive and have often served as a guide to therapeutic applications. Thus depilation after their application to the scalp has become the best treatment for tinea tonsurans. In the same way the study of lesions of the skin led to the radiotherapeutics of tumours. At the present time experimental research has shown the action of the rays on the deeper tissues, the white blood cells being destroyed, not only in the haematopoietic organs, but in the blood. This has led to the use of the rays in the treatment of leucaemias, in certain conditions of enlarged spleen, in cases of mycosis fungoides, in sarcomas, etc. It has been experimentally shown that the Roentgen rays can cause atrophy of the testicle in the white rat and of the ovary in rabbits. Thus their application directly touches the serious social question of the reproduction of the species. Radiology has been created by the collaboration of the physicist, the medical man, and the experimenter. To the medical man alone should belong the right to use this arm, which is every day becoming more powerful and formidable in its effects. This is far from the actual condition. Radiology, and even radiotherapeutics, are openly practised contrary to the laws regulating the practice of medicine—by men often ill prepared in their use, and at times by the grossest quacks. Every first progress in technique only increases the dangers of such a state of affairs.

1. The medical man alone is fitted to obtain from radiology all the services it can give in diagnosis, as well as in treatment. For diagnosis he alone is capable of interpreting the radiograph, and more particularly the radioscopic examination of the different organs.

2. From another point of view, a radiograph is a document consisting of something taken directly from the patient, it is something of the personality of the patient, and therefore the use of a radiograph comes under the law of professional secrecy in its strictest sense. Take, for example, a case of early phthisis, or a man with syphilitic exostoses, examined by a man outside the medical profession who is not bound to professional secrecy.

3. Passing to the application of radiotherapeutics, we enter further into the domain of pure medicine and practice. There now exists a radiological posology, dosing precisely the quantity and quality of the rays employed. It is evident that the medical man alone can examine and settle these delicate questions.

The medical use of radiology should therefore be reserved exclusively to medical men; instead of that, it has up to the present, contrary to the law on the practice of medicine, been a free industry, open to all without any guarantee of morality or professional aptitude, lending itself to every abuse and danger.

In the discussion which followed Professor Pinard spoke on the question of the possibility of sterility following the application of the Roentgen rays. Is it possible to draw conclusions about man from experiments on the rat, or about women from experiments on the rabbit? On looking up the records of twenty-two cases of women, of whom pelvic radiographs have been taken in the Clinique Baudelocque either during their pregnancy or after their confinement, from 1897 to 1903, Professor Pinard finds that ten returned the following year to be confined, three two years later, four three years later, four five years later, and one six years later. Moreover, twenty-seven women were radiographed during their pregnancy at all periods without any ill results to either mother or infant. M. Paul Regnier took up the defence of the physicists, who were the first pioneers and teachers of the medical profession. By taking away from them the right to practise radiology there is a risk of placing these methods in the hands of men who have received no special education. M. Gariel said that it was infinitely easier for a doctor to become a radiotherapeutist than for a physicist to acquire the necessary clinical knowledge. M. Debove, M. Cornil, M. Brouardel, and others, also took part in the discussion. The following conclusions of the Commission were unanimously carried by the Académie:

> Considering that the medical use of the Roentgen rays may cause grave accidents; that certain practices may create a social danger; that only doctors in medicine, officiers de santé, and qualified dentists (in so far as concerns odontology) are capable of interpreting the results obtained from the point of view of diagnosis and of the treatment of disease, the Académie is of opinion that the medical application of Roentgen rays by persons not holding the above diplomas constitutes an act of illegal practice of medicine.

At the recent senatorial elections the following doctors were successful: Drs. Aubrey (Constantine), Daniel (Mayenne), Flaissières (Bouches-du-Rhône), Lannelongue (Gers), Lourties (Landes), Petitjean (Nièvre), Réy (Lot), Reymond (Loire), Saucet (Gers), Viger (Loiret). There are now 44 medical men in the Upper House in France.

VIENNA.

The Vienna Street Ambulance Corps.—Death of Dr. von Kusy.—Surgical Operations in Military Hospitals.—Dangers of Street Dust.

The Vienna Street Ambulance Corps, after the model of which numerous ambulance corps in other cities have been organized, recently brought an action against a Mr. Streitenfels for the publication of false and calumnious statements. In the course of the hearing of the case the witnesses on both sides bore strong testimony to the humane and beneficial works of the corps, and the charges made by the defendant broke down under the weight of the evidence given by his own witnesses. Thus his charge against the Director, Dr. Charas, of corruption and of squandering the money subscribed, was absolutely disproved, and the fact was brought out that the corps has intervened in more than 100,000 cases of accident and suicide without ever charging a penny. The result of the action was a brilliant vindication of the "Rettungsgesellschaft." Not only had its noble deeds been made known to the widest publicity, but its accuser had to pay costs, besides being condemned to four months' imprisonment for slander. Since the action considerable sums have been contributed to the funds of the Society by persons who hitherto had not been responsive to its appeals for help.

Dr. von Kusy, Organiser and President of the Sanitary Department of the Ministry of the Interior, who recently died after a long illness, had worked himself up from a lowly position as a country practitioner by sheer diligence and persistence. His work on organization of the sanitary services opened the way for him to an influential position, and while still young he was called upon to reorganize, or rather to rebuild from the foundation, the rotten old system of sanitary supervision in Eastern Austria. A few years ago Dr. von Kusy was the director of the Austrian department in the International Congress on Hygiene in London, where he made many friends in English medical circles. His disease, arteriosclerosis, did not prevent him from discharging his manifold duties almost till the day of his death.

With the new year a new and salutary regulation as to surgical operations in military hospitals came into force. The Minister of War has ordered that henceforth, in time of peace, in every case of operation wherein risk of life or the loss of an important limb or organ is involved, the patient must sign a written statement or make a declaration before non-military witnesses that he consents to the operation. An exception is made in cases of urgent operations for the saving of life, whether the patient be conscious or unconscious, and in the case of patients under anaesthetics if there be clear necessity for such action. In the case of soldiers suffering from mental diseases operations may be performed only after his lawful representative has been duly informed of the fact, unless life is likely to be endangered by delay. If a soldier falls ill, his nearest relative has to be informed—by telegram if the illness be dangerous, by post-card if there be no particular urgency. These regulations form a decided contrast to the law hitherto in force, which denied the soldier the right of allowing or refusing a surgical interference.

At a meeting of the Austrian Society of Railway Officials Professor Paltauf, Director of the Institute for Experimental Pathology, read a very interesting paper, embodying the results of his investigations of the air of large cities. His researches were directed to find out from what sources the dust comes, and what are its effects on the human organisms. All kinds of dust affect the eyes, producing catarrhal inflammation; the mucous membrane of the mouth, nose, and the deeper organs of respiration are also affected. The dangers of the inhalation of dust lie in the fact that the dust predisposes the body, especially the lungs, to tuberculosis and other infective diseases by producing a slight irritation, with consecutive inflammation, which in its turn gives a good foothold for the microbes. Of workers in trades where no dust is produced about 10 per cent. fell victims to phthisis, whilst amongst those who have to deal with dust-producing articles the percentage is 18 to 20. Some kinds of dust produce "hay fever"; for this affection certain kinds of pollen are made accountable, as they not only irritate in their form as dust, but also produce a toxic action. The only place where the air is free from dust is the high sea and perhaps also the upper parts of high mountains. The most dangerous air is that of overcrowded, dirty, and filthy dwellings. All sorts of microbes live on the surface of the healthy body, but they thrive only if the resisting power of the organism has been lowered by preceding inflammations. The street dust is nearly free from the bacilli of tuberculosis; these are found chiefly in the rooms inhabited by consumptives, in railway cars, and so on. Modern operating theatres are among the best places in regard to scarcity of microbes; they can be made nearly absolutely aseptic. In some places the street dust is made still more dangerous by admixture with animals' dung and other kinds of filth sweeping. The habit of exposing for sale meat and other articles of food in open stalls without cover is very dangerous owing to the risk of contamination by dust and flies. The abatement of street dust is therefore one of the most urgent needs of modern hygiene.

CORRESPONDENCE.

THE RELATIVE BRAIN-WEIGHTS OF MAN AND WOMAN.

SIR,—May I appeal for a small portion of your space to touch upon a point which I think may be of interest to many members of the medical profession? We have recently published in *Biometrika* three papers on brain-weights by Dr. Raymond Pearl, Dr. Gladstone, and Mr. Blakeman. Reviewing these papers, a writer in *Nature* says:

> In his calculations Pearl took into consideration merely age and stature, while the second group of workers added a third, namely, the diametral product—a quantity which roughly represents the size of the head.

This is not a correct account of the memoirs referred to. Dr. Pearl deals with brain-weight relative to stature and age, and shows that this accounts for 30 per cent. of the difference between male and female brain-weights. He then turns to consider the effect of skull length and breadth, and shows that they account for 47 per cent. of the difference. He next replaces age by body-weight, and finds it is practically equipotent with age, or possibly accounts for 10 to 15 per cent. of the remaining difference. It would thus seem to be indicated, although Dr. Pearl has not given the general equations of regression, that 80 to 90 per cent. of the relative difference in men's and women's brain-weights is associated with size differences between man and woman in other physical characters. Dr. Pearl's conclusion is

> the difference between the sexes in mean brain-weight is only in part to be accounted for by differences in bodily characters.[1]

Mr. Blakeman uses stature, age, length of skull, breadth of skull, height of skull, and horizontal cranial circumference, and shows that the absolute difference in brain-weight then appears wholly and not in part due to differences in bodily characters. In other words, a man of the same length, breadth, height, and circumference of skull as the average woman has her mean brain-weight. Do such men actually exist? Undoubtedly. An examination of the curves for male and female cranial characters, such as those given in C. Fawcett's paper,[2] shows that a considerable percentage of women exceed in cranial dimensions the mean man, and again as large a percentage of men fall in cranial dimensions below the mean woman. Further, an examination of A. Powys's memoir (pp. 39-42 of the same volume) shows that in stature at each age there are women in excess of the average man and men in defect of the average woman. Thus, for the very characters Mr. Blakeman has dealt with, we find men who are physically like the average women and women who are physically like the average man. Such men would have the brain-weight of the average woman and such women the brain-weight of the average man. In other words, the man of slender build is a woman in brain-weight and the woman of robust build a man in brain-weight. The difference in weight of men's and women's brains is thus seen to be precisely the difference between brain-weight in two groups of men. It is only a sexual difference in so far as difference in external physique is a sexual difference.

Thus without raising any sex feeling we can re-word the problem so often raised by anatomists. We can ask whether the man of slender build has more or less of intelligence than the man of robust build, and then inquire how far this is due to greater brain-weight. Undoubtedly the bigger man has the larger brain-weight, but is he more intelligent? The answer to this question is—notwithstanding the labours of Dr. Beddoe and Dr. Gladstone—identical in our new data with that found in the first biometric publications on the subject. There is a sensible correlation between size of head and intelligence, but it is so slight that no safe prediction can be made from size to degree of intelligence. This may be summed up almost in the words of my conclusion of 1902:

> Forty-four per cent. of any homogeneous class have heads as large or larger than the mean head of the exceptionally able 2 per cent. Conversely, 44 per cent. of any homogeneous class are as able or abler than the 2 per cent. of this class with exceptionally big heads.

---

[1] *Biometrika*, vol. iii, p. 51.

[2] *Biometrika*, vol. i, pp. 444, et seq.

The merit of Mr. Blakeman's result is that it shows that the sexual difference in brain-weight is only sexual because differences in the size of the body and head are sexual. It enables the problem of brain-weight and intelligence to be discussed on a ground much less controversial than the sexual. I believe there is no useful correlation between the two characters—that is, there is none big enough to base predictions upon. Those anatomists who assert that man is more intelligent than woman because he has greater brain-weight must be prepared to hold, on precisely the same weight of evidence, that the big man is more intelligent than the small man. A reference to the *Journal of Anatomy* for 1898 will then allow them to assert that J. L. Thomas heads the list of anatomists for intelligence; that A. Keith represents mediocrity; and J. Kollmann, with a probable skull capacity below that of the average London woman student, is the least intelligent of all. I do not think any such classification of ability by size is worth a moment's consideration, but it is precisely on a par with the customary statements that are made with regard to the effect on intelligence of the relative brain-weights of men and women. What difference there may be in men and women's brains, regarded as "intelligence" mechanisms, will require a far more subtle mode of investigation than the scales and balance for its determination.—I am, etc.,

University College, London, Jan. 16th. KARL PEARSON.

THE ANTIVIVISECTIONISTS AND THE HOSPITALS.

SIR,—Mr. David Christie Murray accuses me of "misunderstanding a very simple proposition," but I think the majority of people will agree with me in finding an inconsistency in his reiterated praises of the humanity of the medical profession as a whole, and his belief that an Act of Parliament is necessary to prevent the commission of "any physical atrocity conceivable by the mind of man by a fully-licensed experimenter." It is in face of such language as this that I ventured to describe Mr. Murray's praises as "cant." Mr. Murray has added nothing which enables me to withdraw the word, and if he finds it lacking in "politeness," I can only reply that I consider it justified by the abominable nature of his suggestion. In any case, as another correspondent has pointed out, the granting of these licences is in the discretion of the Home Secretary.

I am as well aware as Mr. Murray that the "lust of cruelty is a real thing in certain natures," but my experience of human nature, and my reading of history, combine to teach me that this is a symptom of moral disease that appears as a rule only under certain circumstances favourable to it. It is found among the very rich and idle, among those who are brutalized by poverty, ignorance, and the social conditions arising from these, and it is found among the subjects of religious and other forms of bigotry. It is not found among men of the high level of culture, and the tremendous preoccupations of those who are in a position to claim licences under the Act. During the whole of the antivivisectionist campaign I am not aware of a single charge of wanton cruelty having been sustained against any one engaged in such researches in this country. Moreover, if the corporate conscience of the profession is *not* the sum of the consciences of the individuals composing it, will Mr. Murray explain what it is?

Mr. Murray is annoyed because I ridiculed his suggestion of "a school of research." But surely he must be aware that it is not possible to remove the kind of individuals who are engaged in such researches from their academic and other environments without vast expense? And since on his own showing the result of the experiment is to be the demonstration of the futility of vivisection, what is there unreasonable in suggesting that the antivivisection societies should devote their funds to financing an institution created for their own ends? But it is hard to write seriously of this proposition of Mr. Murray, and I fear lest I should again be carried away by what he calls the *vis comica*.

Finally, while protesting against the suggestion of ignorance of pathology on his part, Mr. Murray states very succinctly the great fallacy that underlies nearly all the antivivisectionists' misunderstanding of the scientific position—the fallacy, namely, that all experiments on animals are made with a view to drawing analogies between the effect of an experiment on the animal and the effect of a similar experiment on the human being. Might it not save a good deal of trouble if Mr. Murray and his fellows could be induced to learn that such is not the invariable object of experiments on animals? That while, for instance, the action and growth of certain bacteria is identical in the tissues of human beings and those of other mammals, so that a study of the latter does enable us to draw conclusions about the former; on the other hand, it is often the very difference in the reaction of the animal chosen for the purpose that makes it valuable as a medium for the study of the life-history of the bacillus or other organism, a study that is at the root of nearly all the most important work in modern preventive medicine, to say nothing of the discovery of antitoxins. The importance of this aspect of the question is very little lessened by Mr. Murray's failure to learn anything about human pathology from his discovery that a goat can eat with impunity many things that would be fatal to himself.—I am, etc.,

Leigh, Lancs, Jan. 22nd. FRED. E. WYNNE, M.B.T.C.D.

SIR,—Mr. David Christie Murray is so very well able to take care of himself that I have no intention of intervening in any way between Mr. Sydney Holland and Mr. R. H. Clarke and the vivisection to which they will no doubt be subjected under Mr. Murray's knife in your next number. But I may perhaps be permitted to say that I have never read the book to which Mr. Clarke alludes called *St. Bernards*; that if, as he seems to maintain, the book is about the treatment of patients in hospitals, it deals with matters of which I have no special knowledge, my public concern with hospitals being strictly confined to matters of finance and to protests, now becoming every day more successful, against the spending of hospital funds upon purposes other than the tending of the sick poor. I understand that *St. Bernards* was published before I became Honorary Secretary of the National Antivivisection Society, and I really must decline to be drawn by Mr. Clarke either into responsibility for its contents or a controversy over them.

I should like to say a word about the quotation from evidence before Sir Edward Fry's Committee to which Mr. Sydney Holland continually alludes. I did say that if it had not been for the vivisection going on in the schools I should not have begun the agitation. But I clearly indicated that, having begun the agitation on that ground, I was led to the discovery of the financial transactions which I have successfully exposed. Mr. Holland, no doubt inadvertently, always omits to quote more of my evidence than suits his case.

The questions and answers that immediately follow those which he always quotes are:

> 938. The Chairman: Then you would rather agree that, supposing this practice had been absent, you would not have seen any harm in what is being done in the administration of hospital funds?—I do not know that. I should never have found it out.
>
> 939. The Bishop of Stepney: Your objection is not to the encouragement of medical education, but to the encouragement of this particular episode, I may call it, in medical education?—Having gone into the matter thoroughly, I cannot see (quite apart from vivisection) that these diversions are justified for a moment.

—I am, etc.,

London, S.W., Jan. 20th. STEPHEN COLERIDGE.

SIR,—It is impossible not to respect Mr. Sydney Holland, who has devoted to a great purpose a life which might very well have been spent in mere dilettantism or social frivolity. On that side of him he is one of those for whom good men thank God. But I think that he is the most lungeous and inaccurate disputant with whom I have ever engaged. It is really not less than ludicrous to describe me as "howling with rage." I have most studiously guarded myself in every word I have written or spoken on this question from anything which might be construed as an expression of impatience or incivility. I cannot felicitate myself on the urbanity with which I have been received by those who differ from me in opinion, and who appear to hold me responsible for all the errors and exaggerations of all the hasty and unjust people who have ever run amok at the medical profession. I have offered certain facts which nobody denies, and I have appealed to the known humanity of the greater number of those who are opposed to me to lend their influence in a cause which I am sure would be accepted by them if they were not prejudiced against me by violences for which I am in no way responsible. I ask simply for some safeguard against the infliction of unfruitful pain. No man will venture to say the Act as it stands does not authorize it, or that it does not confer complete immunity upon any fully certificated experimenter. I am told that I have forgotten the existence of the Home Secretary, but surely it is not suggested that the Home Secretary is acquainted with all the acts of those whom he authorizes to dispense with anaesthetics, and whom he allows to carry on their experiments with entire freedom in respect to the time for which they are continued. Mr. Clarke must forgive me for looking on his statement that any act of atrocity could only be made possible "if the Home Secretary were a friend or a madman" as being quite out of reason. It is simply and obviously impossible for the Home Secretary to make himself intimately aware of the character of every person to whom he grants a certificate. The Act legalizes the performance of any and all of the experiments described in Crile's work on *Surgical Shock*, and legalizes any and all of them without the exhibition of any anaesthetic or sedative, without any obligation to kill the animal when the experiment is over, and without any limit as to time. The only legal crime of which an experimenter can be guilty is to operate without a certificate. I do not urge that these things are at all commonly done, or are so much as contemplated, by the great body of pathologists. I say only that the Act makes them lawful, and that it is quite impossible for the Home Secretary to prevent them, or to be made aware of them, under existing conditions.

To return to Mr. Holland, who very scornfully affirms that I am not telling the truth in saying that it is not the purpose of either Mr. Coleridge or myself to damage the hospitals, the reason he gives is that Mr. Coleridge has "frankly admitted that his object was to stop money from being given to schools where there was vivisection." That is precisely our position. It was our desire that every penny subscribed by the charitable public should go for the relief of suffering. This is the point on which I am represented as having "howled with rage." Mr. Holland assures me that the action lately taken by the authorities at the London Hospital "secures that no money will ever go to the school unless the donor expressly desires that it should do so." "But will this satisfy him?" he proceeds. "Of course not, because the hospitals and the schools have survived his attack." For my own part, I am absolutely satisfied with Mr. Holland's assurance as far as that point and the London Hospital are concerned. We have got what we asked for; but my article in the *Contemporary Review* dealt with the letter of Lord Stanley to the *Times*, in which no such positive separation appeared to me to be implied. I do not think that the position now taken up by the London Hospital has been clearly defined before. Lord Stanley's letter left quite definitely upon my mind the belief that his "Discretionary Fund" made it still possible to transfer to the school some part of the moneys subscribed to the hospital. Mr. Holland's assurance fills the bill, and gives Mr. Coleridge precisely what he agitated for. It is a complete surrender to his claim.

I have Mr. Holland's personal statement to myself that he does not mean to be rude; but he charges me with conduct unworthy of a gentleman, and points a sneer at my statement that I was accidentally present at the meeting of the Council with the Lord Mayor. He adds that I "accidentally(!) stayed to the end of it." I have already told how the thing came to happen, and I cannot see in what respect I am to blame. I had promised Mr. Coleridge to speak in support of the first clause of his resolution. I had seen him enter the Mansion House, and I inquired for him. I was officially directed to a room in which a number of gentlemen were assembled with the Lord Mayor in the chair. I had not the faintest idea that I was intruding on a private meeting, and for a time I was too much engaged in looking for the person of whom I was in search to take any notice at all of what was going on. But by-and-by I awoke to the fact that Mr. Coleridge and his expected action that afternoon were under discussion, and that the Lord Mayor, whom I had never seen before, was being instructed how to act with a view to the frustration of our cause. Now I thought that—and I still think it—an unfair thing to do. The Lord Mayor, I had fondly imagined, was to take the chair in order to see fair play. As a matter of fact he was persuaded to burke discussion, and, as his conduct afterwards proved, he left the room a partisan. He was expressly warned that a very large number of the people present had no right to vote. In spite of that warning, and in direct defiance of the first law of the Association for the transaction of whose business we had met he invited the unqualified to vote. The rule was read to him and he ignored it. He was asked for a scrutiny and he refused it. He denied me a hearing on the ground that there had been discussion enough, although I was the qualified representative of one of the subscribing churches and perfectly entitled to be heard; and although I was the only person who attempted to address the meeting purely on the ground that he was one of the "constituents" of the Hospital Sunday Fund. I felt it my duty to let the public know by what means the First Magistrate of the City had been persuaded to act as he did. There were we, fighting for what we conceived to be justice, perfectly in order in the claim we made, and in a hopeless minority already, without the intrusion of those unqualified persons who attended the meeting at the invitation of the Lord Mayor, and who were by him called upon to vote. The whole thing appeared to me un-English and unjust, and I do not believe that the gentlemen who compose the Council of the Fund would have taken such action as they did if our view of the case could have been represented to them beforehand. I have been told by Sir Edmund Hay Currie in the columns of the *Times*, and by Mr. Holland in the pages of the BRITISH MEDICAL JOURNAL, that I have violated a confidence. I offer no apology or excuse. I discovered what I thought, and still think, was an unworthy piece of strategy, and I felt it my duty to tell the public in what fashion we were so overwhelmingly outvoted.

Mr. Clarke's allusion to "novelists who use their gifts of fiction and romance to mislead their readers in matters of moment" is evidently addressed my way. It leaves me untouched, however, for I have attempted to mislead nobody. I have laid before the public certain facts which seem to me to indicate the necessity for action of some sort, and that is all.

For your courtesy towards me, I am more obliged than I can easily say. I was more than half afraid that you would not think it consistent with your duty to give me house room.—I am, etc.,

London, W., Jan. 21st. DAVID CHRISTIE MURRAY.

P.S.—I thought it advisable to submit this letter to the judgement of the Secretary of the National Antivivisection Society, who replies in a letter which I forward to you under another cover. My contention is simply that the needful certificates being once granted by the Home Secretary, he is powerless to indict any person who has performed any one of the experiments described by Crile without the employment of any anaesthetic, and that the Act enables the operator to continue any one of those experiments for any length of time.—D. C. M.

SIR,—As a humble "non-experimenting" member of that medical profession to which Mr. David Christie Murray appeals, may I express our common view on antivivisectionists?

We sympathize with the suppression of every kind of cruelty. We define cruelty as the useless and unnecessary infliction of pain. We are convinced that physiological experiments are both useful and necessary. The antivivisectionists say that this opinion is not proven. We believe that only means that they do not know or understand the proofs. It is not necessary that they should. Experiments are of vital importance for every science, and therefore are also useful and necessary for the science of medicine. The law of the land recognizes this fact. I am acquainted with the provisions of the Cruelty to Animals Act (39 and 40 Vict., c. 77). Mr. D. C. Murray is certainly wrong in writing that the Act "makes cruelty possible." The same cruelty was possible before the Act was passed. It is unnecessary to alter this amending Act so as to make it penalize cruelty to animals. Already any one "perpetrating a physical atrocity"—whatever that may mean—can be punished when his cruelty is proved. But cruelty is not involved in regular physiological experiments. An experimenter before he can be licensed and certificated to "perpetrate atrocities" must have proved to the satisfaction of a Secretary of State that these experiments are useful and necessary. This is quite apparent in the Act without the use of "a searchlight, a microscope, and a fine tooth-comb." Thus the experimenter has had to prove beforehand that his experiments are not cruelty. Yet Mr. Murray bewails that the Act does not prohibit these experiments as being cruel!

He avowedly suspects the experimenters of cruelty. We think he has no right to suspect cultured English gentlemen of cruelty without a shadow of proof. I believe no English physiologist has ever been convicted of cruelty. The reason for the suspicion may be that the antivivisectionists judge human nature by that sample which they know best themselves. He who is always suspecting dishonesty, or lying, or cruelty in others is probably inclined to dishonesty, lying, or cruelty himself. This may explain but it cannot excuse the contemptible suspicion.

I need hardly point out the impracticability of Mr. Murray's suggestion of gathering together all the experimenters into one institution in one place. The experimenters are necessarily the teachers of the profession, and the teachers of the profession are necessarily scat- ered over the three kingdoms. We see in that suggestion of his that Mr. Murray does not understand this subject, and we think it a pity he does not confine his energies o subjects upon which his opinions may be of some value.

Mr. D. C. Murray might perhaps better realize his position as it appears to us if he could imagine us obstructing his literary work by agitating against the use of all punctuation and other signs used in writing and printing; maintaining, in spite of the opinion of literary men, that the utility of such arbitrary signs was not proven; that in fact such signs were useless and unneces- ary, and ought to be prohibited by Act of Parliament, or, f used at all, that they ought to be gathered together into one place where they could be more easily counted nd prevented from doing harm. If we further propa- ated this agitation by circulating "platform facts" which we knew to be lies, and by attacking the moral character of those who wished to use the signs of punctuation, etc., ould then Mr. Murray find any polite form of words to nvite us to mind our own business instead of interfering with his?—I am, etc.,

Croydon, Jan. 11th. T. ARCHIBALD DUKES.

ARTERIAL DISEASES.

SIR,—I was somewhat puzzled in reading Professor Clifford Allbutt's interesting communication, in the BRITISH MEDICAL JOURNAL of January 6th, by his appli- ation of the term "involutionary" arterio-sclerosis to a ase in which the vessels were thickened and tortuous, as had always associated the process of involution with trophic changes. I awaited with interest his reply to r. Campbell's criticisms, but this did not clear up the matter. Professor Clifford Allbutt was the first to point ut that intermittent strain due to the frequent and xtreme variations in blood pressure associated with rtain arduous occupations, such as those of the collier, miner, etc., was an important etiological factor in pro- ucing degenerative changes in the vascular system. In he case in question the patient was an agricultural bourer: surely his might be classified as an arduous ccupation, involving as it does heavy manual labour and xposure to all weathers. If so, could it not have been in reat measure responsible for the general arterio-sclerosis videnced by the thickened and tortuous vessels? ereditary predisposition to vascular degeneration and ossibly some toxic influence might have been con- ibutory factors.

The condition of low blood pressure at the time of xamination might be attributed, as in Case III, to the ving way of the left ventricle, "unable to continue the nequal strife." The onset of mitral incompetence would e confirmatory evidence of this. The absence of oedema nd enlargement of the liver would simply tend to show hat, the regurgitation being slight, as Professor Allbutt himself states, the right ventricle, hypertrophied as it presumably was from the extra work thrown on it by the emphysematous condition of the lungs, had not yet given up the struggle, but was still more or less efficient.

I recently saw a somewhat similar instance of general arterio-sclerosis associated with dilatation of the aorta and secondary mitral incompetence in a man, aged 49, who had been a gravedigger for twenty-five years. On the basis of Professor Clifford Allbutt's teaching I considered intermittent and violent strain to be the most important factor in the production of the arterio-sclerosis and subsequent cardiac breakdown, coupled with a hereditary tendency to vascular degeneration. My failure to understand the "involutionary" theory as a cause of arterio-sclerosis in a man only 55 years of age, when other factors, such as strain, might be incriminated, must be my apology for troubling you with this letter, which would not have been written had not a discussion on this subject already been opened.—I am, etc.,

London, W., Jan. 23rd. JOHN F. H. BROADBENT, M.D.

MUCOUS COLIC AND ASTHMA.

SIR,—From what I have seen in cases of asthma I can quite bear witness to the correctness of Dr. Herbert Hawkins's remarks on the close relationship between asthma colitis and intestinal spasm.

The spasm appears at times to quit the muscles of the bronchi to seize on those of the intestines. Severe colic may come on, or a condition of irritation and spasm, to relieve which ordinary purgatives are of very little use, while a pill of extract of belladonna will often give marked relief, and act as a very decided laxative.

In slighter cases of enterospasm a cup of coffee without milk, and perhaps, too, a good Havana cigar, will check the spasm in its onset and prove a satisfactory laxative to the bowels. This last-named method of cure is acceptable to most who try it, and its effect brings out clearly the relationship there is between bronchial and intestinal spasm.—I am, etc.,

JOHN C. THOROWGOOD, M.D., F.R.C.P.

Bognor, Jan. 15th.

DORSAL OR POSTERIOR.

SIR,—Among the few faults which your review can find in Osler's excellent textbook is the alleged confusion arising out of the use of the word dorsal instead of posterior. The point is not unimportant, and to me is only another instance of the general accuracy of the book. That the expression is more accurate will hardly, I think, be disputed, and in the case of tabes dorsalis it is also mnemonically very appropriate. There remains the question of custom.

In modern textbooks of physiology and pathology it is generally recognized that man is but one, although no doubt an interesting one, of a series of animals (clinical medicine sometimes forgets this), and consequently the ordinary zoological nomenclature is adopted. Four different words should be used to express headward, tailward, bellyward and backward, and man's erect position does not abolish this necessity. Therefore anterior and posterior should be used for the first two ideas, ventral and dorsal for the latter. The confusion is created really in anatomical and medical books and papers, where posterior sometimes means tailward and sometimes backward. Out of consideration for man's uprightness we might perhaps use the terms superior and inferior for anterior and posterior, but this would probably lead to worse confusion, and since patients are often in the horizontal position the adoption of the same terms as for non-erect animals is not inappropriate.

Would it not be well, therefore, for clinical textbooks generally to adopt this terminology which might also with advantage receive the sanction of the Royal College of Physicians in its official *Nomenclature*?—I am, etc.,

Leeds, Jan. 22nd. ALBERT S. GRÜNBAUM.

SOME FUNCTIONS OF THE OMENTUM.

SIR,—The interesting and valuable faculty possessed by the great omentum, to which Mr. Rutherford Morison has drawn attention, of finding its way to an inflamed area, and also, should the inflammation not be too acute, of arresting the spread of the inflammation by forming adhesions around its borders, is no doubt familiar to most morbid anatomists; but, so far as I am aware, no satisfactory explanation has been given of the movement of the omentum to the diseased spot. This movement has always seemed to me to be probably dependent upon peristalsis of the intestines. When peristalsis is normal, and equally affects all the coils of the small intestine, the great omentum is spread over its surface; when, however, inflammation in some localized area of the peritoneum hampers the movement of a coil or of some coils, the more actively-moving portions of intestine possibly turn the omentum towards the area of comparative stasis. The valuable property the omentum possesses of readily forming adhesions comes into play when once it is in contact with the inflamed area, and the adhesions not only fix the omentum but frequently localize the disease.

The object of Mr. Morison's paper is, perhaps, to lay stress more upon the wandering power of the great omentum than upon its adhesive qualities; he has therefore not referred to one interesting illustration of the capacity possessed by this fold of peritoneum of localizing disease. In subphrenic abscess following perforation of a gastric ulcer this localizing power is well seen. Adhesions between the great omentum and the abdominal wall limit the abscess below, while adhesions between it and the lower border of the falciform ligament prevent extension to the right. In the majority of cases of perforated gastric ulcer the escape of fluid is obviously too rapid for the great omentum to be able to arrest the inflammation. Fluid escaping from the stomach through a perforated gastric ulcer, for example, may fall to the pelvis and the peritonitis be more marked there than elsewhere. When, however, fluid escapes slowly and the peritonitis which follows consequently spreads locally, the great omentum is afforded an opportunity of preventing the extension of the inflammation below the lower border of the stomach.—I am, etc.,

THEODORE FISHER.

January 13th.

LIFE ASSURANCE WITHOUT MEDICAL EXAMINATION.

SIR,—It is simply deplorable to see the gross deception which is perpetrated on the insurance companies. One, by no means uncommon, is for persons to take out an industrial policy on an unhealthy life, and also to give the age some years less than it is, in order either to lessen the premium or else to bring the age within the limit at which medical examinations are dispensed with.

A man was under my care for two or three years suffering from chronic gout, arterio-sclerosis, and a large irreducible hernia. When he died I was asked to delete the "gout many years" from the certificate of death and to put back the age some years, for the reason that seven months previously his life had been insured and a false age given.

I think we ought to do our duty to the companies and protect them from fraud, but in future let us omit the duration of all chronic maladies; if any one requires information it can be supplied on payment of a fee—*but always at our discretion*.—I am, etc.,

SIDNEY E. ATKINS.

Hatherleigh, North Devon, Jan. 2nd.

THE INFLUENCE OF POSTURE ON THE NORMAL CARDIAC SOUNDS, ETC.

SIR,—I have read carefully Dr. Samways's valuable letter. As regards the pulmonary valves, I cannot think that "it matters nothing to the heart whether the lungs be above or below it." The work of maintaining the pulmonary circulation is no doubt the same for the ventricle in either case, but the weight sustained by the valves cannot be the same. Therefore I think my explanation correct.

With regard to the aorta, also, I believe I am correct. For if we regard the circulation as a system of closed vessels in which the weight of ascending currents balances the weight of descending currents, as Dr. Samways has suggested, the aorta cannot act as a siphon, because the weight of blood in the descending aorta is balanced by the weight of blood in the inferior vena cava. Then there is only the weight of blood in the vessels above the heart in the erect position to consider. As the vessels are elastic this is free to make itself felt, and the arterial portion must rest on the aortic valves. In the recumbent position no such weight rests on them.—I am, etc.,

W. GORDON.

Exeter, Jan. 20th.

OBITUARY.

ALEXANDER THOM, M.D., D.P.H.,

FORMERLY OF CRIEFF.

WE regret to announce the death, on January 16th, of Dr. Alexander Thom, formerly of Crieff, at the age of 52. The son of a Crieff medical man, Dr. Thom was educated at Morrison's Academy in that town, and thereafter went to St. Andrews University, where he took the Arts course. After a brilliant undergraduate career, he took, in the year 1873, the degree of Master of Arts. Proceeding to Edinburgh, he commenced the study of medicine, and his remarkable ability and his power of steady work are well remembered by many of his contemporaries. He obtained university medals in nearly all his classes, and was generally considered as the most outstanding man of his year. At a time, moreover, when athletics were in less favour than they are now, he was a keen player of football and a great believer in all outdoor exercise.

He commenced practice in Crieff in 1880, and was from the first exceptionally successful. Very devoted to his work and unwearying in his kindness and attention to his patients, he gradually built up what was probably one of the most extensive and lucrative country practices in Scotland. He was especially interested in the surgical side of his work, and there is little doubt that, had he practised in a large town, he would have made his mark as a surgeon. Although always overworked, he found time to keep himself thoroughly acquainted with the advance of medical science, and from time to time contributed interesting and valuable papers to various medical journals. He will be long remembered in Strathcairn for his kindness to the poor of the district, and he did much work which was very inadequately remunerated. He belonged to the British Medical Association, and the members of the Perthshire Branch on more than one occasion partook of his hospitality when they met at Crieff. Unfortunately he never seemed to realize the necessity of taking adequate holidays, and worn out by years of strenuous labour, his health gave way, and about six years ago he was forced to relinquish his practice, to the great regret of all who knew him. After leaving Crieff he lived for some years quietly at Peebles, but he never regained his strength, and when he removed to Edinburgh eighteen months ago his friends realized that it was only to die. He leaves a widow and family, for whom much sympathy is expressed.

ERNST ZIEGLER, M.D.,

PROFESSOR OF PATHOLOGY, UNIVERSITY OF FREIBURG.

PROFESSOR ZIEGLER, the distinguished pathologist of Freiburg, whose death was announced in a recent issue of the BRITISH MEDICAL JOURNAL, was born in Switzerland, near Berne, in 1849. He was what is called in Scotland a "son of the manse." He studied medicine at Berne and Würzburg and took his doctor's degree at the former university in 1872. In 1875 he qualified as *Privatdocent* at Würzburg, in 1878 he was appointed Assistant in the Pathological Institute at Freiburg, and was soon promoted to be Extraordinary Professor. In 1881 he accepted a call to the Chair of Pathology and Morbid Anatomy in the University of Zurich; in 1882 he exchanged that for the corresponding Chair at Tübingen, and in 1889 he became Professor of Pathology in the University of Freiburg, where he remained till his untimely death. In 1892 he was elected Pro-Rector of the University on which he had shed lustre by his scientific work and reputation. His researches were largely concerned with tubercle, on which he wrote much. He also contributed to our knowledge of the processes connoted by the term "inflammation." Among other important problems of pathology which engaged his attention were disease inheritance, the etiology of malignant growths, and rickets and osteotabes infantum. His chief work was a textbook on *Genera and Special Pathology*, published in 1881. The eleventh edition of the first (general pathology) part of this work appeared at the beginning of last year, and the autho was at work on the preparation of the second par (special pathology) up to the time of his death, and ha left it so far complete that with some further revision o certain chapters it will be ready for the press. A English translation of the work was edited by Dr. Donal

MacAlister; it was also translated into French and Italian. Professor Ziegler's literary activity was very great. Much of his work appeared in the *Beitrage zur allgemeinen Pathologie und pathologischen Anatomie*, of which thirty-eight volumes have been published since 1886 under his editorship. He also edited the *Zentralblatt fur allgemeine Pathologie und pathologische Anatomie* which he founded in 1890. As a teacher he had the highest reputation. Students and practitioners from all parts of Germany, and from other countries, especially Japan, Italy, and Russia, flocked to Freiburg to work under him, and in the midst of his own strenuous labours he contrived to be helpful to all. He was popular with his colleagues and pupils, and especially beloved by his assistants, whose interests he promoted with unselfish zeal.

DR. JOHN HIGHET of Troon, Ayrshire, who died recently of pneumonia, in his 55th year, was a native of Troon. He was educated at Ayr Academy, and afterwards at the University of Glasgow, where he took the degree of M.B. in 1876, becoming Doctor of Medicine in 1884. With the exception of a short interval, he was in practice in Troon for thirty years. He was Medical Officer of Health for the Burgh of Prestwick and at one time for Troon, and took a great interest in local affairs. About nine years ago his health broke down under the strain of his professional work, and he left Troon for Perth, where he remained for several years, until his health was completely restored. Afterwards he served as a Civil Surgeon with the South African Field Force, and was Medical Officer on the transports which conveyed Boer prisoners to Ceylon. On leaving the transports, he was employed by the Government at Pretoria in hospital work. For his services in South Africa he received the Queen's Medal with three clasps and the King's Sea Transport Medal. Returning to Troon two years ago, he resumed practice, and until the time of his death he was a familiar figure in the town. Of a bright and genial disposition, Dr. Highet loved a good story, and his wide experience of life gave him an abundance of interesting material for conversation. He was also a man of some literary ability, and contributions from his pen have, from time to time, appeared in local newspapers. Dr. Highet has left a widow, but no family.

WE regret to have to record the death on January 19th of Dr. WILLIAM SHELDON, of North Sydney, New South Wales. He was born at Stratford-on-Avon in 1840, and after serving as a pupil to a local practitioner and studying at University College, London, he graduated M.D.Edin. in 1864, obtaining the diploma of M.R.C.S. in the same year. He then went to Australia, and after successfully practising at Armidale, New South Wales, for seventeen years, removed in 1885 to North Sydney. Dr. Sheldon leaves a widow, three daughters, and three sons, two of the latter being medical graduates of the University of Sydney. The deceased was a member of the British Medical Association.

WE learn with regret of the death of Dr. HUGH BROSNAN of Killarney, after a few days' illness. He was Surgeon to the workhouse infirmary, and enjoyed a large practice in the surrounding districts. He was an M.D. (honours) of the Royal University, 1880.

SURGEON-GENERAL WILLIAM FREDERICK DE FABECK, M.D., Indian Medical Service, retired, died in London on January 18th. He entered the Madras Medical Department as an Assistant-Surgeon, January 29th, 1857; and became Surgeon-General with the Madras Government, May 29th, 1890. He retired from the Service in 1894. He served in the Crimean campaign in 1854-5, and was present at the siege and capture of Sebastopol and at the assault on the Redan, receiving the medal with clasp. He was also in the Indian Mutiny campaign in 1859, and had received the medal therefor.

THE death is reported from Sydney, New South Wales, of Dr. WILLIAM AUGUSTUS WEST, at the early age of 46. The deceased was the youngest son of the late Mr. G. White West, barrister, of Ardenode, co. Kildare, and after obtaining the diplomas L.R.C.P. and L.R.C.S.I. went to New South Wales to join his elder brother in practice at Glebe, a suburb of Sydney. On the death of his brother in 1885 he continued the practice alone, and won the respect and esteem of all with whom he was brought in contact. The cause of death was pneumonia followed by pleurisy and heart disease. Dr. West, who was a member of the British Medical Association, leaves a widow and two children.

COLONEL JAMES CHARLES GORDON CARMICHAEL, M.D., retired Bengal Medical Service, died on October 23rd last. He entered the Bengal Medical Department as an Assistant-Surgeon, April 1st, 1868, and became Surgeon-Colonel, March 29th, 1895. He retired from the service in 1900. He served with the Mahsud Waziri Expedition in 1881; in the Egyptian war in 1882, including the battle of Tel-el-Kebir (medal with clasp, and Khedive's bronze star); with the Burmese Expedition in 1886-7 (mentioned in dispatches, medal with clasp); and in the campaign on the North-West Frontier of India in 1897-8 with the Malakand and Buner Field Forces as Principal Medical Officer, being present at the capture of the Tanga Pass (twice mentioned in dispatches, medal with clasp).

MEDICO-LEGAL AND MEDICO-ETHICAL.

PERSONATION OF A MEDICAL PRACTITIONER.

MR. MCCONNELL, K.C., heard a curious case at the County of London Sessions last week, when Charles Forbes, clerk, was indicted for several attempts to obtain money and goods by false pretences. According to the report appearing in the *Morning Advertiser* of January 19th, the prisoner had posed as "Baron" Forbes and "Dr." Forbes, and also impersonated Lord Forbes of Castle Forbes, Aberdeenshire, using the titles thus appropriated as a means of obtaining motor cars and other property, for which payment was only made by bogus cheques on imaginary banking accounts. He had incurred debts and liabilities wholesale, about 200 county court summonses being produced in court. The prisoner's victims included the landladies of boarding-houses and lodgings at which he stayed, the amount owing being as much as £100 in one case and £26 in another. A feature of the case was the assumption by Forbes of the title of "Dr." On one occasion, in signing an agreement with a chauffeur whom he engaged, he described himself as "M.D., C.M.Glasgow, D.Ph.Cantab., Bart. Nova Scotia, Baron-de-France, Commandeur Legion d'Honneur, etc.," to none of which titles does it appear that he had any right. Detective-Sergeant Bex stated in evidence that Forbes, who was born in 1860 at Camden Town, was a student at the Middlesex Hospital in 1879-80, but never qualified. He afterwards went to India and the Gold Coast, and it was probable that he made the acquaintance of a Dr. Forbes who practised at the latter place. He returned to England in 1893, and had since impersonated this Dr. Forbes, adding ten years to his age in order to conceal the fact he was only 16 years of age at the time he claimed to have received his qualification. He had been employed by a firm of wholesale chemists and by medical men practising in South London. The Judge: In what capacity? Detective-Sergeant Bex: He did temporary work when they were on their holidays. They believed he was the original Dr. Forbes. The Judge: And he was treating unfortunate humanity during that time? Yes. The witness went on to describe other frauds committed by the prisoner. After working for a medical man in Central London, he bought the practice for £150, but only paid £3. Forbes was found guilty, and sentenced to twelve months' imprisonment, the Judge observing that he was "a cool, calm, and deliberate swindler," one of the worst features of the case being that he had passed himself off on doctors as a qualified man and had attended to their patients.

CORONERS AND MEDICAL WITNESSES.

V. asks for advice under the following circumstances: My partner had an assistant who committed suicide. My partner and I attended him until he died. The police notified me that the coroner wished me to be at the inquest. On the day of the inquest I found that my partner had also been notified to attend. My evidence, as well as his, was taken before the jury. At the end the coroner refused to pay me any fee, stating that he could only pay it to one member of a firm. Is this correct? It seems to me I should have received a fee as well. How can I recover such fee if entitled to it? Since coming to this district I have been called to attend six suicides, and only once have I been asked to be present at the inquest; no medical evidence was required, I was told. Quite recently I was called to see a man who died suddenly. I had attended him a year before for bronchitis. I refused a certificate. There was no inquest, and I was told that the registrar had issued a burial order, stating as the cause of death "chronic bronchitis." Is there no remedy for this sort of thing?

*** Our correspondent should have received a fee in the first case mentioned as well as his partner. He should first write a letter to the coroner making a formal demand for it, and if the same reason for refusing is given as before, and V. gave sworn medical and not lay evidence, he can issue a summons from the county court to recover the fee. With regard to the fact that V. had only been called to give evidence in one out of six suicides in which inquests have been held, it is evident the jury were satisfied of the cause of death without medical evidence, and the coroner is not bound by law to call a medical witness, though undoubtedly it is the wisest and safest course. The registration laws concerning death require amendment, as registrars can issue burial certificates without a medical certificate, inserting in the register as the supposed cause of death what the relatives tell them; in country districts there is frequently no report to the coroner, and the body is interred. Among the recommendations made by the Medico-Political Committee of the British Medical Association and adopted by the Representative Meeting at Leicester last year are the following: 2. It shall be made a penal offence to bury, cremate, or otherwise dispose of a body except upon a burial order issued by a registrar or coroner. 3. No burial order shall be issued by a registrar until the death has been registered. 4. No death shall be registered except upon the production to the registrar of (*a*) a certificate of the cause of death, and (*b*) a certificate of the fact of death; or, if such certificates be not produced, upon a certificate of the coroner, in accordance with the Coroners Act, 1887, s. 4.

THE TITLE OF "DOCTOR."

DR. F. W. COLLINGWOOD writes again to point out that the wording of the note in the BRITISH MEDICAL JOURNAL of January 20th, p. 175, is open to misapprehension. The facts are that the Ethical Committee at its meeting in September, 1903, having considered an inquiry as to the propriety of medical men who do not hold a university degree styling themselves "Doctor," adopted the following resolution:

> That the inquirer be informed that this question has been discussed in the JOURNAL at great length, and that the Committee concurs in the views always stated therein that practitioners who do not possess the degrees of M.D. or M.B. are not justified in styling themselves "Doctor."

At its meeting on December 18th, 1903, the Committee had before it letters protesting against this opinion, and after consideration adopted the following resolution:

> That those who have protested be informed that the opinion expressed by the Committee was believed to be in accordance with the prevailing opinion of the profession, but that if they desired to raise the question it is open to them to bring it before their respective Divisions.

At the Representative Meeting at Oxford a resolution was moved as follows:

> In the opinion of the Representative Meeting all medical practitioners are entitled to use the title of "Doctor."

This resolution was not carried.

As was pointed out last week the draft Medical Acts Amendment Bill proposes to confer upon every registered medical practitioner the right to use the title of "Doctor."

UNCERTIFIED MIDWIVES.

LEX.—The County and County Borough Councils of England and Wales exercise general supervision over all certified midwives practising within their areas. After April 1st, 1910, no woman, unless certified under the Midwives Act of 1902, will be allowed to attend for gain women in childbirth, except under the immediate direction of a registered practitioner. Any woman so acting will be liable on summary conviction to a fine not exceeding £5. At present a woman who not being certified under this Act uses the title of midwife, or any name or description implying that she is a person qualified to practise midwifery, commits an offence punishable under the Act on summary conviction, and may at any time be prosecuted by the local supervising authority. If she does not assume the title a prosecution could not at present be instituted under the Midwives Act.

OBLIGATIONS OF A CONSULTANT.

H. writes that being called to visit a servant where he was not the usual medical attendant, and finding her to be suffering from scarlatina, he suggested a consultation with the usual medical attendant, who met him and confirmed his diagnosis. A week or so after he found that the consultant had been up to see this case when visiting the family, without any communication with our correspondent before or after. On his attention being called to this he said it was not a professional visit, nor would he admit that he visited the patient as a friend. H. asks whether such a visit was not contrary to medical etiquette? He adds that on being called to see the servant he was asked to continue the attendance, and did so to the end of the case.

*** A visit paid to a servant under the circumstances described would without doubt be a breach of medical etiquette and an injudicious action.

VALUE OF A PRACTICE.

VENDOR.—A correspondent asks what would be a fair price for a third share of a practice bringing in a little over £1,000 per per annum, chiefly among the working and middle classes. There is also a large club yielding from £8 to £9 a week, and a Poor-law appointment of the value of £60 per annum. He wishes to know how the expenses of such a partnership should be shared.

*** The price of such a share would be from year to a year and a half's income value, calculated on the gross receipts. With regard to expenses, in the case of a partnership, they are a first charge on the gross receipts before the partners take their shares.

EXPERT EVIDENCE.

W. C., M.D.—Expert medical evidence in the case of disputed mental condition in individual cases, like any other expert medical evidence, is that given by those whose especial study of mental disease and practical training and experience in regard thereto make them better fitted for the task than others who have given less attention to the subject. The fee is a matter of arrangement between the parties.

CANVASSING BY DOCTORS' WIVES.

H. H. sends us some correspondence by which it appears that he addressed a letter to the Registrar of the General Medical Council asking whether the warning against canvassing and advertising lately published by the Council can be made to apply to a medical practitioner whose wife canvasses for patients with his knowledge and approval? The reply he has received is that the registrar is not authorized to place any interpretation upon the Council's resolutions.

*** We do not think that the registrar could be expected to say more; but we have no doubt that the Council would take into consideration any evidence our correspondent may care to lay before it of such canvassing.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES

VITAL STATISTICS IN ENGLAND AND WALES (1905).

WE are indebted to the Registrar-General for the following rates, compiled and published for the convenience of medical officers of health. They have been forwarded to us by Dr. Tatham, who informs us that the table has been prepared for the quarterly return which will be issued shortly, and that the figures are subject to revision.

ENGLAND AND WALES, 1905.

Annual Birth-rates and Death-rates from the Seven Chief Epidemic Diseases.

	Annual Rates per 1,000 Living.			Infant Mortality Annual Death-rate of Infants under 1 Year per 1,000 Births.
	Births.	Deaths from all Causes.	Deaths from Seven Chief Epidemic Diseases.	
England and Wales ...	27.2	15.2	1.52	128
76 great towns	28.2	15.7	1.88	140
141 smaller towns ...	26.9	14.4	1.50	132
England and Wales less the 217 towns	26.3	14.9	1.09	113

THE CARE OF THE FEEBLE-MINDED.

THE Royal Commission on the care and control of the feeble-minded sat again on January 19th, the Chairman, Lord Radnor, presiding. There were also present Mr. C. E. H.

Hobhouse, M.P., Mr. W. H. Dickinson, M.P., Mr. H. D. Greene, K.C., Mr. C. S. Loch, Mr. W. P. Byrne, Mrs. Pinsent, Dr. Needham, the Rev. H. N. Burden, Dr. Donkin, Dr. Dunlop, and Mr. Mothersole (Secretary). Sir John McDougall, a member and an ex-Chairman of the London County Council, said he had been struck by the large increase within the last sixteen years in the number of lunatics belonging to the County of London. When the Council took over the county asylums from the justices of the peace in 1899 there were 10,100 pauper lunatics certified for detention in a lunatic asylum chargeable to London unions and parishes. While during the last fifteen years the approximate increase in the population was 489,209, or at the rate of 11.87 per cent., the number of certified pauper lunatics had during that time increased from 10,100 to 17,770, or at the rate of 75.9 per cent. A similar comparison of the increase of all classes of pauper lunatics—that is, those certified for asylums, those in the Metropolitan Asylums Board asylums, those in workhouses, and those with relatives and friends—showed that there had been an increase of pauper lunacy during the fifteen years at the rate of nearly 553 per annum, or 50.7 per cent. for the whole period. He was of opinion that the increase in the class of certified lunatics was to some extent due to the want of provision of accommodation by the Asylums Board. He thought that all lunatics in a county should be under the care of one and the same authority—namely, the Asylums Committee of the county council. Dr. Lionel A. Weatherly, Resident Medical Superintendent and licensee of Bailbrook House Private Asylum, gave evidence respecting feeble-minded criminals, as to the recognition of their real mental condition, where such prisoners should be sent, and the form of certificate. He held that there could be no doubt a prison was not the place to send them to, and the county asylum, as at present constituted, was also not the place. He strongly advocated a special penal colony for such cases, where every chance should be given to the prisoners of being educated to some congenial and suitable occupation, which in many cases might be made to be remunerative.

LOCAL EXPENDITURE IN ENGLAND AND WALES.

THE President of the Local Government Board has appointed a Departmental Committee to inquire and report with regard to:

1. The systems on which the accounts of local authorities in England and Wales are at present kept;
2. Generally as to the system on which the accounts of the various local authorities in England and Wales should be kept, and, in particular, whether such accounts should be prepared on a system requiring the entries of receipts and payments to be confined as far as possible to actual receipts and payments of money or not; and
3. The regulations which should be made on the subject, regard being had to the necessity for showing accurately the amounts raised by local taxation and the purposes for which they are applied.

The Committee will consist of: Mr. Walter Runciman, M.P. (Chairman), Mr. J. Bromley, C.B., Mr. T. Pitts, C.B., Mr. R. Barrow, Mr. E. P. Burd, Mr. J. J. Burnley, Mr. J. Gane, and Mr. F. Merrifield, with Mr. G. R. Snowden, of the Local Government Board, as secretary.

According to a writer in the new number of the *Quarterly Review*, the local debt of England and Wales increased from £67,548,653 in 1892-3 to £129,206,764 in 1902-3. The average rate in the pound has increased from 3s. 4d. in 1875 to 5s. 7d. at the present time, while at the same time the rateable value has increased from 130 millions in 1878 to 199 millions in 1904. The increase has been quite out of proportion to the increase of the population, so that the average amount of the local rates per head of the population is 30s. 6d., against 16s. 2d. in 1875. Between 1899 and 1904 the estimated increase of population in England and Wales was 5.1 per cent, but the assessments rose 16 per cent., the amount of rates levied 30.4 per cent., and the outstanding loans 34.2 per cent. The local indebtedness of England and Wales in 1902-3 was estimated at over 370 millions, and it has increased since that date. A large part of this debt has been incurred for drainage and water supply, and having regard to the huge increase in the urban population was inevitable, but it can hardly be made remunerative. At present the method of keeping local accounts and of raising local revenue is most confusing; only a little more than a third of the poor-rate, for instance, is applied to the actual relief of the poor.

THE DUTY OF A MEDICAL OFFICER OF HEALTH.

RETIRED PRACTITIONER.—A medical officer of health, like other people, should acknowledge letters addressed to him, but we are by no means certain that a medical practitioner, whether retired or not, has a right to obtain from him information about diseases notified. It seems to us it would have been much better if our correspondent had taken steps to ascertain whether his suspicions were correct, or had stated exactly what were the grounds of his suspicions, and had asked in the interests of public health that the necessary steps should be taken. So far as our correspondent and his family are concerned, he could protect himself and them by obtaining his milk from another source, but it is the duty of the medical officer of health to take notice of any trustworthy information that scarlatina existed at a dairy farm, and the responsibility would rest with him for taking the necessary measures to prevent the spread of disease.

SCARLET FEVER AT A DAIRY.

QUERIST writes: A milk-seller who supplies milk from his house has a lodger staying with him suffering from scarlet fever. The milk-seller alleges that the patient is isolated in a room upstairs, has nothing to do with the milk supply, or with any one dealing with it. Can any legal proceedings be taken against the milk-seller under the Dairies and Milkshops Order, 1885 and 1886 (Section 9)? Failing which, what steps should be taken by the sanitary authority to prevent the spread of infection, there being no infectious hospital in the district?

*** If there is no communication or contact whatever between the milk vendor and the patient, we do not think action can be taken by the sanitary authority under Clause 9 of the Dairies, Cowsheds, and Milkshops Order of 1885. The only steps the authority can take is to insist upon absolute isolation of the patient.

SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

D. O. D. writes: Is a Poor-law medical officer obliged to submit to deductions for superannuation allowance from his salary, when he has no intention whatever of serving in that capacity for the requisite 40 years?

*** All Poor-law officers now holding appointments, unless they contracted out of the provisions of the Superannuation Act within "three months of its commencement," and all others who may be appointed in the future are obliged to contribute to the superannuation fund on the scale therein enacted.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

DEGREE DAYS.—The following are the Degree Days appointed for the present term: Saturday, January 27th; Thursday, February 15th; and Thursday, March 15th.

UNIVERSITY OF CAMBRIDGE.

THE following degrees were conferred on January 18th:

M.D.—A. C. Hudson.
D.Sc.—H. J. H. Fenton, Christ's.
M.C.—C. B. Goulden, Down.
M.B.—N. C. Carver, King's; W. R. Honeyburne, Pet.; R. Puttock, Emm.; W. P. Williams, Down.
B.C.—F. S. Smith, King's; A. D. Brunwin, Trin.; H. T. Gray, Trin.; A. H. Miller, Trin.; F. F. Leighton, Joh.; T. M. Neatby, Joh.; G. C. E. Simpson, Joh.; J. C. L. Roberts, Cla.; C. Lillingston, Pemb.; C. H. W. Page, Corp. Chr.; G. W. de P. Nicholson, Jes.; G. L. Cox, Christ's; C. T. Scott, Sid. Suss.; W. D. Keyworth, H. Selw.

SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have passed in the subjects indicated:

Surgery.—J. A. Kilpatrick (Section II), S. Zweiback (Section II).
Forensic Medicine.—L. C. W. Brigstocke.
Midwifery.—J. P. E. Henery, C. Mulholland, H. F. Wight.

The diploma of the Society has been granted to the following candidates, entitling them to practise Medicine, Surgery, and Midwifery: J. A. Kilpatrick and S. Zweiback.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

THE TITLE "BRIGADE-SURGEON-LIEUTENANT-COLONEL."

M.D. suggests that the new War Minister should be approached with the view of having this obsolete and cumbrous old title, with which retired medical officers are officially and socially handicapped, cut down to the military part of it. It is true that former War Ministers declined, in deference to military prejudices, but the new Minister is not likely to be so dominated, even if such prejudices now exist, which is doubtful.

*** There could, at least, be no harm in approaching Mr. Haldane on the subject; and it might be urged that the compound title has been extinguished among those officers who have been employed since retirement. Official action in such matters, however, is very conservative. But officers who have the double-barrelled title have the remedy much in their own hands. Nobody we know of wants to retain the title in full; and none but a pedant could object to their using the military part of it only, to which they are already fully entitled, both by rank and courtesy.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

Country Practitioner asks for experience as to the suitability of the Singer 8 to 10-h.p. car for general practice in a hilly district.

Influence of the Ovaries on Lactation.

Mr. M. Henry (Royal Veterinary College, Camden Town) asks to be recommended books dealing in an efficient and fairly thorough manner with the physiology of the ovary and the influence of that organ in inducing lactation.

*** A good summary of the subject would supply a great want. For recent literature our correspondent should consult Mandl and Bürger's work, *Die biologische Bedeutung der Eierstöcke nach Entfernung der Gebärmutter. Experimentelle und klinische Studien*, Leipzig, 1904.

Discount for Prepayment of Income Tax.

V. D. inquires whether it is a fact that 2½ per cent. discount is allowed on income tax paid before January 1st.

*** Under the provisions of the Income Tax Acts, discount at the rate of 2½ per cent. *per annum* is allowed on tax paid in advance, that is, before January 1st. As the collector's demand is usually not received until the middle of December, the privilege is of little value, since the discount for one fortnight, calculated at the rate of 2½ per cent. per annum, would only amount to about $\frac{1}{10}$ per cent., or ¼d. in the £.

Income Tax.

Taxed inquires whether he is within his legal rights in deducting the amount of his income tax as a professional expense in returning his income for the purposes of taxation.

*** The answer is in the negative, as will be seen by a reference to the "Memorandum of General Explanations and Instructions" sent to taxpayers with the buff form of income tax return. Income tax is not one of the expenses incurred in making a profit, but is rather to be regarded as that portion of the profit which, when ascertained, is appropriated by the State.

Trypsin in Cancer.

H. E. J. asks for information as to the results in the treatment of cancer by trypsin, and the correct method of using it.

*** We may refer our correspondent to the review of Dr. J. A. Shaw-Mackenzie's book (p. 148), and to Dr. Beard's paper (p. 140) both in the Journal of January 20th. Dr. Shaw-Mackenzie, in reply to an inquiry, writes that his method of treatment is as follows:

1. To give sugar in excess.
2. To give pancreatin or trypsin in increasing doses directly by the mouth. The liq. trypsin (Allen and Hanburys) in 1 to 2 drachm doses three times a day in a little water immediately before meals, or glycerole of pancreatin (Armour). As an aid I have latterly been using in drachm doses a preparation of intestinal glands containing, as I understand, "secretin," supplied by Messrs. Allen and Hanburys, alternately with the liq. trypsin.
3. Pigments, solutions, suppositories, and pessaries in various strengths for outward application, rectal, and uterine use.
4. To give injections of trypsin subcutaneously as near the growth as possible in sound tissue, in increasing dosage and strength. I usually begin with ♏xv of a 2 per cent. strength, and increase by ♏v every other day, preceded by a few drops of one-tenth of a grain of eucaine solution; the latter, together with a small piece of ice applied to the surface previous to insertion of the needle, obviates all pain. I have not gone beyond a 4 per cent. strength of trypsin. The original chemical experiments were undertaken, and sterile solutions of trypsin suitable for hypodermic use, in various strengths, prepared for me by Mr. F. W. Gamble, and are supplied by Messrs. Allen and Hanburys.

I am of opinion there is much more still to be done in perfecting this treatment. So far as results are concerned it necessarily requires many cases and time to determine its precise value and limitations. Nevertheless, repeated observation has convinced myself and others that shrinkage of growth has occurred, and does occur, with relief of pain and unequivocal improvement in general nutrition, appetite, and weight. In far advanced and hopeless cases it should be clearly understood that not much more than relief of pain is to be expected.

ANSWERS.

T. P.—A report, certified as correct by the Prince Regent, of the opening of the coffin of Charles I. is given by Sir Henry Halford in a paper reprinted in that physician's *Essays and Orations* (London, 1831). The substance of the report may be found in Munk's *Life of Sir Henry Halford* (London, 1895).

Elementary Bacteriology.

Dr. J. Craig Crawford (Glasgow) writes to recommend Symes's *Bacteriology of Everyday Practice* (London: Baillière, Tindall, and Cox, 2s. 6d.), which he thinks will answer "Lux's" requirements.

Income Tax.

E. H.—The purchaser of a medical practice is liable to pay income tax on the average profits made by his predecessor during the three preceding years, and when the practice changes hands in the middle of the fiscal year he is liable to pay one-half of the duty assessed upon his predecessor for that year. If, however, our correspondent proves to the satisfaction of the Income-tax Commissioners that the profits of the practice "have fallen short, or will fall short, from some specific cause, to be alleged to them, since the change or succession took place, or by reason thereof," he may claim to have his liability adjusted according to the amount of profit made by him from the date of purchase to April 5th next.

LETTERS, NOTES, etc.

An Impostor.

Dr. J. A. Nixon (Senior Resident Officer, Bristol Royal Infirmary) writes: Would you warn your readers against a young man of good education and gentlemanly appearance who last week imposed upon Dr. Poole Berry of Grantham, by representing himself as being myself and stranded in Grantham owing to a bout of hard drinking while on leave from this Infirmary? He showed an intimate knowledge of the place and the various resident officers. From this, I suspect he may be an Oxford man, formerly a medical student, who was an in-patient here last year suffering from the effects of alcoholism. He is very plausible when sober.

Nurses in an Emergency.

A practitioner residing in a country district informs us that he telegraphed recently to the Male Nurses (Temperance) Co-operation for a nurse, but received no reply and no nurse arrived. Later inquiries elicited the information that the telegram was received, but that as no nurse was available the message was passed on to another institution. Our correspondent complains of the inconvenience to which he was put. We agree with him that a nursing institution ought to consider the serious dilemma in which a medical practitioner is placed if he be left in uncertainty as to whether a nurse is to be expected. If the Co-operation does not accept the responsibility of replying unless a reply is prepaid, this should be clearly stated in their advertisements and handbills.

Edinburgh Obstetrical Society.

Dr. Frederick Porter writes: On reading the abstract of my paper, Pyuria in the Female, in the report of the Edinburgh Obstetrical Society in the British Medical Journal of January 20th, I find a few errors which I shall be grateful if you will correct. The investigations of Dr. Campbell, of Belfast, to which I referred were not on the presence of pus in urine, but on the presence of pus in the female urethra, and published in the Journal of September 23rd, 1905. The third sentence from the end of the report: "He was also of opinion, etc. . . . could be traced to this septic leucorrhoeal discharge." This should be, "He was also of opinion that many cases of puerperal septicaemia were caused by infection from the urethra."

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	£0 4 0
Each additional line	0 0 6
A whole column	2 13 4
A page...	8 0 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication: and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

An Address
ON
ACUTE BONE DISEASE IN CHILDREN.

Read before a Meeting of the Isle of Thanet Division of the British Medical Association

By **EDMUND OWEN, F.R.C.S.,**
CONSULTING SURGEON TO ST. MARY'S HOSPITAL AND TO THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET, LONDON.

Acute inflammation of bone in children—the disease which I have chosen for the subject of my paper to-day—is full of interest and importance, and though it is by no means a rare disease, still it often happens that when one is called to a case of the sort he is apt to be off his guard, and, somehow or other, it comes about that the diagnosis is not seldom made only after loss of valuable time or is missed altogether. I can quite understand how, in hospital practice, error in diagnosis may arise.—The case is purely surgical; the house-physician sees it, and mis-takes it into a medical ward, and, if the physician happens to be pressed for time, he may accept the house-physician's diagnosis. It is all very simple; and the moral is: "Always make your own diagnosis in every case, for even house-physicians are but human."

I dare say that the surgeon, on his side, makes mistakes now and then, treating a medical case as surgical, but surely that would be a point for some other than myself to take up!

I will begin by giving a short account of the development of a long bone, and will take the femur at the age of 8 or 10 years. It consists of a diaphysis of fairly solid bone, and of two extremities which, though also of bone, are separated from the diaphysis by an intervening layer of cartilage. This layer of cartilage keeps on growing; and, as it grows, the surface next to the diaphysis is steadily converted into new bone. Thus, the increase in length of a long bone is effected by deposits of new osseous tissue at the end of the diaphysis, and this is continued until, in due course, the epiphysis ossifies on to the shaft, when growth is complete.

As a general rule the epiphyses become ossified on to the shaft either at puberty or at manhood, and, obviously, the bone grows more at what I will call the "manhood end" of the diaphysis than at the "puberty end," because it has a longer time for the purpose. The knee ends of the femur and of the tibia are their manhood ends, but it is the reverse in the upper extremity, the shoulder end of the humerus and the wrist end of the radius and ulna being chiefly concerned in the elongation of the skeleton of the arm.

The new bone at the growing end consists of tissue of great physiological delicacy, and is, therefore, the more likely to be the seat of traumatic inflammation, and disease generally, than is any other part of the bone. Indeed, every disease to which osseous tissue is heir loves this delicate material; syphilis, tubercle, sarcoma, all attack it when they have the chance.

If anything occurs to interfere with the perfect nutrition of this young bone-tissue, disease is all the more likely to attack it; and this remark applies to the bones generally. Thus an injury to the back is the precursor of spinal caries; a strain of the upper end of the femur is the starting-point of hip-joint disease; a kick on the tibia is the obvious cause of sarcoma, and so on. Given certain predisposing conditions, and serious disease may be the sequel of a trivial hurt. Injury to a tissue is always succeeded by an inflammation which lowers the vitality of the part, and micro-organisms have a cowardly habit of attacking tissue of lowered vitality. There are many experiments bearing on this. Thus: Pus has been taken from a subperiosteal abscess in a child, and a particle of it has been introduced on a needle-point into a tube of gelatine. From the colony of staphylococci thus produced a thrust-cultivation has been made in another tube of gelatine—and so on, from generation to generation, through a course of weeks or even of months. Then some of the last-made cultivation has been introduced by a clean injection-syringe into the healthy tissues of one of the lower animals, with the result that an abscess has formed at the seat of the inoculation, no further harm being generally effected. But if, before making the injection, a bone of the animal had been prepared by injury, the injected staphylococci made straight for the damaged spot, and there, undergoing cultivation, set up an acute septic inflammation after their own kind. Cultivations of the same germs could even be obtained from the blood of the animal, and after its death secondary (pyaemic) abscesses were detected scattered throughout the body. There can be no doubt about the virulence of the staphylococci, and of the part which they play in acute osteomyelitis.

Grave Errors in Diagnosis.

In a paper which the late Dr. Bristowe read before the Pathological Society of London in May, 1862, upon the affection in question, he spoke of its acuteness, its danger, and its obscurity, and he said that the disease was not only "deadly," but "common." In confirmation of these statements, he said that he had met with 7 cases of it in the *post-mortem* work of four years, and that five of the patients had died speedily of pyaemia. Three of the cases had been mistaken in the wards for rheumatism, and he called attention to the fact that when the pyaemic condition was associated with pericarditis it was particularly easy for the practitioner to fall into error in the matter of diagnosis. He also remarked that some of the symptoms bore "a superficial resemblance to those of typhus, typhoid, or even of delirium tremens."

Another disease for which the condition is sometimes mistaken is erysipelas. This is most likely to occur when the affected bone is near the skin—such as the tibia or the lower end of the radius or ulna. Thus, when the upper or the lower end of the tibial diaphysis is the seat of the acute infection, the adjacent skin becomes flushed and hot, and the redness spreading down or up the leg, as the case may be, a casual diagnostician would be very apt to mistake its nature. Even when the affected bone is not superficial there may be redness, heat, and oedema of the skin, just as in the case of an acute septic inflammation about the fang of a tooth the cheek may be flushed and swollen; and I take it that the redness of the skin in neither case is due to the presence in it of septic micro-organisms. It is sympathetic.

To avoid mistaking the redness of the skin which is due to subjacent septic ostitis for that of erysipelas, the surgeon should gently press his finger upon the bone. Deep-seated tenderness is characteristic of disease of the bone, but it is absent from erysipelas, which, as its name implies, is only a surface disease—at any rate, to begin with.

I remember an article appearing many years ago from the pen of the late Mr. John Wood, in which he was arguing against the germ theory of disease, and one point of which he made a good deal was this, that some of the most septic cases which the surgeon met—cases which often ended in pyaemia—were those of necrosis unassociated with any breach of the surface. He apparently had not realized the fact that the septic germs might reach the bone through the blood stream as easily as they could through a direct wound. And such, we all know now, is the case.

It is likely that there are periods in the life of every child when his blood is infected with septic micro-organisms, which have found entrance into it through the mucous membrane of the respiratory or alimentary tract or through the skin; and if it were not that the vascular streets and alleys are efficiently policed by the colourless corpuscles, the mortality from septic disease would in consequence be extremely high. But even as it is, acute ostitis, pyaemia, and death are very often met with at any age up to the time when the last lingering epiphysis is ossified on to its shaft.

Two of the last epiphyses to join on are the knee-ends of the femur and tibia, and as their respective diaphyses are very large and are much exposed to injury by falls, kicks, blows, or strains, there is a double reason why septic ostitis is so often found in the neighbourhood of the knee, and I propose to-day to deal with septic osteomyelitis affecting the knee end of the femoral diaphysis.

Some few years ago Mr. Crowle and Mr. Kellock, who were respectively the Surgical Registrars of St. Mary's Hospital and of the Children's Hospital, very kindly prepared some tables for me showing the relative frequency with which various bones were affected by acute septic inflammation. Mr. Crowle's cases were taken from over a period of fourteen years, ending 1894, while Mr. Kellock's researches extended back for ten years. Altogether 165 cases were accounted for, boys being more often affected than girls in the proportion of five to three. Of these 165 cases the femur was the bone attacked in 83 instances, the tibia in 47, and the humerus in 20. Next in order came fibula, radius, ulna, clavicle and calcaneum.

Thus, out of the 165 cases the femur and the tibia were implicated no less than 130 times, these bones, of course, being the most exposed to injury. I have, therefore, good grounds for choosing a boy for the subject of my illustrative case, for letting the affected bone be in the lower extremity, and for naming the femur as that bone. Then, I take the lower end of the diaphysis as the affected region because of its being most commonly involved, and because of its being close against the knee-joint which is so often implicated in acute rheumatism.

CLINICAL FEATURES.

In order to illustrate this address, I might blindfold have dipped my hand into the clinical treasury and have taken from it the first report of a case of septic osteomyelitis that it encountered. Then I might have commented upon it as I read it through, for one case is very much like another; but this method might, perhaps, have proved somewhat wearying. Indeed, there are few things more tedious for any one of us than the perusal of a full and detailed clinical record. Yet, when a surgeon forwards an account of his most successful case to the journals (he rarely reports the unsuccessful ones, by the by), with the daily record of the state of the pulse and of the temperature, of the tongue and of the bowels, of the medicines prescribed and the food taken, how wearying and unreadable the stuff becomes! And yet this sort of writing is generally supposed to be the basis on which the superstructure of medical knowledge must be erected. At any rate, there is usually an abundance of it to be found in the medical journals.

I will take the case of a boy who, having put on his skates for the first time, falls and hurts the lower end of his femur—not very severely, however, for he goes on with his awkward attempts, and some hours later he limps home. Next morning he seems quite right, and in a week's time he has, perhaps, forgotten all about the accident. But a few days later he complains to his mother about his *knee* being painful. His mother, seeing that he is evidently in pain, looks at his limb, and detects the presence of several of the cardinal signs of inflammation, for the skin is flushed, puffy, and hot, and the boy dreads the limb being touched. What more natural than that she should think that the boy has *rheumatism?* at any rate, that is her "diagnosis." It is a simple and comprehensive term, and we ourselves have sometimes sought its hospitable shelter when driven before the winds of nosological uncertainty.

The mother sends an urgent message to the doctor, saying that the boy has rheumatism in his knee and is very ill. On his way there the doctor says to himself, "Acute rheumatic arthritis; so I shall find the knee hot and swollen, and the boy's temperature will be up."

It all turns out in accordance with his soliloquy. The boy's face is flushed and he looks ill—unusually ill, perhaps, for a case of rheumatism—the knee is swollen and hot, and the thermometer registers 103° in the armpit. Forthwith he prescribes a mixture containing salicylic acid, and he has the tender knee wrapped in cotton-wool. And inasmuch as he has written a specific he feels safe in promising that the boy shall have a better night and be free of pain in the morning.

But when he pays his after-breakfast visit he finds the boy much worse in every respect, and he is told, somewhat reproachfully, perhaps, that not only has he not slept at all, but he has been "wandering" all night.

Therefore, the dose of salicylic acid is increased, and fomentations are applied to the knee; but the boy becomes acutely delirious, septic endocarditis supervenes, and he dies with the disease unrecognized. The death certificate reads thus: "Acute rheumatism, three days; endocarditis, one day." And everybody has to be satisfied. As a matter of fact, the boy died of acute septic poisoning from the end of his femoral diaphysis, the endocarditis being a manifestation of pyaemia, and clearly it ought not to have been regarded as confirmatory of the correctness of the diagnosis of acute rheumatism.

DIFFERENTIAL DIAGNOSIS.

In all probability, though there is a good deal of swelling at the knee, there is no actual effusion into the joint itself, and a second glance shows that the superficial signs of inflammation are, for the most part, in the lower third of the *thigh* rather than in the area of the articular synovial membrane. Then, all that one has to do is gently to squeeze the lower end of the femoral diaphysis between the thumb and finger, grasping it just above the condyles, when, whether the boy is clear-headed, or delirious, or comatose under the influence of a potent animal toxin, he is sure to scream out. He does not object, however, if the knee-joint itself is carefully compressed. The surgeon then grasps the lower end of the shaft of the other femur, and he at once realizes the fact of there being a great central thickening in the tender thigh. Thus, although he has noticed some of the cardinal signs of inflammation on the surface, he finds that two of them obviously exist in the core of the limb—swelling and pain. And to what can this central swelling and tenderness be due if not to an affection of the bone? But the femur itself is not swollen—solid bone cannot swell so readily as that—the swelling is in that delicate tissue at the end of the diaphysis, in and under the periosteum of the neighbouring piece of the diaphysis, and in the muscular and connective tissue around the bone.

As a result of the development of these micrococci in one focus, it may be, or in several foci, a virulent toxin is set free which, being taken into the blood stream, may kill the boy outright, and, as already suggested, before the practitioner has had time to make his diagnosis. But if the dose is not so strong as that, at least its effects are severe. A small dose of a strong toxin, or a not too large dose of a weaker one (for all toxins are not of equal strength) may simply irritate the grey nerve-tissue, causing headache, loss of appetite, elevation of temperature, vasomotor paralyses with flushed face, sweatings and diarrhoea—or the reverse, as shown by the pale, pinched face. Sleeplessness, too, is a direct result of the absorption of a small dose of the toxin. If the dose is larger there may be shiverings, convulsions, vomiting and delirium. *Delirium, indeed, is one of the most characteristic features of the disease, and it gives evidence of very serious intoxication.* At this period of the clinical history of an individual he would, perhaps, be too ill to call attention to the existence of an unusually tender area of bone, or if he did complain, and the affected tissue happened to be so thickly covered with muscles as to be not easily accessible for examination (as at the upper end of femur or humerus, or at the popliteal aspect of a knee-epiphysis), or if, in short, the medical attendant did not know what to look for, it is quite likely that the disease might be taken, as Bristowe says it has been, for delirium tremens. This mistake could not be made, of course, in the case of a boy or girl; but it might well happen in the case of a young fellow who, just returned from foreign parts, and with his manhood epiphyses not yet ossified on to the shafts, had been entertained by stupid but well-meaning friends in the way which was customary with soldiers even before the times of Michael Cassio and Iago. Supposing that in these circumstances the end of a diaphysis became acutely affected, and that the young fellow died, what wonder if the constitutional excitement caused by the disease were ascribed to delirium tremens? Acute osteo-myelitis is a well-recognized affection in young French soldiers who have been overtired, and whose diaphyses have been rendered vulnerable by long marching. Lastly, if the strength or the amount of the dose of toxin is unusually great, the patient lies comatose and may die as if from compression of the brain or from accidental or intentional poisoning.

TREATMENT.

In the case under consideration the best thing would be to send the boy into hospital, for the surroundings are probably not suited for the treatment of the case at home, nor is it advisable that his doctor should burden himself with all the anxiety and the lengthy responsibility which the treatment of the case at home would demand subsequent to the inevitable operation.

At any rate this boy with osteomyelitis is to be sent into hospital, and as a surgical patient, let us hope. As soon as he is admitted the surgeon is summoned, and, pending his arrival, the limb is cleansed, and, as far as possible, rendered aseptic. By this time the boy is taken into the theatre, and the surgeon, discreetly examining whilst chloroform is being administered, and finding no trace of fluctuation, rightly determines to make an exploratory incision down on to the bone. There is one spot where he can easily reach the lower end of the femoral diaphysis, and that is on the outer side, in the furrow between the ilio-tibial band and the tendon of the biceps. Working deeply in that situation he may discover a tense subperiosteal abscess which communicates with the interior of the bone by a small aperture. Then he opens up the medullary cavity of the femur, enlarging his incision and cutting away the shell of compact bone. He then washes out the cavity with a mercuric solution, and, gently packing it with gauze, applies the dressing, and secures the limb on a splint. It is necessary to apply a splint in all these cases, and to handle the limb with care, for the lower end of the femoral diaphysis is now a mere shell of bone, which may be broken through by a rough or sudden movement of the leg. If all goes well, the boy at once loses his bad symptoms, and the wound gradually fills up with granulations. Unfortunately, however, the cases of septic osteo-myelitis rarely do as well as this; sometimes they do badly, perhaps because the treatment has not been as prompt and thorough as it might have been, but in no instance can the surgeon foretell the exact course which the disease will take. So many of these cases die sooner or later of pyaemia, the lungs or the heart being fatally attacked.

Urgent Need of Operation.

If there was delay in making the exploratory incision, the micro-organisms, left in undisturbed possession of the warm, moist, and oxygenated field, underwent rapid multiplication, and set up a vascular thrombosis which determined a co-extensive necrosis. At the same time pieces of the septic thrombi became detached, and were carried along in the blood stream. These septic emboli have certain favourite resting places, foremost among which are the growing ends of other diaphyses, and at each selected spot the same things occur: energetic cultivation, thrombosis, and necrosis. I remember the case of a boy in whom my house-surgeon and I operated one morning for necrosis of about six diaphyses, and so characteristic a feature is the attacking of several diaphyses, that the term "multiple necrosis" has often been applied to the disease. It is a misnomer, however, for necrosis is the *result* of a disease and not the disease itself. The occurrence of multiple necrosis is, of course, indisputable evidence of the patient having become pyaemic. Other favourite breeding grounds are the serous membranes, so that in one case the osteo-myelitis is associated with pericarditis or endocarditis, in another with pleurisy and empyema, and in another with abscess in a synovial bursa or joint; or the secondary inflammation may occur in the lung or in some distant area of loose connective tissue, such as the arm-pit.

But if, in cutting upon the bone, the surgeon find no abscess, he must not close the wound and reproach himself with having made a mistake or with having been too precipitate. On the contrary, he is to continue with his exploration by searching with a director around the femur, exploring even in the region of the popliteal artery, where, under the periosteum of that triangular piece of bone above the condyles, pus is very apt to lurk. Still having found no pus, he is to drill a hole into the lower end of the diaphysis, and, as it were, to make it his business to find some pus. The prospector in search of gold does not satisfy himself with a single boring: he does not give up until he has made a most thorough exploration in every direction, and the surgeon who is nstituting a search far more important than that of the prospector must not content himself with less thoroughness. He may have to explore the interior of the bone in more places than one, thrusting a grooved director into he various bore-holes, so that if there is pus he may be ertain to strike it. And then, having found it, he must pen up the bone freely, as already described, scraping ut and irrigating the septic cavity. But if, after the most thorough and serious operation, no pus is discoverable, what is to be said to the parents? Is the operator to say that he has erred in diagnosis or treatment, or even in both? Certainly not! He must say (which is sober truth) that in all probability his operation may be the means of actually preventing abscess and necrosis.

It is imperative to be early at such an operation, for the longer that the tension in the bone is allowed to remain unrelieved, the more serious and widespread will be the thrombosis and necrosis. It is highly expedient, to open the bone before abscess has formed; this is the only way in which the local and constitutional effects can possibly be averted. The position which the surgeon should take concerning the question of the existence of abscess preparatory to the operation is this, that if he waits until he is "cock-sure" that abscess has formed, the damage which he is so anxious to prevent has been already done, and that promptness is everything. To cut on to or into the lower end of the femur at a time so early that the surgeon cannot be sure of finding pus, needs a considerable amount of courage on the part of the surgeon and of trust on the part of the parents. The operation must not on any account be postponed until the surgeon is absolutely certain that he is going to find pus.

But supposing that the surgeon has cut into the bone, and, though possessing the enterprise of a gold-prospector, has discovered no pus, he has done no harm, and he may insert a small drainage-tube and then dress the wound in the happy consciousness of the fact that he has done his duty. And it is not unlikely that next day, or the day after, he may have to open up the wound to allow of the escape of a quantity of septic matter which, though not discoverable at the time, is now demanding free exit, the operation having prepared the way for the abundant demonstration of the existence of an abscess in or about the bone.

In a large proportion of cases of acute osteo-myelitis of the lower end of the femoral diaphysis, amputation has sooner or later to be resorted to. Thus, it may be required early in the course of the disease within a few days of the surgeon cutting into the bone, because of the great increase of local symptoms, and because of the violent constitutional disturbance which the septic focus is setting up. Sometimes amputation is performed because of extension of the disease into the knee-joint, or, still later in the progress of the case, it may be resorted to as a sort of compromise, and to save the child from falling a victim to pyaemia or to exhaustion dependent on long-continued discharge.

At the time of the amputation it is well to examine the sawn surface of the femur, and if necessary to scrape out the core of septic marrow, or to remove a tapering central sequestrum.

It is only of comparatively recent years that the nature of these cases has been clearly understood. They were formerly regarded as acute inflammatory affections of the periosteum, and amongst the names given to the disease were "erysipelas of the periosteum," "phlegmonous periostitis," and "subperiosteal abscess." Our reasons for now affirming that the disease is primarily an affection of the young bone and marrow are:

1. That when we are early and bold in our treatment we may catch the disease beginning as a small, acute abscess in the crevice between the diaphysis and the junction-cartilage, the periosteum being still closely adherent to the bone, and scarcely at all affected.
2. That when the disease is allowed to run its course, and does not happen to be associated with so much suppuration that the periosteum is detached far and wide, and the bone killed outright, the inflammation may be found extending centrally up the shaft, gradually inclining away from the compact shell, and confining itself more and more to the marrow and the central, cancellous bone.
3. That when necrosis occurs it is central rather than peripheral—sure evidence that it is caused by inflammation in the bone itself rather than by that of the periosteum.
4. And lastly, that during the time that the sequestrum is becoming separated, the periosteum is forming in its depths a sheath of new bone which is eventually to take the place of the piece which is to come away as a sequestrum. Had the periosteum been primarily affected by the devastating inflammation, it is certain that it

could not have so promptly and successfully set about the formation of the involucrum.

PYAEMIC COMPLICATIONS.

It is quite a common thing in this disease for a joint, or for several joints, to be seriously involved. If it be a distant joint that is attacked the cause is evidently septic infection, or, as we used to call it, pyaemia. But not infrequently the disease extends directly into that joint in the close proximity of which it started. There are several ways in which the septic process may thus involve the joint, the first being by the articular lamellae of the bone and cartilage of the epiphysis being traversed by the ulcerative process. Another way in which the micro-organisms may enter is beneath the periosteum and the attachments of the ligaments, and a third route is by traversing the synovial membrane anywhere between the periosteum and the skin. As a rule, when the joint becomes involved severe constitutional disturbance is at once manifested, whilst the articular synovial membrane becomes distended and acutely tender, and the presence of intra-articular abscess is declared. The complication is, of course, an extremely serious one, but the general and local disturbance is not usually so great as it would be if the case had been one of primary suppuration in the joint, the reason being, I apprehend, that the daily and long-continued absorption of doses of the toxins has already rendered the patient somewhat tolerant of the presence of the septic micro-organisms. A good many years ago a friend of mine in the Indian Medical Service told me that he had once been called upon to investigate an outbreak of cholera in some coasting vessel near Calcutta, and on going into the question of the drinking water, he found that the ship's tanks had been filled up with supplies from a source which had been defiled by the native villagers in every conceivable way. Nevertheless, the natives were themselves drinking the polluted water with impunity. Everything in the matter of toleration depends, as the saying goes, on what one has been accustomed to, and physically and mentally we are enormously influenced by circumstances. The sensitive Hamlet, you will remember, was shocked when he heard the gravedigger singing a merry song as he threw up earth and bones from the resting-place which he was making for the gentle Ophelia. Horatio, however, explained away the apparent want of feeling by saying that custom had made it in him a property of easiness. There was really no more reason for the gravedigger to look sad than there is for the doctor and the lawyer to shed tears as they drive to the cemetery in the fourth mourning-coach.

Suppuration in the knee-joint is, of course, one of the most serious complications of osteo-myelitis of the end of the femur, and the general condition dependent on its occurrence may be so grave as to call for immediate amputation of the thigh. But I have had cases of the sort in which by free incisions, irrigation, scraping, and drainage I have been enabled to save the limb. Sometimes in spite of all treatment suppuration continues indefinitely, the daily absorption into the blood of small doses of toxins bringing about the condition which was formerly known as hectic fever. Amputation, however, by removing the source of poisoning, may, at once initiate the patient's recovery. Another effect of the long-continued absorption of small doses of toxin may be albuminoid disease of the viscera. There, also, amputation may be successfully resorted to.

Under the influence of the growth of the micrococci a virulent toxin is elaborated which, being carried by the blood, disturbs the nervous centres and gives rise to headache, loss of appetite, sleeplessness, delirium, high temperature, sweatings and general distress. This is a good example of septic intoxication, as opposed to septic infection, in which case the germs are multiplying in the blood, as described under the head of pyaemia. As a result of this septic intoxication, the patient may die quickly and with very slight warning, the actual cause of the death never having been suspected. The skilled pathologist at a children's hospital, therefore, makes it part of his business in every *post-mortem* examination to inspect the ends of all the diaphyses. That the condition may be one of intoxication, and not of infection, is shown by the fact that when the abscess cavity in some of these cases is scraped out and washed, all grave symptoms subside, the patient immediately becoming convalescent. But though this happy state of affairs is occasionally met with, it is by no means the rule, the germs being very likely to enter the blood-stream.

AUTO-IMMUNIZATION.

The question may arise in one's mind as to how it is that when a child is in so grave a state of pyaemia (as he must be when he is at the same time the subject of, say, multiple necrosis and empyema) the toxaemia does not for certain kill him outright. The answer is, I think, that he has been quietly and steadily undergoing a course of auto-inoculation and immunization, and that he is in the happy condition of being rendered as unlikely to fall a victim to this particular toxin as a boy who has recently been vaccinated would be to succumb to small-pox. The question which may arise out of the foregoing surmise is as follows: If a patient in this condition of toxaemia (from which many people die) can obtain immunity by a natural process of auto-inoculation, why should not the surgeon be able to render him immune by injecting into his veins a serum obtained from the blood of a horse or some other animal which has been duly immunized? At present one is not in the position to answer this question with authority and certainty, but it is quite likely that a happy solution to it will ere long be found by Dr. Wright in the Pathological Laboratories of St. Mary's Hospital, or by some other experimental pathologist.

The antistreptococcic serum is a most powerful agent, and its injection into a patient causes so much shock that his temperature at once drops—perhaps never to rise again.

Every now and then one sees a record in a medical journal of a patient who was desperately ill with puerperal or some other form of septicaemia, and that after being injected with some serum she recovered. But the person who reports the case goes too far, I think, when he implies, or actually affirms, that it was the injection which effected the cure. In my humble opinion, there is a great deal too much reckless and random medical writing of this sort. Because a patient finds himself improved after following our own prescription we certainly ought not to assume that it is a simple matter of cause and effect; if the patient insists that it is so, however, we may just smile a mixed smile of modest self-depreciation and conscious power. So much is perfectly harmless and allowable; but when the practitioner stands forth and confidently tells his professional brethren that his treatment has in such and such a case actually cured his confiding patient, he is apt to be drawing too heavily upon their intelligence. Things have certainly changed from the time of Ambroise Paré, who humbly said that he dressed his patients and that God cured them. At the present time, so great have been the advances in the surgical branch of our profession, we are apt to think ourselves competent to work the cure single-handed.

We have comparatively little absolute knowledge of the value of serum-therapeutics, though the future may possibly reveal the fact that these artificial antitoxins are as valuable as they are powerful. In the meanwhile, the practitioner who is called upon to deal with a case of acute septic disease in a child, and is urged to "try the antistreptococcic serum," may find himself somewhat in the position of the youthful David when his dismayed and retiring friends advised him to put on Saul's armour preparatory to going out to meet the boastful Philistine. David pleaded to be excused from employing it, because he had not "proved it." "Prove" is a word which to-day scarcely finds a place in "so-called" orthodox therapeutics, though it is of wide and blessed significance, I believe, among homoeopaths—those happy practitioners who have a trusty drug for every symptom of disease. I wonder if they are as ready as we are to rush to every new and highly-vaunted agent, to prescribe it forthwith, to publish the single case (if it happen to survive), and to declare in terms that are very familiar with ourselves that "it acted like a charm"!

AMONG the honours conferred by the German Emperor on the occasion of his birthday is the elevation of His Excellency Professor Ernst von Bergmann to a seat in the Prussian House of Lords. Professor von Bergmann is the leading surgeon of Germany, and the manner in which his Sovereign delights to honour him gives general satisfaction to his brethren in this country as well as in his own.

AT WHAT AGE SHOULD A CLEFT OF THE PALATE BE CLOSED?

By R. W. MURRAY, F.R.C.S.,
SURGEON, DAVID LEWIS NORTHERN HOSPITAL, LIVERPOOL; LATE SURGEON, LIVERPOOL INFIRMARY FOR CHILDREN.

OF recent years there has been a marked tendency towards the performance of the operation for closure of the cleft of the palate at an earlier age than formerly. But surgeons whose experience of this operation renders them well qualified to express an opinion are by no means agreed as to the age at which it is most desirable to operate. While, on the one hand, Mr. Arbuthnot Lane says the best age, provided the health of the child permits of it, is during the fifth week, Mr. James Berry, on the other, is strongly of opinion that in the vast majority of cases the age at which the operation is undertaken with most advantage to the patient is some time during the third year of life.

During the last fourteen years I have performed more than 300 operations for hare-lip, or cleft palate. The ages of the patients varied from a week to twenty-one years. From the experience thus gained I have arrived at the following conclusions. The usual type of deformity is a complete cleft of the palate associated with a hare-lip, and in the following remarks I refer more particularly to this class of case.

So far as the palate is concerned the chief object of the operation is to render the powers of speech more perfect than they otherwise could be. Therefore, from a purely theoretical point of view, the earlier in life the cleft is completely closed the better.

From a practical point of view, however, there are several objections to the complete closure of the cleft during infancy. These objections have reference to the operation of staphylorrhaphy rather than to that of uranoplasty.

In the case of a child born with a complete cleft of the palate, the subsequent powers of articulation, though greatly improved, will never be perfect, even though an operation has been successfully performed during infancy. The explanation, I believe, is that when the cleft involves the hard palate, the defect in development is not limited to the structures of the mouth, but also includes the nasal chambers, which are so largely concerned in the production of the voice; consequently some imperfection in articulation is to be expected in cases in which the hard palate has been involved, even though an operation for the closure of the cleft has been successfully performed. If, on the other hand, the defect is limited to the soft palate, the prognosis is much more hopeful. I have had several cases in which I operated for a cleft of the soft palate only before the children could talk, and three or four years afterwards they spoke quite naturally, it being impossible to detect from their speech that the palate had ever been cleft.

As further confirmation of the statement that the cleft n the palate is not entirely responsible for the nasal haracter of the articulation, one has only to remember hat from time to time children are seen who speak as if here were a cleft of the palate, but on examining the nouth the only defect noticeable is that the palate s highly arched, thus encroaching upon the nasal hambers.

I am quite convinced that in order to obtain the best esult in respect to articulation, it is essential for the soft alate to be well formed and freely movable. Otherise it cannot act satisfactorily as a nasopharyngeal iaphragm.

OPERATION UPON THE HARD PALATE.

I believe the cleft of the hard palate may with advange be closed during infancy, not by raising a mucoeriosteal flap from the palate bones on either side and iting them in the middle line, for, owing to the width of e gap, this would in most cases be impossible, but by ising a muco-periosteal flap from one side, and turning over on a marginal hinge, as suggested by Mr. Lane. If this is decided upon, it certainly should be done fore operating upon the lip. A raw surface is thus left granulate, but in the hard palate, provided the gap is sed, excess of cicatricial tissue is of no moment.

OPERATION ON THE SOFT PALATE.

In the case of the soft palate, however, the matter is somewhat different. In order to obtain a well-formed and freely movable soft palate, excess of cicatricial tissue must be avoided. If the cleft of the soft palate is closed during infancy, this can only be done by means of a turnover flap, which of necessity leaves a raw surface to granulate, and will ultimately cause some contraction and stiffening of the parts. If, on the other hand, the operation upon the soft palate is postponed until the child is about 2 years of age, there is more tissue to work with, and it is generally possible to fashion a good soft palate and uvula by paring the edges of the cleft and uniting them in the middle line. Excess of cicatricial tissue is thus obviated, for union takes place by first intention.

Though I have of recent years operated upon the hard palate during infancy and closed the cleft of the soft palate later, I am not convinced that the subsequent powers of articulation in these children have been better than in those in whom the complete operation has been postponed until the second or third year. I am convinced, however, it is unwise to operate upon the soft palate during infancy, for my best results have been obtained when the cleft was closed a few years later in life.

BROPHY'S OPERATION.

Professor Brophy of Chicago has drawn attention to the fact—which I have on several occasions verified—that in a complete cleft of the palate the superior maxillary arch is excessive in diameter by just the width of the cleft. For some years Dr. Brophy has overcome this defect by forcing the maxillary and palate bones together in the middle line. The cleft thus obliterated, it only remains to pare the edges and unite them together. I have on two occasions adopted this procedure, following to the best of my ability the written instructions of Dr. Brophy. In neither case was I successful in obtaining satisfactory approximation of the palate bones, and therefore did not proceed further with the operation. There is no doubt that in plastic work especially the skill of the individual surgeon counts for a very great deal, and it is quite possible that my defect in manual dexterity accounted for my want of success. However that may be, I do not propose to again attempt the operation until I am satisfied that the results, as regards speech and appearance, are after this method appreciably better than can be obtained by less severe and less dangerous measures. After all said and done, the object with which an operation for cleft palate is undertaken is to render the afflicted individual more capable in later years of fighting his battle in life. There can be no virtue *per se* in closing the cleft during infancy; the real test of the operation is the remote and not the immediate result.

CONCLUSION.

All surgeons are agreed that the cleft should be completely closed during the first few years of life; but the point yet to be decided is whether it is better to operate during early infancy or during early childhood. For my own part, for reasons I have already mentioned, I prefer as a general rule to postpone operating upon the palate until the child is between 2 and 3 years of age, and then at one operation completely close the cleft.

The question, however, is clearly a matter of evidence, and well worthy of investigation.

In London there is surely plenty of material available; and if at one of the medical societies a series of cleft palate cases from four to six years after operation were brought forward by surgeons who hold diverse views respecting the age at which the operation should be performed, in order to demonstrate the after-results of their operations (a set-piece for recitation, such as "This is the house that Jack built," would certainly be a novelty), some light would be thrown upon the vexed question, At what age should the operation be performed?

WOMEN AS UNIVERSITY LECTURERS.—The Austrian Minister of Public Instruction has recently addressed a circular to all the universities of the Empire inquiring as to their attitude in regard to licensing women as lecturers. So far only the philosophical faculties of the German and Czech universities of Prague have replied—the former in an affirmative, the latter in a negative sense.

REMARKS ON THE CLOSURE OF GAPS IN THE SKULL, WITH NOTES OF CASES.

By J. HOGARTH PRINGLE, M.B.Ed., F.R.C.S.Eng.,
LECTURER ON SURGERY, QUEEN MARGARET COLLEGE, GLASGOW UNIVERSITY.

It sometimes happens that after an operation at which the skull is opened, for one reason or another, a gap is left in the bone.

At the present day most surgeons in opening the skull, if they do not employ Wagner's osteoplastic flap method, probably follow the principle, long ago advocated by Sir William Macewen, of preserving the bone removed, so that, at the completion of the operation, it may be replaced in the opening from which it came. This ought always to be the practice wherever it is feasible; even where the surface of the bone is much ingrained by dirt the internal table can be split off from the external, and replaced often without sepsis occurring, and in cases where the dura mater and brain have receded from the interior of the skull owing to compression, so that the bone, if laid directly upon the dura, would be far below the level of the cranium, it may still be possible to obtain a satisfactory bony closure of the defect by suturing the fragments of bone to the under surface of the scalp, and so hold them in position until the brain expands again to meet them.

But the bone cannot in every case be replaced; be it that the intracranial structures—brain or vessels—are so badly lacerated or diseased that it is essential that an opening shall exist in the skull; or, perhaps, a portion of the skull has to be removed with a neoplasm growing from it; or, again, reimplanted bone necroses and comes away; in any case, it will sometimes happen that a gap remains in the wall of the skull.

It has sometimes occurred in such cases that new bone has been reproduced by the dura mater and the gap completely filled in in consequence, and probably this is more likely to occur in young patients. Goetz[1] has recorded a case where a defect in the skull, measuring 8.5 × 5.5 cm., was completely covered in by bone regenerated in this way, but it is rare for this to happen. In many cases the bone-reproducing powers of the dura are destroyed, and in others the dura has been removed from the area exposed, so that there is no chance of bone being developed, therefore attempts have been made to close the skull opening by various methods; and it is desirable that this should be done, more particularly in cases where there has been injury to the dura and brain beneath—in all cases, in fact, where it is possible for adhesions to form between the brain, or dura, and the scalp—on account of the liability of such conditions to lead to secondary nervous lesions.

METHODS.

The more important of the methods which have been adopted are as follows:

1. The implantation of decalcified bone, as suggested and employed by Senn.
2. The use of calcined bone (Barth).
3. The use of bone which has been sterilized by boiling (Westermann).
4. The implantation of bone removed from another site in the same patient—for example, the surface of the tibia (Seydel).
5. The implantation of bone from another species of animal.
6. The implantation of metal plates—for example, aluminium (Booth).
7. The use of celluloid plates (Fraenkel).
8. With the object of preventing adhesions forming between the dura, or brain, and the margin of the opening in the bone, gold leaf has been employed by Beach; indiarubber tissue by Abbe and egg membrane by Freeman.
9. The osteoplastic method of König and Müller which consists in making a skin and bone flap (the latter being a thin layer of bone, cut with a chisel) from the skull in the neighbourhood of the existing gap and turning this flap over to cover the defect. For this purpose it is necessary that the bone from which the flap is cut should be of a fair thickness and even then, in the process of cutting the flap, it is certain, from the shape of the skull, to be broken into fragments, any or all of which may necrose and so defeat the object of the operation.

It is said that in the course of time the under-surface of the bone-flap in this method becomes smoothed off and that adhesions do not form, at any rate between the under-surface of the cut bone and the dura mater; but where there is a defect in or laceration of the dura as well it is very probable that adhesions would form between the brain and the under-surface of the transposed flap.

This method of König[2] and Müller[3] is probably only suitable in cases where the gap to be covered in is situated under the hairy scalp. It is hardly applicable to the frontal region, as there it would either entail an excessive scarring or necessitate a flap the skin over which was growing hair.

My personal experience of this class of case has been derived from the treatment of six patients in whom I attempted to fill the existing gaps in the skull with celluloid plates. In the first patient whom I had to treat the frontal region was the one concerned, and for cosmetic reasons I avoided the König-Müller method. The result of the implantation of the celluloid plate was so satisfactory that I continued the method in the succeeding cases, although my predilection had formerly been rather towards the König-Müller operation.

Case 1. Tumour (Gumma?) of Frontal Bone: Excised and Gap Filled by Implantation of a Celluloid Plate.

Mrs. C., aged 29, admitted to the Glasgow Royal Infirmary, October 16th, 1897, on account of intense pain associated with a tumour of left frontal bone. Married eleven years, six full-time labours, the last four months ago; no miscarriages; children all alive and well, save one, who died, aged 1 year, of some intestinal condition. Her health has always been good. Five months ago she received a blow over the site now occupied by the tumour. Six weeks ago she began to experience a sensation as if "something were growing" from the frontal bone, and "often asked her husband if he could see anything" there. The swelling became obvious three weeks ago, but for the last six weeks at least there has been more or less constant pain with acute exacerbations at times. The patient had been under the care of Drs. Craig and Glen, who sent her to me. They had seen the tumour develop, and had considered the question of syphilis, and, although no signs of this disease were present and no history of it to be obtained, had treated the patient with large doses of iodide of potash; the tumour, however, enlarged steadily, and the pain was not in any way relieved—became worse, in fact—and the idea of sarcoma came to be entertained rather.

Case No. 1.

A spare woman, with a small projection from about the centre of the frontal bone at the level of the frontal eminences, the skin still slightly movable over it. The swelling is elastic. and the pressure on it causes pain. Measured over its convexity, the swelling is 2.5 cm. both vertically and transversely. No history pointing to disease of the frontal sinuses.

The patient came into hospital for the purpose of having the tumour removed, as latterly the pain had been intolerable, so on October 19th it—along with a portion of healthy bone around—was removed. It had perforated both layers of the bone, and a deep red vascular tissue projected from each surface; the dura mater beneath was unduly vascular, and looked as if it might have been adherent, and a piece of it rather larger than the tumour was therefore removed also.

On October 23rd a celluloid plate measuring 5.5 cm. ($2\frac{1}{4}$ in.) by 4.5 cm. ($1\frac{3}{4}$ in.) was fitted to the gap in the bone, after being moulded as well as possible to correspond with the natural curve of the frontal bone. The wound healed aseptically. Her pain ceased immediately after operation. The tumour was unfortunately mislaid, and so never was examined histologically, but several months later she developed some skin lesions which were certainly syphilitic.

She was last seen in October, 1905, the celluloid plate fits almost as accurately as at first, but in consequence of a blow received over it three years after it was placed in position it is flatter than it was (see figure from photograph taken just after this); had it not been there this blow might easily have injured the underlying brain.

Case 2. Compound Fracture of the Skull.

W. H., miner, admitted August 21st, 1899, with extensive compound depressed fracture of left temporal bone, the result of the explosion of a dynamite cartridge. The wound was thoroughly ingrained with dirt of all kinds, the dura lacerated and ingrained, and the brain beneath showed a large lacerated wound from which, at a distance of 1½ in. from the surface, I removed a fragment of stone the size of an ordinary bean, after which a free gush of cerebro-spinal fluid came away, and it was my impression that the left lateral ventricle had been opened. For four days after this he was unable to express his wishes or to name simple objects shown to him.

For ten days following his admission there was a very free flow of cerebro-spinal fluid from the wound. After this time it ceased and the wound slowly healed. He went out with the brain obviously adherent to the scar in the scalp.

He was readmitted February, 1900, and on March 9th, an omega-shaped flap of the scalp was dissected down from off the brain and a celluloid plate fitted and the flap sutured back into position. Large quantities of cerebro-spinal fluid began to come away from the posterior angle of the wound, requiring constant dressing, and did not cease until May 22nd, after which it remained dry and the sinus quickly closed. He went home, June 4th, very well in every way, and remained well until the middle of August, 1900, when the wound broke down and he returned a day or two later with the wound septic. The plate was accordingly removed and the wound healed again quickly, of course with adhesion of brain and scalp. Further operation has been declined.

The length of time during which cerebro-spinal fluid came away (70 days) is remarkable: it came from a minute opening at the posterior margin of the flap and remained clear all the time. The amount discharged was very great and was a source of great inconvenience from the continual change of dressing which it necessitated.

Case 3. Fracture of Skull; Rupture of Middle Meningeal Artery.

A. F., aged 28, admitted December 14th, 1900, with symptoms pointing to a haemorrhage from meningeal artery after a fall. He was trephined over the anterior branch of right artery at once and a large extradural blood clot removed. The clot was so extensive that a second opening had to be made over the posterior part of the parietal bone to evacuate it completely; the trunk of the meningeal artery was torn at its foramen, and as packing the cavity did not completely arrest the haemorrhage, on December 16th the right external carotid was tied. On December 20th a celluloid plate was placed in each of the openings in the skull and the wounds sutured. The following day some puriform discharge began to come from the right nostril, and on dressing the wounds on December 24th pus was found at the lower angle of the anterior wound, so the plate there was removed. The posterior wound was quite normal. The anterior wound was lightly packed and healed well, and the posterior wound gave no trouble at all, the plate there healing in firmly. He has not been seen since July, 1902. At that time he was well, and declined to have any further operation on the anterior wound, where there is a large defect, no bone having been produced by the dura.

Case 4. Epilepsy following on a Head Injury.

W. P., aged 14. Admitted March 4th, 1902. The patient had been struck on the right frontal bone by a stone nine years ago, and two weeks later had his first fit. He was trephined elsewhere over the site of the injury, and a piece of the bone removed, but since then the fits have been very frequent. There is a scar 2.5 cm. above the right eyebrow, and at this point there is a defect in the bone, and the brain is obviously adherent to the skin here.

On April 18th the skin was dissected back from the brain, and three days later a celluloid disc 4 cm. by 4.5 cm. fitted in the gap. Wound healed aseptically. The epilepsy has not been affected in any way by this freeing of the brain.

He was seen in October, 1905. The plate remains firmly fixed in the gap, and lies flush with the outer surface of the adjacent bone, and it is not easy to detect where one ends and the other begins.

Case 5. Compound Depressed Fracture of Right Parietal and Squamous Bones with Wound of Dura and Brain.

W. M., admitted May 5th, 1902, with an extensive compound depressed fracture just above the right auricle, the result of a machinery accident. The wound was very dirty and the bone comminuted, the dura mater much torn, and there was an extensive laceration of the brain beneath. The fragments of bone were removed, and on May 13th a celluloid plate 9.5 by 5 cm. fitted into the gap which had been left. Uninterrupted healing. He was seen October 2nd, 1905, well in every way, the plate lying close in the gap and its margins scarcely to be made out.

Case 6. Fracture of Skull. Haemorrhage from Middle Meningeal Artery.

J. C., aged 26 years, admitted June 6th, 1903. Fell 15 ft. on to his head. A large extradural blood clot was removed from left side of skull; the actual wound of the meningeal artery was not found. Arterial blood welled up continuously from the base of skull, and the cavity was packed. This oozing continued whenever packing was removed, for five days, and then ceased. On June 15th celluloid plate fitted in and scalp sutured, but the wound had become infected, and plate had to be removed on the 23rd. After this recovery was uninterrupted. He declines further operative treatment. No bone has been produced by the dura mater.

Cases 1 and 5 were brought before the Glasgow Medico-Chirurgical Society on March 17th, 1905.

The result of these cases is that of the 6 patients so treated 3 were successful and 2 failed, the plate requiring to be removed owing to sepsis; while in the case of the remaining patient who had two plates 1 healed in well and the other had to be removed, the sepsis in this case having extended from the nasal cavity. This patient has been lost sight of, but of the other 3 in whom the plate healed in, 1 patient has, up to the time of writing, worn the plate for eight years, and the other 2 have worn theirs for more than three and a half years.

In 4 of the patients there was an extensive wound of the dura mater, and for reasons already indicated I am inclined to look upon this as probably being a contra-indication to the employment of the König-Müller method.

Whether one reimplants bone at the time of the primary operation or employs as a secondary means of closing a gap the König-Müller flap or a plate, asepsis is essential for success; and it is to be remembered that, although reimplanted bone heals in aseptically, it does not follow that the fragments will unite with each other or with the surrounding bone; possibly this means that in these cases non-viable bone has been reimplanted. I see from time to time a patient whom I trephined in April, 1904, on account of a compound depressed fracture about the frontal eminence, and in whom the bone fragments were reimplanted; but they have not united, and though no trouble has arisen from them and they feel quite loose, they possibly are as much "foreign" bodies as a celluloid plate would have been, and certainly they do not afford as good protection to the brain as a plate would do.

It is, however, unusual in my experience for bone fragments to heal in without uniting and becoming firm. Out of 48 cases of immediate operation on account of injury I reimplanted the bone in 23, and in 20 of these it healed in, and became firm in all of them except the 1 case just referred to; in the other 3 patients the bone had to be removed owing to infection. In the remaining 25 cases the bone was not reimplanted for various reasons; of these, 20 died from the severity of their injury, of the other 5 who recovered 4 were treated by the insertion of a celluloid plate (Cases 2, 3, 5, and 6 described above).

Of the other procedures which have been recommended and employed, the use of gold leaf, indiarubber tissue, etc., can at the best only act as a preventive to the formation of adhesions, and even in this respect they are, according to Weer and Woolsey,[4] not sufficiently resistant to the action of the tissues, but become disintegrated in the course of time so that adhesions ultimately form.

The transplantation of a piece of bone from the patient's tibia, for example, or from an animal, has not any special recommendation, and I think that the use of calcined bone, or decalcified bone or bone sterilized by boiling has decided disadvantages, and for this reason, that if we cannot employ living bone, the material selected as a substitute ought in the first place to be non-porous, so that it will not permit penetration of its substance by granulation tissue which might ultimately lead to its disintegration, and thereby possibly allow the dura or brain to form adhesions, which is precisely what we should endeavour to prevent.

Grekow,[5] however, has urged the use of calcined bone because it is absorbable, believing that in the course of time the dura will develop new bone. But it is difficult to see why the dura would be more likely to develop the new bone after the absorption of implanted calcined bone than it would be without it; most surgeons seem to be of the opinion that because the dura so constantly fails to develop bone it is advisable to try some other method of filling the gap. The brittleness of calcined bone, and consequent liability to be fractured, is possibly another objection to its use. It further appears to me that any substitute material employed in addition to being non-porous ought to be tough, resilient, smooth, non-absorbable and capable of being moulded, and celluloid possesses all these qualities. The material which I have made use of has been about $\frac{1}{16}$ in. in thickness; when warmed it can be moulded to some extent, not so perfectly as aluminium or silver perhaps, but its elasticity and resilience are much greater, and probably therefore it is capable of offering more satisfactory resistance to external violence, blows, etc.; in the case of Mrs. C. (Case 1), for instance, the plate certainly served a useful purpose in protecting her brain from injury from a blow which fell directly upon it.

REFERENCES.

[1] Goetz, *Beiträge klin. Chir.*, vol. iii. [2] König, *Cent. f. Chir.*, 1890. p. 497. [3] Müller, *Cent. f. Chir.*, 1890, p. 65. [4] Weer and Woolsey, *Annals of Surgery*, vol. xxviii. [5] Grekow, *Russkoi Chirurg.*, 1901.

AURAL CASES IN GENERAL PRACTICE.*

BY STEPHEN PAGET, F.R.C.S.,

SURGEON TO THE WEST LONDON HOSPITAL, AND SURGEON TO THE THROAT AND EAR DEPARTMENT OF THE MIDDLESEX HOSPITAL.

MR. PRESIDENT AND GENTLEMEN,—Let me try to repay your courtesy in asking me here, by submitting to you some general rules, which I seem to myself to have learned from a good lot of throat and ear work, and to have found useful. You must forgive me if I speak in a vague and haphazard way, and range over many subjects; but what I have to say mostly concerns the examination of these cases.

The examination of throat and ear cases comes under three headings: First, the history of the case; next, the physical signs of the case; next, the testing of the patient's hearing. These are our three methods of going into the case: The history, all that we are told; the physical signs, all that we see and touch; and the testing of the hearing, all that we can deduce.

The last of these three methods, I venture to say, is of very little importance. What, after all, is the value in practice of the ordinary testing of the hearing with a watch or a tuning-fork? A man may fail to hear the ticking of a watch, yet he may hear fairly well the voice of a friend; or he may hear a watch easily, yet may fail wholly to enjoy a concert or a play, or to catch and appreciate the general talk round the family table. Hearing is an intellectual process, active, not passive; we bring our will and our attention to bear on it, we contribute experience, and insight, and the power of guessing the missing word. All his life a man has been listening to voices and music, and the noises of the town and the harmonies of the country; and he may still catch, by force of habit or of will, these familiar sounds, even though his ears are dull to a sound so unfamiliar and unprofitable as the ticking of a watch. There is more in the act of hearing than a mere stimulation of the auditory nerve; there is habit and memory and will, and these faculties help us to apprehend and piece together those sounds which we want to hear; but nobody wants to hear a watch ticking, or has listened to watches ticking all his life.

Now take the ordinary tests with a tuning-fork, are they of much practical use? They always seem to me most vague in the very cases where we ought to find them most definite. It is claimed for them that they can distinguish affections of the middle ear from affections of the internal ear; and that is just where they so often fail, and no wonder, seeing how often these two structures are involved together in the same set of troubles. I confess that I have given up the tuning-fork, believing that it is worth next to nothing for diagnosis, and worth nothing for treatment; besides, it requires from the patient a higher power of observation than is common among out-patients.

We come now to a method of examination which is of far greater importance: I mean the careful study of the history of the case. Let the patient tell his own story his own way, full length, without prompting, just as it strikes him; and you will be sure to learn something. Next to abdominal cases, there are no cases where it pays better to get a deliberate account of all that the patient has to tell. Take, as instances of the value of a full history of the case, the influence, in the production or perpetuation of aural troubles, of rheumatism, syphilis, drink, worry, over-work, and unhealthy occupation. Or take the gravity of the fact that there is, as the patient says, "deafness in the family." Or consider how many patients forget that they had earaches in childhood, which yet laid the foundation of their present deafness. Or, which is the best of all instances of the importance of the patient's own words, take what aural patients say of those subjective sounds which we call tinnitus. One patient will merely say that he has a sort of buzzing or humming in one ear. We may be able to cure that patient: he may have nothing worse than a plug of wax in his ear, or a slight catarrh blocking his Eustachian tube. Another will say that he hears a thumping sound, which goes in time with his pulse. We are less likely to cure him. Another will describe in vivid, exact, and picturesque words a complex, articulate, elaborate set of sounds: he will compare them to this or that sound in Nature; will dramatize and act what he hears. He will say, "I hear a lot of birds singing in the trees," or, "I hear a regular tune, just like music, and I could almost sing the tune"; or, "I hear church bells ringing in my head, some near and some far off, as if they were in different villages." We shall hardly cure that patient. Such a heterogeneous and fantastical tinnitus represents a perversion of the very centres of hearing and of understanding; it is inaccessible; it is almost of the nature of a hallucination, or of an epileptic aura; it has captured not only the perception of the patient but also his imagination; and we shall not easily dislodge it from that stronghold.

Next come the physical signs of the case, and all that we can learn from the evidence of our senses. In hospital practice I always advise students to try to see, in every case, everything—the membrana tympani of each ear, the front view of the inside of the nose, the back view of the inside of the nose, the mouth, the back of the throat, and the larynx. All this should be done as a matter of routine. The patient is not unwilling to be thus carefully studied; and it is the one and only way in which the student can learn this part of his work. For he learns how to distinguish real disease from mere defects or abnormalities of structure or of function, which do not amount to disease and do not require treatment; he learns not to mistake a turbinated bone for a polypus, or a group of papillae circumvallatae for a new growth, or the redness down the handle of the malleus, just after the ear has been syringed, for an acute inflammation of the middle ear. Moreover, by this methodical examination of everything in every case one makes, now and again, a discovery. For instance, a patient had complained only of earache, and had been treated only for that; but the cause of the earache was found, by more thorough examination, to be cancer of the tongue. Another patient had an incessant, hacking, noisy cough, and had been treated for his cough, and in vain; then, by more thorough examination, both ears were found plugged with wax, and the removal of the wax practically cured the cough; it was a reflex cough, such as we often provoke by putting a speculum into the ear. To look at every structure, in every case—tympanic membranes, anterior and posterior nares, mouth and pharynx, and vocal cords—that is the one way to learn throat and ear work, and to escape a good many errors of judgement.

And here let me submit to you a lesson which I seem to myself to have learned very late from my throat and ear cases. I say we should examine everything, including the mouth, and in the mouth I include the teeth. Not only for this reason, that a stump in the upper jaw may cause suppuration in the antrum, and the cutting of a back tooth may be attended by earache and even by inflammation of the middle ear, but for this reason, that caries of the teeth seems to me to have a great deal to do with setting up or keeping up an unhealthy condition of the upper air passages. Dr. William Hunter has taught us to recognize the remote effects of oral sepsis in chronic gastritis, and, finally, in pernicious anaemia; but it has also a less remote effect. Patients come to us with a history of repeated attacks of tonsillitis, or with weak throats and swollen uvulae, or with what we call rather vaguely post-nasal catarrh and chronic hypertrophic rhinitis, and we find carious molars and stumps in their mouths; they may have, if one adds together all the teeth, not less than half a square inch, each of them, of dead and infective matter in the mouth—enough, surely, to irritate many square inches of mucous membrane; and I feel sure that I have often seen immediate improvement of the state of the upper air passages following the removal of decayed teeth and the giving of proper care to the cleansing of the mouth.

---

* A paper read before the North Lancashire and South Westmorland Branch of the British Medical Association.

I come now to two points in the examination of throat and ear cases which are, to my thinking, of great importance. One is the advantage of using a lens when we examine the membrana tympani: the other is the need of a careful and unbiassed examination of the naso-pharynx before we advise that an operation should be done for adenoids. For nearly twenty years I have used a Brunton's otoscope to view the membrane: and it shows fifty things which the naked eye might fail to see. Consider that the membrane is no bigger than one's little finger-nail; and, on that small surface, we have to observe and estimate all the diverse changes of colour, texture, and curvature, all recent or old scars or perforations, and all signs of congestion, or of inflammation, or of fluid behind the membrane: and we have to distinguish those abnormal appearances which are merely featural from those which are signs of real disease. If the membrane lay on the surface of the body, of course we should take a lens to examine it. Without a lens, we hardly know how easy and how full of interest we can make aural work, and how many little changes we fail to observe. Besides, it gives one assurance and an exact and positive judgement: and thus one may win a ready and cheap reputation for wisdom. It is a simple thing to say to a patient, "You have been picking your ear with a hairpin," when one sees one or more haemorrhagic spots or scratches on the membrane—little flecks of blood, looking as if a minute vessel had given way; and these punctiform haemorrhages on the membrane, or on the meatus close to the membrane, are not uncommon in hospital practice. I counted, in one case, six or seven distinct scratches where the patient had jabbed a pin into her ear. Again, it is a simple thing to say to an elderly patient, "Once, I perceive, you had a discharge from the ear—it may have been half a century ago"; and he says, "Bless my soul! now you mention it, so I did," and thinks you very clever. Again, with Brunton's otoscope, one learns to recognize in a moment the look of the relaxed membrane, or of a relaxed area of the membrane—the thin, bright, filmy, gauzy surface which comes forward with a sudden flap when the patient forces air up his Eustachian tubes, like a sail suddenly caught by the wind, or as one might blow out a paper bag; and, of course, in such a case, it is of little or no use, or worse than no use, to politzerize the patient; for he is already self-politzerized, and perhaps over-politzerized. I remember the case of a girl who, by the incessant trick of blowing out her ears, had so stretched a relaxed membrane that the whole thing came bulging forward every time she blew, with a curve like the top of an egg. Again, with an otoscope, one learns to see what I call the "dancing bubble" in cases of recent perforation with discharge. A drop of discharge, or a drop of lotion left in the ear after syringing, catches the light, and reflects it as a bright spot; and this spot, as the fluid rises and falls with the pulsation of the middle ear, bobs up and down, or from side to side, in time with the pulse. That is a certain sign that the membrane is perforated; and with infants, in whom it is so hard to see anything, or to be sure of what one does see, this dancing drop, rising and falling as the pulsation of the middle ear reaches it through the hole in the membrane, is a very useful sign.

These are four instances of unhealthy states of the ear which we are apt to overlook unless we magnify the membrane. All of them—the punctiform scratches, and the healed or obsolete perforation, and the relaxed membrane, and the dancing bubble—are fairly common; and it would be easy to add to the list. We are handicapped in aural work by the smallness of the membrane, and the depth at which it lies at the bottom of a *cul-de-sac;* and the use of the otoscope is an immeasurable help toward making the work more pleasant and more accurate.

Give me leave now to say something about the examination of the naso-pharynx for adenoids, and the imperative need of clearing our minds of prejudice in these cases. So far as the examination is concerned we may of course, in some cases, be able to see the naso-pharynx with a little mirror, and thus avoid a digital examination. If we must make the digital examination I venture to remind you that the finger should be kept not in the middle line of the mouth, but close to one or other of the tonsils. Here, just at the spring of the soft palate, it is easy to get one's finger up into the naso-pharynx; but near the middle line, at a touch, the palate becomes retracted, and then one is in danger of being rough and hurting the child.

Anyhow, when we do get our fingers right up to the very top of the pharyngeal vault, what do we find? It is here that we must keep an unbiassed mind. For we find one of three conditions: either adenoids, or a trace of adenoids, but not enough to account for the child's troubles, or no adenoids. If I may make a guess I would say that of 100 cases who come to my department to have adenoids removed 60 have adenoids, 20 have a trace of adenoids, and 20 have no adenoids; and I believe that a vast number of children are submitted to operation for adenoids who are none the better for it, and ought to have been left alone. The troubles for which they come are much the same in all the 100 cases: deafness, and dullness, and earaches, and mouth-breathing, and snoring, and broken sleep, and night-terrors; they all have the look of children with adenoids, and the symptoms of children with adenoids; and many of them have already been subjected to operation. I have seen children whose throats have been scraped four times; I have seen one child who at three hospitals had been scraped altogether six times.

What are these cases that look like adenoids yet are not adenoids? They are cases of general narrowing and ill-development of the upper air-passages. It is as rare, at any rate among the London poor, to find a perfect set of upper air-passages as to find a perfect set of teeth. The septum is more or less crooked or spurred; the palate is narrow, high, like a Gothic arch, pinched from side to side; and the naso-pharynx, which should be square and ample, is so shallow and low-roofed and sloped inward that it feels as if one's finger were not in a vault but in a mouse-trap. Our teeth are not alone in their degeneracy; they only share the general feebleness and arrested development of the upper air passages; everything is crowded and irregular and ill-shaped. I believe that we might go further and say that the mucous membrane lining the upper air passages is also tending toward degeneracy—weak, irritable, easily thrown out of order, and slow to recover. Anyhow, even if our upper air passages be not degenerate in action, they are inferior in structure; and the multitude of these cases of "false adenoids" is nothing more than a multitude of young people whose noses are overcrowded inside, and the naso-pharynx is so narrow that it is always getting obstructed, and they suffer all the inconveniences of adenoids without adenoids, or with only a trace of adenoids.

And, if I may digress for a minute, let me suggest to you that we ought to hesitate before saying that these faults are, in the modern phrase, "stigmata of epilepsy." Doubtless they are a sign of some sort of degeneracy: doubtless they are often found in association with some degeneracy of the central nervous system; but that is no proof that they point straight towards epilepsy. These faults of the upper air passages are, after all, only one fault; and that is overcrowding, and, from the point of view of a dental surgeon or an aural surgeon, this overcrowding is so common that he attributes it vaguely to "civilization." So are nervous diseases common, and may also be attributed to "civilization." But it is a different matter to assert that the nervous degeneracy came first, and stamped its mark on the lower half of the face; and we must think twice before we admit that these innumerable multitudes of cases of "false adenoids" are the victims of an unhealthy nervous system.

But, coming back to my subject, let me point out the practical rule: that we must bear in mind these cases which simulate adenoids, and must never, to spare a child the discomfort of digital examination, anaesthetize him and then examine him. If we do that, we shall not go long before we find ourselves setting to work to remove adenoids which are not there. That child who was subjected to six operations, what are we to believe about her? Either she had a most amazing power for reproducing adenoids after removal, or she had mere overcrowding of the air passages, and five of the operations were worse than useless. I am inclined to hold the latter theory. For I see every week at hospital children who present the whole and perfect picture of adenoids, yet have none, or nothing more than a trace.

Forgive me if I just touch, to finish with, one or two elementary rules of routine treatment. What can we do to alleviate or cut short an earache? In some cases we may cut it short by the timely use of Politzer's bag; it may be painful at the moment, but the cases where it hurts are just the cases where it helps. As for the use of drops, what is the good of laudanum? The opium in a few drops of laudanum is a very small fraction of a grain; it cannot act as a local sedative, much less as a general sedative. The spirit in the laudanum is a mere irritant; it can only do harm. The laudanum must be put in its proper place, where it is of inestimable value, and that is in the child's stomach, not in its ear. But cocaine drops are often useful; they have a direct sedative action, and a direct constricting action on the blood vessels of the congested membrane. Hot fomentations may be applied over them; and with these four methods —Politzer's bag, cocaine drops, incessant fomentations, and a dose of laudanum—we can often cut short an earache and avert puncture or perforation of the membrane.

Next, take an ordinary case of otorrhoea—one in which there is no immediate reason to advise an operation. For the thorough cleansing of the discharging ear, there is nothing better than a solution of hydrogen peroxide; the patient must lie flat, with the ear looking straight upward, and the whole ear must be filled, like a test tube, with a drachm or more of the lotion, and must be kept filled, for five minutes or more, till all the frothing has come to an end; and then, after the peroxide has been washed away with boracic lotion, the ear must not be left sopping, but must be very carefully dried with twisted tufts of wool, and this must be done till the tufts of wool come back as dry as they went in. What one does next will depend on what one finds, and I will only suggest that a solution of boric powder in spirits of wine will penetrate further into the unhealthy recesses of the ear than the same powder in a solid state, and that the use of powders is seldom successful in cases where there is granulation tissue.

Finally, let us always be careful to take a general all-round view of these throat and ear cases. It is a great mistake, in our dealings with them, to overlook the patient's inheritance, family history, habits, occupation, and surroundings, his mental temperament, his personal worries, his previous illnesses. One, or more than one, of these influences is sure to be at work on every case, helping to turn the course of it this or that way.

THE INDICATIONS FOR OPERATION IN CHRONIC SUPPURATIVE DISEASE OF THE MIDDLE EAR.*

By W. S. SYME, M.D.,

ASSISTANT SURGEON, HOSPITAL FOR THE DISEASES OF THE EAR, NOSE, AND THROAT, GLASGOW.

There is probably no condition in which we are so handicapped by the opinion of the lay public as in this of chronic ear discharge. Only a discharging ear, and it has gone on for so long without any harm coming of it, there can be no danger! Indeed, there are many people going about with this disease who look upon it as of such little importance that they will not trouble to mention it to their medical man, even when he may be already attending them for some other illness. Not so many years ago, too, this was the attitude of mind taken up by the majority of the profession itself; and yet to-day a noted surgeon, who has done pioneer work in this subject, declares that the man who has a chronic otorrhoea has, metaphorically, a charge of dynamite in his head which may explode at any time with disastrous results. At first glance this no doubt appears painted in somewhat lurid colours, but, even without making allowances for the zeal of the missionary, if we ponder for a moment on the eventualities that may occur, we can hardly call the simile inapt. Taking such a strong line, this surgeon, and others with him, to the question, "When is operation called for?" would answer, "In every case"; and if that were the opinion of the author of the present paper, my communication would be most commendably brief.

Such, however, is not the opinion of the majority of those more directly engaged in the treatment of aural affections. We find that in many cases—indeed, in probably the larger proportion—of this disease, cure, or cessation of the discharge, as in some instances it may be more correctly described, is effected by what is known as the ordinary antiseptic treatment. My further remarks, however, will be found to qualify this statement. My aim, therefore, is to draw your attention to those indications, both objective and subjective, which would, on the one hand, give us reasonable hope of cure by the milder antiseptic procedure; or, on the other hand, would suggest to us the advisability, amounting in some cases to the absolute necessity, of resort to operation.

Anatomy.

First, if you will allow me, I should like to briefly rehearse the anatomy of the region with which we are dealing. Its leading feature is the number of important structures which are crowded together into a very limited space. Not only so, but the exact relations of these structures the one to the other vary greatly in different individuals. Taking the tympanic cavity as the centre, we have externally the membrana tympani and the external wall of the attic, as the upper part of the tympanic cavity is called, separating it from the external meatus. The inner wall separates the middle from the inner ear and is bony, except at the two windows, the fenestra ovalis being closed by the footpiece of the stapes and its membrane and the fenestra rotunda by its own membrane. Above the oval window, and extending in a circling manner to the posterior wall and along its base, is the Fallopian canal for the passage of the facial nerve. This canal is frequently imperfect, and this applies especially to children. Beneath the floor lies the internal carotid artery in the carotid canal. The roof is thin and separates the cavity from the dura lining the middle fossa of the skull and so from the temporo-sphenoidal lobe. It is known as the tegmen tympani and along its external border runs the petro-squamosal fissure which is occasionally patent in the earlier years of life, in which case there may be got a process of the dura mater continuous with the lining of the middle ear. Through the posterior wall the attic communicates by the aditus with the antral cavity, which is of prime importance in connexion with the subject under consideration. Immediately beneath the inner wall of the aditus and posterior to the bend of the Fallopian canal lies the external semicircular canal. The antrum itself communicates with the cellular spaces, the vertical cells of the mastoid process. Posterior to it and usually more superficial is the sigmoid bend of the lateral sinus and beyond this the lateral lobe of the cerebellum. The tegmen antri is continuous with the tegmen of the tympanum. The inner surface of the mastoid process is of importance in that an erosion in its surface may allow pus to infect the cellular tissues of the neck. The antrum has small openings in its walls for the passage of veins and lymphatics, the former passing to the lateral sinus and the latter to the subdural space. In children there is often a small canal running from the antrum through the petrous bone to its inner surface. Finally, we must bear in mind the internal auditory meatus connecting the inner ear with the posterior fossa and subdural space.

Acute and Chronic Middle-ear Suppuration.

Except that I am sorry to tire you with these details I do not apologize for this recapitulation, for the dangers of middle-ear suppuration are to a great extent dependent on the anatomy of the region, and with a mind-picture of this it is easy to understand what these dangers are likely to be. Just a few words as to the distinction between acute and chronic middle-ear suppuration. Without entering into debatable questions—which is outside the scope of this paper—we may take it that acute suppuration arises from an ordinary catarrh, the exudation becoming purulent. The membrane is perforated either by the tension of the tympanic contents or operatively, and the discharge continues for a fortnight or so, when it ceases, and the membrane heals. This is the usual course, and if any complication does arise it is usually in the vertical or superficial cells from blocking of their narrow openings and consequent retention under tension of the inflammatory products. An empyema is formed, which is opened by a mastoidectomy. As a very general rule, acute suppurative disease of the middle ear does not lead to serious destruction of bone and severe complications, though this cannot be taken as absolute, as one's own experience, like that of others, shows. However, in the great majority, it holds good that in the acute disease there is no affection of the bone itself. It is only when the disease has become chronic that we get the lining membrane of the various cavities becoming disorganized and the bone becoming involved. It is this which suggests the first inquiry in dealing with chronic middle-ear suppuration: What risk is there of the carious process extending to and in the walls of the tympanic cavity and its accessory spaces, and thus exposing to the possibility of serious damage the important structures in the vicinity? Though this represents the main danger, we cannot overlook those cases in which infection is spread through the venous or lymphatic channels to the structures within the skull, there to cause brain abscess, purulent meningitis, or septic sinus thrombosis. One such case has come under my own observation. In such cases, on operation or *post-mortem* examination, the bone is found intact—at any rate, in the region of the intracranial affection. In the same way a general septic absorption may arise, but though this has been described it is much rarer as a source of septicaemia than one might be inclined to expect.

---

* Prepared for communication to a meeting of the Border Counties Branch of the British Medical Association.

It is the recognition of this possibility of serious mischief within the cranial cavity arising by lymphatic or venous extension from the middle ear spaces which gives to chronic otorrhoea its greatest anxiety, and which has impressed on many surgeons, as I have previously stated, the advisability of operation in all cases. Moreover, it is impossible to say what is the probability of its occurrence in any given case, so that one may almost be forgiven a feeling of panic by its contemplation. Happily it is rare, but that it does occur must be taken into account in forming a prognosis. On the other hand, there are certain objective signs and subjective symptoms by which we may foresee the probable advent of disorganization of the bony walls and the danger of serious complications by direct infection or injury.

Intracranial Complications.

Here it would be well to inquire, In what proportion of cases of the disease we are considering do serious complications occur? It is very evident that this has a distinct bearing on the question of operative interference. Unfortunately, it is difficult, for various reasons, to arrive at a trustworthy answer to this query; and this especially applies to the secondary implication of the contents of the cranial cavity leading to purulent meningitis, septic sinus thrombosis, gangrene, and abscess of the temporo-sphenoidal lobe and of the cerebellum, and, it may be, of other parts of the brain. Many patients suffering from middle-ear suppuration who have been attending at a special hospital, and who develop any of these complications, are taken to a general hospital, or, on account of the very acute cerebral condition, remain at home. In either case it comes about that the statistics of a hospital devoted to the treatment of aural affections are misleading, and, without doubt, understate the proportion of secondary intracranial disease. Moreover, the diagnosis of these complications is in many cases very difficult, and as the history of past otorrhoea, or of otorrhoea which the patient and his friends believe to be past, is frequently withheld, not wilfully, but in ignorance of its significance, it is by no means uncommon to have such cases diagnosed as typhoid fever or some other condition. In a case of this kind which came under my observation, operation revealed purulent meningitis secondary to suppuration in the mastoid antrum. There are cases, too, in which the patient or his friends are quite unaware of any ear disease. Such a one was sent to me by his medical attendant because of the development of a swelling over the mastoid. Questioned with reference to discharge from the ear, the father of the child stated that there had never been any, and it was only by careful aural examination that a small quantity of thick, foul-smelling pus, evidently due to disease of some duration, was found coming from the middle ear. On operation the bone was found extensively necrosed and the dura exposed to a large extent. One cannot help thinking that, in such a case, had the mastoid swelling not appeared, meningitis or some other complication might easily have developed, whose nature or whose connexion with the ear, it is no reflection on one's diagnostic ability to say, might not have been established. In rare instances middle-ear suppuration proceeds without rupturing the membrane and without, indeed, any aural symptoms, and *post-mortem* intracranial disease has been found secondary to such cases. From all of which it will be clear that it is extremely difficult to arrive at anything like an accurate idea of the proportion of cases of intracranial disease arising as a result of chronic middle-ear suppuration. In fact, very few authorities attempt to give such statistics. From the records of the New York Eye and Ear Hospital, Dench places the proportion at 1 in 83. In the Glasgow Ear, Nose, and Throat Hospital during 1903 there were 680 cases of this disease, with 6 cases of serious secondary intracranial affection. In the *Archives Internationales de Laryngologie, d'Otologie et de Rhinologie* for May-June, 1905, Chavasse and Toubert give a full account of the operations performed by them on soldiers under their care affected with ear disease. All the operations were performed for more or less urgent symptoms. Out of 1,163 soldiers affected with suppuration of the middle ear, acute or chronic, operative procedure was found necessary in 78, and in 9 of these severe complications—to wit, meningitis, brain abscess, sinus infection—and in 4 others extensive destruction of the bone, were found as a result of the chronic variety. Unfortunately, the acute and chronic of all the cases seen are not differentiated, and even if they were they would not, from the fact that they were all men of about the same age and living under special conditions, be of much value for arriving at percentages for the purposes of this paper.

Apart from proportional statistics there have been reported very many cases of intracranial disease following chronic otorrhoea. For example, in the March-April number of the review just quoted, Schmiegelow of Copenhagen gives details of 13 cases of brain abscess with or without meningeal and sinus affection arising as a result of this disease. But it is unnecessary at this time of day to multiply examples of this connexion.

Other Complications.

There are, however, other conditions besides intracranial which develop as a result of chronic middle-ear suppuration. Perhaps next in importance is infection of the internal ear. Indeed, in many cases the disease travels by way of the labyrinth and internal auditory meatus to the cranial cavity. Short of this the middle-ear affection may cause changes in or destruction of the various parts of the internal ear whereby its function is much impaired or actually destroyed. This is a subject which has received much attention during the past two or three years and formed one of the subjects for discussion at the recent International Otological Congress, when the opinion was generally expressed that labyrinthine infection leading on to intracranial involvement was a more frequent result of chronic middle-ear suppuration than had previously been thought. A very interesting communication by Whitehead of Leeds on this subject appeared in the *Journal of Laryngology, Rhinology and Otology* for May, 1904. Drawing his observations from a large number of operations for mastoid disease he puts the proportion of cases of labyrinthine secondary infection at 4 per cent. and of these nearly half proved fatal. Facial paralysis is another distressing complication. In the Glasgow Ear Hospital during 1903 there were 7 cases of this affection secondary to middle-ear suppuration. The Fallopian canal, too, has been suspected as the channel by which in some cases infection has passed to the brain.

It is only necessary to mention, as other complications which have arisen in the course of chronic middle-ear suppuration, extensive caries of the mastoid, haemorrhage from the carotid and abscess of the neck.

The Radical Mastoid Operation.

An examination of the conditions found in a certain number of cases of the radical mastoid operation will give an idea of the dangers attending the disease under review.

For this purpose let me take a series of 30 cases on whom I have performed this operation. The ages of the patients ranged from 1 to 52 years. I give in tabular form the conditions found:

No.	Sex.	Age.	Condition Found at Operation.
1	M.	2¼ years	Caries of external wall of antrum.
2	F.	12 ,,	Extensive caries of external and posterior walls of antrum with exposure of sinus.
3	M.	20 ,,	Abnormal position of lateral sinus, antrum practically absent (already reported).
4	M.	6 ,,	Caries of external, superior, and posterior walls of antrum, exposure of dura and sinus.
5	M.	16 ,,	Superior wall of antrum carious, exposure of dura.
6	F.	2 ,,	Caries of external and superior walls of antrum, dura exposed.
*7	M.	1 year 8 months	Cervical abscess, caries in floor of tympanum and meatus and in region of Fallopian canal.
8	M.	1 year 8 months	Caries of external and superior walls of antrum and of mastoid process, and of internal wall of tympanum above Fallopian canal, dura exposed.
*9	M.	2 years	Suppuration of antral cavity without caries of bone.
10	M.	3½ ,,	Extensive caries of superior and posterior walls of antrum, dura and sinus exposed.
11	F.	11 ,,	Caries of external and superior walls of antrum, dura exposed.
12	M.	20 ,,	Excavation of whole of mastoid process, with growth of granulations.
13	M.	6 ,,	Caries of external wall of antrum and mastoid process.
14	M.	10 ,,	Caries of external wall and extensive caries of posterior wall of antrum, cavity filled with cholesteatoma, sinus exposed.
15	F.	26 ,,	Suppuration of antral cavity without caries.
16	F.	48 ,,	Extensive caries of inner and posterior walls of antrum, sinus exposed.
17	M.	52 ,,	Stenosis of meatus, suppuration of antrum, without caries.
18	M.	9 ,,	Caries of external wall of mastoid, extensive destruction of posterior wall of antrum and of mastoid process with exposure of sinus and jugular bulb. Caries in region of facial spur.
19	M.	30 ,,	Caries of external and superior walls of antrum and in region of external semicircular canal, dura exposed.
20	M.	32 ,,	Suppuration of antral cavity without caries.
*21	F.	51 ,,	Stenosis of meatus. Caries of inner end of posterior meatal wall and in region of external semicircular canal.
22	F.	34 ,,	Suppuration of antrum with granulations, but without marked caries.
23	F.	6 ,,	Caries of external, posterior and superior walls of antrum, sinus and dura exposed.
24	M.	50 ,,	Caries in region of Fallopian canal over the external semicircular canal and in the superior wall of antrum, dura exposed.
25	F.	34 ,,	Caries in region of external semicircular canal.
26	F.	9 ,,	Caries of external wall of mastoid with large perimastoid abscess.
27	M.	9 ,,	Caries of external wall of mastoid.
28	F.	16 ,,	Suppuration of antral cavity without caries.
29	F.	13 ,,	Caries of external and superior walls of antrum and in region of facial spur, dura exposed.
30	F.	10 ,,	Caries of external wall of antrum.

* In these three cases facial paralysis was present before the operation.

Summary.

The carious process affected the external wall of the mastoid in 15, the walls of the antrum with exposure of the dura mater in 11, with exposure of the lateral sinus in 6 (in one of which the jugular bulb was also exposed), the region of the Fallopian canal in 7, the region of the external semicircular canal in 5, and the floor of the meatus in 1. In 3 there was facial paralysis.

CASE 16.—This patient suffered from well-marked vertigo of two weeks' duration, accompanied, a week before she was sent to me, by vomiting. Her medical man gave a history that three years previously she had had severe rigors, with temperature up to 106°, which, however, were not thought to have any connexion with her aural condition. At the operation the destruction of bone was found to have extended from the external semicircular canal to the posterior wall, which was also to a great extent destroyed. The sinus was exposed and easily palpable. It appeared shrunken and cord-like, making one form the opinion, taking the history into consideration, that she had previously had secondary thrombosis of this sinus, which had undergone spontaneous cure.

Looking to these various conditions found during the course of the operation we cannot, it seems to me, escape from the conclusion that some at least of them must have developed secondary intracranial disease, the dura, at first thickened, becoming softened by constant contact with necrotic and purulent débris, and thus permitting the infection of the meninges, brain substance, or venous channels. In one of my cases (No. 8) the commencement of this softening was distinctly seen.

It would be well here to consider the operative procedure likely to be indicated in this disease, chronic middle-ear suppuration. As a rule, this means the performance of what is called the radical mastoid operation, as distinct from the milder measure of mastoidectomy, which is now reserved for those cases of mastoid empyema arising in the course of acute suppuration. In a small proportion of cases where the disease appears to be confined to the ossicles or attic, we may recommend removal of the ossicles or external attic wall, or both as a rule, with curettage of the tympanic cavity, always, however, with the expressed reservation that it is a tentative measure, which may require to be followed, after all, by the radical proceeding. Still, I am bound to say, a more extended experience makes me inclined to believe that with greater care in the exact diagnosis of the conditions present in the middle ear this milder operation of ossiculectomy, with removal of the external attic wall and careful curettage, early performed, will be found valuable in preventing a larger number of cases of the disease we are considering from going on to the complete radical proceeding. But that's by the way.

In all cases the nose and throat should be examined for such conditions as adenoids, turbinal hypertrophy, etc., which by the chronic congestion and muco-purulent discharge they give rise to are no doubt sources of constant reinfection of the tympanic cavity. Treatment of such by appropriate measures is often followed by beneficial results as regards the middle-ear suppuration. But, as I have said, usually it is the question of the radical mastoid operation which has to be considered. This in its various modifications aims at the eradication of the disease, and the turning of the tympanum, accessory spaces, and external meatus into one cavity lined in the completed condition by epithelium. It is not the province of this communication to enter into detail as to the methods by which this is attained nor as to the dangers to be kept in view during its performance. What these are will be evident from a contemplation of the anatomy of the part. The ultimate results are on the whole satisfactory. In 71 per cent. the suppuration is cured. This is according to Dench, and my own experience would certainly not put the proportion lower. In those in which suppuration remains it is of small amount, and as all the cavities are open to inspection there is not the same anxiety. As regards the hearing, in some cases it is improved, as a rule it remains practically the same, rarely it is made worse. Temporary facial paralysis, as a direct result of the operation or due to subsequent inflammation of the neurilemma, may occur. It recovers after a variable time. Permanent facial paralysis is decidedly rare. If it is possible for any operation to have no mortality, one might say it of this.

There is another point in connexion with this operation which requires consideration, and that is the length of time during which the patient will be incapacitated. This naturally applies to adult patients. It is beside the mark to say it should not enter into the question. It does; the patient brings it in, and where there is no urgent symptom demanding surgical interference he will carefully consider the loss of time from his work or pleasure. In the majority of uncomplicated cases this period may be put at one month. The lining of the cavity by epithelium will not be completed by the end of that time, but he will then be able to get about his usual occupation. Many modifications of the operation have been devised to hasten the completion of epithelialization.

INDICATIONS FOR OPERATION.

Now that we have considered—though owing to the exigencies of time not so fully as I should have liked—the pathological changes which may follow chronic suppuration of the middle ear and the dangers and consequences thereof, and have, moreover, dwelt, though cursorily, on the results of its surgical treatment, we may proceed to inquire in some detail into those points which may be elicited by objective and subjective examination, and which would lead us to impress upon the patient or his friends the advisability of operative interference.

First let me state those objective signs which I look upon as indications for operation.

1. Pain on pressure over the mastoid, or more particularly over the antrum, that is, immediately behind the postero-superior angle of the meatus. This may be accom-

panied or not by post-auricular swelling, and points to the supervention of an acute mastoiditis, or more often to caries affecting the external wall of the mastoid process or of the antrum. There is a possibility of error with reference to this sign which to recognize will be to avoid. Furunculus of the meatus, which may occur with as well as without chronic otorrhoea, is frequently attended by a temporary painful swelling behind the auricle. The absence of sagging of the postero-superior wall of the meatus, which is commonly got in mastoid empyema as a result of acute middle-ear suppuration, will point rather to caries of the external antral or mastoid wall.

2. A sinus behind the ear leading to an erosion in the bone. This is self-evident.

3. Caries of the petrous bone as disclosed by examination with the speculum and probe. The examination should be conducted methodically, the different parts of the ear being sounded with the probe to discover early carious foci. It may be that the caries is isolated in a small part of the inner wall of the tympanum, and is accessible to treatment through the meatus, or the ossicles alone may be the seat of the disease. On the other hand, it may be found in the upper and posterior part of the tympanic cavity, when one fears that the destructive process may also have extended to the antrum, or to the wall of the Fallopian canal, and so on. The probing should, of course, be done with great care for fear of wounding an exposed facial nerve, of making an opening through the dura if the tegmen should happen to be destroyed, or of falling into other dangers which a consideration of the anatomy of the part will make apparent.

4. An extensive or recurring growth of granulation tissue, pointing to invasion of the bone. Its place of origin should be carefully sought for, and the remarks as to the significance of caries with respect to operation will apply also to this. There is no doubt that the forcible removal of an aural polypus without consideration of its site of origin deserves condemnation, as, from tearing of the dura from which it may spring, this proceeding may be fraught with dire consequences. For the same reason I look upon recurrence of the growth of granulation tissue in the middle ear as a decided indication for operation.

5. Facial paralysis. Whatever may be said of the significance of paralysis of the facial nerve in acute middle-ear suppuration there is no doubt about it in the chronic condition, as it points almost always to the invasion of the walls of the Fallopian canal by the destructive process.

6. The presence of thick cheesy masses in the tympanic cavity, the inference being that the same condition exists in the antrum, accompanied as it usually is by very great destruction of bone. Cases are reported where the greater part of the petrous bone has been slowly and painlessly destroyed in this condition, and ultimately a large mass of cholesteatoma has been fonnd pressing on the dura. In these cases the tympanic membrane frequently shows a peripheral perforation in the upper part of the membrane, through which the thick mass may be felt with a probe.

7. Very foul-smelling discharge. This is often the result of extensive involvement of the bone, and may not be of large amount.

8. Stenosis of the meatus, either membranous or bony, both of which may be due to the irritation caused by the purulent discharge. It is easy to understand how this condition may accelerate the disorganization of the bone both by the increased pressure and by the stagnation of the discharge permitting of bacterial growth. It is not sufficient to relieve the stenosis; that recurs: the radical operation is called for.

9. Bacteriological examination of the discharge has hardly yet reached the stage of clinical importance. No doubt in time we shall be able to state what organisms are the most harmful, in which case bacteriological examination, combined with other details discovered by objective examination, will be helpful in prognosing the course of the disease, and thus in indicating or not the advisability of operation. At present it would appear that a pure streptococcal infection is more destructive than the usual mixture of staphylococcal and streptococcal, and of the specific organisms, the *B. coli communis* and the pneumococcus, which are sometimes found in chronic middle-ear disease, seem to exert a specially baneful influence.

10. Persistent discharge in spite of regular and thorough antiseptic treatment. This indication, of course, develops only after the case has been some time under observation. How long should operation be delayed in these cases, that is, where no other more urgent sign or symptom arises? My own practice is to recommend surgical intervention if after a period of two months these milder measures have not resulted in a cessation or, at any rate, a marked diminution of the purulent discharge. In young children I wait a much shorter period, as in them, owing to the much smaller meatus favouring the onset of stenosis, and consequent increased tympanic pressure, and owing to the greater risk of extensive necrosis, as well as to the frequent patency of certain parts of the bony walls, I look with more anxiety on the continuance of the suppurative process. Indeed, I am of opinion that as a rule aural surgeons delay operation too long in young subjects.

The Temperature.

It may be stated that as a general rule in adults the temperature shows no variation from the normal. Where it does rise there is some other sign indicating operation, such as post-auricular pain and swelling resulting from a secondary acute mastoiditis. There may be, and very generally is, destruction of a large part of the bony wall without the temperature suggesting it. In children, however, the temperature is certainly of more service, a rise of one or two degrees with remissions pointing to caries of the bone which may be in a part not accessible to aural examination.

It is hardly necessary to add that when it is feared that intracranial infection has already occurred the temperature may give very valuable information.

There now remain certain subjective phenomena to be considered with regard to the advisability of or the necessity for operation.

1. *Pain.*—This is a very variable quantity. Occasionally there are nocturnal pains, or sometimes patients speak of not severe pain radiating from the ear. But extensive destructive changes may be going on without causing the patient any pain. This is specially seen in connexion with the presence of the cheesy masses already referred to. When severe pain is complained of, unless there should be some apparent cause for it such as stenosis or acute mastoiditis, we should suspect the onset of meningeal involvement.

2. *Vertigo.*—It is not at all uncommon for the subjects of chronic middle-ear suppuration to experience mild degrees of vertigo. The most pronounced attacks point to the spread of the disease to the neighbourhood of the semicircular canals, usually the external, or it may be to cerebellar abscess. So that even without any other indication there can be no doubt of the clamant call of decided vertigo for operation.

3. *Change in the Hearing.*—Rapid deterioration in hearing, especially if combined with loss or marked diminution of bone conduction, I look upon as an imperative indication in itself for operation, not only to preserve as far as possible the function of the ear, but because it may be the result of carious processes which will go on to infection of the labyrinth with the subsequent risk of extension to the cranial cavity.

Finally, and as a matter of course, all symptoms such as severe headache, nausea, rigors, etc., which point to the impending onset or to the actual consummation of intracranial infection, though properly speaking these can hardly be included in the indications for the performance of the radical mastoid operation except as a preliminary to the surgical treatment of serious complications if these have actually occurred.

These, then, are the indications for operation in chronic suppuration of the middle ear, and one's first thought is, they make such a formidable array how can any escape? One's next is that with regard to some of these indications, for example, facial paralysis, extensive caries, the disease should never be allowed to develop to the stage at which these appear.

How can this be avoided? Some surgeons answer this by advising immediate operation. They are, one might say, radical in their view of this condition. If the rest of us rank rather as opportunists it is because we bring into the consideration not only the disease itself but also the circumstances of the patient and the fact that in many cases the ordinary antiseptic treatment effects a cure. The ideal is to aim at improved methods of exact diagnosis and careful and methodical examination of every case.

Certainly surgery should aim at the prevention of serious complications of existing disease, but I do not find that physicians are prepared to hand every case of gastric ulcer over to the surgeon for the performance of gastro-enterostomy, or, for the matter of that, every case of catarrhal appendicitis for removal of the offending organ.

There is one lesson which is written plainly across a contemplation of this disease of chronic middle-ear suppuration, and that is that much more care than is usually bestowed upon it should be given by the general practitioner to the treatment of the acute suppuration. He should be content with nothing short of absolute cessation of the discharge, and, if possible, of repair of the opening in the tympanic membrane. I say the general practitioner because it is under his care that the large majority of the cases of the acute disease come. It is only when the cases have reached the chronic stage that they come to the aurist or crowd the special hospitals and dispensaries.

Conclusions.

There are certain indications which call for the performance of the radical mastoid operation without delay; there are others which make it strongly advisable. The larger proportion of cases of chronic otorrhoea do not show, at the time they present themselves for treatment, any of these indications. At the same time, the mere presence of a purulent discharge from the middle ear is a source of anxiety, though this may be tempered by the result of careful aural examination. In such cases the ordinary antiseptic treatment, with if necessary the rectification of an intranasal or pharyngeal condition, or in certain cases ossiculectomy, should be given a trial. If these measures do not effect a cessation of the discharge within a reasonable time its continuance should then be taken as a strong indication for the radical proceeding, the indication being practically imperative in children.

Remarks

ON

SOME VARIETIES OF HERNIA IN CHILDREN.

(After Radical Cure in 152 Cases.)

By E. SCOTT CARMICHAEL, M.B., F.R.C.S.E.,

ASSISTANT SURGEON, ROYAL HOSPITAL FOR SICK CHILDREN, EDINBURGH; GYNAECOLOGIST, ROYAL PUBLIC DISPENSARY, EDINBURGH.

An experience gained by operation on 152 consecutive cases for radical cure of hernia in hospital and private practice has afforded me an opportunity of inquiring into the numerous variations and complications associated with herniae in young children. Operative treatment of hernia at an early age is now becoming recognized as the more suitable form of treatment in most cases, and to those surgeons who have had much experience in the radical operation it has become the most satisfactory method of treatment. As a result of studying the anatomical variations which are found during operation, one cannot but consider that many of the ordinary textbook descriptions of the last few years are apt in some cases to be misleading.

For convenience of description the results obtained in the following cases have been arranged according to the age and sex of the children operated upon.

In males 44 were under 1 year of age.
67 were between 1 and 5 years.
22 were over 5 years of age.

In female children 19 radical cures were performed for inguinal hernia.

Age of Operation.

The radical cure was only performed on two occasions on children under 3 months. The two exceptions were both cases of strangulated hernia in infants aged 2 weeks and 3 weeks respectively. In children who are brought up to the out-patient department within a week or two of birth, it has been customary to delay operation until the fourth, sixth, or eighth month, for two reasons: First, to enable the child to get a start in its feeding, especially if breast-fed, before admitting it to hospital and weaning it; and secondly, because in 75 per cent. of cases it is found to be advisable to circumcise it, in order to facilitate the after-treatment, while the skin of the infant after four months becomes harder and less liable to excoriation or intertrigo.

The age of choice, therefore, if the child is found at birth to be the subject of hernia, and is at the same time healthy, may be set down at from 4 to 8 months, before the appearance of the first dentition. If the child is cutting teeth rapidly, and therefore liable to attacks of gastro-intestinal catarrh, it is wiser to defer operation to a later period, but this rule, except in certain instances, may generally be infringed without harm in most healthy children.

The age at which most children are brought to hospital is generally after the first year, so that operations for radical cure are most frequently performed between the ages of 1 and 5 years. After this the frequency with which the operation is performed gradually diminishes up to the age limit—namely 12 years—of admission to the hospital.

In the cases under consideration in males:

33 per cent. were operated on under 1 year.
50 ,, ,, ,, ,, ,, between 1 and 5 years.
17 ,, ,, ,, ,, ,, over 5 years.

Mortality and Risks.

A not infrequent complication, and sometimes a dangerous one, is diarrhoea, which occasionally may be somewhat intractable, and in two cases, both under the age of 1 year, the child's condition was a serious one for two or three days. This complication is, however, rarely of importance in children after 1 year. Sickness and vomiting after hernial operations are slight, and do not persist for any length of time.

One death must be recorded in the present series. It was that of a weakly child, aged 3 weeks, admitted with a strangulated hernia of the right side, associated with excoriation of the buttocks and groins, the skin up to the seat of incision being in a raw and unhealthy condition. The wound became septic, the child dying two days afterwards.

Since this case, which was the fourth of the series, no fatal issue has taken place, giving a mortality for all operations, including strangulations, of 0.6 per cent.

Varieties of Hernia.

The classification of hernia, as adopted in most textbook descriptions, into acquired and congenital (the latter, according to some authorities, including the so-called "infantile" form), from the size and extent of the sac, has tended, perhaps, to place a large number of what are true congenital herniae among the acquired forms. One cannot but think, after operating on these cases, that congenital hernia forms a very much higher percentage of all herniae than many authorities would lead one to suppose.

Macready states that only 8 per cent. of all herniae are congenital, while Treves states that "congenital hernia is not very common."

Of the 44 cases operated upon under the age of 1 year, the majority were seen within the first 2 months after birth, and one must consider that probably most of these were true congenital hernial sacs, or exhibited a marked congenital predisposition to the formation of hernia. The type of sac in 39 of these cases was funicular, while in the remaining 5 it communicated with the tunica vaginalis testis. It is interesting to note here that 3 of the cases with complete vaginal sacs were operated upon on the same day, the other two occurring at an interval of eighteen months.

A complete vaginal sac was present in 7 cases out of the 133 radical cures performed. Whether all these herniae are to be considered congenital in origin or not, it is probable that the commonest form of sac in congenital herniae is the funicular sac.

Walsham describes congenital hernia as "a hernia into a patent funicular process which has remained open, and forms a sac with the tunica vaginalis testis," and does not refer to the possibility of a congenital funicular sac.

From the present series of cases one must rather agree with the view of Hamilton Russell that the persisting upper end of the funicular process, though not communicating with the tunica vaginalis testis, does constitute a congenital form, and that the funicular sac is the most common anatomical condition found in over 75 per cent. of cases of congenital herniae.

As to the so-called "infantile hernia" much stress has been laid on the varieties of this condition. The only form seen in the present series of cases is that associated with encysted hydrocele of the cord, which will be referred to later.

Nine cases had double inguinal herniae, while of those which were unilateral 97 were on the right side and 27 on the left side.

Strangulated Hernia.

Strangulated hernia is comparatively uncommon in children as compared with the adult, although recent literature on the subject would seem to point to its being more common than is stated by Stern, namely, 1 in 108. Stiles, in a recent paper, reports 15 cases out of 360 consecutive operations for radical cure.

In the present series of cases strangulation occurred in 6. In 5 of these the child was under 1 year.

Moynihan has published tables of a large number of collected cases showing that strangulation is most common during the first month of life, gradually becoming less frequent up to 1 year, while of Stiles's cases, all, with one exception, were under 18 months.

In my own cases the ages were 2 weeks, 3 weeks, 4 months, 7 months, 9 months, and 15 months. The contents of the sac was in 5 cases that portion of the ileum within 6 in. of the caecum, while in the child aged 15 months the caecum and vermiform appendix were in the sac. The sac was funicular in 5 cases, but in the child of 2 weeks old was vaginal. In the child aged 3 weeks, a weakly anaemic infant with eczema intertrigo of the buttocks and groins, death occurred two days after operation from sepsis.

All the strangulated cases occurred on the right side.

Contents of the Sac.

In the large majority of cases the radical cure was performed while the sac was empty, but of those cases in which the contents were present in the sac or were pulled down into the sac before ligaturing its neck, the following was the relative frequency of the different abdominal contents:

Caecum and vermiform appendix ...	9
Small intestine	8
Bladder	3
Omentum alone	2
Sigmoid flexure	1

That this does not give a true proportion of their relative frequency is probable, as the caecum and vermiform appendix are less easily reducible than portions of the small intestine, so that the figures given may represent a greater frequency of the former than is actually the case, while the occurrence of the bladder as a content may be stated to be more frequent than is the case, for reasons which will be afterwards explained.

The vermiform appendix was removed in 7 cases in which it was present in the sac. It was healthy in 5 cases, while in 1 it was tuberculous, and in another markedly thickened and contained a faecal concretion. In 2 cases the omentum alone was found in the sac, which was a complete vaginal in one instance, the end of the omentum being firmly adherent to the testicle. In 1 case the sigmoid flexure was present in a left-sided funicular sac. The hernia was large and irreducible before operation.

Hernia of the Bladder.

The bladder was seen in 3 cases of radical cure performed.

The first case was that of a child, aged 4 months, with left-sided hernia. After exposing and isolating the sac, and on freeing it towards its neck, a lobule of extraperitoneal fat was noticed on the inner aspect of the neck of the sac. On pulling this down what appeared at first to be a second sac protruded, which however, was non-peritoneal, and on further examination was found to be the bladder.

In the second case, that of a child aged 3 years, a small portion of the bladder was found on the inner side of the neck of the sac on the right side.

In the third case, that of a baby of 11 months old, on splitting the coverings of the cord, a swelling was found filling up the whole inguinal canal, like a thickened sac covered with extraperitoneal fat. It was opened, the wall being found distinctly thicker than even the thickest of sacs. Expecting it to be the bladder, one finger was passed in and the posterior aspect of pubis and internal orifice of the urethra could be palpated from within the bladder. The whole organ was very flaccid, and was pulled out into the wound, and the incision in its wall stitched with a double row of sutures. A very thin peritoneal sac was found after returning the bladder.

One can only consider the third case as a true hernia of the bladder, for Cases I and II were more or less artificially caused by manipulation during operation. The conditions which would seem to favour hernia of the bladder are, first, a thin abdominal wall with badly-developed muscles, as was present in all these cases; secondly, a wide external abdominal ring and an inguinal canal which is short and straight.

In nearly all cases reported there is an abnormal development of the prevesical extraperitoneal fat. It can be proved experimentally, by traction on the extraperitoneal connective tissue and fat, that this has a much more intimate connexion with the bladder than has the peritoneum, and one should always suspect the close proximity of the bladder if, after isolating the neck of the sac, a marked development of fat is noticed on its inner aspect, especially if associated with a large canal and thin abdominal wall. The contents of the spermatic cord are always relatively free of the protrusion, which should raise suspicion as to its nature. As in the case mentioned, the peritoneal sac may be thin and small without any distinct neck, owing to the fact that on the inner side it passes on to the upper and posterior wall of the bladder, so that in the first instance the anatomical conditions are somewhat confusing. The portion of the bladder which projects is the anterior portion, so that the hernia is extraperitoneal.

Shepherd, in a recent contribution on the subject, considers that the bladder is present in 1 per cent. of inguinal herniae. In 75 per cent. of cases it occurs in males.

Encysted Hydrocele of the Cord and Hernia.

Eight cases presented this condition; 5 of them were between the ages of 1½ and 2½, the other 3 being 10 months, 5 years, and 10 years respectively; 4 were right-sided, and 4 left-sided. In 4 the hydrocele was the size of a pigeon's egg, in the others it varied from the size of a marble upwards.

It is always well, when an encysted hydrocele is present, to take for granted that a hernial sac is also present above it.

Lockwood describes the condition as a form of infantile hernia. In dissecting out an encysted hydrocele of the cord, if a little care is used so as not to burst it when doing so, as one reaches the upper extremity of the spindle-shaped swelling, one can often detect a loose projection of peritoneum overlapping and passing down on to the wall of the hydrocele. By slitting this with the scissors, a sac entirely separated from that of the hydrocele leads up into the abdomen. It is well to isolate this more freely, and ligature it as high up as possible, otherwise a short peritoneal funnel is left after removal of the hydrocele, which may enlarge to form a hernia subsequently.

In all the cases above mentioned such a sac was present, and one cannot help believing that it is present in the majority of encysted hydroceles. Closure probably occurs at one point in a patent funicular process, and the lower closed sac, as it distends, bulges the upper extremity past the seat of occlusion, giving rise to the overlapping which is present. This is the only type of so-called infantile hernia I have seen.

Tuberculosis of the Sac.

This was noted in 4 cases. In 1, a boy aged 5 years, two pea-like nodules of granulation were present at the apex of the sac, while in 2 cases, aged 5 and 18 months, small sago-like tubercles were dotted over the sac. The fourth case was one in which the vermiform appendix was tuberculous, and numerous glands were present throughout the abdomen.

Inguinal Hernia in the Female.

Inguinal hernia in female children is relatively common. Nineteen occurred in the series of 152 cases, giving a percentage of a little over 12.

There is generally a small reducible swelling over the external abdominal ring. It rarely passes down into the labium majus as in the adult female. In only 4 cases were any contents present in the sac. The omentum lay loosely in the sac in a girl aged 10½, while in two children, aged 13 months, and another aged 3 years, the ovary and Fallopian tube were the contents.

In one case the sac was tuberculous, a nodule of granulation being felt, resembling very much the ovary before operation.

When the ovary is present in the sac the Fallopian tube is almost always also present. Hernia of the ovary occurs in the majority of cases through the inguinal canal. Femoral ovarian hernia only occurs in the proportion of 1 to 9, according to Devreux, as compared with the inguinal form, or 17 to 91 according to Bitzako. Femoral hernia generally occurs in adult life and is acquired, while the inguinal form is generally congenital.

The congenital forms are almost always associated with abnormal development of the uterus, etc. According to Puech, 33 out of 88 cases had congenital malformation, while the acquired form in adult life is associated with normal genitalia. The explanation of the occurrence of the congenital form is to be found probably in the development of the canal of Nuck, caused by a protrusion of the peritoneum following the round ligament, like the testicle and funicular process. The relation of the ovary and testicle to the peritoneum is different, the former lying within the sac and the latter outside it, so that the analogy of ovarian hernia with the descent of the testicle fails in this respect. The relation of the round ligament to the canal of Nuck is an interesting one. According to Waldeyer, the peritoneum covers the round ligament above and in front, but does not surround it, while Devreux considers it is attached to the apex of the so-called canal of Nuck. In the cases operated upon the round ligament appeared distinct up to the apex of the sac and then seemed to spread out and become lost on the exterior of the sac. Puech believes such inguinal herniae are always due to a shortening of the round ligament, while Lockwood believes the condition to be due to an abnormally long mesentery.

It is not always easy to reduce the ovary and Fallopian tube into the abdomen in those cases in which they lie well down in the sac.

The sac is apparently formed by the portion of parietal pelvic peritoneum which gives off the broad ligament, or by the separation and spreading out of the two folds of the broad ligament, as in the two cases in which the ovary and Fallopian tube were present; they were firmly attached to the posterior wall of the sac by the mesovarium and mesosalpinx. In both cases these two folds of peritoneum had to be divided in order to reduce the organs.

In the published cases of ovarian hernia in the adult, the ovary apparently functionates, as it has been noticed to swell and become sensitive at the menstrual periods, and it is interesting to note with regard to this that, in some cases of double ovarian hernia, one ovary alone swelled at a menstrual period and the other at the next period, as if they functionated alternately during menstruation.

This would seem to show that the abnormal position of the ovary does not interfere with its function, and cases of ectopic gestation in the hernial sac have also been recorded. The question, then, comes to be: Are we to treat the displaced ovary like an undescended testicle, and remove it?

Those that reach adult life in the abnormal position are generally sensitive, and microscopically show changes due to chronic ovaritis, and are liable to give rise to symptoms of obstruction such as are presented by torsion of the testicle, or pass on to cystic and other forms of degeneration.

One cannot consider it justifiable to remove the ovaries, or even one ovary, in a young child, as some authorities would advise, even though the chances of their ultimately causing trouble are considerable.

I have examined a large number of ovaries in children removed at different ages *post mortem*, and have been struck by the fact that not only the anatomical position but also the size, shape, and thickness varies very considerably at the same age in different children. I have seen the ovary long and flat in one child, while short and thick, resembling a small bean, in another child of the same age, so that one cannot argue from the shape and size as to whether the ovary is normal or not. The differences are much more striking than in the adult, so that an ovary in a young child which is apparently thickened and enlarged is not necessarily pathological.

By dividing the mesovarium and mesosalpinx, the ovary and Fallopian tube can be freed sufficiently to be returned within the abdominal ring, and unless gross changes are apparent it is not justifiable to remove the organ.

THE X-RAY TREATMENT OF RINGWORM.

By GERALD SICHEL, F.R.C.S.,

SURGEON-IN-CHARGE, ACTINO-THERAPEUTIC DEPARTMENT, GUY'S HOSPITAL, LONDON.

For some months past Sir Cooper Perry has sent the majority of the cases of ringworm and parasitic alopecia from his out-patients and elsewhere to me for treatment.

Up to December 7th, 1905, I have had 102 patients; of these 67 still remain under observation, for I presume that no case can be conscientiously discharged until the hair has not only fallen out but has also shown considerable regrowth free from disease.

In a poor out-patient practice also a great number of patients, for various reasons, do not attend regularly, so that probably a large percentage of these 67 cases will never be seen again.

Of the remaining 35 cases, 30 were ringworm and 5 alopecia areata. Of the alopecia areata cases 4 are recorded as cures and 1 case was just beginning to grow, but did not attend again to be seen.

Of the 30 ringworm cases, 11 were cured, 10 were failures, and 9 ceased to attend before a definite result could be pronounced.

Among the 102 cases I have had one case of *x*-ray dermatitis, still under observation, which I am afraid will result in permanent baldness. I regret to say that this case occurred, not among my earlier but among my very latest patients. I venture to think that an unfortunate mishap like this, occurring towards the end of somewhere about 100 cases, vividly illustrates the danger with which this method of treatment is accompanied.

Of my 30 cases of ringworm which I look upon as discharged, 9 have disappeared on their own responsibility without conclusive result; of the remaining 21, 11 have been cures and 10 failures—that is to say, roughly, my successes in the *x*-ray treatment of ringworm are 50 per cent. There is no other treatment of ringworm that can claim such a result. Against this, in 102 cases I have had 1 burn which will result in permanent baldness—that is, the danger of a catastrophe is under 1 per cent.

These figures make it appear that at last we have found a really reliable treatment, with very fair prospect of cure, and very slight danger of injury, for ringworm. I am very much afraid that this is not the case.

Leaving my own cases I will for the moment generalize. The advantage of the *x*-ray treatment is that in successful cases a singularly intractable disease, occurring unfortunately at a time of life singularly important from an educational and developmental point of view, is once and for all eradicated. But here I would say that it is only in localized cases of ringworm that such a result should be expected; if it be generalized, or in scattered patches all over the head, more than one treatment is necessary.

In successful cases the depilation should occur three weeks after treatment, and the hair should be growing well in, say, three months. So a cure may be looked for to be pronounced successful in, say, six months. This result against other treatments is six months against six years (if lucky) or more.

The disadvantages are: (1) A specially-trained nurse is necessary to carry out the treatment; (2) the danger of an *x*-ray burn; (3) the difficulty of regulating the dose of *x* rays.

A specially-trained nurse means expense, and at the present time it is not right to entirely disregard the danger to which a constant worker in the *x* rays is exposed.

Secondly, with regard to the danger of an *x*-ray burn, it is significant that my single case (so far) occurred after so much experience. I believe that idiosyncrasy goes for much; it seems to me that light-haired, fair-complexioned people, those who would be expected to suffer most from sunburn, are most likely to be singularly sensitive to the *x* rays.

Thirdly, the difficulty of estimating the dosage of *x* rays. Here we arrive at the crux of the whole difficulty. In the first place, *x*-ray tubes are most unstable and alter almost from moment to moment; and in the second, although we can measure tolerably correctly what goes into a tube, our means of estimating what comes out of it are dependent on far less reliable data.

Besides the three disadvantages mentioned above there is, fourthly, the class of case to which most of my failures belong. There is no burn, and the patient suffers no harm, but has all the bother and expense of the treatment, and still suffers from ringworm. These are cases in which the hair comes out patchily, and small scattered islets of infected hairs are still left dotted about all over the scalp. One is afraid to repeat the treatment for fear of inducing dermatitis, and when the hair grows again on the denuded areas it becomes reinfected from the older spots. These cases are most disheartening for both doctor and patient, as the only thing to do is to wait patiently for all effects of the treatment to disappear and then start again; by which time—at all events, in a hospital out-patient department—you have probably lost your patient for ever.

Another fact, which may or may not be a disadvantage, is that even when it has grown considerably the new hair is often of a different colour to the old; this change is, I should think, only temporary, analogous perhaps to the pigmentary changes observable in the skin itself after *x* radiation.

Coming now to the technical details of treatment at Guy's we usually work as follows:

1. The patient's scalp is kept 6 in. from the anode.
2. The tension of the *x*-ray tube is kept as nearly as possible at the equivalent of an electric spark of 3 in. in the air.
3. The amount of current in the secondary circuit is 0.20 to 0.30 milliampère.
4. Sabouraud's pastilles are used as a check.
5. The time—unless Sabouraud's pastilles have changed before—is not to exceed in some cases twenty, in others twenty-five, minutes.
6. A tightly fitting lint cap is fitted on the child's scalp, and on this is marked out an H, which divides the scalp into two ateral, a medio-frontal and an occipital area. These areas are reated one after the other for the time specified, the spaces not exposed being protected by fairly thick lead foil, which is held in place by a coarse elastic net, a very useful little device, this latter, which was designed by Nurse Hill of this department. The child is then seated as comfortably as can be in a chair and kept still during the radiation, which seems also to exert a decidedly somnolent effect on most children. Most workers, I believe, have obtained very consistent results with abouraud's pastilles. I am very sorry to have to admit that his is not my experience. Some seem to change much more uickly than others.
7. With light-haired, delicate-looking children the shorter mit of twenty minutes is sufficient; with dark-haired, strong nd older children—and in cases of parasitic alopecia areata he limit may be extended to twenty-five minutes.

The careful attention to all these details requires much atience on the part of the nurse, and a single treatment ith the head divided into four parts takes about two and half hours.

I must here refer to the method introduced, I believe, y Dr. Macleod of Charing Cross Hospital, of attempting obtain an exact dosage of *x* radiation by means of easuring the interruptions in the primary circuit. The ethod is a distinct advance, and an advance, too, on ientific lines, but it is yet too early to know if this is the st word on the subject. Speaking with due deference, it ems to me that, while it is a very beautiful and exact ethod of regulating what goes into the tube, it is really ly an indirect way of estimating what comes out of it.

Professor Schiff, perhaps the greatest exponent of radiation living, did me the honour a few weeks back coming to see me in my department at Guy's. He told e that he had not found Sabouraud's pastilles reliable ough to be an absolute criterion, and that he relied on e visual appearance presented by the phosphorescent be when excited, and his experience, when ordering the gth of time the sitting should take.

I have perhaps said enough to show that the *x*-ray eatment of ringworm is by no means perfect as yet; it st still be considered on its trial. So long as cases are treated by those who thoroughly understand the dangers likely to be met with, perhaps the method may be recommended; but it should be thoroughly understood that until we have an exact regulation of the *x* rays, and until *x*-ray tubes are far more stable than they are at present, it is not a treatment that is absolutely free from danger, which, if remote, is at the same time real.

DOES DIACHYLON AFFECT THE INFANT WHEN IT FAILS TO PRODUCE ABORTION?

BY
R. HEELIS, M.D., F. H. JACOB, M.D.,
AND
S. R. TROTMAN, M.A., F.I.C.,
Nottingham.

Does diachylon affect the infant when it fails to produce abortion? That this may be so is suggested by the following case:

Mrs. B., a young woman in her third pregnancy, had symptoms of abortion at the third month. She had severe paroxysmal pains both uterine and intestinal, with vomiting and constipation. The external os uteri was patulous, but there was no haemorrhage. There was a distinct blue line on the gums. She persistently denied having taken anything. She was confined to bed for two weeks, after which she remained well until her confinement at full term. At the confinement the blue line was looked for, but had disappeared. The average time necessary for the complete removal of the blue line is about six months.

Owing to considerable prolongation of labour extraction by means of forceps under chloroform became necessary. The infant breathed badly, but lived for twelve hours. The head was large, measuring 16½ in. round its largest circumference. There were no marks of injury to the head. It was at this time that Mrs. B. admitted having taken pills of lead plaster; on discovering her condition she took three to four daily for a week, and then left off, as they did not appear to be doing anything. The symptoms of lead poisoning did not appear until a month after she had taken the pills.

A *post-mortem* examination of the child was made, and showed all the organs to be normal except the brain. The brain showed a marked condition of hydrocephalus, the ventricles containing fully a pint of fluid; the cortex was markedly thinned and the convolutions flattened. Haemorrhage had occurred into and around the middle lobe of the cerebellum, partially destroying it, and covering the roof of the fourth ventricle.

Microscopic examination failed to discover any evidence of antecedent inflammation, so that probably the haemorrhage occurred during the labour. The liver was reserved for chemical examination, which showed the presence of lead in the proportion of 0.0002 per cent.

The method of examining the liver was as follows:

Two ounces were finely divided and carbonized. The carbonized residue was then boiled with strong sulphuric acid as in Kjeldahl determination of nitrogen till completely dissolved. (Both flask and acid were quite free from lead.) When dissolved the acid was diluted and treated with alcohol to throw down lead sulphate; this was filtered off, converted into carbonate, dissolved in dilute nitric acid, and the lead estimated by a calorimetric method.

Although there is no evidence that the hydrocephalus was due to the lead, yet we have here proof that lead taken by the mother does reach the fetal circulation, is deposited in the fetal tissues, and is very slowly removed. We therefore think it worth while to publish this case in the hope that the many practitioners—who in these days of diachylon-poisoning have ample opportunities of definitely deciding this question—may be on the look-out, and through the medium of the British Medical Journal let it be known whether the fetus which diachylon has failed to expel is in any way injured.

The late Miss Louisa Frances Stains, of Ipswich, whose will has now been proved, left £1,000 for the endowment of a bed at the East Suffolk Hospital, and a sum of £200 to the Convalescent Home at Felixstowe.

MEMORANDA:
MEDICAL, SURGICAL, OBSTETRICAL.

A PRELIMINARY NOTE UPON THE *CYTORRHYCTES LUIS* (SIEGEL) AND THE *SPIROCHAETA PALLIDA*.

IN looking over slides prepared from syphilitic sores, the entire absence or comparative scarcity of the *Spirochaeta pallida*, in some instances, was striking and at first disconcerting. Further investigation of the films revealed the presence of numerous other organic forms. Without discussing the merits of the discovery of Schaudinn and Hoffmann regarding the specificity of the *Spirochaeta pallida* for syphilis, it might be permissible to make the following comment by way of a preliminary communication.

In two cases of primary syphilis the serum from the cleaned sore and that sucked up from an enlarged inguinal sore failed to reveal a single spirochaete. The preparations from the chancres were, however, crowded with minute organisms of uniform shape and character. Such an organism might be described as a somewhat thick, irregular band bent upon itself more or less so as to almost make a circle. The films from the gland (in one of the cases) showed equally numerous bodies, but in a further stage of development. In them the band had opened out and the "head" had enlarged. The proportion between "head" and "tail" varied in different cases, but various gradations were present in the same film. In another preparation from a hard chancre the same forms were seen, together with a set still further developed. Between these latter and some of the *Spirochaeta pallida* there was not much difference, and the inference from the consideration of these various forms has given rise to the opinion that the *Spirochaeta pallida* was merely a development of the more minute series. Further, a number of round, deeply-stained bodies were noted in considerable numbers, and some of these had invaded the red corpuscles. These bodies were filled with small granules, and when a red cell containing such an organism had been burst the débris thrown out was very like a collection of the small organisms seen in the preparations from the chancres and glands of the cases referred to. Other forms seemed to show the breaking up of the spirochaetes. A series of photomicrographs and drawings are being prepared and will be submitted later with a further description. Siegel[1] published his investigations on the etiology of syphilis some months ago, and the bodies figured by him are identical with some of those now referred to. He names them the *Cytorrhyctes luis*, and claims specificity for them, while remarking that the *Spirochaeta pallida* is saprophytic. My observations point to the one being a development of the other, the *Spirochaeta pallida* being merely one phase in the life-history or perhaps part only of the organism during one stage in its development. There are other points in favour of this view which need not be here referred to. The bodies similar to the *Cytorrhyctes* (Siegel), together with specimens of the *Spirochaeta pallida* and *Spirochaeta refringens*, were shown at a recent meeting of the Glasgow Medico-Chirurgical Society.

ALEX. MACLENNAN, M.B.,
Dispensary Surgeon to the Western Infirmary,
Extra Honorary Surgeon, Royal Hospital
for Sick Children, Glasgow.

EXCISION OF THE CLAVICLE.

M. P., aged 43, a married woman with one child, consulted me in April, 1904. Three years previously a "lump" had been removed from her left breast, the upper and inner quadrant of which was occupied by a depressed cicatrix. Unfortunately the operator had confined himself to cutting out the palpable tumour, whose true nature he had apparently not recognized. There was now a "hazel-nut" recurrence below the scar, and the patient had noticed axillary deposit for three weeks. I found a large cluster of glands adherent to the parietes.

Leaving the nipple, which was well removed from any dangerous tissue (its retention much improves the subsequent appearance), I carefully dissected out all the mammary and axillary deposits. There was a rapid convalescence, and so far there have been no recrudescent nodules in either of these regions.

In July of the past year, however, enlarged glands appeared below the clavicle and were dissected out. The operation occupied an hour, and resembled that for ligature of the first part of the axillary artery, so far as the incisions at least.

In October a nodule again appeared in the subclavian scar. It was necessarily adherent to the bone above and to the vein below. The cancer deposit seemed wholly localized to this one spot, the patient being healthy, wiry, and youthful in appearance. With some reluctance, I therefore advised partial removal of the bone, as giving her a last chance of cure. This was accordingly performed on October 31st, with the valuable assistance of Mr. Cecil Leaf, Dr. Johnston English giving the anaesthetic. The procedure lasted two hours. Removal of 1½ in. of the clavicle revealed several infected glands, which could not be felt previously, and thoroughly exposed all the deposits, more or less embedded in cicatricial tissue. These, with the corresponding vein, were excised, and the patient made an excellent recovery. So far as could be judged at the time, all the infected parts were dissected out, and there are fair hopes for the future.

Stratford Place, W. HERBERT SNOW.

FOOD POISONING AND COMA.

THE cases reported by Dr. Kennard[1] and Dr. Mercier[2] recall to me a case that I saw some years ago whilst Resident Medical Officer at the Royal United Hospital, Bath.

On March 23rd, 1903, I was called out at 11 a.m. to see a coach builder, aged 54, who had "had a stroke." The history was that shortly before I saw him he had reeled as he crossed the room, and but for his friends would have fallen unconscious to the ground. Previously he had uttered no complaint and had seemed in his usual health which was very good. He had had no previous illnesses, so far as was known, and was a teetotaler. He had breakfasted with others of his family at 8 a.m., on bacon, and had taken nothing since.

On arrival I found him lying semi-prone on the floor. There was light yellow fluid vomit on his clothes, which had no distinctive odour beyond that of vomit in general. The vomiting had occurred after he became insensible. He was deeply unconscious and could not be roused by shouting, pressure on the supraorbital nerves, etc., but at times would make scratching movements with his fingers at different parts of his body and limbs. He breathed through the nose, deeply and with increased frequency, and there was no stertor. The skin was pale and clammy, the temperature subnormal, the pulse 120, small and of low tension.

The conjunctival reflex was diminished, but not abolished; the pupils, equal and moderately dilated, reacted sluggishly to light. There was no local paralysis. The previous good health, the absence of cardiac or arterial disease (the urine was not obtainable, the bladder being empty), and the symptoms, especially the evidence of skin irritation afforded by the scratching, seemed to me so suggestive of food poisoning, notwithstanding the sudden onset of coma without preceding gastro-intestinal symptoms, and the fact that two others had partaken of the same food without ill effects, that I requested his relatives to show me the remainder of the piece of bacon off which he had breakfasted. At one end of it was a small area, about the size of a Tangerine orange, which was quite moist, rotten and stinking. Though this piece was evidently far advanced in putrefaction, the fact had not previously been noticed.

Washing out the stomach brought little or nothing away, and 5 grains of calomel were placed on the back of the tongue; the man was lifted on to a bed and warmth applied to the extremities. During the next few hours the symptoms increased in severity, the scratching movements ceased, the skeletal muscles being quite flaccid, the pulse became feebler, and the respiration weak and shallow. Hypodermic injections of atropine and, later, strychnine were given, and towards evening improvement began to set in, though consciousness was not regained until about 10 p.m. The next day, except for some weakness and languor, he was all right and has remained perfectly well ever since.

---

[1] Siegel, *Münch. med. Woch.*, 1905, No. 28, S. 1321, and No. 29, S. 1384.

[1] BRITISH MEDICAL JOURNAL, January 13th, p. 80.
[2] BRITISH MEDICAL JOURNAL, January 20th, p. 141.

Though coma is not infrequently a symptom of the severe forms of food poisoning, it must, I think, be very rare for it to be, as in this case, the initial symptom.

Bath. RUPERT WATERHOUSE, M.D.Lond.

LEAD AS ABORTIFACIENT.

A FEW weeks ago I was requested to visit a young married woman suffering from severe sickness and abdominal pain. The bowels had acted regularly. The patient presented a very anxious expression, had a very sallow complexion, and altogether looked extremely ill. On inquiry as to her condition or periods she informed me she had gone six weeks over her time, but did not think there was anything the matter—or, in other words, she was not pregnant. I myself was very doubtful at the time; on looking in her mouth to examine the state of her teeth, I noticed a typical blue line on the gums. After a rather lengthened conversation and argument she admitted she had been taking some pills prescribed for her by a "woman friend," but she had only taken ten pills. She had not taken anything else, and as she was not in the habit of suffering from either sickness or abdominal pain previous to taking the pills, I concluded there was some lead in the pills. She could not at the time inform me as to what the pills contained, as her friend lived some distance away, and she would have to write for the "prescription." On examination of the breasts there seemed abundant secretion, and, she never having missed her periods previously, I came to the conclusion she was pregnant. I ordered her to bed, put her on milk diet, and gave her a bismuth mixture. The next day I was sent for rather hurriedly, stating that she was flooding very badly. On arrival I found there had been severe haemorrhage, and that she had aborted and the haemorrhage had ceased. As there was no doubt now as to the condition, I was most anxious to know the constituents of the pills, and in the course of a few days the "prescription" arrived from her friend, who lived in Manchester, and I believe this prescription is very much used by the inhabitants of Lancashire. The following is the "prescription": Hikey pikey, bitter apple, bitter aloes, white diachylon—one pennyworth of each. This amount, she informed me, made about forty pills; and as she had only taken ten, I wonder what would have been the result if she had taken any more.

She ceased taking the pills a week before I saw her, as she came to the conclusion they would not be any use, not because she felt so ill, as she did not attribute her illness to the pills; in fact she seemed spellbound when I explained to her and her mother that she was suffering from lead poisoning, and showed the typical blue line.

I may say the patient is still in a very precarious condition, the sickness and colic being most persistent, and the blue line still *en évidence* (but as, of course, the time has been so short, I could not expect this to disappear so soon), although she has been put on the usual remedies —potassium iodide, opium, and bismuth.

I thought the case well worth bringing before the notice of the medical profession for the following reasons:

1. The production of the abortion.
2. The alleged few pills taken, and therefore consequently the small amount of lead to produce such severe ymptoms.
3. The novelty of the "prescription."
4. The remarkable susceptibility of the individual to lead poisoning.

A. ST. LAWRANCE-BURKE, L.R.C.S. and L.R.C.P.I.

Netherton, Dudley.

SEPARATION OF AN EPIPHYSIS.

HE following case of separation of an epiphysis seems to be somewhat unusual: A schoolboy, aged 13, whilst unning in the playground caught his toe against an pright post, giving his thigh a severe jar; he was taken ome to bed, where on examination I could find no racture. I put a splint on the outside of the thigh, and id the thigh on its outside in a semiflexed position. The same evening and next day there were spasmodic contractions of the muscles, such as occur in cases of racture, and so severe that radiographs were taken by my friend Mr. Payne. It was then found that the epiphysis of the small trochanter was separated and displaced, apparently by a wrenching action of the psoas muscle. The boy was kept in bed for ten days, and gradually made a good recovery.

Brighton. H. HAVELOCK DAVIES, M.B.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

MANCHESTER ROYAL INFIRMARY.

A CASE OF LOCALIZED OSTEOMALACIA.

(By PHILIP TALBOT, M.B., Ch.B.Vict., late House-Surgeon.)

I AM indebted to Mr. G. A. Wright, under whose care the patient was admitted, for permission to publish these notes.

The patient in this case, a healthy-looking woman, aged 31, was admitted on September 16th, 1904.

History of Present Illness.—In December, 1903, four days after the birth of her last child, the patient was suddenly taken with a fit, during which she became unconscious. On recovering consciousness she found that she had lost the use of her right leg, sensation being normal. The use of the limb gradually returned, and in 14 weeks she could again walk without assistance. In March, 1904, after another severe fit, during which she was unconscious for two hours, she lost the use of her right arm, and could only move the fingers slightly. There was no anaesthesia. The arm was gradually recovering, though still useless, when on June 1st, 1904, as the patient was placing a heavy tin on a shelf, the tin slipped, fell on her right arm, and caused a fracture of the upper part of the shaft of the humerus. The fracture was apparently a simple one, without much displacement. The arm was fixed to the side for about six weeks, and then, as there was apparently no union, it was examined under an anaesthetic by patient's doctor. No union was found to have taken place, and the shaft appeared to be comminuted. The arm was fixed in plaster for another six weeks, and again examined, but no union had taken place.

State on Admission.—The right arm from the shoulder to the elbow was slightly swollen and tender to touch, both swelling and tenderness being more marked just above the insertion of the deltoid. The tissues over the upper third of the shaft of the humerus were thickened by callus. On manipulating the arm there was apparently a fracture just below the surgical neck. The shaft of the humerus from the point of fracture to the lower end was softened, and could readily be bent by a slight degree of pressure. The bones of the forearm were apparently normal. Several radiographs were taken, and showed a fracture as diagnosed. The bone of the shaft seemed to be unusually transparent to the x rays as compared with the acromion process on the same print, and also with radiographs of the sound arm taken under the same conditions. The upper end of the lower fragment showed a peculiar snake-like contortion or twist. The bones of right forearm also showed an increased transparency to the x rays as compared with the left side, but the bones could not be bent more than normally. No other bones could be found unduly soft. The urine showed nothing abnormal, and gave no precipitate with nitric acid. There was no disorder of the special senses. The eyes were examined, and the fundi found to be normal.

Progress.—The arm was fixed on an internal angular splint, and syr. ferri phosph. and lime water were administered. At the end of five weeks there was no improvement. The patient was then put on mist. pot. iodid. and sent to the convalescent home at Cheadle for six weeks. While the patient was there she had two fits, preceded by headache but followed by no paralysis. The patient was seen on January 25th, 1905, seven months after the accident. There was a slight degree of union, but the shaft could still be bent by very slight pressure. On February 14th, 1905, there was still only a slight degree of union, and the shaft was still pliant; no other bones were affected. The patient looks healthy and says she feels well.

REMARKS.

It is worth while to give the earlier history of the patient, as possibly it has some direct relation to the subsequent events.

Seven years before admission she had an attack of pneumonia. Shortly after her recovery she began to have fits at intervals of about a month. The fits were preceded for a few days by headaches, and by a feeling of giddiness. The patient then became suddenly unconscious, and had general convulsions. At first the fits only lasted for a few minutes, but later became more severe and more prolonged, and were sometimes followed by sickness. She had for several years been troubled with persistent headaches and attacks of neuralgia on the right side of the face. She had been married for twelve years, and had had five children, all healthy except one, who suffers from some bone disease in the leg. She had had one miscarriage six years ago. There had been no difficulty in any of her confinements, and the measurements of the pelvis are normal. There was no history of fits or nervous disorders in the patient's family.

This case is interesting as being an instance of osteomalacia occurring in one bone. Similar cases have been previously noted, but are rare. It is also interesting on account of the associated nervous symptoms; this association is referred to in Clifford Allbutt's *System of Medicine*, but very little appears to be known about it. In the above case there was a strong suspicion of cerebral syphilis from the persistent headaches without any apparent cause and the attacks of monoplegia. No direct history was, however, obtainable.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: CARDIFF DIVISION.—At a clinical meeting of this Division held at the Cardiff Infirmary on January 18th, Dr. CHARLES VACHELL in the chair, Dr. D. R. PATERSON showed cases illustrating various forms of nasal obstruction: (1) A girl aged 18, in whom prominence of the body of the atlas encroached considerably on the naso-pharyngeal space, giving rise to symptoms of nasal obstruction. Minor degrees of this are occasionally met with. (2) A girl aged 13, with mucous polypi in the left nostril due to purulent affection of the accessory cavities—antrum and ethmoid—on that side. (3) A girl aged 19, in whom the obstruction was caused by a large mucocele of the middle turbinal on one side. (4) A man aged 34, who had a marked deviation of the septum to one side, leading to almost complete blocking. (5) A woman aged 24, suffering from catarrhal laryngitis secondary to nasal obstruction caused by deflection of the septum. (6) A boy aged 14, in whom the operation of submucous resection of the septum was done a few days before for very extensive deflection and displacement of the septum, which caused marked nasal obstruction. The excellent results obtained by this operation were demonstrated.—Mr. WILLIAM SHEEN demonstrated: (1) A rare (downward and inward) dislocation of the femur. Mr. Sheen described the method employed in reducing the dislocation, and showed a photograph of the condition. (2) Photograph and remarks on a case of oedema and venous thrombosis of the left arm in association with gastric carcinoma. (3) A patient who had been operated on by Mr. Sheen for a tumour of the stomach.—Mr. WILLIAM MARTIN showed: (1) A case of polydactylism in a child 10 weeks old, where there had been ten toes on one foot, with very marked talipes equino-varus; skiagraphs were exhibited showing the presence of nine metatarsals; the other foot was normal; almost one-half of the anterior part of the foot had been removed, leaving five toes and a foot almost normal in shape, except for the varus condition which was now being remedied. (2) A case of malignant stricture of the ascending colon in a man aged 24; three operations—first, exploratory: owing to his collapsed condition only an artificial anus was made; rapid improvement took place, and the artificial anus was closed by inserting into the sigmoid sinus both the abnormal openings of the ileum; third operation—removal of the ascending colon, caecum, and appendix, and small part of the ileum; the circular growth showed complete occlusion of lumen. The man was making good progress.—In the absence of Mr. Lynn Thomas Mr. WILLIAM MARTIN showed (1) a man with a tooth plate impacted at the lower end of the oesophagus for ten years. About two years ago Mr. Thomas tried to remove it through the stomach, and two months ago it was examined by Killian's apparatus. Skiagrams were exhibited showing the shape and position of the plate. (2) Case of enormous sarcoma growing out apparently from several of the lower left ribs in a man aged 32. The onset was attributed to a blow on the ribs two years ago. Growth had been very rapid during the last twelve months. All the long bones presented exostoses said to have been present for years. Two of the ribs of the left side had exostoses of long standing, and the man was certain that there was no such growth when he received the blow.—Mr. CORNELIUS GRIFFITHS showed patients after (*a*) amputation at hip-joint for malignant oedema following a crush of leg; (*b*) choledochotomy for stone impacted in cystic duct. He also exhibited the following specimens: (*a*) From two cases of gastrectomy for carcinoma of stomach. The first was a successful removal of about half the stomach (pyloric end) for a large growth at the pylorus in a man. The second was a case of total gastrectomy for the diffused variety of adenoma carcinoma in a woman; death occurred during the second week after operation from a leak in the posterior junction between duodenum and oesophagus. (*b*) A case of carcinoma of epididymis following an injury in a patient aged 19. The growth was a columnar-celled carcinoma of large size.—Dr. EWEN MACLEAN showed: (1) Specimen of a large pedunculated subserous fibro-myoma of the uterus; (2) specimen of a double pyosalpinx.

REPORTS OF SOCIETIES.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF SURGERY.

Sir ARTHUR CHANCE, P.R.C.S.I., President, in the Chair.

Friday, January 12th, 1906.

GASTRO-ENTEROSTOMY.

MR. R. CHARLES B. MAUNSELL read a paper entitled Remarks on Gastro-enterostomy with Description of a New Clamp. He advocated operation in gastroptosis and atonic gastritis in addition to the more commonly-recognized indications. He considered that there should be no fixed rule for the site or form of incision in the abdominal wall, or for the site of junction of the viscera, as the first would depend upon the amount of ptosis present, often lying partly below the level of the umbilicus on the left side, the junction of the viscera being made near the pyloric antrum, or at the most dependent portion of the stomach, according to the amount of muscular power present in the stomach walls. A new form of clamp was shown; it was made somewhat on the principles of Carwardine's intestinal clamp, and held the parts neatly in position during the operation. A short summary was given of the various post-operative troubles and their treatment.

The PRESIDENT expressed himself in favour of clamps, and recognized the advantages of those designed by Mr. Maunsell. In some of his own cases vomiting did not occur at all after the operation. He referred to the advisability of suturing the proximal loop of the jejunum to the mesocolon with a view to prevent subsequent internal strangulation.

Mr. BLAYNEY considered that clamps involved risk of post-operative haemorrhage. He had not known of any case in which dispensing with them had led to any untoward result through escape of stomach contents or prolongation of the operation.

Mr. JAMESON JOHNSTON was in favour of clamps, and had not noted haemorrhage in any of his cases. He considered it essential that the anastomotic opening should be free, and that the direction of the peristaltic wave in the stomach and jejunum should correspond. He admired the principles of Mr. Maunsell's clamps.

Mr. WILLIAM TAYLOR had used clamps like those of Moynihan, but of a lighter build; he thought those of Mr. Maunsell were an improvement. He also thought haemorrhage after gastro-enterostomy could be prevented if the sutures were properly introduced. He had seen one fatal case of vomiting due to the vicious circle.

Mr. EDWARD H. TAYLOR had been rather startled by haemorrhage in one case after gastro-enterostomy although he had used every precaution in the suturing process. At present his practice was, in making the gastric incision, to divide the muscular coats carefully, and expose the principal vessels in the submucous coat and suture them separately before incising the mucous membrane. In some of his cases vomiting had not occurred once after the effects of the anaesthetic had passed away, and he had observed that those who did best in this respect were those in whom there was decided pyloric obstruction. Where the pylorus was fairly patent one was more likely to encounter post-operative vomiting.

Mr. W. S. **Haughton** said that instead of clamps on the stomach and intestine he used strong fixation sutures, which held the parts steadily in apposition and facilitated accurate suturing.

Mr. **Kennedy** had discontinued the use of the Murphy button in gastro-enterostomy. He had met with two cases of haemorrhage where gastro-enterostomy had been performed some months previously; both recovered, however, under ordinary treatment.

Mr. **Maunsell**, in reply, said his habit now was to suture the margin of the divided mesocolon along the line of gastro-jejunal junction. He always ligatured the larger vessels met with when incising the stomach. If he could not make the aperture in the transverse mesocolon large enough without tying vessels he tied them. He considered that the vomiting was due chiefly to the anaesthetic.

Partial Gastrectomy for Pyloric Tumour.

Mr. **William Taylor** read a paper on this subject.

A woman, aged 60, was exhibited in perfect health, free from stomach trouble of any description, able to eat anything without the slightest discomfort. The history dated back for three years, during two and three-quarter years of which she complained of ill-defined stomach trouble, to which she applied the term "weakness." During the three months before admission pain after eating became a very prominent feature, but the pain continued after vomiting. At times it was so severe as to compel her to press her stomach across the back of a chair or edge of the table; at other times she rolled upon the floor in agony. About two months before admission she noticed a tumour forming, which increased very rapidly in size, and it was on account of this tumour and the severe pain and vomiting that she sought admission to hospital. The tumour was found to be situated a little above and to the right of the umbilicus; it was hard, nodular, and firmly fixed to the anterior abdominal wall. There was no tenderness. The stomach was moderately dilated. The patient was greatly emaciated. Examination of the gastric juice showed a complete absence of free hydrochloric acid. The diagnosis of malignant disease was made. Exploratory laparotomy was performed, when it was discovered that by excising portion of the abdominal wall to which the tumour was adherent the growth could easily be brought outside. This was done, and as the tumour presented all the naked-eye appearances of malignancy, a partial gastrectomy was performed. The cut ends of the stomach were sewn up with two rows of silk sutures. The duodenum was freed by dividing the peritoneum over the right kidney and fixed by two rows of suture into the opening made in the posterior wall of the stomach, about 1 in. beyond the line of section. What was taken to be oesophagus during this procedure was subsequently found to be a constriction, due to the healing of an old-standing ulcer, which had contracted and produced an hour-glass condition of the stomach. This condition was immediately remedied by the performance of gastroplasty. Two enlarged glands were removed from the lesser omentum, and the abdominal wall repaired. The entire operation occupied exactly seventy minutes, and the shock was very slight. Recovery was rapid and uninterrupted, and the patient left for the convalescent home on the twenty-third day after operation. Examination of gastric juice on that day (January 12th, 1906), seven months after the operation, showed that there was not a trace of free hydrochloric, or, indeed, any other free acid to be found. The pathological report of the tumour demonstrated that it was apparently a mass of inflammatory material around an old-standing ulcer.

Mr. **Taylor** discussed the question of the diagnosis of inflammatory tumours from carcinomata, after which he went into the question of the operative treatment of gastric carcinoma involving the body or pylorus, and contrasted gastro-enterostomy with gastrectomy, both as regards the immediate mortality of these procedures and the average length of life after the performance of these respective operations. The comparatively small number of cures after gastrectomy was attributed to the inability to make a diagnosis sufficiently early, and more frequent adoption of Moynihan's advice—namely, "that one should operate not to confirm but to make a diagnosis"—was strongly advocated.

Remarks were made by Mr. **Maunsell**, Mr. **Jameson Johnston**, and Mr. **Haughton**. Mr. **William Taylor** replied.

CLINICAL SOCIETY OF LONDON.

Clinical Evening.

H. H. Clutton, M.A., M.C., F.R.C.S., President, in the Chair.

Friday, January 26th, 1906.

Multiple Lipomata (Adeno-lipomatosis).

Dr. H. D. **Rolleston** exhibited a man, aged 43, who had noticed fatty tumours in the neck for four years. They had since appeared in most regions of the body except the legs and forearms, and were generally symmetrical. There had been some pain; no loss of muscular power.

The **President** inquired if the tumours were diffuse or capsulated. The distinction was important with a view to operative interference.

Mr. W. G. **Spencer** said the fat in these cases was extremely vascular, and it was questionable which came first, the vascularity or the lipoma.

Dr. H. D. **Rolleston** said the cases were liable to haemorrhage, and were probably brought about by alcohol. What part in their production was played by thyroid inefficiency he knew not.

Molluscum Fibrosum.

Mr. J. R. **Lunn** showed a male cook, aged 22, whose trunk was covered with tumours, mostly sessile, varying in size from a millet seed to a cherry, not following any regular distribution. One tumour, composed of fibrous tissue, contained blood vessels and nerves, and was probably a neuro-fibroma. In another tumour no nerve fibres were recognized. Neither of these two tumours showed sign of malignancy; nor was there history of such disease in the patient's family.

Mr. L. **McGavin** described a case of supposed molluscum fibrosum, which proved to be spindle-celled sarcoma. Cases of molluscum fibrosum were prone to malignant disease.

Traumatic Paraplegia Treated by Laminectomy.

Mr. L. **McGavin** showed a labourer, aged 36, who had been struck across the loins by a falling steel plate, 20 ft. long, in October last, and lost sensation and motion in both lower extremities, and had complete absence of knee-jerks and plantar reflexes, paralysis of bladder and rectum and of the sphincter ani muscle. Three hours after the accident he was submitted to operation, the spinous processes and posterior halves of the first and second lumbar vertebrae were found detached and forced in upon the cord, and were removed. In two days sensation and motion partially returned to the legs; in three weeks the rectum and bladder partly recovered. The patient could now walk, but the right knee-jerk was delayed and feeble, and the plantar reflexes were absent.

Dr. C. E. **Beevor** said the loss of knee-jerk was not a contraindication to operation, as the lesion being at the level of the first and second lumbar enlargement the loss of the knee-jerk was due to pressure on the third and fourth lumbar nerves; whereas, in cases of lesion in the upper part of the dorsal cord the loss of the knee-jerk would probably mean that the cord was completely cut across and operation useless.

Congenital Aperture in Centre of Palate.

Mr. James **Berry** exhibited a girl, aged 16, with an oval aperture in the middle line at junction of hard and soft palates, 7 mm. long and 5 mm. wide, and cleft uvula, but no harelip. The defect was noticed soon after birth.

The **President** was not convinced that it was congenital, but would regard it as possibly syphilitic until the choroid should prove to be healthy.

Apparently Arrested Addison's Disease.

Dr. **Herringham** exhibited a man whose case had been diagnosed at Guy's Hospital three years since as one of Addison's disease. The bronzing was less than it had been a year ago. There had been no reaction to tuberculin. Hemianaesthesia was present.

Dr. J. W. **Carr** had seen a similar case, associated with hemianaesthesia.

TRANSVERSE MYELITIS, WITH RECOVERY.

Dr. **HERRINGHAM** also showed a labourer, aged 29, who in April, 1905, had pains in legs and back, followed by loss of control of sphincters, loss of power and anaesthesia of legs, paralysis of intercostals and diaphragm, and weakness of arms. The anaesthesia extended upwards to the nipples. His condition gradually improved and he could now walk. The knee-jerks, at first absent, had returned. The patient had never been a drinker nor had syphilis.

Dr. **BEEVOR** considered it probably an extreme case of spinal myelitis extending upwards to the fourth cervical nerve; it was either that or one of peripheral neuritis of all four limbs.

CHARCOT'S DISEASE OF THE THUMB.

Mr. P. **MAYNARD HEATH** exhibited a man, aged 45, who cut his thumb three months ago. The wound healed, but the thumb had become much swollen, its skin red and in parts scaly. There were well-marked signs of tabes; knee-jerks were unobtainable.

Dr. **BEEVOR** remarked on the extreme rarity of the disease in the thumb.

TETANY APPARENTLY CURED BY USE OF THYROID SUBSTANCE.

Mr. H. T. **MANT** and Dr. H. **BATTY SHAW** showed an ill-nourished girl, aged 9, who for four years had had gastro-intestinal disorder, with increasing distension of abdomen, severe anaemia, loss of knee-jerks, and tetany for seven months. Salol at first relieved the tetany and then failed, but tetany ceased immediately after the use of thyroid substance.

Dr. A. E. **GARROD** referred to a somewhat similar case described by Dr. Langmead and himself earlier in this session in which the child died, with great dilatation of the sigmoid flexure.

The **PRESIDENT** remarked that if the trouble was in the sigmoid flexure the case was one for operation.

Dr. **SHAW**, in reply, referred to the absence of knee-jerks, and thought a poison was generated somewhere in the system which overwhelmed the nervous centres.

CAVERNOUS NAEVUS OF TONGUE.

Mr. H. M. **RIGBY** showed a girl with this affection of right border and dorsum of tongue. In July, 1904, the right lingual artery and veins were ligatured, and the tumour apparently completely removed. It was, however, gradually recurring.

Mr. W. G. **SPENCER** thought early and complete excision was required.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

PRIESTLEY SMITH, F.R.C.S., President, in the Chair.

Thursday, January 25th, 1906.

SEPTIC THROMBOSIS OF CAVERNOUS SINUS.

MR. **SIMEON SNELL** (Sheffield) related the following case:

On May 1st, 1895, a medical man pricked a small vesicle on the upper lip with a gold scarf-pin which had been used previously to open an abscess, and which was thought to be clean. The next day there was redness and swelling, and later on that day he was obliged to go to bed. On the 5th the condition of the lip was worse, and the blush extended to the left cheek and orbit. This was followed by proptosis and swelling of the conjunctiva and eyelids. Later the right side followed the same course, the proptosis being even more marked than on the other side. The movements of the eyeballs were interfered with, and there was paralysis of the right facial nerve and deafness on the right side, also dullness and evident effusion of the right side of the chest. The patient died fourteen days after the commencement of the illness, his mind having been unaffected throughout.

Mr. Snell remarked that the initial lesion was that on the lip, which the medical attendants had considered to be malignant facial carbuncle. No *post-mortem* examination was allowed.

ACUTE OEDEMA OF EYELIDS.

Mr. **SNELL** also related this case.

A pork butcher, aged 48, came to him with acute oedema of the eyelids on both sides. The day before he had been dressing a pig, when the gut, which contained a large number of worms, burst, and the contents splashed into his face. The oedema came on three or four hours later. When first seen by Mr. Snell, twenty-two hours later, the eyelids on both sides were intensely oedematous, projecting as large semitranslucent swellings, leaving only a chink between them. There was considerable chemosis of the conjunctiva. The next day the swelling had much subsided, and the day after the condition of the eyelids had almost passed away, though the conjunctiva remained red.

The worms in the pig were the same class as *Ascaris lumbricoides*, and in seeking an explanation for the condition, Mr. Snell mentioned that it had been recorded that these worms, when alive, give off an irritating vapour. From another pig in which worms had collected together, the contents of the gut, and also nutrient broth into which some of the worms had been placed after having been cut to pieces, created no irritation when instilled into the conjunctiva of a guinea-pig.

THE TREATMENT OF DETACHMENT OF THE RETINA.

Dr. A. **MAITLAND RAMSAY** read a paper based on a record of 50 consecutive cases of detachment of the retina treated in the Glasgow Ophthalmic Institution during the four years ended October 31st, 1905. The active treatment consisted in subconjunctival injections of 5 to 20 minims of 1 in 2,000 bicyanide of mercury with 8 per cent. chloride of sodium solution, the severe pain that always followed being mitigated by the addition of a few drops of 1 per cent. acoine solution. The injection was repeated as often as might be necessary at intervals of from four to six days, and if no decided improvement showed itself within a fortnight, free diaphoresis was induced by the subcutaneous injection of from $\frac{1}{8}$ to $\frac{1}{4}$ gr. of pilocarpine, this alternating with the subconjunctival injections. If the site and character of the detachment were deemed favourable, the subretinal fluid was always evacuated by scleral puncture. The patient was kept prone in bed with his eyes bandaged, and every effort was made to improve his general well-being, by careful attention to diet and to the action of the bowels, kidneys, and skin. Marked chemosis of the conjunctiva was essential, and when the reaction to the subconjunctival injections was absent or ill-marked, 1 to 2 per cent. of dionine was added to the bicyanide and chloride of sodium solution. Of the 50 cases treated, 10 showed a decided improvement and 13 a moderate improvement, though of the former group 5, and of the latter group 2, relapsed at intervals varying from two weeks to four years. The more recent the detachment the more favourable the prognosis, but the pathological antecedents of the affected eye were more important than the duration of the condition. Failure was the rule in all cases marked by a seriously degenerated choroid, a pupil sluggish to mydriatics, a much-diminished tension, and a red-coloured separation. The method of treatment outlined was simple, applicable to all cases, and, as far as the author's experience went, never did any harm.

BITEMPORAL HEMIANOPSIA.

Dr. D. J. **WOOD** related a case.

The patient was a man, aged 33, who had suffered for over a year with frontal headache, failing vision, and loss of memory. The vision of the right eye was $\frac{1}{60}$ and the left $\frac{6}{60}$, and there was bitemporal hemianopsia with contraction of the field and loss of fixation in the right. He was mentally dull and forgetful, and there was marked delay in answering questions. The pupils were sluggish and the knee-jerks were almost absent. During the fifty-two days he was in hospital he grew worse mentally, and on account of his foul language and filthy habits it was impossible to keep him in. After sixty-two days, during which there was little change, he suddenly sat up and began to ask sensible questions, and when seen some months later he was mentally quite well. His right eye showed optic atrophy, was blind and divergent. The left improved to $\frac{6}{18}$, his patellar reflexes were normal, and his memory for events after his sudden recovery was good. He had no recollection of anything during the previous three and a half months. His history was given by his wife, brother-in-law, and mother, who all agreed as to the details.

The case was thought to be one of cystic growth of the pituitary body, which during a fit of coughing had ruptured through the eroding bone and had escaped into the pharynx or nasal cavities; but nothing of this sort was noticed by the friends, and the patient was more or less unconscious until the actual relief of pressure had occurred.

GLASGOW OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.—At a meeting held on December 20th, 1905, Dr. J. K. **KELLY**, President, in the chair, the following specimens were shown:—Dr. Balfour Marshall: Twins with one placenta, two cords with velamentous insertion of both. Dr. S. J. Cameron: Stereoscopic photograph of double twin pregnancy in one tube. The President: (1) Pyosalpinx; (2) tubo-ovarian cyst.—Dr. Scott Macgregor read a paper on *Double Uteri, a Clinical Study.* He said that this condition, being much more common than was generally supposed, was of great importance as bearing on the question of superfetation. Having briefly given the history of recorded cases he divided the condition into three classes: (1) Uterus didelphys: the two halves of the uterus remaining externally distinct, vaginae separate, each uterus having its own ovary and Fallopian tube. As a rule one uterus was larger than the other; one half might be shut off externally by the vagina ending blindly. (2) Uterus bicornis unicollis: lower part of uterus appeared normal, but depression at fundus. (3) A septum in the anterior forming two cavities; two vaginae might be present: this form was called uterus subseptus. Dr. Macgregor mentioned several cases which had come under his care: (1) A case of pregnancy in a double uterus, with haemorrhage from the other half of uterus. (2) Primary amenorrhoea in a girl of 17, who had a large sausage-shaped swelling in the abdomen on one side, with smaller tumour connected with it. On incision of hymen the condition was found to be retained menstrual fluid filling a double uterus. (3) A case in which the vagina was divided into two by a septum; at the roof of each a small cervix was felt; two horns of uterus were also felt. The President thought the question of sepsis came in during pregnancy in the uterus that was empty. Dr. Stark, Dr. Marshall, Dr. Cameron, and Dr. McLellan also discussed the paper, and Dr. Macgregor replied.—The President gave a lantern demonstration on the various pathological conditions of the tubes and ovaries. Photographs of hydrosalpinx, salpingitis, and pyosalpinx were shown in contrast with those of tubo-ovarian cysts, tubo-ovarian abscess, etc.

Cork Medical and Surgical Society.—At a meeting held on January 24th, Dr. Pearson in the chair, Dr. Cummins showed a *cystic tumour* removed from a 2-parous married woman two months after the birth of her second child. She had noticed the tumour at the age of 14, and its gradual increase since then. When admitted to hospital it extended from the right iliac region to the liver and well across the middle line. He diagnosed a cyst of the right broad ligament, and opened the abdomen by a median incision, finding transverse vessels, obviously renal, running into the growth, which he removed after ligaturing the vessels; the growth being intimately united to the kidney he removed the two *en masse.* The huge cavity left was packed with gauze, and recovery was uneventful. Dr. Moore reported on the specimen, which he considered arose from persistence of a portion of the Wolffian body; in this case the capsule split to enclose the kidney. He demonstrated the normal ureter, thus excluding hydronephrosis. The Chairman said it was a unique case; agreed with Dr. Moore's view of its origin; questioned the necessity for ablating the kidney; but thought he would do the same under like circumstances.—The Chairman showed a specimen of *tuberculous kidney and ureter,* removed from a domestic servant with a history of pyuria. The cystoscope showed no cystitis. Luys's segregator was used, and healthy urine estimated for urea showing a daily excretion of 300 gr. Considering this satisfactory he ablated the kidney, which he found much enlarged. The ureter was greatly thickened. He dealt with the vessels, first clamping them, and leaving the forceps *in situ* for forty-eight hours. The ureter he clamped and ligatured as low down in pelvis as possible. Post-operative vomiting, as was usual in these cases, was very troublesome. He considered it was not due, as generally advanced, to increased strain on other organs, but to stimulation of the coeliac plexus from section of sympathetic nerves. He thought the kidney invasion primary in this case.

Epidemiological Society.—At a meeting held on January 19th, Dr. J. Tatham, President, in the chair, Mr. W. Hunting, F.R.C.V.S., read a paper on *Glanders in Horse and Man.* Though scheduled in 1869 there were no very trustworthy statistics before 1881, since which date 44,943 horses had been returned as dying from glanders, giving an average of 2,000, of the probable value of £40,000 or £50,000 per annum. Yet it would not be difficult to stamp out the disease, for 70 per cent. of the cases occurred in London and 90 per cent. in the home counties, the only other centre being Glasgow, and it was not one that spread with any rapidity. The reluctance of the Treasury to give the money for compensation had, however, hitherto prevented the application of the provisions of the Diseases of Animals Act, the Board of Agriculture urging the plea for inaction that the loss of human life through it was insignificant, not more than two, and one occasion only six deaths appearing in the Registrar-General's returns. Nevertheless, there were good grounds for believing that the true mortality was very much greater. Inoculation and ingestion were the means by which it was communicated, ingestion with water and fodder being by far the more frequent. The incubation period was very variable—two weeks to two months—though the animals might appear to be in perfect health for a year or even longer. When complicated with pneumonia or pleurisy it might be fatal in a few days, or after apparent recovery a relapse might occur. The typical clinical symptoms in the horse were enlargement of the submaxillary glands, with nasal discharge and ulceration of the mucous membranes of the trachea, larynx, and nares, swelling of the lymphatic glands and vessels with small tumours under the skin, "farcy buds," and swelling of one or more of the legs. The only constant lesions found *post mortem* were nodules in the lungs, but the swelling of the bronchial glands always observed in tuberculosis was rare. In 1,000 *post-mortem* examinations made by the veterinary inspectors of the London County Council 462 showed lesions in the lungs only, the nasal mucous membrane was ulcerated in 378, that of the larynx in 179, and of the trachea in 201, the lungs being also implicated in every case. So long as unbroken nodules in the lungs alone were present the disease did not appear to be communicated to other healthy animals, but such horses might at any moment develop ulceration or the glands might burst and the animal become highly infective. The discovery of mallein in 1890 by a Russian veterinary surgeon furnished an almost infallible means of diagnosing the existence of the disease in the latent stages; like tuberculin, mallein was an extract of the bacilli of the disease, the injection of which into a healthy animal gave rise to no symptoms; but, when glanders was present, there was not only a characteristic febrile disturbance, but a swelling at the site of the injection. This double reaction made the test more decisive than that of tuberculin, but the intensity of the reaction bore no relation to the extent or the duration of the disease. The existing regulations were wholly inadequate; they enjoined notification, diagnosis by a veterinary inspector, slaughter and compensation to one-fourth of the value of the animal; but there was no provision for the isolation of "contacts," and the disease might go on spreading until the owner sold off his stud to form foci elsewhere in perhaps a score of stables in place of the one originally invaded. Without mallein diagnosis was impossible in the early stages, and in the later, when it was obvious, the owner might, in consideration of the meagre compensation, prefer to conceal the fact, and get the utmost possible work out of the horse until it was no longer of use. Some cab-owners habitually and knowingly bought glandered horses deferring notification so long as possible, or selling their whole stock if threatened with a raid from the police or inspectors. As to the prevalence of glanders in man, the Registrar-General's returns gave no notion of the real number of cases; they were never reported by private practitioners, and those correctly diagnosed in hospitals had always been admitted under false descriptions—rheumatic fever, typhoid fever, pneumonia, septicaemia and pyaemia, cellulitis, even confluent small-pox, influenza, and "blood poisoning." In fact, the clinical symptoms in man were far less definite than those in the horse, and it was seldom that a diagnosis could be made with certainty until after a bacteriological examination of the fluid from the cutaneous nodules or from the subcutaneous infiltration of the "cellulitis." Mr. Hunting read notes of 11 such cases admitted under various names into hospitals, and a description of the *post-mortem* examination of one by Dr. Charles

Creighton. The mode of infection in man was commonly supposed to be inoculation, but this he believed to be far less frequent than ingestion through "eating with unwashen hands" after handling infected horses. Local manifestations which would indicate the point of inoculation were very rare. Nodules in the lungs were found *post mortem*, but an absolute diagnosis was even then seldom possible except bacteriologically, though glanders should be suspected in all cases of "cellulitis" or those simulating rheumatic fever, erysipelas, etc., in horse keepers, cabmen, and others employed in stable yards. A letter was read from Dr. E. W. Goodall in reference to the two cases admitted to the Eastern Hospital as typhoid. In the first the presence of intramuscular abscesses pathognomonic of glanders but never occurring in typhoid fever led him to an immediate diagnosis, but he should not have suspected the nature of the second if it had not been for the man's occupation. Dr. **John McFadyean**, while agreeing in every essential matter with Mr. Hunting, considered his statements as to the non-infectivity of the early stage as rather too strong, for since the extension to the trachea was due to the escape of bacilli from the pulmonary nodules they might easily at this stage be carried a little farther, and render the saliva and the nasal mucus infective, or escape in coughing. Dr. H. **Armstrong** deprecated compensation as tending to encourage the trade in glandered horses, and to defeat its ostensible purpose. Dr. W. **Bulloch** had seen seven cases at the London Hospital. In the fifteen years before the opening of the bacteriological laboratory in 1900 they had no record of a single case, but so soon as bacteriological examinations were systematically carried out they had six cases in two years. Few medical men had ever seen a case, so that it was not surprising that they should fail to recognize one when they met it, though the occupation of the majority of patients ought to suggest the nature of the disease. Mallein could not be recommended with the human being as, apart from possible danger, it failed to give the local swelling which constituted its chief diagnostic value in the horse. Mr. **Hobday** remarked on the small number of cases among men employed in cab-yards which were hotbeds of the disease. In one yard ninety horses had been slaughtered in eighteen months, and in another fifteen out of sixteen reacted. Inspectors had no power to touch an animal that did not show clinical signs: they ought to have power to use the mallein test on all contacts, and isolate if they did not slaughter them. Frequently when a horse had been condemned the owner sold off the rest, many no doubt already diseased; others regularly kept glandered horses for night work until they broke down. He considered the fee of £2 for notification too liberal, and the quarter value in compensation insufficient, tending to encourage the delay of notifying till the animal had no more value. Dr. E. F. **Willoughby** referred to a case recently quoted in *Public Health* of a veterinary surgeon at Bucharest who contracted glanders through wounding his hand in a *post-mortem* examination. The initial local lesion was well marked, and he died with intense pneumonic and pyaemic symptoms, and abscesses in the muscles and all the viscera, cutaneous abscesses and bullae. Mr. **Hunting**, in reply, said the descriptions of glanders in man given in the textbooks were in very few instances realized in actual practice, intramuscular abscesses being the only constant and pathognomonic symptom.

Therapeutical Society.—At a meeting held on December 19th, 1905, Sir **Lauder Brunton** in the chair, Dr. **Bain** described *Uncomplicated Cholelithiasis and its Treatment*, showing that its symptoms were often obscure and its signs required careful palpation. It was due to invasion by microbes, especially by the *Bacillus coli*, which reached the gall bladder either through its ducts, the portal vein, or the systemic circulation, and produced calculi, if no inflammation occurred. Bilirubin calculi resulted from acid mucus precipitating colouring matter; cholesterine from degenerated epithelium. The predisposing cause was biliary stasis produced by excessive eating or drinking, constipation, etc. Its symptoms were pain and tenderness in the right hypochondrium, where sometimes a tumour might be felt, and frequently biliary colic occurred. Treatment: Attention to exercise, clothing, and food, animal diet being advisable to promote secretion of bile; indigestion must be prevented and chill avoided. Drugs: Olive oil was often used, as it dissolved gall stones, but so did alcohol. Calomel, chloroform, ether, and acetone were also employed, but from experiments on dogs it appeared that neither olive oil, calomel, ichthyoform, nor cholelysin had any effect on calculi inserted into the gall bladder, but urotropin and iridin caused such calculi to disappear, and acetozone diminished their weight. Three persons were entirely relieved by urotropin gr. v and iridin gr. ix given twice daily for two months, with attention to diet and exercise.

Nottingham Medico-Chirurgical Society.—At a meeting held on January 17th, Mr. T. J. **Dabell**, President, in the chair, Dr. **Arthur Whitfield**, of King's College Hospital, gave an address (with lantern illustrations) entitled, the *Cutaneous Manifestations of Acquired Syphilis*. In introducing the subject, Dr. Whitfield criticized the way in which specific eruptions were often classified according to the lesion. It was customary perhaps to regard syphilis as a series of causes of disease rather than as a chronic and consistent disorder, and it was much better to recognize the lesions as syphilis than to use such terms as syphilitic psoriasis. In any doubtful case of primary sore it was wiser to await the appearance of additional symptoms than to make the diagnosis of syphilis erroneously even if it were only in 1 or 2 per cent. of the cases. It was a serious thing to put a patient under a three years' course of mercury unnecessarily apart from the injury to his feelings and self-respect. Dealing with the initial lesion, the author showed that induration was not always marked, but depended rather on the local distribution of blood vessels. The defined, rolling edge was its most characteristic feature, but it was not always possible to diagnose syphilis from this alone, for on the one hand the initial lesion might not be characteristic, and on the other apparently typical sores might be followed by no other symptoms. Other early symptoms to be waited for were adenitis, and most characteristic of all an indurated lymphangitis on the dorsum penis, often bifurcating at its root. Proceeding to the earlier rashes, the usual characteristics of these were pointed out to be their generalization, superficial site, multiformity, and absence of grouping, but these had exceptions. Illustrations were shown of the large papular, giant papular, small papular, follicular corymbose, scaly and bullous varieties, and attention was drawn to the histological basis of these various lesions. Passing to the early relapsing eruptions these were shown to be grouped, extending more deeply and less generalized, but still usually symmetrical. Striking examples were shown of the psoriasiform and late corymbose conditions with atrophy of the centres of the patches, and their histology was illustrated. Among the later rashes shown were a papular one with tendency to overgrowth, the cutaneous or grouped gummata, the late palmar and plantar syphilide with hypertrophy of the large non-grouped subcutaneous gumma. The effect of syphilis on the skin of seborrhoeic subjects was also explained. One of the most important points in treatment was never at any stage to overdose the patient with mercury, which if it occurred nearly always meant that the case became more resistant to treatment ever afterwards. Follicular eruptions were as a rule obstinate cases to treat. As the disease became older the potency of local treatment increased while that of constitutional treatment diminished. An instance was given of a late palmar syphilide which after resisting all forms of mercury and iodide yielded satisfactorily to the *x* rays.

Pathological Society of Manchester.—At a meeting held on January 17th, Professor **Lorrain Smith** in the chair, Dr. **Cuthbert Lockyer** (London) gave a demonstration on the *Development and Retrogression of the Corpus Luteum*. He pointed out that the majority of pathological processes associated with lutein tissue were not the outcome of changes in the corpus luteum itself, but arose during the developmental stages of the Graafian follicle—that is, before that body attained anything like its full maturity. In this way the different types of lutein cysts, also lutein haematomata, and even lutein abscess and calcification, had nothing, as a rule, to do with the true yellow body. Such changes took their origin for the most part in atresic follicles which had acquired a lutein lamina before undergoing retrogression. Mention was especially made of the type of lutein cyst which the lecturer described as composite lutein cystoma—large tumours, which he had found only in association with vesicular mole and chorion-epithelioma. The actual causation of this peculiar type of lutein excess was still obscure, but its relationship to the ovular changes could scarcely be accidental, nor did the speaker think they were secondary, as did the German authority Gottschalk. The fascinating theory that lutein-excess accounted for trophoblastic overgrowth had occupied his close attention, but control investigations on ovaries from cases of normal gestation and chorion-epithelioma failed to convince him that excess of lutein tissue was peculiar to vesicular mole and chorion-epithelioma. Another difficulty which stood in the way was the possible confusion of displaced lutein tissue and decidual reaction in the ovarian stroma, and the lecturer threw out the suggestion that the lutein cell and the decidual cell were histogenetically one.—Professor R. Favell (Sheffield) showed a uterus and ovaries, the former containing a hydatid mole, the latter lutein cysts. —Dr. C. Oldfield (Leeds) showed a specimen with double lutein cysts and chorion-epithelioma of the uterus.—Other preparations were exhibited as card specimens.

Society for the Study of Disease in Children.—At a meeting on January 19th, Dr. Porter Parkinson in he chair, the following were among the exhibits:—Mr. Arthur Edmunds: A case of *cutaneous pigmentation.* On he buttocks and back there was a curious bluish mottling imilar to the pigmentation occurring in a large number f Asiatic races of mixed descent. The pigmentation esembled that in a Japanese baby recently exhibited at he Society by Dr. Sutherland.—Dr. George Carpenter: ase of *sclerema neonatorum* in a girl 8 weeks old. here was a brawny induration of a pinkish, purple hue ver the whole of the back and back of the neck, also over he buttocks and upper part of the thighs posteriorly; so two small patches over the occipital region of the calp.—Dr. Porter Parkinson: Microscopical specimens om a case of sclerema neonatorum taken from an ght months infant who died when 10 days old. he sections of the skin showed chiefly thinning of e epidermis with considerable thickening of the tis vera, apparently due to increase of fibrous tissue, t this seemed insufficient to account for the sclerema, hich the exhibitor suggested was due to a chemical ther than a structural change.—Dr. George Car-nter and Mr. Lockhart Mummery: A case of *mihypertrophy* in a child 2½ years old, the left side being rger than the right. The face and tongue on the affected le were appreciably larger and the head was ½ in. oader. The left side of the trunk was 1 in. larger than e right, the left arm ½ in. longer, and the left leg 1 in. ger and correspondingly enlarged. The bones on the pertrophied side were also larger.—Dr. George Car-nter: A boy, aged 18 months, with a soft, freely-ovable, elastic swelling, the diameter of a two-lling piece, in the breast. It had been present ce birth. The contents on exploratory puncture re-nbled milk, and were microchemically of that nature.— . Arthur Edmunds: A case of successful removal of a *genital sacral tumour.* The tumour had been present m birth. It consisted of two distinct parts; one of ich was distinctly solid, while the other was definitely tic. The former was situated slightly to the right of middle line, overlapping the right sacro-iliac synchon-sis. The skin over it was slightly more hairy than the e of the body, but otherwise it was quite normal.—Dr. . Emanuel (Birmingham) showed an infant with *con-tal absence of the skin* affecting the hands, legs, and . In addition, over the temples, the bridge of the e, and the middle of the lumbar region, there were gular-shaped areas in which a similar congenital ciency in the formation of the epidermis existed. The s affected were smooth, free from hair, sharply defined the neighbouring healthy skin, and transparent, so the delicate underlying blood vessels were clearly ole.

International Exposition of Hygiene will be held at iden in 1909.

REVIEWS.

NOTHNAGEL'S ENCYCLOPAEDIA.

The English edition of *Nothnagel's Encyclopaedia of Practical Medicine*[1] is produced in Philadelphia under the general editorship of Professor Alfred Stengel, and fortunately in only one instance has it been found impossible to obtain translation rights from the numerous contributors. The volume on *Diseases of the Blood* is edited with additions by the general editor of the series, and since the original work is so well known, it is with these "additions" any review of the translation must be chiefly concerned. Let it be said at once, that if all the editors of volumes exercise their prerogative with the same discrimination, the same display of special knowledge, and the same critical acuity, the English, or rather American edition, will exceed in value not a little the German work, and this is certainly not a common feature of translations. The articles are "authoritative presentations of the more important scientific aspects of haematology, and do not pretend to fill the place of textbooks of clinical haematology." The name of Ehrlich, with which is associated that of Dr. Lazarus of Berlin, over the section dealing with the normal and pathological histology of the blood, is warrant enough for its general excellence; but in view of the controversy occasioned by the teachings of Ehrlich and his pupils, it has seemed proper to Professor Stengel, as he states in his preface, to refer to the views of some of the opponents. These references, which, like all interpolations throughout the book, are clearly indicated by brackets, are presented impartially and with conspicuous lucidity. The clinical features of anaemia are detailed by Dr. Lazarus, and his account of progressive pernicious anaemia may be cited as an example of the care bestowed by the translator. In leading up to a very interesting quotation of Biermer's original communication on the subject, the names of Lebert (1853) and Addison (1855) are mentioned as having recorded observations of cases conforming to this type. Dr. Stengel is able to supply an earlier reference, that of Channing of Boston (1842), who described some of the essential features. In the course of his article Dr. Lazarus expresses the opinion that carcinomata discovered *post mortem* in cases conforming *intra vitam* to the clinical picture of pernicious anaemia, may be secondary to that anaemia; here Stengel rightly points out the extreme probability of the opposite and generally-held view and supports his argument by observations upon the condition of the marrow surrounding metastases in bones in similar cases. Again, Lazarus omits all reference to the work of Dr. William Hunter on the pathogenesis of pernicious anaemia; Stengel supplies the deficiency. Chlorosis is exhaustively treated by Professor von Noorden; lymphatic leukaemia by Dr. Felix Pinkus and the myeloid variety by Dr. Lazarus. Pseudoleukaemia is taken to be synonymous with Hodgkin's disease; "splenic anaemia" is rigorously excluded from this category, and the name of Banti is absent not only from the text but also from the quoted literature. It is evident that a settlement of nomenclature is still far to seek. At the end of each article is a full bibliography; there is an excellent index, and a number of satisfactory plates; the type and style are both good.

The volume on *Diseases of the Kidneys and of the Spleen: Haemorrhagic Diathesis*, is rendered of great interest by including the section on the kidney, written by Professor Senator, who has been so long known as an eminent authority upon this group of diseases, for, although he may have passed the age at which one might expect him to assimilate new facts or to accept new ideas, he has always exhibited so sound a judgement that it is a great advantage to the English-speaking portion of the profession to have this summary of his views brought within their reach. With respect to the much-disputed physiological albuminuria, Professor Senator says that albuminuria can be called physiological with absolute certainty only when very small quantities of albumen are found in the otherwise normal urine of a healthy individual not beyond middle age, and then only at intervals and after certain definite uncommon but physiological causes—such as severe muscular exertion, an unusually hurried meal, a cold bath, emotional excitement, or mental over-exertion. He does not include cyclical albuminuria under this heading, because so far as we understand him he seems to regard cyclical as simply equivalent to intermittent, and it is allowed that intermittent albuminuria may at times be associated with organic disease. It is, however, generally accepted in this country that an albuminuria should only be spoken of as "cyclical" where it is not only absent at certain times, but when the patient is entirely free from all other symptoms indicating the presence of organic renal disease. The section on the little-understood condition of oxaluria can only be said to be a fair presentment of what is known on the subject without in any way clearing up its numerous obscurities. There are interesting articles on dropsy and uraemia, the latter being defined as an auto-intoxication by nitrogenous substances depending on a disturbance of the renal function, and accompanied by the decomposition of albumen leading to abnormal acid formation. In explanation of hypertrophy of the heart and the thickening of the arterioles in Bright's disease, he adopts with slight modifications the theory of the late Sir George Johnson, except that he considers the stimulus to the heart and blood vessels to be direct, and not through the mechanism of a vasomotor centre. Wandering or movable kidney is not in Professor Senator's experience so common as some writers have stated, but occurs decidedly more frequently in women than in men. It is, however, often attended by no symptoms, and in these circumstances should not be mentioned to the patient, as it is only likely to cause unnecessary anxiety; in other cases, it gives rise to pain or discomfort, and in a few instances it may be the cause of extreme nervous perturbation leading to neurasthenia and hysteria. He does not, however, believe it to be the cause of either dilatation or downward displacement of the stomach, its relation to these last changes being merely that of association. He is not impressed with the importance of examining the patient for this condition in the erect or knee-elbow position, as in these attitudes the abdominal walls are more tense than when the patient is supine. Nephropexy should be recommended in those cases in which the symptoms clearly depend upon the mobility of the kidney and palliative means have failed to remove them, but although its immediate effects are good he is more doubtful of its curing permanently. The American editor, Dr. Herrick, endorses these views, and protests against those who "unwarrantably advise operation in nearly every case of obscure abdominal or nervous complaint in which they are able to palpate the right kidney"; and he elsewhere speaks of "the fad for operating on floating kidneys," which is not unknown on this side of the water. Professor Senator says nothing about the surgical treatment of Bright's disease, but this is dealt with by the American editor, who expresses the opinion that

---

[1] *Nothnagel's Encyclopaedia of Practical Medicine.* English edition. Authorized translation from the German under the editorial supervision of Alfred Stengel, M.D. *Diseases of the Blood.* By Professor Dr. P. Ehrlich, Professor K. von Noorden, Dr. A. Lazarus, Dr. F. Pinkus. Edited and translated from the German by Alfred Stengel, M.D. *Diseases of the Kidneys and of the Spleen: Haemorrhagic Diathesis.* By Dr. H. Senator and Dr. M. Litten. Edited by James B. Herrick, M.D. Pp. 714. Philadelphia and London: W. B. Saunders and Co. 1905. (Demy 8vo. 21s. each volume.)

> More logical reasoning will have to be employed and more reliable statistics brought forth before it can be granted that a cure has been wrought of a disease of the character of chronic interstitial nephritis.

The section on the spleen by Professor Max Litten is a careful compilation, but more interest attaches to the final chapters on haemorrhagic diseases, including scurvy, haemophilia, and purpura. The toxic theory of scurvy is not mentioned, and the old view that the disease is due to absence of fresh vegetables is accepted as the most probable in spite of the experience of Nansen and of the fact that the lifelong diet of the Esquimaux consists of animal food only. The question cannot be said to be settled one way or the other. The experience of Captain Scott of the *Discovery* is not decisive, for during his first year the crew suffered from scurvy at a time when they were deprived of fresh vegetables, especially of potatoes, but he considered that some of the preserved meats were not beyond suspicion, and in the second year, during which the whole of the party enjoyed excellent health, there had been fresh supplies of vegetables brought by the relief ships, while greater care had been taken to provide abundant frozen seal meat.

LABORATORY HANDBOOKS.

Schmorl's technique of pathological histology,[2] so well known in Germany, deserves equal favour in British laboratories. Throughout the book, which is characterized by accuracy and simplicity, every page bears the impress of the author's experience; nothing is included which has not proved reliable and certain. The whole subject, from the examination of fresh tissues to the most elaborate fixing and staining of every special organ, is treated lucidly and in sufficient detail to supply the needs alike of the tiro and the experienced pathologist. There is a useful section dealing with calculi and urinary deposits and the methods of examination. The medico-legal examination of seminal stains is given in detail, with Florence's reaction as an important eliminating preliminary. The concluding chapter on fungi and animal parasites is very useful, but does not include staining methods for diseased hairs. The section dealing with bacteria is replete with information; noticeable, however, is the absence of any account of Ellis's method of staining flagella, whilst in the chapter on the blood neither Leishman's modification of Romanowsky nor Jenner's stain finds a place. In this, the third, edition every endeavour has been made to bring the work thoroughly into line with recent progress in histological procedure. To the already excellent account of instruments and appliances additions have been made of sections on optical aids to the drawing of microscopical preparations, and on the utilization of polarization apparatus for histological elucidation. The chapter on decalcification and the abstraction of fat has been entirely rewritten. At the end of each section is a full bibliography of recent literature, which completes the usefulness of a book in its way almost ideal.

Mr. Heinemann's *Laloratory Guide in Bacteriology*[3] contains the instructions in bacteriological technique designed to meet the requirements of students taking the medical course at Chicago University, together with some additional matter intended for those who are engaged on mor advanced work. The book has obviously been written t meet the special requirements of a particular laborator course held at this University, and enters into man details of laboratory rules and university regulation which cannot be regarded as of general interest or impor tance. But one of these rules illustrates so excellent Mr. Heinemann's principle that in teaching elementar students nothing ought to be taken for granted that w cannot refrain from quoting it: "Food must not be eate in the laboratory; lead pencils, labels, or fingers must n be moistened with the tongue." We commend this ru to all those whom it may concern. In conclusion, we a of opinion that while the book covers a fairly usef elementary course, it cannot be regarded as replacing th many excellent textbooks which have already appeared o this subject.

RADIOGRAPHY IN FRACTURES AND DISLOCATIONS.

Dr. Destot's monograph on injuries of the wrist[4] is valuable and scientific contribution to a difficult chapt of surgery. As chief of the radiographic laboratory of t hospitals of a great industrial centre like Lyons, Dr. Dest has had exceptional opportunities of studying the obscure cases by means of radiography, and the book which he epitomizes the result of his researches completely proves the importance of the corollary which the *x* rays have added to the classic work of Colles and Dupuytren. The radiographic method is, however, used throughout in conjunction with clinical observation—indeed, it is shown that one of its functions is to act as a guide in formulating rules for clinical diagnosis and treatment. The author begins with a necessary warning as to the difficulties that attend the interpretation of radiographs of the carpus. Only those who are familiar with the appearance of the shadows of the carpal bones in all positions of the hand, and with the variations in the bones of different individuals, are competent to make the diagnosis of carpal fractures and dislocations. The author admits that at first he was often in error himself, and "mistook subluxations of the scaphoid for fractures of that bone when none were present." He emphasizes the rule that all full-face views of the wrist should be checked by others taken in profile. The chapters on the physiology and mechanics of the carpus throw much new light on this difficult subject, and much stress is laid on the backward rotation of the upper portion of the scaphoid which takes place when its palmar process is fixed, as by contact with the ground in a fall on the hand, and determines the difference between fractures by "supported" and "unsupported" extension. The rest of the book may be roughly divided into the pages devoted respectively to the consideration of the effect of the carpal condyle in determining the nature of fractures of the lower end of the radius, the conditions under which such fractures are complicated by injuries to the carpal bones themselves, and the study of intrinsic lesions of the carpus. It is from the proof of the comparative frequency and great gravity of these last that the book derives its chief importance. It will, for instance, surprise many surgeons to learn that in nine years Dr. Destot has been able to radiograph no less than sixty-four fractures of the scaphoid alone. Many of these were, of course, old cases which had not been diagnosed, and, in fact, could not be diagnosed without the assistance of the *x* rays. These cases, giving rise at first to comparatively trifling symptoms, were invariably regarded as "sprains" of the wrist, and resulted after a few months in arthritis and other changes which were attributed to "rheumatism," but which ended in ankylosis of the wrist and complete crippling of the limb. In this connexion the following passage from Chiene's account of Colles's fracture has a new interest: "When, at the moment of impact, the angle (between the axis of the forearm and the ground) is greater than 60 degrees . . . the usual result is either a *severe sprain of the wrist* or dislocation backwards of the bones of the orearm at the elbow-joint." The attitude thus described by Chiene coincides exactly with the conditions pointed out by Dr. Destot as predisposing to fracture of the scaphoid, so constantly mistaken for sprain. The other arpal lesions dealt with include dislocations of the first ow of carpal bones, medio-carpal dislocations, fractures f the semilunar, cuneiform, and os magnum. In all hese cases Dr. Destot has been able to formulate factors or clinical diagnosis and treatment in recent cases, and he result of the reduction of both dislocations and fracures of the scaphoid in particular have been almost niformly favourable. In old cases, where ankylosis is omplete, he recommends the complete resection of the rist, an operation introduced by M. Vallas in 1897. A oint of great importance is that these carpal injuries are uch more likely than fractures of the radius to cause ressure on the median and ulnar nerves, giving rise to ophic changes in the bones, of which the earliest idence is afforded by the radiograph. The bearing of his factor on prognosis will be at once apparent, and the nportance of prognosis has been enhanced in France by e law of 1898, just as it has in this country by the orkmen's Compensation Act. The book is copiously ustrated by a series of semi-diagrammatic reproictions of radiographs of the wrist, which greatly ilitate the proper understanding of a highly intricate gument. M. Destot completely establishes his thesis, d his work is of the utmost practical importance. Moreer, it is a vivid illustration of what the *x* rays have ne for anatomy and surgery since the days when Treves ote in 1883, "There is no special anatomical interest aching to fractures of the carpus, metacarpus, or alanges."

---

[2] *Die pathologisch-histologischen Untersuchungsmethoden.* Von P fessor Dr. G. Schmorl. 3rd edition. Leipzig: F. C. W. Vogel. 1 (Demy 8vo, pp. 340. M.8.75.)

[3] *A Laboratory Guide in Bacteriology.* By Paul G. Heinemann, S Chicago: The University of Chicago Press. 1905. (Cr. 8vo, pp. 1.25 dol.)

[4] *Le Poignet et les Accidents du Travail, Etude Radiographique Clinique.* Par Docteur Destot. Paris: Vigot Frères. 1905. (Cro 8vo, pp. 136. Fr. 2.50.)

DISEASES OF THE RECTUM.

THE usefulness of the treatise on the *Diseases of the Anus and Rectum*[5] by Messrs. GOODSALL and MILES, will, we think, be regarded by most readers as much impaired by its division into two distinct parts, and by the long delay in completing the work. In a period of prolific production of books on both general and special surgery, and of rapid publication of new editions, the authors have left the readers of the first part to await for over four years the appearance of the complementary volume. This is to be regretted, as the recent addition, taken together with the first part, now almost forgotten, really forms a very instructive and reliable book on the special subject with which it deals. It is thoroughly practical, and though by no means exclusive in its teaching, is based on wide experience in regard both to clinical observation and to actual treatment. Whilst leaving nothing to be desired in regard to their description of the clinical features and the pathology of the affections discussed in this volume, the authors seem to have failed now and again to supply such a full review of modern methods of treatment as the reader might fairly expect to find in a work of this size and pretensions. For instance, it might be doubted whether the old and well-known therapeutical methods described in the chapter on prolapse of the rectum can have been found satisfactory by the authors in the more severe forms of this affection. Malignant growths of the rectum are discussed with much care in an excellent chapter; the various symptoms presented during the progress of a typical case of carcinoma are described, and the authors in this instance deal at some length with the question of operative treatment, and advocate as a relatively safe procedure in suitable cases extirpation of the rectum from above downwards, with removal of the coccyx, the difficult problem of efficient discharge of faecal matter being solved by the previous formation of an abdominal anus by iliac colostomy. The immediate results of this operation have in the author's practice been remarkably successful, but the actual value of what, as compared with simple colostomy, is a very severe method, is rendered questionable by the statement that local recurrence of the growth after removal is the rule rather than the exception. The authors, in their endeavour to render this a complete and thoroughly useful treatise on rectal diseases, have added much to the merits of their work by the insertion of many clear and graphic illustrations, all of which are original.

Mr. SWINFORD EDWARDS's essay on *Carcinoma of the Rectum*,[6] though it gives very little that is new concerning the clinical features and the diagnosis of rectal cancer, will be found a serviceable contribution on the surgical therapeutics of this common disease. The author, whose opinion on this difficult problem claims respect, takes an optimistic view of the prospects of radical operation, and shows that good results may be obtained from such treatment in a fair proportion of cases, even though only those decidedly inoperable when first seen are rejected. Moreover, in instances of recurrence and failure to remove the whole of the disease, operative treatment, it is pointed out, affords for a time welcome freedom from pain and discomfort. The appended table of forty cases of transsacral excisions of the rectum practised by Mr. Edwards for the removal of cancer shows what may at the present time be fairly regarded as a low operative mortality, and that in nearly half of those patients whose subsequent histories could be followed there was a durable and satisfactory recovery. The author performs Kraske's operation with some modifications, and regards as one of the most important of these modifications a preliminary colostomy. The arguments in support of this practice are stated very clearly and with much force, and it seems to be more than probable that a general adoption of this double operative procedure, which is acquiring favour in other quarters, will tend to lower to a still further extent the mortality of excision of the rectum.

---

[5] *Diseases of the Anus and Rectum.* By D. H. Goodsall, F.R.C.S.Eng., Senior Surgeon to the Metropolitan Hospital, late Senior Surgeon to St. Mark's Hospital for Fistula and other Diseases of the Rectum; and W. Ernest Miles, F.R.C.S.Eng., Surgeon to the Gordon Hospital for Diseases of the Rectum, Surgeon to the Cancer Hospital, Brompton, etc. Part II. London: Longmans, Green and Co. 1905. (Demy 8vo, pp. 271, 44 illustrations. 6s. net.)

[6] *Carcinoma of the Rectum: its Diagnosis and Treatment.* By F. Swinford Edwards, F.R.C.S., Senior Surgeon to St. Mark's Hospital for Diseases of the Rectum, and to St. Peter's Hospital for Urinary Diseases; Surgeon to the West London Hospital, etc. London Baillière, Tindall and Cox. 1905. (Demy 8vo, pp. 47. 2s. 6d.)

NOTES ON BOOKS.

ANNUALS.

THE forty-second edition of *Herbert Fry's Royal Guide to the London Charities*,[1] edited by JAMES LANE, contains a comprehensive list arranged alphabetically. In the preface the editor reports that the past year has been almost a record one for munificent donations and bequests to hospitals and general charities, despite the fact that trade generally has not made the recovery expected by the business world. Mention is made in the preface of the munificence of Mr. E. G. Bawden in entrusting £100,000 in cash and securities to Mr. Edgar Speyer for charitable purposes, Lord Mount-Stephen's gift of £100,000 to the King Edward's Hospital Fund, and of a similar amount bequeathed by Miss Hannah Finnie for charitable purposes in which hospitals will largely participate.

THE DECLINE OF HUMAN FERTILITY IN THE UNITED KINGDOM AND OTHER COUNTRIES, AS SHOWN BY CORRECTED BIRTH-RATES.

UNDER the above title, Drs. A. Newsholme and T. C. H. Stevenson have communicated to the Royal Statistical Society a paper containing a number of important facts not hitherto obtainable. The difficulty has hitherto been to ensure that, in discussing the decline of the birth-rate, the communities compared were strictly comparable as regards capacity for child-bearing. If, for instance, one community had a larger proportion of married women at child-bearing ages than another, and still more of married women under 35 years of age, its fertility as ordinarily stated would not be comparable with that of another community less favourably circumstanced in these respects. Corrections for these variations have not hitherto been systematically given, owing to the amount of work involved in the correction, and owing to the fact that a method of giving corrected birth-rates analogous to that for the corrected death-rates given by the Registrar-General had not been devised.

THE NECESSITY FOR CORRECTED BIRTH-RATES.

The nearest approach to correction hitherto attempted has been by a statement of the number of legitimate births among married women aged 15 to 45. This method of correction is evidently incomplete, as at the younger ages comprised in these thirty years fertility is much higher than at the older ages. Thus, taking certain proportional figures from the above paper, we obtain the following results, the fertility-rates for wives aged 20 to 25 being stated as = 100:

Age of Mother	15-20	20-25	25-30	30-35	35-40	40-45	45-50
Edinburgh and Glasgow (1855)	120	100	83	64	49	19	3
Norway (1874-6)...	71	100	74	62	52	31	6
Berlin (1887-90)...	111	100	74	50	32	13	2
Average of seven countries	108	100	81	66	52	27	4

The method of correction adopted was to take certain standard fertility-rates, those of Sweden for 1891 being selected as the nearest approach to normal rates for each age-period, 15-20, 20-25, etc. These were applied to the number of wives at corresponding ages in the community whose corrected birth-rate was to be calculated, and the number of births which, according to the Swedish standard, would have occurred is thus calculated, and, the population of the community being known, its standard birth-rate is easily calculated. The standard birth-rate for England and Wales in 1901 having been similarly calculated, the factor of correction by which the local birth-rate needs to be multiplied to make it comparable with all other birth-rates similarly calculated is obtained by dividing the local standard into the English standard birth-rate. It will be noted that the above method does not correct for differences in duration of marriage, nor for differences in the age of husbands. The last cause of discrepancy can be ignored, as the average age of husbands has not increased more than one year in the period under comparison, and the former cause is not likely to be a considerable cause of discrepancy when, as in this paper, 1881 is compared with 1903.

Striking illustrations are given of the necessity for the corrected method, and of the fallacious inferences that may be drawn when it is not employed. It is evident that without such corrections three sources of variation and of incomparability are operating:

1. Differences in the compared populations of proportions of women aged 15 to 45.
2. Differences in the proportion of these who are married.
3. Differences in the ages of these married women.

France and Ireland give the best illustrations, and incidentally bring out the distinction between the "pathological" (J. Bertillon) birth-rate of the former and the almost purely physiological birth-rate of the latter. France has rather a larger number of wives aged 15 to 45 than England and Wales per 1,000 of total population; but its corrected legitimate birth-rate is 30 per cent. lower and its total corrected birth-rate 24 per cent. lower than that of England and Wales. Ireland, on the other hand, has a low crude birth-rate; but this becomes one of the highest in Europe when correction is made for the facts that only 76.5 per 1,000 of population, as compared with 117.0 in England and Wales, are wives at child-bearing ages, and that only 32.5 per cent. of the women aged 15 to 45 are married, as compared with 46.8 per cent. in England and Wales. Aberdeen is another striking illustration of the necessity for correction; its crude birth-rate in 1881 standing thirtieth down on the list of great towns, while when correction is made it heads the list.

APPLICATION OF THE METHOD.

Drs. Newsholme and Stevenson next give a comparison of the corrected experience of a large number of communities in 1881 and in 1903 respectively, the two periods being afterwards compared.

Experience of 1881.

The experience of Sweden in 1891 being stated as 100, in 1881 all the countries for which figures are available had a birth-rate not more than 7 per cent. below this standard, with the exception of France, where a decline in the birth-rate of 34.9 per cent. below the Swedish standard had already been produced. Taking English counties, Yorkshire, London, Herefordshire, and Worcestershire were over 10 per cent. below the standard. Several English towns were much further below the standard, especially Halifax, Hull, Huddersfield, and Bradford. The case of Berlin is also striking, its birth-rate being 19 per cent. below the standard, while Prussia as a whole was 4.7 per cent. above it. Kensington was 21.2 per cent. and Paris 52.9 per cent. below the standard.

Experience of 1903.

Among countries it is noteworthy that the corrected birth-rate of Victoria was 26.2 per cent., of New South Wales 29.5, and of New Zealand 18.5 per cent. below the standard; while that of England and Wales was 21.8 per cent. below, of Scotland 9.3 per cent. below, and of Ireland 1.9 per cent. above the standard. The number of English counties and towns far below the standard has now greatly increased. Oldham, 35.6 per cent. below the standard, is in marked contrast to Liverpool 15 per cent., and Salford 16.5 per cent. below, Halifax 43.7 per cent. below, and Bradford 40 per cent. below the standard, may be compared with Leeds 28.5 per cent. below and Hull 25.6 per cent. below the standard. Hampstead 45 per cent. below, Bournemouth 37 per cent. below, and Kensington and Paddington 35.9 per cent. below the standard bear company with the less aristocratic Halifax 43.7 per cent. below the standard. Hamburg 37.8 per cent. below and Berlin 46.8 per cent. below are to be contrasted with the German Empire 8.3 per cent. below and Prussia only 6.3 per cent. below the standard. Paris, 65.7 per cent. below the standard "stands in inglorious solitude."

Contrast of 1881 with 1903.

Ireland and all its divisions, alone among all the countries under comparison, show an increased fertility Such "are the wonders effected by a corrected statement although the crude legitimate birth-rate of Ireland in 1903 was 22.5, and that of England and Wales 27.3 pe

---

[1] London: Chatto and Windus. 1s. 6d.

1,000 of population." The low crude birth-rate of Ireland is owing in the main to the transfer of its population of child-bearing ages to America. Austria alone shows a stationary birth-rate. Norway shows a decrease of 5 per cent., Sweden and Italy of 7 per cent. The greatest decline of all is shown in New South Wales; Victoria, Belgium, and Saxony coming next, and then New Zealand. For towns the authors of the paper summarizes their results as follows:

> Dublin alone has improved its position. The other towns showing a decline under 10 per cent. have all, with the possible exception of Bethnal Green, a large proportion of Irish in their populations. Glasgow has reached in 1903 nearly to the level of Hull in 1881, Bethnal Green to the level of Manchester in 1881, Aberdeen to the level of Nottingham in 1881, Dundee and Newcastle-on-Tyne to the level of Bradford in 1881, Birmingham nearly to the level of Kensington in 1881, and London—and still more Leeds and Huddersfield—below the level of any town in 1881 except Paris.
>
> We may broadly say that Paris anticipated by many years the experience of other cities and towns, but that most other towns are pursuing the same course at varying intervals and with lagging or hastening pace. Many towns—for instance, Berlin, Bradford, Brighton, Halifax, Hampstead, Kensington, and Oldham—had already arranged in 1881 for a low birth-rate. The majority of towns have now started on the same course.

ILLEGITIMATE BIRTH-RATES.

It is noteworthy that with scarcely an exception the decline of the illegitimate is more than double that of the legitimate birth-rate, and the difference is commonly much greater than this. The authors remark that

> Whether the general and much greater decline in illegitimate than in legitimate births indicates a much higher code of morals, or the operation of artificial means of preventing conception to an even greater extent than in married life, or both of these, must necessarily be a subject of mere speculation.

AMERICAN EXPERIENCE.

In a postscript the authors add some remarkable facts lealing with recently-ascertained American experience. The statistics relating to Rhode Island and Providence, N.J., enable the corrected birth-rate to be given separately or those inhabitants born in the United States and those vho are foreign-born. Without going into these figures n detail, it suffices to say that the corrected birth-rate mong the native-born is lower than that of Paris, and hat, so far as the control of birth-rate is concerned, the osition of these parts of the United States—and there s no reason to believe it is worse than that of other astern States—is worse than that of Paris. The population of these parts of the United States is not being eplenished by native-born Americans but by foreigners om other countries, including among others French anadians.

CAUSES OF DECLINE OF BIRTH-RATE.

Industrial conditions and urbanization are shown to be sufficient to account for the great change in the birthte which has occurred, and it is doubtful if they are aterial factors in the problem. Religion influences directly, as in Roman Catholic countries preventive easures against child-bearing are banned. In this nnexion the constant birth-rate in Austria and the gh birth-rate among French Canadians are noteworthy. e declining birth-rate in France, and to a less extent Italy, is associated with diminution of orthodox ligious restraints. There is no evidence of differences race-fertility among civilized communities.

Social Condition and Poverty.

In different countries both in 1881 and 1903 no relationip appears between the degree of national prosperity d fertility, though there seems to be evidence that the illed artizan class are adding less to the population n the class of unskilled workers. On this question an eresting study is furnished of groups of metropolitan boroughs. Six groups are given, the boroughs being uped according to the number of domestic servants. the year 1903 four groups of boroughs, comprising 64.9 cent. of the total population of London, and having m 10 to 50 servants per 100 families, had a birth-rate ich only varied between 25.36 and 25.82. Besides these re are two other groups. The rich districts at one end he scale had a corrected total birth-rate of 20.45, and very poor districts at the other end of the scale had a rected birth-rate of 31.56 per 1,000 inhabitants. The former of these birth-rates affects 9.7 per cent., the latter 25.4 per cent. of the total population of London.

The above facts suggest the conclusion that among the rich in London the prevention of child-bearing is systematically and largely practised, that among the very poor the practice is almost unknown, and that the mass of the population which lies between these two social extremes occupies an intermediate position in regard to such preventive measures.

This is, indeed, the main conclusion of the writers, and there seems to be no room to doubt its substantial accuracy.

It is developed further in the following remarks:

> *"Social Suicide."*
>
> The decline of birth-rate is not due to increased poverty.
>
> It is associated with a general raising of the standard of comfort, and is an expression of the determination of the people to secure this greater comfort.
>
> It is not caused by the greater stress of modern life, but is a consequence of the greater desire for luxury. Possibly the raising of the age for leaving school, and allied changes as to work, have aided in producing the result, by preventing children from being an early source of profit.
>
> These and allied motives have made parents look round for the means of keeping their families within "prudent" limits. The gradual slackening of the religious restraints, which were formerly to a much greater extent associated with family life, have doubtless aided in making husbands and wives willing to utilize such preventive means as they have been able to discover. Increased education has helped in securing access to the necessary information, and the greater aggregation of populations in towns has supplied not only increased facilities for the communication of information on the subject, but also for the purchase of the necessary appliances. Many druggists make a large share of their income in this way.*
>
> A marked impetus in this direction was given in England by certain notorious trials. The special experience of towns like Halifax, Huddersfield, and Northampton implies, and is known to be associated with, a special local propaganda. What caused the earlier implication of France in this policy of short-sighted prudential selfishness it would be beyond the scope of this paper to discuss.
>
> The examples already given indicate that the "gospel of comfort" has been widely adopted, and that it is becoming the practical ethical standard of a rapidly increasing number of civilized communities, both in this country and abroad. Thus Halifax and Bradford began early. The selected rural counties in this country have now approximated to the urban counties. Prussia has not yet overtaken Berlin, but it is following its example. We have no hope that any nation—in the absence of strong and overwhelming moral influences to the contrary—will be permanently left behind in this race to decimate the race. We must look—failing the possibility indicated in the last sentence—for an increasing practice of the artificial prevention of child-bearing, which, whatever may be said for exceptional instances, is at least unjustified when used merely as a supposed means towards increased social comfort. And with this we must look for a lower standard of moral outlook, a lowering of the ideal of married life, and a consequent deterioration of the moral, if not also of the physical, nature of mankind. France has anticipated the rest of the world, and has thus come near the consummation of its social *felo-de-se.* But it is only a question of decades, in the absence of a great change in the moral standpoint of the majority of the people, before others follow in the same direction, possibly even at the same pace.

THE BEARING OF THE REDUCED BIRTH-RATE ON THE FUTURE WELFARE OF MANKIND.

This forms the subject of an interesting supplementary study. The fallacy of the contention that a high birth-rate implies a high infantile mortality is exposed.

> Although it is true that infantile mortality is usually highest in the districts having a very high birth-rate, this is probably due to the fact that such high birth-rates occur in communities of low social position, and that the facts connoted by social position, and not the high birth-rate, are the cause of the high infantile mortality. With the decreasing birth-rate in England and Wales, there has been no reduction of infantile mortality.

It is pointed out that the contribution to the future population is not directly proportional to the birth-rate, but is the balance of the birth-rate over the death-rate. When correction is made for this fact, the supposed excessive replenishment of the population from the lower strata of society in a higher proportion than formerly is much reduced.

---

* See p. 15 of Report of New South Wales Royal Commission.

THE German Association of Scientists and Medical Practitioners will hold its 78th annual meeting this year at Stuttgart, September 16th to 22nd.

LITERARY NOTES.

Messrs. William Green and Sons, of Edinburgh and London, announce the forthcoming appearance of *Green's Encyclopaedia and Dictionary of Surgery*, to be published in ten volumes, the first of which will be issued in April, and the rest at regular intervals, the whole being completed within two years. The Editor-in-Chief is Dr. J. W. Ballantyne, author of *Antenatal Pathology* and of many contributions to obstetric and gynaecological literature. Among the contributors are Sir Lauder Brunton, Sir Patrick Manson, Sir Felix Semon, Sir John William Moore, Mr. Arthur Barker, Mr. George A. Berry, Mr. Bland-Sutton, Dr. Byrom Bramwell, Professor Sir J. Halliday Croom, Professor Saundby, Professor Osler, Professor Ogston, Professor Burney Yeo, Professor John Chiene, Dr. Herman, Dr. Clouston, Dr. Radcliffe Crocker, Dr. Dawson Williams, Dr. H. P. Hawkins, Dr. Mercier, Dr. Newsholme, Dr. Mott and Dr. Ford Robertson. So comprehensive, indeed, is the list that it may be said that on any given eminent member of the profession there lies the *onus probandi* that he is not a contributor. A publication which may be taken to embody the work of the best brains devoted to the furtherance of medical science in this country is sure to be of the highest value to the practitioner. We cannot help, however, looking upon the intrusion of the publisher's name into the title as contrary to the fitness of things and as likely to be a source of confusion. In the prospectus it is stated that the work is the outcome of the experience gained in the preparation of the *Encyclopaedia Medica*, which is said to be to a large extent incorporated in the new encyclopaedia. The work is offered at a special subscription rate of 10s. 6d. a volume to all who send orders before February 28th; after that date the price will be 15s.

The *Chronique Médicale* of January 15th publishes a pathetic letter written by Michael Servet from the prison into which John Calvin had thrown him to the Council of Geneva. It is to the following effect:

> Magnificent Segniors,
>
> For fully three weeks now I have wished and asked for an audience which I have never succeeded in obtaining. I entreat you, for the love of Jesus Christ, do not deny me that which you would not refuse to a Turk who should ask justice of you. . . .
>
> As to that which you ordered, that something should be done to keep me clean, nothing has been done, and I am filthier than ever. He [to wit Calvin] wishes me to rot here. I am eaten alive by lice, my hose are torn and I have no others; I have no doublet, and but one shirt and that a bad one. Moreover, the cold vexes me sorely, on account of my colic and my rupture, which last causes me other miseries I am ashamed to write about.
>
> Given at your prisons of Geneva, October X, 1553.
>
> Michael Servetus.

The reply to this letter was an order that the writer, who suffered so much from cold, should be burnt at the stake. This order was carried out on October 26th.

"Injection" writes:

> In your issue of December 23rd there is an article on "Problems of Pronunciation," in which your contributor instances the word enema as a common difficulty; he continues that it is a good Greek word, with an epsilon in the second syllable, and that the pronunciation is enĕma. As far as I can recollect, this pronunciation came in with the certificated teacher and nurse, who brought with them also the expressions, *hot* the water and *bath* the patient. Certainly in my early days the use of the long "e" in the second syllable of enema was universal, and I find as far back as 1775 Bailey's dictionary gives the pronunciation as enēma. *Quain's Dictionary of Medicine* gives the derivation from εν-ίημι, to send in or to throw in. On turning to "Liddell and Scott," the only relic of my Greek at school, I fail to find any possible word with the "e" except εν-εμεω, to vomit in. Of course, if this is the manner in which your contributor administers a clyster, his pronunciation is right; personally I prefer the older practice and pronunciation.

Our correspondent has a pretty wit, but, like Prince Hal, he has "most unsavoury comparisons." It is a pity his wit should be wasted on such a hopeless subject. If he will look again at Liddell and Scott, he will find ἔνεμα, with a reference to Dioscorides, who, as a Greek writer on therapeutics, probably knew how the word was pronounced. If, further, he will look at the *New English Dictionary* edited by Murray and Bradley, *sub voce*, he will find that enĕma is given as the "normal pronunciation." It is added that "the incorrect form is in very general use." Therefore any one who finds it in any way soothing to his feelings to say enēma can use the liberty of a freeborn Briton and refuse to be bound by the authority of the Greeks. The whole point of our note was that in the matter of pronunciation the only rule that can be laid down is to shout with the crowd. It will be well, however, to make sure that one is with the right crowd. In connexion with this subject, we may be allowed to express some wonder at the wrath which is aroused by the question of the pronunciation of enema. Many years ago the readers of the British Medical Journal had the opportunity of reading "great argument about it and about." So strongly was the philological sense of some of our correspondents offended by enĕma that more than one hinted that the Greeks did not know how to pronounce their own tongue. No doubt our English pronunciation, could they but hear it, would astonish them.

Dr. H. Dor (Lyons) writes:

> In your No. 2349, January 6th, 1906, I read, p. 33, a letter of an anonymous correspondent about the "International Medical Congress," where he states that the international Congresses are a new edition of the story of the Tower of Babel. Having been present at many such Congresses—Moscow, Paris, Madrid, etc.—I quite agree with him about this point, but he is in a great error about Esperanto, which in his own words "is as troublesome for ordinary Englishmen to learn as French, and when learnt nothing has been acquired but a mixed 'pigeon' jargon, without a literature, and without any of the associations of a human speech that has been naturally evolved."
>
> Your correspondent speaks about Esperanto as a blind man about colours. If he had tried to study it he would have seen that an ordinary Englishman can master Esperanto in three months, while he will take three years to learn French. After three months' study he would know that Esperanto has already a widespread literature, an *Internacia Scienca Revue* and an *Internacia Revue Medicina*.
>
> If he had been present last August at the Boulogne Esperanto Congress he would have stated that 1,500 persons of eighteen different national languages could understand each other without the least difficulty, and speak *de omni scibili*. Indeed, it was the *first* International Congress where everybody understood his neighbour, as well Russian as English, Norwegians, Swedish, Germans, Italians, Poles, Canadians, Spaniards, as French, etc. I beg you then, dear sir, to give your correspondent advice to study Esperanto, and in three months he is sure to change his mind altogether.

Dr. Dor is clearly an enthusiast. It would be interesting to know how far "the 1,500 persons of eighteen different national languages" really did understand each other, if anything like actual debate was attempted. The difficulty of national accent must make itself felt in Esperanto at least as much as in speaking a natural tongue; and we are not surprised to learn from the *Times* that, at a meeting of the London Esperanto Club, held on January 22nd, "the contrast of Esperanto as spoken by a person accustomed to a Romance language and by the ordinary English person" was striking. It is curious to note by the way that the chairman at that meeting, Mr. W. T. Stead, one of the most ardent advocates of Esperanto in this country, had to speak in English because he has not learnt the artificial tongue. We are quite willing to believe that Esperanto will be useful as a means of commercial intercourse, exactly as are the *lingua franca* of the Levant and the pigeon English of the Chinese ports. We are quite aware that one or two journals are published in Esperanto: but that a countryman of Racine, Bossuet and Voltaire should call these things "literature" seems to show that when a man is eaten up with Esperantist zeal he is capable of anything.

La Médecine Sociale is the title of a new French journal founded and conducted by Dr. Paul Berthod. Its aim is the redress of medical grievances of every kind. We wish it success in its public-spirited enterprise.

A book by Dr. de Prenderville, entitled *Anaesthetic Technique for Operations on the Nose and Throat*, will shortly be published by Mr. H. J. Glaisher.

The St. Bride's Press will publish, on February 19th, a work entitled *Crematoria in Great Britain and Abroad*, by Albert C. Freeman. The author, an architect who has made a close study of this subject, has collected a considerable amount of information, and he gives seventy practical illustrations of crematoriums, columbariums, and cremating furnaces in use in different parts of the world.

TORONTO
from the harbour.

THE SEVENTY-FOURTH ANNUAL MEETING OF THE British Medical Association,

TORONTO, CANADA, AUGUST 21st to 25th, 1906.

[FROM OUR SPECIAL CORRESPONDENT.]

TORONTO, which has been chosen as the meeting-place of the British Medical Association for 1906, is situated on the bay of the same name on the north shore of Lake Ontario, about 330 miles west of Montreal, the head of ocean navigation. It is in latitude 43.39°, about the same as Marseilles. It is the capital of the province of Ontario, and has a population of over 262,000.

HISTORY AND SITUATION OF TORONTO.

"When civilization first invaded the sanctuaries of Nature in the region of what is now the fair city of Toronto," then known to the Indians as "Otoronton," "the startled onlookers were a flock of wild fowl and a couple of families of the Children of the Wood. At the time we speak of, in the beautiful basin of Toronto Harbour, if we except the noiseless movements during the hours of day of one or two Mississaga Indians, solitude reigned supreme. When the sun went down even Nature became still. As night fell upon the scene the pines ceased their moaning, and nought was heard save the occasional splash of beaver or musquash in the waters of the forest-screened harbour, or the cry of the wood duck as it took flight for its evening haunt in the recesses of the woods. But the year 1793, which we are accustomed to speak of as that of the founding of the capital of Ontario, was what may be called the mediaeval era in Toronto's annals, for the place had an earlier history. This history is spread over the fateful period of the dominion of France in Canada, in connexion with her commerce with the Indians and with the thrilling story of the Jesuit missions.

"The early years of the seventeenth century were big with enterprise and fruitful of results for the American Continent. From the French colony at Quebec came the first attempt to penetrate the continent.

"New York State at this period was the lair of the Iroquois, while Canada, in the main, was the hunting-ground of the Algonquins and Hurons. The Algonquins were scattered along the banks of the St. Lawrence and the Ottawa, while the home of the Hurons or Wyandots was the country lying immediately to the north of Toronto and skirting the waters of the lake that bears their name. Between the Hurons and their deadly enemy, the Iroquois, lay the Neutrals, a nation that, with the Huron tribe, the confederacy of the Iroquois was ere long to wipe out of existence."[1]

The natural situation of the city is both advantageous and beautiful, stretching in a crescent around the bay for a distance of seven miles, with a continuous waterfront; the ground behind rises in a gentle slope to the old bank of the lake about three miles. This bank rises to a considerable height, and is the site of many beautiful residences, while it approaches the present lakefront to the east and west of the city.

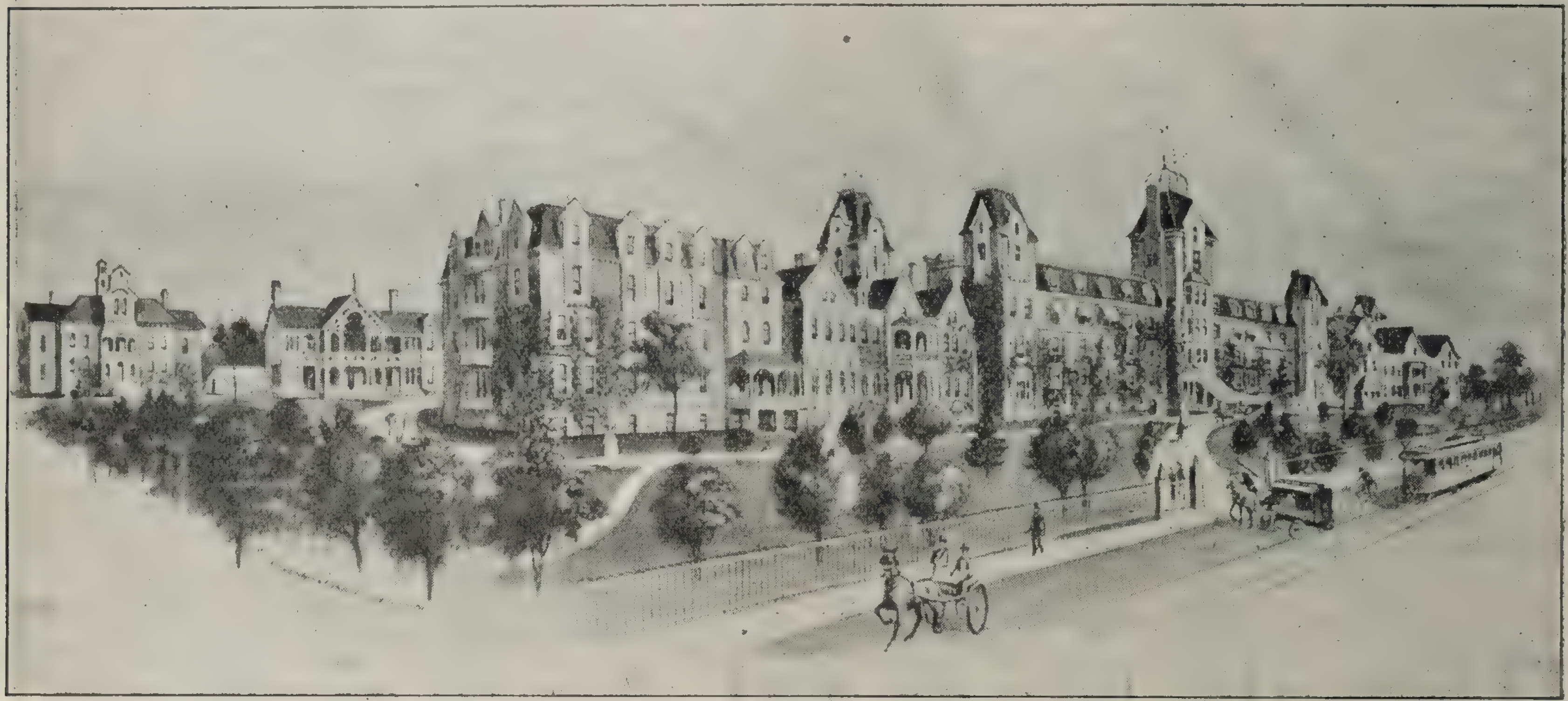
Across the south of the bay stretches the island, a low sandy bar, separated from the shore at either end by channels for navigation, and forming at once a perfect shelter for the harbour and a convenient summer resort for the populace. To the west is the Humber River, once the trading route to the north, now a favourite boating place; to the east the Don is the site of numerous factories. The soil is sandy loam on a rocky bed, and with the fall to the waterfront simplifies the problems of sewage and waterworks. The shore is lined with docks and skirted by the railway lines, the business part of the city is in the south, while all the northern part is residential.

For the most part the streets cut one another at right angles, and run east and west from Yonge Street, the old road laid out by Governor Simcoe from Lake Ontario to Lake Simcoe, and on this account it is an easy matter for the visitor to find his way about. The pavements are of solid brick or asphalt on the majority of the streets, and the electric car service is both efficient and cheap. Perhaps the features that are most distinctive of Toronto are the great number of beautiful shade trees and the multitude of homes; the people of all classes live in separate houses, and the visitor from the Old Land or the United States is struck by the absence of the apartment and the tenement. The houses are of red brick mostly, of a bright modern architecture, and invariably possess at least a small lawn in front and some space in the rear, giving the general impression of abundance of light and air. There is no foreign element, no considerable pauper class, and the standard of intelligence and comfort is probably higher than in any city of equal size in the world. The inhabitants are largely descendants of British ancestors, and have always been marked by an intense loyalty and a devotion to education and religion.

---

[1] *Toronto Old and New.* G. Mercer Adams.

Toronto has in recent years become of importance commercially as the distributing centre for the rich province of Ontario, of which it is the capital. It contains 1,200 manufacturing establishments, and the value of their output amounts to $90,000,000 per annum. It is a railway centre for most of the Canadian systems, and has connexion with two of the largest American lines, while in the season of navigation it is a busy port for both freight and passenger traffic. Its proximity to the lake has the effect of moderating the climate, which is not severe. The summers are so pleasant that many visitors from the south are attracted; while the winters, with three months of snow, give opportunity for all winter sports.



Toronto General Hospital.

University of Toronto, Main Building.

HOSPITALS AND ASYLUMS.

Toronto is well supplied with eleemosynary institutions; among them are the following:

The Toronto General Hospital, situated in the eastern part of the city with accommodation for 425 beds. This is soon to be replaced by a new and up-to-date hospital in the centre of the city at an expense of $2,000,000.

St. Michael's Hospital, situated in the southern part of the city near Yonge Street, provides 180 beds. It is a general hospital under the care of a Catholic order. A large addition to this building is under consideration.

Victoria Hospital for Sick Children, in College Street, near the University, has 160 beds for the medical and surgical treatment of children. It owns also the beautiful Lakeside Home on Toronto Island at the lake shore, to which the inmates are removed in the summer months. This institution owes in large part its success and prosperity to the generous care of Mr. John Ross Robertson.

At the Emergency Branch of the General Hospital in Fay Street, near the factory districts, many accident cases are treated every day. It contains 24 beds.

The isolation hospital on the east bank of the Don river, intended for the care of cases of scarlet fever and diphtheria, has 120 beds. There is also a small-pox hospital. Clinical teaching is given in all these hospitals.

Grace Hospital, on College Street West, a combined "allopathic" and homoeopathic hospital, has 110 beds, and the finest operating room in the city, the gift of Sir Henry Pellatt.

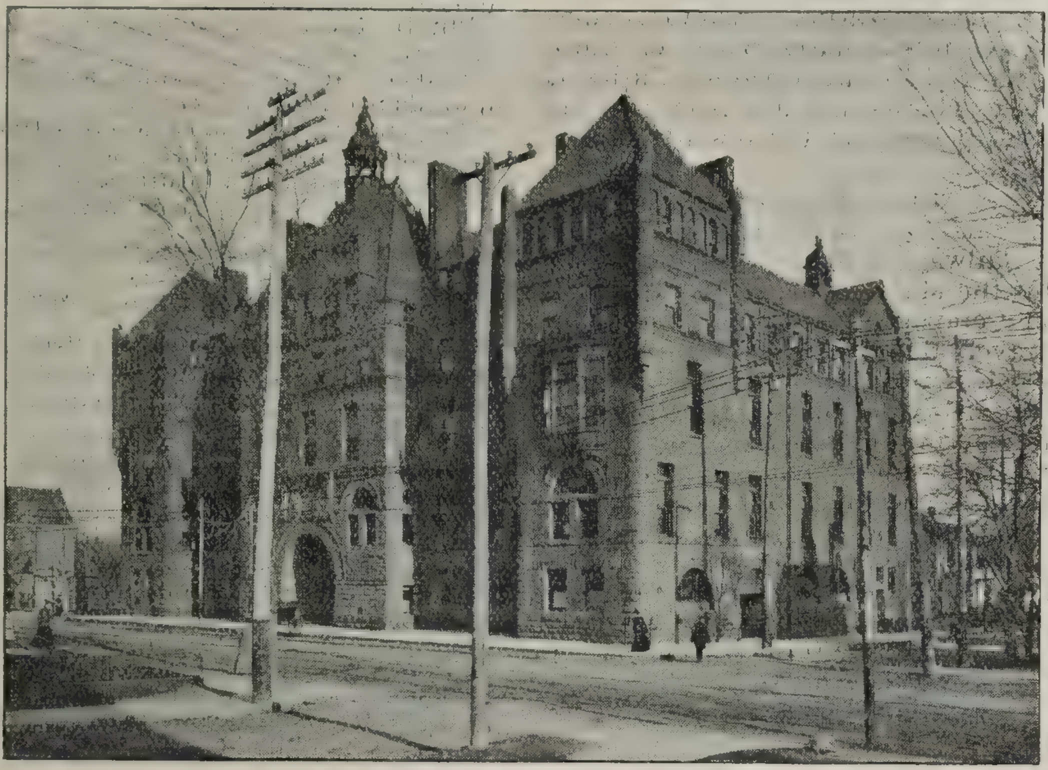
The Western Hospital, on Bathurst Street, serves the western part of the city, and has 120 beds.

St. John's, a hospital for women, in the western part of the city, is under the charge of an Anglican Sisterhood.

A suburban hospital for the treatment of advanced cases of pulmonary tuberculosis is situated at Weston.

There is also an orthopaedic hospital, a large home for incurables, a home for incurable children, a convalescent home, besides many other charities which minister to the needy and suffering.

The asylums are provincial institutions; one is situated in the city and one at Mimico to the west; these are for the care of those mentally affected. There is also the Mercer Reformatory for Women and the House of Providence, situated in the city. All of these come more or less directly within the interest of the profession.



Hospital for Sick Children, Toronto.

THE UNIVERSITY BUILDINGS.

The University buildings are always a feature of interest to visitors, the central building being recognized as the best specimen of Norman architecture and one of the most beautiful buildings in America. The Library is a very fine building of stone. Other buildings in the group are the Medical Building, which merits a more extended notice; the two Applied Science buildings; the Biological Building; the Chemical Laboratory, an up-to-date building on the German model; the Convocation Hall, approaching completion; the Gymnasium and Students' Union, Wycliffe College, McMaster College, the Baptist University, and Victoria (the Methodist) College. All these are situated in relation to Queen's Park, and make a very complete group of fine edifices.

Lakeside Home for Little Children, Toronto Island.

PARKS.

The city of Toronto is well supplied with parks and playgrounds. Right in the centre is Queen's Park, in which is placed the Parliament buildings for the Province of Ontario, while around it are grouped the buildings of the University, so that the meetings of the Association will be held in proximity to it.

Across the bay, distant about two miles from the water front, is Toronto Island, which is largely given up to park purposes, and is reached by a ferry service which daily carries thousands to enjoy the lake breezes. To the west is High Park, a large wooded park in which the trees are the natural growth of the forest; while further west is the Humber River, a favourite boating resort. In the east are the Allen Gardens, Riverdale Park, with the City Menagerie, and, further on the outskirts of the city, Victoria Park and Munro Park. To the north are the Rosedale ravines, forming beautiful drives, and Reservoir Park, where the City Reservoir is situated.

THE TORONTO EXHIBITION.

The Toronto Exhibition—or, as it is properly denominated, the Canadian National Exposition—opens on August 26th for two weeks, and is the greatest annual exposition in the world. The Manager is Dr. Orr, and those visitors who can stay over for it will be amply repaid by the insight they will receive into the resources, industries and productions of Canada; they will have, too, an opportunity of seeing the people of Canada at close range, for this fair brings together as many as 116,000 in a day.

RESORTS IN AND ABOUT TORONTO.

Already for the day following the closing of the meeting a choice of two trips is arranged—one through the Muskoka Lakes, the playground of North America, leaving Toronto by special train at 8 a.m. to Gravenhurst, and thence by the steamers of the Muskoka Navigation Company through the Lakes, with luncheon at the Royal Muskoka Hotel, returning by train at night; the other, by the kindness of Sir Henry Mill Pellatt, will take the form of an excursion by boat to Port Dalhousie, and thence by electric line to Niagara, through the fruit garden of Ontario. At Niagara the visitors will be the guests of the Electric Development Company, and will have an opportunity of inspecting the powerful machinery by which the cataract is harnessed for the service of cities far and near. This excursion is for gentlemen, but a similar one will be arranged by the Committee for the ladies.

Other short trips may be made to Hamilton, about two hours' sail on the speedy *Turbinia*, or other vessels, to Rochester across the lake, to various ports on Lake Ontario, including the trip through the Thousand Islands, or, if time permits after the meetings, to the Georgian Bay, Lake Simcoe, the Kawartha Lakes, or the great new Tamagami resort.

For those who are devotees of the game of golf the links of the Toronto, Lambton, Rosedale, and Hunt Club will be available, and they will find plenty of willing partners among the profession on that side of the sea. The Royal Canadian Yacht Club, the finest sailing club on fresh water, at its beautiful new home on Toronto Island, will welcome those inclined to aquatics, as will also the Argonaut Rowing Club, the Toronto Canoe Club, and other aquatic clubs. There are many bowling-green clubs, whose members will be glad to entertain those who favour this form of sport; tennis and polo may be had by those so inclined.

How to Reach Toronto.

The arrangements for steamship travel, as described in another section, permit of the traveller varying his route on the return trip from that taken in travelling west; for those desiring to do so, we should recommend that they come by the Montreal route and return by New York or Boston, on account of the rather vexatious Customs regulations and examination at United States ports for those entering the country. While there are Customs duties at Canadian ports, the regulations are not so strict, nor the examination annoying or expensive as it frequently proves to be at American ports.

The traveller landing at Montreal has a choice of routes in reaching Toronto. He may travel by rail all the way by the Canadian Pacific Railway or Grand Trunk, or river and lake all the way by the steamships of the Richilieu and Ontario Navigation Company, or partly by rail and partly by boat. The traveller who disembarks at Quebec may go to Montreal by boat—a night trip of twelve hours—or by C.P.R., G.T.R., or Intercolonial Railways. The time by boat from Montreal to Toronto is about forty hours, but the boats are large and finely equipped, and the scenery of the St. Lawrence and the Thousand Islands most interesting. The time by train is about nine hours, and may be made very comfortably at night.

Those electing to come by New York should travel by the New York Central. This is one of the best American lines, and will run through sleeping or parlour car to Toronto. The time is about fourteen hours.

Railway Rates.

The Committee in charge of this department are glad to be able to announce that they have received a most favourable rate from the Canadian Railway Companies for their visitors from abroad. For transportation in Canada the rate will be half fare—about three farthings a mile—both to the meeting and for any side trips that may be undertaken. This rate will also apply over the New York Central from Toronto to New York, so that those coming or going by that route will have the advantage of it. Pullman accommodation will be extra.

Accommodation.

The Committee in charge of this matter can assure visitors to the city that they will experience no difficulty in securing suitable accommodation at rates that will recommend themselves by their reasonableness. For many the problem will be solved by the well-known hospitality of the Toronto people, who will open their homes to their friends from abroad, but sufficient room has been assured apart from this. At least three, and possibly four, large residence college buildings, whose ordinary student occupants are at the time absent on vacation, will be at the disposal of the Committee: Annesley Hall, the residence of the women students attending Victoria University; Queen's Hall, the residence of the women students of University College; and Wycliffe College, the Anglican College. All of these are situated about the University grounds, within a few minutes' walk of the buildings where the meetings of the various sections will be held. The dining-hall of the University will be open, and in it meals will be obtainable without the necessity of leaving the central building, but restaurants and hotels may easily be reached by car in a few minutes. Apart from this, the city is a favourite summer resort, and a city of students, who are at that time mostly absent on vacation, is especially well supplied with boarding and lodging houses and hotels. A list of the latter, with the number of rooms and their rates, is appended. Visitors desiring to secure accommodation at the hotels would be wise to secure rooms some time in advance, as at the time of the year when the meeting takes place they are usually well filled, but no one need have any fear of being unable to secure satisfactory accommodation in Toronto. For those contemplating any stay in Quebec, it is recommended that they secure in advance accommodation at the Chateau Frontenac, one of the most delightful hotels in the world, and in Montreal at the Windsor, Place Viger, St. Lawrence Hall, or Queen's Hotels.

Toronto Hotels.

Among the principal hotels are the following:

King Edward Hotel.—Accommodation, 700; rates, $3.50 per day American plan, $1.50 per day and upwards European plan.

Queen's Hotel.—Accommodation, 300; rates, $3.00 and upwards American plan.

Rossin House.—Accommodation, 400; rates, $2.50 per day and upwards American plan.

Arlington Hotel.—Accommodation, 50; rates, $2.00 and upwards American plan.

Elliott House.—Accommodation, 150; rates, $2.00 per day American plan.

Walker House.—Accommodation, 225; rates, $2.00 and upwards per day American plan.

There are a great many hotels with accommodation equal to those mentioned, but these are the best known; a fuller list will be published in a future issue.

(To be Continued.)

THE INTERNATIONAL MEDICAL CONGRESS.

From an official circular, we learn that addresses at the general meetings of the Fifteenth International Medical Congress to be held at Lisbon on April 20th, 21st, 23rd, 24th, and 25th will be delivered as follows:

Sir Patrick Manson, on a subject not yet communicated; Professor Brissaud (Paris), on infantilism; Dr. José Maria Esquerdo (Madrid), on a subject not yet communicated; Dr. P. Aaser (Christiania), on the relations of acute infectious diseases with tuberculosis; Professor Azevedo Sodre (Rio de Janeiro), on the pathology of tropical regions; Professor Neumann (Vienna), on the anatomical causes of syphilitic relapses and the methods to be followed in dealing with them; Professor Prince John Tarchanoff (St. Petersburg), on radium in biology and in medicine, or on the organotherapy of our day; Professor Reclus (Paris), on local anaesthetics; and Professor E. von Bergmann (Berlin), on the problems of modern surgery.

Of 233 communications promised to the various sections 84 have reached the office of the General Secretary, and are now in the hands of the printers. The Executive Committee has decided to extend the limit of time within which notice of scientific communications intended for presentation to the Congress will be received from March 1st to March 15th. The titles of papers, with an abstract in English, French, or German, must be addressed to the General Secretary of the Congress, Professor Miguel Bombarda, Nova Escola Medica, Lisbon.

Congress of Physiotherapy.—A meeting was held at Brussels on December 26th, 1905, for the purpose of choosing a place of meeting for the next congress of physiotherapy, and arranging a programme. Among the places proposed were London, Vienna, Brussels, and Amsterdam; the feeling of the meeting was in favour of the last named of these cities. It was decided that a permanent international committee should be formed, and that each country should form a national committee. The following were proposed as honorary members of the international committee: Professor von Winiwater (Liége), Dr. V. Desguin (Antwerp), Professor Gilbert (Paris), Professor Gariel (Paris), Professor von Leyden (Berlin), Professor Baccelli (Rome), Dr. Van Isselt (Utrecht), Dr. Zander (Stockholm), and Professor Landouzy (Paris). Among the ordinary members are: Dr. Lewis Jones and Mr. Dean Butcher (London), representing Great Britain; Drs. Le Marinel (Brussels), De Munter (Liége) and Gunzbourg (Antwerp), representing Belgium; Professor Bergonié (Bordeaux) and Dr. Oudin (Paris), representing France; Professors Lassar and Zabludowsky (Berlin), representing Germany; Professor Winternitz (Vienna) and Dr. Haskovec (Prague), representing Austria; Professor Bechterew (St. Petersburg), representing Russia; Professor Colombo (Rome), representing Italy; Professor Andronescu (Bucharest), representing Roumania; Dr. Thor Stenbeck (Stockholm), representing Sweden; Professor Israel Rosenthal (Copenhagen), representing Denmark; Drs. Francis B. Bishop and Benham Snow (New York), representing the United States; Professors Alfred de Brito (Bahia) and Xavier (San Paulo), representing South America; Dr. Donath (Buda Pesth), representing Hungary; Dr. Espina y Capo (Madrid), representing Spain; Dr. Machado (Lisbon), representing Portugal; Dr. Scholder (Lausanne), representing Switzerland; Dr. Leclère (Dudelanje), representing the Grand Duchy of Luxemburg; Professor Savas (Athens), representing Greece; Professor Wenckebach (Groningen) and Professor Wertheim-Salomonson (Amsterdam), representing Holland; and Dr. Balsamoff (Sofia), representing Bulgaria.

THE ACTUAL LENGTH OF THE MEDICAL CURRICULUM IN ENGLAND.

The following interesting report, dated January 4th, 1906, was presented at the last meeting of the Royal College of Physicians of London by the Committee of Management of the Conjoint Examining Board in England, consisting of Dr. Frederick Taylor (Chairman), Dr. Norman Moore, Dr. Edward Liveing (Registrar of the Royal College of Physicians), Mr. John Langton, Mr. Edmund Owen, Mr. R. J. Godlee.

Report.

The following resolution of the Council of the Royal College of Surgeons was referred to the Committee of Management on May 11th, 1905, for consideration and report:

> That it be referred to the Committee of Management to consider and report as to the desirability of treating chemistry, physics, and biology as subjects of preliminary education, and of requiring that an examination in them should be passed before the recognition of the commencement of medical studies, and to further report as to the desirability of the two Colleges approaching the University and other examining bodies with a view to adopting a five years' curriculum of professional study from the date of passing the Preliminary Science Examination.

The Committee of Management have examined the changes in the curriculum and regulations for the examinations of the Conjoint Board which have been made in recent years, as well as some of the discussions which have taken place on the subjects involved, and have also considered the information to be obtained from the statistics of the examinations.

The Committee are unanimously of opinion:

1. That it is undesirable to treat chemistry, physics, and biology as subjects of preliminary education.
2. That it is undesirable to require an examination in chemistry, physics, and biology to be passed before the recognition of the commencement of medical studies.
3. That it is therefore undesirable that the Royal Colleges should approach the universities and other examining bodies with a view to adopting a five-years' curriculum of professional study from the date of passing the Preliminary Science Examination.

I. *That it is undesirable to treat Chemistry, Physics, and Biology as Subjects of Preliminary Education.*

The Committee are of opinion that the separation of the early studies from the purely medical curriculum has been sufficiently promoted by the Royal Colleges, in their recognition of instruction in preliminary science in non-medical schools having competent teachers and adequate equipment. More time is required to see how the existing curriculum, with the modifications introduced in June, 1904, will work; and in their judgement it would be unwise to make further changes at the present time.

In support of this position they desire to draw attention to the following clauses of the existing regulations:

> (III.) Chemistry, Physics, and Biology must be studied at a medical school or other institution recognized by the Examining Board in England.
>
> The certificates must state that the candidate has attended not less than 180 hours' instruction and laboratory work in chemistry; 120 hours' instruction and laboratory work in Physics; and 120 hours' instruction and laboratory work in Biology. These courses need not be completed within one year, nor need they run concurrently, and they may be commenced or attended before the candidate passes the required Preliminary Examination in General Education.
>
> (IV.) Six months' instruction at a recognized institution other than a medical school will be counted as part of the curriculum of professional study if such attendance is subsequent to the date of passing the required Preliminary Examination in General Education.
>
> (VII.) A candidate may present himself for the First Professional Examination immediately after passing the Preliminary Examination in General Education, provided he is able to produce the certificates required by paragraph II.
>
> (Paragraph II requires that before admission to the First Professional Examination a candidate must produce evidence of having received instruction in chemistry, physics, and biology.)

Thus a student who has passed the First Professional Examination before entrance at a medical school, but who cannot claim that six months of his work at a recognized institution were subsequent to the Preliminary Examination in General Education (Reg. IV), will under the existing regulations—which came into force June 1st, 1904—have five clear years for his subsequent studies in anatomy, physiology, medicine, surgery, and midwifery.

If his work at a recognized institution comes under Regulation IV, he then will have four and a half years for those studies.

Of 95 institutions (other than medical schools and universities) recognized by the Royal Colleges as places of study in science, 35 have been recognized for biology, chemistry, and physics, and the remaining 60 for chemistry and physics only.

When the number of institutions which can be recognized becomes sufficiently large, most students will probably complete the preliminary science education before entering at a medical school. To encourage this has been the endeavour of the Royal Colleges for several years. The Royal Colleges have thus done much for the improvement of scientific teaching in public schools and other institutions, and have at the same time provided for the increase of the part of the five years to be spent in anatomy, physiology, medicine, surgery, and midwifery.

The Royal Colleges have further influenced the proportion of time to be given to the professional studies by their regulation that anatomy and physiology shall not be studied till after the examination in chemistry, physics, and biology is passed.

The opportunity of adding to the time spent by each student in anatomy, physiology, medicine, surgery, and midwifery would be largely increased by omitting biology from the curriculum; but the Committee have not thought it expedient to make any recommendation on this subject, as the Royal Colleges in 1903, after full discussion, decided to retain biology in the curriculum.

II. *That it is undesirable to require an Examination in Chemistry, Physics, and Biology to be passed before the Recognition of the Commencement of Medical Studies.*

The Committee would point out that whatever the subjects of the preliminary science study, it is in the highest degree important that the Royal Colleges should retain those subjects in their curriculum. The Royal Colleges can estimate better than any non-professional authority the amount of knowledge of such subjects which ought to be required from medical students.

The Committee have already dealt very fully with this subject in a memorandum attached to their report dated March 19th, 1900. In that report a concise history was given of the changes in the regulations of the Royal Colleges, adopted (*a*) with a view to the encouragement of the teaching of science in secondary schools, (*b*) with the object of encouraging students to pass the examination in chemistry, physics, and biology as early as possible in order to give more time to the strictly professional subjects. It was shown (1) that a regulation allowing students to study these subjects before passing the Preliminary Examination had failed because the time so spent did not count as part of the five years' curriculum; (2) that "the introduction of the five years' curriculum, while it imposed another year of instruction, with the view especially of giving more time for the later and more practical parts of professional education, imposed also new burdens by extending the range of the previous subjects and adding fresh ones, increasing the number of examinations and raising the standard of attainment, thus going far to neutralize the avowed object of the additional year"; (3) that "there was a real danger that, for all but the ablest men, the course would drift into a six years' one from registration, as the four years' one had drifted into a five, and the burden fall too heavily on the parents"; (4) that "one of the means least open to objection for relieving this tension would be to encourage the study of physics and chemistry, with or without elementary biology, during the later years of school life—say from the age of 16 to 17 or 18 and before entering at a medical school"; and (5) that "the time then seemed approaching when chemistry, physics, and biology should be treated as matters of preliminary education, following grammar, literature, and mathematics; and that an examination should be passed in them before the commencement of medical studies."

The Committee would remark that the second statement holds good; that the prediction (3) has been verified, as shown by statistics to be mentioned presently;

that the Royal Colleges have promoted the scheme outlined in (4); and that with regard to the statement (5), while still in agreement with it, this report shows that the time has not yet arrived for the adoption of such a course.

In order to afford the Royal Colleges full information on the subject, tables have been prepared showing the average period of professional study now spent by students under regulations which nominally require a five years' curriculum only.

The regulations in force up to June 1st, 1904, required that there should be an interval of nine months (a winter and a summer session) between the First and Second Examinations, and an interval of two years (two winter and two summer sessions) between the Second and the Final Examinations, and an interval of four years (four winter and four summer sessions) between the First and the Final Examinations.

Under these regulations it was thought that the student of average ability who commenced his professional study on October 1st should complete his First Examination in the following July, and his Second Examination in the July of his second year. He would then have three years in which to complete the work for the Final Examination.

It is found, however, that a large number of students take from one full year to one year and a half to complete the First Examination, so that it is passed in the January or April of the second year. In consequence, the Second Examination is postponed to January or April of the third year, thus leaving little over two years for the work of the Final Examination. If, again, candidates fail at the Second Examination, the Final Examination is for this reason postponed.

The following table shows the average percentage of rejections in the several subjects during the last five years (omitting practical pharmacy), which may be taken at any time of the curriculum, namely:

	Average Percentage of Rejections.
First Examination.	
Chemistry and Physics... ...	44
Elementary Biology	34
Second Examination.	
Anatomy and Physiology ...	38
Final Examination.	
Medicine	39
Surgery	44
Midwifery	32

Analysis of the curriculum, as followed by 400 students who obtained their diplomas in the last two years, of whom 271 were Conjoint students throughout, and 129 were University students, furnishes the following tables:

IV.—*Percentage Table showing the Duration of Study from the commencement of Anatomy and Physiology to entrance to the Examination in Medicine or Surgery.*

	4 Years.	4½ to 5 Years.	Over 5 Years.
Conjoint Students ...	19.55	53.14	27.31
University Students ...	13.69	52.05	34.25
	18.31	52.91	28.78

Table I shows that only 28.5 per cent. of students obtain their diplomas in less than six years, whilst 71.5 per cent. take six years and upwards to qualify. Of these, 37 per cent., representing probably the average students (columns 5, 6, and 7), take from six to seven years.

Table II shows that, although the regulations require an interval of not more than two years between the Second and the Final Examinations, only 13 per cent. present themselves so early, whilst 65.25 per cent. take from two and a quarter to 3 years to enter (columns 2, 3, 4, and 5).

Comparison of Tables Nos. II and III shows that whilst 56 per cent. enter for the Final Examination in less than three years from the date of passing the Second Examination, not more than 20 per cent. complete the examination and obtain their diplomas in that period.

The significance of Table No. III must be emphasized; for it is an important fact, in considering the working of the present curriculum, that only 20 per cent. of students complete the Final Examination in under three years from the Second Examination, whilst no less than 80 per cent. require three years and over to complete the examination and obtain the diplomas.

Again, the Table No. IV is evidence of the period of study taken by students for the Second and Final Examinations alone, to which must be added, under the new regulations which came into force on June 1st, 1904, at least another year or eighteen months.

It should be stated that, although these tables relate only to the examinations of the Conjoint Board, they include a considerable number of candidates who claim exemption from the First and Second Examinations of the Board in virtue of the examinations passed at their universities for degrees in medicine and surgery.

The tables are calculated on 271 Conjoint candidates and 129 University students respectively; but the average percentage is taken on the total of 400 candidates.

These tables establish the fact that a very considerable proportion of the students fail in one or more of the examinations, and that whatever the length of the period of study laid down as a minimum, that period will be exceeded by average students, and very much exceeded by those who are below the average. The effect of the proposal contained in the reference to the Committee would be to make the minimum time for the best students five years and a half to five years and three-quarters, while average students might be expected to spend six and a half, seven, or seven and a half years.

When altering the regulations in the year 1904, the

I.—*Percentage Table showing the Duration of the Curriculum under the Five Years' Regulations, previous to June 1st, 1904.*

	5 Years.	5¼ Years.	5½ Years.	5¾ Years.	6 Years.	6½ Years.	7 Years.	Over 7 Years
Conjoint Students... ...	9.23	5.54	12.18	4.06	9.96	10.33	12.18	36.54
University Students ...	6.98	3.10	6.98	6.20	19.38	13.95	13.18	30.23
	8.5	4.75	10.5	4.75	13	11.5	12.5	34.5

Thus 28.5 per cent. qualify in less than six years.
71.5 per cent. take six years or more to qualify.
37.0 per cent. take from six to seven years to qualify.

II.—*Percentage Table showing the Interval between the Date of Passing in Anatomy and Physiology and Admission to Examination in Medicine or Surgery.*

	2 Years.	2¼ Years.	2½ Years.	2¾ Years.	3 Years.	3½ Years.	4 Years.	Over 4 Years.
Conjoint Students ...	8.86	11.81	17.34	14.02	24.72	14.39	4.43	4.43
University Students ...	21.71	13.18	19.38	10.08	17.05	10.08	3.88	4.65
	13	12.25	18	12.75	22.25	13	4.25	4.5

Thus 56 per cent. are admitted to the Examination in Medicine and Surgery in less than three years.
44 per cent. wait three years or more.

III.—*Percentage Table showing the Interval between the Date of Passing in Anatomy and Physiology and Completion of Final Examination.*

	2 Years.	2¼ Years.	2½ Years.	2¾ Years.	3 Years.	3½ Years.	4 Years.	Over 4 Years.
Conjoint Students ...	0.00	1.48	5.54	4.06	18.08	29.15	17.35	24.36
University Students ...	6.98	6.20	16.28	9.30	18.60	20.16	10.08	12.40
	2.25	3	9	5.75	18.25	26.25	15	20.5

Thus 20 per cent. complete the Final Examination in less than three years.
80 per cent. take three years or more to complete.

Royal Colleges endeavoured to obtain as much time as possible for the study of anatomy, physiology, medicine, surgery, and midwifery; and if the regulations they then adopted had come into full operation, the students would be obliged to pass the First Examination before commencing anatomy and physiology, and would then have four years and a half for the rest of the curriculum, leaving one year and a half for anatomy and physiology, and three for clinical work. It would be unwise, in the opinion of the Committee, to give up the scheme to which the Royal Colleges have devoted much careful consideration, and which has encouraged and improved the teaching of science in secondary schools.

The Committee, recognizing that the minimum period is taken advantage of only by a few of the best students, regard the present curriculum as sufficiently long; and are of opinion that it is not desirable to alter the conditions of the curriculum as adopted in the Regulations dated June 1st, 1904.

REJECTIONS AT EXAMINATIONS.

A return showing the results of examinations held by the Conjoint Examining Board in England was presented to the same meeting of the College. The following table shows the number of candidates and the percentage of rejections:

Return of the Results of Examinations, Conjoint Board in England.

Subject.	Numbers of Candidates.	Numbers Passed.	Numbers Rejected.	Percentage of Rejections.
Chemistry and chemical physics	292	161	131	45
Practical pharmacy ...	227	180	47	21
Elementary biology ...	282	179	103	37
Anatomy and physiology	330	174	156	47
Medicine	705	446	259	37
Surgery	773	419	354	46
Midwifery...	678	420	258	38

MEDICAL NEWS.

THE Medical Society of London has received a bequest of £100 under the will of the late Mrs. Gant, widow of a former president of the Society.

THE annual dinner of the West London Medico-Chirurgical Society is to take place at the Hotel Great Central on Wednesday next, Mr. L. A. Bidwell, the President, taking the chair.

PROFESSOR EBSTEIN, of Göttingen, who will complete the age of three-score-and-ten in the course of the present year, has asked to be relieved of the directorship of the University Clinic and Policlinic as from October 1st.

THE Wandsworth Division of the British Medical Association has arranged for an explanatory address on the aims and objects of the National League for Physical Education and Improvement by Major-General Sir Frederick Maurice, K.C.B., on Thursday, February 22nd. The meeting will be held in the hall at the Latchmere Road Baths, Battersea, at 9 p.m., under the chairmanship of Mr. Hugh R. Ker, F.R.C.S.

MR. A. H. TUBBY will deliver the Hunterian Oration before the Hunterian Society at Pagani's Restaurant, Great Portland Street, on Wednesday, February 14th, at 6.30 p.m., his subject being recent surgical methods for the treatment of certain forms of paralysis. The anniversary dinner of Fellows and guests will take place on the same evening at 7.45 p.m.

IN Natal, where a local committee has been formed to co-operate with the Imperial Cancer Research Fund, the question of the occurrence of malignant disease among such coloured races as inhabit the colony, and also among the lower animals, birds, fish, and reptiles, is being actively investigated. So far as is possible, the assistance of all practitioners of human and veterinary medicine has been secured, and endeavour has likewise been made to enlist the sympathies of naturalists and sportsmen. All specimens of suspected cancerous disease are being examined at the Government Laboratory, Pietermaritzburg, free of charge. The Honorary Secretary of the Committee is Dr. W. Watkins-Pitchford.

A COURSE of lectures and discussions, arranged by the Childhood Society and the British Child Study Association, will begin on Thursday next, when a paper on American schools and their relation to the child and to society will be read by Mr. J. C. Hudson. The meetings will take place at the Parkes Museum, Margaret Street, London, W., at 8 p.m.

CEREBRO-SPINAL MENINGITIS.—A fresh outbreak of cerebro-spinal meningitis is reported from several districts of Germany, notably Essen and Silesia. From Essen it is said to be spreading into other parts of Westphalia.

JAPANESE HONOUR FOR BRITISH LADY.—The name of the lady on whom, as stated in the BRITISH MEDICAL JOURNAL of January 27th, p. 219, a decoration was conferred by the Emperor of Japan, is not "Lyddel," as there stated, but "Riddell." The error arose from the confusion between the "l" and "r" sounds which is common in the Japanese rendering of foreign names and words. Miss Riddell has, with the help of friends in England, built and maintained a hospital for lepers at Kumomata.

AN ITALIAN PUBLIC HEALTH BULLETIN.—The Italian Minister of the Interior has decided to issue a monthly sanitary bulletin. In addition to particulars as to the distribution of infectious diseases, it will supply information as to the sanitary conditions of Italy, and as to the measures taken by the sanitary officers of provinces, communes, and seaports. The facts will be compiled from forms, which these officers will be required to fill in and return to the Minister.

MEDICAL FEES IN NOTTINGHAM.—At a meeting of medical practitioners at the house of Dr. G. A. Ferraby on January 23rd, the following resolution was proposed by Dr. W. Tibbles, seconded by Dr. J. W. Travell, and passed unanimously: "That this meeting of medical practitioners of the districts of Radford, Hyson Green, and Basford, recognizes the absence of uniformity amongst them as to their charges, and agrees to adopt the tariff of the Manchester Medico-Ethical Association, with a minimum charge of 2s. 6d. per visit, or for medicine and advice in the surgery, or 2s. for medicine and advice in the surgery for payment at the time." The item of 2s. for medicine in the surgery was brought forward as an amendment, it being considered by some practitioners that advice in the surgery involved less trouble than a visit, and should be charged somewhat less. The resolution, thus amended, was passed *nem. con.*

GERMAN SURGICAL CONGRESS.—The German Surgical Society will hold its thirty-fifth Congress this year at Berlin, April 4th to 7th, under the presidency of Professor W. Koerte of Berlin. A somewhat earlier date than usual has been chosen for the meeting in order that it may not clash with the International Medical Congress. The programme includes a discussion on questions of military surgery arising out of the Russo-Japanese war, in which Drs. Zoege von Manteuffel, Schaefer, Brentano, Colmers, von Oettingen, and Henle will take part; one on the surgical treatment of gastric ulcer, to be introduced by Professor Kroenlein; one on a further development of the operation for high-seated cancer of the rectum; one on Bier's method of artificial stasis in the treatment of acute inflammations. Among those who have promised to take part in the last-named discussion are Professors Kuettner, Bardenheuer, Tilmann, and Heidenhein.

THE VICTORIA CROSS.—Last Monday was the fiftieth anniversary of the institution of the Victoria Cross. It is one, perhaps, which has a special interest for medical men, since practically no other of the learned professions can claim wearers of the Cross as its members. It is a simple Maltese cross cast from cannon captured at Sevastopol and, beyond a crown surmounted by a lion, bearing nothing but the words "For Valour." In the Royal Warrant instituting the decoration it is ordained that it is only to be given for signal service in the presence of the enemy coupled with conspicuous bravery; neither rank nor long service nor wounds nor any other circumstance are to be allowed to count. Under such conditions the fifty years, and nearly as many separate campaigns, have seen a total of 522 crosses awarded. Of these, the honour of 25 can be claimed by the medical profession, 7 of those who have worn it having belonged to the Royal Army Medical Corps, 3 to the Indian Medical Service, 4 to Colonial corps, and 11 to regiments under the old regulations. In view of the comparatively small number of possible medical recipients, the total of 25 is certainly remarkable. The whole of the cavalry regiments combined have, for instance, not won twice that number between them, if an analysis supplied by the *Pall Mall Gazette* be correct.

British Medical Journal.

SATURDAY, FEBRUARY 3RD, 1906.

THE DURATION OF THE MEDICAL CURRICULUM.

An interesting report presented to the last meeting of the Royal College of Physicians of London by the Committee of Management of the Conjoint Board in England respecting the duration of the medical curriculum is printed at page 275. As is well known, the duration of the curriculum was in 1890 extended to five years, in accordance with a resolution of the General Medical Council. It was hoped that the additional year would lead to more thorough study of practical professional subjects before candidates presented themselves for the final examination. In the opinion of most teachers this result has not been attained, for, owing to the greater demands made upon the student's time by the earlier scientific subjects, less time is really devoted now to practical professional subjects than used to be given a generation ago, when it was possible to obtain a qualification in something less than four years. Suggestions have been made to add another year to the curriculum, or, as an alternative, to require the student to pass the preliminary scientific examination in chemistry, physics, and biology before commencing his five years' education at a medical school. This is the proposition which at the instance of the Council of the Royal College of Surgeons of England was referred to the Committee of Management of the English Conjoint Board; the Committee thought it desirable, as it is certainly most interesting, to ascertain what is the present length of the curriculum spent by the average student, and how long it takes him to pass the whole of his examinations. The record of 400 students who obtained the diplomas of the Conjoint Board during the last two years was accordingly analysed, and it was found that only 8.5 per cent. passed the final examination in five years, and only 28.5 per cent. in less than six years; 71.5 took six years or more to obtain the diploma., as large a proportion as 34.5 per cent. taking over seven years.

These statistics are derived from a period when the regulations adopted by the Royal Colleges in June, 1904, had not come fully into operation; it is not unlikely that under these new regulations a year may be added to the total period of study required before the final examinations. It seems probable, therefore, that if similar statistics are drawn up in 1910, the student will be found to have spent from six and a half to seven and a half years upon his medical education. This is a most serious outlook for the medical schools and for parents. It certainly suggests that there is something radically wrong in the present system, which is evidently not in harmony with the capacity of the students and the requirements of medical education. Where this want of harmony principally occurs is a difficult matter to decide, but the resolutions of the Council of the Royal College of Surgeons, which gave occasion for the report of the Committee of the Conjoint Board now issued, itself points to one source of discord. It suggests that candidates should be required to pass an examination in the preliminary sciences (chemistry, physics, and elementary biology) before being recognized as medical students, so as to leave five clear years for the medical curriculum. Six years ago the Committee of the Conjoint Board stated that the least objectionable means of meeting the difficulty then foreseen and now proved to exist would be to encourage the study of the preliminary sciences during the later years of school life (from the age of 16 to 17 or 18) before entering at a medical school, and added that the time seemed approaching when chemistry, physics, and biology should be treated as matters of preliminary education, following grammar, literature, and mathematics, and an examination passed in them before the commencement of medical studies. Six years later the Committee still recommends further delay in spite of the fact that the new regulations which came into force eighteen months ago will inevitably in practice add to the length of time which all but the most exceptional students must spend before he obtains a registrable qualification.

It may be remarked that the minimum curriculum in England is still shorter than it is in some other European countries. In France a student must pass examinations in general knowledge, and in physics, chemistry, and biology, before he can be inscribed as a medical student, and the subsequent period of medical study extends over six years. In Italy, Spain, and Denmark the minimum duration of the medical curriculum is six years, in Austria five and a half, in Hungary and Portugal five.

The British Medical Association about a year ago presented to the Board of Education a memorandum in the course of which the opinion was expressed that "to "serve the purposes of medical education, candidates "should be required to be over 17 years of age, and that "the standard prescribed for the Secondary Education "Certificate should be one suitable for candidates of "this age." If this suggestion were adopted it would, by allowing more time, probably have the effect of encouraging candidates to study the preliminary sciences before entering as medical students. There can be no doubt that this is the trend of opinion which, under the pressure of circumstances, may develop more rapidly than either the Conjoint Board in England or the General Medical Council are at present disposed to believe.

MALTHUSIANISM AND THE DECLINING BIRTH-RATE.

Under this title an article by Mr. J. W. Barclay in the *Nineteenth Century* for January resuscitates the old view advanced by Doubleday in 1841 that "the "fecundity of the human animal, and of all other living "beings, is in inverse proportion to the quantity of "nutrition"; that an underfed population multiplies rapidly, but that classes in comfortable circumstances are, by a physiological law, so unprolific as seldom to keep up their numbers. Incidentally we may deprecate the common misuse, as in the above extract, of the word fecundity when fertility is indicated. This misuse has even crept into official reports, as for instance, on p. xvii of the Sixty-sixth Annual Report of the English Registrar-General of Births and Deaths. Fecundity is concerned merely with the capacity to bear children. Statistics relating to it can merely tell us the number of fertile and sterile unions respectively. Fertility is concerned with the actual number of children.

Doubleday's doctrine is regarded by the writer in the *Nineteenth Century* as the true doctrine of population, unlike the doctrine of Malthus, which implies that population tends to increase more rapidly than the means of subsistence, and that consequently, as Malthus put it, "no agrarian regulations in their utmost extent "could remove the pressure of it for a single century." Malthus's doctrine, even if it be true, has been indefinitely postponed, and the counsel of despair implied in his doctrine may be regarded as further from realization than when it was first enunciated by him. Even had the population not ceased to multiply to the extent forecasted by Malthus the problem has become vastly modified by the rapidity and cheapness of freightage for food, and by the greater production of food. The railway and steamship have caused the problem to cease to be urgent. Still more, improved means of working have acted in the same direction. In the first quarter of the nineteenth century one man harvesting with a sickle could not produce more than 144 bushels of wheat, or enough for 24 people; now one man in England can produce 820 bushels of wheat, or enough for 137 people.

According to Doubleday and Mr. Barclay the coincidence of the declining birth-rate with improvement of social conditions is part of the economy of Nature. The dying out of the upper classes facilitates the rise of the lower; were it not for this fact society, instead of advancing and rising, would tend to sink continuously to a lower level; "the birth-rate of a country is thus a "natural and impartial test of the social condition and "progress of its people." It is when Mr. Barclay attempts to illustrate and prove this general statement that he becomes untrustworthy. He fails to distinguish between crude and corrected birth-rates, and he does not appear to realize that concomitant variations do not necessarily imply a causative relationship. The latter point is particularly well marked in his observations on the relationship between the birth-rate and the death-rate. He shows that a high birth-rate is usually associated with a high death-rate and that in England and Wales the natural increase of the population has, owing to the decline of the death-rate, been maintained notwithstanding the steady fall in the birth-rate. Had he studied the paper by Drs. Newsholme and Stevenson which is summarized on page 268, he would have realized that such sweeping statements as he has made must be revised and amended in the light of corrected birth-rates and death-rates. The corrections for age and sex distribution of population which need to be made before either the birth-rates or death-rates of different countries can be accurately compared make the picture very different from that drawn by Mr. Barclay.

When corrected statistics of fertility are given, the association between a low birth-rate and improvement n social condition is shown to be merely casual and not causal. To use the crude birth-rate as "a test of "the social condition and progress or non-progress of "a country" is to disguise the actual facts. These facts show that the Bishop of London's "imputation on the women of England" is based on well-ascertained facts, and that the decline in the birth-rate is not due to any mysterious law of inverse relationship between birth-rate and social improvement, but in the main to the voluntary control of conception.

This is abundantly clear when the international corrected statistics quoted elsewhere in this issue (p. 268) are examined in detail. It is seen that in the case of such New England States as can furnish corrected statistics the population now fails to increase in number so far as its own portion is concerned, being only increased by the greater fertility of foreign-born persons. French Canadians, who are extremely prosperous, have a very high birth-rate, while the Protestant Canadians of English extraction add relatively few to the population. Austria—another chiefly Roman Catholic country—has a stationary and somewhat high birth-rate, with an increase of national prosperity. Other countries show a declining birth-rate associated with an increase of national well-being; but that there is no essential and intrinsic relationship between the two factors is proved by the fact that in different communities they do not vary in any corresponding proportions.

THE SUPPRESSION OF TUBERCULOSIS.

In his address delivered at Stockholm on the occasion of his receipt of the Nobel prize, Professor Koch[1] reiterates his conviction that human and bovine tuberculosis are distinct, and that the danger of human infection from the bovine is so small that, from the standpoint of public hygiene, it may be disregarded. The measures he suggests for the suppression of the disease are therefore concerned solely with human tuberculosis. The human disease he divides broadly into two classes: (1) the cases of laryngeal and pulmonary tuberculosis, in which bacilli are excreted with the sputum and in the acts of coughing and speaking; and (2) all other forms of tuberculosis, in which there is no free escape of bacilli into the environment. It is only from the former class that the danger of spreading the infection arises, and even with this type of the disease the existence of the danger is mainly due to uncleanly habits of the patient, carelessness about the disposal of his sputum, and overcrowding or other causes which bring other persons into too close proximity with the sufferer.

If we wish to suppress tuberculosis, Professor Koch contends, we must begin by adopting the procedure which is observed in all other serious infectious diseases; we must insist on public notification of at least those cases of consumption which come under the dangerous class. The question then arises, What are we to do with these cases when they have been notified? If only it were possible to bring them all into hospitals, the risk of their spreading the infection would be reduced to a minimum, and the incidence of the disease would then rapidly decline. But at present, at all events, this is impossible. For example, in Germany the number of cases of tuberculosis for which hospital treatment would be required would amount to more than 200,000. But, although hospital provision for so large a number is not feasible, there is still good reason to believe that a diminution in the extent of the disease may be attained, though by slower stages, if we can only secure hospital isolation for an increased proportion of these dangerous cases. Professor Koch cites as a comparable instance the treatment of leprosy in Norway. In that country isolation is not enforced for all lepers, but it has been found that by isolating a portion of the cases, particularly the more dangerous, a marked diminution in the disease has been brought about. Similarly with tuberculosis, it is particularly important to collect into hospitals as many as possible of the dangerous cases, and it is in the last stage of phthisis that the patient is most liable to be a source of infection. In many places considerable advance in this direction has already been made, and the lecturer notes with satisfaction that in the city of Berlin during the last ten years more than 40 per cent. of the deaths from phthisis took place in hospital.

---

[1] *Deut. med. Woch.*, January 18th, 1906.

After emphasizing the advantage, in the interests of public health, of collecting into hospitals as large a proportion as possible of phthisical patients who have advanced to the last stage of the disease, Professor Koch calls attention to the value of sanatorium treatment for the early stages, and points out that where the results of this method of treatment have appeared unsatisfactory, the explanation generally is either that the course of treatment has not been long enough, or that the disease has been too advanced for cure. There remains to be considered the very important class of cases in which the disease has made too much progress for sanatorium treatment to be successful, though the patient is not sufficiently ill to be unable to carry on his work. For this class Professor Koch recommends systematic house visitation by persons competent to instruct the patient and his relatives in the necessary precautions to take against the dissemination of infective material. That is to say, Dr. Koch recommends the general adoption of a system on the same lines as are followed in Edinburgh and Manchester.

THE NEW ZEALAND PUBLIC HEALTH MINISTER.

We learn from the *New Zealand Medical Journal* that on October 9th a complimentary dinner was given by Dr. W. E. Collins, Chairman of Council of the New Zealand Branch of the British Medical Association, to the Minister of Public Health, Sir Joseph Ward. Among those present were the Right. Hon. R. J. Seddon, the Premier; Mr. Massey, the leader of the Opposition; Mr. C. C. Bowen, Vice-Chancellor of the New Zealand University; Mr. Hislop, the Mayor of Wellington; Mr. Waterfield, secretary to His Excellency Lord Plunket, and many other civil notabilities, besides a large number of representatives of the medical profession. Dr. Robertson, President of the New Zealand Branch, in proposing the toast of "Parliament," said the present Parliament was almost the only one which had no medical man among its members. In former Cabinets there were many medical men who had taken an active part in the legislature of the colony, and probably it would be so again. Parliament had given the Association great assistance, and for that the thanks of the profession were due. Mr. Seddon, in responding, said that what little had been done by the Government or by Parliament in furthering the efforts of the medical profession had merely been a matter of duty. Of one thing he was proud, and that was that the death-rate of New Zealand was the lowest in the world. The credit for what had been done belonged to Sir Joseph Ward. Dr. Collins, in proposing the health of "The Minister of Public Health," referred to the position of Sir Joseph Ward as the first Minister of Public Health in the British Empire. He reviewed the progress of sanitation in Wellington, and said he looked for great results in the future from the education of the people by seeing the work of the Health Department. By-and-by he hoped they would become educated in the laws of heredity, and would realize that prevention of disease may very often take place before the birth of the individual. The Registration of Nurses and the Midwives Act had done a great deal in saving the lives of mothers and children. In time the Department would doubtless, through the children, prevent the spread of diseases by medical inspection of school children. Sir Joseph Ward, in responding, attributed the credit for the work of the Department to the professional men of the highest integrity and singleness of purpose who had co-operated with him. After speaking of what had already been done, he said the Department was about to make its position felt in connexion with the schools of the Colony, their area and ventilation, and the health of the children. A comprehensive scheme for the supervision of consumptives has been initiated, and consumption has been made notifiable; and where, in the opinion of the medical attendant, a visit is necessary, the patient's home is visited by a departmental officer, the sanitary surroundings of the house inspected, and advice given on the necessity of (*a*) living in well-ventilated rooms, (*b*) disinfection of sputum and periodical disinfection of the patient's room, (*c*) regarding the dangers of infection, (*d*) whether removal to a sanatorium is desirable. All sputa were examined free of cost. Besides the Departments' sanatorium for sixty patients, two annexes for the open-air treatment had been erected in connexion with general hospitals, another was about to be erected, and two institutions exclusively for consumptives were about to be erected by Hospital Boards. In connexion with these Sir Joseph Ward paid a high tribute to Dr. Valentine. The question of putting more stringent restrictions on the immigration of consumptives was under consideration. For the benefit of those patients who had improved by the open-air treatment but had not sufficiently recovered to render it safe for them to return to their usual occupation, the Government was considering the advisability of setting apart a piece of land where they could be employed in tree-planting or in some other occupation that would insure their being in the open air. In conclusion, the Minister paid a tribute to the Chief Medical Officer of Health (Dr. Mason), to the British Medical Association, and to the New Zealand Branch.

WARNING NOTICES AS TO THE LEIGH INFIRMARY AND OTHER CONTROVERSIES.

Among the appointments against which possible applicants are warned in to-day's issue of the British Medical Journal is the Leigh (Lancs.) Infirmary. This is a case in which the local medical men have unanimously adopted the unusual course of refusing to staff a new infirmary which is now approaching completion, and are accordingly threatened with the importation of medical men to act as resident medical and surgical officers. Leigh is a town of some 45,000 inhabitants, who are mainly dependent on the local collieries, although the town is also an important centre of the cotton trade, and several iron foundries and other industries also employ a considerable number of persons. Up to the present time cases requiring treatment in hospital have had to go either to Wigan or Manchester, and in many cases of accident and acute surgical illness this has involved considerable hardship. The medical men were always foremost in demanding the creation of an institution in Leigh in which these cases might be adequately dealt with on the spot. When, however, after various abortive attempts, a scheme was propounded for the erection of a hospital containing thirty beds, capable of extension to a hundred and twenty, and including an out-patient department, the medical men immediately protested. They showed that there was no necessity for such an out-patient department since all cases suitable for treatment in such a department were already provided for. At various conferences with the Infirmary Committee they stated their case, but were invariably met merely with the promise of prevention of abuse by various modifications of the "recommend" system; of the futility of the precautions suggested the medical men were alone in a position to judge. No member of the Committee has ever attempted to demonstrate the necessity for such a department; the sole argument being that "it existed everywhere else," and that the Committee had "a mandate from a town's meeting," at which the working classes had very naturally voted in favour of "free doctoring." The members of the Leigh Division refused to attend at a charitable institution those from whom at present they derive the greater part of their living, and the upshot has been that they have been compelled to refuse to provide an honorary staff. The Committee has, however, defied the medical men and proceeded with the erection of the institution, confident in their ability to bring the profession to heel by the importation of paid house-surgeons, who will no doubt be encouraged to practise in the town. It is now understood that the Committee proposes to open the out-patient department next May. The following two facts are a measure of the value of the Committee's promises to prevent abuse: the first is that the present Mayor of Leigh—a cotton manufacturer and member of the Committee—recently addressed a meeting of his employés and urged them to maintain their weekly contributions of a penny in order that they might be entitled to receive medical and surgical aid at the infirmary without feeling that they were in receipt of charity. The second fact is that the largest iron foundry in the town has up to the present maintained an accident club, which has worked amicably and satisfactorily, all members of the Division being employed as surgeons, and being paid for each attendance at the rate current for private practice in the district. These men have decided to discontinue the arrangement and subscribe instead to the infirmary. At the Representative Meeting at Leicester a resolution was unanimously carried debarring any member of the Association from accepting these appointments, and the members of the Leigh Division are relying on the co-operation of the whole profession to resist this attempt at unjust exploitation, which would mean serious loss to all of them and possible ruin to some. They believe that a successful resistance on their part will form an invaluable precedent, and therefore concerns the profession throughout the kingdom The warning notice with regard to vacant appointments in other districts where disputes exist between the medical profession in the locality and various organizations will be found at page 60 of the advertisements of this week. An account of the circumstances of the controversy in Northumberland and Durham was published in the British Medical Journal of January 6th, page 37, and the nature of the difficulty at Ebbw Vale was stated in the Journal of January 6th, page 44. Fresh notice is given this week of the existence of a dispute at Macclesfield, and it is notified that Mr. B. W. Housman, F.R.C.S., Honorary Secretary of the Stockport and Macclesfield Division of the British Medical Association (Lygon House, Cale Green, Stockport), is ready to forward information to practitioners who may be approached with a request to accept appointments in that place. Other districts in which disputes exist are Barrow-in-Furness, Southampton Bitterne and the neighbourhood, Portsmouth, Lowestoft, Cardiff, Aberaman and Bridgend in Glamorganshire, Abertysswg and Blaenavon in Monmouthshire, Solva in Pembrokeshire, Aberystwith, Cork, Auckland (New Zealand), Pretoria (Transvaal), and in the Orange River Colony, South Africa.

PROPOSED AMALGAMATION OF LONDON MEDICAL SOCIETIES.

From time to time our readers have been kept informed of the progress of the movement for the amalgamation of the numerous medical societies in London into a single body, with sections devoted to the various specialities. Considerable progress has been made in the desired direction, and at a meeting of the representatives of the various societies in December an Organizing Committee was appointed to draw up a definite detailed scheme. This Committee, in order to ascertain the amount of financial support likely to be received, has recently issued a reply post-card to over 5,000 persons asking for an immediate reply to certain questions as to the probability of their joining the new society as Fellows or members. We are informed that a Fellow will be asked to pay a subscription of 3 guineas a year, which would cover the privilege of attending discussions in all sections, the use of the general library, and the receipt of the *Proceedings* and *Transactions* of the society. We are further informed that a member of a section only will be asked to pay 1 guinea a year, and will have the privilege of taking part in the proceedings of the section, of receiving its publications, and of using the general reading room. Such a member will be entitled to join other sections on payment of a subscription of half a guinea for each additional section, and to obtain the use of the general library for a further subscription of one guinea. Every member of a society joining in the amalgamation who desires to become a member of the corresponding section or a Fellow of the new society will be entitled to do so without election. It is proposed that persons elected subsequently to the constitution of the new society shall pay an entrance fee, and that only original members of a section and those subsequently elected members of it shall have the power to vote on matters directly affecting the affairs of such section.

THE NEW PARLIAMENT.

By the return of Sir Walter Foster by a large majority as the parliamentary representative of the Ilkeston Division of Derbyshire, the number of medical men at present elected to the new House of Commons is raised to ten. Of these, two—Mr. R. J. Price, who has been re-elected for East Norfolk, and Dr. Pollard, who has won a seat in the Eccles Division—are barristers, and have, we believe, relinquished the practice of medicine. The result of the poll in the two Scottish University constituencies will be announced next week. In Edinburgh and St. Andrews Sir John Batty Tuke is being opposed by Mr. St. Loe Strachey; in Glasgow and Aberdeen the candidates are Professor W. R. Smith, Sir Henry Craik, K.C.B., and Professor Murison. We are informed that the number of voting papers received from medical graduates by the returning officer of the University of Edinburgh is so far very small, but it is hoped that during the comparative leisure of the week-end the majority of graduates will send in their voting paper duly filled in. The fact that in every university contest a considerable number of voting papers are spoilt should induce every intending voter to read the instructions carefully.

A SUNDAY REST FOR MEDICAL PRACTITIONERS.

A movement for the arrangement of a Sunday rest for medical practitioners has been set on foot in Germany. So far, the plan has come into operation only in one place—Freising. In that happy town it has been arranged that every Sunday from noon till midnight two practitioners shall alternately undertake to attend to all new calls. An intimation of the practitioner on duty is made by notices published in the papers and by boards affixed to the doctor's dwelling and hung up in druggists' shops. The plan is said to have been well received by the press and the public. A similar system has, it is said, been adopted at Frankfort. The city has been divided into 17 districts, corresponding to the police division, and the practitioners in each district have agreed to take their turns in being on duty for their neighbours on Sundays and holidays.

SUPERVISION OF THE "GOLD CURE."

We learn from the *Quarterly Journal of Inebriety* that the American National Temperance Society, in addition to its previously announced plan of carrying on a legislative campaign against proprietary medicines by requiring that each bottle shall bear a label with a printed list of the ingredients contained therein, has resolved to memorialize Congress to exercise supervision of gold-cure establishments by refusing to issue any patent or proprietary rights to any one for a "cure," or any compound whatever containing alcohol, opium, or other narcotic drug in which there is danger of habituation being engendered by its use. An effort will also be made to secure legislation in every State providing for the subjection of all institutions for the cure of alcohol, opium, or kindred habits, to regular official inspection in the same manner that public and private asylums for the insane are now subject to State inspection, and to secure the appointment by the Government in every State of a salaried chemist, who shall analyse patent medicines suspected to contain deleterious drugs, and refuse to allow a patent or proprietary right in case it is found that such drugs are used in the preparations.

ANAESTHESIA BEFORE THE LAW.

A CASE which has recently been tried in France has excited much interest among surgeons, as it seems to introduce a new and dangerous principle in regard to professional responsibility for the administration of anaesthetics. An experienced country practitioner was consulted by a man for an injury to the shoulder received in a fight. The pain and swelling made examination very difficult, and, with the patient's consent, chloroform was administered by the doctor. Only a few whiffs were given, but during the administration of the anaesthetic the man died. He seems to have been in a state of great fear, for he said to a friend who was present, "You have come to my funeral." An action was brought by the relatives, and the practitioner was condemned to pay 8,000 francs (£320) by way of damages, besides costs, on the ground that anaesthesia was not absolutely necessary, inasmuch as the man's life was not in danger. The psychological process by which the court arrived at this conclusion is so remarkable that a summary of the judgement will doubtless be interesting. The learned judge begins by absolving the surgeon of all negligence in the administration of the anaesthetic. He could scarcely do otherwise in the face of a report made by an expert appointed by him to inquire into the matter. The judge goes on, however, to point out that the use of chloroform is especially dangerous in alcoholic persons, and should therefore in such cases be employed only when the life of the patient would be endangered if an operation were not performed. In dealing with affections that are merely troublesome or painful, even if they cause partial or complete disablement of one or several limbs, but do not imperil life, "the first duty of the "practitioner, on pain of committing a serious fault and "incurring a grave responsibility, is to warn the patient "not only of all the dangers, remote and immediate, "which the administration of chloroform may cause, "but further that he may perfectly well live even for a "long time in the condition in which he is." In such circumstances, therefore, says the law through this particular mouthpiece, it is only with the authorization of the patient duly informed of the state of the case, or of his family if the patient be for the time being incapable of giving his consent, that the practitioner can freely use what must be regarded from any point of view as a dangerous medicament. "It cannot, in fact," says the legal oracle, "be admitted, for instance, "that in order to make straight a healthy hunchback or "bandy-legged person, a medical practitioner can chloroform them with their consent given with full know- "ledge of the facts, without having first warned them "of the serious possible consequences of the administration of an anaesthetic." After this luminous exposition of principles the judge proceeds to discuss details. He points out that the case was one of simple luxation of the shoulder, supposed to be badly reduced; that the gravest consequence of this, admitting it to be a fact, would be partial or complete disablement of the shoulder and arm; that although the patient might have been considerably inconvenienced by that condition for the rest of his existence, yet his life would never have been in danger; that the practitioner knew that the patient had a tendency to syncope and to alcoholism; that before proceeding to the dangerous practice of giving an anaesthetic, especially for the purpose of a simple examination, the practitioner omitted to warn the patient of the risk of death he was encountering; that he ought to have done this all the more since he knew that the patient was an alcoholic subject, and fatal syncope was therefore to be dreaded. A series of other equally inept "whereases" leads him to the conclusion that the practitioner was guilty of a serious fault. Not satisfied with punishment, the judge proceeded to make out a case for damages by dwelling on the grief caused the dead man's widow by the removal of the head of the family—a removal which had for them the painful consequence of exposing the fault of a good workman who sometimes gave way to intemperance! It is a relief to hear that this fatuous ruling is to be appealed against, for, if the judge's view were to be accepted as a guiding principle, the surgeon must, instead of seeking to encourage a patient before the administration of an anaesthetic, do all he can to frighten him. As it is well recognized that fear itself sometimes causes death, it may easily be imagined that in the case of a patient with a weak heart such emphatic warning as this judge requires would go far to ensure a fatal accident. To be logical, the judge should have insisted that before, say, the removal of a fingernail, the patient should be urged to send for his lawyer and his spiritual director, if he has one. Further, it is laid down that anaesthetics are to be used, even after strenuous impression of their possible ill-effects, only in case of absolute necessity. Who is to determine this point? Professor Brouardel says that if anaesthetics must never be given to alcoholics, most hospital patients would be excluded from the benefits of modern surgery. In connexion with the case, we may quote what Velpeau said at the trial of a similar case not long after the introduction of chloroform. Addressing the judges, he said: "You hold in your hands the "future of surgery. The question concerns the public "more than the medical practitioner. If you condemn "the surgeon who has used chloroform, not one of us "will ever consent to employ it again. No practitioner, "knowing that if an accident impossible to foresee "occurs, he will be held accountable, will ever administer it. It is for you to maintain the abolition of "pain or to restore it."

A NEW DEVELOPMENT OF THE LIGHT TREATMENT.

THE governing body of the Finsen Light Institute Copenhagen, has decided to establish a branch in which the light treatment can be applied to diseases of the heart and nerves. The branch, like the original institute, is a private enterprise, but an application will be made for State aid. It is also expected that the Finsen Memorial Committee will set apart for the new institute a large sum out of the funds which it has in hand Observations made by Dr. Hasselbach in the Finsen. Institute have, it is said, confirmed a conviction expressed by Dr. Niels Finsen in 1900 that in many cases of heart disease, and possibly also in certain cases of nerve disorder, relief might be given by the use of light rays. No report of these observations has, so far as we are aware, been published in any medical journal. It will be well, therefore, to suspend judgement till evidence from responsible sources is before the profession. In the meantime we note that Professor Eduard Lang, head of the Finsen Institute in Vienna, has expressed himself on the subject in very guarded terms. In an interview with a representative of the *Neue Freie Presse* he said that Finsen was himself the subject of heart disease. He spent his youth in Iceland, where his father was a Government official; there he became affected with hydatids, and the rest of his life was one long disease. He proceeded very methodically in his researches on light. On the roof of a villa which he had built near his institute, he had a terrace constructed where he studied the effect of the sun's rays on himself. He conceived great hopes of the treatment, but there appears to be nothing to show whether or not he succeeded in prolonging his life in this way. Professor Lang was unable to say whether any result of real value had been obtained by these researches, and in regard to diseases of the heart and nerves in particular he did not know that Finsen had reached any positive conclusion.

A GREEK PROFESSOR'S MEDICAL PEDIGREE.

Dr. Henry Jackson, the newly-appointed Regius Professor of Greek at the University of Cambridge, comes of an old Sheffield medical family. He was born in Sheffield in 1839, the eldest son of the late Mr. Henry Jackson, who was also the son of a Henry Jackson, an eminent surgeon in his time. Dr. Jackson's father was Surgeon to the Sheffield General (now Royal) Infirmary from 1832 until his death in 1866. He enjoyed considerable repute as a surgeon, and was held in high esteem by his medical brethren in the town and district. For many years he was the recognized leader of the profession in Sheffield. He was connected by close ties with the Overends, who were the original founders in 1827 of the Sheffield School of Medicine, and thus the begetters of the present flourishing Medical Faculty of the Sheffield University. Professor Jackson's father soon became attached to the medical school, and his connexion with it continued until his death in 1866, at which time he was, and had been for several years, its President. Professor Jackson's younger brother, Arthur Jackson, was from 1877 till his death in 1885 surgeon to the Sheffield General Infirmary, where his father and uncle, Wilson Overend, had already held the same position. He was also for many years Honorary Secretary to the Yorkshire Branch and a member of Council of the British Medical Association. The new Regius Professor of Greek at Cambridge has always shown considerable pride in his family connexion with the medical profession, and anything connected with medical affairs in his native city has ever been of interest to him. He recently contributed to the *St. Bartholomew's Hospital Reports* a series of interesting letters written by his father, Henry Jackson, to his father (Professor Jackson's grandfather, Henry Jackson) when attending as an advanced student the practice of that hospital.

MEDICAL OBSERVATIONS IN THE ARCTIC REGIONS.

Dr. Nicholas Senn, who appears to be wandering about the world like a medical Ulysses observing the manners of men and their mode of life, gives in a recent number of the *Journal of the American Medical Association* an account of a summer trip to North Greenland which he made in the supply ship of the Peary expedition. The Smith's Sound Eskimos, he says, are the original unadulterated stock and present many peculiar racial features, especially as regards their habits and resistance to disease. To their exclusively carnivorous diet Dr. Senn attributes not only their freedom from scurvy—the scourge of Arctic expeditions—but also the absence of enlarged tonsils and cervical lymphatic glands and goître. Their spendid teeth and strong lower jaws are ascribed to the same cause. He suggests that the absence of all vegetable food from the diet has shortened the gastro-intestinal canal; that the appendix, if present, is only rudimentary, and that the glands concerned in the digestion of starchy food have become atrophied, while those needed in the digestion of meat and the emulsification of fats are hypertrophied. The large percentage of oils in the diet acts as a laxative, and protects the Eskimos from a multitude of ailments met with in civilized communities. Notwithstanding their uncleanly habits, their freedom from skin diseases is remarkable; and Dr. Senn is inclined to think that perhaps their avoidance of the external use of water may have something to do with this. This somewhat startling view would doubtless have the support of Professor Neisser, who sees in the abrasion of the horny layer by too vigorous ablution the removal of the chief protection of the skin against infection. Tuberculosis is unknown among Eskimos in their own country, though they quickly succumb to it in a different climate. Venereal diseases run a very mild course. Insanity is unknown, but in the long winters an anaemic condition becomes developed, which may give rise to certain hysterical symptoms; the anaemia, however, never becomes chronic. During the summer there is a corresponding plethora and attacks of epistaxis are common. Degenerative diseases, arteriosclerosis, Bright's disease, etc., are rare. In the ordinary course of their lives Eskimos are not subject to coughs and colds, but catarrhal attacks follow visits to ships. Introduced epidemic disorders have played havoc among them. Dr. Senn especially mentions a sort of Arctic dysentery that seems to have started from Finland and travelled nearly around the Arctic circle. He suggests that the infection must have been conveyed over the vast uninhabited tracts by migratory birds. Influenza has also been very destructive among the Eskimos. They appear to have no native medicine, and their surgery is of the most rudimentary kind. Suppurating wounds, however, are rare in the germ-free atmosphere in which they have their being. Tumours seem to be unknown—a circumstance which Dr. Senn is disposed to attribute, in part at least, to the highly-iodized meat diet. Their obstetric methods are primitive, but childbirth is not with them a severe process. Children are nursed until they are 2 or 3 years old, and are generally healthy. Dr. Senn believes that uterine and ovarian diseases are uncommon. In conclusion, he mentions a peculiar distemper of dogs, resembling rabies, but differing in certain respects. Animal parasites, such as tapeworm, appear to be rare.

INCREASE OF STUDENTS IN GERMANY AND FRANCE.

In Germany public attention has lately been called to the increase in the number of students in the universities. During the summer semester of 1905 there was in the universities of the Empire a total number of 41,948 students, of whom 3,198, or 7 per cent., were foreigners. This number exceeds by 13,000 that of twenty years ago. The increase is noted in all faculties except those of medicine and Protestant theology. In the former the number of students has fallen steadily from 8,986 in the summer of 1890, the highest recorded figure, till in the winter semester of 1904-5 it was 6,288. There is as yet no corresponding decrease in the number of medical practitioners. Official statistics show that in 1905 there were in the whole German Empire 31,041 practitioners, being an increase of 584 as compared with 1904. In the seven previous years the increase, though steady, showed certain fluctuations; the numbers are for each of these years respectively 460, 864, 959, 800, 653, 932, 884. Therefore, Dr. G. Heimann, of the Berlin Statistical Office, from whom we take the figures, says somewhat grimly that the profession in Germany can scarcely look for any relief of its overcrowded condition in the immediate future. In the Protestant Faculties of Theology in the German Universities, ten years ago the students numbered 4,437; they have now sunk to 2,186, or less than half. The authorities say the tendency is towards further decrease, unless the Government takes steps to augment the stipends of the Protestant pastors. In the Faculties of Catholic Theology the number of students has increased; ten years ago there were 1,079 students, while at present there are 1,680. The number of students in philosophy and history has risen from 3,399 in 1885 to 8,893 in 1905. During the same period the number of students of mathematics and the natural sciences has increased from 2,583 to 5,299. The Faculty of Philosophy comprises, besides divine philosophy itself, such diverse branches of learning as philology (comparative and special), the classical and Oriental languages, political economy, mathematics, astronomy, geography (ancient and modern), Egyptology, the history of art and the science of music. The degree of Ph.D., therefore, corresponds roughly to our Arts degree, but represents a higher average standard of acquirement. Even allowing that a considerable part of the increase in the number of students of natural science may be accounted for by the steady demand in various fields of industrial enterprise for men of thorough scientific training, this will not explain the increase of students in the field of history and other branches of "philosophy." In the period from 1885 to 1905 the number of students of law increased from 4,682 to 11,678, while that of students of pharmacy rose from 814 to 1,547. As the figures of 1885 showed a considerable disproportion both to the population and to the openings in the various professions, it is obvious that the state of things must be much worse now. Bismarck used to say that the great excess of university-trained men as compared with the possibilities of making a living in the liberal professions led to the formation of an "intellectual proletariat"; this he regarded as a danger to society, inasmuch as highly-educated men are naturally not content to accept the narrow life forced on them by lack of suitable occupation, and are therefore eager for any upheaval that may enable them to escape into a larger sphere of action. Germany does not stand alone in the increase of students. A somewhat similar state of things exists in France. On January 15th, 1905, according to the *Revue de Statistique* there were in the faculties of science of all the French universities 5,152 students, as against 4,662 in 1904, and 4,340 in 1903. In the French medical faculties, unlike those in Germany, the figures show that, after a brie stationary period, the numbers have again increased :f in 1905 there were 8,184 students, being an increase of 725 as compared with 1904. The students of pharmacy, who also were fewer in 1904, rose in 1905 to 3,134.

MEXICO AS A WINTER HEALTH RESORT.

MR. LEAY, British Consul at Vera Cruz, in his recent report to the Foreign Office, sings the praises of Mexico as an excellent winter resort for the tourist. It is, he claims, a land of infinite attractions, almost every railway having some special feature to advertise. There is scenery, he tells us, unsurpassed in any other part of the world, ruins as old as any (here Mr. Leay is a little astray in his archaeology), and tarpon-fishing and various game for the sportsman. The climate on the uplands in winter is very much that of an English summer, while even the low-lying tropical coast belt may be visited with comparative comfort from November to February inclusive. The magnificent ruins at Mitla, as well as those in Oaxaca and Yucatan, are certainly more than worthy of the traveller's attention, and there is much that is charming in Mexico, especially to the botanist; but as Mr. Leay himself confesses, the tourist, when away from the railways, must expect to rough it, and to meet with extremely indifferent accommodation. Many of the towns, moreover, appear to suffer from a rather alarming death-rate—that of Vera Cruz, for example, was 85 per mille in 1903—while yellow fever still claims a good many victims, although it is stated that, especially in Yucatan, vigorous efforts are being made to stamp it out. The disease is, of course, not often seen in winter, and the risks of other maladies are perhaps not very great; but the unfortunate tourist who goes to Mexico expecting the sanitation and comforts of the Riviera is likely to find himself a little disappointed.

THE SUPPLEMENT.

THE SUPPLEMENT for this week contains particulars of the arrangements made for the scientific proceedings of the Annual Meeting of the British Medical Association, to be held at Toronto on August 21st, 22nd, 23rd, 24th, and 25th. It will be seen that there will be thirteen Sections, and the list on the present occasion is arranged in alphabetical order. The officers of the Sections, that is to say, the President, Vice-Presidents, and the Honorary Secretaries, form a committee of reference for the organization of the work of the Section, for the selection of subjects for discussion and for the acceptance of papers offered in the Section. It will be observed that at this meeting the Sections will meet on four days—Tuesday, Wednesday, Thursday, and Friday—instead of on three as has hitherto been the rule, and that the Sections will meet from 9.30 a.m. to 12.30 p.m. on each day. It will be seen also that three general addresses will be given, and that this duty has been accepted by Sir James Barr of Liverpool in medicine, by Sir Victor Horsley, F.R.S., in surgery, and Dr. W. S. A. Griffith in obstetrics. In another column (page 271) is published the first part of an article, by our Toronto Correspondent, giving some account of the history and present development of that enterprising city, and pointing out that it is particularly well situated to afford opportunities for interesting excursions after the meeting. The SUPPLEMENT for this week also contains a report of the proceedings of the Central Council of the Association at its meeting on January 17th, together with reports of proceedings of Central Committees of the Association, and of the Scottish and Irish Committees.

AT the recent examination for commissions in the Royal Army Medical Corps, 74 candidates presented themselves, of whom 40 were successful. The list will be published in our next issue.

AT a meeting of the Paris Société de Chirurgie held on January 17th Sir Victor Horsley was elected a foreign associate and Mr. C. A. Ballance a foreign corresponding member.

PROFESSOR KARL VON NOORDEN, Chief of the Medical Clinic in the Municipal Hospital of Frankfort-on-the-Main, whose work on metabolism and cognate subjects has earned for him a well-deserved reputation in the scientific world, has been chosen to succeed the late Professor Nothnagel in the University of Vienna.

Leeds.

DISTRIBUTION OF THE HOSPITAL SUNDAY FUND.

AN important meeting has been held in Leeds in reference to the distribution of the Hospital Sunday Fund. When the fund was started some thirty years ago it was divided between four institutions—the General Infirmary, the Public Dispensary, the Hospital for Women and Children, and the "House of Recovery," as the Fever Hospital was at that time termed. When the Corporation took over the latter institution, a share of the fund was given to the District Nurses' Institution. For many years the money has been handed to the Treasurer of the Infirmary, and by him divided in the following proportions: 16½ per cent. to the Public Dispensary, 8½ per cent. to the Hospital for Women and Children, 5 per cent. to the Nurses' Association, and the remaining 70 per cent. to the Infirmary. The amount divided last year amounted to £1,729. Applications have now been received from the Leeds Association for the Prevention and Cure of Tuberculosis and from the new Maternity Home. The Lord Mayor, who presided at the meeting, expressed the view that the time had come when a thorough examination of the medical charities of the city should be made to see if a revision of the amount of the grant should be considered or not. It was finally arranged that an influential committee should be formed to conduct an inquiry under four heads: (1) Whether the new institutions were necessary; (2) whether they had obtained sufficient financial support to render it possible for them to carry on their work in a manner likely to be beneficial to the patients, and to afford a guarantee of permanence; (3) whether proper rules had been made by the institutions to ensure that the public should be properly represented on the Boards of Management, and that the medical men selected to look after the patients were of the best type obtainable in Leeds; and (4) whether the rules provided for the utilization of the information and experience obtained in the work of the new institutions.

MILK FROM THE PUBLIC HEALTH POINT OF VIEW.

In the course of an interesting lecture given recently by Dr. Spottiswoode Cameron, he reviewed the various causes of contamination of milk, and especially commented on the scheme which is being carried on in Leeds for the supply of pure unsterilized milk to the poor. This was described in the BRITISH MEDICAL JOURNAL of October 21st, 1905. Dr. Cameron gave the results of some bacteriological examinations and experiments which had been made in connexion with this. During September 25 examinations were made of samples of milk, 10 being from the dépôt and 15 from ordinary shop milk. In the dépôt milk the average number of colonies of bacteria was 79,160 per c.cm., and in the shop milk it was 1,767,067. Seven samples taken from the farm and packed in ice contained on the average 7,222 colonies per c.cm. The milk had to be cooled and bottled, and 16 samples examined after this process contained on the average 16,725 colonies, while 15 samples from shops contained on the average 145,207 colonies per c.cm. The colonies increased to 224,514 per c.cm. in twenty-four hours in bottles which had been kept closed, but when the milk was kept in the usual way, exposed to the air, the number of colonies increased to 10,048,125.

Manchester.

THE ROYAL EYE HOSPITAL AND THE UNIVERSITY.

THE annual report of the Royal Eye Hospital is of unusual interest. An agreement has been entered into with the University by which the Eye Hospital acquired a certain plot of land adjoining the present hospital, under certain conditions, the most important being that the Eye Hospital should relieve the Infirmary of the necessity of providing beds for eye diseases in its new building, provide a room in which students of the University may see operations and demonstrations, and assign ten beds to the University lecturer on ophthalmology. It is proposed, in consequence of these extensions and of other needs, to issue shortly an appeal for funds. The total number of cases admitted was 28,273, and of in-patients 1,500. The number of accident cases treated was 6,932, or a daily average of over 22. The excess of expenditure over income was £506. A very gratifying feature at the meeting was the receipt of a telegram from Mr. Andrew Greenhalgh, of Radcliffe, stating that he would give £100 a year for five years "to help your splendid work." A few years ago Mr. Greenhalgh sent a donation of £1,000 in recognition of some help given to his brother in the Manchester Eye Hospital forty years ago.

UNIVERSAL MILITARY TRAINING.

Lord Roberts, in pursuance of the campaign on which he entered some months ago with the object of rousing the country to a sense of the necessity of making adequate provision for imperial defence, addressed a large audience at Manchester on January 30th in connexion with the Manchester Branch of the National Service League. He did not advocate conscription, which was totally inapplicable to an army of which the greater part must always be serving abroad. What he wished was that every able-bodied man, whatever his birth, position, wealth, or poverty, should be obliged to acquire a knowledge of military duties sufficient to fit him for taking his part in the defence of his country. The method and period of training should be adjusted so that no man would be prevented from carrying on his civil avocations for a moment longer than was necessary. Sir Frederick Treves, who also spoke, discussed the effect of the operations of the National Service League upon the national health. He said that the report on physical deterioration conveyed serious warnings on which action should be taken. Individuals paid great attention to health; he supposed that few of those present were not at that moment on a diet, and were not using some lozenge or tabloid. There was reason for this, for robust health was necessary to success in life. As the outcome of what was called our modern life, the rush and wear and tear of it, the nervous system was rebelling. This, Sir Frederick Treves said, was the result of the introduction of steam, electricity, the telegraph and telephone, the motor, the week-end, and the attempt so many people made—and made with some success—to live three lives in one. The result, as every physician could tell, was that nervous diseases were increasing, and if this condition was going to develop without limit the time was not very far distant when the consequences would be at least inconvenient. Sir Frederick Treves went on to say that there was no disputing the fact that the best remedy for such a condition was perfect physical health such as could be obtained only by means of open-air exercise. No language could express the value of our national games, which should be encouraged in every way. We were, however, beginning to play games vicariously. Many thousands of young men spent their Saturday afternoons watching football; they did not play. Moreover, outdoor work was not so common in this country as it once was. In workshops, too, machinery was taking the place of muscle. As a remedy, Sir Frederick Treves could imagine no better system than a military training. Physical perfection could not be tested by a tape placed around muscles. Military training provided other necessary developments; it gave promptness, alertness, capacity to act in company (a thing by no means easy to acquire); above all, it gave a wholesome appreciation of the value of discipline.

Liverpool.

ROYAL INFIRMARY.

Annual Meeting.

THE annual meeting of the trustees and subscribers of the Royal Infirmary took place on January 25th. The annual report, the 157th since the foundation, announced the fact that the institution had been incorporated by a Royal charter, which had been confirmed by His Majesty by letters patent on August 28th, 1905. As recited in the petition for the charter, "the title Royal was conferred by special dispensation by Her late Majesty Queen Victoria in the year 1851," and "the Committee being of opinion that the objects of the infirmary would be more effectively attained and a larger measure of support given to it in future if a Royal charter of incorporation were obtained," took steps to secure this. Difficulties had arisen in the management of the property, by reason of its being vested in the hands of a changing body of trustees, which by the charter have been overcome.

The report states that the out-patient department has for some time proved insufficient for the increasing demands on it. Last year the attendances were 89,224, being an increase of over 13,000. A scheme for the enlargement or rather the reconstruction of the department has been under constant consideration during the year, and the Committee will shortly be in a position to lay before the public propositions which will commend themselves as being all that is desired to bring the department up to what is needed. £3,700 has been received for the Sir William Mitchell Banks Memorial Fund, which, it was agreed, should be applied to this object, and has been employed to acquire an enlarged site adjacent to the hospital. Three more beds have been endowed, and through the generosity of Mr. E. R. Bickersteth, consulting surgeon to the institution, the upper part of what was once Dover Street has been laid out as a recreation ground for the nurses. Dealing with the expenditure, which increases from year to year, the report says that it should not be forgotten by those supporting a hospital that it is through the agency of voluntary institutions—especially those to which medical schools are attached—that the physicians and surgeons, as well as the nurses of the future, are recruited and trained, who in good time do such noble and helpful work for the relief and comfort of the community.

The President, Mr. Robert Gladstone, in moving the adoption of the report, said that it must be a matter of satisfaction to them all that the Infirmary had become incorporated. The seal which had been adopted was an exceedingly beautiful one, and did great credit to the designer. During the past year a very interesting event had taken place in connexion with the Liverpool University. A deputation from the University waited upon the Committee of the Royal Infirmary, and suggested that a joint committee should be appointed by the University and the Infirmary with the view of enabling the holders of professorships of medicine and surgery in the University to have charge of wards or beds in the Infirmary. A joint committee was appointed, and their report was now under the consideration of the authorities. The movement emanated from the University, and he felt sure the trustees of the Infirmary would desire to further any plan of the kind which would be in the best interests of both institutions. They all knew that the University really owed its origin to the Infirmary. He remembered that when the University College was first started Dr. Waters asked him to be one of the committee for establishing that college, and the principal reason for the foundation of the college was to provide for the requirements of the students of medicine.

The Northern Hospital.

The annual meeting of the Northern Hospital took place on January 26th. The number of in-patients treated during the year was 2,398, and the number of out-patients 13,670. The horse ambulance, the first of its kind established in Liverpool, or indeed in Great Britain, was called out 984 times.

Hospital Sunday.

The Hospital Sunday collections took place on January 14th. The day was unusually fine, but in spite of that there was a serious falling-off in the amount realized as compared with former years.

Action against a Medical Man.

Hobson v. Bicknell.

In the Court of Appeal on January 23rd, before Lords Justices Vaughan Williams and Stirling, the hearing of the appeal of Dr. A. Bicknell, of West Kirby, against a judgement in favour of the plaintiff Hobson entered at the trial at the Liverpool Assizes in May last[1] was concluded. The plaintiff was in the employment of the Hoylake Golf Club, and was, in the opinion of the defendant, suffering from a certain disease, and on this becoming known the plaintiff lost his situation. An action for damages followed, and the jury found that the defendant was wrong, and guilty of negligence in his original diagnosis of the disease from which the plaintiff was suffering, but that he afterwards acted with all care, and they awarded the plaintiff £70 for the loss of his situation at the club. Lord Justice Vaughan Williams, in giving judgement, said the question which the Court had to decide was whether the defendant was negligent in the diagnosis which he made when he was called on to treat the plaintiff; and, secondly, whether the result which followed, namely the dismissal of the plaintiff from his employment at the club, was brought about or caused by such a negligent diagnosis. The jury found that the defendant was negligent inasmuch as he accepted the diagnosis of Dr. Moss (who first saw the plaintiff) without sufficient examination, but that subsequently he used all reasonable care. There was, in his lordship's opinion, a manifest difficulty in reconciling this finding with the finding as to damages. If this was a mere question of a verdict against the weight of evidence he would not have been inclined to interfere, but the question was whether the damages followed from the negligence. It was clearly shown that the plaintiff was dismissed as the result of a subsequent examination, and it was only possible to support the finding as to damages on the assumption of negligence subsequent to the first diagnosis; but there was an express finding of the jury that the defendant subsequently used all reasonable care, and that being so, it could not be said that the damages followed from negligence. For these reasons there must be judgement for Dr. Bicknell. Lord Justice Stirling concurred. The defendant was allowed the general costs of the trial, the plaintiff to have the costs of the issue on which he succeeded.

Birmingham.

Birmingham Birth-rate.

Dr. Robertson, Medical Officer of Health for Birmingham, states in his quarterly report that the birth-rate during the last three months of 1905 is the lowest on record. Only 3,648 children were born in the last quarter as compared with 4,017 in 1904 and 4,078 in 1903. For some years past the birth-rate has been declining. Fortunately, the death-rate for the same quarter is also the lowest on record, and in one ward alone it has fallen 5.3 per cent.

Anthrax at Redditch.

At Redditch, on January 25th, a farmer was prosecuted for failing to notify a case of anthrax. The defence was that the death of the cow in question was due to the rupture of a blood vessel, and that the farmer waited before he disposed of the carcass until a veterinary surgeon had arrived. The blood had been allowed to run down a drain. The veterinary surgeon who was called said that unless the farmer knew the symptoms of anthrax by experience he might not recognize the disease. The defendant expressed his belief that in sending for a veterinary surgeon at once he was fulfilling his duty under the Act of 1887. He was not aware that the police must first be informed. The Bench decided that all reasonable precaution had in fact been taken, and the case was dismissed.

Midland Counties Home for Incurables.

The annual meeting of the subscribers of the Midland Counties Home for Incurables at Leamington was held on January 26th, the Lord Lieutenant, the Marquis of Hertford, being in the chair. The report showed that the ordinary revenue enabled a greater number of inmates to be treated than in any previous year. An additional free bed has been established, and the whole home repainted internally. The new east wing has been begun, and it was hoped that this would be completed without drawing on the reserve fund. In addition to the present income, £450 a year will be required to maintain the fifteen patients in the new east wing.

The Mentally Defective.

The Sites and Building Subcommittee of the Education Committee of the Birmingham City Council have decided to use the old industrial school in Gem Street, which has been rendered vacant by the removal of this institution to the new buildings at Harborne, for the purposes of a school, especially equipped and managed for the training of children who are mentally defective.

---

[1] British Medical Journal, June 10th, 1905, p. 1307.

Sheffield.

THE CHAIR OF PATHOLOGY.

SOME time since Dr. Arthur Hall, Professor of Pathology at the University, resigned this office, as he thought the post should be filled by some one who could devote the whole of his time to it, and not by one engaged in active practice. Dr. Louis Cobbett has been appointed to the position, and, pending his taking the duties up, Dr. Hall will continue to do so. Dr. Cobbett has held several posts at St. Thomas's Hospital, and, later, was Demonstrator of Pathology at Cambridge University under Professors Roy and Kanthack. For the last few years he has been engaged in researches as to the relations between human and bovine tuberculosis for the Royal Commission on Tuberculosis.

DOMESTIC HYGIENE.

On January 29th Sir Lauder Brunton gave a lecture on Physical Training and Work in the hall of the University, when the Vice-Chancellor presided over a large gathering. The lecturer stated that the National League for Physical Education and Improvement proposed at first to give attention to the milk supply and the inspection of schools. A good deal of work on these lines is already being done in Sheffield, including the lectures on hygiene to teachers, referred to in a former note, and the inspection of schools by a medical officer specially appointed for this purpose. Under the Health Department the women inspectors have done good work. Arrangements have been made for the Health Office to receive intimation from the Registrar on the birth of an infant. A woman inspector then visits such places as it is thought desirable, leaves a leaflet, and gives personal instructions as to the feeding and care of infants.

EDINBURGH GRADUATES' CLUB.

The graduates of Edinburgh University in this city and district have formed a club with the object of encouraging social intercourse among themselves. The doyen of the medical profession—Dr. J. H. Keeling—has been elected as first President.

CONVICTION UNDER THE MIDWIVES ACT.

A woman, practising as a midwife, though unregistered, was brought before the magistrates a little time since. A card bearing the inscription "Mrs. H., midwife, experienced since 1869," formed the basis of the prosecution. Evidence was produced that she was not a registered midwife, and that she had displayed a placard describing herself as a midwife. The penalty, under the Act, on summary conviction, is a sum not exceeding £5. The magistrates inflicted a fine of £3, including costs.

Scotland.

THE PARLIAMENTARY REPRESENTATION OF EDINBURGH AND ST. ANDREWS UNIVERSITIES.

THE poll in this constituency, for which Sir John Batty Tuke and Mr. St. Loe Strachey are candidates, will remain open until 10 a.m. on Thursday, February 8th, but the returning officer appeals to graduates to send in their voting papers as early as possible, and in any case to post them not later than Saturday, February 3rd, in order that they may be in hand when the counting of the poll begins on Monday.

WOMEN GRADUATES AND THE PARLIAMENTARY VOTE.

A large, representative, and enthusiastic meeting of women graduates of the four Scottish Universities was held in Edinburgh on January 27th, when it was unanimously agreed to protest against the refusal to allow women graduates to vote in the election of University Parliamentary representatives. Intimations of sympathy and support were read from many societies and individuals. A Committee representing the four Universities, with Miss C. Macmillan as Secretary and Treasurer, was formed to take steps to have the electoral rights of women graduates recognized.

THE ELECTION OF DIRECT REPRESENTATIVE IN SCOTLAND.

We have received the following letter:

SIR,—Rumour has been asserting that I do not intend to be a candidate for the suffrages of Scottish practitioners at the next election in October of this year for the post of their Direct Representative.

Will you kindly give me the privilege of saying publicly that statements to that effect are untrue and misleading?—I am, etc.,

Dingwall, N.B., Jan. 24th. WILLIAM BRUCE.

BRITISH UNIVERSITIES CONGRESS IN EDINBURGH.

The Students' Representative Council of Edinburgh University, at a meeting in the hall of the Union on Monday, January 22nd, agreed to a recommendation by a Committee that the British Universities Congress be invited to Edinburgh in the coming summer. The report stated that it seemed to be the unanimous desire of the delegates to the late Congress that the meeting this year should take place in the Scottish capital; that Edinburgh was probably the most suitable place in the kingdom for holding the Congress; and that it was believed that the meeting in Edinburgh would increase the power and importance of the local Council, while the Council would be of the greatest utility to the Congress. The Congress will meet about the end of June or the beginning of July.

THE QUATERCENTENARY OF ABERDEEN UNIVERSITY.

The General Quatercentenary Committee has approved provisionally of a tentative programme for the week of the celebrations in September next. It is as follows:

MONDAY, SEPTEMBER 17TH.

Delegates and Guests arrive in Aberdeen.

TUESDAY, SEPTEMBER 18TH.

10.45 a.m.—Service in the University Chapel, King's College, (limit 600).
12.30 p.m.—Luncheon to Delegates and Guests by the University Authorities (limited to 450 if the Mitchell Hall be used).
2.30 p.m.—Procession of University Authorities, Students' Guests and Delegates from Marischal College to the Music Hall.
3 p.m.—Reception of Delegates and Presentation of Addresses in the Music Hall (limit 2,500).
9 p.m.—Conversazione given by University Authorities in the Mitchell Hall and University Buildings, Marischal College (about 2,500 could be entertained).
Theatricals or Tableaux or Concerts could be given by Students in the side rooms and dancing might be allowed in the Old Library Hall.

WEDNESDAY, SEPTEMBER 19TH.

A General Holiday in Aberdeen.
Reception of the King by the Corporation at Holburn Street Station.
Procession to the Town House.
Private luncheon to the King by the Corporation.
Formal Inauguration of the New Buildings, Marischal College, by the King.
Corporation Banquet in the evening to about 650 guests in the Music Hall.
General illumination of the City.
9 p.m.—Students' Torchlight Procession.

THURSDAY, SEPTEMBER 20TH.

11 a.m.—Conferring of Degrees, Mitchell Hall (capacity about 1,050 persons).
Luncheons by Societies (Medico-Chirurgical, Advocates, etc.).
3 p.m.—Reception at King's College; tea in the Library or in a marquee on the recreation ground.
Inter-university Sports.
9 p.m.—Students' Ball in the Music Hall.
9.30 p.m.—Reception in the Art Gallery by the President and members of the Art Gallery Committee (capacity 2,000).

FRIDAY, SEPTEMBER 21ST.

Excursions within and without the City. Arrangements would be made for a special train to Ballater, and luncheon would be provided at the cost of the University for delegates and guests who desired to avail themselves of this excursion for seeing Deeside.
9 p.m.—Students' Symposium and Addresses to the students by distinguished guests in the Music Hall.

SATURDAY, SEPTEMBER 22ND.

Delegates and guests leave Aberdeen.

The General Committee, which numbers about fifty, has delegated the completion and carrying out of the arrangements to a small Executive Committee of ten, to be known as the Conveners' Committee, and to consist of:

The Principal (Convener), the Lord Rector's Assessor, Mr. J. E. Crombie (Vice-Convener), the Lord Provost, the Convener of the Finance Committee (Professor Hay), the Convener of the Hospitality Committee (Mr. James Murray, Glenburnie Park), the Convener of the Publications Committee (Mr. P. J. Anderson), the Convener of the General Council Committee (Mr. Patrick Cooper), the Town Council's Assessor (Mr. Alex. Wilson), the President of the Students' Representative Council (Mr. A. R. Williamson), and Professor Davidson.

SMALL-POX IN SCOTLAND.

A serious outbreak of small-pox was discovered on board the steamship *Pindari*, of the Brocklebank Line, on her arrival in the Tay at 4 a.m. on January 29th. The Medical Officer of Health for Dundee, Dr. Templeman, boarded the steamer an hour after arrival, and found 11 cases on board. The *Pindari* left Calcutta about the middle of December, and about three weeks ago, in the Red Sea, small-pox broke out among the Lascar crew. In addition to her own crew the *Pindari* had on board a Lascar crew for the steamer *Malakand*, recently built, and now being fitted out at Belfast for the Brocklebank Line. Including the British officers and engineers there were some two hundred persons on board. At Suez three of the Lascars were sent ashore, but later three others and eight British officers were attacked with somewhat virulent small-pox. They were attended on board by an officer of the medical staff of the Indian Army. Dr. Templeman at once adopted measures to prevent the spread of the disease, and to treat those already suffering from it. A tug was chartered to bring the patients ashore, the officers being first taken off and conveyed to King's Cross Hospital. The Lascars were brought off later, but in the meantime one of the three affected had died. The most serious case among the officers was that of an engineer, who was so weak that he had to be brought ashore on a stretcher, whereas the others were able to walk from the tug to the wagons. The *Pindari* was disinfected, and all the other men on board were vaccinated by Dr. Templeman.

WASTAGE OF CHILD LIFE.

The Mayor of Huddersfield, Mr. Broadbent, gave a lecture on January 23rd, under the auspices of the Parents' National Educational Council, in St. Andrews Hall, Edinburgh, on the subject of wastage of child life. Professor Hunter Stewart presided over a large audience. Mr. Broadbent said that the death-rate of children under 1 year was closely connected with, and was a clear indicator of, the health conditions of the survivors; and though it was not possible to give any sort of exact estimate, it was at least probable that for every infant life that might be saved, there might be at least six lives healthier and better. Every life lost pointed to many lives injured; and the lecturer suggested that many of the unfit had been rendered unfit, first, by the unfair treatment which they received in their early infancy. A high death-rate and a degenerate people went together: they were two symptoms originating from the same evil source. Every baby that was born should have a fair chance of living. He did not believe much in heredity—he believed the doctrine had been pushed to most absurd lengths. The loss of infant life was really wastage, because nearly all babies were born healthy and would live if they got a fair chance. It was not only unnatural that they should die—it was absolutely unnecessary. It was merely a matter of the conditions surrounding the babies, not a matter of vital force in the babies themselves, that made 95 out of 100 live in one part of a town and only 60 out of 100 in another part. It was his belief that two out of every three babies that passed out of life in their first year did not die. They were killed. They were not allowed to live. If it were conceded that 50,000 lives per annum could be saved to the country, would it be unreasonable to expect that an effort should be made to save them? Ignorance and indifference were the obstacles; overcrowding, slumdom, defective milk supply, employment of married women in factories were secondary causes in producing such dire results for child life and health. The mothers were not to blame. They were mere unwilling and unwitting instruments. It was the indifference of statesmen and educationists that had suffered such a state of things to prevail. It was the fault of the so-called educated classes. The remedy was to help the mothers in their own homes to feed, tend, and care for their own children. He explained the organization which had been established in Huddersfield. They offered a shilling for each prompt notification of a birth, and they got from the registrars notices of other births. The Corporation had appointed lady health visitors, whose duty it was to pay a visit to the home as promptly as possible and leave a card of advice, and to give what good counsel was practicable at the moment. The charge of the baby was thus, so to speak, handed over to a voluntary organization. This was purely a matter of health and not of charity. They were attempting to bring into co-operation with the Public Health Union all the charitable institutions of the town, and of course cases requiring sanitary attention and the like would be brought before the health and sanitary officials of the city. The attempt was succeeding.

Ireland.

CORK UNION INFIRMARY AND FEVER HOSPITAL.

Report by Local Government Board Inspector.

THE Local Government Board has forwarded to the Cork Board of Guardians a report by Dr. Biggar on his inspection of the Cork District Hospital.

Dr. Biggar draws attention to the long distances which separate the different hospitals, the Fever and Children's hospitals being near the county road, while the others are located in various parts of the workhouse grounds, extending from the front to the back of the grounds. A considerable amount of the medical officer's time is wasted going from one hospital to another, and the nurses' duties, particularly at night, are hard to arrange. The classification of patients, Dr. Biggar says, is not properly carried out; acute, chronic, and convalescent patients are treated in the same ward. If a patient suffering from acute disease, and requiring quiet and the constant attention of the nurse, is placed in a general ward where convalescents and chronic patients are constantly conversing and passing to and fro, up and down the ward, causing considerable noise, it is likely to interfere with his recovery, and at the same time occupy some of the nurse's time which might be given with great advantage to the acutely sick. Another objection Dr. Biggar also points out is that consumptive patients are frequently placed in wards with others, the inevitable result being that patients who have entered the hospital for treatment of some curable disease, leave it having contracted tuberculosis which may not only bring death to themselves, but also to many of their nearest and dearest at home.

The medical staff, consisting of two visiting and two resident medical officers, is altogether too small to attend to the large number of patients, varying from 900 to 1,100, and when the time which the resident medical officers are occupied in discharging their multifarious and onerous duties, attending on the sick in the wards, examining all persons on admission to the workhouse, keeping a record of those suffering from disease, dispensing all the medicines, giving out all the dressings, lotions, ointments, etc., attending to all urgent sick calls in any part of the house during day or night, and many others, is taken into consideration, it is easy to see that the staff cannot devote sufficient attention to the less urgent, though highly important, portion of their duties, such as gaining an intimate knowledge of the condition of all their patients, which would enable them to discharge many as soon as fit for discharge, and transfer others to the convalescent or chronic wards.

Dr. Biggar suggests that the medical staff should be increased by the addition of two assistant medical officers, at a salary of £100 per annum each; such an addition would be of the greatest advantage to the sick, and indirectly to the ratepayers, as an increased medical staff would be able to attend to many details which are at present overlooked, waste would be reduced, and greater efficiency attained.

ULSTER MEDICAL SOCIETY.

The third meeting of the session was held in the Medical Institute, Belfast, on the evening of January 25th, when Dr. J. R. Davison, Vice-President, occupied the chair.

Mr. Robert Campbell showed a little boy on whom he had performed Edebohls's operation, decapsulating both kidneys for parenchymatous disease; the boy's condition was greatly improved.

Dr. R. W. Leslie read notes of a case of pernicious anaemia, in which he had administered cacodylate of soda by the rectum with great success, the patient improving: from 17 per cent. to 52 per cent. of haemoglobin in a fortnight. Dr. Houston remarked that the drug was certainly not inert, as was stated by Fraser; Drs. Campbell, Mitchell, and Darling also spoke.

Mr. A. B. Mitchell gave an account of a case of complete excision of the scapula for sarcoma with good result, the patient being able to dress himself. He also showed a patient in whom enterectomy and gastro-jejunostomy had been performed at the same time, and the emphysematous tumour of the intestine, which he had removed at the time; the pathology was doubtful. He also showed a cystic kidney, mounted in gelatine, which he had successfully removed for haematuria; and a fibrocystic tumour of the breast.

Dr. Gardner Robb read notes of two unusual cases of perforation in typhoid fever; one was of a child in whom there was no symptom of typhoid fever, and the cause of death was only discovered at the *post-mortem* examination; in the other perforation occurred several months after the onset of the original attack, from which the patient recovered, and was discharged from hospital, subsequently becoming ill again.

The Secretary read a letter from the Registrar of the Queen's College, stating that Fellows or Members of the Ulster Medical Society would be allowed the privilege of using the professor's room in the library of the College to facilitate the consultation of books or journals; the Secretary was instructed to send a letter of thanks and acceptance.

Queen's College, Belfast.

At the inaugural public meeting of the Queen's College Literary and Scientific Society held on January 25th in the Students' Union, the opening address on Irish Orators was delivered by the new President, Mr. J. M. Johnstone, B.A.; and then Professor Byers, M.A., M.B., gave a very interesting address on the late Lord Dufferin as a speaker. Lord Dufferin was compared with the well-known orators of the Victorian Age, and his methods of preparation and delivery and special characteristics were graphically recounted.

Belfast Hospital for Sick Children.

The annual meeting of this institution was held in the out-patient department on January 26th, the Hon. R. T. O'Neill, M.P., presiding. The reports showed that the expenditure for the year was £2,149, the annual cost per bed being £50 6s. 8d., or 2s. 3d. a day per patient; the total income was £1,670. Dr. McCaw submitted the medical and surgical report, which showed that 427 medical, 401 surgical, and 13 eye cases had been admitted; there had been 366 operations and 28 deaths in the medical, and 11 in the surgical wards. The Dean of St. Anne's, in seconding the adoption of the report, referred to the high infant mortality in Belfast, and to the educative effect that such an institution had on the poor.

Armagh Lunatic Asylum.

The annual report of Dr. Lawless, resident medical superintendent, shows that there were 517 patients in the institution at the end of the year, and that there had been 593 cases altogether under treatment; 76 patients had been admitted and 42 had been discharged as recovered, and 35 had died, all from natural causes. The total average cost was £29 13s. 1d. a head. A considerable number of improvements had been effected, including electric plant for lighting, involving an expenditure of £400. Dr. O'Farrell, inspector in lunacy, in his report, again drew attention to the necessity for observation dormitories for the protection of the epileptic and suicidal cases at night, and also for providing sufficient accommodation for the lunatic poor of the county.

Dr. M. A. MacDonnell.

Dr. M. A. MacDonnell, who has represented the Leix Division of Queen's County in Parliament since 1892, did not offer himself for re-election on the present occasion owing, we regret to learn, to the fact that the state of his health would not permit him to attend to his parliamentary duties. At the recent meeting of the Convention for the selection of a parliamentary candidate for the division the following resolution proposed by the Right Rev. Monsignor Murphy, and seconded by Mr. Meehan, the selected candidate, who has since been elected, was unanimously adopted:

> That we desire to place on record our appreciation of, and thanks to, Dr. M. A. MacDonnell for his long and faithful service; that we heartily regret his illness, which is the cause of his retirement from Parliament; and that we earnestly hope for his speedy restoration to health, and the resumption of his valuable work in the National cause.

The Election of Direct Representative.

The poll for this election was announced to close yesterday, and the counting will begin on Saturday morning and will probably be finished in the afternoon. The indications are that less than 2,000 out of 2,900 will send in papers. A number of the voters will be unable to take part in the election owing to change of address which they have not notified to the registrar, and several names have been struck off the *Register* owing to the neglect of these members of the profession to reply to the periodical inquiries of the Registrar of the General Medical Council.

Viceregal Appointments.

The *Dublin Gazette* announces that the Lord-Lieutenant has made the following appointments to the Viceregal Household:—

Physicians-in-Ordinary: Sir Christopher Nixon, M.D., and Mr. William John Thompson, M.D.

Surgeons-in-Ordinary: Mr. R. F. Tobin, F.R.C.S.I., and Sir Arthur Chance, President R.C.S.I.

Surgeon to Household: Mr. John Lentaigne, F.R.C.S.I.

Surgeon Oculist-in-Ordinary: Mr. Frank C. Crawley, M.D., F.R.C.S.I.

Surgeon Dentist-in-Ordinary: Mr. Kevin E. O'Duffy, L.D.S.

Each new Viceroy changes his medical staff. Several of the gentlemen mentioned above have already served under a Liberal Lord-Lieutenant. The number of physicians has been increased from one to two. Dr. W. J. Thompson, Mr. F. Crawley, and Mr. Kevin O'Duffy are appointed for the first time.

South Wales.

University of Wales.

A special meeting of the Court of the University of Wales was held at the Guildhall, Shrewsbury, on January 26th, the Senior Deputy-Chancellor (Sir Isambard Owen) presiding. The Warden of the Guild (Sir T. Marchant Williams) moved that there be a finance committee of the University, the members to be elected by ballot at the May (extra-collegiate) meeting of the University Court. He said his object was that they should conduct their business as a university in the same way as other universities. They would have to apply to the Government for larger grants for the purpose of research, and it was desirable that there should be a finance committee who should be responsible for the financial work of the University. Mr. Austin Jenkins (Registrar, University College, Cardiff) moved as an amendment that it be an instruction to the standing Executive Committee to appoint annually from among its members a finance committee of eight, including the Treasurer, responsible to the Standing Executive Committee for the financial arrangements of the University. The Warden of the Guild intimated his willingness to accept the amendment. The President said that if the resolution were adopted they would make the finance committee too large. He thought the committee should consist of five or six members. Dr. Roberts, as a member of the Executive Committee, said he would be prepared to move at the next meeting of the Committee that two additional members be appointed on the Finance Committee, which would increase the membership to six, and, after further discussion, the previous question was moved and carried. The court considered the question of the drafting of a statute to establish a faculty of medicine in pursuance of the proposed supplemented charter. The President said it was hoped that during the present year the supplemental charter would be obtained permitting the establishment of a Faculty of Medicine, but that must be settled by statute defining the conditions under which the faculty must be formed. The reputation of the University would depend to a large extent on the Faculty of Medicine. That was always the case. Another important point was that they should have a degree recognized as a State qualification, and that he reminded them could only be done by Act of Parliament. It was resolved that the President of the Royal College of Physicians, London, and the President of the General Medical Council be requested to act with the Senior Deputy-Chancellor, Sir John Williams, Dr. E. Jones, Professor Hepburn, and Professor Haycraft to make the preliminary draft of the statute, and that the members of the court on that committee be authorized to add to their number.

Preserving Welsh Waters.

The Water Subcommittee of the Glamorgan County Council met on January 26th, when the Bill for preserving Welsh water supplies was considered. It is proposed to ask the counties of Carmarthen and Monmouth to support the Bill, and the Committee instructed the clerk to proceed with the arrangements for presenting the measure in due course. At the quarterly meeting of the Breconshire County Council, held at Brecon on January 26th, it was unanimously decided to oppose the Glamorgan and South Wales Water Bill. It was stated that the Bill to a certain extent interfered with their rights. Some of their water rights had been taken already, and it was urged that they should do all they could to retain what was left.

Pontypool Sewerage.

At a meeting of the Pontypool District Council held at Pontypool on January 24th, a letter was read from the Monmouth County Council inquiring what steps had been taken to provide a proper sewerage system for the district. Mr. Essex said that unless something was done in the matter by the Council, the county authorities would take the matter into their own hands. The County Council would not allow them to go on much longer, but would compel them to put a main sewer through the valley, and this would mean an enormous cost. A member said that it was wicked for the County Council to force any scheme upon them, particularly as the death-rate compared favourably with the best sanitary districts in the country. He added that the river Avonllwyd was one of the finest sewers they could have, though sometimes during the summer months it was not all that could be desired. Another member suggested that as the County Council was in earnest on this question, the best and wisest course to pursue would be to go into the matter at once, either by themselves, or with the assistance of the Panteg and Abersychan Councils. By joint action the cost would be enormously reduced. If they were forced to adopt the trunk system, it would cost five times as much as the bacterial system. He moved that an expert be engaged by the Council to investigate and report. It was stated that there was no room in the district for a septic tank. The surveyor said that a septic tank for 7,000 people would cost about £5,250, and for 10,000 persons £8,795. The Council decided to invite the Panteg and Abersychan Councils to a joint meeting to discuss the question.

Bedwellty District Council.

At a meeting of the Bedwellty District Council, held at New Tredegar on January 22nd, Dr. H. T. Evans, the medical officer of health, presented his annual report for 1905. The 602 births registered during the year were equivalent to a birth-rate of 41.5 per 1,000; the deaths, numbering 238, equalled a rate of 16.26 per 1,000; the infantile mortality rate was 141 per 1,000 births. Although a large number of houses had been built during the year, a great deal of overcrowding existed in many dwellings owing to joint occupation, this being mainly due to diminished earnings, high rents, and scarcity of small houses for small families.

Insanity in West Wales.

Dr. Goodall, Medical Superintendent of the Joint Counties Asylum at Carmarthen, submitted his annual report to the Committee on January 25th. This was the 41st yearly report of the institution, and it appeared that on January 1st, 1905, there were resident 674 patients—346 males and 328 females—including 24 males and 27 females of the private class. There were admitted during the year 105 patients—52 males and 53 females—including 5 males and 11 females of the private class. Of these 13 were readmissions, and 10 were transferred from other asylums. The discharges amounted to 62; 44 were discharged recovered, 6 relieved, 1 not insane, 9 females chargeable to the Cardiff Corporation, and 2 males were discharged not improved. The proportion percentage of recoveries to admissions was, exclusive of transfers, 46.31, 30.43 for males and 61.22 for females. The recovery-rate was higher than that for last year, which was the highest in the history of the asylum. The average weekly cost of the patients was 9s. 6¼d.

New Asylum at Newport.

The new asylum which has been erected by the Corporation of Newport (Mon.) was formally opened by the Mayor on January 25th. The Newport patients have hitherto been accommodated at the Monmouthshire County Asylum at Abergavenny, an institution which was erected in 1850 for the joint use of the counties of Monmouth, Hereford, Brecon and Radnor and the city of Hereford. About thirty-five years ago the Herefordshire patients were removed, and in 1903 the Brecon and Radnor patients were taken to the new joint asylum in Breconshire. The Newport institution will accommodate 184 men and 184 women and the administrative offices are designed for a total of 500 patients. The total cost will be about £150,000, which sum includes the erection of a wide bridge across the railway which runs for some distance alongside the site. The main buildings consist of a central administrative block on each side of which are three two-story buildings. The most distant of these are for the acute and recent cases, the middle for epileptics and chronic cases and those nearest to the centre are for the sick and infirm. The comparatively small wards have been adopted for the purpose of more ready classification. The administrative block and the wards are connected by covered ways. The detached buildings in the grounds include a residence for the Medical Superintendent and for the clerk, six cottages for the staff, a cottage for the farm bailiff, two lodges, a chapel, and a mortuary. The water supply is from the corporation supply. Electric lighting has been installed, and electric motors are used to drive the laundry machinery. The heating of the main buildings is by hot water on the patent "Cable" system. Pumps in the boiler-house raise the water to a tank, whence it circulates with a uniform velocity through the whole building. Any block or radiator can be shut off without interfering with the circulation of any other part. The engineer can control the heating of the whole of the asylum and also the hot-water supply from the boiler-house. The details of the institution have been well thought out, and should result in economical administration. The Medical Superintendent is Dr. W. F. Nelis, who was for many years assistant medical officer at the Abergavenny Asylum. Dr. Sidney Clarke has been appointed his assistant.

The West Indies.

The Colonial Office reports of several of the West India Islands for the year 1904-5 have been published recently. In the Bahamas the general state of the public health is satisfactory. Malaria has lately been of a mild type and not very common. At the same time the Colonial Secretary, Mr. Spencer Churchill, takes occasion to record his grave doubts as to whether the constant movement of the population in search of work on the mainland, Panama, and elsewhere, does not do more harm than good, for it has undoubtedly been responsible for the introduction into the islands of types of malarial fever unknown before, and more severe than the indigenous forms. There are apparently only seven lepers in the Leper Hospital, but whether other cases are known is not stated. Thirty-nine are recorded in the yearly list of diseases in Trinidad, while 62 are segregated in St. Kitts and 30 in Antigua. It will thus be seen, on comparing these with the figures for the last ten years, that—at all events, in the Leeward Islands—this malady is undoubtedly on the decrease. It is not so in British Guiana, however, where the system of segregation continues to be enforced as far as possible, for there were 414 cases in the hospital in March last—precisely the same number as in the previous year.

Antigua suffered from a severe drought, and a very large proportion of the deaths occurring in the hospital are stated to be attributable, directly or indirectly, to the poverty resulting from it; but neither epidemics nor malaria were conspicuous, and good work was done by the institution of courses of lectures on tropical hygiene for teachers in elementary schools.

Montserrat, for the first time since the hurricane, has restored its lime-juice export to normal dimensions. The cultivation of arrowroot, however, is being abandoned, owing to unremunerative prices; and papain, which was a good deal manufactured, has been so hopelessly overproduced that it will be long before even the existing stock is disposed of.

SPECIAL CORRESPONDENCE.

PARIS.

The Danger of Injections of Insoluble Mercury.

A FACT trivial in itself, but of great therapeutic importance, has recently once more drawn attention in France to the danger of injections of insoluble mercury. A poor woman wishing to protect herself, as well as her friends, from the consequences of what is now known to ears polite as *avarie*—which our rude forefathers called by a coarser name—submitted to treatment and died a month after having had two or three injections of grey oil. Right-thinking people say that she has died of her sins; on the other hand there are evil tongues which hint that her death was the result of the treatment. The case has caused a flutter in the medical world and in the larger sphere of the *avariés*. In connexion with this matter I may mention a curious fact which came under my notice when I was *interne* in the Hôpital Saint Louis. One morning I saw a patient affected with mercurial stomatitis. "Hallo! my friend," said I, "what drug have you been taking?" "None, sir," was the reply; "but I got into a fight yesterday, and was kicked." "With what pomade did you rub yourself?" "With none. But six months ago I had the same trouble in the mouth after a fall downstairs." I thought I had to do with a man who was either mad or drunk, and you may think the same. Nothing of the kind; the man spoke the truth. He had a few months before undergone mercurial injections *a posteriori*; the metallic mass had not been absorbed, and thus he had stored in the depths of his economy a supply which the shock of the injuries disseminated rather rapidly. Against such accidents one of our brethren has suggested an effective means of prevention. If a patient happens to find that he has received too full measure, he should forthwith be examined with the x rays, and, when the mine is discovered, it can be extracted by a surgeon who is not afraid of spoiling his instruments. All danger from the too effectual remedy, if not from the disease for which it was prescribed, will thus be averted.

AMSTERDAM.

Medical and Physical Society.—Railway Extension Works and the Use of Caissons.

AT a meeting of the Genootschap ter Bevordering van Natuur-Genees en Heelkunde te Amsterdam, Professor Thomas Oliver, M.D., Newcastle-on-Tyne, was elected an Honorary Corresponding Member of the Society. This, the Medical and Physical Society of Amsterdam, is one of the oldest of the Dutch societies, having been founded in 1790. On its list of honorary members there appears the names of two other British medical men—Lord Lister and Mr. Jonathan Hutchinson. Dr. P. K. Pel, Professor of Clinical Medicine in the University, is the President of the Medical Section, and Dr. C. C. Delprat the Secretary.

At the railway station it was found necessary to make a new viaduct, and as a considerable portion of the city has been built upon, comparatively speaking, newly-made ground, it has been found necessary to employ caissons in order to secure good foundations. The soil for the most part is composed of sand with layers of clay. Eleven caissons have been in use. These have varied in size; some of them have been capable of accommodating ten men. The men have been working at a depth of 60 ft., under a pressure of 25½ lb., and a fairly long time has been spent in decompression—usually 28 minutes, or about three times longer than that spent in other countries. The employers provide blanket rugs for the men to put round their shoulders when undergoing decompression. In this way chilling of the body after the fatigue of the few hours of hard work and of exposure to a falling temperature in the decompression chamber is avoided. The wages of the men vary, according to the depth at which they are working, from 40 to 60 cents per hour—that is, from 8d. to 1s. Most of the men are young; their ages vary from 20 to 35 years. At the viaduct the contractors have built refreshment rooms, where hot coffee can be had and the man can rest. There are also in another building hot and cold shower and plunge baths. Liberal provision is made for the men to wash. There is always a medical man on the spot; Dr. W. L. Vogelesung, the senior, has two colleagues. The men work eight hours a day, but only four hours at a time, with a break of four hours between. There is also a medical lock, in which the men who exhibit signs of compressed-air illness can at once be recompressed. Notwithstanding all the care that has been taken in slowly decompressing the workmen, three or four cases of compressed-air illness have occurred; they were slight, but recompression was of the greatest service. There are 54 men working in compressed air. As the medical men are appointed by the Government, and not by the employers, the interests and health of the caisson workers are well looked after.

Before the New West Viaduct works had proceeded to any great extent the subject of caisson disease was fully brought under the cognizance of the Government by Dr. G. Waller, of Amsterdam, and others, and a Bill was introduced into the Upper House of Parliament. On June 27th, 1905, Queen Wilhelmina gave her Royal consent to a series of regulations for working in compressed air, and which are in advance of those followed in most countries. The medical regulations are good; they err, if at all, on the side of caution.

CORRESPONDENCE.

THE RELATIVE BRAIN-WEIGHTS OF MAN AND WOMAN.

SIR,—As Professor Karl Pearson does me the honour, in his letter in the BRITISH MEDICAL JOURNAL of January 27th, p. 232, to couple me with Dr. Gladstone as an opponent to some of his views, may I be permitted to say a few words of comment on that letter?

I do not disagree with the proposition put forth in Professor Pearson's concluding sentence, but I do disagree with the reasoning on which it is supposed to be based. Thus, he makes the surprising discovery that "a man of the same length, breadth, height, and circumference of skull as the average woman, has her mean brain weight."

There may be a word to be said about thickness of skull bones, which has something to do with the large size of the head in some powerful men; but, putting that aside, I feel disposed to cry, "Why, certainly! Surely one pint pot may reasonably be expected to have equal content with another pint pot! But how does this truism help us? What can it prove?"

Professor Pearson goes on to raise anew the question of the relation of brain weight and intelligence. I may not be quite correct in thinking that at one time he totally disbelieved in any such connexion. Certainly I read not long ago, in an article professedly scientific by a Mr. Fison, that Professor Pearson had absolutely disproved the existence of any such relation. Now, however, he allows that "there is a sensible correlation between size of head and intelligence, but it is so slight that no safe prediction can be made from size to degree of intelligence." I do not think anybody ever imagined that there could be room for such a safe prediction. The average and the individual are two things.

But from all quarters continues to come evidence (see a recent paper by Buschan of Stettin) to the correctness of Topinard's canon "that intellectual eminence is generally accompanied by a moderate enlargement of brain, but that there is apt to be something pathological about a very great enlargement."

One word more. A consideration much neglected in these controversies is that the brain as a whole subserves various other purposes besides those we usually call intellectual; and that the anterior lobe, or portions of it, seems to have more to do with these last than other parts of the cranial contents. I believe it will be found (and I have some evidence for it) that the magnitude of the stephanic diameter yields usually better evidence of high intellectual capacity, than does the size of the whole brain.—I am, etc.,

JOHN BEDDOE.

Bradford-on-Avon, Jan. 28th.

SIR,—I read with interest, if with somewhat chastened feelings, the letter contributed to the BRITISH MEDICAL JOURNAL of January 27th by Professor Karl Pearson. The letter interests me in two ways, for I wrote the review in *Nature* of which he now complains, and I learn from it that—to use Professor Pearson's method of citing a sentence—"A. Keith represents mediocrity." Since he has let my secret out I do not see why I should now keep his—namely, that on his own confession[1] "P's brain-weight is essentially mediocre,"—the qualifying adjective making his case certainly worse than mine. Thus in one point at least we are equal—we each bring an approximately equal amount of brains to consider this question of the interpretation of brain-weights.

It is strange that Professor Pearson, who has pilloried so many men for misrepresentation, should himself be guilty of a major offence in his letter to your columns. He has lifted part of a sentence and quoted it as a completed sentence; he has omitted the paragraph of which it is an intrinsic part; he gives no reference, so that a reader cannot verify the statement; and, on the partial sentence cited, he writes a long letter which totally misrepresents the statement and meaning of the reviewer.

I crave space to reinstate in its context the words quoted by Professor Pearson—they are given in italics—because I can thus put briefly the point at issue, namely, Why the average Englishman has a mean brain-weight of 100 grams more than the average Englishwoman:

> How far is the male preponderance due to greater body size? The conclusions reached by biometricians are the following: "Differences in stature and age account for less than one-third of the observed sex difference in brain-weight" (Raymond Pearl). "On the whole, as far as present evidence goes, we can safely conclude that there is no sensible *relative* difference in the brain-weights of man and woman; the absolute differences observed are quite compatible with the differences which result from the relative sizes of the two sexes. . . . While our results thus apparently contradict those of Pearl on p. 51 of this journal,[2] the contradiction is only on the surface, for we have been able to use a far more complete system of physical measurements" (Blakeman, Lee, and Pearson). Yet if the writer has rightly grasped the methods used, the difference between the results is due to the fact that *in his calculations Pearl took into consideration merely age and stature, while the second group of workers added a third—namely, the diametrical product—a quantity which roughly represents the size of the head.* To the writer, who is a professed anatomist but not an expert mathematician, it seems that one must infer from these results that nearly two-thirds of the preponderance of the male brain is correlated with the greater size of the male head, while less than one-third is correlated with the greater size of the male body, using stature as a criterion of size. Clearly, if the writer's interpretation is correct, the cause of the relatively greater weight of the male brain is still to seek, for it will be readily granted that a greater brain must be correlated with a greater size of skull. The writer is prepared to believe that the relatively greater weight of the male brain is not only correlated with, but actually dependent on, the physically greater development of the male body, for amongst the various genera of anthropoids the sexual difference in brain-weight corresponds very closely to the sexual differentiation in body size.[3]

From the tone of Professor Pearson's letter, one would naturally infer that the reviewer had impugned his conclusion that the sexual difference in brain-weight was "due to differences in bodily characters," whereas the last sentence of the above extract shows the opposite was the case.

Professor Pearson cannot escape from the conclusion which follows directly from the biometrical work of Dr. Pearl and of his own pupils—namely, that of the 100 grams of brains which the average Englishman possesses above the average Englishwoman, 30 are due to his greater stature and age, while the remaining 70 are due to the greater size of the head. This explanation may be satisfactory, and, I have no doubt, correct from a biometrician's point of view, but, I am afraid, will not prove of much service to medical men.

The manner in which Mr. Blakeman and Professor Pearson get rid of the 70 extra male grams of brain-weight which remain after the 30 have been deducted for stature and age is particularly unfair. It is got rid of by the use of a "multiple regression, equation (1)^a"[4] which gives this result:

> The Englishman of the same age, stature, and diametrical product as the mean woman has 1,235 grams brain-weight, or only 10 grams more than the average woman.

That is to say, when the mean man has the length, breadth, height, and circumference of his skull reduced to the measurements of the mean woman his excess of brain disappears. Quite so; but were Professor Pearson actually to apply this method of equalization to the living head, I have no doubt he would find the missing 70 grams either forced out from the skull beneath the scalp or through the foramen magnum within the spinal canal. As I have already said, this method of levelling the brain-weights of the sexes may be satisfactory mathematically, but medically it takes us no nearer the solution of the problem of the male preponderance in brain-weight than we were before *Biometrika*, vol. iv, Parts I and II appeared.—I am, etc.,

A. KEITH.

London Hospital, E., Jan. 29th.

THE ANTIVIVISECTIONISTS AND THE HOSPITALS.

SIR,—This controversy appears to have developed along extraordinary lines. I started it by asking the BRITISH MEDICAL JOURNAL to allow me to pose three main facts, these being that the Animals Act affords absolutely no protection from the fully-certificated experimenter; that no legal penalty attaches to any infraction under certificate of the laws of humanity, however extreme it may be; and that two inspectors cannot possibly be responsible for what goes on in three hundred places at the same time. Nobody has attempted to assail any one of these propositions, but I learn that I have violated the rules of honourable conduct. I am told—in periphrasis, but not one whit less roundly in effect than if the blunt words themselves were used—that I am a liar and a canting hypocrite; I am denounced for the opinions of Miss Frances Power Cobbe, whom I never read, and for those contained in an apparently ridiculous publication called *St. Bernards*, which I had never even heard of.

I am significantly told that people who go spying to find out cruelty and falsehood in other people are generally cruel and false themselves; I am treated *de haut en bas* by gentlemen for whose proofs of mental superiority I have yet to seek; I, who have hitherto maintained an attitude of studied courtesy, am told that I howl with rage; I am instructed that, because I have never read for a medical degree, my opinion as to the facts of human nature or as to the plain meaning of an Act of Parliament is so valueless that it is an act of pure impertinence to record it. In brief, I learn that I am a model compound of falsehood, ignorance, violence, and bad manners. But I submit that all these expressions of contumely—however well founded they may be—do not touch my facts.

Now, I venture to characterize the assertion that a man is a wilful liar because he affirms and reaffirms his belief in the honour of ninety-nine professional men whilst refusing to rely upon the honour of the hundredth—I say I venture to characterize that assertion as being at once a piece of very bad breeding and a childish absurdity. I believe in the honour of the Anglican clergy, and I have seen not a few of them in the dock. I believe in the honour of the officers of the British army, but there are some of them under arrest for peculation at the time of writing. I believe in the honour of the officers of the navy, but I have known one or two abject "rotters" even there. I believe that the greater number of the medical practitioners of these islands would have the decency to accept the reiterated statement of a reputable stranger as to the sincerity of his own emotions and opinions, and I stand quite firm in that belief in spite of the evidence to the contrary afforded by Mr. Wynne in his own person.

I am told that vivisection is absolutely necessary for the advancement of our knowledge of pathology. That may be quite true, but it does not touch the issue I have raised. I am told that I am "certainly wrong" in saying that the Animals Act made cruelty possible. Cruelty, I am told, was always possible. Granted, with all my heart. But legalized cruelty was made possible by that Act. Mr. Dukes jeers at my phrase about physical atrocity—"whatever that may mean." I think the meaning tolerably plain, but I am a student of English, and if Mr. Dukes can find me a shorter and a clearer way for the description of the useless infliction of extreme bodily pain I am willing to accept it. Whether the fault were the printer's or mine I cannot tell. I am guilty at least of having passed the blunder in proof. In one of my letters the words "fully-certified" were used in place of the words "fully certificated," and they are quoted with a scornful little "(*sic*)" after them. I would rather have made the slip of the pen a hundred times than I would have taken that poor advantage of it once; but I am a layman and an antivivisectionist, and any stone is good enough to throw at a dog of that sort.

---

[1] *Biometrika*, vol. iv, p. 148.

[2] *Biometrika*, vol. iv, 1905.

[3] *Nature*, December 28th, 1905.

[4] *Biometrika*, June, 1905, p. 155.

I decline to believe that all this virulence and smallness is characteristic of the opinion of the medical profession at large with regard to a man who approaches a subject in which it is gravely concerned, and who does so with every sentiment of respect and good will. It is certainly not the official attitude of the BRITISH MEDICAL JOURNAL, which has offered me a consideration beyond my hopes or merits. But I claim to have come into this discussion with clean hands. I have vilified nobody, and I have made none of the "abominable suggestions" which Mr. Wynne lays to my charge. I am instructed by the Secretary of the National Antivivisectionist Society that, in the opinion of Mr. Coleridge and of his Committee, I have laid myself open to a charge of *suppressio veri*, inasmuch as I have not emphasized, as I might have done, the caution with which they know the Act to have been administered. I desire to purge myself of that offence here and now; but no mere exercise of caution can avail under the provisions of the Act as it stands. The awful powers conferred upon the holders of the higher certificate are not sown broadcast, but, when once they are granted, there is no extreme to which they may not be carried. It is impossible to commit an act of legal cruelty under them. The Home Secretary is a man of many responsibilities, and, like myself, he is a layman, and is, possibly, no better qualified to judge of the scientific necessity which exists for the performance of the more painful kind of experiment than the ordinary man who has successfully negotiated the University tests, and has gone through the educated man's average of thoughtful reading. He has his advisers, but neither they nor he can know what goes on in secret.

With regard to the charge of ignorance which is made with so much confidence and complacency I should like to be allowed to say that I imbibed my belief upon this question from a great surgeon, and a revered friend of many years ago, the late Lawson Tait. He at least had some knowledge of this matter from the inside point of view, and he fought in public and in private against the belief of the party to which I am myself opposed. I do not pretend to say that Lawson Tait was an infallible person, or that he was so eminent a surgeon that he deserved to be listened to against the whole body of his fellows. But he was a man of uncommon penetration. He had made a close study of the question. He was profoundly acquainted with its history. My early prepossessions were drawn from his teaching and my later reading has appeared to confirm them. That reading has not been extended to the wild-cat literature with the knowledge and approval of which I have been too generously credited by your correspondents.—I am, etc.,

London, W., Jan. 30th. DAVID CHRISTIE MURRAY.

SIR,—I have seen the letter of Dr. T. Archibald Dukes in the BRITISH MEDICAL JOURNAL of January 27th. In it he writes:

> We define cruelty as the useless and unnecessary infliction of pain. We are convinced that physiological experiments are both useful and necessary. The antivivisectionists say that this opinion is not proven.

This seems to me a really sad example of confused thought. Let us paraphrase it into a defence of slavery in Virginia thus:

> Slaveholder *(loquitur)*: We define cruelty as the useless and unnecessary infliction of pain. We are convinced that the severe flogging of slaves, male and female, is both useful and necessary. The antislavery party say that this opinion is not proven.

Perhaps Dr. T. Archibald Dukes will explain why the convinced opinion of the slaveowner of Virginia should not have as much weight as that of the vivisector of London. Dr. T. Archibald Dukes will, I dare say, be surprised to hear that no opponent of vivisection or slavery will accept his definition of cruelty, which leaves it to the inflictor of the torment to decide whether what he does is right or wrong.

Parenthetically, I take leave to remark that no wickedness would ever have been abolished if the world had been satisfied with the convinced opinion of the wrongdoers that they were justified in their evil behaviour. Cruelty, as defined by antivivisectionists and all other right-minded people, is the infliction of severe and continuous pain upon a sentient creature for any purpose whatever except its own benefit. And this definition places all serious and painful vivisection under the condemnation implied in the word cruelty, Dr. T. Archibald Dukes next says that he is "acquainted with the provisions of the Cruelty to Animals Act, 39 and 40 Vict., c. 77," and that to imagine that any vivisector could be cruel is a "contemptible suspicion." Dr. T. Archibald Dukes thus again demonstrates his habit of confused thought. The Act (with which he is acquainted) contains provisions for the inspection of vivisectors by Government officials, thus proving that the Parliament which passed that Act harboured those very suspicions which he characterizes as "contemptible." It is permitted to us to share with Parliament Dr. T. Archibald Dukes's contempt with no very deep sense of abasement.

Finally, lest Dr. Archibald Dukes should think his parting comparison of the literary punctuation of men of letters with the physiological experiments of vivisectors escapes the confusion of thought manifested in the rest of his letter, it becomes necessary for me patiently to explain to him that the literary taste of the man of letters, which may fitly be compared with the manual dexterity of the vivisector, can never inflict agony upon the paper on which he writes and affixes his punctuations, but that inasmuch as the paper has no sensation, as far as we are aware, and has no rights such as are already recognized by decent people and the Statute Book as appertaining to certain animals, his comparison of letter paper and animals is not only entirely inept, but seems to demonstrate that his mind has not yet made the elementary discovery that there is any moral question at all in this controversy; and as the moral question involved is the only one that interests those for whom I speak, Dr. T. Archibald Dukes's concluding lucubrations are as confused as all his others.—I am, etc.,

London, S.W., Jan. 29th. STEPHEN COLERIDGE.

SIR,—I believe it has been the practice of most civilized communities to invest certain individuals with authority and hold them responsible for the acts of their subordinates, and in making the Home Secretary responsible for operations which he authorizes, our legislators were following the traditions of wide experience. It is open to any one to dissent from the system and suggest a better; but it is almost inconceivable that he should really find a grievance in the failure of the responsible authority to punish any one for acts which he has himself authorized. Yet this appears to be Mr. Murray's complaint. In his first letter he said that "any physical atrocity conceivable by the mind of man" could be "legally perpetrated by a fully-certified experimenter." I pointed out that it would only be possible if the Home Secretary had authorized it, and that if a Home Secretary could sanction such a thing he must be either a fiend or a madman. Mr. Murray's answer to that is to say my statement is "quite out of reason," and then ride off on side-issues. As to the "reason," your readers will judge, and as regards the side-issues I will refer to them very briefly:

1. Mr. Murray says the Home Secretary cannot make himself aware of the characters of the people to whom he grants certificates. That would be relevant to a question of evading or breaking provisions of the Act; it is not relevant to the question at issue, which is whether the Act sanctions atrocities. A person driven by lust of cruelty to atrocities might obtain permission to do certain things and actually perform others, but it would not be legal and he could be indicted. It would be just as open to him and a good deal safer to perpetrate his atrocities secretly without any licence at all.

2. Mr. Murray goes on: "No man will venture to say the Act as it stands does not authorize unfruitful pain," and "the Act legalizes the performance of any and all of the experiments described in Crile's work on *Surgical Shock*, and legalizes any and all of them without the exhibition of any anaesthetic or sedative, without any obligation to kill the animal when the experiment is over, and without any limit as to time."

That is an antivivisectionist misrepresentation worthy of the *Zoophilist*. Of course, the Home Secretary could sanction such a thing, as any one in a responsible position may abuse his trust—a judge to defeat the ends of justice, a general to give information to the enemy, as, in short, the possession of authority necessarily involves the possibility of its abuse; but to say that because the law confers authority it sanctions abuse of it is outrageous, and that is what Mr. Murray's statement amounts to, and he is so proud of it that he repeats it again in a postscript: "My contention is simply that the needful certificates being once granted by the Home Secretary, he is powerless to indict any person who has performed any one of the experiments," etc. Of course, he can't authorize a man to do a thing and then indict him for doing it; it hardly needed a postscript to repeat this. But why should the Home Secretary grant the permission, to begin with? What inducement has he? Mr. Murray says there is a lust of cruelty; is there a lust of licensing it also? and is any Government likely to appoint and keep in office a Home Secretary who suffers from such an extraordinary disorder?

Mr. Murray complains of the want of urbanity with which he has been received by those who differ from him in opinion, and says my allusion to novelists who abuse their gifts of fiction and romance was "addressed his way." It was not intended for him; outside this discussion I am not aware of anything Mr. Murray has written which comes under that description. I simply translated his attack on experimenters into its equivalent on novelists, and he reacted at once. For him to make a gratuitous and offensive attack on experimenters, or, if he prefers it, on some experimenters, accompanied by patronizing offers to help medical men to understand and manage their own affairs, is one thing; but for one of them to return him the smallest of his own coins is, it appears, quite another, and he forthwith complains of want of courtesy and personal attacks.

It is curious to see Mr. Murray protesting that any attempt to cripple the finances of hospitals is a crime worthy of the most sweeping condemnation, and that if Mr. Coleridge had any such purpose his name should not be associated with it for an hour, while on the other side Mr. Coleridge's colleague and *fidus Achates*, the editor of his paper the *Zoophilist*, to which he and his party look for light and leading, has been for years the bitter enemy of hospitals and his own profession, the leader in a campaign of slander the object of which is to discredit and excite prejudice against hospitals and doctors in every possible way—and what is still more curious Mr. Coleridge tells us he has never heard of it.—I am, etc.,

January 29th. R. H. CLARKE.

SIR,—So I am "lungeous" according to Mr. Murray. I had to look out this word. Johnson describes it as a word of uncertain etymology, used in Derbyshire and Leicestershire—no mention of West Kensington—meaning spiteful and malicious. Capital! Here is an author using all the power of his pen in the *Contemporary*; here are his leaders describing me as "dishonest" and guilty of "breach of sacred trust," because I have started a Discretionary Fund, with which he now says he is satisfied, and adds "we have got what we asked for." Pity that he did not take the trouble to understand it before he attacked me. And when I refuse to sit down quietly under all this I am "lungeous"! May I remind him, however, that one of the resolutions which Mr. Coleridge sprung on the Mansion House meeting was to the effect that no money should be given to any hospital which had such a fund?

Mr. Murray writes that he cannot see how he was to blame in his conduct at the Mansion House. Are his senses really so blunted? He would command greater respect if he owned up that he had committed a great mistake and regretted it. Let me tell him once more why every man blames him, and why, until he sees his mistake, he cannot be expected to be considered quite human. He has admitted that he was accidentally present at a private meeting. He says that at first he was too busy looking for his lost leader (it is almost pathetic, this wandering lamb) to notice what was going on. Then "by-and-by," he writes, "I woke up," and then . . . he stayed! and wrote to the press what he had heard, or rather thought he had, because his account is not accurate.

I have no epithet handy, despite my lungeosity, for such conduct.

Mr. Coleridge informed your readers that Mr. Clarke and myself would be vivisected by Mr. Murray in his reply. We have been, and what stronger proof is there that vivisection is painless? But Mr. Murray acts with a licence not generally recognized.—I am, etc.,

Royston, Jan. 29th. SYDNEY HOLLAND.

*** This controversy, which is drifting more and more away from the real issue, may now be allowed to die a natural death. On the question of contributions to medical schools from moneys subscribed by the public to hospitals, our opinion was expressed with no uncertain sound in a leading article published in the BRITISH MEDICAL JOURNAL of December 23rd; to that utterance we have nothing to add. As for what Mr. Coleridge calls the "moral question," we need only state once more our conviction that the duty which man owes to his fellow men is different not only in degree but in kind from that he owes to the animals which he is, by Mr. Coleridge, allowed to kill and eat for his sustenance, and by his noble supporter, Lord Llangattock, to mangle for his pleasure. The constructive cruelty of the antivivisectionist, who in his zeal to save an unanaesthetized guinea-pig from the prick of a needle strives to lessen the benefits afforded by hospitals to human sufferers, and boasts of his success in achieving this unworthy object, is to our mind immeasurably greater than any that the imagination of the most ardent philozoist can picture in all the physiological and pathological laboratories in the world.

Erratum.—In the letter from Mr. David Christie Murray published in the BRITISH MEDICAL JOURNAL of January 27th, the word printed "friend," line 19 from the top in the left-hand column of p. 234, should be "fiend." The mistake was rectified in a certain number of copies of the JOURNAL, but, owing to the fact that the author's corrected proof did not reach the office till Friday morning, the greater part of the issue had been printed off before the error was discovered.

ARTERIAL DISEASES.

SIR,—I am much indebted—in common, I feel sure, with many others—to Professor Clifford Allbutt for his further remarks on the subject of arterio-sclerosis. I sought an explanation of the widespread arterial tortuosity which, according to Professor Allbutt, may occur in cases of arterio-sclerosis attended with only moderate arterial pressure.

If I understand him aright, Professor Allbutt holds that the essential factor in these cases is the same as in those in which the pressure is habitually high, that is, a stretching of the vessel, the latter yielding with more than ordinary readiness owing to chronic relaxation of the media. He contends—and I have no doubt correctly—that arterial tone, that is, the active, vital contraction of the muscular media, opposes a substantial resistance to the pressure which the blood exerts on the vessel wall, a pressure ever tending to stretch it; and that while an artery, such as the radial, will, provided the media be kept in a state of vigorous tone, long remain unstretched (that is, neither dilated nor tortuous), even in the face of an habitually high pressure, it will, should the media keep habitually relaxed, tend to dilate and become tortuous, even in subjects presenting moderate blood pressure.

This important property—function one might even call it—of the muscular media in resisting the stretching effect of the blood pressure I had myself already recognized in the case of individual arteries, though I had failed to recognize its relation to widespread arterial stretching and thickening. I can now see, however, that such a relation may well exist. Professor Allbutt's letter has recalled to my mind many cases of granular kidney in which, with a high blood pressure the radials have been firmly contracted ("tightened") and altogether devoid of tortuosity, just as it has reminded me of other cases of heightened pressure in which those vessels have been dilated and tortuous, and in which the media was evidently in a state of complete relaxation.

My observations bearing on the influence of arterial tone in strengthening the vessel wall and preventing it from yielding before the blood pressure—observations which seem to prove conclusively the actuality of such an influence—were made on the temporal arteries. I had long been struck by the occurrence of thickened, tortuous temporals in subjects presenting quite moderate arterial pressure. This was the more surprising, seeing that the tortuosity was sometimes much more marked on one side than the other. At last I came across a case in which the vessel on one side was thickened and tortuous, while that on the other side was neither the one nor the other. Now, this patient had for years suffered from frequent headache in the temple showing the tortuous vessel, the pain being accompanied by a marked dilatation and throbbing of the vessel in question. Clearly the anatomical changes it had undergone were secondary to a more or less chronic relaxation of the media. What had happened was evidently this: The relaxed media, instead of firmly embracing the intima and supporting it from without, and instead, moreover, of bearing off the pressure of the blood—*as a vigorously-contracted media wholly does*—from the adventitia, allowed both these tunics to be more or less chronically stretched, with the result that they were stimulated to hypertrophy, while the vessel became permanently dilated and tortuous. I should expect to find the media atrophied in such cases.

I would suggest that the marked thickening and tortuosity so frequently met with in the temporal arteries is largely predisposed to by the frequent vaso-motor dilatation they are wont to undergo as the result of such causes as emotion, intellectual effort and alcoholic stimulation. In any case, the evidence I have adduced would seem to place beyond all doubt Professor Allbutt's contention regarding the influence of arterial tone in preventing arterial stretching.—I am, etc.,

London, W., Jan. 21st. HARRY CAMPBELL.

SIR,—Whether muscular exertion, continued for the best part of a man's life can, apart from drink, syphilis, "*misère*," and other contributory causes produce arteriosclerosis in a vascular system originally of good quality is really the question raised by Dr. John Broadbent in his interesting letter in the BRITISH MEDICAL JOURNAL of January 27th, p. 235. To this question, one to which, as he is good enough to say, I have given no little attention, I am unable to give an answer. My present opinion is that it does not; but this opinion is far from a confident one.

As regards another part of Dr. Broadbent's letter—cases of big left ventricle often ending in mitral regurgitation belong not to my category of involutionary sclerosis but to that of hyperpiesis, present or past. In the involutionary form (uncomplicated) the heart is normal or atrophied.

Sir William Broadbent is wont to speak of the phase of failure of the left big ventricle as one of "virtual tension," a phrase which probably he regards as a provisional one. In this sense of present convenience I use it also, but I would add that the "virtual tension" is nearly always actual tension, although to the finger the sense of resistance seems less and less. In these cases it is remarkable how high a pressure is proved to persist when it is measured by a sphygmomanometer.

I will not say more at present, as I am engaged in collecting my essays on this subject for a new edition of my *Lane Lectures* of 1898; yet I can scarcely close without an acknowledgement of my debt to the excellent and practical treatise on heart diseases by Dr. Broadbent and his distinguished father.—I am, etc.,

Cambridge, Jan. 29th. T. CLIFFORD ALLBUTT.

THE HEALTH OF MADEIRA.

SIR,—As reports have been disseminated to the effect that either bubonic plague or some other infectious disease is prevalent in Madeira, it is advisable that the Medical profession should be informed that these rumours are absolutely without foundation.

Some six weeks ago several so-called suspicious cases were removed to the "lazaretto," a building used for isolating cases liable to spread infection, the persons who had been in contact with these patients being also removed and isolated in a separate part of the same building. Shortly afterwards it began to be said, rightly or wrongly, that these isolated individuals were not receiving that care and attention which were necessary. The lazaretto was in consequence stormed by the populace, which had always doubted the genuineness of the existence of infectious disease, the inmates were found to be healthy, with the exception of 5 cases who were suffering from more or less trivial ailments, and since this occurrence there have been no further cases of so-called plague.

It turns out now that the whole affair has been a scare purposely got up by certain interested individuals in Madeira from political motives which need not be further considered. I write this with the full concurrence of the senior English physician in the island, Dr. M. Grabham, and we both wish not only to reassure the friends of visitors at present staying here, but to make public the fact that intending visitors need have no fear of running any danger on their arrival.—I am, etc.,

J. GEDDES SCOTT, M.R.C.S., L.R.C.P.Lond.

Funchal, Madeira, Jan. 20th.

OBITUARY.

W. WINGATE-SAUL, M.D.,

LANCASTER.

BY the death of Dr. Wingate-Saul, which occurred on January 27th at his residence, Fenton-Cawthorn House, Lancaster has lost one of its foremost and most respected citizens and public men. About eighteen months ago failing health compelled him to give up practice. He was the third son of William Saul, of High Ferry House, Sibsey, Lincolnshire, and grandson of Captain B. Kelsey Saul, who commanded the Sibsey volunteers a century ago, and a direct descendant of Colonel John Saul, who, for his gallant defence of Croyland Abbey in the Civil War, received the freedom of King's Lynn. He was born at High Ferry House on July 24th, 1842, and was therefore in his sixty-fourth year at the time of his death. He assumed the additional surname of Wingate by deed poll dated June 18th, 1891. He was educated at King Edward VI School at Louth—the school of Tennyson and Tom Hood—at Brighton, St. Bartholomew's Hospital, and the University of Heidelberg. He became M.R.C.S. and L.S.A. in 1867, and M.D. of Heidelberg in 1870. In the same year he joined the late Mr. Langshaw in partnership at Lancaster. Dr. Wingate-Saul soon proved that he was a man of skill and influence. For nearly a quarter of a century he was Surgeon to the civil and military prisons at Lancaster Castle. For a short time he was on the staff of the Lancaster Infirmary, and during the whole of the time he was in practice he was Medical Officer to the Royal Grammar School, Ripley Hospital, and H.M. Postal and Telegraph Department. For twenty-two years he was an Officer in the Duke's Own Yeomanry, one of the oldest Volunteer cavalry regiments in England. He joined the regiment in June, 1881, with the rank of Surgeon-Captain. In June, 1901, he was appointed Lieutenant-Colonel, and on his retirement, after twenty-two years' service, he was raised to the rank of Colonel, and granted permission to wear the uniform of the regiment. Colonel Wingate-Saul was the founder of the Lancaster Centre of the St. John Ambulance Association. He was the first lecturer for the Association in Lancaster, and was awarded the medal of the Order, and at the time of his death was one of its honorary associates. He had been Chairman of the local branch of the Royal Society for the Prevention of Cruelty to Animals since its formation. He was a member of the Lancaster Division of the North Lancashire and South Cumberland Branch of the British Medical Association.

During his thirty-five years' residence in Lancaster, Dr. Wingate-Saul found time to devote to many things outside his private practice and official duties, and was known and esteemed by members of societies outside Lancaster. He was a member of the Hackney Horse Society and the Polo Pony Breeding Society, and will be remembered as the first to introduce hackney breeding into North Lancashire. He was at one time a member of the Council of both these societies. He supported the breeding and registration of Fell ponies in the North of England, which has produced very good results. He was a generous and active supporter of local and other agricultural societies, and was a Vice-President of the Lancaster society, as well as a member of the Council of the Royal Lancashire Agricultural Society. He was a very old member of the Royal Agricultural Society of England, with which he ceased to be connected on the Council taking what from the first he believed to be the disastrous step of moving the annual fixture to Park Royal. Amongst other breed societies with which he was connected may be mentioned the English Kerry and Dexter Herd Book Society, and the Large Black Pig Breeders' Society. He was one of the original members of the County Club at Lancaster. He was also a member of the Red Rose Club, established as a bond of connexion between the past and present officers of Lancashire regiments of militia and yeomanry. Recently he was the Chairman of the Ratepayers' Association, which he assisted to form.

He was for some time President of the Orchestral Society, and Chairman of the Choral Society. He used at several public performances a Stradivarius violin purchased by a cousin of his father in 1826. He had played on it since he was a boy, and it was described as an exceptionally fine model of Stradivarius's best type, having its original rich colour and varnish. A second violin owned by Dr. Wingate-Saul was an Amati of exquisite tone. He was the possessor of two very fine examples of Romney's work—life-size portraits of the Fenton-Cawthorne family.

For some years he had been a member of the Central Committee of the Royal Albert Asylum at Lancaster, and he took a warm interest in all concerning the institution and the welfare of the patients. A few years ago he gave to the institution a chalet for the open-air treatment of tuberculous disease. His generosity induced another member of the Central Committee to do likewise.

Dr. Wingate-Saul was a member of the Rowley Lodge of Freemasons, and also of the Ancient Society of John O'Gaunt Bowmen.

He was a Conservative and a Churchman, and attributed much of the lack of usefulness of some of the rising generation to the degeneracy brought about by cheap literature. One of the greatest pleasures of his life was a well-arranged reference library, which enabled him to become particularly apt in quotation, anecdote, or illustration. His letters to the local press, if they could be collected and reprinted, would throw interesting sidelights upon local history during the past thirty years. It is remarkable how many of his prophecies have been fulfilled. He condemned projects and policies unsparingly when he considered they were mistaken. Soon after settling at Lancaster Dr. Wingate-Saul married the eldest daughter of the late Mr. William Storey, J.P., of Fairfield House, who was Mayor of Lancaster in 1872-3, who survives him. They had four sons and two daughters.

HENRY S. PURDON, M.D.GLASG., L.R.C.P.EDIN., L.R.C.S.I.

CONSULTING PHYSICIAN, FORSTER GREEN HOSPITAL FOR CONSUMPTION, AND TO THE HOSPITAL FOR SKIN DISEASES, BELFAST.

IT was with great regret amongst all classes that some three or four months ago it was learnt that Dr. H. S. Purdon was ailing, and it was with deep sorrow that a few weeks ago the gravity and even hopelessness of his illness was rumoured; his death occurred on January 21st at his residence, Gharrda, Knock, where he had not long since gone to live.

Henry Samuel Purdon was born on Christmas Day, 1843, and was the son of the late Dr. Charles Purdon, and a member of a family which has given many members to the profession for over a hundred years. He studied medicine in Belfast, Dublin, Edinburgh, Glasgow, and London, and graduated M.D. of Glasgow University in 1865. He started private practice in Belfast shortly afterwards. During these forty years of professional life he became connected with many institutions in the city; and, if not actually the founder, he was one of the originators of two which are now of great importance and of great value to the community—namely, the Hospital for Diseases of the Skin and the Hospital for Diseases of the Chest, to both of which at the time of his death he was Consulting Physician. He had been also Visiting Physician to the Old Royal Hospital in Frederick Street, but, on succeeding his father as Certifying Surgeon under the Factories Act for the Belfast District, he resigned, and was appointed Consulting Physician; he also held the same post to the Old Charitable Infirmary. Dr. Purdon was a member of the British Medical Association and of the Dermatological Society of Great Britain and Ireland, and Corresponding Member of the New York Dermatological Society. He made from time to time contributions to the medical journals, and was the author of more than one volume—*Neurotic Cutaneous Diseases*, in 1869; *A Treatise on Diseases of the Skin*, 1875; *The Dietary in the Treatment of Disease*, 1890; for some years also he published a quarterly *Journal of Cutaneous Medicine*.

Dr. Purdon leaves a widow and large family. Two of his sons are medical men—Dr. Elias Purdon, who is practising in Belfast, and Dr. Cyril Purdon, who lives in America. Much sympathy is felt with them in their bereavement, and with his brother, Dr. Richard Purdon, also of Belfast.

HENRY PARR MALLAM, M.R.C.S.ENG., L.S.A.

WE regret to announce the death, which occurred somewhat suddenly at Oxford on January 19th, of Henry Parr Mallam. He was born in 1838, and at the early age of 9 obtained a choristership at Magdalen College School, at 17 he gained an entrance scholarship at Charing Cross Hospital, and later was appointed a house-surgeon. He obtained the diploma of L.S.A. in 1862, and that of M.R.C.S.Eng. in 1863, in which year he returned to his native city, and very quickly built up a substantial practice.

When a Branch of the British Medical Association was started in Oxford in 1885, Mr. Mallam took an active interest in it, and became a member of its first council. In 1890 he was elected President of the Branch, his year of office being a most successful one. For forty-two years he was Medical Officer to the workhouse and Poor-law schools, and won the golden opinions of all by his invariable courtesy and kindness. His manner to his patients was admirable, his sound judgement, tact, and kindness winning their fullest confidence. With his brother practitioners he was on the very best terms, and his loss will be greatly felt by all of them, while the very large number of those who attended his funeral bore witness to the esteem in which he was held by the citizens at large.

He leaves four daughters and three sons, one of whom, Dr. Ernest Mallam, is an honorary physician to the Radcliffe Infirmary.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

CORRECTED DEATH-RATES.

THE Middlesex County Council, at its meeting on January 25th, received a report from the Medical Officer, Dr. C. W. F. Young, stating that at the commencement of 1905 he was granted permission, as an experiment, to obtain information, at a cost not to exceed £40, of the deaths of residents which occurred and were registered outside the district to which they rightly belonged. As showing the value of the information obtained he mentioned that in the case of one district 216 deaths of residents occurred outside during the twelve months, or about one-eighth of the total number. In previous years these deaths had not been included in the death-rates of the district, or in those of the district in which they were registered. In another district the number was 182, in another 76, in another 95 deaths, and so on. In his last annual report he showed that, owing to the need for correction for outside deaths, the total for the county was incomplete by 894 deaths. It was highly important that the death-rates of the various districts, and of the county as a whole, should be as accurate as possible, with a view to comparison with other death-rates, and he asked for authority to obtain the information in future. It was unanimously resolved to give the authorization asked for.

REGISTRATION OF BIRTHS.

THE Kensington Borough Council has sent a circular to the municipal bodies throughout England and Wales asking their co-operation in approaching the Local Government Board with the object of urging that department to promote legislation for reducing the time allowed for the registration of births from forty-two days to twenty-one days, as in Scotland. Under the present system particulars of the registration of children who die within the first month of life only reach the medical officer of health at about the same time as the registration of the child's death. If the period for registration were reduced the notification of the birth would be received in time to allow of such advice being given to the mother as might in some cases result in the saving of the infant's life.

SCHOOL CLOSURE.

Agricola.—A public elementary school can only be closed compulsorily by the sanitary authority of the district acting upon the advice of the medical officer of health. Article 83 (*a*) of the Code, however, prescribes that "if a school has been closed during the year under medical authority, or for any unavoidable cause, a corresponding reduction is made from the number of meetings (400 a year) required." The medical authority referred to is not necessarily that of the medical officer of health, though it is obviously desirable that he should be consulted by the school managers, who would be ill-advised in not carrying out his suggestions. It is usual for the medical officer of health to hear of such outbreaks of non-notifiable diseases as would require his interference either through the teachers or the school attendance officers. Another source, though it is not one which is made sufficient use of by medical officers of health, is the return of new cases of sickness among pauper patients which Poor-law medical officers are required to send him. With regard to the efficacy or inefficacy of school closure for the prevention of measles, we may refer our correspondent to the articles in the British Medical Journal of January 27th, pp. 216 and 220.

BOARDS OF GUARDIANS AND OVERSEERS' MEDICAL ORDERS.

M. B. F. writes that he attended an unmarried woman—daughter of a farm labourer—in labour, on the order of the overseer of the parish, the case being an urgent one and the relieving officer four miles off. He subsequently reported the case to the guardians in his usual fortnightly return. No objection was raised till his financial account was sent in at the end of the quarter and his fee claimed. He was then informed by letter that it was contrary to the practice of the guardians to allow orders to be given for attendance on single women in confinement, that the case in question was not one in which the overseer should have given one, and that he acted on his own responsibility in doing so. The guardians declined to pay the district medical officer his usual extra fee. The latter now asks our advice.

⁂ The excuse for non-payment of this fee by the guardians—that it was not their practice to allow medical orders to be given for single women in confinement—appears to us to have no bearing whatever on the question at issue. Every case of urgent illness should be considered on its own special merits. It is doubtless the statutory duty of an overseer to give an order for suitable relief in all urgent cases of illness or accident when the relieving officer is not available to do so, and when a medical officer attends in compliance with any such order his fee (if any) is payable by the guardians and not by the overseers. If all ordinary means fail to obtain payment our correspondent should take proceedings in the county court for the recovery of his fee which by the consolidated order of the Local Government Board, July, 1847, is two pounds.

MEDICO-LEGAL AND MEDICO-ETHICAL.

A CHARGE OF NEGLIGENCE DISMISSED.

On January 24th, in the Wandsworth County Court, before the Hon. Arthur Russell, Charles James Hall, billiard marker, and his wife, Flora Hall, sued Messrs. Burgess, Brock, and Stamm, physicians and surgeons, for £40 damages for alleged negligence on the part of Dr. Louis Stamm in diagnosing that Mrs. Hall was suffering from typhoid fever, when, in fact, her complaint was influenza. Mr. E. B. Charles appeared as counsel for the plaintiffs, and the defendants were represented by Mr. H. C. Dickens (instructed by Messrs. Hempson, of the Medical Defence Union). The salient facts of the case, reported in the *Wandsworth Boro' News* of January 26th, are as follows:

Mrs. Hall, who gave evidence, stated that she was taken ill in August last, shortly after her return from a holiday at Margate, where she had eaten a quantity of oysters. Dr. Stamm was called in, and after attending her for ten days he stated that she was suffering from typhoid fever, and notified the case. She was removed next day to the South-Western Fever Hospital, where she was detained for seventeen days. On the morning she left the hospital she saw on her bed card that she had been suffering from influenza. When she got home she found that the bedding had been disinfected, and smelt strongly of sulphur. Her husband stated that in consequence of Dr. Stamm's diagnosis he was unable to visit private houses to adjust billiard tables in accordance with his contracts.

Dr. d'Amico, assistant medical officer at the South-Western Fever Hospital, said that the diagnosis made on admission was influenza, but he was rather doubtful; he was not able to say definitely that her complaint was not typhoid fever. Considering the patient's symptoms before admission, he thought Dr. Stamm was justified in sending her to the hospital.

Dr. Caiger, medical superintendent of the hospital, said that, having heard the story of the shellfish, and in view of the symptoms exhibited, Dr. Stamm was right in sending Mrs. Hall to the hospital. Witness could not say for certain that she was not suffering from typhoid. It was only a matter of medical opinion. The diagnosis of influenza was not made until seven days after the admission of the patient. If he had been attending her himself, he would certainly have sent her to the hospital.

The Judge at this point intervened, and, turning to plaintiff's counsel, said: Can you go on after that? Surely doctors have to exercise their discretion in the public interest, and Dr. Caiger says the symptoms pointed to typhoid fever.

Mr. Charles did not think it was the duty of a doctor to send a woman to a fever hospital when the case was only one of suspicion.

The Judge: Having heard the evidence of the two hospital doctors, how can you possibly found an action for negligence against Dr. Stamm?

Mr. Charles: I am entirely in your hands, and I will not waste your Honour's time.

The Judge characterized the case as a very bad one. Unless a case of almost gross negligence could be made out against the doctor, it ought not to be brought; and he was glad to say that a case of gross negligence on the part of a doctor was one which he thought it would be very difficult to find. Who, after listening to the evidence of the doctors, could maintain the suggestion of negligence against Dr. Stamm? If he had made any mistake, he made it in his patient's interest. He sent her to the hospital for proper treatment, and the plaintiffs had shown their appreciation of what he had done by bringing this action. He gave judgement for the defendants.

Mr. Dickens asked for special costs, on the ground that the case was one of great public interest, especially to medical men.

His Honour allowed costs on the higher ("C") scale, remarking that the plaintiff had brought the matter on herself, and, if ever there was a case for such an order, this was one.

MEDICAL FEES IN SPECULATIVE ACTIONS.

Recently Dr. E. A. Miller, of Wandsworth, sued Mr. C. F. Appleton, solicitor, also of Wandsworth, for six guineas, being professional fees for attendance as a medical witness in a High Court action.

The case for the plaintiff was that he was subpoenaed to give evidence on three days in an action brought by a Mr. Wright against the Metropolitan Asylums Board; he sued Mr. Wright, but was told by the judge that he had no claim against him.

Judge A. Russell, in delivering a reserved judgement, said the case was what was known as a speculative action; that was to say, the solicitor undertook to run it for the client. He did not express any opinion generally as to whether or not a solicitor should take up actions of that sort. The point he had to consider was whether it was true that Mr. Appleton agreed to run the action free of cost and recoup himself out of any damages that might be recovered; and, if so, whether he was liable to pay witnesses subpoenaed to give evidence. The facts were not in dispute, and Mr. Appleton admitted that that was the agreement made with Wright, the plaintiff. The only dispute between the solicitor and Dr. Miller was that Mr. Appleton said he paid two guineas as expenses to the doctor, who took a great interest in the case, but the doctor denied this, asserting that the two guineas was for a report which he supplied. He (the Judge) was of opinion that Dr. Miller's statement in this respect was correct, and the only matter he had now to decide was whether the solicitor was liable to bear the cost of the doctor's attendance at the trial. Mr. Appleton had contended that the doctor could not recover, because he should have claimed his expenses before giving evidence. It seemed to him from the principles concisely laid down in "Chitty on Contracts, 12th edition," that it was perfectly clear a witness could recover his expenses from the person who had subpoenaed him, even although he did not ask for them at the time. Dr. Miller, who was a professional and skilled witness, was called in to give evidence on matters peculiarly in his own knowledge, and it seemed to him that such a witness was entitled not only to his expenses, but also to a fee for loss of time. He therefore gave judgement for the plaintiff for six guineas, and costs.

Mr. Appleton, in view of the importance of the case, asked for leave to appeal, but the Judge refused the application.

NORTH WALES CORONER: REMARKABLE ALLEGATIONS.

The Coroner for Anglesea lately held an inquest at Holyhead, respecting the death of Sarah Agnes Jones, aged 45, a single woman who resided by herself, who was found insensible at the bottom of the staircase, and died shortly afterwards, never having recovered consciousness. There were marks of injury on her head and blood on her face. There were eatables on the table, a walking-stick at her side, with which she used to turn the gas meter on, and to do so she had to stand on the stairs and lean over the banisters; and it is supposed that she overbalanced and fell over in doing so.

After evidence had been given of the identity and finding, and condition of the body, a juryman remarked that he thought they ought to have medical evidence. The Coroner said: "You would not be better off if you had. I cannot see my way to expend the county's money on evidence when it is not required. If there was any cause to suspect foul play it would be absolutely necessary, but in this case it is not."

The juryman then observed: "Still, it would be more satisfactory to the jury. In my judgement medical evidence in this case is most important." The Coroner then observed: "You have the right to express an opinion, but, still, I cannot recommend its adoption. I am sorry to say that I have noticed that medical men are prepared to give certificates in cases where there is personal means, but in other instances refuse their certificates, in the hope of being called up to give evidence. I am sorry to have to say it, but I know that doctors go round and endeavour to get called on inquests. Personally I have received letters from doctors relating to being called in such cases, and I know that they do this. I have my duty to perform to the county, being trustee of the public money. It is not absolutely necessary for the jury to know the cause of death, but it is sufficient for them to express their opinion as to it." The jury ultimately returned a verdict that the deceased had met her death as the result of an accident.

Two medical men were called to this case, and the observations of the coroner will be brought before the notice of the North Carnarvon and Anglesea Division of the Association, as they consider the observations of the coroner unjust and uncalled-for. We strongly advise them to do this, and if a resolution condemnatory of the coroner's remarks is passed, to forward a copy to the Lord Chancellor. The report of the case is taken from the local papers, and therefore we cannot pledge ourselves to its accuracy.

It is not generally known that the jury have power to request the coroner to call medical evidence, and, if they are not satisfied with the medical witness who is called by the coroner, they can adjourn for further medical evidence, giving the name of the medical man they wish summoned, and refuse to return a verdict until this request is complied with.

THE EMPLOYMENT OF UNQUALIFIED ASSISTANTS.

R. R. asks under what conditions a medical man may employ an unqualified person to visit his patients.

*** We can best reply to this by quoting the last part of the resolution adopted by the General Medical Council on November 24th, 1897: "But the foregoing notices do not apply so as to restrict the proper training and instruction of bona-fide medical students as pupils, or the legitimate employment of dressers, midwives, dispensers, and surgery attendants under the immediate personal supervision of registered medical practitioners." By this we should understand that if a bona-fide medical student is living with a medical practitioner as his pupil, whether he is his son or his brother, he may render him assistance in his practice by visiting patients under his supervision, just as dispensary pupils visit patients and attend midwifery cases under the supervision of members of the staff.

PUBLIC MORTUARIES.

LUX writes: What is the practice at the morgues in London, Paris, Berlin, and Vienna in relation to autopsies? Are all cadavers concerning which it becomes legally necessary to hold an inquest or inquiry removed to these morgues, although the removal of some of these may be objected to by the relations of the deceased, or is the removal of such restricted to unclaimed bodies? Is there any law in the English statute bearing upon this matter?

*** In Paris, Berlin, and Vienna all medico-legal necropsies are made at the public morgue or mortuary by specially-appointed pathologists. The bodies are removed from private houses for this purpose by properly-constituted local authorities. In country places there is a mortuary in the corner of each burial ground to which bodies are removed for the same purpose. In England the coroner has power by statute law to remove bodies to a public mortuary for *post-mortem* examination. In London and in other cities this is usually done, and practically all bodies are now removed to the public mortuaries which usually adjoin the coroner's courts. In country places where there is no mortuary *post-mortem* examinations are frequently conducted at the residence of the deceased, and the inquests held in the village schoolroom or other public hall.

RELATIONS WITH CHEMISTS.

J. P. G.—There is no objection to the arrangement proposed by which the chemist merely dispenses the medicine for the practitioner who pays him a contract rate.

PROFESSIONAL SECRECY.

F.R.C.P.EDIN. sends us a long letter, in which he finds fault with our answer given to "Pro Bono Publico" on November 25th, p. 1434. He ventures to dissent from the opinions there quoted as given by Mr. Justice Hawkins (now Lord Brampton), Sir Edward Clarke, and Mr. Horace Avory, and claims to set up against them the decision of the House of Lords in the recent appeal by Sir Patrick Heron Watson; but the issue was quite different, and the ground of the decision in the latter case was that the information supplied by Sir Patrick Heron Watson was given as a witness. He was employed as a witness, and both sides agreed that anything he said in court was privileged, but it was contended by the respondent that although what was said in court was privileged the precognition given by the witness to the solicitor before the trial was not privileged. The House of Lords declined to make this distinction, holding that it was necessary for the protection of witnesses and the interests of justice that the privilege should extend to the statement made to the solicitor before trial.

ALLOCATION OF PARTNERSHIP RECEIPTS.

VIATOR writes: A junior partner buys a third share of a practice, paying down the purchase money in a lump sum. (1) Is it usual for the senior partner to give the junior the whole third share the first year, and is it usually paid by instalments from the commencement, or the whole at the end of the year? (2) If the whole is not paid the first year, what is the practice most generally adopted?

*** It is usual to have certain days fixed in the partnership deed—for example, the ordinary quarter days—for settlements between the partners. Of course, unless he has bought book debts, the incoming partner is not likely to get the whole of his nominal share the first year, as he is only entitled to a third share of profits on all work done after he became a partner.

MEDICAL EVIDENCE AT INQUESTS.

D. O. D. writes: I recently had, late one evening, an urgent call to a run-over case, a farm labourer who I knew nothing of, but the nearest medical man was not expected home for some hours. My horses being tired I had to hire and drive five miles to a most out-of-the-way spot in very rough weather. On my arrival I found the man was dead. The next morning I sent a special messenger to the coroner with the information; to this I had, and have had no reply. I heard nothing further till I was informed two days later by one of the deceased's relatives that the inquest had been held the previous afternoon. I shall get nothing for my trouble and the expense of hiring, though I should have been unanimously denounced had I refused to go, and the coroner has prevented my even getting the fee for the inquest. Discourtesy apart, was not the coroner legally bound to take my evidence?

*** Our correspondent is to be sympathized with, but the coroner was not legally bound to call him as a witness. The inquest was doubtless held without medical evidence, and the jury came to a conclusion from the evidence of lay witnesses and the circumstances in connexion with the case, and returned a verdict of accidental death from injuries received. If a coroner does not summon a medical man in the first instance to give evidence at the inquest, the jury, if they feel dissatisfied as to the cause of death, have power to request the coroner to adjourn, and summon a medical man as a witness. The coroner has, of course, no responsibility with regard to the previous expenses incurred by D. O. D., whose only course is to send in an account to the person who called him, or to the relatives of the deceased person.

CANVASSING FOR APPOINTMENTS.

EAGLEHAWK.—It is generally regarded as wrong to canvass or take any steps to obtain an appointment until it is declared vacant, but when an appointment has been declared vacant, it is not unusual to canvass; in many cases it is unfortunately necessary, although in others it is forbidden.

EXAMINATION OF PATIENTS IN CRIMINAL CASES.

EMPYEMA.—(1) The decision rests entirely with the patient; nobody has any right to require him to submit himself to examination by another medical man. It is possible, but not probable, that a court of law might issue an order for his examination, and we should advise our correspondent to base his conduct upon these considerations. (2) In the event of the patient dying from his injury, the prisoner's legal position would in all probability be greatly prejudiced.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Romanes Lecture.—The Vice-Chancellor has appointed the Right Hon. Lord Curzon of Kedleston, M.A., Hon. D.C.L., All Souls College, to be Romanes Lecturer for 1906.

Natural Science Scholarships.—Scholarships in Natural Science are announced for competition at Keble College on March 13th, and at Merton College, New College, and Corpus Christi College on April 24th.

Radcliffe Travelling Fellowship.—An examination for a Fellowship of the annual value of £200, and tenable for three years, will be held in the present term. The examinations will commence on Tuesday, February 27th. Intending candidates should send their names, addresses, and qualifications to the Regius Professor of Medicine, University Museum, on or before Saturday, February 10th. Further particulars will be found in the *University Gazette* of January 23rd, 1906 (Clarendon Press).

UNIVERSITY OF CAMBRIDGE.

The following have satisfied the Examiners for the diploma in Tropical Medicine and Hygiene: J. Booth-Clarkson, J. C. S. McDouall, and R. Small.

UNIVERSITY OF LONDON.

University College, London.

Physiological Optics.

Mr. J. Herbert Parsons, D.S., F.R.C.S., is giving a course of eight lectures on physiological optics in the Physiological Department on Fridays at 5 p.m. The first lecture was given on Friday, January 26th. The lectures are open to all students of the London medical schools, and also to qualified medical men on presentation of their cards.

Lectures on Parasitic Protozoa.

Professor E. A. Minchin will commence, on Monday, February 5th, a course of lectures on Parasitic Protozoa. Professor Minchin has recently returned from Uganda, where he has been engaged as one of the Special Commissioners of the Royal Society in Research on the Life-history of the Trypanosome of Sleeping Sickness. Full information respecting the courses can be obtained on application to the Secretary of University College, London.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

An ordinary quarterly Comitia was held at the College on Thursday, January 25th, the President, Sir R. Douglas Powell, in the chair.

Announcement.

The President announced that the Milroy Lectures of 1907 would be given by Dr. Leonard Rogers on Kala-azar: its Differentiation and Epidemiology.

Membership.

The following gentlemen were admitted Members of the College: Joseph Arthur Arkwright, M.D.Cantab., L.R.C.P.: William Carnegie Brown, M.D.Aberd.; Robert Fielding-Ould, M.A., M.D.Oxon.

Licence.

The Licence of the College was granted to 100 gentlemen.

The annual return by the Examiners of the results of the Examinations for the Licence in the year 1905 was received.

Diplomas in Public Health.

In conjunction with the Royal College of Surgeons Diplomas in Public Health were granted to the following gentlemen:

A. C. Birt, L.R.C.P., M.R.C.S.; H. Caird, M.B., Ch.B.Edin.: H. Chesson, L.R.C.P., M.R.C.S.: J. M. Collyns, M.B.Lond., L.R.C.P., M.R.C.S.; G. Corcoran, L.R.C.P. and S.I.: J. Gillies, M.B., C.M.Edin.; Captain F. Harvey, R.A.M.C., L.R.C.P., M.R.C.S., L.S.A.; G. H. Lock, L.R.C.P., M.R.C.S.; G. E. Malcomson, M.D.Lond.; P. K. Muspratt, M.B., B.S.Camb., L.R.C.P., M.R.C.S.; J. F. Northcott, M.D.Lond., L.R.C.P., M.R.C.S.; O. H. Peters, M.B., Ch.B.Melb.; Lieutenant J. W. S. Seccombe, R.A.M.C., L.R.C.P., M.R.C.S.: F. B. Skerrett, M.B.Lond., L.R.C.P., M.R.C.S.; Captain L. P. Stephen, I.M.S., M.B., Ch.B.Aberd.; P. G. Stock, L.R.C.P., M.R.C.S.: Lieutenant-Colonel T. B. Winter, R.A.M.C., M.R.C.S., L.S.A.; C. H. Wright, M.B., Ch.B.Edin.

Communications.

The following communications were received:

(1) From the Secretary of State for the Colonies (January 11th), in reply to the Registrar's letter informing him of the steps taken by the Royal Colleges in the matter of Tropical Medicine. The reply was as follows:

The Registrar of the Royal College of Physicians.

Sir,—I am directed by the Earl of Elgin to acknowledge the receipt of your letter of January 3rd, and to state that his lordship has perused it with interest, and has learnt with satisfaction the arrangements which are being made by the Royal College of Physicians of London and the Royal College of Surgeons of England for the recognition of Tropical Medicine. (Signed) Fred. Graham.

(2) From the Royal Sanitary Institute, inviting the College to appoint delegates to attend the Congress of the Institute at Bristol, July 9th to 14th, 1906.

Dr. Hanford was appointed, on the nomination of the President, and it was left to him to name a further delegate at a subsequent Comitia.

(3) From the Secretary of the Royal College of Surgeons reporting some of the proceedings of their Council on January 11th.

On the nomination of the Council, Drs. W. Osler, H. R. Crocker, H. H. Tooth, and T. D. Acland were appointed Councillors in the room of Drs. Lees, Ormerod, Kidd, and Percy Smith, who retired by rotation.

The Curriculum in Midwifery.

Dr. Champneys, who had given notice, moved the following resolution:

> That a Committee be appointed to examine and report on the curriculum on midwifery and diseases of women. That the Committee consist of all obstetric physicians and assistant obstetric physicians of the London medical schools who are Fellows of the College, with power to add to their number.

Dr. Lauriston Shaw moved as an amendment:

> That the names of four gentlemen who are not practising obstetric medicine, but who are, or have been, Deans of their respective schools, be added to those of the proposed Committee.

This having been accepted by Dr. Champneys, both amendment and resolution were passed.

University of Birmingham.

Dr. Theodore Williams, who retired by rotation, was re-elected a representative of the College on the Court of Governors of the University of Birmingham for three years from January 1st, 1906.

Central Midwives Board.

Dr. Champneys, who retired by rotation, was re-elected a representative of the College on the Central Midwives Board for one year from March 31st next.

Reports.

The following reports were received:

1. The quarterly report of the College Finance Committee, dated January 11th, 1906.

2. From the Committee of Management, dated December 18th, 1905, recommending that the course of laboratory instruction in public health at the Royal Institute of Public Health, London, be recognized as fulfilling the requirements of the regulations for Part I of the examination for the diploma in public health.

This was agreed to.

3. A second report from the same, dated January 4th, with reference to the duration of the curriculum of professional study.

This report is published in full at p. 275.

After a brief discussion the report was adopted.

4. A further report from the same recommending that the South-Eastern College, Ramsgate, be added to the list of institutions recognized by the Examining Board in England for instruction in chemistry and physics.

5. A report from Dr. Norman Moore, the representative of the College on the General Medical Council, on the Sessions of the Council in November and December, 1905.

Library.

Books and other publications presented to the library during the past quarter were received, and thanks returned to the donors.

CONJOINT BOARD IN SCOTLAND.

The following candidates have been approved at the examinations indicated:

First Examination (Four Years' Course).—P. J. A. Curtin (with distinction), D. D. McNeill.

First Examination (Five Years' Course).—J. Grosert, J. Young, O. W. Bateman, J. A. H. Muller, B. R. Shillitoe, L. Albuquerque, M. E. Kayton, E. B. Keen, P. G. Phillips, E. L. Matthew.

Second Examination (Five Years' Course).—J. McKelvey, P. M. Tolmie, H. W. Powell, O. R. Belcher, A. Y. Kelsey, A. B. Bateman, J. Morham, S. Piarroux, A. D. Macfie, T. Mohan, K. S. Kanga, E. J. Lumsden, C. A. Paterson, C. J. Faill, G. W. Rundle, L. E. Davies, and H. S. W. Roberts.

Third Examination (Five Years' Course).—Effie J. Cassels, L. J. Patterson-Clavier, T. J. Vaughan, C. Nylan, R. B. Davidson, T. R. McKenna, J. S. J. Stenhouse, R. M. Jones (with distinction), W. J. V. Curtain (with distinction), V. S. Delany, J. A. S. Phillips, H. F. Watson, H. Stokes, L. Albuquerque, M. B. Patel, D. W. Anderson, K. S. Commissariatwalla, and F. Yates.

Final Examination.—J. Galloway, W. Fleming, J. F. Berry, W. C. Renshaw, B. W. Dakers, R. J. Manion, S. I. Hasan, J. T. Anderson, I. W. MacKinnon, W. G. H. Brooks, O. Margolese, W. J. Barber, K. W. Dani, C. W. Field, G. W. Meade, Nena B. Ievers, I. Harris, W. W. Johns, W. E. Davies, C. Francis, G. Heathcote, M. C. R. Grahame, R. Carswell, J. A. Cullum, G. Hart.

CONJOINT BOARD IN IRELAND.

The following candidates have been approved at the examinations indicated:

Second Professional.—W. M. Woods (with honours), J. J. Barry, G. Collins, A. Cullen, C. T. Cullimore, J. Farrell, J. A. J. Flannery, G. W. M. Gleeson, C. Greer, C. Macauley, H. E. M. Miles, D. McCormack, F. J. McManus, T. J. O'Donohoe, G. Patton, H. B. Sherlock, and C. Stringer.

Final.—L. A. Andrews, C. J. R. Clarke, F. O'D. Fawcett, T. A. Flynn, C. Gordon, M. J. C. Kennedy, E. H. M. Milligan, R. V. Murphy, J. McQuillan, B. A. Odlum, C. O'Keeffe, Caroline Elizabeth O'Meara, and W. Roche.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

W. P. G. would be glad of the loan of a copy of the questions set in medicine and obstetrics at the last examination, December, 1905, for the M.D.Lond.

CULEX asks for suggestions for the treatment of a case of ozaena, of five years' duration without disease of the bones. The symptoms have yielded to treatment during the past eight months, but daily irrigation is a necessity.

PNEUMATIC OR SOLID TYRES.

COUNTRY PRACTITIONER, in a hilly district, understands that pneumatic tyres prove expensive. Will any one of experience kindly say if a 10-h.p. two-seated car with solid tyres is made, and what is the cost? The car is for use in practice and not for pleasure, and could only be substituted for two horses at present used if definite saving were assured.

ANSWERS.

ENQUIRER.—We are informed that Zittmann's and Kobert's decoctions of sarsaparilla mentioned by Sir Felix Semon in the BRITISH MEDICAL JOURNAL of January 13th, can be obtained from Messrs. Lloyd, Bullock and Co., 3, Hanover Street, Hanover Square, W.

SCOTUS.—(1) The treatment referred to does not commend itself as "likely to lead to any permanent improvement in ordinary chronic (non-suppurative) middle-ear catarrh with sclerosis or thickening of drum." (2) The only report of this treatment found in English is the one in the lay magazine forwarded by "Scotus."

INCOME TAX.

X. Y. Z.—Income tax on the profits of a medical practice is chargeable in one sum on the firm, in the name of the "precedent acting partner," unless a partner desires to claim exemption or abatement, in which case he may apply for a separate assessment to be made on his individual share of the profits (see BRITISH MEDICAL JOURNAL, December 16th, 1905, p. 1624, answer to "Palatinoid"). If only one assessment is made, the tax is frequently paid in the first instance out of the partnership funds, and afterwards apportioned between the members of the firm; but if separate assessments are made, it is usually more convenient for each partner to pay the tax charged on him personally, when no adjustment as between the other partners and himself will be necessary.

LETTERS, NOTES, etc.

A PROTEST.

MR. C. A. BALLANCE, M.S., F.R.C.S. (London) writes: My attention has been drawn to a paragraph in the *Daily Mail.* I wish to say that I have not performed any operation on His Majesty the German Emperor, and that the use of my name in relation to surgical work in the public press is highly distasteful to me.

A MEDICAL POLITICIAN.

WE take the following from the *British and Colonial Druggist:* A well-known local medical man, canvassing on behalf of Major Coates, the Conservative candidate for Lewisham, sought the vote of a chemist. "I would go and vote for the Major, but there is no one I can leave in charge." The doctor was prepared for any fate. Pushing the chemist into his own carriage, he looked after his shop while he went and voted. It is said that the doctor was kept busy.

INCOME TAX REFORM: THE BURDEN OF THE PROFESSIONAL CLASSES.

J. C. M. writes: I quite agree with your correspondent Dr. Gordon that the income tax should be abolished altogether. In my opinion there is only one way of accomplishing this, that is, the formation of a Society of registered voters in each constituency in the three kingdoms, each voter to pledge himself to support only those parliamentary candidates who promise to vote for abolishing the tax.

THE PURINOMETER.

MR. F. F. LEIGHTON (St. John's College, Cambridge) writes: The inventor of this instrument mentions in the current number of the BRITISH MEDICAL JOURNAL that Rilalowski has substituted for it a single graduated measure, and he speaks of filtering off the phosphate precipitate as a necessary process. I have used a cylinder of, roughly, the same diameter as the purinometer, graduated in c.cm. up to 110. The clear urine can be easily decanted from the precipitate resulting after addition of the No. 1 solution (Ludwig's magnesia mixture). After cleaning the cylinder it may be returned, and No. 2 (the silver) solution added. The volume of sediment measured thus has agreed as closely as can be with the volume read from the original instrument of Walker Hall in a number of cases in which I made parallel estimations. The advantage of a cheap apparatus is obvious.

COST OF MOTOR CAR.

S. sends the following particulars of cost and running expenses of a 12-14 h.p., 4-cylinder Sunbeam car from January 14th, 1905, to the end of the year:

Running days, 302; mileage, 6,183; petrol, 317 gals.; time, 1,157½ hours.

Cost of car, complete, £506 1s. 8d.

	£	s.	d.
Rent, rates, taxes, and subscriptions ...	46	17	4
Insurance	15	13	2
Wages	55	17	0
Tyres	43	19	0
,, (Repairs)	7	17	11
Petrol	15	5	4
Lubrication	3	1	6
Repairs and alterations to car	47	6	0
Odometers	7	13	3
Accumulators	1	17	9
Sundries	3	1	10
Hire	5	16	0
	253	16	1
Less rent and repairs paid by Insurance Co.	19	1	0
	234	15	1

The actual running expenses work out at £24 above the average upkeep of two horses and two carriages, but the running expenses of the latter were not very carefully kept.

FOREIGN OPINION OF BRITISH DEGENERACY.

DR. H. N. ROBSON (London, W.) writes: During the past twenty years I have lived more abroad than in England, and have noticed that amongst Americans, Colonials, Germans, and Japanese there is a curious unanimity of opinion that the modern British Islander is degenerating. Some well-educated Germans have told me that one of the main causes of the decay of the Spaniards and the Portuguese was the unchecked prevalence of "specific" disease, and intimated that the same cause is deteriorating the British race. It is all very well to laugh at these thoughtful foreigners and to ascribe their views to envy and prejudice, but every year our population becomes more and more urban, and a larger proportion thereby come in contact with contagious disease. Is it therefore possible that the British are beginning to show the effects of the *Spirochaeta pallida?* Permit me to suggest that the British Medical Association should endeavour to get a return, for a period of three months, of all cases treated at twelve of the largest hospitals in the kingdom, the direct or indirect cause of which is considered to be contagious disease; by multiplying this by four we could get a good idea of the annual number and the percentage of the total patients treated. A return of this character would not cost much money, and could commence on any date agreed upon or convenient to the hospitals; the result might be of national importance, and could not fail to be of interest to the medical profession.

A DISAGREEABLE EFFECT OF SUPRARENAL GLAND.

K. writes: Suppositories containing the active principle of suprarenal gland were prescribed for an elderly lady suffering from bleeding piles. She used one on going to bed on four successive nights. Early in the morning of the fifth day she was awakened by severe pain in the rectum, lasting for an hour or more. That night she had another suppository, and next morning there followed a still more violent attack; it was so severe as to make her faint. She used no more for a month, during which time she was quite well. Then she had a suppository on two successive nights, and again on the third morning there followed another attack of pain. I think there is no doubt that the drug produced the pain, and that it had a cumulative effect.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	£0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page...	8	0	0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication: and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

An Address

ON THE

RELATION OF ANGINA PECTORIS

AND

ALLIED CONDITIONS TO AN ARTERIO-CARDIAC REFLEX HAVING ITS ORIGIN IN THE ABDOMEN.

READ BEFORE THE EDINBURGH MEDICO-CHIRURGICAL SOCIETY ON DECEMBER 6TH, 1905.

By **WILLIAM RUSSELL, M.D., F.R.C.P.EDIN.,**

ASSISTANT PHYSICIAN TO THE ROYAL INFIRMARY, EDINBURGH; AND LECTURER ON PATHOLOGY, MEDICAL COLLEGE FOR WOMEN, EDINBURGH.

INTRODUCTORY.

ANGINA PECTORIS has attracted the attention, and at times rivetted the thought, of many great clinicians during the past 130 years. That it should exercise the same influence over the clinicians of to-day need not, therefore, cause surprise. Gibson[1] of Edinburgh, Oliver[2] of Newcastle-upon-Tyne, and Mackenzie[3] of Burnley have all three shown quite recently that they were the victims of the fascination or attractiveness of the subject. It requires no special courage to avow oneself a fellow-victim, however much courage it may require to attempt the elucidation of a subject which has been dealt with by so many able physicians of the present and the past. Were apology necessary for so doing, I would say that I have found the view which I am to submit of much practical value; that, instead of conflicting with past observations, this view interprets them, and that it gives the clue for the disentanglement of the confused mass of opinion on the subject. My views have emerged from the special attention which I have long given to cardiac and vascular disturbances, and more recently from a fuller knowledge of the processes of primary and secondary digestion, of nutrition, and of elimination. My indebtedness to the work of Pawlow,[4] Herter,[5] Chittenden,[6] and others I gratefully acknowledge. The relations between gastro-intestinal conditions and vasculo-cardiac disturbances and the influence of dietetic substances upon the vasculo-cardiac system have recently been more and more impressed upon me, and this communication contains the conclusions at which I have arrived and indicates the path by which I have reached them.

HISTORICAL AND CRITICAL.

Heberden to Trousseau, 1768-1862.

We do not require to go further back in our historical retrospect than the date when the term "angina pectoris" was introduced into medical nomenclature. Those who wish to examine the earliest records of the symptoms called by this name will find the references in several of the older authors, particularly in Parry's monograph.

Angina pectoris was the name given by William Heberden[7] in the year 1768 to a disorder of the breast, which he thus described: "Those who are affected with it are seized while they are walking, and more particularly when they walk soon after eating, with a painful and most disagreeable sensation in the breast, which seems as if it would take their life away if it were to increase or to continue." "The seat of it and sense of strangling and anxiety with which it is attended may make it not improperly be called angina pectoris."

As regards the nature of the disease to which he gave this name, he says that "the opinion of its being a convulsion of the part affected will readily present itself to any one" (p. 64).

In a later paper, of date 1785, containing the account of the *post-mortem* examination on the historical "unknown," he reports that there was no lesion found; and in his comments on treatment he advocated the use of medicines which "relieve and quiet convulsive motions" (vol. iii, p. 10).

Here at the fountain-head is found the idea of the nervous nature of the clinical phenomena of angina pectoris, a conception of the condition shared by many subsequent writers.

The next step worthy of note was made by Dr. Caleb Hillier Parry,[8] a physician in Bath, who published in 1799 a monograph entitled *An Inquiry into the Symptoms and Causes of the Syncope Anginosa, commonly called Angina Pectoris.* This work is characterized by remarkable clinical acumen, and Parry's views, it seems to me, have not always been accurately presented by subsequent writers. Some of the clinical points dealt with by him are to be specially noted. He points out, for instance, that the first symptom is "an uneasy sensation (described variously as a stricture, an anxiety, or a pain) about the middle of the sternum, across the left breast, and in certain stages of the disorder usually stretching into the left arm" (p. 42), also that the pain occurs in paroxysms, and that early seizures seldom occurred without apparent cause (p. 43). He also insists, "we shall always find it (the pulse) become more or less feeble according to the violence of the paroxysm" (p. 45). Here we have an early recognition of great differences in the degree of severity in the leading symptom. The pathology of the condition was held by him, and by his friend Jenner, to be disease of the coronary arteries interfering with the blood supply to the heart. His induction was that a heart with such coronary arteries could not bear any extra strain put upon it, that if subjected to extra strain it became surcharged with blood, that its action became enfeebled, and might cease. The extra strain could be induced by mental emotion, by physical effort, and by gastro-intestinal conditions. As the heart condition advanced, even slighter causes than these might produce paroxysms. Thus heart failure and its organic cause formed the central, and to him the essential, factors, in determining the gravity of the condition. According to Cullen's nosology this was assuredly a *syncope*. "The motion of the heart diminished, or even for some time ceasing. *Motus cordis imminutus, vel aliquamdiu quiescens.*" It differed from an ordinary syncope "only in being preceded by an unusual degree of anxiety or pain in the region of the heart." He therefore termed the disorder ***syncope anginosa***. To make the position of this old Bath physician still more clear let me give his own words regarding a patient who had been long subject to attacks of what he considered a "very pure angina pectoris." He accompanied his patient on a walk up hill in order to witness what occurred during the fit. He says "when the paroxysm was thus excited, I could perceive no symptom of disorder in addition to the uneasiness in the breast, except a gradual and most evident diminution in the strength of the pulse" (p. 59).

Allan Burns,[9] Professor of Anatomy and Surgery in Glasgow, and practising in that city (1809), accepts Parry's view that syncope anginosa originates "from some organic lesion of the nutrient vessels of the heart" (p. 137). He compares a heart with "cartilaginous or ossified" coronary vessels to a limb with a ligature round it called into active exercise. The limb so bound can only work for a very short time; "it soon fails and sinks into a state of quiescence" (p. 138). He holds that "the essence of this complaint consists in a reduction of the action of the heart" (p. 146).

In 1815 Jurine,[10] in an essay to which the Academy of Medicine awarded a medal, combated Jenner's and Parry's view that angina pectoris was due to ossification of the coronary arteries. To him "sans douleur sternale, il n'y a pas d'angine de poitrine" (p. 72), and he argued that the angina was essentially due to an affection of the pulmonary nerves (p. 123).

Laennec,[11] in 1819, had found that in several subjects who had laboured under angina pectoris, and in whom there coexisted either hypertrophy or dilatation of the heart, there was no ossification of the coronary arteries (p. 757). According to him, "angina pectoris in a slight or middling degree is extremely common, and exists very frequently in persons who have no organic affection of the heart or large vessels" (p. 756). Desportes (1811) is quoted by Laënnec as holding similar views. Angina pectoris was to Laënnec a neuralgia.

Forbes[12] (1832), the translator into English of Laënnec's great work, divided cases of angina pectoris into organic and functional. The pain to him was the result of "some unknown temporary condition of the nerves of the part," and he believed that "such a morbid condition of the nerves may be produced in a heart in all other respects sound."

Bertin[13] (1833) also repudiated the view that angina pectoris was due to ossification of the coronary arteries. He had seen the symptoms "accompanied with a multitude of organic affections, either of the heart or of the large vessels, or even of the lungs" (p. 410).

Hope[14] (1839) held that "the nature and variability of the symptoms of angina pectoris confirm the opinion of Laennec that it is a neuralgic affection" (p. 499).

Latham[15] (1846), along with a vivid portrayal of angina pectoris, considered the disease to be "a certain assemblage of symptoms, and not any constant pathological condition belonging to the structure of the organ" (p. 399). The paroxysm was to him "plainly a compound of pain and of something else" (p. 385). It was a "spasm of the heart," as it had been to Heberden. But then note his conception of spasm. He says: "Spasm is always accompanied with pain. And pain and spasm, wherever they are, disable the part which they befall" (p. 385). "In spasms of smaller degree the heart fails to close freely upon the blood and to impel it freely into the arteries. In its spasm of greater degree it fails to project it altogether" (p. 386).

Walshe[16] (1851) looked upon angina pectoris as a "paroxysmal neurosis in which the heart is essentially concerned" (p. 190). He thought genuine angina pectoris to be a very rare disease, while on the other hand he "very frequently met with a form of complaint combining in a minor degree many of the characters of angina." To this "imitation of the true disease" he gave the name of "pseudo-angina." He thought that this was the explanation of Laennec's notion that the condition was of very frequent occurrence (p. 203-4).

Stokes[17] (1854) agreed with Parry, and says "that the symptoms of angina arise from a temporary increase of weakness in an organ already weakened" (p. 486). He disputes Latham's idea of spasm, and thinks the idea of syncope more in accordance with observed fact.

Trousseau[18] refers to the variety of pathological change which had been described as having been present in the hearts of persons who had suffered from angina pectoris. On the other hand, he has of necessity to admit that angina pectoris, even when most intense, need not be a symptom of an organic lesion. He therefore regarded the organic changes, when they were present, as non-essential, as coincidences, and held that the real affection was a neurosis—in fact a neuralgia. That there might be no ambiguity in the minds of his hearers he again repeated his opinion that it might be only "an idiopathic neuralgia."

THREE VIEWS.

At this point we may draw a line and say that up to it there were, if we exclude Jurine's view—which we may safely do—three views regarding angina pectoris: the first, that it was a convulsion of the heart, or a spasm of it; the second, that it was due to interference with its blood supply; and the third, that it was a neurosis—the word having no subtle or obscure significance, but meaning, simply and plainly, a neuralgia—an idiopathic pain in nerves. Up to this time, it is also important to note that the new term was not limited to a relatively rare malady, characterized by a few dramatic incidents and a suddenly tragic conclusion. Its use had become so extended that Walshe deemed it desirable to introduce the term pseudo-angina, under which to range the cases that, in spite of the correspondence in symptoms, had not the grave significance that the fatal angina of Heberden presented.

ANGINA PECTORIS VASOMOTORIA.

With the year 1867 a new factor was introduced into the discussion on the nature of angina pectoris. Nothnagel[19] in that year wrote a paper which he entitled "Angina Pectoris Vasomotoria." In this condition the symptoms closely resembled those of angina pectoris, and would certainly, I think, have been placed under that designation by some of the distinguished clinicians whose works have been referred to. The essential point in this paper was the recognition of the important clinical fact that in this group of cases narrowing of the arteries preceded and caused the cardiac embarrassment and other symptoms; that, in fact, the anginous symptoms were secondary to the vasomotor ones; and that by relieving the cramp in the vessels the anginous symptoms were prevented coming on.

EARLIER OBSERVATIONS ON BLOOD SUPPLY AND MUSCLE PAIN.

Before Nothnagel, Latham when dealing with the treatment of persons the victims of angina pectoris had not failed to note the guidance to be obtained from a true estimate of the condition of the vascular system. He says:

> "The paroxysm is often put off and its severity mitigated and life prolonged by no means more surely than by keeping the vascular system in a just balance between fullness and emptiness, between rich blood and poor blood" (p. 405).

Three years before the date of the publication of Latham's lectures Sir Benjamin C. Brodie's *Lectures on Pathology and Surgery*[20] were published (1846). In them there is a lecture on senile gangrene which I doubt if any living surgeon could add to. He notes that the condition might be due to ossification of arteries or to obliteration without ossification. He enlarges upon the prodromal symptoms of gangrene—he had noted the numbness, pain, and loss of muscular power—which may precede its visible manifestation. With the clinical instinct of the great men of his time he applied these observations to interpret the much discussed question as to the nature and causes of the pain in angina. The paroxysm of pain in angina varied in intensity, so it did in gangrene, greatly. The pain in gangrene might become excruciating—the pain of angina might fail to find words adequate to convey a true sense of its anguish. "The disease," he says, "is called neuralgia, which," he adds, "means nothing" (p. 356). A clear thinker, as well as a masterly observer, this surgeon of sixty years ago!

A still earlier recorded observation bearing upon the relation between lessened blood supply and pain must not be omitted were it only for the sake of historical accuracy. At the Académie Royale de Médecine, the *Séance* of October 4th, 1831, Boullay[21] submitted an observation he had made on a mare of a condition to which he gave the name of "intermittent claudication." The symptoms came on brusquely after some minutes' exercise, and they were found to be due to obliteration of the femoral arteries. When the animal was in repose the blood was able to reach the limbs by the collaterals, but when it trotted the compressed collaterals did not furnish enough blood and the limbs were seized by *engourdissement* and by severe pain which made the animal fall.

Charcot[22] twenty-six years later revived this subject, and drew attention to a corresponding condition as it occurred in the limbs in man as causing severe pain, and as a premonitory sign indicative of a tendency to senile gangrene. So far as I have found, he did not apply his observations to the elucidation of the symptoms of angina pectoris as the English surgeon Brodie had done ten years earlier.

After this, however, intermittent claudication as a cause of painful muscle spasm took its place in medical literature, and has been much used by later writers when discussing the cause of the pain in anginous paroxysms.

Arterial Spasm.

Standing alone, and forming an epoch by itself, is Lauder Brunton's[23] discovery (1867) that dilatation of the peripheral vessels by the inhalation of nitrite of amyl removed or relieved anginous symptoms. From this date vasomotor spasm became a still more definite factor in the consideration and the interpretation of the "syndrome of symptoms" known as angina pectoris.

WHAT IS INCLUDED UNDER "ANGINA PECTORIS"?

What, then, are we to regard as angina pectoris? Are we to confine the use of the term to that type of case, described with such dramatic force by some of the earlier writers that there still lingers round its earlier records a glamour of picturesqueness? Are its symptoms to be bounded by the *dolor pectoris* and the *angor animi* of its early recognition, and is its close to be characterized by the same tragic suddenness? I think not. From the time of Parry the term "angina pectoris" has been applied to symptoms of less gravity, and to conditions where the outlook was not necessarily grave. Let me clinch this statement by quoting the words of Professor W. T. Gairdner,[24] who, writing in 1877, says:

> We now know that this typical angina is only the culminating form of a group of symptoms, which in their less pronounced, less definitely painful, and more complicated forms, are found to permeate the whole field of cardiac pathology and diagnosis (p. 570).

From his own personal experience he says:

> There is often an element of subjective abnormal sensation present in cardiac diseases which, when it is not localized through the coincidence of pain, is a specially indefinable and undescribable sensation (p. 565).
>
> A sensation which can only be called anxiety or cardiac oppression (p. 566).

To this group of symptoms he gave the special title *angina sine dolore*, recognizing thereby what he believed to be "its true diagnostic and pathological significance and its alliance with the painful angina of Heberden." Even the dolor pectoris is, then, no longer an essential symptom; and the angor animi is whittled down to a sensation of anxiety. This shrewd clinical pathologist saw, however, that there were phenomena which, while different to, were of the same kind as those of the classical angina. This is what Walshe recognized when he used the much-abused term "pseudo-angina." While Gairdner places angina amongst the neuroses he hardly, I think, attaches the same meaning to the word as the earlier writers did; and I am not sure that he does not somewhat grudgingly stick to the term. He was clearly impressed by the possible importance of vasomotor spasm.

Sansom[25] on the other hand (1892) thinks it probable that a paroxysm of angina pectoris is an intense nerve storm, provoked by impulses conveyed to certain cerebro-spinal centres (p. 13). He refuses to adopt the theory of cardio-arterial spasm as the indispensable cause of the pain (p. 438).

Osler,[26] in his erudite lectures on the subject (1897), after defining angina pectoris, proceeds to say that the term is employed generically to define paroxysmal attacks of pain in the chest, qualifying the varieties by such names as true, false, hysterical, and vasomotor (p. 8).

Douglas Powell,[27] in a very admirable article, classifies angina pectoris under (1) a vasomotor group, and (2) angina pectoris gravior, which includes secondary and primary cardiac angina. Forbes,[12] Bramwell,[28] Gibson,[29] Oliver,[2] and others recognize two classes, organic and functional. Huchard[35] insists that there is only one angina pectoris, and that it is always due to ischaemia of the heart muscle.

From all this it is quite clear that the term is no longer confined to the severe and fatal malady described by Heberden. It has been extended to a great variety of conditions, characterized by some sense of precordial discomfort, or of discomfort referred directly to the heart, which may or may not be accompanied by pain, and which may or may not be associated with coarse anatomical lesion. It was to cover these lesser manifestations that such terms as pseudo-angina, angina notha, false angina, and functional, as distinct from organic, have been used and applied.

Angina is indeed, to use Osler's words, "a syndrome or symptom group," the clinical pathology of which has to be determined in each separate instance. The term angina pectoris has in fact the same nosological significance as the term dropsy formerly had. It is not a disease; it is a symptom or a group of symptoms, and it is no longer the symptom but the cause behind and determining it which is the problem presented to the clinical pathologist of to-day.

Constructive and Critical.

In turning to the constructive side of this communication I ask you to look with me at certain vasomotor phenomena which are to be observed in the body; and I hope to make it clear what I regard to be the relations of those phenomena to the phenomena of angina pectoris.

The presence of arterial spasm has been recognized by many who have written on angina pectoris since the date of Lauder Brunton's epoch-making discovery. Views as to the causation of the spasm have been various, and the relation of the spasm to the symptoms has also been variously interpreted.

An Arterial Abdominal Reflex.

I ask you to consider with me certain observations regarding an arterial reflex having its origin in the abdomen, the importance of which I think has not hitherto been fully appreciated. After taking food, and for at least part of the time during which the active processes of digestion are under way, there is an influx of blood to the whole splanchnic area, leading to hyperaemia, such a hyperaemia as considerably reduces the volume of blood in parts outside this area. This drainage into the abdominal vessels is balanced in the general circulation by a systemic arterial contraction. This is evidently a reflex phenomenon originating in the splanchnic system, passing to the vasomotor centre in the medulla, and thence transmitted to the systemic arteries. The existence of this set of phenomena has been carefully worked out by Dr. George Oliver [30] in the average healthy person. The arterial contraction is shown by a definite diminution in the diameter of the vessels. It is to be regarded as a physiological hypertonic contraction, which in the average person is accompanied by a rise of blood pressure. However that may be, there is no doubt about arterial narrowing; and I am content to build upon this one certain and positive fact. The fact, then, with which I begin is the change in the systemic arteries during active digestion—whether it be called narrowing, contraction, or hypertonus, signifies not, so long as the word we use expresses our thought. The change will be found to be a reduction in size and an apparent thickening of the arterial wall. The degree of these arterial changes depends upon the kind of meal which has been taken. In the big eater and the wine-drinker the arterial contraction is associated with a rise of blood pressure and a true increase of arterial tension.

Putting extreme cases aside, the general statement will be found to be correct that narrowing of the arteries is present, but in many people, both middle-aged and old, I do not believe that there is any constant rise of blood pressure along with it. To the educated finger and the analytical mind there is no doubt about this, whatever our instruments show. The point is not a purely academic one, for the small and constricted vessel, with its slight systolic expansion, is very commonly regarded as an indication of heart debility and treated as such. In other cases the mistaking of hypertonus for a rise of blood pressure may be of no practical consequence, for the treatment applicable to the one is suitable for the other.

The point here insisted on is the existence of this arrangement for adapting the circulation to the normal processes of ingestion and digestion of food. It is a normal reflex process. It is a systemic vessel constriction originating in a normal stimulus in the abdomen, and brought about through the anatomical connexions in the nervous system. It is not, therefore, a "neurosis"; nor is the exaggeration of this reflex, prompted by a large meal of stimulating foods, a neurosis. It is necessary to lay emphasis on this distinction. This reflex, like all normal reflexes, is a beneficent arrangement, and could be easily shown to be one of the means of protecting the body from injury. It varies in delicacy in different persons; it exists in all.

Exaggeration of Normal Abdominal Reflex.

Granting the existence of this normal reflex, it will not be questioned that high feeding and alcoholic liquors accentuate it; and that under such circumstances there is marked raising of arterial tension in addition to arterial contraction.

It must, however, be here recognized that in the latter conditions there are two elements present—one, the vascular reflex; and second, the passage into the circulation of substances produced in the processes of digestion, and of substances derived from the alcoholic liquors drunk. It is not possible at present to give these two factors their precise place in bringing about the accentuation of vessel constriction and of stimulating the increased tension. The existence of the reflex is granted, and there is really little room for doubt that certain substances present in the blood can directly stimulate vessel contraction. Contraction so induced is not a neurosis; it may, indeed, be induced when the connexion with nerve centres is destroyed.

Action of Reflex on Sclerosed Arteries.

This recurring arterial contraction, especially if associated with increased arterial tension, is, as I pointed out some time ago,[31] the efficient cause, and the usual cause, of arterio-sclerosis in the sense in which this term ought to be used.[32] At the same time I dwelt upon the importance of recognizing that sclerosed vessels are not, because of the change in their walls, incapable of contraction, but that, on the contrary, they are prone to become hypertonic from causes which are commonly regarded as trifling. Professor Pal,[33] as seen in his recently-published work, *Gefässkrisen*, has also observed that sclerosed vessels are particularly sensitive, and specially liable to hypertonic contraction.

Let us bear in mind then, *first*, the existence of this systemic arterial reflex having its origin in the digestive organs or processes. Secondly, the influence of the character of the material introduced into the digestive system in accentuating the reflex. Thirdly, the effect of the reflex in producing arterio-sclerosis. Fourthly, that sclerosed vessels are particularly liable to hypertonic contraction.

Relation of Reflex to Angina Pectoris.

The relation between the phenomena just dealt with and angina pectoris is not at first sight apparent; and, in order to demonstrate the close connexion between the two, I must now as briefly as possible refer to several illustrative cases which I have recently observed.

Case I.—*Angina Pectoris Gravior, showing Extreme Sensitiveness of Arterio-cardiac Reflex and its Production by Taking Nourishment.*

The patient was a professional man, aged 67, whom I saw for the first time on September 6th, 1904. He had suffered for years from definite and characteristic attacks of angina pectoris. Lately he had been much worse, and had been confined to bed for weeks. When I first saw him he was having many attacks daily, and circumstances of the most ordinary kind evidently brought them on—such circumstances as the taking of nourishment, the presence of flatulence, slight excitement, and even the changing of his position in bed. The severity of the attacks varied within considerable limits; the more severe, and therefore the more typical, attacks began with pain in the left elbow, which soon extended upwards to the shoulder and then downwards over the precordia. During an attack the hands became cold and painful. The medical attendant, who was watching the patient with the greatest assiduity, informed me that the pulse always indicated the advent of an attack; the radial artery became more definite, firmer, and smaller, the pulse-rate increased, while the wave became small, and might almost disappear. In some of the worst attacks the patient had become unconscious and was thought to be dying. The treatment followed was the administration of nitrite of amyl and nitroglycerine for the more pronounced of the attacks and the relief afforded by them had always been prompt. Under the influence of one or other the pulse wave became larger, the vessel wall softer, the hands became warm, and the pain passed off. The patient took a remarkably calm and intelligent interest in his attacks, and the foregoing is gleaned from his own and the medical attendant's description. The diet for some time had consisted almost exclusively of raw eggs and weak broth, while sedatives of various kinds had been employed medicinally. The patient had always been a large flesh eater. There was no albumen or sugar in the urine. The medical attendant had been impressed by the fact that the patient more recently almost always had a seizure after being given nourishment, even when that consisted of some raw egg. I had the opportunity of confirming the observations on the change in the pulse during a paroxysm soon after my arrival at the patient's bedside. During the time I spent talking quietly to him the pulse was small, soft, and feeble. I examined the heart without causing any discomfort. The sounds were so faint that they were occasionally inaudible, although the chest wall was thin. I next proceeded to examine the abdomen, and had my hand placed quite lightly on the epigastrium when the patient told us that an attack was coming on. I at once removed my hand. He took his attack with remarkable composure, and it was evidently not accompanied by the distressing sensations which so frequently accompany anginal seizures. Pain began in the left elbow, which, as has already been noted, was always the premonitory symptom of the more severe seizures, and extended to the shoulder and then to the precordia. The face became pale. The radial artery became quite abruptly hypertonic, that is, it became firmer and smaller, the rate rose to 100 and 110, and the tension was sensibly raised. He was at once given a tabloid of nitroglycerine, and in a very short time the artery relaxed and the pulse became large, strong, and rather thumping, the pallor of the face was exchanged for a ruddy tint, and the pain ceased. The thumping soon passed off, and the pulse resumed the small feeble character it had presented at the outset.

Comments.

There could, of course, be no doubt that the patient was the victim of a severe form of angina pectoris, and that the attacks were accompanied by marked arterial constriction. It was fortunately easy to arrest the seizures. They had, however, persisted for weeks without any lessening in their frequency or in their severity. The question which awaited solution was, Could anything be done to lessen the tendency to the attacks? Palliation was easily achieved; but could any measures be adopted which might be more curative? The point in the history which was most uncommon was the fact that the taking of nourishment was almost always followed by an attack, although the amount taken was small and could hardly be further reduced. Acting, however, on this indication, it was decided to materially alter the diet, the nature of which has been already stated. The dietary now advised was to consist of peptonized milk, peptonized oatmeal gruel, etc., and one raw egg well beaten up daily. The patient was moreover given small doses of arsenic, tincture of strophanthus, and spirits of nitrous ether. This line of treatment was persisted in, and when I saw the patient a fortnight later the report of his condition showed considerable and satisfactory improvement; the attacks had greatly diminished in number and severity, and the taking of nourishment was only occasionally followed by an attack; the pulse was stronger. The tongue, however, had become coated, and small doses of rhubarb and soda were advised.

A week later the report was that the attacks had still further lessened in severity and frequency, and that when an attack was threatened it could be averted by a dose of aromatic spirit of ammonia or even by a dose of rhubarb and soda mixture. When pain in the elbow came on, it was accepted as an indication that the threatened attack would be somewhat severe and the patient was at once given a small dose of nitrite of amyl. The sensations which now more ordinarily preceded an attack were a sense of discomfort and distension in the stomach, and attacks were often associated with definite flatulent distension, the escape of gas being followed by relief. The medical attendant noted that when the abdominal discomfort supervened the pulse rate increased, and there was distinct hypertonus; as the attack passed the vessel wall relaxed and the rate returned to normal. Within the next two months the patient's condition varied a good deal, but it was noted that any gastro-intestinal or digestive upset at once threatened to induce an increased number of attacks. The management of the diet and of the digestive system required much tact and judgement and was admirably conducted by the doctor in charge. In some weeks the patient had improved so much that he was able to be out of bed and to move about the house for the greater part of each day, and to interest himself in outside affairs. His clinical history for the succeeding months was chequered, for as his condition improved, it became impossible to continuously diet him as was desirable; still, at the end of June, 1905, he had not had a seizure for six weeks and was in fact freer of attacks than he had been for years.

Soon after this, however, albuminuria made its appearance with anasarca. The anasarca was got rid of, but the albuminuria persisted; Cheyne-Stokes breathing developed and became extreme. The patient finally developed gangrene of his entire right lower limb, of which he died in the end of October, 1905, a proof that his arterial system was more degenerate than the radials indicated. I submit the case as illustrating an extreme exaggeration of the normal reflex which has been described. The angina in this patient was associated with a weak and somewhat enlarged heart. The hypertonic spasm of systemic arterioles, resulting from gastro-intestinal stimulus, proved so severe a strain on the weakened heart as frequently to lead to a syncope, during the anginal paroxysm, which was only short of being fatal. If we had had the opportunity of seeing the heart, it is probable that atheromatous or ossified coronary arteries would have explained its debility. The instructive feature was the extraordinary sensitiveness of the peripheral organs from which the reflex started, and the success in allaying that sensitiveness by changing the kind of nourishment given, and its partial predigestion. The remedial effect was so pronounced that it gave me the impression that in this patient the normal reflex had been irritated beyond control by the free use of the more pure proteid foods, until it responded to the most trifling local irritation. That the anginous symptoms were always determined by the vascular hypertonic contraction was undoubted, and, so long as the latter could be restrained, there was no angina, and, as has been indicated, the key of the position was in the alimentary system.

Case II.—*Condition allied to Angina, showing the Stimulation of the Arterio-Cardiac Reflex by Digestive Disturbance.*

This case might be classed as angina sine dolore, but I use it as an example of conditions allied to angina pectoris, in which hypersensitiveness of the abdominal reflex gave rise to phenomena of considerable interest and importance.

The patient, aged 68, was a member of one of the learned professions, and had spent many years in the tropics. I saw him in November, 1904, during convalescence from an influenzal bronchopneumonia, and was informed that on the afternoon of the previous day between 4 and 5 o'clock he had had a "fainting attack," in which his face became pale, he broke out into a cold perspiration, and the pulse was imperceptible. The nurse had been greatly alarmed, as she thought the patient was dying. He soon, however, rallied from this, and I saw him in the afternoon of the following day. It is unnecessary to enter into the details of this case at this stage, beyond saying that when the medical attendant and I inquired fully into his dietary it was found to be very faulty, and he was forthwith put upon a comparatively austere regimen.

He had no similar attacks during the following days, but he often spoke of an attack as impending, and he apparently expected an attack about 4 o'clock in the afternoon. It was thought by his family and the nurse that this was pure nervousness, and an expression of the pessimistic view he tended to take of his condition. Five days later I again saw the patient and obtained from the nurse the statements on which the preceding account is based. I was waiting by the patient's bedside for his medical attendant to arrive, and thought the patient, who was sitting propped up in bed, looking well, for his colour was good. His pulse was 80, soft, small, and feeble. The respiration, however, showed a long deep breath often with a little sigh, followed by several quiet inspirations; it was distinctly "cerebral" in type, and it made me somewhat anxious. I asked the nurse to give him half an ounce of whisky in water, although he had had a couple of drachms shortly before, as I wanted to see the effect it would have upon the pulse and respiration. The effect was unexpectedly striking and even alarming. In a few seconds the pulse altered greatly in character: the artery very plainly tightened up, becoming smaller and harder, and the rate varied within very wide limits. It was frequently 88 per minute, then it would run up to over 100, and again sometimes fall even to 40. Along with this sudden irregularity in the pulse rate there were equally pronounced respiratory and cerebral phenomena. Lying with his eyes shut the patient seemed to fall asleep, and the breathing was so quiet and shallow that only on close attention could it be seen that he was breathing at all. Then he wakened up with a start and a groan, followed by some deep breaths. This series of phenomena went on with perfect regularity as long as he was not spoken to, each part of the cycle only lasting some seconds. When asked on awakening what was the matter, he explained that he had become unconscious, and had been dreaming that he was falling down a precipice, or passing through some equally unpleasant experience, often in company with some old friend long dead. He spoke of these attacks as "delirium," and insisted that the present was only an exaggeration of what he had experienced every afternoon, and to which reference has already been made. He could be kept awake by speaking to him, and he preferred being spoken to, because, as he said, it helped him to fight against the attacks. When he woke up from the nightmare his words were sometimes incoherent and unintelligible for a few seconds, but he rapidly regained complete self-possession.

This alarming and curious condition lasted about an hour. It had come on about three hours after lunch, which had consisted of a chop, spinach, and one potato. Some time after that he had had milk and hot water and two drachms of whisky in lieu of afternoon tea. When the patient's condition was as has been described, I asked the nurse to make some tea, and he was given two-thirds of a moderate-sized cupful of this. The attack had completely passed off by the time the doctor arrived; the pulse had returned to the condition it was in before the attack, the breathing was regular, and he was quite calm and self-possessed. When the next meal came he was quite able to feed himself. I had no doubt the patient's view was correct that the symptoms shown this particular afternoon were only an exaggeration of the afternoon symptoms which he had spoken of, but which no one with more understanding than a nurse had witnessed. The doctor had called at various hours for the purpose of observing the attacks, but the stimulus of his visit appeared to be sufficient to postpone them.

Comments.

The phenomena in this case were very striking, and the symptoms could only be regarded as indicating an anxious condition of matters. The fact that they threatened chiefly in the afternoon, and had so far lasted only for a comparatively short time each day, was reassuring; while the time of their occurrence suggested a connexion between the symptoms and the stage of the digestion of the mid-day meal, which was the principal meal of the day. Suspicion was all the more strongly directed to this view by the fact, of which I had no doubt, that the attack I witnessed was precipitated or intensified by the half ounce of whisky given at my suggestion. The immediateness of the effect was startling: it gave the impression of being produced the moment the draught reached the stomach. It was indeed impossible to escape from the conviction that the phenomena pointed to the production by the alcohol of a peripheral gastric irritation or stimulation, which precipitated or intensified a condition which was already threatening. On this assumption the local irritation must have been followed by a very prompt reflex effect. The impulse communicated by the sensory nerves of the stomach to the vasomotor centre must have stimulated that centre so as to increase its vaso-constrictor action, the result being the hypertonic contraction of the radial artery which was so markedly present. This stimulation of the vasomotor centre must have also told in some way upon the cerebral blood supply, judging from the cerebral manifestations which were present. That even the motor area of the brain was involved was shown by the occurrence of muscular twitching and starting of the limbs, especially on the right side, when the other cerebral manifestations were at their maximum. The respiratory centre, as shown by the great respiratory irregularity shared in the perturbation; this association, however, is of common occurrence. That the attack should have passed off as it did, without any therapeutic measures being taken beyond the administration of a few ounces of tea infusion, only strengthened the view that it had been determined by peripheral conditions of a temporary kind; that, indeed, the true cause of the trouble lay in an error in the digestive process at this particular period after the mid-day meal.

The diet was altered in some of its details, and for an afternoon or two the patient was given a dose of one of the commonly-used vaso-dilators as soon as the symptoms threatened to come on. He had no more attacks; his recovery was complete, and he has returned to his duties in the East.

CASE III.—*Anginous Paroxysms First Appearing on Physical Effort: Influence of Emotion and of Diet.*

This patient was a public servant, whom I saw in July, 1905. He had suffered for some time from attacks of typical angina pectoris, commencing with pain referred to the heart. This symptom first appeared when he was hunting, and so constantly reappeared when he attempted to follow the hounds that he had to stop doing so. He had had one or two attacks of great severity during the night, in at least one of which it was thought he was to die. He had been treated with considerable success by an eminent Irish physician. He carried about tabloids of trinitrin in his waistcoat pocket, and had been taking potassium iodide for some time. His condition had become practically stationary; hunting was out of the question; he could only walk on level ground; the slightest hill, or the slightest hurry, produced a breast pang, which arrested further activity. When I first saw him he was having a slight attack almost nightly, soon after midnight, and at that time he usually took a tabloid of trinitrin. He claimed to be a small eater, and his daily wine consumption did not exceed two or three glasses. His dietetic habits had not been seriously inquired into, and had not been altered. He had been told that the artery of his heart was rigid, and he and his family were dwelling under the shadow of the fear of sudden death at any moment. On examining him I found that the heart was slightly enlarged, the dullness reaching to the nipple line, but the sounds were clear and pure at apex and base. The pulse was regular, of good strength, and gave no indication of an enfeebled myocardium. The vessel wall was not much thickened for a man of his age, and in view of the arduous life he had led at home and abroad; there was no albumen or sugar in the urine, but it tended to be scanty and high-coloured. The bowels were acting, but not freely, and his conjunctivae indicated "sluggish liver." The question here, as in Case I, was whether anything could be done to carry improvement beyond the point it had reached. I was again fortunate in witnessing a slight attack in this patient. When I was examining into the state of his heart and vessels, which under the circumstances I was doing with great care, and not hurriedly, he became a little agitated and informed me that he was having a slight attack, with the usual feeling in his heart. On putting my finger on the radial pulse it had become markedly hypertonic. In a very short time the hypertonic spasm relaxed, and the heart sensation vanished.

Here was another instance of the pain and anxiety of angina, assuredly due to arterial spasm. There seemed to me, further, no doubt that the measure of emotional disturbance aroused by the medical examination, had induced the attack. There was, therefore, no doubt as to the existence of marked vasomotor sensitiveness. As the patient was already taking potassium iodide more or less regularly, and trinitrin when threatened with a paroxysm I felt that not much benefit could be expected from further medicinal measures. Guided again, therefore, by the theory that this vasomotor sensitiveness owed its origin to the circumstances and conditions of the alimentary system, I strongly advised that all wine should be stopped, and that other changes be made in the diet. The progress of the case need not be enlarged upon; it is sufficient to say that the patient made marked improvement in every respect.

Case IV.—*Angina with Gastric Disorder: Attack caused by Palpation of Epigastrium.*

This was a female patient in the Royal Infirmary, who complained of attacks of pain in the chest, over the precordia, with shortness of breath and of indigestion and pain in the epigastrium. The heart was weak and somewhat dilated. I mention this case on account of an experience I had in connexion with it somewhat resembling an incident noted in Case I. On examining the patient's abdomen I found that there was surface hyperaesthesia in the epigastrium, as is common in some forms of gastric disturbance; and as I was gently palpating the region, I noticed the patient's face become pale and expressive of anxiety and discomfort. I at once put my finger on the pulse, and asked her what was the matter; she replied that the pain in her chest had come on. The radial artery had become markedly contracted and hardened. As the hypertonic spasm of the artery relaxed the heart discomfort passed off.

Clinical Pathology.

We are now in a position by gathering up our separate points to explain the whole clinical pathology of angina pectoris. In the first place there may or may not be a morbid anatomy. When present, it varies so widely in different instances that, from the earliest times to the present, many physicians have refused to accept any anatomical change as sufficient to explain the phenomena. Whenever this is the state of knowledge it will be found that men turn to that scapegoat of all that is unknown—the nervous system.

In attempting to interpret the phenomena of angina pectoris, I shall begin with an illustration of the simplest form of angina. Tobacco poisoning, from smoking, is commonly recognized as the cause of a form of angina pectoris—a toxic angina. It so happens that I can give myself tobacco angina by smoking strong tobacco. The symptom which arouses me to the fact that I must put my pipe aside is a sense of constriction at the heart, a feeling as if it were grasped; it is not a very unpleasant sensation, but it gives one the impression that it only required to be much intensified to make the dolor pectoris to be avoided, whatever self-denial it required. The heart discomfort is accompanied by a hypertonic contraction of the radial arteries. Discomfort and hypertonus disappear together. If I am told this is a neurosis, all I can reply is, if it is, opium poisoning, or tetanus, is also a neurosis; and that I do not look at morbid processes from that standpoint.

Whatever the degree of intensity the heart-pang may reach, it is, I believe, always the result of a *sudden* embarrassment of the myocardium, and usually and chiefly that of the left ventricle. This sudden heart embarrassment, varying widely in degree and intensity, is the one fact common to all the divisions or subdivisions under which all cases have been classed. The angor animi, which also varies in degree, is, I think, common to all sudden heart embarrassments, which fall short of being so immediately fatal that there is no time for the development of such sensations.

This heart embarrassment is, as Mackenzie[3] has quite recently pointed out, an "impairment of the function of contractility." This is the modern expression of what Parry meant by "syncope." It is to this condition, associated with pain, that Rosenbach[34] confines the term "stenocardia."

The impaired contractility is due either, in the first place, to the sudden strain put upon a feeble myocardium by general arterial contraction, or by a call for increased work; or, in the second place, to a myocardium feeble, not from anatomical changes in it, but temporarily so, from deficient blood supply, the result of the participation of the coronary arteries in a general arterial spasm.

The cause of the sudden heart embarrassment in the vast majority of cases is the arterial hypertonic contraction, or spasm contraction, we have been considering; the latter term indicating the more sudden and severe degrees of contraction. Even toxic conditions only give rise to angina when the factors indicated are present.

By means of the cases reported I have endeavoured to illustrate the remarkable relations which exist between the digestive system, or the materials introduced into it, and the general arterial system. I have also shown that conditions having their origin in the abdomen can induce a hypersensitiveness of a normal vasomotor reflex, which becomes apparent as arterial spasm, whenever the exciting conditions are sufficiently pronounced; and that when those conditions are altered the arterial spasm disappears.

As I have already indicated, the arterial spasm may be determined by direct irritation of the stomach. In two of my cases the spasm and its accompanying paroxysm of angina, were caused by palpation of the epigastrium. This illustrates the well-known nerve connexion between surface and viscera—gastric disorders frequently causing surface hyperaesthesia, while in these two cases the surface stimulus produced the same effect as if a stimulus had been applied directly to that viscus.

The stimulus is also provided by the substances taken into or absorbed from the alimentary tract. These substances exercise a supreme influence in producing and in maintaining the hypersensitiveness of the vasomotor reflex, and therefore of the vasomotor centre.

This *hypersensitiveness of the vasomotor centre* will explain what has long been recognized—that paroxysms of angina have as their main determining cause physical effort, mental emotion, or digestive disturbances.

The Unifying Principle.

By the application of the facts I have brought under review the group of symptoms known as angina pectoris can be satisfactorily explained, no matter how diverse the conditions may be in which it occurs. It explains the occurrence of the symptoms without anatomical change, while at the same time it shows the importance of the presence of anatomical changes in the coronary arteries, or in the myocardium. In this connexion it must always be borne in mind that even calcareous coronary arteries are not calcareous to their finer subdivisions, so that in this condition, as well as in the varying degrees of arteriosclerosis, the power of spasm contraction is not lost—may indeed be intensified. It gives to the nervous system its due place in the production of the phenomena.

To illustrate the production of a paroxysm by mental emotion or physical effort, let me refer to Case III, in which slight emotional disturbance or slight exertion had the effect of inducing a paroxysm. The connexion between the emotional centres and the vasomotor centre is a normal one, and constantly active. In this case a normal emotional impulse acted upon the hypersensitive vasomotor centre, resulting in the arterio-cardiac phenomena of angina. This was no abnormal excitation of any emotional centre. It was a normal excitation passing on to an abnormally sensitive vasomotor centre. The vasomotor centre in this same patient was equally influenced by slight physical effort; it was not the voluntary muscle centres, nor the nerve endings in the muscles, which were unduly sensitive, but the vasomotor centre to the normal influences resulting from voluntary muscular effort.

By the cases reported I have also shown that this hypersensitiveness of the vasomotor centre, even in grave angina pectoris, can be reduced, controlled, or even removed by dietetic measures, with the result that the anginous seizures are removed or greatly modified. In cases where the arterial spasm is associated with great anatomical change, either in the myocardium or in the coronary vessels, absolute cure can hardly be looked for; but in all cases the symptoms of angina pectoris may be much ameliorated by accepting, as a working hypothesis, the propositions I have ventured to submit, and conducting the treatment in accordance with what they indicate.

There was need of a principle which, when applied, would explain the phenomena in each of the various groups into which the disorder has been divided. There was abundant clinical experience showing the remedial effect on the paroxysm of vaso-dilators; but the only explanation of the arterial spasm which up to the present time has been offered has been, to use Sir R. Douglas Powell's words, that of "a pure neurosis of the cardiovascular system."

Owing to the varying degree of intensity of the symptoms I would suggest that in classifying the cases the simplest distinction might be found in the terms "angina pectoris major" and "angina pectoris minor," the former being confined to those cases in which there was believed to be permanent anatomical change in the heart or its vessels.

REFERENCES.

[1] G. A. Gibson. *Nervous Affections of the Heart*, 1904. [2] Thomas Oliver, *Lancet*, September 16th, 1905, p. 809. [3] James Mackenzie, BRITISH MEDICAL JOURNAL, October 7th, 1905. [4] Pawlow, *The Work of the Digestive Glands*. [5] Herter, *Lectures on Chemical Pathology*. [6] Chittenden, *Physiological Economy in Nutrition*. [7] W. Heberden, *Med. Trans. Col. of Phys., Lond.*, vol. ii, p. 59, 1772; do., vol. iii, p. 1, 1785. [8] C. W. Parry, *An Inquiry into the Symptoms and Causes of the Syncope Anginosa, commonly called Angina Pectoris*, 1799. [9] Allan Burns, *Diseases of the Heart*, 1809, p. 138. [10] Jurine, *Mémoire sur l'Angine de Poitrine*, 1815. [11] Laënnec, *Diseases of the Chest* (first edition, 1819), Forbes's translation, fourth edition. [12] Forbes, *Cycl. of Pract. Med.*, vol. i, 1832. [13] Bertin, *Diseases of the Heart*, etc., 1833. [14] Hope, *A Treatise on Diseases of the Heart and Great Vessels*, 1839. [15] Latham, *Diseases of the Heart*, 1846. [16] Walshe, *Diseases of the Heart* (first edition 1851), third edition, 1862. [17] Stokes, *Diseases of Heart and Aorta*, 1854. [18] Trousseau's *Lectures on Clin. Med.*, New Sydenham Soc., vol. i, p. 592, et seq. [19] Nothnagel, *Deut. Arch. f. klin. Med.*, Bd. 2, s. 173; Bd. iii, s. 309, Leipzig, 1867. [20] Sir B. C. Brodie, *Lectures on Pathology and Surgery*, 1846, p. 360. [21] Boullay, *Arch. Gén. de Méd.*, vol. xxvii, p. 425, 1831. [22] Charcot, *Gaz. Méd. de Paris*, 1859. *Progrès Méd.*, 1887, p. 99. [23] Lauder Brunton, *Lancet*, vol. ii, p. 97, 1867, *Trans. Clin. Soc. Lond.*, vol. iii, p. 191, 1870. [24] W. T. Gairdner, *Reynolds's Sys. of Med.*, Lond. 1877, vol. iv, p. 535. [25] Sansom, *Diagnosis of Dis. of Heart and Aorta*, 1892. [26] Osler, *Lectures on Angina Pectoris and Allied Conditions*, 1897. [27] Sir R. Douglas Powell, *Allbutt's System of Med.*, vol. vi. [28] Byrom Bramwell, *Diseases of the Heart*, 1884. [29] G. A. Gibson, *Diseases of the Heart and Aorta*, 1898. [30] George Oliver, *Blood Pressure and Tissue Lymph Circulation*, 1903. [31] [32] W. Russell, *Lancet*, June 1st, 1901; *Ency. Med.*, vol. xiii, Vessels; BRITISH MEDICAL JOURNAL, June 4th, 1904. [33] Prof. Pal. *Gefässkrisen*, Leipzig, 1905. [34] Rosenbach, *Die Krankheiten des Herzens*, 1896. [35] H. Huchard, *Maladies du Coeur*, Tome 2, 1899.

FOOD FEVER IN CHILDREN.

BY EUSTACE SMITH, M.D., F.R.C.P.,

SENIOR PHYSICIAN TO THE EAST LONDON HOSPITAL FOR CHILDREN.

I PROPOSE to describe, under the name of "food fever," a class of cases with which I have been familiar for a number of years. The disorder consists of an attack of fever which comes on suddenly, is accompanied by signs, more or less pronounced, of digestive disturbance, lasts in its acute form for several days, and may linger on in a modified degree for some weeks. If these attacks occur frequently—once a month or so, as they sometimes do—their effect upon the nutrition of the patient is highly injurious.

Dr. H. Davy, in the *Lancet* of September 24th, 1904, published an interesting paper on this subject, which he called "Fever in children caused by the indigestion of certain kinds of carbo-hydrate foods." Dr. Davy instanced the case of his own son, who suffered repeatedly from this form of pyrexia. The attacks came on quite suddenly and without discoverable cause, and by their frequency interfered greatly with the boy's nutrition, brought his education to a standstill, and kept his parents in a state of continual perplexity and alarm. I have already described these cases in my large work on *Disease in Children*, under the name of "acute recurring gastric catarrh." It is not, however, every case of recurring gastric catarrh which presents these symptoms, but those which do exhibit them are so characteristic, and to many practitioners so puzzling, that I have thought it might be convenient to group them together under a distinctive name.

SYMPTOMS.

The subjects of the complaint are usually neurotic children of either sex between the ages of 3 or 4 and 10 or 12 years, although I have seen cases in children still younger. The attack begins with headache, accompanied sometimes by vomiting, sometimes by looseness of the bowels, but always by signs of some kind of digestive upset. The child lies about with a dull, pasty face, a dirty tongue; he does not care to play, and has a temperature of from 101° to 105°. If the abdomen is examined, the stomach resonance is found to reach higher than normal—often nearly as high as the left nipple—and the edge of the liver can be felt one or two fingerbreadths below the costal margin. The water is very high-coloured, or thick, and very acid.

If the case is left alone, or not treated properly, the temperature remains for some days continuously higher than the normal level, and at some period of the twenty-four hours shoots up still higher. It generally rises a little after food, and is almost always 102° or more in the evening. At the end of a few days it subsides, either suddenly after a profuse sweat or gradually, but is often moderately raised (99° to 101°) for a week, or even longer.

If, when the fever begins, the child is given a good dose of calomel or blue-pill, the temperature generally falls directly the medicine has acted; but instead of remaining low, as it would in an ordinary case of upset, it rises again in the course of a few hours, and in the evening generally reaches 100°, or a little higher. For several days afterwards the temperature may remain uncertain—not continuously higher than normal, but rising above a healthy level at some period of the 24 hours, in the evening or after a meal. The children, as a rule, make no complaint of bodily discomfort, but are fretful and irritable in the day, and at night lie awake or sleep badly, grunting and groaning and tossing from side to side. Often they do not care about their food, and sometimes it is most difficult to make them eat anything at all. The younger children, when forced to take food into their mouths, roll it about from one cheek to another, as if they could not bring themselves to swallow it.

Children who have these attacks only at rare intervals soon recover their health after the temperature has fallen to its normal level, and seem in no way the worse for their indisposition. If, however, as sometimes happens, the attacks are repeated every five or six weeks, nutrition soon begins to suffer. Such children are pale and thin, have little or no appetite, and, even if lively and active, have habitually a languid circulation and cold feet. These signs of malnutrition are generally accepted by the parents as the necessary outcome of a supposed delicacy of constitution. It is the frequent recurrence of fever which causes so much anxiety, especially as the attacks come on quite suddenly and without obvious cause. A child seems in his usual health, is perhaps going to school regularly and joining briskly in all the school games. One morning he leaves his home apparently as well as usual, but returns in the evening flushed in the face and complaining of headache. His temperature is taken and found to be 102° or higher. The complaint then follows its usual course. Some of the attacks, however, have special symptoms. A highly neurotic child may have a fit of convulsions, which may be repeated again and again. In a certain proportion of the cases a prominent symptom is vomiting, which may persist for several days, and I am strongly of opinion that many of the cases described as "periodic" or "cyclical" vomiting are of this nature. The vomiting is sometimes accompanied by pain in the epigastrium or umbilical region.

A little girl of 6 was subject to sudden attacks of fever, with vomiting and pain in the pit of the stomach. The febrile condition always lasted five days, during which time she looked yellow without being actually jaundiced, and her bowels were very confined. The child, when I saw her, was supposed to be well, but she looked very pale and thin and her feet were bitterly cold. She was brought to me that I might suggest some means of preventing the attacks.

The pain is sometimes the most distressing symptom.

A child of 8 was brought to me because she had suffered for more than a year with attacks of acute abdominal pain and high fever which came on every three or four weeks. The child, after a restless night, would complain in the course of the morning of severe abdominal pain. Her temperature would be 103° or 104°. The pain always went on continuously for three days, the child sitting or lying with her knees drawn up and crying with the pain. Sometimes she was sick. At the end of the three days the pain and pyrexia would subside, leaving the patient much weakened, with a poor appetite and dislike to any exertion. I put the child upon a strict diet and enjoined special precautions against chills. I heard two years afterwards that the attacks had ceased from the time the treatment was begun.

In other cases there are signs of intestinal catarrh, generally of the descending colon, and the child passes loose stools containing mucus and blood.

Not long ago I saw a boy 11 years old, who was brought with the history of many attacks of this kind during the last four years. In these attacks the temperature would rise as high as 105° or 106° for the first few hours, then on the second day it would fall, but remain higher than normal in the evening (99.5° to 101°) for a week or more, or as long as the intestinal disturbance persisted. But it was not only during the attacks of looseness that the temperature was raised. Often the boy would have an afternoon or evening temperature of 100° to 101.5° for a week at a time; but whenever this happened it was noticed that the stools were unhealthy and offensive, although not necessarily increased in number. Just before I saw the boy he had been at the seaside for five weeks. All through his stay not a day passed without the temperature rising above the normal level at some period of the twenty-four hours; generally it was 99.5° or 100°, but once it reached 105°. During this time the boy, although gaining flesh slowly, was pale and, as they said, "weary looking"; he complained at times of abdominal pains and occasionally of nausea. His bowels only acted after an enema and the stool passed was offensive and fermenting. His feet were always cold. The lad's diet all this time was strictly confined to Benger's food and milk (by medical advice), but during the last week of his stay he had had a little chicken in addition.

The special feature of these feverish attacks is that the rise of temperature is always accompanied by some signs of digestive upset, although not always by signs which make much impression upon the minds of the parents. Often they tell you nothing but that the child is feverish in the attacks and lies about, and it is only in answer to questions that you learn that the patient has no appetite, looks livery, and has unhealthy stools. The length of the attack is usually three days to a week; but it may last longer, and sometimes, as in the case just referred to, the temperature may remain uncertain for a month or more, often rising in the evening to 102° or 103°, although the patient's condition is fairly good and he does not seem to be actually ailing.

I always find these cases to be exceedingly puzzling to the practitioner. He usually suspects tuberculosis, and may even commit himself to that diagnosis. Certainly if the attacks occur frequently—I mean every few weeks—and the digestion in the interval remains poor, so that the patient if he do not lose flesh keeps pale and thin, with a bad appetite and little care to exert himself, the general state, coupled with the frequent, often moderate pyrexia, is suggestive of some such explanation of the symptoms. The diagnosis depends, of course, upon the history of the case—its irregular course, and intervals of comparative health, and the presence of undoubted signs, however slight, of gastro-intestinal disturbance.

PATHOLOGY.

As to the cause of the fever, I believe the cases are primarily attacks of acute gastric catarrh. They can often be traced to a definite chill; and the patients have always cold feet, and consequently their resisting power is so feeble that they are prepared to suffer from comparatively slight exposure.

But when the liver has been unloaded by a good mercurial purge and the temperature has fallen, I think the moderate rise which follows is due not to the catarrh, but to reabsorption from the bowel of injurious products of decomposition. "Auto-intoxication" is the word at present in fashionable use, and it probably expresses what is going on in these cases. The appearance of the stools in the majority of the children so affected shows fermentation, and it is a natural inference that some of the products of this fermentation must be absorbed into the blood. Moreover, the results of treatment suggest that this explanation is correct, for when the child is put upon a strict diet the temperature very quickly becomes normal.

Dr. Francis Hare, in his interesting work on *The Food Factor in Disease*, has proposed another explanation of the derangement. According to this view the phenomena which constitute a "bilious attack" are the direct consequence of over-formation of glycogen in the liver. The hepatic cells are swollen by the excess of glycogen they contain, and the whole organ becomes enlarged. The capillaries of the portal vein which ramify between the lobules are pressed upon, the flow of blood in them is impeded, and mechanical congestion is induced in the mucous membrane of the alimentary canal. The congested mucous membrane swells and blocks up the openings of the common bile duct and pancreatic duct, shutting off the secretion of those organs. Probably, also, as a consequence of the catarrh, the gastric and other digestive juices are checked or arrested, digestion and absorption cease, and we find anorexia, nausea and vomiting, and perhaps diarrhoea. Under these circumstances glycogen-forming material can no longer enter the portal vein, glycogen ceases to be produced, and that already deposited in the cells is gradually consumed by the uninterrupted combustion in the tissues. The functions of the organs involved are then gradually restored, and the attack passes off. Dr. Hare, as I understand him, not only excludes chill from any share in the production of the disturbance of function, but goes so far as to declare that external cold actually tends to retard glycogenic distension of the cells, and should therefore be a protection against the attacks. In reply to this, I can only repeat that the actual conditions present in these cases seem hardly to favour the theory, for the feet and legs of the subjects are always bitterly cold, the resisting power of the system against chills is reduced to its lowest point, and it is only when the circulation has been improved and the body guarded by a sufficiency of warm woollen under-clothing, that the occurrence of the periodical attacks can be put a stop to.

TREATMENT.

To prevent and cut short the attacks, a careful diet is of the utmost importance, but it is not only excess of the carbo-hydrates which has to be considered. We have also to forbid all articles of food which are capable of undergoing an unwholesome fermentation in the bowels, and thus providing septic matter for absorption into the blood. Starches and sweets must be given with caution, and a combination of starch with milk, such as we find in the ordinary milk pudding of the nursery, rice, sago, tapioca, etc., is to be strictly forbidden. Milk itself, except in very limited quantity, is harmful, and a milk diet, which consists of milk in conjunction with various kinds of farinaceous foods, is actively injurious. I believe that one reason why the temperature is in many cases so slow to return to a healthy level is that the children are generally put upon a milk diet under a mistaken notion that it is the food the least likely to disagree. But surely it is an error to suppose that a fermenting process can be brought to an end by giving a fermentable food; and in all cases where the temperature continues uncertain day after day, rising above normal in the evening or after a meal, it is wise to exclude milk altogether from the diet. Acids, again, such as baked apples, grapes, oranges, and lemonade, must be condemned, for acid tends to make acid, and promote fermentation in all the fermentable things it mixes with.

The proper diet for these children consists of mutton, poultry, white fish, well-boiled green vegetables, and eggs. They may have plenty of butter with stale bread, toast, and rusks. The salted foods are good, such as bacon and, if they are old enough, ham and tongue; bloaters also and sardines, and the pastes made of anchovy, bloater, and shrimp may be allowed. These things, which are usually unknown in the nursery, are really perfectly harmless, and make good substitutes for marmalade and jam.

My experience is that if the case be treated in this way the temperature very quickly becomes normal, but it is wise to caution the parents that the dieting must be thorough. The object of it is to put a stop to the fermenting process; but a very small quantity of fermentable material will keep this process up. And that, I think, is the reason why in many cases the temperature is slow to fall, because milk is still allowed to be taken.

But while it is of the utmost importance to supply the child with a diet which is unfermentable and wholesome, it is of almost equal moment to take steps to prevent any fresh attack of catarrh which would keep up the derangement of the digestive organs. The child should go out as much as possible, but it must be our care to see that he does so without risk to his health. The chief points to attend to are the sufficient clothing of his body and the warmth of his feet and legs. Children with bare legs cannot be cured until their legs are properly covered with long woollen stockings, indoors as well as outdoors; and this applies to summer as well as winter, for it is in summer that the changes of temperature are so rapid and unexpected. But there are many ways in which a child may catch cold. In every individual case it is wise to go into the ordinary nursery routine (which may differ, of course, in different families) and find out if possible what is being done that is wrong. I may add that in doing this it is necessary to remember that children who have suffered from many attacks of this nature have become very susceptible to slight chills, so that precautions which would be successful enough with an ordinary child are not effectual with them.

ON DRUG IDIOSYNCRASIES IN RELATION TO OFFICIAL DOSAGE.*

By C. O. Hawthorne, M.D., M.R.C.P.,
Examiner in Medicine and Clinical Medicine in the University of Aberdeen; Physician to the Central London Ophthalmic Hospital; Assistant Physician to the North-West London and Royal Waterloo Hospitals.

The personal factor provided by the individual patient forms an element in medical practice the range and command of which can hardly be overstated. It weighs largely in the choice of a physician and sometimes with equal unreason determines his dismissal; it modifies the expression of the processes of disease and thus complicates the art of diagnosis; and last, but by no means least, it influences the actions of medicines and therefore demands an attempted estimate in the construction of a scheme of treatment. Hence it must ever remain true that the prescription of remedies in the treatment of disease can never become a mere mechanical art. For even when remedies have been accurately accommodated to definite and exact standards patients will continue to differ, and this difference will express itself in a more or less conspicuous fashion in the shape of a varying response to the influence of drugs.

The existence of idiosyncrasies in relation to drugs is a doctrine which, it is true, receives some measure of recognition in the discipline of medical education. But it may be questioned whether it might not advisably be presented with greater emphasis. For the most part it is illustrated by the announcement that occasional individuals are found who are excessively susceptible to, or extraordinarily tolerant of, some few of the more potent agents among the official materia medica. Thus drug idiosyncrasies are presented as extraordinary or exceptional occurrences which appear as "sports" amidst the generally stable and constant phenomena of the therapeutic world. So far from being merely extreme expressions of a general law, these illustrations seem to be the negation of all law. They are apt to appear, like so many big gooseberries, to enliven the dull season of a course of lectures on materia medica, rather than to enforce a practical therapeutic lesson. So considered, it must indeed be admitted that instances of unusual sensitiveness to such remedies as opium and arsensic have this value, namely, that they teach the student and junior practitioner to be careful in the use of these remedies. But it is submitted that this is only a limited application of the significance of such facts.

The suggestion is here offered that these facts are merely extreme and conspicuous examples of the general truth that every individual patient has a degree of reaction, special and personal to himself, in relation to each member of the materia medica. The majority of individuals may, it is true, closely approximate in this respect to a common standard, but between the extremes of excessive susceptibility and excessive tolerance all gradations are possible, and successful therapeutics largely consists in the determination of the exact position of the individual patient in relation to the individual remedy. The probable truth of such a statement may well be expected *a priori.* If one individual is found to react powerfully to a minute dose of atropine, for example, whilst another receives a relatively large dose without manifest change, it is at least probable that individuals exist who form a graded series between these two extremes. And equally it is probable that what is true of one drug—for example, atropine—is true in a greater or less measure of all others. Such a conclusion, further, has the support of experience, and hence it seems desirable to emphasize conspicuous drug idiosyncrasies not as extraordinary and exceptional occurrences, but as impressive illustrations of a general law, the existence of which applies over the whole field of drug administration. Such a presentation involves an exhortation to the prescriber to free himself from the yoke of a rigid and authoritative scale of doses, and to make himself ready, both in one direction and the other, to adjust his quantitative orders to the idiosyncrasies which exist, not in exceptional cases only, but in each individual patient.

The question now to be asked is, What influence is exerted upon the view of drug idiosyncrasy as just defined, and upon the practice which is the inevitable outcome of such a view, by the erection of an official scale of doses in the national *Pharmacopoeia?* The first remark which arises on such a question is that the two schemes appear to be in absolute opposition to one another. In one flexibility, and in the other rigidity, is the predominant note. It is submitted that as a matter of fact the pharmacopoeial doses do exercise a prejudicial influence upon the habit of the practitioner in the quantitative adjustment of his remedies in dealing with the individual patient. These doses are for the most part committed to memory by the student in anticipation of the demands of the examiner. A similar consideration determines their appearance in the pages of the current manuals of materia medica and therapeutics. And the examiner, it may be hinted with all due deference, not infrequently adopts an attitude which justifies these procedures. Thus in the early and flexible phases of the practitioner's career a more or less arbitrary scheme of doses is stamped upon his memory, and these are the more impressive as they appear to have an authoritative sanction. Is it surprising to find that in many cases these powerful influences exercised on plastic and receptive minds become stereotyped as the habits of a lifetime, and the rigid rules which may be necessary for the inexperienced remain to limit the freedom of the man of full stature?

It is therefore argued that the existence of an official scheme of doses, so far from favouring the cultivation of a free and responsible personal judgement in the selection of the quantities of remedial agents suitable for administration, tends to oppose such a habit, and to encourage mechanical and arbitrarily-restricted methods of prescription. It suggests to the practitioner an appeal to authority rather than a study of the personal peculiarities of the patient, and it indicates a limitation of dose by precept instead of by physiological and therapeutical effects. The dangers of over-dosage attract many warnings, but who shall tell the disasters which have attended the timid and restricted prescriber? If, therefore, as will be admitted, the careful adaptation of remedies, both qualitative and quantitative, to the wants and idiosyncrasies of the individual patient is an essential part of good practice, and if, as will also be admitted, each individual patient has his own claims in this respect, it is obvious that conformity to a stereotyped scale of doses is out of harmony with the liberty and power of scientific prescribing. In other words, the existence of a scale of official doses encourages neglect of some of the conditions which favour the successful use of drugs in the treatment of disease.

Now the logic of all this would appear to be an appeal for the removal of the official doses from the pages of the *Pharmacopoeia.* Were the desired end to be attained only by such a step, the present writer would not hesitate to adopt it. At the same time, it would have to be recognized that this policy would remove one of the arrangements by which an accidental error in dosage is prevented. The existing plan affords an added protection to the public by forming a platform on which the dispenser can approach the physician should the latter by a slip of the pen have ordered a dose manifestly excessive and dangerous; and, in view of this, the suppression of the official doses cannot be lightly advocated.

Further, it may be urged that the disadvantage which is attached to their existence, and which has already been discussed, may be avoided by a method short of wholesale abolition. These stated doses may remain as a convenient opportunity for communication between the dispenser and prescriber, but they should be plainly recognized as having little other significance. In particular, they should be deprived of any suggestion of official force. In the preface to the *Pharmacopoeia,* it is true, the real position and significance of the so-called official doses is recognized and defined. But the limitations and qualifications there introduced are not vividly before the minds of medical students, nor are they always emphasized in the manuals of materia medica or in the discipline of examinations. On the contrary, the official doses in these directions too often appear exclusively to hold the field. The result, if the earlier argument of this paper is sound, cannot fail to be, and as a matter of fact is, unfavourable to that condition of successful prescribing which demands adjustment of the dose administered to the personal idiosyncrasies of the patient.

---

* A paper read before the Therapeutical Society on November 28th, 1905.

Thus, whilst in the interests of the public safety it may be necessary to allow the *Pharmacopoeia* to continue to print a maximum dose for each of the official remedies used for internal administration, these doses should be presented in their true relationship and should be deprived of any orthodox halo which the accident of their position may appear to attach to them. Towards the same end it is advisable that strenuous resistance should be offered to any attempt to make the *Pharmacopoeia* other than an authoritative interpretation and definition of the meaning of terms currently used in physicians' prescriptions. And, in particular, no countenance should be lent to the ambition to make the *Pharmacopoeia* a collection of remedies boasting the possession of a pharmacological guarantee, or to include in that volume a series of therapeutic directions and suggestions. It is in the interests both of the public and of the profession that the individual practitioner shall accept personal responsibility alike for the remedies he uses and the doses in which he prescribes them, and these ends would not be favoured by the appearance of a volume claiming public and authoritative therapeutic sanction. So long as the national *Pharmacopoeia* is kept in its present comparatively humble position the existing practice of stated doses may be permitted, provided that due note is taken of the dangers involved, and adequate measures are adopted to prevent what is a convenience for the prescriber and dispenser being converted into a restriction on practice. In short, an official dosage must be recognized as a possible danger to free and responsible personal prescribing, unless at the same time its functions and purpose are strictly limited and defined, and emphatic proclamation is made of the truth that scientific and fruitful indications for practice are to be found, not in the general terms of the doses stated in a *Pharmacopoeia*, but in careful and thoughtful study of the personal idiosyncrasies of the individual patient.

INDUSTRIAL LEAD POISONING.

AN ACCOUNT OF AN OUTBREAK AMONGST YARN WORKERS.

By J. S. CLAYTON, M.D., F.R.C.S.Edin.,
HONORARY SURGEON, VICTORIA HOSPITAL; CERTIFYING SURGEON, MILLS AND WORKSHOPS, ACCRINGTON.

In view of the efforts that have for many years been made by the Home Office to limit the extent of lead poisoning as an industrial disease, by means of special rules, supervision, and notification, I think it worth while to publish some particulars of an outbreak in a calico printing works, or rather amongst the packers in the yarn-dyeing department. Outbreaks of the kind have occurred before in a precisely similar manner, and from the same cause—the inhalation of the lead-impregnated fluffy dust thrown off from hanks of yarn dyed by chromate of lead, as the workers —always women—shake them out and bundle them for the packers, a process called "noddling." In the final report of the departmental committee appointed to inquire into and report upon certain miscellaneous dangerous trades, issued in 1899, much evidence was taken on this subject, and reference was made to an extensive outbreak at one factory five years previously, in which twenty girls had to leave work at one time. What happened before the days of factory legislation one can only conjecture.

Like all other lead poisoning on a large scale from handling yarns, the trouble in this case came from the heavy orange yarns. Other coloured yarns into which chromate of lead enters—such as the greens and light yellows—appear to contain in the dust which can be washed off by water a negligible quantity of lead, and an elaborate investigation by Dr. Dupré of similar samples submitted to him some years ago showed that whilst from light yellow and green yarns he could obtain only 0.03 per cent. of dust, or 1 lb. per 3,300 lb. of yarn, with a minute trace of lead only, from heavy orange yarn he could wash 0.29 per cent. of dust, or 1 lb. per 345 lb. of yarn, containing 2.85 per cent. of lead.

DYEING, DRYING, AND NODDLING.

The yarn is first washed and boiled, then passed through lime water and the excess wrung out. It is next put through a solution of subacetate of lead—and here obtains that which may afterwards cause trouble—then again through lime water to fix the lead more or less in the fibre, and through a saturated solution of potassium bichromate, and finally of hydrochloric acid to raise the colour, and of saffranin to top it. The yarn is then dried in a hot-air chamber, and afterwards hung in a current of air to cool and to obtain a natural amount of moisture. It is then stacked for making up. Up to this stage the procedure has been entirely in the hands of men, and is a fairly safe one; no cases of lead poisoning have been traced to the dyeing process or to the handling of the yarn when wet. It is entirely in the later stage of making ready for packing that the trouble arises.

After the yarn has been dried it becomes the turn of women to handle it. They take hanks from the stack, and hang them over wood bars, and shake out and stretch them straight, so that they may be passed on to the men who press and pack them. It is in this "noddling," this shaking out and violently stretching of the hanks of yarn over the wooden bars, that the lead-laden bits of cotton fibre and dust are liberated, and float about the workroom, impregnating the atmosphere and producing a fine cloud of yellow dust. In this instance about twenty women were occupied in the process, consequently the amount of this yellow dust was considerable, and, though the room was very large and high, the dust is heavy, and settles on their white overalls in quantity.

PREVENTIVE MEASURES.

The firm worked under special rules dating from 1895, but had not considered it necessary to adopt the recommendations contained in the report of the Dangerous Trades Committee, published in 1899, as to periodical medical examination, which would have brought to light the early cases as they arose. They supplied overalls and head coverings, which were washed periodically. No food was allowed to be eaten in the workroom. Washing conveniences and an adequate supply of water were provided in the workroom, as also were adequate metal respirators lined with a sufficient quantity of lintine, or fine lint, a very suitable filter. They had also arranged a trough in the floor, covered by a grating, and connected up with a fan, to try and remove the dust. The women worked in this department on alternate weeks. In spite of these things, and notwithstanding that the firm had told off one of the senior women to see that the washing was properly carried out, the women were very indifferent in the matter.

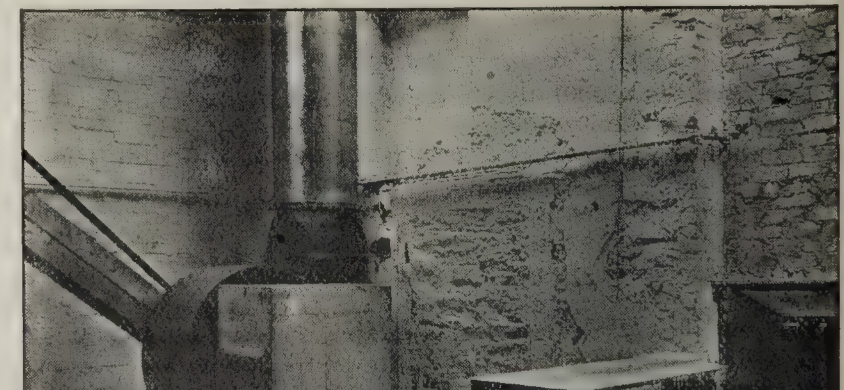


Fig. 1.—Workroom, showing fan.

Since the affected cases have come to light they have been permitted to cease work one hour earlier, that they might not require to encroach on their own time in order to wash their hands and faces; nevertheless, we found many of them leaving the works with half-washed hands and chrome-laden finger-nails. They would appear to differ in no respect from other workers in dangerous trades. To imagine that they will seek their own salvation from lead poisoning, if it entails the slightest trouble, is to imagine a vain thing. The same difficulty applies to the wearing of respirators. They do not keep them on continuously. When the foreman turns his back they are removed, or, at any rate, sufficiently removed for the purpose of conversation. It would be to foster a delusion to expect twenty young women to wear apparatus which would act more or less as a muzzle, and prevent them from talking for a fraction of eight hours a day, even though the consequences were as disastrous as they were to a number of these women.

The only course to pursue was the one adopted when the trouble was found out. At one end of the workroom a 25-in. fan (Fig. 1) was erected on the ground level and closed in except at the bottom, where it was open to a covered trench 2 ft. deep and 18 in. wide, which passes round the side of the room, and over which, at intervals, hoppers are placed (Fig. 2), and over these the wood bars for "noddling" the hanks of yarn. All this is partially covered in (Fig. 3), so that during working hours, when the fan is in motion the in-draught through the hoppers takes with it nearly all the dust, which is driven by the fan along an upcast shaft and conveyed outside the building.

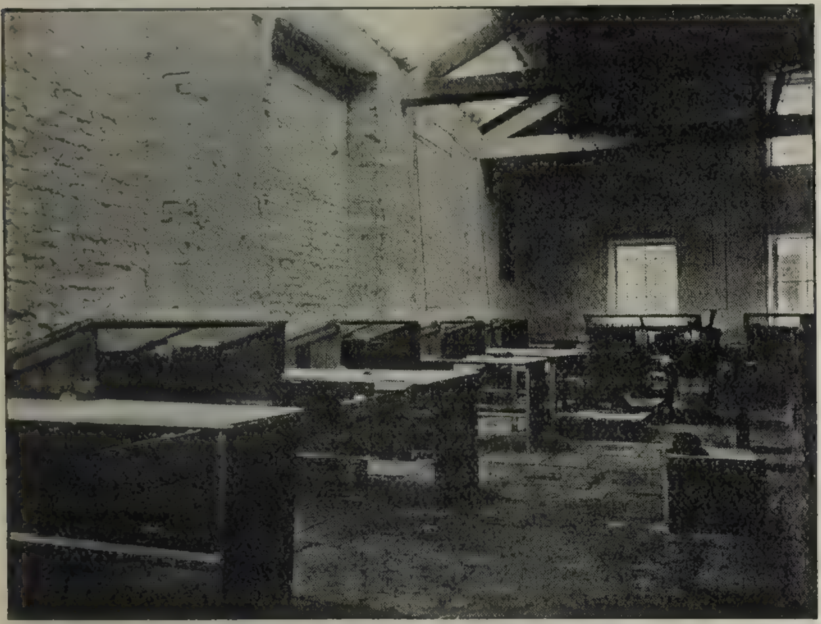


Fig. 2.—Workroom, showing hoppers.

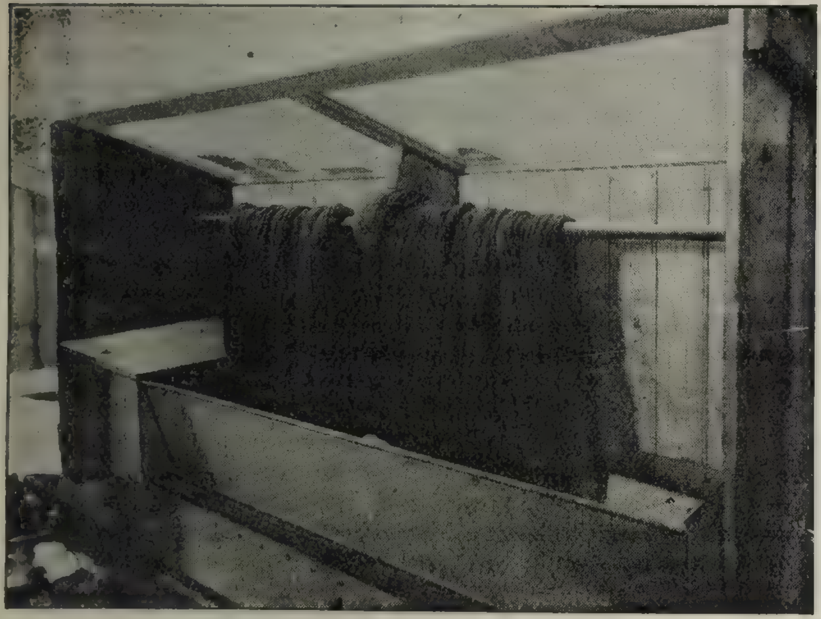


Fig. 3.—Hopper, showing wool on bars.

The workpeople are provided with and expected to wear the respirators as well. Some years ago Mr. Rogers, then H.M. Inspector of Factories in Manchester, instituted an inquiry into the amount of lead taken up by respirators in this stretching and bundling process of dried yarn. He took two periods of three hours' work under exactly similar conditions, with the exception that in one the exhaust fan was stopped and the work done under the old conditions. The results were that when the fan was working the respirator was found to contain 0.0034 gram of metallic lead; when it was not working the respirator contained 0.02 gram of metallic lead. Whilst this shows the great efficiency of the dust-extracting arrangements in that instance, it shows also that respirators are still of some use.

Cases of Lead Poisoning.

The 9 cases of poisoning which occurred present no points of particular individual interest worth recording; they were all examples of chronic lead poisoning; there were no symptoms in any of them which could be attributed to chromic acid. One or two suffered from superadded acute exacerbations, and, although there were men engaged in the same workroom continually—that is, not in alternate weeks as were the women—none were at all affected. All the cases were amongst the women—additional evidence, if any were necessary, of the greater susceptibility to lead poisoning of women. Two of the cases were of the encephalopathic type, both added acute epileptiform attacks to their chronic symptoms, to which, up to then, they had not apparently given much thought, and both were unconscious for the first three days of the seizure. One of these was affected with so severe a neuro-retinitis that for two or three weeks she was entirely blind. Three others developed more or less wrist-drop; all ultimately recovered sufficiently to follow other occupations in the same works.

Utility of Periodical Medical Examination.

The utility of periodic medical examinations of the workers in these yarns was well shown in this instance. Hitherto none had been thought necessary. The firm had not been cognizant of any cases of lead poisoning having arisen amongst the workpeople; but it has since been found that isolated cases had come under the care of various medical practitioners in the neighbourhood from time to time. Where many women are engaged in many departments it is quite a usual and understood thing that there will always be absentees, sometimes the reason given will be a sick child, at others a sick headache; others, again, are left to be understood. When two or three women sent word they were not feeling well enough to return to work nothing was thought of their absence. They did not apparently seek medical advice in the first instance; at any rate, if a positive diagnosis was made it was not notified; the matter was brought to light by one of the women falling in convulsions in the street, and being removed to the hospital. The intense yellow chromate pigmentation of her hands and the condition of her gums caused further inquiries to be made and the case notified. When this became known amongst the other absentee sick women, they all referred their ailments to their medical attendants, and thus the extent of the epidemic became known.

Periodic examination would have revealed the earliest symptoms in all these cases, and would have prompted the earlier adoption of the measures which were afterwards taken, and which apparently have put an end to the trouble.

Conclusion.

It is not all yarn that is dyed a heavy orange colour with chromate of lead that is equally liable to give off lead-laden dust. Yarns that are so dyed for the home trade are usually passed through a sizing of starch which fixes the chromate of lead to the yarn more securely and lessens the tendency to fly in the "noddling" process; these yarns command a somewhat higher price in the market. For the Eastern trade, however, for which these particular yarns are destined, the price is cut so fine that they are not sized, the extra labour and material would cut away the small profit. The two classes require to be distinguished, as lead poisoning must be very rare in the former class.

I pointed out above that all these cases occurred in the handling of the dry yarn, and that there is no history of any cases having occurred during the dyeing process. Cases of chromic poisoning of the skin, with its peculiar and characteristic punched-out ulcers, topically termed "chrome holes," are met with from time to time, but not lead poisoning. The same may be said of calico printing itself.

In this district are very extensive calico-printing works, and several thousand hands are employed, but though lead is used in various dyes we never meet with lead poisoning amongst calico printers or in those who handle the cloth. If it occurs at all it must be in extremely rare and isolated instances. There may be a theoretical risk when the printed calico has passed through the drying machines and is being folded, but though this folding is done by boys who might be considered more likely to be susceptible than adults, there nevertheless appears to be complete immunity.

The cloth is of course more quietly folded: it is not pulled about and shaken as yarn is, and moreover the dye is more closely incorporated with the fibre of the cloth by the heavy printing-machine rollers, and perhaps never more than one-eighth of the cloth is dyed with lead salts. It is not, therefore, easy to see why the Committee on Dangerous Trades should have placed print works under the same category as dye works in their recommendations.

It is quite clear that dyers of chrome yarn should be placed under special rules, especially those who dye for foreign markets, but the absence of the same elements of danger in calico printing would scarcely seem to warrant its inclusion under the same head.

HEREDITARY SYPHILIS AND ENTERIC FEVER.

A CASE WITH COMMENTARY.

By J. D. ROLLESTON, M.A., M.D.OXON.,
ASSISTANT MEDICAL OFFICER AT THE GROVE FEVER HOSPITAL OF THE METROPOLITAN ASYLUMS BOARD.

A GIRL, aged 19, was admitted to hospital on September 14th, 1905, in the second week of enteric fever. Numerous rose spots were present on the trunk, the spleen was enlarged, and the stools were "pea-soupy." The blood furnished a positive Widal's reaction. The diazo and methylene-blue tests were also positive. The fever took an uneventful course, the evening temperature reaching normal on the forty-first day.

On the forty-eighth day, when convalescence appeared to be firmly established, the patient complained of pain in the lower jaw. A small spontaneously painful and tender swelling was found attached to the left inferior maxilla just in front of the angle. The skin over the swelling was red and marked by a small cicatrix, the result of a fall many years before. The temperature that evening and the next few nights was 99°, and did not rise any higher. Apart from the local discomfort, the patient felt quite well. A mixture, containing 10 gr. of potassium iodide, was administered every four hours. No local application was used. The following day the swelling was no longer spontaneously painful, and was less tender, and in the course of the next few days gradually subsided, so that by the end of the week nothing could be felt beyond a slight thickening of the bone. The iodide was therefore reduced to 10 gr. three times daily, and, when the thickening of the bone was no longer palpable, omitted altogether. Almost simultaneously with its omission the patient began to complain of "rheumatic" pain in the right arm, which came on soon after she got into bed. The pain did not, however, at first keep her awake long, and when she awoke the next morning the pain had entirely gone, and did not recur till the following evening. Examination of the arm during the daytime revealed nothing abnormal, while at night no local enlargement nor tenderness could be discovered. The general health was in no way affected, nor was the temperature at all raised. As, however, the pain became worse on subsequent nights, the iodide was resumed, this time in 15-gr. doses thrice daily, and the nocturnal pains were considerably relieved. The patient was discharged from hospital on November 7th after a stay of fifty-five days.

On admission she stated that she had suffered from severe rickets, but the tibiae revealed the characteristic deformity due to hereditary syphilis, the bones presenting a symmetrical hyperostosis of the anterior portion of the shafts, which has been likened by French writers to the blade of a sabre. There were no Hutchinson's teeth, but the dentition showed the following lesions of nutrition, which, as Fournier* has shown, though not peculiar to hereditary syphilis, are more frequently found in that condition than in any other:

1. Minute dark erosions and white transverse grooves on the crowns of the upper central and lateral incisors and the right lower first bicuspid.
2. A symmetrically oblique implantation in the jaw of the lower lateral incisors and lower first bicuspids.
3. Microdontism of the left upper first bicuspid.
4. Numerous extensively carious teeth.

Further evidence of hereditary syphilis was present in a high arched palate—the *palais ogival* of French writers. Otherwise the skull showed no stigmata of hereditary syphilis. The nose was well shaped. The complexion, though not florid, could not be considered pale. There was, in short, nothing in the physiognomy to suggest a syphilitic taint. Such cases, as Mr. Hutchinson has shown, do occur every now and then. In this connexion it is well to bear in mind the words of Parrot, who, after cautioning his readers against the exaggeration of Trousseau's classical description, states that in the immense majority of cases subjects of hereditary syphilis have nothing peculiar in their facies, and after the first few months of life often exhibit the signs of the most perfect health. Examination of the liver and spleen, as soon as the typhoidal enlargement of the latter had subsided, was negative. There were no active skin lesions nor any suggestive cicatrices. No interstitial keratitis nor deafness existed. There was no mental impairment nor any other sign of backward development. The patient was an only child, and the parents, of whom she knew nothing, were both dead, so that confirmation of the diagnosis by examination of the rest of the family was impossible.

The most interesting feature of the case is the exact nature of the periosteal swelling. How far was enteric fever responsible for it? Periostitis, since it was first described by Sir J. Paget in 1876, has become a well-recognized sequela of enteric fever. It is, however, by no means common. Keen, in 1896, had collected only 110 cases. The statistics of the Metropolitan Asylums Board hospitals, in which over 1,000 enteric cases are treated annually, furnish a percentage varying between 0.96 and 1.9 for the past six years, or a total of 99 cases. Without a bacteriological examination, which in the absence of suppuration the interest of the patient did not justify, a definite answer to the above question cannot be given. The onset of periostitis in convalescence from enteric fever without disturbance of the general health was noted by Paget, and subsequently by later observers, as characteristic, and is well exemplified in the present case. Specially remarkable is the unusual localization of the periostitis. In 216 cases of bone disease following typhoid collected by Keen, only 2 occurred in the lower jaw.

Determination of the periostitis to this point may have been produced partly by the scar, partly by the presence of a molar which showed commencing caries, these two circumstances constituting a *locus minoris resistentiae*. Thus Keen quotes a case of post-typhoid necrosis of both tibiae at the site of old lesions marked by a strumous scar. No recent external injury, as in some of the cases of typhoid periostitis, had occurred to my patient.

That syphilis was concerned in the production of the periostitis was shown by the remarkable readiness with which the inflammation yielded to specific treatment. The inefficacy of potassium iodide in the ordinary periostitis following uncomplicated typhoid was strikingly exemplified by a patient who was under treatment for enteric fever at the same time. No history or evidence of syphilis was obtained. Periostitis of the right tibia developed on the fifty-fifth day. Iodide was administered from the first, but in spite of a temporary improvement, suppuration occurred, requiring surgical treatment. The osteocopic pains from which the patient under discussion suffered, though not uncommon in acquired syphilis in the secondary stage, especially in the female sex, have received but little attention in descriptions of the hereditary disease. The nocturnal restlessness of children suffering from congenital syphilis has, it is true, been attributed by Dr. E. Smith to periosteal pains, but in the absence of appreciable lesions of the bones, and in view of the inability of the patients to express what they feel this can only be conjecture.

As in acquired syphilis, the pains in the bones may be associated with an appreciable lesion, or, as in the present case, pain may be the only symptom without any obvious signs of local inflammation. Writers on syphilis from the earliest times* have dwelt on the existence of such pains. Ricord attributed them to the difficulty with which the periosteum and medulla were distended by the inflammatory process. Fournier proposed the term ostealgia as a vague provisional denomination for those cases where no local lesion could be discovered in contradistinction to the other two forms of pains in the bones, namely, periostitis and periostosis, which presented palpable lesions. Lancereaux has shown that while pain is sometimes observed apart from any appreciable lesion, it is more frequently connected with a material lesion of the bones and fibrous tissues, and adduced as testimony the fact that many autopsies had revealed changes in the dura mater or an exostosis on the internal table of the bones of the skull in cases in which during life the only symptom observed had been osteocopic pains. Aching pains in the bones, most marked at night, occasionally occur after enteric fever (Cayley), but a previous history of similar pains and the fact of their yielding so readily to iodide of potassium indicated a syphilitic origin, while the absence of sweating, pyrexia, and disturbance of the general health excluded rheumatism, for which the patient herself had mistaken them.

---

* Recently C. F. Marshall has insisted more strongly than Fournier on the heredo-syphilitic origin of these dental malformations.

This case further illustrates how a disease hitherto latent may be roused into fresh activity by an acute illness, though the latter is not etiologically connected with it. This fact is well known in the case of vaccination, which on several occasions has been unjustly held responsible for the phenomena of hitherto latent congenital syphilis.

In conclusion it may be said that the case is of interest as being a form of relatively benign hereditary syphilis. The osseous system alone had been affected, the brain, special senses, skin, and viscera were intact, nor was there any history or past evidence to show that they had been affected. The case thus affords a good instance of those incomplete types of disease which Trousseau denominated *formes frustes*, and so happily compared to the defaced inscriptions which from a few remaining words or letters the skilful archaeologist could completely reconstruct.

I am indebted to Dr. J. E. Beggs, Medical Superintendent at the Grove Fever Hospital, for permission to publish this case.

BIBLIOGRAPHY.

Acland, Allbutt's *System of Medicine*, vol. ii, 1897, art. Vaccinia. Cayley, Allchin's *Manual of Medicine*, vol. i, 1900, art. Typhoid Fever. Fournier, A., *Leçons sur la syphilis*, 1873; *Traité de la syphilis*, 1899, *Syphilis héréditaire tardive*, 1886. Fournier, E., *Stigmates dystrophiques de l'hérédo-syphilis*, 1898. Hutchinson, Reynolds's *System of Medicine*, vol. i, 1866; *Syphilis*, 1887; Allbutt's *System of Medicine*, vol. i, 1897, art. Syphilis. Keen, *Surgical Complications and Sequels of Typhoid Fever*, 1898. Lancereaux, *Treatise on Syphilis*, New Sydenham Society, 1868. Marshall, *Treatment*, August, 1905. Metropolitan Asylums Board's Annual Reports, 1899-1904. Paget, St. Bartholomew's Hospital Reports, 1876. Parrot, *La syphilis héréditaire*, 1886. Ricord, *Traité pratique des maladies vénériennes*, 1838. Smith, E., *Diseases in Children*, 1889. Trousseau, Clinique médicale, *Leçons sur la syphilis des enfants nouveau-nés et la scarlatine*, 7e ed., 1885.

SOME CLINICAL FEATURES OF MEDITERRANEAN FEVER.

WITH PARTICULAR REFERENCE TO CARDIAC COMPLICATIONS.

By FLEET SURGEON P. W. BASSETT-SMITH, R.N.,
HASLAR.

FROM a considerable experience of this disease I have been forced to recognize that at the present time hardly enough value has been given, for diagnosis, prognosis, or treatment, to the important effects produced by the specific organism of Mediterranean fever on the heart.

I think these may be divided into two kinds: (1) Toxic; (2) microbic.

It has, of course, for many years been recognized that in all its stages the heart is much influenced by the disease. In the early periods, with high fever (or in any acute pyrexial relapse), the most likely cause to bring about a fatal result is heart failure, from which the patient quietly dies without warning symptoms.

In the later stages of the disease it is usual to find a fast pulse, irregular palpitations, excitable action of the heart on slight exertion or mental perturbation; therefore, as a routine, the character of the heart's action in a chronic Mediterranean fever case is one of the first points that I investigate.

We should bear in mind the frequency with which these symptoms are associated with general and localized attacks of neuritis, neuralgia, hyperaesthia (so painful and distressing), or with paresis or partial paralysis of certain groups of muscles, all of which pass away after variable periods, but always tending in chronic cases to prolong the suffering, prevent sleep, and render the patient miserably depressed. Seeing these cases day by day one cannot doubt the presence of a powerful toxin in the blood acting markedly on the heart, a poison analogous in many ways to that found in diphtheria.

The point which is, however, less recognized, and to which I particularly wish to draw attention, is that not only is the heart subject to be influenced most detrimentally by the toxic product of the *Micrococcus melitensis*, but that the organism itself is able to set up endocardial changes which are most dangerous. This point seems to me to be clearly established from cases of my own, and from one occurring at the Seamen's Hospital, Albert Docks, which, through the kindness of Sir Patrick Manson, I am able to quote.

It must be remembered when treating Mediterranean fever cases that the *Micrococcus melitensis* is constantly present in the blood during the course of the illness, that it is very virulent, and that the protective leucocytes in the blood are greatly diminished both in number and in phagocytic power.

It does not seem unlikely, then, as with the streptococcus, pneumococcus, and gonococcus, that with some change in the cellular elements of the cardiac endothelium, ulcerative changes may take place and symptoms of acute or malignant endocarditis at times occur.

In looking over the notes of cases treated by me at Haslar during the last five years, I find that out of 596 there was 1 death due to cardiac failure, and out of 42 cases invalided out of the service, 11 were for organic heart disease, due to, or occurring with, the fever, besides a number who developed cardiac murmurs but were not invalided.

Of these cases, I would especially draw attention to two reported below. The second, during a typically prolonged type of the fever, suddenly developed such severe symptoms of endocarditis, that for a time the prognosis was most doubtful. In his case the diagnosis was not only proved by the clinical symptoms and agglutination reaction, but also by the isolation of the *Micrococcus melitensis* from the blood.

CASE I.—F. L., gunner, R.M.A.

History.—Gradual onset of fever and debility associated with cough and pain in the chest, thought to be bronchopneumonia. Sent to Malta Hospital, where he developed typical signs of Mediterranean fever. The blood agglutinated with a dilution of 1 in 150. The spleen was large. The fever ran high, and he was invalided home. On admission to Haslar Hospital the cardiac impulse was diffused and action excitable. He had a slight rise of temperature every evening; after a week a soft systolic mitral murmur was made out; the pulse was fast, and he had pain in the chest. The following week the bruit was noted as being long and blowing; the temperature was still of a hectic type. Four days later a presystolic as well as a systolic bruit was found. The fever slowly abated, and he regained strength, being finally invalided out of the service after two months' treatment in Haslar.

Here organic heart disease set in during the course of the disease, and by the changing character of the murmurs led one to believe that they were due to freshly-formed vegetations.

CASE II.—C. N., aged 32. Petty Officer.

History.—This man had a gradual onset of fever at Salonica which was thought to be enteric, as diarrhoea was a prominent symptom; the temperature chart and course of the disease at Malta Hospital, however, were typical of Mediterranean fever, and while there a mitral bruit developed, but was said to be very variable in character; the fever ran high and was distinctly undulant in character, there having been five waves before admission to Haslar. On admission—temperature normal, pulse 112, no pains, heart's impulse diffused, a soft mitral systolic murmur present. On December 30th, one week after, he had a rigor, his temperature rapidly shot up to 104°, pulse 130, with headache and slight cardiac distress; the next morning a loud bruit was heard, but the action was regular; the mperature kept up and signs of pulmonary congestion were evident. On the evening of January 5th the notes state: temperature 103°, pulse 120 small, marked muscular tremors and very weak; heart showed evidence of dilatation, with a mitral systolic murmur; cough, albuminuria, and occasional attacks of shivering. On the 7th his temperature ran up to 105.4°, condition very critical, the next day the murmur was loud and blowing all over the cardiac area; after a morphine injection he had a good sleep and from that time his condition slowly improved, the heart regained tone, the lung symptoms and albuminuria cleared up and the temperature fell to normal in the mornings though still hectic in character, with wandering delirium at night, and troublesome diarrhoea. On January 8th 2 c.cm. of blood was taken from the arm in the usual way and cultivated in 50 c.cm. of broth, giving a pure growth of the *Micrococcus melitensis*. In fourteen days' time the wave had passed, and, except for extreme debility and the heart bruit, there was little to note. Two short waves, however, followed, in one of which he again had a distinct rigor, then convalescence set in and four months after admittance to Haslar (six months' total sickness) he left for his home.

---

* Peculiare et maximum est symptoma in morbo Gallico dolor articulorum primum capitis universi, vel dimidii, deinde articulorum superiorum et inferiorum, et praecipue internodiorum. Hic dolor die quiescit, noctu vel ante caenam, vel post caenam solet excrutiare et insomnes reddere homines. Dolor est pungens, quasi distendens et lacerans. . . . Pungunt isti dolores, quia sunt circa perihostia. Solent esse cum tumore, et sine tumore.—G. Fallopius, *De Morbo Gallico*, c. 94, Pataviis, 1583.

Sir Patrick Manson's case seems to be essentially similar, except that the result was fatal.

In this patient the blood gave a positive agglutination reaction, found independently by Hewlett, Wright, Low, and myself. The *Micrococcus melitensis* was also obtained from the blood by Dr. Wise at the Albert Docks; a culture which he sent to me for confirmation I found reacted well with the serum of three different cases of Mediterranean fever, besides giving the cultural tests. Rigors with increased fever set in and the patient died. *Post mortem* malignant endocarditis with infarcts in the spleen and kidney were found; unfortunately the *Micrococcus melitensis* was not isolated from the spleen.

The resemblance of these cases is very great, and I have no doubt in my own mind that the endocarditis with its subsequent infarcts in the spleen and kidney were really due to a particular virulent strain of the *Micrococcus melitensis*. The importance of recognizing the possibility of this form of infection and termination cannot be overestimated by those who have constantly to deal with cases of Mediterranean fever.

Another point which is important to remember is that in very prolonged cases with much cachexia, the agglutination reaction falls so low as often to be not demonstrable. This I am certain of, for I have followed cases through in my wards and the blood in the laboratory, and have in well-marked Mediterranean fever cachectics been unable to get any reaction with a 1 in 20 dilution; from this I draw the conclusion that the absence of a positive reaction in a chronic case does not negative the diagnosis of Mediterranean fever.

HAEMOGLOBINURIC FEVER IN SYRIA.

AND SOME NOTES ON THE OCCURRENCE OF THE DISEASE IN PALESTINE.

By E. W. GURNEY MASTERMAN, F.R.C.S.,
JERUSALEM.

It is, I think, not generally known that haemoglobinuric, or "blackwater," fever often occurs in Palestine. Not only is the place not mentioned in the accounts I have seen of the geographical distribution of this disease, but in *Allbutt's System of Medicine* it is stated "in Asia the disease is practically unknown" (vol. ii, p. 742). This is certainly incorrect as applied to Palestine, for within the last ten years I can recall some severe and fatal outbreaks which have occurred in Southern Palestine. In 1893 there was a regular epidemic of malaria in and around Jaffa, and among the fatal cases a great many presented symptoms we now recognize as being those of blackwater fever. An able native doctor described them at the time as being like "yellow fever," and, if I remember right, a correspondent wrote to an English newspaper that there had been an outbreak of yellow fever in Jaffa.

During the last two or three years there have been several outbreaks around Jaffa. For example, in the German colony of Sarona in 1901 there were 5 cases, 2 of them fatal—one a young man of 16, who died on the third recurrence of the disease, and the other a girl of 2. In 1902 three more cases occurred, but all recovered. I now have one of the recovered cases as a servant in my house, and from her description it is evident the symptoms were the same as those detailed below—indeed, she says the disease was called *Schwarz wasser-fieber*.

Similar but more fatal outbreaks have occurred at the Jewish colony of Mulebbas, and a few cases at Rishon le Zion, both near Jaffa.

In Jaffa and neighbourhood the conditions are favourable to the disease—low-lying, marshy ground and damp, semitropical heat—but that cases should arise in a place like Jerusalem must be unusual. We lie 2,500 ft. above the Mediterranean. At the time of the onset of the disease in this case (November) there had been scarcely a drop of rain since the previous April; there are no marshes; the heat has not been at all excessive (the whole summer only four times as high as 90 degrees in the shade); and on the whole the air has been dry and fresh.

At the same time, it may be noticed, we have the usual association with malaria, for Jerusalem must be called an exceedingly malarious place. Very few residents escape occasional attacks, and many of the poorer class suffer very much indeed. Among my hospital male patients I find the spleen enlarged some inches below the ribs, and easily felt in 33 per cent. of all cases; and large "ague cakes," extending to the right of the umbilicus, are common.

In respect to malaria, we are indeed worse off than even Jaffa. At the same time, blackwater fever is not common. Among the thousands of patients I see annually I have never had a case under regular treatment, though I can now recall a few who have produced for my inspection a vessel containing the characteristic urine. I have in the past looked upon such cases as simply severe malaria, with "bloody" urine as a complication.

Herr Dr. Einsler, the President of our local Medical Society, tells me he can recall seeing three other cases arising in Jerusalem, two of which were fatal. My own impression is that it is commoner all over the land than is suspected, but hitherto it has not been looked upon as a distinct disease but simply a severe complication of malaria.

In the case detailed below I think there can be no doubt about the diagnosis, but to me it was further confirmed by an experienced trained nurse, who had nursed many cases of this disease in East Africa, and who told me the appearance of the patient (on the last day) was exactly like those of fatal cases of which she had had charge:

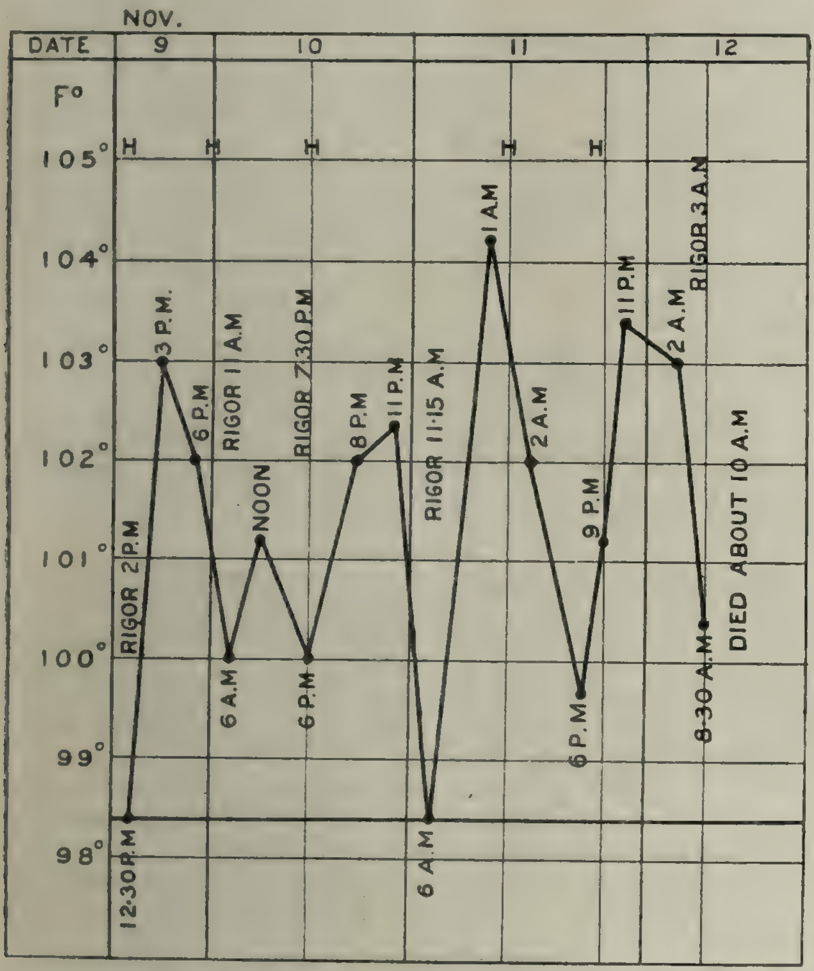
D., a Jew of 16, whose family came from Bokhara in Central Asia, but who himself had been nine years in Jerusalem, came as an out-patient to the English Mission Hospital, Jerusalem, on November 9th, 1903. He complained of intermittent attacks of "fever," accompanied by dark urine, "like blood." As he was jaundiced, I at first suspected the presence of bile pigment as the cause of this dark urine.

The history of his illness, as obtained after his admission from his brother, was as follows. He had not been out of Jerusalem at all for two years, and had from time to time suffered from "fever." On November 1st he got an unusually severe rigor, and passed dark-reddish urine. For four days he had similar attacks daily, each one being accompanied by this dark urine, and also by severe vomiting. He got some medicine from a doctor, and the symptoms abated, and for four days he went back to his work. On November 8th he had a recurrence of the symptoms, and the next day sought admission to the hospital.

Condition on Admission.—The patient was a fairly well nourished man, markedly anaemic. His skin was slightly yellow, and conjunctivae markedly so. His temperature normal, pulse 84, regular, and fair volume. Heart-sounds rather feeble, but no murmur. Spleen enlarged, 3½ in. below line of ribs, hard, and easily felt; liver not distinctly enlarged nor tender (two days later it could be distinctly felt 1 in. below the ribs). Urine clear, light yellow colour; acid; no albumen, no sugar.

Progress.—The general course of the case is indicated by the annexed chart, on which, among other points, the occurrence of haemoglobinuria is recorded by the letter **H**. In detail the case progressed as follows: At 2 p.m. the patient got a severe rigor with vomiting; after shivering for half an hour, violent perspiration set in, and he began drinking great quantities of water. He passed several ounces of very dark urine, which unfortunately was upset in the bed, but the ward sister noticed that it left bloody stains on the bed clothes. Temperature rose to 103°.

November 10th, 7 a.m. Temperature this morning down to 100°; he seems comfortable but weak and at times restless. Has pain in splenic region. B.O. A specimen of urine passed last night was examined. It was dark porter-like in colour with a dirty-white sediment. It was alkaline from standing most of the night in an improperly cleansed vessel. When boiled the heated upper layer became denser. Under the microscope no blood corpuscles were found. Sediment consisted of quantities of granular material, some of it in form of casts, and great numbers of crystals of triple phosphates. No epithelial cells, no leucocytes. Numbers of long rod-like bacteria, some in couples. At 11 a.m. patient got a very violent rigor after a stage of extreme restlessness and severe abdominal pain; he became almost pulseless; blue round lips and finger-tips; shook violently; rigor lasted three-quarters of an hour. He had hot flannels applied to his heart, which as it recovered itself, began to beat with great violence. Complained much of cardiac pain and distress, and also pain in splenic region. Temperature rose to 102°. He drank freely, but vomited everything at once. At 4 p.m. he was given 10 gr. of quinine, but failed to retain it. Specimen of urine passed at 5 p.m. lighter in colour than that examined in morning—clearer, one or two red blood corpuscles, but otherwise sediment like that examined in the morning. At 8 p.m. he had another rigor, attended with severe shivering and collapse, lasting ten minutes; lips quite bloodless.



November 11th. During the night the patient passed a considerable quantity more dark, porter-like urine. First half of night was very restless and could not sleep; talkative but sensible. Was given pil. opii gr.ss at 10 p.m., repeated at 2 a.m., after which he slept. 7 a.m.: seemed better. B.O. this morning. Urine passed this morning acid, 1013, quite clear, dark red, with transmitted light, no sediment, no albumen. At 11.15 a.m. the patient got another severe rigor with great cardiac distress; relieved by hot flannels; repeated severe vomiting, at first yellow but later bright green. No urine till 1.30 p.m., when he passed a quantity of dark, porter-like urine; this specimen was dark-red in colour, but not quite so dark as that first examined; the specific gravity was 1025, and the precipitate under the microscope showed numerous granular and a few epithelial casts and triple phosphate crystals. 2.30 p.m.: The patient seemed very ill indeed, almost bloodless in appearance, the lips being as pale as face; jaundice deeper than on admission; perspiring freely; vomited yellow water, about 4 oz., and passed 6 oz. deep-red urine. 4 p.m.: Temperature 102°; he vomited at 3.30 and again at 4 (2 oz.). 4.30 p.m.: Vomited again, brownish colour; a little more urine. 5.45: Vomited again, bright green, with a small streak of blood. Temperature 99.6°; pulse 124, weak, and a little intermittent. 10 p.m.: Has vomited at intervals all the evening; passed 19 oz. of urine at 9 p.m., a rather lighter red. Examined acid: specific gravity 1020; albumen on boiling, granular casts and triple phosphates as before. Temperature 103.2°. Seems very exhausted; pulse 172, thready.

November 12th. From this he was given champagne every hour, and milk occasionally; he continued to have attacks of vomiting up to 2 a.m., when be had another slight rigor. At 3 p.m. he had general convulsions, and at 4 p.m. a severe vomiting of very bright-green material, and unilateral convulsions, involving the right arm and leg. His brother, who had been with him all night, thinking him *in extremis*, decided to take him home, and removed him in a stretcher to his house near at hand.

Result.

At 8.15 a.m. I was called to see him in consultation with two other doctors whom the friends had called in. He was collapsed and dying, only the faintest pulse being perceptible at the wrist. He was noticeably more jaundiced than the previous evening, and the saliva wiped from his mouth was of a deep yellow colour.

He had had no vomiting, nor had he passed any urine since he had been taken from the hospital, nor had any more convulsions. He was unconscious, and in no way responded to the energetic treatment of my colleague's hypodermics of quinine, ergotine, ether, and artificial serum. He died, after I had left, about 10 a.m. No *post-mortem* examination was permitted.

The treatment of the case was on general principles. Quinine, which was at first used, was stopped as soon as the nature of the case was clear. When vomiting became constant, nutrient enemata and champagne were given.

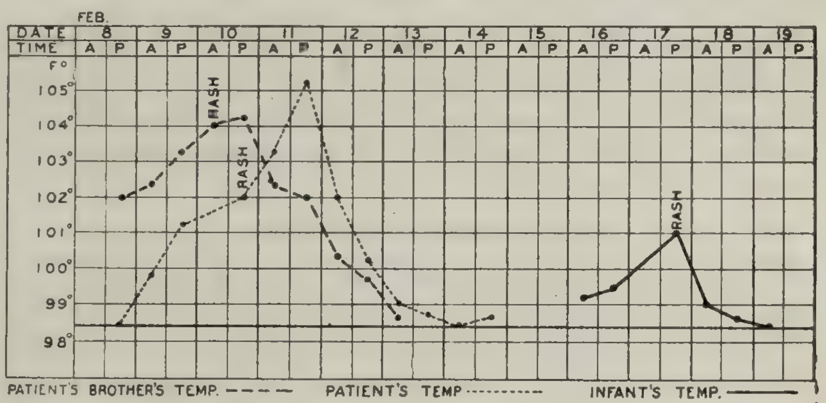
I examined the blood microscopically on November 11th. There was considerable leucocytosis, but the red corpuscles were not markedly altered; they readily formed rouleaux. A few microcytes were noticed. A few red corpuscles contained malarial plasmodia.

A CASE OF MEASLES IN THE PUERPERIUM.

By MALCOLM CAMPBELL, M.B., Ch.B., F.R.C.S.Edin.,
GYNAECOLOGICAL TUTOR, ROYAL INFIRMARY, EDINBURGH.

The following case of rise of temperature during the puerperium is of interest for two reasons. In the first place, it was due to a definite known cause, and, secondly, it has the very unusual advantage of having a very satisfactory "control."

The patient, a young primipara, and her brother, a boy 6 years of age, were at a place of public amusement on January 28th, 1905—a time when measles was rather prevalent. The following day both showed signs of having caught cold, but as the symptoms completely disappeared in about thirty-six hours nothing further was thought of the matter. Both were out as usual on January 30th and 31st.



On February 1st the lady had a perfectly normal labour, and gave birth to a living healthy son. The infant was nursed, and the puerperium till February 9th was perfectly normal; the temperature never exceeded 98.8° F.; the mammary secretion was slightly diminished after February 5th.

On February 8th the patient's young brother showed marked catarrhal symptoms; by 8 p.m. his temperature rose to 102° F.

On the morning of February 9th the lady's temperature was almost 100° F. The lochial discharge was not offensive in character, nor was it increased in amount; there was no uterine tenderness, nor any other sign of any local cause for the rise in temperature. Having in view the typical condition of the patient's brother, it was concluded that the patient's temperature might be due to the onset of measles—a disease from which she had, so far, escaped. The infant was accordingly weaned, a second nurse was got, and she and the infant were isolated.

Regarding the patient's brother's case, which was practically a "control case," nothing need be said beyond stating that it was a severe case with some ear complications. It ran a normal course; the temperature reached 104.2° F. the day the rash appeared and then fell.

On February 9th the patient's temperature reached 101.2° F. On February 10th the temperature continued to rise, and at 11 p.m. reached 102° F.; the rash now began to appear. On February 11th the rash became general, the temperature was 103.2° in the morning, and by 8 p.m., reached its maximum, 105.2° F., in the mouth; it remained at this point till midnight, when it began to fall. On February 12th the patient had some ear symptoms, and there was a general facial oedema, causing excessive swelling round the mouth and under the eyes. In spite of this the temperature fell to

100.2° F. on the 12th. The conditions steadily improved, and by the 14th the temperature was normal and the facial swelling had quite disappeared. The remainder of the puerperium was satisfactory; the patient left her room on the twenty-eighth day.

On February 15th the infant began to be fretful and restless. On February 16th the restlessness was more marked, and there was some vomiting and the bottle was taken badly; the temperature was 99.4° F. On February 17th there was a most typical measles rash, and the temperature reached 101° F., which was the highest point reached. On February 18th the rash was well marked all over the body. On February 19th the rash began to fade on the face, but became distinct again if the child cried. From February 20th onwards the child returned to its usual state, slept well, and took its bottles well; from this date there was some desquamation, most marked on the face and legs, but also present on the abdomen.

The cases present some points of interest:

1. Though exposed at the same time and neither having had a previous attack the symptoms manifested themselves twenty-four hours sooner in the healthy boy than in the pregnant or puerperal woman.

2. The attack was more severe in the case of the boy than in the case of the puerperal patient.

3. The attack was least severe in the case of the fortnight-old infant.

A CASE OF ADHESIVE MEDIASTINO-PERICARDITIS.

By J. M. BENNION, M.A., M.B., B.C.CANTAB.,
LATE HOUSE-PHYSICIAN TO THE RADCLIFFE INFIRMARY, OXFORD.

O. B., a girl aged 13, was admitted to the Radcliffe Infirmary on June 20th, 1905, under the care of Dr. Pollier, suffering from pain after food, giddiness, and shortness of breath.

Previous History.

The father, mother, and six other children are all well. The patient had measles when a baby, but has never had rheumatic fever or any other illness of importance.

Present Illness.

She first began to feel ill last April. She states she felt giddy and very tired. She also has suffered from a cough and shortness of breath since about this date. The patient first came to the infirmary on May 6th, 1905, complaining of the above symptoms. It was noted that her skin was somewhat bronzed, that she was slightly anaemic, and that the liver was much enlarged. Nothing abnormal was discovered in the chest. She had no dropsy. On June 20th she was admitted into the female medical ward.

Condition on Admission.

The patient is a fairly well-developed girl of fair height. The expression is not anxious. The eyes are natural. The complexion is sallow, and the skin generally is slightly bronzed. The tongue is moist. The teeth are good. She has a loose cough, but brings up no phlegm. The temperature is 100.6°; the pulse 108, regular, fair volume, low tension; and the respirations are 24 to the minute. The chest is of normal shape, but poorly covered. Both sides expand equally.

The Lungs.—Over the right lung the note is good and the breath sounds vesicular. Anteriorly the percussion note and breath sounds of the left lung appear natural. In the left side below the axilla friction is heard in the fifth, sixth, and seventh intercostal spaces. Posteriorly the vocal fremitus is diminished and the note much impaired over the base of the left lung. The breath sounds are faint and bronchial, and many crackling noises are heard.

The Heart.—The apex beat is in the fourth interspace, just internal to the left nipple line. The impulse is diffuse, and is seen in the third, fourth, and fifth spaces. The area of cardiac dullness is not perceptibly enlarged. Both sounds of the heart are clear and loud. No murmurs are detected.

The Abdomen.—The liver dullness starts at the sixth rib in the right nipple line. There is obviously a great enlargement of the liver. Its definite edge can be readily felt, and palpation leads one to infer that both the right and left lobes share proportionately in the universal enlargement. The margin of the right lobe is 3½ in. below the costal margin in the right nipple line, this being the most dependent point. The spleen is palpable, but not enlarged to any great extent.

The urine is acid. It has a specific gravity of 1018; contains no albumen. There is no oedema.

On June 26th the blood was examined. The number of red blood corpuscles was 4,400,000 per c.mm. The haemoglobin was 75 per cent. Stained blood films show no appreciable changes in the red and white corpuscles.

On June 27th Dr. Gibson, who was examining in medicine for the Oxford M.B., saw the patient and suggested pericardial mediastinitis as the most probable diagnosis.

A sphygmographic tracing of the pulse showed that it was regular, but that the wave became smaller with inspiration. In fact, the tracings revealed the characters of a "pulsus paradoxus."

On July 7th the patient left the hospital, much against our wishes.

After-history.

On August 25th she was readmitted for "urgent dyspnoea."

The following is a brief abstract of the note of her condition: She is very cyanosed. The lips, tongue, and finger tips are "blue." The pupils are widely dilated. She lies propped up in bed. The pulse is 120 to 130, irregular in rhythm, of small volume, and low tension. The respirations are 60 to 72, shallow, distressed, and the alae nasi are hard at work. The temperature is subnormal. The physical signs in the chest have not altered much. The heart beats are irregular, but no murmur is heard. There is evidence of some fluid over the bases of both lungs. The abdomen is very much distended, the girth at the umbilicus being 35 in. There are all the signs of free fluid and oedema of the abdominal wall. The urine is scanty and contains albumen. There is anasarca. Paracentesis abdominis was performed and eight pints of straw-coloured fluid withdrawn. This relieved patient's condition temporarily. On August 28th, at 2 p.m., she had a very bad attack of dyspnoea, going absolutely blue. At 5 p.m. she had a similar attack and died.

Necropsy.

This was made on August 29th by Professor Ritchie, to whom I am indebted for the following notes:

Body poorly-nourished, very cyanotic. Chest: Right side, 1½ pints of slightly blood-stained fluid; right lung has some degree of consolidation (no tubercles); a few ounces of clear fluid at left base shut off by firm old pleuritic adhesions; collapse of lower lobe of lung and some consolidation, no evidence of tubercle. Pericardial sac quite obliterated, two layers of sac being firmly united, no fluid between them; large calcareous deposits in the pericardium, all round the base of pericardium, especially well-marked over the inferior vena cava. The valves of heart all competent; heart muscle is hypertrophied. Some enlarged glands at the root of the lungs. Abdomen: Six pints of turbid, straw-coloured fluid. Liver very large, weight 4 lb., advanced nutmeg, lobulated. Spleen 7 oz., congested. Kidneys congested.

REMARKS.

Professor Ritchie regarded the pericarditis as probably rheumatic in origin. This case, I think, is very instructive and rare. On these grounds it seems to me worthy of publication. The fact that the diagnosis was confirmed by an autopsy renders the case complete, and adds value to the symptoms and physical signs which were noted during the life of the patient.

In conclusion, I would refer any one interested in this subject to the *Practitioner* of February, 1903, where they will find an excellent article by Dr. Gibson.

My thanks for permission to publish this case are due to Dr. Collier, under whose care the patient was in the hospital.

SOME UNUSUAL VARIATIONS OF THE ERYTHEMATOUS SYPHILIDE.

By ARTHUR COOPER,
CONSULTING SURGEON TO THE WESTMINSTER GENERAL DISPENSARY.

IN acquired syphilis the erythematous syphilide (syphilitic roseola) usually appears first on the sides and front of the abdomen, soon spreading in most cases to the chest and back, and not infrequently to the upper portions of the limbs also. The face, hands, and feet generally escape. As a rule the rash comes out gradually, new spots appearing day by day for about a week or ten days, and the whole duration being roughly from two to four weeks, but varying in different cases according to treatment and other circumstances. The typical rash consists of red spots, irregular in shape, varying in size from a millet seed to a sixpence, the average being fairly well indicated by Kaposi's term finger-nail-sized. But to these rules there are exceptions, and it is important to remember that the erythematous syphilide is liable to vary considerably both in its course, distribution, and aspect. Sometimes the rash instead of appearing gradually spreads rapidly and widely and profusely, and in such cases may disappear as quickly as it came as in the following instance:

CASE I.

S., aged 24, when first seen by me on July 31st, had a venereal sore of doubtful nature on the penis. By August 14th the sore had become indurated and the inguinal glands enlarged and multiple. Mercury was given. On August 21st the skin remained free from rash. On August 28th an erythematous rash, which the patient said had appeared the day before, covered the whole body except the palms and soles. The cervical, axillary and cubital glands were also enlarged. On August 30th the rash was fading, and next day had nearly disappeared.

These cases of profuse rash are generally said to be connected with something causing general congestion of the skin, such as violent exertion, alcoholic or other excess, or exposure to a high temperature, but sometimes no cause can be discovered. Local congestion also favours the development of the rash in certain regions. In women, for example, it is very common to find the spots most numerous about the waist where the clothing fits closely to the skin.

It has just been mentioned that the rash usually appears first on the abdomen, and this no doubt is the case in those who are going about in the ordinary way. But when for any reason the patient happens to be lying in bed I have noticed that the rash may affect first and chiefly, and sometimes almost exclusively, the parts on which he habitually lies, and which are thus kept warmest. For example:

CASE II.

L., aged 23, was laid up on his back on account of inflammation of the primary lesion, with phimosis, at the time his first syphilide appeared. The rash came out first and profusely on the back, and to a less extent on the sides of the thorax. Only two days later did spots appear, and then but scantily, on the abdomen.

CASE III.

B., aged 52, had a sloughing primary sore, with phimosis, which required circumcision. Whilst he was in bed on this account the erythematous syphilide appeared profusely on the back only, and although it lasted for about three weeks it did not extend to other parts.

The following case shows the influence of another form of local congestion:

CASE IV.

L., aged 60, who was liable to suffer severely from colds in the head, happened to have an acute catarrh at the time his first syphilitic rash broke out. The erythematous spots were limited to the face and scalp, except a few on one buttock and one forearm. The coincidence of catarrhal symptoms with the rash on the face in this case presented at first a certain resemblance to measles. A severe attack of syphilis followed.

The next case is an example of the effect of solar heat:

CASE V.

A., aged 43. The erythematous syphilide showed itself whilst he was rowing with bare arms and legs in a hot sun. The spots at first were present only on the exposed parts of the limbs. When I saw him, later on, there were spots on the abdomen also, but I was told that the limitation of the rash to the limbs at first had led to temporary doubt concerning the real nature of the eruption. This patient also suffered severely from syphilis.

It has been remarked in connexion with Case I that when the erythematous syphilide spreads widely it may come and go rapidly. The next three cases are examples of short duration, although the rash was only of average or less than average extent:

CASE VI.

F., aged 23, first seen by me on June 15th; he had then an indurated sore on the penis and enlarged multiple inguinal glands; the skin was clear. Mercury was given. The rash, consisting of erythematous spots of the usual form, began to appear on June 20th, and next day had become distributed over the abdomen, chest, and back. By June 25th the rash had gone completely without extending further.

CASE VII.

R., aged 22, consulted me on November 30th for an indurated sore on the penis and enlarged multiple glands; there was no rash. Mercury was prescribed. December 7th: Erythematous spots on the abdomen, chest, and back. December 14th: No trace of eruption.

CASE VIII.

This case, which has been reported elsewhere,[1] was that of a girl, aged 10, in whom the primary lesion of syphilis was on the nose. On August 28th the skin was free from rash. On September 1st erythematous spots were present on the upper abdomen and chest only. On September 8th only a single spot remained.

On the other hand, the erythematous syphilide sometimes lasts for many weeks, and even for months, especially if untreated by mercury. For instance:

CASE IX.

A male patient, who did not know that he had syphilis, and consequently had had no specific treatment, came to me on account of discomfort about the anus. The trouble proved to be due to mucous patches, and he had also a well-marked erythematous syphilide. The spots still faded on pressure, although they were said to have been present for four months. The rash slowly disappeared under mercury.

CASE X.

A man, suffering from late secondary syphilis, who had the remains of an erythematous syphilide, which he said had been there for eighteen months.

Another thing to be kept in mind in connexion with this subject is that a rash on a syphilitic person is not necessarily a syphilide, even though it be present at a time when such a rash might be expected. The following is an instructive illustration of this:

CASE XI.

M., aged 19, came under observation on July 24th with a general erythema of scarlatiniform type so profuse that even the palms and soles were involved. He said the rash began four days before, and that it itched a little at first but not afterwards. There had been more than one exposure to risk of venereal infection, and two days after the last occasion, a fortnight ago, he noticed a sore on the glans penis, and since then had been unable to retract the prepuce. When first seen, besides the rash on the skin, there was a discharge from beneath the prepuce, which was hard and swollen, and there was complete phimosis. There were also multiple enlarged glands in both groins. The rash looked most like that of scarlet fever, but the tongue and throat did not correspond. The temperature was 98.6° and the pulse 74, and the patient did not feel ill. Consideration of the circumstances led to the inference that the rash was a syphilide, and mercury was prescribed. On July 26th the rash had almost gone, and there was some desquamation on the abdomen. On July 28th there was more desquamation on the abdomen and only slight mottling elsewhere. After about a week's treatment of the phimosis it became evident that there was a purulent urethritis as well as an indurated sore on the penis. Copaiba was now given, and next day a rash similar to the first appeared chiefly on the thighs, but also to some extent on the backs of the hands, where the patient said he had first noticed the earlier eruption. Unfortunately he disappeared after this and I saw him no more. But although my notes of the case—which occurred a good many years ago—say nothing about the taking of copaiba previously, and although the man had early syphilis, yet it seems clear that the first rash, like the second, was a drug rash and not a syphilide.

Again, a drug rash and a syphilide may be present together, as in a case published by me some years ago.[2] In that instance the erythematous syphilide appeared as the copaiba rash was fading.

From a diagnostic point of view the importance of variations of the erythematous syphilide lies mainly in the danger lest the rash be either mistaken for something else or overlooked altogether. The unusually widespread syphilides are most likely to be mistaken, for they may simulate other rashes, and notably those of measles, German measles, and scarlet fever, as well as some drug eruptions, especially, perhaps, that due to copaiba. In such cases the history, the presence or absence of primary lesion, the state of the lymphatic glands, the temperature, the pulse, and the condition of the tongue and throat will usually lead to a correct diagnosis.

It is, of course, when the syphilide is scanty, or when it comes and goes rapidly, that it is most likely to be overlooked. When a diagnosis of syphilis has already been made and acted on, the overlooking of the rash is not a matter of very great moment, but when the history and primary signs are insufficient for diagnosis, the patient ought always to be carefully watched for signs on the skin and mucous membrane. The occurrence of these scanty and ephemeral syphilides should more especially be borne in mind by those who make it a rule to wait for the skin eruption before beginning specific treatment.

REFERENCES.

[1] On Extra-genital Syphilitic Contagion, *Lancet*, 1890, vol. ii, p. 866.
[2] Roseola Balsamica and Roseola Syphilitica, BRITISH MEDICAL JOURNAL, 1891, vol. i, p. 904.

PSYCHOLOGICAL MEDICINE IN GERMANY.—The German Psychiatric Association will hold its annual meeting this year at Munich on April 20th and 21st. Professor Heilbronner, of Utrecht, will present a report on disorders of speech in functional psychoses, excluding aphasia. Among other communications promised are the following: Dr. Gudden, of Munich, on heredity; Dr. Nitsche, of Munich, perception and observation in alcoholic subjects; Dr. Plaut, of Munich, psychological investigation on sufferers from the consequences of accidents; and Dr. Weiler, of Munich, observations of the pupil in subjects of mental disease.

MEMORANDA:
MEDICAL, SURGICAL, OBSTETRICAL.

TRYPSIN IN CANCER.

I was glad to see in the British Medical Journal of January 27th the details given by Dr. J. A. Shaw-Mackenzie of his method of treatment by trypsin in cancer, and with your permission I should like to accentuate the amount of care required in giving the injections in order to avoid pain and local inflammation, which otherwise disappoint both patient and medical man. The most careful attention to details is necessary—namely, the preparation of the skin surface by some antiseptic lotion, the sterilization of the fine needle and glass syringe by boiling, the avoidance of injection of a bubble of air and of the injection itself into muscle. The application of the ice before insertion of the needle, and the injection of the eucaine solution before the injection itself, will prevent all pain, and with the above careful details and handling I have never witnessed any pain, local or general trouble.

My excuse for writing thus is that I became thoroughly acquainted with Dr. Shaw-Mackenzie's methods in 1903-4, when he undertook with me treatment by injections of sodium oleate—the method of Mr. J. H. Webb, Melbourne—and also of Chian turpentine in two old soldiers suffering from inoperable cancer under my care in the Royal Hospital, Chelsea.

In 1904, the circumstance of diabetes and cancer alternating in two members of two different families under our immediate observation and care led Dr. Shaw-Mackenzie to consider the connexion between these two diseases, and directly to the inference that as in diabetes so also in carcinoma the pancreas might be at fault. Experimental investigation then led to the fact that trypsin, the proteolytic ferment of the pancreas, broke up glycogen.

In January, 1905, he commenced injections of trypsin, and in several of his cases I have noticed the most promising results and relief afforded, making me regret my retirement from the Royal Hospital, Chelsea, where I had such good opportunities of carefully watching cases of cancer.

I trouble you with these remarks as I feel anxious that Dr. Shaw-Mackenzie's method of treatment should not suffer from want of attention to details, having knowledge that such has been the cause of giving up the treatment in some cases in the practice of others.

Thos. Ligertwood, C.B., M.D., F.R.C.S.E.,
Chelsea. Late Physician and Surgeon Royal Hospital, Chelsea.

The experimental evidence brought forward by Dr. Beard on the cure of Jensen's mouse tumour by means of trypsin will no doubt lead to experimental treatment on human beings. Since the beginning of December, 1905, I have been treating a case of uterine cancer by means of trypsin, and for the guidance of those about to adopt the treatment I would like to state my own experience of the treatment.

The patient was a woman aged 43, married. She had been an out-patient at the North-West London Hospital under Dr. John Shaw for upwards of two years, suffering all that time from unremovable uterine carcinoma.

At the beginning of December, 1905, the patient was unable to get out of bed, and was very emaciated. A teaspoonful of glycerole of trypsin was then given by the mouth three times a day, and after a fortnight the dose was increased to a teaspoonful and a half three times a day. During the first fortnight of this treatment the patient improved in appetite, was brighter and suffered less from flatulence. Otherwise her condition remained as before. The uterine discharge grew greater about the middle of December, and a little blood also came away with the discharge. There had been no bleeding for several months previous. From the middle of December onwards the discharge continued very abundant, and the patient's strength got less and less, till she died on January 11th, 1906. No necropsy was obtained.

The increase of the discharge and the bleeding may have corresponded to the disintegration of the tumour in the case of the mouse. Along with this disintegration there would be a setting free of the products of the tumour, and these products in the weak condition of the patient proved too much for her and caused her death. The inference is, begin the treatment early before the patient has lost much strength. Armour's preparation of trypsin was used in this case.

London, N.W. A. Howard Pirie, M.D., B.Sc.

QUILLAIA AS AN EMULSIFYING AGENT.

Although the emulsifying properties of quillaia are mentioned in every textbook, yet its advantages do not appear to be generally known or made use of. The following emulsions are easy to prepare, and remain permanent on the addition of either alkalies or acids:

Aq. Chloroform. Conc. (1 dr. to water 6 oz.).
℞ Chloroform. 9 dr.
Tinct. of quillaia 3 dr.
Water to 10 oz.

This is slightly altered from Sutherland's *Dispensing made Easy.*

Aq. Menth. Pip. Conc. (1 dr. to water 6 oz.).
℞ Ol. menth. pip. 4 dr.
Tinct. of quillaia 2 dr.
Water to 10 oz.

Aq. Cinnamom. Conc. can be prepared in the same way.

Aq. Camph. Conc. (1 dr. to water 6 oz).
℞ Camphor 1 dr.
Rectified spirit 3 dr.
Dissolve, then add
Tinct. of quillaia 1½ dr.
Water to 3 oz.

Emuls. Ol. Santal.
℞ Ol. santal. 1 dr.
Tinct. of quillaia ½ dr.
Water to 1 oz.

Emuls. Ol. Terebinth. (MacEwan).
℞ Ol. terebinth. }
Tinct. of quillaia } of each 20 min.
Water to 1 oz.

Emuls. Paraldehyde.
℞ Paraldehyde 1 dr.
Tinct. of quillaia 20 min.
Water to ½ or 1 oz.

Lewisham Park, S.E. Lawrence F. Hemmans, M.B.

ENTEROSPASM.

In further illustration of Dr. Hawkins's article on this subject in the British Medical Journal of January 13th, the following case is of some interest:

The patient, a native of South India, aged 55, was admitted to the London Missionary Society's hospital in Travancore with a history of long-standing and most obstinate constipation. For years he had only been able to secure a motion of the bowels by the use of purges in increasing doses, till at last the strongest pills he could get produced little result. He had lost much weight.

He was a very unhealthy-looking man, ill-nourished and sallow, and intensely depressed. The abdomen was somewhat distended, but no dilated coils of intestine were distinguishable. He was in constant abdominal distress, and in the morning would sometimes sit over a vessel for fully an hour, and, by dint of great straining and much pressure over the sigmoid, expel a certain amount of semi-liquid faeces, but gain no relief. At times the discomfort became actual pain.

The case was regarded as dilated colon, completely exhausted by habitual purging. He was dieted carefully, and given strychnine and belladonna, with small doses of cascara. At first there was a slight improvement, but it was not maintained, and, as the man was obviously going downhill, operation was offered and accepted. It was proposed to short-circuit the bowel, inserting the ileum into the rectum as suggested by Mr. Arbuthnot Lane. In preparation for operation, an attempt was made to wash out the bowel, but it had to be given up, for, though it was easy to run the fluid into the bowel, it was impossible to get it out again. Even a large tube passed high up failed to siphon it off. When the abdomen was opened, the whole colon was found to be normal, or, if at all dilated, not nearly to a degree sufficient to account for the symptoms. The fault lay in the small intestine, four or five portions of which were atrophied, pale, and firmly contracted, being no larger than the little finger. Each contracted portion was about 5 or 6 in. long. The intervening parts of the small bowel were equal in size to the colon. The contents of a dilated piece could be forced through the contiguous shrunken portion without much difficulty, but the latter at once relapsed to its contracted state. The abdomen was closed. The patient made a good recovery from the operation, and left the hospital in a fortnight in the same condition as on admission, but I was afterwards informed that the old symptoms gradually became worse, and the man died in about three months.

Ramsgate. A. Fells, M.B., C.M.Edin.

A SERIES OF CASES OF ICTERUS NEONATORUM.

Dr. Busfield (British Medical Journal, January 6th, p. 20) gives a series of cases of icterus neonatorum in one family. I have lately come across another.

Mrs. J. C., a fisherman's wife, a strong healthy woman, had had no illness since childhood, except four confinements; her family history was also good, showing nothing that could have any bearing on the cases. The father, also strong and healthy, had a good personal history in every way, but came of a very neurotic family on the mother's side. The first two children born are both alive and well, and have never shown any signs of jaundice.

The third child was born on May 13th, 1904, and seemed of a healthy nature, passing both urine and meconium of the ordinary colour. About thirty hours after birth it became jaundiced, and continued so till it died twelve days later. I was on that day called to see it, and found it bleeding from the umbilicus. The blood was very thin and refused to stop in spite of every possible form of treatment. It simply oozed up, and did not even coagulate after being shed. The child died a few hours later. No morbid condition in liver or gall bladder could be made out during life, and as no *post-mortem* examination was allowed, no explanation is possible.

The fourth child was born on November 26th, 1905, about 4 a.m. It seemed all right, but on returning some eight hours later I found it deeply jaundiced. The meconium was clay-coloured from the first, and the urine of the usual jaundiced type. It died on the sixth day. No morbid condition could again be made out, nor was any *post-mortem* examination allowed.

One other point is perhaps worth mentioning. About nine months before this last child was born the sister of the father had a child with a huge spina bifida and also a meningo-encephalocele. A cousin on his mother's side some four months before had a child with an imperforate anus, showing that there must be in the family some tendency to congenital malformations.

Buckie. W. R. Duguid, Jr., M.B., C.M.

IDIOSYNCRASY TO MUSHROOM POISONING.

I would like to record a case of poisoning by mushrooms which occurred in my practice a few years ago.

A healthy young woman, aged 30, whilst preparing mushrooms for the family breakfast, ate some raw between 8 and 9 o'clock in the morning. The others were duly cooked and eaten by herself and the family (two daughters, father and mother). The mushrooms were of unquestionable repute. At 11.50 the same morning she felt sick and purged, did not complain of pain, and became unconscious at once. She was carried to bed; her arms and legs were rigid and the eyes "turned up." At 1.30 the same afternoon she died without having recovered consciousness, though she had groaned occasionally. Such was the history given to me by her sister. She lived five miles away from my house, and she was dead when I arrived.

The next morning at 9 o'clock I made a *post-mortem* examination. Decomposition had set in; the features were unrecognizable, and the body was covered with green patches of discoloration. In the stomach I found some twenty mushrooms; they were undigested, some in half, the others whole, and appeared to have been neither peeled nor masticated. Where the mushrooms lay was a zone of acute inflammation, as shown by redness of the mucous membrane of the stomach (cardiac end). The zone of redness was strictly limited to the area occupied by the mushrooms; the other organs of the body were quite healthy.

At the time of this occurrence there had been incessant rain for weeks, and the mushrooms were sodden with water. In the Pyrenees, where to my knowledge four kinds of fungi are eaten, they are placed, before they are cooked, on a gridiron over a clear fire till all the liquids they contain have exuded. This precaution is always taken because those liquids are considered poisonous.

I may add that the other members of the family who ate the same mushrooms cooked suffered no ill effects.

Emilien E. Frossard, M.R.C.S., L.R.C.P.

Bishops Lydeard, Somerset.

ARTERIO-SCLEROSIS.

In recent articles on this subject there is one very important aspect which has not been considered—that is, the beginning of the conditions that lead on to arterio-sclerosis. The case is generally considered when already the mischief is done, and the cause can usually be attributed to an agency that suits the particular fancy of the examining medical man.

While I can offer no opinion of the exact cause, the following experiences may indicate a line of observation which may be profitably pursued if the observer begins when he is young enough.

Twenty years ago I had a lady under my care who suffered from shortness of breath and palpitation on exertion, and whose pulse was very hard and rapid. The arterial walls were markedly thickened. Two years later she had a pulmonary apoplexy, and died fifteen years ago from cerebral haemorrhage in the 54th year of her age. There was no albumen when I first saw her, but there was a scant trace in the later years, and an eminent consultant on this account diagnosed cirrhotic kidney. After her death her sister came to superintend the household, and a dozen years ago she consulted me. I was struck with her resemblance to her dead sister, and she had the same rapid, hard pulse and at certain periods very marked shortness of breath on exertion. Her urine for many years was free from albumen, but during the past two years it shows occasional traces. She suffers from what she calls "colds," when she wheezes and coughs a great deal and is very short of breath. During these attacks the arterial pressure—always high—rises from 170 mm. Hg to 200 and over. Under potassium iodide it invariably falls, with immediate relief of all the symptoms.

A daughter of the deceased lady, and a niece of the last mentioned, has been under my care for the past two years. She is now 25 years of age, and suffers from that curious complaint when the hands become very cold—a mild form of Raynaud's disease. Her aunt tells me that she and her deceased sister suffered in exactly the same way when they were her age.

I have another lady, 40 years of age, who suffers from the same complaint. A few years ago she drove a pony on a cold autumn day, and her fingers became so benumbed that a small portion of the end of the right middle finger mortified. She is ruddy-faced, and resembles her father and uncles in facial appearance. The father died of cerebral apoplexy, and an uncle has lately had a similar seizure. This lady's daughter, aged 15, is now showing distinct symptoms of the same complaint as her mother, and has also the same ruddy face. The suggestion I make is—have we not here the beginning of a certain class of cases of permanent high blood pressure, arterial sclerosis, gouty kidney, etc.?

Regarding alcohol and diet as a cause, the following experience points a moral. An elderly man came to see me complaining of slight attacks of angina pectoris. His arteries were thickened and his pulse very hard, 210 mm. Hg. He is a brewer's agent. I said, "You must give up beer and spirits." He replied, "I'm a teetotaler." "Well, then, you must eat less butcher's meat." "I'm a vegetarian," was his reply!

Burnley. J. Mackenzie.

International Congress of Applied Chemistry.—The International Congress of Applied Chemistry will hold its sixth meeting this year in Rome, on April 19th and following days. The work of the Congress will be distributed among eleven sections, of which one is devoted to chemistry in its application to medicine. This is divided into subsections as follows: Hygiene and Medical Chemistry (President, Professor Icilio Guareschi, Turin); Pharmaceutical Chemistry (President, Professor Luigi Balbiano, Rome); Bromatology, or the Chemistry of Alimentary Substances (President, Professor Arnaldo Piutti, Naples).

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

HULL ROYAL INFIRMARY.

A CASE OF SPLENECTOMY.

(Reported by EDWARD HARRISON, M.A., M.D.Cantab., F.R.C.S.Eng., Hon. Surgeon to the Infirmary.)

[With observations on the blood changes by F. C. EVE, M.D.Cantab., M.R.C.P.]

H. H., male, aged 18, was admitted into the infirmary on May 2nd, 1905, at 11.30. He had fallen some 8 ft., striking his left side on a plank.

State on Admission.—At 7.30 p.m. the abdomen was somewhat distended, there had been no vomiting, the urine was clear, and the liver dullness was practically absent. He complained of pain all over the abdomen, but on admission it had been more on the left side. There were no bruises. His pulse was 88, fairly full and soft. The abdomen was resonant all over; there was no dullness in the flanks.

Operation.—An abdominal exploration was then made. On opening the abdomen in the middle line below the umbilicus a quantity of blood was evacuated from the peritoneal cavity. The incision was enlarged to admit the hand, and the spleen explored. A large rent was felt, and a mass of clot brought up from behind the organ. The wound was temporarily closed with forceps, and an incision made over the spleen. When the organ was brought up it was found to be most extensively lacerated, about one-third of the spleen being quite detached, and profuse haemorrhage was taking place. A large clamp was at once placed on the splenic vessels, and the injured organ cut away. While this was being done the patient was infused with some six pints of saline solution, in which was some brandy and strychnine. The abdomen was then flushed out till free from blood clot, and the two wounds hastily sutured, the sutures passing through all the abdominal wall. At the conclusion of the operation, which lasted fifty minutes, the pulse was fairly full, and the general condition as good as could be expected.

Progress.—He passed a comfortable night; vomited once. On the following day he vomited several times, and in the evening the vomit was faecal. As the sutures were put in very hurriedly, and there was a good deal of difficulty in keeping the intestines back, it was thought possible that a knuckle of bowel might be caught in a suture. He was therefore anaesthetized and some of the sutures removed, and the abdomen explored. There was no mechanical obstruction, and the gut was less distended than it was at the conclusion of the operation on the previous evening. The stomach was washed out. For the next three days he was much better, there being no vomiting. He was fed per rectum, and had injections of strychnine and adrenalin. On the evening of the fourth day he again vomited; the stomach was again washed out, and again on the following day. After this the vomiting ceased, and there was a general improvement in his condition. The wounds were dressed on the sixth day. At this period there was some trouble with the bowels, slight diarrhoea, and abdominal pain. The sutures were removed on the twelfth day, when the wounds were nicely healed, and the temperature had been normal for three days.

Result.—On June 2nd, a month after the operation, the patient was up and about the ward, and had made an uninterrupted recovery after the first week.

Remarks.—In this case there was no persistent increase in the temperature, as has been described in many cases. An hour after the operation there was a slight rigor, with a temperature of 102°, and on the morning after the second exploration the temperature was 101.6°, after which it varied from subnormal to 100.5° to the ninth day, when it became normal.

He has not suffered so far from the symptoms described by Ballance. Thus his anaemia is not extreme, he has had no daily rise of temperature, nor has he had attacks of fainting. He has neither complained of headache, drowsiness, thirst, or voracity. His secretion of urine is undiminished, and he has no obvious enlargement of his lymphatic glands, nor has he any tenderness on percussion of his bones, which is said to be caused by the increase of the red marrow.

He has, however, some abdominal pain, which is supposed to be due to enlargement of the mesenteric glands. And during the past few days he has complained of pain in the lower popliteal space, which seems to be due to a phlebitis.

During the stay of the patient in hospital, and at intervals after his discharge, his blood was examined by Dr. F. C. Eve, with a view to noting the effect of the ablation of the spleen on digestive and inflammatory leucocytosis. These observations are summarized by him in the following statement:

Dr. Eve's Report.

Three weeks after the splenectomy the haemoglobin measured 95 per cent., red cells 5,300,000 per cubic mm.

The blood quantum was probably low, though it was not measured. The leucocytes were counted every morning, and were almost normal for five days. Then by a stroke of good fortune a mild attack of phlebitis commenced in one leg, and coincidently the leucocyte count steadily rose for a week, and declined again to the normal as soon as the phlebitis was cured (Fig. 1). The temperature was slightly raised during this period, but never quite reached 100° F.

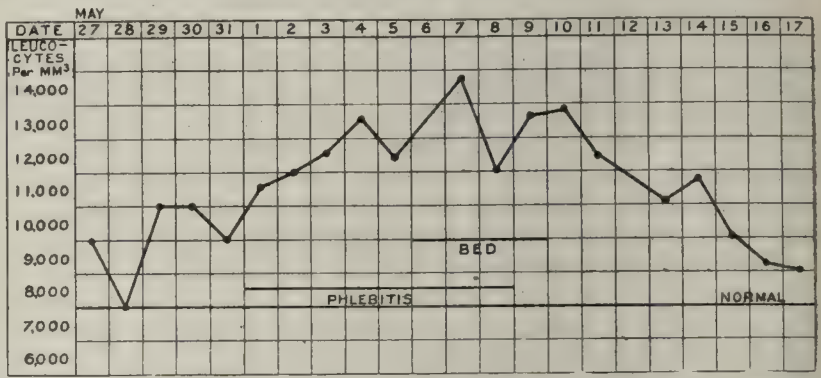


Fig. 1.—Showing leucocytosis in response to phlebitis after splenectomy.

This curve therefore indicates that a youth without a spleen is capable of producing a leucocytosis in response to a mild inflammatory lesion such as phlebitis.

The second point investigated was whether a spleenless patient is capable of producing the ordinary digestive leucocytosis or not.

The patient was accordingly given breakfast at 6 a.m. and tea at 6 p.m., with no food between except a heavy dinner at noon. The leucocytes were counted every hour during the last nine hours of this period, and the results were plotted on the curves in Fig. 2. The lower curve shows the result of repeating the experiment at the end of six months. Both curves agree in showing the absence of the slightest digestive leucocytosis in a spleenless patient. It is desirable that this result should be tested in other patients who have been deprived of their spleens. The lower level of the second curve may be partly due to the increase of the blood quantum after six months. Certainly the pulp of his fingers looked more juicy, and blood was more easily obtained from a needle-prick. The evenness of the lower curve may possibly be due to the addition of a little calcium chloride to the diluting fluid; but this is very uncertain at present, and further experiments are being tried with this and with sulphuric acid.

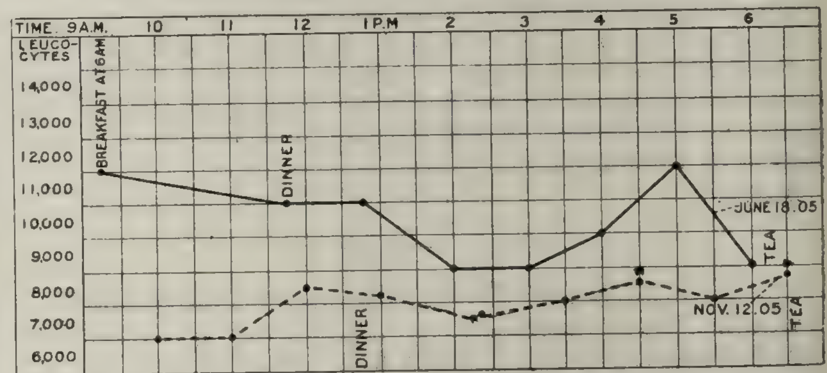


Fig. 2.—Showing absence of the usual digestive leucocytosis after splenectomy. Upper curve was observed six weeks after operation; the lower curve six months after.

Enumeration of the varieties of leucoytes revealed interesting changes. Five weeks after operation the differential count was:

Polymorphonuclears	60 per cent.	(34 per cent.)
Eosinophiles	4 ,,	(1.5 ,,)
Small lymphocytes	26 ,,	(44 ,,)
Large lymphocytes	10 ,,	(20 ,,)
Myelocytes	0 ,,	(0.7 ,,)
One normoblast		(0 ,,
One mast cell		(0 ,,)
(Only 215 cells counted.)		(890 cells counted.)

Six months after the splenectomy the polymorphs had decreased to 34 per cent., the small lymphocytes had increased to 44 per cent. and the large lymphocytes to 20 per cent., eosinophiles had decreased and myelocytes had made their appearance. Blood plates were very numerous. For comparison, the later figures are placed in brackets above.

The lymphatic glands in this patient showed no enlargement, but possibly this very marked increase in the lymphocytes indicates an effort in the same direction.

To sum up: In this spleenless youth the ability to produce inflammatory leucocytosis was demonstrated, digestive leucocytosis was absent, and after six months the lymphocytes had markedly increased and a few myelocytes had made their appearance.

Rupture of the spleen is not an uncommon injury. Makins in an examination of 292 cases of injury to the abdominal organs found 89 of rupture of various viscera. Of these the kidney was first (39 per cent.), then the liver (23.5 per cent.), and thirdly, the spleen. Previous to 1890 only 3 cases had been treated by splenectomy, and these were all unsuccessful. The first successful case was by Regnier of Breslau in 1892; this was followed by 2 cases by Ballance, and 1 by Pitts in 1895, and 1 each by Bernhardt (1897), Chrobak (1898), and Heaton (1898), all successful. There were two unsuccessful cases by Lane in 1890. Against this, Eisendrath (*Annal. Surg.*, December, 1902) says that from 1890 to 1900 there have been 34 cases, of which 20 recovered, and 14 died.

During the present century I have only been able to find references to 11 cases in English journals, 8 of which recovered. Eisendrath has collected 53 cases in 1900-1902, in which were 28 recoveries (52.8 per cent.). Fevrier (*Rev. de Chir.*, 1901) says 56 are reported, 46 of which were operated on, with a mortality of 50 per cent. Mauclair in 1901 collected 61 operations, with 31 recoveries. Berger of Halberstadt has, as far as I can discover, collected the largest number of cases, namely, 67, with 38 recoveries. It appears, then, that the operation has been performed on some 70 cases, with a mortality of about 50 per cent. Since writing the above, I see that Mr. Graham Simpson (British Medical Journal, November 18th, 1905) has collected 100 cases.

NORTH RIDING INFIRMARY, MIDDLESBROUGH.

A CASE OF SARCOMA OF THE NOSE.

(By G. Victor Miller, M.D., Ophthalmic and Aural Surgeon to the Middlesbrough and Stockton Hospitals.)

B. McL., aged 40, married, no children, was admitted on May 25th, 1905, suffering from a growth blocking up the left nostril. She had previously been seen in the out-patient department, and the nature of the trouble having aroused suspicion, she was admitted as an in-patient for further examination.

On examining the left nostril a red, fleshy, and vascular-looking cherry-like tumour was found filling up that space. On attempting to define its attachments with a probe it bled readily. On May 26th a portion of the growth was removed with a snare and sent for microscopic examination. There was a good deal of bleeding on removing the piece, but this was easily controlled by plugging. The preliminary report on the growth was as follows:

> Microscopic examination shows this tissue to be not of the ordinary structure of a simple nasal polypus. There are numerous small round cells, arranged in groups; as these might be lymphocytes, it is desirable to subject the tissues to further treatment for special staining purposes.

On June 2nd a further report was received as follows:

> Careful treatment of the tissue has shown that the cells seen before are without doubt sarcomatous.

The diagnosis of small round-celled sarcoma was made. The patient had suffered from nasal obstruction for over a year, and in May, 1904, had been operated upon in another hospital. I communicated with the surgeon under whose care she had been, but unfortunately could not obtain a definite account about her. From the above details I think it may be considered that the tumour had been of slow growth.

As local operative procedure seemed to be out of the question, I decided to try Coley's fluid (serum of *B. prodigiosus* and *erysipelatosus*). The first injection of half a minim was put into the suprascapular region on June 8th. Two minims were injected on June 10th, 5 on June 12th, and 10 on June 14th, without any disturbance, local or general. On June 24th a new serum was tried, beginning with 5 minims; with this distinct reaction was obtained—namely, rise of temperature, malaise, redness and swelling, and much tenderness round the site of puncture. Altogether twelve injections were given, gradually increasing to 20 minims, and with the last eight of these distinct and sometimes marked reaction occurred. The last injection was given on August 16th, but so far there had been no change either in the appearance or size of the growth in the nostril.

Just after this period oedema of the left lower eyelid came on and an appearance of fullness in the maxillary region. On August 28th I resorted to transillumination, and found the translucency on the left side much less than on the right, and the patient was quite emphatic as to light sensation being less in the left eye than the right. It was, therefore, most probable that the disease was present in the antrum of Highmore, and it is an interesting question whether the disease began in the nose or in the antrum. The position of things was explained to the patient, and she was advised to have the upper jaw removed and that at the same time an attempt would be made to clear the nose of the growth. To this she gave her consent.

The operation was very successfully performed by my colleague Mr. Dickie on September 10th. Along with the upper jaw there was also removed a large sarcomatous mass occupying the inferior and middle turbinate region, and extending upwards and backwards towards the base of the skull. The patient made a steady recovery, and was able to go about in a fortnight.

On making a section across the maxilla the lining of the antrum was seen to be very greatly thickened and thrown into folds, and the antral space was much encroached upon. The report of a microscopic examination of the mucous lining was as follows:

> There are numerous gland ducts with slender columnar epithelium. These glands are very convoluted, suggestive of great proliferation. The tissue between this is made up entirely of small round cells, which, from their close apposition and uniform appearance, are most probably sarcoma cells (small round-celled sarcoma).

Up to the present time the patient has remained very well, and there is no sign of return of the disease. She is rather stout and strongly built, and weighs 11 st. 2 lb. This is less than before the operation; previous to that her weight varied from 11 st. 9 lb. to 12 st. 2 lb. for several weeks.

I have to thank Mr. Dickie for his very kind help, and also the senior house-surgeon, Dr. Giles, for his assistance in this case.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BIRMINGHAM BRANCH.

Pathological and Clinical Section.

Professor J. W. Taylor, M.Sc., F.R.C.S., in the Chair.

Birmingham, Friday, January 26th, 1906.

Brain Surgery.—Mr. Milward showed a boy, aged 5 years, whose left Rolandic area he had explored for aphasia with right-sided convulsions and hemiplegia. Two years before he had had measles, and since that time pain in the left ear. A fortnight before admission to the General Hospital he had a sore-throat and foul tongue. Four days before he fell out of bed and hurt his head. One day before he lost his speech and the use of his right arm. On the day of admission he had right-sided convulsions. When brought to hospital, he was hemiplegic, and the left Rolandic area and the whole of the left side of the cerebrum was explored for pus or new growth without any result beyond a drachm of slightly-turbid serum from the lateral ventricle. The arachnoid was seen to be very oedematous. The antrum was not opened, as the tympanic membranes appeared normal. On the succeeding three days he had several more convulsions, after which recovery was uneventful. Ten days after the operation he had practically recovered and went home, and at the time of exhibition was perfectly healthy without any residual paralysis. In the subsequent discussion, Dr. Emanuel expressed the opinion that the case might be one of acute polio-encephalitis, Mr. Billington maintaining the view that it was more in the nature of a spreading oedema of the brain relieved by the operation.

Xerosis of Conjunctiva.—Mr. Jameson Evans showed a case of xerosis of the conjunctiva.

Acute Colitis.—Mr. GAMGEE showed a specimen from a case of acute colitis which went on to intestinal obstruction.

Congenital Obliteration of Bile Ducts.—Dr. EMANUEL showed a specimen of so-called congenital obliteration of the bile ducts in an infant that died of gradually-increasing asthenia and jaundice sixteen weeks after birth. There were no signs at all of a common bile duct, and the gall bladder was quite rudimentary and was represented by a small, shrunken, whitish tube. The liver was cirrhotic. The special interest of the specimen lay in the fact that the pancreas exhibited a fibrosis in connexion with the pancreatic ducts very similar to that affecting the liver. In the liver, however, the cirrhosis was extreme, and had led to obliteration of the bile ducts which were functionless, whereas in the pancreas, although well marked, the fibrosis had not gone on so far, and the pancreatic ducts were patent and apparently well able to carry out their function.

Fat Necrosis in Acute Pancreatitis.—Mr. FRANK BARNES showed specimens of fat necrosis from a case of acute pancreatitis occurring in a woman, aged 43. She had had a history of vague pains in the stomach after food for some three months, but had never had any serious illness. Three days before admission she had been taken ill with pains in limbs and body generally with feverishness, and thirty-six hours before admission violent pains in the epigastrium came on with vomiting. A diagnosis of perforation of a gastric ulcer on the posterior wall of the stomach with extravasation into the lesser sac was made, but at the operation the condition was found to be an acute pancreatitis with abscess near the tail end of the pancreas. This was drained as well as the general peritoneal cavity. The patient lived six days.

ULSTER BRANCH.

G. R. LAWLESS, F.R.C.S.I., Vice-President, in the Chair.

Belfast, Wednesday, January 31st, 1906.

Gynaecological Cases.—Professor BYERS gave short details of several gynaecological cases. (1) A case in which he removed, by abdominal section, a fibroid from a pregnant uterus at the end of the third month, followed by the delivery of a living child at full term. (2) Two cases of operation for extrauterine pregnancy. In one of the patients he removed the right appendages for one ectopic gestation, from whom two years previously Professor Simpson of Edinburgh had removed the left tube and ovary for the same condition. (3) A case of removal of very large purulent Fallopian tubes, one of the appendages presenting as a suprapubic abdominal tumour. (4) A hysterectomy for fibroid tumour done by Howard Kelly's method.—Dr. DARLING (Lurgan) agreed with Professor Byers that cases of extrauterine pregnancy were probably much commoner than generally thought. During the last eighteen months he had operated on three cases, and had seen two or three others which did not come to operation.

Iodide of Potassium Eruption.—Dr. H. L. McKISACK read notes of two cases:

> I. A labourer, aged 45, was admitted into the Royal Victoria Hospital on December 30th, 1905, suffering from aortic incompetence. His arteries were sclerotic, his liver slightly and spleen considerably enlarged; albuminuria, oedema of the legs, but no ascites were present. Five grains of iodide of potassium with thirty drops of sal volatile were ordered to be taken three times daily, and the bowels were loosened by means of a saline aperient. When he had taken six doses—that is, 30 gr. of iodide—an eruption appeared. Clusters of raised, rather solid-feeling, circular vesicles, from $\frac{1}{12}$ to $\frac{1}{4}$ in. in diameter, rapidly developed on the forehead, cheeks, chin, and scalp, while single vesicles were scattered over the neck, shoulders, forearms, wrists, and backs of the hands. The rest of the body was free from the eruption, except for one or two spots on the trunk. Each vesicle contained a turbid fluid, which soon became purulent, and was surrounded by a narrow red areola. There was no great pain nor constitutional disturbance, but the vesicles, or pustules as they soon became, rapidly increased in size and number, coalescing and spreading peripherally, till in some places they formed rings of vesicles, and in others masses of confluent blebs. For about a week the eruption continued to increase in intensity, in spite of the fact that the iodide was stopped immediately the eruption appeared, as its cause was obvious. The treatment adopted was: (1) Immediate cessation of the administration of the toxic drug; (2) the conjunctival sacs were washed out with boracic lotion, boracic poultices at first and later a saturated solution of picric acid were applied to the affected regions; (3) elimination of the iodine was aided by saline aperients and by digitalis. During the ingravescent period the temperature was only slightly raised, touching 100° on two or three occasions, but since January 8th or 10th it had been practically normal, whilst the eruption had steadily but rather slowly healed. Some of the patches in the beard and hairy scalp still required attention, but the greater part of the skin had cleared up without cicatrization. II. The second case was very similar, though less severe. Here the administration of four powders, each containing 5 gr. of iodide of potash and 10 gr. of resin of guaiacum, was followed by a crop of vesicles, a few of which became purulent, and many were haemorrhagic; together with enlargement of both parotid glands, and slight pyrexia. The patient was suffering from osteo-arthritis, but in his case the heart and kidneys were free from disease; several of the vesicles appeared inside the mouth, and one on the corneal margin, which was seen by Dr. Cecil Shaw, and all eventually diappeared without leaving any trace.

The author said the occurrence of such a case as the first described was a misfortune both for the patient and for the practitioner, and it was necessary to take all possible measures to avert such an affliction. Both bromine and iodine, and their compounds, produced in susceptible persons eruptions of great diversity. In the bromides the commonest form was an acne-like rash, which differed from ordinary acne in being more generally distributed over the body and in the rapidity of its development. A similar eruption was not uncommonly produced by the iodides, but the more typical form was the bullous or vesicular. It was said that when the iodide eruption appeared, the other symptoms of iodism were usually absent; the more serious of the two cases recorded supported this statement, while the milder one showed one other symptom, namely, enlarged parotid glands. While there could be no doubt that individuals differed immensely in their susceptibility to the toxic effects of iodine and bromine, that was only one factor in the problem; and it was fortunately not the only one, because it was a factor we could only become aware of by experiment, and the information might be too expensive. It was clear, however, that in addition to individual susceptibility, another factor existed which was not quite so much beyond control as idiosyncrasy, and that was, imperfect elimination of the drug. If from any cause iodine or bromine which had been ingested was allowed to accumulate in the body through failure of the eliminating organs, even a small quantity of the drug might be sufficient to produce toxic symptoms in susceptible persons. In the first case this was obviously the cause, the heart, kidneys, and liver being defective. In the other case, though there was no apparent disease of those organs, the presence of rheumatoid arthritis was an evidence of disturbed metabolism, and probably of defective elimination. It was, then, imperative, when the function of elimination was known to be feeble, to begin the administration of iodides or bromides with very small doses, and to give careful attention to the action of the kidneys, bowels, and skin. The addition of a drop or two of Fowler's solution to each dose of iodide or bromide was said to act as a preventive of the rash.—Dr. DEMPSEY expressed the opinion that large doses of iodide were not so likely to cause unpleasant symptoms as small ones, and Dr. MITCHELL agreed with this.—Drs. CALWELL, CECIL SHAW, FULLERTON, and R. C. McCULLOUGH also made remarks on these cases.

Uterine Myoma.—Dr. DEMPSEY showed two uterine tumours, both myomas, one of which had undergone degeneration, while the other was the largest he had ever removed, weighing 34 lb.

Compound Fracture of Skull.—Mr. A. FULLERTON showed a case of compound fracture of the skull, involving the orbit, frontal sinus, ethmoid, and superior longitudinal sinus treated by trephining.

Actinomycosis.—Mr. A. FULLERTON also showed a case of actinomycosis. This patient was a farmer, and was admitted to hospital with a swelling on the jaw which looked like a tuberculous abscess. He gave a history of five weeks' duration. On opening the swelling the characteristic yellow bodies were found.—Dr. J. SINGLETON DARLING (Lurgan) also showed a case of actinomycosis presenting much the same features as Mr. Fullerton's case, except that the second patient was a painter. Dr. Darling said that this was the fourth case he had seen, two of the others being agricultural labourers, and the third a plumber.

Coxa Vara.—Dr. DARLING also showed a case of coxa vara, with notes of a second case of the same.

The patient shown was a lad of 18. There was no history of ill-health, but a year ago he fell from a cart and was bruised, though he was not lame, and made no complaint of his hip till August. When he began to dig potatoes in October the right leg "gave up with him," and from that time till his admission to the infirmary he grew worse. He now limped, had some diminution of the range of flexion, and only abducted his right leg to half the distance of the left. The alteration in level of the trochanter was very noticeable; it was nearly half an inch above Nélaton's line. He has improved much under rest and good feeding. The second case was that of a young lady, aged 27, in good circumstances, a member of a large family, all of whom are healthy, and except for her hips she has always been well. Ten years ago, while menstruating, she tired herself greatly by climbing a hill; this was followed by some pain in the left hip. The pain grew worse, and she had difficulty in walking. When Dr. Darling saw her a little later she complained of weakness in the hip, and pain on trying to walk. There was no deformity or wasting, and for some time he was suspicious of hysteria. After a lengthy rest in bed she got well, except that there was always rather an awkward waddling gait. She remained well for six years, but in October, 1903, she again complained of pain in the right hip and could only walk with difficulty. Since her previous illness Dr. Darling had read of coxa vara, and now recognized the nature of the disease. The right leg was ½ in. shorter than the left, and the tip of the trochanter was markedly higher on both sides, coming above Nélaton's line. There was limitation of movement both in flexion and abduction, and she had difficulty in going upstairs and in dressing herself. She was ordered rest in bed, with massage and salt baths, and tonics. Three months later Professor Sinclair saw her with Dr. Darling, and agreed in the diagnosis and treatment, and advised frequent forcible abduction as freely as could be borne. In spite of carefully following out the prescribed treatment for three months, she grew worse. For about the last year she had remained the same, but the deformity was very great. She could walk a little and had no pain, but movement was greatly restricted. She looked well and was in good general health.

—Dr. MITCHELL and Mr. FULLERTON discussed the cases.

Cases, etc.—Dr. W. M. KILLEN showed a patient operated on a year ago for endolaryngeal cancer. No recurrence had taken place.—Dr. ROBERT ALLEN showed: (1) A new flask for use with McKeown's irrigation apparatus; and (2) a case of exophthalmos due to ethmoidal disease.

SOUTH-WESTERN BRANCH.

GEORGE JACKSON, F.R.C.S., J.P., President, in the Chair.

Plymouth, February 1st, 1906.

Diseases of the Pituitary Gland.—Sir VICTOR HORSLEY delivered an address on the diagnosis and surgical treatment of diseases of the pituitary gland. In the course of a lucid and most interesting lecture he first of all mentioned that he commenced his experiments on the pituitary gland twenty years ago, and that he had had nine cases of disease of that organ under treatment, two of which had ended fatally, death in neither instance being due to the operation. He went on to say that it was when he was working at epilepsy that he set to work to remove the pituitary body in animals, and that as yet no definite information had been obtained of the functions of this body. Epilepsy was one of the common features of tumours of the pituitary body. Referring to a patient suffering from acromegaly, who had been introduced by the President to the meeting, Sir Victor Horsley said there were no nerve symptoms at all. He proceeded to differentiate between the true acromegaly class and the false acromegaly class, and said that the time had come when, from a surgical point of view, they ought to decide once and for all which cases ought to be operated upon and which ought not. He went on to describe cases which had come under his observation, illustrating his remarks by lantern slides, and mentioning that among the earlier symptoms of acromegaly were irritability of temper followed by moroseness, headache, and loss of sight. He said that the first duty of the surgeon in these cases was to relieve the mechanical pressure; secondly, to do it in such a way as to avert blindness; and, thirdly, to prevent a fatal result, or, in other words, to take the tumour out. Finally, Sir Victor Horsley pointed out that the prehistoric way of raising the frontal lobe was not the proper way to remove the tumour; it should be done by raising the temporal lobe.

Vote of Thanks.—At the conclusion of the lecture Sir Victor Horsley was warmly applauded, whereupon Mr. E. J. DOMVILLE (President-elect) proposed, and Mr. J. H. S. MAY seconded, a hearty vote of thanks to Sir Victor Horsley, which was carried with much enthusiasm; and in reply Sir Victor Horsley said it was no secret that it was his personal regard for the President of the Branch and his work which weighed very heavily with him in accepting the invitation to address the Branch. Regarding the two branches of the work of the Association—namely, scientific and political—he thought that they always seemed to go hand in hand, and the future development of the Association ought to be in that direction. It was because the medico-political was left out practically entirely in the past that so much time and labour had to be spent nowadays on that department. Under no circumstances could they think of abandoning the scientific side.

REPORTS OF SOCIETIES.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

Sir WILLIAM SMYLY, P.R.C.P.I., President, in the Chair.

Friday, January 19th, 1906.

THE DIAGNOSIS, TREATMENT, AND PATHOLOGY OF EMPYEMA.

A DISCUSSION on the diagnosis, treatment, and pathology of empyema was introduced by Dr. W. G. SMITH, Sir THORNLEY STOKER, and Dr. EARL.

Dr. WALTER SMITH limited his remarks chiefly to etiology and diagnosis. In etiology the main advance was the firm establishment of the doctrine that most pleurisies were due to infective agencies. Half a pint infusion was about the smallest quantity that could be recognized. Percussion was more valuable, diagnostically, than auscultation. Exploratory puncture was the most valuable and certain mode of detecting fluid. In considering intrapleural pressure the elasticity of the lung was the chief and essential factor to be considered. Even with the most powerful expiration the pleural pressure remained negative. It was wrong to consider positive pressure until and after the elasticity of the lung had been exhausted. Then, and then only, did true compression of the lung begin. Measurements of pleural pressure in cases of effusion gave discrepant results, which were not yet susceptible of complete explanation.

Sir THORNLEY STOKER laid great stress on the early drainage of the pleural sac, and set aside as quite out of date the use of aspiration. When thoracotomy was called for, it should not be practised by intercostal incision, but by removal of a portion of a rib. This gave room for digital exploration, avoided the pinching of drain tubes between the ribs, could be conducted more cleanly, was free from risk of bleeding, permitted the discharge of the large masses of lymph usually found, and could be practised with great rapidity. When early performed and in a certain way, it was not a very serious proceeding, and usually very successful. The U-shaped flap should be avoided, and the portion of ribs operated on removed through straight incisions parallel to their axes. One incision would suffice for the resection of portions of as many as three ribs. He had not found removal of the periosteum necessary; it increased the length and danger of the operation, and the membrane caused no ill-effects if left behind. Irrigation of the pleural sac was to be avoided in most cases, and only resorted to if fetor were present, or discharge unduly persistent. It was often dangerous to life by causing collapse or convulsions. Of methods ancillary to operation, and intended to assist the closure of the pleural cavity by helping the expansion of the lung, he advised positive pressure by respiratory gymnastics, such as enforced inspiration and expiration, or the blowing of water from one large bottle to another by James's plan. The introduction of condensed air into the lung had often been found dangerous. Of negative pressure, he could only say that he did not see how it could be made practically available in a vital and restless machine like the human body.

Dr. EARL having read a short paper on the bacteriology of these cases, and Sir JOHN MOORE having read notes of two cases illustrative of the difficulties which attend the differential diagnosis between empyema and hypophrenic abscess.

Sir **ARTHUR CHANCE** said that the policy of surgery towards empyema was very simple. Early efficient drainage, expansion of the lung, and, if necessary, a contraction of the chest wall by surgical means, with possibly removal of diseased pleura, were the simple surgical indications, but to carry them to a successful issue was very difficult, and one was confronted by the difficulty of the different varieties of empyemata. He preferred to open the chest wall lower down, and somewhat further back than Sir Thornley Stoker had advocated, and he believed in a particularly short skin incision. He agreed as to the wisdom of always removing a portion of the rib, and he always used a very large drainage tube. The records of thoracoplasties was not very good, but perhaps this was due to delaying too long, etc. He thought Estlander's operation open to the objection that it left behind a very large, thickened pleura, and he was inclined to remove not only rib, but the intercostal structures and parietal pleura, the operation to be done in stages.

Dr. **HAYES** showed four cases illustrating the good effects after operation done up to ten years previously. He pointed out that formerly irrigation was always carried out, but this was never done now. He relied on puncture with a long needle as the best aid to diagnosis, and thought the severe operation recommended by Sir Arthur Chance unnecessary, as his cases showed that the thickened pleura had resolved.

LIVERPOOL MEDICAL INSTITUTION.

FRANK T. PAUL, F.R.C.S., President, in the Chair.

Thursday, February 1st, 1906.

ACUTE HAEMORRHAGIC PANCREATITIS.

DR. F. W. BAKER YOUNG showed a case of Acute Haemorrhagic Pancreatitis in a man aged 30 years. Addicted to alcohol, he was taken ill while at work, walked home a distance of 50 yards, and died within forty-five minutes of the onset of symptoms. At the autopsy the body and tail of the pancreas were found enlarged and infiltrated with fluid blood; the head of the organ was also involved, but not to the same extent. There was blood-stained fluid in the lesser sac of the peritoneum, and an ecchymosis on the left kidney over the site of its relation with the body of the pancreas. No other lesion was found that could account for death. The following points were noted as of special interest: (1) Rapid onset and rapid termination; (2) the patient's age; (3) absence of vomiting; (4) absence of pain; (5) the fluid state of the blood, no clots having been found even forty-eight hours after death; (6) the engorgement of the abdominal veins with fluid blood; finally, the medico-legal aspect of the case—had the pancreas not been examined the cause of death could not have been stated.

Dr. **WILLIAM CARTER** drew attention to the similarity of the symptoms in death from irritant poisoning and from haemorrhagic pancreatitis respectively, quoting the following from Dr. A. J. Chalmers's monograph on Pancreatitis in Ceylon: "Especially I desire to draw attention to the legal *post-mortem* form, where no mention of the pancreas is to be found. I think that this should be rectified, and that in all legal *post-mortems* careful note should be made of the condition of the pancreas."

POSTERIOR VERTEBRAL TUBERCULOSIS.

Mr. **K. W. MONSARRAT** read a paper on Posterior Vertebral Tuberculosis, relating two cases. In the one, the disease involved the transverse process, pedicle and lamina in the dorsal region; in the other, it was confined to the lamina of the fourth cervical vertebra on the left side. Both cases were complicated by abscess, and the cervical case also exhibited paralytic phenomena, beginning on the left side and subsequently extending to the right and involving the bladder function. The paralysis in the second case rapidly disappeared after laminectomy and the clearing out of a mass of granulation tissue from the spinal canal.

Dr. **T. R. GLYNN** related a case of Caries of the Atlas and Axis with displacement of the atlas backwards, in which recovery took place—the patient ultimately dying from internal hydrocephalus. The caries was associated with post-pharyngeal abscess, and the condition being recognized, the patient, a girl, was placed on a bed raised at its upper end, her head fixed by a bandage to a rail, the body extended by a weight attached to the feet. All her limbs and the bladder became paralysed and respiration embarrassed. Atropine proved valuable in relieving respiratory trouble. After many weeks she recovered, the last symptoms—those pointing to descending lateral sclerosis—nearly passing away. She entered service and remained well for several weeks, but was readmitted—comatose. After death, great distension of the lateral ventricles was found. The odontoid process had slipped backwards and upwards, the cord was compressed to the size of a goose quill, the axis and atlas were partly destroyed and ankylosed together. The hydrocephalus was probably caused by the displaced odontoid process thrusting the medulla upwards against the cerebellum and closing Majendie's foramen.

CARDIAC HYPERTROPHY IN GRAVES'S DISEASE.

Dr. **T. R. BRADSHAW** showed a girl, aged 16, with Graves's disease incompletely developed. There had been palpitation and suffocative sensations for a year. The most prominent sign was hypertrophy of the right ventricle, for which none of the common causes were present. Latterly, slight enlargement of the thyroid had become apparent. He (Dr. Bradshaw) commented on the rarity of demonstrable cardiac hypertrophy in Graves's disease—a fact pointed out long ago by Trousseau.

THE X-RAY DIAGNOSIS OF KIDNEY STONES.

Mr. **C. THURSTAN HOLLAND** read a paper on the *X*-ray Diagnosis of Kidney Stones, showing lantern slides to prove the value of the positive and the difficulties of the doubtful diagnosis. Too frequently reliance was placed on plates which were not good enough to warrant a negative opinion; if plates of the proper quality were obtained, then, and then only, was negative evidence reliable.

The **PRESIDENT** referred to the valuable aid in diagnosing kidney lesions afforded by the urine separator and radiography. Experience had assured him that in proper hands they were thoroughly reliable and of the utmost assistance.

Other speakers gave opinions to the same effect.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.—At a meeting on January 26th, J. L. **STEVEN**, M.D., President, in the chair, the following were among the cases shown: Professor **SAMSON GEMMELL**, a case of *Pseudo-hypertrophic paralysis* in a man, aged 23. Weakness in the legs with dull pain in the calves and lumbar region began when the patient was in his 19th year. In nine months he was forced to give up work and under doctor's orders remained in bed for six months. He was then admitted to the Edinburgh Infirmary, where he was treated by massage, electricity, and Turkish baths for sixteen weeks. On dismissal he resumed work but had again to stop after fifteen months. On October 21st, 1905, he was admitted to the Western Infirmary, Glasgow, and was then so weak that a walk of 200 yards exhausted him. There was no trace of any similar disease in his family. His gait was of the waddling type and the head was ducked forwards and downwards with each step. To rise he turned over on to his left side and lifted himself on his knees then on his toes and hands and gained the erect position by climbing up his thighs. He had been treated with massage exercise and the high-frequency current with great benefit.—Professor **MUIR**, four cases of *Cirrhosis of the liver with primary cancer.* He said the association was not casual but etiological. In cirrhosis a degeneration of liver cells took place, and, as a reparative process, a hypertrophy of other cells. This hypertrophy appeared sometimes to precede the beginning of the cancer, which arose from liver cells, and often at multiple foci, as if the compensatory proliferation had passed its usual bounds and had a cancerous growth.—Dr. **RENTON**, (*a*) a case of *Coxa vara after operation.* A wedge of bone was removed from each femur below the trochanter. The bone then fractured outwards, and the legs put up in a double long splint. After union there was a gain of 2 in., and the patient could sit down without crossing his legs. When shown he could draw up his legs freely. (*b*) A case of *Cholecyst-*

colostomy.—Dr. Beatson, a case of *Cicatricial keloid* in the shoulder arising from an abrasion caused by patient's brace; another behind the ear following a burn; and a third which followed an acne pustule in the lumbar region. *X* rays had been tried but with no apparent benefit.

Otological Society of the United Kingdom.—At a meeting on February 5th, Mr. A. E. Cumberbatch, President, in the chair, the President read a short address, and exhibitions were made by Messrs. Macleod Yearsley, Lawrence, and Whitehead, and Drs. Albert Gray, Milligan, and Dundas Grant; amongst these, a curious anomaly of colour in the left tympanic membrane of a boy, aged 17 years, excited much interest; the right membrane was normal, the left of a dark blue colour; the case was shown by Mr. Yearsley.—Mr. Whitehead read notes on three cases of cerebellar abscess, in which he remarked upon the relative frequency of infection through the triangular area of bone bounded by the superior petrosal sinus, the lateral sinus, and the posterior semicircular canal.

Bristol Medico-Chirurgical Society.—An ordinary meeting of this Society was held in the Medical Library, University College, on Wednesday, January 10th, at 8 p.m. Present: Mr. John Dacre (President) and forty-five members.—Mr. Harold Mole gave a demonstration on the anatomy and *Surgical Anatomy of the Temporal Bone*, illustrated by a large number of lantern slides, stereograms, and specimens. The latter consisted of preparations of the bone and metal corrosion casts of the same. Great stress was laid on the importance of surgeons operating on the ear having an accurate knowledge of important structures in relation with it, and the specimens shown were specially prepared to show these relationships. One series of bones showed the various steps in the complete mastoid operation; another series, after the radical operation had been performed, were sectioned in various planes to show the relation of the facial canal to the operation area; a third were sectioned to show the relation of the lateral sinus to the antrum, another to show the depth of the antrum from the surface and the value of Henle's spine and the suprameatal triangle as a guide to the antrum, etc. The corrosion casts showed the intimate connexion of the tympanic cavity with the cells of the mastoid process and those outside it above the external auditory meatus. Some of them showed a mass of cells at the apex of the petrous bone not usually described in textbooks of anatomy. Drs. Watson Williams and Lacy Firth congratulated Mr. Mole on the preparations.—Dr. Watson Williams read a paper entitled *Why Defective Nasal Respiration Impedes Growth and Development*, emphasizing the view that defective nasal breathing was not always due to, or in direct proportion to, the degree of nasal obstruction. Normal nasal breathing stimulated the bulbar respiratory centre, and the abrogation of this physiological stimulation was one important factor resulting in deficient respiratory exchanges and consequent defective tissue metabolism. Hence the mechanical obstruction to respiration was by no means the only indication for appropriate treatment. Drs. Shingleton Smith, E. C. Williams, and A. J. Harrison and Mr. Mole took part in a discussion on the paper, agreeing with Dr. Watson Williams on the importance of removing nasal obstructions in childhood, and also that nasal obstruction in them was not always due to adenoids.—Mr. H. G. Kyle read notes of a case of *Hydatid Cyst of the Liver* occurring in a girl aged 25. The tumour had attained very large dimensions, displacing the heart upwards, so that the maximum impulse was in the third left space, the lower limit of the tumour being about the level of the umbilicus. It grew in the left lobe of the liver. It was treated by incision, removal of the hydatid membrane, and drainage. The patient made a good recovery. Mr. Kyle discussed the propriety of attempting complete enucleation of such tumours, and cited some cases so treated from the literature. The proceeding was certainly attended with considerably more risk, and incision and drainage appeared the safer method, though it involved a tedious convalescence. Mr. Mole thought it was running a very unnecessary risk to endeavour to excise these cysts from the liver, excision and drainage usually being followed by a satisfactory result.—Dr. J. R. Charles read a paper on *Fright in Its Relation to Disease.* After having described the physiological effects of fright, the analogies between fright and cold as exciting factors in disease were mentioned. Stress was laid on the importance of the avoidance of fright in certain conditions, specially during childhood. Its connexions with such diseases as chorea, hysteria, paralysis agitans, the paroxysmal neuroses, Graves's disease, the infective and other diseases, was discussed. Numerous illustrative cases were quoted. Drs. Nixon, Symes, Stack, Williams, Shingleton Smith and Harrison related cases bearing on the paper.

Harveian Society.—At a clinical meeting on January 25th the following were among the exhibits: Dr. Alexander Morison; a case of endocarditis in a child associated with chorea.—Dr. Guthrie; a man, aged 29, who seven years ago had contracted *Syphilis*, for which he had been treated for three months. Fifteen months ago he noticed gradual weakness of right arm and leg, which increased until he had to give up employment owing to inability to write or hold his pen properly. He had slight headaches at times, but no vomiting. On admission to hospital the optic discs showed double neuritis, most marked in the left eye. The pupil reaction and ocular movements were normal, and no paralysis of any cranial nerve was perceptible. Speech rather hesitant and slurring with slight tremor of the lips. The right hand grip was weaker than the left. His condition was more ataxic than paretic, and the right leg spastic, with slight talipes equino-varus. Nutrition and sensation were normal. Plantar response was extensor on right, and flexor on left. Progress: After admission the optic neuritis and contraction of fields increased, and slight epileptiform seizure occurred, lasting about ten minutes, with general convulsions, but no focal commencement. There was loss of consciousness, but the tongue was not bitten, nor urine passed. Duration about ten minutes. Two similar attacks occurred a few days later, but none since. Treatment by iodides was pushed, and the swelling of the left disc then began to subside, that on the right persisting. Slight iodism appearing, the iodides were gradually reduced. The patient had improved. Hand movements had become less ataxic. He now wrote fairly well, though slowly, and his gait was less spastic. The diagnosis suggested was that of a gumma, probably supracortical, in the mid area of left cerebral hemisphere.—Dr. Squire showed a case of *Leontiasis Ossea* in a woman aged 29. There had been proptosis and deformity of the forehead from birth. Blindness of the right eye was noticed at the age of 9. She had been gradually losing sight in the left eye, and could just count fingers. The forehead was large, and there was a marked bony protuberance at the site of the anterior fontanelle. Dr. Leonard Guthrie suggested that the malformation was a congenital deformity due to premature synostosis of certain cranial sutures rather than one caused by leontiasis ossea. Characteristic malformations to which various names had been given, resulted. Thus "scaphocephalus," or "boat-shaped" skull, was one variety. The name "spheno-cephalus" (wedge-shaped skull) had been given to such cases as the present in which synostosis of the parieto-occipital and parieto-frontal sutures led to shortened antero-posterior diameter. The frontal bone here was small and retreating, whilst at the site of the anterior fontanelle a large wedge or dome-shaped promontory had been formed in order to accommodate the brain. The "frog face" with bulging eyes, ill-shaped nose, narrow, high-arched palate, depended upon defective development of the sphenoid from a similar defect in ossification. The optic atrophy might be due to pressure on the optic nerve, but more probably was a primary and early decay in keeping with general maldevelopment. Dr. Cautley ageed with Dr. Guthrie that the case was one of "tower-shaped" skull due to congenital malformation.—Mr. Crisp English showed a case of *Carcinoma* of both breasts in a woman aged 54. Mr. Edmund Owen advised removal of both breasts, but pointed out that the swelling of the arm was of serious prognostic significance as it implied obstruction to lymphatics or pressure on veins by the growth. Mr. Raymond Johnson considered that the swelling of the arm probably indicated actual invasion of the veins by the growth.—Dr. John Broadbent showed a case of *Pulmonary stenosis*, probably of congenital origin, in a man, aged 26. There was a loud systolic murmur over the pulmonary cartilage, but no thrill, and no cyanosis or dyspnoea except on exertion.

Therapeutical Society.—At a meeting on January 23rd, Sir T. Lauder Brunton in the chair, Dr. G. Newton Pitt read a paper on the *Treatment of Exophthalmic Goître by Antithyroid Serum*, stating that the disease frequently required prolonged treatment, and that various remedies had been employed, such as digitalis, belladonna, potassium iodide, and arsenic; this did not always succeed, and sometimes an operation was required. In 1899 the use of the serum derived from the blood of dogs which had been deprived of their thyroid glands was introduced, or of the dried blood itself, or the milk of goats similarly deprived of thyroid glands. This was found to be very beneficial. Five cubic centimetres of the serum were at first administered subcutaneously, but afterwards with equal success by the mouth, every other day. As each dose costs 2s., and more than 100 doses were often required, and the treatment lasts five to ten weeks, it proved very expensive. The flesh of athyroid goats had been tried without any good result. Under this treatment the patients' thyroids and exophthalmos often diminished, the pulse became slower, perspiration lessened, the strength and weight improved, and the tremors, insomnia, and other nervous symptoms, which were the only causes of death, were speedily relieved, and the patient became apparently well: but sometimes a relapse occurred and required a renewal of the treatment. The author had treated 6 cases in females by this method, using also rest in the open air, and all were greatly improved. No ill results had ever occurred, excepting in one case in which 240 doses were taken without the opinion of a doctor; symptoms of myxoedema came on, but ceased when the treatment was stopped.

Midland Medical Society.—At a meeting on January 31st, Dr. J. Quirke, President, in the chair, the following were among the exhibits: Mr. Victor Milward—a girl, aged 21, brought to the general hospital when she had suffered for five days from abdominal pain and tenderness. A diagnosis of appendicitis was made, the symptoms exactly representing that disease. The abdomen was opened, and the caecum, appendix and colon, as far as could be reached, were found to be in an acutely inflammatory state. The muscular and subserous coats were very greatly thickened by serous exudation, and recent patches of lymph were present on the peritoneum. No pus, necrotic areas, or ulceration were seen. No symptoms of enteritis were at any time present. Drainage was employed, and the girl recovered in about a month and has since been well. The peculiarities of the case were the localization of the inflammation to the large intestine; the absence of any breach of surface, and the uneventful recovery which followed drainage.—Mr. Leedham Green, a boy on whom he had operated some years ago for the relief of severe *Cicatrical contraction* of the hand. As the result of a bad burn of the palmar surface of the right hand all the four fingers were strongly flexed so that it could not be opened and only the thumb was capable of movement. The operation consisted in the making of a deep transverse incision across the centre of each finger through the contracted skin and tissues until complete extension could be effected. In each case it was necessary to open the flexor tendon-sheath and in that of the two inner fingers the tendon itself had to be partially divided ere they could be completely extended. This forcible straightening converted the simple transverse incision into a large lozenge-shaped wound. To cover in this defect a large graft of the whole thickness of the skin was excised from the tegument over the biceps muscle and applied to the wound on each finger, the grafts being maintained in position by firm bandaging and splints. In each case the transplanted skin lived and healed in without drawback. The hand was persistently massaged for some months, and the boy when shown had a perfectly restored hand with fingers capable of the freest movement and showing no trace of the deformity and no tendency to contraction.—Dr. Emanuel showed a girl, aged 18, suffering from *Cerebro-spinal syphilis*, the symptoms of which had been noticed about eight months. She was brought for treatment on account of unsteadiness in gait amounting to an actual reeling. The onset of this ataxia in point of time coincided with the appearance of periosteal nodes on both tibiae and of synovitis with effusion of both knee joints. In addition there were typical syphilitic teeth, deafness in both ears, and kerato-iritis in each eye. To the ataxia were added signs of degeneration of the pyramidal tracts—namely, recently-developed pes cavus, increased tendon reflexes in arms and legs, a tendency to ankle clonus, and the Babinski reflex was obtained once on the right side. There was no muscular weakness, no sensory disturbance, no bladder or rectal trouble, no optic atrophy, no nystagmus, no speech defect, and no mental deterioration. The patient had a brother, aged 35 years, presenting a very similar condition of ataxia combined with undoubted congenital syphilis.

Society of Anaesthetists.—At a meeting on February 2nd Professor F. J. Keeble read a paper on *The Action of Anaesthetics on Lower Forms of Life*. After referring to Claude Bernard's classical experiment to illustrate the action of chloroform on a pigeon, a frog, and a sensitive plant, the lecturer passed on to discuss various reflexes whereby plant sensitiveness could be demonstrated. Chloroform in suitable strength could prevent a plant perceiving such a stimulus as the action of gravity. When exposed to anaesthetic vapours plants lost their reflexes in an exactly similar manner to animals. Both ether and chloroform inevitably produced effects on lower plants, more especially on the streaming movements, the movements of cilia, and the throwing out of pseudopodia. A properly-adjusted dose produced at first an extremely temporary acceleration of movement and growth, immediately followed by a retardation, and, finally, complete rest. The rest produced by ether was less permanent and less likely to be lethal than ensued in the case where chloroform was the anaesthetic vapour used. Bacteria, except in spore condition, could be killed by exposure to anaesthetic vapours, and chemiotaxis was profoundly altered. The rate of respiration was then referred to, and the lecturer quoted the tubers of gladioli. After exposure to the vapour of ether for twenty-four hours, the carbon dioxide produced by these tubers rose from 12.2 mg. to 57 mg. for the first day, only dropping to 40 mg. for the third day. Cells in process of dividing when exposed to anaesthetic vapours had that process arrested as regards the protoplasm of the cell itself. The cell nucleus, however, remained unaffected by the doses employed. The lecturer then referred to the commercial employment of anaesthetics to force plants to bloom earlier and more profusely. Chloroform would do, but ether was better. Horse-chestnut buds could now be gathered off the trees, exposed to the vapour of ether (10 c.cm. ether per litre of air at 17° to 19° C.) for 48 hours, and then kept in a room at the ordinary temperature. The result would be a generous production of flowers quite out of season. Discussing how the anaesthetic acted, the lecturer said that it had been suggested this was due to its action on the anti-growth enzyme, whereby the growth enzyme, freed from its antagonist, had it all its own way. Finally, the lecturer referred to the toxicity of a poison depending on its solubility in lecithin.

Pathological Society of London.—Laboratory meeting at the Lister Institute, Tuesday, February 6th. The following communications and demonstrations were given: Dr. A. Macfadyen: *The bacteriolytic and agglutinative properties of the serum of goats inoculated with typhoid cell-juice.* Dr. A. Harden: *Voges and Proskauer's reaction* (demonstration). Dr. F. A. Bainbridge and Dr. J. B. Leathes: *The fatty change in the liver produced by ligature of the hepatic artery.* Mr. L. S. Dudgeon and Dr. J. B. Leathes: *The fatty change in the heart caused by diphtheria toxin.* Dr. J. O. W. Barratt: *Phagocytosis of red cells* (demonstration). Dr. A. T. MacConkey: *Immunization between B. pestis and B. pseudo-tuberculosis rodentium.* Dr. W. E. Marshall: *The paradimethylamido-benzaldehyde test for indol* (demonstration). Dr. Ledingham: *Natural occurrence of Weil's disease in the guinea-pig.* Mr. L. Noon: *Sarcocystis muris.* Dr. Alan Green: *A new method of tubing vaccine lymph* (demonstration). Dr. C. J. Martin: *A new water-driven centrifuge* (demonstration.)

REVIEWS.

A TRIAL FOR POISONING.

This new account of the once famous *Trial of Madeleine Smith*[1] by Mr. Duncan Smith, a member of the Scottish Bar, attests the great and apparently perennial interest which attaches to this strange story. The case was rightly made memorable by the distinguished forensic ability displayed by the counsel engaged upon both sides—by the Lord Advocate, afterwards Lord Moncrieff, and still more by the Dean of Faculty Inglis, afterwards Lord Justice-General, and for many years Chancellor of the University of Edinburgh; nor were the medical men employed for the prosecution and the defence less distinguished in their several ways by their professional ability, and the manner in which they strove to elucidate the problems submitted to them, notably Dr. Penny, Professor of Chemistry in Anderson's College, Glasgow, whose evidence received the compliment from the Lord Justice-Clerk of the comment: "Certainly, Dr. Penny, more satisfactory or distinct evidence I never heard." Dr. Penny's toxicological conclusions were supported by the evidence of Dr. (afterwards Sir) Robert Christison, who had ten years before published his work on poisons, and whose authority on the matters submitted to him was without rival in the United Kingdom. On the other side was Dr. Douglas Maclagan, Professor of Medical Jurisprudence in the University of Edinburgh, with whom was Dr. Robert Paterson of Leith, who had had considerable experience of arsenical poisoning owing to the ease with which arsenic could be procured by the workers in the colour manufactories in that town.

The story of Madeleine Smith is probably well known in outline, but may be shortly related. This young girl, aged 21, was the daughter of a Glasgow architect who occupied a good social position, having a house in Glasgow where his family lived during the winter, and a country house at Rowaleyn on the Clyde, where they lived from May to November. In some way Madeleine had attracted the attention of a man about thirty years of age, named Pierre Emile L'Angelier, a clerk employed in the warehouse of Huggins and Co. in Glasgow. L'Angelier was a native of Jersey, where his father, who had left France at the time of the Revolution, had been a nurseryman, but had died leaving his family badly provided for. L'Angelier had been in Edinburgh ten years previously, with Messrs. Lawson, the well-known seedsmen, but afterwards went to France, and was in Paris during the Revolution of 1848-9. He returned to Scotland in 1851, prompted by an attachment he had formed for a lady in the county of Fife, but found her on the point of marriage with another. Disappointed in his hopes, he yet remained in Scotland, although without definite means of living. He seems to have acquired the regard and esteem of many friends, and eventually obtained the situation with Huggins and Co. which he held at the time of this story. He was known to a youth named Baird, whose family knew the Smiths, and he asked Baird to procure him an introduction to Miss Smith; Baird endeavoured to do this by getting his mother to invite them both to her house, but she declined, and eventually L'Angelier made Baird introduce him to Miss Smith in the street, where she was walking with a younger sister. Shortly after this he commenced his addresses by handing her a note, which contained a declaration of love, and a correspondence commenced, which became known to Miss Smith's parents, who forbade its continuance. It was, however, resumed, and through the connivance of a maidservant there were frequent interviews at night in the house occupied by the Smiths in India Street, and subsequently in the summer of 1856 at Rowaleyn, where Madeleine became L'Angelier's mistress. On the return of the Smiths to Glasgow they moved into a new house in Blythswood Square, where the interviews continued up to the end of the year. In January, 1857, a friend and neighbour of the family, Mr. Minnoch, a merchant in a good position, commenced to pay serious addresses to Madeleine, and rumours of her engagement reached L'Angelier, who pressed her on the point, and urged her to elope with him in order that they might get married; for there is no reason to doubt that L'Angelier throughout desired to make her his wife, though in spite of the comparative ease of the Scottish marriage laws he does not seem to have been able to arrange the matter. It is possible, in view of what happened afterwards, that Madeleine herself had no intention of marrying him, at least after her return to Glasgow in the winter of 1856. Early in February, 1857, she wrote him a letter, begging that their correspondence should come to an end and the engagement be broken, and asking him to return her letters and likeness; in a subsequent letter she wrote: "Until within the time of our coming to town I loved you fondly," but added that she had ceased to do so, and wished everything to be over between them. To this L'Angelier would not consent and threatened to send her letters to her father, swearing that she should be the wife of no other man. Distracted by the thought of her letters being sent to her father, she altered her tone, and resumed the correspondence in its former affectionate terms; but there is no direct evidence of her having seen L'Angelier again previous to his death. On a date which is not precisely indicated, except by an entry in a memorandum book which was not admitted as evidence, where it is fixed as February 19th, L'Angelier was taken ill in the night and vomited. He recovered, and three days later—on the night of Sunday, February 22nd—he was again taken so ill in the same way that a medical practitioner was called to him, and he was in bed for a week. This illness was regarded as a bilious attack, but in a conversation with a friend—a Miss Perry, whom he called to see on his recovery—he said that he never thought he would see her again, as he had been so ill, that he could not attribute his illness to any cause, but added, "I cannot think why I was so unwell after getting that cocoa and chocolate from her." Miss Perry understood him to refer to two different occasions; "her" meant Miss Smith. It was afterwards shown that on February 21st Madeleine purchased sixpennyworth of arsenic openly from a chemist and had it put down to her father's account. Early in March the Smiths went to the Bridge of Allan, but before they went she purchased another sixpennyworth of arsenic. On March 16th she accepted a proposal of marriage from Mr. Minnoch, and on March 17th the Smiths returned to Glasgow. On March 18th she purchased arsenic for the third time. L'Angelier, who does not seem to have known of their return, went to Edinburgh, and then to Bridge of Allan apparently, to see her, but while he was away Madeleine wrote giving him an appointment on the night of March 19th, which he of course failed to keep, so she wrote again, appointing Saturday, the 21st. This letter reached him on Sunday morning at the Bridge of Allan, whence he walked to Stirling, travelled by train to Coatbridge, and thence gained Glasgow on foot, arriving unexpectedly at his lodgings on the Sunday evening, where, after having tea and toast, he changed his coat and went out. After leaving his lodgings all that is known of his movements is that he called, about 9 p.m., at the house of a friend who was not at home, but at 2.30 on Monday morning his landlady was aroused by a violent ringing of the street-door bell, and on opening the door she found L'Angelier in great pain; he said, "I am very bad; I am going to have another attack of that vomiting." She got him to bed and did what she could, but he grew rapidly worse, and at 5 o'clock she called Dr. Steven, the nearest medical practitioner, who, being at the time ill, did not come until 7 o'clock, when he found L'Angelier in a state of collapse. He prescribed morphine, and left saying quiet and time would effect recovery, but L'Angelier remarked, "I am far worse than the doctor thinks." About 9 o'clock he asked Mrs. Jenkins to fetch his friend Miss Perry, and when Mrs. Jenkins returned and said Miss Perry would come, he asked her to draw the curtains and let him get five minutes' sleep. Mrs. Jenkins left him, but looked in shortly after and thought he was asleep. The doctor soon afterwards appeared and was told that he was in a quiet sleep, but he went in to see him, felt his pulse, raised his head, and pronounced him to be dead.

This sudden death aroused suspicion, and the discovery of the correspondence led to a *post-mortem* examination and an analysis of the contents of the stomach and intestine, when the presence of a large quantity of arsenic was detected, the actual amount found being estimated at not less than 105 grains. Madeleine Smith was arrested, and in her declaration made before the Procurator Fiscal denied having seen L'Angelier for three weeks before his death, and further denied having at any time given him arsenic or any other poison, although she admitted that she had once given him a cup of cocoa at her window, of which he had taken only a sip. She further denied that he had ever entered the house in Blythswood Square, asserting, which was false, that their interviews had consisted merely of conversations at her window. She frankly admitted having purchased the arsenic, stating where and when, but explained that she used it as a cosmetic with which to wash her hands and face—a practice she had learnt when at school! At the trial a good deal was made of the supposed use of arsenic for cosmetic purposes, both by the prosecution and the defence, the prosecution arguing that it was impossible to use arsenic for this purpose, as it would cause violent inflammation of the skin and eyes, while it was maintained for the defence by Dr. Maclagan that arsenic being so little soluble in water, it might be used with impunity, and Dr. James Lawrie of Glasgow testified that he had performed the experiment upon himself of washing his hands and face with arsenic in cold water, without causing any smarting or disagreeable effects. When the case came for trial in the following June the facts laid before the jury were substantially those above detailed. L'Angelier's first attack was admittedly prior to the first purchase of arsenic, and there was no direct evidence that any interview took place between them up to his death. If the pocket-book which was found among his effects had been admitted as evidence, it is possible that the jury would have felt that the moral assurance they no doubt entertained, that Madeleine and L'Angelier did meet, was sufficiently supported, but it was ruled by the Court to be inadmissible. The entries are: "Thursday, 19th Febr. Saw Mimi [Madeleine's pet name] a few moments; was very ill during the night." "Sunday, 22nd Febr. Saw Mimi in drawing room; promised me a French Bible; taken very ill." Yet even the pocket-book, the entries in which ceased on March 14th, affords no evidence that they met on the fatal night of Sunday, March 22nd, when the lethal dose must have been administered. The indictment charged the prisoner with having administered arsenic or some other poison on the first occasion with intent to kill; on the second occasion with intent to kill; and on the third occasion with intent to kill, and that death resulted in consequence of arsenic or other poison administered by her. In the absence of any evidence that she was in possession of arsenic before the first attack the Court directed the jury to acquit the prisoner on that count, while on the other two counts the jury, by a majority, brought in a verdict of "Not Proven." The verdict chimed with popular sentiment, and was received with cheers, but the Lord Justice-Clerk expressed his concurrence with it, and probably it was the only one to which the jury could come in view of the gap in the chain of evidence which the prosecution had failed to fill in.

---

[1] *Notable Scottish Trials: the Trial of Madeleine Smith.* Edited by A. Duncan Smith, F.S.A.Scot. Glasgow and Edinburgh: William Hodge and Co. (Demy 8vo, pp. 371. 5s.)

Mr. Duncan Smith's complete and impartial account of the trial contains a clear introductory summary of the story with a full report of all the evidence, the speeches of counsel and the judge's summing-up, while in appendices there are all the documents including the letters mentioned in the course of the trial, facsimiles of the handwriting of Madeleine and L'Angelier, personal notices of the judges and counsel engaged in the trial, an outline of all that is known about L'Angelier's previous history, and a bibliography, from which it appears that this is the fourth publication on this subject within the last ten years—a strong testimony to the strange interest still felt in the case.

ORTHOPAEDIC SURGERY.

IN Mr. J. JACKSON CLARKE's pamphlet on *Congenital Dislocation of the Hip*,[2] a description is given of the method of Lorenz and of the results which may be expected from it. The author holds that up to the time of Lorenz's visit to this country in 1903, the treatment identified with his name had not in reality been employed by English surgeons, and that opinions expressed upon it before that time may be disregarded. He describes clearly the various steps of the manipulative reduction and of the course of after-treatment. There is certainly full justification for the opinion that the value of Lorenz's method for selected cases of suitable age is completely demonstrated. The observance of the age rule is very necessary. The dangers which are attendant on the forcible manipulation of a limb the bones of which are weakened by long disuse are illustrated here, and it is also clear that the operator may be deceived at the time of operation into a belief that he has obtained reduction when he has not done so. Mr. Jackson Clarke deprecates the sceptical view of the value of Lorenz's method which has been urged in some quarters, and he is undoubtedly justified in so doing. The reasons for this attitude are not far to trace, and among other causes is the fact that some of the advocates of the method have not distinguished sufficiently in putting forward their claims between good functional and good anatomical results. It is now quite clear that when Lorenz's method is properly carried out a good functional result can be obtained in the great majority of patients of suitable age. In discussing the differential diagnosis from coxa vara, the writer states that the only recorded case of congenital coxa vara of which he is aware is that of Kredel. Cases have also been described by Alsberg, Bade, Albert, and Wagner.

Dr. F. CALOT, whose name is well known in this country, has already written a treatise on the therapy of coxitis, and he now brings out a somewhat bulky volume on the technique of the treatment of congenital luxation of the hip.[3] He adopts a plan peculiarly his own in dealing with the subject. He regards his readers as his pupils, and hopes to fix their attention by a sort of catechism of question and answer, as if he were holding a surgical tutorial class. To some this plan may appeal, but, to be perfectly frank, we find it wearisome. At the head of each chapter is placed an epitome of its contents, and Dr. Calot certainly prides himself on the value of this summary. He takes a most rosy view of the treatment of this very difficult deformity. He claims that it can and ought to be cured by manipulation up to the age of 12 or 15 years, and states that he is prepared to furnish proofs of this statement, clinically, pathologically, and by Roentgen ray photographs. We can only say by way of comment that Dr. Calot's experience and results must be unique, for we find in this country few, if any, cases amenable at all after the ages of 8 to 10 years. Further, he states that after-care need last only four to six months to effect a cure. In this particular he is at variance with the great bulk of skilled experience. One other startling statement must be noticed: "If it happens that the luxation is bilateral the age indicated (of possible cure) should be lowered at least two or three years, as compared with unilateral cases." Again, this is contrary to the opinions of other surgeons. Dr. Calot adopts the method of reduction by manipulation, but the plan which he states gives him the excellent results he achieves, is prolonged extension by great weights, of as much as 30 lb. to 40 lb. for a considerable period before the operation; and he distinctly says that this time of preparation is not included in the estimate of four to six months given above. So far as we can see there is nothing very novel in the procedure he adopts, although we must praise the clearness of description, and the exceedingly careful and full manner in which the book is illustrated. The figures depicting the various movements of reduction are admirable. Although the treatment of this distressing deformity has improved, yet it does not seem to us that the time has arrived when bulky treatises should be written, nor that the results so far attained are such as to convince the impartial student that any degree of finality has been reached.

In his book on the treatment of ankylosis by resection and the interposition of muscle,[4] Dr. ALPHONSE HUGUIER has presented us with a volume which it is both a pleasure and a profit to read. It is interesting to note the great respect and affection which Dr. Huguier has for his teachers, and he has proved an apt pupil. As he says in his introduction, if it were possible by an operation to make an articulation at once mobile and firm, intervention would be called for in all cases. Unfortunately, or, perhaps in some cases fortunately, surgery has its limits. Thus there are joints ankylosed in good position which ought not to be operated on, but there are others of vicious ankylosis in which operation is called for in order to secure straight and firm junction of the parts. There are other instances—and it is these with which this work deals—in which it is essential or preferable in order to improve the functions to restore mobility. The object of the interposition of soft tissues is to obtain a serous bursa between the refreshed ends of the bones. The first chapter discusses the choice of material to be inserted between the parts. Inert substances, such as gold, silver, celloidin, have been tried and found wanting. Of living materials, lamellae of muscle, aponeuroses, skin, and tendons have been transplanted. But Dr. Huguier unhesitatingly recommends muscular tissue, and bases his predilection on the effects of the inclusion of muscle between the fragments in preventing, in many cases, union of a fracture. Chapter II, dealing with the indications and contraindications for the operation, is a scholarly and careful review of debatable points in the case of each joint. Restoration of movement by his operations after gonorrhoeal, rheumatic, post-traumatic, suppurative and post-febrile arthritis resulting in ankylosis is uncertain; but post-tuberculous ankylosis is peculiarly favourable. The technique of the operations is discussed fully, and we especially commend that portion of the work (pp. 28 to 63) dealing with ankylosis of the temporo-maxillary articulation and the ways in which it should be remedied. The author describes ankylosis of the shoulder, elbow, thumb, hip, and knee, and in each case is at great pains to indicate the muscles from which flaps or strips may be taken. The work is very well illustrated, and it deserves to be very heartily welcomed. It deals with a difficult subject and with a class of cases which are too often regarded as hopeless. It is characterized by a thorough knowledge of the literature of the subject and a very careful weighing of facts. Finally, its value is much enhanced by long and full accounts of cases in which interposition of muscle has been carried out, the results being either entirely or partially successful.

---

[2] *Congenital Dislocation of the Hip.* By J. Jackson Clarke, M.B., F.R.C.S. Second edition. London: *The Practitioner*, Limited. 1905. (Demy, pp. 37; 27 illustrations. 1s. 6d. net.)

[3] *Traite Pratique de Technique Orthopédique.* Vol. ii. *Technique du Traitement de la Luxation Congénitale de la Hanche.* Par le Dr. F. Calot. Paris: Masson and Co. 1905. (Demy 8vo, pp. 273, 5 plates, 206 illustrations. Fr.7.)

[4] *Traitement des Ankyloses par la Résection Orthopédique et l'Interposition Musculaire.* Par le Dr. Alphonse Huguier. Paris: G. Steinheil 1905. (8vo, pp. 140, figs. 35.)

In a volume of 153 pages, Dr. DE MELIER DE LABARTHE[5] describes the uses of celluloid in orthopaedic surgery. In an unduly long and therefore inapposite *avant-propos* the author enumerates the various measures for the relief of deformities, and the first chapter of the text is given up to a comparative study of the materials which are used in the making of apparatus. This is done, doubtless, with the object of showing the superiority of celluloid to them all; otherwise the monograph has no *raison d'être.* Celluloid may be better in some respects, but when we are told on p. 14, that at 90° C. it becomes very soft, that at 130° to 140° C. it decomposes and the camphor separates from the pyroxylin, and at 195° it burns violently, we think that the author must have written his book on the *lucus a non lucendo* principle, so as to prove what is the least desirable and most dangerous form of material. Knowing its inflammable nature, the bare idea of a spinal jacket of celluloid is too terrible to contemplate. It were better that this volume had not been written. Certainly much time and money have been wasted on an undesirable subject.

TUBERCULOSIS.

THE pamphlet on the paths of infection in tuberculosis from feeding experiments,[6] by Dr. BARTEL, is a continuation of the author's previous articles on his researches. He gives a brief history of researches on the production of tuberculosis by feeding, commencing with Jakob's successful experiments on dogs fed on tuberculous sputum in 1868. After describing the technical procedure he has followed, he details a series of feeding experiments on 22 animals (20 dogs and 2 guinea-pigs) in 18 of these he was able to satisfy himself that there was more or less clear evidence of tuberculosis having been produced. In two cases only was the evidence entirely negative. The evidence of the invasion of tuberculosis was often very slight, and was found chiefly in the lymphatic cells or in the tonsils. The mucous membrane of the alimentary tract appeared to be unaltered. In the lymphatic glands the histological changes consisted in the formation of epithelioid cell tubercles, with or without giant cells, and occasionally in the formation of isolated giant cells. In the lymphatic tissues, the author states, this has not previously been observed. The glands most frequently affected are those of the mesentery, which were found to be infected in 16 out of the 18 animals which gave positive results. The tonsils were affected in 9 cases, the cervical glands in 4, and the bronchial glands in 2 cases only. The bronchial glands seem never to have been affected primarily or alone, and the tonsils were alone affected in only 1 case. On the other hand, the mesenteric glands only were affected in 7 cases. The author considers that the power to pass through the apparently unaltered mucous membrane belongs only to certain bacteria, and those of a pathogenic nature; amongst these is the tubercle bacillus. In passing through this membrane the bacteria appear to lose some of their virulence. As a consequence of this, tubercle bacilli may perhaps remain for some time latent in a lymphatic gland without being able to produce any pathological changes in it. This latent stage may, according to the author's observations, last for 104 days. His researches have obviously been carried out with care, and his conclusions are interesting. His earlier observations, of which the present series is a continuation, were published in the *Wiener klinische Wochenschrift* in 1904.

A German translation of a report prepared by Dr. PHILLIP M. BLUMENTHAL, of Moscow, upon the means adopted in various countries in the campaign against tuberculosis, has been made by Dr. A. DWORETSKY.[7] The Pirogoff Society of Russian medical men formed a commission for the study of tuberculosis, and as a preliminary measure determined to investigate the present condition of the antituberculous campaign in Western Europe and in America. The report deals with France, Belgium, England, and Germany, countries visited by Dr. Blumenthal personally. For each he has collected statistics showing the prevalence of and the mortality from tuberculosis and the comparative mortality for a series of years. The steps which are being taken towards the prevention and treatment of tuberculosis in each country are also detailed and discussed. The result is a very interesting and valuable comparative review of the distribution of tuberculosis in Western Europe, and of the measures undertaken to prevent it. The compiler in his preface very neatly points out the direction in which each of the countries named may claim to have taken the lead in prophylactic measures, and sums up the characteristic methods of each. From their geographical contiguity, their identity of language, and the similarity of their social conditions, France and Belgium naturally take a very similar line in the campaign against tuberculosis. Their main reliance is on propaganda to public authorities and to the people themselves, thus producing a widespread and almost universal knowledge of the dangers of the disease and of the means for its prevention. England, striking at the root of the evil, seeks by general sanitation and by improving the dwellings of the poor to strengthen the resisting power of the people. Germany presents the imposing spectacle of a "nation in arms" against tuberculosis, every individual obeying the orders and regulations issued by the State, which organizes and conducts the campaign. The translation is introduced by a preface by Professor E. von Leyden, who points out that to England belongs the credit of first establishing special hospitals for the treatment of lung diseases; France takes the lead in the institution of antituberculosis dispensaries and in the care of the tuberculous and pretuberculous children; whilst Germany may be justly proud of the systematic attempts, through the workmen's insurance organization, to cure the early consumptive and return him to the ranks of the wage-earners. Germany also proudly claims the man who, by his discovery of the bacillus of tuberculosis, made the organized campaign against the disease possible by disclosing the identity of the enemy to be attacked.

---

[5] *Le Celluloïde en Orthopédie.* Par le Docteur L. de Melier de Labarthe. Paris: Vigot Frères. 1905. (Demy 8vo, pp. 153; 106 illustrations. Fr. 6.50.)

[6] *Die Infectionswege bei der Fütterungstuberculose.* Von Dr. Julius Bartel. Jena: Gustav Fischer. 1905. (Demy 8vo, pp. 102. M.3.20.)

[7] *Die soziale Bekampfung der Tuberkulose als Volkskrankheit in Europa und Amerika. Denkschrift der Tuberkulose. Kommission der Pirogoff. Gesellschaft russischer Aerzte vorgelagt und dem VIII Pirogoff aerztl. Kongress Gewidmet.* Von Dr. Phillip M. Blumenthal. *Deutsche Bearbeitung.* Von Dr. A. Dworetsky. Berlin: A. Hirschwald. 1905. (Demy 8vo, pp. 192. M.5.)

The literature of tuberculosis, especially under modern methods of combating the disease, has of late become so unwieldy that it is practically impossible for the busy practitioner to keep himself *au courant* with its developments. Yet, on the other hand, the systems of medicine can of necessity only afford a restricted space to the subject, and the seeker after fuller knowledge thus finds himself occasionally between two stools. Under such circumstances, if he should happen to have command of Italian, he may turn with advantage to the avoidance and cure of tuberculosis,[8] a handy monograph of some 400 pages written by Dr. E. De Silvestri, of Turin. The author considers that perhaps hardly sufficient attention is paid by the profession to what he terms the social aspect of the malady, and one of the objects he has in view is to remedy this defect. He accordingly dwells less on the etiology and clinical features than on prophylaxis and the innumerable forms of treatment, among which latter figures, though with becoming modesty, his own tuberculinoid injection, used, he claims, with considerable benefit in the Turin Hospital. Whilst especially complimentary to our country as the prime mover in the war against tuberculosis, and the first to recognize the vast importance of fresh air and proper sanitation, he strongly insists on the necessity of more energetic action throughout all civilized countries in the way of prophylaxis, whether by public notices, instruction in schools, or the distribution of books and pamphlets preaching the doctrine of the sanitary life. This section describes and figures a number of the various disinfecting apparatus in use for sputa, and other appliances recommended in connexion with the disease. The bulk of the volume, however, is devoted to a consideration of the sanatoriums for consumption in the different countries of Europe and the methods of treatment employed. Of these there are full lists, giving details as to the number of beds, the cost, and so forth, and numerous illustrations of these institutions. This is a distinctly useful feature, as is also the lengthy index of authors which terminates the book, but there is the usual want of a subject index which characterizes so many French and Italian medical works.

TROPICAL DISEASES.

Under the title Mosquitos and Yellow Fever,[9] Drs. Chantemesse and Borel give an interesting and instructive summary of present knowledge of the propagation of this deadly disease. The work deals principally with the spread of the malady by the *Stegomyia fasciata*, and is approached from the sanitary point of view, prophylactic measures against the sea transport of yellow fever by ships being very well laid down. The authors show that the measures adopted for the prevention of plague and cholera do not apply for yellow fever, the spread of the latter being dependent on the presence or absence of the special mosquito, so that the world can be divided into two large areas, one dangerous, the other perfectly safe. Under the latter category come England and France. The distribution of the stegomyia, as they point out, is limited by the parallels 43° North and South, and this influences the prophylaxis considerably. Looking at the subject in this manner, their explanations of the epidemics that have taken place north of 43° are quite comprehensive and clear. The most important part of the useful little book is the description of the measures necessary to be adopted for preventing the introduction of the disease into France, measures which of course apply equally to England. The sum of their observations is "Yellow fever cannot be considered in France as a contagious malady." The cases from an infected ship may with safety be taken on shore, while all insects, infected or otherwise, on board the ship must be killed by sulphur fumes, the men employed in this disinfection being protected by gloves and gauze veils. This, in the light of modern research, is sufficient, and shipowners will now be saved a vexatious and prolonged quarantine.

The basis of Professor Dürck's contribution to the pathological anatomy of plague[10] is the material obtained from sixteen autopsies which he had the opportunity of performing on plague cases in Bombay during the early part of the year 1901. His work is very carefully done, and may be consulted with advantage by those who desire to learn how to make a *post-mortem* diagnosis of the disease. Two attractive features of the book are the concise table, in which the lesions found in his sixteen cases are summarized, and the numerous coloured illustrations of macroscopic and microscopic specimens. In dealing with the histology of infected lymphatic glands, Professor Dürck calls particular attention to the presence in the lymph sinuses, especially in the cases which had run a less rapid course, of masses of large, vacuolated cells, which readily took a protoplasmic stain with eosin, and which frequently contained within their substance numerous plague bacilli. It is interesting to note that these are the only cells in which plague bacilli were found. Professor Dürck tells us that he searched several hundreds of specimens, but never found an intracellular plague bacillus either within a leucocyte or a fixed tissue cell. These bacilli-containing cells he regards as descendants from the so-called "large lymphocytes," and suggests their identity with the "contractile cells" of von Recklinghausen.

NOTES ON BOOKS.

A GUIDE TO GENERAL PRACTICE.

Notes on General Practice,[11] by Dr. S. M. Hebblethwaite, is a small handbook dealing with special points likely to arise in general practice. The chapter on "Peritoneal Catastrophes" is well up-to-date, and especially worthy of study by practitioners who have not kept themselves informed of the advances of modern peritoneal surgery. In the chapter on "Medical Notes" advice is given with regard to the detection and early treatment of obscure cases of rheumatism, pneumonia, diphtheria, myxoedema, and chorea. The importance of careful examination in a routine manner is insisted on, and attention drawn to the danger of confounding symptoms of the disease with results due to treatment, as exemplified in the case of the treatment of chorea by arsenic. Difficulties in distinguishing between various common exanthemata are ably dealt with, and valuable hints given as to the best method of examining the urine in urinary disorders. The chapter of "Surgical Notes" draws attention to salient points in the diagnosis of many common surgical injuries which often cause serious anxiety to the practitioner, and where mistakes are likely to be fatal to his reputation. Lastly, there is a chapter on "Infants and Children," giving useful and practical information as to their feeding and general treatment. The book concludes with "Obstetrical Notes," which deal with certain complications of pregnancy. Practical advice is also given on certain methods of instrumental delivery. We can heartily recommend Dr. Hebblethwaite's little book to the general practitioner.

The Editor of *Whitaker's Almanack* has discovered a new reason for the defeat of the Conservative party at the polls. He complains that Mr. Balfour's resignation on December 4th was made with an entire disregard for the convenience of the innumerable subscribers to the *Almanack*. The printer of the edition for 1906 had almost completed his work, and before the new Ministry was announced the volume for 1906 had been put into circulation. To meet the inconvenience thus caused the editor has issued a *General Election Supplement* to *Whitaker's Almanack*.[12] It contains a list of the Liberal Ministry, a list of the honours and appointments made by the last and the new Ministry, and a list of the new House of Commons, the only blanks being Orkney and Shetland and the two university constituencies in Scotland.

---

[8] *Come si Evita e si Cura la Tubercolosi*. By Dr. E. De Silvestri. Turin: Carlo Claussen. 1903. (Demy 8vo, pp. 404, 34 Illustrations, L. 6.)

[9] *Les Actualités Médicales. Moustiques et Fièvre Jaune.* Par A. Chantemesse, Professeur d'Hygiène à la Faculté de Médecine de Paris, Inspecteur Général des Services Sanitaires, Membre de l'Académie de Médecine, et Frédéric Borel, Lauréat de l'Institut, Directeur de la 2e Circonscription Sanitaire Maritime. Paris: J. B. Baillière et Fils. 1905. (Crown 8vo, pp. 96. Fr. 1.50.)

[10] *Beiträge zur pathologischen Anatomie der Pest.* Von Professor Dr. Hermann Dürck. Jena: Gustav Fischer. 1904. (Demy 8vo, pp. 85, 15 plates. M. 20.)

[11] *Notes on General Practice.* By S. M. Hebblethwaite, M.D.Lond. London: The Scientific Press. 1905. (Cr. 8vo, pp. 78. 3s. 6d.)

[12] London: *Whitaker's Almanack* Office. 3d.

MEDICAL FACULTY BUILDINGS
University of Toronto.

THE SEVENTY-FOURTH ANNUAL MEETING

OF THE

British Medical Association,

TORONTO, CANADA, AUGUST 21st to 25th, 1906.

[FROM OUR SPECIAL CORRESPONDENT.]

[*Continued from p. 274.*]

THE UNIVERSITY OF TORONTO.

THE idea of a university for the Province of Ontario originated with Governor Simcoe, first Governor of Upper Canada, during his term of office 1792-96. The Royal Charter was granted in 1827 for establishing a State university under the name of King's College, 225,944 acres of Crown Reserves being granted as an endowment. Owing to the character of the endowment, which yielded no immediate revenue, and to the terms of the charter, which required all the members of the Faculties to be adherents of the Anglican Church, the opening of the College did not take place until 1842, when the religious tests were abolished by Act of Parliament. In that year the Faculties of arts, law, medicine, and divinity were established, and lectures were held in King's College, Queen's Park, Toronto. In 1849 the Faculty of Divinity was abolished, the name of King's College was changed to that of the University of Toronto, and, by a further change in 1853, University College was created a teaching Faculty in Arts, and the teaching Faculties in law and medicine were abolished. In 1877 the Legislature established a School of Practical Science, which subsequently (1900) became the Faculty of Applied Science of Engineering of the University of Toronto. Since that date the rapid development of the University has caused the city of Toronto to be recognized as one of the chief educational centres of Canada. In 1887 the Legislature of the Province passed the University Federation Act, under which Wycliffe College, Knox College, St. Michael's, and subsequently Victoria and Trinity Universities, were federated with the University of Toronto. In addition to the institutions thus incorporated into the University, the following have been affiliated: The Ontario Agricultural College, the Royal College of Dental Surgeons, the Ontario Medical College for Women, the Ontario College of Pharmacy, the Toronto College of Music, the Toronto Conservatory of Music, the Hamilton Conservatory of Music, and the Ontario Veterinary College.

The first President of King's College was Bishop Strachan, who held office from 1827 to 1848, and was succeeded by the Rev. John McCaul, LL.D.; Sir Daniel Wilson was President from 1880 to 1892, and since that date the present incumbent, Dr. James London, has held office.

The Medical Faculty.

After the abolition of the Medical Faculty in 1853, the teaching of medical students was undertaken by proprietary schools, the University, however, still continuing to examine and grant degrees in medicine.

In 1887 the Medical Faculty of the University was restored; it absorbed at that date the Toronto School of Medicine, and subsequently (1903) amalgamated with the Medical Faculty of Trinity University. The extent of the work of the Medical Faculty may be indicated by the

Legislative Buildings, Queen's Park, Toronto.

numbers of students in attendance during the session 1905-6.

First year...	165
Second year	158
Third year	149
Fourth year	127
Fifth year...	11
Occasional	39
Total	649

The number of students in science (Applied) is 550.

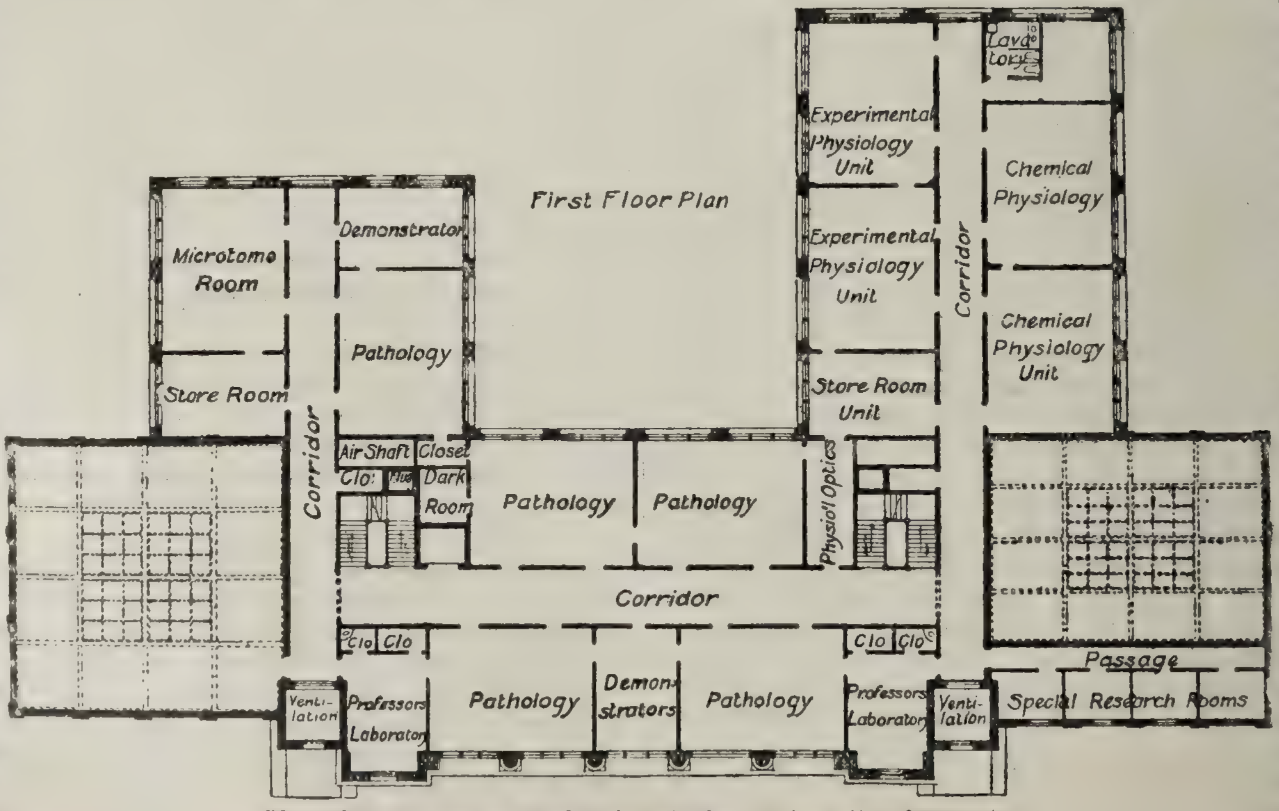
The Medical Building of the University of Toronto.

The building for the department of physiology and pathology of the University of Toronto, which was formally opened in October, 1903, was the first to exemplify the unit system of laboratory construction proposed by Professor Minot, of Harvard University. The buildings were described with illustrated plans at the time of the inaugural ceremony in 1903 (BRITISH MEDICAL JOURNAL, 1903, vol. ii, p. 1240). We reproduce here the plan of the first floor, to show the general principles upon which the building is arranged.

The main features of the unit system, as outlined by Professor Minot, are all comprehended in the character of the laboratory "unit" room. This must, first of all, be no larger than is required to accommodate readily the maximum number of students whose practical instruction a single demonstrator can efficiently guide and control. It must also be of such dimensions that it can at need be made to serve as a museum, a library or reading-room, or a small lecture-room. The units, further, must be so placed with respect to one another, preferably in parts or series, that by the removal of the partitions separating them rooms of larger dimensions may, when desired, be obtained at a minimum cost in a short time. The dimensions of such a unit, as determined by Professor Minot, are 23 ft. by 30 ft.; such a room will accommodate twenty-four working students, which number experience shows is the largest that should be under supervision of a single class demonstrator.

The system, as may be seen, offers great advantage in respect of elasticity, for a laboratory director may enlarge or contract at will, or according to the needs of the occasion, the accommodation required for a class—a feature that does not obtain in any other system of laboratory construction. It has also other and not less important advantages. The cost of construction is less than in any other system; it makes adequate provision for the all-important question of light, and it permits of subsequent extensions and additions without disturbance of the original arrangements. It is also to be noted that the system provides for the formation of smaller rooms through the division of the unit.

Architecturally, so far as the exterior is concerned, the utmost has been done, considering the difficulties that the enormous window space imposed. The appearance of the buildings, however, is, on the whole, very acceptable.


First Floor Plan
Microtome Room
Demonstrator
Pathology
Store Room
Corridor
Air Shaft
Closet
Clo:
Dark Room
Pathology
Pathology
Physiol Optics
Experimental Physiology Unit
Experimental Physiology Unit
Store Room Unit
Lavatory
Corridor
Chemical Physiology
Chemical Physiology Unit
Corridor
Clo
Clo
Clo
Clo
Passage
Ventilation
Professors Laboratory
Pathology
Demonstrators
Pathology
Professors Laboratory
Ventilation
Special Research Rooms

Plan of first floor, Medical Laboratories, University of Toronto

The building is in the form of the figure ⊔, the lecture theatres forming wing-like extensions at the angles of the figure. This latter arrangement was adopted in order to permit all the lecture rooms to be lighted from the roof, and at the same time to avoid interfering with the light of the units.

The window space devoted to each unit is ample—it is, in fact, as large absolutely as the supporting capacity of the outer wall will safely permit. The window area is 242 sq. ft., while the outer wall of each unit measures 420 sq. ft. The window area, therefore, is nearly three-fifths that of the outer wall. The terminal units of the wings have additional window space in their second outer wall, and, of course, in these the lighting is brilliant. In all the other units, however, the lighting is, as already said, ample.

The wings are, including the basements and sub-basements, five stories in height. The main portion is only three stories, if we leave out of account the boiler room. This arrangement is due to the fact that the rear part of the building is placed in a shallow ravine. White brick, with stone facings here and there, is the material; the roof is flat and bordered all round with a brick parapet.

The building is heated by air forced over heated coils by large fans driven by steam, and the ventilation thus, in part, provided for, and also by the exhaust currents in the ventilation turrets which rise over the entrances.

A feature of special interest is presented by the small research rooms. The half units are intended to be used for various purposes, but chiefly for small groups of students pursuing advanced work or for special lines of research, but there are, in addition, fifteen small rooms adjacent to the lecture theatres, which are reserved for individual workers carrying on selected investigations. These, with the other arrangements described, have been designed with the view of making the buildings a home for research.

Municipal Buildings, Toronto.

Public Buildings.

Among the most important public buildings in Toronto are the Parliament Buildings, the seat of the Government for the Province of Ontario, situated in Queen's Park, a massive structure of red sandstone containing a beautiful legislative chamber and a fine library.

The civic building is situated on Queen Street, near the centre of the business part of the city, and is a fine new structure with high tower containing a bell that ranks among the great bells of the world.

Just west of this is Osgoode Hall, the seat of the Law School and of the higher courts. It is a stately white stone building, and contains many fine paintings of men who have graced the Canadian Bench.

The Armouries are situated on University Avenue, and afford accommodation for the city volunteer regiments, the Queen's Own Rifles, the Grenadiers, the 48th Highlanders, the Governor-General's Body Guard, the Mounted Rifles, and the Army Medical Service.

On Queen Street West are situated the picturesque buildings of Trinity University, an Anglican institution now in affiliation with the University of Toronto. Massey Music Hall, the gift to the city of the late W. H. Massey, is a handsome structure accommodating upwards of five thousand.

Toronto has been known as the city of churches, and there are many fine buildings belonging to the various denominations; among the most notable are St. James's Cathedral, the Metropolitan Methodist, St. Michael's Cathedral, St. Andrew's Presbyterian, and many others. Many of the business houses are worthy of mention as fine specimens of architecture, and this is especially true of the banks and their branches, which are in many cases real ornaments to the streets, and reflect the prosperity of the institution and the good taste and public spirit of their managers.

Transatlantic Journey.

As has already been stated, the Transatlantic steamship lines are not, under existing circumstances, in a position to accept less than the minimum first cabin fare, but we are told that some of the lines at least will be ready to allot accommodation of a higher category for the minimum fare. As has already been stated, holders of first cabin return tickets by the Canadian Pacific line will have the option of returning by the Cunard Line from New York or Boston upon payment of the difference in fare, if any. We now learn that the Allan Line has had for some years a similar arrangement in force; passengers booking return tickets by that line can come home by the Cunard Line from Boston or New York as they prefer. The addresses of the Allan Line are 19, James Street, Liverpool; 103, Leadenhall Street, London, E.C.; 50, Foyle Street, Londonderry, and 25, Bothwell Street, Glasgow; the address of the Canadian Pacific Railway is 62-65, Charing Cross, London, W.

Transcontinental Tour.

Visitors who contemplate either a transcontinental tour or a trip around the world will be able to combine it with the visit to the meeting of the Association very advantageously. No tour in the itinerary of the tourist offers so much of interest, novelty, and grandeur of scenery, and of information as to the New World in all its extent and meaning, as the transcontinental tour by the All-Canadian route, and we would advise all who can afford the time to combine it with their trip to Canada. Four or five hours by train across the best part of Ontario brings the traveller to the steamship lines—the C.P.R. from Owen Sound, or the Northern Navigation Company from Sarnia, where, in a ship as fine and almost as large as an ocean liner, a trip of two days and a half across the great inland seas of Huron and Superior brings him to Fort William, then by the Transcontinental Limited, one of the famous trains of the world, he is carried through the wild lake scenery of the New Ontario till he emerges on the prairie and reaches Winnipeg, where a great city has sprung up about the site of the old Hudson Bay Company's Fort Garry; then on, day and night, across the greatest wheat fields of the world, where, as far as the eye can reach, billows of golden grain reach the horizon. Soon a change is apparent: immense droves of cattle, horses, and sheep are seen covering the rolling hills, where the deep tracks worn by the original denizens, the buffalo, lead down to the drinking places, and at the beautiful little city of Calgary the great white heads of the Rockies are seen along the horizon. In half a day he is in the midst of this magnificent scenery, up at the snow line and among the clouds, where for a day he travels among glaciers, snow-capped peaks, forests, and cascades in a scene of magnificence and grandeur unsurpassed in the world; then down through the giant firs of British Columbia he reaches the Pacific and the beautiful cities of Vancouver and Victoria. From here, if he will go further, he can take one of the splendid Empress Line of C.P.R. vessels to Japan and China, or south to India or Australia.

THE PUBLIC HEALTH REPORT FOR THE COUNTY OF LONDON IN 1904.*

The annual report of the Medical Officer of Health for the Administrative County of London for the year 1904 is again a bulky volume of valuable records. Year by year these admirable summaries on the health of London by Sir Shirley F. Murphy become of increasing worth and utility to the student of preventive medicine. They continue also to furnish abundant evidence of the uniform and steady maintenance of a high standard of public health in the greatest city of the world, in which, it is estimated, live 4,648,950 persons.

Marriages and Births.

The mean marriage-rate for the last half-century (1851-1904) was 18.7 per 1,000. It reached its highest in 1853 and 1865 and its lowest in 1887-8. In 1904 it was 17.0. Among the males 3.7 per cent. of the married and among the females 13.9 per cent. of the married were under 21 years of age. The birth-rate also has declined steadily since 1880, and in the year under review was 27.9 per 1,000 living, being the lowest recorded birth-rate in London since the institution of civil registration. The births per 100 married females between the ages of 15 and 45 were 22.8.

Death-Rates.

Sir Shirley Murphy is able again to record an exceptional death-rate (16.1) for such a conglomeration of cities as London. The number of deaths was 74,555, and the number of births 129,335, which reveals a very different state of affairs to that existing in the 17th century, when the births and deaths in London appear to have equalled each other in number. In 1903 the death-rate was 15.2, but, with that exception, the year 1904 records the lowest figure yet reached. In the same year (1904) the death-rate for Berlin was 16.9, for Paris 17.4, for Vienna 18.3, for New York 22.6 and for St. Petersburg 23.7. The infant mortality was 144 per 1,000 births, lower than in any of the large towns in England except Bristol. The variations in the infant mortality in the different metropolitan boroughs are perhaps somewhat marked. In Marylebone the lowest rate (94 per 1,000 births) was recorded, followed by Hampstead with 113. The highest returns occurred in Bermondsey (172), Southwark (174), and Shoreditch (188).

The annual reports of the various metropolitan medical officers of health show generally an increase of organized effort to reduce the mortality of infants, which includes the tendering of advice to mothers as to the feeding and care of infants, the visitation of their homes by women inspectors, and the establishment in four districts of infant milk dépôts. It appears that investigations in Finsbury show that the deaths from diarrhoea in artificially-fed children under 3 months of age were nearly four times the number that ought to have occurred, on the supposition of an average distribution of deaths from diarrhoea among infants fed in different ways. The same excessive mortality in the hand-fed continues up to the 9th month of life. In the last three months of the 1st year of life the diarrhoea mortality approximates to the average.

Referring to the mortality from diarrhoea among children fed on condensed milk, it was found that in the first six months of life this is nearly three times the average mortality, while the mortality amongst those fed on cow's milk is less than twice the average. Between the sixth and ninth months condensed milk still gives a high mortality, but the discrepancy is less marked. Between the third and ninth months the deaths from "other causes" among those fed on condensed milk is twice the average number, whilst the deaths amongst those fed on cow's milk are equal to, or only slightly above, the average, and in the third age period actually below. The conclusion from this investigation is that condensed milk is the worst food for infants, that cow's milk greatly increases their liability to death, and that all artificial feeding is attended by a high rate of mortality. Comparable results have been obtained in Derby by Dr. Howarth, who has shown that the mortality among breast-fed infants was 69.8 per 1,000, among hand-fed 197.5, and among children reared partly by breast-feeding and partly by hand-feeding 98.7 per 1,000. Of the hand-fed, those fed on milk and water only had a mortality of 177 per 1,000, those fed only on condensed milk 255 per 1,000, and those fed on patent foods a mortality of 202.

There is, indeed, increasing evidence to show that the two chief causes of high infant mortality are, (*a*) conditions allied to prematurity and congenital debility, and (*b*) alimentary conditions brought about by wrong feeding. The marked rise in the summer quarter is due mainly to the latter, the significant alteration in the age-incidence of death in infancy mainly to the former; for, while it is true that the total infant mortality-rate remains for all practical purposes stationary, it is evident that the chief incidence of death is falling upon younger infants rather than upon the elder, and the cause of this is undoubtedly the increase in the number of deaths due to prematurity and allied conditions. The problem is a pre-natal one as well as a post-natal, and still requires much more careful investigation than it appears to be receiving from the majority of medical officers of health.

Principal Epidemic Diseases.

The death-rate in London in 1904 from the seven principal epidemic diseases (small-pox, measles, scarlet fever, diphtheria, whooping-cough, fever, and diarrhoea) was 2.14, which shows a marked decline on all the decennial returns since 1841-50, when it was 5.20. In 1903 it was 1.75, but with that exception the return for 1904 is the lowest recorded.

The small-pox death-rate was again 50 per cent. below the mean of 1841-1904—namely, 220 per million. In 1904 the disease occurred mostly in Bethnal Green, Stepney, Poplar, Southwark, and Lambeth. The death-rate was 0.01 per 1,000 living. The recrudescence of the disease occurred, as usual, in March and April, and the disease was spread chiefly through such agencies as common lodging-houses, etc. Chicken-pox was made temporarily notifiable for a few months. Animadverting upon the vaccination statistics, Sir Shirley Murphy writes: "The general trend of the later figures which have been hitherto published is in the direction of improvement in the proportion of children vaccinated, and it is noteworthy that the proportion exempted by certificate of conscientious objection has not increased." This he attributes to the effect of the presence of small-pox in London in recent years.

Measles and whooping-cough between them carried off some 3,600 children in the metropolis in 1904. The former shows a slight increase in spite of the more vigorous measures of prevention instituted in 1903, but as the principal object of these measures was the education of the public in the knowledge that measles is a dangerous infectious disease, it cannot be expected that much good will result immediately. With half a dozen exceptions the various sanitary authorities in London now disinfect premises and clothing after the occurrence of measles as after other infectious diseases. An interesting special report by Dr. Thomas on the occurrence of measles in Woolwich appears in the appendix.

Scarlet fever and diphtheria continue to diminish in incidence and in fatality. Some interesting charts showing the rise and fall of these two diseases every month since 1891 are incorporated in the report, and show in a graphic manner the epidemic behaviour of these diseases over a number of years. They both show decline in August at school ages.

Enteric fever also shows further decline in 1904, and furnishes a death-rate of only 0.06 per 1,000 living. In respect to this disease the medical officer of health for the county writes: "The decline in the case-rate, death-rate, and fatality of enteric fever has been maintained, but some

---

* *Report of the Public Health Committee of the London County Council submitting the Report of the Medical Officer of Health of the County for the Year 1904.* London: P. S. King and Son. No. 924. Price 3s. 6d. Pp. 87, with three appendices, charts, etc.

London districts suffer practically twice as much as others. This may, in part, be due to difference in the food supply, but in all probability it is especially dependent upon other conditions of life, and especially the habits of the population which give opportunity for the disease to be spread from one person to another. . . . Efforts to secure greater reduction in the prevalence of this disease should therefore especially be directed to the discovery of persons suffering from this disease in so slight a degree that their illness escapes recognition and notification, but who may nevertheless be infective."

The phthisis death-rate was 1.62 per 1,000 living, and continues the steady decline in the mortality from this disease. The London death-rate at all ages, with but slight exception, has been greater than that of England and Wales, but at ages from 15 to 35 years among females and 15 to 25 years among males, with the exception of the decennium 1891-1900, has been less in London than in England and Wales, and has declined less both in males and females in London than in England and Wales at each age. In both England and Wales and London the decline has been much greater among females than males, though more marked in England and Wales. Voluntary notification, which was first introduced in London in the borough of Finsbury in 1900, is now in vogue in 18 metropolitan districts out of the 29. The insufficiency of accommodation for isolation and education of suitable cases is one of the pressing needs of public health work in London, and it is to be regretted that up to the present no practical means have been found for providing this accommodation.

Cancer was nominally responsible for 4,278 deaths in London in 1904, and the death-rate shows steady increase, which, as is well known, may be due to improved diagnosis. From an interesting table appearing in the report it would seem that there is no direct relation between overcrowding and cancer incidence as between overcrowding and phthisis incidence.

Sir Shirley Murphy concludes the first part of his report with an interesting section on infectious disease in relation to the age of attendance at school. We propose to refer briefly to Part II, which is concerned with sanitary administration, in a subsequent issue.

LEGISLATION IN LUNACY.

[FROM A CORRESPONDENT.]

WITH the advent to power of the strongest Ministry that has existed for a century, unexampled possibilities of legislation are opened before us; and the time is opportune for the medical profession to urge upon the Government, which certainly has the power, and which we believe has the will, to enact several urgently-needed amendments to the Lunacy Acts. Provisions for legalizing the treatment of cases of unconfirmed insanity outside of the lunacy laws, for increasing the number of Commissioners in Lunacy, and for other purposes, have been repeatedly urged upon the Legislature, and have at last a real hope of enactment; but, in addition to these, there is a minor reform, of a matter which gives rise to a good deal of inconvenience and is of no benefit to any one, that might well find a place in an amending Bill.

The form of the medical certificate of lunacy provides that the examination on which the certificate is based must, when there is more than one certificate, be made "separately from any other practitioner." The provision has been copied from one Act of Parliament into another down to the Act of 1890 without, as far as is known, consideration of its effect or of its need, and the reason of its original enactment can now be surmised only; but, whatever its origin, its effect, in present-day circumstances, is entirely prejudicial to the patient, without any compensating advantage. We can at best but conjecture the aim of such a strange provision, but it seems most probable that it was intended to secure that the patient should have the benefit of a second examination by a person who should not be biassed or prejudiced by the first examiner. If this was the intention, the provision is singularly futile, for there is nothing in the Act to prevent the two certifiers from discussing the matter to their heart's content, both in the presence and in the absence of the patient, before the certificates are made. All that they are forbidden to do is to found their certificates upon a joint examination. If the intention of the Act was to secure that each certifier should be completely unbiassed by the other, it should have provided that they were not to communicate with each other about the case until after the certificates were signed. The provision was drafted by a person who was singularly ignorant of medical practice. It is to be remembered, though it is not contemplated by the Act, that the second practitioner is not called in to certify the patient. He is called in to determine, with the aid of his colleague, whether the patient should be certified or no; and it is not until the examination has been made, and the consultation, based on a joint examination, has been held, that the decision to certify the patient is attained. When this decision is reached the patient has been sufficiently examined, and each practitioner is prepared, on the facts then within his knowledge, to make the necessary certificate. But this he cannot do, for the examination must be made "separately from any other practitioner."

So that each must return separately to the patient and make a formal examination, which in nine cases out of ten is of a most perfunctory description, in order to comply with the terms of the Act. There is little doubt that this practice, well-nigh universal as it is, is illegal. In Weldon *v.* Semple Mr. Justice Hawkins, in summing up, related how Dr. Semple and Dr. Rudderforth together visited Mrs. Weldon, and how first Dr. Rudderforth and then Dr. Semple left the room for a quarter of an hour while the other continued the interview. "Anything more calculated to excite suspicion," said the judge, "could not be supposed than both the doctors meeting and going together." Among the questions that he left to the jury was the following:—"Did the defendant, Dr. Semple, bona fide and honestly, separately from Dr. Rudderforth, personally examine the plaintiff?" To this the jury answered, "No."

It seems to us that the practice should be legalized. Like other legal provisions in connexion with dealing with insane persons, it has been found impracticable to observe it. The law is habitually broken, and broken without any ill consequences resulting. Provision was made in the last Lunacy Bill, and will certainly be made in the next, for rendering legal certain ways of dealing with the insane that are now illegal but are very widely practised.

The aim that both doctors and lawyers have in view is the benefit of the patient, and of other possible patients. The provision that the examination of a patient, with a view to his certification, should be made "separately from any other practitioner," does not subserve this aim. It must not be forgotten that for these examinations the patient pays, and, as paymaster, he is entitled to full value for his money. He does not pay to be certified, he pays for a consultation; and he is entitled to the very best services of the consultants, given under the most favourable conditions, and with full knowledge of the circumstances. If one of the consultants is kept in the dark as to the previous medical history of the patient, the patient is cheated of his rights, and the consultant is very liable to be misled. It will scarcely, therefore, be contended that the two consultants are not to communicate about the case until after the certificates are signed. And if the two consultants are not to see the patient together until after the certificates are signed, the disadvantage to the patient, though not so great, still exists. He is deprived of the benefit of a consultation made on the only proper basis—that of a joint examination.

It seems hard that the patient should be thus damnified by a provision intended for his protection. Will he be in any way at a disadvantage if this provision is abolished? It has been abolished in practice for many years. It has probably never been faithfully observed in the sense required by Weldon *v.* Semple. Yet in the last fifty years there has not been one case—there has, perhaps, been one doubtful case—of the undue reception of a sane person in an institution for lunatics. If any further argument were needed, it is found in the cancellation of this provision in the case of the urgency order in which but one certificate is needed. One certificate is, it appears, such a much better safeguard to the patient than two, that whereas for each of the two certificates the examination must be made "separately from any other practitioner," when but one certificate is needed, the examination may be made in the presence of a roomful of other practitioners, all of whom may be bombarding the certifier with suggestions and advice.

LITERARY NOTES.

THE next volume of Messrs. Macmillan's Highways and Byways Series that will be published is *Dorsetshire.* The author is Sir Frederick Treves, who is a native of Dorchester.

To the *New York Medical Journal* of December 9th Dr. Henry Barnes of Carlisle contributes some interesting extracts from the diaries of Bishop Nicolson, who was consecrated Bishop of Carlisle in 1702, translated to Derry in 1718, and to the Archbishopric of Cashel in 1726-7; he did not live to take possession of the last-named see. Portions of his diaries have been published in the *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Association,* under the supervision of the Bishop of Barrow-in-Furness. With the consent of that prelate, Dr. Barnes made a careful examination of the diaries and had copies made of all entries of medical interest. Some of these refer to the practice of touching for the king's evil. One shows that the bishop contracted with a Dr. Pearson for attendance on himself and family "as often as our occasions shall require, when he is not letted by other necessary attendance elsewhere"; for this the doctor was to be paid two guineas every Martinmas. As other entries show that the bishop paid some one 5 shillings for a "tooth drawn," the doctor's remuneration can hardly be called liberal. Several entries refer to the granting of licences to practise physic and surgery. At that time midwives as well as medical practitioners were licensed by the ecclesiastical authorities, and Dr. Barnes refers to *Tristram Shandy,* in which it is related that Parson Yorick, upon the establishment of a midwife in his parish, cheerfully paid the fees of the ordinary's licence, amounting in all to eighteen shillings and fourpence. Of curious remedies the following may serve as examples:

> Nov. 8. Mr. Edward Finch's cure for ye collick, of griping of ye Guts, with 2 Quarts of Epsom Water; drunk hastily; of ye twisting of ye Guts with an ordinary purge, and an addition of 2 grains of opium. Of a Rheumatism with Spirits of Wine, Sal Ammoniac and Lavender in a fomentation.
>
> Nov. 27. After dinner with Josh. Barnes at the B. of Norwich's. My Ld. took occasion (on Mr. B.'s complaint) to teach us two infallible remedies for bleeding at ye nose: 1. Inky cotton, ye older ye better; 2. The patient's standing up to ye knees in hot water.

In 1705 the bishop was admitted a Fellow of the Royal Society by no less a person than Sir Isaac Newton, "ye President." Afterwards "a letter was read by Dr. Sloan, the Secretary, from a Chirurgeon at Harwich, giveing an Acct. of an extraordinary involution of the Gutts: wch. occasion'd such an invincible stoppage, yt ye patient had not a stool in seven months before his death. . . . Dr. Cockburn gave in a discourse of his own touching the weight of Humane Blood; and ye proportioning of medicines according to the different gravity of that in Several Bodies." The following entry under date December 10th, 1705, seems to show that the apoplexy of which it is believed that Charles II. died in 1685 was not the first attack:

> Sr. Edmund King being Knighted for alleviateing ye King's first Fitt of his Apoplexy, Fleetwd. Shepherd wrote under his picture:
>
> This Dr.'s skill may surely be rely'd on,
> Who cur'd ye Kg. of ye Disease he dy'd on.

In the *Guy's Hospital Gazette* of November 18th, there appeared a "poetical skit" entitled "Sammy and our Mammy." The date of the verses, which are from the pen of Mr. W. L. Braddon, is 1885. We quote the first and the last stanzas, which need no gloss or comment:

Of all the boys that are so smart
There's none so smart as Sammy;
He is the darling of our Art,
And Guy's his Alma Mammy.
No lady has a kinder hand,
Or 's gentler-like than Sammy;
His name is known from this here land
To Seringapatamy!

* * * * *

The Hospital, and patients all,
They love the name of Sammy;
And who, when he's Examiner,
But would not be Exam-ee?
But now his long, long years are out,
At Guy's, his Alma Mammy,
We shall regret but ne'er forget,
Our grand and dear old Sammy!

The *Guy's Hospital Gazette* of December 16th contains "Sammy's" reply, which is entitled, after Gray's famous poem, "Ode on a Distant View of Guy's College." From Hampstead heights he sees

The old familiar square
And Tooley Street's renown.

He sees too

The ancient blue check'd bed
Bronz'd skin and Bright's disease,
Foul cancer hung on life's last thread,
Consumption, Ascites.

No anaesthet, no antisept,
The sufferers bore their pain;
At misery's sight the angels wept
And Heaven repaid their claim.

A room's now seen with ardent sage,
Chloroformatory,
Intent the serum's strength to gauge
In his Laboratory.

A room of glass, so clean, so bright,
Bacteria have no feeding;
The surgeon's knife, so skilled and light,
No fear of blood poisoning.

The venerable bard also sees the "H.P. with his double tube" who "hastes on with slippered feet," while the "H.S. hatless follows on, with bag to dress the wounds." Included in the vision is

The Nurses' Home so fair
For minist'ring angels planned

* * * *
* * * *

With such sweet caps and sweeter looks,
And sympathy with all.

He sees, too, the "mass of students" "steep'd in learning's lore," and bids them

Pursue the way your masters trod
May all be good and true;
"Doing good to man is love to God,"
Thus blessings fall on you.

Then at last

The vision fades
The clouds shut out the view;
I've seen again Guy's holy shade,
Farewell, a fond Adieu.

It has been truly said that an affectionate nickname is one of the best testimonies of a leader's popularity with his followers. In this respect "Sammy" may take his place with "Bobs" and the "Little Corporal." We hope it may be many years before he finally bids his "fond Adieu" to Guy's and to the profession of which he has long been the *dulce decus.*

MEDICAL SICKNESS AND ACCIDENT SOCIETY.

THE usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, W.C., on December 26th, when Dr. DE HAVILLAND HALL was in the chair.

The accounts presented contained the record of the business for the month of December, and thus enabled the Committee to estimate the results of the working of the Society during the year 1905. In the Annuity Branch, in which no new cases have been accepted for many years, the accounts show a small reduction in the volume of the business caused by the deaths of one or two members holding annuity or endowment benefits and a few surrenders. In the Life Assurance Branch, which has also been closed for new business for a long time, no deaths occurred, and accordingly no claim was received during the whole year. In the Sickness Branch solid growth has been effected. In the spring of the year the usual heavy list of claims was experienced, but during the summer and autumn the claims lessened, and on the whole year the sickness account shows an appreciable margin in favour of the Society, and there has been a substantial addition made to the Sickness Funds.

Another gratifying feature is the large number of new proposals received by the Society. Although no commission is paid, and no money is expended in ordinary advertisement, the number of new entrants in 1905 has been greater than in any previous twelve months of the Society's working. Prospectuses and all other particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

MEDICAL NEWS.

Professor Bouchard, of Paris, has been promoted to the rank of Grand Officer of the Legion of Honour.

The second congress of the German Roentgen Society will be held at Berlin on April 1st and 2nd, under the presidency of Professor Eberlein.

The foundation stone of the new wing now being built at the Bolingbroke Hospital, Wandsworth Common, will be laid by the Princess Royal, probably towards the end of April.

At the meeting of the Linnean Society on Thursday next, at 8 p.m., Dr. H. Charlton Bastian will demonstrate developmental changes in zoogloea, and will illustrate his remarks with lantern slides.

At the meeting of the Medical Officers of Schools' Association on Thursday next, Dr. W. P. Herringham and Mr. T. C. Horsfall will introduce a discussion on physical education in schools. The meeting takes place at the rooms of the Medical Society of London at 3.45 p.m.

Dr. T. L. **Gentles** attended the borough police court recently to take leave of the bench on his retirement from the post of one of the medical officers to the Derby Union. The Mayor complimented Dr. Gentles on the manner in which he had discharged the duties of his office.

Among subscriptions received on behalf of the Porth Cottage Hospital during January were Llwynypia Collieries workmen, £72; Lewis Merthyr Collieries workmen, £51 16s.; Workmen's Club, Cymmer, £21; Mr. W. J. Thomas, Ynishir, £20.

The annual dinner of the Association of Medical Diplomates of Scotland will be held at the Trocadero Restaurant, London, W., on February 23rd, when the President, Dr. Claude St. Aubyn-Farrer, will take the chair at 7.30 p.m. The President of the Royal College of Surgeons of Edinburgh and the President of the Royal College of Surgeons of England have signified their intention of being present. The Honorary Secretary of the Dinner Committee, Dr. Féré, 12, Northampton Square, E.C., will be pleased to give any particulars.

Dr. G. E. **Shuttlewormh** commenced last week a course of eight lectures with practical demonstrations adapted for teachers of defective children. The last three lectures will probably be given at Ealing so as to secure practical illustrations from actual pupils. It is also hoped to arrange visits to special schools, and to an institution for imbeciles near London. Further particulars can be obtained from Miss Bertha James, 36a, Longridge Road, Earl's Court, S.W., the head quarters of the Society of the Crown of our Lord, founded on behalf of mentally afflicted children and adults by a benevolent lady.

Last week, at a special meeting preceding the ordinary meeting of Fellows of the Royal College of Physicians of Ireland, the President, Sir William Smyly, congratulated Dr. James Craig, Fellow and Registrar of the College, on his approaching marriage, and referred to the signal services Dr. Craig had rendered to the College during his long term of office as Registrar. He concluded by presenting him with a cabinet of silver plate and an album containing the photographs of the Fellows of the College. Dr. Craig is one of the representatives of the Leinster Branch on the Central Council of the British Medical Association.

At the fourth annual general meeting of the British Electro-Therapeutic Society, held on January 26th, Mr. J. Hall-Edwards, of Birmingham, was elected President, Dr. S. Sloan (Glasgow) and Mr. Chisholm Williams, Vice-Presidents, Dr. D. Baynes, Treasurer, and Drs. R. Morton and Kenneth Wills (Bristol), Honorary Secretaries. Fifteen members of Council were also appointed. The meeting was followed by a *conversazione*, at which a large number of manufacturers of electro-therapeutic apparatus had an opportunity of exhibiting their latest productions for expert inspection and comparison. Such an exhibition is a standing feature of the *conversaziones* of this Society, and on this occasion was specially interesting, improvement being shown all along the line, particularly in induction coils, and methods of measuring the energy of the radiation from *x*-ray tubes, and securing accurate dosage.

The new House of Commons contains about 260 members who belong to one or other of the callings usually recognized as professions. This is rather more than one-third of the whole House, but the figures look very different if the members of the legal profession are omitted; the lawyers number 139 (105 barristers and 34 solicitors), or more than one-fifth of the House. The *Observer*, from which we take these figures, points out that some of the barristers have never practised; but even when all due allowance is made for this, it appears that the law has a preponderance not only over every other profession, but over all other professions put together. It has more representatives than agriculture, which can be credited with less than 100 members. There are 2 naval and 44 army officers, 41 authors and journalists, 11 medical men, and 8 members who have won distinction as men of science. On the other hand, the new House will contain 213 representatives of the trade of the country.

First Aid in Time of War.—President Roosevelt has appointed a Board composed of medical officers of the army and navy to consider improvements in the matter of first-aid dressings and the advisability of the adoption of a uniform equipment in the medical departments of the army and the navy.

French-Speaking Medical Congress in Canada.—The French-speaking practitioners of medicine in Canada will hold their third annual meeting this year at Trois-Rivières in the last week of June, 1906. The two preceding annual congresses were held at Montreal and at Quebec. Dr. L. P. Normand is the President and Dr. C. De Blois the Secretary of the Congress.

Trivial Hospital Cases.—During an inquest held recently at the London Hospital, Mr. Wynne Baxter, the coroner, remarked that the alien population of East London took their children to the London Hospital in hundreds; in some cases they only wanted a pill, and that was what was given. A juryman observed that nowadays everybody rushed to the London Hospital, even if they had only a pain in their little finger. We seem to remember that the chairman some time ago expressed his anxiety to put a stop to these abuses.

Hospital Subscribers' Letters.—As already announced, a discussion on this subject will take place at a meeting to be held under the auspices of the Charity Organisation Society, at Denison House, Vauxhall Bridge Road, on Monday, February 12th. Sir Edward Brabrook, C.B., will take the chair at 4.30 p.m. Mr. Nelson Hardy will read a short paper. The discussion will be opened by Professor Tirard, M.D., and Dr. Arthur Latham. Medical men interested in hospitals are invited to attend. Denison House is close to Victoria Station, a little way down the Vauxhall Bridge Road.

The West London Medico-Chirurgical Society.—The twenty-fourth anniversary dinner of the West London Medico-Chirurgical Society was held on February 7th, with the President of the Society, Mr. L. A. Bidwell, in the chair. After the usual loyal toasts had been duly honoured, Mr. J. G. Pardoe proposed "The Imperial Forces." He observed that it had been given to a member of their Society, Mr. Keetley, to inaugurate the Army Medical Civilian Reserve for the purpose of training civilian doctors to take the place of their brethren in the Royal Army Medical Corps in time of need. This toast was replied to by the Director-General of the Army Medical Service, who described how three years before he had remarked, at one of the anniversary dinners of that Society, on the indifference displayed by the medical profession generally towards the questions with which the Royal Army Medical Corps had to deal, and Mr. Keetley had asked him in what manner help was possible. He explained to Mr. Keetley that the medical profession could help by studying, in the hours of leisure, what was the nature of the work of the Royal Army Medical Corps and how it was carried on. Mr. Keetley suggested that the necessary instruction should be begun with the West London Medico-Chirurgical Society, and the Director-General accordingly arranged to supply officers to teach the members on Saturday afternoons. The Army Medical Service was anxious to secure a close connexion between medical men in the Army and those outside it. Sir Lauder Brunton proposed the toast of the "The West London Medico-Chirurgical Society," congratulating the members on the fact that it was now one of the largest in London, numbering being 600 and 700 men, and pointing out the value of the post-graduate teaching at the West London Hospital. Mr. Bidwell, the President, in replying, gave an interesting account of the rise and progress of the Society. The toast of "The Kindred Societies and Guests" was submitted by the President, and acknowledged by Dr. F. W. Cock (President of the Harveian Society) and by Mr. G. F. Marshall.

British Medical Journal.

SATURDAY, FEBRUARY 10th, 1906.

RURAL INSANITATION.

Nearly 150 years ago Oliver Goldsmith, describing a journey from London to the adjacent village of Kentish Town, related that by the side of the fine level road, railed in on both sides, there was an ancient dunghill of much greater antiquity than the road, and he remarked upon a piece of injustice he was about to commit. His indignation, he said, was levelled against the makers of the dunghill for having brought it so near to the road, whereas it should have fallen upon the makers of the road for having brought that so near the dunghill. In the century and a half that has elapsed since Goldsmith's time a great deal has been accomplished by way of removing insanitary and insalubrious surroundings—in towns. It is to be regretted, however, that in many rural districts and away from the centres of population very little advance has been made. The ancient roadside dunghill is only a type of the numerous unhealthy and unsavoury conditions which surround the inhabitants in many of our country districts. These conditions will never be removed until the members of rural district councils, the rural sanitary authority, have a full sense of their responsibilities and throw off that indifference to sanitary reforms which at present is one of their chief characteristics. It is time they gave up the traditions handed down to them from past generations and paid some attention to the scientific teaching of to-day. What is it but tradition which persists in placing a cesspool or a foul privy within a few feet of a shallow well sunk in the gravel, when the daily application of earth to excrement not only renders the latter innocuous by at once starting nitrification, but converts it into a valuable manure? What scientific reason can be given for leaving tons of reeking liquid manure in close proximity to cowsheds and dairies, when its proper place is on the land, where it would take its share in paying the rent? Or what scientific reason can there be for the strongly-rooted opinion that the best water supply for cows is the pond which is well polluted with sewage, and that milk—that most sensitive of secretions—can safely be drawn from a cow whose udder is caked with manure, and by a milker whose hands and clothing are none of the cleanest? These traditions, which might be multiplied many times, will never be got rid of until the members of rural district councils are roused from their apathy, and are made to carry out the obligations cast upon them by the Legislature.

That strong terms are justified will not be denied by those who are closely associated with the sanitary administration of many rural districts in various parts of the country. Official evidence in support of our contentions is not wanting, and the reports issued from time to time by the Medical Officer to the Local Government Board are constantly disclosing most deplorable conditions and an utter absence of any desire on the part of rural councillors to improve those conditions. Within the past few days there has been published a report by Dr. Reginald Farrar, one of the Medical Inspectors of the Board, upon the sanitary administration of the rural district of Clun in Shropshire. Among Dr. Farrar's recommendations to the district council is one which in other circumstances would be distinctly humorous, though we feel sure it was penned in no spirit of levity. He recommends "that the rural district council should "take a more serious view of their responsi-"bilities as a body charged with the care of the "public health." This is a grave indictment, but the Clun Council is not the only sanitary authority against whom it might with justice be brought, even if the specific charge of lack of seriousness had not been made. A perusal of Dr. Farrar's report shows sufficiently that these Shropshire district councillors have no very high ideals. The district has a population of 6,800 persons, but only two inspectors of nuisances are employed, each of whom is paid an annual salary of £20. One of these inspectors, we are told, keeps a small fishmonger's and grocer's shop, and, travelling the country for orders with his cart, combines this business with his inspectorial duties. The nature of his business, comments Dr. Farrar, would not appear to be conducive to efficient or impartial discharge of official obligations. In one locality there is an abundant supply of water of an excellent quality, but the reservoir provided is placed so low that only a portion of the village can be supplied.

Finally, as far as we can gather from the report, the expenditure upon sanitary administration appears to amount annually to a sum equal to about one-third of a penny in the pound on the rateable value of the district!

A NEW THEORY OF ANGINA PECTORIS.

The very interesting address by Dr. William Russell, of Edinburgh, which is published in this issue, opens up a question of perennial interest, and throws a new light upon it. The group of symptoms which goes by the name of "angina pectoris" has long been known, but our conception of its meaning has been blurred by the varying accounts of its pathology, so that at the present time it is generally understood that the symptoms have no fixed pathological significance; that is to say, in their most pronounced form they may, on the one hand, be associated with grave organic diseases of the heart, especially with atheromatous degeneration of the coronary arteries; or, on the other hand, with nothing more serious than a heavy meal, a disordered stomach, or excessive smoking.

It is true that an attempt has been made to divide these conditions into two classes, true and false; but this is a classification which is chiefly of value *post mortem*, or, at any rate, after the etiology of the affection has been cleared up and its validity proved by the cessation of attacks. At the time it may be impossible to distinguish between an attack associated with organic disease and one that is purely functional, so that this classification is for clinical purposes unsound. Some years ago a young medical practitioner suffered from attacks of angina pectoris which caused him a good deal of anxiety, and for which he had consulted several physicians. There was an entire absence of any indication of organic disease of the heart, and his father, himself a medical practitioner, concurred in the view that the attacks were not really serious, as he said that at the same age he had suffered in a similar way and had completely recovered. A few years later the father, then an old man, suffered from angina pectoris, from which he subsequently died. Not long ago a gentleman of middle age, rather stout, but leading a regular, temperate, and fairly active life, complained of typical attacks of angina pectoris, but no indication of organic disease of the heart could be found; a favourable prognosis was therefore given, but a few days afterwards he died in an attack.

Dr. Russell's theory harmonizes such cases as these by attributing the attacks to an exaggeration of the normal abdominal reflex which sets up peripheral vaso-motor spasm. In digestion this vaso-motor spasm is normally present, but is increased by alcohol or by excess of proteid, and in certain individuals there is an abnormal sensitiveness by which it may be readily excited to an excessive degree. This abnormal sensitiveness may be induced by habitual excess of proteid food, by alcohol, or tobacco; and in those persons in whom it is present the spasm may be set up by slight strain, such as going upstairs or uphill, by emotion, or even, in extreme cases, by simple palpation of the epigastrium, as in one of the cases related by Dr. Russell. The embarrassment of the heart so caused is an impaired contractility which may be due either to debility of the heart muscle from anatomical changes or to a temporary deficiency of the blood supply, the result of the participation of the coronary arteries in the general arterial spasm. The common factor in all cases is the hypersensitiveness of the vaso-motor centre, and this Dr. Russell believes is in a large degree dependent upon poisons which are under our own control—poisons such as tobacco, alcohol, and excessive proteid food. The practical importance of this teaching, if confirmed by experience, scarcely needs emphasizing, and—taken together with the views urged by Sir James Barr in his recent address on arterio-sclerosis, wherein he insisted on the close connexion between that condition and the excessive use of proteid food, and the remarkable experiments carried out by Professor Chittenden on the quantity of proteid necessary, to which we hope shortly to draw attention—suggests a wide and important field for the application of these dietetic principles in the treatment and prevention of disease.

EARLY DIAGNOSIS OF TYPHOID FEVER.

THE most valuable bacteriological aid in the recognition of typhoid fever is the well-known serum reaction test. But it is sometimes important to establish a diagnosis before the blood has had time to develop the specific properties on which this reaction depends, and the question whether clinical pathology can give assistance in other ways becomes of importance. The technique for isolating typhoid bacilli from the intestinal excreta has been much improved in recent years, but the value of this method for the purpose of early diagnosis is still a disputed point. Another method which has excited considerable interest lately, owing to the recognition of the fact that typhoid bacilli circulate in the blood at an early stage of the disease, is to make bacteriological cultures of blood obtained by venesection from the patient's arm. By this procedure Schottmüller and his colleagues have succeeded in cultivating the bacillus in 182 out of 220 cases of typhoid fever; and several other pathologists have found the method successful in a high percentage of cases. But this test is not always easy of application. Patients often object to venesection; and there is also the technical difficulty to contend with that unless the blood is at once diluted with a large amount of nutrient medium, it will, by virtue of its bactericidal action, destroy the vitality of any typhoid organisms which may be present, and so prevent their growth in culture.

Dr. H. Conradi[1] has devised a new way of making blood cultures, which he hopes will obviate the disadvantages of previous methods. The bactericidal power of the blood, he points out, is very much greater in a test tube than it is when contained in the vascular system of the living animal. It has been ascertained, for example, that 1 c.cm. of blood serum from a normal rabbit will destroy about 30,000 anthrax bacilli in a test tube, whereas so small a dose as 600 anthrax bacilli, when intravenously injected, is sufficient to cause the death of the animal in two days. Dr. Conradi has also observed that in anthrax infection of the rabbit the extravascular serum develops bactericidal properties even when the circulating blood is swarming with anthrax organisms. A similar condition, he finds, obtains in human typhoid fever. The extravascular blood serum of a typhoid patient has a powerful and specific bactericidal action on the typhoid bacillus, although in the same patient, and at the same time, living typhoid bacilli have been shown to be present in the blood to the number of 200 per 10 c.cm. Arguing from these observations, he infers that the germicidal substance present was first brought to an active condition in the serum as a result of changes which take place in the blood after it has been removed from the body; and the all-important factor underlying these changes is, he maintains, the process of coagulation. The practical conclusion which he draws is that the best way to demonstrate typhoid bacilli in a patient's blood is to preserve the blood in a fluid condition, and so avoid the disinfectant action of those substances which become active as a result of coagulation.

As a preventive of coagulation he uses bile, a substance which owes this property mainly, if not exclusively, to the presence of glycocholate and taurocholate of sodium. In addition to ox bile his medium contains 10 per cent. of peptone, which intensifies the anticoagulative influence of the bile and increases the nutritive properties of the medium; to this mixture is added 10 per cent. of glycerine in order to retard the development of extraneous saprophytes. This high percentage of glycerine is not found to have any deleterious influence on the growth of the typhoid bacillus. Venesection is unnecessary, as sufficient blood for use with this medium can be obtained from the lobe of the ear. After the ear is pricked, the blood which exudes is removed by means of a capillary pipette containing a small quantity of bile fluid. The blood thus comes at once into contact with the bile. From the capillary pipette the liquid is transferred into a small glass tube containing from 2 to 3 c.cm. of the peptone-glycerine-bile mixture. This process of transference is repeated until the ear ceases to bleed. The proportion of blood added to the bile-mixture medium must be as 1 to 3, an amount which can be easily gauged by marking on the tube before use graduations to correspond to the required volume. The tube containing the blood and bile mixture is incubated at 37° C. for ten to sixteen hours, and cultures are then made from this material on to agar plates prepared according to the Drigalski-Conradi formula. As a rule, it was found possible to establish a diagnosis by this method in from twenty-six to thirty-two hours.

Dr. Conradi's experience is in agreement with that of other investigators in regard to the early appearance of typhoid bacilli in the blood. The "blood-culture" method of diagnosis is applicable as soon as the patient exhibits a febrile temperature. But it has also been shown that bacilli may be found in the blood in the afebrile stage of convalescence, even where recovery is taking its normal course and is not complicated by a relapse. Whilst reserving more generalized statements until further statistics have been accumulated, Dr. Conradi thinks he has already done enough to show that it is erroneous to regard the clinical manifestations of the disease as being directly determined by the severity of the blood infection. Even when there is no fever, and in cases of typhus levis, bacilli may be demonstrable in the blood; and in febrile cases it is by no means true that the number of organisms found in the blood bears any direct proportion to the severity of the clinical symptoms. The examination of the blood for bacilli, therefore, is of more value for diagnosis than for prognosis.

---

[1] *Deut. med. Woch.*, January 11th, 1906.

MARMOREK'S SERUM FOR TUBERCULOSIS.

THE therapeutic value of Marmorek's serum is discussed in two articles published in the *Berliner klinische Wochenschrift* for January 22nd, 1906. In the first article Drs. E. Stadelmann and A. Benfey report that they have tried the serum in five cases of pulmonary tuberculosis affording examples of all three stages of the disease. In no case was there any improvement, but on the contrary the symptoms became so much worse that the treatment had to be abandoned. The method of dosage was as follows: 10 c.cm. of the serum were injected daily for a week, then followed a week's pause, during which no injections were given; the treatment was then continued on alternate weeks. Finding this method unsatisfactory they modified it. For two days in succession they injected 5 c.cm., then on each of the two following days 6 c.cm.; then, after a day's rest, the treatment was continued, the dosage being increased by 1 c.cm. every second day, with a pause every fourth day, until a dose of 10 c.cm. was reached. After this period the dosage was 10 c.cm. per diem for eight days, followed by an eight days' pause. No better results, however, followed this modified treatment, which was adopted in accordance with the advice of Dr. Marmorek.

In the second article Dr. Ernst Levin of Stockholm states that he has studied the value of Marmorek's serum both experimentally and clinically. He finds from his experiments on guinea-pigs that the serum is not sufficiently potent to prevent the development of tuberculosis absolutely, but that it has the power of neutralizing tuberculous toxin, and retards the action of the tubercle bacillus on the animal organism. These results, therefore, suggest the possibility that the serum may have a direct curative value for those cases of tuberculosis in which the bacilli have not had time to become generally disseminated. Dr. Levin's contribution to the clinical study of the value of the serum is based on a collection of statistics derived from various parts of Scandinavia. The usual plan of treatment adopted was to inject 5 c.cm. of serum on five or six successive days, and then, after a pause of fifteen days, the treatment was continued, daily injections being administered during every third week. Subsequently a slight modification in the method was introduced. Injections were given on alternate days until a total of from ten to twelve had been reached. They were then discontinued for a month. After this period they were resumed on the same plan as before, with a month's rest intervening between each series of injections. In 128 of the cases about which Dr. Levin has obtained information the disease was of the pulmonary form. These were not all of equal value for statistical purposes owing to differences in the duration of the treatment and the number of doses administered. In 61 cases at least seventeen doses had been given, and in these, therefore, the treatment may be considered as having had a fair trial. Statistics with regard to these showed that in more than two-thirds of the cases the general strength had improved; the appetite had increased in more than one-third, and in half the cases dyspnoea had either completely disappeared or was considerably alleviated. The auscultatory signs had improved in half the cases and the percussion note in more than one-third, whilst in more than half there was less sputum and less fever. The general result, therefore, was distinctly favourable to the use of the serum, notwithstanding the fact that more than one-third of the patients were in the third stage of the disease, and the majority of the rest in the second stage. In the remaining cases, numbering 67, where less than seventeen doses had been administered, there was again some indication that the serum had exercised a beneficial influence. Dr. Levin's general conclusion, therefore, is that Marmorek's serum is undoubtedly of therapeutic value.

◆

THE HEALTH OF THE KING.

A SIMPLE act of courtesy on the part of the King extended to Dr. Ott, the physician under whose direction His Majesty took the waters at Marienbad, has been made the foundation of rumours with regard to the King's health which we are glad to be able to state on the best authority are without foundation. The fact that the King had invited Dr. Ott to pay a visit to England was made the basis for a statement, which obtained currency first, we believe, in the London correspondence of a Madrid newspaper, to the effect that the King was in bad health, suffering from an affection of the respiratory passages, and that in consequence a consultation had been held between Dr. Ott, Sir Felix Semon, and Sir Frederick Treves. The facts are that Dr. Ott's visit was entirely non-professional, and that no consultation has been held. The King is in excellent health in every respect, has no respiratory or other symptoms, and has now practically recovered from the injury to the ankle which he sustained while shooting at Windsor some time ago.

WARNING NOTICES.

AMONG the notices warning medical men against appointments in places where disputes are in existence there is one concerning collecting insurance societies at Cardiff. With its vast and increasing industrial population, Cardiff, no doubt, offers special attractions to societies of this kind, which, in the words of the secretary of one of them, are "endeavouring to open up the town." Such societies are peculiarly objectionable from the medical point of view, inasmuch as the "medical aid" part of their business is generally only a part of an industrial insurance scheme, which is, of course, conducted in the interests of the promoters—neither the medical officers nor the beneficiaries themselves having any control over the management. Moreover, canvassing is an invariable and inevitable feature in the working of such societies, so that any medical man taking office under them would run a grave risk of bringing himself within the scope of the warning notice on this subject issued on December 1st of last year by the General Medical Council. Apart from this fact, the conditions proposed to medical men are in themselves sufficient to justify the determined opposition of the Cardiff Division of the Association. Thus one of these societies, whose prospectus is before us as we write, offers medical attendance and medicine to a member over 16 for 1½d. a week, to a member and his wife and one child, for 3d. a week, to a member with wife and three children under 16, for 4½d. a week, and to a member and wife, and any number of children under 16, for 6d. a week. For his services in these four classes the medical man is offered 1s., 2s., 3s., and 4s. respectively a quarter. Thus the gross profit of the society varies from 87.5 per cent. in the first class to 62.5 per cent. in the fourth class, but we have not calculated the possible profit of the medical man who might find himself attending on a family of ten, and supplying them with medicine for a total remuneration of 16s. a year. Another of these societies offers its members under 18 7s. a week sick pay and free medicine and attendance, with £6 at death, in return for a weekly contribution of 4d.; and to those over 18, medical attendance and 14s. a week sick pay, with £12 at death and £8 at death of wife, in return for contributions varying according to age from 7d. to 10d. a week. The remuneration of the medical man is not stated, but it does not appear on ordinary actuarial grounds that there is likely to be much left for him. Such conditions are obviously degrading, and could appeal only to the most inexperienced or to the utterly destitute members of the profession. We are glad to learn that, owing to the notice given by the General Medical Council and the action of the Cardiff Division, these societies are already finding it almost impossible to obtain the services of medical men. The warning notice with regard to appointments in other districts where disputes exist between the medical profession in the locality and various organizations will be found on p. 59 of the advertisements of this issue of the British Medical Journal. They include: Northumberland and Durham; Leigh, Lancs; Macclesfield; Southampton, Bitterne and the neighbourhood; Portsmouth; Lowestoft; Cardiff, Aberaman and Bridgend in Glamorganshire; Abertysswg, Blaenavon, and Ebbw Vale in Monmouthshire; Solva in Pembrokeshire; Aberystwith; Cork; Auckland (New Zealand); Pretoria (Transvaal); and the Orange River Colony (South Africa).

TUBERCULOSIS IN LONDON.

The General Purposes Committee of the Metropolitan Asylums Board will at its meeting on Monday next have before it a memorial drawn up by Sir William Broadbent, pointing out that the International Congress on Tuberculosis, held in Paris last October, recognized that the chief object of the campaign against tuberculosis was not simply the care and treatment and restoration to health of the individual attacked but the protection of the community. It is on this ground that Sir William Broadbent invites the Metropolitan Asylums Board to constitute itself the tuberculosis authority for London. The memorial goes on to suggest: (1) That notification of consumption should be made compulsory at first only with regard to cases coming under the Poor-law medical officers or attending public institutions. In this way the Board would be in a position to learn the number and distribution within the metropolitan area of the cases of consumption most dangerous to the community, the stage of the disease in each case, and the circumstances and surroundings of the sufferer. (2) The notification would be followed by the visit first of some member of a ladies' association as in Manchester, and next of a sanitary inspector who would carry out the disinfection required; if this were done many of the cases might be treated at home, with the help of district nurses. (3) Cases of advanced consumption found under circumstances where precautionary measures could not be efficiently applied should be removed to some home for advanced cases, thus anticipating their admission into infirmaries by a short time only. In this way not only would a direct source of disease be taken away, but the further impoverishment of families and the underfeeding of children prevented; but as the plan would involve the removal of sufferers not actually paupers, it is desirable that their admission into wards for care and treatment should not inflict the stigma of pauperism any more than admission into fever hospitals. (4) Although at several workhouse infirmaries consumptive patients are separated, and some attempt is made to carry out open-air treatment, difficulties arise owing to the fact that neither the buildings nor the staff are adapted to the special purpose; it is almost impossible to separate patients in different stages of the disease; the segregation of advanced cases from different workhouse infirmaries would free those institutions from sources of infection and would simplify the administration of the medical and nursing arrangements. (5) If some of the hospitals provided for small-pox or other acute infectious diseases now unoccupied were made available for a certain number of these cases no expenditure on buildings would be required. No epidemic of small-pox could be so sudden and violent in its invasion as to render it impossible to vacate the hospitals as they were required. (6) Notification, the advice given by domestic visitors and the segregation of advanced cases would prepare the way for sanatoriums by its educational influence, and by spreading the knowledge that cases taken early can be cured.

THE BROMPTON SCHEME.

During the past ten days very wide publicity has been given to a scheme which is under consideration at the Brompton Hospital for Consumption. All that is at present determined is that the hospital shall, if it can, find some means by which its benefits and educative influence can be extended to others than those who apply at its doors for relief. It is hoped that it will prove possible to get into touch with all the housemates of any phthisical patient who presents himself, ascertain their condition, treat them if necessary, and in any case arrange so that they are taught and helped to keep themselves free from infection. Modern views on the subject of phthisis have to some extent cut the ground from under the feet of the urban consumption hospitals, and if they are to play as great a part in the crusade against the disease in the future as they have in the past, it is necessary that they should open up new lines of work while not neglecting older ones. Corresponding ventures have already been made by institutions elsewhere, and the general effect of the new scheme, whatever its details may be, will be to add one more to the various agencies which are endeavouring to teach the public that phthisis, if it ends in the hospital, begins in the home, and that it is there the disease must be attacked if any real subduction is to be effected. As such we welcome it, and we should welcome it all the more if it were to take a definite prearranged place in a definite plan of campaign. There should be co-ordination between the various agencies in existence to ensure that each shall know what the other is doing. In default of such co-ordination there will in time inevitably be the same overlapping of effort as that which characterizes nearly all other sections of charitable enterprise, and which results, among other drawbacks, in so much superfluous expenditure of energy. Depending, as they all more or less do, upon the personal interest of a few individuals with the energy, time, and disposition to keep things going, any attempt to rule from a centre all those devoted to any one special branch of work would be fatal to their existence. Voluntary affiliation, however, is quite another thing; it involves no loss of individuality, and simply co-ordinates effort; it is the crying need of the day. To arrange for it in some of the older departments of work may perhaps prove difficult, as witness the comparative slowless with which the Convalescent Homes Association has been able to effect its excellent purpose. The national crusade against consumption, however, is on a different footing; it is as yet a young movement. To secure co-ordination, therefore, amongst bodies interested in it and in preaching the doctrine of hygiene in the home should not be difficult, and might well be the next task of the National Society for the Prevention of Consumption.

RECENT PROGRESS IN BIO-CHEMISTRY.

THE first number of the *Bio-Chemical Journal*, the forthcoming appearance of which was announced in the BRITISH MEDICAL JOURNAL of December 16th, 1905, has just been issued, under the joint editorship of Professor Benjamin Moore and Dr. Edward Whitley, of the Liverpool University. Liverpool was the first of the British universities to found a Professorship of Bio-Chemistry, and it is therefore fitting that a journal dealing with that subject should be issued under its auspices. The title is so like that of the *Journal of Biological Chemistry*, the first numbers of which have recently appeared in New York, with Dr. C. A. Herter and Professor Abel as editors, that some confusion between the two seems probable. Special journals dealing with the subject have been long known in Germany, and we welcome the two new journals in the English language as an indication of the growing importance of the subject, although we may regret, on general grounds, the danger of too great specialization and the ever-multiplying number of journals that investigators will have to consult to keep themselves abreast of the advances of science. The Liverpool publication proposes to deal with bio-chemistry in the widest sense—botanical, zoological, physiological, pathological, and clinical—and should, therefore, be of interest not only to the laboratory worker, but to those engaged in studying the applications of chemistry to economic problems and to medicine. The first number contains only four papers, but even in this small selection we see that the editors intend to carry out their duties on the broad lines just mentioned. Mr. Barcroft deals with the oxygen tension in the submaxillary gland and some other tissues, and sheds a new light on the interesting subject of internal respiration. The oxygen tension in the saliva is higher than in the blood plasma, and the capillary walls have therefore probably the power of raising the tension of the gas as it passes through them. This is a remarkable condition when we remember that the consumption of oxygen in the salivary glands during activity is greater than in the majority of other tissues. The second paper, by Drs. Edie and Whitley, describes a method for determining the daily gain or loss of fixed alkali in the body by an examination of the urine. Organic acid excretion is also dealt with, and it is shown that just as in acid poisoning there is an increased formation of ammonia from urea to neutralize it, so if alkali is in excess, the body protects itself by an increased formation of organic acids from carbohydrates. This is an important consideration in view of the pathology of diabetes mellitus. The subject of diabetes is more directly treated in the third paper by Drs. Moore, Edie, and Abram. They show that administration of a neutralized acid extract of the duodenal mucous membrane by the mouth proves beneficial in that disease. The cases under this treatment have hitherto not been sufficiently numerous to warrant wide generalizations; but if the treatment is ultimately found successful, we have here an example of chemical correlation of the body functions. The extract is believed to stimulate the pancreas to produce that internal secretion which is in abeyance in many forms of diabetes, and which normally exercises control over carbohydrate metabolism. The last of the four papers is from the pen of Professor Harvey Gibson, Professor of Botany in the University of Liverpool. West African boxwood was noticed to cause cardiac symptoms in shuttle-makers. Professor Gibson finds this to be due to an alkaloid in the wood which is dissolved out by the perspiration of the hands and slowly absorbed. Its deleterious action on the heart is shown extremely well by tracings taken from the excised mammalian heart. Such a brief summary indicates the variety and interest of the subjects dealt with, and we believe that, as the new journal gets known, investigators of bio-chemical subjects in general will be eager to publish their results in a journal which appeals directly to others engaged in allied researches.

INTRACRANIAL HAEMORRHAGE IN THE NEWBORN.

THE cerebral palsies of children have hitherto been relegated to the category of diseases before which medical men stand helpless. The surgery of paralysis has been the surgery of contractures; an attempt to minimize the pernicious late-effects of a disastrous lesion too often overlooked or unrecognized at its inception. In a paper recording his operative experience in dealing with the initial mischief, Harvey Cushing[1] has laid down very clearly the criteria for diagnosis of the natal haemorrhages upon which, as a rule, these palsies are dependent, and now that the practicability of curative measures has been definitely proved, it behoves us clearly to bear in mind the symptom-complex. In the first place, the history of the labour is of great importance, bearing, as it does, upon the probable degree of traumatism occasioned by the relative disproportion of fetal head and maternal bony parts; upon the use of forceps, and the degree and duration of *post-partum* asphyxiation. The most important objective sign is a bulging fontanelle, so tense, it may be, as to exhibit no pulsation, and to preclude palpation of the osseous margins. Convulsions are frequent, and, particularly when late in onset—fourth or fifth days, or later—are more or less unilateral. Sensory stimuli will at times occasion convulsive twitching, an indication of unduly active reflexes. Ocular palsies, papillary inequalities, disturbances of the cardiac and respiratory rhythms are very important symptoms occasionally present, but, as a general rule, no evidence of paralysis or difference in the muscular tone of the two sides is forthcoming in the early days, even when the haemorrhage is limited to one side. In some instances, where a differential diagnosis of haemorrhage is in question, lumbar puncture may be performed, as free corpuscles are found in the spinal fluid very soon after a subdural effusion of blood. The procedure advised by Cushing is an osteoplastic craniotomy, involving practically the whole parietal bone; in cases in which the intracranial tension is extreme this may be required on both sides. When the dura has been reflected, all blood clot that can be reached is washed, or gently lifted away. The wounds are sutured without drainage. This operation, extensive as it seems, is very well borne, and though at present the ultimate mortality is high, yet the importance of correct and prompt diagnosis is driven home by the fact that cases operated upon early may not only recover, but even escape all the ill-effects that distort the bodies and the lives of those who unfortunately survive the immediate danger without surgical intervention.

INFECTIOUS DISEASES IN SWISS HOTELS.

A CASE of considerable importance to those many English people who with their families spend their holidays in Switzerland, has recently been decided on appeal from the cantonal courts of Geneva to the Swiss Federal Tribunal. As is well known to many persons in this country, cases have occurred in which the proprietors of hotels in various parts of Switzerland, both in mountain resorts and in the lowlands, have endeavoured to saddle the unfortunate sufferer from an infectious disease, or his friends, with damages for the loss of custom which the proprietor experienced when the fact that infectious disease was present in the hotel became known to the other guests. Instances have occurred in which English people have been induced to pay sums amounting to several hundred pounds demanded from them in the exercise of his alleged right by the angry proprietor of a deserted hotel. Some time ago, after an examination of the laws of Switzerland and France, we ventured to express the opinion that an hotel proprietor had no legal justification for making any claim for compensation for loss of custom.[1] The action recently tried appears to set the point at rest so far as Switzerland is concerned. It was a case in which the proprietor of a mountain hotel in the canton Valais, brought an action against a Swiss gentleman residing in Geneva for 5,000 francs damages for loss of custom due to the fact that the defendant's daughter had been taken ill while staying in the hotel; the disease was diagnosed by two English physicians staying in the hotel at the time as scarlatina. The local courts in Geneva found against the plaintiff, who appealed to the Federal court at Lausanne, which has just delivered judgement; the decisions of the inferior court were confirmed by the Federal tribunal by 6 votes to 1, and the plaintiff's claim dismissed with costs. In delivering judgement the Federal court commented severely upon the nature of the claim put forward by the hotel-keeper. This is the first case of the kind taken to the Federal tribunal, and will afford a precedent.

---

[1] *American Journal of Medical Sciences*, October, 1905.

IDENTIFICATION BY TEETH.

Members of the dental profession are sometimes able to determine questions of personal identity with a precision which carries conviction to a court of law. A case in point occurred at the Cumberland Assizes held at Carlisle. Two colliers were charged with breaking into the Co-operative Society's store and stealing some articles of value. It was found, on an examination of the premises, that some one had bitten a piece off the side of a cheese and left the marks of his teeth. Suspicion falling on the two men, they were arrested, and one of them unwittingly allowed a cast of his mouth to be made, which was found exactly to fit the marks on the cheese. Expert evidence was given by a dentist, who stated—what all medical men will know to be accurate—that no two sets of teeth are identical. The prisoner showed much anxiety that his mouth should be examined to see if his teeth would fit the impression on the cheese, and when this was done the very damning evidence was ascertained that since his arrest he had knocked out a "stump." He was found guilty. In Ogston's *Lectures on Medical Jurisprudence* it is mentioned that, in the case of some resurrectionists tried at Edinburgh for stealing from a churchyard the body of a lady which was not traced to the dissecting room till a great part of the corpse was destroyed, the body in question was identified by a dentist, who produced a cast of the gums which he had taken before her death. Ogston also mentions the American case of Dr. Parkman. In this instance an attempt had been made to destroy the head by fire, but a set of mineral teeth remained, though the gold plate had been melted, and these were recognized by a dentist as of his own manufacture and as those he had supplied to the murdered man.

MILITARY HYGIENE ON ACTIVE SERVICE.

Surgeon-General A. Keogh, C.B., Director-General of the Army Medical Service, presided at a recent meeting of the Royal United Service Institution, when Major T. H. J. C. Goodwin, R.A.M.C., D.S.O., delivered a lecture on military hygiene on active service. He began by referring to the fact that in our recent campaigns the proportion of losses from wounds had been very small compared with those from preventable disease. During the war in South Africa over 41,000 cases of enteric fever occurred in our forces. On the other hand, in the recent war in the Far East, Japan lost 57,000 men from wounds, and 15,000 from sickness, a proportion which the lecturer said was without a parallel in the history of war. After briefly describing the origin and causation of the diseases affecting armies in the field, and indicating measures for their prevention, he pointed out that, unless the combatant members of the army were in sympathy with the recommendations and understood the reason of the preventive measures, it was extremely improbable that any successful result would be obtained. There were two principal measures which he thought would remedy the great evil of the past. The first was sanitary organization. A corps should be formed of officers and men specially trained in all the methods of sanitation and disease prevention, and on it should devolve the duty of seeing that the army was kept up to date in sanitary requirements. With the officers of that corps would rest, subject to the military exigencies of the moment, decisions as to the selection of sites for camps, installation of water supplies, and other matters; sterilizers, filters, and other sanitary appliances should be under the supervision of the corps. The second measure was the necessity for the further education in sanitary principles of regimental officers and men. They should understand the principles of the subject, the manner in which disease arose, and the means by which it could be prevented. In peace soldiers lived under the most favourable conditions as far as sanitation was concerned, but in war the details of sanitary work had to be carried out by the officers and men themselves. This was done inefficiently, with the result that disease followed, and the physical efficiency, and consequently the fighting capacity, of the unit rapidly deteriorated. In the discussion which followed, Colonel G. H. Sim suggested that sanitary regulations should be laid down and the breach of any one of them be made punishable. He also advocated the constant practice of sanitary measures and precautions, not only in manœuvres, but during route marches. After several other officers had spoken, the Director-General, in summing up, expressed doubt as to the value of the proposed sanitary corps. Officers and men must be educated, and every unit must be responsible for proper sanitary measures being carried out. A permanent *personnel* of sanitary experts at the base and on lines of communication would certainly be an advantage, but any increase in the non-combatant branches of an army was a doubtful advantage, even though in this case it might be urged that the hospital staffs could be reduced, as less sickness would occur as a result of increased sanitary precautions.

GRATEFUL PATIENTS.

Owing in great measure to the generosity with which the profession gives its services, regardless of its own interests, the public mind has become imbued with the notion that medical practitioners are philanthropists, who should be proud to work for nothing. This mental attitude lately received a remarkable exemplification in a French law court. In the neighbourhood of Paris, a woman, after a violent quarrel with her brother, shot herself in the head three times with a revolver. The brother at once summoned first one doctor, then another; both practitioners agreed it would be necessary to trephine. The patient's brother accordingly telephoned to Paris to Dr. Souligoux, a hospital surgeon, who at once obeyed the summons. The operation was successfully performed, and the woman's life was saved. The surgeon's fees amounted to the moderate sum of 1,400 fr. (£56). The brother refused to pay on the extraordinary plea that the surgeon had done a simple act of charity, nothing more than any one else in his place possessed of the same skill would have done; therefore, argued this eccentric logician, nothing was due to him. The court, unconvinced by this ingenious argument, decided that as the man had called in the surgeon he must pay the fees. The daily experience of the profession shows that there is scarcely any depth of meanness to which some patients will not stoop, but we scarcely remember a case showing such an amazing combination of meanness with impudence. We are rather surprised that the man did not bring a counterclaim against Dr. Souligoux, on the ground that a practitioner should pay for the privilege of displaying his charity. It is strange that a lawyer could have been found to take such a case into court, but at least it is something to be thankful for that the Court gave the surgeon the full amount which he claimed. Some judges seem to have a distinct antimedical bias. It is only on this ground that we can account for the decision given in two cases recently tried in Belgium. A practitioner was having a house built; the building fell down and injured several workmen. The practitioner arranged with the contractor that a surgeon should be summoned from Liége. For a whole day the surgeon went about from village to village, putting up fractures and dressing wounds. He sent in a bill to the contractor for £6. The contractor refused to pay, alleging that the surgeon had been called in by the doctor for whom the house was being built. This was disproved, and the Court gave judgement in favour of the plaintiff, but, considering the amount claimed excessive, cut down the fees to be paid to 20 fr., the costs, amounting to 40 fr., being divided between the parties. Thus the unfortunate surgeon received 20 fr. with one hand, and had to pay away 20 fr. with the other, the remuneration for his day's work being *nil!* In another case a surgeon was summoned from his dinner table, by an urgent telegram from a local practitioner, to go into the country to operate in a case of strangulated hernia. The surgeon having procured an assistant, and provided himself with the necessary instruments, reached the station just in time to catch his train. After the railway journey there was a long carriage drive. On his arrival, the patient, on the advice of his heiress, declined the operation. He died on the following day. The surgeon sent in a bill for £4, which the heiress refused to pay on the ground that it was the local doctor, not she, who had sent for him. In this case the same Solon who had tried the previous case gave judgement in favour of the heiress and condemned the surgeon in costs, graciously giving him permission to proceed against the local doctor, whom he held responsible for the debt! These decisions make one inclined to think that for medical practitioners Belgium must be, as an Indian General said of his native Forfarshire, "a grand place to come from." It is not surprising, therefore, that the Société Médico-Chirurgicale of Liége should have instituted an extensive inquiry as to the chances of practice for Belgian doctors in other countries.

---

[1] British Medical Journal, vol. ii, 1900, p. 254.

LONDON WATER.

THE chemical and bacteriological examination of London waters in the laboratory of the Water Board has been in progress, under the direction of Dr. Houston, Director of Water Examinations, since the beginning of November. Dr. Houston's first report, which deals with the work done during the month of November, is now before us. It is a very voluminous document, and has been published in this extended form in order to show the scope of the work of the laboratory. Subsequent reports, it is stated, will be issued in a much more condensed form, but it will be a matter for regret if the condensation is, from motives of economy, made so great as materially to diminish the value of the reports. The laboratory of the Water Board has been fitted up in a house (20, Nottingham Place, W.) formerly used as part of the offices of the Middlesex Water Company. On the ground floor are offices for the director and clerks, on the first floor is the bacteriological laboratory, on the next floor the chemical department, and on the top floor rooms for the preparation of culture mediums, etc. Samples are taken daily by special assistants, and during November 1,000 such samples were examined—291 chemically, and 709 bacteriologically. Of these samples 65 were taken from the River Thames at Sunbury, the River Lee at Ponder's End, or the New River at Hornsey; the remainder were samples of filtered water. Each assistant carries a special collecting-box, containing a receptacle for ice, and a set of sterilized tubes for the samples. In order that so large a number of samples should be dealt with systematically, it has been necessary to organize the work of the laboratory down to the most minute details and Dr. Houston has introduced many ingenious devices for avoiding the possibility of accidental error in handling the samples and the cultivations made from them in the laboratory. The Senior Bacteriological Assistant is Dr. Sutherland, and the Senior Chemical Assistant Mr. Floris. We shall hope to refer more at length to the report in a future issue.

AMERICAN FOOTBALL.

FOOTBALL at best is a rough game, but as it is played at some American universities it seems to be not so much a game as a battle, in which the aim of the combatants is to maim, if not to kill, each other. A kind of armour is worn to prevent the tearing off of ears, and worse injuries; but, notwithstanding this protection, the list of serious casualties is appalling. During the last season 27 men were killed in the American football war. An idea of the ferocity with which the "game" is played may be gained from a paper by Drs. E. H. Nicholls and H. B. Smith,[1] who had medical charge of the Harvard squad last season. The strength of the squad at the beginning of the season was 150. These veterans had among them suffered the following hurts in previous campaigns: Sprain of thumb, 9; bruise of knee, 1; cuts, various places, usually head, 5; bruised shoulder, 31; dislocation of elbow, 1; injury to back, 2; synovitis of knee, 39; sprain of ankle, 42; concussion, 7; fractured wrist, 2; dislocation of knee, 1; fractured rib, 4; dislocation of shoulder, 3; contusion of chest, 1; fractured clavicle, 7; ruptured muscle, 7; fractured arm, 4; injury to eye, 1; sprain of wrist, 3; ruptured internal lateral ligament of knee, 1; dislocation of thumb, 1; fractured toe, 1; broken nose, 16; fractured olecranon, 1; dislocation of ankle, 1; broken foot, 1; sprained toe, 1; fractured ankle, 2; fractured carpus, 3; fractured elbow, 2; dislocation of outer end clavicle, 5; fractured finger, 8; injury to kidney, 1; fractured fibula, 1; teeth out, 1; total, 216. Of the 150 a third soon dropped out, and of the remaining 100 only 70 bore the brunt of the engagements in which they fought during the last season. The list of casualties among them was as follows: Sprained thumb, 1; fractured fibula, 1; cuts (requiring stitches), 12; bruises, 6; dislocation of elbow, 1;

---

[1] *Boston Medical and Surgical Journal*, January 4th.

teno-synovitis of tendo Achillis, 1; dislocation of xiphoid cartilage, 1; injury to back, 9; synovitis of knee, 3; sprained ankle, 13; strained muscle of side, 2; crushed fingers, 1; contusion of knee, 1; contusion of side, 1; fractured rib, 5; rupture of internal lateral ligament of knee, 1; dislocation of shoulder, 2; concussion, 19; ruptured muscle, 6; dislocated semilunar cartilage, 10; contusion of elbow, 1; compound dislocation of fingers, 2; traumatic valgus, 1; fracture of zygoma, 2; torn ear (sutured), 3; broken nose, 7; fracture of rim of pelvis, 4; fractured clavicle, 1; bruised hip, 2; fracture of semilunar of wrist, 1; dislocation of acromial and clavicle, 11; fractured finger, 4; broken second cervical vertebra, 1; dislocation of inner end of clavicle, 1; rupture of biceps of leg, 1; middle meningeal haemorrhage, 1; hematoma of ear, 2; fracture of metacarpal bones, 3; sprained elbow, 1; total, 145. In every game except two, one or more players suffered from concussion of the brain, the cases being of every grade of severity, from mere hysterical irresponsibility or confusion to complete coma. Loss of memory of events prior to the game was common, and the normal mental state was only gradually restored. The length of time the men were *hors de combat* from the football battlefield during the season amounted in all to 1,057 days, while the total duration of disablement from scholastic duties was 175 days. At the end of the season 35 men were still suffering from their injuries, and many more who thought they were recovered were known to be still more or less permanently disabled. Drs. Nicholls and Smith conclude that football is accountable for an incomparably larger number of injuries than any other game. They are also of opinion that the game does not tend to develop the best kind of men, the only survivors of what is a veritable struggle for existence being men of a "beefy" type with sluggish nerves relatively insensitive to pain. These figures, eloquent as they are, give only the crude results of the inquiry. Of the remoter effects to heart and blood vessels, nerves, and constitution generally, it is difficult to form an estimate. Still less is it possible to appraise the damage done to character by a game in which the savagery of warfare is combined with the trickery of the lowest forms of sport. And the pity of it is that the lads subject to this degrading influence are the flower of the nation and the hope of its future progress. If an inquiry as to the later life-history of the Harvard football players were made on the lines of Dr. Morgan's examination of the after-careers of our own university rowing men, it would probably show a sad record of premature disablement from cardiac and vascular disease, nervous breakdown, and lapse into slavery to drugs or drink. We heartily agree with Dr. Elliott, the President of Harvard, that American football is more brutalizing than prize-fighting, cock-fighting, and bull-fighting. President Roosevelt, who certainly cannot be regarded as an enemy of sport, is said to be of opinion that it should be mended or ended, and some timid and ineffectual efforts towards the mitigation of its worst features have recently been made. It is difficult to understand how a civilized people can continue to tolerate in the nurseries of its statesmen and its leaders in the various fields of human activity an atrocity worthy only of savages.

PROPOSED AMERICAN MINISTRY OF PUBLIC HEALTH.

At a meeting of the National Legislative Committee of the American Medical Association, held at Washington on January 9th, 10th, and 11th, a report was submitted by a Committee appointed to consider the question of creating a Department of Public Health. That report contained a resolution that it was the sense of the Association that a Department of Public Health, with representation in the Cabinet of the President, should be established. The opinion was expressed that the Department should comprise an expansion of the present Public Health and Marine Hospital Service, with the addition of other public health agencies now existing and in operation in other departments of the Government, together with such additional agencies and functions as may best promote the public welfare. The report recommended that the Legislative Committee should be instructed to proceed at once with the preparation of a Bill for this purpose, to be presented to Congress at the earliest possible date, if possible in the course of the present session. It was further recommended that the trustees of the Association should be requested to appropriate 1,000 dols. (£200) to defray the expenses of employing a competent constitutional lawyer to draft a Bill for the creation of a department of public health. The report was adopted by the Legislative Committee.

THE LATE PROFESSOR VON MIKULICZ.

A movement is on foot for the erection of a monument in memory of the distinguished surgeon, the late Professor von Mikulicz-Radecki of Breslau, whose untimely death was recorded in the British Medical Journal, July 1st, 1905. An International Committee has been formed to collect a fund for the purpose. At the head of it is the Heir Apparent to the Duchy of Saxe-Meiningen, and among its members are: Professor Ernst von Bergmann (Berlin), Dr. O. Borchgrevinck (Christiania), Mr. J. A. Caird (Edinburgh), Professor Depage (Brussels), Professor Durante (Rome), Professor von Eiselsberg (Vienna), Professor Halsted (Baltimore), Professor W. Koerte (Berlin); Count von Zedlitz-Trutzschler, Minister of State, President; Professor George Kaufmann, Rector; and Professor Kustner, Dean of the Medical Faculty of the University of Breslau; Professor Lejars (Paris), Professor Lennander (Upsala), Mr. G. H. Makins (London), Dr. J. B. Murphy (Chicago), Professor Naunyn (Strassburg), Professor Ponfick (Breslau), Professor von Winiwarter (Liége), and Professor Woelfler (Prague). These names suffice to show how wide was the fame of Professor von Mikulicz, and in what high esteem he was held by those who could best appreciate the value of his scientific work. The great personal regard felt for him by leading men outside his own profession is testified to by the numerous notabilities—legal, administrative, military, artistic, and ecclesiastical, whose names are on the Committee. Among these may be mentioned Cardinal Kopp, Prince-Bishop of Breslau, the Duke of Ratibor, the Duke of Trachenberg, Hans Heinrich XV, Prince of Pless, Count Moltke, Commandant of Berlin, and General von Woyrsch, Commanding the Sixth Army Corps. Professor von Mikulicz had many friends and admirers in this country who may wish to help in doing honour to his memory. We are asked to state that subscriptions may be sent to Mr. G. H. Makins, at 47, Charles Street, Berkeley Square, London, W.

THE ANNUAL MEETING AT TORONTO.

If members who are thinking of going to Toronto will write to the General Secretary of the British Medical Association, 429, Strand, W.C., he will take care that all information with regard to the ocean passage, special railway rates, and local arrangements shall be forwarded to them. In another column will be found the conclusion of the article on Toronto by our Special Correspondent in that city, the first part of which appeared in the last issue of the British Medical Journal, p. 271.

The Supplement for this week contains those notices of motion which have already been received for the Annual Representative Meeting to be held in London on July 24th and following days.

Leeds.

Hospital for Women and Children.

At the annual meeting of this charity, which was held on January 25th, it was announced that Professor C. J. Wright, M.Sc., M.R.C.S., had, after a service of nearly twenty-two years, resigned his position on the staff. It is one of the excellent rules, both at the General Infirmary and at the Hospital for Women and Children, that when resignation takes place on attainment of the age limit or after acting for a certain number of years, promotion to the position of a member of the consulting staff follows, and this carries with it the right to the use of a certain number of beds. In this way there are secured for the hospital the services of those whose experience has been gained within its walls, but who may not feel disposed to devote to hospital work the long hours necessary while on the full staff. In accepting Professor Wright's resignation, the Committee placed on record their very high appreciation of his services to the institution both professionally and as a member of the Governing Body, and Professor Wright will carry with him into this partial retirement from the hospital part of his professional life the very cordial good wishes of his colleagues.

As was mentioned in this column last year, it is not intended to fill up the vacancy that has arisen by the appointment of another member of the full staff. It is felt that the work in connexion with the forty-five beds which are devoted to the diseases peculiar to women can be adequately undertaken by two surgeons on the full staff, especially now that these two surgeons are not in any way responsible for the children's department, which has increased considerably since it was put under the care of an assistant physician and an assistant surgeon. It is intended to appoint an assistant surgeon in the department for women, whose duties will be to act as assistant to the surgeons, fill their places when absent, and help in conducting the out-patient department.

The amount of work has shown a marked increase during the year that has just come to a close. A small in-patient maternity department was included in the plans for the new building. In this, 32 patients were attended to in 1904, and last year the numbers had increased to 77. There has been very little pressure in this department, which is, of course, the first of its kind in Leeds for the class of patient dealt with. The report states that "the arrangements made for the safety of the patients and for the avoidance of the preventable dangers and diseases of childbirth have proved entirely satisfactory. The results show that it will be possible to deal with a considerably larger number of maternity patients in the present wards without adding materially to the expenditure in this department."

Appointments at the Infirmary and at the Public Dispensary.

The post of Honorary Anaesthetist, vacated by Mr. Mackenzie, has been filled by the appointment of Mr. Harold Collinson, M.B., B.S.Lond., F.R.C.S. Mr. G. L. Walker, M.B., B.Ch.Leeds, has been appointed House-Physician to Dr. Griffith, and Mr. R. G. Dixon, M.B., B.Ch.Leeds, has been appointed House-Surgeon to the Eye and Ear Department for a further period of six months. The post of Resident Medical Officer will be filled at the next meeting of the Faculty.

At the Dispensary Miss Amelia Sutcliffe, M.B., Ch.B.Edin., has been elected as Honorary Clinical Assistant to Dr. Gordon Sharp, who is in charge of medical patients at the Southern branch.

The Distribution of the Hospital Sunday Fund.

With reference to the paragraph under this head in the Journal of last week, page 285, we have received the following letter from Dr. Arthur Hawkyard, of Hunslet, Leeds:

I find it stated that applications had been received from the Leeds Tuberculosis Association and the New Maternity Home for some share of the Hospital Sunday Fund. Apparently these applications have caused some consternation among the managers of the Fund, as we find the Lord Mayor somewhat perturbed and making remarks which were, to say the least, quite uncalled-for. Every allowance must of course be made for the difficulty of presiding over a meeting with only a partial knowledge of relevant facts.

The terms of reference under the four heads submitted by the Lord Mayor to the meeting imply (or may certainly be read by those unacquained with the exact local conditions as implying) that the new institutions are not necessary, are not properly managed, and, worse than all, are not properly or suitably staffed.

Speaking as a member of the Committee of the Tuberculosis Association, I say our association is as well managed as any charitable institution in Leeds, and our honorary staff is quite as competent as any other; and speaking as a medical man, I deeply regret the tone of the Lord Mayor's remarks in reference to the medical profession.

After six or seven years' strenuous work this association has established seventy beds for the treatment of Leeds consumptives (early and advanced), and because it finds, as a result of its experience, that this number of beds is absolutely inadequate for a city like Leeds, it appeals for help to the Hospital Sunday Fund, like other charitable institutions. The Tuberculosis Association has always courted inspection and criticism of its methods of management, exactly in the same way and by the same means as public charities are expected to do, and it is pleasing to note its efforts have been recognized by such a body as the Leeds Musical Festival Committee and other public bodies in Leeds.

If the committee appointed at the Lord Mayor's meeting is going to make a thorough investigation of the medical charities of Leeds, I for one welcome it, for such an investigation of any charity, including even those of Leeds, would no doubt bring to light defects and deficiencies and would lead to improvement.

In regard to the New Maternity Home, it is much to be deplored that a city like Leeds should have been without a maternity hospital for so long, and that efforts made to remedy a want should have been met in a spirit which cannot be described as exactly sympathetic to the starting of any new charity, however necessary.

Westmorland.

Sanatorium for Consumption.

The annual meeting of the subscribers to the Westmorland Consumption Sanatorium was held in Kendal on January 27th, the Earl of Derby being in the chair, when the sixth annual report was presented. It stated the accommodation had been gradually increased from 16 to 32, and the cost per head had been gradually diminished from 40s. to 30s. a head a week.

A detailed statement was given of the present state of health and working capacity of discharged patients, showing that 80 per cent. of those admitted with slight consumption (before the appearance of obvious consolidation) were in good health and at full work, while the remaining 20 per cent. were in fair health and at half work, not one having died in six years; of those admitted with moderate consumption (with obvious, but not very extensive, consolidation), 40 per cent. were in good health and at full work, 40 per cent. in only fair or feeble health and doing slight work and 20 per cent. had died; of those admitted with advanced consumption (with cavity, or very extensive consolidation, and often with fever) 80 per cent. had died, and the remaining 20 per cent. were mostly in feeble health and unable to earn a living. The uselessness of attempting to cure advanced consumption by open-air treatment and good living was again emphasized, and the need of a home under the care of the county council or Boards of Guardians insisted on, where patients could live comfortably segregated until death.

The enlargement of the institution had enabled the Committee to admit persons from outside Westmorland, beds being allotted to any district in the Kingdom at the rate of £80 per bed per annum, while individual patients were admitted at two guineas a week. Several beds had been taken up by districts in Lancashire and Scotland, while during 1905 six beds had been continually occupied by patients paying two guineas a week. The institution was available for any district in which a sanatorium was contemplated, but not ready.

The financial position was very satisfactory, notwithstanding the expenditure of between £500 and £600 during the past year upon extensions.

Birmingham.

ALLEGED FALSE DEATH CERTIFICATE.

AT Southam, near Birmingham, John Dale Tucker was committed for trial to the Warwick Assizes for feloniously giving a false death certificate. In September, 1905, the executors of the late Dr. Roper advertised for sale his practice at Napton, and a person writing as "W. E. Tucker" replied. He came to Napton as Dr. William Eldon Tucker, of Bermuda. In October he agreed to purchase the practice for £150, to be paid in thirty monthly instalments. Before he paid the third instalment he was found to be negotiating the sale of the same practice for £170. Evidence was called to show that Tucker gave death certificates to several families. Mr. John Winkless Line, farmer, Napton, and two other witnesses spoke to prisoner giving certificates of death in the case of members of their families whom he had attended. The certificates were signed "W. E. Tucker." Dr. Henry Robinson, of 26, Brecon Place, London, W., said he was well acquainted with Dr. William Eldon Tucker, who was in a settled practice in Bermuda; prisoner was not the man. Police-constable Isaac Hetherington, of the Liverpool City Police, said in 1904 prisoner lived at 101, Everton Road, Liverpool, and was practising as an unqualified practitioner under the name of Dr. Henry Gould. Subsequently witness came to know him as John Dale Tucker. Dr. Henry Croly, M.D., of Dublin University, now practising at Napton, said that in November the practice there was brought to his notice, and he went to Napton to see prisoner, and eventually agreed to purchase the practice for £170. He drew a cheque for that amount, and made it payable to William Eldon Tucker, M.B. In that way it had been endorsed. From what he heard he stopped payment of the cheque the same day. The prisoner said his real name was William Henry Tucker, that he was the son of Dr. W. H. Tucker of Bermuda, and held the degrees of M.B., B.Ch. of Philadelphia, U.S.A. He said that the cheque was erroneously made out, and, of course, it was endorsed similarly. The prisoner was allowed bail in £200 and sureties for £400.

CITY OF BIRMINGHAM ANALYST'S REPORT.

The report of Mr. Liverseege, the City Analyst, for the last quarter of 1905, contains several noticeable features. In all 575 samples were analysed and of these 332 were under the Sale of Food and Drugs Act and 175 from the Water Department. In respect to the former the proportion adulterated with preservatives was unusually low, 0.9 per cent., but 9.5 per cent. were adulterated in other ways, an increase of 1.0 per cent. over the last quarter of 1904 in samples of a similar kind. Of the 151 samples of milk, 8 were found to be adulterated with water or by the abstraction of fat. This is nearly the same proportion as in the last quarter of 1904. In the years from 1897 to 1904, 3.9 to 12.5 was the percentage of adulteration of milk with preservatives. This year there are no such cases, which is a very marked change for the better. The samples of milk were taken from railway stations, retail shops, and milk carts. Those taken from the last were worse by far than those from the two other sources. Legal action has been taken under the Food and Drugs Act in the cases of the sale of margarine for butter, butter adulterated with boric preservatives, whisky adulterated with water, and beer with an excess of chlorides.

BROMSGROVE HOSPITAL.

The annual meeting of the Bromsgrove Cottage Hospital was held last week. The report showed that the number of cases treated during 1905 was 208, and of these 185 were cured, 10 relieved, 3 died and 9 remained under treatment. The operations that were performed numbered 96 surgical and 62 dental. The income was £850, but the expenditure amounted to £906. There is a sum of £4,697 invested, and £1,527 stands to the credit of the extension fund. Sir Thomas Chavasse was reappointed president.

BEQUESTS TO HOSPITALS.

The late Mr. Thomas Mabbutt, of Edgbaston, has bequeathed £1,250 to the General Hospital, Birmingham, for a bed to be endowed and called after him; £100 each to the Queen's Hospital, the Eye Hospital, the Children's Hospital, the Ear and Throat Hospital, the Skin and Lock Hospital, and the Orthopaedic Hospital, Birmingham, to the Deaf and Dumb Asylum, the Blind Asylum, the General Dispensary, and the Knowle Idiot Asylum; and also £50 to the Middlemore Boys' Home.

South Wales.

DEFECTIVE EYESIGHT IN SCHOOL CHILDREN.

AT a meeting of the Pontypridd Education Committee, held on February 1st, Dr. Howard Davies, the Medical Officer of Health, presented a report upon the eyesight of the children attending the Council's schools. He had found that 77 children were defective in eyesight, 90 very defective, and 43 extremely defective. It was decided that ophthalmic surgeons should be approached by the medical officer with a view of obtaining terms for treatment. Dr. Howard Jones, Medical Officer of Health to the Newport Corporation, has prepared a report as to the number of children with defective eyesight. The number of children on the school books amount to 12,192, and between 5 per cent. and 7 per cent. of these are probably suffering from defective vision severe enough to interfere with their educational progress. He recommends that each department in the elementary schools be supplied with suitable Snellen's types for making preliminary tests, and that the teachers should be instructed to test each scholar's eyesight under the medical officer of health's supervision. In the schools he had visited the principle of arranging the forms so that the windows should be to the left and slightly behind the pupils appears to have been overlooked. It would be advisable that general instructions be issued to the staffs to arrange the forms as far as possible in order to secure lighting on this principle, so as to prevent eye-strain. Dr. Jones has promised to submit a more detailed report in due course.

PUBLIC HEALTH OF BARRY.

At the meeting of the Barry Health Committee held on February 1st, Dr. G. Neale, J.P., medical officer of health, presented his report, in which it was shown that there were registered 223 births—127 males and 97 females—equal to a birth-rate of 30.0. The number of deaths was 81 (42 males and 39 females), equal to a death-rate of 10.9; 22 children died under 1 year of age. From the seven chief zymotic diseases 6 deaths were registered. There were 129 cases of infectious diseases, 99 of which were scarlet fever. This disease has been very prevalent, but the town generally is now in a healthy condition. It was decided to recommend to the Education Committee that Dr. Neale should also act as medical officer for the schools in the district to examine the children and teachers.

RHONDDA AMBULANCE SHIELD.

On January 31st a public meeting was held at Ton Pentre to consider competition arrangements for the ambulance shield presented to the two Rhonddas by Sir Charles Warren. Representatives from all parts of the district were present. Lieutenant-Colonel Cureton and his staff officer, Mr. J. W. Wright, attended as a deputation from the St. John Ambulance Association. Colonel Cureton explained that Sir Charles Warren wished to confine the competition to Rhondda lads. The competition takes place in April next, and the place will be announced afterwards. The shield is for annual competition, and can never be won outright.

Scotland.

THE CHAIR OF FORENSIC MEDICINE IN THE UNIVERSITY OF EDINBURGH.

THE King has been pleased, on the recommendation of the Secretary for Scotland, to appoint Mr. Harvey Littlejohn, M.A., M.B., B.Sc., Lecturer in Forensic Medicine in the School of the Royal Colleges of Edinburgh, to the Chair of Forensic Medicine in the University of Edinburgh rendered vacant by the resignation of his father, Sir Henry Littlejohn. Professor Harvey Littlejohn, who is 44 years of age, is a former Senior President of the Royal Medical Society, a Fellow of the Royal College of Surgeons and of the Royal Society of Edinburgh. After taking the degree of M.B. at the University of Edinburgh, he studied at Vienna, Berlin, and Paris. From 1888 to 1891, he assisted his father in the teaching and practice of medical jurisprudence. In 1891 he was appointed Medical Officer of Health to the City of Sheffield, which office he held till 1897, when he became a Lecturer in Medical Jurisprudence at Surgeons' Hall, Edinburgh. He was also lecturer on the same subject to the Edinburgh School of Medicine for Women.

The Scottish University Constituencies.

The polling for the parliamentary representative for Glasgow and Aberdeen Universities closed on Tuesday last, and the official declaration of the figures was made on Wednesday, as follows:

	Glasgow.	Aberdeen.	Total.
Craik, Sir H.	2,244	1,299	3,543
Murison, Professor	1,605	845	2,450
Smith, Professor W. R.	664	576	1,240

The result of the poll for the parliamentary representative of the Universities of Edinburgh and St. Andrews was declared this day (Friday). The numbers were:

	Edinburgh.	St. Andrews.	Total.
Tuke, Sir J. Batty	4,212	681	4,893
Strachey, J. St. Loe...	1,967	343	2,310

Royal College of Physicians of Edinburgh.

Morison Lectures.

The first of these lectures was given by Dr. W. Ford Robertson, Pathologist to the Scottish Asylums, on Wednesday, January 24th, the subject of the course being The Pathology of General Paralysis of the Insane. He remarked on the prevalence and recent increase of this malady, and the current opinion regarding its causation. He then proceeded to an account of the recent investigations in the Laboratory of the Scottish Asylums, at the Royal Edinburgh Asylum, and at Murthly Asylum. Not satisfied with the syphilitic hypothesis, and believing that the disease was the result of some form of bacterial toxaemia, he had set himself to localize the point of origin of the toxins, and to ascertain the nature of the toxaemia. In 1901 Dr. Lewis Bruce described the results of observations upon the temperature and leucocytes in which he endorsed Dr. Macpherson's opinion that the most characteristic temperature in general paralysis was a recurrent febrile attack every one or two weeks; that in the first and second stages the rise of temperature was accompanied by leucocytosis, whilst in the third stage there was leucocytosis independent of rise of temperature. Dr. Bruce held that this pointed to bacterial poisoning, the point of attack being probably the gastro-intestinal mucous membrane. The lecturer, in a paper published at the same time, advanced pathological evidence in support of the same view. There was constantly severe chronic atrophic catarrh of stomach or small intestine, or both, and excessive development of bacteria there. Dr. Ainslie had found further evidence of a chronic toxaemia in the constant condition of chronic endarteritis. Dr. Chalmers Watson advanced similar views regarding the pathogenesis of tabes dorsalis. In 1902 the lecturer, along with Drs. Douglas McRae and J. Jeffrey, found that a diphtheroid bacillus was specially prominent in the gastro-intestinal and respiratory tracts, and that it could frequently be isolated from the brain. Hence they advanced the hypothesis that general paralysis of the insane was due to a chronic toxic infection, permitted by general and local impairment of the defences against bacteria, and dependent chiefly upon the abundant growth of a Klebs-Loeffler bacillus of modified virulence, which gave the disease its special paralytic character. In the course of further investigations the thread form of the diphtheroid organism was discovered. He referred to certain experiments on guinea-pigs and rats, and to Dr. L. C. Bruce's experimental observations on the goat. In May, 1905, he and Dr. McRae found that diphtheroid bacilli were constantly present in very great numbers in the genital tract of both male and female general paralytics, but also in many cases that were not general paralytics. In seven consecutive cases of general paralysis combined with tabes they had found the urine loaded with diphtheroid bacilli. They had now obtained a growth of a diphtheroid bacillus from the brain *post mortem* in nine cases out of twenty-three in which cultures had been made. He also referred to the detection of diphtheroid bacilli in the blood, the walls of the cerebral vessels, the cerebro-spinal fluid, and urine.

Ireland.

The Election for Direct Representative for Ireland.

The election of a direct representative for Ireland on the General Medical Council closed on Saturday last. The numbers were—Kidd, 914; Thomson, 910. The Irish Branch Council met on Wednesday afternoon in order to declare the result, when a letter was read from Sir William Thomson asking for a recount and scrutiny of the votes. This, of course, will duly take place. Questions will arise as to the validity of some of the papers received. The total number of papers sent out was over 3,000, and about 60 were returned through the Dead-Letter Office.

Forster Green Hospital for Consumption, Belfast.

The annual meeting of this hospital was held in Belfast on January 30th. Mr. Herbert Ewart occupied the chair. The report showed that the income just balanced the expenditure, but that there was still a debt of £240. Dr. Howard Sinclair read the medical report, which showed that the average number of beds occupied was 32.85, and 148 patients were admitted during the year. In the out-patient department there were 1,417 attendances (525 new cases). The statistics as to improvement in the earlier cases were very satisfactory.

Ulster Fisheries and Biological Association.

The third annual meeting of this Association was held in Belfast on January 31st, Sir Otto Jaffé in the chair. Much interesting matter was presented at the meeting, and Professor Gregg Wilson gave an account of the year's work. Dr. John Milroy has undertaken to make a chemical analysis of oysters sent to him periodically from various Irish beds; and Dr. Carnwath has engaged in an important bacteriological research dealing with the purifying of mussels by transplanting from the sewage-laden waters of Belfast Lough to the purer waters of Larne Lough; both these researches will be conducted chiefly in the laboratories of Queen's College, Belfast.

Health of Belfast.

At the monthly meeting of the City Council on February 1st, the medical superintendent officer of health reported that 131 cases of scarlatina, 99 of typhoid, and 55 of simple continued fever had been notified during the month; 960 births and 685 deaths had been registered; the annual death-rate from all causes was 19.9, and that for children under 1 year old was 4.1. The public analyst drew attention to the increased sale of margarine as butter.

A Prosecution under the Pharmacy Acts.

The Pharmaceutical Society of Ireland appeared as complainants at the Southern Police Court, Dublin, on February 1st, when Forbes Sharpley was summoned for breaches of the Pharmacy Acts by dispensing certain drugs, he not being a duly qualified person. According to the report in the *Dublin Evening Telegraph*, a representative of the Society deposed that he called at the defendant's shop and purchased a bottle of Winslow's soothing syrup, which, when analysed, was found to contain a quantity of morphine, a scheduled poison. For the defence it was pointed out that the shop was a baby-linen warehouse; but in addition a few medical requisites were sold, including the syrup. Miss Sharpley, who had charge of the business, believed she was justified in selling all the articles. She was not aware there was poison in the syrup until her attention was called to the fact. The magistrate said the case was a very small one, and certainly not one for a heavy penalty. Subject to a point of law raised by the defence, which he reserved for consideration, he would impose fines of £4 and costs.

GRIEVANCES OF KERRY DISPENSARY DOCTORS.

A large and representative meeting of the medical profession was held in Tralee recently, when it was unanimously decided that the time had arrived to approach the guardians with a view to redress the grievances of the union and dispensary medical officers by granting them an increase of salaries. A statement was drawn up for the Board of Guardians of the several unions in Kerry, in which the medical officers respectfully appealed to them to consider the salaries with a view to having such a scale fixed as has already been framed in many unions in Ireland. On an average the salaries of medical officers (dispensary and workhouse) do not exceed £100 a year. When the vast amount of work to be done is taken into account, the dangers of infection, the exposure at all hours and in every kind of weather, the worry, expense, and loss of sleep, and the many annoyances associated with the discharge of the duties of a medical man, it will at once be apparent that such a salary, to include the cost of travelling—an expenditure of £50 a year in itself—scarcely deserves the title of remuneration at all. The medical officers point out the unfair treatment they receive in comparison with other public servants. In a certain town in Ireland there are two veterinary inspectors and two dispensary medical officers; the latter are in charge of the district within the borough boundary, and are at considerable expense for car hire; the former perform their duties on the quays, and are at no expense for travelling. The medical officers receive £120 a year each, the senior veterinary inspector £410 10s. a year, and the junior £264 12s. 6d., a total of £662 2s. 6d. as against £240. How is this difference to be explained, seeing that all comparison is in favour of the medical officers? Both are allowed private practice and are equal in this respect, but the inspector's duties are over at sunset, his expenses *nil*, and his training has not been more expensive. Even a poultry instructress, according to the statement from which we are quoting, receives £150 yearly and £50 travelling expenses for teaching women how to improve the breed of fowl, but the medical officers are asked to look after the health of human beings for a sum of little over half this amount. How, it is asked, can the poor expect them to render a hearty service when the care of cattle is paid for at three times the rate and of fowl at twice? Despondency and ill-treatment are unfortunately the lot of the average dispensary medical officer; he is cut off by impecuniosity from following the latest development of medical science and is in a sense a literary outcast in the profession to which he belongs—a condition which reacts injuriously on himself and on the community amongst whom he labours.

Hong Kong.

COLLEGE OF MEDICINE FOR CHINESE.

HE College of Medicine for Chinese, now in the ighteenth year of its existence, continues to do good ork. The Calendar for 1906, just issued, shows that here are not fewer than 35 students attending the course f study prescribed, and that since 1892, when they were rst instituted, 24 students have obtained the diploma ranted by the College. It is encouraging that during 1905 ve diplomas were bestowed—the largest number since e College was founded excepting during 1902, when the me number was granted. The self-sacrificing enthusiasm the medical men in the colony who have lectured and ught in the College during all these years is deserving recognition and of reward. Dr. J. C. Thomson, e present Secretary of the College, was one of the iginal group of teachers, and it is to his laudable nacity of purpose and organizing ability that the College ves its continuance. The help and patronage given to e College by the Government of Hong Kong has served some measure to further the good work of teaching edicine to the Chinese, but much more requires to be ne to place the institution on a basis commensurate th the enormous possibilities of the work in hand. ese possibilities of the College are indeed gigantic in the immensity of the potential good to China and the Chinese, and in the prestige which the British name and rule might acquire were a really great college of medicine instituted in Hong Kong. Instead of the Chinese journeying to Japan for instruction in medicine, where they are taught for the most part in the German language, the scientific language of Japan, they would be taught, were they to go to Hong Kong, in English, the foreign language which they know best. It is to be hoped, for the sake of the Chinese themselves, and from the point of view of the Empire, that the College of Medicine in Hong Kong will be encouraged by the Government, both by way of monetary grants and moral support.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the weeks ended December 30th, January 6th and 13th the number of deaths from plague in India numbered 3,282, 4,278, and 4,240 respectively. The seizures during the two latter weeks were returned as 5,184 and 5,029. The deaths from plague during the weeks ending January 6th and 13th were chiefly: Bombay Presidency, 802 and 565; Bengal, 1,073 and 1,144; United Provinces, 1,184 and 1,167; Punjab, 563 and 632. During the week ended January 11th there were 25 seizures and 20 deaths from plague in the city of Bombay. In Rangoon during the months of November and December the seizures numbered 113 and 98 and the deaths from plague 110 and 91 respectively, At Mandalay plague appeared on January 2nd, and between that date and January 9th the deaths from the disease were reported to be 5.

The recrudescence of plague in India during the winter of 1905-6 shows a marked decrease in the number of seizures and deaths from the disease. In the week ending January 7th, 1905, the deaths from plague amounted to 24,385, compared with 4,278 during 1906. It may be that the recrudescence is later in its appearance; on the other hand, it may be the epidemic which has prevailed for ten years is really on the wane. We have to go back to the first week of January, 1901, to find a death-rate from plague below that of the corresponding week of the current year. In 1901 there were only 2,453 deaths during the first week of January, and the disease during that year never reached the high mortality it caused during intervening years. It is to be hoped that the favourable indications which at present obtain may be sustained during the ensuing months.

AFGHANISTAN.

Plague has appeared on the Afghan border of Persia, near the town of Turbati-Sheikh-i-jam.

SOUTH AFRICA.

No cases of plague have been reported in South Africa during the weeks ended December 30th, 1905, and January 6th and 13th. The last case of plague was discharged from the Plague Hospital, Port Elizabeth, during the last week of December, 1905. A few plague-infected mice and rats continue to be found in Port Elizabeth, but in no other town of Cape Colony.

MAURITIUS.

During the weeks ended January 26th and February 1st the cases of plague numbered 1 and 2, and the deaths from the disease 1 and 1 respectively.

HONG KONG.

During the week ended January 13th, 2 cases of plague were reported and 2 deaths from the disease. During the week ended January 27th, 1 case of plague reported and 1 death from the disease. During the week ended January 3rd 2 seizures and 2 deaths from plague were reported.

JAPAN.

Between October 27th and November 15th, 1905, there occurred 18 seizures and 14 deaths from plague in the city of Osaka; and between November 8th and 15th, 7 cases were reported in Kobe. A plague-infected rat was discovered in Tokio during the second week of November. Plague is spreading in the vicinity of Kobe, and on December 1st four districts were infected.

RUSSIA.

Plague appeared in the Seistan province at the beginning of December in the Kesi-Neisara district, and is spreading rapidly to other localities. Between 200 and 300 deaths were reported up to January 26th.

SPAIN.

The steamship *Oropessa* arrived at Corunna on December 17th from South America with 3 cases of plague on board. The steamer proceeded to La Pallice, France, without landing passengers at Corunna.

UNDER the will of the late Mr. William Geake of St. Columb, Cornwall, the East Cornwall and South Devon Hospital is to receive for twenty years an annuity of £200.

THE TREATMENT OF INEBRIETY BY DRUGS.

IT will be interesting to many members of the Association, especially those engaged in general practice, to know that the Norwood Sanatorium is now carried on under the general superintendence of an honorary advisory medical committee, consisting of Sir Victor Horsley, F.R.S., Miss Mary Sturge, M.D., Dr. Harry Campbell, Dr. A. E. Cope, Mr. W. McAdam Eccles, F.R.C.S., Dr. J. G. Hewetson, Dr. Theo. B. Hyslop, Dr. Robert Jones, Dr. T. M. Kelynack, Dr. Bedford Pierce, Dr. T. Rushbrooke, Dr. T. Claye Shaw, and Professor Sims Woodhead. The Resident Medical Superintendent is Dr. Francis Hare, who was appointed to the office last September by the above Committee.

The following is a short account of the treatment pursued in the sanatorium:

On admission the patient's history is taken, and the results of physical examination noted. Unless some contraindication exist a brisk initial purge is given.

On the following day he is put on a tonic consisting of red cinchona bark, gentian, and capsicum, together with strychnine and atropine in minute doses. This is given six times daily at regular intervals.

Afterwards, hypodermic injections of strychnine nitrate and atropine sulphate are added, and given thrice daily with regularity. The dose of strychnine commences at gr. $\frac{1}{60}$, and rises gradually each day to about gr. $\frac{1}{20}$, and that of atropine commences at gr. $\frac{1}{480}$ and rises gradually each day to about g. $\frac{1}{50}$. These doses are maintained for a day or two, and are then gradually reduced. The reduction is less rapid in the case of the strychnine than in the case of the atropine. Commonly, the dose of atropine has fallen to *nil* by the middle of the third week, the strychnine being continued in slowly-diminishing doses until the end of the sixth week.

The object is to attain the distinct physiological action of both drugs. But patients vary widely in susceptibility. Consequently the maximum dose of either may call for reduction, or, on the other hand, for some slight increase. Slight muscular twitchings, dryness of the tongue and fauces, loss of power of accommodation for near vision, some dilatation of the pupil, and perhaps some irritation of the skin, appear in practically all cases; but these symptoms need not be allowed to become marked. Cutaneous flushing rapidly follows the larger injections in some cases; this seems most conspicuous in morphine cases, in which cutaneous vaso-constriction is often a distressing feature when the drug is being withheld. There may also be a slight evanescent exhilaration, shown by a tendency to loquacity even in the habitually taciturn.

Dr. Hare reports that certain undesirable symptoms have arisen during the administration of the atropine and strychnine injections. In two patients there was some increase of nervousness, as shown by an increased tendency to start from slight causes, followed by semi-volitional rigidity of the lower extremities and an ataxic gait. In one of them there was stumbling articulation, coming on in irregular paroxysms, alone, or more often with the onset of the ataxic gait. Two patients complained of some difficulty in mastication, associated with a slightly painful sense of stiffness in the masseters. Vertigo occurred after the larger injections in one patient. One had a transient hallucination, which, however, did not recur. Many, as already pointed out, suffered from cutaneous irritation; in one this was widespread and intense, and associated with patchy erythema.

At the end of the third week the atropine and capsicum are omitted from the tonic, which is continued to the end of the sixth week, or it may be longer.

During the first week or two of treatment—that is, until the hypodermic medication has had time to exert its full influence—the patient is advised to confine his walks to the grounds, which are ample for this purpose. Thereafter he is free to come and go at his will, always, however, attending regularly for meals and injections. At this time he usually takes a short season ticket for the Crystal Palace, and spends much of his time there.

Though the drug treatment is believed to be essential, it seems certain that much of the success attained depends upon the total change of environment involved in residence at the sanatorium.

Regular outdoor exercise is considered to be important. After the first week or ten days patients are encouraged to extend their walks over the whole neighbourhood. Previously it is found advisable to restrict them to the grounds of the sanatorium, which fortunately are ample for the purpose of exercise. It is also considered important that the meals should be frequent, ample, and well cooked.

At present the sanatorium is not self-supporting, and the deficit is made up by Mr. Joseph Rowntree of York, who, from purely philanthropic motives, is anxious that the medical treatment of inebriety, both alcoholic and other, should be placed upon a scientific basis. Dr. Hare, in a report on the experience during the first four months of his tenure of the appointment of medical superintendent, gives some details with regard to results, but we propose to defer the publication of any statistics until a sufficient length of time has elapsed to permit a reliable judgement to be formed as to the permanency of the improvement observed in a large proportion of the cases.

Further particulars can be obtained on application to the Medical Superintendent, the Norwood Sanatorium, Upper Norwood, London, S.E.

SPECIAL CORRESPONDENCE.

PARIS.

Académie de Médecine: Mortality from Tuberculosis in France and Germany.—A Paradox in Paternity.

PROFESSOR ALBERT ROBIN recently made a communication to the Académie de Médecine on the mortality from tuberculosis in France and Germany. In France the available statistics did not permit the mortality by pulmonary and other forms of tuberculosis to be calculated. It was necessary to collect statistics for all the communes in France, as in Germany; at present they were limited to 731 towns of more than 5,000 inhabitants, from which, as a basis, the total number of deaths from tuberculosis has been calculated to be 150,000 per annum. Professor Robin holds that this calculation is much above the real figure, as the mortality from tuberculosis decreases inversely with the density of the population. Taking as a basis the years 1901, 1902, and 1903, and after the census of 1901, it was found that 150,000 tuberculous deaths give a mortality of 38.4 per 10,000 inhabitants, whereas, taking into consideration the decrease in mortality with the density of the population, the total number of deaths should be reduced to 83,028, or 21.3 per 10,000 inhabitants, approximately the same as the mortality in Germany. German statistics were continually being quoted to prove the prophylactic and curative influence of the German system, of which the sanatorium is considered the pivot. If in France, where the sanatorium system had not been so extensively developed, it were found that the tuberculous mortality was not actually higher than in Germany, was it not permissible to draw the conclusions that the German system had not the value attributed to it, and that the chief cause of the fall in the mortality from tuberculosis in both countries were those hygienic measures—whether legislative, administrative, collective, or individual, which had been applied during the last quarter of a century? M. Brouardel said that he had estimated the annual number of deaths from tuberculosis at 150,000, because he was of opinion that among the deaths declared as due to chronic bronchitis and to unknown causes, a certain number must be ascribed to tuberculosis. It would be impossible to draw up exact statistics until the certification of the cause of every death was made compulsory, but the fact remained that the number of deaths from tubercle was much too large. M. Kelsch said that in the army, in spite of the exactitude of the information, it was impossible to say how many tuberculous subjects there were with the colours; this was equally true of foreign armies. M. Landouzy thought the estimations of the number of deaths from tuberculosis were below the true figure. In Paris in 1904, with a population of 2,714,068, there were 47,954 deaths; of these 10,405 were due to pulmonary tuberculosis. There were also 528 deaths from unknown causes. Thus 27.79 per cent. of the deaths in Paris were not sufficiently described to be classed under the twenty-five usual headings. It was the same throughout the country; in some places the percentage of deaths from unknown causes rose as high as 47.30 per cent. From a personal inquiry by letter addressed to 9,000 doctors in France, Professor Landouzy concluded that tuberculosis was increasing over more than half the territory; that in one-third of the territory it was stationary, and that only in a small portion was it absent or decreasing. In the Paris hospitals three-fifths of the patients were, he said, tuberculous. M. Chauffard agreed that it was necessary to improve statistics. But the question was a higher one and the improvement of statistics was only a means for arriving at the diminution of mortality from tuberculosis. It was desirable to know how many died from tuberculosis and when they died, so as to be able to disinfect. In 1903 the Académie hesitated to make notification compulsory in cases of tuberculosis, but now disinfection after death from tuberculosis was a necessity. The discussion was not concluded, and at a subsequent meeting the Académie will vote recommendations for the future fight against tuberculosis.

In a recent trial in Paris, the court arrived at a paradoxical decision. A *garçon de café* asked the court to declare that a child born to his wife 184 days after the marriage was not his, the wife confessing that her husband was not the father. The Civil Code decrees that paternity cannot be disavowed unless it is proved that it was impossible for the husband to cohabit with his wife 180 days before the birth of the child, and as four days were wanting for this impossibility to be applicable in the case in question, the court decided it was near enough for him to be the father, the confession of the mother being put on one side in the interest of the infant. The court, however, granted a divorce to the *garçon de café*, in his favour, because his wife concealed from him at the time of the marriage the fact that she was *enceinte* of the child of which the *garçon de café* is, however, declared judicially to be the father!

VIENNA.

A Surgical Jubilee.—Passive Resistance amongst Country Practitioners.—Examination of the Stomach by X Rays.

On January 29th, 1906, a quarter of a century had passed since Billroth for the first time succeeded in performing exsection of the stomach. Czerny of Heidelberg had previously removed the whole stomach of a dog, and kept the animal alive for five years afterwards, long before Billroth attempted his operation. But it was Billroth's success which made his method known to the medical world. Billroth himself said that it was only after he had satisfied himself that man can live without a stomach that he ventured to extirpate the larynx, and he was equally successful with that procedure. The Surgical Society duly celebrated the jubilee of gastrectomy. It may be added that up to the summer of 1890 (nine years after his first operation) Billroth had performed the operation 124 times.

The conflict of the country practitioners and the Board of Hygiene of the Diet of Lower Austria has entered on an acute phase. The main complaint of the doctors who under the Poor Law are public vaccinators, is the low rate of payment. The fee for the whole procedure is 2d., less than a barber gets for a shave. For the notification of infectious diseases, a duty which the by-law imposes on the practitioner, nothing whatever is paid. Therefore the Free Organization of Practitioners, a new and very active body, has taken the matter in hand, and has resolved to fight for better terms. It has submitted a proposal of a partial strike to its members, who comprise nearly all the doctors of Lower Austria, and a strike has been unanimously decided upon. The notification of the infectious diseases and public vaccination will be refused by the doctors as long as the Board refuses to pay a fair fee for responsible work. The danger to the public is not small, but measures have been adopted whereby it will be minimized. If the Board proves refractory, it is in contemplation to extend the resistance to other public functions as well, until the authorities are forced to redress the legitimate grievances of the profession.

An interesting new method of examining the chemical and motor power of the stomach was recently demonstrated by Dr. Schwarz to the Radiological Society of Vienna. He used bismuthum subnitricum, of which he gave a pill weighing about 15 grams (equal to ½ oz.) wrapped in a covering made of the outer coat of the appendix vermiformis of sheep. When the patient has swallowed the pill he is exposed to *x* rays, and the chemical compound is seen like a dark black spot at the lowest part of the stomach. As soon as the connective tissue of which the covering of the pill consists is digested, the bismuth is distributed all over the stomach, and the radioscope gives a diffuse shadow instead of a black spot. Healthy persons are able to digest the connective tissue in seven hours. If hyperacidity exists two hours are sufficient; but in a case of gastroptosis twenty hours after the ingestion the pill was still seen as a dark spot, which proved the chemical function of the stomach in that case to be highly impaired.

CORRESPONDENCE.

THE COLOUR OF THE HAIR IN OVARIAN DERMOIDS.

Sir,—I have been for some years interested in the colour and character of the hair found in ovarian dermoids, and I am anxious, with the help of the columns of the British Medical Journal, to collect further information on this point.

The facts, as far as I have been able to collect them, suggest the generalization that for the most part there are two colour types in the hair found in ovarian dermoids in European women, one dark and one pale, corresponding, I venture to suggest, to two primitive races, a pale northern and dark southern race.

This must not be taken too rigidly, as cases occur in which the colour of the hair is intermediate between these two extremes, and from the long and intimate fusion of types we should at first sight expect this intermediate character to be the rule instead of the exception, but we must remember, on the other hand, that modern views of the continuity of the germ plasm may throw light on this point.

Further, inasmuch as the follicular or germinal epithelial cells, in which dermoid structures originate, are not somatic in origin—that is, are not the direct descendants of the body epithelium of the patient or host, the frequent want of correspondence in colour between the dermoid hair and the hair of the body of the individual is what we should expect. Whereas, on the other hand, if this follicular epithelium is simply regarded as somatic in origin, and on the same level as the epithelium of the individual's skin, then the discrepancy in the result of their function is difficult to explain.

I am aware that Bland-Sutton remarks on the capriciousness of the colour of dermoid hair. In spite of this statement, however, I feel sure that a larger collection of observations bearing on this easily-observed and easily-recorded phenomenon would be valuable, not only in filling up certain gaps in pathological knowledge, but also as bearing on the larger subject of heredity.

I venture, therefore, to appeal through your columns to medical men and veterinary surgeons in England and abroad, to record in the columns of the Journal, or, if more convenient, to forward to me, information on the following points:

1. Observations on the colour of the hair in ovarian dermoids in the negro races, together with a record of the age, race, and hair type of the individual. A small portion of the dermoid hair after washing in ether, together with the hair of the individual, can be readily transmitted by post, and would afford valuable information as to negro characters on microscopical examination.
2. Observations on the colour of dermoid hair and that of the individual in women of European and other races.
3. Observations, with the hair, from dermoids in elderly women bearing on the question of the turning grey of dermoid hair in old age, and especially records of any cases in which the hair has remained dark-coloured in a dermoid cyst while at the same time turning grey on the head of the individual.
4. Records of the colour of the hair in each cyst in the cases of bilateral dermoids. I have found that the hair is sometimes of the dark type in one cyst and the light type in the other in the same patient.
5. Information from veterinary surgeons as to the colour and character of the hair and epithelial appendages found in the ovarian dermoids of animals, together with the nature and colour of the body covering.
6. The colour and character of hair found in dermoids in other organs of the body, excluding purely inclusion cysts or "sequestration dermoids," in which the dermoid hair shares a common origin with that of the body surface.

Information bearing on these and any other points and material illustrating the observations would, I feel sure, prove of value.—I am, etc.,

Leicester, Feb. 5th. C. J. Bond.

THE RELATIVE BRAIN-WEIGHTS OF MEN AND WOMEN.

Sir,—With reference to a letter by Professor Karl Pearson on the relative brain-weights of men and women which appeared in the British Medical Journal of January 27th, I should like, first, to endorse the remarks made by Dr. Beddoe, who clearly points out the danger of drawing conclusions with regard to the individual from figures which have reference only to the average; and secondly, those of Dr. Keith, in the same number of the Journal, on the relation of the brain-weight to the general development of the body.

The difference between Professor Pearson's views and those of the anatomists lies rather in the significance that we as anatomists attach to the small difference which exists between the *average* size of head of the highly intelligent and that of the unintelligent.

We believe that the differences in size and weight of brain, though small, have a true biological significance, and that they indicate a physiological correspondence between the tissues of the central nervous system and the muscles and other organs of the body which are controlled by it. As men with well-developed muscles are capable of doing more work than men with ill-developed muscles, so, we believe, are men with well-developed brains of greater general ability than those with small; and we believe that this is the case also whether the smallness of the brain is simply proportional to the size of the body or whether, along with a poor development of the body generally, the weight of the brain falls considerably below the general average. Both these conditions are found in congenital idiots; the average size of head sensibly decreases in passing from groups of the more sane to those of the less, including those of the very lowest type.

With regard to Professor Pearson's statement—"that 44 per cent. of any homogeneous class have heads as large or larger than the mean head of the exceptionally able 2 per cent."—I would remark that in this country it is almost impossible to obtain a homogeneous class, since the English race is markedly heterogeneous in its composition, and contains such very different types as the Celtic and the Saxon. This is, in my opinion, one of the chief causes of the marked individual variations in shape and size of the head, which are to be met with in any group or class that is composed of English men or women. It is obvious, therefore, that a statement of the percentage number of individuals having larger heads than the average of the exceptionally able will give an erroneous impression of the true correlation between ability and size of head. For there will be many individuals of undoubted ability belonging to types of men characterized by the smallness of their head, or conversely men of a low grade of intelligence who belong to a large-headed race. A far truer estimate of the correlation between ability and size of head will be obtained by ascertaining the mean size of head of all the individuals of high ability, and contrasting this with the mean size of head of the unintelligent. Should this method be adopted, it will be found that, if the average intelligence of each ethnological type be the same, variations in the proportional number of these types will have little influence on the average size of head in the two groups of the intelligent and the unintelligent, because the large and the small-headed type of man will be more or less equally distributed in these two groups. To make my meaning clear, let us take a group of 1,000 individuals composed of 500 Eskimos who have as a racial character very large heads, and 500 Andaman Islanders who have as a race very small heads, and let us assume that the average intelligence of these two races is equal, and let us divide the total number into two classes each containing 500; in one of which are grouped all those above the mean of intelligence (Class A) and the other those below the mean of intelligence (Class B). In each class there will be 250 Eskimos and 250 Andaman Islanders, and a comparison of the mean size of the head of each of these classes will give a fair index of the relation that the size of the head has to ability, as the large and small heads will be equally distributed in the two classes.[1] The following table shows the average cranial capacity of the male sex in Eskimos as compared with Andaman Islanders (Flower), and the mean cranial capacity of a group composed of an equal number of these two races.

	Cranial Capacity.
Eskimo	1,500 c.cm.
Eskimo and Andaman Islanders ...	1,390 ,,
Andaman Islanders	1,280 ,,

If Professor Pearson's method be adopted, and we compare an exceptionally able 2 per cent. with the rest, on the assumptions made above, the group of exceptionally able 2 per cent. (20 individuals) will be composed of 10 Eskimos and 10 Andaman islanders, and the mean cranial capacity of the group will probably be slightly above 1,390 c.cm. Of the remaining 980, there will be 490 Eskimos and 490 Andaman Islanders; now, since the difference between the average cranial capacity of the Eskimo race (1,500 c.cm.) and that of the mixed group of exceptionally able 2 per cent. (1,390 c.cm.) is so great, there will be 490, or 49 per cent., of Eskimo who have heads as large or larger than the mean head of the exceptionally able 2 per cent. Since the English race is markedly heterogeneous in its composition, similar results to those which we have obtained in our hypothetical example will be got by adopting the above method in dealing with a mixed English population.

With regard to some of the earlier statistics[2] mentioned by Professor Pearson, though these show that large heads and ability are correlated, the degree of this correlation, as stated in percentages or otherwise, is diminished by the fact that the vertical height of the head was not recorded. Now, an estimate of the size of an individual's head without any measurement of the vertical diameter gives as indefinite a measure of its capacity as an estimate of the amount of gas in a gasometer from the horizontal diameters or circumference alone without any notice being taken of its height.

To Professor Pearson's concluding remarks I shall not refer in detail. They illustrate the way in which size of head is influenced by race, for the three anatomists whom he mentions are of three different nationalities. Moreover, the distinguished anatomist whom he condemns to mediocrity has a head with a diametrical product of 4,143, which is not only considerably above the general average but is also above the average size of head of men belonging to the professional class and having his stature.—I am, etc.,

London, N.W., Feb. 6th. R. J. Gladstone.

AT WHAT AGE SHOULD A CLEFT OF THE PALATE BE CLOSED?

Sir,—In Mr. R. W. Murray's interesting paper[3] entitled "At what Age should a Cleft of the Palate be done?" he incidentally remarks "that from time to time children are seen who speak as if there was a cleft palate, but on examining the mouth the only defect noticeable is that the palate is highly arched, thus encroaching upon the nasal chambers."

I can confirm this observation as far as the facts go, but I am very doubtful if the highly-arched palate, or its encroachment on the nasal chambers, has anything to do with the nasal character of the speech.

Certainly I can find children who speak exactly as if they had cleft palates, and yet on examining the oral cavity neither a cleft palate nor a highly-arched palate is present. Moreover, it frequently happens that nasal or *M*-speech is associated with other defects, especially the substitution of the second-stop-consonants *T* and *D* for the third-stop-consonants *K* and *G*.

Let me very shortly give an instance. A boy of 4 years of age, the son of a schoolmaster, in many ways highly intelligent, and a great chatterer, is hardly intelligible in his speech, and all the time he is chattering air is escaping through his nose; a marked improvement is noted if he holds his nose when talking! His *P*s and *B*s are *P-M*s and *B-M*s, and he habitually substitutes a nasal *T* and *D* for *K* and *G*. He also substitutes other consonants for *R*. By effort, following copy, he does better, but usually bursts into tears before much practice has been accomplished. He can use his naso-pharyngeal valve perfectly in swallowing and in forced breathing, but it does not act automatically during speech. An examination of his mouth shows no cleft palate, and rather a broad arch, the uvula is somewhat stumpy-looking, but otherwise the appearances are normal. Its action is apparently imperfect in attempts at the *Ah*-sound. There is no superabundance of lymphatic tissue.

---

[1] This would be the case also if the proportion of each race in the total number were unequal, for example, 800 Eskimos and 200 Andaman Islanders, there would then be 400 Eskimos and 100 Andaman Islanders in each class.

[2] On the Correlation of Intellectual Ability with the Size and Shape of the Head. By Professor Karl Pearson. *Proc. Roy. Soc.*, vol. lxix, p. 333, 1902.

[3] British Medical Journal, February 3rd, 1906.

It is clear in this case that the *M*-speech is not due to a mechanical deformity, but is a failure of co-ordination of the muscles concerned; the nerve impulse travels along the lines of least resistance, avoiding the path where the resistance is high, and the defect becomes ingrained by habit. The child is in such a hurry to communicate his ideas that he does not notice his speech defects. But why this high resistance along certain paths is not clear; in some instances it is hereditary, and several in a family may have defective speech.

In some cases of cleft palate, I am inclined to think there is an associated nerve-muscle fault, and no doubt also, as so often happens in others with defective speech, the child's intelligence is in some respects below normal.

From a physiological point of view, it would seem as if the cleft palate should be closed as early in life as possible. No doubt the older child is better capable of sustained effort to overcome his faults, but one must also bear in mind that unconscious as well as conscious imitation plays a large part in the education of every child.—I am, etc.,

Manchester, Feb. 4th. Henry Ashby.

Sir,—I am glad to see that so experienced a surgeon as Mr. R. W. Murray has again brought forward this important question in his excellent article in the British Medical Journal of February 3rd, p. 245. His conclusion that it is best "as a general rule to postpone operating upon the palate until the child is between 2 and 3 years of age," is one with which I am entirely in accord. It is a conclusion with which the great majority of surgeons who have had much experience of cleft palate operations will, I believe, agree.

The question, as Mr. Murray very rightly says, is clearly a matter of evidence. Now those who are loudest in their advocacy of the operation in early infancy have not brought forward any conclusive evidence in support of their view. We hear much from them of the theoretical advantages of the very early operation. They do not, however, seem to think it necessary to burden our surgical literature with hard facts such as the proportion of infants who die as the direct or indirect result of their operations, or the actual condition of the palate (especially the soft palate), and the speech which ultimately results from these operations. Conclusions as to the mortality of the operation should not be drawn except from cases in which the wound has actually healed when the infant was last seen.

It may be argued that even if the early operation is attended with a considerably increased risk to life, it may be quite worth while to incur that risk provided that the ultimate results as regards speech can be shown to be appreciably better. But can this be shown? Careful perusal of the writings of the advocates of the early operation does not, so far as I can learn, afford any such proof.

Of the importance of a well-formed and movable soft palate for good articulation none but the inexperienced can be unaware; but the advocates of the early operation do not tell us how many of their operations leave the soft palate unclosed or leave it ill-formed, shortened, contracted, and inefficient. Perhaps they are wise not to tell us. Among my own operations the most difficult and the most unsatisfactory that I have had to perform were upon children who had undergone operations for cleft palate in early infancy and who were brought to me because of the failure of the operation as regards the soft palate.

What we want, and what I venture to think we have a right to expect from those surgeons who continue to advocate an operation which is believed by many to be unsatisfactory in its results, is detailed information concerning a series of consecutive cases of cleft palate treated in early infancy, telling us the mortality of the operation and the ultimate results as regards the condition of the soft palate and of the speech.

As regards the results of cleft palate operations performed at and after the age of 2 years, I have endeavoured to supply such information by publishing in October last[1] the whole of my personal experience (67 cases) up to that date. There was no death in the series, and the results as regards hard palate, soft palate, and speech were given in all but a very few cases that I was unable to trace. At the meeting of the British Medical Association at Leicester ten children were shown upon whose palates operations had been performed at ages varying from 2 years to 16.

If Mr. Murray's excellent suggestion be adopted, of an exhibition of cases after operation, to be held at one of the London medical societies, I shall be glad to show these (or another) ten cases, provided that some one else will also show an equal or larger number of patients operated upon during the first year of life, and will state (approximately at least) the total number of cases from which his ten have been selected.—I am, etc.,

James Berry,
Surgeon to and Lecturer on Surgery at the
Royal Free Hospital.
London, W., Feb. 5th.

ON VENTRIFIXATION.

Sir,—In a short article on the above subject in the British Medical Journal for January 27th Sir William Sinclair makes some statements which are so erroneous that they should be corrected without delay.

He does not think the recent discussion at the Obstetrical Society of London "presents British gynaecology at its best." Dr. Herman's introduction to that discussion was so exhaustive as to leave nothing to add, and so fairly and temperately stated as to compel the acquiescence of subsequent speakers. Can anything be better than that in either British or foreign gynaecology?

Again, he says he cannot imagine the ground for the opinions expressed by Dr. Herman and myself that the operation is more difficult and dangerous when there are adhesions; and, after making this astounding statement, he forthwith describes a case of his own in which the difficulties were great owing to adhesions. Thus, in describing the operation, he says:

> The ovaries and tubes on both sides seemed to be *hopelessly bound down by adhesions*, and it was *difficult* to reach the *fundus uteri*, which, *owing to adhesions*, could be only obscurely felt in the lowest part of the pelvis (the italics are mine).

Again he writes:

> I have always assumed that a peritoneum which has been devastated by peritonitis is less likely to become infected than the virgin structure.

Possibly that may be true with regard to the introduction of sepsis during the operation by some fault in the technique; but that was not the increased danger referred to by myself, nor do I think by Dr. Herman. Assuming that the operation is performed aseptically, there is no danger of peritonitis, haemorrhage, and injury of bowel when dealing with a normal peritoneum, whereas all three may exist where there are adhesions, no matter how faultless the technique.

Adhesions are often the result of a local peritonitis, and they prevent spreading of the inflammation throughout the peritoneum. Hence, the peritoneum above is virgin, and so is easily lighted up, especially by disturbing certain kinds of adhesions, for they are not all alike in this respect.

Might I point out that the case described by Sir William Sinclair is not one of mere ventrifixation? It is a case of abdominal section on account of diseased ovaries and tubes, together with uterine displacement and pelvic inflammation. An elaborate operation is performed: portions of diseased ovaries are removed, one tube is laid open, the ovaries have to be "gouged out," and the fundus uteri is released with difficulty. It is a case of partial oöphorectomy—a separation of adhesions, with replacement of displaced organs, and whatever benefit the patient has received it cannot be claimed that it is all due to the ventrifixation.—I am, etc.,

London, W., Jan. 30th. Peter Horrocks.

---

[1] British Medical Journal, October 7th, 1905.

ENUCLEATION OF THE PROSTATE FOR HAEMORRHAGE.

Sir,—I was much interested in reading Sir William Thomson's case in the British Medical Journal of January 27th, 1906, p. 188, as I operated upon a somewhat similar one on December 22nd, 1904. A man, aged 60, had had several severe haemorrhages from the bladder, and though under observation for two years, nothing beyond the fact that he had a large prostate could be discovered. After his last attack of bleeding he was so ill that I determined to open his bladder and see if there was not a small growth concealed by the large prostate. At the operation, beyond a large prostate nothing could be found. I enucleated the prostate, which weighed 2 oz. A considerable portion of urethra came away, including a piece of the membranous part, and this was ecchymosed as if the bleeding had come from it. The man is perfectly well now, and has had no more haemorrhage. The only after-trouble was the need of passing sounds for a short period, as there was some contraction at the neck of the bladder probably due to the amount of urethra removed. I have not published the case, as it forms one of a series of removals which I intend publishing later on.—I am, etc.,

G. Newbolt, F.R.C.S.

Liverpool, Jan. 29th.

THE HEALTH OF MADEIRA.

Sir,—Having read an article entitled, "The Plague in Madeira," in the British Medical Journal of January 20th, I wish to ask you to allow me to enlighten your readers upon the real condition of the public health in this island.

In the first place, I, who have been a professional man here for the last thirty-two years, during which I have been attached to the most important hospitals of the place, herewith declare that there has never been a single case of plague in Madeira, and that, secondly, this present winter has been a most healthy one, which is proved by the statistics published by the proper authorities of the island.

Having stated these facts, which can be confirmed not only by a great number of professional people and others in Funchal, but by two official dispatches of H.E. the Civil Governor of Madeira to the foreign consuls dated December 14th and January 17th last, allow me to add some further information in order to show what has led some minds to believe in the existence of plague here.

Since 1890, when influenza first made its appearance here, we have had every year a return of a few cases of that illness, but each year showing different symptoms, as has indeed been the case all over Europe.

One of those symptoms has taken the shape of pneumonia, with also sometimes swellings in different parts of the body but without serious consequences, the patient suffering an excessive touch of fever—temperature, say, 40° to 40.5° C.—but for few hours only, excepting when the pneumonia takes an adynamic shape.

Some of these cases showing boils—to which I refer in the last paragraph—such as are met with all the world over, were taken by two doctors practising in Funchal to be cases of plague, and this without the cases being thoroughly and properly examined. Obviously the cases should have been first bacteriologically examined, and then the result should have been submitted to the Medical Board of Health, which should have been specially called together to deal with such an important subject. Had this been done the alarm into which our good-natured population—as you kindly call it in your article—was naturally thrown at hearing that the plague was amongst them would been avoided.

The alarm which had taken possession of some people led to the fatal mistake of other cases of influenza, rheumatism, asthma, and other chronic diseases of the chest being taken to the lazaretto to be isolated, and they were declared by the doctor in charge to be plague also.

No communication, verbal or otherwise, was allowed between the inmates of the lazaretto and their families. Some of the patients died there (as likely as not from sheer fright), but nobody could obtain any information about them. Two members of the same family who were interned at the lazaretto could hear nothing of one another.

Day after day people suffering from different and ordinary diseases were sent into the lazaretto, and to such an extent was this done that a panic existed among the population during the last three weeks in December.

The Governor of Madeira, as I stated before, certified himself that not the slightest epidemic existed, or had ever existed, but the doctor in the lazaretto did otherwise.

From this diversity of opinion the doubt arose, and some professional men began to believe in the existence of the plague, and they wrote to their friends in Lisbon and abroad warning them of the outbreak of the illness. This is the reason why the *Medicina Contemporanea* of Lisbon published the lines on the subject to which you refer.

But everything in the world must have an end. Our people got tired of living among these fears—the secrecy which was being kept about everything which was done in the lazaretto, the foreign visitors keeping away from the island this winter, the loss entailed upon all those who live on the sojourn of the visitor, lines of steamers giving up calling at Funchal for fear of not being admitted to pratique at the next port of call, although the bill of health delivered to them by the local authority and by the consul was a clean one—all these circumstances tended to exasperate the citizens, knowing, as they did by this time, that nothing was the matter; so they went on January 7th to deliver their brethren interned in that Bastille, as they call it.

Well, all the patients who were found there still alive were escorted to their homes, where they enjoy perfect health, as I can personally certify, as I have visited most of them and have reliable news of the others, and no other case of imaginary plague has since appeared.

And if the plague had really been amongst us, one would have expected it now after the so-called patients had been liberated three weeks ago to have spread all over the town. But, as a matter of fact, the public health has for many years not been so good and flourishing as now.

I omit here all mention of the atrocities to which the so-called plague patients are said to have had to submit at the lazaretto, because I do not want to put to shame the people who acted in that way. But what is said to have been done there is quite horrifying.

When people were made aware of all that had been perpetrated a crowd went to demonstrate against Dr. Rego, the bacteriological officer, who had been in charge of the lazaretto, and they obliged him to take refuge on a Portuguese cruiser lying in the harbour. Had he not done so, he might have paid with his life for what he has done to Maderia.

My only purpose in sending you this letter is to declare that we have not had a single case of plague in this island, and if you find it convenient and agreeable to your readers, you may make any use of my letter as a *démenti* to those who may dare say the contrary, as I *vivo et scribo in aëre Funchalensi* and have been watching most carefully the matter which is the subject of my letter.—I am, etc.,

C. A. M. Pitta,
Brigade Surgeon, on the Retired List of the Portuguese Army; Senior Physician to the Hospital for Consumption, Madeira; Chevalier de la Légion d'Honneur, etc.

Funchal (Isle of Madeira),
Jan. 29th.

AN ARMY MEDICAL CIVILIAN RESERVE.

Sir,—The article entitled "President Roosevelt on the Medical Service of the Army," appearing in the British Medical Journal of January 27th, is of considerable interest as showing that the shortage of officers in the Army Medical Service of America is similar to that experienced in Great Britain, and also that the United States Government is alive to the serious state of affairs that would arise in the event of a great war. The lesson of an inadequate supply of efficient medical officers was brought home to our War Office at the time of the South African war, and the medical advisers to the department are, in consequence, most eager that something should be done to rectify the defect. It was in response to an urgent appeal for supplementary civilian medical aid, made by Surgeon-General Keogh, at a medical gathering last year, that a course of instruction in army medical administration was asked for and subsequently organized in the west of London. I mention this to show that although we are as a nation intensely conservative, yet the medical profession is alive to its national obligations, and is coming forward with true patriotism to the assistance of that branch of medicine which has done so much for its King and country—namely, the Royal Army Medical Corps.—I am, etc.,

Herbert W. Chambers,
Honorary Secretary to the Executive Committee of the Army Medical Civilian Reserve.
Hotspur Lodge, Goldhawk Road, W., Jan. 30th.

LIFE ASSURANCE WITHOUT MEDICAL EXAMINATION.

Sir,—I have read Dr. Atkins's very pointed letter in the British Medical Journal of January 27th, p. 236. He says: "If any one requires information (as to duration of illness) it can be supplied on payment of a fee, but always at our discretion."

A dishonest patient may try to cheat the insurance company, or a very second-rate company may try to bamboozle the ignorant relatives of deceased.

An entrance medical certificate prevents all this.

Now, if asked by a legal firm, representing the company, for information as to duration of illness, is one, after stipulating for, say, a half-guinea fee, justified in parting with such information?

Is such information not a professional secret?—I am, etc.,

Painswick, Jan. 30th. D. J. Scott.

SURFACE TENSION OF URINE.

Sir,—With reference to the paper on the surface tension of urine published in the British Medical Journal of December 23rd, 1905, p. 1636, we regret having overlooked a paper by Dr. O. Grünbaum,[1] in which a method of estimating bile salts in urine by means of the dropping pipette is described. Dr. Grünbaum refers to his paper as a preliminary one, and promises a further communication dealing with the excretion of bile salts in various pathological conditions. As our work was begun before the appearance of Dr. Grünbaum's paper, and was carried out with a somewhat different object, we trust that Dr. Grünbaum will not consider that we have wittingly trespassed on his field.

We should also like to draw attention to an error in the reproduction of our paper. Fig. 4, page 1638, has been printed upside down.—We are, etc.,

W. D. Donnan,
Liverpool, Feb. 1st. F. G. Donnan.

LEAD AS AN ABORTIFACIENT.

Sir,—I was interested in reading Dr. Lawrance-Burke's report on a case of abortion following the use of pills containing lead. The use of it in this district is so common that, when called in to see a woman who has aborted, I invariably examine the gums for lead poisoning. It is, as a rule, difficult to get the patient to admit having taken anything, so when they will not do so I simply tell them that it is not necessary to admit the fact as it is self-evident. This generally results in the admission. I am sure that very few of them are aware they are taking lead, it not being bought or sold to them as one of its preparations. I have recently been attending a woman for abortion and plumbism who only took—so her story is—four pills.—I am, etc.,

Rotherham, Feb. 3rd. W. H. Rowthorn, L.R.C.P., etc.

OBITUARY.

GEORGE WELLER, M.R.C.S., L.S.A.Lond.

George Weller, who was born in the year 1841, was the youngest son of the late Captain J. Weller, shipowner, of Bow Road, E. He was educated at the Stepney Grammar School, and was afterwards apprenticed to the late Mr. Thomas Jones of Chesterfield. Mr. Jones had a large general practice with charge of collieries; he was also the union medical officer and held various parochial districts attached to the union, so that under his instruction Mr. Weller gained much useful information and was well grounded in the routine of general practice.

He joined the London Hospital as a student in 1860, and, after gaining the diplomas of M.R.C.S. 1863 and L.S.A. n 1865, was appointed House-Surgeon to the hospital; subsequently he held the posts of Resident Accoucheur and Assistant Medical Officer. His devotion to the arduous duties of these appointments injured his health, and, although pressure was brought to bear on him to go for a voyage, it was with some difficulty that he was induced to do so. He finally yielded, however, and went to Australia.

Returning in 1866 with health re-established, he commenced practice in Wanstead, Essex. Here, in addition to the routine work of practice, he held various appointments; he was Medical Officer to the Merchant Seamen's Orphan Asylum, Surgeon to the N and K Divisions of the Metropolitan Police, Medical Officer to the Wanstead Maternity Society and Provident Dispensary, and for a time a member of the local board of health. He was a member of the British Medical Association and a Fellow of the Royal Geographical Society.

He retired from the active work of general practice after twenty-two years, and commenced consulting work in West Street, Finsbury, but twelve months afterwards began to suffer from symptoms of empyema of the frontal sinus, for which he underwent operation on two or three occasions. He then retired to Willesden, hoping still to do some useful work, but was again obliged to give up owing to the formation of a renal calculus, which was removed in July, 1900. He then relinquished practice, and finally settled in South Croydon, where he died on January 25th, after a long and distressing illness borne with much courage.

During the last few years of his life he travelled a good deal, going to the South of France, Algiers, Egypt, South Africa, the Canaries, etc., and there is no doubt his health was much better when he was away in a warmer climate.

George Weller was a good example of the advantages of the apprenticeship system of training, and always acknowledged the value of his experiences as a youth in the large Chesterfield practice. His practical knowledge and devotion to duty received recognition in Wanstead and district, where he soon established a lucrative and extensive practice. No one who knew him could doubt the honesty of purpose and upright character of the man, and any suspicion of unfair dealing or story of oppression called forth an expression of indignation on his part which was very emphatic. His numerous illnesses produced a serious effect on his career and interfered very much with his success as a consultant, leading ultimately to his retirement; but he never lost the confidence and friendship of some of his patients, who relied on him for help to the end. George Weller was never married, but leaves a brother and sisters to mourn his loss. The interment took place quietly in the family vault in Tower Hamlets Cemetery on January 31st in the presence of several relatives and old friends.

THOMAS MORETON, M.R.C.S., L.S.A.,

HARTFORD.

We have to record the death, in his 71st year, of Thomas Moreton, M.R.C.S. and L.S.A., J.P., at his residence, Ivanhoe, Hartford, Cheshire, on February 5th.

He entered St. Thomas's Hospital in 1856 during its clouded existence when in temporary refuge at the Surrey Gardens; he gained one of the Matriculation Scholarships, and at the end of his first year one of the Treasurer's prizes. During his student career he also worked steadily as an undergraduate of London University, obtaining honours in his first M.B.

Having obtained his diplomas of M.R.C.S.Eng. and L.S.A. in 1859, he was appointed Resident Accoucheur and afterwards House-Surgeon to the hospital. In 1861 he settled at Northwich, in Cheshire, his native county, and succeeded to the practice of Mr. James Dean, who had been in that town for nearly, if not quite, fifty years. Mr. Dean was the original of Mr. Albert Smith's Dr. Aston in *Christopher Tadpole*. Mr. Moreton was at once appointed Medical Officer to the Northwich Workhouse and to an extensive district of the union, as well as public vaccinator. He held these offices for over forty years, and during this long period by his genial presence, kindly disposition, good sense, and good surgery he established himself in a very large general and consulting practice, being a favourite with all classes. For a short period he was Medical Officer of Health for Northwich, was during many years Surgeon to the local regiment of volunteers, and had been Honorary Surgeon to the Victoria Hospital since its establishment. Some few years ago the Lord Lieutenant of the county added his name to the list of Justices of the Peace, an honour which he highly appreciated and richly deserved. Mr. Moreton, who was a member of the Altrincham Division of the Lancashire and Cheshire Branch of the British Medical Association, was for many years Local Secretary of Epsom College, in the success of which he always felt a warm interest, and at the close of his active association with this institution he, through his old friend and fellow-pupil, Mr. Reginald Harrison, one of the Vice-presidents, gave a very generous donation to its funds.

---

[1] *Trans. Path. Soc. Lond.*, vol. lv, Part I, p. 55, 1904.

Lieutenant-Colonel H. W. HUBBARD, R.A.M.C.

Many of his brother officers and the old St. George's men of his time will learn with deep regret of the death of Lieutenant-Colonel H. W. Hubbard, R.A.M.C. He was born in India in 1856, and was the son of the late Rev. H. D. Hubbard; he received his early education at private schools in Plymouth and Switzerland. After some preliminary training at the Royal Albert Hospital, Devonport, he entered the medical school of St. George's Hospital in 1875. Whilst at St. George's he was a member of the famous football team which is often cited by authorities as the best ever turned out by any hospital, either before or since. He was, moreover, a racquet player and swimmer of some repute. After becoming M.R.C.S.Eng. in 1879 and L.R.C.P.Lond. in 1880, he entered the Army Medical Department in 1881, and was soon employed on active service, for in the following year he was present at the battle of Tel-el-Kebir, for which he was awarded the medal with clasp and the bronze star. In addition to that in Egypt he had considerable experience of foreign service both at Malta and in Bengal. But it was at home that Hubbard's services were to prove of signal advantage to the army in general and its Medical Corps in particular. At the time he was in charge of the Cambridge Hospital, Aldershot, the necessary changes rendered the introduction of greatly increased numbers of lady nurses imperative. In spite of opposition these changes were successfully carried out, in a large measure owing to Hubbard's acumen and tact, and he handed over the hospital to his successor in a most efficient condition. On January 30th last, feeling out of health, he left London for a ten days' holiday at Grindelwald with his close friend and fellow-student, Lieutenant-Colonel Cottell, who tended him to the last. During the journey he complained of illness, and the morning of arrival at their destination it was found that he had consolidation at the base of the left lung. Three days later consolidation supervened in the right lung as well, and he died of rapid cardiac failure, and is buried at Grindelwald. His quiet and courteous manner, his thoughtful earnestness, and his high sense of duty gained for Hubbard the respect and esteem of all associated with him, and his death is a distinct loss to the Army Medical Corps and to his numerous friends.

ANGIOLO FILIPPI, M.D.,

PROFESSOR OF FORENSIC MEDICINE, FLORENCE.

Professor Angiolo Filippi, who died on December 30th, 1905, was the leading medico-legal authority in Italy. Born at Florence in 1836, he studied at Pisa, where he graduated in 1858. He took part as a volunteer in the campaign of Lombardy in 1859-60 under Garibaldi. In 1865 he worked among the cholera patients at Ancona, San Severo, and Apricena. In 1866 he again went campaigning, and after the battle of Custoza was awarded the bronze medal for valour. On cholera breaking out in Apulia he once more did yeoman service in ministering to the sick; he gave up a considerable part of his nights to pathological researches which afterwards served as material for the investigations of Pacini.

In 1867 he was appointed Assistant to the Chair of Pathological Anatomy in the Institute of Higher Studies at Florence. In 1875 he qualified as Private Lecturer in Medical Jurisprudence, and in the following year he was appointed Assistant to the Chair of that subject, then occupied by Professor Ranieri Bellini. On the sudden death of his chief in 1878 he was called upon to discharge the duties of the Chair; in 1880 he was appointed Extraordinary, and, finally, Ordinary Professor, in 1884.

Filippi's first work was a treatise on the surgery of war. In 1889 appeared his *Manual of Forensic Medicine*, which has gone through several editions. It was the first systematic treatise on the subject written by an Italian expert, and he was the first who gave criminal anthropology a place in a treatise on forensic medicine. Filippi founded a school of medical jurisprudence in Italy, and pupils of his now occupy Chairs in the Universities of Genoa, Palermo, Modena, and Cagliari; at two others, Catania and Siena, the professors are pupils of his pupils. Filippi's fame as a teacher was so great that two years ago Dr. Nuscimento Silva, Professor of Forensic Medicine in the University of Rio de Janeiro, came to Florence to work under his direction.

Dr. Swan M. Burnett, of Washington, who died suddenly on January 18th, was born at Newmarket, Tennessee, in 1847. In 1866 he entered the Miami Medical College of Cincinnati, and in 1869 he migrated to the Bellevue Hospital Medical College of New York, where he graduated in 1870. In 1873 he married Frances E. Hodgson, the author of *Little Lord Fauntleroy, That Lass o' Lowrie's*, and other works of fiction. In 1876 he settled in Washington, where he founded the Eye and Ear Clinic at the Central Dispensary in 1878. He established a post-graduate school of ophthalmology in 1881. Dr. Burnett was the author of several important works on his special department of medicine.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Ercole Pasquali, Professor of Obstetrics and Gynaecology in the University of Rome, aged 80; Dr. Lehman H. Dunning, Professor of Diseases of Women in the Medical College of Indiana, aged 55; Dr. August F. Lemke, sometime Associate-Professor of Medicine in the Chicago College of Physicians and Surgeons, aged 32; Dr. Cnopf, Director of the Children's Hospital at Nuremberg; Dr. J. A. Amann, Extraordinary Professor of Gynaecology in the University of Munich; Dr. Emmet Cooper Dent, Superintendent of the Manhattan State Hospital for the Insane, author of many writings in which he advocated the use of hydrotherapy almost to the exclusion of medicines in the treatment of insanity, camp life for the acutely insane, and operative procedures (especially on female patients), aged 48; Professor J. V. Wichmann, Lecturer on Diseases of Children in the University of Copenhagen, and Director of the Queen Louisa Children's Hospital in that city, aged 53; Dr. Louis Wecker, the well-known ophthalmic surgeon of Paris, aged 83; Dr. Aliprando Moriggia, sometime Professor of Histology and General Physiology in the University of Rome; Dr. Johannes Kolaczek, Extraordinary Professor of Surgery in the University of Breslau, aged 63; Dr. Jerofey W. Kostenitsch, sometime Professor of Ophthalmology in the University of Warsaw, and afterwards in the Helena-Pauloffna Clinical Institute, St. Petersburg, aged 51; and Dr. Victor A. Worobieff, Lecturer on Pathological Anatomy in the University of Moscow.

MEDICO-LEGAL AND MEDICO-ETHICAL.

A SKIN SPECIALIST.

We learn from the *Lancaster Observer and Morecambe Chronicle* that an inquest was held recently by Mr. Neville Holden with respect to the death of Mrs. Ralph, who died while under the care of an unqualified practitioner. It appeared that the woman had suffered from acute dermatitis, and that under the treatment of Dr. Baldwin the condition of the skin greatly improved, but the patient remained in an extremely weak condition. She then dispensed with the services of Dr. Baldwin, and placed herself under the care of Mr. James Wolfenden, of Scotforth, who described himself as a farmer and skin specialist for both human beings and animals. In his evidence he stated that the deceased was suffering from weeping eczema, and he gave her a simple ointment to apply externally. He afterwards gave her a lotion composed of olive oil and spirit of tar. The ointment contained the same ingredients, the quantity of tar being increased, and arrowroot. Another "healing" ointment was said to contain olive oil and beeswax, and there was an ointment for "taking out inflammation," composed of lard and herbal extract. Asked what precautions he took to make the lard antiseptic, witness said he simmered it in the oven, and then put in a herb known as "parsley peet," as a curative principle. The tonic given to deceased contained valerian root, snake root, Peruvian bark, cloves, and black treacle. Snake root was a foreign herb, very useful for stomachic disorders. He had taken a decoction of it himself for seventeen years and found it very effective. These herbs were put together as a stomach strengthener. Witness said he told Mr. Ralph that if deceased's strength could be maintained he could cure her. He believed the tonic would help to strengthen her by provoking appetite. He had given deceased about six pounds weight of ointment. Dr. Baldwin stated in answer to the Coroner that lard after rendering would become septic within a short time; it was for this reason not much used by chemists, having been replaced by paraffin, and if it were used it was heated with benzoic acid which rendered it antiseptic. In his opinion the patient died from septic absorption.

Summing up, the Coroner said there was perhaps no place like a Coroner's court for bringing to light cases of gross ignorance and stupid credulity. Not very long ago he investigated a case of almost criminal negligence, in which a lad was neglected so much that his death was practically caused thereby. It passed comprehension how men like Wolfenden could get reputations. They did not pretend to perform miracles, but they did pretend by the use of drugs to cure people, and when they took on a case that a doctor had had they assumed a greater knowledge of drugs and of scientific methods. A farmer could not have any deep knowledge of drugs and their use. Wolfenden had been very open in his evidence, and had taken a course entirely opposite to that of the doctor. It was apparent from the amount of snake root used that he knew nothing about drugs. He put in a pinch, and expected that to do good. The whole thing was simple quackery. As a result of his treatment, the body of deceased was in such a state that it was thought inadvisable to have a *post-mortem* examination, though perhaps it would not have carried them much further, as the disease was external, and they were therefore left with an unqualified man's opinion that she died from weakness caused by weeping eczema. Dr. Baldwin told them she died by the poison from the wounds getting into her system. However they looked at it, death was due to natural causes, and unless the jury thought Wolfenden's mistreatment was sufficient to make him criminally responsible—and he hardly thought it was, because he did his best—the verdict would be "natural causes." Even if they did not arrive at the exact cause of death, an inquiry like that would have some effect, and when people saw the dangerous results of the case it was to be hoped they would take note of it, and in this way the inquiry might be of service to others.

The jury returned a verdict of death from natural causes, and desired that Wolfenden should be strongly censured.

The Coroner, addressing Wolfenden, said he quite agreed with the jury. Their action meant that he had brought himself very near a criminal prosecution, and if their censure had gone deeper, prosecution would have followed. He hoped he would bear in mind the result of the inquiry and take warning.

MEDICAL ADVICE GRATIS.

SOME weeks ago (BRITISH MEDICAL JOURNAL, December 2nd, 1905, p. 1472) we drew attention to a scheme announced by *Answers* to provide its subscribers with medical advice gratis in return for one year's subscription. Since then the details have been worked out and two correspondents send us cuttings which describe it. In return for 9s., which is one year's subscription to *Answers*, a membership ticket and voucher book are sent post free, which entitle the holder to "six personal consultations with the best practitioners in his town, and six with the best solicitor." It is also stated that in case of need the member may come up to London and consult "the very best medical man in London." In addition to these advantages we are told that "financial and patent experts, educational authorities and highly-trained advisers in every office of human activity are placed at the service of members free of charge." All that any one has to do to secure the services of his local doctor or solicitor free is "to subscribe for one year's *Answers* and bind himself not to divulge the name of the advisers he consults." It is further remarked that "readers will at once recognize the necessity for this pledge, in accordance with the strict etiquette of the medical and legal professions."

We confess we do not understand the value of this restriction, as we are told that the voucher book tells the name and address of the nearest *Answers* doctor and lawyer, and as these can be obtained by any one who subscribes it seems to be easy enough to get to know who is lending himself to this practice in any given place. The scheme differs from that which we understood to be foreshadowed when writing ast December, as we then supposed that the cases were to be submitted in writing, a method of medical consultation which has many obvious disadvantages, and should be discouraged; according to the present proposal, however, the holder of the voucher consults a local medical practitioner or solicitor, who receives his fee from the office of the newspaper. We should like o know exactly what is the nature of the arrangement between he medical practitioner and the newspaper before expressing an opinion upon the ethical features of this novel proposal. f, for example, the voucher is good for a guinea, and may be taken to any medical practitioner selected by the patient, the latter may, if he chooses, accept the voucher instead of cash, just as he might take a cheque. Apparently care is taken to avoid circulating any list of selected medical men which might be considered to be an advertisement.

THE OBLIGATIONS OF A MEDICAL OFFICER TO A FEVER HOSPITAL.

J. W. U. writes that he recently sent a case of typhoid fever to the local hospital for infectious diseases, and he complains that when three weeks later another case occurred in the same house the medical officer of the hospital was called in, and had it also removed to the hospital. He complains of the action of the medical officer to the hospital in interfering with a member of a family usually under J. W. U.'s care, and declares it to be a breach of medical etiquette, and says that "if this conduct is correct, general practitioners cannot send their patients to hospitals with safety." He further contends that as he is medical officer of health for the district in which the patient lived, the medical officer of the infectious hospital had no right to remove a patient from his district without getting his consent. The form of notification seems to have been filled up on the day on which the case was removed, and was received by our correspondent on the next day.

*** A medical officer to a hospital for infectious diseases should be careful not to take advantage of his position to the prejudice of his colleagues, and should not accept patients in families to which he has been introduced through his work at the hospital, when these are usually under the care of other practitioners. In the present case we understand that the medical officer to the hospital (which was the hospital for the district in which the patient lived) was merely called in to make a diagnosis and had the case at once removed, which is not so blameworthy as if he had attended it at the house. With regard to our correspondent's second point, that a case should not be sent to a fever hospital until the medical officer of health of the district in which the patient resides has been communicated with, we can only say that in large towns this is not the practice; as soon as a case has been diagnosed the ambulance is telephoned for and the notification is sent by post, so that the medical officer of health would usually receive the notice the day after the patient had been admitted to the infectious hospital, just as happened in this case. We do not think it would be possible to lay down a different rule.

FEES OF MEDICAL WITNESSES: A WARNING.

DR. SAMUEL ALEXANDER (Bromley, E.) writes: I was lately served with a subpoena, accompanied by a crossed cheque for 1 guinea, by a firm of lawyers to attend and give evidence in an action in the King's Bench. The cheque was paid into my bank fourteen days after receipt, and I have had it returned as not paid in. I was at the court for three days and gave evidence on the third day, and have not received any fee. The case was decided against us. The report of a similar case in the BRITISH MEDICAL JOURNAL of February 3rd points out a successful mode of procedure. The moral, I suppose, is to accept only coin of the realm.

HOW TO TREAT A RIVAL LIVING AT A DISTANCE.

QUERENS writes that three years ago he bought a practice from a practitioner who had bought it from a medical man who went to practise ten miles away, but entered into no agreement to refrain from practising within his old area. Our correspondent now complains of the competition to which he is exposed by the old owner of the practice, and says that he has lately refused to attend patients who generally employ this practitioner, beyond rendering first aid, and he asks us our opinion of his action and our advice as to whether anything better can be done "to make it inconvenient for those erring ones who employ a man living at such a distance."

*** While we may sympathize with our correspondent's dislike to be treated as a convenience and called in only in emergencies to the families usually under the care of his distant rival, we certainly should not advise or approve of any definite course of action having for its object to compel these patients to give up the practitioner of their choice and accept one living nearer. He would probably find it his best policy to come to some understanding with his rival.

DISPENSING OF POISONOUS LINIMENTS.

A CORRESPONDENT asks if private practitioners and medical officers to clubs, etc., are bound by law to supply "poison" bottles for liniments to patients bringing their own bottles.

*** There is no law compelling a medical practitioner to supply any special or distinctive type of bottle for liniments, but every poisonous liniment should be conspicuously labelled as such and as for outward application only.

MEDICAL EVIDENCE AT INQUESTS.

DR. W. H. ROWTHORN (Rotherham) writes: I thoroughly endorse everything stated in the reply to "D. O. D." in the BRITISH MEDICAL JOURNAL of February 3rd, p. 298. At the same time it might be pointed out to your inquirer that if he refers to the *Medical Directory* he will see under the heading "Recovery of Fees and Charges from Private Patients and Public Authorities" in the "Principal Laws affecting the Medical Profession" the following statement: "If a deputy overseer, or even a mere stranger, direct a surgeon to attend a poor man, such person is liable for the surgeon's bill." Your inquirer is probably acquainted with the person who came for him to attend the injured man or is able to find him out, and, having done so, should send his account to him.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL NAVY MEDICAL SERVICE.

Prospects in the Service.

A FORMER NAVAL SURGEON writes: In the BRITISH MEDICAL JOURNAL of January 13th, 1906, p. 117, there appeared a letter by "Hope," which I read with much interest. I had the honour to belong for some years to the Naval Medical Department, and have only retired within the last six weeks, so am naturally well acquainted with the feeling of the naval medical officers. It appears to me that, to say the least, "Hope's" statements are exaggerated. I for my part have not had to submit to contemptuous treatment from executive officers, nor have I heard complaints from others on this subject. Nevertheless, I am not less emphatic than he in advising young men thinking of entering the service to pause long and think hard before they do so.

Putting aside the reputed intention of the Admiralty of abolishing the branch and of introducing civil servants, there is a very real and present grievance to be considered. The candidate is promised that after eight years' full-pay service as surgeon he shall be granted the rank of staff surgeon, provided always that he passes a certain examination.

This examination covers five subjects—namely, medicine, surgery, pathology, general hygiene, and naval hygiene; it is entirely theoretical in nature. It is held twice yearly, and in the last two years about three out of every four have been "ploughed." Nor is this all; for of those who failed some are men known to be clever and hard-working, one failing in a subject in which he had specialized. This examination, the injustice of which has become a byword in the service, is conducted by the civil Advisory Board (naval hygiene excepted).

It may be objected that, after all, this examination is comparable to that which R.A.M.C. officers have to pass after a certain period in the service, but these officers have six months' study time in London immediately before, which puts them on quite a different footing, as regards these prospects of passing an examination, from the naval surgeon, who may just have arrived from a three-years' commission abroad.

My object in writing this letter is not to enter into a general discussion, but to warn young graduates that after eight years' service they may find their promotion and increase of pay blocked by an examination, for the passing of which fair ability and hard work appear to be no guarantee.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Degrees.—The following medical degree was conferred in a Congregation held on Saturday, January 27th:

Bachelor of Medicine and Surgery.—H. D. Davis, B.A., Balliol College.

UNIVERSITY OF CAMBRIDGE.

ON February 1st the report of the Special Board for Medicine on "Dissertations *in Absentiâ*" for Doctors and Bachelors of Medicine residing abroad passed the Senate.

The following degrees were conferred:

M.D.—C. D. Henry, Joh.; O. F. Paget, Gonv. and Cai.
M.B., B.C.—S. Gooding, Joh.; M. A. Cassidy, Cla.
B.C.—F. M. Smith, Christ.

UNIVERSITY OF LONDON.

LONDON HOSPITAL MEDICAL COLLEGE.

A COURSE of four lectures on the *X*-Ray and Light Treatment of Diseases of the Skin was commenced by Dr. J. H. Sequeira on February 6th, in the Physiological Theatre at the London Hospital Medical College. The lectures, which are intended for advanced students, will be continued on February 13th, 20th, and 27th, at 1 p.m. Members of the profession and any member of a London school of medicine may attend the course.

ST. BARTHOLOMEW'S HOSPITAL.

Luther Holden Research Scholarship.

MR. HAROLD W. WILSON, F.R.C.S.Eng., late House-Surgeon to St. Bartholomew's Hospital, has been elected to the Luther Holden Research Scholarship in Surgery for one year. The Scholarship is of the annual value of 100 guineas, and was founded by the bequest of the late Mr. Luther Holden, formerly Surgeon to St. Bartholomew's Hospital, and President of the Royal College of Surgeons. The holder of the Scholarship must carry out such research work in surgery as may be approved by the Electors, either in the United Kingdom or abroad. Mr. Wilson proposes to carry on research work in urinary surgery.

APOTHECARIES' HALL OF IRELAND.

THE following are the results of the January examination for the Diploma:

W. Shaw-Stewart passed in Chemistry and Junior Anatomy, and completed First Professional. J. E. McDonogh passed in Chemistry and Physics. M. Moody passed in Senior Anatomy, and completed the Second Professional. J. Gillespie passed in all subjects, and completed the Third Professional. D. J. Boyle and J. Hartigan passed in Pharmacy, and completed the Third Professional. N. J. Murphy passed in Hygiene, and completed the Third Professional. M. Moody passed in Hygiene. D. J. Boyle passed in Medicine, Surgery, and Midwifery. J. Gillespie and J. Hartigan passed in Medicine, Surgery, Midwifery, and Ophthalmology, and completed the Fourth (Final) Professional, and have received the Diploma of the Society.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

MEDICAL OFFICERS' DEPUTIES.

WE learn from the *Poor-law Officers' Journal* that at a recent meeting of the Lambeth Guardians the question cropped up as to whether Dr. Alice Johnson, the medical officer to the schools, could reasonably be expected to incur the liability of any possible expense for medical attendance on emergent cases during her own absence from duty, if Dr. Adams became her deputy by appointment of the Board.

The guardians, after reconsidering this question, appeared to think that, as Dr. Johnson when appointed was not engaged to give her whole time to the duties of her office, any such liability as that which she objected to ought not to be enforced upon her.

The Clerk to the Board gave as his opinion that it would not be possible for the guardians to enforce payment for the services of a deputy from one of their own staff, and suggested that application should be made to the Local Government Board to allow them to appoint a deputy to attend emergency cases on a fixed scale of payment, this expense to be borne by them.

We are glad to see that the plan first devised by the guardians—namely, to provide medical attendance on emergency cases when their own appointed medical officer was not available, but not at their own expense—was with little or no opposition annulled, and the clerk's advice taken to procure the requisite medical attendance by a different procedure, which will relieve Dr. Johnson of the responsibility she objected to. As the plan the guardians have finally decided upon appears to be in every respect reasonable, we have no doubt the Local Government Board will at once fall in with their views and grant them the necessary powers to carry them out. We are very pleased to note that Dr. Alice Johnson's claim has been so readily met by the Lambeth Guardians.

PREVENTION OF INFANTILE MORTALITY.

DR. COLLINGRIDGE, Medical Officer of Health for the City of London, in his report for the first fortnight of this year states that Miss Pole, one of the Women Sanitary Inspectors, who has had previous experience of this work, has undertaken the duty of visiting all houses where births have been notified by the registrars, and also those where deaths of children under one year of age have occurred. The main object of these visits is to impress upon mothers the great advantage of breast-feeding as compared with hand feeding. It has been shown that in some large towns the mortality during the first year of life among breast-fed infants was only about one-third of that among hand-fed children. It is impossible to overrate the significance of these figures, which clearly indicate a great loss of life from a preventable cause. While improved sanitation has reduced the death-rate in London from 34.7 per 1,000 in 1881 to 16.6 in 1904, the deaths of children under 1 year of age per 1,000 births, which were 148 in the former year, reached almost the same high proportion, namely, 144, in 1904. It is now well recognized that this heavy infantile mortality is due to ignorance on the part of the mothers as to the danger incurred by injudicious feeding, and the efforts now being made in the direction of educating women, especially those of the poorer classes, in the proper manner of rearing their offspring during the first twelve months of their existence will, it is hoped, remove what is now undoubtedly a blot upon our civilization.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

DR. W. J. CORYN (London) asks for suggestions in the treatment of a young lady in excellent health, a life-long abstainer, and for some weeks past a vegetarian, whose nose is red and growing perceptibly redder. No treatment, external or internal, has thus far produced any result.

MUNICIPAL BY-LAWS.

J. C. M. W. asks for information (1) as to how the problem of throwing orange peels, lemon skins, etc., on the footpaths is dealt with in any city; (2) regarding the powers of a municipality to make by-laws providing for the provision of fire-guards in tenement rooms where young children are left.

*** We know of no by-laws for either purpose, nor of any municipal powers for dealing with the matters mentioned by our correspondent.

ANSWERS.

LUMBAR PUNCTURE.

E. R. Y.—Quincke's original paper was read to the German Medical Congress, and was published in the *Verhandl. d. Kongresses f. inn. Med.*, 1891, p. 321. He described the technique in the *Berl. klin. Woch.*, 1895, p. 889 (No. 41).

INCOME TAX.

A. B. C.—If the houses occupied by the partners are used partly for professional purposes, a proportion (not exceeding two-thirds) of the rent and local rates (but not income tax) may be deducted as a working expense in returning the profits of the firm for assessment. Articles stating all the deductions appeared in the BRITISH MEDICAL JOURNAL of April 11th and June 20th, 1903.

SARSAPARILLA.

SARSA writes: Like "Enquirer," and doubtless other readers, one is obliged for the information given in the BRITISH MEDICAL JOURNAL, p. 300, as to where Zittmann's and Kobert's sarsaparilla may be obtained. I should be much obliged for a little information as to why the German is preferred to the British preparation except on the grounds of standardization of the amount of smilacin present and the exclusion of the guaiacum, etc., which form important ingredients in the British "liquor." The experience of Sir Felix Semon as given in his very interesting paper will do much to rehabilitate the reputation of sarsaparilla as a useful drug in certain cases, which I fancy many practitioners are convinced of in spite of opinion to the contrary. The latest of these I find in the recently-published *Manual of Pharmacology*, 1906, p. 277, by Dr. W. E. Dixon, where it is stated "Sarsaparilla and hemidismus should not find a place in the *Pharmacopoeia*. Clinical experience and pharmacology would here seem to be in discord.

LETTERS, NOTES, etc.

THE *X*-RAY TREATMENT OF RINGWORM.

R. H. G. ADAMSON, Physician, Skin Department, Paddington Green Children's Hospital, and Physician-in-Charge, Skin Department, North-East Hospital for Children, writes: Mr. Gerald Sichel, in his paper on the *x*-ray treatment of ringworm in the BRITISH MEDICAL JOURNAL of February 3rd, very wisely calls attention to the dangers of this method. I quite agree with him as to the reality of these dangers, and I am strongly of opinion that this treatment should not be undertaken without a due appreciation of its risks and of its difficulties. I venture to think, however, that Mr. Sichel somewhat underestimates the value of the pastilles of Sabouraud as a means of accurate dosage. I believe that at the present time they are the only trustworthy means we have of measuring the output of active rays; and that, providing all precautions are taken and that certain pitfalls are known and avoided, they are entirely reliable for estimating the dosage in the treatment not only of ringworm but of other affections. The precauions to be taken are (1) the distance from the anticathode, f the pastille, and of the area exposed (twice that of the astille) must be most accurately measured; (2) the pastille ust be protected from daylight during exposure to the ays; (3) a metal disc, or screen, must be placed behind the astille; (4) the pastille must be at a short distance from the ube so as to avoid it being heated by the same. These rules re given in the directions accompanying the pastilles, and ensure success they must be strictly observed. To them I ould add: (5) The pastille must be fixed in a position as early as possible in the axis of those rays to which the area under treatment is exposed; if placed too far away from the axis of these rays—that is, in a distant part of the illuminated hemisphere—it will not receive the right proportion of active rays. (6) An exposure should not be made except while there is good daylight for comparison of the tint of the exposed pastille with the standard tint. The comparison should be made in diffuse daylight, near a window; it cannot be made by artificial light, nor accurately in strong sunlight, nor in fading daylight. (7) Pastilles of one manufacture should be used. Different makes of pastilles vary in their susceptibility to the action of the rays. The makers of the original radiometer of Sabouraud and Noiré (Drault of Paris) appear to have realized this fact, for they now issue books numbered in series and advise the use of pastilles of the same series in order to obtain uniform results. (I now use only pastilles of "Series 7.") The German imitations of the French books of pastilles, with their standard B tint very much too dark, should be used with caution. While I cannot claim to have altogether avoided the "failures" to which Mr. Sichel refers, I consider that any errors of overdosage or underdosage have been due to my having omitted to take one or other of these precautions or to my having relied upon other means of measurement. Other means of measurement, however, are useful as a check to the information given by the pastille. I find that, with a constant rate of interruption, by measurement of the amount of current passing through the tube by means of the milliampèremeter and by estimation of the quality of the rays as indicated by the radiochromometer of Benoist, I am able to judge approximately the length of time required for an exposure. For example, No. 7 Benoist rays and 0.20 milliampère current, about 35 minutes; No. 7 Benoist, 0.40 milliampères, about 20 minutes; No. 7 Benoist, 0.60 milliampères, about 16 minutes; No. 8 Benoist, 0.40 milliampères, about 14 minutes; No. 8 Benoist, 0.60 milliampères, about 11 minutes. But these measurements cannot be relied upon absolutely, since the degree of penetration of the tube seldom remains constant, and the slightest alteration in the quality of the rays upsets one's calculations. As Mr. Sichel insists, this instability of the tube is the chief drawback to such methods of measurement. The milliampèremeter, too, is admittedly an imperfect instrument. At present the radiometer X of Sabouraud and Noiré is the best at our disposal, and I am convinced that, with proper precautions, it affords an accurate means of dosage and a safeguard against the dangers of this method of treatment.

DR. GEORGE B. BATTEN (Honorary Radiologist to Home for Sick Children, Sydenham) writes: Mr. Gerald Sichel has just given us the result of his rather large experience of this treatment among out-patients at Guy's Hospital. He comes to certain conclusions from that experience. I would like to present the results of my much smaller but probably much longer experience of the same treatment in private practice. I began treating ringworm with x rays in 1902, and have treated some 25 cases since then. I published a paper with photographs of typical cases in the *Archives of the Roentgen Ray* for August, 1905. Out of the 25 cases I have had one case of mild dermatitis and three cases of temporary failure; all the other cases were cured. The case of dermatitis of of which I published photographs was the first case of ringworm of the whole scalp that I treated, and the dermatitis was due to a portion of the head being too close to the x-ray tube. The dermatitis soon healed and the hairs grew again, but are less numerous there than on the rest of the head. Of the three cases of temporary failure, all were due to insufficient exposure to x rays. This was due not to any idiosyncrasy of the patient, but to the idiosyncrasy of the x-ray tube, for as all active workers with x-ray tubes know, they are very apt to change their output of x rays quite insidiously, and one I was using for these 3 cases did so go wrong. Until the last few months I treated my cases with the six-exposure method, ten to eleven minutes exposure each time, and with this method I had no failures. Patients, however, now rather demand treatment by the single-exposure method. As Mr. Sichel says, the great difficulty is that of estimating the dosage of x rays as we have yet no certain method of measuring them quantitatively. Sabouraud's pastilles were made for and graduated for use with Chaband's x-ray tubes worked with a hot anticathode and with these tubes they are fairly reliable, but with other larger, and especially with the various "cooled tubes" they are not so. I believe Newton's new gold-leaf galvanoscope method, utilizing the ionization of the air by x rays will be found useful, as will probably a photographic paper meter that is in the market. Each worker has to find out for himself with his particular apparatus and particular tube the approximately correct length of exposure, and with mine I find this to be usually a little over 25 minutes for one exposure. For safety and certainty I still prefer the six-exposure method. For treatment for whole-scalp cases I think Dean's apparatus, as used at Charing Cross, is the best—that is, through wide glass shields, and marking the scalp with iodine to show limits of each treatment. In such cases, in young children, in private practice, I think the best method is to expose one side of the head and wait for depilation to occur, then screen the bald part and treat the other side, and so on. Three such treated areas are generally sufficient to take in all the portion of the head that is affected. I have never seen reinfection of cured areas in private practice, for a suitable lotion used daily should always prevent this. I use resorcin, 1 per cent.; ether meth., 24 per cent.; and spt. vini meth., 74 per cent. In out-patient practice I can well understand reinfection occurring, as probably directions are not carried out by the parents of the patients. It is important to remember that x rays only help to cure ringworm by making the hair fall out: they do not kill the fungus at all, therefore a proper parasiticide is essential as well. Mr. Gerald Sichel will, I feel sure, forgive me if I suggest two reasons—apart from his patients being of the out-patient class—for his failure to cure more than 50 per cent. of his cases, and also possibly for the occurrence of the dermatitis. First, that the treatment is not actually done by himself but by a nurse. Now, however expert a nurse may be, her knowledge of the condition of the x-ray tube and other such matters cannot be as accurate as that of a skilled medical radiologist. Secondly, may it not be possible that in some cases the "lint cap" protects the hair in places from some of the useful radiations from the x-ray tube, for a very little screening seems to make a difference sometimes in the therapeutic action of x-ray tube radiations? The point, however, which I wish to emphasize is that among private patients we have a much better chance of success than among out-patients in a large hospital.

THE CONFUSION OF MR. COLERIDGE.

DR. T. ARCHIBALD DUKES writes to explain that the confusion of thought with which Mr. Coleridge charges him is all Mr. Coleridge's own. He proceeds to say: "I proved logically that scientific experiments on animals are not cruel. He puts my words into the mouth of a slaveholder making a defence of slavery. Mr. Coleridge's confusion is twofold—first, in putting my words into the mouth of a slaveowner instead of an independent witness; second, in supposing that the mass of independent opinion is against vivisection as it is in fact against the flogging of slaves. If, however, not only the slaveowners but also the vast majority of all those who knew the facts and circumstances of slavery firmly believed that to spare the rod was to spoil the slave, then that instructed and independent opinion would have much more weight than the ideas of a small clique of agitators who knew practically nothing about the question. The great medical profession does thus support the methods of the experimenters. Again, Mr. Coleridge says the definition of cruelty which I used leaves it to the experimenter 'to decide whether what he does is right or wrong.' It does not. It only makes it possible for him to prove that what he does is not cruelty—a very different thing."

COST OF KEEPING A MOTOR CAR.

H. E. P. writes: The enclosed particulars of running expenses of a 8-h.p. single cylinder De Dion for the years 1904-5 may be of interest to your readers.

1904.	£ s. d.	1905.	£ s. d.
Wages	91 0 0	...	91 0 0
Insurance	15 0 0	...	7 17 6
Tyres	16 15 6	...	25 9 0
,, repairs	3 16 6	...	6 1 6
Petrol	22 13 0	...	16 3 8
Lubrication	2 3 9	...	3 17 3
Repairs...	5 11 1	...	22 19 0
Battery	1 1 0	...	1 1 0
Hire	5 16 6	...	5 5 6
Licences	1 10 0	...	0 10 0
Sundries	4 5 0	...	2 11 0
Number Plates	1 16 0	...	—
	£171 8 4		£182 15 5
Mileage, 7,200.		Mileage, 6,740.	

THE ANTIMALARIAL CAMPAIGN AT ISMAILIA.

COLONEL H. HAMILTON, I.M.S. (Ambala), writes: The words quoted from my paper by Major Ross in the BRITISH MEDICAL JOURNAL of November 11th, 1905, page 1316, could not by the utmost straining bear the interpretation he puts on them. I threw no doubt on the improvement of the health of Ismailia. What I doubted was the extinction of mosquitos in it, and in spite of the assurance of two secretaries who live in Paris, I still doubt if any one who has been through the Suez Canal knows that Ismailia is to all intents and purposes on its banks. My paper was much too serious to be disposed of by distorting a detached sentence or two, and trying to hold them up to ridicule. I quoted from Colonel King, Sanitary Commissioner of Madras, a statement that nowhere so far had mosquito brigade operations given more than "encouraging" results. I quoted from the BRITISH MEDICAL JOURNAL and the *Journal of the R.A.M.C.*, and from my own experience in proof of that contention. I instanced their absolute failure in Mian Mir. I know of no place the health of which has been improved by such operations without extensive drainage and reclamation. If the advocates of mosquito brigade operations know of places that have been made healthy by their means, it would be only fair to let the profession know of them. If it is always necessary to combine these operations with drainage, the prohibition or regulation of irrigation, and other allied measures, it is permissible to doubt if some or the greater part of the good results are not to be attributed to the latter. My object in writing my paper was to plead for more weight and prominence being given to drainage. One finds among medical officers a strong tendency to ignore drainage altogether, and trust to what has been somewhat grandiloquently named "petrolage," etc. The discovery that the *Anopheles* acted as a carrier of malarial germs naturally led to the belief that the most tremendous results would be obtained from mosquito brigade operations and that drainage, etc., would be rendered unnecessary. This, as well as I recollect, was the position taken up by Sir Patrick Manson when introducing the mosquito at first. The results have been disappointing except as I say where extensive drainage operations have been undertaken at the same time, as at Ismailia, St. Lucia, the Straits Settlements, etc. The extinction of mosquitos or even a very marked reduction in their numbers is very hard to attain, and in my paper I showed that the amount of fever in a place can hardly be held to be in exact mathematical proportion to the number of mosquitos in it—the theory on which mosquito brigade operations seem to rest. By all means let experiments go on (rigid experiments like those conducted in Mian Mir have been all too few). Let us find out the good, if any, effected by larvicides, by prophylactic issues of quinine, by mosquito nets, or better still by making barracks mosquito-proof, but do not let us claim our results before they are due and do not let us jump to conclusions from the results of a single dry year or two, and above all, do not let us give up the old and well-tried measures. I must refer any one interested in the subject to my paper in the *Indian Medical Gazette*, and would ask that it be not judged by a detached perverted sentence or two, and if any one is still not satisfied, if he will write to me I am quite prepared to give further instances in support of my contentions.

THE ACTION OF TRYPSIN UPON THE LIVING CELLS OF JENSEN'S MOUSE-TUMOUR.

THE *Pall Mall Gazette* has set a good example by the way in which it has dealt with the researches which are being made into the possible utility of the ferment trypsin in the treatment of cancer. Instead of promptly inventing a startling headline, and hailing the long-sought cancer cure as found, it has sent a "mere layman" to interview an anonymous pathologist in his laboratory. The result is a clever word-picture of what a laboratory looks like, and a very fair account of what is at present known of the trypsin treatment of cancer.

DR. D. NOEL PATON, Superintendent of the Research Laboratory of the Royal College of Physicians, Edinburgh, writes: In your issue of January 20th a paper on the action of trypsin upon the living cells of Jensen's mouse-tumour is published by Dr. Beard, and headed "In the Laboratory of the Royal College of Physicians, Edinburgh." The Laboratory Committee desire to state that their regulations require that permission must be obtained to publish a paper as *from the Laboratory*, that Dr. Beard was not authorized to head his paper as he has done, and that the Laboratory is in no way responsible for the paper.

EPISTAXIS AND CALCIUM CHLORIDE.

DR. WYATT WINGRAVE (London, W.) writes: Referring to the memorandum published by Dr. A. Todd-White in the BRITISH MEDICAL JOURNAL, January 27th, p. 198, a mixture of calcium chloride will be found in the *Pharmacopoeia* of the Central London Throat and Ear Hospital, 1901, having the following formula: Calcium chloride, gr. v; syrup of lemon, ʒss; chloroform water to ℥ j. It is prescribed for all kinds of haemorrhage, including epistaxis. Your correspondent writes that he "did not advise the actual cautery owing to the danger of apoplexy, which has followed in some cases so treated." Such experience is, I think, somewhat exceptional.

THE LATE MR. ARTHUR JACKSON.

BY a slip of the pen it was stated last week that Mr. Arthur Jackson died in 1885; the date should have been printed 1895.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	£0 4 0
Each additional line	0 0 6
A whole column	2 13 4
A page...	8 0 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication: and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

An Address
ON
THE RELATION OF THE MEDICAL PROFESSION TO WAR.

BEING THE INAUGURAL ADDRESS TO A COURSE OF LECTURES, ON ARMY MEDICAL ADMINISTRATION AND DUTIES, AT THE WEST LONDON HOSPITAL ON JANUARY 20TH, 1906.

By **SURGEON-GENERAL A. H. KEOGH, C.B.,**
DIRECTOR-GENERAL OF THE ARMY MEDICAL SERVICE.

GENTLEMEN,—My friend Mr. Keetley, animated by a spirit of true patriotism, has represented to me that there are many members of our profession in civil life who are desirous of knowing in what way they can assist the country in time of war, without having to join one or other of the volunteer units in which opportunities, limited or otherwise, are afforded for becoming acquainted with the relation which the profession of medicine bears to the profession of arms. So convinced am I that this relationship is a very definite one, and that the potential energy of the medical profession is a factor capable of contributing to or hindering the successful issue of campaigns, and that the dissemination of knowledge as to the rôle of a medical service in an army is a first step in its efficiency, that it is impossible for me to neglect for a moment the suggestion of Mr. Keetley. The usefulness of a member of the medical profession in an army depends largely upon his appreciation of the fact that he is a member of an organization designed for special and diverse purposes. To have been trained in medicine is essential before a man can play any part in the rôle of this organization; and while the different duties assigned to the various parts of the organization require differentiation of function to produce a high degree of efficiency in the whole, a common knowledge of definite facts is required in every individual member of the system. To afford information on specific points I have found it necessary, of course, to procure for you experts in special branches of medical work in the army; but before you can be in a position to fully appreciate the interdependence of the varieties of special work and special knowledge, a general knowledge of the army and of its component parts as well as a general knowledge of the medical service and its component parts are essential. The series of discourses which will be presently begun will accordingly be dealt with on these lines.

Having been invited to open these lectures, I have chosen as my subject the relation of the medical profession to war. I am encouraged to embark upon this topic because I find so many distinguished members of the profession who seek information upon the matter. But I cannot, in the limited time afforded me, do more than touch the fringe of the subject; for the story of the evolution of the medical service of the British army is the story of the evolution of modern methods of warfare, and it is almost impossible to adequately deal with the matter without discoursing on the historical events which have led up to the modern Royal Army Medical Corps. This it is impossible for me to do. But those of you who care to seek information on matters historical will find much useful information in a series of articles by Captain Howell now appearing in the *Royal Army Medical Corps Journal*. Let it suffice to say that there has been a gradual progress from a state of affairs infinitely crude to one in which, complicated though its mechanism may be, you have a co-ordinated machinery, well constructed and well adapted for the purpose which it is designed to serve. Time was when an army in the field was adequately served by a staff of physicians and surgeons engaged, one might say, for the occasion, when no serious attempt was made to solve the problems now presented to medical men, and where, moreover, the resources of medical science were so limited that medicine could find no place in the administrative system. But those days have passed, and the evolution of the medical service has proceeded, till to-day we find it a special branch of the medical profession and of the army, requiring in its members a training for the acquirement of a special knowledge essential for efficiency. The altered conditions of modern warfare, the constantly accumulating experience of our officers in our numerous wars, the enormous improvement in medical education, and the general advance in professional knowlege, have been the circumstances which have determined the line along which the evolution of the medical branch of the army has proceeded. To-day, gentlemen, although I am far from saying that our service is in as perfect a state as the British medical profession could make it, I have no hesitation in saying that in its general plan of organization, in the enthusiasm which animates its members, officers, nurses, non-commissioned officers and men, and in its traditions, it is better adapted for its purpose than that of any other European army. A great principle which it has been necessary to assert and to carry into practice is differentiation of duties in accordance with the tastes and aptitude of individuals. The army medical officer was formerly supposed to be an Admirable Crichton—a first-class physician, a first-class surgeon, an expert sanitarian, a capable administrator, good at ophthalmology, otology, gynaecology, and all other special subjects, as well as an expert in adapting his work to the science and art of war, with which, also, he was required to be acquainted. These various attainments cover a wider field of knowledge than that expected from even the general practitioner in civil life.

The existence of this specialization, like all specialities, constitutes a danger, against which we must continue to guard ourselves. In the service of the country it is essential that the profession as a whole should work for the common good, and that there should not be two medical professions, but one. While, therefore, we in the army make every effort to close up the interval which specialization may cause between the civil and military branches of the medical profession, so also have you resolved to approach near to us by becoming acquainted with the organization which represents the contribution of the profession towards national defence.

Recent advances in army medical organization have provided for the maintenance of touch with the civil profession. The establishment of an Army Medical College in your midst, the throwing into your great schools of officers of the medical corps, taking note of your work and breathing the atmosphere of progress, is our method of maintaining touch.

The arrangements made for this purpose have been of a very comprehensive nature. We are establishing in London an Army Medical College, and laboratories and hospital replete with all modern improvements. In addition, we propose to continue to avail ourselves of the unrivalled facilities which the civil hospitals in London afford, and we have been met more than half way by the authorities. Even on a necessarily imperfect system, we have already given to our officers who have been abroad six months' further study in the London medical schools, and have paid their fees for them, and in the short time which has elapsed since we began no fewer than 140 captains who have been serving in various parts of the world have been able to avail themselves of this opportunity. In addition, we have allowed 20 probationers to return to their hospitals for one year to hold various medical and surgical resident appointments. We have sent two to the Continent of Europe to study. We have succeeded in appointing one for a prolonged period to the Lister Institute for special work. Gentlemen, if I had not another word to say, I think this record is sufficient to establish my claim that recent army medical administration is alive to modern educational necessities, and to the necessity for keeping in touch with the civil profession.

I cannot put into words our other exertions on behalf of medical officers who have sought opportunities to improve their professional knowledge and obtain special qualifications. Suffice it to say that during the short period which I am reviewing, our officers have been enabled to take degrees in the Universities of London, Cambridge, Durham, and elsewhere, and numerous officers have taken diplomas in sanitary science. I can confidently assert that there is no other public medical service which has done so much in the interests of professional efficiency in this direction as has the Royal Army Medical Corps. Your method of maintaining touch with us is attained by the great Volunteer medical corps of London, Glasgow, Manchester, and elsewhere, and, we may now say, by the series of lectures which I at your wish inaugurate to-day.

There is considerable misapprehension as to the lines upon which the medical corps of the army has been seeking efficiency. I fear that the civil mind is satisfied with the assurance that provision is being made for recognition of professional merit, for advanced education, and for research. But a medical corps administered only with a regard to these most important matters is imperfectly equipped in relation to its prime *raison d'être*—war. The best type of military mind is only satisfied with a corps which is designed with a view to the fulfilment of functions which are auxiliary to the fighting and winning of battles.

To comply with the conditions of modern warfare an efficient medical corps must satisfy certain requirements. It must possess some knowledge of the art of war and of military history to enable it to co-ordinate itself to the military requirements of the moment, and to profit by past experience. It must be so organized that it is capable of receiving, housing, feeding, and transporting troops non-effective from disease or injury. It must be capable of providing medical and surgical aid as nearly as possible equal to that which is at the disposal of those who remain at home. It must especially be brought to the highest possible pitch of perfection to enable it to prevent disease in the fighting force. An efficient medical corps is in theory and in actual practice a potent factor in the fighting and winning of battles. The medical corps is maintained for war, and it is as to its readiness and capacity for adapting itself to war conditions that the medical profession must be judged.

A perfect medical corps is one which, without excessive impediment, removes troops non-effective from disease or injury, disposes of its hospitals in positions least likely to embarrass military movements or supplies, quickly restores to the ranks those cured of disease or injury, but above all things prevents the occurrence of disease, and thus maintains the fighting powers of an army.

Any allusion to army medical administration would be incomplete without very definite reference to sanitation and the investigation and prevention of disease.

There never was a body of men more competent to apply sanitary principles to the prevention of disease in war, to supply from among its members men selected to investigate the problems which the diseases of armies present for solution, than those who are receiving their medical education in the universities and schools of the present day; and there can be no doubt whatever that if army medical administration is alive to the opportunities which the profession affords it, the sanitary work of the corps in the future will have a useful career in the military service.

We have made a beginning in the establishment of an Army Sanitary Branch. Officers specially qualified in State Medicine and endowed with the qualities which go to make sanitarians have been appointed so that each district has its sanitary expert during peace, and sanitary experts are therefore available for war. These officers are being rapidly provided with sanitary laboratories, and are given a free hand, unhampered by special regulations. Non-commissioned officers and men are being trained in London to act as laboratory attendants. The movement is in its early stage at present, but so far there has been no hitch. Every layman nowadays knows that preventive medicine ought to be able to contribute to maintain the fighting strength of an army in the field. I hold strongly that much of the wastage of armies is preventable, and that a portion of our war establishment now allotted for curative purposes can be with advantage allotted to prevention. The sanitary work of the medical corps has begun and must go forward. The main object of its formation and of its existence is to devise methods for the prevention of disease in the field. This includes scientific research. The material for research is abundant. The position of the army medical officer in relation to scientific medicine is unique. It is the duty of the administrators to assist him to avail himself of the opportunities at his disposal. This is being done. Under the auspices of the Royal Society at the present moment two series of researches are being conducted by army medical officers. In addition to the sanitary laboratories which I have already mentioned, clinical laboratories are being set up in our hospitals, and their influence upon research must be enormous.

I might continue to place before you and to comment upon various items in the different departments of our work in which the medical service of the army can contribute to army efficiency.

If you will turn your attention in detail to any one of these departments, you will readily appreciate what is involved in the way of study and work. Let me take for illustration an instance which will readily come home to you: Imagine yourself directed to establish and work a hospital in war. You have but begun when you have provided a professional staff; you have to accumulate tents and stores; you have to arrange for food and bedding to an extent and of a quality suitable to the special circumstances; you have to receive, to treat, feed, and clothe soldiers sick and wounded, maintain communication with their corps, remove them from your area either back to their corps, clothed and equipped, or by convoy to the base of operations, where other medical functionaries have their allotted problems. How are these things done? That is what you have to learn. Your professional knowledge affords you no aid. Or, to take an unfamiliar example, imagine the battle of the Yalu. Regard yourself as responsible for the application of the principles I have mentioned, before, during, and after an engagement of this description, and a little consideration will suffice to convince you that only an intimate acquaintance with the detailed management and organization of all units, military and medical, will enable you to successfully assist the operations of war. These things you desire to learn, these things you must learn if you are ready and willing to assist the country in the future. I think that you should first learn the organization of the medical services for war, if you would understand the system which you will find exists in time of peace; for many of the essential differences between civil and military medical organization are explained by the conditions incidental to active service in the field.

But the Army Medical Service is further responsible for its own internal economy. Too often does the civil mind dwell only upon the technical requirements of sick and wounded, without recollecting that the duties to be performed in relation to the fighting forces can only be adequately provided for by an efficient, disciplined, and educated *personnel*. In other words, the administration of the *personnel* of the Medical Corps in peace is a necessary factor for its successful work in war. You will, I hope, have opportunities of observing the scope of the work involved, and be able to estimate how we have provided for the securing of efficiency. All these things are taking place in the largest military centres, and, if naturally unknown to the layman, should no longer be unknown to the members of the medical profession who find themselves capable of assisting their brethren in the army even in the smallest degree.

I have said enough, I think, to show you that the Army Medical Service is involved in work sufficiently varied to suit the capacity of the various individuals composing it, and affording opportunities for differentiation of work. The efficiency of a medical unit depends upon the efficiency of its several parts; upon its physicians and its surgeons, and its administrators, upon its higher and lower *personnel* equally, upon its equipment, its discipline, its mobility, and upon its readiness to seize its opportunities, and extend its efforts under the pressure of circumstances incidental to war—the rôle of the individual member demands the possession of all the military and medical virtues.

During the late South African war, when medical men for the moment began to think of military medical affairs, one not infrequently heard of schemes by which civil effort would provide for the supply of *personnel*, and of even complete hospitals in war, such hospitals to be affiliated to, or exist as, offshoots from the great civil institutions. The idea was undoubtedly a good one, but as the years have passed the zeal and enthusiasm has lessened. It probably remains for the Red Cross Society to inaugurate a system which will deal with this great problem of expansion—and when the country emulates the example of Japan in dealing seriously with this branch of work, the education of the profession in hospital administration will have to be undertaken.

Perhaps I have said enough to indicate to you the lines upon which the series of lectures should be framed. You will probably deem it right that the subject should be dealt with upon elementary lines; indeed, you may regard this as necessary. I take leave to think that most of you possess no acquaintance with military affairs; that the constitution of, say, an army corps is unknown to you; that its allotment of divisions and brigades are mere names to you; that the proceedings adopted to call into existence the machinery for mobilizing a force for the field, and especially what part the medical branch plays in these things and these proceedings are also matters with which you cannot be expected to be familiar.

Perhaps you will allow me to recapitulate the present position of the medical corps in relation to the problem of efficiency, and to enunciate the principles upon which we have, as the phrase goes, reorganized the medical service. In the front rank we place professional efficiency, and the means of attaining it. We desire to adapt to our purposes the resources of modern science, and for this reason we desire a close connexion with the profession, and we have, as I think, successfully endeavoured to raise the standard of work in our large institutions. We have borne in mind that to raise the standard of work we have to provide for the training of the subordinate *personnel* more than for that of the medical officers. I think I can say that we have encouraged medical officers and matrons to improve the method of training of our men, and that we endeavour to allocate to all ranks the class of work which the individuals prefer or for which they are best suited. In this direction we claim to have grasped the most important factor determining efficiency. The army medical officer, like every member of the profession, has his special preferences.

In the series of lectures which are to follow you will become acquainted with the details of medical organization in peace and war. Should the occasion ever arise when it may be possible for you, busy men as you are, to take a part in the great work, I cannot doubt that you will be the more useful to the army because of a little preliminary education.

Clinical Remarks

ON A

CASE OF TUBERCULOUS DISEASE OF THE LUNGS AND LARYNX,

SHOWING THE NEED FOR THE COMPULSORY NOTIFICATION OF PHTHISIS.

By **BYROM BRAMWELL, M.D., F.R.C.P.Ed.,**
PHYSICIAN TO THE ROYAL INFIRMARY, EDINBURGH.

GENTLEMEN,—This girl, aged 21, is a kitchenmaid. She is suffering from tuberculous disease of the lungs and larynx. She was in the hospital in March last, and was treated for some time by the open-air treatment (on the balcony). The sputum was teeming with tubercle bacilli; I have never seen any case in which they were more numerous; great clumps of bacilli, in addition to innumerable isolated bacilli, were scattered abundantly throughout the sputum.

When the patient discharged herself she told me that it was her intention to take a situation as a kitchenmaid in a public institution. I told her that she must not think of doing this. I seriously warned her that it would be very wrong to do so—that it would be dangerous to other people.

Well, we lost sight of her for some months. She applied for readmission a few days ago. Her condition is very much the same as it was in March; the lungs and larynx are extensively diseased; the sputum still contains large numbers of tubercle bacilli, though not the great clumps which were present when she was in the hospital before; the large clumps of tubercle bacilli were probably due to the breaking down and evacuation of tuberculous deposits in the larynx. The patient tells me that, notwithstanding my advice, immediately after her discharge in March she applied for and obtained a situation as kitchenmaid in an eating house. She says that the staff consisted of six in the kitchen and nineteen in the shop; it was, therefore, a very large establishment. The customers must have been very numerous to keep such a large staff employed.

Observe the danger of such a state of matters—a girl whose sputum was literally teeming with tubercle bacilli, employed as kitchenmaid in a public eating-house which supplied food to a very large number of customers daily!

A case like this shows the necessity of the public supervision of cases of phthisis. Some seven years ago I published a long and elaborate article on the compulsory notification of phthisis,[1] and I think conclusively showed the advisability, nay, the necessity, of such a measure, if a real and serious attempt is to be made to eradicate this terrible disease.

In that article and in a series of lectures which were subsequently published in the *Lancet*, I exhaustively considered the arguments in favour of and against a system of compulsory notification specially adapted for phthisis. It is obvious that unless you know where the cases of phthisis are located you cannot take the proper and necessary measures to limit the spread of the infection. At that time (1899) the profession in this country would not listen to the proposal; it is not, I think, an exaggeration to say that it was received with a very cold shoulder by almost everyone. People could not be made to see that compulsory notification, as applied to phthisis, carries with it quite different results, in the way of preventive measures, from the preventive measures (isolation, removal to a hospital, etc.) which are required in the case of the ordinary contagious and infectious diseases (scarlet fever, small-pox, typhus, etc.).

Further consideration of the subject has made me more convinced than ever that compulsory notification is essential, if a real and serious effort is to be made to eradicate the disease. This opinion is now strongly held by Koch and many other leading authorities. There are, I think, indications that this opinion is gradually gaining ground in this country; but we are still very much behindhand, far too conservative in this matter. The Americans take a very much more enlightened view of this question than we do; the compulsory notification of phthisis has been widely adopted in the United States of America. In a recent letter, Mr. William H. Baldwin of Washington tells me that already in more than half of the cities in the United States with a population of over 48,000, such a law has been passed, and is more or less thoroughly enforced. He also states that in the great majority of cases the reports are kept private, and that there is no difficulty in keeping them private. Now if the compulsory notification of phthisis has been adopted and works well in America, there is no reason why it should not be adopted and why it should not work well here.

The case which I have brought before your notice this morning shows in a very forcible way the necessity for such a measure. If this case had been under proper medical supervision, this patient would never have been allowed to act as a kitchenmaid in a public eating-house. Further, means would have been taken to see that she disinfected her sputum. The prevention of phthisis is a very simple matter in comparison with the prevention of many of the contagious and infectious diseases. In phthisis, isolation and removal to hospital are not called for except in a comparatively small number of what I term dangerous cases. Most patients affected with phthisis may be allowed to mix with their fellows and to follow their ordinary occupations. What is required is the destruction or thorough disinfection of the sputum. Now, unless you know where the cases of phthisis are located, you cannot see that they are properly instructed in respect to the measures which should be adopted for the destruction or disinfection of the sputum, and you cannot see (even if they have the knowledge) that they are habitually practising the comparatively easy and simple measures which are necessary for destroying the poison and preventing its dissemination; in other words, for preventing the spread of the disease to other people. It would be hazardous to speculate as to the number of people to whom this patient may have been the means of communicating the disease; in other words, how many cases of phthisis might have been prevented if, by means of a proper system of compulsory notification and supervision, this patient had been rendered innocuous as a disseminator of the poison (the tubercle bacilli). I do not of course mean to suggest that the introduction into the stomach of food carrying the tubercle bacillus is a usual method of infection, but it certainly is a possible method. There can be no doubt that a kitchenmaid whose sputum is teeming with tubercle bacilli might be a source of serious danger to the other women working alongside of her, and no one will, I suppose, say that a person whose sputum is teeming with tubercle bacilli should be allowed to prepare the food for a public eating-house.*

REFERENCE.

[1] *The Medical Magazine*, June, 1899; *Lancet*, July 5th, 12th, 19th, 26th and August 2nd, 1902.

Clinical Observations

ON

SOME ACUTE ABDOMINAL DISORDERS

WHICH RESEMBLE IN THEIR SYMPTOMS ACUTE INTESTINAL OBSTRUCTION.

READ BEFORE THE BIRMINGHAM BRANCH OF THE BRITISH MEDICAL ASSOCIATION,
JANUARY 11TH, 1906.

By **GEORGE HEATON, M.B., F.R.C.S.,**
SURGEON, BIRMINGHAM GENERAL HOSPITAL.

ACUTE intestinal obstruction is a surgical emergency of extreme gravity, and measures for its relief, if they are to be successful, must be undertaken with the least possible delay. The intestinal walls are so delicate and their nervous supply so intricate that any interference with their vascular supply, or with the free flow of their contents along them, in a short while may produce such grave pathological changes as almost to preclude restoration of their functions, even though the cause of such changes be removed.

It is for these reasons that the urgency of a rapid and accurate diagnosis is so great. It is not possible, as in so many disorders, to "watch the case" and by its progress endeavour to arrive at its true nature. For treatment, if it is to be effective, must be prompt. The mortality of delayed operations for obstruction is so high that we musts train every nerve to effect relief at the earliest possible moment.

Unfortunately for the diagnostician, intestinal obstruction is, in its early stages, simulated very closely by a variety of disorders and ailments. In fact, in some cases an accurate diagnosis is impossible, and one must adopt measures based upon what is at the most but a tentative opinion rather than run the risk of allowing an acute obstruction to remain unrelieved.

For these reasons mistakes in diagnosis will not infrequently occur; nay, by the very nature of things, are bound to occur when diagnosis has to be so hurried and active treatment has so quickly to follow upon it. Personally, I always view with some distrust my own diagnosis of any internal disorder when given after a single—and, it may be, brief—examination, and would always, if possible, have a patient under observation, if only for a brief period, before operating. But in these cases this is seldom practicable, and, consequently, errors of diagnosis more frequently creep in here than in any other class of case.

DISORDERS SIMULATING INTESTINAL OBSTRUCTION.

I wish now to allude to a number of abdominal disorders which give rise to symptoms closely simulating those of intestinal obstruction, and are easily mistaken for it, feeling sure that it is only by such study that we can hope to avoid pitfalls.

When a coil of intestine has undergone any form of strangulation, its blood supply is suddenly interfered with, and its delicate nervous mechanism injuriously pressed upon. A certain train of symptoms is set up, characterized by acute abdominal pain with collapse and severe vomiting. These symptoms are due to the sudden painful impression of the strangulation on the sensitive sympathetic nervous system of the abdomen.

The term "peritonism" has been coined, I believe, by Sir F. Treves for this condition. It is always present in a greater or less degree at the commencement of an acute obstruction, and the patient may actually die in this state of collapse.

But it must be remembered that the same train of symptoms may be produced by many other acute abdominal disorders, such as the perforation of a hollow viscus like the stomach, the occlusion of a mesenteric vessel, the rotation of an ovarian cyst, or the rupture of an intraperitoneal abscess; and it is only by an accurate history of the events leading up to the sudden illness (in the patient's previous history) and a close study of his physical signs and symptoms as they develop, that we can differentiate between the various causes of the condition.

Symptoms of Acute Intestinal Obstruction.

The typical cardinal symptoms of acute intestinal obstruction may be briefly summed up as follows:

1. Sudden violent abdominal pain usually at the umbilicus or in the epigastrium. This pain is usually colicky in character, subject to violent exacerbation, and is sometimes relieved by pressure.
2. Collapse accompanies the onset of the pain, with pallor of the face and extremities and a small, thready pulse.
3. Vomiting occurs, first of all of the contents of the stomach, and then as the case proceeds the vomited matter becomes more and more stercoraceous in character.
4. Absolute constipation.
5. A subnormal temperature is usually present throughout, unless peritonitis supervenes.

The abdomen is as a rule soft and flaccid at the beginning, but becomes distended and tympanitic as the case proceeds.

The sunken eye and pinched face soon show themselves, and point to the severity of the abdominal lesion. The patient rapidly becomes worse; and soon the pulse begins to fail, increasing rapidly in frequency and diminishing in volume until death finally occurs from asthenia and septic poisoning, the temperature frequently remaining subnormal and consciousness being retained until the last.

The conditions which most closely simulate such a case are as follows:

1. Biliary or renal colic.
2. Perforative peritonitis due to the rupture of a gastric or duodenal ulcer.
3. Gangrenous appendicitis or the rupture of an appendical abscess.
4. Tuberculous peritonitis.
5. Acute haemorrhagic pancreatitis.
6. Torsion of an undescended testicle or rotation of an ovarian cyst.
7. Rupture of an ectopic gestation sac.
8. Embolism or thrombosis of the superior mesenteric vessels.

Biliary or Renal Colic.

Of biliary and renal colic I do not propose to say anything. There is often a history of previous similar attacks, which have been followed by jaundice or the passage of blood in the urine. The pain is not so general and is localized, as a rule, to the region of the gall bladder or the loin. The symptoms at the actual onset may be somewhat alarming, but as a rule the collapse is not so severe as in intestinal obstruction, and passes off in a few hours.

Perforation of Gastric or Duodenal Ulcer.

When a gastric or duodenal ulcer perforates the collapse is usually extreme. At the moment of rupture there is often a feeling of something having given away—several of the patients with ruptured gastric ulcer on whom I have operated have told me that at the moment of onset of their illness they felt a burning pain in the epigastrium as if something hot were being poured out—and the pain and tenderness are most marked high up in the epigastric region.

The history of the case is usually of great help. A gastric ulcer seldom perforates which has not already given evidence of its existence. The patient has usually had epigastric pain and tenderness, increased by taking food, for a considererable time before, vomiting, and in many cases, attacks of hematemesis.

In two cases of duodenal ulcer which have been under my notice there was a history of occasional transient jaundice in addition to these attacks of indigestion.

---

* I hope all my readers will make a careful study of this question (compulsory notification as applied to phthisis), and, if they are convinced of its advisability, do what they can to educate medical and lay opinion, so that we may in this country before long follow the enlightened example of the United States.

At the onset there is great retraction of the recti muscles, and a tense board-like condition of the abdomen. This in a few hours gives way to distension and a tympanitic condition, but the abdomen is always extremely rigid and motionless, and the slightest pressure or manipulation increases the patient's agony.

The pain is constant and inflammatory in its nature; much increased by any movement; and, though it may from time to time undergo exacerbation, it has not the intermittent colicky character of obstruction.

In all but the very worst and rapidly fatal cases, the temperature in peritonitis, after the initial collapse, begins to rise and the pulse to increase in frequency; and, as a rule, the temperature remains raised throughout the case.

Vomiting is not so prominent a symptom as in obstruction. The stomach contents are pumped up without any feeling of nausea and without warning. The vomited matter is usually bilious and foul-smelling, but rarely becomes absolutely stercoraceous.

As the case progresses the hard retracted state of the abdomen gives place to a tense uniformly-distended tympanitic state. The bowels usually remain constipated, but occasionally a little faeces or flatus are passed.

If the case is seen during the stage of collapse, an examination of the blood will not give much help. But if the initial collapse has passed away a blood examination may afford much assistance. In intestinal obstruction the number of leucocytes in the blood remains normal or is frequently subnormal. But in peritonitis there is almost always a leucocytosis. The presence of a leucocyte count of 20,000 or 30,000 in a doubtful case would be strong evidence of peritonitis being present.

I need hardly say that in all doubtful cases a careful examination should be made of the rectum and the various ernial orifices and of the vagina in women. Valuable and sometimes unexpected help is often thus obtained, and it should always be made as part of the routine examination.

Another point will sometimes help in the diagnosis. In ntestinal obstruction, as, for instance, in intussusception n children, during the intervals between the attacks of ntestinal colic the child is often quite free from pain, and he belly lax and the walls flaccid, allowing of thorough palpation. During the attacks of pain the walls are rigid nd hard, and the patient often throws himself about in is agony. In peritonitis there are none of these intervals f freedom from pain, and the child usually lies quite till—fearing to move.

The intestinal loops may often, during intestinal bstruction, be seen undergoing visible peristalsis. There s never this visible peristalsis in peritonitis.

Despite every care, however, mistakes will occur in iagnosis. Duplay[1] has collected 14 cases of general eritonitis which were thought to be intestinal obstruction, and I can recall a fair number of such cases where a echanical obstruction has been diagnosed, and on bdominal section I have found intestinal paralysis from eritonitis.

Rupture of Appendical Abscess.

The foregoing remarks with regard to perforative eritonitis following gastric or duodenal ulcer will apply most respects to the acute perforation which occasionly occurs in appendicitis or the sudden rupture of an pendical abscess or of a pyosalpinx. Actual sudden rforation of an appendix rarely occurs without warning. he patient has generally had some trouble in his right ac region before, and is usually suffering at the time om an attack of appendicitis; but it does occasionally ke place without previous warning. In such cases the dden onset of the symptoms of peritonitis may occur thout any localizing symptoms, particularly if the burst pendix be intrapelvic.

After the initial collapse has passed away there will, wever, usually be signs pointing to the trouble being in the lower half of the abdomen and increased tenderness the right lower quadrant, and the same remarks will apply.

Tuberculous Peritonitis.

Tuberculous peritonitis, as a rule, has an insidious gin, and can scarcely be confused with acute obstrucn. But sometimes its onset is heralded by a set of mptoms very closely resembling those of intestinal truction; and occasionally during its course an ual obstruction may occur from adhesion or matting of the bowels, or from peritonitic bands which have strictured them. I have in the last four years seen four such cases. Two of them were in infants, and in each the case was diagnosed in the first instance as an acute intussusception. There was in each a history of sudden abdominal pain with collapse, vomiting, and the passage of blood per anum—symptoms, in an infant, pointing strongly to intussusception. One case was operated upon by one of my colleagues, and the diagnosis made at the operation; in the other case I refused to operate owing to the child's desperate condition, and because I thought tuberculous peritonitis the more probable diagnosis. A necropsy showed this to be the correct view.

Another case was a thin girl, aged 11, who was admitted into the General Hospital on October 30th, 1905, as a case of "intestinal obstruction."

The only history obtainable was that she had been in good health until two days before admission when she was suddenly taken ill with acute pain at the umbilicus with vomiting. The vomiting persisted and she had complete constipation and intense colicky abdominal pain up till admission.

There was a history of consumption on the mother's side.

On admission the temperature was 99° ; pulse, 90. The abdomen was distended, tympanitic all over, but moved freely on respiration. She was extremely restless and complained of pain chiefly in the lower half of the belly. No tumour of any kind could be felt through the abdominal walls or per rectum. There was a leucocytosis of 16,200.

An abdominal section showed general distension of all the coils of small intestines with gas. The visceral and parietal peritoneum was studded with miliary tubercles. Firm recent adhesions existed between the coils of small intestine near its juncture with the caecum. These were divided, and the abdomen was closed.

She made a good recovery, the bowels being open the next day after an enema. On the eighteenth day of her convalescence she had a somewhat similar attack of vomiting and acute abdominal pain. But these symptoms passed off in forty-eight hours and she left the hospital apparently well.

These cases almost always occur in children and have usually to be diagnosed from intussusception.

The diagnosis is made as a rule by a careful previous history of the child, when it will be found that in addition to a tuberculous history in the parents' families the child has often had some irregularity of the bowels. Blood is sometimes found in the rectum in these cases, or it may be passed. But it is never in my experience mixed with mucus as it is in intussusception. The abdomen is usually distended. There is general tenderness, and if the distension is not too great irregular masses of matted intestinal coils may be felt, but not the soft smooth tender lump of an intussusception.

Fortunately, abdominal section—sometimes undertaken in error—is usually productive of good results, and in both cases on which I operated the patients made good recoveries.

Acute Haemorrhagic Pancreatitis.

Another disease of much clinical and pathological interest, which so closely simulates in its main symptoms acute intestinal obstruction as to be usually quite indistinguishable from it, is Acute Haemorrhagic Pancreatitis.

Considerable attention has been called to this disease of late years, and a large number of cases has been recorded. I have had four such cases under my own care, all of which have proved rapidly fatal, and in each case it was not until the abdomen had been opened for supposed intestinal obstruction that I realized the true nature of the disease, though, in my last case, I suspected it before operating. I give a brief clinical history of two of these cases, as they illustrate the main symptoms of the disorder.

1. A fitter, aged 48, a patient of Dr. Brash. He had always been a stout man, and at times had been a heavy drinker. Whilst in apparent good health he was suddenly seized in the middle of the night with acute pain in the pit of the stomach. The pain was constant, but every now and then he had paroxysms of agony. He vomited repeatedly at the commencement of his illness. The bowels were absolutely constipated. The temperature at the commencement of his illness was 99.8°, and his pulse 88. Two days later, when I saw him, his temperature was 100°, his pulse 120, small. His eyes were sunken, but there was no jaundice; the tongue was furred and inclined to be dry. He felt very sick, but did not actually vomit. The abdomen was distended and tympanitic, and there was some shifting dullness in the right flank. It was tender all over, but the pain, which was at times excruciating, was situated chiefly in the epigastrium and right hypochondrium. The rectum was empty, and a large simple enema was returned uncoloured.

A diagnosis of acute intestinal obstruction or perforation of some hollow viscus was made and a median abdominal section performed.

On opening the abdomen, a large quantity of bloody ascitic fluid escaped. The fluid lay chiefly in Douglas's pouch and in the right flank. No areas of fat necrosis were to be seen in the omentum, but on exposing the pancreas it was found to be much swollen and to have a number of black haemorrhagic areas scattered over its surface. The abdomen was drained and closed.

He improved for the first thirty-six hours after the operation, and after a large purgative enema had a good action of the bowels. But about forty-eight hours afterwards he suddenly vomited 50 oz. of dark bloody fluid and died in a few minutes.

The *post-mortem* examination showed the typical changes in the pancreas met with in these cases, and numerous areas of fat necrosis in the root of the mesentery and omentum.

2. A brass founder, aged 41, was admitted into hospital under my care on May 19th, 1905, with abdominal pain and sickness. He was a stout, heavy man, and had been a big beer drinker.

The history he gave was as follows: He had had no previous severe illness, and had never had jaundice. He had frequently had attacks of abdominal pain before, and had had to leave off work in consequence on several occasions. He worked in brass. Three days before whilst at work he felt a sudden pain at the pit of the stomach; the pain increased in intensity, and a few hours afterwards he began to vomit, and vomited at frequent intervals during the next three days. The abdomen soon became very tender and the pain excruciating. There was no fever. The bowels were constipated, and abdominal distension soon appeared.

On admission his temperature was 97°, pulse 136, small. He had a pinched, anxious expression. The tongue was furred and inclined to be dry. The abdomen was very distended and tympanitic. It was tender all over, but the tenderness was most acute in the epigastrium and on the right side. The bowels had not been moved for three and a half days. A slight action took place after a large simple enema had been given. He was extremely restless, and had to be given morphine for his intense abdominal pain.

Abdominal section was performed. The abdominal cavity contained a considerable quantity of bloody bile-stained fluid, and there were signs of early peritonitis. Areas of fat necrosis were seen in the ascending meso-colon and omentum. On passing one's hand upwards the pancreas could be felt enormously swollen. The abdomen was closed. The patient gradually sank, and died some ten hours after the operation.

At the *post-mortem* examination the abdomen showed the typical changes seen in haemorrhagic pancreatitis. There were numerous areas of fat necrosis scattered all over the omentum and the root of the mesentery of the small and large bowel. The pancreas was swollen to four times its normal size. There were numerous scattered haemorrhages in it, and its substance was almost diffluent.

These two cases illustrate well the main characteristics of the disease.

The patients are usually of the male sex, middle-aged and stout. There is frequently a history of past intemperance, and occasionally the patient has suffered from gall stones. The onset is usually sudden, and characterized by intense epigastric pain, with collapse and sickness. The vomiting may be a marked symptom throughout, but in other cases is not repeated. The temperature is subnormal at first, but as a rule rises as the disease progresses. The bowels remain confined, and the pain is as a rule extremely great and comes on in violent paroxysms. There is a great haemorrhagic tendency in these cases, and the patient may vomit blood, or a large bloody effusion may take place in the abdominal cavity.

The prognosis is of the gloomiest character. I believe that true cases of haemorrhagic pancreatitis are invariably fatal, and the fatal issue is rarely delayed beyond five or six days. Less acute cases have recovered after abdominal section and drainage.

From intestinal obstruction the diagnosis is almost impossible. Nearly all the recorded cases have been operated upon as cases of obstruction, and, personally, although I have now seen six cases in all, I do not know a single reliable differentiating symptom. The main distinguishing signs are the age, sex and previous history of the patient, the agonizing character of the epigastric pain, the marked and intense collapse, and the comparative abeyance of vomiting. If the vomited matter contain blood, it would certainly be a very suggestive sign.

It is the surgeon's duty in all such cases to explore if the case is seen in an early stage, but the prognosis is an almost hopeless one. In the later stages, when the pulse has risen to 130 or 140 and the distension become extreme, I believe operation to be quite useless and only tends to bring discredit on surgery.

Embolism or Thrombosis of the Superior Mesenteric Vessels.

Attention was first called to this condition by Virchow in 1847. It is a curious fact that after embolism or thrombosis of the superior mesenteric vessels collateral circulation is rarely established, but a condition resembling the haemorrhagic infarct of a solid viscus is established, and the loop of intestine supplied by the vessel becomes gangrenous. Various explanations of this lack of establishment of an anastomotic circulation have been given, but none of them is entirely satisfactory.

It is an uncommon condition, but some 214 cases have been collected by Drs. Jackson, Porter, and Quinby.[2] In the large majority of these cases there has been some endocarditis found as the cause of the embolus. When there is thrombosis of the mesenteric vein, it has usually followed some enteritis of the intestine or intra-abdominal suppuration, but is in some cases secondary to a portal cirrhosis.

A case which was under my care some years ago illustrates the main features of the disease:

A male, aged 32, was admitted under my care in the General Hospital, as a case of acute intestinal obstruction. He had been in his usual health until four days previously, when he was seized with acute pain in the umbilical region. The pain was accompanied by great collapse and sickness. During the next two days he became rapidly worse. There was absolute constipation, vomiting, with acute colicky abdominal pain. The abdomen, which was retracted at first, rapidly became distended. It was tympanitic all over, except for a dull area in the right lower quadrant. The temperature throughout was normal or subnormal, and the pulse became more frequent day by day.

On admission he was extremely ill. Pulse 130, respirations 32. The face was pinched and shrunken. The whole abdomen was distended and tympanitic. It was tender all over, but moved somewhat on deep inspiration. The various hernial rings were all free, and the rectum was empty. He had a loud presystolic mitral murmur.

The case was thought to be most probably one of acute intestinal obstruction, and an operation advised in the hope that we might discover some constricting band, or be able rapidly to make an artificial anus above the obstruction.

On opening the abdomen a considerable quantity of blood-stained fluid escaped. The lower half of the small intestine was enormously distended, black and lustreless, and apparently full of blood. The root of the mesentery was very swollen, purple in colour, soft and almost diffluent. There was no sign of any constriction or strangulation. The abdomen was rapidly closed, as the patient's condition precluded any further operative treatment.

The patient died in the same state of collapse, with extreme restlessness, some fifteen hours afterwards.

The *post-mortem* examination showed that the superior mesenteric vessels, except the colica media, colica dextra, and ileo-colic vessels, were completely thrombosed, and the coils of small intestine supplied by them in a state of commencing gangrene. No embolism was found on dissection, nor was it possible, owing to the state of the tissues, to say whether the thrombosis was primarily arterial or venous. The small intestine was full of blood. There was old-standing heart disease with stenosis of the mitral valve.

The attack is usually quite sudden. The patient, who is generally a male, is seized with acute abdominal pain in the umbilical region. With the pain there is much collapse and sickness. The temperature is, as a rule, subnormal throughout the course of the disease, and extreme restlessness is often a marked symptom. The bowels are in some cases open repeatedly, and in these cases large quantities of blood may be passed; but in the majority of cases constipation is absolute. The abdomen soon becomes distended and tympanitic, but later on evidence of free fluid may make its appearance. The pain throughout is colicky in character, and comes on in paroxysms as in intestinal obstruction.

The patient's general condition becomes rapidly worse; his pulse, frequent from the first, becomes more and more rapid, and towards the close may be uncountable. The prognosis is extremely bad, and the fatal issue in the acute cases is not often delayed beyond the eighth day.

The diagnosis from acute intestinal obstruction is extremely difficult. The large majority of the recorded cases have been operated upon as such, and the condition only recognized at the operation, or at the *post-mortem* examination. The points which in a doubtful case would make one suspicious of an embolus or thrombosis being the cause of the symptoms are the presence of cardiac mischief, or some source for an embolus, a previous history of embolism in other parts of the body, copious haemorrhage from the bowel, and a very low temperature with extreme collapse and colic.

An abdominal section, however, even if undertaken in mistake, gives the patient his only chance in this as in obstruction. The bowel supplied by the thrombosed vessel almost invariably becomes gangrenous, and a resection of the loop supplied by the thrombosed vessel gives the patient his only chance, though it is a very remote one.

REFERENCES.

[1] *Arch. Gén. de Méd.*, vol. xxviii. [2] *Journal of the American Medical Association*, 1904, 1 and 2.

An Address

ON

STAGNATION OF FOOD IN THE STOMACH.

DELIVERED BEFORE THE MEDICAL SOCIETY OF HAMILTON, ONTARIO,

BY **ALEXANDER McPHEDRAN, M.B.,**
PROFESSOR OF MEDICINE, UNIVERSITY OF TORONTO.

No functions are more frequently disturbed than those of digestion. Although not dangerous in themselves, such disturbances nevertheless interfere with the active duties of life, and render their subjects less able to resist the various forms of disease, so that their consideration becomes of vast importance. Of the disturbances of digestion there is none more injurious in its effects than undue retention of food in the stomach.

The stomach is an organ of complex functions. It acts as a receptacle for the food, and at the same time perorms an important part in its digestion in converting it nto an acid liquid we call chyme.

In the process of chymification of the food the gastric peristalsis performs an essential part; it serves the double purpose of mixing the food with the gastric juice and, as he liquid chyme collects in the pyloric end of the tomach, of forcing it through the pylorus. In normal igestion the chyme does not lodge in the stomach but is passed on intermittently as formed into the duodenum.

Relationship of the Function of the Duodenum to that of the Stomach.

A knowledge of this relationship is necessary to a clear nderstanding of the digestive process, especially in its earing on gastric motility. Hitherto the duodenum has een regarded in function as little else than a part of the tomach in which the gastric digestion is continued. lcers in the duodenum have been spoken of as peptic lcers. This view was taken for granted, notwithstanding hat the mucous membrane of the duodenum was never nown to secrete any of the ingredients of gastric juice, nd that it is separated from the stomach proper by the yloric sphincter, which effectively divides the two nd protects the duodenum from the inroad of too reat a quantity of acid chyme as well as of unchymified od.

Until recently physiologists were at a loss adequately account for the regular occurrence of the secretions of e digestive tract, how the gastric secretion is always llowed by that of the pancreas, and that in turn by the cretion of the intestine. There is no intimate connexion tween the nerves of the stomach, pancreas, and intestine account for the close relationships in the occurrence of eir secretions. Now it is known that under the stimulus the acid of the chyme the mucous membrane of the odenum secretes a substance, secretin, which has been own to be the active agent in causing the pancreas to rete its peculiar ferment; it reaches the pancreas rough the blood current.

As soon as the chyme is neutralized it ceases to cause e production of secretin, and by this time duodenal ristalsis will have carried it on into the small intestine. en the pylorus relaxes to permit the passage of more yme, and as soon as the contents of the duodenum have ome sufficiently acid reflex stimulus causes the pylorus close again. In normal conditions this process conues until the stomach is empty, the digestion being mplete.

The pylorus, therefore, has a twofold function; first, to retain the food in the stomach until it is reduced to chyme, only relaxing from time to time to permit the chymified part to escape; and, secondly, to guard the duodenum from excessive irritation not only from unchymified food, but also from excessive acidity from too great an influx of chyme.

By observation we learn that the time normally required for the chymification of an ordinary dinner and its discharge into the duodenum is six hours, and not more than seven hours as an extreme limit. The retention of food in the stomach beyond that time shows that either or both of two conditions exist: (1) Deficiency in the expelling power of the stomach; (2) abnormal difficulty in the passage of the food through the pylorus.

DEFICIENT MUSCULAR POWER.

Deficiency in the muscular power of the stomach may be actual or relative; not infrequently the two are combined.

Actual weakness or atony of the muscular wall of the stomach is of very frequent occurrence. Debilitating causes, such as anaemia, acute or chronic illnesses, shock, fatigue, overwork, insanitary environments, insufficient and unsuitable food, may render the stomach unequal to its ordinary duty, especially if its power is congenitally defective.

Probably the most frequent cause of relative deficiency is the overloading of the stomach with food, especially if unsuitable and ill-prepared. People who masticate thoroughly seldom overeat, because the desire for food is satisfied before too much is taken, while in hasty eating satisfaction rarely comes before an excess is eaten. Moreover, ill-masticated food fills the stomach with masses that tax and therefore soon exhaust its motor power, the more so as the masses require a much longer time to digest than does finely divided food. Raw fruit as a first course at breakfast appears to add much to the stomach's work, sufficient to overtax those that are weak. In all cases with stasis that I have examined the raw fruit was always one of the last constituents of the meal to be discharged. It is not rare to find it five or six hours after an ordinary breakfast.

PYLORIC OBSTRUCTION.

The pyloric conditions obstructing the passage of the food may be due to functional disturbance or organic disease.

Spasm.

Spasm of the pylorus is no doubt the most frequent cause of obstruction, yet its existence is difficult to demonstrate. In cases requiring operation the spasm usually yields under the anaesthesia before the stomach is even exposed. Its existence may be indicated by the contents of the stomach. If with spasm of the pylorus there is a good motor power, as is usually the case, so that peristalsis is strong, the food will be found minutely divided and the contents appear like a thin gruel; but if the muscular wall of the stomach is atonic, and the peristalsis therefore feeble and soon exhausted, the contents will contain many particles of food that have undergone no change in the stomach, so that their size will depend on the thoroughness or deficiency of mastication.

The gastric secretion in the majority of cases is hyperacid, and to this state of hyperchlorhydria is chiefly due the spasm of the pylorus. The spasm is no doubt in some measure caused by the direct irritation of the pyloric mucous membrane, but chiefly by reflex stimulation from the duodenum; it prevents excessive irritation of the mucous membrane of the duodenum by the highly acid chyme, as already indicated in discussing the physiological relationships.

Organic.

Of the organic changes causing pyloric obstruction, gastric ulcer is the most frequent. In the early stages obstruction is due to spasm of the pylorus excited by the irritability of the ulcer, and in the later stages to the cicatricial thickening and contraction about its site, whether healed or unhealed.

Thickening and stenosis of the pylorus may possibly result from chronic inflammation without ulceration, but this is difficult to prove, as the occurrence of erosions of the mucous membrane that have healed without scarring cannot be excluded. Hypertrophy of the pylorus from over-action is said to occur, and there are numerous instances on record of congenital hypertrophy of the pylorus.

It is not necessary to do more than mention carcinoma of the pylorus as a frequent cause of obstruction. It is important to remember that it may be preceded by hyperacidity with irritability of the pylorus, and in some of these cases, no doubt, there is simple peptic ulcer.

Perigastric adhesions may kink or constrict the pylorus, as may also the pressure from a tumour. Sometimes the pressure is on the duodenum, and then the pylorus and part of the duodenum above the point of pressure may be dilated and contain stagnant food, in fact, be converted into a part of the gastric cavity. Gastroptosis is said to cause obstruction sometimes by kinking the pylorus, but this is rare. In atonic conditions the existence of gastroptosis conduces to stagnation of food in the stomach by increasing the difficulty of discharging the gastric contents.

SYMPTOMS AND DIAGNOSIS.

Vomiting of food long after it is taken is the only symptom which shows the unquestionable occurrence of stasis of food in the stomach; all others are quite indefinite. In the milder cases there are only local and general symptoms of disturbed digestion. The local symptoms are: a feeling of fullness and weight in the epigastrium after meals, disappearing usually after a few hours; acidity with eructations of acid fluid, sometimes of food in varying stages of digestion or quite undigested; belching of tasteless or offensive gas, and a feeling of to-and-fro movements in the epigastrium, often with visible peristalsis if there be obstruction at the pylorus. The general symptoms are as various as those of indigestion. The appetite varies, the bowels are usually constipated, and there is often a feeling of depression and malaise. There may be vomiting from time to time, but in such cases there is usually also more or less dilatation. Then there may be thirst and scanty urine, both owing to the small quantity of fluid passing through the pylorus to be absorbed in the intestine. Loss of flesh is common even in the mild cases; in the severe, emaciation may be extreme.

In the milder degrees of food stasis we cannot be certain of the condition without physical examination; but by direct examination of the motor powers of the stomach the diagnosis can be made without difficulty and with certainty. If an examination were made in every case in which there are symptoms of digestive disturbance, we would be surprised to find how frequently a moderate degree of retention of food from atony of the stomach occurs; the atony may be quite latent, disappearing from time to time, and reappearing as the stomach is overtaxed, as it may be, even by light diet taken in moderation.

The length of time beyond the normal that the food remains in the stomach is a fair gauge of the degree of gastric insufficiency, or rather of food stagnation, as the two terms are not necessarily synonymous. To determine the degree of stagnation it is necessary to remove the stomach contents by means of the stomach tube at varying times after food is taken. If the contents found seven hours after dinner are only small in quantity the degree of stasis is slight; still there is some, and material disturbance of digestion would follow the introduction of fresh food before the complete discharge of the contents. In severer cases some food remains may be found in the morning; this indicates a decided degree of stasis. By giving an Ewald trial breakfast of toast and weak tea and siphoning the contents in an hour a very fair estimate can be formed of the motor power of the stomach, and at the same time the opportunity is afforded of determining the condition of the gastric secretion. With healthy gastric motility not more than 1 oz. of this breakfast should be found in the stomach an hour after it is taken. By forcing some air into the stomach with a rubber bulb before withdrawing the tube the position and outline of the stomach can usually be definitely determined. In most cases of prolonged retention of food the stomach is somewhat prolapsed; the converse is also true—namely, that in most cases of material prolapse of the stomach there is also some degree of retention of food.

For reasons already given, in the majority of cases of pyloric spasm there is hyperacidity of the stomach contents. In my last 400 cases in which the stomach contents were examined the records show probable hyperchlorhydria in 325, and in these there was some degree of food stasis in 250. In many of the 250 cases the fine comminution of the food indicated good gastric motility, but in more than one-half of the number the coarse-food remains showed a proportionate degree of lack of peristalsis of the stomach. These results are not in accord with the views of some writers on this subject. Riegel[1] says that with hyperchlorhydria there is usually good gastric motility. But, inasmuch as both defective motility and excessive secretion of hydrochloric acid are due to disturbed gastric innervation, my own experience is in accord with what we should expect to find.

The two following cases of neurasthenia may be cited as illustrating protracted delay of food in the stomach—in the first with atony, but in the second with good motility. There was a high degree of acidity in both.

J. M. was a barrister from the North-West of Canada, and, like the people in a new country, had led a very strenuous life. He sought advice on account of insomnia and loss of powers of mental concentration. He habitually took his meals hastily and irregularly. On the day of examination he had taken a breakfast of steak, potatoes, etc., at seven o'clock. At noon, as there were signs of much food still remaining in the stomach, a tube was passed, and apparently the whole of his breakfast removed, the liquid portion flowing through the tube and large pieces of steak, etc., being vomited. The steak had evidently been rather tough and was not masticated, but only crunched once or twice and then swallowed. The coarse pieces of food showed that it had not been subjected to active peristalsis. Like many people, he considered he had fulfilled his duty in swallowing the food; the rest of the process was the stomach's affair, with which he had no concern.

A. T., aged 35, also a barrister, was a man of very nervous temperament who was always in a hurry, and therefore masticated his food imperfectly and ate too much. He suffered for a long time from epigastric distress, with weakness and loss of weight.

On examination there was found continuous hyperacid secretion and prolonged retention of food. Frequently a pint or more of highly-acid liquid holding in suspension fine particles of food could be siphoned from the stomach; even in the morning several ounces of acid liquid could at times be obtained. No thickening could be felt at the pylorus. The stomach was prolapsed considerably. The condition proving absolutely rebellious to treatment, an operation was done to relieve the supposed pyloric stenosis, but the orifice was found to be quite normal, the spasm, if it existed, having relaxed under the anaesthetic.

In order to raise the greater curvature nearer to the level of the pyloric orifice, and thus facilitate the passage of the food, gastroplication was done. He made a slow recovery, and after a few months was in fair condition and able to attend to business.

By the following spring the symptoms recurred as severely as formerly. He was not benefited by three months at the seaside, followed by a month's rest in bed, with massage, etc., although the greater curvature of the stomach had not fallen from the level to which it was raised by the gastroplication. Gastro-enterostomy was then done, and since that he has enjoyed fair health and has been equal to close application to business.

This case furnishes a good illustration of the clinical history of cases of continuous secretion of hyperacid gastric juice and of the difficulty in their treatment. I am not able to say definitely from my records how frequently this condition is met with, but it is not rare. It occurs much oftener in men than in women.

TREATMENT.

Gastric stasis being but a symptom, it follows that treatment is as varied as the causes on which it depends. Whatever the cause may be, the first object to be aimed at in all cases is to secure complete emptying of the stomach within the proper time.

There is a certain analogy between the functions of the stomach and those of the urinary and gall bladders. They all act as receptacles. It is well recognized that retention of contents by the two latter is soon followed by infection, and that the infection causes decomposition of their contents, and catarrhal inflammation of their mucous lining. When such a condition is established, the only effective treatment is prompt and complete drainage. If that is secured, the contents of each soon become aseptic, and the inflamed mucous membrane is quickly restored to a normal state.

The same statements are applicable to the stomach. Bacteria in great numbers and variety are always present in its contents, which quickly become decomposed if retained, and the irritant products excite catarrhal inflammation of the mucous membrane. If, under such circumstances, the decomposing gastric contents be promptly and effectively drained away, the decomposition is quickly arrested, and the mucous membrane restored to a normal condition. The marked effects of good drainage in gastric ulcer is well shown by the prompt relief of the symptoms and the healing that usually follow gastro-enterostomy. This appears to me to afford strong ground for the opinion that in most cases the development of the ulcer is preceded by, and its continuance associated with, some degree of food stagnation. This is a reasonable theory, because the hyperacidity usually occurring in association with gastric ulcer will often cause spasmodic closure of the pylorus. The correctness of this view is supported by the frequency with which free drainage of the stomach by gastro-enterostomy is followed by the healing of an ulcer. Of course an ulcer situated near the pylorus is relieved of the irritation of the passing chyme if the passage be short-circuited by a gastro-enterostomy; but an ulcer away from the pylorus should not be relieved by drainage in this way more effectively than by equally prompt discharge through the pylorus itself. There is at least considerable reason to believe that in all cases of intractable ulceration of the stomach there is some degree of gastric stasis, and that the persistence of the ulceration is due to the irritation caused by the stagnant acid food. If this be true, our first object in treatment should be to secure as prompt and complete discharge as possible of the stomach contents. If we can prevent delay of the food in the stomach beyond the time required for its chymification, healing should be rapid and permanent.

In the treatment of the large class of cases in which stasis is due to atony of the stomach, our first care should be to search for and remove the cause of the atony. It is often a part of general debility, but in many cases the evidences of general weakness may be very slight. The general condition should receive suitable treatment. All habits and conditions detrimental to health should be corrected—such as insufficient rest and sleep, indulgence in alcohol, insanitary surroundings, unsuitable food, overeating, excessive drinking (especially of iced liquids with food), and insufficient time between meals. Of all injurious habits, imperfect mastication is the most prevalent, and probably the most effective, in causing gastric stasis. Besides furnishing the stomach with masses that often cause traumatic injury to its walls and overtax its motor powers, the rapid eating attending this habit invariably leads to overeating. Physicians whose work leads them to examine the stomach contents of many persons must be struck by the great frequency of insufficient mastication. The unbroken masses of food increase enormously the labour of the stomach; if it is weak from any cause it is certain to be unequal to the task thrust upon it, and stasis of food must occur sooner or later. If the stasis recurs from day to day, in time it will be continuous and dilatation must be the ultimate consequence. How minutely should the food be made before being swallowed? That depends very much on the individual. The robust labouring man does not require food that is as finely divided or as easily digested as the office man with feeble digestive powers, or the neurotic woman "who enjoys her ill health." For both these latter all food should be reduced to fine gruel-like particles in the mouth before being swallowed. This is the best antidote to the taking of food improper in quantity and quality.

It will not be necessary to speak of the necessity of fresh air, recreation, and a proper holiday, with the tonic effects of change of scene.

Baths, hot and cold douches, cold compresses to the epigastrium at night, and massage, do good. Regular exercises, more particularly of the abdominal muscles, are of much service, especially in women, as their dress interferes greatly with the proper action of these muscles, which are further injured in child-bearing. Systematic exercises taken morning and night are of great service in strengthening these muscles. It is irksome treatment, but the benefit from it will amply repay the time and trouble required.

Drugs are of little use in relieving gastric stasis. As here is excessive secretion of hydrochloric acid in the great majority of cases, the bitter tonics and stimulants, o much used, tend to increase the acid secretion, and may herefore aggravate the condition.

The drugs of chief use are probably those of a sedative and antiseptic character. As there is usually some eneral nervousness as well as gastric hyperaesthesia, short courses of bromides often do good. The strontium salt is the best. The natural salicylate of sodium is a useful antiseptic, as it inhibits especially the growth of yeast cells. It also increases the flow of bile by rendering it more liquid.

The cases due to pyloric obstruction fall into two classes: those due to spasm of the pylorus, and those due to organic stenosis. Peptic ulcer in or near the pylorus in the early stage causes obstruction by exciting spasm; later there may be cicatricial thickening and contraction. These cases are often extremely rebellious, and the tendency of late has been to refer them for operation at once. But although the results of gastro-enterostomy are usually very satisfactory, it does not restore the stomach to a state as good as normal. Therefore it should not be resorted to until judicious patient treatment has failed to give relief. We should make an effort to lessen the acidity by giving a liquid or very soft diet free from particles and irritants, and the use of antacids for the relief of pain and the lessening of excessive acidity. Regular lavage should be done for a time if there is material retention, and, after emptying the stomach, some sedative, as bismuth subcarbonate in full doses, may prove useful. Large doses of pure olive oil are often of benefit in soothing the stomach; they have the effect, also, of lessening the secretion of acid (Pawlow). If necessary, rectal feeding may be depended on for a short time, and then a gradual return made, first to a liquid diet, and later to solid food.

If these means fail, there remains only a resort to surgical aid, but such a course should not be undertaken until medical treatment intelligently carried out for a sufficient time has failed to afford relief. During the last few years I have had gastro-enterostomy done in five cases in which no organic disease in the stomach could be demonstrated. In one, a farmer, pylorectomy was done before the bowel was attached to the stomach. He was very ill after the operation, but he made a very good, although slow, recovery. Reference has already been made to the case of the barrister. He is now relatively very well. In two others the result was satisfactory, and had continued so when they were last heard from. All these cases gained from 30 to 40 lb. each in weight.

In the fifth case a blacksmith, who was addicted to alcohol, there was a high degree of acidity and considerable catarrhal inflammation of the stomach. He made a good recovery from the operation but soon afterwards began to suffer from attacks of colic with symptoms of obstruction and peritoneal irritation. Indigestible food and constipation appeared to excite these attacks; they lasted from half an hour to twelve hours. Six months after the operation he died in an attack, the symptoms being those of obstruction and peritonitis. A necropsy was not permitted. There were probably some adhesions about the seat of operation that caused obstruction, which a second operation, if permitted, might have relieved.

To these I may add a sixth and most interesting case:

The patient was a hotel-keeper aged 60. The stasis was extreme and there was much dilatation. The hydrochloric acid secretion was very high. He was very anaemic and considerably emaciated. No tumour could be felt. He had taken alcohol daily in excessive quantity for several years. At the time of operation there appeared to be some thickening of the pylorus. He made a rather slow but an excellent recovery, and gained over 60 lb. in weight. Notwithstanding the continued excessive use of strong alcoholic drink, he remained in good health for over two years; after that the symptoms of digestive disturbance gradually recurred. Examination indicated the probable existence of carcinoma, and such proved to be the case, the liver being chiefly involved, apparently secondarily to disease of the retroperitoneal glands. At the necropsy the stomach was found to be the seat of some infiltration of the pylorus, but apparently secondarily. At the time of operation the possibility of the pyloric thickening being malignant was considered very grave, but his general condition did not seem to warrant a pylorectomy; we regretted afterwards that the attempt to remove the pylorus was not made, although the possibility of a fatal termination from such an operation was very great.

In the cases of stasis complicated with ulcer, gastro-enterostomy usually suffices to secure healing. Whether the ulcer should be excised is questionable. It is probably unnecessary in most cases, as healing usually follows relief from irritation from the retained food, and the removal of the ulcer does not ensure against the recurrence of ulceration in the vicinity of the old one.

In malignant pyloric obstruction each case has to be dealt with on its own merits. If diagnosed early, before infection of the adjacent lymph glands takes place, the removal of the pylorus would seem to be the rational course. This opens up the question of the advisability of operation in previously healthy persons whose dyspeptic symptoms begin after the age of 40 or 50, and who show signs of pyloric irritation, while the gastric contents contain abundance, even excess, of hydrochloric acid. These cases are so frequently malignant that an early operation seems not only justified but advisable.

In a man, aged 53, whom I saw some years ago there was much distress after meals apparently due to hyperchlorhydria. Treatment gave relief and he regained both his normal weight and strength, but the gastric symptoms recurred from time to time. I then lost sight of him. Between two and three years later his distress became continuous and after some months he died with unmistakable evidences of carcinoma of the stomach.

In more advanced cases in whom removal of the pylorus is not feasible, gastro-enterostomy is often followed by very gratifying improvement, only temporary of course, but then improvement in any disease and even cure is only temporary.

A few years ago a man under my care in the hospital had marked pyloric obstruction with pain, vomiting, and much weakness. Gastro-enterostomy was done and followed by great improvement. His appetite returned, digestion became comfortable, his former weight was regained and the cachectic colour disappeared. He was for some months able to resume his former occupation. Gradually the malignant masses increased in size and the disease invaded the gastric walls, in time occluding the artificial opening. The growth filled and caused protrusion of the upper zone of the abdomen. At the necropsy there was not sufficient healthy stomach remaining to permit of a second gastro-enterostomy being done.

In a similar case under the care of the late Dr. L. MacFarlane, complete relief of symptoms followed gastro-enterostomy, even free hydrochloric acid returning to the gastric secretion. The man lived about a year of comfortable, useful life before death took place.

REFERENCE.

[11] *Nothnagel's Encyclopaedia*, American Edition: Diseases of the Stomach, p. 309.

A REVIEW OF A SERIES OF OPERATIONS FOR CANCER OF THE STOMACH.*

By B. G. A. MOYNIHAN, M.S., F.R.C.S.,
LECTURER ON CLINICAL SURGERY, UNIVERSITY OF LEEDS.

Since my first case on August 23rd, 1897, up to July 1st, 1905, I have operated upon 59 cases of cancer of the stomach. The operations practised have been as follows:

Gastro-enterostomy	35 cases, with 5 deaths
Anterior (all with Murphy's button)	7 cases, 2 deaths
Posterior (all with suture) ...	28 cases, 3 deaths
Gastrectomy	10 cases, with 3 deaths
Complete	1 case, 1 death
Partial	7 cases, 1 death
Partial, with resection of transverse colon	2 cases, 1 death
Gastrostomy, for carcinoma at cardiac end of the stomach	5 cases, 0 death
Jejunostomy	3 cases, with 0 death
Exploratory laparotomy (operation not necessary or not possible)	6 cases, 1 death

During the same period I have seen 11 patients suffering from cancer of the stomach in so advanced a stage that I have advised against operation. One of these patients was operated upon elsewhere, and died six hours after gastro-enterostomy had been performed; of the remaining 10, 9 lived for periods varying from three weeks to fourteen weeks, in 1 no further history was obtained.

I propose to discuss the cases in the order already given.

GASTRO-ENTEROSTOMY.

In the earlier cases I used the Murphy button, and performed the anterior operation. There were 7 cases and 2 deaths, 1 from shock and exhaustion in a very enfeebled and wasted patient, 1 from continued vomiting and exhaustion.

In the later cases I have performed the posterior operation by simple suture in the manner I have described in detail in my work on *Abdominal Operations*. There were 28 cases with 3 deaths, 1 from pneumonia, 1 from shock or exhaustion, and 1 from septic peritonitis.

The value of the operation of gastro-enterostomy in malignant disease of the stomach has been variously estimated by surgeons. Recently a well-known London surgeon pronounced unhesitatingly against it in all cases; other surgeons are accustomed to practise it in all cases in which irremovable malignant disease is encountered. It has seemed to me that the indication for the operation is perfectly clear; it should be performed when obstruction to the food is caused (or is likely to be caused in its increase) by an irremovable growth at the pylorus, or in the body of the stomach near the pylorus. If no obstruction is caused, gastro-enterostomy is not indicated, and will not give, if performed, a degree of relief commensurate with the risks of the operation, though some temporary improvement may be noticed. If there is obstruction due to a growth which can be removed, gastro-enterostomy alone should not be performed unless the condition of the patient is such that the more serious operation of partial gastrectomy is not permissible. In such circumstances gastro-enterostomy may be performed, and two or three weeks later, when the patient's condition may be much improved, the removal of the growth can be safely undertaken. A growth is considered irremovable when it is adherent over a large area to the pancreas (the result of injury to which is most serious), or when extensive adhesions, the presence of many enlarged fixed glands, or secondary deposits in the liver or parietal peritoneum, or elsewhere, make its complete eradication quite impossible. The extent of the growth in the stomach only and the enlargement of the glands along the curvature are negligible factors so far as the question of removal is concerned, for both are conditions surmountable by the operation which I now adopt.

A tumour growing on the lesser curvature well away from the pylorus may by its increase in size cause obstruction to the food. Gastro-enterostomy in such cases gives some measure of relief, though by no means so much as when the obstruction is due to an invasion of the pylorus.

The contrary to the rule mentioned is also in need of emphasis; it is that if obstruction is not caused, or is not likely to be caused, by the growth in its extension, the operation of gastro-enterostomy should not be performed; for the absence of obstruction implies that there is a free passage through the stomach to the duodenum; the making of a new opening is therefore clearly not necessary.

Duration of Life after Gastro-enterostomy.

I have not been able to trace the final stages in the history of all my cases. Of the 30 patients who survived operation, 20 have been traced to the time of their death, 6 are alive and well, of 4 nothing is known. The earliest death amongst these occurred in the fourteenth week after operation, the latest two years and four months after operation. The length of life in the series is as follows: Fourteen weeks, fifteen weeks, eighteen weeks, five months, five and a half months, six months, 1 between six and seven months, 2 between seven and eight months, 2 between eight and nine months, 3 between nine and twelve months, 2 between twelve and eighteen months, 2 between eighteen months and two years, 2 over two years. The patient who survived longest was a woman upon whom I operated on June 13th, 1902, with Dr. Norman Porritt, of Huddersfield. Writing to me on October 27th, 1904, Dr. Porritt said:

> You found pyloric enlargement and enlarged glands, and at the operation expressed the opinion that the case was one of malignant disease. The immediate recovery from the operation was very satisfactory, but convalescence was slow, and oedema of the legs coming on seemed to confirm the correctness of your opinion as to the nature of the case. But the patient went to Blackpool, and came back a different woman, and has been in first-class health until about five or six months ago. The leg oedema quite disappeared. About five or six months since she began to lose flesh and condition, a tumour appeared in the middle of the lower part of the epigastrium, and the patient went downhill, and died from malignant disease of the stomach two days ago.

Of the 6 patients who are still alive, 1 was operated upon thirteen months ago, and 5 within the last twelve months.

---

* A paper read before the Clinical Society of London, February 9th, 1906.

A question in reference to these patients that has to receive an answer is this: Is it worth the patient's while to have the operation done? I should answer without hesitation, Yes. For in all such cases death is imminent and the remnant of life would be intolerable from constant vomiting, gastric intolerance, and the complete inability to take or enjoy food in satisfying quantities. By the operation of gastro-enterostomy life is undoubtedly prolonged, and, what is of far greater consequence, the last weeks or months of life are rendered tolerable. Food can be taken in fair and sufficient quantity and can be enjoyed; there is no stasis of food and there is no vomiting. Death occurs from gradual exhaustion, and ascites with or without jaundice may be a feature of the terminal condition.

GASTRECTOMY.

In the 9 cases in which partial gastrectomy was done, the growth was either "pyloric" or "prepyloric" in all. The tumour was largest at or near the pylorus, and thence had spread to the curvatures—to the lesser curvature in 7, to the greater curvature in 2. In the 7 former the lesser curvature was palpably affected in a considerable part of its extent, and the coronary glands were also enlarged; in the 2 latter the growth had spread very much more extensively along the greater curvatures, and had puckered up the transverse mesocolon and invaded the transverse colon, or caused its stenosis by kinking. In all the cases partial gastrectomy was performed—in the first 2 by the method I described before the Clinical Society of London in November, 1901, in the remaining 7 by the slight but important modification of it suggested by Hartmann. Of the 9 cases, 2 died within a week of the operation, 1 in a few hours, 1 in three and a half days. Of the remaining 7, 1 has lived four and a half years and is quite well and free from recurrence, 1 died in eleven months with ascites, 1 in fourteen months with secondary growths in the liver and jaundice and ascites, and 4 are still alive, the operation having been performed at dates distant between two and a half years and five months.

I have been perhaps rather conservative in my application of the operation of partial gastrectomy, and I am strongly disposed to think that if some of my earlier cases were to do again I should perform this operation in preference to gastro-enterostomy. With the method of operation described in my work on *Abdominal Operations*, there is but little loss of blood, there is no undue exposure of viscera, there is no soiling of the peritoneum, and the risks are accordingly much reduced from what they were even five years ago. We should, therefore, be emboldened to a free removal of cancer of the stomach in all cases where secondary deposits are not obvious. My cases are too few to afford a profitable comparison with those in which gastro-enterostomy has been performed, in so far as concerns the duration of life, but there is clearly a very decided gain in length of days after the removal of the growth. Indeed the question may well be raised as to whether in selected cases the operation of gastrectomy is not more satisfactory as a palliative operation than gastro-enterostomy, for its risk is very slightly greater, and by it the patient is rid of a growth which is giving rise to a continuous lymphatic infection. By removal of the growth, the dose, so to speak, of cancer is temporarily essened.

In one patient complete gastrectomy was performed with a fatal result. I have elsewhere described this case n detail, and need not do more now than express my opinion that the operation is one which has a legitimate place in surgery, and is not merely a brilliant piece of urgical gymnastics. There is no doubt whatever about he fact that the whole of the stomach may be involved by a growth which has given rise to no secondary deposits; a growth which can, therefore, be entirely emoved. In my paper in the BRITISH MEDICAL OURNAL, 1903, vol. ii, p. 1458, all the recorded cases re collected.

GASTROSTOMY.

In all cases the growth was at or near the cardiac orifice f the stomach, and was causing stenosis. It is possible hat in 3 of these, at least, the growth was primarily esophageal, the cardia being affected by extension downards of the disease. The operation was performed by Senn's method in 4, by Frank's method in 1. The patients lived 5 months, 5½ months, 7 months, 8 months, and 17 months after operation.

JEJUNOSTOMY.

The method adopted was a modification of Witzel's, described by me in the BRITISH MEDICAL JOURNAL, 1902, vol. i, p. 1599. The patients lived 4½ weeks, 8 weeks, and 11 weeks after operation.

In all these cases the stomach was so extensively involved that gastro-enterostomy was impossible, and the presence of secondary nodules in the liver or in the peritoneum put away any thought of excision.

The prolongation of life for 11 weeks in one case was a matter of considerable moment, the man being able to settle some affairs of the highest importance with his son, who at the time of the operation was in South Africa. But for the operation the patient could hardly have lived a fortnight.

EXPLORATORY LAPAROTOMY.

The opinion is, I fear, too often expressed that an exploratory operation in suspected cancer of the stomach "to confirm the diagnosis" is almost entirely devoid of risk. This is far from being the case. In order to determine with accuracy the extent of the growth, and to know with certainty the possibility or otherwise of its removal, an incision 3 in. or 4 in. in length is necessary, and the hand must be passed within the abdomen. People who have obvious cancer of the stomach are often enfeebled, advanced in years, and possessed of but little reserve of strength. An exploratory operation is therefore in itself a matter of some gravity, and must not be heedlessly performed.

The incision which admits one finger only is enough for the very late or for the very early cases, but there are many cases lying between these extremes where a close scrutiny of the parts is necessary before an accurate decision for or against operation is possible.

Duration of Life after Exploratory Operations.

The exploratory operation has had, in two cases, a very marked and unexpected result. The symptoms of pain and distaste for food, or inability to take food, disappeared almost entirely for periods of two months and two and a half months respectively. The patients expressed themselves as feeling much relieved by the operation, and were able to take food better. The longest duration of life after exploration was just under seven months.

NON-MALIGNANT GROWTHS.

In addition to the cases already discussed, I have operated three times for growths (in 2 at the pylorus, in 1 at the centre of the stomach) which I considered to be malignant, but which have been proved by their subsequent course to be simple in character. One of the cases was operated upon in June, 1900 (a patient sent to me by Dr. Clarke, of Doncaster), and the other in January, 1901 (a patient sent by Dr. La Touche, of Ossett). A case of hour-glass stomach due to supposed malignant growth in the body of the organ was operated upon in June, 1901 (sent to me by Dr. Crawford Watson, of Harrogate; subsequently under the care of Dr. Selkirk, of Boston Spa). These are 3 cases, therefore, in which simple inflammatory masses were mistaken for cancerous growths. In 1 case I have made the opposite mistake, a malignant growth being looked upon as a simple one. This patient lived fourteen months after operation, and died with ascites. A *post-mortem* examination was made, and a large mass of cancer at the pylorus, with many secondary masses in the liver, discovered.

COMMENTARY.

A study of this series of cases has elicited several interesting facts.

With regard, first, to the position of the growth. In all the cases of gastrostomy for disease of the stomach, 5 in number, the growth was at the cardiac end, and had spread thence to a varying extent towards the body of the stomach, chiefly along the lesser curvature, where the glands also were implicated.

In 1 case of partial gastrectomy the growth was in the body of the stomach, and had caused the organ to be of an hour-glass form.

In all the remaining cases of partial gastrectomy and in all the cases of gastro-enterostomy, the growth was situated within 3 in. of the pylorus. Two types of growth were here recognized which may be called "pyloric" and "prepyloric." In the "pyloric" growths the disease had begun in the pylorus, or at least within a very short distance of it, and had early caused a constriction at that part. The tumour, as a rule, was comparatively small, was largest at the pylorus, and gradually tailed off along the curvatures, chiefly along the lesser curvature. The growth along the lesser curvature in two of the cases extended almost to the oesophagus. In all the cases there was enlargement of the glands; in the earlier records there is no exact statement as to their position, "enlarged glands" only being written. In the later records it is said that the glands were chiefly along the lesser curvature.

In two cases the extension of the growth which involved both curvatures had affected the greater to a more marked degree, and as a result the transverse colon and its mesentery were involved in the growth. Such involvement is not specially serious from the point of view of removal of the growth, for a resection of the colon can be performed at the same time as the removal of the stomach.

The "prepyloric" form of growth began almost always at the same point—on the lesser curvature about 1½ in. to 2½ in. from the pylorus. The growth seems to spread from here along the curvature in both directions but chiefly away from the pylorus, drifting along with the lymphatic stream. It was therefore some little time before the pylorus itself was involved, or before there was such increase in the size of the growth as to determine obstruction. This form of growth presented in almost all cases the same features. Its origin, as indicated by the thickest part of it, was at the lesser curvature; from here the growth spread along the curvature, and, to a less extent, down both anterior and posterior walls. Two wings of growth, as it were, were hinged on to a body which was longer than either, thicker in the middle and tapering towards each end. The centre of the growth was often deeply puckered, white, and "gritty"; the rest of it was smooth but intensely hard.

The symptoms in the two forms of growth—"pyloric" and "prepyloric"—differ to a degree which should make their recognition before operation a matter of little or no difficulty. In the pyloric form the symptoms from the outset are of an obstructive character; there is stasis of food, inability to take solids, and vomiting in quantities which increase with the increasing capacity of the stomach. In these cases the stomach is obviously dilated, and waves of peristalsis are easily seen or easily elicited by slight inflation of the stomach. A growth, placed as these are, need not be of large size to cause the most marked symptoms. It does not require a large mass to block the pylorus effectively.

In the "prepyloric" form the symptoms are not obstructive in the earlier stages; it is only when the pylorus is invaded, or the large size of the growth blocks the narrow pyloric antrum, that there is any impediment to the onward passage of food. Before this time the symptoms are loss of appetite, intolerance of solid food, uneasiness after meals, occasional vomiting of a turbid watery fluid in small quantities, and loss of weight. These symptoms are all mentioned in the history of my cases, though any one or more, or even all, of them may be absent in any individual patient. In two of the cases a diagnosis of "anaemia" had suggested the treatment that was adopted for two and three months. An anaemia without obvious cause in a patient of 50 years of age or thereabouts should create a suspicion as to its dependence upon malignant disease somewhere within the abdomen; not improbably in the stomach.

In the cases where an exploratory operation only was performed, the growth was, with one exception, most marked along the curvatures; on the lesser curvature in three, on the greater in two; in one the greater part of the stomach was involved. In all the mass was large, very much larger than had been supposed before the abdomen was opened. The reason in these cases for not performing gastro-enterostomy was that no obstruction was caused, and therefore such an operation could not afford much relief; the reasons against the performance of partial gastrectomy were that there were many enlarged glands, which were irremovable, or secondary deposits in the liver, or intimate adhesion to the pancreas.

PREVIOUS HISTORY OF GASTRIC ULCER.

In the last 22 cases of gastro-enterostomy by simple suture, a close inquiry was made into details of previous history in respect of gastric ulcer; of the earlier cases I have very few historic details; the interest of the notes then taken lies chiefly in the details of technique. The result, I find, is that of the 22 patients, 16 either gave a history of an illness which had been called "ulcerated stomach" or "gastric ulcer" by the medical man who then attended, or they spoke of having "always had indigestion." In 2 cases, a history of chronic indigestion extending over more than twenty-five years was given. In one of these, an operation had been performed eighteen years before by Mr. McGill for a perigastric abscess; from the condition disclosed by the operation I performed, it was quite clear that there had been a subacute perforation of an ulcer near the pylorus, and on the lesser curvature.

The evidence, then, in this last series of cases goes to show that in 16 out of the 22 patients—equivalent to 72.1 per cent.—there had been gastric ulcer many years before. The shortest interval between the "attack" of gastric ulcer, and the onset of the symptoms which led to my seeing the patient for a condition which proved malignant was three years; the longest interval was twenty-six years.

On the other hand, there were 2 patients who gave a history of less than three months' duration; in both malignant disease already far advanced was discovered. Up to the time of the somewhat brusque onset of symptoms there had never been any suspicion or hint of abdominal disease. One of these cases offered an undoubted instance of ulcus carcinomatosum, one edge of an ulcer being affected by a large mass of exuberant carcinomatous growth.

With regard to the existence of gastric ulcer as a precursor of malignant disease in the remaining cases, my records show that in 9 cases of gastrectomy there were 6 with such a history; in 3 cases of jejunostomy 1 case; in 6 cases of exploration 3 cases; and in 5 cases of gastrostomy 1 case.

Thus, in the whole series of cases a previous history of gastric ulcer was noted as follows:

Of gastro-enterostomy	there were	22	cases—	16	giving such a history
Of gastrectomy	,,	9	,,	6	,,
Of jejunostomy	,,	3	,,	1	,,
Of gastrostomy	,,	5	,,	1	,,
		39		24	

Inquiry was either not made in the earliest cases, or no mention is recorded of any such history being elicited.

I have elsewhere[1] dealt with the subject of ulcus carcinomatosum in detail. The sequence of gastric ulcer and carcinoma, so far as clinical evidence can support it, seems to be definitely established in more than half the total number of cases that come to surgical treatment. Analogy is, perhaps, the worst argument in surgery, but one cannot refrain from citing the similar circumstances occurring in the case of the tongue. Carcinoma rarely develops in a tongue which is otherwise healthy. In almost every instance cancer is only a local exaggeration of, or a later change in, an unhealthy condition of things distributed over other parts, or over the whole, of the tongue. Evidence of present chronic superficial glossitis, of former ulceration, or "cracking" of the tongue are frequent, if not constant.

Evidence of a like kind to this is difficult to obtain in the case of the stomach; by the time the specimen is submitted to examination after removal by operation, or after death, the growth is so extensive as to obliterate, or at the least to hide, the scars of older lesions. Nevertheless, a not inconsiderable number of specimens have been obtained, showing a chronic ulcer, which, at its edge, is undergoing a cancerous transformation, the cancer being clearly of later date than the ulcer. This condition of "ulcus carcinomatosum," the grafting of cancer upon ulcer, is recognizable pathologically in but a small proportion of cases; the clinical evidence suggests that it is not unlikely that it is the most common form of cancer of the stomach. This is assuming, of course, that the term 'ulcus carcinomatosum" is held to include all cases in which chronic inflammatory conditions are the local precursors and excitants of carcinomatous changes.

It is interesting to note that the two conditions, ulcer and cancer, affect the various portions of the stomach with approximately the same frequency. The "ulcer-bearing area" of the stomach is the pylorus with the pyloric antrum, and it is here that cancer is most commonly found. This part of the stomach is certainly that upon which the greatest stress is thrown during digestion. It is the most muscular part of the stomach, the "grinder" as it has been aptly called, and it is therefore more subject to the pressure and irritation of passing food than any other part of the organ.

Duration of Life after Operation.

Of all the cases, 70 in number, that I have seen, only 1 has survived a period of four years from the time of the discovery of the disease. The records of cancer in any of the organs of the body surgically accessible are saddening enough, but I doubt whether a statement so deplorable can truthfully be made about any of them. Now, it cannot be said that there is anything specially vicious in cancer of the stomach as contrasted with that occurring in other organs. For we know that the *post-mortem* examination of one dead of cancer of the stomach sometimes discloses the fact that the disease has not spread beyond the stomach, that there are no secondary deposits in the liver or elsewhere, and that there is no involvement of other parts, such as the pancreas or colon, by direct extension. The origin and early development of cancer of the stomach are certainly insidious, but the growth is not usually rapid, and the involvement of the parts to an extent which excludes the possibility of removal by operation is probably tardy. What are the conditions, therefore, which make our treatment of the disease so ineffective?

I believe that the faults in our attitude towards this disease lie in two directions. In the first place diagnosis is not made at a sufficiently early stage, and in the second we have too often been contented with merely palliative operations instead of attempting the removal of the growth; and, further, when removal has been undertaken, the operation practised has not been based, as successful operations in malignant disease wherever occurring must be based, upon a knowledge of the anatomy of the organ involved, especially so far as its lymphatic distribution is concerned.

We have heard much in recent years of the problem of the early diagnosis of cancer of the stomach; but, in spite of much labour and much discussion, no significant advance has been made in our power of a timely recognition of the disease. A close study of the history of the patients in my series and in the other records with which I have made myself acquainted leaves me convinced that even with our present methods earlier recognition and radical surgical treatment based thereupon should be far more frequent than at present.

The type-history of a case of carcinoma is as follows: A man or woman of middle age has suffered for a few or for many years from indigestion, pain after food, vomiting, and inability to take the ordinary food in ordinary quantity; these symptoms have, it may be, come on in "attacks," in the intervals of which there has been comparative or complete freedom from suffering. At last an "attack" comes that is more rebellious than the other, vomiting is more persistent, and the loss of weight is unusual. The remedies which before gave relief are now without effect. If in such a patient there be gastric stasis, food being retained for ten or twelve hours, if there be persistent absence of free HCl after a test meal, if lactic acid be present, and if in the test meal when removed blood is found on microscopic examination, then there is a very strong warrant for a diagnosis of carcinoma, and an exploratory operation is not only justified, it is demanded. What I have said already with regard to exploration applies only to the late case; for the discovery of the early condition exploration would be of insignificant risk. In discussing this question of exploration it is well to be clear. There can be no question that an exploratory operation is a confession of diagnostic failure; we do not explore the abdomen for conditions which we can now diagnose with certainty, conditions, it may be, which 20 years ago we were not capable of recognizing with precision, conditions such as duodenal ulcer or stone in the common duct. But no one would hesitate to say that positive recognition of cancer of the stomach in its early stage—in the stage, that is, when it could be completely eradicated—is, with present clinical methods, almost impossible. If so it should be frankly admitted, and the only certain method—exploratory operation—be vindicated. If the clinical history of a case is such that suspicions created at the first are not quickly allayed, then the abdomen should be opened to enable a diagnosis to be made. Exploration should be used for the purpose of *making*, not with the object of *confirming*, a diagnosis. It is probable that, as in other matters, the comparison of the history and of the conditions revealed at operation will lead by degrees to greater assurance in our diagnosis. Before an exploratory operation is sanctioned, however, the clinical investigation should be as complete as it is possible to make it.

Postscript.

Between July 1st and December 31st, 1905, I have in addition operated upon 8 cases of carcinoma of the stomach. Gastro-enterostomy was performed 6 times; all the patients recovered. Gastro-enterostomy, followed by gastrectomy, once, successfully. Exploration once, the patient recovering. In 6 of these the growth was at or near the pylorus, and formed an obstruction to the onward flow of the gastric contents; posterior gastro-jejunostomy was therefore performed. Three cases had already developed secondary growths; in 1 the patient's severe condition rendered the more radical operation unwarrantable, though the local conditions appeared favourable for excision; in 2 the extent of the growth and the number of adhesions prevented, in the patient's bad condition, any radical operation. In one case the gastro-enterostomy was made well away from the pylorus, and on the twenty-fifth day partial gastrectomy was performed. In one case the patient was found to have a growth of considerable extent involving the lesser curvature in its cardiac half, and adherent posteriorly to the pancreas. There being no pyloric obstruction, the abdomen was closed without further interference. This patient died in the tenth week after operation. Of the remaining patients, two have since died, one two months after operation; in his later days he suffered a good deal of pain, owing to the formation of numerous metastases, but to within a week of the end he was able to take food fairly well. The second patient died three and a half months after operation, with jaundice and ascites. The remaining patients are alive and in fair health. The histories of four patients suggest the previous existence of an ulcer, upon which the terminal disease was engrafted.

In my first series of cases I have omitted to mention one case of carcinoma of the stomach in which perforation occurred. The opening was closed by suture and a flap of omentum stitched over; gastro-enterostomy was then performed. The patient recovered and is still living, eighteen months after the operation. He has now jaundice and ascites.

Reference.

[1] *Practitioner*, September, 1904.

ON THE TREATMENT OF PERFORATING TYPHOID ULCERS.

By FRANCIS L. A. GREAVES, F.R.C.S.Eng.,
SURGEON TO DERBYSHIRE ROYAL INFIRMARY.

A recent editorial article in the British Medical Journal having called attention to the prognosis and treatment of perforating typhoid ulcers, I have determined to record two cases which have come under my care, with a reference to a third case which came under my observation for a short time.

Case I.

F. W., female, aged 5 years, under the care of the late Dr. Milnes at the Derbyshire Royal Infirmary, admitted on the ninth day of disease. A sister was already an inmate suffering from the same complaint. I was asked to see the case on the fifteenth day of disease, perforation having taken place, as evidenced by a sudden attack of vomiting, collapse, and subnormal temperature about eight hours previously.

When seen the patient had rallied, and immediate operation was advised. On opening the abdomen, a large amount of clear fluid with flakes of lymph on the surface was set free. There was much lymph adherent to the coils of intestine near to the ileo-caecal valve, and a perforation was rapidly demonstrated in the lower end of the ileum in the midst of an intensely inflamed Peyer's patch. The perforation was quite small, and was quickly closed by four or five fine Lembert sutures. The engorged and indurated tissue, together with the sutured perforation, was invaginated and the approximately healthy peritoneal coats which formed the boundaries of the furrow so formed in the long axis of the bowel were sutured by eight or nine fine Lembert sutures. The peritoneal cavity was then thoroughly and deliberately sponged out with sterilized swabs, but not irrigated. The abdominal incision was closed by a single layer of "through and through" medium silkworm-gut sutures. No drainage tube was used. After the operation the patient was very collapsed, but quickly rallied, and all went well until the third day, when a rise of temperature caused an examination of the wound to be made. It was then found that suppuration was taking place in the wound, but there was no evidence of general peritonitis, the abdomen being not distended, and abdominal respiratory movements well marked. Eventually the whole abdominal incision gaped, and adherent coils of intestine could be seen. With frequent dressing the wound cleaned up and commenced to heal by granulations, and for the ten days following operation all went well. On the tenth day, however, the patient had haemorrhage from the bowel, and on the following day passed a blood clot. About this time a cough developed, and on the fifteenth day following operation dullness at both bases was found, and moist sounds heard. Signs of bronchopneumonia were well marked on the seventeenth day, and she died on the twenty-third day following the operation—that is, the thirty-eighth day of disease.

CASE II.

For the following history of my second case I am indebted to Dr. Bull, of Ashbourne, Derbyshire:

H. B., female, aged 5½ years. Had an attack of enteric fever in July. Fever lasted about four weeks, and the temperature, which had reached 104° F., became normal on August 12th. Constipation was a marked feature, and there was a good deal of colicky pain.

On August 18th temperature began to rise, and reached 104.6° F. on August 22nd. It then gradually declined to 100.8° F. on the evening of August 30th. Constipation was still extreme, necessitating daily enemata.

On August 31st she was seen at 10 a.m., complaining of pain on the left side of the abdomen. Temperature 98° F. A glycerine enema was ordered. At 11.45 the following symptoms were noticed: Patient awoke suddenly with acute pain, sickness (a little frothy mucus being brought up); collapse, temperature 97.6° F., falling to 97° F.; feet and hands cold; eyes sunken; lower part of abdomen not moving; no distension, but absence of liver dullness; pulse 180; pain all over abdomen, especially on the right side; aspect of acute abdominal illness; no signs of free fluid in abdomen. No more food was given by the mouth, and attempts were made to combat the shock. An hour later the patient had rallied; extremities were warmer. Pulse 160, temperature rising. At four o'clock I saw the child. She then lay quiet, with no expression of distress visible in the face; respiration very quiet; lower abdomen scarcely moving; no distension of abdomen, but gentle palpation elicited some pain, especially in the hypogastric region. On percussion a rather high pitched note was obtained all over the front of the abdomen, the liver dullness being completely obliterated. A small amount of shifting dullness was found in the flanks.

Operation.

Immediate operation was decided upon, and half an hour later chloroform was administered by Dr. Boswell, and, assisted by Dr. Bull, I opened the abdomen. A large amount of gas escaped on opening the peritoneal cavity, followed by a small quantity of clear fluid, through which bubbles of gas were seen coming from the left iliac fossa, and, by rapidly tracing the coils of small intestine in this direction, a small perforation was discovered. The rest of the intestine which had been exposed was swabbed over with sterile water and replaced, and the ulcer invaginated and sutured by eight or ten interrupted Lembert sutures. The whole gut was then replaced and the wound sutured by "through and through" silkworm-gut sutures. No irrigation was performed and no drainage tube inserted. The operation lasted twenty-five minutes. The patient stood the shock well, and was given $\frac{1}{90}$ gr. of strychnine hypodermically. Pulse 150.

After-treatment and Progress (Reported by Dr. Bull).

Saline enemata 4 oz. every four hours, and occasional teaspoonfuls of sterilized hot water by the mouth were administered for the twenty-four hours following operation. Sugar was added to the enemata after twenty-four hours, and beef-tea after forty-eight hours.

September 1st. Temperature 97° to 98°, pulse 124, respirations 26. Abdomen used only slightly in respiration. Some pain at night. Aspect improved.

September 2nd. Bowels open and flatus passed naturally. Temperature 97° to 97.5°, pulse 108 to 112, respirations 24.

September 4th. Ol. ricini.

September 8th. Ol. ricini.

September 9th. Dressed wound. Some beads of pus from the four lower stitch-holes. No gaping of wound when three alternate stitches were removed.

September 11th. Dressed wound. Remaining stitches removed.

September 18th. Healed firmly. No sign of bulging. Patient is still very constipated, and has a good deal of colicky pain at times. Is taking a mixed diet of chicken, fish, etc.

Ten days later Dr. Bull wrote to me to say that the patient had an evening rise of temperature, normal in the morning. No pain, headache, cough, sickness, and no physical signs. Is still very constipated, and is hysterical at times. I suggested that it might be due to some toxaemia from the bowel, but thought a careful watch should be kept lest a residual abscess was forming. However, the temperature became normal again, and the patient has been quite well since. She was taken out of doors for about ten days before the temperature became normal. It is now five months since the operation.

CASE III.

Operated upon by Mr. Thurston at St. Thomas's Hospital. In this case the wound suppurated and an incisional hernia developed. The patient had double acute parotitis and thrombosis of one femoral vein. Complete recovery eventually took place.

Reported cases of recovery after perforation of a typhoid ulcer are sufficiently rare to justify a few observations being made.

Prognosis.

From a statistical point of view this complication, which is by no means uncommon (it occurred in 114 out of 2,000 Munich cases, that is, 5.7 per cent., and in 20 out of 80 cases under Dr. Osler), is exceedingly grave. The perforation generally takes place at the end of the second or during the third week of the disease. It is necessary to remember in giving a prognosis that the patient is still suffering from typhoid fever with its manifold possibilities in the way of complications. In my first case perforation took place on the fifteenth day of the disease, and the progress of the abdominal section was complicated by further manifestations which may fairly be attributed to the original disease; then, although there was no general peritonitis, and the local suppuration of the abdominal wound was readily dealt with, the patient suffered from fever more or less severe to the end. Diarrhoea and haemorrhage from the bowel also took place, and the low form of pneumonia which proved fatal is a frequent termination of typhoid cases where no perforation has occurred.

In my second case, on the other hand, the disease had run the fairly typical course of a mild case of typhoid, until the so-called relapse after normal temperature of a week's duration. The pathology of this "relapse" is rather obscure. That it was not due to a fresh invasion of the typhoid bacillus is, I believe, certain. The complete and sudden disappearance of all signs of toxaemia for the three weeks following the operation could not occur if a fresh infection by the typhoid bacillus had taken place. It is possible that absorption from an ulcerated Peyer's patch was taking place, and that the operation, by placing this ulcer in some such mechanical position that its surface was well drained, and also by causing irritant food particles to cease from passing over its surface brought the absorption to an end. Whatever the explanation may be, the change in the patient's aspect was most remarkable. I have recently seen a case of typhoid fever where the temperature had become normal about the fourth week, and after a few days began to rise again. The elevation of temperature was accompanied by inflammation, and eventually suppuration of a parotid gland. After this was opened the temperature dropped and the patient rapidly recovered. The aspect of the patient reminded me very strongly of that of my second case after operation. Late perforation, although rare, is mentioned by Dr. Osler as having occurred in the sixth week in one of his patients, the temperature having been normal for fourteen days. He does not say what was the treatment or result, but it would seem to have been a case in which a good prognosis might be given.

To sum up. A perforation occurring early in the disease, necessitates a guarded prognosis owing to the complication of the abdominal section with the natural course of the fever. A perforation occurring in a true relapse, by which is indicated a fresh invasion of the typhoid bacillus, is very grave; but a perforation, occurring in what may be called the convalescent period, is much more favourable.

Diagnosis.

In these days it is nearly approaching a platitude to insist that an early diagnosis must be made in order to operate successfully in such cases.

If the patient has been under close observation the diagnosis is not often very obscure. If mental symptoms have been a prominent feature of the case it is possible that the signs of perforation might be overlooked. But the low temperature and collapse even in these cases will generally lead to a correct diagnosis.

The patient complains of abdominal pain; retching and vomiting ensue, quickly followed by a state of collapse; there is a sudden fall in temperature (104° to 97° in one of my cases), the extremities are cold, the pulse becomes very rapid and thready, the respirations are short, rapid, and shallow, the face looks pinched and anxious. Examination of the abdomen will show that the abdominal walls are held rigid, respiratory movements being absent. Some general tenderness is elicited on palpation. On percussion, a tympanitic note from free gas in the peritoneal cavity may be obtained over the abdomen, and the liver dullness may be encroached upon or obliterated. Too much stress must not be laid on this sign, as extreme tympany may almost obliterate the liver dullness.

If, however, the patient is not seen until reaction has taken place, the diagnosis is more difficult. Especially is this the case if any opium has been given. Here a careful history of the sequence of events must be elicited, because the patient no longer looks pinched; the pulse, respiration, and temperature are better, pain is almost absent, and the friends will probably regard the patient as being on the high road to recovery. Careful examination will show impaired abdominal respiratory movement, possibly some distension, or a tympanitic note, with a variable amount of shifting dullness in the flank. The previous condition of the abdomen as regards distension and the character of the motions must be inquired into. Now is the time to operate with some hope of success. If the surgeon waits until the manifestations of peritonitis become obvious, the favourable opportunity has been missed.

Treatment.

It is not necessary to enter into details on the treatment of the state of collapse, except to again insist on abstention from opium.

Anaesthetic.—Chloroform carefully given is the most comfortable anaesthetic.

Operation.—As rapidity in operating is of the utmost importance, a free incision should be made, good retraction of the edges of the wound, and a good light be available. The perforation is generally readily found, as a rule, in the ileum near to the ileo-caecal valve, sometimes in the caecum itself. The perforation is rapidly closed by interrupted Lembert sutures, invaginated, and then still further buried by another layer of sutures. Having securely stitched up the perforation, the question of dealing with the peritoneal cavity must be considered. There has been much discussion whether irrigation should be used, and, if so, with what fluid should it be performed. The recent work by Dudgeon and Sergeant on the bacteriology of general peritonitis is intensely interesting when considered in reference to this debated question of irrigation. Before reading this work it had become my opinion that irrigation was useless, except in certain cases. If there is not a very general form of peritonitis, irrigation does more harm than good by carrying septic material to regions previously unaffected. If irrigation is used at all it should be thorough, with a long abdominal incision and evisceration, gallons of normal saline being used, and the intestine treated as gently as possible, and, when exposed, covered up with a succession of hot sterile towels. In a late case, where the peritonitis is general and there has been much escape of intestinal contents, such irrigation may be indicated. But far different is it when the case is seen early—the escaped contents are but few, the infected area only local. The wound having been well opened up by retractors, a succession of sterilized wool sponges on holders are rapidly but methodically used to remove the septic material from the coils of intestine near to the perforation, from the regions of the upper end of the right kidney, spleen, iliac fossae. The abdominal wound must now be closed, and in this connexion another debatable point—that is, that of drainage—must be considered.

The old method of inserting a glass drainage tube from the lower end of the abdominal incision should be abandoned entirely, for the following reasons:

1. The "drain" is acting under the mechanical disadvantage that the patient is lying on his back and all the fluid must pass uphill.
2. Whereas perfect rest is greatly to be desired in any case of general peritonitis, but especially in typhoid fever, the presence of the drainage tube adds to the difficulties of nursing, and must be constantly emptied by a suction syringe.
3. The drainage tube provides an open path for the intrusion of germs from without.
4. The drainage tube, if flexible, is easily occluded, and so rendered useless; if rigid, it may by its pressure injure the intestine or bladder. I have seen a faecal fistula as the result of such pressure.
5. On withdrawing the tube, some portion of bowel—such as the appendix, Meckel's diverticulum, an appendix epiploica, part of the great omentum—may have entered the tube and be withdrawn also.

We now know that the peritoneal cavity is able to deal with far more septic material than was thought possible some years ago. Drainage should be reserved for the most septic cases, and then applied to the dependent parts, such as the lumbar regions, rather than to the abdominal incision. Owing to the escape of septic fluid from the peritoneal cavity infection of the abdominal wound nearly always occurs. This wound should be closed in layers and the sutures should be interrupted. The result is nearly always the same; the peritoneum, rectus sheath, and skin heal, but the subcutaneous fatty tissue becomes infected. It has been suggested that a small drain should be inserted into the wound at the lower end of the incision after the peritoneum is completely closed. While this suggestion is free from many of the objections I have advanced above, personally I much prefer to use interrupted sutures, and remove one when necessary.

After-treatment.

Nutrient enemata of 4 oz. may be given every four hours. Sips of sterilized hot water administered with a horn spoon by the mouth. After forty-eight hours, peptonized milk and beef-tea in small amounts may be taken by the mouth. Gradually the food may be increased, and by the end of the fourth day nutrient feeding may be nearly always discontinued. A flatus tube should be passed if there is pain after the operation, but opium should be withheld. A turpentine enema may be given on the evening of the third day, unless much distension indicates its administration earlier. A dose of castor oil or calomel, 3 gr., either alone or combined with pulv. elaterii co., 2 gr., in capsule, may be given on the following morning.

Convalescence is always protracted, and careful dieting is necessary for some considerable time. A night temperature occurring some weeks after the operation, and without any physical signs, may be due to post-typhoid anaemia (Osler); it should not prevent the patient from being taken out-of-doors, since fresh air and sunshine will expedite recovery more than anything else at this stage.

NOTES ON THE TREATMENT OF DIPHTHERIA.*

By T. BASIL RHODES, M.B., B.S.DURH.,

MEDICAL SUPERINTENDENT OF THE BAGULEY SANATORIUM FOR INFECTIOUS DISEASES.

MR. CHAIRMAN AND GENTLEMEN,—I regard it as an honour and a very great pleasure to welcome you this afternoon and to have been asked to read this paper before you. I will preface my few remarks by saying that I am not desiring to speak in any way didactically or dogmatically, but am merely describing as far as possible my own line of treatment in regard to such cases of diphtheria as come under my care, in the hope that what experience I have had in this particular branch of medicine may be of use to some who do not have the opportunity of seeing numbers of cases.

---

* Read before the Altrincham Division of the British Medical Association on the occasion of their visit to the Sanatorium.

With your permission I will take as my text a passage from my report for 1904, which is incorporated in the annual report of Dr. Niven, Medical Officer of Health for Manchester. This reads as follows:

"May I take this opportunity of urging the necessity for the early administration of antitoxin in a sufficiently large dose to any case *suspected* of being diphtheria without waiting for the result of a bacteriological examination? My own view is—and I believe it to be the practice in many fever hospitals—that in any ordinary case of faucial diphtheria, if antitoxin (2,000 units) be administered on the first day of disease, or 4,000 units on the second day, there is little or no danger for the child, provided always that care is taken subsequently in the matter of rest and other general treatment. In this latter connexion, I may say that I recently had a case brought in that had been ill with suspected diphtheria for five days; croupy cough began on the fourth day; antitoxin (2,000 units) was then given, and when the ambulance arrived next day to fetch away the child, she was found fully dressed, playing about in the bedroom. When she reached the hospital she was very collapsed and the croupy cough was very distressing.

"If antitoxin—4,000 or 6,000 units—is administered on the third day the case will probably proceed to a favourable recovery, though a second dose of antitoxin may be found necessary. On the fourth day, as a rule, 8,000 units may be necessary. On the fifth day it is, in my opinion, well to give a moderate dose, such as 6,000 or 8,000 units first, and repeat the same six or eight hours later. On the sixth day the child is usually so toxaemic that antitoxin will hardly overtake the disease. (I consider that the advisability or not of intravenous injection of antitoxin is still *sub judice;* there is little doubt, however, that antitoxin given in this way acts more rapidly than it would do if injected subcutaneously); but small doses, say 4,000 units, given repeatedly are, I think, best in these cases.

"The medical man who gives antitoxin, even if only 2,000 units, to a case suspected of being diphtheria, before sending the same to hospital or sending a swab for examination, very often saves the life of a child by avoiding delay.

"In the case of laryngeal diphtheria, especially if the infection has spread from the nostrils or naso-pharynx, even greater haste in administering antitoxin is needed, two days often sufficing to render the case practically hopeless.

"I should like to add that I do not think that diphtheria antitoxin ever does any harm. The only patients who seem to suffer much inconvenience from it are adults, who occasionally have rather severe urticarial and joint pains, and sometimes even a definite and multiple arthritis. Fortunately, however, most adults, unless the attack is a severe one, get over it without the necessity for antitoxin arising."

First, then, the word "suspected" is, I think, important. One so often gets cases of diphtheria into hospital late on in the disease, because the doctor has waited for the result of the examination of the swab. And the important point to my mind is, *not* that the case was not sent to hospital (for that opens up a very difficult question—the general practitioner quite justifiably being averse to sending in a case as diphtheria which may be sent out in a day or two as wrongly diagnosed—and the parents on the other hand being unwilling to let their child go to hospital on a mere "suspicion" of diphtheria) but that antitoxin in a small dose was not administered at once—without waiting for confirmation from the bacteriological experts, when the time for the usefulness of antitoxin in that particular case has probably passed.

Such cases as have definite membrane on the tonsil or tonsils, or that have profuse thick nasal discharge are easily recognized and are usually treated very soon; but I firmly believe that many cases that eventually end in death or develop subsequent paralysis or other serious complication, were when first seen cases of diphtheria without definite membrane, but with some such slight signs as swelling and matting together of a few glands on one or both sides of the neck, accumulation of mucous discharge in the naso-pharynx perhaps visible running down the back of the pharynx, perhaps showing itself by a slight nasal discharge, or even being indicated by simply dryness or soreness of the external nares or the skin below nostrils; and I believe that if diphtheria had been "suspected" in these cases, and a small dose of antitoxin had been given, all symptoms would have disappeared or have been modified in a very short time—whereas later, when the case becomes obvious as one of diphtheria, the patient is so full of toxaemia that antitoxin, even in large doses, is often too late.

Similarly in laryngeal cases—while recognizing that all "croup" is not diphtherial, yet I think that if a careful examination were made for the less obvious signs of diphtheria in every case of a young child found by the medical man to be suffering from some apparently slight and ill-defined illness, diphtheria would be more often suspected of being the cause; and, if a small dose of antitoxin was given, that attack of "croup" which is apparently "primary" but which is, in my opinion, not infrequently "secondary," would be avoided.

I do not imagine that there are very many medical men at the present time who do not believe in the value of antitoxin in diphtheria, but I know that there are a few such. Some of the disadvantages alleged against its use are:

1. The causing of an abscess at the seat of injection. I believe that cleanliness will almost entirely prevent such unfortunate occurrences; and if in addition one is careful not to inject antitoxin which does not look clear when seen in the phial, and if one use a needle with a fairly large bore (in order to avoid injury to the tissues caused by a thin stream of serum injected with great force), and injects the serum very slowly into the subcutaneous tissue of a part of the body where the skin is fairly loose—for example, the lower part of the abdomen—I think that the chances of causing an abscess are infinitesimal. In addition to these precautions—in order to avoid drawing into the needle anything from the outside air (and, incidentally, with a view to saving the point of the needle)—I always use a blunt-ended needle for drawing up the serum into the syringe, afterwards fitting on the sharp needle, turning the syringe upwards, and driving the serum up to the very point of the needle before commencing to administer the antitoxin.

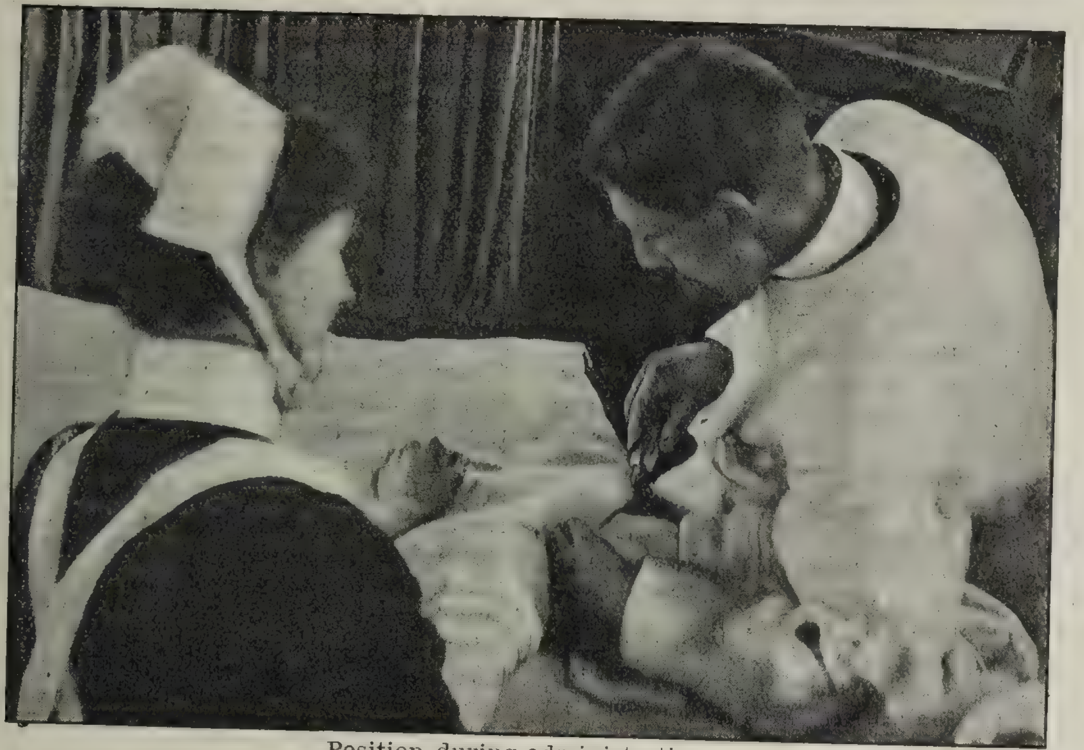
2. The causing of rashes. These are often very irritating, and are sometimes accompanied by constitutional symptoms that are certainly unpleasant, though not, I think, in any way dangerous to life. I do not hold a brief for any firm, but I cannot help saying that I have found the antitoxin supplied by Messrs. Burroughs, Wellcome and Company very good in this respect, and I have had very few rashes indeed and only one abscess since I commenced to use their serum.

3. The causing of paralysis. I do not believe that diphtheria antitoxin ever causes paralysis. I do not recollect a single case where paralysis has occurred in a case of ordinary faucial diphtheria to which antitoxin has been administered on the first, second, or third days. Dr. J. T. C. Nash, Medical Officer of Health for Southend-on-Sea, in a prize essay, The Treatment of Diphtheria, published in the *Practitioner* of April, 1905, says: ". . . at so late a stage in this disease, only a modified advantage could accrue (Dr. Nash is speaking of desperate cases seen late in the disease) for the following reasons: A large amount of toxin has already entered into combination with nerve or other tissue cells. Clinical experience seems to support Ehrlich's '*seittenkette*' or 'side-chain' theory of immunity. The great object of specific antitoxic treatment is to forestall the toxins and prevent them from combining with the body cells. When once toxins have combined with the tissue cells antitoxin has but little neutralizing effect on these particular toxins. The late administration of antitoxin will, however, prevent the further absorption of toxins which, in severe cases, are still in rapid process of formation in extremely large quantities."

To this view I add my humble endorsement; and I have for the last year or two shaped my course, in regard to the need for further doses of antitoxin in particular cases, upon this idea and upon the conclusion I have come to that diphtheria antitoxin requires about six to eight hours before coming into active and useful play.

I may add that I have also administered diphtheria antitoxin to nearly all severe cases of scarlet fever that have been under my charge during the last two years, with results that have surprised me by their excellence, and I have never seen the slightest sign of any paralysis whatever in such cases; nor have I ever known paralysis follow the injection of small doses of antitoxin given as a prophylactic to persons who have been in contact with diphtheria cases.

With regard to my view that enormous doses of antitoxin are not always better than small doses in bad cases of diphtheria, I may say at once that Dr. Rolleston, in a splendid paper on diphtheritic paralysis, published in the *Practitioner* of November, 1904, advocates, if I read him aright, large doses, and says that this is still the practice in most, if not all, of the fever hospitals of the Metropolitan Asylums Board. I can only say that my much smaller experience has led me to abandon the use of large doses in favour of repeated small ones, but I do not wish to set my opinion against that of observers of such great experience; my only motive for advocating at this moment the use of smaller doses is that I am convinced that in the great majority of cases a small—even a very small—dose of antitoxin will do great good—the amount of good that it will do naturally decreases rapidly as each day passes from the onset of illness; whereas, if it is always insisted upon that very large doses are essential, the difficulties of administration and the difficulties of cost will make its use by the general practitioner almost impossible. For few men in general practice will feel it their duty to spend such sums as two or three pounds, which may never be refunded to them, in the doubtful hope of giving some child any advantage further than it can obtain by being removed to hospital twelve hours or twenty-four hours later, but many would, I believe, give one phial of the serum, if they had it with them, if they were persuaded that even that small dose might be sufficient to hold the disease at a standstill until the child could be brought to hospital.


Position during administration.

So convinced am I of the value of small doses of serum, even if a case is not seen by the medical man until late in the disease, that I have suggested to a certain firm that they should manufacture and place on the market a small case containing:

(*a*) A syringe about twice the size of the small hypodermic syringe in common use. This would hold just one phial of antitoxin = 2,000 units.

(*b*) One phial of antitoxin diphtheriae = 2,000 units.

(*c*) One blunt-ended needle for drawing up serum into syringe.

(*d*) One needle of medium-sized bore for use in injecting the antitoxin.

(*e*) One needle (or more) fine, ordinary hypodermic.

(*f*) Tabloids of certain drugs used for hypodermic injection.

The syringe and accessories will, of course, require sterilizing after use, just as, in reality, the ordinary hypodermic syringe does. Needles for hypodermic injection of a size to fit the syringe could still be bought "by the dozen" if preferred, and doubtless an extra supply of the serum needles could also be cheaply obtained.

This syringe would, I think, remove one of the chief reasons why antitoxin is not always given by the medical man as early in the case as might be, for he would always have his syringe and small supply of antitoxin with him. I believe that it would be found that in many places the local governing bodies would gladly supply fresh phials of antitoxin to replace those which have been used for injection.

And now, if you will allow me, I will bring to your notice a method of administering antitoxin which I use myself, and which I think may be found of advantage, especially in private practice. It is often difficult to get the child properly held—the mother naturally wishes to let go when the child cries at the pain of the injection—and it is often difficult to overcome the fright of the child. By the method I will describe both these difficulties are almost abolished; the child rarely cries much, and then only when the operation is practically finished, and the only assistance required for holding the child is such as can be given by one person who may be quite ignorant of nursing or medical knowledge.

I give the injection in the lower part of the abdomen on the left side. The skin is, of course, well washed at the site of injection, and some antiseptic is used after the washing; the syringe, plunger, and needle are boiled, and other necessary precautions with a view to asepsis are taken. The child lies on his back; the arms are placed above the head; the abdomen is uncovered. One then sits on the edge of the bed, on the right side of the patient, sitting close in to the patient's right axilla, and facing the patient's feet. The child, if old enough, is then told to put his arm round one's waist. Leaning across the child one then puts one's left elbow on the bed beyond the child, close in to the left axilla. Resting the little finger of the left hand upon the left anterior superior spine of the ilium of the child, one pinches up with the thumb and first finger a good-sized fold of the skin of the abdomen in the spot prepared for injection, and with the right hand thrusts the needle (attached to the syringe already containing the serum) well into the subcutaneous tissue. A little mild deception of the child helps, for the child cannot see what is happening. I usually say, "Now, when I say 'one, two, three,' it's all finished"; and then, having said "one," I plunge in the needle and start talking to the child about listening for "two, three." Afterwards I inject very very slowly, and the child hardly feels any pain at all. The assistant during this time has been kneeling at the left side of the bed with arms stretched across the legs of the patient.

Some advantages of the method appear to me to be as follows:

1. One assistant only required, who merely holds the legs of the child. The child cannot struggle, and so cannot get bruised or hurt in any way.

2. The child, being imprisoned between the left elbow and body of the administrator, is unable to move at all—or, at most, can move the hips a little. But the little finger of the left hand placed on the ilium prevents much movement, and communicates the amount of any movement there may be to the administrator, who regulates then the position of the syringe and needle held in the right hand. I never use the "rubber tubing" usually supplied with serum syringes. I consider that it is clumsy and in the way. I have never had the misfortune to break a needle, or have a needle slip out after being once inserted under the skin, when giving antitoxin in the method above described.

3. The child cannot see what is being done and rarely cries until the needle is inserted, and then is easily soothed as a rule.

4. The child cannot get his hands to the site of injection during the operation.

5. The skin of the abdomen is fairly loose; if one pinches up a good big fold one runs no danger of going into the peritoneum, and the method of holding the child

prevents spasmodic jerking of the body. The pain of the injection is very slight, serum, if given slowly, being absorbed very rapidly in this position.

The photograph will give some idea of the method described, though I fear it does not make very plain all the points that I would wish it to do.

In addition to the administration of antitoxin, the treatment upon which I rely consists chiefly in:

A. *Local Treatment.*—Douching the throat repeatedly with boracic acid solution; douching the nose with a like solution if there is any sign of nasal discharge or soreness of the nostrils; swabbing the throat with a solution of bicarbonate of soda, one teaspoonful to the pint of water.

I use boracic acid solution instead of stronger antiseptics because the children seem to be less upset by it, and it does not cause the mouth to become so dry as some other lotions do. The swabbing with bicarbonate of soda solution is done chiefly in order to assist in moistening the mucous membrane of the mouth. If the child does not stand douching well I sometimes swab the mouth with weak carbolic acid solution, but I do not often resort to this, preferring above all things not to upset the patient too much.

B. *Rest.*—This is of the highest importance. If a child is refractory, I find that raising on to blocks the foot of the cot usually has the effect of quieting the patient, and at the same time assists the heart in its work. I am in favour of very great caution in allowing a patient, even after an apparently mild attack, to sit up. The usual practice I follow is to keep the child lying in bed *without pillow* (unless very uncomfortable in that position—a much rarer occurrence than one would expect) for at least a fortnight; then one pillow is allowed for a week, and then, if all goes well, two pillows for another week, and three for a subsequent period of five or six days; the patient is then allowed to sit on a couch each day, and about four days later is allowed to get dressed and walk a little.

I believe that it is only by extreme caution in gradually accustoming the patient who has had diphtheria to the upright position that the terrible catastrophe of "sudden heart failure," of which we have all heard, and which some of us have doubtless seen, can be avoided. The periods of time I have mentioned are merely a basis of action; some cases have unfortunately to remain in the prone position for considerably longer. I judge chiefly by the character of the pulse; a soft pulse usually holds me cautious, while a pulse that often varies in time or strength generally deters me from allowing any change from the prone position for a considerable time. The original severity of the case, the general condition of the patient, and the length of time ill before receiving antitoxin, are all points that should, I think, weigh with one in deciding.

After the first few days of the disease I am very chary of ordering aperients for children. I believe that they sometimes bring on vomiting, which may be very difficult to control. Enemata, if practicable, are better.

I do not give iron in the early stages, though I consider it most useful later on. It makes the mouth so very dry that I think its value constitutionally is entirely nullified in the early stages of the disease by the extreme discomfort that a parched dried mouth and throat cause to the child.

On the treatment of complications I will touch very briefly:

(*a*) *Paralysis.*—In the paralysis which affects the various muscles of the limbs, the eyes, the pharynx, etc., I rely almost entirely upon complete rest of the whole body, and, where possible, of the particular muscles affected, and upon strychnine. In paralysis of the soft palate, with regurgitation of liquid foods, I have found that a jelly made of milk and isinglass, with brandy added, if thought necessary, and sweetened according to circumstances, is much appreciated by the children, and is swallowed easily. It is very rarely indeed that I have to resort to nasal feeding, which upsets the children so much, and causes them often to struggle violently.

In those cases where the heart is apparently failing rapidly—cases in which there is so often also uncontrollable vomiting—hypodermic injections of strychnine (gr. $\frac{1}{30}$, or more) are, in my opinion, invaluable; but I agree very heartily also with those who say that brandy is of very great use in these cases. If rectal feeds can be retained, I order them, giving about two or three ounces of peptonized milk and two or three teaspoonfuls of brandy in each, but never at an interval of less than four hours. If rectal feeds are not retained, I rely upon subcutaneous injections of brandy (about 20 minims) and strychnine alternately. So long as the heart is acting at all, I believe that there are nerve fibres still in such a condition that the administration of strychnine may help the heart to continue its work until its "hour of darkness" is passed.

(*b*) *Rheumatism—Arthritis.*—I have included these as complications, in deference to the opinion of some who regard them as really due to the toxin rather than the antitoxin of diphtheria. My own belief, however, is that they are always due to the antitoxin. I have never met with them in any case of diphtheria to which antitoxin had not been given; they are usually unaccompanied by any marked rise in temperature, though occasionally the temperature does rise to 102° or 103° F., and in one case reported recently to me by a general practitioner the temperature rose to 106° F. during the attack of arthritis, and my informant regarded this case as one caused by the toxins, though antitoxin, I find, had been given; other constitutional disturbances are not usually present in marked degree; and finally—in my opinion an important point—the rheumatism is rarely affected by such drugs as salicylate of soda or sodium and potassium bicarbonates, but usually yields quickly to purely local treatments, of which the best is, I think, the evaporating lead lotion or the lead and opium lotion.

With regard to the treatment of laryngeal diphtheria, whether primary or secondary, I do not wish to say much, seeing that my experience of such cases is comparatively small. I confess, however, that I am very much averse to doing the operation of tracheotomy until it is quite obvious that it is an urgent necessity. The shock to the child is often very great, even if, as is my almost invariable practice, no chloroform is administered, and sometimes a patient will collapse, for no apparent cause, during the operation, even if rapidly done. I believe that hot fomentations over the larynx, combined sometimes with the inhalation of steam impregnated with some such material as tinctura benzoini co., and the administration of stimulants, of which I think brandy is the most efficacious, will often carry a child through until the antitoxin can do its good work. Having always latterly done tracheotomy, when it was required, by the "rapid method," trusting more to the sense of touch in the first finger of the left hand than to the sight—it may be that the feeling of confidence that the trachea can be opened at a moment's notice has led me to leave cases with laryngeal obstruction without operation in many instances where I should formerly have felt called upon to operate. Whatever the cause, I know that a number of cases that I had with such obstruction have got better without operation, though some were so near to it that I stood for a considerable time beside them with a knife ready to my hand, while my feeling at the time was that the shock from the operation in each case would have been just sufficient to turn the scale against the patient.

What little experience I have had of intubation has led me to abstain from its use, but I believe that in a few cases intubation, if done by a skilled man (with a long finger), would probably be of great value. The subsequent nursing of a child with an intubation tube in its larynx is often a matter of very considerable anxiety, and I do not think that a medical man in general practice would find it very safe to be far away from his patient for long.

It is probable that inexperience in the compilation of papers on scientific subjects militates greatly against my expressing myself as clearly and concisely as I should wish, but, if you will permit, I will briefly summarize my points as follows:

1. I believe that the very slightest excuse should be sufficient for the diagnosis of diphtheria in a child; my opinion is that even so slight a sign as dryness or a parched appearance of the external nares in a child who seems poorly is sufficient to indicate that in most cases the manufacture of diphtheria toxins is going on, probably in the naso-pharynx.

2. That diphtheria antitoxin never does any harm to a child, but rather that it will assist in curing illness due to "something wrong in the throat or naso-pharynx" in

many cases, even if that illness is not actually due to diphtheria.

3. That, supposing the case to be one of diphtheria, as proved subsequently by the appearance of obvious signs and symptoms, the time lost by delay in giving the antitoxin is often sufficient to render the chance of recovery very small.

4. That, though many experienced workers in the field of infectious diseases insist that very large doses are much more efficacious than small ones, sufficient stress is not laid on the fact that small doses, even though given late in the disease, will often just turn the scale in favour of the patient, or at least assist the patient to fight the disease and hold it in check until arrival at hospital, where more antitoxin may be given.

5. That, finally, if every general practitioner would carry a syringe and one phial of antitoxin, much more antitoxin would be given before the child was removed to hospital; the necessary delay in getting the antitoxin at present, and the difficulty sometimes in obtaining it, especially in country districts, being possible causes why this treatment is not adopted immediately in all cases.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL.

HYPERTROPHY OF THE PYLORUS WITH STENOSIS, SUCCESSFULLY TREATED WITH THIOSINAMINE.

ON December 29th, 1904, I was called to attend Mary D., aged 35, a married woman, with three children; the youngest aged 3 years. Her family history was good. She complained of intractable vomiting, and pain at the pit of the stomach immediately after taking solid or liquid food. For the last fifteen years she had been troubled more or less with discomfort after food and occasionally vomiting, the latter being worse at the monthly period. During the last twelve months she had had pain at the pit of the stomach coming on about an hour after food, with continued nausea; for eight weeks she had been much troubled with attacks of vomiting coming on every week. She said that she brought up large quantities of dark-brown frothy fluid.

She looked very ill and haggard, the tongue was foul, the skin dry, the pulse frequent and feeble. She was very depressed and emaciated. There was marked tenderness at a spot midway between the umbilicus and the right costal margin, and also a point of acute tenderness to the right of the tenth dorsal vertebra. Owing to the marked rigidity of the rectus a complete examination was impossible. The treatment adopted was rest in bed and rectal alimentation.

During the next few days I saw the vomit on two occasions; it was dark, frothy, and very copious.

In order to make a thorough examination the patient was placed under an anaesthetic on January 10th, 1905. I was then able to detect a hard lump, about the size of a Tangerine orange, freely movable in the right epigastric region. I asked Dr. W. Murrell to see the case with me on January 19th, to discuss the expediency of operative interference. He agreed with me that the tumour was caused by hypertrophy of the pylorus, due to long-continued ulceration, that the stomach was dilated, and strongly advised gastro-jejunostomy.

Whilst awaiting the husband's consent, a gentleman came under my care with Dupuytren's contraction of each little finger. He brought a message from Dr. Daniels of Hull, asking me to try thiosinamine. After reading the notice on this drug in the BRITISH MEDICAL JOURNAL, I determined to try it on Mary D. I began on January 23rd, giving injections of 10 minims of a 10 per cent. solution n alcohol daily for a week, then every other day for ourteen days, then three times a week for six weeks, hen twice a week for a month, then 15 minims once a week for another three months.

Within a month the patient was much better, able to get up a few hours daily, and to take light refreshment without discomfort; the pain, nausea and vomiting had disappeared, and the tumour was appreciably smaller and softer.

At the end of three months one could still detect a small tumour at the pylorus. The patient was up and attending to her household duties, had recovered health and weight, was entirely free from any discomfort after food, pain, or sickness. At the present time (December, 1905) she is in good health, and the thickening at the pylorus has entirely disappeared.

In the case of the gentleman with contractions, I gave two injections weekly for three months of 15 minims. At the end of that period he could extend fully the right little finger, and partially extend the left; the left had previously been operated on, but not successfully. During the treatment he wore splints, and practised extension.

EBER CAUDWELL, M.R.C.S., L.R.C.P.

Battersea Rise, S.W.

OBSTRUCTION OF THE BOWEL PRODUCED BY THE APPENDIX.

ON December 27th, 1905, A. B., aged 4½ years, son of a farmer, complained of pain in the abdomen, which was followed by vomiting, after a meal of pork.

On examination the child appeared bright and cheerful, the temperature and pulse were normal, and a fully-formed stool had been passed that morning. Nothing abnormal was found per rectum. The vomit consisted of semi-digested food. No particular tenderness was found on palpation, but on deep pressure pain was referred to the umbilicus, and as time went on he always pointed to the umbilicus as the centre of discomfort.

An aperient was given, but returned, and as the vomiting of bile gradually became more frequent he was given doses of bismuth, and on December 29th an enema, which brought away a fair amount of formed hard faeces. A second enema on December 30th was practically without result. On December 31st distension, with a highly tympanitic note on the right side, were detected, and vomiting continued. A consultation was held on January 1st, and an operation advised, but the parents would not consent till next day.

Operation.—The abdomen was opened in the middle line below the umbilicus, and after some trouble the distended small bowel was traced until the darkened appearance showed the seat of obstruction to be near. Here, however, a fresh difficulty was met with, as the bowel as this point was fixed and could be traced no further. The incision was extended to 2 in. above the umbilicus, when the part between the distended and collapsed bowel was found. In this position, on one side of the bowel, was a tumour about the size of a walnut, white, and apparently full of fluid. On the opposite side was a narrow piece of bowel apparently knotted to the small bowel. A careful examination showed that the narrow piece of bowel was the appendix, which had passed over the bowel itself and then through a hole in the mesentery, and the white tumour was the constricted end full of secretion, etc. The end of the appendix was removed and the obstruction cleared. The patient, however, unfortunately sank from shock.

The necropsy showed that the ascending colon and appendix were separated from their position and lying towards the centre line. The appendix was upwards of 6 in. in length.

R. W. LEEMING, M.D.Cantab.,
Kendal.
MITCHELL INNES DICK, M.B., Ch.B.,
Staveley.

ANTIDIPHTHERIAL SERUM BY MOUTH.

I ATTACH a detailed list of all my cases in 1905 during an epidemic we have had. The majority of cases were only slight.

Personally I have still—since my note in the BRITISH MEDICAL JOURNAL of December 31st, 1904, p. 1751—the greatest confidence in oral administration, provided that there is no violent urgency present at the time. Only once—in Case F. D. (†)—have I had to inject after giving by mouth, laryngeal symptoms starting urgently (three hours after) in the night; I was not informed of the change till my usual visit next day, when I injected. An important condition is an empty stomach and absence of vomiting. People I can trust I often allow to give serum themselves, which, owing to local circumstances,

Name.	Sex.	A. Curative Doses. Method.	B. Preventive Doses. Method.	A. Result.	B. Result.	Remarks.
G. H. B.	M.	Mouth	3 (mouth)	Good	2 good	G. H. B. had scarlet fever also; one of preventive doses: baby (at breast, mother having to nurse patients) took it ninth day.
N. B.	F.	,,				
Baby B.	M.	,,				
F. G.	M.	,,	5 ,,	,,	Good	Scarlet fever in house at the time.
G. W. T.	M.	,,	2 ,,	,,	,,	
L. T.	F.	,,				
*H. A.	M.	Hypodermic injection Mouth, second day ,, third day	3 ,,	Death (fifth day)	,,	Very extreme laryngeal type: recession of ribs. pneumonia; collapse of lungs, pneumonia: little effect from any of doses.
M. B.	F.	Mouth	3 ,,	Good	,,	Previous attack two years ago; severe laryngeal type.
S. H.	M.	Hypodermic injection	5 ,,	,,	,,	
L. D.	M.	1 (hypodermic injection) 2 (mouth, second day)	6 ,,	,,	,,	Severe laryngeal type: slight recession of ribs: effect of injection slow, hastened on by second by mouth.
A. N.	M.	1 (hypodermic injection) 2 (mouth, second day)	4 ,,	,,	,,	Very severe laryngeal; marked recession of ribs, pneumonia: marked effect of second dose.
G. G.	M.	Mouth	2 ,,	,,	,,	
E. G.	M.	,,				
L. G.	F.	,,				
M. G.	F.	,,				
F G.	M.	,,				
M. G. B.	F.	,,	2 (hypodermic injection)	,,	,,	Local inflammation from injection in all; alcoholics: one thinking all injections are morphine, went to sleep all day.
E. A. B.	F.	,,	3 (hypodermic injection)	,,	,,	
G. S. C.	M.	,,	3 (mouth)	,,	,,	
P. C.	F.	,,				
E. C.	F.	,,				
D. T.	M.	,,	—	,,	,,	
M. T.	F.	,,	—	,,	,,	
R. T.	M.	,,	—	,,	,,	
*M. A.		,,	—	No effect	,,	Mother and nurse to H. A., very depressed. globus hystericus: negative bacteriological examination a fortnight after H. A.'s death: treatment little effect; positive bacteriological examination three months later, with no good from serum or treatment; still nervous throat two months after.
E. S.	F.	,,	3 (mouth)	Good	,,	
H. S.	M.					
J. S.	F.					
A. S.	F.					
E. B.	F.	,,	4 ,,	,,	,,	E. B., a baby of 6 months, vomited, but retained dose given five hours later.
M. B.	F.					
W. H. B.	M.		—	—	—	
S. A. G.	F.	,,	2 ,,	,,	,,	One, S. A. G., sen., was suckling her baby patient, and developed it on second day.
S. A. G. (sen.)	F.	,,				
0 †F. D.	M.	1 (mouth) 2 (hypodermic injection) (second day)	—	—	—	Severe laryngeal case; injection for sake of rapidity.
F. D.	M.	Mouth	3 ,,	,,	,,	One of preventive = M. D. below.
H. D.	M.					
M. D.	F.					
0 M.D.	F.	Hypodermic injection	—	,,	,,	Nurse and housekeeper to O.: developed after one month; house not disinfected; peripheral neuritis in legs.
O. O.	M.	Mouth	2 ,,	,,	,,	

† Case referred to note. Names bracketed = same family.

is a great convenience. My cases of failure in preventive cases are quite accounted for in the circumstances detailed and short period of date of attack.

Mosbro', Sheffield. A. M. PILCHER, M.B., Ch.B.

IMPACTION OF A HATPIN IN THE MALE URETHRA.

MR. W. G. SPENCER, in his *Practical Surgery*, published, I think, in 1897, describes a method resembling the one adopted by Dr. Whiteford for the removal of a hat or similar pin from the male urethra; and though probably practised before, it was from this source that I first became acquainted with what is usually a comparatively simple procedure, though Mr. Brook points out that the case may be more complicated than it appears at first sight, and also shows an ingenious method of dealing with such a complication.

Some four or five years ago I was called in consultation to see a young officer who had a small hatpin in his urethra. He was suffering from gonorrhoea, and while using the hatpin to push an iodoform bougie into the urethra the pin had slipped from his grasp, and his ill-directed and futile efforts at extraction had only resulted in it being thrust further down and the point becoming impacted about ½ in. below the level of the corona. To avoid the external urethrotomy which had been advised I suggested a trial of this little manœuvre: A little chloroform was given, and the penis being quite flaccid we were able to bend it almost at a right angle to the shaft of the pin, thus obviating any great obliquity of penetration; the shaft was then pushed through the integuments until checked by the head in the urethra, the direction was reversed, and the head thrust out of the external meatus and the pin removed. The patient had no further trouble, and was playing tennis the next day.

H. TAYLOR, M.A.Cantab., M.D.Dub., F.R.C.S.Edin.

Junior Conservative Club, W.

I WAS greatly interested in reading Dr. C. Hamilton Whiteford's case on this subject on January 6th, and that of Mr. W. F. Brook on January 13th, as about six weeks ago I had a similar case, but in mine, probably by good luck more than anything else, the pin was extracted without any operative measures at all.

A man, W. S., aged about 36 years, came to my surgery late on the night of November 28th, saying he had a hatpin up his penis. I examined and found such to be the case, the glass head of the pin being situated about the region of the bulb, and the point felt about 2½ in. from the meatus, the calibre of which was abnormally large, as was also the penis.

Without any anaesthetic I exercised pressure on the perineum posterior to the head of the pin, passing a pair of ordinary sinus forceps up the urethra, grasped the point of the pin, and succeeded in extracting, with very little laceration or pain, only about half a dozen drops of blood being lost. I passed a 9 to 12 bougie three times at intervals of three or four days, and then a 12 to 15 once. The man had no bad symptom at all. The pin was 2½ in. in length; the point could not have been embedded in the wall of the urethra, or it could not have been extracted in this manner, and it had only been there about an hour when he came to me.

Hull. ARTHUR G. JOHNSON, L.R.C.P., L.R.C.S.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

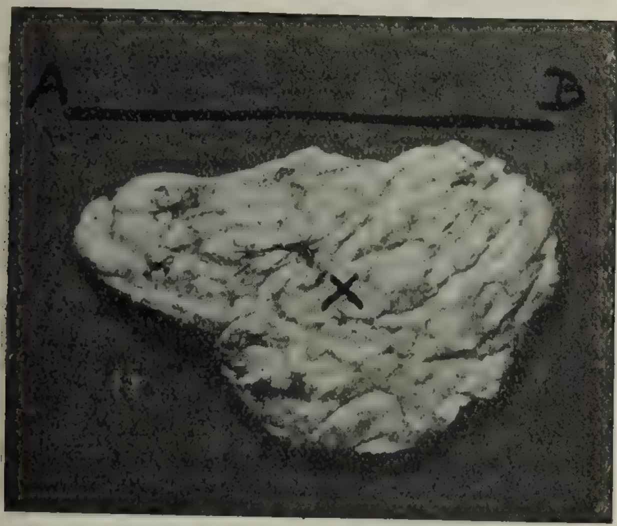
RADCLIFFE INFIRMARY, OXFORD.

COMPRESSION OF THE MEDIAN NERVE.

(By Edmund C. Bevers, M.A., M.B., B.Ch., Honorary Assistant Surgeon.)

The patient in this case, a girl aged 18, was admitted with limited movement at the left elbow-joint and pain in the left forearm and hand.

History.—When 10 years of age she had a fall from a swing, injuring her left elbow. Owing to the fact that "the joint was stiff" after the injury she was taken to a London hospital, where an operation was performed. It has not been possible to trace the exact nature of this operation, but her parents were told that a cyst had been removed. There seems to have been no improvement in the movements at the joint after the operation. Until a year ago the condition of the arm appears to have remained unchanged. The patient then began to experience pain in the elbow, hand, and fingers whenever she moved the arm. As the pain prevented her doing any work, she was taken to a medical man, who removed the old scar tissue in front of the joint left from the previous operation, as the pain seemed to originate from this. No improvement followed the operation.



Photograph a little less than actual size. A—B, surface along which median nerve was attached. × surface in relationship, with pronator radii teres.

State on Examination.—When the patient came under my care I found that there was some wasting of the left forearm and hand. Patient, when standing at rest, supported the left arm with the right in a position midway between extension and flexion, and fully pronated. There was a small vertical scar, 1 in. long, in the middle line, just below the bend of the elbow. Any attempt to extend the forearm beyond a right angle was prevented by the excessive pain caused and the consequent muscular spasm. Flexion was only slightly limited, and pronation and supination were good. The relationship of the condyles of the humerus to the olecranon process of the ulna was normal. But lying in front of the internal condyle and beneath the scar mentioned was an abnormal prominence, apparently embedded in the muscles. Any examination of the joint was difficult, owing to the nervousness of the patient and the pain caused. Slight pressure over the scar or prominence causing pain at the joint, and in the hand and fingers—that is, the centre of the palm, both sides of the thumb, and of the index and middle fingers, the distribution of the median nerve. Although there was some wasting of the limb, the finer movements of the hand and fingers were good, and there was no paralysis or anaesthesia. It was obvious that the median nerve was being subjected to pressure at the elbow-joint, and an operation was decided upon.

Operation.—A semilunar incision was made over the antecubital fossa in front of the elbow-joint, with its convexity inwards; the flap thus formed, which included the old scar, being turned outwards. The median, median basilic, and median cephalic veins were displayed, and the internal cutaneous nerve. The median basilic vein was ligatured in two places and divided, the bicipital fascia was also divided. Between the tendon of the biceps and the pronator radii teres was a broad band-like structure, much larger than the biceps tendon; this proved to be the median nerve, which was lying directly in front of the brachial artery instead of to its inner side. Its huge size was due to the fact that it was spreading out in a fan-shaped manner over the prominence which was noted in the examination of the joint. This prominence proved to be a piece of bone of the size shown in the photograph, which was lying over the internal condyle with the side marked × in relationship with the pronator radii teres, while along the surface A—B was lying the median nerve. This piece of bone was lying quite free amongst the muscles, being only attached to the nerve. Some of the nerve fibres were ruptured in separating the foreign body, and small blood vessels could be seen leaving the nerve and entering it.

Result.—The wound was stitched up and patient made a good recovery. No paralysis followed the operation. The patient has since been quite free from pain. She is able to use the arm; flexion is good, but extension is still rather limited on account of the shortening of all the structures in front of the joint.

Remarks.—The pain the patient experienced on pressure over the joint was due to compression of the nerve between the fingers and the piece of bone. The pain on attempted extension was due to stretching of the nerve over the piece of bone, in the same manner that a violin string is stretched over the bridge. Owing to an accident no radiograph was taken before operation; one taken after operation showed well the nature of the original injury—a fracture of the lower end of the humerus, with a displacement of the lower fragment forwards. The only solution I have to offer as to the origin of the piece of bone removed is that it was a piece of the epiphysis separated off at the time of the injury. At the operation I was unable to find any signs of disease either in or about the joint.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

SOUTH-EASTERN BRANCH: BRIGHTON DIVISION

T. Jenner Verrall, L.R.C.P., M.R.C.S., in the Chair.

Brighton, Wednesday, January 24th, 1906.

Specimens.—Dr. Marsh showed some microscopical specimens of sarcoma of the ovary (endothelial variety). Dr. Bushnell showed cultures of *B. coli* and other bacilli.

Bacilluria.—Dr. Bushnell read a paper on bacilluria or bacteriuria, in which, after referring to the medical literature of the subject, he described the urine as slightly turbid with a wavy sheen. Its turbidity did not subside on standing and was not removed by filtering through paper. There were two types of bacilluria: One was the so-called simple or idiopathic, in which there was no other discoverable pathological condition; and, allied to this, was the ascending infection of the normal urinary tract by *B. coli communis*, without any abnormality such as fistula or obstruction, etc., of the latter. The other type of bacilluria and the most common was that associated with and dependent upon another pathological condition. The most striking example of this was the bacilluria of the second week of typhoid fever. The simple or idiopathic bacteriuria might give rise to no symptoms at all, and might last for a day or so and then disappear, or perhaps recur, or, on the other hand, it might persist for months or even years. Again, these patients might suffer from frequency of micturition or slight pain on holding or passing water. It was a not infrequent cause of nocturnal incontinence in children. The urine was acid, and might be nearly clear, but showed usually a more or less well-marked cloud on standing a short time. This was found to consist of desquamated epithelial cells and motile bacilli. Renal signs were seldom present, and there appeared to be no constitutional symptoms from the bacillary infection. The causation and significance were still imperfectly understood. There was evidence, however, that in connexion with constipation, and perhaps stercoral ulceration, the *B. coli communis* was absorbed from the alimentary canal, and excreted by the kidney from the blood. If it passed in excess, it might cause irritation of the whole of the urinary tract. A proof of this was found in the results of the administration of potassium citrate. Excreted as carbonate this drug alkalinized the urine, and was said thus to inhibit the growth of *B. coli* organisms when the infection of the bladder came from below; if from above, it was said to have no effect. An allied condition, and one more serious, was that which arose as an ascending infection of a normal urinary tract by the *B. coli communis*. This produced urethritis, cystitis, pyelitis, and finally multiple haemorrhagic abscesses of kidney. The second variety and most common type of bacteriuria was that associated with a pathological condition. In general diseases it was frequent and might be due to *B. coli*. In scarlatina a streptococcus was found, as also in erysipelas; in pneumonia and pneumococcal infections, the *Diplococcus pneumoniae;* in typhoid the *B. typhi* of Eberth (20 to 30 per cent.); in paratyphoid, the paratyphoid organisms; in pulmonary tuberculosis, the *B. tuberculosus* might be present; in gonorrhoea the *M. gonorrhoeae;* in plague, Kitasato's bacillus, etc. In conclusion, the paths by which the kidney might be infected were stated as follows: (1) Via the blood stream, as in some cases of tuberculosis of kidney and in pyaemia; (2) via the lymph stream, as in tuberculosis; (3) via the urinary tract and tubules, as in ascending affections. This depended on the disarrangement, so to speak, of the mechanical devices by which the passage of organisms up the tract was naturally prevented, namely, the collapsed tubes of the urethra and ureter and the sphincter vesicae. The scouring of the urethra and ureters and flushing intermittently of pelvis and bladder by flow of urine from above were also factors. Several members asked questions arising out of the paper, and Dr. BUSHNELL replied.

BIRMINGHAM BRANCH.

Sir THOMAS CHAVASSE, M.D., President, in the Chair.

Birmingham, Thursday, February 8th, 1906.

Bullet Wound of Thigh.—Dr. PLUMMER (West Bromwich) showed a young man who had separated the profunda artery and vein from their femoral connexions in April, 1905, by means of a bullet wound. The femoral artery and vein and the profunda artery and vein were ligatured. There was slow but good recovery, with only partial loss of the foot from gangrene. A modified Chopart's operation was performed, leaving a good sound stump. Considering the circumstances attending the accident, the result was especially good.

Gastro-jejunostomy for Hour-glass Stomach.—Mr. GAMGEE showed a woman, aged 33, on whom he had performed gastro-jejunostomy for hour-glass stomach.

Thirteen years ago the patient suffered from haematemesis and other symptoms of gastric ulcer. These symptoms lasted for about three years, and after that she remained well till two years ago, when she began to suffer from pain in the left hypochondrium, which was often relieved by taking food. She frequently vomited, the vomiting taking place one to two hours after meals. The pain was relieved by vomiting. For six months before operation she had lived on milk only. The abdomen was opened on February 9th, 1905, when it was found that the stomach was hour-glass shaped, the contraction being situated midway between the cardiac and pyloric orifices, the contracted part being only 2 in. across. The cardiac pouch was joined to the jejunum by means of a Murphy button. The symptoms completely cleared up after operation.

It was now twelve months since the patient was operated on, and she had never vomited or had pain since. She was now on a full meat diet, and had gained more than a stone in weight.

Diagnosis in Uterine Cancer.—Dr. THOMAS WILSON read a paper on the necessity for immediate diagnosis in cases of uterine cancer. He said the disease was curable in the earliest stages, but the proportion of curable cases was unsatisfactory; in his own practice it showed a slight tendency to increase, but still only averaged 16.2 per cent. in the last ten years. The efforts to devise more extensive operations were gradually being crowned with success, but the chief hope of improved results depended upon earlier diagnosis. At present delayed diagnosis was due partly to apathy and ignorance on the part of the women themselves, and partly to want of knowledge of the early symptoms and to delayed examination in suspicious cases on the part of the profession. In every woman with suspicious symptoms an immediate examination should be insisted upon; the diagnosis be completed without delay, if necessary with the help of the microscope; in suitable cases operation should follow at the earliest possible moment. Dr. BYGOTT spoke, and Dr. WILSON replied.

Medical Inspection of School Children.—Dr. W. R. JORDAN read a paper in which he said that this matter had been entirely shirked in many places, but had been taken up with more or less thoroughness by some eighty-five education authorities. A case for compulsory medical inspection of all school children had, in his opinion, been established by the work of the Royal Commission on Physical Training (Scotland), and of an Inter-departmental Committee appointed by the President of the Board of Education in 1904, as well as by general professional experience and the results obtained where medical officers of schools had been appointed. An education authority might legitimately use its funds: To ascertain the physical and mental fitness of each child for the ordinary educational measures, including physical training; to decide in the case of the unfit as to the need of special measures, temporary or permanent exclusion from school or medical treatment while attendance went on; to ascertain the presence of children suffering from communicable disease, and determine their exclusion. A schedule for examination was considered, and a scheme for carrying out the work suggested. Dr. Jordan held that only medical men with actual experience of children's diseases should be entrusted with the work, while the inspection should be made compulsory by law, with immunity from subsequent annoyance for the examiner. The great obstacle of expense was mentioned, but it was urged that at any rate a beginning should be made by making every education authority appoint medical inspectors.—In the discussion that followed, Drs. SHORT, ARMITAGE, KAUFFMANN, BAXTER WILSON, and BYGOTT took part; and Dr. JORDAN replied.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

A. PEARCE GOULD, M.S., F.R.C.S., Vice-President, in the Chair.

Tuesday, February 13th, 1906.

EFFECT OF VIOLET INFUSION ON MALIGNANT GROWTHS.

DR. W. GORDON read a paper on this subject, quoting about 50 cases in which the agent had been tried. The conclusions he drew were that violet infusion had some definite influence on malignant growths in certain cases, and that extensive and prolonged investigation was worth making, to find out in what kind of case this influence might be counted on and how far it might be possible to push it. The relief alleged was mainly in respect of pain, fetor, the general condition, and the size of the growth. It was suggested that a glucoside was the active principle of the leaves.

Mr. PEARCE GOULD said the question was beset with many and very special difficulties. A sharp distinction should be drawn between agents which were apparently able to affect the symptoms (pain, fetor, etc.) of cancer, and others which might have the power of affecting the growth itself. Cancer was a disease of most protean form. He thought he could parallel nearly every case in the paper from a selection of cases not submitted to any specific treatment. In reference to several of the cases he had doubt as to the diagnosis of cancer. Cases occurred in which it was not possible to diagnose malignant disease from clinical symptoms alone. There might be diseases which the profession erroneously looked upon as cancer but which were really not, as formerly was the case with actinomycosis. At the Middlesex Hospital violet infusion had been tried in cancer without any appreciable effect, except in one case which improved, but the improvement did not continue. Real although temporary improvement frequently followed the adoption of any new line of treatment. He considered that there was something in the infusion of violet leaves which seemed to have in some cases a transitory beneficial effect, but the influence, if any, was slight.

Dr. NORMAN MOORE also threw doubt on the diagnosis in some of the cases. It was possible that cases previously reported as cure of cancer might have been cases distinct from true malignant disease. Microscopic examination alone was not sufficient criterion. Pain might be a mechanical or consequential, and not an essential, effect of cancer; hence the apparent relief of pain was no evidence that violet infusion had any direct influence on cancer itself. The mental factor in such treatment was very conspicuous. The natural course of a case of carcinoma was one of fluctuation.

Dr. W. BLAKE thought that in only one case could the element of faith be eliminated. He had seen in a case, believed to be malignant, apparent disappearance of the growth under hypnotism.

Mr. **JEFFERSON FAULDER** had seen much improvement in cancer of the rectum under such palliative treatment as antiseptic injections.

Mr. **STEPHEN PAGET** asked if Dr. Blake had seen any improvement in external cancer under hypnotism.

Dr. **BLAKE** replied he had not.

Dr. L. **DUDGEON** asked if Dr. Gordon had tried the effect of violet infusion on inflammatory growths. The swelling of cancer was largely due in many cases to inflammatory changes.

Dr. **GORDON** replied.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

J. O. AFFLECK, M.D., President, in the Chair.

Wednesday, February 7th, 1906.

RECTAL FEEDING.

DR. **FRANCIS BOYD** communicated to the Society the results of some investigations which had been carried out by Miss Robertson and himself on the subject of rectal feeding. The observations were carried out on patients suffering from gastric ulcer when a period of gastric rest seemed necessary as a therapeutic measure. The rectal nourishment selected was given in the form of enema every six hours. They found that the absorption of proteid food as egg albumen from the bowel was so small as to make it of little value. Carbohydrate in the form of pure dextrose was well absorbed, and gave no ill effects such as bowel irritation or alimentary glycosuria. Fat, administered as yolk of egg, gave very unequal results. In some cases it was well absorbed, in others practically none passed into the general system. For practical purposes they recommended an enema composed of the following ingredients: (1) The yolks of two eggs, (2) 30 grams pure dextrose, (3) 0.5 grams common salt, (4) pancreatized milk to 300 c.cm. The approximate caloric value of such an enema was 300 calories. If administered every six hours the total food value of such enemata would equal 1,200 calories. The amount absorbed under favourable circumstances would equal 500 calories. As the body required about 2,000 calories per diem, derived from proteid, carbohydrates, and fats, in order to balance the tissue waste, rectal alimentation, even under the most favourable circumstances, could supply but a quarter of the necessary nutrition. They recommended that the enema should be slowly siphoned into the bowel by means of a soft rubber catheter and a small-sized filter funnel. If from 8 to 10 oz. (250 to 300 c.cm.) of fluid was administered in this way, retention of the nutrient material was not difficult, and thirst was prevented.

Dr. **NOEL PATON** considered that one of the most striking points demonstrated by Dr. Boyd's paper was the extremely small amount of nitrogen which could be absorbed by the bowel. He considered that rectal alimentation was of importance, since from one-fourth to one-third of the total calories required by the body could be supplied by that means.

Dr. **RUSSELL** agreed with Dr. Paton on the utility of rectal feeding. The administration of dextrose was important, as it reduced nitrogenous waste. Pancreatized food led to proteid decomposition and to autointoxication.

The **PRESIDENT** considered that rectal feeding diminished to a great extent the sense of exhaustion which followed the cessation of administration of food by the mouth.

ACUTE INFLAMMATION AND PASSIVE CONGESTION.

Mr. **CHARLES W. CATHCART** read a paper on Bier's method of treating acute inflammation by passive congestion, pointing out that antiseptic methods, though of the greatest value in preventing suppurative inflammation, were of comparatively little use in curing it. Surgeons had to deal with many forms of suppurative inflammation which they have no power to prevent, such as whitlows, osteo-myelitis, injuries of bones, etc. For such cases a curative method was much needed, and passive congestion seemed to supply the need. For the purpose of producing passive congestion in the limbs Bier employed a piece of Martin's rubber bandage. This was always put on at a considerable distance above the seat of mischief, and sufficiently tight to interfere with the venous return; the arterial flow must be diminished, but not stopped. Any accessible pulse below the bandage should be easily felt and the limb should remain warm. The pressure of the bandage in acute cases should be very light. One great test of the proper degree of tightness was the relief of pain. Sometimes a good deal of patience was required before the exact tightness could be attained. In bad cases the passive congestion was kept up for twenty-two hours each day. It might, later on, be diminished by degrees to from eight to ten hours. He then quoted observations published by Bier illustrating the value of the method in rapidly soothing pain; in suppressing inflammation which threatened suppuration; in transforming acute into cold abscess, and in leading to the absorption of an abscess thus made cold; in cutting short the course of acute osteo-myelitis, whitlow, suppuration in large joints, etc. The constricting bandage could also be applied to the head and neck, and in this way an inflammation of the middle ear be brought within the influence of passive congestion. When the inflamed area was not on a part to which passive congestion could be applied, Bier used suction to produce the desired result. In his own wards the author had obtained results which bore out Bier's contentions.

Mr. **BERRY** had found that passive congestion was beneficial in inflammatory conditions of the eye. Pain could be relieved by producing oedema.

Mr. **ALEXIS THOMSON** regretted that his results were not so satisfactory as Mr. Cathcart's. The method was deserving of further investigation, but he did not think that it would be applicable in all cases.

Mr. **STRUTHERS** considered that some of the greatest triumphs of the method were obtained in the treatment of suppurative inflammations of tendon sheaths.

CLINICAL SOCIETY OF LONDON.

H. H. CLUTTON, M.A., M.C., F.R.C.S., President, in the Chair.

Friday, February 9th, 1906.

SURGICAL TREATMENT OF CARCINOMA OF STOMACH.

MR. **B. G. A. MOYNIHAN** (Leeds) read a paper, based on the records of 59 operations during the last eight years, which is published at page 370 of this issue of the BRITISH MEDICAL JOURNAL.

The **PRESIDENT** commented on the larger number of these cases treated by surgeons in Leeds than in London.

Mr. **MAYO ROBSON** said this was because surgeons in London were not asked to see the cases; the cases, however, were there. More frequent consultations between physicians and surgeons in such cases should be held; surgeons would then be able to do more. He had operated on 120 cases of cancer of stomach; 80 of these had occurred within the last ten years, during which the operative technique had been vastly improved. Cancer, he considered, was at first a local disease; the surgeon, therefore, to be successful, must see the cases early. An exploratory laparotomy also should be done for diagnostic purposes where the clinical symptoms only indicated the possible existence of cancer. Such an operation entailed little risk if done early. There was also the fact that cases of supposed cancer occasionally completely recovered after gastro-enterostomy; in proof of which he related a case of tumour of the pylorus and involvement of half the stomach wall in chronic inflammatory thickening, supposed even at the operation to be cancerous, but the cure of which was doubtless due to the rest brought about by the operation. He had done 6 partial gastrectomies, of which 2 had died and 1 was living six years after operation. In 1 case nearly the whole stomach was involved and the tumour weighed more than 1 lb.; that patient was now living, five years after operation. For cases not treated at such an early stage life could be much prolonged by gastro-enterostomy. He had done it in 34 cases, of which 24 were the posterior operation, with 3 deaths. Gastro-jejunostomy and gastrostomy were also alternative operations for advanced cases; the latter was especially useful where the disease was at the cardiac end of the stomach. He considered ulcer was often a predisposing cause of cancer.

Mr. **BIDWELL** recommended as a first operation gastro-enterostomy, and a fortnight afterwards, when the patient had fed up and was improved in strength, a partial gastrectomy to remove the disease. He had lost only one case out of five thus treated. Patients were usually more comfortable after using Symonds's tube than after gastrostomy.

Dr. de Havilland Hall endeavoured to diagnose cancer as early as possible to avail himself of surgical assistance. In patients over 50 years old suffering from anaemia the stomach should be suspected even if no tumour could be discovered.

Dr. A. E. Garrod remarked that the late Dr. Andrew, of St. Bartholomew's Hospital, also taught that very many cases of so-called pernicious anaemia were due to gastric cancer.

Dr. Fawcett doubted the alleged frequent relationship of cancer to preceding ulcer of the stomach. Certainly the Guy's Hospital *post-mortem* records did not support that opinion. What were the symptoms of ulcer on which Mr. Moynihan based his opinion? The carcinomata of the cardiac end of the stomach were spindle-celled, and spread thence to the oesophagus; those of other parts of the gastric wall were of the squamous variety.

Dr. A. E. T. Longhurst regarded cancer as at first a local malady, and emphasized the importance of early consultation with surgeons in cases of gastric disease.

Mr. F. S. Eve said that the presence of enlarged glands was often misleading, as they might fail to show any sign of cancer microscopically, being inflammatory only; and yet their presence was apt to deter the surgeon from doing the radical operation. Prepyloric cancer sometimes manifested the symptoms of pyloric cancer, probably because the growth fell into the pylorus and closed it. He had not often found that cancer followed on ulcer. He related a case in which a large tumour of the pylorus in a man over 60 was mistaken for cancer, but proved to be of a chronic inflammatory nature, and disappeared a few weeks after the performance of gastro-enterostomy.

Mr. Makins was sceptical as to the value claimed for gastro-enterostomy. Not many cases lived over one year, and for the last few months they had recurrence of their pains and discomfort. Such points should be mentioned, as well as the mere length of time the patient lived after operation.

Mr. Moynihan, in reply, said the patients were much relieved unless the site of the gastro-enterostomy became involved in the original disease. He said that in the North stomach cases came first to the surgeon, and were passed on to the physician only when operation was considered inadvisable. It would be well if such a practice, first suggested by Mr. Mayo Robson, were adopted elsewhere. He considered a chronic dyspeptic usually had an ulcer; and half his patients suffering from cancer came with the statement that the doctors attending them had diagnosed ulcer years before the cancerous condition developed. He considered hospital *post-mortem* records as worthless unless the point under discussion had been specially looked for. In reply to Mr. James Berry he remarked that he did not perform gastro-enterostomy as a preliminary to the removal of the growth unless the patient were very weak; in that case he did so. Also when he improved after the first operation the patient became reluctant to have the radical operation performed and thus lost valuable time. Secondly, he never did entero-anastomosis, as in his operation this was impossible, the upper end of the opening being more than an inch below the duodeno-jejunal flexure. Thirdly, he always used clamps, as by their use he saved time, and had never known any harm come from their employment. He removed all the glands he could see whether they were obviously infected or not.

OBSTETRICAL SOCIETY OF LONDON.

W. R. Dakin, M.D., F.R.C.P., President, in the Chair.

Wednesday, February 7th, 1906.

Ovariotomy during Labour.

Dr. Herbert R. Spencer recorded the case of a woman, aged 24, on whom he had performed ovariotomy during labour, when a little over eight months pregnant with her first child. The cyst had been tapped three weeks previously. At the operation extensive adhesions were found both to the abdominal wall in the neighbourhood of the puncture and to the omentum at the upper part of the cyst. The tumour was a thin-walled cyst of the left ovary. It was multilocular, and had ruptured at the lower part, allowing fluid to escape into the peritoneal cavity. Strong labour pains had set in an hour before the operation. After the operation was over, the cervix was found to be fully dilated and the head low down in the pelvis. A female child, weighing 6 lb. 10 oz., was delivered by forceps and the placenta a few minutes later. There was no *post-partum* haemorrhage. Mother and child recovered well, the mother suckling her infant. The speaker strongly condemned the practice of tapping ovarian cysts unless they were undoubtedly malignant, or unless the patient were suffering acutely from some pulmonary affection or grave disease independent of the tumour. When a woman was in labour with a large ovarian tumour, there was danger of rupture, even if the pelvis were not obstructed, and such cases needed prompt treatment, three alternatives being open: (1) To deliver by the natural passage, dilating the canal if necessary, and then to perform ovariotomy; (2) to perform ovariotomy, and leave the delivery to nature; (3) to perform ovariotomy at the end of the first stage of labour, and immediately afterwards to deliver by forceps while the patient was under the anaesthetic. In suitable circumstances the two operations might with advantage be performed simultaneously. Each of these three methods might properly be performed, and possessed special advantages under particular circumstances—the first in avoiding the injurious effects of the anaesthetic on the fetus, and the facilitating of the operation of ovariotomy and the ligation of the pedicle; the second in avoiding the maternal and fetal injuries so common with instrumental deliveries; the third, of which the case recorded was an example, in that the patient was delivered of her child and her tumour while under the same anaesthetic. The ovariotomy could usually be performed with more complete asepsis just before delivery, and the risk of rupture of the large cyst during the expulsive pains was lessened.

Dr. Herman said that he agreed with the main contentions put forward by Dr. Spencer.

Radiograph of Fetus in Utero.

Dr. Heywood Smith showed a radiograph taken in the thirty-sixth week of utero-gestation. He considered that such photographs might prove of great service in determining the presence of twins, or varieties of presentation, besides any deformity of the pelvis.

Chorion-Epithelioma.

Dr. John Phillips showed a specimen removed by vaginal hysterectomy from a woman, aged 21, on account of recurrent bleeding for three months following a hydatidiform mole. By digital exploration of the uterus a softish flattened swelling, the size of a bean, was detected high up on the posterior wall of the uterus. A small piece which was removed for examination proved it to be chorion-epithelioma. Some febrile symptoms occurred during the first fortnight after operation, but complete recovery followed. The patient has remained well for a year.

Dr. Cullingworth expressed the hope that the history of the case would be supplemented after the lapse of another twelve or eighteen months.

Mr. Malcolm mentioned that in a case which he had reported in conjunction with Dr. Cuthbert Lockyer and Dr. Hamilton Bell the patient was alive and well four years and seven months after the operation.

Annual Address.

The President then delivered the annual address.

Glasgow Obstetrical and Gynaecological Society.—At a meeting on January 24th, Dr. J. K. Kelly, President, in the chair, among other papers read was one by Dr. Alexander Allan on *Haemorrhagica Neonatorum*, in which two cases were recorded. Case I. Child of a healthy primipara; labour slow but uneventful; the child was plump and healthy, weighing 8¼ lb. Two days later it was restless, and passed blood by rectum, dark in colour and free from clots, no vomiting of blood. Pulse increased in frequency, and temperature high; no rash seen. Some hours later patches of ecchymosis were seen in umbilical region and over upper part of tibiae; face pinched, eyes sunken. Fresh patches of ecchymosis seen later; temperature low.; child died. No signs of infection at umbilicus, no history of venereal disease in parents, no record of haemophilia or rheumatism. Case II. Child of 4-para; others healthy. Labour occurring one week later than first case mentioned; easy, and child healthy. Three days later child passed blood from bowel, and vomited blood twice; gums soft; patient restless and fretful, and apparently suffering from abdominal pain. Irregular purpuric spots on buttocks, lower limbs, and chest; pulse rapid and temperature high. Child died in convulsions. No history of syphilis, no sepsis. No *post-mortem* examination permitted in either case. The author laid stress upon the absence of any history in many recorded cases, and said the main cause lay in the fragile condition of the blood vessels, the changes in the circulation, and the alterations in the blood of the newborn. The condition was considered to be of an infectious character. In treatment drugs were of little use, and warmth and feeding of most importance.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.—At a meeting on February 2nd, Dr. STEVEN, President, in the chair, the PRESIDENT showed a specimen of a *Round-celled sarcoma*, which had occupied the entire anterior part of the right frontal lobe of the brain, and extended across the anterior portion of the corpus callosum, so as to invade the left frontal lobe. The growth, which was soft, and in some places diffluent, was not clearly demarcated from the surrounding brain tissue, and had no trace of a capsule. It had caused adhesions to the dura mater in the right frontal lobe. It was composed of fairly large round cells, without stroma, and with distinct haemorrhages throughout its substance. The patient was a man aged 49. Mental symptoms commenced in July, 1905. He became facile, dull, and forgetful. In August he suffered from severe paroxysmal headache, and shortly after attacks of vomiting and vertigo set in. When he was admitted to the Royal Infirmary, on September 27th, the headache was still severe, and the vomiting occasional, vertigo and frontal pain set in whenever he assumed the erect posture. He was facile, and unable to concentrate his attention, and there was marked double optic neuritis. These symptoms had pointed to a cerebral neoplasm, but without focal symptoms by which it could be localized. The absence of ataxia had apparently excluded the cerebellum, and the frontal character of the headache had indicated possible localization in the frontal lobe. Mr. MAYLARD said that psychical symptoms were a contraindication to operation. Even trephining to relieve pressure was seldom advisable, as there was great danger of causing a hernia cerebri. Dr. OSWALD thought it was a pity that surgeons took this view. He thought they might do more in such cases. In his experience, where the frontal area was affected there was weakness rather than perversion of the mental faculties, and tumours of the brain with mental symptoms were generally situated in the middle and posterior parts of the brain. Dr. RUTHERFURD said that the absence of localizing symptoms rather than the presence of mental symptoms deterred the surgeon. For the relief of pressure lumbar puncture had the advantage over trephining in that drainage could be continued if desired, and it avoided running the risk of a hernia cerebri. Dr. YOUNG did not regard frontal pain of much localizing value, as it was present in cerebellar tumours, abscess in the brain, etc. Dr. STEVEN, in reply, said that the subject was of great difficulty to the surgeon. Unforeseen complications, such as the multiplicity of the tumour, might occur. He had no hesitation in saying that there were mental symptoms in his case.—Dr. J. W. FINDLAY and Dr. R. M. BUCHANAN reported a case of *Typhoidal cholecystitis*. The patient, aged 51, had, twenty-five years previously, suffered from what was probably typhoid fever. She came under observation with high fever, which fell by lysis, much after the manner of a defervescing enteric, a distended gall bladder, and a history of indisposition of two months' duration. At this time it was not considered that she had enteric fever. Her blood gave a marked Widal's reaction with a dilution of 1 in 50 within an hour. Leucopenia was present. Typhoid bacilli were isolated from the faeces. Cholecystotomy was performed by Dr. Rutherfurd, and pus and gall stones removed. Typhoid bacilli were isolated in pure culture from the pus. The bacillus isolated from the pus, as also from the faeces, conformed to all the cultural tests and morphological characters of *B. typhosus*, and the specificity of the organism was confirmed by the agglutination test. Sixteen days after operation typhoid bacilli were as numerous in the discharge from the gall bladder as they had been in pus removed at operation, and it took a further three weeks of daily douching with 1 in 40 carbolic to rid the gall bladder of typhoid bacilli. She died nine weeks after operation from cardiac failure, aggravated, if not caused, by severe flatulent distension of the abdomen of unknown cause.

ABERDEEN MEDICO-CHIRURGICAL SOCIETY.—At a meeting on February 1st, Dr. A. R. GALLOWAY, Vice-President, in the chair, Dr. A. T. G. BEVERAGE showed three cases in illustration of the advantage of the general practitioner doing certain operations at home when the removal of the patient to hospital was difficult. The cases shown were a case of colotomy for cancer of the rectum and two cases of clubfoot.—Dr. RORIE read a paper on *Some survivals of folk medicine in Scotland*, in which he stated that what of that nature had been left chiefly centred round obstetrics. It was still believed in places that a menstruating woman was a source of uncleanness; anything, such as preserves, made by her would inevitably go bad. There was a popular belief that when a wife became pregnant her husband was liable to suffer from the minor ailments incidental to that condition. This was called "breedin alang wi' her." An old woman stated that her husband "aye bred alang wi' her wi' a' her bairns," and it was the persistence of toothache in her unmarried adult son which led her to the correct belief that he had broken the seventh commandment. A reference to the old calendar or tally stick was found in the expression "to have lost her nick-stick," referring to a woman who was out of reckoning as to the time of her confinement. The old belief in the harmful influence of crossing anything in the presence of a sick person still found a home here and there. To sit cross-legged and, still worse, to nurse one's knees in the presence of a pregnant woman or during confinement was a sure way of causing difficulties or delaying labour. This belief, common in the time of the Romans, was found in old Scottish and Dutch ballads. No belief was more common, perhaps, in the popular mind in connexion with pregnancy than that regarding maternal impressions; as, for instance, to slap a pregnant woman on the face with a red handkerchief resulted in a child with a red mark on the forehead. To throw anything at a pregnant woman was fraught with danger to the expected offspring; it might cause birth mark or serious deformity. In the popular belief a "lassie" was got from post-menstrual coitus, while the "laddie" was the outcome of pre-menstrual connexion. It was good luck to be born with a caul. If the caul were lost or destroyed the luck went too. If the cord were cut too short the child would be in adult life childless. To prevent this misfortune a popular prophylactic was to wrap the laddie in a woman's petticoat and the lassie in a man's shirt. It was common to see both articles in readiness for the expected stranger. Another popular saying was "They that get their teeth abune shall never wear their marriage shoon," referring to the upper teeth appearing first. As regards folk medicine proper, it generally took the form of herbal simples, endowed, where possible, with a picturesque touch of the supernatural. Animals were occasionally called upon to provide the necessary substance, such as black slugs "masked" with salt in a teapot and the oil used for rheumatism. A curious belief in the power of the earth was shown in the habit of digging a small pit beside the head of a miner asphyxiated with choke-damp with the idea that the earth drew all the bad air from him. As for folk surgery it was confined to the history of the bonesetter. He was very frequently a blacksmith, but might be of any trade; the one necessary point being that his skill should be hereditary.

OLDHAM MEDICAL SOCIETY.—At a meeting on January 16th, the election of Dr. E. W. MARTLAND as President was followed by the reading of a paper by Dr. J. A. MACKENZIE on *Injuries to the Hand*. In this the author summarized his x-ray experience of hand injuries while House-Surgeon at Oldham Infirmary. Fractures of the carpal bones, he thought, as a result of working with the x rays, were much more common than was usually supposed. The bone most frequently fractured was the scaphoid. In such cases there was a history of injury to the wrist, with severe pain on any attempt at movement, and a very slight obvious deformity. Crepitus was extremely difficult to obtain. He referred 3 cases of dislocations of the os magnum, and quoted cases of dislocations of the scaphoid, semilunar, trapezium, and pisiform reported by others. These dislocations were easily reduced by traction on the finger, but readily recurred. As regards fractures of the metacarpal bones, he found that separation of the epiphyses was common. Skiagraphs illustrating many of these conditions were shown.

REVIEWS.

BERLIN AND BIRMINGHAM CONTRASTED.

The joint report,[1] in the form of a comparison of the brassworkers of Berlin and of Birmingham, which has been published by Messrs. Best, Davis, and Perks, is a most important document, and contains much that is of medical as well as of social and commercial interest. Any publication coming from Birmingham is liable to be regarded as inspired by the eminent statesman who is popularly supposed to hold that city in the hollow of his hand, and therefore is looked upon with suspicion by those who are not followers of Mr. Chamberlain, but we are assured on excellent authority that the authors of this report undertook their journey and inquiries without any relation to the question of Tariff Reform; and that while Mr. Best is understood be a follower of Mr. Chamberlain, Mr. Davis and Mr. Perks are Liberals, and do not support what is known as Tariff Reform. The report is, therefore, to be accepted as the honest opinion of three men who are well acquainted with the condition of the brassworkers in Birmingham, who went to Germany in order to institute a comparison between the German and British working man, and their conclusions may be accepted as being uninfluenced by political or party considerations.

Education.

The first part of the report deals with the education of the children of the working classes—how the children are taught, in what respect the schools differ from elementary schools in this country, how the boy is taught his trade by apprenticeship and by continuation schools, and what influence military service has upon the physical development and character of the young workman. What seems especially to have impressed the visitors was that of the thousands of children they saw, there was "not one who was not clean, neat, and tidy"; that when out with their parents the children seemed to be under their control and obedient; and that they never saw underfed, poorly clad, or untidy children either in the streets or in the schools. They are obliged to go to school clean and well dressed, and, if necessary, shoes and clothing are supplied to the children of needy parents by the municipal guardians of the poor or by societies. They point out that for a population of about one and a half millions there are 36 official school doctors in Berlin, whereas for a population of half a million in Birmingham there is one medical officer and one assistant lady medical officer, the former visiting each school once a year. Every new scholar in Berlin is medically examined, while doubtful children are thoroughly examined in the presence of their parents; if needful they are kept under medical supervision, and special seats are provided where defective vision or hearing render it advisable; spectacles and other necessary instruments are also provided. In the schools there is extensive bathing accommodation, principally warm shower baths, and each of the children receives a shower bath weekly, soap being provided by the school and the children bringing their own towels. The schools were clean; there were no offensive smells, while the waterclosets were perfectly clean and sweet and well flushed. The school hours terminate at 1 o'clock in winter and 12 noon in summer for all ages, and the maximum amount of school work required from any child is thirty-two hours. The comparison with Birmingham in all these respects is very unfavourable to that city. The children there are mostly dirty and tattered, their physique puny, and the smell of the school visited was oppressive and unclean; the closets smelt offensively, and the urinals were filthy. The children were undisciplined and out of control; "everything was very dirty and untidy." Whereas in Berlin there is a large gymnasium about 18 ft. by 40 ft., and 15 ft. high, in Birmingham "the gymnastic appliances were meagre." The Municipal Continuation School is compared with the Birmingham Municipal Trade and Technical School, much to the advantage of the Berlin institution, where more attention is paid to artistic training, while elementary instruction, to which much time is devoted in the Birmingham school, is taught in Berlin in the workshop.

Complaint is made in the report that the Birmingham manufacturer is slow to adopt new styles, and does nothing to promote the artistic training. A story, for the truth of which we can vouch, illustrates this. A young woman was sent to the Birmingham Municipal School of Art, which supplements the teaching of the Municipal Technical School, to study designing, and proved an apt pupil, gaining many prizes and becoming the registrar of her section, which exempted her from paying fees. After four years, as there seemed no prospect of her obtaining employment from the school, her mother, who had pinched herself a good deal to give her daughter this education, asked advice as to the possibility of the girl getting employment with one of the large brass-founders. The gentleman consulted interviewed the head master of the School of Art and ascertained that all he had been told was true; when the question of her earning her living was broached, there seemed to be no hope in the head master's mind of any chance of employment for her in the brass-foundries; but he asked why she could not stay where she was a little longer, as he was sure that he could get her a place as instructor of designing in some other municipal art school! He did not appear conscious of any irony in the proposal that this successful pupil of design, who was unable to earn her own living as a designer, should teach others to acquire an art for which there seemed to be absolutely no demand. Subsequent inquiry amongst the local brass-founders fully confirmed the hopelessness of any chance of employment for her from them. The reporters say:

> It is on the intellectual side that Birmingham requires to adapt itself to changed conditions—not to cheapening its wares but to getting more conception into them; we want to have the £3 article improved to sell for £5, and extra beauty and originality put in them with which to tempt the public and to increase the returns.

But of this there seems to be little chance so long as artistically-trained designers receive no encouragement.

Military Service.

We are much impressed by the view taken of compulsory military service, which, to our surprise, is altogether favourable. It is pointed out that under the German law for any one who passes a fairly severe examination the period of military service is reduced to one year, and he is allowed to live at home or in lodgings. This advantage acts as an immense inducement to all boys to work hard at school in order to pass this examination, while among the upper classes it is looked upon as a stigma for life to have been compelled to serve two years in barracks.

> The military training has an effect which lasts for life. Young men have to get up early and be out on the exercising grounds between five and six in the morning; the brain is rested and the physical side of the man is now developed; good food, plenty of exercise, fresh air, baths and cleanliness, neatness and orderliness are his daily associates. He learns to hold himself uprightly, to march forward and to keep his hands out of his pockets, and if a young man has not already learned deportment and obedience he does so during his military service.

The effect of training is seen in the people, say the reporters, as distinctly as the effect of cleaning and washing is noticeable in the streets, and they proceed:

---

[1] *The Brassworkers of Berlin and of Birmingham: A Comparison.* Joint Report of R. H. Best, Chairman of the Gas and Electric Light Fittings Masters' Association and Conciliation Board; W. J. Davis, Secretary of the National Society of Amalgamated Brassworkers and Metal Mechanics; and C. Perks, Canvasser and Representative of the Birmingham Hospital Saturday Fund. London: P. S. King and Son. 1905. (Demy 8vo, pp. 132. 1s.)

> There is not the physically deteriorated, untrained, unmended look about the people. The Berlin young fellow has from infancy been under better care and training at home, at school, at the works, and in the army, consequently he is now fit to be entrusted with the liberty which the Birmingham youth has perhaps from childhood only abused. Is liberty to be granted to the young Hooligan who neither fears God nor man? Would not proper training in school and in the "service" be the making of him, and help the community, his family, and himself most of all?

Housing and Food.

In the working man's home they find everything to praise; they visited a man earning from 35s. to 38s. a week, who paid a rent of 7s. and lived in a flat on the fourth floor. They say, "We were astonished at the well-to-do look of the house and furniture," although these people had been married for some years and had two children. It is noted that babies are not allowed to share a bed with the mother, and so no cases of overlying are reported. They find that while some articles of food are decidedly dearer than in England, the working people are "unmistakably better nourished"; nothing is wasted. It is asserted that cooking is taught in the home by the mother and not in the schools, but this statement is much too absolute; cooking is taught, and very well and practically taught, in many German elementary schools. All goods are paid for in cash, no credit taken, but the mother buys the provisions for herself.

With respect to the relative cost of food, tables are given comparing the cost of articles supplied to the Birmingham General Hospital and the Berlin Moabit Hospital. From these it appears that fish is twice as dear in Berlin as in Birmingham, but fowls are a little cheaper; butter and cheese are practically the same price; eggs and milk about 30 per cent. cheaper; bread about 7 per cent. dearer; sugar 20 per cent. dearer; coffee 10 per cent. dearer; rice 10 per cent. dearer; potatoes 50 per cent. cheaper; beer the same price. With regard to meat, beef is slightly cheaper in Berlin, but veal, pork, and mutton are dearer; the greatest difference is in the case of mutton, for which the contract price is in Birmingham 5.75d. and in Berlin 6.86d. Beer is about ¾d. a glass in Berlin, and is brewed with malt and hops only; a bottle containing ¾ pint costs a fraction under 1d. They speak of cigars at ½d. as being pleasant smoking, but this price is "rather beyond that usually paid by the working man." It is usual for the Berlin working man to have an allotment garden in which a certain amount of vegetables are grown. Clothing costs about the same as in Birmingham, but more care is taken of it. When at work the men wear long stout holland overalls which fasten with a spring clasp over the shoulder. The reporters remark again and again that no man, woman, or child is to be seen in "an unmended state."

Amusements.

The reporters were immensely impressed with the advantages the Berlin brassworker possesses on the side of amusements; the trade union contains a good library, and there are many singing societies amongst the members. The working men of Berlin have formed a society, which hires one of the largest theatres, and engages a staff of actors to give performances on Sunday afternoon, at which serious plays are chiefly given, such as those of Shakespeare, Schiller, and Goethe. The subscription to this society is 9d. a month. At the beerhouse there are plenty of newspapers, while chess and cards are favourite games, but are played for very small stakes—less for the money than for the entertainment. Betting is not indulged in, but shares in a lottery are often bought; the money raised in this way is given to some useful purposes, and the reporters point out that it goes, at any rate, to a more worthy object than the bookmaker; while, if the working classes indulge their gambling propensities, they do so with the chances more in their favour. They have plenty of outdoor recreation, such as gymnastics, skittles, swimming, and skating. The reporters speak with praise of the custom of the working man taking his wife to the beerhouse with him.

They visited the beer gardens and beer halls on Easter Monday and found that the Berlin working man can travel twelve miles by electric tram for 12 pfg. or 1⅕d., so that the expense of taking his family into the country is very small. Some of the beer gardens are capable of seating 5,000 persons, and they found them crowded on this Monday afternoon, while families of husband, wife and children enjoyed each others' company and had a good meal in the open air. They were seated at small tables nicely covered with clean tablecloths and the only drinks with few exceptions were coffee and milk. The children played in a large square, railed off and covered with soft sand, where they had a giant-stride, climbing ropes, horizontal bars and other gymnastic appliances, while a fine military band played good music for the amusement of their elders. As the evening wore on beer glasses made their appearance, but the company, although chatting and laughing, continued to be orderly; there was no bad language. The children were well under the control of their parents, and if ordered to do anything obeyed at once with a smiling cheerfulness which was a pleasure to behold. Among all these thousands of people not one could be seen dressed otherwise than neatly and properly; every garment was whole and neat and quiet in colour, neither could a flashy nor a ragged and untidy person be seen anywhere. On further summarizing their experiences of this Easter Monday, they say that they looked for drunkenness and rowdyism but they found absolutely none, while the general physique and deportment of the people was distinctly a grade higher than they saw at home.

Alcoholism.

While finding that the Berlin brassworker is generally a socialist in politics and a free-thinker in religion, the reporters were impressed with his general good conduct; he seems to be an affectionate husband and father, regular in his habits, and seldom gives way to drink. In case of a man giving way to drink and neglecting his wife, the trades-union committee sends for him and tells him he is not behaving as becomes a member, and cautions him to alter his conduct before he loses his situation.

The reporters believe that if Birmingham brassworkers had the opportunity of getting the same beer as the Berlin working men drink they would prefer it, and that it would greatly assist the cause of temperance. Teetotalism, they found, does not make much progress in Berlin, as in 1903 in the whole city there were only 26 total abstainers and 931 members of moderation societies, but they found drunkenness, estimated by the police statistics, to be much less common than in England. On this question they say:

> We share with the most ardent abstainers the desire to remedy the appalling evils arising from intemperance, but when we recognize the better results Berlin has arrived at, without total abstinence, it is time to consider whether our national attitude of offering the pledge as the only cure for drunkenness is not wrong as a working principle. We have to consider that eight people out of nine are non-abstainers; in Berlin this section of the community is provided for; in Birmingham it is not. There a man is trusted to stand up against excess; in Birmingham he is not. We say drunkenness is the cause of ignorance; in Berlin they reverse it, and say ignorance, or the want of proper training in youth, is the cause of drunkenness. Here we allow our young people to grow up untrained and unskilled, and offer them the pledge later on, when they are down in the gutter. There compulsory training helps to keep them out of the gutter, and the pledge is not relied on. By means of the pledge we are only indirectly fighting ignorance, brutality, impurity. and greed; in Berlin these are fought directly and with the very best appliances. Much time is not spent in reclaiming drunkards or in advocating total abstinence, but the greatest energy is devoted to the training of infants, children, and young persons, and until their military service is complete. *care and training, almost regardless of expense, is the atmosphere the young people live in.* The aim is to fit them for their position as men among men. With our system the damage is done during the youth's early years, and afterwards to offer the pledge as the remedy is like offering a tract to feed a hungry man. Take the case of a lad in an ordinary workman's district; he has had no home training, he sees dirt and untidiness in the streets and in his home, while at school ragged clothes are the rule and not the exception. He leaves school and gets a job; his master usually discharges him for incompetency; then four out of ten lads don't try to get another place, they loaf about the streets, a terror to the neighbourhood, a nuisance to the police, and when old enough perhaps join the militia and go up for training one month in the year (six weeks the first year). They return from camp with new boots, shirt, stockings, and money, part of which is spent in excess on their first night's return after training. Then the lads hang about the streets until the next year's training month arrives. Is it reasonable to imagine

> that such a young life can be put straight by offering the pledge? We have trained the loafer and the drunkard, and then we compass sea and land to reclaim him.

This is strong language, but we believe it expresses the truth, and sometimes it is well that truths should be delivered forcibly.

Compulsory Assurance.

The system of national compulsory insurance instituted by Prince Bismarck is based, according to the Imperial rescript, upon the principle of "rendering to the needy that assistance to which they are justly entitled," and the reporters emphasize with satisfaction this recognition by the State of the *right* of the poor to the assistance of hospitals, sanatoria and medical dispensaries, which in England are regarded as charitable institutions. Every worker in Germany must pay a portion of his wages to the State to form the sick insurance and old age and infirmity insurance fund, and every employer must also contribute for each person employed by him, so that this fund, which was instituted in 1881, has accumulated no less a balance than £75,000,000 sterling, a sum greater than the accumulated funds of the largest insurance companies. The sick pay is from 10s. 6d. to 12s. a week, which is paid for a minimum of twenty-six weeks, and at its termination, if still ill, the Old Age and Infirmity Society steps in or the workman is admitted to hospital and his family receives half sick pay. Burial money is also paid, while women in childbed get an allowance for six weeks.

The Sick Insurance Benefit seems to be worked at the expense of the medical profession, as any worker may consult any medical practitioner, who is paid only 1 mk. for the consultation; but we are informed that in practice this does not cause inconvenience. The German workman does not seek to consult the leading specialists but goes to a practitioner who lays himself out for this class of work. The reporters' information upon this head is not in accordance with this statement, but we do not believe it would work if, as is suggested by them, the working men were in the habit of consulting, whenever they were ill, the leading doctors and specialists. Nor is it exact to say that "the club doctor and dispensary as we have them here do not exist in Germany"; for, although not identical, the Kasse doctor and the Poliklinik resemble them sufficiently closely to make this statement inaccurate and misleading.

Hospitals.

The report describes the excellent arrangements that exist in Berlin to enable applicants for hospital relief to know where they ought to go, by which is avoided the delay too often experienced by the sick in London, who go from one hospital to another in search of an empty bed. In reference to hospital treatment they remark:

> There was not the same haste to get the patient out of the hospital as in Birmingham; that all was cleaner, in better order, more money at the back; food more varied and tasty, and altogether a distinctly better place for a working man to be in than our General Hospital. The idea of "charity" was entirely absent; the spirit was to render the needy that assistance to which they are justly entitled, as a duty.

The hospital with which this comparison is instituted is Moabit. It should be remembered that the number of beds available in Berlin is infinitely larger than in Birmingham, and that the pressure upon them in the General Hospital must be far greater. The population of Berlin may be taken to be three times that of Birmingham, but the Moabit Hospital is only one of many great hospitals, and contains 800 beds, whereas the General Hospital in Birmingham has only 320. It is probable, too, that the proportion of acute cases is greater in our general hospitals, and that the comparison as to duration of stay would be more fairly made between the German hospitals and our Poor-law hospitals. With regard to the other points of cleanliness, order, and diet, there are no doubt certain features in German hospitals which make them look better than ours; for example, all the patients are dressed in a clean and tidy uniform supplied by the hospital, while the staff and students pay their visits in white overalls, but we do not think our hospitals compare otherwise unfavourably in cleanliness or dietary. Few English hospitals can be compared with Moabit, but the cost of building such a large hospital only one story high would be so excessive as to be impossible in England on account of the high price of land. It is to be regretted that the working classes or those who write for them should exhibit such a dislike to the word "charity," and regard its use as an offence; it is one of the chief of the Christian virtues. Moreover, it is quite a mistake to suppose that Germany has no charities—that is to say, institutions maintained by private endowments or subscription, and the qualifications which make a man or woman fitted for treatment at any public institution must always exist. We share the opinion of the reporters that it is the worker who is the right recipient of help from hospitals, while the vagrant, loafer, and beggar should be treated separately, but this was the distinction which the old hospital letter endeavoured to make by the use of the words "a fit object of charity," which seem now to be so particularly irritating. In comparing England and Germany they forget that every German carries papers by which it is easy to ascertain all about him and whether or not he is a proper person for admission to a hospital, but in England we have to rely upon less formal testimony, and the hospital letter was originally devised as a means to this end.

Of all places that attracted the attention and earned the admiration of the reporters, the chief was the magnificent sanatorium for phthisis, built out of the sick insurance funds at a cost of £800,000, with which we have at present nothing that can compare for the treatment of consumption among the working classes. The reporters speak very highly of the Berlin institutions for chronic invalids, aged and infirm persons, and of the old-age pensions by which those workers who survive to a period in which they cannot longer earn their own living remain independent, and are not starved to death or forced into a workhouse.

The Unemployable and the Unemployed.

The beggars, vagabonds, and loafers in Germany are sent to a house of correction, where they are forced to work but are otherwise well treated, and on their discharge an endeavour is made to find them employment. Another excellent institution in Berlin is the Central Registry for persons out of work. At this institution men and women out of employment can live very cheaply. They can have their clothes mended for a trifle, so that "of all the hundreds who were waiting there, not one was untidy or dirty"; while as an illustration of the extremely low price at which everything is supplied, a bath, including hot water, soap, and towel, costs a halfpenny!

This report is an amazing confession of the superior results which have been attained by German organization, and we confess to a good deal of surprise and satisfaction that English working men admit good, and not harm, to arise from compulsory military service. We will conclude this notice by another quotation:

> There are anomalies here which we do not attempt to account for, but, in the face of the people being undoubtedly better nourished than in England and enjoying a higher social life, it would appear that cheap food is not the only important consideration in a nation's welfare, but that the intelligence and self-restraint with which it is used may be of even greater importance.

SANATORIUMS FOR CONSUMPTION.

The appearance of a third edition of Dr. Walters's book on *Sanatoria for Consumptives*,[2] shows that this work is appreciated. Dr. Walters has added to the list of institutions described the not inconsiderable number recently established. Great care has been taken to obtain full and reliable information about all the sanatoriums which are included, and what Dr. Walters in his preface describes as an unofficial directory of existing sanatoriums for consumptives not only fulfils that intention but has become a standard work of reference on the subject of the construction, arrangement, and administration of such institutions. The first part of the book discusses briefly the essential points in the soil, situation, building, and furnishing, as well as the treatment of the patient as regards diet and exercise. Less importance is now attached to the influence of altitude and special climates than formerly, for, as Dr. Walters says: "Neither high altitude, dry atmosphere, fine weather, equable temperature, nor abundant sunshine is essential to success, however useful they may be, or desirable in particular cases." The four essentials are pure, dust-free air; fresh and bracing atmosphere; sufficient fine weather, or sufficient artificial shelter, to render an outdoor life attractive; and a dry, warm, well-drained soil. "Wherever these four conditions are found, and suitable arrangements can be made, it should be possible to treat consumptives with success." As there are many places in these islands where these essential conditions may be found, the successful treatment of consumptives can be carried out here, and Dr. Walters very rightly emphasizes the importance of weighing the discomforts and disadvantages of travelling and of foreign residence, before advising the consumptive patient to go abroad to seek a cure which may be found in his own country. The dangers to invalids of hotel life and of the amusements of a fashionable health resort are also pointed out. The second, and much the larger portion of the book, is descriptive of the different institutions. The countries are arranged alphabetically, which is convenient; since, however, it has been insisted on that it is unnecessary to go abroad to find the essentials of treatment, it might have been more convenient in an English book to put the sanatoriums of the British Isles first. A table showing, for each country or district the number of sanatoriums, their names and position, number of beds, elevation, and other details, forms a useful introduction to each chapter, and facilitates reference.

---

[2] *Sanatoria for Consumptives.* By F. R. Walters, M.D., M.R.C.P. Third Edition. London: Swan Sonnenschein and Co. 1905. (Demy 8vo, pp. 405. 12s. 6d.)

NOTES ON BOOKS.

LUNACY PRACTICE.

IN his small volume on *Lunacy Practice*[3] Dr. GATTIE, who is the secretary to Peckham House Asylum and Northumberland House Asylum, London, sets forth the formalities necessary for the reception of patients into institutions for the insane, and gives concise and useful information relative to the Lunacy Acts. The plan followed throughout the book is to give all of the various forms and certificates used in the usual modes of certification, detention, and discharge of patients, each form being filled up as for an imagined case, thus constituting a paradigm. Each illustration is followed by explanatory notes. The book contains also succinct information as to the choice of an asylum, a list of the hospitals and licensed houses in which private patients may be domiciled, and information respecting private patients for the use of Justices of the Peace. The matter is well arranged and adequately indexed, and, though small, contains all the information likely to be required in this connexion by general practitioners.

FIRST AID.

COLLIE AND WIGHTMAN's excellent little textbook *First Aid in Accidents*[4] has reached a third edition, which may be taken as evidence that it is appreciated by those for whom it was written. The opportunity has been taken to bring the work up to date. One notable addition is a description of the procedure for performing artificial respiration recently introduced by Professor Schäfer, a method at once simple and efficacious. A new plate has been added to the large number with which the book is illustrated.

CHLOROMA.

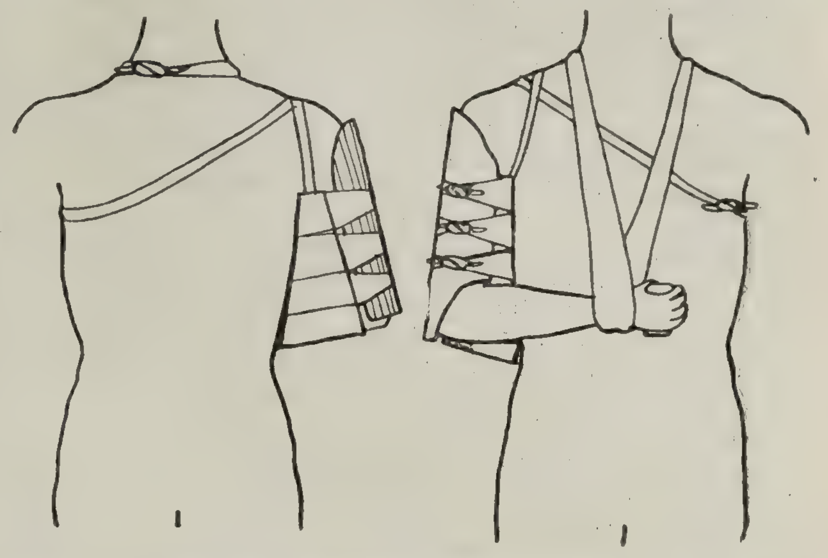
DR. ROBERT HEYDEN has put together in a short monograph the facts and theories which have been promulgated about that rare and obscure disease—chloroma.[5] His pamphlet, based on the study of 37 cases recorded in the literature, forms a useful study of the subject, though it cannot be said to throw much new light on it. Without great pretence to originality it is a careful and sensible summary, and may be consulted with advantage by those who desire to know how much, or rather how little, is known about this pathological enigma.

MINUTES OF THE GENERAL MEDICAL COUNCIL.

We have received through the courtesy of the Registrar of the General Medical Council the volume of the *Minutes of the General Medical Council and of its various Committees for 1905.*[6] The minutes with eleven appendices form a volume of 505 pages, being respectively 247 and 702 pages less than the volumes for the previous two years.

MEDICAL AND SURGICAL APPLIANCES.

A Splint for Fractured Humerus.—The annexed engraving shows the "double-wedge" splint as applied to a patient with fracture of the shaft of the right humerus. In reference to it, Dr. George Wilkinson, of Sheffield, its inventor, says that fractures of the humerus often fail to unite because there is difficulty in keeping the fractured ends in place, owing to the fact that when the forearm is brought across the body, and the wrist slung from the shoulder, there is a space between the chest wall and the arm. This space is wider below than above, and behind than in front. The "double-wedge" splint is shaped so as to fill it, and provide firm support for the arm. The splint is suspended from the shoulder by a band at its apex, and has straps fixed to it by which a suitable exterior splint can likewise be kept in position. A bandage carried round the trunk and limb then keeps the fractured ends and the splint all firmly fixed to the chest wall. When the fracture is near the neck of the humerus, a shoulder cap of poroplastic felt or plaster-of-Paris may be substituted for the exterior splint. In a case of fracture near the elbow-joint the arm should either be completely flexed and supported by a bandage or an interior angular splint can be applied, internal support being furnished as before by the double wedge. These splints are formed of stout cardboard, and are reversible so as to be useful for either arm. They are made by Messrs. Down Brothers, St. Thomas's Street, S.E., in five sizes.



MIDLAND MEDICAL UNION.—The fifth annual meeting of the Midland Medical Union was held on February 1st, at 6.30 p.m., at the Hotel Portland, Chesterfield. Mr. A. Chawner, Chairman of the Chesterfield Branch, presided, in the unavoidable absence of Dr. G. G. Macdonald, the President. The annual report was, on the proposition of Dr. J. G. Shea, seconded by Mr. J. A. Goodfellow, adopted, and ordered to be printed and issued to the members. In the absence of the Honorary Treasurer, Dr. F. R. Mutch, of Nottingham, the General Secretary presented the account of income and expenditure, which showed a balance in hand of £25 17s. 11d. On the proposition of Mr. B. J. Lee, seconded by Mr. A. M. Palmer, the account was approved and adopted. On the proposition of Dr. J. G. Shea, seconded by Mr. A. M. Palmer, it was resolved that the office of Vice-President of the Union be discontinued, and that instead there be a Chairman of each Branch, who shall be an *ex-officio* member of the Council, and that each Branch nominate its own Chairman. On the proposition of Dr. Duncan, seconded by Dr. Shea, Mr. A. Chawner, of Clay Cross, was elected President for the ensuing year. After the meeting the annual dinner of the Chesterfield Branch was held at the Hotel Portland, Chesterfield. Mr. A. Chawner, who was in the chair, having given the usual loyal toasts, which were heartily received, that of the Midland Medical Union was proposed by Dr. Riseley, and responded to by the President (Mr. Chawner) and the Secretary (Mr. G. S. O'Rorke, LL.D.). The toast of "The Guests," was submitted by Dr. A. Green; and Mr. Pye-Smith, Mr. Morley Willis (of the Nottingham Branch), and Mr. H. E. Ward replied.

THE EXTERMINATION OF MOSQUITOS.—In accordance with the advice of Professor John B. Smith a Bill has been introduced into the New Jersey Legislature providing for the allocation of 70,000 dollars (£14,000) a year for five years, to be applied to the carrying out of a war of extermination against mosquitos.

---

[3] *Lunacy Practice: A Practical Guide for the Certification and Detention of Persons of Unsound Mind.* By William H. Gattie, F.C.I.S. London: Simpkin, Marshall, Hamilton, Kent and Co. (Demy 8vo, pp. 53. 2s. 6d.)

[4] *First Aid in Accidents.* By R. J. Collie, M.D., and C. F. Wightman, F.R.C.S. 3rd edition. London: George Gill and Sons. (32mo, pp. 155. 8d.)

[5] *Das Chlorom.* Von Robert Heyden. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1904. (Roy. 8vo, pp. 31. 1s. 3d.)

[6] London: Spottiswoode and Co. 1906. 12s.

LITERARY NOTES.

Some of our readers may perhaps be glad to have their attention called to a remarkable instance of longevity in the profession. In the "Diary" published in a recent issue it was announced that a gentleman would entertain one of the London Societies with "reminiscences of Dr. Lettsom." The word "reminiscence" is defined in the dictionary nearest to our hand as "a relation of past events, characteristics, etc., *within one's own personal recollection*." As Lettsom died in 1815, it is scarcely a rash conjecture that the author of "reminiscences" of the famous Quaker physician must now at a very moderate computation be at least 110 years old.

La Clinique is the title of a new French journal which came into existence with the present year. It is described as a weekly journal of practical medicine and surgery and medico-chirurgical specialities. Among the editors are Drs. P. Claisse, E. Lesné, H. Triboulet, physicians; Dr. André Lapointe, surgeon, and Dr. Rudaux, obstetric physician to the Paris hospitals, and Dr. R. Sabouraud, of the Hospital Saint Louis. The general secretary is Dr. G. Sersiron. The publisher is M. Octave Doin. Our new contemporary, as far as we can judge from the one number which has been sent to us, is before everything practical. The original contributions are solid in character and varied in interest, and the abstracts of the proceedings of societies are commendably brief and to the point. We venture to predict for *La Clinique* a useful and successful career.

There has recently in Germany been quite an epidemic of new *Centralblätter*. Among them is one for bio-chemistry, another for bio-physics, and now there comes another for the physiology and pathology of metabolism, an extensive though specialized branch of bio-chemistry. It is entitled *Zentralblatt für die gesamte Physiologie und Pathologie des Stoffwechsels*, and is edited by Karl von Noorden, A. Schittenhelm, and E. Schreiber. It seems a pity that there should be such an undue division of labour. We venture to think the German physiologists would have been better advised if they had seen fit to enlarge and extend the usefulness of one central publication like the *Centralblatt für Physiologie*. The slow publication of abstracts, and the frequent insufficiency of the abstracts when they do appear: these have no doubt been the moving causes of the appearance of the new periodicals. The *Zentralblatt für die gesamte Physiologie und Pathologie des Stoffwechsels*, now before us, though it is numbered vol i, is in reality the continuation in a somewhat different form of an older publication which has already had six years of existence under Professor v. Noorden's charge. It has abundantly proved of value to those engaged in research from the excellence of its abstracts. In the new series we can only anticipate that it continue this useful career, and we note with satisfaction that Professor v. Noorden's name still appears upon the title page.

In a note which appeared in this column in our last issue, *Green's Encyclopaedia and Dictionary of Medicine* was by inadvertence announced as the *Encyclopaedia and Dictionary of Surgery*. The work includes surgery, but the title is as now given; not as in the Journal of February 3rd.

It is proposed to issue an edition of the United States *Pharmacopoeia* in Spanish.

During this month Messrs. Sweet and Maxwell will issue a new volume of the series of "Notable Scottish Trials." The trial dealt with in it is that of Dr. Pritchard. The book is edited by William Roughead, W.S., Edinburgh, and every care has been taken that the report, which is based upon a careful collation of contemporary accounts of the trial, should be as complete and accurate as possible. Lord Young has revised his address to the jury as Solicitor-General. As so much depended upon the medical evidence, special precautions have been taken to ensure accuracy in this particular; and the editor has obtained the assistance of some of the principal witnesses who appeared at the trial, and who have gone over the proofs of their own evidence. These include Sir Henry Littlejohn and Sir William Gairdner, K.C.B., upon whose evidence so much of the case for the prosecution depended. The book will be fully illustrated.

Messrs. Archibald Constable and Co. will publish in the early spring of the present year a new work entitled *The Integrative Action of the Nervous System*, by Professor Charles S. Sherrington, of Liverpool. The work embodies the substance of ten lectures delivered at the Yale University in 1904 on the Silliman Foundation. The author holds that in the multicellular animal, especially for those higher reactions which constitute its behaviour as a social unit in the natural economy, it is nervous reaction which *par excellence* integrates it, welds it together from its components and constitutes it from a mere collection of organs an animal individual. This integrative action, in virtue of which the nervous system unifies from separate organs an animal possessing solidarity, an individual, is the problem discussed by Professor Sherrington. The book is fully illustrated with diagrams, curves, etc.

The *Journal* of the Ceylon Branch of the British Medical Association for the six months, January to June, 1905, is full of interesting matter. In the inaugural address of the President of the Branch, Dr. H. Marcus Fernando surveys the work done in the last few days in regard to the prevention of malaria, dysentery, and ankylostomiasis in Ceylon. The Governor of Ceylon, His Excellency Sir Henry A. Blake, contributes a short but interesting communication on ancient theories of causation of fever by mosquitos, to which Dr. M. Sinnetamby supplies a complementary note on the history of ancient Hindu medical literature. Among the other contents of the *Journal* are a paper on ankylostomiasis and pregnancy, by Dr. Sinnetamby; and one on rare conditions of the cord and tunica vaginalis, by H. Geo. Thomasz, F.R.C.S.; reports of two cases of painless labour and a case of celosoma, by Mrs. S. C. K. Rutnam, M.D.; a preliminary note on the electrical resistance of the human body in Ceylon, by Mr. E. Money; a paper on the therapeutic properties of gugul, a gum resin obtained from the *Balsamodendron mukul*, a tree of the natural order Burseracea, found in Sind, Rajputana, Eastern Bengal, and Assam, by Dr. E. Roberts, who also writes on the virtues of *Asparagus falcatus*, a plant of the natural order Liliacea; and one on tabes mesenterica and Ceylon sore mouth and diarrhoea, by Dr. William A. Wijeyesakere. The operative treatment of inguinal hernia is discussed by Dr. S. C. Paul; and Dr. Aldo Castellani, Lecturer on Pathology in the Ceylon Medical College, Colombo, contributes short papers on leukaemia in the tropics, and a preliminary note on the presence of spirochaetes in some cases of parangi (yaws). We congratulate the Ceylon Branch on the excellent scientific work done by its members. To the Editor of the *Journal*, Dr. M. Sinnetamby, a word of praise is due for the care which he has bestowed on its preparation.

At an entertainment recently given by the Master of the Worshipful Company of Plumbers, in the Old Hall of the Charterhouse, the principal event of the evening was the presentation of the Elizabethan Masque of *Lovely London* written by George Peele, and originally presented to Lord Mayor Sir Wolstane Dixie in 1585. At that period masques were undertaken by persons of eminence, who in character gave expression to loyal and other sentiments—particularly those relating to the fine arts, or bearing upon the industry and social life of the people. This historical precedent was followed by the Master of the Plumbers' Company, who himself took the part of the Craftsman whose rôle it was to impress the beauty and value of true and good craftsmanship on the audience. The Prologue to the Masque referred to the trained workman being a worker for the health of the community. The Masque itself was an appeal for a more beautiful London to those who have the power to shape its destinies.

Messrs. J. and A. Churchill have nearly ready for publication a work entitled *Clinical Applied Anatomy, or the Anatomy of Medicine and Surgery*, by Dr. C. R. Box, Physician for Out-patients and Lecturer on Applied Anatomy, St. Thomas's Hospital, and Mr. W. McAdam Eccles, Assistant Surgeon and Lecturer on Surgical Anatomy, St. Bartholomew's Hospital. The work is written from the practitioner's rather than the anatomist's point of view. Hence all anatomical points which are not essential are omitted. Many of the plates are original and coloured.

The late Mr. Edgar Horne, of Witley and Eastbourne, bequeathed £500 to the Westminster Hospital, and £250 to the Princess Alice Hospital, Eastbourne.

SCHOOL HYGIENE.

SURREY.

Report of the Education Medical Officer.

The report of the Surrey Education Committee contains in an appendix the report of the Education Medical Officer, Dr. T. Henry Jones, upon medical supervision of elementary schools. As Surrey is one of the few counties which has appointed an education medical officer, we give the report in full as being of practical interest.

Preliminary Report upon the Medical Supervision of Schools.

During the three months that have elapsed since I took office I have visited a number of schools in the various districts of the County, and have endeavoured in this way, and by conference with school managers and clerks, the superintendents of school attendance, and others interested in the work, to make myself acquainted with the local circumstances to be considered in dealing with the subject as a whole.

The objects that must be aimed at have already been enumerated in the interim report of the Special Committee upon medical inspection. They may be classified for convenience thus:

I. Medical inspection of school children.

1. To prevent the spread of communicable diseases.
2. Examination and certification of children absent from school on the ground of illness.
3. Examination of children unfit for ordinary school work or for physical training.
4. Examination and certification of blind, deaf, dumb, defective, and epileptic children.
5. To ensure that healthy children shall not be injured by the school course.
6. Routine periodical examination of *all* children for
   (*a*) Registration of weight, measurement, and development.
   (*b*) Discovery of unsuspected physical defects for report to parents.

II. Medical examination of teaching staff and others.

1. Teachers (*a*) upon their appointment,
   (*b*) applying for absence on the ground of illness.
2. Pupil teachers upon engagement.
3. Successful candidates for county scholarships.
4. Candidates for employment on headquarters staff.

III. Sanitary supervision of schools.

IV. Instruction in hygiene of (*a*) teachers.
(*b*) scholars.

It is evident that to carry out all these duties thoroughly in a county area of over 700 square miles, containing some 260 schools (a large number of which have several departments), accommodating 60,000 children, would involve a considerable organization and some expense. Hitherto such work has been undertaken only by borough authorities, and by them only in part; the task would necessarily be much more difficult in a county. It will be best, therefore, not to attempt too much at the outset, but to begin with the more necessary part of the work, and gradually to add to it, by experimental stages, as the machinery grows more perfect.

It will have to be decided eventually whether a special medical staff is to be employed for school work only, or existing means for medical inspection utilized. In either case the chief problem will be to arrange that a doctor's services shall be available when required for every school in the county. If hat can be attained it will be a comparatively simple matter o arrange for the performance of all the duties classified above.

At the same time it may be laid down as a general principle, or the sake of economy and convenience, that the help of eachers and others must be obtained as far as possible for he work, and that doctors must be employed only when their ervices are absolutely necessary. The function of a medical officer should be in the main to organize and supervise the outine work that must be carried out, much, though not by ny means all, of which can be undertaken by lay assistants. But obviously a very considerable proportion of the work outlined above is such as can be undertaken only by medical men.

In order to decide what duties it will be practicable to ndertake from the beginning with such means as are at present available, it will be convenient to consider the groups more fully in the order given.

I. Medical Inspection of School Children.

1. *The Prevention of the Spread of Infectious and Contagious Diseases in the Schools.*

School attendance being compulsory, education authorities annot escape this obvious responsibility. It is really public ealth work pure and simple, and in suggesting its performance y county authorities it has been pointed out in the Report of he Committee on Physical Deterioration (par. 326) "that ringing the sanitary administration of the county into touch ith the schools may lead to the anticipation and prevention f many of those epidemics which are now such a fertile source f local expense."

School authorities have daily charge of about one-fifth of the whole population, and that the most susceptible to infectious diseases, with facilities for inspection denied to sanitary authorities; the latter have an organization and legal powers to deal with such diseases not possessed by the former. Therefore the object to be aimed at is complete and prompt co-operation between school authorities and sanitary authorities, which ought to be of the utmost benefit to both.

Daily medical inspection of schools for this purpose is out of the question. But the services of teachers and school-attendance officers might well be utilized; they have unequalled opportunities for constant observation of all the children under their care. If they can be brought to observe intelligently, and if proper and systematic use can be made of the results of their observations, then a very great step will have been taken in the right direction. With this purpose in view I have prepared a short memorandum upon the subject, in which are laid down clear rules for dealing with all infectious and contagious diseases in the schools, and for prompt notification of their occurrence both to the local medical officers of health and to myself. Short notes are given upon the early symptoms of the commoner diseases; the subject of school closure is touched upon; also the ventilation, cleansing, and disinfection of school premises. I would recommend that this be issued in the form of a pamphlet to all teachers, school-attendance officers, and other persons interested, in order that a uniform system may be adopted throughout the county.

By means of the prompt notifications that I hope to receive under this system, I shall be enabled to keep a record of the occurrence of all communicable diseases in every school in the county, and to pay special visits to any schools that may require attention. The notifications regularly furnished to district medical officers of health of all non-notifiable infectious diseases should be of considerable value. Under present conditions early information of such cases is not obtainable, and a medical officer of health may hear of their occurrence too late to enable him to take any useful measures to prevent their spread.

It will be observed that in the memorandum teachers are directed to exclude scholars suffering from notifiable infectious diseases until a medical certificate of fitness to return can be produced. This should not be difficult to obtain where children have been medically attended during their illness. In many cases it should be possible to arrange with the local medical officers of health that they should give such certificates in return for the information supplied to them from the schools. For non-notifiable infectious diseases and some contagious diseases definite periods of isolation and quarantine are given, which will do away with the necessity for medical certificates. These have been fixed carefully with the object of ensuring safety and at the same time the least possible interference with general school attendance. For certain contagious diseases, however, certificates are required, which for the present parents should be encouraged to procure from their own doctors. It is directed that whenever doubt arises about the return of any child to school the Education Medical Officer should be applied to. Under such circumstances I should pay special visits to examine children, but it is hoped that local arrangements will be made for the purpose as far as possible, as it would obviously be very difficult for one medical officer to cope with requests to visit individual children in many places at the same time.

It is hoped that the scheme suggested may help somewhat to check the spread of infection, and that school closure may consequently be less often required. It will naturally take some time to get into working order, and no plan of the kind can be expected to work perfectly, but it is an attempt to deal with a difficult subject with the means nearest to hand.

2. *Examination and Certification of Children Absent from School on the ground of Illness, free of Expense to Parents.*

To carry this out thoroughly would necessitate arrangements being made for the immediate examination of every child suffering from the most trivial complaint that might be regarded as an excuse for absence. Though this would be useful it would certainly not be practicable in the large area of a county under present conditions.

The chief reason for the provision of medical certificates by the Education Committee is to decide the question whether or not alleged ill health is a sufficient excuse for absence in doubtful cases. There is, of course, no obligation upon the education authority to provide these certificates, but it is done in order that there may be no suggestion of harshness of procedure. Another reason for the requirement of certificates is in connexion with the system of prize-giving for regular school attendance. Medical certificates should seldom be required for either of these purposes if every school attendance officer could be relied upon to give such a report upon each case as could be accepted by the School Attendance Committee or the managers as a sufficient excuse for absence. Thus, if that official finds upon his visit that a child is really ill and attended by a doctor, no certificate need be asked for; if he finds that a child is kept at home for some obviously reasonable though more trivial cause, such as broken chilblains or a swollen face, his report to that effect ought to be quite sufficient.

There would then be left for special medical examination only such cases as school attendance officers were in doubt about. The number of these cases ought to be kept as low as possible, and school attendance officers should have no great difficulty in doing this. I understand that local school attendance committees have in most cases made their own temporary arrangements for the medical examination of such doubtful cases, at fees varying with local circumstances. From information supplied to me by the superintendents of school attendance I calculate that an average of 1 per cent. per annum of the whole school population have so far required examination. This ought to be an ample allowance, but it may be prudent to add another ⅓ per cent. for extra requirements, which would mean a total of 800 certificates a year for 60,000 children.

I would recommend that the existing arrangements be continued for the present at a cost estimated not to exceed £125 a year. It may be pointed out that this will involve no new expenditure. With a view, however, to diminishing it forthwith by at least one-fifth, I hope to make arrangements to examine personally a number of these doubtful cases. This I think can be done by grouping together the schools in certain selected populous districts in order to examine all the children sent up for the purpose in one central room. The groups formed for this purpose must of course be small, and arranged in such a manner that parents will be put to very little trouble in taking the children to the centres.

I propose to make an experimental beginning in seven urban districts—namely, Woking, Barnes, Mortlake, Farnham, Carshalton, Sutton, and Epsom. The school population in these districts is 12,068, and seven centres will probably be enough for purposes of medical examination. I select these particular districts because they are favourable for the purpose suggested, and at the same time are suitable for the experimental employment of school nurses, to be referred to later, whose work my regular visits for the examination of the children would enable me to supervise and direct.

I hope it may be found possible by this arrangement to carry out also in these selected districts the duties classified above under headings (3) and (4):

3. *Examination of all children unfit for the ordinary school course or for physical training.*

4. *Examination of blind, deaf, dumb, defective, and epileptic children.*

For all these purposes I should adopt the principle of preliminary selection by teachers and others of children to be medically examined, in order to save the time, expense, and interruption to school work involved by medical inspection of every class.

In order to have a uniform system of working in these seven districts it would be arranged that in every case short particulars about each child to be submitted for examination, either by a teacher or a school attendance officer, should be sent beforehand to me upon a special form. I should allocate these forms to their districts, and arrange to visit a centre when the number of children for examination made that necessary. Before my visit I should give due notice to the teachers and attendance officers concerned, upon receipt of which they would notify to the parents of the children to be examined the time and place of examination, and request them to attend. The notices to parents would in most cases be sent on cards from the schools. There would, of course, be no suggestion of compulsion in the matter, their attendance would be optional. The procedure is merely suggested to facilitate the work, which could not otherwise be performed by one medical officer.

By this arrangement it is hoped that the presence of parents or guardians would be secured, in order that they might receive at first hand directions about their children. Any certificates of exemption required would be sent directly to the teachers or attendance officers concerned.

This would provide a comprehensive scheme of medical examination under headings I (1)—(4) in these particular districts, containing rather more than one-fifth of the whole school population of the county. If the experiment were found successful it would be possible to extend the system gradually to other districts.

In the meantime I would suggest that in other districts systematic examination of children unfit for school work [I. (3)] be set aside for the present, as it would be impossible for one medical officer to do it throughout the county.

4. *Examination of defective and epileptic children.*

This would be a necessity in all districts, on account of the obligation placed upon the Committee to deal with them. A census of the children supposed to come into this category was recently prepared for the use of the Special Committee upon Defective and Epileptic Children, and their number was estimated to be 182. It is possible that this estimate may have to be revised after a more careful classification; and, for that purpose, I would suggest that specially-prepared forms be now sent to all head teachers upon which they will be required to give full particulars about any children supposed to belong to this class. I should then arrange to make an examination of all the children selected for the purpose from these returns either at centres or at individual schools or homes as required, and to give the necessary certificates for them.

In view of the proposed home to be established for mentally defective children belonging to the county, it may be found convenient for the medical officer who will be appointed to take charge of the home to make the final selection of cases fo admission into it, in order that he may be fully responsible for all cases coming under his care from the outset.

5. *To ensure that healthy children shall not be iniured by the school course.*

This really involves medical supervision of the work working methods, and appliances of each school, as well as inspection of individual children. It will be possible to undertake only a small part of it at present—namely, in the schools that will be visited for other purposes. An attempt will be made also by means of lectures to teachers to secure their interest and help in the work.

6. *Routine periodical examination of all children for (a) registration of weight, measurement, and development; (b) discovery of unsuspected physical defects for report to parents.*

This would be a very large task to undertake, though it is undoubtedly one that should be aimed at sooner or later. Its thorough performance would involve the medical examination of every child, both upon entering school and at frequent intervals afterwards, in order that a continuous record might be kept of its physical condition (including the special senses, eyesight and hearing). Such a record would incidentally furnish statistical information of the greatest value. Hitherto no education authority in England has attempted the task fully, and it may well be set aside as impracticable under present conditions in a county area; it represents the ideal of medical inspection of school children.

School Nurses.

School nurses have hitherto been employed only in towns where it is possible for them to go from one school to another without trouble or loss of time, and to refer immediately to the medical officer when in any doubt. They are not intended to take responsibility in medical matters, their training does not fit them for it, and it would be most unwise to expect it of them. Their best work is done only under adequate medical direction and supervision. In large towns their chief function has been to exclude children suffering from ringworm, pediculosis, and other diseases due to dirt, from the schools. The conditions of the children in a county area do not call for so much attention for that special purpose, the work of the nurses would be more general, on lines to be indicated below.

There are obvious drawbacks to the employment of whole-time school nurses in a county. The distances to be traversed in all weathers to reach widely-scattered schools constitute in themselves a great difficulty. Medical supervision of their work cannot be so complete as in a town. A further difficulty is the cost; in London it has been found after experiment that 20 schools in the poorer districts, and 40 in the better-class districts, are as many as a whole-time school nurse can attend to properly; such a ratio could not well be observed in a county area. I do not therefore recommend the employment of whole-time nurses, at all events for the present. But it would be possible to obtain the part-time services of district nurses in several places in the county by arrangement with local nursing institutions. I understand that such a course has already been adopted by the school managers at Farnham and at Haslemere with excellent results. Apart from economy it would be advantageous to employ local nurses because they are always available, know their districts thoroughly, and are known and trusted by the people with whom they will have to deal.

Having made inquiries locally, I find that the services of fully-trained nurses could be obtained in at least eighteen districts to visit the elementary schools, in return for a small subscription to the funds of the nursing associations. The nurses available for the purpose (only fully-trained nurses being considered) are district nurses belonging to the Queen Victoria Jubilee Institute, parish nurses, and nurses belonging to local benefit nursing associations. In my preliminary interviews with representatives of the local committees, I have suggested payment by a subscription calculated to cover the cost of the proportion of the nurse's time devoted to the schools, thus: if a nurse be asked to give five hours a week to the schools in her district, and receives a salary of £100 a year from the local association, the subscription due from the Education Committee for her services would be, roughly, £6 a year. This arrangement would be equitable, and would enable the cost of any extension of the work to be readily calculated.

I think the experiment would be worth trying upon such terms for six months in a few selected districts. If it be found satisfactory in them it may be extended later to other districts, as soon as arrangements can be made for medical supervision of the work. I have selected five districts in which to recommend its adoption: Mortlake, Woking, Farnham, Carshalton, and Epsom. These districts I propose to visit regularly myself for medical inspection, and I shall therefore be able to supervise personally the work of the nurses in them, so that it may be started upon right lines. They are populous centres, whose schools are presumably in need of more attention than those of rural districts. Seven nurses would be available in them, for 17 schools containing

6,602 children, at an estimated total cost not exceeding £50 a year, or £25 for the six months. In view of possible extension of the work it may be well, however, to increase the estimate to £50.

The duties of the nurses would be:

(*a*) To pay regular visits to the schools, and to inspect any children submitted by teachers, advising as to their exclusion, etc., and to select from these any standing in need of special medical examination.

(*b*) To inspect whole classes in the schools individually, should occasion arise for it—for example, on account of any communicable disease.

(*c*) To take the necessary steps with regard to children suffering from parasitic skin diseases, or sent to school in a dirty condition, and where possible by judicious oversight to see that remedial measures are carried out by the parents.

Such duties as these performed by nurses would greatly add to the efficiency of medical supervision of schools at relatively small cost. Their work would probably be found capable of considerable extension in the near future. I look forward to the development in poorer districts of a system of regular home visits by nurses to cases of trifling complaints for which no doctor would be consulted. Their function would be not to treat, but to show the mothers what to do. In this way much loss of school attendance might be prevented, the nurses acting, in fact, as extra attendance officers, hastening the recovery and return to school of many absentees.

Further, it would be of the greatest benefit to arrange that a nurse should visit at home certain of the children who had been examined by the medical officer at a centre or school, in order to see that the parents were acting upon the advice given to them. Without some such provision as this medical examination may lose much of its value in many cases through not being followed up. Nurses employed thus would be the means of conveying valuable instruction to parents, who would probably welcome their visits. But it must be repeated that their functions would be purely advisory and exhortatory; no treatment can be undertaken by the education authority.

II. MEDICAL EXAMINATION OF THE TEACHING STAFF AND OTHERS.

Under this heading have been grouped the necessary medical examination of all teachers, pupil teachers, successful candidates for county scholarships, and candidates for appointment on the head quarters staff. The total number to be examined will probably be about 400 a year.

With regard to teachers it may be stated that it would not be practicable to examine all upon their appointment. The examination must for the present be limited to such cases as managers are in doubt about, either upon new appointment, or at any other time—for example, when applying for absence on the ground of illness. For the purposes of the Elementary School Teachers (Superannuation) Act it is necessary for certificated teachers to be examined by medical officers nominated for the purpose by the Board of Education. I would suggest that all who come into this Division should be given their choice either of producing certificates from their own doctors, or of being specially examined by the Education Medical Officer free of charge.

The certificates of those selecting the former alternative would all be sent to me for reference in order that I might advise upon any doubtful cases. Those who elected to be examined by me would be dealt with thus:

1. Teachers (*a*) upon new appointment ... or (*b*) applying for leave of absence ...	By special visits.
2. Pupil teachers upon engagement (150) ... 3. Successful candidates for county scholarships (125)	In groups at centres by arrangement.
4. Candidates for employment on head quarters staff...	By special arrangement.

III. SANITARY SUPERVISION OF SCHOOLS.

It is not anticipated that the general condition of the school buildings will need so much attention as the other subjects enumerated, as they have already been inspected by the Committee's surveyor.

The sanitary supervision of schools, however, involves more than a surveyor's inspection; it is necessary to consider their heating, lighting, and ventilation, furniture, appliances, cleansing, and sanitary conveniences, with regard to their direct bearing upon the health of both teachers and scholars who have to work in them for five hours a day. The subject is intimately connected with that referred to in Class I (5). I hope in the course of time to visit every school in the county with this object in view, but it will obviously not be practicable for one medical officer, having many other calls upon his time, to complete such a visitation rapidly. Many of the visits will be paid in conjunction with these for the other purposes already specified.

IV. INSTRUCTION IN HYGIENE.

There can be no doubt that instruction of teachers is an essential preliminary to the instruction of scholars; any other means of teaching the children would be unduly expensive, and not nearly so efficient. The subject, therefore, resolves itself for the present into instruction of teachers in hygiene. This should be undertaken as soon as possible, and I recommend the formation of classes at a few centres for the purpose. It would be sufficient as a beginning to give a short course of four to six lectures at each centre.

The subjects to be treated in these courses would be the simple and essential laws of health in their relation to schools and school work, without undue scientific details. Special attention would also be paid to explaining and elaborating the hints given to teachers in the accompanying memorandum upon communicable diseases; this I consider to be of the greatest practical importance. The attempt would, in fact, be made to interest teachers in the hygienic functions which should rightly belong to them. The cost would be but trifling: there would be nothing to pay for hire of rooms; the personal expenses of the Education Medical Officer would come under the head of general travelling expenses; a small sum would be required for the purchase of diagrams, etc. An ample estimate would be £25.

SUMMARY OF RECOMMENDATIONS.

The recommendations made above, which I beg to submit for the consideration of the Committee, may be summed up in order:

I. Medical inspection of school children, to be restricted for the present to

1. Prevention of the spread of infectious and contagious diseases (see also separate memorandum).
2. Examination and certification of a limited number of children absent from school on the ground of illness.
3. Examination of all children unfit for the ordinary school work, or for physical training, in certain selected districts only; the number of districts to be increased gradually if practicable.
4. Examination of all blind, deaf, dumb, defective, and epileptic children throughout the county.

To supplement the work of the Education Medical Officer, suggested

(*a*) Continuance of present arrangements with local doctors to give certificates in a strictly limited number of cases for school attendance purposes, at a total cost estimated not to exceed £125 a year.

(*b*) Experimental employment of district nurses in certain centres for six months, to visit seventeen schools, at an estimated cost not to exceed £25; but, in view of possible extension of the work, £50 allowed.

II. Medical examination of teachers, pupil teachers, county scholars, and head quarters staff.

To be undertaken by the Education Medical Officer, but all members of this group to be given the option of examination by their private doctors at their own expense.

III. Sanitary supervision of schools.

To be undertaken by the Education Medical Officer, and carried out gradually.

IV. Instruction of teachers in hygiene.

To be undertaken forthwith by the Education Medical Officer. Expenses estimated not to exceed £25.

Should the Committee see fit to adopt these recommendations, they would involve an expenditure of £200 a year. To this might be added £200 to cover travelling, clerical, and incidental expenses. This, in addition to the salary of the Education Medical Officer, would bring the estimated total expenditure upon medical supervision of schools to £900 a year.

Besides all this, the Education Medical Officer has to deal with infectious and contagious diseases, school closure, ventilation, cleansing, and disinfection of schools.

SMALL HOLDINGS.—Lord Carrington, President of the Board of Agriculture, in a speech at a meeting of the Farmer's Club on February 5th, gave some interesting particulars with regard to his experience in the matter of small holdings. He said that on his estates in different parts of England there were 3,000 allotments, and so far his practical experience was that they were a financial and social success. Between 1882 and 1892 the exodus from the nineteen parishes around Spalding was 2,500; between 1892 and 1902, when the system of small holdings was in full swing, the exodus had fallen to 150. At Spalding he had 650 acres let to 202 tenants at a rent of £1,325, and the unpaid rents at the present time only amounted to £6 6s., while the tenants had deposits in the credit bank amounting to £230. They were mostly agricultural labourers, and had so much improved their social position that they no longer wished to live in the cottages, but had asked him to build better houses; this he was doing, not on a charitable but on a practical basis. The cottages thus vacated were being occupied by other agricultural labourers, who he hoped in time would follow their predecessors into houses of a better type. His experience showed that if holdings could be given to agricultural labourers they could be kept on the land, and the overcrowding of towns, which was becoming a danger to the community, be thus checked.

THE

British Medical Association.

ANNUAL MEETING AT TORONTO,

August 21st—25th, 1906.

ATLANTIC OCEAN PASSAGE.

THE price of first-class accommodation by the principal Atlantic steamship lines varies according to the position of the cabin and the number of occupants. As has already been stated, the companies have decided that a reduction cannot be made below the minimum price of the first-class fare, but they have felt themselves at liberty to promise to allot berths or cabins of a higher category than the fare charged would ordinarily command. Return tickets from Liverpool to Quebec and Montreal issued by the Canadian-Pacific Line and by the Allan Line allow the holder the option of coming back by the Cunard Line from Boston or New York on paying the difference in fare, if any.

Information as to rates for the Atlantic passage can be obtained from the Canadian Pacific Railway, 62, Charing Cross, London, W.C.; Allan Brothers and Co., 16, James Street, Liverpool; Ismay, Imrie and Co., 1, Cockspur Street, S.W., and 30, James Street, Liverpool (White Star Line); and the Cunard Company, Water Street, Liverpool. Tickets can also be obtained through Messrs. T. Cook and Son, Ludgate Circus, London, E.C.; or Messrs. Stockwell and Co., 8, Beak Street, Regent Street, London, W.

SPECIAL RAILWAY AND STEAMSHIP RATES IN CANADA.

It is announced that subject to certain formalities which need not be detailed here, and the concurrence of certain parties interested, first-class tickets good for travel up to September 30th will be issued in Canada (between July 1st and September 30th) to members of the British Medical Association at special fares as follows:

Single	Half Fare.
Return...	One Fare.

The current issue of the Canadian Pacific Railway Co.'s tariff shows that ordinary fares quoted in Europe for conveyance from the Canadian landing ports, Quebec or Montreal, are as follows:

	From Montreal.	*From Quebec.*
Toronto	£1 15 5	£1 15 5
Winnipeg...	8 10 10	8 10 10
Banff	14 11 1	14 11 1
Vancouver, B.C.... ...	16 4 0	16 6 1
Victoria, B.C.	16 4 0	16 6 1

Passengers to or from certain points in Canada—for example, stations in Manitoba or British Columbia—have the option of travelling all-rail or lake-and-rail. Members of the British Medical Association holding through railway tickers but electing to use the Canadian Pacific Railway Company's upper lake steamers between Owen Sound and Fort William will be charged an additional amount to cover cost of meals and berths, as follows:

Single trip ...	$4.25 =	£0 17 9
Return ,, ...	8.50 =	1 15 5

Holders of return rail tickets to Toronto, or *via* Toronto, may travel by Richelieu and Ontario Navigation Company's steamers back to Montreal upon surrender of ticket to purser and extra payment, as follows:

From Toronto ..	$6.50 =	£1 7 1
,, Kingston ...	3.50 =	0 14 7

Meals and sleeping berths on train journey are extra in all cases. The dinner on the train usually costs 4s.; the other meals are *à la carte*. The sleeping-car fares for the single journey from Montreal are as follows:

Toronto	$ 2 =	£0 8 4
Winnipeg	8 =	1 13 4
Banff	14 =	2 18 4
Vancouver, B.C. ...	18 =	3 15 0

Members on this side of the Atlantic who are thinking of attending the Annual Meeting are requested to send their names as early as possible to the General Secretary of the British Medical Association, 429, Strand, London, W.C., who will keep them informed of all arrangements made for their convenience.

TOURS BY THE CANADIAN PACIFIC RAILWAY.

The Canadian Pacific Railway Company issues a number of pamphlets for the information of tourists and travellers, and any one of them can, we understand, be obtained on application to Mr. F. W. Flanagan, General Passenger Agent, Canadian Pacific Railway, 62 to 65, Charing Cross, London, S.W.

The most comprehensive of these handbooks is the *Annotated Time Table*, showing the times of trains from Quebec or Halifax to Montreal, and thence to Toronto, and also the great transcontinental route from Montreal to Vancouver, the terminus of the railway on the Pacific coast. The annotations consist of a running description of the country through which the railway passes; the distance from Montreal to Vancouver is 2,904 miles, and the train which leaves Montreal on Monday morning arrives in Vancouver at mid-day on Saturday. The traveller who means to go from Toronto to Vancouver will, however, probably prefer to go by train to Owen Sound on Lake Huron (122 miles), thence by one of the large C.P.R. steamers through the Soo Canal, a short waterway which connects Lake Huron with Lake Superior, and across Lake Superior to Port Arthur, where the train which leaves Montreal on Monday is due on Tuesday evening; or he may, if he dreads the sea—for it can be rough on Lake Superior—take the direct rail route through the Muskoka country to North Bay, due north of Toronto, where the west-bound transcontinental train is timed to arrive on the evening of the day it left Montreal.

Further west a number of alternative routes are open to the traveller who is not in a hurry, and from the *Annotated Time Table* and *Folder E*, which gives current times, he will be able to work out any tours longer or shorter. In this he will be assisted by another handbook, also issued by the Canadian Pacific Railway, entitled, *Summer Tours*, which gives a description of a number of districts now opened up to the tourist, and particulars as to fares. Another pamphlet, entitled *The New Highway to the Orient*, contains an illustrated description of the country through which the great transcontinental line passes from Montreal to Vancouver and Vancouver Island.

Another useful handbook is a pamphlet on the *Climates and Health Resorts of Canada* by Dr. P. H. Brice, Medical Inspector for the Departments of Immigration and Indian Affairs to the Dominion Government. The tenth edition was issued last May. It contains a general description of the physical geography of Canada, and has chapters on the climate of (1) the maritime provinces and Lower St. Lawrence; (2) the Upper St. Lawrence and Great Lakes; (3) the inland forest areas; (4) the prairies of the North-West; (5) the Rocky and Selkirk Mountains; (6) the Pacific coast; and (7) the Yukon. There are immense variations in the character of the climate in different parts of Canada, and while it is true that on the whole summers are hotter and winters colder and drier than in this country, yet it is obvious that no general statement can be made with regard to so immense a range of country.

The handbooks to which reference has been made give some particulars with regard to sport, but fuller information will be found in the pamphlet on *Fishing and Shooting*, also issued by the Canadian Pacific Railway, revised down to June last, together with the *Sportsman's Map of the Dominion of Canada*. The mountain lover or the mountain climber will find much to stimulate his imagination in a pamphlet issued by the Minister of the Interior, entitled *The Canadian National Park*, and in a small illustrated volume published by the Canadian Pacific Railway, entitled *The Challenge of the Mountains*, giving particulars of the Rocky and more especially of the Selkirk chains.

MEDICAL SENATORS IN FRANCE.—At the partial election held last month to fill up 103 vacancies created by the retirement of members or by death in the French Senate, ten seats were gained by medical men. These are Drs. Aubry (Constantine), Daniel (Mayenne), Flaissière (Bouches-du-Rhône), Lannelongue (Gers), Lourties (Landes), Petitjean (Nièvre), Rey (Lot), Reymond (Loire), Sancet (Gers), Viger (Loiret). Of these, six now enter the Senate for the first time. Before the election there were forty-two medical senators; now there are forty-four. Three former members did not stand again, and one has died within the last six months.

HOSPITAL SUBSCRIBERS' LETTERS.

THE subject of Hospital Subscribers' Letters was considered at a special meeting of the Council of the Charity Organization Society held at Denison House, Vauxhall Bridge Road, on February 12th, when the chair was taken by Sir **EDWARD BRABROOK**.

Dr. **MICHAEL BEVERLEY**, late Chairman of the Hospitals Committee of the British Medical Association, sent a letter, in which he pointed out that the Hospitals Committee of the British Medical Association had recommended the abolition of hospital subscribers' letters.

Mr. **NELSON HARDY**, F.R.C.S.E., then read a paper on the subject. He pointed out that no medical man, or body of medical men, by whom the subject had been examined in recent years, had hesitated to condemn the system of subscribers' recommendations as a fruitful source of hospital abuse. Thus, in 1896, the Hospital Reform Association, of which Dr. Garrett Horder was the Honorary Secretary, resolved that:

> Inasmuch as there is strong evidence that the letters or recommendations of subscribers for the out-patient department are much misused, the Association is of opinion that the best course for hospitals to adopt is to abolish such letters or recommendations, and to consider each case from the point of view of its suitability for gratuitous hospital treatment.

More recently the Hospitals Committee of the British Medical Association recommended "that the production of subscribers' letters shall cease to be compulsory, and that, where possible, the system shall be abolished." Again, during last year the South London Hospitals Committee, which in view of the intended removal of King's College Hospital into their midst has been engaged in drawing up recommendations as to hospital management, placed first of all this: "That there shall be no issue of subscribers' letters," stating that evidence showed that subscribers' letters were a source of hospital abuse, owing to their being given to persons able to pay for medical advice, or to those suffering from illnesses unsuitable for hospital treatment. If additional evidence of abuse were required, it was only necessary to apply to some of the medical staff of one of the hospitals where the recommendation system is still carried on. Thus a friend on the staff of one of these hospitals wrote:

> The evil to which I referred in connexion with subscribers' etters at the —— Hospital, is the use made of the letters very frequently by persons unsuitable for hospital relief. They obtain a letter from a subscriber who does not take the pains o inquire whether the recipient of it is a suitable person. On several occasions I have called the attention of the Secretary o the matter by returning the letters to him marked, "Unsuitable for hospital relief," but without any effect. On speaking o him upon the subject, he pointed out that subscribers to the hospital received these letters, and that any interference on his part with the use of them would probably entail a loss to he hospital of that particular subscription. I can affirm most trongly that from my experience of nearly three years at the — Hospital, I am of opinion that subscribers' letters are a ource of the greatest abuse.

There seemed to be no uniformity in the practice of hospitals, either as to requiring subscribers' letters of ecommendation from applicants, or as to the benefits hus secured to those who held them. At the three ndowed hospitals, at four other general hospitals, and at eventeen special hospitals, no subscribers' letters were reuired for in-patients or out-patients; the remaining thirteen general hospitals required subscribers' letters for their in-patients, but two of them admitted out-patients without letters, while twenty-seven special hospitals required recommendations; it was stated, however, before the Select Committee of the House of Lords that gravity of disease was the only true passport to the wards of general hositals. The subscribers' letters differed much in form: in some the subscribers recommended the patient conditionally upon the Hospital Committee considering him a proper object for the charity; in some the responsibility as to the patients' social fitness was thrown on the donor of the letter; on others, again, no statement was made as to the suitability of the applicant for relief. In he Report of the Select Committee of the House of Lords was noted that subscriptions were made to hospitals by friendly societies, provident institutions, and business stablishments, and notably by the Hospital Saturday und, with an express view of obtaining in return and aking full use of letters of admission.

Continuing, he said: At three of the general hospitals with schools, persons who give a donation of thirty guineas, or are annual subscribers of three guineas, are governors of the hospital, and are entitled at the first hospital to recommend nine patients annually, at the second, to have every year three in-patients' and six out-patients' letters, whilst at the third they have three in-patients' and eighteen out-patients' letters. Now, ignoring the cost of out-patients to each hospital as too trifling to trouble about—though it is very far indeed from being so in the aggregate—it was found that in No. 1 hospital the cost of an in-patient for a week was said to be £2 7s. 10d., so that if the subscribers' nine patients were admitted and kept for that time, he got £21 10s. 6d. value for his three guineas subscription; at No. 2 he got much less, £5 7s. 3d., each of the three in-patients costing £1 15s. 9d. a week; while at No. 3, where the cost of an in-patient was said to be £1 13s. 10d. a week, the subscribers obtained value to the amount of £5 1s. 6d. for their three guineas; and at all three hospitals donors of thirty guineas were entitled to similar privileges for the rest of their lives. Well might Colonel Montefiore, from whose paper on the subject these figures were borrowed, ask: "Is this business?"

When the Hospital Sunday and Hospital Saturday Funds commenced operations, they of course became entitled to receive subscribers' letters of recommendation, but in the case of the Hospital Sunday Fund it appears from their report that only one-half the number of recommendations is claimed that would be due to individual subscribers of similar amounts; even so, however, the figures would run into tens of thousands, and in the case of the Hospital Saturday Fund 36,000 letters were distributed in 1904.

The King Edward's Hospital Fund for London, on the other hand, receiving and distributing from £80,000 to £100,000 a year, does not require from participating hospitals or dispensaries any *quid pro quo* in the shape of letters of recommendation.

If the ideal system desired both by the Hospitals Committee of the British Medical Association and the South London Hospitals Committee were studied, there would be no difficulty in seeing why the system of subscribers' letters stands in the way. Out of a total London population of 4,613,812 the number of patients receiving medical relief at the different institutions in London, as given in Sir Henry Burdett's *Hospitals and Charities*, 1905, was 2,302,563; and it appears that whereas the population of London increased in the ten years 1894 to 1903 by 6 per cent., the number of patients increased by 23 per cent., or out of all proportion to the increase of population. The Committees desire that inability to pay for adequate treatment shall be the consideration for the admission of all patients to hospital treatment; but they might well despair of seeing this while thousands and tens of thousands of hospital letters are scattered broadcast among contributing congregations by the Hospital Sunday Fund or given to collectors to distribute by the Saturday Fund.

It was, moreover, considered very desirable, he said, to establish a system of consultations at hospitals, whereby obscure and interesting cases might be brought or sent with a note from local medical practitioners for an opinion when a consultation fee could not be paid, and the chief difficulty in the way of such an arrangement was the overcrowding of the out-patient department with cases of trivial accident or illness, which could be quite as well, or better, treated elsewhere.

No fear need be entertained that if subscribers' letters were abolished the supply of applicants for either the out-patient or in-patient department would fall too low. Sir Isambard Owen had given in the *Medical Magazine* an account of the working of the out-patient department of St. George's Hospital under the new system. No letters of recommendation were required, the case of every applicant being considered on its merits. Due attention was, however, given to personal communications from medical men, governors of the hospital, or other persons of recognized position. The distribution of tickets was made daily by the resident medical officer, a permanent salaried official of large experience. The principle of distribution was to give the tickets to the applicants whose cases were most urgently in need of treatment, provided that they were at the same time proper objects of medical charity. The hospital reliance was placed, in the first instance, on the discernment and judgement of its own experienced officers. Applicants obviously not fit recipients of hospital relief were dismissed at once by the Resident Medical Officer; doubtful cases were referred by him to the Secretary. If the Secretary found himself in any case not in a position to judge, the patient was temporarily relieved, and his case referred to the Charity Organization Society for report before treatment was continued. Recipients of tickets were subsequently seen, examined, and treated, either as in-patients or out-patients, by the physician, surgeon, or specialist of the day, and treatment was continued as long as he might deem necessary.

The experience of those hospitals which had tried the new system seemed to show that no material loss of subscriptions resulted from its adoption, and that any that occurred was soon more than made up for by new subscribers.

On the whole, then, it was reasonable to hope that when all the facts were laid before the authorities of the Hospital Sunday and Hospital Saturday Funds, they, as well as ordinary subscribers, would recognize that in this matter the authorities of the King Edward's Hospital Fund had, by their example in not asking for hospital letters, pointed out to them and others what is, in the interest of all concerned, the more excellent way.

Dr. TIRARD said that the question went back to the days of the dispensary quarrel between the Royal College of Physicians and the Society of Apothecaries as to who should recommend the people to receive gratuitous relief. Dr. Tirard quoted from the *History of the Society of Apothecaries* a passage stating that relief should be given to "all such poor who shall bring certificates with them from either any of the Aldermen, Deputies, Common Councilmen, Churchwardens, or Overseers for the poor, that they are fit objects of charity." That was in 1675, and nearly twenty years later the Apothecaries asked the College of Physicians who was to recommend fitting objects for charity, and the answer returned was the Ministers, Churchwardens, and Overseers of the poor, "as knowing the poor and their necessity." Dr. Tirard mentioned that the first notice of subscribers' letters, according to Traill's book on *Social England*, showed that the benefit was intended for the subscriber, and he quoted from the fourth volume of that work the following passage: "When small-pox broke out among the domestics of a great house, they were sent to private homes kept by 'nurses,' and it was chiefly to accommodate the domestics and other immediate dependents of the rich that the first small-pox hospital was opened about the middle of the eighteenth century, the admission to it being by subscribers' letters." Dr. Tirard further objected to subscribers' letters being spoken of as letters of admission, whereas they were really letters of recommendation. He contended that if it was impossible to do without subscribers' letters, the letters should be sent to medical practitioners in poor districts because they were the best judges of suitable cases for treatment; but it was also to be remembered that a medical man could always send a patient to hospital by giving his card.

Dr. ARTHUR LATHAM said that special hospitals were maintained for the cure of patients who applied for admission rather than to act as asylums for incurable cases. In a disease like consumption, where treatment should be commenced at the very earliest possible moment, subscribers' letters did harm by delaying the admission of cases. Sometimes a patient had to wait for several weeks or months, and the disease might have made such rapid progress that relief so far as cure was concerned was hopeless. The system of subscribers' letters favoured the abuse of hospitals; he had seen a patient whom he had treated in hospital giving a dinner party in one of the most expensive hotels in London in the following week. The letters were also used by unscrupulous tradesmen for pushing the sale of their goods. The system of subscribers' letters had been given up at the London Hospital with the result that the income of that institution had increased rather than decreased. He urged that there was a great opening in London for a hospital conducted on an insurance basis. It would, he said, appeal to clerks and others in similar positions of life who "fought shy" of going into ordinary hospitals.

Mr. EDMUND OWEN contended that although Dr. Tirard was right in pointing out that the subscribers' letters were letters of recommendation, nevertheless, as a matter of fact, in many cases the letter amounted to a command for the admission of the patient. Mr. Owen condemned in forcible terms the practice of sending wretched patients away from hospital until they could find subscribers' letters, and also explained how the system led to the subscribers themselves being cheated by begging patients. He related how his dressers told him with indignation of patients in his ward who lunched sumptuously every day at the same restaurant where his dressers contented themselves with bread and cheese. The issue of the letters was a nuisance to the hospital authorities.

Sir EDMUND CURRIE said that personally he was heart and soul for doing away with all letters, but, as Secretary to the Hospital Sunday Fund, he could not voice that opinion. If small hospitals were to exist, he did not see how they could do so without the letter system. He was convinced that there was not the amount of abuse of letters that was generally supposed.

Mr. R. B. CHAPMAN, member of the Committee of Management of the Brompton Hospital, said he would like to see the system of subscribers' letters abolished, but he was afraid that it would be some time before that desirable result could be obtained.

Sir WILLIAM BOUSFIELD, in the course of some remarks, said that the letter system was doomed, and Mr. P. ARMYTAGE, Chairman of the House Committee of the Belgrave Hospital for Children, testified to the fact that the system of no subscribers' letters worked perfectly well. The abolition of the letters at his hospital had not caused a fall in the subscriptions; it had even resulted in an increase.

THE INFANT LIFE PROTECTION ACT, 1897.

A DEPUTATION representing the Poor-law Unions Association had an interview on February 7th with Mr. H. SAMUEL, M.P., Under-Secretary for Home Affairs, to urge the necessity for an amendment of the Infant Life Protection Act, 1897. The Association represents more than half the unions of England and Wales, and includes nearly all large unions.

Mr. BROWN, of Dewsbury, President of the Poor-law Unions Association, pointed that experience proved that the Act failed to attain the object desired. To make it effective it would be necessary (1) to extend its provisions to cases in which only one child was taken in to be nursed or maintained in consideration of the payment of a lump sum of money, (2) to repeal the clause which limited inspection to cases in which the lump sum paid was less than £20, (3) to raise the age-limit to 7 years, (4) to make notification of the reception of an infant under such conditions compulsory under heavy penalties, and (5) to give power to the local authority to remove a child so received if found to be improperly cared for.

Dr. J. MILSON RHODES called attention to the report for last year of Miss Frances Zanetti, Inspector to the Chorlton Union under the Infant Life Protection Act, in which it was stated that the prosecution of a woman in Chorlton had brought to light the fact that the persons responsible for placing a baby with her had been practising baby farming on a considerable scale. They inserted advertisements in Scottish and Yorkshire papers, offering to adopt a child in consideration of a lump sum, and in the Manchester papers asking for a home in which a baby could be taken at a small premium. They had thus received, with various sums, seven or eight babies, whom they handed on to other persons, making a profit which in one case amounted to £54. These persons escaped punishment, and the woman prosecuted would also have escaped all punishment had not the National Society for the Prevention of Cruelty to Children prosecuted her for neglect. On this charge she was sentenced to three months' imprisonment. Dr. Rhodes urged the adoption of a clause similar to that in force in Massachusetts, which, he said, was as follows:

> Whoever receives under his care or control, and whoever places under the care or control of another for compensation, an infant under 2 years of age which is not related by blood or marriage to the person receiving it, shall, within two days thereafter, give notice, and of the terms upon which such infant was received, to the State Board, with the name, age, residence of the infant, its parents, and the person from whom or by whom respectively it was received.

Mr. SAMUEL, in his reply, admitted that an amendment of the Act was necessary on many points, and said that if a non-contentious Bill was introduced it was probable that the Government would not oppose it. The extension of the provisions of the Act to cases in which only one child was received was, however, opposed by the London Diocesan Association, the London County Council, and some Boards of Guardians. He thought that the Poor-law Unions Association should come to an understanding with the Public Control Committee of the London County Council as to drafting a Bill omitting the proposal to extend the Act to cases in which one child only was received. If this plan were not followed he thought the only course would be to refer the matter to a Departmental Committee or to a Select Committee of the House of Commons.

MEDICAL NEWS.

The King has been graciously pleased to confer the decoration of the Royal Red Cross upon Mrs. Eleanor Mary Hatch, in recognition of her services in nursing and attending those injured in the earthquake which occurred at Dharmsala on April 4th, 1905.

The late Mr. John Orrell of Chester left £100 to the Stanley Hospital, Liverpool.

At a meeting of the Royal Meteorological Society on Wednesday next at 7.30 p.m., Dr. W. B. Newton will read a paper on the dispersal or prevention of fogs.

The estate of the late Mr. Thomas Platt, Consulting Surgeon to Oldham Infirmary, who died on December 29th, 1905, has been sworn at £29,654 net.

The authorities of St. Mary's Hospital have received from an anonymous source a donation of £1,000 towards the sum required for furnishing and opening the New Clarence Wing.

At the meeting of the Royal Microscopical Society at 20, Hanover Square, on Wednesday next, at 8 p.m., Mr. H. Taverner will read a paper on an improved method of taking stereo-photomicrographs and of mounting the prints.

An International Congress of School Vacation Colonies will be held at Bordeaux during the Easter holidays. It will be presided over by Professor Pitres, Dean of the Medical Faculty of the University of Bordeaux.

The King of Spain has made H.R.H. Prince Ludwig Ferdinand of Bavaria, M.D., an Honorary Sanitary Inspector of the First Class, a rank equivalent to that of Surgeon-General, in the Sanitary Corps (Medical Service) of the Spanish Army. This is the first time, as far as we are aware, that such a distinction has been conferred on a member of a reigning Royal Family.

Mrs. Eliza Maria Pike of Derby, who died on December 8th, 1905, left £1,000 each to the Derbyshire Royal Infirmary and the Derbyshire Hospital for Sick Children; £500 to the Midland Deaf and Dumb Institute at Derby; £300 to the Home of Rest for the Dying, Derby; and £200 to the Convalescent Home, Holbrook.

The late Dr. Francis H. Parsons, of St. Leonards-on-Sea, has bequeathed £100 each to the British Medical Benevolent Fund, the Royal Maternity Charity, the Edinburgh Medical Missionary Society, and the Samaritan Free Hospital, London.

The next meeting of the Therapeutical Society will be held on February 20th at the Apothecaries' Hall, at 4.30 p.m. The meeting will take the form of an afternoon *conversazione*, and lantern demonstrations of the preparation of the antidiphtherial serum, of clouds and climate, and of some uses of high-frequency currents will be given. Ladies will be admitted.

We are asked to state that Professor Rubert Boyce will give an address at the International Congress of Medicine at Lisbon on the prophylaxis of yellow fever. The address will be founded on Professor Boyce's personal observations of the 1905 epidemic in Central America and New Orleans. It will be in place of the address promised by Sir Patrick Manson, who is unavoidably prevented from attending the Congress.

The officers of the Obstetrical Society for the year 1906, as announced at the annual meeting on February 7th, are: *President*, Dr. W. R. Dakin; *Vice-Presidents*, Messrs. M. Handfield-Jones, A. Routh, A. C. Butler-Smythe, and Sir W. J. Sinclair; *Treasurer*, Dr. G. E. Herman; *Editor of the "Transactions,"* Dr. H. R. Spencer; *Honorary Secretaries*, Drs. R. Boxall and A. H. N. Lewers; *Honorary Librarian*, Dr. W. J. Gow. There are also eighteen members of Council.

A meeting of the Assistants of the Society of Apothecaries will be held on Wednesday next, at 8 p.m., in the Court Room of the Society's Hall, Blackfriars, E.C., for the purpose of founding an association, confirming constitution and rules, and enrolling members. Ladies and gentlemen desirous of becoming members but unable to attend are asked to communicate (if they have not already done so) with the Honorary Secretary, Mr. Albert Howell, Hackney Dispensary, Rosebery Place, Dalston, N.E. The subscription is fixed at 2s. 6d. a year.

Hitherto the South of Spain, in spite of the attraction of such places as Seville and the Alhambra, has remained unfamiliar ground to the majority even of those who know their Europe well. There has been too much worry and expenditure of time and money attaching to Spanish tours. In future, however, South Spain seems likely to see as much of the English traveller as the other places, for the managers of the Booth Steamship Company have recently completed arrangements which enable the principal towns of Portugal and South Spain to be explored in comfort by any holiday-maker with £35 and twenty-five days at his disposal.

At a meeting at the Mansion House of the Metropolitan Hospital Sunday Fund on February 8th it was stated that the sum received by the Fund last year was £78,379. This is a larger amount than has ever been received before. It was arranged to hold a special meeting of the Distribution Committee on February 15th to consider the growing increase of out-patients at the London hospitals. The outcome of this meeting, which is in progress as we go to press, will be awaited with interest, more especially as some supporters of the Fund seem to be in doubt as to whether there is much real and growing abuse of medical charities by out-patients. No corresponding doubt was evident at another meeting, which by coincidence was held at the Mansion House the same day. At this, the seventieth annual meeting of the supporters of St. Mark's Hospital, Sir Richard Martin, the Treasurer of the institution, made remarks on the subject of out-patient abuse which were greeted with much applause. There appeared, he said, to have been great abuse of London hospitals by out-patients who were not entitled to share their benefits. They used them to the detriment of really poor people, and it was unfair that local practitioners, who had spent much time and money in acquiring surgical and medical experience and knowledge, should be subjected to unfair competition in such a way.

The Automobile Club of Great Britain and Ireland has decided to hold a series of tyre trials, beginning on February 26th. The results should prove extremely useful, as well as interesting, to many of our readers, since to medical men tyre failures are liable to be of much more serious moment than to the majority of the users of automobiles. Indeed, the danger of a breakdown, and of more or less prolonged delay from this cause, constitutes one of the principal objections to substituting a car for a horse-drawn vehicle for professional use. The competing tyres are to be divided into four classes according to the weight they are intended to carry. That which has most interest, perhaps, for medical men is Class A, for tyres designed to carry not less than 1,500 lb. This is about the weight of the smaller type of car of from six to twelve horse-power when loaded with two or three passengers. These trials are the first public trials of tyres by any uninterested persons, and they come by no means too soon. The number of different makes of tyre on the market is considerable, and all of them have records to show that they have run thousands of miles without any evidence of material wear or a single failure. Nevertheless, when placed on the car of a private user, somehow or other, they all of them fail in turn. What particular make of tyre to order is, therefore, one more addition to the many problems which the prospective buyer of a car has to attempt to answer. It will probably be long before an ideal tyre is produced, but trials such as these will certainly stimulate invention and meanwhile give the purchaser at least some clue as to which of the many at present on the market is least likely to fail in practice.

A Ministry of Health for Canada.—In his annual report for 1905, Dr. Montizambert, Director-General of Public Health for Canada, again urges the importance of establishing a Dominion Department of Public Health under a responsible Minister of the Crown, so that all matters affecting the health of the Dominion may be consolidated under one head.

Presentation.—On the occasion of his having to leave Birmingham through ill-health and remove to Weston-super-Mare, Dr. H. R. Leech, J.P., has been presented by his professional colleagues, patients and other friends, with an address containing the names of subscribers, a piece of plate, and a purse of money in testimony of the high esteem in which he is held. Dr. Mann, the Chairman of the Committee, has consented to visit Weston-super-Mare, in order to make the presentation to Dr. Leech.

International Exposition at Antwerp.—An International Exposition, in which discoveries and inventions relating to medicine and hygiene will have a prominent place, is to be held at Antwerp in April and May of the present year, under the patronage of H.R.H. the Countess of Flanders. Communications should be addressed to the Secretary's Office, 26, Rue d'Arenberg, Antwerp.

Female Medical Graduates in Switzerland.—Of 79 theses for the degree of Doctor of Medicine presented to the Universities of Geneva and Lausanne during 1905, no fewer than 42 were offered by women. If we may judge from the names of the authors, all but some half a dozen of the ladies were Russians or Poles.

The Investigation of Syphilis.— Members of the German Reichrat, representing the most widely different political parties, have introduced a Bill into the Chamber providing for the allocation of a sum of £5,000 to Professor Neisser of Breslau for further investigations on syphilis in the light of recent researches.

Exhibition of Criminal Anthropology.—In connexion with the Sixth International Congress of Criminal Anthropology, which is to be held at Turin in the later days of April, Professors Cesare Lombroso and Romeo Fusari are organizing an exhibition which is intended to be a "plastic documentation" of everything relating to crime and criminals, and scientific police.

Medical Politics in Italy.—Under the auspices of the medical group in the Italian Parliament a Congress of all associations in Italy having to do with medicine and the allied professions will be held in Rome on March 26th, 27th, and 28th. The object of the meeting is to discuss measures of legislation for the protection of the public health and the defence of professional interests. The Congress will be divided into three principal sections—medical, veterinary, and pharmaceutical. These will be at liberty to subdivide themselves as they may think best.

Medical Inspection of Schools in the Transvaal.—We learn from the *Transvaal Medical Journal* that a committee, of which the Mayor is chairman, has been formed in Johannesburg for the purpose of urging on the Government the necessity of adopting a scheme for the medical inspection of school children in the Transvaal. The Education Department has had the matter under consideration for some time, and it is said that but for financial difficulties some system of inspection would have been established shortly after the war.

The Poor-Law Commission.—Mr. Francis Chandler, J.P., who has been appointed an additional member of the Royal Commission upon the Poor Law, is the General Secretary of the Carpenters' and Joiners' Union, and has been for the past thirteen years a member of the Chorlton Board of Guardians, of which he is at present Chairman. He has done excellent work on the Board, especially in regard to the hospitals, homes, and epileptic colony established by the guardians during the last six years, and his practical knowledge of the administration of the Poor Law in one of the largest unions in England, will be of value to the Commission.

A Memorial to Liébault.—A bust of Liébault, founder of the Nancy School of Psychotherapy, was unveiled on February 8th in the Ecole de Psychologie, Paris. The movement for the erection of the memorial was under the honorary presidency of the Minister of Public Instruction and M. Berthelot, Perpetual Secretary of the Académie des Sciences. Dr. Voisin, of the Salpêtrière, presided at the ceremony of unveiling the bust, and among those present were: M. Mesureur, Director of the Assistance Publique; Madame Paul Bert; Senor Cornejo, Minister Plenipotentiary of Peru; Dr. Felix Regnault, Dr. Binet-Sanglé, and a number of persons notable in different spheres of activity.

Congresses of the Year.—The Congresses dealing with matters directly relating to or closely allied with the science and art of healing to be held this year are as follows: In March the German Balneological Society will hold its twenty-sixth annual meeting at Dresden; in April the German Congress of Internal Medicine will hold its twenty-third meeting at Munich, while the German Surgical Society will hold its thirty-fourth, the German Orthopaedic Society its fifth, and the German Roentgen Society its second annual congress in Berlin. In the same month will be held the International Congress of Anthropology at Monaco, the fifteenth International Medical Congress at Lisbon, the sixth International Congress of Criminal Anthropology at Turin, the Congress of Experimental Psychology at Würzburg, the International Congress of Applied Chemistry in Rome, and the Congress of Scientific Societies in Paris. On the last day of April the Congress for the Repression of Unqualified Medical Practice will meet in Paris. In June an International Congress on Industrial Diseases will be held in Milan, and the French-speaking practitioners in Canada will hold their third annual meeting at Trois-Rivières. In August the British Medical Association will hold its seventy-fourth annual meeting at Toronto. In September the third International Congress of Medical Electrology and Radiology will be held in Milan, where, too, will be held a national Congress on Pellagra and the means of checking the ravages of that disease, and an international one on the Treatment of the Insane. In the same month the fourth International Congress on Life Assurance in its medical relations will take place in Berlin, the tenth Anti-alcohol Congress will be held at Budapest, and a Congress on Cancer at Heidelberg. In October the French Congress of Surgery will meet at Angers, and in the same month the Italian Congress of Internal Medicine will be held in Rome. The German Association of Scientists and Medical Practitioners, and the British and French Associations for the Advancement of Science, each of which has one or more sections concerning itself with medical science, will be held as usual in the summer and autumn.

Rockefeller Institute Scholarships.—We are asked to state that the Rockefeller Institute for Medical Research purposes to award for the year 1906-7 a limited number of scholarships and fellowships for work to be carried on in the laboratories of the Institute in New York City, under the following conditions. The scholarships and fellowships will be granted to assist investigations in experimental pathology, bacteriology, medical zoology, physiology, and pharmacology, and physiological and pathological chemistry. They are open to men and women properly qualified to undertake research work in any of the above-mentioned subjects and are granted for one year. The value of these scholarships and fellowships ranges from 600 dols. (£120) to 1,000 dols. (£200). It is expected that holders of the scholaships and fellowships will devote their entire time to research. Applications, accompanied by proper credentials, should be in the hands of the Secretary of the Rockefeller Institute, Dr. L. Emmett Holt, 127, East 50th Street, New York City, not later than April 1st. The announcement of the appointments is made about May 15th. The term of service begins preferably on October 1st, but, by special arrangement, may be begun at another time.

Pretoria Pit Disaster at Clackmannan.—On February 3rd, at 9.30 a.m., this pit was flooded and five men entombed. The men were in the lower seam, and the water was 10 ft. above the door-head of that seam. Upon search being made in the upper seam knocking was heard, and after studying the plans Mr. McLaren, Chief Inspector of Mines for the East of Scotland, decided to put through a bore hole 3 in. in diameter, and then to sink a dumb shaft and save the men. This was a tremendous task, the substrata between the two seams being 36 ft. of hard rock. It was, however, accomplished by February 6th, at 8.15 p.m., and Dr. James Robertson took charge of the three men thus saved. The men, however, were being fed through the bore-hole from 3 a.m. on February 5th. Through this bovril, soup, hard-boiled eggs, tea, stimulants, and dry socks were passed. The anxiety now was for the remaining two, who were entombed about 155 yd. away from the dumb shaft. To get to them it was necessary to descend the dumb shaft and crawl along a passage forming two sides of a triangle; one side was about 80 yd. long, 5 ft. broad, 2 ft. 3 in. high; the second side, about 75 yd. long, 4 ft. broad, and 18 in. to 20 in. high, was filled with fallen débris, which had to be cleared away. When within 5 ft. of the men a large boulder necessitated several hours' manual labour to get round it. During this process black damp (CO_2) swept over the party, causing the entombed men to faint, and affecting the willing and heroic rescuers; putting all the lights out, and not even lighting a match, getting along the passages somehow, and reaching the dumb shaft after many blows from stones falling here and there every time, the roof or sides were touched Dr. Robertson got to the surface, procured a cylinder of oxygen, and, accompanied by a few men, descended the pit, reached the dumb shaft, passed down into the foul atmosphere, and proceeded to the entombed men. As will readily be understood, it was no easy task to drag the heavy cylinder, crawling along the passages in darkness struggling for breath, but the oxygen was carried to within 3 ft. of the entombed men, and within a few minutes the situation was saved; the men breathed freely, lights were set agoing, and in a short time the men were rescued. The incident illustrates the importance of having cylinders of oxygen ready for such an emergency. If the oxygen had not been there the two men would have been suffocated and at least one of the rescue party.

British Medical Journal.

SATURDAY, FEBRUARY 17TH, 1906.

THE VALUE OF PROTEID DIET.

THERE always have been, and always will be, fads and faddists; it is only their form that changes, and the facts that at the present time the crank who is following some special form of diet is particularly common, and that the halfpenny newspapers devote their columns to discussions of the respective merits of Vegetarianism, Fruitarianism, Nutarianism, the No-breakfast plan, the Salisbury diet, the Haig diet, and other dogmatic systems, only show how much popular interest is taken in these subjects. Medical practitioners must often find themselves at a loss to answer the questions put to them by their patients or to give anything like a scientific explanation of the alleged results of systems which at first sight seem only to agree in the marvellous success claimed for them. Many contravene the rules which have been laid down with practical unanimity by recognized dietetic authorities, while some have produced a certain amount of evidence in support of their maxims, in opposition to orthodox dietetic opinion. It is, therefore, desirable that the discussion should be reopened and all our conclusions reconsidered from their foundations.

We have assumed that the diets of various races of mankind as we meet with them to-day are based upon principles which, consciously or unconsciously, have been deduced from a vast series of experiments extending back into the remotest times, and, in consequence, represent the best attainable under the circumstances. If we find that the inhabitants of one country live principally upon vegetables with little or no animal food, while in another the reverse practice exists, we have accepted this as indicating that the climate and other circumstances require and account for the different modes of feeding. Moreover, as all peoples are not equally well situated for obtaining food; as many are habitually underfed and suffer frequently from famine, and as it has been the main object of civilization to render the food supply less precarious, to develop its amount, and to improve its quality—the struggle which was so well illustrated by Malthus in his famous essay, now too seldom read—so those nations which have been able to secure an abundant supply of the best food have thought themselves justly entitled to make free use of it, and have hardly considered whether, in its excessive indulgence, there may not lie as great a danger as in the deficiency which cost them so many anxious years and such a large expenditure of energy to escape.

Man is most nearly allied to the frugivorous apes by his general structure and his dentition, and when and where he first appeared upon this planet his diet was probably similar to that of those animals in the present day, but as he ranged further and further from his primitive home he must have been driven by hunger to make trial of other kinds of food, and as his intelligence advanced and he acquired the art of cookery he added to his diet many substances which were uneatable by him in his primitive condition. It is tempting to let imagination wander through the paths by which our present varied diet may be supposed to have been acquired, but such an excursus would be of doubtful value, and for the present purpose it is sufficient if we accept the fact that in our own country we have for some hundreds of years lived on a diet consisting largely of animal food and that this has been generally accepted as, if not strictly necessary, at least the best for all able to procure it, on the ground that it possesses the most stimulating properties and enables those who live upon it to respond with least wear and tear to the greatest calls upon them whether physical or mental. From time to time there have been persons bold enough to dispute the popular view, like Luigi Cornaro, who demonstrated on what a sparing diet life might be maintained even to extreme old age. But not only has their teaching been rejected by the public, but it has found no support from medical science, all works on dietetics uniting to testify to the great value of abundance of animal food and to its importance in the construction of any dietary upon which hard work is to be done. A liberal allowance of meat is thus a characteristic of the scientifically constructed diets of soldiers, sailors, athletes and other persons whom it is desired to maintain at the highest standard of health and utmost fitness for physical exertion.

The amount of proteid considered indispensable for hard work is variously estimated to be from 100 to 150 grams, but these figures have been arrived at by taking the customary diet of different persons doing such work and calculating from these data the average quantity of proteid consumed by them, the assumption being made that as they practically represent the sum of the experience of many generations their conclusions might be accepted as correct. It has remained for Professor Chittenden[1] to attack this problem scientifically, untrammeled by any assumptions. His scepticism as to current doctrines appears to have been aroused by a visit from Mr. Horace Fletcher, an American gentleman resident for many years in Venice, who has thought out for himself certain principles in connexion with food and feeding by which he has not only freed himself from a long-standing digestive trouble but has been able to bring his body into a very high degree of physical fitness, so that at the age of 60, in the words of Professor Anderson, the Director of the Yale Gymnasium, "Mr. Fletcher can do the work of trained "athletes and not give marked evidences of over-exer-"tion; he performs this work with greater ease and "with fewer noticeable bad results than any man of his "age and condition I have ever worked with." Mr. Fletcher lays great stress upon slow and thorough mastication and complete insalivation of food, but the fact to which we wish to draw attention is that the average amount of proteid consumed by him when he was under constant observation by Professor Chittenden was only 41.25 grams, his body-weight remaining practically constant. Moreover, it was shown by careful examination that he was in perfect nitrogenous equilibrium, the daily intake amounting to 7.19 grams of nitrogen and the output to 6.90 grams, showing the small daily balance of 0.29 gram to the good.

This case led Professor Chittenden to investigate the subject more thoroughly; starting from this evidence that the current estimates of the necessary amount of proteid may be too high, he first of all experimented upon himself, beginning in November, 1902; at that time he was 47 years of age, weighed 65 kilos., and was in the habit of taking an ordinary mixed diet. This he gradually reduced, until his daily average of proteid was equal to 40 grams, and upon this quantity he has since continued to live. The general effect has been to reduce his weight to 58 kilos., "to cause the disappearance of a rheumatic "trouble in the knee which had persisted for a year and "a half, and of such minor troubles as sick headaches "and bilious attacks." He states that he has a greater appreciation of food, a keener appetite, and more acute taste. These results were obtained without entire abstinence from any particular article of food, except alcohol. His breakfast has since consisted of a cup of coffee, with cream and sugar; his lunch of chicken, or sausages, or fish, with potato, biscuits, and butter, puddings, coffee, or tea; his dinner of soup, lamb chop, or only bread and butter, vegetables, fruit tarts, and coffee. The average value in calories of his diet is 1,549, as against 2,000 to 2,500 generally supposed to be necessary for a moderately active person of his weight, while the average nitrogen is 5.806 grams instead of 16. He next extended his experiments to four of his colleagues in the Sheffield Scientific School, who were willing to co-operate, and he gives the results, which were practically identical with those in his own case, although being heavier men they naturally required a larger amount of food, but in no case did the amount of nitrogen excreted exceed 8.99 grams daily, which is very little over 50 per cent. of the usually accepted amount. His third experiment was on a detachment of men of the Hospital Corps of the United States army. Of the original twenty men, thirteen went through the experiment, which lasted six months. They were during the time kept under military discipline and subjected to the hard work of gymnastic training in the Yale University gymnasium. Their diet had to be regulated so as to please their palates and satisfy them, but this was done, while at the same time the amount of proteid was reduced by about 50 per cent., and the whole to a fuel value of 2,500 or 2,600 calories. The men were regularly weighed and measured and subjected to various dynamometrical tests, the result being that at the end of the time they had improved in every respect; in a few cases there was some loss of weight if the man had been somewhat fat at the start. Finally Professor Chittenden experimented with eight university athletes who volunteered for the purpose. They were all under training for athletic competitions, and took part in them while the experiments were going on. The results were in complete harmony with those already given. The reduction of proteid was to about 55 grams daily, and upon this diet they maintained their health and strength and showed decided increase of muscular power. The average food-value of their diets never exceeded 3,000 calories. The excretion of nitrogen averaged 8.8 grams.

---

[1] *Physiological Economy in Nutrition, with Special Reference to the Minimal Proteid Requirement of the Healthy Man: An Experimental Study.* By Russell H. Chittenden, Ph.D., LL.D., Sc.D. London: Wm. Heinemann. 1905.

The conclusions to be drawn from these remarkable experiments are that the current estimates of the quantity of proteid food necessary for hard muscular work are excessive, and that vigorous health and strength with daily hard work may be maintained upon diets which are not only poorer in proteid but lower in total fuel value than is generally supposed. It may be suggested that these results were due to difference of climate, but they were carried out at New Haven, Connecticut, which lies in a latitude very similar to our own, and were continued through a winter which, we are told, was "unusually trying," and is generally more severe than that of any part of the British Islands. Further, these results suggest that the successes claimed for so many apparently conflicting dietary systems depend upon the one point in which they all agree—that is, that they reduce the total quantity of food, particularly the proteid food, so we may conclude that reduction of quantity is of greater importance in diet than its chemical constitution. Further, these results throw a flood of light upon what seemed the paradoxical statements of Mr. Seebohm Rowntree, whose philanthropic investigation into the lives of the poorer classes was published in his well-known book on *Poverty*. His statistics have been quoted by both sides on political platforms to show the enormous proportion of the working classes in this country who are underfed, but no one who knew these classes as the medical profession does could help doubting whether the figures quoted did not conceal some fallacy. The truth is that Mr. Rowntree accepted the current estimate of 125 grams of proteid as the amount necessary for a labouring man; and when he found, as he did in many cases, that the diet contained 90 grams or less, he naturally concluded that the people were underfed; but in the light of Professor Chittenden's results, the amount of proteid in the diets of Mr. Rowntree's working people was generally more than enough, being usually considerably above, and only in a few cases below, the 50 grams which have been proved to be sufficient for the subject of these experiments.

MEDICAL INSPECTION OF SCHOOLS.

The report of the Surrey Education Medical Officer upon the medical supervision of elementary schools is reproduced in full elsewhere in this issue, partly in order to show the extent of the work such an officer has to face, and the impossibility of his carrying out efficiently the work which he is employed to do, and partly to open the eyes of those who believe that the question of medical inspection of schools is to be solved by the appointment of an education medical officer in each of the various counties. Medical inspection of schools covers a wide field, and really means constant supervision of each child in each school. The inspection of children once in three months or once in a month, or once in a week, would probably be sufficient if the object were to single out children suffering from marked physical or mental defects. But medical inspection in the true sense means more than this; it should aim at preventing the spread of infectious diseases in schools. Unfortunately measles, the after-consequences of which are perhaps more dangerous than those of any infectious disease, is not notifiable, nor are whooping-cough, German measles, chicken-pox, and mumps. But though not notifiable, these diseases are very common and very troublesome in schools, causing annoyance to the teacher, great loss in school attendance, and often great permanent damage to the children's health. No matter how capable and energetic the education medical officer may be, he cannot perform the impossible task of being, as in Surrey, in 245 schools on the same morning, and therefore the main object of medical inspection is missed. The appointment of education medical officers is a wise and useful measure; to them would fall general organization and supervision, the weighing and measuring of school children, and the keeping of careful records, the decision as to school closure, or other measures to be taken to prevent or deal with epidemics in particular schools, ventilation, cleansing, and disinfection of schools, and so on. But we repeat that in no other way can efficient medical inspection of school children be carried out than by the employment of local practitioners whose duty it will be to call each morning in the course of their rounds, and see, in a room set apart, such children as may be sent to them with suspicious symptoms by class teachers. There must be many young medical practitioners who would be ready to do the work at a moderate yearly salary, and the expenditure would be amply repaid by improved school attendance and better physique of the children, and eventually of the people. The idea that every child must necessarily have measles is dead and buried; prophylactic measures are wanted, and in handling vast numbers of children it is evident that no other means of individual examination than by local practitioners can solve the problem. We have the example of America, where admirable results have followed upon the adoption of this system. Meanwhile the responsibility falls upon the teacher, who, between the devil and the deep sea, now that the exclusion from school of children suffering from infectious diseases counts against school attendance and causes the loss of the grant, has to exercise a greater amount of independence of judgement and medical knowledge than can reasonably be looked for; men and women who have not received an atom of hygienic teaching cannot be expected to realize that to exclude children at once will mean ultimately the saving of all the loss an epidemic entails.

The report of the Inter-departmental Committee on Medical Inspection and Feeding of Children in Public Elementary Schools, while it records the inestimable value of the little that has been done in the way of medical inspection, served chiefly to demonstrate the inadequacy of the present provision, the relatively small number of authorities who have taken any definite steps, and the unequal way in which the work is done even amongst these.

The report, however, gives no clue to the actual proportion of elementary schools in the country for which medical inspection of any sort has been provided, although it is evident that the proportion is extremely small. If the county councils are taken as important and representative local education authorities, we find that out of 48 of these in England responsible for 12,774 schools with an average attendance of 1,776,022, two alone have approved of an organized scheme of medical inspection. Surrey, with 245 schools and an average attendance of 48,567, has appointed a medical officer giving the whole of his time to the Education ommittee at an estimated cost of £600 per annum, including salary and expenses. The West Riding of Yorkshire, with 878 schools and an average attendance of 166,665, has approved of the reorganization of the staff of the medical officer of health at an estimated increased cost of £600 to £650, including the appointment of an assistant medical officer.

We find that 31 county authorities, with 7,950 schools and an average attendance of 1,030,524, have not even discussed the question. In the remaining 15 counties, with 3,701 schools and 530,266 scholars, the question has been discussed, generally very briefly, and then either dropped or indefinitely postponed. Thus, for example, in one county with 336 schools and an average attendance of 56,763, a subcommittee appointed eighteen months ago recommended the appointment of two medical officers for the county. The Education Committee postponed consideration and it has not been brought up again. The Committee of another county, with 348 schools and 43,953 scholars, has decided to have the eyesight of the children examined on a system which will cost 1s. per department. In a county with 431 schools and an average attendance of 59,641, there is no provision for the county as a whole, but for three districts medical officers have been appointed, their salaries being £30, £75, and £5 respectively. In two other counties, responsible for 540 schools with 55,985 scholars, and 234 schools with 31,070 scholars, it has been decided to do nothing at present. Again, a county with 209 schools and 23,284 children has considered general inspection too costly.

It is evident that the authorities have in most cases been unable to apprehend the grave importance of the subject, and that without a definite lead from the Board of Education no improvement is likely to be made in the present condition of chaos. The position cannot be allowed to rest as it is, even the status of the medical officer requires to be put on a legal basis. The recent circular issued by the Board of Education in connexion with that of the Local Government Board under the Relief (School Children) Order, 1905, clearly contemplates, as within the scope of local education authorities, duties which can be carried out satisfactorily only in the presence of a definite system of medical inspection.

The Commission at present inquiring into the problems affecting the feeble-minded will, without the least doubt, still further emphasize the necessity for medical inspection by recommending the extension of the Act of 1899, so as to be compulsory upon all education authorities. It is, therefore, to be expected that the new Government will at once face this question of national importance and organize it upon a comprehensive basis.

There should be a Medical Department at the Board of Education. The health and well-being of the elementary school population has long suffered for want of this reform. Many of the departmental decisions obviously involve questions which require the keenest expert advice; we need only mention the abolition of Article 101* and the question of the lower age-limit of school attendance. But, in addition, practically ever document emanating from the Board has a medical import. Curricula should be adapted at each age to the capacity of the sense organs and the physiological requirements of the growing nervous system. Physical exercises require to be viewed almost entirely from the physiological side. The Board has agreed that the training of teachers in school hygiene is of paramount importance. These and numerous similar considerations, in conjunction with the need for co-ordination of medical inspection, demand the creation of such a department.

In the second place, no grant should be made on account of any school not included in a scheme of medical inspection approved by the Board. Each local authority should have a medical officer for schools, whose qualifications and whose duties should be defined. It is clear that many county authorities intend, if anything is done at all, to hand the work over to the medical officer of health. The Committee of one county authority, responsible for 230 schools and 40,837 scholars, has proposed that the county medical officer of health should be employed full time at £650, rising to £750, instead of about half time at £525. The council rejected the proposed rise to £750, and the medical officer of health has not yet accepted the post at £650. In another county, with 96 schools and 27,420 scholars, the county medical officer of health is the officer of the Education Committee without additional salary. To make a large addition to the duties of an official without a corresponding increase in salary is manifestly unfair. If the circumstances of any district render it possible and desirable that the medical officer of health should be responsible for medical inspection, he should receive a separate appointment for this purpose and have security of tenure. The salary of the medical officer for schools should appear in the education account, and a contribution towards the cost should be made out of the parliamentary vote, as, indeed, the Royal Commission on Physical Training and the Committee on Physical Deterioration both recommended. The medical officers to education authorities should be required to submit copies of all reports they make, including an annual report, to the Medical Department of the Board of Education. These are the necessary starting points for any systematized organization of medical inspection.

The present Government has pledged itself to deal at an early date with the educational system of the country. Whatever changes or improvements may be introduced, the provision of such a scheme as outlined above is a matter upon which depends much of our future welfare as a nation.

CO-ORDINATION IN ANTITUBERCLE EFFORT.

In a note last week on the plans under consideration at the Brompton Hospital for Consumption, brief reference was made to the fact that there are several agencies already at work which have the same general purpose in view; to attack, in one way or another, the disease in the focus from which it spreads—the home of the phthisical patient.

An example of such work is supplied by the Marylebone General Dispensary; there, for a period of over three years, a plan, devised by Dr. J. Edward Squire, late Senior Physician to the institution, assisted by the Resident Medical Officer, Dr. E. B. Hulbert, has been carried out with the co-operation of the honorary physicians, and provides for visitation at the homes of consumptive patients. The object is to secure that proper precautions are taken to prevent the spread of the disease, to recommend sanitary and hygienic requirements for diminishing predisposition in those closely associated with the consumptive, and to advise other members of the family or inmates of the house to attend at the dispensary for examination for early detection of any commencing disease and for proper preventive treatment. The number of old-standing and recent cases thus dealt with in the three years the system has been in operation exceeds 200. In over 160 of these voluntary notification was made to the Medical Officer of Health of St. Marylebone, and a secondary notification, when subsequently any of the patients either changed their residence, were removed to hospital or infirmary, or died. Cards of "advice to consumptives" are freely distributed, clinical histories are taken in all cases, with special reference to relatives, domicile (including other residents in tenement houses), intimate friends, or fellow-workers. Disinfection of premises on death or removal is advised and arranged for, and all sufferers and suspects are urged to attend at the dispensary at frequent intervals for examination and treatment; care is taken to keep in touch with them, even to following up many who have drifted into the Marylebone Infirmary or Mount Vernon Hospital.

This is a good example of the part that hospitals and public dispensaries can play, but it is important to note that the Committee of the Marylebone Dispensary is in full agreement with the view that such efforts to be really effective should not be isolated, but part of a general scheme applied to the whole of London and, if possible, to the whole of England.

There are already numerous, though perhaps not enough, persons and institutions engaged in the general work, and all of them are doing their best; but the war against tubercle as at present conducted is one of parties of *Francs-tireurs*, all bold and skilful, but failing to make much impression, because they do not work together. Sanatoriums are really refuges for the wounded. A field hospital which rapidly returns the wounded to the front may annoy the enemy, but is not a true weapon of offence, and will not diminish his hitting power.

More actively offensive is the work done by medical officers of health, by health visitors, and by hygiene-in-the-home societies, but unless they all work together they will never prove as effective as they might, and the war will drag on interminably. In short, the whole of the different Arms engaged in the combat—the health societies, the hospitals (voluntary and poor-law), the sanatoriums, the dispensaries, and the municipal sanitary departments—all require linking up, so that each may cover the other's advance and the whole line of the enemy be attacked.

London is vast, and many difficulties in effecting co-ordination would possibly be encountered, but they are not insurmountable, and many hints as to how to attack them or avoid them might be gained by learning what has already been done in the same direction in Edinburgh and in Manchester.

Of the benefits which would accrue from the existence, and what is still more important, the well-known existence, of a general plan of co-operative effort amongst the parties who desire to take part in the war, there can be no doubt. Many would enlist who are at present inclined to stand aside, deeming that that part of the crusade which has at present attracted most attention—sanatorium treatment—is not in itself sufficient. Show them a general scheme in which sanatorium treatment is but a part, and they will join whatever other regiment suits their ideas best.

The body which must undertake this organization is undoubtedly the National Association for the Prevention of Consumption. It has already done good work, and through its action not one but a hundred balls have been set rolling. It is now its task to ensure that each ball rolls in its own compartment, that each ball knows what the others are doing, and that every body or institution likely to be interested shall know where other balls are wanted.

Undoubtedly one ball, the true value of which has not yet been sufficiently appreciated, is represented by the dispensaries. Their machinery is arranged for the treatment of patients both at the institutions and at the patients' own homes, and they necessarily possess a knowledge of the environment of those who come under their care. This is an advantage which renders them singularly fitted to play the part which the St. Marylebone Dispensary has already taken up, and which the Brompton Hospital for Consumption has now in view.

The question of the value of notification of consumption offers a problem bristling with difficulties. There are many questions to be discussed before any definite pronouncement can be made as to its advisability. Should notification be voluntary or compulsory? If the latter, should it be obligatory throughout the country or permissive? The advisability of notification depends upon the objects which may be attained by its means. One result of notification would be a statistical record of the prevalence of the disease, not only of its mortality; incidentally we should obtain some general information as to the duration of the disease, both in those cases which recover and in those which eventually succumb. The statistical value will depend upon the completeness of the notification and upon the accuracy of diagnosis. In any case voluntary notification could not be expected to furnish any accurate record of the actual prevalence of consumption even within the area where such notification is in force. The value of the statistics would also be comparatively small unless they included returns from every part of the country. Voluntary notification may therefore be considered to be of little value unless it is followed by definite preventive measures, such as segregation of the dangerous cases, insistence on hygienic precautions in the dwelling and workroom, and disinfection of rooms and clothing. If notification were compulsory and universal such measures could be carried out, though opposition would undoubtedly be met with in many cases. Unfortunately, it is just in those cases in which supervision is most required to ensure the carrying out of prophylactic precautions that opposition would most frequently be encountered. With compulsory powers and penalties for non-compliance, local authorities would be able to enforce the measures needed for the safety of others; with voluntary notification nothing can be enforced.

Voluntary notification implies that the patient must acquiesce in the notification by his medical attendant; even if he consent he is free to decline any suggestions or assistance in the direction of preventive care. A medical man who was known to be in favour of notification and to urge his consumptive patients to allow the case to be reported might lose some in consequence; any public institution where notification was encouraged might frighten away doubtful cases. On the other hand, there is the risk that compulsory notification might have some effect in deterring those in the early stages of the disease from seeking treatment when treatment can do most good.

Notification, whether compulsory or voluntary, should be followed by adequate supervision to ensure proper preventive precautions and the isolation of dangerous cases by the local authority. Sanatorium accommodation for the treatment of early cases should be available, and every inducement, even to the extent of grants to those dependent on the patient, should be offered to early cases to put themselves under treatment.

Voluntary notification at the discretion of local authorities provides a useful means of gauging public opinion, and gives an opportunity of finding out what can be gained by notification.

There seems reason to think that the suggestion contained in Sir William Broadbent's memorial to the Metropolitan Asylums Board would be a satisfactory means of carrying the usefulness of notification a stage further. The suggestion, as was explained last week, is that notification should be made compulsory in the case of pauper consumptives. Since it is in this class that preventive measures are most difficult to ensure unless the patient is taken into an institution, such a measure of compulsory notification might be of great service to the public health.

◆

WARNING NOTICES: THE DISPUTE IN NORTHUMBERLAND.

SOME five years ago, after a severe fight, the medical officers of collieries in Northumberland and Durham obtained from the miners an advance from 6d. to 9d. a fortnight for each family for that kind of contract practice; that rate then became the standard rate for private clubs and work practice. Unfortunately, since that time the miners' wages have been on the down grade (although they are now going up again), and some of the men in Northumberland started an agitation to reduce the fees to 6d. Negotiations took place for a considerable time, during which an offer of 8d. a fortnight was made, but the Northumberland Committee of the North of England Branch, in whose hands the matter was placed by the local profession, resolved that 9d. should continue to be the rate, as under present-day conditions efficient service could not be given for less. The Committee which had been appointed by the Northumberland Miners' Union then resolved that all collieries should give notice that after January 1st, 1906, they would refuse to give more than 6d. The doctors met this by saying that they would take nothing less than the 9d. or, in the alternative, attend the colliers as private patients at ordinary rates. From our point of view the result is encouraging. At most of the collieries the men have resolved to go on paying 9d., but at one or two places—notably Ashington, Mickley, and Walbottle—the miners have been advertising for a medical man of their own. So far the local profession has been splendidly backed up by medical men in other districts. Many applications for information have been received by Dr. Alfred Cox, Honorary Secretary of the North of England Branch, Cotfield House, Bensham Road, Gateshead-on-Tyne, in answer to the warning notice in the BRITISH MEDICAL JOURNAL, and in no case up to now has any applicant gone further on hearing the particulars of the dispute. Perhaps the result of the fight may be to convince the miners that medical men can be as loyal to one another as trade-unionists are. Of course the miners in Durham county are watching the course of the fight, and we may count on trouble there if weakness is shown in Northumberland; but that is unlikely. The position at present is that the medical men are unanimous and the miners are not, and if medical men outside the area will continue to refuse to do the dirty work of the miners the conditions considered to be fair will be established, probably permanently. In Durham the Hartlepools Friendly Societies Medical Association is also advertising for a doctor. This is a new association formed because the local medical men had the audacity to ask for 4s. a member per annum. There is not much fear of any self-respecting member of the profession accepting an appointment of this kind at this time of day. The struggle in Northumberland has proved the usefulness of the warning notice in the JOURNAL. It is repeated this week (page 59), and, as will be seen, disputes continue to exist in other districts. Accounts of the disputes at the Leigh (Lancs) Infirmary and at Cardiff were published in the JOURNAL of February 3rd (page 280) and February 10th (page 340) respectively. The other places include Macclesfield, Southampton Bitterne and the neighbourhood, Portsmouth, Lowestoft, Aberaman and Bridgend in Glamorganshire, Abertysswg, Blaenavon and Ebbw Vale in Monmouthshire, Solva in Pembrokeshire, Aberystwith, Cork, Pretoria (Transvaal), the Orange River Colony (South Africa), and Auckland (New Zealand).

THE RUMOUR OF PLAGUE IN MADEIRA.

WE have received from Dr. B. Rowley Conolly, Dr. Michael C. Grabham, and Dr. Geddes Scott, a communication stating that there is no plague in Madeira, and that the island has seldom been so uniformly healthy as at present. "The recent alarm," they state, "seems to have been due to the occurrence of "one or two cases of pneumonia during the transitional "weather of the autumn rains, when the authorities, "acting on imperfect information, visited every house-"hold where there was a rumour of sickness, and indis-"criminately carried away whole families to the “lazaretto. There had been no mortality, or any of the accompanying signs of the presence of plague. The people eventually rose against the Government, stormed the lazaretto, and liberated their friends—thus scattering about twenty people with their families amongst the populace of the district—showing by the satisfactory state of public health since maintained during many weeks that neither plague nor infectious disease has invaded Madeira.” According to the last Lisbon medical journals we have received the sanitary condition of Funchal is declared to be good. Steamer difficulties with the Azores, however, still exist, and a state of things which the medical papers describe as “veritably Offenbachian” has been the result. The mail left Lisbon with cargo for the Azores, arrived two days later at Madeira, and took Azores cargo and passengers from there also. It then returned to Lisbon, put the Madeiran passengers ashore for a time, and then reshipped them for the Azores—a remarkable operation in pratique which apparently seems to have satisfied everybody. But the Azorean authorities appear to have changed their minds, or possibly, as the Lisbon papers suggest, merely lay low for the sake of bringing off a practical joke, for on the vessel arriving at the first port, St. Maria, she was not permitted to communicate, but was sent on at once to St. Michael's, where the port officers did not trouble to inquire whether she could show a clean bill of health, but merely if she had any passengers from Madeira, and straightway refused both them and the cargo. There is, it must be admitted, a comic opera flavour about the episode, though no doubt the wandering Madeirenses do not regard it entirely from this point of view.

SIMULATION OF INJURIES OF THE EYES RECEIVED AT WORK.[1]

Since a workmen's compensation Act was established in France eye affections, simulated or intentionally aggravated by the patients, have increased in numbers. In England a similar condition of things has been noticed. Previous to the passing of the Act in France in April, 1898, Baudray found the number of cases of simulated injuries of the eyes to be 12 per cent., recently the number has risen to 34 per cent. Until 1898 patients complained mostly of loss of sight, now the attempt is made to exaggerate the consequences of traumatism. On the other hand, cases of dissimulation occur, the injured workman, through fear of losing his employment, concealing the eye affection. All sorts of tricks, Baudry tells us, are resorted to, including injuries voluntarily inflicted. Non-traumatic lesions are palmed off as traumatic, or patients imagine that they are the results of injury. It is not always easy to say whether a keratitis with hypopyon, for example, is traumatic or not. A slight injury may have been the starting point, but even traumatism requires the aid of certain adjuvants. As the patients generally consult a specialist only after the cornea has become affected, it is difficult to say how much of the disease is the result of injury, hence the advisability of workmen being required to report the injury shortly after the accident, and of the eye being carefully examined at the time. Subsequently, when there is any doubt, the workman ought to have the benefit. Simple traumatic conjunctivitis consequent upon the entrance into the eye of irritating dust can generally be distinguished from catarrhal inflammation of simple origin. In the former the lesion is usually more localized and the cure more rapid, but this is not always the case. Workmen who are the subjects of syphilis, Bright's disease, or rheumatism, are disposed to regard all conjunctival haemorrhages as the result of their occupation. Doubtless traumatism often reveals the existence of a constitutional state which, but for the injury, might not have declared itself. Internal haemorrhages of the eye ought to be regarded as traumatic only after exclusion of other causes. Baudry discusses the subjects of traumatic cataract and displacement of the crystalline lens, and maintains that it is necessary carefully to weigh all possible evidence of previous eye affection. Of all the simulated eye affections amaurosis and unilateral amblyopia are the most frequent. These are closely connected with hysteria and injury and with sympathetic irritation. It is generally after an injury to the head, such as a fall, that a workman tries to prove that he suffers from a visual defect. Amaurosis and amblyopia, with alterations of the field of vision and diminution of colour sense, constitute the most frequent manifestations of hystero-traumatism. The development of sudden blindness with conservation of the pupil reflexes in an injured person ought to make one think of simulation. Analogous to hystero-traumatic troubles are those produced by photo-traumatism of electrical origin, met with in electricians and men employed in underground electrical railways.

AN INTERNATIONAL LANGUAGE.

Some remarks recently made in the British Medical Journal seem to have caused a good deal of commotion among Esperantists. We ventured to call Esperanto a pidgeon jargon, and to hint that its devotees would be better employed in learning some natural language that would give them access to new realms of thought and experience. For this we are severely taken to task by a number of Esperantists. One of them is not surprised that we “with the jealous and conservative instincts of the schoolman” range ourselves on the side of the opponents of Esperanto. He implies that this attitude is due to “sheer cussedness.” We have no sort of objection to our correspondent calling us “schoolmen,” though we do not know exactly what he means by the term. But we rather demur to being regarded as “opponents” of Esperanto; we certainly have no desire to oppose it, though we are still sceptical both as to its usefulness and as to its vitality. And we do not understand why honest disbelief should be attributed to “sheer cussedness.” With reference to the debates at the Boulogne Congress, another correspondent writes: “That the persons present at the Congress really did understand each other in ordinary debating was a fact almost as striking to the experts as it undoubtedly was to the onlookers and the general public. Speaking from a journalistic experience of more than thirty years, I do not hesitate to say that not only was the business of the Congress intelligible to the members—excepting such as were quite new to the study of Esperanto—but in point of dispatch, and the almost entire absence of calls for explanation of points imperfectly heard or understood, it would bear comparison with any of the long list of gatherings for special classes at which I have been professionally present. Not a point, serious or humorous, seemed to be lost upon the polyglot auditory. It would be idle to deny the presence in such a host of some differences of pronunciation, but these were extremely slight, and generally betrayed themselves—for example, in a French tendency to accent the final syllable instead of the penultimate, or a Slavonic bias towards emphasis on the first; but nothing occurred comparable to the difference observable between the ‘twang’ of an educated Yorkshireman and Cockney. The fear of want of comprehension in this direction is entirely negligible.” After this we must not say of Esperanto, what some one unkindly said of German, that it is a jargon which eccentric persons talk and pretend to understand each other. As for the want of an Esperanto literature, we are assured that it will be supplied at no very distant date. “Even “now some eminent Continental authors are writing “first hand in Esperanto.” Some thirty Esperanto journals are published in various parts of the world; but how many people in each country read them? We hazard the conjecture that the writers of Esperanto are much in the position of the islanders who are said to earn a precarious livelihood by taking in each other’s washing. We have no doubt whatever that a vast mass of printed stuff could be produced in a very short time. Our experience of the profuseness of the perfervid Esperantist has indeed taught us to realize what Sydney Smith meant when he spoke of being preached to death by wild curates. But how can a language with a vocabulary of little more than two thousand words be the medium of anything worth calling literature? Our Esperantist friends must excuse us if we are unable to share their simple-minded enthusiasm. We remember the rise and fall of Volapuk; nor have we forgotten the flourish of trumpets with which the *langue bleue* was introduced to the world some half-a-dozen years ago, with the blessings of many leaders in science and literature. Then there were Spelin, and Spokil and Latinesce, and the Lingua Internacional of J. Lott, and the Langue Catholique of some one else. Where be these now? With the *neiges d’antan*. A very slight acquaintance with the history of the attempts that have been made at one time or another to frame an artificial speech tends to damp enthusiasm for any new thing in that kind. In the current number of *Blackwood’s Magazine* there is an article by the present Warden of Wadham on John Wilkins, whilom Warden of Wadham and later Master of Trinity and Bishop of Chester, a man remarkable in many ways, but chiefly remembered now by his *Essay Towards a Real Character and a Philosophical Language*, which was printed by order of the Royal Society, and published in 1688. The invention shows considerable ingenuity, but the writer of the article expresses what we ourselves have said more than once, that “an “artificial language of any but the narrowest compass is “impossible, for language is not made, but grows.” He adds that, “misled, perhaps, by the proved usefulness of “mathematical signs, Wilkins attempted to invent for “philosophers a better means of communication than “Latin, then the language of science, but in his opinion “unscientific, full of anomalies, and difficult to acquire, “for in it there are 30,000 words; in his language there “are only 3,000, and they could be learnt, he says, ‘by a “‘man of good capacity in a month.’” A similar attempt, with equal want of success, was made by Liebnitz. Is an international language, then, an empty dream? We are loth to believe it. But we are strongly of opinion that a language which will make intercourse between cultured men of different nationalities possible is not to be framed by stealing the scraps from a great feast of languages. Latin is by no means dead, nor is it, as one of our correspondents pronounces it to be, “quite “unadapted to the needs of the twentieth century.” As Mr. Shattock has shown, it can clearly express the most abstruse concepts of modern pathology. There are still parts of the world where even small Latin will prove more useful to the wayfarer than Esperanto. That it can be adapted to commercial uses is shown by Dr. Colomb’s *Grammaire du Latin Commercial*. Only a more sensible method of teaching Latin in school is needed to make it once more a medium of international intercourse.

---

[1] *Blessures de l'Oeil à la suite d'Accidents du Travail.* Par S. Baudry, Professeur de Clinique Ophthalmologique à l'Université de Lille. Paris: Vigot Frères, Editeurs. 1906.

THE EFFECT OF ALCOHOL ON THE CARDIO-VASCULAR SYSTEM.

PROFESSOR H. C. WOOD and Dr. D. M. HOYT, of the University of Pennsylvania, have conducted a series of experimental researches (*Memoirs of the National Academy of Sciences*. Vol. x. Third memoir. Washington: Government Printing Office. 1905) upon the action of alcohol on the circulation. The main experimental facts which they consider to be established are the following: In the normal dog alcohol does not usually, either in small or large doses, distinctly increase the arterial pressure, although occasionally such an effect is manifested. The action of alcohol upon the circulation in dogs suffering from an infective fever, at least so far as the blood pressure is concerned, is similar to its influence upon the normal dog. But when the spinal cord, of normal dogs, is severed in the cervical region and respiration is artificially maintained, alcohol distinctly and consistently increases the arterial pressure; in other words, alcohol increases arterial pressure after the general vascular system has been separated from its dominant vasomotor centres. In another series of experiments the influence of alcohol upon the rate of blood-flow through the large arteries was measured by means of Ludwig’s strohmuhr. It was found that the exhibition of small doses produced a very marked increase in the rate of flow. The increase was consistently maintained for some time, on repetition of the intravenous injections of alcohol; later on, the rate of flow gradually lessened under the paralytic influence of the toxic dose of alcohol upon the heart and blood vessels. The increase in the rate of flow was not found to be dependent upon or related to any elevation of the arterial pressure; in some experiments it occurred without the pressure being sensibly affected. The action of alcohol on the isolated reptilian heart was also investigated. It was observed that when from ¼ to ½ per cent. of alcohol was added to the nutritive fluid feeding the heart, there was a marked and persistent increase in the amount of fluid pumped by the heart in a given length of time. Larger percentages of alcohol decreased the heart’s activity. The main conclusion which the authors draw from these experiments is that the action of alcohol is simultaneously to stimulate the heart and, by depressing the vasomotor centres, to widen the blood channels. The fact that the influence of alcohol upon blood pressure is not constant is explained by supposing that these two concurrent actions of alcohol are not always equally balanced; whenever the balance between the heart power and the resistance offered by the blood vessels is disturbed, an alteration in blood pressure is the necessary result.

PHYSIOLOGY OF MAMMALIAN REPRODUCTION.

VERY steadily our knowledge of the comparative physiology of menstruation and allied processes is being built up. Heape’s contributions, and more especially his identification of the pro-oestrum of the mammals with human menstruation, have previously been referred to in these pages, as have also Marshall’s researches on the oestrous cycle in the sheep. Now we have to note two further contributions from the pens of Marshall and Jolly[1] on the oestrous cycle in the dog and on the ovary as an organ of internal secretion. These investigators see no reason to doubt the homology between the oestrous cycle of the bitch and the menstrual cycle in monkeys and the human female. A noteworthy and far-reaching conclusion to which they come is that in the bitch ovulation does not occur until after the pro-oestrum—or, at any rate, the first part of it—has taken place. It seems fair, therefore, to conclude that ovulation cannot be the cause of either heat or menstruation; and it is likely that the corpus luteum must also be excluded from among the possible causes of these processes. Obviously, this conclusion is of great importance when considered along with Fraenkel’s theories regarding the functions of the corpus luteum. On the other hand, the discoveries of Marshall and Jolly tally with the theory that the pro-oestrum and menstruation are preparatory processes for the lodgement of the ovum in the uterine mucosa. It is to be noted that in the bitch a considerable denudation of the uterine epithelium takes place during the pro-oestrum. It has also been shown that "heat," or a transient condition resembling it, can be produced by the injection of extracts made from ovaries in the pro-oestrous or oestrous condition, and that when such ovaries are successfully grafted into an animal previously deprived of its ovaries, the condition produced is identical with a normal heat. It is believed, therefore, that the ovaries produce a secretion which causes "heat," although it is not known from what cells in these glands this secretion comes; apparently it is not from the cells of the corpora lutea. The secretion which comes from the corpus luteum would seem to have a function in bringing about the attachment of the ovum to the uterine mucous membrane, and in causing the early stages of embryonic development. A practical point of some importance which emerges from these researches would apparently be that the pharmacological effect of ovarian extract must vary with the oestrous or non-oestrous state of the animal from which it is obtained.

---

[1] *Philosophical Transactions of the Royal Society of London*. Series B, vol. cxcviii, pp. 99-141 (Piates vii and viii). Contributions to the Physiology of Mammalian Reproduction. Part I. The Oestrous Cycle in the Dog. Part II. The Ovary as an Organ of Internal Secretion. By Francis H. A. Marshall and William A. Jolly.

THE ELECTION OF A DIRECT REPRESENTATIVE FOR IRELAND.

A very interesting situation has arisen in connexion with this election. As we mentioned last week, the votes being 914 and 910 for the respective candidates, Sir William Thomson demanded a scrutiny recount, on the grounds that some invalid votes had been admitted. The Branch Council, when it met on Wednesday to make declaration of the poll, received the letter. It was determined to grant the scrutiny and recount, and the meeting was adjourned until Saturday, in order that the President might meanwhile be apprised of the proceedings. On Saturday it was ordered that the recount and scrutiny should begin at 10 o'clock on Tuesday morning. The presiding Councillors were Dr. James Little and Colonel Adye Curran. Dr. Leonard Kidd was present for the first time, accompanied by Dr. Fred. Kidd and Mr. T. Falls, solicitor. It was the first introduction of the legal element. Dr. Travers Smith was present on behalf of Sir William Thomson, who was unable to be present owing to an attack of influenza. Mr. Falls, on behalf of Dr. Kidd, said that he was ready to assent to a recount, but not to a scrutiny, unless the votes in question were first declared, otherwise the scrutiny might extend over months. Dr. Travers Smith pointed out that he could not declare the invalid votes except as the result of a scrutiny. Votes had been included which, it would be claimed, were illegal votes, but they must be inspected as well as counted. The two councillors then agreed to postpone the reopening of the votes so that a meeting of the Branch Council might be held later in the afternoon to consider Dr. Kidd's protest. At this meeting the services of Mr. Matheson, K.C., were available as adviser to the Council, and it was agreed that the count should commence on Wednesday morning.

THE PUFF PROPHETIC.

The medical puff, like medicine itself, belongs to no country—it is universal. It flourishes in rank luxuriance in our own newspapers of the baser sort. Now readers are dazzled with an account of a decoration for an imaginary operation on a foreign monarch; now they are invited to admire the marvellous skill of a surgeon who makes an artificial lip or nose; now again they are assured—for the hundredth time—that the long-looked-for cure for cancer or consumption has been found at last. But after all, even our most catchpenny papers are stale and flat—if not altogether unprofitable—compared with those which shed the light of a fierce publicity on every detail of domestic life in the great Republic of the West. If the people of the United States do not know exactly what is the matter with every person who comes under the hands of the surgeons, that is not the fault of the reporter, who, like a certain Biblical character, goeth up and down the world seeking for his prey. The details may occasionally be somewhat lacking in accuracy, but great pains seem to be taken to get the operator's name and address in full. The correctness with which these are given does credit to the professional zeal of the reporter. We should imagine, however, that even in America it is seldom that journalistic enterprise achieves such a triumph as that scored by the New York *Sun* a week or two ago. That newspaper published a circumstantial account of an operation for renal calculus performed by a well-known surgeon in one of the hospitals of New York. The details, as afterwards appeared, were perfectly accurate. What makes the report especially remarkable is the fact that it was published some twelve hours before the operation was performed. Was this a case of second sight? Or was it simply one of first-hand inspiration? In any case it is a fine example of a new variety of puff which may be added to Macaulay's list—the puff prophetic.

AN AGE LIMIT FOR PROFESSORS.

In Austrian universities professors, are in military phrase, compulsorily retired at the age of seventy. In Prussia, however, there is no age limit. The question of fixing such a limit is now being considered by the Cultus-ministerium. An exchange of views on the subject is taking place between the Ministry and the universities. The proposal that professors should give up their chairs when they have reached the age of three score and ten is said to find great favour in academic circles. It is not every professor who, like Verneuil, prefers to come down from his chair rather than fall out of it, and doubtless in Prussia, as elsewhere, there are to be found veterans who lag superfluous on the stage, blocking the path of promotion to younger and more energetic men and exercising a retarding, and sometimes a reactionary, influence in direct proportion to their reputation.

The new military hospital which is to be erected in the District of Columbia, will be called the Walter Reed United States Army General Hospital, in honour of the late Major Reed, whose name is so closely associated with the final proof of the transmission of yellow fever by mosquitos.

The King has been pleased to give and grant unto Mr. Reginald Harrison, F.R.C.S., His Majesty's Royal licence and authority that he may accept and wear the Insignia of the First Class of the Imperial Ottoman Order of the Medjidieh, conferred upon him by His Highness the Khedive of Egypt, authorized by His Imperial Majesty the Sultan of Turkey, in recognition of valuable services rendered by him. The services referred to are those relative to the recognition of the Cairo Medical School curriculum for the diploma of the two Royal Colleges. Mr. Harrison visited Cairo in 1902, and again in 1905, and undertook a large amount of work in inspecting not only the Medical School but the primary schools of the country, and in testing the results of the education of the students. Mr. Harrison's services were cordially recognized by Lord Cromer in a dispatch to the Secretary of State for Foreign affairs a couple of years ago.

Scotland.

EDINBURGH ROYAL MEDICAL SOCIETY.

THE annual President's dinner of the Royal Medical Society took place in the Society's rooms in Melbourne Place, Edinburgh, on the evening of February 7th. Dr. J. M. Graham, the Senior President, was in the chair, and the guest of the evening was Professor Clifford Allbutt, F.R.S. Some seventy gentlemen were present. After the usual loyal toasts Lord Salvesen gave the toast of "The Imperial Forces," and reply was made by Fleet-Surgeon Luther, R.N., and Colonel Warburton, C.S.I. "The Guest of the Evening" was given from the chair, and Professor Clifford Allbutt, in reply, spoke of the great pleasure it gave him to come to Edinburgh, the loveliest city in the world, the honour he felt in coming as the guest of their ancient Society, and the high appreciation he had of the Edinburgh Medical School. In his work at Leeds he was always struck with the keenness and thoroughness of the Edinburgh graduates' work. He did his work for the work's sake. He thought there was much to be said in favour of the professional lecture system in vogue in Edinburgh University as contrasted with tutorial system that prevailed at Cambridge. It systematized knowledge, it gave a broad platform, and a wide mental outlook. Under the tutorial system, on the other hand, attention was devoted to details and the wider issues sometimes thereby missed. He concluded by giving the toast of the "Royal Medical Society," to which Dr. R. A. Chambers replied. The "University and Associated Corporations" was given by Dr. J. D. Wells, and the Dean of the Faculty of Medicine (Professor Cunningham), the President of the Royal College of Physicians (Dr. John Playfair), and the President of the Royal College of Surgeons (Mr. C. W. MacGillivray) replied. The "Sister Professions" was given by Dr. A. W. Neill and replied to by the Rev. John Kelman and by the Hon. Lord Ardwall. Songs were given at intervals and the dinner was a great success.

EDINBURGH WOMEN GRADUATES AND THE PARLIAMENTARY VOTE.

The women graduates have now taken definite steps to test the legality of their claim in the Court of Session. A writ has been served, at the instance of certain women graduates of the University of Edinburgh, against the University Courts of the Universities of Edinburgh and St. Andrews and the responsible officials thereof, for the purpose of having it judicially determined whether they are entitled at the present, and on the occasion of every future Parliamentary election, (1) to receive voting papers from the Registrar, (2) to vote duly by marking the same, and (3) to have their votes recorded. In a memorandum regarding their position the Committee appointed at a recent meeting of the graduates state that this is the first contested election in the Scottish Universities since women became graduates, and the enactments which regulate the election of Scottish University representatives are different from those which regulate any other Parliamentary election. Contrary to general belief, it is added, women are not expressly excluded by statute from voting at Parliamentary elections, and the ground for denying their claim in previous cases has been founded on custom. The women graduates of each Scottish University are on the register of the General Council of that University, which is the register of Parliamentary voters for University candidates. The question is expected to come up in the Outer House of the Court of Session soon after the conclusion of the short vacation.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

Morison Lectures.

In the second lecture, Dr. Ford Robertson dealt with the experimental study of the action of the living blood upon pure cultures of diphtheroid bacilli isolated from cases of general paralysis and tabes dorsalis. The bacillus with which they had worked was one which in respect of its morphological characters, staining reactions, and power to form acid in glucose broth closely resembled the Klebs-Loeffler bacillus. It was a diphtheria bacillus in an attenuated condition—so, at least, it had been provisionally regarded. Their more recent observations strongly inclined them to the view that it was a special organism. Having referred to the remarkable polymorphism of the bacillus, the lecturer specially considered its thread form. The filamentous form had been obtained by cultivating the ordinary form for several days at 41° C. upon blood films. It was therefore probable that invasion by the thread form occurred in cases in which there had been a sustained high temperature for several days before death. They had studied the power of the leucocytes (in the natural serum) to take up the bacilli, and the power of the leucocytes to dissolve the bacilli when ingulfed. No constant alteration could be detected in the power of taking up the general paralytic blood. On the other hand, the power of dissolving the bacilli when taken up had in most cases been distinctly greater on the part of the leucocytes of the general paralytic than on that of the leucocytes of the controls. Diphtheroid bacilli, more or less altered by lysogenic action, were present in great numbers in the catarrhal pneumonic foci that occurred in most general paralytics dying in congestive attacks. They could also be discovered in the adventitial spaces of the inflamed cerebral vessels and in the meshes of the pia arachnoid, and in films made from the blood of the living paralytic, especially if suffering from a congestive attack. They could also be discovered in the centrifuge deposit from the cerebro-spinal fluid obtained by lumbar puncture. Lastly, they were present in large numbers in the centrifuge deposit from the urine, especially during a congestive attack. Failure to obtain cultures from the blood and cerebro-spinal fluid depended upon the fact that most of the bacilli were dead, and that the few living ones that were occasionally present were killed in consequence of the continued action of the phagocytic cells. They had succeeded in getting pure growths from the blood in four cases (three of the patients being in congestive attacks), and from the cerebro-spinal in two. The growths were at first generally extremely feeble, but the organism could be invigorated by being subcultured upon blood films. A search had been made for a specific action of the blood of the general paralytic upon these bacilli. The most distinctive action they had obtained was that which concerned the power of the leucocytes to dissolve the bacilli. They had estimated the percentage of altered bacilli in the leucocytes after three hours' incubation. This gave what they called the intracorpuscular bacteriolytic index. As far as their observations went, it was as a rule higher in the general paralytic's blood than in control bloods. It seemed, however, probable that more direct methods of a bacteriological diagnosis would become available.

In the third and last address, the lecturer discussed the etiology and pathogenesis of general paralysis and tabes dorsalis and how these diseases were to be combated. He thought that a new and solid edifice could be constructed out of the facts elicited by his colleagues and himself. Syphilis weakened the general and local defences, but the causation was not essentially syphilitic but active bacterial toxaemia. The specific bacillus was conveyed by contagion. It could neither invade nor multiply to any extent on a healthy mucosa. A preliminary weakening was necessary. There were three forces that specially produced this weakening—syphilis, alcohol, and excess of nitrogenous foods. The bronchi were a special seat of invasion, and also the alimentary tract. Then followed a life-and-death struggle between the bacilli and the polymorphonuclear leucocytes—a struggle in which the leucocytes, after a long succession of victories, were ultimately defeated, because their power of renewal was limited, whilst that of the bacilli was virtually unlimited. Lowering of the body temperature diminished the power of the leucocytes to take up these bacilli. Local invasion manifested itself clinically in a congestive attack. Most of the bacilli that reached the blood were quickly seized by leucocytes and digested, but many escaped from the circulation either through the capillaries of the kidney or through the walls of the cerebral vessels into the adventitial lymph channels. The further disintegration of the bacilli that took place in these lymph channels gave rise to a local toxic action in addition to the general toxaemia. On the pathogenesis of tabes dorsalis the lecturer referred to the recent observations of Orr and Rows upon the production of tabetic lesions of the cord by the absorption of toxins from peripheral septic foci. The toxins passed up the perineural sheaths without injuring the nerve fibres, and affected the fibres of the posterior root as they entered the cord at the spot where they lost their neurilemma sheath. In order to account for the similar lesions that occurred in tabes it was necessary to find some peripheral toxic focus. Probably this was in the bladder. There was evidence that the general paralytic defended himself, and often with prolonged success, by manufacturing specific bacteriolytic antibodies. It seemed therefore worth while to produce such antibodies in suitable lower animals and to use them as therapeutic agents.

Royal Infirmary and St. Mungo's College.

The managers of the Royal Infirmary have postponed filling up the vacant appointments on the staff. In view of the dispute with the governors of St. Mungo's College it was felt that it would be inadvisable to fill up the appointments until a final endeavour had been made to adjust the differences between the two institutions. At a meeting of the governors of the College, which took place a few days subsequent to the Infirmary meeting, an important concession was made. After considerable discussion it was decided that it was hopeless to attempt to force the managers of the Infirmary to give way. This decision was opposed by several members, who felt that the concession of this point would lessen the likelihood of the University agreeing to the affiliation of St. Mungo's College. It is probable that a joint meeting of the Infirmary managers and the College governors will now be held.

The Corporation of Glasgow recently decided to appoint a lady medical assistant to act under the direction of the medical officer of health. The duties are in connexion with the work of the Subcommittee of Infantile Mortality. Dr. Lily Smellie has been selected for the post.

Ireland.

Asylum Estimates.

At a meeting of the joint Committees of the Richmond District Asylum on January 21st, Dr. Connolly Norman, the Medical Superintendent, read the report of the Finance Committee, which recommended a gross estimate for the ensuing year of £95,760. The estimated amount of capitation grants payable direct to the Contributing Council was £27,715, making a net sum of £68,045. The savings on 1904-5-6 were £5,419, which it is proposed to apply in reduction of the total demand. Net charge on rates for 1906-7, £62,626, showed a net decrease of £7,290. Since Portrane was opened the staff has been practically doubled, but the cost per patient is considerably lower than in seven-eighths of the other Irish asylums. The cost for clothing has been very much reduced, as everything possible is now made in the asylum, and all the tweed worn is woven by the patients.

The Chairman mentioned that when the present governing body was formed under the Local Government Board Act, the cost of maintenance per patient was £28 13s. 6d. and now was £24 11s. 6d. If the estimates were based on the cost in 1900, they should be obliged on the present population to ask for £12,000 more.

Royal Victoria Hospital, Belfast.

At the last meeting of the Board of Management of this institution, on February 7th, the Honorary Treasurer announced that he had received a letter from Dr. McKisack, one of the attending physicians of the hospital, intimating that the trustees of the late Mr. Henry Matier had signified their intention of making over to the hospital the sum of £5,000 under certain conditions as to naming beds, which were in accordance with the by-laws of the institution. It was gladly decided to accept the gift, and a cordial vote of thanks to the trustees, and to Dr. McKisack for his trouble in the matter, was unanimously passed. The Honorary Treasurer subsequently stated that the year's accounts were now complete, and showed a credit balance of £879, as against £737 at the end of last year, so that the hospital had lived within its income to the extent of £142; this was all the more satisfactory, considering the great fear of the expense incurred by the plenum system of ventilation and heating that was felt by many at the outset. The medical and surgical staff are unanimous as to the urgency of opening another surgical unit, and hope that with this proof of the economical administration the Board will see its way to relieve the great congestion of the surgical wards.

Epidemic of Measles and Whooping-cough in Newtownards.

The report of Dr. Jamison, the medical officer of health to the Urban Council of Newtownards, co. Down, on the present epidemic of measles and whooping-cough was considered on February 5th, and it was decided to call a general meeting of the Sanitary Committee and principal teachers to discuss the question of temporarily closing the schools. At this meeting Dr. Jamison reported that a large number of deaths had occurred from these diseases, and that over seventy families were afflicted at the present time. He recommended that the schools be closed. After some discussion it was finally agreed to close the day and Sunday schools, and to get them thoroughly washed down and disinfected.

South Wales.

University College of South Wales.

At a meeting of the Council of the Cardiff University College, held on February 7th, it was decided to place on record the Council's high appreciation of the services rendered by the late Dr. J. Ll. Treharne as a member of the Council and as one of its representatives on the Court of the University of Wales. References were also made to a vote of sympathy passed with the family of the late Mr. Louis Samuel, who had been a most generous supporter of the College, and who, in order to commemorate the Queen's Jubilee, gave £500 to the Medical School. It was decided that it was desirable to hold evening classes in Welsh history, language, and literature. It was resolved that Dr. Trow, Associate Professor of Botany, should become Professor of Botany, and that Mr. W. S. Boulton, Associate Professor of Geology, should become Professor of Geology.

Doctor and Guardians.

Three months ago Dr. Bonsall, medical officer to the Aberystwith Workhouse, resigned because the guardians refused his application for an advance from the £30 which he was paid as officer for the house and also for the supply of medicine. He retained the offices of vaccination officer and medical officer for the district, and declined to resign them, maintaining that they were separate appointments. The Local Government Board upheld Dr. Bonsall in this contention and declined to interfere. In the meantime, the guardians appointed another medical man as temporary officer for the house at a salary of £1 a week; but, at the meeting of the guardians held on February 5th, he resigned, and the house after February 7th will be without a medical man. This will be a serious thing for a house containing over 44 inmates, and a member said that to go on as the guardians were going was childish. Another member said: "If the Local Government Board will not meet us, they will have to take the whole of the responsibility." The Chairman said: "They will soon do that."

Midwives in Monmouthshire.

It was reported to the Monmouthshire County Council on February 7th that 177 women in the county had obtained the certificate of the Central Midwives Board; Ebbw Vale and Abertillery had 18 each. Of the 177, 31 could neither read nor write, and had to trust to other persons to keep their records. Complaints were very numerous about the uncertificated women who still pursued the calling of midwives, and charged smaller fees than the others. The enrolled midwives were in consequence very indignant. These unqualified midwives lay out the dead. There was a pressing need in the county for midwives who thoroughly understood their duties.

Underfed School Children at Newport.

The Committee charged with the giving of free meals to underfed children attending school at Newport has sent out a notice to parents whom there was reason to believe had imposed on the funds, stating that impostors rendered themselves liable to prosecution. Reports were presented showing that destitution of a painful character is prevalent in the district. Up to the end of January a total of 17,489 free meals had been given. If the work which has been undertaken is to be carried on through the winter, further liberal help will be required.

St. John Ambulance Brigade at Cardiff.

On February 11th a public meeting was held at the Town Hall, Cardiff, to consider the advisability of forming a corps of the St. John Ambulance Brigade in the city. Among those present were the Lord Mayor, Dr. Lloyd, Chief Superintendent for Chirk, Drs. Wallace and Smith, and Professor Hepburn. It was decided to form a brigade at Cardiff. Dr. Wallace was elected chief surgeon, Mr. McKenzie chief superintendent, and Dr. Smith superintendent secretary, all of whom promised to do their utmost for the cause.

Yorkshire.

Statistics of Leeds General Infirmary.

Though the annual report of the General Infirmary will not be issued for some few weeks, the statistical details as to the number of patients treated in the various departments are available. The number of in-patients treated during 1905 was 6,765. This includes 320 remaining under treatment in the wards at the end of 1904, and is less by 108 than the corresponding number for the previous twelve months. The average number of in-patients was 361, an increase of 6. The total number of deaths was 487, and of these 148 occurred within forty-eight hours of admission. Calculated on the basis afforded by the number thus reduced, the death-rate is 5.01 per cent. The distribution of patients in the various departments was as follows: Medical 1,235, surgical 3,144, accident 829, ophthalmic 692, aural 228, and gynaecological 317. In the out-patient departments the number of new cases was as follows: Medical 11,731, surgical 4,597, casualties 10,458, dental 3,412, ophthalmic 4,694, aural 1,866, throat 131, and skin 850. The amount of work done in the *x* ray and Finsen lamp departments shows an increase in the number of cases treated. The extent to which *x*-ray work is employed for purposes of diagnosis is shown by the fact that 496 in-patients and 330 out-patients were skiagraphed during the year.

An interesting table is that which shows the amount of stimulants used in the various wards during the period of twelve months. Of spirits, 10,967 oz. were used, and of wines, 2,779 oz., a total of 13,746 oz., or 85¾ gallons. With an average daily number of patients amounting to 361, this is of course a small amount, for it represents less than one-tenth of an ounce a patient a day. The staff have of course a perfectly free hand to order what they deem necessary or advisable in the way of stimulants, but for some years each member of the honorary staff who is in charge of beds has been provided every week with a list showing the patients under his care who are taking stimulants, and this is a valuable aid to him, for it is matter of common experience that a patient may, through inadvertence, continue to have stimulants given to him after the necessity for it has ceased. Certain it is that the amount of stimulant used in the infirmary has lessened since this return has been sent to the honorary staff.

Cost of Meals for Underfed Children.

For some time the Bradford Board of Guardians has been providing meals to certain children attending the elementary schools of the city. This it has done under the order of the Local Government Board. The request in each case comes from the education authorities of the city, who act on the report of their teachers. At the county court the Board of Guardians sought to recover the cost of the meals from the parents in certain cases in which it was alleged they were capable of providing for their children, the summonses being taken under the Poor-law Amendment Act, 1848, Section 8. Old statutes were introduced to show that relief was a loan recoverable in cases of wilful neglect, and it was pointed out that the guardians had exercised great distinction and forbearance, as out of 2,000 cases only 61 had been brought into court. The cost amounted to 3d. a meal in the case which was taken as a test. It appeared in this case, which was the same as the others, that no request came from the parents of the child, but that the request came from the teacher in the first instance. His Honour (Judge Bompas) said that as he understood the case, if food was not given by way of a loan the relief given would be Poor-law relief, and the father of the child would be disfranchised. He gave judgement for the guardians, and made an order for monthly payments at the rate of 2s. until the total amount of £1 13s. was paid. Judgement was then entered in all the other cases on the same lines as in the first. At a meeting of the Board of Guardians held on the following day the Chairman stated that the defendant in the case tried was a hawker. It was difficult to estimate the wages of a hawker, and a good many of the children being fed had parents of this class. Many of them were put in a group, the expenses of whose meals were covered by the Mayor's fund, and while the guardians had no desire to act with severity, it was desirable to reduce the number thus gratuitously provided for, if it could be done without in any way causing the children to suffer. The decision come to in the case appears to be one of great importance in the maintenance of parental responsibility, and will be welcomed as an instalment by those who feel that the wage of the parent should be capable of being put under contribution directly, and before it leaves the hands of the employer, for the feeding and for the clothing of the children.

Birmingham.

Proposed Enlargement of the Queen's Hospital.

The Committee of the Queen's Hospital has issued an appeal for £30,000 for the extension of the hospital. Already £14,500 has been promised. Twenty years have elapsed since any appeal for funds was made to the public.

In the reports for 1903 and 1904 the medical officers speak of the continuous high pressure at which the hospital is worked. Particularly was this the case in the in-patient department, where it often occurs that every bed is occupied, while urgent cases wait, sometimes in vain, for admission. More room is also said to be needed in the out-patient department.

It was previously suggested that a new block of wards should be built on the lawn and tennis court behind the existing hospital, but this would not have left enough air space. By expending £3,857 of the Best Bequest, the hospital has bought up the adjacent houses with long gardens extending to a canal, making an additional frontage to the hospital of 96 ft. On this site a three-story structure will be built with accommodation for 60 beds. On the ground floor will be a physician's room, residential quarters for the superintendent, which do not exist now, and also a students' day room. A new chapel will be built, 36 ft. by 16 ft., to replace the small room now used. On the first floor will be two male wards, with thirty beds, with three bath-rooms, two small wards for special cases, a clinical room, ward kitchen, and store-room. There will be open balconies in front. On the second floor will be a female ward, with twenty-four beds, and a children's ward with six beds. A glass corridor, running behind the out-patient department, will join the old and the new buildings. The out-patient department would thus be in the centre, with the in-patient departments on each side. It is proposed to devote the new wards to medical cases only, leaving the old wards for surgical cases. Additions will be made to the consulting rooms on either side of the out-patient hall, and the nurses' home will be enlarged so as to enable the entire nursing staff to reside on the premises; the additions will include fourteen bed rooms, a recreation room, and a sitting room for the lady superintendent.

For some years the Committee has been nursing its resources so as to be prepared, whenever these improvements and additions were carried out, to take up the burden of an increased maintenance. The Queen's Hospital was founded in 1841, and was the outcome of a movement set on foot by the late Mr. Sands Cox, the Rev. Chancellor Law, and the Rev. Dr. Warnefield to establish a hospital as a necessary part of the education of the students of the Royal School of Medicine and Surgery in Birmingham.

New South Wales.

WOMEN RESIDENTS IN GENERAL HOSPITALS.

In the early part of last year considerable discussion took place, not only at the meetings of the Board of Directors of the Sydney Hospital, but also in the lay press, with regard to an application for the position of resident medical officer at the Sydney Hospital by Dr. Susan O'Reilly, the daughter of one of the consulting physicians to the institution. The application was ultimately refused, on the ground that there was no accommodation at the hospital for a woman resident medical officer. In response to a letter received from twenty-one women medical undergraduates in the University, and also to a letter received from the Under-Secretary for Finance and Trade, the Board of Directors of the Royal Prince Alfred Hospital passed a resolution some months ago agreeing to accept women for the position of resident medical officers in the hospital. In pursuance of this resolution the Board has appointed Dr. Jessie Aspinal, one of the recent graduates in medicine in the Sydney University, to the position of Resident Medical Officer. The Sydney Hospital is also preparing to follow suit, as the Board of that hospital is providing accommodation for two women residents in the new wing which is being built to replace the old south wing.

THE ROYAL PRINCE ALFRED HOSPITAL, SYDNEY.

The Queen Victoria Memorial Pavilions at the Royal Prince Alfred Hospital have been so far completed that the authorities have been enabled to make use of some of the wards for patients. The work was commenced in 1901, the administration block having been remodelled at an expenditure of £7,000. An additional sum of £75,000 has been expended on the new pavilions, and at present £5,000 is being spent on a new pathological department. A large number of minor works and improvements have been carried out in the buildings and grounds, and in all a total of £100,000 has been spent during the last six years. This hospital will contain over 400 beds, and is the largest institution of its kind in Australia.

SIR PHILIP SYDNEY JONES.

Last month a number of ladies and gentlemen representing the Executive Committee of the Queen Victoria Homes for Consumptives met at the Australia Hotel for the purpose of presenting Sir Philip Sydney Jones with a portrait of himself as a mark of esteem and in recognition of the work he had accomplished on behalf of consumptives. The picture, which was in sepia, was set in a massive oak frame. At the base of the frame was a copper shield bearing the following inscription: "Presented to Sir Philip Sydney Jones by the Executive Committee as a mark of esteem and in recognition of his devotion to the cause of the consumptive poor of New South Wales." It is intended to hang the picture in the hall of the sanatorium at Wentworth Falls.

SPECIAL CORRESPONDENCE.

BERLIN.

Professor von Behring on Bovine Tuberculosis and Milk.—Death of Professor Gusserow.

LAST week's meeting of the German Board of Agriculture in Berlin was of unusual interest, owing to an address on the struggle against bovine tuberculosis and the hygienic production of milk, delivered by Professor von Behring. The Prussian Cultus-Minister, Dr. Studt, was present, and a large and attentive audience gave evidence of the importance attached to Behring's researches. Of course the address did not deal with bovine tuberculosis alone, but drifted on to the struggle against human tuberculosis, in regard to which the speaker was full of sanguine hope for the future. At present, he said, he was less occupied with the question of bovo-vaccination than with the therapeutic experiments on human tuberculosis, about which he had spoken in his late Paris address. And in his present experiments he was making use of a vaccine free from propagating tubercle bacilli, whilst his bovo-vaccinations were made with living tubercle bacilli. The new preparation, named by him "tuberculase," he described as a semi-liquid, waxlike substance, the immunifying action of which was preserved by aid of a new method of his own, which he did not elucidate further. He added that he kept firmly to his previously-announced determination not to make his human remedy public before next autumn, so that it was useless for medical men or tuberculous patients to go on applying to him for an earlier disclosure. In the course of his speech, Professor von Behring further reported that he was getting nearer and nearer the goal to which his researches had so long been directed, namely, the production of cow's milk free from any danger of tuberculous infection for infants. It will be remembered that on a former occasion Behring recommended the sterilization of cow's milk by means of formaldehyde.

Adolf Gusserow, the well-known Berlin gynaecologist, and until three years ago Professor of Obstetrics and Gynaecology in the Berlin University, died on February 6th, at the age of 70. His death will awaken widespread regret, for Gusserow was a great favourite among his colleagues, and was regarded with special affection by many hundreds of former pupils. He began his career under Martin, whose assistant he became in 1860. In 1863 he interrupted his clinical work in order to study the operative methods and hospital arrangements of England and France. In 1865 he was appointed Privatdozent, and in 1867 full Professor in the Berlin University. Among his published researches, the most important are those on *Swellings of the Female Sexual Organs*; while of his other writings should be mentioned *Studies on Gynaecology in England*, and an address in memory of Simpson, the introducer of chloroform.

CORRESPONDENCE.

ANGINA PECTORIS.

SIR,—I have read with much interest the very instructive address on the above subject by Dr. William Russell. Having expressed my appreciation of the paper, I hope in the following remarks I shall not be considered a captious critic but merely an individual seeking enlightenment on the points which I raise.

Dr. Russell has arrived at the solution of the problem to his own satisfaction, an unifying principle which will include all the varying degrees of angina which have hitherto been described under that or any other title. Although my own views do not differ materially from his, I think I have discovered a few weak points in his armour, which I shall now endeavour to pierce:

> After taking food, and for at least part of the time during which the active processes of digestion are under way, there is an influx of blood to the whole splanchnic area, leading to hyperaemia, such a hyperaemia as considerably reduces the volume of blood in parts outside this area. This drainage into the abdominal vessels is balanced in the general circulation by a systemic arterial contraction. This is evidently a reflex phenomenon originating in the splanchnic system, passing to the vasomotor centre in the medulla, and then transmitted to the systemic arteries.

It might seem that Dr. Russell had here stated a series of incontrovertible facts, but it is not with facts that I quarrel, but with the superstructure which is afterwards imposed on them. Naturally, if there be a rush of blood to the abdominal organs, there will be less in other parts, and with the diminution in their contents the vessels will naturally contract, but a rise in blood pressure is not a necessary sequence. If the subject is kept flat and warm, the contraction of the vessels does not exceed that caused by the diminution in the contents, but, if he be in the erect posture, it is necessary that the blood pressure be maintained, and any paretic effect on the splanchnic vessels must be counterbalanced by an equivalent contraction of the peripheral vessels. No reflex action, or even a hypersensitive vasomotor centre, can single out the peripheral vessels for its special action; if the splanchnic nerves be intact they will receive their fair share of the vasomotor impulses.

If the splanchnic area of a rabbit be paralysed by division of the spinal cord, the circulation is well maintained so long as the rabbit is flat, but once you hang it up by the ears it dies, owing to the blood gravitating into the splanchnic area. In cases of shock the splanchnic vessels are engorged, and the peripheral vessels empty and contracted, but the blood pressure is not raised. In cases of orthostatic albuminuria, and in the so-called cardiosplanchnic paresis of Albert Abrams, and in many cases of neurasthenia, there is marked contraction of the peripheral arteries, but the blood pressure is low, or at least there is only a relative tension.

> Granting the existence of this normal reflex, it will not be questioned that high feeding and alcoholic liquors accentuate it; and that under such circumstances there is a marked raising of arterial tension, in addition to arterial contraction.

Personally I do not know any reflex which alcoholic liquors directly accentuate, unless it be in the case of a drunken man where any interference might excite a reflex which you did not anticipate. I know that Dr. George Oliver has shown that whisky, like absolute alcohol, gives a double pressure curve, but I also know that a good many of the observed effects of alcohol depend on the conditions under which it is administered.

Dr. Russell thinks that sclerosed arteries are particularly sensitive to vasomotor action, but this entirely depends on what view you take of arterio-sclerosis. If, with Dr. Russell, you limit the term to a mere hypertrophy or hyperplasia of the media, then probably he is correct; but if, like myself and others, you make the term also include atheromatous and calcareous changes in the intima, then I should say he is not entirely correct. I have no wish to question the accuracy of his observations in Case II after the administration of ½ oz. of whisky, nay, I am quite ready to accept them; but I think the cardiac and cerebral phenomena would be as readily explained on the supposition of a paresis of the splanchnic area.

Dr. Russell thinks that this vasomotor spasm may extend to the coronary and cerebral arteries, which is contrary to all modern physiological teaching, and I am inclined to think that when clinical medicine does not harmonize with physiology so much the worse for medicine. Physiologists in the present day teach that the coronary and cerebral arteries have got no vasomotor nerves, and I think that whatever myogenic function such thin-walled vessels may possess must be so slight as not to interfere with the circulation through them.

In a letter which I had from Professor Schäfer some time ago he said that there was no particular reason why the coronary arteries should be innervated, and until Dr. Russell can convince Professor Schäfer and other physiologists that he is right I am afraid I must abide by the teaching of physiology.—I am, etc.,

Liverpool, Feb. 11th. JAMES BARR.

ARTERIAL DISEASES.

SIR,—With much interest I have read the correspondence as to the cause of arterial tortuosity, and as Professor Clifford Allbutt and Dr. Harry Campbell both appear to be agreed as to this cause, it is with some diffidence that I venture to support the alternative supposition of Dr. Campbell, that the vessel *grows* lengthwise and is not merely stretched. My contention is that to produce so much elongation (tortuosity) pressure would have to be much greater than any that we could possibly find during life, and that even if the pressure were sufficient the accompanying dilatation would be much more marked, especially in those cases of tortuosity with moderate blood pressure when the media, being habitually relaxed, the artery dilates and becomes tortuous,[1] for here there is no "tone" to prevent dilatation, and I will try to show that it could only be this tone, if anything, that would allow a vessel to become to any appreciable degree elongated without being unduly dilated. Experiments that are only comparative are no doubt open to great error, but I think the following are sufficiently marked to be of, at any rate, some value.

A thin-walled rubber tube about 8 in. long and ⅛ in. internal diameter was fixed at one end, filled with water, and subjected to a pressure of 400 mm. of mercury. Dilatation appeared a little more than it would in an ordinary radial pulse; lengthening was quite insignificant. The same tube was entirely fixed at each end and fixed laterally on alternate sides at five intervening points, not in a straight line, with the same pressure as before, the tortuosity produced was practically no more than that produced by the dilatation of the tube on its convex sides at the fixed points. Tortuosity only became marked when the tube was subjected to very high pressure and greatly dilated.

To imitate the possible action of the tunica media of an artery resisting internal lateral pressure the rubber tube was placed inside a glass tube, just large enough to hold it; this was placed in water to prevent friction as far as possible; one end of the rubber tube was fixed and pressure of 400 mm. mercury applied. The tube lengthened at the free end barely ⅛ in.; under a pressure of 150 mm. there was no measurable increase in length.

The same tube, fixed at each end and fixed laterally in five intermediate places, was placed in chloroform. In two minutes it was as tortuous as any old high-tensioned temporal artery. On section now, the wall of the tube was found to be thickened—possibly half as thick again as before being put into the chloroform.

These experiments were carried out with tubes with thicker walls, and the results were less lengthening under pressure when in glass tubes, and greater tortuosity when in chloroform.

Of course it is impossible to say how great may be the power of the tunica media to resist the lateral force of internal pressure, and allow the whole force to be expended in lengthening the vessel; but, if it can do this, why does it not do so in those cases of high tension without tortuosity, mentioned by Professor Clifford Allbutt, where, as he writes, a small wiry vessel does not become tortuous until late, if at all, because protected by "tone" from injurious dilatation? or are we to assume that a vessel only becomes lengthened (tortuous) when tone is overcome by pressure and dilatation occurs? By pressure in this case I of course do not mean the pressure produced by arterial contraction.

We have none of these difficulties to overcome if we allow that lengthening is due to growth—that is, to thickening of the tunica media and adventitia, hypertrophic or inflammatory, or both. When the rubber tube was put into chloroform, it practically grew as the diseased artery does, and very moderate thickening produced much tortuosity. In this way we can explain easily the cases of tortuosity without high tension.

We find old tortuous vessels with dilated walls that are thin, but this thinning, I take it, is secondary to a previous thickening. The protective effect of tortuosity is in some ways greater than that of thickening, in that by increased friction it diminishes the peripheral force of the impulse of the heart beat.—I am, etc.,

Bradford-on-Avon, Feb. 4th. CHAS. E. S. FLEMMING.

SIR,—In my letter published in the BRITISH MEDICAL JOURNAL of February 3rd I referred to the occurrence of tortuous temporal arteries in subjects of moderate arterial blood pressure, and I attempted to explain it by assuming a prolonged relaxation of their muscular tunic. I am gratified to find that the same view is held by Professor MacWilliam of Aberdeen. In his valuable paper on the Properties of the Arterial and Venous Walls (published in the *Proceedings of the Royal Society*, vol. 70) I find the following passage (p. 151):

> The relatively great tendency to elongations, even under low or moderate internal pressures, in a relaxed artery is important with regard to the tendency of certain arteries in the human body to become elongated and tortuous, apart from any recognizable structural change in the vascular wall. Elongation of the healthy temporal artery when relaxed is easily discernible, even in young subjects; prolonged and frequently-recurring periods of relaxation tend to induce a more or less distinctly tortuous condition. Prolonged relaxation of the arteries of the uterus and mamma during pregnancy leads to similar changes in them.

—I am, etc..

London, Feb. 11th. HARRY CAMPBELL.

THE INFLUENCE OF POSTURE ON THE NORMAL CARDIAC SOUNDS AND ON THE NORMAL CARDIAC DULLNESS.

SIR,—Dr. Gordon, in his letter in the BRITISH MEDICAL JOURNAL of January 27th, says, in reply to mine of January 13th:

> As regards the pulmonary valves, I cannot think "that it matters nothing to the heart whether the lungs be above or below it." The work of maintaining the pulmonary circulation

---

[1] Dr. Campbell, February 3rd.

is, no doubt, the same for the ventricle in either case, but the weight sustained by the valves cannot be the same.

Now, surely, if the work for the ventricle be the same in either case, it cannot matter to the heart where the lungs are. The heart cannot conceivably have any personal prejudice in the matter. Moreover, if the work of the ventricle be the same, the pressure sustained by the valves must be the same, for the work is only expended in overcoming this pressure through a finite distance. In the formula $W = PD$, if W be constant, and D constant, P must be constant also.

Notwithstanding this necessary consequence of Dr. Gordon's admission, he yet says: "the weight sustained by the valves cannot be the same." Why should he cling so tenaciously to that fatal word "weight"? I put a so-called 20 lb. weight on a spring balance; it is pressed down till the pointer stands at the scale mark 20; I remove the weight, and press the scale down with my hand till the pointer again stands at 20; am I to conclude that my hand weighs 20 lb.? A balance knows nothing about weights, it only records pressures. Likewise the aortic and pulmonary valves know nothing about weights.

If a man lie down on his side one lung or the other is uppermost, and the heart between, but the descending pulmonary artery receives the same blood pressure as the ascending, for they communicate at their origin. The weight of blood lifted heavenward in the upper lung is done directly, while the weight lifted to the heart from the depths of the lower lung is effected remotely, through the mediation of the blood column in the descending artery and its branches, which transmit the pressure generated by the ventricle. Can we say, with Dr. Gordon, that the blood in the upper artery weighs more heavily on the pulmonary valves than the blood in the lower, or modifies pulmonary murmurs in a contrary manner?

Consider now "the weight of blood in the vessels above the heart in the erect position," Dr. Gordon says, "the arterial portion must rest on the aortic valves." Of course it does, but its weight does not modify the murmurs at the cardiac orifices, for the pressure on the valves is not increased. Something is taken off which neutralizes the effect of this added weight. Leonard Hill (Allbutt's *System of Medicine*, vol. vii, p. 251) writes, "It is apparent that there exists some special mechanism by which the pressure in the carotid artery, and thus of the cerebral circulation, is maintained practically constant during changes of posture." What is this special mechanism? Chiefly, I believe, that the weight of blood in the jugulars is helping the flow of blood from the head in the erect position, and within the closed rigid cranium no blood can escape without other blood flowing in to replace it. This facile access to the cranium aids the flow of blood from the carotid as effectually as the weight of blood in the carotid opposes it: two horses are added to the team, one backing and the other pulling, and we must remember or neglect them both.

With regard to Dr. Ballinghall's letter of January 20th, I hardly like to take him seriously when he says: "The heart itself is quite isolated from atmospheric pressure by the walls of the thorax." An insect in an open bottle or Diogenes in his tub suggests no such isolation. Moreover, when an airtight lid is closed on a vessel being emptied by a siphon, the latter will not cease to flow till the pressure at the surface of the liquid falls to that at the same level in the long arm of the siphon. The longer the arm, or the more air in the closed vessel, the later this will occur after the lid is closed, and the vessel may, with a suitable siphon, be emptied before it happens. Moreover, when a siphon ceases to flow it does not "cease to act"; it continues to keep low the pressure at the top of the long arm, and thus endeavours to maintain the flow from the short. In the aorta this would tend to make the thoracic part collapse, and the blood in the first part of the aorta would take advantage of the lowered resistance beyond, and flow more easily on that account. This gain, however, is neutralized by the retarding effect of gravity on the returning and ascending columns of blood which the aortic pressure has in its remote distribution to surmount.

Practically any rise in aortic pressure consequent on changing from the recumbent to the erect position is due to the extra effort involved in maintaining it. The increased work and not the altered attitude calls for an increased circulation and an increased "head of flow." When movement takes place the returning circulation is aided by the intermittent muscular compression of the valved veins in the legs, and the aortic pressure and cardiac effort are thereby economized.

I trust I have shown that Dr. Gordon cannot explain the murmur variations at the aortic and pulmonary orifices when the erect and recumbent positions are assumed by variations in the "weight" of blood above the valves, that in looped vessels the weight of blood in one loop must be set against the weight of blood in another, and that it is the algebraic total of these, *plus* the other resistances in the circuit, which determine the "pressure" at the cardiac orifices, and not by any means alone the variations in weight of an isolated column near the heart.—I am, etc.,

Mentone, Feb. 2nd. D. W. SAMWAYS.

VENTRIFIXATION.

SIR,—Dr. Peter Horrocks appears from his letter of last week to take umbrage at my remark that the discussion at a certain meeting of the Obstetrical Society did not in my opinion present British gynaecology at its best. I have often had my doubts as to the pre-eminence of British gynaecology as compared to that of some other countries, and I have occasionally expressed my opinion as to some causes of our inferior position without ambiguity, but I never intended to say anything so harsh as that the discussion in question *did* show British gynaecology at its best, which I understand to be Dr. Horrocks's opinion.

I thought well of Dr. Herman's introduction, and I referred to it in complimentary terms; but when Dr. Horrocks alleges it was "so exhaustive as to leave nothing to add," he appears to me to descend to the level of the after-dinner eulogist, or to rise to the position of omniscience, where I dare not attempt to follow. I can only wonder and doubt.

With all respect to Dr. Horrocks, I must suggest that there is a suspicion of quibble or want of candour in his reference to what he is pleased to designate my "astounding statement." Any fair-minded reader, who was not preoccupied with the necessity of scoring a clever dialectic point, would have accepted my remarks as referring to the alleged *danger* arising from adhesions. I thought I understood what I meant to convey to the mind of the reader by the descriptive terms I made use of, and I did not think my language obscure; with the italics supplied by Dr. Horrocks the passage takes on a non-natural meaning, and exaggerates into difficulties of the operation in general ~~the trifling obs~~tacles met with in one particular case. There is here either a misapprehension of the tolerably obvious meaning or a lack of sensitively punctilious fairness in controversy.

After all, Dr. Horrocks's "astounding statement" only amounts to a temperamental expression of the suspicion that there exists somewhere some difference of opinion between himself and me on the pathology of peritonitis. As far as I can make out the difference, which is implied rather than explicitly stated, there are two chief points on which my erroneous opinions demand immediate correction:

1. After an attack of peritonitis the peritoneum above the adhesions is "virgin," and consequently it is easily lighted up by disturbing the adhesions. That statement would imply that physiological resolution, or even naked-eye resolution, does nowhere occur. "Adhesions are formed to prevent spreading, etc." I humbly maintain that in support of such a doctrine there does not exist anywhere sufficient evidence to convince even a Christian Scientist who wished to believe it.

2. There is a danger in "disturbing certain kinds of adhesions." We may assume, to take illustrations, that such adhesions are the result of sepsis or gonorrhoeal infection. Is it, then, implied that once infectious and dangerous adhesions occur they remain for ever a source of danger from infection, if disturbed? My practice has long been guided by the principle that we must wait for the sterility of fluids and tissues, which is sure to arrive in time; and the results seem to justify the theory. For example, interfering with a gonorrhoeal sactosalpinx at one stage amounts to inviting disaster, whereas later very greater liberties may be taken with such a lesion to the entire advantage of the patient.

However, I may be missing the points, for the language used to correct my "erroneous statements" is not to me, at least, perfectly lacking in obscurity. So I write now merely a sort of provisional plea in deprecation of too harsh condemnation.

But this seems perfectly clear to me that the merits and limitations of ventrifixation are not to be settled by *obiter dicta*, unpremeditated remarks during a "discussion" or by the *ipse dixit* of any one of us however full of experience, sound of judgement, and appreciative of his own gifts. Calm discussion conceived in terms becoming a question of much scientific and human interest, experience weighed and appraised with intellectual honesty, and then the common sense of most, must pass the final judgement.

Concerning the rest of Dr. Horrocks's letter I can only say: *De minimis non curat lex.*—I am, etc.,

Manchester, Feb. 13th. WILLIAM J. SINCLAIR.

THE RELATIVE BRAIN-WEIGHTS OF MAN AND WOMAN.

SIR,—The three letters which my communication of January 27th has called forth seem to me peculiarly characteristic of the want of lucidity which marks the utterances of anatomists when they approach the statistical problems of anthropology. I have read and reread these letters without their conveying any definite idea to my mind of what the writers are driving at. They appear to have no standardized scientific method of approaching any anthropometrical problem. In fact, all three are in my opinion wanting in a sense of those canons of numerical logic without which any valid scientific deduction is impossible. It is further quite clear that they have not read carefully, or possibly have not read at all, the five papers on the relationship of head measurements to intelligence which have been published by the biometric school.

In the remarks which follow I shall endeavour to emphasize the points I have most at heart—namely, the re-establishment of anthropology, especially anthropometry on a sound biometrical basis, so that it may become an academic study with a high value as an intellectual training; and, secondly, the insistence on the point that without sound statistical knowledge no anatomist *per se* can give a judgement of any weight in anthropometric matters.

The object of my letter was twofold—first to point out a serious misrepresentation of the work done by two young scientists, and next to draw attention to a certain novel point in the work of one of them. The first portion of my object depended solely on citing *four* lines of Dr. Keith's criticism. He says that it was unfair not to reproduce a larger section of his paper. He puts these four lines in italics, and I repeat them here, underlining four words:

> In his calculations Pearl took into consideration *merely* age and stature, while the second group of workers *added a third*—namely, the diametral product—a quantity which roughly represents the size of the head.

I assert that no reader of these lines would believe that Pearl had taken into consideration body weight, head length and head breadth, and that Blakeman, besides first considering independently head length, head breadth, and auricular height, and settling on the diametral product as the most effective measure, had then introduced the horizontal circumference. Either Dr. Keith overlooked these facts or the above lines were worded with extreme carelessness. There is nothing in the whole of Dr. Keith's paper to modify the impression conveyed by them with regard to the range of characters dealt with in the two original memoirs.

In the next place we come to my second point—that Blakeman has shown for the first time scientifically that the whole difference of man and woman's brain-weights is one of relative physique. As a matter of fact, the size of body is of no real importance; it is only because it is correlated with the head measurements that it affects the result at all. More recent work has shown that, without considering weight or stature, the man and woman with the same head circumferences and diametral products have sensibly the same brain-weights. The question of the relative intelligence of men and women thus ceases to be sexual; it thus becomes a question of whether the bigger man is more or less intelligent than the smaller man. As I knew from Dr. Keith's article that he was not aware of the exact scope and significance of a multiple regression equation, I referred him in my letter to diagrams which illustrated how frequently the female cranium exceeds in the dimensions under consideration that of the mean man. To this Dr. Keith replies by charging me again with being unfair, this time "particularly unfair." He cites a passage: "The *Englishman* of the same age, stature, and diametral product as the mean woman, etc.," has the same brain weight, and then writes: "That is to say, when the *mean man* has the length, breadth, height, and circumference of his skull reduced to the measurements of the mean woman his excess of brain disappears." The italics are mine but whose is the unfairness—the "particular unfairness?" The writer who replaces "the Englishman of the same characters as the mean woman" by "the mean man," or the writer who simply states in plain English the result of the statistical experience? As the replacement of "Englishman" by "mean man" enables Dr. Keith to make a cheap criticism about brain being forced beneath the scalp or into the spinal canal, I should like to ask him —as I have a number of women on my list with a larger diametral product than his—whether their brains have been drawn up from their spinal canals or his forced out beneath the scalp? I admit I see no relevancy in the question, but it is perfectly on a parallel with the witticism which he in some way imagines has bearing on the results reached in *Biometrika.*

I turn now to my old foe, Dr. Beddoe. Frankly, he represents for me all that is worst in the old school of anthropometry. *Anthropometrika badawiya delenda sunt*—Rough anthropometrics must be destroyed! But the difficulty is to bring Dr. Beddoe to book. By the time you have smashed up one of his formulae he has invented another; while you are exposing one of his arithmetical blunders he has covered it by a worse one. But I think there is one point he really owes me an apology for. He has several times asserted that at one time I totally disbelieved in the correlation between intelligence and size of head. In the present letter he cites not a single word of mine to show the basis of his statement, but remarks that he has seen it stated in an article professedly scientific by *somebody else!* Now, as I have remarked, five memoirs on this subject have been issued by the biometric school. In the first (1900) it is said: "There is no *marked* correlation between skull capacity and intelligence." In the second (1902) and third (1902) papers demonstration of this statement was given by the publication of the numerical values of the correlation between intelligence and the three cephalic diameters. In the fourth (1903) the following words occur:

> With regard to the connexion of size of head with intelligence . . . there was not enough correlation to render prediction possible.

Now I directly challenge Dr. Beddoe to substantiate the assertion he made in *L'Anthropologie*, T. xiv, p. 267, and which he repeats in the BRITISH MEDICAL JOURNAL, that I once held the view that there was no relationship, and that I *now* allow that "there is a sensible correlation between size of head and intelligence, but that it is so slight that no safe prediction can be made from size to degree of intelligence." This statement is absolutely in accord with the first and last biometric utterances on the subject, and has been persistently repeated in every memoir since; the simple reason for this being that the biometrician is solely interpreting statistical facts, he has no room for questions of belief and "disbelief." When Dr. Beddoe has substantiated his repeated statement, then I will ask him to substantiate much of the elementary arithmetic of his recent memoir in the *Journal of the Anthropological Institute.* Inaccuracy of statement and of arithmetic invalidate, in my opinion, the whole of his contributions to anthropology.

Dr. Beddoe solemnly warns me that the average and the individual are two different things, and Dr. Gladstone, with all his additional weight, emphasizes this warning. I really think I can afford to smile, considering the battles I have fought on this very point. Perhaps, however, they will settle the matter with Dr. Keith, who believes "that the full explanation of the relationship which exists between intelligence, brain-weight, and other characters is more likely to be discovered by those who investigate the individual than by those who study the mass."[1] I had hoped my 44 per cent. illustration would have brought home to the non-statistically-minded anatomist what prediction from the average result means in the case of intelligence and head size. I can, on the base of average results, predict the length of the right femur from that of the left with almost absolute accuracy; the length of the right humerus from that of the right femur with great accuracy; the length of the distal phalanx of one finger from that of the next with very considerable accuracy; the stature of son from that of father and mother with considerable accuracy; the auricular height of the head from its length with moderate accuracy, or the length of the head from the stature with some approach to truth. All these predictions from the average are useful, and the man who makes them, if occasionally wrong, will in general be right. But the man who uses head-size as a prediction of intelligence will attain to no result in the least approaching these cases. In biometric language, the correlation is so low that the probable error is practically as great as if he were to predict the head-size of any man from a knowledge of the mean head-size of the community at large. His result, as I have recently ascertained, will be much better if he uses "temper" as a measure of intelligence, and about as good if he uses hair colour.

To Dr. Gladstone's remarks I can only reply that most of them are unintelligible to me, and seem to arise from unfamiliarity with the literature of the subject and from want of power to grasp numerical reasoning. Dr. Gladstone says:

> A far truer estimate of the correlation between ability and size of head will be obtained by ascertaining the mean size of the head of all the individuals of high ability and contrasting this with the mean size of the head of the unintelligent.

It is therefore necessary to remark that the coefficient of correlation is simply the scientific means of reaching the regression line, which gives precisely this information! As to his example of the Eskimos and Andamanese, all I can grasp of it is that some anatomists consider the English as mixed a population as a non-interbred mixture of Eskimos and Andamanese. I wish those anatomists would calculate out the variability in eye and hair colour, and the variation in head diameters and circumferences of an equally nourished sample of the mixed English population, as it now exists, and compare these numbers with the like numbers for Prussia, or Bavaria, or even Sweden. I think, then, they would lay very much less stress on the markedly heterogeneous character of the English people. Purity of race is a merely relative matter; no race is pure, and the homogeneity of a race depends on the amounts of interbreeding and of environmental selection. A mixed race is not to be confused with a mixture of races, and our unmixed elements now largely cling to the sides of the bowl. Anyhow, my own statistics show that nourishment and class are far more potent factors than locality in determining head size. The anatomist who compares the head size of the professional classes with those of farm labourers, or with those of the inmates of workhouses, or the brain-weights of distinguished men with the results of *post-mortem* hospital measurements, in order to bolster up a theory of the close relation of intelligence to head-size is foredoomed to failure; to as great a failure as Dr. Gladstone, when he compares well-developed muscles with well-developed brains, and apparently imagines that size, which in the first case favours the performance of physical function, must in the other case be an essential criterion of the development which is fitting for mental function. This failure is well illustrated in Dr. Gladstone's statement "that the average size of head sensibly decreases in passing from groups of the more sane to those of the less." Statistics on the table, I cry, for I have seen something of the unpublished measurements of nearly 14,000 lunatics, and I trace nothing of this "sensible decrease." It is, perhaps, Dr. Gladstone's misfortune, not his fault, that he does not apparently know much about gasometers, for they do resemble the cranium in a point which he has forgotten when making the analogy, namely, that stability necessitates a correlation between height and the horizontal diameters. Further, the careless reader would believe from perusing his letter that the auricular height had not been used by me in predicting Dr. Keith's position among anatomists. As a matter of fact the height of the head was used in the very first memoir on the subject, and it was shown in the third memoir that it is the *least* important of all the diameters from the standpoint of its relation to intelligence. It has been repeatedly demonstrated by biometricians that increasing the number of correlated variables upon which prediction is based will not of necessity increase the accuracy of prediction. But in this case the auricular height was actually taken into account. Further, the skull capacities of the three races to which the anatomists at the top, at the middle, and at the bottom of the list belong are about 1,480, 1,490, and 1,500 cubic centimetres respectively, that is, in the exactly inverse order of the capacities on the list, so that Dr. Gladstone's remark that the relative position of Messrs. Lynn Thomas, Keith and Kollmann illustrates "the way in which size of head is influenced by race" is on a par with that want of lucidity I have already noticed in his treatment of statistical problems.

If it be asked why biometricians should meddle with anatomical problems at all, our answer must be that these problems of brain-weight are anthropometrical and statistical, and we see in every number of the *Zeitschrift für Anthropologie* and of the *Journal of the Anthropological Institute* evidence of the fallacies which arise from the widespread want of statistical training among anatomists.—I am, etc.,

University College, London, Feb. 10th. KARL PEARSON.

---

[1] *Nature*, December 28th, p. 203.

RURAL INSANITATION.

SIR,—The article on "rural insanitation" in the BRITISH MEDICAL JOURNAL of February 10th points to the necessity for some alteration in the sanitary administration of rural districts, more especially as regards the terms of appointment of medical officers of health. Until these officials have a reasonable security of tenure of office, and are no longer elected for short terms, the conditions described will continue to exist. If the President of the Local Government Board would institute an inquiry into the administration of rural districts he would, I am sure, be alarmed to find how much it differs from that of towns or of the County Council with which hitherto he has been solely associated.—I am, etc.,

February 13th. RURAL M.O.H.

SIR,—As regards rural sanitation, are we wise in being too fastidious in our endeavour for the ideal in such matters as situation and cleanliness of piggeries, cowhouses, cows, dairy, etc.? Do we not by so doing increase the difficulties of cottagers and dairy farmers to such an extent that many are giving up keeping pigs rather than submit to the increased trouble of having their pigs removed further from their doors, etc.? Small dairy farmers in this part of a dairy county are also giving up the dairy business entirely rather than incur the expense and increased trouble in carrying out a seemingly irksome and extra unnecessary attention to their cows, sheds, etc., beyond what their parents did before them in the harder and rougher good old times gone by. Hence it seems, by too fussily sanitating by well-paid inspectors, we keep increasing our rates in order to make our milk, butter, and pork in every shape dearer; at the same time the habits and tastes of the people are being assisted to become more delicate; and is it not a fact that, in proportion to the delicacy and habits of the people, so the constitutions of the whole nation become more delicate? I wonder if all this conduces to keep the man on the soil?—I am, etc.,

February 13th. LIMITATION.

THE BURIAL PLACE OF HARVEY.

SIR,—The church tower of Hempstead Church, Saffron Walden, Essex, a small village of some 400 inhabitants, fell down in 1882, and the stones still lie in disfiguring heaps in the churchyard. The district is a purely agricultural one, and it has hitherto been found impossible to raise locally an amount sufficient for its rebuilding.

The parishioners deeply value their privilege of being the custodians of the mortal remains of Dr. William Harvey, whose discovery of the circulation of the blood was mainly instrumental in raising the art of medicine and surgery to its present rank as a science. But, their means being so small, outside help is essential for rebuilding the tower of the church, which is estimated to cost £1,500; and it has occurred to me, as the newly appointed Vicar of the parish, that the members of the medical profession would feel it a privilege to contribute to restore to decency and order the structure in which rests the body of one to whom they owe so much. I have communicated with the Royal College of Physicians and the Royal College of Surgeons; and these bodies have recognized the justice of my appeal, the former by a contribution of 20 guineas, the latter by one of 10 guineas, provided a sufficient sum for the purpose is raised.

May I ask you to use your influence in the matter, and to open a subscription list in your JOURNAL, asking members of the medical profession at home and abroad to send contributions to you or Messrs. Barclay, bankers, Saffron Walden (Hempstead Tower Fund), in honour and to the memory of such an illustrious member of their profession as Dr. William Harvey proved himself to be?—I am, etc.,

Saffron Walden, Feb. 10th. E. J. ROBERTS.

Subscriptions already received and promised:

	£	s.	d.
In Messrs. Barclay's Bank	210	0	0
Royal College of Physicians	21	0	0
Royal College of Surgeons	10	10	0
Dr. D. H. Tuke	2	10	0

THE POOR-LAW COMMISSION AND CONTRACT PRACTICE.

SIR,—I am afraid I am not altogether reassured by "Professional Union's" reply. It is certainly a relief to hear that it is not proposed to deprive me of my appointments. But there still remains the question of the reduction of the sale value of my practice.

1. My appointment cost me, at a year and a half's purchase, £300, and when I sell I shall want that £300 back again, if I succeed in transferring the appointments to my successor. But how much is any purchaser likely to give me if I tell him that there are a dozen men in this and the surrounding parishes, all of whom will have some of that contract work?

2. The loss of the greater part of the contract work would involve the loss of a certain amount of private practice.

3. The above circumstances would reduce my practice from one worth a year and a-half's purchase to one worth a year's purchase only.

4. The prospect of a considerably smaller income than mine would deter many men from taking over my house.

Suppose my income is £600, of which £200 is from contract work and £400 from private practice, I could now get £900 for it, but if "Professional Union's" benevolent schemes come into effect I shall be lucky indeed to get £400.

I have omitted all mention of the prospect of a share in the spoils, inducing an outsider to "squat" in the village.

I may mention that owing to the geography of this neighbourhood my successor would be extremely unlikely to benefit in the slightest degree from the scattering of the contract work of his neighbours.—I am, etc.,

January 21st. SELF-PRESERVATION.

AN ARMY MEDICAL CIVILIAN RESERVE.

SIR,—The chief difficulty in the past has been, as at the present, attempting to form a medical reserve that will supplement the R.A.M.C. from civilians. Unfortunately both those in power and the public are imbued with the idea that any qualified medical man is an efficient substitute on service for an officer of the R.A.M.C., and is capable of doing medical duty in the field. So long as this delusion exists no practical medical reserve capable of supplementing the R.A.M.C. will be formed. The late Boer war conclusively proved that neither were the R.A.M.C. numerically sufficient, nor were the civilians employed in the field efficient substitutes. The civilian medical is only suitable for duty in war in those hospitals in which the main part of the nursing is performed by trained female nurses. The civilian medicals are of two grades:

1. Expert operators, such as are on the permanent staff of large hospitals.

2. Qualified men, preference being given to those who have held residential hospital posts. Of each of these there are always sufficient upon the market: with either it is only a question of £ s. d. These men are all that can be desired so long as they are under similar environment to that of home, but are not successes with troops in the field.

The Army Medical Reserve that is absolutely essential in the field already exists, but in an embryo state, in the Volunteer Medical Services, in which officers and men are trained upon the very same lines as the R.A.M.C.

All, therefore, that is required to develop an efficient Army Medical Service is to make the Volunteer Medical Services a potentiality, and associate it with the R.A.M.C. as closely as co-ordinate bodies can be. So that when required either in peace or in war, we shall have a Volunteer Medical Service (R.A.M.C.V.) which can supplement that of the R.A.M.C. in each and every position as high as that of the P.M.O. of a district. The *sine qua non* for the evolution of such a practical scheme is for the Government and the public to realize that the failures in the past have been due to the fallacy that any civilian medical man was a substitute in the field and could efficiently discharge the duties of a highly technically trained and disciplined body such as the R.A.M.C.—I am, etc.,

Bletchley, Feb. 10th.

PETER GILES,
Surgeon-Colonel, S.M.O. 30th Field Army Brigade,
S.M.O. Volunteer Ambulance School of Instruction.

UNION OF LONDON MEDICAL SOCIETIES.

SIR,—The Organizing Committee of the above have sent 5,000 reply post-cards to members of the various societies, requesting answers to certain questions. This course was adopted for the purpose of ascertaining the probable membership of the proposed new society.

The replies have been most satisfactory, nearly 1,000 individuals having stated their intention of joining the new Society as Fellows, at an annual subscription of £3 3s. So far, however, we have received less than 2,000 answers.

In order to estimate the financial position of the proposed new society, it is important that we should have as complete an idea as possible of the numbers of members of existing societies who are likely to join the new society as members or Fellows. We should, therefore, be much obliged if you would allow us to appeal through your columns for an early reply to the questions on the part of those who have not yet answered.

The questions are as follows:

Are you willing—

1. To become a Fellow of the proposed new society with the full use of the general library, and the right to attend all the sections, at a subscription of £3 3s. per annum, or

2. To become a member of a section with the use of the sectional library and of the general reading room, at a subscription of £1 1s. per annum, or

3. To become a member of a section as above and to join other sections, at a subscription of 10s. 6d. per annum for each additional section.

4. To become a member of one or more sections as above, and in addition to pay a subscription of £1 1s. per annum for the full use of the general library?

—We are, etc.,

ARTHUR LATHAM,
HERBERT S. PENDLEBURY,
London, W., Feb. 10th. *Hon. Secretaries.*

A SUNDAY REST FOR MEDICAL PRACTITIONERS.

SIR,—Regarding your note on Sunday rest for medical practitioners in the BRITISH MEDICAL JOURNAL of February 3rd, I should like to be allowed to offer a slight correction, inasmuch as the plan has been introduced in quite a number of places in Germany, and has been found to act in an eminently satisfactory manner. Some weeks ago at a meeting of medical delegates a report was submitted regarding the working of this institution at the university town of Marburg, in Hessia, a city containing about 20,000 inhabitants.

The most striking point in the report was that two medical men were found amply sufficient for the work required; in fact, it seemed as if the whole population were able to dispense with medical attendance for the rest of the day. Does not this prove that the life of medical practitioners might be made far less onerous than it usually is at present?—I am, etc.,

Frankfort-on-Maine, Feb. 12th. F. A. PHILIPPI, M.D.

OBITUARY.

THE late Dr. GEORGE LOWSON, whose death is announced from Dundee, was a comparatively young man and a native of the city in which he worked and died. Like many others of his fellow-townsmen, he was at first connected with the jute industry, but under the influence of his uncle, the late Dr. Peter Baxter, afterwards turned his thoughts towards the profession of medicine, and he graduated M.B., C.M.Glasg., in 1890. After holding the appointment of house-surgeon at the Royal Infirmary, Greenock, he acted as an assistant for some time in Bilston and Manchester, and having thus added practical experience to theoretical knowledge, returned to Dundee some thirteen years ago and started private practice. In this, apart from his real ability, he was greatly aided by his cheery disposition, and he soon became popular both with his numerous patients and his professional friends. His career, however, received a severe check some two years ago, when an accident necessitated the amputation of one of his legs. Though he threw himself again into active work, he never quite recovered his old cheerfulness and vigour. His end came after a brief illness connected with a cardiac trouble. Dr. Lowson was a member of the Dundee Branch of the British Medical Association, and held appointments as district surgeon and public vaccinator, and as surgeon to the Convalescent Home in William Street, Dundee. He was married, and leaves a widow and three young children, for whom much sympathy is felt.

A NOTABLE figure in the medical profession of New York has recently passed away in the person of Dr. WILLIAM B. NEFTEL, a well-known neurologist. Born in Russia in 1830, he took his degree at St. Petersburg in 1852. He entered the army and was appointed surgeon in the Imperial Guard, with whom he served in the Crimean war. In 1865 Dr. Neftel went to New York, where he was a pioneer in electrotherapy. He is survived by his wife, who was Princess Nadine of Georgia, a grand-daughter of King George XIII of that country, which is now part of Russian Transcaucasia.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Nikolai Kotoffschtschikoff, Emeritus Professor of Therapeutics in the University of Kasan, aged 60; Dr. L. Schuster, of Aix-la-Chapelle, well known as a neurologist and dermatologist, aged 78; Dr. Zielenziger, of Potsdam, held in high esteem as a medical practitioner and well known in a larger sphere as a poet, aged 85; Dr. Frederich Kerschbaumer, a well-known ophthalmic surgeon of Ischl, aged 58; Dr. Giuseppe Casarini, sometime Professor of Pathology in the Medical Faculty of Modena; Dr. Lehman Herbert Dunning, Professor of Gynaecology and Abdominal Surgery in Indiana Medical College, aged 55; Dr. Rogman, a well-known ophthalmologist of Ghent; and Dr. Emil Schnee, the oldest physician of Carlsbad, aged 70.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

EXAMINATIONS FOR PROMOTION.

THE list of successful candidates at the last examination for promotion, of officers of all arms, includes the names of twenty-one officers belonging to the Royal Army Medical Corps. Of these, sixteen are Majors, one a Major and Brevet Lieutenant-Colonel, three Captains, and two Lieutenants, one of the latter being on half-pay.

ROYAL NAVY MEDICAL SERVICE.

Prospects in the Service.

"PRESENT NAVAL SURGEON" writes: As a "Present Naval Surgeon" I quite agree with the views put forth by a "Former Naval Surgeon." Any surgeon who "knows his job" is treated with respect by the Executive Branch, and has no difficulty in getting what he wants done, either in regard to the general health of his ship's company or any individual case. The examination for staff surgeon is conducted on lines more theoretical than practical, but I and all surgeons that I have met believe that the previous services and merits of individuals count for more than the marks amassed on paper. The curse of the service is the surgeon who can neither get on with the other officers in the wardroom nor obtain the confidence of the men on the lower deck. Of these there are too many in each batch, but the remedy lies with the Board of Examiners, who should follow in the tracks of the R.A.M.C., and constitute a Board of "Social Competence," and refuse admittance to all who show they are not fit for life in a wardroom and cannot get into the confidence of the men who are under their charge.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

THE following have been appointed Members of the Board of Electors to the several Professorships:

Chemistry.—W. A. Tilden, D.Sc., F.R.S.
Geology.—Sir A. Geikie, Hon. Sc.D., Sec. R.S.
Jacksonian.—Professor Thomson.
Medicine (Downing).—Sir W. H. Broadbent, Bart., K.C.V.O., M.D.
Physiology.—E. A. Schäfer, F.R.S.
Pathology.—J. F. Payne, M.D.

UNIVERSITY OF LONDON.

MEETING OF THE SENATE.

A MEETING of the Senate was held on January 24th.

Physiological Laboratory.

Dr. A. D. Waller, F.R.S., and Dr. T. Lambert Mears were re-elected respectively Director and Treasurer of the Physiological Laboratory for 1906.

Miss Beatrice Edgell was recognized as a teacher of experimental psychology in the Physiological Laboratory of the University.

The course of lectures on animal metabolism recently delivered in the Physiological Laboratory by Mr. J. B. Leathes was approved for publication under the authority of the University. The panel of University lecturers in advanced physiology was revised.

Chair of Protozoology.

A cordial vote of thanks was adopted to the Secretary of State for the Colonies for having approved an increase of £50 a year to the sum of £700 a year for five years placed at the disposal of the University for the provision of the salary of a professor of protozoology.

Award of University Medals.

University medals in Branches I, III, and IV of the M.D. Examinations were awarded respectively to Mr. Alfred H. Gerrard (University College and Guy's Hospital), Mr. Charles Arthur Mercier (London Hospital), and Mr. Archibald Montague H. Gray, B.S. (University College). The University medal at the M.S. Examination was awarded to Mr. Ernest William Hey Groves, M.D., B.Sc. (St. Bartholomew's Hospital).

Intermediate Examination.

The following candidates were approved at the January *Intermediate Examination in Medicine:*

Eileen E. Allen, M. E. Ball, F. M. Bishop, *†H. O. Brookhouse, †J. P. Buckley, †A. L. Candler, B. A. Cheadle, J. H. Clarke, E. N. Cook, †Ethel C. Cousins, L. Croft, A. R. Dale, A. Davies, T. B. Davies, N. C. Davis, C. Deuntzer, Ethel A. Douglas, E. P. Evans, T. Evans, W. V. Field, Josephine E. L. Griffiths, Ethel M. E. Hall, G. B. Harland, W. R. Harris, F. W. Hogarth, S. E. Holder, K. H Hole, †¶H. I. Janmahomed, D. Judah, A. N. Leeming, A. E. Lees, H. C. Lucey, E. G. Mack, C. H. Marshall, E. K. Martin, J. B. Martin, H. E. H. Mitchell, M. H. E. R. Montesole, M. A. Nicholson, O. B. Parry, Mary E. Parsons, E. M. Parsons-Smith, P. S. Price, T. E. Pryce, D. Reynolds, R. W. Rix, Mabel Russell, A. F. Sanderson, H. W. Scawin, J. E. Scudamore, F. Standish, T. Stansfield, †¶H. E. R. Stephens, K. H. Stokes, H. Stott, G. R. Strong, G. Viner, Dora M. Watney, Lilian E. Watney, †R. T. Williams.

* Distinguished in Anatomy. † Distinguished in Physiology.
¶ Distinguished in Pharmacology.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN Ordinary Council was held on February 8th, Mr. JOHN TWEEDY, President, in the chair.

Diplomas.

Diplomas of membership were issued to ninety-nine candidates found qualified at the recent examination.

Diplomas of the Licence in Dental Surgery were issued to three, and diplomas in Public Health of the two Colleges to eighteen candidates found qualified.

Burial Place of William Harvey.

The College contributed ten guineas towards the rebuilding of the tower of Hempstead Church, where William Harvey is buried.

Central Midwives Board.

Mr. J. Ward Cousins was reappointed to represent the College on the above for the present year.

Bradshaw Lecturer.

Mr. Edmund Owen was appointed Bradshaw Lecturer for the ensuing collegiate year.

British Dental Association.

An afternoon reception in the Museum of the College for the members of the above Association, on the occasion of the meeting in London in May next, was arranged for May 18th.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

A quarterly meeting of the Royal College of Physicians of Edinburgh was held on Tuesday, February 6th, Dr. Playfair, President, in the chair.

Introduction of Fellows.

George Freeland Barbour Simpson, M.B., Ch.B., F.R.C.S.E., F.R.C.P.E.; Charles Mowbray Pearson, M.B., Ch.B., F.R.C.P.E.; and Edwin Matthew, M.B., C.M., F.R.C.P.E., were introduced and took their seats as Fellows of the College.

Admission to the Fellowship.

Andrew Balfour, M.D., B.Sc., M.R.C.P.E., Khartoum, and John Dixon Comrie, M.B., Ch.B., M.R.C.P.E., Edinburgh, were admitted by ballot to the Fellowship of the College.

Admission to the Membership.

William Leslie Lyall, M.B., C.M., Edinburgh, and Sorab Kaikhoshru Engineer, L.R.C.P. and S.E., Portobello, were admitted by ballot to the Membership of the College after examination.

Admission to the Licence.

The Registrar reported that since the last quarterly meeting, twenty-six persons had obtained the Licence of the College by examination.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

A deputation from the Royal College of Surgeons in Ireland waited upon the Lord-Lieutenant of Ireland on February 9th, to present an address expressing their loyalty and devotion to His Majesty's throne. The Earl of Aberdeen, in replying, said he cordially appreciated the expression of loyalty to the King and of welcome to himself. He recognized the far-reaching and beneficent services of the great profession to which they belonged, and in particular the high attainments in the science and practice of surgery which they had reached. The members of the deputation were afterwards presented to the Earl and Countess of Aberdeen.

THE CONJOINT BOARD IN ENGLAND.

The following gentlemen, having passed the necessary examinations in October last, and having conformed to the by-laws and regulations of both Colleges, the diplomas of L.R.C.P.Lond. and M.R.C.S.Eng. have been conferred on them:

L. E. Acomb, Cardiff and Middlesex; E. L. Atkinson, St. Thomas's; C. K. Attlee, Cambridge and St. Thomas's; J. S. Avery, Bristol; A. Barber, St. Bartholomew's; B. H. Barton, St. Bartholomew's; A. Beeley, Leeds; C. Bennett, St. Thomas's; L. C. Blackstone, University College; R. O. Bodman, Bristol; C. W. Bowle, St. Thomas's; D. W. A. Bull, Cambridge and St. George's; R. Burgess, Cambridge and London; W. B. Burr, Middlesex; G. Chaikin, Sheffield and London; A. de C. C. Charles, Cambridge and St. Thomas's; H. D. Clementi-Smith, St. Bartholomew's; A. H. Clough, Guy's; O. C. P. Cooke, London; G. L. Cox, Cambridge and Liverpool; N. R. Cunningham, Cambridge and St. Thomas's; H. F. Curl, Cambridge and London; F. B. Dalgliesh, St. Thomas's; A. P. Day, Cambridge and London; H. L. Deck, Sydney and St. Bartholomew's; C. C. A. de Villiers, Guy's; A. N. Dickson, Cambridge and St. Thomas's; A. Dinnis, Charing Cross; W. A. E. Dobbin, Cardiff and St. Mary's; G. S. Earl, St. George's; G. B. Edwards, London; *J. Evans, Cambridge and St. George's; T. L. Evans, Cardiff and University College; A. H. Fardon, Cambridge and St. Thomas's; A. R. Fisher, Leeds and King's College; J. E. Foreman, London; A. T. W. Forrester, St. Bartholomew's; *C. W. Gibson, Guy's; J. N. Glaister, University College; J. M. P. Grell, Cambridge and King's College; J. Grogono, London; R. M. Grogono, London; G. W. Hardy, Leeds; R. F. Hebbert, St. Thomas's; *G. H. Heron, St. Mary's and Liverpool; V. C. Honeybourne, Cambridge and St. Thomas's; N. G. Horner, Cambridge and St. Bartholomew's; F. R. Hotop, New Zealand; J. I. Jaffé, Dublin and King's College; R. R. James, St. George's; E. C. Jones, St. Thomas's; H. T. Jones, University College; W. H. Jones, Manchester and St. Bartholomew's; E. G. Kellgren, Cambridge and St. George's; *T. W. Kirby, Toronto and Guy's; H. E. Kitchen, Cambridge, Manchester, and St. Mary's; T. B. Layton, Guy's; A. L. Loughborough, St. Thomas's; A. H. McCandlish, London; W. St.C. McClure, Sheffield, University College, and London; J. E. R. McDonagh, St. Bartholomew's; S. G. MacDonald, Cambridge and St. Thomas's; *W. J. O. Malloch, Toronto, and London; L. Myer, Guy's; J. C. A. Norman, London; *N. H. Oliver, Guy's; W. H. Orton, Cambridge and St. Bartholomew's; W. S. Orton, Guy's; C. M. Page, St. Thomas's; E. W. M. Paine, St. Bartholomew's; J. W. Parker, Cardiff and University College; M. C. M. Pitkin, Cambridge and St. Thomas's; H. R. Prentice, St. Bartholomew's; W. P. Purdom, Guy's; H. E. Quick, St. Bartholomew's; A. Randle, University College; S. Reader, Guy's; M. J. J. Roger, Paris; W. O. Sankey, St. Thomas's; E. Schenck, Freiburg; F. Shingleton Smith, Cambridge and Bristol; C. A. Stidston, St. Bartholomew's; J. Tate, University College; G. M. Taylor, London; F. Thompson, London; E. M. Thomson, St. George's; A. C. Watkin, University College; J. A. Watt, University College; L. White, Westminster; H. B. Whitehouse, St. Thomas's; E. D. Whittle, University College; W. D. Wilkins, Manchester; E. Wilkinson, Birmingham; A. H. Williams, London and Durham; W. T. Williamson, St. Bartholomew's; C. J. Wilson, Cambridge and London; M. R. O. Wilson, Bristol; J. H. Wolfe, London; H. D. Wyatt, Guy's; W. A. B. Young, Manchester.

* Under regulations dated October 1st, 1884.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

VOLUNTARY NOTIFICATION OF CONSUMPTION.

The St. Pancras Borough Council has since 1903 provided for the bacteriological examination of sputum in doubtful cases of pulmonary tuberculosis for the purpose of diagnosis. The Council has recently resolved to adopt the voluntary notification of pulmonary phthisis, and the Medical Officer of Health, Dr. John F. J. Sykes, has issued a circular setting forth the measures which will be taken on receipt of such a notification.

In the first place it is stated that the notification will be treated as confidential, and nothing will be done to prejudice the patient's occupation or employment. Upon receipt of the certificate there will be sent by post to the patient a leaflet giving information as to the means of preventing the spread of the disease, a list of institutions for the segregation of advanced and the treatment of early cases, and a form for the disinfection of the room vacated by a consumptive. Beyond this no action will be taken in regard to segregation except by special request in writing, and no sanitary inspection will be made except on special request or on receipt of a complaint made for some reason other than the presence of a case of consumption. The usual fee paid for notification under the Notifiable Infectious Diseases Clauses will be allowed.

The National Association for the Prevention of Consumption has recently issued a circular to all public health authorities. In this it points out that authorities charged with the responsibility of protecting the community from preventable disease ought to regard it as a duty to take an active part in the work of preventing consumption, and offers certain suggestions. Amongst these voluntary notification is urged as being of the greatest importance, and the appointment in large towns of special tuberculosis committees, which would arrange for the visiting of notified cases by health visitors and almoners, is recommended. Institutional isolation of advanced cases is advocated, and the utilization of unoccupied beds in isolation hospitals for infectious diseases is suggested as one means by which this could be carried out. The tremendous loss to the nation from consumption, both in lives and in money, is emphasized to show the urgent necessity of organized and combined effort to check the spread of this preventable disease.

MEDICAL ATTENDANCE ON WORKHOUSE OFFICIALS.

The medical officer of a provincial workhouse writes that he was sent for to attend the paid lunatic attendant of the house, who had sustained a Pott's fracture from a fall in the public road. The request for his attendance was on the usual printed form, and this was signed by the matron *for* the master. Our correspondent attended at once, and, as he says, "set the fracture in the infirmary and examined the leg daily." He was *there* requested to take the name off the workhouse medical book, the patient in question not being a pauper. In the contract between the medical officer and the guardians it is stated that the former is to attend at the workhouse when requested by the master or the matron. This stipulation having been complied with in this case, our correspondent considers that the Board of Guardians is liable for payment of his claim for professional services; the fee, he thinks, should be 5 guineas.

*** The difficulty which we are asked to advise upon appears to have originated from a mistake made by the matron, who, being probably much alarmed on hearing of the broken leg, considered it to be her duty to procure medical assistance by any possible means, and, believing that she could do this by filling up and signing one of the forms intended for use in pauper cases only, fell into an error, which the master, on whose behalf she wrote, would doubtless have avoided. Our correspondent, when he found that his patient was a paid official, would have done well to regard this as a pardonable mistake from the first. He does not say by whose order it was that the patient's name was removed from the Pauper List; it would have been better if it had never been placed thereon. We much question, therefore, whether our correspondent has any legal claim on the guardians; but whether he has or no, we are inclined to recommend him to be content with a lower fee of two or three guineas, this, we may assume, being all that the patient himself could be expected to pay. A mistake has occurred, and every reasonable concession should be made in order to bring about a settlement of the difficulty which has in consequence arisen. We apprehend that if the guardians should find themselves compelled to pay the fee claimed, whatever the amount may be, they would then be able to recoup themselves by enforcing repayment from the matron—a course not desirable, and one which we assume our correspondent would not wish for.

SANATORIUM TREATMENT FOR PAUPER CONSUMPTIVES.

PARISH.—There are few sanatoriums in this country where pauper consumptives can be received for treatment on payment by the guardians, unless the guardians have previously made some arrangement to secure beds. In some of the sanatoriums where such arrangements are possible the beds are reserved, partly or entirely, for local consumptives. If there are any vacant beds, patients might be received from more distant localities in the Durham Sanatorium (Horn Hall, Stanhope), the Winsley Sanatorium, the Sherwood Forest Sanatorium, the Liverpool Sanatorium (Delamere Forest), or the Westmorland Sanatorium (Kendal). Arrangements for the reception of pauper patients might possibly be made by communicating with the Secretary of the Manchester Consumption Hospital, or the Mount Vernon Consumption Hospital, London.

MEDICO-LEGAL AND MEDICO-ETHICAL.

WRONGFUL USE OF THE TITLE "DR."

AMERICAN ELECTRICIAN FINED AT BRISTOL.

FOR some time past advertisements have appeared in newspapers of the Bristol Electropathic Institute, and on Tuesday the magistrates of Bristol heard a charge against the conductor of the establishment for wrongfully using the title of "Dr." contrary to the Medical Acts. The defendant, Mr. Frank Lee, was charged on three summonses relating respectively to January 5th, January 23rd, and January 26th. Mr. H. R. Wansbrough prosecuted on behalf of the Medical Defence Union, Limited, London, and Mr. H. C. Wethered, instructed by Mr. E. W. Veale, appeared for the defence.

Mr. WANSBROUGH stated that the attention of the police was called to the case in November last, when a telephonic communication was received asking an officer to come up and eject some one from the institute. Detective Lord went, and said: "I have called to see Dr. Lee," and defendant replied: "I am Dr. Lee." The matter having been brought to the notice of the Medical Union from other sources, on January 5th two women, acting upon instructions, called at the establishment, and were received by some one dressed as a nurse. They asked to see Dr. Lee, and were shown into the room where defendant was at a desk. One said: "Are you Dr. Lee?" and he answered: "Yes, I am." She then said she had an aged mother suffering from rheumatism, and she wished defendant to see her. Mr. Lee replied that his fee would be from four to five guineas per month; that the mother would stay in Bristol; and that the treatment would be by electricity. Answering her question, he added that he did not sell pills or medicines, but the treatment was electrical. The other two dates were those on which defendant, in his own writing, handed in advertisements to a newspaper office. In these he was described as a medical electrician.

Dr. HEDLEY HILL, one of the Bristol police surgeons, proved that defendant's name was not on the *Medical Register*. In cross-examination, he said he did not know there were many men in this country who held foreign degrees practising as medical men; if they did so without being registered, they committed an illegal act. Evidence was also given by Detective Lord, by one of the women referred to in the opening speech, and by a newspaper clerk.

Mr. H. A. PIPPIN stated that on February 6th he went to defendant's place, where he saw the sign "Bristol Electropathic Institute." On the three bay windows of the room adjoining the door were fixed, in white enamelled letters, "Artificial sunlight baths, etc." "*X*-ray examinations daily; hours 10 a.m. to 8 p.m. daily." "The new violet ray and electric vibration daily." Another notice announced "Latest scientific electrical treatment for various diseases and complaints; sinusoidal, faradic, galvanic, and the new *x*-ray treatment. New American painless static treatment. Artificial sunlight treatment. New violet-ray treatment."

The defendant gave evidence on his own behalf, and stated that he was an American, had studied medicine and electrotherapeutics in two colleges in America, graduated, and took the degree of Doctor of Medicine. He possessed the diploma. He also obtained the degree of Master of Electro-therapeutics. He had been in England for two years, and had practised medicine and electricity. A medical electrician was a man who had a knowledge of electricity and of its application to the alleviation of certain diseases. In reply to Mr. Wansbrough, he stated that certain prominent citizens, whose names he wrote down, were proprietors of the Institute, and he was their paid representative. He would not say that electro-therapeutics was a department of medical practice, and his diploma that was hung up was not intended to gull the public, but to show that he had a knowledge of electrotherapeutics.

Mr. WETHERED urged that the defendant had not represented himself to be a registered practitioner. He was more of a doctor in science than a doctor in medicine, and he had no wish whatever to deceive the public.

The CHAIRMAN OF THE BENCH (Sir H. Ashman) said the magistrates were of opinion that the defendant intended the public to believe that he practised as a doctor to heal disease, and that he wrongly called himself a doctor, and that he did this for his own personal benefit. They fined him £10 and £5 costs.

LIABILITY OF *X*-RAY OPERATOR.

AT the Hampshire winter assizes last week the case of Ellis *v.* Bridge was heard before Mr. Justice Bucknill. The plaintiff claimed damages for suffering and loss sustained through the alleged negligent application of *x* rays. The plaintiff's case was that he suffered from locomotor ataxia, and had been under the treatment of Dr. Ord, who recommended him treatment by the *x* rays. Dr. Ord arranged with Mr. Keene, a member of a firm of chemists, to carry out the treatment. The rays were applied to the soles of the feet, and the plaintiff eventually suffered from an *x*-ray burn. It was contended by the plaintiff that the treatment had been improperly applied, and that in particular the tube had been placed too close to his feet. Counsel for the defendant firm contended that the blame in the case rightly belonged to Dr. Ord, who prescribed the treatment, and who gave directions as to how it should be carried out. Mr. Bridge and Mr. Keene, partners in the defendant firm, were called, and stated that they advertised to undertake *x*-ray work for curative purposes, but only in connexion with the medical profession. Mr. Keene stated that the tube was never closer to the plaintiff's feet than 12 in., and the application was carried out in strict accordance with Dr. Ord's orders. In cross-examination he contended that it was Dr. Ord's place to see that the rays were properly administered. The judge, in summing up, told the jury that if they thought Mr. Keene had done what he was told to do it would not be right to visit the defendants with damages. The jury disagreed, and were discharged.

LICENCE FOR SURGERY BOY.

THE question whether a licence must be taken out by a medical man for a boy employed in answering the surgery door, running errands, delivering medicines, and performing various domestic duties was under consideration at the South-West London Police Court recently. For the Inland Revenue it was contended that the boy was a domestic servant. The defence contended that such a boy was no more a page than an oilman's lad who delivered bundles of wood. The magistrate, however, held that, as the boy was mainly employed in a domestic capacity, a licence was necessary.

THE TITLE OF "DOCTOR" AGAIN.

PINECLIFF writes: A gentleman who possesses the qualifications L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., L.S.A. assumes the title "Dr." on his doorplate, on his visitin cards, and on his billheads. Is it permissible for an M.R.C.S. L.R.C.P.Lond., to do the same? The reason of this quer, is that I am certain the title "Dr." (assumed rightly or wrongly by this gentleman) is of considerable value to him.

*** The Royal College of Physicians of London forbids its Licentiates to assume the title of "Dr."

MEDICAL ADVERTISING.

ETHICS.—Etiquette implies compliance with custom, but this varies in different places. In some large towns it is not uncommon to see the practitioner's name placed on the fanlight over the door or on the window, as well as on the orthodox brass plate. It cannot be said that there is any definite rule upon the subject, though the tendency would be, we imagine, to deprecate any display which savours of trade-advertisement.

NEWSPAPER OPHTHALMOLOGY.

A CORRESPONDENT has forwarded us a cutting from a recent issue of the *News of the World*. It refers briefly to an operation of corneal transplantation recently reported from America, and then states that "the first man to perform such an operation successfully was Dr. Lindsay Johnson, the well-known ophthalmic surgeon of Queen Anne Street, Cavendish Square, London," in the year 1899. The history of Dr. Johnson's case is given with an amount of detail which is as remarkable as presumably it must be annoying to the medical man concerned. The incident is the more curious since the writer's knowledge of the matter is apparently special, not general. This is to be gathered from the fact that he does not know that the operation was performed as early as 1844. It was frequently performed in the Eighties by von Hippel, but little has been heard of it since because the benefit, so far as vision is concerned, is exceedingly small.

CERTIFICATES OF DEATH.

H. W.—(1) The state of the law with regard to death certification is unsatisfactory, and its amendment is one of the reforms desired by the British Medical Association. If there be no reason to suspect crime and if the practitioner is satisfied as to the cause of death, it is not, speaking generally, advisable to refuse a certificate. (2) If the proceedings were misreported the editor of the paper might be asked to publish a letter giving a correct account of what took place.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

THE HISTORY OF TEETOTALISM.

DR. S. G. SLOMAN (Farnham) asks for references to books or writings giving information as to any action taken in the matter of partial or total abstinence from alcoholic or intoxicating drinks in any age preceding the eighteenth century, to be used for the purpose of temperance addresses or instruction on the subject of temperance.

TINNITUS AURIUM.

HIMALAYA writes: I have suffered for twenty years from tinnitus aurium in one ear in a mild form, increased by late hours and fatigue, such as a dance, temporarily; but since November last, when there was a sudden marked fall in the temperature, it has got very loud and troublesome, with intervals of relief when the hissing noise dies down considerably. The noise is a continuous hiss, accompanied by a hum when severe. Would the noise of a gun when shooting influence it, or is it digestive?

ANSWERS.

VRILYA.—Many a good practice has been built up on quite as modest a beginning.

THE VITALITY OF THE TYPHOID BACILLUS.

MEDICO.—The typhoid bacillus could not live and develop in so powerful a disinfectant as 1 in 20 carbolic.

THE COLOUR OF THE HAIR IN OVARIAN DERMOIDS.

MR. G. H. MAPLETON writes: It may, perhaps, interest Mr. Bond to know that the colour of the hair in a dermoid cyst of the peritoneum which I removed some years ago from a negress was a light tow.

ST. JOHN AMBULANCE CLASSES.

S. H. H.—The scope of the instruction for a St. John Ambulance Class in First Aid is shown in the syllabus, which can be obtained from the Chief Secretary at St. John's Gate, Clerkenwell, from whom also all other information is obtainable. The best books to show the nature of the instruction to be given are: The official *First Aid* textbook of the St. John Ambulance Association (1s. 6d.); *First Aid in Accidents*, by Collie and Wightman, published by G. Gill and Sons, 13, Warwick Lane, E.C. (9d.); and *First Aid to the Injured and Sick*, by Warwick and Tunstall, published by John Wright and Co., Bristol (2s. 6d.) The last-named is especially valuable to lecturers, as it is fuller and more advanced than either of the others.

LETTERS, NOTES, etc.

THE *X*-RAY TREATMENT OF RINGWORM.

DR. S. ERNEST DORE (London, W.) writes: After a considerable experience of the *x*-ray treatment of ringworm, both in private practice and at the Middlesex Hospital, I venture to think that Mr. Sichel's views are unnecessarily pessimistic. There can be no doubt that the difficulties are great, but they are not, in my experience, insurmountable. I take it for granted that an experienced operator who watches the condition of his tubes during the exposure is not likely to subject his patient to serious risk. Sabouraud's pastilles no doubt afford a certain indication of the dose required for epilation in the majority of cases of scalp ringworm; but, pending the introduction—which I believe is not far distant—of a reliable milliampèremeter or instrument that will measure the direct output of the rays, I am inclined to agree with those who prefer to rely upon the appearance of the tube, length of spark-gap, and other conditions, according to the particular form of apparatus employed. It seems to me that the precautions necessary to ensure trustworthy results with the pastilles, as enumerated by Dr. Adamson, seriously detract from their usefulness.

There is no doubt that an idiosyncrasy to the action of the rays exists, although there is probably a wider margin of safety in the case of the scalp than of the non-hairy skin. I agree with Mr. Sichel in attributing somewhat greater susceptibility to fair-haired children, and if this be so, allowance must be made for it when pastilles are used. Epilation of a localized patch of tinea is usually successful, but fresh patches of the disease will often be found subsequently, due either to foci which had not been detected in spite of the most careful and repeated search, or to reinfection from loose fungus-containing hairs, or to minute stumps left in the hair follicles. Another obvious and common cause of reinfection is that children often continue to wear the same dirty caps as they did before treatment. In view of these contingencies I now epilate a much larger area than is apparently affected, or remove all the hair of the scalp if the patches are extensive and multiple. The difficulties associated with "overlapping" when several areas are exposed at a sitting are not easily overcome. In using a specially constructed shield or cap there is either the danger of exposing the borders of the areas twice over, or of leaving infected patches between them. In extensive cases I have found it more satisfactory to use an unscreened tube, and to leave an interval of some days between the treatment of different parts of the scalp.

Another difficulty is the provocation of a pustular eczematous condition probably due to increased activity of cocci in the skin or to lowering of the tissue-resistance so as to favour their multiplication. Pus infection, or seborrhoea capitis, when present at the time of treatment, is apt to become troublesome, and may even spread over the body. In one of my cases a severe and persistent erythema developed on the denuded scalp, which was certainly not entirely due to reaction from the rays, and which speedily cleared up after the use of a weak sulphur-resorcin ointment. I have also seen circinate seborrhoea of the scalp develop during *x*-ray treatment. A moderately severe dermatitis, even when accompanied by follicular pus infection, is not necessarily prejudicial to the subsequent renewal of hair, which in several of my cases has grown well, and indeed often more vigorously and of a darker colour than before.

In most of the cases treated by the single exposure method the hair falls or becomes quite loose by the fourteenth day, but this period is variable, and may extend to three or more weeks. Regrowth of the hair may also be considerably delayed, but extremely rarely fails to occur. In about one hundred and twenty cases treated by multiple exposures under the care of Dr. Pringle and Mr. Lyster at the Middlesex Hospital I have only seen one permanent alopecic patch, and that in one of the earliest cases submitted to the treatment. In forty cases I have treated for Mr. Malcolm Morris the first fifteen had exposures to a single area, varying from four to eight in number, and on the whole the epilation was more complete and less apt to be complicated than in the single-exposure cases. Some allowance must, however, be made for the fact that the former were mostly private cases and the latter inmates of charitable institutions.

Finally, I would emphasize the difficulty of locating patches of ringworm in children under *x*-ray treatment; my own belief is that this cannot be entirely accounted for by washing and the application of ointments, etc., to the head.

SOME UNUSUAL MANIFESTATIONS OF SYPHILIS IN THE UPPER AIR PASSAGES.

QUAESTOR writes: Though belated, I would yet beg the favour of a small space in your excellent JOURNAL for a few observations touching Sir Felix Semon's masterly lecture to the London Polyclinic on Some Unusual Manifestations of Syphilis in the Upper Air Passages, in the BRITISH MEDICAL JOURNAL of January 13th, p. 61. I had the unhappy experience of being in ordinary attendance upon Sir Felix's "Case I," and, from other causes than native obstinacy, still believe, as Sir Felix has said, that Case I was mercurial ulceration of an unusually violent sort. I saw the commencement of the first ulcers on the two tonsils, and they certainly were not any form of syphilis. There were no other signs of any form of syphilis anywhere. As for the two relapses ("spontaneous") quoted in the lecture—the first was before the first ulceration was quite healed—the patient went to the sea coast against my advice, and the irritating air at once inflamed the yet tender throat. The second was when the throat was quite healed; the patient contracted an influenza, and slight ulceration reappeared. On both occasions consultants could see nothing but syphilis. Mercury was poured in, and away went throat ulcerating and sloughing its hardest. The present condition of the throat, disfigured by gaps and cicatrices, as Sir Felix describes it, would certainly be produced just the same in any throat where there had been from any cause such fearful loss of tissue. Certainly as soon as sarsaparilla was administered the throat began to heal. Twice before I completely healed it with other remedies. Now sarsaparilla is stated to be of value in the cases of individuals whose systems have been "rotted," like Case I, with mercury, the drug had a grand chance here, but whether the good result was from sarsa root or from the atmosphere of Aix, and the entire absence of the antispecifics, is quite fairly an open question. Sarsa enjoyed a doubtful reputation as a cure for syphilis in the far past, and it *may* be useful in persons whose constitutions have been reduced by over-mercurialization, and in Case I this last condition was a perfect type, and sarsa had everything it could want if it was any good at all.

TRYPSIN IN CANCER.

DR. GEORGE E. KEITH (London, W.) writes: Dr. Ligertwood's memorandum on the use of trypsin in cancer is of special interest to me, as I have experimented somewhat largely with this drug since reading Dr. Beard's account of his experiments. After taking a great amount of trouble, Mr. Caines, of Messrs. Squire and Sons, has made for me a solution containing trypsin which does not cause pain, and which can be given with no more precautions than are necessary for an ordinary hypodermic injection. To purify the skin, and then apply a piece of ice, possibly from a stagnant pool, seems to me approaching the ridiculous. I may add that I think it a great pity to bring forward trypsin, or anything else, as a possible cure for cancer, especially in the daily press, before the drug has cured, even temporarily, a single authentic case. For my own part, I doubt very much if the cure for this disease is to be found in trypsin, or, indeed, if any one drug will be found successful in all or the majority of cases.

DISPENSING ON THE METRIC SYSTEM.

DR. H. CRICHTON MILLER (San Remo) writes: I have from time to time noticed in your columns complaints from members of the difficulty or impossibility of procuring in this country dispensing bottles of the sizes required for use with the metric system. It may interest your readers to know the contrivance whereby I have met the difficulty. I use ordinary ungraduated 4 oz. and 8 oz. dispensing bottles. On these I paste a graduated slip, dividing the bottle into ten or twenty equal doses, as the case may be. Supposing my prescription in divided doses run thus:

℞ Tr. ferri perchlor. 0.5 c.cm.
Tr. nucis vom. 0.3 c.cm.
Infus. quassiae ad 10.0 c.cm.

My extended prescription would naturally be:

℞ Tr. ferri perchlor. 5.0 c.cm.
Tr. nucis vom. 3.0 c.cm.
Infus. quassiae ad 100.0 c.cm.

Instead of this I make it out as follows:

℞ Tr. ferri perchlor. 5.0 c.cm.
Tr. nucis vom. 3.0 c.cm.
Infus. quassiae ad 4 oz.

I then apply the slip and a label, "one division to be taken." In this way the metric system can be used almost as conveniently as with bottles of 100 c.cm. and 200 c.cm. The slips are made by Mr. H. Silverlock of Blackfriars Street.

NOT WELL ENOUGH TO STAY IN HOSPITAL.

HOUSE-PHYSICIANS, says the *London Hospital Gazette*, when they wish to empty a bed of a chronic case, will welcome the new and original excuse contained in the following letter: "Dear Sister,—When next the doctor attends Mother, will you please ask him to dismiss Mother, as she does not feel well, and oblige, Yours truly, ——."

CORYZA FOLLOWING INGESTION OF QUININE.

DR. SIDNEY H. CARR, M.D. (China Inland Mission, Kaifeng Fu, China) writes: There has lately been a correspondence in your columns about acute oedema of the uvula, which has interested me on account of the following facts in connexion with the taking of quinine. For the last year or more I have on several occasions been suddenly seized with a very severe coryza accompanied by considerable oedema of the uvula, and causing in one or two instances extreme discomfort. I knew of no reason for these attacks, until I found that they supervened on the days on which I had taken a small dose of quinine. To confirm this I took the other day quinine sulphate 3 gr. dissolved in water, with acid. sulph. aromat. ♏ 5, at about noon. An hour later, during dinner, the symptoms came on—sneezing, running at the nose, injection of conjunctiva, and oedema of uvula. I am not aware that these symptoms commonly follow the administration of quinine, but it would be interesting to know if the cases quoted by your correspondents could have had any connexion with it.

THE PALLIATION OF CLEFT PALATE.

MR. J. G. TURNER, Lecturer on Dental Surgery and Pathology, Royal Dental Hospital of London, writes: The following case may throw some light on the function of the soft palate, on which some of your correspondents so strongly insist. A lady, aged 26, had complete cleft of hard and soft palate. No operation had been attempted. Two years ago, when I first saw her, her speech was bad, in the same way and to the same degree as in these cases it usually is. I made for her a rigid obturator with an immovable "velum." This reaches within perhaps $\frac{1}{8}$ in. of the posterior pharyngeal wall, but nowhere touches. Then I taught her to speak; and to-day she hardly betrays herself with her obturator in, and without it is not much worse.

FOOD FEVER IN CHILDREN.

DR. FRANCIS HARE (Upper Norwood) writes: In his article on "Food Fever in Children" (BRITISH MEDICAL JOURNAL, February 10th, 1906), Dr. Eustace Smith makes kindly reference to the view recently brought forward by me that many cases of recurrent gastric catarrh depend upon recurrent distension of the liver by glycogen (*The Food Factor in Disease*, 1905, vol. i, p. 66). He says, however, "Dr. Hare, as I understand him, not only excludes chill from any share in the production of the disturbance of function, but goes so far as to declare that external cold actually tends to retard glycogenic distension of the cells, and should therefore be a protection against attacks." Dr. Eustace Smith has overlooked my reference to the factor of chill in glycogenic distension of the liver, doubtless because it appears in a different connexion, namely, in the section on "Vasomotor action and the liver" (*The Food Factor in Disease*, vol. i, pp. 358, 359). There is no question that in all warm-blooded animals, exposure to cold, within certain limits, tends to raise the rate of combustion by the tissues, and so to unload the liver of glycogen. Conformably, in the subtropics at any rate, a certain class of patients suffers from recurrent gastric catarrh during the summer months, ceases to suffer during the winter, and remains altogether well after removal to a cool climate. But external cold has a complex action. It tends also to cause vaso-constriction of the cutaneous area, especially of the extremities. And I have argued that such widespread vaso-constriction is peculiarly prone to set in action the vasomotor mechanism of glycogenic distension of the liver. Conformably, it is found that a second class of patients suffer from recurrent gastric catarrh during the winter menths, cease to suffer during the summer, and remain altogether well after removal to a warm climate. The same two classes of patients are equally well represented amongst those who suffer from ordinary biliousness, bilious attacks, migraine, etc. And the differentiating factor in both classes seems to me to be the degree of responsiveness of the vasomotor mechanism to thermal stimuli. The preventive treatment advocated by Dr. Eustace Smith and myself is identical in all details. It may be thus summarized: Restriction of the intake of glycogen-forming material, especially carbohydrates; increase in the expenditure of glycogen, especially by physical exercise; and the avoidance of sudden cutaneous vaso-constriction by protection of the surface from chill. We differ only in the fundamental pathology of the affection and in the *rationale* of the treatment. Dr. Eustace Smith regards the gastric catarrh as primary and due, among other causes, to gastro-intestinal fermentation. This view, however, fails to explain what seems to me the most characteristic feature of the disorder, namely, its marked tendency to be periodic, even regularly periodic. For it is difficult to see why food which is normally digested in the intervals of the attacks should give rise to fermentation with regular periodicity unless it be from some cumulative influence. On the other hand, a cumulative factor is readily supplied by a gradually-increasing accumulation of liver glycogen, leading, at more or less regular intervals, to pathological distension. Further, such distension would explain all the phenomena of the attacks as well as the *rationale* of the treatment.

MARMOREK'S SERUM FOR TUBERCULOSIS.

DR. FRANK GODFREY (Nettlestone, I.W.) writes: Three years ago I was called in consultation to a patient suffering acute pain in the testicle. After prolonged treatment, which was unsuccessful, it was decided to amputate the organ, which proved it to be in a condition of suppurative tuberculous degeneration. Shortly afterwards the other testicle took on the same condition, with excessive sciatic pain which was ascribed to the same cause. About this time some one had recommended him to consult a medical man who was curing tuberculous disease by injections. I assented to this experiment. As the medical man resided in a distant town I wrote to Dr. Marmorek to ask him to supply me with the serum, and promising to carry out his suggestions in the treatment. This he decidedly refused to do, stating it was to be supplied only to his own *clientèle*. The injections were given at intervals for eight months, during which time a little abscess in the sternum healed and his general health improved. The remaining testicle continued at times to suppurate a little, the pain in the hip was better, the patient got fatter, but there the improvement ended. At the present time he is again at Ventnor, but will not continue the injections at least for some time. I have merely given this case for what it is worth.

ETIOLOGY OF HEPATIC ABSCESS.

SURGEON-CAPTAIN G. C. HALL, I.M.S. (ret.), Islip, Oxford, writes: It is nearly twelve years since Colonel Maitland operated on me in Madras for abscess of liver. No cause whatever for the same could be discovered. There was no history whatever of dysentery or alcoholism. The resisting power having been weakened by countless attacks of ague and remittent fever, it now occurs to me that the microbic invasion may have taken place through the slight anal fissure from which I suffered for about ten years previously to the hepatitis.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	£0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page...	8	0	0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

A Clinical Lecture

ON THE

COMPLICATIONS OF SCARLET FEVER.

DELIVERED AT CHARING CROSS HOSPITAL.

By **WILLIAM HUNTER, M.D., F.R.C.P.,**

PHYSICIAN TO THE LONDON FEVER HOSPITAL; ASSISTANT PHYSICIAN AND LECTURER ON PATHOLOGY, CHARING CROSS HOSPITAL.

GENTLEMEN,—The cases to which I have to draw your attention to-day from the wards of the London Fever Hospital illustrate the features, and especially the complications, of scarlet fever. The disease is one, as you know, of very varying intensity—sometimes so mild that, but for the slight initial rash and the subsequent desquamation, it would almost pass unnoticed; sometimes among the severest of diseases in virtue of its own virulence, or still more of the complications to which it gives rise. It is usual to recognize three types of the disease, the mild or scarlatina benigna; a more severe type complicated with angina and glandular enlargement, scarlatina anginosa; and a third severe type, scarlatina maligna. If all cases of scarlet fever could be grouped under these three headings, prognosis would be a comparatively simple matter. But even a brief experience of scarlet fever soon brings out the fact that such a grouping is at the best but a rough one, and affords no help in the study of the individual case. The chief problem which the disease presents is to explain why a case originally of the mildest character may be subject to the severest complications, and why a severe case may run an uninterrupted course to recovery. In other words, the problem that scarlet fever presents is not the incidence of complications in a certain group of cases, but the incidence of complications in the individual case—Why in one case, with everything in its favour apparently we have the severest of complications occurring, ending perhaps, fatally; and why in another, which was very severe at the outset, the course should be of the most benign character.

First of all with regard to scarlet fever generally and its features, let me recall to you briefly what they are. Scarlet fever, as you know, is a fever which is characterized by sore throat, more or less adenitis, a specific rash, a specific desquamation, and a specific course, lasting usually for six weeks. The mode of onset is usually with sore throat, headache and vomiting, those occurring in about 85 per cent. of the cases. Sore throat is the commonest of these symptoms, headache the next. In addition to these specific symptoms, some cases present rigors and diarrhoea, a few have pain in the limbs, and a few present epistaxis.

THE RASH: DESQUAMATION.

I have here records showing the time of appearance of the rash in my last series of cases (150). The rash appears in half the cases on the second day. In 80 per cent. of the cases the rash appears on the first three days of the illness. The rash lasts about six days in over one-third of the cases, and in over half of the cases it lasts either five or six days. As regards the desquamation, during the first week the commonest place for desquamation to begin is at the root of the neck, and it usually begins there during the first week—that is to say, between the fourth and eighth days of the rash. Exceptionally it may begin in this region as late as the eighteenth day. On the fingers, in more than half the cases it appears between the ninth and twelfth days; in three-fourths of the cases it appears there between the ninth and the fourteenth, but it may appear even here as early as the fifth or as late as the twenty-second day. In the toes and feet it may appear late—that is to say, in nearly half the cases it commenced between the tenth and fifteenth day of the rash. It was exceptional for it to appear here before the tenth day. It was never observed there before the seventh day. In nearly half the cases it appears from the sixteenth to the thirty-first days—that is to say, on any of those days. Those are the features with regard to the rash and its onset.

LYMPHATIC GLANDS.

Now I want to mention the condition of the glands on admission. That is an important matter for this reason: it is in connexion with the glands that the chief complications occur. A slight degree of adenitis is present in nearly all cases, and an interesting point has been to ascertain what is the relation of this initial adenitis to the secondary adenitis which occurs as a complication. I have therefore analysed my cases to ascertain the relation of the initial clinical features to the subsequent complications of the disease.

COMPLICATIONS.

What are these complications? They are, in the first instance, adenitis, which occurs in very varying proportion. In this series it appeared in 19 per cent.* Albuminuria of two or more days' duration occurred in 21 per cent., and actual nephritis in 2.8 per cent., otorrhoea and otitis in 6.4 per cent., rhinitis and rhinorrhoea in 6.4 per cent., rheumatism in 4.3 per cent., secondary tonsillitis in 3.5 per cent. And in certain cases we get mastoiditis. I have also had as complications in my cases meningitis, optic neuritis, and ocular palsies. Those are the chief ones, ending up lastly with the severest form of all—septicaemia, to which nearly all the deaths in my cases were due. Our mortality at the London Fever Hospital for the last year has been 0.8, which compares, I believe, with an average mortality of some 3 per cent. in other Fever Hospitals.

FACTORS DETERMINING THE SEVERITY OF COMPLICATIONS.

As I have said, there is no disease about which we have more facts than scarlet fever. The percentages of the complications and all the other facts relating to it can be expressed in figures drawn from thousands of cases. But none of these really throw light on the incidence and severity of the complications in the individual case. I have, therefore, in the last two or three years given considerable study to this matter, that is to say, the factors which determine the severity of complications in individual cases.

To facilitate this study I have devised a graphic chart showing the whole of the features of every case on the front page. I have found it a great source of satisfaction in studying my cases, because every fact is plainly set forth, and can be related to every other, and I do not require to look at the back of the sheet in order to get further information about the history or the course of the disease, or the food the patient is getting. This chart is not only useful in scarlet fever, but you will find it an admirable chart for private cases generally. These are just the notes which I think you want to have before you to guide your treatment.

Let me describe a case of scarlet fever that illustrates the severity of these complications: A child, aged 6, was admitted with a mild attack of scarlet fever, with moderate rash, mild throat affection, and mild adenitis. The only other feature noticed was a slight nasal discharge. The course of the case was mild up to the seventh day. Then the temperature rose corresponding to the onset of slight adenitis. On the twenty-second day there was slight rheumatism in the wrists. On the twenty-fifth there was a marked attack of tonsillitis and pharyngitis and increased rhinorrhoea, considerable fever up to 103° F., and lasting seven or eight days. On the twenty-eighth day congestion at the bases of the lungs. On the thirtieth there was nephritis and haematuria, with a large quantity of albumen in the urine. This albuminuria actually lasted from the thirtieth to the eightieth day, although the temperature during that period remained practically normal. The degree to which the patient's general health was affected by this lung illness is shown by the pulse curve. The pulse was weak and bad, ranging up to 120 instead of coming down to the normal. The temperature is usually the only feature recorded graphically, but there are other factors which can be shown graphically, and the temperature is perhaps the least important.

---

* I include under the term "secondary adenitis" any enlargement of glands, however slight, after the initial adenitis has begun to subside. The percentage here noted—19 per cent.—includes therefore many mild cases which would not be generally regarded as "secondary adenitis." Thus the incidence of secondary adenitis given by Dr. Caiger is 8.7, "about one-third of which—for example, about 3 per cent.—suppurate." In my cases the proportion that suppurate is less than 1 per cent.

That, then, is an illustration of severe complications following a case of scarlet fever which in its early stage was mild. I now show you another which I have had prepared, that of a boy aged 12. This, again, was a moderately severe attack of scarlet fever, with temperature coming down to the normal on the tenth day, and remaining normal to the seventeenth. Then there was a slight rise of temperature and pulse attended by adenitis. On the twenty-fifth day a still further rise took place marked by an increase in the adenitis, and then an irregular pulse for four or five days, while the temperature was normal.

The last case whose chart I show you is that of a patient under my care in the last few weeks. It is that of a woman, aged 24, who was employed in a bar, which perhaps rather affected her powers of resistance afterwards. She came in with a mild or fairly moderate degree of scarlet fever, moderate rash, slight angina, and slight adenitis. You will notice that her temperature fell to normal on the fourth day. Yet the rash did not disappear, though it was moderate, and on the twelfth day the temperature rose suddenly, attended by severe angina, increase of adenitis, vomiting, and diarrhoea. On the thirteenth day there was very severe tonsillitis, and on the seventeenth day the tonsillitis was increased and further complicated by cellulitis. The temperature at this time was 103°, at which point it continued, and on the eighteenth day the rash, which had persisted all through, became most intense again. On the twentieth day, at 6 p.m., the temperature shot up to 107.8°, and, in spite of bath treatment and cold douching and sponging, she died five hours later.

PRIMARY AND SECONDARY INFECTION.

That is a case which, speaking generally, actually makes one wonder what happened. She was a fairly healthy person, who had a mild attack, and yet the disease became very severe and ended fatally. It is the typical sort of case with which we have to deal in this disease, illustrating the two great factors. We are dealing with two classes of infection: (1) the original infection of the scarlet fever; and (2) the occurrence of complications, mostly septic; and the problem which scarlet fever presents is which of these factors is operating in any one case. We cannot eliminate the original infection—the patient has acquired that; but the question arises as to whether we can subordinate or control the septic factor and the septic complications, and it is that problem in which I have tried to interest myself in these series of cases, with results which I will now briefly indicate.

RELATION OF INITIAL SYMPTOMS TO COMPLICATIONS.

First of all, with regard to the relation of the initial features to these complications. The initial features I refer to are, first, the rash, secondly the angina, and thirdly the fever.

1. *Rash.*—The first fact which comes out is this, with regard to the rash, that the degree of the rash has some little influence on the height of the initial fever, and slightly more on the duration of the pyrexia, but it is not related to the subsequent severity of the case. One often thinks: here is a case with a severe rash, so it must be a bad case; here is another one with only a moderate rash, and that evidently is a mild case. But that theory does not work out in practice. A case with a severe rash may pursue a mild course. On the other hand, a moderate rash may appear in a case which later may become complicated by all these other conditions. On the whole, however, a severe rash is more likely to be followed by complications than a mild rash. This is best seen in the case of adenitis.

TABLE I.

Degree of Rash.	No. of Cases.	No. with Complications.	Percentage.
Slight	34	12	35
Medium	49	14	28
Marked	39	19	49

TABLE II.

Rash.	No. of Cases.	No. with Adenitis.	Percentage.
Slight	34	5	14
Medium	49	7	14
Marked	39	13	33

2. *Initial Angina.*—The next point is the relation of initial angina to the subsequent occurrence of complications—secondary angina, especially adenitis. There is some relation between the severity of the initial angina and the tendency to the occurrence of secondary adenitis, but this is not so close or so general as to account for the occurrence of this secondary adenitis. In no less than 81 per cent. of cases in which this occurred the initial angina was only slight or moderate. The liability to secondary adenitis increased, however, in proportion to the severity of the primary.

3. *Fever.*—There is no actual definite relation between the height of the temperature in the first instance and the occurrence of complications.

The subsequent incidence of complications is thus not sufficiently accounted for by the character of the initial features; other causes to which these complications (in the individual case) can be ascribed have to be sought for, and are not easily found. According to Dr. Caiger, "there is no connexion between this adenitis and either cold, damp, diet, or habits. Probably some widespread causative influence, some atmospheric or soil condition, are responsible, and about one-third of the cases suppurate."

RELATION OF ORAL SEPSIS TO COMPLICATIONS.

I have therefore studied the relation of other features to the septic complications. The difficulty about scarlet fever is to determine how far the complications are scarlatinal, and how far they are septic. The two infections are closely intermixed, and they are apparently of the same character, that is streptococcal, so that it is extremely difficult to separate them. I have, therefore, in my series of cases made observations about the presence of septic lesions in connexion with scarlet fever cases on admission. The particular sepsis is that connected with the mouth, and the result has been very interesting. I have taken note of the presence and degree of "oral sepsis" in all cases admitted, the presence of foul sores around the teeth, foul gingivitis, and I have watched the relation of this condition to the subsequent occurrence of complications. So far as I can gather, this line of investigation has not hitherto been followed, and that is the more remarkable as the conditions of such sepsis are sometimes of a very severe kind. The result cannot be shortly expressed statistically, because of the prevalence of this condition, but one result comes out clearly: that the severity of scarlet fever, that is to say of the septic complications of it, is greatly influenced by the degree of oral sepsis in the patient before he is admitted. This is not surprising, considering that the actual lesion in scarlet fever is in the throat, and the simple addition to this of a staphylococcal infection may be a very serious matter. Thus of cases without oral sepsis only 35 per cent. had complications of moderate or severe degree; whereas of cases with oral sepsis 66 per cent. showed such complications. The result is that oral sepsis affects both the number and still more the severity of the complications met with.

1. *Oral Sepsis in Relation to the Severity of the Initial Angina.*—The figures bring out this result. The severity of the initial angina is affected by the presence of this previous sepsis. Thus, in 51 cases without oral sepsis, severe angina was only met with in 3 cases (6 per cent.), and it was moderate in 14 cases (28 per cent.). In 34 cases (67 per cent.) it was of mild degree. On the other hand, in 10 cases with severe oral sepsis only 2 (20 per cent.) showed mild angina. In 8 (80 per cent.) the angina was severe. Bacteriological examination showed that this increased severity was associated with the presence of staphylococcal organisms. Thus, in 14 cases without oral sepsis, staphylococci were isolated from the tonsils in 6 cases, whereas in 19 cases with oral sepsis, staphylococci were isolated in 17 cases.

2. *Oral Sepsis in Relation to the Occurrence of the Secondary Angina.*—In 60 per cent. of the cases having this oral sepsis in which complications occurred, the oral sepsis was noted to be very severe. The last case I have described to you illustrates that very well. Here is my note of it. Rash, moderate; angina, moderate; adenitis, moderate. Yet the one fact noted in connexion with that is that there was the severest degree of oral sepsis, with an abscess round one of her teeth. The subsequent course of this case was the severest angina, the severest adenitis, and the severest cellulitis. She also had vomiting, and she had diarrhoea, denoting "septic gastritis" and "septic enteritis," and afterwards hyperpyrexia occurred and death.

3. *The Relation of Oral Sepsis to the Severity of the Complications.*—This is very striking. I have here notes of 7 cases. The 7 cases in which oral sepsis was noted to be severe were nearly all severe. Two had severe adenitis, severe septic enteritis, and septic rash; the third had angina of severe degree, rheumatism very severe, albuminuria lasting thirty-four days, gangrenous stomatitis, which gave the greatest trouble, septic gastritis, enteritis, and finally pyaemic abscesses in the hip, from which streptococcus was isolated. These were all in one case which eventually recovered. The fourth case had adenitis twice; the fifth case had rheumatism and albuminuria lasting nine days; the sixth case had severe angina, and the severest form of otitis lasting six weeks. In other words, 6 out of the 7 cases in which this condition of severe tonsillitis was noticed were actually very severe cases, both as regards the degree and the variety of the complications.

Now let me note another fact in connexion with oral sepsis in relation to complications as a whole. The actual frequency of the occurrence of complications of some kind or another is but little affected by the presence or absence of oral sepsis, but the number of complications met with in cases of oral sepsis is much higher than in those without it. And still more, the severity of the complications met with is much greater. In cases of oral sepsis, 66 per cent. had complications of moderate or severest degree, whereas only 35 per cent. had such complications in cases in which there was no oral sepsis. This is well brought out by taking any one complication, such as tonsillitis, to which the figures I have given you refer. With regard to the relation of oral sepsis to albuminuria, 30 per cent. of the cases had albuminuria. In the cases without oral sepsis the average duration of the albuminuria was 5.8 days. In cases with oral sepsis the average duration was 15.1 days. In cases with oral sepsis and cellulitis the figures are equally divided. Of rhinitis we had 13 cases. No oral sepsis in 7, and those 7 cases were of mild degree. Oral sepsis was present in 6, 2 of them of mild degree, 2 of moderate degree, 2 of severest degree. Next with regard to oral sepsis and otitis. There were 12 cases. No oral sepsis in 6 cases; 5 of them were of mildest degree. Oral sepsis in 6 cases; 2 of these were of mildest degree, 1 of moderate degree, and 3 of severest degree. Oral sepsis and rheumatism we will take next —20 cases. Without oral sepsis, 10 cases, all of them of mildest degree; with oral sepsis, 10 cases, the slightest degree in 7, severe or moderate in 3.

Time will not permit me to go further, but I hope enough has been said to bring out the fact that this class of work is of interest. We cannot deal directly with the scarlatinal factor, but with the septic factor we can deal; and these figures bring out the fact that there is a definite relation, as one would expect, between the actual existence of oral sepsis in a patient with scarlet fever and the severest complications. It must be remembered that in all these cases I removed the oral sepsis immediately, and did not leave them to, as it were, soak in their oral sepsis; and yet that is what has been done hitherto. Usually no care has been taken to remove this source of infection. So these figures do not bring out the true relation. To do that it would be necessary to compare this series of cases with a parallel series in which the oral sepsis had been observed and yet nothing done for it. Of this class I have no cases; for in all cases which have come under my care the condition has been immediately treated antiseptically by swabbing out, and carefully removing the sepsis from the mouth. Despite these precautions, the existence of oral sepsis at the time of contraction of the disease has influenced the primary angina, the subsequent occurrence of tonsillitis, of adenitis, and especially has undoubtedly influenced the severity of the complications afterwards.

The practical outcome, irrespective of mere statistical considerations as to whether oral sepsis does or does not influence scarlet fever, is that it is absolutely necessary to remove even the chance of it doing so. Therefore it is to me a very important duty, in all cases of fever coming under my care, to endeavour to eliminate this factor as far as possible. So I do not wait to find out what it is going to do, but I remove it, as I should remove any other possible source of trouble, just as I should give the patient fresh air, good food, or see that he was kept properly clean. That is the general outcome of this work, and I think you will find that in the cases which come under your care you will derive the greatest possible satisfaction yourself and you will confer the greatest possible benefit on your patients by dealing with this as you would with any other possible element of danger in connexion with the case. The prima facie case for dealing with it seriously in scarlet fever is, I think, greater than in any other fever with which we have to deal.

As I showed in a previous communication,[1] it is no less important in enteric fever, in which disease, according to my observations, the septic factor is an important cause of the chief intestinal complications—perforation and haemorrhage.

The sepsis associated with these two fevers and responsible for the chief complications is thus, in my experience and judgement, largely a preventable condition, and the question I now leave with you is: If preventable, why not prevented?

I drew attention to the subject at the Oxford meeting of the British Medical Association,[2] and this lecture is an addition to the facts then brought forward.

A Clinical Lecture

ON

WHITLOW AND ITS TREATMENT.

By G. B. MOWER WHITE, M.B., B.S., F.R.C.S.,

SURGEON, GREAT NORTHERN CENTRAL HOSPITAL.

The subject I have chosen for this lecture may appear to be a very everyday one, but that is really the reason which led me to choose it. The subject of whitlow, as I shall deal with it to-day, is one which appeals to everybody who is in practice; every one who sees cases of all kinds will see many cases of whitlow in the course of twelve months, and if we can arrive at some understanding as to what is the best way of treating the several cases of whitlow as they appear I shall be satisfied with the results of this hour's lecture.

I do not think I can do better than start by reminding you of the customary classification of whitlow, and then I shall pass in review fairly rapidly what is considered to be the best treatment for each variety of the disease. Then I shall describe the extensions of the disease, which are very important, into the palm of the hand and so forth, and shall state, as far as it can be stated, what is the best method of treating cases which we will suppose have come before us.

The Varieties of Whitlow and Their Treatment.

The four varieties of whitlow are the subcuticular, subcutaneous, thecal abscess, and subperiosteal abscess. The subcuticular variety is that in which the inflammation is found underneath the cuticle, between the cuticle and the cutis vera; it is probably due to the poison having been introduced by inoculation through the cuticle. The second variety, which is perhaps the commonest, is the subcutaneous form, in which the inflammation occurs in the fibro-fatty pad, and this is the variety which one sees so often at the top of the finger. The third variety is not usually a primary one, but occurs secondarily as an extension from the last mentioned form, that is to say thecal abscess, or an inflammation which has extended into the tendon sheath on the flexor aspect of the finger and involves that more or less rapidly from one end to the other. The fourth variety is comparatively uncommon; we do not so often see it, but any one may see 3 or 4 cases in the course of a year; it is the subperiosteal form, in which the inflammation has either started there originally, or has extended from a more superficial position under the periosteum of the phalanx. That is the most deep-seated form of all, and although fairly simple as regards treatment, it is nevertheless a form in which the affection lasts a considerable time before one is able to get a healed wound.

---

[1] Oxford Meeting, British Medical Association, British Medical Journal, November, 1904.

[2] British Medical Journal, November, 1904.

I will now mention a few points with regard to whitlow which may be taken to apply generally to all the forms. The inflammation in this condition is an acute inflammation. In the majority of instances it is started by the introduction of micro-organisms, generally a streptococcus, and it has a great tendency to spread rapidly to the deeper parts. If the infection is beneath the skin, the tendency for this inflammation to spread is greater than if the inflammation begins superficial to the cutis vera.

Now, I propose to discuss the treatment of each of the varieties of whitlow. The subcuticular form of whitlow is not so often seen, I imagine, because the patient does not consult a surgeon soon enough. If you had a typical case of this kind you would see some redness at the top of the finger; and if you looked at it very closely, and, better still, with a magnifying glass, you would be able to recognize that the inflammation was exceedingly near the surface. There is very little general hardness of the pad at the top of the finger. And a little later you would notice that there was a drop of pus forming in the centre of the reddened area of skin and cuticle. The treatment to apply here is to avoid making a deep incision for fear you should introduce the inflammation or the sepsis into the fatty pad under the skin. That should be avoided at all costs. The proper treatment is to soften the cuticle as far as possible by immersing the finger in hot water or any hot lotion, and, keeping the blade of the knife flat on the surface, thus to shave off the cuticle until one has opened the centre of the inflammation and let out the drop of pus which lies there. Following this plan of treatment, this variety of whitlow can be often brought to an end very quickly indeed.

The next variety is the commonest of all, the subcutaneous, and the treatment is early incision through the top of the finger, through the fibro-fatty pad, sufficiently deep to expose or incise the whole thickness of this pad, but not so deep as to run any risk either of incising periosteum of the bone or of opening the tendon sheath which ends over the front aspect of the terminal phalanx of the finger. With these two reservations, a free incision, which can be done without giving an anaesthetic, should be made in the middle line, directly through the fibro-fatty pad of the finger.

The next variety we come to is the thecal abscess, and I ask you to follow me for a minute or two as I pass in review the anatomy of the parts which are concerned in this particular kind of whitlow. There is, you will remember, on the front aspect of the finger, a fibro-osseous canal. This canal extends from the neck of the metacarpal bone to the base of the terminal phalanx of each finger, and it is formed over the head of the metacarpal bone by the special arrangement which the palmar fascia has with that fibrous plate or ligament which is called the anterior metacarpo-phalangeal ligament. It is the ligament which covers the front aspect of the head of the metacarpal bone, and forms the anterior ligament and capsule of the metacarpo-phalangeal joint. This, together with the palmar fascia in front, forms the commencement of the fibro-osseous canal along the front of the finger. Further down in relation with the phalanges we have special ligaments which belong to the phalanges themselves. That is to say, at the front of each phalanx, meaning now the first and middle phalanx in the case of the fingers, there is a ligament which arches from the one border to the other of the shaft of the phalanx; this is the ligament commonly spoken of as the vaginal ligament, because it forms a large part of the sheath of the tendons. Opposite the joints, you will remember, the fibrous wall of this fibro-osseous canal is considerably thinner. Instead of being formed of fibres which arch from one border of the phalanx to the other, it consists of fibres which run obliquely in various directions, so as to admit of its being crumpled up when the fingers are acutely bent. The termination of this fibrous sheath forming the front wall of our canal occurs on the front aspect of the terminal phalanx of the finger, just beyond the insertion of the flexor profundus tendon. The fibro-osseous canal thus formed is lined by a serous membrane, which is likewise reflected on to the surfaces of the tendons occupying the canal. The serous membrane forms a closed sac, which is of equal extent with the fibro-osseous canal itself.

You will remember there are two flexor tendons in each finger, one only in the thumb, and that each of these has almost, but not quite, a complete covering from this serous membrane. It is the introduction into this serous sac, in this fibro-osseous canal, of some sepsis, or micro-organisms, we will say, which produces the thecal abscess, and it is in these conditions, when the inflammation has been started and has been increasing for some little time, that we mostly see it, for it is then that the patient comes for treatment. The treatment to be applied is undoubtedly very early incision. I think it is a mistake to wait even until we can be sure that there is pus present in the finger. The incision should be made before the pus forms, because that gives us the best chance of preventing the formation of pus at all. And the next point which I would like to insist upon is, that no one should attempt to open the thecal abscess without giving a general anaesthetic, and that no one should attempt to open a thecal canal without having previously rendered the part bloodless, because you want to do this operation with the greatest care. If you do too much it is sometimes worse than not doing anything at all.

The kind of operation I recommend is this. (Usually there is not much time to prepare the patient for operation.) He should be completely anaesthetized by a general anaesthetic, and the limb should be raised above the trunk for a short time, the surgeon or his assistant holding the arm by the wrist in such a way as not to compress the vessels, holding it by the bones between the finger and thumb, so that no pressure is exerted upon the vessels of the limb. For if the hand encircles the wrist, naturally a good deal of blood remains in the patient's hand. Having held the hand like that for three or four minutes, the surgeon applies an elastic bandage, that which we call Esmarch's bandage, round the upper arm, and it is generally sufficient to place six turns, one over the other, anywhere on the length of the arm below the deltoid to render the limb comparatively bloodless. And I think it would be a mistake if one put on the Esmarch bandage in the way that Esmarch himself advised it should be put on for other conditions; I mean by beginning at the fingers and winding it spirally up the arm, and then placing six turns round the arm, and subsequently unrolling a piece of the bandage from the fingers up to the top. That would be wrong, because there would be some risk of forcing material in the lymphatics of the limb, and septic material probably, higher up in the limb than it had already reached in the course of the disease. No one should start such an operation with the determination of opening the theca at all, because it is impossible to say whether or not it is necessary in any given case. One first makes an incision through the skin and subcutaneous tissues, and then discovers whether it is necessary to open the tendon sheath. You may find that the inflammation which is causing a very large swollen and oedematous finger is superficial to the theca, a fact which you cannot determine until you have exposed the surface of the theca and viewed it directly with the part free from blood. One often embarks upon an operation of this sort with a fixed idea in one's head of what one has to do, and then it is difficult to alter one's course of action at a moment's notice. So it should be an operation of exploration, not having determined beforehand what you will do because you do not know what has taken place, knowing only that the theca has to be exposed and dealt with as occasion requires. I advise that amongst the instruments prepared for this operation should be a hypodermic syringe, so that if there is any doubt as to what the contents of the theca are, one can easily draw off some of the contents in the syringe and view them in the glass barrel. If they are turbid I recommend you to open the theca; and if they are clear I recommend that, at any rate on that occasion, it should not be opened freely, but that a small opening be made, sufficient to give drainage for the clear fluid.

The next question which arises is, Where should the incisions be made? I think there are undoubtedly two incisions which should be made; one should be an incision which traverses the site of infection, and since the site of infection is nearly always at the top of the finger, it follows that this incision traverses the fibro-fatty pad in that situation. It should be prolonged a little further up than the usual incision there which I have recommended for treating the subcutaneous form of whitlow, so as to open the termination of the theca if necessary. One would then see within the theca the insertion of the tendon of the flexor profundus digitorum. The other incision is also generally necessary, and it should be made at the other end of the tendon sheath. I have already said that this fibro-osseous canal in which the tendons lie begins at the neck of the metacarpal bone. The position of the upper incision should be therefore over the head of the metacarpal bone, and it will then divide practically nothing of any importance, so long as it is kept in a line with the axial line of the finger. The incision divides skin and subcutaneous fat, and underneath the fat you will see the strip of the palmar fascia, and if you divide this you open the thecal space. I recommend that when you have reached the theca the surface should be sponged clean, so that you can see what its colour is. If it obviously contains pus, an incision should be made freely in it about 1 in. long. But if there is any doubt as to what it contains, though you can demonstrate by the feeling which you get by touching it with your fingers that it contains fluid, some of the latter should be drawn off with the hypodermic syringe, and then, according to the character of the fluid, so you either make a long incision, say 1 in. long, or a short incision just sufficient to give exit to the clear fluid which you have found to be present in the sac. There are other positions which have been recommended for opening a thecal abscess, but I am bound to say I do not know of any two which are so useful as the one at the termination and the other at the commencement of the thecal sac. Sometimes if you can show that the suppuration within the theca is local, you can deal with it where you know it to be. If, for instance, there were no swelling in the palm, and the swelling were found to extend along a certain length of the finger, you might deal with it locally by making your incision through the thickest part of the swelling. The tendon sheath should never be laid open from end to end, for then the tendons stand out from the finger and invariably slough.

Treatment of Extensions of the Inflammation.

Now we come to another consideration, namely, that if we are dealing with a whitlow which has started at the top of either the index, middle, or ring fingers, the probability is that the suppuration within the tendon sheath will not extend, provided that the pus be not left unduly long in the finger. It will not extend beyond the level of the neck of the metacarpal bone, because that is the limit of the thecal space, and of the serous membrane in which the pus lies. But in the case of the thumb, and in the case of the little finger, one should look out for extension much further than that—extension, in fact, up to the wrist, and even above the level of the wrist, into the lower part of the forearm. I will make a few remarks with reference to these statements.

It was shown some years ago by Dr. Alfons von Rosthorn that in the majority of instances there was direct extension of the serous sacs within the tendon sheaths of the little finger and thumb upwards through the palm, so as to communicate respectively with two large serous sacs lying beneath the anterior annular ligament of the wrist, and the following diagram (Fig. 1) represents what he described as the typical arrangement of these sacs.

You will remember the upper border of the anterior annular ligament of the wrist corresponds almost exactly with the lower of the two creases across the front of the wrist. The upper crease is a slight one, while the lower is quite a deep crease, and if you follow inwards the course which it takes the upper end of the pisiform bone is reached, while following it outwards leads to the tuberosity of the scaphoid. These bony points are of some importance, and may serve as guides to certain operations which I have to speak of presently. Of the two large sacs beneath the annular ligament one is considerably larger than the other. This one extends up into the forearm for 1½ in. above the level of the upper border of the annular ligament, and is in relation with the tendons of the flexores sublimis and profundus digitorum. It is then somewhat constricted in its passage through the narrower space beneath the anterior annular ligament. (There is a fibro-osseous canal formed here by the annular ligament in front and by the carpus bent upon itself so as to form a deeply concave groove on this aspect behind.) But at the lower border of the annular ligament the sac expands again, and on its ulnar side is continuous with the serous sac which lines the tendon sheath of the little finger. The smaller sac beneath the annular ligament is in relation with the flexor longus pollicis, and does not extend so high above the ligament by about ¼ in. For all practical purposes there is no difference. The sac is constricted beneath the annular ligament and in the palm shows an expansion which I have indicated in my diagram. This expansion lies in the inner part of the thenar eminence, and is overlapped by the outer head of the flexor brevis pollicis muscle. Afterwards the sac is prolonged without a break down the course of the thumb, where it is continuous with the serous sac which lines the tendon sheath of that digit. I have indicated in my sketch the position of the serous sacs of the other digits so as to make the picture complete.

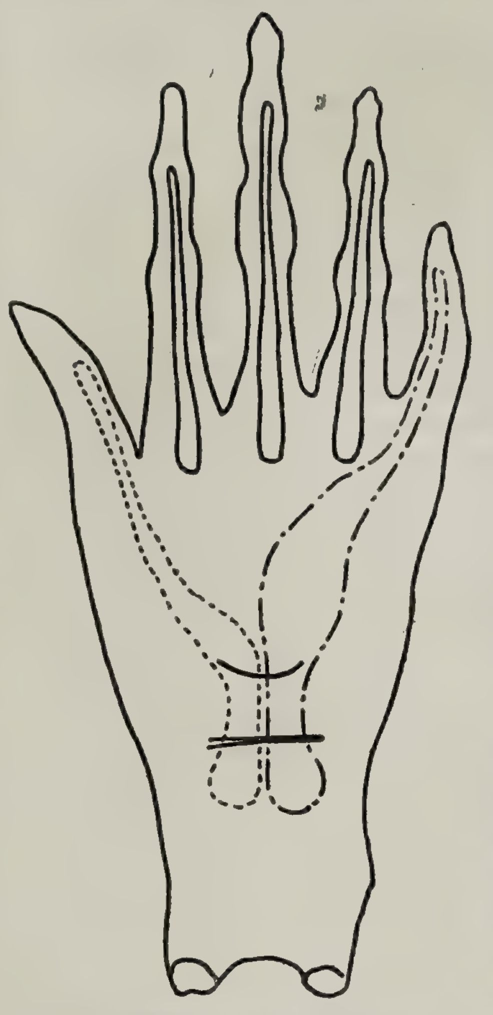


Fig. 1.—Showing the five distinct serous sacs usually found in the hand in relation with the tendons of the flexor longus pollicis and of the flexor sublimis and flexor profundus digitorum. The position of the anterior annular ligament is indicated by lines representing its upper and lower borders respectively. (After von Rosthorn.)

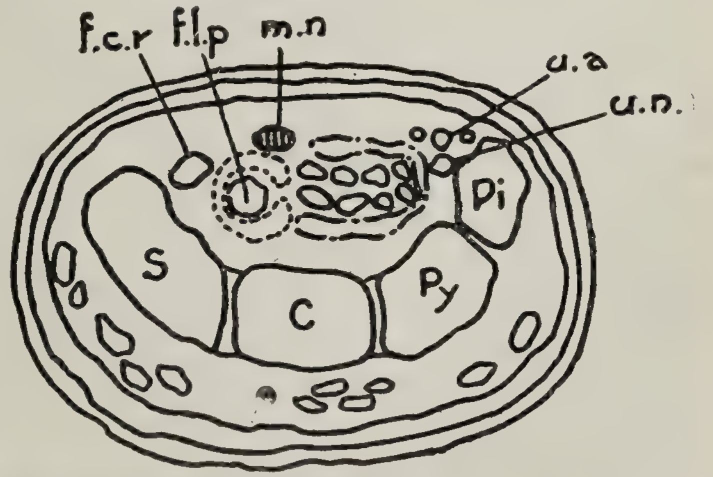


Fig. 2.—Showing a section of the wrist through the upper row of carpal bones. It indicates in particular the relation of the serous sacs to the tendons as they pass beneath the anterior annular ligament. S, scaphoid; C, cuneiform; Py, pyramidal; Pi, pisiform; f.c.r., flexor carpi radialis; f.l.p., flexor longus pollicis; m.n., median nerve; u.a., ulnar artery; u.n., ulnar nerve. The tendons of the flexor sublimis and flexor profundus digitorum are easily recognized. (After von Rosthorn.)

We have now to consider what steps are necessary if suppuration has started in the thumb or in the little finger, and has spread beyond the digit into the large sac in the case of the thumb, or into the still larger sac in the case of the little finger. There is usually a small communication between those two at the upper end, which is effective for practical purposes; that is to say, you may easily get an extension of suppuration in one or other direction. We now want to know what relation these sacs have to the several tendons underneath the anterior annular ligament. If we know this, it follows that we have the exact relation of the sacs to the tendons above or below the anterior annular ligament. I can show this relation best by means of a diagram (Fig. 2), which is also after von Rosthorn.

We will imagine we have cut across the carpus transversely, so as to show in front the anterior annular ligament. There are nine tendons in the fibro-osseous canal so formed. On the outer side the flexor longus pollicis tendon, a tendon which is in relation with the smaller of the two sacs. There are placed upon the floor of the space four tendons, those of the flexor profundus digitorum. In front there are the four tendons of the flexor sublimis; and of these the middle and ring finger tendons lie a little in advance of those of the index and little finger. The relation of the serous sacs can now be shown to the several tendons underneath the anterior annular ligament. Their position is mainly what we should expect. Each sac shows two layers: the parietal and the visceral layers, if we may so term them. The parietal layer lines the space in which the tendons lie, and the visceral layer is reflected on to the tendons. And the way in which it is reflected is peculiar. A series of pouches are formed which pass between the several tendons, and so give to each tendon either a complete covering or almost a complete covering. It is a closed sac which surrounds or nearly surrounds the space in which the tendons are, and is so arranged with reference to each tendon that it gives almost a complete covering to each. In the case of the smaller sac of the two the same arrangement holds. The parietal layer lines the outer portion of the space underneath the anterior annular ligament, and the visceral layer is reflected on to the tendon. It is a closed sac again which either completely or almost completely surrounds the tendon of the flexor longus pollicis.

We now pass on to describe the operations that become necessary when suppuration has extended into either of these sacs. Let us take the case of the thumb first, as that is the simpler, because we are there dealing with one tendon only. When a whitlow starts at the top of the thumb, becomes secondarily a thecal abscess and spreads upwards under the annular ligament into that portion of the serous sac which lies above that ligament, it becomes necessary to deal with it somewhat energetically. One has to institute as complete drainage as possible for the whole of the length of serous sac involved. It is probable that one would make, if not quite at the beginning of the operation, quite early, an incision through the fibro-fatty pad of the thumb, because that is the site in which the infection was first inoculated. One would then make an incision into the upper end of the serous sac; that is to say, an incision would be made in the lower part of the forearm above the wrist, so as to evacuate the pus which lies there, and so as to give us an opening at the upper limit of the sac for the purpose of free drainage. Opinions differ as to where exactly this incision should be made. The question is as to whether you should make the incision on the outer side or on the inner side of the flexor carpi radialis. One can demonstrate on one's own wrist the position of the flexor carpi radialis. It lies one-third of an inch internal to the radial artery, and about the same distance external to the palmaris longus tendon. Should the incision be made on the outer or the inner side of it? Each position is equally good as regards the facility of reaching the tendon of the flexor longus pollicis, which lies underneath the flexor carpi radialis tendon.

Now on the outer side of this tendon is the radial artery; and since you will probably be putting a tube into the wound and because the wound will become intensely septic from the character of the material which you will evacuate, you are exposing the artery to very unfavourable conditions, in that, if you use a drainage tube, and sometimes even if you are able to do without a tube, you may get ulceration of the vessel where the tube or dressing lies upon it. I know of two instances in which this occurred, in which the radial artery ulcerated, and in both instances a tube was being used. In one case, though the patient was in hospital, she died from the severity of the haemorrhage which resulted, and in the other case the bleeding was arrested only by ligaturing the brachial artery at the middle of the arm. When the incision is made on the inner side of the flexor carpi radialis tendon that brings you very near the median nerve, and if you are going to use a tube for drainage, and sometimes without it, you may create a neuritis of the median nerve which will damage the hand either permanently, or at any rate for a great length of time. My own preference is to make an incision on the outer side of the flexor carpi radialis, but I should protect the radial artery, either by covering it with gauze, or, if I felt that that was not sufficient, I should remove a piece of the vessel, that is to say, I should cut out about 1½ in. of it, and wipe over the surface of the wound with some strong antiseptic solution, such as chloride of zinc lotion (40 gr. to the oz.), and then pack a piece of gauze into each end of the wound so as to shut off completely the ligatured ends before evacuating the pus. Having thus disposed of the radial artery you stand very little chance of getting any trouble from it. That, I believe, is a better course than placing the nerve in jeopardy, and it is certainly a better course than running the risk of secondary haemorrhage from the radial artery by leaving it in its normal position. Only the other day I saw a case in which the incision had been made on the inner side of the flexor carpi radialis tendon, and the median nerve had suffered terribly; the patient had absolutely no tactile sensation over the flexor aspects of the thumb, index, middle, and radial side of ring fingers, and this was some six months after the operation had been performed. There had been not only neuritis, but the nerve was included in the scar that had formed, and was certainly very considerably damaged.

There is one other point, and that is that to complete the treatment of this serous sac of the flexor longus pollicis, one should have an incision in such a position in the palm as to open the dilatation of the sac of which I spoke. This incision is best made along the inner border of the outer head of the flexor brevis pollicis. By making the incision here you avoid injuring the digital branches of the median nerve which go to the thumb, and the incision is in the best position for reaching the serous sac, and in a position in which nothing of importance is likely to be divided—except, perhaps, one thing. If you carry the incision too far up you will divide the branch of the median nerve which goes to the small muscles of the thumb. But since you are doing the operation bloodlessly, you are viewing the parts almost as in the dead subject; you can see the nerves distinctly, and you will be on the look-out for the motor branch of the median nerve which goes to the three outer muscles of the thenar eminence. So by looking out for it you can avoid dividing it. In that case which I referred to just now, in which the median nerve was involved in the scar on the front of the wrist, the branch of the nerve to the three thenar muscles had been cut right through also by an incision which had been placed too far out, over the prominent part of the thenar eminence. One should make the incision on the inner side of the eminence so as to reach the inner border of the flexor brevis pollicis.

With regard to the bigger of the two sacs a few more remarks must be made. Here, again, we will imagine that we have a case in which the disease started originally as a subcutaneous infection at the top of the little finger. It has become a thecal abscess, and since the serous lining of the tendon sheath is continuous with the larger sac beneath the annular ligament, which is in relation with the two sets of four tendons, of the flexor sublimis and the flexor profundus digitorum muscles, suppuration has spread through the palm and is involving those portions of the sac which lie above the annular ligament in the lower part of the forearm.

For practical purposes you will find that what is necessary in order to evacuate the pus when it occupies this big sac is to open up the space between the two sets of tendons, though that would appear to be rather contrary to what I have shown (Fig. 2) with regard to the relation of the sac to the several tendons, but not necessarily so. Probably by the time that you have got the case for treatment, or are making your incision, this sac has given way, and has done so in one or more of those processes which project between the adjoining tendons, either of the superficial or of the deep set, as the case may be. So when you make your incision, the position in which you will probably find the pus is between the tendons, those of the flexor sublimis in front and those of the flexor profundus behind. The incision should be made along the broad ridge which indicates the inner border of the flexor sublimis digitorum. This is ½ in. external to the tendon of the flexor carpi ulnaris, and the incision should be carried from the upper border of the annular ligament 1½ in. to 2 in. or more along the forearm. You make the incision with the limb bloodless, as before, and then you see what you are doing. Divide the skin, the subcutaneous fat, and the deep fascia, and then see the border of the flexor sublimis tendon. You will probably see the border of the ring finger tendon first, and looking further inwards you will see the surface of the little finger tendon. Pull both these tendons outwards, and you now look into the space between the two sets of tendons, the flexor sublimis and the flexor profundus digitorum, and it is there that you will probably find the pus. You may find pus before you reach this level; you may find pus superficial to the flexor sublimis tendons. If so, it does not mean that you must stop; you must go deeper and look underneath the sublimis tendons, because there may be a larger collection of pus in the more usual situation between the sublimis and the profundus tendons; and it is usually wise to look deeper still, namely, between the flexor profundus digitorum and the surface of the pronator quadratus; because it occasionally happens that pus is found there also—that is to say, pus may be found in either of these situations which I have indicated. If you find pus in the last situation mentioned I should recommend that another opening should be made in addition to the one which you have made in front, because you can then make a very direct drainage of the space underneath the flexor profundus tendons by an incision along the ulnar border of the wrist just behind the tendon of the flexor carpi ulnaris. It may be a long incision, but it need not come down lower than the pisiform bone. Nothing can be harmed there, unless, perhaps, it is the dorsal branch of the ulnar nerve at the upper end of the wound. You will see this nerve, and then you pass deep to the flexor carpi ulnaris, deep to the ulnar nerve, and deep to the ulnar artery, into the space (now full of pus) beneath the flexor profundus digitorum. You should place the forearm midway between the prone and the supine position, so as to obtain the best position of the wound for drainage.

There are two other things I want to say. When making the incision above the annular ligament to deal with the larger sac, one should make another incision below the annular ligament also, and likewise a third incision through the top of the little finger. The incision below the annular ligament so as to open the large dilatation of the sac there, is not very easy to place; the reason being that you have to place it in such a position that you shall not injure the nerves. I take it that it does not matter what you do with the arteries; you are doing the operation bloodlessly. You will see the superficial palmar arch, you will tie it on either side of the wound and cut out as much as there is between the two ligatures. You want to place your incision so as to injure the nerves as little as possible. The best place for the incision from that point of view is distinctly between the digital branches of the median and ulnar nerves—that is to say, to the inner side of the fifth digital branch of the median nerve and to the radial side of the outer of the ulnar branches. The only nerve which you will find here is a little cross-communication from the median to the ulnar nerve, or a twig in the opposite direction; but it is very small, and if all the damage which you do to nerves is confined to injury to that cross branch you will have done very little. This incision should be made in the palm in the line of the axis of the ring finger beginning at the lower border of the anterior annular ligament. In both these instances, (*a*) where the infection is from the thumb, and (*b*) where it is from the little finger, having made your three openings into the serous sac you can use your openings from either end for irrigation of the abscess cavities. You should pass through the abscess daily, or twice a day if you like, a considerable quantity of an antiseptic fluid, say a weak solution of biniodide of mercury or of perchloride of mercury, beginning with a solution of 1 in 5,000 or of 1 in 4,000, and, if necessary, gradually increasing the strength. I am of opinion that more good will be done by using large quantities of weak solution than by using one of greater strength in flushing out the suppurating tracks, and thus bringing about the removal of the septic material. If the suppuration extends higher into the forearm than we have yet mentioned, you will always find the pus between the flexor sublimis and the flexor profundus digitorum, and I would remind you of the kind of case one sees. A patient comes to you with suppuration in his hand, and you find that he has developed an oval swelling over the upper two-thirds of the front of the forearm. The latter is prominent, hot, red, extremely tender, and oedematous, and the summit of the swelling is in the middle line of the forearm. It may require some little restraint to prevent oneself making an incision into the middle of it, though in reality that is the worst possible thing to do. If you make an incision into the middle of the swelling you have to traverse the superficial layer of muscles; you have to traverse at least the whole thickness of the flexor sublimis digitorum, and you will remember that on the deep surface of that muscle is the median nerve. It sticks there, either because it has passed through the upper part of the muscle, or because it is held there by the median artery; and it will be a matter of sheer good luck if you make this incision into the big swelling in the middle line of the limb and do not divide, split, or otherwise injure the median nerve. As a matter of fact, the incision should not be made there at all. The proper position for the incision is along the ulnar border of the forearm, as if you were going to tie the ulnar artery at the junction of the upper and middle thirds of its course. You can make an incision in a line—placing a string on the forearm for the purpose if necessary—from the outer border of the pisiform bone to the back of the internal humeral condyle. After dividing skin and subcutaneous fat you look for two white lines in the deep fascia; you choose that one of these two which is nearest to the guiding line of the incision. Make an incision in that line in the deep fascia and so open the interval between the flexor carpi ulnaris and the flexor sublimis digitorum; and you find almost at once you are in the cavity of the abscess which lies deep to the last-named muscle. The only thing which interferes with this operation is the ulnar artery. You will remember the ulnar artery comes from the middle line of the limb, and only reaches the line of the ulnar nerve at the junction of the upper and middle thirds of the length of the limb, and if you are using a drainage tube it may lie across the ulnar artery. The nerve is under cover of the flexor carpi ulnaris, and is protected, but the ulnar artery may be injured; and a similar accident may happen to it as the one which I described as likely to happen to the radial artery in the outer incision at the wrist. I should be disposed to deal with the ulnar artery in the same way as I suggested with regard to the radial at the wrist, and before opening the abscess, to cut a piece out of the ulnar artery sufficiently long to give you plenty of room to place your tube comfortably, and then proceed to open an abscess and to give it perfect drainage.

One other point is, that besides this last extension which I have mentioned, the commonest is an extension of the suppuration into the wrist joint. When the suppuration has involved either of the sacs beneath the anterior annular ligament the distance into the articulations of the wrist joint is no greater than the thickness of the ligaments on the anterior surface of the carpus, and the extension now spoken of is not therefore a matter for surprise. It is perhaps commoner than extension into the forearm; and, of course, it is a state of affairs which is about as bad as it can be. The case is, however, not hopeless, but you will need to make one or more incisions on the back of the carpus, and perhaps to remove the carpal bones. Sometimes these bones are lying loose, just as if they had been macerated ready for an anatomical demonstration. They can then be scraped out through one or more incisions on the dorsum of the wrist, and, by putting the limb on a suitable splint—Lister's wrist splint, for instance—you may obtain a hand which is moderately useful.

The after-treatment of all these cases is manipulation and massage; passive and active movements of the joints should be begun as soon as possible, before the wounds are healed. You should try and induce the patient to help in every possible way and in particular in movements of the fingers. Of course there will be sure to be many considerable adhesions, and the sacs may be to a large extent obliterated. Still, even then, some small parts will remain, and you may obtain a very large degree of movement if these attempts at movement are begun soon enough, before the parts are fixed by firm cicatrization. One knows this because one sees the good results which occur in those cases of tuberculous disease of these serous sacs after one has removed by dissection every bit of synovial sac which can be found. In such cases, if the dissection be done carefully, you can obtain a remarkably good result with free movements of fingers and of the wrist, if you will begin the movements early—passive first, and then active movements—and continue them for a very long time indeed. I do not think that one can put any limit to the length of time during which such movements are likely to prove beneficial in these cases.

The treatment of the fourth or subperiosteal variety of whitlow is comparatively simple. It consists in making an incision through the fibro-fatty pad at the top of the finger down to the bone. Care should be taken not to cut so high as to endanger opening the tendon sheath. This incision gives free drainage; about a month later one is able to remove so much of the ungual phalanx as has necrosed. With few exceptions the base of the bone with the attachments of the flexor and extensor tendon survives and the wound heals without further trouble. Lead and spirit lotion (ʒss of each to 1 oz. of water) is the best application I know of for all forms of terminal whitlow.

I hope I have interested you in what I have said. My own feeling is that all the operations which I have described this afternoon can be performed successfully by any surgeon provided the few conditions which I have laid down are accepted and followed out—namely, that operation on the affected parts should be undertaken as early as possible; that the operative measures should be carried out after the limb has been made as nearly bloodless as can be, and that if one is uncertain of the intimate anatomy of the region involved, one should take the trouble to look up the subject before the operation, so as to be well aware of the position and relations of the several structures with which one may have to deal in the course of the operation. Seldom can one hope to obtain such a result as will give entire satisfaction to the patient, but it is no small thing to be able to say that the result obtained is the best possible in the circumstances of the case. And this should be the aim of our treatment.

PLUMBISM FROM THE INGESTION OF DIACHYLON AS AN ABORTIFACIENT.

BY

ARTHUR HALL, M.A., M.D., F.R.C.P. PHYSICIAN, ROYAL HOSPITAL, SHEFFIELD.

and

W. B. RANSOM, M.A., M.D., F.R.C.P. PHYSICIAN, GENERAL HOSPITAL, NOTTINGHAM.

OBSERVATIONS BY DR. HALL.

DURING the last few years outbreaks of lead poisoning of varying extent and severity have occurred in different localities which could not be traced to the ordinary sources of plumbism, such as water contamination or dangerous occupation. The cases were always limited to women of child-bearing age, and eventually the source of the poisoning was traced to the custom of taking diachylon as an abortifacient.

In a paper read before the Yorkshire Branch of the British Medical Association at Bradford in January, 1904,* I recorded 30 cases of this kind, and referred in detail to the numerous articles which have appeared in various journals from time to time on this subject (vide Bibliography at end of paper).

This custom of taking diachylon, instead of diminishing, has spread over such a large area of country, and assumed such serious proportions, that steps must be taken to check it, or if possible to stop it altogether. How this may best be done remains to be settled, but it is not so simple a matter as might at first sight appear.

The subject is a somewhat delicate one, which cannot easily be ventilated in the public press, or by the circulation of warning notices. Moreover, there is the fear that publication might tend to spread the evil, instead of reducing it.

History and Extent of Spread.—The first cases were observed at Leicester and were reported in 1893 by Dr. Pope.

After that the practice seems to have been less prevalent for a while, or at least to have spread but very slowly, for I can find no further record of cases until 1898, that is, five years later, when cases were reported in the neighbouring city of Birmingham. In 1899 it had reached Nottingham in considerable vigour, where it has remained ever since.

At that time it had certainly not reached as far north as Sheffield, nor did it do so to any extent until some two or three years later, since when the number of cases has steadily increased in the locality. Inquiries which I have made from all the neighbouring centres show that it has reached various smaller or larger towns still further north, such as Barnsley and Doncaster, and that a few cases have occurred in Leeds, including one death, but this seems to be its northern limit. So far as I can ascertain, it has not been recorded in any of the other large Yorkshire towns, Bradford, Halifax, Huddersfield, Hull, York, etc.* It has not affected the Manchester or Liverpool districts.

Further north at Newcastle-on-Tyne it appears to be quite unknown.

To the east of this affected Midland area I cannot hear of any cases, either at Lincoln, Gainsborough, or Retford.

To the south of Leicester a certain number of cases, with one death, have been reported to me by the courtesy of Dr. Horace Savory of Bedford.

Inquiries from various hospital authorities in London point to its not occurring there.

The area over which the practice of using diachylon as an abortifacient has spread is thus bounded on the north by the upper part of South Yorkshire, on the south by Bedfordshire, and on each side by the width of the counties of Leicester, Warwickshire, Notts, and East Derbyshire. This area comprises a large number of manufacturing towns, each containing thousands of the working classes, together with a country between largely occupied by mining populations.

Local Statistics as to Prevalence of the Custom.—Dr. Ransom has attempted to obtain some details as to the extent of this custom in and around Nottingham—that is, in the southern half of the area; whilst I have attempted to do the same in and around Sheffield.

A circular suggested by Dr. Ransom has been forwarded to every medical man within an area of some twenty or thirty miles of Sheffield, asking for information.

About 200 have replied. Of these 50 have had such cases of plumbism under their care during the last two years (vide Appendix A).

From their replies one can account for one or two hundred cases in this district during the last two years.

One may add to these the large number of women who come to our hospitals suffering from plumbism every month, and even then get a very modest estimate of the extent of the practice.

And this for two reasons: In the first place, a considerable number of medical men have told me they have had such cases but have not answered my circular for fear of making a breach of professional secrecy, whilst the fear of being found out prevents a large number of sufferers from going to their medical men at all.

I believe we shall not be far wrong in saying that several hundred women have taken diachylon in this district alone during the last two years.

From the previous statement one is warranted in saying that this abuse of diachylon is a grave public scandal; for, apart from the social and moral questions connected with it, there is the added evil of the harmful effects of the drug itself.

Unfortunately this is not limited to the severe abdominal pains and headache which immediately follow its use—themselves a cause of sufficiently serious suffering—but there is the prolonged anaemia, with complete inability to carry on the duties of a household for many weeks or months after the drug has been stopped.

---

* BRITISH MEDICAL JOURNAL, March 18th, 1904.

* Since writing the above I am informed that the practice is not unknown to chemists in some of these towns, and that even in Dundee chemists have recently been asked for diachylon, apparently for this purpose.

Nor is this the end of the story. Many deaths have been recorded—deaths of young, healthy mothers of families (vide Appendix B)—to say nothing of cases of lead insanity necessitating removal to asylums and a permanent stigma on the patient.

I do not propose in this article to go into any clinical details of these cases.

Lead taken in this form, on the whole, acts similarly to lead taken in other forms, but one or two points may be referred to in which there is a slight discrepancy. Very often the pills are compounded with aloes, so that there is no constipation; at other times the diachylon is taken in such large amounts that acute abdominal symptoms are present, simulating peritonitis or other acute abdominal diseases.*

When one considers the amount of money and labour expended by local authorities in preventing lead poisoning from the drinking water, or the strict legal regulations which must be observed in all trades where the possibility of lead poisoning may arise, it seems the more necessary to try and put an end to this scourge, which I have no hesitation in saying is doing as much, if not more, damage in the places it has reached, than either of the two abovementioned causes have ever done in a similar time.

HOW THE CUSTOM IS SPREAD.

In order to ascertain the best method of doing this, it is necessary to understand how this use of diachylon has come about, and I think that a study of its origin and spread points clearly to certain important indications for its possible prevention.

The fact that, starting at or about Leicester, it has taken twelve years to spread over an area of only comparatively small dimensions—namely, three or four counties, and that those counties are all adjacent to one another—suggests that it has been handed from person to person rather than by any wholesale advertisement of any particular drug in journals having a wide circulation.

Even supposing that a few quack medicine dealers have spread it, their operations must have been restricted to a comparatively small area, in consequence of their limited capital and enterprise. Whilst certain of the largely advertised patent remedies sold as "female pills" undoubtedly contain lead as one ingredient amongst others, no large proportion of the prevailing cases arises from their use, nor do I think that most of the "female irregularity cures" contain lead at all. At this point it is desirable to ask the question, *What is it that is being spread?*

For my part, I believe it is *not* any particular pill or medicine, either advertised or not, but rather the secret information that diachylon is a safe and sure abortifacient.†

This news is handed on from woman to woman by word of mouth, like any of the other "household remedies" or "cures," which every woman knows. It is true that, here and there, some more enterprising and less scrupulous person acquiring this valuable information, purchases the necessary quantities of diachylon and aloes, and manufactures pills, with which an extensive trade is done in their neighbourhood, under the name of "Nurse Somebody's Pills." They may even go so far as to peddle the pills in the country districts around, but they are too poor and too frightened to advertise their products in the public press, except on a very limited scale.

Apart, however, from these local exacerbations, the general steady advance of this "knowledge of evil" is, as I said before, from woman to woman. Hence its slow progress, for the women of this class do not travel further than to and from their nearest market town or centre.

The direction of spread along the northern path of thickly-populated manufacturing populations, subject to bad trade or overcrowding, rather than to the east or west, or south, where the country is more sparsely inhabited, can be readily understood.

The absence of cases in London helps to support the opinion I have expressed, for it would seem obvious that were any of those dealing in this traffic in a monetary position to push their trade further afield, London is the natural place to which they would turn.

I have gone into this subject of the spread of the evil in some detail because it is essential that it should be understood, in order to cope with it successfully.

HOW TO DEAL WITH THE EVIL.

We may now consider the various practical suggestions which have been made as to the best method of dealing with the matter.

1. *To Compel by Act of Parliament the Publication of its Ingredients on the Cover of every Patent Remedy.*
2. *To Prosecute and Punish the Makers and Vendors of Diachylon Pills.*
3. *To seek the Support of the Lay Press, and Invite them to abstain from Publishing Advertisements of "Female Irregularity" Remedies.*
4. *To Circularize, or otherwise Inform, all Medical Practitioners in the Country of the Possibility of such a Cause in Obscure Cases of Plumbism, so that they may Recognize it and Warn their Patients.*
5. *Compulsory Notification of all Cases of Abortion.*
6. *To make Lead Poisoning in Women a Notifiable Disease.*
7. *To Control, or Prohibit, the Sale of Diachylon.*

There are two ways in which this method might be carried out:

First. The Sale of Diachylon might be Prohibited Entirely.

Second. It might be Scheduled under the Poisons Act.

A very ingenious suggestion was made in reply to my circular by Dr. Chawner, of Clay Cross, namely, that it should be made compulsory for all diachylon to be adulterated with some harmless emetic substance such as ipecacuanha, so that it would be impossible to take it.

In conclusion, I would like to express once again my sincere thanks to all those who, either in reply to my inquiries or of their own initiative, have so greatly assisted me in this matter, and to remind those of my professional brethren whose districts have not yet been affected of the importance of preventing them from becoming so.

APPENDIX A.

Extracts from replies by medical men in the Sheffield district to Question 1 of Circular, namely, "Do you find it common, and can you say how many cases you have seen in 1904 and 1905?"

(N.B.—I have selected them largely to show the extent of area affected.)

Rawmarsh: "I believe it is very common. Cannot say how many cases I have seen, suspected about 6; 1 absolutely certain."

Parkgate: "3 cases last year, and 5 during the last three months."

Masbro': "About 6 or 7; 1 fatal case last year."

Rotherham: "I have seen several cases of lead poisoning in women, which I was unable to account for until recently."

Rotherham: "I have had at least half a dozen cases during the last two years, and now always examine the gums when called to a miscarriage."

Mexborough: "It is comparatively common. I have seen at least 6 cases."

Mexborough: "5 cases."

Doncaster: "Increasing; about a dozen cases. A chemist who set up in a small way about six months ago states he must have sold 100 penny lumps of diachylon."

Attercliffe, Sheffield: "Fairly common in this district; I have seen about a dozen cases."

Bolsover, near Chesterfield: "I have seen half a dozen cases in 1904-5."

Bolsover, near Chesterfield: "I have had 7 cases during the last two years."

Barnsley: "We have come across 2 cases of probable miscarriage this last year in which there was a very marked blue line. Of course inquiries failed to find out that 'pills,' etc., had been taken."

Wincobank, Sheffield: "Very common. Had about 6 to 12 cases."

Sheffield: "Have had 4 cases in last year, and patients have told me it is very common."

Sheffield: "About 30 cases."

Hoyland Common: "Four cases in the last two years—one a bad case, the others of variable degrees of severity."

Bakewell: "Two cases this year."

Belper: "Yes, near 20."

Swinton: "About 6."

APPENDIX B.

List of Deaths from Plumbism during 1904-5-6, occurring in the Sheffield district or reported from other places.

(N.B.—This does not include those occurring in the Nottingham area referred to by Dr. Ransom.)

---

* Jaundice has been noted in several recent cases.

† An important addendum should be made to this, namely, that diachylon is also represented to be a preventive against *becoming impregnated.* Much is taken with this idea.

Locality.

1. Masborough, Rotherham: "Woman. No inquest."
2. Rawmarsh, Rotherham: "Mrs. G., aged 34 years. November, 1904. Source of pills unknown. No inquest."
3. Bedford: "Woman, 1904 or 1905 (reported by Dr. Savory). Inquest. The person who sold the pills was known, but no punishment followed."
4. Sheffield: "Mrs. A., aged 25 years. June, 1905. Inquest. Unable to trace the source of supply."
5. Leeds: "Mrs. B., aged 23 years. Inquest, March 23rd, 1905. Pills made by a Mrs. Oxley, and indirectly purchased by deceased. The jury found 'that death was due to lead poisoning, but that there was no culpability on the part of Mrs. Oxley.'"
6. Sheffield: "Mrs. H., aged 32. Inquest, January 16th, 1906. She was brought to the Royal Infirmary from a country district outside, and absolutely denied having taken anything. The jury found a verdict of 'Death from lead poisoning, source unknown.' Since then I have heard that a box of 'Nurse O——'s' female corrective pills, which are the chief offenders in this district, and contain diachylon, was found in the deceased's house."

Addendum by Dr. W. B. Ransom.

In order to collect further information on this subject, I sent out 200 copies of the following questions to medical men living within twenty miles of Nottingham.

1. Do you find it common, and can you say how many cases you have seen in 1904 and 1905?
2. Is it an efficient abortifacient?
3. What symptoms does the poison usually produce?
4. Have you known of any fatal cases, if so, how many?
5. Is the lead usually bought as Diachylon, or as secret "female pills"?
6. Can you suggest any means of preventing the practice?

While a considerable number of doctors, especially those engaged in rural or in better class practice, were not familiar with this use of lead, sixty replies were received which showed it to be widespread and common. Thus Dr. Cassidi of Derby had seen 100 cases between 1896 and 1905, and some Nottingham medical men practising in the poorer districts sent the following replies:

Dr. C. "about 20 in each year."
Dr. S. "6 in the last nine months."
Dr. F. "18 in the last 3 years."
Dr. T. "about 9 a year."
Dr. N. "15 in 1904 and 1905."
Dr. W. S. "33 in 1904 and 1905."

Dr. J. W. Scott, formerly House-Physician at the General Hospital, Nottingham, reported 30 cases as in-patients or out-patients there in 1903 and 1904, and Dr. Edward, the present house-physician, 22 between January, 1904, and October, 1905. It appears to be common in the colliery towns and villages of the Leen and Erewash valleys, and round Mansfield.

It is well known in Newark and Loughborough, but does not seem to have reached Melton Mowbray.

In reply to Question 2, most replies indicate that it usually does produce abortion, although some are emphatic about its uncertainty, and all are clear as to its damaging effects to health and serious risk to life. The symptoms described fall into three groups:

1. Those of acute lead poisoning, such as colic, vomiting, or encephalopathy.
2. Those attending abortion, such as metrorrhagia and metritis.
3. Those of chronic lead poisoning, such as anaemia, headache, and occasionally wrist-drop.

Insanity and blindness from optic atrophy have been enduring after-effects. In 10 cases it is said to have caused death, while many others were dangerously ill and barely escaped with life.

In regard to the form in which lead is taken, it appears to be usually bought by the patient or by a friend (for example, a midwife) as diachylon in the lump, and made into pills, either alone or mixed with colocynth, aloes, and such drugs.

In the latter case the "lead colic" may be accompanied by diarrhoea instead of constipation.

But there is also no doubt that a large number of "female pills" sold by herbalists and quack medicine vendors contain lead. Some are specially labelled "not to be taken by pregnant women."

As to the means of preventing the practice, no very satisfactory replies were received.

One very general suggestion was to schedule diachylon and other preparations of lead as poisons, another that diachylon should only be sold spread as plaster, a third that frequent analyses of "secret female pills" should be made, and their vendors prosecuted, a fourth that chemists should be warned as to the use being made of diachylon, and the danger of selling it indiscriminately, and a fifth that lead poisoning in women should be a notifiable disease.

In regard to these suggestions, it may be remarked that even if the pharmacopoeial preparations of lead were scheduled as poisons, persons who knew its properties could still buy it in other forms, such as white lead.

Nevertheless I am of opinion that a considerable diminution in this practice would follow the scheduling of diachylon as a poison, and that the evil is of sufficient magnitude to justify this step; unless, indeed, its sale were stopped altogether.

The chief use of lead plaster in this district is to "sweal the milk out of the breasts." It can hardly be maintained that lead plaster is necessary for this or any other purpose.

The scheduling or suppressing of diachylon need not involve the publishing to the public of the reasons that led thereto.

I brought the matter before the Nottingham and Notts Pharmaceutical Association, and found that many of the leading chemists were quite unaware of the use to which diachylon sold in the lump was put. Their Council at once gave their kind consideration to the matter, and issued a circular to their members, recommending that diachylon should be labelled as a poison, "for external use only." I am told that within a fortnight the sale of the preparation had diminished.

The question of the prosecution of vendors of "female pills" is one for careful consideration from the legal point of view; but I am decidedly of opinion that lead poisoning in women should be made a notifiable disease.

Bibliography.

Pope, British Medical Journal, vol. ii, p. 9, 1893. Crooke, *Lancet*, 1898, vol. ii, p. 255. Bell Taylor, ibid., p. 742. Branson, British Medical Journal, December, 1899. Ransom, ibid., June and July, 1900. Wrangham, ibid., 1901, vol. ii, p. 72. Scott, *Quarterly Medical Journal*, February, 1902. Jacob and Trotnam, British Medical Journal, 1903, vol. i, p. 242. Layton, ibid., p. 849. Hall, ibid., 1905. vol. i, p. 584. Gill, ibid., 1905, vol. ii, p. 1642. W. H. Nutt, Thesis for M.D. University of Edinburgh, 1905.

ON THE INDICATIONS AND CONTRA-INDICATIONS FOR THE REMOVAL OF THE GALL BLADDER;

WITH A DESCRIPTION OF THE TECHNIQUE AND ANALYSIS OF A SERIES OF FIFTY-SEVEN CASES.

By A. W. MAYO ROBSON, D.Sc., F.R.C.S.

Many surgical advances, especially in recent years, have been carried out with more zeal than discretion, and in several well-known instances the bounds of good judgement have at first been far passed, though ultimately moderation has prevailed. The purpose of my lecture today is to offer a protest against the indiscriminate removal of the gall bladder in all cases in which an operation on the bile passages is called for.

In 1904, at a meeting of surgeons in America, there was a decided preponderance of opinion in favour of cholecystectomy in all cases in which an operation is necessary for gall stones, or for any other morbid condition of the gall bladder, and I know that one or two British surgeons have adopted the same views.

I know it has been said that the gall bladder is a useless organ, very liable to infection, whose debased function is that of forming concretions and ultimately becoming cancerous. On the other hand, I would urge it must not be forgotten that gall stones, though usually forming in the gall bladder, may arise in any part of the biliary apparatus, both within and outside the liver; and, as a matter of fact, I have seen gall stones to develop in a dilated common duct two years after a cholecystectomy, whereas in the very large experience of myself and several surgeons whose aggregate of cases of operations on the gall bladder amount to fully 3,000, it is universally acknowledged that the recurrence of gall stones after cholecystotomy is an extremely rare event.

Bile is constantly being formed in the liver at the rate of about 1 oz. per hour, as I proved by a long series of observations some years ago, the exact details of which can be found in vol. xlvii of the *Proceedings of the Royal Society*, but it is normally only poured into the intestine after food has been taken and is passing through the pylorus, the sphincter at the orifice of the common duct opening in response to the reflex effect of the stimulus of food passing the pyloric sphincter. In the intervals the gall bladder acts as a reservoir in storing the bile until it is required to neutralize the acid chyme and to help in emulsifying fat.

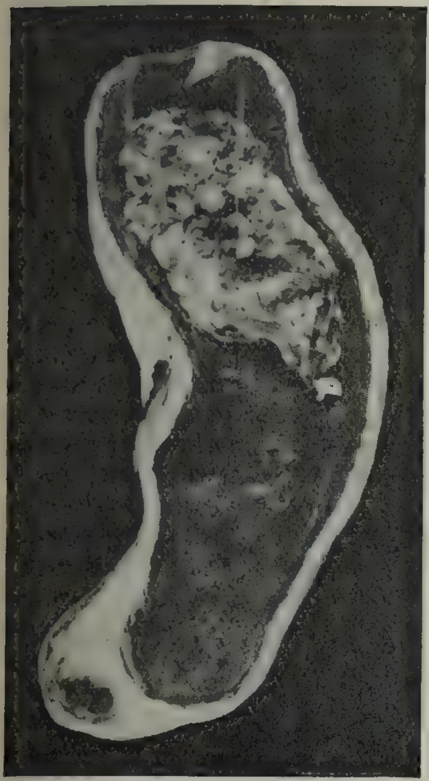


Fig. 1.—A gall bladder, measuring 5 in. in length, which was excised during life. Its walls are thickened so as to measure about $\frac{3}{16}$ in., and its interior is of a deep black colour from congestion and interstitial haemorrhage. With the gall bladder is mounted a flake of exudation which was removed from within it at the operation, and in which many small polyhedral calculi are entangled. The peritoneum is intensely congested. Microscopic sections reveal extensive interstitial haemorrhage into, but no destruction of, the mucosa. From a gentleman, aged 37, who had suffered from indigestion and flatulence since youth. From the beginning of January, 1905, he had had pain in the right hypochondrium, but no tumour was noticed till early in February, from which time it rapidly enlarged, the symptoms becoming more acute. At the operation on March 1st the tumour was found to be an elongated right lobe of the liver overlying an enlarged and inflamed gall bladder. The gall bladder and cystic duct were distended with pus, and contained 400 small calculi. The patient made a good recovery.

It is a question whether the loss of the gall bladder does not lead to a dilatation of the common duct so as to replace to a certain extent the reservoir function of the gall bladder. That this has occurred in some cases I know from personal experience. If this is universal, it seems not unlikely that after cholecystectomy the dilated common and hepatic ducts may ultimately form a reservoir for the development of concretions. Moreover, if the bile ducts within and outside the liver have to act as reservoirs there must necessarily be back pressure on the secreting part of the liver and possibly biliary absorption, conditions which do not apply when the gall bladder is acting as a bile storer.

Sufficient time has not elapsed to show whether the liver is injuriously affected by this pressure and absorption, as it is only recently that cholecystectomy for almost normal gall bladders has been adopted by some enthusiasts as a routine procedure.

Whether cirrhosis of the liver and of the pancreas will result in a certain proportion of cases remains to be seen.

In ordinary cases of cholelithiasis, cholecystotomy with drainage of the gall bladder is a very safe and efficient operation, and if the ducts are cleared there need be no fear of fistula or of recurrence of gall stones. Seeing that cholecystotomy has led to such good results, both immediate and remote, in the surgery of gall stones, the operation should not be too hastily condemned and replaced by cholecystectomy as a routine procedure. My own experience is that cholecystectomy, though a more prolonged operation than simple drainage of the gall bladder, can with due care and in experienced hands be performed with hardly more immediate risk, and that when the gall bladder is contracted and infected, or inflamed and thickened, or gangrenous, or much dilated, it is better to remove it.

Since introducing the method of more completely exposing the biliary tracts when operating for gall stones, I find no difficulty in deciding as to the bile ducts being quite free from concretions—a necessary condition before cholecystectomy is justifiable.

Seeing that recurrence of gall stones after cholecystotomy with efficient drainage is an extremely rare event, that the danger of cholecystotomy in uncomplicated cholelithiasis is almost *nil*, not more than 1 per cent. over a large number of cases; that drainage of the bile passages after any gall-stone operation is distinctly advantageous; and that if at some future time it should be necessary to drain the bile passages—say, for obstructive jaundice or interstitial pancreatitis—the difficulties would be increased by the absence of a gall bladder, though not by a cholecystotomy, my feeling is very decided that cholecystectomy should not replace the simple operation of cholecystotomy as a routine procedure in operating for gall stones.

Cholecystectomy is indicated in the following conditions:

1. In cancer or other new growth where the disease is local and limited.
2. In contracted and useless gall bladder the result of repeated attacks of cholecystitis.
3. In dilated or hypertrophied gall bladder resulting from obstruction in the cystic duct.
    (*a*) Always, if resulting from stricture.
    (*b*) Usually, if resulting from impacted gall stones which may have induced ulceration that will subsequently lead to stricture.
    (*c*) Usually, if resulting from kinking of the cystic duct or from adhesions.
4. In phlegmonous or gangrenous cholecystitis.
5. In empyema of the gall bladder.
6. In calcareous degeneration of the gall bladder.
7. In mucous fistula of the gall bladder, the result of stricture or other obstruction of the cystic duct.
8. In gunshot or other serious injuries of the gall bladder or cystic duct.

It is unnecessary in ordinary cholelithiasis, where the gall bladder is not seriously damaged and where the cystic duct is not ulcerated or narrowed by stricture; and it is contraindicated in all cases where the surgeon cannot be certain that the deeper bile passages are free from obstruction unless at the same time the cystic or common ducts be short-circuited into the intestine.

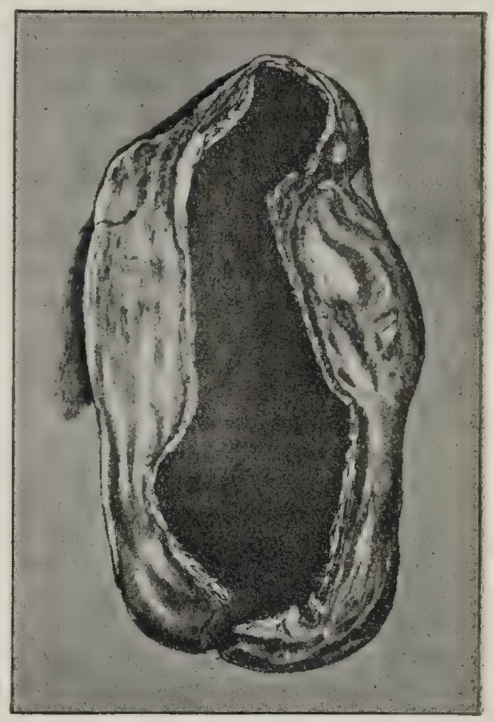


Fig. 2.—A gall bladder of which the walls are much thickened from acute infective inflammation, the swelling reaching a maximum of three-quarters of an inch. The mucosa is of a deep brownish-black colour; the peritoneum is intensely and uniformly congested. The gall bladder contained three large calculi. The deep colour of the mucosa is chiefly due to interstitial haemorrhage, the lining epithelium has not been shed. The parts were removed from a middle-aged lady on February 20th, 1905. On the 17th she had been seized with severe pain in the right side of the abdomen, but until then had had no trouble. When seen her temperature was 104° F., pulse 120; there were signs of peritonitis in the region of the gall bladder. Operation was carried out on the following morning. A sero-purulent exudation was found in the general peritoneal cavity, and the exterior of the gall bladder was of a plum colour. After separation of adhesions, the cystic duct was grasped in forceps close to the common duct, the bladder and cystic duct being then removed. The patient made a good recovery.

A series of 57 cases in which I have performed the operation of cholecystectomy show how varied are the conditions which may demand removal of the gall bladder. They may be conveniently divided into simple and malignant. For simple conditions there were 46 operations and for malignant 11.

Thirty-three were for gall stones complicated by various morbid states, such as phlegmonous cholecystitis, gangrene of the gall bladder, perforation of gall bladder or bile ducts, calcification of gall bladder, tumour of cystic duct, contraction of gall bladder, and hour-glass contraction. Of the 33, 32 recovered; the 1 that died had perforation of the common duct and abscess in the right kidney pouch preceding the operation.

Thirteen cases were for fistulae of various kinds, such as gall bladder, duodenal fistula, biliary fistula, mucous fistula, due to stricture of the cystic duct or for tumours, such as cystic dilatation of the common bile duct, associated with acute cholecystitis and for adenoma of the gall bladder itself. In several of these cases, at the same time that I removed the gall bladder I connected the open end of the bile duct with the intestine in consequence of stricture or other obstruction in the common duct.

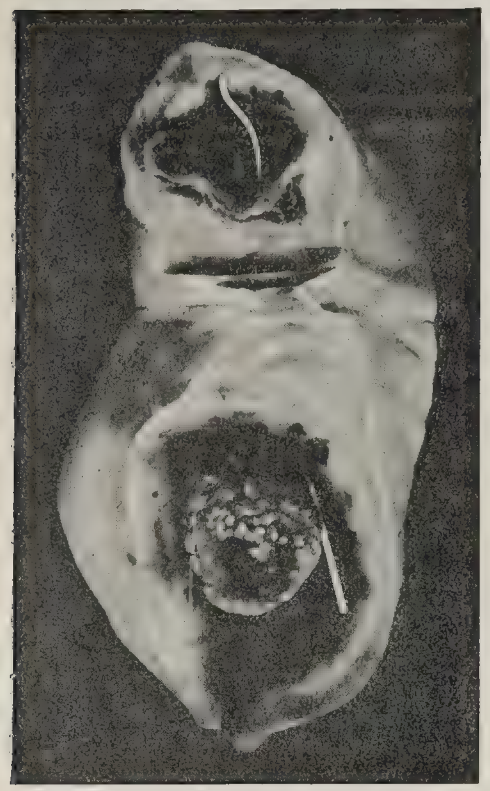


Fig. 3.—A gall bladder of which the walls are greatly thickened and the lining congested from chronic inflammation. A calculus of considerable size lies in the fundus, and numerous other calculi are in the gall bladder itself. Good recovery.

Of the 2 cases in this group that died, in one there was suppurative cholangitis present before operation, and in another (one of the earliest operations) an obstruction was left in the common duct which led to the extravasation of septic bile.

Eleven were undertaken for malignant disease, and of these, 3 succumbed. These operations were very formidable: in 2 cases colectomy and partial hepatectomy accompanied cholecystectomy, in 2 pylorectomy formed part of the operation, and in no less than 9 the adjoining portion of liver had to be excised.

The after-results of cholecystectomy in complicated gall-stone cases have been excellent; instead of prolonged drainage being necessary and a mutilated organ being left, liable to give further trouble, the wound as a rule has pursued an aseptic course, the drain has been removed in twenty-four to forty-eight hours and primary union has occurred.

The ultimate results have usually been equally good, except in one case where a recurrence of gall stones took place two years later and I had to perform choledochotomy and to drain the common duct.

In the malignant cases, operation is necessarily formidable and unless the disease is strictly localized to the gall bladder and adjoining part of the liver it is better to stop at an exploratory operation; though I cannot forget that in one of my cases where I removed a portion of the liver with the gall bladder and in another where I removed the pylorus along with a portion of the liver and the gall bladder the patients are now living and well six and a half years and over five years respectively after operation.

The operation of cholecystectomy may be performed in several ways, but the one I now always adopt is as follows: The patient is prepared by having an aperient given so as to secure the bowels being moved the day before operation, and an enema is given the evening before, if the operation is to take place early the next morning. If there is any feebleness of pulse, 5 minims of liq. strychninae are given subcutaneously on the afternoon and evening of the day before operation, and 5 minims as soon as the operation has begun. Should there be chronic jaundice or a tendency to haemorrhage, calcium chloride is given; for, although there is a greater tendency to bleeding in chronic jaundice from pancreatic disease than when jaundice is due to gall-stone obstruction, I think there can be no doubt that in all cholaemic conditions the blood becomes so altered that the coagulability becomes seriously diminished.

The skin of the patient over the operation area is prepared the day before by thoroughly washing with soft soap or some soap, not necessarily antiseptic, that will give a good lather; if needful, shaving is then done, and the whole area is gently rubbed with paraffin. A dressing of lint, wet with 1 in 1,000 biniodide of mercury solution in spirit, is then applied. The dressing is changed early the next morning, and the skin is thoroughly cleansed, so as to clear away all loose and sodden epithelium, after which another 1 in 1,000 dressing is applied, to be removed on the operating table.

If the patient is feeble, a pint of normal saline solution, with 1 oz. of brandy, is given by enema a short time before the operation. As shock is intensified by exposure to cold, my patients are enveloped in cotton-wool, which is conveniently done by making a suit of gamgee tissue that can be readily run together by the nurses in an hour or two the day before the operation.

It will be found that a firm sandbag, about 18 in. long by 6 in. wide and 3½ in. deep, covered with flannel, and placed on the operating table at the liver level, will push the spine forward, and with it the liver and bile ducts, so that the common and hepatic ducts are brought several inches nearer to the surface. By opening out the costal angle and tending to make the intestines slip down from the liver, it acts like the Trendelenburg position in pelvic surgery. The same effect may be obtained by a special table that I have recently employed, which, by the simple action of a screw, may be so arranged as to make the part of the table lying under the liver prominent. The table is the invention of Drs. Guyot and Greville.

Operation.

I now always make my incision over the middle of the right rectus in a line parallel with its fibres, which are then separated by the finger, the posterior sheath of the rectus and peritoneum being divided together. When it is necessary to explore either the hepatic, common, or deeper part of the cystic duct or to excise the gall bladder, instead of prolonging the incision downwards as was formerly done, I now carry it upwards in the interval between the ensiform cartilage and the right costal margin as high as possible, thus exposing the upper surface of the liver very freely. It will be found that by lifting the lower border of the liver in bulk (if needful first drawing the organ downwards from under cover of the ribs), the whole of the gall bladder and the cystic and common ducts are brought close to the surface, and as the gall bladder is usually strong enough my assistant can take hold of it or the liver, with his fingers covered with an aseptic swab, and by gentle traction can keep the parts well exposed, at the same time that, by means of his left hand with a flat sponge under it, he retracts the left side of the wound and the viscera, which would otherwise impede the view.

It will now be observed that instead of the gall bladder and cystic duct making a considerable angle with the common duct, an almost straight passage is found from the fundus of the gall bladder to the entrance of the bile duct into the duodenum, and if adhesions have been thoroughly separated the surgeon has immediately under his eye the whole length of the ducts, with the head of the pancreas and duodenum. So complete is the exposure that the surgeon, whose hands are both free, can perform whatever operation may be necessary on the gall bladder, cystic, common, or hepatic ducts quite easily. By inserting a gauze pad into the kidney pouch, another into the wound on the left side so as to cover the stomach, and a third below, so as to protect the lower end of the wound, all fear of soiling the peritoneum or the surrounding viscera is avoided.

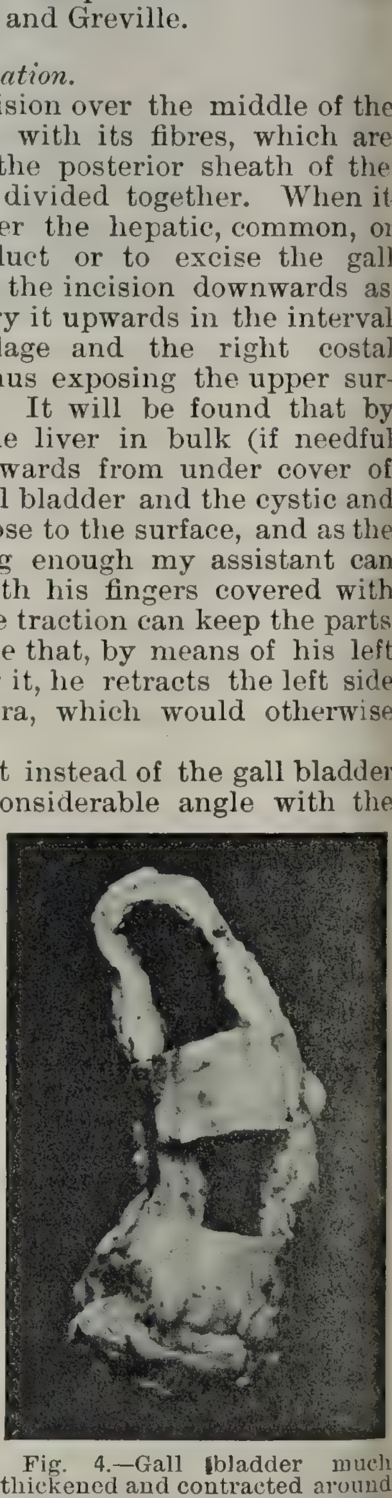


Fig. 4.—Gall bladder much thickened and contracted around small gall stones and *débris*. Patient, aged 48, subject to frequent attacks of pain for six years. Excision of gall bladder performed in February, 1905. Patient made a good recovery.

After the deeper ducts have been satisfactorily cleared will arise the question: How must the gall bladder be dealt with? Under certain conditions which I have previously mentioned it is desirable to perform cholecystectomy, which may be done as follows: The cystic duct is seized a little beyond its entrance into the common duct by means of strong pressure forceps which at the same time grasp the cystic artery, and thus control bleeding during the remaining stages of the operation. Another pair of pressure forceps is employed to seize the cystic duct half an inch nearer to the gall bladder, and between the two forceps the duct is divided. The finger or a blunt dissector can now be used to separate the gall bladder from its bed, and as it is separated the peritoneum on each side is divided by scissors one-third of an inch from its reflection into the liver, care being taken to avoid wounding the liver. Sometimes it is easier to carry the separation from above downwards, but usually the dissection can be more easily effected from below upwards. Any bleeding points may now be ligatured, and the cystic artery, which was divided between the clamps, can be seen and readily secured by ligature. The open end of the cystic duct is now seized and ligatured, and the stump buried beneath the peritoneum, which is readily brought over it, the suture being continued upwards, bringing together the cut peritoneal edges on each side of the gall bladder fissure of the liver, so as to obliterate the fissure and leave no dead space. A gauze drain may be passed down to the duct, but this is not absolutely necessary if the operation has been cleanly conducted. Where there is any infection of the common bile duct or of the liver ducts it is advisable to insert a drainage tube into the divided and open end of the duct, the tube being fixed in place by a catgut suture, and surrounded by a purse-string suture of catgut; this will remain *in situ* for a week without any fear of leakage, and by the time the catgut has dissolved a track will have been isolated from the general cavity of the peritoneum, so that the tube may be safely removed then or left in longer should more prolonged drainage be necessary. The form of tube I usually employ is a No. 12 Jacques catheter. In order to avoid visceral adhesions I usually bring the right border of the omentum up and place it between the tube and the viscera.

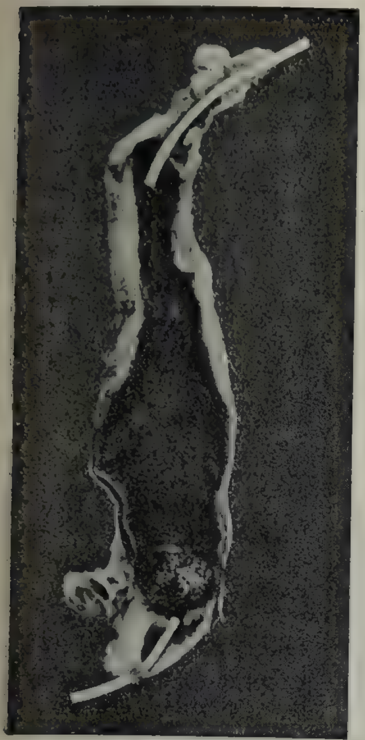


Fig. 5.—Specimen of gall bladder with biliary fistula, showing gall stones impacted in the beginning of the cystic duct. From a lady, aged 36, who had had cholecystotomy performed in South Africa some months previously during acute cholecystitis, when the gall bladder had been simply stitched to the surface and emptied. No bile flowed through the fistula until after an attack of vomiting six weeks later, since which time there had been an irregular flow of bile with occasional attacks of pain. The gall bladder, including the fistula, were completely removed by me in November, 1904, together with the stone impacted in the first part of the cystic duct. Good recovery followed.

If the patency of the common duct is doubtful, yet the gall bladder is too badly damaged to be safely retained, the cystic duct may be cut long and the open end anastomosed into the duodenum, either directly by suture or by means of a small decalcified bone bobbin, or a small Murphy button, so as permanently to short-circuit the obstruction. This may be advisable in cases where the pancreas is inflamed and compressing the bile duct.

The wound is closed by continuous catgut sutures, first to peritoneum and deep rectus sheath, and next to the anterior rectus sheath, the deep wound being strengthened by some through-and-through sutures of twenty-day catgut; lastly, the skin margins are brought together by means of a few interrupted silkworm-gut sutures inserted quite 1 in. from the line of incision and brought out 1 in. beyond the incision on the other side, so as to allow the edges to fall together without tension, thus securing union by first intention. Recently I have been using the ingenious metal sutures invented by Michel, which avoid the danger of infecting the wound through skin punctures. To those having little experience in these operations the modifications I have employed may seem trivial, but to those who have experienced the difficulties of the ordinary operation of removing the gall bladder through an incision which gives imperfect exposure, or, under similar circumstances, of removing gall stones from a contracted gall bladder or from the deeper parts of the cystic or common duct, I feel sure the method I have described, which enables the whole of the bile passages to be dealt with as a straight tube close to the surface, will be sufficiently appreciated.

In these operations I employ forcipressure for the immediate arrest of haemorrhage, but I find it is more satisfactory also to ligature all the bleeding points, as in jaundiced cases the compressed and unligatured vessels are apt to bleed subsequently and to lead to complications that are avoidable by careful haemostasis. For the same reason I prefer to divide and ligature firm visceral, especially hepatic, adhesions where that is practicable, rather than as formerly to separate them with the finger or tear them through.

If the liver be slightly torn in separating adhesions the bleeding must be carefully arrested before the abdomen is closed. Sponge pressure is usually sufficient if the laceration be small, and this may be made more efficient by using at the same time a solution of adrenalin; but if the laceration be extensive, deep catgut sutures, applied by means of a round intestinal needle, will usually accomplish the desired effect, or, this failing, gauze pressure, the plug being left in until it becomes loose, will be certain to answer.

The question of cancer of the gall bladder has been brought very prominently before the profession by the late Dr. G. R. Slade in the *Lancet* of April 22nd of last year, and the author of the paper did me the honour to refer to my Bradshaw Lecture for 1904, wherein I made some observations on the causative relationship between gall stones and cancer (pp. 20 and 21 of my published lecture).

Dr. Slade's observations fully support the views that I have been advocating many years, that gall stones are the chief determining causes of cancer of the gall bladder, though his pathological findings are, to put it in the mildest way, "startling," and must surely be exceptional, for he asserts that carcinoma of the gall bladder was found at necropsy in the pathological department of the London Hospital in 30 per cent. (10 in 33) of all cases of gall stones; in 56 per cent. (9 in 16) of all cases where gall stones had caused symptoms during life; and in 58.8 per cent. of all cases in which at the necropsy the wall of the gall bladder showed inflammatory thickening; and even this he believed to be an under-estimate of the true proportion. Under the heading "Surgical Aspects" of his paper, he stated that 62 operations for gall stones were performed in the London Hospital during the period under review, and that 17 patients died; in 4 autopsy was not permitted, in 4 the gall bladders were not examined microscopically, but in 9 in which a microscopic examination was made there was carcinoma of the gall bladder. Of the 45 patients that recovered 2 had carcinoma of the gall bladder removed at operation. He then goes on to say: "It follows that of 62 patients in which operation was called for owing to the presence of stones in the gall bladder, 11 (nearly 18 per cent.) were shown either at the time of operation or by *post-mortem* examination to have carcinoma of the gall bladder."

These figures are at variance with the published experience of all surgeons who have performed a large number of operations and have had the opportunity of following up these cases subsequently, and I cannot help feeling that the diagnosis of malignant disease based purely on microscopic findings is in this case not so sure a guide as clinical experience. In my own experience malignant disease has been found in a little over 5 per cent. of cases of operation for gall stones.

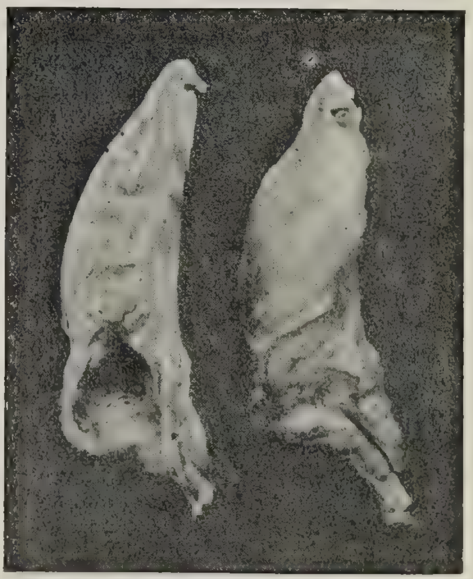


Fig. 6.—Contracted gall bladder with completely-strictured cystic duct, removed from a lady of 55 on December 1st, 1904. She had had attacks of pain over the liver for ten years, and her health had been seriously affected by the repeated seizures. A small cavity in the gall bladder was connected by a fistula with the duodenum. Patient made a good recovery.

Although, as will be seen later, I can support Dr. Slade's conclusions in advocating cholecystectomy in cases where the gall bladder is thickened and seriously altered at the time of operation, I cannot agree that any thickening of the wall of the gall bladder is presumptive evidence of a carcinomatous change, for I know that in my earlier operations on the biliary passages I found many thickened gall bladders containing gall stones, and the operation of cholecystotomy proved entirely curative, and the patients are continuing well many years later. Moreover, I only know of two cases in which cancer of the gall bladder developed subsequently to cholecystotomy, one of the cases having been under my immediate observation.

The practical conclusions which I feel confidence in urging, both from my own experience and that of others, are, that there is an undoubted relationship between cholelithiasis and cancer of the gall bladder and ducts; and as gall stones produce characteristic symptoms, and are therefore as a rule easily diagnosed, and since they can be removed in the early stages before serious complications have supervened with very little risk (in my experience, extending over some hundreds of operations, less than 1 per cent.), the preventive treatment for cancer of the gall bladder is obviously removal of the source of irritation. So impressed am I with the importance of this view, that although I know the symptoms of gall stones, which frequently depend on the associated catarrh, can often be relieved for a time by general treatment (though the gall stones producing the catarrh cannot be removed by medicine), yet I consider it wise to recommend their early removal, not only because it can be safely done, but also because the symptoms are likely to recur and lead to other complications, and, not least important, because, in a considerable percentage of such cases, malignant disease will be likely to supervene if the irritation be not removed.

[A number of specimens of gall bladders removed by cholecystectomy were shown, and others were demonstrated by photographs thrown on the screen.]

CASE OF INTRAHEPATIC CALCULI.

BY

H. R. VACHELL, M.D., PHYSICIAN TO THE CARDIFF INFIRMARY.

and

W. MITCHELL STEVENS, M.D., M.R.C.P., FELLOW OF UNIVERSITY COLLEGE, LONDON; ASSISTANT PHYSICIAN AND PATHOLOGIST TO THE CARDIFF INFIRMARY.

Since large intrahepatic calculi in the hepatic ducts are very rare the following case is of much interest:

R. V., a coffee-tavern keeper, aged 52, was admitted to the Cardiff Infirmary on May 2nd, 1905, complaining of "painful swelling in the stomach and jaundice."

Past History.

He had a severe attack of typhoid fever when 11 years of age and was never robust afterwards.

Since the age of 23 years he had been much troubled with constipation, and had suffered at frequent intervals from what he called "bilious attacks," the attacks being characterized by severe colicky abdominal pain, never lasting more than a day or two, and being always relieved by purging. These attacks at one time occurred almost every week. About two years ago he had a prolonged and severe attack, and after this there was an intermission of three months, and subsequently the attacks recurred every three or four weeks. He was never jaundiced during or after any of these paroxysms. His appetite was good and he seldom took stimulants of any kind.

In October, 1904, he was laid up for a few days with a rather severe attack of pain, since which time he had fewer recurrences and had expressed himself as feeling better than usual until taken ill on April 16th, 1905, when he was seized with very severe pain in the abdomen and back without any definite localization; the face was flushed, the pulse rapid, he was very restless and irritable, and the temperature was 102° F. There was marked tenderness in the epigastrium, especially just below the xiphisternum, and the liver was felt extending to three fingerbreadths below the right costal margin.

The pain and pyrexia continued till admission to the infirmary and frequent hypodermic injections of morphine were necessary. Jaundice made its appearance for the first time on April 27th, and rapidly deepened.

State on Admission.

May 2nd. The patient complained of pain over the epigastrium and right hypochondrium, of flatulence and of insomnia. He was very weak and considerably wasted, there was deep jaundice with drowsiness, and the pain caused him to be restless and sleepless.

The appetite was much impaired; the tongue was dry, cracked and furred; nausea and vomiting were absent and the bowels constipated. The temperature was normal. Slight albuminuria was present and there was some oedema about the ankles. The abdominal muscles were rigid above the umbilicus and there was tenderness on pressure, especially marked in the epigastrium. The liver was considerably enlarged, extending downwards to within a fingerbreadth of the navel, and the organ was tender and smooth, but the gall bladder was not palpable.

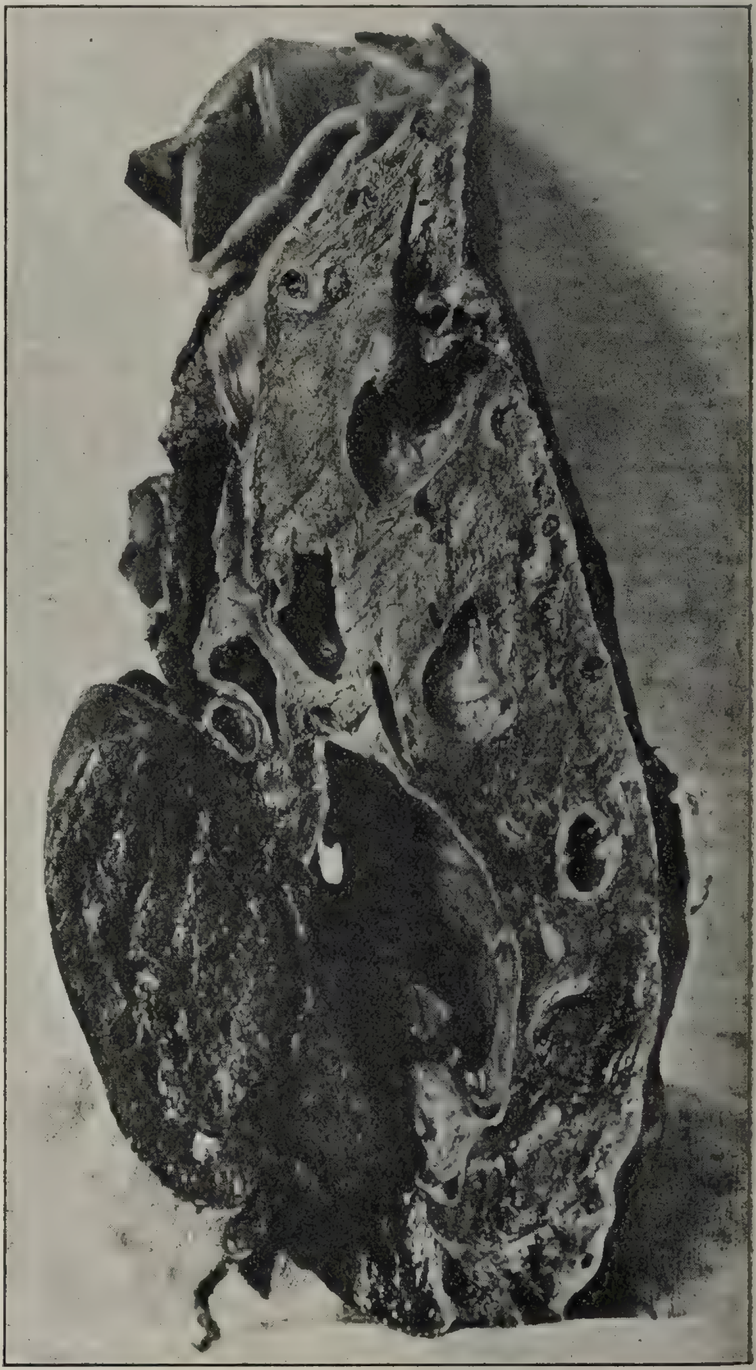


Fig. 1.—Section of the liver showing numerous dilated ducts from which calculi have been removed. It also shows an enormous cavity.

Progress.

The patient rapidly became worse, with marked prostration; subnormal temperature; rapid, feeble pulse; drowsiness; partial unconsciousness; rapid, feeble breathing; deepening jaundice, and increasing hepatic enlargement.

On May 11th a marked change occurred. The jaundice became much less marked, bile appeared in the motions for the first time since admission, the hepatic enlargement diminished, and the patient's general condition was better than it had been since the beginning of his illness.

On May 13th 46 oz. of a clear, bile-stained fluid was removed from the right pleura.

On May 14th the patient became worse and rapidly sank into his former grave condition; the jaundice deepened, the hepatic enlargement increased, the stools became colourless, and he died in a comatose state on May 16th.

Post-mortem Examination.

The liver weighed 97 oz. Between the upper surface of the right lobe of the liver and the diaphragm there was a fairly large abscess. The surface of the liver showed over the whole of its extent small projections, which were found to be caused by underlying calculi, and over the upper surface of the right lobe there were numerous white points, which on section proved to be tiny abscesses containing thick pus, none being larger than half a split pea.

The gall bladder was of normal size, there were no signs of inflammation in or around it and it contained a little mucus, but no bile nor gall stones. A probe could be passed from the gall bladder into the cystic duct for about half an inch, but there was no communication between it and the other bile ducts. The hepatic duct and upper end of the common bile duct formed a remarkable dilatation (resembling a dilated gall bladder) which contained mucus, bile, and a large number of calculi of various shapes and sizes, but all of firm consistence. Over one hundred calculi were counted, the largest weighing nearly 100 gr.

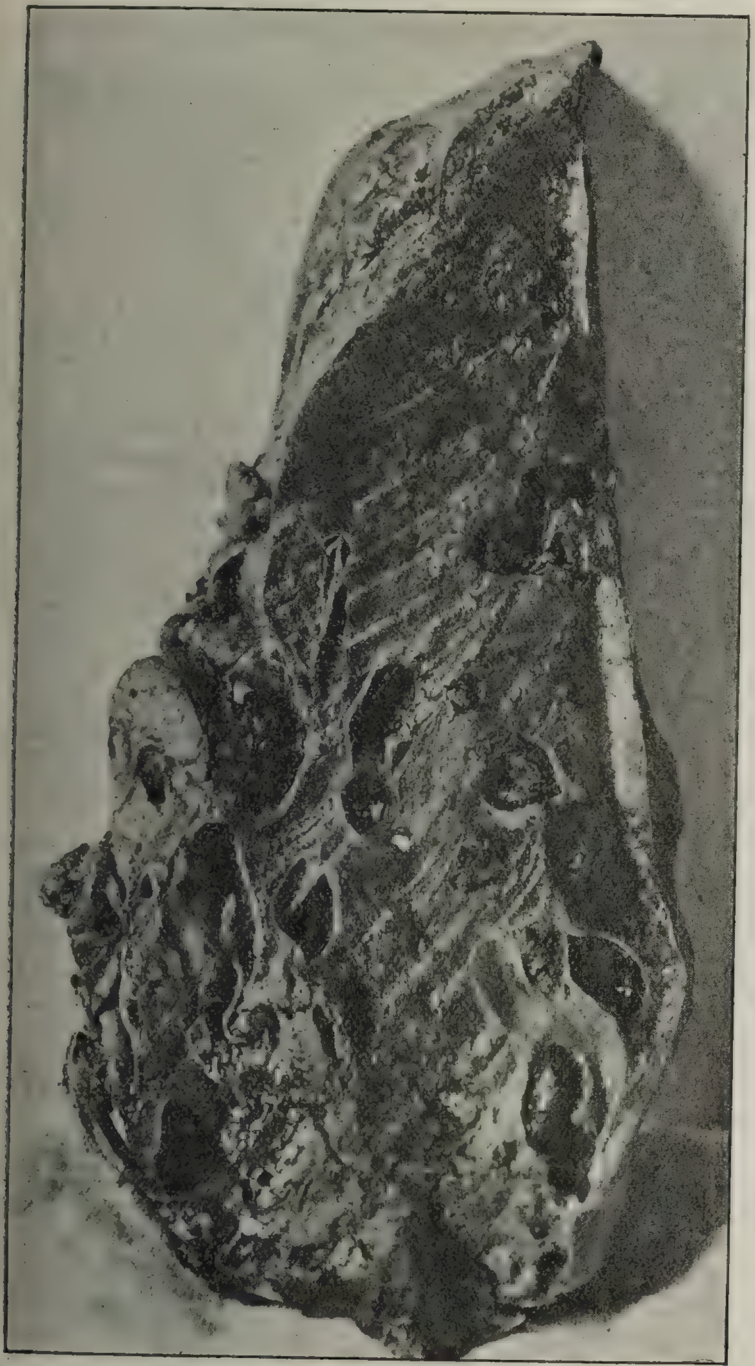


Fig. 2.—Section of liver showing several of the smaller softer calculi which have been cut across.

The liver presented a most remarkable and interesting condition. The hepatic ducts throughout the whole organ were greatly dilated, and in many places there were large cavities with a shining internal lining. These dilated ducts and cavities contained calculi, mucus and bile, but no pus.

On making a section of the liver some of the calculi could be cut through while others were hard and no part of the liver was free. No less than 520 calculi were counted, with a total weight of 1,378 gr., the largest being 1¾ in. in length and weighing 270 gr., and was contained in a large cavity with several other stones of smaller and varying sizes. The calculi were of all shapes and sizes and many were faceted.

REMARKS.

The points of interest in this case are numerous:

1. *History of Typhoid Fever.*—Since his attack of typhoid fever when 11 years of age, the patient seems never to have been robust, although no symptoms suggestive of gall stones appeared until he was 23 years of age, since which time till his death, twenty-nine years afterwards, he had suffered from frequent attacks of colicky pain attributed to "dyspepsia."

2. *Jaundice.*—This symptom never appeared until nineteen days before his death. The diminution of the jaundice associated with the appearance of bile in the motions and with the marked diminution in the size of the liver, and the subsidence of the grave "cholaemic" symptoms on May 17th, or five days before his death, was a marked feature of the case. This can only be attributed to a temporary removal of the obstruction of the common bile duct; and since no stone was found in the stools, the particular one which was causing the trouble must either have passed unobserved or have slightly shifted its position, since the sudden diminution of the jaundice could not have been due to a dilatation of the duct at the point of impaction. The rapid diminution in the size of the liver is easily accounted for by the emptying of the bile from the innumerable hepatic cavities. It is very remarkable, with such an enormous number of gall stones, that jaundice did not appear sooner from one of the stones getting impacted. Although the calculi had probably been forming for many years, the concomitant dilatation of the ducts had permitted of the bile reaching the duodenum, and the patient's health had remained fairly good and he had continued at his work, with short intervals of rest, up till April 16th, 1905.

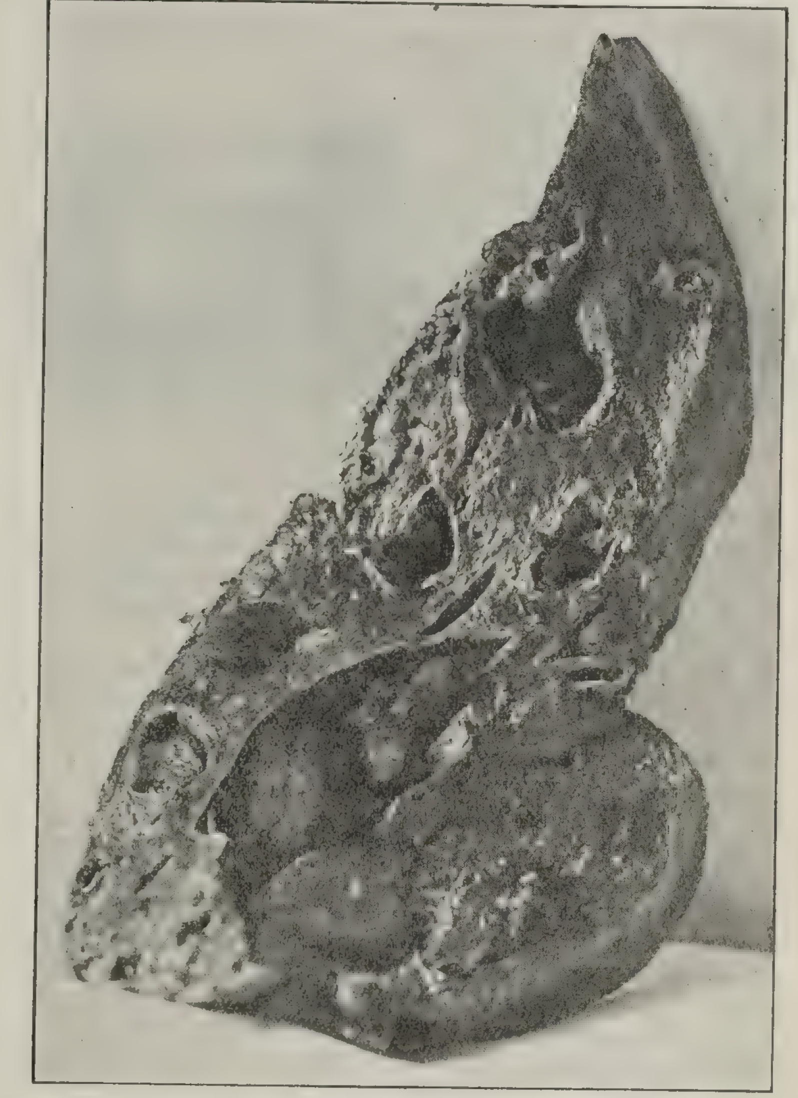


Fig. 3.—Section of liver showing several calculi in situ.

3. *Fever.*—There had been apparent freedom from pyrexia until within a month of his death, and while under observation in the infirmary the temperature was normal or subnormal. At the autopsy a large abscess was found between the liver and the diaphragm, and there were numerous tiny suppurating points on the upper surface of the right lobe, but there were no signs of suppuration in the dilated ducts.

4. *Gall-bladder.*—The freedom of this organ from any signs of cholelithiasis (past or present) was a feature of the case. At first sight the enormous dilatation involving

the hepatic duct and the upper end of the common bile-duct might easily have been mistaken for an enlarged gall bladder containing numerous gall stones.

5. *The Liver.*—The appearances presented by this organ are represented in the accompanying photographs.

Chemical Analysis of the Intrahepatic Calculi.

For this we are indebted to our colleague, Dr. Schölberg, who carried out a careful analysis on 20 grams of the calculi after the method described by Salkowski, with the following result:

Cholesterin	18.0 per cent.
Calcium bilirubin	38.9 ,,
Iron	0.01 ,,
Phosphates	A faint trace.
Water	43.09 per cent.

From the small abscesses on the surface of the liver Dr. Schölberg isolated the *Bacillus coli.* The typhoid bacillus was not discovered.

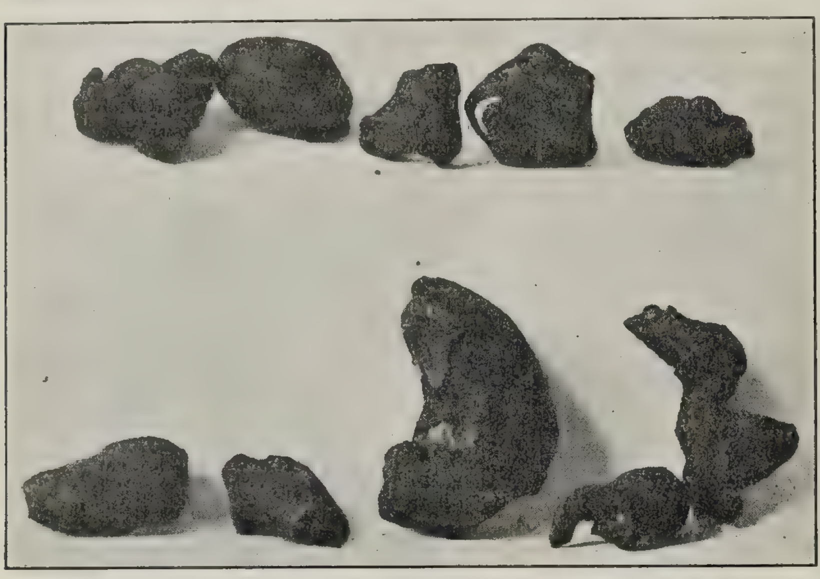


Fig. 4.—Calculi removed from the intrahepatic ducts.

Literature on Intrahepatic Calculi.

1. Mayo Robson, *Diseases of Gall Bladder and Bile Ducts*, p. 216: "Gall stones formed almost entirely of bile pigment may be seen. On two occasions there were found soft concretions of this nature in large numbers in the hepatic ducts within the liver."

2. Rolleston, *Diseases of the Liver, Gall Bladder, and Bile Ducts*, p. 721: "Large intrahepatic calculi occupying the hepatic ducts and distending them are very rare. I met with one such case in a man who died with diabetes from secondary chronic pancreatitis (vide Fig. 95). Murchison (*Diseases of Liver*, second edition, p. 545) refers to a plate of Cruveilhier showing large intrahepatic calculi like coral. There is a good specimen of multiple intrahepatic calculi in the Westminster Hospital Museum (No. 581). These calculi almost necessarily set up jaundice and a good deal of pericholangitis, which may be suppurative. The calculi are chiefly composed of bilirubin-calcium. Small black bilirubin-calcium calculi are not uncommon. Occasionally masses of calculous material are found embedded in the substance of the liver in dilated ampulla-like terminations of bile ducts which have lost their continuity with the bile ducts."

3. Naunyn, *Cholelithiasis* (Trans. A. E. Garrod, 1896, N. S. S.), p. 29: "Bilirubin-calcium gravel in the bile ducts within the liver are in size from finest gravel to nodular and stalked masses in thick, greasy, brownish-black bile." "They consist of calcium compounds of the bile pigments." "Contain large amounts of the higher oxidation products of bile pigments and bilirubin." "One finds in such concretions biliverdin, bilicyanin, and bilifuscin—the transition substances between bilirubin and humin." ". . . found . . . in the large bile ducts . . . calculi of cholesterin tightly enclosed by the mucous membrane of the duct." ". . . exceptional circumstances, calculi can even originate in the large bile ducts . . . increase in size . . . due to bilirubin-calcium and cholesterin."

4. Frerichs, *Clinical Treatise on Diseases of the Liver*, vol. ii, p. 512—Gall stones in the interior of the liver, in the branches of the hepatic duct: "Gall stones are rare in this locality. Morgagni, however, long since collected a series of observations from the works of Plater, Fallopius, Dodonoeus, Columbus, Paysch, and others, showing that concretions had been found in the interior of the liver. Biliary concretions in this locality most frequently present the form of brown or black grains. Sometimes, also, we meet with larger round stones, or, more rarely, with branched, coral-like concretions which form casts of the ducts and are sometimes solid, but at other times hollow. The branches of the hepatic duct are dilated by these deposits, either uniformly or in a saccular manner. The concretions may give rise to inflammation and ulceration of the bile ducts, and also to hepatic abscesses and pylephlebitis."

OBSERVATIONS ON PANCREATIC NECROSIS, WITH A REPORT ON TWO CASES.*

By GILBERT BARLING, M.B., F.R.C.S.,

PROFESSOR OF SURGERY IN THE UNIVERSITY OF BIRMINGHAM.

TOGETHER WITH A NOTE

By C. LOVATT EVANS

ON CAMMIDGE'S PANCREATIC REACTION IN THE URINE.

The two following cases of pancreatic necrosis form together an interesting study. In a paper in the British Medical Journal of December 22nd, 1900, I drew attention to infection spreading up the common bile duct and setting up various inflammations of the pancreas. Probably this is the channel of infection in the majority of such, and in the second case here described it is very probable that this was the channel of infection. This is in marked contrast to the conditions found in the first case; here there was no clinical evidence of infection, and the removed fluids proved to be quite sterile. It seems probable, therefore, that the death of pancreatic tissue was due rather to deprivation of blood supply, possibly through thrombosis of some of the arterial supply to the organ. In acute infective lesions of the pancreas haemorrhages into and around the organ are common, but haemorrhages may be found altogether apart from infection, and for these there is often no adequate explanation.

In a short paper on pancreatic cysts[1] I drew attention to the presence of large quantities of blood in some of these cysts. Injury may no doubt account for some of the bleedings, but in one of my cases there was no evidence of any traumatism, and the explanation of the bleeding remains obscure. Is there any relation between these and the first case here described?

The notes by Mr. C. Lovatt Evans on Cammidge's test are of considerable interest, as Mr. Lovatt Evans is a skilled chemist, constantly engaged in physiological chemistry. The utility of this test is considerably restricted by the fact that it requires an expert to carry out the examination, and that even then the result may be vitiated if suitable precautions are not taken.

Case i.—*Pancreatic Necrosis, with Cyst Formation, but apparently without Infection. Operation.*

A woman, aged 43, was admitted to the General Hospital under the care of Mr. Barling on July 1st, 1904, with a history that she was taken ill on June 12th with severe abdominal pain and vomiting, followed by diffuse tenderness over the whole abdomen; the patient was so ill that perforation of a gastric ulcer was suspected. For a week she improved, but on June 20th she had another acute attack of pain in the epigastrium, going through to the back, with incessant vomiting, which continued until the day of admission, and soon after this second attack of pain a fullness was noticed in the upper part of the abdomen. Morphine had been required on several days to subdue the pain.

State on Admission.

The patient was a well-developed woman, with a swelling in the epigastric and upper part of the umbilical region, which was firm, but rather elastic, and lay with its long axis transversely; stomach resonance appeared to be entirely above it. At this time the chief pain complained of was in the dorsal region about the level of the last dorsal vertebra, and the eleventh dorsal vertebra was very hyperaesthetic on pressure. The pulse was 124, temperature 99.6°, respirations 24; the urine was free from albumen and sugar.

---

* Read at a meeting of the Pathological Section of the Birmingham Branch of the British Medical Association.

First Operation.

On July 2nd the abdomen was opened in the middle line above the umbilicus, and some ounces of free serous fluid of a greenish-brown colour escaped. It was found that the stomach was pushed forward and upwards, and the great omentum was rolled up on itself, and was very dense. An exploring needle was passed between the stomach and transverse colon, and withdrew a dark fluid like altered blood; the needle puncture was enlarged, and some ounces of fluid escaped. The cavity was packed with gauze, and drained. The exact locality of this cavity was doubtful, but it was thought to be over the pancreas. This operation gave relief to pain, and the pulse dropped, the temperature became normal, and vomiting ceased for a few days.

On July 10th the note is that the wound was practically healed, but the pain had returned and there was occasional vomiting.

July 18th. The pain and the sickness had practically disappeared.

July 21st. Both these symptoms returned with intensity, and the patient had to be fed with nutrient enemata.

July 22nd. There was a distinct rounded tumour again present in the epigastric region, dull on percussion, tender, and doubtfully fluctuating. The patient now complained of severe pain in the back.

July 24th. The pain in the back was still severe and the tumour was extending.

Second Operation.

On August 2nd a 4-in. incision was made 2 in. to the right of the middle line, above the umbilicus. A large cyst was found pressing the duodenum to the right, and bulging forward between stomach above, the colon below, and the duodenum to the right. Through an aspirating needle 1½ pints of thin brownish fluid, without odour, was withdrawn. The opening in the cyst was enlarged, the finger introduced, and two necrotic pieces of pancreas were removed, the one 1½ in. by ¾ in., the other ¾ in. by ⅓ in. The edges of the opening in the cyst were stitched to the peritoneal and fascial edges and the cavity lightly packed with gauze. Following this second operation there was complete relief to all the symptoms, the only inconvenience being from the excoriated skin around the opening, and a good recovery followed.

Note by the Pathologist, Dr. Wynn.

The fluid is quite sterile; there is no growth in broth or agar after twenty-four hours. The specimen examined is a light brownish-yellow turbid fluid with a slight reddish tinge from admixture of blood. On standing the fluid becomes clear and colourless, and deposits a reddish-brown flocculent material.

Specific gravity, 1007. *Reaction*, decidedly alkaline. There is a dense cloud of albumen on boiling and a flocculent precipitate on adding alcohol. It also reduces slightly Fehling's solution and gives tests for albumoses and peptones.

Digestive Actions.—It rapidly converts starch into sugar. It digests egg albumen and converts it into peptone. It emulsifies fat but only slightly converts it into fatty acids. All three pancreatic ferments (amylopsin, trypsin, steapsin) are therefore present, the first being the most active, the last the least active. There is a trace of urea, 0.05.

Microscopical Examination of Deposit.—This shows red and white blood cells, large swollen granular and fatty cells, flat squamous epithelial cells often in small sheets, and crystals of fatty acids and amorphous, darkly-pigmented masses.

The fluid is undoubtedly that from a pancreatic cyst, but rather more dilute than usual.

At the present time (November, 1905) the patient is in good health and has since the operation grown fat.

REPORTS BY MR. LOVATT EVANS.

July 11th, 1904.

I have examined the urine of Mrs. A., Ward XI, and the results are as follows:

Gravity.—1009.

Microscopic.—Micrococci. No crystals.

Reaction.—Acid.

Bile }
Albumen } Absent.
Sugar }

Cammidge's Reaction A.:

1. No crystals.
2. No crystals.

Reaction B.:

1. Few crystals } These cannot be crystals of glycerosazone,
2. Few crystals } as their rate of solution is too slow.

In this case, therefore, there is no indication (from the urine, at least) of any pancreatic disorder.

4

July 23rd, 1904.

The urine is a very different sample this time as compared with the first of Mrs. A.'s examined. I was informed at the hospital that the diet at the time of collection was mainly peptonized milk with its full contents of fat, whereas before it had not contained the fat in such amount or in such a readily assimilable form.

Possibly the question of diet may have great influence upon the presence of glycerine in the urine, upon which the reaction entirely depends.

Analysis of Urine.

Reaction.—Acid speedily becoming alkaline.

Deposit (in moderate amount).—Phosphates and few urates, etc.

Sugar appears to be present in traces, though the presence of urates and a high amount of creatinin may account for the reducing power of the urine. Moreover, no crystallizable osazone was obtainable in the phenyl-hydrazin test for sugar.

As the presence of sugar was doubtful, the urine was fermented with yeast for twelve hours to remove possible traces of glucose, and the reaction performed.

Reaction A yields a very few crystals, which adhere to the bottom of the tube. They are quite typical, and very different in appearance from crystals of the "lead compound." Soluble in ⅓ H_2SO_4 in 1 min. 10 sec.

Reaction B yields a much more abundant crop of crystals.

The diagnosis is therefore, according to Cammidge, either (*b*) "a damaged pancreas due to past pancreatitis," or (*c*) "some disease not connected with the pancreas."

October 23rd, 1905.

Specific Gravity.—1023.

Reaction.—Very faintly acid.

Deposit.—Very copious. Calcium oxalates, envelope variety. Amorphous urates abundant (murexide test with great ease). Vaginal and bladder squames, etc.

Albumen and Bile absent.

Sugar.—A minute trace present, removed by yeast before proceeding to test.

A Reaction.—Abundant crystals, soluble in one to three minutes.

B Reaction.—Abundant crystals, together with a heavy black deposit.

Diagnosis.—Doubtful, but probably slight persistent inflammation (or former pancreatitis).

General Note on Cammidge's Reaction.

From various experiments made in July of last year and from the consideration of this case, I am able to arrive at the following brief summary of the *rationale* and value of Cammidge's reaction:

1. Provided that the patient has a certain amount of neutral fat in the diet, glycerine is undoubtedly present in the urine.

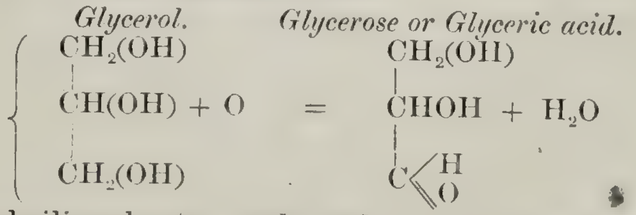
2. Cammidge's reaction performed on a 2 per cent. aqueous solution of glycerine fails, or at most yields only a few crystals.

3. The same test with a 2 per cent. solution of glycerine in normal urine yields an abundant crop of crystals of phenyl-glycerosazone hydrochloride, soluble in 33 per cent. HO_2S_4 in a half to one minute.

4. The crystals of the compound of phenyl-hydrazine with lead salts are entirely different in appearance to the glycerosazone crystals, and are altered, but not dissolved, by sulphuric acid.

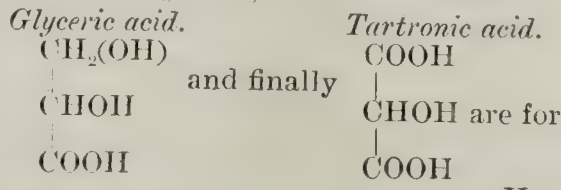
5. Lead is usually present in traces in the filtrate after neutralization with $PbCO_3$, but in the final stage there is more lead in the mother liquor than in the crystals deposited on cooling.

6. Glycerol, when in the urine, can be oxidized by boiling with hydrochloric acid thus:



$$\underset{\textit{Glycerol.}}{\left\{\begin{array}{l}CH_2(OH)\\ |\\ CH(OH)\\ |\\ CH_2(OH)\end{array}\right.} + O = \underset{\textit{Glycerose or Glyceric acid.}}{\begin{array}{l}CH_2(OH)\\ |\\ CHOH\\ |\\ C{\genfrac{}{}{0pt}{}{\diagup H}{\diagdown\!\!\diagdown O}}\end{array}} + H_2O$$

but if the boiling be too prolonged, or if from any cause the oxidation be too vigorous, then:

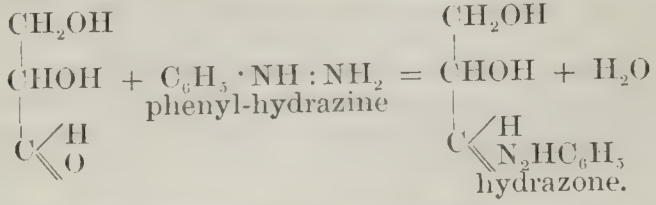


$$\underset{\textit{Glyceric acid.}}{\begin{array}{l}CH_2(OH)\\ |\\ CHOH\\ |\\ COOH\end{array}} \text{ and finally } \underset{\textit{Tartronic acid.}}{\begin{array}{l}COOH\\ |\\ CHOH\\ |\\ COOH\end{array}} \text{ are formed}$$

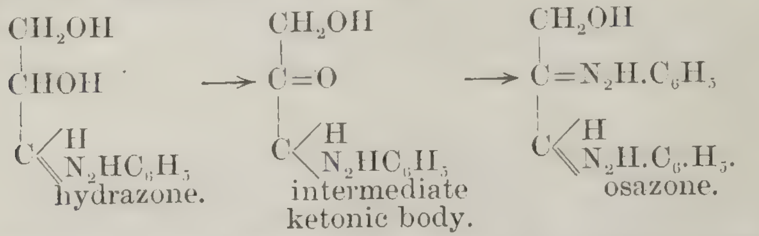
Since neither of these bodies contain a $-C{\genfrac{}{}{0pt}{}{\diagup H}{\diagdown O}}$ group they will not form an osazone.

Hence the boiling with acid must be performed with care.

7. The glycerose formed combines with one molecule of phenyl-hydrazine to form a hydrazone :



Then in the presence of excess of phenyl-hydrazine, the secondary alcohol group of the hydrazone is oxidized and another molecule of phenyl-hydrazine is linked on, with the formation of an osazone :



This osazone being the end and aim of the reaction, care must be taken that excess of phenyl-hydrazine is used, since hydrazones are soluble, to a moderate extent, in water.

8. The rate of solution of the crystals *must* inevitably depend upon their amount and on the amount of sulphuric acid irrigated. The variation in the *amounts* of glycerine in the urine is, as far as I can see, the only cause of the varying solubilities of the osazone crystals in H_2SO_4.

9. A trace of sugar overthrows the whole result if not removed. I also believe that fermentation with yeast introduces more errors than it removes.

10. The B reaction is apparently of little use. The A reaction only indicates the presence or absence of glycerine in the urine, and even then must be performed with great care to be of any service.

A trace of sugar, a prolonged boiling with acid, or an insufficient proportion of phenyl-hydrazine will ruin the result absolutely. Great excess of glycerine, unless detected and counteracted by an increased proportion of phenyl-hydrazine, renders the test worthless.

I am of opinion that this test is only of value in the case of a perfectly fresh specimen of urine, and must even then be accepted with caution, and the results of the microscopic examination of the deposit and general chemical tests must be carefully weighed up with the indications given by the Cammidge test.

CASE II.—*Subacute Pancreatitis with Extensive Sloughing of the Organ, Suppuration behind the Peritoneum and a Localized Collection of Fluid in the Peritoneum, with Fat Necrosis.*

A male, aged 59, was admitted to the General Hospital on September 21st, 1905, complaining of pain in the abdomen and great distension. The present illness began three weeks ago, when he had violent pain in the epigastrium and left hypochondrium accompanied by vomiting. Since then the patient had been confined to bed, pain of moderate intensity had been persistent ever since, and vomiting from time to time. The record of temperature had not been kept, but it rarely reached above 99° ; the pulse-rate was not known. Twelve months prior to the present illness the patient had a similar attack of pain and vomiting, which kept him in bed for a fortnight ; eight months ago he had a slight attack, lasting two days, and six months ago another attack, lasting three or four days ; on this occasion he vomited blood.

When admitted to hospital the whole abdomen was distended, especially the upper half, which was extremely tense but only moderately tender, and there was oedema of the abdominal wall. The temperature was 99.8° ; pulse 108 ; leucocyte count, 21,800.

Operation.

The abdomen was opened in the middle line above the umbilicus over the most prominent part of the fullness, and before the peritoneum was reached patches of fat necrosis were observed. When the belly was opened several pints of slightly turbid, yellow, sticky fluid were evacuated. This collection of fluid reached to the diaphragm above, to both lateral walls of the abdomen, and was circumscribed by adhesions below which matted the transverse colon and the great omentum to the anterior abdominal wall. The stomach lay behind and partly above the collection, but it was very difficult to make out the nature of some of the tissues by palpation, as there was so much matting and thickening of parts. The patient was too feeble to allow of any prolonged manipulation of parts, and the incision was closed except for a free drainage opening.

Report of the Pathologist, Dr. Sawyer.

The report on the fluid removed confirmed the opinion that the condition present arose from the pancreas, as follows :

Reaction, alkaline ; specific gravity, 1013 ; albumen, 1.0 per cent. ; chlorides, 0.45 per cent. ; blood ; no fat globules ; does not coagulate on standing.

Microscopic.—Leucocytes ; red blood corpuscles.

Bacteriological.—No tubercle bacilli ; sterile.

Ferments.—Slight proteolytic action ; marked amylolytic action ; no milk-curdling or fat-splitting ferments.

The subsequent history is one of gradual failing strength and loss of weight ; there was very little irritation of the skin around the wound, contrary to what generally obtains in pancreatic cases. The wound eventually broke down completely, and the patient died twenty-four days after operation. In view of what was discovered at the autopsy, it is of great interest to note that the temperature was never above normal subsequent to the operation.

Post-mortem Examination.

The body is extremely emaciated.

Abdomen. — There is suppurative peritonitis, with numerous points of fat necrosis in the great omentum, but it is also seen in the mesentery and the subperitoneal fat of the abdominal wall, though there are no areas of fat necrosis except under the peritoneum.

Liver and Biliary Apparatus.—The liver is large and shows slight passive hyperaemia, with a marked fatty degeneration. The gall bladder is considerably distended and contains very thick bile. A probe cannot be passed from the gall bladder into the common bile duct ; the latter has been in contact with the abscess, presently to be described, and has probably been obstructed by the inflammatory process. A probe cannot be passed into the bile duct from the duodenum. There are no gall stones.

Pancreas.—All the pancreas is gangrenous except for a small portion at the tail. There is an abscess around the head of the pancreas, and in it are large masses of necrosed pancreatic tissue. A probe cannot be passed into the pancreatic duct. There is a considerable amount of fat necrosis in the fat around the pancreas : in some places there are masses of it.

REFERENCE.
Birmingham Medical Review, August, 1896.

NOTE ON A PARACOLON BACILLUS FOUND IN THE URINE.

BY W. MAIR, M.A., M.B., B.Sc.,
RIDDEL DEMONSTRATOR IN BACTERIOLOGY, QUEEN'S COLLEGE, BELFAST.

DURING the last two years a considerable number of urines from cases of cystitis have been examined bacteriologically in the Pathological Laboratory of Queen's College, Belfast. Where the urine is acid in reaction *B. coli* is frequently found. In two recent cases, with acid urine, a bacillus has been isolated which agrees with *B. coli* in morphology and in most of its cultural reactions, but which does not produce gas in media containing glucose or lactose.

The bacillus is feebly motile, and does not stain by Gram's method. It does not liquefy gelatine, and the surface colonies have the well-known "vine-leaf" appearance. On ordinary agar, and on the Drigalski litmus-lactose-agar, the growth is indistinguishable from that of *B. coli.* It coagulates milk very slowly, but shows well-marked indol production in peptone water. It produces no gas in glucose broth. In order to investigate the action of the bacillus on various sugars (and alcohols) a 1 per cent. solution of peptone, containing 1 per cent. of the sugar in question, and tinged with litmus, was used in Durham's fermentation tubes. Control cultures were made with a number of other bacilli of the coli-typhoid group, and the results of a series are given in the following table. The *B. coli* and *B. typhi* used had been recently isolated from typhoid faeces. The paratyphoid (Kurth) was obtained from Kral.

	Glucose.	Lactose.	Cane Sugar.	Mannite.	Dulcite.
B. coli	+	+	–	+	–
Paracolon bacillus ...	A	A	–	+	–
B. typhi	A	–	–	A	–
Paratyphoid bacillus	+	–	–	+	+

The signs have the following meanings: + = acid + gas formation; – = neither acid nor gas; A = acid production but no gas.

In a paper by MacConkey[1] there is a good discussion of the various views as to what characters should be regarded as typical of *B. coli.* All writers are agreed that *B. coli* ferments glucose and lactose with gas and acid production, so that our bacillus cannot be regarded as *B. coli.* In examining faeces for lactose-fermenting bacteria, MacConkey found no bacillus giving the above reactions.

Lembke[2] isolated from dog's faeces a bacillus which may be identical with that here described, but its characters are not fully given. He named it *B. coli anaërogenes.*

In both the cases in which this paracolon bacillus was isolated from the urine it was found in practically pure culture. In the first case it was isolated on three different occasions, at intervals extending over three months; in the second case it was only possible to make one examination, as the patient left Belfast shortly afterwards. Both were adults, one male, the other female. The cases are indistinguishable clinically from those in which *B. coli* occurs. It is, perhaps, worth while to add that no common source of infection in the two cases could be traced.

REFERENCES.

[1] A. MacConkey, Lactose-fermenting Bacteria in Faeces, *Journal of Hygiene*, vol. v, p. 333. [2] Lembke, *Archiv für Hygiene*, vol. xxvi.

MEMORANDA:
MEDICAL, SURGICAL, OBSTETRICAL.

ALBUMINURIA IN PREGNANCY: EPISTAXIS: CONJUNCTIVAL HAEMORRHAGE.

MRS. W. W., aged 28, secundipara, had epistaxis on January 5th. As it continued and got more severe I was summoned the next afternoon. Spraying with adrenalin chloride, plugging with gauze, calcium chloride internally, and other measures checked it temporarily, only to recur each time. Finally, with Dr. W. Hunter's assistance, the passage was firmly plugged by Bellocq's method with wool soaked in liq. ferri perchloridi and there was no recurrence. Later in the night she walked upstairs; she was spontaneously confined in the early morning of a 7½ or 8 months' child, stillborn. She made an uninterrupted recovery.

Examination of the urine passed on January 8th showed about 1 part per 1,000 of albumen, and ophthalmoscopic examination showed some hazy swelling around the optic disc in one eye and a patch of greyish-white degeneration. The friends had spoken of haemorrhage from the eye, and before any attempt was made to plug the nasal passage it was noticed that blood was slowly dripping from the conjunctival surface of the lower lid on the right side, most of the bleeding from the nose coming from the same side. As far as could be seen at the time no blood came from the canaliculi or nasal duct.

Nottingham. ARTHUR J. SHARP, M.D., etc.

SALICIN IN ACUTE RHEUMATISM.

IN the BRITISH MEDICAL JOURNAL of October 7th, 1905, p. 837, an excellent paper on aortic and mitral disease in rheumatic children by Dr. Poynton appeared; in it there is one sentence to which I should like to draw attention. He says, "I cannot bring myself to believe that any remedies have a direct action in preventing severe cardiac rheumatism, or in arresting its progress; salicylates, blisters, iodides, quinine, etc., seem to me powerless to cope with it, and I have seen them all tried in different ways, and by different physicians."

In this sentence no reference is made to salicin, and I have frequently noticed that in the different discussions on acute rheumatism, in London, it appears to be completely overlooked.

My reason for referring to this point is, that for about twenty-five years I have treated all my cases of acute rheumatism with salicin, and in first attacks I have during that period had only about 3 per cent. of the cases affected by cardiac disease in any form, this in both private and hospital practice.

When first seen, I order 15 to 20 gr. of salicin every two hours until the symptoms improve, then gradually decrease the dose, and when all symptoms have disappeared, discontinue it gradually by diminishing doses, and increasing the intervals between them; the usual result of this treatment is, that in two or three days the symptoms have nearly all disappeared, whereas most cases that I see that have been treated with the salicylates, drift into endocarditis, with permanent valvular lesions. Salicin is a tonic, the salicylates depressant. If we accept the theory that acute rheumatism is of microbic origin, we can understand the excellent effects produced by flooding the tissues with salicin, from its germicidal action.—I am, etc.,

Oamaru, New Zealand. ALBERT I. GARLAND.

SHELLFISH, SEAWEED, AND SEWAGE.

HAVING recently had occasion to examine some mussels (stated to be of Dutch origin, but obtained from Billingsgate), I found attached to several of them small pieces of *Ulva latissima.*

Professor E. A. Letts, D.Sc., etc., of Belfast, has shown[1] that the growth of this seaweed in any quantity appears to depend on sewage pollution of the waters in which it grows. The attachment of *Ulva latissima* to shellfish (more particularly mussels) is therefore presumptive evidence of sewage pollution, which admits of immediate inference from an ordinary physical examination. The point is worth bearing in mind. In the present instance I confirmed the presumption of sewage pollution by bacteriological examination, which revealed the presence of *B. coli communis* and *B. enteritidis sporogenes* in large numbers in the shellfish.

J. T. C. NASH, M.D.Edin., D.P.H.Camb.,
Southend-on-Sea. Medical Officer of Health.

TYPHOID FEVER IN AN INFANT.

A WOMAN died of typhoid fever at the Infirmary, East Greenwich, S.E., on December 21st, 1905. Up to five days before her death she was suckling her baby of 7 months old. About ten days after the mother's death the baby got a rise of temperature and diarrhoea. I suspected typhoid fever. The baby died on January 26th, and the diagnosis was verified *post mortem,* the intestines having typical typhoid ulcerations.

As far as I can gather, only two other cases of a baby so young dying of typhoid fever have been reported, and therefore I thought this was worth reporting.

H. S. JONES, M.B., B.S.Lond.,
East Greenwich, S.E. Junior Assistant Medical Officer.

EPISTAXIS AND CALCIUM CHLORIDE.

I HAVE read with interest Dr. Todd-White's memorandum on the above subject in the BRITISH MEDICAL JOURNAL of January 27th. I first used calcium chloride for haemoptysis at the City of London Chest Hospital in 1895, and always since then in many cases of haemoptysis, epistaxis, bleeding after tooth extraction, etc., usually with very beneficial results. Professor A. E. Wright's investigations showed (I believe) that the effect of the administration of calcium chloride was, for the first few doses, to increase the coagulability of the blood, but that if persisted in the opposite effect was produced—namely, diminished coagulability. Working on this theory, I have always prescribed three doses (20 gr. each), to be given at intervals of two hours if necessary, and then, whether haemorrhage has ceased or not, withholding the administration for several hours, to avoid producing the state of diminished coagulability.

---

[1] Reports on the Scheme of Sewage Purification for Belfast, 1901 and 1904, BRITISH MEDICAL JOURNAL, 1901, vol. ii, p. 831; 1904, vol. i, p. 1277.

West Worthing. H. S. WARE, M.B.Cantab.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

THE ROYAL BOSCOMBE AND WEST HANTS HOSPITAL.

RUPTURE OF PREGNANT FALLOPIAN TUBE, OVUM BEING UNDER ONE MONTH OLD.

(Reported by W. SILVERWOOD RICHARDSON, F.R.C.S.Edin., Assistant Surgeon to the Hospital.)

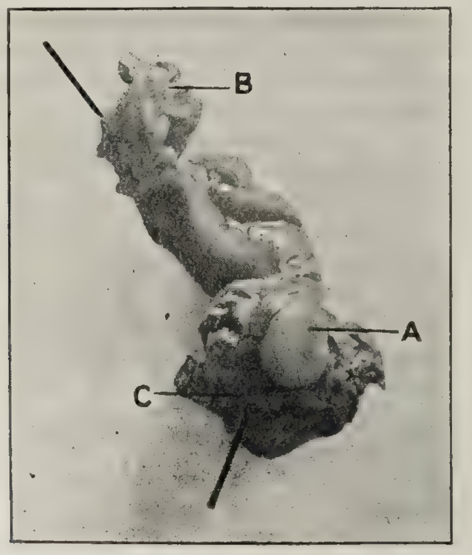
MRS. L. C., aged 29, was admitted as an acute abdominal case.

History.—She had been married two years but had no children. She had menstruated regularly every four weeks since she was 15, and the period lasted about four days. When she was 17 she suffered from anaemia and amenorrhoea for about six months; under treatment she improved and became regular again. There had been no dysmenorrhoea or vaginal discharge. The last period finished fourteen days before her present illness, she says it was rather more profuse than usual and was accompanied by a little pain (not severe) in the lower part of the abdomen. Menstruation lasted six days; she passed no clots and the character of the fluid appeared normal.

The patient had always been healthy and cannot remember having any serious illness. Eight years ago she fell from her cycle and suffered from slight abdominal discomfort, for which she consulted a doctor, who said her womb was displaced. She was always constipated.

The patient was quite well until she went to stool, and being very constipated had to strain; she suddenly felt a sharp pain in the lower part of the abdomen, and became very faint and felt sick. She was put to bed, and I saw her half an hour after the onset of pain. She was extremely pale, her lips being nearly white; her pulse was rapid and quite uncountable. She appeared in great agony, and complained of pain in the lower part of the abdomen. The abdomen moved slightly during respiration, which was rapid and shallow. There was marked tenderness over the lower part of the hypogastric and right inguinal regions; the rest of the abdomen was not tender to the touch. Liver dullness was normal.

Vaginal examination was difficult on account of the pain it caused, but it was possible to note that the uterus was retroflexed, and that there was an ill-defined softish swelling in the posterior fornix. The uterus did not feel enlarged. Rectal examination added nothing to what had been made out from vaginal examination, except that the patient was constipated. She rallied a little, and as she lived close to the hospital she was admitted for immediate operation.



A. Ovum. The rupture in the upper part of the tube has been carefully enlarged so as to show the ovum in position in the tube. B. Uterine end of tube. C. Fimbriated extremity. The ovum measured about ⅜ in. The tube was much thickened and the fimbriated end closed. The rupture took place on the upper part.

Operation.—The skin over the abdomen was hastily prepared in the usual way, and an incision was made about 6 in. long in the middle line below the umbilicus down to the pubes. On opening the peritoneum, about 2 pints of bloody fluid escaped. The uterus was found to be retroflexed, and the right Fallopian tube near its fimbriated extremity was enlarged to about the size of a pigeon's egg; it was not adherent to the ovary. There was a small perforation in the upper part of the tube about 1 mm. in diameter, and from this blood oozed freely. The tube was ligatured and removed. The left ovary and tube were normal, and the uterus was normal in size. The blood and clot having been removed from the peritoneal cavity, the abdomen was closed. As the patient was very collapsed, about 5 pints of normal saline solution were injected intravenously during the operation. She rallied well and made an uninterrupted recovery. There was a slight brownish discharge from the uterus the day following the operation; unfortunately it was not examined.

REMARKS.—It is interesting to note that the patient menstruated fourteen days before the tube ruptured, this occurring so early that no signs of pregnancy were evident. The profound collapse and amount of haemorrhage seemed out of all proportion to the size of the rupture and the smallness of the ovum. According to Dr. Galabin's description of the ovum in various stages of development[1] the age of this was under one month. This case belongs to the class described by Dr. A. N. Lewers in his paper on Ectopic Gestation,[2] where early operation is imperative, and delay only means death to the patient. In an interesting series of 33 cases recorded by him,[3] he does not mention a case of so young an ovum being found complete in the Fallopian tube. This greatly adds to the interest of the case, for although it is not unknown for tubal gestations to rupture at the second week it seems to be a somewhat rare occurrence.[4]

REFERENCES.

[1] *Manual of Midwifery*, by Dr. Galabin, 4th edition, p. 79. [2] *Medical Times and Hospital Gazette*, December 9th, 1905. [3] *Lancet*, July 8th and 29th, and August 5th, 1905. [4] *Diseases of Women*, by Dr. Herman.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

SOUTH-EASTERN BRANCH: ISLE OF THANET DIVISION.—At a clinical meeting held at the Sea-Bathing Hospital, Margate, on February 15th, W. G. SUTCLIFFE, F.R.C.S., in the chair, the CHAIRMAN demonstrated several cases in the wards of the hospital—acute necrosis, suppuration of the knee-joint, cervical caries, and paraplegia, and also three pathological specimens.—Dr. HEATON demonstrated two cases of rodent ulcer under treatment with the *x* rays, and also a case of extensive lupus, and gave an exhibition of skiagraphs of many cases recently under treatment.—Dr. WATTS sent a case of enlargement of the humerus for diagnosis.—Dr. COULLIE read a paper on the vaccine treatment of tuberculosis and other bacterial diseases regulated by the opsonic index, and demonstrated the methods of procedure for obtaining the index. He gave the results of the treatment of several cases treated by him with vaccines.—A keen discussion followed.—Dr. COULLIE replied.

MEDICAL MISSIONARIES.—A letter from the Guild of St. Luke has been published in the press this week, stating that ever since the advantage of having a medical branch in missionary enterprise has been recognized, the demand for men has been vastly in excess of the supply. This need has been recognized by the Guild, and it has come to the conclusion that a residential college suitable for the reception of students marked out for this special service should be established. The college is now ready at 26, Calton Hill, N.W., the staff in working order, and candidates for admission waiting. The expenses for each student are calculated as £180 a year for at least five years, and at present, owing to lack of funds, it has only been possible to admit two candidates. Contributions will be received by the Treasurer, Surgeon-Colonel Welch, 8, Brandram Road, Lee, S.E., and further information will be supplied by the Dean of the College, the Rev. Frank Jones, B.A.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

Dr. P. H. PYE-SMITH, F.R.S., Vice-President, in the Chair.

Tuesday, February 20th, 1906.

GENERAL SARCOMATOSIS OF THE PIA MATER.

DR. A. S. GRÜNBAUM recorded the above case, which was admitted under Dr. Barrs into the Leeds Infirmary. The patient was a man, aged 31, in whom a series of complex symptoms developed, without any diagnosis being arrrived at. The early symptoms consisted of pain in the leg, dimness of vision, and depression; morning vomiting, diplopia, optic neuritis, strabismus, wasting of both legs below the knees, and then fits; death occurring thirteen weeks after the onset of the illness. After death the pia mater of the spinal cord was found to be the seat of numerous low swellings, opaque, pinkish in colour; on the roots of the cauda equina were growths about the size of nasturtium seeds; irregular growths appeared between the cerebellum and pons, and some were traceable into the right lateral ventricle. Macroscopically the case was very like one recorded by Dr. Coupland and Dr. Pasteur in the Society's *Transactions.* Histologically, the author regarded the growth partly as endotheliomatous, partly as inflammatory, the inflammatory element appearing in the form of small, round cells between the cell masses of the larger endotheliomatous elements. Rindfleisch had termed such lesions sarcomatous meningitis, and with this name the author was disposed to agree.

(1) LEUCOCYTHAEMIA; (2) LEUCOCYTHAEMIA WITHOUT LYMPHATIC ENLARGEMENT.

Dr. F. G. BUSHNELL and Dr. HALL recorded a case of each of these conditions, Dr. Hall giving the clinical history. In one, that of a man aged 25, of infantile type, the spleen and liver were enlarged; death occurred from cardiac failure. The diagnosis was spleno-myelogenous leukaemia. In the other case, a man aged 43, there was no enlargement of lymphatic glands; the marrow (of the femur) was of the lymphocytic type; nearly all the viscera contained collections of leucocytes.

Dr. F. PARKES WEBER insisted upon the occurrence of two different lesions in the liver in cases of leukanaemia. In one there was a general leukaemic infiltration of the connective tissue; in the other, marrow elements were found in the blood vessels.

ACUTE PHLEGMONOUS GASTRITIS.

Dr. J. BERNSTEIN exhibited the stomach of an alcoholic woman, aged 65, in whom a diagnosis of acute peritonitis had been made. After death the submucosa of the stomach was found infiltrated with pus, a streptococcus being present in large numbers. The speaker regarded the streptococcal infection as having been indirect, that is, through the blood stream, the stomach having been selected in consequence of the previous damage occasioned by the action of the alcohol.

DOUBLING OF THE SPINAL CORD.

Dr. J. BERNSTEIN also exhibited this specimen, which was obtained from a boy who died of tuberculous meningtis. The cord was doubled in the lumbar region; a canal was present in each half, but no roots arose from the opposed parts. The grey commissure was spread out in each half so as to suggest the form of additional anterior and posterior cornua. The condition was scarcely a true duplication, but a division. Fifteen similar cases had been described. No symptoms were referred to the bnormality.

PRIMARY CARCINOMA OF THE MALE URETHRA.

Mr. S. G. SHATTOCK recorded an example of this extremely rare urethral lesion, which occurred in a man ged 54. The disease was limited to about the anterior ½ in. of the canal and was absolutely intra-urethral, the glans and prepuce being quite unaffected. The part was mputated by Mr. P. A. Lloyd of Haverfordwest, for the reason that he (Mr. Lloyd) felt sure the disease was malignant. The growth had a papillary surface, and for its nterior portion might be classed as a papilloma, a well-recognized urethral lesion; posteriorly, however, it invaded he corpus spongiosum, and had all the characters of a quamous-celled carcinoma. Kaufmann, in his monograph on *Injuries and Diseases of the Male Urethra,* had been able to collect only four cases of primary carcinoma in which the diagnosis was microscopically authenticated. In each the bulbous portion was that affected, the disease following injury or stricture. Dr. Joseph Griffiths had added another, without any such history, which was under the care of Sir George Murray Humphry. In all these cases the growth was of the squamous-celled kind, although the epithelium of the bulbous portion was constituted by a surface layer of cubical or columnar cells and beneath that by a series of polymorphous elements. In the normal bulbous urethra the speaker had found areas of large flat cells in the polyhedral group, and the origin of squamous-celled growths probably took place by a metaplastic change of this kind. The association of the lesion with antecedent stricture and sometimes with the antecedent presence of perineal fistulae was significant in this respect. The origin of squamous-celled carcinoma in the cutaneous openings of perineal fistulae themselves and the deep extension of such growths was a well recognized event, and was not to be confused with carcinoma arising from the urethral epithelium, which was alone to be classed as primary.

EDINBURGH OBSTETRICAL SOCIETY.

J. W. BALLANTYNE, M.D., President, in the Chair.

Wednesday, February 14th, 1906.

BICORNATE UTERUS.

AFTER a review by Dr. N. BREWIS, the late President, of the work of the Society during his two years' tenure of office, Dr. W. FORDYCE narrated a case of pregnancy in a bicornate uterus. The patient, aged 28 years, had been suffering from a polypus which projected from the dilated cervical canal and caused a severe haemorrhage in February, 1906. In the months of November and January menstruation had been normal, but was scanty in December. On vaginal examination a soft polypoidal mass, about the thickness of a man's thumb, was found projecting through the os externum well into the vagina. The uterus lay to the left side and was slightly enlarged. To its right side and closely attached to it a well-defined globular swelling about the size of a closed fist was felt, and a diagnosis of uterine tumour, probably fibroid, made. A few days later the patient was seized with severe pain in the lower part of the abdomen, and gave birth to a 3½ months abortion. Three days later Dr. Fordyce operated and removed the polypus, and on palpating the uterus bimanually found a hard firm swelling on its right side. This he found passed up into the cervix, which was hollow and contained a small piece of placenta. He then realized that he had been dealing with a "uterus bicornis unicollis." The bifurcation extended well down to the "os internum," and both horns of the uterus seem to be equally developed. Microscopical examination of the polypus showed that it was almost entirely composed of decidual cells.

CEREBRAL HAEMORRHAGE FROM DYSTOCIA.

Mr. E. S. CARMICHAEL read a paper on operative interference when cerebral haemorrhage in a child was brought about during delivery. The outlook, he said, for children who had been for a time the subjects of cerebral palsy was very hopeless. Neither medicine nor surgery could give them much assistance. Their condition—whether diplegic, hemiplegic, monoplegic, or paraplegic—arose from intracranial haemorrhage, the result of trauma, the haemorrhage being meningeal in origin. It might take place on the surface of the brain or at its base. When on the surface it was generally bilateral and most considerable over the central region and towards the middle line. Haemorrhage at the base was generally into the posterior fossa, beneath the tentorium cerebelli, surrounding the pons and the medulla. According to McNutt, such basal haemorrhages were more liable to occur in vertex presentations, while extravasations over the central area occurred in breech cases. When the haemorrhage was at the base most children died at or immediately after birth, while cortical effusions, according to their extent, would rise in children who survived to the varying degrees of spastic paralysis seen in the wards of children's hospitals. When the extravasation extended beyond the motor areas general cerebration was affected, and there might be either a slight degree of feeblemindedness or complete amentia. The haemorrhages usually arose from severe pressure on the head during birth, the pressure proceeding from the maternal pelvis; the use of forceps was rarely a cause; as a matter of fact, these, in many cases, preserved the head from injury. A diagnosis of intracranial haemorrhage might be made on the following grounds: A history of a protracted or difficult labour; an appearance of asphyxia in the child on birth; paralytic symptoms, which were often present from the first and might easily be overlooked; convulsions, general or unilateral, and often accompanied by persistent rigidity of the limbs and inversion of the thumbs; bulging of the anterior fontanelle. Early interference was necessary if permanent injury or death were to be prevented. The operation consisted in an osteoplastic resection of the skull to expose a large portion of one or both cerebral hemispheres, the removal by washing of all extravasated blood, and the replacement of the osseous and soft tissues of the flap. Children tolerated operations on the skull relatively better than adults, and provided loss of blood was prevented, the operation was not so dangerous as might appear.

Dr. Fordyce said he had frequently examined the brain of infants dying at or soon after birth, and in most cases found several very small haemorrhages and not extensive effusions.

Dr. Barbour considered that the practical application of Mr. Carmichael's views would be difficult. It was important that the brains of infants who died at birth should be examined.

Medical Society of London.—At a clinical meeting of this Society, held on February 12th, with Mr. Charters Symonds, Vice-President, in the Chair, the following were among the exhibits: Dr. J. Porter Parkinson, a case of *Adiposis dolorosa*, implicating the upper limbs, in a woman, aged 43, and a case of sporadic cretinism in a girl, aged 9½, who had shown progressive improvement under thyroid treatment. Dr. F. Parkes Weber, (1) a case of *Stokes-Adams symptom-complex*—persistent bradycardia with syncopal attacks considered to be due to heart-block from a non-syphilitic degenerative lesion of the auriculo-ventricular muscular bundle. He also showed (2) two boys, brothers, with *Splenic enlargement of uncertain origin.* Dr. Barker (for Dr. L. Guthrie) a young woman with tabetic symptoms, considered to be possibly due to *Early disseminated sclerosis.* Mr. Charters J. Symonds: a case of *Sarcoma* of the lower jaw after enucleation; a case of a man, aged 20, with multiple exostoses of large size; and a case of a boy, aged 14, with impacted fracture of the neck of the femur treated by osteotomy. Mr. F. C. Wallis: a case of *Fracture of the surgical neck of the humerus,* with radiographs taken before and after, which was treated by bringing the lower fragment into line with the small upper fragment by raising the arm, and then fixing them with two staples, the arm then being brought down to the side. He also showed a case of backward dislocation of the astragalus with fracture of the fibula. Mr. J. Hutchinson, jun., showed a case of *Lymphodermia perniciosa* in a man, aged 51. Cultures of the blood were sterile, there was no lymphocytosis, and the spleen and liver were not enlarged. Mr. Maynard Smith, a case of *Amputation of the penis* for epithelioma arising at the orifice of a urinary fistula; also a case of suppuration in the thyroid gland. Dr. Lewis Smith, a patient who had had four separate attacks of *Right third nerve paralysis,* the last attack being associated with right hemicrania and vomiting. Mr. A. E. Barker, a case of *Recurring dislocation* of the shoulder joint, in which the capsule was tucked up.

Royal Academy of Medicine in Ireland.—At a meeting of the Section of Obstetrics, Dr. R. D. Purefoy, President, in the chair, after the exhibition of specimens, Dr. J. Spencer Sheill read a paper entitled *Sequel to an Attack of Eclampsia.* The patient, a young primipara, had had her left kidney removed three years previously for tuberculosis, and became eclamptic in March, 1905, when about five and a half months pregnant. She had seven seizures, which caused the death of the fetus. Her uterus was emptied by induction of labour, and her recovery was rapid and complete. She again conceived, and on examination early in July, 1905, was found to be two and a half months pregnant. She was cautioned about her condition and placed on milk diet. A little later, in spite of diet and care, she developed albuminuria, which, however, was successfully combated by appropriate treatment. Again, in December last, albumen made its appearance in the urine, this time permanently. Oedema now began to complicate the case. Although the most vigorous measures were adopted, on the 8th of last month (January, 1906), when she was within about a month of term, owing to the onset of symptoms which indicated the near approach of eclampsia, induction of labour was performed, and she was delivered in eighteen hours of a living child. A few hours later she had a typical eclamptic seizure, and was successfully treated. The points of particular interest were: (*a*) Are there no methods by which we can with certainty abort threatened eclampsia? (*b*) Would it not be for the good of every one concerned that this woman should be rendered sterile by the operation of tube tying?—Dr. Purefoy believed that when efforts to relieve the patient's condition were only partially successful, measures should be taken to empty the uterus, though eclampsia might come on before they succeeded. In the second pregnancy of the case narrated he would have waited considerably longer before inducing labour. —Dr. Horne preferred to have the ovaries removed, and mentioned two similar cases of his own experience. When a patient had eclampsia once, the question was, was she not likely to have recurrent eclampsia? The second pregnancy of this patient should have been prevented for this reason.—Dr. Sheill, in reply, said, noting eclampsia was imminent in the second pregnancy of this patient, he thought it safer to induce labour. Two lives in this case were in danger; but that of the mother was paramount. Both were saved. He would like to hear an opinion as to whether sterility should be caused in a patient who was liable to attacks of eclampsia.—Dr. Purefoy said he would not render her sterile.

British Balneological and Climatological Society.—At a meeting on January 31st, Dr. Solly (Harrogate) in the chair, Dr. Alexander Morison read a paper on *The Present Position of the Treatment of Heart Disease by Baths and Exercises.* The cases of heart disease which the majority of English physicians now considered suitable for treatment by baths, exercises, and climatic conditions were those of persons who could in no sense be regarded as seriously ill at the moment, whatever fears might be entertained for their future. He agreed with this view, and thought such cases could be classified as follows: (1) Those which had not passed the meridian of life and had a weakness of the myocardium, moderate in degree, with or without irregularity of action, and *without* organic valvular lesion or organic disease of other organs, and which, especially, were free from essential renal disease. (2) A similar degree of disordered action of the myocardium *with* organic valvular disease, other than aortic reflux and the various organic diseases of the right side of the heart, with the exception of milder forms of cardiac malformation, and which so far as we could determine—for this is usually difficult—were free from extracardial adhesion. (3) Older patients with myocardial debility, without arterio-sclerosis, without organic valvular disease, without disease of organs other than the heart, and without symptoms of angina vera, to use a convenient but not strictly accurate term. —Dr. Symes Thompson observed that whilst he continued to use baths in some cardiac cases, he attached more importance to the exercises than to baths.—Dr. Bezly Thorne said that his own experience had led him to conclusions with regard to several points which had been raised diametrically opposed to those expressed. There were no cases in which the results of treatment were more strikingly satisfactory than in septuagenarian atheroma, and even in the graver forms of angina pectoris and in aortic reflux, provided there were no clinical grounds for coming to the conclusion that the coronary vessels had permanently lost that potency which would be necessary to myocardial repair.—Dr. Leonard Williams was of Dr. Alexander Morison's opinion that the cases suitable for treatment by baths and waters were comparatively few. He deprecated the fashion which had obtained at one time of hurrying people in a more or less moribund state half across Europe in the expectation of some miraculous "cure" on arriving at their destination. To his mind, the claims which had been put forward in favour of the Nauheim methods were neither intelligible nor even intelligent.—Dr. WILLIAM EWART recognized that many cases were unsuitable for the systematic Nauheim treatment as laid down in books, but he believed in modified applications of its methods to suit the indications. He was therefore not inclined to rigidly classify the cases, as so much must always depend upon their individual features. This was specially true of the cases of aortic valvular disease. He approved of the principles underlying treatment by baths and exercises, and he believed that in the balnear treatment carbonic acid played an important part.—Dr. BEGG (Bath) endorsed Dr. Morison's conclusions. Suggestion played a very conspicuous part in the treatment at Nauheim, and was a very powerful agent in dealing with such an organ as the heart. Treatment by baths and exercise was entitled to a place, in suitable cases, as a useful help, but was not by any means a specific.—Dr. C. W. BUCKLEY (Buxton) thought the issue was confused by the use of the word Nauheim. The result of baths and resisted exercises was to assist the heart's action by promoting the action of what had well been called the "skin heart." The smallest hygienic and other proceedings might tend to this end, and in this sense the possible value of physical treatment was not to be denied in any heart trouble.—Dr. MORISON, in reply, was glad to find himself in accord with the majority of those who had taken part in the discussion. The difference between himself and Dr. Bezly Thorne seemed to be in the fact that he himself regarded baths and exercises as an occasionally useful adjunct to more serious treatment, while Dr. Thorne placed the baths and exercises first.

BRITISH GYNAECOLOGICAL SOCIETY.—At a meeting held on February 8th, Mr. F. BOWREMAN JESSETT, President, in the chair, Dr. BEDFORD FENWICK exhibited a specimen from a case of *Pregnancy complicated by fibroids*, and read notes of the case. The specimen was removed from a patient aged 36, who had been married four and a half months. The menstrual periods commenced at 12 years of age, were always regular, lasting four days, but below the normal amount. During the last year or two she had suffered from increasing constipation, with pain or frequency of micturition. The last period terminated on September 6th, 1905, since when there had been increasing pain on the left side and swelling of the abdomen. When seen there were two nodular masses above the pubes, the pelvis was filled by a densely hard nodular mass, which could not be moved. The cervix was drawn up behind the pubes, and felt soft, and the vagina was discoloured. The breasts were enlarged and secreting. The pulse rapidly increased in frequency, and pain became more severe. On January 16th last supravaginal hysterectomy was performed, when the lower mass was found firmly moulded to the pelvis, and the cervix so compressed that it was doubtful whether a full-term child could be brought through.—Dr. MACNAUGHTON-JONES showed a specimen of *Vaginal cyst* removed from a patient aged 35, married, but never pregnant. She complained of symptoms of endometritis, for which curettage had been performed in September, 1905. During the operation a cystic tumour of the vaginal vault was found, which ruptured on removal, and glairy fluid escaped. The cyst was lined by spheroidal epithelium, and was probably a retention cyst. In the following December the patient complained of vaginal discomfort and pain. A cyst was found low down on the posterior wall the same size as the previous one, which was dissected out from the recto-vaginal septum and found to be about an inch in diameter, containing a clear fluid having a convoluted waxy lining covered with cubical epithelium.—Dr. MANSELL MOULLIN showed three specimens of *Uterine myoma*. The first was a portion of a multinodular tumour removed from a patient aged 53, which had undergone calcareous degeneration, and caused pain and discomfort for two years. The second was a calcareous tumour with an artificial opening in the wall, showing the tumour to be a calcareous shell with mucoid contents. This tumour was entirely detached from another larger one removed at the same time. The third specimen was a soft submucous myoma removed from an unmarried patient. The tumour extended up to the umbilicus and caused inconvenience by its size.—The PRESIDENT then delivered his inaugural address on *Cancer of the Uterus*. He said that out of a large number of cases which presented themselves at the Cancer Hospital operation was justifiable only in a very small proportion. This was chiefly due to the delay in seeking advice, and also to the lack of thorough examination whenever the least suspicion of malignant disease existed. He could not approve of leaflets being issued broadcast with an account of the symptoms and results of cancer; they would cause unnecessary anxiety. The rapid progress of cancer after labour and abortion perhaps indicated that these factors played a larger part in etiology than was generally supposed. There was little difficulty in recognizing cancer of the vaginal portion of the cervix, and the treatment should be high amputation or vaginal hysterectomy. When disease of the body was diagnosed sufficiently early there was every prospect of a cure being effected, but there was a difficulty here, as there might either be no symptoms or only a slight increase in the menstrual flow with elongation of the body. In these cases pathological findings might not always show the existence of cancer, and he would advise that when scrapings from the uterus were sent for examination a report of the condition of the patient should be sent simultaneously. The treatment of this form was vaginal hysterectomy, which might be advised with every prospect of success. Cancer of the cervical canal was the most unfavourable as it commenced in the glandular portion and rapidly progressed, so that the surrounding tissues were frequently involved before the disease was diagnosed. The treatment was either high amputation or combined vaginal and abdominal hysterectomy. Infection of the lymphatics did not exist at all to the extent frequently supposed and was found most frequently when the disease was in the cervical canal. When the uterus was fixed with ureters and bladder implicated very little could be done to benefit the patient, although borderland cases existed which would be cured by some such operation as Wertheim's. He had found the paravaginal incision on several occasions assist in exposing the structures in the parametria and had practised it for some years.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—At a clinical evening on February 8th, Mr. CHARLES J. OLDHAM, Vice-President, in the chair, the following were among the exhibits: Messrs. ARNOLD LAWSON and GEORGE COATS: preparations from a case of *Congenital anterior staphyloma*, previously brought before the Society by Mr. Lawson. The eye had spontaneously ruptured six weeks later. The central portion of the cornea was thinned and had a cicatricial appearance. There was a perforation, with a knuckle of retina between its lips. The lens capsule and iris were adherent to the back of the cornea. Owing to stretching the ciliary processes, pars plana, ora serrata, and anterior part of the choroid were carried forwards with the cornea. Owing to the firmer attachment of the ciliary body to the sclera, this had been left in its normal position. Thus the ciliary processes were further forward than the termination of Descemet's membrane, the pars plana was opposite the ligamentum pectinatum, and the ora serrata were actually in front of the ciliary muscle. Only one other case of the kind had been described, also in a case of congenital anterior staphyloma. The displacement was due to the fact that in fetal life the inner layers of the uvea were less intimately connected with the outer than was the case after birth; the same occurred in many of the lower animals, especially in birds. The staphyloma in this case was believed to be certainly due to intrauterine inflammation and perforation.—Mr. HOLMES SPICER: (1) a patient, aged 48, who had always had *Myopia*. The left eye had been blind ever since an injury which occurred thirty years ago, and the right eye failed in 1901, and when seen there was total posterior synechiae and no P.L. The left eye had a corneal opacity and a tremulous iris, the lens was tilted and slightly dislocated backwards. It was quite opaque, and no fundus reflex was to be obtained. V = P.L. with good projection. On March 3rd, 1903, a needle was introduced behind the ciliary body, and the lens was pushed backwards. Sight was at once obtained, and it had since improved. The vision was now about $\frac{6}{60}$. There was a large area of myopic atrophy of the choroid about the disc, and the shrunken lens was visible at the bottom of the vitreous. (2) A case of *Superficial punctate calcareous deposit* on the cornea. The patient was a girl, aged 16. Her right eye was attacked by interstitial keratitis in June, 1897. She became deaf in 1902, and had an attack of interstitial keratitis in the left eye in 1905. This latter was severe, and led to much opacity, and to the development of salmon patches in two places, and a deposit of keratitis punctata at the back of the cornea. The left cornea had now cleared considerably; there was some deep opacity near the centre, and numerous small light-brown or dirty-white dots exactly like keratitis punctata, but they were evidently close to the surface, and in front of the old interstitial opacity.—Mr. Ludford Cooper: a girl, aged 11, suffering from *Elephantiasis neuromatosis.* There was much deformity of the right upper eyelid and temporal region. The lid was pendulous and greatly hypertrophied in all its structures. The lid was considerably everted. The patient was unable to raise it, and it could only be lifted with difficulty so that the small shrunken globe beneath it could be seen. The lens was opaque and the tension normal. The outer and lower portions of the frontal bone and of the squamous portion of the temporal bone were much more prominent on the affected side. The condition was slowly increasing and was congenital.—Mr. E. E. Henderson: a woman, aged 29, who had a *Growth on the upper palpebral conjunctiva.* For several weeks she had noticed something movable beneath her upper lid, and for three days it had protruded. An oval mass was found, about 2.5 cm. long and 1 cm. broad. Its surface was smooth and vascular, and was attached to the fornix by an elongated strip of conjunctiva containing vessels.—Mr. Sydney Stephenson: a boy, aged 9 years, who had a *Double detachment of the retina*, one at the upper part and one below. The tension was increased and the vision was bare P.L. Transillumination showed that light passed readily through both detachments. The other eye was myopic with some vitreous opacities. There was an obscure history of injury and a doubtful family history of tubercle. The question was one of diagnosis. Mr. Stephenson was inclined to think it was tuberculous.—Mr. H. H. B. Cunningham: A girl, aged 5, whose sight was noticed to be defective at school. In both eyes there was a *Semilunar gap in the lens*, at the lower part, more marked in the right eye; the suspensory ligament was here absent. There was no coloboma of either iris or choroid. The right eye was myopic, about 8 D, and the left about 3 D, but with astigmatism in both.

Liverpool Medical Institution.—At a pathological meeting on February 8th, Mr. F. T. Paul, President, in the chair, after the exhibition of card specimens, Dr. Nathan Raw read a note on *Acute Yellow Atrophy of the Liver*, and stated that in 6 cases he had seen there was a definite history of syphilis.—Dr. Owen T. Williams read a paper on the influence of x rays on the nitrogenous metabolism in *Leukaemia*, showing as the result of two investigations that sittings of ten minutes per diem produced a marked increase in the excretion of nitrogen and of uric acid. There was also a preliminary rise in the number of leucocytes—a fact noticed in 5 of the 7 cases treated at the Royal Infirmary. Synchronous with these changes there was a constitutional disturbance, anorexia being the prominent feature. In the blood there were signs of disintegration of the leucocytes, the reaction to basic dyes rapidly diminishing. In the treatment of these cases sufficient time should be allowed between each sitting to allow the body to excrete the noxious products formed and so prevent the severe constitutional disturbances which followed prolonged administration of the rays.—Dr. H. R. Hurter showed films illustrating the blood condition in *Leukanaemia.* This hybrid term, he stated, we owed to Professor Parkes Weber, who introduced it as the English equivalent of the German term "Leukanämie," first employed by von Leube to designate cases of primary haemopathy (or myelopathy), which presented the characters of pernicious anaemia and acute myelogenous leukaemia simultaneously. The patient from whom the specimens were obtained was a youth of 18 in Sir J. Barr's hospital practice. Admitted in August with classical Addison's anaemia, he died of acute leukaemia in September. In the early stage the red cells numbered 512,000, the colour index being 1.5, and the leucocytes 6,000, of which 10 per cent. were myelocytes. At this time there were 14,000 megaloblasts per cubic millimetre of the blood. Six weeks later the red cells had fallen to 430,000 and the leucocytes had risen to 290,000, of which nearly 40 per cent. were myelocytes, many of the latter being of the hyaline variety described by Türk as "Reizungsformen." Dr. Hurter thought that this unique case was of importance as demonstrating the evolution of myeloid leukaemia from a blood state indistinguishable from Addison's anaemia, but he agreed with Hirschfeld that leukanaemia and acute myeloid leukaemia were not separate pathological entities, severe anaemia being commonly part of acute leukaemia whether of the myelogenous or lymphatic form.

At a meeting on February 15th, Mr. F. T. Paul, President, in the chair, Mr. G. P. Newbolt read notes of a case of stab wound of the anterior and posterior tibial arteries and posterior tibial veins at the lower end of the popliteal space. It was necessary to ligature the lower end of the popliteal artery and also the ends of the wounded arteries and veins. *Gangrene of the Toes* ensued, the line of demarcation forming at the metatarso-phalangeal joints. Mr. R. W. Murray said that a case had been recorded in which end to end anastomosis of a divided popliteal artery had been successfully performed, possibly in the case narrated anastomosis of the divided tibial vessels might have been tried with advantage. The President referred to a case of popliteal aneurysmal varix due to gunshot wound, in which he had ligatured the artery above and below the orifice; the patient just escaped gangrene. In another case, a diffuse popliteal aneurysm, he had turned out the clots and tied the artery above and below the sac; gangrene occurred and he had to amputate the limb.—Dr. R. J. M. Buchanan read a note on a case of *Pulmonary Tuberculosis* which had been treated for some months with excellent result in a sanatorium. During a relapse, at a later period, inoculations with Koch's new tuberculin were commenced by the opsonic index being used as a guide. Under relatively large doses, above 1 in 500 mg., the index rose, but on reverting to the smaller doses of 1 in 1,000 mg. it had gradually fallen to below 0.8. No pyrexial reaction followed the inoculations, but with the larger doses the patient for two or three days had slight dyspnoea and lassitude. The local and general result had proved most encouraging, cough and expectoration having disappeared, as had also enlarged glands from both axillae. Dr. T. R. Bradshaw thought the case was of especial interest, because most of the successful cases hitherto published had been those of external tuberculosis, probably because in them the evidence of recovery was more easily demonstrated. In cases where auto-infection was taking place there was generally a variable opsonic index, due to the fact that the patient was receiving irregular doses of toxin, with the production of a negative phase, followed by more or less temporary immunity.—Dr. A. Cassels Brown read notes of a case of *Pellagra* occurring in England. The symptoms having raised a suspicion as to the true nature of the disease, it was found that the patient, a young girl, had been in the habit of eating some of the maize with which she fed the fowls, and also that some of the fowls had died from the poor quality of the maize provided.—Dr. A. Gordon Gullan read a paper on *Acute Nephritis* (*Morbus Brightii*) *and its Treatment*, based on observations made on forty-two cases of that disease. Cold and wet and scarlatina were the common causes. Polyuria and a moist skin were favourable signs; in some instances a fall of blood pressure occurred when the albuminuria was disappearing. Oedema was present in all his cases, but in one with very marked evidence of the disease there was no albumen in the very scanty urine for four days. He advised a strict milk diet, deprecating the use of solid or nitrogenous foods. Free purgation by means of hydragogues, free diaphoresis, and counter-irritation over the loins were recommended. Digitalis and stimulating diuretics should never be used except in cases with complications, such as cardiac failure. The treatment of uraemia should be most vigorous; bleeding followed by the intravenous injection of a saline solution, together with the judicious administration of pilocarpin, was advocated. Chloroform inhalations were useful in certain cases of uraemic asthma and convulsions. Dr. WILLIAM CARTER thought that pilocarpin should never be injected in uraemic coma. In the latter condition, when the complex of retained urinary poisons produced dilatation of the pupils instead of contraction, as well as other symptoms similar to those caused by atropine, a hypodermic injection of ¼ gr. of morphine brought natural sleep, followed by cessation of convulsions. He had also seen lives saved by oxygen. Dr. J. LLOYD ROBERTS said nephritis occasionally occurred in children as a complication of mumps—a fact which made the routine examination of the urine in this complaint desirable. He had found morphine useful in certain cases of uraemic dyspnoea.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.—At a meeting on February 6th, Mrs. SAVILL showed a case of *Alopecia Areata* occurring in a boy 6 years of age. The microbacillus of seborrhoea had been found at the roots of the hairs at the margin of the patches; a culture obtained from one hair was exhibited. Microscopic slides were shown of the microbacillus, and, for comparison, of the staphylococcus so frequently occurring on the human skin.—Miss STONEY then read a paper on the *Treatment of Chronic Congestion by Electricity*. In illustration she showed a case of chronic eczema, which originally covered a large part of the lower leg, but had healed under *x* rays, and mentioned a case of multiple benign papillomata, and one of a scirrhous nodule and ulcer likewise cured by *x* rays. She advocated the use of *x* rays as a post-operative routine to destroy any malignant cells escaping the surgeon's knife. Other illustrations shown were five cases of chronic ulcer of the legs—one due to tertiary syphilis of seventeen years' duration, unhealed for nine years, and four due to varicose veins. All the ulcers had been painful, and the affected limbs were much indurated. These cases were all treated about twice a week for half an hour, first with the high-frequency brush for ten minutes, and for the remaining time with massage and the application of a Martin bandage, the patients in the intervals of treatment continuing their daily work. In the first case, after treatment for five months, both legs were soundly healed and painless, and had remained so; in the other four cases treatment for five weeks had resulted in cure. In the early stages of varicose veins, before the muscular wall had degenerated, she considered complete cure to be possible. In the later stages, where the wall of the vein was pouched and atrophied, much relief from pain might be afforded. For simple varicose veins and piles 6 to 10 treatments sufficed to give complete relief when an ulcer was present; progress was slow till the infiltration of the tissues yielded to the massage, and allowed a better blood supply to reach the part. At the same time the veins were toned up by the high-frequency currents, and the edge of the ulcer began to heal.—Miss THORNE read a paper on the *Extreme Trendelenburg position* in abdominal operations, illustrating her paper by three cases in which she considered the position detrimental. In one case the liver and spleen proved at the necropsy to be unusually heavy, and tied down to the diaphragm by adhesions; the bases of the lungs were also adherent. In another case, where no *post-mortem* examination was allowed, there was an alcoholic and syphilitic history; the patient had carcinoma of the cervix, and was seven months pregnant. A Caesarean section was performed immediately before an abdominal panhysterectomy, the combined operation taking over two hours; this patient had respiratory failure five hours before the heart finally ceased to beat, in spite of all attempts to restore spontaneous respiration. In conclusion she emphasized Professor Wertheim's advice that in the interests of the patient the extreme Trendelenburg position in operations for cancer of the uterus should be maintained for as short a time as possible.

ULSTER MEDICAL SOCIETY.—At a clinical meeting on February 15th, the following were among the exhibits: Dr. CALWELL (the President): (1) A case of *Talon-like nails* with hyperkeratosis of the soles and palms; (2) A case of *Bilharziosis* with specimen of the urine, and contained ova, in a young lad from South Africa who used to run about barefooted.—Professor LINDSAY: A case of *Muscular atrophy* in the hand in a young girl.—Dr. MCKISACK: A specimen of *Aneurysm of the basilar artery*.—Dr. MCCAW: A case of *Acute hydrocephalus* in a young infant of 4 months, the circumference of whose head had increased from 14 to 20 inches in ten days.—Mr. MITCHELL: A case of *Epithelioma* undergoing the trypsin treatment.—Dr. CECIL SHAW: A case in which *Laryngotomy* had been performed for a papillomatous tumour in a child.—Dr. HOUSTON: (1) A case in which *Psoriasis* had disappeared during the administration of thyroid extract, and reappeared when the drug was stopped; (2) a case of marked *Anaemia* of no known origin in a boy, whose sister was in hospital with correspondingly severe anaemia.—Mr. KIRK: A case of *Spindle-celled sarcoma*, incompletely removed by operation, and subsequently treated by *x* rays with entire disappearance of the growth.

CLINICAL SOCIETY OF LONDON.

IN the report of the proceedings of this Society at its meeting on February 9th, published in the BRITISH MEDICAL JOURNAL of February 17th, p. 384, the following statement was attributed to Dr. Fawcett: "The carcinomata of the cardiac end of the stomach were spindle-celled, and spread thence to the oesophagus; those of other parts of the gastric wall were of the squamous variety." Dr. Fawcett asks us to correct this statement, which he describes as "hopelessly inaccurate." What he did say was to the effect that "primary malignant growths of the oesophagus belong almost entirely to the class of squamous epitheliomata; that the spheroidal-celled carcinomata, which have been described as originating in the lower end of the oesophagus and extending to the cardiac orifice of the stomach, really arise in the stomach, and not in the gullet, as is demonstrated by their histological characters."

REVIEWS.

CRIMINAL RESPONSIBILITY.

"IN homicide, as in all other crimes, the definition consists of two parts—the outward act, and the state of mind which accompanied it." This dictum, quoted by Dr. MERCIER in the opening lines of his book on *Criminal Responsibility*,[1] indicates at once the separate standpoints from which any criminal act may be regarded, and gives a clue not only to the conflict between the legal and medical views regarding the problems of criminal responsibility, but explains the diversity of opinion, rising at times to bitter controversy, which appears even amongst medical writers, whenever and wherever these questions are discussed. For where so little can be indirectly envisaged and so much remains nebulous and only to be indirectly inferred, as in the springs of criminal conduct, there is, quite legitimately, place for opposing theories and opinions.

Criminal law, reflecting as it does the intelligence and feeling of the community of its time, must, in so far as it recognizes the state of mind of the criminal as a factor in his crime, be conditioned by the stage of development to which contemporary psychology has attained, and when, as in the last half century, this development has been unusually rapid, the balance between knowledge of outward acts and insight into mental states is disturbed and the question inevitably arises whether, under existing laws, this difference is so resolved, or the letter of the law so interpreted in practice that justice is done. To the examination of this and other questions in criminal psychology the author has brought the knowledge of a life spent in the investigation of normal mind and character and their divagations among the insane and an acute mind trained both in the asylum and the law court, and the result is a book concerning which there cannot be two opinions. It is a remarkably able book, characterized throughout by extreme lucidity of thought and utterance, pithy terseness of phrase, and, in keeping with its appeal to "the common sense of the common man of this time and this country," it is expressed, even in the most sustained arguments of a difficult subject, in plain trenchant English, with an almost entire avoidance of ambiguous or technical terms.

The nine chapters comprising this book fall naturally into two divisions, the first seven being concerned with the general questions of responsibility, voluntary action, wrong-doing, insanity, mind, and the conditions of responsibility, and the last two consisting of a careful examination of the famous answers of the judges in 1843 and procedure and practice, or the practical effects of existing criminal law.

---

[1] *Criminal Responsibility.* By Charles Mercier, M.B., F.R.C.P., F.R.C.S., Lecturer on Insanity, Westminster Hospital Medical School, etc. Oxford: Clarendon Press. 1905. (Demy 8vo, pp. 232. 7s. 6d.)

Responsibility is first defined, not in the legal sense as stated by Sir FitzJames Stephen "of being liable, by the law of England as it is, to be punished," but as "the quality of being rightly liable to punishment." That is, Dr. Mercier discards "is," and considers "ought to be" alone. This attitude he describes as one of considerable temerity, but it is undoubtedly correct, for responsibility is not, as adherence to its strictly legal meaning would show, a merely legal, but is, we maintain, in practice and disregarding any metaphysical implication, a medico-legal, or, more accurately, a psychologico-legal, concept.

We may take this opportunity of saying that although this whole question is hedged round with controversy, and though, as will appear later, we differ on some points from the author, our difference is seldom one of argument, but almost always one of opinion or fact. As an instance of the former we may take what Dr. Mercier says of the aim of punishment. After examining the usually stated threefold aim of punishment as retribution, determent, and reform, and the historical development of punitive measures, he says:

> Whatever else it may afterwards become, punishment is, first and most, retribution. It is retaliation. . . . The utility of this practice is quickly recognized. Its deterrent effect is soon appreciated, and goes to corroborate and confirm the habit. But this effect is not the primary aim of punishment, which is shown, both by its history and by current use, to be primarily and essentially retribution.

From this opinion we cannot but profoundly dissent. We are far from denying the predominance of the *lex talionis* in earlier times, though even there it is open to question whether the infliction of pain would have been persisted in had it had no deterring influence. "I'll teach you to do that again!" is the almost instinctive, albeit ungrammatical, exclamation of the boy who punishes another. Nor is Dr. Mercier's view that of modern penologists, such as the late Sir Edmund Du Cane, who, in the *Punishment and Prevention of Crime* (1885), said that "reformatory influences should predominate in dealing with the younger criminals—those whose minds and characters are still unformed and undeveloped; that in the older and more hardened the penal element should have the *first* place, both on account of its effect on themselves and its influence in deterring others." And again: "The object of the penal element is more to deter others than for the effect on the individual subjected to the punishment." The point is worthy of mention, because it leads up to the following statement by Dr. Mercier, which, more clearly than any other, defines the sense in which the term "responsibility" is used throughout the work:

> A person is held responsible when the enlightened public opinion of his age and country demands that he shall be made to suffer in return for pain that he has inflicted. Responsibility is, therefore, not a quality of the person who has inflicted the pain but a demand on the part of others that he shall suffer.

That is, responsibility is defined as imputability. The next chapter, on voluntary action, contains a most admirable analysis of various kinds of acts and a careful dissection of a voluntary act, showing that the order of mental processes, taking them in their order backwards from the act, is act—volition—desire to do the act—choice of the act—desire for proximate aims to which act is directed—choice of proximate aim—alternate series of desires, and choices determining these desires—and, finally, primitive desire (continuing the race, self-conservation, etc.). This extremely useful division of the train of events which culminates in a voluntary act—present in every voluntary act—is made of great practical service throughout the subsequent chapters on insanity, mind, and the conditions of responsibility, in elucidating the *venue* of the disorder, or the link in the chain at which responsibility no longer attaches. The difference between motive and intention is also considered at length in this chapter, the author concluding that the difference is one more of degree than kind—that is, that motive is only a more distant intention, a link or two further back in the chain. The point is not one of mere psychological hair-splitting, but is, as Dr. Mercier shows, of great practical importance; confusion of motive and intention having not infrequently led, Sir FitzJames Stephen says, to failures of justice. "Wrong-doing," in its broad sense and not in the strictly legal meaning of a tort, is carefully examined, and the final statement made that "he does wrong who seeks gratification by an unprovoked act of intentional harm."

The chapters on insanity and mind contain clear and concise statements of the author's well-known views of mind in health and disease, which do not call for recapitulation here. Omitting these chapters, we come to the two final chapters in which the answers of the judges to the questions set them by the House of Lords in 1843 are examined, and the practical results of the working of the criminal law discussed. This is not the place for a restatement of these questions and answers, but it is shown convincingly by Dr. Mercier that the judges did not answer the questions they were asked, but an entirely different set of questions of their own. They were asked what the law was "respecting alleged crimes committed by persons afflicted with insane delusion in respect of one or more particular subjects or persons"; and they answered about persons labouring under "partial delusions." The effect of the insertion of these words has been, Dr. Mercier says:

> To nullify completely the effect of the answers by restricting their application to a class of offenders that does not exist, and never has existed. There is not, and there never has been, a person who labours under partial delusion only and is not in other respects insane.

It is further remarkable, as the author states, that the law, strictly limited to one class of the insane, should have been applied ever since to every case in which the plea of insanity is raised. The important point, however, is that, according to the answers of the judges, the responsibility, or irresponsibility, of the offender is made to depend entirely on his *knowledge* of the nature, quality, and wrongness of the act. Concerning this, Dr. Mercier says:

> I have already shown that this is not the result at which I have arrived by a study of the factors that go to make up a voluntary act. My view is that, in order that he may be responsible, the actor must *will* the act, *intend* the harm, and *desire* primarily his own gratification; that the act must be done on inadequate provocation; and, in addition to all this, he must know and appreciate the circumstances in which the act is done. If any of these factors be wanting, responsibility is impaired or abolished.

Nevertheless, he comes to the conclusion that, "with the exception of acts done under the influence of morbid desire, and those of the moral imbecile," the test of knowledge is efficient and satisfactory, provided that the term "knowledge" is rightly interpreted and understood; that is, that knowledge should include knowledge and appreciation of the circumstances in which the act is done, and that it is to be held in mind that knowledge is a matter of degree—that one may know an act is wrong without knowing how wrong it is.

The principles which the author considers should govern the treatment of insane offenders are drawn up under six heads. Under Head 1 the deeply and completely insane or idiotic are relieved of any punishment whatever; and under Heads 5 and 6 the test of ignorance is not to be applied to the subjects of moral insanity and moral imbecility, which states are to be recognized as morbid conditions, the morally insane to receive mitigated punishment and the moral imbecile to receive "special treatment directed to the removal of his disability."

Under Heads 2, 3, and 4, those insane, comprising, Dr. Mercier states, the majority of insane persons, who are "sane in a considerable proportion of their conduct," are to be held, when they commit offences in the sane part of their conduct, rightly punishable, and "it is a question for the jury whether the insanity did or did not influence the conduct." They are held to be rightly punishable, but

> since the limits between the sane and the insane areas of conduct of insane persons are ill-defined, no insane person should be punished with the same severity that would be awarded to a sane person for the same offence.

When it is remembered that there is no hard-and-fast line between sanity and insanity, but that persons of all stages between the normal and the profoundly insane are to be met with, it is evident that a sliding scale of punishment has much to commend it. At the same time an arbitrary line has to be drawn somewhere, and this line is, we maintain, most easily and practicably drawn at certifiability, that is, that certifiably insane offenders should be exempt from punishment.

Turning now to the question involved in the statement that "it is a question for the jury whether the insanity did or did not influence the conduct" it would *prima facie* appear that the determination of a subtle question like the influence of insanity on the conduct of an accused person should be entrusted only to expert alienists, and that it is unfair to a jury of laymen to saddle them with this task. The present procedure, however, has been so sanctified by long usage that no recommendation for alteration should be made unless it is found "that the law does," to quote the words of the report of the 1894-1896 Committee of the Medico-Psychological Association, "in actual practice lead to the improper conviction, as ordinary criminals, of insane offenders." This Committee, whose findings are stated at length in Dr. Mercier's last chapter, were unable to make any recommendation for the amendment of the law, as it found that every care was taken that justice should be done. The report was, after very great opposition, adopted by the Medico-Psychological Association, with this addition, however, that it did not commit the Association to approval of the terms of the law as usually stated. Dr. Mercier in his book supports the conclusions of the Committee, but we are glad to note that he now finds much to be said in favour of consultation of medical witnesses.

Now, the Committee, and Dr. Mercier in his book, had an eye simply to the possibility of injustice being done under the present system to the accused, whereas it is obvious that there are two points to be kept in view—the interests of the accused and those of the public. Further, they both have regarded capital crimes to the exclusion of other crimes in which insanity has equal weight—as assault, homicidal assault, sexual crime, and many others. Extended in this way, the question, Does the law in actual practice lead to the improper conviction of insane offenders? can, we believe, be answered in the affirmative. Turning to Appendix 18, Table D, of the last report of the Commissioners of Prisons for the year ending March 31st, 1905, we find that 163 prisoners in local or convict prisons were certified as insane in the year covered by the report. Of these, 29 are returned in the report as insane on reception into a local prison; 59, or only 36.3 per cent., as sound, fair, normal, or apparently so; and all the remainder as deficient, doubtful, weak-minded, etc., on reception. Information, unfortunately, is not given as to the date of the first appearance of the mental symptoms in all of the cases; but from an analysis of 53 cases we see that in 11 the symptoms appeared within a week of reception, in 4 more within two weeks, in 10 more within a month, and in 13 more within three months. That is, in over 47 per cent. of the cases in which information is available the insanity appeared within a month of incarceration.

The unfavourable impression produced by these statistics deepens on perusing the particulars of these cases, such as No. 1,969, convicted on April 5th of obtaining money by false pretences, sentenced to 12 months' hard labour, and certified as insane from general paralysis on April 28th; No. 1,107, convicted on November 26th, 1904, of an unmentionable offence, sentenced to 12 months' hard labour, and certified as insane from general paralysis on January 2nd, 1905; No. 1,150, convicted on July 8th of assault, and certified as insane on July 11th, 1904; No. 2,445, convicted on March 1st, 1905, of sending threatening letters, sentenced to 12 months' hard labour, and certified as suffering from recurrent mania on March 10th. We could go on quoting case after case in which, regarded in the light of subsequent events, there is a strong presumption that there has been miscarriage of justice. We remember reading in the daily press of a case in which the crime bore on its face the stamp of insanity. A fireman on board ship on the high seas had run amok, and, barricading himself, shot at every one who approached him. One of the wounded subsequently died, but as witnesses of the death, which occurred in South America, could not be present, the man was tried on the charge of shooting with intent to murder, and convicted on June 30th, 1904, to 15 years' penal servitude, notwithstanding evidence of insanity. From the Prison Commissioners' Report we see that a fireman, convicted on June 30th of shooting with intent to murder, sentenced to 15 years' penal servitude, was certified as insane on October 28th, 1904, the date of the first appearance of mental symptoms not being stated, but his mental condition on reception is entered as "(?)". Now there cannot be any reasonable doubt that in this and many other cases the mental condition had a direct bearing on the crime, and it is impossible to escape the conviction that insane offenders are improperly convicted as ordinary criminals. True, their insanity is subsequently discovered—excluding the remote possibility of a murderer being hanged before his insanity has been discovered—but the results, both for the offender and his relatives and the outside public, differ from what they would have been had the insanity been discovered prior to conviction. First, the stigma of crime is attached unnecessarily to the offenders and their relatives; and, secondly (in the case of convicts), having completed their term of sentence at Broadmoor, and, of necessity, not being detained at the King's pleasure, they are discharged to their county asylum, where they are by no means welcomed, and from whence they may be, and sometimes are, discharged to the possible danger of the public. These are very cogent reasons for an amendment of the present procedure, in the direction of increased thoroughness of examination of accused persons prior to conviction, and, if need be, extending over a considerable time, by impartial expert alienists, in all cases of serious crime where doubt exists as to the sanity of the accused. The difficulties in the way of settling this point are great but not insuperable, and in the meantime we must thank Dr. Mercier for having clarified many issues in his notable book, a book which will be of the greatest assistance to medical and legal men who are interested in this question.

ORGANOTHERAPY.

IN a small volume entitled *Organotherapy*[2] Dr. H. BATTY SHAW has collected together in a convenient form and in very moderate compass practically all that is known at the present time regarding the treatment of disease by means of preparations of various glands and tissues. In the text attention is directed chiefly to the therapeutical aspect of the subject, but in the case of the more important glands adequate descriptions have been given of their structure, physiology, chemistry, and pathology. Even a cursory perusal of the book reveals the care which the author has exercised in consulting a very large number of scientific and clinical papers, while the condensed result of his reading is presented in a clear and attractive form. So far as Dr. Shaw is concerned with it, the compiling and orderly setting-forth has been well done, and the book can be recommended as a clear synopsis of our attainments in organotherapy. On the other hand, its perusal leaves a feeling of disappointment and regret that so much observation and experiment have had such comparatively meagre practical results. About two-thirds of the volume is devoted to the thyroid and suprarenal glands, from the use of which brilliant and solid advances in treatment have resulted. The remainder is largely a confession of failure, and not always a frank confession on the part of the investigators who have published researches or reported cases. Most of these are very indeterminate in their results, and yet recommendations for treatment are too frequently based on them; the outcome must be disappointment both to physician and patient. The fact is that our knowledge of the functions and internal secretions of most of the glands, and especially of their true and intimate relationships to morbid processes and pathological conditions, is so limited and inexact that it can hardly be expected to furnish guidance in treatment. More physiological research into the function of such glands as the pituitary body, the thymus, and even the pancreas, is very urgently needed in the first place, and when this has been done more definite knowledge of any possible therapeutical value they may possess may perhaps be reached. In a short introduction the author gives a historical sketch of the rise of organotherapy, and then proceeds to the consideration of the thyroid and parathyroid glands which are dealt with very fully and satisfactorily. This is followed by an equally full and interesting account of the suprarenal gland. The rest of the volume is devoted to the glands of the alimentary tract, the ovary, the testes, the pituitary body, the thymus, spleen, bone-marrow, lymph glands, muscle, nerve tissue, and placenta.

---

[2] *Organotherapy, or Treatment by Means of Preparations of Various Organs.* By H. Batty Shaw, M.D., F.R.C.P. London: Cassell and Co. 1905. (Crown 8vo, pp. 268. 6s.)

AIR AND CLIMATE.

THE work on atmosphere and climates,[3] by Professor J. COURMONT and M. CH. LESIEUR of Lyons, forms the first part of a new *Traité d'Hygiène*, edited by Professor BROUARDEL and Dr. E. MOSNY of Paris, each part of which is to be issued separately. The sections on atmosphere are all by Courmont, those on climatology by Lesieur, and the first twenty-five pages are occupied with introductory matter by Brouardel and Mosny, and by a schedule showing the plan to be followed in the arrangement of the twenty separate parts of which the complete treatise of hygiene is to consist. The chemical composition and properties of pure and polluted air are first described by Courmont. Then follows a section on the physical properties of air—variations of atmospheric pressure, atmospheric temperatures, light, electrical conditions, phenomena connected with the state of the ions, radio-activity, and movements of the atmosphere. Then come important sections on smoke, dust, and micro-organisms in the air. Ingenious diagrams are given showing the amount of dust particles present in the atmosphere at different hours on an ordinary day at Lyons as compared with the amount present at corresponding times on a foggy day. The methods employed to reduce the dust in rooms and the use of tar and petroleum for roads are shortly discussed, and a diagram is given showing the relative influence of treating the roads with tar and petroleum in regard to lessening the quantity of germs in the atmosphere, accordingly as the weather is dry or wet, windy or windless, sunny or sunless. Tarring the roads is on the whole preferable to treating them with petroleum, but the practicability of either of these methods is largely a question of expense. Various forms of apparatus employed for quantitative and qualitative estimation of the living germs present in air are described and figured.

Lesieur commences his portion (climatology) with a section on general climatology—temperature, humidity, clouds, winds, warm ocean currents, etc. Then follow three sections dealing with temperate, hot and cold climates respectively. The first includes a short account of the characteristics and physiological and pathological effects of continental and maritime climates, and of high altitudes (changes in the blood, mountain sickness). The last section, on adaptation to climates, is short, and from it we will quote the following passage:

> Race makes some difference; Jews are to a great extent cosmopolitan; the Chinese, a sober and particularly commercial people, adapt themselves fairly well to different climates; negroes, on the contrary, cannot be easily transported; the French, as we have stated, colonize less well from north to south; Spaniards, Portuguese and Italians less well from south to north. Moreover, the kind of life led makes a great difference; the Englishman, enthusiastic for sports and physical exercises, succeeds better under like conditions, than people more addicted to alcohol; a white race, who will not give up alcoholic habits, will never be able to adapt itself to tropical countries (Wulffert).

Though Courmont and Lesieur have been obliged to treat all the points they touch on with extreme conciseness, their contribution to the *Traité d'Hygiène* will be found admirably arranged, and their statements and explanations clear. They have succeeded in including within a short space a mass of information with which every medical man should be acquainted.

---

[3] *Traité d'Hygiène.* Publié en fascicules sous la direction de MM. P. Brouardel and E. Mosny. I. Atmosphère et Climats. Par J. Courmont et Ch. Lesieur. Paris: J. B. Baillière et Fils. 1906. (Demy 8vo, pp. 124, 29 illustrations. Fr. 3.)

SCHOOL MEDICAL OFFICERS IN HUNGARY.—The Hungarian Ministry of Public Instruction proposes to extend the system of medical inspection to elementary schools. The medical officers will be required to watch the bodily development and supervise the health of children throughout the whole period of their school life.

NOTES ON BOOKS.

OXFORD YEAR BOOK AND DIRECTORY.

The Oxford Year Book and Directory[1] forms a second edition of Part I of the *Oxford and Cambridge Year Book*, published early in 1904. In its present form it is considerably enlarged by the introduction of a number of names omitted previously, and by the addition of fuller information in numerous instances. The value of the book as a useful and convenient means of reference has been much enhanced by the revision, and the Editor must be congratulated on the notable degree of accuracy and completeness achieved so early in the history of the book. It is a little odd that among the omissions which are still to be observed are names which could quite easily have been secured from the University Calendar—for example, various college officials, Fellows, and the like. The fact that the record is still limited to members of the University who have graduated excludes a large number of alumni, some of whom are persons of considerable distinction. But probably some limitation of the kind is unavoidable.

HYDRO-ELECTROTHERAPY.

Dr. P. C. FRANZE, already known in England for his paper on the effects of Nauheim treatment in cardiac cases, has written a pamphlet on the methods, action and indications of hydro-electrotherapy in circulatory disorders.[2] The pamphlet includes an introduction and historical review, a section on the apparatus required, one on the methods of application, one on the physiological action, one on therapeutic effects and one on special indications and contraindications for the different forms of hydro-electric treatment. Dr. Franze thinks that the electric four-cell bath has a milder action than the electric full-bath and that by its means galvanism can even be cautiously applied in patients with aneurysm if they happen to require galvanism for any reason. Of circulatory disorders the functional disorders of the nervous regulating apparatus are those in which according to the author hydro-electricity exercises its most beneficial effect.

MALIGNANT GOÎTRE.

In a pamphlet on the *Relief of Respiratory Embarrassment in Malignant Goître*,[3] Mr. THOMSON gives the notes of two cases of malignant disease of the thyroid gland requiring operation for urgent dyspnoea; he advocates removal of as much of the tumour as will relieve pressure in preference to a primary tracheotomy. From a perusal of these cases it will be seen how marked a relief to the breathing followed the shelling out of the growth, and the greater facility for tracheotomy afforded after exposure of the trachea by this means is readily understood. In both cases the operation at the outset was rendered the more difficult by the patients being unable to lie down, but directly the isthmus was divided and the compressing portion of the growth removed respiratory embarrassment ceased, and the remainder of the operation was conducted with the patient in the recumbent position. Local anaesthesia is to be preferred when possible to general anaesthesia, not only on account of the diminished risk, but also because the patient, being conscious, is able to render assistance at certain steps of the operation. In the author's first case, the patient, by coughing forcibly when directed, materially helped him to deliver the lower pole of the tumour from the upper opening of the thorax. That a similar method of "exenteration" has been recommended and practised by Kocher and Mikulicz abroad does not detract from the value of Mr. Thomson's experience in the two cases recorded.

SEXUAL DISORDERS.

The first edition of Dr. R. W. TAYLOR's book on *Sexual Disorders of the Male and Female*[4] was noticed in the BRITISH MEDICAL JOURNAL in 1898 and the second in 1901. It is hardly necessary, therefore, to say much more about this new and revised issue than that it is larger than its predecessor by some 90 pages and that to the section relating to the sexual disorders of women four new chapters dealing respectively with pruritus of the vulva, herpes progenitalis, gangrene of the vulva, and injuries to the female genitals in coitus have been added. Some other parts of the book, also, have been added to or modified as regards both the text and the illustrations. The chapter on sterility in the female, however, still consists of little more than a somewhat bare enumeration of the various causes of that condition, the reader being referred to works on gynaecology for further details. Dr. Taylor states that the reception accorded to the second edition of his work has been "very gratifying," and as the value of the book has no doubt been increased by the additions just mentioned, there would seem to be no reason why the reception of the third edition should not be more gratifying still.

---

[1] *The Oxford Year Book and Directory.* London: Swan Sonnenschein and Co., Limited. 1906. (Crown 8vo, pp. 764. 5s.)

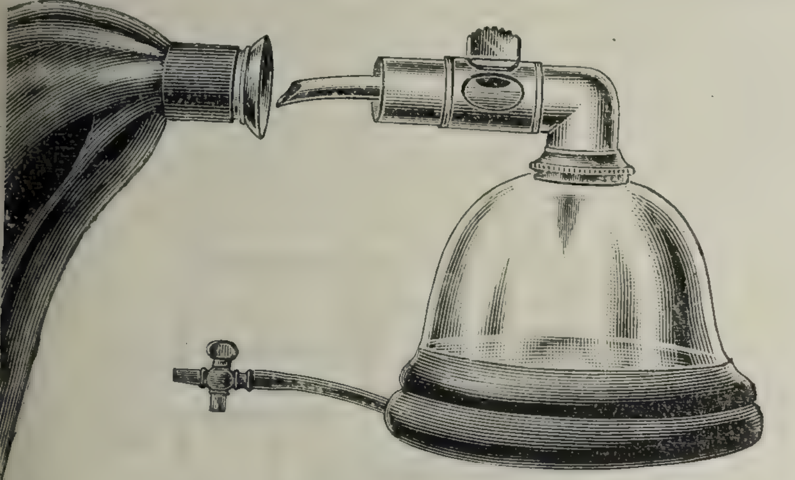
[2] *Technik Wirkungen und Indikationen der Hydro-Electrotherapie bei Anomalien des Kreislaufs* (Methods, effects and indications of hydro-electrotherapy in disorders of the circulation). Von Dr. Paul C. Franze. Munich: O. Gmelin. 1905. (Demy 8vo, pp. 71; 18 illustrations.)

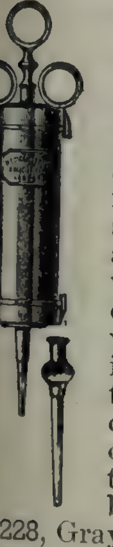
[3] *The Relief of Respiratory Embarrassment in Malignant Goître.* By Alexis Thomson, F.R.C.S.Ed. Reprinted from the *Edinburgh Medical Journal.* Young J. Pentland. April, 1905.

[4] *A Practical Treatise on Sexual Disorders of the Male and Female.* By Robert W. Taylor, A.M., M.D., New York. Third Edition. London: H. Kimpton. 1905. (Demy 8vo, pp. 525; 130 illustrations and 16 plates in colour and monochrome. 16s. net.)

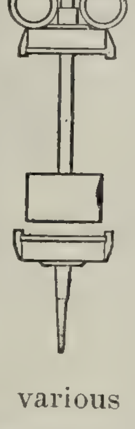
MEDICAL AND SURGICAL APPLIANCES.

An Ethyl-Ether Inhaler.—The annexed engraving depicts a Clover inhaler modified so as to facilitate the administration of ethyl chloride alone or of ethyl chloride and ether. Its novel point consists in the opening in the horizontal portion. The desired quantity of ethyl chloride is poured into this opening, and forthwith reaches the bag through the tube shown. Further quantities can easily be added from time to time as required, since the opening is readily opened and closed by a revolving metal band moved by a thumb-piece. The bag, being removable, can be washed out between each operation. If the ethyl-ether sequence is desired, the ordinary ether chamber must, of course, be fixed between the face-piece and the horizontal arm. Dr. T. Lister Llewellyn, of the East London Hospital, to whose order this modification has been made by Messrs. Mayer and Meltzer, finds it a very satisfactory apparatus.





An Aseptic Syringe.—Dr. Wyatt Wingrave (London, W.), writes: The defect of most piston and other syringes which are filled through the nozzle is the great difficulty of keeping them "surgically" clean. This instrument, however, since its parts are made entirely of metal and readily separated, can be easily sterilized. Further, its makers have, at my suggestion, added a nozzle which, being detachable, not only enables the syringe to be filled without risk of contaminating its interior through an infected aperture, but also facilitates the cleaning of the nozzle itself—precautions of the utmost importance in aural treatment. This syringe is made by the Medical Supply Association, of 228, Gray's Inn Road, London, with nozzles of various sizes.



ANTICIGARETTE MOVEMENT IN BIRMINGHAM.—The movement against cigarette smoking among young people, started in Birmingham by Mr. Frank Swan two and a half years ago, has been very successful. The Boys' Anticigarette League has a membership of over 5,000, and mong its Vice-Presidents and Committee are practically ll the leading physicians and doctors of the city, clergymen, ministers, schoolmasters, and employers of labour. The movement has not been confined to Birmingham. The Leeds organization, which also has a membership of 5,000, owes its existence to the influence and assistance of the Birmingham reformers.

LITERARY NOTES.

THE Berlin Royal Society of Science has made a grant of 500 M. (£25) to Dr. Iwan Bloch, of Berlin, for the prosecution of his researches on the history of syphilis.

Mr. Charles Stonham, C.M.G., Senior Surgeon to the Westminster Hospital, is the author of *Birds of Great Britain*, which will shortly be published by Mr. E. Grant Richards. The book will be issued in twenty parts, and will contain at least three hundred full-page illustrations.

Mr. Henry Frowde will shortly publish a book written by Dr. Stevens, Medical Officer of Health for Camberwell, on the dissemination and prevention of small-pox. The author deals, among other things, with the spread of the disease from hospitals; the ordinary and extraordinary means of conveying the infection from one person to another; and discusses the value of measures designed to prevent its spread, both from a medical and a financial point of view.

Writing in the *Catholic Times* of February 16th on comparative birth-rates, Dr. J. C. McWalter, M.D., M.A., in referring to the paper by Stevenson and Newsholme recently presented to the Royal Statistical Society, and commented on in the BRITISH MEDICAL JOURNAL of February 3rd, p. 269, makes the following remark: "It is remarkable that a hostile journal is forced to recognize the influence of the Church in the betterment of the family and in the future of the State by the facts that are forced on its notice." In regard to this we have to say that Dr. McWalter has no shadow of justification for describing this JOURNAL as "hostile" to the Roman Catholic or any other church. We do not indeed say, with a late well-known Anglican divine, "Hang theology!"—that would be stepping outside our province. But we do our best to steer clear of all the shoals and sunken rocks of theology and politics. We welcome help in the furtherance of the welfare of mankind from whatever quarter it may come, and we freely acknowledge the influence of religion wherever we see it displayed. It would, however, be in the strict sense of the word an impertinence on our part to show either favour or hostility to any particular church, sect, or denomination.

Messrs. Archibald Constable and Co. announce a new series of little books under the title of "Religions, Ancient and Modern," of which four volumes will be published immediately. These are *Animism*, by Edward Clodd, author of *The Story of Creation; Pantheism*, by James Allanson Picton, author of *The Religion of the Universe; The Religions of Ancient China*, by Professor Giles, LL.D., Professor of Chinese in the University of Cambridge; *The Religion of Ancient Greece*, by Jane Harrison, Lecturer at Newnham College, Cambridge, author of *Prolegomena to Study of Greek Religion*. Each volume enumerates and explains the tenets and teachings of the religion it is dealing with, and records the influence that religion has exerted, not only on its immediate adherents and the nations which have adopted it, but also upon the sister religions and upon the world at large. These volumes will be followed at short intervals by others: *Islam*, by Professor T. W. Arnold; *Magic and Fetishism*, by Dr. A. C. Haddon; *The Religion of Ancient Egypt*, by Professor W. M. Flinders Petrie.

A daily paper contained the startling statement that Sir William Crookes has been elected a corresponding member of the Paris Academy of Sciences, in succession to "Bichat the physiologist." This statement puzzled us a good deal. The immortal author of the *Recherches Physiologiques sur la Vie et sur la Mort* and the *Anatomie Générale*, died in 1802. But, on the other hand, Sir William Crookes is known to have many friends among the spirits. Could Bichat in some spookical fashion have indicated him as his successor? We were relieved to discover the prosaic truth that the "scientific gent" whom Sir William Crookes has succeeded was M. Bichat, a physicist.

The recurrence of the birthday of Copernicus, who was born on February 19th, 1473, reminds us that the man who revolutionized astronomy was a doctor of medicine as well as a Canon of Frauenburg Cathedral. Copernicus, or in the vernacular Koppernigk, was a Prussian, but he studied for many years in Italian universities and took the degree of Doctor of Medicine at Padua in 1499. He does not seem to have practised, for he was a priest and took an active part in defending the interests of the chapter of which he was a member. He was before all a mathematician and an astronomer, filling up his spare time with painting and reforming debased coinage. He spent twenty-three years over the book *De Orbium Coelestium Revolutionibus*, which has made his name immortal. It was printed at Nuremberg and published in 1543. But before the author saw the fruits of his labours in type he was struck down by paralysis. In a flicker of consciousness which occurred a few hours before his death his book was put into his hands, and he gave some token of interest. But he relapsed at once into insensibility which passed speedily into death.

Dr. Barnes (Carlisle) writes:

> With reference to your comments on the correct pronunciation of the word "angina" in the Literary Notes of the British Medical Journal of January 20th, p. 153, I should like to be allowed to make a few remarks. The line
>
> Verum angina tibi mistum sale poscit acetum
>
> is taken from a poem by Serenus extending to 1,115 hexameter lines under the title "Q. Sereni Sammonici de Medicina Praecepta Saluberrima." It contains a considerable amount of information extracted from the best authorities on natural history and the healing art mixed up with a number of puerile superstitions, the whole expressed in plain and almost prosaic language. Various editions have appeared. The work is edited by Burmann and by Bährens among the Poetae Lat. Minores, and I have before me a copy of the poem embodied by Weber in his *Corpus Poetarum Latinorum*, published at Frankfort in 1833. At p. 1177, line 282, the words are the same as those quoted by your anonymous correspondent from the old Jesuit Gradus, except that "mixtum" is used instead of "mistum." Different editors, however, appear to have treated this line in accordance with their own ideas as to the way in which the word "angina" should be pronounced. In the interesting conversation which you quote between Archbishop Benson and the learned Professor of Latin in the University of Cambridge, the latter gives the first words of the verse as "Angina tum vero." In the dictionary of Lewis and Short the line is given as follows:
>
> Angina vero sibi mixtum sale poscit acetum.
>
> The full text of the line quoted by the Cambridge professor from Lucilius is:
>
> Insperato abiit quam una angina sustulit hora
> (*Lucil. ap. Non.*, p. 35, 9.)
>
> It would appear, therefore, that the weight of evidence is in favour of the *i* in angina being short, but tradition has ordained that it shall be long, and long I suppose it will remain, in spite of purists in pronunciation.
>
> It is worthy of remark that Serenus Sammonicus, or Samonicus, was a Roman physician of high repute in the early part of the third century after Christ. He was the friend and physician of the Emperor Severus, and in this capacity accompanied the Emperor to Britain in A.D. 208, when he made his unfortunate attempt to subdue the whole of Scotland, and lost 50,000 out of the 80,000 Roman soldiers he led across the Firth of Forth, without ever meeting the enemy in open battle. Here is an incident in the career of Serenus which deserves to be ever held in grateful remembrance by his professional brethren. It is well known that Caracalla was very desirous for the death of his father Severus, and at one time actually attempted to destroy him with his own hands. According to Herodian, he then attempted to induce the physicians in attendance upon the Emperor to use means to hasten his death. The Emperor died at York on February 4th, 211, and was succeeded by his two sons Geta and Caracalla. In the year following Geta was assassinated by his brother, and this was followed by a general massacre of many of the most distinguished men of the State, whom Caracalla suspected of favouring his brother's cause, to the number of about 20,000. Serenus lost his life in this massacre, and it is satisfactory to us as a profession to recognize that, at a period when intrigue and corruption were so rampant, the members of our profession remained incorruptible and sacrificed their own lives instead of tampering with the life of their august patient.

In a copy of the poem referred to by Dr. Barnes in our possession (*Quinti Sereni Sammonici poetae et medici clarissimi de re medica sive morborum curationibus liber tum elegans tum humanae saluti perquam utilis et diligenter emendatus;* with a commentary *item Gabrielis Humelbergii Rauenspurgensis medici in Q. Sereni librum medicinalem commentarii*, Tiguri MDXL) there is a further variant. The line is given as follows:

Ast angina nitro mixtum sale poscit acetum.

Evidently there are many readings. Professor Munro attributed this to the fact that editors had altered the original line of Serenus to make it fit their preconceived ideas of the pronunciation of "angina." He said (see British Medical Journal, January 20th, p. 153) the line properly begins "Angina tum vero." Of course we bow to the authority of so great a scholar; but is he not perchance a trifle arbitrary? "Tum" appears to us to be gratuitously superfluous. Of the use of salt in sore throat, Pliny, as Englished by Philemon Holland, says:

> There is no kind of salt but it helpeth the squinancie, and the rather if it be used inwardly with oile and vinegar, so as at the same time it be applied without the throat also in a liniment with tar.

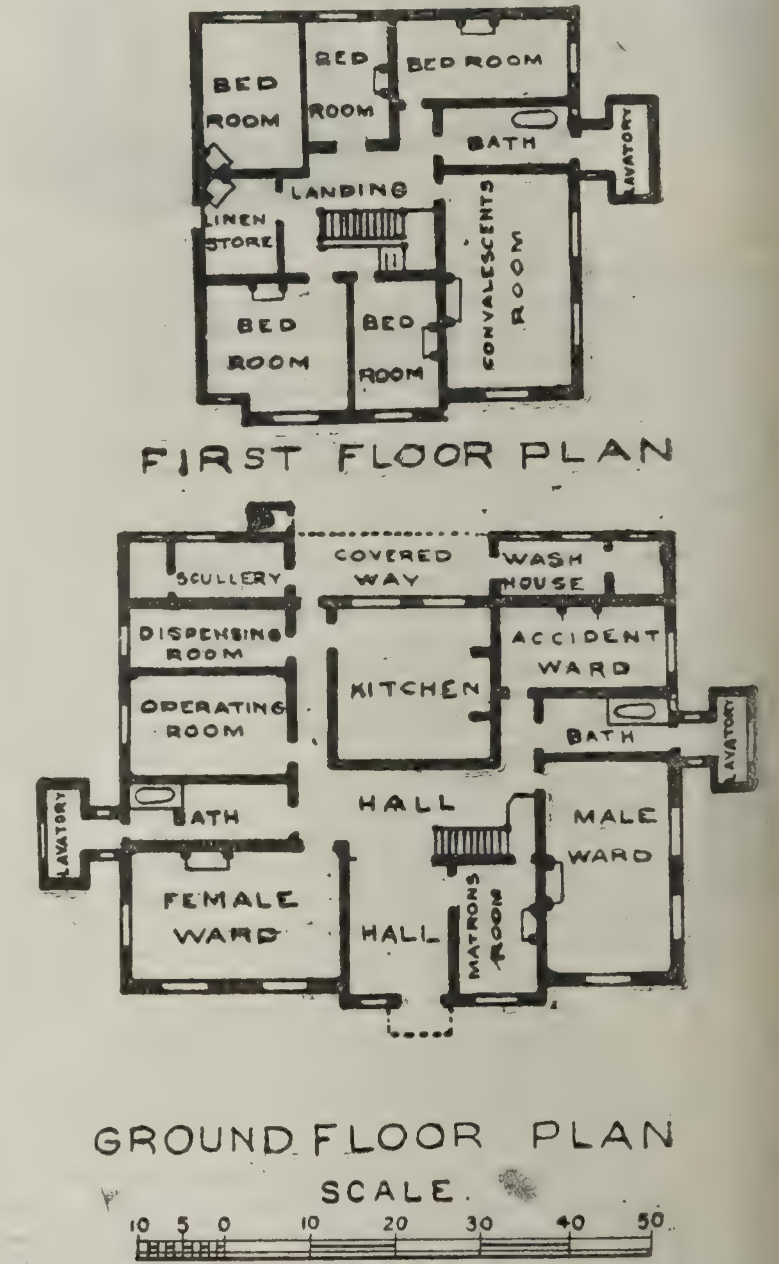
Of nitre he says:

> Burne or calcine nitre, temper it afterwards with liquid pitch or tar, and give it to drink, it cureth the squinancy.

A COTTAGE HOSPITAL.

The Merthyr Guest Hospital has been founded and will be maintained by Lady Theodora Guest, as a memorial to her late husband, Mr. T. Merthyr Guest, with whom the idea of establishing a hospital of the cottage type at Templecombe had originated. There is an important railway junction at this place and special accommodation will be reserved for railway men, though other persons in poor circumstances will be admitted free.

The building is situated on an eminence commanding an extensive view of Blackmore Vale and is close to the junction. It is of red brick with white facings, has two stories and provides ten beds for patients. As will be seen from the accompanying plan the ground floor contains a ward for males, a ward for females, and an accident ward, together with an operating theatre fitted with all modern appliances, a dispensing room, two bath rooms, kitchen, laboratories and offices. On the first floor there is a room for convalescents, five bedrooms, another bathroom and lavatory, and a linen store. The internal woodwork is of varnished pitch pine, and the building is lighted by acetylene gas generated in a detached building. The drainage, which is on the septic tank system, has been carried out under the advice of Dr. W. Collingridge, M.O.H. for the City of London.


FIRST FLOOR PLAN

GROUND FLOOR PLAN

We are informed that such an institution has long been required in the neighbourhood, as hitherto cases of accident have had to be removed to more or less distant hospitals.

THE PUBLIC HEALTH REPORT FOR THE COUNTY OF LONDON IN 1904.[1]

II.

IN a previous issue reference has been made to that portion of Sir Shirley Murphy's report which dealt with vital statistics and the prevention of disease. Part II of the report is concerned with various questions of sanitary administration which exert an indirect influence upon the health of the community.

MILK.

Every year more work is being done by the sanitary authorities in respect of the protection of food. In London much less has been done in the direction of control of the milk supply than in some of the large towns, but there are signs that greater effort is being made by the metropolitan sanitary authorities to enforce the Dairy Order than was formerly the case. The London County Council (General Powers) Act, 1904, conferred authority on the Council to remove and slaughter any cows suspected to be suffering from tuberculous disease of the udder. This is a new power, in addition to the powers under the Dairy Order, and it is to be hoped that it will effectually prevent the use of the milk of such cows in future. Formerly the condemnation of such a cow simply led to its removal outside the county. It is high time the moving of tuberculous cows from one district to another was absolutely stopped, and we trust the new powers will have that effect so far as London is concerned. It appears that in 1904, out of some 3,600 cows inspected three times in the year, 6 were found with tuberculous udders, and 22 were suspected; 26 samples of milk were submitted to the bacteriologist, and in 7 the tubercle bacillus was found. During the year an examination was made by Dr. Klein of 39 samples of milk bought in the City of London. Of these, 19 were found clean and pure, 3 contained the tubercle bacillus, 7 the *Staphylococcus pyogenes aureus*, and 10 the *Bacillus enteritidis* of Gaertner. These results led to inspection of the farm and examination of the cows by a veterinary surgeon. Increasing attention appears to be given to milkshop premises. But it is evident that an amended Dairy Order is required before any radical improvement in these places can be expected. Not less than 8,000 or 9,000 milkshops appear to exist in the metropolis, and 3,586 cows in 259 cowsheds.

UNSOUND MEAT, VEGETABLES, AND FRUIT.

Large quantities of unsound food have been confiscated by the various authorities, amounting in all to about 2,000 tons. Most of this has been taken by the authorities in the City of London, in Finsbury, and in Stepney. In the two former districts the food seized is mostly meat, in Stepney vegetables and fruit. The medical officer points out the importance of employing properly-qualified and experienced inspectors for food inspection. It is not less important for all concerned that confiscation and seizure should follow a uniform practice. Lack of uniformity and inexperienced inspectors are two sources of endless difficulty. An instance is mentioned in the report, and another instance has recently occurred, where carcasses of pigs have been found on the market without their glands, and criticism of them has been objected to; but surely if stripped carcasses—that is, without the pleura—are to be suspected, carcasses from which all the superficial glands have been removed are not less open to suspicion, for such a removal is very radical stripping, and for all practical purposes removes the most valuable indication of the presence or absence of tubercle.

ICE CREAM.

More than 2,000 ice cream "places" exist in London, and under the General Powers Act of 1902 they are now all subject to inspection and control—which is as it should be.

HOUSING.

The medical officer briefly summarizes the chief work of the year under the Housing of the Working Classes Acts, but owing to the unavoidably late issue of the report these pages have little more than historical interest. Two tables, however, of comparative death-rates in the County Council's dwellings and in common lodging-houses are worthy of note. At all ages and from all causes it appears that in 1904 the death-rate in the County Council dwellings (accommodating a population of 15,667 persons) was 14.0, as compared with 16.1 in the metropolis as a whole. In diarrhoea and the principal epidemic diseases, however, the death-rate in the dwellings exceeded that in London. The most marked reduction was in mortality at the age of 0-5 years, where the death-rate in the dwellings was 45.8 per 1,000 living, as compared with 54.2 in London. Such death-rates in selected communities are, of course, open to objection, but are nevertheless suggestive. In the common lodging-houses the male death-rates are uniformly much above the London male average. There are 451 such common lodging-houses, authorized to accommodate 28,896 persons. No one who knows London can doubt that much of the evil arising from bad housing conditions is due to insanitary tenement houses, and the more that can be done to control this sort of house the better, so that it is satisfactory to find a marked increase in the registration of houses let in lodgings. New by-laws have recently been adopted, and now what is required is a steady and, as far as possible, uniform enforcement throughout London. The housing question is not only a matter of increased accommodation but of maintenance of a high standard of sanitation in the houses already existing.

MISCELLANEOUS.

In multifarious ways the sanitary authorities of the metropolis are improving the environment of Londoners. More attention is being paid to the reduction of smoke nuisances, the removal of offensive matter, and the sanitation of workshops (concerning which a comprehensive table finds a place in the report). The appendices include Dr. Hamer's report on the use of ice and on cold storage, and a report on watercress.

---

[1] *Report of the Public Health Committee of the London County Council submitting the Report of the Medical Officer of Health of the County for the Year 1904.* London: P. S. King and Son. No. 924. Price 3s. 6d. Pp. 87, with three appendices, charts, etc.

PRESIDENT ROOSEVELT ON THE MEDICAL PROFESSION.

SOME pregnant remarks of the President of the United States on the unpreparedness of the army medical service for war were quoted in the BRITISH MEDICAL JOURNAL of January 27th. We had not then before us the text of the President's speech. It is published in the *Journal of the American Medical Association* of January 20th, since received, and it is so interesting and so full of instruction, not only to officialdom, but to the public who must be held equally responsible, inasmuch as they tolerate its misdeeds, that we venture to give it almost in full.

Addressing the representatives of the American Medical Association who were presented to him, the President, after asking his visitors to exert their influence on behalf of the medical corps, not only of the army, but of the navy, went on to speak of the medical profession. He said:

"There is not a more exacting profession; there is not a profession which makes greater demands on those following it, and which more entitles them to the gratitude of mankind than is the profession which is yours. The army surgeon has to combine the work of your profession with the work of the military men of the line. In saying that, I want to call your attention to two specific things: one, what is now being done by the men of your profession, and one, the need of men of your profession. First, the thing that is being done. All the United States is the debtor to the medical men who have accomplished such remarkable work on the Isthmus of Panama. You hear very loose talk about making the dirt fly in Panama. Before making the dirt fly it was necessary to get the microbes under, it was necessary to grapple with the mosquitos, necessary to eradicate disease. That has been done to perfection. We have had the foundation laid for that wonderful piece of constructive engineering work—to dig the giant canal. Too much praise cannot be given to those who have done this work in Panama. So much for tribute to your compeers."

Passing on to the hygienic conditions during the war with Spain, the President said complaint was then made that the troops were not properly treated. "The blame rested, not on any man then in office, but on our people as a whole, who had declined, through their representatives, to make provision long in advance for meeting such a need." He proceeded to point out that the Japanese had given them a good lesson in this, as in many other particulars, by the way they handled their army in the recent war. The main reason why their medical department did well was that they had an ample supply of doctors who had been practised in time of peace in doing the duties they would have to do in war. "And," he added, "until we have provision for an ample corps of doctors in the army so that they can be practised in time of peace we will not have prepared, as we ought to prepare, for the possibilities of war. Until we thus prepare we can make up our minds that we are ourselves responsible for any disaster that occurs to any army that the United States may raise in the future, not the man who may be at the head of the army at the time. That is utterly unjust; and the people themselves, and the representatives of the people in public life who have failed to provide the necessary means in advance—they are responsible when disaster comes. That applies to the Medical Department, and it applies just as much to every other branch of the military establishment."

Unfortunately, the people care for none of these things unless they can be used for electioneering purposes. Such a reform as is required can scarcely be accomplished until the welfare of the country stands before everything else in the mind of the people, as it was in the days (if they ever existed)

When none were for a party
And all were for the State.

A BACTERIOLOGICAL STANDARD FOR MILK.

A very valuable report by Dr. A. C. Houston on *The Bacteriological Examination of Milk*[1] has been issued by the London County Council, with a preface by Sir Shirley Murphy. Its importance lies more especially in the possibility which it suggests of eventually applying a bacteriological standard of purity for milk, such as is now commonly applied for water, modified, of course, to suit the circumstances, and in particular the fact that milk is a nutritive medium for bacteria.

Dr. Houston applied six tests to the various samples of milk; the two first recorded the amount of apparent filth in the milk, before and after centrifugalization; the third recorded the results of microscopical examination; and the fourth, fifth, and sixth established the absence or presence of the *Bacillus coli*, streptococci, and the *Bacillus enteritidis sporogenes* in given quantities of milk. Twenty samples of milk were examined from each of the following five sources:

I. Specially-selected milk from twenty separate healthy cows, the samples being taken under conditions such as ordinary rules of cleanliness would naturally suggest.

II. Twenty samples of milk collected from purveyors' shops.

III. Twenty samples of milk collected from dairy shops.

IV. Twenty samples of milk collected from churns at railway stations.

V. Twenty samples of milk collected from the establishments of well-known milk dealers.

The samples under II and III do not represent the average quality of milk exposed for sale in purveyors' and dairy shops because they were in the main collected from poor neighbourhoods and from premises which the Council's inspectors knew to be ill-adapted for the sale of milk.

Bacteriological Tests and Standards.

After enumerating (1) the bovine sources of pollution—tuberculous udder, teat disease other than tuberculosis, and excremental matter, (2) human sources of pollution, and (3) the general sources of contamination through the air, by dust, through dirty utensils, by flies, and by the addition of water, Dr. Houston says:

> The bacteriologist cannot really measure the actual disease-producing power of milk as regards human beings—hardly even say, unless bacteria are almost absent, that a particular sample of milk is devoid of ability to cause disease. What, however, the bacteriologist can do is to measure the amount of filth in milk and determine the biological qualities of the filth, particularly as regards the number and attributes of the excremental bacteria present in it.
>
> In order to create a bacteriological standard it will be necessary to establish also a temperature standard.
>
> If samples of milk are rapidly cooled below 10° C., and maintained at or below that temperature the multiplication of bacteria is so held in abeyance that even an interval of twenty-four hours between the time of milking and delivery of the milk to the consumers need not discount the possibility of a bacteriological standard. If this be considered impracticable, any bacteriological standards that may be proposed must needs lose in value. In effect this means that any impurities gaining entrance into milk would not be greatly magnified beyond their initial proportions by the necessary interval which must elapse between the "drawing" of milk and its being placed on sale.

It does not seem necessary to give in detail the nature of the criteria proposed by Dr. Houston, but their general effect may be gathered from his recommendation that to escape objection milk should fulfil the following conditions:

1. 1 c.cm. should not give evidence of the presence of *B. enteritidis sporogenes.*
2. 0.001 c.cm. should not give evidence of the presence of *B. coli.*
3. 0.0001 c.cm. should not give evidence of the presence of streptococci.

The primary sediments (after twenty-four hours) should not exceed 100 parts per 1,000,000.

The secondary sediment (after centrifugalization) should not exceed 50 parts per 1,000,000.

The results of the examination of the five classes of samples showed that in Class I only 10 per cent. infringed the standard as to *B. enteritidis*, and none of them infringed the standard with regard to the other tests. With regard to the other sets of samples, the results were as follows:

Series II, III, IV, V.

1. *B. Enteritidis Sporogenes Test.*—50, 45, 30, and 25 per cent. of the samples under Series II, III, IV, and V respectively infringed the standard.
2. *B. Coli Test.*—60, 50, 15, and 25 per cent. of the samples under Series II, III, IV, and V respectively infringed the standard.
3. *Primary Reading of Sediment.*—35, 25, 20, and 5 per cent. of the samples under Series II, III, IV, and V respectively infringed the standard.
4. *Secondary Reading of Sediment.*—35, 20, 20, and 5 per cent. of the samples under Series II, III, IV, and V respectively infringed the standard.

The Milk Trade and Remedial Measures.

Dr. Houston points out that the milk industry in the United Kingdom is of great magnitude, for it was computed that in 1901 there were over 4,000,000 milch cows yielding milk, for which the public paid nearly £115,000,000. He expresses the opinion that—

> In any serious attempt to improve the quality of milk it is necessary to bear in mind that the imposition of conditions having this effect would be likely to increase its cost, and the value of these conditions in their relation to health should be accurately appraised lest their stringency should have the effect of raising its price out of proportion to its dietetic value.

He repeats the facts so often stated with regard to the almost infinite opportunities which exist for the contamination of milk. The cow may be coated with filth, the milker may be dirty, the milk utensils may be unclean, and the air of the byre may be loaded with excrementally-polluted dust. Fresh opportunities for the ingress of filth are afforded during its transit and in the dairy shops and the premises of milk purveyors. The whole history of milk from start to finish, from secretion by the cow to ingestion by the human being, is fraught with potential risk to the consumer. Anticipating the objection that the degree of bacterial purity which would be set up, were his standards adopted, would be impracticable, Dr. Houston enumerates the following reforms as among those which may be considered immediately practicable:

(1) That cows should be kept clean (particularly as regards their hind quarters, tail, udders, and teats), and housed in well-ventilated, clean byres.

(2) That the milker should be cleanly in his person and in his methods of procedure.

(3) That the fore-milk should be rejected.

(4) That all milk utensils (milk pails, churns, etc.), should be kept scrupulously clean.

(5) That the milk should be strained through a clean strainer.

(6) That the conditions under which milk churns are conveyed from place to place and milk is carried from the dairy shops to the consumers' premises should be greatly improved. (At

---

[1] London: P. S. King and Son. Pp. 48. 2s.

present most of the railway companies regard the carrying of milk, and, generally speaking, the conveyance of all sorts of market produce solely from a business point of view.)

(7) That dairy and milk purveyors' shops should be kept clean, and that all those persons engaged in handling milk should pay special regard to the importance of personal cleanliness. (No person who has contracted enteric fever is fit to handle milk, even if convalescent for a long time, in the absence of medical supervision. The danger of typhoid bacilluria in this connexion must not be forgotten. Quite recently an epidemic of scarlet fever at Cambridge has, I believe, been ascribed by Dr. Anningson to milk supply. Apparently a man in the late stages of a scarlatinal attack had been employed to milk cows.)

(8) That far greater precautions should be taken to exclude dust, flies, etc., from the milk than is at present the practice.

(9) That the water used for washing dairy utensils should be potable water.

THE ALIENS ACT.

Its Objects.

According to the census returns, the number of aliens in London increased from 60,252 in 1881 to 135,377 in 1901, and the same rate of increase has probably continued up to the end of last year. This influx of foreigners, who are mainly drawn from the Jewish inhabitants of Eastern Europe (Russia, Poland, Galicia, and Roumania) began about the year 1880. In 1888 attempts were made in England to control this wholesale landing of immigrants, but beyond the appointment of a committee of inquiry nothing was done. Since then alien immigration has been directed and controlled by the Government of every country but our own, and a selective power has been acquired by shipping companies catering for America, which results in the ear-marking of all that is good in the alien for America and leaves the bad for the only country without restrictions.

Thus the class of aliens who have ousted sections of our native population and forced them into already overcrowded neighbourhoods has been a class selected as fit for shipment to England on account of their unfitness for any other country.

A remedy for this unsatisfactory state of affairs has now been sought in the Aliens Act, 1905, which came into orce on January 1st of this year. By this Act and its attendant rules and orders every alien steerage passenger entering the United Kingdom is subject to a strict inspection at the hands of an immigration officer and a medical inspector. The only alien immigrants who can enter without inspection are those who come on ships bringng batches of less than thirteen. Such ships may enter at any port, but should a ship bring more than twelve alien immigrants, she is obliged to enter at one of the ixteen ports where inspectors have been appointed.

Rejection of Undesirable Aliens.

Undesirable immigrants can be refused admission to he country and returned to their port of departure under he care of the master of the ship which brought them. n alien certified as undesirable by the inspector has a ght of appeal to an Immigration Board of three members, ho can reverse the decision of the inspector, and in this ay time is given to the alien to summon relatives or iends who may be willing and able to support him.

The chief grounds on which an alien immigrant may be jected are insufficient means of support, lunacy, and sease which is likely to lead to his becoming a charge pon the rates or a detriment to the public. Persons preously convicted of crime or expelled under the Alien ct are included in the term "undesirable." Political fugees and persons seeking to avoid religious persecuon must be admitted unless there are stronger grounds r rejection than mere lack of means or physical firmity.

Expulsion of Undesirable Aliens.

An alien convicted of an offence punishable by imprisonent without the option of a fine or of an offence as a ostitute, may be expelled from the country, as, under tain circumstances, may aliens in receipt of parish ief or living under insanitary conditions due to overowding. In the last two cases, proceedings with a view t expulsion must be undertaken within twelve months er the alien has entered the United Kingdom.

Duties of Medical Inspector of Aliens.

In each immigration port the duties of the medical inspector of aliens are performed by the medical officer of health for the port sanitary authority. He is directed to reject lunatics, idiots, and persons suffering from any disease or infirmity which is likely to make them a charge upon the rates.

From the report of the Commissioner-General of Immigration in the United States for the year 1904, it appears that in America the disease for which aliens are most frequently rejected is trachoma; next comes hernia, and then heart disease and "poor physique." The frequency with which a disease is shown as a ground of refusal is, of course, no criterion of the frequency with which the disease may be found amongst alien immigrants. For instance, in the cases of trachoma, favus and venereal disease, no mitigating circumstances are entertained. Of cases suffering from heart disease, 50 per cent. are allowed to land.

It would appear that the principle which should be followed is that every case of disease without exception which is likely to prove a detriment to the public in the sense that it is infectious should be deported. Under this heading will come infectious skin diseases, such as ringworm, phthisis, venereal disease, and other conditions which will readily suggest themselves. Scabies and pediculosis could be dealt with by providing the equipment for their cure at the port of entry into the country, and either condition could be got rid of in forty-eight hours by efficient and vigorous treatment. Since, however, the whole aim of the Act is to induce the shipping companies to prevent undesirables from embarking, these diseases should be met by a rigid system of rejection in every case. The companies themselves would then utilize the means that already exist in the chief ports of embarkation for cleansing verminous passengers. Scabies will necessarily be refused by the medical inspector for the shipping company, since the cure of the disease, even if undertaken, would still leave lesions characteristic of the condition which would lead to the patient's ultimate rejection at his destination.

Diseases which are likely to render an alien unable to support himself—as, for instance, heart disease—cannot be dealt with by the wholesale method applicable to infectious diseases, and will require the exercise of a careful judgement in each case. Valvular disease with good compensation might not be a ground for rejection in a man with a light trade, whereas a man with the same condition following a trade requiring severe physical effort should certainly be deported. Again, it will be apparent that heart disease in a married woman, with a husband to support her, cannot be classed with heart disease in a young girl going into service.

The course of action that should be adopted in cases of hernia presents considerable difficulty. About 20 per cent. of the aliens arriving in the United States with ruptures are rejected. The extrusion of gut outside the muscular abdominal wall is accompanied in many cases by great discomfort or even pain, which is relieved as soon as the hernia is reduced. Since an irreducible hernia may prove a serious disability, and since it cannot be cured except by operation, it would seem reasonable to treat the irreducible condition with greater severity than that in which the gut can be returned to the abdomen and kept in place by a truss.

Obviously there are grounds for wide divergence of opinion and action among those entrusted with the task of rejection; and though in any case much must be left to the discretion of the individual medical inspectors, it is desirable that they should, as far as possible, work on a common basis. A memorandum by the Secretary of State, founded on expert medical opinion, would make for consistency in the standards adopted in the various ports, and would form a basis for the work of medical inspection in the Continental ports of embarkation. The danger of specifying conditions which demand rejection lies in the fact that the specification of certain diseases is likely to be interpreted as a right of entry to every condition which does not appear on the list. If for this reason the publication of a memorandum is deemed inadvisable, a common course of action might be agreed upon by a private conference among the medical inspectors for the sixteen ports.

DUTIES OF MEDICAL OFFICERS OF HEALTH.

Under Section 3 (1) of the Act, the Secretary of State may make an expulsion order if it is certified to him by a court of summary jurisdiction that an alien has been living under insanitary conditions due to overcrowding, provided the alien has been proceeded against within twelve months of his last entering the United Kingdom. It is to be hoped that medical officers of health in the districts where alien immigration has led to the abuses attending overcrowding will take full advantage of this provision of the Act. The enumeration of the occupants of a house is fraught with difficulty, but it is impossible to believe that more might not be done in this direction under the existing laws than has hitherto been attempted. The hours between midnight and 4 a.m. are those during which a house may be counted on to contain its full complement, but the invitation of the occupiers is necessary for an entry at this time, and so far only one of the medical officers of health in London has succeeded in obtaining this facility. Counting out in the early morning is slow and laborious by comparison; but by this method and by the exercise of ingenuity in piecing together information gained indirectly in the investigation of infectious disease, or from lay inspectors, it should be possible to obtain a sufficient number of convictions to act as a deterrent.

RESULTS OF THE OPERATION OF THE ACT.

It is manifestly too early to judge the suitability of the Act for attaining the ends it was meant to compass. In the first month of this year the number of aliens has been reduced by one-half, but it is impossible to estimate how much of this reduction has been brought about by the disturbed state of Russia. Nevertheless, it is an undoubted fact that shipping companies, who have never before refused a passage to an alien bound for England, are now refusing large numbers, and the aliens are being submitted to a rigid medical examination before embarking.

The Act exempted from inspection all alien immigrants coming in batches of less than twenty-one, and the Secretary of State by Order has reduced this number to thirteen. Whatever the merits or demerits of this particular figure, there is little doubt that any other would have been criticized with equal severity. As was to be expected, certain lines are now carrying on a traffic in undesirables brought over in small batches. To apply the Act to all aliens at every port would be impracticable, but there will be no difficulty in discovering the companies which trade in undesirables, and it has been provided that such companies may be named and their ships submitted to inspection under a special order by the Secretary of State.

A suggestion by the Home Secretary that the possession of £5 should be accepted as evidence that an alien has the means to support himself whilst he is looking for work, is said to have led to the device whereby one £5 note is circulated backwards and forwards between Hamburg and London, until it has done duty for some dozen aliens. If this be fact and not fiction, it goes some way to prove that out of 7,000 aliens admitted to the country since January 1st, at least eleven possess the most desirable quality of exceptional honesty.

On the whole, there appears to be a general consensus of opinion amongst those who are in a position to judge, that the Act is likely to succeed beyond the expectations of the most sanguine.

MEDICAL STUDENTS IN SWISS UNIVERSITIES.—The total number of students in the medical faculties of the Swiss Universities in the present winter semester is 1,799, of whom 993 are women. Of the students 561 are Swiss, and of these 23 are women. The students are distributed among the several universities as follows: Basel has 140, of whom 4 are women; Bern 519, of whom 348 are women; Geneva 298, of whom 146 are women; Lausanne 456, of whom 327 are women; and Zürich 386, of whom 168 are women. Thus more than half the total number of students of medicine in Switzerland belong to the fair sex. At two universities, Bern and Lausanne, there is a large preponderance of female students, and at Geneva the number of men and women is nearly equal. At Zürich men are still in considerable majority, while Basel for some reason, does not seem to attract women.

MEDICAL NEWS.

A BILL for the legalization of osteopathy has been introduced into the New York State Legislature. The Bill gives what is described as a complete definition of the system, and provides for the creation of an independent Board of osteopathic examiners.

THE report of the Flannel Shirt Club for 1905 states that during the year 491 shirts were distributed, making a total of 3,623 since the formation of the club, whose object is to distribute, through ward sisters, flannel shirts to working men devoid of means on their discharge from hospital after severe illnesses.

THE Royal Sanitary Institute will this year hold its congress in Bristol from July 9th to 14th. The Right Hon. Sir Edward Fry will be the President. Sir William J. Collins, M.P., M.D., will be President of the Section of Sanitary Science and Preventive Medicine, Mr. Edwin T. Hall, V.P.R.I.B.A., of that on Engineering and Architecture, and Mr. W. N. Shaw, F.R.S., of that on Physics, Chemistry, and Biology. The Duchess of Beaufort will preside over the ladies' conference.

CONGRESS OF EXPERIMENTAL PSYCHOLOGY.—The next meeting of the Congress of Experimental Psychology will be held at Würzburg, April 18th to 21st. Among the communications promised are the following: Dr. F. Krüger, on the relations between experimental phonetics and psychology; Professor O. Külpe, on the present position of experimental aesthetics; Dr. F. Schumann, on the psychology of reading; Professor R. Sommer, on psychiatry and the psychology of the individual; Dr. W. Weygandt, on the psychological investigation of congenital feeble-mindedness. Communications relative to the Congress should be addressed to Professor O. Külpe, Würzburg.

THE report of the Devonshire Nursing Association presented to the annual meeting last week stated that new districts had been affiliated, making a total of twenty-one since the formation of the Association. Nine nurses were still in training at Plaistow, but it was hoped that a training home would be started with Cornwall during the coming year. The training of each nurse, including travelling expenses, cost about £50. The demand for the nurses was increasing, and it was impossible with the funds at disposal to supply the demand as quickly as could be wished. The work done by the nurses during 1905 was as follows: Medical cases 578, surgical cases 285, chronic cases 257, maternity cases 76. Number of visits paid, 17,938. Number of nights on duty, 127. Assisted at thirty-eight operations.

IN MEMORY OF BILLROTH.—Dr. Domenico Barbieri of Vienna, whose death was recently adnounced in the BRITISH MEDICAL JOURNAL, has bequeathed a sum of 300,000 crowns for the creation of a fund to be called by the name of Theodor Billroth. Dr. Barbieri was an assistant and a close personal friend of the famous Vienna surgeon, who entrusted him with the administration of the anaesthetic in some of his most daring operations. The interest of the fund is to be given in bursaries to poor students in the Second Surgical Clinic of Vienna, of which Billroth was the head, and, if possible, also to students in the first clinic. The bursaries, which are to be awarded by the Professorial College without distinction of nationality or creed, are of the yearly value of 2,000 crowns, and are tenable for three years.

DR. OGIER WARD asks us to call attention to the work carried on by the Trained Nurses' Annuity Fund, of which he is Honorary Secretary. Hitherto the fund has been kept going mainly through the help of the friends of the late Lady Bloomfield, who founded it, but a wider circle of support is now necessary. With the great increase in the number of trained nurses which has taken place of late years, the number of those who break down in the midst of their careers, and before they have been able to make provision for old age by their personal efforts, has correspondingly grown. The annuities of £17 each of which the fund can at present dispose are therefore very few in comparison with the number of deserving applicants. As a rule annuitants must be fully-trained nurses who have worked at least fifteen years, have passed the age of 50, and are in some way or other physically incapacitated for further labour. Personal character is taken into consideration, preference being given to those who can show that they have endeavoured to save money. To do so really, however, must be very difficult for any nurse, since, as was pointed out in these columns some time ago, the average working life of a trained nurse is very short. Communications may be addressed to Dr. A. Ogier Ward, 73, Cheapside, E.C.

His Royal Highness Duke Carl Theodor of Bavaria recently performed his five thousandth operation for cataract.

Instruction in Nursing for Medical Students.—We have received from Mr. Sydney Holland, the Chairman of the London Hospital, a printed syllabus of a course of special demonstrations on medical and surgical nursing, which will be given by the ward sisters every three months on the Wednesday and Friday previous to the end of each term of clerking and dressing. We are informed that these classes have been arranged in order to meet the desire of many students to learn something of those details of nursing which it is important they should know when they get into private practice, but which they have had no opportunity of acquiring. The instruction given includes how to change draw sheets, lift helpless patients, and undress accident cases, the prevention of bed sores, the preparation and administration of enemata, the care of patients' mouths, how to keep children clean and still in bed, and their heads free from pediculi, the application of poultices and fomentations, and the feeding of patients after operation. The student who has not been a hospital resident is much in need of such knowledge, and the only criticism we have to offer is that we doubt whether in a single demonstration it would be possible to impress so many subjects on the mind of any one ignorant of them.

The Population of France.—We are accustomed to a certain amount of delay in the issue of Government reports in England, but English officials may console themselves, and we may appreciate their superior promptitude when it is known that the French *Journal Officiel* on January 1st of this year announced that the quinquennial census would be taken on March 4th, and that at that time the results of the French census of March 24th, 1901, had not then been published. The remarkable promptitude with which the English census results for 1901 appeared stands out in striking contrast to this official procrastination in France. The results for 1901 have now appeared. The total population enumerated was 38,466,924, the mean annual increase since 1896 having been 40,000 persons. As might be expected, with a declining birth-rate the number of persons under 20 years of age has declined. This decrease has been greater for the male than the female sex; the diminution for the former in ten years having been 7 per cent. and for the latter 2 per cent. The failure of the French population to replenish its own numbers is forcibly illustrated by the numbers of foreign-born inhabitants. Of the 38 millions of total population over a million were foreigners. The Belgians and Italians are the most numerous of these foreigners. The number of Italians in France has increased from 286,000 in 1891 to 326,000 in 1901, while the Belgians have declined from 466,000 in 1891 to 322,000 in 1901.

Street Accidents.—The question of providing the City of London with an ambulance system is again under the active consideration of the Corporation. The scheme before it is the same as that which was originally brought forward some two years ago by the Police Committee acting on the advice of Commissioner Captain Nott Bower. It provides for the division of the city into two districts, each furnished with its own ambulance station. In the western portion cases of accident will be taken to St. Bartholomew's Hospital, the authorities of which have offered not only to provide room for stabling, but also to supply an attendant o accompany the ambulance when required. In the other, or eastern district, cases will be taken to Guy's and the London Hospitals, but the site of the station for the ambuance has not yet been finally selected. The use of telephones and a complete system of signalling, such as that in se by the Metropolitan Fire Brigade, is estimated to cost £163. It is proposed that the whole service shall be worked by the City Police, whose present duties in conexion with accidents it is deemed will be so much ghtened by the introduction of a regular system that no xtra men will be required. Horse and not motor ambuances are in view, the estimate being made that six horses ill suffice for both ambulance stations. The net cost of he whole system is calculated at a little less than £1,200. t is only by the work being taken up by the Police Comittee that any ambulance system can be established in he city without recourse to Parliament for further powers nless the Corporation should resolve to pay the whole xpense out of its own cash.

Medical Men and the Victoria Cross.—We are minded by a correspondent that the medical departent of the navy has also contributed to the list of edical V.C.'s, the honour having been won by the late taff-Surgeon W. J. Maillard, M.D., V.C., in 1898, during the operations at Candia. The action for which the decoration was awarded him was officially described as follows: "During the landing of seamen from H.M.S. *Hazard*, Surgeon Maillard, who had disembarked and reached a place of safety, returned through a perfect deluge of bullets to the boat, and endeavoured to bring into safety Arthur Stroud, ordinary seaman, who had fallen back wounded into the boat as the other men jumped ashore. Surgeon Maillard failed to bring Stroud in only through the boat being adrift and it being beyond his power to lift the man (who was almost dead) out of so unstable a platform. Surgeon Maillard returned to his post with his clothes riddled with bullets, though he himself was unhurt." In the same connexion, it may be noted that the military correspondent of the *Globe*, in a comment on a publication dealing with "The bravest action I ever saw," calls attention to the absence in it of any mention of the action of the late Surgeon A. J. Landon. "If any man deserves," he says, "to be remembered as an example to others of pure devotion and self-abnegation, that man, in my opinion, is Surgeon Arthur J. Landon, of the Army Medical Department." When the troops were driven from Majuba Hill, Landon remained to attend such wounded as could not be removed. While so doing he himself was shot through the spine, and partly paralysed. Nevertheless, he continued to drag himself about, injecting morphine and in other ways attending to those whom he could reach. With the rest of the wounded he remained all night on the hill in the cold and rain, and died two days later. He was a student at St. Bartholomew's, and a memorial brass was erected to his memory by his fellow-students in the church of St. Bartholomew-the-Less.

The "After-care Association."—The annual meeting of this useful society, which ministers to the needs of poor persons discharged recovered from asylums for the insane, was held on February 15th, at 62, Wimpole Street, by the kind invitation of Sir Richard Douglas Powell, who presided. The report presented by the Secretary, Mr. Thornhill Roseby, stated that the number of cases helped during 1905 had been greater than in any previous year. No less than 288 applications had been considered by the Council. The total receipts had been £1,064 5s. 3d., but this amount included a legacy of £200 from the late Mr. F. O. Mocatta. The expenses for the year had somewhat exceeded the ordinary available revenue, and an earnest appeal was made for an increased subscription list. The Chairman said that no class of the afflicted were entitled to greater sympathy than the mentally afflicted. The cases, however, were to a certain extent hidden away, and consequently a society to aid them laboured under a disadvantage in appealing to the public. With the advance of medical science and the awakening of the public conscience, the treatment of lunatics had been vastly improved, and the profession now looked on insanity as a sickness of the brain rather than a thing apart from medicine. Humanity had compelled the erection of large institutions for the scientific treatment of the insane, and the result had been that patients lived longer than formerly, and many recovered partially or even entirely. This necessitated a further step, and the After-care Association had been established with a view of enabling poor persons discharged recovered from asylums to resume an active part in the world's work. This the Association did by grants in aid, by looking up and influencing the friends of patients on their behalf, by providing cottage homes when a further period of convalescence was desirable, and by educating public opinion. To find the particular employment suited to the particular case was often difficult, and the charity was the only one of its kind in the United Kingdom. Dr. H. Rayner, Chairman of the Council, moved the adoption of the report, remarking upon the steady progress of the Society, and on its extended field of work. He laid stress also upon the importance of all work as supplementary to that of the asylum, tending to consolidate recovery, and thus prevent relapse. The adoption of the report was seconded by Mr. H. J. Tennant, M.P., who urged that all public asylums should have at command funds to help discharged patients; and supported by Dr. G. H. Savage, the Treasurer, who remarked that premature discharge from care after an attack of insanity often led to relapse. The report was adopted; and the Council and officers having been re-elected on the motion of Drs. Robert Jones, Sidney Coupland (Commissioner in Lunacy), and Claye Shaw, a cordial vote of thanks (proposed by Dr. Percy Smith and seconded by Dr. Pasmore) to Sir Richard and Lady Douglas Powell brought the proceedings to a close. The offices of the Association are at Church House, Dean's Yard, Westminster.

British Medical Journal.

SATURDAY, FEBRUARY 24TH, 1906.

THE USE OF DIACHYLON AS AN ABORTIFACIENT.

DURING the last twelve years the attention of the profession has repeatedly been drawn to the prevalence in the Midland Counties of cases of plumbism in women caused by the ingestion of diachylon with the object of procuring abortion. In Birmingham, Leicester, Derby, and especially in Nottingham and Sheffield, as well as in the colliery districts adjacent to these towns, the practice has grown, so that now the cases of poisoning from this cause occurring in the course of a year are to be numbered by hundreds.

The practice is not known to prevail largely in London, either because in reality it does not exist or because the cases are not recognized by medical men, and hence, perhaps, has not excited the consideration which the seriousness of the evil deserves. In this connexion it may be mentioned that in the Midlands many practitioners who had not previously observed it now find it quite common, either because it has really increased or because they have learnt the necessity of looking for evidence of plumbism. In the out-patient rooms of the Nottingham and Sheffield hospitals it has become a routine practice to examine the gums of female patients.

There is reason to believe that the practice is growing rapidly, and there is abundant evidence to show that serious injury to health and even loss of life ensue from it. Hence it is satisfactory to find that the Medico-Political Committee of the British Medical Association has appointed a Subcommittee to investigate the evil, and to make suggestions for checking it. The paper by Dr. Hall (Sheffield) and Dr. W. B. Ransom (Nottingham), published elsewhere in this issue, will give some idea of the extent of the evil in Nottinghamshire, Derbyshire, and South Yorkshire.

It is obvious that caution is needed in attempting preventive and remedial measures by legislation, but the Subcommittee has already had a conference with representatives of the Council of the Pharmaceutical Society on the subject, and it is intended to approach the Privy Council and the Home Office.

Lead poisoning from the improper use of diachylon is actually in the Midlands of England a more potent cause of disease, and perhaps of death, than plumbism from industrial sources. It affects the mother and, as shown in an interesting paper in the BRITISH MEDICAL JOURNAL of February 3rd by Messrs. Heelis, Jacob, and Trotman, may affect the offspring. It is a real and great danger to the health of the country, and may fairly claim the earnest consideration of the Legislature.

PRIMARY INTESTINAL TUBERCULOSIS.

THE extraordinary amount of work on tuberculosis in childhood, *Perlsucht* and intestinal infection, to which pathologists, clinicians, and others were incited by Koch's famous London communication in 1901 has resulted in an unwieldy mass of literature. This has now been brought within compassable limits by the publication of Dr. Livius Fürst's digest of all recent publications.[1] His book focuses upon the numerous subsidiary inquiries bound up with the all-important question of *Perlsucht*-infection by feeding, the very diffuse illumination to be obtained from laboratories, hospitals, and other sources all the world over. If Dr. Fürst himself contributes but little light, he at least—to push the simile a little cruelly—plays the condenser efficiently, providing the wherewithal easily to appreciate the present position of the whole matter. That there is even yet little finality about results is a warrant for his compilation; at the same time, his conclusions, so far as they go, are definite, and culminate in a statement for which all who have read the reports published in the BRITISH MEDICAL JOURNAL within recent months, and more especially the able paper read by Kossel at the Paris Congress, must certainly be prepared. Speaking of the danger to children of intestinal infection by means of milk, Koch said: "I therefore do "not deem it advisable to take measures against it." It is this statement that has been traversed by almost all the most recent writers, and Dr. Fürst, with perfect justice, sums up the evidence in favour of a continuance of all existing measures for the prevention of such infection. On the question of the identity of the *typus bovinus* and the *typus humanus* a compromise has been effected. It may now be stated that the two bacilli, with their acknowledged morphological and cultural differences, are varieties of a common prototype.

The transmissibility of bovine organisms to man, and of the human bacilli to cattle is proved to be a possibility. It may be noted, however, that Kossel[2] still denies the probability of the latter. When the transmutation of types comes under consideration there is still less agreement; von Behring's experiments on goats here recorded have since been severely criticized by Kossel on the grounds of the long interval elapsing before recovery of the organisms was attempted, and the consequent possibility of interim infection with human bacilli.

It is, however, interesting to study in conjunction, von Behring's[3] well-known view, the lineal descendant of the dicta of Buhl and Laënnec, that phthisis in adults is a recrudescence of disease latent since infancy, with Nathan Raw's most recent conclusions as to the prevalence of bovine infection in children, and the frequency with which the resulting disease becomes quiescent. The idea suggests itself that instead of two distinct diseases, as Raw appears to believe, the adult lesions are the outcome of activities reawakened in long latent bovine bacilli, modified by that very long residence which the goat experiments proved to be necessary for "transmutation." Here, again, Kossel's observation that lesions characteristic of the workings of both types of bacillus may coexist in an individual becomes of importance.

Fürst concludes, as regards latency, that a year-long quiescence must be conceded. The evidence of statistics is calculated to depreciate the importance of *Perlsucht* in the spread of tuberculosis in humans, but Raw points out that whilst phthisis is on the decline numerically, cattle disease and tabes mesenterica both show an increase, though in dissimilar proportions.

The general impression amongst pathologists is that the occurrence of infection in children by milk containing *Perlsucht* bacilli is infrequent, and not of more importance than hereditary transmission. Here Raw's figures are noteworthy: of forty-six fatal cases of tabes mesenterica in young children, a parent was phthisical in only four instances, and of the whole forty-six only two were at all probably due to *typus humanus*.

---

[1] *Die intestinale Tuberkulose-Infektion mit Besonderer berücksuchtigung des Kindesalters* [Intestinal Infection in Tuberculosis, with Special Reference to Childhood]. Von Livius Fürst. Stuttgart: Ferdinand Enke. 1905. (Demy 8vo, pp. 318. M. 10.)

[2] BRITISH MEDICAL JOURNAL, December 2nd, 1905.

[3] Ibid, July 12th, 1905 p. 190.

The occurrence of primary intestinal tuberculosis is no longer disputed, but its frequency bears no proportion to the number of children using raw or insufficiently heated milk. Such lesions, as a rule, show no tendency to dissemination or generalization. Secondary infection of the intestinal mucosa in the phthisical by swallowed sputum is of course undoubted.

The possibility of enterogenous infection without a persisting recognizable lesion of the mucosa is also established. Basso's most recent work on infection through the female genital tract supports the view that an intact surface is susceptible; but the vaginal wall does not permit the passage of bacilli without at least some temporary inflammation of the superficies; it also affords confirmation of the view that a germinative infection—that is, by semen from tuberculous male genitalia—is possible. Infection by way of the placenta is proved.

That milk may be infected by cattle having lesions other than those of the udder is highly probable ; and, further, cows without clinically-recognizable lesions, f they react to tuberculin, are capable of infecting milk, and constitute a serious menace. The mixing of milk from many cows enhances the risk of infection.

With regard to the prevention of tuberculosis in children, Fürst finds that all the existing lines of attack must continue to be developed, since it is not yet certain which method will prove the most practicable and efficient. Cattle must be immunized, cowsheds must be systematically cleansed, and the production of germ-free milk attempted, or, failing that, disinfection practised; at the same time contact infection between ndividuals must be prevented. He recommends, in fact, a continuance of the regulations at present in force in Germany as to the production, distribution, and storage of milk.

Von Behring's protective inoculation of cattle with bacilli of the *typus humanus* is commended as a valuable nd apparently practicable means of dealing with the problem; and, so far as it goes, the possibility of mmunizing cattle against *Perlsucht* by derivatives of he *typus humanus* has value as evidence with regard to he question of "identity" or "non-identity"; and Kossel's recent objection that tuberculins from avian sources, and even "acid-fast saprophytic bacilli in no way identical with tubercle bacilli" may confer protection against tuberculosis only begs the question of specificity.

NATIONAL VITALITY.

YDNEY SMITH once said his friend Francis Horner was o extremely serious about the destinies of the human ace that he had to compose his face half a street off efore meeting him. The matter is one we all look pon as a very serious one nowadays. The problems of hysical deterioration and the regeneration of the race re now discussed everywhere—in the drawing-room as n the platform. We all profess to be anxious about osterity, but the truth is we have somewhat suddenly wakened to the fact that physical degeneracy means anger to the nation in the present, as well as in the ture. It may, perhaps, be doubtful if physical deterioration, at least in any way that can be tested by measurement, is yet widespread; but there can be no doubt that it is an evil which becomes more and more threatening. The history of recent wars has shown that in non-mensurable and imponderable qualities, such as brute courage and what is called staying power, we are appreciably inferior to the men who fought under Nelson and Wellington. This is the inevitable result of the more luxurious habits and finer sensibilities which the advance of civilization brings in its train. As Sir Frederick Treves pointed out at Manchester the other day, the nervous system is rebelling as the result of the rush and wear and tear of modern life. To many observers our people seem to present many of the social features which marked the beginning of the decay of Rome. Now, as then, luxury and effeminacy have taken the place of the robust, if coarse, virility of an older time. The ravening passion for advertisement—by crime, if it can be had in no other way; the love of public ways which public manners breed; the court paid by society to mimes and mummers; the fierce rage for gambling and the sacrifice of every duty to pleasure; the vulgar display of wealth and the cynical indifference to anything that cannot be estimated in terms of money, which are among the marks of modern society, recall to some pessimists the time when Nero—the real originator of the doctrine of art for art's sake—burnt Rome to make a "grand spectacular display" representing the downfall of Troy town. The vitality of the nation, which is something altogether different from the vitality of the individuals composing it, is being sapped by these causes and by others that need not be named.

Is this an inevitable fate that overtakes all nations as the end of their natural term of life? Or is it an evil against which we may strive with hope of success? We gather that Dr. T. H. Hyslop holds the former view. In opening a discussion on the vitality of nations at a meeting of the Society for the Study of Inebriety held on January 9th, he said that not only did races have their periods of increased virility, vitality, greatness, and subsequent dissolution, but the inoculation of a community with a virus—so to speak—which led to its greatness was followed in due course by diffusion and attenuation, and this conferred immunity against further infection or regeneration. This law, according to him, is exemplified in the history of every decayed race, and from physical, geographical, ethnological and psychological considerations, it appears to him that mankind is not only approaching the summit of attainment, but also possibly growing old. It is demonstrable, he says, that our acquisitions and attainments, derived as they are from the artifice of civilization, are not only impediments to true mental evolution, but tend to submerge and render less vital the human mental faculties. Civilization brings with it evils which render decay inevitable. Like other nations which have lived and died, we have known freedom and glory. Wealth, vice, corruption, and barbarism are but the sequels.

Is there any remedy that will check the process of national decay? Dr. Hyslop considers that the tendency is to deal with symptoms rather than with the constitutional defects which gave them rise. Thus we are told that compulsory education has been devised for ignorance and vice; free education and free food for pauperism; crêches for parental irresponsibility; innumerable methods of caring for the aged to remedy filial irresponsibility; and so forth. According to Dr. Hyslop, this may be termed the "splint age," inasmuch as we apply philanthropic anodynes, splints, and poultices which either make or mask symptoms that are already, or soon become, evidences of constitutional importance. Among these "splints" he apparently would include the municipal supply of milk to poor mothers unable to feed their babes, and, in fact, every form of help to weak brethren connoted by the word charity. Of course, if we are to be logical in our application of the doctrine of evolution, all efforts to preserve the lives of the unfit must be regarded as anti-social. But did not Huxley himself in his later days come to see that evolution cannot be taken as a gospel for the moral guidance of man, as it tends to the extinction of all that we call highest and best in human nature? A race of magnificent persons, such as Walt Whitman dreamed of, in whom the two fundamental instincts of our nature—self-preservation and reproduction—had become developed to the point of destroying that love which is stronger than death, pity for the weak, unselfish devotion to duty and self-sacrifice, would be a nation of monsters. Physical regeneration is certainly necessary, and to the attainment of that end the elimination of the two great factors of national decay, alcohol and syphilis, must take a prominent place in any scheme of reform. But moral as well as physical qualities go to the making of national vitality, and it is in the development of these that is to be found the remedy for some of the evils which tend to undermine the stability of nations. The strength and greatness of a nation do not lie in the sinews of its people, nor in the moneybags of its traders, nor in the glibness of its orators, but in the devotion of its citizens to a lofty ideal of public and private duty; in their love for all that is true and good and beautiful, and their hatred of all that is false, evil, mean, and ugly; in their strenuous pursuit of knowledge and their readiness to apply it to the making of life larger, fuller, and happier for all.

◆

WARNING NOTICES.

The activities of the kind of insurance society to which we referred on February 10th (p. 340), in connexion with Cardiff, are evidently widespread. Thus we have received from a Staffordshire correspondent particulars of one such undertaking, the Universal Insurance Company (Limited), which has its head quarters at Leeds. Among a large variety of policies, this company has one which for 6d. a week insures 10s. a week for thirteen weeks during disablement from accident or any one of fifteen scheduled diseases, including, besides the usual specific fevers, such disorders as hemiplegia and paraplegia, appendicitis, locomotor ataxia, and ptomaine poisoning. In addition to this, the policy provides for the payment at death of sums varying from £41 to £4 9s., according to the age of the person insuring. Medical certificates are required by the company in cases of disablement by illness or accident, and for the first certificate in each case the company offers to pay its medical referee 1s., in return for which he has not only to state the nature of the illness or accident, and guarantee that it falls within the meaning of the policy, but also to estimate the duration of the disablement. Subsequent certificates are to be paid for by the insured person at the rate of 6d. each! According to the letter received by our correspondent from the general manager, "This policy "has proved a very great blessing to many homes." Without calling this statement in question, we may venture the opinion that the homes were not those of the medical referees of the company. The letter inviting our correspondent to act as referee to the company is a remarkable document in several respects. The general manager states that several companies have failed in this kind of business chiefly owing to the amount of malingering they encountered. This difficulty he believes he has overcome by eliminating from his risks "all lung diseases and those easily "imitated," and by abandoning the system of "allowing "any doctor to give a certificate," which he says "has "serious drawbacks," since "there are some who are "indifferent to the justice of the case and favour their "own patients, making few (if any) inquiries." After this we cannot refrain from asking what number of inquiries a shilling's worth of medical examination should include? Finally, as though conscious that the fee offered might be regarded as somewhat inadequate, the writer points out that "many certificates are required," that "the number is rapidly growing in nearly all "districts," and that "it is obvious that this should be "a powerful lever for extending a practice," and therefore of value to professional men. Our correspondent believes that here "we have touched bottom at last," but he has probably not seen the prospectus of another institution hailing from Birmingham—the Birmingham and District Mutual Trading Co., Ltd. This company boasts that it is prepared to "supply all your "wants, from a packet of needles to a motor "car." Condescending to particulars, it announces, "we are prepared to let you have medical attend-"ance, dentistry, household furniture, clothes of all "descriptions, cycles, pianos, mailcarts, photos, "or anything you desire, on the gradual payment "system." The public is further assured that "the "utmost secrecy is observed." This fact and the insistence, in large capitals, on the company's willingness to supply "anything and everything on terms to suit "yourself," forcibly suggest the possibility that even money itself might be provided by the company on the "gradual payment system." In fact what the company actually offers is its "cheque which can be spent at one "or twenty different shops in Birmingham, Wolver-"hampton, West Bromwich, Dudley, and most places "in the district." This company's method of approaching the medical man is very insidious. Our correspondent states that the "accounts are made out in the "patient's name (the doctor's own fees being charged) "and are sent to the head office, who pay them, receiv-"ing a discount of 10 per cent." We think the advantages of being paid their own fees, less 10 per cent., b this company are not sufficiently obvious to induc many medical men to allow their professional services to be thrown in with perambulators, clothe and photographs, "on the gradual payment system. The warning notice published on p. 57 of the adver tisements of this issue contains the names of eightee places where disputes between the medical professio and certain organizations are in existence. The include Northumberland and Durham, Leigh (Lanc Infirmary, Macclesfield, Aberaman, Bridgend and Cardi in Glamorganshire, Abertysswg, Blaenavon and Ebb Vale in Monmouthshire, Solva in Pembrokeshir Aberystwith, Southampton, Bitterne and the neighbourhood, Portsmouth, Lowestoft, Cork, the Orang River Colony (South Africa), Pretoria (Transvaal), an Auckland (New Zealand).

THE VALUATION OF THE NOSE.

How is the value of a nose to be estimated? Evidentl the question may be looked at from widely differe points of view, according as the feature is considered i its ornamental or in its merely utilitarian aspect. broken nose leaving permanent deformity may wre the life of a beautiful girl, and may even seriously interfere with the prospects of a young man. We ha known a case in which a clergyman had his nose damaged by a fall from his horse that he was compell o abandon the pulpit for the seclusion of a theological ollege. The nose of a leading statesman was not long go described by Mr. George Meredith as "adventurous"; let us suppose that the feature which it is thus nplied has been an element in its owner's success had t the outset of his political career been "put out f joint" in a literal, as it has lately been in figurative, sense. How could what President ruger would have called the "moral damages" have een assessed? Every one knows that Thackeray's ose was broken in early life, but it seems to be doubtful hether in an aesthetic sense he was much injured y the accident. We have tradition and the positive stimony of Sir Wemyss Reid in favour of the legend iat Thackeray's boyish beauty was spoilt by the fist his school-fellow Venables, who in after years was ngenerous enough to throw the blame for the peranence of the deformity on the "fool of a doctor." n the other hand, Mr. Holman Hunt in his recently-iblished book, *Pre-Raphaelitism and the Pre-Raphaelite rotherhood*, tells the following illuminating story: Once when I had been dining with him [Thackeray], seeing a marble bust of him as a boy, I remembered the reported remark of the housekeeper at Charterhouse (after his pugilistic encounter with Venables), 'You have destroyed the good looks of the handsomest 'boy in the school,' she said to his antagonist on seeing the bruise which Thackeray's face had received. The bust was well modelled and carved, and admirable for its open expression. It registered the form of the nose, the sinking of the bridge which distinguished his handsome, dignified face. When I had silently decided this, Thackeray noticed me and exclaimed, 'I know what you are wondering at; you want to know whether the bust was done before or after! Well, it was done before.' This being so, one could see that his antagonist was properly exonerated from the heavy charge made against him at the time." iis interesting narrative shows how hard a thing it is get at the historical truth of the most trivial matter; t it gives no help in the solution of the problem iich we set out to discuss. In a case tried in the ng's Bench Division on January 19th a lady was arded £500 as damages for a broken nose. Mr. Justice gham laid down what, we suppose, must be taken as principle of valuation as applied to the nose. "If ay nose," he said, "was injured, I do not suppose the ury would award me anything; but a lady stands in a ifferent category." On the other hand, in the Bradd County Court, an electrical engineer was lately arded £15 damages for a broken nose. Two cases tried France illustrate the principle. In one the court ed at £32 the damages to be paid to a man whose nose d been broken in a fight. On the other hand, in a case ich was recently before the Civil Tribunal of the ne, the Court awarded £120 to a young lady of 20 the ularity of whose nose was somewhat impaired as the ult of a collision between an omnibus and a tramy car. Even granting that disfigurement is of greater portance to a woman than to a man, the difference ween £32 for fracture of the nasal bones, and £120 slight derangement of its regularity of line is aarkable. As the girl was an artist's model, hower, an injury which would be an unconsidered trifle man, was probably a serious matter as it may have vented her from earning her livelihood.

DOCTORS' LATIN.

SME time ago the Lord Chief Justice asked a medical ness if he really suggested that doctors' Latin was ssical. Whereunto the witness cautiously replied, ome of it." At its best it must, we fear, be admitted t doctors' Latin is, in the words of a distinguished fessor, "doggy and mediaeval"; for our own part we would go so far as to say that it is more "doggy" than mediaeval. At its worst it is a *monstrum horrendum* with which no respectable dog would own kinship. For this there can be no excuse, for no one nowadays is obliged to use Latin, except in the abbreviated form which a merciful convention allows. When a man writes of *coagulae*, or *scybalae* or *meati;* when he describes something as *urbs in ruri* or declares that *lapsit quaestio*, we feel more anger than sorrow, because Priscian is scratched with such needless cruelty. We commend the case to the sympathetic attention of antivivisectionists. The instances we have quoted have been culled from the pages of some highly-valued contemporaries, but our own withers are not unwrung. Candour obliges us to confess that in moments of inadvertence we have suffered distinguished authors to perpetrate such outrages as *coxum varum* and *morbus dormitiva.* For these lapses we should do penance in a white sheet. We would not have it thought, however, that such blunders are a monopoly of the journals of this country. Our American cousins "whip creation" in this as in all else. Only the other day a guileless correspondent wrote to our transatlantic homologue to ask why the phrase *in vitro* was used by many writers whose meaning would be equally well expressed by the English words "during life"! In another American contemporary an author grievously libelled the dead by attributing to a mediaeval writer the sentence *Propter uteri est mulier id quod est.* The able editor of a third seemed to cherish the fond delusion that he was quoting Horace when he asked *Ridentum dicere vera quid vetat?* It might perhaps be thought that the Anglo-Saxon race with characteristic independence considered itself, like the Emperor Barbarossa, as *supra grammaticam.* But your Teuton is nothing if not obedient to authority. Moreover, our Germanic brethren are rather by way of pluming themselves on their superior education. Yet even they occasionally kick over the traces of Latin grammar. In so carefully-edited a periodical as the *Centralblatt für Gynäkologie* we have found the remarkable form *ossis (uteri)*, presumably intended for the genitive of *os*. *Os*, in the sense of mouth, seems to be a special stone of stumbling to medical writers, for *per orem* is so frequent that it has almost conquered recognition for itself—at least in medical literature—by violence. In a Vienna medical journal not long ago a case of what was called *ruptura fundus uteri* was reported. The Latin nations, in whom it might be expected that heredity of speech would operate as a preventive of such solecisms, treat their ancestral tongue just as ill. In the *Revue de Chirurgie* last year an eminent surgeon was allowed to record a case of *scapulum alatum*, and in the current number of the venerable *Archives Générales de Médecine* a learned doctor tells us that *sine Bacchus friget Venus.* Worse than all, perhaps, is the phrase *corpus sanus*, which we once came across in a Portuguese contemporary, the *Coimbra Medica.* On this atrocity the curtain may be rung down. By way of epilogue we need only say that if some doctors' Latin is classical, more of it is decidedly barbarous. But at its worst it scarcely equals that of the French journalists who with a light heart write *Reddate Caesaro quod est Caesari*, and *nil novo sub soli.*

THE BEGINNINGS OF BERCK.

THE name of Berck-sur-Mer is now known throughout the world as that of the place where one of the most useful enterprises of modern philanthropy is carried out. That work has grown from very small beginnings. Those, writes M. H. Barbier in a recent article, who know Berck-sur-Mer as it now is, with its villas, its houses, its hospital establishments, and the animation of its life, can form an idea of what it was in 1857 from an engraving by Cazin. The engraving shows a sullen sea crawling in towards sand dunes in unceasing movement. Between these stretches a sandy beach, desert and desolate; behind this lies a flat country where the wind from the sea bends and uproots trees. On the beach there were but two little fishermen's huts. On a fine day there might have been seen an old wife wearing the coif of the country women of the Pas-de-Calais. She trundled before her a wheelbarrow full of small children, all of them pale and most of them crying. Clinging to the old woman's skirts were others with crutches. When they got down to the sea, the old woman took out the children, took off their clothes, and in some cases coarse dressings bathed in pus. She then plunged them into the water, and after dressing them again, let them play about the beach. When the sun went down or the tide went out, she put them again into the barrow, and wheeled them to the village of Grosflier, where they lived with her. The cottage of widow Duhamel, for that was the old woman's name, was, according to M. Barbier, the first seaside sanatorium. The children were placed in her charge by Dr. Perrochaud, of Montreuil-sur-Mer, to whose care they were entrusted by the Assistance Publique of Paris. In co-operation with M. Frère, divisional inspector of the Assistance, he had made the experiment of exposing "scrofulous" children to the sea air with marvellous results. By and by, as widow Duhamel became too old, and lived too far from the sea, the children were placed with another old woman, Marianne Brillard, who lived in one of the huts on the beach; so lonely was her way of life, that she was known in the neighbourhood as "*Marianne toute seule*." What Berck-sur-Mer now is our readers have learnt from a Special Commissioner, who gave a full description of the place and the work done there in an illustrated article which appeared in the BRITISH MEDICAL JOURNAL of June 11th, 1904.

MISSED LABOUR.

THE very possibility of this condition has been contested, and the explanation of several specimens believed to illustrate it has been much disputed. Both in Oldham's and Robert Barnes's cases it has been suggested that the fetal remains entered the uterine cavity from an extrauterine sac which had formed a communication with it, a condition verified in a fatal case related by Dr. Galabin. Quite recently an example of missed labour has been related by Dr. Choojka of Prague,[1] it was associated with placenta praevia centralis. The patient was 39 years of age, and had not married until thirty-one, yet had been five times pregnant since marriage. At her first labour, which was very lingering, she was delivered of dead twins, later on retroflexion developed. Her fifth pregnancy ended in the birth of a very big stillborn child. The patient once more became pregnant, and expected term by the beginning of last July. On July 27th active fetal movements were felt, followed by strong labour pains, which soon subsided. There was no haemorrhage, nor escape of waters. Two months later, ten days after the patient had come under Dr. Choojka's care, strong labour pains set in, and mucus stained brown with old blood came away. The pains subsided for a few days, ceased one day, and on the next, September 28th, returned with remarkable violence. A very big head presented, extraction was effected safely by drawing down the shoulders. The bulky fetus was decomposed, and weighed 11 lb. Some fetid liquor amnii mixed with grumous material came away; it was believed that no "waters" had been discharged during or between any of the spurious labour pains from July onwards. There was already part of the placenta in the vagina, and the further course of the labour showed that the obstetrician's hand must have passed through it to reach the fetal head. The strong pains recurred after the extraction of the child, and then it was found that the greater part of the placenta had been retained in the ill-evolved cervical canal. It was of abnormal size, covering the greater part of the uterine cavity. This giant placenta was atrophic, thin, very friable, and rough as though strewed with sand; there was, however, no pathological condition in the placenta or cord that, in Dr. Choojka's opinion, would account for the death of the fetus. The mother recovered. Dr. Choojka insists that his case is an authentic instance of missed labour. He relies on the history of the patient, who was "very intelligent." We must note that it is not recorded that the patient definitely gave the date of the last menstrual period, and that it is clearly stated, on the other hand, that she had been subject to amenorrhoea for a year after the fifth labour, and for seventeen months after a previous pregnancy ending in abortion. During this sixth abnormal pregnancy the patient had kept herself on very low diet to prevent the development of a fetus as big as that which was borne in the fifth pregnancy. Dr. Choojka considers that the over-development of the placenta was the cause of the abnormal end to the pregnancy. The lower uterine segment could not develop, hence uterine contractions during pregnancy were absent or too slight to be remembered, and it followed that there were none of the haemorrhages usual in cases of placenta praevia. There being no contractions, the cervical canal could not dilate; the portion of the placenta attached to the os was not detached; at the same time the big head of the bulky fetus pressed the placenta against the uterine walls; this pressure prevented bleeding, but was insufficient to dilate the ill-evolved uterine wall near the os, hence the cessation and long postponement of labour. The pressure on the placenta proved fatal to the fetus. No doubt, as we have hinted, the interpretation of this interesting case will be disputed by obstetricians; therefore it is to be wished that all who mention it in any textbook, monograph, or discussion as an instance of missed labour will carefully study the original report, which is brief and clear, if not conclusive.

THE CENSUS OF LONDON.

As the President of the Local Government Board has given notice of his intention to introduce a Bill to amend the London Equalization of Rates Act, 1894, it is probably safe to assume that the experiment made in 1896 of taking an intermediate census of London will be repeated. The information obtained in the census taken in 1896 was very incomplete. Representations were made to the Local Government Board by the British Medical Association, the Society of Medical Officers of Health, the Royal Statistical Society, and the Institute of Actuaries, through the London County Council, asking that the intermediate census might be as complete as the decennial census. The population of London shifts so frequently that after a few years the vital statistics deduced from the decennial census become unreliable. Information was desired especially with regard to age; it was also asked that the number of houses in the different wards should be shown, and that the detailed return should be ultimately printed. The London County Council was willing to bear the extra expense, but the Local Government Board refused to ask for more than the name, sex, and relationship to the head of the family. The omission of the statement as to age rendered the census useless for any study of the age distribution of the population, which has a most important bearing upon the interpretation of its mortality and health returns. It is to be hoped that the Bill now to be introduced will contain a clause providing for the entry on the schedule of particulars as to age at any rate.

---

[1] *Zentralbl. f. Gynäk.*, 1905, p. 1324.

REFINED FOOD AND FOLLY.

THERE are a certain number of medical men who, for some reason, reserve their more illuminating deliverances for the readers of lay periodicals and the daily press. This is not quite kind to their *confrères*, since the task of keeping in touch with the progress of medical science is thus rendered more difficult for them. An instance in point is supplied by an article in a recent issue of the *Daily Express*. It is by Dr. J. Stenson Hooker, who, in an editorial note, is described as "the scientist who developed Professor Blondlot's *n*-ray theory, and discovered that every human being is surrounded by coloured rays." Being thus thoughtully posted up as to the attainments of the writer the eader naturally expects something good—and he gets t. The article is entitled "The Effects of a Refined iet," but we are nowhere informed *totidem verbis* in vhat a refined diet consists; and in an article addressed o those whose colour emanations are still obfuscate, his is an omission of some importance. It is lear, however, that a gross feeder and unclean liver s a person who eats meat as well as vegetables, o that it may be concluded with some assurance hat for "refined" may be read "vegetarian." In any ase, the results of changing from a gross to a refined iet are striking in the extreme. The small muscles of he face are toned up; the body becomes more symetrical, more agile; the step more elastic, the eye more right; the face, voice, and expression more refined. In ddition, the refined feeder becomes a man as to whose ecovery, whatever his illness may be, his physician has one of those doubts which obsess him when he has deal with the obese mixed feeder. But, besides ese physical results, there are others equally viting. The mentality of the refined feeder improves quality—it is clarified; new thoughts occur more adily to him and his ideas move more spontaneously. pparently, indeed, they jet up as freely as the fountains Trafalgar Square, and perhaps do almost as much fective work. There is further attraction to the convert the thought that his colour emanations may improve tone—those marvellous psychic emanations by which e are all of us surrounded, and for a knowledge of hich we are so much indebted to Dr. Stenson Hooker mself. In due time his ugly chocolate or even greenloured aura will diminish in intensity; he may even pe one day to present himself to his friends arrayed a rosy psychic garment lined with grey. This sounds ry attractive, but on the other hand the thought curs that, if our lady friends also become refined eders, our artistic instincts may sometimes be ended. Imagine, for instance, the effect of the aring of a Paquin creation in mauve silk, by a lady ose psychic aura is a rosy pink! All these results of fined feeding may seem rather amazing, but they are ite easy to understand when it is known how they brought about. We are unable to explain this at ll length, because Dr. Hooker's explanation is too struse for any but readers of a paper like the *Daily press*. It may be stated, however, that they are all e to the fact that the atoms which make up the ined feeder's body are smaller than those of the gross er, and therefore vibrate more rapidly. That is the ret of the whole thing, and must be convincing to se who can think in millions and have reached the gher plane. For ourselves, we can only say that the pression left by the article is that the day of the tcher is gone, since few will resist the attractions of simpler life as therein explained. Nevertheless, we nain in some doubt as to whether its author is one of those who practise what they preach, because while the spontaneity of idea and newness of thought seem to betray the refined feeder, the clarity of mentality which we are told characterizes him seems somehow lacking.

THE LONDON SCHOOL OF CLINICAL MEDICINE.

BOTH the officers of the Norwood Division and the promoters of the London School of Clinical Medicine are to be congratulated on the great success of the meeting held at the Seamen's Hospital, Greenwich, on February 15th. A full report of the proceedings appears in this week's SUPPLEMENT. The attendance, including guests, numbered about 120; in addition to members of the Division and most of the medical staff, there were present Admiral Sir Richard Tracey, Deputy Chairman of the Board of Management, Dr. Rogers, Sir Francis Lovell, K.C.M.G., and other members of the governing body. The wards and the rooms set apart for the work of the new post-graduate school were thrown open to inspection, and the demonstration of cases by Sir Dyce Duckworth, Sir William Bennett, Dr. Frederick Taylor, Mr. Mayo Robson, Mr. William Turner, Dr. Tanner Hewlett, Mr. Malcolm Morris, Dr. Guthrie Rankin, Mr. Vernon Cargill, Dr. StClair Thomson, and other members of the staff, which were followed with keen interest, served to give an idea of the wealth and variety of material available for teaching purposes. The out-patient department is for the present housed in the west wing of the building, but plans for structural additions and alterations are under the consideration of the Board. These, if approved by the Admiralty and adopted, will provide for a large number of patients and will, at the same time, allow of a notable increase in the bed accommodation of the hospital. If the scheme is to be carried through, the promoters will have to follow the advice of Iago and put money in their purse. But where, it may be asked, is it to come from? We are confident that if the fact that the Seamen's Hospital is in need of money is brought home to the public, no anxiety need be felt on that score. An institution which shelters poor Jack when he falls a victim to the manifold dangers of his adventurous life must appeal with especial force to every British heart. The hospital supplies a haven of repair and rest not to British sailors only, but to those of the whole world. On the ground of charity to a class at once especially deserving and peculiarly helpless, therefore, the Seamen's Hospital Society is justified in looking for a larger measure of support than it has yet received either from the people of this country or from the companies and shipping merchants of foreign nations. Money is also much needed for the development of the school. Its organization, and the aims and scope of its work, have already been described in the BRITISH MEDICAL JOURNAL; as Sir Dyce Duckworth, who presided at the meeting, pointed out, the staff of the hospital has been materially increased, and now includes among its members men well known to the medical world at large as excellent and eminent in their several departments. It is the aim of the Committee to encourage original research as well as to supply the means of instruction. This will necessitate an early enlargement of the laboratories, which, though complete in their equipment, are as yet sufficient only for a day of small things. The sick poor share to the fullest extent in the benefits of every advance in medical knowledge and every addition to the resources of medical art. Hospitals have a double function to fulfil: the direct relief of the sufferers under their care and the acquisition and diffusion of knowledge. The successful discharge of the latter function enables them more efficiently to fulfil the former. Hence hospitals which teach have a special claim on the support of the public, and in aiding a school of post-graduation study such as that now entering on what we hope will be a career of usefulness at Greenwich, the wealthy pay a premium for insurance against the possibility of unskilful treatment.

THE SCOPE AND LIMITATIONS OF ORTHOPAEDIC SURGERY.

IN a paper[1] read at the first International Congress of Physiotherapy at Liége last year Dr. Oskar von Hovorka deals with the scope and limitations of orthopaedic surgery and its relations to mechanical orthopaedics. He points out that the two cannot be separated, since they have developed concurrently, and with lapse of time have become inextricably welded together. Modern orthopaedy is a heterogeneous mixture, like nearly all other branches of surgery, and includes the nerve grafting and tendon transplantation of to-day and massage traceable back to hoary antiquity The extent of ground traversed by orthopaedic surgeons varies with the place and epoch. In England orthopaedic surgery has become limited largely to deformities of the limbs due to maldevelopment, either congenital or acquired. But the deformities due to diseases of the joints and bones are still excluded from books on this subject, although, no doubt, future writers on the subject will recognize how illogical is the position which custom has forced them to adopt. In America the position and scope of orthopaedics are on the broadest basis so far as the locomotor apparatus is involved. Again, in France much is included which in Germany is omitted. The conception, then, of the scope and range of this branch of surgery is a modern one, and is not yet clearly and universally formed. Dr. von Hovorka traces the term to Audry—"Orthopédie, ou "l'art de prévenir et de corriger dans les enfants les "difformités du corps"; in this definition he included errors of vision and speech, troubles connected with the nose and mouth, etc. After Audry, such surgeons as Bouvier and Bigelow, whether they used the term or not, restricted themselves to departures from the ideal form of the body and limbs, but included cleft palate, harelip, and strabismus. The influence of Volkmann and Hueter tended further to narrow orthopaedics to anomalies of the position of joints and contractures. At present the scope may be defined as any permanent deviation in direction or position, or any lasting interference with the function of the special locomotor parts of the human body. To mechanical orthopaedics belong "massage," gymnastics originating in the Olympian games and descending through the Swedish system and Deutsche Turnen, to culminate in the mechano-therapeutic measures of the present day. Lastly, orthopaedic apparatus belongs to this branch of surgery, and surgeons must acknowledge the debt they owe to mechanical geniuses, in spite of the fact that the latter have too often developed into lay practitioners. A first-class orthopaedic surgeon must be a good all-round general surgeon, skilled in all the newest and most up-to-date general surgical technique; he must be a thorough anatomist, and possess such a talent for mechanics that he can direct an instrument-maker how to make an apparatus and correct his errors.

IS A SENSE OF HUMOUR A HINDRANCE TO SUCCESS?

THE Rev. John Watson, better known, perhaps, as "Ian Maclaren," has lately expressed the conviction that a sense of humour is a hindrance to practical success in life. He said that young men should congratulate themselves if they lacked this dangerous quality, but, if they had it, they should hide it behind a sustained and impenetrable solemnity until they achieved a competenc and keep it as a luxury for their foolish old age. As fa as the medical profession is concerned, we are incline to think that in a general way the creator of Weelun Maclure is right. The days are past when every sel respecting doctor was expected to dress in a style tast fully blending the divine with the undertaker. But "sustained and impenetrable solemnity" is still priceless possession for those who would achieve succes in medicine. If this is a natural gift, so much the bette if not, it should be acquired at any cost. Eve in the darkest tragedies of human life there i often an element of comedy or even farce; an there are minds to which this element appeals wit almost irresistible force. But a doctor has to concer himself not with the humour of a situation, but wit the humours of the patient and his friends, and the he must treat with all due gravity. It is, of cours possible for a doctor to take his functions too serious The medical officer at the port of New York who th other day ordered an English sportsman describin himself as a jobmaster, and asking to be put down "jo lots, or anything you like," to be detained that inqui might be made into his state of mind, is a case in poin Himself, however, the doctor cannot take too serious A sense of humour is an obstacle to success holding in check the egotism and self-assertio which, if not in themselves proof of ability, are in the days necessary to secure its recognition. O of the most gifted men we have ever known did mu harm to his professional reputation by an irresistib humour, which spared neither himself nor other it discouraged serious-minded students, and puzzl patients. That a sense of humour may be an inco venience to its possessor is a truth to which eloque testimony could be borne by Professor Osler, w has scarcely yet lived down his joke about the elimin tion of sexagenarians with chloroform. A keen sen of humour is apt to be a sore trial in medic practice where every kind of folly is encountered. T persons with confident notions about their "live the credulous with their wonder-working quack me cines, the perversely ignorant who "don't believe doctors"—all these have to be dealt with according their folly. As George Eliot says, doctors have beyo most men the faculty of listening with perfect grav to the most abject nonsense. This is a fine art wh in most cases requires to be carefully cultivated. T cultivation is made easier by congenital want of th mental perspective and right appreciation of valu that enables men to see the little miseries of o poor human life, which make up a large part of medic practice, in their true light. If, therefore, a doctor afflicted with a sense of humour keen enough to rend him an object of suspicion to people who "jock w deeficulty" themselves, and who resent a joke fr any one else as an impertinence, if not an affront, will do well to keep it jealously hidden from his patie and from the public.

RED CROSS ORGANIZATIONS.

SHORTLY before the war in South Africa broke o Lord Lansdowne, then War Minister, formed a cent British Red Cross Council, comprising representati of the War Office, the National Society for Aid to Si and Wounded in War (founded by Lord Wantage 1870), the St. John Ambulance Association, t St. Andrews Ambulance Association, the Ar Nursing Service Reserve, the Royal Navy and Ar Medical Services, and the office of the Director Military Training. Only last July a further step w taken, when a meeting of the reconstituted Red Cr Council was held under the presidency of the Que

---

[1] *Die Grenzen und Wechselbeziehungen zwischen der mechanischen Orthopaedie in der orthopaedischen Chirurgie.* Von Dr. Oskar von Hovorka, Chef-Arzt am Zander Institut in Wien. Rapport présenté au Ier Congrès International de Physiothérapie, Liége, 1905. Antwerp: De Vos and Van der Groen. 1905. (Demy 8vo, pp. 25.)

From the monthly Army List for February we learn hat this Council has already been abolished, and has een replaced by an organization called the British Red ross Society. The President of this Society is the Queen and the King is its patron, Lord Rothschild is he Chairman of Council, and there is an Executive ouncil, with Sir Frederick Treves as Chairman; the ther members of the Executive Council are Major-eneral Sir J. C. Ardagh, K.C.M.G., Mr. A. A. Bowlby, .R.C.S., C.M.G., Sir J. Furley, C.B., Mr. A. K. Loyd, .C., Mr. J. Danvers Power, C.B., the Hon. C. Rothschild, nd the Hon. A. Stanley, M.P. The Secretary is Mr. . G. Vokes, who was for many years secretary of the ational Aid Society, and the assistant secretary is Ir. F. Hastings. The offices are at 9, Victoria Street, ondon, S.W. The object of the Society is to co-rdinate and consolidate the various organizations hich have existed for the purpose of providing Red ross assistance in time of war.

A PEDAGOGIC LABORATORY.

the *Revue Générale des Sciences* Dr. Alfred Binet, irector of the Laboratory of Physiological Psychology the Sorbonne, refers to the efforts now being made in rious countries to establish a system of regular phy-cal examination of school children with the object of llecting records that will throw light on the processes bodily and mental development and the peculiarities each child's constitution. At the International Con-ess of Education and Protection of Children held at ège in September, 1905, a resolution was passed animously that an international committee of peda-gy should be created whose business it should be to deavour to secure the introduction into schools of the ost useful results of scientific research. The Free ciety for the Study of Child Psychology founded in ance five years ago by M. Buisson already has a mem-rship of 600. That society has made extensive investi-gions which have cleared up some obscure points. It uld be a pity, says Dr. Binet, if the results of its ours were lost through not being tested in practice. this purpose he points out that the establishment a laboratory in connexion with a school is necessary. t periodical examinations and measurements would made, types of intelligence would be noted, and cial aptitudes discovered. In this way it would be sible to adapt the training to the child. Dr. Binet s that such a laboratory as he suggests has already n established by himself with the sanction of the horities in one of the schools of the city of Paris. s equipped with all necessary appliances for testing measurement, and for recording the results: erything, in fact, that can help us to know the dies and souls of our children." The teachers, who entered with disinterested zeal into the scheme, learning to use the instruments. Dr. Binet invites nterested in the work to visit the laboratory, which 36, rue Grange-aux-Belles, Paris.

ASSOCIATION BETWEEN EARS, EYES, AND CEREBELLUM.

as long been recognized that a close association een the nerve elements of ears, eyes, and cere-um must exist for purposes of localization and eciation of position. The observations of Edinger, steiner, Ramon y Cajal, van Gehuchten, and others demonstrated some of the paths by which nerve essions pass from the ear to the other organs, but knowledge has been confirmed and extended by the rimental researches of Giuseppe Tricomi-Allegra, results of which were demonstrated before the bers of the German Anatomical Society, and have recently published in the report of the proceedings at Society. The internal ear was destroyed on one in a number of dogs, cats, guinea-pigs, and rabbits. The animals were killed at intervals varying from two days to six months after the operation, and the degenerated nerve fibres proceeding from the ganglia of the eighth nerve were followed to their terminations. In this manner it was shown that fibres pass from the cochlear ganglion of the eighth nerve to the nuclei of the sixth, fourth, and third nerves, that is, to the nuclei of all the nerves associated with the muscles of the eye. The fibres going to the third and fourth nerve nuclei passed along the tract of the lateral fillet and along the same path fibres were traced to the lower quadrigeminate bodies and to the red nucleus of the midbrain. No fibres were traced to the cerebrum. There was no indication of a direct path between the ear and the brain cortex. Fibres from the vestibular ganglia of the auditory nerve were traced to the cerebellum, where they formed associations with the dentate nucleus, the other central nuclei of the cerebellum, and with the cells of the cortex of both sides of the vermis. It appears, therefore, that the cochlear root of the eighth nerve is connected with the nerve nuclei and other nuclei of the pons and mid brain alone, and the vestibular root with the cerebellum.

THE COMPARATIVE MORTALITY OF TOTAL ABSTAINERS.

The twenty-second annual report of the Abstainers' and General Insurance Company recently issued embodies an interesting table of the experience of 79,641 years of life of persons in the Abstainers' division during the twenty-two years 1884 to 1905. This is on a much smaller scale than the experience of the United Kingdom temperance institutions published in 1903, but its results are on all-fours with the latter. When the deaths "expected" are compared with those under the H^m table of the Institute of Actuaries it is found that at the aggregate ages 10 to 84 inclusive, the ratio of actual to "expected" deaths is only 47.4 per cent. of what it would have been with an identical experience to that of H^m table. The greatest superiority was shown at ages 35 to 44, when the actual was only 35.2 per cent. of the expected, and the least superiority at ages 65 to 84, when the actual was 86.0 per cent. of the "expected" mortality. The experience will become more valuable as it is more prolonged. Meanwhile it is scarcely possible that such a great difference as the above percentages indicate can point to anything other than a great superiority of life prospects among teetotalers over the general body of insured persons.

THE PATHOLOGY OF LEPROSY.

The United States Government has virtually decided upon the appointment of a pathologist to take charge of the hospital and laboratory for the study of leprosy on the island of Molokai. Dr. W. R. Brinkerhoff, Instructor in Pathology at the Harvard Medical School, has been selected for the post. Dr. Brinkerhoff co-operated with Dr. W. T. Councilman and Dr. G. B. Magrath in their studies on small-pox and made investigations on the same subject in the Philippine Islands.

The annual general meeting of the Royal Medical and Chirurgical Society will be held on Thursday next at 5 p.m., when the President will deliver his annual address.

The British Association for the Advancement of Science will hold its seventy-sixth meeting this year at York on August 1st and following days. The President-elect is Professor Ray Lankester. The Sections having more or less direct relation to medicine are those of Physiology, Chemistry, Zoology, Botany, and Anthropology. Professor Gotch is President of the Section of Physiology; Professor Wyndham Dunstan, of that of Chemistry; Mr. J. J. Lister, of that of Zoology; Professor F. W.

Oliver, of that of Botany; and Mr. Sidney Hartland, of that of Anthropology.

On Tuesday evening, February 20th, Mr. Henry Morris was entertained at dinner at the Imperial Restaurant by his old house surgeons and dressers, on the occasion of his relinquishing his work on the active staff of the Middlesex Hospital. Upwards of sixty were present to do honour to their respected teacher, and many others, in expressing regret at their enforced absence, contributed to a memento of the occasion—a George II tankard, together with a punch pip-strainer of the same period—which was presented to Mr. Morris. Mr. John Ackery, one of Mr. Morris's earliest dressers, occupied the chair, and in felicitous terms proposed the health of "Our Guest," a toast which elicited a characteristic and witty response. The proceedings throughout were very enthusiastic, and a most enjoyable evening was spent.

Medical Notes in Parliament.

[From our Lobby Correspondent.]

The Parliament of 1906 began its work in earnest on Monday. Last week the members gathered in London to elect a Speaker, and after that they took the oath or affirmed, as the case might be, and so qualified themselves to sit and vote. On Monday the King in full State opened the session by the speech from the Throne. The House of Lords formed a brilliant show, though the absence of the Queen and the Prince and Princess of Wales deprived the group immediately around the King of much of its customary attraction. There were rather fewer peeresses present than usual, and the sombre colouring due to the Court mourning made the Chamber look less bright than on some previous occasions. The crowded House, with its high functionaries, ambassadors, bishops, judges, and the gathering of eager M.P.s from the Lower House, headed by the Speaker, listened with gratified attention to the speech from the Throne. The King delivered it with perfect elocution, and in a full firm voice, which could be heard all over the Chamber. When it was finished, Parliament was commissioned for work, the Speaker and the Commons trooped back to their own House, and all the rich pageant of the Royal Ceremony passed away, to be succeeded by the grave business of the session.

The King's Speech.—When the Speaker read His Majesty's most gracious speech to the Commons in their own House, the chamber presented a memorable spectacle. Every seat was occupied, the galleries were crowded, and at the bar a group of members stood three or four deep, for whom there were no seats. There has been no such crowded gathering since the Home Rule debates in 1886, and never before such an eager, earnest throng of new legislators, keen for work. The speech created a favourable impression. The long reference to foreign and colonial affairs was well received, and the promise of legislation was accepted as generally satisfactory. There was in the words of the speech no direct intimation of any legislation affecting the public health, but "the social and economic condition of the rural districts" if adequately treated according to the implied promise must raise most far-reaching questions as regards housing and rural sanitation. Then the promised Education Bill must open up such subjects as the medical inspection of school children and the whole problem of physical deterioration and its connexion with the feeding of the children and their hours of work. The amendment of the Workmen's Compensation Acts will also raise points of much interest to the medical profession, while the equalization of metropolitan rates will open up a large prospect of altered rating burdens and improved poor-law administration. The Bill for checking commercial corruption is an old friend under a new name, and will no doubt deal with the whole question of commissions.

Government Bills.—According to custom the opening day of the Session saw the announcement of the principal Government measures. This year the place of honour was given to the Bill to amend the Workmen's Compensation Act, of which notice was given by Mr. Gladstone. Mr. Bryce, as Chief Secretary, gave notice of the introduction on an early day of the Bill to amend the Labourers (Ireland) Acts. The new Education Bill, described as a Bill to Amend the Law Relating to Education in England and Wales, was announced by Mr. Birrell, while two bills dealing with Merchant Shipping were notified for early introduction by Mr. Kearley and the Attorney-General. On the whole a fair show for the first day of the session. On Tuesday Mr. John Burns, as President of the Local Government Board, gave notice of the Bill for the Equalization of Rates in the Metropolis.

Private Members' Bills.—The session is not likely to be a favourable one for legislation by private members. The business has of necessity commenced late, and the time before Easter and Whitsuntide is consequently limited, and as this is the only open time for private members much legislation can hardly be done. To have any chance of success a private member must pass his Bill through second reading before Whitsuntide, and if possible before Easter, then the manifold dangers of Committee may be surmounted, and the Bill possibly become an Act. This year there is the usual activity over both old and new proposals. The great Liberal majority in the present Parliament makes for a numerous army of Bills for social reforms, and as there was no mention of temperance legislation in the King's Speech the temperance members are sure to be very active. The chances of success all depend on the ballot which was fixed for Wednesday. Names were put down on Monday and Tuesday, and on the first day no less than 279 members recorded their names, as against 207 last year, and by the dinner-hour on Tuesday more than 400 names had been inscribed on the lists. Many groups of members are balloting for special Bills, such as the Miners' Eight Hours Bill, the Bill for Taxing Land Values, the Deceased Wife's Sister's Marriage Bill, and measures to promote rural housing, small holdings, old-age pensions, temperance, and many other very laudable objects. The lucky member who was first drawn in the ballot (Mr. Carlile) gave notice of a Church Discipline Bill. The second on the list (Mr. Agar-Robartes) will introduce a Land Tenure Bill, while Mr. Hudson has taken up the Trades Disputes Bill; Sir Robert Ropner the Lights Dues Bill; and Mr. Courthope the Pure Beer Bill. Next comes a Rural Housing Bill—the measure introduced last year by Sir Walter Foster, and which this year the fortunes of the ballot have given to Mr. Mackarness, a new member. On Tuesday last a great meeting, attended by seventy-five members, decided to push this Bill this session, and, if any second Bill was introduced, to make it one for the provision of small holdings—a matter already under the consideration of a Departmental Committee of the Board of Agriculture, and therefore of less urgent importance.

Juvenile Smoking.—Dr. Macnamara intends to reintroduce the Bill for the Repression of Juvenile Smoking, which last year was backed by Sir John Batty Tuke, Sir John Gorst, Mr. John Burns, and others. The Bill was designed to carry into effect the recommendations of the Physical Deterioration Committee of 1904. That Committee recommended the introduction of a Bill providing for the prohibition of the sale o tobacco and cigarettes to children under a certain age and for the prohibition of the sale of tobacco and cigarette in sweet and other shops frequented by children.

Tuberculosis in Animals was the subject of questions o Tuesday last by Mr. Field, and the President of the Loca Government Board stated that he could not introduce Bill providing compensation for owners of animals condemned for tuberculosis pending the report of the Commission on Tuberculosis. He further stated that the Commission had a report in preparation together with an appendi containing the details of a large number of experiment He could not say when it would be issued, but it was bein pressed forward as speedily as practicable.

Canada.

A GOLDEN WEDDING.

SIR JAMES GRANT, of Ottawa, celebrated his golden wedding on January 22nd. Congratulatory addresses were presented by the St. Andrew's Society, the Protestant Hospital Committee, and the medical profession. Sir James Grant was born in Inverness-shire in 1830, and took his doctor's degree at McGill University, Montreal, in 854. He settled in Ottawa, was elected President of the Ontario Medical Council in 1868, and later President of the Canadian Medical Association. He was an Honorary Vice-President of the International Medical Congress held at Washington in 1887. In the same year the late Queen Victoria conferred on him the dignity of K.C.M.G. The enerable physician is still engaged in professional practice. He has also taken an active part in public ffairs, and sat in the House of Commons as a Conservaive from 1867 to 1874, and again from 1893 to 1896. We ffer our sincere congratulations to Sir James and Lady Grant on this happy occasion, and heartily join in the wish expressed by the members of the St. Andrew's ociety that Sir James Grant may long be spared to do onour to his family, his clan, his race, his profession, anada, Scotland, and the Empire.

New South Wales.

LEPROSY IN NEW SOUTH WALES.

n his Annual Report on Leprosy in New South Wales r. Ashburton Thompson, Chief Medical Officer of the overnment, states that on January 1st, 1904, there were persons under detention in the lazaret. During the ear 14 persons were reported to the Board of Health as uspicious cases of this disease; of these 8 were ultimately dmitted to the lazaret. One patient died during the year —a male adult native of New South Wales, born of uropean parents. At the end of the year there were, herefore, 17 patients in the lazaret; 13 of these were hites, 7 being natives of New South Wales of European escent, 1 a native of Fiji of European descent, 3 were atives of England, 1 of Ireland, and 1 of the United ates of America. Of the coloured lepers, 1 was a vanese, 1 a Chinaman, and 2 natives of the New ebrides. The average number of patients resident uring the year was 18.39, and the average expenditure r inmate per annum amounted to £88 19s. 3d. Appended the report is a complete statement of the sex, birthlace, occupation, etc., of all the new cases admitted uring the year. Two short reports by Dr. Frank Tidswell, he Microbiologist to the Board of Health, are appended.

The first deals with some experimental work done in he laboratory of the Board of Health to test the value of e achloretic culture medium for the cultivation of the prosy bacillus described by Captain Rost in the *Indian edical Gazette* of May, 1904. The medium was prepared cording to the directions of Captain Rost, and a small cently-developed leproma, which proved on microscopical amination to be teeming with leprosy bacilli, was cised with aseptic precautions and divided, and small eces introduced into several flasks of the medium, and cubated at 37° C. In the course of a few days the lower rt of the fluid in the incubated flasks became slightly alescent, and remained so throughout the period of servation; there was no further opacity or any actual posit formed in any of the flasks. After the lapse a month some of the opalescent fluid was removed capillary pipettes, and on examination under the croscope this showed a fair number of micrococci, and occasional acid-fast bacillus, having the characters of *leprae.* Subcultivation on ordinary media gave growths micrococci only; subcultivation from the originals into er flasks of Rost's medium was not followed by any parent changes in the fluid. As this series of observans extended over several months and no further elopments took place, Dr. Tidswell was unable to firm Captain Rost's statement that the infection of his ture medium was followed by the formation of "white, ngy, streaky, heavy deposits," and was unable to verify reported cultivation of leprosy bacilli.

Dr. Tidswell also reports having found a rat in Sydney which showed the characteristics of a disease in rats resembling leprosy which was first described by Steffansky as having occurred in rats in Odessa in 1903, and subsequently by Dean as having been found amongst rats in England.

RESTRICTIONS ON THE IMPORTATION OF OPIUM.

An agitation which was begun in 1903 to secure some restriction on the importation of opium into Australia, has culminated in the proclamation issued by the Federal Government prohibiting the importation of opium except for medicinal purposes. The Customs department has issued the following regulations: The importation of opium suitable for smoking is prohibited absolutely, and the importation of opium not suitable for smoking is prohibited unless it is imported under the following conditions: Opium shall only be imported for medicinal use and by persons authorized to import it in accordance with this proclamation. The only person who may hold such a licence is a legally-qualified medical practitioner, or a wholesale or retail pharmaceutical chemist. The collector must be satisfied that the applicant for a licence is a person as above described, and the licence is only tenable for one year, with the option of renewal for a further period by the collector. Another stringent regulation provides that the applicant for the licence must give security to the satisfaction of the collector that all the opium imported by him will be disposed of for medicinal purposes only, and the holder of the licence is required to keep a book with full details of how the opium has been disposed of, and must be prepared to produce to the collector on demand the book so kept, and also the balance of the opium in hand at the time the book is presented. The working of these resolutions will be watched with some interest owing to the large Chinese population in Sydney, and it appears somewhat doubtful how far they will be effective in restricting the practice of smoking opium among that class or even among the Europeans.

Scotland.

CLINICAL MEDICINE AND SURGERY IN EDINBURGH.

The Royal Infirmary.

PRE-EMINENT amongst institutions of a similar nature in the city stands the Royal Infirmary, the heart and soul of medical Edinburgh. From its size it is enabled to offer a refuge to thousands of the sick poor in the course of a year; within its walls hundreds of students each year receive training in medicine, surgery, gynaecology, and the various special subjects attached to each, while on its staff are numbers of the best skilled men in the city.

As a teaching institution its facilities and advantages are many, and to the ordinary student of medicine these are enhanced from the fact that to him, and practically to him alone, are the teaching energies of the staff devoted.

Post-graduate instruction is practically a negligible quantity. Unlike the custom in foreign hospitals, the graduate here finds no carefully-arranged system of clinical work or practical training prepared for his special benefit. Doubtless a graduate coming to work in Edinburgh will receive much encouragement and assistance from the staff to aid his studies in the direction he desires, but for him who comes expecting to find an organized system of post-graduate study disappointment is in store. It does not exist. That it is so seems regrettable, though most certainly it is not to the detriment of the student. All the wealth of clinical material and clinical teaching in the hospital is his and his alone, to him all wards are open, all clinics available, and for him solely the teaching routine of the hospital is arranged. Edinburgh, however, is eminently fitted for post-graduate study; the teaching capacity is great, the clinical material large, varied, and included within a limited area, yet systematic post-graduate study remains nebulous as ever.

The time seems to have come to co-ordinate the various facilities, to initiate the necessary changes, and to utilize the valuable opportunities which medical Edinburgh offers for post-graduate study, and to lay thereby the coping-stone to a course of medical education unsurpassed by any medical school in the world.

In the Royal Infirmary the daily average number of patients in the wards is well over 800, and in the course of a year over 11,000 in-patients are treated, while at the various out-patient departments the number is well over 34,000. Hospital statistics always are, and always must be, fallacious in many respects; in all hospitals it is the same, and the larger the hospital the greater the discrepancies. More particularly is this true of out-patient departments, through the inclusion in the statistics of persons admitted later to the wards; and the accurate estimation of the number of different persons treated in the institution in the course of a year is, therefore, a matter of very great difficulty. The above numbers show, however, roughly, the large amount of clinical material available in the hospital, all of which is accessible to the student after he has obtained his hospital ticket.

In the Royal Infirmary there are twelve whole wards for medical patients, and one half ward, the half ward and one of the whole wards being reserved for women students, while the remaining eleven wards are open to male students. Associated with these wards is a staff of eight physicians and seven assistant physicians, in addition to the resident and non-resident medical officers, while to ensure the thorough grounding of the student in the methods of physical diagnosis, chemical analysis, etc., there is attached a body of eight clinical tutors. Thrice-weekly clinics are given by the physicians in the wards, and on two days in the week lectures on clinical medicine, while each day one of the assistant physicians holds a clinic in the medical out-patient department.

On the surgical side of the hospital there are thirteen whole wards and one half ward, the half ward and one of the whole wards being reserved here as on the medical side for women students, while the surgical staff consists of six surgeons, seven assistant-surgeons, and six clinical tutors. Clinical instruction is given daily in the wards, and clinical lectures twice a week; clinics are given by the assistant-surgeon in charge in the new out-patient theatre.

Of gynaecological wards there are two, the clinics in which are confined to fourth year students and their seniors; the staff consists of two gynaecologists, three assistant-gynaecologists, and two clinical tutors.

For patients suffering from diseases of the eye and of the ear and throat new accommodation has recently been procured by the building of additional blocks. In the eye department there are two surgeons in charge, and in the ear and throat department one, while in each there are also two assistant-surgeons and clinical tutors. Clinical instruction and out-patient clinics are given daily in the eye department, while the senior-surgeon also conducts an advanced post-graduate clinic twice weekly. In the ear and throat department clinical lectures and out-patient clinics are given twice a week.

The male and female lock wards are under the charge of one of the assistant-surgeons of the hospital, clinics in the male ward being open to all students, while those in the female ward are strictly confined to students who have passed the Second Professional Examination.

The skin department is at present in the process of renovation. Large alterations and improvements are being instituted, and before long the accommodation at command will be more suited to the growing needs of the department. Under the charge of a physician and two assistant-physicians clinical lectures and out-patient clinics are given twice weekly, while on four days in the week opportunity is procurable of studying the methods of *x*-ray and light treatment.

In the ward for incidental delirium, etc., clinics are given as may be arranged.

The electrical department, since its institution within the last few years, has done much valuable work. The accommodation for electrical and other forms of baths is sumptuous, and the *x*-ray and high-frequency department has recently been transferred to larger premises.

The pathological department is under the care of a pathologist and two assistants, and has recently offered increased scope for graduates wishing to undertake original research.

As regards the financial position of the institution, the day seems still distant when the ordinary income will anything like adequately meet the ordinary expenditure. In the report recently published for the year ending October 1st, 1905, the former is given as £33,000 odd and the latter as £50,000—a truly formidable deficit. The following significant sentences in the report serve, however, to show the amount of care and able supervision bestowed on the expenditure of the money.

> The entire ordinary expenditure during the year (including out-patient departments) per occupied bed was £60 11s. 2¼d., or a decrease of 16s. 7¾d. on the previous year. There has been a reduction of 5s. 7½d. on maintenance, and of 1s. 5¼d. in medical expenditure for each occupied bed.

[*To be continued.*]

Ireland.

THE ELECTION OF DIRECT REPRESENTATIVE FOR IRELAND.

THE recount and scrutiny to which we referred in the BRITISH MEDICAL JOURNAL of February 17th, having concluded, the result has been formally declared to be: Kidd, 909; Thomson, 901; and the former will be the direct representative for Ireland on the General Medical Council on February 28th, when Sir William Thomson's term will expire. The further examination of the votes has shown that a number of papers were passed as valid which were invalid, although the scrutiny gives an additional four votes to the successful candidate.

In view of the approaching elections for England and Scotland, it is interesting to refer to some of the questions which arose at the Irish election. At the first count eleven papers were set aside for examination, and on Sir William Thomson's application for a further examination forty-three papers were found to be doubtful. Thus fifty-four votes had to be considered as to validity. In nine of these—two for Kidd and seven for Thomson—the signatories were described as "physician and surgeon," instead of having the registered qualification indicated. There is no registered title of physician and surgeon, and therefore the votes were bad. About ten had no address after the signature, although this is required by the rules, and these were declared void. Other faults led to this result, that of the forty-three votes examined at the recount eighteen were added to Sir William Thomson's poll, and ten to Dr. Kidd's. In other words, fifteen voting papers which were proved to be invalid were counted in the original return, and of course would have been regarded as valid had they not been detected at the scrutiny.

One vote in which the initials were placed under Dr. Kidd's name gave rise to much discussion, and it was found necessary to cbtain the assistance of Mr. Matheson, K.C., as adviser. It was contended that the vote was not valid because it was not placed in the column provided for the purpose. The tenth regulation of the Privy Council is that "each voter shall write his initials in the voting paper delivered to him against the name or names of the person or persons for whom he intends to vote"; and it adds, "Every voting paper in respect of which 'any' requirement of this regulation has not been complied with . . . shall be invalid." It was pointed out that the voting paper had on its face a particular form, the first column being headed "initials of voter against name of person for whom he intends to vote"; and it was claimed that this was provided as the place in which the initials should be inscribed, and that they could not be written anywhere else. Further, it was argued that the word "against" means "opposite to," and that in a document so strictly drawn, the existence of the column before the candidate's name, and the heading of that column, and the use of the word "against," meant that the initials should be written in that column, and before or opposite to the name of the person receiving the vote. Upon this question Mr. Matheson gave the opinion that the initials being written under the name and not in the provided column were within the "ambit" of the name of the candidate voted for, and indicated the voter's intention, and therefore the vote ought to be admitted.

The decision is one which will be open to question, and we are aware that a very high legal authority in Ireland holds that Sir William Thomson's contention is right. It is quite true that in a parliamentary ballot paper a mark in such a position has been held to be valid; but the ballot paper does not prescribe any particular mark, or place for putting the mark, but simply directs that the voter shall "secretly mark his vote." It has been decided at any mark which plainly indicates how the elector ishes to vote is good, provided it is not such as to entify the voter.

But the election to the General Medical Council is not ballot but by open voting—that is, the voter and his te are known. The voting paper is a special form with pended directions—a place for the initials is provided, d the voter is warned that if he "fails to comply with y of these directions the voting paper will be can- lled."

The contention that the voter had sufficiently indicated s intention to vote for a particular person does not pear to be good. Thus, several papers were rejected though the voter had placed his initials in the proper ace, signed his name and qualifications as registered, t omitted his address. There was no doubt of the entity or of the intention; but the rules provide that e address must be appended, and as this was not done e paper was declared invalid. Here the strictness of e Privy Council's rule was observed, and what Sir illiam Thomson contends is that another equally strict le was not observed.

The point is of interest, and some steps ought to be ken to remove any possible ambiguity. It could be ry simply done. It is quite conceivable that an ection might depend upon this very issue, and no ndidate ought to be put to trouble or expense in con- xion with the question.

The following is the return:

Kidd	909
Thomson	901
Votes too late	10
Returned by G.P.O.	57
Spoiled	25
Did not vote	1,081
	2,983

THE ANNUAL DINNER AT THE ROYAL COLLEGE OF SURGEONS.

Honorary Fellowships.

The annual dinner of the Fellows of the Royal College Surgeons was held on Saturday evening, February 17th. President (Sir A. Chance) and Council met at 7 'clock in order to confer honorary Fellowships upon fessor Henri Hartmann, Surgeon-in-Chief to the Liboisière Hospital in Paris; Surgeon-General Keogh, ., Director-General, Army Medical Department; and A. E. Wright, Lecturer on Pathology, St. Mary's spital, London.

is Excellency the Lord Lieutenant having been con- ted to the daïs by the President, Surgeon-General gh was first presented. The Vice-President (Mr. H. nzy) gave a brief history of his career and of his t services. The Director-General desired to adapt to purposes of his service all the resources of modern nce, and to that end he endeavoured to obtain for his ers a close connexion with the profession of surgery medicine outside the service. The President ad- ed General Keogh to the Honorary Fellowship, and ded him the diploma. He was then presented to His ellency.

e Vice-President then presented Dr. A. E. Wright, referred to his studies of the physiology and pathology e blood, and of the complex problems connected with e elements in the serum of the blood which render uman system insusceptible to the attacks of infective nisms. He pointed out the meaning and value of opsonic index as described by Dr. Wright. He essed inestimable gifts continuously dedicated to the ice of science and of humanity. Dr. Wright was then itted an Honorary Fellow and presented to the Lord tenant.

e Vice-President then referred to Professor Hart- n, of Paris, who was prevented by illness from being nt, and spoke of his operations upon the abdomen, particularly of his method of pylorectomy. Original ought and method, he was an operator beyond com- They desired to add his name to that roll of ur on which long years ago Baron Cuvier, Antoine s, Jules Cloquet inscribed theirs.

mediately afterwards 200 of the Fellows and their guests sat down to dinner in the new hall. Sir ur Chance, President, was in the chair, and on his sat His Excellency Lord Aberdeen, Lord Lieutenant.

The President, in proposing the health of the Lord Lieutenant, said the King was credited with having the kindliest and most generous feelings for Ireland, and if that were so His Majesty's sentiments found most eloquent expression in the acts of his Viceroy. The cheers which greeted His Excellency at his entry were still ringing in their ears—cheers which came from the full hearts of those who remembered the generous belief in Ireland and Irishmen which marked his too brief administration twenty years ago.

His Excellency, in reply, observed that there was an increased desire on the part of English people to comprehend the needs of Ireland, to divest themselves of prejudice, to exercise their intelligence, and to approach the subject in the spirit and attitude of friendship. The belief that His Majesty was actuated by a warm solicitude for the welfare of Ireland and her people was influential and auspicious, and if it had no other effect than indirectly to encourage that intelligent and favourable disposition on the part of the people of Great Britain to which he had alluded, it would certainly be of far-reaching benefit. The work of the College appealed to all; the work of the surgeon was concerned with the most sacred experiences of life, and all of them could respond to the touching reference of the President to the experiences of the surgeon among the poor.

Sir William Thomson, C.B., proposed the toast of the "Honorary Fellows." The work in which each of them was engaged was laborious and silent, and was not stimulated by the exhilarating rewards that belonged to politics or the law. Therefore it was that when members of the medical profession devoted themselves to the cure of disease and the lessening of the sufferings of the sick, the only prize to which they could look forward was such distinction as great colleges like theirs could confer. In referring to Professor Hartmann, he spoke of the sympathy which existed between the two nations, and said there was always a warm corner in an Irishman's heart for a Frenchman. He spoke of Professor Hartmann's distinguished career, and said it was great honour to be selected from among his brilliant *confrères* to receive the Fellowship. He referred to Surgeon-General Keogh as an Irishman who was proud of his nationality. He was another of the large number of men who had been educated at Queen's College, Galway, and who had attained to great distinction in the world. Surgeon-General Keogh had succeeded by sheer force of character, and by the ability he had displayed in all departments of the organization over which he now presided. His progress was as marvellous as it was well deserved. He referred to Surgeon-General Keogh's work in South Africa, of which he had personal knowledge, and bore testimony to the labours of the Royal Army Medical Corps. Dr. Wright's name in connexion with bacteriology and the therapeutic inoculation of vaccines was known everywhere, and his work did honour to his country and his school—Trinity College, Dublin.

Surgeon-General Keogh responded, and urged the importance of the medical service of an army.

Dr. Wright also replied in an amusing speech.

The other speakers were Sir Wm. Smyly, Mr. Justice Boyd, and M. Le Feuvre Mèaulle (French Consul).

His Excellency proposed the health of the President, and the proceedings terminated.

THE PROPOSED SANATORIUM FOR CONSUMPTION IN COUNTY CORK.

Dr. Brown, Medical Inspector, and Mr. R. O'Brien-Smyth, M.I.C.E., Engineering Inspector, sat in the County Court, Cork, and opened an inquiry into the application of the County Cork Joint Hospital Board for the sanction of the Local Government Board to a loan of £14,500 for the purpose of providing a hospital to be used as a sanatorium for consumption. Evidence was taken as to the history of the movement, which has appeared from time to time in the columns of the BRITISH MEDICAL JOURNAL. It was stated that the County Cork Joint Hospital Board, which came into existence through a Provisional Order made by the Local Government Board in 1904, consists of representatives of the county borough of Cork and all the rural district councils of the county of Cork. This Provisional Order also provided that the expenses of the hospital were to be defrayed by the rural district councils and the county borough in proportion to their valuation and the contributions of each were limited to the rate of 1d. in the £ of the valuation; the financial resources of the Joint Hospital Board were thus fixed. Drs. Cremen and Donovan were appointed to act as medical advisers to the Board, which advertised for sites, and received some thirteen proposals. The medical advisers recommended that some expert in the treatment of consumption should be asked to inspect the sites with them, and Dr. Smythe, of Altadore Sanatorium, co. Wicklow, inspected the thirteen sites with them, and reported that none were satisfactory. Having made a further tour of the county, he selected three sites as fairly suitable, and placed them in the following order of merit: Coolkelure, Mount Massey, and Rahan. He pointed out the merits and objections of each; Coolkelure had too uncertain a rainfall, Mount Massey was too near the town of Macroom; Rahan being on the side of a hill, the erection of buildings would absorb for many years the resources of the Board. The Board had many meetings, and many discussions on the merits of the different sites took place; eventually Mount Massey was decided on, but the medical advisers differed as to the suitability, it being reported that Mount Massey was surrounded by insanitary buildings, and had a public-house in close proximity. Dr. Cremen recommended that Mitchelstown should be searched; and Dr. Smythe having visited the district, found no site suitable, and came to the conclusion that if the hospital must be built in co. Cork he could see nothing better than the Mount Massey site. The Board accordingly decided to settle on Mount Massey, and instructed its solicitor to proceed with the necessary notices for acquiring the site compulsorily and to obtain the loan from the Local Government Board.

The inquiry lasted for two days and much evidence was taken on the whole question. The Cork Branch of the National Association for the Prevention of Consumption was represented legally by Mr. Healy, who pointed out that it was the originators of the whole movement and felt some responsibility to the public and to the local Boards. It believed that the particular scheme put forward by the Joint Hospital Board, so far from accomplishing the good work desired, would result in a medical folly, a kind of institution which would not have the effect of curing consumption or making any advance in its treatment. Dr. C. Theodore Williams, Consulting Physician to the Hospital for Consumption, Brompton, was present to give his experience of sanatoriums in general and the one in connexion with the Brompton Hospital in particular. He had visited the Mount Massey site and considered that it would not be a wise or prudent thing to erect a sanatorium there, for the following reasons: (1) It was a cold site and there was no shelter, it was unprotected from the winds on the N., N.E., and N.W.; (2) the rainfall was too great; (3) the close proximity to Masseytown was objectionable, as the sanitation was so bad. The sewage was spread over a field; in hot weather it dried up, and if the S.W. wind blew the matter would be wafted up in the direction of the sanatorium. "It seemed to him as bad as could be, and he certainly thought it was not desirable at all to have Mount Massey as a site for a sanatorium." He also objected to the nearness of the proposed hospital to Macroom, and said that where the labouring class was to be dealt with they should be far removed from public-houses. The Nordrach Sanatorium was ten miles from a railway station. Dr. Williams did not think it would be wise to adopt the châlet system owing to the heavy rainfall. He recommended a modified block building—a combination of brick, wood, and iron. Dr. Donovan, M.O.H., also gave evidence as to the insanitary surroundings of the Mount Massey site, and the proceedings ended.

Alcohol and Lunacy.

At a meeting of the Board of the Richmond District Asylum, Dublin, last week, Dr. Conolly Norman submitted a return showing the number of admissions and readmissions due to drink during the past four years. In about 33 per cent. of the male patients and 16 per cent. of the female patients admitted the mental illness was due to alcoholic excess. In about half of the cases there was also hereditary taint, but a greater influence than this proportion shows has been assigned to hereditary predisposition in all forms of insanity.

Limerick Lunatic Asylum.

At the monthly meeting of the Limerick Lunatic Asylum Committee the election took place of an assistant resident medical superintendent, at a salary of £100 per annum, with yearly allowances valued at a similar sum. This is the fourth consecutive meeting at which the appointment has come up. The first two elections resulted in a tie between Dr. P. Coffey and Dr. Roberts, while at the last election Dr. Irwin and Dr. Coffey tied with 9 votes each; the chairman (Dr. Connery) gave a casting vote in favour of Dr. Irwin; but at the January meeting a communication was received from the Chief Secretary's office conveying the opinion of the law officers that there was no provision, by rule or otherwise, giving the chairman a casting vote, and that accordingly the election of Dr. Irwin was invalid. As a result a new election was ordered. The same three candidates were proposed and seconded, and as a result of the polling Dr. Irwin received 7 votes, Dr. Roberts 6, and Dr. Coffey 5. In the second poll Dr. Irwin received 10 and Dr. Roberts 9 votes. Dr. Irwin was accordingly declared elected.

Addresses to the Viceroy.

In addition to the addresses already presented to the Lord Lieutenant by the Royal College of Physicians and the Royal College of Surgeons, the Royal Academy of Medicine welcomed His Excellency on Friday, February 16th. Sir Thornley Stoker, the President, was accompanied by the following members of Council:—Dr. James Little, Sir Wm. Thomson, C.B.; Mr. E. H. Taylor, Dr. F. C. Purser, Dr. Henry Jellett, Dr. G. Peacocke, Dr. W. J. Thompson, Mr. Wm. Taylor, Dr. A. J. Horne, Sir J. W. Moore, and Dr. Craig. The address was read by the President, who explained the constitution of the Academy founded twenty-four years ago, and mentioned that the medical societies of London were at present negotiating a union of the same character. His Excellency made a very cordial reply.

Newcastle-upon-Tyne.

University of Durham College of Medicine.

Dinner of Past and Present Students.—Presentation to Dr. G. H. Hume.

At the annual dinner of the past and present students of the University of Durham College of Medicine held in the College of Medicine on February 16th, Mr. Walter Ridley, F.R.C.S., in the chair, Dr. G. H. Hume was made the recipient of a handsome silver tray, tea and coffee service, on the occasion of his retirement from the active staff of the Royal Infirmary on the age limit. After the Royal Toast had been honoured, Dr. Gibson of Harrogate, nephew of the late Dr. Charles Gibson, Lecturer on Diseases of Women in the College, proposed in appropriate terms the toast of "Alma Mater," to which Sir George H. Philipson fittingly replied, and in doing so made graceful allusion to the successful position attained by Mr. Norman Hume, second son of their guest of the evening, at the recent examination for admission into the Indian Medical Service. To Dr. W. C. Beatley fell the honour of proposing the toast of the evening and of making the presentation. By none could these duties have been discharged more gracefully or in more appropriate terms. His long and intimate friendship with Dr. Hume made him specially the spokesman on this occasion. It was in 1869 that Dr. Hume became Assistant Surgeon to the Royal Infirmary. Nine years afterwards he was promoted to the full staff. For thirty-six years Dr. Hume had therefore been connected with the infirmary, always leading the way in scientific surgery, and thereby helping to make the Royal Infirmary the successful clinical teaching institution it had become. A distinguished surgeon, he was known to be sound in his judgement, skilful, painstaking, thorough in his work, and happy in his results. Those present knew the interest Dr. Hume took in the new infirmary, but few realized the amount of time and thought he had given to it. Dr. Beatley expressed the hope that he would still be long spared to carry on that work; and in handing over the silver tray, on which was a suitable inscription commemorating Dr. Hume's long services to the infirmary, he asked him to receive it and the accompanying gifts, which included a bound volume containing the names of all the subscribers to the testimonial, as a token of their esteem and ppreciation. Dr. Hume, in acknowledging the toast, aid he accepted with gratitude the beautiful gifts, which vould become heirlooms in his family, serving as an xample and an incentive, as long as there were those who ore his name. In a few well-chosen sentences he alluded o clinical teaching and of the difficulty of realizing deals. It was a regret to him to give up teaching, and o sever himself from an institution with which he had een so long associated. He claimed that as men are no lder than they feel, he was still young; time and fate ad decreed that he should not work as a surgeon in the ew infirmary, but he would continue to work for it as an ctive member of committee. As a believer in the nfluence of environment Dr. Hume was certain the new nfirmary, with its facilities and splendid equipments, ould have the greatest influence for good, not only upon e students, but upon the medical profession in the orth of England. Again giving expression to his armest gratitude, Dr. Hume said: "A day such as this n occur only once in a man's lifetime; I am fully tisfied and deeply grateful that it has occurred in mine." vote of thanks to the Chairman ably proposed by Mr. B. Williamson, President of the Students' Representative uncil, and acknowleged, brought this memorable and joyable banquet to a close to the strains of "Auld ng Syne."

PENING OF A ROWTON HOUSE, NEWCASTLE-UPON-TYNE.
A Rowton House was opened recently by Lady Ravensrth in the presence of a distinguished and influential sembly. Lord Armstrong, who was in the chair, briefly uded to the capabilities of the House. There was accomodation for 254 working-men. Lady Ravensworth, ving declared the house open and wished it success, s presented by the contractors with a silver casket. In oposing a vote of thanks to Lady Ravensworth, Mr. J. E. ods alluded to the origin of the Rowton Houses, and de graceful mention of the part which for generations Ravensworth family had played, especially in conxion with the Royal Infirmary, for which he was asurer. In seconding the vote of thanks, Dr. Oliver w attention to the necessity of housing the casual ourer near to his work, as this Rowton House allowed, l of the great benefit likely to be received by this class nen being brought by residence under the discipline of House, and the knowledge of hygiene and sanitary laws rein gained. It is stated that already the occupation he rooms has quite come up to the expectation of the ctors.

NEWCASTLE-UPON-TYNE LYING-IN HOSPITAL.
n effort is being made by the Committee of the pital to secure from the Town Council additional und at the rear of the Lying-in Hospital for extension, opportunity having arisen through the opening-up of streets. It is more than likely that the Corporation make some compromise with, or concession to, the pital, which is admitted by all to be doing excellent k.

South Wales.

A SUSPECTED WATER SUPPLY.

J. D. JENKINS, Medical Officer of Health for the ndda Urban District, has issued a special report on serious epidemic of typhoid fever which occurred in district in 1904-5. The report is accompanied by l and carefully-prepared plans. Dr. Jenkins gives culars as to acreage, population, rainfall, etc., and proceeds to show that the general death-rate has ically been always relatively high, whilst the ality-rate from typhoid fever has during the last ten been slightly more than twice that for England and s. The water supply of the district, to the contaminaof which the typhoid epidemics which have periodicisited the locality have in the past been generally uted, is from two sources. One is wholly situated e Rhondda Fawr, and belongs to the Council. The inder of the district, including the whole of Rhondda as well as the larger valley below the lower boundary e Council's area, is in the main supplied by the pridd Water Company. In addition to the main ring ground at the head of the larger valley, the Council has another much smaller collecting area six or seven miles down the valley on the hillside about midway between the river Rhondda and the watershed on the east side of that river. The water derived from this source, known as the Tyntyla supply, is passed through one or two sand filter beds, and thence to a service tank of 40,000 gallons capacity.

Dr. Jenkins states that on November 8th, 1904, two notifications were received from Ystrad, followed by twelve more on the next day, but all limited to the lower end of Ystrad and the upper part of Trealaw. The distribution of the cases aroused a suspicion that an occasionally-used water supply might have been instrumental in propagating the disease, and consequently measures were adopted to cease distributing the suspected water, and samples were sent for bacteriological examination to the County Laboratory, Cardiff. The bacteriologist reported:

> Speaking generally I may say that the samples contain a very high percentage of coli-like organisms, and even the filtered water is bacteriologically unsatisfactory as a source of supply under the circumstances that obtain, and yields so high a bacterial content per cubic centimetre.

The number of cases notified rapidly increased, and by November 30th an aggregate of 322 had been reached. The highest total for any one day was attained on the 15th, one week from the commencement of the epidemic, when 71 notifications were received. On and after November 20th a marked fall was noticeable in the daily number of cases notified, but it was not until December 6th that a blank day was recorded. Dr. Jenkins explains that as regards the disinfection of the water mains the method adopted at Maidstone in 1897 was more or less closely followed, and, after giving some interesting details of the work, the report goes on to deal with the cause of the outbreak. As to this, however, no really definite conclusion is arrived at.

A striking feature is the limitation of the epidemic to a comparatively small portion of the Rhondda Urban District. From November 1st, 1904, to February 10th, 1905, there were notified in the whole district 399 cases; of this number, 373, or 93.4 per cent., were from an area of about one-twenty-sixth of the whole district in extent, and one-sixteenth in population. Within this area are 1,320 houses, 267, or 20.2 per cent., of which became infected with one or more cases; whereas 19,441 houses in the rest of the district, only 22, or 0.11 per cent., were attacked. As to the incidence of the disease, there were 373 persons attacked in the epidemic area, that is to say, the Tyntyla area of water supply, and 26 in the rest of the district. Of the 373 cases, six resided in houses which did not receive their water supply from the Tyntyla works. The medical officer is of opinion that, with the single exception of water, no one factor or combination of factors could satisfactorily account for the character of the outbreak. As to the possibility of the pollution of the Tyntyla water supply, he points out that there is no house or structure of any kind upon the gathering ground, but the surroundings of the eighteen odd acres which constitute the gathering ground make it obvious that pollution is a possible event. Dr. Jenkins states that the mortality per cent. was 11.3 for all cases removed to the isolation hospital, whereas the death-rate amongst those treated at home was only 5.5 per cent. It is true, it is added, that with the exception of a few cases at the beginning of the outbreak, those removed to the hospital were selected on account of the difficulty or danger attending their treatment at home or owing to the existence of some specially unfavourable symptoms which needed "extra care or skill in nursing." Nevertheless we may point out the result is not the less unsatisfactory, and goes to strengthen the argument of those members of the profession who are seeking for an inquiry into the working of the isolation hospital system. One conclusion, however, as the result of the report must be reached—namely, that prompt and serious attention should be devoted to the subject of water supplies.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

The annual report for 1905 of Dr. Jenkins, Medical Officer of Health to the Pontypool Rural District Council, stated that the general health of the district was not so satisfactory as in 1904; 123 births were registered, giving a birth-rate of 26.85 per 1,000 of the estimated population. The number was 5 more than the average for the last eight years, but 17 less than in 1904. The deaths numbered 76, giving a rate of 16.59 per 1,000, as compared with 13.60 in 1904. The schools in the district were in a satisfactory condition. Speaking from personal experience, he could not say that the compulsory notification of measles had been of any use in checking the epidemic. He suggested, therefore, reconsideration of the matter.

Dr. De Gruchy, in his annual report for 1905 on the Caerleon district, stated that the birth-rate was 20.17 per 1,000 and the death-rate 14.68. Nearly all the houses were now supplied with Newport Corporation water, and only three surface wells remained at Caerleon.

Dr. G. A. Brown, Medical Officer of Health for Tredegar, reports a serious case of lead poisoning at Sirhowy; an analysis of the water used on the premises showed it to contain a dangerous proportion of lead. It was decided to call the immediate attention of the Ebbw Vale District Council to the matter, with a view to the substitution of cast iron for lead service pipes, Sirhowy being within the water area of the Ebbw Vale Council.

Dr. T. Hall Redwood, Medical Officer of Health for Rhymney, has reported an outbreak of diphtheria in the upper district, with 6 cases already and 1 death; all the cases except one attended the same school. Several years ago a similar outbreak was traced to this school, and it was then thought that an open grating beneath one of the windows was probably the cause. The medical officer suggested that the premises should be inspected, and that, if the disease spread further, the schools should be closed; it was decided to authorize the medical officer to close the Upper Rhymney School if he deemed it advisable.

Manchester.

The David Lewis Epileptic Colony.

From the first annual report of this colony, situated at Warford, near Alderley Edge, Cheshire, it appears that the first patients were admitted in October, 1904, and that from that date to August 31st, 1905, a total of 110 colonists had been admitted, including 42 adult male and 31 adult female patients, 18 boys, and 19 girls. Of these a certain number had been withdrawn or discharged, reducing the number in the colony on the date named to 95. A much larger number of applications than this had been received, but the Committee of Management wisely thought that during the first months of the colony it was wiser to proceed slowly in adding to the population. For the same reason comparatively few patients paying for first or second class accommodation had been received. At present free patients are not provided for, and we regret that the report nowhere states the respective rates of payment for the three classes of accommodation now available. This information can, however, be obtained on application to Dr. Alan McDougall, the medical director of the colony, from whose report we learn that three deaths had occurred, "one from epilepsy, one from a chest complaint; the third died after an operation for diseased bone, performed in a hospital to which the patient had been transferred." Four colonists were dismissed as unamenable to control, and six were removed by their friends, in most cases for financial reasons. During the period under review the daily average number of colonists was 51.25 and the total number of epileptic fits 7,286. The general health had been remarkably good. It is satisfactory to read that the improvement in the bodily and mental condition of the colonists has been most encouraging; and a case is given of a girl of 10 who had 142 fits in the first twenty-five days after admission, but in the three succeeding months the number of fits diminished to 32, 24, and 3 respectively, ceasing after the third month, with very marked improvement in mental condition. We look in vain for any details of medical treatment.

The 37 children in the colony have all been admitted under an arrangement with the Manchester Education Committee, and have special instruction suitable for them; but we believe the admission of epileptic children is not restricted to this class.

The report is illustrated by several views of the cottage homes, which appear to be adapted for about 20 colonists in each, and there is an estate of 115 acres available for the employment of the colonists, who also take part in games and entertainments, often in great part arranged by themselves. They assist in the laundry, sewing-room, kitchen, dairy, etc.; and workshops are in course of organization.

It is to be deplored that, in spite of several generous donations, the first year has closed with a deficiency of income of nearly £1,000, which it is to be hoped the munificence of North Country donors will soon make good.

Leeds.

Appointments at the General Infirmary.

On the recommendation of the Faculty, the Board of the Infirmary has appointed Mr. Oskar Gruner, M.B.Lond., to the position of Clinical Pathologist. Mr. Gruner was formerly junior demonstrator of pathology at the University, and, under an arrangement with the Infirmary, devoted half of his time to work in the laboratory of that institution. Some time ago, however, it was found that the work of the Infirmary demanded the undivided attention of at least one man, and, on the other hand, the increase in the amount of public health work thrown on the pathological department of the University called for the appointment of a demonstrator whose whole time should be given to that line of research. As has already been mentioned, the junior demonstratorship of pathology is now held by Mr. R. Smedley.

The *post-mortem* examinations are made by the Honorary Assistant Physicians, or Physicians with charge of out-patients in the event of there being any, and by Dr. Grünbaum; for the Professor of Pathology at the University is eligible for the position of Honorary Pathologist Mr. Gruner's work will be varied and extensive, and the department over which, under the direction of the Pathological Subcommittee, he will preside, is one which will increase. The laboratories are to be improved by the addition of an annexe to the *post-mortem* room, which will free the present large laboratory from a considerable amount o work which should not be carried on in it, and in this way it is believed adequate space will be secured for the routine microscopical and chemical work of the department and for what amount of bacteriological work is necessary while some facilities may be afforded to those members o the honorary staff who may desire to conduct investigations themselves. The post of Resident Medical Officer a the infirmary, rendered vacant by the resignation o Mr. Steele, has been filled by the appointment of Mr. Ala Boyle, M.B., B.Ch.Vict. Mr. Boyle was a Leeds studen throughout his curriculum and has held several of th junior resident appointments

The Public Dispensary.

The Board of the Public Dispensary has, on the recommendation of the Faculty, appointed Miss May Thomso to be clinical assistant to Dr. McGregor Young, who is th Honorary Officer in charge of surgical patients at th southern branch of the institution. A fifth residen medical officer is to be appointed very shortly, an applications are invited for the position.

The Brewster Sessions.

In his sixth annual report for the Brewster Sessions the city of Leeds, the Chief Constable reported that th total number of licences amounted to 1,132, being decrease of 12 as compared with the preceding year. these, 324 were full licences, 382 were beer houses, an 426 were shops and stores. As the population of Leed at the last census was 428,968, the number of licences all kinds is equal to 1 for every 378 of the populatio The cases of drunkenness were 2,514 in number, a dimin tion of 67 as compared with 1904. Of these, 183 we second convictions, 47 were third, and 18 were fourth co victions. For the four decennial periods between 21 ar 60 the numbers of convictions were 784, 776, 512, and 2 respectively. The total number of persons in Leeds w had been declared habitual drunkards since the Licensi Act (1902) came into operation was 43, 15 males and females, of whom 26 have been committed to inebria reformatories. The number of persons reported to ha been discharged from inebriate reformatories after perio of detention was 12, and of these 4 had been convicted of drunkenness in the city, 1 five times, 2 twice, and 1 on one occasion. The number of registered clubs in Leeds at the end of the year was 101, with a membership of 27,150.

SPECIAL CORRESPONDENCE.

PARIS.

Académie de Médecine: Professor Chantemesse and Dr. Borel on the Laws Regulating Emigration.—Société de Biologie: Dr. Netter on Calcium Chloride as a Preventive of Eruptions after Serum Injection in Diphtheria.—The Legion of Honour.

AT the two last meetings of the Académie de Médecine Professor Chantemesse and Dr. F. Borel made an interesting communication on the defective legislation in France with regard to emigrants, and the means of remedying it. The laws regulating emigration date from 1861-2, when the railways were few, and when the emigrants, after a ong journey overland embarked on sailing vessels in small groups of 50 or 60. In 1862 America received 68,000 emigrants; in 1904 the number reached 798,000, and nowadays 1,500 to 2,000 embark on the same steamer. The French law defines an emigrant as a passenger who is not ed at the captain's table, and who pays for his passage, board included, less than 40 francs a week on sailing vessels, and less than 80 francs a week on steamers. Emigrants from the East (Syrians, Turks, Greeks, Roumanians, etc.), almost all sail from French ports, Havre dispatching 60,000 annually. These Orientals re a permanent danger to the public health, which must e increased when the Beyrouth-Damascus-Mecca Railway s completed, for Syria will be continually threatened by holera from Mecca. At present no sanitary precautions re taken while these transmigrants cross from such terri-ory. At Havre they are visited by the maritime sanitary fficer in the service of the steamship company, and by he emigration medical officer chosen among the local ractitioners. This visit generally takes place at night, a ew hours before starting, with the object of eliminating hose who, as suffering from certain diseases, would be efused admission to the United States. Another object of he visit is to keep at Havre till cured those emigrants ho suffer from certain complaints. In addition, all nigrants are vaccinated at Havre in accordance ith the American law. Of those kept back at avre some are sent back to their native country; hers are put in hospital if seriously ill; but cases of vers, conjunctivitis, gonorrhoea, syphilis, and scabies e lodged by the steamship company in hotels; they go see a medical man every day, and sail when cured; but ey are free to spread contagion as they are not isolated, d the hotels are under no special regulations and are t disinfected. In addition, by the United States regu-ions, every emigrant arriving from a cholera-infected untry must undergo five days' quarantine in a non-fected country before embarking. If there is cholera in rmany, the United States Consul at Havre requires the eamship companies to keep German emigrants in the rt for five days, in reality for a week, that is, until the xt weekly sailing. As there is no isolation building at vre, these emigrants wander about the streets of Havre, dy to spread whatever infection they have. The trans-grants from the Orient, who reach Havre overland, escape Maritime Police sanitary regulations; they should as ich as possible be prevented from coming into contact h the country; camps should be formed at Marseilles ere they could be collected and from there sent directly hout stop to the port of embarkation. There a fresh np should be formed for suspicious cases, the rest being horized to go to certain defined hotels under daily dical supervision and disinfection whenever necessary. the motion of Professor Chantemesse the following olutions were unanimously carried:

> That French legislation with regard to emigration be modified in so far as its deals with the entry of emigrants to French territory, their journey across France, and their stay in the country.
>
> That these new regulations be based on those of foreign countries, more especially Holland, Germany, and America.
>
> 3. That the administrative and sanitary supervision of emigrants, differing completely from each other in their aim and means, be henceforth divided and each placed under a special service.

M. Netter at the last meeting of the Société de Biologie made a communication on the prevention of eruptions after injections of antidiphtherial serum by the use of calcium chloride. Each child was given on the day of the injection and the two following days 1 gr. of calcium chloride in peppermint syrup. From January 15th, 1905, to the end of December every alternate child admitted to the diphtheria wards of the Trousseau Hospital was thus treated—258 in all. Of the children who did not receive the preventive treatment, 15.53 per 100 showed eruptions, while only 2.38 per 100 of those treated with calcium chloride were thus affected. This treatment has no effect on the curative action of the serum, the mortality being about the same in each group. The doses of calcium chloride should be in proportion to the quantity of serum injected and to the number of injections, the preventive action of the salt at the dose of 1 gram being insufficient to prevent the eruption when more than 40 cubic centimetres of serum has been injected. In patients who had one injection of serum and took calcium chloride eruptions appeared in 2 out of 194 cases, or 1.03 per 100; in patients not treated or insufficiently treated eruptions appeared in 18.93 per 100. Therefore a larger dose must be given in these cases, and the administration continued over a longer period.

Professor Bouchard has been promoted to the grade of Grand Officer, and M. J. Lucas-Championnière to that of Commander in the order of the Legion of Honour. Both will be remembered as taking an active part in the *entente médicale* and the reception of the English doctors in Paris last May.

VIENNA.

Passive Resistance in Full Force.

THE passive resistance of the country practitioners in regard to certain unpaid duties imposed by the Board of Hygiene of the Diet of Lower Austria has been in full force since February 1st. The chief points are the refusal to vaccinate except in private practice, and the non-notification of infectious diseases. The routine practice during the present conflict is to notify to the competent Board every case of suspicious disease without stating the diagnosis, simply saying: "suspicion of scarlatina or measles," or "suspicion of diphtheria or sepsis," or some other similar disease. The District Board, mostly represented by the district doctor, is bound by law to examine all infectious cases where an exact diagnosis cannot be arrived at by the practitioner. The districts are pretty extensive, comprising 20 to 30 square miles, and the officers of the District Board of Hygiene are quite unable to grapple with the extremely numerous cases of suspected infectious disease. Within the first six days more than 9,000 cases had been reported as "suspicious." Two schools had to be closed on account of an outbreak of scarlatina in two larger country towns. The medical councils of all other countries of the Empire have expressed their sympathy with the practitioners of Lower Austria, and material aid in the shape of donations amounting to £400 has been received from these quarters. The last meeting of the Vienna Medical Council had for its main object the discussion of a proposal that the same measures should be adopted in Vienna. The motion was defeated, on the ground that in the capital the plan would not work well. Up to now the Diet has shown no sign of yielding, but the public mind is aroused and a deadlock cannot be allowed to become permanent.

SLEEPING SICKNESS IN GERMAN EAST AFRICA.—As announced in the BRITISH MEDICAL JOURNAL some time ago, the German Government is about to send out a scientific expedition to East Africa to investigate sleeping sickness. A sum of £6,000 is set down on the Colonial estimates for 1906 for the purposes of the expedition, which will probably be absent about eighteen months. Professor Koch will be at the head of the expedition. He will sail at the beginning of April, and it is understood that he will in the first instance make his head quarters at Entebbe, in British Uganda, where there already is a station for medical research. Sleeping sickness is believed to have been introduced into German East Africa from the west shore of Victoria Nyanza.

CORRESPONDENCE.

ORGANIZATION AND CO-ORDINATION OF EFFORT AGAINST TUBERCULOSIS.

Sir,—Your leading article of last week directs attention to what appears to me the most important aspect of the tuberculosis problem—namely, the pressing need which exists for completer organization and co-ordination of effort.

During the past few years much excellent work has been effected against tuberculosis by various agencies throughout the country. Most of the movements have unfortunately been too partial. One centre has been content with the institution of a sanatorium for early cases; another has extended or elaborated an existing hospital, so as to provide separate special treatment for tuberculous patients; another, approaching the subject from the preventive point of view, has arranged for the segregation of advanced or dying cases; or sometimes a dispensary has been established.

All such methods are serviceable. But they fall short of what they might effect if, in place of being isolated, they were co-ordinated elements in a well-organized scheme. The problem of the extermination of tuberculosis—and it is towards nothing less that our efforts are directed—requires a far-reaching plan of campaign. The urgent need for a completer organization formed the theme of a paper read by me before the recent International Congress on Tuberculosis in Paris.[1] The view was there advanced that the extent of the issue demanded that each city and district should have a special department of public health activity devoted entirely to the handling of tuberculosis in its various manifestations, and that the responsibility for the establishment and maintenance of such a department should rest with the local authorities. It would naturally be placed under the medical officer of health, but should form a separate and well-defined department of his activity.

In the case of cities, such a municipal tuberculosis department would occupy itself with several different aspects of the question, and should include the following divisions, in close organic relationship:

1. A tuberculosis dispensary, as the centre of municipal operations and the uniting point of the other agencies.
2. A sanatorium or sanatoriums for early cases.
3. A hospital or asylum for advanced cases.
4. A colony for the after-life and supervision of patients in whom the disease is sufficiently arrested to make selected open-air employment feasible and desirable—patients who would probably lapse if not under such supervision for a prolonged period.

A considerable part of such an organization has gradually been evolved in Edinburgh during the past eighteen years, where the scheme now includes:

1. The Royal Victoria Dispensary for Consumption, founded in 1887, in the heart of the city, for the reception and examination of patients and the recording of details as to history, surroundings, and present state; for bacteriological examination of expectoration; for instruction of patients how to treat themselves and how to prevent the carriage of infection; for dispensing of medicines, disinfectants, sputum bottles, and, in the case of the very poor, food stuffs and the like; for visitation of patients at their own home by a qualified medical man and a specially-trained nurse for the purpose of treatment and of investigation into the state of the dwelling, etc.; for selection of patients for hospital treatment—either early cases for sanatoriums or late cases for incurable homes; for supervision of patients after discharge from hospital, and for the guidance generally of consumptives and friends of patients, and for all inquiries relating to tuberculosis.
2. The Royal Victoria Hospital for Consumption—a sanatorium, in the vicinity of the city, for the treatment of early cases in two groups: (*a*) for prolonged periods until complete cure or definite arrest of disease is effected; (*b*) for shorter periods, so that the patient may learn methods of treatment to be afterwards carried out at home. Some of the latter patients are resident in the hospital, while others are visitant during the day, returning home at night.
3. The City proposes to devote a portion of the City Fever Hospital to patients in advanced stages of the disease.
4. A Colony is in process of development in connexion with the Royal Victoria Hospital, where a large proportion of the paid staff are cured patients who serve as gardeners, carpenters, engineers, bathmen, male attendants, and maid servants, etc.

It goes without saying that the establishment of such an organization must be attended with difficulties, and may have to encounter prejudices and opposing interests. But constant regard to the end in view will afford a just perspective, and make obstacles seem insignificant. A clear perception of what is required, and persistent tactful effort, will lead to such a combination of the various forces now carrying on a desultory warfare as will ensure success.

The need of tact in such matters is readily illustrated in relation to the vexed question of notification, to which reference is made at the close of your article. Had those of us who, fifteen or twenty years ago, were convinced that in compulsory notification lay the logical solution of much of the tuberculosis problem done nothing but insist baldly on the necessity for such notification, I doubt if public opinion, medical or lay, would have been half so prepared for the adoption of notification as it has become by the efforts of such agencies as the National Association for the Prevention of Tuberculosis (even though notification has not been part of the official programme), and the object lesson which has been afforded by the practice of voluntary notification in different centres. Convinced as I have been throughout of the enormous advantage which would accrue from compulsory notification, and free from apprehension as to any of the supposed disadvantages, I believe that its significance would be greatly enhanced if throughout the country some such scheme of organized and co-ordinated effort as I have rapidly sketched were first of all generally adopted.—I am, etc.,

R. W. Philip.

Edinburgh, Feb. 19th.

THE RELATION OF THE MEDICAL PROFESSION TO WAR.

Sir,—In his address, printed at page 361 of the British Medical Journal of February 17th, Surgeon-General Keogh omits to say that the action recently taken by certain medical friends of ours in West London with a view to learning something about the duties of a military medical officer was the result of his own efforts to awake the interest of civil practitioners in such matters. As this trial is an experiment it was desirable to keep it local at first, because too extensive a trial, if it had resulted in failure, would have exposed its authors to ridicule.

So far as it has gone the experiment has shown (1) tha the study of military medical work can be made very interesting to civilians, (2) that a large class of between forty and fifty busy medical men can be got to attend a fortnightly course of such studies with a regularity which is remarkable remembering the imperfect command a medical man in practice has over his own time, and (3) that a large proportion of civil practitioners—general, consulting, and special—have the patriotic desire to fit themselves in time of peace for what duty might call on them to attemp in the event of war with a great European Power.

Last spring, after I had heard the Director-Genera announce his views and desires, I asked myself for wha reason I had never been a Volunteer Medical Officer. M conscience refused to confess that it was want of patriotism It seemed to me that it was partly because I had no realized how much more than his ordinary professiona training a man needs to fit him for the position of military medical officer, and partly because my privat duties would not permit me to put it in the power of th War Office to take me from my home and practic abruptly in the manner in which, on certain contingencies the Militia and the Volunteer Medical Officer are liable t be called upon. I felt that, in the event of a great war, should be quite prepared to undertake army medica duties within such a distance of my home that they woul not prevent me from reserving a reasonable amount time for my private and civil hospital work; and I fel also that I might even be prepared to serve through campaign abroad if I were not asked to decide finally o that point till the eve of the outbreak of war. Upon consulting a large number of my friends (over thirty) I learn that, with only two exceptions, they looked at the matte very much as I did.

It seemed to me that unless compulsion were used a larg medical army reserve could only be procured by organizin locally. Obviously a "volunteer" is a free agent, an the sensible statesman who desires his services will tr o meet his wishes. Were the country divided into districts, in each district a considerable number of medical nen could be enrolled who would study military medical ffairs and duties, and be willing to pledge themselves, hould a great war break out, to do them at a day's notice n their own district, and even to do a little more; for xample, to accompany a battalion from Hounslow to dinburgh, and there hand its sick over in due order to a lidlothian branch of this Army Medical Reserve.

---

[1] Vide *Tuberculosis* and *Edinburgh Medical Journal*, January, 1906.

There would always be a proportion of these medical servists who would be willing to serve abroad if a ally great war broke out, especially if the enemy ere European. In such an event a large local body uld safely promise the services of 10 per cent. of its embers for service abroad; but it ought not to be asked name the individuals until the eve of hostilities. Many ould be in a position to say now whether they would rve abroad, should the little cloud far away and scarce sible at Algeciras rise and spread till it blackens the nith and bursts over Europe, but would not be in a sition to promise to go abroad in three, or two, or even e year's time. That is the position of most of us. ere are, of course, many who, from age or infirmity or her impediment, could say now that they would not rve abroad under any circumstances. Some of these uld find themselves mistaken if once their blood were rmed by the outbreak of a European war.

Each of the local bodies I have indicated would have to ploy the days of peace in organizing itself as well as in ucating itself for war. The organizing could only be perly done by a committee of its own members, of irse acting in consultation with the staff of the A.M.C. This committee would have to make itself quainted with what services each member could, uld, and preferred to give in various possible congencies. On these points it would, at regular intervals, ort briefly to the War Office. But, when hostilities ke out, that Office would not send orders to individual members of the civilian medical reserve direct. elegram from the War Office on or just before the break of war to the secretary of the committee would the local machine in instant motion, meeting daily at t, and all night if necessary, to fulfil its obligations to Royal Army Medical Corps and the country.

et us suppose such a Committee dispensed with, and proposed reserve individually and directly under the r Office. Can there be a doubt that everywhere the nd men, personally unknown as they would be in itehall, would be jammed into the square holes, and aps a man who was buried last week ordered somere to examine recruits.

he body in question is meant to be a reserve to the .M.C., regulars, militia, and volunteers, not a rival to volunteers. In practice it would most likely feed that irable and most patriotic corps, as it would awaken in ng medical men an interest in its duties.

e questions of rank, of title, and of uniform, if any, secondary, and their consideration may be postponed, ough no one, I should think, would deny their ortance.

ith regard to pay when on service, assistance in ing that would be afforded by the very considerable rience which has been obtained from the employment vilian medical men on military duty in peace as well war.

stly, I would add a word on the relation of this movet to the great mission which Lord Roberts has under. "Every boy in Britain should learn drill and man know how to shoot straight." We accept this; he latter half of it applies to the medical man atively. For him his medical training represents with the rifle, and the instruction now being given est London stands for drill and for something more. It the great profession to which we belong, which ers 30,000 in these islands, which can lift the latch nost every home unbidden and enter as the trusted l and counsellor—let this profession with one heart one soul awake to its duty to King and country— e quietly and practically, after the manner of our London friends, but unanimously and far and wide; as the tale of this awakening is unfolded to the c, there will be "magic in the web of it," as Othello Think of the effect of such an example.—I am, etc.,

lon, W., Feb. 18th. C. B. KEETLEY.

INFANT FEEDING IN THEORY AND PRACTICE.

SIR,—My attention has been drawn to a letter under the above heading in the BRITISH MEDICAL JOURNAL for January 20th, p. 172, and, as representing the staff of the Royal Hospital for Sick Children, Edinburgh, I have been asked to state certain facts.

Your correspondent is right in believing that the course of diseases of children is not a compulsory class in the university curriculum. It is one of three optional subjects, the other two being diseases of the ear, nose, and throat, and diseases of the skin. For many years, however, a great majority of the students have taken out the "children's" course at the hospital, and in illustration of this fact I may state that last year while about 220 students entered for the final examination, 170 attended the class of diseases of children. Your correspondent cannot, however, have inquired into the nature of the course in question or he would not have stated that the subject of feeding of children "perhaps" constituted part of such course. The staff of the hospital is fully alive to the importance of the question of infant feeding, and not only devote a quarter of their systematic lectures to its consideration, but make a practice of constantly referring to the subject, and demonstrating its practical application in their ward cliniques.

I shall or need not trouble you with the details of the course, but the fact that it is so well patronized, though only an optional class, is significant. The general plan of the course is an ideal one, which might with advantage be followed elsewhere. Every member of the staff is recognized as a teacher, and therefore every bed and every out-patient of the hospital is available to the students.

I entirely agree with your correspondent as to the desirability, if not necessity, of making the course a compulsory one, and am in full accord with his arguments in favour of this.—I am, etc.,

Edinburgh, Feb. 6th. T. M BURN-MURDOCH.

ANGINA PECTORIS.

SIR,—I have pleasure in acknowledging the courtesy and moderation of Sir James Barr's criticism of my paper on angina pectoris; and as he acknowledges that my views do not differ materially from his own, I hope that we may yet attain to perfect accord. In this hope I shall endeavour to make my position more clear than it seems to have been, judging from Sir James Barr's letter.

I may say that the paper in question was one of six dealing with vessel conditions, or alimentary conditions, in which the relations between the two were more or less dealt with, and possibly the whole subject had attained a perspective in my mind which was not readily apparent in this single paper.

My proposition as regards angina pectoris was that systemic arterial contraction was the first objective symptom. I sought to show that during the process of digestion an increase of systemic arterial contraction was normal, and the result of a normal vasomotor reflex. If this reflex exists—and from clinical observation alone I do not doubt it—the reflex can be intensified and can be prolonged. This was, however, but one part of the phenomenon with which I was dealing; the second part was the absorption into the circulation of substances which act so as to produce arterial contraction. My main aim was to emphasize the immense importance of these two factors in the alimentary system in producing arterial contraction. Arterial contraction—which in its milder degree is a mere hypertonus—and its dependence on dietetic and digestive conditions I dealt with in a paper in the BRITISH MEDICAL JOURNAL of June 4th, 1904; I therefore avoided elaborating that aspect of the subject in the paper at present under consideration.

This arterial contraction is a clinical phenomenon, which I do not hesitate to say is most imperfectly recognized, and its clinical significance has been strangely overlooked. The dependence of this contraction upon alimentary and digestive conditions becomes a matter of daily observation once its existence is recognized. In angina pectoris I believe that the vasomotor reflex and intestinal absorption both share in the production of the arterial contraction which is the determining incident in producing an anginous attack; this explains what has been always known—that the taking of a meal or gastric and intestinal disorders are common causes of the anginous paroxysm. But these are not the only causes of attacks, and I indicated how emotion and physical effort also produced attacks through the vasomotor centre, which had therefore to be clinically regarded as hypersensitive. I showed that that hypersensitiveness might be influenced from the alimentary tract by means of diet, or by the correction of even slight disorders of that tract. This is, to my mind, a perfectly sound clinical chain. Did space permit I might elaborate this subject from the standpoint of excessive proteid feeding or of the intestinal putrefaction of flesh foods. Before Professor Chittenden published his remarkable researches I was clinically satisfied that excess of proteid led, either directly or indirectly, to arterial changes, and since the publication of his work it has been easy to understand the prevalence of these changes. The recurrence, the maintenance, and the exaggeration of arterial contraction, determined by alimentary and digestive conditions, leads to the anatomical changes which characterize arterio-sclerosis as that term ought to be applied.[1] By arterio-sclerosis I mean the common thickening of the arterial wall, which is due to thickening of the internal and middle coats, without atheromatous degeneration or calcareous infiltration. This distinction is not mere pedantry, for Sir James Barr himself recognizes that atheromatous and calcareous changes in vessels interfere with their contractility, while in the condition to which I confine the term "arterio-sclerosis" that is not the case. The conditions are so totally different that one is amazed the confusion should have existed so long. Atheroma, as a matter of fact, is a relatively rare condition in the radial artery; and if Sir James Barr will examine after death thickened radial arteries, including those he has diagnosed as atheromatous, he will be as much surprised as I was, and as I am still from time to time, and I shall have had the honour of making a valuable convert.

Only one other point remains for me to deal with, and that refers to the cerebral and coronary arteries. If physiology says we are not to reckon clinically on the possibility of contraction of these vessels because their connexion with the vasomotor centre has not been demonstrated, I should unhesitatingly decline to accept the dictum.

Physiology has its own important place, but if I am told "that when clinical medicine does not harmonize with physiology, so much the worse for medicine," I find an answer in Professor Chittenden's work, dealt with so tactfully and lucidly in a leading article in the JOURNAL of February 17th.

Personally I have always found physiologists glad to have the assistance of clinical observation; were it otherwise, I should change Sir James Barr's words, and say "that when physiology does not harmonize with clinical facts, so much the worse for physiology."

Apologizing for occupying so much of your valuable space,—I am, etc.,

Edinburgh, Feb. 18th. WILLIAM RUSSELL.

THE RELATIVE BRAIN-WEIGHT OF MAN AND WOMAN.

SIR,—When discussion degenerates into recriminative details and quotations, it loses its interest for the ordinary reader. I will therefore be very brief.

Professor Pearson does not really answer—I do not think he can satisfactorily answer—either of the two points I made in my former letter. In his attempt to meet the second, the analogies are too imperfect. He abjures Mr. Fison, as I do; but it seemed natural to me to conclude, from the confidence of his assertion, that he was a myrmidon of the Professor, and knew something of what he was talking about.

Professor Pearson, however, thinks he has reason to complain of my having stated in *l'Anthropologie* that, according to him, "*il n'existerait aucune correlation entre la capacité cranienne et le developpement de l'intelligence.*" I am sorry if I have ever misrepresented him. It is a little difficult sometimes to distinguish between him and his coadjutors in their joint labours; and in this case I suppose it was Dr. Alice Lee whom I ought to have quoted. In a paper in the *Philosophical Transactions* she (or he) said:

I think we may conclude:

1. That there is no marked correlation between skull capacity and intellectual power in the case of either sex alone.

2. That brain-weight must have a very considerable correlation with skull capacity; and, therefore, our data present nothing to encourage the belief that there is a relation between brain-weight and brain-power.

Though my quotation may not have been absolutely accurate, I cannot see that it was otherwise than practically correct.

I am sorry that Professor Pearson has so poor an opinion of my anthropological work; but it somewhat consoles me to recollect that Broca and Virchow, and Topinard, all appreciated it, and in some cases even built upon my foundations. Therewith I am content.—I am etc.,

Bradford-on-Avon, Feb. 17th. JOHN BEDDOE.

SIR,—My sole reason for asking permission to continue this discussion is that medical men may fully appreciate the importance of the discovery which Professor Pearson has brought before the readers of the BRITISH MEDICAL JOURNAL. Medical men have frequently sought to explain the fact that the average man has a brain about 100 grams (roughly one-thirteenth of the total brain) heavier than the average woman; it has been left for the biometricians to discover the only explanation which is entirely satisfactory to Professor Pearson. His last letter now permits the explanation to be put very simply—the average man's superior brain-weight is due to the greater size of his head. It is "a valid scientific deduction," I hope, to infer that owing to the greater size of the average man's head he requires 100 grams of brain matter more than the average woman to fill his skull In brief, one-thirteenth of the brain-weight of men with mediocre heads, such as Professor Pearson's and my own, is present simply by way of padding, to allow our brains to fit our skulls. In the case of men like Byron and Cromwell, whose brains exceed the average by 800 or 900 grams, the padding must have been enormous while in the case of men like Tiedemann the anatomist who fell about 100 grams short of the average for hi countrymen, the padding must have been less than normal. This discovery of the biometricians will caus us to revolutionize our conceptions of brain growth The cranium is the capsule of the brain; we hav hitherto supposed that the size of a capsule depended on the size of the organ; as regards that organ, the brain we must now suppose that its size is determined by th growth of its capsule. In a hydrocephalic child, fo instance, we must give up the idea that the head grow because the brain has become dropsical and regard th collection of fluid as due to the extreme growth of it skull. In short, the brain is made to fit a skull which is size too large for it much in the same way as a hat i adapted to a head which is too small for it, by the use o padding.

Owing to the wonderful stimulus given to the imagination by the constant use of symbols in place of the reality biometricians have raised round themselves a delightfu Alice-in-Wonderland atmosphere, where heads expand b the use of one multiple regression formula and contrac by the application of another, and I hope they will no feel surprised by my application of their discovery to th reality.

I guessed, when Professor Pearson brought this matte forward under the pretext of a misrepresentation of min that his ultimate object was to interest medical men i his efforts to place physical anthropology on a soun scientific basis—an object in which he has my entir sympathy. For that object two things are necessary- a rational method and rational data. Professor Pearso has got the method, but owing to our ignorance of th manner of growth and of the mechanism of the huma body that method has to be applied to irrational dat which give necessarily such an irrational result as th one just cited—that the size of the brain depends on th size of the skull.—I am, etc.,

London, E., Feb. 20th. A. KEITH.

ON VENTRIFIXATION.

SIR,—Whether the recent discussion on ventrifix tion at the Obstetrical Society of London showe British gynaecology at its best is not, perhaps, wor debating. Any one reading Sir William Sinclair's article in your issue of January 27th would gather that adhesions did not render the operation more difficult, but made it less dangerous.

---

[1] *Lancet*, June 1st, 1901, and *Edinburgh Medico-Chirurgical Transactions*, vol. xix, 1900-1.

In saying that his statement was astounding there was no quibble and no want of candour. It is not only astounding, but positively dangerous, coming from one who occupies the position of a teacher and professor at an important university. For a man might advise and carry out the operation in a case complicated by adhesions, relying upon this statement, and find out to his cost, and possibly at the cost of his patient's life, that it was not true. I had not the slightest desire to score a clever dialectic point. My object was and is to declare the truth, and the truth is that adhesions increase both the difficulty and the danger.

In your issue of February 17th Sir William Sinclair wishes it to be understood that he did not mean his remarks to refer to the difficulty, but only to the danger. In other words, he agrees that adhesions do increase the difficulty of the operation. He still maintains, however, that they do not increase the danger. I hope he will admit that this is erroneous, not because I wish to score any point, but because of the harm it might do. Of course, it is a well-known fact that in process of time infectious adhesions and fluids may become sterile, but one can never be quite sure of the fact. Moreover, until the operation is actually in progress one can never be sure that the bowel is not implicated in the adhesions. Again, more or less bleeding may take place and be a source of danger.

A clever operator may avoid dangers that an inexperienced or bungling operator would not; but that adhesions do increase both the difficulty and danger of the operation of ventrifixation is incontestable.—I am, etc.,

London, W., Feb. 17th. PETER HORROCKS.

THE POOR-LAW COMMISSION AND CONTRACT PRACTICE.

SIR,—The letter of "Self-Preservation" ought not to be lowed to pass without criticism. He objects to the commendation of the Contract Practice Committee that ntract work should be shared by all the practitioners in e district who are willing to act at terms mutually ranged between them. This is to my mind an excellent ggestion so far as club practice is concerned, but may I int out that this does not apply to Poor-law appointnts? These were not within the scope of the Committee's vestigation and are in an entirely different category. eir turn will come later on.

But if "Self-Preservation" intends his remarks to apply t club appointments, and if he argues that the sale ue of his practice will much depreciate if he has t share his clubs with the other medical men in t district, then I beg to differ with him. I should rard a practice with £400 a year from private pients and £200 a year from clubs with serious sgivings. £200 a year from clubs at 4s. a year ild mean 1,000 members to attend. Statistics show tt of these 1,000 members the average attendance equals a ut 4 to each member for the year. This means 4,000 ndances, 11 per day (Sundays included), for each of ch he will get 1s., and have to find medicine and sign ificates, etc. Suppose, as often happens, one patient y live three miles in one direction and another three es in the opposite. No wonder his private practice y amounts to £400. The majority of these club ents could afford to pay him at least 2s. 6d. for each ndance, and some more. If clubs were given up he ld at once increase his practice to £800 or £900 a year. loss of his contract work would not involve the loss of rtain amount of private work; it would certainly ease it.

buying a practice the safest plan is to look upon club pintments as a serious drawback, and as much diminng its value. They are carried on at a loss, and rfere most seriously with comfort and efficiency. y are likely to bring more discredit than anything s and instead of being—as they were originally nded—a charitable arrangement, are now only made of by the public for their own advantage, and because know medical men are so against each other that if will not accept clubs another will.

In conclusion, I should like to take the opportunity of saying that I hope all practitioners will make a strong effort to wade through the ninety-seven pages of the Report on Contract Practice, and I am perfectly sure they will then be amazed, after the strong testimony put before them as to the abuse of the system, and the injury it is doing our profession, that the Committee should have the temerity to propose that the system should be encouraged by setting up so-called Public Medical Services (which are simply medical clubs under another name) all over the country under the auspices of our Association.

Why did they not face the matter, and resolve that our object should be, for our self-preservation, to curtail club work as much as possible, and finally abolish it altogether? I am, etc.,

February 19th. ANTI-CLUB.

RURAL INSANITATION.

SIR,—It is a great satisfaction that your excellent article upon the above has excited two letters in your correspondence. Every word written by "Rural M.O.H." can be endorsed; and "Limitation" can rest assured that it is not fanciful administration that at least the working majority of rural M.O.H.'s are aiming at, but real sanitation about and within dwellings, and amending the sanitary circumstances of drainage and water supply in populous places.

Security of tenure of appointment is the first principle to be made. The writer, for one, has a personal interest in this, as after thirty years of service his re-election is coming on. Some of his council unsuccessfully struck at his re-election, boldly assailing his too great activity in a quarter where there was small-pox in 1903, and now is under surveillance by the County Council. Re-elections had been for periods of three years; but this re-election is to be but for one year. What consent the Local Government Board may give to this proposal it will be interesting to watch.

Now that a Radical Government is in power, it is hoped that they will soon get to the root of sanitary administration, and reform all. If security of tenure is good for the Poor-law officers, it is equally good for the public health officers, other than the clerks who already have it. If security of tenure is necessary in the metropolitan districts, it is more so in the rural districts, where so much unpopular work has to be done.

A great deal more than this is expected from the President of the Local Government Board. He must know the conditions in which the less favoured live, and know how essential it is to stem the race degeneration, and to remove the exciting causes of all kinds of immoralities by correction of these conditions. In rural parts the sons of the soil should be encouraged to return to the soil they have left. Measures codifying the various Public Health Acts should be brought about; and a comprehensive housing scheme should be propounded, such as the Irish Land Acts of 1881-3, with a kind of by-law direction as to accommodation. Sanitary areas should be made more uniform in size; at present some are vastly too large, and many others far too small for good administration. County Councils should be called upon to take more supervision in detail of their sanitary areas. By such legislation, and particularly by a bold show of determination on the part of the Local Government Board, may such scandalous exhibitions of sanitary conditions as your article is upon be avoided in the future.—I am, etc.,

February 18th. ANOTHER RURAL M.O.H., D.P.H.

COURSES ON SCHOOL HYGIENE FOR MEDICAL MEN.

SIR,—Recently much attention has been given to school hygiene in England, and a considerable number of medical men have obtained appointments as medical officers to schools in various large towns. Probably many medical practitioners, on commencing the duties connected with these appointments, have felt that it would have been a great advantage if they could have attended some short course of instruction (practical and theoretical) on the subjects of special importance with respect to school hygiene. Nearly all of these subjects are included in the ordinary medical curriculum, or in the training for the Diploma of Public Health; but owing to the limited time many of the subjects of special importance in school hygiene can only be very superficially treated in the courses of training just mentioned.

At the English universities and medical schools, short courses of instruction for medical men who intend to undertake the duties of medical officers for schools, could easily be arranged, and I think such courses would be of service. Short demonstrations and lectures, by the various professors and lecturers, on the sections of their subjects which are of special importance with respect to school hygiene, would be very valuable. Such a short combined course might include lectures and demonstrations on brain fatigue, nervous affections of school children, overpressure, physical training, the school curriculum, the relation of school work to affections of vision, hearing, speech, etc., infectious diseases and school work, school construction, ventilation, heating, etc.

In Hungary such courses have been given at the Buda-Pesth Medical School for some years, and one hears that they have been very successful. They are of three months' duration, and a special diploma in school hygiene is granted to those medical man who have acquired a satisfactory knowledge of the subject.

Hygiene is taught to the senior scholars in the high schools of Hungary, and the instruction is given by the medical officers of the schools.

The Hungarians are fond of following the example of English institutions; might not some of our medical schools with advantage follow the example of the University of Buda-Pesth, and establish short courses in school hygiene for medical men?—I am, etc.,

Manchester, Feb. 16th. R. T. Williamson.

OBITUARY.

Deputy Inspector-General Edward Schaw Protheroe, late of the Army Medical Department, died at Llanglwydwen on January 6th. He entered the service as Assistant-Surgeon, June 10th, 1845; was made Surgeon, March 16th, 1855; Surgeon-Major, June 10th, 1865; and Honorary Deputy Inspector-General on retirement, October 19th, 1872. He served with the Royal Artillery in the Crimean campaign from October 30th, 1854, and was at the battle of Inkerman and at the siege and fall of Sebastopol. He had received the Crimean medal with two clasps and the Turkish medal.

Surgeon-General James Pattison Walker, M.D., late of the Bengal army, died at Clacton-on-Sea on February 14th in his 86th year. He took the degree of M.D.King's Coll. Aberd. in 1842, became M.R.C.S.Eng. in 1844, and entered the Bengal Medical Department as Assistant Surgeon, April 5th, 1845, and rose to the rank of Surgeon-General in October, 1877, in which year he retired from the service. Surgeon-General Walker was Sanitary Officer of Agra throughout the ten months it was besieged during the Mutiny campaign.

We regret to have to record the death of Dr. Richard Garnham, of Herne Hill. After studying at University College he took the diplomas of M.R.C.S.Eng. and L.S.A. in 1858 and 1859 respectively. Soon after qualifying he joined the P. and O. service, in which he remained for seventeen years. In 1877 he settled at Herne Hill, which was then a country district. He acquired a large practice, and won the esteem of a large circle of patients. He had suffered for many years from angina. On February 11th he was called to a case, and had only arrived a few minutes when he fell forward and expired. He thus actually died in harness. The funeral took place at Norwood Cemetery on February 15th; the first part of the funeral service was held in St. Paul's Church, and was attended by many old friends.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Mitrophan Popoff, Emeritus Professor of Anatomy in the University of Kharkoff, aged 62; Dr. Rudolph Schelske, Lecturer on Ophthalmology in the University of Berlin, aged 76; Dr. H. Cuffer, Physician to the Necker Hospital, Paris, aged 55; and Dr. George Ryerson Fowler of Brooklyn, a well-known surgeon, author on a treatise on surgery, and a monograph on appendicitis, aged 57.

MEDICO-LEGAL AND MEDICO-ETHICAL.

ACTION FOR BLINDNESS AFTER GLAUCOMA.

Messrs. Bradford and Fielden, medical practitioners, Binfield, were the defendants in an action tried at the Berks Winter Assizes, brought by John Jarvis, carpenter, and his wife, to recover damages for loss of eyesight alleged to be due to negligent and improper treatment. Dr. Bradford having died since the cause of action arose, the claim was against Dr. Fielden only.

Mrs. Jarvis stated that having suffered from violent pains in the left eye, of which she had gradually lost the sight, she called in the defendants early in 1903. In April Dr. Fielden removed the left eye, and the next night but one she felt very sharp pains in the right eye. On the following morning she found she could not see at all, and from that time she had been totally blind. She thought some chloroform had got into her right eye at the operation, and that that had caused her blindness.

Dr. Edward Fielden, the defendant, said that Mrs. Jarvis had a very painful glaucomatous left eye. The right eye was tense, and the sight was not perfect, indicating an early stage of glaucoma. Chloroform was administered by means of a Skinner's mask, and he did not think any went into the right eye. There was nothing to show that an irritant had been in the eye. The patient became blind soon after the operation, but he received no complaint until January, 1905, when he had a letter from a Reading solicitor.

The jury found for the defendant, and judgement was given accordingly, his lordship also allowing a counter-claim of ten guineas for professional services.

The case was reported in the *Reading Mercury* of February 10th.

SECRET COMMISSION.

Numerous correspondents from all parts of the country have sent us indignant protests against the circular issued to the profession by the proprietor of the Veedee vibrator, which is an instrument for the application of mechanical massage The chief ground of offence is that on a slip marked "Private and Confidential; Terms and Profits to Medical Men," it is stated that "Any medical man desiring to prescribe the Veedee vibrator and attachments may instruct me to send to the patient direct and charge to the patient at list prices. In all such cases I would, immediately I receive the patient's remittance, send 25 per cent. to the medical man as his profit." This is an offer of a secret commission or bribe to medica men to recommend this instrument, and therefore they would be well advised to avoid business relations with a man who attempts to promote his business by such means. We regre to see that the accompanying typewritten letter says, "During one week recently I received orders for Veedees from no les than 147 medical men." If this is true we trust that thes gentlemen have not accepted the bribe, although suspicion must attach to the transaction.

MEDICAL CHARGES.

In an action brought recently in the Hull County Court b Dr. F. Wilson against a Mrs. Barthel for charges for profes-sional attendance upon her son, aged 19, the defence was tha the mother was not liable. The judge held that the mothe was responsible for reasonable charges, and gave judgement t the plaintiff for part of the sum claimed. In his remarks o the case the judge commented on the different charges o doctors according to the locality in which patients lived an their means, and observed that this was perhaps a good thin for the poorer classes.

FORGERY OF DEATH CERTIFICATES.

An elderly man named Hamilton Jolly was recently charge at the Liverpool City Police Court on six informations wit forging certificates of the cause of death for the purposes o the Birth and Deaths Registration Act, 1874; the defendan pleaded guilty.

Mr. R. P. Cleaver, who prosecuted on behalf of the Registrar General, submitted certificates signed by the defendant wit the signature, "J. Fitzgerald, L.K.Q.C.P.I." The cases o which complaint was made were only part of a large numbe of death certificates received by the various registrars in th West Derby Union. These, together with a number of va cination certificates signed by the defendant, made it clea that a somewhat extensive practice had been carried on by him He occupied premises at 59, Red Rock Street, West Derby Roa but according to the *Medical Directory*, 1906, the tenant w Joseph Fitzgerald, L.R.C.P.I. and L.M., 1873, L.R.C.S.I., 1871 the defendant was the only person who had attended any the persons in regard to whom the certificates were issue Dr. Joseph Fitzgerald resided in Erskine Street. The accuse was not a duly-qualified medical practitioner. According t the report in the *Liverpool Daily Courier*, from which w quote, Mr. Cleaver added that he believed Jolly was a relatio of Dr. Fitzgerald.

The defendant was fined £10 in each of the two cases, £5 i each of the other four cases, and ordered, further, to pay £ as costs.

In the *Medical Register* for 1905, Joseph Fitzgerald, holding olomas of the dates mentioned, is returned as residing at ach Buildings, Queenstown, co. Cork.

REGULATION OF PROPRIETARY MEDICINES.

BILL regulating the manufacture and sale of proprietary dicines and providing for the examination and analysis of m by the State Board of Health has been introduced into New York State Legislature. The Bill further provides for publication of the formula on the label.

LIVE BIRTH AND SURVIVAL.

RMAN writes: (1) How long would an infant be likely to ive after birth if the cord was not tied and divided but left ttached to the placenta, detached from the uterus, but not xpelled? (2) Is the fact that haemorrhage has occurred om the umbilical cord attached to the child, which was nsecurely ligatured, positive evidence that the child was orn alive?

*** We referred these questions to Dr. F. J. Smith, who rites: (1) There can be no question but that the special ndition here indicated has nothing whatever to do with ving or dying: once the child is born, *and in a position breathe freely*, its life is absolutely independent of the rd and placenta. The cord may be divided at once, or left ndivided, or separated or not separated, or expelled or not, r hours without in the slightest degree interesting the wborn child. The "likelihood" of living depends almost tirely on suffocation in urine or faeces, or by the clothes the mother, and not upon the position of the placenta (vide aylor's *Medical Jurisprudence*, vol. ii, p. 259, et seq.). (2) e answer must be decidedly in the negative on the mere estion of bleeding, but something might be gained in the y of evidence if it were possible in a given case to ascer-in the nature of the bleeding—that is, whether it had been nous or arterial, as evidenced by spurting of the blood: ch arterial bleeding is evidence of "life," but not neces-rily of "born alive"—two very different things. A dis-ssion of the differences would be too long for insertion, t I may refer to Taylor again, vol. ii, pp. 203, et seq., ere they are fully entered into. It is a very definite fact at an umbilical cord may bleed after the death of the ant (vide Taylor, vol. i: "Was this blood shed before or er death?").

LIABILITY OF *X*-RAY OPERATOR.

SRS. G. E. BRIDGE AND Co. (Bournemouth) write, with erence to the case briefly noted under this title last week, 418, to say that their work is, as a rule, entirely confined to iography, and that the case which was the subject of the ion was undertaken against their inclination and usual tom on the understanding that the doctor would keep the e under constant supervision.

MEDICAL WITNESSES' FEES.

RRESPONDENT complains that having been summoned by Crown to give evidence in a murder case, he attended rt from 11 a.m. to 12.30 and gave evidence and was only wed half a guinea, though for attending the police court the same case he was allowed £1 1s. each time on three asions.

* Our correspondent has suffered from the strict applica-n of the rule that if not detained from home for four rs half fees only are to be allowed. On the other hand, may consider himself fortunate in having obtained the fee of a guinea at the police court, to which, as well as he assize court, the above rule applies.

MEDICAL ADVERTISING.

A.—With regard to the reprint from the *Lancet*, which correspondent complains has been published in a local spaper, we recommend him to apply to the proprietors at paper, who will not allow any infringement of their right. As to the second matter, we do not think any ption should be taken to the circular if addressed solely e medical profession.

NENTAL writes that, on applying to the publishers of *dshaw's Monthly Continental Guide* to have his name ided in the list of English medical men practising in inental towns, he was told that they would be glad to do his paying a guinea, and he asks whether the payment is sum would constitute advertising?

* We do not think that the payment of the guinea would e a material difference in the character of the announce-t, but the information given throws some light upon practice. We believe the Anglo-American Continental Medical Society has under its consideration the regulation of advertising by its members, and we think it is better that such a society should regulate these matters, as the conditions differ so much from those that exist in the British Islands. So far as we know, no one has objected to the names of doctors appearing in Baedeker or Murray, and, on the face of it, this seems to be an announcement of the same kind.

THE CONNEXION OF MEDICAL MEN WITH LIMITED LIABILITY COMPANIES.

DR. LLOYD-JONES.—While it would be difficult, if not impossible, to lay down a stringent rule, we think it is a good principle that no medical practitioner should take shares in a company formed to sell anything which it may be his professional duty to recommend to his patients.

BAD DEBTS.

A. sells practice to B. and C. For one year previous to sale all three share equally in the profits. A. wishes to pay B. and C. their shares, and to collect the debts of the firm himself. How much per cent. should A. deduct from B. and C.'s shares to secure himself against possible bad debts?

*** This would depend entirely on the position of the debtors. The debts, or most of them, might be practically safe, or the reverse. A reasonable arrangement would be for A. to value the debts, and then to make an offer to B. and C., who might accept it, or decide to take their shares of the money finally collected.

INFORMATION TO THE POLICE.

REMANDED writes that he was called by the police to attend an assault case. The patient not being able to appear at the police court for several weeks, the case was remanded from week to week on our correspondent's verbal report to the police, who came to ask how the patient was progressing, but have refused to pay him for his reports or for his attendance after the first call. He asks whether he was required by law to furnish the police with information, or should he have refused to say anything unless in court on subpoena?

*** The police have no legal right to claim information in such cases, and in order to protect himself from similar treatment in any future case, our correspondent should decline to give a verbal report except in court, but offer as an alternative a written certificate, for which he should take care to be paid at the time.

A PROVIDENT DISPENSARY.

A. H. P. sends us a prospectus of a provident dispensary the advertisements of which are printed upon two leaflets, and he tells us that it is proposed to circulate these in a certain poor neighbourhood. The plan of the dispensary is that by small monthly payments the poor may secure for themselves medical assistance in illness. One of the leaflets gives the names of the trustees, and of the medical officers.

*** We think it would be difficult to distinguish between the proposed proceeding and the canvassing and touting for clubs which has been forbidden by the General Medical Council. This dispensary is to all intents and purposes a club, and will be certain to be regarded by those practitioners who do not happen to be upon its staff as an attempt on the part of those who are to secure for themselves by advertisement a large share of the practice in the neighbourhood.

ALLEGED COVERING.

W. writes that there is an unqualified practitioner in his district who is at present laid up by illness, and is being attended by a registered medical practitioner who is carrying on his practice for him. He wants to know whether this is covering.

*** In our opinion it would certainly be covering for a registered medical practitioner to carry on the practice of an unregistered practitioner during the latter's illness. The attention of the registered practitioner might be drawn to the matter by the Division of the Association in the locality.

DR. JOHN E. MACILWAINE and Dr. E. B. Purdon, son of the late Dr. H. S. Purdon, have been appointed successors to the late Dr. Purdon, as certifying surgeons for the Belfast district. The adjoining district of Ligoniel, held by Dr. C. J. Milligan, will be enlarged, and the remainder will be equally divided between Dr. MacIlwaine and Dr. Purdon.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

CARE AND CONTROL OF THE FEEBLE-MINDED AND EPILEPTIC.

AT a meeting of the Royal Commission on the Care and Control of the Feeble-Minded on February 9th, evidence was received from Mr. J. Willis Bund, Chairman of the Worcestershire County Council and Education Committee. He stated that he was of opinion that every local authority should be compelled to provide, either by itself or in combination with other authorities, a proper school for its uncertified children; that it should have power to compel the attendance of children at such school either as resident or day scholars, and subject to an appeal to a court of law to say that any child might be sent to a special school and kept there without the consent of the parents or guardians; that it should have power to recover from the parent or guardian such annual sum as a court of summary jurisdiction might decide; that the Government grant per child should be at the same rate as in the case of certifiable children, and the balance should be made up by the local authority out of a rate levied over the whole county, the provision for enabling the children to be sent to the special school being as cheap and as simple as possible. If this system were thoroughly carried out, all the uncertified children would be dealt with, and by the time that they were 16 years of age it would be seen whether any good was likely to arise from further instruction. The next step would be the establishment of a colony or home in which the uncertified could be properly looked after, separate provision being made for the improvable and unimprovable. Such a colony would prevent promiscuous multiplication of the uncertified; it would tend to suppress those who possessed no self-restraint, and it would lighten the poor-rate by making some of those, who would be otherwise wholly supported by the rates, to some extent self-supporting. Those who could neither work nor be improved should be drafted off to asylums, or to workhouses, if of an age when they would not be likely to have families, or to a special colony.

Dr. P. W. **MACDONALD** (Medical Superintendent, Dorset County Asylum) advocated the establishment of cottage homes in different parts of a county, or of special cottages in connexion with its main asylum, where non-improvable children of feeble mind should be cared for. Means should be taken to prevent the production of degenerates by degenerates, and power should be provided for keeping all idiots and imbeciles under restraint.

Alderman **PEARSON** (Bristol) thought all persons of weak intellect, whether of an acute or chronic condition, should be under the control of one body, this body not being a board of guardians.

Mr. **LIESCHING** (Chairman, Lunacy Committee, Tiverton Town Council) thought all epileptic children, not fitted for admission to an asylum, should be kept in homes where during periods of good health they could engage in useful work.

Canon **NORRIS** (Barnsley) thought that children unfit for education in ordinary schools should be drafted into special classes attached to the larger elementary schools, and be boarded near these in the houses of respectable people with whom they might live under conditions resembling those of ordinary home life.

WE have received from Dr. T. M. Watt, of Goxhill, Lincolnshire, a copy of a correspondence which he had has had with the Clerk of the Union, and with Dr. Bernard Stacey, who is conducting a medical investigation for the Royal Commission in the Care and Control of the Feeble-minded. The application received from the clerk was for a return on a form enclosed of the feeble-minded, presumably those under the Poor Law in the particular district. The application from Dr. Stacey was for the names of any persons within the district who came within the scope of the inquiry of the Commission. Dr. Watt objected to supplying this information without remuneration, and has been fortified in this attitude by a communication received from the Local Government Board stating that it forms no part of the duty of "a Poor-law medical officer to assist in the preparation of the return referred to."

We believe that similar requests have been addressed to many Poor-law medical officers throughout the country, and while it has always been the custom of the medical profession to render assistance in any inquiry involving public interests we agree that this particular demand is unreasonable. Clerks to guardians ought to have lists of all feeble-minded persons under the Poor Law; if they have not, it discloses a defect in administration which ought to be remedied quite irrespective of the requirements of the Royal Commission.

NOTIFICATION OF CASE REMOVED TO HOSPITAL.

M.O.H.—The general practitioner is entitled to a fee for notifying the case of erysipelas, and if the hospital to which the patient was removed had been in the same district, the house-surgeon would also be entitled to a fee from the same district council. As the hospital is situated within anothe sanitary district, the house-surgeon should notify the cas to the medical officer of health for that district, and he i entitled to his fee of one shilling from the district counci in whose area the hospital is situated. "M.O.H." shoul send the house-surgeon's notification to the medical office of health of the district in which the patient is for the tim residing.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Natural Science Scholarships.—Scholarships in Natura Science are announced for competition as follows: March 13tl Keble College; April 24th, Merton College, New College, an Corpus Christi College; June 26th, Brasenose College.

Degree in Medicine.—In a congregation held on Februar 15th the following degree was conferred:

B.M., B.Ch.—C. J. Pinching, St. John's College.

UNIVERSITY OF CAMBRIDGE.

THE following degrees were conferred on February 15th:

M..B, B.C.—J. N. F. Ferguson, Joh.
B.C.—H. B. Owen, Gonv. and Cai.

UNIVERSITY OF LONDON.

THE following candidates have been approved at th *Preliminary Scientific Examination, Part II:*

W. R. W. Asplen, J. L. Atkinson, W. A. Berry, B. Blackwood, C. F. S Broom, Barbara Broster, S. J. Clegg, G. B. Cockrem, Ethel M Connan, C. H. Crump, G. V. Deshmukh, J. P. Elias, A. Fer guson, A. J. Gibson, T. Hare, W. R. Harris, R. S. Harvey R. M. Hiley, F W. Hogarth, J. S. Hopwood, Florence I. G Hunter, R. P. Jones, E. C. Lindsay, G. G. Lyttle, Gladys M Macaskie, D. A. Mitchell, R. Montgomery, A. E. Morgan T. T. O'Callaghan, A. C. Palmer, T. C. Reeves, D. Scurlock W. F. V. Simpson, W. R. Thomas, C. U. Whitney, G. Whittington Violet K. M. Wilde, C. Witts, S. Wyard.

SCHOLARSHIPS.

The London Intercollegiate Scholarships Board, constitut in 1904 with the approval of the governing bodies of Universi College, King's College, and the East London College for tl purpose of holding a combined annual examination f entrance scholarships and exhibitions tenable at those college gives notice that an examination will be held in London (Tuesday, May 15th, 1906, and following days. A candida must have passed the matriculation examination of the Ur versity of London, or an examination accepted by the Universi in lieu thereof, or must hold a school-leaving certificate, or able to furnish evidence of having had a sound general educ tion satisfactory to the Board. The scholarships are tenab for one year, and all candidates must be under 19 years of a on May 1st, 1906, for University College, or on October 1 1906, for King's College and East London College. Amo these scholarships are the following:

University College.—Three Andrews scholarships, each the value of £30, one in classics, one in modern languages a English history, and one in two of the following subject Mathematics, physics, chemistry, and either elementa biology or botany.

King's College.—Sambrooke Exhibition in Classics, £50, t Clothworkers' science exhibitions for any four of the followi subjects: Mathematics, elementary mechanics, physics, i organic chemistry, botany, zoology, geology, mineralogy, of t value of £30 and £20 respectively.

Further particulars can be obtained on application to M Alfred E. G. Attoe, Secretary to the Board, University Colle Gower Street, London, W.C.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the week ending January 20th, the deaths from plag in India numbered 3,938, a slight decrease upon the retu during the two previous weeks, when the numbers stood 4,278 and 4,240 respectively.

The deaths recorded during the week in question were d tributed in the principal centres as follows:—Bombay Pre dency, 616; Bengal, 1,056; United Provinces, 1,076; Punj 519; Central Provinces, 338; and Burma, 119. The fact tl Bengal shows a more pronounced infection from plague th the Bombay Presidency is a new feature in the returns.

In January, 1906, the plague mortality in Bombay c numbered 152, Bombay districts 2,847, Calcutta 118, Ben (excluding Calcutta) 4,774, United Provinces 5,108, Pun 2,300, Rajputana 34, Kashmir 107, Central Provinces 1,7 Central India 112, Hyderabad State 185, Mysore State 4 Madras Presidency 202, Burma 554.

SOUTH AFRICA.

No fresh cases of plague were notified in any part of So Africa during the weeks ended January 20th and 27th. So rats and mice continue to be found to be plague-infected Port Elizabeth, but in no other part of Cape Colony.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

☞ *Queries, answers, and communications relating to bjects to which special departments of the* British dical Journal *are devoted will be found under their pective headings.*

QUERIES.

Haemorrhoids in Childhood.

. Gh. Houzel (Boulogne-sur-Mer, France) asks for information as to the occurrence of piles in childhood, and the ircumstances under which they have been observed. uring the last few years he has seen a considerable number f cases; in many instances there was no more than a few nlarged veins, but in others small piles, varying in size om a grain of millet to a pea, were brought into view by retching the skin of the anus with the fingers.

Income Tax.

and B. write: A. buys a practice from B. for £600, of hich £200 is paid down and the balance is to be paid by ght half-yearly instalments of £50 each. (1) Is A. entitled deduct £5 per annum from the £100 he pays to B.? (2) If t, is he entitled to charge the £100 per annum as part of s working expenses?

⁂ The answer to both questions is in the negative. The le of a practice is a capital transaction to which no ability to income tax attaches. The purchaser, therefore, s no right to charge the seller with such tax by stopping from the purchase money, nor can he claim to deduct the st of acquisition of the practice from his profits in making s income-tax return. It makes no difference that the yment, instead of being made in one sum, is spread over veral years.

lensis has a resident patient, and inquires whether, in aking his income-tax return, he is entitled to deduct cost of patient's food, fire, and light; (2) cost of food, e, and light for nurses; (3) proportion of rent and rates rooms occupied by patient and nurses; and (4) subscrip- n to medical agency for obtaining patients.

⁂ Our correspondent is entitled to a deduction for all the ims referred to, as expenses necessarily incurred in earning profit derived from the fees paid by the patient.

ANSWERS.

F.—We know of no book especially written for the use police surgeons. There would seem to be an opening for oncise and well-written guide.

x.—It is not usual to give mercury by inunction and by mouth at the same time, and we do not know of any "sual instructions" for cases treated in that way.

Pneumatic or Solid Tires.

raig Christie (Comrie, Perthshire) writes in reply to ountry Practitioner's" inquiry: I have now run an p. two-cylinder Albion car for nearly two years. To-day running as well as when I got it; though this is a hilly rict, I have never been beaten by a hill yet. It has solid s throughout, is of the dogcart pattern, seated for four. my own driving, but a lad cleans it. As to cost, where horses are kept, the saving in expense, not to speak of e, would be very considerable. These cars are specially structed to run on solid tires, and are very reliable and ngly-built throughout. I may add that I had no previous rience of motors before I got my present car.

Masturbation.

Enquirer.—First of all, local causes of irritation, such himosis, balanitis, worms, etc., should be inquired into, if no such cause be evident, errors of feeding, late ers, excess of uric acid should be considered. Failing e causes, it is permissible to suspect that there is an ptic taint, and this erethism may be part of it. The drugs are potassium bromide gr.v to gr.x, with camphor to gr.$\frac{1}{2}$. There is no good book which deals systematically the subject, but reference may be made to the indices of y and Wright's *Diseases of Children*, and Goodhart and s on the same subject. In these cases moral influence eeded above all, and most careful watching, and the should never sleep alone. If these measures fail, John n's remedy of painting the parts with lin. iodi, so as to them too sore to handle, should be tried.

LETTERS, NOTES, etc.

he Medical Ancestry of Marshal MacMahon."

British Medical Journal of August 26th, 1905, there red a short article under this heading, in which it was d on the authority of Dr. Cabanès, an industrious rag-r in the dustheaps of history, that Marshal MacMahon, formerly President of the French Republic, was the grandson of John Baptist MacMahon, an Irishman who took the degree of Doctor of Medicine at the University of Rheims about 1740. Cabanès says that the said John Baptist was born at Limerick in 1715, and was sent to Paris at the age of 16 to complete his education. He settled at Autun as a physician, but marrying a great heiress, was ennobled and dropped his title of doctor for those of chevalier, baron, count, and marquis. He did not achieve this greatness without vexation from persons who thought they had a lawful claim to the wealth which fortune showered upon him, but judgement was given in his favour. It is a curious coincidence, as was pointed out by one of the leading advocates in a somewhat similar case tried in Paris towards the end of the Third Empire, that Marshal MacMahon, the grandson of the doctor, and General Changarnier, the grandson of the notary who acted for him in the case, were afterwards comrades in Africa. The story is told in great detail in Dr. Cabanès's *Secret Cabinet of History*, first series, published at Paris in 1897. It lies outside our province to trace out genealogies, and the statements in the article referred to were given only for what they were worth. Its appearance brought an epistolary avalanche under which the writer of the article lay for a long time crushed and helpless, and it is but recently that we have succeeded in disentombing and restoring him to life. It seems to be admitted that Marshal MacMahon, like so many of his race, was descended from Brian-Boru, and if the stream springing from such a source did at one part of its course become lost in comparative obscurity, the fact can in no way detract from his glory. Dr. Michael Bernard Nolan MacMahon, of Dublin, seems to think otherwise. It is impossible to publish even one of his letters in full, for we may say with Holofernes that "he draweth out the thread of his verbosity finer than the thread of his argument." We give, however, what we take to be the essential point in his communications in his own words. He says:

"Evidently the writer of the article in the British Medical Journal, in giving to the late Marshal-President of France a medical ancestry, is confounding the MacMahon of Farney in the county of Monaghan (through their French representative, Patrick MacMahon, Doctor of Medicine and Librarian of the Faculty of Medicine of Paris) with the MacMahon of Clonderalaw in the County of Clare (through their French representative, Patrick MacMahon of Tourdile in the County of Limerick), who are absolutely different and distinct personalities from whom the late illustrious Marshal-President of France and Duke of Magenta, as well as your present humble correspondent (who, let me remark, *par parenthèse*, has the honour to belong to the medical profession), proudly claim descent, and from whom the former are as far removed in consanguinity and affinity, except in name, as Jove on the summit of Olympus. It is unquestionably true that the grandfather of the late Marshal MacMahon bore the name of John or Jean Baptiste MacMahon, son of Patrick MacMahon, not, however, of the sept of the MacMahons of Farney in the County of Monaghan, but of the ancient and princely house of the MacMahons of Clondirala in the County of Clare, and himself of Tourdile or Torodile in the County of Limerick, and of Margarita O'Sullivan, daughter of Major John O'Sullivan of Bantry in the County of Cork, of the house of O'Sullivan Beare. But it is equally true that the said John or Jean Baptiste MacMahon, instead of being a medical doctor of the University of Rheims, served with great distinction in the French army, in which he rose to high rank, married a French heiress, the Countess Charlotte de Behu, was created Marquis D'Equilly in Burgundy by Louis XV, and acknowledged by a solemn decree of that King to be of Royal ancestry in virtue of his descent from King Brian Boru, attested by a declaration from the heir of that monarch—Lord Inchiquin of Dromoland Castle in the County of Clare." Dr. Michael Bernard Nolan MacMahon states that he published an "elaborate and convincing communication on the subject in the Dublin press in July, 1897," which was subsequently published in pamphlet form. It is our misfortune never to have seen or heard of this communication; but really, as Mr. Toots would say, "it's of no consequence."

The usually accurate and well-informed Larousse, in his *Grand Dictionnaire Universel du XIXe. Siècle*, owing to ignorance or discretion, does not trace the later ancestry of the Marshal further back than his father, the Marquis Charles Laure de MacMahon, of whom he only says that he was the friend of Charles X, and married Mlle. de Caramon. We must leave Dr. Michael Bernard Nolan MacMahon to settle the genealogical problem with Dr. Cabanès. *Non nostrum tantas componere lites.*

The Relative Brain Weights of Men and Women.

Dr. G. Archdall Reid (Southsea) writes: A point of some importance is very generally neglected in discussions of the relative brain-weights of individuals, classes, races, and sexes. It bears also on the relation of brain-weight to intelligence. A few structures of the human body reach their full development quite uninfluenced by use, for example, the external ears, the hair, and the male organs of reproduction. But the great majority of the organs develop after birth chiefly under the added stimulus of use. Thus, an infants' limbs grow comparatively little if they be not used, for example, if they be paralysed. Presumably much the same is true of most of the organs of the trunk. We know, for instance, how much one kidney hypertrophies if the other be destroyed, or how greatly the size of the heart increases under unusual strain. It is a fair presumption that much, if not all, of the growth of these organs subsequent to birth is due to the stimulus of use. By this means the exquisite co-adaptation of the parts is maintained. It is a noticeable and important fact that only those organs atrophy in the individual under the influence of disuse which have grown under the influence of use. Thus the male organs of reproduction do not atrophy if they be not used but the muscles of the limbs do. It is known that if one cerebral hemisphere shrinks as the result of a sclerosis the opposite half of the crebrum atrophies from disuse, while the opposite cerebral hemisphere hypertrophies from overuse, having to do double duty. We have every reason to believe, therefore, that the brain is one of those organs which develop under the influence of use. If this be true the size of the brain, like that of the limbs, is, within limits, proportionate to the extent to which it is used. Cerebral phenomena are correlated to mental phenomena. Presumably, therefore, the mind grows with use. This, indeed, is a mere truism. Obviously the infant has little intelligence at birth, but ultimately acquires a great deal of it in response to the experiences which it stores in its conscious or unconscious memory. Of course, just as one man's limbs may grow larger than another's under the influence of a given amount of use, so one man's brain and mind may grow more than another's as a result of a given amount of experience. Nevertheless, brain and mind, on the average, like the limbs, develop in some proportion to the amount of use to which they are put.

We are told by the biometricians that "there is no marked correlation between skull capacity and intellectual power," and that of five European races measured the English have the smallest brain-weight and the Bohemians the largest. Doubtless these statements are correct, but how shall we interpret them? Are we to understand that the Englishman's brain has the smaller capacity for growing under the influence of use? Or are we to understand that he uses his brain less? Presumably, the more arduous the use to which the brain is put during development the greater, on the average, will be its growth. But the mental development need not correspond. Thus we in England have a system of written symbols which enables us to read and express our thoughts on paper with comparative ease. To achieve the same result the Chinaman, such being his system of symbols, must use his brain to a much greater extent. In the end the Chinaman, though he develops a larger brain, is not necessarily rendered more intelligent than the Englishman. On the contrary, it is probable that while the former is acquiring a sufficient knowledge of written symbols, the latter has time to do that and a good deal more. When species of animals are compared the degree of intelligence is always found to be correlated to the size of the brain. What, then, is the meaning of the apparently contradictory fact that in man as compared with man this law does not hold? Plainly the explanation, in part at least, lies in the obvious truth that certain systems of mental training exalt the intelligence at a cost in labour (and therefore in brain development) much less than that exacted by worse systems. Stupidity, no less than intelligence, may be achieved with toil.

To sum up: individuals differ in their power of developing their brains under the stimulus of use. They differ also in their power of developing intelligence under the stimulus of experience. Since in the lower animals the size of the brain is correlated to the degree of intelligence and it is not probable that man is differently constituted, since cerebral facts are correlated to mental facts, and since cerebral use and mental experience are concurrent, the two powers, presumably, are correlated to a considerable extent. But since any given set of experiences do not necessarily develop the intelligence in the same degree as the brain, the correlation is often masked. It follows, therefore, that though a large brain in the adult does not necessarily imply a high degree of intelligence, it does, as a rule, imply that the individual when a child possessed the capacity to achieve under good training a more than average degree of intelligence.

Investigations in old churchyards have demonstrated that the mediaeval clergy had, on the whole, a higher cranial capacity than the laity. On this account Mr. Galton, correlating brain-weight with intelligence, blames a celibate church for brutalizing the breed. But the biometric denial of the correlation indicates rather that the superior brain-weight was, in all probability merely an acquirement due to the more toilsome nature of the monkish studies.

The Feeding of Prize Babies.

Miss Heatley (Matron, St. Clement's Maternity Home and Nursing Institution, Fulham, S.W.) writes: In connexion with the "baby show" that was held at the Fulham Town Hall on February 13th, I find on inquiring of the mothers of the prize babies since that forty-one are being nursed by the mothers, five are being fed on cow's milk and barley water (prepared according to the directions that were given to the mother's whilst we were attending them). One was on Nestlé's milk and one on Davis's malted food mixed with cow's milk Neither of the judges asked about the feeding, so that an unbiassed opinion might be formed. So I think that it is matter of congratulation that so many "nursing" mothers gained the prizes, and that cow's milk and barley water stood next. I should like to add that some of the "nursing mothers" have to go out to work, but make arrangements to still nurse their infant.

Quillaia as an Emulsifying Agent.

Dr. John Wm. Tayler (Bristol) writes: With reference to the "Memorandum" (February 10th, p. 318) on quillaia as an emulsifying agent, by Dr. Hemmans, it is worthy of note that Cushing's *Textbook of Pharmacology*, a book of grea value, contains the following: "Quillaja has been used to some extent as an expectorant, more largely to form emulsions, and to suspend insoluble powders. Its poisonous action ought, however, to preclude its use for this purpose.

A Warning to Medical Motorists.

Dr. George Elam (9, Fawley Road, West Hampstead, N.W.) writes: On December 29th last a gentleman called on me t sell some Fafnir sparking plugs, the merits of which wer backed up by an autograph letter from Dr. Thorne Thorne o Woking. Thinking this good enough, I paid him th "reduced" price of 17s. 6d. the pair. They proved worthless. Application at his address—F. B. Collins, 5, Lyri Road, Barnes—has only resulted in my having had to pay 9d for redirecting the returned plugs, and getting them bac into my hands. I wrote to Dr. Thorne, who states tha the first plugs were most satisfactory, but that a furthe supply resulted in an experience similar to mine. An application to the French house (G. D'Orleans et Cie, Levallois Paris—Seine), which he professedly represents, has had n result. I shall be glad to meet Mr. Collins again, and if an of our members can help me I shall be most grateful.

Post Office Amenities.

West Somerset writes: On December 14th, 1904, I receive an official letter from the Post Office inviting me to mak application for the post of medical officer for the district i which I live and enclosing a form of application. I filled u the form of application and forwarded it to the Post Office On February 15th, 1905, I received a letter from the Pos Office asking me to send an agreement to attend, appointed, all the officers in the district. I sent that agreement, and on February 16th, 1905, received an acknowledgement of its receipt. I have received no further communication from the Post Office upon the subject.

The only intimation I have had that an appointment ha been made is by learning in February, 1906, that some of th postal officers of the district who are members of a club which I am medical officer, decline to continue their annua contributions for medical attendance, as they understan the Post Office has appointed a medical officer and they wi go to him. At the time I sent in my application I wa not aware that any one else in the district had bee invited to apply (though I was told so later) and I had n desire to enter into competition for the appointmen I do not know whether this is the usual procedure of th Post Office in other districts, and I am not sure that it satisfactory to invite each of two medical practitioners in village to apply for an appointment, as in this case; but certainly think that an intimation of the appointmen should have been made to each of those invited to apply.

Anaesthetists and Coroners.

The following notice may be seen posted in a promine position in a certain hospital:

> The addresses of the anaesthetists are as follows:
>
> * * * * * *
>
> and the coroner's officer's address is:
>
> * * * * * *

This fact suggests to the *St. George's Hospital Gazette* th the hospital in question would be especially suitable for th study of cardiac changes following the administration of a anaesthetic one is willing to propose.

SCALE OF CHARGES FOR ADVERTISEMENTS IN TH BRITISH MEDICAL JOURNAL.

Eight lines and under	**£0 4 0**
Each additional line	**0 0 6**
A whole column	**2 13 4**
A page...	**8 0 0**

An average line contains six words.

Advertisements should be delivered, addressed to the Manage at the Office, not later than first post on Wednesday mornin preceding publication: and if not paid for at the time, should accompanied by a reference.

Post-Office Orders should be made payable to the British Medic Association at the General Post Office, London. Small amoun may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters *Postes Restantes* addressed either in initials or numbers.

The Hunterian Oration,

ON

RECENT SURGICAL METHODS IN THE TREATMENT OF CERTAIN FORMS OF PARALYSIS.

DELIVERED BEFORE THE HUNTERIAN SOCIETY.

By **A. H. TUBBY, M.S., F.R.C.S.,**
SURGEON TO WESTMINSTER HOSPITAL AND IN CHARGE OF THE ORTHOPAEDIC DEPARTMENT; CONSULTING SURGEON TO THE EVELINA HOSPITAL; SURGEON TO THE NATIONAL ORTHOPAEDIC HOSPITAL.

[AFTER thanking the Society for the honour conferred on him, the speaker referred in suitable terms to the significance of this anniversary in connexion with the life and work of the great John Hunter, and then said :]

The types of cases which will be used to illustrate the remarks about to follow are those arising from anterior poliomyelitis, spastic paralysis, ischaemic paralysis, and some traumatic lesions of the nerves.

We all feel acutely the limitations of treatment expressed by the words, massage, electricity, and apparatus, and we realize too often how inefficient such measures are to effect satisfactory results. The administration of drugs has been of little or no avail, and therefore workers in this field have perforce turned themselves, and have asked, What can surgery do? The modern methods of treatment which will be discussed are tendon and muscle transplantation, arthrodesis and nerve anastomosis.

Tenotomy, lengthening and shortening of tendons, are tales which have been oft told, so that we may at once pass on to discuss tendon and muscle transplantation, and to inquire into (1) the history, (2) the methods by which they are carried out, (3) to which forms and effects of paralysis they are applicable, (4) how far have the attempts made proved successful, (5) what have been the causes of want of success, and how can such be remedied? We shall then speak of recent work in nerve anastomosis, and give some hints as to its possibilities in surgery.

TENDON AND MUSCLE TRANSPLANTATION.

By tendon transplantation is meant the reinforcement of a paralysed muscle by attaching to its tendon either a part or the whole of the tendon of a healthy muscle. The modern history of tendon grafting dates from just twenty-five years ago. In 1881, Nicoladoni, in cases of talipes calcaneus, implanted the severed central end of the peronei into the tendo Achillis (Figs. 1 and 2). The immediate results of Nicoladoni's operation were promising, but it is stated by Maydl[1] that the anastomosis finally separated, and all the benefits of the operation were forfeited. The operation was revived by Drobnik[2] in 1892, and simultaneously and independently by Parrish of New York[3] in a modified form. Drobnik introduced tendon splitting (Fig. 3), providing a reinforcing strip without entirely suppressing the reinforcer in its normal sphere. Other workers in the same field are Milliken of New York,[4] Bradford of Boston, and many American surgeons; Mr. F. S. Eve, who I believe performed the first operations of this kind in England; and with it in this country are associated the names of Sinclair White, Montgomery, E. M. Little, and Robert Jones; Professors Hoffa and Vulpius and Lange in Germany, and Kirmisson and others in France have done good work. A great advance was that of Goldthwait of Boston,[5] who extended the procedure to muscles devoid of well-formed tendons, and was the first to carry out direct transplantation of a muscle by grafting the sartorius into the quadriceps. Then came Lange of Munich,[6] who, ascribing the failure of tendon grafting in many cases to the subsequent stretching of the paralysed and degenerated tendon, revived and extended direct periosteal implantation, originally essayed without success by Drobnik. Lange prolonged the tendons by means of silken threads, so obtaining attachment of the partially artificial tendon to bone at the most suitable spot for effective action.

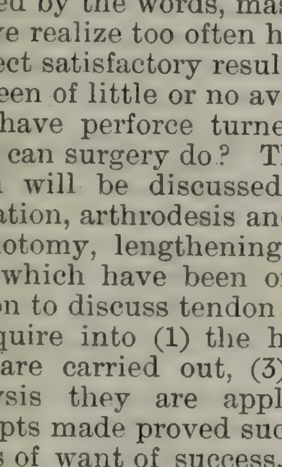


Fig. 1.—To illustrate Nicoladoni's method of direct tendon grafting. A, Tendon of peroneus longus; B, tendo Achillis; C, aperture in tendo Achillis.

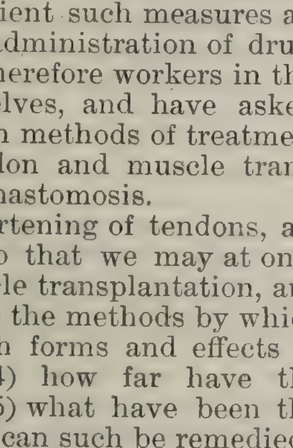


Fig. 2.—To illustrate Nicoladoni's method of direct tendon grafting. The ends of the peroneus longus, A, are sewn to the posterior surface of the tendo Achillis, C, at D and E after having been drawn through the tendo Achillis.

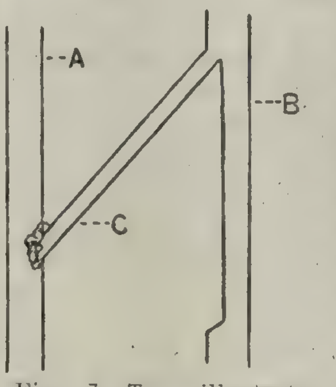


Fig. 3.—To illustrate Drobnik's method of tendon splitting. A, Tibialis anticus; B, extensor proprius pollicis; C, strip from ext. prop. poll. into tib. ant.

The first application to the arm of the periosteal method of insertion was carried out by the speaker for spastic paralysis in 1901, independently of any knowledge of Lange's work, the pronator radii teres being carried round the back of the radius, so as to assist in supination, while Mr. Robert Jones of Liverpool devised a method of converting the carpal flexors into carpal extensors.

The literature of the subject is now considerable, and it is not possible in this place to go fully into detail, but the name of Mainzer[7] must be mentioned, for he conceived the idea of indirect transplantation (Fig. 4), utilizing the tendon of a neighbouring paralysed, or else of a functionally unimportant, muscle to fill in the gap when the reinforcing tendon was too short. In 1897 Franke led the attack on spastic paralysis.

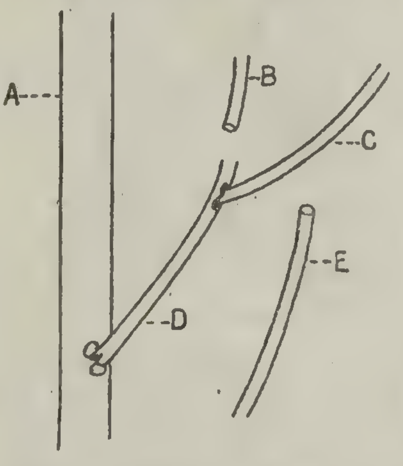


Fig. 4.—Indirect method of tendon transplantation (after Mainzer). A, Tibialis anticus; B, extensor proprius pollicis; C, extensor longus digitorum; D, extensor prop. poll.; E, ext. long. dig.

METHODS OF TENDON TRANSPLANTATION.

As a preliminary to treatment it is essential that all secondary deformities be corrected. It is of importance, before deciding to operate, carefully to study the case, and map out a definite plan of campaign. The electrical reactions of the muscles should be previously ascertained, movements present and absent should be carefully noted, and the muscular power remaining in the limb should be registered by means of a dynamometer. The reinforcing muscles or tendons are as far as possible to be taken from synergic muscles, for the two obvious reasons that they are nearer, and the difficulty of after-education is not so great. A reinforcing tendon should not be bent round at an angle. As a rule opponents of the paralyzed muscle are not to be selected, because if that is done the action of the reinforcing muscle is neutralized. And, lastly, cases of extensive paralysis are totally unfit for any form of this operation.

TECHNIQUE.

Very many methods of splitting and transferring tendons have been devised, but to speak of them all would lead to confusion, and for the sake of clearness we may speak of Nicoladoni's operation as the old method, and Lange's periosteal insertion, with extensions by silken cords, as the new method. The older method may be either total or partial. Total (Figs. 1 and 2) consists in completely dividing a tendon, and inserting its central end bodily into another tendon, while its peripheral end is inserted into the same or yet another tendon. This is decidedly better than Nicoladoni's original operation on the tendo Achillis and peronei, where the peripheral ends of the reinforcing tendons are left free, so that the whole of the normal actions of the reinforcers are obliterated. Another way by which this undesirable result is avoided is by the partial method (Fig. 3) of Drobnik. Here a strip is made from the reinforcer, which is implanted into the weaker tendon. But it will be quite clear that unless the strip is of sufficient length, either we shall fail to obtain functional independence of the strip, or matting and cicatrization will occur at the site of operation, and the result be negatived. The difficulty of securing a strip of satisfactory length is often great, and to prevent fusing together of the parts it is necessary to preserve and interpose as much as possible of the tendon sheaths and areolar tissue, and fix them between the strips. Drobnik pushed his method to an extreme by prolonging the incision from the tendon well up into the muscle, so as to form a separate muscular belly. In doing so there is a risk of dividing some of the nerve supply to the muscle, and causing paralysis.

Two other devices are worthy of notice, which combine the active and passive methods as described by Hoffa. A strip is taken from the reinforcing tendon and joined to a strip from the paralysed tendon (Fig. 5), or an exchange of strips is effected (Fig. 6). The value of the interchange method is this: It neither completely suppresses the action of the healthy muscle, nor does it throw away any power which may be left in the paralysed muscle, a power which often increases when the strain on the muscular belly is eased by the reinforcement. As to the material for suture, the best is fine twisted silk, previously boiled for half an hour, and soaked in biniodide of mercury solution (1 in 1,000) for a week. It is quite evident, however, that these older methods—except in cases where one or at the most two muscles are affected and a graft can be taken from a neighbouring muscle—will give place to the periosteal mode of implantation. The tendon should be firmly sewn on to the periosteum, or the wall of a joint capsule, cartilage, ligaments, or laid in a groove in the bone.

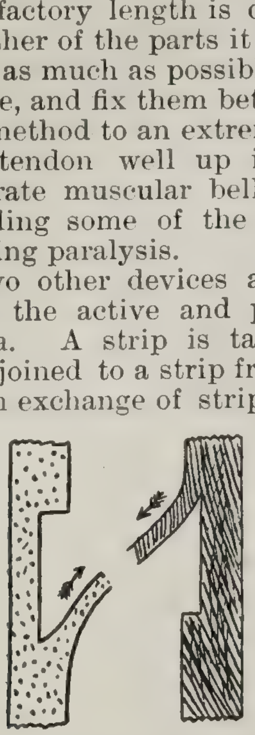


Fig. 5.—Strip from reinforcing tendon to strip from paralysed tendon. The paralysed tendon is in light shading and the reinforcing tendon in dark shading.

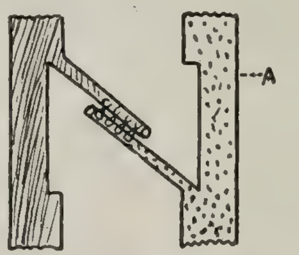


Fig. 6.—A downward strip from the reinforcing tendon is inserted into an upward strip from the tendon, A, of the paralysed muscle.

A noteworthy point is that a reinforced paralysed tendon often degenerates and becomes slack. Lange made experiments on the cadaver, and found that in a particular instance a periosteal attachment will bear a weight of 14 to 15 kilog., whereas an intertendinous attachment will not carry more than 2 to 3 kilog. Lange at first was mistrustful of silk tendons, but later, when he began tendon transplantation and found that silk sutures remained quietly embedded, he argued that if a short piece remained quiet, why should not a longer piece, and in the last five years he has done this form of operation in over 200 cases.[8] He lays stress upon the fact that the silk must be impregnated with an antiseptic material. If the silk be boiled in water only, the wound heals well, but later on abscess often develops, and the silk comes away; and therefore Lange recommends that the silk should be sterilized with 1 in 1,000 perchloride of mercury, which possibly is retained in the silk for months and years, and by that time the living tissue has invaded the silk. At any rate, he has never seen an abscess form if the artificial tendon has remained embedded for a year. Lange uses four strands to lengthen a tendon, but in attaching two or three muscles six or eight strands are used. Sometimes the strands are from 20 to 25 cm. long. The kind of silk he uses is Turner-Seide, Nos. 3 to 12 (obtainable from Katsch, Schillerstrasse, Munich). He insists on drainage for the first forty-eight hours, and keeps the part absolutely at rest in plaster for six weeks. There must on no account be too much tension of the artificial tendon at any time, and movement must be allowed gradually. In Lange's article in the *Handbuch der Orthopädische Chirurgie*, edited by Joachimstal, pages 341, 342, and 343, there are illustrations of sections showing the infiltration and envelopment of the silk by tissue elements. The new material thickens under the influence of function, and in several cases it has increased from the thickness of a pin to that of a lead pencil or a little finger; rather an undesirable result when tendons play in osseo-fibrous grooves.

To which Forms and Effects of Paralysis are these Methods applicable?

In the treatment of the results of infantile paralysis, most of the work, so far as tendon-grafting is concerned, has been done on the foot. The best results have been obtained in the removal of talipes varus and valgus. Thus in a case of equino-varus, where there was paresis or paralysis of the dorsiflexors and the peronei, section of the tendo Achillis, and transplantation of the tibialis anticus into the base of the fifth metatarsal bone, gave a good foot.[9] And in another case the tibialis anticus, or rather part of it, was grafted on to the peroneus tertius for varus. There was strong power of eversion, and the position was much improved. For paralytic talipes valgus the peroneus longus was transplanted into the periosteum of the scaphoid, and the peroneus brevis into the Achillis. A useful foot resulted, with good power. Mr. F. J. Steward,[10] in equino-varus, inserted one-half the tendo Achillis into the peroneus longus, and the other half was lengthened; a successful result was reported by the operator two and a half years later, as follows:

> The equinus has been completely corrected, and shows no tendency to recur. He can use both the posterior and anterior muscles well; there is still some slight varus when the foot is off the ground, but he walks with the foot flat. He has voluntary power of moving the foot outwards, which is increasing. So that the additional strength of the external muscles has enabled the patient to combat the tendency of the tibialis anticus and posticus to keep up the varus; and he has therefore no need to wear heavy expensive apparatus.

Case I.—*Grafting of the Extensor Proprius Pollicis into the Tibialis Anticus and Part of the Extensor Longus Digitorum into the Internal Cuneiform Bone.*

In a case of paralytic equino-valgus, which was associated with paralysis of the tibialis anticus, and was seen by me on May 16th, 1902, an incision 3 in. in length, with its centre about 2 in. above the ankle-joint, was made on June 17th, 1902. A strip of the extensor proprius pollicis tendon was then detached, and the free end inserted into the tibialis anticus. A second incision was made obliquely across the dorsum of the foot, and the two outer tendons of the extensor communis digitorum were severed and brought inwards and attached to the periosteum of the internal cuneiform bone. The tendo Achillis and plantar fascia were divided at the same time. The foot was put up at a right angle, and somewhat inverted, in a Scarpa's shoe for six weeks, and after the wound had healed massage was applied to the grafted muscles. Since the date of operation the boy has worn a boot with an outside steel brace to prevent stretching of the grafted portions, and has had massage and electrical treatment. When the apparatus is removed the action of the foot is excellent. He walks toe and heel on the ground; the outer border of the foot on standing presses firmly on the ground, and the inner border is raised; he has a good arch, and there is no eversion. In addition he can voluntarily invert the front part of the affected foot.

Case II.—*Paralytic Talipes Valgus: Grafting of the Outer Tendons of Extensor Communis Digitorum on to the Tibialis Anticus.*

In another case of paralytic talipes valgus, in a child aged 4 years, there was good power in the peronei and extensor communis digitorum, but the tibialis anticus was paralysed. The proximal parts of the outer two tendons of the extensor communis digitorum were grafted on to the tibialis anticus. When seen on July 18th, 1902, the result was good. He could raise the inner border of the foot when he stood up; there was a distinct arch of the foot, and very little eversion was left.

In talipes equinus better results are obtained by section of the tendo Achillis than by grafting. It is not advisable to divide the tendo Achillis into three parts to correct this deformity and bring the two outer strips forward, because, when the latter are attached to the dorsiflexors, they become direct opponents of the middle strip at the back of the leg, and the result is diametrically opposed actions; so that the procedure merely results in the formation of additional ligaments to the ankle-joint. Pure talipes calcaneus is the condition for which Nicoladoni originated the modern era of tendon transplantation; but, as has been already stated, his cases relapsed. When we come to consider the disparity in size and power of the peronei muscles and of the great muscles of the calf we are not surprised to find that the results are not satisfactory. According to Fick,[11] the work done by the calf muscles expressed in kilogrammetres is eleven times greater than that done by the peroneus longus and brevis. It is therefore unreasonable to expect the peronei when grafted into the tendon of the paralysed calf muscles to take their place entirely. In my experience of six cases in which I have performed this operation the result is that patients can extend and dorsiflex the foot when the weight is off the ground; but they have not, except in one instance, been able to raise the body on the toes of the affected foot. So that the transplanted peronei merely become additional posterior ligaments of the ankle-joint in steadying the foot in standing.

After watching cases for several years afterwards it has been found that the best and most satisfactory results in this branch of surgery have been obtained by Goldthwait's procedure for paralysis of the extensor muscles of the knee, where, as he pointed out, the sartorius frequently escapes. If left intact this muscle aggravates the condition by increasing the flexion of an already bent knee, but if it be divided opposite the upper part of the patella, and the central end brought forward and inserted into the periosteal covering of that bone, and thoroughly massaged afterwards, in most cases it effects this result, that the patient is able to stand with the knee firmly braced up, and in some exceptional cases the power of complete voluntary extension is gained. The latter is more likely to follow if additional muscles are transplanted. I have on several occasions used the biceps, or part of it, in addition to the sartorius, and where the biceps appeared to be much wasted, the ilio-tibial band, or part of the hamstrings, has been inserted into the extensor tendon or upper border of the patella (Fig. 7).

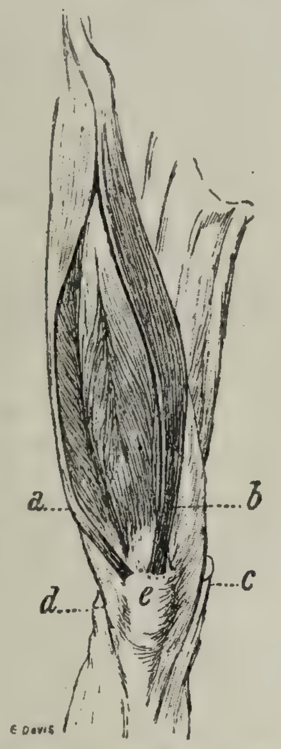


Fig. 7.—Operation of muscle transference for the relief of paralysed extensor cruris by reinforcement of paralysed muscle from the inner and outer hamstrings. At *a* a strip is brought forward from the biceps; at *b* the proximal part of the sartorius is brought forward, and the muscular slips *a* and *b* are inserted in the patella at *e*. At *d* is seen the distal part of the biceps, and at *c* is the distal part of the sartorius.

The following are illustrative cases:

Case III.—*Grafting of the Semimembranosus Tendon into the Extensor Cruris for Paralysis of the Extensors of the Leg.*

E. C., female, aged 13, was seen for paralysis of the extensor cruris on September 5th, 1901, and equino-varus. The position of the parts was as follows: The leg hung at a right angle at the knee, and there was no power of extension. The heel was slightly raised, and the fore part of the foot was adducted and inverted. The plantar fascia was tense, and there was contraction of the sole of the foot. On October 17th, 1901, a curved incision was made across the upper part of the patella, and along the inner margin of the thigh, extending about 6 in. The sartorius was found quite atrophied, so a large strip of the semimembranosus muscle was made, and attached at its lower end to the rectus femoris tendon. Improvement set in by December, 1901, and she was able to offer considerable resistance when an attempt was made to forcibly flex the knee. She continued to improve, and in January, 1903, she could stand firmly on the limb without support, raise the heel, advance the leg in walking, and when lying down she was able to flex and extend the leg voluntarily.

Case IV.—*Partial Paralysis of Extensor Cruris: Insertion of the Ilio-tibial Band into the Patella: Complete Recovery of the Power of Extension of the Leg.*

Lizzie B., aged 18, came under my care in September, 1904. She had a flail-like paralytic foot, and had lost apparently all power of extension of the leg. On October 6th, 1904, an arthrodesis of the right ankle was performed, and on January 26th, 1905, a grafting about the right knee was made. The sartorius was found to be pale and atrophied, and was useless, so that the ilio-tibial band was detached near its distal extremity, and a long strip brought forward, and extended by means of silken cords 1½ in. long to the patella. The cause of the paralysis was undoubtedly anterior polio-myelitis, and the limb was wasted, blue, and cold, especially below the knee. She was kept on a back splint from the thigh downwards after the operation for six weeks, and then massage and electricity applied. In three months she had gained the power of extending the limb to an angle of 45 degrees, and on May 19th, 1905, she left the hospital wearing an apparatus which allowed of movement of the knee from the straight position to an angle of 45 degrees. Subsequently the range of movement was increased to the normal, but a light spring was added to relieve the strain on the knee in walking. When seen on February 1st, 1906, she could voluntarily extend the limb to the fullest extent both in sitting and standing, and walk without any instrumental support. What has happened in this case is that the degenerated and apparently entirely paralysed extensor cruris muscle has had time to recover, owing to the absence of strain on it, effected by the fixation of the nearly non-extensible ilio-tibial band on to the patella.

Case V.

was that of a boy aged 5 years, the subject of infantile paralysis in the extensors of the left knee, who was seen on February 24th, 1902, with almost entire loss of extension at the left knee; the sartorius, however, had escaped, as was shown by the electrical reactions. It was separated at its lower third, brought forward, and attached to the upper border of the patella. In three months it was noted that when the sartorius was thrown into action the ligamentum patellae was tightened, and the child could stand unaided with the knee extended, and opposed considerable force to the passive flexion of the leg.

Case VI.

In another case of infantile paralysis affecting the quadriceps extensor, where the sartorius and biceps had escaped, the central portion of the sartorius and a long strip from the biceps were brought forward and anchored to the margins of the patella (Fig. 11), and the patient regained the power of voluntary extension of the leg, and was able to walk with the aid of a light steel support.

Goldthwait[12] reports on 6 cases operated on by him—4 with decided improvement—and he gives striking details of the results of the operation in the case of a woman of 20 years of age:

> At the time of the report she has apparently a normal amount of extension of the leg and the knee, as contrasted with an entire inability to extend the leg before the operation. When sitting she is able to support the leg and hold it straight, and she is able to bear the weight of the body on the lame leg without artificial assistance, the leg being extended normally when a step is taken. No apparatus for the thigh is now necessary, but she has been doing regular housework for the last eight months, whereas previously to the operation she had to depend on a crutch or a stick.

It is in paralysis of the extensors of the leg that Lange's method of elongating the transposed tendons of the inner and outer hamstrings finds its particular use. We gather that up to 1901 Lange had employed silken tendons in 56 cases, in all of which healing by first intention was obtained. The use of the silken tendons is to secure an attachment to the tubercle of the tibia, instead of to the upper margin of the patella, as in Goldthwait's procedure, and Lange says that in only two of his cases were the results unsatisfactory. Several of the artificial tendons were 8 in. long, and the functional results were excellent. Patients in whom the semitendinosus and biceps were made to replace the quadriceps femoris often obtained almost normal powers of extension. During the last five years Lange states that he has operated upon 200 cases in this way, and he gives excellent illustrations of a very interesting and successful case.[13]

Recurrent Dislocation of the Patella.

In the treatment of recurrent dislocation of the patella, due to paresis of the extensor muscles of the knee, I have in three cases been successful in correcting and completely preventing the return of the displacement by making a transverse incision 1 in. above the patella, dissecting the superficial tissues back, and pleating the whole width of the quadriceps tendon and muscle to an extent of ½ in. to ¾ in., until the patella is firmly braced into position.

Paralysis of the Upper Extremity.

On patients affected with infantile and traumatic paralyses in the upper extremity the amount of operative work performed has not been so great. The most difficult cases are those where either the lower cervical nerve roots or the brachial plexus are damaged, either during birth, as in the Erb-Duchenne type, or by the traumatism incidental to daily life.

In the year 1903 a case was described by me[14] of injury to the fifth cervical root, resulting in paralysis of the Erb-

Duchenne type about the shoulder, and the loss of the flexion power at the elbow, due to traumatism of the fifth nerve root. In this case a long strip of the outer head of the triceps was brought forward and inserted into the biceps, and the power of flexion at the elbow was restored. But the efforts made to restore the deltoid by transplanting the distal part of the clavicular portion of the pectoralis major were not successful. The case was shown at the Clinical Society, and the action of the transplanted muscle in flexing the elbow was demonstrated.

And in another case of Erb-Duchenne paralysis, in a boy aged 10 years, from birth palsy, similar results were obtained.

But, so far as I know, all attempts to replace the deltoid by means of muscle-grafting have not been effectual, although it has been suggested that a portion of the trapezius should be used for this purpose instead of the pectoralis major, yet much may be hoped from nerve anastomosis. In a case of paralysis of the serratus magnus, due to acute anterior poliomyelitis, and resulting in scapula alata, the distal end of the lower half of the pectoralis major was grafted by me into the serratus magnus with so much effect that the deformity disappeared, and the girl was able to advance the scapula fully, as in the thrusting movement of the upper extremity.[15]

Operations for dropped wrist from infantile paralysis have been devised and carried out, notably the conversion of the carpal flexors into carpal extensors, as practised by Mr. Robert Jones; but it is highly probable that nerve transplantation will give better results in this form of paralysis than tendon grafting.

In ischaemic paralysis, or Volkmann's contraction of the upper extremity, tendon elongation has been successfully carried out to overcome the contraction of the wrist and fingers. It is a tedious procedure, but it is a more scientific form of treatment than shortening the bones of the forearm, which, if done sufficiently to relieve an advanced degree of contracture, is likely to be followed by a pseudo-paralytic condition of the muscles. It seems that if more than ½ in. of the bones be taken away the muscles may become useless.

Spastic Paraplegia and Cerebral Diplegia.

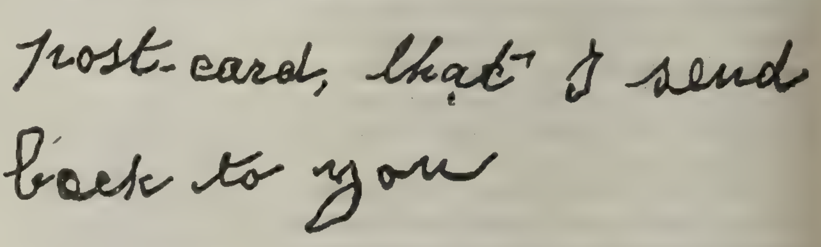
Spastic paraplegia and cerebral diplegia have been attacked by surgeons. It is only within the last few years that tenotomy of the tendo Achillis in these cases has been sanctioned by medical opinion, but abroad further procedures have been attempted and carried out with varying results. Apart from tenotomy of contracted tendons, such as the tendo Achillis, the hamstrings and adductors, the operations for the relief of these distressing conditions are not many; although in connexion with the adductor spasm mention must be made of Mr. Robert Jones's plan of excising a considerable portion of the adductor tendons and muscles, which is followed by much greater effect than tenotomy.

In the upper extremity I have operated for the relief of pronator and flexor spasm of the forearm, by detaching the tendon of insertion of the pronator radii teres, passing it through the interosseous membrane and refixing it on the outer side of the radius, so that it may assist in supination. This was repeated by E. H. Bradford of Boston,[16] who three times transplanted the pronator radii teres, and in one case the ultimate benefit was great. The difficulties to be overcome are considerable. At the time of operation the chief one is the shortened state of the muscle, with its often ill-defined and broad tendon, which is difficult to insert again into the radius satisfactorily. In order to overcome this trouble, I have grafted the central end of the separated pronator radii teres into the flexor carpi radialis, then brought the central end of the latter tendon, after section below the junction of the tendons, through the interosseous membrane, and fixed it on the outer side of the radius. Despite this improvement, the range of pronation and supination was not so great as was expected. Acting on a hint from Mr. H. A. Ballance, the interosseous membrane was split from above downwards, and the range of movement then increased. The most important part of the treatment is after-education. It is certain that these cases require years, and even then can only carry out the movements of pronation and supination with difficulty. It is useless to attempt this operation in very severely marked spastic conditions; and equally so when the child's mental condition is below the average of this class of case, because it is found impossible to educate them sufficiently.

For a contracted and entirely useless spastic hand I have adopted the following procedure in a gentleman aged 26:

CASE VII.

The carpal flexors were divided, and their tendons lengthened by means of silk attachments, and then transferred to the extensor surface of the bases of the second and fifth metacarpal bones; and subsequently the tendons of the flexors sublimis and profundus digitorum, and the flexor longus pollicis, were lengthened at the wrist by the Z method.



post-card, that I send back to you

Fig. 8.—Specimen of handwriting after operation upon a hand that was previously useless.

Whereas before the operation the patient's right hand was useless, and he could only passively extend the fingers with the left hand, he is now able to use it in dressing, and it assists the left, but cannot entirely take its place. He is now engaged as a clerk in a bank, and writes moderately with the right hand. (Fig. 8.) The patient in writing added that "nearly every movement which I can perform now, I could not do before."

For flexion of the knees in spastic paraplegia Bernard Bartow,[17] depending on the gastrocnemii to supply the flexion power, wove the semitendinosus and semimembranosus and the gracilis into one cord, and anchored this cord to the aponeurosis of the vastus internus as near to the patella ligament as possible. He records that there was some improvement.

It is evident that not so much benefit can be expected from tendon transplantation in spastic paralysis as in infantile and other forms. We are often unable to differentiate the factors causing the contraction, how far it is due to gravity and position, and how far to shortening of the muscles. Again, we have no certain proof in most cases that the spastic process has ceased. But it is quite certain that simple tenotomies and tendon lengthening, provided that the position of the limb is sufficiently guarded for a considerable time after the operations, result in benefit. And in all these cases an immense amount of after-education is essential. Nevertheless, the outlook is hopeful for surgical procedures.

HOW FAR HAVE THE ATTEMPTS AT RELIEF AIMED AT BY TENDON AND MUSCLE TRANSPLANTATION SUCCEEDED?

As with all new forms of operation, great expectations of their practicability and usefulness were formed at their inception, and very often the value of an original operation consists, not in that it fulfils the object for which it is performed, but in the fact that it is a new departure and contains the germ of originality, which in other hands blossoms out into a satisfactory, recognized and useful procedure. But it behoves us to be as brief and as concise as possible.

To take the case of paralysis of the muscles supplying the foot, it is quite clear that where a single, or at the most two, synergic muscles are paralysed—especially if they be concerned in the production of valgus and varus—tendon transplantation yields very satisfactory results in the senses that the lost movement is frequently restored, the position of the part is rectified, and the patients are subsequently able to do without instrumental support. In cases of talipes calcaneus the results have not been so successful, for the simple reason that a weak muscle has been expected to do the work of muscles normally more than ten times stronger; that is to say, muscles whose function is merely to invert or evert the foot have been expected to lift the whole weight of the body, and at the same time to maintain the foot in a correct attitude. Such cases are best treated by a combination of tendon transplantation and arthrodesis.

The results of transference of power from the sartorius and the hamstrings are certainly very satisfactory and in every way encouraging, not the least important point being that many patients are able to stand, and even to walk, without cumbersome apparatus about the knee.

The treatment of infantile and other forms of paralysis n the upper extremity, when it is not very extensive, and f not more than one joint is involved, and that joint ither the elbow or wrist, has proved very encouraging, nd even if one of these joints be hopelessly involved and he other partially, much aid is obtained by fixing the ail-like joint. The admirable results of grafting a ortion of the triceps into the biceps, and portions of the ectoralis major into the serratus magnus, and transerence of the carpal flexors to extensors, for parslysis of hese muscles, have been adverted to.

In estimating the success of these operations it is necesary to consider how far an apparently paralysed muscle s capable of recovery if aided by removing the harmful ffects of constant stretching, and by reinforcing its endon. Even when muscles give the reaction of deeneration we have no means, so far as I know, of ieasuring exactly what is the extent of the degeneration, hether it is entirely distributed throughout the muscle, r is in patches, or to what degree it has proceeded. On iese points accurate and original observations are reuired. J. Koch[13] has shown that when the fatty deeneration of a paralysed muscle is scattered throughout in small areas a large amount of regeneration of the iuscle fibres may take place in each area; but when the ntire muscle has been transformed into fat no such reeneration can follow. The process of regeneration ets in some time after the paralysis and fatty degeneraon have occurred, the latest time being seven to nine ionths. If this be true—and the observation requires onfirmation—it affords a very hopeful outlook and a rong justification for the reinforcement of partially aralysed muscles. Looking at the question of tendon ansplantation as a whole, much more successful results e obtained by insertion into the periosteum of reinrcing tendons than by anastomosis; by the former ethod the point of insertion from which the best results n be secured is obtained, and Lange's method of ngthening tendons renders effectual periosteal insertion l the more decisive.

The operative treatment of spastic paraplegia and cereal diplegia is making but slow progress because the diffiilties are so much greater, chiefly on account of the ental condition of the patient and the character of the ntracture. But when medicine has said its last word, it surely time, and quite justifiable, to try surgical produres, which have so far met with a moderate amount success, in that the position of the limbs has been imoved, the range of movement increased, and the patient ten enabled to walk upright, whereas before he grovelled. as has been shown above, the operations of tendon ansplantation and tendon lengthening can render a eless hand partially useful, then such measures are to welcomed and tried.

ie Causes of Want of Success, and How can such be Remedied?

These are many and various, but by ascertaining their ture and character we shall place these operations on a ore satisfactory footing. In the first place too much s expected to be accomplished, and a limb extensively ralysed has been submitted to operation and tendons nsplanted, where it is now evident to us that little or improvement could have been expected.

If the secondary deformities of the limb are not rectified fore operations on tendons are done, then the result is satisfactory. Deficiencies in technique, defects in perft asepsis, are responsible for many failures. Cicatrizan at the point of division of the tendon slip has counted for some bad results; subsequent yielding of tendon of the paralysed muscle has accounted for ers; and the employment of too much or too little sion of the graft is again responsible for failure. If ere be too little, all the power of the reinforcing tendon expended in picking up the slack of the weak muscle; here be too much, sloughing may follow. Yielding of new attachment of the tendon to either muscle or ne, owing to imperfect fixation, has occurred and utralized expected benefits. When a paralysed muscle muscles passes over flail-like joints, as, for instance, a l-like ankle and mediotarsal joints, with relaxed ligants, it is hopeless to expect any tendon, however strong nay be, to control such joints, and it is just in these es that Royal Whitman's operation of combined arthrodesis and tendon transplantation is so useful. Another cause of want of success is not starting with a proper plan of compaign. To take a simple example. In the case of the foot, in transferring tendons, those which go to the toes should, as a rule, be sacrificed to those which control the ankle and mediotarsal joints, since the loss of the greater part of the control over the toes does not have very disastrous effects in the case of boot-wearing people. Whereas, in the case of the wrist and hand, those muscles which act upon the carpus should be sacrificed to those which act upon the fingers. There are few forms of operation which require so much consideration and experience, and their very difficulty gives them a charm to thoughtful surgeons.

At the knee-joint, Lange advises that all three hamstrings be transplanted to the front; the reason being that if one alone is used it may fail to learn to contract independently of its group, and voluntary movement is impossible, or it takes years to re-educate the muscles. In paralysis of the extensors he depends solely on the gastrocnemius to secure flexion at the knee. But if the gastrocnemius be paralysed the semimembranosus must be left, otherwise genu recurvatum will result. Lange hints that transplantation of the hamstrings is an improvement on even Nature itself, because, while the normal quadriceps muscle extends the knee, it flexes the hip, but the artificial muscle extends both the knee and the hip. If the hamstrings are useless the tensor vaginae and the sartorius may be used; but he criticizes the use of both biceps and sartorius, because, although they can both be made into knee extensors, they are naturally one a flexor and the other an extensor, and normally have antagonistic actions.

Other causes of failure consist in not keeping the part immobile sufficiently long after the operation. At least six weeks are required, and too much work must not at once be thrown upon the newly-fashioned muscles, which rapidly become tired and exhausted and fail to do the work which is expected of them.

Arthrodesis.

Arthrodesis finds its place in the treatment of infantile paralysis when a joint is hopelessly flail-like, and it has the effect of making the part stable, lessening the amount and weight of apparatus, and affording a position of steadiness, as in the ankle, for the finer movements of the front part of the foot. With the latter object, Whitman[19] has performed arthrodesis of the ankle at the subastragaloid joint, and in necessary cases at the mediotarsal joint, followed by tendon transplantation; so that in his procedure tendon transplantation occupies a subordinate place. These operations are not designed with the object of securing perfect functional cure, but restoration of stability to such a degree as to enable the patient to discard apparatus. In the foot stability is the first essential; finer movements may be sought afterwards. Arthrodesis is not so suitable for the knee as for the ankle, because a long, straight rod of bone in these paralysed limbs invites fracture. In this connexion we must also consider what amount of after-care our patient can secure. In the case of one who can be under the direct personal care of the surgeon, aided by the intelligent co-operation of nurses and patients for a long period, tendon transplantation will probably result in securing a more mobile and useful part than can be expected with out-patients; and, excepting perhaps in the case of the simpler forms of paralysis of the foot, the combined operations of arthrodesis and tendon transplantation are preferable to transplantation alone for hospital patients.

Nerve Anastomosis and Transplantation.

Operations with this object have undoubtedly grown out of the feeling that in extensive plastic operations on the tendons a considerable amount of healthy muscle material cannot be used economically nor serviceably, and our regret is increased by the knowledge that the wasted muscles in infantile paralytic cases are secondarily diseased, owing to changes in the spinal centre. If we can succeed in re-establishing a connexion we ought to be able to refresh the muscle substance, so that it can do its work, since it is clearly shown by a case quoted later by Spitzy[32] that muscles which have been in a state of atrophy for eight years may be regenerated.

According to Kilvington,[29] Fleurens crossed the two nerves supplying the upper and lower surfaces of the wing in a cock. After a time co-ordinated movements resulted. But such an experiment is inconclusive unless some method is adopted to prevent the union between the cut peripheral and central ends of the same nerve.

The first authentic case of nerve grafting in man was by Sick and Sänger,[21] who transferred the distal stump of a paralysed musculo-spiral nerve into the neighbouring intact median, and obtained a good result. Faure and Furet[22] in 1898 sutured that portion of the nervus accessorius which supplies the trapezius into the divided facial without success. In the same year Manasse[23] performed a similar operation on five dogs; three of these experiments were successful, the regenerated fibrils being subsequently seen crossing the point of suture.

On May 4th, 1899, Robert Kennedy[24] performed the first successful case of the Faure-Furet operation of facio-accessory anastomosis in man. Cushing,[25] in a traumatic case of facial paralysis, transferred the proximal stem of the divided nervus accessorius *in toto* into the distal facial. In six months the patient is described as being nearly normal. Cunningham,[26] in dogs, crossed the musculo-spiral with the whole of the nerves supplying the flexor muscles, and isolated the junction by wrapping round the nerves at the point of suture a layer of fascia, thus preventing the tendency of some of the central fibres to join on to the distal ones in the same nerve. Seventeen months later electrical stimulation showed the union to be effective, but volitional movement was unsatisfactory. When, in the same way, the median and ulnar nerves were crossed, the results were good, thus illustrating the important point that, in order to obtain good co-ordination, the nerves utilized must have a synergic function; whereas, if they are antagonistic, the result will be poor.

Kennedy[27] crossed the musculo-spiral with the median and the musculo-cutaneous with the ulnar, so interchanging the whole of the nerve supply of the flexors and extensors. Precautions were taken to avoid confluent union in a common cicatrix by interposing the internal anconeus muscle between the two sets of nerves. Co-ordinated voluntary movements were very completely restored, and a subsequent dissection showed no confluent union. Stimulation of the musculo-spiral nerve above the line of suture resulted in flexion, and vice versa. He[28] found that the cortical areas for flexion and extension were interchanged after nerve crossing, and stimulation resulted in co-ordinate muscular action. This point is of the utmost importance, not only in connexion with nerve grafting but with the cerebration of muscle transplantation. So far we have dealt with either end-to-end junction (Fig. 9), lateral approximation (Fig. 10), or crossing experiments. Another kind of nerve anastomosis is the suture of the central end of one nerve to the peripheral ends of two or more (Figs. 11, 12, and 13). This has been successfully practised by Kennedy[29] and by Kilvington.

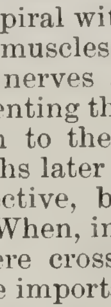


Fig. 9.—Slip of nervus accessorius into facial (after Faure and Furet). End to end anastomosis. A, Accessory; B, facial.

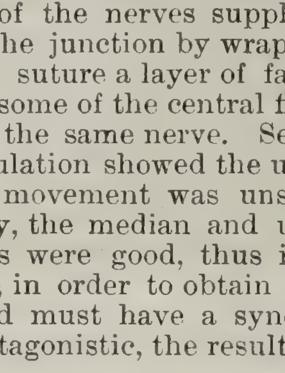
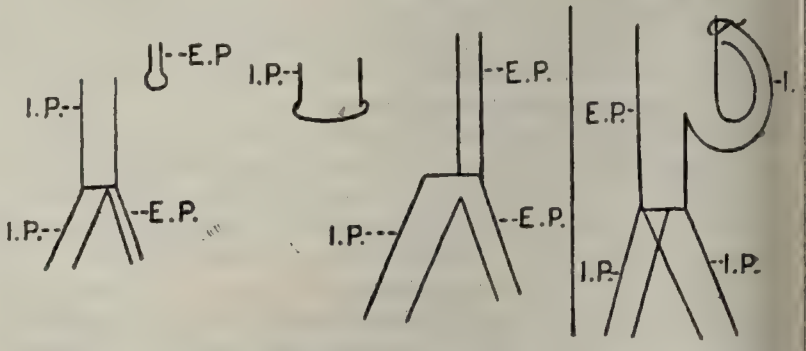


Fig. 10.—Facial nerve into hypoglossal. Lateral anastomosis. A, Hypoglossal; B, facial.

Langley and Anderson[30] from their experiments concluded that (1) the central end of an efferent fibre can make functional connexion with the peripheral end of any other efferent fibre of the same class, whatever be the normal action produced by the two nerve fibres; (2) efferent fibres do not make functional connexion with sympathetic fibres arising from ganglia; (3) afferent fibres cannot unite with efferent or post-ganglionic fibres to produce a functional result.

Kilvington[31] experimented by making one nerve supply antagonistic muscles, for example, the internal and external popliteal nerves were divided, and the central en of the internal popliteal was sutured to the central end the external and internal popliteal nerves (Fig. 11). Th results of his experiments were that a functional resu was obtained in both nerves; that good co-ordination r sulted, at any rate so far as regards the coarser movement and that a better result was obtained when the supplyin nerve is large. He also noted that the action of th muscles supplied normally by the central nerve trun preponderate, and lastly that if the nerve fibrils belo the junction were counted, they were greater in numb than those above, thus showing that division of nerv fibres takes place. Anastomosis of the popliteal nerv is obviously applicable to the treatment of talipes resultin from infantile paralysis.

Fig. 11. Fig. 12. Fig. 13.



Other methods of grafting (Kilvington). I.P., internal popliteal; E.P., external popliteal. The reinforcing nerve is completely cut across, and the distal ends of both internal and external popliteal are sutured to it.

To return to the facial nerve. Hackenbruch[32] report a successful case of facio-accessory anastomosis in a gir aged 8 years, who had had facial paralysis for seven an three-quarter years. Two-thirds of the spinal accessor nerve were implanted in the facial, and nine months afte the child could voluntarily draw the right angle of th mouth outwards. Körte at the same congress[33] showed patient in whom, one and a half years previously, h anastomosed the peripheral stump of the facial to th hypoglossal with much benefit.

While Messrs. Ballance and Purves Stewart[34] have pe formed experiments of junction of the spinal accessor and facial, yet such cases are open to the criticism that a first the associated movements of the face and shoulde are marked, but later[35] experience shows that independe voluntary and emotional movements return. Therefo they prefer facio-hypoglossal to facio-accessory anast mosis. They further recommend that the operation b carried out if the case shows no signs of spontaneou recovery after six months. Messrs. Ballance and Purve Stewart's cases of facio-hypoglossal anastomosis were don before Körte's in Germany.

In a case of facial paralysis due to an operation woun I grafted the distal facial into the hypoglossal.

CASE VIII.—*Grafting the Distal Facial Trunk for Traumati Facial Paralysis into the Hypoglossal: Successful Result.*

J. P. B., male, aged 19, was admitted into Westminste Hospital on October 3rd, 1905. The patient has been a militia man, and some months ago a large swelling appeared behin the left side of the jaw. This was opened on April 27th, 190 and it was immediately after the operation that the palsy wa found. On admission the face was seen to be paralysed on th left side. The left half of the mouth dropped; the le palpebral fissure was larger than the right; the left side o the forehead was unwrinkled; the cheek was flattened; th tongue deviated slightly to the right; the palate move normally, the uvula being in the middle line, but food accumu lated on the left side. There were also epiphora and dribblin of saliva on the left side. He could not whistle, nor draw i the cheek involuntarily. The appearances before operation a seen in Figs. 14, 15, and 16.

On October 16th the anastomosis was carried out. A incision was made from the tip of the mastoid process to th greater cornu of the hyoid bone, and then a dissection wa undertaken to find the cut distal end of the facial nerve. Thi was done with much difficulty. It was traced forwards in th parotid for about ½ in. A further dissection was then made t expose the hypoglossal nerve. The greater parts of the digastri and of the stylohyoid muscles were removed, and the hyp glossal nerve freed and brought upwards as near to the faci as possible. An incision was made with a tenotomy knif deeply into the hypoglossal nerve, and the distal end of th facial was then inserted into it by lateral implantatio (Fig. 10). On October 23rd—that is, a week after the operatio —it was noted that the palpebral fissure was lessened in siz and the eye could now be temporarily closed. On October 28t the palpebral fissure was still smaller, and the patient began to move the left angle of the mouth. He was seen last on February 7th, 1906, when the following conditions of voluntary movement were noticed: Action of the corrugator supercilii in wrinkling the forehead, firm action of the orbicularis palpebrarum, and closure of the eye on that side with control over the muscles of the cheek. He could also voluntarily draw the eft angle of the mouth upwards to a higher degree than the ight when the latter was at rest, but in repose the left angle vas slightly dropped. The left ala nasi moved simultaneously vith the mouth, and there was flickering of the muscle of the hin. The appearances after the operation are seen in Figs. 17 and 8. It was striking to observe that the tongue was more drawn ver to the right side, and there was a little thickness of peech, but the patient said that when he moved his face he vas not compelled to move his tongue at the same time. There vas some wasting of he left side of the ongue. When both ides of the face were hrown into action, he right side still verpowered the left.

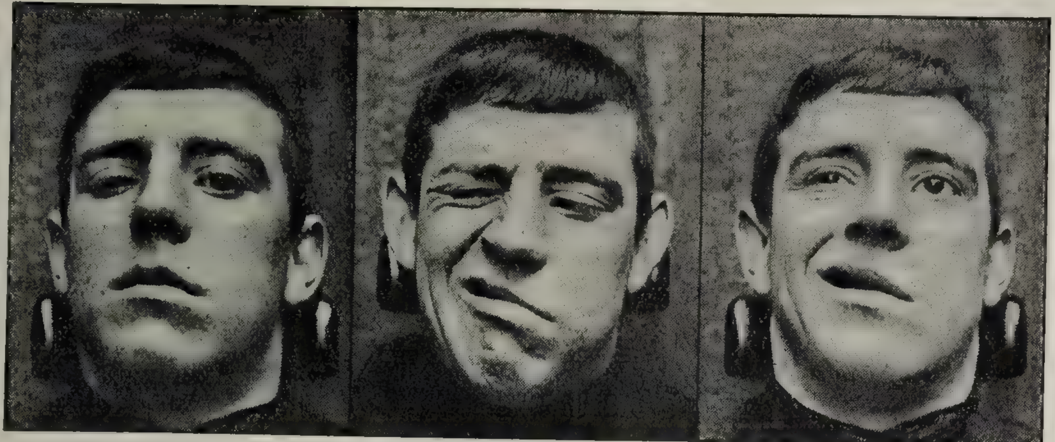


Fig. 14. Fig. 15. Fig. 16.
Before facio-hypoglossal anastomosis (Case VIII). Left side of face paralysed. In Fig. 14 the face is seen at rest.

This is, I venture think, a very sucessful case of nerve rafting.

J. K. Young[36] eports a case of ıfantile paralysis here the tibialis nticus had been aralysed for three ears. The proximal xtremity of the erve supplying the anterior tibial muscle was divided, and slit having been made in the musculo-cutaneous nerve, the ıt extremities were inserted into this, and secured with ıe formicized catgut. A year and a half afterwards all the uscles of the anterior tibial region gave a good response a slowly interrupted faradic current, the tibialis anticus ing fainter than the others. But, unfortunately, Young ves no details as to volitional movement or the return of -ordination. In the discussion on J. K. Young's case, itzy of Gratz said that recent investigation showed that generation in quite degenerate muscles took place if nnexion were again made with the centre, which he stanced by a case of paralysis in the facial area, where covery took place after nearly eight years as the result operation. He pointed out at the seat of co-ordination in the brain, and that s can be re-educated, and ther alluded to the two ories of regeneration: one at it is by the growth of the s cylinders alone downrds into the degenerated ve that the connexion is de; and the other view, ich is held by Messrs. lance and Stewart, that eneration can take place the distal part by the deopment of the cells in the ath of Schwann as well. er recent work on the ject has been done by nriksen,[37] Spiller,[38] Müntz,[39] l Bethe.[40] Hans Spitzy[41] has carried out in children nsference from the superficial branch of the obturator ve to the anterior crural for paralysis of the extensor scles of the thigh. Reference must be made to his ers on the subject.

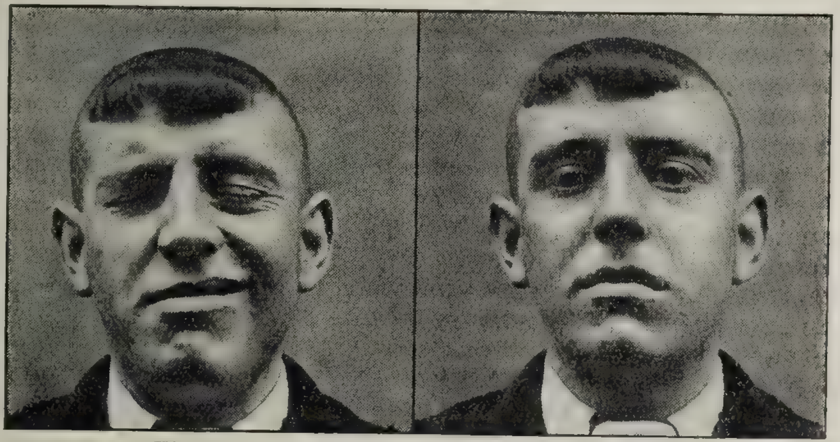


Fig. 17. Fig. 18.
After facio-hypoglossal anastomosis. James B., aged 19. Operated on October 16th, 1905. Appearances presented on February 7th, 1906 (Case VIII). Fig. 17, showing the return of power on the left side of the face. Fig. 18, the face in repose, showing traces of the facial palsy.

have performed four operations for infantile paralysis the leg, and one for palsy of the fifth and sixth nerve ts.

E IX.—*Paralytic Talipes Calcaneus: Grafting of the erves to the Soleus and Gastrocnemius from the Internal opliteal to the External Popliteal: Recovery.*

R., aged 9, was admitted to Westminster Hospital on ober 21st, 1905, for paralytic talipes calcaneus of seven years' ding, with contraction of the plantar fascia. The electrical tions were as follows: All the muscles of the left leg w the knee reacted to faradism, excepting the gastronius and soleus. With regard to galvanism, so far as the rocnemius and soleus are concerned, A. C. C. > K. C. C., in the remaining muscles of the leg K. C. C. > A. C. C.

On November 4th the plantar fascia was divided as a preliminary measure. As to nerve-grafting, it is known that the external head of the gastrocnemius is supplied by one branch from the internal popliteal, and a separate branch supplies the internal head of the gastrocnemius and soleus. The operation on November 13th was accordingly planned on this arrangement of nerve supply. A median incision was made in the middle of the popliteal space, and the internal and external popliteal nerves exposed, and then the two heads of the gastrocnemius and the soleus, with the nerves supplying them. These nerves were traced up into the internal popliteal trunk, and as the bundles remained visibly distinct in that trunk for a considerable distance, there was no difficulty in dissecting them off the main trunk of the internal popliteal nerve for 1½ in. The branches to the paralysed muscles were then separated from the internal trunk, an incision made into the external trunk until white matter exuded, and the two nerve branches were inserted into the external trunk at a distance of ½ in. from each other. The wound was then closed, and it healed without difficulty, the leg being put up in splints to prevent movement at the knee-joint.

On December 18th the electrical reactions of the muscles were as follows: None to faradism of the gastrocnemius and soleus, and to galvanism A.C.C. > K.C.C., but the contraction was very slight. On December 29th there was slight evidence of return of power in the calf muscles, and the tendo Achillis was felt to become slightly tense on voluntary effort. On January 9th the electrical reactions were: To galvanism A.C.C. > K.C.C., but very slight reaction, and to faradism nothing, yet the boy had acquired the power of extending the foot, and the tendo Achillis was distinctly felt to harden. On January 31st the power of extension had increased, and on February 7th the improvement in the power of extension was very marked, a considerable effort on the part of the surgeon being required to neutralize it. It will be noted that in this case, within nine weeks of the operation, power had commenced to return in the paralysed muscles. It is striking to notice that on February 7th, the last day on which the reactions were tested, no reactions could be obtained in the gastrocnemius and soleus to faradism. This shows that the only reliable tests applicable are return of movement and visible tightening of the tendon when movements are attempted.

Case x.—*Complete Paralysis of Gastrocnemius and Soleus: Talipes Calcaneus: Nerve Gafting: Recovery.*

Willie T., aged 9, was admitted to Westminster Hospital on May 19th, 1905. He had infantile paralysis when aged 2½, but recovery took place, except in the gastrocnemius and soleus and in the right erector spinae. He could dorsiflex and evert the ankle, but inversion movements were not quite so powerful as normal, and he was totally unable to extend the ankle. He had been treated at Queen Square by massage and electricity for three months, and had worn leg-irons for three years. At Westminster Hospital efforts were made to improve him by massage and electricity, but no results followed. On June 5th the muscular branches of the gastrocnemius and the soleus were dissected out and stimulated by sterilized electrodes. A precisely similar operation was carried out as in the previous case, but for a considerable time no effect was noticed. On September 13th he was tested electrically by Dr. Purves Stewart, and no reaction to either faradism or galvanism was found. On October 1st it was noticed that voluntary extension of the ankle had appeared, but he could not extend the foot beyond a right angle. In this case four and a half months elapsed before any sign of voluntary power was seen. Since then the power has increased, and exceeds that of the previous case. On standing with the whole weight of the body on the foot, he can raise the heel ½ in. off the ground.

Case xi.—*Paralytic Talipes Equino-Varus: Insertion of External Popliteal into the Internal Popliteal Nerve.*

W. H., aged 5, suffered from paralytic talipes equino-varus.

The tibialis anticus and posticus on the right side were divided, and on July 31st, twenty days after this operation, the external popliteal nerve was divided across and its distal end inserted into the internal. On October 25th it was noted that no definite recovery of the affected peronei had taken place, and so far the result is not satisfactory; but he is under observation, and the case will be reported on later.

CASE XII.

In a similar case I also inserted the external popliteal into the internal popliteal on July 3rd, 1905. In this instance the peripheral and central ends of the external popliteal were inserted into the internal popliteal (see Fig. 19) for talipes varus, and this boy, on February 7th, showed no satisfactory signs of recovery, seven months after the operation.

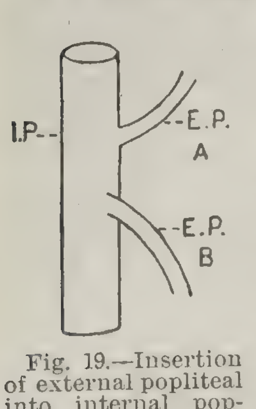


Fig. 19.—Insertion of external popliteal into internal popliteal, both central and peripheral ends of external popliteal inserted into internal popliteal. A, Central end; B, peripheral end.

CASE XIII.

I may also refer to a case of Erb-Duchenne paralysis of the fifth and sixth nerve roots in a child aged 2½, where I inserted on October 24th, 1905, the outer cord of the brachial plexus into the middle cord. So far, no results have followed, except that the general use of the parts, especially the forearm and the extensors of the wrist, is greater, but on February 7th, 1905, no definite results have followed.

Thus, in 6 cases of nerve grafting during the past year, 3 have proved successful; 2 of the successful cases were shown at a meeting of this Society in October.

In nerve grafting it is evident that there must be a grave risk of the mingling of fibres of antagonistic muscles, so that few co-ordinate movements of a fine nature can result. It all depends upon the question of division of fibres. If a cut nerve fibre in the proximal end divides, and one branch goes down the main trunk of the original nerve and the other down the nerve which has been grafted in, then some antagonism will result; but if the two branches of a cut nerve fibre go down in one trunk, then antagonism will probably not take place. And the question is, What really does happen to the fibres? Kilvington* has suggested that it is better to divide the reinforcing nerve completely across, and to insert the distal part of the reinforcing nerve and the distal part of the nerve to be reinforced into the central end of the reinforcer (Figs. 11, 12, and 13).

Surgical interference in paralysis of the brachial plexus is a very difficult matter. Wilfred Harris and Warren Low[42] read a paper insisting upon the importance of accurate muscular analysis in lesions of the brachial plexus, and they have proved by experience and experiment that in Erb-Duchenne paralysis the sixth nerve root is usually unaffected.

Sufficient has been said to show that nerve anastomosis is well within the range of operative therapeutics. In Spitzy's operations, up to the time of writing in 1905, only 50 per cent. of cures or improvements had been recorded. We have to consider how far the operation is justified. It seems a bold procedure to cut a paralysed nerve, and implant its peripheral end into a sound nerve, and a still bolder procedure to cut a slip from a healthy and important nerve. We wish to know what is the effect of these procedures on healthy muscles, and Körte remarked, in his case of implantation of the paralysed facial nerve into the hypoglossal, a slight atrophy of the tongue, so that we must weigh carefully the chance of injuring a sound nerve. The next point we must know is whether the muscle which has been again brought to life by this operation can learn to functionate independently. The drawback of some of the facio-accessory anastomoses has been the appearance of movement simultaneously in the trapezius and the face. What is required is to create independent muscle function, so as to be able to obtain truly co-ordinate movements. I venture to suggest that great care should be taken to ascertain in any nerve the exact position of the nerve bundles supplying certain muscles and groups of muscles. This appears to me an essential step.

CONCLUSION.

In conclusion, we feel that in attacking paralytic affections, either by tendon grafting, muscle transplantation, or nerve anastomosis, we are confronted by most intricate problems, but the early results, considering the comparative failure of all the preceding measures, seem to justify a very careful and well-considered trial in suitable cases.

REFERENCES.

[1] *Wiener med. Presse*, 1886, p. 882. [2] *Zeitschr. f. Chir.*, Band xlviii. Section 470. [3] *New York Med. Journ.*, October 8th, 1892. [4] *New York Med. Record*, October 26th, 1895. [5] *Boston Med. and Surg. Journ.*, 1895. p. 447, and *Trans. Amer. Orthop. Assoc.*, vol. x, p. 97. [6] *Münch. med. Woch.*, No. 10, 1898, Nos. 15 to 26, 1902; Report of Congress of German Orthopaedic Surgeons, 1903; *Zeit. f. Orthop. Chir.*, Band viii, Heft 1, 1900; Band xii, Hefte 1 and 2. [7] *Münch. med. Woch.*, May 27th, 1902. [8] *Handbuch der Orthop. Chir.*, Joachimstal, p. 326. [9] Cf. Case 16, quoted by J. Dane and D. Townsend, *Amer. Journ. of Orthop. Surg.*, August, 1904. [10] *Clin. Journ.*, September 14th, 1904. [11] *Ueber der Arbeitsleistung auf die Fussgelenke wirkenden Muskeln*, Leipsic, 1892. [12] *Trans. Amer. Orthop. Assoc.*, vol. x, 97. [13] Joachimstal's *Handbuch der Orthop. Chir.*, pp. 332-333. [14] *Surgery of Paralyses*, A. H. Tubby and Robert Jones, p. 26. [15] *Amer. Journ. Orthop. Surg.*, vol. ii. No. 2, p. 163, and BRITISH MEDICAL JOURNAL, October 29th. 1904. [16] *Amer. Journ. Orthop. Surg.*, May, 1904. [17] Ibid., February, 1904. [18] *Münch. med. Woch.*, July 19th, 1904. [19] *Amer. Jour. Orthop. Surg.*, August, 1903. [20] BRITISH MEDICAL JOURNAL, 1905, vol. i, p. 935. [21] Langenbeck's *Arch. f. klin. Chir.*, 1897, Band liv, p. 271. [22] *Gaz. des Hôpitaux*, March 8th, 1898. [23] *Arch. f. klin. Chir.*, Band lxii, 1900. [24] *Phil. Trans.*, Series B, vol. cxciv, pp. 127 to 162. [25] *Journ. of Nervous and Mental Diseases*, 1903, p. 367. [26] *Amer. Journ. of Physiology*, vol. i, 1898. [27] "Restoration of Co-ordinate Movement after Nerve Crossing, with Interchange of Function of Cerebral Cortical Centres," ibid. [28] Ibid. [29] Ibid. [30] *Journ. of Physiol.*, vol. xxxi, No. 5. [31] Loc. cit. [32] *Annals of Surgery*, vol. xxxviii: and Report on Proceedings of German Surgical Congress, 1903. [33] *Verhandlungschrift der Kongress f. Chirurgie*, 1903. [34] BRITISH MEDICAL JOURNAL, May 2nd, 1903. [35] Purves Stewart, Westm. Hosp. Rep., 1905, vol. xiv, p. 40. [36] *Amer. Journ. Orth. Surg.*, August, 1904 [37] Nervensutur und Nervenregeneration, *Centralbl. f. Chir.*, 1904, p. 33. [38] Surgical Treatment of Facial Palsy, *University of Pennsylvania Med. Bulletin*, November, 1903. [39] Durch. Nervenanastomose geheilte facialis Lehmung, *Centralbl. f. Chir.*, 1904, p. 22. [40] *Allgemeine Anatomie und Physiologie d. Nervensystems*, Leipsic, 1903. [41] *Wiener klin. Woch.*, 1905, p. 3; and *Amer. Jour. Orthop. Surg.*, August, 1904. [42] BRITISH MEDICAL JOURNAL, 1903, vol. ii, p. 1035.

[We are indebted to Messrs. Macmillan and Co. for permission to reproduce the figures 1, 2, and 7 from *Modern Methods in the Surgery of Paralyses*, by A. H. Tubby, M.S., F.R.C.S., and Robert Jones, F.R.C.S.E.]

---

* Most valuable suggestions are made in Kilvington's paper on Regeneration of Nerves (BRITISH MEDICAL JOURNAL, 1905, vol. i, p. 935, and vol. ii, p. 625), and to him I am indebted for much information.

A CASE OF MYXOEDEMA.

DEMONSTRATED TO A MEETING OF THE EDINBURGH AND OTHER SCOTTISH BRANCHES OF THE BRITISH MEDICAL ASSOCIATION.

BY SIR THOMAS FRASER, M.D., F.R.S.,
PROFESSOR OF MATERIA MEDICA AND CLINCAL MEDICINE,
UNIVERSITY OF EDINBURGH.

ALTHOUGH cases of myxoedema cannot now be regarded as rarities, I have been induced to show this patient because he very completely exhibits the typical symptoms of the disease, and also because the effects of the well-known thyroid treatment have been well displayed in his history.

He is a carter and labourer, 42 years of age. The typical symptoms are manifest in the broad, congested face, dull heavy expression, elevated and wrinkled forehead, swollen lips, large broad tongue, and double chin. The skin is dry, thick, and rather scaly. The neck is massive, with lump-like elevations at the base above each clavicle, and the hands and fingers, and to a less extent the feet and toes, have the broadened, thick, and spade-like appearance which adds to the outward typical symptomatology of this disease. The hair, though scanty, is now much more abundant than it was earlier in the course of the illness. The less conspicuous manifestations—such as the slow rate of the heart and of the respirations, the sluggish mental processes, the lowered temperature, and the recurring cramps—are also present.

The patient first came under observation in 1901, when he had already been ill for at least three years, so that the affection has lasted for at least eight years. In 1901 his appearance was similar to that which he now presents.

He was treated with thyroid gland; speedy improvement occurred, and in a few weeks all the symptoms disappeared, the weight diminishing from 13 to 10 st.

For several years he has taken thyroid gland regularly, and has thereby maintained a nearly normal standard of health. About three months ago straitened circumstances prevented him from buying thyroid glands or their preparations, and a fortnight after their deprivation several of the original symptoms—such as feelings of coldness huskiness and slowness of speech, and swelling of the face—returned, and in less than two weeks thereafter nearly a complete picture of myxoedema was reproduced with, however, scarcely so advanced a development of the symptoms as in the original state and before he had received any thyroid treatment.

An Address

ON

THE BORDERLAND OF INSANITY.

DELIVERED BEFORE THE TUNBRIDGE WELLS, HASTINGS, AND SEVENOAKS DIVISIONS OF THE SOUTH-EASTERN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

BY G. H. SAVAGE, M.D., F.R.C.P.,

CONSULTING PHYSICIAN FOR MENTAL DISEASES, TO GUY'S HOSPITAL.

ENTLEMEN,—I find it more and more difficult when alled upon to address meetings of my professional rothers to say anything which is new. I have now een teaching and talking for so many years, that the riginality has passed. With age, however, as from a fty peak, one sees more plainly the adjacent country nd into far distances, lands of promise in some cases. t is to-day my intention to arrange what I have to say nder several heads. First I wish to point out that the ddress has an object. I am convinced that when the rmoil of parties is over, and when a new Lord Chancellor as time, there will be new lunacy legislation, and I am ertain that already you will all have recognized the arvellous changes which are passing over the treatment f the insane. The idea of an asylum as the only possible lace of treatment for those of unsound mind has passed, nd now we are on the verge, I believe, of a greater extenon of treatment. It is comparatively a new thing for ery large surgical operation to be performed in nursing omes instead of in the patient's home, and it will have be recognized that similar homes, run on different but rallel lines, will have to be provided for the sufferers om acute unsoundness of mind. Already something is ing done, but much of it is done in a wrong way. The ctor now is the person who is being unduly restrained stead of the patient.

That those who are actively dangerous to themselves or society must be controlled and must be kept in asylums certain, but there are large numbers of dwellers in the rderlands of sanity who need care, but not control. rderlands, whether to principles or states, are ever the ntres of conflict; it has been so in the past, and I fancy ill be so for the future, for it is the borderland cases ich, having much liberty, take licence and cause legal ubles. I shall point out the borders, and then refer to e kinds of dwellers therein, and later I must be actical, and do my best to suggest modes of handling ese persons.

INSANITY AND UNSOUNDNESS OF MIND.

In the first place, once more I must insist that there is essential difference between insanity and unsoundss of mind. The insane are of unsound mind, but naintain that there are very many persons who are of sound mind but who have no right to be treated as natics. Yet the Commissioners in Lunacy still mainn that the statement of unsoundness of mind connotes sanity. There is ever a great danger in definition.

Sanity, after all, is only a relative term. There are cern laws, rules, and conventions which slowly grow und men as they advance in civilization, and the ach of these places men in different categories: those o break the laws which are essential, and do this owingly, are looked upon as being criminal; while those o break the lesser ones or the graver ones unconsciously without power of self-direction may fall into the insane ss, while those who neglect the simpler conventions of iety are considered eccentric, and may be dwellers in borderlands.

Ve have, then, to consider those persons who, not ng insane, tend to be criminal as the result of some vous defect in one class; in another we have those who d to vice, which may be looked upon as crime rather inst the individual than against society. These in the ious borders vary, as I shall point out, according to the ious course which they tend to follow.

astly, I shall have to consider the cases which most quently come before me in which the real question is, Are they insane or are they not? This question may be literally a vital one, for on it may depend the legal responsibility of certain acts. We have, then, the criminal border, the vicious border, and the insane border to consider.

I shall also have to consider that the patients may be temporary or permanent dwellers in the borderlands. Some persons pass most of their lives in health, yet have recurring nerve-storms and have to be sent to asylums. In many of these there are periods when they are not insane, but when they are eccentric and behave oddly. It is interesting to recognize that many of these persons have in each recurrence exactly the same ideas with exactly the same actions. They have, as it were, mental aurae before the outbreaks of insanity. I speak of such as moths about the candle, for among these patients I have a good many who show their instability first by visiting me.

There are, then, these transient visitors who, like the swallows, return time after time, but there are others who pass through the borderland on the road to profound decay. Such may often be seen in persons suffering from general paralysis of the insane.

There are others who are dwellers in the borderland; from the very first they come into the world ill fitted for their posts, and they fail in one way or another. Probably one of the widest borders is the hysterical one. We most of us doctors recognize that a very large amount of nonsense is talked about hysteria; and just as the mother of every idiot wishes it to be looked upon as only a little backward, so most relations of the actively-insane woman wish us to believe that they are only suffering from nerves or hysteria. I have never been able to satisfy myself with the definition of hysteria. In Nature and in disease there are no definite lines; vitality is always indefinite, and, as Sutton said many years ago, the only definite things he knew were dead, whether they were definitions of disease or of other things.

Notwithstanding this protest, I admit there are many nervous and mental states which fully deserve to be considered as hysterical and those suffering from them to be looked upon as dwellers in the borderlands. Though there are many forms of hysterical symptoms, I do not allow the existence of a definite disease hysteria. I have seen the same symptoms present in acutely fatal cases, and in others in which there was danger neither to life nor reason.

THE EMOTIONAL HYSTERIC.

Now as to examples of the cases to which I would specially refer: A girl has a love disappointment, then grows restless and *distraite;* she becomes anaemic, takes her food badly, and has restless, disturbed nights; slowly she becomes more and more self-contained and indolent, lying in bed and taking long to dress herself; still there are no delusions of any kind, only emotional disorder. All these symptoms may with care pass off, but in many other cases there develop some more active symptoms; there may be complete silence or there may be aphonia, some defect of motor power, some form of paraplegia. Such and similar symptoms may last for long periods or may suddenly pass off, but it does not do to say that such cases are bound to get well. Some die of simple anorexia nervosa with cardiac failure, while others pass from the borderland and develop acute mania of one form or another. The hysterical border is chiefly inhabited by women, but both in boys and men I meet with true hysteria, and in them the prognosis is worse; the boys generally being on the road to mental weakness and the men probably in the early stages of general paralysis.

There is an interesting group in which the patients pass from the interesting hysterical paralytic into the acute maniac. I have described such cases in Bethlem where suddenly the maniacal symptoms have left the patient, who at once has become paraplegic.

Beside the ordinary emotional hysteric, we have to consider a much more difficult class of disturbers of social order. Wilks long enough ago pointed out the duty, whenever ghosts appeared or when supernatural phenomena occurred in small houses or country rectories, to *chercher la femme*, and you would find the cause to be a hysterical one. Beside this, and one in which there is considerable danger, we have the women who make accusations against men. I have come to the conclusion that though there are evil men there are more evilly-minded hysterical women, and I have not only to consider false accusations but equally false confessions. I have come across several, of which the following is an example:

A girl of good education—in fact, educated above her social position—goes into a family as governess. She is accomplished, ladylike, and is admitted to a good deal of the family life, yet she feels that she is not really in it. She dreams of the might-have-beens, and fixes her affections on the son of the family, who, happening to be otherwise engaged, takes no notice of her. Soon there is trouble, for the girl to whom the son is engaged receives anonymous postcards, nothing very startling at first on them, but later there are insinuations that the man has other loves of a lighter type, then comes a card with a coffin lid on it with the words, "dead the mother, dead the child." All this was the outcome of a hysterical imagination, and fairly demands to be placed near the criminal border. In such cases discovery and some social punishment is the best thing. In the above case marriage, I believe, has ended the troubles. Although most of the so-called hysterics have some sexual disorder, yet it does not do to say that they all have this, and there are other disorders which have direct connexion with some derangement of the sexual functions which have to be considered as distinctly beyond the border.

The Sexually Deranged.

I now must refer to the cases in which sexual passion overrides all the restraints of convention. That a young fellow should lose control in one way or another is common enough, and is overlooked if it is checked in time, but in the other sex things are different. Some of these cases are constantly coming before me, and I will give one or two examples. A girl of neurotic family, highly educated and brought up in luxury, but in what would be called a refined English home; she is sent to a boarding, or, more likely, to a so-called finishing school, where she hears a good deal of social scandal and develops ideas, but with little knowledge as to the relations of the sexes. In some of these girls a most overmastering lust develops—nothing will stand in the way of its gratification, and the girl escapes from home with or without a paramour. I have now in my mind's eye two cases of such girls who are under control; both have been certified, though I must admit the words of the certificates are weak enough, for all I could say was that they had given way to lust, and that in my opinion they were suffering from moral insanity, as they said that, if free, they should return to a vicious life on the first opportunity.

These girls are certainly in the borderland, and I fear that in none of them can you exercise any true control. I have seen the effect of sending them to convents, but the experiments have not been successes. I think it is justifiable to place them in country homes under the strictest supervision, but they ought to be certified, and this may be the practical difficulty.

More sad and equally difficult to manage are the cases in which there is in women a revival of sexual passion with the climacteric, and I might say that I have seen a good many of these women in whom it is reported that their earlier married life was apparently without any strong sexual desire. Anyway, in some of these cases a late child is the result, in others illicit attachments, and these may be of the most irregular type, so that the wife runs away with a groom or a coachman; and I have met with women who, on the pretext of reforming some drunken scoundrel, have ruined their domestic happiness.

The Social Misfits.

I have already this year, and not very far from here, held forth on the "social misfits" due to mental disorder, and here I must refer to some of these conditions, because they come naturally under this sexual group.

There is the unreasonably jealous woman, and, mind you, many of these are at the climacteric. They think their husbands, who are no longer young, are frigid, and they misinterpret this. They think the husband has a mistress or two, and they begin by reading the impressions on his blotting-pads. They spy on him, they empty his pockets, and even follow him to his office unexpectedly, thinking to convict him. All these symptoms may be but perverted affection, and if the wife can be got away well and good; but in many cases this is all but impossible, because the instant he is away she thinks he is with some other woman.

I saw a lady once who had taken the hotel bills which her husband brought home from the Continent, he having been advised to leave her for a time, and finding a dinner bill for four, when the husband's party consisted only of himself and his two sons, at once invented a lady friend as the fourth of the party. In similar cases the unreasonable jealousy of the wife induces the husband to consult a specialist as to the sanity of his wife, and I can only say from experience that the specialist runs considerable danger if he in any way supports this contention, for though the lady may be unreasonable, no court will admit that she is mad.

A more serious complication may arise from this lust, in leading to adultery and later to the Divorce Court. I believe so far no case has been tried in which the plea of irresponsibility on account of early mental disorder has been raised, but I have seen several cases in which women who had hitherto led perfectly honest lives, have under special conditions, such as absence of husband abroad and want of true friends, fallen, and who later have passed the border and become insane, it being perfectly clear that their lapses from virtue were symptoms of early mental disorder.

Difficult Cases.

It seems right here to refer to some of the cases in which we all have difficulty to decide as to our line of action. An elderly man of refined habit and surrounding is to our astonishment taken up by the police for indecent exposure or indecent conduct, or even criminal assault.

I have seen a good many of these cases, and in nearly all I have felt that, whatever was pleaded on their behalf, they were guilty of the acts, though in nearly all they were not really morally responsible.

A man's morality depends greatly on his arteries—that is, on his normal healthy self-control, which follows from a natural circulation and healthy blood through his brain. That these elderly men require special control I admit; but I cannot think that prison is the place—nor is an asylum, if we mean only criminal or lunatic asylums.

Still more difficult and still nearer the criminal line, we have to consider the very unpleasant class of sexual perverts: the clergyman who is guilty with his choir boys, the retired officer who is guilty with his servants or with someone in uniform—for, oddly enough, uniform, whether that of the soldier or the post-office official, has a special attraction. That this is generally due to some defect or disease of the higher nervous tissues I must admit; but equally I have to admit the difficulty in giving a certificate presenting any facts observed by oneself. I have on one occasion at least given as the insane acts the fact that the patient insisted on his footman sleeping with him and that I had seen obscene letters from servant to master. In these cases the lawyer will say, as with kleptomania: "You doctors go too far when you claim the criminal act as the grounds for a certificate of insanity."

The Self-mutilator.

Among the cases allied to the hysterical I must place those who mutilate themselves or cause factitious disease. In some of these one would think that true hysterical anaesthesia plays a part, otherwise one can hardly understand the girl who introduced pins between the upper and lower eyelids and accused others of doing it, or the girl whom I saw some years since with a skin specialist who had for months produced the most extraordinary worm-like sloughs, which her relations thought were worms being extruded from the skin, by means of the application of liquor potassae.

The Hypochondriac.

The next group leads insensibly to the melancholic or apathetic group. I have seen several middle-aged women who had not left their beds for years; they were to be seen with the appropriate stage setting of hysteria—good books, pretty flowers, and suitable ribbons; no disorder of any bodily function was to be discovered. Yet any attempt to rouse them to do anything was resented and another doctor was sent for. Nothing is more irritating to these patients than sending for a mental specialist such as myself; in fact, I have been known to be a useful counter-irritant.

How is one to treat such persons ? You have the choice f answering a fool according to his folly or not answering im. I am inclined to fear that no reasoning is of any ood, and in many cases even rather rude awakening to hanged and less pleasant surroundings has little effect. n many of these cases there is said to be some uterine or varian trouble, but I do not recall recovery following its orrection. From simple defect of will and exaggerated elf-consciousness it is easy to pass to hypochondriasis ; s with hysteria, this may be but a stage leading to some ore definite mental affection.

But the instances to which I would now refer resemble n many ways the patients last described. There is a ersistent mental disorder which prevents the patient llowing his calling, but which may persist for years ithout in any way producing mental decay or without preading, as it were, to the other mental functions. A ypical case is that of a middle-aged man who ought to ork for his living, yet who does nothing but consider his odily feelings. He notes everything, from his pulse to is urine and his stools. He is inclined to weigh all his od, and he guards himself against every change in the eather; he exacts the utmost care and attention from ife and family, leading them a life of misery. This state things, as I say, may go on for years.

Besides these general hypochondriacs we meet with hers who have some limitation to their ideas. Thus ne man believed that he had malignant disease of his roat, and explained his gaining weight to cancerous filtration and not to normal fat. Such persons also on get established ideas, and neither get better nor orse. They really require a land for themselves, for hile perfectly able to understand the nature of things, ey are unwilling or unable to do them. These men e, as a rule, not dangerous to themselves or to others.

Wilks pointed out the danger which Englishmen run of inking that as the earth's rotation took twenty-four urs, so man's bowels should act just once each day. is tendency of bowel observation is a dangerous one.

The Youthful Failure.

The next class to which I wish to refer is that of the uthful failure. In recent times a good deal has been itten about the so-called dementia praecox. Whether is is a new or only a more rapidly-developing form of order I hardly like to say, but the fact is that there are ny young people seen nowadays who, like certain clocks, wound up to go a certain time and no longer; and fortunately in many cases we have not been able to nd them up again. This part of my subject is a very ctical one, for I am certain that every one here could nt to these failures.

Most of these persons come into the world apparently mal, and they may grow up pleasing and bright ldren till the onset of maturity, till the reproductive ans begin to influence feeling and thought, then tead of developing, they are arrested in development hey may go back. These cases, or many of them, have n considered as depending on masturbation. I have doubt that the onset of the masturbation and the ing on of the symptoms often coincide, but I do not k upon one as the necessary cause of the other. It is dly necessary for me to say that these patients may in different lines ; while one passes through a stage of ochondriacal self-consciousness or religious depression ther becomes extravagant and boastful, and another y simply pass into apathy and mental weakness. In case a very large number of them never get into lums ; they are looked upon as only failures, and many in the earlier stages sent to the colonies. They used e sent to cavalry regiments, but I fancy the army has to recognize them now, and declines to have them or etain them.

ow what is to be done for these fellows ? We have rd a good deal of colonies associated with Church or ation Army, of epileptic colonies, and in Scotland and the Continent of colonies or district homes for the t insane. I am certain that some such plan is the for these patients. They need healthy simple life steady occupation ; they need little or no emotional tement. I have visited such a colony not far from , and though I fear it is no more popular than a ll-pox hospital or a fever ship, yet if it is doing good as to be considered.

The Prodigal.

Allied in some degree with the above we have a class which you all know well—the prodigal. That a father should make a heap, and that his son should dissipate it, may appear to be a natural reaction, but the dissipating does not injure the dissipator so much as it does others. Therefore we ought to consider the prodigals as persons who ought in some way to be under control. It is certain that the majority cannot be certified as insane, though their friends come to me constantly, and abuse the law directly and me indirectly because I will not make or break a law for their benefit.

Whether the youth be a Jubilee Plunger or a young nobleman who spends thousands of pounds on fancy waistcoats, there is no power of restraining him in English law.

Here, I assert, is one of the objects of this address: Why should the only method at present in force be the Court of Chancery, which is cumbersome? Why should we not go back to the old Roman law for the restraint of prodigals? This has been incorporated in the French law, which enables a family council to tie up the capital, and also renders it illegal to advance money to the waster, or to allow him to get into debt. I know this may appear a counsel of perfection, yet it is a thing to be aimed at. What can be more futile than starting a costly inquiry before a special jury, who consider only the appearance of the youth? In many cases they find him to be fit to manage his affairs, and thus they enable him to ruin himself and his family.

The Inebriate.

You will notice as I advance with this address my measures are becoming more drastic, and this will be confirmed when I refer to inebriates. Surely there are no cases which need more control and for which such inadequate provision is made. I do not want to be too lenient with them, and say that most of them suffer from the tyranny of their organizations. I feel for their relations, who object both to suffer from and to have to sympathize with the same person. First, we have inebriate Acts, but these are of little use to your patients, who if they admit that they drink have always reformed; so they say when you see them, and are full of the best intentions. Unless they will go into an institution voluntarily they cannot be compelled unless they have fallen into the hands of the law. Surely something like a family council, under the advice of family doctor and lawyer and the necessary specialist, ought to be able to place the patient under control, but in any legislation for this purpose the doctor must be most carefully and specially safeguarded against legal proceedings, for, of all patients, the inebriate is the most ungrateful and the most litigious.

I would go one step further, and make it possible when any person had been sent to an asylum, or placed under certificates for any form of mental disorder which depended upon drink, that instead of allowing him to be discharged when well he ought to be retained for at least a year. This would give a chance of recovery, and reduce the number of recurrences, and would, I think, also act as a special deterrent to the drunkard. This suggestion, I fear, will not be accepted by the Commissioners in Lunacy, who I find are quite ready to recommend the discharge of a patient who has been under certificates if apparently sane at the time of their inspection. This is logically correct on their part, but socially and medically it is wrong.

The Specialist Group.

One group of cases is perhaps more interesting to me than to any of you here, for it is a specialist group. The first question before speaking of them which I would propound is, Will you be prepared to certify every patient who admits having hallucinations of his senses? Certainly in my earlier asylum experience I should without any hesitation have said if a man hears "voices" he is not safe to be at large, and if he believes that he is being influenced by others in some occult way he is a dangerous lunatic. Yet you may be surprised to hear that I have now several examples of men suffering from these subjective nervous disorders who are earning their livings, and are as free as you or I. I am free to admit that these persons are so near the borderland that I think the majority will have to be considered as insane, but it is interesting to have to note that there are some who, being hallucinated, still are capable citizens.

In another part of the country is to be met a group which contains collectors, misers, kleptomaniacs—I was going to add philanthropists, but perhaps I had better leave them out, though in some, I might say many, cases the so-called benevolent philanthropist is a crank, and may be only a collector of another kind; in fact, one who is chiefly concerned with the self-glorification which is said to be associated with mineral-water drinking and teetotalism. Any way, there are certain persons who cannot refrain from stealing. There are always in society a few with the reputation that after a visit their servants return the purloined goods. There are certain persons who collect like magpies—never using what they take, just collecting. I think that with the climacteric we have a very large number of temporary dwellers in the Bethlem. Some take to drink and may for a time appear lost and yet with time may be all right again; there are others who develop sexual tendencies, and there are others who take to stealing. They have a not unnatural tendency to steal articles of clothing from Stores. In fact, I at one time thought there was a special class always to be met with there. Perhaps the openness of many of the Stores is a temptation too great to be resisted.

CONCLUSION.

And now to sum up the whole matter. First I recognize that I have taken too large a field to till satisfactorily, but anyway I have been able to lay before you some of my views in relationship to those persons who, being nervously or mentally disordered, yet in my mind should not be looked upon or treated as lunatics. I have pleaded for a much greater freedom for the treatment of the insane who are not dangerous to themselves or society by doctors in general practice, and I have urged here as elsewhere the utility of having some system of notification as well as of certification. No one would wish more urgently than I that the places to which the insane are sent should be in some way supervised, but one does not want the unbending regulations which at present exist. I have pointed out that for some patients greater control is needed, while in others much more freedom and a natural return to simpler life is to be preached; not the simple life of which we hear so much, but a real consistent simple life, with plainer food and more regular occupation. I for one fear the Education Acts are at least as potent of evil as certain other more frequently supposed causes of mental decay.

I have placed before you my views and I thank you for your attention.

THE TREATMENT OF NEURASTHENIA.

By GUTHRIE RANKIN, M.D., M.R.C.P.,

PHYSICIAN TO THE DREADNOUGHT HOSPITAL AND THE ROYAL WATERLOO HOSPITAL.

THERE is probably no human disorder which so doggedly shadows the advance of civilization as neurasthenia. It exacts its relentless toll from those who by their untiring energy and painstaking perseverance mould the history of the world no less than from those whose ineptitude, luxurious indifference, and negligent idleness hinder the development of its progress.

Though it is generally regarded as a modern disorder, and though we owe our first accurate description of its leading characteristics to Beard, whose work on *The Nature and Diagnosis of Neurasthenia* was published in New York as recently as 1879, there can be little doubt that, like other disorders of the nervous system, it has occupied its place as one of the ills to which flesh is heir in all ages. Its recognition as a distinctive disorder is due to our improved powers of clinical observation, and its greater frequency to the increased strain involved in the present-day pressure of life. It is widespread in its distribution and has invaded every civilized country where ambition and the struggle for existence compels an incessant activity of the nervous mechanism. "To-day," says Proust, "every one endeavours to raise himself higher than his ancestors; competition has increased; conflicts of interests and persons have multiplied in all conditions of life; free course is given to ambitions that are often little justified; a crowd of individuals impose on their brains a work beyond their strength; then come cares and reverses of fortune, and the nervous system under the wear and tear of incessant excitation at last becomes exhausted."

The symptoms by which we recognize neurasthenia are many and diverse. As with most other disorders, few cases are met with presenting every feature of the classical malady, but the broad outlines by which the condition may be differentiated are sufficiently conspicuous to make it easy of diagnosis. It is true that it often occurs as a complicating factor in other diseases, and also that its affinities for hysteria on the one hand and hypochondriasis on the other are so close as to make it difficult to draw a definite line of demarcation between them, but in the majority of instances there is no greater obscurity about its identity than exists in the case of many other maladies which we unhesitatingly label with a name. The various neuroses with which we are familiar may all be regarded as neurasthenic manifestations, and it would perhaps tend to simplify nomenclature if they were grouped together and classified under the common title of psychasthenia which has been suggested by Contet.

The name would at least possess the advantage of being to some extent descriptive, because the one feature they possess in common is undoubtedly mental instability. Classifications of subordinate varieties are useful, but those which have been adopted are either clumsy or inadequate. What does it matter if in one instance the symptoms are for the most part spinal, in another cardiac, or in yet another gastro-intestinal? Behind them all there is a mental twist which, if it does not portray the whole picture, at least fills in either the foreground or the perspective, and links together the bewildering diversity of neurasthenic manifestations.

We have no accurate knowledge of the morbid anatomy of the disease. It has been attributed to vaso-motor inadequacy, resulting in such low blood pressure that the portal circulation becomes abnormally loaded and the heart imperfectly filled; its frequent association with the menopause, Graves's disease, osteo-arthritis, and other disorders in which vaso-motor disturbance plays a prominent part lends some likelihood to such a hypothesis. Bouchard regards it as a result of abnormal fermentations in the stomach, with the consequent formation of soluble toxins, which, when absorbed, impair the anatomical elements of the different organs, and notably those of the nervous centres. Glénard suggests as a possible explanation the sinking of the viscera in the abdominal cavity, but this is more probably an effect than a cause.

We are not now concerned with the details of symptomatology, but the following points may be enumerated as landmarks:

Constant sense of weariedness, intensified by the least exertion.

Impaired digestion: anorexia, eructations, flatulent distension, constipation.

Change of temperament: fickleness, restlessness, irritability.

Headaches—occipital or vertical—made worse by stooping or effort.

Unrefreshing sleep, unpleasant dreams.

Sensory disturbances: neuralgic pains, muscular tremors, active deep reflexes.

Vaso-motor phenomena: flushings, sweatings, palpitations, vertigo.

Impairment of special senses: photophobia, tinnitus aurium, subjective sensations of taste and smell.

Intellectual phenomena: mental depression, loss of memory, feebleness of volition, vacillation of purpose loss of self-confidence.

Emaciation; cardiac irritability; paroxysmal polyuria.

In many instances, floating kidney; enteroptosis.

Such a widespread symptom-group bears witness to a central or constitutional origin, and, when considered in relationship to the circumstances and habits of life to which the disease is commonly sequential, it seems possible, and even probable, that a toxaemia is the essential etiological factor, and that some form of primordial alteration in the nerve cells ensues whereby cerebral control is disturbed and vital energy inhibited. Even if theoretical, such a conception possesses at least the virtue of furnishing a working basis upon which to found a reasonable system of management. And it is important that the question of treatment should be seriously con sidered, because it cannot be denied that neurasthenia is Nature's intimation, in terms of disease, that the normal balance between vital income and expenditure is disturbed; nor can it be doubted that it is the visible expression of a degradation of stamina which is in no small degree responsible for the physical degeneration now threatening, if it has not actually clutched, the people of this and other prosperous countries which lead the van in civilization.

The first and obvious indication for treatment is rest, which must be both mental and physical. Now, rest is one of those therapeutic agencies which is capable of much harm as well as of great good. In every case of neurasthenia the influence and associations of the home surroundings are so inimical to the patient's recovery that the rest which his tissues demand can be accomplished only by separating him temporarily from his relatives and from his usual pursuits. This does not necessarily imply imprisonment in a nursing home, with recourse to all the restrictions and privations which belong to the Weir Mitchell system. In suitable cases, this well-known system is excellent and can be depended upon to give better results than any other, but it is habitual with some practitioners to regard every neurasthenic patient as a fit and proper person for whom to prescribe this rigorous method of treatment. Such rule-of-thumb practice is unfortunate and is frequently attended with disappointing results.

The class of patient to whom it is pre-eminently applicable is the person whose symptoms are bordering on hysteria and who has become much emaciated, but the cases most frequently met with are not of this type. Surely for a disease so protean as neurasthenia there can be no one plan of cure universally and unalterably applicable! Though rest is essential for all, the form in which it may be best administered must be determined by the individuality of the sick man, his personal tastes, and the limits of his business obligations and financial resources. Restoration to health will only be accomplished by careful correction of existing physical disturbances; by a re-education of the various organs to a normal performance of their functions, together with the moral influence of a hopeful and cheery optimism; and by provision for the future conduct of life with a due regard to regularity of habits and adaptation of bodily demand to vital supply. Frequently relaxation from the duties of an over-strenuous life and an ocean voyage or other agreeable form of easy travel with a congenial companion is all that is required to banish the symptoms, but in cases that are more advanced, as most are that seek medical advice, such a programme is of greatest benefit when undertaken after the bodily functions have been regulated and re-established on something like a normal basis. This can be best provided by what may be described as a modified rest-cure. For the uccessful carrying out of such a plan, the patient should be established in comfortable rooms or in a nursing home, under the constant care of a judicious nurse; all interourse with his relatives and all participation in the usiness or professional concerns of his life must be temorarily abandoned; the food must be regulated according to the circumstances of the digestive capacity, but as oon as possible the diet should be generous and into it milk and fats ought to enter abundantly; and a iscipline of regularity in regard to meals, hours of sting, time for turning in for the night, etc., should be stablished.

For the first week or ten days absolute rest in bed is a ecessity, but thereafter a daily drive, soon to be replaced y walking exercise during the afternoon, is desirable. fter the first week the patient may have one welcome sitor, other than a near relative, at a suitable time each y. He should be encouraged to read newspapers, maganes, and light literature; to occupy a part of his time in e pursuit of an artistic hobby or in playful pastime, but thout incurring the risk of over-weariedness by too long ention to any one occupation; he will thus keep his nd so pleasantly and diversely engaged that he will ve but little opportunity for introspective reflections.

For the improvement of his muscular system he must massaged night and morning, and the application of a adic current adds to the value of the rubbing, and is o effective as a suggestive remedy. Above all, the ient should be made to feel that he is being subjected to a well-planned and energetic method of management to which he is called upon to lend a willing obedience and whole-hearted co-operation.

Not the least important item in the daily routine is the doctor's visit. It is looked forward to for confirmation of the patient's hope that he is responding satisfactorily to the means that are being adopted for his cure; it is the event upon which he unconsciously depends for reassurance, and from which he derives gradually, and day by day, courage and confidence.

It has been pointed out that digestive troubles are inseparable from the neurasthenic condition; and as these are in many instances associated with an unhygienic condition of the buccal cavity it is important, as an early step in treatment, to have the teeth inspected, and any evidences of decay corrected by the dentist. It is a safe precaution to insist on the use twice a day of an antiseptic mouth wash; 40 to 60 gr. each of chlorate of potash and carbolic acid in 8 oz. of water will be found a pleasant and efficacious solution with which to brush the teeth and wash out the mouth and throat.

Errors of digestion must be corrected; and here, again, it will be found that antiseptics fulfil a useful purpose. They may be given combined with acids or alkalis according to the indications of the case; to acid mixtures carbolic acid in 2 or 3 gr. doses may be added, and to alkaline mixtures sulpho-carbolate of soda in 10 to 15 gr. doses. The bowels must be so regulated as to ensure a daily evacuation. For this purpose there is no more satisfactory remedy than the compound rhubarb powder of the *British Pharmacopoeia* given every evening after dinner in a dose of from 20 to 30 gr. On first waking in the morning, when the stomach is empty, 6 to 10 oz. of hot water should be sipped leisurely, and to this may be added, if the rhubarb powder is not effective, one teaspoonful of Carlsbad salt. Periodically—about once a week—1 gr. of calomel should be added to the dose of compound rhubarb powder. The diet must be carefully adapted to the digestive power of the patient. At first it ought to be simple, and consist of milk-foods, thin soups, fish, fowl, and game. As digestion improves it may be elaborated until simple but abundant meals are taken as in health. It is well to insist, in all cases, on the following details: Red meat once a day only; cocoa, café-au-lait, or boiled milk instead of tea; a moderate quantity of sugar; no uncooked vegetables or fruit; stale or toasted bread; an abundance of fats; and a minimum of two pints of milk in each twenty-four hours. Care should be given to the thorough mastication of all food, and liquids should be reserved for the termination of each meal. When the patient is well enough, cod-liver oil may be added to the daily dietary; it is usually best tolerated if taken in a single dose the last thing at night, and its assimilation will be secured by beginning with a few drops and doubling the dose each night until a maximum of one tablespoonful is reached. It is most easily taken in orange wine. Alcohol must always be used sparingly. If well-matured stout can be tolerated, a tumblerful with luncheon is permissible, but in many cases a light burgundy or claret is preferred and agrees better.

In some cases sleeplessness is such a prominent symptom that for a few nights at the beginning of treatment sedatives are necessary; of these, the best are chloralamide, trional, or sulphonal in a cachet containing from 10 to 20 gr. of one or the other. In extreme cases hypnotics may fail, and if the administration is restricted to three or four successive injections, ¼ gr. of morphine may be given hypodermically not only with safety, but with distinct advantage. The risk of creating an unconquerable habit is inconsiderable if care be taken not to resort to the drug except after the failure of milder measures, and not to extend its use beyond the immediate necessities of the patient. The immense gain to the wearied nervous system of a few nights' sound sleep and the confidence which such an experience creates from the beginning in the success of treatment amply repays any disadvantages that may arise from the exhibition of sleep-producing drugs. The patient ought not to know what drugs are being administered, and it should always be definitely explained that they are used only to re-establish a natural habit, and that they are merely temporary expedients.

In many cases of long-standing, anaemia is a marked feature; it yields to ordinary methods of treatment by iron, but this must not be ventured until the digestion has been improved sufficiently to make its assimilation likely. At first it ought to be given in one of the milder preparations, and if there is still restlessness to contend with, it may be advantageously combined with one of the bromides.

The following formula, which should be given after meals, three times a day, will meet the requirements of most cases: Ferri et ammoniae citratis, 7 gr.; liquor arsenicalis, 5 minims; potassium bromide, 10 gr.; liquor ammoniae acetatis, 1 drachm; chloroform water to 1 oz.

This should be replaced by a more potent form of iron as soon as possible. In the following combination, also to be taken after meals three times a day, the antiseptic influence and the steadying effect on the vaso-motor system of ichthyol is valuable, while the cannabis indica suitably replaces the bromide in the earlier mixture: Sulphate of iron, 2 gr.; ichthyol, 5 gr.; arsenious acid, $\frac{1}{40}$ gr.; extract of cannabis indica, $\frac{1}{4}$ gr. To be put into a capsule.

If iron in any form disagrees, as it does in some instances, it may be replaced by oxide of manganese in 5 to 10 gr. doses. Though this drug is not in general use, there is no doubt of its value.

When headaches occur with such severity as to demand special treatment the tonic remedies should be temporarily intermitted, and 5 gr. of antifebrin, or 10 of phenacetin, combined with 3 gr. of caffein given in their place.

Spinal tenderness is sometimes a prominent and rebellious symptom; it is most speedily relieved by the light application of a Paquelin cautery down the length of the spine.

When the illness is complicated by the existence of a loose kidney, the kidney ought to be supported by a suitable crutch or by a pad applied underneath a firm abdominal belt. As an accompaniment of a floating kidney there is frequently a certain amount of atonic dilatation of the stomach. When this condition exists it must be dealt with as an initial step in procedure by a short course of lavage.

By washing the stomach out every morning for a few days with a warm solution of bicarbonate of soda—1 drachm to the pint—the mucous lining is cleansed and its normal secretion stimulated to healthy activity. If lavage is resorted to the diet must be limited for the time being, and adjusted to meet the indications which present themselves.

Change of air and surroundings is always desirable for a few weeks, either at the seaside or in the country, before a return to the ordinary duties of life is sanctioned.

In the matter of prophylaxis much can be done to lessen the risk of a recurrent attack by a careful regulation of habits. The patient should continue to arrange his work so as to avoid undue fatigue; he must have long nights in bed, practise regularity in regard to meals and exercise, and make a point of having, at frequent intervals, a short but complete respite from the routine of his daily life. He should avoid responsibilities involving prolonged concentration of work or undue anxiety, and he will be wise if he cultivates a hobby, more especially if it be one the exercise of which compels a certain amount of time to be passed in the open air. Every slight ailment demands prompt and active treatment, so that the risk of incurring nervous exhaustion may be reduced to a minimum.

Children born of neuropathic parents should be safeguarded from the risks of their heredity by strengthening the energy and resistive powers of their nervous centres. To this end the child should be brought up amidst healthful surroundings, and the education arranged with a view to the substitution of an acquired stable, individual habit of body for an inborn unstable ancestral tendency, due care being taken that the school work is so well balanced and so accurately adjusted to the mental capacity of the child that all danger of overpressure is avoided.

Proposed Chairs of Social Medicine.—The Medical Chamber of Upper Bavaria has decided to urge upon the proper authorities the need for the provision of adequate teaching on social legislation, workmen's compensation for accidents, the framing of reports, etc. The opinion is expressed that chairs of such subjects should be established in the Bavarian Universities, and that the University of Munich should lead the way in the reform.

NEURASTHENIA, DEGENERACY, AND MOBILE ORGANS.

By P. C. SMITH, L.R.C.P. and S.Edin., L.F.P.S.G.
TUNBRIDGE WELLS.

Floating kidney, as is now generally recognized, occurs usually in the neurotic. Other conditions that resemble it in being characterized by laxity of attachments, and in being found in nervous subjects, are gastric, hepatic, and general enteroptosis (in men and nulliparae at all events); mobile heart (a condition in which the situation of the apex beat varies considerably with the patient's posture), uterine displacements (in nulliparae), spinal curvature, genu valgum, and flat-foot; varicocele is to some extent a parallel condition. What is the connexion between the neurotism and the laxity of attachments?

The unit of degeneracy is the family. A degenerate family is one in which there is imperfect heredity, showing itself by a loss that tends to be progressive of racial characteristics,[1] anatomical, physiological, and psychical. The losses in the anatomical sphere are manifested as malformations, usually of a minor order, affecting mostly the head, face, and hands. Of the physiological defects, the commonest are disorders of metabolism and vaso-motor instability; the most important is diminution of sexual or generative power, which leads to the extinction of the family. The psychical abnormalities are impulsiveness, irritability, instability, suggestibility, and a tendency to obsessions, tics, and phobias. Degeneracy is the soil on which are developed the neuroses (as a rule), some of the psychoses, and some organic diseases of the nervous system, and it even predisposes to some maladies of other systems and to general diseases.

The term "neurasthenia" is applied to two conditions, as I have already pointed out in the British Medical Journal.[2] One of these (neurasthenia major) is a complaint of adult life, characterized principally by pain or discomfort in the head or spine, by debility, insomnia, constipation, and mental depression. The other (neurasthenia minor) may be described briefly as a state of chronic fatigue; in the article referred to, an endeavour was made to show that it is congenital—it is, in fact, the condition which has been described as being "born tired"—and its symptoms were traced from infancy to adolescence. It was further maintained that the major complaint in the great majority of instances occurs in those already suffering from the minor affection, of which, indeed, it is little more than an exacerbation.

It remains now to point out that the particular neurosis that accompanies floating kidney and the other conditions referred to is neurasthenia minor, and to try to show that the latter is a syndrome of degeneracy. The very frequent occurrence of slight congenital malformations in a state which is itself congenital is almost enough to prove the point. But, in addition to this, neurasthenics usually exhibit some of the functional stigmata of degeneracy, vaso-motor instability and disorders of metabolism being almost, if not quite, invariably present. Again, the feebleness of nervous action and the slowness of repair after fatigue that are the essential features of neurasthenia minor, have obviously the appearance of losses of racial characteristics such as constitute degeneracy. Finally, in Dr. Ch. Féré's experiments on eggs, he found that the same injurious influences that produced malformations in the chicks, if applied to the eggs at an early stage of the incubation, caused simply congenital debility if applied at a later period. It is possible that normal persons may be subjected to such prolonged fatigue, anxiety, intoxications, or disordered metabolism as to bring on neurasthenic symptoms that remain after the withdrawal of the exciting cause; but for the most part those who are subjected to such a degree of these influences are already touched with the disorder.

The neuroses, other than neurasthenia, are usually developed on a soil of degeneracy; neurasthenia minor *is* degeneracy, or rather is a group of symptoms common to most forms thereof; neurasthenia major may be regarded as developed on a soil of degeneracy, like the other neuroses, but is really little more than an exacerbation of neurasthenia minor.

The immediate cause of floating kidney and enteroptosis is commonly held to be lessening of the intra-abdominal pressure from want of tone in the muscles of the abdominal wall. It seems evident that this is, at any rate, one—and a very important—cause, and that it also brings about uterine displacements in nulliparae. It is highly probable, too, that scoliosis, flat foot, and genu valgum are in many cases due to hypotony of various muscles. With regard to mobility of the heart, Dr. C. Addison has pointed out to me that it may be produced in either or both of two ways. If the liver be prolapsed the diaphragm and heart will follow it, the latter organ descending into a wider part of the thorax, where it has more room for movement; secondly, want of tone in the elevator muscles of the thorax will cause the first ribs and the cervical fascia to sink, so that the attachment of the pericardium to the cervical fascia will be brought nearer to its diaphragmatic attachment, and thus the normally taut organ will become lax, and allow greater play of movement to the heart. Varicocele is chiefly due in all likelihood to a malformation of the spermatic veins themselves; but it is probably caused in part by laxity of the spermatic cord and scrotum, due to want of tone in the cremaster and the unstriped muscular fibres of the dartos respectively.

Thus muscular hypotony is a cause of all the conditions under consideration, and this muscular hypotony is a common symptom of degeneracy, being especially frequent in neurasthenia minor. But with the want of tone is probably associated another cause, otherwise it is difficult to understand why enteroptosis is not always general. Cazalis and Hanot[3] hold that arthritics are predisposed to their complaint by a congenital tendency to the proliferation of connective tissue, and in view of the frequent association between the arthritic diathesis and neurasthenia, it is probable that this condition, like most congenital abnormalities, is one of the mal-developments of degeneracy. It is obvious that such proliferation, if present, will help to produce mobility of viscera and laxity of joints; and its presence in some regions only will explain how a universal hypotony may produce only a limited enteroptosis. The connexion, then, between laxity of attachments and neurotism is that both are symptoms of degeneracy.

If the view here adopted as to the etiology of neurasthenia be correct, then the current belief that the increase of the complaint is due to increased over-pressure can hold good only of the exacerbation of the minor disorder nto the major, and even there it is far from the whole ruth.

The recognition of neurasthenia minor as a form of degeneracy necessitates the addition to my former article f degenerative symptoms which were then known to be of common occurrence in neurasthenia minor, but were hought to belong to a concomitant disorder; to these may be added one or two that were omitted through nadvertence. All the symptoms detailed in that article nd in this are symptoms of degeneracy, but they constiute a distinct and very common group that deserves a ame to itself. This syndrome is usually present in cases f insanity, hysteria, and other complaints when they have eveloped on a basis of degeneracy. The additional symtoms are anatomical, physiological, and psychical.

Anatomical.—These are usually slight. The most freuent are flattening of the hind head; a markedly lateral osition of the whorl of hair commonly called the "crown" f the head; epicanthus; slight malformations of the ears, specially of the margin of the helix; narrow jaws, regular teeth, and a highly-vaulted palate; funnel, or utter-shaped depression of the sternum; increased deviaon of the forearm from the line of the upper arm; teral deviations of the phalanges; perhaps marked deviaon of the septum of the nose; hyperplasia of lymphoid ssue (enlarged tonsils and post-nasal adenoids); hernia. he "tuberculous" and "scrofulous" types of conformaon are probably among these anatomical stigmata; the rmer seems to depend on hypoplasia of bones, muscles, nd connective tissue with vasomotor instability; in the tter there is hyperplasia of skin, connective tissue, and nes, and the muscles, though large enough, are wanting tone.

Physiological.—The body readily assumes a position of neral flexion, and in especial there is shown what . Warner calls "the weak hand."[4] The child reacts rongly to vaccination and teething; marked disturbance on these occasions should be regarded as a warning. He frequently suffers from catarrh of the respiratory and alimentary tracts; attacks of diarrhoea and abdominal pain are common. It is in these subjects that mucous and membranous colitis occur. Among the infantile complaints to which the child is predisposed are not only zymotic diseases, but also rickets and infantile scurvy. These last are not purely food disorders; improper food is no doubt the exciting cause, but very slight deviations from an ideal artificial diet may bring them on in a degenerate infant, while healthy babies tolerate gross improprieties of feeding with impunity. Dr. Cheadle points out that in rickets "reflex excitability is exaggerated, and probably the cerebral control of the imperfectly developed higher centres is also defective."[5] Cough frequently assumes a paroxysmal character, suggesting whooping-cough. Want of muscular tone may lead to spinal curvature, genu valgum, or flat foot. Vasomotor instability and defective metabolism should have been described not merely as common, but, if their slighter degrees be included, as almost invariable. Among vasomotor symptoms are rapid pulse, propensity to blush, coldness of the extremities, giddiness, frequency of micturition, polyuria. Owing to the want of sensory acuteness and the imperfect coordination, it often happens that sensations are not followed by prompt and appropriate action, but find vent in diffused and useless movements, the "extra movements" of Dr. Warner.[6] Other occasional symptoms are frequent hiccough, vomiting from excitement or without obvious cause, incontinence of urine, night terrors, stammering, tics, and more complex bad habits (eating soil, etc., during the first childhood, biting the nails, or masturbation later).

Psychical.—The boy or girl is impulsive, restless, excitable, sensitive, and usually incapable of sustained effort. A few, however, are unduly laborious. A good many make occasional spurts of excessive exertion; this over-exertion increases the chronic fatigue, and should be prevented. There is a certain degree of the *folie du doute.* Over-conscientiousness in trifles is not rare. There is a tendency to emotionalism which should be checked; religion should not be allowed to become too emotional. There are sometimes morbid fears. The memory is often remarkably good at first, but as the stress of life increases, as it does even in childhood, the power of attention and the force of sense-impressions diminish, and the memory lessens with them. As to intellect, there is often a sufficiency of intellectual acuteness, but nearly always a want of intellectual vigour. These subjects are often unable to form habits of conduct, at least to a natural and desirable extent.

As neurasthenia minor is a form of degeneracy, the heredity claimed for it in the former article does not, strictly speaking, exist. Indeed, in most cases transmuted or dissimilar "heredity" is not heredity at all. It is difficult to see, for example, that a son can inherit epilepsy from a father with hysteria any more than he can inherit black hair from a father with brown. It may be held that what is inherited is an unstable nervous system; but this does not explain the frequent presence in both parent and child of anatomical malformations that differ in the two individuals. The probable explanation is that advanced by Dr. Féré: that in degenerate families there is not heredity, but a dissolution of heredity, so that parent and offspring alike inherit the qualities of the race imperfectly.

I may perhaps take the opportunity of calling attention to an anatomical stigma of degeneracy that I have not seen described, though it is very common. It is the rotation of the last phalanx, or less often of the last two phalanges, of one or more fingers round their long axes, so that the dorsal surface is turned slightly towards or away from the neighbouring fingers. In my cases the index and ring fingers have most often been turned towards the middle line of the hand, and the little finger away from it; but the contrary direction, in any or all of these fingers, is not rare. Rotation of the middle finger is less frequent than that of the others; it may occur in either direction. Since writing the above I have found that, though rotation of the fingers is not described in *La Famille Névropathique*, it is shown in some of the illustrations to that work; moreover, Fig. 34 shows rotation of the first phalanx of the middle finger, and Fig. 36 appears to show rotation of a toe. I have also heard from Dr. Féré that he wrote a paper on the subject some time ago, and that it will appear shortly.

REFERENCES.

[1] Ch. Féré, *La Famille Névropathique*, 2nd ed., pp. 236, 253. [2] 1903, vol. i, p. 781. [3] Féré, op. cit., p. 221. [4] *The Study of Children*, pp. 84 and 109, and fig. 17. [5] *Allbutt's System of Medicine*, vol. ii, p. 110. [6] Op. cit., pp. 10, 206. See also *Mental Faculty*, p. 114.

THE PATHOLOGY OF EPILEPSY.*

[WITH SPECIAL PLATE.]

By JOHN TURNER, M.B.,

ASSISTANT MEDICAL OFFICER ESSEX COUNTY ASYLUM.

IT is not my intention to attempt an account of all the pathological features that have been observed in the brains of epileptics. I shall confine my remarks to a brief consideration of some which seem to me to have a very intimate connexion with the causation of the fits.

The view which I shall endeavour to support from my microscopical examinations and the results of experiments (by others) is that epilepsy is a disease occurring in persons with a defectively-developed nervous system associated with a morbid condition of the blood, whereby it shows a special tendency to intravascular clotting, and that the immediate cause of the fits is sudden stasis of the blood stream resulting from the blocking of cerebral vessels by these intravascular clots.

I take it that the fits are merely *one* of the symptoms of epilepsy, and may even be entirely wanting throughout the whole course of a case. Following the classification adopted by J. Van der Kolk[1] and others, I would divide the symptoms of epilepsy into two groups:

1. Those which represent the sequelae of chronic diseased conditions in the brain. These are permanent and form the epileptic character. (Attacks of intense disturbance of consciousness and complete or partial amnesia, with restitution of integrity between attacks, religiosity, aimless wanderings, etc.)
2. Those which occur only temporarily, and represent the reaction of the diseased brain to stimuli (the fits, *grand* or *petit mal*).

Probably the mechanism of all fits of a similar character, whether we term them epileptic or epileptiform, is the same. Dr. Hughlings Jackson draws a very sharp distinction between some fits which are clinically like epileptic and true epileptic fits. The former he looks upon as "middle-level" the latter as "highest-level" fits. Whether epilepsy is a disease of those parts of the nervous system which fall into his highest-level region or not, I would suggest that the convulsive fits at all events, regarded merely as one of the symptoms of the disease, are due to a disarrangement of middle-level elements in the so-called motor region.

NERVE-CELL LESIONS.

So long ago as 1864 Dr. Hughlings Jackson[2] advanced the hypothesis that the pathology of epilepsy was vascular, and suggested that the fits were caused by the plugging of small cerebral vessels. My observations bear out this view, but they also seem to show that the vascular changes alone are not sufficient to account fully for all the clinical phenomena. It seems necessary to assume that a morbid condition of the nervous cells is also present, and the study of the central nervous system in epileptics shows that changes in the nerve cells are generally to be found; and, although doubtless some of these are merely the results of the disease, others are probably antecedent to it, and among these latter I would direct attention to two very common features, both of which appertain to stigmata of degeneration; these are:

(1) A variety of nerve cell, which, as Lugaro and others have pointed out, represents an embryonic form, and which I[3] have shown to be common in imbeciles.

(2) The persistence in the brain of subcortical nerve cells, a character first noted by Roncoroni.

As regards the first of these changes, it is shown most clearly in the Betz cells of the ascending frontal convolution, although the smaller pyramidal cells may also be, and frequently are, affected. This change was met with in 27 out of 35 cases examined (77 per cent.). In some of these cases all, or a great majority, of the Betz cells were affected, in others only a few. The change resembles an early stage of *réaction à distance*, and may, indeed, owe to some extent its character to a cause which has been found sufficient to produce the axonal reaction in the cells of the spinal cord. I refer to a diminution in the normal stimuli, for more than half of the spinal cord of epileptics which I have examined (7 out of 13) show either defective development or degeneration of the posterior columns, especially the columns of Goll. Briefly stated, the changes seen are as follows:

The Nissl bodies in the central parts of the affected cells are in the form of fine granules, whilst those at the periphery and in the protoplasmic processes still retain their normal form. The cell is somewhat swollen, and its nucleus, instead of being centrally situated, is at the side or quite up in the apex. In many cases, to all intents and purposes, the nucleus appears otherwise quite natural (Fig. 1).

Amongst the earliest to point out and emphasize the importance of defectively-developed nerve cells in the cortex of epileptics was Bevan Lewis[5]—that great pioneer in the pathological anatomy of insanity. He describes an inflated spheroidal form of nerve cell with few branches, which he looks upon as "the expression of a reversion to a more primitive type," for similar cells are normal in the pig, and he remarks that "it is in the structural peculiarity of the cell that we must learn to recognize the origin of the convulsion."

This form has been met with by many more recent observers, and does not require any further corroboration at my hands. I have singled out for more minute description another form of cell change, indicating also a primitive or defectively developed type of cell. Probably, also, Lewis has recognized this change as common in epileptics, but his method of staining does not permit him to see the finer details of the change affecting the chromatoplasm. Although it is not peculiar to epileptics, occurring as I have already mentioned in imbeciles not subject to fits, it is probably an important adjunct in the causation of the fits, for it is conceivable that stimuli which would fail to produce convulsive phenomena in persons whose nerve cells were well developed and stable, might be able to do so in those with defectively developed and probably unstable nerve cells. And, further, these affected cells may play an important part in determining the character of the fits in individual cases.

It is a recognized fact that very often a great uniformity obtains between the character of the different fits in an epileptic, one being, as it were, a replica of another, and it may be asked how a block which is liable to occur in a vessel in any part of the brain can be the stimulus which will produce such a uniform discharge. In most cases it is only some of the cells in epileptics' brains which show appearances of defective development, and I would suggest that the pattern, so to speak, of the fits of each epileptic is predetermined by the position and number of these affected cells, so that when the stimulus is present in any part of the brain which is connected by conduction paths with the areas in which these defective cells lie the resulting discharge will be of a similar character. This form of cell change seems to have no special relationship to defect of intellect, for, although most of my epileptic cases were idiots or imbeciles, a few were of quite average intellect, and in them the change was present; and, further, a large acquaintance of its occurrence in the brains of the sane and non-epileptic insane shows that it may occur in a very marked degree in cases much above the average of intelligence found in those from whom this asylum population is recruited.

With reference to the persistence of subcortical nerve cells, they exist in fairly large numbers in the lower animals throughout life, but, although found in infants, they soon, with the growth of the child, become less, and at adult age few remain. With imbeciles, whether epileptic or not, they tend to persist, so that at all ages they are met with in large numbers. All the epileptics brains which I have examined show, some in a more marked degree than others, this characteristic.

There is still another change in the nerve cells frequently met with which, as it has not attracted much attention, and as it appears to me to have a very important bearing on the theory I am advocating, I shal

---

* A paper read at the Pathological Meeting of the Neurological Society, December 7th, 1905.

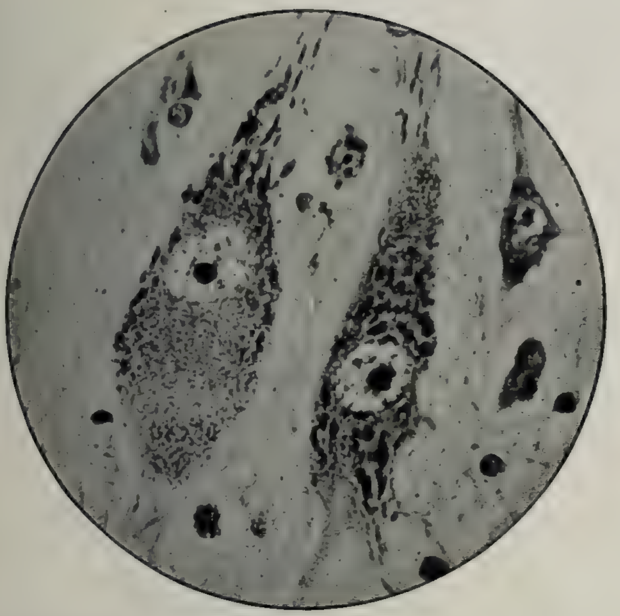


Fig. 1.—Showing the contrast between the axonal form of Betz cell (to the left of the figure) found in 76 per cent. of epileptics' brains, and one (to the right) in which the nucleus is in its proper position, and the Nissl bodies arranged in a fairly normal manner. (× 400.)

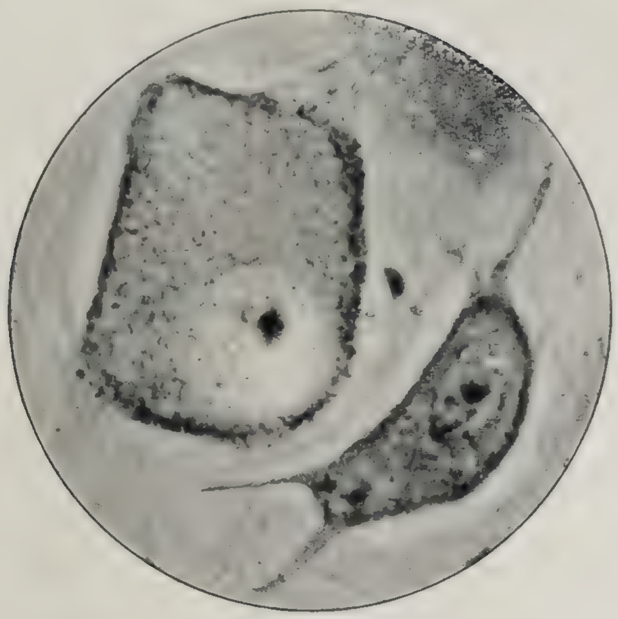
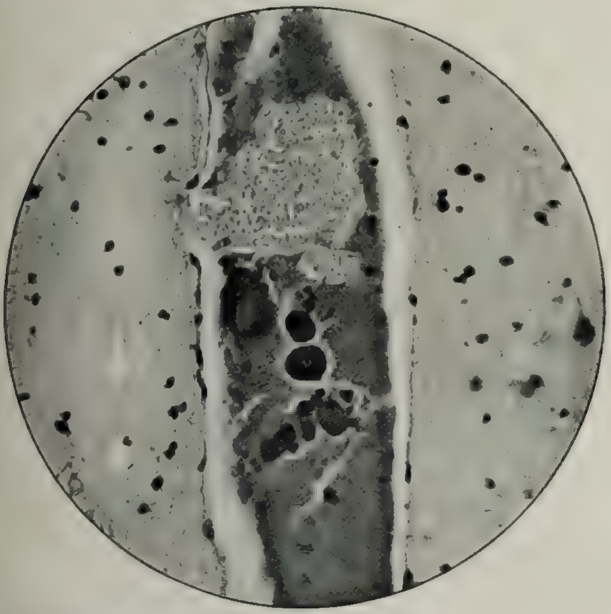


Fig. 2.—Two Betz cells from the cortex of an epileptic imbecile; the one to the left is enlarged, and its nucleus enormously swollen; the one to the right is small, and has a nucleus of greater density than normal. (× 600.)



ig. 3.—Small vein in the cortex of an epileptic idiot, who died *in status epilepticus*. The vessel is blocked by finely granular clot, in which are lying a collection of spheres of different sizes. The pale patch is composed of red corpuscles. (× 200.)

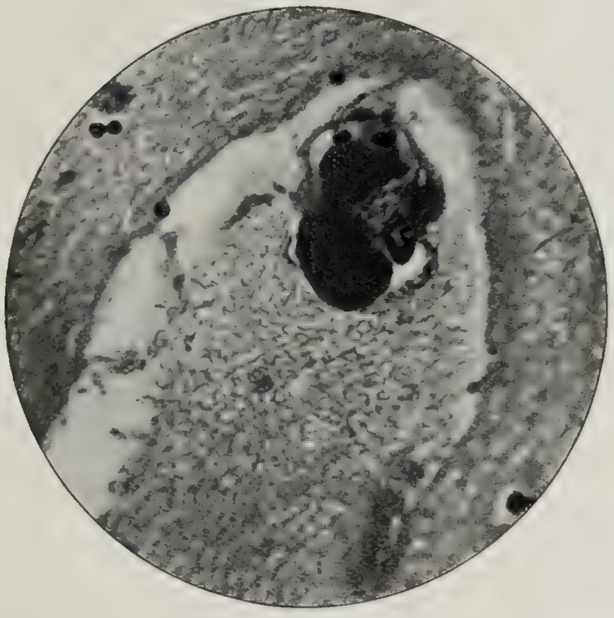
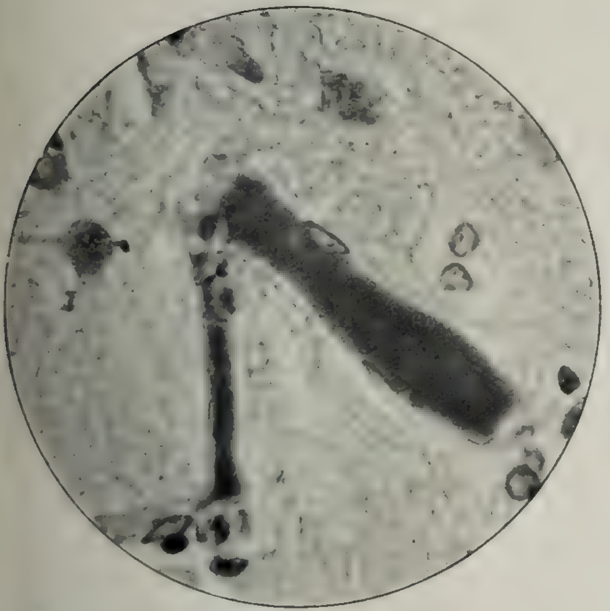


Fig. 4.—A small vessel in the cortex of the cornu ammonis which is blocked by a lobulated hyaline clot, and has ruptured. The clot can be seen partly extruded from the vessel. The perivascular space is much dilated, and filled up with red corpuscles which have escaped from the ruptured vessel. From a case of epilepsy in a weak-minded woman, who died of pneumonia and haemorrhage into the cord. (× 400.)



5.—Capillaries blocked by hyaline clot. The bulging of the onger capillary shows evidence of being actively distended by the clot. From the cortex of an epileptic imbecile who ied in a fit. (× 600.)

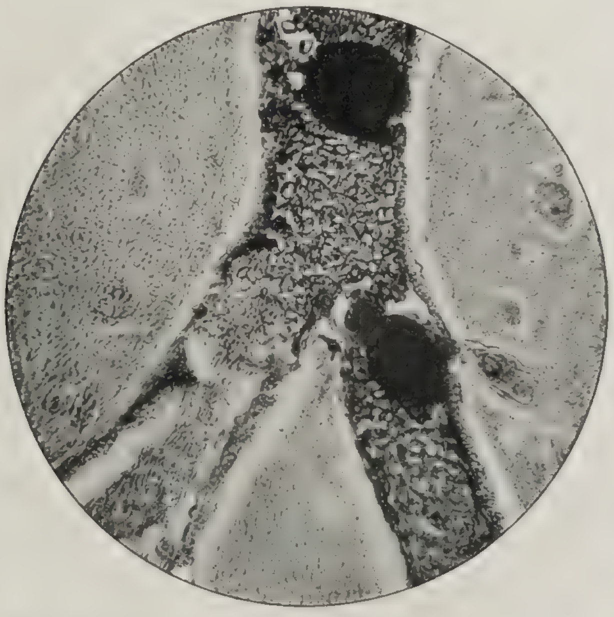


Fig. 6.—Large hyaline spheres in a vein of the cortex of the cornu ammonis. The section from which the photograph had been taken was treated by Macallum's phenyl-hydrazin test, and the clots stained a bright green, showing the presence of phosphorus, and indicating their nucleo-proteid nature. From the same case as Fig. 4. (× 300.)

TO ILLUSTRATE MR. JOHN TURNER'S PAPER ON THE PATHOLOGY OF EPILEPSY.

evote some attention to. I refer to cells containing an ıormously swollen clear bladder-like nucleus (Fig. 2), hich is sometimes so large as to cause a manifest ulging of the cell contour. In some instances the ucleus may even be ruptured or partially extruded from ie cell body, or its membrane may be absent.

Such cells, chiefly in groups, are often met with (12 out 35 cases—34 per cent.). Generally they are inter-persed with groups of the darkly-stained, shrunken cells. take it that the swollen nucleus stage is the acute form, ıd that in many cases the cells so affected ultimately generate, and then assume the darkly-stained shrunken rm. The reason why this acute form seems to me of ch interest is because quite similar-looking cells were et with in the cortex of a dog after ligature of its cere-al arteries. This is well seen in a photomicrograph in ott's[6] Croonian Lectures (1900), and my suggestion is at in epileptics' brains they owe their presence to a like use, namely, stasis of the cerebral circulation.

Vascular Lesions.

Before describing the appearances seen in the vessels vill briefly refer to some experiments which bear on the ationship between stasis of the cerebral circulation and nvulsions.

ussmaul and Tenner[7] in 1857 showed that if the left sub-vian and innominate arteries of a rabbit be suddenly tied, ıeral convulsions begin in from three to forty-five seconds er. They also compressed both carotids in six men, and ınd that in two of these symptoms of the nature of an epi-tic attack resulted. I would ask you to note that they state ıt both these cases were of weak intellect.

r. Leonard Hill[8] has produced spasm in himself by com-ssing one of his carotids, and he states that sudden occlu-n of one carotid can in some persons produce "a march of leptic spasm preceded by an aura."

he introduction of oily substances—for example, absinthe, furol, oil of cloves—into the vascular system of animals is able of setting up convulsions. But here again—at all nts with furfurol—only a certain number of the animals erimented on develop convulsions. Probably these sub-nces act mechanically, and produce their effect by causing al stasis in the brain.

hese experiments show clearly that convulsions can be up by blocking the cerebral vessels, and the interesting nt is that, in the great majority of epileptics, one is e to demonstrate in sections of the cortex a blocking rtial or complete) of the vessels by various forms of mbi.

he most important to my mind—as it is certainly the t constant—of the vascular changes found in the ins of epileptics, have not to do with alterations in the icture of the vessels themselves, although these latter of common occurrence. For example, hyaline kening of the walls, varicose swellings and tortuosi-. endarteritis obliterans, and deposits of calcareous ter in the form of small round glass-like bodies. changes, however, to which I wish now to refer changes in the blood itself, whereby it forms intra-ular clots which in many cases completely occlude lumen of the vessel in which they lie.

every case of epilepsy so far examined (41 in ıber) I have also met with small cortical or meningeal norrhages, and there is very little doubt in my mind these are the result of rupture in the vessels which become blocked by the clots just mentioned, indeed, in some cases their origin from this e can be demonstrated (Fig. 4). Intravascular ing, especially in the form of fibrin threads, is not liar to epileptics, but speaking from my own rience, whilst this phenomenon was met with in er cent. of the epileptics' brains, it only occurred in er cent. of control brains examined for this purpose. her, the maximum amount of clotting found in the ls of the latter series rarely if ever surpassed the mum amount found in epileptics.

ughly speaking four forms of intravascular clots can stinguished:

Spheres: homogeneous in structure, and varying in size smaller than a red corpuscle up to many times its ıeter. Occurring singly, or massed together into a erry-like shape (Figs. 3, 4, 6).

Hyalıne masses: attached to the side of the vessel's n, or else completely blocking it up (Fig. 5).

Finely granular masses (Fig. 3).

Fibrin threads.

Forms 1 and 2 are probably of like nature, and there is evidence to show that the individual spheres are formed by an amalgamation of the blood plates, which occur in large numbers in the vessels of epileptics. The spheres have the physical characters of blood plates: they stain similarly, and also when tested with Macallum's phenyl hydrazin reagent they react similarly, and assume a green colour of the same depth as the blood plates. This green colour shows the presence of phosphorus, and points to the nucleo-proteid character of the clot. Finally, one meets with all stages, from the individual blood plate to the largest spheres.

Whilst on the subject of blood plates I may mention that the blood from living epileptics showed in nearly all the cases I have examined (13 out of 14) that these little bodies existed in very large numbers, far above that usually found under physiological conditions, and that their well-known tendency to cohere was seemingly intensified, and very often delicate fibrin threads radiated spoke-like from a blood plate or stretched in various directions from one to another. This increase of blood plates is by no means a peculiarity of epileptics' blood alone; it occurs with very diverse bodily conditions and affections, and is often encountered in the blood of acute states of insanity. Still I venture to think that this does not altogether discount the importance of this sign, for at all events it shows that the conditions favourable for an increased tendency to clotting are present in the blood of epileptics.

With regard to the finely-granular clot, I do not think that in all cases it is of the same origin. Sometimes there are features which point to its derivation from a dissolution of the red corpuscle, in others to a disintegration of the blood plates, and in others, again, to a partial resolution of hyaline clot. It stains a much paler green with Macallum's test than the other two forms, and very much the same tint as that which the red corpuscles assume with the test. The observations of P. Masoin[9] show that not only is there a diminution in the number of red corpuscles generally in epilepsy, but that an abundant destruction of them especially characterizes the access of an attack. But at times one meets with appearances which point rather to this granular clot as undergoing resolution, for it then shows a looser structure than usual, and may be in the form of little patches lying among the red corpuscles. These patches stain dark green in the centre, where they are nearly homogeneous, and pale green at the periphery, where they are very loosely granular.

The fibrin threads are, perhaps, the least characteristic form of clot; they are generally met with in inflammatory disorders of the body, but when they are present in epileptics (usually, also, in association with inflammatory conditions) they occur in great profusion, and in some cases they are even deposited outside the vessels, so that they lie in the perivascular space, and thickly scattered in the matrix of the brain itself.

It may be objected that the appearances I have described are either results of the fits or else phenomena occurring during a moribund condition, when, as we know, the blood is liable to clot in the still living vessels; but neither of these objections seems to me tenable. In the first place clots may occur in great quantity in those who have had no fits for a long time before death. Especially instructive in this respect were two of my cases, in which abundant evidence of intravascular clotting was forthcoming. They were both of them idiots, who had been subject to severe and frequent fits from infancy, but in both of whom the fits gradually became less and less frequent, until eventually they ceased altogether, so that for one or two years before death neither of them had had a fit. I take it that in both these cases the nerve cells had degenerated, and were unable to respond to the stimulus resulting from stasis.

The presence of phosphorus in the clot allows us, as I have elsewhere[4] pointed out, to declare that the phenomena are not *post mortem*; and the fact that sometimes one meets with actual rupture of a vessel due to blocking by the clot is strongly opposed to the idea that the clot is formed during the moribund condition of the patient.

There is a condition commonly met with in epileptics' brains to which I shall now devote a little attention. I refer to sclerosis and atrophy of the cornu ammonis. This, which has been recognized for the past fifty years or so, has at different times and by different writers been passed over as of very little importance, or credited as the cause of the epileptic fits.

In 108 cases of idiopathic epilepsy I have found this condition on one or both sides in 52 (48 per cent.). Worcester[10] found it in 20 out of 43 (46.5 per cent.); Bratz[11] in 25 out of 70 (35 per cent.); Weber[12] in 11 out of 33 (31 per cent.). It is very rare in other than epileptics. It occurs sometimes in general paralysis, but usually as part of a general sclerosis affecting more or less the entire cerebrum.

I find it to be much more common (when only one side is affected) on the left, thus: in these 52 instances of mine, the left was sclerosed in 19, the right in 11, and both sides in 22. The proneness of the left side to suffer more than the right is greater than these figures indicate, because, where both sides are affected, very often the left is more sclerosed than the right.

These sclerosed and atrophied horns show very little change under the microscope. There is practically no appearance of an active glial overgrowth, and in fact it is usual to find more and larger glia cells in the unaffected than in the affected horns of epileptics. The nerve cells are diminished in number, and those remaining are shrunken and stain deeply. Small cortical haemorrhages are here, as in other parts of the brain, a very common feature.

I believe that the sclerosis and atrophy is due to a deprivation of the normal blood supply to the parts, as a result of entire or partial blocking of its nutrient vessels, whereby the tissues are as it were starved, and gradually shrink and at the same time become tougher.

The reason why this particular part of the brain should so frequently be the seat of this change is extremely difficult to account for satisfactorily, except on the supposition that it has a vascular origin. After the intravenous injection of clove oil into the jugular vein of a rabbit, the small haemorrhages found in the brain appeared to have a great partiality for this region—a fact which lends some colour to the idea that there is a close connexion between the lesion and the disposition of the blood vessels; and further, the fact that it so frequently affects the left side is in harmony with this idea, for the direct origin of the left carotid from the aorta would favour the deposition of thrombi carried by the blood stream in the vessels of this side.

In one instance I found a partial blocking by a fibrinous clot of one of the arteries going to this part, and the occurrence of partial or complete obstruction of the smaller vessels in the substance of the horns is very common.

The abundant, foam-like albuminous exudate found in the perivascular spaces may also further interfere with the proper nourishment of the tissues.

As a matter of fact, the cornua ammonis are by no means the only parts of the brain affected in this way in, epileptics. It is not uncommon to find small areas, especially in the occipital cortex, shrunken and tough and the cerebellum is a very favourite site of these local atrophies, the sharply-defined limits of the affected parts favouring the view that they are of vascular origin. In 9 cases out of 19 examined atrophied foliae were found (47 per cent.), and when one considers what a very small part of this organ is examined microscopically in each case, and that in many instances the affected area is so small as easily to escape detection by the naked eye, it must be admitted that in all probability these figures greatly understate the frequency of the lesion in the cerebellum.

B. Onuf[13] has drawn attention to an atrophic condition of the thalamus in epileptics (he does not mention whether the consistency was increased). In 9 cases examined it was present seven times—three times on the left side, once on the right, and twice on both sides. This atrophy can be adequately accounted for in the same way as that of the cornu ammonis, and it is interesting to find that as with the cornu ammonis so with the thalamus, the left side seems to be more frequently affected than the right. Onuf also refers to shrinking of the foliae of the cerebellum, which he fonnd in 3 cases. Since reading this paper I have only had the opportunity of examining the brain of four epileptics. In three of these there was very slight shrinking of one thalamus, once on the right side and twice on the left. In none was there any perceptible increase in consistency on the smaller side, but this wa scarcely to be expected as the shrinking was extremel small.

SUMMARY.

To summarize briefly the most important change found, they are on the part of the nerve cells:

(*a*) A form indicative of imperfect development.

(*b*) Retention of subcortical nerve cells. Also an indication of imperfect development.

(*c*) Either an acute form of cell change, similar to tha produced by ligature of the cerebral arteries in a dog, or

(*d*) Groups of darkly-stained, shrunken cells, represent ing a more chronic change, and very likely, at all event in some cases, the sequel of that just described.

On the part of the vascular system:

(*e*) Large numbers of blood plates in the blood.

(*f*) Different forms of intravascular clotting, probabl in large measure derived from amalgamation of the bloo plates, but to some extent also probably due to destructio of red blood corpuscles.

(*g*) Small cortical haemorrhages, which in some case can be traced to rupture of a vessel blocked up by th aforementioned clot.

Taken together, that is the correlation of the defectively developed and probably unstable nerve cells, with th local stasis of the blood stream resulting from intra vascular clotting; I submit that these conditions con stitute the pathological basis of the epileptic fit.

REFERENCES.

[1] J. Van der Kolk, *Psych. en Neurol. Blader*, 1902, S. 345. [2] Hughling Jackson, London Hospital Reports, vol. i, 1864; BRITISH MEDICA JOURNAL, July 14th and 21st, 1888. [3] J. Turner, *Journ. Ment. Sci.*, Jul 1903. [4] J. Turner, *Rev. of Neur. and Psych.*, February, 1905. [5] Beva Lewis, *Textbook of Mental Diseases*, 1899. [6] F. W. Mott, Croonian Le tures, 1900. [7] Kussmaul and Tenner, New Sydenham Society's tran lation, 1859. [8] L. Hill, *The Cerebral Circulation*, 1896. [9] P. Masoi *Arch. Intern. de Pharm. et de Therap.*, 1904. [10] W. L. Worcester, *Journ of Nervous and Mental Diseases*, 1897. [11] Bratz, *Arch. f. Psych.*, xxx, 1- [12] L. W. Weber, *Beiträge zur Pathogenese und pathologischen Anatom der Epilepsie*, 1901. [13] B. Onuf, *Journ. Amer. Med. Assoc.*, April, 1905.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL.

ERYTHEMA AFTER VERONAL.

SEVERAL cases have been reported lately of the toxi effects of veronal. In the EPITOME of the BRITIS MEDICAL JOURNAL of November 4th, 1905, Kres quotes "numerous authors who had met with un pleasant or dangerous action of this drug" when use in anything like quantity. As the drug was placed upo the market as an absolutely safe one without toxic effect there is a probability that a reaction may set in again its use. I can testify to its great value in small—5 gr. 8 gr.—doses in cases of slight pain, and in one instan sleep was induced by a dose of 8 gr. in severe toothach but I have also to record a case in which a dose of 8 g proved toxic in its effects.

The patient is a lady, aged about 42, who has suffer for years from symptoms of dilated stomach, which is all probability due to a scirrhus carcinoma. She has bee difficult to treat medicinally for many years on account the liability to erythema which asserts itself on the inge tion of various drugs. Morphine in very small doses, a ether, whether taken by the mouth or inhaled, has pr duced it. She thinks that eucalyptus produced it on o occasion. As sleeplessness and restlessness had been distressing symptom for some time, I was induced to t veronal under the belief that it was non-toxic. The patie feared to try any new drug, and carefully inquired as whether it would produce erythema. I reassured her this point, and that evening she took an 8-gr. powder. hour and a quarter later she was asleep; three-quarte of an hour later she woke with a violent attack of erythematous rash, with oedema of the face so mark that she could scarcely see out of her eyes. There we feverishness and restlessness, and the skin "burnt li fire." This lasted to a decreasing extent for four or fi days, when the skin began to peel extensively, and t continued for twelve days. There was no other untowa symptom such as Kress records, but that there is idiosyncrasy in some persons to this drug, as to othe is well proved by such cases.

W. KENNETH WILLS, M.B., B.C.Cantab.

Clifton, Bristol.

A RAPID CURE FOR LUMBAGO.

I QUITE agree to the value of ung. antimon. tartarat. in the treatment of lumbago, as Dr. Kenyon pointed out in the BRITISH MEDICAL JOURNAL of January 13th, p. 81, and have used it successfully for many years, having first got the hint in the Sixties from an article in *Braithwaite's Retrospect* in connexion with its often marvellous effects in relieving children's chest affections associated with persistent cough; but here there must be no rubbing in, only spread on lint and hung round the neck with a aconet or oiled-silk covering to hinder the ointment from soaking into the clothing, and suspended when pustulation s established. A little fresh ointment should be spread on the lint daily till the above effect is produced.

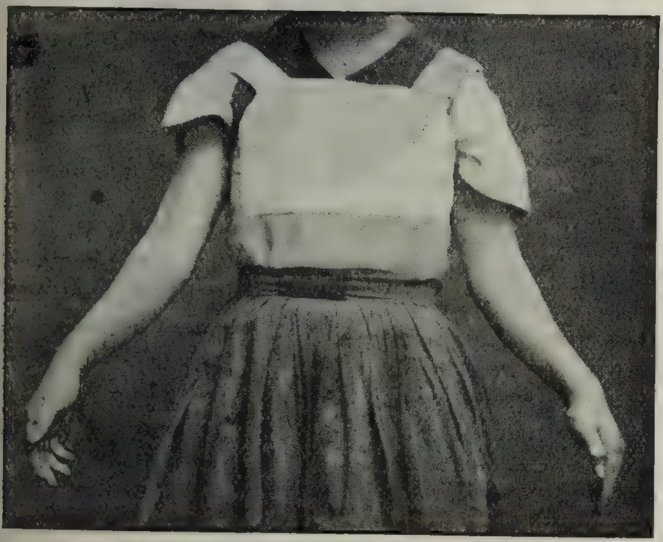
In this connexion it may also be mentioned that croton oil liniment used in a similar way will often succeed as well if not better, especially in cases of chronic sciatica and allied disorders in the hip region, and in such horough rubbing in has much to do with the success of he remedy.

Of course it must be remembered that the affection would return after a time, but whoso has employed roton oil liniment after this fashion in arthritic cases carefully chosen, has found a remedy that seldom fails to reatly relieve the stiffness and gnawing pains characteristic of these rheumatic disorders.

Burbage, Marlborough. J. FARQUHAR, M.D.

CONGENITAL SYNOSTOSIS OF RADIO-ULNAR ARTICULATIONS.

HAVING read in the BRITISH MEDICAL JOURNAL of December 9th, 1905, the account given by Mr. C. Hamilton and Mr. J. Lionel Stretton of congenital synostosis of the upper radio-ulnar articulations, I hought the enclosed photograph, taken some twenty ears ago, might be of interest, showing some of the haracteristics of the disease.



The patient, a girl aged 15, was admitted into the . Marylebone Infirmary. She could not supinate her rms, and was accustomed to carry trays, etc., on the ck of her hands. The head of the radius appeared in normal position, and the patient stated that she had ways been in the same condition from her birth. As r as I remember, the radius joined the ulnar about 2 in. elow the elbow-joint, causing the deformity. The patient ied of phthisis, and no *post-mortem* examination was lowed.

t. Marylebone Infirmary. JOHN R. LUNN.

CHILDBIRTH AFTER COLOTOMY.

URING the latter part of 1904 and early months of 1905 I attended a Mrs. G., a multipara, aged 28 years, for lignant disease of the rectum. She declined any erative interference, and treatment was purely palliative.

n March, 1905, she developed symptoms of complete struction. The rectum was impervious even to the ssage of flatus; the abdomen was tympanitic, and ils of distended intestine were visible through the in abdominal wall. There was frequent vomiting, hich showed a tendency to become stercoraceous. As patient's condition was rapidly becoming critical, I rformed left inguinal colotomy. The result was very tisfactory: all symptoms of obstruction were relieved. The patient made a rapid recovery, and subsequently had almost complete control over the evacuations.

A few months afterwards I was called to see Mrs. G. on account of abdominal distension, which she attributed to the progress of the disease. Examination revealed an early stage of pregnancy.

On January 10th, 1906—less than ten months after the date of operation—I delivered Mrs. G. of a full-time living child apparently 10 to 11 lb. in weight. The period of gestation was normal, except for pain in the rectum, which was easily controlled by morphine suppositories. The progress of labour was delayed by the protrusion into the vagina of the large rectal mass, which extended as high up as could be determined by vaginal examination. As the pelvis was roomy, I was able, by combined internal and external manipulation, to perform version and secure rapid delivery.

The patient made an uneventful recovery, and was downstairs on the tenth day, although for some days there was considerable pain in the rectal mass owing to the inevitable pressure to which it had been subjected. In spite of her trying experiences the patient still leads a fairly comfortable existence, no symptoms of obvious secondary deposit having as yet manifested themselves.

Old Hill, Staffs. THOMAS E. MITCHELL, M.B.

LEAD POISONING FROM TAKING DIACHYLON.

Two cases of lead poisoning which have come under my notice may prove of some interest. It was significant that in both instances the patient had taken diachylon with the intention of producing abortion. The facts were as follows:

CASE I.

A young woman, in her second pregnancy, was seen in April, 1904, suffering from abdominal pain and vomiting. For two months she had seen no menses. Suspicious that she had taken something to produce abortion, she was questioned on the subject, but she promptly denied having done so. Upon my second visit, however, she admitted having taken diachylon with the object hitherto mentioned. In consequence of her statement I made an examination of the gums, only to find a blue line distinctly visible.

Further, it was elicited that a prescription containing quite an assortment of rather crude ingredients had been given her, with the injunction that the whole was to be stewed together and finally made into pills of convenient size, one to be taken night and morning. The nauseousness of the pills just mentioned may be gathered from the fact that the mass contained such searching ingredients as diachylon, pulv. aloes co., pulv. colycynth., cochineal, steel drops, bitter aloes, and pennyroyal.

Besides the colic and vomiting she complained, however, of wrist and foot drop on the left side, constipation, and restlessness. She did not suffer from headache, and the urine was very clear. I learned that, previously to my attending her, she had suffered from colic for a period of fourteen days. She informed me that she had been taking the pills for a month. I treated the vomiting, administered opium to allay the pain, and also gave a rectal injection composed of 1 oz. of magnesium sulphate to a pint of warm water to relieve the constipation, and with the further object of removing the lead from the large intestine in the form of lead sulphate. The fluid which subsequently came away from the rectum was very black. Then, after the vomiting had ceased, potassium iodide and magnesium sulphate were given by the mouth. The child when born would be about seven months. It was small and puny, and suffered a good deal during the first year of its existence from vomiting and colic. When 15 months old it weighed 8 lb.

CASE II.

The patient was a young woman with two children. Apparently under the impression that she was pregnant, she commenced, two days after menstruation was due, to take diachylon, procured in pennyworths; she took small pieces about the size of a pill three times a day.

When seen, in November, 1904, she complained of acute headache, insomnia, vomiting, and colic. The symptoms being similar to the previous case, I examined the gums, to find a blue line distinctly visible. Consequently I remarked to her my suspicions as to what she had been taking. She made no attempt to deny it. On the contrary, she confessed that she had taken diachylon at regular intervals for at least six weeks previously to my attending her. She had suffered from uterine haemorrhage for a fortnight, but it had ceased when I visited her. I found her anaemic; there was weakness of the left wrist, an absence of constipation, and the urine was very clear. The treatment was similar to that adopted in the first case, including rectal injection of magnesium sulphate solution, medicine for the vomiting, and then potassium iodide, tincture of opium, and magnesium sulphate taken by the mouth.

She admitted taking diachylon nine months before with the object of producing abortion when she was two months pregnant. Abortion took place a few days after taking it.

Leeds. A. E. Little, M.R.C.S., L.R.C.P.

CONGENITAL ABSENCE OF EXTERNAL AURICLE.

On February 10th, 1906, I attended Mrs. H. in her fourth confinement. She had suffered severely during pregnancy from hydrops amnii. Labour commenced with premature rupture of membranes at full term, and was completed eight hours later. The child (male) was small and puny, with a feeble cry. The left external auricle and meatus were absent, the only evidence being an umbilicated tubercle the size of a small pea, situated immediately above the angle of the jaw. There was paralysis of the lower part of the face on the same side, and inability to swallow. The child died after forty-four hours.

The rest of the family were born healthy, and there is no history of congenital defects on the side of either parent.

Wilfred E. Alderson, M.D., M.S., D.Hy., D.P.H.

Newcastle-upon-Tyne.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

MIDLOTHIAN AND PEEBLES ASYLUM.

A CASE OF RUPTURE OF THE HEART.

(By James P. Sturrock, M.A., M.B.)

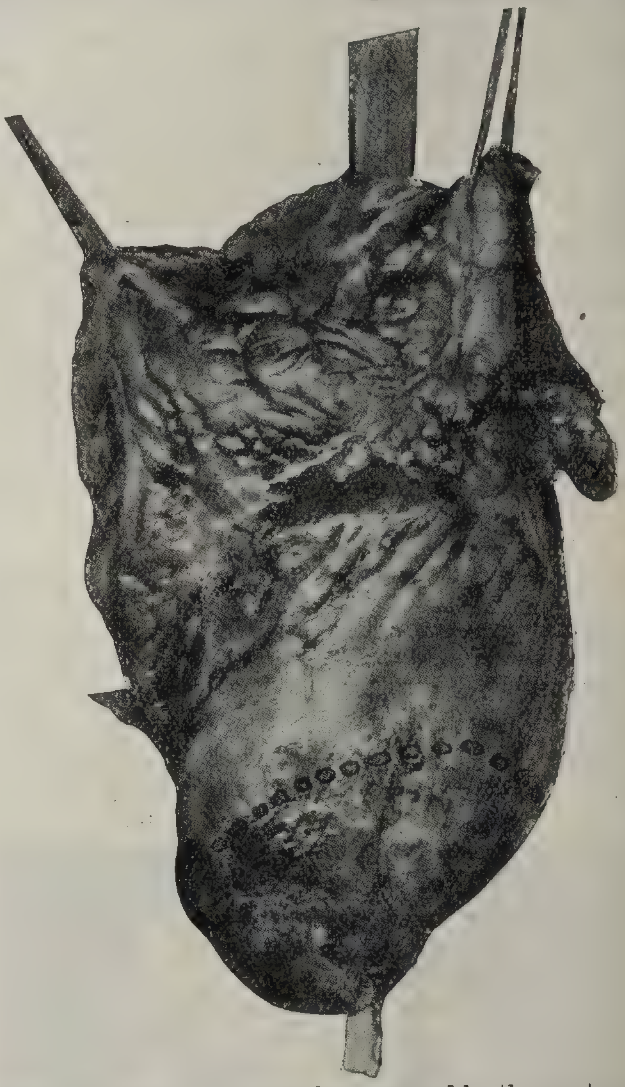
History.

A patient, J. H., aged 62, had been an inmate of this asylum since 1892. Previous to his admission he had been having epileptiform fits, but during his 13 years' stay here he had not had any return of these. He often asserted that he had syphilis in early life. His excess in alcohol was notorious, and his fits were undoubtedly the result of this excess. He did a little work at his trade of tailoring for a few years after admission, but his delusions took a grandiose turn, and he refused to work. He was always in fairly good health.

At the periodical examination of the physical condition of the chronic patients he was noted as being in average health; no organic disease was detected, though his cardiac action was weak. He was pale, with marked superficial venal congestions on the face, and a very alcoholic nose, but his condition was what might be expected in a case of such notorious excess in alcohol. He was smart and active for his age, and during the previous summer he won the second prize in the 100 yards race for old men at the patients' sports. On October 30th he was one of a small squad of patients who were occasionally employed in the very easy task of pulling the roller over the tennis court. J. H. helped a little with the roller if he was in the mood, but on this occasion he was taking a walk by himself slowly round the court. He was heard to give a cry, and immediately fell forward. He lived for about four minutes after falling. A quarter of an hour before his death he left the ward under the observation of the doctor, with whom he had his usual lively and good-natured argument about getting away to claim his money.

Post-mortem Examination.

On opening the pericardium it was found to contain 29 oz. of clotted blood, considerably darker than normal. At the apex of the heart was a small opening through which a clot protruded. The heart, which weighed 23½ oz., showed a very marked deposition of subpericardial fat. The chambers were empty excepting the left ventricle which contained a small amount of blood clot. The valves were all competent and the cone diameters normal. The apex of the heart was the centre of an area of about 3 in. in diameter in which the heart muscle had become replaced by a thin membrane. This thinned portion was entirely confined to the left ventricle, and occupied a little more of the anterior wall than of the posterior, About ½ in. external, that is, further from the septum, than the middle of this area was an irregularly zigzag-shaped rent, ½ in. long. On filling the ventricle with water, the thinned portion of the wall bulged only to a very slight extent. The muscle of the ventricle was of normal colour and only slightly thicker than the normal. Where the healthy muscle joined the thinner portion of the wall, section of the part showed a well-marked line where the muscle thinned off in wedge form, at the same time becoming paler in colour, till ½ in. away from the healthy muscle there was nothing but a thin membrane. The whole inner surface of this degenerated area presented a necrotic appearance, being pale, soft, and, at the thinner portions, rough and granular. The aorta showed slight commencing atheroma. Examination of the brain showed marked milkiness and opacity of the pia and considerable atheroma of the vessels at the base. The liver was large and waxy; the kidneys showed advanced cirrhotic changes.



Photograph of heart. A rod has been passed by the aorta and left ventricle through the rent in ventricle wall. The area of degenerated wall limited by dotted line.

Microscopical Examination.

This was made at the Scottish Asylums Laboratory, and a report submitted by Dr. Ford Robertson as follows:

Sections were made from the thinned portion of the heart wall close to the point of rupture, and also through this portion and the adjacent thicker part of the wall. The thinned portion of the wall consists mainly of fibrous tissue, all trace of muscular fibres having disappeared. It shows an outer stratum and an inner comparatively broad one. The outer shows numerous well-stained cellular elements and normal connective tissue fibre; the inner is in a state of necrosis. The necrosed tissues are infiltrated by numerous leucocytes. The inner necrotic zone gradually tapers off towards the thicker portion of the wall, and disappears at a point about half an inch from where the wall attains its normal breadth. The fibrous tissue composing the thin portion gradually gives way to bundles of muscular fibres as the tissues are traced towards the part of the wall of normal thickness. In this part there are, however, numerous intermuscular strands of fibrous tissue. The epicardium shows considerable fibrous thickening. The arterioles everywhere show chronic or subacute inflammatory changes, which involve all the coats and which in many instances have led to complete obliteration of the lumen. The walls of the veins have suffered in a similar way, but the amount of narrowing is comparatively slight. These morbid changes are accompanied by much cellular proliferation in and around the walls of the small vessels. They are recognizable everywhere, excepting in the necrotic area where the tissues do not stain.

The vascular change is probably a syphilitic one. It amply accounts both for the local fibroid degeneration of the heart wall and for the recent acute necrosis which has led to the rupture.

Remarks.—(1) As so frequently happens in cases of upture of the heart, the patient had no symptoms to uggest serious cardiac trouble, and indeed up to the noment of his death was not the least out of his usual ealth. (2) It is of interest that there was absolutely othing of the nature of physical exertion at the time of upture. (3) Although the opening in the ventricle wall as small (only ½ in. long), the nature of the lesion—the rmation of a rent in a very thin, non-muscular area of he wall—allowed of the rapid escape of a large quantity f blood, causing very rapid death by compression.) The primary factor in the pathological condition most equently found in cases of heart rupture—the degeneraon of a portion of the wall of the ventricle from iminished blood supply due to vascular changes—is robably in most cases coronary embolism. In this case hanges in the walls of the arterioles due to the syphilitic oison have brought about a similar degenerative change the cardiac wall.

REPORTS OF SOCIETIES.

OYAL MEDICAL AND CHIRURGICAL SOCIETY.

ir R. Douglas Powell, Bart., K.C.V.O., M.D., F.R.C.P., President, in the Chair.

Tuesday, February 27th, 1906.

Primary Malignant Disease of the Vermiform Appendix.

r. H. D. Rolleston and Mr. Lawrence Jones read a per on this subject, in which the recorded cases were ewed in chronological order. Of 62 cases, 42 were cepted. Of these, 37 were carcinoma, and 17 spheroidallled carcinoma, with an average age-incidence of 24.2 ars. The average age of 5 examples of primary lumnar-celled carcinoma of the vermiform appendix s 52, as in carcinoma of other parts of the intestine. imary spheroidal-celled carcinoma of the vermiform pendix was also peculiar in its structure and its nignant character—thus resembling a group of cases multiple primary carcinomata of the jejunum and um recently collected by Bunting. The morbid atomy and nature of these growths were discussed. e existence of a primary malignant growth in the rmiform appendix was often only discovered accintally in the routine examination of the appendix noved during life or after death. The number of orded cases had enormously increased of late years, of the total number of 42 having been recorded since 0, and 28 by American authors. In 29 cases the nptoms were those of appendicitis, and in 4 the conion was observed during operation on the female vic viscera. The results of appendicectomy were d, only 4 deaths following within two weeks of the ration, and of these only 1 operation was a simple endicectomy. The operation required rarely exceeded t of appendicectomy; in 3 cases a portion of caecum removed, in 1 some glands, and in 2 the entire cum. No recurrence of the growth in the remaining ients had been recorded. The growth was usually alized, and in 48 per cent. in the distal third. The ease showed no sex proclivity. A stercolith was only ntioned as having been present in 2 examples.

Ir. McAdam Eccles had operated on a case which had attacks of what seemed to be subacute appendicitis, from which the patient, a young man of 18, never irely recovered. The appendix was found to be about inch and a half long, much thickened, and bound down many adhesions. On being cut longitudinally two inct and separate foci were seen in its wall. These the appearance of tuberculous deposits, but on microical examination they both proved to be spheroidaled carcinoma. There were no concretions. Some rged glands were removed from the appendicular entery. The patient, who was operated on twenty-one nths ago, had had no signs of recurrence and was in ect health.

r. Jefferson Faulder said that columnar-celled vths described as undergoing spheroidal-celled transnation were usually supposed to be, *qua* that change, cially malignant. He suggested that all such growths ht be classed as endotheliomata.

Dr. Newton Pitt compared the growths with lymphadenoma starting in the appendix. In the case of nodules in the appendix, was there any evidence of local infection? In the small size of their cells the tumours differed from those occurring in the stomach.

Dr. H. S. French remarked on the small size of the growths. It would have been anticipated that so cellular a tumour would have grown to a large size if carcinomatous. How he asked, could the growths be differentiated from inflamed lymphatic tissue?

Dr. Rolleston replied.

CLINICAL SOCIETY OF LONDON.

H. H. Clutton, M.A., M.C., F.R.C.S., President, in the Chair.

Friday, February 23rd, 1906.

Acute Intestinal Obstruction.

Mr. Sherren read notes of three unusual cases: Case i, a man, aged 31, had a stricture, possibly congenital, at the junction of the jejunum and ileum. Enterostomy, with enterectomy three weeks later, was followed by recovery. Case ii was a strangulated left duodenal hernia in a girl, aged 13. There had been no previous obstruction. Laparotomy was performed, the neck of the sac divided, and the hernia reduced seven hours after the onset of symptoms; the patient recovered. There were 10 cases in the literature, four of whom had survived. Case iii was a volvulus of the caecum. The patient, a man, aged 31, was operated on seventeen hours after the onset of acute abdominal symptoms. The caecum had to be resected for gangrene and the ileum joined to the ascending colon by means of lateral anastomosis; the patient recovered. Corner and Sargent had collected 57 cases of this accident, and had recorded 5 of their own.

The President referred to the rarity of the cases, and the high mortality in volvulus.

Mr. J. Hutchinson, jun., had recently seen a case of volvulus of caecum with lax mesentery. The caecum had passed under the mesentery and was found near the spleen. The patient, a young man, recovered. Of 9 similar cases in the literature 4 had been operated on, but only 1 had recovered.

Mr. Raymond Johnson referred to a case under Mr. Beck some years ago, in which the twisted caecum, enormously distended, had passed beneath the small intestine. It was undone and aspirated, but the man, aged 49, died within twelve hours.

Mr. W. G. Spencer related the case of an old man in whom a twisted caecum was found near the spleen. Death occurred. In another case operated upon by Mr. Walsham the caecum was stitched to the anterior abdominal wall without being reduced, and Nélaton's operation performed.

Mr. A. E. Barker described a case in which the whole of the small intestines was twisted around the opening of a gastro-enterostomy.

Mr. Sherren replied.

Appendicitis due to Oxyuris Vermicularis.

Mr. Carson described 2 cases. The first was a woman, aged 19, who had violent abdominal pain, vomiting, a temperature exceeding 103° F., and a rigor. Superficial tenderness was marked over the right side of the abdomen. The appendix was removed, and contained a single *Oxyuris vermicularis;* the mucous membrane of the distal half inch was congested but not ulcerated. The second case was a woman, aged 24, admitted with severe abdominal pain in both iliac fossae, vomiting, a temperature of 100.6° F., and much tenderness. Three thread-worms were found in the appendix. There was no injection or ulceration of the mucous membrane. In neither case was there history of thread-worms, nor had thread-worms been seen in the motions since operation. Mr. Carson contrasted the course and symptoms of these two cases with ordinary cases of appendicitis, and discussed the question of the relation of appendicitis to the presence of the parasites. He referred to Dr. G. F. Still's paper on 200 necropsies of children under 12, in which *Oxyuris* had been found twenty-five times in the appendix without symptoms, and reported 13 cases in which the appendix had been found to contain thread-worms after removal for appendicitis. He thought it more reasonable to believe that appendicitis in these cases was due to the presence of thread-worms than to believe their presence was merely a coincidence.

The President thought the worms were merely coincident phenomena. He advocated operation as early as possible in cases of appendicitis.

Mr. J. Hutchinson, jun., had published a case years ago in which the appendix was found stuffed with thread-worms, but was only inflamed, not ulcerated. He commented on the rarity of the condition in view of the frequency of appendicitis.

Dr. W. H. B. Brook (Lincoln) thought early removal desirable, but, as cases usually survived the first attack of appendicitis, there was difficulty in persuading the friends of the necessity of operation.

Mr. Carson pointed out that early operation often saved the patient from a long illness, and also left the abdominal wall much stronger than it could be after a lengthy drainage.

Appendix Abscess with Severe Haemorrhage.

Mr. J. D. Malcolm related the case of a woman, aged 36, in which a foul appendix abscess was evacuated and drained on the ninth day of illness. On the third and sixth days after operation there were severe haemorrhages from the abscess cavity, the second producing unconsciousness from collapse. The wound was opened up and much clot removed, but no fresh bleeding occurred, and the appendix was not found. The cavity was packed with gauze, and healed soundly by granulation. Instances of haemorrhage from the bowel, associated with appendicitis, and three cases resembling the one related were referred to. The complication was attributed to a sloughing action induced by micro-organisms developed in the bowel, and was compared to the secondary haemorrhage of the days before antiseptics were introduced.

The President related a case in which continuous oozing occurred for fourteen days, starting on the fifth day after operation. Secondary haemorrhage in appendicitis was very rare.

Mr. W. G. Spencer thought the occurrence was probably due to the presence of the *Streptococcus haemorrhagicus* (of Klein). He referred to two cases which he had seen of haemorrhagic cellulitis due to that organism.

Mr. Raymond Johnson had seen an alarming haemorrhage in a case of pelvic abscess in a boy, aged 17; the external iliac artery had been ulcerated, and had to be tied. Recovery ensued.

Mr. Charters Symonds had seen a death from haemorrhage in these cases years ago. He advocated drainage with a tube packed around with gauze.

Mr. J. Hutchinson, jun., referred to a series of cases published in the *Bull. de la Soc. d'Anat.*, in which the accident had occurred before operation. Many of the cases proved fatal.

Mr. F. C. Wallis was strongly in favour of the use of a glass tube and antiseptic gauze for drainage.

Mr. Malcolm, replying, said he had inserted two tubes, one large, one small, with no gauze.

MEDICAL SOCIETY OF LONDON.

Sir T. Lauder Brunton, M.D., F.R.C.P., F.R.S., President, in the Chair.

Monday, February 26th, 1906.

Treatment of Chronic Renal Disease.

Dr. Samuel West read a paper on this subject. Cell growth was the chief factor in convalescence from nephritis, and the problem was to promote this. The need for stimulating excretion by other channels was emphasized. When albuminuria was permanently absent the disease might be considered cured. In view of the need of cell growth a milk diet was often too long employed; the benefit of change in diet was important. Alcohol and the extract of meat were especially contraindicated. Eggs were quite admissible, and white meats were not preferable to red. The risks and desirability of getting the patient up were pointed out. Fresh air was of much value. In granular kidney the treatment varied with the stage of the disease. In the early stages a strict regimen was not necessary. In the middle stage with the heart hypertrophied such accidents as heart failure, rupture of vessels, and acute kidney affection, were to be guarded against. In the last stage the pulse tension was the indication for treatment, and the aim to keep it at its ordinary level for the individual patient. Pilocarpine was a very useful remedy, and for the restlessness, headache, and threatenings of uraemia, cannabis indica was of value as a sedative. For the asthenia, anaemia, etc., the possibility of the use of a renal extract was discussed. The results with such seemed sufficiently encouraging to justify further employment.

The President advocated the use of strophanthus with nitrates and nitrites for the heart weakness in the middle stage of renal disease. The kidneys of different animals might have different metabolic power. It was a question whether extracts should not be chiefly made from the cortex.

Dr. de Havilland Hall argued in favour of the milk treatment for, at any rate, three or four weeks. He preferred for nephritic patients the lighter meats before butcher's meat. He also supported the use of pilocarpine. He referred to the operative treatment of chronic nephritis. For heart failure he liked to combine potassium iodide with strophanthus. For the relief of headache with high tension minute doses of trinitrin were of value—for example, a third of a minim.

Dr. C. W. Chapman said that for the asthmatic attacks tincture of lobelia and potassium iodide were of value.

Dr. West replied.

Acute Tuberculous Pleurisy.

Dr. Sidney Martin read a paper on this subject. The diagnosis was made from a study of the onset, course, and effects of the disease. The onset was often sudden in both simple and tuberculous pleurisies, but sometimes the tuberculous was insidious in onset with pyrexia. A recurrent pleurisy was almost always tuberculous. The course of non-tuberculous pleurisy was towards recovery, reaccumulation of fluid after tapping did not occur, and deformity of the chest was not usual. The reverse obtained in tuberculous cases. The bacteriological examination of centrifugalized deposit after coagulation of the effusion was of value in diagnosis. Effusion did not always occur in tuberculous cases. In the tuberculous cases pyrexia was much more prolonged. If the fluid were found to be sterile the pleurisy was usually tuberculous. Inoculation of the deposit into guinea-pigs was sometimes necessary for the diagnosis. Signs of peritonitis might indicate the tuberculous nature of a pleurisy, and signs of tubercle in the lung might also be of help. The deformity of the chest resulting from a tuberculous pleurisy was sometimes marked. If the amount of the fluid were large, or if there were no signs of absorption, it should be removed. The hygienic treatment of cases of pleurisy might often prevent the incidence of pulmonary tuberculosis.

Dr. Theodore Williams considered that the rapid recurrence of fluid after tapping was always suspicious of tubercle, as also was a double pleurisy. Most dry pleurisies were tuberculous.

Dr. S. West had found that rapid disappearance of the fluid in tuberculous pleurisy was a bad sign. The pressure of pleural fluid had no beneficial influence on tuberculous lungs.

Dr. Martin replied.

Glasgow Pathological and Clinical Society.—At a meeting on February 12th, Professor Muir, M.D., President, in the chair, Dr. R. M. Buchanan gave a microscope and lantern demonstration of specimens from a case of *Kala-azar* in a European invalided home from Assam. The clinical features of the case were reported by Sir Patrick Manson in the British Medical Journal, vol. ii, p. 1261, 1905. The patient, after leaving London, was under the care of Drs. Renton and Adamson in Glasgow, and died in September last. Dr. Buchanan was permitted to inspect the liver and spleen, which were both much enlarged. Smears were prepared from those organs and showed the presence of the parasites, and they were also found in the sections of the liver and spleen. The nature of the parasite and the mode of transmission were fully discussed.—Dr. J. K. Kelly read notes of a case of *Chorion-epithelioma* in a young married woman, admitted to the Royal Infirmary on July 11th 1905. She had had four children, the last of whom was born eight weeks before admission. Her former egnancies had been normal. Since the birth of the st child she had suffered from profuse haemorrhage, hile during the later months of pregnancy there had en several attacks of severe bleeding. She was admitted an urgent case, with the vagina packed on account of ofuse haemorrhage. She was very thin and pale, and oked exceedingly ill and exhausted. She had no pain; as drowsy and lethargic, and incoherent and rambling in r statements. In the anterior vaginal wall two odules at different levels were made out—the lower naller and harder, and the upper cystic. At the ft side of the vagina was an irregular tumour procting slightly above the surface, and showing small rk cystic portions. There was some fullness in ouglas's pouch, and the left appendages were enlarged id the uterus was subinvoluted. On the twelfth day ter admission the patient developed a right-sided hemiegia; she became gradually unconscious, and died five ys later. The clinical course of the case was quite aracteristic of the chorion-epithelioma—dating from a egnancy, and in this case showing the peculiarity of anifesting itself during the continuance of same; it as marked by severe haemorrhages, probably from the erus and vagina, by the formation of vaginal tumours, id by secondary involvement of distant organs which it uld only reach by way of the blood stream, and by its pidly fatal result. Dr. CHARLES WORKMAN read notes the *post-mortem* examination of the case. A large antity of blood and blood clot was present in the dominal cavity. Tumours were found present in the erus and vagina, both ovaries, and secondary nodules the heart wall, lungs, spleen, left kidney, and brain. e liver was entirely free from tumour formation. icroscopical preparations were shown from the tumour dules, and a number of lantern slides were exhibited owing the character of the tumour.—Dr. JAMES H. ICOLL showed photographs of a *Teratoma of the tongue* large size which he successfully removed from a young ild. The tumour and microscopical preparations were monstrated by Dr. J. H. TEACHER, who regarded the mour as an example of the inclusion of a blighted in.

DERMATOLOGICAL SOCIETY OF LONDON.—At a meeting on bruary 14th, Mr. MALCOLM MORRIS in the chair, the llowing were among the exhibits:—Dr. H. RADCLIFFE OCKER: A case of *Pemphigus foliaceus* in a woman who d shown the first symptoms of the disease last April. hen shown she had the pronounced exfoliation of the idermis in large flakes, the face, arms, legs, and trunk ing extensively affected. The buccal mucosa was free, d there were no intestinal symptoms. Actual bullae had t been seen by the exhibitor, but it was probable that ey had been present. The condition was progressing d the woman was distinctly ill.—Dr. J. M. H. MACLEOD: case of *Tuberculous disease* of the skin in a child who had d measles twelve months ago and some three months ter had developed several patches of lupus on the leg d foot. There had been chilblains on the pinna of the ght ear, and in this position there was now deep ulceran, which was also probably tuberculous. The rapid delopment and the apparent connexion with the preceding tack of measles rendered this case interesting.—Dr. GRAHAM LITTLE: A case of *Granuloma annulaire* adcliffe Crocker) in a man aged 40, the characteristic nged eruption, preceded by isolated nodules, having en noted by the patient for about three years. At the esent time there were rings of this nature on the fingers orsal surface), on the wrist, the elbows, and neck, with ger indurated patches on the knees, which had probably en of the same character in an earlier stage. The man s a very free sweater. There were no papules that uld be considered like those of lichen planus on any part the body, and the mouth showed no lesions. A section the skin from one of the patches was exhibited at the eeting and showed a most unusual infiltration of the rium with cells, the character of which was as yet untermined.—Dr. J. J. PRINGLE: A case for diagnosis an eruption on the upper eyelid of a man, aged . The eruption consisted of a number of small parently firm nodules, some of them coalescing to form a ised patch, of a vivid pink colour, and unattended by y subjective symptoms. The disease had lasted for elve months. Some of the papules were grouped in a manner suggestive of *Lymphangiectodes*, which was one of the diagnoses suggested, but the small swellings certainly did not appear to be vesicular, and no definite diagnosis was offered, in the absence of microscopical examination.—Dr. HENRY WALDO: A patient who had been under his care in the infirmary at Bristol for some time with a large infiltrated patch on the skin of the back on the right side. The patient stated that this had persisted for ten years. The amount of infiltration had suggested the diagnosis of *Mycosis fungoides*. A majority of the members present considered, however, that it was probably a tertiary syphilitic infiltration of unusual chronicity.—Dr. ARTHUR WHITFIELD: A circinate erythematous patch on the leg of a woman which he considered a rare form of *Syphilide*. The patient had a definite history of syphilis contracted thirteen years ago, and had been under the care of the exhibitor for syphilitic manifestations for some time. The present eruption had remained unaltered for five weeks, and the indolence and induration of the patch suggested the diagnosis of syphilis, in which most of those present concurred.

ROYAL ACADEMY OF MEDICINE IN IRELAND.—At a meeting of the Section of State Medicine on February 9th, Dr. F. C. MARTLEY, President, in the chair, after the delivery by the PRESIDENT of an address reviewing the death-rates of the United Kingdom, Sir JOHN W. MOORE read a paper on vaccination, in which he drew attention to the difficulties which beset sanitary authorities who wished to make provision for the treatment of small-pox arising in their districts; he referred to legal cases—one in England and one in Ireland—where application had been made before a judge to grant an injunction restraining the sanitary authority from erecting such hospitals, on the ground that they were likely to spread small-pox by aërial convection. In the English case the judge had refused, owing to the contradictory expert evidence, to give a judgement, while in the Irish case the injunction had been granted as regards small-pox, but this judgement was afterwards reversed by the High Court on appeal. He himself considered the view that small-pox might be aërially disseminated correct. Efficient vaccination and revaccination were the real solution of the difficulty. In Germany, where they had compulsory vaccination and revaccination, the number of persons susceptible to the poison of small-pox was so small that there were practically no special hospitals for the treatment of that disease; if similar conditions existed in the United Kingdom there could be no need for special small-pox hospitals.—The PRESIDENT expressed himself as agreeing entirely with the opinions held by Sir John Moore.—Dr. DELAHOYDE held that it would be very difficult to enforce compulsory vaccination and revaccination in these countries, though it would be easier to have such laws carried out in Ireland than in England and Scotland, as the people of Ireland were more inclined to take the advice of medical men on such subjects; previous to attempting to obtain legislation they ought to endeavour to educate the public.—Dr. T. P. KIRKPATRICK said that, given a protected community, it would be a matter of indifference how small-pox was disseminated; if the community were protected by vaccination and revaccination the disease would not spread.—Dr. H. U. BYRNE said he had experienced a difficulty in getting working men to consent to be revaccinated, though they were quite willing that their families should be done. This difficulty was caused by their natural objection to be unable to go to work. There was no real objection on the part of the public in Ireland to vaccination.—Sir JOHN MOORE, in reply, expressed the opinion that it would not be wise at present to advocate the bringing in of a Bill in favour of compulsory revaccination, although no opportunity should be lost of impressing on the public the value of revaccination as a preventive of small-pox, and the necessity for it at or about the age of 12 years.

ABERDEEN MEDICO-CHIRURGICAL SOCIETY.—At a meeting on February 15th, Professor OGSTON, President, in the chair, Dr. J. F. CHRISTIE showed a patient suffering from *Psoriasis vulgaris* limited to the fingers. The diagnosis, for some time obscure, had been cleared up by the recent appearance of a typical spot of psoriasis on the neck.—

Dr. R. G. McKERRON read a paper on a series of 10 cases of *Puerperal eclampsia* in which the expectant method of treatment was adopted. The cases were all young primiparae admitted into the Maternity Hospital during the last two and a half years. In all the urine became solid on boiling, and the eclamptic condition was severe. Of the 10 cases 3 died. Professor STEPHENSON thought it was a mistake to have a hard and fast treatment for all cases of eclampsia; he believed strongly in delivery even after the first fit. This should not be obtained by too energetic means, and manual dilatation was preferred where possible. Bossi's instrument was of doubtful value. Dr. RANNIE had had good results from bleeding, and thought this method of treatment might have more extended trial.—Dr. HOWIE, in a note on *Shortness of the cord* as a cause of delay in labour, said absolute shortness was comparatively rare, while relative shortness was common. The length of the cord which would give trouble depended on the situation of the placenta. Any length under 10 inches could be looked upon as short. The signs of shortness of the cord were: with a small, freely-movable head in a roomy passage to have marked recession between the pains, the head returning to its first position after each succeeding pain; marked pain at the site of insertion of the placenta, recession of this part during the pain; and a great desire of the patient to sit up. He quoted a number of cases in which shortness of the cord appeared to have caused delay in labour.—Dr. ROSE read a note on the surgical treatment of *Ileocolitis*, narrating two cases of the disease which occurred in children belonging to the same family. In one the patient was treated on ordinary principles and died. In the other an attempt was made to flush out the colon through the appendix. The colon was stitched to the abdominal wall, the skin wound closed, leaving the appendix exposed. After opening the appendix an attempt was made to pass a salt solution into the bowel by means of a soft rubber catheter with the end cut off, but the attempt failed. Various methods were tried without success, and the attempt was abandoned for the night. Next day bougie, catheter, etc., were tried, but without success. The nozzle of an irrigator was then passed into the appendix, but no fluid would pass, and as the patient was very ill no further attempt was made. This patient also died three days after the first attempt. After death the failure to pass fluid into the colon through the appendix was found to be due to a constriction in the latter at about its middle. In the appendix of the other child a similar condition was found. The author thought that in view of the possibility of encountering these constrictions, especially in chronic cases, the greater part of the appendix should be removed, and a catheter passed through the remainder into the bowel before the abdomen was stitched up. Given this precaution, he regarded the treatment as therapeutically sound and likely to be useful.

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.—At a meeting in Sheffield on February 16th, Mr. R. FAVELL, President, in the chair, Mr. A. CUFF (Sheffield) recorded a case of *Subacute pyaemia* following confinement, in which rigors were prominent to the end of the third week, the temperature oscillating between 98° and 105° and the patient steadily declining. Tumefaction in [the right broad ligament being felt, the abdomen was opened and a mass composed of thrombosed veins and oedematous connective tissue was isolated by double ligature. The ovarian vein, which was thrombosed up to the lower border of the kidney, was also ligatured just below its junction with the vena cava. The patient made a steady recovery, no rigors occurring after the operation though the temperature twice rose to 102° before becoming normal eleven days later. This was the seventh successful case of the kind on record. The following were among the exhibits:—Drs. H. BRIGGS and WILLETT (Liverpool): Two *Fibroid uteri* whose cavities contained polypi. One of the latter was shown to be a large round-celled sarcoma of the endometrium, while the other was an adeno-carcinoma of the same structure, with secondary deposits in the ovary. Dr. A. DONALD (Manchester) showed *Fibromata*, one of which had necrosed and become adherent to the abdominal wall and to bowel, thus causing intestinal obstruction of seven days' duration. Also a uterus with fibromyomata one of which occupied the uterus cavity and had first caused bleeding at the unusually advanced ag of 64 years. Dr. A. W. W. LEA (Manchester): (1) a *Myomatous uterus* the size of a football which caused n symptoms until pregnancy occurred. It was then removed at the sixth week of gestation. (2) A uterus a about the seventh month of pregnancy with multipl myomata, removed on account of intense pain, dysuria an difficult defaecation. Dr. BLAIR BELL (Liverpool): (1) A growth of the uterine wall which consisted largely o arteries whose walls had undergone hyaline degeneratio and which could only be described as an *Angiomatou fibromyoma uteri.* (2) A *Retroperitoneal tumour* remove from the iliac fossa which proved to be a growth of th kidney of the variety derived from suprarenal "rests and termed hypernephroma. Dr. W. WALTER (Manchester): Two specimens of *Ruptured tubal pregnancy* removed by abdominal section at the sixth and eleventh weeks. In each case sudden pain preceded fainting, an in the first case marked pulsation of the uterine arter aided the diagnosis.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—At meeting on February 21st, Mr. T. J. DABELL, President, i the chair, Dr. F. H. JACOB read notes of 2 cases of *Naevu treated with radium.* In each case the lesion was mor than a port-wine stain—in fact, something of a tangibl nature. The cure was complete, with a scarcely noticeable pale scar, and a marked depilatory effect on the hair of the eyebrow where the treatment had been applied Photographs of the subsequent condition were shown.—Mr. A. R. ANDERSON (in continuation of a paper read year ago) read notes of a second series of cases of *Gastroenterostomy* based on 18 cases operated on within the las fourteen months. The cases fell into four divisions—fou of gastric carcinoma (generally old standing and extensive), seven of chronic ulcer, four of acute or subacute ulcer and three of pyloric stenosis. Exactly half were men an half women; all had made good recoveries with the exception of one patient, who died suddenly from chloroform anaesthesia after the completion of the operation. Th abdominal wound was immediately reopened and th heart massaged through the diaphragm, but without success. Even in the cases of cancer great relief had been afforded by the operation, which had been followed b marked increase of weight. Of the non-malignant case all had benefited by it, but in two cases where the symptoms of ulcer were less pronounced the relief afforde was not so great, and the pain had not wholly disappeare as the sickness and haematemesis had done. In each o these two cases only a small indurated patch was discoverable at the operation, probably occupying the site o a small chronic ulcer but very difficult to detect. Th operation was therefore justifiable wherever medical treatment had failed. It was pointed out that in the cases o cancer the history extended over four, six, eight, or mor years, and it was fair to assume that the ulcer was originally simple, and that a cure might have resulted from operation in this stage. As regards technique, the anastomosis was made by a double continuous suture of silk o celluloid thread. Clamps were not used. In no case ha any symptoms of regurgitant vomiting occurred. At th end of twenty-four hours small doses of peptonize milk were given, and in three weeks the patien was able to take the ordinary mixed hospital die and go home. Several of the patients were the shown and points of individual interest alluded t Dr. JACOB laid stress on the value of a careful examinatio of gastric contents; the blood changes, too, were practically identical with those of pernicious anaemia. I reply to observations made by various speakers, Mr ANDERSON stated that in cases of cancer it was no misus of terms to say that if the patient survived the operatio great relief was to be expected rather than hoped fo Cases simulating perforation were explicable as due t severe gastric cramp or colic, where nerve filaments wer exposed in the floor of the ulcer. Such cases might sho the anxious expression, abdominal rigidity and sever pain, so suggestive of perforation, but the rapid pulse o 120 or more was usually confined to the genuine perforative cases, at any rate where some interval had elapse There was no fear of the anastomotic opening contractin or closing, provided it was from 2½ to 4 in. long in the firs instance; no mechanical aids such as bobbins or button vere used, and the mucous membrane was accurately mited to mucous membrane all round, so that no subnucous or muscular tissue was left exposed. The results vere equally good whatever the exact position of the ulcer, ut it was in cases of pyloric stricture due to healed ulcer hat the most striking improvement followed all round.

Glasgow Medico-Chirurgical Society.—At a meeting n February 16th, Dr. W. K. Hunter (Vice-President) in he chair, Dr. J. C. Renton showed: (1) A man on whom e had performed laminectomy for *Pott's disease* three ears ago. Before operation he had suffered from paralegia, with loss of sensation and retention of urine. ensation returned in two weeks. In a year he could alk and had complete control over bladder and rectum. 2) A boy, aged 10 years, who had had *Acute osteomyelitis.* he tibia had been trephined in three places and reformed y grafts of bone. (3) Three cases of *Ruptured gastric lcer*; operated on, one thirty, another four hours, and the ird very shortly after rupture. Flushing with saline olution was advocated in diffuse peritonitis, but n local and pelvic peritonitis he thought careful rying out and washing away any discharge sufficient. 4) A completely *Ruptured kidney*, removed from a youth, ged 17, after a football accident. (5) 600 *gall stones*, from woman aged 50. (6) Three cases where excellent results d control over sphincter ani had followed *Kraske's operaon* for malignant disease of the middle part of the ectum.—Dr. C. C. Cuthbert showed a case of *Ludwig's gina.* After a slight initial sore throat the typical mptoms rapidly developed. During the administration chloroform the breathing stopped, and tracheotomy was rformed. Half an ounce of pus was coughed up when e tube was introduced and respiration was re-estaished. The incisions were then made into the brawny elling, and some pus was evacuated. The tissues were ack and sloughing. For several days pus was frequently ughed up, but the lungs were not affected. Secondary emorrhages were frequent, and erysipelas of the face t in. The wounds healed by granulations in such cases. ere was danger in using a general anaesthetic, because, ing to the patient's inability to open the mouth, the esence or absence of an abscess pointing into the arynx could not be ascertained.

Chelsea Clinical Society.—At a meeting on February th, Dr. J. Barry Ball, President, in the chair, Mr. arold Barwell read a paper on *Surgical Treatment in berculous Laryngitis.* Operative measures, except to ieve symptoms, were contraindicated in all cases of vanced or rapidly-progressing lung disease; but larynal disease occurred in early stages more often than was nerally known; it was then usually not extensive, and uld often be cured by pigments and curettage. If more vanced the lesion should be boldly attacked with punch ceps, and in rare cases by thyrotomy. In the interdiate class of chronic consumptives much difference opinion as to active treatment existed; but in ny cases local healing could be obtained by sural treatment, and in less favourable cases the y painful death from the laryngeal lesion prevented. advanced lesions complete cure was exceptional, and it s rather as a palliative of dysphagia that surgical intertion was most often required; here anodynes were of le value, and removal of even a small piece of infilted arytenoid always relieved and usually abolished s painful symptom. Removal of the diseased epiglottis one piece, as was possible with a special pair of forceps wn, had a good effect in such cases. He had permed this operation eight times in the last year, in ry case relieving the severe dysphagia and obtaining plete local cure in one case. No patient should be wed to die from this most distressing symptom hout an attempt to relieve his sufferings by this rapid almost painless operation.—Dr. Eric Pritchard read aper on *The Training of Nerve Centres in Children.* He ntained that the lower nerve centres which presided r the organic functions were amenable to educational ipline, just as were the intellectual and higher bral centres. In the physical training of children, ther for the purpose of improving the motor, digestive, ulatory, or other organic functions of the body, our ntion should be directed towards the promotion of efficient and regular habits in nerve centres. Nerve cells had a sort of subconscious memory which enabled them to repeat more or less accurately the parts they had played before. It was, therefore, of the utmost importance that, when in infancy or childhood a nerve centre came into activity for the first time, its initial acts should be performed in an orderly and efficient manner, for its subsequent behaviour would depend on the manner in which these were carried out. Too much attention could not, therefore, be bestowed on the early training of these centres, and to this end certain principles should be observed. First, they should be educated in the natural order of their development; when forced out of their due order neuroses were apt to supervene, as, for instance, when a child was artificially taught the finer muscular co-ordinations before it had acquired control of the coarser muscular movements. Secondly, owing to the impressionability of developing nerve centres, supermaximal stimulation should be avoided, otherwise these centres would explode with great violence. Thus, over-stimulation of the centres which presided over the functions of gastric digestion by the presence of too heavy a curd of casein in the stomach might, and often did, cause general convulsions. The disturbance of equilibrium thus engendered in the gastric centres would seriously interfere with the processes of digestion in the future. The sensitive nerve mechanism which presided over the motor functions of the bowels was often completely deranged in infancy by the employment of powerful purgatives, enemata, or glycerine suppositories. These powerful stimuli dulled the sensibility of the nerve centres concerned in the act of defaecation to such an extent that the presence of faeces in the colon or rectum was subsequently an insufficient stimulus to produce an action of the bowels. Thirdly, owing to the inherent tendency of nerve cells to assume periodic or rhythmical habits of activity, it was of importance that the periodicity of organic functions, such as those of digestion, defaecation, sleep, etc., should be of a physiological character. Regularity in these habits in later life depended on the nature of their early education.

REVIEWS.

ACCIDENTS TO WORKMEN.

The series of volumes, already twelve in number, which owe their existence to the indefatigable labours of Professor Brouardel, and together form his course of Medical Jurisprudence, has received a notable addition in his volume on injuries in general and injuries of occupation in particular.[1] The book deserves the most serious notice of the English student of medical jurisprudence, especially at a time when a Bill to amend the Workmen's Compensation Act is promised in the King's speech.

Professor Brouardel sets out in his preface at considerable length the subjects which he proposes to discuss, and most of them are of such daily-increasing importance to the medical profession in all civilized countries that a more than passing notice must be given to them. The statutes devised for the protection and compensation of the workman, the nature of the accidents to which he is liable, and, not least, the methods by which the damage done to him by injury may be fairly assessed, are all among the crucial questions of the hour; while the relation of the medical expert to his patient, to his profession, and to the law is a matter which calls for the most serious attention of the profession.

Our own statutes for the compensation of injured workmen were passed at various periods, commencing with the Employers' Liability Act, 1880, and supplemented by the Workmen's Compensation Act, 1897, and the amending Act of 1900. The French law is more recent, and in many ways more complete than our own; there are three statutes, dated April 19th, 1898; March 22nd, 1902; and March 31st, 1905.

Professor Brouardel lays great stress on the attitude of the medical expert with regard to these Acts, and also upon his relation to the community in general when crime has been the cause of the injury. While in the one case it is merely his duty to present his evidence in such form that the court shall be able to form its own judgement as to whether the act has been criminal or otherwise, in the dispute between master and workman it becomes his statutory duty not merely to describe accurately what injury has been caused, but to assess, according to a schedule drawn up for his guidance, the pecuniary damage which the workman has suffered. The nature of the employment, the previous history of the patient, and his surrounding circumstances are all to be taken into consideration. Much stress is laid upon the necessity for abstaining from anything approaching to partisan evidence and upon the importance of extreme accuracy in the first certificate of injury.

---

[1] *Les Blessures et les Accidents du Travail.* Par P. Brouardel. Paris: Baillière et Fils. 1906. (Demy 8vo, pp. 700. Fr.15.)

The main body of the work is divided into three portions: (1) The position and duties of the medical expert and the risks to which he is exposed; (2) wounds; (3) the legal aspect of all injuries with regard to the law, the injured person, and the medical expert.

Professor Brouardel defines medical jurisprudence, and gives a brief history of its origin under Charles V at Ratisbon in 1532. His definition is, as he himself says, no definition; for while medical jurisprudence must, in theory, include the knowledge of all the medical sciences, in practice its only special characteristic is the method which should guide its inquiries and dictate the conclusions to be drawn from its observations.

He points out that the opinions even of the most eminent members of the profession are apt to be couched in terms unintelligible to Bench, Bar, or jury. The fact is that the public in France, as in England, assume that the whole science of medicine is the property of every medical practitioner, and this is one reason why so-called expert evidence falls into disrepute. The especial dangers which beset the medical expert are set out in detail: private interviews with the court while viewing the place of the crime or accident, want of precision in the reference made to him by the court (a purely French procedure), the terms of the written report to the court, the conclusions at which he arrives and upon what grounds, and last but not least, his cross-examination. Professor Brouardel, with a view to providing a class of experts to whom these dangers will present no terrors, has induced the French Government to found a diploma at the University of Paris in medical jurisprudence and mental diseases. The candidates are trained in autopsies and reports, the Morgue providing an abundance of material, and are regular attendants upon the courts of law.

Part II forms the major portion of the volume. It is arranged under three heads: Wounds in general, wounds caused by weapons, and wounds or injuries of special parts or organs of the body. The definition of a wound in France and Germany is so wide as to include burns, frostbite, lightning stroke, sunstroke, suffocation by chemical fumes, etc. In England wounds were for a long time imperfectly defined, but may now be taken to mean "any solution of the natural continuity of any of the tissues of the body," thus excluding some of the injuries above mentioned.

While the services of a medical man can be requisitioned by almost all varieties of policemen and magistrates in France, it is admitted that he is very poorly paid, and in some instances fails altogether to recover his fee, as, for instance, in cases of suicide; the position is thus similar to that in England, where a medical man is called upon to report to the coroner's officer, and not being called at the inquest, or no inquest being held, has his labour for nothing.

By a statute of 1892, and an order made thereunder, every qualified medical man in France, irrespective of his special ability, may be ordered under a penalty to make an examination and draw up a report, which in criminal cases is communicated to the defence. A demand has been made for two doctors, one to represent the prosecution and the other the defence, but Professor Brouardel protests against this being granted as tending to create partisan evidence. It would be far better, he says, to limit the medical men called upon to those who hold the diploma of Medical Jurist mentioned above. In civil cases the law requires three experts, who present but one report, that of the majority, unless the parties assent to one only; failing such agreement, they are compelled by order of the court to nominate.

In France as in England, circumstances have been materially altered by the passing of statutes for the compensation of injured workmen. Before the law of 1898 the onus of proof to establish the responsibility of the employer rested on the employé. To-day the reverse is the position, as has been fully established by the several official circulars of the French Government, which speak of the injured workman as "a creditor for an indemnity." Such compensation will of necessity be partly a penalty and partly a compromise. But in France the Legislature does not leave the assessment of the penalty to the court, but has provided a scale of valuation by which all injuries are to be assessed. These scales and schedules are fully set out in the fourth section of the work, and are very valuable to an assessor.

The advantage of this method of administering the law of compensation is fairly obvious, for, as said the Minister of Commerce in 1899: "The workman is compensated for every accident occurring in his employment, while the employer knows exactly upon what scale he has to pay, and is in a good position to protect himself by insurance."

It may perhaps be of interest to repeat here the principles upon which compensation is assessed in France. It has been laid down by the court "that it is of little or no importance from what defects or bodily ailments the injured workman suffered before the accident; the only question before the court is, What salary did he earn?" The indemnity varies from a half to two-thirds of the difference between the salary which he could earn before and after the accident. It is of interest to learn that the result has been the same in France as in England—namely, that employers are careful not to accept workmen who have any physical defect, least of all men with only one eye.

Those who are curious in such matters will find the statute set out in full in the appendix to Professor Brouardel's book, and will read with interest the thirteen judgements and the twenty-five cases quoted at the end of the appendix. It is rather for us here to draw attention to the schedule of fees for medical men fixed by the law of 1905. The injured workman can in every instance choose his own practitioner, medical or surgical; but the master is only liable for such fees as are fixed by the local magistrate, according to a tariff drawn up by a commission upon which both medical and workmen representatives were placed. This tariff is subject to revision biennially; that at present in use dates from May 20th, 1905. These fees do not err on the side of generosity. Visits, including a simple dressing, are fixed at Fr. 1.50 to Fr. 2.50, according to locality, and consultations at the practitioner's house at 50 c. less. This fee is the basis of calculation, and every conceivable operation is reckoned at so many fees, with a supplementary list o special fees for special cases, at the head of which is laparotomy (exploratory), Fr. 100, and amputation of the thigh, Fr. 200—the highest fee allowed.

Reverting once more to the main body of the work, the remarks on *post-mortem* examinations are well worthy o perusal. In French law two distinct examinations are recognized—the examination when the body is first removed by the order of a magistrate (*levée du corps*), and the necropsy proper, which is more often than not made by a different medical man. Medical men are warned o the importance of making a thorough examination and o stating accurately what they find; it is also of interest to note that in all cases where a *post-mortem* examination i desired by the relatives, the doctor, or the friends, the permission of a magistrate must be obtained.

Passing over ordinary wounds and blows, we notice among burns that two varieties are included which have not found their way into English textbooks—burns caused by the electric light and the dermatitis produced by th Roentgen rays.

The section upon general injuries concludes with a admirable exposition of the duties of medical witnesse as regards the state of the patient's health before, and th extent to which he may afterwards recover from the effect of the accident. Professor Brouardel does not admit th justice of the legal dogma already alluded to, that all me are equal and that the only question is that of their earning power. No man is exactly the same as another ma He also does not agree that because a man has contrive to adapt himself to the loss he has sustained by hi accident he should at the end of three years be deprive his compensation as a reward for his efforts to be a ood workman. If such were the case, the result would that instead of endeavouring to improve his position ring the period preceding revision, he would swell the nks of the unemployed and become an *alcoöliste* (*Anglicé*, blic-house loafer).

One more chapter requires notice, and relates to the nnexion between injuries and tuberculosis. Putting on e side as ridiculous the possibility of a blow by itself using tuberculosis, Professor Brouardel directs atten- n to the series of recorded cases in which tuberculosis en of the most latent type has been present, and at the ne of the injury undetected, or even for all practical rposes cured, but has revived with increased energy or oken out in its most fatal and rapid form afterwards.

It would not be difficult to indicate other ways in which is volume supplies deficiencies in our English text- oks, but enough has been said to convince the student jurisprudence, and indeed every practitioner, that a ht knowledge of the legal pitfalls that await him in dinary practice, and of the means whereby he may cape them, lies in Professor Brouardel's valuable unsels. Of the legal aspects of the volume we cannot eak too highly. A Bill to amend the Workmen's Com- nsation Act will shortly be introduced; no one will ve more need to watch it closely, and as far as possible safeguard the real interests of justice, than the medical fession. To us is given the power of deciding how far workman is a genuine applicant for relief, and how he is a malingerer; to us is assigned the decision of and death where an autopsy is held in a case of sus- ted murder; it is our duty to see that as a learned fession we fail not in the courts.

he title of Dr. Vibert's work on accidents to workmen[2] rcely indicates as fully as it might the scope of the trea- , which, like its companion volume recently reviewed in se columns, deals more than is customary in similar glish medical works with the legal aspect of the injured rkman and also with the affections which are, rightly wrongly, said to have been caused by the injury identally received.

mong the earliest problems presented to the reader is correct definition of an accident which seems of suffi- nt importance to demand notice at length. French law s not define an accident further than in the words: An ident which gives a claim to compensation is one ich has arisen by the nature of the employment or in course of it. And this has been subsequently plified by official circulars thus: "Accident in our se consists in a bodily injury arising from the sudden urrence of an external cause." Dr. Vibert, while epting this definition, also quotes the German legal nition, which is as follows: "An accident is an ormal and strange happening in the course of the ployment which occurs suddenly, and the consequences which are injurious to life and health." English law s not contain a proper definition of accident, but interested reader may be referred to the *Law Reports* 900, 1 Q.B. 481.

s in the work of Professor Brouardel, the opening pters are devoted to an exhaustive *résumé* of the duties edical men under the French law of compensation for ry, and it would serve no purpose to pursue a further icism of them, while the appendix contains a complete of the French Compensation Acts and the scale of . The main body of the work is devoted to a con- ration of the complications, medical and surgical, h most commonly supervene upon accident or injury, is divided into six classes. The inquiry thus covers he special systems of the body, and is of the most plete character. The question of tuberculosis as the lt of accident is alluded to in terms which are de- dly too vague to be followed in giving evidence; and y that "it is probable that a contusion of the lungs produce tuberculosis in a previously healthy subject" admission which would delight the ears of a cross- nining counsel. It is difficult to agree with Dr. Vibert his subject, and to admit the above contention would open the door to a number of claims which would ly be genuine. The French courts seem to have been generous than our own in the case of anthrax, which has been rejected by them in the case of leather workers and others. In both countries internal anthrax has so far not been the subject of claim. The existence of traumatic diabetes as distinguished from traumatic glycosuria also receives notice. Lumbago also receives notice, and, as this is probably the most common form of malingering known in general practice, it is interesting to note that Dr. Vibert only recognizes as true lumbago those cases in which actual injury to the muscles of the back can be demonstrated.

It is undoubtedly the tendency of the workman under Compensation Acts to attribute every disease which comes upon him to some accident of his occupation, however remote and however difficult it may be for him to recall the occasion. Heart failure, hernia, haemorrhage from the stomach, and countless other injuries are thus ascribed to accident; when such diseases cause death it is necessary not merely that a coroner's inquiry should be held, but that an autopsy should be ordered—a custom more honoured in the breach than in the observance in our manufacturing districts. The question of injuries to the stomach is one which justly receives prolonged attention at the hands of the author, for it presents great difficulties both as to the existence of disease previous to the suggested injury and as to the possibility or date of complete cure. Haematemesis is so varied in its results that most medical men have had surprises in its treatment, and it is not easy to dogmatize upon the matter.

The concluding 100 pages of the work are devoted to traumatic neuroses, and this question to Dr. Vibert, as to the English courts, is full of materials for controversy; there is probably no class of cases in which medical men appear more hopelessly at variance. The exact character of the injury, the present condition of the patient, the question of malingering, and, most of all, the prospects of complete or even partial recovery seem to be specially designed to make our profession disagree in public. Dr. Vibert has already published a work on railway accidents, in which he called special attention to this class of affection, and subsequently a special treatise on the subject of what he now prefers to call hystero-neurasthenia. He discusses at great length the true etiology of these cases, and how far we are to assign them on the one hand to injury and on the other to emotion, and is inclined to believe that the part played by the mental faculties is relatively very small.

In conclusion, while it is not possible to agree in many details with the propositions laid down by Dr. Vibert, it must be recognized that he has made a valuable contribution to a department of practice which, with the increasing disposition to protect the workman, is increasingly important to the medical profession.

RHEUMATIC DISEASES.

Dr. Symes's *Rheumatic Diseases*[3] is the first of a series of practitioners' handbooks, each dealing with some special medical or surgical subject. Dr. Symes divides his subject into six heads: Acute Rheumatism, The Rheumatism of Childhood, Muscular Rheumatism, Acute and Chronic Rheumatoid Arthritis, Gonorrhoeal Rheumatism, and Scarlatinal Rheumatism, devoting a separate chapter to the consideration of each. As the varieties of arthritis occurring in gonorrhoea and scarlet fever have no association with rheumatism proper, the use of such terms as "gonorrhoeal rheumatism" and "scarlatinal rheumatism" are illogical and misleading, and sufficient attention could have been paid to these in dealing with the differential diagnoses of the other complaints, without the necessity of devoting a separate chapter to each. Dr. Symes, however, is evidently a believer in the close connexion of true rheumatism with scarlet fever, and in one place asserts "scarlet fever is one of the commonest predisposing causes of rheumatic fever," and in another that "true rheumatic fever frequently follows scarlet fever." Such a view would have been in accordance with that expressed in every textbook only a few years back, but we had supposed that modern investigations of the arthritis occurring in scarlet fever had largely modified the former belief in the frequent association of the last complaint with rheumatism. Caiger (Allchin's *System of Medicine*, vol. i), indeed, in an analysis of the complications and sequelae of more than 30,000 cases of scarlet fever, found rheumatism so infrequent that he does not even mention it, although he states that in extremely rare instances chorea has been noted. The most satisfactory chapters in the work are those dealing with acute rheumatism and rheumatoid arthritis. The author gives an able and succinct summary of most of what is known at the present time of these conditions, and very few points would seem to have been missed. In a work, however, professing to deal with the complaint in its entirety, mention should have been made of rheumatism as a cause of appendicitis. Many authorities have a firm belief in a rheumatic appendicitis, and have, perhaps, unduly strained the analogy between the glandular structure of the appendix and the tonsils as a ground for this belief, so that mention should have been made of the theory, although its validity is far from being generally accepted. In dealing with the rheumatism of childhood the author is less successful than in the other sections, and the whole chapter gives the impression of having been compiled from the writings of others, rather than founded on personal experience. He rightly lays stress on the importance of nodules, both in diagnosis and prognosis; but we fancy he misinterprets Cheadle when he states that the latter regards them "as being indicative of an almost certainly fatal termination." Our memory would lead us to regard Cheadle's grave prognosis as applying only to large and persistent nodules, and not to rheumatic nodules in general. It may be said, moreover, that true chorea is never "confined to a habit of blinking the eyes or twitching the corner of the mouth and side of the nose," and the statement of the author to this effect is the more odd, inasmuch as in the same paragraph he correctly assigns them to the category of "habit spasm." The following paragraph we can only characterize as extraordinary: "Pleurisy is generally recognized as a true rheumatic affection, and possibly much of the broncho-pneumonia of children may have the same pathogenesis." We do the author the justice of believing that he does not intend his readers to regard all, or even most, cases of pleurisy in children as being rheumatic; but we certainly think he should have given his grounds for his statement as to the connexion between rheumatism and broncho-pneumonia. Dr. Symes writes clearly and distinctly, and the photographs with which the book is illustrated are excellent.

---

[2] *Accidents du Travail.* Par le Dr. Ch. Vibert. Paris: Baillière et Fils. 1906. (Crown 8vo, pp. 716. Fr. 10.)

[3] *The Rheumatic Diseases* By J. Odery Symes, M.D. Lond., D.P.H., M.R.C.S., L.R.C.P., Assistant Physician and Bacteriologist to the Bristol General Hospital. London: John Lane. 1905. (Crown 8vo, pp. 233. 5s.)

THE BACTERIOLOGY OF PERITONITIS.

Comparatively little of a definite character has been written on the *Bacteriology of Peritonitis*.[4] Hence it is, perhaps, that surgeons have hitherto been content with vague denominations of the organisms concerned, as "staphylococcus," "streptococcus," and perhaps too ready with an acceptance of the "*Bacillus coli*"; they will certainly welcome Messrs. Dudgeon and Sargent's effort to extort a practical application from the systematic study of an elusive subject. In the course of these investigations, carried out with praiseworthy thoroughness, one or two noteworthy discoveries have been made.

The 270 cases upon which observations were made comprise 53 of intestinal obstruction, 47 of strangulated hernia, 93 of appendicitis, 10 of perforation of the hollow viscera, 7 of post-operative peritonitis, 5 of septicaemic peritonitis, 8 of salpingitis, 3 of suppurating ovarian cyst, and 20 of intraperitoneal haemorrhage. From no less than 108, or 40 per cent., of these cases, the *Staphylococcus albus*, alone or with other organisms, has been recovered, in most instances from a part of the peritoneal cavity remote from the lesion. That this was no mere accidental contamination was proved, if proof were needed, by the demonstration of agglutination reactions with the blood serum of several patients; and the authors have further supported their remarkable deduction as to the defensive part played by the white coccus in respect of the colon bacillus by animal experiments that afford very striking confirmation.

It is well known that two pathogenic micro-organisms working in concert may evince a virulence exceeding the arithmetical total of their individual noxa; and, on the other hand, clinical evidence is not wanting that one pathological agent may inhibit the activity of another, but the instance under consideration is new and has an eminently practical bearing. The beneficent action of the *Staphylococcus albus* is exerted mainly by chemiotaxis, but also in some degree by the formation of a protective film of exudate upon the intestinal surface. The peritoneal fluid in the presence of the white coccus is generally very rich in active polymorphonuclear leucocytes; an aggressive colon bacillus, on the contrary, causes either a negative chemiotaxis or a rapid disintegration of the leucocytes; phagocytic defence is equally futile before the *Streptococcus pyogenes* and the *Bacillus pyocyaneus*. It is now demonstrated, however, that given a long enough start, the white coccus enables the organism to withstand successfully the assaults of the colon bacillus. This fact constitutes a final argument against the routine employment of lavage in appendicitis, and restricts the use of this drastic measure to those happily rare cases in which the more lethal organisms mentioned are concerned.

But how is the surgeon to ascertain, within the short space of time possible between the opening and closure of the abdomen, with what organism he has to deal? Film preparations may afford positive evidence, but as negative evidence their value is *nil*, and clinical appearances are notoriously untrustworthy. It can only be laid down that the great majority of cases of appendicitis are dependent upon the colon bacillus, and for this infection nothing more than careful dry sponging must be used.

Of 47 cases of strangulated hernia, the sac fluid was sterile in 42, or 89 per cent., and the surface of the gut and omentum in 66 per cent.; the *B. coli* was present only when necrosis or actual perforation of the intestine had occurred, an observation incidentally confirming the experiments of Rindone (*Rif. Med.*, vol. xxi, No. 18), which showed that all the coats must be damaged before the colon bacillus could escape from the lumen of the gut into the peritoneum. Rogozinski (*Verhand. der Naturwissen. d. Akad. im Krakau*, Bd. xlii, Epitome of the British Medical Journal of July 23rd, 1904, para. 62), however, demonstrated the colon and other bacilli in the lacteals of normal intestine, a point of interest in view of the very early and universal appearance of the *Staphylococcus albus* when the gut is yet but little distended, and not immediately involved in the causative lesion. The authors mention that in their cases the employment of taxis previous to operation did not seem to influence the permeation of the gut by bacteria, although they admit the appearance of the bowel was affected.

As a purely bacteriological study this research has not been without result. The cultural and other characters of the *Bacillus coli* and *Bacillus pyocyaneus* have been investigated in detail, and on the question of motility as an essential character of true *Bacilli coli* the authors differ *in toto* from previous observers. Whilst they have failed to isolate the anaërobic organisms upon which so much stress has been laid by Veilon and Zuber, Tavel and Lanz, in the causation of appendicitis, they have found a new strepto-diplococcus associated with every case of perforated gastric ulcer examined. The striking divergence between the results of various bacteriologists is, indeed, a matter for very serious reflection.

In the matter of phagocytosis and its importance an interesting illustration is afforded by the frequency with which the pathological appendix proves sterile, whilst the normal appendix has a flora as rich as the neighbouring caecum. Tavel explained this by pointing out that the inflammatory exudate within the lumen contains very numerous phagocytic leucocytes. The experiments detailed in the present work go to show that the small monomorph and the eosinophile cells are both actively phagocytic, but the evidence is not entirely satisfactory. These pages are worthy of minute study by every surgeon, and will doubtless cause bacteriologists to give greater attention to an important field of work.

The Care of the Blind.—We learn from *American Medicine* that an association for promoting the interests of the blind has recently been organized in New York. The first work of the new Association will be a careful registration of the blind of the city. A similar registration of the blind is being made in Massachusetts.

---

[4] *The Bacteriology of Peritonitis.* By Leonard S. Dudgeon, M.R.C.P. Lond., and Percy W. G. Sargent, F.R.C.S.Eng. London: Constable and Co. 1905. (Demy 8vo, pp. 243. 7s. 6d.)

NOTES ON BOOKS.

Colloquial Portuguese.

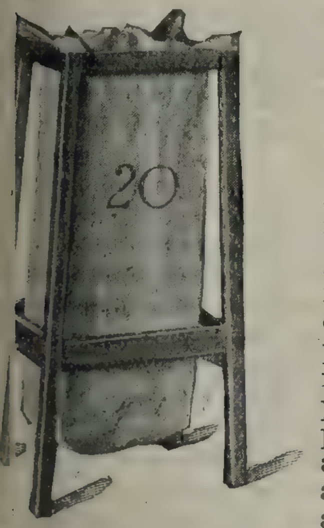
ortuguese is a language which—at all events, collo- ially—is not within the compass of the ordinary nglishman, who is thus constrained to take refuge in a rasebook when in linguistic difficulties. The famous *nglish as She is Spoke* aimed at supplying this need, but ough ministering not a little to the traveller's amuse- ent, it can scarcely be said to have been a reliable work for e carrying on of conversation. Mr. Da Cunha's *Portu- ese Self-taught*[1] is a little book of very different kind, a eful collection of vocabularies and conversations with outline of the grammar. It is well up to date with cle, motor, and photographic word-lists, and easily slips the pocket. A somewhat deficient part, perhaps, is that lotted to the doctor's visit, but fortunately Portugal is a althy country.

Venesection.

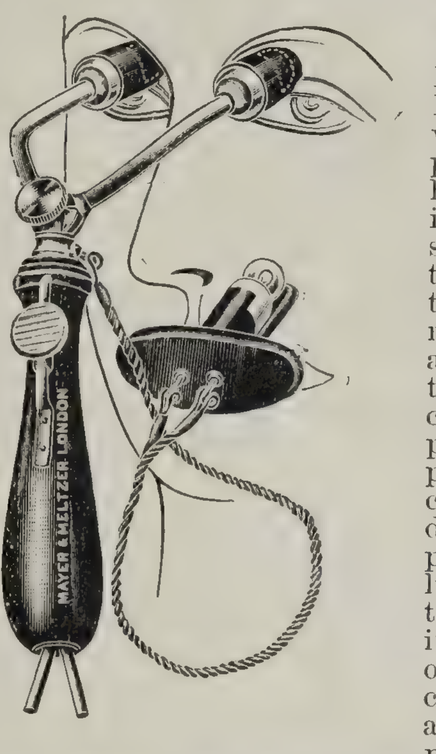
In his elaborate and rather ponderous essay on blood- ting,[2] Dr. Strubell discusses the present scope of ood-letting as a therapeutical method, and criticizes e contributions that have been made on this subject in e course of the past quarter of a century. In the first rt he deals with the latest views on the indications of is time-honoured plan of treatment in uraemia and ier forms of auto-intoxication, and also in chlorosis, and en proceeds to a detailed review of the results of modern perimental research, in which he has taken a consider- le share, on the effects of blood-letting on the composi- n and properties of the blood, and on the relative portions of its corpuscular elements. A final section devoted to a careful consideration of the action of vene- tion in the treatment of heart disease and other circu- ory disturbances. Dr. Strubell, as is shown by a dozen sely-printed pages of bibliographical references and by gthy records of experimental work, has studied his sub- t very fully, but to English readers the result of all this rk will, it must be confessed, be found confusing and d of much practical interest.

MEDICAL AND SURGICAL APPLIANCES.

anatorium Furniture.—Messrs. Heal and Son have on ibition at 196, Tottenham Court Road, a set of bedroom niture made by them for use in the rooms to be occupied patients in the King Edward VII Sanatorium for Con- nption, which is now approaching completion at Mid- st, Sussex. The furniture is made of birch, varnished, and special attention has been given to round off all corners, both internal and external, which might afford chances for the accumulation of dust, and to mount all the articles of furniture on legs, so that it may be possible to clean the floor under them. The bedstead, which is of iron enamelled in a light green, is of simple form, protruding castings being avoided where possible and riveted joints used; rubber shod buffers at the head prevent the bedstead being pushed against the wall, and also act as handles in moving it about; large leather-tired castors are fitted at the head end and her pads at the other. The bedstead is fitted with a nton "Di-ag-nl" spring mattress and an ordinary hair tress. The other articles of furniture in the room are ardrobe, combined dressing-table and chest of drawers, ishstand, bed-stand, a chair, and a soiled linen stand and which is illustrated in the accompanying drawing; the id is of the same wood as the rest of the furniture, and bag, of coarse holland, can be lifted off with its con- s ready for the laundry; as it bears a distinguishing nber, the emptying and redocketing necessary with the al lockers and baskets will be avoided. The wardrobe a flat circular top, and the corners in this and in all wers are rounded off. The washstand and dressing e have opaline glass tops and the bedstand is venti- d. At the back of the washstand is a sheet of plate-glass running in grooves. For the floor an all-wool washing rug is provided, and each room will also have a wicker lounge deck chair with extending foot. Birchwood varnished has been selected in preference to enamelled white wood because it is expected to stand rough usage better. The furniture is well designed throughout to attain the primary objects in view, which are to leave as few surfaces and corners as possible in which dust can accumulate, and to make every part of each piece, as well as the floor under, easy to clean thoroughly. The general effect is clean, light, and even artistic. Messrs. Heal have of course been strictly limited in price, but, with a little latitude in this, furniture might be designed on the same principle which would satisfy every demand of the aesthetic sense. In fact, if we are to accept the dictum that an essential element in good art is suitability to purpose, then furniture constructed on these principles ought, as the public mind becomes educated to understand the sweet reasonableness of the purpose, to be recognized as truly artistic. Much of the Jacobean furniture for sitting rooms really fulfilled the principles after which we are now searching, and no furniture exceeds it in the beauty of its dignified simplicity.



Illumination of Frontal Sinuses.—Mr. Arthur Roberts, Aural Surgeon, Royal Berks Hospital, writes: The accompanying illustration depicts an instrument recently made for me by Messrs. Mayer and Meltzer of Great Portland Street, and is so very clear that little explanation is necessary. I have frequently desired to illuminate the two frontal sinuses and the antra at the same moment, and this the little instrument does most perfectly, permitting an easy comparison between the various cavities. As can be seen, the mouthpiece is attached to a short piece of flexible wire, and can be immersed in any disinfecting solution. When placed in the mouth the hand is left free to apply the two frontal lights, which, it will be noticed, are carried on movable arms. A switch controls the light, allowing all three lamps to be illuminated, or the one on the mouthpiece, or those at the ends of the two arms alone. I have found it a very handy instrument.



A Midwifery or Operating Case with Sterilizer.—Having experienced the need of a suitable case not only to contain midwifery forceps and other instruments, etc., but a sterilizer of suitable size for all instruments, Dr. S. Backwell Fenn has had a bag made which fulfils all these requirements. As shown in the accompanying engraving it consists of a black cowhide case with a linen canvas lining and nickel-plated fittings. The case is divided into two compartments, the upper holding a tray with four divisions for bottles, and a central one for instruments, dressings, etc. In the lower compartment there is a nickel-plated sterilizer, in which is easily packed a good spirit lamp, forceps, or other large instruments. The ready access to every compartment makes it a convenient as well as a compact case for the busy practitioner. It has been made at Dr. Fenn's suggestion by Messrs. Billings and Sons, 41, Oxford Street, Manchester.

---

[1] ortuguese Self-taught. (Marlborough's Self-taught Series.) By E. unha. London: E. Marlborough and Co., 51, Old Bailey, E.C. (Sm. 8vo, pp. 120. 2s. 6d.)

[2])er Aderlass. Eine Monographische Studie. By Dr. Alexander bell. Berlin: August Hirschwald. 1905. (Demy 8vo, pp. 179. M.5.)

LITERARY NOTES.

THE *Journal des Praticiens* of January 20th contains an announcement that the Institut de Bibliographie, founded in Paris some fifteen years ago by Dr. Marcel Baudoin, is offering its library for sale. The collection comprises nearly 30,000 volumes, about 8,000 theses of Paris and of French provincial and foreign universities, and more than 1,200 French or foreign periodicals. All the principal authors, French, German, English, Italian, Spanish, etc., are represented. Inquiries should be addressed to the Liquidateur de l'Institut de Bibliographie, 93, Boulevard Saint-Germain, Paris.

The library of the late Mr. Edward Truman, M.R.C.S., of the Home Field, Putney, which was recently sold by Messrs. Sotheby, Wilkinson, and Hodge, realized £3,622 13s. Mr. Truman had been a collector for some sixty years, and although a large number of his books were rescued from the 4d. and 6d. boxes, in his persevering hunts for bargains he had picked up not a few treasures. Thus, says the *Times*, a copy of John Marden's play, "What You Will" (1607), purchased for 3s., produced fifteen guineas; a small quarto volume of early-printed pamphlets, including a copy of the 1520 Erasmus *Apologia*, acquired for 15s., sold for £14; a volume of early seventeenth-century plays, including "The Merry Devil of Edmonton," 1655 (the fifth quarto edition), bought for 27s., realized thirty guineas; another volume of twelve first editions of early seventeenth-century plays, including works by Massinger and Ford, by Brome, Randolph, and others, bought for 2s., realized £88. The copy of *The First Part of the Tragicall Raigne of Selimus*, 1594, the rare first edition, purchased by Messrs. Pickering and Chatto for £19 5s., only cost the late owner £2 10s.; and, still more remarkable, the copy of Thackeray's *Second Funeral of Napoleon*, 1841, the first edition with original front of the wrapper, cost but 9s. 6d., whilst £30 was paid for it at the sale. The opinion has been expressed that on the whole Mr. Truman's books realized from 25 to 50 per cent. more than his original outlay.

In a presidential address delivered to the members of the Liverpool Medical Institution, which is published in the *Liverpool Medico-Chirurgical Journal* for January, Sir James Barr treats of arterio-sclerosis with the accurate knowledge and philosophic breadth of view which readers of the BRITISH MEDICAL JOURNAL have learnt to recognize as characteristic of his deliverances. Incidentally, however, he makes a slip, trivial in itself and not in any way affecting his argument, but which is worth pointing out, if only to anticipate the solemn correction of some Dryasdust. Sir James Barr says (*loc. cit.*, p. 5):

> No doubt many of the greatest geniuses who have adorned humanity have died at an early age. Thomas Young, who only lived thirty-three years, has left a more imperishable name than any man who has lived since.

C'est magnifique, mais ce n'est pas l'histoire. Thomas Young was born on June 13th, 1773, and died on May 10th, 1829. He had therefore lived fifty-six years all but a few weeks—an age which could scarcely be called "early" even now, when we are assured we may attain patriarchal length of days by drinking sour milk and getting rid of that troublesome *impedimentum*, the colon.

The British Institute of Social Service has issued the first number of a periodical review entitled *Progress, Civic, Social, and Industrial*. It is to be published quarterly. *Progress* will make it its business to collect information at first hand from every civilized country in the world regarding any schemes or experiments, at work or in view, which make for civic, social, or industrial betterment. Each number will contain articles contributed by known experts on some of the more important social and industrial movements, and also a number of shorter articles, which will merely outline some of these movements for the purpose of stimulating further inquiry. The first number contains an introductory note by the Earl of Meath, and articles on a clearing house of civilization are contributed by Dr. Josiah Strong and the Earl of Lytton; on scientific and unscientific methods of social service by the Bishop of Ripon; on vacation schools by Mrs. Humphry Ward; on Continental labour colonies by Mr. Percy Alden, M.P., and on the Garden Suburb at Hampstead by Mrs. S. A. Barnett.

With reference to an article entitled "An International Language" which appeared in the BRITISH MEDICAL JOURNAL of February 17th, Mr. E. A. Lawrence, Honorary Secretary of the London Esperanto Club, writes to point out that Esperanto does not consist of some 2,700 *words*, but of some 2,700 *roots*, which with the help of some 31 prefixes and suffixes can be multiplied to fulfil every need, the more especially as such manifestly international words as "symptom," "theatre," etc., are added to these 2,700 roots with the slight change demanded by phonetics (simptomo, teatro). Our correspondent adds that the *Internacia Revuo Medicina* contains papers by Pollock on the treatment of syphilis, by Sicard on appendicitis in children, by Voisin on diet for epileptics, etc. "It must be remembered," he says, "that although Esperanto does not as yet reach every doctor in the sixty countries in which Esperanto is being advocated, yet that it does reach some in each, and that we are only at the beginning stage."

On January 18th a banquet was given in Washington in honour of Dr. Robert Fletcher, associate editor, and subsequently editor in chief of the *Index Catalogue of the Library of the Surgeon-General's Office, United States Army*, and of the *Index Medicus*. Many prominent members of the profession were present, among them being Professor Osler, of Oxford, Dr. Howard A. Kelly, Professor W. H. Welch, and Dr. W. S. Thayer, of Baltimore, Drs. Abraham Jacobi and John S. Billings, of New York, and Dr. Shattuck, of Boston. Dr. Fletcher, who is a native of England, received his medical education at the London Hospital. Going to the United States he practised for some time in Cincinnati. He served with credit through the Civil War, being commissioned as Surgeon of the United States Volunteers and breveted Colonel. In 1876 he began to assist in the charge of the library in the Surgeon-General's office, and has since carried on the most extensive task ever attempted in medical bibliography in the *Index Catalogue* of that library. He also edited, first with Dr. Billings, and later as editor in chief, the *Index Medicus*.

Dr. Witry, of Treves, published in the *Münchener medizinische Wochenschrift* of January 16th the Latin text of an ordinance made with the authority of the Provincial Council of Treves, and issued by Baldwin of Luxemburg, Archbishop of Treves, on April 29th, 1310. The ordinance sets forth that it has come to the knowledge of the Council that many unlearned persons whose mode of life and moral character are unknown presume to give instruction in the arts of medicine and surgery in the city of Treves, and in the towns and villages of the province These persons give themselves out as teachers without ever having been students. Many, too, who are inexperienced and unskilful prescribe medicines, whereby many disasters are known to have occurred. Wherefore the Archbishop forbids, under pain of excommunication any one to practise or teach medicine or surgery in the province without his licence or that of the bishop of the diocese. "For," says the enlightened prelate, "it is fitting that those who profess to be skilled in regard t the health of the body—a matter of the very highes importance—should first be examined and approved i regard to knowledge and to morals. In such extremel dangerous and difficult matters every one must be presumed to be ignorant unless he can prove that he ha knowledge." We recommend those who in this centur of light clamour for free trade in the practice of medicin to mark and inwardly digest this pregnant utterance o a mediaeval churchman.

The Exhibition of the History of Medicine in Art which is to be held in Berlin on the occasion of the opening o the Empress Frederick Institution for Postgraduatio Medical Study in Berlin, will comprise a large collectio of *incunabula* of medicine. A feature of especial interes will be a collection of manuscripts of the thirteent century, among them documents belonging to th scholastic period, some of which have never bee described. Painting in relation to medicine will be we represented, partly by reproductions and copies, but als by original works to the number of about fifty. In thi part of the exhibition, Holland, where art has so ofte found inspiration in medicine, will naturally be pa ticularly prominent. Among the pictures will be origin portraits of Albinus, Camper, and others, and the latel discovered large oil painting of Andreas Vesalius b Van Calcar.

THE VOLUNTEERS
AND
THE ARMY MEDICAL RESERVE.

The R.A.M.C. in War.

It is generally recognized that the medical service of the army is utterly inadequate for the emergencies of an important war. In an article in the British Medical Journal on August 26th of last year, commenting on Lord Roberts's great speech at the Mansion House on imperial defence, it is stated that out of its present establishment the R.A.M.C. can only provide for an expeditionary force 55,000 strong. Sir Frederick Treves in an address given at Brighton last November,[1] speaking of the officers of the R.A.M.C. available for mobilization in the event of war, states that for an expeditionary force of one army corps and one cavalry brigade 333 medical officers would be required and this would leave only 78 for the remainder of the army; were 2 army corps and 2 cavalry brigades called for, then even if 45 per cent. of civil surgeons were employed only 43 officers R.A.M.C. would be left over for a third army corps. The Advisory Board it appears some time ago devised a scheme to provide an adequate and efficient reserve, and submitted it to the Army Council. It still remains in the pigeonholes of the War Office. In concluding his address Sir Frederick Treves summarized the reforms urgently needed, and among them enumerated the formation of an efficient army reserve.

"The Army Medical Reserve."

It is true that according to the Army List there is already an Army Medical Reserve; but though it has been in existence some years we are not aware of its having been utilized; it certainly was not in the Boer war. It is, in fact, so constituted that it can hardly be expected to be of much use. It consists of some 200 militia, yeomanry, and volunteer medical officers, mostly regimental; when these officers resign their volunteer commissions their names are removed from the list of the Army Medical Reserve. They appear to be expected to serve in a duplicate capacity, and it is obvious that their first duty is to the volunteer unit to which they belong. The address by the Director-General, A.M.S., which appeared in a recent number of the Journal shows that, recognizing the necessity of a competent reserve, he is desirous of giving civil medical men the opportunity of making themselves an efficient reserve. A beginning has been made by the institution of a course of lectures on Army Medical Administration at the West London Hospital, and no doubt he would extend this system to other parts of the kingdom, in the manner suggested by Mr. Keetley in our last issue (page 472) if a desire were expressed for it.

The Medical Officers of the Auxiliary Forces.

Apart from this scheme, the question arises whether the time has not come to organize an adequate reserve among the medical officers of the auxiliary forces—the yeomanry, militia, and volunteers. If the Volunteer Medical Service, using that term in the widest sense, were organized more on the lines of the R.A.M.C. the end would be gained. Is the Volunteer Medical Service, as a whole, of as much use as it might be to supplement the army in a big war, and is it really properly organized for home defence?

At the present time there are over 1.000 medical men holding commissions as medical officers in the volunteers. They are divided into three groups: (1) The administrative: these are the senior medical officers on the staff of the Volunteer Infantry Brigades, about 43 in number. (2) The regimental; these are the medical officers of battalions of infantry, batteries of artillery, and companies of engineers; of these there are about 796, the number attached to each regiment varying, some having half a dozen or more, and others having only one, the number apparently having no relation to the strength of the regiment. (3) The executive; these are the officers of the R.A.M.C.(Vols.), or of the bearer companies of the Volunteer Infantry Brigades, about 88 of the former and 84 of the latter.

From inquiries which reach us from time to time it would appear that the following particulars may be of interest. The paragraphs referred to are those of the present issue of the Volunteer Regulations dated 1901, and amended up to July, 1904.

The administrative officers are the senior medical officers of the Volunteer Infantry Brigades, and hold what are essentially staff appointments. The medical officer selected is the staff officer of the brigadier for medical and sanitary duties (par. 51), and is given the title of brigade-surgeon-lieutenant-colonel whilst holding the appointment. He is usually selected, by the brigadier in consultation with the principal medical officer of the district, from among the medical officers of battalions in the brigade, and may, if it is thought advisable, be supernumerary in his battalion whilst holding the appointment.

The medical officers of battalions of infantry, batteries of artillery, or companies of engineers, are (par. 119) the advisers of their regiment or corps in all medical and sanitary matters, including enrolment and instruction of regimental stretcher-bearers (par. 140).

Executive officers are the officers of medical corps whether companies of R.A.M.C. Volunteers or bearer companies of the Volunteer Infantry Brigades. Their duties are to train their men in drills, exercises, and hospital duties on the same lines as those of the R.A.M.C. and to form bearer companies and field hospitals on mobilization with the field army at home in case of need. Exchanges or transfers from one branch to another, that is, to the Militia or Imperial Yeomanry, may be authorized.

It will thus be seen that the duties of medical officers vary according to their appointments, but the qualifications required before promotion are the same in all cases. All are gazetted in the rank of Lieutenant or Surgeon-Lieutenant, and are required within two years either to qualify at the Dépôt R.A.M.C., or at a selected hospital or to pass an examination in stretcher drill, first-aid organization and sanitary duties (Paragraph 76 and Appendix X). A further course at the dépôt or at a selected hospital or an examination on somewhat similar lines is necessary before promotion to the rank of Major or Surgeon-Major. Officers may also qualify in military law (Paragraph 316). Efficiency is maintained by requiring a certain number of attendances at drill or at camp annually, but exemptions are allowed in the case of an officer being prevented by professional engagements from complying with these regulations (Paragraphs 155, 156, 162).

Promotion.

Promotions, except to fill a vacancy in the fixed establishment of a medical corps, are given on completion of the following periods of total commissioned service provided that the officer has qualified—

3½ years to be surgeon-captain or captain in a medical corps.
12 ,, ,, surgeon-major or major ,, ,, ,,
20 ,, ,, surgeon-lieutenant-colonel or lieutenant-colonel in a medical corps.

An additional step of honorary rank is also authorized under certain conditions either while serving or on retirement, provided that officers have held their then substantive rank for at least six months (par. 94 and Army Order 164, 1, 1905).

Titles.

An officer of a medical corps, whether R.A.M.C., volunteer, or a bearer company of a Volunteer Infantry Brigade, is an executive officer in command of men, and is therefore granted the simple military title as in the regular army.

A medical officer of a battalion or corps preserves the compound title to indicate that he is a medical officer and to prevent confusion in the corps. The brigade-surgeon-lieutenant-colonel is a staff appointment which now exists only in the volunteers. There is no parallel in the regular army.

Such, briefly, is the position of the Volunteer Medical Service at the present time. Whether it is susceptible of improvement is not for this article to determine, its object being to collect facts from various official sources and lay them before the profession. There is no doubt that the Volunteer force could, and should, provide a magnificent reserve of trained medical officers whose services would be invaluable in time of war.

The impression left by a consideration of the facts here enumerated is that there is at the present time no adequate reserve, and that therefore Sir Frederick Treves's appeal was fully justified. Upon this point, however, there must be many Volunteer medical officers whose opinions, based on practical experience, would be very valuable.

---

[1] British Medical Journal, November 4th, 1905.

A REPORT ON THE PROCEEDINGS OF THE GENERAL MEDICAL COUNCIL.

By George Jackson, F.R.C.S.,
one of the direct representatives for england and wales.

The recent meeting of the General Medical Council has been of much greater interest than any that I have previously attended since I have had the honour of being a member of that body. I should like, therefore, to point out to your readers the reasons I have for saying so. Subjects have been discussed by the Council which formerly would have been considered quite outside the purview of that body.

I refer more especially, in the first place, to the action taken by it with reference to the proposed legislation with regard to fixity of tenure of medical officers of health and sanitary inspectors, and the necessary qualifications for such.

Secondly, to the discussion initiated by Sir William Thomson on the condition of the Poor-law medical officers in Ireland.

Public Health Bill.

This matter was submitted to the President of the General Medical Council by the Council and Committee of Public Health of the British Medical Association, and by him relegated to the Public Health Committee of the General Medical Council, of which Committee I have the honour to be a member.

Fixity of tenure for medical officers of health has been the law in Scotland, in Ireland, and in the County of London for some considerable time; it is proposed by the Bill to extend this condition to the rest of England and Wales. The Committee found that the Bill was one that they could recommend the Council to approve of except Clause 2, which states that all medical officers of health should be appointed without any limitation of time. The Committee thought that the clause should only apply to those who gave their whole time to the work. It would be more likely to pass into law, as the Local Government Board think it desirable to group together districts and make whole-time appointments; but this would not prevent appointments being made for five, seven, or even ten years. The other clauses, stating the qualifications necessary for medical officers of health—such as holding the Diploma of Public Health, as having had charge of a district containing a population of not less than 50,000, or failing these, having the consent of the Local Government Board—were approved of. Somewhat the same conditions *pari passu* apply to sanitary inspectors. It was held that the Council was justified in dealing with this matter, inasmuch as the conditions under which the Diploma of Public Health is granted are under their control. The Council confirmed the finding of the Committee.

Irish Poor-law Medical Officers.

Sir William Thomson, in a very sympathetic speech, gave notice of a motion, which was seconded by Sir Victor Horsley, namely:

> That a committee be appointed to consider and report to the Council at its next session on the following matter: That a grave danger to the public health in Ireland has arisen from the present condition of the Irish Poor-law Medical Service; and that the Committee be instructed to report on the disabling circumstances under which registered medical practitioners are compelled to fulfil their public professional duties.

Sir William Thomson pointed out that the salaries of the Poor-law medical officers did not exceed £150 per annum, and sometimes were less. Moreover, in many instances, especially on the west coast of Ireland, the opportunities for supplementing their incomes were almost *nil;* the distances to be travelled were very considerable; there was no certainty of having a pension when no longer able to work, no provision either being made for payment of a substitute when away from home. The duties of medical officer of health have also to be performed by the Poor-law medical officer for a miserable pittance of £5 to £10 per annum. In this relation I pointed out to the Council that some action might be taken, as it was impossible that any satisfactory work could be done under such conditions. It was finally decided to refer the question to the legal advisers of the Council as to whether it was feasible for the Council to take any action in the matter. At any rate, publicity has been given, and this in itself is a good thing.

From the educational point of view, the principal matter of interest was the passing of a resolution proposed by Mr. Morris, and seconded by Mr. George Brown, which was referred to the Educational Committee, which is to consider the question of relegating such subjects as physics, biology, and chemistry to the entrance examination, so that when a student commenced his medical studies proper his time would not be taken up by such matters, a knowledge of which would be an excellent preparation for his more advanced studies. These, I venture to think, are all subjects of the greatest importance to the medical profession.

I think the fact that the Council has been willing to entertain and discuss these subjects shows a very distinct advance in its methods, and that it is not the fossilized and effete body that some persons deem it.

The only remaining item of importance is the issuing of an advertisement pointing out the risks medical men run in canvassing and otherwise advertising for practice. This notice is given at the time of registering to all practitioners; it is also published in the medical journals. Perhaps it would be better if it could be sent to all those who are on the *Register.*

THE BACTERIOLOGICAL EXAMINATION OF THE LONDON WATER SUPPLY.

As was announced a few weeks ago, Dr. Houston, Director of Water Examinations to the Metropolitan Water Board, has recently presented, in the report on the first month's working of the Metropolitan Water Laboratory, a description of the methods which he has devised, and will continue to employ in the examination of water supplied for consumption in London. The report is therefore very voluminous, but we are informed that subsequent reports will be issued in a very much condensed form. It is clear that the science of public health will gain enormously by having available observations carried out on the scale required by the Metropolitan Board, with its immense waterworks and its millions of consumers.

The staff of the laboratory consists, in addition to Dr. Houston, of the following: Dr. D. G. Sutherland, senior bacteriological assistant; Mr. J. I. Goodlet, junior bacteriological assistant; Mr. R. B. Floris, F.I.C., senior chemical assistant; and Mr. D. B. Byles, A.I.C., junior chemical assistant; there are also two laboratory assistants, three laboratory boys, and six sample collectors.

As the laboratory has to deal with an average of over 200,000,000 gallons of water supplied daily to an estimated population of over 6,700,000, with eight waterworks, and a very large number of filter beds, and with numerous deep wells, and three sources of raw water supply, the task of organizing the work of water examination so as to be effective at a reasonable cost, was one of no little complexity. The samples are collected from separate filter wells wherever this is practicable as well as from general filter wells. All the works are visited on five occasions each week, and samples collected from the separate filter wells in rotation. It is intended as opportunity offers to supplement the routine collection of samples by special collections, so as to control any weak spots. The water is collected in sterilized bottles which for transmission to the laboratory are packed in a portable ice box.

During the month of November, 1905, the waters of the Thames, New River, and River Lee were each examined bacteriologically over twenty times, and from the filtered water, taken as it leaves the beds, over 800 samples were obtained for examination. The examination of the unfiltered water from the Kent wells also involved the investigation of forty-four samples. In short, in this bacteriological and chemical survey for the month of November alone about 1,000 samples have been examined.

Bacteriological Examination.

Dr. Houston has used, in testing the purity of the water, the bacteriological standards which he himself has done much to establish. Some of the details of the three methods which he employs are of interest, if only to illustrate the completeness of the work:

1. *The Number of Bacteria per 1 c.cm. which Grow on Nutrient Gelatine at a Temperature of 20 to 22° C.*

The importance of this method of testing the efficiency of the filtration is seen at once when we look at the tables of results. The raw unfiltered water from the rivers gives a total bacterial growth of 1,200 to 4,000 per 1 c.cm., whereas the filtered water yields an average of 15 per 1 c.cm. In other words, the filtration removes fully 99 per cent. of the bacteria present in the river water.

2. *The Search for the Bacillus Coli Communis.*

This is the next step in the examination. The positive evidence here obtained may take one of three forms: (1) "Presumptive" evidence, which consists in proof that the sample contains a bacillus which, when grown in a medium containing peptone glucose and bile salts, will produce acid and gas. (2) More definite evidence, described as "confirmatory," is reached when a pure culture of a coli-like bacillus capable of fermenting glucose is obtained. (3) Finally, evidence of complete conformity with the characters of the typical *Bacillus coli* gives the last stage of positive proof. This result is summed up in a descriptive word "Flaginac," the interpretation of which is as follows: "Fl" signifies fluorescence in broth containing neutral red; "Ag," the production of acid and gas in lactose peptone cultures; "In," the formation of indol in peptone water; and "Ac," acidity and clotting in litmus milk. A bacillus which finally has these positive characters is regarded as a typical *Bacillus coli communis.*

The value of this evidence is further increased by varying the quantity of water taken for these tests. Six quantities are taken in each case, 100 c.cm., 10 c.cm., c.m., 0.1 c.cm., 0.01 c.cm., and 0.001 c.cm. Generally speaking, the results show that the filtration causes a reduction in the numbers of *Bacillus coli communis* about the same as that of the total number of bacteria. A point of some interest, however, is found in the evidence of selec- ive influence by the filters on the various kinds of *Bacillus oli.* The number of typical *B. coli* forms (flaginac) per 00 coli-like microbes is roughly from 60 to 80 per cent. n the raw waters, while in the filtered water it is only 5 to 45 per cent.

. *The Detection of the Spores of B. Enteritidis Sporogenes (Klein).*

This is the final method used to detect the presence of nimal contamination. The general result is that while his bacillus was found in a considerable percentage of the amples of raw water, it occurred only once in 634 samples f filtered water, the quantity used in each case being 0 c.cm.

Chemical Examination.

The corresponding chemical analyses of the waters ive the quantities of ammoniacal nitrogen, albuminoid nitrogen, oxidized nitrogen, and chlorine. There is also table of observations on the absorption of oxygen from permanganate. The results are shortly summarized to how, in parallel columns, the percentage reduction of albuminoid nitrogen, and reduction of the power of bsorbing oxygen.

Methods.

In the appendices full details regarding each item in the eport are given, and from them we can learn the mode in which the work is carried out.

Dr. Houston has also included in the appendix tables of meteorological data, as well as statistical information from he Registrar-General's reports. Great care has been aken to enable readers to co-ordinate these returns with he results of the bacteriological and chemical survey of he water.

Value of the Investigations.

It is our purpose here only to indicate the nature and xtent of the work which Dr. Houston has organized and arried out. In this report we have the beginning of a eries of continuous observations which, when they have xtended over a period of years, will be of fundamental mportance both to scientific investigators in hygiene and o the corporate bodies who are charged with the prac- cal responsibilities of a public water supply. The Metropolitan Water Board, by arranging for these con- nuous examinations, has earned the gratitude of the medical profession and of all who are concerned with the problems of public health.

In view of the increasing difficulty of finding sources of public water supply in this country, it is of the utmost importance that the London water, which comes from the Thames and other rivers, should be investigated as fully as possible by bacteriological and chemical analyses. The record of examinations as elaborate and complete as those given in the present report will show how much care is needed to keep the water pure in cases where the supply is from similar sources. Dr. Houston has, for his part, already succeeded in giving this great undertaking the stamp of scientific thoroughness. His former investigations have done much to define the standards of purity in drinking water, and the work which he is now doing gives him the best possible opportunity of applying these standards.

BRITISH MEDICAL BENEVOLENT FUND.

Annual General Meeting.

At the annual general meeting of subscribers to the fund, held on February 20th, the treasurer's financial statement for 1905 and the report of the Committee were received. These showed that £2,453 13s. 4d. had been distributed in annuities and £1,492 in grants during the year, a total of 263 persons having received relief. Two additional annuities had been created, making 123 in all. An appeal had been sent at the expense of a member of the Committee to every practitioner in London and—by the courtesy of the officers of the British Medical Association—to all its Branches and Divisional Secretaries. Encouraging replies had been received, and altogether twenty-six new honorary local secretaries had been appointed during the year.

The financial statement and the report having been adopted, the Committee and officers of the Fund were re-elected, and Sir Thomas Barlow, Bart., Sir Victor Horsley, F.R.S., Mr. Butlin, and Mr. G. Cooper Franklin (President of the British Medical Association) were elected Vice-Presidents.

A very cordial vote of thanks was passed to the medical press for their assistance during the year, and especially to the Editor of the *Lancet* and to the officers of the British Medical Association.

Committee Meeting.

The monthly meeting of the Committee was held on the same day. Sixteen applications were considered and sums amounting to £148 10s. voted in relief, one case being postponed for further inquiry. Two vacant annuities, of the value of £20 each, were filled by the election of suitable candidates. Dr. J. Michell Clarke of Bristol and Mr. W. G. Spencer of Westminster Hospital resigned the office of Honorary Local Secretary, and Mr. E. H. Buckell and Dr. James Allan were appointed for Chichester and Leeds respectively.

The following is a short abstract of the cases relieved:

1. M.R.C.S., L.S.A., aged 65, who practised in a Kentish town for forty years. Is hemiplegic and quite helpless, requiring constant attention. Only income £50 a year from the Kent Medical Benevolent Fund. Relieved once, £12. Recommended by Dr. F. Hinds. Voted £12 in twelve monthly instalments.
2. Daughter, aged 54, of late M.R.C.S., L.S.A. No income; tries to support herself by sewing. Indifferent health. Mother was an annuitant of this fund. Recommended by Dr. Ernest Nevins, Honorary Local Secretary. Voted £12 in twelve monthly instalments.
3. Daughter, aged 49, of late M.R.C.S., L.S.A. No income; receives £25 a year for doing some mission work. Mother was an annuitant of this fund. Recommended by Dr. A. Garrod Thomas. Voted £10 in two instalments at intervals of six months.
4. Widow, aged 42, of L.R.C.P., L.R.C.S. (Ireland). Left very insufficiently provided for by sudden death of husband six months ago. Three children, aged 14 to 6. Is endeavouring to add to her small income by letting lodgings. Recommended by Dr. Henry Gervis. Voted £10 10s., to be paid through a fund, which is being locally collected, to be invested for the benefit of applicant and her children.
5. L.R.C.P., L.R.C.S.Edin., aged 33. Four children, aged 10 to 3. Supports himself by acting as *locum tenens*, but finds great difficulty in getting work at this time of the year. Recommended by Mr. William Davidson. Voted £5.
6. Widow, age 57, of M.R.C.S.Eng. Only certain income £6 a year; lost small capital since husband's death nine years ago by attempting to keep a boarding-house; now lets lodgings.

Children unable to help. Recommended by Sir Samuel Wilks, Vice-President. Voted £12 in twelve instalments.

7. Widow, aged 44, of L.R.C.P. (Ireland), L.S.A., who was obliged to give up practice three years ago, and has quite recently died from phthisis. Three children, aged 15 to 11. Only means of support, the rent of a small house and the interest of a life policy for £200. Recommended by Dr. Percy Kidd. Voted £10 in one sum.

8. M.R.C.S., L.S.A., aged 78, who is bedridden from hemiplegia and senile gangrene. Is an annuitant of this Fund and of Epsom College. Voted £5 as a special grant, with leave to apply again in three months if necessary.

9. Widow, aged 56, of L.S.A. Practically unprovided for at husband's death a few years ago, and endeavours to maintain herself by taking lodgers. Five children; one dependent, and the others barely self-supporting. Relieved four times: £48. Recommended by Dr. W. S. A. Griffith. Voted £12 in twelve instalments.

10. Daughter, aged 68, of late L.S.A. Only income a small Government annuity purchased with applicant's savings. Health indifferent. Relieved five times: £35. Recommended by Dr. E. G. Barnes. Voted £5 in one sum.

11. Widow, aged 40, of M.D., R.U.I. Quite unprovided for at husband's death six years ago. Acts as housekeeper in exchange for a home for herself and her boy, aged 7, but receives no salary. Relieved seven times, £83. Recommended by Dr. J. Mitchell Bruce. Voted £12, in 12 monthly instalments.

12. Daughter, aged 38, of late M.D.Glasg. No income; tries to support herself by playing at dances, etc. Relieved three times, £17. Recommended by Dr. A. W. Orwin. Voted £5 in one sum.

13. Widow, aged 75, of L.R.C.S., L.S.A. No income: slight help from children. Relieved ten times, £70. Recommended by Dr. P. H. Pye-Smith, Vice-President. Voted £18 in twelve instalments.

14. Widow, aged 58, of L.R.C.P., L.M.Glasg. No income, no children. Lets lodgings. Relieved four times, £40. Recommended by Dr. Yellowlees. Voted £10 in ten instalments.

15. Daughter, aged 50, of late L.R.C.P.Edin. After being employed by a firm of dressmakers for twenty-two years, invested small savings in a business, which proved unsuccessful. Is promised 10s. a week by a friend, and earns a little by needlework when able to obtain it. Relieved once, £10. Recommended by Dr. A. Godson. Voted £10 in two instalments.

THE TREATMENT OF INEBRIETY.

The Brentry Certified Inebriate Reformatory.

The report of this institution for 1905 is as usual interesting reading. Its figures always prove something, and the most casual glance through its pages shows that an eminently practical spirit inspires those who are in charge of the work. Brentry has generally details of improvements to report. It is no mean final success that out of a population which might well be called hopeless and impossible to reform, the medical officer and managers can quote 66.12 per cent. as the proportion of those discharged during the year who are, as far as can be ascertained, doing well and keeping sober.

The Medical Officer, Dr. Fleck, reports that the class of persons admitted has not improved; the same deplorable material is still being supplied to him to work upon. He has made searching inquiry into the mental condition of all the 121 persons admitted during the year—34 females and 87 males. For classification Dr. Fleck divides these into three simple but comprehensive groups, namely:

A. Congenitally defective ...	Females	5 ...	Males	17
B. Mentally degenerate ...	,,	15 ...	,,	40
C. Intellectually sound ...	,,	14 ...	,,	30

Out of the defective groups 66.2 per cent. admit a history of alcoholism in parents or near relations. The history of such a patient is usually one of poverty, neglected childhood, scanty education, and want of proper discipline and training in youth; thus 73.5 per cent. of all admissions during the year had received only an elementary education and 19.83 per cent. could neither read nor write. Dr. Fleck says:

> Many give a history of having been brought up "on the streets," "canals," "gipsy encampments," and such-like places; in some cases running away from their homes at an early age and commencing a criminal career before they reached their majority. In my opinion a large percentage of these owe their state in part to the poverty and thriftlessness of drunken parents.

Dr. Fleck gives the results of a large number of discharges within the year. Out of the discharges reported 66.12 per cent. are said to be doing well. Among the discharged were:

A. Congenitally defective ...	Females	11 ...	Males	12
B. Mentally degenerate ...	,,	30 ...	,,	18
C. Intellectually sound ...	,,	26 ...	,,	18

These percentages practically coincide with the percentages of successes and failures.

The average gain in weight has been 9.66 lb. for every individual leaving the reformatory. All inmates are expected to be industriously employed for eight hours a day, and about 95 per cent. have complied with this regulation during the whole year, a fact which speaks excellently for both the discipline and health of the inmates. Dr. Fleck believes that gardening has advantages for the inmates over most other forms of employment.

An important part of the work on which Dr. Fleck lays stress, and which he describes in detail, is the after-care of discharged inmates. Some person is appointed to befriend, supervise, and report on every case; and this work is now practically all done by the After-care Association, or by the Society for the Prevention of Cruelty to Children, according to the section of the Act under which the inmates have been committed.

The management has also with much good effect instituted a system of classification among the inmates involving the earning of or deprivation of privileges. It has also introduced a modified "mark" system by which inmates can earn money rewards, and this is found to work very well indeed.

Dr. Fleck is to be congratulated on the scientific method in which he is conducting a most difficult piece of work. A thoroughly satisfactory system of treatment can be based only on a full recognition of the element of mental defect which has already been shown to exist in a large number of these cases, and we shall look to Dr. Fleck for valuable contributions in the future to our knowledge in this direction.

THE DRUG TREATMENT OF INEBRIETY.

Dr. Jos. S. Bolton (Nottingham) writes: In your issue of January 27th you state "the treatment of inebriety by atropine and allied alkaloids, combined as a rule with strychnine, is still upon its trial." Accepting that position, it is important that members of the profession who are making the trial should occasionally report progress. I have had much interesting experience during the past twelve months, a record of which will, I believe, be of service to some who are intending to use this treatment. It is too early to speak of cures, for no inebriate can be said to be cured until he has been an abstainer for at least two years, but good progress can be reported.

In some of my earlier cases I used doses unnecessarily large, and as a consequence two of my patients would not continue the treatment, because of the unpleasant dryness in the mouth, and the interference with vision. These, however, can scarcely be ranked as complete failures, for one of them I know remained a teetotaler for twelve months after the treatment.

In my recent cases I have limited the dose to 1 minim of the liq. atrop. sulph., with 4 minims of liq. strych. hyd. For convenience I have a solution of the two drugs ready mixed in these proportions. The mixture keeps well. I inject this quantity twice a day for a month, then once a day for a fortnight, then every second day for another fortnight. After this I discontinue the injections, but I still see the patient at least once a week, and if there is at any time a complaint of depression, or a return of the craving for alcohol, I use injections again for a few days till the danger is passed.

My cases have all been treated as out-patients except one. They have come to my house for the injections, passing on their way from their homes numerous public-houses. This they have done alone, quite safely, after the first few injections. Most of them have also taken by the mouth a mixture containing capsicum and cinchona. But this they need only for the first few days. As soon as the appetite becomes good and the low feeling at the stomach has passed off, they can do quite well without it.

Several of my cases have suffered relapses, but that has not caused me to despair of them. I have looked them up and prevailed upon them to come again for treatment, and the result in the end has been satisfactory. It is one of the many advantages of this out-patient method that the treatment can be renewed time after time, if necessary, until the patient becomes firmly established in the habit of total abstinence.

My first case was treated eighteen months ago, and remained an abstainer for nine months, but on his return journey from his summer holiday he was persuaded to take a glass, and the mischief was done. He lived an unsatisfactory life for several weeks, but I got hold of him again, and have kept him in touch ever since. He now visits me once a week. He has had no alcohol for several months. His master reports of him "that he is working well," and that "he is about to reinstate him in the position he forfeited through his drunken habits."

His character is becoming stronger, and I believe that in time he will stand well, but I do not feel that it is yet safe to give up oversight of him.

My next case had touched the lowest depths. He had experience of the workhouse and the gaol. He was well educated, and at one time owned property, but had sunk till he became a nuisance to all who knew him. Many a time had he been reformed, but he soon returned to his drink and begging. He was a teetotaller before he came to me, for he had just completed a fortnight in gaol. He had no means of livelihood, so I had not only to treat him but to keep him also. I found him some weeding and digging in my garden, and he lived in a common lodging-house, with its usual surroundings of drink and squalor. Yet under treatment he gave up his drink, and soon altered so completely in appearance, that he was a wonder to all who knew him. After about three or four months he obtained some remunerative work for several weeks, but when this was finished he could get nothing satisfactory to do, and though he had money in his pocket, he became discouraged and gave way to drink. He spent his money and pawned his clothes and watch, and commenced to bother his friends again.

When I next saw him he presented a deplorable condition, but it was several weeks before I could get him under treatment again. I took him to a "labour home," a useful institution under the auspices of the Church Army. There I kept him in bed for a few days till the treatment began to take hold of him. He made a good recovery, and is now in a situation doing satisfactory work, but he never passes a week without coming to report himself to me.

My third case presented no point of interest, except that the urine contained albumen when he came under treatment. I did not alter the treatment on account of the albumen, and it soon disappeared, and caused no trouble. He made an uninterrupted recovery, and has kept in good health ever since. His master tells me that he is doing better work than he used to do, showing more energy in it, that he is paying his old debts, and that family differences have been settled. He has now been an abstainer for nine months. This patient told me that he had often tried to give up the drink, and had succeeded for two or three weeks, but that when doing without it he always felt cross and unable to work; but that when he gave up the drink under this treatment he felt bright and vigorous and able to work. In this case, as in several others, the patient lost the flabby look which is so characteristic of some drinkers, and his flesh became firm. This change has made him look thinner, but his health is excellent.

I have treated three women. Two of them report themselves to me every few weeks. They are keeping straight, though one of them has not been entirely satisfactory. The third one I have not seen lately. She had, I know, one relapse, but pulled herself together again. I saw her father just before Christmas, and he told me that she had been keeping an abstainer for many weeks.

Most of my other cases are recent and are doing well, but they still visit me. Indeed, I never lose touch with a patient if I can help it. It is a great hold upon them to know that the doctor is expecting a visit, and that if they do not turn up they will receive a note. In several cases ministers of religion and district visitors have interested themselves in the patients and greatly helped them. Also, wherever possible, I have tried to get my patients interested in work for others, and to think of something else than their own selfish appetites. In one or two cases they have become vegetarians.

Of twelve cases that I have treated at least nine still report themselves at my house from time to time, but I believe they will now keep straight, and are in fact practically cured.

The question may be asked, Is the result due to the injections alone, or is there an element of suggestion at work also? Undoubtedly suggestion plays an important part in treating every disease, and this is no exception. Probably the inebriate has tried many times to free himself from his vice, but has failed. The very fact of pointing out that it is a disease, and must be so treated, is helpful to him. By the time he has made up his mind to visit a doctor for treatment, the battle is half won; but I should like to point out that to be able to offer him a treatment which will with certainty remove the craving within a few days, and to tell him of other cases where this has been done, is exactly what he needs to fill him with hope and confidence.

That atropine is an antidote to the craving for alcohol I think there can be no doubt. That strychnine is a powerful tonic, acting well when administered hypodermically and specially suited to overcome the depression caused by alcohol, is generally admitted.

My confidence in the treatment has greatly increased during the past twelve months. I believe it will soon be recognized by the medical profession generally, and will prove a boon to thousands of sufferers.

WE have received from the Argyll Motor Company some photographs, one of which depicts Dr. A. H. Deane, Chief Medical Officer of the Bombay, Baroda, and Rajputana Malwa Railways, in the Argyll car with which he won the challenge shield of the Motor Union of Western India—Class C for cars costing from £400 to £600—in a race of 500 miles divided into four daily stages.

MEDICAL NEWS.

THE name of Professor Robert Saundby has been added to the Commission of the Peace for the County of Warwickshire.

DR. GODFREY LOWE has been elected Honorary Secretary of the Lincolnshire Automobile Club, in place of Dr. E. Cragg; there are twenty-two medical men in the club, four of whom are on the committee.

UNDER the will of the late Colonel Frederick Silvester of North Hall, Lancashire, the Chorley Dispensary receives £1,000, Manchester Infirmary £500, and the Cancer Hospital, Brompton, £100.

THE Sanitary Inspectors' Examination Board will hold an examination at Liverpool on Tuesday, April 24th, and four following days. Further particulars can be obtained on application to the Honorary Secretary of the Board, 1, Adelaide Buildings, London Bridge, E.C.

AT a sessional meeting of the Royal Sanitary Institute, to be held at Leicester on Saturday morning, March 24th, a discussion will take place on cremation, and Dr. C. Killick Millard, Medical Officer of Health, Leicester, will describe the Leicester Crematorium; in the afternoon a visit will be paid to the building.

THREE Epsom College boys who on leaving that school gained scholarships at three of the principal London medical schools are all now Assistant Surgeons to the Hospital for Sick Children, Great Ormond Street. This is a remarkable record for a school of about 240 boys, and speaks eloquently for the excellence of the teaching there given in the preliminary sciences.

MR. FORDHAM on February 26th gave his decision in the test cases taken out by the Islington Borough Council against two publicans for selling whisky which contained a large percentage of patent still whisky contrary to the Food and Drugs Act. He imposed a penalty of 20s., with £100 costs, against each defendant, and in default of distress two months' imprisonment in the second division. The defendants were granted fourteen days to consider the question of appeal.

AT a meeting held on February 22nd, under the chairmanship of Dr. A. Wynter Blyth, Medical Officer of Health, Marylebone, a society called the Borough of St. Marylebone Health Society was formed, with Dr. Wynter Blyth as Chairman, and Dr. Bernard F. Hartzhorne, 39, Loudoun Road, N.W., as Honorary Secretary. The object of the society is to improve the health conditions of the poor of the borough, and to awaken the interest of the people generally in questions affecting the health of the community by visiting the homes of sick persons, by the distribution of popular leaflets and pamphlets, and by promoting attention to the laws of health, especially as affecting infants and consumptive patients.

FEMALE MEDICAL STUDENTS IN GERMANY.—Of 138 women matriculated in the German universities during the current winter semester, 73 are studying medicine. In the last summer semester there were 75.

THE CONGRESS AT LISBON.—The Booth Steamship Company has secured accommodation at the New Hotel d'Inglaterra, and will put it at the disposition of those who travel to and from Lisbon in its ships. The net charge of £22 from Liverpool to Liverpool or of £23 from London to London includes all landing and embarking expenses as well as the hotel accommodation.

GERMAN ASSOCIATION OF INTERNAL MEDICINE.—The German Verein für innere Medizin celebrated its silver jubilee on February 19th. The Association was founded in 1881 by Professor von Leyden, who delivered an address in which he reviewed its history. Surgeon-General Schjerning, Professor Quinke (Kiel), Professor Jaffé (Königsberg), Professor Litten, Professor von Schrötter (Vienna), Professor Maragliano (Genoa), Professor Pel (Amsterdam), and Professor Kernig (St. Petersburg) were elected honorary members.

ANTITUBERCULOSIS MOVEMENT AT THE CAPE. — The *Tribune* states that a vigorous campaign against tuberculosis has been started at the Cape. One person in 200 in Capetown is said to be consumptive. A largely-attended meeting was held at Capetown on February 22nd to protest against the Cape being used as a dumping ground for consumptives from England or other countries. Many of these people, it is pointed out, are in poor circumstances, and are obliged to live and work in the towns, where they spread the disease. The Anticonsumption Association proposes to erect large sanatoriums in the dry mountain districts.

British Medical Journal.

SATURDAY, MARCH 3rd, 1906.

RURAL HOUSING.

The new House of Commons is the subject of universal interest and some anxiety. People are naturally curious as to the outcome of this great Radical and Labour majority, and we must confess that to some extent we share this anxious concern respecting the legislative projects of this and coming sessions. Already there have been indications that public health questions will have to be most vigilantly watched, and the public interest guarded against crude changes in administration or rash schemes of legislation. On the other hand, there is much hope that social questions too long neglected will be boldly faced, and that earnest attempts will be made to improve the conditions of life among the very poor, and to open up new opportunities for the workers in town and country. The housing problem has haunted social reformers now for a generation, but little has yet been accomplished. To-day, both in country and town the overcrowding and insanitation of the homes of the poorest are a standing disgrace to civilization. When, in the neighbourhood of popular seaside resorts, labourers' cottages are overcrowded to the extent of nine, ten, twelve, or even more, persons sleeping in two small bedrooms, there is a strong case for action. The local authorities cannot condemn bad cottages because there are no others for the people to live in, and already in some instances families able to pay for a home have had to be removed into workhouses because there was no other accommodation in the locality for them.

The very gravity of the evil paralyses the medical officer of health and his council. The condemnation of an unhealthy dwelling is too often a sentence of exile for the occupants, or a compulsory order to enter the ranks of pauperism. Unhealthy and overcrowded cottages have to be ignored, to the detriment of the inhabitants and to the cost of the locality in epidemic disease. Why not enforce the Housing Acts? is the natural question. The answer is that they are so ill-constructed and so cumbrous that they will not work. This is especially so with Part III of the Act, which applies to rural England.

It was stated last year in the House of Commons by the President of the Local Government Board that since 1892 loans have been granted to only four rural districts and only 32 houses have resulted in four parishes. Take an instance of the difficulties. Over ten years ago the Erpingham Union attempted to enforce the Act. It failed, but it tried again in 1902 under the pressure of a great and continuing need for cottages. It applied to the Norfolk County Council for an inquiry; twelve months passed, but nothing was done. Then the demand was made by the county council to have one parish specified as the area of the need. This was done, and a parish was selected out of the two score or more in the union. Then the inquiry was granted, but although that happened in 1903, it had not been held up to the end of 1905. So the humour of the law's delay illustrates itself in many a village home in the tragedy of physical and moral deterioration.

The new House of Commons, we are glad to see, means business in this matter. Between 70 and 80 members met last week in one of the Committee rooms and determined to push this question of Rural Housing. They decided that it was the most urgent matter of rural reform, and agreed to ballot for a place for the Bill introduced last year by Sir Walter Foster. Mr. Mackarness, the new member for South Berks, drew a good place, and on Thursday last he introduced "a Bill "to amend the Housing of the Working Classes Acts, "and otherwise facilitate the building of houses for the "working classes in rural districts." The second reading is fixed for Friday, April 27th. This measure, which did not get a second reading debate last year, was, nevertheless, largely before the county constituencies during the general election. It simplifies the present Housing Acts as regards rural districts, and contains new provisions for facilitating the building of cottages. The cumbrous and dilatory procedure under the old Acts is to be repealed, and a new method substituted. Under it the rural district council will be able to adopt the Act without the leave of the county council. By this provision much difficulty and delay would be avoided. Then the duty of action is given to the medical officer of health, either on his own initiative or on a representation made to him by four householders, to represent to the local authority that the health of the inhabitants is endangered by the insufficiency or the unwholesomeness of the cottage accommodation. On such a representation it would be the duty of the local authority at once to consider the subject. The acquisition of land for building houses is cheapened and simplified, and the rural council is to have powers to lease land for the purpose. As in the case of allotments, this power of hiring land will prove more useful and much less costly than purchase. Then, in order to bring the provision of the cottages into the hands of those best acquainted with the needs of the parish or hamlet, the district council would be enabled to delegate its powers of building, providing, and managing cottages to a parochial committee or to the parish council. In case a rural district council should refuse to act on the representations made by the medical officer of health or the four inhabitants, the parish council could, under Part II of the Bill, appeal at once (1) to the county council, who would be enabled, if they see fit, to take over the work from the district council, or (2) to the Local Government Board, who would have power to order the district council to proceed, or hand over the powers to proceed to the parish council. The important powers of initiative given to the medical officer of health form a valuable feature of the Bill, but they make it more than ever essential that he should hold his office under conditions that make capricious dismissal impossible. The Public Health Bill of the Association, which proposes security of tenure for medical officers of health and sanitary inspectors, is a necessary corollary of the enactment of a strong Housing Bill.

The amendments of the Building By-laws, which have caused much difficulty in some places, is treated in Part III of the measure, under which four householders would be empowered to call upon the rural council to consider whether any alteration in the by-laws would facilitate the supply of wholesome houses for the labouring classes. Further, the Local Government Board would be required to issue new model by-laws within six months of the passing of the Bill, and the Board would be enabled to make special provision for country districts where labourers' cottages are urgently needed.

Another novel provision is introduced by which railway and tramway companies would be given the power to buy land and build houses for the working classes, other than their own employés. These companies would no doubt in some cases buy land when they were making a station, and after supplying their own workpeople, build houses for other workmen. Land so purchased or hired must be devoted for thirty years solely to the purpose of providing houses, open spaces, or allotment gardens for the working classes, except so far as the district council, with the sanction of the Local Government Board, might consent to allow the land to be used for shops, factories, or other necessities of the locality. Power would also be given by the last clauses of the Bill to enable charity trustees, colleges, rectors, and corporations, as owners of land, to facilitate cottage building and assist in solving this difficult problem.

Such is the Bill which the House of Commons will shortly have before it. It is a bold but not a revolutionary attempt to grapple with a national disgrace and a national danger. We hope that on the lines indicated an Act will be passed. It is urgently needed, not only in the interests of public health in rural districts, but in the interests of the moral and physical wellbeing of the people.

THE SANITARY INFLUENCE OF ART.

AT the annual dinner of the Sanitary Inspectors' Association which took place recently, Sir Wyke Bayliss, President of the Royal Society of British Artists, in replying to the toast, "Science and Art," which was proposed by Sir William Broadbent, said that when the sun set the moon rose. So, after the vital and life-giving question of sanitation, art moved upon the scene. The moon was but a small orb compared with the sun, yet the heavens at night would be very dark without it, and so in the roar and fight of life, while they must look to their health and lives through sanitation, they might look for their happiness in art. Art and sanitation, he knew, seemed far apart. "Would you compare art," some one would say, "with a drain running down a street?" Yet one of the loveliest things in the world was a drain when it was consecrated by art in the form of a gargoyle on the roof of a cathedral. The two were not so far apart. Art was the science of beauty; sanitaion was the science of health; and what were beauty and health if they were not the same thing? The doctrine of the identity of health and beauty preached by so high an authority will doubtless find ready acceptance with many persons who, though undeniably healthy, might but for this comforting theory find a difficulty in getting their claim to be considered beautiful generally admitted.

Sceptical persons might perhaps be found who would uestion whether sanitation has any relation to art. Mouldering buildings and the malodorous slums of ncient cities, the stagnant ponds that cream and mantle with the products of corruption and decay, nwashed and unkempt wanderers in picturesque but lthy garments—all these are a delight to the artistic oul but an eyesore to the sanitarian. If a single xperiment may be accepted as sufficient, it has been roved that art may be positively antagonistic to that art of sanitation which consists in healing. The name f Pittsburg is not generally associated with any form f art except that of converting steel into gold, but it as a hospital which enjoys the privilege of being under he direction of persons possessed by an enthusiasm for art. Such a belief had they in the beneficial power of art, that they thought it would cure the sick. They therefore got artists to paint pictures on the whitewashed walls. Instead of getting well, all the patients who were exposed to the influence of art became worse, and some of them died. The doctors, prosaic Vandals that they are, held a consultation, and decided that the art cure was a disastrous failure, and that the pictures must be effaced.

On the other hand Sir Wyke Bayliss might have cited some recent researches on his side. Certain colours have been shown to have microbicide properties. Deycke found that pathogenic germs deposited on walls painted with size, or with the product known as amphiboline, after a certain time either disappeared or lost their toxic properties. He multiplied his experiments, spreading paint on pieces of wood, smooth or rough, on glass, and on cement; when the paint had dried a culture of microbes was placed on the surface. These were then kept at the temperature of an ordinary room, and at the end of a certain time a portion of the paint was removed and placed in a bouillon tube, or on sterilized gelatine, and the microbes were found to be similarly affected. Vito Lo Bosco made similar experiments on walls covered with stucco, lime and the like. Lydia Rabinowitch studied particularly the tubercle bacillus, on which she found that the action of colours was definitely bactericidal, the intensity and rapidity of the action depending in large measure on the colour used. Similar results were obtained by Jacobitz. The best results were obtained with enamelling colours; after four days not a trace of cholera or diphtheria bacillus was found, although they had previously been placed on the porcelain. The typhoid bacillus, the *Staphylococcus aureus*, and the *Staphylococcus pyogenes*, disappeared on the eighth day. With oil colours, with a lead or oxide of zinc base, the effects were less rapid, but not less sure. "A young doctor of the Faculty of Paris, "M. Beaufils," says Dr. Cartez in *La Nature*, "recently "performed a series of experiments for the purpose of "determining the mode of action of the colours. He "studied the effects on the pyocyanic and lactic bacilli. "In his experiments he employed the reds and greens used "in lacquer work, yellow and white with a zinc base, "ordinary maroon and grey of the kind used in painting "the walls of the Paris Faculty of Medicine, and paints "prepared by himself, yellow (lead chromate), ultra-"marine blue (silicate of alumina and of soda), English "green (copper arseniate), Chinese red (lead chromate), "black, and ceruse (lead carbonate), zinc white (white "zinc oxide), with the addition of essence of turpentine, "and varnish as in ordinary pictures. He found that all "the paints had not the same power. Ultramarine "blue, for example, neutralized in twenty-four hours "the effect of the pyocyanic bacillus, and after nine "days this microbe became inert. The grey paint "was negative in its effects, and the maroon gave "results only at the end of fourteen days. The ceruse "acted much more quickly than the zinc white." Dr. Cartez points out that in estimating the bactericidal potency of colours it must be taken into account that substances more or less toxic, which in themselves have a microbicidal action, are being dealt with. The degree of dryness of the layer of paint, the conditions of light, illumination, and ventilation, and the porosity of the coat, all have a share in the destruction of the germ.

While it would doubtless be rash to dispense with other processes of disinfection and trust entirely to colours, the investigations to which reference has here been made supply an additional argument for doing away with wall papers, which are as insanitary as they are often unsightly, and painting our walls. To sanguine minds the experiments may even seem to justify the hope that a time may come when we shall find sanitary salvation in frescoes, and when beauty and health will be combined in the dwelling in a manner undreamt of by the President of the Royal Society of British Artists.

MEDICAL ASSESSORS.

Mr. Justice Ross has been engaged for many days in one of the Dublin courts in hearing a case in which certain deeds are alleged to have been fraudulent. It was further stated that the person who signed the documents was mentally incompetent, and upon this aspect of the case a number of medical witnesses gave evidence. The testimony was varied and somewhat technical, and its force on either side was made more difficult to measure by the examination of some medical gentlemen who had not seen the principal in the deed transaction at all, but who formed opinions upon what they had heard.

It was in these circumstances that the judge, during a speech by one of the counsel, exclaimed "There should "be a medical assessor in a case of this kind. Why should "the judge in Admiralty have a nautical assessor?" This cry for help from one of His Majesty's judges makes articulate the feelings of most medical men. Nothing is more unedifying than the arraying of a number of physicians and surgeons in support of the case made for and against in some claim for injury. The facts may be plain enough, but the interpretation of them is often so widely different that the judge and jury are quite bewildered. Very often a strong witness will impress a jury and gain damages for his client that are absolutely out of all proportion to the injury sustained. The counsel on the other side is powerless. He may have been prompted to ask one or two suitable questions, but the reply of a clever witness completely upsets him. He has no knowledge to enable him to judge of the value of the answer, and failing to deal with it he really ends by giving his case away. The judge is not any better off. His training has been at the Bar. He has gone through the same experiences as the counsel, and he knows just as much or as little when it comes to dealing with evidence which is highly technical. There is no doubt that the gravest injustice is done every week by the mulcting of defendants in heavy damages when the merits of the case justify only a very moderate compensation.

It is perfectly hopeless to expect that the true medical elements in a case can be got from medical men by examination and cross-examination by lawyers who know nothing of medicine or surgery. Sitting in a court, one hears an answer given by the witness which, of course, is perfectly correct. But counsel fails to realize what it means, or in what way the matter at issue can be cleared up by further questions. The effect is often ludicrous, but for plaintiff or defendant it is more often tragic. We do not hesitate to say that such trials are discreditable to the administration of justice in this country.

Mr. Justice Ross and some of his brethren on the Bench feel how impotent they are in face of a mass of evidence dealing with pathological conditions and the results that may follow remotely. Their position is perfectly honest. But the remedy lies in their own hands. We understand the judges may call in the help of experienced professional men to aid them in their difficulties, and we see no reason why they should not do so. There are difficulties, but they could be overcome. The assessor could be present at the examination of the plaintiff by the medical men on either side, and could give an independent report; he could ask questions at the trial to clear up obscure points, and he could give the judge his opinion as to the importance of the professional evidence brought forward. There are several other ways in which the aid of an assessor could be utilized, and we have no doubt that the effect would be to secure fairer decisions.

◆

THE ORGANIZATION OF THE PROFESSION: WARNING NOTICES.

The dispute at Ebbw Vale, a full account of which was given in the British Medical Journal of January 6th, page 44, by the Honorary Secretary of the Monmouthshire Division, and the Medical Secretary of the British Medical Association, has entered upon a new phase. The dispute, as is well known, has reference to the relation of the medical practitioners to the Ebbw Vale Workmen's Doctors' Fund. The British Medical Association has expressed the opinion that the justice of the case demands: First, the constitution, under the rules of the Fund, of a medical committee to represent the medical staff in their relations with the Committee of Management; secondly, the formation of a guarantee fund for the salaries of the medical staff during periods of distress in the districts, due to strikes or other causes; thirdly, that the rules of the Fund affecting the medical staff, which constitute the contract of engagement, should not be altered without their consent; and several less important alterations of the existing arrangements. After an exchange of proposals in the early autumn, negotiations were for a time broken off by the Workmen's Committee, which referred the whole question to mass meetings of miners, and resolutions were adopted rejecting the proposals of the Association *en bloc*. Notices of dismissal were given to the medical officers of the Fund, who were allowed ten days to make up their minds whether they would continue to give their services on the terms offered by the Committee of the fund. This offer they have declined to accept. Since then better counsels appear to have prevailed among the representatives of the workmen, who first reopened negotiations with the British Medical Association and subsequently expressed their willingness to accept arbitration. The Local Committee of the Monmouthshire Division agreed to arbitration, subject to certain conditions which have been for some time under consideration by the Workmen's Committee. The Medical Secretary has now received a communication from the Workmen's Committee definitely agreeing to arbitration, each side to nominate one arbitrator. The workmen have nominated Mr. T. Richards, M.P., General Secretary of the Miners' Federation, and the Monmouthshire Division has nominated Mr. J. Smith Whitaker, Medical Secretary of the British Medical Association. The suggestions of the Association as to arbitration included a provision empowering the two arbitrators to unite in appointing an umpire if necessary, but the letter of the Workmen's Committee contains no reference to this point. We are glad to note the beginnings of a conciliatory attitude in the consent to refer the matter to arbitration; but it will, of course, be necessary to have a provision binding the parties to abide by the decision of the arbitrators, with or without an umpire, as the case may be; and it must be made clear what points are left to the arbitrators to decide. In the meantime it is gratifying to note that the local practitioners remain absolutely united in their attitude in the matter, as they have been throughout the nine months which have elapsed since the intervention of the Association. Another warning notice which has been appearing for some time in the advertisement columns has reference to a difficulty that has arisen in Aberystwyth. It appears that Dr. G. Bonsall, who has for the last fifteen years held the post of workhouse medical officer and district medical officer, recently applied for an increase in his salary, finding that the amount hitherto paid was an inadequate remuneration for the services rendered. The guardians refused the application, and Dr. Bonsall, as a protest, resigned the workhouse medical officership, retaining the post of district medical officer. The local medical profession, acting through the South-West Wales Division of the British Medical Association, resolved to support Dr. Bonsall, but the guardians were enabled to make temporary arrangements for medical attendance at the workhouse. The majority of the Board desired to compel Dr. Bonsall to resign also the office of district medical officer, and to terminate his contract as public vaccinator. The Local Government Board, however, as we learn from the *Cambrian News*, declined to insist upon Dr. Bonsall resigning the post of district medical officer. The whole incident is at the present time under the consideration of the South-West Wales Division; and we advise any member of the Division who may be approached with regard to the appointment vacant at Aberystwyth to communicate with Dr. Edgar P. Davies, the Honorary Secretary of the Division, Castle Hill, Llanelly. Another dispute mentioned in the warning notice is that which has existed for some time past between the medical profession and the miners' medical associations in Northumberland. In May, 1904, the miners' delegates passed a resolution to the effect that the contributions to the medical officers' fund should be reduced from 9d. to 6d. The medical men of the district have unanimously refused to accept this proposal; the miners, on the other hand, are not unanimous, some considering, very justly, that the fee of 9d. is by no means excessive. The want of unanimity was made plain at the conference of Northumberland miners in Newcastle last Saturday. The proposal was made to abolish the committee which had been appointed to carry on the conflict with the medical profession, and this motion was defeated by 37 to 21. The voting shows that the justice of the medical position is recognized by a large minority. The warning notice published at page 59 of the advertisements contains the names of other places in which disputes exist between certain organizations and the medical profession. The list includes Leigh (Lancs.) Infirmary, some particulars of which were published in the British Medical Journal of February 3rd, 1906, p. 208; Coventry, Macclesfield, Aberaman, Bridgend, and Cardiff in Glamorganshire, Abertysswg and Blaenavon in Monmouthshire, Southampton, Bittern and the neighbourhood, Portsmouth, Lowestoft, Cork, Auckland (New Zealand), the Orange River Colony (South Africa), and Pretoria (Transvaal).

COMMITTEE FOR THE STUDY OF SPECIAL DISEASES AT CAMBRIDGE.

At the invitation of the Regius Professor of Physic and the Professors of the New Medical Schools in Cambridge, a large and representative audience assembled to hear a lecture by Dr. Hugh Walsham on the use of the *x* rays in diagnosis. Among those who accepted invitations were: Rev. E. Atkinson, D.D., Master of Clare College; Rev. C. Taylor, D.D., Master of St. John's College; Rev. Professor A. F. Kirkpatrick, D.D., Master of Selwyn College; Rev. T. W. Drury, B.D., Principal of Ridley Hall; A. P. Humphry, M.A., Esquire Bedell; P. C. Gaul, M.A., Senior Proctor; H. Darwin, M.A., Trinity College; Professor Sir R. S. Ball, F.R.S., King's College; Sir Alan Manby, M.D.; Professor B. Hopkinson, M.A., Trinity College; a number of other members of the university, the whole of the staff of the medical school, and many of the medical men in the town and neighbourhood. The lecture was illustrated by numerous lantern slides prepared from skiagraphs taken by Dr. Walsham, whose interesting description of these slides and their utility from a clinical point of view was closely followed by all present. The latter half of the lecture was devoted to a demonstration and description of the most recent forms of *x*-ray apparatus, particular stress being laid on the importance of the exact measurement of the quantity and quality of the rays emitted from a given tube. Dr. Walsham drew attention to the efficient and powerful *x*-ray installation he was using to demonstrate the various points. This apparatus had been presented to the Committee for the Study of Special Diseases by Dr. R. C. Brown of Preston, Lancs., and had been supplied by Watson and Sons of London. Its principal feature, the "intensified induction coil," was a much more powerful form than any hitherto devised. An estimate of its efficiency could be gained from the heavy secondary discharge, a display of which elicited applause. A fine picture of the thorax of a living subject was obtained on a large fluorescent screen, the working of the heart and diaphragm being clearly seen by the audience. Professor Allbutt, in proposing a vote of thanks, spoke of Dr. Walsham's interest in his old school, and thanked him first for coming to give this demonstration, and secondly for his gift to the school of a very fine collection of *x*-ray slides. He did not as yet pretend to any skill in this matter himself, but he hoped the Committee would soon be enabled to avail itself fully of this new aid to clinical investigation, and they were deeply indebted to Dr. Brown for the extremely valuable and costly apparatus he had presented. He would like to ask three questions, first, how far the personal equation entered into observations of this kind; secondly, whether that rendered it possible in cases of empyema to detect, by means of *x* rays, the concomitant presence of pus with pyopericardium; and, thirdly, whether by means of skiagraphs any more reliable information as to the presence of small cavities in the lung could be obtained. Professor Woodhead, in seconding the vote of thanks, said that the staff of the medical school was grateful to Dr. Walsham for giving so good a send-off to the work of the Committee for the Study of Special Diseases which had been organized by Mr. Strangeways, the Huddersfield Lecturer in Special Pathology. This Committee having undertaken the study of rheumatoid arthritis (rheumatic gout) soon found that *x*-ray photography was essential for their work, and their gratitude for the installation was correspondingly great. The Regius Professor had referred to Dr. Brown's gift as being especially liberal, as not coming from a man personally connected with the University. The importance of the work undertaken, combined with the enthusiasm of Mr. Strangeways on behalf of the Committee, had earned the goodwill and confidence of the donor, Dr. Brown, but thanks were due also to the Regius Professor himself who had so kindly lent his own room to the Committee in order that this kind of work could be carried on. Dr. Brown had put the Committee in a position to start *x*-ray work at once, and Dr. Allan, one of the earliest workers on *x* rays in this country, had taken charge of this part of the Committee's research. Dr. Walsham, in reply, said that he thought Professor Allbutt had exaggerated a little the amount of skill required. After a few cases had been interpreted, any changes present could be distinctly made out and easily understood. With respect to pus in the pericardium, it was certainly one of the most difficult points to clear up with the x rays. As to the presence of cavities, he referred to a skiagraph in which a small cavity about the size of a pea could be clearly seen.

THE FACTORS OF SUCCESS.

THE students of the University of Aberdeen are fortunate in their Lord Rector. Instead of bewildering his hearers with flights into the metaphysical empyrean or boring them with moral platitudes, Sir Frederick Treves, like Brutus, only speaks of that which he does know. His own career has been successful beyond the dreams of all but the most ambitious. When speaking of the factors of success, he is, therefore, in himself an instance of philosophy teaching by example, and thus his words have a weight which is wanting in those of the most distinguished persons who cultivate science or literature on a little oatmeal. Cato, in Addison's dreary play, says:

> 'Tis not in mortals to command success,
> But we'll do more, Sempronius, we'll deserve it.

Sir Frederick Treves, on the other hand, holds that the factors which go to the making of success in medicine are within the reach of any mortal who is determined to claim them and make use of them. And what are these factors? Not money, we are assured; not influence or social position; not luck; not even genius. Money is a snare; influence and luck are of use only to the strong; genius, unless it be of that kind which is said by Carlyle to consist in an infinite capacity for taking trouble, is a stone of stumbling. Sir Frederick Treves thinks brilliancy a quality the surgeon is better without; and if brilliancy means operative sleight of hand, most of us will doubtless agree with him. The factors that really tell are, he says, health, special knowledge, sympathy, and honesty—industry being presupposed. Assuredly these are qualities which deserve success; the pity is they do not always command it. Is not Sir Frederick Treves a trifle too optimistic when he says that the factors of succcess are within the reach of any one? He tells us that robust health is an absolute requirement for all who would attain the foremost ranks in any strenuous profession. Most true; the reaching of the top of the ladder is largely a matter of survival. But is health, particularly robust health, to be had for the wishing? On health depends industry, and even to some extent sympathy. For the acquisition of special knowledge, again, there must be special opportunity. To how many of those who enter the profession of medicine is this given in sufficient measure to make it serviceable? Sir Frederick Treves thinks the possession of money at the outset of a professional career a hindrance rather than a help. This is true enough in one sense; but is it not also true that

> Slow rises worth by poverty deprest?

Even the element of luck must not be dismissed too lightly. A man who has health, knowledge, sympathy and honesty, but no money, may but for the accidental favour of fortune spend the best part of his days in drudgery and bondage. His life may not be a failure on that account, for, as Sir Frederick Treves rightly says, success in medicine cannot be gauged by the amount of wealth accumulated. The fashionable doctor who reaps a golden harvest from the vast field of human folly and weakness which he manures with ignoble arts is the most discreditable of failures whatever be the death dues paid on his estate. The highest success is his who spends himself without stint, often without hope of reward, in fighting against pain and suffering and death, and of whom, when the end comes it may be said with truth *Pertransiit benefaciendo.*

SERUM TREATMENT OF EXOPHTHALMIC GOITRE.

THE *Boston Medical and Surgical Journal* states that at a recent meeting of the Medical Society of the County of New York, reports were presented in which it was announced that a new serum had been used with success in the treatment of exophthalmic goître. This serum, we gather, can be made only from the diseased thyroid gland of the human subject. The first experiments were made by Dr. S. T. Beebe, of the Loomis Laboratory, Cornell University, who obtained the thyroid of a patient who had died of Graves's disease and injected material from it into rabbits, afterwards preparing the serum in the same way as other serums. The new serum was first employed practically in the treatment of cases of Graves's disease by Dr. John Rogers, Instructor in Clinical Surgery in the Cornell Medical School, and afterwards by Dr. W. Gilman Thompson, Professor of Medicine in the same institution; it is affirmed that in every instance, so far, the treatment has had positively curative results. It is stated that one of the patients treated by Dr. Thompson, who was almost at the point of death, has now been completely restored to health. The course of treatment is short, a small quantity of the serum being hypodermically injected every second day for a period of about two weeks, and according to those who have used the serum, the cure appears to be permanent. While welcoming an announcement which seems to afford some ground for hope that a valuable discovery has been made, the medical profession will await a fuller report of the method and the results claimed for it, and an adequate trial by others, before accepting the new serum as an infallible specific for exophthalmic goître.

MR. BERNARD SHAW AS AN UNCONSCIENTIOUS OBJECTOR.

NOWHERE has the new Government been hailed with greater enthusiasm than in the camp of the antivaccinists. Rejoicing in the knowledge that both the President of the Local Government Board and the Under Secretary for the same Department are declared enemies of vaccination, that Mr. Chaplin is no longer a member of Parliament, and that Sir William Collins has found a seat in that assembly, their prophetic soul, dreaming of things to come, already foresees the abolition of compulsory vaccination. At the annual meeting of the National Antivaccination League, held on February 27th, the proceedings were throughout in the key of *Io triumphe!* The President, Lieutenant-General Phelps, formulated his demands, which the Government will no doubt consider, after the great example of Mr. Gladstone, with an open mind. Among them are the prohibition of the "vaccinal test" for employment in the navy, army, or civil service; the stoppage of the State manufacture of vaccine and disinterested supervision of its manufacture to be substituted; provision to be made for the recovery of damages for vaccinal injury or death; the prohibition of the intrusion of public vaccinators, unasked, into the houses of parents; all contracts with public vaccinators to contain clauses against the use of impure or bloody lymph, and guaranteeing the vaccinated against injury or death; and payment of the medical charges of family practitioners for treating patients for vaccinal injuries to be made by guardians. It was stated that, as far as the Council knew, the Labour members were at one with the League. Sir William Collins, we gather, is to lead the antivaccination party in the House of Commons, a position which naturally belongs to him as the one member of the party who has any understanding of the subject. Dr. Creighton delivered an inflammatory harangue in which, if we may trust a report which appears in the *Morning Leader*, he made the remarkable statements that “Dr. Jenner's name and fame have “fallen on evil days,” and that “it is the unanimous “view of all modern bacteriologists that Jenner's “method is the one thing that stands out against the “principles of modern science.” We think it possible that modern bacteriologists might be able to name one or two other persons and things that stand out against the principles of modern science, and we should not be surprised if among them they included a National Antivaccination League and its oracle, Dr. Creighton. One speaker declared that Dr. Creighton had “knocked “the bottom out of vaccination.” Poor thing! It may now be called Bottom's dream, because it hath no bottom. Nevertheless, though in these doleful dumps, like one of the heroes of “Chevy Chase,” it still fights vigorously on its stumps. But the most amusing part of a screaming farce was a letter from Mr. G. B. Shaw, in the course of which he said that “Mrs. Squeers's method of opening “abscesses with an inky penknife is far less repugnant “to modern surgeons than the Local Government “Board's method of inoculating children.” “Nothing,” this new champion of modern surgery went on to say, “but the natural ignorance of the public, countenanced “by the inculcated erroneousness of the ordinary “medical general practitioner, makes such a barbarism as vaccination possible. The question “whether it is practicable to fortify the blood against “disease by inoculation is still an open and a “very interesting one. Its recent developments have “shown that an inoculation made in the usual general “practitioner's light-hearted way, without a previous “highly-skilled examination of the state of the patient's “blood, is just as likely to be a simple manslaughter “as a cure or preventive. But vaccination is really “nothing short of attempted murder. A skilled “bacteriologist would as soon think of cutting his “child's arm, and rubbing the contents of the dustpan “into the wound, as vaccinating it in the official way. “The results would be exactly the same. They are the “same.” Mr. Shaw's clowning always reminds us f the German Baron of whom it is related hat he practised jumping over chairs to the etriment of the furniture, explaining: *Ch' apprends être fif.* Mr. Shaw has so steadily practised echanical vivacity that it has become easy to him. ut it is hard enough to those who witness his con-ortions. It would be absurd to hold him responsible or utterances which are marked by nothing so much as y what he himself calls “inculcated erroneousness.” hey are intended only for the gallery. Besides, has ot this unconscientious objector lately told us that he lways mislays his conscience when he gets excited? n a further burst of confidence he has said that he has eally told a fairish number of lies in his time. These y some of his admirers are taken to be epigrams, a fact hich Mr. Shaw himself is candid enough to say shows n insight into the true nature of most modern epigrams ut Mr. Shaw appealing to bacteriology is surely a troke of unconscious humour more delightful than the boriously manufactured wit to be found in his plays.

AIDS FOR THE BLIND.

a recent issue of *Science*, the organ of the American ssociation for the Advancement of Science, attention drawn by Dr. G. M. Gould to a new invention, in hich he sees great possibilities to the advantage of e blind and of many others. In a general way it may e said to belong to the genus Gramophone, though it iffers materially from any gramophone alike in the ffects which it produces, and in the principles involved its construction. The latter rests upon a discovery pparently made by a Danish engineer named Poulson -that by the use of a microphone and electro-magnet a thin steel wire or thin steel plate may have its magnetic capacity utilized in such a way as to form an invisible record of the human voice, and that this record may be reproduced by a telephone. To produce a record an ordinary electro-magnet has its coil connected with the secondary current of an induction coil, the primary of which is in circuit with a microphone and battery. On speaking into the microphone continuous variations are produced in the field strength of the electro-magnet; and the latter, on being drawn over the surface of a steel wire or plate, will in its turn magnetize the latter in variable intensity. A record is thus produced which neither rubbing nor rust can disturb, and which can only be erased by drawing over the wire a heavier magnet still. To convert this record into sound all that is necessary is to again draw over the wire an electro-magnet connected with a telephone. As for the practical effect, the voice sounds produced are not as loud as those of the gramophone, but they are clear and distinct, and free from the scratching and hissing to which the gramophone stylus gives rise. On this point Dr. Gould's own testimony is that he has spoken into the machine all sorts of messages in every tone and strength of voice, and at once has heard the same speeches returned to his ears with the same qualities of timbre, pitch, and intensity, and without any mechanical additions or unpleasant effects. A further point of importance is the length of the records which can be made. It is stated that it is practicable to reproduce a speech of three-quarters of an hour in duration on one disc or coil of wire. Dr. Gould indicates that an attempt is being made to convert this machine to commercial uses. Obviously, if they are successful, many vistas are opened up, especially for the blind. Literature of all kinds could be taken down by the machines and the blind practically read books for themselves by using their ears instead of employing their fingers in the delineation of the raised types in which books are at present prepared for their use.

A NEW DOCTRINE OF SIGNATURES.

HANDWRITING has been described by some imaginative person as the reflection of the soul. The acceptance of this description in a literal sense would have unpleasant consequences for some worthy persons whose handwriting might be taken to reflect a soul capable of any crime. To a certain extent it may reveal the degree of culture and even the character of the writer, but it is at best a doubtful guide. There are distinguished authors whose script suggests the love's labour of a cook writing to her favourite policeman, and there are men of the strongest character whose tremulous and titubating scrawl would seem to indicate mental imbecility. Nevertheless, Dr. Quintard, of Angers, thinks he has found a precious aid to diagnosis in handwriting. “Imagine yourself,” he says, “called to a patient “whom you have not seen before. He tells you “his story and answers the questions which you put “to him while you scan his appearance and attitude “with the closest attention. Now the patient may be “an imaginative person who exaggerates his sufferings “or does not see things as they really are; or he may be “a phlegmatic person who is indifferent; or a secretive “one who hides what he ought to reveal; or a voluble one “who overwhelms you with trivial and irrelevant details. “It is not easy to estimate the degree of importance to “be attached to statements made by a person whose “character and antecedents are unknown.” In this difficulty, if we are to believe Dr. Quintard, help may be found in graphology. All that the doctor has to do is to make the patient write a few sentences. If the script slopes slightly with very high upstrokes and exaggerated finals he may be set down as a person of imaginative temperament. On the other hand, absence of flourish and softness of outline, with a tendency to leave letters unfinished, are signs of an apathetic character. The secretive person may be known by the illegibility of his script and in particular by the hermetic closure of his o's and a's, whereas the expansive individual is betrayed by the openness of the same vowels. These indications will enable the doctor to arrive at the "personal equation" of his patient. But this is not all. Dr. Quintard holds that graphology may be a precious help in therapeusis. If the script shows rigidity of line, a heaviness of stroke on the final letters and t's uniformly crossed, the patient is a man of marked will power, who may be trusted to do his best to get well, and who will therefore carry out the doctor's instructions. Inequality of letters and lines, on the other hand, is an index of a capricious disposition which may lead the patient to throw physic to the dogs. Again, well-defined curves, careful punctuation and excessive distinctness of letters are marks of a docile and methodical character The signature alone will be a sufficient guide to him that can read its import. A looped flourish surrounding the name indicates prudence, and the doctor may feel sure that his directions will be faithfully followed. But a signature made up of a jumble of strokes should inspire less confidence. Moreover the signature may supply valuable information as to the liberality or the reverse of the patient's views on the subject of payment. If final letters are curtailed and heaped together without spacing and little margin, and if there is a complicated flourish under the name, the patient may be set down as close-fisted, and the doctor will do well to remember that blessed are they who expect not, for they shall not be disappointed. If, on the other hand, the writing is delicate, open, without prolongation of the final letters, it may be inferred that the patient is a person of judgement and delicacy, capable of appreciating professional services at their true value. Lastly, if the writing is large, widely-spaced, with only a few lines on each page and a few words on each line, the doctor may safely charge on the highest scale. An unjust French judge once said: "Give me but two lines "of a man's handwriting and I will hang him." Dr. Quintard betters this instruction: he requires only a man's signature to—charge him. It is often said that reliance on instruments of precision has made us less familiar with the physiognomy of disease than our professional forefathers were. Dr. Quintard's method, which has the simplicity of all great discoveries, will enable us to dispense with the study of the morbid *facies*. To an understanding eye the physiognomy of the script has greater significance. When called to a patient, therefore, the doctor should ask for a specimen of his signature. And where is a man's signature more characteristically displayed than on a cheque? In his own interest, therefore, the patient should, as a preliminary to what a Scottish lawyer would call the precognition of his case, hand the doctor a cheque that may serve as an aid to diagnosis and a guide to treatment. This is a revival of the old doctrine of signatures in a characteristically modern form.

MORTALITY FROM PHTHISIS IN FRANCE AND GERMANY.

Three years ago an important debate took place in the French Senate[1] on the high rate of mortality in the French army as compared with the German army, the result of which was to show that from 1874 to 1901 the French mortality was two and a half times greater than the German. With respect to pulmonary tuberculosis, this was found to be twice as fatal in the French as in the German army, the difference being attributed to the more careful examination of the German conscripts and more thorough medical supervision over the soldiers during military service. The figures made public by that debate have naturally exercised the minds of many Frenchmen anxious for the welfare of their country. Recently, as our Paris Correspondent has reported, the French Academy has been discussing at great length and in a somewhat devious manner a paper by Professor Robin, in which he sought to prove that the average mortality from pulmonary phthisis in France is not greater than it is in Germany. This conclusion cannot be arrived at in any direct manner, because there are no statistics in France for country places or for towns of less than 5,000 inhabitants. M. Robin's conclusions, therefore, are merely estimates, more or less probable. In a recent number of the *Semaine Médicale* it is pointed out that the only fair way to compare the two countries is to calculate the mortality from pulmonary phthisis in large towns for which figures exist in both. In France the towns with more than 15,000 inhabitants in 1901, 1902, and 1903 show a mortality of 30.10, 30.07, and 30.00 per 10,000 population, or 30.06 on the average. In Germany the figures are 21, 20, and 19 per 10,000 population, or an average of 20, therefore it is possible to say that the mortality from pulmonary phthisis in towns of more than 15,000 inhabitants has been during 1901, 1902, and 1903 half as much again in France as in Germany. There does not seem to be any escape from the meaning of this general conclusion, although careful analysis might show slight defects in the figures, and the result is not pleasant for France. A similar comparison would not, however, give Englishmen much greater ground for satisfaction, since according to the Registrar-General's report the mortality from pulmonary tuberculosis for the urban counties during the quinquennium 1896 to 1900 was 27.47 per 10,000 of population.

THE HALL OF ARTAXERXES IN WESTMINSTER.

Mr. Bland-Sutton, Chairman of the Westminster Division of the British Medical Association, last week entertained the members of the Division (to the number of 60) at dinner in the great Persian Hall which he has recently built in the courtyard of his house. The hall is an exact reproduction, or rather reconstruction on a reduced scale, of the Apadana of the palace at Susa, built by Artaxerxes II to replace an older hall built by Darius, and destroyed by fire. The ruins of the palace were excavated in 1885 by M. and Mme. Marcel Dieulafoy, who brought fragments of the marble columns and enamelled bricks to Paris, and erected a model in the Louvre. The hall is one-third of the size of the original, and every detail has been reduced proportionately; the hall is about 40 ft. square and 12 feet high. The floor is of white marble, the pillars of white marble enriched with gold, and the walls of green enamelled bricks with a double frieze. The lower frieze of archers of brown brick in low relief; it surrounds the whole hall. The upper frieze, of lions, surrounds the lantern. This the climate of London has rendered it advisable to glaze, but as a compensation for the want of the sunlight which gladdened the eyes of Artaxerxes (Ahasuerus of the book of Esther), Mr. Bland-Sutton has fitted the electric light, which has been very skilfully disposed under the direction of Mr. H. F. Wheeler. There are thirty-two marble columns, Ionic pillars resting on an inverted lotus base; surmounting the shaft is a capital of four volutes supporting a finial of two bull's heads with gilded horns upon which the roof-beams rest. The friezes are interrupted at intervals by the symbol of Ormuzd, a human figure surmounting a circle with outspread wings. Equal care has been given to the furniture and to the hangings, and the hall is entered by a white marble staircase. It is a singularly beautiful building, admirably proportioned, and giving, in spite of the elaborate ornamentation, a sense of repose, which justifies the praises of M. Dieulafoy, who took a deep and practical interest in its construction.

---

[1] British Medical Journal, May 16th, 1903, p. 1164.

ASSOCIATION OF MEDICAL DIPLOMATES OF SCOTLAND.

THE annual dinner of the members of the Association of Medical Diplomates of Scotland was held at the Trocadero Restaurant, London, on February 23rd, with the President, Dr. C. St. Aubyn-Farrar, in the chair. The members of this association number over 200, and Dr. E. N. Féré, the Honorary Secretary of the Dinner Committee, was warmly congratulated on the success of his efforts. The loyal toasts having been honoured, Mr. Heather Bigg proposed the toast of "The Imperial Forces," which was responded to by Brigade-Surgeon-Lieutenant-Colonel Hunter, V.I.B. Dr. G. W. MacGillivray, President of the Royal College of Surgeons of Edinburgh, then proposed the toast of "The Association of the Medical Diplomates of Scotland." He congratulated the members of the Association on the success that had attended their efforts in founding so prosperous an Association, and assured them that the Royal College of Surgeons of Edinburgh had always taken the deepest interest in its welfare. Referring to the petition received by this college from the licentiates asking to be called members, Dr. MacGillivray announced that the matter was receiving anxious and prolonged consideration. He and his colleagues were doing their best, and whatever decision was arrived at it would be for the welfare of the college, of which the licentiates formed so important a part. This toast having been duly responded to by the Chairman, Mr. Sydney Stephenson submitted the toast of "The Guests," which was acknowledged by Sir Lauder Brunton, Mr. J. Tweedy, and Mr. L. Bidwell. Mr. Tweedy, in the course of his remarks, observed that provincial universities were springing up in all directions, and that they would no doubt for a time prove a very serious counter-attraction to the medical corporations. He suggested that the medical corporations of he United Kingdom should combine to make a strong effort to keep a tight hold on the medical examinations and medical education. On the suggestion of Dr. Fitzgerald Powell, Dr. MacGillivray also responded to this toast. Then Dr. David Walsh announced that Dr. Herschell, Dr. G. Carpenter, and Mr. Canny Ryall would also respond to the toast, and these gentlemen ccordingly did so. Mr. Canny Ryall, who is the Honorary Secretary of the Irish Medical Schools' and Graduates' Association, warmly protested against the ule which prevented hospital authorities in London rom admitting on their surgical staffs any one not olding the Fellowship of the Royal College of Surgeons f England. The proceedings came to an end with a peech by Mr. Skene Keith proposing "The Council and Officers of the Association," acknowledged by Dr. David Walsh.

THE GERMAN MILITARY MEDICAL SERVICE.

ROFESSOR SCHJERNING has succeeded Professor on Leuthold as Surgeon-General of the Prussian rmy. His entrance on his term of office will, the *Deutsche medizinische Wochenschrift* understands, be marked by a new departure of great importance. The urgeon-General is in future to have the right of access to the Emperor every three weeks and make a report irectly to him. In this way His Majesty will be kept well informed from the most authoritative source as to he conditions of the medical service of the army. urgeon-General von Coler had not the right of pproaching the Emperor in this way, while Surgeon-General von Leuthold, owing to his position as chief Physician-in-Ordinary to the Emperor, had naturally to deal in his audiences more with personal than official matters. It is expected that the innovation may lead to a keener interest in the army medical service and its work than has hitherto been shown in the highest quarters.

LEPROSY IN THE REPUBLIC OF COLOMBIA.

FOR centuries the territory of Colombia in South America has been one of the largest centres of leprosy in the world. The Spanish discoverer of the region, Gonzalez Jimenez de Quesada, died of the disease. Notwithstanding vigorous efforts on the part of the Government, the disease has continued to spread, and it is estimated that at the present day there are 30,000 lepers in a population of four millions. The President, General Reyes, has decided to enter on a systematic campaign, conducted in accordance with modern scientific methods, against the disease. In this he has invited the co-operation of Professor Ehlers, of Copenhagen, the distinguished leprologist and editor-in-chief of the international periodical *Lepra*. Professor Ehlers, in conjunction with Dr. Otto Cahnheim of Dresden, made valuable researches on leprosy in Iceland and Crete, and at the request of the Danish Government he framed measures which have proved successful for the repression of leprosy in the West Indian islands—St. Croix, St. Thomas, and St. John—belonging to that country. Professor Ehlers has informed the Colombian Government of the conditions on which he is willing to undertake the task, and if they are accepted he will go to South America in a few weeks and forthwith begin operations.

TROPICAL MEDICINE IN BERLIN.

A DEPARTMENT of tropical diseases and hygiene has been established in connexion with the Berlin Institute of Infectious Diseases. Dr. Claus Schilling has been appointed head of the new department. He took his doctor's degree at Munich in 1895, and was afterwards assistant in the University Pathological Institute under Professor Bollinger. Later Dr. Schilling accepted a post in the Bacteriological Laboratory of the Imperial Health Bureau at Berlin. In 1900 he went out as Government Medical Officer to Togo. For a year past he has been working in the Berlin Institute of Infectious Diseases. Dr. Schilling is the author of many contributions to bacteriological and pathological literature.

MOTOR CARS ON THE INSTALMENT PRINCIPLE.

FACTS which have been brought to our notice by a member of the Association residing in the country make it desirable to utter a warning with regard to the purchase of motor cars on the instalment principle. It would appear that the rule is for the contract with regard to the payments for the car to be made with a financial syndicate; the car is sold to the financial syndicate by the manufacturer, and the contract for payment is made between this syndicate and the purchaser, the syndicate accepting no responsibility for the performance of the car after delivery. The purchaser, therefore, has to rely either upon a warranty given to him by the maker or upon the good faith and reputation of the maker. Practically the purchaser stands towards the financial syndicate in the position of a borrower.

THE Harben Lectures before the Royal Institute of Public Health will be delivered this year by M. Élie Metchnikoff, of the Pasteur Institute, Paris, on May 25th, 28th, and 30th.

AT a meeting of the London County Council on February 27th, it was decided to request the Presidents of the Board of Agriculture and the Local Government Board to receive a deputation to represent the views of the Council as to the necessity for legislation to enable sanitary authorities successfully to institute proceedings under the Food and Drugs Acts with regard to the sale of adulterated food, notwithstanding the giving of a warranty by the producer.

Dr. George Cooper, M.P., has resigned his seat on the London County Council owing to the pressure of his Parliamentary duties. It is stated in the *Daily Chronicle* that at a meeting of the executive of the Bermondsey Liberal, Radical, and Progressive Association, held on February 27th, Dr. Alfred Salter was unanimously adopted as the official Progressive candidate to contest the vacancy. Dr. Salter is a member of the Bermondsey Borough Council, where, for two years, he has held the position of Chairman of the General Purposes Committee. He is also the Progressive whip on the Council.

Medical Notes in Parliament.

[From our Lobby Correspondent.]

The Debate on the Address began on Monday in last week and continued till the following Monday, when the 12 o'clock rule was suspended in order to bring it to a close. The discussion this year did not raise so many questions as usual, and the two main divisions were taken on the Irish question and on Chinese labour. In both the Government won by enormous majorities. There was an amendment on flogging in the navy, very properly raised by Mr. Swift McNeill, which excited some interest on Tuesday and Wednesday, and was finally withdrawn on a statement made by the Secretary to the Admiralty (Mr. E. Robertson) which showed that on January 30th the Lords Commissioners of the Admiralty had issued a circular [suspending birching for boys and youths in training and those serving afloat until further orders. A report was ordered to be presented to the Lords Commissioners at the end of twelve months on the disciplinary effect of the suspension. As regards caning, the circular ordered that it should be inflicted only under the actual order of the captain of the ship. This was considered so satisfactory that the amendment was cheerfully withdrawn after a protest by Captain Hervey, a naval officer on the active list, who devoted his maiden speech to a vigorous defence of birching and caning. The debate was remarkable in its early stages for the number of subjects raised in speeches by new members. Old-age pensions, Chinese labour, plural voting, the crofters' question, compensation for workmen's injuries were all treated in maiden speeches which maintained a high level of speaking. The Chinese labour question occupied Thursday and Friday, and on Monday an amendment on the partition of Bengal and the general policy of governing India occupied the early part of the sitting, and elicited no less than six maiden speeches. Later, the amendment calling attention to the encroachments of the sea on the British coasts, drew from Mr. Lloyd-George the statement that a Royal Commission or Committee would be appointed to consider this subject as well as the reclamation of waste lands, and probably afforestation. After an amendment on unemployment and one on public roads, the Address was agreed to soon after midnight.

A Parliamentary Medical Committee.—On Tuesday a meeting of the members of the medical profession sitting in this Parliament was held in one of the Committee Rooms of the House of Commons. Sir Walter Foster, who called the meeting, presided, and there were present Sir J. Batty Tuke, Dr. Ambrose, Sir George Scott Robertson, Dr. Rainy, Dr. Pollard, and Dr. Rutherford. The Chairman said that it was thought desirable that medical men being members of the House should from time to time meet together to consider questions of public health and other matters of interest to the medical profession, and he mentioned a number of subjects certain to come before Parliament during the present session. It was resolved to form the medical members into a Sessional Committee, and Sir Walter Foster was appointed Chairman and Convener. The prospects of legislation affecting vaccination, vivisection, factory inspection, and workmen's compensation were considered. The Public Health Bill providing for security of tenure for medical officers of health was discussed, and it was left to the Chairman to arrange for its introduction.

The University of London.—Sir William Collins asked the President of the Board of Education on Monday what action he proposed to take on the report of the Departmental Committee on the Royal College of Science and the School of Mines, and whether any reorganization of the University of London was contemplated. Mr. Birrell replied that the report was receiving careful consideration, and the Board were awaiting a communication from the Senate of the University. He assured Sir Philip Magnus, in answer to a further question, that the Board would listen to everything the Senate said with the attention it deserved.

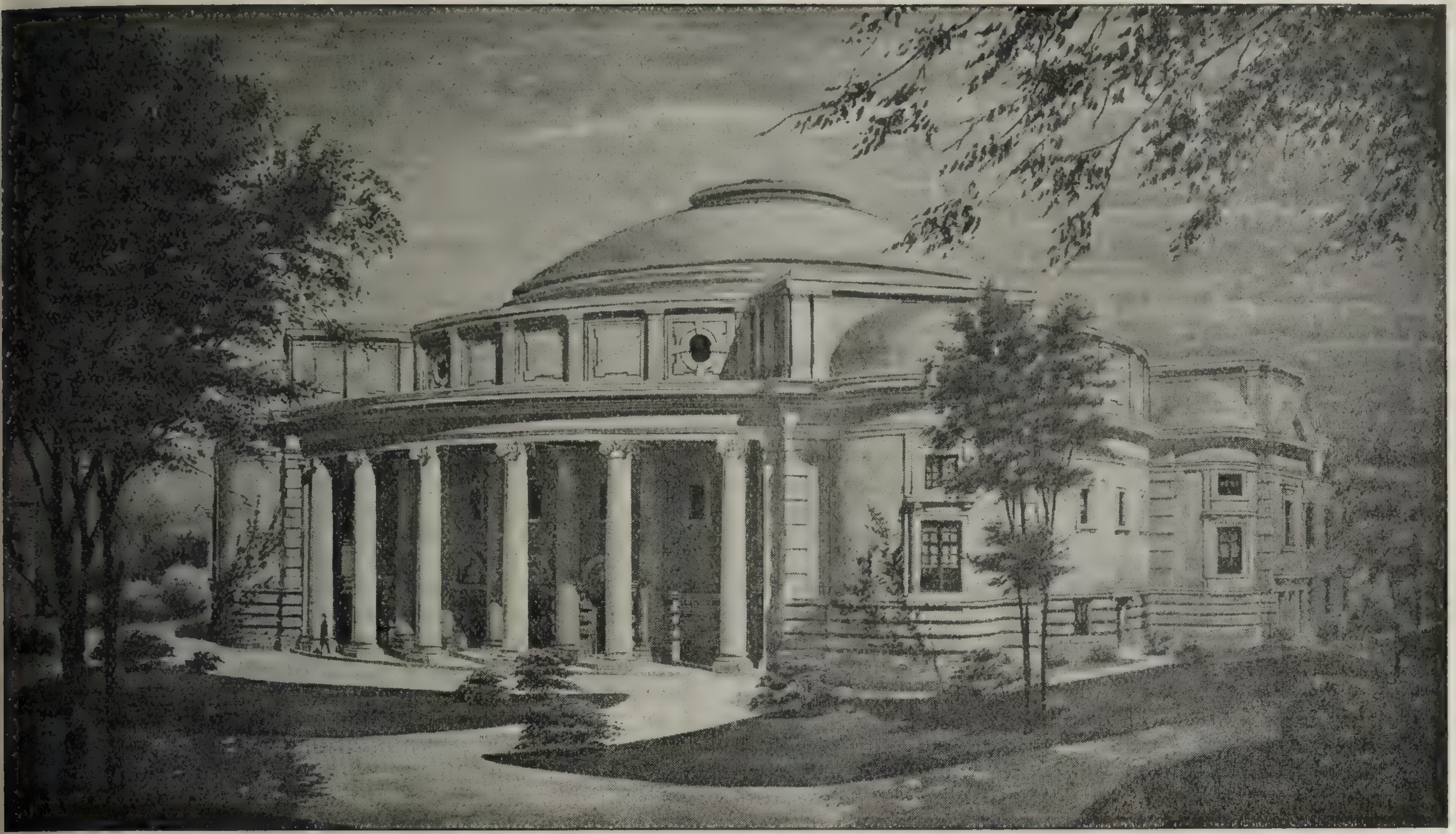
Thames Pollution.—Mr. Morton called the attention of the President of the Local Government Board last week to the pollution of the estuary of the Thames by the discharge of crude sewage at Southend, Sheerness, and Whitstable. Mr. John Burns said that he was aware of the discharge of crude sewage into tidal waters at the places mentioned. As regards Whitstable, the Local Government Board wrote to the District Council on the subject last year, which contended that in the circumstances of its district it would not be justified in incurring the expenditure necessary for carrying out works for the treatment of the sewage. He would communicate with the town councils of Sheerness and Southend, but as respects Southend it was fair to say that the alleged pollution had recently been the subject of judicial decision, and he understood that it was possible that the case might be carried to a higher court.

Child Insurance.—Sir W. Evans-Gordon called the attention of the Home Secretary to remarks on the evils of child insurance recently made by the magistrate at Clerkenwell Police-court, and Mr. Herbert Gladstone said, in reply, that the criminal law on the subject could hardly be made more severe than it now was. The imposition of further restrictions on the insurance of children involved questions of much difficulty. He would bring the question to the notice of the Treasury, who, he understood, was considering other aspects of the matter.

Juvenile Smoking.—The Home Secretary told Dr. Macnamara on Tuesday that he was aware of the recommendation of the Physical Deterioration Committee to the effect that a Bill should be brought before Parliament to prohibit the sale of tobacco and cigarettes to children below a certain age. He was carefully considering the matter. but he was not in a position to make any statement.

The Cost of Old-age Pensions.—In answer to a question by Mr. Bottomley, the Chancellor of the Exchequer stated on Monday that the number of persons above 65 years of age enumerated in the 1901 census was 2,018,716. To provide them with a pension of 5s. a week would therefore require over £26,225,000.

The Course of Business.—In the Commons, after the conclusion of the debate on the Address on Monday, supplementary estimates were taken on Tuesday and Wednesday mornings, while the evening sittings being private, members' nights were devoted on Tuesday to a motion by Sir Charles Dilke on the law of Truck, and affirming the necessity of doing away with fines and deductions from wages. Wednesday Mr. Byles obtained for a discussion on native races and the labour question in South Africa. Thursday was allotted by the Government to a debate initiated by Sir James Kitson on Free Trade; and on Friday the first private member's Bill on the provision of meals for children in elementary schools secured first place for consideration.



The Convocation Hall of the University of Toronto now in course of erection.

Canada.

The University of Toronto.

The New Convocation Hall.

Much of the progress which has been made in the University of Toronto during the past five or six years is directly traceable to the influence of the Alumni Association. This organization, which was instituted in April, 1900, under the presidency of Dr. R. A. Reeve, Dean of the Medical Faculty and President-elect of the British Medical Association, comprises over ten thousand members. It has been exceedingly active during the period of its existence, emphasizing the needs of the University, stimulating the graduates to effort in her behalf, and awakening the people of the province of Ontario to a due appreciation of their duty to provide the Provincial University with adequate support.

After the disastrous fire of 1890 the University possessed no building or hall which was suitable for Convocation and other academic functions, and the erection of a modern Convocation Hall commensurate with the needs of a growing University is one of several projects undertaken and brought to a successful completion by the Alumni Association.

While all the members of the different Faculties contributed in various ways to the success of the venture, it will not be invidious to say that to the Dean, of the Medical Faculty the chief credit must be given for the enthusiasm and substantial pecuniary assistance which his personal efforts and his unselfish devotion to the cause have won for the scheme.

The plan of the new hall, of which the foundation stone was laid on Commencement Day, June 10th, 1904, is shown in perspective in the accompanying illustration. It is modelled after the large amphitheatre in the Sorbonne, and when completed will be capable of seating 2,000 persons. It will cost, approximately, 170,000dols., of which amount 5,000dols. was contributed by the undergraduates of the University, 7,500dols. by members of the staff, 20,000dols. by the graduates, and 20,000 by friends of the University. Of the balance, 50,000dols. was contributed by the Legislature of the Province, and 60,000dols. by the trustees of the University.

It is expected that the hall will be completed in time for the annual Convocation in June next, and that it will therefore be available for the annual meeting of the British Medical Association in Toronto in August next.

Ireland.

Belfast Maternity Hospital.

The annual meeting of the Belfast Maternity Hospital was held in Belfast on February 22nd; Mr. Herbert Ewart occupied the chair, and there was a large attendance. The annual report described very encouraging progress, and the statement of accounts showed a balance to the credit side of the accounts. Dr. Osborne read the medical report, which showed that 326 patients were treated in the hospital and 306 children born; 312 women were attended in their own homes; 4 deaths occurred in the hospital, but only 1 of these was due to a complication of obstetrics—namely, eclampsia. The Chairman proposed the adoption of all the reports, and Dr. Calwell, in seconding, congratulated the Committee on the very successful year, as regards both the professional results and the finances. He referred also to the potentialities of the institution as an educational agency, and said that it should be the duty of every one to aid the work in furthering hygiene amongst the poor, in training nurses, and, looking at it as one department of higher education, in bringing it to the first rank in teaching students and in investigation in the science of obstetrics.

Proposed Extension of Belfast Asylum.

At the monthly meeting of the Committee of Management of the Belfast and District Asylum on February 21st a prolonged and interesting discussion took place on the necessity of completing the asylum at Purdysburn. The old buliding on the Grosvenor Road was intended to provide accommodation for only 440, and yet 745 inmates are crowded into it; there were little more than 50 acres; whereas at Purdysburn there were 372 acres and only 300 patients; the villas that had been built were working most satisfactorily. Dr. William Graham, the Resident Medical Superintendent, said that the villa system could not be extended at Purdysburn until other accommodation had been provided, such as churches, chapels, a recreation hall, and further offices, including an administrative department. A larger supply of water would have to be provided, as last summer the supply was barely enough. The villas that had been erected formed part of a larger deferred scheme. A villa was also required for paying patients. The Chairman urged that the Committee should proceed with the whole asylum. Finally a resolution was carried that steps should be taken to formulate a scheme for the transfer of all patients to Purdysburn.

Cork District Lunatic Asylum.

The annual report of the Inspector of Lunatics—Sir George Plunkett O'Farrell—for the year ending 1905 states that at the end of the year there were 1,577 patients in the asylum—802 males and 775 females. The corresponding period of the previous year showed a total of 1,639, so that, having regard to the overcrowding of the institution and the want of proper accommodation for acute cases, it is in some degree satisfactory that the number resident has decreased by 62; this decrease is, however, altogether accounted for by the transfer of 199 patients to Youghal Auxiliary Asylum; were it not for this the number of patients resident would have shown an increase of 47. The inspector recommended to the serious consideration of the Committee the question of providing further accommodation, and advised the erection of a hospital for the treatment of acute cases on the female side, as had been suggested in former reports. Further, having regard to the prevalence of phthisis in the institution, he thought it would be highly desirable if possible to segregate all the patients suffering from that disease and treat them in a detached hospital block. The number of single rooms is also insufficient for the safety and proper treatment of the patients. The percentage of recoveries on the admissions during the period under review was 40.6—males 31.4 and females 50.7. The general health of the patients could not be said to be satisfactory owing to the outbreak of enteric fever which occurred last year, and taxed to the utmost the energies of the medical staff. Every effort was made to trace the cause of the disease, and so far as could be ascertained it originated in some of the sources of water supply; as a consequence the Mile-end Stream has been piped. Cases of dysentery also occurred amongst the patients.

The report concludes with an account of the general condition of the institution which the inspector regards as satisfactory, the buildings in all parts were clean and well kept and there was less turmoil and excitement amongst the patients than on previous visits. Many of the more rational patients spoke most gratefully of the careful supervision exercised by the Resident Medical Superintendent and the attention paid by him to their complaints. The inspector also paid a tribute of praise to the Assistant Medical Officers, whose case books were carefully written up and who all appeared to be zealous in the discharge of their duties.

Dispensary Medical Officers.

The Bantry Board of Guardians have under consideration a request from the medical officers of their union for an increase of £20 a year, with quinquennial increments of £10 until £160 yearly is reached. Dr. Shorten, of Glengariffe, in laying the claims for increase before the Board, said, had he known the condition of the district eighteen months ago, he would hardly have accepted the appointment, and unless a reasonable increase was granted he would hardly remain in the district. The world was wide, and he could not be worse off financially than he was at present.

The Dunmanway Board of Guardians have received a letter from the Local Government Board granting its sanction that an additional £25 a year be allotted to the three medical officers of the dispensary district and £10 to the medical officer of the workhouse. The medical officers have written their thanks to the Board of Guardians for its kind consideration of their grievances.

Scotland.

The Lord Rector at Aberdeen.

On February 22nd Sir Frederick Treves delivered his address as Lord Rector to the students of Aberdeen University. The Mitchell Hall was crowded with students of both sexes and representative citizens of Aberdeen, who accorded a most enthusiastic reception to the Lord Rector.

Sir Frederick Treves took as the theme of his discourse the factors which make for success in life, with special reference to the medical profession. He said it was generally believed that success depended largely on money, on influence and social position, on good fortune, and above all on the possession of genius. With regard to money he had no hesitation in saying that ample or even moderate means at the outset of a career not only failed to constitute an element in professional advancement, but were an actual hindrance to independent progress. It might be urged that a man with money was better able to devote his energies to original research, inasmuch as he was spared the unproductive drudgery involved in earning his daily bread. Sir Frederick Treves did not consider the drudgery unproductive, and he had often noticed that the much-extolled leisure of the man of means was apt to be devoted to original research in such pursuits as golf and fly-fishing. The lives of men who had become eminent in the medical profession emphatically demonstrated that unearned money counted for nothing in the struggle to excel, and of this fact the interesting autobiography of Sir James Paget provided a graphic illustration. If it was hard for a rich man to enter the Kingdom of Heaven; it was, he believed, still harder for a man so burdened to enter with advantage upon the career of medicine. In like manner, neither influence nor an initial social position was to be reckoned as conducive to real success. As for luck, that in any serious profession meant nothing more than that the man to whom it came was ready for an opportunity when it presented itself. Then genius in its crude or native state was not wanted in the profession of medicine, nor could it be said to be a marked attribute of those who had raised themselves to the highest position in that calling. The marvellous achievements of Harvey, Hunter, and Lister were not the outcome of any brilliant flash of genius, nor of any inspiration which was denied to less fortunate mortals, but were the product of slow, dogged, persistent work. Genius in a physician would be apt to give us flippancy, instantaneous diagnoses, the detection of diseases by instinct, and other astounding phenomena which one attributed rather to the charlatan. In like manner, brilliancy in a surgeon was a quality from the possession of which he might well pray to be saved. In the days before anaesthetics the chief qualification of the operator was rapidity. Success in surgery was measured now, not by the duration of the operation, but by the duration of the recovery from it. This was the day of artificial products and of synthetical compounds. He ventured to think that, so far as the needs of most professions were concerned, the synthetically-composed genius was better than the congenital genius, and was, at the same time, safer and more reliable. Into the making of the synthetic genius would enter the genius for hard work, for patient observation and experiment, for persistent reasoning. These factors were within the reach of any mortal who was determined to claim them and make use of them. The factors that did in his opinion make for distinction were health, serviceable knowledge, sympathy, and honesty; industry was presupposed. The operator who was engaged in a serious procedure and who was "out of condition" might be somewhat of a menace to his patient. He soon tired; he was apt to be fussy and emotional, to be readily upset, to drift between vacillation and obstinacy, and so become both physically and mentally unsteady. Special knowledge was an obvious essential, but to be of the fullest service it must be supplemented by an intimate acquaintance with mankind, a form of learning which was to be derived from no textbook. It was to be noted that the public demanded from the medical man an absolute dogmatism, and an unwavering assumption of knowledge. This demand, which was not always limited to the unintelligent, made the path of the practitioner hard and possibly devious. At the present day there was neither need nor excuse for gratuitous invention. It was not even necessary to babble of the patient's "constitution"—whatever that might be—of his lack of "tone," or of other agreeable matters which belong to the limbo of mere words. On the other hand, that was a mass of sterling facts available which would satisfy all the demands of the reasonable. In every pursuit which dealt intimately with the concerns of men, sympathy counted for much, and finally, in this calling as in others, there was no possibility of sure success without honesty. Success in this particular career could never be gauged, and had, indeed, never been measured by the mere acquiring of wealth.

After the ceremonial, the Lord Rector's carriage was drawn to Chanonry Lodge by a team of enthusiastic students. In the evening Sir Frederick Treves was present at a reception given in the Mitchell Hall by the Students' Representative Council.

The Fight against Tropical Disease.

On February 22nd Professor Ronald Ross delivered a lecture entitled Science and the Public, under the auspices of the Royal Scottish Geographical Society. He said tropical disease was the principal enemy of travellers. Science had done much in discovering the causes of disease in the tropics. But something more was needed: the public must act on the knowledge supplied by science. Referring to malaria and yellow fever, he asked why the public had not adopted the methods which science had discovered for dealing with those diseases. The reason was that the public of to-day was not sufficiently educated in a scientific sense to appreciate the practical importance of such discoveries. Professor Ross said it was high time that science entered the public mind, and expressed the conviction that if it did not shortly do so the public would suffer.

Vacancies at the Edinburgh Royal Infirmary.

Within the last few weeks more than one vacancy has been caused at the Royal Infirmary through the resignation of a member of the staff.

By the retirement of a gynaecologist and the consequent move in this department the appointment of an assistant gynaecologist falls to be made. In the pathological department the staff hitherto has consisted of a pathologist and two assistant pathologists. Both the latter have resigned, and it has been decided by the managers of the infirmary to appoint three and not two successors; two of these now to be appointed will be required to devote themselves more especially to the routine work of the department, and the third to clinical pathology.

Clinical Medicine and Surgery in Edinburgh.

(Concluded from page 466.)

The Royal Hospital for Sick Children.

To obtain a suitable site for a hospital must always be an important consideration, and one frequently extremely difficult of accomplishment. For all hospitals an open, healthy situation is invaluable, and for none more so than for a children's hospital. In this important respect the Royal Hospital for Sick Children in Edinburgh is fortunate, standing as it does in one of the healthiest parts of the town, and in close proximity to the open Meadows. The buildings themselves are in many respects perhaps the most thoroughly equipped and most modern in the city, and no hospital has in the last few years made greater strides, or been more fully appreciated by those for whom it was instituted, than has this. The wisdom of the directors in building an entirely new out-patient department has been more than amply justified, and the large increase in the number of patients attending demonstrates clearly the great value of the addition.

The hospital comprises 3 medical wards and 2 surgical wards, a spare ward, operating theatre, lecture theatre, dark room for *x*-ray work, etc., besides accommodation for the resident staff. The acting staff consists of 3 physicians, 1 surgeon, 1 ophthalmic surgeon, 3 assistant physicians, 1 assistant surgeon, a pathologist, a medical electrician, and an anaesthetist; while the number of residents has lately been increased to 3 resident physicians and 1 resident surgeon.

This hospital is one of the very limited number in which of late years lady doctors have been permitted to find a place, the posts of resident physician and medical registrar having at various times been held by ladies.

In the course of a year close on 2,000 patients are treated in the wards, while the number of cases in the out-patient department reaches about 8,000. Examination and treatment of so large a number of out-patients has been rendered possible only within the last three years, since the completion of the new out-patient building. This building is completely detached from the rest of the hospital, and has a separate entrance. There are two large waiting halls, one for surgical and one for medical patients, with several small side rooms for suspected infectious cases, vaccination cases, and so on. Beyond the medical waiting hall is a smaller room in which a limited number of children at a time are undressed and prepared for examination by the medical officer in the room adjoining. This room affords accommodation for students, and daily clinics are given here by the assistant physicians of the institution.

Connected with the surgical waiting hall are an examination room, dressing room, and an operating theatre, and there is also a small laboratory. A dispensary, a dark room fitted up for eye and throat work, and an electrical room are also provided—the latter unfortunately not yet wholly completed, but sufficiently so to allow of the application of the various forms of electric bath and the simpler procedures of electric diagnosis and treatment.

In the hospital itself clinical lectures are delivered once a week, and clinics are held in the medical wards by the physicians in charge twice weekly, and by the surgeon once a week.

Children are admitted to the wards up to 12 years of age, and about one-sixth of those admitted in the course of a year—roughly speaking, 300—are infants under 1 year old, while a rather smaller number are aged between 1 and 2 years.

With so large a number of children, and more especially with so many infants, passing constantly through the wards of the hospital the necessity of a thoroughly reliable milk supply is obvious. The milk at present supplied to the institution is under constant supervision, and is carefully examined and analysed, and in the majority of cases undergoes pasteurization at the wards before being used.

Can we, however, hope some time to see a special farm and dairy maintained by and for the institution? A good milk is the very essence of life to all these young patients, and to obtain entire satisfaction it is essential to have entire control. Our methods in the management of milk are perhaps in this country not all that might be desired, and certainly lag far behind those of foreign countries, and it is to prosperous and growing institutions such as this that we look for the initiation of a better system, and the setting of an example for the benefit of the community. The path of infant feeding is tortuous, and the methods many and varied. Some infants may require sterilized milk, some pasteurized, and some unmodified milk, but whatever treatment is required is surely best done at the source of supply. With a private farm milk could be obtained with as near an approach to the absence of accidental infection as is humanly possible, and could be supplied untreated, pasteurized or sterilized as desired, while the cows themselves would be tuberculin-tested—a procedure extremely rare in the Edinburgh district.

Funds of course are necessary, and funds equally of course in this as in other similar institutions are somewhat lacking. That they may be forthcoming is eminently to be desired, both for this and other objects. The satisfactory cure of a case of illness in childhood can be but imperfectly carried out in a hospital full of sick children and without a period of convalescence and recuperation spent in some healthy country locality. Several convalescent homes exist in the immediate neighbourhood of Edinburgh, but none especially connected with the Sick Children's Hospital. It is to be hoped that before long, by the acquisition of such a home, the good work that is being done by this institution may be rendered more efficient, more thorough, and more durable.

Royal Maternity and Simpson Memorial Hospital.

Unlike many another hospital, the Royal Maternity and Simpson Memorial Hospital knows not the meaning of the word "debt."

With a staff of four physicians and four assistant physicians, charge of the wards is taken in rotation every three months by a physician and assistant physician, and two resident physicians are also appointed for each period of three months. In the wards wellnigh 400 women are treated annually, while over 500 are treated at their own homes.

Half the wards only in the hospital are in use at any one time, thus permitting a constant change and thorough disinfection and cleaning. In addition to the larger wards there are several smaller rooms for special cases, with delivery wards in both halves of the institution. Patients are admitted immediately prior to delivery and discharged on recovery, no systematic supervision of the rearing of the infant being afterwards practised. From the very satisfactory results obtained—more especially by foreign obstetricians—where such supervision is carried out, and from the large increase of maternal nursing resulting therefrom, it seems a practice well worthy of adoption by this institution.

For the extern cases nurses are supplied and students are sent, who, in the event of difficulties arising, obtain the assistance of a resident physician.

As regards the students and practical instruction generally in the hospital, matters are more or less in a state of transition. Formerly, in addition to supervising the delivery of a certain number of extern cases students attended a course of clinical lectures on specially selected cases in the large lecture theatre attached to the buildings. Rather more than a year ago, however, there was opened for students a residency connected with the hospital buildings, so as to permit of closer and more extensive observation. In order to obtain his certificate a student now has to reside here while undergoing his course of training at the hospital, and his fee for the course is correspondingly increased. So far, students have shown themselves somewhat loth to take advantage of the new arrangements, but these arrangements appear to be not yet fully complete, though when they are, it seems clear that students will have much greater facilities for the practical study of midwifery in Edinburgh than has been the lot of their predecessors.

ROYAL EDINBURGH ASYLUM FOR THE INSANE.

Dr. Clouston's Report.

The annual meeting of the Corporation of the Royal Edinburgh Asylum for the Insane was held in the City Chambers on Monday, February 26th, Mr. John Rankine, K.C., presiding. The report of the managers showed that the total number of patients under treatment in all departments averaged 870 for every day in the year, against a daily average of 873 during 1905. The cost of maintenance of each rate-paid patient and each private patient at the lowest rate of board amounted to £33 14s. 3½d.

General Figures.

Dr. Clouston's report showed that there were 428 admissions (200 men and 228 women) during 1905, that the total number under treatment was 1,257, that 257 (130 men and 127 women) were discharged, that 116 (39 men and 77 women) died.

Admissions.

The number was 14 fewer than the average of the past five years, the lessening being in the case of the rate-paid patients, 116 voluntary patients (37 more than the average of the previous five years) were admitted. This because it was possible to receive into the West House at the lower rates of board.

State of Rate paid Admissions.

An unusual number were in a weak and broken-down condition, only 19 (out of 312) of them being in average bodily health, while 42 were in an utterly exhausted state, 20 of them dying within a month of admission.

General Paralysis.

Sixty-four cases of general paralysis, the largest number on record, were admitted during 1905. The comparative increase of the disease in the female sex among the poorer classes was a striking fact. In the early Sixties a case was so uncommon that when it did come the medical staff would all go to see it. In 1872 there were no female admissions, in 1874 there were only 3 cases. In 1905 there were 38 cases, all but 1 being of the rate-paid class—in fact, there were only 6 general paralytics of both sexes of the private class. Of the 312 rate-paid admissions, 18.6 per cent. were general paralytics, while of the 116 private patients only 5 per cent. suffered from that disease. For the first time in the history of the asylum the number of admissions of female general paralytics exceeded that of the men. This was a sidelight of a very depressing character on our social life. Great cities, vice, dissipation, and undue excitement were its breeders. Dr. Clouston next referred to the work of Drs. Ford Robertson and McRae on the microbic cause of general paralysis, "the cheering part of their investigation being the fact that it pointed to a possible cure being discovered in the future." Dr. Clouston, who had long hesitated as to the sufficiency of their facts to prove their theory, said that the new facts adduced during last year were too strong for him, and he was now a convert to the microbic theory. The Scottish asylums, he thought, might claim a legitimate credit in having been the first to carry out a combined voluntary effort towards elucidating the pathology of mental disease.

Alcohol and Insanity.

The number of admissions classed as being wholly or in part due to excess of alcohol was 110 of the 428, or 25.7 per cent. (In the men it was 30 per cent., in the women 22 per cent.) The average of the previous five years was 25 per cent. in the two sexes. In the women the rise was from an average of 16.2 in the previous five years to 22 per cent. this year. Among private patients the alcoholic-rate was 10 per cent. An educated public opinion and health conscience were still needed in a much higher degree.

Prevalence of Melancholia.

The great bulk of the recent cases of insanity fall under the two classes of the elevated and the depressed, "mania" and "melancholia." The melancholy phase greatly prevailed last year. There were 191 melancholics as compared with 134 cases of mania. The reverse was our experience twenty years ago. Dr. Clouston had always held that the great epidemic of influenza in 1889-90, and the subsequent lesser epidemics, not only caused many deaths, but much lowering of the nervous tone, as well as a lessened power of defence against many other diseases, as its evil legacy, and that in consequence throughout this country the melancholic phase of insanity had been much more common than it had been before.

Discharges.

These numbered 137, or a percentage of 32 on the admissions. Five-sixths of the recoveries took place within the first year of treatment.

Deaths.

The death-rate was high, 13.3 per cent. on the average number resident, and 9.2 per cent. on the total number under treatment. It was 18.2 per cent. among the rate-paid patients, and only 7.4 per cent. among the private patients. The death-rate on the admissions compared favourably with other institutions, for in Scotland in 1904 it was 34 per cent., while in the Edinburgh Asylum it was only 28 per cent. But it had to be kept in mind here that nowadays the aged dotards, the paralysed, and the broken-down whose mental power was affected, of the poorer classes were sent to asylums in very large numbers if they could be got on the rates, while the better-off classes nursed such patients at home.

Apparent Increase of Insanity.

This was an explanation of part of what seemed the enormous increase of rate-paid insanity of recent years all over the country, but particularly in cities. During the whole of the existence of the Scottish Board of Lunacy since 1858, there had been no increase whatever in the admission-rate of private patients to Scottish asylums except in exact proportion to the increase of the population. Dr. Clouston had always held that until the numbers of private patients, paid for out of their own means or by their relatives, showed an increase in admissions to mental hospitals, he should not believe that there was any alarming increase of insanity in the country.

Phthisis.

The death-rate from consumption was 16.4 per cent. of the deaths. During the eleven years Craig House had been open, there had been no case of consumption.

Asylum Dysentery.

Towards the end of the year there had been a mild visitation of "colitis" in the West House. The very weak were affected, and bad drains were the cause.

General History of the Institution.

There had been no serious accident to inmate or staff. The successful boarding-out system of the quiet and manageable insane, which had saved a large sum of money and provided suitable care for the quiet and harmless patients, owed much to the late Mr. Ferrier, the Edinburgh Inspector of Poor. The Scottish Lunacy Blue Book for 1904 showed that in 1903-4 the cost of maintenance of patients was £46 11s. 2d. per annum. The average cost from 1888-9 to 1903-4 was £39 6s. 3d. The Edinburgh Asylum had charged the parishes with whom it had agreements an average of £31 13s. 4d., a saving of £7 12s. 11d. a year on each patient by the parishes concerned. Edinburgh, Leith, and Orkney ratepayers had thus effected a saving of £64,224 in the sixteen years.

Some General Facts about Insanity in Edinburgh and Scotland.

In Edinburgh and Leith there were on January 1st, 1903, 1,283 insane persons in and out of mental hospitals chargeable to the rates, or 1 to every 380 of the population. In Scotland generally the proportion was 1 to 311, in England 1 to 297, and in Ireland 1 to 227. The number of rate-paid patients newly registered each year who had never been insane before was for Edinburgh 252 per 100,000 of the population, while for the whole of Scotland it was 262. The yearly increase of rate-paid patients in Edinburgh was now little above the ratio of increase of our population. In 12 of our Scottish counties lunacy was stationary or decreasing in proportion to the population in 1904.

A Hospital for Early Cases.

Dr. Clouston still considered that the Royal Infirmary of Edinburgh, or the Parish Council, should provide hospital accommodation for the early treatment of transient uncertified cases of mental disease, as Glasgow Parish Council had done with encouraging results. He also thought the day might come when mental disease might become notifiable as one means of eliminating the unfit for marriage. Reference was finally made to the new village asylum at Kingseat, Aberdeen, to the distinctive "hospital" building, and to the staff of the Edinburgh Asylum.

The Coming Election of Direct Representatives.

We understand that Dr. Norman Walker of Edinburgh will again offer himself as a candidate at the election for Direct Representative for Scotland on the General Medical Council, which will take place in the autumn of this year. On the last occasion in 1901 there were three candidates—Dr. William Bruce of Dingwall, who obtained 975 votes; Dr. Norman Walker, who obtained 854; and Dr. C. E. Robertson of Glasgow, who obtained 618.

Leeds.

Cocoanut Oil in Butter.

At the Selby Police-court three of the principal grocers and provision merchants were prosecuted by the West Riding County Council for unlawfully selling adulterated butter. The case is one of great interest, for it was pointed out by the prosecution that the adulteration was effected by the incorporation with the butter of cocoanut oil, a form of adulteration which was stated to be difficult to accomplish, but which was also difficult to detect. It appeared that a pound of butter, which had been purchased for 1s. 4d., was found on analysis to contain 8.5 per cent. of cocoanut oil; the amount of butter fat was 76 per cent. The vendor stated that he had sold the butter just as he had obtained it from the farmer, while the farmer and his wife denied having mixed anything with the butter, and expressed their ignorance of what cocoanut oil was. In a second case the amount of cocoanut oil revealed on analysis was 15 per cent. The Bench came to the conclusion that "defendants had sold adulterated butter," and fines of 40s. with costs were imposed in each case. In connexion with this case it is of interest to note that a deputation from the Federation of Grocers' Associations recently waited on the President of the Board of Agriculture to urge upon him the necessity of speedy action on the part of the Government in dealing with the adulteration of butter. Lord Carrington, in reply, stated that His Majesty's Government were fully alive to the necessity of something being done, and he purposed as soon as possible to appoint a Select Committee of the House of Commons to go thoroughly into the matter.

Annual Report of the Medical Officer of Health.

In presenting his annual report to the Sanitary Committee, Dr. Spottiswoode Cameron, the Medical Officer of Health to the city, was able to congratulate the Corporation on the fact that Leeds had the lowest death-rate of any of the nine largest towns in the United Kingdom. This death-rate was calculated upon the figures returned to the Registrar-General, and these excluded the deaths of non-municipal paupers, but included those of Leeds persons dying in the fever hospitals and in the Hunslet Workhouse, both outside the borough. A death-rate of only 15.3 per 1,000 was very gratifying. London followed with a death-rate of 15.6, and then Edinburgh, Birmingham, Sheffield, Glasgow, Manchester, Liverpool, and Dublin with death-rates varying from 16.2 to 21.3. The death-rate from the seven zymotic diseases, exclusive of membranous croup, which the Registrar-General did not include in this category till 1894, was 1.60, a decrease of 0.97 as compared with that for 1904. The death-rate from enteric fever was 0.12, and it was pointed out that in respect of this there had been a gradual lowering during the last three periods of five years. The mortality from phthisis was 1.23, the lowest figure in sixteen consecutive years. The total number of deaths from phthisis was 558. The mortality amongst children in 1905 was very much below the average of the previous fifteen years. During the years 1890 to 1904 there was an average of 176 deaths in children under 1 year for every 1,000 born. Last year the rate fell to 152, a lower rate than in any of the previous fifteen years. Doubtless the absence during the greater part of the year of measles and whooping-cough in epidemic form, and the corresponding diminution in the death-rate from bronchitis and bronchopneumonia would account in great part for this low infantile mortality, but it might be hoped that the special efforts of the authorities to lessen the death-rate of infants were beginning to bear fruit.

Workpeople's Hospital Fund.

Last year an account was given, in the British Medical Journal for March 11th, of the development and management of the Leeds Workpeople's Hospital Fund. The eighteenth annual report has just been issued, from which it is seen that the amount of money raised by workshop collections, which form the main source of income, has increased by £277, the amount this year being £8,109. The net income for the year was £11,115, a decrease of about £120 as compared with 1904. This decrease is mainly accounted for by the inclement weather, which interfered with the success of the gala and of the outdoor concerts. With the balance in hand at the end of 1904 the amount at the disposal of the Committee amounted to £13,216. The following grants were made: General Infirmary at Leeds, £5,000; Leeds Public Dispensary, £750; Leeds Hospital for Women and Children, £750; Leeds Tuberculosis Association, £280; Leeds District Nursing Association, £225; Bramley Nursing Association, £50; Stanningley Nursing Association, £50; and Leeds New Maternity Home, £100. These grants leave a sum of about £6,000. Of this a considerable amount is absorbed in the maintenance of the convalescent homes, and a sum of about £2,600 has been put aside as a building fund for the extension of the existing homes. During 1905 there has been an increase in the number of patients accommodated at the convalescent homes, the number amounting to 1,060, and it has been decided to increase the accommodation at the Horsforth Home for Men. It is intended to utilize the greater part of the present home as the administration department of the enlarged building, which will provide accommodation for 66 patients and a staff of 14. The estimated cost of the additions and alterations is £3,500.

Newcastle-upon-Tyne.

North of England Glasgow University Club Banquet.

The annual dinner of the club was held on February 21st, under the presidency of Mr. James Thomson, M.A., C.E., nephew of Lord Kelvin, the Vice-Chairmen being Drs. Farquharson and Johnstone Weir. Upwards of sixty sat down to dinner. Professor Barr, of the Engineering Department of Glasgow University was the guest of the evening. After the loyal toasts had been honoured, Dr. Burnett proposed "The Imperial Forces," which was responded to by Captain Carter of the Elswick Battery, and by Dr. Farquharson. To Dr. James Drummond, of South Shields, was entrusted the toast of the evening, "Alma Mater," coupled with the name of Professor Barr. Briefly alluding to the foundation of the University by a Bull from Pope Nicholas V. in 1450, Dr. Drummond depicted the rigorous life lived by the students in the early days of the College, the many hardships they experienced, and the severe discipline they were subjected to compared with the student of modern days. The progress of the University was frequently interrupted through want of funds, but it had surmounted all these difficulties, and had become one of the most flourishing of the Scottish universities. Professor Barr made a most stirring and inspiriting reply. He referred to the important additions recently made to the University buildings, and to the enthusiasm that prevailed among the staff of professors and the students. The number of students attending classes at present is upwards of 2,300. Like most of his colleagues, and Scotsmen generally, Professor Barr did not think the Carnegie gift to the Scottish universities had been an unmixed good. The toast of "The Mayor and Corporation of Newcastle-on-Tyne" was given by Professor Oliver, and responded to by both the Mayor and Sheriff. Dr. Gordon Bell, in a graceful and masterly speech, proposed "Other Universities and Seats of Learning," to which Sir Isambard Owen and Professor Page fittingly replied. The toast of "The Club," submitted by Mr. R. O. Heslop, was suitably acknowledged by the Chairman. An excellent programme of music was provided by Dr. Farquharson and his friends, to whom, as well as to the Honorary Secretary and Honorary Treasurer (Drs. Dunlop and Hudson), the thanks of the club are due for the great success of the banquet.

Death from Carbon Monoxide.

At Pelton Fell, co. Durham, two elderly people—a man, aged 61, and a woman, aged 73, living a few doors from each other—were found dead in bed one morning about a fortnight ago. The houses were built thirty-two years ago on the edge of a ravine, but within recent years the colliery owners had allowed refuse, consisting of shale and barytes, to be tipped on to the ground in the rear of the houses. This pit refuse, after lying inert for eighteen months, caught fire a month ago—how it is impossible to say. The fumes from the burning refuse had evidently penetrated the houses and caused the death of the two persons alluded to. At the coroner's inquest, Dr. Oliver of Pelton, Dr. Chisholm, and Dr. Taylor (M.O.H., Chester-le-Street) gave evidence that the cause of death was carbon monoxide gas, Dr. Bolam of Newcastle-on-Tyne having found evidence of the presence of the gas in the blood of the victims on spectroscopic examination.

Birmingham.

The University of Birmingham.

At the annual meeting of the Court of Governors of the University of Birmingham held last week the progress of the past and the developments of the future were reviewed and discussed. The number of undergraduates is 366, of whom 134 are studying science and 92 medicine. The total number of students is 605. At present nearly every department in science lacks sufficient accommodation, with the result that the work is hampered and that classes have to be repeated. This is chiefly the case in the departments of chemistry, mathematics, geology, zoology, and botany. By the proposed removal of the schools of physics and chemistry the premises will be much relieved. The physiological department would also be better off if it could be removed to another and adjacent building.

The Principal, Sir Oliver Lodge, referred again to the need for a laboratory and museum for hygiene and public health, and expressed the opinion that the city might maintain them under the supervision of the medical officer of health and the University staff, and that they should be open to the public.

The annual grant to the University from the Government has been increased to £9,000 and £700 for equipment. An anonymous gift of £50,000 has been promised for the erection of a tower over the new science and engineering departments at Bournebrook, and for the completion of these buildings. The late Mr. Thomas Best's generosity has enabled his trustees, the City Council, to allocate to the University £20,000. Other and large pecuniary gifts have been received during the year.

The question of a residential hostel similar to, though larger than, the Women's Hostel in Edgbaston was discussed.

Birmingham District Nursing Society.

The Lord Mayor took the chair at the thirty-fourth annual meeting of the Birmingham District Nursing Society, when it was reported that during the year 2,660 cases were dealt with. Thanks to the extraordinary exertions of the Committee and the Ladies' Auxiliary, the Society is free from debt; but a new nurses' home is needed, as the existing building is in bad repair and its accommodation is inadequate. Without attention to this it will be impossible to secure the services of a first-class staff of nurses. An appeal is made for this necessary outlay of money, which the Society cannot afford without new and increased subscriptions and donations. The trustees were empowered to acquire a new site or buildings at the request of the General Committee, and to borrow money for the purpose.

British Child Study Association.

At the meeting of the Birmingham Branch of the British Child Study Association, Dr. W. R. Jordan read a paper on the medical inspection of school children, and pointed out that if children suffering defects of eye or ear were to receive full advantage from some compulsory education, it was necessary that there should be systematic inspection by a medical officer. A further and great object would be to detect any children who might be suffering from an infectious disease. An examination on entrance, then a re-examination annually, together with a special examination of any child returning to school after a sick leave of more than three days, or at request of the teachers, would, he thought, meet the case. The fitness of scholars for ordinary methods of education would be ascertained and the spread of disease checked. For this legislation would, he said, be required. A chief medical officer and a staff of practitioners allotted to the schools of each district would ensure the successful working of the scheme. In Birmingham alone about 10,000 entirely fresh examinations would be necessary every year, without counting special cases. The expense would probably be counterbalanced by the saving to the ratepayers of children coming on to the rates in later life, a saving due to the improvement of education for the individual.

Bristol.

Royal Infirmary.

The President (Sir George White), who presided at the annual Board meeting, in submitting the report for the past year, said that the first item in the accounts was a sum of £15,552, being a payment off of the accumulated debt. All the sources of receipt showed a satisfactory increase, and one new source appeared for the first time—the collections made in the boxes on the tramcars, which amounted to close on £2,000. The total increase in the income for the year was £3,441, and legacies had increased also by £770. The ordinary expenditure had, on the other hand, decreased by £670. The extraordinary expenditure included £1,807 spent on property to enlarge the nursing home and for alterations and furniture. There was now accommodation for 120 sisters and nurses. Two thousand pounds had also been spent in buying another property for further extension in the future. For the first time for many years the receipts exceeded the expenditure, and yet there had been an increase in the amount of relief given, for in-patients numbered 3,762 (an increase of 354), and out-patients 42,615 (an increase of 1,162).

During the past year the Committee had appointed a pathologist to the institution (Dr. Walker Hall) and medical and surgical registrars. The advisability of making a new department for diseases of the throat and nose, and providing the holder with beds was under consideration. Sir George White also referred to the great advantages obtained from the Convalescent Home and the assistance received from the Needlework Guild. Regarding the £50,000 fund, he stated that the proposal was to devote £15,000 to discharging debts and the remainder to increasing the efficiency of the building. Of this amount over £43,000 had already been received, and he hoped that in a short time the balance would be made up. He proposed to canvass the whole city, for it was impossible to believe that only 710 persons could or cared to subscribe—that being the number who had contributed the sum above mentioned. After the usual resolutions had been proposed and carried, the Committee of Election met to fill the vacancies caused by the retirement of Dr. Waldo and Mr. A. Prichard under the age limit rule. In the place of the former Dr. Edgeworth was elected, and Mr. Carwardine in the latter's stead, Dr. Nixon and Dr. Stack being elected Assistant-Physician and Assistant-Surgeon respectively.

Physical Education.

The National League for Physical Education and Improvement held a meeting in the Colston Hall recently, under the presidency of the Bishop of Bristol, who said that a letter had been received from the Minister for Education expressing his warmest sympathy with the main objects of the League. Two-thirds of the people of this country now lived in towns, with consequent deterioration in health and physique, and an increase in idiocy and lunacy. It was necessary to improve the conditions for all classes of children, so that there should not be that inequality between one class and another in growth, girth, and health. He advocated a medical examination of children in all schools, and the prescribing of particular bodily exercises suitable in each case. The ignorance of mothers about the nurture of their young was very great in all classes—often, indeed, worse in the better-to-do than the poorer.

Sir John Gorst, who followed, said the object of the League was to make people consider their own healths. The motive of public safety was another of their objects. Epidemics arose among the poorest and most destitute, and by earlier medical supervision much anxiety and distress might be avoided. Economy was another motive, though their work would be hampered by the divergent views of the sanitary authorities and the guardians. An empire founded on a poor and unnourished people had a miserable foundation. He was an advocate of feeding school children, and making the neglectful parents do their duty. What was wanted was a sound and strong public opinion to urge on Parliament and the Government. The opinion of the poorer classes of society was needed first to insist upon their rights, and then of the well-to-do to see that these rights were carried out. Sir Lauder Brunton referred to the "massacre of the innocents" and the survival of the feeble. Co-operative action was needed by the numerous benevolent institutions that existed in this country. There should be a national central institute for physical education with a trained examining body to issue diplomas. Major-General Sir Fred. Maurice and Mrs. Bramwell Booth also spoke; and, on the proposal of Professor Lloyd Morgan, seconded by Judge Austin, a resolution was carried forming a branch of the League in Bristol.

North Staffordshire.

A Mental Census of Children.

A report has been submitted to the Royal Commission on the Care and Control of the Feeble-minded respecting the number of the mentally defective, including epileptics, in the district of the Stoke-on-Trent Union, by Dr. W. A. Potts, of Birmingham, who was appointed Medical Investigator by the Commission. This Union includes Hanley, Stoke, Longton, and Fenton.

Dr. Potts considers that the percentage of mental defectives will turn out to be much the same as for the whole kingdom. The district is intermediate in character, between an entirely rural and a large manufacturing town; it has some of the advantages of the country, while it does not suffer to the full extent from the degenerative influences rife in the large industrial centres. In this connexion it is noted that the percentage of defective children strikes the mean between the return given by Sir William Chance for Surrey and the numbers found in the Birmingham schools.

The Origin and Prospects of the Feeble-minded.

Dr. Potts adopts the following classification:

A. Deviations from the normal, not exceeding 5 per cent., whose parents, brothers, and sisters are healthy.

B. Degenerative: (1) Descended from an insane or feeble-minded parent; (2) descended from physically-degenerate parents.

The town area is roughly star shaped, and this distribution of the population results in a high standard of health, and the comparative rarity of tuberculous disease. There are, however, many cases of mental and nervous disease, especially of epilepsy. There is a certain amount of lead poisoning, but this does not amount to much, considering the large number exposed to infection.

Historians relate that when pottery making was started in the seventeenth century in this district, feeble-minded persons were largely employed with the idea that they would not be able to impart the secrets of the trade to others. Some colour is given to this idea by the fact that nearly all the feeble-minded found in the district belonged to the type of those sprung from insane or feeble-minded parents rather than to the type associated with physically-degenerate parents.

In Birmingham some 50 per cent. of defectives come under Class B, Group 2; but here a far smaller proportion was so classified, and a greater under Class A and under Group B, Class 1.

The Physique and Mental Capacity of the School Children.

Dr. Potts states that in comparison with those of large towns, the children are robust and big for their age. Even in the schools which draw from the worst slums there were found few victims of rickets and malnutrition. Many children were in rags and very dirty, but they were well developed.

The mental capacity of the school children appeared to be as good as the physical development. This was confirmed from the experience of teachers who had taught in other centres. The pottery children had not the superficial smartness of London children, but excelled them in other respects. Defective children were comparatively rare.

Future Prospects.

While Dr. Potts thinks physical degeneration in the past has been conspicuous by its absence, he fears that the course of events in the future will not be so favourable, unless preventive measures are taken. The growth of the towns, the increased employment of women, and decreased prosperity, must tell. The potters as a class are intelligent and orderly; amongst them the slight mental weakness of Class A occurs. The miners are said to be very self-indulgent, and many die young from intemperate habits. Some of the bad effects of drinking are obviated by the fact that the people are a kind-hearted race, and also that public opinion is respected; a man who wants most of his wages for the public-house may live in a hovel, and dress his children in rags, but he will seldom let them be without plenty of food.

Facts from the Schools.

There were fifty-five schools with 31,092 scholars; of these, 185 were mentally defective, or 0.59 per cent. The distribution was as follows:

Hanley, 0.42 per cent.
Stoke-on-Trent, 0.75 per cent.
Longton, 0.80 per cent.
Fenton, 0.48 per cent.
Stoke Rural, 0.48 per cent.

The small number in Hanley is partly to be attributed to the fact that in that town there is a medical officer to the schools, who visits them and examines the children periodically, so that the bad cases are excluded. The number of defective children not attending school is larger, and more children are placed in institutions.

A number of children found defective were probably only late in developing, being left alone while their mothers are away at work. Those children are not ready for school at school age; many have to be taught even to talk on arriving at school.

Dr. Potts regrets that serious abuses exist in many schools for want of medical inspection. In one school a boy was seen who might be described as dying of consumption; in another, a girl who had such serious disease of the eyes that she had to keep her hands before her face all the time to exclude the light. The desks were often wrongly arranged as regards the light, accentuating eye trouble. Deafness requiring treatment was not uncommon, and several imbeciles were found.

After seeing the other schools, Dr. Potts was struck by the difference that obtained at Hanley. Here the desks were properly arranged as regards light; there were no imbeciles in the schools, and not even any extreme case of feeble-mindedness. No children were seen obviously suffering from eye-strain due to short sight, though such were common in all the other schools. No child was brought forward as mentally defective when deafness was the sole cause of the trouble. All this enforces the urgent necessity of medical inspection in schools.

Workhouse Inmates.

Deducting the certified lunatics there were 697 males in the Stoke Union Workhouse, of whom 218 were defective; 29 were senile dements, 25 of unsound mind, 10 idiots, 7 imbecile, 138 feeble-minded, and 11 epileptic. The 138 feeble-minded give a percentage of 20. The age at which feeble-minded men drift into the workhouse is under 45 in half, and under 30 in a quarter. Of those who can be taught, very few become self-supporting; the facts here set out show that, even if such people learn to keep themselves, they only do so for a limited time, and ultimately again become a burden on the rates.

Of 17 patients in the lock ward, 7 were feeble-minded; 6 of these were suffering from syphilis—a commentary on the folly of leaving defectives without control. One feeble-minded man, aged 39, has 5 children in the workhouse.

On the female side of the workhouse, more than half the feeble-minded enter before the age of 45, and a third before 30. Of the women, 16 had together produced 116 children. In several instances, when the woman was married, the husband was either out of work or in prison. There is little doubt these women often mate with criminals or defectives. In the maternity ward, during three months, 17 were confined; all the children were illegitimate; 7 of the 17 mothers were feeble-minded. In the lock ward were 5 feeble-minded women, all of them prostitutes.

The casual wards were visited daily for a month. Two years ago new regulations were introduced, which have decreased the numbers by 1,400 each year.

Males, 263, with a percentage of 12 feeble-minded, compared with 20 among the regular inmates. Those not feeble-minded were extremely intelligent, and consisted of (1) 42 per cent. who had always worked regularly, but were now old or disabled, often with pathetic tales of being supplanted by younger men; (2) 28 per cent. ne'er-do-wells and regular tramps; (3) 30 per cent. able-bodied men, genuinely looking for work, mostly unskilled labourers.

Females, 35, with practically the same percentage as for males.

Prison Inmates.

The prison at Stafford was visited for five weeks; 138 males were seen, of whom 19.5 per cent. were feeble-minded. Pure moral defectives, without trace of other weakness, Dr. Potts considers very rare. The crimes of the feeble-minded were drunkenness, vagrancy, and small thefts. Cruelty to animals is a crime characteristic of congenital weakness. Higher grade aments are sometimes not recognized by prison authorities; under the effect of clockwork routine, strict supervision, and simple work all may appear normal. Of 31 females, 16.1 per cent. were feeble-minded.

Conclusions.

The Workhouse.—Half the inmates are the victims of old age; the majority of the rest are mentally defective. The reason why the workhouse fails in dealing with defectives is that it has no power of detention.

Alcoholism.—A large number of the feeble-minded become drunkards. The majority of drunkards are not, however, feeble-minded, or to be excused on that suspicion; the evidence of prison and workhouse shows alcoholism to be usually the result of pure self-indulgence, often in men originally strong and capable enough to compile fortunes afterwards squandered.

Crime.—Many of the feeble-minded drift into prison. Crime, however, is largely the result of alcoholism or want of proper early training, not of feeble-mindedness.

The Unemployed.—Judging from casual wards and common lodging-houses, the chief sources are laziness and drink. Dislike of regular employment is a growing evil; many will not work while they have any money.

The Army.—Several of the feeble-minded met with had been in the army. Some had to be discharged, but many had served their time. This shows that many of the feeble-minded can do quite well under strict supervision, but thrown on their own resources they soon fail. To be discharged with large arrears of pay is specially dangerous for such. The need of permanent control for defectives is supported; temporary restraint is often worse than useless.

Suggested Requirements.

1. The segregation of all the inevitably defective who are not properly provided for; probably with a central Board, on similar lines to the Lunacy Commissioners, for the whole country.

2. The appointment of medical officers of schools to be made general.

3. Instruction of teachers in hygiene.

4. Classification of defective children by the medical officers; only the higher grades of feeble-minded remaining under the care of education authorities, with some special provision for short hours and small classes. It is not fair, however, to spend ratepayers' money on further efforts towards intellectual education where no intellectual ability exists. It is shown that even if by supreme efforts these children are educated up to earning a living, they are likely to get into police or other trouble, and drift into the workhouse at a very early age after all.

5. For children and others requiring permanent care, who cannot afford a private institution, the workhouse is considered the most suitable place with suitable modifications. This would be the most economical arrangement, and involve the least readjustment, for it has been shown that practically half the feeble-minded are there already and most of the others drifting there. Much room could be made by turning out the able-bodied under 50 who can work but will not. Since most defective children are the inevitable result of marriages which should never have been allowed, or of alcoholism or other indulgence, any stigma attaching to Poor-law help is a benefit rather than not. To continue, as in the past, to be too sentimental in dealing with the results of folly and self-indulgence is but to court disaster.

6. The Employers' Liability Act is one cause of many aments and old people being out of work. Special attention recently directed to the feeble-minded makes special provision for them all the more necessary.

7. The regulation of female labour is urgently needed. A woman often goes to work, instead of taking care of her home and family, in order that the husband may loaf and drink.

SPECIAL CORRESPONDENCE.

VIENNA.

Dental Surgeons and Dentists.—Foundation of a Society of Paedology.—Coexistence of Different Tumours in One Patient.

THE old antagonism between the dental surgeons and the dentists who have no medical education but are simply technical workers every now and then supplies work for the lawyers. As there is no Parliamentary law regulating these complex relations, the judge is often called upon to find out which of the two classes is entitled to make wax impressions of the gums of a patient, or insert false teeth. The surgeons claim the entire art of dentistry, including all technical work, as their own, whilst the guild of the technical workers would allow them only the filling and extracting of teeth. The confusion is increased by the fact that in different towns judges might hold different opinions, and that several contradictory ordinances have been promulgated by different ministers of the interior. At last the High Court of Administration, which is the last and highest for such cases, has decided that dental surgeons are *eo ipso* entitled to undertake all and sundry operations and manipulations within the mouth and on the teeth of their patients. Complaints addressed to the Minister of Commerce and Industry have elicited from that functionary the promise of bringing in a Bill dealing with these complicated relations. In medical circles it is considered that an improvement in the state of affairs is to be looked for only from the creation of an independent ministry of health, a matter which, as has been announced in the BRITISH MEDICAL JOURNAL, is now being considered by the Government.

A number of scientists and physicians have signed a memorandum, addressed to all practitioners and to the educated classes in general, in which these are invited to join the committee for the foundation of a "society for inquiry as to the well-being of children." The object of the new society is to find out, and place on a scientific basis, the leading points in the nursing, education, and nutrition of children, besides the development of their physical and psychical abilities. Similar societies are already at work in Germany, America, and Hungary, and elsewhere. The social importance of their work is easily recognized by the fact that in several countries steps have been taken lately to search for the reasons of the degeneration and physical deterioration so often met with in all civilized races, and that "paedology," as the new discipline is termed, has been of the foremost aids in this endeavour.

At a recent meeting of the Society of Military Surgeons, Dr. Brosch, of the Army Medical Corps, demonstrated specimens of tumours which had been found at the necropsy of an officer who died suddenly. The cause of death was the bursting of an aneurysm of the innominate artery, which was of the size of a hen's egg. The upper half of the epiglottis was destroyed, the remaining margin being thick, uneven, and showing several striae, lesions left by syphilis, which, no doubt, was also the reason of the aneurysm, by causing endarteritis. When the abdomen was opened a tumour of the pancreas was found, with secondary deposits in the liver and mesenteric glands. It proved to be a carcinoma; it had compressed the pancreatic duct, and the pancreatic juice entered the intestinal canal through a fistula. Thus the usual symptoms of cancer of the pancreas had been wanting. On inspection of the kidneys a tumour was seen on the upper end of the right kidney, surrounded on all sides by kidney substance. It was yellow-white in colour, and it was of the size and shape of a hen's egg. Sections made through this tumour proved it to be an intravascular endothelioma consisting of cavernous blood cysts lined by a thin layer of endothelial cells. Neoplasms of this kind are among the most malign of tumours, and the coexistence of two kinds of new tissue is a rarity not only in human beings, but also in animals.

CORRESPONDENCE.

CONVALESCENT HOMES ASSOCIATION.

Sir,—We should be glad to be allowed to recall the circumstances under which the Convalescent Homes Association was founded. We owe much to Lord Lytton and his Committee of the Home of Recovery for calling attention to the great need for more beds for surgical convalescents after operation wounds, and to the inadequacy of the present convalescent system to supply the increasing needs of hospitals. Lord Lytton's remedy was to collect a large sum of money to build and endow a small convalescent hospital of 21 beds. It has been considered that the same objects could be better and more economically attained if the existing convalescent homes could be persuaded to devote some beds to this special purpose. This will no doubt entail additional expenditure on the part of the convalescent homes, but we are assured that many hospitals would be willing to secure these increased benefits by paying a higher rate for their convalescent surgical patients. In the case of homes that are willing to provide such special beds but unable to do so for want of funds, an appeal may well be made to the charitable public for further support.

A constitution and rules have been formulated, and an Executive Committee is engaged in carrying out the objects of the Association. The Council has found that there is some hesitation on the part of both convalescent homes and hospitals to become members. It is thought that this may be due in a measure to misapprehension as to the ultimate objects in view—groundless suspicion on the part of some homes that their independence of management will be interfered with, and doubts on the part of hospitals as to the benefits they will obtain.

The initial efforts of the Association have already been attended with success, the offer of beds for surgical cases having been obtained from some of the more important homes, and it is believed that, with time, a very much larger number of special beds will become available. We contend that in this direction alone the Convalescent Homes Association will confer a benefit upon every London hospital and relieve the congestion that prevails, and, moreover, the influence of the Association will be exerted in many ways to discourage the use of convalescent institutions as holiday homes, and to promote economy and concerted action.

The work of the Association cannot be carried on without a small expenditure, and if a larger number of homes and hospitals would join and pay the small subscription proposed, we feel sure that the benefits their patients would derive would amply repay them.

Up to the present, a considerable number of convalescent homes have joined, and amongst the hospitals are St. Bartholomew's, St. Thomas's, and King's College.

We shall be glad to receive applications from any convalescent home or any hospital which is willing to join us in securing the above-mentioned advantages for patients in need of them. Communications should be addressed to the Secretary of the Convalescent Homes Association at 32, Sackville Street, W.—We are, etc.,

W. S. Church,
Chairman.
M. O. FitzGerald,
S. H. Habershon,
Honorary Secretaries.

February 27th.

AT WHAT AGE SHOULD A CLEFT OF THE PALATE BE CLOSED?

Sir,—All writers on the subject of cleft palate seem to be agreed upon one point, namely, that the results of operation, as regards the voice, are by no means perfect. It would seem, therefore, that if the results are to be improved careful investigation should be made of the causes of the persistence of the nasal intonation. Inefficiency of the soft palate is alleged to be the most important, if not the only, cause of this imperfect articulation.

I venture to urge that other factors also play an important part in the production of normal speech. Normal intonation depends largely upon the form and size of the nasal passages. Though the soft palate be efficient and the proper amount of air be allowed to pass into the naso-pharynx in the production of certain sounds the voice is not normal if the escape of this air through the nose be checked by nasal deficiency. The nearer the nasal fossae approach the normal in size and shape, the better will be the articulation. It is necessary to bear in mind that the physical conditions found in a case of cleft palate *before* operation are by no means the same as those present *after* complete closure of the cleft. Mr. James Berry[1] is, I venture to think, not quite clear on this point when he is discussing Mr. Lane's views. Mr. R. W. Murray, at least in cases of cleft of the hard palate, agrees with the view held by those who advocate operation during infancy, namely, that defective development of the nasal chambers is present, and is responsible for the imperfection in articulation which persists after operation. Even when the soft palate alone is cleft, the hard palate is abnormally high, and the nasal fossae smaller than normal. What stronger evidence can one want that nasal insufficiency is responsible for this nasal intonation than the existence of such cases as Mr. Murray refers to, in which children have a "cleft-palate voice" associated with a highly-arched palate? One may look upon cleft palate as a superlative degree of this other condition, the two halves of the arch having burst asunder. One might hope that by the "old" operation, as opposed to the more recent "flap" operation, the arch of the palate would be permanently lowered, but this, I believe, is not the case. The soft tissues, freed and depressed to allow of their being sutured in the mid line, are soon drawn up again to approximately their former position. All surgeons agree that the cleft becomes narrower as the child grows older; but so do the nasal fossae get narrower, and the longer operation is delayed, the greater is the difficulty experienced in overcoming this nasal insufficiency.—I am, etc.,

London, W., Feb. 12th. H. A. T. Fairbank.

Sir,—In the discussion on the most favourable time for the closure of the opening in cleft palates it has been rather arbitrarily stated by some surgeons that the considerations that should form the basis of a right decision are: (1) What will be the condition of the palate? and (2) what will be the condition of the speech after operation? From these considerations alone it is assumed that the most appropriate time and the most appropriate method can be selected. It has been further assumed that when the post-operative condition of the palate is good that the resultant condition of the speech will be good, and, on the contrary, that when the resultant condition of the palate leaves much to be desired the condition of the speech will be bad. Berry writes, "Of the importance of a well-formed and movable soft palate for articulation none but the inexperienced can be unaware."[1] But even those of us who fall under the ban of the title "inexperienced" cannot help having noticed that, much to our disappointment, "a well-formed and freely-movable soft palate" after operation is not invariably associated with a perceptible improvement in speech; and that in other cases in which from the appearance of the soft palate a good effect on speech would not have been predicted, yet a very striking alteration for the better has occurred. Ashby alone calls attention to this state of affairs, and puts forward the interesting suggestion that the characteristic sound of speech in cases of cleft palate is "not due to a mechanical deformity, but to a failure of co-ordination of the muscles concerned in speech," although the co-ordination may be perfect during swallowing or deep inspiration. The failure to phonate properly is therefore referred to a defect of the higher centres. Whether that be the right explanation or not, it is of interest to learn that improvement in the speech does not advance *pari passu* with that of the condition of the soft palate in the experience of all operators. It might reasonably be expected, however, that this had been the experience of the ardent advocates of a paring operation performed after the age of 3 years. Berry, as the result of a skilful and conscientious application of a classical method to 67 cases, writes: "In no case has speech after operation become absolutely normal, and there are comparatively few in which I should call it good." For those who prefer a flap operation (such as that designed by Arbuthnot Lane) performed during the first few months of infancy a greater encouragement could hardly be desired. Nor need "the proportion of infants who die as the direct or indirect result of their operations" act as a powerful deterrent to the adoption of this procedure, since in 478 cases thus operated upon at the Great Ormond Street Hospital during the past few years only 4 have ended fatally—3 from pyaemia and 1 (a case of status lymphaticus) apparently from the anaesthetic.

---

[1] British Medical Journal, October 7th, 1905.

The links in the etiological chain which Berry wishes to forge between early operations upon cleft palates and gastro-intestinal disorders in children have not been worked out in sufficient detail to render discussion of great value. But it would be interesting to know how many infants die from malnutrition associated with such disorders which have their origin in the inability of the child to take proper nutriment on account of the defect in the palate.

These considerations, taken in conjunction with the fact that the liability to oral sepsis in an infant is slight, and with the hope that the correct training of the higher centres may be an easier task if they are undertaken before a bad habit of speech has already been acquired, seem to me to be sufficient justification in persevering with the flap operation performed during infancy, and in my own small series of cases, which I hesitate to refer to as experience, I have seen no reason to regret my procedures.—I am, etc.,

George E. Waugh,
Assistant Surgeon to the Hospital for Sick Children, Great Ormond Street.

February 13th.

Sir,—Mr. R. W. Murray's interesting observations in the British Medical Journal of February 3rd have again raised the "time" question in relation to this operation, and Dr. Ashby's and Mr. Berry's letters have discussed other debatable details on the same subject.

May I be allowed to write my views in opposition to Mr. Berry's with regard to what I think he will agree is the main question—the time at which the operation should be done? When my term of personal supervision of these cases began, the early operation had already been introduced, and though, as Surgical Registrar at Guy's Hospital, I had abundant opportunities of watching the results of the "late" operation and comparing it with those of the early operation, yet, when I had to decide the question for myself, I soon made up my mind that the early operation seemed based on the more sound surgical grounds. For, as Dr. Ashby says, "from a physiological point of view, it would seem as if the cleft palate should be closed as early in life as possible."

Secondly, the immediate and ultimate results of the early operation were, in my judgement, better than those of the late operation.

Thirdly, the closure of the cleft seemed easier. I am ready to admit that the difficulty of the late operation was in those days often enhanced by the incomprehensible proceeding of closing the harelip first, and also I would admit that the mere closing of the cleft in the palate, more especially in the soft palate, is not the sole requirement for an ultimate success; for obviously the palate curtain is almost useless for its highest purpose, articulation, unless it is loose and freely mobile. Yet I find that my small operative experience of certainly less than 50 cases has only confirmed my early impressions, and that the only two cases which have absolutely baffled me were between 2 and 5 years of age; one had been previously operated on by another surgeon at about two years of age by the Langenbeck method.

I am quite alive to the danger of the operation in small, often badly-nourished babies; one of mine died under its second anaesthetic for the closure of the harelip when it had already borne the palate operation satisfactorily, and at least two others have died within a few weeks of operation; but does this really affect the issue? Before this can be placed as evidence against the early operation, we must know what percentage of babies with unoperated cleft palates die before they reach the age at which Mr. Berry would operate; statistics might even show that the early operation, by showing a lower mortality, acted as a life-saving operation.

In my opinion, Mr. Berry's proposed exhibition of a small series of cases illustrating the results of both methods would not advance the question, nor end in my conversion. If the whole number of cases operated on by one surgeon could be seen, it would be a different matter, and even then one would be ignorant upon the pre-operated local condition and the general condition of the patient; and lastly, one would have to take into account the very important factor of post-operative education, without which the best operation may give a comparatively bad functional result.

I believe the best way to form a correct judgement is to watch closely all the results of one surgeon operating usually on the same lines, and, while my own cases are both small in number and have all been operated upon in the past five years, so that as yet any conclusions are immature, yet my close observations of Mr. Arbuthnot Lane's results in the last eight years, when compared with what I have seen of other methods, strongly influence me to prefer the early operation.

With regard to the actual operative "method," it is, I think, comparatively unimportant, for obviously no sane man will divide in half the thickness of his soft palate if it is unnecessary, though I should certainly contend that it is the best thing to do when the parts are insufficient, so that the performance of the Langenbeck operation means postponement to a later date. My sole "method" is to do what seems best adapted to the needs of each individual case, and I doubt whether the same details of operation can be carried out in any two successive cases—each must be dealt with on its own merits with an attention to detail which few other operations in my experience demand.—I am, etc.,

London, W., Feb. 13th.

C. H. Fagge.

"ORAL SEPSIS" IN SCARLET FEVER.

Sir,—Dr. Wm. Hunter in his clinical lectures in the British Medical Journal of February 24th, p. 421, says:

> Our mortality at the London Fever Hospital for last year has been 0.8 per cent., which compares, I believe, with an average mortality of some 3 per cent. in other fever hospitals.

Without going more than superficially into this statement I may say it is usual, for purposes of comparison in a disease in which the mortality varies so much at different age periods, to make some reference to age-incidence. The scarlet fever mortality, per cent., at age-periods on the admissions into the Metropolitan Asylums Board Hospitals for 1904 was as follows:

---

[1] British Medical Journal, October 7th, 1905.

[2] Berry, British Medical Journal, October, 1905.

Ages.	Number Admitted.	Number Died.	Mortality per Cent.
Under 1 year	106	13	12.27
1 to 2	461	57	12.36
2 to 3	870	74	8.51
3 to 4	1,188	59	4.97
4 to 5	1,362	40	2.94
Totals under 5 years ...	3,987	243	6.09
5 to 10 years	4,616	87	1.88
10 to 15	1,457	21	1.44
15 to 20	480	3	0.63
20 to 25	316	3	0.95
25 to 30	158	6	3.80
30 to 35	84	1	1.19
35 to 40	41	0	—
40 to 45	9	0	—
45 to 50	5	0	—
50 to 55	2	0	—
55 and upwards ...	0	0	—
GRAND TOTALS	11,155	364	3.26

I am surprised that Dr. Hunter has made no reference to age incidence, since it is obvious from the above table that no conclusion can be deduced from his comparison as it stands. Apart from this, however, he does not state the number of cases from which the mortality-rate of the London Fever Hospital is calculated, although it is obvious that this is a factor of the greatest importance; it frequently happens that several hundred scarlet fever patients are treated consecutively with almost a negligible death-rate, whereas a subsequent series may give an unusually high death-rate. I need hardly refer to the other factors which are well known to influence the mortality-rate of scarlet fever.

Particular attention has for many years been paid in the Asylums Board Hospitals to the condition of the gums, the teeth, and the mouth generally, whatever the disease for which the patient was admitted; and I am surprised that in Dr. Hunter's experience "usually no care has been taken to remove this source of infection."—I am, etc.,

FREDERIC THOMSON,
Medical Superintendent.

Fountain Hospital, S.W., Feb. 24th.

ANGINA PECTORIS.

SIR,—That Heberden, when he coined the term "angina pectoris," in his comments De Dolore Pectoris, referred to a condition in which more or less severe pain in the chest was frequently followed by grave consequences cannot be questioned by any one who has read his account of the affection in his *Commentarii de Morborum Historia et Curatione*. That Jurine, quoted by Dr. William Russell in his article (BRITISH MEDICAL JOURNAL, February 10th, 1906, p. 301), who could not conceive angina pectoris without sternal pain, was quite in agreement with Heberden, also cannot be denied. That those who term various degrees of syncope, possibly associated with some very naturally-expressed alarm, and it may be without any pain, or with so little as not to be worthy to be termed such, are scarcely dealing with the same condition as Heberden had in his mind when he wrote, may, I think, be reasonably maintained.

In pectoral or cardiac pain the pain may quite possibly be due to a general rise of the blood pressure in some cases, but the syncope is a still later event. In syncope trepidosa, as I prefer to name it, rather than anginosa or sine dolore, the cardiac failure is not necessarily the result of the inhibitory effect of the pain acting through the vagus nerve, and this constitutes an important difference between these conditions.

Pain, so far as I know, has not yet been considered the property of any structures outside the nervous system, and I have yet to learn that referred pain is not usually associated with a stimulation of one or other of the peripheral nerves in such cases.

While, therefore, I find no difficulty in agreeing with Dr. William Russell that a reflex contraction of the vascular system, whether due to a stimulus arising in the abdomen or elsewhere, may be one of the causes of that rise of blood pressure which provokes cardiac pain in many cases, there is, to my mind, abundant reason to believe that the abdominal reflex from injudicious dietary is not by any means always the provocative to angina, for one meets with even fatal cases at times when of necessity the stomach is empty. Heberden himself observed that attacks frequently occurred "after the first sleep," and I have met with it before breakfast.

Moreover, when one considers the number of those with sclerosed or ageing arteries who are habitually imprudent in the matter of diet, and all else, and the comparative rarity even of what Dr. Russell calls angina minor, it appears to me that he has overestimated the etiological efficiency of the cause he has so carefully set forth. That the incentive to vascular obstacle may often arise in the stomach or elsewhere may be admitted, and, unlike Sir James Barr (p. 410), I am quite ready to agree that both cerebral and coronary vessels may be constricted simultaneously with other portions of the vascular system. Because, although physiologists have not yet concluded whether vasomotor nerves govern the cerebral and coronary vessels, I showed the former to be endowed with such nerves in 1897 and the latter in 1902. These nerves, therefore, are probably used by these vascular systems, although physiologists have not yet demonstrated the fact. The positiveness of these scientists is now, after nine years, yielding in the matter of the cerebral circulation, and, doubtless, in the course of time the coronary system will prove no exception to the rest of the blood vessels.

What we want now is less clinical analysis in this field of inquiry, and more anatomical research. While, therefore, Dr. Russell, in his interesting paper, avails himself freely of the indirect influence of the nervous system in explanation of the phenomena of angina pectoris, I am still content to shelter myself in that refuge of the destitute to which he refers, namely, the cardio-vascular nervous system, believing that, while the periphery may influence the heart, the heart itself may take the initiative in altering the periphery by a cardiac, not an abdominal, reflex, thus explaining more directly the phenomena of cardiac pain in not a few cases.—I am, etc.,

London, W., Feb. 19th. ALEXANDER MORISON.

SIR,—It is encouraging in these days of medical conservatism to read Dr. William Russell's letter in the last issue of the BRITISH MEDICAL JOURNAL, and especially to note that he has the courage to maintain the paramount importance of clinical evidence. The clinical chain forged by Dr. Russell to surround the anginous paroxysm might with equal precision be used for the asthmatic paroxysm; and a little-known clinical fact in connexion herewith lends striking support to his contention that angina pectoris is caused by a morbid systemic arterial contraction dependent upon a hypersensitive vasomotor centre. I refer to the fact that the method of treatment introduced by me for the relief of asthma by a particular cauterization of the nasal septum has a most beneficial effect in cases of angina pectoris. Many years ago I noticed that in patients who suffered from angina pectoris in addition to asthma, the anginal trouble incidentally disappeared with the relief of asthma which followed cauterization of the septum nasi. Since then Dr. Francis Hare has shown:

1. That this septal cauterization in cases of asthma almost certainly owes its effect to its action upon the vasomotor system.

2. That the mechanism of both asthma and angina is essentially vasomotor and includes a widespread peripheral vaso-constriction.

3. And that, therefore, the septal cauterization might be expected to be as efficacious in the treatment of angina as undoubtedly it has proved in asthma.

This has led Dr. W. N. Robertson, of Brisbane, and myself to use the treatment in cases of angina unassociated with asthma, and the striking results obtained supply confirmation of the vasomotor mechanism of the anginal neurosis. Dr. Robertson, in his recent presidential address to the Queensland Branch of the British Medical Association, refers to the more recent results he has obtained from cauterization of the septum nasi. Reprints of this paper have not yet reached England, but in a letter to me he states: "I had 210 cases of asthma and 157 were completely relieved. I have had 13 cases of angina pectoris, and as far as I can tell every case was relieved." Eighteen months ago I saw an elderly gentleman whom Dr.

Robertson had treated in Australia. The patient stated that, in spite of medical treatment, for a considerable time before Dr. Robertson cauterized his nose, he suffered from at least two sharp attacks of angina every twenty-four hours, and was quite incapacitated from work. After the first cauterization he remained absolutely free from an attack for three weeks. When I saw him he had had no symptoms of heart trouble for six months, and I have lately been informed that there has been no return since.—I am, etc.,

London, W., Feb. 26th. ALEXANDER FRANCIS.

THE RELATIVE BRAIN-WEIGHT OF MEN AND WOMEN.

SIR,—To reply to all Professor Pearson's criticisms of my letter in the BRITISH MEDICAL JOURNAL of February 17th would press unduly upon your space. I shall deal, therefore, only with certain main points. In the first place, he has requested me to furnish statistical evidence in support of my statement that a decrease in the intelligence of *congenital idiots* is associated with a diminution in the size of their heads. This statement was based on the measurements of 109 male congenital idiots, aged 20 to 45 years, inmates of the Darenth Asylum, Kent. These were grouped, in accordance with Dr. E. B. Sherlock's suggestion, into two classes, which I shall call the "workers" and the "non-workers." The workers were those who had sufficient intelligence to do work under supervision, such as boot-making, tailoring, and simple manual labour. The non-workers were those of the lowest type, who were unable to do any kind of work, even of the simplest nature. We found the average diameters and size of head to be the following:

Group.	Number in Group.	Length of Head (mm.).	Breadth of Head (mm.).	Height of Head (mm.).	Diametral Product (cm.).	Calculated Brain-weight (gram).
Workers	55	186.5	145.4	127.8	3,465	1,247
Non-workers	54	184.5	144.4	125.7	3,350	1,218

It will be noticed that there is a diminution in all the diameters in passing from the workers to the non-workers, and that this dimunition is most marked in the height of the head. The average weight of the brain I estimated by using Blakeman's prediction formula (iii) *a*.*

For comparison with these figures I shall give the similar average measurements of 117 male *post-mortem* subjects above 24 years of age of the Middlesex Hospital, London, which I shall refer to as the "general hospital population," and of the staff of University College, London.

Group.	Length of Head (mm.).	Breadth of Head (mm.).	Height of Head (mm.).	Diametral Product (cm.).	Weight of Brain (gram).
General hospital population	190.4	149.3	132.9	3,777	1,328
University College staff ...	196.4	153.5	134.8	4,063	1,398

It will be noticed on comparing these averages that there is a difference of 180 grams between the calculated brain-weight of the lowest type of idiots and that of the University College staff. The difference is even greater if we take the anatomists measured at Trinity College, Dublin, who have an average brain-weight of 1,422 grams, with an excess of 204 grams over the idiots.

With regard to Professor Pearson's statement that "he is able to trace nothing of this sensible decrease in size of head in the unpublished measurements of nearly 14,000 lunatics," I must remark that lunatics should not be confused with "congenital idiots," who are mentally deficient from the start, whereas a very considerable number of lunatics have formerly been remarkable for their intelligence, and have only become insane after the period of growth has ceased.

With regard to Professor Pearson's statement that the height of the head is the least important of all the diameters from the standpoint of intelligence, I must remark that I have not found this to be the case with my own data, and that if we compare the diameters expressed in millimetres of the lowest type of idiots, the "non-workers," with those of the University College staff, we have the following differences:

	Height of Head.	Breadth of Head.	Length of Head.
University College staff	134.8	153.5	196.4
Congenital idiots (non-workers) ...	125.7	144.4	184.5
Difference	9.1	9.1	11.9

The variability of the height and breadth is equal; that of the length exceeds these by 2.8. The relation that these variabilities bear to one another when expressed as percentages of the mean height, breadth, or length, is, however, the following:

Height.		Breadth.		Length.
$\frac{100\times 9.1}{130.2}=6.98$	...	$\frac{100\times 9.1}{148.9}=6.11$	...	$\frac{100\times 11.9}{190.4}=6.25$

According to these figures, the height is *proportionally the most variable diameter of the head*, and it is obvious, therefore, that the value of Professor Pearson's statement recorded in the *Proceedings of the Royal Society*, vol. lxix, on the correlation of intellectual ability with the size and shape of the head (page 340), and to the effect that "44 per cent. of the population have heads as large as or larger than the mean head of the exceptionally able 2 per cent.," is considerably diminished, since in the statistics on which this conclusion was based the measurement of the vertical height of the head was entirely ignored.—I am, etc.,

London, W., Feb. 27th. R. J. GLADSTONE.

ARTERIAL DISEASES.

SIR,—Dr. Charles E. S. Flemming in his interesting letter published in the BRITISH MEDICAL JOURNAL of February 17th throws doubt on the suggestion that arterial tortuosity can be caused by a stretching of the vessel wall. He contends "that to produce so much elongation (tortuosity) pressure would have to be much greater than any that we could possibly find during life, and that even if the pressure were sufficient the accompanying dilatation would be much more marked." He finds that if he subjects a thin-walled rubber tube, having a diameter of $\frac{1}{8}$ in., to an internal pressure of 400 mm. of mercury, it dilates little more than an ordinary radial pulse, while the lengthening is quite insignificant. Does Dr. Flemming make sufficient allowance here for the time factor? Arterial tortuosity is the work, not of a day but rather of years. An agency incapable of producing any immediate sensible effect may in the course of time work prodigious results. Given the necessary time, even bone can be made to yield before quite moderate pressure, as evidenced by the means which dentists adopt for regulating the teeth, and by the fact—so ably insisted upon by Dr. Sim Wallace—that the size and shape of the mandible are in large measure determined by the pressure exerted upon it by the soft and yielding tongue.

That some cases of arterial tortuosity associated with low arterial pressure may, as Dr. Flemming suggests, be due to the vessel growing in length independently of any primary stretching of it, I can well believe; but that chronic relaxation of the media is, through the consequent weakening of the vessel wall, competent to induce tortuosity, with secondary overgrowth, there can, I think, be little doubt. Is it possible, I would here ask, that a similar relaxation of the venous wall may predispose to varicosis, and that this may help to explain why some are congenitally more liable to this affection than others? May it not be that one of the functions, if not the essential function, of the muscular coat of the systemic veins is to prevent them from dilating? It would be interesting in this connexion, to know whether the veins of the lower extremities have more muscular tissue than those of the neck.—I am, etc.,

London, W., Feb. 18th. HARRY CAMPBELL.

---

* *Biometrika*, vol. iv, p. 146.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

HE Third Examination for M.B., Part II, begins on April th. The names of candidates should be sent to the Registrary or before April 9th.

Mr. J. Hutchinson, Hon. LL.D., F.R.C.S., has been appointed Elector to the Professorship of Surgery.

Dr. Shore and Mr. Shipley have been appointed Examiners r Part II of the examination for the diploma in Agriculture.

Professor Osler, M.D., D.Sc.Oxford, has been appointed an aminer in Medicine, in place of Dr. Hale White, who is able to examine.

UNIVERSITY OF ABERDEEN.

UNIVERSITY COURT.

HE Aberdeen University Court met in Marischal College on bruary 13th, Principal LANG in the chair. Before the busi- ss of the day was proceeded with the Principal referred in ting terms to the death of the King of Denmark, and pro- sed that an address of condolence in suitable terms should sent to Her Majesty Queen Alexandra. Thereafter he ferred to the deaths of Lord Ritchie and Sir Mountstuart ant Duff, formerly Lord Rectors of the University.

The Geddes Memorial Fund.

A letter was submitted from Mr. P. J. Anderson, honorary asurer of the Sir William D. Geddes Memorial Fund, stating at the Melvin Library Fund, formed in 1886, had now been olly expended, and that as honorary treasurer of the Sir illiam Geddes Fund he had been instructed to hand over to Court the balance of £500 or thereby, to be held by the urt in trust for the behoof of the Geddes Memorial Library Classical Literature and Archaeology in the University.

Gifts to the Museum.

he Museum Committee intimated the receipt of donations Mr. Ean Cecil, Roydon Hall, Tonbridge, of a number of cimens for the Archaeological and Natural History seums, and of a statuary group ("Cassandra imploring the istance of Minerva"), which belonged to Mr. Cecil's grand- her, the late Sir William Cunliffe Brooks, Bart., of Glentara. e Court expressed its thanks to Mr. Cecil for these gifts.

The Accounts for the Year.

he PRINCIPAL then, in the absence of Professor Matthew y through illness, moved the adoption of the abstract of ounts for the year. The revenue of the General University nd for 1904-5 showed a slight increase on that of 1903-4, and expenditure left a very slightly increased surplus revenue. figures submitted touching on equipment of laboratories l salaries of lecturers, assistants, and examiners were gestive of the desire, within their means, to strengthen the ff and the equipment of university instruction. The sion Fund was in a very satisfactory condition. The ary account showed a most satisfactory state of affairs, ecially when compared with the straitened means of the rary Committee only a few years ago. It was gratifying t a much larger number of readers now took advantage of opportunity which the library afforded. The obligations of University were stated at £67,358 (between £4,000 and 00 more than 1903-4 and upwards of £10,000 more than -3). The table of assets gave the assurance that the gations could be met, but that economy was necessary. Fee Fund was one on which attention would fasten. It now in a very healthy condition. In 1904-5 it amounted to .112, being a slight advance on the previous year. Adding his fees paid to Divinity professors and lecturers and the of the Chair of History—which are reserved—the sum of .822 had been paid in fees in the past year. The Principal t on to refer to the influence of the Carnegie Fund on the roved condition of university finance, and pointed out , in spite of the payment of fees, the increase in the ber of students was not appreciable. It had enabled lents to take a wider curriculum during their period of ly, and had thus helped the Fee Fund. The laboratories in nce and medicine had greatly benefited in equipment and ncreased teaching staff, the basis of instruction had been dened, and the actual instruction had been rendered more ient. He indicated that 70 per cent. of the students the University were aided by the Carnegie Trust, he had reason to doubt if this proportion were not too t, having in view the terms of the trust. The fund of the negie Trust laid aside for the payment of fees was now ined to the uttermost, and he quoted from a r of Mr. McCormick, Secretary of the Trust, that unless e action be taken without delay the liability incurred in payment of class fees for the current financial year was ly to exceed the income at the disposal of the trust. He rred to the assertion sometimes made that the recent ing of fees had benefited the professors by increasing their ries. That was an utter misconception. Salaries of chairs fixed quantities, and the benefits to the University by ing of fees would be simply the strengthening of the teaching staff and the better equipment of departments. One gratifying feature in the Aberdeen University record of its dealings with the trust should be noted. Other universities made large and urgent claims on the funds of the Carnegie Trust for buildings and permanent equipment, and thus made allocations towards teaching impossible. In the case of Aberdeen the extensions of the buildings were otherwise provided for, so that of the sum of £45,000 placed at the disposal of the University by the Carnegie Trust during the current quinquennial period £35,000 had been devoted towards endowment and provisional assistance in teaching.

Gifts to the Library.

Intimation was made of the presentation to the library of thirty-one large quarto volumes (1889-1905) from His Serene Highness the Prince of Monaco on the Results of his Scientific Expeditions; also of fourteen volumes from the Free State of the Congo dealing with botanical, zoological, ethnographical, and anthropological subjects. Thanks were given to the donors.

The Court then sat in private, when a scheme for the provision of additional accommodation for nearly 20,000 volumes at King's College Library was sent to a committee for consideration.

Fees in Arts.

It was decided to take no action meantime in regard to the proposal to raise the fees of classes qualifying for graduation in arts. Intimation was made that the University Court of Glasgow had resolved to raise all such fees to £4 4s. as from the beginning of the winter session 1906-7.

UNIVERSITY OF LONDON.

KING'S COLLEGE.

IN order to facilitate the policy of concentration, and the complete separation of the department of preliminary and intermediate medical studies carried on at King's College from the department of advanced medical studies carried on at King's College Hospital, Professor F. W. Tunnicliffe, M.D., who holds appointments in both departments, has resigned the Chair of Materia Medica and Pharmacology.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

FELLOWSHIP EXAMINATION.

THE following candidates having passed the necessary examinations have been admitted Fellows of the College:

A. Charles, W. C. Cremin, C. A. Cusack, T. H. Delany, Captain I.M.S.

The following have passed the primary part of the Fellowship examination:

S. Blake, T. C. Boyd, Miss M. Clarke, J. C. L. Day, F. N. Holden, J. R. D. Holtby, A. E. S. Martin, E. Montgomery, J. Campbell-Murray, K F. P. Rynd-Murray, W. G. Ridgway, G. W. Stanley, W. M. Woods.

CONJOINT BOARD IN IRELAND.

THE following candidates have been approved for the Diploma in Public Health:

*Mary M. G. Iles, *R. J. B. Buchanan, *P. Dwyer, *C. W. Holden, R. T. G. Aickin, W. L. Bradshaw, H. L. Esmonde-White, H. R. R. Fowler, J. A. Gibson, E. S. Hawthorne, R. A. O'Donovan, J. P. Ziervogel.

* With honours.

SOCIETY OF APOTHECARIES OF LONDON.

DR. ERNEST W. AINLEY WALKER of Oxford has been reappointed Gillson Research Scholar in Pathology.

The following candidates have been approved in the subjects mentioned:

Surgery.—*†W. G. H. Cable, *†M. O. Dollie, *C. H. J. Fagan, C. W. Gibson, *P. Moxey, R. J. S. Verity, *†A. P. Wright.

Medicine.—D. L. E. Bolton, T. P. Braim, †H. S. Burnell-Jones, *R. C. T. Evans, *†A. J. Hopper, *P. Moxey, *†J. P. B. Snell, †M. C. Vivian.

Forensic Medicine.—T. P. Braim, J. L. Meynell, P. Moxey, N. C. Wallis.

Midwifery.—T. P. Braim, N. C. Wallis.

*Section I. †Section II.

The diploma of the Society has been granted to Messrs. W. G. H. Cable, M. O. Dollie, C. W. Gibson, J. P. B. Snell, R. J. S. Verity, and M. C. Vivian.

GRANTS IN AID.

THE Treasury has appointed a permanent Committee to advise the department as to the distribution of the grant in aid of colleges furnishing education of a university standard. The constitution of the Committee is as follows: The Rev. H. G. Woods, D.D., Master of the Temple and Treasury Commissioner for the Inspection of University Colleges, Chairman; Sir Francis Mowatt, G.C.B., formerly Permanent Secretary to the Treasury; Sir William J. Collins, M.D., M.P.; Dr. Henry Jackson, Regius Professor of Greek in the University of Cambridge; and Professor W. S. McCormick, Secretary to the Carnegie Trust for the Universities of Scotland. Mr. R. G. Hawtrey, of the Treasury, is Secretary.

MEDICO-LEGAL AND MEDICO-ETHICAL.

DEATH UNDER ETHYL CHLORIDE.

AT the Westminster Coroner's Court, on February 23rd, an inquiry was held into the death of the Rev. W. H. Eley, aged 67, who had died while under the influence of ethyl chloride, given in order that four teeth might be removed by Mr. Warburton Brown, M.R.C.S., L.R.C.P., Dental Surgeon. When the final extraction was about to be made the patient suddenly became very pale and died almost immediately.

Dr. **ALEXANDER BROWN**, who was the anaesthetist, said that his experience of ethyl chloride had been very favourable. It was liable, however, to give rise to a great deal of muscular rigidity at times, so that respiration might be suspended. He could not examine the heart in great detail, because the patient seemed unwilling to submit to much examination. An average quantity of the ethyl chloride was given. He had been present at the autopsy, and was of opinion that death was due to syncope, accelerated by the anaesthetic and shock. His reason for not selecting nitrous oxide and oxygen was because the period of anaesthesia produced would not have been long enough. He had never known a case of heart failure through the use of ethyl chloride.

Dr. **R. S. TREVOR**, Pathologist at St. George's Hospital, who made the *post-mortem* examination, stated that death was due to syncope, accelerated by the administration of ethyl chloride in a person suffering from fatty degeneration of the heart muscle. Recently some evidence had been accumulating showing that sometimes fainting attacks accompanied its administration; this indicated that it acted as a depressant. The condition of the heart rendered the patient an unfit subject for an anaesthetic, but might not necessarily have been discovered during life, unless something had occurred to stimulate the heart.

The jury, in returning a verdict in accordance with the medical evidence, expressed an opinion that all due care had been taken in the treatment of the case.

OYSTERS AND SEWAGE.

AN action brought by Mr. A. J. Hobart against the Southend Corporation occupied nine days of the time of Mr. Justice Buckley's Court during last month, and judgement was delivered on February 21st. The action was for an injunction and damages in respect of the alleged pollution of the plaintiff's oyster beds in Hadleigh Bay, near Southend, by sewage coming from the outfalls of the defendant corporation's sewage system. Mr. Justice Buckley granted an injunction restraining the corporation from discharging sewage so as to create a nuisance by the pollution of the oyster beds during the term of the plaintiff's lease, and assessed the damages at £1,500; costs were granted on the higher scale. Execution was stayed, except for the payment of costs, for fourteen days to give the defendants time to consider whether they would appeal.

MEDICAL CERTIFICATES OF THE CAUSE OF DEATH.

FOR the information of several correspondents we reproduce Subsections (2) and (3) of Section 20 of the Births and Deaths Registration Act, 1874:

"Sec. 20. . . (2) In case of the death of any person who has been attended during his last illness by a registered medical practitioner, that practitioner shall sign and give to some person required by this Act to give information concerning the death a certificate stating to the best of his knowledge and belief the cause of death . . .

"(3) Where an inquest is held on the body of any deceased person, a medical certificate of the cause of death need not be given to the registrar, but the certificate of the finding of the jury furnished by the coroner shall be sufficient."

This section is commented upon in the *Encyclopaedia of English Law* as follows:

"When the deceased was attended by a qualified medical practitioner during his last illness, the medical man must certify on the prescribed form his opinion as to the cause of death, and give it to the person required to inform as to death, who must, under penalty, give it to the registrar. This, of course, does not require a doctor to certify a cause unless he really believes he can do so. If the certificate contains statements of a defamatory character it is privileged, but if malicious exposes the doctor to an action . . . In ordinary cases, where a person has died a natural death, the medical attendant is bound . . . to certify to the best of his belief as to the cause of death. Where, however, he has reasonable ground to suspect that his patient's death was caused directly or indirectly by violence, or was other than 'natural,' or where he cannot with reasonable certainty (founded on his own observation and knowledge of the patient during life and not merely on the statements of others) assign the nature of the disease, his duty is to decline to give a certificate and refer the matter to the coroner, who is the officer specially appointed to make inquiry into all the circumstances."

The phrase "attendance during his last illness" has never been defined, but the Select Committee of 1893, presided over by Sir Walter Foster, recommended that the attendance during the last illness should be defined as meaning "personal attendance by the person certifying upon at least two occasions, one of which should be within eight days of death."

AGREEMENTS NOT TO PRACTISE.

LEX.—A correspondent writes that he sold his practice with the undertaking that he should not practise medicine surgery, or midwifery within three miles of his late residence, now occupied by his successor. He was in the habi of examining lives for a certain insurance company, an appointment that his successor is unable to get, and he has the option from the company of continuing to examine such lives. Would it be an infringement of his agreement not to practise within three miles if he were to examine such lives within that radius?

*** It would be an infringement of the ageeement.

A DISCLAIMER.

DR. **ROBERT JONES** AND DR. **THOMAS D. LISTER** (London, W. write: We desire to repudiate together and individually al responsibility for the use made of our names and our repor in an account of certain proceedings published in the *Daily Mail* of Saturday, February 24th, and subsequently reproduced in other periodicals.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES

CONSUMPTION SANATORIUMS FOR LONDON.

FROM what passed at the meeting of the Metropolitan Asylums Board on February 17th, the prospects of this body early undertaking the provision of accommodation for the isolation and treatment of cases of phthisis among the poorer classes in the metropolis would not appear very hopeful. Nevertheless i may be reasonably concluded from the Board's actions that i is itself not indisposed towards the project, the adoption o which has now been urged upon it from so many different quarters. The more important document to this effect is tha which was submitted by the Incorporated Society of Medica Officers of Health, and the General Purposes Committee of the Board sent copies of this memorial to all the metropolitan city, and borough councils, as well as to boards of guardians and other local authorities. Some sixty-five local authorities were consulted, and nineteen replied in terms favourable to the plan; nine more were favourable to it, provided the expenses entailed were made a national charge; and twenty-three did not give a definite opinion in either direction. The remaining fourteen were opposed to the scheme. The Local Government Board, which was also supplied with a copy of the memorial, acknowledged its receipt in non-committal terms The final upshot of the meeting was that the Board accepted the recommendation of the General Purposes Committee to the effect that the Local Government Board should again be addressed and be asked to deliver a definite judgement on the matter, the information collected by the Committee being duly conveyed to it.

MEDICAL ATTENDANCE ON WORKHOUSE OFFICIALS

DR. **A. T. BRAND** (Medical Officer, Driffield Workhouse) writes In your reply to your correspondent on this subject (p. 417 you appear to have overlooked several important points:

1. The question of remuneration for medical attendance on paid officials in a workhouse is entirely one of arrangement between the workhouse medical officer and those officials, since the contract between the guardians and the workhouse medical officer applies only to paupers.

2. No extra fee for surgical operations or the treatment o fractures or dislocations at a workhouse is allowed to any workhouse medical officer. Such extra fees are only paid to district medical officers according to a very limited category. Even if the attendant had been a pauper inmate your correspondent would not have been entitled to any extra remuneration whatever over and above his salary. By special arrangement with the guardians the workhouse medical officer may receive extra fees for midwifery and vaccination.

3. The full fee exigible for treating a simple Pott's fracture of the leg is £3, (£5 for a compound one), but this fee can only be claimed by a district medical officer out of the workhouse.

4. The contract certainly specifies that the workhouse medical officer must attend when requested by the maste or matron, but this does not make either responsible fo a fee to which the workhouse medical officer is not entitled in any case.

Your correspondent's only recourse is to present his clain for payment to his patient—the paid official—for whom neither the matron nor the guardians are responsible in any shape or form.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Queries, answers, and communications relating to *jects to which special departments of the* BRITISH ICAL JOURNAL *are devoted will be found under their ective headings.*

QUERIES.

A. HAWKYARD (Hunslet, Leeds) asks for practical ex- riences in the working of the Maxwell motor car.

ZLED asks for hints in the treatment of a young woman ose hair, when it attains to the length of 6 in. or so, splits and breaks off. This condition has persisted from child- od. She is otherwise well, and her sisters have fine heads hair.

STATUETTE OF PASTEUR.

.C.S. asks where he can obtain a statuette of Pasteur? He nder the impression that one was advertised in the medical pers some years ago.

LÅNGMJOLK.

CYRIL E. CORLITH (Sydney) writes: During a study of tain matters in connexion with the chemistry of milk d milk preparations I came across a reference by Sebelien p. 154, Bd. xx, *Zeitschr. f. Biol.*, to a Swedish milk paration called "långmjolk, or "tätmjolk." Accord- to Sebelien, it is of a gummy or pasty consistency schleimig"), and keeps good for a year when bottled. ave a fair knowledge of milk literature, but have never n any other reference to this preparation. I would be d to hear of further literary references, and for any ormation about it—general, chemical, bacteriological, tronomic, or otherwise.

ANSWERS.

LAFFAN.—Our correspondent will find the Report of the ect Committee of the House of Commons on the Registra- n of Nurses printed in full in the SUPPLEMENT to the ITISH MEDICAL JOURNAL of August 5th, 1905, p. 157, and the SUPPLEMENT for this week a report on it by the dico-Political Committee of the British Medical Asso- tion.

TRAINING SCHOOLS FOR FEEBLE-MINDED CHILDREN.
D.—There is no cheap training home for a working man's ble-minded child except one of the institutions for eciles. Particulars of these may be obtained from the ective secretaries for Earlswood, Mr. W. Howard, Secre- , 36, King William Street, E.C., and for the Eastern nties Institution at Colchester, Mr. J. J. Turner, at that ress. If a girl, Miss Bartholomew, 15, Clapton Square, ., might be communicated with as to the Girls' Training ne, Clapton.

OR.—Formerly formic acid was given in cases with tremor mmonium formiate in doses of 5 gr. It is doubtful if method of treating a symptom is anywhere recognized he present day. The principal modern advocates of the apeutic use of formic acid are Professor Huchard of is and M. Clement of Lyons, who have within the last made communications on the subject to the Paris demy of Medicine. They regard it as a powerful muscle c. It is given as a salt, most commonly a soda salt, the of the latter (sodium formiate) being 2 or 3 grams a day. ar it is not known to be toxic.

LETTERS, NOTES, etc.

THE *X*-RAY TREATMENT OF RINGWORM.

ALTER C. ORAM (Liverpool) writes: Mr. Sichel's article he BRITISH MEDICAL JOURNAL of February 3rd, p. 256, he treatment of ringworm of the scalp will prove of rest to many workers with the *x* rays, but I do not think the percentage of cures which he records gives a fair of the value of the treatment. I feel sure that all will e with him that the great crux lies in the estimation of dose, and I believe that we receive but little assistance either Sabouraud or Holzknecht's radiometer; I feel inced that each worker must determine by a series of ful experiments with gradually increasing durations of sure what dose is necessary for satisfactory epilation his particular instrument, and, having found this, t keep the conditions constant. This entails much ble and time both to the operator and to the patient, is safer than trusting blindly to any form of radiometer. onally, in the treatment of ringworm by the method of le exposure, I have not been able, so far, to obtain in all that complete and uniform epilation of the whole which alone makes the cure certain in extensive cases. an epilation can be obtained by a series of five or six sures repeated at intervals of three or four days, the being placed at 9 in. from the scalp. This is the method which I have used most extensively in the treatment of ringworm, though I have now discarded it in favour of Sabouraud's method of single exposure on account of the time which is thus saved. My results, so far, with Sabouraud's methods are not so satisfactory as those I obtained previously, as small patches and isolated hairs are often left behind, which if not originally infected become so when the rest of the hair falls out, and the disease is not cured. It may be that the action of the rays intermittently applied for some weeks produces a more complete suspension of function in the hair papillae, and it would be interesting to learn if others have noticed the same thing. In reviewing the results of Dr. Stopford Taylor's cases of ringworm which I have treated for him during the past year I find that, out of 108 children with this disease who have attended, 47 have been discharged cured, 11 have proved failures, and 15 are still under treatment. Of the remainder I can give no information; some only attended once or twice, others attended long enough to produce epilation, but not long enough for one to be sure that the disease was cured. The average time from the first application of the rays until the head was found to be free from broken hairs or scales was 2.7 months. To this must be added three months to allow the hair to grow, and this makes the time of cure in the cases I quote about the same as Mr. Sichel gives. I have never seen anything approaching a permanent alopecia in these cases. The hair has always shown vigorous growth three months after the suspension of the rays, and, though the treatment is not without its dangers, I think that to admit 1 per cent. of accidents is to over-estimate them.

POISONING BY NUTMEG.

DR. A. NORRIS WILKINSON (Bright, Victoria, Australia) writes: The following is a short account of four members of a family who took nutmeg: In mother and son it produced a narcotic effect, but in the two girls gave rise to choreic symptoms, the former action being as given usually in the textbooks, the latter the converse. I was called to visit M. L., aged 4½ years, who, with her elder sister, six days previously had eaten or chewed nutmeg nut; they had been given potassium bromide in mixture by the local chemist, but as one had not improved but was much worse, he had advised them to call me in. The history of the symptoms up to that day, given me by the mother, was that there had been no vomiting. On the day after taking the nutmeg she "spat frothy spittle"; there was no purging; she slept peacefully, but there were movements of arms, legs, neck, and body generally, which had been gradually increasing in severity; no alteration in the urine had been noticed. The mother gave the child senna tea, after which there was free movement of the bowels, but nothing peculiar noticed in the motions; the tongue seemed thick in speaking and swallowing. On seeing the child one naturally formed the idea that it was a case of severe chorea, affecting the body generally but not the facial muscles. She was unable to walk; heart regular. The elder girl, aged 9 years, was said also to have had similar movements all over, but not so bad as her sister; she had gradually improved, though I could perceive a slight trace. The brother, aged 11 years, had eaten some when in school, and became so dull and stupid that he was punished, but the effect soon wore off. The mother some time previous had had a bad cold, for which she was advised by some lay practitioner to grind up a whole nutmeg, and eat it in gruel. She says she felt "very stupid and sleepy, thick feeling in tongue, with slimy sensation"; it was three days before the effect wore off, but she suffered from no twitchings of limbs or body. I placed the child (4½ years) on 3-minim doses of liq. fowleri, and when I saw her again, three days later, she was much improved, had walked that day, and the movements generally were much lessened in severity.

NERVOUS MIMICRY.

DR. JOHN REID (London, E.C.) writes: A primipara with normal labour was free from pain, fever, etc., on the following day. In the evening I was summoned by a fidgety nurse, and found the patient suffering from influenza, with consolidation of the apex of the left lung and a temperature under 102°. Two hours later I was sent for to find her suffering from pain in the abdomen and tenderness. The temperature had gone down, the pulse was natural and the facial expression belied her statements. Under antihysterical treatment she had almost quite recovered on the following day. The subject of nervous mimicry was well studied by the late Sir James Paget and the above case may be of interest, more especially as the nurse and not the patient was markedly hysterical.

THE MOTOR CAR LICENCE.

DR. A. ROSE (Horwich, Lancashire) writes: In the BRITISH MEDICAL JOURNAL, February 10th, under the heading "Cost of Keeping a Motor Car," I see that "H. E. P.," in giving his expenses for the years 1904-5, puts his licences down at 30s. and 10s. respectively. I am sure your readers would like to know how he gets off so easily with the Inland Revenue officers. We have to pay here the usual yearly licence of two guineas for cars with four wheels and weighing under 1 ton. "H. E. P.'s" De Dion car would come under that category. I am hoping that he has convinced the Revenue officers of the need of allowing a rebatement, if not a remission altogether, of the vehicular licence. The poor country doctor, in my opinion, is quite as deserving of State sympathy as the butcher and the baker (who are exempt from the licence) in their respective callings.

SPONTANEOUS RELIEF OF PROSTATIC ENLARGEMENT.

DR. THOMAS McCARTHY (Sherborne, Dorset) writes: A man, aged 73, whom I had to catheterize on a couple of occasions for retention with overflow due to prostatic enlargement, and who had been able to pass his water satisfactorily for some time, lately found his trouble coming on again. He was thinking of sending for me, but feeling that he must strain to pass his water, he sat down on the w c., and, straining violently, he felt something give. He tells me that he then passed by the urethra a body very like a medium-sized gooseberry, and this was followed by a large stream of water with a little blood in it. Since that time he is able to pass his water more freely than he has for many years. Unfortunately he did not keep the body for me to see.

UNION OF LONDON MEDICAL SOCIETIES.

A. B. M. MYERS, Brigade Surgeon - Lieutenant - Colonel (London, W.), writes: The Honorary Secretaries, in their conjoint letters to you of February 10th, state that the replies sent to their 5,000 postcards have been most satisfactory, nearly 1,000 individuals having expressed their intention of joining the new Society as Fellows. May I be allowed, as a strong opponent of this proposed amalgamation, to pass a few comments on the above statement? Acknowledging, as I unquestionably do, that economy is the sheet-anchor of the supporters of this movement, I should have thought that only 1,000 favourable replies out of 5,000 would not have been considered so highly satisfactory. But whether satisfactory or otherwise, I hope that the profession will not allow economy to swamp all other considerations, and that such old societies as the Medical and the Royal Medical and Chirurgical societies will take the question very carefully into their consideration before they allow their great prestige and capital to be swamped in this amalgamation of heterogeneous societies. There appears to be some question as to the admission of women, and a doubt as to whether, if admitted as members, they should be allowed to become Fellows. There surely, however, can be no doubt that if the societies amalgamated have women members they must be entitled to become members of the new Society, and in all fairness they must thus have equal rights with men to become Fellows.

THE BURIAL PLACE OF HARVEY.

WITH reference to the appeal of the Rev. E. J. Roberts, published in the BRITISH MEDICAL JOURNAL of February 17th, 1906, p. 415, for funds to assist in the rebuilding of the tower of Hempstead Church, Saffron Walden, where William Harvey was buried, we are informed that the following additional subscriptions have been received. Contributions may be sent to Messrs. Barclay, bankers, Saffron Walden, endorsed "Hempstead Tower Fund."

	£	s.	d.
Regius Professor of Medicine, Oxford ...	£2	2	0
Dr. Collier	1	1	0

POST-OFFICE AMENITIES.

DR. SAMUEL HOSEGOOD (Swinton, Manchester) writes: Truly, the ways of some of our public institutions—Government and other—are past finding out. About two years ago I had an exactly similar experience to that related by your correspondent "West Somerset" in regard to the peculiar methods adopted by the Post-office authorities. Like him, I forwarded the suggested application, and also, like him, I was "not aware that any one else in the district had been invited to apply." Apparently, therefore, this *is* "the usual procedure" adopted by the department; but though it may possibly be justified on grounds not particularly evident—such as general custom or the like, I am quite at one with your correspondent in thinking that ordinary courtesy demanded that each practitioner invited to send in an application should have been made acquainted with the result. In my own case a period of fully six months elapsed before I learnt (casually) that a neighbouring practitioner had obtained the appointment, for which I have yet to learn how many applicants competed.

A NEW TREATMENT FOR HOUSEMAID'S KNEE.

DR. WM. HARDMAN writes: I have just read Dr. Allen's memorandum on "A New Treatment for 'Housemaid's Knee' by Subcutaneous Rupture" (BRITISH MEDICAL JOURNAL, January 27th, page 198), and he describes how he has successively and successfully ruptured three enlarged bursae on himself. I hardly think this can be called a "new treatment," as I have ruptured subcutaneously all bursae and ganglia I could for at least thirty-five years. I first saw the late Mr. H. O. Thomas of Liverpool treat bursae in this way. He used to make the patient bend his knee tightly and then hit the bursa suddenly with his fist. It is advisable to make quite sure that the bursa is not tending to suppuration. I once had to treat extensive inflammation in the cellular tissue round about an enlarged knee bursa, which
had been accidentally ruptured by kneeling. They cann
always be burst. They are too tough. I have found a su
cutaneous incision into the bursa with a tenotomy kn
quite as effectual; and have never had any bad effects.

THE VALUE OF PROTEID DIET.

MR. HOPE GRANT, F.R.C.S.Edin. (London, E.C.), writes: I ha
just read your interesting and practical article under t
above heading in the BRITISH MEDICAL JOURNAL of Fe
ruary 17th. My reason for writing to you is to point o
that, while we should give full credit to the brillia
American professor for proving to us practically th
"vigorous health and strength with daily hard work may
maintained upon diets which are not only poorer in prote
but lower in total fuel value than is generally supposed,"
should also bear in mind that one of the British Faculty h
for many years advocated the principles just practica
demonstrated. I refer to Dr. Rabagliati of Bradford, wh
Aphorisms, Definitions, Reflections, and Paradoxes, pu
lished in 1901, I strongly recommend to my professio
brethren. I may be allowed to add that I am persona
unacquainted with Dr. Rabagliati.

ARTERIO-SCLEROSIS.

DR. A. RABAGLIATI (Bradford), in the course of a letter on t
subject, writes: I should like to be allowed to put a gener
simple, and comprehensive view of the condition
various cases. Cerebral haemorrhage at 54, coldn
and whiteness and numbness of hands ("a mild form
Raynaud") at 25, and the same complaint at 40 from drivi
a pony in the cold, are all explicable, as is also
increased blood pressure, from the following considerati
There is hypertrophy (it may be only functional and te
porary at first) of the circular fibres of the arteries. Un
the stimulus of cold, or it may be of heat, or any exciteme
these hypertrophied circular fibres go into tight contracti
and by diminishing the blood supply, lengthening a
narrowing the arteries, cause the symptoms. As the sa
conditions obtain in the myocardium and in the coron
arteries, we may get attacks of angina pectoris, true
false, as it is very badly called. Angina pectoris is neit
more nor less than rheumatic cramp of the heart, the org
stopping in tight and firm systole and not dilating till af
death, when it is too late. The cause *par excellence* is
much food, too many meals, and particularly too much hyd
carbonaceous stuff going into the blood, causing bronchi
asthma, and rheumatism among other common conditio
An excellent plan of treatment is to poultice the abdon
for an hour every night for three weeks, to order potassi
iodide twice daily after food, and to put the patient on t
meals a day, one at 12 and one at 6.30; also to prescr
exercises in the morning in the act of dressing. The pat
logical changes begin in the connective tissues. The c
nective tissues becoming engorged (with lymph rather th
blood), the musculature takes on its over-nutrition, and
symptoms so well known and so well described by
Mackenzie and Dr. Russell show themselves. The chan
in the coronary arteries in angina are secondary, and
effects rather than cause; in fact, they are means adop
by Nature to stop the blood supply to the heart muscle
order to prevent further hypertrophy and obviate the dan
of cramp.

WARREN TRIENNIAL PRIZE.

THE Warren Triennial Prize, founded by the late Dr. J. Ma
Warren, of Boston, U.S.A., in memory of his father,
awarded every three years for the best dissertation, c
sidered of sufficient importance on some subject in phy
logy, surgery, or pathological anatomy. The arbitrators
the physicians and surgeons of the Massachusetts Gen
Hospital. The subject for competition for the year 190
on some special subject in physiology, surgery, or pathol
Dissertations must be legibly written, and may be suita
bound, so as to be easily handled. The name of the wr
must be enclosed in a sealed envelope, on which must
written a motto corresponding with one on the accompany
dissertation. The amount of the prize for the year
will be 500 dols. (£100). Dissertations will be received u
April 14, 1907. It may be added that a high value will
placed on original work.

SCALE OF CHARGES FOR ADVERTISEMENTS IN TH
BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	£0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page...	8	0	0

An average line contains six words.

Advertisements should be delivered, addressed to the Mana
at the Office, not later than first post on Wednesday morn
preceding publication; and if not paid for at the time, should
accompanied by a reference.

Post-Office Orders should be made payable to the British Med
Association at the General Post Office, London. Small amou
may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letter
Postes Restantes addressed either in initials or numbers.

An Address

ON THE

MIDWIFERY OF THE PRESENT DAY.

DELIVERED BEFORE THE LAMBETH DIVISION OF THE BRITISH MEDICAL ASSOCIATION.

By **PETER HORROCKS, M.D., F.R.C.P.,**
SENIOR OBSTETRIC PHYSICIAN TO GUY'S HOSPITAL.

GENTLEMEN,—The evolution of antiseptics and asepsis has wrought a revolution in medicine and all its branches. On the practice of midwifery the effect has been enormous, and it is my privilege to-day to tell you what this has been up to the present time, and to indicate the path of progress in the future.

Let me call your attention to the fact that, whilst the physician and the surgeon and the specialist are dealing as a rule with disease, or some deviation from the normal, the accoucheur deals in the vast majority of cases with no disease at all, and with no deviation from the normal state, but with a physiological act of Nature. It is difficult to state precisely how many confinements are normal, but certainly statistics prove that they constitute not less than 90 per cent. Probably 95 per cent. would be nearer the mark, but even at the former figure it means that nine cases out of ten are normal.

It would take me far beyond the time at my disposal to deal with abnormal labour, except incidentally, or even to indicate how to find out whether a given labour is, or is about to be, abnormal. One of the most remarkable facts in Nature is that no animal the female member of which gives birth to progeny after impregnation and gestation, requires as a rule any assistance during parturition. It is quite true that help is often rendered to horses, cows, sheep, pigs, goats, and to some wild animals kept captive. But those who have to deal with these cases admit that each animal when left to its own devices will as a rule deliver itself successfully of a living offspring.

Mankind is no exception to this rule. A woman can in most cases deliver herself successfully, without help, without instruction, and without knowledge beyond her own instincts. Only recently the newspapers contained accounts of a case in which a woman was delivered in a tram, another in an omnibus, and a third in a motor car. They all did well. Doubtless many of you can remember the first time you ever attended a confinement. How ignorant you felt! How fearful you were lest something should go wrong! How glad you were when everything went right. And how proud you felt when all the *kudos* was bestowed upon you by the husband and relatives, although you knew the case had managed itself, and that you had practically been a mere spectator.

Poor women often deliver themselves quite satisfactorily with no help beyond such as a neighbour can give, and this help is more that of companionship and that of waitress than assistance in helping on the birth. In other words, Nature carries out the physiological act. Again, a young girl, who has never seen a parturition, and who is quite ignorant of all its details, will creep into a hiding place to conceal her shame, and yet will deliver herself unaided of a living child and take no harm.

All these facts prove, if proof were needed, that parturition is an act of Nature, and, like all other physiological acts, it is well-nigh perfect. If you compare it with other physiological acts, such as swallowing, breathing, defaecation, or micturition, you will find that it is very similar to them in that it is a reflex act, which can be modified to a limited extent by volition.

The labour can be helped or hindered by voluntary muscular efforts on the part of the woman. But, on the one hand, such help is not absolutely essential, as is proved by those cases in which there is complete severance of the will power through a lesion of the spinal cord, and yet delivery takes place by uterine action alone; and, on the other hand, hindrance is limited, for no woman could prevent delivery taking place at term by mere voluntary efforts. And, indeed, if you will watch a woman in labour you will be struck by the fact that instinct alone teaches her how to help herself; she will plant her feet against whatever gives support, flex her thighs, and often open them, clutch the bedclothes, and hold her breath, and bear down, all of which acts help parturition.

If you will look backwards at the practice of midwifery in the past you will be struck by the fact that parturition was looked upon as a very dangerous thing to the woman.

All the textbooks dwell upon this danger, which was looked upon as partly due to changes which took place in the blood during pregnancy, rendering the individual extremely prone to inflammation, and partly due to the continuance of the effect of the curse of Adam and Eve when they were driven from the Garden of Eden—"In sorrow thou shalt bring forth children."

It certainly did appear to the obstetricians of the past that parturition was an extremely dangerous thing, and the data we have at our disposal prove that indeed it was dangerous in those days. The frightful mortality in the lying-in hospitals in London and elsewhere, when almost every woman confined within their walls died from "fever," leading to the closing of the hospitals for periods of many months in the hope of getting rid of the bad atmosphere which a congregation of patients in one ward was supposed to set up, makes one shudder. The *bête noire* of the practitioners of the past, namely, puerperal fever, was no mere bogey raised to frighten people, but was a reality which caused untold misery and grief.

And yet, when you come to look upon the practice of midwifery at that time, as it is graphically described and recommended in the various textbooks, you will see, thanks to the light thrown upon it by our knowledge of the causation of inflammation and its prevention by suitable methods, that this very dreadful fever was not due to some pathological condition of the blood caused by pregnancy, rendering it prone to inflammation, nor to any continuance of the curse on Adam and Eve. It was caused by the accoucheur himself, or, at all events, by him, or her, or those who assisted in the act of parturition. They had no idea that when they made a vaginal examination they were introducing on their fingers the seeds of the poison that was about to kill the patient or make her ill. Hence there was no limit made to the number of such examinations during each and every stage of the labour. With no knowledge of bacteriology, with no precautions therefore against the introduction of germs, what wonder was it that so many patients died from "fever," and that few, if any, escaped some sort of inflammation? The wonder is that any woman escaped alive even after what was looked upon as normal labour.

Then when you read of the methods employed in the delivery of the placenta—as, for example, pulling on the umbilical cord—you are not astonished at the large number of cases of excessive *post-partum* haemorrhage.

When Pasteur, the Kepler of medicine, published his classical paper about milk—why it turned sour, and how it could be prevented—and when during the reading of this the inspiration came to Lister, the Isaac Newton of medicine, to apply it to wounds, then began that glorious epoch which has revolutionized every department of medicine.

Limiting myself to-day to its effect upon the practice of midwifery, and more especially its effect upon the actions of the accoucheur in an ordinary normal labour, let me sketch the main features of the change that has been wrought. The germs which caused the fever were said to exist in the air, and some thought they might also exist in the parturient canal, more especially on the vulva and in the mucous membrane of the vagina and cervix uteri. Hence began the practice of washing the external genitals and of syringing the vagina with antiseptic lotions, more especially with carbolic lotions of various strengths, because carbolic lotion was the antiseptic used and recommended by Lister in surgical operations. The number of cases of "fever" of all sorts following labour decidedly decreased; and when the uterus itself was washed out, as soon as the placenta was born, with a solution of mercury perchloride sufficiently strong to kill the supposed germs, "puerperal septicaemia" was practically eliminated—from the lying-in hospitals, at all events.

More and more facts were discovered, and it was found that the germs were not so much in the air as on the fingers of the accoucheur. Hence began the practice of hand disinfection, with marvellous results.

Some of us pointed out that the syringing of the uterine cavity after every labour was a measure attended by a slight risk, and that where no germs had been introduced by the accoucheur, syringing was to say the least unnecessary. Doubtless so long as hand disinfection was imperfect, routine vaginal and uterine douching with antiseptics was beneficial. Its advocates, however, were obliged to admit that with the evolution of antiseptics and asepsis, with the knowledge that not only is the vagina itself aseptic as a rule, but also in its upper part and within the cervical canal there is usually an antiseptic secretion, it was unnecessary to wash out the uterus after every labour. Some of them, however, went on recommending routine douching of the vagina after labour, and up to a few years ago it was almost impossible to convince a nurse who had been trained at a lying-in hospital that a patient would go on quite all right without any rise of temperature unless she had the vagina washed out regularly after labour. But it was found that if no germs were introduced the patients made a perfect recovery without syringing of any kind, and inasmuch as there was always a slight risk in syringing, this was given up entirely by most authorities at all events.

Again, the fact that in the majority of cases the poison which caused the puerperal fever was not autogenetic—that is, already existing within the patient's parturient canal—as was not unwillingly imagined and believed by those who unfortunately had these cases, but was heterogenetic, that is, arose from outside, and was introduced into the parturient canal by those who examined, namely, on the fingers of the doctor or of the nurse or of both, led to the evolution of hand disinfection, including the wearing of boiled indiarubber gloves.

In the inaugural address which I delivered before the Obstetrical Society of London in 1901 [1] will be found some interesting facts in regard to progress of the practice of midwifery during the nineteenth century. In 1893 I published a paper in the *Clinical Journal* on the management of natural labour. In 1903 I delivered an address on puerperal sepsis in Oldham which was published in the British Medical Journal for February 13th, 1904. In each of these, in debates on cognate subjects, and in my lectures and teaching at Guy's Hospital, I have endeavoured to show how all advances made in our knowledge of the causation of troubles arising during and after labour prove that the nearer we can approach to Nature's methods, the more perfect are the results.

The study of the subject causes the unbiassed mind to leap to the conclusion that the fewer the examinations during labour, the less the risk of infection. Science says Hands off! But she also says that if an examination be made then indeed a great responsibility is placed upon the person making the examination.

I have shown how a man might make his examining hand as aseptic as is possible and yet how he might get it contaminated *en route* to the vagina, through touching the bedclothes or the vulva. It was shown that a woman who was delivered without any examination at all generally did perfectly well, and that the nearest approach to such an ideal labour was to make only one examination and to let that suffice when it was found that everything was normal. I described a method of attaining a practically perfect asepsis of the examining hand, and a method of examining without soiling the hand during the introduction of the examining finger into the vagina.

The number of letters I received from medical men, the number of medical men whom I met in consultation who told me how the reading of that address had altered their practice, the evidence there is that other teachers have begun to adopt and to teach the same practice, all these have been very gratifying. At the same time much has yet to be done to convince practitioners that a woman can deliver herself safely without help of any kind in the vast majority of cases, and that the less he interferes the better.

I need hardly say that in these days it is little short of criminal to terminate normal labours as quickly as possible by the use of forceps or manual interference. It may be true that with all-metal, boiled, aseptic forceps, with aseptic hands and parturient parts, a child may be delivered quickly without setting up puerperal sepsis. But unless there is good reason for such quick delivery, such as undue delay of the head at the brim or in its course along the pelvis, it is quite unjustifiable. To do it to save one's own time, or to shorten the sufferings of labour (of course I am speaking of normal cases) is not justifiable. You cannot terminate labour before the parts are ready without doing some damage.

Indeed, I have come to the conclusion that you cannot interfere at all without detriment to the process. For example, one practitioner said to me, "I quite agree with all you have said, and intend to follow the instructions given; but at the same time I intend to continue my practice of following down the uterus with my hand on the abdomen during the second stage of labour, as I believe this prevents *post-partum* haemorrhage." It is a very difficult thing to overcome prejudice. But if you will watch the next normal case of labour, and not touch the abdomen with your hand during any of the stages of labour, you will be perfectly satisfied with the result. The physiological act of parturition evolved by Nature in the countless ages that are gone has not been left so imperfect as to require pressure on the uterus during the second stage. A study of the phenomena of contraction and retraction shows that it is better for the uterus to do the work itself.[2] The results of omitting this interference prove that *post-partum* haemorrhage is not prevented by following down the uterus during the second stage of labour. That it is, to say the least, an unnecessary procedure. Personally, I think it is injurious, though the injury may be slight and unimportant.

Again, another medical practitioner said he agreed with every point except one—namely, that he felt sure he had saved the perineum from being ruptured by a careful support with the hand during the distension, and a slipping backwards of the perineum over the head at a suitable moment in between the pains. But he admitted that in most primiparae this so-called support of the perineum did not prevent laceration of the posterior fourchette, and perhaps just a little of the perineum, but he felt convinced that, but for the support, the perineum would have been torn much more extensively. You will see how difficult it is to say in a given case whether the perineum would have given way more or less had it not been supported.

What I appeal to, however, are facts. You must, if you wish to arrive at the truth, investigate the subject by examining the perineum in a large number of normal labours, where there has been no so-called support of the perineum, but where Nature has been left alone. If you will do this you will arrive at the same conclusion as I—namely, that it is unnecessary to support the perineum; that to do so in normal labour is, to say the least, an unnecessary proceeding; that the extent of rupture of the perineum varies considerably in different women, according to the relative size of the child's head and the parturient canal, and to some extent according to the rigidity or elasticity of the parts and according to the speed of the birth.

Doubtless there are cases in which a judicious interference will save the perineum, but to-day I have not time to enter into the particulars of such cases. I am speaking of the 90 per cent. and more of cases which are normal, and telling you that you need not support the perineum at all in them. Your results will be just as excellent, if not more so.

If, then, you have followed my arguments, you will see that all the facts that we have gleaned from the evolution of antiseptics and asepsis point to this: namely, that in a woman who delivers herself without being examined or helped at all—that is, when Nature is left alone to perform a physiological act—the result is, as a rule, perfection so far as mother and child are concerned.

The question arises, therefore, what is the good, then, of a doctor?

Well, please remember that in a very small percentage of cases you get an abnormal labour. For example, you might get a transverse presentation, where version would save the child; a prolapse of cord, replacement of which would save the child; *post-partum* haemorrhage, where suitable treatment would save the mother, besides many other conditions that threaten injury or death to mother and child or to both. It is on account of these cases that at all events one examination should be made. By this one examination you can, as a rule, discover whether you are dealing with normal labour or not. Possibly in a few instances you might require to make a second, or even more examinations, in order to satisfy yourself that all was right. At all events, having done so, it is not necessary, as used to be taught, that you should go on making repeated examinations to see how things are progressing. On the contrary, you know by one examination that everything is normal, you have eliminated most of the ordinary abnormalities, and you can leave the rest to Nature, and in very rare instances will you find anything abnormal coming on subsequent to your examination. Of course it might. For example, you might examine just before the end of the first stage, and later on, when the membrane did rupture, the umbilical cord might become prolapsed with the rush of liquor amnii. Hence some men prefer to make this one examination after the end of the first stage, or if an examination has been made during the first stage, a second one could be made soon after the rupture of the membranes.

I will now deal with the modern practice of midwifery so far as regards normal labour, which will include upwards of 90 per cent. of all cases.

A lady comes to engage you in her confinement, and you will have to decide the question of examining her to see if everything is normal. My advice to you is not to make any hard and fast rule in regard to routine examinations. At Guy's Hospital for many years the women whom we attend—more than 3,000 per annum—are not examined at all when they obtain their cards entitling them to send for the extern attendant. The distribution of the cards is carried out by a clerk in the medical office, who is not even a medical student, and, so far as I am aware, no harm has resulted from this practice. In private practice, if the lady is a dwarf, or obviously deformed, or suffering from spinal curvature, or has one leg shorter than the other, or has any condition which might affect the normal conduct of labour, then you should suggest an examination. Again, when the patient herself, or her husband, or mother, or other relative or friend expresses any anxiety as to whether things are right, by all means suggest, or fall in with the suggestion, of making an examination.

Under any of these circumstances let your examination be thorough. Examine the breasts and nipples; examine the pelvis, especially measuring the distances between the anterior superior spines and the crests of the ilia. Examine the vulva and note any abnormalities. Make a vaginal examination and estimate the oblique conjugate diameter. Note the height, depth, and width—in other words, estimate the size of the uterus and compare this with the period of gestation indicated by the period of amenorrhoea. Note any abnormalities in the vagina, cervix uteri, Douglas's pouch, broad ligaments, rectum, bladder, or pelvic bones.

You will find that in the great majority of cases no examination at all is necessary even amongst primiparae. Amongst multiparae, if you have attended the lady before, you know if things are normal, and if you have not attended her before she will be able to inform you whether her past labours have been straightforward or not. If they have, you can assume that all is right.

If you are allowed to select the nurse, you will naturally recommend one on whom you can rely; but if the lady selects her own nurse, you should find out whether she has been properly trained in modern midwifery practice, and you should inform her what you wish her to do, and what not to do. She should not, for example, make any vaginal examination. I am, of course, speaking of a nurse only, and not of a midwife. When labour begins you must be summoned to the case, and you should examine the patient to find out if she is in labour, and if everything is normal. For this purpose your examining hand should be prepared with as much care as if you were about to make an abdominal section. There are different methods of preparing the hand. The one I adopt myself, and which is practically perfect, is to get it thoroughly clean domestically by means of very hot water, soap, and a nail brush, then to scrub well with a 2 per cent. solution of lysol, and finally to immerse the whole hand in a solution of mercury perchloride, 1 in 1,000, for not less than two minutes. It is important that the hand be kept immersed during the two minutes; it is not sufficient to move the hand in and out of the lotion. The wearing of an india-rubber glove which can be rendered aseptic by boiling has been greatly recommended, especially by some German authorities. The objection to gloves is that the thicker they are the more they interfere with tactile sensibility, and the thinner they are the more readily do they tear, and the more readily can germs permeate them. Under certain circumstances gloves, however, are a great help, especially in protecting the hand itself from contamination in cases of virulent sepsis. Nevertheless, when the hand is ready, it should not be allowed to touch anything *en route* to the vagina. No unguent need be used.

The bedclothes should be raised by the nurse and the right gluteal region and the right labium majus; the patient, being in the left lateral position, should be raised either by the nurse or by the non-examining hand of the accoucheur. In this way the vagina is exposed, and the examining finger can be introduced without touching any external part. If the patient is on her back, the labia majora can be separated by one hand, and the examining finger can be introduced similarly directly into the vagina, care having been taken not to touch any of the bedclothes. Of course, whilst you are preparing the hand the nurse can be preparing the patient, if she has not already done so; and that means, not merely getting her into the required position, but also washing the vulva.

Some have gone so far as to recommend shaving the vulva, but this has not been found essential to success. So that most authorities are agreed that a thorough washing with soap and water and a 2 per cent. solution of lysol, or some other equivalent antiseptic, is all that is required. The nurse should confine her cleansing to the vulva, and should not try to wash or wipe the vaginal walls in any way. A thorough examination of this kind will take twenty minutes, unless everything is ready when the doctor arrives, in which case it may take much less. But, in any case, it can hardly take less than ten minutes. A practitioner may argue that he is too busy to spend so much time. All I can say is that it is worth the time, and, in fact, it will probably save his time in that when he finds, as he will in nearly all cases, that everything is right he can go away feeling quite happy about the result, assuring the lady that all is natural, and that she need have no fear. In the ordinary run of practice he will look in again after an interval, which depends on the state of things when he examined, and he will be able to judge very well as to the progress made by inquiring about the frequency and character of the pains, and their situation. If at his first visit the membranes are not ruptured, he may, if he thinks fit, make a second examination after their rupture to satisfy himself that the cord is not prolapsed, and that his conclusion that everything was normal is still correct; but he must do it again with the same elaborate precautions. Finding everything satisfactory, he need not wait if he is busy with other things. All the same some ladies insist on the doctor remaining from the very onset of labour until it is over, and most of them feel very aggrieved if he chances to be away when the child is born, even though everything is normal. By experience a doctor with a large midwifery practice becomes very expert in judging how soon the child will be born, but I fear in most instances his knowledge has been derived by repeated examinations so as to note the advance of the head.

The number of children before the arrival of the doctor in our own lying-in charity is very considerable, and a study of these cases shows that, as a rule, the mother and child do well.

Very often a lady will beg and pray the doctor to give her chloroform or to terminate labour quickly, as she cannot endure the pain. Now please remember there is no such thing as a painless labour. It would be abnormal if it were painless. There is no known method of rendering it painless without injury. If you administer chloroform or any other anaesthetic, or give morphine or other preparation of opium, you retard or stop the uterine contractions, and thus retard labour to the detriment of mother and child. Some believe that the administration of anaesthetics during labour causes *post-partum* haemorrhage. No doubt there are women of a very sensitive nature who suffer so acutely from labour pains that practically the labour becomes abnormal, and one is obliged to resort to chloroform. Such cases, however, are few, and hence in the majority of parturient women anaesthetics ought not to be given. Some practitioners always give a few whiffs of chloroform during the most painful part of the second stage, but my advice to you is not to give any at all if you can possibly help it. It is unnatural for a woman to be unconscious when the child is born. The reflex stimuli or afferent impulses are interfered with, and the resulting parturient forces are to some degree, at all events, impaired.

Again, do not follow down the uterus with the hand during the delivery of the child. Some women find a great help and comfort in having the back supported or pressed upon by the hand of the doctor or nurse during the pains. It is good to have the patient arranged on the bed so that she can plant her feet against a firm support, and hold on to something like a towel tied to the end of the bed. She can then exert her voluntary forces to help the involuntary forces.

Again, it is best not to interfere with the perineum. The child's head will distend it, and eventually there will be in primiparae a slight tearing of the posterior fourchette and of the perineum. But in the majority of cases such tearing will not require a stitch. Notching of the cervix uteri at the os externum, and this slight laceration of the perineum, may be looked upon as normal, inasmuch as they occur in the large majority of primiparae. Further extension of the lacerations in subsequent parturitions depends upon many circumstances, such as the size of the child and the speed at which it is born, and upon the condition of the parts, that is, rigidity, elasticity, etc.

As soon as the child's head is born, note whether the cord is round the neck. When the child is completely born, see that it is in a good position to breathe, and if respiration begins satisfactorily do not tie the cord for at least five minutes. This gives the child more blood, and its movements as it lies against the mother are beneficial in that she feels them and it gives her joy and satisfaction and probably acts reflexly in promoting uterine contractions. If the child cries the sound has the same beneficial effect on the mother. After five or more minutes the cord should be tied an inch or so from the navel, a second ligature being put further away to prevent loss from the placental side, though this is slight after waiting as recommended. Any kind of ligature may be used—strands of thread, pieces of tape, pieces of silk, etc.—so long as they are surgically clean, which is easily ensured by having them boiled. The cord is then divided between the ligatures, giving a good half-inch beyond the first ligature. The child is then wrapped in a warm cover and removed.

As soon as the second stage is over the mother's pulse should be felt, and the amount of bleeding should be noticed by looking at the vulva. If the pulse is about 80 to 90, and the visible haemorrhage is not excessive, a normal condition may be assumed without feeling the uterus. Some recommend that as soon as the child is born the uterus should be grasped through the abdominal wall to feel if it be contracted, and if it is not, then it should be well rubbed and kneaded to make it contract. Such a practice is quite unnecessary so long as there is no excessive visible haemorrhage, with a pulse of 80 to 90, which indicates that there is no internal haemorrhage. For as a fact the uterus may be found either in active contraction, when it is hard, more or less spherical, well defined and easily grasped, or it may be relaxed, when it is soft, less spherical, ill-defined, and difficult to feel. Both these states are normal, and indeed they follow one upon the other quite naturally and rhythmically.

The management of the third stage of labour is of great importance. To make traction on the umbilical cord is so easy to do, and so tempting, that one is not surprised to find it being practised by ignorant people. Indeed, you will find in the textbooks of some generations ago it is mentioned, and it was advocated by the then teachers of obstetrics. The number of cases of *post-partum* haemorrhage following upon this practice led to its gradual condemnation and abandonment.

The method recommended by Crédé was a great improvement—namely, to wait for twenty minutes at least, and then to express the placenta by squeezing the uterus through the abdominal wall. Certainly this method is very effective, and is followed by excellent results, because it approximates very closely to Nature's method. What happens if you leave the patient alone? You will find that she lies still, and sometimes she will even go to sleep, and after the lapse of a time varying from a few minutes to an hour or more, but certainly averaging thirty to forty minutes, she will begin to experience more pains, like, though less severe than, the pains already suffered. The uterus is beginning to expel the placenta. After a few pains the patient contracts the diaphragm and abdominal muscles, at the same time closing the glottis. She thus bears down, and in this way intra-abdominal pressure is brought to bear to help the force of the uterine contraction, and the placenta is driven out. Sometimes it is driven out of the uterus, but remains in the vagina, where it may lie for a long time, unless it be removed.

You will observe that Nature's method is by pressure from above, and that it is done partly by involuntary contractions of the uterus and partly by voluntary bearing down. These involuntary contractions of the uterus are of great importance, in that they attain the complete retraction of the muscular fibres, so essential to the prevention of haemorrhage. Hence, Nature's method is the most perfect of all, and my advice is to let Nature perform the third stage as well as the others. It is true that it takes a longer time, but in normal labours I maintain that this time is not ill spent. During the interval between the birth of the child and the expulsion of the placenta changes are taking place which are beneficial. The circulation of fetal blood through the placenta has ceased and the flow of maternal blood through the sinuses has become checked. As the complicated network of muscular fibres contracts during the separation of the placenta these sinuses are closed, the maternal circulation through them is stopped, and bleeding is prevented. Haemorrhage is often caused by partial separation of the placenta, and this is more likely to occur if pressure is made on the abdomen during the second stage of labour. Hence, by leaving the patient alone there is better retraction at the termination of the second stage and less likelihood of partial separation.

Again, by allowing Nature to expel the placenta you get a better and more complete contraction and retraction of the uterus, and hence the minimum risk of excessive haemorrhage. Some accoucheurs set to work as soon as the child is born to get rid of the placenta by kneading and squeezing the uterus, trying to excite it at once to contraction, and failing that to expel the placenta by forcible manual expression, the patient often crying out because she is hurt. One need scarcely say that in normal labours such a method is to be condemned. Often enough it is found impossible to expel the placenta because it has not yet become detached. The violent efforts made occasionally succeed in partially separating it and so starting a profuse haemorrhage.

After waiting the twenty minutes recommended by Crédé, it is true that as a rule it is not difficult to express the placenta, and the number of cases of haemorrhage following is small. But if you will not be in a hurry, but let Nature finish the work, the results are still better.

Again note the amount of visible haemorrhage and the frequency of the pulse, and if both be satisfactory, carefully examine the placenta to see if it is complete.

The draw-sheet should be removed and a dry sterilized pad should be placed against the vulva to soak up the lochia. The binder round the abdomen has became old-fashioned. It is not of much importance, but I advise you not to use one. It has been shown by Herman[3] that it certainly does not prevent haemorrhage, nor does it preserve the figure. It is disturbing to the patient to put it on and as often as not gets rucked up under the waist so as to be practically no binder at all.

If the patient is made clean and has the sterilized pad applied so as to receive the lochia she should be allowed to lie still and to rest and if possible to go to sleep, which indeed is what she generally does.

Before the accoucheur leaves the house he should assure himself by inspection that the perineum is not torn more than is normal, necessitating stitching, that there is no undue visible haemorrhage and that the pulse is not quick. If he does these things he need not try and feel the uterus to see if it be contracted or not, because it may be either one thing or the other and yet be normal. Of course he may examine the abdomen to see if there be a twin. But he need make no vaginal examination whatever, unless there is something abnormal in the way of haemorrhage, etc.

Possibly some of you may be thinking that in a lying-in ward, with all modern methods of attaining asepsis, with plenty of help in the way of nurses who can attend to the patient, wash her and keep her clean, remove all dirty garments and replace them with surgically clean things, with bed and bedding clean, and with every precaution used to prevent infection, it is all very well to trust to Nature to do the business, but that it is a very different thing in private practice, especially amongst the poor, who have no proper conveniences for carrying out the ideal.

But let me ask you, has puerperal septicaemia in the past been confined to the poor? Has it not affected the rich quite as much, and indeed in a larger proportion? Has *post-partum* haemorrhage been confined to the poor? Certainly not. Poor women have often been delivered dressed in rags and with dirty skins and yet with perfect safety. So long as the poison was not introduced into the parturient canal by fingers or instruments, so long as she was not injured by injudicious attempts at helping her, by pressing on her abdomen, pulling on the child, making traction on the umbilical cord, etc., she generally did well, as statistics have shown.

To what do all these facts point? Why, simply this: that you cannot do better than to follow and to imitate Nature as closely as possible; that an ideal labour is one where everything is left to Nature, and that the nearest approach to this ideal means the least interference possible.

Please remember that this is not merely speculative opinion, but fact based upon experience.

Before concluding, there is one other point I would like to mention, and that is the baby. Unfortunately, it has become a settled routine practice for nurses to drop a few minims of a solution of mercury perchloride (1 in 4,000) or a single drop of a 2 per cent. solution of silver nitrate, so strongly recommended by Crédé, into each of the child's eyes. This is to prevent ophthalmia. I strongly recommend you to allow the nurse to do no such thing unless you have reason to suspect that the mother is suffering from gonorrhoea or other irritating discharge. When you are aware of such a discharge, of course you would do your best to cure it before the parturition, and you would have the child's eyes washed thoroughly by salt and water as soon as it was born, and you would see that a germicidal solution, of which no doubt Crédé's 2 per cent. of silver nitrate is the best, is dropped thoroughly into the eyeball between the lids and repeated if need be. But where there is no gonorrhoea, where the patient has no discharge staining her linen yellow or green, but where everything is normal, do not allow this routine practice of dropping something into the child's eyes. You should look at the baby yourself to see that there is no bleeding from the cut end of the umbilical cord, to note any abnormalities in fingers or toes, cleft palate, harelip, congenital malformations, spina bifida, etc. The nurse should wash the baby, and should be very careful not to contaminate the eyes with anything septic. If she carefully wipes the eyelids with some aseptic material, like sterilized gauze, that is all that is required. There will be no ophthalmia. Since adopting this plan in my cases in our lying-in ward at Guy's we have not had a single case of ophthalmia neonatorum. No one should be allowed to open the child's eyes, by separating the lids, in order to see what colour they are.

And now my task is finished; and if I have succeeded in convincing any of you that the birth of a child is a physiological act which is more perfectly performed in the vast majority of cases by Nature herself than by any other known method; if I have persuaded you that the less interference on the part of the accoucheur the better, that in an ideal labour no interference whatsoever is required, and that therefore the fewer examinations are made the better, one, or at most two, being quite sufficient in the majority of cases; that patience is a greater virtue than usual in midwifery practice, and that it is never justifiable to hasten a normal labour to save your own time; that routine vaginal syringing before and routine uterine or vaginal syringing after labour in normal cases should not be practised; that routine application of germicides to the eyes of every newly-born child is unnecessary, to say the least—I shall feel amply repaid; for there is a great truth contained in the old Latin saying:

Natura enim non nisi a parendo vincitur.

REFERENCES.

[1] *Obstetrical Society's Transactions*, vol. xliii. [2] *Journal of Obstetrics and Gynaecology of the British Empire*, vol. i, No. 1. Article, Retraction of the Uterus. [3] *Obstetrical Society's Transactions*, vol. xxxii.

THE German Society of Orthopaedic Surgery will hold its fifth congress at Breslau on April 3rd, under the presidency of Professor Adolf Lorenz.

An Address

ON THE

NECESSITY FOR IMMEDIATE DIAGNOSIS IN CASES OF UTERINE CANCER.

READ BEFORE THE BIRMINGHAM BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

By **THOMAS WILSON**, M.D.LOND., F.R.C.S.ENG.,
OBSTETRIC OFFICER, GENERAL HOSPITAL, BIRMINGHAM; HONORARY MEDICAL OFFICER, LYING-IN CHARITY.

IN one out of every four women who die of malignant disease the uterus is the organ affected; in England and Wales, therefore, about 4,000 women succumb to uterine cancer every year. The average duration of the affection from its commencement to a natural termination is between two and three years, so that at any given time there are approximately 10,000 patients suffering from this distressing malady.

Twenty years ago the diagnosis of uterine cancer at any stage was equivalent to a sentence of death. Patients therefore delayed seeking advice until the sufferings of the later periods of the disease compelled them, while the medical officer often postponed examination in order that the patient might not be deprived of hope. In the few early cases that came into their hands some operators practised supravaginal amputation of the cervix, the mortality of which was considerably greater than that of vaginal hysterectomy to-day.

In a discussion that took place at the Obstetrical Society of London in 1885 the Fellows generally agreed with Dr. W. Duncan that the risks of vaginal hysterectomy were so great as practically to condemn its employment in an attempt at the radical cure of cancer. Dr. Duncan showed that until that time the immediate mortality of vaginal hysterectomy for uterine cancer was 28.6, while that of abdominal hysterectomy was 72 per cent. Since then surgery has advanced in this as in other departments of practice, so that now the operative treatment of the disease is judged, not by its immediate mortality, but by its remote results as regards recurrence.

The total number of deaths due to vaginal hysterectomy for cancer does not at the present time exceed 5 per cent. Until December 31st, 1905, I had performed 48 vaginal hysterectomies for cancer of the uterus, with 1 death following the operation. In 40 of these cases, including the fatal one, the operation was done for cervical cancer, so that the immediate mortality of the operation for this variety works out at 2.5 per cent. In a large proportion of cases operated upon the disease reappears sooner or later. The great majority of these recurrences make their appearance during the first twelve months following the operation; afterwards return takes place with diminishing frequency until the end of five years; occasionally it may occur at a still later date, but this is so rare that it may be neglected. In reckoning the remote results of operations for uterine cancer it has therefore become customary to fix upon a term of five years' freedom from recurrence as being equivalent to a definite cure of the disease. On this basis vaginal hysterectomy has been found upon an average to lead to the definitive cure of one-third of the cases in which it is employed—an estimate that was arrived at in a paper of mine published in the first volume of the *Journal of Obstetrics and Gynaecology of the British Empire* in 1902.

The number of cases in my own practice operated upon at a sufficiently remote period is too small for a statistical consideration of the final results to be of much service. In only 14 cases was the operation performed more than five years ago, and of these 6 cannot be traced. Two, however, are known to be free from recurrence, so that at the very worst the rate of cure has been 14.3 per cent. One of these cases was of particular interest, in that it occurred in a woman presenting marked signs of congenital syphilis, and the pregnant right tube was removed at the same time.

CASE I.

L. Y., aged 38, had had seven children and seven miscarriages. She had been losing blood by the vagina for seven weeks, and for the last week there had been flooding with clots; for seven weeks there had also been aching and swelling in the vulva. Vaginal hysterectomy was performed on August

4th, 1900. A granular friable mass grew from the posterior lip of the cervix, and proved to be a squamous epithelioma; a retrouterine haematocele was evacuated at the same time, and the right pregnant tube with a tubal mole was removed. The patient was recently seen looking well, and showing no signs of recurrence.

Case II.

S. S. had the uterus removed through the vagina on May 16th, 1900; she was then aged 58, and had borne the last of her nine children twenty years before. There had been much foul yellowish and red discharge for one month; previously aching all round the lower abdomen and hips. The operation was difficult, the appendages were not removed; the lower inch of the cervical canal was surrounded by growth which had ulcerated, forming a finely granular surface. At about the middle of the cervix the anterior lip was destroyed, nearly in its whole thickness. There was a considerable collection of evil-smelling pus in the distended body of the organ. The growth had the microscopical characters of a squamous epithelioma. The patient remains well.

In another case there was no return of the disease ten and a half years after supravaginal amputation of the cervix for squamous epithelioma.

Case III.

The patient, M. D., was a septipara, aged 43, whose last child was born three and a half years before the removal of the cervix on June 1st, 1895. There had been foul-smelling discharge for twelve months, and emaciation for six months. A mushroom-shaped mass, half as large as the fist, grew from the anterior lip of the cervix, and spread on to the anterior vaginal wall. The patient was seen in the out-patient room on December 13th, 1905, quite well and free from any sign of recurrence.

In 26 of my cases vaginal hysterectomy for cancer was performed more than two years ago; 1 patient died as the result of the operation, and the fate of 11 of the others is unknown. Eight are known to be free from recurrence, so that the disease has not returned within two years in at least 30.7 per cent., or nearly a third of the whole number.

The Operable Ratio.

It is abundantly clear, therefore, that a certain not inconsiderable proportion of cases of uterine cancer can be cured by operation when the disease is recognized at a sufficiently early stage. The proportion of operable cases to the total number of patients seeking advice varies very much in different countries and in the practice of different operators. Among German operators Zweifel operated upon 26.7 per cent. of 974 cases, while Staude and Schuchardt each had an operable percentage of over 56. In Vienna the proportion of operable cases appears to be small; Chrobak operated on 17.1 per cent. of 1,203 cases, and Schauta on only 14.7 per cent. Two sets of reports from Hungary by Bäcker and Akontz give operable ratios of 6.35 and 5.7 per cent. respectively. In this country the number of cases in which the disease is recognized at a sufficiently early stage for radical operation appears to be small. Lewers in his book on cancer does not give the proportion of cases operated upon to the total nnmber of uterine cancers seen by him. Halliday Croom has stated that in his experience not more than 6 per cent. of the cases are suitable for operation.

In my own practice the proportion of operable cases to the total number of patients suffering from cervical cancer has shown a slight tendency to rise in the last few years. From an examination of the records of the General Hospital and of my private case-books, it appears that my first case of vaginal hysterectomy was done in 1896, and that in the four years to 1899 inclusive 9 cases were operated upon out of a total of 64 seen, an operable ratio of 14 per cent. In the last three years, 1903 to 1905 inclusive, 115 cases of cervical cancer were seen, and 21, equal to 18.2 per cent., were operated upon. The average operable ratio for the whole of the last ten years was 16.2 per cent., about one radical operation in every 6 cases seen.

Vaginal Hysterectomy for Cervical Cancer.

		Operable Ratio.				Per cent.
1896 to 1899	inclusive,	64 cases,	9	vaginal	hysterectomies	= 14.0
1900 to 1902	,,	67 ,,	10	,,	,,	= 14.9
1903 to 1905	,,	115 ,,	21	,,	,,	= 18.2
Total	...	246 ,,	40	,,	,,	= 16.2

Cancer of the body of the uterus is operable in a much higher ratio than that of the cervix; thus of 15 cases described in my thesis for the degree of Master of Surgery in the University of Birmingham, in 13 the disease was removable, an operable ratio of 86.6 per cent. The body of the organ is the part affected in at least 6 per cent. of the total number of cases of uterine cancer. The disease in this situation is distinguished from cervical cancer not only by its minute anatomy, and by making its appearance in unfertile patients of more advanced age, but also by running a decidedly slower course, and by a smaller tendency to recurrence after removal. In considering the results of operation for uterine cancer, it is therefore of the utmost importance to distinguish between the two groups of cases.

Determined attempts have been made to increase the relative proportion of operable cases, and these efforts have been made in two directions, by extending the vaginal operation, and by employing the abdominal route. Many operators employ the deep vagino-perineal incision now known by the name of Schuchardt to enable them to make the division of the connective tissue at the base of the broad ligaments far out, near to the pelvic wall. By the abdominal route many original and very extensive operations have been devised and practised for the removal, not only of the diseased uterus itself, but also of the structures along which the cancer spreads from that organ into the rest of the economy. The risk of these more extensive operations is still considerable, amounting to at least 20 or 30 per cent. in the hands of most operators, although Wertheim states that of his last thirty patients only two died. Along with this diminished immediate mortality Wertheim claims not only that his operable ratio has risen from 29.2 to over 48 per cent., but that his permanent cures amount to no less than 60 to 70 per cent. Results like these have been achieved by no other operator. It may, however, be hoped that the mortality of the abdominal operations will be reduced in the near future to 10 per cent. or even less. The prevailing practice has been to submit only the more advanced cases to abdominal hysterectomy, while dealing with the earlier and more favourable ones by the vaginal route. If the abdominal operation were generally employed the mortality would at once fall considerably, as has indeed been proved by Miss Aldrich-Blake, who has performed sixteen operations by this method without a death.

The Reasons for Delay in Diagnosis.

But even those who practise the most extensive operations still find a very large residuum of cases which make their appearance too late for an attempt at radical cure. In the last two years I have made inquiries in a considerable number of instances into the reasons which prevented the patients seeking relief earlier. In the great majority the fault resided in the patient herself, but in no small number the delay appears to have been due to remissness or want of knowledge on the part of the medical practitioner to whom the patient applied in the first instance.

In 49 cases an attempt was made to ascertain as nearly as possible the time during which symptoms of cervical cancer existed before the patients applied to a doctor for relief. In only 5 cases, or about 10 per cent., had symptoms been present for less than two months, and in 4 of the 5 the affection was still capable of removal by vaginal hysterectomy. On the other hand, symptoms had been present for a year and upwards in no less than 18, or nearly 2 in every 5 cases, and in only 3 of these 18 cases was the disease still operable.

Duration of Symptoms before Medical Relief was Sought in 49 Cases of Cervical Cancer.

2 months or less	in 5	cases	of which	4	were	operable.
2 to 6 months	in 16	,,	,,	3	,,	,,
6 to 12 ,,	in 10	,,	,,	3	,,	,,
1 year and upwards	in 18	,,	,,	3	,,	,,

The reasons why women neglect to apply early for medical relief are many. Modesty is occasionally suggested, and sometimes the want of the necessary means. Much more commonly the patient confides her symptoms to old and inexperienced women, to neighbours or to nurses, and is only too ready to be persuaded that everything is due to the change of life, and that with a little time and patience all will be well. But by far the most important reason for delay is the widespread ignorance which prevails about the early symptoms of cancer—an ignorance which we can only hope to dispel by first making ourselves thoroughly acquainted with the symptoms, and then by impressing upon women generally, directly and through the medium of trained nurses and midwives, the necessity of seeking advice without delay when any suspicious symptom makes its appearance.

Many patients delay coming until a smart attack of haemorrhage—a so-called flooding—occurs, a sign in the great majority of cases that the disease has already become inoperable. Often when the diagnosis is perfectly clear, the practitioner is met with the statement that there has been no pain, implying that the affection cannot therefore be cancer. It cannot be emphasized too strongly that neither pain or serious bleeding nor marked wasting is among the early symptoms. Serious bleeding with the passage of clots is hardly ever noted until other symptoms have been present for months, and pain is usually still later in making its appearance.

In 25 cases during the same period, inquiries were made with as much care and circumspection as possible into he time which elapsed between the first application for medical relief, and the first local examination. In 11 of he cases an examination was made immediately or within a week, and a twelfth patient refused to be xamined for two months in spite of the doctor's urgent equest. In 4 cases an examination took place, but a orrect diagnosis did not appear to have been made. In he remaining 9 a local examination was not made until ome time had elapsed. Thus one patient was attended or twelve months by a doctor who only examined her ten ays before I saw her; another was not examined for six months. One woman, complaining a year ago of bleeding fter coitus, consulted a doctor who did not examine her; second doctor was seen some months later and did not xamine her; a third examined at once and sent her on o me immediately; the disease had long passed the perable stage. Another patient who had far advanced isease, and had had foul discharge for six months, first onsulted a doctor nearly three years ago; the symptoms ere put down to change of life; some months later the me doctor examined her and introduced a ring pessary. ne woman consulted a doctor who examined the bdomen, and assured her there was no tumour; a month ter a second medical man saw and examined her, and at nce sent her on for operation. Another patient in an dvanced stage of the disease was not examined because e was known to be the subject of tertiary syphilis, and is was thought to be incompatible with cancer. A nurse, ur years past the menopause, had discharge for five eeks and then flooding with clots; the doctor who saw r told her to go home and lie up and he would examine r when the discharge stopped; three weeks later a cond doctor examined her and found an inoperable ncer of the cervix.

It is needless to multiply instances; the fact stands t that in fully one-half of the cases inquired into, uncessary delay in the diagnosis took place, either because an examination was not at once made, or because the ysical signs of cancer were not recognized. Occasionly the practitioner is not conversant with the symptoms at arise in the early stages of the disease, and is sursed to learn that cancer may exist for months without ing rise to pain, and that not uncommonly the disease sses far beyond the limits of operability in a woman o still preserves the appearance of blooming health.

he want of alertness due to this ignorance of the early mptoms is the commonest cause of failure to diagnose rine cancer in its early stages. Occasionally a medical ctitioner has no time to make an examination when patient first consults him, or he may be one of those for some reason or other never make pelvic examiions, or he may think he has not the necessary instrunts for the purpose, or may even doubt his own ability make the diagnosis of the disease in an early stage. In such cases it is obviously his imperative duty to refer atient complaining of any suspicious symptoms to e other person who can be relied upon to make the nosis. Postponement, even for a month or less, may to cancer in the interval passing from the operable s into the inoperable—that is to say, any delay may rive the patient of her last chance of cure.

The Early Symptoms.

a certain small proportion of the cases careful crossmination appears to show that uterine cancer may ome advanced, so as to be beyond the hope of relief by ation, before it gives rise to any symptom that ought to awaken the patient's serious attention. At the very onset, however, it is common to learn that there has been a feeling of general weakness, of being somewhat out of sorts, of languor and tiredness without apparent cause; at the same time, the patient often notices that she is becoming a little thinner, though this is frequently absent, and occasionally she even becomes fatter. The first direct symptom in most cases consists in small irregular bleedings from the uterus, or in the discharge of serum, clear or bloody, sometimes in considerable quantity. Occasionally increased loss at the regular periods is the first symptom noted. A common early symptom is a feeling of weight or uneasiness in the pelvis, lower abdomen, or sacral region, but this is frequently absent or very slight. Not rarely pruritus vulvae may be the first and for some time the only symptom of uterine cancer. A more striking symptom consists in distinct bleeding on traumatism—as, for instance, from straining in defaecation or following coitus—and this symptom as well as the onset of bleeding or of any kind of discharge at any time after the menopause should be considered to indicate the presence of uterine cancer until the contrary is proved. The presence of any of the symptoms just noted—that is to say, of any irregular or increased loss of blood or of any new discharge—calls imperatively not only for an immediate careful pelvic examination, but for an exact diagnosis with the least possible loss of time. In a single woman it is at the utmost allowable to wait for a short time, say a fortnight; in all other cases the examination should take place within two or three days, and if cancer is observed and is still operable, its removal should be carried out within ten days of the patient's first seeking advice. In former days no harm was done by putting off the diagnosis, but now the delay of a month may seal the fate of a patient.

Cancer of the uterus is usually classified according as it originates in the vaginal portion of the cervix, in the interior of the cervical canal, or in the body of the organ. The end stages of all the varieties are the same—an irregular excavated ulcer with a thick hard base fixed to the pelvic wall, raised nodular border and uneven friable easily-bleeding surface. Unfortunately in the majority of cases that come for advice this stage has already been reached, and the disease has passed far beyond the possibility of effective treatment. The diagnosis is as easy now as sometimes it is difficult in the early stages when alone it can be of real service.

Diagnostic Methods.

Time only permits me to glance briefly at the methods of examination that enable the diagnosis to be made at a period when operation may be useful. For a full description of the methods reference may be made to any of the standard textbooks of gynaecology. The diagnosis of the disease depends upon the recognition of its two great manifestations—new growth and ulceration. The most characteristic physical signs of a cancerous nodule or tumour are its hard inelastic consistence as compared with the surrounding unaltered uterine tissue, and its irregular and uneven shape, the latter especially serving to distinguish it from the regular spherical form of a fibroid or cyst. When ulceration has already occurred the recognition of the malignant nature of the affection is easier, and depends chiefly on three signs—hardness of the base, friability of the surface, and bleeding, which is sometimes free even when the examination is gentle. Of these three signs bleeding is of least and friability of greatest diagnostic import. The friability is tested by pressure of the examining finger and its nail, by the sound, or, better, by the use of a small curette. If definite pieces are brought away visible to the naked eye the disease must be looked upon as cancerous until the contrary is proved by the microscope; exceptions are rare and are chiefly tuberculous disease.

The forms in which cancer is found and the methods of diagnosis vary with the seat. In cancer of the vaginal portion of the cervix diagnosis is easiest; any prominence above the surface or any depression is suspicious. Sometimes in its earliest stage the disease forms a hard, slightly raised plate. The typical mushroom or cauliflower excrescence begins most frequently in this situation, and may attain the size of the closed fist. In any of these cases the friability of the tissue forming the prominence at once suggests the nature of the disease. More difficulty arises when the cancer forms a nodule in the thickness of the wall, and is covered by intact mucous membrane. In such a case the diagnosis may be very difficult, but will be suggested by the peculiar hardness of the nodule and by the bluish or mottled appearance of the covering mucous membrane as seen in the speculum. Where an ulcer has formed in this situation or in the cervical canal, if the finger can be passed into it the diagnosis is easy. Sometimes even when the finger cannot be passed the margin of the external os feels hard, irregular, and friable in part or the whole of its circumference. As seen in the speculum such a border, or the border of any cancerous ulcer, usually appears raised, uneven, jagged, and irregular, with a yellowish, dirty line along its inner margin. The most difficult cases are those in which the cancer gives rise to a flat ulcer neither raised nor depressed.

In any case of difficulty or doubt an appeal must at once be made to the microscope, and in order that this may be of use, the portion of tissue sent for examination should be removed in a certain definite way. For this purpose it is often not necessary to administer an anaesthetic. The vulva and vagina must be cleaned up with soap and water, followed by the thorough use of some such antiseptic as 1 in 200 lysol solution. The patient is placed in the Sims's position, a duckbill speculum is passed, and the cervix is seized by a volsella. A wedge-shaped piece is now to be cut out, whose base, about ½ in. in width, should include in equal parts the suspected and the adjacent healthy-looking tissue. The wedge should be about ½ in. in height, and can be removed by means of a sharp scalpel with very little inconvenience to the patient. The bleeding caused by its removal is easily stopped by one or two catgut sutures, so placed with a full-curved needle as to bring the two cut surfaces in contact. A strip of iodoform gauze is then introduced into the vagina, and the patient kept in bed for the next twenty-four hours. The piece of tissue thus obtained will enable the pathologist to give a definite opinion as the nature, malignant or simple, of any suspected tissue, and in every case where doubt remains after the ordinary objective examination this appeal to the microscope should be made with the least possible delay.

Cancer of the cervical canal, frequently in the early stages, causes greater difficulty in diagnosis. It may begin as an ulcer in the canal accessible to direct examination, or as a nodule in the thickness of the wall. The diagnosis depends upon the observation of the same physical signs as have already been enumerated in describing cancer of the vaginal portion.

Where the disease begins in the upper part of the canal and the external os is closed, the diagnosis depends on the same methods of examination as are employed in the recognition of cancer of the body. In both cases the differential diagnosis has to be made from various forms of endometritis, including the chronic endometritis of old women, from chronic metritis, and from interstitial and submucous fibroid tumours. The diagnosis is only possible by an examination of the cavity of the uterus, and in every suspicious case this should be undertaken without delay. The use of the uterine sound is of some value, dilatation of the cervix followed by exploration of the cavity by the finger of more; but the most valuable method, and in early cases the only practicable one, consists in the microscopic examination of fragments removed by the curette. The use of the curette for this purpose should be thorough, and demands practice and a certain degree of skill. Every part of the wall of the cavity should be gone over systematically, and the whole of the curettings carefully collected and sent to a competent pathologist, who should embed them in paraffin in one mass; a section of this mass will then show the structure of the tissue removed from many parts of the wall of the uterus, and little difficulty is experienced in recognizing any malignant tissue that may be present.

Much discussion has taken place on the value of the microscope in the diagnosis of uterine cancer. It is of course obvious that by its means we cannot prove a negative. A small area of cancer may be present in the uterus but the scrapings from it may have been lost or overlooked, or a small nodule covered by intact mucous membrane may conceivably be present. The microscopic examination of curetted fragments is merely a link in the chain of evidence, but it is one of the most important links, and may be so strong as to be irrefragable. The simple or malignant nature of the tissue presented for examination can be determined with great certainty by the skilled pathologist.

This brief survey of the methods of examination at our disposal shows that if they are given a chance they will enable us to diagnose cancer of the uterus at its very beginning. For some time after its commencement the disease can, as we have seen, be definitely cured in a large proportion of cases by the aid of surgery. It behoves us, therefore, to make a close study of the earliest symptoms of the disease, and in every woman who presents any suspicious symptom to insist upon an immediate thorough exploration, supporting our insistence if necessary by suggesting the possibility of cancer being present, by referring to the consequences of delay in making the necessary examination, and by pointing out the good prospects of removal by operation. The result of our examination must be conclusive; when any doubt exists immediate recourse should be had to the microscopic examination of portions of tissue removed in a systematic manner for the purpose. And finally, when the diagnosis is made no delay should be permitted in making the necessary arrangements for operation to follow. The goal to be desired is diagnosis within three days of the appearance of the first suspicious symptom, and operation within a week after the diagnosis.

ENUCLEATION OF FIBRO-MYOMA OF UTERUS DURING PREGNANCY.

By J. STEWART, M.B., M.Ch.,

LEEDS.

The infrequency of a fibroid of the uterus requiring enucleation during the pregnant state, the error in diagnosis, and the result embolden me to publish the following case. Very few—indeed none—of the authorities I have consulted make any mention of removal of fibroids during pregnancy, and in the unimpregnated condition enucleation of fibroids, although advocated by one or two writers—Schroeder was the originator of the idea—has not been generally followed.

Had the condition in the present case been diagnosed correctly, I question if the plan of treatment which turned out so successfully would have been adopted, as I should have felt inclined to leave the case to Nature, with the probabilities of a miscarriage at least, and that, under the circumstances, would have been a misfortune, seeing that my patient was 35 years of age and this her first pregnancy.

Mrs. R. sent an urgent message for me about 10 p.m. I found her in bed complaining of great pain in the lower part of the back, constant in character, but with exacerbations. She said that she was at the end of the fifth or beginning of the sixth month of pregnancy. I made a vaginal examination only, and found the cervix normal; there was no bleeding. I gave a hypodermic injection of morphine, and told her she was threatened with a miscarriage. Mistake No. 1. My only excuse for this is I was pressed for time, and so had not the opportunity of making a complete examination.

The next morning, however, I went with the intention of knowing all about her and her condition. I found that she was 35 years of age, had been married nine months and was in the sixth month of pregnancy. The family history has no bearing on the case, and requires no further comment than noting that a brother, a sister, father, and mother all died of consumption. The patient had a large scar in the groin from suppuration of tuberculous glands when a child; since then she has enjoyed excellent health. Her periods had always been quite regular, lasting three days out of every twenty-eight. Five months ago she became pregnant, and continued well up to three days ago, when she was seized with the most violent pain in the lower part of the back, constant in character, not coming and going, and not attended with haemorrhage nor even with what is termed a "show." The pain was very intense; vomiting commenced then, and continued up to the time I saw her. The vomiting was not caused by the pain, but by the ingestion of food. She had never experienced the vomiting of pregnancy. The tem perature was 101° F., and the pulse 110. A fortnight before this she noticed a lump on her left side, which she declared moved about and changed its position from time to time. The lump, about the size of the fist, was hard, smooth, very tender on handling, dull on percussion, and tympanitic all round, with a well-marked sulcus between it and the pregnant uterus, which it had pushed to the right. Nothing distinctive was made out on vaginal examination.

To summarize, we have a patient in a pregnant condition with a movable lump in the side seized suddenly with severe pain, vomiting, rise of temperature, and acceleration of pulse. I came to the conclusion that I should have to alter my diagnosis of the previous night, and diagnosed an ovarian cyst—probably a dermoid—which had undergone axial rotation. Mistake No. 2. Baldy says if you get sudden and violent pain in the abdomen, vomiting, and acute swelling, suspect axial rotation, which is still more probable if the patient is pregnant. Bland-Sutton says:

> The symptoms are very characteristic. A woman known to have an ovarian tumour complains of sudden and violent pain with vomiting, or, if seen for the first time, has these symptoms associated with an abdominal swelling, suspect axial rotation. If there is also a gravid uterus more probable still.

Mr. Moynihan, who saw the case with me, agreed in the diagnosis. It will be admitted, then, if I made a mistake I made it backed up by the best authorities. I think the error was pardonable. Here was a small tumour with presumably a long stalk, seeing that the tumour was a couple of inches higher than the umbilicus; and acute torsion is generally seen in small tumours with long stalks, pregnancy being the most commonly associated condition.

There were a few symptoms, however, not quite characteristic; although the tumour was very tender the pain was not in the abdomen but in the lower part of the back, which should have made one suspect the body of the uterus, not an ovarian cyst; there was no acute swelling of the abdomen, and the patient instead of gradually getting worse was, if anything, a little better on the third day, especially after a dose of morphine. It is always easy to be wise after the event.

I operated the next day, and on opening the abdomen was rather astonished to find a sessile mass attached to he left of the fundus uteri. There were no adhesions and no discoloration of the peritoneum covering the tumour, howing that there was no inflammatory condition present n it. On section of the tumour after hardening there was neither haemorrhage into its substance nor beneath ts capsule. The pain, I believe, was due to the malignant nfluence all fibroids have upon the pregnant state—a endency to produce abortion or miscarriage.

The uterus was gently rotated so that the tumour ppeared in the abdominal incision. The growth was essile, with a broad base, and although truly subperitoneal it was deeply imbedded in the wall of the uterus, more than one-third of the tumour lying in a saucershaped cavity. The amount of tissue separating it from the nterior of the uterus must have been small indeed. It was almost spherical in shape and measured 9½ in. in ircumference. The way recommended to remove a subperitoneal fibroid is to transfix the base and cut off the tumour. By rough dragging one could have succeeded in making a sort of pedicle and so followed the above line of reatment, but I am sure with fatal results as far as the regnancy was concerned, even if no other evils had followed. The way to remove an interstitial growth is to cut own into its capsule and enucleate. I adopted a middle course by making a circular incision through the peritoneal covering near the base of the tumour, which latter readily helled out of its bed. The bleeding from the tissue which it was embedded was profuse, as none of the bleeding points would hold a ligature, the uterine tissue being so soft and friable, and the blood vessels so fragile. applied pressure for a time, and then gently drew the des of the cavity together with Pagenstecher's thread. This was irksome, as the peritoneum and the uterine wall eneath tore through readily, and did not hold well, but y overlapping stitches the bleeding was controlled. reig Smith mentions the stoppage of haemorrhage as ne of the difficulties in enucleating fibroids from the nimpregnated uterus; how much more so must it be in e pregnant state!

It is interesting that this patient had no uterine contractions, nor pain of any moment, although there was a considerable injury to the wall of the uterus, neither were the fetal movements interfered with. I attribute this to the fact that no antiseptics were used.

The patient was delivered of a boy at full term.

OCCIPITO-POSTERIOR PRESENTATION.

By GEORGE GEDDES, M.D.ABERD.,
HEYWOOD, LANCS.

A CLEAR knowledge of this condition is of the utmost importance to the general practitioner, because of its frequent occurrence and the difficulty often experienced in recognizing it in practice.

Many members of the profession consider the necessity of distinguishing between cases where the occiput presents in front, and those presenting posteriorly of little importance. At least one of large experience considered life too short for any one to trouble about such a trifling matter. Personal experience teaches us that unless one can diagnose occipito-posterior positions upon the threshold of professional life, there is little hope of being able to do so in later years, when the exigencies of general practice allow little time for the acquirement of fresh knowledge. It is useless to consult textbooks upon the subject, because most of them only devote a few paragraphs to the subject.

Theoretically there would appear to be no difficulty in the diagnosis of occipito-posterior positions, but in practice, unless great care is exercised, it will be found most difficult, if not impossible. Moreover, a correct diagnosis is essential to correct prognosis and treatment, for if the condition is recognized much unnecessary loss of time might be avoided, for such cases are invariably tedious and could therefore be left to themselves while the accoucheur attended to other work. Again, unless endowed with great patience it is difficult for the accoucheur to resist the temptation to use the forceps, and if he does so he is almost certain to rupture the perineum because of the abnormal position of the head.

For five years after graduating I attended a large number of primiparae, and was much impressed by the large proportion of occipito-posterior presentations occurring among them.

The following figures are based upon 300 cases:

In multiparae :
10.5 per cent. of the total vertex cases were occipito-posterior presentations.
In primiparae :
20.8 per cent. (of the total vertex cases) were occipito-posterior presentations.
(a) In England :
25 per cent. were occipito-posterior presentations.
(b) In Scotland :
15 per cent. were occipito-posterior presentations.

The question naturally presents itself, Why should occipito-posterior presentation be more frequent in primiparae? And, again, Why should occipito-posterior presentation be more frequently met with in primiparae in England?

To suggest an answer, let us consider what differences, anatomical or physical, exist between a primipara and a multipara, and it will be admitted that the condition of the anterior abdominal wall seems most likely to furnish a feasible explanation. It will be admitted that in primiparae the abdominal wall is capable of greater muscular power than in multiparae, because in the latter the abdominal distension is bound to have a weakening effect upon it. How, then, does this factor explain the frequency of occipito-posterior presentation in primiparae?

There seems no reason why the head should enter the pelvis with occiput anterior rather than posterior. Let us assume, therefore, that the chances of occipito-anterior and occipito-posterior are equal, and that the head enters the pelvis occiput posterior with equal frequency in multiparae and primiparae. Then one can easily show why on this theory the occiput should tend to remain in the posterior position more frequently in primiparae than in multiparae.

Suppose the head engages the pelvis occiput posterior: In primiparae the tense abdominal wall tends to push the top end of the lever (the lever is the uterine axis) backwards, and therefore the lower end of the lever by acting more on the anterior part of the head fixes the head in this abnormal position because flexion is retarded, whereas in multiparae the abdominal wall being more relaxed the top of the lever being forward produces pure flexion and thus rotates the occiput forward.

This theory would also explain why there is a larger proportion of occipito-posterior presentations in England (Lancashire) than in Scotland, because in Lancashire many mothers follow their occupations until within a few weeks of confinement, this necessarily involves increased muscular exertion, in which the anterior abdominal muscles would certainly participate.

This theory is advanced with diffidence. It certainly appears tenable, and accords with the facts. Consider now symptoms, etc., frequently associated with occipito-posterior presentations.

1. *False Pains.*

A history of genuine false pains should always suggest the probability of the presentation being one of occipito-posterior. The qualifying adjective genuine, as applied to the false pains, is used advisedly to distinguish them from the false pains often present without dilatation of the os. In the genuine false pains we have for a longer or shorter period before birth pains occurring at irregular intervals and associated with more or less slight dilatation of the os.

It appears reasonable to suppose that those pains are due to uterine contractions induced by abortive attempts of the womb to rotate the head.

2. *Position of Fontanelles.*

Were those always easily recognized diagnosis would be simplified, but generally it is difficult to recognize them at all, to say nothing of distinguishing the anterior from the posterior, because they become obliterated by the bones overlapping at the sutures, and this obliteration is more marked the lower the head descends in the pelvis.

Although baffled here, there are other signs, however, whose presence suggests occipito-posterior presentation. They are not peculiar to occipito-posterior presentation, but their presence is suggestive, and careful examination prevents mistake.

3. *Premature Rupture of Membranes.*

This occurring in a vertex presentation should always suggest occipito-posterior presentation. A probable explanation of this symptom is the position of the head. The head being fixed in front and behind does not fit the pelvic cavity so accurately as in the case of occipito-anterior presentation. All the intrauterine pressure, therefore, is exerted upon the membranes on each side of the head—hence early rupture is inevitable. Again, *a leakage of liquor amnii* during each pain is suggestive of occipito-posterior presentation, and is capable of a similar explanation—that is, the head does not act as an efficient plug, as in the case of occipito-anterior presentation.

4. *Parchment Os.*

The name is sufficiently descriptive, and, once recognized, the condition is never forgotten. The cervix feels like a sheet of notepaper, especially posteriorly. The anterior lip is pendulous. This condition is produced by the head pressing upon the posterior lip more than upon the anterior, but at no part of the circumference does the head approach near enough to the margin of the os to produce dilatation, although it causes thinning of the cervix. The cervix also seems to hang free in the pelvis, suspended, as it were, between the head and the outlet.

5. *A Sensation of Emptiness in the Hollow of the Sacrum.*

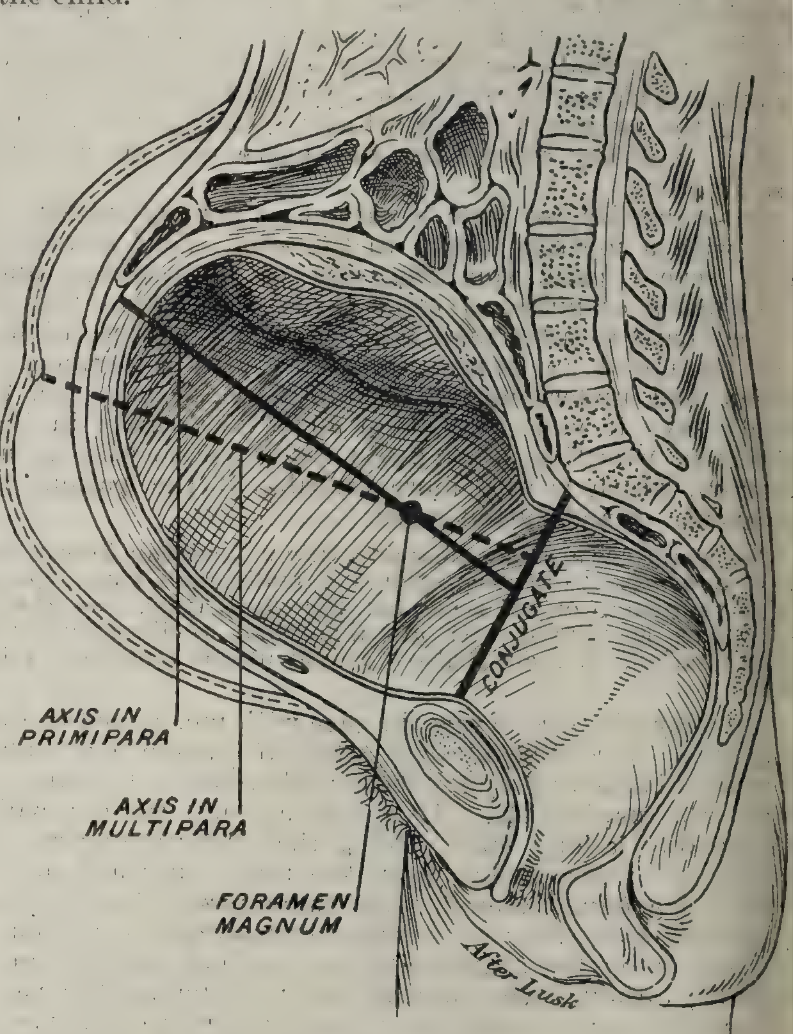
This is evidently due to the arrest of the head at or near the promontory of the sacrum, and, if present, is not so pronounced in occipito-anterior presentation.

6. *Position of Ear.*

If the ear can be reached—and in occipito-posterior presentations it is generally easy to reach it—and its position recognized, it aids the diagnosis.

There are other conditions in which one or more of the foregoing signs might occur, only they are associated with other characteristic signs which render their discussion superfluous.

A complication of occipito-posterior presentation not infrequent is prolapse of the cord, a misfortune whic upon two occasions in my experience caused the death o the child.



Treatment.

The best advice seems to be, allow Nature a long time in which to rotate the head. Attempts at rotation by forceps usually fail. Pressing upon the front of the head during a pain is a safe procedure, and sometimes accelerates rotation. Best of all—go away and attend to other work, and upon your return you will generally find the child born. In any case, think twice before using forceps.

OPHTHALMOLOGY: PAST AND PRESENT.*

By SIMEON SNELL, F.R.C.S.Edin.,

OPHTHALMIC SURGEON, ROYAL INFIRMARY, SHEFFIELD; PROFESSOR OF OPHTHALMOLOGY, UNIVERSITY OF SHEFFIELD.

The subject on which I now wish to address you is a comparison of ophthalmology as it existed in my student and early professional days and as it is at the present time. Time only permits of a reference to a few topics.

The ophthalmoscope—the discovery which brought to Helmholtz undying fame—had, of course, been invented for many years, and it had completely revolutionized our knowledge of diseases of the interior and background of the eye. The main features of disease, as observed by this instrument, had been studied and differentiated and their appearances depicted in the well-known atlases of Jaeger and Liebreich. The value of the ophthalmoscope was in a measure understood by the physician. Whilst I was acting as house-physician to Dr. Clifford Allbutt he was engaged on his book on *The Use of the Ophthalmoscope in Diseases of the Nervous System and of the Kidneys, etc.*, and I remember some, at all events, of the cases from which he drew his material for that work. It was about this time, too, that Hughlings Jackson was impressing the need for the routine use of the ophthalmoscope in medical cases, and was pointing out that optic neuritis could be present without diminution of vision. Before this time, also, Graefe had shown the value of iridectomy in glaucoma, an operation which combated a disease hitherto regarded as hopeless, and in succeeding years must have been the means of preserving sight in countless numbers of eyes. He had also greatly advanced the treatment of cataract by operation, and his teaching was without doubt one of the means by which extraction of cataract has become now a much more successful operation than it was in bygone years.

---

* Part of an address to the Leeds University Medical Society on November 28th, 1905. Portions dealing with the Leeds Infirmary and its medical staff of the past, as well as with that of Moorfields Ophthalmic Hospital in those days, are omitted.

ERRORS OF REFRACTION.

Before the period of which I write Donders's epoch-making work had been published. It had practically created a new subject, for previously the knowledge of anomalies of refraction and accommodation was of the crudest. It had never occupied a prominent place in ophthalmic teaching or in the work of the ophthalmic surgeon, but Donders placed the subject on a firm scientific basis and put into the hands of the surgeon a means of greatly benefiting humanity. This work was followed by Snellen devising his test types. These gave the opportunity for the accurate measurement of visual acuity and were a fitting complement to Donders's great work.

At the time of which I write, myopia, hypermetropia, and presbyopia were corrected by spherical glasses. In young subjects with hypermetropia mydriatics were employed, hough not to the extent that has since been considered ıecessary. Cylindrical lenses were so little prescribed hat it must have been rarely, if ever, that I witnessed heir use. The trial cases in vogue did not contain anyhing like a sufficient number of cylinders for the careful esting that is now held to be essential. The ophthalmoscope was regarded as a means for gauging the degree of rror of refraction. The skill, however, attained by a few ed others into the belief that the results obtained by this neans were sufficiently accurate, and glasses were accordngly prescribed after such an examination. It was not inrequent to meet with instances in which glasses ordered n ophthalmoscopic examination were very different from hat the test types and trial glasses disclosed as correct. Ir. John Couper at this time did most excellent pioneer ork as regards refraction, and in the early Eighties he as pointing out the importance of correcting astigmatism, nd his skill in measuring the degree of ametropia with hat would be called now a refraction ophthalmoscope as recognized. The time was coming when, given a case f ametropia, it was deemed necessary to secure such a orrection by suitable lenses that brought vision up to or $\frac{6}{5}$. This meant, of course, that the number of mblyopic eyes showed a steady decrease upon a better nderstanding of the use of cylinders.

But first let me say that it was after the period of which write that retinoscopy, or the shadow test, was introuced and came into general use. Its discovery has ndered immense service to refraction work, and may be garded as the best objective means for the diagnosis of e varieties of ametropia and for the estimation of the gree.

I regard the appreciation of astigmatism and its rrection by cylindrical lenses as one of the most notable lvances in ophthalmology. I can well illustrate this ogress from particulars in my own experience.

When I was appointed to my present post at the ıeffield Royal Infirmary it was impossible for a time to t prescriptions for cylindricals made up locally, and I d to instruct a firm of opticians as to the necessity of ing such work. Fortunately they followed the advice ven to them, and for a long series of years probably no e has been better served in the execution of his escriptions than I have been.

It was customary for long to speak, as Donders did, of normal and abnormal astigmatism. Degrees above were abnormal and any below 1 D were normal. The gher degrees were corrected, the lower ones were not. e importance of correcting low degrees has, however, in ent years become recognized, and has led to the very ge increase of prescriptions for cylinders. It can safely asserted that never mind how low the degree of igmatism which may be present it needs correction. e old difference between normal and abnormal astigtism has thus been swept away. I now give some tistics from the case-books of my private practice.

n my first book out of 95 spectacle cases I find that inders were ordered in 5 instances, or 5.2 per cent.

n another out of 175 cases cylinders were ordered in 29, or per cent.

n a third out of 305, cylinders were ordered in 76, or 19.9 cent.

To compare with these early years I take the two most recent case-books dealing with a total of 1,748 refraction cases. As a large number of presbyopes in whom the instances of astigmatism would naturally be less frequent would be included, for the present purpose I have separated those below 42 years and those above that age. The following are the results:

Spectacles were prescribed for those under 42 years in 1,243 cases, spherical lenses alone in 535, and cylinders, either alone or in combination with spherical lenses, in 708 cases, the percentage for the latter being 56.9. Above the age mentioned there were 505 instances; spherical lenses alone were ordered in 350 cases, and cylindrical lenses, alone or in combination with spherical lenses, in 155, or 30.7 per cent.

If, again, the two books are treated separately I find in the most recent book that there were 595 cases under 42 years of age, in 342 of which, or 57.4 per cent., cylinders were prescribed. In the other, out of 648 cases, 366, or 56.5 per cent., needed cylindrical lenses ordering. Above the age mentioned, in the latest book, out of 275 cases, 94, or 34.1 per cent., required cylinders, and in the other book out of 230, 61, or 26.6 per cent., had cylinders prescribed.

The percentage is still rising a little. The last book deals with cases up to October of this year (1905).

The recognition of astigmatism and its correction by appropriate lenses has been the means of bringing relief to many afflicted with headache and other neuroses; it has in large numbers increased visual acuteness and materially reduced the number of those formerly regarded as amblyopes. The improved vision effected has been an enormous gain.

The important relation errors of refraction bear to headache and other nerve conditions has become increasingly understood. And here I speak not only of astigmatism but also of ametropia in general. Possibly the most frequent cause of headache is a faulty condition of refraction, and, in less numbers, of the muscle balance of the eye. It is not yet, however, as generally recognized as it should be that the most distressing forms of headache and other neuroses are not infrequently present where no defect of vision is complained of; but it is, nevertheless, true that a careful examination discloses a faulty state of refraction, the detection of which, and its proper correction by spectacles, is usually followed by relief to the distressing symptoms. This is the important lesson that is to be learnt from a study of the large numbers of patients with headache which come under the notice of the ophthalmic surgeon. Of no less importance is it that these conditions are frequently associated with low degrees of ametropia, and especially astigmatism, which in former times was not deemed worthy of correction by lenses. Last year I treated this subject at some length.[1] I there brought under review more than 300 consecutive instances of headache, with a careful analysis as to sex, age, varieties of ametropia, etc.

A careful study of my cases demonstrated that the low degrees of astigmatism were found in patients complaining little, if at all, of their sight, and had only been detected and the correct axis ascertained after a careful examination, with the eyes under the action of a mydriatic. This refers especially to astigmatism of 0.25 D and 0.5 D. Included in my series were 144 cases of hypermetropic astigmatism, simple and compound; + 0.25 D cyl. was prescribed in 18 cases of simple and 5 of compound hypermetropic astigmatism; + 0.5 D cyl. was prescribed in 38 and 9 respectively; and + 0.75 D was prescribed in 22 and 8 cases respectively, thus making a total of 100 out of the 144 cases. The benefit of these weak cylinders was undoubted. There were also 34 cases of myopic astigmatism, simple and compound. For these, cylinders of − 0.75 D and lower were ordered in 20 cases—namely, − 0.25 D in 3 simple and 1 compound; − 0.5 D cyl. in 4 simple and 2 compound, and − 0.75 D cyl. in 9 simple and 1 compound. The percentage for these weak cylinders works out as 66.8 per cent. for hypermetropic, and 58.8 per cent. for myopic, astigmatism.

If relief is to be afforded in these cases, it is of the utmost importance that the refraction should be carefully and thoroughly worked out. To accomplish this, the use of a mydriatic is essential. It has been pointed out that many of the greatest sufferers make no complaint of their eyesight, and unless, therefore, the accommodation is paralysed and the exact refraction ascertained, relief will not be afforded. For this purpose, homatropine, especially in combination with cocaine, is usually sufficient. A mydriatic will reveal a latent hypermetropia of one, two, or even three dioptres, not infrequently even in patients aged 35 and over, and the low degrees of astigmatism will not be discovered without it.

Retinoscopy is the one objective method that is of real value. For young children it must often be relied upon for ascertaining the degree of the error, and it may be necessary to prescribe spectacles from its findings. For all others, however, the final examination must be made with the trial glasses and test types. No objective method can be permitted to dispense with these. Ascertain carefully the best correcting glasses, and be very exact as to the axes of the cylinders. Attention to these matters is essential if treatment is to be successful.

ASEPSIS.

At the time of which I have been speaking, hospital gangrene, pyaemia, septicaemia, etc., were regarded as almost inseparable from hospitals, especially old ones. Given a new building constructed on the latest designs, and much of the terror of these diseases which brought failure to the best executed operations would disappear. This, however, was not the case here at Leeds any more than it was elsewhere, for phagedaena and other affections which now are regarded as septic in origin, occurred in spite of excellent wards, with abundant cubic space, in one of the newest, and, as was considered, one of the best constructed hospitals in the kingdom. It fell to my lot as a resident to apply bromine, a remedy then in vogue, for checking phagedaenic ulceration, and the intensely disagreeable nasal irritation its fumes occasioned is not likely ever to fade from my memory, and will perpetuate a recollection of pre-Listerian surgery.

It was some time after McGill became resident medical officer that he went to Edinburgh to study the antiseptic system of the treatment of wounds which had been introduced by Professor (now Lord) Lister. The methods then in vogue have long since disappeared, and others in some ways simpler and more efficacious have taken their place.

It is impossible to calculate the benefits Lord Lister by his teaching has conferred on the human race. Possibly no method introduced into surgery has had such widespread beneficial effects. The surgeon now, thanks to asepticism, performs numerous operations unheard-of only a few years ago, and what is more, with remarkable safety as far as the life of the patient is concerned. Every branch of surgery is daily a debtor to Lord Lister, and so is every patient that comes under treatment. As the discovery of anaesthetics was the prominent feature in medical history in the early Victorian period, so is the great work of Lister the epoch-making feature of the latter half of her Majesty's reign, and the two in combination have enabled surgery to fill the brilliant position it occupies at the outset of the twentieth century.

Ophthalmic surgery has, too, derived its benefit from the teachings of Lister. As a student and in my early years when qualified, I witnessed operations performed at Moorfields and at Guy's by masters of their craft. Care was exercised as to the cleanliness of the instruments used, but in a way that would shock present-day susceptibilities. I believe I was one of the first to advocate the use of antiseptics in ophthalmic surgery.[2] Carbolic lotion, however, which was used, caused considerable irritation, and was soon abandoned. At this time, too, the methods in vogue generally for antiseptic surgery were all crude and unfit for adoption for eye operations. For long, however, special care was taken with the knives, the "polish" was looked after, and before being used they were dipped in absolute alcohol and afterwards dried on cotton-wool.

Now the adoption of means for asepsis, as far as the conjunctival sac permits of it, is general. The conjunctival sac is flushed, before and after the operation is done, by some chemical antiseptic. Sublimate solution is, perhaps, the most generally used. Besides this, before a cataract operation the neighbourhood of the eye and adjoining parts of the face are thoroughly washed with soap and water and afterwards covered with gauze or lint saturated with sublimate or other antiseptic solution.

The cocaine to be employed is freshly made in sublimate solution or sterilized by boiling. Every instrument to be used is sterilized in boiling water. Cataract and other fine eye instruments do not require to be immersed for long in the water, and a sterilizer of the simplest kind is all that is needed. For years I have used a beaker filled with distilled water in a retort stand, and heated by the flame from a spirit lamp. Other instruments require to be boiled for a longer time. Needless to say, the surgeon himself exercises the greatest care as to the cleanliness of his hands by soap and water and by the free use of the sublimate solution, those assisting doing the same. For my part, I encourage the use of carbolic cloths over the head and neck of the patient, just as they would be employed in a general surgical theatre. I regard one of the greatest advantages derived from the beautiful modern operation theatre—and I believe mine at the Sheffield Royal Infirmary is one of the best—is the encouragement to cleanliness and to carefulness to detail given thereby to the nurses and all concerned in operations. Modern wards, modern methods of nursing, all tend the same way.

The gain to ophthalmic surgery of the efforts to obtain asepsis has been very great. With eye operations and cataract extraction in particular the personal equation of the surgeon as an element to success must always be considerable. It has occurred to all, however, to witness the most perfectly-executed cataract extraction go to the bad, suppuration in the past forming a considerable percentage among the causes of failure. There can, on the other hand, be no question that in recent years operations for cataract performed by the same operators have been increasingly successful and the total losses have shown a decreasing percentage. That suppuration does still happen must, unfortunately, be recognized, but it is a comparatively rare event and instantly demands inquiry as to why it has in that particular case occurred. In the whole range of operative ophthalmology the influence for good of the use of asepsis and antisepsis is evident; less, in my opinion, from the methods which may be employed than in the great lesson which has thereby been inculcated of the necessity of the utmost attainable cleanliness on the part of all concerned. The immediate treatment of the eye injuries and the use of antiseptics is held too, and I believe truly, to have lessened the frequency of sympathetic ophthalmitis as well as having been the means of restoring sight in a larger proportion of instances than formerly was the case.

THE TEACHING OF OPHTHALMOLOGY.

The average student needs a sufficient acquaintance with ophthalmic work to meet the requirements of general practice. A knowledge of the commoner diseases and their treatment, the employment of test types and trial glasses, and, of course, the use of the ophthalmoscope, are all necessary.

I do not think that formal lectures delivered away from the clinique give the kind of training which is requisite. The knowledge the student needs can only be obtained by attendance in the out-patient room, in the wards, and at operations. It is there only that he can become familiar with the appearances of the various ophthalmic diseases, and with the methods of examining eye patients. He must see these cases several times over, and become conversant by repeated practice with the different modes of examination. He must become accustomed to the use of the ophthalmoscope, know how to correct errors of refraction, and must see operations.

Students attending an ophthalmic department are usually those who have previously held office as clinical clerks or surgical dressers, and they find the methods in use for ophthalmic cases so precise, and so different to those they have been accustomed to in medical and surgical practice, that a sense of bewilderment is at first not infrequently occasioned, and is only overcome when the initial difficulties have been mastered. For all these reasons, in place of a system of formal lectures I have supplemented the attendance in the out-patient room by clinical demonstrations dealing with the methods of examination, together with illustrations of disease in cases attending the clinique, the differential diagnosis, and the treatment needed. For instance, for one morning's demonstration, examples of diseases of the conjunctiva, lachrymal apparatus, and eyelids will be got together. These, taken one after the other, will illustrate the typical signs of each disease, and will afford an easy and rapid way of pointing out the differential diagnosis. The lantern forms an important part of these demonstrations.* Any case of disease not at the time attending the clinique is shown on the screen by the lantern. The exhibition of lantern slides is most useful also for illustrating eye diseases in groups, and of showing instances of interest either by their rarity or otherwise. Again, repeating by the lantern on the screen what has already been demonstrated on patients is found practically to be a most valuable means of impressing the facts on the mind of the student. In a few lectures on this plan the student can be shown points of all important diseases of the eye which will enable him to acquire a good, practical, working knowledge of eye work.

---

* A series of lantern slides were here exhibited as illustrations.

References.

[1] *The Lancet*, vol. i, 1904, p. 1181. [2] Antiseptics in Cataract Extraction, British Medical Journal, February 14th, 1880, p. 241.

ON RHYTHMICAL VARIATIONS IN CEREBRO-SPINAL PRESSURE.

By E. GLADYS KENSINGTON, M.B., B.S.Lond.,
HOUSE PHYSICIAN, VICTORIA CHILDREN'S HOSPITAL, HULL;
With a Note by FRANK EVE, M.D.

The two cases here reported were under the care of Miss Murdoch, Senior Physician; in both lumbar puncture was performed in the course of what was apparently acute tuberculous meningitis. In the first case (a child, aged 7) the puncture was made in the third week of the illness, Dr. Eve's cerebro-spinal manometer[*] being used for measuring the pressure.

The pressure at first was only slightly raised (11 in. of water), but as usual in high pressure cases the pulse curve was clearly seen while the respiratory wave was almost absent. Then commenced the curious phenomenon which it is desired to record. The pressure gradually rose in waves of regular rhythm, rising slowly, pausing at the summit, and then rapidly dropping in the course of a few heart beats through a fall of 7 or 8 in. Each succeeding wave attained a higher level than the preceding, till at the end of about twenty minutes the pressure had risen step by step to the high level of 32 in. The ascent of each wave occupied about 50 heart beats (30 secs.), remained at the summit for about 100 or 150 heart beats, and then fell quickly in about 10 heart beats. The whole cycle occupied about a minute. The child being comatose, there was no movement or struggling when the needle was inserted or throughout the whole observation. Neither could alterations in the tension of the pulse be detected. The abdomen was repeatedly palpated and was always perfectly flaccid. The respirations were as peaceful as in sleep, so that the pressure variations appeared mysterious and unaccountable.

Seven drachms of cerebro-spinal fluid were withdrawn, the fluid escaping very slowly. Finally, the pressure was left at 5½ in., from which it showed no sign of rising. There was transient improvement after the spinal tapping, the child losing the rigidity of the limbs and becoming conscious enough to put out its tongue when requested. The following day lumbar puncture was repeated, and the pressure variations were accurately noted for a space of two and a half hours. There was again the gradual climb from 9 in. up to 24 in. in the course of twenty minutes,[†] but the rhythmical element was much less marked. The waves were only 1 to 2 in. high, and their ascent and descent were of equal rapidity. As before, the child was perfectly tranquil, with the exception of vomiting once and a little twitching of the face and limbs. The withdrawal of only 4 drachms was sufficient to reduce the pressure to 4 in. The fluid was clear (specific gravity 1004), and a large "spider-web" clot formed in it in twelve hours. A film showed lymphocytes predominating. Death occurred two days later, on the twelfth day of illness.

In Case II, also of acute tuberculous meningitis, in a boy aged 9, lumbar puncture was performed and the pressure observed for thirty minutes. Again there was a marked rise of pressure, from 16 in. at the beginning to 34 in. at the end. But the rise was not in this case marked by any regular rhythm, though there were oscillations of from 2 to 6 in.

As in the last case, there was nothing in the pulse or respiration to account for the rise or variations in pressure, and the patient was tranquil throughout; 12½ drachms of clear fluid were withdrawn, reducing the pressure to 5 in. The fluid showed a "spider-web" clot after twelve hours. Its specific gravity was 1005, and a film showed abundant lymphocytes. No improvement was observed after spinal tapping, the child dying eleven days later.

Epitome of Cases.

Case I.—Girl, aged 7. Eighteen days' history of gradually increasing drowsiness, with vomiting, and later with pyrexia. When punctured her condition was: Coma, dilated fixed pupils, fundi normal, knees drawn up, Kernig's sign positive, knee-jerks absent, limbs rigid. During the last two days Babinsky's sign developed, neck muscles became stiff, and there was incontinence. *Post-mortem* examination showed yellow lymph at base of brain, and extending along middle and posterior cerebrals. No tubercles seen. Foramen of Magendie patent.

Case II.—Boy, aged 9. Three weeks' cough, followed by slight squint, delirium, Kernig's sign, and finally coma, with stiff neck, increased deep reflexes, and incontinence. *Post-mortem* examination showed minute tubercles along middle cerebrals, and the foramen of Magendie almost obliterated by lymph. Miliary tubercle in lungs also, and primary caseous focus at apex of right lung.

Remarks by Dr. Eve.

Miss Murdoch being away, I was fortunate enough to see both these cases, and was present during the whole of the first lumbar puncture; so that I can fully endorse Miss Kensington's interesting observations.

The explanation of the rhythm is not obvious; presumably it must be due either to alterations of general blood pressure or to the existence of a centre for the control of the cerebro-spinal pressure. The rhythm resembled in many ways Traube-Hering curves of general blood pressure; but it might be argued that a rise of blood pressure so great as to treble the cerebro-spinal pressure should be perceptible to the finger on the pulse or in the complexion. But blood pressure in children is, I believe, always hard to estimate, and no instrument to measure it was available.

In health the cerebro-spinal pressure lies near the venous pressure, but it seems scarcely possible that this should be so in disease, as in the 2 cases now under discussion. Case I also shows that reliance must not be placed upon the rate of flow from the needle as a rough guide to the cerebro-spinal pressure. In spite of the high pressure the fluid emerged very slowly on this occasion.

A CASE OF ATROPHY OF THE PHALANGES OF THE HANDS WITH JOINT LESIONS

SEQUENTIAL TO MULTIPLE TUMOURS OF THE SKIN.

By BERTRAM WATSON, M.D.Lond.,
HONORARY MEDICAL OFFICER, YORKSHIRE HOSPITAL FOR INCURABLE AND CHRONIC DISEASES, HARROGATE.

The case here recorded was recently admitted under my care into the Yorkshire Hospital for Incurable and Chronic Diseases, Harrogate, and shown by me at the last annual meeting of the Yorkshire Branch of the British Medical Association held in that place.

Both the past and present condition of the patient betray such unusual features that I have deemed it worthy of record, especially because, as will be presently seen, the early facts of it have already been published and the case exhibited on a former occasion.

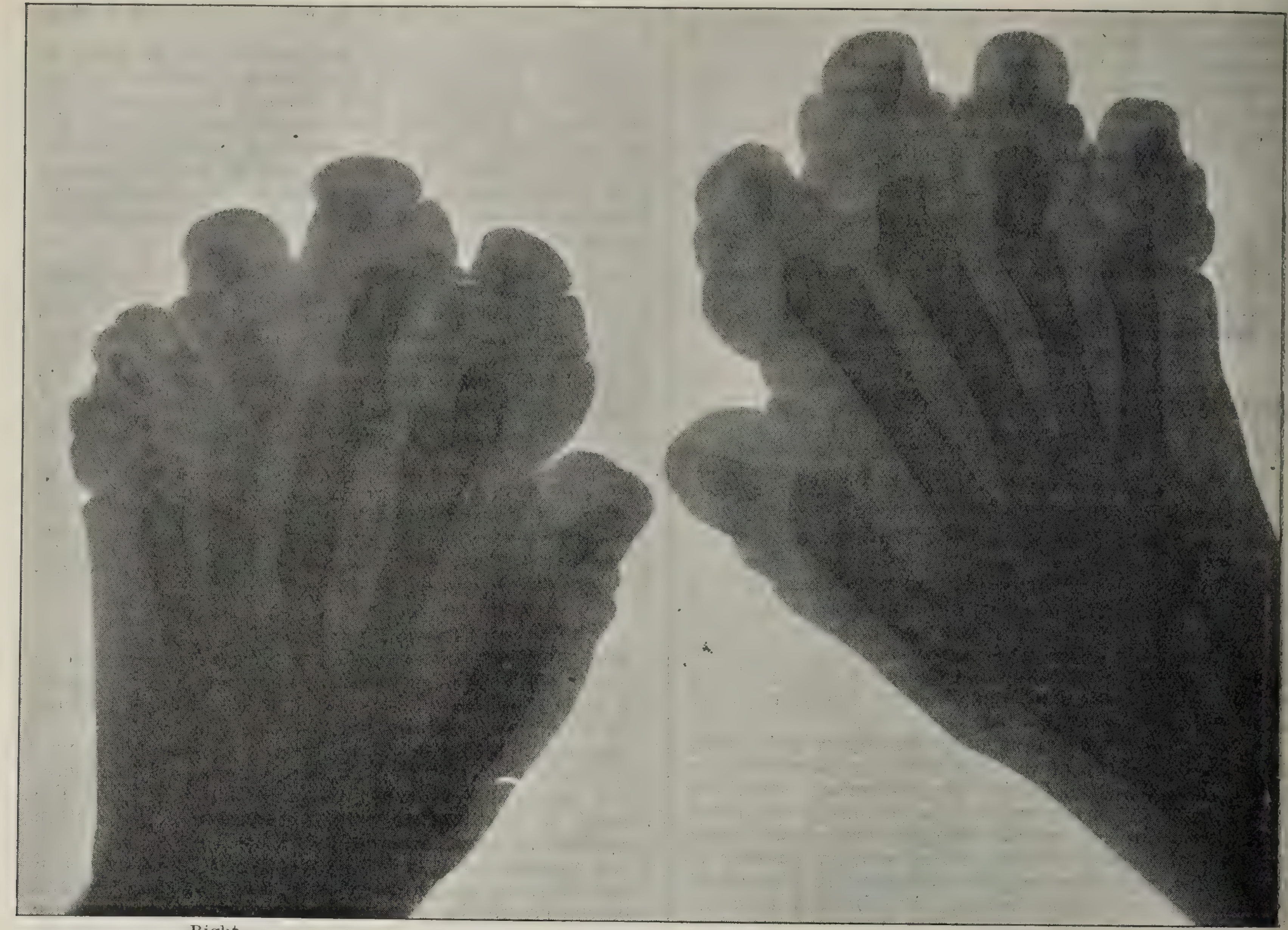
A. K., aged 47, formerly a clerk in the City of London, had enjoyed good health up to the beginning of 1896. Some years previous to that, however, he had gonorrhoea, but he does not admit syphilis. His family history is good. Soon after the commencement of his present breakdown he became affected by multiple tumours covering nearly the whole body, for which he came under the care of Dr. Radcliffe Crocker, in whose work will be found the following interesting report of his case:[1]

"A remarkable case, with myriads of tumours with 'myeloid cell' structure, was shown by me at the Dermatological Congress in London in 1896. The

---

[*] Made by Messrs. Allon and Hanbury, London. See *Lancet*, April, 1905.

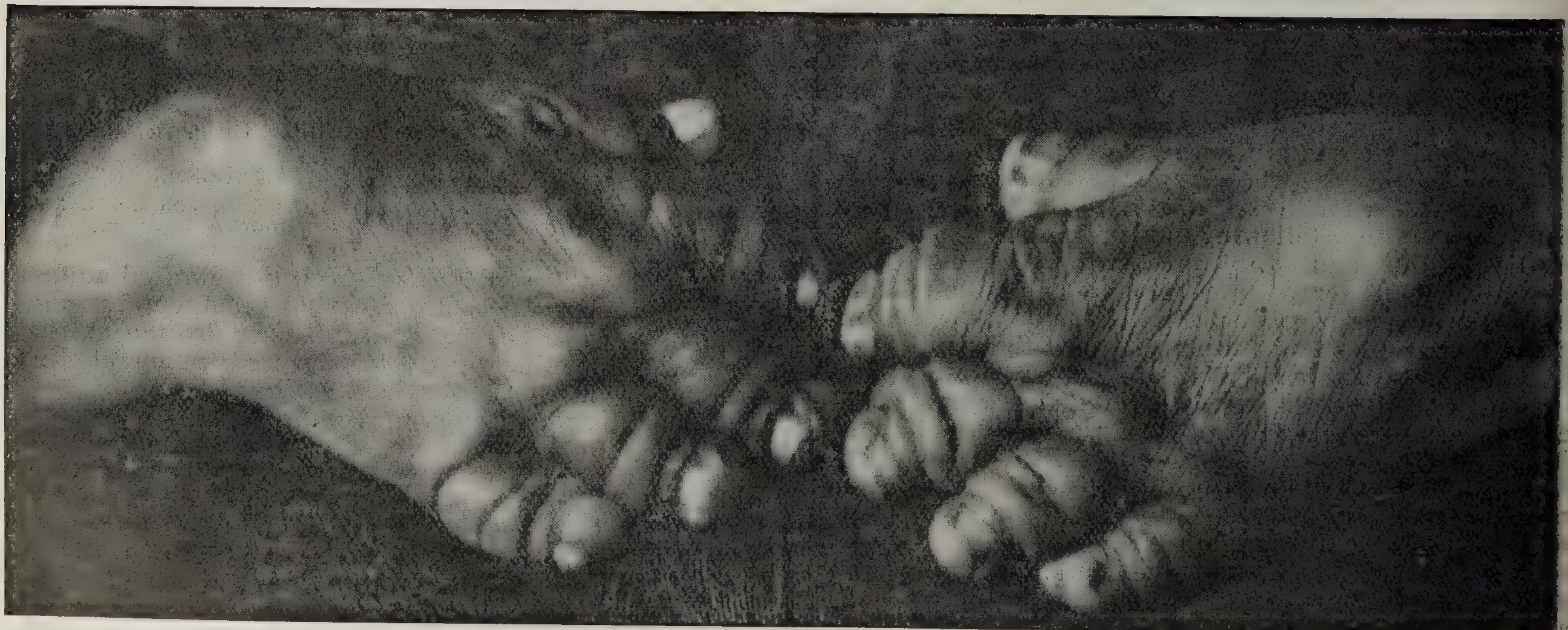
[†] This gradual rise is probably due to the reaccumulation of the small amount of fluid absorbed into the manometer.



Right. Left.

Radiogram of fully extended fingers (palm side).

tumours developed soon after an attack diagnosed as acute rheumatism in a man aged 39. They appeared first on the hips on March 3rd, then about the elbows, then all over the back, and then on the legs. On March 6th there were a few on the face. When I saw him with Mr. Sworn on April 29th there were congeries of coalesced tumours on each elbow forming a nodular mass some 2 in. in diameter; near this mass were isolated tumours, from a hemp seed to a filbert in size, but the majority were roundish, very distinctly raised, of a brownish-red colour, and of firm consistence, but quite painless and not tender. Over the buttocks and hips there were many scores of similar growths, a few of them $\frac{3}{4}$ in. in diameter; near the anal cleft there was a uniform brick red infiltration, in which tumours were not traceable. Nearly the whole of the back below the spines of the scapulae was a mass of nodular infiltration, of a purplish-red tint made up of myriads of small tumours. On the trunk, in front, there were only a few tumours, but there was a purplish infiltration like that of the back at the lower part of the abdomen. There were very numerous tumours at the lower part of the buttocks, a moderate number at the back of the thighs, and scarcely any below the popliteal spaces. There were only a few small tumours in front and inside the thighs, but some were like those on the elbows and knees.



Photograph of hands.

"There was effusion of fluid into the sheaths of the tendons at the wrists, knees, and tuberosity of the tibia. His wife said there were a few lumps in the scalp as far back as July, 1895, and that they had increased in size and number since. A tumour evoluted quite suddenly in a night, enlarged to a pea or bean; and sometimes involuted again, leaving brown spots. The patient was not cachectic, but as he had much pain in his joints, salicin in 15-gr. doses three times a day was prescribed. In a week it was noticed that many tumours had become smaller, and in a week or two more scores of them had disappeared and many others were in process of absorption, and cavities could be felt in the larger ones. The infiltration in the back diminished greatly, and when shown at the Congress a very large part of the disease had disappeared. Unfortunately he has been lost sight of since."

The tumours described by Dr. Radcliffe Crocker persisted until 1898, when at about the time of their disappearance the patient was one day seized with violent pains in the shoulders and hips. The affection of the hands, shortly to be described, has developed gradually since.

When the patient first came under my observation (September, 1905) there was a mobile subcutaneous tumour of the size of a marble on the chest wall, immediately below the right axilla. Another tumour, of about the same size, was present over the upper part of the sacrum. The overlying skin was not in any way discoloured, and in the course of a few weeks the tumours completely vanished, leaving no trace.

The feature of the case which I believe renders it unique is the condition of the hands, which will be better appreciated by an examination of the accompanying illustrations than by any verbal description. The skiagraph shows that the phalanges of both hands have been almost completely absorbed. The fingers, in consequence, have materially shortened, and, as the skin surface has not appreciably lessened in extent, a peculiar appearance is presented, which may be compared to a kind of "telescoping" of the digits. On the dorsum of each wrist there is a large firm swelling, which is not so opaque as to show in the skiagraph. The skin of the hands, in common with the rest of the body, is somewhat bronzed. The power to move the fingers is lost, and there is considerable limitation of the movement of the wrists also. The patient thinks this condition of the hands has been stationary for the past two years.

The knees are almost completely fixed in the semiflexed position, and, when moved to the smallest extent that is possible, crepitation can be felt; the shape of the joints is not, however, greatly affected, and no osteophytes are perceptible. The feet are in no way affected, nor are any other joints involved. The patient thinks there has been some shortening of the face in its long axis. The head is not increased in size, and there is no enlargement of the tongue.

The skin of the scalp is thickened, and covered with clusters of brown warts (verruca plana). There is no loss of hair. The patient's general health is not affected, and his chief trouble is his inability to walk owing to the fixation of the knee joints. Dr. Gruner has kindly examined the blood and the urine for me at the Yorkshire Pathological Laboratory, Leeds, and I append his report:

Blood.—Examination of the films has given the following differential count of the leucocytes:

Polymorphonuclear, 41 per cent.
Lymphocytes, 25 per cent.
Transitional forms, 15 per cent.
Large mononuclears, 4 per cent.
Eosinophiles, 15 per cent.

This shows a remarkable increase in the eosinophilous cells. There are no evident changes in the erythrocytes. Blood platelets are not conspicuous.

Urine.—250 c.cm. have been found to contain 0.199 gram of metallic calcium. The percentage is thus 0.008, which is rather less than normal.

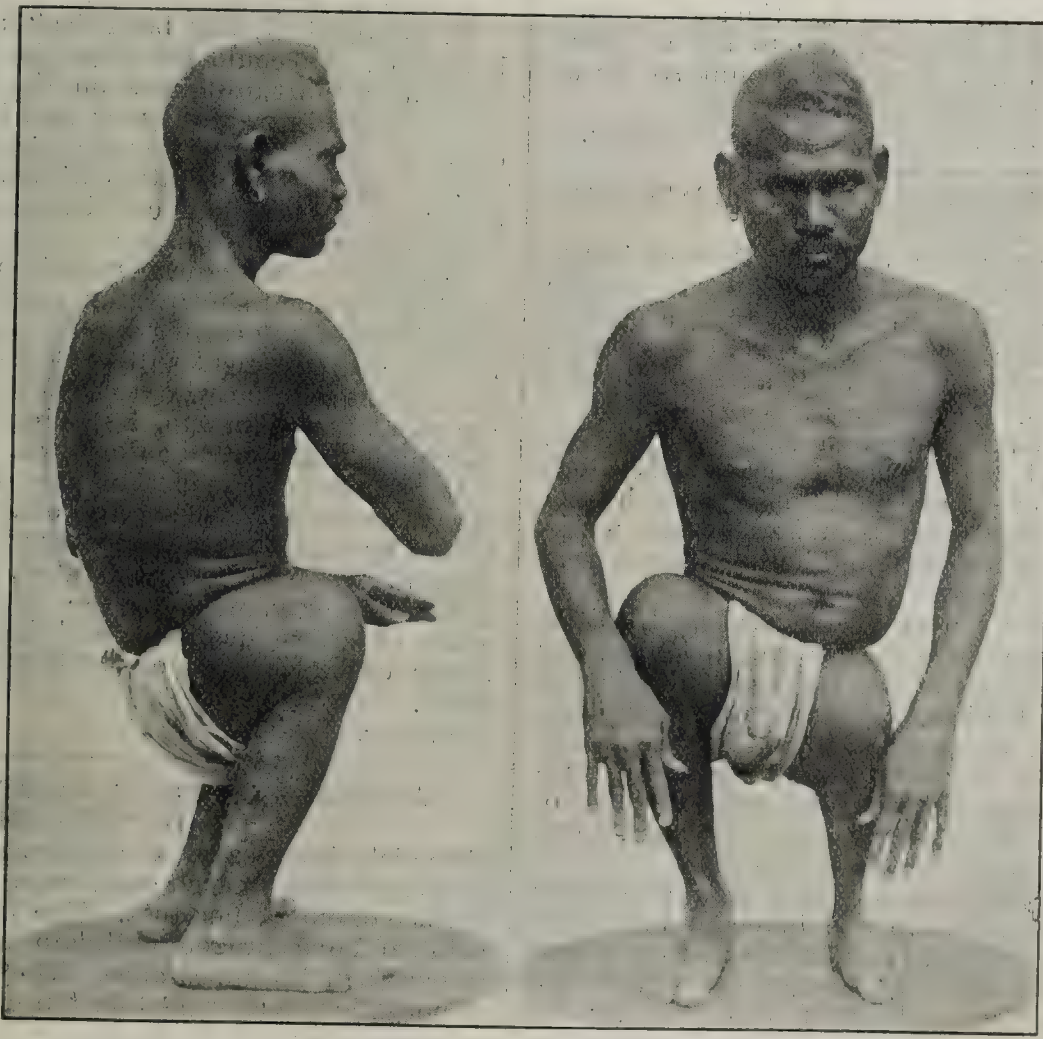
REFERENCE.

[1] *Diseases of the Skin*, vol. ii, p. 958.

DEFORMITY OF LOWER LIMBS.

By E. F. GORDON TUCKER, M.R.C.S.Eng.,
CAPTAIN I.M.S., CIVIL SURGEON, SURAT.

The Hindu of whom photographs are here given has the appearance of being about 32 years of age, is in sound health and of good muscular development as regards the upper part of the body. Owing to his curious congenital deformity he has been able to live in comfort by following the occupation of a beggar.



The whole of the body above the umbilicus is perfectly natural except that the liver is small. The upper border of the hepatic dullness is at the upper edge of the seventh rib at its junction with the costal cartilage, while the lower limit of dullness does not quite reach the lower margin of the costal cartilages. In the line of the anterior axillary fold the lower border of liver dullness commences ½ in. above the lower margin of the ribs, and extends upwards for 1 in. only. No hepatic dullness can be made out posteriorly.

The circumference of the neck is 13½ in.; of the thorax, 31½ to 33 in.; of the abdomen, 22 in. The length of each arm from the acromial spine to the external humeral condyle is 11¼ in.; of the radius, 9¾ in. The upper margin of the tibia can be palpated easily from the front as well as from the outer side, and can be felt to be in contact with what appears to be a perfectly normal lower femoral end, the knee-joint being maintained in a state of flexion, even when the patient is lying on his back. The patella is very small, and cannot be moved from the femoral intercondylar recess. What appears to be a great trochanter can be felt 1¾ in. below the right iliac crest. There is no mobility of the head of the femur on the ilium. The tuber ischii is normal. What exists of the shaft of the femur appears to be a short thick stump.

The above description applies to the right side; the left is similar, but the deficient length of the left lower extremity below the knee causes a tilting upwards of the right side of the pelvis when the man is standing. The fold of the buttock commences at the upper part of the popliteal space.

The right fibula is quite natural, and so is the right foot. The length of the right tibia from the upper margin of the head to the tip of the internal malleolus is 13¼ in.; that of the left tibia is 11¼ in.

The length of the right foot is 8¾ in., of the left foot 7¾ in. The arch of the right foot is normal; the left foot has no longitudinal arch. The left os calcis is naturally shaped but small the astragalus likewise. The scaphoid and internal cuneiform cannot be distinguished from the base of the first metatarsal. The cuboid and the fourth and fifth metatarsals with the two outer digits are absent. The left fibula is absent. The left tendo Achillis is represented by a small round cord, and the swelling of the gastrocnemius is insignificant. The extensors and flexors of the existing toes are natural. Movements at the ankle-joint are limited. The penis and pubic hairs are those of a normal man, and the right testicle present, and is of usual size. The left testicle cannot be felt either in the scrotum or in the left inguinal canal.

The pelvis is small but the thorax is well developed. The patient walks with a waddling gait by swinging the pelvis, assisting progression by a long stick; he has difficulty only when mounting steps.

MEMORANDA:
MEDICAL, SURGICAL, OBSTETRICAL.

ANTISTREPTOCOCCUS SERUM.

THE remarks of Mr. Edmund Owen on antistreptococcus serum in his admirable paper on *Acute Bone Disease in Children*, lead me to give particulars of a case treated by me with the said serum. The patient was a woman who, three weeks after a normal confinement, developed a whitlow which she refused to have lanced; it was treated with fomentations. Six days after this I was sent for and found the patient with small boils all over the arm and leg on the side opposite to the one on which her finger was. Temperature 105.5°; pulse 120. I had a consultation with my colleague, Dr. St. George. We agreed to try antistreptococcus serum. I injected under the left breast 10 c.cm. at 3 p.m. on January 8th. This caused great drowsiness all the afternoon. At 9 p.m. the temperature was 99°. On the 9th it was 98°. On the evening of the 10th the temperature was 105°, pulse 118. I injected another 10 c.cm., with the result that the temperature dropped to 100° on the 12th, and on the 14th was normal and remained there. The boils healed up, and so did the finger, the patient making an uninterrupted recovery. The only other treatment was plenty of nourishment and gr. iij quin. sulph. every four hours, and strychnine every now and then to aid the heart.

I am inclined to think that in this case the serum saved my patient, and its action will lead me to try it again. This is only one case, so not of much account so far as conclusions go, but I thought it worth recording.

Lisburn. J. L. RENTOUL, M.B., Ch.B.Edin.

PLUMBISM FROM THE INGESTION OF DIACHYLON AS AN ABORTIFACIENT.

IN reference to the paper by Drs. Hall and Ransom in the BRITISH MEDICAL JOURNAL for February 24th, it may be well that I should state that in March, 1905, a case of diachylon poisoning came under my notice in this neighbourhood, having migrated hither from a suburb in the N.W. district of London. The history was as follows:

The patient was a married woman with two children. Abortion had occurred about Christmas, 1904. Both before and after this event she had suffered much from abdominal pain, sickness, constipation, and general weakness. Jaundice had been present, and her symptoms were attributed to gastric influenza.

As she had been ill for ten or twelve weeks, with little or no improvement, she come to her parents' home for change of air. The history of the case, with the facies, the colour of which is, I think, in many cases suggestive, the pink malar blush, in contrast with the pale lemon tint of the rest of the face, reminding one of a picro-carmine-stained specimen, indicated the probable cause of the illness. On examination of the gums, therefore, I was not surprised to find the tell-tale slate-blue line.

When I told her that she was suffering from the effects of poison caused by the pills she had taken, and inquired where she had obtained them, she admitted at once that, being pregnant a third time, she sought the advice of a woman in her district (" since dead ! "), who gave her the pills. She was surprised to hear they were the cause of her illness, as she had been led to believe they were "safe." The contrition which she also manifested was doubtless as much for her sufferings as for the act which caused them. She gave me two or three of the pills, which she had left at her own home, but sent for at my request. They proved to be very roughly-made pellets of diachylon. Under liberal doses of mistura aperiens alba she was practically well in a week.

The interest of the case, and my excuse for recording it, lie in the fact that hitherto no case has been recorded in the metropolitan area, and the cause of the woman's symptoms had been unrecognized for several weeks. Whether this might be a sporadic case merely, I am not in a position to affirm; but her assertion that she obtained the pills from a woman of the district in which she lived suggests that other cases might arise. It is true there was no evidence in support of her assertion of the source of supply. But that she was very much taken aback, indeed almost incredulous, when she learnt the cause of her symptoms, admitted of no question; and this fact, coupled with her readiness to produce the pills, favoured the opinion that she was telling the truth. The decease of the vendor may or may not have occurred. The patient had at least a motive in declaring it, in order to stop inquiry.

This case affords evidence that this pernicious traffic has reached the metropolis, and, if it were needed, gives additional support to the remarks of Drs. Hall and Ransom that stringent measures must soon be adopted if the evil is to be stamped out.

Ascot. W. WRANGHAM, M.D.Lond.

CATARRHAL DEAFNESS.

THE recovery of hearing after otectomy in many cases of suppurative otitis led me to consider whether it might not be possible to restore some hearing by a similar operation in severe catarrhal deafness. My first case, which was published in the BRITISH MEDICAL JOURNAL, May 27th, 1905, p. 1147, resulted in very considerable improvement to the hearing. I have since operated on seven other cases, some of which I described in a paper read before the Birmingham Branch.

The two following cases have not been published:

Miss H., aged 27, could not hear my watch in contact with the left ear, but could hear the tuning-fork on the bone. She had been deaf for many years. The operation gave rise to very little disturbance of any sort. A week after she heard the watch at 1 in. from left meatus; a week later at 9 in. from left meatus.

H. M., aged 31, had been deaf in the right ear for a long time. He could not hear the watch in contact but could hear the tuning-fork on the bone. The operation was followed immediately by very little pain, but on two occasions he had rather severe pain after the toilet of the ear. A week after operation he could hear the watch at 3 in. from the ear, and could hear ordinary conversation when addressed to him.

These cases being quite recent, one cannot say how far the improvement shown may persist or extend, but the experience of my earlier cases encourages me to believe that the improvement will continue. Yesterday I saw an old patient of mine who had otectomy performed on each ear about two years ago, he being then very deaf. His hearing is now as good as my own.

It is an important fact, in face of the criticism that is always aroused by the success of any treatment not sanctioned by tradition, that in every case of catarrhal deafness in which I have operated, there has been some definite improvement in the hearing. They were all cases of severe deafness, and had all previously been under other methods of treatment without any benefit at all.

Coventry. F. FAULDER WHITE.

A SERIES OF FOUR CASES OF CUTANEOUS DIPHTHERIA.

Two girls, inmates of an orphanage, were brought to one of us suffering, in each case, from an ulcer on the dorsal surface of one of her toes. The origin in each case was said to be a broken chilblain, and there was nothing unusual in its appearance. They were treated by boric fomentations and soaked for ten minutes daily in a weak solution of Jeyes's fluid.

About three weeks from this date, another girl sleeping in the same dormitory became ill with typical faucial diphtheria, from which an excellent culture of typical

Klebs-Loeffler bacilli was obtained; she was at once removed to the City Isolation Hospital. The throat and nose of every inmate was examined, and from all those who showed an appearance in any way suspicious swabs were taken; no further infection was discovered. A few days later the two cases of ulcer above-mentioned, and two other girls, one with ulcers on the heel, the other with a large ulcer on the back of the hand, were brought for examination; all these ulcers were, at this period, covered with a membranous translucent slough; swabs were taken and gave good cultures of quite typical diphtheria bacilli. A pure culture from one of the cases was sent to Dr. Hewlett at King's College, who very kindly tested it on guinea-pigs and pronounced it fully virulent. The child with the ulcer on the hand infected also the outer canthus of one eye; the infection spread on to the conjunctiva, but was rapidly cured by painting with silver nitrate in aqueous solution (10 grains to the ounce). This child was sister to the one with faucial diphtheria. The same nurse attended the case of faucial diphtheria and the dressing of the ulcers. The ulcers were slow in healing and the patients were removed to the isolation hospital.

The occurrence of this series of cases appeared to us to be clinically of some interest, and to be of considerable importance as a possible source of infection; one cannot but feel that, had they been overlooked, they might well have been the cause of a very serious outbreak. Mild rhinitis and chronic otorrhoea are always looked for as sources of infection, but we doubt whether such cases as are above recorded are usually regarded with suspicion.

R. HEELIS, M.D.,
Nottingham. F. H. JACOB, M.D., M.R.C.P.

POLYPOID TUMOUR OF CERVIX UTERI DUE TO BILHARZIA.

THE following case is instructive from a diagnostic point of view, as similar cases showing small growths in the vaginal walls and about the cervix uteri are extremely common in Mauritius, where in certain districts endemic haematuria (bilharzia disease) is very prevalent:

An Indian woman, aged about 25 years, came complaining of leucorrhoea of long standing, and occasional metrorrhagia, also of a tumour protruding at the vaginal orifice.

History.—She stated that she had had leucorrhoea for about ten years. Haematuria was noticed seven years ago; it lasted about two years, and then ceased. The tumour, which had given rise to no pain, was noticed about three years ago. There had been occasional bleeding during the last four months, lasting for about fourteen days at a time.

Condition on Examination.—A large polypoid-like tumour, ulcerated and discharging an offensive purulent fluid, was found attached to the anterior lip of the cervix uteri. It was roughly triangular in shape, the apex being at the vulva. It was soft, and bled slightly on manipulation, and on its outer surface presented a few slender irregular columns, free in the middle, but attached above and below. The mucous membrane of the anterior fornix was studded with small polypoid protrusions, while lower down on the vaginal wall were seen similar smaller and more scattered elevations of the mucous membrane, resembling somewhat the normal "rugae" greatly exaggerated. She was very anaemic. The urine revealed no trace of blood, nor were blood corpuscles present in it. The last few drops of urine obtained by catheterization showed bilharzia ova, but they were extremely few in number.

Description of Tumour.—The tumour was removed, and while being excised creaked under the knife. It was about the size of a hen's egg; its surface was very irregular, and in section appeared composed of a somewhat solid central portion, covered by many small columnar protrusions. On microscopical examination it was seen to consist of dense strands of fibrous tissue, enclosing here and there clusters of bilharzia ova. Single ova were also observed at different points in the tissue. The clusters consisted of from about twelve to fifty typical ova with terminal spines. No laterally-placed spines were seen. Microscopical examination of the faeces and of the uterine discharge gave a negative result as regards bilharzia ova.

Differential Count of Leucocytes in Blood:

Polymorphonuclears	32.1 per cent.
Lymphocytes	43 per cent.
Large mononuclears ...	10 per cent.
Eosinophiles	14.3 per cent.
Mast cells	6 per cent.

The diagnosis of the origin of these growths, so common here, leads one to expect that many similar cases are to be found in other tropical countries where bilharzia disease is common. Whether these growths are caused by urine charged with ova finding its way on to the surface of the vaginal [illegible] membrane, or whether the ova reach the surface of this membrane in a similar way to that in which they reach the surface of the mucous membrane of the bladder, is a question worthy of study. The latter view is the more probable; but if the first should be correct something might be done to prevent these growths in bilharzia patients by routine douching, scrupulous cleanliness, etc.

JA[illegible] F.R.C.S.I.
Mauritius. A. J. M[illegible] D.P.H.

INJURIES DURING LABOUR.

As an addition to the three cases of injury to the parturient canal during labour, recorded by [illegible] E. Fothergill in the EPITOME of February 1[illegible] the following notes may be of interest:

On January 10th, 1904, I attended Mrs. R. [illegible] confinement. I found her in the second stage of labour, with strong pains. The head being in the right occipito-posterior position, I applied forceps and delivered without any difficulty whatever. After waiting about half an hour the placenta still remained in the uterus, and, as the patient had a poor pulse and a bad colour, I introduced my finger and found a loop of small intestine in the vagina. Having made sure it was intestine by pulling it out and examining it at the vaginal orifice, I pushed it back through a tear in the right fornix, quite close to the cervix, and, passing my hand into the uterus, removed the placenta.

The patient was very poor and lived in a very dirty and insanitary house. She had symptoms of intestinal obstruction for three days, vomited everything she took, and passed no flatus or faeces. Afterwards she progressed favourably; her temperature did not rise above 100°. It was out of the question to move her to a hospital in her collapsed state, and, taking her surroundings into consideration, I thought it unwise to suture the tear or to manipulate the parts in any way; in fact, I left her severely alone.

A possible explanation of the tear may be found in the most marked pendulous belly which she suffered from. It stands to reason that the posterior vaginal wall is stretched in this condition. The position of the head and the strong pains would probably assist in causing the tear.

Holyhead. J. LEWIS OWEN, M.R.C.S., L.R.C.P.Lond.

CHLOROFORM IN CONSUMPTION.

I READ with much interest the suggestion in the BRITISH MEDICAL JOURNAL of January 27th, page 198, that chloroform inhalation might be useful in the treatment of consumption. Four years ago a report on the destruction of tubercle bacilli in vaccine lymph by chloroform vapour was published, and it then struck me that chloroform vapour might be useful in consumption. I have since tried it in over 200 cases. It has never done any harm, and I have found in severe cases of phthisis with much cough that the patient got undoubted relief from the inhalation, but I am bound to say that I am disappointed in that in no case could I say that the inhalant had altered the condition of the patient in any striking degree. In one severe case I pushed the remedy and carefully watched its effect, visiting the patient at least twice a day. He found relief from the inhalant, but as far as I could see his life was not lengthened, the quantity of sputum was not lessened, and the tubercle bacilli remained in large numbers up to the time of his death.

I have generally prescribed the inhalant as spt. chloroformi, in which chloroform is present to the extent of 5 per cent. In more than ten cases I have used a 15 per cent. strength, but I have not used the drug to the extent of complete anaesthesia.

In phthisis the treatment is by the co-operation of many agents, and it is difficult to portion out praise or blame to any one. I still use the remedy, but compromise is a sign of weakness, and I must admit compromise, for I now always mix it with other volatile ingredients. I should be pleased to hear the result of treatment by complete anaesthesia, but I do not myself feel tempted by such an experiment. In all the cases in which I tried this remedy the disease was beyond the incipient stage.

H. DE C. WOODCOCK, D.P.H.
Honorary Physician, Leeds Hospital for Consumptives.

REPORTS

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

DERBYSHIRE ROYAL INFIRMARY.

CASE OF EUCALYPTUS POISONING.

(By EDGAR C. MYOTT, M.B., B.S., House-Physician.)

THE patient in this case was a cabdriver, aged 34. He was brought to the hospital in the afternoon of December 26th, 1905, and the following account of his illness given:

History.—He had been drinking heavily for two or three days, and on the date mentioned had taken a glass or two of whisky and water before breakfast. For the past fortnight he had been suffering from a cold, and on the morning of the day he was brought to the hospital he decided to take a dose of eucalyptus oil, as recommended by a friend. For this purpose he purchased three pennyworth from the chemist (6 drachms), taking the whole amount at once, mixed with an equal quantity of water; this was about 10.40 a.m. He felt much relieved by the medicine and left his house at 11.30, in company with a friend, to visit the cab-yard. Nothing strange was noticed in his conduct. He returned home by himself at 12.30, and on his arrival he appeared dazed. He gave no replies to the questions of his wife, and he seemed to "be unconscious all at once." His friends, alarmed, gave him a large dose of warm salt water to excite vomiting; this produced the desired effect, the material evacuated smelling strongly of the drug.

State on Admission.—He was admitted to the infirmary at 2.30 p.m., under the care of Dr. Parry Jones. He lay in a passive condition. His face was cyanosed, inclining to purple, with markedly dilated venules. The pupils were slightly contracted, and the conjunctival reflex was almost abolished. Pulse 128, respirations 24, temperature 97° F.

The breathing was laboured and interrupted by periodical attempts to clear the air-passages of a thin, frothy secretion. The mouth was filled with foam. Rattling could be heard in the trachea. On auscultation the signs were those of congestion, rhonchi and moist râles being found throughout both lungs. No evidence of consolidation was obtainable.

The pulse was fast, thready, and feeble. The skin was moist and cold.

Progress.—On admission to the ward, he was given inj. strych. ♏ v., and oxygen was administered. After half an hour the cough became less abortive, the respirations easier and quicker. A marked improvement in colour followed, the reflex returned, the limbs lost their flaccidity, the pulse strengthened, although still keeping above 120. The lateral position appeared to afford most ease, and to render the attempts at expectoration more effective; the sputum grew thicker, more tenacious, and was tinged with blood; the temperature rose to 102.8° F. The man was sufficiently restored to answer questions in an hour and a half from the time of admission.

Result.—His condition remained very much the same throughout the whole of the day following his admission. Toward midnight he complained of difficulty and pain in drawing his breath. The skin was suffused, the temperature maintained at 103°, with a pulse 130 to 148, and respirations 40 to 48. Later on the breathing became more rapid and laboured, the pulse quick and thready, and he died next day at 2.45 a.m., forty hours after taking the oil.

REMARKS.—Subsequent to his admission, the patient passed a moderate amount of urine; it contained neither blood nor albumen. His bowels acted twice, but no blood or mucus was found in the stools. At the *post-mortem* examination the mucous membrane of the trachea and bronchi was found red and congested, while the lungs were large, bulky, and heavy. The parietal and visceral layers of the pleura were agglutinated, requiring separation with the fingers. The pleura was dull, but showed no deposit of thick lymph. The anterior margins of the lungs, more especially the right, were swollen and spongy. On section they presented a moderately bright reddish appearance, were intensely congested, and near the bases could be broken into with the point of the finger. The right auricle of the heart was distended with blood clot. The oesophagus was normal. The stomach when held between the fingers seemed to have its walls thickened, and to be swollen and velvety. The mucous membrane around the cardiac orifice betrayed marked ecchymosis, which, when traced towards the pylorus, lost continuity, became scattered, and finally disappeared. The liver was fatty and tough, its upper surface being agglutinated to the diaphragm. The capsule of the kidney stripped easily, the surface veins were congested. On section this organ was of a purplish tinge, but did not drip. The spleen was soft.

ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

CASE OF DEATH UNDER ETHYL CHLORIDE.

(Reported by G. S. HAYNES, M.B., B.C., Honorary Anaesthetist.)

THE patient in this case, a labourer, aged 59, was admitted, under the care of Dr. Griffiths, suffering from epithelioma of the lower lip.

State on Examination.—Before the induction of anaesthesia the patient was examined and found to be a well-developed, muscular man, with an emphysematous chest. The heart's apex beat was in the nipple line; its sounds were faint but clear; his arteries were thickened; the urine was normal.

Administration.—The ethyl-chloride-ether sequence was adopted. The patient being in the prone position, 4 c.cm. of Duncan Flockhart's pure ethyl chloride was measured, and, after the facepiece of a Clover inhaler had been applied for three or four breaths, emptied into the bag. The patient struggled somewhat violently, a very unusual occurrence with this anaesthetic, but in less than a minute was breathing regularly and deeply. Then, just as the indicator of the Clover was turned from 0 to 0.5, the face suddenly blanched, respiration became shallow, the pulse at the wrist failed, and the heart sounds could not be heard by the ear applied to the chest.

Treatment.—A Mason's gag was inserted, tongue forceps applied, the head extended over the end of the table and artificial respiration commenced. There were several inspirations after the heart had ceased to beat. Amyl nitrite and oxygen were applied, and strychnine and ether injected. As the heart did not respond, the abdomen was opened, and the heart manipulated through the diaphragm; an electric current was also applied, but without effect.

REMARKS.—At the *post-mortem* examination the heart was found to be considerably dilated, and its walls hypertrophied. It weighed 18½ oz. There was atheroma at the base of the aorta; the aortic valves were thickened at their attachments, and the cusps fenestrated. The coronary arteries were patent, the radial arteries thickened, some emphysema of lungs, kidneys not granular. On the vertex of the brain there was a peculiar serous exudation between the arachnoid and the pia mater, in considerable quantity and in part coagulated. No cerebral haemorrhage was found, and the cerebral vessels were not atheromatous to the naked eye.

SALOP INFIRMARY, SHREWSBURY.

FOREIGN BODY REMOVED FROM THE SUBSTANCE OF THE TONGUE.

(By JOHN SAFFLEY, M.B., Ch.B.Edin., House-Surgeon.)

THE patient in this case, a man aged 60, came to the surgery on December 23rd, 1905, complaining of great swelling and pain in the tongue.

History.—Four days previously, after dark, he had fallen on the public road while smoking a clay pipe. The pipe broke in his mouth and cut his tongue, which bled freely. The tongue rapidly became much swollen and painful, making swallowing and speaking difficult.

State on Examination.—He was suffering from acute glossitis, the whole tongue being greatly swollen and oedematous. Salivation was profuse. There was a small tear on the left margin at the junction of the anterior and middle thirds. Nothing could be felt in the tongue, and he was given some mouth lotion.

Progress.—He returned on January 13th, 1906. The tongue then had almost regained its normal size. There was a small sinus discharging pus at the seat of the original injury. An incision was made into this without an anaesthetic but nothing was found.

Result.—A fortnight later, as the sinus still persisted, and on pressure the tongue exuded thin yellow pus, the man was made an in-patient. It was found that the sinus was too narrow to permit of a probe being passed along it, and the surrounding tissues were hard and firm. The following day, under chloroform, an incision was made into the tongue at the site of the sinus, and on deepening this the point of the knife came against a hard body, which was found to be the mouthpiece of a clay pipe measuring about 1 in. in length. It was deeply embedded in the tissues of the tongue, lying transversely and reaching across the middle line. It was removed with dissecting forceps; the cavity was scraped out with a sharp spoon, and the wound closed with catgut stitches.

REMARKS.—After this the sinus rapidly healed, and the patient was discharged cured on February 3rd.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BIRMINGHAM BRANCH.

PATHOLOGICAL AND CLINICAL SECTION.

Professor J. W. TAYLOR, M.Sc., F.R.C.S., in the Chair.

Birmingham, Friday, February 23rd, 1906.

Radical Operation on both Frontal Sinuses.—Dr. WILFRID GLEGG showed a young woman upon whom he had performed Killian's radical operation for chronic suppuration in both frontal sinuses. For many years she had suffered from severe headaches, purulent discharges from the nose, and nasal obstruction. The nose was filled up with mucous polypi, pus discharged from both anterior ethmoidal regions and from both frontal sinuses into the nasal passages. Since the operation the purulent discharge and headaches have ceased. There has been no recurrence of polypi, and the patient has resumed work. Although both frontal sinuses were of large size and have been obliterated there is no deformity.

Excision of Popliteal Aneurysm.—Mr. MORRISON showed a cycle-finisher, aged 44, from whom he had removed an aneurysm of the left popliteal artery in June, 1905. The swelling began a month previously, and was first noticed one week after the patient had walked for a wager a distance of more than three miles in twenty-four minutes. The patient was an athletic man, with no history of syphilis, whose consumption of alcohol had been moderate. The aneurysm had developed quickly until it filled the ham; no pulsation could be detected, but a *bruit* was audible, and a striking feature was the reduction in size when pressure was made on the common femoral artery, and the rapid refilling when that pressure was removed. The sac was excised, after ligation of the artery above and below, through a long posterior incision, which healed by primary union. Recovery was complete. At the present time the nutrition of the limb and range of knee movements are quite normal.

Aortic Aneurysm treated by Acurasion.—Mr. MORRISON also read notes of a case of aneurysm of the ascending arch of the aorta benefited by multiple scratchings of the internal wall (Macewen's method). The patient was a house-painter, aged 38, who had previously been an infantry-man; there was a doubtful history of syphilis; he had been a free beer-drinker. The symptoms extended over three years; they included severe pains in the chest, shooting down the right arm to the finger-tips, and a frequent cough (not "brassy"). The pupils were equal, and no difference between the radial pulses could be perceived. The aneurysm presented externally as a prominent swelling reaching from the second to the fourth right intercostal space, and from the sternum to the right nipple. The overlying costal cartilages and adjacent edge of sternum had undergone erosion. In front the skin was thin and livid, whilst around it was lemon-coloured like a fading bruise. The whole swelling had a forcible expansile pulsation in all directions. After several weeks' rest in bed, treatment with Macewen's pins was begun on May 8th, 1905, and repeated on five other occasions, the last being on June 1st, and the inner wall was extensively scratched n every direction. Several times two pins were left in orty-eight hours. Distinct improvement followed, the area and force of the pulsation lessening and the wall of he sac becoming thicker, as was shown by the increasing difficulty in forcing the slender steel pins through. The patient, however, owing to domestic reasons, had to leave he Queen's Hospital on June 10th, two months after dmission. He was seen at the end of July by Mr. Morrison's dresser (Mr. H. Bracey), who reported that the patient was getting about, and that the aneurysm was rmer and more contracted. [The patient has recently changed his address and cannot be traced.]

Gluteal Aneurysm.—Mr. MORRISON read notes of a case f left gluteal aneurysm in a man, aged 28, the subject of lcerative endocarditis and advanced Bright's disease, for which he was under the care of Dr. Foxwell. The neurysm was caused by an infected embolus from the heart, which had brought about softening and perforation f the artery. A diffuse, non-pulsatile swelling, over which a *bruit* could be heard, was first noticed on January 12th, but, owing to the patient's critical state from visceral disease, no operative treatment could be undertaken. The swelling increased, and on January 18th pulsation was noted. Death took place on January 19th.

Retrograde Intussusception.—Mr. HASLAM showed a specimen that he had removed from a man, aged 39. There had been symptoms of obstruction for forty-eight hours before admission to the hospital. When seen the abdomen was slightly distended and there was some tenderness on pressure, especially in the right lower quarter, but there was no rigidity of the abdominal wall, nor could any tumour be felt or hernia discovered. The pulse was 88, temperature 98°, and respirations 20. The patient's general condition was such as to suggest that whatever the actual cause of the obstruction might be, there was at any rate no acute gangrene of the intestine at that time. The abdomen was at once opened by an incision in the right lower quarter, and an intussusception was found, of the enteric variety, close to the caecum, and on examining this it was seen that the intestine was entering from below, and not as is usual from above. There was about 6 in. of intestine between the tumour and the caecum. Attempts were made to reduce the intussusception, but no impression whatever could be made on it. Resection was therefore effected by cutting through the ileum about 3 in. from the caecum and at a safe distance above the tumour. The ends of the intestine were sewn up and a lateral anastomosis made by means of a Murphy button between the upper portion of the bowel and the caecum. Recovery was uneventful, the button was passed on the tenth day, and the patient left the hospital on the thirty-third day. The total length of intestine resected was about 14 in. Nothing was found in the bowel to account for the intussusception. The patient had lifted a piano on Wednesday and again on Friday, but did not feel any pain at the time. His symptoms began with pain in the lower abdomen on Saturday.

Uterine Myoma.—The CHAIRMAN showed two specimens of myoma of the uterus removed by supravaginal hysterectomy: (1) The first case was one of double uterus with a large subperitoneal fibroid growing from and enlarging the second uterus. The other uterus was of normal size. The fibroid filled the pelvis under the peritoneum, and had to be almost entirely enucleated from its position in the course of its removal. In consequence of pressure below, the upper part of the rectum was greatly dilated and enlarged. (2) The second case was one of symmetrical myoma of the uterus, with cerebral cystic degeneration, simulating a three months pregnancy. This condition had to be carefully excluded before operation. Both patients made good recoveries.

Sacculated Kidney.—The CHAIRMAN also showed a large sacculated right kidney due to kidney abscess following calculus, four renal calculi removed from the left kidney, and two radiographs, all illustrating a case of double kidney disease due to renal calculi. The patient, aged 37, a married woman with two children, had suffered for three years from pyuria and the slow formation of a large tumour in the right loin. She had no other symptom—no haematuria, "frequency," or pain. On differential examination of the discharge from the two ureters, pus alone was found coming from the right ureter; the urine from the left ureter was slightly albuminous, but the urea excretion was found to be fairly satisfactory. The right kidney was explored and found to be simply a pus sac with no vestige of true kidney tissue. A stone was partially blocking the pelvis of the kidney. The "kidney" was removed. The patient made a good recovery, but the urine continued to show a decided albuminous deposit, and within three months after the nephrectomy it was noticed that the left kidney was enlarging, though without any pain, tenderness, or "frequency." Dr. Hall-Edwards was asked to take a radiograph of this kidney, and several stones were distinctly seen *in situ*. The larger mass appeared to be blocking the pelvis of the kidney, and two other stones were evidently embedded in the kidney tissue itself. Fortified by this evidence, a second operation was at once advised, and the stones were removed a few days later. The patient was now convalescent, and appeared to be better than for some years past. It was proposed to take a further radiograph as soon as the patient was able to attend for this purpose.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

Dr. F. G. HOPKINS, F.R.S., Vice-President, in the Chair.

Tuesday, March 6th, 1906.

CERTAIN PROBLEMS IN URINARY EXCRETION.

THE CHAIRMAN dealt with two main considerations, the progress in our knowledge as to the origin of important excretives, and the possible practical importance of chemical anomalies in pathology. He first dwelt upon the clearness which has been added to our views concerning the source of certain urinary products, now that, owing to our increased knowledge of proteids, we can trace these substances directly to precursors in the proteid molecule. This was illustrated, *inter alia*, by the cases first of cystine, which is itself present in the proteid, then of homogentisinic acid (in alkaptonuria) which can be traced as arising by known steps from tyrosine and phenyl-alanine, and further, of indoxyl, which is derived from tryptophane. We no longer, he said, have to look upon these as arising by complicated abnormal syntheses, nor—in the case of the first two—as indicating the intervention of extraneous agents such as bacteria. Homogentisinic acid and cystine are normal intermediate products of metabolism, excreted because of a "chemical malformation" in the subject who excretes them. The malformation is one of deficiency, and, in the case of alkaptonuria, we have now very precise information that what is lacking is a specific oxidizing mechanism which normally splits the benzene ring of homogentisinic acid. Consideration of melanine pigments was naturally suggested by the subject of alkaptonuria, and its occasional association with ochronosis. The speaker showed that the increasing evidence for the direct origin of melanines from the aromatic groups in proteid has added interest to the study of pigmentation. Purin metabolism was next briefly dealt with, chiefly from the point of view of showing that, in the breakdown of tissue nucleins, guanine and adenine are primary products, which have first to be converted into xanthine and hypoxanthine by means of special ferments before the oxidative mechanism of the body can deal with them. This is, at any rate, true in the case of adenine; and the point was made that, as the base is decidedly toxic, producing, as Minkowski showed, notable kidney and other lesions, if the chemical mechanism which deals with it were to fail, definite symptoms might be produced, although the product concerned is, in a sense, a physiological one. Turning to his second thesis, the speaker endeavoured to show that the occurrence of chemical abnormalities might constitute a not altogether unimportant chapter in practical pathology. Although any individual type of variation from the normal is probably a recessive character and must remain rare, yet the multiplicity of chemical factors in the body is very great, and the material basis for diverse abnormal variations large. It does not follow—witness the case of adenine—that all arrested intermediate products must necessarily prove innocuous, and, moreover, deficiencies in chemical organization may affect construction as well as breakdown. Since, too, such substances as adrenalin are absolutely necessary for the maintenance of the body, and since they must arise by definite chemical stages from definite precursors, there is, on this side of metabolism, full room for variations in the direction of deficiency. Although chemical abnormalities would be, in general, as in the case of alkaptonuria, congenital, yet it is interesting to find that symptoms, even in alkaptonuria, may be latent until late in life. It is not difficult to understand why chemical abnormalities are recognized with difficulty. It is illuminating to remember that failure on the part of an organ to develop any one of its normal chemical factors might be equivalent in some of its effects to degeneration of the organ itself. It was the wish of the speaker to emphasize the point that the phenomena in the recognized cases of chemical deficiency made it no longer necessary to think of such deficiency in a vague vitalistic way; what is lacking may be some definite chemical mechanism on which, metaphorically, the finger may be placed. In concluding remarks, it was pointed out that the ferments of the urine, which have been lately shown not to be autolytic enzymes, but to owe their origin to the digestive glands, have this much importance to pathologists, that they prove the kidney permeable to a class of substances to which toxins and antitoxins stand near. A renal influence in removal of toxin on the one hand, or of antitoxin on the other, is not to be ignored.

OTOLOGICAL SOCIETY OF THE UNITED KINGDOM.—The twenty-fifth ordinary meeting of the Society took place on Monday, March 5th, at 11, Chandos Street, Mr. CUMBERBATCH, President, in the chair. The programme was almost entirely devoted to the discussion of cases of *Intracranial Complications* following middle-ear suppuration, notes of cases being read by Messrs. HUGH JONES, STODDART BARR, and SECKER WALKER.—In discussing the diagnosis of thrombosis of the bulb of the jugular vein, Mr. JONES objected to Dr. Dundas Grant's suggestion of trying to obtain an impulse by palpating with the fingers over the vein and on the sinus as distinctly dangerous. He did not think there was any danger in washing out the vein—indeed it was more dangerous to leave septic material in contact with the already thrombosed small branches of the vein.—In a case of extradural abscess described by Mr. J. S. BARR, there was paralysis of the sixth nerve and double optic neuritis, the latter persisting three months after the abscess had been evacuated.—Mr. CHEATLE pointed out that paralysis of the sixth nerve was generally due to pachymeningitis in the posterior cranial fossa, and was always recovered from.

MIDLAND MEDICAL SOCIETY.—At a meeting on February 28th, Dr. J. QUIRKE, President, in the chair, the following were among the exhibits: Mr. LEEDHAM-GREEN, a young girl for whom, by means of an extensive *Plastic operation*, he had been able to conserve a useful arm after she had sustained a compound comminuted fracture of the elbow-joint, and thereby lost a zone of skin some 6 in. in width.—Dr. JAMES SAWYER, a specimen of cicatricial *Contraction of the stomach* taken from a man aged 44 years. The oesophagus was normal, except for a slight dilatation, with ulceration at the lower end. The stomach was 2½ in. in length, with a lumen at no part more than ¼ in. in diameter, and with walls about ½ in. in thickness. The duodenum below was dilated, and an opening into it had been made by operation, in order to relieve the starvation, from which the man was dying. For the last five years the patient had suffered from pain and vomiting after taking food, and seven weeks before death he attempted to commit suicide by taking soldering fluid. The taking of this corrosive poison did not seem to have affected him much, as he was only slightly collapsed, and had very little vomiting at the time. He went out of hospital, able to swallow solid food, sixteen days after taking the poison. It was thought that the condition could not be entirely due to the cicatricial contraction of the stomach as a result of the poison, but that there must have been either a congenital deficiency of the stomach, or a contraction from some cause not ascertained, and that the poison was sufficient to cause further diminution in the lumen of the stomach. Microscopically there was no mucous membrane present, and the stomach wall consisted of cicatricial tissue. There was nothing to suggest that the condition was that of a scirrhous carcinoma.—Dr. PURSLOW, a *Dermoid Cyst* of the ovary, containing hair, teeth, and bone, which was removed from a patient who was admitted to the Queen's Hospital on November 30th, 1905, in the last week of her second pregnancy. She had complained of abdominal pain, vomiting, and trouble with micturition for three months. A tumour the size of a fetal head was found to be filling the pelvis, and it could not be pushed up above the pelvic brim. The abdomen was opened; Caesarean section was first performed, a living child being extracted, then the tumour was removed, and, lastly, the uterine wound was closed by two layers of sutures, and the abdominal wound was sutured in layers. The child was weakly and died the same day. The mother made an uninterrupted recovery. Dr. Purslow said that in opening the uterus he made, first, a small incision down to the membranes, and then inserted both forefingers and tore the wound to the required extent; this saved time and lessened haemorrhage, and the resulting wound presented no difficulty in suturing.—Mr.

GEORGE HEATON: Two specimens of *Goître* removed under eucaine anaesthesia. The method adopted in each case was that described by Mr. A. E. Barker. A solution of 3 gr. of β eucaine was dissolved in 100 c.cm. normal sterile salt solution, to which has been added 10 drops of adrenalin solution. This solution was injected in the operation area, the injection being aimed at the anterior divisions of the cervical nerves. The anaesthesia thus produced was complete in half an hour and lasted for another hour. In both cases the anaesthesia was complete, and the ease with which the operation was performed, and the freedom from anxiety due to a general anaesthetic, was very marked. The first specimen was the right lobe and isthmus of a parenchymatous goître, which had been in existence for fourteen years, and lately had caused much dyspnoea. The patient, a woman, aged 37, was a very bad subject for a general anaesthesia, as, in addition to the dyspnoea produced by the pressure of the goître, she had paralysis of the right vocal cord. The operation lasted twenty-seven minutes, and the patient made a good recovery. The second specimen was a similar one, removed from a woman, aged 42. The goître was a parenchymatous one, and had caused much narrowing of the trachea. The operation passed off quite successfully, and the patient made a good recovery.—Mr. FAIRLIE CLARKE demonstrated Barker's apparatus, and explained its use.—Mr. JAMESON EVANS: a patient suffering from *Hereditary nystagmus.* All the male members of the family for the last two generations, as well as his grandfather, suffered in the same way. There were defective vertical movements of the eye and deficient choroidal pigment. The condition was transmitted through males and females, but the latter were never affected.—Dr. J. G. EMANUEL showed a case of *Multiple exostoses.*

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—At a meeting on March 2nd, Mr. L. A. BIDWELL presiding, Dr. J. A. COUTTS read a paper on some points in *Infantile Scurvy.* The paper was based on some cases recently under the care of the author, in one of which extensive haemorrhage occurred under the periosteum of the femur, the lower epiphysis of the same bone being separated. Although the usual treatment of such cases—namely, milk feeding and the administration of lemon juice—was adopted, the case did not rapidly clear up in the usual way, and new bone was deposited under the periosteum, which had been raised off the shaft of the bone, so that egg-shell cracking was clearly to be felt. An incision was then made into the swelling, and some of the clot turned out, but the child did not recover. A similar case was then described, in which no operation was done. It was subsequently found that the reason why the cases had not rapidly recovered under treatment was that the dairy company which supplied the institution in which the infants were under treatment had, unknown to the authorities, been supplying pasteurized milk instead of ordinary cow's milk; when this was rectified the second child recovered.—Dr. E. FURNISS POTTER, in a paper entitled Reflections on the Treatment of Chronic Otorrhoea, pointed out that much attention had been turned to this subject recently, but although he thought that the profession generally were alive to the importance of the subject, the public required a good deal more education in the matter. He then detailed the measures that were advised for the routine treatment of a chronic aural discharge by means of injections, drops, and the like, and pointed out that the time necessary, and the frequent visits which would be required to the medical adviser, made it impossible in a very large number of cases for this form of treatment to be efficiently carried out. On reflection this had led the author to think that the much more frequent adoption of the radical mastoid, or complete post-aural operation, would be a great benefit to those who were the subjects of a running ear. This procedure was safe, and offered an almost certain prospect, in properly chosen cases, of curing the discharge in a reasonable time, and so freeing the patient from a trouble which was a constant menace to life.

LIVERPOOL MEDICAL INSTITUTION.—At a meeting on March 1st, Mr. FRANK T. PAUL, President, in the chair, the following were among the exhibits: Dr. A. G. GULLAN: A man aged 27, with complete transposition of the viscera. He enjoyed excellent health, and had been through the South African war.—Dr. G. STOPFORD TAYLOR: A case of mycosis fungoides in which all evidence of the disease except some pigmentation had disappeared after treatment by the *x* rays. Fifteen exposures of ten minutes' duration, each equal to a Holzknecht's unit, were administered, two exposures being given each week. The diagnosis had been confirmed by a microscopic section of the growth.—The PRESIDENT, in a paper on *Appendicitis,* discussed the relative success of early and "interval" operations. Statistics as to the mortality from appendicitis when the early operation was uniformly undertaken were lacking, but from what he had seen of it he was sure that the death-rate was much higher than when uncomplicated appendicitis was properly treated through the attack, and appendectomy done on recovery. In any statistics it was necessary to consider the mortality as a whole. Since his previous paper, five years ago, he had operated on 252 cases, including 43 abscess and 17 peritonitis cases. The mortality was 6.3 per cent. During the last year there had been considerable improvement. For 72 cases including 16 abscess and 4 peritonitis cases, the mortality was 2.7 per cent. For interval operation there should be practically no loss of life, and very little in abscess cases if they were taken early and the appendix not removed. In general peritonitis the results were improving, but the mortality was still high. Early operation might save a few cases from fatal complications, but was itself a cause of greater loss of life. For those who adopted the view that early operation was the best there should be no half measures; the essence of the practice was immediate operation in every case. It was a comfortable doctrine, and saved the surgeon from all anxiety as to the right time to operate; but he himself could not subscribe to it, as he felt sure it was not the best thing for the patient. Mr. R. W. MURRAY favoured early operative interference. In an urgent case the operation should be performed at once; if the symptoms were of a less urgent nature the operation might be postponed for a few days. The dangers of the operation were known to be slight, and were for the most part avoidable, whereas the dangers of delay were unknown and unavoidable. The administration of morphine was inadvisable, since the drug tended to impair the movements of the intestines. The great omentum, which had been proved to contain a host of phagocytes, depended upon the intestines for its locomotion, and might thus be prevented from arriving at the seat of the disturbance, and so from localizing the trouble. Mr. E. M. STOCKDALE thought the improvement in the statistics of general peritonitis might be attributed to the fact that cases were nowadays sent earlier to the surgeon, so that more cases might be classed as "diffuse" rather than "general" peritonitis. Mr. G. P. NEWBOLT preferred the "interval" operation and did not remove the appendix in cases of suppuration, unless it lay exposed in the cavity of the abscess. Mr. W. BLAIR BELL would remove every appendix within twenty-four hours of the onset of an attack if the case was seen in time. There was no more danger in this proceeding than in the "interval" operation, while it was the means of saving cases which might go from bad to worse; further, it did away with the possibility of abscess formation, faecal fistula, hernia, etc. Mr. T. C. LITTLER JONES suggested that the whole difficulty lay in diagnosing those cases which would go on to suppuration or general peritonitis. At all times he relied on the pulse for guidance, and made a point of examining the rectum in every case. He also drew attention to a discharge of mucus which preceded perforation of the bowel. Dr. A. G. GULLAN said that the great majority of cases of acute appendicitis treated by absolute rest, starvation diet, and rectal enemata, recovered; he believed small doses of morphine were of great benefit, provided the temperature and local conditions were more closely watched. He never gave purgatives. He agreed with the President that the interval was the best time for operation on recurrent cases.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—At a meeting on February 14th, Mr. JOHN DACRE (President) in the chair, Dr. E. W. HEY GROVES showed, amongst other specimens, one of *Duodenal Ulcer* which led to fatal haemorrhage.—Dr. J. O. SYMES read a paper on the

Arthritis of erythema nodosum. He stated the arguments both for and against the theory that erythema nodosum is a rheumatic manifestation. He pointed out that whilst the age curves of the two diseases coincided closely, the seasonal and sex curves showed very wide divergency. On the whole, he was inclined to view the disease as an acute infective fever.—Dr. J. J. S. LUCAS read a paper on some points in *Prognosis in Pulmonary Tuberculosis*, concluding that (1) a phthisical patient should never consider himself sound, at least not for some years after loss of all symptoms; (2) the appearance of the patient, the shape of his chest, and his family history were of the greatest importance in prognosis; (3) of early symptoms, haemoptysis by itself was rather a good sign, while dyspepsia was a bad one; (4) temperature at one examination, as a rule, did not help the prognosis, but persistent evening temperature for a month was bad; (5) a rapid pulse was one of the worst of omens; (6) of throat complications, swelling and ulceration in the upper larynx was serious, and the physical signs in the lungs were often deceptive in these cases; (7) the effect of treatment could be gauged only by the condition of the patient several months after he had left the sanatorium and had undertaken duties he intends to perform for the rest of his life. The author thought that, on the whole, the sanatorium treatment was unsatisfactory for those who had to return to their old surroundings and work, most of them relapsing sooner or later. Of the other members who joined in the discussion, many thought that Dr. Lucas took too gloomy a view.—Dr. CAREY COOMBS read a paper on *Colitis polyposa*, based upon an account of a specimen in the Bristol General Hospital Museum, which consisted of the colon of a young woman who died of exhaustion after six months' dysenteric diarrhoea. There was general polyposis of the mucosa of the colon without ulceration. Microscopically this proved to be due to inflammatory hyperplasia of the submucosa. The case closely resembled one described by Dr. Pope in the BRITISH MEDICAL JOURNAL for July, 1904.

CORK MEDICAL AND SURGICAL SOCIETY.—At a meeting on February 14th, Dr. R. P. CROSBIE, the President, in the chair, Dr. O'SULLIVAN showed a girl, aged 10 years, admitted to the South Infirmary in a highly feverish condition, with well-marked choreic movements. These were so severe as to render alimentation by the mouth impossible, so rectal feeding was begun and continued for the lengthened period of twenty-five days. To make matters worse, two big, unhealthy-looking bedsores were present. Auscultation revealed the presence of murmurs at all the orifices, and, in fact, a condition of pancarditis prevailed. About a week after admission retraction of the head was noticed, together with convergent strabismus of the right eye. Albumen appeared in the urine, and the joints were so relaxed that dislocation of the sternal end of the right clavicle occurred. The treatment consisted in counter-irritation by fly blisters over the second, third, fourth, and fifth intercostal spaces; alkalies and aspirin, to combat the rheumatic poison, and bromide of soda to relieve the meningeal hyperaemia, whilst strychnine was given hypodermically for the grave asthenia. The patient made a good recovery. Dr. O'Sullivan invited discussion as to the etiological factor in the complicating meningitis.—Dr. MOORE thought that the meningitis was due to the organism of rheumatism.—Dr. A. A. HUDSON read some notes on *Fango di battaglio*, giving an account of its origin, chemical composition, the technique of its application, and the indications for its use. He said that not only was it invaluable in arthritic cases, but it was beneficial in anaemia, chlorosis, scrofula, eczema, psoriasis, etc. He read clinical notes of cases, Continental and English, and some that came under his own care, so treated with brilliant results.—Dr. P. G. LEE then gave a paper on the preparation of *Antitoxins*, illustrated by lantern slides showing the various steps and apparatus used.

SOCIETY OF ANAESTHETISTS.—At the meeting on March 2nd, Mr. CARTER BRAINE read a paper on *Experiences of Anaesthetics in 200 Consecutive Cases of Prostatectomy.* On account of their great age and physical infirmities these patients in such cases were the worst subjects for anaesthetics; the average age was 66.8, 11 being octogenarians. He used ether 18 times, chloroform 50, chloroform with one-twelfth ether, 84; and chloroform with one-tenth alcohol, 48. Of these, chloroform with one-twelfth ether had proved the best anaesthetic. The marked effects of prostatectomy upon the circulation, respiration, and muscular system were fully illustrated by these cases. Abdominal rigidity, even under deep anaesthesia, was occasionally very troublesome—pushing the anaesthetic only causing respiration to cease without the recti relaxing. This liability to rigidity was dependent on the nature of the operation, the part being so freely supplied with spinal and sympathetic nerves. The PRESIDENT, Messrs. FREYER, MORTIMER, PROBYN-WILLIAMS, BURNS, MACCARDIE, THOMSON-WALKER, and HARVEY HILLIARD all agreed as to the troublesome rigidity, and that chloroform was preferable to ether in these cases.

MANCHESTER MEDICAL SOCIETY.—At a meeting on February 21st, Dr. J. BUCKLEY, President, in the chair, Mr. PLATT gave an account of a case of *Primary Epithelioma of the Urethra* in a man aged 59 years. It had supervened upon a traumatic stricture dating from boyhood. Complete amputation of the penis had been performed about two months previously, since which time the patient had remained in good health. The diagnosis had been confirmed by microscopic examination.

PATHOLOGICAL SOCIETY OF LONDON.

DR. F. G. BUSHNELL (Brighton) writes: I should be much obliged if you would correct the account in the BRITISH MEDICAL JOURNAL of February 24th of the cases which I recorded at the Pathological Society of London on February 20th with Dr. D. Hall.

The cases were (1) *Acute leucocythaemia without lymphatic enlargement*, which had been in the care of Dr. E. Hobhouse, F.R.C.P.; and (2) was a case of *Leucanaemia* (not Leucocythaemia). The diagnosis was not "splenomyelogenous leukaemia," as you will see in the full report of the case which I sent to you. It is a rare disease, and is allied to the "anémie splénique myéloide" of Aubertin; its characteristics were an erythroblastic and myeloid state of the bone marrow and liver. The myelocytes in the blood (small type) never exceeded 7 per cent., and the leucocytes were always under 7,500 per c.mm. There were numerous normoblasts in the blood at all times, with marked anaemia. The point in the first case (of lymphocythaemia) was the evidence which I had collected that *large lymphocytes are of marrow origin, as myelocytes are.* The *lantern slides* were by Mr. Caush, L.D.S., and Dr. Spitta, of Brighton.

REVIEWS.

ALLBUTT AND ROLLESTON'S SYSTEM.

MORE than one system of medicine within living memory have passed into the limbo of forgotten things and now repose on dusty shelves, "quite out of fashion like a rusty mail, in monumental mockery." Not so Professor ALLBUTT's *System of Medicine.*[1] A truly monumental work, whether it be of the hand or of the brain, must needs be slow in the building, and scarcely have the final touches been added before the foundations need repair. With every succeeding decade the fundamental theories of medicine are undermined by new and sometimes epoch-making discoveries. Professor Allbutt has once more bent him to the task of bringing his great *System* up to the standard of recent knowledge, and proposes to bring out in each succeeding year a revised volume, following somewhat the same order as in the first edition. To aid him in this task he has enlisted the very efficient services of Dr. H. D. ROLLESTON as co-editor. The new edition is to be "more than a mere revision." Subjects in which great advances have been made will be dealt with by new but most competent hands, and, in the happily few instances in which the original writers have passed away, their work has been reverently revised and added to by worthy successors.

The first volume, which is before us, is divided into two sections. The first, and largest, division is entitled Prolegomena, and opens with two historical articles written by Professor Allbutt himself, as far as the Greek and

---

[1] *A System of Medicine by Many Writers.* Edited by Thomas Clifford Allbutt, M.D., F.R.S., and Humphry Davy Rolleston, M.D., F.R.C.P., Vol i, Second Edition. London: Macmillan and Co. 1905. Demy 8vo, pp. 1209. 25s.)

Roman periods are concerned, and by Dr. J. F. Payne in all that relates to medicine in modern Europe. From such writers the reader will expect much, and he will not be disappointed. Step by step we are enabled to trace the advances and retreats in the progress of knowledge, and the alternate predominance of truth and error in the various schools of medicine from the earliest to our own times. It is a fascinating story when thus told.

An article by Dr. Tatham brings us back to the hard facts of medical statistics, and the figures here set forth form an authoritative centre of reference for speakers and writers on such subjects, whereby they may be saved from many of the common pitfalls of inaccuracy.

Omitting reference to articles which have undergone but little alteration, we may note the section on medical geography by Dr. Clemow. The subject is large, and has been placed on a new footing during the last twenty years by the greater facility of travel and the increase of knowledge as to the means by which disease may be conveyed. More attention is, however, devoted to these than to the variations which disease may undergo under altered geographical conditions.

Miss Amy Hughes contributes a valuable article on nursing, comprehensive, practical, and interesting. Issued as a monograph, it should prove a useful manual, but in its present place it will meet the eyes of but few of those who would chiefly profit by it. Dr. Clement Dukes contributes a paper on the hygiene of youth; Dr. Hutchison writes on dietetics; Dr. Eustace Smith deals with the dietetics and therapeutics of children; and in like manner the articles on special subjects are in every case the work of authors whose names carry authority. Mr. E. M. Corner discusses at considerable length the science and art of physical exercise. Want of scientific knowledge on the part of instructors of physical exercise, and indifference on the part of parents, must be held responsible for much of the failure to produce the vigorous organism, the ideal healthy animal, which makes the virile race. Mr. Corner gives much scientific and practical advice, pointing the way to its attainment.

Dr. Lewis Jones describes the medical application of electricity, embodying the most recent additions to modern knowledge. The ever-increasing use of the *x* rays, whether for diagnostic or therapeutic purposes, are set forth by Dr. Francis H. Williams. His experience, largely augmented by reference to American and German publications, would appear to correspond in all essentials to those of our own radiographers. Two of the most important articles in the volume deal with the general pathology of nutrition and with the general pathology of new growths. These are supplied respectively by Dr. F. W. Mott and Dr. F. W. Andrewes. The modern advances of physiological chemistry may be of vital importance to the physician of the future, but time is required for the digestion of the great mass of subtle chemical changes which find record, but have not yet found their relative value. In the course of a most valuable article, Dr. Mott incidentally mentions that "the influence of the mind upon the nutrition of the body is well known." It is probable that the busy practitioner would be grateful for more guidance in this particular direction. Laboratory experiments supply precise data, but the clinician and the pathologist must co-operate if the chemical changes wrought by mental disturbance are to be clearly defined.

Dr. Andrewes's paper on the pathology of new growths will be read with especial interest as following out the course of modern investigations into the problems of cancerous formations. The ramifications of the subject, which research has opened out, may well appear "almost insuperable" to the student. Dr. Drysdale's description of the clinical examination of the blood is brought well up to date. Here, again, research is carrying us deeper and deeper into the problems of cell changes, but the question of their origin seems as elusive as ever.

Drs. Pembrey and Hale White have enhanced the value of the late Sir J. Burdon-Sanderson's article on fever by discussing the question from the physiological and clinical standpoints respectively. The Prolegomena as a whole may be described as a storehouse of medical wisdom, full of the carefully-digested thoughts of some of our best medical thinkers.

The second division of the volume deals with infections, but only with those of established bacteriology. Their authors have revised and amplified each section, but in one or two instances, notably in the section on infective endocarditis, a good deal of still more recent work has appeared. To Professor Dreschfeld's article on enteric fever Professor Lorrain Smith has added a note on the so-called paratyphoid. After careful examination of all its features he is forced to conclude that it is not distinguishable from typhoid fever. The concluding paper, by Drs. Rabagliati and Bulloch, deals with relapsing fever. A second volume of this great work, now to be known as *Allbutt and Rolleston's System*, is promised for publication during the present year.

HARROGATE WATERS.

Drs. Bain and Edgcombe, in their work on *The Physiology and Therapeutics of the Harrogate Waters, Baths, and Climate, applied to the Treatment of Chronic Disease*,[2] have brought a great many scientific experiments and scientific data of various kinds to bear upon and illuminate the still somewhat obscure subject of the mode of action of spa treatment in general, and of Harrogate treatment in particular. They are specially qualified to write on the subject, owing to their personal investigations into the action of mineral waters, and the results of their observations are included in the present volume.

The first section deals with the pharmacology and therapeutics of natural mineral waters, and in the introductory portion of this section the ion theory and the various phenomena connected with the state of mineral substances in solution, including the phenomena of diffusion and osmosis, are very clearly explained. The main portion of the section is, however, devoted to the individual consideration of the numerous Harrogate waters. Here are considered the action of iron in the iron waters, and of sulphuretted hydrogen in the sulphur waters, on the blood, the aperient effect of some of the saline-sulphur waters, the probable effect of the barium chloride in some of the waters on the circulation, and the peculiar virtues of the "Old Sulphur Well."

The authors say that patients can take water from the Old Sulphur Well daily for weeks without the aperient effect producing enervation such as the daily use of ordinary pharmaceutical aperients usually produces. Their explanation is that the sulphur water is hypertonic to the blood, attracts fluid from the tissues, and, by increasing peristalsis, produces copious evacuation, more fluid being passed by the bowel than is taken by the mouth. There is generally no griping and only slight uneasiness (shortly before the bowels are opened), and by this daily aperient action most patients feel brighter and more energetic, especially after the third or fourth day. They think that the marked absence of depression in spite of the aperient action is due to the barium chloride present in the Old Sulphur Well, a drug which has been shown to cause a rise of blood pressure, not so sharp as that produced by suprarenal extract, but more sustained.

The authors also show that the Old Sulphur water causes an increase in the excretion of urea and a diminution in the excretion of uric acid and sulphates. On the blood it produces a considerable fall in the haemoglobin worth of the corpuscle, which they have experimentally proved to be chiefly due to the sulphuretted hydrogen; for when the water, exposed for twenty-four hours in a shallow basin, was taken in the ordinary way, no diminution in the haemoglobin value of the blood was observed. Hence the authors believe that the value of the Old Sulphur water would be enhanced if it contained less sulphuretted hydrogen. According to Bain's experiments the stimulating effect of the Old Sulphur water on the liver is most decided, no other drug or mineral water he experimented with producing such a striking increase in both the quantity of bile and of bile solids. On one point in regard to this water there is, perhaps, room for some doubt. The authors write: "In plumbism the sulphide is said to combine with the lead, and thus promote the elimination of the latter." May not the action of the sulphur water be rather to produce a more insoluble compound, and thus delay elimination, though diminishing the dangers of saturnine intoxication? It does not seem clear from the analyses why the Strong Montpellier Well should differ so much from the Old Sulphur Well in action on the liver unless this difference be due to the barium chloride in the latter well, as Dr. Bain has suggested. In the case of a patient with biliary fistula he obtained only a negative result by its use.

---

[2] *The Physiology and Therapeutics of the Harrogate Waters, Baths, and Climate applied to the Treatment of Chronic Disease.* By William Bain, M.D.Durh., M.R.C.P.Lond., and Wilfrid Edgcombe, M.D.Lond., F.R.C.S.Eng. London: Longmans, Green, and Co. (Demy 8vo, pp. 300. 7s. 6d.)

The second section of the book deals with the various kinds of baths given at Harrogate (including such "accessory" spa treatment as thermo-electric baths, electric baths, Dowsing electric light baths, Greville baths), their physiological action and therapeutic uses. The third section treats of climate in general, and of the climate of Harrogate in particular. In regard to permanent residence, the authors write:

> A common misapprehension is that the winters in Harrogate are very keen, and such as to try severely any but the strongest. In our experience, covering ten years, this is only partly true. Up to February the climate is not more trying than that of the North of England generally. The months of February and March are the worst, and for those whose means and occupation permit, are the months of election for a sojourn away when possible.

The fourth and concluding section of the work is devoted to indications for treatment of chronic disease by the waters, baths, and climate. For medical men thinking of sending patients to Harrogate, this is probably the most important part of the book. An analysis of 1,500 cases actually sent there includes cases of malignant disease, 3 cases of epilepsy, 1 of general paralysis, and 16 in which there were nervous symptoms associated with errors of refraction, but most of these patients were probably sent merely for change of air and scene. Gout and goutiness head the list with 205 of the 1,500 cases. In many cases of this class the aperient action of the waters can undoubtedly be of great use, and for chronic arthritic troubles local external treatment, such as Berthollet, Greville or Dowsing baths, is often, as the authors point out, serviceable. In gouty albuminuria they recommend, in addition to the Old Sulphur or some other morning aperient water, a dose of the magnesia water twice daily.

> It has a marked effect in reducing the absolute amount of albumen in the urine. If the specific gravity of the urine be low in a case of albuminuria, some iron water is indicated, with, if necessary, an added aperient in the morning draught.

In gouty glycosuria they find that by treatment with a combination of the Old Sulphur and magnesia waters, together with slight modifications of the diet, the excretion of sugar can be diminished. The book certainly deserves recognition, not only as a modern medical guide, in the ordinary sense, to treatment at Harrogate, but as a careful attempt to collect the known scientific data bearing on the subject, and present them in such a way as to form an intelligible basis explaining the result of treatment, and showing what may be hoped for in certain types of chronic disease.

THE EARLY HISTORY OF PHILANTHROPY IN ENGLAND.

The exercise of philanthropy has stood forth throughout the ages of the world as evidence of human sympathy and of a desire to advance the betterment of the masses by the practice of practical altruism. The progress of civilization has brought with it no greater benefit to mankind than the development of the divine gift of charity, and the evolution of the one is so closely interwoven with the expression of the other that the degree of perfection achieved, whether in a nation or in an individual, may with fair accuracy be gauged by the extent to which it manifests itself in the exhibition of generous deeds and the growth of philanthropic institutions.

The history of all nations bears witness to the important influence which charity has exercised in their expansion, and in none has it been more marked as an evidence of progress than in our own. In some departments, indeed, it is conceded that Great Britain has outrivalled other countries, notably in those concerned with the relief of the poor and the provision of hospital and asylum facilities for the sick. The subject is of such universal interest that Mr. B. Kirkman Gray's book entitled *A History of English Philanthropy*,[3] cannot fail to appeal to a wide circle of readers. Within its covers will be found a comprehensive historical account of the growth of philanthropy in England during the sixteenth, seventeenth, and eighteenth centuries. The author tells us that he has chosen as the starting point of his critical survey the period of the dissolution of the monasteries because then charity began to emerge from the direct tutelage of the Church and the sociological problems involved in its distribution commenced to assume definite shape. He terminates his record with the close of the eighteenth century so as to avoid the discussion of questions which are still matters of present-day controversy. Before the sixteenth century the monasteries were the centres of much charity, and it is not surprising that in the period following their breakup there should have been a large increase of poverty and distress. The difficulty of obtaining a livelihood by honest industry was so great that vagrancy and vagabondage became alarmingly widespread, and the lack of work was such a paramount factor in the situation that, in the attempt to adapt charitable relief to the circumstances of the time, the question of the unemployed came to be regarded as the central element in the problem.

During the period of the Commonwealth, though charity was not inactive, it continued to flow along the old and narrow channels, and no new principle of philanthropy was developed. But in the closing years of the seventeenth century a fresh starting-point was reached by the application of the principle of voluntary association for the relief of the poor and needy. The power of association for purposes of charity was suggested by the previous discovery of the value of joint-stock enterprise in the development of commercial affairs. On this new road philanthropy set out with revived vigour to pursue the beneficent path which, through many windings but with ever-increasing breadth and adaptability, it has followed to the present day.

The chapter in Mr. Gray's book which possesses most interest for the medical reader is that devoted to the subject of hospitals and dispensaries. About the beginning of the eighteenth century the Established Church of the land was vigorous and zealous, with the result that the associated philanthropy which had established a footing was exhibited mostly along religious lines of development; but on the advent of the Hanoverian Kings a period of religious indifference set in, during which philanthropic activity became diverted to the establishment and upkeep of hospitals and other charitable institutions of a kindred nature. At this time hospital accommodation scarcely existed, except in London, and even there it was very inadequate. General hospitals were represented by St. Bartholomew's and St. Thomas's, and special hospitals by Bethlem. In 1724 Guy's Hospital—which is the only general hospital in London to bear its founder's name—was built primarily as an overflow-house for St. Thomas's. Within the following twelve years Westminster, St. George's, the London, and Middlesex hospitals were successively established. Between 1777 and 1790 no fewer than ten dispensaries were started with the view of relieving the hospitals, and of providing a cheaper means of treatment for cases of sickness which were not serious enough for admission as in-patients; and within the same period many smaller hospitals were inaugurated for the treatment of special diseases. Following the example of London, provincial towns set themselves to establish local institutions for the care of the sick, and towards the end of the century the first step in the direction of convalescent homes was taken by the inauguration of a Samaritan Society "to help the patients discharged from the London Hospital." In due course the provident dispensary system, which has since attained such wide dimensions, came into existence; the first institution, financed by subscriptions from the wealthy and contributions on the provident plan from the poor, being founded in 1818 at Southam in Warwickshire by Mr. Henry Lilly Smith, a surgeon practising in that village. Enough has been said to indicate the scope and character of Mr. Gray's work. To those interested in the subject of his researches the book may be warmly recommended. It gives a clear and consecutive account of the evolution of philanthropy, and is interspersed with a commentary on the sequence of events and the laws of development which give point to the narrative and relieve it of monotony. The story is so well told that the reader's attention is sustained without flagging from beginning to end.

---

[3] *A History of English Philanthropy: From the Dissolution of the Monasteries to the Taking of the First Census.* By B. Kirkman Gray. London: P. S. King and Son. 1905. (Demy 8vo, pp. 302. 7s. 6d.)

THE STEREOSCOPE IN ANATOMY.

THE third section of the *Edinburgh Stereoscopic Atlas of Anatomy*,[4] edited by Dr. DAVID WATERSTON, consists, like the preceding sections (see BRITISH MEDICAL JOURNAL, April 8th, 1905, p. 778, and November 4th, 1905, p. 1210) of a series of cardboard sheets each measuring 9 in. by 7¼ in. On the lower part of the sheet is a stereoscopic photograph, and on the upper part a short description of the most important features to be noted in the photograph. The cardboard sheets are enclosed in a convenient box, and the present section consists of fifty-one photographs of which five are a continuation of the series of photographs of dissections of the abdomen and pelvis commenced in Section II, while the remainder deal with surface views and dissections of the lower extremity. As in Sections I and II, the photographs are beautiful representations either of surface appearances or of well-executed dissections, and both editor and publisher are to be congratulated on the excellence of the work. The five photographs concluding the series of abdominal and pelvic views include two showing the relations of the rectum as seen from behind, in the area available for surgical operations, and three of the positions and relations of the abdominal viscera in a case in which the caecum was both abnormally large and displaced to the left. The 46 photographs of the lower extremity include views of dissections of the front and back of the thigh and leg, views of dissections of the buttock, the sole and the dorsum of the foot, and views of dissections of the ligaments of the hip, knee, and ankle. All the photographs are valuable as representations of anatomical relationships in formol-hardened bodies, and, speaking generally, it may be said that they give a much better idea of the distance of any given object from the surface than it is possible to give in an ordinary illustration, however well the illustration may have been drawn and reproduced. In this respect, however, views 9 and 10 of the pelvic series are somewhat deficient, for the dissection of the rectum from behind has been made upon a preparation from which the tissues of the buttock had previously been almost entirely removed, and therefore a large part of the object of a stereoscopic photograph has been lost, so far as these two particular views are concerned. As a whole, however, the photographs in Section III, like those in the preceding sections, will be very useful to the practitioner who wishes to revise his knowledge of anatomy, and who cannot conveniently attain access to a dissecting room or to dissected parts.

Dr. ERNST SOMMER'S *Atlas of Anatomy*[5] consists of wenty stereoscopic skiagraphs, in which are included a kiagraph of the skull, and skiagraphs of parts of the vertebral column, the shoulder, the elbow, the wrist, the pelvis, the knee, and the foot. As skiagraphs they are xcellent, and they demonstrate the relative positions of the bones and epiphysial lines to each other in living and ndissected bodies so far as Roentgen photographs can emonstrate them. Certain of them show also very rettily the arrangement of the cancellous tissue in some of the bones, but beyond this it may be doubted if they each anything that could not be equally well, or even better, learned from the study of dissections and prepared ones. The atlas will no doubt prove interesting to many people, but there is less certainty regarding its ractical use.

SPIROCHAETA PALLIDA.

FOR his inaugural dissertation, as far as can be gathered, in assuming the post of one of the Cathedraticos, or rofessors, of the famous Escola Medico-Cirurgica at Oporto, Dr. GILBERTO PEREIRA selected *Spirochaeta pallida*[6] and the part it plays in the production of syphilis, and put together an interesting account of the discovery of e parasite and its foreshadowings, followed by details of his own observations. Before Schaudinn and Hoffmann's paper innumerable pathologists had described different organisms as connected with syphilis, from the *Helicomonodas* of Klebs in 1879 to the *Cytorrhictes luis* of Sigel in 1905, but none of them have been generally accepted as the *causa causans* of the malady. At the same time, it may be remembered, Bordet and Gengou of Brussels had actually found *Spirochaeta pallida*, as was shown in the microscopic preparations they made at the time, but as they only saw it in one or two instances, and not at all in many slides, they abandoned their work without attributing any etiological importance to their discovery. It remained for Fritz Schaudinn and Erich Hoffmann to recognize the organism as necessarily connected with syphilitic lesions.[7] Not quite a month later they published their second confirmatory article,[8] while Metchnikoff, speaking at the Académie de Médecine a few days afterwards, accepted their conclusions. Curt Thesing has, however, always remained a strong opponent, looking upon the spirochaetes as harmless saprophytes which have only an indirect connexion with the syphilitic lesions and are rather to be classed with numerous other micro-organisms of this kind found in the mouth and anus, and in various septic liquids.

Dr. Pereira, after summarizing all the published opinions on the validity of *S. pallida* as a lethal organism, gives a list of the best stains, Giemsa's method, or Schaudinn's modification of it, being preferred by him. This rapidly stains the organism, which becomes vermilion, and the nuclei of the leucocytes a darker shade of the same colour. There are quite a number of stains commonly used in bacteriology which have no action at all. In his own experimental cases given in the present work many methods were tried by the author, but Geimsa's seems to have been as satisfactory as any. After a chapter reviewing the evidence adduced, a summary of conclusions is given, the most important of which are as follows: (1) The infective virus of syphilis, whatever it may be, does not pass coarse filtering, therefore the organism producing it is not invisible or even small; (2) *S. pallida*, though not as yet found in tertiary cases, is met with in all those which would clinically be considered contagious; (3) it is found in the internal organs and in the blood of children with congenital syphilis; (4) it does not exist in those sick with other maladies or in healthy people; (5) it occurs in monkeys when artificially infected with syphilis; (6) this micro-organism, then, which is of the nature of a protozoon, must therefore be looked upon as the true cause of syphilis. Dr. Pereira's useful bibliography extends to 73 items, and the experiments and cases which he adduces are entirely confirmatory of Schaudinn's and Hoffmann's conclusions.

THE PIONEER OF MILITARY NURSING IN INDIA.

SURGEON MAJOR-GENERAL A. F. BRADSHAW, C.B., has rendered a most excellent service in compiling a memoir of Miss Catherine Grace Loch, R.R.C.,[9] the pioneer of military nursing in India. The story of Miss Loch's life and service is told mainly by herself. She wrote long and interesting letters to her sisters detailing her work, travels, worries, and Indian experiences of all sorts. These letters have been very judiciously edited, arranged, and in some cases summarized by the compiler, or, as he calls himself, editor of her Memoirs. The choice of the profession of nursing was deliberately made in pursuance of an early predilection, at the age of 25. Her novitiate was spent at the Royal County Hospital, Winchester, and from 1882 to 1887 she was a night superintendent at St. Bartholomew's. At both institutions her services were highly appreciated. When in 1888, at the instance of Lady Roberts, it was determined to engage sisters for Indian military hospitals she was selected as one of two lady superintendents, and proceeded with eight sisters to India, the Punjab being assigned as the field of her labours, with head quarters at Rawulpindee. This was the commencement of what has now become a large and important scheme, under the denomination of the Queen Alexandra Military Nursing Service for India. Miss Loch continued to serve in India, with intervals of leave, until her health broke down in December, 1901: she was compelled finally to return to England, where she was appointed member of a small committee at the India Office for the selection of nurses for Indian service. While thus employed she broke down suddenly, and died on July 1st, 1904, at the age of 49. She threw her whole heart into her work, and though hampered with difficulties, official and otherwise, devoted herself cheerfully and energetically to the care and comfort of the sick. Her duties were largely administrative, and she exercised control and conducted business with tact and judgement. She served on the Black Mountain Expedition, and was decorated with the Order of the Red Cross at its close. Her holidays in India were spent in visiting Cashmere, Rajputana, Nepal, and other places of interest: and in the course of her supervising duties she also went to Quetta, Delhi, Agra, and many stations of Upper India. Her descriptions of places and adventure are most graphic and entertaining. The welfare of the sick soldier was, however, her keenest concern. The climate and other circumstances render the profession of nursing irksome and arduous in India, but Miss Loch made the best of the conditions and materials at her disposal, and laid a sound foundation for what is now a great and useful and much-needed institution. The book is a singularly interesting record of a good, brave, gifted woman occupied strenuously in an important and beneficent work.

---

[4] *The Edinburgh Stereoscopic Atlas of Anatomy.* Edited by David terston, M.A., M.D., F.R.S.E. Section III. London and Edinrgh: T. C. and E. C. Jack. 1905. (51 plates. 25s.)

[5] *Anatomischer Atlas in stereoskopischen Roentgenbildern. 1 Normale atomie.* I. Abteilung: Knochen und Gelenke. Von Dr. Ernst mmer. Würzburg: A. Stuber. 1906. (Royal 8vo, pp. 12. Twenty reoscopic photographs, with letterpress. M. 10)

[6] *Spirochaete Pallida*, de Schaudinn e Hoffmann. Trabalho do Laboraio de Bacteriologica e do Hospital Geral de Santo Antonio. By rnando Gilberto Pereira. Porto: Typo do Porto Medico, Praça da talha, 12. 1905. (Large 8vo, pp. 129.)

[7] *Arbeit. a. d. kaiserl. Gesundheitsamte*, 22 Band, Heft M. 1905.

[8] *Deut. med. Woch.*, No. 18, May 4th, 1905.

[9] *Catherine Grace Loch, Royal Red Cross, Senior Lady Superintendent, Queen Alexandra's Military Nursing Service for India.* A Memoir. London: Henry Frowde. 1905. (Crown 8vo, pp. 375. 4s.)

NOTES ON BOOKS.

THE ST. JOHN AMBULANCE BRIGADE IN SOUTH AFRICA.

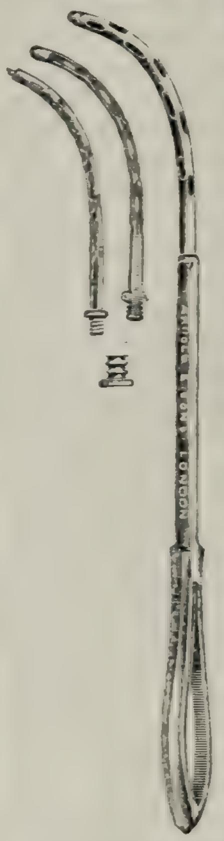
On Active Service with the St. John Ambulance Brigade[1] is the diary of a Kendal lad who went out to South Africa in the St. John Ambulance Brigade. It is a brightly-written record of the experiences of a Volunteer hospital orderly at the seat of war. The voyage out on a transport, the hard work amongst the sick and wounded in the Wynberg General Hospital (No. 2), and later with the Thirteenth General Hospital in the Transvaal, are described so pleasantly, that the reader can picture the scenes clearly, and quickly comes to feel a liking for the writer, and to take an interest in his doings. He is a lover of nature, and his description of scenery shows observation and appreciation of beauty. His comparison of the mountains and rocks of South Africa with his Westmorland hills, his eagerness in searching out all comrades from his own county, his keen interest in the Border Regiment, which is territorially associated with his native district, and his sympathy with his North Country patients, show a love of home and force the conclusion that patriotism, and not a restless desire to visit distant lands, prompted him to volunteer for active service. He died far from the hills and dales he loved so well, but in this diary he leaves a record of work well done.

THE MAIOTIC PROCESS IN MAMMALIA.

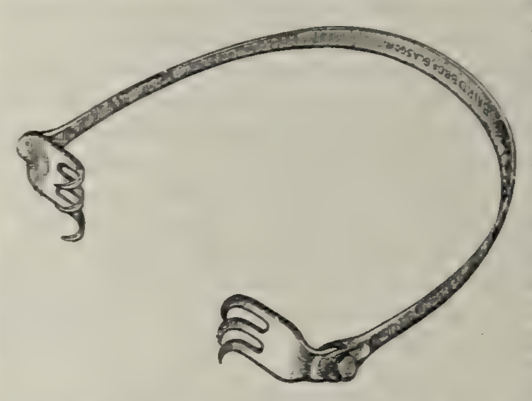
Messrs. **MOORE** and **WALKER**, of the Liverpool Cancer Research Laboratories, have published a comprehensive study[2] of the maiotic phenomena in mammals. In simpler language, they have made a careful cytological investigation into the evolution of the sexually-reproductive cell, and have traced the successive changes which take place in the development of cells of this type from the "premaiotic" or somatic cells. Their general results are in conformity with researches, made in conjunction with Professor Farmer, which have been published previously. They find that in the first maiotic (heterotype) division the synaptic aggregates are formed by the association of premaiotic chromosomes; those in the ensuing mitosis simply separate from one another, the existing longitudinal split in each chromosome taking no part in the division, and persisting in the diastral stage of the mitotic figure. The reduction of the number of chromosomes in the second maistic figure is brought about by this peculiar mode of association and separation.

MRS. CATHERINE SASSOON of Brighton, who died on February 8th, left £420 to the Alexandra Hospital in the same town.

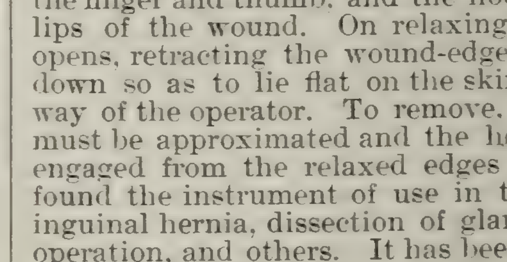
MEDICAL AND SURGICAL APPLIANCES.



A Hollow Intrauterine Sound.—Dr. Henry Jellett (Gynaecologist and Obstetrical Physician to Dr. Steevens's Hospital, Dublin, etc.) writes: Users of Bandl's hollow intrauterine sound know that this valuable means of applying caustics or other medicaments to the interior of the uterus possesses the great drawback that in its usual form it is most difficult to clean. Blood from the cervix collects in its lumen, and, when acted upon by an astringent such as pyroligneous acid, forms a firm clot which it is most difficult to remove. Recently I pointed out this difficulty to Messrs. Arnold and Sons, and suggested that a sound should be made composed of lateral halves, held together at the handle by a screw and above by a collar or small cap. The accompanying drawing shows the manner in which the firm have turned out the sound, and in this form I consider that it offers a great advantage over the older form. The detachment of a single screw allows the halves to separate, there are no projections or holes in which dirt can collect, and several different sized sounds can be attached to the same handle. When not in use the parts of the spare sounds are held together by a small screw cap.



Automatic Wound Retractor.—Dr. G. H. Edington (Glasgow) writes: I have recently designed an automatic wound retractor, of which the accompanying illustration is a representation (half size). It consists of a U-shaped steel spring with clubbed extremities. Curved sharp points are fitted into slots in the clubbed extremities, to which they are jointed by a screw pin. By unscrewing the pin the points can be removed when the instrument is to be sterilized; other points can also be adjusted, and, if so desired, blunt hooks can be substituted. To introduce the instrument, it is held with the spring vertical to the surface of the body. The ends of the spring are approximated by the pressure of the finger and thumb, and the hooks are placed under the lips of the wound. On relaxing the fingers the spring opens, retracting the wound-edges, and it is then turned down so as to lie flat on the skin surface, and out of the way of the operator. To remove, the limbs of the spring must be approximated and the hooks are then easily disengaged from the relaxed edges of the wound. I have found the instrument of use in the radical operation for inguinal hernia, dissection of glands in the neck, mastoid operation, and others. It has been made to my directions by Messrs. Baird Brothers, Bath Street, Glasgow.



Dental Elevator.—Mr. C. Edward Wallis, Assistant Dental-Surgeon, King's College Hospital, writes: With a view to economy of time, as well as of avoiding the inconvenience of changing instruments, I have designed the double-bladed elevator shown in the accompanying diagram. It is a combination of the well-known right or left curved elevators, and possesses the advantages of both these instruments. I have had an elevator of this pattern in use for some two years in hospital and private practice, and have found it most useful in cases in which a number of dental extractions had to be done in a minimum of time and with a minimum of instruments. For purposes of description I call it a "fish-tail" elevator. It is manufactured by Messrs. Allen and Hanburys, Limited, 48, Wigmore Street, W.

---

[1] *On Active Service with the St. John Ambulance Brigade* (South African War, 1899-1902). By the late W. T. Inder, S.J.A.B. London: Dale, Reynolds, and Co. 1905. (Demy 8vo, pp. 321. 5s.)

[2] *The Maiotic Process in Mammalia.* By J. E. S. Moore and C. E. Walker. London: Williams and Norgate. 1906. (Demy 8vo, pp. 16. 9 plates.)

LIVERPOOL SCHOOL OF TROPICAL MEDICINE.

THE seventh annual report of the Liverpool School of Tropical Medicine is a record of work of high scientific value and practical usefulness.

Staff.

The staff of the school engaged in teaching and research work during 1905 consisted of Major Ronald Ross, C.B., F.R.S. (Sir Alfred Jones Professor of Tropical Medicine), Dr. J. W. W. Stephens (Walter Myers Lecturer), Mr. R. Newstead (Lecturer in Economic Entomology and Parasitology), Dr. J. L. Todd, Dr. Wolferstan Thomas, Dr. Breinl (Assistant Lecturers), and Dr. Lewis Williams. Dr. Radcliffe, Dr. Pope, and Dr. Kinghorn were also engaged on special research into trypanosomiasis, in connexion with the Congo Expedition. In addition, the school has the advantages of the services of the staffs of the allied sciences also working in the Johnston Laboratories, namely, the Comparative Pathology Department, the Veterinary School of the University of Liverpool, the Bio-Chemistry Department, and others.

Laboratories.

The Johnston Laboratories of the University of Liverpool, where accommodation for the research work and teaching of the school is provided, were presented to the University by Mr. William Johnston. The buildings, which immediately adjoin the Thompson-Yates Laboratories, are 90 ft. long and 47 ft. wide at their broadest part, and 34 ft. wide at their narrowest. They contain four floors (connected by staircases and by a lift), each devoted to separate departments of study and research, and under the control of various professors and lecturers. The basement is devoted to comparative pathology, and is under the control of Dr. Annett; the ground floor is devoted to tropical medicine, and is presided over by Professor Ross, F.R.S.; the first floor is set apart for the study of experimental medicine, including experimental investigation in medicine, pathology, physiology, bacteriology, and allied subjects, under the superintendence of the Professor of Physiology and the Professor of Pathology; one set of rooms is devoted exclusively to cancer research, under the direction of Mr. J. E. S. Moore; the second floor is assigned to biochemistry, and is presided over by Professor Benjamin Moore. The laboratories of tropical medicine are contained in a large room about 95 ft. long and 35 ft. broad. The main part of the room is devoted to students, but three chambers are partitioned off for the special use of persons who wish to do research work in connexion with tropical medicine and parasitology, each of these rooms having all fittings and appliances for this purpose. One end of the room contains the professor's room and the incubator room. The whole is walled with white glazed tiles. The floor is rendered impermeable by a layer of deep-red lito-silo. Along the walls of the whole floor there runs a bench for microscope work, covered with a thick layer of sea-blue lito-silo. Electric light, gas, and water are supplied at distances of every four yards of this bench for the use of students. The partitions of the room are fitted with cupboards, in which the museum of tropical diseases, which is now being formed, is being arranged. Steam s also laid on the laboratory, which possesses all the necessary apparatus. There is accommodation for over orty workers in the new laboratory of the school.

Clinical Work.

The clinical work of the school is carried on at the Tropical Ward of the Royal Southern Hospital, which, rom its position near the docks, has, since its foundation, een largely frequented by cases of malaria and other ropical diseases. One of the physicians of the hospital is lways in charge of the Tropical Ward, and devotes his ttention to the treatment of the cases and the clinical eaching of the students. There are special clinical aboratories attached to the Tropical Ward, and the tudents also have access to the general pathological aboratory of the hospital.

Finances.

The Government voted a grant to the school of £500 er annum for five years from January 1st, 1905, which nabled the staff of the school to be increased. Liverpool niversity has also made a grant of £200 per annum from October 1st, 1905. Subscriptions have come in very liberally from the general public; but the extensive scope of the trypanosomiasis research work undertaken by the school in connexion with the Congo Sleeping Sickness Expedition has entailed heavy expenditure, which has seriously crippled the funds at the disposal of the school, with the result that the school entered on the present year (1906) with a deficit of nearly £190.

Diploma in Tropical Medicine.

In December, 1903, the Committee approached the University suggesting that, in view of the facilities offered at Liverpool for the study of tropical medicine, the University should institute a Diploma in Tropical Medicine. This recommendation was duly carried into effect in 1904, and since the diploma has been instituted the majority of the students of the school have entered for the examination.

Expeditions.

Since the foundation of the school to the end of 1905, sixteen expeditions have been sent out to the tropics. The first (Malarial) expedition—Major Ronald Ross, C.B., F.R.S., Dr. H. E. Annett, Mr. E. E. Austen (of the British Museum), and Dr. Van Neck (of Belgium)—was dispatched to Sierra Leone in the summer of 1899; the second (Malarial) expedition, Dr. R. Fielding Ould, was dispatched to the Gold Coast and Lagos in the winter, 1899; the third (Malarial) expedition, Dr. H. E. Annett, Dr. J. E. Dutton, and Dr. Elliott, was dispatched to Northern and Southern Nigeria in the spring of 1900; the fourth (Yellow Fever) expedition, Dr. F. E. Durham and the late Dr. Walter Myers, dispatched to Cuba and to Pará, in Brazil, in the summer of 1900; the fifth (Sanitation) expedition, Major Ronald Ross, C.B., F.R.S., and Dr. Logan Taylor, was sent to Sierra Leone in the early summer of 1901. The sixth (Trypanosomiasis) expedition, Dr. J. E. Dutton, was dispatched to the Gambia in the autumn of 1901. The seventh (Malarial) expedition, Dr. C. Balfour Stewart, dispatched to the Gold Coast in November, 1901. The eighth (Sanitation) expedition, Major Ross, was sent to Sierra Leone on February 22nd, 1902. The ninth (Malarial) expedition, Major Ross, accompanied by Sir William MacGregor, K.C.M.G., the Governor of Lagos, was dispatched to Ismailia, September 11th, 1902. The tenth (Trypanosomiasis) expedition, Dr. J. E. Dutton and Dr. J. L. Todd, was dispatched to the Gambia and French Senegal on September 21st, 1902. The eleventh (Sanitation) expedition, Dr. M. Logan Taylor, was dispatched to the Gold Coast from Sierra Leone on October 11th, 1902. The services of Dr. Taylor were utilized by the Governor of the Colony, and his recommendations for improving the sanitary conditions of Cape Coast Castle carried out with most successful results. The twelfth (Trypanosomiasis) expedition, Dr. J. E. Dutton, Dr. J. L. Todd, and Dr. C. Christy, was sent to the Congo Free State on September 23rd, 1903. This expedition gives promise of being the most important expedition sent out by the School since the expedition in 1899, which discovered the presence of the *Anopheles* mosquito in West Africa. It was sent out as a result of representations made to the School by His Majesty the King of the Belgians, who made the expedition possible by granting a handsome donation towards its expenses. The thirteenth expedition, consisting of Professor Rubert Boyce, M.B., F.R.S., Mr. Arthur Evans, M.R.C.S., and Dr. Herbert H. Clarke, M.A., B.C.Cantab., was dispatched to Bathurst, Conakry, and Freetown on November 14th, 1904, to report on the sanitation and antimalarial measures in practice at the towns visited. The members of the expedition have drawn up a valuable report, which has been issued by the School. The fourteenth expedition—Lieutenant-Colonel G. M. Giles, M.B., F.R.C.S., Indian Medical Service (retired), and Dr. R. Ernest McConnell, M.D. (Canada)—was dispatched to the Gold Coast on December 31st, 1904. Unfortunately Colonel Giles had to return to England on February 8th, 1905, through illness. Dr. McConnell is remaining to carry on the work of the expedition. The thirteenth and fourteenth expeditions were sent to West Africa in appreciation of Sir William MacGregor's great services to health and sanitation in West Africa. The fifteenth (Yellow Fever) expedition: Dr. H. Wolferstan Thomas and Dr. Anton Breinl, dispatched to the Amazon in April, 1905. Both members of the expedition contracted yellow fever, and Dr. Breinl had to be invalided home. Dr. Thomas is still carrying on the work of the expedition. The sixteenth (Yellow Fever) expedition Professor Boyce, F.R.S., dispatched to New Orleans in August, 1905, to observe the work of the United States medical authorities in dealing with the outbreak of yellow fever there. Professor Boyce subsequently visited British Honduras at the special request of the Colonial Office to make a report on the conditions existing in that Colony with reference to a recent outbreak of yellow fever. The total actual cost of the expedition is estimated at £11,000.

Publications.

Seventeen reports, in addition to various pamphlets, have been issued by the School.

Students.

During the past year 31 students attended the school; among them were officers of the Colonial Medical Service and the Indian Medical Service. The total number of students who have passed through the school is 150.

THE INTERNATIONAL CONGRESS OF MEDICINE AT LISBON.

THE National Committee for Great Britain and Ireland has issued the following announcements:

The South-Eastern and Chatham Railway Company has arranged, conjointly with the French railways, to issue return tickets from London to Irun at the greatly-reduced rates of £6 13s. first class, and £4 12s. second class, for members who propose to travel overland to attend the Fifteenth International Congress of Medicine which is to be held at Lisbon from April 19th to 26th, 1906. The tickets will be available via Dover and Calais or by Folkestone and Boulogne at the option of the passenger, but members are advised very strongly to take the 10 a.m. service from Victoria via Folkestone and Boulogne, as that service is the least crowded, and the train reaches Paris at 6.4 p.m., in ample time to dine before continuing the journey by the 8.7 p.m. express from the Quai d'Orsay Station. This train reaches Irun at 8.50 a.m. on the following morning. The tickets are available for forty-five days, and will be issued to the wives and children of members but not to other relatives. They can only be obtained at the Victoria (S.E. and C.R.) station on production of the *cartes d'identité* from April 1st onwards.

The L.B. and S.C. Railway will also make reductions for members who choose to travel by their route, but the particulars are not yet to hand.

The National Committee for Great Britain and Ireland further announces that the Executive Committee of the Congress have secured in Lisbon a considerable number of rooms—some single-bedded, but for the most part with several beds in a room—at a cost of 6f., 8f., and 10f. a bed a night. There are also a few boarding-houses which will take in members at a cost of 15f. a head. Tickets for these lodgings will be obtainable at the Rocio Station, which is the terminus for passengers arriving in Lisbon by train, and visitors are required to pay for the whole eight days during which the Congress lasts. Accommodation will be reserved in strict accordance with the priority of application made to Mr. Manoel Jose da Silva, Palacio Foz, Praça dos Restauradores, Lisbon. The hotels and restaurants, as well as the buffet in the Congress buildings, will solve the difficulty of obtaining meals.

Dr. Leonard Williams (8, York Street, Portman Square, W.) has forwarded us a circular stating that Dr. Helme, 10, Rue de St. Petersbourg, Paris, is arranging for a French party to travel by sea from Marseilles to Lisbon to attend the International Congress. The party will leave Marseilles on April 8th, and the boat *l'Etoile*, by which they travel, will touch at Majorca, Malaga, Tangier, Cadiz, and Seville. Excursions will be made from Malaga to Granada, and from Seville to Cordova and the Alcazar. During the Congress the party will reside on board ship, and afterwards will return to Marseilles by sea; the inclusive charge will be 850 francs.

As already announced, the Booth Line have arranged for a yachting cruise from Liverpool to Lisbon to suit the convenience of members of the medical profession who propose to attend the International Medical Congress at Lisbon. On the way out two days will be spent at Havre for the purpose of seeing the neighbouring country, and, if desired, paying a visit to the cathedral and churches of Rouen. The steamer will also stop two days at Oporto, where arrangements will be made for seeing the many interesting sights of this old Roman and Moorish city, as well as one of the largest port-wine lodges on the south bank of the Douro. On arrival at Lisbon passengers will be transferred to the new hotel, d'Inglaterra, where rooms were reserved by the Booth Line for a large party some months ago. This steamship company has been running tours to the Peninsula, making Lisbon its central point, for the past three years; and their local agents know the Lisbon hotels and are able to guarantee that the rooms reserved will be actually available. The *Ambrose*, 4,187 tons, which is the outward steamer for the above cruise, and the *Anselm*, 5,442 tons, the returning steamer, are modern passenger boats with their cabins on deck and amidships, and latest improvements. The inclusive price for the round trip, occupying about twenty-six days from Liverpool back to Liverpool, covering full hotel accommodation at Lisbon for about twelve days, is £22.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

THE provincial quarterly meeting of this association was held, under the presidency of Dr. T. OUTTERSON WOOD, at the West Riding Asylum, Wakefield, Yorks, on Friday, February 23rd, through the kindness and courtesy of the Director, Dr. Bevan Lewis, who entertained about sixty members of the association at luncheon. Members of the association had the opportunity of inspecting the hospital, which is equipped for the most recent and approved treatment of mental disorders.

STATE REGISTRATION OF MENTAL NURSES.

The PRESIDENT read a paper on the *State Registration of Mental Nurses*, and referred to the findings of the Special Committee appointed by the late Government, which recommended a special register for mental nurses and that the Medico-Psychological Association should be one of the authorities concerned in dealing with the register. He urged support for the Bill now being promoted by the Royal British Nurses' Association.

The BISHOP OF WAKEFIELD expressed his warm sympathy with anything which might raise the status of the asylum-trained nurse. He spoke with personal knowledge of their duties, and of the tact and sympathy required in dealing with mental cases. He was himself greatly concerned with the problem of the prevention of disease and with raising the efficiency of the great masses of the people, and it was a source of considerable satisfaction when eventually, as was too often the case, the necessity occurred for patients to be treated in asylums to find so much devotion, tact, kindness, and sympathy. The Bishop further referred to the great progress and improvement made in the treatment of the insane within his own memory.

Dr. HARDING (Northampton) also spoke, and the TREASURER (Dr. Hayes Newington) proposed a hearty vote of thanks to the President for his address, and proposed that his paper should be handed over to a special committee of the Medico-Psychological Association now sitting to deal with nursing registration.

ALCOHOLISM, CRIME, AND INSANITY.

Dr. BEVAN LEWIS read a paper on alcoholism, crime and insanity. He referred to his early investigations in 1876 and 1880 upon thermogenesis as affected by certain potent alkaloids, as also by chloral, caffeine, and alcohol. Alcohol revealed an initial stage of increased blood pressure, with decreased heat formation, followed by a stage of decreased blood pressure, together with increased thermogenesis, as well as inordinate heat discharge. Chloral acted similarly, and in the second stage was accompanied by the enormous evolution of 7 to 11 heat-units per gram of body-weight. The antagonism of caffeine in this respect was illustrated by the fact that heat formation was stimulated from the first, but its operation favoured heat-retention not dissipation. The impairment of muscular sense under the agency of alcohol was next discussed, and a notable similarity in this operation was indicated in the three diseases—chronic alcoholism, general paralysis, and dementia praecox. The seat of muscular-sense discrimination was identified with the cortex of the motor area, as mapped out on histological data by the author and Dr. Alfred Campbell, together with the adjacent fringe of cortex called by him the "transition realm," which corresponded to Dr.

Campbell's intermediate precentral and intermediate post-central type. This site was peculiarly liable to early implication in the three affections alluded to, at a period when general sensibility, thermal and painful impressions, were impaired. Allusion was then made to the geographical incidence of alcoholism, and it was shown by tabulated statistics that the admixture of a maritime with a mining and manufacturing class was fatal to the sobriety of the community; that in fact, inland and agricultural communities were the least inebriate but had the highest ratio of pauperism and of insanity; that inland and maritime mining and manufacturing communities were the most inebriate, had the lowest rata of pauperism and insanity; whilst maritime mining and manufacturing communities above all others were the most intemperate, and revealed the lowest ratios of pauperism and insanity. A dissociation between alcoholism and insanity was thus indicated; whilst the latter was allied with pauperism, want, anxiety, and other moral factors. He expressed his belief that alcoholism was not in the true sense of the word inheritable, but indicated the neurotic features which favoured its operation, and dwelt on its prejudicial action on the germ-plasm and ovum as evolving convulsive forms of mental diseases—epilepsy, chorea, hysteria, etc., and also the degenerate forms of idiocy, imbecility, and the criminal type as emphasized in the offspring of an alcoholic parentage. He expressed his adherence to the doctrine of Weissmann that acquired characters were not transmitted.

Drs. MERCIER, HAYES NEWINGTON, and ROBERT JONES spoke.

DINNER.

The members afterwards dined at the Queen's Hotel, Leeds, and entertained members of the staff of the Leeds Infirmary and some of the University Professors. Among the guests were the Rev. Ernest Haddington Dykes, M.A., Vicar of Holy Trinity, Leeds; Dr. Eddison, Professor de Burgh Birch, Dr. Wardrop Griffith, Dr. J. B. Hellier, Dr. H. Secker Walker, Professor Charles Wright, and Dr. William Hall.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

AT the annual general meeting on March 1st Dr. G NEWTON PITT, Senior Honorary Secretary, read the report of the Council of the Society, which was mainly concerned with its internal affairs. He also read the Honorary Treasurer's report, which showed a satisfactory financial position, and other departmental reports.

Sir WILLIAM CHURCH, Bart., Senior Honorary Treasurer, moved the adoption of the audited statement of accounts, and explained that the small balance on the wrong side was due to the extraordinary expenses connected with the centenary celebrations.

Dr. THEODORE WILLIAMS seconded the motion, which was eventually carried unanimously, and raised the question of a sinking fund to reduce more rapidly the debenture debt of the Society.

Mr. GOODSALL supported the view that greater effort should be made to increase the sinking fund and to promote a fund for a possible rebuilding of the Society's buildings.

PRESIDENT'S ADDRESS.

Sir R. DOUGLAS POWELL, the retiring President, then delivered the annual address, giving obituary notices of he late Honorary Fellows and Fellows of the Society, ncluding Professor Nothnagel, Professor von Kölliker, Dr. Eustace Talbot, Mr. F. J. Gant, Mr. Christopher Heath, Dr. J. W. Ogle, P. R. Cresswell, C.B., Sir John Burdon-Sanderson, and Mr. J. A. Kingdon. He detailed he outstanding features of the now ended centenary year, specially referring, in respect of the ordinary business of he Society, to the discussion on appendicitis, the paper on he tuberculin treatment of phthisis, and the Marshall-Hall address. The scheme for the amalgamation of the ondon medical societies was still in progress, and he elieved that the union would be triumphantly accomlished. A plea was made for occasional conversational venings in place of some of the less formal meetings.

ELECTION OF OFFICERS AND COUNCIL.

The following were the new officers of the Society nanimously elected: Mr. Warrington Haward, President; r. J. F. Payne, Mr. H. W. Page, and Mr. Harrison Cripps, Vice-Presidents; Mr. Pearce Gould, Honorary Treasurer; Dr. Howard Tooth, C.M.G., Honorary Secretary; and Dr. T. D. Acland, Dr. Clifford Beale, Dr. Sidney Martin, Dr. G. Ogilvie, Dr. W. Pasteur, Mr. Bland-Sutton, Mr. Andrew Clark, Mr. W. H. H. Jessop, and Mr. H. R. Fuller.

After the thanks of the Society had been unanimously voted to the retiring President and other officers, the President-elect, Mr. Warrington Haward, was inducted with the ceremonial peculiar to the Society.

SOME ADVERTISED REMEDIES AND FOODS.

CHELTINE DIABETIC FOOD.

THE various preparations which come under this name are manufactured by Cheltine Foods and Chocolate, Limited, Food Specialists, whose head offices and works are the Cheltine Works, Cheltenham. The makers claim that "The *starch* of the cereals used has been treated during the process of manufacture *by special and original methods*, especially in the cooking and baking processes, so that, although the starch still reacts to the usual tests for starch, it exists in the completed preparations in a modified form. The object aimed at has been to so treat the starch that in the body of the diabetic it should behave differently from ordinary starch, under the various physiological conditions and processes which meet it during digestion and assimilation: that it should, for the most part, go through the *normal* metamorphoses and changes, and serve its *normal* purposes, in the nutrition of the body, instead of being excreted as diabetic sugar" (italics in original). This statement is certainly somewhat startling. We are told that the starch *still reacts to the usual tests*, but that it *exists in a modified form*, yet we have no hint as to the nature of the modification which has been effected.

In a type-written letter, unsigned but sent out from the works with samples, the claim is put in rather a different form: "The starch of the cereals used in these Foods still exists, but has been so altered in the process of manufacture that it is found from a large amount of clinical evidence that it serves its normal purpose in the body of the Diabetic and does not encourage the formation of Diabetic sugar." The Food for which these attributes are claimed is a brown granular powder looking like pulverized rusk or toast, but smelling of almonds; an emulsion made with hot water is acid to litmus paper and turns black with iodine. Under the microscope starch granules abound, mostly unaltered in appearance, and becoming deep blue with iodine, but a few are dextrinized. When masticated the food has a rancid almond flavour; after being well insalivated it reduces Fehling's solution freely. Chemical analysis showed that after being dried it contained:

Mineral matter	2.82	per cent.
Fat	6.37	,,
Nitrogenous matter	14.70	,,
Convertible carbohydrates ...	59.77	,,
Non-convertible carbohydrates	16.34	,,

The food is, therefore, not one which we should recommend from its chemical composition for the use of diabetics, nor has it the merit of being pleasant to the taste. With regard to the claim made for it, we can only say that it is altogether unworthy of consideration. In the case of a child whose daily excretion of sugar stood steadily at 600 gr., it reached 1,500 gr. after the use of Cheltine food for a week. In order to determine the effects of an alleged remedy, the case to be examined must be carefully selected, and must be shown to excrete a fixed quantity of sugar under certain conditions; these conditions must then be varied only to the extent of trying the alleged remedy. We believe that if experiments are carried out in this way it will be found that the use of Cheltine food is followed by an increased excretion of sugar, proportional to the quantity of starch contained in the food. Cheltine bread is brown, firm, and not unpleasant to the taste. Analysis (dry) gives the following figures:

Mineral matter	2.92	per cent.
Fat	4 56	,,
Nitrogenous matter	28.50	,,
Convertible carbohydrates ...	57.12	,,
Non-convertible ,, ...	6.90	,,

This shows too high a proportion of carbohydrates for it to form a safe diabetic food.

LITERARY NOTES.

THE name and the title of Major Ronald Ross ought to be pretty well known in the medical world by this time. There would seem, however, to be regions where they have not penetrated, for in the *Journal of the American Medical Association* of February 24th, we find mention made of a "Sir Donald Ross" in connexion with a paper on the logical basis of the sanitary policy of mosquito reduction. Is there another Hotspur in the field? Or is this mysterious knight the celebrated Major, the Carnot who "organizes victory" in the war against mosquitos? Perhaps our Chicago contemporary would reply with the seer in *Lochiel:*

> 'Tis the sunset of life gives me mystical lore,
> And coming events throw their shadows before.

That would account for the "Sir"; but what about that unkind "Donald"? As Byron says:

> Thrice happy he whose name has been well spelt
> In the dispatch. I know a man whose loss
> Was printed *Grove*, although his name was GROSE.

Dom Fournier, a Benedictine monk of the Abbey of Solesmeo, who before entering the order was a medical practitioner, has compiled a book on the canonized saints who have been members of the medical profession. He has succeeded in unearthing no fewer than sixty-eight. Most of them belong to the early days of Christianity, and it is interesting to note that in the list are several members of the sex which the Church expressly calls "devout." In modern days when the genus saint is much smaller than it used to be, the medical species seems to have become extinct.

Mention was made in this column in the issue of February 24th of a forthcoming work, the *Birds of the British Islands*, by Mr. Charles Stonham, a recognized authority on ornithology. Since then we have received further particulars of the work from the publisher, Mr. E. Grant Richards. Part I will appear during April or early in May, and it is anticipated that the work will be completed within two or three years. There will be three hundred or more illustrations in black and white by Mr. L. M. Medland. If we may judge from the specimens of the artist's handiwork which have been submitted to us, the illustrations will be among the finest that have yet been produced.

The following extract from the late Sir Mountstuart Grant-Duff's *Notes from a Diary*, 1896-1901, may interest some of our readers who are exercised about problems of pronunciation: "The subject of poisons coming up the other day at dinner, Evelyn mentioned the 'Aqua tofāna,' but was corrected by the Duchess. The right pronunciation it seems is 'tofăna.'" It should be explained that the Duchess in question was an Italian *grande dame de par le monde*, whose authority on such a point may readily be accepted.

In an interesting article which appears in *Alma Mater*, the Aberdeen University magazine for January 10th, Mr. W. Keith Leask reminds us that Tobias Smollett received his M.D. degree from the university in the grey city on the North Sea. Up to 1820, he says, no one knew the fact, although Smollett obtained the degree from Marischal College in 1750, and that diploma had been seen at Leghorn as late as 1816. The source of Smollett's degree had been the subject of much debate among the curious, and Sir Walter Scott finally settled the question by writing to all the British universities and getting the solution of the problem from Professor John Cruickshank, "who has politely forwarded a certificate copy of the diploma." When Smollett was dying in 1771 at Leghorn he had his diploma framed and hung over his bed to let his friends and visitors see that he was a qualified physician. The name of Smollett suggests that of a still greater literary doctor—Oliver Goldsmith—the source of whose degree has remained dubious to this day. Mr. Leask recalls that two Aberdeen physicians were with Goldsmith in his last illness. These were Dr. William Hawes and Dr. George Fordyce. Hawes found the author of *The Vicar of Wakefield* sinking, and dosing himself with James's Fever Powders. As Goldsmith would not discontinue taking the powders, Hawes called in Fordyce and Turton, the latter of whom put to the dying man the famous question: "Is your mind at ease?" "It is not," replied poor Goldsmith—surely among the saddest of recorded "last words." Fordyce, who attained great eminence as a physician, was perhaps the first Aberdonian to be admitted to the Olympian circle of the Royal Society. Another famous Aberdeen doctor was George Cheyne, to whom Mariscnal College charitably gave the M.D., "because he is not only our countryman, but at present not rich, but is recommended by the abelist and most learned physicians in Edinburgh as one of the best mathematicians in Europe." Eminence in mathematics may seem an odd reason for the bestowal of a degree in medicine, but it must be remembered that Cheyne was a leading representative of the "iatromathematical" school. At a time well within living memory, it was said that the degree of Doctor of Medicine might have been conferred by the University of Oxford "for a knowledge of volcanoes, for a considerable acquaintance with the atomic theory, or with the botany of Virgil." Cheyne, as is well known, through over-indulgence became a mountain of flesh which he spent the greater part of his life in trying to reduce. By a strict vegetarian regimen he established a *modus vivendi* in his economy. He was the fashionable physician of his time at Bath, and recommended that diet to Beau Nash, whose health was failing. Nash swore that Cheyne's design was to send men grazing like Nebuchadnezzar. "Ah," said Cheyne, "he was never like you. I found him, gentlemen, only the other day crying for mercy to heaven. Yet you now hear how the old dog blasphemes the Faculty!" It is interesting to learn from Mr. Leask that Cheyne obtained his degree from Aberdeen, for so keen a searcher as Dr. Frank Payne, as appears from his article in the *Dictionary of National Biography*, failed to discover its source.

We have received the first number of the *Journal of Tropical Veterinary Science*, which is to appear quarterly. The editors are Major H. T. Pease, Principal of the Punjab Veterinary College; Captain F. S. H. Baldrey, Professor of Sanitary Science in the same College; and Mr. R. E. Montgomery, M.R.C.V.S., who is on special duty investigating camel diseases. Among the contents are a paper on a new species of trypanosoma found in the blood of rats, by Professor A. Lingard, who also discusses the question —Through what agency is the *Trypanosoma evansi* carried over from one surra season to another? Mr. Montgomery treats of bilharziosis among animals in India. Professor Baldrey contributes some observations on normal and rinderpest blood; and Major Pease deals with *Tibursa surra* (trypanosomiasis in the camel).

Statistics of the theses presented in all the French medical faculties have, we learn from the *Gazette Médicale du Centre*, lately been published. They show that in the academic year 1904-5 the degree of Doctor of Medicine was conferred on 1,073 candidates. This shows a considerable falling off from previous years, the figures for 1901 having been 1,150; for 1902, 1,130; for 1903, 1,115; and for 1904, 1,142. The number of theses presented to the University of Paris during the last five years has diminished by 130, while those offered to provincial seats of learning have correspondingly increased.

It is interesting to note among recent deaths of members of the profession in France that of Dr. Brillat-Savarin, grand-nephew of the famous author of the *Physiologie du Gout*. Dr. Brillat-Savarin practised his profession at Bellay for half a century, and retired two years ago. The end came suddenly. He was 77 years of age.

The *Hygienisches Centralblatt* is the name of a new journal which takes all hygiene for its province. It proposes to give a complete review of all works bearing on hygiene by means of summaries of the original articles which will be "short, to the point and, above all concise." It will include reports, supplied by a body of international collaborators, dealing with every branch of hygiene, with occasional special collective reports on some particular branch. The journal will be issued fortnightly. The editor is Dr. Paul Sommerfeld, Director of the Laboratory of the Kaiser and Kaiserin Frederick City Hospital for Children, Berlin. Among the members of the directing Committee are Professors A. Baginsky, P. Frosch, F. Loeffler, and R. Pfeiffer. Dr. F. C. Lewis, of London, represents England on the staff.

The Berlin Society of Science has awarded to Dr. Iwan Bloch, of Berlin, the sum of £25 in furtherance of his well-known investigations of the history of syphilis.

HIPPOCRATES AND THE NEWLY-DISCOVERED HEALTH TEMPLE OF COS.

Abstract of a Lecture delivered at the Royal Institution.

By Richard Caton, M.D., F.R.C.P.,
Liverpool.

After exhibiting three portraits of Hippocrates and giving a brief sketch of his work at Cos, his influence in freeing medicine from ancient superstition, his marvellous powers of observation and scientific insight, and his lofty conception of the aims which ought to characterize the physician, Dr. Caton showed photographs of Cos and of the ancient tree under which, according to tradition, Hippocrates was accustomed to give medical advice and counsel to the people in the town of Cos. He then traced the sacred way which leads to the Asklepieion, or Health emple. Before describing the remains of this great oan sanctuary, which the labours of Dr. Rudolph Herzog, f Tübingen, have brought to light during the past two ears, Dr. Caton briefly recounted, for purposes of comarison, the principal temples and sanitary departments such of the Greek Asklepieia as had previously been xcavated, especially in the case of Epidaurus. He went to describe the

Health Temple of Cos.

The great Health Temple of Cos was situated two miles om the sea, at an elevation of about 320 ft., at a point here the range of mountains which rises on the south ast of Cos to a height of about 2,800 ft. springs from the ntle slopes of the plain.

Earthquakes, with disturbance of the soil, the growth vegetation, the evil deeds of the lime-burner, together with the building of various churches and mosques, had so completely masked the site that until three years ago not a living soul knew that the παναγία τῆς τάρσου with the gardens round it was the site of the famed Asklepieion. Two British archaeologists, Mr. W. R. Paton and Mr. E. L. Hicks, while searching Cos for inscriptions, with much acuteness suggested this as a probable site. The situation is a remarkably beautiful one, commanding delightful views on all sides. Standing on three step-like terraces, the buildings at present excavated are about 180 metres in length from north to south, and about 129 from east to west. The spectator sees to the south the range of mountains I have mentioned. To the north the verdant plain of Cos, with the white houses and trees of the town to the right, and the wide expanse of turquoise sea dotted by the purple islands of the Aegean and the dim mountains about Halicarnassus to the north-east.

Of course, little remains of the sacred precinct but foundations, but from these and the architectual fragments which remain it is not difficult to reconstruct in one's mind the *ensemble* of beautiful buildings which existed 2,000 years ago.

The accompanying picture (Fig. 1) of a mental restoration of the temple will give some idea of the buildings, which stood in three step-like terraces.

In the foreground is seen a three-sided stoa or portico, having irregular buildings at a lower level adjacent to its outer border all round. This stoa is approached by a Doric propylaea or porch. Within this porch there are signs of certain great tanks or basins, and of an aqueduct supplying them. They were probably for the preliminary ceremonial ablutions. The Asklepiadae were to be congratulated upon this usage. (Many of their successors would not be sorry if a preliminary cleansing or libation

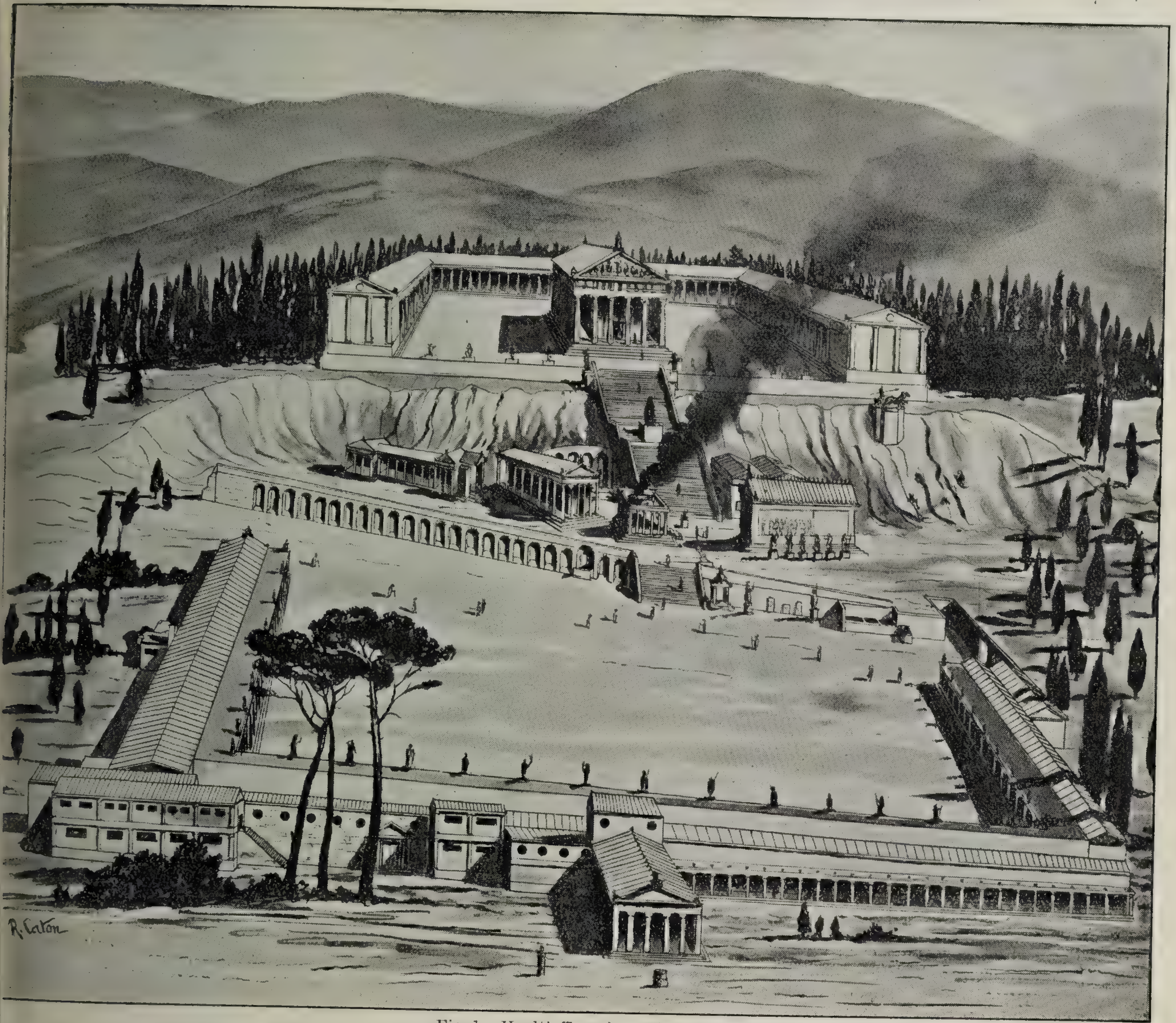


Fig. 1.—Health Temple, restored.

of soap and water were required from some of the votaries of the out-patient room in our modern Asklepieia !) The buildings adjacent to the left wing of this great stoa were occupied by an extensive series of baths, mostly reconstructed in Roman times. Here the hot and cold douches of which Hippocrates speaks, the frictions, and affusions of water of various temperatures, the inunction of "smegma," a sort of hot semi-fluid soap, the massage, and the applications of sponge and strigil took place. Hippocrates believed greatly in the remedial uses of water, and here, doubtless, hundreds of his patients have submitted to the hydrotherapia of the time. Probably the remainder of these rooms in the north and west of the Stoa served as waiting rooms, consulting and operating rooms, the Iatrium, with its store of instruments of which Hippocrates speaks, including the Scamnum, or bench for reducing dislocations. Here, probably, would be the dispensary, where were prepared the tisanes, the hellebore, the arsenic, the cantharides, and other drugs he names, also the library. Here may have been the rooms devoted to teaching, for Cos was a most important medical school. Here, probably, Hippocrates wrote his careful notes of cases, and kept the skeleton which he afterwards gave to the oracle of Delphi.

Here, also, may have been the culinary department where the special diet to which the Coan School gave so much attention was prepared, where probably the "cygeon" was made, that curious mixture of cheese, honey, and wine, which we first read of as being given by Circe to Ulysses, but which, notwithstanding this very dubious precedent, may have proved a nourishing form of food for certain of the sick. Here, perhaps, was the winestore for the Chian or the strong Cretan vintages which Hippocrates so rarely gave undiluted. He was a believer in the truth that much strong wine weakened rather than invigorated. At the south-west corner of the stoa were situated the sanitary arrangements of the precinct. The area enclosed by the stoa was probably a palaestra, where the gymnastic part of the treatment was carried out. We know that Hippocrates was the pupil of his father, Heracleides, the physician, but also of Herodicus, who relied more upon exercise and gymnastics than upon any other treatment. Hippocrates tells us that he believes Herodicus killed some of his patients who had febrile or acute diseases by insisting on too violent exercise. While avoiding this error Hippocrates prescribed exercise largely in suitable cases. Could we transport ourselves backwards in time to the year 400 before Christ we might have seen in this palaestra the gouty man casting the discus, walking or running round and round the stoa, or going through the sword or spear exercise, grumbling meanwhile at the meagre diet prescribed him, while the weakly and ill-developed youth beside him ran, threw the javelin, or engaged in gentle wrestling, drank the "red water," and took a full and nutrient dietary.

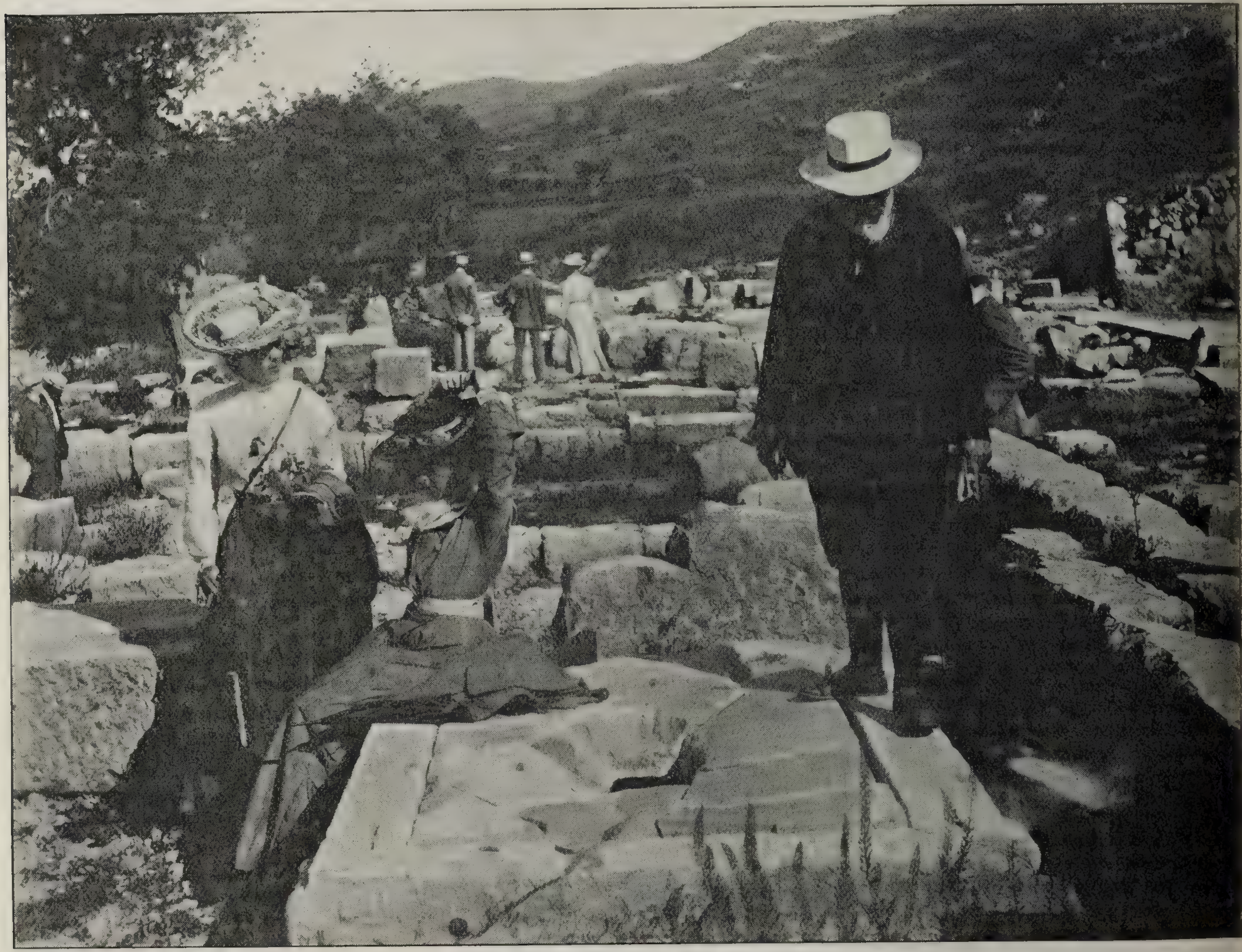


Fig. 2.—Temple of Apollo, with stone coffer.

Within the portico were many inscribed wall slabs, some referring to the inviolability of the precinct, others bearing wise maxims in regard to health.

If Dr. Ermerins is correct, many of these existed prior to the time of Hippocrates, and were quoted in his *Prorrhetics* and *Praenotiones*. Probably in later times many of his wise admonitions were added to the number. We know that at the neighbouring Asklepieion of Cnidus similar precepts, termed the "Cnidian sentences," written by the physician Euryphon, were in like manner exposed to view. The records of honours gained by Coan physicians were also conspicuous here.

The south side of the quadrangle consisted of a lofty wall with buttresses supporting the second terrace. This wall was interrupted by a flight of steps leading up to the second terrace, and by several drinking fountains, one in particular, the sacred spring, of which no doubt every patient was made to drink freely.

Ascending the stairs to the middle terrace, we find ourselves in the most ancient part of the precinct, where the various buildings were arranged with much irregularity. Near the centre of the terrace stands the great altar, a structure measuring 12 metres by 8, approached by steps on its western side. In some respects it reminds the visitor of the great altar of Pergamon, though smaller. It is difficult to judge from the remains what the exact details of construction were, but it appears to have been surrounded by a colonnade.

Cos and Alexandria.

There was a close association between Cos and Alexandria, and I confess to the hope that a shrine of Iemhotep, the Egyptian god of medicine, would have been found here (as there is reason to believe it has at Epidaurus), but none has as yet been discovered. Another link, however, connects this altar with Alexandria. Herondas, the Alexandrian poet of the third century B.C., wrote eight "mime-iambics," comic dramatic poems, the scenes of which are all laid at Cos. The action of the fourth of these takes place in front of this altar. Two peasant women desire to offer a cock to Asklepios. During the sacrifice they chat with the pyrophorus or sacristan, who shows much enthusiasm on the subject of fees, and they comment on certain works of art, a sacrificial procession by Apelles, and a figure of a small boy struggling with a goose, which are placed near the altar.

Quantities of terra-cotta lamps and figurines were found round the altar.

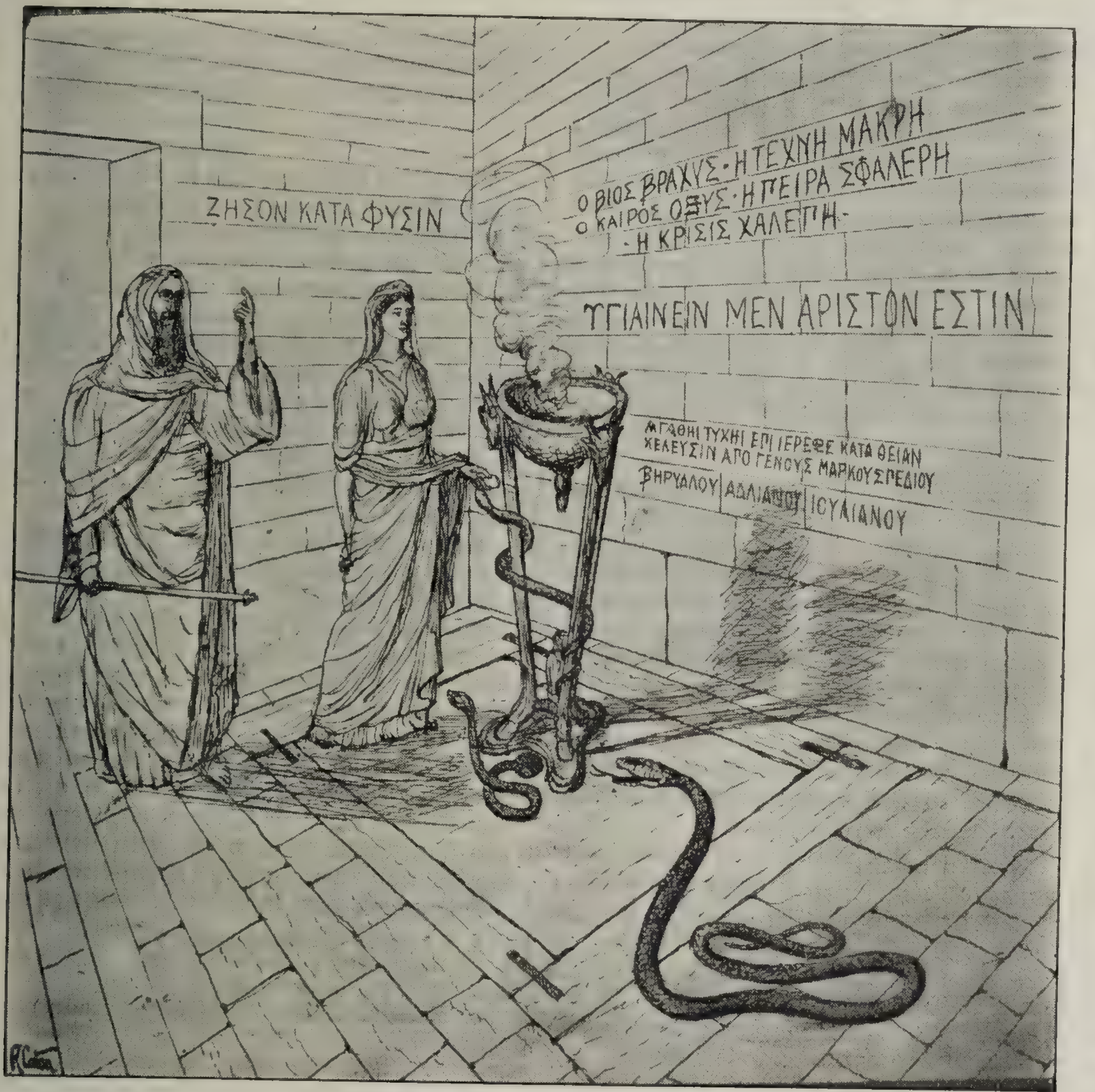

ΖΗΣΟΝ ΚΑΤΑ ΦΥΣΙΝ
Ο ΒΙΟΣ ΒΡΑΧΥΣ· Η ΤΕΧΝΗ ΜΑΚΡΗ
Ο ΚΑΙΡΟΣ ΟΞΥΣ· Η ΠΕΙΡΑ ΣΦΑΛΕΡΗ
· Η ΚΡΙΣΙΣ ΧΑΛΕΠΗ·
ΥΓΙΑΙΝΕΙΝ ΜΕΝ ΑΡΙΣΤΟΝ ΕΣΤΙΝ
ΑΓΑΘΗΙ ΤΥΧΗΙ ΕΠΙ ΙΕΡΕΩΣ ΚΑΤΑ ΘΕΙΑΝ
ΚΕΛΕΥΣΙΝ ΑΠΟ ΓΕΝΟΥΣ ΜΑΡΚΟΥ ΣΠΕΔΙΟΥ
ΒΗΡΥΛΛΟΥ ΑΔΛΙΑΝΟΥ ΙΟΥΛΙΑΝΟΥ

Fig. 3.—Ophision or snake-house.

A Temple of Apollo.

To the west of he altar stands an Ionic prostyle emple, 16 netres in length and 8 metres in breadth. Its dedication is unknown. But here is evidence rom inscriptions that a emple of Apollo ormerly existed ere. Apollo eing one of the reater gods ould naturally ave his temple acing the east, nd this temple the only one n the whole recinct which as this orientation. The worship of Apollo, which it is thought took ace here, was probably superseded by that of Asklepios in ter times. So this may have become the Asklepian shrine ntil the date when the great temple was erected on the pper terrace. It contains one curious feature—a large one cyst or coffer composed of massive marble blocks rms a portion of the floor of the naos; it is about 5 ft. ng by 4 ft. wide, and is about 3 ft. deep. The side blocks re connected by strong metal clamps. The weighty ock forming the lid is pierced in its centre by an aperture me 6 in. broad (Fig. 2). Dr. Herzog thinks it is a hesauros, or treasury. But the difficulty of removing e massive cover—which has no rings or handles for ch a purpose—would almost render it impossible to posit or remove such treasure.

The Sacred Serpents.

It is known that at every Asklepieion the sacred pents were worshipped as the incarnation of the god. ey were tame and harmless, and were free to wander will throughout the precinct. They probably were supplied with a den or hiding place to which they could retire, and it would obviously be convenient if this den were adjacent to the small altar where sacrifices were offered to them, and where they were fed with the sacrificial cakes or "popana" by their votaries. At Epidaurus a curious dark labyrinthine vault was provided beneath the Thymele or sacrificing place. This I believe to have been the Ophision or serpent house, from which the serpents emerged close to the altar when the sick came to sacrifice and to feed them. We know from a reference in the *Plutus* of Aristophanes that the serpents were accustomed to be summoned by the sound of a whistle. A somewhat similar structure on a smaller scale exists at the Athens Asklepieion. There are, however, other theories as to the explanation of these buildings, but none can be said as yet to be proven. To me the above explanation seems the most probable. I think it likely that this temple at Cos, after ceasing to be the special shrine of Asklepios, continued to be the Thymele or sacrificing place for the sacred serpents, and this coffer in the floor was the Ophision or snake house. Above or near it would stand a stone or bronze altar on which the incense and other bloodless sacrifices would be offered. Hither the sick would come, accompanied by a priest, to offer their sacrifice and feed the serpents with popana or sacrificial cakes. The accompanying sketch (Fig. 3) shows the roof of the coffer and what I conceive to have been its use.

Other Buildings.

To the north of this temple stood a building divided into rooms, reconstructed in Roman times, which is thought to have been a house for the priests.

Passing now to the east of the great altar we come to a Doric peripteral temple, the most ancient in the precinct. It measures 16 metres in length by 10 in breadth, has six columns at each end and nine on either side. It faces west. It is known that there were shrines of Hygieia, Aphrodite, Helios, Athena, the Fates, and Hemera in the precinct, perhaps it was dedicated to one of these. To the north of this temple, adjacent to the great flight of steps, a lofty supporting wall was built against the face of the cliff. Between it and the peripteral temple is a large exedra or semicircular seat, where doubtless the convalescents sat to enjoy the glorious view and the sweet sea and mountain breezes. On the east of the peripteral temple there remain a series of irregular foundations, on which stood probably small temples and shelter porches, the latter of which would serve the same purpose as the exedra. No colonnades are found on this second terrace.

Ascending the great flight of steps and passing on the way a large base which may have supported a colossal statue, we reach the highest terrace and find facing us the great temple of Asklepios. This is a newer building, dating from the latter years of the third or beginning of the second century before Christ. It is peripteral Doric, and measures 31 metres by 16. Six columns stand at each end, and eleven on either side. The foundations are chiefly trachite, but the temple and columns were marble. Each column was 1¼ metres in diameter at the base. There remain traces of two groups of statuary. After the fall of the temple, probably in the earthquake of 554 A.D., a Byzantine chapel was constructed in the remains of the pronaos.

INTERIOR OF THE TEMPLE.

Little is known about the interior of the temple. A great figure of Asklepios would stand in the naos, but it is not known what was its material. Some remains of a great marble serpent have been discovered. Great porticos surrounded the temple on the east, south, and west, the whole structure measuring about 108 metres east and west and 70 north and south. It seems probable that the east and west wings of the stoa were abatons or sleeping places for the sick, like those at Epidaurus, the one for male the other for female patients. Here they reposed on their couches for the night (and some also during the day), hoping for illuminating nocturnal visions from the god, for visits from the sacred serpents, and for miraculous healing. Here the evening prayers were recited to the gods, to whom gifts were presented on the tables and altars within the abatons, and all the occupants were encouraged by the priest to hope for succour from Asklepios and Hygieia. The abaton was a lofty colonnade freely open to the mountain breezes, and much resembled the shelter balconies used in our modern sanatoriums. The mere exposure to a pure atmosphere was then, as now, a most potent health giver. It is interesting to note that the idea of incubation close to a temple or church as a means of cure for the sick still exists at Tenos and other of the Greek islands (vide the writings of Dr. Rouse).

The sacred grove of cypresses surrounded the upper and middle terraces.

SPRINGS.

Higher up in the hills were two remarkable springs. One known as the Fountain of Hippocrates may be approached by a short tunnel of Mycenaean architecture, at the end of which is a curious dome-like chamber with seats round its walls and a fountain in the centre. The second is the celebrated "Red Water" or chalybeate spring, no doubt used in cases of anaemia. Convalescents were encouraged to mount the hill and drink from one or other of these springs at its source. It is not yet decided whether any of the numerous lines of earthenware piping discovered near the Asklepieion conveyed these waters down to the various fountains and baths in the precinct.

WORKS OF ART.

Multitudes of works of art existed here in ancient times, but all have been stolen or destroyed. A celebrated statue of Alexander the Great, of bronze, is recorded to have had rather rough hair on the head, in the interstices of which there grew a seedling lily. Many small fragments of statuary of great merit have been discovered, and vast numbers of remains of inscriptions, into the details of which limitation of space prevents my entering. No theatre or stadium existed at the Asklepieion, those adjacent to the town of Cos being employed at the time of the great festivals.

The research thus far has proved extremely interesting, and Dr. Herzog is to be congratulated on his learning and success as an excavator.

HEALTH MEASURES IN BRAZIL.—According to the items of the Brazilian Budget approved by Congress for the year just commenced, Brazil seems to be spending considerable sums of money on sanitary and medical objects. The Ministry of Justice and Home Affairs is authorized to expend 500,000 milreis on the purchase of disinfecting apparatus and barges for use in ports, more especially at Pernambuco, Maranhao, Alagoas, and Parana, but it is not stated whether the Clayton apparatus is to be employed. For the Naval Hospital at Rio the Ministry of Marine is to engage a thoroughly experienced oculist at an annual salary of 6,000 milreis for a period of not less than three years, and 20,000 milreis are allocated for the purchase of the latest surgical instruments for the same institution. A loan is also to be issued for the object of providing Rio de Janeiro with an improved supply of drinking water.

SCHOOL HYGIENE.

STOCKPORT.

DR. MEREDITH YOUNG, M.O.H. for Stockport, has presented to the Education Committee of that county borough a report on a special examination of school children.

It comprises an account of 142 children medically examined by him because they were reported, from the schools and from other sources, as being below the mental standard of other children of corresponding age.

The Education Committee had been anxious for some time to adopt a form of special education for mentally defective children incapable of receiving benefit from the teaching in ordinary schools. In order to ascertain the number of such children, they issued a printed inquiry form to the school teachers, but when these came in they found that physical and mental defects were hopelessly confused; and further, that the various degrees of mental abnormality were most imperfectly distinguished. They therefore asked Dr. Meredith Young to visit the whole of the schools in the town, and examine all the children reported from these schools by the teachers. The results of the medical examination made by Dr. Meredith Young are embodied in the report. All his recommendations were adopted, and a special vote of thanks accorded to him for the work he had done.

CLASSIFICATION.

The chief difficulty lay in the proper classification. We quote from Dr. Meredith Young's report: The dividing line between the various degrees of mental abnormality cannot always be drawn with precision. Overlapping frequently occurs, and "borderland" cases are common. In their ordinary surroundings the brain of children plods along in its usual subnormal style, but when a stranger comes with perhaps unusual questions to propound and with methods of examination which excite their temporary curiosity their brain is momentarily stimulated, and unless careful discount be applied their actions and words may lead to their being wrongly classed in an exalted standard.

The term *idiocy* is used in this country to indicate the lower grades of certifiable mental deficiency, and *imbecility* the higher grades. But more recently a class of children has been isolated who, whilst not being imbecile, far less idiots, exhibit a degree of mental defect which prevents their deriving reasonable benefit from the ordinary school curriculum, and who, therefore, require special modes of instruction. Such children have usually been classed as *feeble-minded*. These, again, are only removed by a narrow dividing line from children who, on account of inherited conditions, poor nutrition, etc., are merely *dull or backward*, and who are probably in a standard or class below that which the average child of the same age has attained. We thus get four stages or shades of mental imperfection:

1. Idiocy. (Lowest grade.)
2. Imbecility.
3. Feeble-mindedness.
4. Mental dullness. (Highest grade.)

OBJECTS AND METHODS OF EXAMINATION.

The examination was complicated slightly by the fact that of the children submitted, some were physically defective only—deaf, short-sighted, deformed, etc.—whilst the remainder exhibited various degrees of mental abnormality. Occasionally both physical and mental defects co-existed, and the problem became that of carefully balancing the two and prescribing treatment accordingly. Hence my first determination had to be the division of the children examined into:

A. Mentally defective;
B. Physically defective only, and dull or backward on account of such defects.

Having done this, the mentally defective had to be most carefully subdivided into:

(*a*) Those capable of being taught in ordinary schools;
(*b*) Those incapable of being taught in ordinary schools, but capable of receiving benefit from instruction in special classes;
(*c*) Those incapable of instruction in either ordinary schools or special classes.

The classification thus arrived at may have to be revised more than once; it may prove that all attempts to regulate the brain processes in a child recommended for instruction in a special class may fail—the pathological condition causing at present only a slight mental abnormality may become intensified and mere feeblemindedness may degenerate into imbecility. On the other hand under a careful trained teacher the reverse process may take place and a well regulated brain or at least a pair of self-supporting hands may result. The classification adopted, therefore, relates to the children at the present time. If special classes be established the children in those classes should be kept under continuous medical supervision with a view to securing that the course of the disease shall be carefully watched *and recorded*, and the lines of instruction and general treatment adapted and varied accordingly from time to time.

The points to which attention was mainly directed during the inquiry were briefly as follows:

1. Teacher's opinion of child's capacity.
2. Regularity of school attendance.
3. Personal appearance, including cleanliness of body and clothing.
4. Eyes and vision: colour perception, etc.
5. Ears and hearing.
6. Nose and throat: existence of tonsillar enlargement, adenoids, etc.
7. Deformities.
8. Special diseases.
9. Speech.
10. Manual acts and power of control.
11. Physique, including physical balance.
12. Character, for example:
    - Habits,
    - Memory,
    - Will power,
    - Response,
    - Discipline.
13. Any special tastes or aptitudes.

I have attached considerable importance to the opinions of the school teachers as to the capacities and capabilities of the children under their charge. I have not always been able to get all the information required either from the teachers or from the child itself, and I have, therefore, made inquiries at the homes of a number of the cases and obtained fuller details as to the child's home-life and family history. This has frequently proved of the utmost value.

As a preliminary classification of the children examined I submit the following:

A.	Mentally defective	56
B.	Epileptic	9
C.	Backward or dull	27
D.	Deaf and dumb	4
E.	Physically defective	42
F.	Too young for classification	4
	Total	142

Group A.—Mentally Defective.

The subdivision of this class has proved the most diffiult part of the work, but it is naturally the core of the hole question, and therefore I have given it special ttention. In subdividing these children I have adopted he subgroups suggested by the Duke of Devonshire's epartmental Committee on Defective and Epileptic hildren, and I find as follows:

(a)	Children capable of instruction in ordinary schools	13
(b)	Children incapable of instruction in ordinary schools, but capable of receiving benefit from instruction in special classes...	39
(c)	Children incapable of either (a) or (b)...	4
	Total	56

bgroup A (a). Defective Children capable of Instruction in Ordinary Schools.

Those children of whom it is here reported that they e capable of instruction in ordinary schools will demand ecial attention in such schools, for it must be borne in ind that they are mentally feeble, though in a less gree than those recommended for teaching in special asses. In most of the schools separate classes—usually rmed Standard O—are at present devoted to this class of ild (though the other mentally-defective children for om special classes are here recommended are now ing taught along with them).

Recommendation.—Nothing more need be said of this oup than that the children should be left in their esent schools and classes and kept under supervision, eir development being carefully watched and *recorded.* I attach great importance to a careful record of all such cases being kept. In the absence of this the progress of the children cannot be traced with any degree of accuracy. A register should be devised containing a number of columns for recording every two or three months, not only the child's educational progress, but also certain physical measurements, particularly head measurements.

Subgroup A (b). Mentally Defective and requiring Special Instruction in Special Classes.

This is the all-important group. There are, in my opinion, 39 children who, though mentally feeble and incapable of satisfactory instruction in ordinary schools, yet would receive benefit from instruction in special classes; of these, 25 are males and 14 females. As those 5 epileptics who require training in a special school should be included along with those children, the total number to be provided for will be 44—namely, 28 males and 16 females.

As was anticipated from previous experiences, a considerable number of the defective children examined showed a very high palate—roof of mouth highly arched. This is a fairly constant sign in such children.

Subgroup A (c). Mentally Defective and Incapable of Instruction in either Ordinary Schools or Special Classes.

This group is indeed a sad one, as the 4 children included in it will probably require lifelong supervision. Some particulars of the cases are appended:

Case 3, aged 12; Standard I. Special senses normal, but brain clearly defective. Girl is perverse and of vicious tendencies; knocks the younger children about and requires very careful watching to prevent her doing mischief to others or coming to harm herself.

Case 56, aged 10¼; Standard 0. Been in this standard for three years. Knows absolutely nothing; cannot add two and two together. Appears to be fond of drawing, but is no good at all at it. Special treatment would be wasted.

Case 91, aged 14; Standard III. A lad of good disposition, but not a case where special training would result in benefit, mainly on account of age. Would probably do well if put on to a farm in the country under a kindly master; would work well under direction.

Case 41, aged 8¼; in infants' class. Is seriously deformed, and can scarcely stand or walk; is wheeled to school in a barrow; also mentally defective.

It is to be feared that nothing your Committee can do will better the lot of these four children. Supervision will be required probably throughout life—either parental or that of some special institution.

Group B.—Epileptic Children.

Reference is next made to the special features of those epileptic children who are capable of deriving benefit from special classes; as an example the following is quoted:

Case 55, aged 10½; Standard I. Extremely slow in picking up things; progresses very little indeed even when at school, which is not a regular thing. Speech very blurred and elementary. Epilepsy has dulled his receptivity and lessened his memory and capacity. Manual work under direction his best hope.

Special Classes.

Dr. Meredith Young next recommends that special classes be established for the 39 mentally deficient and 5 epileptic children mentioned in the report. He says:

"In arranging for these classes it will be necessary to remember that defective-minded children are frequently dirty in their habits and malodorous, so that proper lavatory accommodation and ample cubic space and ventilation must be provided. Under the Elementary Education (Defective and Epileptic Children) Act of 1899, school authorities may obtain *grants from public money* in aid of the education of such children as those named on conditions laid down by the Board of Education."

Group C.—Backward or Dull Children.

There were in addition, 27 children in whom no physical or mental defect could be discovered for backwardness. One case included along with them calls for special remark. This case was that of a lad aged 13, who was only in Standard II, and was a healthy and fairly bright-looking lad; he was said to have no alertness for mental work, and to be very dull in school. Inquiry elicited the fact that he was a half-timer; got up at 4.30 a.m., and took milk out; went to school in morning; worked in a ropery in afternoon, and was supposed to go to bed at 7 o'clock at night, but on account of his age did not care to do this, and often went later. All his energy was used up in his wage-earning work, and there was little left to put into his mental training. This case is a type of special interest, and serves as an example of the old saw, that if a candle is burnt at both ends it will not last long.

Some of these dullards may subsequently drift into the class of mentally-defective children requiring special training.

GROUP D.—DEAF AND DUMB.

The 4 cases in this group all require special treatment.

Recommendation.—All these cases could be made into very useful members of society by special training in a deaf and dumb school, and I certainly recommend this.

GROUP E.—PHYSICALLY DEFECTIVE.

It remains now to be considered what, if anything, can be done to better the chances in life of the *physically defective.* Their defects are as scheduled in the following table:

Amputated limb	1
Hip disease	4
Spinal caries and deformity	6
Myopic (shortsighted)	7
Opacity of lens of eye interfering seriously with sight	2
Knock-knee and talipes	3
Paralysis and paresis	8
Chorea (St. Vitus's dance)	1
Ozaena (disease of nose)	1
Deaf	9
	42

Many of these are, of course, backward by reason of prolonged absence or irregular attendance; others are dull or rather classed as dull, because one or other of the "avenues to the brain" is closed or blocked—for example, the deaf and shortsighted children.

Recommendation.—For the few cases exhibiting spinal disease, special chair desks are a great boon, and your Committee have greatly ameliorated the condition of a child at Banks Lane School recently by supplying him with a special chair. Many of the other cases, such as those of knock-knee, talipes, and ozaena, ought to be placed under medical treatment by their parents.

There remain the eye and ear cases—18 in all. Some of these may have received treatment by now, for I impressed upon the children found suffering from short sight that they must inform their parents that glasses were required. But there are large numbers of other children who are myopic, and who were not submitted to me for examination. In many of these cases the parents *absolutely cannot afford to pay for spectacles.* It is, then, a question for your Committee as to whether you can legally contribute anything towards the cost of spectacles for such children. The deaf children would doubtless be willingly treated at the infirmary. Those who have not themselves suffered from eye or ear defects would scarcely credit what a serious handicap to educational progress such defects involve even though they be only slight in degree.

Recommendation.—There are without doubt scores of other children in the schools of the borough who are defective in sight or hearing, perhaps unknown to their parents or teachers. I recommend that steps be taken to ascertain the number of such children, and that their treatment be subsequently considered by your Committee.

GROUP E.—TOO YOUNG FOR CLASSIFICATION.

In the case of 4 other children, 3 were only about 5 years of age, and were too young to be judged and classified. The fourth was a young girl who had only been one week at the school; nothing was known of her capabilities, and she was too shy and frightened to be properly judged.

Every public elementary school in the town has been visited by me, whether special reports were sent in to the Education Department or not, for it was obviously of little use for your Committee to consider the question with only a portion of the necessary information before you. Subject to the limitations mentioned in this report I believe the information here contained is comprehensive of the whole borough.

CONCLUSIONS.

There appears to be a doubt in the minds of a number of people with whom I have discussed the question of special instruction of defective-minded children as to whether such instruction is really advantageous, and results in material benefit to the children so taught, or whether it is not after all merely wasted. I think this question is one which is sufficiently important to be answered pretty fully.

(1) The education of defective-minded children has been tried on a large scale, not only in this country, but for a greater length of time in France, Germany, Switzerland, Denmark, Sweden, Norway, many of the States of America, etc. The experience of every one of these countries is that children who had been considered hopeless in the ordinary schools have been enabled, owing to the instruction given to them in special schools, to commence and follow out useful careers. This success has been so striking in Germany, which is above everything a practical country, that the number of auxiliary schools or *Hilfschülen* has year by year been extended. (2) In this country it is stated that at the exhibitions of manual work done by children of the London schools, the work done by the defective children quite holds its own in comparison with that done by the normal children. (3) Further, it is stated that after a certain length of time in special classes many defective children can be sent back to the ordinary elementary schools to receive the same routine instruction as normal children. I think it is recognized everywhere now that children with abnormal nervous systems or with only slight mental deficiency have a greater chance of improving when educated in schools along with those of similar mental attainments than they would have if they were trained in competition with children far beyond them in brain capacity, or even placed under the depressing surroundings of an institution for the treatment of idiots or imbeciles. Mentally feeble children do not by any means put their best foot forward when they are either outpaced by brighter and normal intellects, or when they are discouraged by the presence of children of low mental type. They are at their best when working together with other children of a similar mental level. It must never be forgotten that there are classical instances of boys and girls looked upon during the whole of youth as dull and backward, developing into that type which is denominated "genius." The old saying, "once an idiot always an idiot," has now been proved to be an entirely wrong doctrine. (4) Séguin, who is practically speaking the father of all schemes for the advancement of mentally deficient children, writes after thirty years' experience of this special work as follows:

> Idiots have been improved, educated, and even cured; not one in a thousand has been entirely refractory to treatment; not one in a hundred who has not been made more happy and healthy. More than 30 per cent. have been taught to conform to moral and social law and rendered capable of order, of good feeling, and of working like the third of a man; more than 40 per cent. have become capable of the ordinary transactions of life under friendly control, of understanding moral and social abstractions, of working like two-thirds of a man; and 25 to 30 per cent. have come nearer and nearer the standard of manhood, till some of them will defy the scrutiny of good judges when compared with ordinary young men and women.

(5) The statistics of the Royal Albert Asylum, Lancaster, with regard to the after-career of youthful *idiots and imbeciles* discharged on the completion of seven years' training shows as follows: 10 per cent. earning wages; 5 per cent. remuneratively employed at home; 3.5 per cent. capable of earning wages if suitable situations could be found; 22 per cent. useful to their friends at home; 22 per cent. of little or no use; 29 per cent. finished up in workhouses and lunatic asylums; the remaining 8.5 per cent. had died.

The American experience is that from 20 to 30 per cent. of the pupils trained in institutions for the feeble-minded are discharged as absolutely self-supporting—that is, they can go out into the community, secure and retain a situation, and spend their earnings prudently. Over 50 per cent. of the higher-grade adults who had been trained for a considerable time are capable, under intelligent supervision, of doing a sufficient amount of work to pay for the actual cost of their support, whether in an institution or at home.

From my own inquiries made at the Darenth School of

Sandle Bridge Time Table.

Morning.

Day.	9.30—9.55.	9.55—10.20.	10.20—10.45.	10.45—11.0.	11.0—11.25.	11.25—11.45.	11.45—12.0.
Monday	Registers, prayer, Scripture	Reading, articulation, word-building	Free drawing	Recreation	O. Arithmetic Y. Number	Nature Lesson	Marching.
Tuesday	Registers, prayer, Scripture	O. Arithmetic Y. Number	Writing	Recreation	Reading, articulation, word-building	Conversation on Natural History	Physical exercises.
Wednesday ...	Registers, prayer, Scripture	Reading, articulation, word-building	Writing	Recreation	Shop lesson or number	Free drawing	Ball game.
hursday... ...	Registers, prayer, Scripture	O. Arithmetic Y.	Writing	Recreation	O. Spelling Y. Word-building	Physical exercises	Singing and repetition.
riday	Registers, prayer, Scripture	O. Dictation Y.	O. Arithmetic Y.	—	O. Basket weaving, rug-work Y. Paper-folding	O. Reading Y. Articulation, word-building	Marching.

O.—Older Class. Y.—Younger Class.

Afternoon.

Day.	1.55—2.0.	2.0—2.45.	2.45—3.0.	3.0—3.30.	3.30.
onday	Registers	O. Folding clothes O. Stocking darning O. and Y. Needlework	O. Folding clothes Recitation and Nature talk	O. Rug-work Y. Clay modelling	Dismissal
esday	,,	O. Folding clothes O. Stocking darning O. and Y. Needlework.	O. Folding clothes O. Gardening O. and Y. Singing	O. Gardening O. Manual occupation (varied) Y. Clay-modelling	,,
ednesday ...	,,	O. Rug-work Y. Cube-building	O. Gardening Y. Singing and recitation	O. Gardening Y. Drawing	,,
ursday	,,	O. Drawing Y. Drawing (patterns)	O. Cleaning spoons O. O. Rug-work Y. Recitation	O. Cleaning spoons O. O. Rug-work Y. Clay-modelling	,,
day	,,	(2.30) Needlework Recitation	O. Cleaning school O. and Y. Stories on natural history	O. Y. Mat-weaving	,,

O.—Older Class. Y.—Younger Class. The Boys receive Manual Instruction in Wood-work on Saturday afternoons.

Metropolitan Asylums Board, where about 2,000 sons of weak intellect of all degrees are under training, n my visit to the school for mentally-deficient children Manchester (Embden Street), the Sandle Bridge School similar children (Alderley Edge), etc., I am able to e positively that a considerable number of mentally cient children can be, if not altogether cured brought up nearly to the level of the average d, at any rate can be taught cleanly and nt habits, can be taught to look after their dress, feeding, proper behaviour, etc., and can be taught how to steer themselves through life out being made into a laughing stock, or without ntage being taken of them either commercially, ally, or in any other way. These things, little as they sound, are, however, very considerable attainments, if only these could be secured by special training. the money spent upon it will not by a long way be ed. In the absence of special training there can be no tion but that these mentally-feeble children will drift wrong of all descriptions, and will eventually end er in the workhouse, the lunatic asylum, or the gaol.

Appendix.

a guide to the Committee as to the kind of work h is done in special schools of the character alluded this report, Dr. Meredith Young appends to his report the time-table adopted at the Sandle Bridge Schools, Alderley Edge, supplied to him by Mrs. Burgess, the lady superintendent of the schools.

Surgical Operations in the Italian Military Hospitals during 1904.—In the *Giornale Medico del Reale Esercito* G. Randone tabulates the 2,008 surgical operations performed during 1904 upon the *personnel* of the Italian army. The great majority were major operations; half of them were done in Rome, Turin, Naples, Palermo, Milan, Alexandria, or Verona. The radical cures for hernia numbered 558; of these, 531 healed by first intention, 22 by second; 1 patient died under and in consequence of chloroformization. There were 525 cases of inguinal hernia, and Bassini's operation was performed almost exclusively; only 4 were cases of congenital hernia. Hernia recurs in probably less than 4 per cent. of the cases treated. For varicocele, 365 operations were done, with uniformly good immediate result; 93 were treated by the new method of Carta, wherein part of the enlarged venous plexus is excised, and the shortened cremaster is sutured to the external inguinal ring, thus suspending the testis; 327 operations were performed upon lymphatic glands, 162 upon the urino-genital system, and tumours were removed in 116 cases. A single pericardiotomy was performed, and the heart and chest wall were found to be closely adherent in front; *post mortem* a large posterior sero-sanguineous pericardial effusion was found, with dilated heart and a sero-fibrinous pleural effusion.

VOLUNTEER MEDICAL ORGANIZATION.

[From a Correspondent.]

The article in the British Medical Journal of March 3rd, p. 511, on the organization, or want of organization, of the medical service of the volunteers must interest all those who have made any study of the medical needs of the regular army or auxiliary forces.

The Brigading of the Volunteers.

In the Memorandum of the Secretary of State relating to the Army Estimates for 1906-7, Mr. Haldane states that the Estimates provide for the staff necessary for brigading the whole of the volunteer infantry under brigadiers, who will be responsible throughout the year for the training and inspection of their battalions. I have gone through the *Army List* for February, and find that the auxiliary forces comprise 363 units with 852 medical officers. Allotting one medical officer to each of these units for war, we get an apparent surplus of 489 medical officers.

	M.O.'s
56 Regiments of Imperial Yeomanry	66
68 Companies of R.A. Volunteers	169
32 Companies of R.E. Volunteers	61
227 Battalions (including 7 cadets) of Infantry ...	556
363 units.	852
Allot, for war, 1 to each of the above units ...	363
	489

Of these 489 medical officers a certain number are also shown in the bearer companies of the R.A.M.C. (Vols.) and in volunteer infantry brigade bearer companies, as well as some S.M.O.'s of brigades.

Medical Establishment of Volunteer Brigades.

It must be borne in mind that 19 brigades of volunteers will form a field army for home defence. The unit of a field army is the division. Each division requires a P.M.O. and a sanitary officer. To meet this necessity for a "staff" senior officers of the volunteers who are prepared to accept the responsibility should be ear-marked. At present each brigade has a S.M.O. allotted. The regulars do not do this, as the officer in command of the Brigade Field Ambulance is S.M.O. If the volunteers follow this system we might, for purposes of numbering, call one of the two brigade S.M.O.'s a P.M.O., the other Sanitary Officer. The Sanitary Officer is in the regulars a good deal junior to the P.M.O., and probably has other duties besides sanitation to attend to.

Do the volunteers propose to form field ambulances in place of bearer companies? A field ambulance has nine M.O.'s, besides a quartermaster. My personal view is that this unit has too many M.O.'s. It is also in other respects not perfect, certainly not so for our small wars, but it is not possible to discuss this point here. The bearer company has three. The Field Army must have field ambulances, and the garrison troops would be better served by field ambulances than by bearer companies.

Three infantry divisions go to form, with corps troops, an army corps. The army corps, of which the 19 brigades would furnish 6, would each require a P.M.O. and a sanitary officer.

Besides the field army there are the garrisons, where presumably the remainder of the volunteers would be employed, and where perhaps the P.M.O.'s (though not all I should think) would be regulars.

The above, broadly, are the requirements of the volunteers for their fighting organization; summarized, they are:

1. Field ambulances, both infantry and cavalry (to supply the yeomanry), sufficient for the field army. Ultimately there should be sufficient field ambulances to furnish one to each brigade.
2. Ambulances will be required by the garrisons for the service from camp to hospital, provided either by bearer companies, or field ambulances, the latter for choice.
3. P.M.O.'s for divisions and army corps, and also to some extent for garrisons.
4. To keep in touch with the officer administering the volunteer forces, in order that changes in and requirements for war organization may be met.

The above requirements should be met by increasing the R.A.M.C.(Vols.), and forming field medical units from them. Limit the M.O.'s of battalions to one. Of the remainder form a R.A.M.C.(Vols.), organized in such a way that in the event of the local regimental M.O. being unable to go out with his battalion, the local S.M.O. will make necessary arrangements.

An Army Medical Reserve.

When the volunteers are able to satisfy the above requirements with certainty, it may be possible to invite applications for an Army Medical Reserve. But about such a reserve there must be no ambiguity; the member must no longer be a volunteer committed to home service only, he must guarantee to fall into line with the regular army anywhere at any time, and the volunteer administration must strike him off its effective roll, being prepared to do without him. The regular army should be able to regard him as a certain standby.

After all, medical officers of volunteers are men who have settled in practice; they undertake to come out in case of national emergency, and some came out during the last war. They are valuable when they do come; but what I maintain is, that by joining the regulars they (in a big war) ruin the efficiency of the volunteer medical organization. And this efficiency I regard as of national importance, in view of the fact that we have no army recruited as are the Continental national armies, whose place the volunteers fill.

A seniority roll of all medical officers of the volunteers would be valuable, and its preparation is to my mind an essential preliminary to any effective reorganization. As an appendix a description of the existing volunteer army organizations should be given, with a statement showing the war requirements of the auxiliary forces, and how these war requirements are exceeded in the regiments, and are deficient in the medical field units and in the staff administration.

There is a considerable body of the profession composed of young men who are not settled: they are roving the country, the Colonies, the sea, in fact the world. This is the class from which to form an Army Medical Reserve.

They should cease to belong to the reserve as soon as they have thoroughly settled down. They would then, if they joined the volunteers, be no mean acquisition to the national army. But so long as they are rovers they are valuable to the regular army, having no ties to retain them at home when their inclinations would lead them to foreign wars.

THE PLAGUE.

Prevalence of the Disease.

India.

During the weeks ended January 27th, February 3rd and 10th the deaths from plague in India numbered 3,747, 5,042 an 5,890 respectively. The mortality in the principal centres wa as follows: Bombay Presidency, 707, 788, and 817; Bengal 896 1,216 and 1,080; United Provinces 958, 582, and 1,549; th Punjab 381, 582, and 705; and Burma 136, 116, and 155. Durin the weeks ended February 3rd and 10th, the deaths from plagu in the following centres were: Kashmir, 42 and 25; Rajputana 15 and 10; Hyderabad, 57 and 49; Madras Presidency, 51 an 41; and Mysore, 84 and 91. There were no plague seizures i the North-west Frontier Province and Baluchistan during th weeks in question.

Plague Inoculations.—During the month ended Januar 31st, 2,720 inoculations were performed in Bombay City an Districts.

South Africa.

During the weeks ended February 3rd and 10tb, no cases plague were reported in any town or district of South Afric No animals were found to be plague-infected.

Mauritius.

During the weeks ended February 8th, 15th, 22nd, an March 1st, the fresh cases of plague numbered 1, 1, 0, and 0, an the deaths from the disease 1, 1, 0, and 0 respectively. No fres case since February 11th. Weekly bulletins were discontinue for the present.

Hong Kong.

During the weeks ended February 3rd, 10th, 17th, and 24t the fresh cases of plague numbered 2, 6, 5, and 12, and t deaths from the disease, 2, 6, 4 and 12 respectively.

The late Mrs. Marian Behrend of Montague Squar widow of the late Dr. Behrend, President of the Jew Hospital and Orphan Asylum, bequeathed £100 each St. George's Hospital and the Hospital for Sick Childre Great Ormond Street.

MEDICAL NEWS.

The annual general meeting of the Medical Graduates' College and Polyclinic will be held at 22, Chenies Street, W.C., on Friday, March 23rd, when the chair will be taken by the Chairman of the Council, Dr. C. Theodore Williams, at 5 p.m.

The throwing open to inspection by the public, on payment, of the new armoured cruiser, *Black Prince*, resulted in a sum of £1,100 being realized for the benefit of the Seamen's Hospital Society and the Poplar and West Ham Hospitals.

At the meeting of the Pharmaceutical Society at 17, Bloomsbury Square, W.C., on Tuesday next, Messrs. E. H. Farr and Robert Wright will read a paper on extract of stramonium, and some recent additions to the museum will be described by Mr. E. M. Holmes, Curator.

The King has given His Royal licence to Dr. A. D. Mackinnon, C.M.G., late Medical Officer to the Zanzibar Government, to accept and wear the Insignia of the Second Class of the Brilliant Star of Zanzibar, conferred upon him by His Highness the Sultan of Zanzibar in recognition of valuable services rendered by him to his Highness.

An additional dental surgeon, to devote his whole time o military duty, at a salary of £365 per annum and traveling expenses, is required for duty with troops in the nited Kingdom. Particulars can be obtained on applica- ion to the Secretary of the Army Council, 68, Victoria treet, S.W., not later than March 21st.

At the annual festival dinner of the Irish Medical chools' and Graduates' Association on Saturday next, t. Patrick's Day, at 7.30 p.m., the guest of the evening ill be General Sir John French, K.C.M.G., K.C.B. The inner will be held in the Grand Hall of the Hotel Cecil, nd members should make their applications for tickets the Honorary Secretary, Dr. E. Canny Ryall, 85, Harley treet, W.

An International Congress of Laryngology.—The aryngological Society of Vienna is taking the initiative in ranging for an international congress of laryngology and inology to be held at Vienna in Easter week (April 21st to th), 1908. That date has been chosen because, although e laryngoscope was discovered by Manuel Garcia in 1855, e beginning of its application to scientific medicine is ld to date from 1858, when in the hands of Türck and zermak the "physiological toy" became an instrument of actical usefulness in the diagnosis and treatment of seases of the upper air passages. The President of the ganizing Committee is Professor Chiari, the Secretary ofessor M. Grossmann (IX, Garnisongasse 10, Wien), to om all communications relative to the Congress should addressed.

Cremation.—At Leicester, to judge from some figures owing the work of the Corporation Crematorium recently blished in the *Leicester Post*, cremation is making steady ogress. Beginning with 2 in 1902, the number slowly in- ased to 5 in 1903, and 8 in 1904. In 1905 it sprang to 16, d in the present year so far there have been 3 crema- ns. It is considered worth recording as an indication of growing popularity of cremation that the body of a rking man was burnt on February 12th. Hitherto, it is ted, the use of the borough crematorium has been nost confined to the upper classes, and the case just ntioned is the first in which the remains of a member the working classes have been disposed of in that way. mation is to form the subject of discussion at a sessional eting of the Royal Sanitary Institute to be held in the cester Town Hall on March 24th; the debate will be ned by Dr. C. Killick Millard, Medical Officer of Health the Borough. A new crematorium was opened at dford in 1903. The City Fathers have issued a hand- k of information giving the fullest instructions as to arrangements can be made for cremation. The illus- ions show that the crematorium has been designed not y with fine artistic taste but with tender regard for gious sentiment. As to the chapel with its catafalque columbaria, one might almost adapt the words of lley about the grave of Keats, that they are enough to e one in love with death to think that one's ashes ld be kept in so sweet a place.

Edical Sickness and Accident Society.—The usual nthly meeting of the Executive Committee of the lical Sickness, Annuity, and Life Assurance Society held at 429, Strand, London, W.C., on February 23rd. chair was taken by Dr. de Havilland Hall. The unts presented showed that the sickness experience of the society during the winter has been exceptionallly good. For many years past the amount of sickness pay disbursed by the society in December, January, and February has been very much in excess of the average expected during the whole year, whilst the low rate of sickness experienced during the summer months has more than balanced this extra payment. But in December last the amount of sickness pay disbursed was appreciably under the expectation, and the first two months of this year also leave a margin in favour of the society. The mild weather experienced during the winter is probably the cause. During 1905 the number of new members was greater than in any previous year of the society's working, and, so far, the number who have joined this year shows little or no falling off. In the course of the current year a considerable number of members will reach the limiting age of 65 years. In each of these cases the society will pay a cash bonus, usually £42, and this method of distributing the surplus, resolved upon at the annual general meeting of 1904, seems to give great satisfaction. Prospectuses and all other particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

Bequests to Hospitals.—The residuary estate of the late Mr. William Buckwell of Deptford, amounting to about £30,000, has become vested in his executors, Mr. H. G. Pitt and Dr. C. T. Brookhouse, for division among hospitals and almshouses as they think fit. One-half of the residuary estate will go the following hospitals: £5,000 to the Miller Hospital, £1,000 to Guy's Hospital, £500 each to Seamen's Hospital, Greenwich, Cancer Hospital, Central London Ophthalmic Hospital, National Hospital for Diseases of the Heart, National Hospital for the Paralysed and Epileptic, London Hospital, West London Hospital, Brompton Hospital for Diseases of the Chest, and the Billingsgate Mission Hospital; £250 each to the East London Hospital for Children, Evelina Hospital for Children, Hospital for Children, Great Ormond Street; North-Eastern Hospital for Children, Metropolitan Hospital, St. Peter's Hospital, British Home and Hospital for Incurables, Cheyne Hospital for Sick and Incurable Children, Hospital for Diseases of the Throat, Royal Hospital for Diseases of the Chest, Great Northern Central Hospital, and St. John's Hospital, and £200 to the Poplar Hospital for Accidents. The balance is to be divided equally among the West London Hospital, Guy's Hospital, National Orthopaedic Hospital, Charing Cross Hospital, Seamen's Hospital, and the Miller Hospital.—Under the will of the late Mrs. E. M. Pike, the Derbyshire Infirmary and the Derbyshire Children's Hospital each receive £1,000.—The Westminster Hospital receives £500 and the Princess Alice Hospital at Eastbourne £250 under the will of the late Mr. Edgar Horne, of Witley.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

A most instructive field-night was held on March 3rd, by the London Companies of the Royal Army Medical Corps (Volunteers) at Wimbledon, in conjunction with a detachment of the Electrical Engineers. The rendezvous was at Southfields station at 6 p.m., the Companies marching up the hill to the Common. Ambulance wagons had previously driven down from London.

The supposed battle-field was found on arrival, brilliantly illuminated by a powerful searchlight, worked by some of the Engineers, who had marched down beforehand. A receiving station and operating tent were speedily erected by a Squad of the R.A.M.C.(Vols.) and then a search for "wounded" in and about the neighbouring woods commenced; one man in each Stretcher Squad being provided with a bull's-eye lantern.

Not the least interesting item in the programme was the presence of two of Major Richardson's ambulance dogs trained to hunt out wounded soldiers in the manner already described in our columns and used with success by Russia during the late war. Each dog is provided with a double pannier, containing restoratives. Five "wounded" were discovered by the dogs on Saturday, having been overlooked by the search parties.

The field operations were directed by the Commanding Officer, Colonel Valentine Matthews, the second in command, Major Harper, and the adjutant, Captain Langford-Lloyd, D.S.O. When all the "wounded" men had been brought into the receiving station, or operating tent, the manœuvres were brought to a conclusion, and hot refreshments were served out from a field-kitchen, which had been erected in the near vicinity by men of the R.A.M.C.(Vols.). All details were carried out as in actual warfare, and the proceedings terminated with a march back to the station at about 10 p.m. The head quarters of the London Companies of the R.A.M.C.(Vols.) are at 51, Calthorpe Street, Gray's Inn Road, where recruits are always sure of a hearty welcome.

British Medical Journal.

SATURDAY, MARCH 10th, 1906.

MENTALLY-DEFECTIVE CHILDREN.

The appointment of a Royal Commission on the Care and Control of the Feeble-minded has given a fresh impetus to this line of inquiry; but it should not be forgotten that the British Medical Association, in co-operation with the Charity Organization Society, was early in the field to promote the scientific investigation of the mental and physical condition of the children in our public elementary and other schools, having, after the annual meeting at Glasgow in 1888, made a substantial annual grant to the Committee formed to undertake the practical work, amongst the members of which were Drs. Fletcher Beach, Bridgwater, Holman, Langdon-Down, Savage, Shuttleworth, and Warner.

From a report of their labours, issued by the Childhood Society in 1895, we learn that altogether 100,000 children were seen in schools, chiefly by Dr. Francis Warner and in the metropolitan area, and of 18,127 picked out as requiring individual examination, defects of development were noted in 9,777 cases; abnormal nerve signs in 10,355, and low nutrition in 3,522; whilst 7,391 children were set down (for the most part on the report of their teachers) as mentally dull. In numerous cases these defects were coincident, and the general result arrived at was that, of the 100,000 children passed under review, a percentage of 1.261 required some sort of special instruction apart from the ordinary curriculum, this percentage including not only the mentally defective, but cripples, epileptics, and a few idiots and imbeciles. The Departmental Committee appointed in 1896 to advise the Education Department at Whitehall came to the conclusion from the above and other evidence that the proportion of feeble-minded children in the elementary schools in England and Wales might be estimated approximately at 1 per cent.

We trust that the medical investigations now being made under the auspices of the Royal Commission in various selected districts will lay the foundation of a more exact knowledge than we have hitherto possessed of the prevalence of mental defect in childhood in different portions of the country and under the diverse conditions of urban and rural life. The investigation by Dr. W. A. Potts, of Birmingham, in the district of the Stoke-on-Trent Union, comprising the principal seats of the pottery industry,[1] is interesting as giving rise to the hope that the percentage of defectives may not prove so large in the smaller towns and rural districts as in the greater and more densely populated cities. The Pottery towns enjoy a high standard of health, and are favourably placed as regards atmospheric influences. Some slums indeed there seem to be, but comparatively few victims of rickets and malnutrition; and generally speaking, the physique and mental capacity of the school children are good. Still, out of 31,092 children, seen in 55 schools, Dr. Potts reports 185 as mentally defective, or 0.59 per cent. In the Hanley schools he notes a percentage of only 0.42, but this low proportion is attributable in part to the fact that in this town there is a school medical officer who excludes the worst cases. We gather from this that Dr. Potts's percentage would be higher did it include the whole of the children of elementary school age. The facts emphasize the importance of the systematic medical inspection of all elementary schools, of the instruction of teachers in hygiene and of the classification of defective children by medical officers, so that the expense of special instruction shall not be incurred in the case of those incapable of benefiting by it. So far as we are aware special schools have not yet been provided in the Potteries for the more promising defectives, whilst for the lower-grade cases there is little provision other than in workhouses.

The Royal Commission has, we understand, appointed some dozen medical investigators to carry out local inquiries (similar to those of Dr. Potts) in various detached districts; but, as the "personal factor" must be reckoned with, we would suggest that there will be need of co-ordination such as could best be rendered by an expert in mental deficiency who has had considerable experience in this kind of professional work.

In this week's issue (p. 574) is printed the substance of a valuable report by Dr. Meredith Young, Medical Officer of Health for Stockport, upon the special medical examination of 142 school children who had been reported by their teachers as being below the mental standard of other children of corresponding age. He found that 56 of them were mentally defective in greater or less degree. He recommends that 39 of them should be provided with special instruction in special classes, to which 5 of the 9 epileptics might also be sent; 13 he thinks might continue to attend ordinary schools provided that special attention could be bestowed upon them. We do not know the size of Standard O. classes in the Stockport schools, but, unless it is much smaller than those we have seen in some London schools, where one unfortunate teacher has to struggle with fifty or sixty dullards, we fear the result would be unsatisfactory. If separate classes containing not more than twenty pupils could be organized, as in certain Scandinavian schools, perhaps the careful observation and recording of progress on which Dr. Young rightly insists might be practicable. The 4 cases reported as incapable of benefiting by instruction even in special classes are described in detail and appear to be only suitable for a resident institution for imbeciles. The expenditure of education funds in hopeless attempts to educate children proved to be incapable of benefiting even by special instruction is to be deprecated, but some of these unfortunates might usefully receive simple instruction in a resident institution under proper supervision, if sent sufficiently early for training. Forty-two children are reported as physically defective, and though some of these are backward by reason of long absence from school, or irregular attendance, as a rule they call for instruction, and if possible manual training, apart from the mentally defective. The question of spectacles to be provided for myopics is surely one not to be lost sight of in these days when the feeding of school children as a public duty is under discussion.

School hygiene is now becoming an important subject for the medical profession, and we trust it will take its place in post-graduate courses, in view of the medical inspection of schools which will probably before long become general. Important sociological questions are raised by the investigation of this subject—such as the influence of poor nutrition in producing dullards in the Stockport schools and of out-of-school work in producing incapacity for education.

---

[1] British Medical Journal, March 3rd, p. 581.

OUT-PATIENT REFORM IN LONDON.

No more disappointing report on this subject has reached us in recent years than that of the Committee of Distribution of the Metropolitan Hospital Sunday Fund printed in the SUPPLEMENT for this week, p. 93. Starting with a unanimous expression of opinion by the Committee to the effect that "the serious increase in the number of out-patients, many of whom "have trivial complaints, is detrimental to the welfare "of the hospitals and patients, inasmuch as they are a "burden to the funds of the hospitals, and prevent the "hospital staffs from giving the necessary attention to "serious cases," the report goes on to relate that a copy of this resolution was sent to eighty hospitals having out-patient departments, asking if they could suggest any remedy. The replies to this circular letter have been received and tabulated in the most orthodox red-ape fashion, but apparently no suggestion of any value has been received, or at all events none which the Committee thought worthy of mention in their report.

It is stated, however, that on December 14th a deputation was received from the East London Medical Society, which suggested that after the first visit patients should ot be allowed to attend a second time without a cerficate from a medical man in the neighbourhood that he case was a proper one for treatment at a hospital. he Committee do not accept the suggestion, but assign o reason for rejecting it. As an alternative, they xpress the opinion, if we understand rightly the meaning of a rather involved sentence, that cases the eatment of which at a hospital would involve abuse hould be referred to a private practitioner or to a self-upporting dispensary. They go on to state their view at such dispensaries should be affiliated to the nearer neral hospitals, and should be attended not by a few edical men in the district, but by the whole of the neral practitioners in the immediate neighbourhood. he further suggestion by the Committee that casualty atients, after receiving first aid at a hospital, should be ferred to the superintendents of district nursing sociations employing fully-trained hospital nurses, whom it is said there are about 300 at work roughout the metropolitan area under the direction local medical men, does not appear to us to be acticable in its present form. Finally, the Committee rives at the extraordinary conclusion, which seems to inconsistent with the resolution quoted above, that ere is not any serious abuse of the out-patient partment in general hospitals; they add that they ve considered it advisable to confine the investigans to general hospitals only, leaving out of account special hospitals.

With this limitation, even without taking into nsideration the other respects in which the report is ective, it cannot be regarded as a valuable contribun to the solution of a question which is engaging the ention of the Hospitals Committee of the British edical Association in conference with representatives many of the principal hospitals throughout the country. erwhelming evidence of the erroneousness of the ws expressed in this report of the Metropolitan Hosal Fund has been produced, and the Council of the nd may be assured that it will be received with deep satisfaction by the medical profession generally.

t has been shown quite recently that one great source hospital abuse is the scattering of thousands and tens of thousands of letters of recommendation by the Hospital Sunday and Saturday Funds, and it is worse than useless for the authorities of those funds to pretend to shut their eyes to the evils of a system which is detrimental alike to the interests of hospitals and patients, as well as to those of the medical profession.

THE ROYAL COLLEGE OF SCIENCE.

THE scheme propounded by the Departmental Committee of the Royal College of Science, South Kensington, would appear to involve the abolition of the present Royal College of Science, and the creation, to take over part of its work, of an institute to provide training for students in the practical application of the sciences of mechanics, electricity, chemistry, and some of the studies relating to the profession of the mining engineer. The scheme has been warmly taken up by the newly-constituted British Science Guild, and its honorary secretary announces that the Government is prepared to provide a yearly grant of about £25,000, that the London County Council is expected to vote an approximately equivalent sum, that the new mining and metallurgical laboratories are to be the central object of a national memorial to the late Sir Henry Bessemer, and that there is in addition the gift of £100,000 made some time ago by Messrs. Wernher, Beit, and Co. The scheme, it will be noted, entirely ignores the fact that the Royal College of Science has hitherto provided opportunities for teaching and research in zoology, botany, and geology. The Departmental Committee coolly remarks that, "In view of the "character of the subjects which will, it may be "expected, predominate on the South Kensington side, "it must, we think, before long become a question "whether the Biological Department of the Royal "College of Science shall be retained there. As soon as "this question becomes ripe for settlement the pro-"vision to be made for that department will be a matter "for negotiation."

Professor Ray Lankester has addressed a letter to the President of the Royal Society, as a member of its Council and Chairman of its Committee on Tropical Diseases, calling attention to this fresh attempt to shunt biological study and research, which are of not less but greater importance to the welfare of the empire than those which the Government and the London County Council are reported to be ready so liberally to endow. Further, as he says: "When it is remembered "that the studies related to engineering, mining, and "metallurgy are from the fact of that relation also "related to the acquirement of great wealth by indi-"viduals, it may seem less necessary to make provision "from public funds for those studies than for others, "of no less practical importance to commerce, manu-"facture, and the well-being of the community, which "are not associated with great pecuniary profits to "capitalists who avail themselves of State-provided "knowledge."

As Professor Lankester observes, economic entomology, the bacteriology of diseases of men as well as of animals, and the special study of parasites of all kinds, had but limited importance in a sea-girt area, such as that of the British Isles, so long as its isolation was maintained; but the circumstances are now entirely different. "It is," he adds, "a common mistake to suppose that "these studies are the business of medical men. It is "never sufficiently recognized that the profession of "medicine is a definite practical occupation, and that "its members have no more time or opportunity than "any one else for making discoveries as to new diseases “and exotic parasites. Such inquiries are not possible for practitioners of medicine, and they cannot be carried on in the hospitals, which provide for the care of the sick, nor in the medical schools, which have as their sole business the training of future practitioners. Hence the investigation of exotic diseases of plants, animals, and of mankind, and of many other similar subjects, is almost totally devoid of pecuniary support, and is, as a result, almost totally neglected in this country.”

Professor Lankester's protest is timely, and we trust that the influence of the Royal Society may be used to ensure that if the buildings and the apparatus, and the moneys now at the disposal of the Royal College of Science, are handed over to the engineers and mine owners, the immensely important interests represented by the other departments of the Royal College will receive equally liberal treatment, if possible under the direction of the University of London.

◆

WARNING NOTICES.

The appointment at Blaenavon, Monmouth, against which our readers are warned in the advertisement on page 59, presents certain features which distinguish it from those to which we have already referred in this column. The latter are cases in which the profession is resisting attempted extensions of the various methods of exploitation of its members by insurance companies, friendly societies, and professedly charitable institutions which are already familiar and operative elsewhere. At Blaenavon, however, the local practitioners are faced with a new encroachment on their liberties, a new curtailment of their opportunities of earning a living by the independent and legitimate practice of their profession. This is the establishment of what is called the “Blaenavon Tradespeople's Doctor's Fund.” The scheme appears to have been inaugurated by the local branch of the Licensed Victuallers' Association, and at a meeting of the tradespeople held at the Crown Hotel, on December 4th, 1905, a deputation was appointed to wait on the two local practitioners in the town and offer the appointment first to the one, and if refused by him to the other. This offer was refused by both our correspondents, partly, we understand, on the ground of the canvassing which appeared inevitable in working such a scheme. At a meeting of the Eastern Valleys Medical Association, held before the proposal took definite shape, a resolution had been passed and signed by all the members, by which they pledged themselves not to accept an appointment of so unprofessional a character. This attitude was confirmed by the Monmouthshire Division of the British Medical Association, and when the new society advertised in the local press for a medical man to act as surgeon a counter-advertisement was inserted by the Secretary of that Division, requesting intending applicants to communicate with him or with the Medical Secretary of the Association. From a letter written by the Secretary of the Blaenavon Tradespeople's Doctor's Fund on December 29th last we learn that the result of this action was to prevent the society for a time from obtaining the services of a doctor, but we regret to say that since that time a medical man has been discovered willing to accept the conditions offered by the Committee. The information supplied to us makes it quite clear that this “Tradespeople's Doctor's Fund” includes all the most objectionable features of this kind of practice. In the first place it has been initiated, not in the interests of any section of the working class, for whom some form of co-operative payment for medical attendance is admittedly a necessity, but simply in order to provide medical attendance at a cheaper rate to the comparatively well-to-do, who are able to pay their private attendants the ordinary fees for professional services, and have done so down to the present. That it is simply an organized attempt at sweating the profession is proved by the fact that, while 180 signatures have been obtained by the promoters, the initial salary for attendance on these people and the families of such as have any is not to exceed £200 a year. Out of this the medical officer will have to provide all drugs, etc., and meet all the other expenses incurred in carrying on the practice; and even for this pittance he is offered no security whatever. Moreover, the management of the concern is vested in a lay committee of tradesmen, of which the medical man is an *ex-officio* member, but to which he would have to submit any complaint he might have as to the conduct of his patients, and to whose jurisdiction he is subject in the event of complaints being made by the subscribers against himself. It is further alleged that some, at any rate, of the 180 signatures were obtained on the strength of assurances to the effect that one or other of the medical men already resident in the town would accept the appointment—an unauthorized and unwarrantable assertion, which was immediately disproved by the refusal of both the gentlemen who were approached. In any case it is difficult to see how signatures could have been obtained, or how the business is to be extended or even carried on without canvassing. This, however, is a matter on which we prefer to make no further comment at present, as it is a serious question, which may have to be settled elsewhere. The other places included in the warning notice are Northumberland and Durham, Leigh (Lancs.) Infirmary, Coventry, Macclesfield, Aberaman, Bridgend and Cardiff in Glamorganshire, Abertysswg and Ebbw Vale in Monmouthshire, Aberystwyth, Southampton, Bitterne and the neighbourhood, Portsmouth, Lowestoft, Cork, Auckland (New Zealand), the Orange River Colony (South Africa), and Pretoria (Transvaal).

THE HOUSE OF COMMONS AND ITS PROCEDURE.

Every new member of Parliament is surprised, when he begins his attendance at Westminster, at the antiquated and dilatory methods of the House of Commons. This feeling is naturally accentuated at the present time, when a new Parliament with an unusually large proportion of new members is beginning its work. The Government have recognized this, and appointed a Select Committee to consider the matter and report at an early date. There was an interesting discussion on the motion to appoint the Committee, and it speaks well for the judgement, as well as for the modesty, of the new members that the speeches were absolutely confined to old parliamentarians. Those new to Westminster and accustomed to the methods of business practised in municipal and other local bodies are at first loud in their complaints of the waste of time and the small amount of business transacted. There are, however, old members of twenty years' standing, who began their political careers with equally strong criticism, who now look back with regret to the old days when the House met at 4 o'clock and sat till the business was done, unhampered by any 12 o'clock rule. The protests made against meeting at 2 o'clock, as now, were partly an echo of this view, and partly due to the desire of many to begin the sittings earlier, and close them before midnight. The changes made in 1902 by Mr. Balfour, except so far as they relate to questions, were indeed generally condemned. There was a remarkable unanimity in favour of the old system of a short sitting on Wednesday instead of on Fridays. This is due to two causes. The four long and late sittings in succession tire out members and make Friday's House too often small and listless. Small, because wearied members naturally seek the week-end rest; and listless, because those who stay are tired by the four previous days' work. The short sitting on Wednesday prevented all this, and gave gave private members a day in the middle of the. week to discuss their Bills with freshness and energy. It was a more healthy division of the labour of the five days. The hour of meeting now fixed at 2 o'clock for the first four days of the week was also generally condemned in the debate. It is too early for men engaged in their own special avocations, and is especially hard on lawyers, who form an important section of the House. On the other hand, it seems needlessly late to many working-class members and to those who have no work outside their parliamentary duties. A late hour for neeting is always defended on the ground of leaving ime for Committee work in the earlier hours of the lay; but it seems to us that if the House rose at 1 p.m., as it might easily do, by meeting at 1 o'clock, nd sitting continuously, the Committees might be held arly in the forenoon, instead of being called for at 11 r 12, as they necessarily are when members are kept p till after midnight. Looking at the matter from a nedical point of view, we are sure that the healthiest nethod for the House of Commons would be to make heir rule, Early to work and early to rise. On the ame grounds of health, the Select Committee will, we ust, consider the wisdom of calling Parliament gether in October or November every year, in order at there may be no more weary and worn legislators ooping through the division lobbies during the dog ays. It is a crime, from the public health point of ew, to spend the health-giving days of summer in estminster. Now that we have a House of Commons t wholly devoted to hunting and shooting, perhaps ere may be a chance for the more rational plan of ork in winter and holidays in summer. Finally, we ould put in a plea for shorter speeches. In these days, hen the power of clear exposition is so much more neral than it used to be, brevity and not length should the standard of excellence. It is worse than foolish-ss, it is viciousness, to occupy an hour in saying what ight be said more artistically and more effectively in enty minutes.

MEDICAL ADVICE WITH *ANSWERS.*

E have already twice drawn attention to the scheme nounced by *Answers* to provide its subscribers with dical advice at the cost of the medical profession. we pointed out last month (p. 359), each subscriber one year obtains, in return for 9s., a membership ket and voucher-book, which entitles the holder to ix personal consultations with the best practitioner n his town," beside other advantages to which we d not further allude. When we last referred to this eme we did not know its details, and we then gested that if a voucher could be taken to any dical man and the newspaper undertook to honour t voucher by paying cash for it, there might be no ection to the scheme; but unfortunately that is not case. Our present purpose is to look at the scheme m the point of view of the medical profession, in the nt of certain documents sent to us, including a type-tten circular letter signed by "The Senior Medical dviser." This letter is addressed to medical men in er to enlist them as "advisers" under the scheme, they are told, as an inducement to accept the ointment, that no patient will be allowed "to use ore than one coupon, or to have more than a single nsultation, for any one case"—a restriction which, n it is understood, will decidedly diminish the value the scheme to the public, for as the letter says, r any work done by you afterwards you would "charge in the ordinary way." The medical practitioner who signs the agreement submitted to him binds himself to supply twelve doses of medicine free of any further charge for 1s.; "the above to refer to the first "visit in any particular illness only, after which I am at "liberty to charge my usual fees both for advice and "drugs." Thus, the inducement held out is that a patient so introduced will in many cases return and become profitable. The terms of the agreement which the would-be "Adviser" is asked to sign leave no doubt that this is a correct description of the arrangement, the only further limitation on the patient being that his visits must be paid during the doctor's usual consulting hours. So the scheme is that medical men are to give in their names to the *Answers* office in London, and *Answers*, by means of its large circulation, is to obtain patients for them, whom it will introduce, the doctor giving one consultation free in return for the introduction. This is unquestionably advertising, although the name of the doctor does not appear. *Answers* does the advertising, and when one of its subscribers wishes to consult a medical man, *Answers* supplies the patient with the doctor's name. The bait held out to medical men to become parties to this scheme is the introduction they may obtain through it, and therefore there is no doubt that it should be regarded as advertising and be subjected to the penalties which the General Medical Council has denounced against those who try to obtain patients by such means. Who the Senior Medical Officer is we do not know, but the way in which he writes in the copy of *Answers* now before us rather suggests that he may hail from the other side of the Atlantic. He says: "I have treated thousands of patients through "the post, and have received countless letters "quite voluntarily written, from grateful patients, saying "that my treatment cured them completely, in many "cases after they had tried a variety of 'certain cures,' "which had never done them the least good." Lower down he asserts that every medical man appointed by *Answers*, both in London and the provinces, will be "a "man of great experience, fully qualified, and worthy of "complete confidence." We do not know that the testimony is worth much. We cannot imagine any practitioner occupying a respectable position desiring to obtain the assistance of *Answers* upon the terms disclosed, but we fear it may prove a temptation to some struggling men, who should remember that their connexion with the newspaper cannot long remain unknown, as the patients who have consulted them will, sooner or later, go to other medical men and let the cat out of the bag, when nothing but discredit can follow the disclosures of the means by which they have been trying to get the better of their professional competitors.

THE DEVELOPMENT OF LEISHMAN-DONOVAN BODIES.

In a paper on the development of the hepatomonas of kala-azar and cachexial fever from Leishman-Donovan bodies, read before the Royal Society recently, Captain Leonard Rogers, M.D., F.R.C.S., I.M.S., has given some further details as to the growth of these parasites outside the human body. In 1904, it may be remembered, he discovered that if fresh blood, obtained by spleen puncture during life from a case of kala-azar, be placed in sterile tubes containing a few drops of 2 to 5 per cent. sodium citrate in normal salt solution, and then be incubated at 22° C., a development of flagellate bodies may take place. The present paper deals chiefly with the use of a new medium for the constant production of such bodies, the classification and naming, and some experiments on insects as carriers. The new method would appear to be a distinct improvement on the older; it consists simply of faintly acidifying the citrated spleen blood with citric acid. This produces a much more uniform development of the parasites, the great majority being in the same stage on any given day, and nearly all flagellated after a few days. In addition well marked rosettes as in some trypanosome cultures, may appear. Rogers, who at first believed these developmental forms to be trypanosomes, now concludes that they belong to the order Hepatomonas, and proposes the name of the hepatomonas of kala-azar; it might have been better to wait before giving any such definite name, and the reasons adduced for the retention of the name cachexial fever appear insufficient. If the diseases kala-azar and cachexial fever are one and the same and due to the same parasite, they should be called by the same name. The experiments on insects as carriers are very instructive and suggestive; the author has not succeeded yet in getting bugs and mosquitos to suck infected spleen blood, but finds that by mixing some of the latter with ordinary blood taken from bugs' stomachs the development will take place in this mixture. The comparative absence of parasites in the peripheral blood is an objection to the hypothesis that the carriers are insects, but Dr. Rogers is going about the investigation in the proper manner, not indulging in theories but in plain straightforward facts.

ALCOHOLISM AND IRRESPONSIBILITY.

AT a recent meeting of the Medico-Legal Society held under the presidency of Mr. Justice Walton, an interesting debate took place on alcoholism and irresponsibility. It was introduced by Dr. F. S. Toogood, who expressed the opinion that whether or not a people can be made sober by Act of Parliament, legislation could do much more than had yet been effected. For instance, the State having gone so far as to pass the Inebriates Act, might well go further and increase the efficiency of the Act by not requiring the inebriate's consent to make it operative. A family council, the opinion and consent of those most concerned, should, Dr. Toogood held, be a sufficient answer to judicial inquiries. The difficulty which both medical men and lawyers have in deciding when a person is to be regarded as actually irresponsible or insane, like the other difficulty of deciding when a man is drunk enough to come within reach of Act of Parliament—a difficulty which daily faces publicans and the police—makes many hesitate to apply such powers as are already within their hands, lest in turn they are charged with having made a wrong diagnosis. The higher the rank of the person, the more difficult it becomes to make this distinction; a common labourer would be dealt with in a police-court and sent into retreat many times over for no more flagrant offence than is committed in private by a man whose conduct is gradually leading to disastrous results. In the latter case friends ask if the law cannot restrain the evil-doer, but as the law at present stands a man who is not actually found "drunk and disorderly" or "drunk and incapable" in the streets has a legal right to ruin and disgrace all who belong to him, without interference. Dr. Toogood thinks that a doctor's best chances with such a person, under present conditions, lie in pointing out to the patient, when he or she is sufficiently sober to be reasoned with, that to put themselves voluntarily into an inebriate home is the only alternative to his signing for their admittance into a lunatic asylum. So far as any one is incapably and irresponsibly drunk, he is, Dr. Toogood believes, insane. Habitual drunkenness, therefore, means habitual insanity, and the placing of any one addicted to the drink or drug habit under control is the only safeguard. Punishment, in his opinion, has little effect, and is rarely a sufficient deterrent. Inefficient Acts of Parliament often do more harm than good. Whil medical men cannot make laws, they can do much t influence their making, and Dr. Toogood strongly urge that a committee nominated by the Council of tha Society should be formed to frame a suggestion to plac before the new Parliament, with the object of amendin and adding to the present Acts, and of making it mor difficult for inebriates to obtain alcohol. With referenc to a doctor's power to deal with the case of a man in th middle or upper class who in delirium tremens become violent and dangerous, Dr. Toogood was asked whethe a medical man was justified in certifying him as lunatic for the time being and in authorizing his removal. The answer given was that, though the ma were a duke, the practitioner was entitled to send fo the relieving officer to deal with him as an allege lunatic. The officer might call in the help of the polic if he pleased, and would remove the offender to th infirmary. Once in his hands, the case had gone out o those of the medical attendant. No doctor might himself try to restrain a patient by physical means. S many points of the greatest interest arose out of D Toogood's paper that a second communication whic was down for reading on the same evening was, wit the unanimous consent of the meeting, postponed to later occasion.

THE NOTICE OF ACCIDENTS BILL, 1906.

THE terms of the Bill which was introduced into th House of Commons by the Parliamentary Under-Secretary, Home Department, on February 27th, provide a excellent object lesson on the advantages of medica organization. For some unexplained reason the utilit of the factory surgeons' investigations into the causation of so-called preventable accidents has been discounted in the minds of some of those responsible fo the supervision of factory and workshop administration Since 1844 the Factory Acts have provided for this particular method of inquiry; the first attempt to distur this arrangement was contained in the Factory an Workshops Bill of 1901, which sought to abrogate thi statutory provision and substitute a discretion with th Home Secretary as to which accidents, if any, neede investigation. Owing to the strenuous opposition b the Association of Certifying Factory Surgeons, wh succeeded in getting a number of amendments to the Bil put down when it was before the Standing Committe on Trade, the clause was withdrawn and a departmenta inquiry promised. The Departmental Committee decided against the certifying surgeon, with the result tha the Accidents Bill of last year again proposed the abolition of the systematic inquiry, leaving the discretio in the hands of the local inspector as to what accident should be reported upon. The matter was then take up by the British Medical Association, as well as by th Factory Surgeons' organization, and blocking motion were put down against the second reading. The Roya Colleges of Surgeons of Edinburgh and Dublin, as wel as these two associations, memorialized the Hom Secretary, and various labour organizations gav telling support. The then Under-Secretary, Mr. T Cochrane, received a joint deputation from th two associations on June 21st, and the case wa put so clearly that the entire Bill was withdrawn The memorandum of the present Bill distinctly set forth that the position of the certifying surgeon i not to be interfered with, and the clause referring t his duties is practically the same as the amended on submitted by the deputation referred to. The tim qualification for notification is altered from five hour absence, on any of the three days following the acciden to a whole day's absence any time after the accident a a direct result thereof. At present, also, "bodil injury" is a qualification; but this is now omitted, s that poisoning by fumes will be covered in the futur lectric shock is also scheduled, and the Home Secre- ry is to have power to add any other qualifying causes om time to time. Instead, therefore, of suffering a minution, the certifying surgeon is likely to have a stinct increase in his work in this direction. The tion of the Government cannot but be regarded as ninently satisfactory, and the Home Secretary is to congratulated on so readily and gracefully accepting e arguments placed before him by the medical ofession in the interests of the workmen. The Bill is read a second time on Tuesday, the 6th inst., and ferred to the Standing Committee on Trade.

MEDICINE AND THE MERCANTILE MARINE.

Trinity House, of which Sir George Vyvyan is puty Master, is merely an off-shoot of the Board of ade, and as the latter is responsible for the regula- ns intended to provide for the well-being of the itish sailor, it should not be difficult for Sir George to ing about any medical improvements required, if, as ecent speech of his would indicate, he really wishes to so. In ships which cater for the passenger trade the ners, in their own interest, go far beyond the Board Trade regulations, and the medical provisions made, not ideal, are found by most ships' surgeons of a sonably satisfactory nature. On cargo boats, also, a geon is occasionally to be found; but for the average amp" owners provide no more than the law compels, the ship's "Doc" is usually the cabin steward or other man on board, not being a common seaman, o happens to have a fancy for the job. All that the ard of Trade does is to ensure that every ship shall ry a certain number of drugs and surgical appliances; h how much skill or intelligence they are used is a tter of luck. In ships trading from port to port, and nned with crews into whose selection medical consi- ations barely enter, the number of medical and surgical ergencies liable to arise is naturally considerable, and imes perhaps there is great suffering. One often hears ries of the "Doc" on board deciding on his treatment so to speak, geographical principles; if the seat of plaint is above the belt, emetic; if below, a purge. average steward, however, is a good deal more sible; he is provided with a book of instructions as to use the drugs which the ship's medicine contains, commonly studies it pretty closely. Moreover, re are few of those who go down to the sea in ships do not develop a considerable amount of what may alled medical common sense. For a first aid certi- te to form part of a mate's certificate seems a sound posal, but whether they should also be trained in ar nentary knowledge of the *Pharmacopoeia*, as Sir rge Vyvyan is reported to desire, is another and more btful proposition. There is, however, no doubt that ne point the Board of Trade regulations could be ly improved; the contents of the medicine chests for the most part out-of-date. To use them, apart n considerations of dosage and diagnosis, entails ghing and measuring drugs in fashion which is not on shore, and very difficult to perform with iracy in the circumstances of a ship at sea. The ical appliances are also antiquated. Indeed, pretty ly everything at present ordered to be contained in ip's drug chest should be abolished and remedies ady compounded and in compressed form be sub- ited.

THE ARMY MEDICAL RESERVE.

Secretary of State for War in the memorandum anatory of the Army Estimates for 1906-7 states he is making provision to begin the formation of a erve of Civilian Surgeons, with some training in special requirements of army field hospitals, e available on mobilization for service abroad or at home. Steps are also contemplated for providing on mobilization the necessary numbers of medical subordinates, both fully trained and auxiliary. The estimates contain under Vote 2 (III) the sum of £4,500 "pay and outfit allowance of Reserve of Civil Surgeons." No indication is given of the manner in which it is proposed to constitute the reserve, but it is generally understood that it is intended to obtain the services of recently-qualified medical men, who would hold themselves in readiness to serve in any part of the world.

PHENOMENALLY LOW DEATH-RATES.

Already annual reports of medical officers of health for 1905 are being issued, and it is clear that the death-rate of last year will be among the lowest, if not the actual lowest, on record in very many districts. Among these reports are some claiming—and claiming with literal accuracy—death-rates which may rightly be described as phenomenally low. Thus West Bridgford in Nottinghamshire had a death-rate of 6.7 per 1,000 of population. Referring to Table I of the Local Government Board, in the appendix to the report for this urban district, we endeavoured to ascertain whether this figure was low because of the non-inclusion of deaths in public institutions. Apparently no deaths occurred in public institutions in the districts, and only one outside, which would bring up the death-rate to 6.8. Assuming that complete correction has been made for deaths in institutions in the table referred to above, it is evident that West Bridgford comes in the same category as suburban districts (in some respects misnamed towns), like Hornsey and Willesden. They consist very largely of one somewhat high social stratum, and not that admixture of all social classes which is necessary for the complete constitution of a social community on which exact statistical inferences can be based. That this is so in West Bridgford as well as in Hornsey, etc., is shown by remarks in the report of its medical officer of health. It is described in this report as "one of the pleasantest and "most popular residential districts in the Midlands." In other words, like Hornsey, it is chiefly villadom, and its statistics must be judged accordingly. Two desiderata at least are necessary, before statistics of such residential districts can be made comparable with those of large towns. First, a factor of correction for difference of age distribution of population must be calculated. This is given for Hornsey in the Registrar-General's Annual Summary for 1904; the application of the factor raising the recorded death-rate of 8.44 to 9.62. Secondly, a liberal allowance must be made for facts which cannot be statistically expressed, though their existence is obvious and their influence very great. Among these is the presence in an excessive proportion in all residential districts of what have been happily described as the "immortals," who seldom die in the district in which they live and work. These are chiefly domestic servants, who when disabled go home to handicap the vital statistics of urban and rural districts of a lower social stratum. Without pursuing the point further, it is evident that a comparison of the death-rate of a "residential district" with that of a large town must be most misleading; though a comparison of the residential district's death-rate with its own past experience is instructive and trustworthy. The residential district, as in the above instances, may also rightly congratulate itself on its low death-rate from preventable diseases, and on the excellence of its sanitary arrangements. West Bridgford rejoices in an infantile mortality of 65 per 1,000 births. This rate is free from fallacies indicated above. It indicates the capability of reduction in the infantile death-rate of other districts—in so far as the low rate is not an essential result of better social position, but can be secured by attention to infantile hygiene among the poorer members of the community.

UNQUALIFIED ANAESTHETISTS FOR THE R.A.M.C.

SOME correspondence has taken place recently in the pages of the *Journal of the Royal Army Medical Corps* anent the suggestion that non-commissioned officers of the R.A.M.C. should administer anaesthetics. It is urged that they could be trained to act as anaesthetists, that it is not an essential for a man to hold a diploma in medicine to become a good anaesthetist, any more than it is necessary in the case of a bacteriologist. In support of the contention we are told that Professor Kocher allows one of the "sisters" or even the "porter" to administer a general anaesthetic. Incidentally we may remark that if the last statement represents a common state of affairs abroad it is not surprising that spinal and local analgesia are regarded as safer than the use of general anaesthetics under existing conditions. But to return to the specious arguments in favour of what appears to us to be little removed in principle from unqualified practice and "covering" persons so practising. The difference between the anaesthetist and the bacteriologist is one of kind and not of degree. The responsibility of the former is that over life; his lack of skill, the swerving of his attention from his task may lead to death. Not so the bacteriologist. Nor, do we think, can an unqualified man, unless his knowledge of physiology, medicine, and surgery has reached a standard above mere examinational levels, ever be trained to be a good anaesthetist. He can be taught to follow certain rules of thumb which unfortunately are regarded by some as sufficient, but he can never be an anaesthetist. The manual dexterity is the least part of the training of the anaesthetist. The map of life, it seems to us, which includes the anaesthetist's daily round, has for continents the knowledge of what results follow the use of any given anaesthetic when employed in any given case; how the pre-existing state of the patient will be affected by or will influence the use of the anaesthetic; the knowledge of the surgical requirements of the case, and how best the anaesthetic may be employed to facilitate the surgeon's aims; the appreciations of what dangers or contingencies may arise during anaesthesia, and in what way they may be avoided or met; and these continents should be surrounded by the ocean of experience, and its outcome a matured judgement. We are alive to the obvious criticism that in the hurry of the battlefield or the field hospital a less superfine specimen of anaesthetist would be a convenience if the superior article were not at hand. But admitting this, it is not, we submit, wise to relegate the responsibility of life and death to the hands of a layman, and should such a step ever be taken, its justification could only be found in the *force majeure* of necessity. The majority of such assistants would be dangerous, some through carelessness or recklessness, others through timidity. The surgeon's work would be hampered, his mind preoccupied by the obvious sufferings or not less obvious peril of his patient. The trained orderly makes an excellent assistant; he can be taught even to be surgically clean, but it is seldom he acquires the safe initiative which must exist for the administrator of an anaesthetic to have any claim to be considered even a reliable anaesthetist, much less a safe one.

MORTALITY FROM PHTHISIS IN FRANCE AND GERMANY.

IN the concluding sentence of a paragraph on this subject published last week (p. 522) it was said, by an unfortunate inadvertence, that the mortality from pulmonary tuberculosis for the urban counties of England and Wales during the quinquennium 1896 1900 was 27.47 per 10,000 of population. It ought have been said that the mortality was approximat half this. The rates for urban and rural areas se rately have not been calculated for years prior to 19 but taking the mean of the rates for the two sexes the whole of England and Wales for the quinquenniu we get a rate of 13.92 per 10,000, while taking the me rates for the two sexes in urban counties for the y 1901 we obtain a rate of 13.74. As we were able to st in the SUPPLEMENT of February 17th (p. 59), phthisis death-rate for England and Wales since 1 has been as follows: 1902, 12.33; 1903, 12.03; and 19 12.36 per 10,000.

THE NEW ARMY NURSING HOME.

FOUR months ago we felt it to be a public duty to attention to the defective nature of the plans prepa for the Home for the Military Nursing Service to erected in connexion with the new military hospital Millbank. We pointed out that the accommodation w not adequate and was not such as the principal volu tary hospitals and workhouse infirmaries consider it proper to provide for their nursing staffs. We point out that the matter was of the more importance as t plans of army nursing homes which the War Off might erect in the future in connexion with ot military hospitals would doubtless be largely influenc by the precedent now established. We are glad to lea that the protest then made, which was backed up by t press generally and by the representatives of the nurs has had the desired effect. The *Nursing Times* stat that the improvement made in the plans will leave lit to be desired.

INSTITUTE OF MEDICAL SCIENCES, UNIVERSIT OF LONDON.

IN December, 1903, an appeal signed by the Chancell Lord Rosebery, and other officers of the University London, was made for contributions to a Fund to bui and endow an Institute of the Preliminary and Int mediate Medical Sciences, under the control of t University of London. A few months later the Ki showed his practical sympathy with the scheme by co tributing 100 guineas to the fund. Since then the fu has made more progress; this week a substantial ad tion has been made by the grant of a sum of £10,000 the Worshipful Company of Goldsmiths. This gra has been made on the assumption that a site will provided for the Institute at South Kensington. T address of the Honorary Treasurer of the Fund, whi now amounts to about £50,000, is 35, Clarges Stre London, W.

AUTOMOBILES FOR MEDICAL MEN.

FROM correspondence recently received we gather th it would be useful to draw up a statement of t requirements which an automobile ought to fulfil f the use of medical men, in the country more especiall We shall be very much obliged to correspondents w will send us their views and experiences, and would a that, for the purposes of analysis and classificatio they may be expressed as briefly as possible und a series of heads.

THE Committee of the Athenaeum Club has elect Dr. William Osler, Regius Professor of Medicine Oxford, under the provisions of Rule 2 of the Clu which authorizes the annual election by the Committ of nine persons "of distinguished eminence in scienc "literature, the arts, or for public services."

AT a meeting of the Sociological Society (the Scho of Economics and Political Science—University

---

* Subject to correction.

ondon—Clare Market, W.C.) to be held on Wednesday,
Iarch 14th, at 8 p.m., a paper will be read by Professor
Arthur Thomson on the bearing of recent advances in
ology upon sociological problems. Professor Ray
ankester will preside.

On Thursday next a meeting will be held at the rooms
the Medical Society of London, when Dr. Charlton
astian, F.R.S., will give a demonstration with the aid
lantern slides of some heterogenetic processes,
cluding (1) the apparent *de novo* origin of bacteria, (2)
e transformation of small masses of zoogloea into
gregates of flagellate monads or amoebae, or else into
own fungus germs, (3) the origin of different ciliated
fusoria from the eggs of a rotifer. Sir William Broad-
nt, F.R.S., will take the chair at 8.30 p.m.

Medical Notes in Parliament.

[From our Lobby Correspondent.]

Vivisection.—In the discussion on the Home Office vote
supply on Monday last, Colonel Lockwood referred to
question of experiments on dumb animals. In the
irse of his remarks he deprecated over-statement in
ling with the matter, and said he did not wish to charge
inspectors under the Act or the medical profession
h inhumanity. He paid a high tribute to the medical
fession as the noblest in the world, and he acknowledged
t if they asked for experiments on animals it was be-
ise they believed that by them they could palliate
nan suffering. He argued that experiments were re-
ded as an easier way to knowledge than research, and
l that the discovery of *x* rays and radium had done
re to palliate human suffering and help the profession
n any number of experiments on animals. He asked
t dogs should be excluded from the operation of the
; he would say nothing about guinea-pigs and mice, but
lid plead for dogs. He asked for a Committee to take
lence and make recommendations. Mr. Tomkinson
l that the number of experiments had increased
rmously of late years, though he admitted they were
tly slight operations. There was an uneasy feeling
oad that there was a vast amount of cruelty. He did
believe in the plea that animals were put under anaes-
ics so as not to be sensitive to the operations. A dog
t be made so insensible by chloroform that it would
or else it was very sensible. In the *Physiological Journal*
would find that it was admitted that the most awful
ations were not infrequently performed. He should like
riments on animals absolutely prohibited, but he sup-
d they must be content with asking for a Committee.
John Tuke declared his conviction that there had been
buse of the practice of vivisection, and that experi-
ts were strictly carried out according to the regula-
s. That there had been an increase in the number of
riments was due to the desire to discover methods of
m medication for the prevention of disease, and so for
ng human suffering. He illustrated this by quoting
had been done in the cases of diphtheria. The extra
ber of operations were mostly small and comparatively
less. He contended that the Act was administered by
inspectors carefully and thoroughly, and he would
ome any inquiry that would remove the misapprehen-
in the minds of a few people. Mr. Gladstone, reply-
as Home Secretary, said that dogs could not be
ided from the operation of the Vivisection Acts with-
egislation; as to an inquiry he would give his atten-
to the matter. The Dogs' Protection Bill, "to pro-
experiments on dogs," had been introduced at the
nning of the sitting by Mr. Ellis Griffith, supported
olonel Lockwood, Mr. Channing, Mr. Field, Mr. Weir,
Sloan, Mr. Tomkinson, Mr. Crooks, Mr. Clement
irds, Mr. Swift McNeill, and Colonel Sandys. The
id reading was put down formally for Thursday.

e Poor-law Commission.—Last week, on the Report
pply, Mr. John Burns, in answer to some comments
e constitution of the Poor-law Commission, said that in the opinion of the Government all sections and interests in the country would be adequately represented by the nineteen members of which the Commission consisted, and it would be a mistake to add to its size. Mr. Pollard asked the President of the Local Government Board last week if he would grant a return showing for each Poor-law union the area, population, and number of medical officers and their salaries; and whether extra fees were paid, as required by the Poor-law Orders, and the annual amount of such extra fees. Mr. John Burns replied that he understood that the Poor-law Commission were considering what statistics they would find it necessary to obtain for the purposes of their inquiry. He would communicate with them with a view of ascertaining whether they proposed to get information on the subject referred to in the question; and, if so, whether it could be made available for the honourable member.

The Naval Medical Service.—In the course of the debate on the Navy Estimates last week, Mr. Lambert, Civil Lord of the Admiralty, stated, in reply to Mr. Austen Chamberlain, that the Government would give their most favourable consideration to the scheme adopted some time back whereby naval medical officers should be given the opportunity of attending the hospitals at home in order to keep themselves abreast of the progress of medical science. He also stated that in all the considerable naval hospitals nursing sisters were employed. In only three cases—Ascension, Cape of Good Hope, and Yokohama—were they not employed. The hospital at Capetown, he hoped, would be completed during the year, and also the quarters for the senior medical officers.

The Registration of Nurses.—This question, which was considered and reported on favourably by a Select Committee, is likely to be pressed forward in the interests of the nurses during the session. It may be difficult, in the state of public business, to persuade the Government to introduce a Bill, but the members of Parliament and others interested have not been idle, and if no Government measure is forthcoming it is quite possible a Bill may be introduced with a view of keeping the matter before the attention of Parliament.

The Notice of Accidents Bill.—This Bill, which was introduced last week by the Under Secretary for the Home Office, contains as regards mines more definite requirements as to reporting accidents and an annual return of all accidents disabling for more than fourteen days will be instituted. In factories the Bill makes one whole day's disablement whenever it occurs the standard for report to the certifying surgeon and the inspector. In the case of accidents reportable to the inspector only, fourteen days is made the standard. The position of certifying surgeons is left untouched, as is more fully explained elsewhere. The Bill came on for second reading on Tuesday last, and, after a debate of over two hours, was read a second time and referred to the Standing Committee on Trade.

The Provision of Meals for School Children was the subject of the debate on Friday last week, when Mr. W. T. Wilson introduced his Bill. The debate lasted nearly the whole sitting, and called forth a number of most interesting speeches. Mr. Birrell and Mr. John Burns spoke on behalf of the Government, and expressed sympathy with the objects of the Bill. It was finally referred to a Select Committee, and Mr. Burns pledged the Government to give time for the Bill to be considered after the report of the Select Committee. The great preponderance of opinion in the House was in favour of providing meals at the public expense for children whenever necessary.

The Prevention of Corruption Bill, which was introduced in its old form by the late Lord Chancellor last week, passed through Committee on Tuesday last, and will soon be sent down to the Commons. It will be remembered that a Bill of this nature was mentioned in the King's Speech, but Lord Loreburn (Lord Chancellor) took occasion, in supporting the second reading, to say that the Government would give Lord Halsbury's Bill a benevolent assistance, and so help to pass it into law. There is every prospect, therefore, that it will be passed this session.

India.

New Surgical Block of the Medical College Hospital, Calcutta.

Laying the Foundation Stone.

A notable event in the Indian medical world took place at the Medical College, Calcutta, on February 3rd, when the foundation stone of the new surgical block of the hospital was laid with Masonic ceremony in the presence of the Viceroy, the Lieutenant-Governor of Bengal, and a large audience. Fifty-eight years ago the foundation stone of the large main hospital building was laid with a similar Masonic ceremony by the great Lord Dalhousie, since which time this picturesque and impressive function has not been witnessed in the capital city of India, so that its repetition on the present occasion was singularly appropriate. A circular arena, very similar to that prepared for the landing reception of the Prince of Wales, had been arranged with a dais on one side for the Viceroy and distinguished visitors, while at the other end was another for the brethren of the different lodges, who assembled in large numbers in full costume and wearing many Masonic regalia and jewels. The members of the District Grand Lodge marched in procession to their places. Lord Kitchener, as District Grand Master of the Punjab, was received by a deputation of the local lodge. On the arrival of Lord Minto he was received by a guard of honour of the volunteer corps of the Military Medical Students, and by the Professors of the Medical College in gowns and hoods, who were introduced to His Excellency by the Lieutenant-Governor, Sir Andrew Fraser, and then formed a procession to escort the Viceroy to his place on the dais and took their seats behind the Viceregal party.

The Principal of the Medical College, Lieutenant-Colonel C. P. Lukis, I.M.S., then addressed the Viceroy, and described the proposed block as designed after the Betinda Hospital at Vienna, which Colonel Havelock Charles considered an ideal institution. The building will be of two stories on a raised plinth 8 ft. high. It will consist of 8 main wards, with 10 beds in each, and 8 small private rooms for 1 bed each. Every precaution will be taken to avoid any places where dust can accumulate. It is also proposed to establish separate paying wards for Indian patients, to be built on the cottage hospital plan, so arranged that they will be able to bring their families with them and cook their own food. It is thus hoped to provide 20 private rooms for Indian patients before very long. The main new surgical block is estimated to cost Rs.6,25,000. The Principal concluded his speech by asking His Excellency to lay the foundation stone.

The Viceroy then deputed the duty to the District Grand Lodge of Bengal, and the interesting ceremony was commenced with the singing of a hymn, after which the District Grand Master addressed those assembled. The current coins of the realm were placed in the cavity of the stone by the District Grand Treasurer, copies of the local papers deposited by the Registrar and the inscription read and put in its place by the Secretary. Then the Grand Master spread the cement on the stone, which was tested with the plumb-rule, level, and square, and declared to be well and truly laid. The plans were next presented and approved, after which corn, wine, and oil were poured over the stone by different Masonic officials, a prayer being offered after each by the Chaplain. The Grand Master then proceeded with his principal officers to inform the Viceroy that the stone had been duly laid and to present him with the trowel as a memento of the interesting occasion.

The Viceroy then made a brief and appropriate speech in which he referred to the origin and growth of the Medical College Hospital and the great value of the medical and educational work done in it, and announced that the Prince of Wales had been graciously pleased to contribute to the hospital Rs. 90,000 out of the sum recently placed at his disposal by the munificence of the Maharaja of Darbhanga, and suggested that the new block should be known as the "Prince of Wales's Hospital," a remark which elicited prolonged applause. Lastly, he thanked the District Grand Master for the duties he had performed—a well-deserved compliment—as the ceremony was most interesting and dignified throughout and made a deep impression on all present.

The Viceroy was then conducted back to his carriage by the college staff and the Freemasons also left in procession.

The whole affair went off extremely well, and much credit is due to Colonel Lukis for his excellent organization of the proceedings.

Liverpool.

The School of Tropical Medicine.

The annual meeting of the School of Tropical Medicine was held on February 26th in the Town Hall, the Lord Mayor presiding. A communication was received from H.R.H. Princess Christian, expressing her warm personal interest in the progress and success of the school, of which she is President, and her trust that its work might prosper in every way for the good of humanity and for the progress of science. Sympathetic messages were also received from the Duke of Newcastle (Honorary Vice-President), and from Lord Elgin, Secretary of State for the Colonies. Mr. A. J. Balfour wired: "Wish every success to the Liverpool School of Tropical Medicine. Their work is beyond praise and beyond price." Messages of apology for inability to attend were received from Lord Lister, Mr. Winston Churchill, the Lord Mayor of London, and others. The Lord Mayor, in moving the adoption of the annual report, an abstract of which will be found at p. 567, said that the movement was started by a donation of £350 a year from Sir Alfred Jones, and on the basis of that the Committee had since spent over £50,000 upon the school. A very important part of the work was of a preventive nature, and had been attended with great success. Sixteen separate expeditions had been sent out by the school to tropical and subtropical countries since its foundation, and except in one particular the results had been most satisfactory. The particular he referred to was the sad death of two young doctors—Dr. Walter Myers and Dr. J. E. Dutton. One could hardly find words to express the debt they felt towards men willing to risk their lives to discover remedies for the benefit of the human race, and they would long remember the sacrifice those two men had made in the cause of science. Sir Alfred Jones, in seconding the motion, said that owing to the efforts made by the school, the health of the people in the tropics had been made very much better, and many lives had been saved by its operations. Professor Ross, in supporting, spoke of the antimalaria measures adopted in Ismailia, and said that 1905 was the third year of these measures. During the first year the number of cases fell from about 2,000 to 100; during the second there were only two new cases in the town, and last year it was reported that there was not a single case. Excellent results were also reported from Klang and Port Swettenham, from Italy, and from Algeria. At Havana most admirable results had followed the endeavours to combat and stamp out the yellow-fever scourge.

The Liverpool Dispensaries.

The Liverpool Dispensaries are among the oldest medical charities in the city, having been founded in 1778. The North Dispensary was built eighty years ago. The work is of two kinds: relief to patients who attend at the dispensaries, and visits paid to patients at their homes. In both cases medicines are supplied. The work is very large. According to the report for 1905, 15,267 visits were paid to patients in their own homes, and the total number of attendances of all kinds was 131,381. This immense work is carried on by nine salaried officers, three of whom (a head surgeon and two assistant surgeons), reside at each of the dispensaries. These three institutions are naturally situated in the older parts of the city, the North and East Dispensaries being within about half a mile of each other, consequently the institution is of little use to the dense populations that have sprung up during the last half century in Everton, Edge Hill, Kirkdale, and Wavertree. As the report states, the Committee have been approached with a view to extending their work in the Walton and East Districts (Old Swan). "The increased area of the city," the report continues, "justifies the application, but no funds are available for such purpose, and the matter must be postponed to be dealt with in the future." In this connexion it is worth noting that the cases of infectious disease notified to the medical officer of health by the officers of the institution amounted to 1,118. These included 21 cases of typhus, 34 of typhoid, 70 of diphtheria, 118 of erysipelas, and 9 of puerperal fever. The remaining cases were chicken-pox 270 and phthisis 353. It does not appear how many of these cases were removed to the city hospitals. Of the more serious cases attended at their own homes many must have been removed to hospital, their homes being manifestly unsuited for the treatment of serious illness. This is also indicated by the number of visits paid in proportion to the cases. Thus, 10,058 patients were seen at their homes, and the total number of visits paid was 15,277, giving an average of 1.52 visits to each case. It is clear that unless the cases seen are of a trivial nature and only require one or two visits, a great number of cases must be sent into hospital. In view of this fact the question arises whether, in the event of further extensions being required, it would not be better to form some association with the hospitals; most of them have out-patient departments, which might very well be combined with the dispensaries.

Leeds.

ASSOCIATION FOR THE PREVENTION AND CURE OF TUBERCULOSIS.

THE Leeds Association for the Prevention and Cure of Tuberculosis has just issued its sixth annual report. This Association was started in a small way, but its sphere of activity has rapidly increased, and its record of work is encouraging. The sanatorium, which is now used exclusively for the earlier and more hopeful cases, is situated at Gateforth, near Selby, and has 34 beds. The number of patients dealt with during 1905 was 82, the average duraion of each patient's stay in the sanatorium being 122½ days. The report states that of these 40 were discharged as practically cured, 35 as greatly improved and fit for work, and 6 as slightly or not at all improved. One death occurred from sudden and unexpected haemorrhage. Some years ago accommodation was provided for more acute ases, some of which might improve so as to be transferred o the sanatorium. For this Armley House was secured nd converted into a hospital, with in the first instance a mall nnmber of beds which has now been increased o 36. The number of patients treated at Armley as 84, and the average duration of each patient's tay in the hospital was ninety-four days. Thirteen eaths occurred, but 8 cases were able to be transferred o Gateforth. There had been a considerable capital xpenditure on improved shelters and verandahs at both ospitals. The report goes on to state that another extenon, which appears absolutely necessary in order further deal with phthisis in Leeds, will involve the securing of place where cases can be treated which are too advanced r Gateforth and yet not so advanced as to be suitable for eatment at Armley. This will be temporarily met by e erection of a suitable wooden structure at Armley ouse with accommodation for 8 patients. As it is tended that patients shall occupy these beds for a nited time only, it is calculated that about 80 or 90 may ass through this department in twelve months. With e object of providing some light employment for atients during the latter part of their stay at Gateforth e committee have started a poultry farm in a small way, here the patients may work under the strict supervision the medical staff; the committee, fully alive as they e to the dangers of enforced idleness, have under earnest onsideration the provision of employment for the atients of both institutions.

THE DISTRICT NURSING ASSOCIATION.

Some account was given in this column last year of the ork of this association, and the annual report, which is the twenty-sixth, shows that the record of past years is ore than maintained. The number of visits paid by the urses to the homes of poor patients amounted in 1905 to 021, and the number of patients thus attended to was 01, an increase of 239 as compared with the number for 04. It is satisfactory to learn that about one-half of the m of £10,000 which the committee desire to raise to put the institution on a sound financial basis has been collected. This money is required to meet the expenses of the enlargement of the main nursing home and of the two branch homes which are the property of the association, and also to meet current expenses, for the fund which was collected for the purpose at the time of the Victoria Diamond Jubilee is now nearly exhausted. The staff consists now of 2 superintendents, 20 district nurses, and 1 nurse who, in respect of an annual subscription from the Public Dispensary, devotes all her time to work in connexion with that institution. At the main home 1 superintendent and 9 nurses are lodged; at the Holbeck branch another superintendent and 5 nurses; 3 nurses live at the Hunslet branch, and at three other centres accommodation is found for nurses in lodgings. From the rules one may quote with special approval the following: "Only such cases will be undertaken as are under the care of a medical man, whose instructions must be followed," and in connexion doubtless with this rule it is interesting to note that of the 3,313 new cases in which the services of the nurses have been called for during the past year, the request came in no fewer than 2,567 instances directly from medical men, and in 211 instances the patients had been recently discharged from the Infirmary and the Hospital for Women and Children.

HOSPITAL FOR WOMEN AND CHILDREN.

The post of Assistant-Surgeon to the Hospital for Women and Children, which was created on the resignation of Professor Wright and his promotion to the consulting staff, has been filled by the appointment of Mr. Carlton Oldfield, M.D., B.S.Lond.

Birmingham.

CEREBRO-SPINAL MENINGITIS.

IN October, 1900, a paper was read before the Birmingham Branch by Professor Saundby to direct attention to the occurrence of several cases of meningococcus meningitis in the General Hospital. In view of the danger of the disease becoming epidemic the Branch passed a resolution asking for the restoration of the heading "Meningitis" to the reports of the medical officer of health, and suggesting that the disease should be made notifiable. The former part of this request only was acceded to by the Health Committee, but there is reason to believe that cases have occurred from time to time ever since, and that the disease is more or less always present in Birmingham. The present Medical Officer of Health (Dr. Robertson) has recently issued a circular to the local profession, in which he states that he has had an instance reported to him of a case which appeared to have been infected from a previous case, and he therefore asks that all cases should be reported to him, notification being paid for at the usual rates. It is more than thirty years since the last epidemic of cerebro-spinal meningitis occurred in Birmingham. A good many adults were then attacked, and the rate of mortality was very high, although the total number of cases was not large.

THE HEALTH OF BIRMINGHAM DURING 1905.

In the report of the Medical Officer of Health, Dr. Robertson, for 1905, there are several important points. The birth-rate—29.2 per 1,000—is the lowest on record, the previous lowest being in 1904, when it was 31.5. The death-rate—16.1 per 1,000—is the lowest recorded since 1873; the average for the years 1895 to 1904 being 19.7. The chief causes of this low death-rate have been the absence of any serious epidemic of summer diarrhoea, the comparatively slight prevalence of other epidemic diseases, and the reduction of deaths from non-epidemic diseases. The deaths of infants under one year of age, although the death-rate was 156 per 1,000, were fewer than usual. There were 36 cases of small-pox, mainly the result of infection imported by tramps. Since August the city has been free from this disease. There were 1,684 cases of scarlet fever, which is slightly more than in 1904, and 698 cases of diphtheria, as against 630 in 1904. The cases of typhoid fever numbered 209, which is remarkably low when it is considered that between 1895 and 1904 the average was 547. Phthisis caused 999 deaths, and the average for the last ten years is 1,039. Medical men in the city have been asked to notify voluntarily cases of tuberculosis of the lungs, and as a result 666 cases have been reported. All these cases have been visited, and instructions have been given as to how infection can be prevented from spreading in the household, and while the patient is out-of-doors. The health visitors have continued their good work of teaching people how to keep their houses cleaner, how to feed and care for children, and how to take precautions against infection. At present there are only twelve visitors, but four more are to be appointed under a chief superintendent. In view of the great lodging-house fire at Glasgow, the Watch Committee have arranged for the Superintendent of the Fire Brigade to inspect all the lodging-houses in the city, and to make recommendations as to what is required to put them in a safe condition against fire.

A TRAMPS' BEDROOM.

A hitherto unnoticed source of infection has been found in the practice of tramps sleeping in railway carriages in sidings. No less than fifteen men have been prosecuted in the last two weeks at Birmingham by the Great Western Railway Company for this offence. Six men were brought up on February 8th before the stipendiary magistrate for sleeping in a second-class compartment at Smallheath. They were in such a filthy condition and so covered with vermin that the carriage had to be sent to Swindon to be thoroughly disinfected. They were all sentenced to four weeks' hard labour. This growing practice on the part of such men as the prisoners is a danger to the public as well as an inconvenience to the railway companies. The transmission of diseases in this manner is a serious possibility.

THE OVERCROWDING OF ASTON INFIRMARY.

The overcrowding of the Aston Infirmary was the subject of much discussion at the last meeting of the guardians. Not only is the institution overcrowded, but it is also understaffed as to nurses. All the wards are filled to their utmost extent. When urgent cases are brought in it is necessary to move patients to the workhouse who should really remain in the infirmary. There are about 100 inmates in the workhouse at the present time who, without necessarily requiring medical supervision, need more attention than they can receive there. The isolation wards, owing to the overcrowding, are used for ordinary cases. There is a shortage of day rooms, and the beds are, considering this fact, placed too near together in the wards. A subcommittee has been appointed to consider what additions are necessary.

Manchester.

GLASGOW GRADUATES.

THE club which has been started for graduates of Glasgow who are resident in Manchester and its neighbourhood held its inaugural dinner at the Mosley Hotel, Manchester, on February 14th. The President of the new club, Dr. Alexander Welsh of Whitworth, a medical graduate of the year 1864, occupied the chair, having on his right hand Sir James Barr, likewise a graduate of Glasgow, and present on this occasion as the guest of the club for the evening. The other diners, besides sundry guests, included thirty-nine of the graduates who have so far enrolled themselves on the club list. The Chairman explained that the object of the club was the maintenance of good-fellowship among the graduates and students of their Alma Mater, and hoped the club would meet with wide support. The toast of the evening, "The Glasgow University Club," was then formally proposed by Dr. Stewart and acknowledged by Dr. Marshall. On rising to propose a toast to Sir James Barr, the Chairman said their guest, besides being a distinguished graduate of their University, was also a successful teacher in the North of England, specially well known for his investigations dealing with diseases of the circulation. By his insistent labour he had won a well-merited reputation and shed lustre on his University. In acknowledgement, Sir James Barr said that he hoped that the new club would help to bring about cohesion, the value of which he had been preaching all his life. It was, indeed, in its interests that he had supported the candidature of Professor Smith for the representation of Glasgow and Aberdeen Universities. As there were far too few medical men in Parliament, he supported Professor Smith irrespective of his politics. The other toasts honoured were "Our Alma Mater," proposed by the Rev. W. G. Edwards and acknowledged by Principal Rankin of the Mining School, and "The President" and "Officers of the Club." The Honorary Secretary of the Club is Dr. D. Richmond, 176, Drake Street, Rochdale, who will supply information to those interested.

South Wales.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

ANNUAL reports have recently been presented to many sanitary authorities by the medical officers of health. From these we take the following notes:

Dr. Walford, Medical Officer of Health for Cardiff, in his annual report for 1905 to the Cardiff Port Sanitary Authority which was constituted in 1882, states that during the year 4 cases of typhoid fever on vessels arriving at the port were notified, 1 of measles, 1 of small-pox, and 1 of erysipelas. The typhoid patients were treated at the Sanatorium, and 2 recovered and 2 died. No cases, or suspected cases, of cholera, yellow fever, or plague were brought into port. The destruction of rats on vessels from infected or suspected ports has been carried out systematically by rat-catchers engaged by the sanitary authority and by fumigation with sulphurous acid gas. Altogether about 2,831 rats were destroyed. When caught in traps they were drowned and subsequently burned. During the year 8,116 vessels were inspected ; 6,847 were found in a fair or good condition, and 1,269 in a more or less defective or insanitary state owing to inadequate ventilation, impure water supply, defective drainage, or leaky decks. As a rule very little difficulty was experienced in obtaining compliance with the requirements of the inspector. As to the frozen meat trade, Dr. Walford reports that it is a large and important industry. Between January 8th and December 7th, 1905, the imports under this head were: Beef, 14,511 forequarters ; 15,765 hind-quarters. Mutton, 118,712 carcasses ; 2,651 half carcasses, 2,000 sides, 14,400 haunches, 2,254 shoulders, 23,500 legs, 13,010 quarters, 4,968 loins, 7,614 lambs.

In his annual report for 1905, Dr. Thomas, Medical Officer of Health, observed that it was hardly credible that a town of the importance of Aberystwyth as a leading watering place and a great educational centre was still without proper hospital accommodation for infectious diseases. The Council agreed so far back as 1900 to carry out the recommendation of the Local Government Board, but had failed to do so. Several sites had been visited, but no definite selection had been made. During the year there were 1,536 hours of sunshine and only eighteen frosty days.

Dr. C. Bevan, Medical Officer of Health for the Nantyglo and Blaina Council, in his annual report for 1905, gives the following figures: birth-rate, 41.2 ; death-rate, 18.8 per 1,000. The zymotic mortality had been at the rate of 3.9 per 1,000 ; and 10 cases of typhoid had been notified.

The annual report of the Medical Officer for Monmouth for 1905 showed a birth-rate for the year of 18.25 per 1,000, as against 21.49 in 1904 ; the death-rate was 16.29, against 12.42 in 1904.

UNIVERSITY COLLEGE, CARDIFF.

The Secondary Subcommittee of the Newport Education Committee had under consideration on February 28th a proposal in favour of including in the annual estimate the sum of £300 in order to provide scholarships at the University College of South Wales and Monmouthshire, and decided to refer the matter to a special subcommittee to formulate a scheme.

Scotland.

ELECTION OF DIRECT REPRESENTATIVE FOR SCOTLAND IN NOVEMBER, 1906.

DR. WILLIAM BRUCE of Dingwall has issued the following address, dated February 28th :

Gentlemen,—I have been your representative for twenty years. In that time much has occurred. The whole system of medical education has been revised and extended. When I first became a member of the Council in 1886, a man might enter the profession after three winters' and two summers' study—that is, he completed his course, if he cared, in two years and six months of time of actual study. Now the minimum is five years; and so greatly has the curriculum of medical education been extended that the average time now spent by students of medicine is nearer seven than six years. During my membership biology and physics have been added to the science group in the curriculum which formerly comprised chemistry only, but which now embraces physiology and pathology also as special departments of practical medical training. In the final group of subjects ophthalmology, laryngology, and psychology are now included. From the medical student of to-day attendance on fifteen subjects is required, instead of eight subjects as when I first became your representative. In all this great work of development of the medical curriculum I, as your representative, have taken a responsible part.

In addition to the usual cycle of final inspections there has recently been an inspection and visitation of the first professional examination of all the degree and diploma-granting authorities, and a visitation of the preliminary science examination of some of them. As a result of these inspections and visitations the Council has become aware that a further rearrangement of the curriculum, in so far as the time devoted to clinical study and the methods of examination are concerned, is imperative. To this work the General Medical Council must, in the immediate future, address itself. Therefore it is that, at the end of a full twenty years' service, I am of opinion I can be of still further use to my professional brethren in Scotland should they again do me the honour to re-elect me to the Council as their representative. I accordingly again place myself in their hands.

In the future, as in the past, I will spare no effort to advance the efficiency of the healing art in dealing with disease, and to secure for the profession its just place in the country.

Further, I desire to state that, in my opinion, Direct Representation of the profession on the Council is at present altogether inadequate. The Medical Act of 1886 grants the Council the power of recommending to the Privy Council an increase in the number of such representatives. Although the profession has doubled its members since 1886, and the status as regards scientific knowledge in the profession as a whole has been greatly elevated, as yet the Medical Council has steadfastly refused to recommend any increase in Direct Representation. Time and again it has been urged to do its duty in this respect, and more particularly so as since, by the creation of new universities in England, the disproportion between the direct representation of the profession and this class of representatives has been becoming greater and greater. I am prepared to make a final effort to induce the Council to perform its duty in this important particular, and, should the Council persist in refusing to act, I am further prepared, along with my colleagues in direct representation, to bring the matter under the notice of the Privy Council, and to urge the Privy Council to exercise the powers which the 19th Section of the Medical Act of 1886 confers upon it. Should it be necessary for us to make such application o the Privy Council we shall expect to receive the upport of every registered Scottish practitioner. Finally, hould you do me the honour to send me again to the Medical Council, I trust that my long experience on the Council and its important Committees will enable me so o discharge my duties as to meet with the approbation f all the members of the profession in Scotland.

Your obedient Servant,
William Bruce, M.D.

Note.—Acting on the advice of medical friends, I have esolved to issue an address to my constituents at this arly date. I desire to make it clear that I am once more become a candidate for the suffrages of my fellow-ractitioners in Scotland.

I enclose a postcard, which I shall feel much obliged if ou will return by an early post.

W. B.

A meeting in support of Dr. Bruce's candidature was eld in Glasgow last week under the chairmanship of Sir Hector Cameron. Dr. Bruce made a speech in which he eviewed the work of the General Medical Council during he last twenty years; he referred especially to the action which the Council had taken in preventing unqualified assistants from assuming duties they had no legal right to perform to the detriment of the public and of the younger members of the medical profession. He also mentioned the course the Council had taken with regard to advertising of medical aid associations, and stated that he was in favour of a rearrangement of the medical curriculum rather than of the addition of a sixth year. Subsequently Dr. Bruce was asked a number of questions, among others whether he would support the Bill of the British Medical Association for the amendment of the Medical Acts, and whether he would insist upon the grievances of the Scottish Poor-law medical officers being considered by the General Medical Council should those of the Irish Poor-law medical officers be again brought before it. The candidate's answer to both questions was in the affirmative.

We have received the following letter from Dr. Norman Walker:

7, Manor Place, Edinburgh,
March 5th, 1906.

General Medical Council.

Sir,—Owing to your note in last week's British Medical Journal, and possibly for other reasons, a number of friends have written inquiring whether I propose to issue at an early date an address to the practitioners of Scotland.

Will you allow me to say, first, that it is probable that I shall be a candidate, and second, that it seems to me premature to commence actively in March a campaign which cannot end until November?

In the meantime I merely express the hope that the electors will wait until all the candidates are before them before committing themselves to any one.—I am, etc.,

(Sgd.) Norman Walker.

Royal Infirmary, Glasgow.

The vacancies on the staff of the Royal Infirmary were filled up last week. Owing to the retiral of Dr. McVail and of Drs. Knox and Clark one post as physician and two as surgeons were vacant. The Committee of Management selected Dr. W. K. Hunter for the medical wards, while the surgical posts were given to Dr. H. Rutherford and Dr. P. Paterson. The retiral age at the Royal Infirmary is fixed at 60, while in the Western Infirmary the age limit is put at 65, though this does not affect four university professors, whose appointment is for life.

Ireland.

Dunville Lectures on Popular Physiology, Queen's College, Belfast.

Professor Milroy delivered the first of the Dunville lectures on popular physiology in the Queen's College, Belfast, and chose for his subject Dietetics. There was a large audience, and the close attention shown testified to the high appreciation in which the lectures are held; they cannot fail to prove of great benefit in the diffusion of accurate and useful scientific knowledge.

Notification of Consumption in Cork.

The Public Health Department of the Cork Corporation have decided to adopt a voluntary system of notification of consumption, and have announced at the same time that the Public Health Committee are prepared to carry out the disinfection of all such cases free of charge. This is practically the outcome of a resolution sent by the members of the Cork medical profession some months ago to the Cork Corporation requesting them to adopt this form of notification.

Case of Addison's Disease.

An inquest was held in Cork Union on the death of a girl, aged 15½ years, who died suddenly a few days after admission to the Union Hospital. She had been an inmate of the union previously, as her father was dead and her mother had deserted her and she had been sent out to domestic service in November last. Dr. Morrissey, Resident Physician, stated that when he saw deceased on admission she seemed to be seriously ill, and he sent her to hospital. He came to the conclusion she had symptoms of Addison's disease; the skin showed the peculiar colouring; under the belt strings there was a black line round the body, and there was great prostration. Dr. Cummins bore out Dr. Morrissey's statement as to the symptoms, and said the peculiar bronzing of the skin would be the only symptom noticeable to outsiders. He thought the apathy which went with the disease was the probable cause of the girl's neglect to keep herself clean. A *post-mortem* examination showed well-marked tuberculous disease of the suprarenal bodies, there being no deposit of tubercle in the other organs.

Limerick Board of Guardians.

The initial salaries of the dispensary medical officers of the Limerick Union have been fixed at £150 per annum, to be increased after every five years of approved service until a maximum salary of £200 is reached on the completion of twenty years' service; the salaries of the apothecaries to be—workhouse initial salaries £100, to be increased by £12 10s. every five years until the maximum of £150 is reached; city dispensary initial salaries £125, to be increased every five years by £7 10s. until the maximum of £155 is reached.

SPECIAL CORRESPONDENCE.

PARIS.

Académie de Médecine: MM. Vaillard and Dopter on the Serum Treatment of Bacillary Dysentery.—MM. Calmette and Breton on the Danger of Ingestion of Tubercle Bacilli which have been Killed by Heat.—The Quinquennial Census.

At a recent meeting of the Académie de Médecine, MM. L. Vaillard and Dopter made an interesting communication on the results they have obtained from antidysenteric serum which they have prepared at the Pasteur Institute. Two principal forms of dysentery are recognized: (1) that due to the *Amoeba dysenteriae* is a tropical disease, often leading to abscess of the liver; (2) that caused by a special bacillus, never accompanied by abscess of the liver, but very contagious. The researches of Vaillard and Dopter concern this second variety, which besides being very frequent in the tropics, is also epidemic in the summer months in temperate regions. Since 1903 they have been rendering several horses immune at the Pasteur Institute by weekly inoculation of alternate and progressively larger doses of living bacilli, and soluble toxin; the latter is obtained by filtering through porcelain a bouillon culture which has been kept for twenty days at 37° C. The injections are made first subcutaneously and then intravenously. Experiments on rabbits have shown that the serum thus prepared has a preventive action, lasting for eight or ten days, and also a curative action. The serum has been applied in 96 cases of dysentery in man as the sole remedy. The cases were of different intensity, the gravity being estimated by the daily number of stools, the intensity of the painful symptoms (colics, tenesmus), and the symptoms of toxaemia (hiccough, vomiting, subnormal temperature, cramps, weakness, rapid loss of flesh, etc.). With the usual methods of treatment the disease lasts six to twenty days or more, and may become chronic. The authors classify their 96 cases as follows:

	Stools in 24 Hours.	Number of Cases.	Deaths.
1. Ordinary cases ...	15 to 20	50	0
2. Severe cases... ...	30 to 80	18	0
3. Grave cases	80 to 150	24	0
4. Very grave cases ..	150 to 288	4	1

The efficiency of the serum is shown by the following results:—(1) Almost immediate action on all the local and general symptoms: Generally speaking, a few hours after the injection of serum the patients get a true feeling of well-being. The abdominal pains and tenesmus become calmer, and, except in very grave cases, disappear during the first twenty-four hours. The intestinal troubles at the same time are remarkably modified; the stools are no longer sanguinolent, and their number falls rapidly; in forty-eight hours they are no longer glairy, become faecal, and soon there is but one daily motion. The general condition and the symptoms of toxaemia are influenced equally rapidly; the vomiting and hiccough stop, the cold extremities and subnormal temperature gives way to normal temperature and good pulse; the appetite returns, and the patients demand food. In severe cases the improvement is rarely seen under forty-eight hours, but, once started, is complete in a few days. (2) Rapidity of the cure: With the usual methods of treatment the ordinary cases of dysentery last ten to fifteen days, the grave forms taking twenty to thirty days or longer; convalescence is often long and difficult. In all the patients treated by the serum the disease was cured in two or three days in ordinary cases, in three to four days in severe cases, in four to six in the grave cases. In four patients considered as hopeless, three were cured after eight, eleven, and twenty days respectively; the fourth case died on the thirteenth day. The duration of the disease is thus much reduced, and convalescence is shorter and much easier, the majority of patients being completely cured in eight or ten days. In very grave forms convalescence may be prolonged for a month. Relapses are rare; the authors have seen two cases—one in the third week, the other on the tenth day after the last injection of serum, that is, when its action is exhausted. These relapses are immediately stopped by a single dose of serum. The serum would appear also to act in chronic or lengthy cases, for one case which resisted the usual treatment for five months was radically cured by three injections of serum. (3) Method of using the serum: The serum is given by hypodermic injection, the dose varying with the gravity of the case. In ordinary cases 20 c.cm., in severe forms 30 c.cm., are often, when given at the beginning of the disease, sufficient to give immediate relief. If after twenty-four hours the colic persists and the stools are still too frequent, the injection must be renewed. Sometimes a third injection in smaller dose is useful to hasten the cure. In grave cases 40 to 60 c.cm. must be injected at once, and the same dose repeated the following day; if intestinal troubles still continue the serum must be given daily in decreasing doses till the stools are but few in number. In very grave cases 80 to 100 c.cm. were given in two injections during the day; the injections were given in decreasing doses for six, eight, and seventeen days consecutively in the three cases which recovered. The authors concluded that this serum, which is harmless for man, affords a specific treatment for dysentery of bacillary origin, acting both on the intestinal affection and on the symptoms of intoxication.

MM. Calmette and Breton, of the Pasteur Institute at Lille, in a recent number of the *Presse Médicale*, wrote on the danger of ingestion of tubercle bacilli which have been killed by heat. From experiments on guinea-pigs they conclude: (1) In guinea-pigs already infected with tubercle, either through the digestive organs or by intraperitoneal injection, the repeated ingestion of small quantities of tuberculous bacilli killed by boiling considerably hastens death, in the same way as repeated injections of small doses of tuberculin; (2) in healthy guinea-pigs the repeated ingestion of tubercle bacilli killed by boiling is not inoffensive, and at times produces disorders exactly similar to those observed in healthy animals to which are given at short intervals several small doses of tuberculin. MM. Calmette and Breton think it right, therefore, to call attention to the fact that the ingestion of tuberculous products, even sterilized by heat, may be very dangerous to patients already affected with tubercle, and may not be harmless for those who are free from tuberculous taint. As sterilization by heat does not remove harmful properties from milk, milk from tuberculous cows, even when sterilized, should be forbidden as food for man. Tuberculous children and adults should never be given milk, even sterilized, from suspicious or tuberculous cows. These new facts should decide legislation to make new regulations for the strict inspection of cowhouses when the milk is intended for sale, and for the periodic testing by tuberculin of all the cows.

The quinquennial census in France was taken on Sunday, March 4th. His Majesty the King made his return at the British Embassy. At the last census both Queen Victoria and King Edward VII, then Prince of Wales, were on French territory.

The late Mr. George Goyer Gilligan of Reading left £100 to the Royal Berkshire Hospital.

CORRESPONDENCE.

A SCHEME FOR AN ARMY MEDICAL RESERVE.

Sir,—You were good enough to publish a letter of mine written against the employment of purely civilian medical aid to supplement any shortage of the R.A.M.C. during war time. Can I trespass further upon your indulgence by asking you to publish the following ideas as the basis of a scheme for a practical army medical reserve which would be available both in peace as well as in war? I laid down in my former letter that the cause of failure in the past had been the belief that an army medical reserve could be created upon the spur of the moment, and from civilian aid. I tried to show—and from the sympathetic letters I have received I believe a number agree—that civilian medical aid must for success be limited to stationary hospitals in which there are trained female nurses.

It is very generally agreed that some practical scheme must be evolved for the augmentation of the R.A.M.C.

Both for efficiency, economy, and certainly for common sense, any scheme that can produce the desired end must be founded upon the dogma that an army medical reserve is to be in reality not a mere paper scheme; that the reserve is created and maintained to supplement the R.A.M.C.

Granted that, it is only common sense that the reserve must be trained upon similar lines to that of the R.A.M.C.

Every one realizes the value of co-ordination in education. At the present time both the R.A.M.C. and the volunteer medical services are trained on the same lines and instructed from the same manual. All that is wanted is to co-ordinate the R.A.M.C. and the volunteer medical services so closely that, when required, the volunteer medical services can supply any deficiencies in the ranks of the R.A.M.C. as high as that of Principal Medical Officer of a district. To attain this object the volunteer medical services must be welded into one—a R.A.M.C.(Vols.). At present we have in the volunteers three divisions. I give them in their seniority:

1. Officers of units.
2. Of the R.A.M.C.(Vols).
3. Of bearer companies of brigades.

It is true that for similarity of titles and of uniform 2 and 3 are alike, and there their identity ceases.

All three branches must be welded into a service—the R.A.M.C.(Vols.).—so that whatever branch a medical officer joined he would, on his gazette, automatically become an officer of the R.A.M.C.(Vols.).

The advantages would be:

1. A real service would be created that possessed a united voice.
2. There would be similarity of title of rank.
3. There would be one uniform.
4. There would be regularity in promotion.
5. There would be a free exchange, so that when a medical officer moved his residence he could be attached to a new and near unit.
6. It would obviate the present difficulty of getting medical officers for camp which so frequently occurs now; under existing circumstances, when the unit medical officer cannot go to camp there is no channel (official) by which a substitute can be found.

The objections to this are:

1. Some medical officers consider their unit as a club.
2. The officers commanding volunteer units seem to consider their medical officers their own private property and object to any interference with "their doctors." This proprietorship alone prevented the employment of numbers of volunteer medical officers during the late Boer war.
3. The majority of combatant officers in power at the War Office have been in the Guards, and are naturally in favour of the medical traditions of the Brigade of Guards.
4. A R.A.M.C.(Vols.). would mean an establishment, and starting there would be a preponderance of senior officers, but Anno Domini soon will reduce that.

My object is:

1. To create a service—the R.A.M.C.(Vols.).
2. To augment the R.A.M.C. in peace as in war.
3. To induce officers of the R.A.M.C. who have retired upon gratuities to join a similar service and give a backbone to the R.A.M.C.(Vols.), and so be optionally available.

Technical education. During the controversy last year on volunteers, generally the commonly expressed idea was that volunteers could and should be more self-contained, and more capable of self-education than at present.

In no branch of the volunteers is that more feasible or so practicable as in the medical branch. Because the medical officer starts as an expert in his professional duties; having already obtained State recognition of his fitness to "kill or cure." He only has in that respect to learn how to accommodate that knowledge to the service environments. What he must be taught are discipline, drill, and soldiers. The State has properly demanded that an examination must be passed A.F.E. 564 before the officer can obtain his uniform grant or promotion. The State also gives an allowance to those who attend one of their schools for from four to six weeks, and then pass an examination. Practically this is prohibitive, for in nearly twenty years only some forty, I believe, have availed themselves of it.

On the other hand, we know that some 700 have obtained the pass after instruction at the Volunteer Ambulance School of Instruction, and have done that of their own desire and at their own expense. I would suggest that all medical officers who attend that or other schools on producing a certificate and on obtaining their pass be allowed £1 a day for the period of the school class. My position as Senior Medical Officer of that school makes me reticent of saying more; I simply express what numbers of medical officers have desired. Perhaps my opportunity of voicing them is unique.

Any time after obtaining promotion, and as a *sine qua non* before field rank, every medical officer should attend for fourteen days a military hospital, receiving allowances.

Before a senior medical officer to a brigade was gazetted he should also have attended a station hospital and seen the interior economy of the office at a district under a principal medical officer, here, again, receiving an allowance.

In creating this service, R.A.M.C.(Vols.), more inducements should be given to develop those who can and will work, and there should be a volunteer senior medical officer at the War Office, with temporary rank of Surgeon-General, upon the staff of the Director-General, who should advise on volunteer matters. He should see that all units go into camp provided with a medical officer; he should during camp time inspect the medical *personnel* of all brigades and units; and should see that no brigades go to camp without an adequate brigade medical unit. This can be done by posting such units from divisions of R.A.M.C.(Vols.).

I believe very strongly that brigade medical units of divisions of R.A.M.C.(Vols.), say from Glasgow, Manchester, London, etc., would obtain more advantage if posted for for fourteen days to field army brigades in their camps, than by being trained in a large body.

Now, to make this or any scheme a success, the authorities must give a *quid pro quo*, and in this case (1) I would suggest treating, when in camp, the medical officers liberally, because no medical officer can leave home without a *locum tenens*, and camp is also the substitute for the annual holiday; (2) volunteer medical officers should have the preference for gaol, post office, and civilian care of troops; (3) honours now given to combatants should, as promised in 1886, be shared by the medical; (4) one physician and one surgeon to the Sovereign be given; (5) a representative on the Advisory Board and upon the Red Cross Society.

If my scheme were carried out we should have a service of nearly 1,100 medical officers and 6,000 non-commissioned officers and men, of which 20 per cent. would be always available for service, and at a cost of less than £50,000 a year. It is better, in my opinion, to spend more on a service and not to subsidize a few.—I am, etc.,

P. B. Giles,
S.M.O. Volunteer Ambulance School of Instruction;
S.M.O., XXXth Field Army Brigade.

March 5th.

THE ARMY MEDICAL SERVICES.

Sir,—I read with the greatest interest your most instructive article in the British Medical Journal of March 3rd on the above subject, and I certainly think that we ought all to feel greatly indebted to Sir Frederick

Treves for calling public attention to the matter, because I think that it is very evident that we are now very short of medical officers for the army, and one must see that it is quite impossible to keep the department up to its work, and especially so when on active service, with an insufficiency of skilled and trained medical officers.

There is certainly no lack of non-commissioned officers and men in the R.A.M.C.—at least, such is the case in the volunteers. As with the battalion to which I have the honour to belong, there are always a number of men waiting for vacancies, and this is due, in my opinion, greatly to the very good work that the St. John Ambulance Association are doing all over the country in getting young fellows interested in ambulance work; but the great dearth of qualified men to take the part of officers is certainly most serious. Though no doubt, during the Boer war, some most excellent work was done by civilian surgeons—and I never see one of these men with the South Africa medal without looking upon him with the greatest respect, as I consider the way many of these men left their practices and their homes and were away twelve months or more reflected the greatest credit upon the whole medical profession—but for the R.A.M.C. always to rely upon these men coming to its assistance is wrong, as it makes its existence far too precarious, though no doubt the lectures now being given will better equip men for medical military work, and also give them a greater interest in it. But, as you say, the best equipped for such work—that is, of course, with the exception of the actual R.A.M.C. men—are the medical officers of the reserve forces, as we have all learnt our drill, at first with the recruits in the squad, then company, and finally battalion drill. I also take it that 90 per cent. have passed their army proficiency examination before a properly-constituted Medical Army Board, and this examination is by no means easy. I myself had to coach for it for six months, and had to read very hard, and the experience we gain during our annual training is also of the greatest assistance; and the weekly drills and lectures we give must in every way fit us more for active service than men who have only sat and listened to a few lectures on the subject. I believe it is a fact that every medical officer attached to the reserve forces is wishful to do all he can to assist his King and country, otherwise he would not now occupy the position he does; and I am sure that the majority would still do more, if they knew what was expected of them, by becoming attached to the Army Medical Reserve. I am sure I would for one. I certainly work extremely hard for the good of my battalion, and I and my brother officer take care that every man in the ambulance section attends his drills and passes every year his examination in first aid and stretcher work—a thorough test conducted by an officer of the R.A.M.C. But I think now, if we could have it explained what it meant being on the Army Medical Reserve, many would join, and if a meeting were called, say in London, I am sure many would turn up, though, as you say in your article, our time now is fairly well taken up, and especially so during the winter months in the drill season; but if we could in any way assist the Army Medical Department, I am certain as patriotic and loyal men we should only be too glad to do so.—I am, etc.,

L. DEMETRIADI, M.D.,
Huddersfield, March 7th. Surgeon-Captain, 2nd V.B.W.R. Reg.

THE RELATION OF THE MEDICAL PROFESSION TO WAR.

SIR,—Mr. Keetley in his excellent letter in the BRITISH MEDICAL JOURNAL of February 24th on the relation of the medical profession to war, describes his heart-searchings when the question occurred to him, "Why have I never been a volunteer medical officer?" and he answers (*inter alia*) that he "had not realized how much more than his ordinary professional training a man needs to fit him for the position of a military medical officer." This remark is greatly to the point, but its truth would be still further accentuated were it understood how such extra training is not only instructive but in itself full of interest if acquired by the civil practitioner on the lines of the training of the R.A.M.C.

In contrast to that of the regimental volunteer medical officer, the training in the militia and volunteer R.A.M.C. is much more complete and interesting, and is entirely on the lines of the regular R.A.M.C. The officer has a definite command, commencing from the subaltern of a half company, leading to the captaincy of an entire company, thence to becoming major and second in command, and so to the command of the companies of his district—for example, London, Manchester, Glasgow, Woolwich, etc. He is instructed in the technical drills, in which and in the practice of first aid he instructs his men, while the succour of the wounded in the field, in the functional work of the bearer company at the fighting line, collecting and dressing stations, and the more complicated but very interesting work of the field hospital and sick convoys, as also the administration of the various military medical units, are all actually practised.

That more of the junior members of our hospital staffs and younger general practitioners do not avail themselves of the opportunities furnished at these various centres is most astonishing when one remembers the recognized patriotism of our profession, and can best be accounted for by assuming ignorance on their part of the *genuinely interesting* character of the work.

It, of course, stands to reason that this particular line of work will only appeal to a certain class of mind, but there must be many of that class, both in London and other great towns, who would eagerly embrace the opportunity of combining useful work with interesting relaxation, did they but grasp the fact that the Militia and Volunteer R.A.M.C. combine both in a high degree.—I am, etc.,

VALENTINE MATTHEWS,
Lieutenant-Colonel, Royal Army Medical Corps (Volunteers), Commanding London Companies.
London, S.W.

A NAVAL AND MILITARY MEDICAL SOCIETY IN LONDON.

SIR,—There is need of a Naval and Military Medical Society in London to discuss scientifically all matters connected with these services. It would include the Militia, Volunteer, and Yeomanry medical officer, and all persons interested in Ambulance Red Cross work in peace and war, and military sanitation. So far as I know, London is the only capital city without such a society.

I suggest a way by which the British Medical Association can greatly assist the formation of such a society. We have now succeeded in forming a Navy, Military, and Ambulance Section at our annual meetings.

I ask why should this Section cease to exist when the annual meeting is over? I desire that this Section be allowed to meet monthly in London, under the same presidency as controlled the Section at the annual meeting of the British Medical Association. This would ensure an independent society free from any War Office control or interference, and able to criticize its action and make suggestions—a thing impossible in a closely-controlled official body.

I maintain that all Sections of the annual meeting should exist and work until the following annual meeting, but this is a larger question than the one I now put forward.

Whether the British Medical Association is sufficiently interested to develop such a society or not, the need of some such body surely exists. I strongly advise the consideration of this question.—I am, etc.,

London, W. GEORGE J. H. EVATT.

THE PANCREATIC REACTION IN THE URINE.

SIR,—The interesting paper on pancreatic necrosis and the pancreatic reaction in the urine which appeared in the BRITISH MEDICAL JOURNAL of February 24th is a valuable contribution to our knowledge of the still obscure question of diseases of the pancreas. Although I am naturally gratified to hear that a gentleman who is a skilled chemist has found the reaction in the urine I have described of value, I am afraid I cannot agree with several of the conclusions at which Mr. C. Lovatt Evans has arrived.

Mr. Evans says that the "B" reaction is of little use. This has not been my experience, for I have found that the difference in the amount of the deposit yielded by the "A" and "B" reactions is, as a rule, an indication of the degree of active inflammatory reaction in the pancreas. Like all other comparative tests, however, that are not capable of accurate measurement, its interpretation is to a certain extent dependent on the care with which the experiments are performed and on the experience of the observer. To avoid this difficulty I have for some time been employing a modification of the test which depends on the result obtained from a single preparation. A paper giving a full account of the improved method has been accepted by the Royal Medical and Chirurgical Society.

Another point I would like to refer to is the question of the presence of glycerine in the urine in diseases of the pancreas. It has never been my intention to suggest that glycerine had been proved to be present in these cases or that the methods of examination I described were specific tests for that substance. It is true that the tests were originally based on the assumption that glycerine might be found in the urine in cases of disease of the pancreas, but I carefully refrained from claiming that it had been demonstrated. The theory was only mentioned in describing the origin of the methods of examination, and subsequent experiment has indicated that the tests do not depend on the formation of a phenylhydrazin compound of glycerose.

I agree with Mr. Evans that the indications given by the "pancreatic" reaction must be considered in the light of all the available evidence; in fact, I have repeatedly insisted on it, and in giving an opinion on cases submitted to me I always take into account the results of a complete chemical and microscopical examination of the urine, together with, if possible, an investigation of the faeces, according to the method I described in the JOURNAL of October 28th, 1905.—I am, etc.,

London, W., Feb. 26th. P. J. CAMMIDGE.

INTERNATIONAL MEDICAL ASSOCIATION TO CONTRIBUTE TO THE SUPPRESSION OF WAR.

SIR,—References to the above Association have already ppeared in the BRITISH MEDICAL JOURNAL. I have been sked by the President, Dr. J. Rivière of Paris, to assist in ringing its work and aims to the notice of medical men ere having at heart the abolition of war with all its ccompanying brutalities and horrors.

The object of the society is to protest against the settle-ent of disputes between nations by armed conflicts, and ıus give assistance to the preservation of peace by rbitration.

The following are among those who have joined the eneral Committee: d'Arsonval, G. Baccelli, Berthelot, ouchard, Lucas-Championnière, Crichton-Browne, Erb, on Esmarch, Hayem, Hoffa, Huchard, Landouzy, Lassar, ombroso, Pozzi, W. Thomson, Roux, Anton Weichselbaum, amuel West.

No subject should appeal more to members of a profes-on whose lives are devoted to the prevention and cure of in and disease than this humanitarian movement. shall be pleased to send a form for application for embership to all those who write for one. It is pro-sed to call an international congress in Paris to discuss e subject some time during the year 1907.—I am, etc.,

ondon, W., Feb. 26th. W. KNOWSLEY SIBLEY.

ECENT SURGICAL METHODS IN THE TREATMENT OF CERTAIN FORMS OF PARALYSIS.

SIR,—In the oration delivered before the Hunterian ciety by Mr. A. H. Tubby on "Recent Surgical Methods the Treatment of Certain Forms of Paralysis," which s published in the BRITISH MEDICAL JOURNAL for arch 3rd, p. 481, he makes a statement which, were it owed to pass without notice, would give a very wrong pression of the history of nerve-grafting.

The statement to which I take exception is as follows: he first authentic case of nerve-grafting in man was by k and Sänger," the reference being given as *Langenbeck's ch. f. klin. Chir.*, 1897, Band liv, p. 271.

f Mr. Tubby will refer to the Clinical Society's *Trans-ions* for 1889, he will find the notes of a case in which I fted a portion of the posterior tibial nerve from a ently-amputated limb to made up the deficiency of the dian nerve in the forearm of a girl, who had had a coma removed from the arm the day previously. This been acknowledged by various authorities as being first case of nerve-grafting in the human subject; reover, it was completely successful. This operation performed on September 1st, 1888, whereas the ration to which Mr. Tubby refers was performed in y, 1893.

If Mr. Tubby will also refer to the BRITISH MEDICAL JOURNAL of October 31st, 1896, he will find another case of mine, operated on in 1890, in which the spinal cord of a rabbit was employed to make up the deficiency of the median nerve of a man whose forearm was completely paralysed, and who was sent to me with the intention that I should amputate it as it was useless and in the way. After the grafting of the median nerve and resection of the ends and suture of the ulnar nerve, complete and perfect recovery ensued, and in the paper referred to will be found the electrical reaction of the muscles at subsequent dates.

I cannot but be astonished that one who professes a speciality and essays to give the history of it should ignore the priority of English surgery in this branch of work and give credit to a foreign surgeon as having performed the earliest operation of nerve-grafting in man, when that operation had not only been done five years previously by myself, but had been followed by several other successful operations by myself and colleagues (see paper by the late Mr. Edward Atkinson, BRITISH MEDICAL JOURNAL, September 13th, 1890), all of which cases had, moreover, been fully reported in the transactions of societies or in the medical journals.

I notice that the sentence in question is placed under the heading of "nerve anastomosis and transplantation," though the term actually employed by Mr. Tubby is nerve-grafting.—I am, etc.,

London, W., March 5th. A. W. MAYO ROBSON.

THE POOR-LAW COMMISSION AND CONTRACT PRACTICE.

SIR,—"Anti-Club" quite misses my point. I have not protested against the proposed abolition of all contract practice—to the disadvantages of which no one is more alive than I am—but against the proposal to hand over my contract work to others to carry on *as contract work*, either now or at my retirement. I shall continue to resist such a proposal with all the means in my power.—I am, etc.,

February 26th. SELF-PRESERVATION.

SIR,—I read with much pleasure and entire approval the letter of "Anti-club" in the BRITISH MEDICAL JOURNAL of February 24th. He seems to me to be one of the few medical men in the country who realize what club practice really is. From a business point of view it does not pay; and I think if instead of wading through the report on contract practice club doctors would work out for themselves what they get for journey, advice, and medicine per patient, they would be very sorry for themselves. The plausible argument that the many pay for the one is incorrect; but the club doctor, if conscientious, is too overworked and too sick of clubs to bother about club statistics; and so the people who are sweating him have their say unchallenged, and say it, of course, from their own interested point of view. No doctor can give club patients proper attention and not lose by it, and so the unconscientious club doctor either hands over his club patients to his assistant to practise on, or, if he has no assistant, gives them the dregs of his time and skill himself. In any case the patient suffers.

From the time I went into practice I have always refused point blank to take club patients, explaining to those who come what club-doctoring means to doctor and patient, and I have never lost a patient by so doing who was worth having.

The public are quite able to understand that a doctor who accepts a few pence for time, expert advice, and medicines naturally only gives them a few penceworth; and they argue then that, as he presumably has no more value to give them, they must be chary of trusting their lives to him.

I have been amused at the distinction drawn between "proper doctors" and "club doctors" by patients, and I remember a conversation between two men, one a "clubber" the other not. Said the "clubber," "I always go to So-and-so, my club doctor"; said the other, "Oh yes; but you have never had a serious illness; when you do you will have to go to a proper doctor."

There is only one treatment for the club-practice disease that has infected our profession, and that is free excision;

but that treatment will never be adopted so long as the Association is feebly content with palliative measures. I enclose my card.—I am, etc.,

ANOTHER ANTI-CLUB.

February 25th.

Sir,—As I was responsible for starting the correspondence which has led "Anti-Club" to criticize certain features of "Self-Preservation's" practice, may I be allowed to say that I think his criticism is beside the mark? On the one hand, "Anti-Club" argues that "Self-Preservation" should submit to the immediate division of his club practice amongst his neighbours; and, on the other hand, he chides the Contract Practice Committee for suggesting the general adoption of the only means by which this could be in any case satisfactorily arranged—namely, by the establishment of a public medical service. "Anti-Club's" attitude of mind is a very common one, and is very detrimental to true progress. He thoroughly appreciates the disadvantages of an abuse, but he deprecates taking the only action which will remove it. The widespread prevalence of the club system shown in the Contract Practice Report must make it clear that the profession and the public want some means of overcoming the difficulty caused by the inability of many persons to pay adequate fees. The abuses laid bare do not make that difficulty any the less, but indicate the necessity for an alternative plan from which the abuses can be eliminated.

The essential abuse of the private club system is that there is a one-sided collective bargain. According to "Anti-Club's" calculation based on the figures in "Self-Preservation's" practice there are in this case one thousand club patients against one doctor. Now, in the event of a public medical service being established in "Self-Preservation's" district and all the doctors willing to do club work combining, it is true that the proportion on the two sides might not be very different, but the fact that all the available doctors were acting collectively in the bargain would ensure that rates of payment, wage limits, and other vital points in the management of the public service would be arranged to the mutual advantage of the two contracting parties.

It is my sincere hope that some means may be found to enable the medical profession to bargain collectively with the Government as to the payment that should be made for the medical attendance upon paupers. Where there is a public medical service such a body might well on suitable terms undertake the Poor-law work whenever a vacancy occurred in the Poor-law service. I cannot for a moment allow that "Self-Preservation" makes any case for himself in his contention that because in buying his practice he paid more for it on the chance that he might secure the appointment of Poor-law medical officer he is therefore justified in expecting that he or his executors should have the right of appointing his successor and making him pay for his appointment.—I am, etc.,

PROFESSIONAL UNION.

February 27th.

BIRMINGHAM AND BERLIN CONTRASTED.

Sir,—May I correct a mistake into which the Birmingham brass-workers have fallen in their report of their Berlin experiences? In the paragraph on compulsory assurance the report—as quoted in the BRITISH MEDICAL JOURNAL of February 17th—says that "any worker may consult any medical practitioner, who is paid only one mark for the consultation." This is not the fact. Only those practitioners can be consulted who allow their names to be put on the "Krankenkassen list," and that the leading specialists are not among these will easily be believed.

The report, as quoted in your columns, contains numerous inaccuracies, for instance, what is meant by the phrase, that "babies are not allowed to share a bed with the mothers?" and the reporters seem to have seen many things *couleur de rose*. I am the more surprised, therefore, that they should not have been struck by the one great difference between Berlin and English cities. Drunkenness among women is practically non-existent in Berlin! You see none of those bedraggled figures in cast-off clothing slinking by, with pale and sodden faces and dusty, uncombed hair surmounted by something nameless and shapeless, that was once a lady's bonnet—figures so sadly familiar to the eye in English towns about nightfall. The Berlin workman's wife is invariably sober and when seen out of her home invariably neat and tidy. Sober mothers do not think of giving their babies spirits, and thus the craving for drink cannot arise so early, nor be so deep-seated.

Of course Berlin, like all large cities, has its slums and its wastrel population. But in workmen's families it would be considered a disgrace if the sons were not properly trained to earn their living. And consequently one does not see at every street corner knots of loafers and idlers, as in Birmingham.—I am, etc.,

YOUR BERLIN CORRESPONDENT.

Gries bei Bozen, Tirol, Feb. 25th.

OBITUARY.

THOMAS EDMONSTON CHARLES, M.D., LL.D.EDIN. F.R.C.P.Lond.,

HONORARY PHYSICIAN TO THE KING; LATE I.M.S.

It is with the deepest regret that I record the death o my old, much-loved friend and brother officer, Thomas Edmonston Charles, of the Indian Medical Service, which occurred at Flushing, Falmouth, on March 2nd from exhaustion the result of anaemia and senile changes and consequent deteriorated health. He had resided for the last few years, for the sake of his health, in the mild climate of Flushing, and in some respects had improved, but latterly there had been a sudden deteriora tion of health. During his residence in Cornwall Dr. Charles had made many friends and had from his generous and kindly nature become very popular among all classes, and is by all greatly and justly regretted.

Thomas Edmonston Charles was born in Calcutta in 1834. His father was an eminent divine of the Scotch Church in Calcutta, and was much respected by all classes. Dr. Charles was educated in Edinburgh, became M.D. in 1855 and L.R.C.S.Edin. in the same year; in 1856 proceeded to India as a member of the Bengal Medical Service. Soon after arrival he was attached to the 1st Bengal Fusiliers, served with them during the campaign of 1857-8, and took part in the celebrated march from Dugshai to Umballa. He was in medical charge of 400 men of that regiment and two squadrons of H.M. 9th Lancers, forming the advanced brigade of the army; was present with the regiment at the battle of Badlee ka Sarai on June 8th, 1857, and throughout the entire siege of Delhi till its final capture on September 20th. He accompanied the column under Brigadier J. G. Gerrard, C.B., into the Rewaree District against the Jeypore and Jodhpore rebels, and was with Sir Thomas Seaton, K.C.B., during his operations in the Doab; was present at the action of Gungeyree, the battles of Ruttialee and the affair at Mynpoorie. He was with the army on its second advance on Lucknow under Lord Clyde, and was with the storming party of the 1st Bengal Fusiliers, who took the enemy's first position at the Chuker Kotee and other points in their line of defence. He was present throughout the rest of the siege of Lucknow, and subsequently with the column under Sir Hope Grant, K.C.B., in Oude. He was mentioned in the dispatch of Major Hume of September, 1859, and received the India medal, and clasps for Delhi and Lucknow. He was appointed Garrison Assistant Surgeon, Allahabad, 1859 Officiating Garrison Surgeon in 1859, and First Assistant to the General Hospital, 1860. Soon after this Charles returned to Calcutta and joined the General Hospital where he held an important post. On the retirement o Dr. Wilson, of the Medical College of Bengal, from the post of Professor of Midwifery and Obstetric Physician Charles was appointed in his place. He continued to perform the duties of this office for many years with great success and with much benefit to the cause of medical education in India. Not only as an obstetric but as a general physician Dr. Charles met with great success, and obtained a large practice in the Presidency. The trying and responsible duties of this work in an Indian climate in time produced their natural results and rendered i necessary for him to resign, in 1880, an appointment which had been to him the source of much professional reput and its consequent advantages. While in Calcutta h founded and superintended the construction of the Eden

Hospital, a service to which he always reverted with much atisfaction.

On returning to Europe Charles did not relinquish the ractice of his profession, but settled for some years at annes, where he became as popular and as highly steemed as he had been in Calcutta. In 1886 he left annes and went to Rome where he also became well nown and much esteemed. There he remained until ailing health and increasing debility suggested the ex-ediency of trying the influence of the mild climate of Vest Cornwall, and in 1902 he took up his residence in lushing, where he had previously wintered for some ears, and was to be seen most days sailing in his boat in he harbour. With his usual energy he interested him-elf in local matters, political and other. He had een Chairman of the Truro Division of the British ledical Association for two years, and was only prevented y failing health from accepting the office of President-lect of the South-Western Branch which was offered him few days before his death. He had also just been ected a Vice-President of the Falmouth Hospital. In ort, he seemed to be so active as to afford ground for ope that his general health might be maintained suffi-ently to enable his valuable life to be prolonged for any years, but this was, unhappily, not to be, and he nk as described on March 4th, practically prematurely orn out by a life of strenuous and responsible work, uch of it in an Indian climate.

Dr. Charles held the rank of Surgeon-General, and was onorary Physician to the King.

While in Rome he made a special study of archaeology, d delivered lectures before the British and American chaeological Society. He was much interested in micro-opical research, and revised the Sydenham Society's nslation of Marchiafava's and Bignami's work on alarial fever. His energy was not limited to literary d professional activity, but he was, as far as his physical ergy would permit, an enthusiastic mountaineer, visit- Switzerland regularly for some years, and climbing, ongst other mountains, the Matterhorn and Mont Blanc. was also a fisherman in early life, and took interest in rt of all kinds, though limited somewhat by myopia.

Few names will be longer remembered in India than t of Dr. Charles. His great professional ability, the enuous and energetic manner in which he performed all duties, his high sense of honour, his amiable character, l his earnest desire to be of use to every one, not only anced his value as a public servant, but endeared him all with whom he was associated, and especially to se who, like the present writer, had known him oughout his career and appreciated the sterling quali- of his character. Dr. Charles was a staunch member of Established Church of Scotland, but this did not erfere with his broad-minded appreciation of other rches.

J. FAYRER.

JOHN ROBERT KEALY, M.D., M.R.C.S.,

SICIAN TO THE GOSPORT DISPENSARY OF THE ROYAL PORTSMOUTH HOSPITAL.

record with great regret the death, after only a few s' illness, of Dr. J. R. Kealy, of Gosport, an old and h-esteemed member of the Southern Branch of the ociation.

e was born at Ipswich on September 8th, 1830, was cated at Oxford House Academy, London, and after-ds had a distinguished career as a student at King's ege. During the cholera epidemic of 1849 he did good k under the Local Government Board.

r. Kealy commenced practice in Gosport fifty-two s ago, and in 1854 he entered into partnership with late Dr. Butcher, a well-known and much respected eon of that town. He was for many years a member he honorary medical staff of the Royal Portsmouth Gosport Hospital; he also held the appointments of nt and Surgeon for Portsmouth Harbour, and Surgeon e Government establishment at Priddy's Hard. He a keen interest in all the proceedings of the British ical Association, and was often present at the annual tings, and seldom failed to put in an appearance at meetings of the Portsmouth Division. He was one of original members of the Southern Branch, and filled office of Branch President in 1886, and when the annual meeting of the Association was held at Portsmouth in 1899 he held the position of Vice-President of the Ethical Section. He was also a contributor to the medical journals on many important professional topics, and had a considerable reputation in the practice of midwifery and the diseases of women and children.

By the residents of Gosport Dr. Kealy will long be remembered for his invaluable services in the public work of the locality, and also for his kind and practical sympathy in every benevolent movement. He took a warm interest in educational matters, and greatly aided in the development of the free public library. His voice was often raised in the cause of sanitary reform and in exposing the risks of antiquated methods fostered by ignorance and prejudice. He was a progressive member of the old Local Board of Gosport, and when it became converted by the Local Government Act into the District Council he was unanimously chosen by the members to occupy the position of President.

Throughout his long and successful career Dr. Kealy enjoyed the confidence of all the members of the profession residing in the district, and his life will be remembered as a bright example of honourable conduct under the guidance of the best and highest sentiments.

Dr. Kealy leaves behind him a widow and five sons. One of them, Dr. J. W. Gregory Kealy, has been associated with him in practice, and the other members of the family hold good positions in the navy, army, and Indian Civil Service.

The funeral took place on February 21st, amid many sincere manifestations of public sympathy and esteem.

WE regret to announce the sudden death, in the night of February 22nd and 23rd, of Professor MAXIMILIAN NITZE, Extraordinary Professor of Genito-Urinary Diseases in the University of Berlin, and the discoverer of cryoscopy.

DEPUTY-SURGEON-GENERAL HENRY CARDEN HERBERT, M.D., F.R.C.S.I., died at Plymouth, after a short illness, on March 2nd. He entered the service as Assistant-Surgeon, September 15th, 1857; became Surgeon, May 8th, 1872; Surgeon-Major, March 1st, 1873; Brigade-Surgeon, December 9th, 1882; and Honorary Deputy Surgeon-General, December 21st, 1887.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Elisha Hall Gregory, Professor of Anatomy and afterwards of Surgery in the St. Louis University, and President of the American Medical Association in 1886, aged 81; Dr. Léon Colin, retired Inspector-General of the Sanitary Service of the French Army, and a former President of the Académie de Médecine; Dr. John Slane Ely, Professor of Theory and Practice of Medicine in the Yale Medical School, aged 47; and Dr. C. A. L. Girin, doyen of the medical profession of Lyons, physician to the hospitals of that city, and President of the Société Nationale de Médecine in 1875 and 1876, and of the Association des Médecins du Rhone from 1888 to 1892, in his 95th year.

THE announcement of the death of THOMAS DAVIDSON SMITH, M.R.C.S., L.R.C.P., on March 3rd, has been received with great regret in many places, and especially at the London Hospital. He was a Lancashire man, and at the time of his death barely 31 years of age. His general education commenced at Lancaster Royal Grammar School and was continued at Jesus College, Cambridge. He obtained first class honours in the Natural Science Tripos in 1897, and became Science Master at Eastbourne College. Later on he entered the medical school of the London Hospital with a scholarship. As a student he distinguished himself in many branches and phases of hospital life, carrying off the Gold Medal in physiology at the London M.B. examination 1901, and for a couple of years or more proving himself a successful editor of the *London Hospital Gazette*. He left London about a year ago to take up an appointment as an Assistant Master at the Royal Naval College, Osborne, and it was there that his death occurred after a brief illness.

MEDICO-LEGAL AND MEDICO-ETHICAL.

CHRISTIAN SCIENCE BEFORE THE CORONER.

An inquiry into the death of Mr. Sydney Macalister Sharwood, aged 30, an Australian, was held by Mr. Luxmore Drew at Chelsea on February 24th. According to a report given in the *Daily News* of February 26th deceased had suffered from pernicious anaemia and had been under a doctor, who said the case was hopeless. He made a recovery, however, last July, and went to Switzerland. On his return he took up his residence at 28, Elm Park Road, where he stayed with a doctor who did not now practise, being a Christian Scientist. Several witnesses having given evidence, Herbert Fletcher, of Bolton Street, Chelsea, was called, and in reply to the Coroner said he had no profession, but had patients. He got fees, but not always. He had never studied medicine or had any experience of disease from a scientific point of view. He got his fees as a healer for prayer. The witness stated that he knew deceased had pernicious anaemia, and when he suggested that deceased might like a doctor he declined. During the night witness read and prayed, and in the morning deceased was much better. Witness was present at the death, which occurred very quietly. Mr. W. S. Montgomery Smith, M.R.C.S., L.R.C.P.Lond., of 28, Elm Park Road, stated that he was a registered medical practitioner, but did not practise. He was a Christian Scientist, and did not believe in medicine. He no longer followed his profession. He was never asked to treat the deceased. He was not expecting deceased to die, although two days before he seemed to be weaker. Dr. Arthur R. G. Pocock, of Beaconsfield, under whose treatment deceased had been, said death was due to fatty degeneration of the heart, set up by disease. With continuous medical treatment life would have been prolonged. The jury, in returning a verdict in accordance with Dr. Pocock's evidence, regretted that medical aid was not called.

LIBEL ON A MEDICAL MAN.

At the Central Criminal Court, on March 6th, Charles Foxlee, an ex-postmaster, formerly of Littleheath, near Barnet, pleaded guilty to publishing a defamatory libel on Dr. Robert Arthur Waddell, of Potter's Bar, and was finally ordered by the judge to find two sureties of £50 each, and himself bound over in his own recognizances to come up for judgement if called upon. From the statements made by counsel, as related in the *Daily Telegraph* and other papers, it appears that in July, 1898, Dr. Waddell attended the prisoner's wife during confinement, and had occasion to perform a saline transfusion on the child. Dr. Waddell continued to attend the family for a month after the delivery, the defendant being one of his patients, and finally parted with the family on good terms. At a subsequent date the defendant began to allege that Dr. Waddell at the time of the confinement was drunk, and that the operation he had performed on the child was unnecessary and cruel, and had had the effect of permanently injuring its health. Dr. Waddell first heard reports to this effect in November, 1898, four months after the confinement; he saw the defendant, who confirmed them and demanded compensation, on which Dr. Waddell turned him out of his house. After this, Dr. Waddell heard no more of the matter; but in 1902, three years later, the defendant again began to worry him, and to bombard him and his solicitors with offensive letters and postcards demanding compensation. Finally, he had printed a large number of leaflets, of which he sent a copy to Dr. Waddell, stating that unless compensation were forthcoming one would be distributed to each of his patients. No notice was taken, and the defendant carried out his threat in December, 1905. The leaflet circulated was headed: "Gross Medical Neglect, Lack of Skill and Attention and Torture of a Child shortly after its birth," and described Dr. Waddell as a disgusting scoundrel. The defendant's counsel expressed on his behalf the deepest regret that he had ever made charges for which he was now convinced there had never been any justification. As an excuse it was suggested that on this particular subject his mind was almost unhinged. The Recorder, after dealing with the defendant in the manner stated, called the prosecutor into the witness-box and said: "Dr. Waddell, I desire to express my great sympathy with you in regard to the scandalous, false, and malicious libel which has been published concerning you, and which is now declared in open court to be entirely without any foundation. I can only hope the circulation of these wicked libels will have no permanent injurious effects on your professional position."

A MIDWIFE IN THE CORONER'S COURT.

In the Battersea Coroner's Court on February 27th inquiry was held into the circumstances attending the death of a woman after childbirth. According to a report in the *South-Western Star*, she was attended by a midwife, and on the seventh day after confinement symptoms of abnormal illness were noted; medical assistance was not summoned until two days later, and at the end of the week the patient died, the cause of death being shown to be septic peritonitis. The midwife stated that when she noted that the patient was ill she advised that medical assistance should be sought, but although her advice was declined she continued to attend. The Coron pointed out to her that in the case of any abnormality, wheth at or after confinement, it was the duty of a midwife to declin to attend further unless a medical man were called in to th case.

CONDEMNATION OF A MEDICAL PRACTITIONER.

At the Old Bailey, on March 6th, C. V. Vine, a baker, pleade guilty to having unlawfully wounded Dr. Devi Dayal Sasu said to be an Eurasian, in medical practice in Forest Roa Walthamstow. From the statements made by counsel, reported in the *Daily News*, it appears that the prosecutor ha behaved in such fashion with the wife of the prison that the latter gave him a thrashing. On this the prosecut promised never to see the prisoner's wife again, b he subsequently induced her to come to his surgery an finally to desert her home altogether. Thereupon th prisoner went to the prosecutor's house and wounded hi with a knife. In consideration of the circumstances the Cou merely bound him over in £10 to come up for judgement called upon. Before the case concluded Mr. Justice Grantha called the prosecutor before him and told him he had behav disgracefully. "If ever you do anything of the kind aga and you get a thundering good horsewhipping it will ser you right." On the *Medical Register* for 1905 there appea the name of Pandit Devi Dayal Sasun as having registered 1902 the diplomas of the Conjoint Board of Scotland.

COVERING.

M. writes: A. has a patient B. under treatment. B., unknov to A., leaves him and seeks the advice of a herbalist. who is A.'s partner, is then asked to visit B. Both A. a C. refuse on the ground that in so doing they would "covering" the quack, under whose care B. has evident become much worse. Are A. and C. correct in their line conduct?

⁂ We think A. and C. should not refuse to treat t patient, but they should stipulate that all relations with t herbalist must cease—at least, so long as they are attendance.

MEDICAL ETIQUETTE.

J. Rae.—The patient is entitled to select his medical atte dant. If he prefers to have Dr. D. he is surely within right in doing so, although he may subscribe to a club which C. is the medical officer. Why should C. complain a member being attended by another practitioner? He thereby relieved of part of the work for which he is pa and is not injured in any manner.

MEDICAL ATTENDANCE ON GUEST.

G. F.—It is no part of the duty of a host to provide medic attendance for a guest. The guest may be too ill to send f the doctor, or may ask the host to summon medical assi ance as a favour or in virtue of knowing the doctor. T claim for payment of the services rendered ought, in t absence of a distinct undertaking on the part of the host meet the same, to be presented in the first instance to t guest; but in the event of its being ignored or rejected, might be proper to let the host know, and leave him to according to his judgement.

THE TITLE OF "DOCTOR."

B. writes, in reply to "Pinecliff" (British Medic Journal, February 17th, p. 418), to call attention to a lett written by Dr. Harry Rainy, the Secretary of the Roy College of Physicians of Edinburgh, which appeared in t Journal of June 3rd, 1905, at page 1250. In his lett Dr. Rainy encloses a printed extract from the laws of t College, which he says is sent to any licentiate who mak inquiries regarding this matter. The extract is as follow "The diploma granted by the College shall not entitle t holder, by virtue of such diploma, to assume the title Doctor or to append to his name the title of Doctor Medicine, or the letters M.D., or other abbreviation whi might suggest that the holder had obtained the degree Doctor of Medicine from a university."

BRANCH TELEPHONES.

F.R.C.S., in general practice in a town, has patients in village two miles off, in which there is a resident medi practitioner. His patients have expressed a desire to be touch with him. Is there any objection to his putting name plate with telephone number on it in a house in t village in which he has his own telephone? Would it ma any difference whether he saw patients at this house not?

⁂ It is a common custom for medical men in count practice to arrange that messages should be left for them a cottage where they call on their rounds, and the instalm of a telephone seems to be only a modern adaptation of t same principle, and therefore should be permitted. We not think it necessary that patients should be seen at t house.

MEDICAL ADVERTISING.

–The General Medical Council has not defined what it ms by "objectionable advertising," but it is at least btful whether it would regard such information as that layed upon the surgery window as coming within that gory. It is not the custom for a medical practitioner in country to announce on a door-plate or by other similar ce that he is a specialist in any department, but there is bsolute rule against it; it is, however, quite open to our espondent to take the opinion of the General Medical ncil on the matter.

FEES FOR CONSULTATION.

Y writes: R. is called in consultation by A. to a lady n months pregnant, for which he is paid the fee; four afterwards A. calls upon R. to see the patient again. . entitled to a half fee for the second consultation, or is istomary to go gratuitously? Both practitioners are lent in a town of 10,000 inhabitants, are friends, and change consultations.

R. is entitled to a full fee for each consultation, but her there are any special circumstances which warrant naking any reduction must be left absolutely for him to le. The fee paid was for a single consultation, and no claim to any further advice.

CLUB SURGEONS AS MEMBERS.

sks if the conduct of a practitioner, who becomes an ary financial member of a benefit society to which he lical officer, could be regarded as "conduct infamous rofessional respect."

It is unusual for a club surgeon to become a financial er of the club, but, if he chose to do so, his conduct not be regarded as "infamous in a professional ct."

ERTIFICATES FOR ACCIDENT INSURANCE COMPANIES.

olk) writes that he attended a club patient for an received at his work. After the recovery of his t the estate agent asked for a certificate as to the of the injury, so that he might recover compensa- rom an insurance company on behalf of the patient. ur correspondent furnished, but on requesting a fee plication was ignored. He wishes to know if the agent is liable for the fee.

A club surgeon under his contract is usually only to furnish certificates for the use of the club, and her certificates he can charge for. If, however, he nes other certificates without previously getting a fee find it practically impossible to recover. Under any stances the estate agent would not be responsible, r correspondent would have to look to his patient for nt.

IVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

V. KEEBLE, M.A., Caius College, has been approved gree of Doctor of Science.

owing degrees were conferred on March 1st:

F. Hadfield, Trin.

L. Brunwin, Trin; R. C. Mott, Trin.; W. H. Orton, Trin.; Thresher, Gonv. and Cai.

H. Orton, Trin.; E. D. Anderson, Pemb.

UNIVERSITY OF LONDON.

CONVOCATION.

ary general meeting of Convocation, adjourned from 2th, was held at the University on Tuesday, March e absence, through indisposition, of Sir E. H. Busk, Dr. T. L. MEARS, Deputy Chairman, presided.

d Facilities for Higher Learning and Research.

owing resolutions, recommended by the Standing , were adopted unanimously:

the opinion of Convocation, the University is to be con- ated on the admirable work which has been done in the rsity Physiological Laboratory since its inception.

n the opinion of Convocation, the Senate should be tfully urged to found similar research laboratories in branches of science, and in general to use its best ours to increase the facilities for higher learning and ch in all Faculties.

this end, in the opinion of Convocation, panels of rs, analogous to the panels of lecturers in physiology tany, should be constituted in every branch of learning hich the University is concerned.

the opinion of Convocation, all such laboratories and g institutions for higher learning and research, supported sidized by the University, should be equally accessible to nbers of the University.

5. That, in the opinion of Convocation, a Bureau of Information should be established, and that it should be part of the duties of every teacher who is subsidized by the University to give such assistance in connexion with the Bureau as may be necessary.
6. That, in the opinion of Convocation, any available funds of the University should be applied to the above co-ordination of higher learning and research, one of the chief objects for which the University was reconstituted.
7. That, in the opinion of Convocation, the University should be respectfully urged to make a public appeal in order to obtain further funds for this purpose.

Dr. S. RUSSELL WELLS, in proposing the resolutions, said that for the pursuit of science laboratories, in which research and investigation could be carried on, were essential. The University had already done much first-rate research work in Physiology, and in what it was now proposed to do there would be no antagonism to other laboratories elsewhere. The new proposals would benefit both external and internal students equally. The University owed a deep debt of gratitude to Dr. A. D. Waller, the Director of the Physiological Laboratories, for the good work done therein since their establishment. Already forty-eight papers dealing with researches in those laboratories had appeared in scientific journals, whilst two books originating thence had been published, and two others were now in the press. All the work had been done without any charge to the students working in the laboratories and without diminishing the research work done elsewhere. The teachers of physiology in London had formed a panel of lecturers and lectured on various subjects in the laboratories; the lectures gave the latest views, and were altogether most stimulating. This should be done in regard to other subjects besides physiology. So far these lecturers had worked without fee, for pure love of the thing, but they should be paid. Also research scholarships should be founded. He advocated the utilization of all existing facilities in the University building before putting any money into fresh bricks and mortar.

Dr. C. W. KIMMINS, D.Sc., in seconding the resolution, said that a bureau for giving information and advice to undergraduates and others under a sympathetic and enthusiastic director, would be of immense value. There should also be an appointments association, such as existed at Oxford and Cambridge, to which graduates could apply for posts and appointments of various kinds; it might be partly or entirely supported by the fees received from those who used it.

Dr. R. M. WALMSLEY was strongly of opinion that the facilities for higher learning and research should be extended to all the branches of learning embraced by the University. The projected bureau of information was highly necessary. A sum of over a million pounds would be required, and this could be achieved if, as in America, a large proportion of the population would subscribe. After some further discussion,

Sir P. MAGNUS, M.P., warmly supported the proposals, though the University must take care that the work in the projected research laboratories did not overlap, but supplemented, the work done in the different schools attached to the University.

Dr. A. D. WALLER said that the physiological laboratory, so far from interfering with any school of the University, had amalgamated the teachers of the schools.

The resolutions were adopted unanimously.

UNIVERSITY OF LIVERPOOL.

DEGREES IN DENTAL SURGERY.

THE third and final examinations for the degrees in dental surgery are conducted by internal examiners, external examiners in certain medical subjects, and by a special external examiner in operative dental surgery, dental anatomy, pathology, and bacteriology. and to this post Mr. Hopewell-Smith, L.R.C.P.Lond., M.R.C.S.Eng., has recently been appointed.

UNIVERSITY OF DUBLIN.

AT the spring commencement on Shrove Tuesday degrees of Doctor of Medicine were conferred on Messrs. H. M. L. Crawford and H. R. R. Ross, and a licence in Dental Surgery given to C. R. Kidd.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

DEATH FROM ANTHRAX.

INQUIRY was held at Liverpool, on February 28th, into the death of a dock labourer which was shown to have resulted from external anthrax, the seat of infection being the neck. The precise source of infection, however, remains obscure, for although the deceased was ordinarily employed in unloading ships belonging to the Mediterranean fleet of the Ellerman Line, it was shown that none of these had brought any hides this year. The jury, after finding a verdict of death from anthrax, passed a rider to the effect that all vessels which ever carried hides should be thoroughly disinfected after discharge of their cargo, and that dock labourers engaged in handling hides should wear gloves.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

☛ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

Rider's Sprain.

Adductor would be glad of suggestions for relief of pain when riding, caused by above accident. The pain is felt about the region of origin of adductor muscles, and is only felt when riding a restive horse or across country.

Incontinence of Urine.

B. R. would be glad of advice as to the treatment of a middle-aged professional man of somewhat neurotic tendencies, in whom occasionally, on sudden contraction of the abdominal muscles, a few drops of urine are involuntarily passed. The urine is absolutely normal; the patient is otherwise in perfect health, and the occurrence, which only takes place during exertion (often only very slight), is irrespective of the fullness of the bladder, which can retain 10 oz. or more while at rest.

Iodoform Injection of Tuberculous Joints.

H. E. L. asks if the injection of iodoform in glycerine into a tuberculous knee-joint is sufficiently often beneficial and free from risk to be undertaken.

⁂ We have referred this question to Mr. A. H. Tubby, who writes: In early cases of tuberculous synovitis in which fair movement is present, and with no backward dislocation, and when the thickening of the synovial membrane does not yield to rest and the application of mercurial ointments, the aseptic injection of sterilized iodoform and glycerine is free from risk and beneficial. About 1 drachm of the emulsion should be injected into various parts of the joint at intervals of three weeks, and the parts kept at rest for three months afterwards.

ANSWERS.

Henricus.—The favourable characteristic of the climate of the East Coast as compared with that of England generally is the unusual number of hours of sunshine. An Anglo-Indian who is physically sound may find an East Coast residence very suitable, but the east winds are rigorous.

LETTERS, NOTES, etc.

The George Brown Testimonial Fund.

Dr. J. Pollock Simpson (8, Upper Montagu Street, Montagu Square, W.), Secretary and Treasurer of this fund, writes to acknowledge the following further subscriptions:

	£	s.	d.		£	s.	d.
Previously acknowledged	22	11	6	Dr. Joseph Smith, J.P.	1	1	0
Professor H. Corby ...	1	1	0	Dr. Ambrose	1	1	0
Dr. James Leslie Callaghan	0	10	6	Dr. R. Paramore... ...	1	1	0
Dr. Boyd Joll	1	1	0	Dr. J. Goodwin Shea ...	0	10	0
Dr. F. H. Alderson ...	1	1	0	Dr. J. H. Keay	0	10	6
Dr. T. D. Rawlings... ...	0	10	6	Mr. M. S. Wilson ...	1	1	0
Dr. J. Breward Neal ...	0	10	6	Dr. H. W. Williams ...	0	10	6

The Treasurer hopes that those members and friends who intend subscribing, and who have not yet done so, will send in their subscriptions without delay, as it is intended to close the fund at an early date.

The Feeding Bottle.

Dr. Alex. L. Bisset (Heywood) writes: I noticed in a druggist's the other day a wire stand for the purpose of holding a boat-shaped feeding bottle upright, and was surprised to learn that it had been introduced by a well-known firm for their bottle. This seems a distinctly retrograde step. I have always considered that one of the chief advantages of the tubeless bottle was that it had to be held by the mother or nurse, thus giving the child its feed more naturally.

The Operation for Appendicitis.

Dr. Thomas Scott, M.R.C.S.Eng. (Warrnambool, Victoria, Australia) writes: I have not seen the following method of dealing with the appendix reported. I do not remove any of the mesentery. I slit it about the middle of the convex side of the appendix ½ in., and separate the peritoneum from the appendix for that distance. I then pull out the distal end, and push back the other portion of the mesentery to the caecum, and amputate the stump about ¼ in. from the caecum, and treat the stump in the ordinary way, securely covering it with the loose mesentery. Since adopting this plan I have not had any trouble with a single case; all did well. I have operated upon 10 cases in this way.

Angina Pectoris.

Dr. Francis Hare (Upper Norwood), in the course of a c munication on this subject, writes: Widespread periphe vaso-constriction occurs in many paroxysmal affections; example, it is conspicuous in asthma, in migraine, and rigor. And there is a mass of evidence to show that in these the peripheral constriction is compensated more less fully by an internal vaso-dilatation (*The Food Facto Disease.* Francis Hare. 1905). In asthma the dilated a is bronchial; in migraine, cranial or pericranial; in ri muscular. And all three affections have been known alternate in the same subject. Moreover, all three alternate with typical angina pectoris. It is reasona therefore, to assume provisionally that in angina, also, special phenomena depend upon an internal vaso-dilata compensatory of the peripheral vaso-constriction.

The internal vaso-dilatation in angina may be presume occupy the mediastinum, and to include the coronary a The result would be an intense vascular distension in mediastinum—a vascular distension which would dep upon the peripheral vaso-constriction not less than upon internal vaso-dilatation. Thereby we could fully explain prompt relief which follows amyl-nitrite inhalation, and equally prompt relief which often follows the applicatio heat extensively to the surface; we could explain, also, frequent determination of anginal seizures by exposu the surface to cold.

But the maintenance of the vascular distension w depend also upon the work done by the left ventricle upon the integrity of the mitral valve. The work don the left ventricle is temporarily reduced in syncope, and manently in the cardiac failure of advanced heart dis Conformably, many cases are recorded in which the ons syncope was concurrent with the abatement of the an pain; and Dr. Thomas Oliver has pointed out that pati long subject to precordial pain obtain permanent reli the supervention of cardiac dilatation and failure (*La* September 16th, 1905, p. 809). Mitral regurgitatio course, implies loss of integrity of the mitral valve; Sir William Broadbent has pointed out that on the s vention of regurgitation anginal seizures tend to cease, that the subsequent evolution of the case may ent change (*Lancet*, May 27th, 1905, p. 1400).

Vascular distension of the mediastinum would pro affect the cardiac plexuses and so explain the radiatio the pain in angina. The frequent recurrence of such tension would explain the neuritic changes demonstrat the cardiac plexuses by Lancereaux and Huchard, and i coronary plexuses by Mott (*Lancet*, September 16th, p. 812). The stretching involved in the dilatation o coronaries would explain the sclerosis of these vessels as the same condition affecting the temporals explain same result in these vessels. Indeed, I have hitherto to find any incident in the symptomatology or na history of angina which is inconsistent with the hypothesis.

On the other hand, vaso-constriction, or "intermi claudication," of the coronaries is negatived by Pro Schäfer's demonstration that these vessels lack vaso nerves; convulsion or spasm of the heart seems incons with the observation that in many cases the cardiac rh continues unaltered throughout the paroxysm, neuralgia is a term applied to an affection whose mech needs elucidation no less than the mechanism of a pectoris.

"Too Sick to be Nussed."

Harper's Magazine is responsible for the following During the Spanish war a certain amateur nurse ample scope for her enthusiasm and abilities, but he was slightly abated after a morning visit to her ward, a suffering hero was discovered lying with the coverlet over his head and a placard pinned to the outside, read: "Too sick to be nussed to-day." This is a vari the well-known story of a physician, more distinguish his powers of conversation than for professional know who, on calling on a lady patient one day, was inform the doorkeeper that her ladyship was too ill to r Dr. —— that day.

SCALE OF CHARGES FOR ADVERTISEMENTS IN BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	£0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page...	8	0	0

An average line contains six words.

Advertisements should be delivered, addressed to the Ma at the Office, not later than first post on Wednesday m preceding publication: and if not paid for at the time, sho accompanied by a reference.

Post-Office Orders should be made payable to the British M Association at the General Post Office, London. Small an may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive let *Postes Restantes* addressed either in initials or numbers.

An Address

ON THE

SITION OF PATHOLOGY WITH REGARD TO CLINICAL DIAGNOSIS.

ELIVERED BEFORE THE BRISTOL MEDICAL SOCIETY

BY A. W. MAYO ROBSON, D.Sc., F.R.C.S.

E subject of my address is one that has for a long time gaged my thoughts, but before expounding my views ave waited in the hope that someone more intimately ociated with pathology would take up the matter. My arks are the outcome of convictions that increased erience has made me feel it a duty to express, and if expression of my views should lead a little way ards a closer *rapprochement* between the work of icians and pathologists I shall have accomplished all t I can hope for.

ince I first began the study of medicine—in the early enties—I have witnessed many fundamental changes h in the practice of our art and in the ethical relations he members of the profession.

n my early days the antiseptic treatment of wounds s unknown, and many regions of the body now operated with confidence were then only attacked by surgeons case of dire necessity.

Vhen stomach surgery was unknown it mattered little ether a pyloric stenosis was simple or malignant, as a al termination was inevitable in either case; nor, as a e, was there much object in diagnosing between a iple and a malignant gastric tumour, for neither could removed.

Vhen the functions of the pancreas were unknown its eases naturally hardly entered into the mind of the ctical physician, and, in fact, it is only very recently t surgery has had anything to do with this important cus. Similar observations might be applied to many er organs in the body, as the gall bladder, liver, and denum. The purpose, therefore, of an accurate diaosis was often rather theoretical than practical, so far as well-being of the patient was concerned.

t the present time, however, so much benefit can be ferred by surgery on many diseases which were forrly absolutely hopeless, that an accurate diagnosis is v a necessity, as it paves the way to successful treatnt. We cannot, therefore, afford to leave any stone urned that will give us any assistance, and I shall e to show that as yet we do not make all the use we ght of pathological investigation to aid our clinical ervations.

ur methods of diagnosis have vastly improved, so that eases, many of which were formerly unrecognized or erfectly understood, can now be readily differentiated l treated at an early stage with every prospect of cess. This is in a great measure due to the advances de in the last quarter of a century in the science of hology. As I look back and think what a comparaly small part pathology played in medicine in my ly days, I realize how much we owe to those who have oted their time and energy to widening its boundaries.

t is now a truism, to which I think none will take eption, that a sound knowledge of medicine is fundantally based upon an accurate acquaintance with the hology of the diseases we are called upon to treat. Withit treatment must of necessity be empirical and carry h it the penalty of empiricism—an inability to deal in ational way with anything that falls outside one's vious experience.

iven, however, the pathology of a disease, its treatment y be based upon a definite reasoned plan, which can varied as circumstances may require; not only so, provision can be made for those complications which knowledge of the morbid anatomy, bacteriology, or mistry of the disorder may suggest are liable to occur.

n the days of Hunter and his school the whole of hology was embraced in morbid anatomy. Now we to our aid the microscope, the test tube, and all the ious forms of apparatus and methods of research ployed in histology, chemistry, bacteriology, and sics, to throw light on the obscure places in disease and to help in our treatment of suffering humanity. From histology we have learnt much as to the nature of tumours, and we have seen the processes accompanying the phenomena of inflammation. The intimate structural changes associated with various degenerations have been discovered, and the presence of parasites has been demonstrated in certain diseases concerning which we were formerly in ignorance.

By means of the microscope the differentiation of various diseases of the blood has been rendered possible, and, no less important, the changes induced by inflammatory lesions and other pathological changes have been worked out.

The rise of bacteriology opened up an entirely new field, which has not only revealed to us the cause of a large number of infectious diseases, but, thanks to the work of Lister, has given to the world the inestimable boon of antiseptic and aseptic surgery. The deep debt that preventive medicine owes to bacteriology is likely to be equalled or even excelled in the realm of treatment; for not only have bacteriologists shown us how to treat infectious diseases, such as diphtheria, by antitoxic serums, but we have had demonstrated to us recently how the tissues can be rendered immune to various infective agents by inoculation under suitable conditions that can be determined with accuracy by the method of blood examination devised by Professor A. E. Wright.

The contributions of chemistry and physics to our knowledge of disease are no less important. By the use of electrical methods we are now able to investigate the condition of nerves and muscles in health and disease; the x rays have given us radiography, and by the application of cryoscopy we are able to determine the molecular concentration of the blood and urine, and the changes brought about in them by departures from normal conditions. The chemistry of the body is as yet in its infancy, but it has, I think, a great future before it. At present its practical usefulness is largely confined to the examination of the urine, faeces, and, more rarely, other exudates and transudates; but in the theory of disease it has helped, and is helping, in the elucidation of many obscure problems, such as glycosuria, Graves's disease, myxoedema, Addison's disease, pernicious anaemia, etc.

The results of these and other improvements have been not only to establish our conceptions of disease on a more secure and scientific footing, but also to place in our hands accurate methods of diagnosis undreamt of thirty years ago. It is now not enough to trust to clinical acumen alone, however keen and well-trained it may be. We owe it to our patients that every means possible should be taken to correctly diagnose their maladies and relieve them of their afflictions. The successful physician or surgeon in these days is he who is sufficiently liberal-minded to employ the aids of diagnosis that science has placed at his disposal, and who deliberately invokes their aid whenever circumstances may require. We are all painfully aware how often the physical examination of a patient leaves us in doubt as to the correct explanation of the symptoms of which he complains, and how such a doubtful case may drag on from week to week, and even from month to month, without any definite conclusion being reached. In cases such as these, and many also of a more acute type, an appeal to the microscope, the test tube, the spectroscope, or the culture tube, guided by a sound knowledge of pathology, will often conclusively settle the diagnosis, or at least yield information which will prove of value in forming an opinion. One would think that it was hardly necessary in these days to insist on the importance of employing accurate methods of diagnosis, but I have repeatedly seen such unfortunate mistakes made from a failure to make use of modern methods even by those from whom one might have expected better things, that I feel it is necessary to emphasize the great importance to be attached to laboratory investigations in skilled and reliable hands. Only recently I was asked to see a lady who had been for many months under treatment in various countries without deriving any benefit. Various diagnoses had been made, including gall stones, gastric ulcer, appendicitis, and floating kidney. On examining her, I found tenderness over the course of the colon with other symptoms of colitis, for which she had been treated without avail. I advised the patient to send a specimen of the faeces to a pathologist for careful investigation to see if the cause could be discovered. He reported that the conditions found chemically suggested a diagnosis of chronic colitis, but that large numbers of the ova of *Trichocephalus dispar*, *Oxyuris*, and *Ascaris lumbricoides* had been discovered microscopically. The diagnosis of colitis was thus confirmed, and a probable explanation of the condition was furnished, enabling efficient treatment to be carried out.

Another case well illustrates the advantage of making use of every available means of arriving at a correct opinion. A lady of 48, suffering from deep jaundice of five months' standing had been seen in different parts of Great Britain by a number of medical men of eminence, who had all agreed as to the advisability of operation in consequence of her condition being better than might have been expected after jaundice had existed for five months had the cause depended on cancer. A chemical examination at my request of the urine and faeces threw so much additional light on the case that I had not the slightest hesitation in diagnosing cancer of the head of the pancreas and in advising against operation. This, however, did not satisfy the patient, who, with the support of her medical advisers, wished to have an exploratory operation done. On opening the abdomen, there was found a very hard nodular growth of the head of the pancreas undoubtedly malignant. The absence of adhesions and the presence of a distended gall bladder afforded clear evidence that gall stones had never been present.

Until within a few years many patients died from chronic interstitial pancreatitis, under the supposition that they were suffering from malignant disease, and, although the observations I made when I had the honour of bringing this subject before the profession in a lecture given in London in July, 1900, were the result of clinical observations, yet until working at the subject pathologically for a long time with my friend Dr. Cammidge I had no positive data that would guide me in distinguishing between the cases that were malignant and therefore could not be benefited by surgical treatment and those that were simple and could be cured by operation. As the result of pathological investigations we are now usually able to definitely determine the diagnosis before operation. This was well shown in the case of a gentleman, between 50 and 60, suffering from deep jaundice, great emaciation, enlargement of the liver, and very slight tenderness, in which the almost complete absence of pain and the presence of infective cholangitis suggested cancer of the head of the pancreas. The patient had been given up as hopeless before I saw him; but an analysis of the urine revealed a well-marked pancreatic reaction, and, the crystals being acicular and dissolving within half a minute in dilute sulphuric acid, showed that the case was in all probability not malignant but inflammatory. I therefore operated, and found considerable enlargement of the head of the pancreas, due to the impaction of a gall stone in the pancreatic portion of the common bile duct, the removal of which cured the patient, who is now in excellent health.

In another case, besides some enlargement of the liver and gall bladder, the spleen was also enlarged and the jaundice was of the dark variety; moreover, oedema of the feet was present, with profound anaemia and great debility. In this instance also pain was and had been a very slight feature of the case. It was entirely owing to the pathological evidence that I was led to operate and to remove a gall stone from the pancreatic portion of the duct, which it had blocked, thus setting up a chronic inflammatory enlargement of the gland. The patient is now in excellent health.

In other cases of jaundice associated with intermittent fever and rigors, in patients who had resided abroad and were supposed to be suffering from ague with consequent liver symptoms, an examination of the blood showed the absence of ague organisms, and a pathological investigation of the urine and faeces led to the diagnosis of interstitial pancreatitis, with the result that definite surgical treatment was able to be carried out successfully. It would be easy to multiply such cases to show how important it is that the work of the clinical physician or surgeon should go hand in hand with that of the pathologist.

If time permitted I could give the details of many other cases in which I have been able, by making use of th results yielded by chemical, bacteriological, or histologica methods, to arrive at a correct diagnosis in cases whic would otherwise have remained obscure or been incorrectly treated; but it is not necessary for me to multipl examples, as I am sure that on the general utility of th methods of clinical pathology we are in agreement.

It does not follow, however, that because we recogniz the advantages to be gained in the abstract from moder methods of diagnosis we are able without outsid assistance to give our patients the full advantage that ma be obtained from them. This partly arises from th methods being now so numerous that, although we ma be acquainted with them in a general way, one sometime finds a difficulty in deciding which particular form o investigation is likely to be most advantageous, an partly from the high degree of technical skill required t carry many of them to a successful issue. There can b no disgrace to any one who, having pursued the case a far as he can without having arrived at a good diagnosis says that he needs the additional help that a pathologis can give him. I have never found this to do the slightes harm, but, on the contrary, I have found that the patien is only too anxious to avail himself of such additiona help.

In the early days of pathology, when a knowledge o histology was the chief requirement, it was possible fo each to be his own pathologist; but with the rise of bacteriology and the application of many complicate chemical and microscopical methods to clinical researc it has become impossible for one man to act both as clinician and pathologist. The result has been that bot in our hospitals and in private practice there has arisen class of practitioners who now devote themselves especiall to this branch of medicine. The growth of specialism i medicine in recent years has been deplored by some members of the profession, but it appears to me that it is practical necessity brought about by the force of circumstances. What we call the advance of civilization in th social world consists largely of the growth of specialism and if we accept the teachings of evolution in the organi world we find that a similar law holds good. Devolutio is the natural result of progress, and division of labour i the invariable consequence of complexity.

I remember in my younger days how one and the sam consultant would give an opinion in medical, surgical, an gynaecological cases, and was also ready to deal wit patients suffering from diseases of the eyes, ears, laryn etc. At the present time these and many other subject are the field of work of a larger or smaller group specialists, who have devoted their attention particular to one or other class of work, and no doubt, on the whol to the benefit of the public. It is now practically impo sible for any single man to keep himself thoroughly abrea of the rapid advances being made in all branches of med cine, and the attempt to do so can only result in superficial knowledge which, while useful enough i itself, does not qualify him to speak with authority. Suc being the case, it is possible that in the course of time th subdivision of medicine will become more marked eve than it is at present.

The well-informed general practitioner knows, or shou know, something of everything so far as his profession concerned, but, when he specializes, he is then expecte to know everything of something.

Specialism, no doubt, has its drawbacks, and the chief that a man who devotes his attention entirely to one su ject is apt to magnify its importance, and to overlook symptoms of other disorders that he is not interested in. Th difficulty is most pronounced in those who specialize earl and there is much to be said for the method that has pr vailed in the United States of a man only taking up special line of work after he has devoted several years general practice. He then tends to take a wider an more comprehensive view of cases that may prese themselves to him, and avoids the pitfall of narrowness.

However it may be attained, specialism in medicine an accomplished fact, and a glance down the list of co stituent societies of the proposed Royal Society of Me cine will show how numerous are the various lines special practice now fully acknowledged by the pr fession.

The fault of specialism to which I have just referred namely, narrowness of view — is particularly liable develop in those who devote themselves entirely to laboratory work, and have no personal interest in the patients from whom the samples they investigate are derived. The tendency completely to divorce applied pathology from clinical practice, which has been manifest in recent years, is one that is, therefore, I think, to be deplored. It is a custom that is contrary to the interests of our patients, and unsatisfactory from the point of view of medical science. It is a generally accepted rule that a diagnosis should hardly ever be founded on any one symptom or any one method of examination, and it is only when the results of several coincide that it is safe to form a positive opinion. Yet we often see a specimen sent to a clinical laboratory without any information as to its source or of the clinical condition of the patient, and find that an opinion is expressed or a diagnosis made on the results of this examination alone. If the human bodies were machines with interchangeable parts, and the laboratory methods we employ were perfect, such confidence might be justifiable; but, unfortunately, we are only too well aware that no two individuals are exactly alike physically, and therefore, probably, chemically also, so that one is bound to consider the individual as well as the disease from which he is suffering. It is true that clinical pathology has made enormous strides in recent years, but those who are best qualified to judge will be the first to acknowledge that every test has its fallacies, and that, although laboratory methods are of the utmost value in careful hands, their results must always be considered in relation with the clinical symptoms, and the effects of the personal factor must always be allowed for. It is not enough to allow only for the personal element in the patient, that introduced by the observer must not be lost sight of. Applied pathology is a subject that requires a special training, and calls for not only manipulative skill, but sound judgement and a comprehensive view of medicine. An analysis made by one who does not possess these qualifications is liable to mislead rather than to guide, and I am confident that the suspicion with which many medical men regard the results of laboratory investigations, especially in certain departments of the work, arises from the custom that in some cases obtains of delegating the work or a large portion of it to persons who, however excellent their manipulative skill, are not competent to take a comprehensive view of the results, and consider their relation to clinical data. Hospital patients are in this respect in a much better position than their wealthier brethren treated in private. Every well-equipped hospital has now on its staff one or more members who undertake the clinical pathological work, and when an examination is required in a difficult or doubtful case by the physician or surgeon in charge, the patient can be seen in consultation with the pathologist, the methods that are most likely to give information in that particular instance can be discussed, and, when the examination is completed, the results can be considered together from the clinical and pathological side by those respectively responsible. The personal factor is thus reduced to a minimum, for one person only need be responsible for the collection of the material and the examination of the specimens—a matter of no small importance in bacteriological and blood examinations; the technique is uniform, and the clinical condition of the patient can be allowed for in forming an opinion on the laboratory results.

An attempt is now being made by some pathologists—I know of several in London, and doubtless there are others in the great medical centres—to offer to patients in private the advantages which hospital patients at present enjoy. They are prepared to see a patient with his medical attendant, advise as to the most promising methods of investigation, collect their own specimens, and, after personally carrying through the required examinations, join in an opinion based on both the pathological and clinical aspects of the case.

It is a welcome attempt to reunite two branches of medicine which were becoming dangerously divergent, and as time goes on I think the openings for such a class of consultants will become more numerous.

A section of a tumour may be made while the operation is in progress, and the extent and nature of the interference may be determined by the conditions seen under the microscope; a blood examination may be made by the patient's bedside, or a series of chemical or bacteriological investigations may be made to clear up an obscure case with a much greater probability of success than if an isolated specimen had been sent for examination to a laboratory, where its individuality might be submerged.

I recently operated on a case which well illustrates the advantage to be derived from a microscopical examination during the progress of the operation. The case was that of a patient who presented a round, smooth swelling in the anterior abdominal wall, apparently involving the liver. There was a divergence of opinion as to whether this was malignant or inflammatory. Under these circumstances, the colleague with whom I was undertaking the case agreed that I should ask a pathologist to be present at the operation so as to make a microscopical examination of the tumour as soon as it was exposed. On cutting into it the appearances at first sight suggested that it might be actinomycosis, though there was still a question of sarcoma, tubercle, or breaking-down gumma. The naked-eye characters of the material left us in doubt, but the microscopic appearance and the marked thickening of the vessels pointed to its being a gumma. The subsequent course of the case under antisyphilitic treatment abundantly confirmed the correctness of the diagnosis, which the history before operation had not been sufficient to determine.

In another case of tumour of the upper end of the tibia, suspected to be sarcoma, after an incision into the swelling there was still uncertainty until a small piece was excised and examined immediately by a pathologist, who pronounced it to be inflammatory and not malignant, whereupon the bone was trephined and an abscess found in the head of the tibia, thus enabling the limb to be saved.

In the case of amputation of the breast for carcinoma, an immediate examination of the glands highest in the axilla is frequently of service, as showing whether it is necessary to proceed further and remove the glands above the clavicle. It not infrequently happens that the clinical characters and even the naked-eye appearances of a tumour of the breast when exposed leave the operator in doubt as to the nature of the growth, and consequently as to the desirability of performing amputation or simply removing the tumour. An immediate examination of a section under the microscope is under such circumstances of very great assistance, and may at times enable a breast to be saved that in case of doubt might have to be sacrificed. Further examples might be readily furnished, but these will serve to show the advantage in certain classes of cases of being immediately associated with a pathologist during the time of operation.

It has been objected that supplying a pathologist with the clinical details of a case is likely to bias his judgement, and that an opinion based on chemical or bacteriological grounds alone is more likely to act as a useful check on the clinical diagnosis. Such an argument might be justifiable if the object of all pathological investigations were merely to afford confirmatory evidence of inferences which were already fairly well established; but this is not by any means the case. As often as not the pathologist is called upon to supply the basis on which a diagnosis may be formed, or to discover the meaning of obscure or abnormal symptoms; in circumstances such as these it is essential, therefore, that every facility should be given for a broad view being taken of the case. In clinical medicine I should imagine that every one would protest against being obliged to diagnose all scarlet fever cases from an examination of the tongue alone, or gall stones by being allowed to inspect the eyes for jaundice; but similar problems are often set the pathologist, and he or his methods are blamed if in a certain proportion of cases failure follows.

Applied pathology, as I have pointed out, is a special branch of practical medicine requiring special experience and training, and calling for many qualities, some innate and others acquired, in those who would practise it successfully. This is a fact that as yet appears not to be generally recognized. One has only to look at the salaries offered in the advertisements appearing in the journals to find evidence of it. In most cases a man is asked to devote the whole of his time to the work for a stipend of even £80 or £100, or at the most £150 a year—a sum practically the same, or a little less, than that given to a house-surgeon or physician in many hospitals, when it is taken into account that the post of pathologist is usually a non-resident appointment. Need one wonder that a difficulty is sometimes found in filling these posts, and that when filled the results are not always entirely satisfactory. So long as inducements are only held out to senior students or to those who have just obtained their diploma, only such can be expected to apply for the posts or to undertake the duties, with the exception perhaps of a few enthusiasts who really love the work. To the average man at the present time surgery and medicine appeal much more strongly than pathology, at least from a pecuniary standpoint, so that even supposing that he has had the opportunity of becoming practically acquainted with the many details of the technique now required, there is no great inducement to take up an appointment in which his knowledge can be applied. The result is that such appointments are only filled with difficulty, and that those who take them are often lacking in experience. Further, since there is generally no advantage to be gained by holding the post for any length of time, it is quickly resigned for a more lucrative branch of practice. That the experience gained in such an appointment may be of great value to the individual, there is no doubt, but the present state of affairs neither tends to promote confidence in clinical pathology nor offers much opportunity for its advancement in this country in the future. If pathology is to take the position which the important part it now plays in diagnosis and treatment entitles it to, some attempt will have to be made to induce a larger number of men to qualify themselves for the work, and their labours will have to be more generously recognized by the public and the profession. They must be able to regard it as the aim of their professional career, and be prepared to devote their lives to perfecting their knowledge and furthering the progress of their special branch of science. The state of pathology at the present time is very similar to that which existed some years ago in the field of anaesthetics. Almost every one was then thought competent to administer chloroform or ether, and the duty was relegated to recently qualified men, students, or even theatre attendants. Now the anaesthetist is chosen with as much care as the surgeon, and the work is recognized as being of such a delicate character that only those who have gained skill by thorough training are competent to undertake it.

Only those who have had the experience of both the old and new methods can realize the difference that this change has wrought in the surgeon's work. The responsibility and anxiety that hampered his work under the old régime have now given place to confidence and freedom from worry that allows of his undivided attention being concentrated on the operation. This division of labour ensures better immediate results and subsequent freedom from complications. Just as any one was thought good enough to give anaesthetics in the old days, so it would appear to be now considered a matter of little importance to whom we entrust the performance of pathological investigations, yet on the reports resulting from such an examination depend very vital issues; for instance, in the case of examining portions from a curettage may depend the question of hysterectomy being necessary; on the careful analysis of the stomach contents after a test meal may hang the question of the presence or absence of cancer; on a blood examination may depend the diagnosis of typhoid, and on the microscopical investigation of a breast tumour may depend the amputation of the mammary gland.

If such examinations are made without any personal responsibility, or are made wholesale instead of with reference to the individual, very serious mistakes not only may be made, but have actually occurred. Such mistakes could be avoided were the investigations made by a competent pathologist giving his individual attention to the case. It is no doubt true that most students who have gone through the medical training now required for qualification can cut a section, make a blood count, or recognize a typical diphtheria bacillus. So long as every physician and surgeon was a pathologist this perhaps was all that was necessary; but as the boundaries of the subject have enlarged, and the liability to fallacy of many methods once hailed as infallible has been recognized, it has become evident that much more than this mechanical duty is required. A pathologist must now not only be able to supply accurate data, but he must be capable of drawing conclusions in] the light of his own experience which will guide and assist the physician or surgeon. Until this is fully recognized, and some steps are taken by hospital authorities to improve the position of their clinical pathologists, the difficulty that some have experienced in finding competent men to fill their posts is not, I am afraid, likely to diminish.

While considering hospital and other public and quasi-public appointments, I should like to mention another matter of some importance. I refer to the practice of some institutions of employing pathologists at fixed salaries, and, by undertaking outside work at comparatively low fees, seeking to aid their revenues. This is, I think, an undesirable practice, and one which should be discountenanced. Such an arrangement, while perhaps satisfactory from a business point of view to the institutions concerned, is hardly compatible with the principles that usually guide the conduct of the medical profession. It results either in the pathologist becoming an involuntary contributor to the funds of the institution in which he is employed, or it creates an abuse of the revenue of the profession by allowing investigations to be conducted at low or nominal fees, without distinction of class or position, for those able to pay a reasonable sum. I think that a similar abuse arises in those cases where the members of the staff of a hospital hand over material from their private cases to the hospital pathologist, and expect him to examine and report on it gratuitously.

In private practice the pathologist who does not come into personal contact with his patients is at a disadvantage as regards the determination of what may be considered a reasonable fee. For those who see cases in consultation, and carry out the more intricate and responsible examinations there is, I think, no great difficulty, for they can follow the ordinary rules of consulting practice, but in cases where minor and routine investigations, carried out solely in the laboratory, are alone required, it is not an easy matter to formulate an equitable scale of fees. The accepted practice hitherto has been to fix an arbitrary scale of charges, governed apparently by the time required for the examinations and the intrinsic cost of the materials required, allowance being made in those instances where a number of similar specimens can be grouped together. Such an arrangement can hardly be considered satisfactory, unless pathology is to be considered a mere retail business that can only be made to pay by small profits and quick returns. Nor is it satisfactory from a professional point of view to see various institutions, such as public health laboratories, hospitals, private laboratories, and wholesale and retail drug houses, advertising their scale of charges in competition with one another, as is now too often the case; for pathology, like other branches of medicine, should not be carried on as a mere business. While it is most desirable that poor patients should not be deprived of the help afforded by pathology, yet it seems anything but desirable that wealthy or well-to-do patients should be paying adequate fees to their medical or surgical advisers, and a mere pittance—perhaps even half-a-crown—to the pathologist, on whose findings may hang very vital issues.

The medical man in charge of a case cannot be expected to pay for any necessary pathological examinations out of his own pocket, nor do practitioners wish to make a profit out of such examinations as may be required by their patients, yet under existing conditions in the advertising laboratories we find that a poor patient is charged the same fee for a pathological examination as a wealthy person. The specimens from both probably receive the same attention in the laboratory, but considering that the scale of fees appears to be arranged in most instances on a basis which will just pay expenses, or only prevent a loss by the aid of subscriptions or subsidies, it is probable that if the wealthier patients had the importance of the pathological investigation and the advantage of a personal opinion explained to them, they would as a rule be glad of the opportunity offered them of receiving more individual attention and paying a larger fee. It has been my experience that such in fact is the case.

In my own practice I find the help afforded by pathology of very great value, rendering my work much more certain and definite; and when I suggest to patients, as I frequently do, that a pathological examination of the excreta or of the blood or of pathological products is essential or desirable, and I give them the address of a pathologist whom they may confidently consult for the work, I seldom find that they neglect the opportunity of having further light thrown on their disease.

In suggesting some readjustment of the fees paid by the public for pathological examinations, and advocating wherever possible a more generous recognition of the skill and experience required for such work, I refer especially to those examinations which are only of moment to the individual. Investigations that have a bearing on the health of the community should, I think, be considered separately.

A considerable number of municipal and county authorities have within recent years started laboratories in which bacteriological examinations are made for practitioners practising within their boundaries. If, as should be the case, these laboratories confine their work strictly to notifiable diseases and examinations such as that of public water supplies, their enterprise is most commendable, and one can only hope that in the immediate future similar laboratories will be established in every district. An infectious disease such as diphtheria or typhoid, once it is epidemic in a community, is only eradicated after much delay, and with the loss of many valuable lives. It is a great cost to the persons concerned and the ratepayers of the area affected. It is, therefore, in the interests of all that such diseases should be prevented from obtaining a foothold, and that every case should be diagnosed as early as possible. No expense should be spared; in fact, it is an economy both of lives and money to keep at bay infectious disease, nor should the individual who has been unhappy enough to contract an infectious disorder be penalized. It is the duty of the community to provide, free of charge, for all its members the means by which an accurate diagnosis may be made, and every facility should be given for the early examination of suspicious cases, especially when they occur amongst collections of children or under other conditions where there is a tendency for such disorders to spread rapidly. It is also the duty of the community to determine in every case that a patient who has been isolated for an infectious disease is no longer capable of acting as a bearer of infection on his discharge. In those instances where by a bacteriological examination of the throat, nose, urine, etc., this can be done with considerable certainty (although, perhaps, at the cost of considerable time and trouble, as several successive examinations may be required), it is hardly fair that the patient should be called upon to pay for thus protecting the public; it is a duty which may reasonably be undertaken by those in whose interest it is required.

The responsibility attending bacteriological work of this character is considerable; for if a case is correctly diagnosed as diphtheria, for instance, it may cause considerable inconvenience and expense to the individual, whereas, on the other hand, if a case is declared not to be diphtheria or to be free from infection after an attack, when this is not really so, it may prove a source of danger to the public. Appointments to posts the successful working of which may mean so much should be made with great care, and every means should be taken to induce the best possible type of men to seek and hold them.

It is probable, I think, that in the future the application of pathology to clinical practice will be divided into two main branches: (1) That relating to infectious diseases and matters concerning the public health, and (2) investigations of a private character in which the individual alone is concerned. The former will be conducted in public laboratories provided with competent staffs paid by the municipal or county authorities, the latter will be provided for by private enterprise under the conditions of ordinary practice. The dividing line between the two types of work is sufficiently well marked to avoid confusion, but I think it important that it should be clearly laid down that the work of municipal or county laboratories must be strictly limited to public health matters. Unless this is done, there are some who are not likely to discover for themselves that an arrangement which applies to infectious disorders does not also include the histological examination of tumours or the chemical examination of the urine. A fundamental axiom both in public and private work is that examinations should not be made for private individuals. The public are not in a position to appreciate the difficulties that sometimes beset the diagnosis of disease, both clinically and in the laboratory, so that unless the rule of never supplying a pathological report to any but medical men is rigidly adhered to, undesirable results are at times likely to ensue. Such a line of conduct is more difficult to enforce in public health work than in private practice; for while the former is supported out of the rates and paid for by the public, those who practise in private are at liberty to refuse the fee offered for an examination unless it is undertaken at the instance of a medical man. On their side, clinicians should offer every facility to pathologists of forming an accurate opinion, and should recognize that in a certain proportion of cases, more especially where bacteriological examinations are required, it is not justifiable to express a positive opinion merely as the result of a single experiment, and that to arrive at a reliable diagnosis often requires a considerable time.

Investigations of a private nature, not involving public health questions, should be conducted at the expense of the individual requiring them, and in those of a more difficult and complicated character, especially when the clinical diagnosis depends on the result of the pathological findings, it seems to me desirable that the pathologist should be met in consultation.

The laboratories to which material collected by the medical attendant of the case may be sent by post will, no doubt, continue to be of value for routine work and examinations, where the importance of a personal opinion is not so great.

For those unable to afford even a reduced fee, which pathologists, in common with all members of the medical profession, are no doubt willing to accept in deserving cases, the pathological departments attached to hospitals should be open. Hospital laboratories should not compete with private practice in pathology any more than they should in clinical medicine. In the early days of clinical pathology the necessary facilities and skill for carrying out many investigations were only to be found in the laboratories of the better-equipped hospitals, but this is no longer so. Private enterprise has made good the deficiency, and there is now no need for the laboratories of charitable institutions to be used to benefit other than those of the class for whom the wards and outpatient departments are provided. An important function of hospital laboratories, especially those in the large centres of population, should be to afford a practical training for men who desire to devote themselves to pathology as a profession. By acting as assistants in the various departments into which some of the more advanced laboratories are now divided under those responsible for their management, they should be able, in the time usually devoted to a resident appointment, to have obtained a sufficiently good knowledge of the practical application of bacteriology, chemistry, histology, and physics to clinical medicine to permit of their satisfactorily filling the post of pathologist to one of the smaller hospitals, or going as assistant in a public health laboratory.

Clinical pathology is as yet but a tender shoot from the parent stem of medicine. How it will grow and what form it will ultimately assume no one with certainty can predict. That it is destined to increase in importance there can be little doubt, but, in attempting to assume the rôle of prophet, I am conscious that it is a difficult and may be a thankless task, yet I feel that the present is an opportune moment for presenting my views on the subject; while a branch is yet young it may be bent, and undesirable leanings be corrected.

I have pointed out what seem to me the drawbacks that attend the practice of pathology at the present day; and, although I am not vain enough to imagine that my opinion will be generally accepted, I hope that this address may arouse interest in the subject, and lead to some improvements in practice.

THE REGULATION OF MARRIAGE.—From the New York *Medical Record* we learn that a Bill has been introduced in the Albany State Legislature prohibiting the marriage of imbecile, epileptic, insane, or feeble-minded persons, and making it a felony for sound-minded persons to marry or live in the marital state with feeble-minded, insane or epileptic persons, or to assist such a marriage.

PHYSIOLOGICAL NOTES ON THE CANCER PROBLEMS.

By Sir WILLOUGHBY WADE, M.D., F.R.C.P.,
CONSULTING PHYSICIAN TO THE GENERAL HOSPITAL, BIRMINGHAM.

Physiology dealing with normal conditions and functions, and pathology with functions divergent from normal, it can never be otherwise than helpful to keep a close eye upon the former science when studying the latter.

Some four years ago it seemed to me that in regard to cancer this fact had not been adequately kept in mind, and I am attemping to supply the deficiency. Cancer problems seem to resolve themselves into two classes.

1. What happens? For example, in the case of an organ, say, the mamma, we have at one pole the normal and at the other the cancerous organ. What has happened in the interval?

This problem seems, thanks to the labours of the Cancer Research Fund Committee and other equally able and energetic inquirers, to be approaching solution.

2. Why does it happen? Not only has no satisfactory solution been found, though not a few have been proposed, but Dr. Bashford, the eminent Superintendent and Director of the above-named fund, deprecates as premature any attempt to solve it, thinking, as I understand him, that a complete solution of the first will probably bring in its train that of the second.

Whilst accepting this position, it seems to me that there are certain physiological considerations that will have to be reckoned with, and that it is not premature to examine them now. An examination will at least reveal any lacunae existing in our knowledge and so perhaps induce competent persons to endeavour to fill them up.

Every machine, whether made by man or by Nature, consists of various parts. The integrity of these and their harmonious co-operation are essential to effect the object for which the machine was designed. Any departure either from the integrity or the co-operation must affect this result. The integrity may be impaired by causes either intrinsic or extrinsic. For example, a watch may be affected by an intrinsic cause—for example, rupture of the mainspring or loosening of a screw—or by an extrinsic one—for example, accumulation of dust. Further, the part apparently chiefly affected may be not that in which the primary default occurs—for example, the hands are seen to be moving round at a greatly accelerated pace. Their misbehaviour is flagrant, but the primary cause is not in the hands but in a broken mainspring.

From all this we see that a machine may suffer either from something added to it or from something taken away from it. Secreting glands such as the submaxillary or mammary are machines with a definite purpose, and, like all other machines, they may be interfered with either extrinsically or intrinsically—that is, by something added or by something taken away. As in other machines, the part which exhibits the most obvious derangement may not be that in which is the root of the derangement.

Theoretically, then, the damage which leads to cancer may be due to something taken away, not from something added. It may not be in the cells, the changes in which are so conspicuous, but in something behind the cells. Have these distinctions received due consideration from those who have attempted to solve the problems of cancer?

The submaxillary, being easily accessible, was the first gland to be submitted to experimental examination. Upon such experiments and subsequent similar ones was founded our knowledge of the physiology of secretion. These glands are formed in the embryo before any differentiation of material into nervous tissue. They are therefore presumably endowed with their own intrinsic powers of growth, and are self-contained entities. Nevertheless, in their maturity they come to be absolutely dominated by nerves, without the active intervention of which no secretion is produced.

The chorda tympani having been exposed and divided, electrical stimulation of its distal end causes saliva to flow. It has therefore been called the motor-nerve of the gland. Continued stimulation causes continued secretion. But only for a limited time. Why does it cease? It ceases because the nerve has been converting into saliva material previously stored up in the secreting cells. If the cells ready to be called into action be compared with those from which secretion has been going on, it will be seen that the latter are comparatively empty. Before secretion can be again produced this material has to be replaced. Here we come upon a great lacuna in our experimental knowledge. Is this replacement due to an inherent endowment of the cells? Is it, like the secretion, dependent upon nervous stimulation? No direct experimental answer has been given to this question. Indeed, I do not know that it has ever before been asked.

There is, indeed, one experiment recorded which seems to bear upon it. In a young animal the chorda tympani on one side was divided and the external wound allowed to heal. Both glands were removed some time after, and it was found that the one, the nerve of which had been divided, was much smaller—that is, it had grown less than its fellow. This has been held to show that the general nutrition of these glands depends upon the motor nerve. It has been overlooked that the chorda tympani besides being the motor nerve is, or contains fibres which are, the vaso-dilator of the gland. The vaso-dilator, then, of the gland is destroyed, while the vaso-constrictor (sympathetic) is left intact. How can the blood supply be otherwise than interfered with? The two glands being unequally supplied with blood, how could they maintain an equal growth? The argument is strengthened if the sympathetic is really the trophic nerve.

In the absence of direct, is there available any indirect, evidence? The motor nerve of the gland is called into action in several ways: (1) By contact of the afferent nerves with various substances, alimentary and others (fine sand, Pawlow); (2) by sight or smell of food; (3) by thinking of food; this includes appetite or desire for food. The first is the usual mode of excitement. It is known that for the first three months or so of extrauterine life no saliva is secreted. But during all that time the sensory mouth nerves are being continually excited by the contact of milk. It is possible that this excitation is necessary to establish central paths of communication between the afferent and efferent nerves. But it may also be that the communication already exists, and that it takes three months of motor-nerve excitement to develop the gland up to a state of secreting potency.

That this is the true explanation seems probable from the case of the mammary glands. These are at birth in a very imperfect—or, as we might say, unfinished—state, the cells being very few. During the interval between birth and puberty there is some, but only slight, development. At the latter epoch this advances; but it is not till the approach of term that any secretion occurs. Lactation finished, the glands again dwindle, and many cells disappear.

Let us now turn to the male mammary glands. These do not actually remain in the inchoate state of the female glands at birth, but their development makes very little progress. They remain permanently in about the same state as the female glands up to the advent of puberty. Nevertheless, it is well known that the male glands are capable of lactation. The history of such cases shows that they acquire this property only after a rather lengthy stimulation of the sensory nerves in the nipple, and also by the psychical excitation of the motor nerve. In the case of the salivary glands, we speak of "mouth-watering" as a result of such psychical excitation. Women commonly speak of the "draught" of milk, which means the sensation caused by that increased blood flow which attends secretion, and which in this case is determined by seeing the infant or hearing its cry. Gould and Pyle quote the "instance of an old Chippewa who, on losing his wife in childbirth, put his infant to his own breast and earnestly prayed that milk might flow; he was fortunate enough to eventually produce enough milk to rear the child." In this case there is reason to think that the psychical influence may have begun to operate at a very early date. The experiments of Pawlow have greatly enhanced our estimate of the potency of psychic influence in stimulating secretion.

In the above instances the forces which undoubtedly cause ripe cells to secrete have been in operation at a time when the cells were not ripe. This certainly lends force to the supposition that the growth of the cells up to a state of ripeness is due to the action of the motor nerves.

The question now arises, What is the relation of the motor nerves during periods of long quiescence? For example, during the interval between two lactations, or after the menopause. Is it possible that the nerve has also some inhibitory influence, and that while it does not drive the cells in one direction it prevents them from developing in another. Prevents them, for example, from exercising that inherent and intrinsic power of growth the possession of which seems to be indicated by their mode of origin. If this is so, abolition of the nerve (for example, its withering) at the menopause might leave the cells at liberty to exercise this faculty of growth, unless it also was abolished at the same time. What results such an unfettered mode of growth would give we have not the least idea. But it might lead to the formation of gametoid cells, or of cells which could not resist the entrance of leucocytes (according to the views of Dr. Forbes-Ross). Such symbiosis resulting in the formation of a new entity, with new endowments, something after the fashion of the formation of a lichen from the combination of a fungus with an alga.

There are other ways in which a new mode of life might conceivably be imparted to cells. Suppose these failed to develop in a certain way, either from their own degradation or from partial failure of nerve stimulation, the motor nerve might be able to make them grow, but not in a shape which would enable them to secrete. In case it be held that the sympathetic and not the chorda tympani is the trophic nerve of the submaxillary gland, my arguments would not be affected, but we should only have to substitute its name for that of the chorda tympani.

The continual and unrestricted growth of inoculated cancer cells indicates that these bodies possess, as Dr. Bashford points out, properties hitherto unknown in the higher animal kingdom. But the cancer cell, though a living entity, is not, strictly speaking, a viable one *per se*. The inoculated cancer mass when it lives and grows is not a mass of cancer cells only. But of these *plus* a new growth of connective tissue furnished by the host.

We can scarcely do otherwise than suppose that when, as in a certain percentage of cases, the inoculation fails, it does so because the new host refuses to supply the new connective tissue.

If we suppose a failure of physiological condition to be the cause of cancer, we are at once led to turn our attention to the law of senility. The term is synonymous with "old age," but, as commonly used, it connotes those bodily changes which occur in old age. Scanty or decolorised cranial hair, irretentive brain, loss of teeth, piping voice, impairment of hearing and vision, tremulous handwriting, stooping figure, tottering gait, shrivelled and inelastic skin, and so on, are all indications of diminished functional activity and corresponding impairment of structure. For example, who can suppose that the irretentive brain of old age is structurally identical with the retentive brain of youth? Such a proposition is unthinkable.

So far, then, from it being improbable that some cells and nerves of a gland may undergo senile deprivation, it is almost certain that some of them will. Worth notice is the fact that in spite of the general impoverishment of the hair, in not a few cases the eyebrows and the hair about the ears present a redundant growth. Senile changes are progressive, but not continuously so nor uniformly so in all parts of the body, nor is it common for all the signs to be present together in one person.

The fact of cancer being a disease of senility, which is itself a period of degradation of tissue, tallies with the supposition that cancer may be primarily due to a degradation of the tissue in which it arises. It is to be noted that no other explanation of the "law of senility" in cancer has as yet been offered. But besides general senility there is that form which affects only individual parts, such as the thymus at an early age and the female reproductive organs at or about the menopause.

The frequency of cancer in these latter organs at this period seems to me to enforce still more powerfully the idea that the disease has its prime origin in some structural or vital default, either in the cells in which it is first manifest or in the nerves which dominate these cells, possibly in both these combined. It seems to me quite certain that underlying the first visible evidence of cancer development, whether this be the gametoid cells of Messrs. Farmer, Moore, and Walker, or the secreting cells invaded by leucocytes of Dr. Forbes-Ross, there must be some invisible antecedent influence leading to these changes.

The first-named authorities say: "We feel that the evidence justifies us in deliberately correlating the appearance of these neoplasms" (the gametoid cells) "with the result of a stimulus which has changed the normal somatic course of cell development into that characteristic of reproductive tissue. We look, then, upon this transformation as representing the immediate cause of the development of the malignant growth, but the remote cause must be sought for amongst those various stimuli, some of which—for example, continuous irritation—are known to favour their development." We here have a frank suggestion that something has to be added to the part to produce cancer, and this idea is, I fancy, pretty generally entertained.

"Irritation" is always sooner or later followed by exhaustion, so that events which appear to, and really do, follow irritation may be due to it only indirectly and directly to the subsequent exhaustion—that is, to the "something" taken away.

I submit that there is good reason to suspect that the origin of cancer may be intimately connected with senile changes in the nerve endings or in the cells, or perhaps with both these combined.

NOTE ON THE TRANSMISSIBILITY OF SYPHILIS TO APES.

BY
ALBERT S. GRUNBAUM, M.A., M.D., F.R.C.P., and RALPH D. SMEDLEY, M.A., M.B.
(FROM THE PATHOLOGICAL LABORATORY, UNIVERSITY OF LEEDS.

ALTHOUGH this note contains only a preliminary step in further investigations, we think it of some slight interest, since we have not seen that any confirmation of the work of Metchnikoff, Neisser, and others regarding the susceptibility of anthropoids to syphilis has yet appeared in this country, to place the following observation on record.

A male chimpanzee was inoculated on the eyebrow by rubbing into it a portion of a chancre freshly excised. Signs of infection, indicated by some duskiness of the skin and a small nodule, appeared on the sixteenth day. For some days later these signs seemed to regress, but then general swelling and induration of the eyebrow with duskiness of skin became very evident. Later still exfoliation of the skin, leaving a surface yielding a serous or seropurulent secretion, has occurred. The cervical glands on the same side are enlarged. The general health of the animal seems unaffected, and there is no rise of temperature.

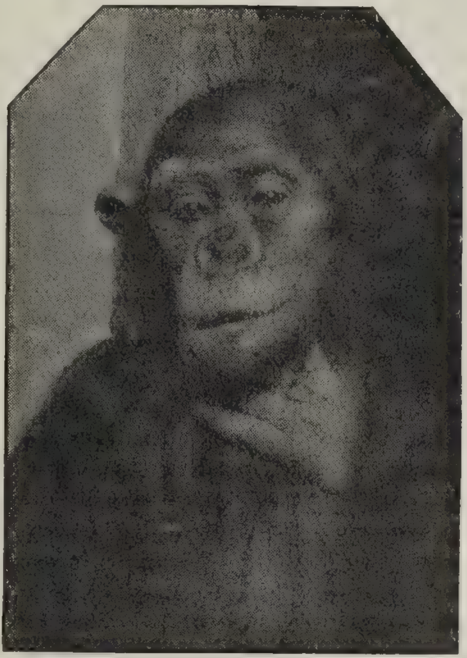


Fig. 1.—Head of chimpanzee showing chancre on right eyebrow.

Although sought for, the *Spirochaeta pallida* was not found until the thirty-seventh day after inoculation.

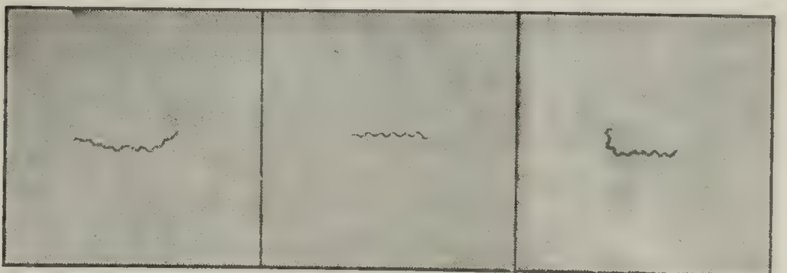


Fig. 2.—Three spirochaetes from lesion, showing pointed ends × 1,300.

Our thanks are due to Mr. Walter Thompson, Lecturer on Operative Surgery, who was good enough to give us the material for inoculation, and to Mr. Littlewood, Professor of Surgery in the University, who kindly confirmed the diagnosis in the ape from a clinical point of view.

THE SCIENCE COMMITTEE
OF THE
British Medical Association.

REPORT XCIV.

ANAESTHETICS AND RENAL ACTIVITY:
AN EXPERIMENTAL INVESTIGATION INTO THE EFFECTS OF PROLONGED CHLOROFORM AND ETHER NARCOSIS.*

By W. H. Thompson, M.D., Sc.D., etc.,
King's Professor of Institutes of Medicine, Trinity College, Dublin.

PART I.—CHLOROFORM NARCOSIS.

Some years ago, when seeking for the cause of certain effects of intravenous injections of sodium chloride solutions upon renal activity, it became necessary to ascertain the corresponding influence of the anaesthetic employed—namely, a mixture of two parts of ether and one of chloroform.

The inquiry subsequently extended itself into the present research, but its prosecution has suffered interruption from various causes.

Methods.

The experiments were made upon dogs and comprise observations on the effects of (*a*) chloroform, (*b*) ether, and of two mixtures containing these, namely, one (*c*) known as the A.C.E. mixture, the other (*d*) a combination frequently employed in physiological laboratories, composed of chloroform one part, ether two parts.

As a rule the animals received no food for twenty-four hours before the observations began, the exceptions are indicated. A moderate allowance of water was given on the day previous, but none on the day of the experiment till after the observations were completed. The animals then in most cases drank freely.

Two classes of experiments were carried out with each anaesthetic.

(*a*) *Ureter Experiments.*

The urine was collected from cannulae placed in the ureters for definite periods before, during, and after the administration of the anaesthetic. To avoid opening the peritoneal cavity the cannulae were inserted as a rule from behind. Records of carotid blood pressure were also taken in most of these experiments, not continuously but at intervals varying from ten minutes to a quarter of an hour. To induce anaesthesia preparatory to the operative procedures, small doses of morphine were given, and during the operations the morphine was supplemented, when necessary, by inhalation of the ether-chloroform mixture referred to above. Events showed that neither the morphine nor the ether-chloroform mixture was wholly without influence upon renal secretion, but of the two the former had the less effect in moderate doses. Accordingly, in the later ureter experiments the dose of morphine was somewhat increased and the volatile anaesthetic used as little as possible. When the ether-chloroform mixture was given during the preparatory operations an interval of half to three-quarters of an hour was allowed to elapse before collecting the normal sample of urine.

(*b*) *Catheter Experiments.*

These were made to observe the influence of the anaesthetic upon renal secretion without previous operation of any kind and without the administration of morphine. The urine was drawn off from the bladder of the female animal by sterilized glass catheter, pressure on the abdominal wall being employed to ensure complete emptying. Collections in this way were made for periods varying in number from three to five, and, as a rule, of two hours' duration each. During the first a normal sample of urine was taken; during the second the anaesthetic was administered; during the third, fourth, and fifth periods the after-effects were observed. Except during Period II the animals were kept in a metabolism cage. To avoid struggling in giving the anaesthetic the animal was at first placed in a box till sufficiently insensible to be transferred to a table. Here the anaesthesia was afterwards maintained in the ordinary way by enveloping the head in a towel and pouring the anaesthetic on a piece of cotton-wool. The table was provided with a warm-water pan, the dog being also covered with a light cloth. When afterwards brought into the metabolism cage the animal was also covered.

In most of the cage experiments full anaesthesia was maintained, such as would be necessary for the performance of an operation. In a few it might be described as light. This applies particularly to the ureter experiments where morphine had previously been given. No attempt was made in the present series of experiments to graduate the percentage of the anaesthetic given. Nevertheless, the results obtained are, I think, of sufficient interest to justify publication. An extension of the research is in progress, in which the effects of graduation, together with other questions, are under investigation.

Examination of the Urine.

The quantity secreted was observed stage by stage. The different samples were analysed for total nitrogen in most cases (Kjeldahl's method), for urea in a few, (Mörner's method), for chlorides in a large number (Volhard's method). Examinations were also made in several of the experiments for reducing osazone-yielding substances, as well as for albumen. The procedures employed in these latter observations will be given later. In the tables throughout this paper the quantities of urine are given in cubic centimetres per period, the quantities of nitrogen and chlorides in grams per period or per cent. as the case may be.

A.—Chloroform.

I.—*Effects on the Quantity of Urine.*

Kemp[1] found that under chloroform the quantity of urine remained copious till the general circulation became considerably affected, when the flow diminished. Buxton and Levy,[2] without giving details, state that their results agree in the main with those of Kemp. The urine in both researches was collected from the ureters.

In the following investigation two opposite effects were noted during the period of administration, both in the "ureter" and "catheter" experiments. In a majority the secretion of urine was diminished. An example of this effect is shown in the following figures, which represent in cubic centimetres the quantities of urine secreted in a catheter experiment during five successive periods of two hours' duration each. The quantities for the anasthetic periods are throughout given in thick type; the Roman letters refer to the periods.

I.	II.	III.	IV.	V.
38	**6**	**3.5**	42	9

At one stage two chloroform periods were adopted in succession in order to ascertain if a continued retention of water in the system would ultimately induce an increased urinary secretion. The reverse happened.

In a minority of the experiments an increased flow of urine was observed, of which the following is an example, taken from a "ureter" experiment:

I.	II.	III.	IV.
12.6	**25**	32.75	24

The after-effect in both classes of experiment, almost without exception, was a marked increase in the rate of secretion, which as a rule reached its maximum in the period succeeding the removal of the anaesthetic. The following table gives further illustrations of the two varieties of effect:

Table I.—Chloroform: Effects on the Quantity of Urine.

Experiment.	I.	II.	III.	IV.	V.
		Ureter Series.			
1 ...	12.6	**25.0**	32.75	24.0	—
2 ...	57.3	**7.0**	11.8	5.2	—
3 ...	11.0	**7.8**	11.15	**9.4**	**9.4**
		Catheter Series.			
1 ...	23.2	**19.0**	20.0	—	—
2 ...	23.5	**3.6**	40.0	114.0	62.0
3 ...	64.0	**26.0**	67.0	21.0	—
4 ...	4.5	**1.0**	10.5	31.0	—
5 ...	28.0	**3.5**	204.5	201.5	—
6 ...	7.0	**10.0**	4.5	26.0	—
7 ...	9.5	**74.5**	55.0	58 0	30.0
8 ...	84.0	**127.0**	126.0	105.0	80.0

---

* Preliminary communications giving the earlier and some of the interim results were published in the *Journal of Physiology*, vol. xxv, p. 491; in the British Medical Journal, 1900, vol. ii, p. 833; also in the former journal, vol. xxxii, under *Proceedings of the Physiological Society*, p. xxi.

Of the foregoing "ureter" experiments, two showed a decrease and one an increase in the rate of secretion. Of the "catheter" experiments, five showed a decrease, three an increase. These latter are placed together at the end of the table, but they did not occur in this order in the series of experiments. The after-effect in all (with one possible exception, where the observations did not extend beyond Period III) was a striking increase in the volume of urine. In most cases this reached its maximum during Period III.

Expressing the above results in averages, those of the "decrease" experiments for the five periods are as follows:

I.	II.	III.	IV.	V.
28.64	**10.02**	68.4	116.85	62

That is to say the secretion of urine dropped in the anaesthetic period to 35 per cent. of the normal and rose during the period of maximum after-effect to 415 per cent. of that amount.

The "increase" experiments gave the following averages per period expressed as before:

I.	II.	III.	IV.	V.
33.5	**70.5**	61.8	63	55

Here the maximum flow of urine occurred during the administration of the chloroform, and reached to 210.4 per cent. of the normal. During the two subsequent periods the rate of flow was hardly less.

It seemed that these two divergent forms of effect were due to different degrees of the chloroform influence, the increase in all probability being caused by an earlier or lighter action, the decrease by a deeper effect. This was suggested by the increase in some of the "ureter" experiments, where morphine had previously been administered and consequently less chloroform was required. The point was also tested in two additional "ureter" experiments not included in the foregoing table, but given in subsequent tables as Ureter Experiments 4 and 5. In the first of these the chloroform period is divided into three stages, the lengths of which are: *(a)* Three-quarters of an hour, *(b)* one hour, *(c)* one hour. The rates of secretion are as follows:

I.	II.			III.
	(a)	*(b)*	*(c)*	
7.2	**4.2**	**12.8**	**4.6**	12.8

In the second experiment the half-hourly rates of secretion for each period were as follows:

I.		II.				III.	
8.5	11.95	**6.1**	**6.0**	**4.9**	**2.2**	14.8	17.65

Thus in one of these two additional experiments the increased effect produced by light anaesthesia is obvious. It did not occur in the second, notwithstanding very gradual administration at the outset. It would appear, therefore, not to be an invariable result, and this agrees with the table as a whole where both effects are seen. The depressing influence, however, occurs with much greater frequency than the opposite. Further, when the increase during administration does take place, it is probably preceded by a short period of depression, as seen in one of these experiments. It should be added that no ether-chloroform mixture was required during the preparatory stages of either of the experiments now considered.

II. *Effects on the Excretion of Nitrogen.*

Eulenburg-Strübing[3] found nitrogenous metabolism diminished as a whole by chloroform narcosis with a relative increase in the excretion of phosphorus. This latter was attributed to a decomposition of lecithin. Kappeler[4] states that in the human subject the excretion of urea varies. In twenty observations, a diminution was noted in thirteen instances, an increase in five, while in two the urea remained unchanged. Salkowski[5] found an increase of nitrogen in the urine, as did also Strassmann[6] to the extent of 20 per cent. Kast and Mester[7] noted an increased excretion of nitrogen along with decline of body-weight, after prolonged chloroform narcosis. Kobert[8] states that Ken Taniguti found metabolism to be increased after internal administration of chloroform, even when the dose was insufficient to produce narcosis.

The results obtained in the present research are given in the following table. It will be seen that with one exception the excretion of nitrogenous solids per period was diminished. This applies even to experiments where the quantity of urine was considerably increased.

TABLE II.—CHLOROFORM: EFFECTS ON THE EXCRETION OF NITROGEN PER PERIOD.

Experiment.	I.	II.	III.	IV.	V.
		Ureter Series.			
1 ...	0.3916	**0.3647**	0.2989	0.2990	—
2 ...	0.2085	**0.0225**	0.0618	0.0592	—
4 ...	0.2096	*(a)* **0.0828** *(b)* **0.2582** *(c)* **0.0445**	0.1861	—	—
5 ...	0.1425	*(a)* **0.0382** *(b)* **0.0376** *(c)* **0.0348** *(d)* **0.0076**	0.0870	0.1547	—
		Catheter Series.			
2 ...	0.5593	**0.0492**	0.3819	0.5658	—
3 ...	0.3351	**0.1136**	0.9281	0.2975	—
4 ...	0.1285	**0.0224**	0.1676	0.3046	—
6 ...	0.1384	**0.2170**	0.0833	0.4856	—
7 ...	0.2851	**0.2743**	0.3665	0.5651	0.5157
8 ...	0.2117	**0.1920**	0.5574	0.6233	0.4301

N.B.—In Ureter Experiment 4, the quantities given for the anaesthetic period represent the excretion of nitrogen in successive stages *(a)* of 45 minutes, *(b)* of one hour, *(c)* of one hour. In Ureter Experiment 5, the corresponding quantities represent the half-hourly rates of excretion during the period.

The averages per period for one hour duration for the "ureter" series, making the necessary deductions in Period II of Experiments 4 and 5, are as follows—the quantities being given in grams:

0.2380	**0.1462**	0.1584	0.1709.

During the anaesthesia the output of nitrogen diminished to 61.43 per cent. of the normal. It will be seen, moreover, especially in Ureter Experiment 5 that there was a continuous decline in the output of nitrogen during this period, and that in its later stages the excretion fell to a rate much below that represented by the average of the period.

In considering the "catheter" series the experiments are divided into two groups—those in which the quantity of urine was diminished, which are named "decrease" experiments; and those in which the opposite effect was observed, which are named "increase" experiments. From the former group, two of those included in the first table are omitted, the urine being employed for other analyses than that of total nitrogen. Of the three "decrease" experiments remaining, the averages per period of two hours are:

I.	II.	III.	IV.	V.
0.3409	**0.0617**	0.4925	0.3893	—

Those of the three "increase" experiments are:

0.2117	**0.2277**	0.3357	0.558	0.4729

In the former group the output of nitrogen fell during anaesthesia to 18 per cent. of the normal—a much greater fall in proportion than occurred in the volume of urine for the same group. The quantity of urine for the three experiments in question only fell to 35 per cent. The difference is of importance in showing that the depressing effects of the anaesthetic are greater on the output of nitrogenous solids than on the escape of water.

In the "increase" group the same influence is revealed, though somewhat masked. The output of nitrogen during Period II rose only to 7.56 per cent. above the normal, although the quantity of urine exceeded that amount by over 110 per cent. Further, in one of the "increase" experiments the influence of the anaesthetic on the two factors—urine volume and output of nitrogen—was in opposite directions. In Catheter Experiment 8, notwithstanding a large increase in the water constituent of the urine, the output of nitrogen fell considerably. The same is seen to a less degree in Catheter Experiment 7.

The conclusion to be drawn from these results seems clearly to be that the influence of the anaesthetic on renal activity cannot be wholly due to its effect on the blood flow through the organ. If this were so, one would expect to find the influence on the excretion of nitrogen proportionate to, or at all events not greater than, that upon the secretion of water.

Additional light is thrown upon the matter by an examination of the concentration of the urine secreted in the different periods. It will be seen that the rule which holds good under normal conditions—namely, that a diminution in the volume of urine goes hand in hand with increased concentration—does not apply in chloroform anaesthesia.

Effects on the Concentration of the Urine.

The table below shows that in every instance, with one exception—namely, Experiment 6, Catheter Series—the urine of the anaesthetic period is more dilute than normal. This holds good both in the "ureter" and "catheter" series of experiments. One would naturally have expected the opposite relationship, particularly in the decrease "catheter" experiments, and yet all of these conform to the rule. It is also remarkable that in the later stages of the narcosis, where the volume of the urine is most reduced, the percentage content of nitrogen is also most diminished. This is illustrated in column II of the table, by the figures opposite Ureter Experiments 4 and 5, which represent the concentration of the urine secreted at different stages of the anaesthetic effect.

TABLE III.—CHLOROFORM: EFFECT ON THE PERCENTAGE OUTPUT OF NITROGEN.

Experiment.	I.	II.	III.	IV.	V.
		Ureter Series.			
1 ...	3.1080	**1.4580**	0.9128	1.2460	—
2 ...	0.3640	**0.3220**	0.5236	1.1396	—
4 ...	2.9106	(*a*) **1.9726** (*c*) **1.0360**	1,4540	—	—
5 ...	0.7056	(*a*) **0.6274** (*b*) **0.6272** (*c*) **0.7098** (*d*) **0.3472**	0.2940	0.4382	0.5082
		Catheter Series.			
2 ...	2.3800	**1.3664**	0.9548	0.5376 0.3416	—
3 ...	0.5236	**0.4368**	1.2320	1.7024	1.4168
4 ...	2.8560	**2.2400**	1.5960	0 9828	—
6 ...	1.9768	**2.1700**	1.8508	1.8676	—
7 ...	3.0016	**0.3682**	0.6664	0.9744	1.7192
8 ...	0.2520	**0.1512**	0.4424	0.5936	0.5376

N.B.—(*a*), (*b*), (*c*), (*d*) represent different stages of same period as explained under Table II.

The above results appear to have an important bearing on the mechanism of urinary secretion. They are difficult to account for, except on the hypothesis that the escape of watery constituents at the glomerulus is supplemented by a secretion of nitrogenous solids into the tubules. Chloroform affects both these processes, but the latter to a greater degree than the former. The exception referred to, where the urine secreted during anaesthesia was more concentrated, belongs strangely to the group where the flow of urine was at the same time increased. It is therefore doubly anomalous, and in a sense the counterpart of the decrease experiments, both as regards concentration and urine volume. It shows also that chloroform may stimulate nitrogenous metabolism in certain cases as claimed by Kappeler.[9] In Stage (*c*) of Ureter Experiment 5 the concentration of the urine is also slightly increased.

Effect on the Chlorides of Urine.

An increased excretion of urinary chlorides after chloroform narcosis has long been known. The form in which the chlorine occurs has, however, been a matter of dispute. Zweifel[10] found unaltered chloroform. Steinauer[11] somewhat later discovered the existence of chlorine in organic combination in normal human urine, and Kast[12] showed that part of the excess of chlorine which occurs after chloroform narcosis is also in the form of organic chlorides. Zeller[13] found that of chloroform administered per os 20 to 25 per cent. escaped by the lungs; the remainder left the body as alkaline chlorides in the urine. Pohl[14] confirmed the occurrence of traces of unaltered chloroform in the urine, as did also Wagener,[15] but the latter found it in only two instances out of fifteen, and the subjects in these cases had frequently been chloroformed. Dioscoride Vitali[16] denies that the urine contains more organic chlorides after chloroform narcosis than normal, but Kast and Mester[17] confirm the earlier observations of the former, especially after prolonged administration.

The following table gives the excretion of chlorides per period in six of the catheter experiments taken from the foregoing series:

TABLE IV.—CHLOROFORM: EFFECT ON THE CHLORIDES OF URINE.

Experiment.	I.	II.	III.	IV.	V.
		Catheter Series.			
1 ..	0.0046	**0.0550**	0.0460	—	—
2 ...	0 2300	*n d.*	0.1100	0.6600	0.9300
3 ...	0.0500	**0.4400**	0.8200	0.6200	—
5 ...	0.0728	**0.0168**	0.8083 0.1822	0.9873	—
7 ...	0.0237	**0.0611**	0.2255	0.0812	—
8 ...	*Nil*	**0.7239**	0.1386	0.1260	0.3280

In every case an increase occurred, sooner or later, after the chloroform, generally during the period of administration. The averages in grams per period for the six experiments are as follows:

0.0635 **0.2593** 0.3718 0.4949 0.6240

A steady increase in the output is thus seen, reaching in the third period, after removal of the chloroform, to ten times the normal amount. The observations did not extend beyond this period, which ended six hours after removal of the chloroform. In two cases an examination for organic chlorides was made by the method of Kast.[18] The results were negative. It is to be remarked, however, that the examination was not made immediately after collection of the urine, and that possibly chloroform in the interim may have escaped, also that the content of chlorides in the normal urine of the dog is very small.

Control Experiments: No Anaesthetic Administered.

In considering the foregoing results it has been assumed throughout that renal activity remained constant during the periods of observation. It seemed, however, desirable to make certain that this was so by actual observation. A series of five "catheter" experiments was therefore carried through, the dogs being treated in the same way as in the corresponding anaesthetic experiments, except that no anaesthetic was given. The urine was then analysed for total nitrogen and chlorides. The following table gives the rates of secretion observed in the different normal periods:

TABLE V.—THE NORMAL RATE OF URINE SECRETION.

Experiment.	I.	II.	III.	IV.	V.
		Catheter Series.			
1 ...	25.5	**22.0**	21.00	19.0	21.5
2 ...	23.0	**14.5**	13.00	12.5	13.5
3 ...	9.0	**8.5**	8.75	9.0	8.0
4 ...	9.0	**11.0**	7.50	6.5	6.0
5 ...	31.0	**29.5**	25.50	20.5	20.5

The averages from the above series give the periodic rates as follows:

19.5 **1.71** 15.15 13.5 13.9

showing a slight tendency to decline from beginning to end. The fluctuations are unimportant, and except in Period II are in the opposite direction to those seen after anaesthetics.

Table VI gives the output of nitrogen per period in the foregoing series.

TABLE VI.—NORMAL OUTPUT OF NITROGEN.

Experiment.	I.	II.	III.	IV.	V.
		Catheter Series.			
1 ...	0.3320	—	—	0.3805	0.3883
2 ...	0.2737	**0.2842**	0.2912	0.2933	0.3251
3 ...	0.2699	**0.2256**	0.1933	0.1466	0.1062
4 ...	0.1867	**0.1608**	0.1474	0.1318	0.1445
5 ...	0.1979	**0.2015**	0.2156	0.2095	0.2141

The average excretion of nitrogen per period is as follows:

0.2520 **0.2180** 0.2119 0.2323 0 2356

The fall in nitrogen during Periods II and III is somewhat more in proportion than the corresponding fall in the quantity of urine, but not such as to vitiate the conclusions drawn from the effects of the different anaesthetics.

The following shows the excretion of chlorides in the control experiments:

CHLOROFORM.

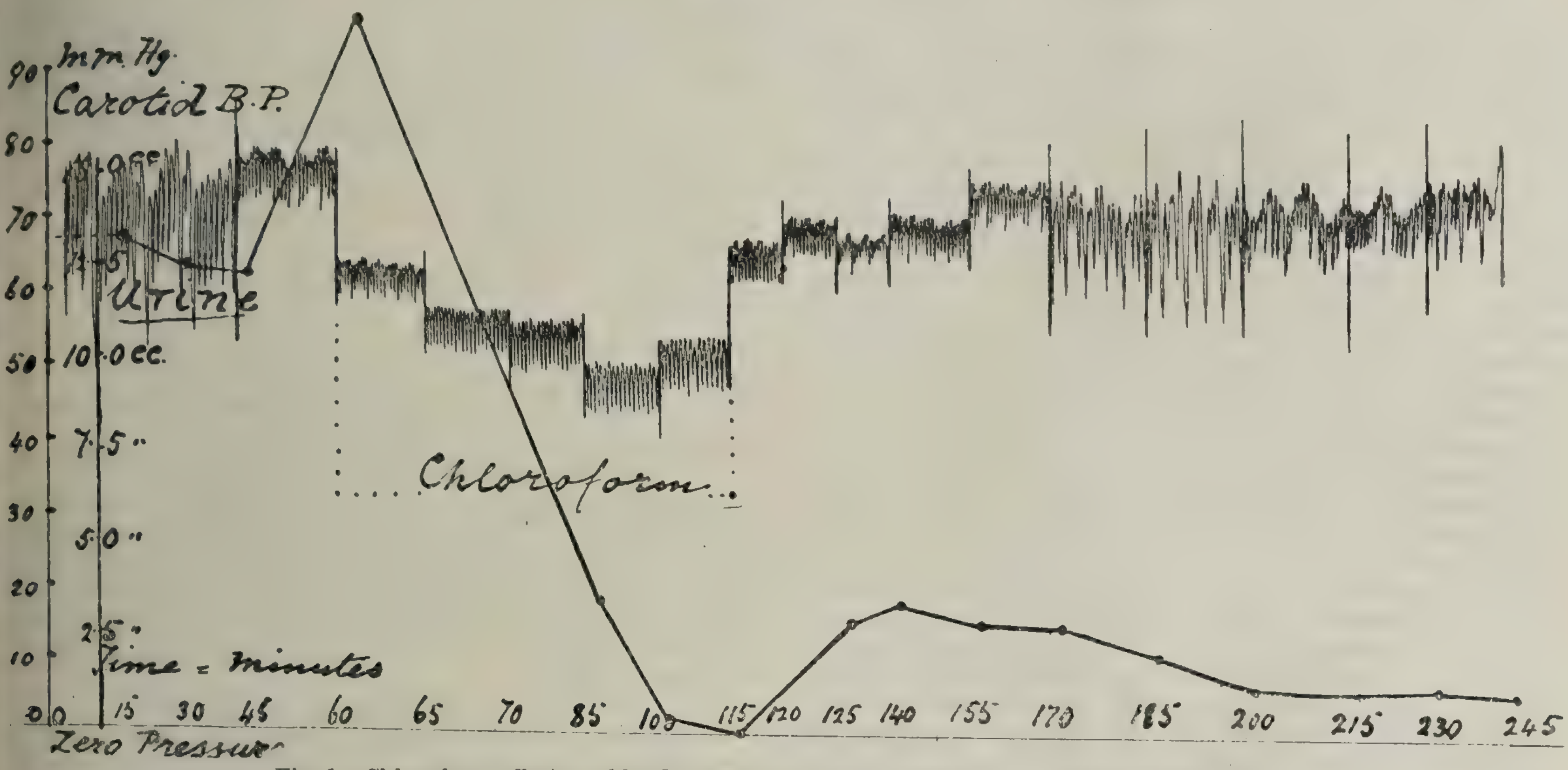


Fig. 1.—Chloroform effects on blood pressure and urinary secretion. Ureter Experiment 2.

TABLE VII.—EXCRETION OF CHLORIDES WITHOUT ANAESTHETICS.

Experiment.	I.	II.	III.	IV.	V.
		Catheter Series.			
1 ...	0.0280	**0.0484**	0.0210	0.0152	0.0430
2 ...	0.0069	**0.0029**	0.0026	0.0012	0.0027
3 ...	0.0540	**0.0586**	0.0866	0.0675	0.0432
4 ...	0.0027	**0.0033**	0.0090	0.0026	0.0018
5 ...	0.0031	**0.0177**	0.0076	0.0041	0.0081

The averages from the above are:

0.0189 **0.0262** 0.0251 0.0181 0.0197

A slight increase in the output is thus seen during Periods II and III, but this is insignificant when compared with the results shown in the chloroform series.

VASCULAR EFFECTS.

It was considered necessary, as the starting point of an inquiry into the causation of the foregoing effects, to ascertain the relationships between urine secretion, blood pressure, and kidney volume throughout the different periods.

(*a*) *Relationship between Blood Pressure and Urine Secretion.*

The results obtained by Kemp, as well as those of Buxton and Levy, have already been referred to. In the present investigation a comparison of blood pressure, with rate of urine secretion, was made in most of the "ureter" experiments. Figs. 1 and 2 give records from two of these. In Fig. 1 (taken from Ureter Experiment 2) the urine curve has been superposed on the actual blood pressure tracing.

On examining the two curves it will be seen that urine secretion rose considerably just before the chloroform was given, and then fell continuously, till actual cessation took place after forty minutes' administration. When the chloroform was removed, the secretion returned, but did not again reach the normal rate seen at the beginning of the experiment. This end-result is typical of several of the "ureter" series, and differs from that seen in the "catheter" experiments, where a striking after-increase was the rule. The deviation in the ureter experiments is probably caused by the morphine injected before the operations were begun. In the experiment from which the tracing was taken morphine had thus been given, and the morphine narcosis was further supplemented by a short inhalation of the ether-chloroform mixture. To the after-effects of the latter I attribute the increase in urine secretion seen immediately before the chloroform was begun.

Reviewing the relationship between the curves as a whole, it will be seen that the correspondence is at most relative, not by any means complete. Points of deviation are obvious at more than one situation, and the arrest of urine secretion occurred with a comparatively high blood pressure. This latter is fully 95 mm. in the carotid artery, more than double that which is sufficient under other conditions to maintain a flow of urine through the kidney.

Fig. 2 gives curves constructed from the blood pressure and urine outflow in Ureter Experiment 4.

Three phases are shown in the chloroform effect upon the urine secretion. During the early period of light anaesthesia the flow, with some fluctuation, declined on the whole. This is followed by a marked increase, which in its turn is succeeded by a second fall, not proceeding, however, to actual suppression. After removal of the anaesthetic a great rebound of secretion took place.

The blood pressure corresponds in the main to the outflow of urine except at two stages, namely, during the intermediate phase of increase, and also during the fall before conclusion of the experiment. The deviation between the two curves in the intermediate stage is no doubt to be accounted for by the dilating effects which Embley and Martin[19] also Schäfer and Scharlieb[20] have shown to be exerted upon blood vessels by chloroform. The fall in urine secretion during the later stages of the experiment is not explained by the condition of blood pressure, which was higher than at any another period.

CHLOROFORM.

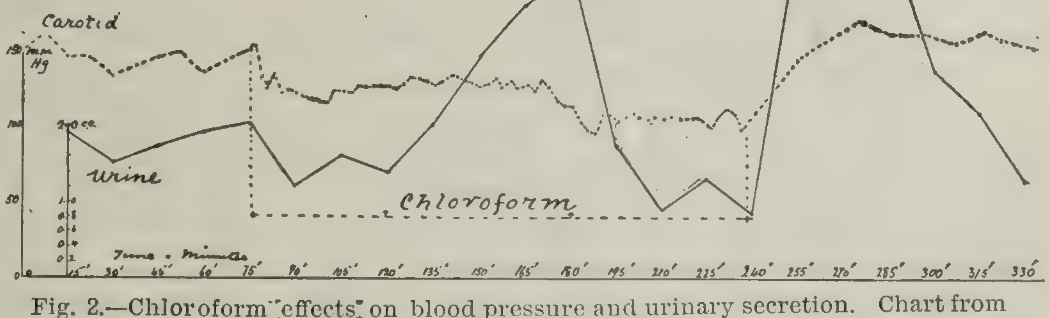


Fig. 2.—Chloroform effects on blood pressure and urinary secretion. Chart from Ureter Experiment 4.

(*b*) *Kidney Volume and Urine Secretion.*

The effects of chloroform on kidney volume have been observed by Kemp, by Embley, and also by Embley and Martin, but in no case for long periods at a time. Both Kemp and Embley, during the administration, found an early increase of volume, followed later by a decrease. The after-effect in Embley's experiments was a great increase.

Kemp simultaneously collected urine from the opposite ureter and found the flow to correspond on the whole with kidney volume.

In the present investigation four chloroform experiments were performed in which records of kidney volume, of general blood pressure, and of urine secretion were made. One, however, failed, and one was but a partial success. The left kidney was in each instance chosen and Roy's oncometer was used in all, but the recording instrument was varied. In one experiment the piston recorder (Hurthle's pattern) was employed, in another the oncograph of Roy, in a third a sensitive Marey's drum, in two others the bellows recorder of Brodie. In each case the recorder was previously tested for leakage. A warm water-jacket kept at constant temperature such as I used in previous kidney experiments[21] was placed over the oncometer to prevent cooling.

The conditions to be fulfilled in prolonged oncometer experiments with the kidney, made it difficult to successfully carry out the observations. Curare could not be used owing to its effect on the secretion of urine. The preliminary morphine anaesthesia had to be carefully graduated for the same reason. The dose given in these experiments was from 5 to 6 mg. per kilo of body-weight. Nor could the morphine narcosis be supplemented by the use of a volatile anaesthetic without an exceedingly long wait afterwards—at least four hours—during which time the kidney tissue suffered, and in the end ceased to be normal. The periods had also to be reduced in length to avoid the same possibility.

The following table gives the secretion per period from both kidneys for the four experiments. It was accepted, that if any marked divergence was shown in the rate of secretion on the two sides, the results could not be considered reliable. Applying this test to the group of experiments below, one (Experiment 4) must be discarded. The remaining three, however, fulfil the conditions while showing varying degrees of chloroform influence.

TABLE VIII.—EFFECTS OF CHLOROFORM UPON URINE SECRETION AND OUTPUT OF NITROGEN IN ONCOMETER EXPERIMENTS.

Experiment.	I.		II.		III.	
	L.	R.	L.	R.	L.	R.
1 ...	2.28	3.28	0.24	1.00	3 86	8.45
2 ...	1.72	1.95	(a) 0.80 (b) 0.00	1.70 0.53	1.70	2.65
3 ...	3.75	2.80	(a) 2.30 (b) 2.10	2.10 2.30	2.90	3.00
4 ...	14.60	17.40	3.40	16.00	2.80	10.50
Excretion of Nitrogen per Period.						
3 ...	0.0689		(a) 0.0576 (b) 0.0533		0.0628	
4 ...	0.1958	0.1681	0.0639	0.1631	0.0889	0.1325

Duration of Periods.—Experiment 1, 40 minutes.
,, 2, 20 ,,
,, 3, 60 ,,
,, 4, 60 ,,

N.B.—(*a*) and (*b*) in this table under Period II represent duplication of the anaesthetic period, not subdivision into stages.

The average rates of flow per period taken from the first three experiments in the above table are for

Kidney in oncometer ...	2.58	1.09	2.82
Kidney *in situ*...	2.68	1.53	4.70

These correspond with that obtained as a rule in ureter experiments and show a medium degree of chloroform influence. A tracing from Experiment 2, upon which the curve of urine secretion is superposed is given in Fig. 3 (p. 613).

The somewhat different results of Experiment 3 expressed in curve form are given in Fig. 4. The curves from above downwards are those of kidney volume, carotid blood pressure, and urine outflow. The height of the first above the abscissa line is arbitrarily chosen.

If Figs. 3 and 4 be carefully examined it will be seen that while there is a general correspondence in the curves in both, there are at the same time considerable deviations. The short dilatation of the kidney seen in both tracings at the early stage of the chloroform influence is not reflected in Experiment 2 by an increased outflow of urine. It is, however, succeeded in Fig. 4 by such an increase, but in the same figure divergences are elsewhere seen in the curves, notably in the third half-hour of the administration. The tracings also emphasize the fact that the arrest of secretion which occurs in Experiment 2 (Fig. 3) and the extreme slowing amounting almost to arrest in Experiment 4 are not satisfactorily explained by the vascular conditions of the organ as revealed by either blood pressure or renal volume. The concentration of the urine in the oncometer experiments during the chloroform period was greater than that of the normal sample, so that these experiments do not assist in explaining the converse effect which was noted in nearly all the previous chloroform experiments.

CHLOROFORM.

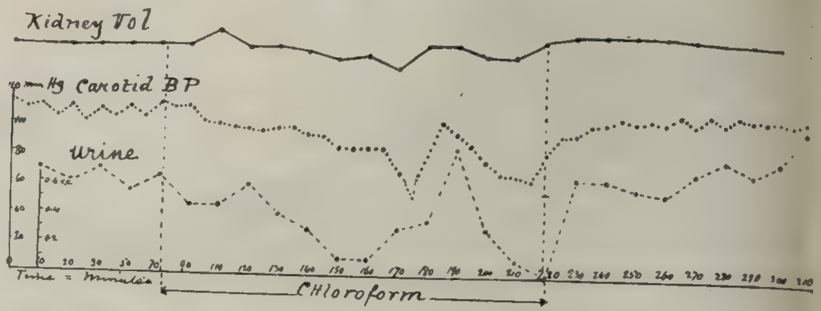


Fig. 4.—Chloroform effects on kidney volume, blood pressure, and urine secretion. Oncometer Experiment 3.

Other Effects.

Observations on the solids of the blood were made in some of the experiments. The results, however, are incomplete and are reserved for future publication. The same applies to measurements of the rate of blood flow through the organ.

Meanwhile it may be permissible to state that the facts which appear most to require explanation are: (1) The arrest of urinary secretion, often with a comparatively high blood pressure; (2) the diminished concentration of the urine accompanying a lessened flow; (3) the enormous increase in the volume of urine seen as an after-effect in the experiments where morphine was not used.

It may also be of interest to relate a fact which may throw light upon the above question. On many occasions, perhaps the majority of the experiments—though of the number no complete record has been kept—flocculi of variable sizes were observed in considerable numbers in the urine secreted, after the anaesthetic was removed. These were examined microscopically in a few of the recent experiments, and found to consist of aggregations of leucocytes recently exuded from the blood capillaries. Nachod[22] also found leucocytes, often in large numbers, in the urine of patients after chloroform narcosis. With these, casts, mostly hyaline, were also present. Their numbers in my own experiments point to a great accumulation of leucocytes, probably in glomerular capillaries. Such a condition would account for the diminution of the secretion under the vascular conditions, as regards blood pressure and renal volume, that were actually observed. It would also entail a certain amount of damage to the capillary walls, and thus probably lead to an increased permeability of the filtering mechanism, which, taken with the other factors, would explain the after-increase of urine flow, and likewise the occurrence of albuminuria in some of the cases. A similar but more pronounced effect is also produced by ether, as will be seen later.

The diminished concentration which accompanied the diminished volume of the urine, secreted during the full effects of the anaesthetic, must be taken to imply either a lessened production and absorption of nitrogenous solids, or a lessened reabsorption of water from the urinary tubules. The former, I think, seems the more likely, and would have to be accepted unless it can be shown that the fluid presented to the glomerulus for segregation is greatly diluted by the effects of the anaesthetic.

ALBUMINURIA AFTER CHLOROFORM NARCOSIS.

The quantity of urine obtainable for each period placed a limit upon the possible number of analyses. In consequence attention was not specially given to the occurrence of post-anaesthetic albuminuria. The subject, moreover, has received abundant attention from other investigators.

Observations were, however, made in five of the experiments given in Table I—namely, "Ureter" Series 2, "Catheter" Series 4, 5, 7, and 8. The reagent chiefly used was that of Spiegler. A positive reaction was given by one of the normal samples

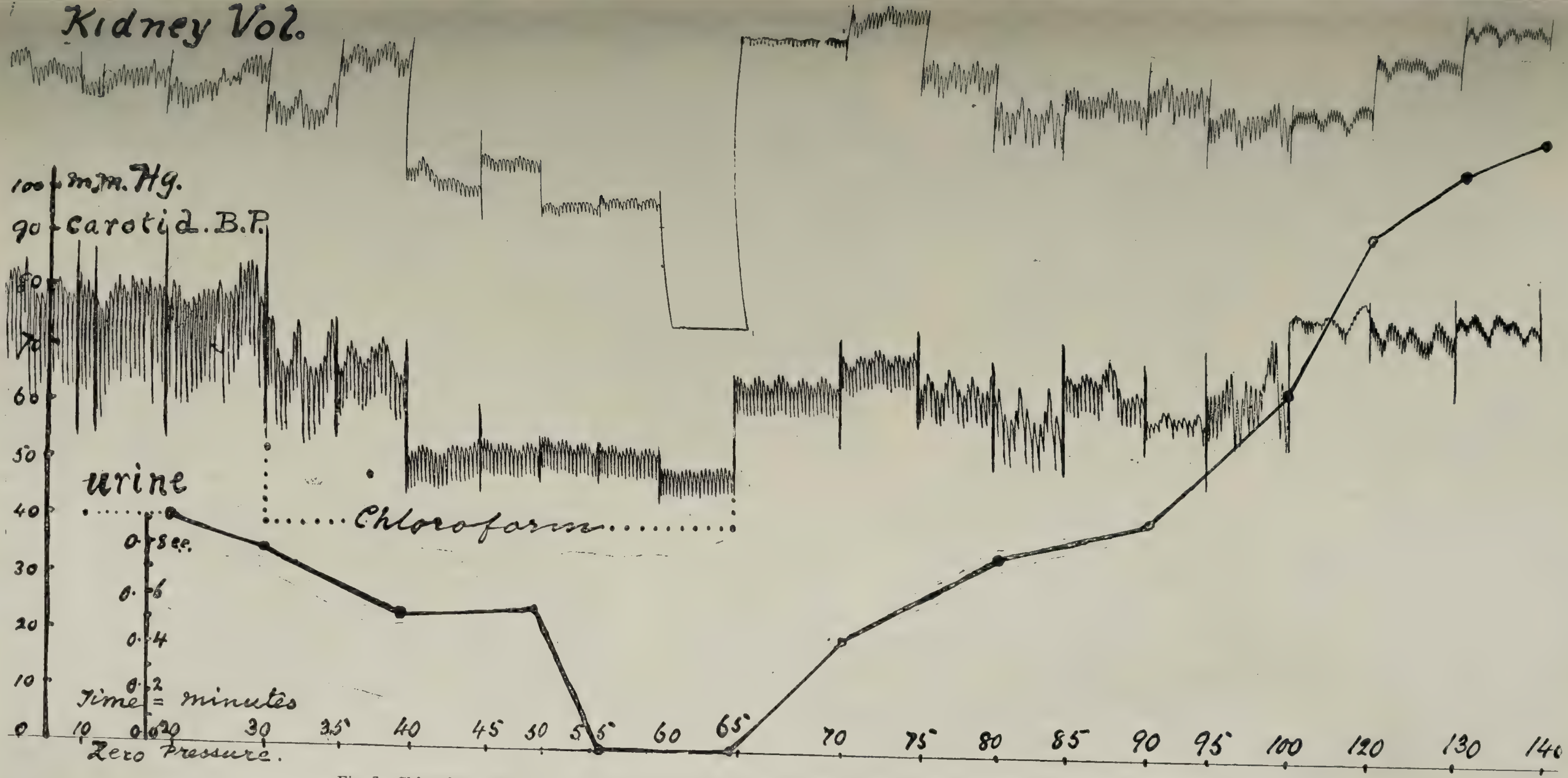


Fig. 3.—Chloroform effects on kidney volume, blood-pressure, and urine outflow. Taken from Oncometer Experiment 2.

(Catheter Experiment 7), and the effect of chloroform in this instance was to reduce the amount of albumen during Periods II and III. Afterwards the quantity increased, but at the end of the experiment it appeared to be less than in the normal urine.

Of the remaining experiments, in only one was a distinct albumen reaction obtained at any period after chloroform, and in one other an evanescent, doubtful result. The literature of the subject is vast, but most investigators agree that chloroform narcosis is followed only in a minority of cases by albuminuria, which corresponds with the results just given.

REDUCING SUBSTANCES IN THE URINE AFTER CHLOROFORM.

The occurrence of reducing substances in the urine after chloroform narcosis has long been known. Hegar and Kaltenbach[23] appear to have first shown that the reduction was not due to sugar. Zweifel,[24] who found traces of chloroform in the urine, confirmed the existence of a reducing substance, not chloroform, and not uric acid or sugar. The occurrence of traces of chloroform was confirmed by Pohl.[25] V. Mering discovered that an alcoholic extract of the solids of human urine after chloroform administration was laevorotary. Zeller[26] observed the same in experiments with dogs. Külz[27] attributed the optical activity to the use of phenol during the operations and in the dressings, which became absorbed, and was subsequently excreted as conjugated acid. Steinauer[28] discovered that traces of the chlorine of normal urine occurred in organic combination, and Kast[29] found similar organic chlorides in greater quantity after the use of chloroform and chloral hydrate. This was confirmed by Kast[30] in a later investigation, in which he found that the reducing property of chloroform urine was destroyed by removal of the organic chloride compound. The carbohydrates were not increased, and the copper-reducing substance was in all probability a body analogous to urochloralic acid—trichlor. ethyl glycuronic acid—derived by oxidation from the chloroform and subsequent combination with the glycuronic acid. On the other hand, Vitali,[31] as already stated, found no more organic chlorides in urine after chloroform than before, while Nachod[32] attributes the reduction to an increase of kreatinin.

In this investigation the urine after chloroform narcosis was examined in seven of the experiments for substances giving osazone crystals, namely, Ureter Experiment 1 and Catheter Experiments 3, 4, 5, 7, 8, also in that quoted on p. 609, but not included in the table.

No osazone crystals were obtained from any of the normal samples. Crystals were present after chloroform in five of the experiments, and were wholly absent in two. In the majority of cases the crystals were unlike those of glucosazone in appearance, and gave melting points in impure condition, ranging about 130° C. In two there were undoubtedly glucosazone crystals present as well; the appearance was typical, and after fermentation with yeast they were no longer obtainable. Fermentation was also tried in other cases, where the first type of osazone crystal only was found. In one or two cases CO_2 gas was obtained, but only after a prolonged stay in the thermostat, during which time decomposition changes probably had occurred.

In one of the experiments examination with the polarimeter gave slight laevorotation. To obtain sufficient urine for the purpose the samples secreted during the anaesthetic and post-anaesthetic periods were added together and clarified by basic lead acetate. The mean of four readings in a 40 cm. tube gave —0.16. The examination was not quantitative.

The melting points and laevorotation indicate a glycuronic compound, similar to that suggested by Kast. It should be added that the reactions with orcin, phlorglucin, and hydrochloric acid, and also the reaction with P. bromphenyl hydrazine gave negative results both before and after boiling with dilute sulphuric acid. The quantity of urine available for the examinations was, however, very small, and much stress cannot be laid on the failure to obtain positive results in the latter tests. The investigation on these points is not yet completed.

Summary of Results.

Chloroform.

1. The volume of urine secreted by the kidney is, as a rule, affected during chloroform narcosis in two ways. In the early stages, when the anaesthesia is light, the quantity is frequently increased. During full anaesthesia the secretion is always diminished, and may be suppressed.

2. The after-effect is invariably a great increase, which in certain periods may reach to four times the normal volume for the same period of time. The maximum outflow occurs about three hours after removal of the anaesthetic.

3. The total excretion of nitrogen is, as a rule, greatly reduced—more so than the quantity of urine. The averages taken from experiments with diminished urine volume show that during the anaesthetic period the excretion of nitrogen fell to 18 per cent. of the normal, whereas the quantity of urine in the same series fell only to 35 per cent. of that amount. In a minority of the experiments with increased urine volume the total nitrogen per period was also increased, but to a much less extent than the volume of urine in the same experiments.

4. The urine secreted during chloroform anaesthesia is almost invariably more dilute (contains less nitrogen per cent.) than the normal urine. This holds good even when the volume of urine is diminished, hence it is inferred that chloroform affects not only the blood flow through the glomerulus, but also the secretion of nitrogenous solids into the tubules and the latter even more than the former. The result, therefore, favours the theory of urinary secretion advanced by Bowman.

5. There is a general but not accurate correspondence between urine outflow, kidney volume, and blood pressure. The relationship between the first and second is closer than between the first and third. A state of almost complete suppression may coexist with a comparatively high blood pressure.

6. In prolonged narcosis, with marked diminution of urine volume, there is a considerable exudation into the renal tubules of leucocytes, which subsequently escape with the urine. The condition is probably produced by more or less vascular stasis in the glomerular vessels.

7. The excretion of chlorides is much increased both during and after chloroform narcosis. In the fourth period after removal of the anaesthetic the amount may be ten times the normal quantity in the urine of the dog.

8. Albumen appears in a small proportion of experiments after chloroform inhalation.

9. Reducing substances other than glucose are almost invariably increased. The nature of the reducing substance has not been definitely determined.

References.

[1] Kemp, *New York Medical Journal*, vol. lxx, p. 732 (1899). [2] Buxton and Levy, British Medical Journal, vol. ii, 1900, p. 839. [3] *Realencyclopaedie.* Quoted by Mohaupt "Der gegenwartige Stand d. Kennt. v. d. Wirk. d. Chlorofs u. Äthers u.s.w." Inaug. Dissert.: Leipzig. 1899. [4] *Archiv f. klin. Chirurg.*, 1887. S. 396. [5] *Virchow's Archiv*, 115, S. 339. [6] Ibid., 115. S. 1-14. [7] *Zeitschr. f. klin. Med.*, 18, S. 469 (1891). [8] *Intoxicationen*, 1893, S. 541 ff. [9] Loc. cit. [10] *Berl. klin. Woch.*, 1874. S. 245. [11] *Archiv f. Anat. u. Physiol. (Physiol. Abth.)*, 1879, S. 176. [12] *Zeitsch. f. physiol. Chemie.* xi, S. 277, 1887. [13] Ibid., viii, S. 75, 1883. [14] *Archiv f. Exp. Pathol. u. Pharmak.*, 28, S. 251. [15] *Niederland. Tijdschr. v. Geneeskunde*, 1900, ii, S. 624. [16] *Chemisches Centralbl.*, 1899, ii, S. 61. [17] *Zeitsch. f. klin. Med.*, 18, S. 469 (1901). [18] *Berl. klin. Woch.*, 1888, No. 19, s. 377. [19] *Journal of Physiology*, xxxii, p. 147. [20] *Trans. Roy. Soc. of Edin.*, xli, ii, p. 311. [21] *Journal of Physiology*, xxv, p. 504. [22] F. Nachod, *Archiv f. klin. Chirurg.*, 51, S. 646-682 (1895). [23] Hegar and Kaltenbach, *Virch. Archiv*, Bd. 49, S. 437, 1869. [24] Zweifel, *Berl. klin. Woch.*, 1874, S. 245. [25] Pohl, *Archiv f. exp. Path. u. Pharmak.*, 28, S. 251. [26] Zeller, *Zeitsch. f. physiol. Chemie*, vii, S. 40. [27] Külz, *Centralbl. f. med. Wissensch.*, 1881, S. 337. [28] Steinauer, *Arch. f. Anat. u. Physiol. (Physiol. Abth.)*, 1879, S. 176. [29] Kast, *Zeitsch. f. physiol. Chemie*, xi, S. 277. [30] Kast, *Berliner klin. Woch.*, 1888 (19), S. 377. [31] Vitali, loc. cit. [32] F. Nachod, loc. cit.

(To be continued.)

SOME EXPERIMENTS IN DENSIMETRY

WITH A VIEW TO ASCERTAINING THE PERCENTAGES OF CHLOROFORM SUPPLIED BY JUNKER'S INHALER.

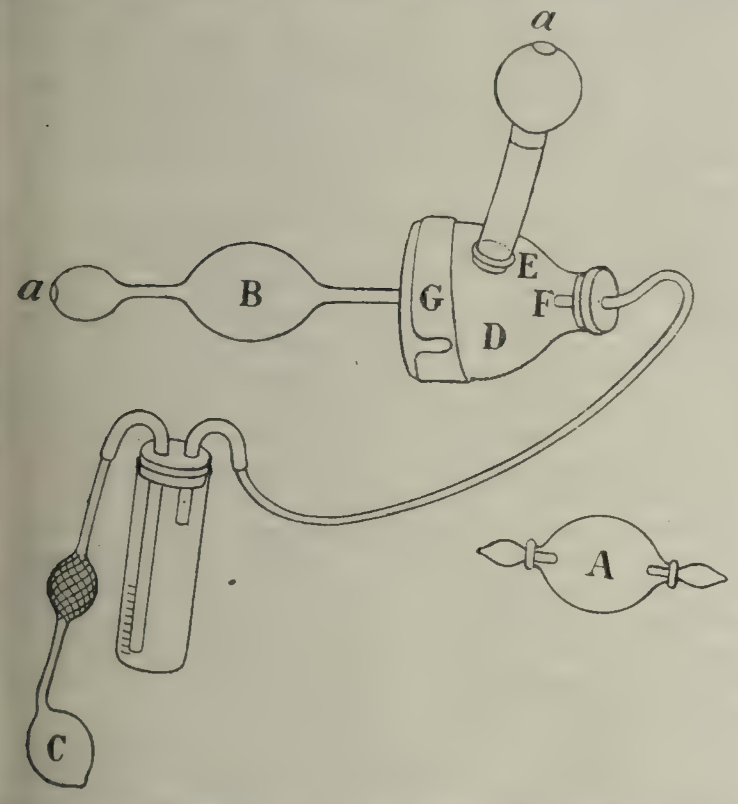
By PAUL M. CHAPMAN, M.D., F.R.C.P.,
PHYSICIAN TO THE HEREFORDSHIRE GENERAL HOSPITAL.

The great convenience afforded by Junker's inhaler in midwifery cases makes it desirable to ascertain, as far as possible, whether its use is safe within certain limits.

The bottle, which is graduated up to 8 drachms, can be suspended to the bed. If, in the later stages of labour, some intermittent anaesthesia is considered to be desirable, the patient can be entrusted with the mask, which is of no use without the propulsion bulb. To work the latter requires voluntary muscular movement. The patient may be allowed to seize the mask and to grope for the propulsion bulb at the onset of a pain; this takes some time, and since muscular movement ceases when the senses are dulled, the supply of chloroform ceases with the cessation of muscular movement. Such consolatory anaesthesia is safe enough as far as it goes, and a doctor alone in the country, needing both his hands and all his attention, may find it of great help to him, notwithstanding much upbraiding on the part of the patient. He may even, if no other assistance is available, for the purpose of turning or the like, be tempted to entrust the bulb and mask to a nurse. For these and other uses to which Junker's inhaler may be put its convenience should not be the sole justification; we should also have some knowledge of the percentage of chloroform which is being supplied to the patient.

Two forms of mask or facepiece are supplied with this inhaler. Happily the simplest and safest is also the cheapest and most durable, and can be more easily cleaned after use. This is the rigid vulcanite facepiece without a cushion at the rim. There are certain difficulties to be met with in experimenting with any form of Junker's apparatus. An endeavour has been made in these experiments to obtain for examination as far as possible a portion of the vapour which is actually presented to the patient by simulating the conditions when the mask, in this instance of vulcanite, is closely but not absolutely adapted to the irregularities of the face.

If the mask is in complete adaptation to the face, or the whole face aperture is closed by a diaphragm, the mask rms a box into which a mixture of chloroform and air is umped by means of a bulb compressed in the hand. The ox thus formed has a small exit valve, opening by + ıd closing by — interior pressure. Two other openings re provided at the base of the box near the point where ie tube from the chloroform bottle enters the mask. hese two apertures are provided in order to supply con- ibutory air so as to dilute the incoming vapour. They so serve the purpose of relieving the internal pressure thin the mask. Both are closed by one rotatory move- ent of the cap placed where the tube enters. When ese contributory inlets are closed, and the hand is work- g the bulb, a + pressure occurs inside the box, as the it aperture, though only closed by a light indiarubber p forming a valve, is too small to permit a free escape vapour. When the bulb is worked, the percentage of loroform vapour within the mask continues to rise, and ıally approximates to what is obtained directly from the be leading from the chloroform bottle before it enters e mask. For example:



Explanation of diagram: A, 250 c.cm. glass flask, attachable at *a* and *a′*; B, suction bulb connected with the interior of the mask D by means of a tube piercing the indiarubber sheeting attached round the mask at G; C, propulsion bulb; E, expiratory valve; F, (near) revolving cap, by means of which the contributory air-inlet apertures are opened or closed.

1) Percentage of chloroform vapour obtained directly from tube leading from bottle 12.7
2) From exit valve of mask, all other apertures being closed 8.2

It appears, therefore, that if the mask is in close adapta- ın to the face by means of an air cushion at the rim, d the contributory air inlets are closed, the use of the paratus is excessively dangerous. In all these experi- ents the percentage of chloroform vapour was estimated densimetry, as suggested by Dr. Waller.

A 250 c.cm. glass flask is accurately weighed; it is then ed with a specimen of the vapour supplied, and is weighed ain. Each c.cm. of chloroform vapour weighs 4 mg. more an a c.cm. of air. When there are 2.5 c.cm. of chloroform pour in a 250 c.cm. bulb, there is 1 per cent. of chloroform pour, and a 250 c.cm. flask containing 2.5 c.cm. of chloro- m vapour will weigh 2.5×4 mg. more than the same flask ed with air—that is, 10 mg. more. So also 1.5 per cent. will igh 15 mg. more, and 2.1 per cent. will weigh 21 mg. more. e percentages can be thus easily read in all cases.

In these experiments devices were made to simulate as as possible the conditions obtaining in actual practice, th when the contributory inlet apertures are opened and en they are closed. On the assumption that a high pressure within the mask is not likely to be met with, lowest + pressure necessary to open the expiratory it valve was used.

At first the large facial opening of the mask was closed a rigid obturator of cardboard. In this a hole was ıde, fitted with an indiarubber tube attached to an stic suction bulb. This suction bulb was relaxed at same time that the propulsion bulb was compressed. this means the vapour would be drawn through the mask without unduly increasing the pressure within it. An improvement was made upon this by abandoning the cardboard obturator and substituting a covering of thin indiarubber sheeting, so that + pressure within the mask could be at once recognized. The 250 c.cm. glass flask was at first connected by tubing to the suction bulb. Very variable results were obtained, owing to the difficulty of preventing air being sucked back into the glass flask when the suction bulb was relaxed. Finally, fairly constant results were obtained by retaining the suction bulb so as to obtain a minimum + pressure within the mask, but attaching the glass flask by tubing to the exit aperture leading from the side of the mask, the slight + pressure needed to open the valve being so small as to be almost negligible.

Altogether ninety-four separate estimations were made under varying conditions. In every regular series of experiments the amount of liquid chloroform in the graduated bottle was constantly maintained at 8 drachms. Variations in the vapour percentages readily arise from small causes. There is a fall as the height of the column of liquid chloroform through which air is blown diminishes. The temperature of the chloroform bottle leads to variations, thus a percentage of 5.8 obtained when the bottle is standing on the table may be converted into a percentage of 6.5 when the bottle is placed inside the waistcoat. The possible errors are many, so that it cannot be claimed that the figures show with absolute accuracy the percentage of chloroform vapour supplied to the lungs of a patient. The experiments were, however, made with much care, and the results were sufficiently constant to be of practical use; for example:

On October 22nd ten successive experiments showed the following results:

Contributory Inlets Closed.

Experiment.	Percentage.	Experiment.	Percentage.
1	5.2	6	5.4
2	4.8	7	4.9
3	5.7	8	5.2
4	5.0	9	5.5
5	5.4	10	5.0

Average percentage 5.2

On November 12th:

Contributory Inlets Open.

Experiment.	Percentage.	Experiment.	Percentage.
1	3 0	6	1.7
2	1.9	7	2.5
3	2.9	8	2.1
4	2.2	9	3.1
5	2.8	10	2.2

Average percentage 2.44

These figures are eloquent enough, and seem to call for the permanent patency of the contributory air inlets, indeed, it seems to be desirable that the mechanism by which these inlets can be closed should be discarded, and that these instruments should issue from the maker's shop with permanent and uncloseable contributory inlets. A percentage of 5 per cent. is unsafe, and in a popular instrument should not be possible of attainment.

If the propulsion bulb is energetically worked a spray of liquid chloroform is easily propelled into or condensed upon the inner surface of the mask; it should always be noted throughout a series of experiments that everything is clean and dry.

CONCLUSIONS.

1. The plain vulcanite mask is safer than the more expensive form with rubber rim cushion.
2. The compression bulb must be worked gently and steadily.
3. The air inlet apertures should never be closed, and ought to be uncloseable.
4. It would be better to maintain the level of liquid chloroform in the graduated bottle at 5 drachms rather than at 8 drachms.
5. Owing to the variability of the percentages of chloroform vapour supplied the apparatus is not suitable for prolonged operations.
6. When all precautions are observed the use of the apparatus with the mask is fairly safe in careful hands for short periods of anaesthesia.

THE German Public Health Association will hold its thirty-first annual meeting this year at Augsburg from September 11th to 15th.

Remarks

ON

THE POSITION OF AND MORTALITY FROM ETHYL CHLORIDE AS A GENERAL ANAESTHETIC.*

READ BEFORE THE BIRMINGHAM BRANCH OF THE BRITISH MEDICAL ASSOCIATION, NOVEMBER 9TH, 1905.

BY **W. J. McCARDIE**, B.A., M.B., B.C.CANTAB.,

ANAESTHETIST TO THE GENERAL, DENTAL, AND EAR AND THROAT HOSPITALS, BIRMINGHAM.

WE have nowadays several anaesthetic drugs in common use; each of them differs greatly from the other in type of action and in toxicity. Thus the choice of any one of them becomes a matter of great and sometimes vital importance to the patient.

These drugs may be used singly, in combination, or in sequence, and we can by careful administration of them in various ways do much to safeguard our patient during and after the inhalation, and to help to make easy the manipulations of the surgeon.

Medical men in this and other countries for long have been on the look-out for a drug convenient to carry about and to administer, which will quickly produce a short anaesthesia from which recovery is speedy, and which produces little or no after-effect. In fact, a drug is sought which has the degree of safety which nitrous oxide possesses, but which gives a rather longer period of narcosis after a single dose, and does not necessitate the somewhat cumbersome apparatus used in the administration of that drug. At first, especially abroad, where nitrous oxide was but little used, ethyl chloride was supposed to be the drug needed. Advantages generally entail disadvantages, and it now appears that the great disadvantage to the administration of ethyl chloride is that it is not as safe as the drug which it is mostly used to displace. In fact, it seems to occupy a position as an anaesthetic between nitrous oxide and ether as regards safety.

Ethyl chloride and ethyl bromide fill a gap between the weaker narcotic nitrous oxide and the more powerful drugs ether and chloroform.

The anaesthetist has nowadays command of these several agents which can not only be used alone, but also in a mixture and in sequence, so that for patients who necessarily vary in type, age, and physical condition, he can choose the most suitable anaesthetic. If in any department of medicine there is safety in proper selection of the means to an end, it is in the domain of anaesthesia. Routine often spells danger.

THE MORTALITY FROM ETHYL CHLORIDE.

When estimating the value of a drug as an anaesthetic, it is needful to know its danger and death-rate, and to compare these with those of other anaesthetics. Hitherto no statistics taken from large numbers of cases have been recorded as to the danger rate of ethyl chloride. Syncope and asphyxia have been not uncommonly reported. In one or two cases after-syncope has occurred. Owing to the rapidity with which the various phases of narcosis pass by, the administrator is liable to overshoot the mark in the matter of dosage, and to find the patient in danger before he quite realizes the fact. Fortunately in an experience of nearly 2,000 cases I have not seen either asphyxia or syncope during administration.

Lotheisen, who first used ethyl chloride in routine minor surgical work, said in his earliest paper that "he believed ethyl chloride to be far less dangerous than chloroform—in fact, he thought it quite harmless." Later on he had a fatality in a bad subject, and estimated the death-rate as 1 in 2,500. Still later—that is, up to April, 1902—he reckoned the mortality to be 1 in 17,000 (excluding Bossart's fatality). Seitz, about the same time, estimated it to be 1 in 16,000. Since 1897 ethyl chloride has been very rapidly growing in popularity, so much so, indeed, that it has unfortunately largely, and in some places altogether, replaced nitrous oxide. For instance, in the General Hospital, Birmingham, the latter is rarel used at all save in the dental department. The reason for this popularity are those which make chloroform s favoured: ethyl chloride is rather pleasant to inhale, i not irritating to the air passages, and, more than all, it i most simple and easy to administer.

In a paper published in the *Lancet* of October 7th, 1905 I mentioned 8 fatalities under ethyl chloride; Luke o Edinburgh, in the *British Dental Journal* of November 1st 1905, gives a collection (with references) of 16, includin these. I have authority for stating that 9 other death have taken place in the North of England, though n details of them are available. Since this paper wa written particulars of several other deaths have come t my knowledge, and of these a short account may b instructive.

Louisson[1] mentions the case of a female aged 18, wh suffered from a growth in the pelvis; exactly 5 c.cm. o ethyl chloride were administered from an Ormsby' inhaler. The patient went under without struggling, and the conjunctival reflex was present just before sterto occurred, at the first sound of which the inhaler wa removed and some ether poured in. Before the inhale was reapplied the patient's respiration became shallow and her pulse impalpable. She breathed several time afterwards, but no cardiac action was noted. The hear and other organs were found quite normal *post mortem.*

Harvey Hilliard[2] mentions a death which happened a the Haslar Hospital, Portsmouth: "An able-bodied seaman was anaesthetized with a usual dose of ethy chloride and two or three teeth were extracted; the patient recovered sufficiently to expectorate once, and then fall back in the chair—dead!"

I am enabled, by the courtesy of the administrator, to refer to the case of a man aged 29, admitted to hospital in the summer of 1905, in very bad condition; his abdomen was distended and he had a large growth in the pelvis 5 c.cm. of ethyl chloride were administered from an Ormsby's inhaler, when the breathing became stertor ous, the pupils rather dilated and the jaws spasmodically closed. The patient's thighs were then flexed on the abdomen. Two breaths of a mixture of ether (two parts and chloroform (one part) were given from a Silk's inhaler Then the patient suddenly stopped breathing, became blue, and his pulse impalpable. *Post mortem* the heart was found to be small, pale, and soft, and there was a large and very malignant sarcoma of the prostate with secondary growths in the lung.

I am allowed to relate yet another fatality. Ethy chloride was given to a child aged 5 years, for removal o a sebaceous cyst of the face. During the operation, which was short, his pupils became dilated, his colour blue, and asphyxial convulsions appeared, which ended in death.

The last fatality (recorded in the daily papers) occurred in February, 1906, when a gentleman, aged 67, was given ethyl chloride for the extraction of four teeth. He became pale and died in the dental chair from syncope. It was found on autopsy that his heart was fattily degenerated. Altogether, then, at least thirty fatalities are known to have taken place under ethyl chloride.

Several deaths have occurred from somnoform, which is a mixture of ethyl chloride 60 parts, methyl chloride 35 parts, and ethyl bromide 5 parts. This mixture has been vaunted as a safe anaesthetic.

Out of 21 cases of death under ethyl chloride of which we have any particulars we find that only three, or one-seventh of them, occurred in children. This fact is remarkable seeing that about three-quarters of the patients to whom it is administered are children, judging from figures which I have collected from the Birmingham and two other neighbouring hospitals. It is to be remembered that the operations on children are in very large proportion for the removal of adenoids and tonsils. Eight of the fatalities occurred in dental cases, and ten at least in operations on or about the upper air passages.

As to the rate of mortality of ethyl chloride in recent years, little or no information is available. I have collected down to November 1st, 1905, 9,711 cases of administration, of which 9,020 were in hospitals in and near Birmingham and 691 in private practice. Among these were 4 deaths, which are included in the above-mentioned 21. Three of the 4 took place in hospital, giving a mortality of 1 in 3,000 in hospital and 1 in 700 private cases.

---

* A few fatalities which have more recently occurred have been included.

The mortality in the Birmingham district will not be quite indicated by these figures, for ethyl chloride has been rather extensively used, so that I think we might fairly place the total number of administrations at 12,000, and call the mortality about 1 in 3,000. Had there been other than the 4 fatalities mentioned, it is probable that I should have heard of them.

There is a marked discrepancy in the death-rate I have given and those recorded by Lotheisen and Seitz.[3] In nearly all foreign administrations a semi-open method was employed, while in all those I have collected, and I believe in Great Britain generally, the closed method was adopted. The difference in mortality would seem to suggest that it is safer to allow freer admixture of air during administration, and especially during induction, than is usual in this country, where closed inhalers are used. In fact, for some time I have been so impressed by the accounts of the sudden appearance of danger during induction of anaesthesia by the closed method, that I have been lately allowing in all cases a breath or two of air as soon as the patient's breathing became regular, particularly in weakly people and patients of what I may call "bad habit" from the anaesthetist's point of view. I again allow a breath of air shortly before the removal of the mask in single-dose cases.

COMPARISON OF ETHYL CHLORIDE WITH OTHER ANAESTHETICS.

Let us consider the toxicity of ethyl chloride in relation to its chemical formula. Anaesthetics which contain a carbon radical are more toxic than those which do not. For example, chloroform is more toxic than nitrous oxide. Again, the compound formed by any halogen with an organic radical shows greater toxicity, and this increases directly as the number of halogen elements contained in the molecule. Hence chloroform is more toxic than ethyl chloride. Thus we see that ethyl chloride contains the elements and combination of elements which make for toxicity. This fact, and the very speedy action of the drug, suggest that greater care is necessary in its administration, and that stricter selection is needed in the choice of an anaesthetic when it is a question of nitrous oxide or ethyl chloride. As Ware says: "The comparison is to be between nitrous oxide and ethyl chloride rather han between ethyl chloride and the more powerful naesthetics." The effect of nitrous oxide on protoplasm is very slight, while "the anaesthetics of the hydrocarbon series have specific effects on protoplasm, dissolving the ed corpuscles and displacing the haemoglobin." According to Da Costa ether tends to destroy the red cells during naesthesia.

Consideration of the average death-rate I have indicated nd of the chemical constitution of ethyl chloride will make it appear to be less safe than ether, and far less safe han nitrous oxide. The mortality under ether is given s about 1 in 16,000, and that under nitrous oxide may e taken as 1 in 1,000,000. Nitrous oxide mixed with xygen appears to be absolutely safe. Nitrous oxide, n fact, stands in a class by itself as regards safety, ence the lesson is to use nitrous oxide whenever it be asonably possible, and to administer ethyl chloride when trous oxide is inadvisable, and ether and chloroform e unnecessarily powerful and lasting in their effects. r practical purposes we may put the matter in some oportion thus, and say that ethyl chloride is to nitrous ide as chloroform is to ether.

Ethyl chloride, we have seen, is comparatively safe in ildren, and in them it has very advantageously displaced nitrous oxide for short operations like the removal adenoids and tonsils, in which an extra half-minute or of anaesthesia is needed, and where speedy induction d recovery from anaesthesia are most advantageous.

In the case of adults, however, ethyl chloride is to be ed to replace chloroform and ether rather than nitrous ide. Of course, in country, Colonial, and military prace, where "gas" is not available, ethyl chloride is boon, particularly when a short operation has to be rformed single-handed.

INDICATIONS FOR ETHYL CHLORIDE.

Having said so much as to the mortality of ethyl loride, I may mention some of the indications for use.

First and most safely it is indicated as a preliminary to etherization, especially when it is early mixed with a gradually-increasing quantity of ether administered from a Clover or other regulating ether inhaler. When thus administered struggling and excitement are conspicuous by their absence, and blueness I have never seen. Used by itself ethyl chloride may be administered for short operations, lasting up to five or ten minutes, when it is not wished to give ether or chloroform in country practice where gas is not available, and in hospital practice when fuller muscular relaxation or deeper anaesthesia is needed than is afforded by gas; as, for example, the reduction of a dislocation or trimming up of mutilated fingers. Short examinations or operations in gynaecological work are often facilitated by its use, and it is also not uncommonly an advantage in brief operations in midwifery. In eye and ear work in the majority of short operations ethyl chloride is far preferable to nitrous oxide. I have administered it for five cases of excision of the eyeball. In my opinion ethyl chloride is especially suitable as an anaesthetic in operations for the removal of adenoids and tonsils when performed by an expert, owing to the facts that the length of anaesthesia, namely, one to two minutes, is usually quite enough for the operator, and that recovery is speedy. For most very short operations in children under about 8 years of age ethyl chloride is usually to be preferred to nitrous oxide.

It was noted in the series of fatalities that a very large proportion of them occurred during administration for dental operations. Ethyl chloride is still used very freely in dental operations, and, I understand, even by men who have had no medical or dental qualification. Now, as dental operations are not immediately essential to life, we are not justified in running the slightest avoidable risk in anaesthetizing our patient; hence our choice should always, if possible, fall upon the safest drug—namely, nitrous oxide alone, or mixed with oxygen.

Again, general surgical operations cannot usually be carried out in several stages, therefore a powerful drug and a lasting anaesthesia are generally needed. Dental operations, however, can nearly always be performed, if much work is needed, at several sittings, which in many cases are far better for the patient than one long operation, so that there is very seldom indeed any reason for using more powerful drugs than nitrous oxide. Moreover, we have special means for prolonging the administration—namely, Paterson's nose-piece and Hilliard's nasal catheter.

In view of the facts and figures I have already given as to the death-rate of ethyl chloride, a rule has been passed at the Dental Hospital, Birmingham, that none but medical men should administer ethyl chloride. I do not think that in an urgent case of danger under its influence —and danger often appears with lightning-like rapidity—a dentist should possibly be called upon to perform tracheotomy; indeed, it would not be easy for a medical man amid ordinary surroundings to perform this operation.

The after-effects of ethyl chloride are, apart from its danger, too serious to be neglected in dental practice, and from every point of view, as I have urged elsewhere,[4] the administration of the drug is to be deprecated in dental work save in special cases. When, then, should we administer it? It is advisable for people who previously have taken nitrous oxide badly, for certain hysterical patients, for alcoholics, for some cases of trismus, and especially for small children. These do not take "gas" well; they easily become frightened and struggle. When anaesthesia occurs it is very short, and accompanied by so much blueness and jactitation, that none but the shortest operations can be attempted. It is not easy to administer "gas" to them by the nasal method. Again, the difficulty of working with a small mouth into which little light can enter and with instruments of the usual size, generally demands a longer anaesthesia and greater control of the patient than would be gained by "gas." For these reasons I often give ethyl chloride to children up to about 8 years of age.

Since ethyl chloride approximates rather to the major anaesthetics than to nitrous oxide in its action, precaution should be taken in administration. The patient, whenever possible, should be prepared. Since it is not a powerful stimulant I would strongly advise all who use it to administer from an ether inhaler, so that in exceptional cases, where the patient is weakly or of bad type or the operation proves unexpectedly long, ether, which should always be carried as well, may be added to the ethyl chloride. In most cases before the narcosis it is desirable to insert a mouth-prop in case jaw spasm arise. It is not, I think, advisable to change from ethyl chloride anaesthesia to that of chloroform, for the same reason that it is unwise to change from ether to chloroform, unless during distinctly light anaesthesia. The rapid transition from a drug which markedly stimulates respiration and probably lowers blood pressure, to another which markedly depresses both respiration and circulation may be dangerous. It is besides difficult to properly time the period of transition.

The earlier administrators averred that there were no contraindications to ethyl chloride anaesthesia. Girard, for example, said that "circulatory troubles and respiratory affections did not contraindicate its use; neither age nor sex, nor alcoholism, nor other intoxications forbade its administration. The only doubtful factor was the state of the urinary organs." In spite of difficulties of administration, he asserted that "ethyl chloride was superior to ether, chloroform, nitrous oxide, and ethyl bromide." However, since it quickens and deepens respiration and increases vascularity it should not be used when there is already much obstruction in or about the air passages, and especially when the obstruction is in the larynx.

The slight pathological changes found in the urinary organs of animals by Haslebacher and one or two others after prolonged administration need not be considered as contraindications considering the short duration of anaesthesia in the human subject. Two at least of the fatal cases have been found *post mortem* to have fatty hearts—for example, the first death recorded occurred in a patient who had a fatty heart and sclerosis of the coronary arteries; hence it would appear inadvisable, if the condition of fatty heart can be diagnosed, to select either nitrous oxide or ether as an anaesthetic.

To repeat, then, consideration of the average death-rate I have indicated and of the chemical constitution of ethyl chloride will make it appear to be less safe than ether and far less safe than nitrous oxide. Nitrous oxide stands in a class by itself as regards safety, hence we should use nitrous oxide whenever it be reasonably possible and ethyl chloride when nitrous oxide is impossible and when ether and chloroform are unnecessarily powerful and lasting in their effects.

For practical purposes we may put the matter in some proportion, thus, and say that ethyl chloride is to nitrous oxide as chloroform is to ether. In other words, ethyl chloride may be compared to chloroform in the ease and convenience of its administration and its high power of narcosis, while nitrous oxide may be likened to ether in the difficulty and complication entailed in its inhalation, and in its weak narcotic effects.

REFERENCES.

[1] *Transactions of the Society of Anaesthetists*, vol. vii. [2] *British Dental Journal*, November 15th, 1905. [3] British Medical Journal, March 3rd, 1906, p. 538. [4] *Lancet*, April 4th, 1903, and October 7th, 1905.

NOTES ON ETHYL CHLORIDE.

By H. ASTLEY KNIGHT, M.B., Ch.B.Edin.,
HOUSE SURGEON, BRISTOL GENERAL HOSPITAL.

Although ethyl chloride has been largely used and written about in this country since 1902, there are many points concerning the anaesthetic and its administration which have yet to be satisfactorily settled; I therefore venture to give a few notes from my own observations.

Details of Administration.

Ethyl chloride anaesthesia may be divided into three stages:

1. *The Stage of Light Anaesthesia.*

As a preliminary step it is important that the patient should take a breath and fairly distend the bag; the vapour is thereby well diluted, and there is no pungency; cough and "choky" feelings are due to neglect of this principle. Incidentally the patient gains confidence.

During the second expiration, spray in 2 c.cm. of the anaesthetic, and wait five breaths; if the anaesthesia is progressing satisfactorily, do not give more; but if not, add another c.cm. from time to time. The facepiece must be kept well applied, and no air admitted until the end of the first stage. If the anaesthetic is given very slowly respiration may become very hurried from exhaustion of the air in the bag; a breath then becomes necessary.

Swallowing movements often occur before consciousness is lost, as ethyl chloride causes a slight increase in salivary secretion.

At the point where consciousness is lost there is often a pause in respiration which may last up to twenty seconds. A kicking movement or sudden snatch at the bag is now to be expected.

Loss of consciousness in a typical case takes place in from ten to fifteen seconds, then respiration gradually slows and deepens, the eyes roll, and the pupils commence to dilate; this sign is absent in about 10 per cent. of cases.

The end of the first stage now arrives, the breathing being slow and deep, the pupils dilated to about 4 mm. and not reacting to light, and the eyeballs fixed; the muscles generally are relaxed, a great exception being the masseter.

By now the patient has been inhaling the anaesthetic about thirty seconds, and, if it be withdrawn, three or four teeth may be extracted with ease, as the patient will remain under some twenty to forty seconds. Some phonation and movement will probably occur towards the end of the anaesthetic state, but the patient will have no knowledge of the pain on wakening.

2. *The Stage of Deep Anaesthesia.*

On continuing the administration the muscles become well relaxed, if not already in that state; the face flushes and may become covered with beads of sweat, the corneal reflex becomes less active and finally disappears, and there is often a decided external squint.

The bag should now be withdrawn, the patient having been under about forty seconds, and one may then count on from 90 to 120 seconds of available anaesthesia.

3. *The Stage of Recovery.*

Recovery is rapid, especially if the anaesthetic has been discontinued at the end of the first stage.

The majority of patients come out quickly and easily, awakening with a start, and being troubled only by slight mental confusion afterwards; there is always a dreaming stage before awakening. Alcoholic patients while in this subconscious dreamy condition are intolerant of restraint, and may become violent. Many patients in this state will answer questions automatically; "neurotic" women are usually very troublesome.

General muscular spasm is occasionally met with in the first stage, and is more common when air is freely admitted; micturition and sometimes defaecation occur if the patient is in this state, and has not been properly prepared.

The pupils, as already mentioned, generally dilate, but may remain normal or only dilate very slightly.

Cyanosis is rare; it is caused either by retraction of the tongue or by the general muscular spasm already mentioned.

Dosage.

The usual amount required to produce the second stage of anaesthesia is 2 to 5 c.cm.; it is best to use plenty for nervous patients to get over the difficulty of shallow breathing.

The dose varies considerably with the individual. I commonly find that ½ to 1 c.cm. is quite sufficient for young children, and that 4 or 5 c.cm. is necessary for alcoholics.

The depth and length of anaesthesia obtained with ethyl chloride is proportionate to the amount introduced into the system, and is not affected by the period of induction. This accounts for the wide range of anaesthesia which can be obtained with this drug, and the control one has over it.

After-effects.

The after-effects commonly complained of are nausea headache, and excitement. Nausea and headache are rather common and the patient takes a long time, from 60 to 120 seconds, to go under, if the anaesthetic is given timidly, a little at a time. It seems extremely probable that the continued breathing of expired air is often the cause of these symptoms, as they occur if too dilute a vapour is used, or the anaesthetic is given slowly, or too large a bag is used. If a little care is taken, and the exact dose requisite for the patient given, nausea and headache are uncommon; they are much more common if an overdose is administered.

Vomiting occurs after mouth operations from the swallowing of blood; this must not be confused with vomiting caused by the anaesthetic; as the anaesthetic period of ethyl chloride is twice as long as that of nitrous oxide, the patient has a greater opportunity of swallowing blood. For this reason the head should be inclined forwards as soon as possible and the patient encouraged to spit out.

Headache and excitement are common in subjects of a naturally excitable temperament.

Safety.

Ethyl chloride is not nearly as safe an anaesthetic as nitrous oxide in the hands of the untrained. This I attribute to the absence of well-defined "leave-off" symptoms like cyanosis and jactitation. When the administrator is accustomed to it, it is probably safer than any other anaesthetic (nitrous oxide included); as so small an amount is necessary to render the patient insensible to pain, recovery from a light anaesthesia is rapid, and there is no cyanosis or venous congestion. The anaesthetic is a cardiac stimulant, and, if a full dose is given, dilates the peripheral arterioles.

Children.

Ethyl chloride is taken exceedingly well by children of a few weeks or months; I prefer it to chloroform or ether for circumcision. A piece of lint is placed in the hand, which is bent into a cuplike form and held over the mouth and nose; a little ethyl chloride is then sprayed on he lint and the anaesthesia continued with the tube of ethyl chloride held in the wrong position, so that the vapour alone comes from it and is conducted into the hollow of the hand. Recovery is rapid, signs of anaeshesia are marked, and laryngeal stridor does not occur when the prepuce is divided.

Precautions.

The bladder should always be emptied beforehand, and t is not wise to give this anaesthetic if a purgative has been taken and its action is still proceeding.

When a gag is used the jaw should be kept well orward; this is essential for a successful administration, nd if not attended to cyanosis and marked stertor will be he result in a good many cases; besides this, the patient will take two or three times as long to go under. As there s generally a strong contraction of the masseter, the gag hould not be placed between obliquely-situated incisors, s these may be forced out. The tongue forceps should lways be to hand when giving the anaesthetic for dental urposes, as that organ commonly slips or is retracted ackwards. A mouth-opener or wedge is also needed, wing to the masseteric spasm. When a large number of eeth have to be extracted the patient may be allowed to ake up once or twice to rinse out the mouth and get rid blood; after the first administration the patient goes nder more rapidly and requires a very much smaller ose.

Ethyl chloride is a very reliable anaesthetic; only in ery rare cases is it found impossible to get a patient der with it. The drug is not suitable for prolonged lministration on account of the strain on the anaesthetist d the expense.

Preliminary to Chloroform or Ether.

As a preliminary to chloroform it is a pleasure to use; e patient does not come out between the two anaesetics, and it saves a lot of crying and struggling with ildren or nervous patients. One should be cautious en combining the two drugs, as it is difficult to tell the ect of the chloroform until the effect of the ethyl loride has worn off.

It is invariably used in this hospital as a preliminary ether in place of nitrous oxide. There are two methods starting with ethyl chloride; they are equally satistory. One method is to get the patient well under with yl chloride, and then turn the ether on to "3" rapidly; e other is to give a small dose of ethyl chloride, and en rotate the ether chamber gradually.

The ether need not be pushed when a sphincter has to be dilated; the patient should be kept under lightly, and ten or fifteen seconds before the operation 2 c.cm. of ethyl chloride sprayed into the bag; the patient at once drops into a very deep anaesthetic state.

When respiration is embarrassed by free secretion of mucus the patient may be allowed to come out sufficiently to swallow it, and 2 c.cm. injected into the bag sends him under again before vomiting has time to set in.

Apparatus.

An ordinary Clover's bag is the best size to use; a large bag is wasteful of time and anaesthetic.

A wet bag gives very bad results. Those who use inhalers containing a sponge should dry it after each administration, as the moisture from the breath collects.

There are two pieces of apparatus I find useful—one is a two-way gas stopcock, of the drum pattern, fitted with a tube; the stopcock fits on an ordinary Clover's inhaler between the tank and bag. The tube enables one to spray ethyl chloride into the bag at the commencement or at any period during the administration—for instance, when the patient has been allowed to come out too far and is retching. It also acts as a very convenient air-valve and renders it unnecessary to lift the ether apparatus at all from the face to give air. Instead of doing so the drum is revolved a half-turn, and this opens the air-valve and shuts off the bag; this apparatus can be fitted directly on to a facepiece, and makes a splendid inhaler for continuous administration.

The other apparatus is an ethyl chloride inhaler with a glass tube in the angle piece, containing 10 c.cm. of the drug; there is a tap to control the introduction into the bag, and the amount used can be read off on a scale as it is being run out of the tube. The loss from leakage is infinitesimal, so that absolutely accurate dosage is possible, and one can give ¼ or 10 c.cm. with equal facility.

MEMORANDA:
MEDICAL, SURGICAL, OBSTETRICAL.

PAINLESS LABOUR.

"Now, please remember there is no such thing as a painless labour." These words occur in the course of the interesting and instructive address by Dr. Horrocks, which was published in the BRITISH MEDICAL JOURNAL of March 10th. In my opinion this is far too sweeping a statement and one which I cannot agree with. I maintain and fully believe that there are cases of labour which are, practically speaking, painless. The following case which I attended some years ago supports my contention:

I was called to a case one morning about 10 a.m., and found a primipara, 18 years of age, in labour. She had complained of slight pains in the stomach and upper part of the abdomen. Examination of the abdomen proved that she was pregnant and near full term. On vaginal examination, the os was found to be very slightly dilated. The examining fingers were with difficulty introduced into the vagina. Uterine contractions appeared to be going on, but were very slight. It was concluded that the first stage would last many hours, and therefore I left the house. About two hours later I received a message asking me to come at once, as the child had been born about half an hour after I left. I went at once to the case, and found that the placenta was unexpelled and that the child was still attached to the umbilical cord. The infant was a well-developed male, weighing about 8 lb. On questioning the mother, it was ascertained that there had been no pains since I had been there, and that the child had been born unconsciously. There was not the slightest tear in the perineum. The placenta was easily expelled by pressure from above. The mother made a rapid and an uninterrupted recovery and the child did well.

This case seems to show that labour may be painless. From start to finish there were no pains in the accepted sense, and I think it very questionable if the slight pains which were complained of had any relation to the uterine contractions. It is all the more remarkable when one considers that it occurred in a young primipara, which is just the case in which one expects to have severe pains. The case supports Dr. Horrocks's contention that Nature herself is well able to provide for and to perform this physiological act. It shows the power she has of relaxing the parts, because the passages which with difficulty admitted two fingers were within an hour sufficiently relaxed to allow of the painless passage of a well-developed male infant.

J. ALLAN, M.B.

Brighton.

AN AID TO PROGNOSIS IN TYPHOID FEVER.

IN the BRITISH MEDICAL JOURNAL of November 18th, 1905, I published a short note on this subject. The conclusion at which I arrived was that in cases in which polyuria occurred, however grave seemed to be the condition of the patient, the issue was, without exception, favourable. This conclusion I have to modify to this extent: Of 214 cases of which I have notes, and which occurred between the years 1893 and 1904, only 3 died after polyuria had been established. Of these, 2 died after an interval of two and six months respectively from septic causes, and the third died from haemorrhage, the only death which could fairly be attributed to the incidence of the typhoid poison.

Dr. Biernacki and Dr. Hare wrote kindly and critically about my paper, both complaining very fairly of its brevity and of the absence of anything like a statement of the cases on which my opinions were based. I propose shortly to publish in the *Birmingham Medical Review* a more or less complete account of my cases, with charts indicating the amount of urine passed.

Meanwhile I submit herewith a brief summary of 214 cases. Of these, 21 died—an average mortality of nearly 10 per cent.; in 18 of these the amount of urine passed was low, never exceeding 40 oz. Of the remainder, in 138 cases there was marked polyuria. In the other 55 cases no polyuria was noted, though in all of them the amount exceeded 40 oz. before convalescence was established. Of the 138 cases in which polyuria occurred, 16 showed a large amount throughout; in 28 polyuria began after the fall of temperature; in 34 it occurred before the fall of temperature; and in the remainder it showed itself as the temperature fell to normal.

It is not contended that polyuria is an invariable guide to prognosis. My paper was written to elicit the opinions of others, and to state the conclusion to which, rightly or wrongly, I had come—that, however desperate might appear the condition of the patient, the case should never be regarded as hopeless if polyuria had been established, and never treated lightly or with other than great concern when the amount of urine passed was below 40 oz. daily.

ROBERT M. SIMON, M.D., F.R.C.P.,
Physician, General Hospital, Birmingham.

PLUMBISM FROM THE INGESTION OF DIACHYLON AS AN ABORTIFACIENT.

IN the BRITISH MEDICAL JOURNAL of February 24th, p. 428, Dr. Hall mentions that the area over which the practice of using diachylon as an abortifacient is bounded on the south by Bedfordshire, but this is hardly the case, as last year I had a patient who aborted owing to lead poisoning, the drug having been sent from London by the patient's sister in the form of a lump of diachylon plaster, with the direction that it should be made up into pills, and taken until the desired effect was produced. Severe anaemia with colic accompanied the miscarriage.

Alresford, Hants.

F. W. JOLLYE.

FREQUENT TAPPING FOR ASCITES: RECOVERY.

THE following case seems worthy of record. Whether it creates a record I do not know.

In July, 1896, I attended a woman, at that time aged 51, with a very large goitre. She was suffering from aortic and mitral disease, and the heart was very dilated. The pulse was very fast, and I thought at the time that she had very few days to live. The constant administration of digitalis, however, produced gradual improvement. During the next few months she developed dropsy in the legs and abdomen. This gradually increased until February, 1897, when she was quite waterlogged and scarcely able to turn in bed. I tapped her for the first time on February 5th, 1897, and drew off 3 gallons of fluid from the abdominal cavity. This afforded temporary relief. Between that date and July, 1903, I tapped her no less than 222 times. During the latter part of this period the necessity for tapping became less frequent, and during the last few months I only tapped her about once a month. The size of her legs gradually diminished during this period.

Since July 17th, 1903, she has not required tapping. Her condition has steadily improved, and she was able to walk to the village, a distance of a quarter of a mile, last autumn. She now does a good part of her housework, though she has chronic bronchitis and suffers a good deal from palpitation of the heart.

The pathology of such a case must be of interest. After the abdominal cavity was emptied of fluid the liver could be felt as a large, hard, rounded mass, more like a fetal head than a liver in shape. The only pathological explanation I can offer is that the mitral regurgitation produced huge engorgement and finally nutmeg liver. As the condition of the heart improved the engorgement became less, the fresh tissue in the liver contracted, and constricted the portal vein, thus causing dropsy in the legs and abdomen. As time went on and the heart's action improved, the pressure of the blood in the portal vein gradually overcame the constriction caused by the liver tissue, and made the channel again large enough to carry on the normal circulation.

During the time I was attending her I had been making observations on the whey treatment of typhoid fever, and had been much astonished at the small amount of nitrogenous food that is required to sustain life. This patient was an exceedingly small eater; the average amount of fluid drawn off at each tapping was from 2 to 3 gallons; consequently it appeared that the amount of albumen lost in this way must exceed the amount taken as food, and I began to wonder whether the case would prove that the body can absorb nitrogen for nutrition from the atmosphere. However, chemical analysis showed that the fluid contained such a minute quantity of nitrogen that the fuller investigation of the matter was rendered unnecessary.

PRIDEAUX SELBY, M.R.C.S.Eng.,
L.R.C.P.Lond.

Teynham, Kent.

A CASE OF LEUCOCYTHAEMIA TREATED BY X RAYS.

MRS. P., aged 35, had been ill about three years. She was in the General Hospital, Nottingham, from December, 1903, to February, 1904, and was treated by liq. arsenicalis up to half a drachm daily. On admission she had 2,700,000 red, and 252,000 white, corpuscles per c.mm. On discharge the numbers were 2,848,000 and 46,800 respectively.

She was readmitted on November 7th, 1905, having been ailing more or less during the interval. She was given liq. arsenicalis ♏vij thrice a day, but from November 17th she had had *x* rays in addition.

Blood Counts.

November 19th, 1905:
Red corpuscles = 3,200,000
White ,, = 160,000
Haemoglobin = 45 per cent.

December 9th, 1905:
Red corpuscles = 2,400,000
White ,, = 45,000
Haemoglobin = 35 per cent.

January 13th, 1906:
Red corpuscles = 3,000,000
White ,, = 8,500
Haemoglobin = 70 per cent.

February 1st, 1906:
Red corpuscles = 5,600,000
White ,, = 6,520
Haemoglobin = 75 per cent.

Leucocythaemia.

An exact differential blood count was not made on admission, but there was a marked excess of myelocytes, and this was also the case in January, 1904. On December 14th a differential count gave 38 per cent. polymorphonuclear leucocytes, 42 per cent. myelocytes of various kinds, other forms 20 per cent.

On January 26th, 1906, a count of 500 white corpuscles kindly made by Dr. Jacob gave

Polymorphonuclears ... ... = 53.6 per cent.
Myelocytes... ... ... = 17.8 ,,
Large hyalines ... ... = 15.6 ,,
Lymphocytes ... ... = 6.6 ,,
Mast cells ... ... = 4.4 ,,
Eosinophiles ... ... = 2.0 ,,
Nucleated red corpuscles ... ... = 14.0 ,,

The patient's weight was 7 st. 5½ lb. on admission, sank to 6 st. 11 lb. by December 2nd, and rose again to 7 st. 5½ lb on January 27th. She expressed herself as growing steadily stronger both while losing and gaining weight. The girth of the abdomen fell from 33 to 31 in., but increased to 32 in. as she put on flesh. The splenic enlargement diminished to a distinct but not great extent.

From November 17th to December 17th the *x* rays were applied almost daily for ten minutes over the spleen; but from December 17th to January 30th they were also applied over the bones of the limbs and the sternum for ten more minutes each day. She had about fifty applications in all. A soft tube was used at a distance of 10 in. with a primary current of 3 milliampères. There has been no trace of *x*-ray burn, but the pigmentation of the abdomen, which was marked on admission, has much increased.

SUMMARY.

There has been much more improvement under *x* rays and arsenic than under arsenic alone. The patient has gained strength and flesh, her dyspnoea and languor have been much reduced, and the blood corpuscles in point of numbers have returned to normal. Indeed, there is a slight polycythaemia of red corpuscles. Some abnormal elements—myelocytes and a few nucleated red corpuscles—however, still remain.

The initial reduction in red corpuscles and haemoglobin during the first three weeks of treatment may be noted.

Nottingham. W. B. RANSOM, M.D., F.R.C.P.

A CASE FOR LOCAL ANAESTHESIA.

A SHORT time ago I had occasion to remove a sebaceous cyst about the size of a walnut from immediately in front of the left ear of a patient. It had existed for some nine years, but had recently been growing rapidly larger; hence the man desired its removal. Having decided to do the operation under local anaesthesia, I cleaned the parts in the usual manner and then injected hypodermically $\frac{1}{50}$ gr. of hemisine and $\frac{1}{2}$ gr. of cocaine hydrochloride; both drugs were in soloid form, and I dissolved them together in the injection syringe. The skin over the cyst was covered by a network of small blood vessels, and so vascular that, upon withdrawing the fine hypodermic needle after the injection, a large drop of blood exuded. I injected at two points along the course of the proposed incision, and some fifteen minutes later the parts were so thoroughly blanched that, upon transfixing the cyst and making an incision of about 1½ in. in length, not a drop of blood escaped. The operation was completed in the usual manner, the patient feeling nothing of the whole process, and the wound healed well. The man was extremely nervous, and had been a good deal worried over the idea of the operation, but the result greatly pleased him.

I regarded this as such a trivial operation that I had not thought of publishing it, until talking with another practitioner, I heard from him of a very different experience he had with a similar case. He gave an anaesthetic for a medical man who removed the cyst, but had a good deal of trouble with the bleeding which occurred from the mall blood vessels, which in my case were effectually onstricted by the haemostatic injection that was used. Furthermore, no assistance was required.

Leicester. L. ERASMUS ELLIS, M.D.Brux., M.R.C.S.Eng.

REPORTS

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

TAMBOUR BRANCH DISPENSARY, SITAPUR DISTRICT, OUDH.

CASE OF DERMOID CYST OF THORAX.

By W. SELBY, Captain I.M.S., F.R.C.S., Civil Surgeon, Sitapur, Oudh.)

A HEALTHY Hindu boy of 11 years had a tumour situated over the front of the sternum which, his father said, had been present since birth, and had lately increased in size. was about 2 in. in diameter, soft, fluctuating, and freely ovable.

In making the incision through the deep fascia, the mour was punctured, and a milky fluid containing anular fatty *débris* escaped. The cyst was attached to its surroundings by areolar tissue only, and easily shelled out. It was globular in shape, thin-walled, and contained 6 to 8 oz. of the fluid described above. Its lining had the appearance of delicate epidermis, and was unpigmented. No hairs could be found.

I was unable to get a microscopical examination of its wall, as I operated on the case when paying an inspection visit to this dispensary, which is thirty-five miles by unmetalled road from head quarters.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BIRMINGHAM BRANCH.

Birmingham, Thursday, March 8th, 1906.

Sir THOMAS CHAVASSE, M.D., President, in the Chair.

Endothelioma of the Brain.—Mr. BARLING showed a patient fifteen months after the removal of an endothelioma from the surface of the brain, the symptoms before the operation having been fits of the Jacksonian type and optic neuritis. The patient now was free from optic neuritis, and suffered only from weakness of the right limbs and spasms at times of the right arm.

Cranial Meningocele.—Mr. BARLING also showed an infant, aged 9 weeks, from whom a large cranial meningocele had been removed. The meningocele was removed on the second day after birth because the skin was beginning to ulcerate; the swelling at that time was larger than the head itself. A very good recovery followed, but there were indications that the child was becoming hydrocephalic.

Transposition of Viscera.—Dr. STACEY WILSON showed a case of complete transposition of viscera in a girl, aged 11 years.

Ruptured Kidney.—Mr. GEORGE HEATON showed a ruptured kidney, removed by nephrectomy for haemorrhage. The man received a blow at football from a man's elbow. Profuse haematuria took place and a large tumour formed in the left loin. The haemorrhage continued for four days, when it was decided to remove the organ. The man made an excellent recovery. The specimen showed a kidney with a large stone in the pelvis, and with pelvis and calyces very much dilated; one of the dilated calyces had given way under the violence.

Inhalation.—Dr. FOXWELL read a paper entitled Inhalation, under the following heads: Inhalation, its action and scope; different methods of employing it as used at Allevard, Challes, Marlioz, and Uriage; regulations necessary to obtain satisfactory results; comparative value of various medicaments.—The paper was discussed by Drs. BRIGGS, MELSON, SYDENHAM, WHITE, MOUNSEY, and SHORT; and Dr. FOXWELL replied.

Treatment of Uterine Myoma.—Mr. J. F. JORDAN read a paper entitled Notes on the Treatment of Myoma of the Uterus, of which the following is an abstract: "Myoma, if left alone, is often fatal, and very often the cause of invalidism. The number of cases that can be left alone is extremely small. Few are amenable to palliative treatment. Such methods of treatment as curetting, electricity, and ligature of the uterine arteries are a waste of time and money. The only successful treatment is by removal of the tumour. Occasionally this may be done by a myomectomy, but more often it can only be successfully carried out by a hysterectomy." —Professor J. W. TAYLOR spoke to the paper, and Mr. JORDAN replied.

FRENCH CONGRESS OF SURGERY.—The next meeting of the French Surgical Congress will be held in Paris in October next, under the presidency of Professor Monprofit, Professor of Clinical Surgery in the Medical School of Angers. The questions proposed for discussion are: (1) The surgery of the great venous trunks, to be introduced by reports from MM. Lejars and Morestin, of Paris; (2) ectopia of the testicle and its complications, to be introduced by reports from MM. Souligoux, of Paris, and Villard, of Lyons; (3) routes and means of access to the interior of the thorax from the operative point of view, to be introduced by reports from Dr. Willems, of Ghent, and Dr. Loison, medical officer of the army.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

J. Warrington Haward, F.R.C.S., President,
in the Chair.

Tuesday, March 13th, 1906.

Ocular Symptoms of Intracranial Tumour.

Mr. A. W. Ormond read a paper based on 100 consecutive cases of brain tumour from the records of Guy's Hospital, most of which included particulars of necropsy. Optic neuritis was present in 70, but in 17 no note was made of the condition of the discs, and in only 3 was it possible to maintain that it was never present. In most of the cases there was evidence of increased intracranial pressure, and in 37 the ventricles were dilated. It was held to be probable that optic neuritis was primarily produced by toxins due to the presence of a tumour within the brain, and their effect accentuated by increased intracranial pressure. In the majority of cases where an operation was undertaken the condition of the patient was not materially improved. In 2 cases the tumour gave no sign of its existence during life. In the other cases the duration of the illness varied from a few hours to several years, but in 56 death occurred within six months from the onset of the first symptom.

Dr. H. H. **Tooth** had never yet been able to come to any conclusion in his own mind as to the cause of optic neuritis. A small tumour as of the cerebellum might be associated with intense neuritis, or a very large tumour might be unassociated with any. As to the question of toxins, Mott and Halliburton's work on cholin, to which reference had been made, was done in general paralysis of the brain, and if the toxic view were the right one, it would have been expected that optic neuritis would have been common in that disease.

Dr. A. J. **Whiting** thought the frequency of cases of cerebral tumour in which there was never at any time optic neuritis had been somewhat underestimated in the paper by the 3 unequivocal cases in 100. In 2 of the later 3 cases in his own experience it had not at any time been found. The usual percentage given was about 20 per cent. He supported, from recent cases, the view that increased intracranial pressure could not be the only causal factor, yet the relief of such by trephining certainly seemed to save vision by preventing the otherwise inevitable optic atrophy.

Dr. F. E. **Batten** asked if Mr. Ormond could explain why the degeneration which was present in the posterior columns in cerebral tumour should be most marked in the cervical region of the cord if such were due to a general toxic process.

Dr. H. **French**, in reference to the toxic factor, said that doubt had been thrown on the point of fact whether cholin had any bearing on the production of general paralysis. It had not been demonstrated in the blood in that disease.

The **President** said there were many explanations of optic neuritis, and it might be that neither a toxic nor a mechanical explanation was sufficient. He alluded to the possibility that thrombotic changes might have an influence or changes in the quality of the blood. Was it possible to recognize any peculiarities of the optic neuritis associated with increased intracranial pressure from that apparently due to other causes?

Mr. **Ormond** replied.

Improved Method of Obtaining the "Pancreatic" Reaction in the Urine.

Dr. P. J. **Cammidge** described a modification of his method which required only one reagent instead of two. It depended on the removal of the large amount of glycuronic acid from the urine in cases of pancreatic disease, thus allowing a sugar which was maintained to be constantly present in inflammatory conditions of the pancreas to be more readily recognized.

Mr. **Mayo Robson** said Mr. Cammidge had tested many of his cases on which he had afterwards operated and confirmed the accuracy of the test. It required very special knowledge to carry out. Its validity did not depend on the presence of glycerine. The crystals were a form of sugar. He had received great help from the test in diagnosis, especially in common bile duct cases; also in treatment, for if the pancreas were involved longer drainage was required. It also helped in the differentiating of inflammatory from malignant disease of the pancreas. This experience was based on nearly 200 cases. The test was not meant to be conclusive in itself, but as a help in diagnosis, and to be taken along with an examination of the faeces.

Dr. H. H. **Tooth** asked if it were likely that the test would ever be carried out at the bedside.

Dr. **Cammidge** said he thought not.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

J. O. Affleck, M.D., President, in the Chair.

Wednesday, March 7th, 1906.

Spasm of the Retinal Artery.

Dr. R. A. **Lundie** described a case in which a man, aged 88, noticed one night that he could not see with the left eye. Dr. Lundie examined him within half an hour of the onset of the blindness, and found that the upper part of the field of vision had some perception; but the lower part appeared to be quite blind. On ophthalmoscopic examination it was found that in the upper main branch of the retinal artery there was an interruption of the column of blood in a section of the vessel, somewhat less in length than one disc diameter. The fundus was again examined a few minutes later, and then it was noted that there appeared to be a fine thread of blood in the portion of the artery which was previously empty. Within an hour the vessel had resumed its normal condition and vision was restored. The only explanation possible of the symptoms and appearances described seems to be that there was a localized spasm of the artery. There had been no recurrence of the condition. The patient's heart action was not strong, and the arteries tortuous, but not so hard as usual in a man of his age.

Vaccine Treatment in Surgery.

Mr. H. W. **Gray** read a paper in which he described cases in which he had employed tuberculin injections as an adjunct to surgical measures with satisfactory results. His experience also led him to favour streptococcal and staphylococcal vaccine as a preliminary to operations which might be followed by pneumonia or septic absorption.

Mr. **Stiles** stated his experience of vaccine treatment did not induce him to take so favourable a view. Early cases of surgical tuberculosis should be treated by TR; but he did not think that this line should be persisted in if the disease showed little or any tendency towards cure.

Occupation Mortalities in Scotland.

Dr. J. C. **Dunlop** read a paper dealing with this subject. His remarks were based on a recent study of the occupation mortalities in Scotland published in the decennial supplement to the forty-eighth detailed *Annual Report of the Registrar-General for Scotland.* He referred to previous studies, and to the methods of tabulation used in them; he criticized those methods, and explained the reasons why in the preparation of the new report he had adopted a new method—one in which the probable error of each rate was calculated, and in which apparent were not accepted as indicative of real differences unless the apparent differences were greater than the probable error. Dr. Dunlop divided the occupations into six classes, according as to whether the death-rates in the two more important age periods—namely, 25 to 45 years and 45 to 65 years—were greater, less, or not decidedly different from the corresponding death-rates of all males. In the first class, characterized by low death-rates in both age-periods, came clergymen, farmers, agricultural labourers, etc. In the sixth class, characterized by a high death-rate in both age-periods, were coachmen, hotelkeepers, publicans, chemists, tailors, masons, boilermakers, hawkers, general labourers, etc.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Pathology.

Sir Thornley Stoker, President, in the Chair.

Friday, February 16th, 1906.

Abdominal and Pelvic Tuberculosis.

At a discussion on this subject introduced by Dr. **Little**, Sir **William Smyly** said the Fallopian tubes were the organs by far the most frequently affected, the uterus fairly often, other parts but rarely. The most interesting points connected with this subject were the possibility of infection through spermatic fluid, and also the infection of the fetus by its mother. The difficulties attending diagnosis were so great that until the parts had been examined by the microscope it could rarely be attained with certainty. As regards treatment, the removal of the diseased organ was amongst the most difficult and dangerous operations in surgery.

Professor **McWeeney**, speaking of genito-urinary tubercle, said he had found tubercle bacilli without difficulty in about 90 per cent. of purulent urines, with a distinctly acid reaction. The hypertrophic variety of tuberculosis of the ileo-colic region of the bowel resembled cancer, and differed in manifold ways from the ordinary tuberculous ulceration met with in consumptives who swallow their sputum. It might be due to ingestion of bovine bacilli. Behring's belief in the intestinal origin of pulmonary consumption had received confirmation at the hands of Calmette, of Lille, and his pupils, who found that pigments ingested by adult animals found its way at once to the lungs, whilst in young animals it was at first stopped in the mesenteric glands. Calmette had, moreover, succeeded in producing pulmonary tuberculosis without lesion of the gastro-intestinal mucosa or of the mesenteric glands, by introducing suspension of tubercle bacilli into the rumen of adult goats.

Mr. T. E. **Gordon** said laparotomy was frequently successful in curing the ascitic form of tuberculous peritonitis, but was not invariably so—perhaps it was less frequently successful than generally supposed. In the fibrous form the results of operations were almost uniformly bad, except in cases of well-localized abscess; even in these an intestinal fistula was likely to result. It seemed reasonable to hope that some of these cases of fibrous and caseating tuberculous peritonitis would be cured by tuberculin. He held that when extensive adhesions had formed, cure by tuberculin or any other treatment could not be complete, for matted intestines were in themselves a source of distressing symptoms and danger. Still, with the help of tuberculin better results might be hoped for than had heretofore been obtainable.

Professor **White** considered that in future the treatment of tuberculous peritonitis would consist in raising the opsonic index prior to operation, and subsequently, after the effect of the auto-inoculation produced by the operation had passed off, in keeping the index high, by suitably interspaced inoculations, until the local condition was quite healed.

Dr. **Parsons** drew attention to the occurrence of tuberculosis in hernial sacs, and said he had a patient suffering from that affection who showed no signs of abdominal tuberculosis.

Dr. **Coleman** said he thought that both the diagnosis and treatment of tuberculosis had been placed on a very satisfactory footing by Wright's method. Wright had treated severe cases of tuberculous peritonitis with success. The method, however, was not suited for every case.

Dr. **Purefoy** said he had seen tuberculous conditions of the genital tract in two puerperal cases. Both patients died a few weeks after delivery of advanced pulmonary phthisis. One of these had borne several children. In her case he found projections, like yellow pustules, on the posterior vaginal wall. One case of tuberculous nodules on the uterine end of the Fallopian tube had been reported.

Sir **Thornley Stoker** said that Dr. Coleman seemed to be curing by Wright's method patients that he had failed o benefit by operation. Two years ago a patient came to he Richmond Hospital with a tumour in her right iliac region. He explored it, after incision, and found a hypertrophic tuberculous mass in the ascending colon, which he removed. The patient never got a rise of temperature, and left the hospital well.

Mr. J. **M'Ardle** said, in reference to tuberculosis in a hernial sac, that where a hernia had been present for some ime the intestinal wall was weakened, and it was this condition that allowed the tubercle bacilli to permeate it. As to the possibilities of the tuberculin treatment, we were now employing no haphazard method. He did not hink, however, that we had yet got a panacea for the esions caused by the tubercle bacillus.

Dr. **Travers Smith** said that in his clinical experience diarrhoea was not a constant symptom of tuberculous ulceration of the intestine. He was surprised at Professor McWeeney's statement that 90 per cent. of acid urines containing pus were tuberculous.

Mr. E. H. **Taylor** mentioned a case in which on opening the abdomen he found a tumour as big as an orange in the ascending colon, above the caecum. The muscular coat of the ileum was hypertrophied, and some of the neighbouring glands were caseating. He regarded it as tuberculous. After operation the patient got well.

Dr. **Moorhead** spoke of a case of hypertrophic tuberculosis of the caecum, which had been remedied by complete excision of the caecum and ileum.

Dr. **Langford Symes** said that tuberculous ulceration of the genital tract, even in children, was said to have occurred. There was a variety of tuberculous peritonitis in children in which infection was brought about by means of the umbilical cord. A foul and fetid discharge from the umbilicus in young children was connected with tuberculous affections.

CLINICAL SOCIETY OF LONDON.

H. H. Clutton, M.A., M.C., F.R.C.S., President, in the Chair.

Friday, March 9th, 1906.

Relation of Traumatic Diabetes Insipidus to Glycosuria.

Dr. H. S. **French** and Mr. C. B. **Ticehurst** contributed this paper. A man, aged 44, after a fall from his bicycle (five years ago), remained unconscious for fourteen days, with cerebro-spinal fluid dripping from his nose. On recovery, bilateral temporal hemianopia and ocular pareses showed that he had fractured the base of his skull near the chiasma. Previous to the accident he had been perfectly well; after it he had extreme polyuria and thirst, passing up to 10,000 c.cm. of urine, specific gravity 1004-6, free from albumen and sugar. The expectation that the "sugar centre" in the medulla was injured led to extensive metabolism research in which all food and excreta were analysed. By increasing carbohydrates in the food, it was attempted to produce glycosuria. Dextrose, starch, and cane sugar were assimilated well, up to 700 gr. (dry) of carbohydrate in twenty-four hours. No sugar could thus be made to appear in the urine. Two years later, however, glycosuria developed spontaneously. The urine remained of comparatively low specific gravity. Careful dieting did not entirely prevent glycosuria, and both acetone and diacetic acid were present as well as sugar. On ordinary diet there were no acetone and diacetic acid. The patient (who was shown) felt too weak for active work, but his weight was maintained, and if he could see better he could carry on a light occupation. Similar cases were quoted from the literature, but none exactly like this one could be found. Injury as a cause of either form of diabetes was not common; the association of the two forms together very rare.

Dr. A. E. **Garrod** said the case was peculiar in its tendency towards recovery, and the long duration of glycosuria from such a cause.

Dr. **Farquhar Buzzard** asked if there were cases mentioned in literature with localizing brain symptoms.

Dr. **French**, in reply, said two such cases were recorded. It had been suggested that there was a "thirst" centre, which had been injured in this case, and that the polydipsia and polyuria were secondary.

Post-traumatic Haemorrhage from Superior Longitudinal Sinus without Fracture of Skull.

Dr. E. F. **Buzzard** and Mr. J. **Cunning** reported this case. On April 1st, 1905, a man, aged 25, fell on the back of his head, inflicting a small scalp wound which healed without trouble. A fortnight later he had continuous, increasing headache. During the next few days he developed complete left hemiplegia, hemianaesthesia with stupor, slow pulse, and vomiting, but no optic neuritis. On April 18th he was trephined over the right post-parietal region, and a large accumulation of blood was found beneath the dura mater and haemorrhage near the superior longitudinal sinus. Forceps were placed on the bleeding point, and a saline infusion injected. On

April 20th the forceps were removed; on April 22nd improvement in the paralytic condition set in. This progressed to a complete recovery. The patient was shown.

THE PRESIDENT commented on the rarity of the case.

Mr. PEARCE GOULD had seen one case of venous cerebral haemorrhage, which was under Mr. Christopher Heath. That patient recovered.

Mr. CUNNING, replying, said he had not found a record of any similar case.

DILATATION OF STOMACH FOLLOWING HOUR-GLASS CONTRACTION.

Mr. J. E. SPICER showed a specimen from a woman, aged 37, who had had dyspepsia for twenty years, and haematemesis on three occasions. She was admitted to the London Hospital under Dr. Percy Kidd with signs pointing to dilatation of stomach. Four days later she suddenly developed peritonitis, and died in three hours. The *post-mortem* examination showed a constriction in the stomach near the pylorus. The peritoneal cavity contained pints of thick green fluid oozing from a perforation in an old ulcer situated in the constricted portion. The proximal portion of the stomach, much the smaller, contained partly digested milk. The distal portion contained several pints of thick green fluid such as was found in the peritoneal cavity and formed the large swelling felt during life. Its axis lay roughly at right angles to that of the proximal portion. The opening into the duodenum was close to the perforation. The perforation had been closed by the thin lip of the liver, the adhesions having only recently been separated.

The PRESIDENT urged the necessity of operation in such chronic cases.

Mr. ROUGHTON asked why an operation had not been performed (1) to relieve the dilatation, or (2) after the occurrence of perforation.

Dr. PERCY KIDD had not seen the patient until she came in, when she was not acutely ill. He thought the curious distal sac might have started in a congenital *cul-de-sac*, which dilated as life proceeded.

Dr. GARROD suggested that it resembled a diverticulum of the oesophagus.

Mr. SPICER said that he was called at 1.30 a.m., and found the patient moribund; she died two hours later.

ASSOCIATED CONGENITAL MALFORMATIONS.

Drs. A. E. GARROD and LANGMEAD described the case of a female infant, aged 9 months, admitted to the Hospital for Sick Children, under Dr. Garrod, for wasting and constipation. An operation had been performed for imperforate anus when the child was 24 hours old. *Post mortem* four distinct congenital malformations were found, namely, imperforate anus, congenital heart lesion, complete transposition of viscera, and idiocy of Mongolian variety. The first two were malformations of arrest, none were malformations of excess. The authors pointed out that in some instances the cardiac lesion in such associations was not an anomaly by arrest, but was possibly due to fetal endocarditis. Transposition of viscera was not infrequently associated with other malformations, as Dr. Garrod had noted in a paper published eleven years ago. The association of congenital heart lesions with Mongolian idiocy was specially frequent, as was pointed out by Dr. Garrod in 1899, and had been since confirmed by other observers. Such children seldom survived the first year or two of life.

The PRESIDENT remarked that in his experience congenital deformities usually occurred in first-born children, or in those born when the mother was exhausted either by too frequent or too many pregnancies.

Dr. GARROD said this view was not in conformity with modern ideas of heredity, but was well worthy of investigation.

EPIDEMIOLOGICAL SOCIETY.

J. TATHAM, M.D., President, in the Chair.

Friday, February 16th, 1906.

TYPHOID FEVER IN UNITED STATES VOLUNTEER ENCAMPMENTS.

DR. CHRISTOPHER CHILDS read a paper entitled A Study of the Typhoid Fever Epidemics in the United States Volunteer Encampments in 1898. These epidemics occurred amongst the United States volunteers whilst encamped within their own country during the war with Spain in 1898. About the end of April or beginning of May, 1898, over 100,000 of these volunteers had assembled and encamped in their respective States. After a few weeks most of them were drafted to large national encampments in Virginia, Florida, Georgia, Pennsylvania, and Alabama. About this time cases of typhoid fever had appeared in one-third of the regiments. In the six months, June to November inclusive, among 107,973 officers and men in ninety-two regiments, 20,738—that is, nearly one-fifth—are reported to have become infected; and 1,580—that is, 14.63 per 1,000 of the mean strength—died of the disease. The epidemics spread with great rapidity towards the end of July, and on August 18th a Board of Medical Officers (Major Reed, Major Vaughan, and Major Shakespeare) was appointed to inquire into the cause and extensive prevalence of the disease. The Board was placed in a unique position, such as has never occurred before nor was likely to occur again, to collect evidence and form conclusions with regard to the origin and spread of typhoid fever under the conditions of camp life. In a short account compiled by Dr. Childs and published in the BRITISH MEDICAL JOURNAL in July, 1902, he briefly summarized the evidence by which it was shown that the typhoid infection was brought by many of the regiments into the national camps; that there was strong presumptive evidence to show that it was spread to a considerable extent from soil extensively polluted with the excreta of the troops, and also from the latrines by the hosts of flies which swarmed in many of the camps; that, in addition to the large number of cases of typhoid recognized as such, there was nearly an equal number of cases characterized by transient fever or gastro-intestinal disturbances, which were in reality cases of typhoid though not recognized as such; that infected water was not an important factor, whereas personal infection was a very important factor in the spread of the disease. In the present paper attention has been more especially directed to the question of personal infection. Although impressed with the possibility of infection through polluted water in many of the camps, the Board was convinced, by its subsequent careful study of typhoid amongst the company organizations, that the spread of the disease by the water supply could not be sustained. In some companies of many regiments they found a large number of cases, whilst others were almost entirely free from the disease although all of them were drinking the same water. Moreover, the companies were not attacked simultaneously, as would be the case if the infection were waterborne, but the disease developed in the form of "company epidemics," each one having its own individual characteristics with regard to commencement, exacerbations, and termination. These characteristics were graphically illustrated in the eighty-four regimental charts contained in Vol. ii of the report. From the results of their exhaustive study of company epidemics the Board was led to recognize the possibility of personal infection being a very important factor in the spread of the epidemics. In order to investigate this question more thoroughly they traced out a large number of cases of typhoid which occurred in certain badly infected regiments. Maps of the camps were prepared, showing the local arrangements of companies and tents, and the tents in which the cases occurred. In this way they were enabled to locate accurately 1,608 cases of typhoid in the particular tents in which they occurred, together with the date of the commencement of the attack. A careful analysis of these records confirmed the view that a large proportion of the cases of typhoid were due to personal infection. Certain tents were badly infected, and the majority of their inmates developed the disease, while other tents wholly escaped. Moreover, one or more cases were frequently observed to follow another case within the same tent after an interval corresponding more or less with the average period of typhoid incubation. In fact, out of the 1,608 cases mentioned above a large proportion were found to be directly connectable in the same tents, the dates of attack being separated by a period of 10 to 14 days. Another large proportion was found to be "indirectly connectable,"—that is, occurring in adjoining tents, the dates of attack being also separated by a period of 10 to 14 days. These results were summarized as follows: Directly connectable attacks (in same tent), 563, or 35.01 per cent.; indirectly connectable attacks (in adjoining tents), 447, or 27.79 per cent. Total connectable attacks, 1,011, or 62.8 per cent. Dr. Childs said there could be little doubt that infection must also have been spread from many of the cases not recognized as cases of typhoid, who were allowed to remain in the tents at a time when their excreta were highly infective. The above evidence plainly indicated that personal infection was a very important factor in the spread of the epidemics. The high incidence of typhoid fever amongst nurses and others engaged in attending on typhoid patients had long been recognized in this country, and attention had frequently been called, both by military medical officers and other observers, to the probable occurrence of personal infection when men of the most susceptible age were crowded together in tents. The existing evidence with regard to the diffusion of typhoid by contact had been most clearly summarized by Lieutenant-Colonel Davies, R.A.M.C., in a valuable paper contributed to the *Journal of the R.A.M.C.* of May 1905. Conspicuous amongst that evidence was that contained in Dr. Goodall's paper to the Epidemiological Society in 1900, in which convincing proofs were given of the high and exceptional incidence of typhoid which prevailed amongst the nurses attending typhoid patients at hospitals. If the incidence was so high amongst nurses —who were, without doubt, protected by no ordinary precautions—it was easy to understand how typhoid might spread from infected individuals in tents in which men of highly susceptible age were huddled together night after night, and in which the soil, clothes, bedding, and entage might frequently become contaminated with yphoid excreta. Amongst troops on active service it must always be difficult to trace and work out evidence of personal infection, owing to the many complications and xigencies of warfare. The United States Commission, however, had the unique advantage of being able to carry ut their investigations of a large number of inected regiments who were encamped for long periods n the same site, free from the disturbances caused by movements and changes of troops, or the proximity of a ostile force. They therefore had exceptional opporunities for determining more exactly than hitherto the elative degree of influence of the different causative actors in diffusing typhoid infection under the conditions f camp life. By making full use of these opportunities hey had done much to advance and extend knowledge of his disease. Much still remained to be learned before nything like certainty could be arrived at with regard to ll the agencies which might be at work in the production f typhoid epidemics, and with regard to the relative effect roduced by each agency. The history of the United tates Commission and of their difficulties and labours howed how much more might have been learnt if the ommissioners could have had a staff of trained experts —medical officers, bacteriologists, and trained orderlies—to ccompany and assist them throughout their investigaons, and if, with such a staff, they could have started heir inspections at the first appearance of the typhoid, nstead of some four weeks afterwards. Similar lessons e taught from a study of our typhoid epidemics in civil fe. For the solution and complete elucidation of the bscure and complicated problems presented by typhoid pidemics a very large number of complicated and highly chnical observations had to be made. In addition to the etails connected with dwellings, drainage, water, milk, nd food supply, etc., the detection of contacts and of ncubating and abortive cases was of the highest imporance. It was essential that these investigations and detecons should be made most thoroughly and at the earliest ossible opportunity. For these purposes, bacteriologists special experience and specially-trained sanitary spectors (in addition to the ordinary staff) appeared to e indispensable in the case of large epidemics, seeing at the whole sanitary staff of the locality were more an fully engaged in carrying out administrative easures at the time when it was most important to be aking the etiological investigations. The special traing of an expert staff might be provided by the investigaon of typhoid infection, under various conditions, in mall isolated communities, where the relations between usative factors and results could be more easily traced; civil life amongst those villages in rural districts where phoid was known to be endemic; in military life amongst the encampments of India, Egypt, and South Africa. If Germany could carry on such investigations with a view to stamping out its endemic typhoid fever, it was difficult to see why this country could not do the same. There was good reason to hope that such investigations would help to clear up and solve the obscurity and uncertainty which still prevailed with regard to the etiology of typhoid fever.

Sir SHIRLEY MURPHY remarked that though some cause acting generally might set up the epidemic, it was often kept up by personal infection long after the original cause, as an infected milk supply, had been withdrawn. Alexander Collie so long ago as 1872 maintained that it spread among nurses by personal infection in the Homerton Hospital, though, as he himself found, it did not in the Liverpool Road, where they were all older women. Direct infection was frequent in the dwellings of the poor, but much less so in the houses of the well-to-do.

Colonel LANE NOTTER said that in India there was little, if any, typhoid among troops on the move, the disease being practically confined to standing camps, garrisons, and blockhouses. A drawback in South Africa was the absence of lime from the soil. The use of badly-preserved, if not of all preserved, foods conduced to dysentery and scurvy. These prevailed on board the *Discovery*, in spite of lime-juice, until all tinned foods were forbidden. In the Japanese army during the war there was practically no typhoid or dysentery, but with their largely non-nitrogenous diet there was a remarkable absence of offensiveness in their latrines and from their persons.

Dr. E. W. GOODALL remarked that Collie was not the first to maintain personal infection, for he referred to French and other observers before him. The worst year in his experience at Homerton was one in which they had an unusual proportion of young nurses. The diarrhoea that conferred immunity was no doubt mild or masked enteric, but, as Reincke of Hamburg had pointed out, the infection of diarrhoea with a short, and that of enteric with a long, incubation might be received together and be developed in succession.

Dr. H. T. BULSTRODE read a letter from Dr. Collie recalling how when he was at Aberdeen in 1861 typhoid fever was not recognized, but at Dundee in 1864 it was kept in a ward by itself, and no nurses were allowed to attend who were under 40 years of age.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

PRIESTLEY SMITH, F.R.C.S., President, in the Chair.

Thursday, March 8th, 1906.

ORBITAL ENCEPHALOCELE.

MESSRS. J. HERBERT PARSONS and GEORGE COATS read a paper on a case of orbital encephalocele associated with microphthalmia. Mr. Parsons had shown the child to the Society when 13 weeks old. There were then large cyst-like masses in the right orbit pushing the globe over to the outer side. The right eye was evidently microphthalmic, and showed ophthalmoscopically a coloboma of the nerve entrance, and also of the macula. Various diagnoses were made as to the orbital condition. As the tumour was increasing in size it was operated on, but the child died a few days later. The mass in the orbit consisted of brain tissue which pressed upon, and caused deformity of, the globe. It was connected with a large mass of brain substance within the skull which lay beneath the frontal lobe. The intracranial mass had displaced the latter upwards, and the temporal lobe backwards, but had no connexion whatever with either. It was, therefore, believed to be either a teratological inclusion or a piece of brain substance snared off in early fetal life, possibly from the region of the caudate nucleus, and growing independently. The eye showed three deformities, each of which was rare: (1) An ectasia on the nasal side of the papilla, which still had a lining of stretched choroid and normal retina; (2) a coloboma of the nerve entrance, which was peculiar in being on the temporal side of the nerve and in being entirely within the area of the porus opticus; (3) a macular coloboma, which consisted chiefly in a partial defect and depigmentation of the pigment epithelium, both the choroid and retina being almost intact.

A New Scotometer.

Mr. Priestley Smith described a scotometer for the diagnosis of glaucoma and for other purposes. It was intended to facilitate the examination of the central parts of the field of vision, especially in cases of suspected glaucoma. It consisted essentially of a disc of millboard covered with black cloth and figured on the back with the degrees of the circle. The test object was a small cutting of grey wool, which was laid upon the cloth at any desired distance from the centre. In the case of suspected glaucoma it should be placed at 25° from the centre, as shown by a faint mark on the cloth, and the disc should then be slowly rotated. Should it nowhere disappear or grow dim, in all probability glaucoma did not exist, for, as Bjerrum had shown, the defects in the glaucoma field were almost always radical or sector-like, and, with a delicate test, could be traced inwards. If a defect were found its extent should be noted on the graduated circle, so that it could be used for future comparison. Other circles could be explored if necessary. The authorized maker of the instrument was Mr. Bailey, of Bennett's Hill, Birmingham.

Heredity and Myopia.

Mr. C. Worth in a paper on hereditary influence in myopia said that though myopia was often regarded as a simple error of refraction, grave complications might arise in connexion with it, and altogether overshadow the original condition. In a series of 687 cases examined by the author, 33 were malignant and 654 were uncomplicated. Of the latter 56 per cent. gave a family history of myopia, while in the former only 24.25 per cent. was evidence of heredity found. In one family whose pedigree was shown, nearly all the males were myopic, and none of the females; but the myopia was transmitted through the female line. The amount was in all cases examined about the same—10 to 12 D., with some astigmatism. The fundi showed crescents, but grave complications were wanting. Curiously enough in this family all the healthy eyes were blue, and all the myopic ones were brown. Night blindness was only admitted in one family. The statistics of the 687 cases were as follows: Of 313 with no family history of myopia, 163 were males and 150 females. Of 374 with a family history of myopia, 228 were males and 146 females. This showed that the usual preponderance of myopia in men was increased in those in which myopia was hereditary. Of the 374 cases in which a family history of myopia was obtained, in 159 the parents were myopic; in the rest the myopia was present in uncle, aunt, or grandparent. The fault was on the mother's side in 104 cases, on the father's side in 33 cases, and on both sides in 22 cases.

Leeds and West Riding Medico-Chirurgical Society.—At a pathological meeting on March 2nd, Mr. E. Ward in the chair, Mr. A. S. Grünbaum made a communication on some of the *Pseudo-parasites of cancer*. They might be classified as (1) cell degenerations; (2) cell inclusions; (3) non-specific parasites; and (4) "Plimmer's bodies." Cell inclusions had become more interesting since Moore and Walker had brought additional light to Klebs's old hypothesis of the origin of cancer by the fusion of leucocyte and epithelial cell, by their discovery of dividing cancer cells containing dividing leucocytes. The appearances classed as Plimmer's bodies were of various origin. The term should be reserved for the structure corresponding—as Moore and Walker had also shown—to the vesicle in the spermatid. Since such vesicle containing cells often become included in other cells, enlarge and then divide, they seem to play a part analogous to that of the spermatozoon. The extraordinary size of some cancer cells was thus explicable, and they are much more frequent in tumours showing clinically also rapid growth. The irregular mitoses indicated that their multiplication did not follow, and probably was not governed by, ordinary rules.—Dr. O. C. Gruner read a paper on *Cryoscopy and its practical use in medicine and surgery*. After discussing the principles on which the method depended, an account was given of the results obtained by examining blood. It was shown that as a rule, in renal disease, the osmotic concentration of the blood increased; the exceptions to this were occasionally due to the association of serous effusions, whereby the salts were retained. In reviewing the results obtained by examination of the urine, it was specially recommended that the cryoscopic findings should be compared, not with what was supposed to be normal, but with what was found to be usual with the particular patient. The "water" test and the "salt" test were described. Reference was next made to the examination of segregated urine to detect unilateral disease of the kidney; an illustrative case was given to show that cryoscopy was of decided use here. Tables of results of the examination of numerous specimens of urine, blood, and other body-fluids were shown. A chart giving the osmotic variations occurring during the course of a case of pneumonia was also referred to.—Among the numerous exhibits were those of Messrs. J. K. Jamieson and J. F. Dobson, in illustration of the anatomy of various groups of lymphatic glands with their afferent and efferent vessels, the specimens being injected by *Gerota's method*.

Obstetrical Society of London.—The meeting of this Society on March 7th was given up to the reading of a paper by Mr. J. D. Malcolm on *Peritonitis and the Staphylococcus albus*, in which the main contention was that inflammation of the peritoneum may arise without the action of micro-organisms. The statements of Messrs. Dudgeon and Sargent about the *S. albus* contained in the Erasmus Wilson Lectures for 1905 on the bacteriology of peritonitis were also reviewed, and the opinion expressed that the evidence that this organism had any harmful effect was unconvincing. The author was answered by Messrs. Dudgeon and Sargent, the latter of whom concluded his remarks by saying that Mr. Malcolm had adduced no experimental work in support of his belief in non-microbic peritonitis, while as for the nature of the white staphylococcus so frequently found in peritoneal lesions, he and Mr. Dudgeon had been at pains to demonstrate that it was not the same as *S. pyogenes albus* and had never suggested that it was the cause of the suppuration which sometimes followed upon an old pelvic hematocele. Among the card specimens shown at the meeting were the uterine appendages in two cases which illustrated a deficiency in the development of the central part of the Fallopian tubes and congenital hypertrophy of the round ligaments. They were exhibited by Dr. Lockyer.

Harveian Society.—At a clinical meeting on March 8th, at the Hospital for Epilepsy and Paralysis, Maida Vale, Dr. Leonard Guthrie showed a case of *Congenital ataxy* in a boy aged 5½. There was inco-ordination and intention tremors of the upper extremities, and the gait was unsteady. The knee-jerks were exaggerated. He attributed the condition to meningeal haemorrhage at birth.—Dr. Campbell Thomson showed a case of *Paralysis agitans* with a peculiar gait, which he termed intermittent claudication. Dr. J. Broadbent considered the gait was a hysterical manifestation. — Mr. Barker (for Dr. Ogilvie) showed a case of *Tabes* in which great improvement in co-ordination had resulted from physical exercises.—Mr. Mayou showed a case of *Double congenital ptosis* in a child, and also a case of *Paralysis agitans* in which there was rigidity without tremor.—Dr. Barker (for Dr. Harris) showed a case of *Spasmodic torticollis* in which removal of a portion of the spinal accessory nerve had caused improvement, but had not completely arrested the spasm.

Proposed Union of Medical Societies: A Disclaimer.

Mr. John Belcher, A.R.A. (President, Royal Institute of British Architects), writes: I trust that you will have the goodness to allow me the courtesy of your columns to make a personal explanation.

At the recent annual meeting of the Royal Medical and Chirurgical Society, à propos of the question whether the premises at 20, Hanover Square, would be suitable for the proposed amalgamated society, I understand that one of the Fellows present stated that I had been consulted as to the condition of the premises, and that I had reported "that the building would require pulling down and rebuilding in about fifty years." *I desire to say that there is not the slightest foundation or justification for such a statement.* I have not discussed the matter with any but officers of the Society, and had I been asked for my opinion as to the probable duration of the present building, I should have stated emphatically that it was, in my opinion, as likely to stand for another hundred years as any building of its age in London, and I have not the slightest doubt that it will remain a good and useful building for even a longer period if kept in proper repair.

REVIEWS.

RADIUM AND RADIO-ACTIVITY.

THE literature relating to radium, though somewhat profuse, is scattered over the transactions of various societies and is not always easily accessible, but in the books now to be noticed an attempt has been made to bring it into collected form, and the requirements of several classes of readers are supplied. In *Radium and All About It*,[1] a shilling pamphlet by Mr. S. R. BOTTONE, a clear and succinct account is given of the steps which led up to the discovery of this wonderful body, which has gone so far towards revolutionizing our conceptions of the nature of matter, and for those who wish merely to gather a general idea of the problems thus opened up it may suffice.

A more detailed account is to be found in *Radium and Other Radio-active Elements*,[2] by Messrs. LEVY and WILLIS, which fairly describes itself as a "popular account treated experimentally"—that is to say, a number of experiments are described which any one can perform for himself with only very simple apparatus and a minute supply of adium. The authors have discharged their task satisactorily, though here and there sentences somewhat obscure may be found.

Still more complete is *Radio-activity*,[3] by Professor SODDY, himself one of the prominent investigators in he field. This is the most thorough of the three books, nd except in certain places where the use of mathematical formulae is unavoidable, will present no diffiulties to the average reader; indeed, the exposition of matters not too easily to be explained is all that can be desired. The whole wonderful story of an atom in an unstable condition; of a heavy atom undergoing slow disntegration into a much lighter atom, and giving out in ts degradation, if so it may be termed, manifestations of nergy which come nearer to perpetual motion than anyhing heretofore known to us, is clearly and fully told. Radium affords an indirect confirmation of the abstruse peculations of Professor J. Thomson, who had shown, on uite different grounds, that we can no longer regard the tom as the ultimate and indivisible particle of matter; hat, on the contrary, the ultimate particles of matter re very much smaller, and that all atoms must be regarded as complex and built up of arrangements of something much smaller. Possibly, indeed, all matter may, s some of the older metaphysicians supposed, prove to ave the same ultimate basis-material. As radium stores, and under certain circumstances rapidly parts with, n emanation; as it maintains a temperature above that f its surroundings, and as it throws off a constant rain f particles almost infinitely minute, some of which travel with almost the velocity of light, it is obvious that cannot last for ever, and the life of radium is variously estimated, two thousand years being a probable duration. this be so, then it seems necessary to assume that adium is being formed somewhere or somehow, else there ould be none now in the world, and so the old dreams of he alchemists as to the transmutation of the elements nd an unexpected confirmation. They, however, hoped build up a heavy atom—namely, gold. We have learnt othing in this direction, but for the present can only watch and investigate the disintegration of another heavy atom—radium.

On the medical applications of radium the several uthors, as is seemly, touch but lightly. Encouraging esults have, however, been obtained with rodent ulcer nd certain other diseases sufficiently superficial to come ithin its range of action, but this part of the subject is yet in its infancy.

We may take this opportunity of referring to an excelnt chapter on radio-activity in Mr. WHETHAM'S *Recent evelopments of Physical Science*,[4] in which the speculation set forth that some day we may be able to set up radioctivity in bodies not normally exhibiting it, and so tap ntold sources of energy. But radio-activity is only one of the many problems dealt with in this book, which cannot be called light reading, as, from the very nature of the questions discussed, it requires to be read with the closest attention. But it is fascinatingly interesting, and recent advances and speculations are described as simply as their nature permits. The titles of the chapters will give an idea of the scope of the book—liquefaction of gases and absolute zero, fusion and solidification, the problems of solution, conduction of electricity through gases, radio-activity, atoms and ether, and astrophysics. To workers in other fields of science, who have not the time to keep abreast of more than their own particular line of research, a book like this is a revelation of the way in which the trenches in the attack upon problems which might at first sight seem to be insoluble have been pushed forward, and we heartily recommend its perusal.

HYSTERIA AND NEURASTHENIA.

AT the present day when the textbooks on medicine are numerous and comprehensive, there is not much room left for manuals on special disorders. But there are certain diseases best considered in their relationships to other departures from health of which they are either the complement, the cause, or the consequence. This is specially true of functional disturbances of the nervous system, because we are compelled to confess the paucity of knowledge in regard to their etiology, while it is, at the same time, impossible to be blind to their increasing prevalence and importance. We therefore welcome the volume on *Hysteria and Neurasthenia*,[5] by Dr. MICHELL CLARKE of Bristol, in which is recorded not only the results of the author's personal experience, but also a concise and up-to-date summary of the work and observations of others who have contributed to a knowledge of a difficult and obscure subject. Dr. Clarke gives, with clearness of expression and terseness of statement, a readable and consecutive narrative. His work would have been more complete if it had included a section on hypochondriasis, to which all authorities agree hysteria and neurasthenia are intimately related, and had more prominence been given to the mental phenomena which accompany these functional disturbances. They are incidentally referred to as forming part of the general symptomatology, but many hysterical and neurasthenic patients come nearer the borderland of insanity than Dr. Clarke's book would lead us to infer.

In referring to vascular phenomena, one form of pseudo-angina is described as being hysterical, and another as being neurasthenic; but since both are probably due to vasomotor irregularity, it is not obvious what advantage can be gained from any attempt to differentiate them. "In hysteria," says Dr. Clarke, "the occurrence of such attacks in a young woman, with no history of any illness likely to give rise to heart disease, and the presence of hysterical stigmata of some kind, leave no room for doubt; similarly, in a typical neurasthenic the nature of the attacks is generally sufficiently obvious." But is this always true in practice? Do we not often meet with cases in which, even with the balance of probability in favour of a simple neurosis, hysterical or neurasthenic, there still remain grave doubts both as to diagnosis and prognosis? The author would seem not to share such misgivings, because after stating, in a subsequent paragraph, that the attacks are generally frequently repeated, he says: "This is not true of angina pectoris of organic origin, and the frequent repetition of such attacks without seriously affecting the patient's health or endangering his life is a valuable aid to diagnosis." Surely this statement is not meant to convey the impression that true angina pectoris usually manifests itself in one attack only, and that repeated attacks of angina, even if apparently of the pseudo type, may not be serious?

In the section which deals with neurasthenia, the traumatic variety of the disorder which is common after an accident or injury is described, but attention is not directed to the characteristic neurasthenic manifestations which so frequently set in after recovery from a surgical operation.

---

[1] *Radium and All About It*. By S. R. Bottone. London: Whitaker d Co. 1904. (Demy 8vo, pp. 96. 1s.)

[2] *Radium and Other Radio-active Elements*. By Leonard A. Levy, Sc., and H. G. Willis. London: P. Marshall and Co. (Crown 8vo, . 105. 2s. 6d.)

[3] *Radio-activity*. By F. Soddy, M.A. The *Electrician* Series. London: *ectrician* Publishing Company. 1904. (Demy 8vo, pp. 190.)

[4] *The Recent Developments of Physical Science*. By W. C. D. Whetham, A., F.R.S. London: John Murray. 1904. (Demy 8vo, pp. 336. 6d.)

[5] *Hysteria and Neurasthenia*. By J. Michell Clarke, M.A., M.D.Cantab., F.R.C.P., Professor of Pathology, University College, Bristol; Physician, Bristol General Hospital. Practitioners' Handbooks II. Edited by Harry Roberts. London and New York: John Lane. 1905. (Crown 8vo, pp. 289; 14 illustrations. 5s.)

The question of treatment, which is so often inadequately dealt with, is fully discussed, but more emphasis might have been laid upon the correction of the digestive disturbances which are rarely absent, and especially on the necessity, in most cases, of looking after what has been somewhat pompously designated "the hygiene of the buccal cavity."

In thus criticizing what may be regarded as minor details, we do not desire in the least to detract from the value of a work whose merits will commend it to those specially interested in functional nerve disorders.

THE USE OF TUBERCULIN.

SCEPTICISM in medicine is healthy, agnosticism is fatal; but it is in the latter state of mind, rather than the former, that Dr. KÖHLER of the Sanatorium Holsterhausen bei Werden must have written the booklet on tuberculin and the organism,[6] which he dedicated to the International Tuberculosis Congress of 1905. Its scope is further defined in the subtitle, "A critical and literary study on the value of the old tuberculin at the present time, from biological points of view and based on the experience hitherto acquired."

The impression left after perusal is that, in spite of the author's good intentions, the study from the critical aspect is one-sided and from the literary incomplete. Considering the enormous extent of the literature, the latter shortcoming is very excusable.

If the principles which the author seems to hold were generally followed, progress in medicine would be very slow, if not impossible, since remedies and aids to diagnosis whose action may be inconstant or irregular would be excluded from use. Of the 100 pages forming this pamphlet, 84 are devoted to an attempt to discredit tuberculin as a diagnostic agent. It is, of course, quite right and proper that the dangers or mistakes which may occur with the use of tuberculin should be fully known and appreciated, so that the epitome of published cases in which the results have been misleading or even disastrous is extremely useful. There is an interesting little section on "reaction by suggestion." Curiously enough, it seems that no record of this phenomenon earlier than 1900 has been published. Köhler himself also investigated the point and found that out of 60 patients 21.7 per cent. could have their temperature raised by suggestive injection; but all these difficulties only show that tuberculin must be used with discrimination and its results appraised with acumen.

It is Köhler's contention that this cannot be done; but therein he differs from many of the authorities whom he quotes. His peculiar scientific attitude may be gathered from the following abstract. Because the injection of 0.02 to 0.07 gram of deutero-albumose is followed by symptoms having a resemblance to those produced by injecting about one-tenth the quantity (0.002 to 0.005 gram) of tuberculin, the author accepts Matthes's inference that some of the pyrexia produced by tuberculin is due to its content of deutero-albumose, and that consequently the reaction lacks specificity. Then, referring to Feistmantel's investigations, which showed that no other substance was able to produce the tuberculin reaction in tuberculous individuals in such small doses as tuberculin itself, he naïvely inquires, "but what does this prove?"

Only sixteen pages are devoted to the therapeutic use of tuberculin, the author seeming not to attach much value to this aspect of its application. Here again we find peculiar views. Köhler thinks that if, in a case of phthisis, no signs are observable for two or three years but then recur, it is an indication that the cure has been incomplete. It seems much more reasonable to regard the recurrence as a fresh infection, and not as a recrudescence, especially as the location of the disease is often entirely new. Such recurrence is only be expected when the immunity conferred by the tuberculin has worn off, and predisposition has again the upper hand.

Pulmonary phthisis under ordinary conditions is full of surprises, and it is not likely that tuberculin will much diminish them. With ordinary treatment there come both unexpected amelioration and unanticipated relapses. Nevertheless, when ordinary treatment has failed, and the amelioration sets in coincidently with the use of tuberculin, and does so without simultaneous improvement in the hygienic surroundings of the patient, it seems unreasonable to deny the curative effect.

It must be remembered that Wright's method of determining the opsonic value of the serum was evidently unknown to the author. Many of the apparent anomalies in the results obtained with tuberculin are now easily explained: why some tuberculous individuals did not react, why some were made much worse by the "cure," and so on. Not only so, but tuberculin is likely to be rehabilitated as a diagnostic agent, since the mere depression of the opsonic value without the production of pyrexia will suffice.

A striking omission in the pamphlet is the neglect to notice Trudeau's work. As an industrious summary of much of the literature on tuberculin the book is useful and interesting, but it must be read with critical care. One could wish that the concluding sentiment of the booklet had been more characteristic of its production: "Many points in regard to tuberculin are scarcely ripe for critical discussion; in many respects experience has brought forth disappointment and doubts of the justification of optimism, but such moods should not be made the pivot of things scientific, but only unprejudiced, genuine knowledge; and the road to this is best made by impartial criticism."

THE PATHOLOGICAL INSTITUTE OF HELSINGFORS.

THE first number of the studies from the Pathological Institute of the University of Helsingfors (Finland)[7] forms a volume of which any laboratory might well be proud. The work is of a high order, and the illustrations and type are excellent but it seems a pity to put so good a volume in paper covers when to have used a more durable binding could have increased the relative cost only by a mere fraction.

With perhaps an unconscious apology for adding to the number of periodicals, the editor, Professor HOMÉN, explains the desire to consolidate the publication of the work from his laboratory which hitherto has been scattered over some thirty journals. At the same time it seemed desirable to employ only one language in common scientific use, and German is that selected.

The introductory paper is by Professor Homén, on symbiosis of aërobic and anaërobic bacteria, and the action of the toxins of the latter on the central nervous system. The principal conclusion arrived at in this first instalment is the fact that a toxigenous saprophytic anaërobe can live together with certain aërobes and multiply in the body, at any rate for a sufficient time to exert toxic effects.

Dr. Sibelius contributes the first part of an interesting article on tumours of the cauda equina. The resulting degenerations were carefully examined. The cases afforded evidence that the lower lumbar and upper sacral dorsal roots contribute fibres to Clarke's column in the upper lumbar and lower dorsal cord.

To the monograph on acute poliomyelitis by Dr. Wickman it is impossible to do justice in a few words. It occupies 180 pages and is illustrated by twelve plates.

Other articles are: Syphilitic dactylitis, by Dr. Karvonen; the anatomical changes produced by *Aspergillus fumigatus* in the lungs (of sheep), by Dr. v. Hellens; the action of some bacteria and their toxins on the heart muscle, by Dr. Björksten; and a case, with autopsy, of bitemporal hemianopsia, by Dr. Silfvast. Notes by the Editor on some rare *post-mortem* finds conclude the volume.

The illustrations fill sixteen plates, some of which are coloured, while the remainder are excellent heliotypes of photomicrographs.

THE late Mr. William Joseph Jarrett of Lincoln's Inn Fields and Westgate-on-Sea left £600 to the Westminster Hospital, and £300 each to the Margate Cottage Hospital and the Westgate Convalescent Home.

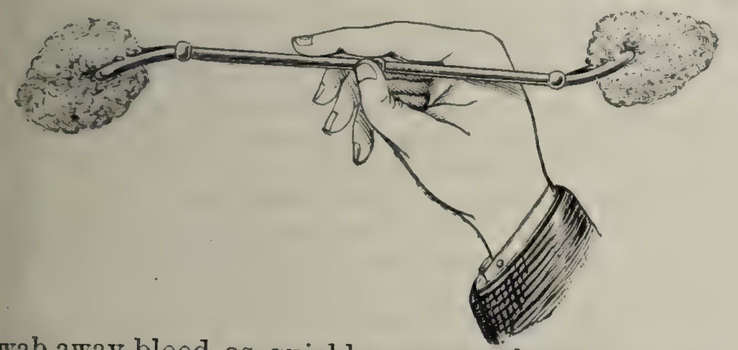
---

[6] *Tuberkulin und Organismus.* Eine kritische und literarische Studie zur Wertung des Alttuberkulins in der Gegenwart nach biologischen Gesichtspuncten und auf Grund der bisherigen Erfahrungen. Dem Internationalen Tuberkulosekongress zu Paris, 1905. gewidmet von Dr. med. F. Köhler. Jena: Gustav Fischer. 1905. (Demy 8vo, pp. 100. M. 2.50.)

[7] *Arbeiten aus dem pathologischen Institut der Universität Helsingfors* (Finland). Herausgegeben von Professor Dr. E. A. Homén. Band I. Heft 1-2. Berlin: S. Karger. 1905. (Demy 8vo, pp. vii + 387. 16 plates and many illustrations in the text. M. 12.)

MEDICAL AND SURGICAL APPLIANCES.

A Double Swab Holder.—The annexed engraving repre-ents a swab holder designed by Mr. C. E. Wallis, Assistant)ental Surgeon, King's College Hospital, for use during hort mouth operations in which it is desirable to be able



swab away blood as quickly as possible. In its essence is nothing more than a holder of the ordinary type with ro heads instead of one, but unusually strong, being cut it of a solid rod of German silver. It is very easily aded, holds the swab firmly, and can be sterilized readily. he instrument is made by Messrs. Allen and Hanburys, igmore Street, W.

A Typhoid Agglutometer.—Messrs. Parke, Davis and Co. ive provided an apparatus which is designed to obviate e use of the microscope and the employment of living cilli, which are necessary in the execution of the Widal st for typhoid fever by the usual method. They furnish ur tubes of a sterile, permanent suspension of typhoid cilli. Three of these, labelled 30, 50, and 100, are to be ed for the test; the fourth is a control tube to which no rum is to be added; a fifth tube is also provided, ntaining fluid for the dilution of the serum. The ditional contents of the apparatus are a small empty be for receiving the blood, a minute pipette fitted th a rubber bulb, and a needle. After a puncture has en made, the blood is collected in the blood tube. hen the serum separates out it is taken up into the pette, and two drops are then discharged into the uting tube and well shaken. This gives a serum dilu-n of 1 in 5. The remainder of the serum is then dis-arged from the pipette. After rinsing with the serum ution, the pipette is filled with this liquid, and is then led to the typhoid suspensions in the following ounts:—Four drops are added to the tube marked 30, l give a dilution of 1 in 30; two drops are added the tube marked 50, and give a dilution of 1 in 50; drop is added to the tube marked 100, and gives a ition of 1 in 100. The tubes are well shaken, together h the control tube, and put in a warm place. They examined at the end of three or four hours, and again the following day. When the reaction is positive, cules appear in one or more of the tubes, according the agglutinating power of the serum. They are at t small and disseminated through the fluid; gradually y increase in size and settle to the bottom of the tube. en the reaction is "complete" the supernatant fluid cleared; when it is "positive but incomplete" the d is still cloudy but floccules are seen in it; when it is egative" the fluid in the tubes remains uniformly idy as in the control. A positive reaction is easily ected by comparison with the control.

eland Moss in Throat Affections.—Dr. WYATT WINGRAVE ndon, W.) writes: Iceland moss at one time enjoyed con-rable reputation among "throat remedies" in the form ither decoction, jelly, or lozenge, and was to be found he *British Pharmacopoeia* as late as 1885, but it has lually become neglected, and is now rarely heard of. ollection of its associations awakened a desire to test clinical evidence of its traditional value, and through co-operation of Mr. W. H. Martindale I am able to tantiate those traditions.

Percentage Composition of Cetraria Islandica.

Cetrarin	3
Lichenin	45
Amylaceous fibrin	36
Gum	4
Noncrystallizable sugar ...	4
Water and salts (inorganic) ...	8

vill be seen that the chief component is Lichenin $I_{20}O_{10}$), a starch-like body which consists of two ents soluble in hot water, one of which is also ble in cold water; there is a small quantity of ble gum and 36 per cent. of a substance partially acted by boiling water, called Amylaceous fibrin. arin, a bitter principle readily extracted by hot water, gives the characteristic taste to the decoction, and was probably valued as a bitter tonic. Thus Iceland moss affords the necessary material for lubricating and soothing the mucous membrane with which it comes in contact. This quality is amply realized in the discs called "Lichenoids," perfected by Mr. Martindale, who has excluded the cetrarin. They are of a size and consistence suitable for slow and passive solution in the mouth, a process by which the demulcent and lubricating properties are better obtained than by the ordinary soft jujubes, which encourage rapid mastication and active deglutition. They will be found satisfactory in inflammatory and excitable states of the fauces and oropharynx, especially to speakers who suffer with dry mouth and throat. As a sialogogue Iceland moss is an excellent corrective in pyrosis.

THE ORIGIN OF LIFE.

DR. H. CHARLTON BASTIAN, F.R.S., gave a demonstration at the rooms of the Medical Society in Chandos Street on March 15th, before a meeting specially convened by Dr. H. Head, Dr. F. E. Batten, and Dr. Wilfred Harris. The chair was taken by Sir WILLIAM BROADBENT, Bart., M.D., F.R.S.

Dr Bastian commenced by discussing the *de novo* origin of bacteria. He said the question was, Could bacteria be made to appear where previously they were non-existent? And to that query he said "Yes." It was strongly held by Pasteur that the cells of healthy plants were germless, and that view was still generally regarded as true. Bacteriologists could not obtain evidence of the existence of micro-organisms in cells taken from the centre of a healthy potato or turnip, and yet bacteria could be caused to appear in those situations although adequate precautions were taken against infection. A small new potato was first well washed in water, then it was put into a screw-top bottle containing a 10 per cent. solution of formalin and allowed to soak therein for twenty minutes, the fluid being occasionally shaken so as to cover the whole internal surface of the bottle. The solution was next poured out, leaving the surface of the potato and the bottle wet with the antiseptic fluid, and the cover was tightly screwed on. When that method was employed there was never the slightest indication of any contamination of the surface of the potato, yet when it had been left for a number of weeks in that closed and aseptic bottle, micro-organisms were often found (after careful search) within multitudes of closed cells in sections taken from central regions of the potato, but not from peripheral portions which had been acted upon by the antiseptic fluid. Some of the cells of a small and previously healthy turnip were seen to be crowded with bacteria. Yet this tuber having been first well washed was suspended in a small bottle containing nearly 1 oz. of pure formalin, and the screw cover having been firmly applied, the tuber was left in an atmosphere of formalin vapour for seven weeks at a temperature of 80° F., absolutely free, therefore, from all chance of external contamination. In all such cases the micro-organisms seemed first to show themselves as motionless specks in the primordial utricle of the closed cells, and the specks developed into such bacilli as he showed. The fact that the first things to appear within the closed cells were mere motionless germs sufficed of itself to negative the possibility of infection. Mere motionless germs could not infect. Vegetable cells could only be penetrated by adult organisms capable of secreting toxins for killing the cells and a cytase for softening their walls. Infecting bacteria must be endowed also with motility in order to be enabled to penetrate the cell wall which they had previously softened; but the motionless germ would be powerless in each of those directions. The only other possibility, apart from heterogenesis, to account for the appearance of the bacteria within the closed cells, would be the supposition that germs of micro-organisms had been latent within the cells. But of that no proof had ever been given. Bacteriologists failed to find evidence of their existence. The verdict of science had, in fact, been adverse to that supposition.

He would next take another case in which the development of bacteria from ultra-microscopic particles could be watched, stage by stage. In cyclops, a little water flea, the abdominal appendages were furnished with a number of spines or setae in the interior of which only structureless protoplasm was to be seen, free from granules. If one of those little creatures were placed in a drop of distilled water on a microscope slip and a covering glass was applied, it soon died, and they might examine some one of the larger spines from day to day. If the specimen was kept in a damp chamber and the weather was warm they might see what the photographs showed. At first they had protoplasm within the spine free from visible particles; then, after two days, the first appearance of some minute motionless specks, which gradually increased in number and size till some of them showed themselves as motionless bacilli. About the sixth day some of these bacilli began to exhibit the first signs of movement, and soon there was a seething mass of such organisms in the substance of the spine. How, again, were these appearances to be explained? The spine had a chitinous envelope, which could not easily be penetrated by active full-grown organisms, much less by motionless germs, even if those existed in the distilled water. Thus infection from without was there again not to be thought of. Motionless specks were seen to appear and develop slowly into motionless bacilli. To assume the pre-existence in the protoplasm of the spine of multitudes of ultra-microscopic germs, for no other purpose than to stave off a belief in the *de novo* origin of bacteria, was surely neither scientific nor permissible. Yet his critics hinted only at latent germs, without attempting to offer any evidence of their existence, or of any previous belief in that direction. Such pre-existing invisible germs were postulated, in fact, without a tittle of evidence, and solely, as he had said, with the view of staving off a conclusion otherwise inevitable. Truth seekers were thus left with a simple choice: either (1) a belief in the existence of latent germs independently of all evidence, or (2) a belief in the *de novo* origin of bacteria, on the strength of very cogent evidence.

Turning to the subject of the transformation of small masses of zoogloea into aggregates of flagellate monads or amoebae, or else into brown fungus germs, he said that the evidence for heterogenesis to which he had just been alluding appealed even more to reason than to observation, but that to which he was now about to refer came more and more within the scope of actual observation. The changes to be observed in zoogloea were best studied in such masses as formed on the surface of a weak filtered hay infusion, whose mode of preparation had been elsewhere described. After detailing the mode in which they appeared in the scum that speedily gathered on the surface of the infusion, a series of photographs was shown in illustration of the transformations which they underwent. Masses of zoogloea in their early stage were first seen in which the constituent bacteria were plainly recognizable. The growth of the masses, their alteration in appearance and in reaction to staining fluids, together with the progressive segmentation which they underwent, were revealed by other specimens.

Segmentation was shown to progress till minute spherical or ovoidal units were produced. During the first three to five days while those changes were occurring, the masses remained colourless, and the ultimate segmentation units developed into flagellate monads or, more rarely, into equally minute amoebae, myriads of one or of the other of those forms appearing (all of about the same size), where a few hours before they were absent. Later, from the fifth to tenth day, the ultimate segmentation units of other masses appeared as aggregates of brown fungus germs. Often the masses, as a whole, became brown before segmentation had much advanced; lantern slides were shown to illustrate the different stages by which the bacterial aggregates were completely converted into masses of brown fungus germs, together with the development of hyphae therefrom. All the stages in the complete conversion of the zoogloea masses into monads or amoebae in the one case, or into brown fungus germs in the other, were clearly recognizable, though it was impossible to say from the appearance of the masses in their early stages which of those three interchangeable forms of life would ultimately be produced. All the changes by which the aggregates of bacteria were metamorphosed into monads or amoebae, or into fungus germs, could be followed step by step in thousands of those little masses of zoogloea lying side by side, when no monads nor brown fungus germs were to be seen around, and when not a single hypha was to be met with on which such germs could have been formed. What, it might be asked, could be the meaning of the developmental changes and the progressive segmentations unless such processes were the result of an organizing tendency destined to have some definite outcome? Why, again, should the zoogloea or its segments so often tend to assume a brown colour, while it was still nothing but zoogloea, if that was not one of the stages of change for the production of brown fungus germs? Chemical changes in the fluid seemed to determine whether the products of segmentation were to issue as monads or amoebae in the early days of the life of the scum; while other chemical changes, occurring rather later, led the zoogloea masses to assume a brown colour, and caused them to go on to the production of brown fungus germs. Those changes could, fortunately, be observed by others with the greatest ease, and, if carefully studied, would, he felt assured, soon bring conviction even to the most sceptical investigator.

The next subject dealt with by Dr. Bastian was the origin of different ciliated infusoria from the eggs of a rotifer. He observed that this concerned transformations still more remarkable and still more impossible of receiving any explanation as results of infection on account of the size of the masses of living matter the stages of whose change can be traced. The products in that case appeared as ciliated infusoria of one or other kind, according as the egg underwent transformation as a whole, or only after it had segmented into a number of smaller masses. The egg, or gemma, that, in certain cases, could be made to undergo those changes was that of *Hydatina*, the largest of the rotifers. It constituted a mass of granular protoplasm, averaging about $\frac{1}{150}$th in. in diameter. After a long series of investigations with those eggs he found that certain batches of them, if placed, soon after they had been laid, in small covered stone pots full of water, would in part yield *Hydatinae*, and in part a great embryo ciliate belonging to the genus *Otostoma.* The ordinary development of *Hydatina* took place very rapidly, and when the eggs had once started along that normal line of development, it continued, notwithstanding this or other great change to which they were subjected. It was the eggs that had only just been laid which were at times, but not in all cases, metamorphosed by being put in the absolutely dark and comparatively airless pots.

The transformations above referred to are not isolated instances. They are only samples of many others in which monads, amoebae, ciliated infusoria, and other lower forms of life have been described by Dr. Bastian as having a heterogenetic origin.

Recognition of the *de novo* origin of bacteria did not tend to contradict any of the great body of bacteriological doctrine which had been built up during the last thirty years. It only tended to open the door rather wider and to put a reasonable check upon ultra-contagionist doctrines. When the *de novo* origin of bacteria was generally admitted, it would be necessary to think of the origins o contagious diseases in the present day, instead o postulating the occurrence of such origins as possible only in a "remote geological past" about which they knew nothing.

MISSED ABORTION (?)—As Whitridge Williams teaches, re-tention of a fetus in the uterine cavity may exist for a long period without giving rise to symptoms, and this possi-bility should always be borne in mind if abortion occur in a woman who has been separated for some time from her husband, inasmuch as an error may cause great injustic to her. Ten years ago von Graefe published an importan monograph on missed labour and missed abortion. T later cases must be added Goldenstein's (*Zentralbl. Gynäk.*, No. 9, 1906, p. 276), published since the beginnin of the present year. He suspected that his patient ha been subjected to criminal attempts to produce abortion She was 25 years of age, and had never been pregnan before. She consulted Goldenstein on account of a feti brown discharge from the vagina, which she asserted to b of a fortnight's duration. The uterus was as large as at th fourth month, the cervix short, there were no pains and n rise of temperature. Antiseptic injections were pre-scribed; two days later a fetal occipital bone presented a the os externum. Hegar's dilators were used, and by ai of the curette the bones of a fetus of about the middle the fourth month were removed piecemeal. Some feti necrotic tissue was recognized as placenta. There was n febrile reaction after the removal of the retained fet bones.

MEDICAL NEWS.

The extra-metropolitan meeting of the Otological Society f the United Kingdom will be held this year at Leeds on une 23rd.

At the meeting of the Royal Meteorological Society on Vednesday next, at 7.30 p.m., Mr. H. R. Mill will give a ecture on "South Africa as seen by a Meteorologist."

Mr. L. A. Bidwell, F.R.C.S., after fifteen years' service s Surgeon to Out-patients, has been appointed an addi-onal full Surgeon to the West London Hospital.

The University of Heidelberg has awarded the Kussmaul rize to Professor Bier of Bonn for his work on artificial yperaemia as a therapeutic process.

At the meeting of the Royal Microscopical Society of Vednesday next, at 8 p.m., Mr. E. M. Nelson will read a aper on the resolving limits for the telescope and the nicroscope.

The motor-car exhibition arranged by Messrs. Cordingley nd Co., at the Agricultural Hall, London, will open on aturday, March 24th. It is stated that nearly 300 firms ill exhibit.

The Harveian Lecture of the Harveian Society will be elivered this year by Dr. J. Risien Russell, the subject hosen being myelitis. Further particulars will be found the Diary notices.

The seventh annual general meeting of the National ssociation for the Prevention of Consumption and other orms of Tuberculosis will be held at 20, Hanover Square, n Tuesday next, at 4 p.m.

A memorial of the late Professor Nothnagel is to be rected in the great quadrangle of the University of ienna. A fund will also be established, the interest f which will be devoted to delivery of an annual com-memorative lecture.

The Nottingham Medico-Chirurgical Society, at its neeting on March 7th, decided to call a special meeting to consider the indiscriminate mode of distributing etters of recommendation to the General Hospital and ther medical charities, and whether a remedy can be uggested to check the growing abuse of these charities."

A warrant has been granted for a "Trinity College ublin Lodge, No. 3,153," which will be consecrated on larch 19th, at the new Gaiety Restaurant, Strand, by ir Edward Letchworth, Grand Secretary. Worshipful rother P. S. Abraham, M.D., will be the first W.M. Vorshipful Brother G. Cowen, M.D., of New Malden will e the Secretary.

The National Health Society has arranged for a course f three lectures on Food and Diet by Dr. R. Hutchison, n Temperance by Professor Sims Woodhead, and on Dust y Sir Dyce Duckworth. The lectures will be given at), Hanover Square, the first on Wednesday next at 5 p.m. ubsequent lectures will be on March 28th and April 3rd t the same hour.

The first Italian Congress of Physical Therapeutics will e held in Rome on March 25th, 26th, and 27th, under the residency of Professor Guido Baccelli. Among the nembers of the Organizing Committee are Senators De enzi, Grocco, and Maragliano, Professors Bozzolo, orlanini, Morselli, and Tamburini. After the Congress n Italian Association of Physical Therapeutics will be rmally constituted.

A month or two ago we mentioned that Dr. W. G. tevens, Medical Officer of Health for the Burgh of Ren-ew, had issued an illustrated health almanack for hang-ng on the wall. We have now received a similar almanack sued at Brighton, the cost being defrayed by subscrip-on. It is printed in colours, and has illustrations of arious places and public buildings in Brighton. In the entre Dr. Newsholme, Medical Officer of Health, prints me remarks on alcohol, with quotations from speeches y Sir William Broadbent and Sir Frederick Treves.

By the will of the late Mr. Thomas Mabbutt, the New eneral Hospital, Birmingham, receives a sum of £1,250 r the endowment of a "Thomas Mabbutt Bed." Sums of 100 are also left to the following other Birmingham nedical institutions: Queen's Hospital, the Eye Hospital, e Children's Hospital, the Deaf and Dumb Asylum, the eneral Institution for the Blind, the Birmingham and lidland Skin and Urinary Hospital, the General Dis-ensary, the Birmingham and Midland Counties rthopaedic and Spinal Hospital.

It is proposed to form a Royal Arch Chapter in connexion with the Rahere Lodge, to be open to all St. Bartholomew's men who are Masons, whether they be members of the Rahere Lodge or not. It is difficult to communicate with those who are not members of the Lodge, but all such who would like to join the Chapter, or, being Royal Arch Masons, to become founders, are requested to communicate at once with the W.M., 15, Wimpole Street, London, W., when further particulars will be sent. The first Founders' meeting is fixed for Tuesday, March 27th, at 5.30 at 15, Wimpole Street, W., but names of Founders could be received for two or three weeks later.

The Metropolitan Asylums Board is now distributing to medical men in London a very useful card of instructions with reference to its ambulance service. It is intended to hang on the wall, and contains a clear account of how to secure the prompt removal of a case of infectious disease, whether it is to be sent to one of the Board's own hospitals or to some other place. The whole procedure is expedited if the medical attendant leaves at the patient's house a paper stating the name, age, sex, and full address of the patient, and the disease from which he is suffering. If then the same particulars are sent to the Board by telephone or otherwise, the patient will be removed without further formality and usually within an hour of receipt of the application.

The International Medical Congress.—The Booth Steamship Co. have arranged for their steamer *Ambrose*, 4,187 tons, to leave Liverpool on April 9th for Lisbon via Havre and Oporto. The R.M.S. *Anselm*, 5,442 tons, of the same company, will leave Lisbon on April 29th, arriving at Liverpool on May 5th. The first-class fare is £22 throughout, including twelve days' hotel expenses at Lisbon. Further particulars can be obtained from the Booth Steamship Co., 8, Adelphi Terrace, Strand, London, W.C., and 30, James Street, Liverpool.

German Congress of Internal Medicine.—The German Congress of Internal Medicine will hold its twenty-third annual meeting at Munich under the presidency of Professor von Strumpell of Breslau, from April 23rd to 26th. The principal subject proposed for discussion is the pathology of the thyroid gland, to be introduced by Professor F. Kraus of Berlin, and Professor Kocher of Bern. Professor Hering of Prague will present a critical report on irregularities of the heart's action. Among the communications promised are the following: Dr. Jacob of Cudowa, afebrile pneumonia in subjects of heart disease; Dr. Feinberg of Berlin, the cause and prevention of tumours; Dr. A. Bickel of Berlin, experimental researches on the secretion of gastric juice in man; Dr. Passler of Dresden, clinical observations on anuria; Dr. Dietlen of Giessen, on the normal size and position of the heart; and Dr. P. Krause of Breslau, on lipaemia in diabetic coma. In connexion with the Congress there will be an exhibition of preparations, apparatus, and instruments relating to internal medicine. Communications relative to the Congress should be addressed to the Perpetual Secretary, Geh. Sanitatsrat Dr. Emil Pfeiffer, Wiesbaden.

The Union of London Medical Societies.—The anniversary dinner of the Medical Society of London was held at the Hotel Métropole on March 14th, with the President, Sir Lauder Brunton, in the chair. The company numbered over 180, and the success of the evening was due to the energy of the Honorary Secretaries, Dr. J. S. Risien Russell and Mr. Cuthbert S. Wallace. After the usual loyal toasts, Dr. Donald MacAlister, President of the General Medical Council, proposed "The Medical Society of London." He congratulated the members of the Society on taking such an active part in regard to the movement for the union of London medical societies, because it was very necessary that general medicine should have a full voice and a sufficient vote in the constitution of the new academy. The Chairman, in replying, described the satisfactory financial position of the Society, which was saving about £400 a year. Its total indebtedness amounted to about £2,500, and every year their financial condition was improving. The Council of the Medical Society had not called a general meeting to consider the scheme for the union of societies because complete information had not yet been received. Mr. J. Langton, who proposed the toast of "The Guests," said that he did not think there was much fear that the union would not take place. Mr. Tweedy, in replying for the Visitors, also discussed the proposal, and hoped that whatever happened the independence of the Medical Society would be continued under the scheme. After Director-General H. M. Ellis, R.N., had also responded, Dr. J. Sillonville was called upon, and described how he initiated the visit of French medical men to London. The health of the Chairman, submitted by Sir William Whitla, concluded the evening.

British Medical Journal.

SATURDAY, MARCH 17TH, 1906.

THE ADMINISTRATIVE CONTROL OF PULMONARY PHTHISIS.

THE Circular on the Administrative Control of Pulmonary Phthisis, issued on March 10th by the Local Government Board for Scotland, is a document of unusual importance and far-reaching significance. It is the first official statement, in clear and unmistakable language, that local authorities have serious responsibilities, and already possess manifold powers, in relation to the control of pulmonary tuberculosis.

The Circular starts with the fundamental proposition that pulmonary phthisis is an infectious disease within the meaning of the Public Health (Scotland) Act, 1897. This being so, the sections of the Public Health Act applicable to other infectious diseases are construed by the Board as equally applicable to pulmonary phthisis. The view of the Board is that the infectious nature of pulmonary tuberculosis and its passage from person to person, directly or indirectly, having been completely established by observation and experiment, the conclusion affords a reliable basis for administrative practice. If uncontrolled, consumptive patients may prove a source of grave danger—directly, to those in their immediate company, and, indirectly, to those who subsequently occupy the same beds or bedrooms, or living-rooms, or use the same clothing.

If the Circular be read along with the Act referred to, it will be realized, more fully than the limits of a short article suffice to explain, how amply every aspect of the prophylaxis of pulmonary tuberculosis has been dealt with by the Board. While the Circular is advisory in form, and the sections of the Public Health Act are largely permissive in character, the Board none the less indicate clearly their expectation that local authorities will avail themselves, as may seem desirable, of the powers at their disposal.

All the provisions of the Act dealing with disinfection in relation to infectious disease are shown to be applicable to pulmonary tuberculosis. These provisions (Secs. 46, 47, and 48) include the arrangement of proper premises, and apparatus, and attendance, for the disinfection of bed-clothing, etc., and the disinfection of rooms or houses, with powers of entry, when necessary, to carry out such disinfection, and the destruction, or the removal, of infected articles for the purpose of disinfection. Where cases of phthisis are treated at home, the Local Government Board recommends the local authorities to insist on disinfection of the house at frequent intervals during the illness. The same precautions are recommended in relation to workshops and other places where consumptives have been employed. The Circular is emphatic as to the thoroughness of disinfection required, insisting that it should not be left to the friends of the patient or fellow-workmen, but should be carried out by skilled officers. Recognizing that great risk exists in relation to residency in rooms previously occupied by consumptive patients, the Circular points out that Sections 51 and 53[1] of the Public Health Act are here applicable.

Disinfection is likewise recommended in connexion with all places of public resort (schools, churches, halls, theatres, markets, railway stations) and public conveyances (railway carriages, tramcars, omnibuses, cabs, etc.). Special attention is drawn to the demand for the suppression of indiscriminate spitting, and the disinfection of expectoration voided by consumptive patients. Section 50 of the Act is sufficiently stringent in relation to the treatment of expectoration. Local authorities are assured that they have power to prevent infected persons from exposing themselves in streets or public places without proper precautions against spreading the disease. Section 56 of the Act is sufficiently definite as a guide to local authorities. Section 58 should prevent any person suffering from consumption or living with a consumptive from engaging in any occupation connected with food, or in any trade or business in such a manner as to be likely to spread the disease.

The Circular then deals with the question of isolation and treatment. In doing so the Board insists that the provisions of the Public Health Act as to removal of cases of infectious disease to hospital, and the provision of hospitals and houses of reception are as available in respect of phthisical cases as in respect of other infectious disease. It is needless to emphasize the immense significance of this proposition. It solves, so far as Scotland is concerned, difficulties which have perplexed a great many local authorities in the United Kingdom, and answers questions which the several Local Government Boards have hitherto seemed unprepared to decide. The comprehensiveness and elasticity of the provisions of the Public Health Act with reference to treatment are commented on. It is shown that they can be adapted in practice to any type of case—incipient cases, where the danger of infection to others, though for the time at a minimum, may suddenly become serious; intermediate cases, where the patients, still able to work, may if uncontrolled become dangerous; and advanced cases, where the patients, frequently unable to attend to themselves, may be a source of grave danger.

In accordance with this view the Local Government Board indicates the propriety of providing hospitals and dispensaries for the treatment of poor patients at every stage of the illness. In elaborating details the Board follows, with frank acknowledgement, the lines repeatedly expounded in the BRITISH MEDICAL JOURNAL and elsewhere by Dr. R. W. Philip of Edinburgh, to whom a graceful tribute is paid by the printing, as an appendix to the Circular, of the address on the Completer Organization against Tuberculosis delivered by him before the recent Congress at Paris. These lines include the establishment of tuberculosis dispensaries, hospitals for early cases (sanatoriums), hospitals or reception houses for advanced and dying cases, and colonies and homes for convalescent patients, able to work in whole or in part, but still requiring medical supervision.

The erection of all these is sanctioned by the Board. In respect of curative hospitals (sanatoriums) for early cases, the view is emphasized that existing sanatoriums might, where possible, be utilized, or several local authorities might combine to erect for common use a properly-equipped sanatorium. The Circular points ut the utility of increasing the scope of such sanatoriums by allowing patients whose home conditions are reasonably suitable to attend all day for educative purposes and enjoy treatment and régime, returning home at night—a method which, the Circular states, has been followed with very satisfactory results at the Royal Victoria Hospital, Edinburgh. In the absence of a regular sanatorium, similar benefit might be attained in many localities if, as in the case of Brighton under the direction of Dr. Newsholme, and as has been proposed by Dr. Orme Dudfield and Sir William Broadbent in London, wards of hospitals for nfectious diseases were used for the educative treatment of phthisical patients.

---

[1] For text of these sections see pages 642, 643.

The Circular insists on the isolation of bedridden patients when home conditions are such as to preclude he possibility of safe nursing. The Board regards the solation of such dangerous cases as a primary duty of he local authorities, and suggests that, failing other rrangements, vacant wards in hospitals for infectious iseases might be used for the purpose.

A conspicuous place is given, in relation to the rrangements for treatment, to dispensaries for pulmonary phthisis. This applies specially to towns and ther thickly populated localities. As a model of such n institution the Board selects the Royal Victoria ispensary, Edinburgh, which has worked successfully or eighteen years, and on the experience of which the oard's suggestions are largely based. Incidentally, may here be noted that the idea of establishing a dispensary for tuberculosis as the centre of municipal operations, and the uniting point of other ntituberculosis agencies, is really native to Great ritain, and what credit attaches to the practical carrying out of the conception belongs to this country far ore than to other countries with which the idea is metimes associated. After detailing the various nctions of a well-equipped dispensary the Board con- udes "that the municipal or district phthisis dispensary ought to be a central bureau of information. It should keep a register of all sanatoriums, hospitals, infirmaries, work colonies, convalescent homes, parochial hospitals, private houses, phthisis committees, and all other institutions or organizations that either within the district or without, can be made available for the inhabitants."

The Local Government Board is more reticent in lation to the matter of notification. It leans to e view that a system of notification affords the gical solution of many of the difficulties of the tuber- losis problem. It recognizes that for the effective plication of the Public Health Act to pulmonary thisis a system of notification is essential. It clares that the local authority may, with the proval of the Board, adds pulmonary phthisis to e list of diseases notifiable under the Infec- us Disease (Notification) Act, 1889, and intimates willingness to consider favourably any application relation to notification, provided they are satisfied at the local authorities are in a position to deal ectively with the cases notified to them. The nificance of a completer organization and co-ordinan of the different agencies available, and to be made ailable, in any district, is strongly emphasized. The posal is made that a special subcommittee of the blic Health Committee should be charged with the nagement of all departments of the organization, in ect relation with the medical officer of health.

In conclusion, local authorities are reminded that, in dition to the direct measures thus recommended in ation to the control of pulmonary phthisis, there is need for the unremitting enforcement of the powers already available in relation to the wider aspects of general sanitation which has contributed so much to the reduction of tuberculosis.

Sufficient has been said to show that the Circular ought to be a powerful instrument for the better administrative control of pulmonary phthisis. Instead of the Local Government Board for Scotland waiting silently at head quarters and replying in more or less oracular fashion to inquiries of an urgently practical nature from local authorities, the Board has fully and boldly fathomed the issues and prepared an advisory letter, at once direct and concise. The Board is to be congratulated on their achievement of a task both difficult and delicate. It remains to be seen, and the progress of events will be watched with interest, how far local authorities will show themselves able to follow the lead of the Board in combining boldness with discretion. The attitude of the other Local Government Boards towards so definite a declaration of policy will be eagerly scrutinized.

THE VALUE OF RECTAL FEEDING.

WITHIN limits there is a good deal of difference of opinion as to the value of rectal feeding, some practitioners using it more than others, but even those least disposed to regard it as an efficient means of supplying nourishment for any length of time are accustomed to regard it as of considerable value, relying upon the published work of Leube and Ewald. It is particularly in the treatment of gastric ulcer that this difference of opinion is manifested, for while Donkin and Foster have recommended rectal feeding to be continued for several weeks in order to ensure rest in the stomach, others regard it as so near akin to starvation that they only employ it in the presence of haemorrhage and for forty-eight hours after its occurrence or temporarily for severe and otherwise unrelieved pain.

A valuable contribution to the discussion of this subject has been made by a paper published in the March number of the *Scottish Medical and Surgical Journal* by Dr. Francis D. Boyd and Miss Jean Robertson, L.R.C.P. and S., based on work done in the Research Laboratory of the Royal College of Physicians, Edinburgh. Their observations were made on patients suffering from gastric ulcer, where a period of complete gastric rest seemed indicated as a therapeutic measure. The patients were prepared by a brisk purge to which a little charcoal was added, and when the charcoal appeared in the stool it was considered that the bowel was empty. After giving the aperient, no food was allowed by the mouth and the patients were kept absolutely at rest in bed. The enemata were given every six hours, and once in twenty-four hours the bladder was emptied and the rectum washed out. The nutrient enemata were made up in bulk and divided by weight, and samples of each of the different kinds used were taken for estimation of their constituents. When eggs were used the enemata were pancreatized, and when milk was used it was pancreatized and sterilized. All the methods employed seem to have been carefully considered in order to avoid fallacies. The observations were made on six cases, each being observed for six days, during which the constituents of the enemata in nitrogen, fat, and sugar were compared with the constituents of the excreta (faeces and urine). All the patients lost weight, the total loss varying from as little as 1.47 kilos (about 3 lb.) in Observation II to 5.44 kilos (about 11 lb.) in Observation VI. The absorption of albumen was estimated by deducting the nitrogen found in the faeces from the nitrogen given in the enema, the balance being assumed to be absorbed. The result was to show that a very small quantity of nitrogen was absorbed; disregarding the decimal points, the largest quantity in the six days was 15 grams and the smallest 4 grams, so that only about a sixth part of the albumen given in the enema was absorbed. The results with fat were a good deal better, about a third being absorbed; while of the sugar, in some cases the whole, and in all cases a very large proportion, amounting to something like nine-tenths, was absorbed. The average daily value in heat units of the material metabolized varied considerably, the lowest being 240 calories and the highest 645, the last being quite exceptional; the average was 389 calories. In all these cases the enemata were retained, in most cases well, in two cases only fairly well, but in all the treatment was followed by satisfactory results, as after the patient resumed food by the mouth recovery went on uninterruptedly.

Bial claims to have got an absorption of 50.5 per cent. of peptone and 66 per cent. when alcohol was added. Edsall and Miller, working with milk and eggs, found that the nitrogen absorption equalled in the one case 19 grams of proteid and in the other 23 grams, while Plantenga and Markwald concluded that the absorption varied from 10 to 24 per cent. In the cases under review, the amount of absorption varied from as little as one-twelfth in Observation IV to nearly a half in Observation VI, and it is noteworthy that the best results were obtained with enemata in which milk was used. The authors' conclusions are that proteid food, even when predigested and with the addition of salt, is very poorly absorbed in rectal feeding, and that the albumen of eggs is an expensive and unsatisfactory foodstuff when so employed. There was no relation between the amount injected and the amount absorbed, absorption seeming to depend upon the patient's individual capacity. There was, however, a definite relation between the quantity of fat given and the amount absorbed, the percentage absorbed being generally high, in one case as much as 51 per cent. Omitting a case in which the results were unaccountable, the average percentage of absorption of fat was 33. The authors point out that the absorption of fat plays an important part in saving the waste of tissue nitrogen, for in those cases in which absorption of fat was highest, the loss of body-weight was lowest.

Sugar was given in these experiments in the form of pure dextrose, and was practically wholly absorbed. It has been objected that sugar may be split up in the intestine under the influence of micro-organisms, and is not really absorbed, but the authors found that less than 1 per cent. of sugar disappeared when it was mixed with bowel contents and kept in an incubator for four or even five hours. The dextrose used had the advantage of causing no bowel irritation, nor did alimentary glycosuria occur; but they point out that commercial dextrose may contain impurities such as sulphuric acid, which would produce bowel irritation, while, on the other hand, they admit that pure dextrose is expensive.

In the concluding part of their paper they draw attention to the low value of rectal feeding, even if Chittenden's new standard of dietary requirements be accepted. The caloric value obtained in their cases was admittedly below that claimed by Leube for his meat and pancreas enemata, but these proved in their hands unsatisfactory; they were difficult to administer, the pancreatic value of fresh pancreas was found very variable, and intestinal putrefaction was such a marked feature as to cause pronounced toxaemia, "from which "both the patient and the nurse who administered the "daily cleansing enema suffered severely." Rectal feeding, in their opinion, is subnutrition of a most pronounced character, and surgeons should understand that it is hopeless to expect that a patient who is suffering from oesophageal or pyloric obstruction can be brought into a state of improved nutrition by its means. It is true that patients may sometimes gain weight, but this is the result of absorption of water which may take place after a severe haemorrhage or persistent vomiting. They are of opinion that owing to the very small amount of albumen absorbed from the rectum it is desirable to abandon much of the nitrogenous material at present used for this purpose, and to rely more upon carbohydrates and fats. The best form of fat is yolk of egg; if prepared fat is used it should be a fine emulsion of a fat of low melting point; pure olive oil may be used, a small quantity being saponified and used to emulsify the whole. They suggest that a good nutrient enema consists of the yolks of two eggs, 30 grams pure dextrose, 0.5 gram common salt, and pancreatized milk to 300 c.cm. Such an enema has an approximate caloric value of 300 heat units, and if given every six hours the total nourishment injected would equal 1,200 heat units, of which under favourable circumstances 500 may be absorbed. The enema should not be given with a syringe, but be slowly siphoned into the bowel by means of a soft rubber catheter and a small-sized filter funnel.

It should be remembered that injection of nutrient material into the lower bowel excites gastric secretion and may thus account for the pain in the stomach frequently complained of in gastric cases under rectal feeding. This is important, because rectal feeding is often advocated in gastric ulcer in order to give complete rest to the stomach, not only from food but from the secretion of gastric juice. If the latter result be not attained—and there seems to be no doubt about this point—it is probable that the healing of the gastric ulcer would be more likely to take place when the patient is allowed a certain amount of food, such as milk, which gives employment to the gastric juice and protects the ulcer from its action. In the opinion of the authors, the conclusion to which this study of metabolism leads is that rectal alimentation has a more limited field of usefulness than is usually supposed, as in the treatment of acute gastric diseases it interfere with complete gastric rest by inducing gastric secretion while it does not sufficiently nourish the patient.

In conclusion we desire to express our sense of th ability displayed by the authors and of the practica value of this piece of work, which should go far t create a sounder appreciation of the limits and uses o rectal feeding.

VAGRANCY, DIET, AND DISEASE.

THE report of the Departmental Committee o Vagrancy which was issued last week is a valuabl document. It is divided into nineteen chapters. I the first we have an historical survey of the attempts t deal by legislation with vagrants, sturdy beggars, an vagabonds from 1495 to 1824, and afterwards under th modern Poor Law. The last chapter consists of summary of the thirty-six recommendations of th Committee for dealing with the drifting social wreckag of our own time. The report is a somewhat depressin record, for one is forced to conclude that vagrancy is mode of life which has proved too strong for the milde treatment of the nineteenth century, just as it di or the sterner methods of earlier days. The modern Poor Law has ceased to treat the tramp as a criminal, nd has made him the object of Poor-law administraion, but from the want of uniformity in treatment the ailure has, generally speaking, been complete. The eport admits this in the statement that in a time of rade depression there are in England and Wales some 0,000 to 80,000 vagrants, and that even in good times a anding army of some 30,000 wandering paupers is not bsorbed by industrial activity and not reformed by our resent system. "Between the Poor Law and the police the vagrant has flourished. It has been well said that the police authorities treat the vagrant as a criminal but do not punish him, while the Poor-law authorities treat him as a pauper but do not relieve him."

Impressed by this conclusion, the report decides n favour of a new attempt to reform the wandering auper. He is no longer to be the charge of the Poor aw, but is to be handed over to the police authority. here will be thus in each county a single authority, as rule, to deal with the vagrants by a more uniform stem than has been possible to the existing 600 dependent Poor-law bodies, with their 638 casual ards in England and Wales. The bona fide seeker ter work will be helped by the police to find occupaon, and each police-station will become, as time goes n, an office for giving information as to the demand for bour in the district. The habitual vagrant, on the her hand, is to be treated on reformatory principles. hen he is received into a casual ward as now, he will nd that the managers of his hotel are the police thority, and if he is found to be a professional tramp, will be sent to a labour colony for six months or en for three years, in order that he may learn to work d cease to roam the country as a nuisance or a ror.

It would be beyond our province to go into all the tails of the scheme proposed in the report; we have dicated the direction of the suggested changes, and commend the subject to the study of all social formers. There are, however, some medical aspects of e question which call for consideration. The tramp s been recognized for a long time as a spreader of inctious disease, and in this capacity he has especially stinguished himself by the diffusion of small-pox. . Armstrong, of Newcastle-on-Tyne, called attention this in reports in 1894, and again in 1904, and he has en valuable evidence before this Departmental Comttee. In 1893, as regards 63 large towns, small-pox s first introduced by vagrants into 58 per cent., and s carried sooner or later into 72 per cent., on the rage about 5 times to each town. In this way e disease was taken to 30 workhouses and some 7 common lodging-houses. In the later report of 1904 tistics were gathered from 126 districts of over 00 population in each. In 111 of those invaded by all-pox, the disease was in 57 instances first introed by vagrants, and in 58 districts it was similarly roduced 305 times subsequently to the first outbreak. e dissemination of small-pox occurs mainly through mps suffering from a modified form of the dise. These infectious persons do not all come n casual wards; indeed, many more come from common lodging-houses, in which there is ch less chance of medical and general superon than in the casual ward. In the latter bath and the disinfection of his clothes makes vagrant not only more cleanly but much less gerous than the tramp of the lodging-house. The ort endorses Dr. Armstrong's suggestion that by-laws uld be generally adopted for common lodging-houses, and that they should be constantly watched by sanitary inspectors. The provision of baths in such places is approved, but the provision of lodgings for vagrants by the sanitary authority is received with doubt. The Committee, we are sorry to observe, did not feel able to endorse the proposals to examine medically all vagrants in casual wards and to enforce vaccination. The medical examination appears to us to be a necessary preliminary to any effectual check to the spread of disease from casual wards and lodging-houses. To the official mind it necessarily seems too large an order, but we feel sure that, sooner or later, the medical officer of health will have to take charge of these matters in every district. Instead of increased expenditure, it would mean effective economy, for the prevention of a single epidemic would save the cost of years of administration and be a permanent asset to the community in improved health and physical well-being. Tramp-borne disease, by no means limited to small-pox, from time to time costs a locality its tens of thousands, while adequate medical inspection of casual wards and lodging-houses would cost only a few hundreds from year to year.

There is a second point of much medical interest raised in the report in the chapter which deals with the dietary for casual wards or labour colonies. Sir Michael Foster and Dr. Hopkins of Cambridge have given valuable assistance to the Committee in this respect, which is handsomely acknowledged in the report. Guided by these authorities, the Committee accept 70 grams of proteid and 3,000 calories as the standard for a diet for casual wards and labour colonies. The food should be simple, unattractive, and cheap, but at the same time sufficient. This is a good principle, and as is shown, would conduce to considerable economy. The old standards have been upset by recent experiments, which have proved that a considerable reduction of the more costly constituents of food can be effected with advantage to health. The report calculates that the diet for the casual ward, which under the police authority could be made uniform throughout the country by an order from the Home Office, would not cost more than 1s. 7½d. a head a week. In some of the existing farm colonies the cost of food is estimated at 4s. 6d. to 7s. a week; the report guided by the results of recent scientific research boldly suggests that it can be done for 1s. 6d. This subsistence diet could be reinforced by the industrious worker, who would be granted small sums of pocket money for his useful labour, and the privilege of purchasing extra food at the canteen of the colony. In this way the bias of the discipline and diet would all tend to the reformation of the vagrant, and so carry out the principle on which the report is framed.

There is much more interesting matter in this Blue Book with which we cannot deal here. Enough has, we hope, been written to induce all students of social questions to study the book for themselves.

◆

PUBLIC NURSING HOMES.

In a communication on the subject of hospital finance to the *Times* last week Mr. Sydney Holland included an appeal for the establishment of some institution which should relieve existing hospitals of the necessity of receiving numerous patients who are better off than those for whom they nominally cater, and at the same time make it possible for members of the public who are unwilling to accept charity to undergo any operations to which they may have to submit in circumstances as favourable scientifically as those at the disposal of the poor. We gather from his letter that he considers such an institution should be thoroughly well built in some healthy, quiet neighbourhood ("not too "far from the locality in which public opinion con- "demns the majority of surgeons to reside"), far better equipped than any nursing home, and guaranteed as regards appliances and sanitation in every way. As for its accommodation, it should contain not only general wards in which the charges should be sufficiently low to suit all who can pay, but a large number of separate rooms of all sizes and special suites of apartments so as to accommodate every grade of society and to suit every one's purse. Of course, too, it should have a resident medical officer and a complete staff of nurses as well as the usual facilities to be found in the best equipped hospitals. As for the professional staff any recognized surgeon should be able to attend a patient in its wards and rooms and his fee would be a matter of private arrangement between himself and the patient. This is Mr. Holland's suggestion and for purposes of comparison we may quote the propositions formulated by the Hospitals Committee of the British Medical Association for consideration in July next by the meeting of Representatives. The opinions expressed were to the effect that it was desirable that public nursing homes should be established for patients who, being ineligible for the voluntary hospitals, were yet unable to pay the charges made in private nursing homes, and that pay wards should not be established in connexion with general hospitals. As regards the administration of such public nursing homes it was suggested that the management should be vested in a Public Committee in which the medical profession should be adequately represented; that no patient should be admitted without first producing a certificate of fitness for admission from a medical practitioner, who should whenever possible be the patient's usual medical attendant; that it should be open to a patient to select any registered medical practitioner as his attendant; that when the payment made by a patient was insufficient to cover the entire cost of maintenance, or when any question arose as to reduction or remission of fees for professional services, a statement of the financial circumstances necessitating such consideration should be signed by the patient or near relative, countersigned by the usual medical attendant or some other responsible householder, and submitted to the Committee. These propositions are now before the Divisions for their consideration but have not yet been approved by any body other than the Hospitals Committee itself.

SCARLET FEVER AND MIDWIFERY PRACTICE.

A LAWSUIT is reported elsewhere in our columns, in which scientific and ethical questions were raised which have a wider bearing than on that particular case. The story was briefly this. Dr. Currie, a general practitioner in Ealing, was called to a case of scarlet fever. After seeing the patient he went home, and disinfected his hands. Two hours afterwards he was summoned to attend the plaintiff's wife in childbirth. He attended her, and on the fifth day of the lying-in she developed scarlet fever. The plaintiff alleged that Dr. Currie had carried the disease to her, and claimed damages. Counsel for the plaintiff urged that a puerperal woman was speciallly liable to infection with scarlet fever, that in such a patient it assumed a specially malignant form, and that therefore special precautions against infection ought to have been taken. He supported this view by reading extracts from the writings of Dr. Galabin and Dr. Boxall; but these gentlemen were not called as witnesses, and the judge instructed the jury that their writings were not evidence. The witnesses for the defendant, Drs. Herman and Hunter, told the jury that puerperal women were neither more nor less liable to scarlet fever than other people; that puerperal scarlet fever was rare, and that it was not more dangerous than scarlet fever apart from the puerperal state. In considering this apparently contradictory evidence, it must be remembered, first, that as a result of improved sanitary administration scarlet fever, puerperal and other, is less common now than it was when Drs. Galabin and Boxall wrote about it; secondly, that Dr. Galabin's conclusions upon the subject were based principally, not upon cases observed by that very able physician himself, but upon cases reported to the Collective Investigation Committee. Looking at these cases in the light of Dr. Boxall's subsequently published papers—the best work that has been done upon the subject—and of papers like that of Dr. William Hunter, published in our issue of February 24th last, it is difficult to avoid the conclusion that many of these cases were not true scarlet fever, but either scarlet fever complicated with septicaemia, or septicaemia with a roseolous rash. Dr. Boxall's statement was that "the "great liability of pregnant and parturient women "to contract scarlatina is on all hands admitted." This statement was, at the time it was made (1887) too strong. It was not admitted, for instance, by Matthews Duncan; and, after the discussion on his papers, Dr. Boxall modified his own opinion. The next point—and here the case for the plaintiff was inspired by Dr. Boxall's papers—was that the means of disinfection used by Dr. Currie—scrubbing the hands and arms with a nailbrush in soap and water, and subsequent immersion in sublimate solution—were not sufficient. He should have had "(1) a disinfectant bath." "The whole body should be immersed; the head, above "all, should be included, for the hair is a veritable net- "work to entangle the poison"; "(2) a complete change "of clothing; (3) active outdoor exercise." As the organism which almost certainly is the cause of scarlet fever had not been identified in 1887, even if it has now, we cannot see how Dr. Boxall could know that the hair was "a veritable net- "work to entangle the poison." The contagious particles are probably, like everything else in the globe, subject to the law of gravitation; and we know no reason for thinking they fly up to the doctor's head and stick in his hair. If this notion were correct, it would be necessary that nurses in fever hospitals should wash their heads each time they went out. These precepts of Dr. Boxall's, urged by counsel as the duty of all medical men, were recognized as impracticable when Dr. Boxall's papers were read in 1888. Dr. Dolan then said they were "impossible." The late Dr. Playfair emphatically stated "the thing is an impossibility." Dr. Jamison concurred with Dr. Dolan, and also thought these elaborate precautions "not so very necessary"; and finally Dr. Boxall himself admitted that "their adoption "*in toto* in every case is impracticable."[1] The witnesses for the defence told the jury, and so did the judge, that it was not practicable for a medical man in large general practice, who might see three or four infectious cases in a day, to go home after each one of them, take a bath, wash his head, and change all his clothes. Happily, the jury took the view of common sense. The third point which counsel for the plaintiff put before the jury was that a medical man who was attending infectious cases ought not to attend confinements. When Dr. Currie was sent for to attend Mrs. Crier, he ought, according to counsel, not to have gone; he should have sought out a medical neighbour who was disengaged, asked him if he had that day seen an infectious case, and, if not, then requested him to attend Mrs. Crier. If the first doctor he met had seen an infectious case, then we presume Dr. Currie should have gone on to find another. How long a time he ought to have spent in finding a general practitioner in tate of greater purity from infectious germs than self was not defined by counsel. The plaintiff med to have a special fear and dread of scarlet fever, ugh whether this developed after or before the ection we cannot say. Having the advantage of ng wise after the event, we certainly think it ld have been better had Dr. Currie, when sum- ed to Mrs. Crier, frankly told her husband that ad been to a scarlet fever case two hours before, but he believed himself sufficiently disinfected, and Mr. Crier to decide whether he should send for ther doctor or ask Dr. Currie to attend to the lady. re are husbands who would be angry if the doctor had engaged to attend their wives were to decline ome on account of an infinitesimal risk of conveying ase germs. The position of a general practitioner ld be intolerable if he were liable to be cast in y damages whenever it seemed possible that inad- ently, and in spite of reasonable precautions, he had the bearer of contagion. We therefore, although sympathize with Mrs. Crier in her illness and Mr. r in his expense, must congratulate Dr. Currie and titioners generally on the result of the trial.

---

[1] *Obst. Trans.*, vol. xxx, 1888.

CENSUS OF THE BRITISH EMPIRE.

of the first official Blue Books presented to the t Honourable John Burns, M.P., as President of the l Government Board, is the census report on the ish Empire. The officials, both of the Local ernment Board and of the General Register Office, especially Dr. Tatham, are to be congratulated on value of the report. Although separate census rts for different parts of the Empire have on former sions been issued, this is the first time that the us Department of the General Register Office has any serious attempt to prepare anything like a and comparative summary of the results of the s, as far as available, of the entire British Empire. "considerable diffidence" with which, in view of fact, the compilers of the report present the results eir labour is scarcely justified, for the report is te with information which must be of the greatest est to all who are imperially minded. When we der the diversity of race, religion, and social itions which exist within the 12 millions of square , and the 400 millions of population comprised n the Empire, it would appear to be an impossible to find any common factors capable of exact rical statement. That this is not so, a study of eport will show. We hope in an early number to a more complete account of this extremely esting volume.

HE INTERNATIONAL MEDICAL CONGRESS.

ETING of the National Committee for Great Britain reland of the Fifteenth International Medical Con- was held in the rooms of the Medical Society on 13th, the President, Dr. Pavy, in the chair. After preliminary business the proposals of the German nal Committee to extend the intervals between the ngs of the Congress from three to five years, and ovide for continuity of administration by the tion of an International Bureau, were submitted iscussed. These proposals were fully set forth in RITISH MEDICAL JOURNAL of January 13th, p. 99. eed only remind our readers that it is suggested the International Bureau should consist of the lents of the previous and the coming congresses, er with the Presidents of the several national ittees, and that the head quarters of the u should be in Paris. The function of the u would be to maintain the continuity Congress, and co-operate with the organizing ittee of each Congress in the arrangement programme as far as concerns the division into sections, the choice of honorary presidents, the selection of reporters to introduce discussions, and other matters connected with the scientific work of the Congress. At the meeting of the National Committee for Great Britain and Ireland the proposals of the German Committee were, after some discussion, adopted. It seemed, however, to be the opinion of the meeting that the head quarters of the International Bureau should be in Brussels rather than in Paris. We see no particular advantage in Brussels for the purpose, and we can only suppose it was chosen as a kind of neutral territory where national jealousy would not be a disturbing influence. We attach no weight to this consideration, especially as it is the German Committee that proposes Paris. After all, as long as a conveniently-situated capital is chosen it matters comparatively little what city is selected as the head quarters of the Bureau, and it is somewhat unfortunate that disagreement should have manifested itself at the outset about a matter of secondary importance. About another point as to which the British Committee was invited to express an opinion, the choice of a place of meeting for the Sixteenth International Medical Congress, the outcome of its deliberations was that it found itself unprepared to make any suggestion. If the other National Committees show a like overpowering sense of discretion, the whole scheme of reorganization of the International Congress must necessarily collapse. It has before been pointed out in the JOURNAL that the British element generally plays an altogether minor part at these Congresses simply for the want of combined and concerted action. To organize such action is, we take it, one of the functions of the National Committees. What has our Committee done in this direction? We fear it must be said it has done little or nothing. Yet on second thoughts it has done something: it has committed itself to the opinion that delegates going to the Congress should take academic costume. Let this be counted to it for righteousness.

WARNING NOTICES.

UNDER this heading in the BRITISH MEDICAL JOURNAL of February 24th some account was given of the methods of the Universal Insurance Company, Limited, of Leeds, founded upon documents issued by the company itself. We have received from the general manager a rather long letter, in which he complains of our statement that for a shilling fee the medical referee is "not only to state the nature of the illness or "accident, and guarantee that it falls within the meaning of the policy, but also to estimate the duration of "the disablement." He contends this is not a fair way of stating the matter, because the policy holder would be a patient of the medical referee, and when this is not so a note is in the majority of cases given free of charge "by a most reliable and respectable practitioner" known to the referee; as this statement is sufficient for the company's purpose, the fee of one shilling is paid "merely for writing a note, and without any examination whatever. Of the remainder," he says, "it "does not take very long to ascertain the nature of "the injury in most cases, and every one of the "diseases scheduled will require professional attendance." The company of course canvasses for clients, and we cannot interpret the phrase "every one of the diseases scheduled will require pro- "fessional attendance" in any other sense than as an extra inducement to the medical referee to give the certificate in the hope of acquiring patients through the operations of the company. Medical men will do well to consider how far such a course is compatible with the warning notice of the General Medical Council as to canvassing. The general manager proceeds to say that our statement that the medical referee is required to guarantee that the case falls within the meaning of the policy "is much exaggerated." The desire of the company is that no time or money shall be lost upon cases outside the limits of their contract, that is to say, upon cases of self-inflicted injury or malingering, and he contends that the majority of medical men would be able to say offhand whether the probable duration of disability would be one week or two months, as the case might be. These assertions bring us to the central point of our objection, which is that questions of this kind cannot be answered offhand in a considerable proportion, probably a majority, of the cases in which fraud is attempted. Such services are not remunerated by a fee of 1s., and as we have said, the suggested inducement that such examinations for the company may bring the practitioner new patients increases the objection which the medical profession will feel to the system. As regards subsequent certificates, he writes: "It must be remembered that hundreds of these are now given free of charge," that is to say, that the medical profession, having allowed itself to be exploited, must permit such exploitation to be continued and extended. Finally he makes the usual appeal *ad misericordium*, stating "that many of the claimants receive sums as small as 5s. weekly; but the bulk of them are for sums of 10s. weekly. I freely admit," he adds, "that the fee I suggested is small, but I ask consideration of the circumstances, and think that this may be dealt with afterwards as experience may suggest." While we may admit that cases occur in which the insurance companies are victimized by fraudulent members of the public, there is no doubt that most of these proposals are made in good faith and on the representations of the agent, the almost universal practice being for the agent to fill up the proposal form, which is then signed by the proposer, who is usually quite ignorant of its contents. Our correspondence columns have recently borne witness to the prevalence of the system under which the agents of insurance companies put pressure on members of the working class to insure themselves, their relatives, or friends, and how, when the policy falls due, liability may be disclaimed by the company—generally on the ground of misrepresentation on the proposal form as to the insured person's state of health. Attention was called to a case of this sort in a leading article in the *Manchester Guardian* of January 31st, in which the writer remarked: "To such an extent does this practice prevail that it is now extremely common for doctors to make a practice of never filling in the 'duration' of the disease on the death certificate." The warning published at p. 60 of the advertisement columns contains the names of nineteen places where disputes are in existence between the medical profession and lay organizations. The list includes Northumberland and Durham, Leigh (Lancs.) Infirmary, Rusholme Dispensary, Coventry, Macclesfield, Aberaman, Bridgend, and Cardiff in Glamorganshire, Abertysswg, Blaenavon, and Ebbw Vale in Monmouthshire, Aberystwith, Southampton Bitterne and the neighbourhood; Portsmouth, Lowestoft, Cork, Auckland (New Zealand), the Orange River Colony (South Africa), and Pretoria (Transvaal).

THE STOKES-ADAMS SYNDROME.

THE revival of interest in the remarkable clinical condition known as the Stokes-Adams disease or syndrome is not confined to this country, but has led to investigations into the nature of the pathological conditions underlying it, both on the Continent and in America. The only point of agreement between various observers seems to be the absence of any gross lesion by which the symptoms might be accounted for. Foley[1] tells of two cases, in neither of which was an autopsy performed, it is true; but the clinical concomitants were sufficient diverse and yet similar to render the cases worthy record. The first was a man of 57, with gene atheroma and consequent myocardial degeneration; pulse was slow (20 to 52), and he suffered from v tiginous attacks, in one of which he died. The oth patient was a youth of 19, who, after diphtheria, w subject to fainting attacks associated with bradycard and, on one occasion, opisthotonos. The bradycardia p sisted for some time, but gradually disappeared togeth with all other symptoms, recovery being comple Foley quotes other cases which have occurred young people suffering from myocardial degenerati the one lesion common to both his own patients well as the most frequent in the literature, includi the original descriptions by Adams and by Stok In some cases nervous lesions have been accused, b the list quoted by Foley is singularly unconvinci Medea[2] describes two cases with full pathologi reports. Both patients had bradycardia, and epilep form attacks increasing in frequency up till death, a in both the main lesions discoverable were atheroma the circle of Willis and of the basilar artery, a chronic interstitial nephritis. No lesion of t medulla was found, and the vagus roots seemed to unaffected. The various etiological theories are consider in order in Medea's paper; it is pointed out that t epileptiform attacks are akin to the seizures met wi in old persons with arterio-sclerosis, and spoken sometimes as "senile epilepsy," while syncope a bradycardia may similarly be attributed, in so cases at least, to sclerosis of the arteries of t medulla oblongata. He is therefore of opinion th the syndrome is the result of a coincidence, name cerebral arterio-sclerosis coinciding with some one the causes of bradycardia, prominent among whi must be remembered arterio-sclerosis of the medulla.

EUTHANASIA.

IT seems to us that the newspapers are making unnecessary fuss about a Bill which has recently be submitted to the State Legislature of Iowa by a R. H. Gregory, who proposes that persons sufferi from hopeless disease or injury and hideously deform or idiotic children should be put out of existence by t administration of an anaesthetic. That the man either a crank of a particularly noxious type or a m notoriety hunter, is clear enough from the stateme attributed to him that he simply wishes to make law that which is already daily practised by the great physicians and surgeons in every large hospital in t United States. If Dr. Gregory really believes this, he more credulous than the simplest *gobe-mouche* w swallows without straining the "platform facts" antivivisection and antivaccination; if he does believe it, he is a liar of the basest kind. But America is a land of hysterical legislation—whi owing to the good sense of the mass of the peop never seems to do much harm—it is possible that egregious Bill may have a longer or shorter run in t Legislature. With the exception of the clauses app ing to children, it is virtually the same as one whi was introduced into the Ohio Legislature on Janua 23rd, and which passed on a first reading. Perhaps way of preliminary to this measure the Ohio Senate passed a Bill abolishing capital punishment for perso convicted of murder in the first degree. The inspi of that Bill is Miss Anne S. Hall, of Cincinnati, humane person who is said to have expressed a w that she might be allowed to put her mother, who suffering from an incurable disease, to death w chloroform. She has a supporter in Professor Char Eliot Norton, of Harvard, a literary man of some n The proposal of ending by what is euphemistica led euthanasia, sufferings which cannot be mended, by no means novel. Every now and again it is put ward either by literary *dilettanti* who discuss as an academic subtlety, or by neurotic ntellectuals," whose high-strung temperament cannot r the thought of pain. The medical profession has ays sternly set its face against a measure that would vitably pave the way to the grossest abuse and would rade them to the position of executioners. It would interesting to know what ground the *St. James's zette* has for saying, as it did in its issue of ruary 6th, that the proposal "has often been oken of in favourable terms by well-known English octors." It is remarkable how many well-known tors there are in this country who, if we are to ieve certain newspapers, are always ready to talk nsense about matters on which they might be expected be better informed. The position of the medical fession in regard to euthanasia must always be that Desgenettes, who at Jaffa indignantly refused to nply with Napoleon's suggestion that the French liers afflicted with plague should be poisoned to vent their falling into the hands of the enemy. Sir ry Holland relates that when he was asked by Ali ha whether he knew of any poison which, put in the thpiece of a pipe, or given in coffee, might slowly silently kill, leaving no note behind, he at once re- d that as a physician he had studied how to save life to destroy it. This must be the answer of the whole lical profession to a most mischievous proposal ch is the outcome of the degeneracy, mental and sical, that is a by-product of high civilization.

---

[1] *Boston Medical and Surgical Journal*, August 31st, 1905.

[2] *Le Progrès Médical*, February, 1905.

MOSQUITOS AND YELLOW FEVER.

a letter addressed to Sir Alfred Jones which has eared in the *Liverpool Daily Courier*, Professor Boyce, vay of illustrating the value of systematic concerted on in the destruction of disease-carrying mosquitos, s an account of what he calls the largest anti- quito campaign that has ever taken place. It was lucted at New Orleans against the *Stegomyia iata*; the citizens voted £60,000 for the work. money was not spent in side-issues or in water sewage problems, but solely and entirely for purpose of exterminating this particular mos- o, and making its reappearance in New Orleans ossible. In this great campaign, which has the result of suppressing the yellow fever emic and the saving the city of many millions in ey, the citizens co-operated as one man. The ches of all denominations were used for holding ures, and their example was followed by the city s; the school children were trained to gather up ld tins and pots in the yards of the houses, which t serve as the breeding-place of the mosquito, factory hands in the cotton presses, sugar mills, were instructed how to destroy the mosquito. The paign was a genuine one, undertaken by the greatest ical experts in the States and by the greatest busi- men in the city. It is, says Professor Boyce, the recent convincing example of the use of scientific vledge to the suppression of disease and the in- e of prosperity of modern times.

THE HAMPSTEAD GARDEN SUBURB.

garden suburb at Hampstead, for which Mrs. S. A. ett began to work some eighteen months ago, seems in to come into existence. The land secured for it estate of 320 acres, lying on the southern edge of eath, and known as Wylde's Farm, belonging to College. A quarter of this land will be added to xisting heath, and the rest converted into a garden rb on the lines of Bourneville near Birmingham Port Sunlight near Liverpool. Provision will be for a certain number of residents of the richer class, but the greater part of the estate will be laid out for the benefit of the working classes, and be so arranged that each householder will have some ground of his own in addition to the advantage of the village greens which will be left. Undoubtedly in this way the proposed new suburb should do something to lessen the child mortality of London, as well as save Hampstead from eyesores such as arise in other outlying parts of Greater London when estates come into the market and are seized by speculative builders. As it is anticipated that the Hampstead scheme will prove not only beneficent but also give a fair return on the invested capital, it may be hoped that it may possibly serve as an object lesson to other localities where estates within easy reach of working London still remain to be acquired. Their present probable fate is to be covered with endless rows of small cheap houses, such as are now to be seen, for instance, in the neighbourhood of Edmonton. If, however, the example of Hampstead be followed, they may change from woods and fields into well-laid-out suburbs, with not a little of their natural beauty preserved. The company which has been formed to carry out the Hampstead scheme, under the title of the Hampstead Garden Suburb Trust, Limited, has its offices at 4, Raymond Buildings, Gray's Inn. About half the required capital has already been subscribed in the form of shares and debentures.

MEDICAL ADVICE WITH *ANSWERS*.

WE have received from the Editor-in-Chief of *Answers* an intimation that the scheme for providing medical advice through *Answers* Advice Bureau has been withdrawn, in consequence of the information regarding the attitude of the medical profession towards the scheme, contained in the article published in the BRITISH MEDICAL JOURNAL of March 10th, p. 583. The Editor of *Answers* is returning to all the subscribers the full amount of their subscriptions.

CONSUMPTION IN GREECE.

ACCORDING to Dr. Rondopoulo of Athens, pulmonary tuberculosis is not so frequent in Greece as has hitherto been believed. This, he says, is shown by the statistics of mortality of twelve towns having, according to the census taken on October 5th and 6th, 1896, a population of more than 10,000. The statistics are published in the *Bulletin Officiel du Ministère de l'Intérieur* for 1900-1-2-3-4. During the quinquennial period covered by those years the total number of deaths from consumption in the twelve cities—Athens with 122,058 inhabitants, Piraeus with 51,020, Patras with 37,985, Corfu with 29,135, Syra with 22,082, Tricala with 21,149, Volo with 16,766, Calamanta with 15,956, Larissa with 15,378, Zante with 14,906, Purgos with 12,708, and Tripolitza with 10,465 —was 5,303 in a mortality from all diseases of 46,404. The mortality from consumption is, therefore, about one-ninth of the general mortality, except in the case of Athens, where it is about one-eighth, There is no official return of morbidity in Greece, but Dr. Rondopoulo, in view of the fact that consumption is a very fatal disease, that there are no sanatoriums in Greece, and that the Greeks in general take little care of themselves, thinks himself warranted in concluding that the morbidity may fairly be taken as corresponding pretty closely with the mortality. Till two years ago no precautions whatever were taken against infection. Quite recently, as a result of the efforts of the Panhellenic Antituberculosis Society, something has been done to enlighten the minds of the people and induce them to take elementary precautions. Dr. Rondopoulo attributes the relatively slight prevalence of consumption in Greece to the mildness of its climate and the almost constant sunshine which it enjoys. He quotes Professor Æginitis of the National Observatory at

Athens as authority for the statement that in the capital of Greece the sun shines freely on an average 325 days in the year. It seldom happens that there are two or three consecutive days without sunshine.

The fallen French Ministry included three members of the medical profession. The new Cabinet contains but one, but he is a host in himself. M. Clemenceau, who is generally looked upon as the strong man of the new Government, is a Doctor of Medicine of the Faculty of Paris. He has been a conspicuous figure in French political life for nearly forty years, but although he has destroyed many Governments this is the first time he has held office.

Medical Notes in Parliament.

[From our Lobby Correspondent.]

The Cruelty to Animals Bill which was introduced recently by Mr. Greenwood, Colonel Lockwood, Mr. MacNeill, Mr. Channing, Mr. Crooks, Mr. Tomkinson, Mr. Maddison, and Mr. Lehman, is a measure drawn for the purpose of restricting experiments on animals. The 3rd Clause limits experiments to the purpose of making new discoveries by a licensed person, and further enacts that the animal must be kept under the influence of a general anaesthetic before, during, and after the experiment and until it is killed. Curare is not to be used, and an inspector appointed under the Act must be present. Modifications are made for experiments not calculated to give pain, but anaesthetics must be resorted to as soon as pain is suffered. No substance is to be applied by way of experiment to the eye of an animal. The licence is to be granted in future for one experiment or for one series of not more than six connected and consecutive experiments of a specified nature. The time and place of the experiments are to be specified in the licence. A detailed chronological report of each experiment is to be made by the licensee forthwith. Copies of every licence and every report are to be filed in the Houses of Parliament, and the Secretary of State is given power to appoint additional inspectors under the Act. The second reading was put down for Friday, March 16th, but there are seven Bills before it on the paper, so that it is improbable that it can come on for discussion.

Vivisection.—Mr. George Greenwood on Monday last asked the Home Secretary if his attention had been drawn to the return of experiments on animals for the year 1904, whether the 16 experiments performed by Dr. William Bain, and recorded in the return, in some of which septic bacilli were introduced into the interior of the gall bladders of dogs through wounds 2 or 3 in. long, made for that purpose, and in all of which one or more gall stones were also inserted into the living dogs' gall bladders, and left there for periods varying from fourteen to seventy days, and in 13 of which a *post-mortem* examination proved that the gall bladders were inflamed at the time of death, should not properly have been distinguished as painful; and whether the operations described by Dr. Bain as involving the insertion of septic bacilli into wounds in dogs made by himself for that purpose were properly reported in such return as aseptic operations. The Home Secretary said that his attention had been drawn to the return, and that he was advised that the answer to the second part of the question was that the experiments could not properly be described as painful. Those of the animals which the inspector saw gave no indication of pain, and the operator declared that he did not believe that the animals suffered any pain. The symptoms observed in a *post-mortem* examination did not indicate suffering. As to the third part of the question, he was advised that as the actual operation was performed under aseptic conditions it was properly described as aseptic.

Vivisection: A Government Inquiry Promised.—On Tuesday last, in answer to Mr. Soares, the Home Secretary said the present law with regard to vivisection was based upon the report of the Royal Commission of 1876. Since the there had been great changes in medicine and the metho of scientific research. He assented to the view that it wa desirable that an inquiry should be held, and he woul consider what form it should take.

Quack Medicines.—Mr. Myer asked the Secretary State for the Home Department last Monday whether h attention had been directed to the frauds perpetrated up the public by the advertising and sale of quack medicine and the consequent loss of money sustained by the publ and frequent postponement of proper remedial measur being taken by the sufferers in specific diseases; an whether the Government would take any, and, if any, wha steps either by the institution of prosecutions for fraud obtaining money by false pretences, or by direct pr hibitive legislation to deal with this matter. The Hon Secretary replied that he did not doubt that the advertis ment and sale of quack medicines was often the caus serious mischief, but it was an evil which must be m rather by the spread of education than by legislation prosecution. The difficulties of proving fraud in suc cases were, he feared, almost insuperable. If the ho member would refer to the proceedings in the Harne belt case in 1894 he would understand some of th difficulties he referred to.

Insanitation in Somers Town.—In answer to a questi put by Mr. H. C. Lea on Monday, Mr. John Burns sai that he had communicated with the town clerk, and wa informed that hitherto the property in Little Clarend Street had been dealt with by the St. Pancras Boroug Council under the Public Health (London) Act, and that large number of notices were being served from time time requiring the owners to maintain the property in sanitary condition. The question of dealing with th property under the Housing of the Working Classes Ac appeared not to have been brought under the consider tion of the Council. He had requested that this might done, and that the medical officer of health might instructed to report on the subject.

Mortality in the Transvaal Mines.—Mr. Churchill, answer to questions last week, stated that the death-ra among Chinese coolies for 1905 was 18.386 per 1,000, amo African labourers 47.13 per 1,000; the mortality amo white labourers in the mines was not separately give from that among the white population generally. It wa proposed to stop recruiting from certain tropical are unless the mortality returns showed marked improvemen Damaraland was closed as a recruiting area last year the German Government.

Ventilation at the Pimlico Clothing Factory.—In answ to a question by Sir Charles Dilke, the Home Secreta said that, as a result of a conference last summer betwe the two departments, instructions were given by the W Office for the preparation of plans of an improved syste of ventilation for the factory. He had been informed the Army Council that the matter was still under co sideration, but that it was hoped full details of the impro ments would shortly be communicated. The last visit pa by a lady inspector was on April 10th last.

The Juvenile Smoking Bill is designed to carry out th recommendations of the Physical Deterioration Committ by prohibiting the sale of tobacco and cigarettes to childr below the age of 16 years and preventing the sale of toba and cigarettes in sweetshops frequented by children. D Macnamara introduced the Bill last week, and it is back by Mr. Crooks, Major Seely, Dr. Shipman, Sir John Tuk Mr. Cathcart Wason, Mr. George White, Mr. Shackleto Mr. Alden, Mr. Henderson, and Mr. Lea. The seco reading was fixed for Thursday, March 15th.

Poor-law Children.—Mr. John Burns stated last wee in answer to a question, that during the year 1905 th Local Government Board had issued orders authorizi expenditure by Boards of Guardians in respect of th emigration to Canada of 491 children.

Ireland.

ROYAL UNIVERSITY OF IRELAND.

question of university education in Ireland came ore the Senate of the Royal University on March 7th, the consideration of the following motion, of which ce had been given by the Most Rev. Dr. O. Dwyer, nan Catholic Bishop of Limerick:

> at the Report of the Royal Commission in its animadversions on this University as an Examining Board indicated truly the essential defect in its constitution, and we believe that its reform in this respect, so as to make it a teaching university, with colleges adequately constituted and brought into organic connexion with it, is a matter of urgent need both for the University itself and for the interests of higher education in the country.

he motion was seconded by the Rev. Dr. Hamilton, sident of Queen's College, Belfast, and carried by otes to 3.

is understood that the declaration contained in the lution had the concurrence of at least the majority of Roman Catholic hierarchy in Ireland, and it is cially significant as an apparent surrender of the n for a Roman Catholic University.

nother point of great importance is that it practically cates the re-establishment of the principle of the en's University, which, until it was destroyed by the ticians, was the only University in the country which ired from the student residence at College in order ualify as a candidate for a degree. Although at first pted by the Roman Catholic bishops, the University early condemned—by a majority of one—and during areer was under ban.

ne new proposal will probably be cordially endorsed ducationalists in Ireland, and it is believed that it is which accords with the views of the Irish Govern- t. If adopted it will mean the establishment of a ge in Dublin, the management of which would be tically Roman Catholic, but, as in the Queen's Col- s, no question of religion would exclude any one who ied to study there. The advantage of the proposal ner is that it would be only the extension of a prin- which is already in operation, and that it would put nd to a long-existing agitation which has been so ical to higher education in Ireland.

A CRITICISM OF TRINITY COLLEGE, DUBLIN.

chbishop Walsh of Dublin, has availed himself of a to Vincent's Hospital to revert to his former charges nst the medical school of Trinity College, and the iods of examination for the medical degrees of the versity of Dublin. The immediate cause appears to hat he lately received a letter from an anonymous spondent practically telling him that as he had not rned to the subject his reason was because he dis- red that there was nothing to return to and that ing more could be said than he had said last July.

e Archbishop said that the Dublin correspondent of the s went out of his way to make little of the work of the olic University School of Medicine and contrasted it with ducation Trinity College gave its students. He claimed the methods pursued by Trinity College in its medical ol were not as they ought to be. In the Catholic Univer- School of Medicine the work done by the students was d by an independent public authority, whereas Trinity ge not only selected its own subjects of study, fixed its programmes in these subjects, followed its own method of ing, set up its own standard, applied its own methods of ining its own students, and as a result granted them degrees. he side of the Catholic University School every degree rred upon its students bore upon it the official brand and p of an independent public authority. In this matter of tation of licensing bodies it was not to the highest level tainments of those whom they admitted to the profession one had to look. It was rather to the attainments of the t of its admitted students. The Archbishop quoted from reports of the inspectors of the General Medical Council in the years 1888, 1899, and 1901, as to the examinations in the Medical School of Trinity College. It was only at slight extent that the curtain had been lifted, and to years he had necessarily to confine himself. In 1888 t the inspector said: "Every candidate was taken over same subjects. No means were taken to prevent the ined candidates from communicating with those yet to xamined. It is imperative that efficient means should aken to prevent those candidates who have yet to xamined from communicating with those who have.', That was a discreditable state of things. The professors, who were afforded an opportunity of commenting upon it simply replied that it did not appear to them to call for any notice. Practically the same thing occurred in the other two examinations reported upon. On one occasion the Medical Council did not think the examination had been sufficiently inspected, and their inspectors were instructed to return to the College and inspect certain other examinations on the next occasion. This was in the following year, and again they had the old story. The inspector reported on the oral examination in medicine that on the first day each candidate was questioned on the same subject. On the second day, however, the examination, being held in a similar manner, but on a different set of subjects, the examiner was requested to vary his questions, as it was expected there was a possibility of the candidates who had been examined communicating their questions to the candidates awaiting examination. And then the inspector added, "The want of supervision in this respect has been referred to in both our former reports." He quoted next from the report of the same inspector in the same year on the medical examinations of the Royal University. "The candidates," he said, "were under the immediate supervision of one of the Secretaries of the University, and all the arrangements were most satisfactory." And again, "All the arrangements made by the Secretaries of the University for the examination were excellent, and, as a result of their admirable organization, every part of it worked with perfect smoothness and regularity. Efficient supervision was exercised by the superintendents, both being medical graduates of the University." In view of the encouraging character of these reports as to the absence of all efficient supervision of the candidates for examination at the Trinity College Medical School, it seemed a waste of time to enter upon the other great field of inquiry that was suggested by these reports. Therefore he would only quote a few of the amusingly absurd answers of candidates who did not fail at the examination, but went off with the honour and glory of a Trinity College degree. The first of the specimens would be from the examination of 1892. One candidate's first case was mitral stenosis. He diagnosed it as gastritis. His attention was directed to the murmur, and he was asked was there any means by which the gastric symptom might be attributed to the heart, or was there any physical examination that might help him. Evidently the examiner, to say the least of it, was not anxious to put any unnecessary obstacle in the way of that student passing. But it all seemed in vain; the candidate remained silent, and the report then stated: "Not knowing, he was asked 'Is the liver enlarged? How would you first look for dropsy due to heart disease?' The candidate replied, 'The abdomen,' and subsequently, when pressed, he said 'the feet.'" That candidate was allowed to pass, and the Archbishop was inclined to think that if that kind of guessing was in the rules of the game, he could go very near passing himself, provided the medicine bottles and prescriptions were left in his view. That candidate not only passed the examination, but was allowed 50 per cent. of the marks allowed for the clinical, although he had only done a little better in his second case. It was no wonder the inspector should wind up with this remark: "It appeared to us that the candidates were mostly marked above their deserts." Here was another passage dealing with the work of the dissecting room: "It appeared to me that if the manner of performing most of the operations was intended as a test of proficiency and of fitness to undertake similar operations with the living subject, the majority of the candidates should have been at once rejected." Again, with reference to practical surgery: "Few of the operations we saw attempted were really well done, whilst many were performed in a clumsy and bungling manner." It would be unnecessary, continued the Archbishop, to refer in detail to the cases of the two unsuccessful, but finally successful, students, to which a good deal of attention was drawn by his references in a former speech, These candidates failed when examined in the usual way, and in the presence of the Inspector of the General Medical Council, and when the examiners had unanimously rejected them, and declared that the paper of one of them was the worst he had ever seen. But when the Inspectors were safely out of the way these two candidates were brought up for private examination by only one examiner, and passed. The Archbishop then proceeded to say that from the examination papers of Trinity medical students, published as part of the report of the Medical Council Inspector, he had selected specimens of their spelling. Among his illustrations were the following instances of bad spelling: Knealing (kneeling), releave (relieve), inflamation (inflammation), thie (thigh), internall (internal), accros (across), incission (incision), cavaty (cavity), intamately (intimately). Archbishop Walsh went on to say that since he came across these specimens he had no difficulty in accounting for the determined effort that was successfully made by Trinity College to secure the exemption of the work of the College from liability to inquiry at the hands of the Royal Commission appointed a few years ago. Sooner or later, however, that inquiry was bound to come. When he first touched upon this subject last July the medical journals had something to say about it, and the BRITISH MEDICAL JOURNAL wrote: "The attack has not gained much approbation, as many of the statements show a want of knowledge of medical affairs," but they took care not to point to even one single instance of the want of knowledge which they so positively asserted.

CHARGES AGAINST AN INFIRMARY SURGEON.

Surgeon-Colonel Flinn, one of the Local Government Board Inspectors, opened an inquiry on Monday last, at Longford, regarding charges of insubordination and disobedience brought by the Managing Committee against Dr. Mayne, the surgeon in charge.

Mr. Delany, who appeared for the Committee, said Dr. Mayne was charged with admitting patients without tickets, and with refusing to admit patients with tickets. He had also refused to employ local practitioners where consultations were necessary, and had called in doctors from other places, claiming his right to do so in the interest of the patients. He had refused to admit patients except on the specified days, Mondays and Fridays. In these matters the Committee suggested that he had been guilty of disobedience, and that he had been guilty of insubordination in refusing to work in harmony with the Committee. They complained that he would not get his surgical instruments from the contractors, and that his consumption of coal and gas was excessive. He had nagged at and worried the Committee, had been offensive to the members, had ridiculed them to outsiders, and had been insubordinate in writing to a public newspaper.

Bishop Hoare and the Rev. J. Scally, P.P., gave evidence in support of the complainants' case, which has not yet concluded.

HEALTH OF BELFAST.

At the meeting of the City Council, held on March 1st, the Medical Superintendent Officer of Health reported that 286 cases of zymotic disease had been notified, of which 120 were due to scarlatina and 77 to typhoid fever; 902 births and 624 deaths had been registered. The annual death-rate from all causes was 22.7, and that for children under 1 year was 4.1. Considerable discussion took place on the infant mortality, and on the cases of typhoid fever, which were attributed to infection through cockles collected on the foreshore of the Lough; Professor Symmers reported that the paratyphoid bacillus and other bacteria of sewage contamination had been found in the cockles, although they were fresh and in good condition. The accountant reported that £55,429 had been expended on the new Infectious Diseases Hospital, and that the estimated cost would be £75,000.

SAMARITAN HOSPITAL, BELFAST.

The general report presented to the annual meeting of this hospital, held under the chairmanship of the Lord Mayor, showed that the patients had increased by 10 per cent., but many had to be refused admission owing to lack of funds; there was a debt of £85 against the hospital. Dr. John Campbell read the medical report; 525 patients were treated in the out-patient department, and 140 were admitted to the wards; 3 patients died. Much regret was expressed at the resignation of Dr. J. St. Clair Boyd owing to ill-health.

Scotland.

EDINBURGH UNIVERSITY STUDENTS AND SIR WILLIAM TURNER.

A MEETING of the Students' Representative Council of the University of Edinburgh was held on March 9th, when the standing orders were suspended that the Council might consider a proposal to honour Principal Sir William Turner. Mr. Watson said that Sir William had completed fifty years of active official academic service in the University of Edinburgh. The executive of the Students' Representative Council had unanimously come to the conclusion that it was fit and proper that some notice should be taken of the occasion. There was, he thought, no body in the University so well justified in taking action in the matter as that which represented the past and present students of the University. Students and past students everywhere would be glad to take that opportunity of showing their appreciation of those fifty years of honourable, distinguished, and successful service—service which had been rendered not only to Edinburgh and to Scotland, but to the whole world. He moved that the Council should originate an appeal to the students and General Council with the view of securing that there should be some tangible mark of their high appreciation of their revered Principal's fifty years' connexion with the University. Mr. J. Ian Macpherson, who seconded, said that Sir William Turner took a deep and sincere intere in everything that concerned the welfare of the studen The resolution was unanimously adopted, and a Committ appointed to carry it into effect.

EDINBURGH ROYAL INFIRMARY.

At the meeting of the managers on March 5th, I A. H. Freeland Barbour, F.R.C.P.E., etc., was appoint Gynaecologist (to take charge of Ward 36) for a period five years as from March 8th. Mr. D. Morley Mathiesc M.B., Ch.B., was appointed Resident Officer at the Co valescent House, Murrayfield, for six months fro April 1st. Dr. Henry Wade and Dr. Carnegie Dicks were appointed Assistant Pathologists for Morb Anatomy; and Dr. W. T. Ritchie was appointed Assista Pathologist for Clinical Pathology.

EDINBURGH CHARITY ORGANIZATION SOCIETY.

A public meeting to explain the aims and constitution the City of Edinburgh Charity Organization Society w held on March 8th, when the chairman, Bailie Mallinsc said the indiscriminate giving of charity and the ov lapping of charities were often more of a curse than blessing. If the committee had succeeded in putti forward a scheme that would succeed in co-ordinating t charities and in framing a policy upon which chari should be given, they would relieve genuine distre prevent overlapping, and eliminate that class whi manipulated and lived upon charities. Professor Lod in explaining the aims and constitution of the Socie referred to the objection to the word "charity." Tho who objected held that relief was the function of the Sta or of some local authority receiving its power from t State. The scheme now being formulated really suppli the machinery by which alone such a system as extension of State relief could be successfully introduce One of the objects of the Society was to repress mendaci and imposture. They desired to substitute reasoned reli after competent and thorough inquiry. Another obje was to guide benevolence into channels that should enab it to become in the highest degree beneficent, and to s that the giving of relief should be as far as possib accompanied by personal sympathetic guidance a assistance. The primary duty of the Society was to bri the charities from their isolation into intelligent, cordi co-operation with each other. By making all the inform tion available common property was the only way which overlapping could be prevented. Another duty the Society was to bring about co-operation betwe charity and the administration of the Poor Law. The Lo Justice-General (Lord Dunedin) moved a resoluti welcoming the formation of the Society and commendi it to the cordial support of the citizens of Edinburgh.

ADMINISTRATIVE CONTROL OF PULMONARY PHTHISIS.

The Local Government Board for Scotland issued Saturday, March 10th, a circular on the "Administrati Control of Pulmonary Phthisis," with a view to assisti the local authorities of Scotland in developing and co pleting their administrative machinery. It carries furth the matter of the circular of May, 1905, and its princi provisions may be summarized as follows:

1. *Phthisis an "Infectious Disease."*

Pulmonary phthisis is an infectious disease within t meaning of the Public Health (Scotland) Act, 1897, a the obligation resting on the local authority to deal wi and control infectious disease extends to pulmona phthisis. The mode of infection is clearly pointed out.

The following clauses of the Act upon which particul stress is laid may be quoted in full:

PENALTY ON LETTING HOUSES IN WHICH INFECTED PERSO HAVE BEEN LODGING.

51 (1).—Any person who knowingly lets for hire any ho or part of a house, in which any person has been sufferi from any infectious disease, without having such house or p of a house, and all articles therein liable to retain infecti disinfected to the satisfaction of the medical officer as testifi by a certificate signed by him, or (as regards the articl destroyed, shall be liable to a penalty not exceeding twen pounds.

(2) For the purposes of this section, the keeper of an inn hotel shall be deemed to let for hire part of a house to a person admitted as a guest into such inn or hotel.

nalty on Ceasing to Occupy House without Disinfection or Notice to Owner or on Making False Answer.

3 (1) Where a person ceases to occupy any house, or part of ouse, in which any person has within six weeks previously n suffering from any infectious disease, and either

(a) fails to have such house, or part of a house, and all articles therein liable to retain infection, disinfected to the satisfaction of the medical officer, as testified by a certificate signed by him, or such articles destroyed ; or

(b) Fails to give to the owner or occupier of such house, or part of a house, notice of the previous existence of such disease ; or

(c) On being questioned by the owner or occupier of, or by any person negotiating for the hire of, such house or part of a house, as to the fact of their having within six weeks previously been therein any person suffering from any infectious disease, knowingly makes a false answer to such question, he shall be liable to a penalty not exceeding twenty pounds.

2) The local authority shall cause their officers to serve ice of the provisions of this section on the occupier of any ise, or part of a house, in which they are aware that there person suffering from an infectious disease.

2. *Disinfection, etc.*

Vhen persons suffering from phthisis are treated in ir own homes, the local authority should see that infection is carried out at frequent intervals. Not only homes, but also the workshops and other places where sumptives have been employed, should be carefully l thoroughly disinfected by officers skilled in the work. as been clearly shown that new cases of pulmonary hisis have originated from rooms previously occupied phthisical patients. This is now held to be one of commonest sources of infection. The local authority uld endeavour to see that disinfection is carried out all places of public resort. They should arrange with persons in charge of schools, churches, halls, theatres, rkets, railway stations, etc., to have these periodically infected by the officers of the local authority. The infection of public conveyances, such as railway carges, tramcars, omnibuses, hackney carriages, etc., should receive attention. The practice of spitting is a ile cause of the spread of the disease. It is the duty the local authority to ensure that such sputum is dered harmless or so disposed of as not to be a danger. ients should be taught to use combustible handkchiefs, and a pocket spittoon or sputum flask conning a disinfectant. The provisions of the Act which hibit the exposure of any infected matter, or of infected sons, will be of use to the local authority in enforcing observance of measures for the protection of the lic. No person suffering from, or living in a house ected with, pulmonary phthisis should milk any animal, k fruit, or engage in any occupation connected with d. The powers of this last section (58) of the Act are rimary importance.

3. *Isolation and Treatment.*

he provisions of the Public Health Act as to removal cases of infectious disease to hospital, and as to the vision of hospitals and houses of reception, are avail- for dealing with cases of pulmonary phthisis as with s of other infectious diseases. These provisions are prehensive and elastic. Hospitals for pulmonary hisis may be classified as:

) Curative hospitals (sanatoriums) for early cases.
) All-day hospitals.
) All-night hospitals.
) Convalescent colonies and homes ; work colonies.
) Hospital wards for educative treatment and control.
) Hospital wards for isolation of advanced cases.
) Dispensaries for pulmonary phthisis.

arious important details are given under these head-s.

4. *Notification of Pulmonary Phthisis.*

or the effective application of the Public Health Act to monary phthisis a system of notification is essential. some localities a system of voluntary notification has n organized. It is open to the local authority, with approval of the Board, to add pulmonary phthisis to list of diseases notifiable under the Infectious Diseases tification) Act, 1889. Notification itself has no administrative value unless followed by effective measures for curative treatment and prevention of the spread of infection.

5. *Organization and Administration.*

This demands the services of a special subcommittee of the Public Health Committee, because the organization is so highly specialized.

6. *Conclusion.*

These direct measures towards the control of pulmonary phthisis must be supplemented by indirect measures—the unremitting and systematic removal of nuisances, prevention of overcrowding, enforcement of good ventilation, reconstruction of insanitary houses, improvement of insanitary areas, improvement of drainage of soil and houses, stringent supervision of meat, of cowsheds, of dairies, cleansing of streets, proper disposal of refuse, etc. Direct prevention should go hand-in-hand with general sanitation.

The appendix shows where an organized effort has been made to check the spread of the disease. It gives the city of Aberdeen instructions for preventing the spread of consumption; it gives forms used in Glasgow in connexion with the bacteriological examination of sputum; a list of special hospitals, dispensaries, etc., exclusively reserved for pulmonary phthisis; and a list of hospitals, etc., not exclusively reserved for such disease. Finally, the paper on the erection of municipal dispensaries and a completer organization against tuberculosis read by Dr. R. W. Philip, Senior Physician to the Royal Victoria Hospital for Consumption, Edinburgh, before the International Congress of Tuberculosis in Paris last October, is reprinted. This paper contained a copy of the schedule of inquiry regarding dispensary patients used at the Royal Victoria Dispensary for Consumption at Edinburgh.

GLASGOW CANCER HOSPITAL.

The report presented to the annual meeting of the subscribers to the Glasgow Cancer Hospital (Free) was held on February 21st, contained proposals for the extension and reconstruction of the hospital, and the establishment of research work. Mr. William Brodie proposed the adoption of the report. Dr. Beatson, C.B., in seconding referred especially to the importance of research on cancer. He said that the Glasgow Cancer Hospital presented opportunities for the clinical study of the disease and for the trial of methods of treatment that were of the greatest value. So much obscurity, however, surrounded the disease that those lines of study required to be supplemented by properly equipped laboratories and by a select staff of workers. Without these no satisfactory progress could be made. In view of this, the proposed rebuilding of the hospital had very properly been regarded as an occasion when the advisability of providing the necessary accommodation for such research work should be considered. It would not materially add to the cost of the new building and it would certainly increase the utility of the hospital. To carry on the work of research probably £1,000 a year would be needed. In order to ascertain whether sufficient financial support would be forthcoming, the directors had decided to open a separate fund for the research department, and to this very gratifying contributions had already been made.

Victoria.

THE MEDICAL PROFESSION.

In a presidential address delivered at the annual meeting of the Medical Society of Victoria, held at Melbourne,[1] Dr. A. Jeffreys Wood gave an interesting account of the beginnings of the profession in Victoria. The first medical men who landed in Victoria were Drs. Janson, Bowden, and Hopley. They were attached as medical officers to Lieutenant-Colonel Collins's Expedition, which left England in April, 1803, with 299 convicts, and landed at Sorrento in October of the same year. The settlement was a failure, and was abandoned in 1804, when the convicts were shipped to Hobart. In 1835 a settlement was started on the south bank of the Yarra, and in 1836 Dr. Alexander Thomson went from Van Diemen's Land to Port Phillip as medical officer. He was recognized by the Sydney authorities as Colonial Surgeon till April 12th, 1837, when Dr. Patrick Cusson was sent to take over the duties of that post. Dr. Thomson subsequently went to the Geelong district. Dr. Barry Cotter arrived in Melbourne from Van Diemen's Land about the same time as Dr. Thomson; by an advertisement published in the *Port Phillip Gazette* for January, 1839, he announced to all whom it might concern that he was prepared to treat their ailments, and also to sell them such delicacies as sago, turpentine, candied lemon, bluestone, and corrosive sublimate. Dr. Cotter's establishment was the first druggist's shop in Melbourne. In 1842 there were nineteen legally qualified medical men in Port Phillip, besides twenty-one who had not complied with the law making it compulsory for practitioners to submit their qualifications to the Medical Board in Sydney. In 1845 a Medical Board was established for Port Phillip. In 1846 the Port Phillip Medical Association was founded for the promotion of medical knowledge and more free professional intercourse. Its first President was Dr. Cusson. One of the first acts of the Association was to draw up a scale of fees for its members. The first paper of any importance read before the Association was one entitled "The Inhalation of the Vapour of Ether, with Cases," by Dr. D. J. Thomas, Surgeon to the Melbourne Hospital, on September 7th, 1847. In it was reported the first case in which the anaesthetic was used in Melbourne. It was one of amputation for gunshot injury to the arm. The ether was administered by Dr. Thomas, who says the inhaling apparatus was applied to the man's nose by means of the mouthpiece. "His nostrils closed, and after about a dozen inhalations his pulse became nearly imperceptible, his eyes fixed, and the whole of his muscular system relaxed. The mouthpiece was removed and his jaw dropped." During the operation, which occupied forty seconds, the patient "spoke not a word, moved not a muscle, but *sat* fixed and powerless." During the taking up of the arteries, not being aware that the arm was off, he cried out, "It is no use giving me that mouth gas, you must do it without." Dr. Thomas's paper contained notes of five cases in which ether had been given. One member made the suggestion that in all surgical cases in which it was proposed to use ether, an experimental trial of the anaesthetic should be made the day before the operation, so that if the patient died after the operation, the fatal result should be charged to it and not to the anaesthetic. In 1851 the Port Phillip Association came to an end, and in 1852 was succeeded by the Victoria Medical Association. Two years later the Medico-Chirurgical Society came into existence, and in 1855 the two bodies became joined together under the name of the Victoria Medical Society, which was changed to "Medical Society of Victoria" in 1856. The Society had a house of its own, with a library of nearly 2,000 volumes. In 1856 the Society began to issue the *Australasian Medical Journal*, but finding it an expensive luxury handed it over to publishers. The first editors were Drs. Maund and Black. They were succeeded by Dr. Thomson, who held office from 1859 to 1861. Then Dr. Neild became editor, and continued to hold the office for seventeen years. Dr. Jeffreys Wood said that the completion of the fiftieth year of the journal was solely due to the zeal and energy displayed by Dr. Neild during that troublous period. Professor Allen was editor from 1878 to 1881, when he was succeded by Dr. Jamieson, who held office till 1887. He was followed by Drs. Moore and Syme, and since that time Drs. Syme, Stawell, Wilkinson, Lewers, and A. J. Wood have acted as editors. The *Australian Medical Gazette*, which came on the scene in 1869, made its exit four years later. In 1894 appeared the *Intercolonial Quarterly Journal of Medicine and Surgery*. The Society now has a membership of 313 effective members, 10 honorary members, and 11 corresponding members, a larger roll than it has ever had before.

---

[1] A full report was published in the *Intercolonial Medical Journal of Australasia* on January 20th.

The question of the amalgamation of medical societies throughout the States of the Australian Commonwealth is now before the profession. Two proposals have been submitted—one that a new Association should be created on the same lines as the American Medical Association, and called the Australasian Medical Association; the othe that all the societies should become Branches of th British Medical Association. In New South Wales th local Branch of the British Medical Association speaks fo the whole State; and the amount of benefit that ha resulted to the profession as a whole is very great. I Queensland the amalgamation of the principal medica society of that State with the local Branch of the Britis Medical Association was effected some years ago, with con siderable advantage to the general profession. In Sout Australia and in West Australia the Branches of th British Medical Association are the most powerful societie in the States. In Tasmania there is at present no medica society, but a local medical defence association. Reviewin the position of the other States, Dr. Jeffreys Wood said i would seem to be by far the easiest plan for the member of the Medical Society of Victoria to become members o the Victorian Branch of the British Medical Associatio The President proceeded to say:

"The question of the amalgamation of the Medical Society of Victoria with the Victorian Branch of the British Medical Association has been one that has exercised the minds of the office-bearers of the two societies for years, and attempt after attempt has proved ineffectual; but now that we have celebrated our jubilee, we might well abandon the name we have so long been proud of, and carry on more unselfish work under the banner of the British Medical Association, which waves not only over the greater number of the members of the medical profession in Great Britain and Ireland, but over the members of the medical profession throughout most of the British colonies." He therefore proposed that the present members of the Victorian Branch of the British Medical Association should elect the members of the Medical Society members of the Branch. If that plan were adopted, Dr. Jeffreys Wood said he did not think it would take many months to effect a complete organization of the profession throughout Australia. When the whole profession throughout the Commonwealth was united and affiliated with the great British Medical Association they would gain in public reputation, and reach that status which their disinterested and humanitarian work deserved.

India.

Serum-therapy of Plague.

The Government of India has published[1] a series of reports, by Mr. W. M. Haffkine and others, on the trial in the Bombay Municipal Plague Hospitals of serums prepared according to the methods of Professor Lustig of Florence, Professor Terni of Milan, Dr. Brazil of San Paulo, Brazil, and Dr. Roux of the Pasteur Institute in Paris. These reports are prefaced by an introduction, written by Lieutenant-Colonel W. B. Bannerman, in which he reviews all the cases treated in India with curative serum down to May, 1904, in so far as they have come to his knowledge.

Colonel Bannerman divides the cases into two categories: (1) Those in which the conditions of trial were reasonably accurate, and where a series of control patients strictly comparable with those treated with serum was available; (2) cases which, for one reason or another, give less reliable information as to the value of the serum treatment.

The following are the main facts elucidated by a study of the former category: 226 persons were treated with the Roux-Yersin serum, and showed a case-mortality of 74 per cent., whereas the 231 control cases gave a case-mortality of 70 per cent. Lustig's serum was administered to 608 persons; these gave a case mortality of 71 per cent., whilst an equal number of control cases showed a mortality of 79 per cent. With Terni's serum, used in 110 cases, the mortality was 80 per cent., whilst the control percentage mortality was 81. With Brazil's serum, tried in 70 cases, there was a mortality of 82 per cent., as compared with a mortality of 85 per cent. amongst the controls.

These statistics, it is admitted, are highly disappointing;

---

[1] *Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India.* New series, No. 20. *Serum-therapy of Plague in India.* Edited by Lieutenant-Colonel W. B. Bannerman. Calcutta: Government Printing Office. 1905. (Demy 4to, pp. 73.)

ut some little consolation may be found in the fact that rom the standpoint of clinical evidence there is a better-narked indication of the beneficial effects of serum treat-nent. It is found that the duration of life is prolonged; here is a lowering of temperature and a diminution in he frequency of pulse and respiration; the patient is nore comfortable and is less delirious and restless, and he buboes tend to become less painful and to disappear.

Amongst the desiderata for the future the most prominent ppear to be the freer use of the intravenous method of noculation, and the production of a more efficacious erum.

BENGAL.

The year 1904 was on the whole healthy. The rainfall as copious, but ceased earlier than usual. The price of od grains was moderate. The birth-rate, 42.6 per 1,000, as the highest on record in Bengal. This is attributed improved registration and the healthier year. It was nly 1.3 per mille lower than the estimate of the Census ommissioner. The death-rate was 32.4, against 33.3 in 903 and 33.4 in 1902. The Chola Nagpore division, with s healthy climate and prolific aboriginal population, ad a birth-rate of 50 and a death-rate of 22.9. Infant ortality was 187 per 1,000 births—a reduced figure. here was a great abatement in cholera mortality, pecially in the northern districts. The district of uri, in which the Jagernath pilgrimage takes place, as unusually exempt; this is ascribed to sanitary forts, particularly as regards water purification. nticholeraic inoculation has been discontinued among olies recruited for Assam tea gardens. There was a cided fall in small-pox mortality. Plague mortality tained a higher figure than in any year since the advent the disease into the province—namely, 75,436. The stricts of Behar and the city of Calcutta suffered most. ties gave higher rates than rural tracts, and more men died than men. Evacuation and disinfection of fected houses was found to be the most useful measure preventing and restraining the disease. Two-thirds of total mortality was due to fever, the mortality from ich varies largely in different districts. Drainage and ier anti-*Anopheles* measures are being resorted to. ere was a reduction in the mortality caused by bowel nplaints. The report of the Sanitary Board indicates nsiderable activity in promoting works for the supply of rer water and the improvement of drainage. Munici-ities devoted a creditable proportion of their resources sanitary purposes. The report is written by Captain mesha, I.M.S., but Major Clarkson, I.M.S., held the ce of Sanitary Commissioner during the year.

The City of Calcutta.

r. J. Nield Cook writes a concise and able report. cutta shared in the favourable condition of the year. birth-rate of 1904 was 16.7. The lowness of the rate accounted for by the comparative paucity of females, proportion of which and the rates vary considerably in erent sections of the town. Reckoned on 1,000 females es of 60, 50, 49, and 43 are quoted. The number of lbirths reported was 992, or 65 per cent. of all births. death-rate was 30 per mille, of which plague ounted for 5.5. This disease was less severe than in 3, and was worst in the northern and most crowded ions. Cholera mortality was below the mean of the ade. Hindus in the vicinity of a waterway called y's Nullah suffered more than Mohammedans, and it uggested that this was due to the sanctity of its ers among the former. The mortality from small-pox, r, and bowel complaints was comparatively low. Dr. k holds that malarial fever rarely originates in Calcutta, gives reasons for his opinion. The town is resorted as a sort of sanatorium by natives during the fever on. Tuberculosis is considered to be on the increase alcutta and other large Indian towns, and measures ts suppression are recommended. Infantile mortality ery high, 297 per 1,000 of registered births, and tetanus inues to cause a large number of deaths among infants. necessity of the sanitary education of the community rongly urged. The report contains detailed information rding the work done by the Sanitary Executive which ates commendable energy. There is a bacteriological ratory attached to the health officer's office in which od deal of useful investigation was carried out.

Jamaica.

LUNACY.

FROM the report of the Medical Superintendent, Dr. D. J. Wilson, for the year ending March 31st, 1905, it appears that there were 1,000 patients resident in the Jamaica Lunatic Asylum on April 1st, 1904, and that on March 31st, 1905, they numbered 1,034. The total number under treatment during the year was 1,240, which is greater by 75 than the number of the preceding year, and is the highest number recorded. Both Dr. Williams and the Honorary Superintending Medical Officer, Dr. J. Errington Ker, refer to the steadily-increasing rate of insanity in the island. Thus, in 1884, with an estimated general population of 591,819, the certified insane numbered 393, or 1 in 1,503. In 1894, with a population of 672,762, there were 621 insane, or 1 in 1,083; and in 1904, with a population of 795,528, there were 1,000, or 1 in 797. Compared with our proportion in England and Wales of 1 in 285 this is satisfactorily low, but evidently some difficulty is felt in Jamaica in accommodating even this small number. "When one remembers," Dr. Ker says, "that the number of the inmates in the asylum has increased from 579 in the year 1892 to 1,021 in the year 1905, one sees why overcrowding must exist, for a building that will hold 500 or 600 patients need not of necessity hold over a thousand comfortably." The overcrowding at present affects the female side particularly, as the two female blocks erected some time ago have been temporarily filled with male cases. To this point we shall refer later.

ADMISSIONS.

During the year 240 cases were admitted of whom 209 were first admissions. Of these admissions only 2 were white people, 56 were "brown," 171 were black and 11 were coolies. Also of the total number 26 were admitted from prisons, 207 from constabulary lock-ups, 3 from their own homes, 1 from an almshouse and 3 from general hospitals. As to the wages of those admitted 17 were 20 years of age and under, 10 of 50 years or over, and all the remainder fell between the ages 20 and 50. Unfortunately, like last year, the Medical Superintendent's report contains no information as to the forms of mental disorder among the admissions or as to the probable causes of the insanities.

DISCHARGES, DEATHS, ETC.

During the year 90 were discharged as recovered, giving a percentage recovery-rate on admissions of 37.50, 1 as relieved, 4 as not improved, and there were 111 deaths. The death-rate on the average numbers resident was thus 10.8 per cent. We are unable to say how this death-rate compares with those of previous years as no information is given on this point. The deaths were due in 23 cases to cerebro-spinal diseases, in 6 to general diseases, in 50 to chest diseases—including 39 from phthisis, in 31 to abdominal diseases—including 25 from dysentery, and in 1 case to senile decay. The outstanding feature of this death list is the high proportion of deaths due to phthisis and dysentery, 57.6 per cent. of the total deaths being due to these two diseases. The deaths from phthisis formed over 35 per cent. of the total deaths, and those from dysentery over 22 per cent. Dr. Ker considered that these high death-rates were directly related to the overcrowding, and he gives a table showing the progressive increase since 1900 in the proportion of tuberculous deaths at this asylum, and, further, the relatively greater incidence of phthisis in the female side, on which side, as we have said, the overcrowding was most severely felt. With the exception of 1904-5, each year shows a much higher death-rate from phthisis on the female than on the male side. Similarly, with regard to dysentery, of the 25 deaths from dysentery in 1904-5, 24 were on the female side and only 1 among the men.

General Health, etc.

Owing to the prevalence of diarrhoea and dysentery the general health was not good. A good number of minor casualties occurred, and several of the staff and attendants were injured, doubtless owing largely to the overcrowded state of the wards. Dr. Williams again draws attention to the number of admissions of young imbeciles and aged dements, many of whom might more suitably be treated at home by arrangements with the parochial authorities.

The asylum appears to be worked very economically, as the average weekly cost per patient only amounted during 1904-5 to 5s. 10d.

Liverpool.

The Samaritan Hospital for Women.

The Samaritan Hospital for Women held its annual meeting on March 5th, the Lord Mayor being in the chair. This institution was founded in 1896, and during the ten years of its existence the attendances have increased more than tenfold, having been 414 during the first year, and 4,472 during the year just completed; 155 cases were treated as in-patients, and 135 operations were done with only one death. The Hospital Sunday and Saturday Fund Committee has now placed this hospital on the permanent list, and allotted it the sum of £74 this year.

The Hospital for Incurables.

Among the other medical charities which have held their annual meetings lately two are especially deserving of notice—the Home for Incurables and the Children's Convalescent Home, West Kirby. With regard to the former it is satisfactory to find that owing to increased subscriptions and legacies it has been possible to purchase additional land upon which it is intended to build an additional ward and sleeping accommodation for nurses.

Children's Convalescent Home at West Kirby.

With regard to the Children's Convalescent Home, the report states that during the past twelve months 1,227 children were received, the largest number yet registered. The average length of stay was 4.58 weeks, and the average number of cots occupied 108. The cost per child per week was 10s. 0¼d., a reduction of 3½d. as compared with the previous year. After an existence of four years as a certificated day school, the institution was last year placed by the Board of Education on the list of recognized boarding schools for defective children. The effect of this is that educational authorities are now empowered to pay for the maintenance at the home of physically-defective children whom it might be desirable to send to West Kirby for the double purpose of ensuring their education and curing their ailments. So far the Cheshire County Council is the only educational body that has availed itself of this privilege, but the Committee trusts that other authorities will also make use of the opportunities afforded by the home for extending to physically-defective children the advantages already given in other institutions to the mentally defective, the blind, the deaf, and the dumb. There are, the report says, many children to whom a stay of a few months or of one or two years at the home bring the beginning of a useful and happy life, instead of an existence crippled and wretched through disease. The Treasurer of this institution is in the unusual and happy position of having a small balance in hand.

LITERARY NOTES.

It is stated that the original MS. of Dr. John Brown's *Rab and his Friends* is shortly to be sold at Sotheby's. Originally delivered as a lecture at Biggar, in Lanarkshire, where Dr. Brown was born in 1810, it was first published in 1859, and was incorporated in the later editions of *Horae Subsecivae*. At the end of the MS. (says the *Westminster Gazette*), which is on 23 quarto pages, is a note which does not appear in the printed edition:—"I have in my head a human and dog moral if thought necessary, but I prefer every one being his or her own moralist."

At a meeting of the Berlin Medical Society held on March 7th, Dr. Eugen Hollander exhibited the iron hand of Goetz von Berlichingen. The appliance is on view in the Exhibition of Art in the History of Medicine in the Post-Graduate School founded by the late Empress Frederick, which was recently opened by the Emperor.

Dr. C. C. Vinton states in *American Medicine* that for the use of Korean students of medicine a set of textbooks in their own language, consisting of abridged translations of Gray's *Anatomy*, Kirkes's *Physiology*, etc., has been prepared, and is being issued on the mimeograph. Their publication in printed form is included in the scheme for a union publishing house, for which a committee is now raising funds in the United States.

It is stated in the *Revue Française de Médecine et de Chirurgie* of March 10th that an action brought against MM. Doin and Blondel, respectively publisher and editorial secretary of *La Gynécologie*, was tried a few weeks ago. The plaintiff sought redress for the publication by the defendants in their review of a thesis by him without his permission. The case was decided against the defendants, who had to pay £20 in damages and were fined £20 besides. According to the *Gazette des Tribunaux*, the decision has established that a medical thesis is the absolute property of the author, and that consequently its republication in a scientific review as an original article bearing the author's name, but without his knowledge or authority, is an act of piracy, for which the proprietor, publisher and editorial secretary are jointly liable.

We learn from the *Daily Mail* that Dr. J. Pollen, President of the British Esperantist Association, in the course of a lecture at Bristol, read an extract from a letter of his youngest son at school. Writing to his sister about a lecture he had heard on the eclipse of the sun, the boy reported the words of the lecturer: "At Bruges there were men from all parts of the world, and it was then we saw the great use of knowing a little of the 'international language.' By this I do not mean English or German, or even Esperanto, but simply very bad French!" "Tell father this," was the dutiful son's comment. Bad French is undoubtedly the nearest approach to a universal language we have in Europe.

With reference to the pronunciation of "angina" Dr. J. F. Payne writes:

> This controversy is not a new one. Some years ago an old student of mine wrote to me on the question, saying that he was corrected by his Cambridge brother for pronouncing the penult long. I referred the question to my friend the late Dr. Greenhill, well known as one of the most learned medical scholars ever produced in this country. Dr. Greenhill sent me a note on the subject of which I enclose a copy. The note is not dated, but I believe it was written some time in the "Eighties"; hardly as late as 1890. You may think it worth printing as a judgement on the subject arrived at quite independently of the Cambridge scholars.
>
> *Note on "Angina" by Dr W. A. Greenhill.*
>
> The quantity of the "i" in angina can be best decided by the poets. The word occurs twice in Plautus and once in Serenus Samonicus. In one place in Plautus (*Trinummus* II., 4, 139) and also in Serenus Samonicus, the reading is doubtful, and therefore cannot be taken as a conclusive authority; but the other line in Plautus is as follows (*Mostellaria*, i, 3, 61):
>
> "In anginam ego | nunc me velim | vorti ut vene | ficae illi."
>
> This is an iambic tetrameter catalectic, and plainly shows that Plautus pronounced the word "angĭna"; and this may perhaps be the reason why, in the line in *Trinummus*, some editor has inserted "acri," which in my edition is wanting. I never examined the point before, but I shall for the future pronounce the word "angĭna"—at least, till I find some better reason for calling it "angīna."

In the British Medical Journal of March 3rd we recorded the "bitter cry" of an Irish judge who had to deal with a case in which there was a conflict of expert testimony for medical assessors. It is not only when there is a conflict of testimony that medical assessors could render much-needed help to judges. In *Some Experiences of a Barrister's Life*, by the late Serjeant Ballantyne, reference is made to a case in which a woman was charged with the murder of her husband by poison. A minute quantity of arsenic was discovered in the body of the deceased, which Ballantyne, who defended the prisoner, accounted for by the suggestion that poison had been carelessly used for the destruction of rats. Mr. Baron Parke summed up not unfavourably to the prisoner, dwelling pointedly on the small quantity of arsenic found in the body, and the jury, without much hesitation, acquitted her. Alfred Swayne Taylor had proved the presence of arsenic, and, to the great disappointment of the instructing solicitor, who desired a severe cross-examination, Ballantyne did not ask him a single question. Taylor was sitting on the bench and near the judge, who, after he had summed up and before the verdict was pronounced, remarked to him that he was surprised at the small quantity of arsenic found; upon which the famous toxicologist said that if he had been asked the question he should have proved that it indicated, under the circumstances detailed in evidence, that a very large quantity had been taken. The professor, says Ballantyne, who was an experienced witness, had learnt never to volunteer evidence, and the counsel for the prosecution had omitted to put the necessary question. Mr. Baron Parke, having learnt the circumstance by accidental means, did not feel warranted in using the information, and Ballantyne had his first lesson in the art of "silent cross-examination."

ROYAL NAVY AND ARMY MEDICAL SERVICES.

MILITARY OPERATIONS IN NIGERIA.

THE *London Gazette* of February 23rd contains dispatches elating to operations in Southern Nigeria in 1904-5 and of the Kissi Field Force in 1905. The fighting seems to have been of he usual desultory character, and has little special interest or the medical reader. In his report, Sir Walter Egerton, High Commissioner of Southern Nigeria, says: "Dr. Christian s reported as having been unremitting in his care of the ick."

Medal for Southern Nigeria, 1902-3.

The King has been pleased to approve of the Africa general ervice medal, with clasps, being granted to the forces employed in the undermentioned military operations, provided hat the claims of the officers and men are approved by the Army Council.

The medal, with clasp "S. Nigeria 1902," will be granted to ll officers and men who took part in the following expeditions: 1) Under the command of Captain P. K. Carre (now deceased), Royal Warwickshire Regiment, in the Ngor country, in July, 902; (2) under the command of Captain A. J. Campbell, D.S.O., 9th Hussars, in the Ebeku country, in September, 1902; 3) under the command of Captain A. D. H. Grayson, R.A., in he Ikwe country, in October, 1902; (4) under the command of Brevet Lieutenant-Colonel W. C. G. Heneker, D.S.O., Conaught Rangers, in the Ibeku Olokoro country, between October 26th and December 8th, 1902, both dates inclusive; 5) under the command of Brevet Major I. G. Hogg, D.S.O., th Hussars, in the Ibekwe country, in October, 1902; (6) under he command of Brevet Major W. J. Venour, D.S.O., Royal Dublin Fusiliers, in the Nsit country, in December, 1902; 7) under the command of Brevet Major H. C. Moorhouse, R.A., in the Asaba hinterland, in December, 1902.

The medal, with clasp "S. Nigeria 1902-3," will be granted to ll officers and men under the command of Brevet Lieutenant-olonel W. C. G. Heneker, D.S.O., Connaught Rangers, who ook part in the expedition in the Afikpo district in December, 902, and January, 1903.

The medal, with clasp "S. Nigeria, 1903," will be granted to l officers and men who took part in the following expeitions: (1) Under the command of Captain H. H. Sproule, h Cavalry, in the Ebigga country, in February, 1903;) under the command of Captain E. L. Roddy, Cheshire egiment, in the country west of Anan, in March, 1903.

Officers and others already in possession of the Africa neral service medal will receive the clasp only.

SURGERY IN THE R.A.M.C.

G. writes; I have read "Scalpel's" remarks on Surgery in the R.A.M.C. in the BRITISH MEDICAL JOURNAL of December 23rd, 1905, p. 1682. There is no doubt that lack of opportunity is the great bar to efficiency in surgery among men of the R.A.M.C. As a remedy I would propose a dual medical service, one for India and one for home and the Colonies. I think the present dual service for India a mistake. I would do away with the R.A.M.C. there and make the I.M.S., increased in strength, responsible for the care of the army, British and native. The smaller civil surgeries and dispensaries I would hand over to assistant surgeons and hospital assistants. Here we would have a magnificent reserve for this class sufficiently strong in numbers and thoroughly trained in professional work. In like manner I would make college appointments and the care of the large civil surgeries, the charges of gaols, etc., prizes for the officers. Here, again, we would have a magnificent reserve, capable of taking the field, fresh from the charge of hospital where as much surgery is done as in most of the large London hospitals. At present a young officer of the R.A.M.C. comes to India where everything is new to him. Tropical diseases present phases and symptoms which are strange and unknown to him. During his first year he is beginning to get a grasp of his new duties. During his second and third years he is perfecting himself in the knowledge of tropical surroundings and diseases, and by the time he has grasped them and thoroughly understands them back he goes to England, where, perforce, he forgets many of the valuable lessons acquired during his Indian tour. The question of attendance on the men of the various regiments, batteries, etc., to be transferred to the Home Establishment could be easily arranged for by handing these duties over to medical officers of this new service going on leave. This would also be an immense boon to them and save them the terrible expense of passages for themselves and families, which so often makes such inroads on their slender resources. The Home Medical Service I would run on much the same lines as the Indian, making the Colonial Medical Service its reserve and the colonies its training ground.

SPECIAL CORRESPONDENCE.

PARIS.

A Bacillary Treatment of Enteritis.—Serumtherapy in Typhoid Fever.

IT is matter of common knowledge that there are good microbes as well as bad, and the bacteriological ideal dreamt of by scientists since the investigations of Pasteur is to contrive that the former shall devour the latter, to the advantage of the human race. This dream may very well become a reality if one may judge from a very interesting research made in the laboratories of the Pasteur Institute. Dr. Henry Tissier has found that if into culture tubes in which certain germs produce toxic fermentations there are introduced mixed ferments which live at the expense of the hydrocarbons and albuminoids, the result is that the mixed ferments, by saturating the medium with acids, prevent any further development of fermentations. Tissier thinks that the same should take place in the human intestine. If subjects are allowed to ingest hydrocarbons, provided they are deprived of albuminoids, useful fermentations may be produced, thanks to certain well-selected ferments. The *B. acidoparalacticus* in pure cultures or in symbiosis with the *B. bifidus* may restore the intestine to the virginal condition of that of a nursling at the breast, and restore within us the true golden age of digestion. Already trials made in cases of infantile enteritis, and acute inflammation of the intestine in the adult, are said to have given most satisfactory results. Tissier hopes, also, to achieve prompt success in cases of chronic enteritis. In these days of enterocolitis and appendicitis here is a treatment which seems to have a great future before it. What is there to prevent us from composing scientific hydrocarbonated menus, and at the end of meals, instead of digestive liqueurs condemned by antialcoholists, giving *petit verres* of acidoparalactic or bifidic cultures? There is an opening for a profitable industry.

For several years Professor Chantemesse has sung the praises of his antityphoid serum. According to statistics collected between 1900 and 1904, he claims to have reduced by means of it a mortality of 15 per cent. to 5 and 4 per cent., a figure certainly worth noting. Up to the present it seemed as if the professor was almost alone in his opinion, and his voice was that of one crying in the wilderness. At least, the doctors did not seem to listen to him, for there is none so deaf as he that won't hear. Now there are signs of an awakening of interest. Professor Brunon of Rouen and Dr. Josias of Paris have recently published their statistics which are in all points confirmatory of those of Chantemesse. Chantemesse has lately made an important communication to the Société de l'Internat de Paris, of which the following is a summary: From December 1st, 1901, to December 31st, 1905, there were under observation in the hospitals of Paris 3,595 cases of typhoid fever, with 753 deaths, or an average mortality of 17.3 per cent. In Professor Chantemesse's own service (Bastion 29) there were from April 1st, 1901, to January, 1906, 712 typhoid pattents, of whom 27 died, being an average mortality of 3.7 per cent. In all the cases of the different hospitals, as in Chantemesse's own service, the method of treatment by baths—hot, tepid, or cold—is in use; the difference in the mortality, therefore, can be ascribed only to the use of the serum. Used as early as possible, it modifies the symptoms in the following manner: There is a first period of reaction following the injection, with fever unabated or even a little increased; then, after five, four, three days, or even one day, defervescence takes place. But the essential condition is that the treatment should begin at once. "I have always observed," said M. Chantemesse, "without any exception, that patients treated by serumtherapy from the first week of their illness get well. When this method is used the ordinary complications of typhoid are rare." It is remarkable that many of the most striking cases in M. Chantemesse's statistics have been observed amongst students of medicine. Yet there are people who say that there is no feeling of solidarity amongst doctors!

CORRESPONDENCE.

THE MEDICAL ARRANGEMENTS OF THE VOLUNTEER FORCES.

Sir,—The recent issues of the British Medical Journal have contained some interesting points regarding volunteers and their want of organization, and among these, perhaps, the most interesting is the letter by Lieutenant-Colonel P. B. Giles, inasmuch as it shows the necessity and sets forth the lines of volunteer organization as it should be.

His objects are, first, to create a service—the R.A.M.C. (Vols.). To his six very good reasons given for creating such a service I might add a seventh: It would form a service for medical aid to the volunteer forces, corresponding in all respects to the Royal Army Medical Corps of the regulars.

Without touching upon his third object, I will refer only to the second, which is to augment the Royal Army Medical Corps in peace as in war. Unless I mistake his intention in using the word "augment," I take it that he means that the volunteers should be a reserve to the R.A.M.C. Now, the organization of the volunteers is a thing apart from the organization of the regulars; but it must in the course of time pursue the same scheme for war purposes. In the sense that they constitute a line of defence behind the regulars, the volunteers are a reserve force; but inasmuch as the regulars have their own reserve serving under special terms, that reserve cannot be replaced by volunteers without destroying the scientific organization of the army. The same principle applies to the medical portion of the army. Mr. Haldane, in his speech on army estimates, spoke of decentralization of the auxiliary forces and of military local government for the decentralized force. But in his sketch of bands of armed troops aided by the population, even he acknowledged that the requisite measures should be arranged beforehand, leaders appointed, companies formed, and no man allowed to run about in confusion. It is to be presumed, therefore, that with regard to the volunteers such decentralization assumes at least the creation of brigades, each self-centred as regards its administration. Each brigade will require its own separate medical complement, which will be administered by a senior medical officer, who in his brigade will carry out the functions allotted by Lieutenant-Colonel Giles to "one officer at the War Office," that is to say, provision of medical officers with battalions as required, provision of necessary field units when necessary, and inspection. Such a decentralization into brigades must be the first step towards organization. These islands will not maintain 250,000 irregular troops acting without co-ordination, and becoming the easy prey of any great invading military force. Whatever steps are taken immediately, the ultimate fate of all civilized forces is organization. When the brigades have been properly placed on a war footing, the organization for war will be rapidly completed by providing them with staffs for divisions and army corps. The senior medical officers of brigades will then be in a position to apply their practical administrative knowledge as principal medical officers of those divisions and army corps.

But Lieutenant-Colonel Giles does not mention that an essential factor for such an organization is the expressed wish of the Volunteer officers themselves. Until the medical officers of the volunteers have by their own initiative come forward and formed themselves into a corps wherein they will pass through the various grades (from below upwards, the regimental medical officer, the medical officer doing duty with medical field units, officers commanding such units, senior medical officers of brigades) no progress will be possible towards satisfactory organization.

Medical officers of volunteer regiments do not appear to realize that the duties carried out by them are the duties which junior army medical officers are competent to carry out in the earliest stages of their careers. As soon as they realize that regimental duty does not constitute a training ground for the highest duties of army medical officers, they will doubtless desire to form themselves into a corps wherein they will progress, step by step, to duties more in keeping with their age and experience.

I hope, Sir, that future correspondence in your columns will voice the desire of the whole of the volunteer medical services to rise to the occasion, and thus indicate in unmistakable language that the time has now arrived for effecting the reorganization of the medical arrangements of the volunteer forces.—I am, etc.,

March 13th. Un guérrilla malgré lui.

UNQUALIFIED ANAESTHETISTS FOR THE R.A.M.C.

Sir,—I most cordially agree with the remarks in the British Medical Journal of March 10th, page 586, on the subject of unqualified anaesthetists in the Army. I understand that the administration of an anaesthetic is a duty which the army surgeon regards as particularly irksome, and one which he would gladly avoid. It is therefore easily to be understood that he would hail the advent of a non-com. as "trained anaesthetist" with some satisfaction. It is difficult to imagine, however, that such individuals would be allowed to take the responsibility of the anaesthetic, except in cases of the greatest urgency when no qualified man was available or on the field of battle. To the training of a certain number of men to this end in the elementary principles of anaesthetic administration—for it could go no further—one could hardly take exception.

An American surgeon on a visit to this country recently told me that a lady gave his anaesthetics for him, combining this duty with typewriting and stenography! She possessed no medical qualification of any description. I inquired as to the method she adopted, and he informed me that she gave ether to *all* the cases by the drop method on an open mask, and apparently the results were most satisfactory. While ready to believe that there were few fatalities when such a method was employed, I at once came to the conclusion that neither he nor the lady had much conception of what anaesthesia really meant, for every one who knows anything of the subject must be aware that it is morally impossible to produce satisfactory anaesthesia in adults by such a method with ether unless morphine or scopolamine is called into requisition as an adjuvant.

As regards Professor Kocher's practice to which you refer, on page 11 of the second English edition of his *Operative Surgery* he remarks: "In our private clinic we have always had the services of the same anaesthetist—a very careful and conscientious man."—I am, etc.,

Edinburgh, March 12th. T. D. Luke.

MANAGEMENT OF LIBRARY AND FACILITIES FOR SOCIAL INTERCOURSE AT HEAD OFFICE.

Sir,—I am very glad to see in the notices of motion for discussion at the Annual Representative Meeting the above two subjects.

With regard to the first; as a country member, when some years ago I followed the practice at some of the London hospitals during the daytime, I wished to work in the Association library in the evening; but this was impossible, though the ever-courteous Librarian helped me to do something in that way during the half-hour or so available before closing time.

It will assuredly be a great boon to the members like myself who occasionally wish to use the Library, if the hours are extended to 11 p.m. as proposed. In the Birmingham Medical Institute the reading room is not closed till 8 p.m.

As to facilities for social intercourse, I have long felt that the formation of a social club at head quarters would be greatly appreciated by provincials who belong to no London club, but who would at once join a club where they might read, dine, and meet their medical friends. The fee for country membership of some of the smaller London clubs is so low that I think it would be within easy power of many hundreds of provincial medical men to join a medical one if the subscription were as moderate. I feel sure that the opportunity for social intercourse at the head office would greatly increase the influence of the Association, and I believe that it would result in an accession of members. I quite recognize that my proposal could not be carried out in the existing premises, but perhaps arrangement could be made in any future scheme for extending them.—I am, etc.,

Birmingham, March 6th. W. J. McCardie.

MIDWIFERY OF THE PRESENT DAY.

SIR,—Matters connected with obstetric practice of some portance are dealt with in Dr. Peter Horrocks's address d Dr. G. Geddes's paper on occipito-posterior presenta- on.[1] With reference to the latter only an addendum is cessary. In the spring of this year I attended a young d muscular woman in her first confinement. The labour mmenced, but the first stage was unduly prolonged. I ited for three days; at the end of this time it was cessary to take serious stock of the situation. In view the condition of the maternal parts, it was quite evident at the child could not be delivered without very serious ks to both mother and child if the head remained in e position described. I therefore summoned Dr. William w to my assistance. That gentleman agreed with me, t stated that manual rotation of the head, accompanied the application of the right blade of the forceps first, d that of the left last, would very soon settle the matter. performed this operation and delivered the child, hough the os was not fully dilated. The result was inently satisfactory. I am exceedingly grateful to . Gow for the knowledge of this method, and I believe at it is the proper method to be adopted, not only in es of exceptional difficulty, but in all cases where the iput fails to perform its long rotation and interference imperative.

Referring to Dr. Horrocks's address, there are some nts to be made. In the first place, it is refreshing to d a great many points emphasized which I attempted emphasize so long ago as February 23rd, 1904, in a per published in the *Lancet*; but there are others which enture to believe require a little consideration. No eption can be taken to the statements about the pre- tion of sepsis until the questions of douching after livery and stitching the perineum are reached. In the per referred to I laid stress upon the importance of ving no nidus for the growth of bacteria; and this a point to which Dr. Horrocks makes no allusion. ting on one side the question of venous thrombosis, ave known no case of puerperal sepsis unaccompanied retention of some portion of the decidua, either in cases n which I have held inquests as coroner, or in those nected with practice. It naturally appears to me to be mportance to call attention to the necessity of a very y examination of the interior of the uterus if there is se of temperature about the third day after delivery, any reasonable suspicion of sepsis, and the further essity of the removal with the finger or forceps of any ion of the decidua found.

may be here stated that any curette with a cutting ace should be absolutely forbidden for this procedure, use such a weapon is apt to be a lethal, and a very al, instrument. Dr. Horrocks also appears to have looked the necessity of suturing any tear, however ll, in the perineum. Stress should be laid upon point, because any open, external wound may be a is for the growth of bacteria. The question of douch- after delivery by the accoucheur himself is, I am re, a vexed one. Since I commenced midwifery prac- I have known every sort of vagary connected with hing advanced by eminent accoucheurs. A curious t is the attitude assumed in connexion with the nical used for the douche. The late Dr. Illingworth duced biniodide of mercury, and it is due to his ory to express a regret that the value of the introduc- of this chemical has never received adequate re- ition. If this had been introduced through the mediation of hospital authority there would doubt- be no need now to commend its use. Since llingworth placed it in my hands I have never known failure in results. Stress is laid upon "vaginal" hing after delivery because of the certainty of re- l of clots and débris, the sure cleansing of the tract, the comfort given to the patient.

nally, the use of an anaesthetic appears to be for- en by Dr. Horrocks. A question may be asked. many London accoucheurs refuse the solace of oform to their wealthy patients? and a further one: e wealthy are not denied Sir James Simpson's boon, should the less wealthy be so denied?—I am, etc.,

field, March 11th. LOVELL DRAGE.

---

[1] BRITISH MEDICAL JOURNAL, March 10th, 1906, pp. 541, 549.

AT WHAT AGE SHOULD A CLEFT OF THE PALATE BE CLOSED?

SIR,—I am afraid that Mr. Waugh cannot have done me the honour of reading my original paper very carefully. Had he done so he would not have misquoted me, and attributed to me a statement that, as regards speech after my operations, "there are comparatively few (cases) in which I should call it good." By omitting the word "very" before "good" the meaning of my remark is entirely altered.

As may be seen by reference to the list of cases in my paper, these may be classified in the following manner.

Omitting 17 cases[1] operated upon within twelve months of the date of my report (July, 1905), that is, too recently for a satisfactory judgement to be formed with regard to speech, and 6 others about which no information as regards speech could be obtained, the figures are as follows:

Very good	5	22 (50.0 per cent.)
Good	17	
Fair		12 (27.3 ,,)
Indifferent but improving		3 (6.7 ,,)
Already much improved ...		3 (6.7 ,,)
Bad		3 (6.7 ,,)
Not yet learnt to speak ...		1 (2.2 ,,)

The remark quoted above referred only to the first group, the *very good*, comprising cases in which the resulting speech, although not "absolutely normal," approaches very nearly to that condition.

Whether the results of my individual operations are good or bad is no doubt a matter of very little importance to any one but my patients and myself. But when Mr. Waugh proceeds to use his misquotation of my words as the basis of an argument in favour of an operation which many (and I think most) surgeons condemn, then I cannot well keep silent.

If we take only the cases operated upon during the third year of life, which is, I consider, the period at which the operation ought, as a rule, to be performed, it will be seen that *in all of these* the resulting speech was "very good" or "good," with one exception in which it was "fair." This was a child who had been operated upon in early infancy (before the closure of the harelip) at the Hospital for Sick Children, Great Ormond Street (*not* by Mr. Waugh). The operation had been a complete failure, and as its result so much destruction of tissue had occurred that I had the greatest difficulty in eventually obtaining a good palate.

Of the cases grouped as "fair," "indifferent," and "bad" as regards speech, all but four were operated upon after the age of 6; five were cases previously unsuccessfully operated upon by other surgeons, and at least one-third were mentally defective. It must be remembered, too, that my cases are not a picked series of selected cases, but include the whole of my operations from the very first.

Mr. Waugh's figures as regards the mortality after cleft palate operations are satisfactory as far as they go, and are a valuable contribution to the subject. They would, however, have been still more satisfactory had they been accompanied by a statement that in all or most of the cases the children had been kept under observation until the wound in the palate had actually healed. With much of what Mr. Waugh says in his last and in his previous letter about malnutrition and oral sepsis I am in agreement. The mortality among hand-fed infants, especially among the poorer classes, is undoubtedly high. There should, however, be no difficulty in giving to an infant with cleft palate as much nutriment as it may need by means of a spoon, or a boat-shaped feeding bottle with a short broad teat. The existence of a cleft palate does not prevent a child from swallowing. It has, I think, been too readily assumed that the mere operation upon the palate will necessarily enable the child to swallow better, and prevent the disorders of nutrition to which cleft-palate infants are undoubtedly liable. Nobody has yet brought forward any proof that the early operation acts as the life-saving process which Mr. Fagge suggests may be the case.

The various letters which have appeared on the subject of the best age for the closure of cleft palate have thrown but little light on what is the whole point of the controversy—namely, Are the results of operations performed in early infancy better or worse than those obtained by deferring the operation until the third year?

---

[1] In nearly all these 17 cases the results as regards closure of the cleft in the palate are excellent, and it may reasonably be believed that in time the speech will be good; indeed, in many cases, it is now already known to be so.

We have been told in general terms that the results are good, or it has been argued that on physiological grounds they ought to be, but no proofs have hitherto been brought forward. As far as I am aware, no consecutive series of cases of cleft palate operated upon in early infancy and followed up into later years has ever been published. But herein lies the crux of the whole matter. If it can be satisfactorily shown that the results are as good as they are claimed to be, I for one should be quite ready to reconsider my position. There are undoubtedly advantages in the early operation from various points of view. Hitherto, however, the cases operated on in early infancy which have come under my own notice have certainly not prejudiced me in favour of this method, and this observation applies especially to the so-called flap operation.

The suggestion of an exhibition of cases illustrating the results of various methods of operating is not mine but Mr. Murray's. I think it an excellent one, and I have already signified my willingness to further it by any means in my power. It now rests with the advocates of the flap operation in early infancy also to take up Mr. Murray's challenge.—I am, etc.,

London, W., March 6th. JAMES BERRY.

THE EARLY DIAGNOSIS OF PULMONARY TUBERCULOSIS BY THE ROENTGEN RAYS.

SIR,—When I wrote my letter of November 4th, 1905, it was with the object of eliciting the opinion of other radiographers on Dr. Theodore Williams's statement "that there are a large number of cases where the presence of disease is discovered by the ordinary method of examination, but is not shown by an *x*-ray examination," and also to see whether any other fallacies had occurred in the practice of other workers on the subject that had escaped my notice.

To deal with the latter first, Dr. Cunnington objected to the great stress that I laid on the value of "unilateral limitation of movement of the diaphragm as the earliest sign of pulmonary tuberculosis," stating that this may be produced by surface chill or nervousness, of course either of these conditions might possibly lessen the range of movement on both sides, but I fail to see how it could affect one side more than the other.

Dr. Theodore Williams says that his statement is based on his experience gained in the clinics of Dr. Greg at the Brompton and St. Thomas's Hospitals, and that at the recent Tuberculosis Congress at Paris he found that the evidence of the French physicians pointed to the same conclusion. I must say that I am very disappointed with the latter part of the statement, as I had been led to suppose from my conversations with some of the expert radiographers in that city that they, at least, were more than ever convinced of the great value of this method of examination. It would have been interesting to have heard from Dr. Greg the method of examination carried out in his clinics, as a great deal depends upon this point; if a screen examination only is relied on then I can quite believe that Class 3 will include a large number of cases, but the examination by the *x* rays must be thorough, and by this I mean:

1. The screen examination must be carried out in a perfectly dark room; the light in the tube must be under such perfect control that slight variations in transradiancy can be easily detected; the patient must be examined "screen to back," "screen to chest," and "lateral oblique"; if the screen is covered with ground glass the movements of the diaphragm can be recorded and measured, and any shadows that are seen can be roughly traced and compared with those seen in the skiagraph.

2. The skiagraph must be taken, developed, and interpreted by the expert himself; I lay stress on this because I am satisfied that a good deal can be seen in the early stages of development that is difficult to detect in the fixed plate, and this is especially the case in the early cases where the lesion is limited to one apex. I am not for one moment suggesting that Dr. Greg's method o examination is not thorough, but I know that in many clinics the development is left to others. It may be said that this involves a great deal of trouble, but with practice the examination can really be carried out very quickly.

I should be very glad to meet Dr. Theodore Williams at any of the Societies in London if he would bring some early cases and submit them to an examination by severa physicians, and compare the results with those obtaine by my *x*-ray examination.—I am, etc.,

Lincoln. A. STANLEY GREEN, M.B., B.S.

ANGINA PECTORIS.

SIR,—I have read with interest the two letters whic appeared in the BRITISH MEDICAL JOURNAL of March 3rd p. 535, dealing with my paper on angina pectoris, an I desire to make a few comments on them if you ca favour me with space to do so.

If it is to be understood from Dr. Alexander Morison' letter that he adheres to the purely nervous view of th phenomena of angina pectoris, I regret that we are no likely to agree on the subject. I am at the same tim desirous that there should be no misunderstanding of ou respective positions.

I did not maintain that injudicious dietary is "alway the provocative to angina;" on the contrary, I maintaine that the provocative might be a meal, physical effor mental emotion, or toxic substances. The true provocative from my standpoint is whatever determines th "morbid systemic arterial contraction," to borrow th term used by Dr. Alexander Francis in his letter of th same date. This arterial contraction, from my standpoin determines the pain. As regards the phenomenon of pai I am as ignorant as Dr. Morison of pain being a propert of "structures outside the nervous system," but I a equally ignorant of pain without the particular propert of nerve structure we call "consciousness."

If Dr. Morison adheres to the view that the cause the pain in angina is primarily nervous, we must, I fea agree to differ.

It is, I presume, on this point that Dr. Morison want less clinical analysis and more anatomical research. anatomical research would only show us the footprints pain, or even of exalted functional activity in nerv centres, much controversy would be avoided, and o many subjects men would more easily see eye to eye. M own contentions regarding vessel changes were based o anatomical researches, and I am bold enough to conten that they have been maintained, supplemented, an confirmed by clinical analysis.

There is, however, still a line of investigation whic offers the inducement of definite results being almo certainly attainable—that is, whether certain substance act directly on blood vessels, or act through their nervou mechanism. Such an investigation, although importan would however at best only show the steps by whic contraction is induced.

I am glad to have Dr. Alexander Francis's support my main contention from observations in a special depar ment. The fact of arterial contraction in asthma he wi find referred to in my paper in the *Lancet* of June 1s 1901. The observations of himself and others as to th effect on angina of cauterizing the nasal septum we unknown to me, and I was not aware that this operati in asthma had been noted as having any effect upon th general arterial system.

Confirmation of the importance of vessel constriction I am glad to say, also coming from the department ophthalmology.—I am, etc.,

Edinburgh, March 10th. WILLIAM RUSSELL.

THE RELATIVE BRAIN-WEIGHT OF MAN AN WOMAN.

SIR,—Somebody has said something (not cited verbati somewhere (place not cited), and because he does it "co fidently," although he has never worked in my laborato nor been a pupil of mine, Dr. Beddoe finds it "natural conclude" that he is a "myrmidon" of mine, and inste of turning to my published papers for information, quot this gentleman's opinion of what my opinion must Dr. Beddoe then cites Dr. Lee's paper in the *Philosophic Transactions*. He might have cited her third and four lusions with extreme advantage at the present ture. Dr. Lee is an old pupil, and is now a colleague ine, and, although she is a quite independent entity, d nothing inconsistent in her words with my statet that there exists no marked correlation between size and intelligence, nor do I see that her statement es Dr. Beddoe's reiterated assertion with regard to views "practically correct." She several times re-s in her memoir the phrase absence of "marked lation."

Dr. Gladstone my reply must be that it is absolutely ssible to compare in the matter of head measurets classes in the community having different stan-s of nourishment or different age-distributions. In ast Darenth statistics I have at hand the group of s from 20 to 25 formed one-third of the whole lation between 20 and 45. They form no percentage l of either the Middlesex Hospital or University ge data which he quotes. The prime in head urements is reached between 25 and 28 years in the . In the next place, the University College staff belongs class well nourished from infancy, the Darenth ciles in the bulk to a very poorly-nourished class, and *ost-mortem* Middlesex group probably to an intermeclass. On both grounds, therefore, comparison is ssible. We can only consider Dr. Gladstone's comon of imbecile workers and non-workers. Is this anypeculiar to imbecile data? Allowing for the extreme ty of Dr. Gladstone's measurements—he appears to selected from possibly 600 males of 20 to 45 years, whom lie between 20 and 25, only 109 to measure—agree with my own observations on between 4.000 and *normal* individuals. We have reduced to standard

	Males.			Females.		
	Head Length.	Head Breadth.	Auricular Height.	Head Length.	Head Breadth.	Auricular Height.
ntelligent ...	185.5	146.4	128.1	180.8	141.0	124.4
ill	180.2	143.2	124.8	178.6	136.6	123.7

ill be seen at once that Dr. Gladstone's comparisons ot in the least peculiar to the insane population. such differences as the above, by what I hold to be a ous method of statistics, Dr. Gladstone reasons that ricular height is relatively more important than the diameters. Generally the auricular height is about y variable with the head breadth and both rather variable than the head length. But this variation has no relation whatever to the *correlation* with gence. I extract the following from my data, which e the correlation of intelligence with more than 20 ters:

	Temper.	Head Length.	Head Breadth.	Hair Colour.	Eye Colour.	Auricular Height.
... ...	0.22	0.14	0.11	0.10	0.08	0.07
... ...	0.22	0.08	0.11	0.09	0.06	0.06

is to say, data showing precisely the same general nces as Dr. Gladstone's lead at once to the biomes statement that there is no *marked* correlation n head size and intelligence. No correlation under really of the slightest value for purposes of ion.

lly, I turn with hope to Dr. Keith. He believes have a rational method, but that we live in an n-Wonderland atmosphere. At any rate, he sees us h such an atmosphere, for I feel quite sure that no rician would speak of brain-weight as "*due* to size l"; nor would they suppose size of head in the man to be due in any appreciable extent to oment of intelligence. They have no theories as expansion of the head under internal pressure. They have faith in natural selection and inheritance, and too little belief in the transmission of acquired characters. Statistically we know: (1) that in the average man the capacity of his brain to perform effectively its functions increases rather than decreases, from 25 to 45; (2) that in the average man brain-weight during these years diminishes, and possibly begins to decrease at a still earlier age (see Pearl and Blakeman); (3) that the size of the head in the same man does not increase, but possibly diminishes from about 25. In other words, a man reaches his prime physically before he reaches it intellectually. In view of these facts, may we not ask anatomists to realize that the most important elements of brain growth upon which mental growth depends are not necessarily growths in weight or size at all, but most probably in the complexity of the association structures or the facility with which these structures can be worked?

Turn to another point. The brain-weight of a man of given body size, head size, and age is *not* fixed as the contents of a pint pot are fixed. Take 100 men of the same age, body, and head sizes, and 25 of them will exceed in brain-weight by more than 97 grams a second 25 of the same group. This difference may be associated with variations in thickness of bone, density of cerebral matter, or in amount of fluid matter; possibly with other factors. In short men of actually the same external physical measurements may differ in brain-weight by *more* than the average man and woman differ. It was therefore perfectly possible before Pearl and Blakeman's investigations to assert that the difference in brain-weight of the sexes was of the same kind as we actually find to coexist between men of the same external physical measurements. On the contrary, we now know that the sexual difference is purely one of size of body and head, and not of the manner in which the brain-case is filled. From the biometric standpoint the question of relative brain-weight in man and woman is thus identical with the problem of whether the bigger man is on the average more intelligent than the smaller.

Turn then to a last point. Adachi gives the capacity of the average male Japanese cranium as 1,428 cm. The Russians have the biggest European capacity, 1,529 cm., or there is more than 100 cm. difference. Is this to be considered a measure of Russian intellectual superiority? I fancy a good many anatomists would say we must allow for the size of the body to be controlled by the corresponding brains; but if this is to be done in this case, it must also be done in the case of man and woman, and then the biometrician's conclusion that male and female brain-weights are as their relative physiques becomes, I think, a very important contribution to knowledge. It is one which will not be laughed out of court by such arguments as that biometricians cause heads "to expand by the use of one multiple regression formula, and contract by the application of another." I fear, Sir, that I have taken up much of your valuable space, but we have a new gospel to preach to anatomists, anthropologists, and bacteriologists, namely, that new methods of scientific reasoning are coming into their sciences, and that while full credit must be given to them for their often splendid accumulation of facts, the reasoning on those facts will demand in the future a new logic and a new training.—I am, etc.

KARL PEARSON.

University College, London, March 4th,

*** This correspondence must now cease.

THE HEREDITY OF INSANITY.

SIR,—It seems to me that the discussions of this subject at the meeting of the British Medical Association at Leicester, as reported in the BRITISH MEDICAL JOURNAL, are of necessity of much less value than would have been the case had the considerations I am about to point out been taken account of.

No one will dispute that insanity is not an entity; it is merely a convenient grouping of mental phenomena. Before applying to such a group the laws of heredity or the canons of prognoses, a pathologic differentiation is surely necessary.

It would be as reasonable to discuss the heredity of such a dermatological group as eczema, without distinction of its parasitic and toxic or other forms; or the *ensemble* of two such entirely different blood diseases as paludism and green sickness; or of cardiac disease, including functional, degenerative, and valvular, three types of entirely different origin; or of liver disease in a country where hydatids and tropical abscess formed a large proprotion of the cases, without putting into a separate category such secondary conditions as passive congestion; or, to come still nearer home, of diseases of peripheral nerves without considering apart exogenous toxic neuritis, beri-beri, and leprosy, as well as the degenerations of neuronic systems secondary to primary local accidents in the cord and cerebral base.

Until the psychoses are categorized and statistically separated in accordance with some etiologic, pathologic, or even anatomic bases, little good seems to accrue from such discussions of generalities founded upon classifications which are in reality no better than that of plants in pre-Linnaean days, or of animals, when bat, bird, and butterfly were of the same order because each had wings.

The fallacies of statistics founded on such heterogeneous bases, where must occur variations which we have no means of appreciating and which are *a priori* very unlikely to correspond, should be evident enough. But as nearly the whole time of what should be perhaps the most important Section of the British Medical Association was occupied in this beating of the air, what appears to the writer so obvious as hardly to require mention is evidently regarded differently both by those who were responsible for the selection of the subject-matter for the consideration of the Section, and by those who so ably participated in the discussion.

With the remarks of Dr. Urquhart that what we as a nation require is an intelligent understanding of the methods of Nature and an adjustment of national conditions to those methods,[1] I am in cordial agreement, and it is because of that opinion that I believe the most important Section of the British Medical Association to be that of Psychical Medicine. For if the proper study of mankind is man, then the mind of man, the development of which most of all differentiates him from other vertebrates, is his most important study. And it is only by an intelligent and general conception of the fundamentals of physio-psychology by the people at large that this object of Dr. Urquhart can be attained.

But until the medical profession itself views normal psychology less coldly, that day will be long in coming. We have too long left the laws of the operations of mind to the schoolmen and metaphysicians. It is time the physician took his part as an educator of the people in this fundamental of intelligent social action.

I have recently spent some three years in the United States of America, where the deplorable *laisser faire* attitude of our profession in the past towards anything less tangible than anatomy has involved that otherwise intelligent nation in the maëlstrom of Christian Science, Mental Healing, Spiritualism, Suggestionism, and a horde of prostitutes of verity which batten on the unprotected sciolism of a people clad in the unsubstantial gossamer of a neo-Berkleian dualism which gives only an illusion of protection.

The profession in France has managed much better. They are taking their part in the nation's affairs, for they have wrested from the scholastics this most important branch of what is in reality a subdivision of physiology. The *point de vue psychique* is a commonplace of their professional utterance. Even the laity crowd the psychological lectures, and speak freely to their medical advisers of the things of the mind, well knowing that he who consults his physician about his abnormal or unusual mental states will receive real assistance, instead of being misunderstood, almost scoffed at, and made to appear ridiculous.

The question is much deeper than Dr. Urquhart has voiced, and before taking action it would be advantageous to find a common and firm foundation from which to set out.

Accordingly, I wish to maintain here, and if contention is aroused so much the better, that what we have great need of is the awakening of our profession to the need of, and the desire for, a knowledge of the operations of the mind, and not only abnormal mind, and that the best medium for beginning this work is the Section of Psychological Medicine of the British Medical Associati
—I am, etc., **Tom A. Williams, M.B., C.M.**

Paris.

INFANT FEEDING IN THEORY AND PRACTICE

Sir,—I have read with keen interest the letters of yo correspondents on this very important subject, and am entire agreement with them "as to the desirability, if n necessity," of making the study of disease in childre which would, of course, include infant feeding, comp sory on all students of medicine. At the present tin when the question of our excessive infantile mortality so much in evidence, and there is a hopeful prospect some widespread and efficient measures being taken deal with this pressing problem, it is more than ev important that the students going forth from our vario schools should possess a sound, practical, and theoretic knowledge of the diseases peculiar to infancy and chil hood. It is for this reason that I view with dismay t increasing apathy of the senior students towards the stu of the diseases of children, an apathy which can only accounted for by the fact that a certificate of havi attended a course of lectures at a recognized childre hospital is not required from them by the universities a examining Boards. In any scheme for the reduction the excessive death-rate amongst infants and you children the question of infant feeding must occu a foremost place, when it is remembered that 50 per ce of the deaths of children under 1 year are caused, direct or indirectly, by improper feeding. How are the mothe of the poor in large centres of population to be ma acquainted with the first principles of infant feeding a domestic hygiene? Presumably by the employment female health inspectors. How are the health inspecto to acquire the knowledge necessary to enable them impart such instruction? Surely from the membe of our profession; and as the senior student to-day will be the medical practitioner of to-morro can there be any more important subject for hi to have a sound knowledge of than the diseases children? There can be no doubt about the answe no student should be allowed his licence to practi until he has satisfied his examiners that he possess a thorough knowledge of this most important an may I add, most useful and necessary branch of h profession.

I am not unmindful of the extent and difficulty of t medical curriculum at present, and how it is divided a subdivided into many subjects of a special nature, b this cannot be put forward as an excuse for excluding su an important subject as the diseases of children from t recognition it deserves. Moreover, a very large percenta say 70 per cent., of the young doctor's first patients a children, and his ability will be measured by the pr ficiency he is able to show in dealing with their ailmen On all grounds, therefore, I would urge, not the desirabili but the necessity, of making the diseases of children compulsory course—a course no student would ever ha reason to regret.—I am, etc.,

Belfast, Feb. 27th. **John McCaw, M.D.**

RURAL INSANITATION.

Sir,—I do not think that "Limitation's" letter has be taken sufficiently seriously. Townsmen have discover that expensive sanitary measures and expensive hous are necessary in town. They have jumped to the concl sion that the country also requires the same thing.

Provided the cottages are sufficiently segregate and enough off their water supply, even mere hovels are that is necessary for a hardy race of bone and musc The spreading of all refuse, excrement, etc., on the cabba garden is far superior to any drainage system.

The survival of the fittest in the country brought o race to greatness. The perishing of the unfit in tow threatens its existence. What finer race than that of t West Coast Islanders of Scotland? Yet their habitatio would shock the modern medical officer of health. T youthful rustic is unable to marry and settle in t country, as under existing regulations new cottages a impossible.

Why sacrifice facts to ideals? Why spend your time keeping diseased townsmen alive instead of breedi healthy countrymen?—I am, etc.,

February 24th. **Limitation II.**

---

[1] See the British Medical Journal of December 16th, 1905, p. 1571.

IE POOR-LAW COMMISSION AND CONTRACT PRACTICE."

R,—Allow me a few remarks in support of "Self-
ervation"[1] and in opposition to "Anti-Club."
am at present a club surgeon pretty well known, of
standing, in the large town where I live. I am
e satisfied with my lot, but am aware of the fact that
lub doctors may not be so happily situated.
ter qualifying I spent some four years as "assistant
locum," and saw a great deal of different private prac-
. I grew quite sick of the intolerable toadying of
of my principals to their private patients who could
a good cheque, and of the constant efforts they made
ush themselves into good families socially above
, pocketing their self-respect in so doing as much or
, in my opinion, as any club doctor ever did. Added
is, the almost continual worry of a large number of
en private patients with their infants and families,
ncessant calls, telegrams, and telephones, at all hours
e day and night, and often for small things, such as
in infants, etc., so gave me "the blues," that I went
sea for a year as ship's surgeon. On returning
ight a club practice. I have had it six years, and
e never regretted it. I get no night work, I am quite
from worries inseparable from private practice, my
bers pay 4s. a head, and I get my cheque every
er, and do not have to wait for it.
ave very little trouble with the patients, and I find
y are well treated that the majority will return the
liment, and if any are disagreeable (which I seldom
ience) they get no support from the majority; by
neans I keep my self-respect.
h regard to the division of contract practice, I gave
1,000 for my practice, and should want every penny
back before I would divide a shilling with anybody;
few hundred yards from "my corner" is a qualified
who for years has given medicine and consultations
night and morning, for sixpence! Is it proposed
and "Self-Preservation" should divide up our con-
work with him and share his sixpences? No, thank
Working men with families to provide for cannot
to pay for each visit and medicine during an illness
e weeks' duration: therefore there must be contract
e, and if the Association can get the rates raised so
the better; but as regards dividing up existing
ct work, or instituting a public medical service, in
inion it can never be done, even if it were possible
out the contract practices, which must represent
total enormous.—I am, etc.,

12th. FOR CONTRACT WORK.

—As a country practitioner of fourteen years'
ng who has not yet arrived at the stage of being
ed to doctor club patients, might I be allowed to
nother Anti-Club" and others of that ilk by what
they propose to treat the families of—say, agricul-
bourers earning from 12s. to 14s. a week? I have
medical men who, scorning to attend club
s, did not consider it *infra dig.* to send in a bill of
£7, or even more to an agricultural labourer. Per-
, I prefer to take this class of patient into a well-
d club, where for a few shillings a head per annum
e saved the necessity of rushing to parish medical
nd are taught—maybe in a small way—the prin-
f self-reliance, a useful quality in these days of
loyed and unemployable. How can "Another
ub" know so positively that no doctor can give
tients proper attention and not lose by it, seeing he
of never having had a club patient in his life? I
und that club patients, though perhaps not gold
certainly do pay any one who honestly attends
This will no doubt seem to "Another Anti-Club" a
surd, but I can assure him on the word of a fellow
oner and a sportsman that it is absolutely true.—
tc.,

12th. A. N. TISNOB, M.D.

-Probably every general practitioner hopes to be
transfer his appointments to his successor. It is
recognized custom and it certainly seems more
ble that a man who has had to buy appointments
be able, if he has given satisfaction and provides a suitable successor, to sell them, than that they should be given to people who have paid nothing at all.

Guardians usually recognize the justice of this claim and, I am informed, often refrain from advertising appointments as vacant, with the result that they often remain in the same practice for generations.

There is no doubt at times a risk, but it would be manifestly unfair for the Association to interfere and make that risk a certainty. I quite hope and expect that any one attempting anything so revolutionary will bring a hornet's nest about his ears.

The only fair plan that occurs to me, and that I am afraid is hardly feasible, is for some body to buy an incumbent out—distribute the contract patients, together with their relatives who pay, to the four winds, as suggested, and recoup itself to some extent by selling the remainder for what it would fetch—which probably would not be much in the case of a small practice.

I should not be inclined to place much reliance upon agreements with colleagues. I lived once in a town where no colleague ever kept his agreement as to tariff, but habitually tried to undersell—two because they were poor and another because he wanted to get the whole practice into his own hands, and preferred to attend people for nothing rather than let any one else earn a modest fee. I have before now refused an appointment out of deference to the opinion of my colleagues and had one of them accept it the very next day.

May I be allowed to correct "Professional Union"? I did not pay more for my practice on the chance that I might secure the appointment of Poor-law medical officer. I agreed, as is usual, to pay a year and a half's purchase for each appointment only in the event of my being elected, and I should not have bought the practice at all—least of all for more than a year's purchase—had not my election been a foregone conclusion, as it would not have been a living for me without them.—I am, etc.,

March 12th. SELF-PRESERVATION.

LIFE ASSURANCE WITHOUT MEDICAL EXAMINATION.

SIR,—Your correspondent, Dr. Sidney E. Atkins, in the BRITISH MEDICAL JOURNAL of January 27th, p. 236, deplores the gross deception perpetrated on insurance companies. I do not think they deserve sympathy as they have the remedy in their own hands. Let them pay a reasonable fee for a medical certificate, and at once the opportunities for perpetrating such frauds are eliminated. That insurance companies lose immense sums of money which would be saved by the aid of a medical certificate there is not the shadow of a doubt, and I would give one illustration of several from my own experience.

I was asked to see a young girl by her father. I told him she was suffering from phthisis pulmonalis of a bad type. He asked if there was no chance of her recovery, and I told him I saw little hope. I learned afterwards that on the strength of my prognosis the father forthwith got the girl insured for £20. The result was that he drew £20 from the insurance company within twelve months of my first visit.

Some companies want a medical certificate but will not pay a reasonable fee. I was offered two shillings a few weeks ago to examine a case for a certain company. I was astonished. "That is what we pay," said the agent. I wonder who accepts such fees. I replied that if it had been a charity he asked I would have done it, but I would not do it for an insurance company for two shillings. I hope he accepted the proposal without examination, as the individual had been on my list for the last twelve months as a diabetic.

The vacant "duration of disease" column in death certificates is also a source of trouble to these insurance companies. I have on several occasions been asked by insurance agents to state duration of disease which I had left blank in a death certificate. Such requests I invariably refuse. If the company can get a certificate to the effect that the disease lasted eighteen months, say, and if deceased had been insured for a shorter period they try to scuttle out of payment or to get the claimant to accept repayment of premiums instead. At the same time the agent who insured deceased gets hauled over the coals for not knowing that a fatal malady had set in when he accepted the proposed life.

---

[1] RITISH MEDICAL JOURNAL, March 10th, 1906, page 595.

Two questions, I think, might be profitably discussed at Association Branch meetings:

1. *Fees Paid by Insurance Companies.*—It is pitiful to think that medical men can be got to make a visit, medical examination (often including examination of urine), and write a long report for a 2s. fee.

2. *The Form of Death Certificate.*—The "duration of disease" column I always leave vacant (except in acute diseases). It is impossible in many cases to be accurate, and if not that it is worse than useless for statistical purposes. Moreover, it is used by many insurance companies as an excuse for evading their lawful obligations to their clients.—I am, etc.,

J. McK.

MEDICINE AND THE MERCANTILE MARINE.

Sir,—With reference to your suggestive article on the above subject, it may be of interest to note that the "chest" carried by German merchant ships is of a more up-to-date character than our Board of Trade chest, though there is room for improvement on the lines you indicate even in the Teutonic chest.

German ships' officers have, I believe, to pass a very thorough "first aid" examination and to show some knowledge of the principal drugs and their uses. I was much struck, on visiting professionally not long ago a German barque which had been encountering heavy weather, by the careful and efficient way in which the second mate had treated injured members of the crew. One man had sustained a very severe scalp wound fifteen days before the ship reached harbour; the scalp had been shaved, the wound thoroughly cleansed, seventeen sutures applied, and the result was that it had healed by first intention. The mate told me it had taken him two hours "to do the job," and I do not doubt it.—I am, etc.,

Plymouth, March 12th. Charles J. Cooke.

THE PROPOSED BILLS TO LEGALIZE THE PRACTICE OF OPTICIANS.

Sir,—Having drawn attention by a letter which appeared in your issue of January 6th, p. 52, to the unexpected and unexplained inactivity of the Ophthalmological Society of the United Kingdom with regard to the above matter, it is now only fair to state that at the next meeting which was held after my letter appeared the Society decided to appoint a Committee to consider, inquire, and report concerning the Bills.—I am, etc.,

Norwich, March 5th. Arthur Greene.

OBITUARY.

HENRY MATTHEWS TUCKWELL, M.A., M.D., F.R.C.P.Lond.,

CONSULTING PHYSICIAN TO THE RADCLIFFE INFIRMARY, OXFORD.

Dr. Tuckwell, who died recently at Oxford, was a native of the city, his father having for many years been one of the leading medical men there. Henry Matthews Tuckwell was educated at Bromsgrove School under the late Canon Collison; he passed thence to Lincoln College, taking a first class in Natural Science in 1856. After leaving Oxford he studied medicine at St. Bartholomew's Hospital, and became M.R.C.S.Eng. in 1858. A year later he won a Radcliffe Travelling Fellowship, and continued his medical studies at Paris, Berlin, and Vienna.

In 1866 he was appointed Physician to the Radcliffe Infirmary, which post he held for twenty years. With such a training, and possessing as he did a most courteous and sympathetic manner, he quickly acquired a great reputation as a physician, and for many years enjoyed a large consulting practice in Oxford and the neighbourhood.

It was in the very prime of life, and at the most successful period of his career, that a great misfortune overtook him, for in 1886 he suddenly found that he was developing glaucoma, and was advised to give up all work immediately. His retirement from practice under such circumstances was the occasion for all the medical men in the district and his old teachers and friends at St. Bartholomew's to present him with a testimonial as a mark of their sympathy and esteem. It took the form of a beautifully-illuminated address and a gold chronometer. The address bore the signatures, among others, of Sir George Burrows, Sir James Paget, Sir William Savory, Andrew, etc., and was much valued by Dr. Tuckwell.

Keenly interested in the advances in his professi busily engaged in an extensive and interesting pract to be suddenly debarred from all work and from the c solation of his books must have been a heavy bur indeed to bear. His friends, however, never heard word of complaint pass his lips, and he appeared alw cheerful and contented. Indeed, he set a noble exam of Christian patience and resignation to all around h His great love of music was a source of immense cons tion to him, and fortunately Oxford afforded him am opportunity of indulging it. In his earlier years at Oxf a good deal of his leisure time was spent in drawing u most admirable description of the pathological specim of the Van der Kolk Collection, which had been purcha for the University. He also contributed several arti of great interest to the various medical periodicals, nota one to the *St. Bartholomew's Reports* on the prob connexion of chorea with embolism.

THOMAS DUDDINGSTON WILSON, M.A., M.B., C F.R.C.S.E.

CHAIRMAN OF THE SOUTH EDINBURGH DIVISION OF THE BRITIS MEDICAL ASSOCIATION.

We regret to record the death from pneumonia on Ma 8th, at his residence, West Newington House, Edinbu of Dr. T. Duddingston Wilson. He was the eldest so Dr. David Wilson, who for many years had a large prac in the northern districts of Edinburgh. He was educa at the Edinburgh Academy, the University of Edinbu and in Paris. He graduated M.B. in 1875, and becam Fellow of the College in 1879. On his return hom became Resident Physician in Leith Hospital, and la Medical Superintendent of Craiglockhart Hydropa Institution, near Edinburgh. In 1883 he settled in gen practice in the south side, where he soon acquired a siderable *clientèle*. He was a kindly and sympathetic n and did much good work without ostentation. He not robust, and frequently suffered from asthma. He down his work at the age of 55, leaving behind hi widow to mourn his loss. He was a keen politician, President of the Newington Unionist Club, Chairma the South Division Unionist Association, an able organ who worked hard for his party at the recent gen election. At the time of his death he was Chairma the South Edinburgh Division of the British Med Association. He was thus a distinct force in the dist in which his work lay.

WILLIAM MOXON, M.R.C.S., L.S.A.,

VICE-PRESIDENT ROYAL VICTORIA DISPENSARY, NORTHAMPTO

We regret to have to record the death of Mr. Will Moxon of Northampton, which took place on January 1 in his 74th year.

Mr. Moxon was a native of Rugeley, in Staffords and was educated at King's College, London, taking Membership and Licence in Midwifery of the R College of Surgeons, England, and the Licence of Apothecaries' Society in 1854.

In 1856, or thereabouts, he settled at Northamp where he was soon appointed on the staff of the R Victoria Dispensary, and in time established one of largest general practices in the town and neighbourh which he carried on for a period of nearly fifty y relinquishing it a few years ago.

Though of a retiring disposition, and not appearin come to the front in connexion with the social and pu business of the town, Mr. Moxon nevertheless, in a q and unostentatious manner, got through an enorm amount of work. After his retirement from practic gave his time and interest unsparingly to various pu institutions, where his thoroughly business habits, ge ability, and genial manner were thoroughly apprecia This was instanced by his appointment as Vice-Presi of the Victoria Dispensary, Chairman of the Union B Vice-Chairman of the Nursing Institution, Orphanag Girls, and various other philanthropic bodies. recently still he was made a Justice of the Peace services in that capacity being greatly valued by brother magistrates.

Mr. Moxon was President of the South Midland Br of the Association in 1877, when he gave an addres dical Defence. He was a close and regular student of BRITISH MEDICAL JOURNAL, and continued to read it to the time of his death.

His funeral was a large and representative one, and rly indicated the genuine sympathy aroused, and the at loss to the town which his death was very generally to be. He has left three daughters to mourn his loss, of whom married medical men.

EDWARD JOHN LONGTON, M.D.,

FORMERLY OF SOUTHPORT.

EDWARD JOHN LONGTON died at his residence, Brown w, Blawith, Ulverston, Lancashire, on February 28th. was born in or near Southport in 1829, and spent his y days in that district, where his family had been wn and respected for generations. He commenced his lical studies at King's College, London, where he was ter Todd, Bowman, and Ferguson, and resided with tridge (as was the custom in those days). He was a ect mine of interesting reminiscence relating to his lent days, and could tell many anecdotes concerning teachers. He became a M.R.C.S.Eng. in 1852, and luated at Edinburgh University, taking the M.D. in 3, in which year he also took the L.S.A.

e at once joined his uncle, who had been in practice Southport for nearly fifty years, and became a most essful practitioner, in fact, he held a leading position his popular seaside resort for over forty years. There many people who, having been at Southport in search ealth in their early days, recollect Dr. Longton, and in w instances even his uncle, having been placed under care of one or the other.

wing to advancing years, and to failing eyesight (he ered from cataract), he retired about twelve years ago, settled at Brown How, which is beautifully situated he foot of Coniston Water and commands a magnificent of almost the whole length of the lake. Here he d with his three daughters and became very much ched to the place.

e was one of the kindest-hearted of men, considerate others, and in a quiet unostentatious way very bene- nt. He retained his membership of the British ical Association until his death. He was a most resting companion, full of reminiscences of the past of anecdotes of noted men he had met. He was a ow of the Zoological Society and took a keen interest atching the habits of birds and animals. His chief y, however, was the collection of curious and oddly tructed clocks, and there must be considerably over such timepieces at Brown How. He has also a fine ction of oil paintings of very considerable value. He a Justice of the Peace for Lancashire, but seldom sat he Bench.

died, after a few hours' illness, from heart failure, equent on old-standing mitral disease. The shock of g, also suddenly by death recently, one of his hters, doubtless had its effect upon his health already arious. He leaves two sons (one a medical man in tice in London) and two daughters to mourn his loss.

MEDICO-LEGAL AND MEDICO-ETHICAL.

ION FOR ALLEGED NEGLIGENCE: VERDICT FOR DEFENDANTS.

Scarlet Fever in the Puerperium.

case of Crier and Wife *v.* Hope and Currie, after a tedious before Mr. Justice A. T. Lawrence and a special jury, to a conclusion on March 8th, the fifth day of hearing. plaintiffs were represented by Mr. Gill, K.C., and Mr. stin Farleigh, and the defendants by Mr. McCall, K.C., r. A. Neilson.

action was by a house-agent and his wife, living near g, for damages for alleged negligent treatment of the wife . Currie, in communicating to her the infection of scarlet at her confinement; there was also a claim on the ground technical assault; the two defendants were carrying on practice in partnership at Ealing.

facts of the case were as follows:

October 19th, 1904, the lady's husband called on Dr. Currie, ngaged him to attend her in her confinement; upon the e of an expert, this was expected to take place on or about mber 15th; Mr. Crier told Dr. Currie this, and he made a of it. At this time he was attending a case of puer- fever, and continued to attend the case down to Octo- th, the patient dying on the 31st. On October 28th he to make the acquaintance of Mrs. Crier, and shook hands with her. During and after November there was an epidemic of scarlet fever in Ealing, and Dr. Currie was visiting some cases throughout the winter. He attended a scarlet fever patient called Schofield on November 11th, 16th, and 18th; on November 14th he was called to the cottage of a labourer named Miller; there he found a girl to be suffering from scarlet fever, and said she ought to go to the isolation hospital. Noticing a boy in the same room looking poorly he said he probably had it too, and if the mother would let him know as soon as any rash appeared he would have both children removed together. On November 15th he was called to the house about 6 p.m., and found as he had anticipated. Both children were in the room then, and Mrs. Miller said Dr. Currie pulled down the clothes of the boy's bed himself for the purpose of examining him, but this was not certain. Dr. Currie then walked home, about five minutes' walk, and found an imperative telegram requiring his attendance at the plaintiffs' house. According to his evidence he then went to his bath room, disinfected his hands and arms with izal, and changed his coat. The plaintiffs cast doubt on this point by referring to an answer Dr. Currie had given to an interrogatory asking how he had occupied his time between visiting the Millers and going to the plaintiffs' house? His answer was, "My time was occupied in visiting and consulting with other patients."

Dr. Currie then visited another patient, walking about a quarter of a mile and back again. He then saw two dispensary patients, and then took his bag, walked half a mile to a cab rank, and drove in a four wheeler two miles and a half to the plaintiffs' house. He went in and shook hands with Mrs. Crier; this was about 7.45. He then went into an anteroom, took off his coat, scrubbed his hands and arms in soap and tepid water with an obstetric nail brush, then repeated the process in $\frac{1}{1000}$ solution of corrosive sublimate, rinsed this off, and finally cleansed them in a solution of izal. After putting on rubber sleeves (which he had previously disinfected by boiling) he examined Mrs. Crier. He then left her for an interval, and on being called up after dinner added to his former precautions a linen apron before delivering Mrs. Crier. It was a normal delivery. On November 20th it was quite clear that Mrs. Crier had scarlet fever; her first baby, a year old, and the new baby were sent away, and two nurses sent for on November 23rd. During the winter, while Dr. Currie was attending Mrs. Crier, he attended 32 other maternity cases, none of which caught scarlet fever. On November 29th Mrs. Crier's left leg became painful, and on December 6th her right leg, both showing symptoms of white leg. On Christmas Day she came downstairs, and was better, but on December 30th her pulse was high, and she had a rigor, and her temperature went up. On January 6th, 1905, she again had a rigor. On January 10th a pelvic abscess was diagnosed by Dr. Currie in the Douglas pouch. On January 18th he called in Dr. Herman, of Harley Street, who confirmed his diganosis, and removed the abscess. After this Mrs. Crier got better; later she went away for a change; she had, however, not entirely recovered her health since her illness.

The plaintiffs' case was that Dr. Currie conveyed the infection of scarlet fever to Mrs. Crier at her confinement, that her subsequent illness in December and January was shown by the symptoms, including the white leg and the pelvic abscess, to be puerperal septicaemia, that this was a complication of the scarlet fever, and that the defendants were liable for the damages occasioned on the ground that Dr. Currie was guilty of negligence; upon this point they suggested:

That parturient women are especially liable to infection, and that in going to Mrs. Crier at all so soon after visiting two scarlet fever patients in a small room he acted at his own risk; and that his proper course would have been to ask another medical man to take the case, or else have kept away from infectious cases pending Mrs. Crier's confinement.

That he ought to have notified the plaintiffs of the risk.

That the precautions he took were insufficient, but that he ought to have changed all his clothes, and had a warm or a Turkish bath.

The defendants' case was that after the precautions above described had been taken, the risk, if any, was infinitesimal, and that the further precautions suggested were more than reasonably prudent men, acting with due care, would take, and were impracticable for general practitioners.

The amount of care which the law requires of a medical man is not that amount which some man of far greater experience or ability might use, nor even the greatest that he might possibly have used himself, but ordinary care and skill as judged by the standard of ordinary prudence. (See Rich and Wife *v.* Pierpont, 3 Fos. and Fin. 35.)

The case was complicated by allegations on the part of the plaintiffs that Dr. Currie had made false statements, particularly that on November 20th he had told Mrs. Crier he had no scarlet fever cases, and that on November 23rd he told Mr. Crier that he had none and knew of none in Hanwell. Dr. Currie admitted making use of an equivocal expression with the object of preventing the plaintiffs from thinking that he had conveyed the infection and thereby being unnecessarily alarmed.

The plaintiffs' counsel also endeavoured to weaken the defendants' case by eliciting the fact that they were being defended by the London and Counties Medical Protection Society, Limited, and that, of the witnesses called by them, Dr. Greaves was a Vice-President and Dr. Herman a member of that Society.

All the medical witnesses agreed that the infective agent of scarlet fever is a micro-organism, feebly airborne, but easily conveyed by clothes or food, and that fresh air is a good disinfectant.

Dr. C. E. Goddard, M.D.Durh., M.R.C.S., L.R.C.P., and Mr. H. E. Counsell, F.R.C.S., L.R.C.P., who gave evidence on behalf of the plaintiffs, agreed that a medical man should ask another to take a maternity case when called upon within two hours of visiting an infectious case. This would be their own course. They considered the plan of disinfecting which they adopted themselves to be necessary—namely, to change all their clothes and have a bath. Dr. Goddard said he could quite understand Mrs. Crier's septic condition resulting from scarlet fever; and Mr. Counsell regarded it as a development of that and not as a distinct illness. Both gentlemen agreed that a parturient woman is peculiarly susceptible to infection.

In addition to Dr. Currie himself, the defendants called Dr. G. E. Herman, who was for many years Consulting Obstetric Physician to the London Hospital; Dr. William Hunter, Physician to the London Fever Hospital; Dr. L. B. Brown, Visiting Medical Officer of Ealing Isolation Hospital since 1894; Dr. F. Greaves; Dr. Walter Smith, formerly Resident Surgeon of the Birmingham Lying-in Hospital; and Dr. H. Spencer, Professor of Obstetric Medicine at University College, and Obstetric Physician to University College Hospital. These gentlemen agreed that it was unnecessary for Dr. Currie to inform Mr. Crier of his having visited infectious cases, and would have been unwise; nor ought he to have sent another medical man to attend Mrs. Crier; the precautions he took were the ordinary ones, and reasonable and sufficient; there were other more complete precautions which were reasonable and desirable, but quite unnecessary and impracticable for general practitioners. Dr. Hunter described the precautions he adopted in going from ward to ward in the London Fever Hospital, which consisted principally in putting on a white overall covering him to the neck, wrists, and knees, and in washing his face and hands. These witnesses did not consider that pelvic abscess and white leg are due to scarlet fever, though Dr. Spencer said that septicaemia might occur as a complication of scarlet fever. Liability to white leg was increased when a patient suffered as, Mrs. Crier did, from varicose veins. None of these gentlemen accepted the opinions expressed in Boxall's papers, or in Allbutt's *System* (p. 147), or Galabin's *Midwifery* (p. 828) as to the susceptibility of parturient women to infection, and the danger of septicaemia following upon scarlet fever in such cases.

The Judge described the law as already stated, and dealt with all the points of the case; he suggested that the plaintiffs were rather straining the caution which they demanded of a general practitioner. It was for the jury to decide: (1) Did Dr. Currie communicate the infection of scarlet fever to Mrs. Crier? (2) Did he take proper precautions, according to the standard of an ordinarily prudent medical man, to prevent infection?

After retiring for eighty minutes the jury found: "We are all agreed that Dr. Currie took the usual precautions, and we find a verdict for the defendants."

At the request of the plaintiffs' counsel the Judge then put to the jury the question of whether Dr. Currie was guilty of a technical assault upon Mrs. Crier, explaining that if he had, as alleged, obtained her consent to his continued attendance upon her after November 20th by fraudulently stating upon that day that he had no scarlet fever cases, he would be regarded in law as touching her without her consent, that is, assaulting her.

The jury not being able to agree on this point were discharged, and judgement was given upon the general verdict for the defendant, with costs, stay of execution being granted on the usual terms.

THE ALIENS ACT.

E. R. C.—The Aliens Act, 1905, is a short Act, consisting of ten sections, which are amplified and defined from time to time by orders made by the Home Secretary. The Act applies to the whole of the United Kingdom.

Medical inspectors have been appointed at Cardiff, Dover, Folkestone, Grangemouth, Grimsby, Harwich, Hull, Leith, Liverpool, London (including Queenborough), Newhaven, Southampton, and the Tyne ports (comprising Newcastle, North Shields, and South Shields).

By Section 6 (2) provision is expressly made for the appointment of the officers of any port sanitary authority as officers under the Act. In each of the immigration ports the port sanitary medical officer has been appointed medical inspector of aliens. The claims of the medical men were doubtless considered in framing Section 6, and from the specific mention of port sanitary authorities and their officers it may be inferred that the authors of the Act were advised that it would be expedient to enlist the services of existing port medical officers for the purpose of alien inspection. The salary of medical inspectors varies according to the amount of work required in each port.

By Section 8 (1) transmigrants *en route* from the Continent to America via England are liable to inspection and rejection at any of the English immigration ports, unless the master or owner of the ship on which they come gives a security bond that no transmigrant rejected in America shall re-en the United Kingdom. The great majority of Americ "undesirables" are now prevented by this measure fr landing in our country. It would be possible for undesiral aliens to land at Queenstown by coming on ships carryi less than thirteen alien steerage passengers, but any sl carrying a greater number of immigrants is obliged to en at one of the sixteen immigration ports, where passeng are liable to examination and rejection. In any case ex records are now kept at Queenstown and all other ports of aliens entering the United Kingdom, and should the records point to the probability that American "undesi ables" were being landed at Queenstown in small batch there would be no difficulty in extending the system inspection to this port.

Medical men are eligible for service on immigrati boards, but by Section 2 (1) members of boards are requir to be men having "magisterial, business, or administrati experience." Members are paid in accordance with t amount of time they are called upon to devote to the wo and payment to a medical member may be looked upon given in return for his capacity as a magistrate rather th for his skill in his own profession.

SUPERSESSION.

J. A. D. T. writes:—I should be obliged if you would tell the medical etiquette on the following points: I ha recently bought a nucleus in a town where one of t medical men is gradually losing ground through i temperance. I have been called in to several of his ca during his attendance. In all these cases I have most e phatically impressed upon the people that I will ha nothing to do with the case unless he (the doctor in qu tion) is informed that his services are no longer requir and this they have complied with. I want to know if action in regard to these cases has been strictly in accor ance with medical etiquette? I may add that I have alwa suggested acting as consultant with Dr. ——, but have be invariably informed that they do not wish him to see t patient again, and if I refuse they will call in a third ma The cases over which I have had this difficulty are all c patients of his. Could you also recommend me a practic book on medical etiquette?

*** Our correspondent seems to have acted with perfe propriety. Professor Saundby's *Medical Ethics* (Simpki Marshall, and Co.) is the book we should recommend. O correspondent will find the point he raises discussed page 20, and it has been frequently mentioned in this colum under the heading of "Supersession."

SUPERSESSION: THE POSITION OF THE CONSULTANT.

W. A. S. writes: A. is in charge of a patient and calls B. in consultation, but is subsequently requested to cea attendance, and the case is placed under the charge of Can B. see the patient as a consultant with C.?

*** Yes; unless there are circumstances connected wi the dismissal of A. or the accession of C. which B. does n wish to countenance.

SECRET COMMISSIONS.

A CORRESPONDENT sends us the following letter, which he h received from Messrs. B. Maggs and Co., wholesale a retail manufacturers of pure sanitary bedding and beddi purifiers:

4, Royal Promenade, Clifton.

Dear Sir,

We have pleasure in handing you our new catalog of invalid furniture. We shall endeavour to keep the who of the goods illustrated in stock at our new show room No. 3, Royal Promenade, being next door to our prese address. Should you require anything in this departmen or should we trace receiving any order from your ki recommendation, we shall be pleased to allow you a discou of 10 per cent. off this list.

Faithfully yours,
pp. B. Maggs and Co., E. H.

To Dr. ....

*** As our correspondent says, such a letter speaks f itself, but we hope that the Prevention of Corruption Bi which has already passed the House of Lords, will becon law in the present session of Parliament, when we trust v shall hear no more of such offers.

MEDICAL ADVERTISING.

W. A. M. asks whether it is correct for a medical man to lea his cards with a chemist in order that they may be hand to people likely to need a doctor?

*** We have on a previous occasion expressed the opinic that this is a form of advertising, and we should regard as quite a proper case for the interference of the local ethic authority of the Association.

WSPAPER ADVERTISING BY MEDICAL PRACTITIONERS IN THE COLONIES.

have received a copy of the *Winnipeg Tribune* from a rrespondent, who directs attention to its advertisement lumn, in which there is a list of thirteen medical practioners, of whom six claim to possess British qualifications. e advertisements generally give merely the name and adess, sometimes the telephone number and the hours of nsultation, and in a few cases only the speciality practised. e are informed that these represent about 10 per cent. of e medical practitioners in the city, and that it is only this all minority which, departing from the customs recogzed in this country, attempts to secure practice by means ich would here be unhesitatingly condemned.

*** We have always been unwilling to express an opinion on questions relating to the conduct of practitioners in ces where the customs are unknown to us, as it would be safe to judge them by standards formed in an older and re complex society. If, as we are informed, such adverement is not approved by the general body of the local fession, we regret that gentlemen possessing British alifications are to be found amongst those who resort to it, d we suggest the desirability of referring the matter to local Branch of the British Medical Association, which ght endeavour to get the Provincial Medical Board to lay wn rules of professional conduct on the same lines as se of the General Medical Council.

COVERING.

RRESPONDENT writes: Will you kindly inform me if nedical man possessing an English qualification, who ame an employé of Sandow and treated patients by corpondence, would be liable to have his name taken off the *gister?* Sandow uses no medicines, but advertises in the ly paper for patients, who have exercises, etc., prescribed them.

** We do not presume to anticipate what the decision of General Medical Council in such a case might be, but harge might undoubtedly be brought against a praconer who occupied such a position for covering an ualified person engaged in the treatment of disease.

ULD A MEDICAL PRACTITIONER UNDERTAKE A FIRE INSURANCE AGENCY?

asks: Is it etiquette to take a fire assurance agency? ourse, no canvassing except to patients and no name to ear on forms.

* We know of no general rule that would be infringed by pting such an appointment, but it might injure our espondent with his patients if he canvassed them too vely for such a purpose.

THE METHODS OF A NURSING HOME.

AL SUPERINTENDENT writes that a temporary nurse ged from a private nursing home by a local authority their isolation hospital contracted enteric fever. She maintained at the expense of the authority till conscent, a period of eight weeks; a claim is now being e for her services during the whole of this period. Can claim be enforced; if so, can the local authority charge he nurse's maintenance as a patient?

* Unless a legal notice had been sent at the time, when nurse was taken ill, to terminate the contract, the local ority is responsible, and must pay the charges of the ing home, but a set-off could possibly be pleaded for the e's maintenance.

RECOGNITION OF FOREIGN MEDICAL PRACTITIONERS.

ORRIS writes to ask whether he is justified in acknowing a certificate issued by a foreign medical man who is ualified in this country, the certificate being a recomdation for admission to a convalescent home to which orrespondent is medical referee?

* It depends upon the rules of the institution, but it d be usual and courteous to accept a certificate given by eign medical practitioner residing abroad, to a patient n he had seen abroad. If, however, the foreign medical is living in this country, and practising without being tered, his certificate should not be recognized.

THE TITLE OF "DOCTOR."

LIFF writes, in reply to "B." (BRITISH MEDICAL NAL, March 10th, p. 598), that he is quite aware of Rainy's letter in the JOURNAL of June 3rd, 1905. The w (No. CLXXVII) of the London Royal College of Physisays, "No Licentiate shall assume the title of Doctor"; Edinburgh Royal College of Physicians' rule is, "The diploma granted by the College shall not entitle the holder to assume the title of Doctor." The meaning of the ruling of both Colleges is of course quite clear and identical, but the fact remains that this Licentiate of the Edinburgh College does assume the title of Doctor, and finds it profitable to him. Unless the Edinburgh Royal College of Physicians issue a strict mandate to their Licentiates forbidding them under penalty from assuming the title, this abuse (which is very unfair to men possessing the M.B.Lond. or M.R.C.S., L.R.C.P.Lond.) will continue. "Pinecliff" has commented to a Licentiate on his assumption of title, and his reply was, "You Fellows are expressly told 'you shall not assume the title of Doctor,' whereas we are merely told 'we are not entitled to it.'"

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

University Representative on the Council of the Lister Institute.

THE Hebdomadal Council has appointed William Osler, D.M., Hon. D.Sc., F.R.S., Student of Christ Church, Regius Professor of Medicine, Representative of the University on the Council of the Lister Institute of Preventive Medicine in the place of the late Sir John Burdon-Sanderson, Bart., D.M., F.R.S., Honorary Fellow of Magdalen College.

Radcliffe Infirmary Committee for Appointments.

Professor Osler has been appointed by the Hebdomadal Council a member of the Committee for appointment of Honorary Medical Officers of the Radcliffe Infirmary, in the place of the late Sir John Burdon-Sanderson, Bart.

UNIVERSITY OF CAMBRIDGE.

THE examination in Sanitary Science commences on Wednesday, April 4th.

Mr. L. A. Borradaile, M.A., of Selwyn College, has been appointed an Examiner in Elementary Biology for the First M.B., in place of Mr. Shipley, who is unable to examine.

The following degrees were conferred on March 10th:

M.B., B.C.—W. H. Hastings, Trin.; C. Akerman, Gonv. and Cai.

M.B.—C. E. A. Armitage, Emm.

UNIVERSITY OF LONDON.

MEETING OF THE SENATE.

A MEETING of the Senate was held on February 21st.

Recognition of Teacher.

Dr. Archibald E. Garrod was recognized as a teacher of pathological chemistry at St. Bartholomew's Hospital Medical School.

Annual Report of the Physiological Laboratory Committee.

The annual report of the Physiological Laboratory Committee for 1905 stated that six courses, consisting of twenty-eight lectures, had been delivered, and that sixteen papers, the outcome of work conducted in the laboratory, had been published.

The department of chemical physiology initiated in July, 1905, has been in working order for the last four months under the immediate supervision of Mr. J. A. Gardner, who has investigated the relation of haemin to hydrogen peroxide, the quantitative estimation of chloroform in blood and tissues in conjunction with Dr. Buckmaster, and the relation of cholesterin in the blood in conjunction with Mr. Charles Dorée.

Two research students in experimental psychology have been registered as internal students studying in the University and laboratory for the degree of D.Sc., offering as the subject of their theses Studies in Fatigue.

Degree of D.Sc.

The degree of D.Sc. was conferred upon Dr. J. O. Wakelin Barratt; the thesis presented by Dr. Barratt, who was formerly research scholar of the British Medical Association, was on studies in the physiology of unicellular organisms.

Death of Sir John Burdon-Sanderson.

The Senate adopted a resolution expressing the deep regret with which they had heard of the death of Sir John Burdon-Sanderson, and their high appreciation of the services rendered by him to the University and to the Brown Animal Sanatory Institution.

Board of Studies in Veterinary Science.

A Board of Studies in Veterinary Science has been formed, and among the medical members are Professor J. R. Bradford, Professor T. G. Brodie, Professor Sir John McFadyean, Dr. E. S. Shave, F.R.C.V.S., Professor H. W. M. Tims, and Dr. C. J. Martin.

Jubilee of the University of Melbourne.

Dr. William A. Osborne, Professor of Physiology and Histology in the University of Melbourne, was appointed to represent the University of London and to present an address.

Matriculation Examination.

The pass list for the matriculation examination contained 170 names in the first division and 764 in the second.

University College.

At the annual meeting of University College, held on February 21st, it was reported that the buildings of the new medical school were now in progress, and the new buildings of University College School at Hampstead had been begun. A sum of £45,000 was required to enable the Council to complete the new school buildings and to finish their equipment.

King's College.

Dr. C. J. Martin, F.R.S., will deliver a second lecture on Some Aspects of the Physiological Defence against Invasion by Micro-organism, in the Physiological Laboratory of King's College on March 19th, at 4 p.m.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

PORK FROM TUBERCULOUS PIGS.

A report by Dr. G. S. Buchanan to the Local Government Board on administration in London with regard to meat of pigs affected by tuberculosis[1] has been published recently. The object of the inquiry was to ascertain what data are available regarding the existence of tuberculosis in pigs, the meat of which is sold in London as fresh pork, or used in various preparations of pork; what action is at present taken by the public authorities concerned and by their officers for the detection of tuberculosis in the carcasses or viscera of such pigs; to what extent such action may be relied upon for the detection of tuberculosis in the pig, either by examination at the place of slaughter or by subsequent examination of the dressed carcass; and what practice, as regards condemnation, official "seizure," and prosecution of offenders is adopted by the different authorities concerned when dealing with meat derived from pigs which have been affected by tuberculosis.

Prevalence and Cause.

Dr. Buchanan, in drawing up the reoort, which makes a Blue Book of 60 pages, divides the subject into six main parts. In the first he discusses the prevalence, causation, and prevention of tuberculosis in pigs. The disease in swine is usually of the bovine type, and is apparently largely derived from taking as food the milk of tuberculous cows, and possibly offal from tuberculous animals. The disease is also communicated from pig to pig by saliva or sputum. The most frequent path of entry of the infection is by the alimentary tract.

Detection.

Part II deals with appearances and detection of tuberculous lesions in pigs. It is assumed that the presence of tuberculosis is judged practically by naked-eye appearances without the confirmation of microscopical examination. The special characteristic of the disease in pigs is a conspicuous tendency to generalization. No meat inspector, however skilled, can have sufficient evidence to declare that the disease is certainly localized unless he can see the internal organs, though practically he may so conclude with considerable probability. On the other hand, the slaughterer or butcher who exercises any care in the matter can hardly fail to observe any considerable evidence of generalization of tubercle.

Risks of Meat from Tuberculous Pigs.

In Part III considerations regarding the use for food of meat from tuberculous pigs, though affording no direct evidence as to the infective ability of such meat when eaten, tend to the conclusion that precautions to prevent or minimize the possible risk are desirable.

Inspection in London.

A classification of the places of origin of pigs whose meat is sold in London as fresh pork or used in various preparations of pork is comprised in Part IV of the report. The nature of the official inspection of the pork supplied in London varies according as the pork has or has not passed through the Central Meat Market at Smithfield.

Part V details the procedure of meat inspection in London. First, the inspection at the Corporation Central Meat Market at Smithfield is described and discussed, together with the action of the City authorities in respect to condemnation of meat for tuberculosis. Following this comes the consideration of the inspection before arrival at the Central Meat Market of pork in Holland, Denmark, the United States, the Corporation slaughter-houses at Islington, and elsewhere. The careful inspection of pork in Holland is considered by Dr. Buchanan to be one of the main circumstances which in recent years have operated to increase the export of pork from the Netherlands to London. From a table given on page 19 of the report it appears that out of a total of 368,428 pigs submitted to official inspection for export from Holland to England in 1903 and 1904 5,516 were refused a label on account of tuberculosis. An account of inspection at the "outside meat market" (prac tically an overflow from the Central Meat Market) and inspec tion in metropolitan boroughs at the retail shops complet this section of the report.

Conclusions.

Part IV contains the general observations resulting from th inquiry. Comment is made on the present lack of uniformit in administrative measures. The significance of officia "inspection" varies greatly in different cases, and th existing administrative system, even if fully and uniforml applied, has only a limited value. If the meat of tuberculou pigs is allowed to be sold, an improved system of administra tion is needed. The suggestions for improved administratio include the marking of meat which has been adequatel inspected; greater attention at the Central Meat Market t unmarked carcasses; the establishment of meat inspectio stations; and the appointment of special "food inspectors in metropolitan boroughs. In the absence of an improve system, existing checks on the sale of meat from tuberculou pigs should not be relaxed.

Dr. Buchanan considers it desirable that the question o dealing with condemned meat, as by special cooking o sterilizing, so that it can be utilized as food, should be car fully considered. Such meat would necessarily be sold at cheap price, as is the custom at various places abroad, wit great advantage to the poorer members of the community.

INFECTIOUS DISEASE HOSPITALS.

Doubtful.—Cases of diphtheria are as a rule admitted t infectious disease hospitals maintained by local authoritie Cases of erysipelas are not as a rule admitted.

FEE FOR PREMATURE CONFINEMENT FOLLOWED B DEATH.

Extras was called to a case of labour (medical order granted He found the child stillborn and premature by about si weeks, and placenta expelled, the patient apparently doin well, but with a mitral systolic murmur. The following nigl he was again summoned, and found she had suppression urine, which continued for eleven days, at the expiration which time she died. He certified the death as primar heart and kidney disease, secondary suppression of uri (premature confinement eleven days). Our corresponde asks whether he can charge £2 for his attention on this cas and whether his certificate was correct.

⁂ We are afraid he is only entitled to the ordinary mi wifery fee, as the labour itself was neither prolonged, co plicated, nor dangerous, and the disease which he correct certified as the cause of death was not, strictly speaking, puerperal malady or one which could be rightly regarded being a direct consequence of the labour.

PAROCHIAL MEDICAL OFFICERS IN SCOTLAND.

Dr. Henry P. Taylor (Mid Yell, Shetland), in the course of letter with reference to a note under this heading publish on January 20th (p. 175), writes: Permit me respectfully to s that the information is still open to question. The Loc Government Board have power to know the reason why medical officer in Scotland is dismissed, and I have no dou do ascertain, by asking or otherwise, the "reason" it suits parish council to give them. If every medical officer who trampled upon by his parish council would take a lesson fro what occurred in the late action of Dr. Macara of Durn *versus* his parish council,[1] there would be fewer dismissa Parish councils received a check in that case which has be more of a lesson to them than, I regret to say, it has been Scotch Poor-law medical officers. If every medical officer the highlands and islands would join either of the medi defence unions, and on his threatened dismissal—providing was clear in his conscience that no valid reason could assigned for his dismissal—ask the solicitor to the union communicate with the parish council, he would soon fin remedy at once powerful and effective.

CLEAN MONEY.

It has been proved that banknotes and even coins may conv the germs of disease. The danger arising from this cause made all the greater by the activity with which money cir lates from hand to hand. The attention of the public often been called to this possible source of contagion, probably most people hold with the Emperor Vespasian t money *non olet*. A step in the right direction has, we lea from the New York *Medical Record*, been taken in Ameri A Bill has been introduced at Washington enabling any pers or corporation to send worn out or mutilated United Sta currency to the Treasurer of the United States by registe mail, and to receive in exchange therefor new United Sta currency without postage or registration charge either way.

The first award out of the Salomonsohn Fund has b made to Dr. J. Siegel, who has been granted £100 furtherance of his researches on the etiology of syphilis.

---

[1] Reports of Medical Inspectors of the Local Government Board, No. 225. Dr. G. S. Buchanan's *Report on Administration in London with regard to Meat of Pigs affected by Tuberculosis.* London: Wyman and Sons. Edinburgh Oliver and Boyd. Dublin: E. Ponsonby. 1906. 1s.

[1] British Medical Journal, July 16th, 1904, p. 153.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

QUERIES.

APE asks for advice in the treatment of severe tingling and itching of the skin for half an hour or more after a bath. The patient is a big active man, aged 60, who some years ago had traces of sugar and symptoms of gallstone.

POLYDACTYLISM.

R. E. M. Brockbank (Manchester) writes: I am assisting Professor J. G. Adami in tracing a curious history of polydactylism in an old English family, and shall be much obliged if any reader of the British Medical Journal can afford me help in the matter. I think I may say without a breach of professional etiquette that the name of the family is a two-syllable one, the first being Ken——. Any information sent direct to me will be very much appreciated.

ACCIDENT INSURANCE.

writes: I desired to take out a policy in an accident insurance company recently, but have left the matter in abeyance until I can find a company more ready to meet the practical necessities which make it prudent for one to take out such a policy. The company in question expresses its willingness to present me with £500 if I lose an eye, and with the same amount if I lose a whole hand; but if I lose all four fingers of my right hand, which to a man in general practice would be just as serious a condition as the loss of the whole hand, and would, in fact, disable him from continuing in practice, they would allow me nothing beyond the weekly allowance they give until the hand was healed. To me it seems farcical that I should be presented with £500 for the loss of an eye, a mishap that would not interfere with my work in the least, but am refused any compensation for so serious a catastrophe as the loss of the four fingers of my right hand, unless, of course, I am prepared to pay an additional premium, which this company places at about £2 per annum extra.

THE MIDWIFERY OF THE PRESENT DAY.

Alexander Duke (Ex-Assistant Master, Rotunda Hospital, Dublin), writes: On reading the exhaustive lecture on the above subject, I am tempted to ask the following queries: (1) Has no woman ever died of puerperal fever septicaemia) who had not been touched by fingers of nurse or accoucheur? As Dr. Horrocks distinctly states, "This dreadful fever . . . . was caused by the accoucheur himself, or at all events by him or her or those who assisted in the act of parturition"! (2) Was Credé the first to adopt the plan of "expression" of the placenta? I think not, as long before Credé's time it was a recognized practice at Rotunda Hospital, Dublin, and by the Irish School of Midwifery. 3) Is there never any injury caused to the parturient canal xcept those mentioned by Dr. Horrocks? "A slight tearing f the posterior fourchette and of the perineum," and notching of the cervix uteri." (4) Are not the shoulders uite as often a cause of laceration of the perineum as the ead? Dr. Horrocks says: "As soon as the child's head is orn," etc., not one word about delivery of shoulders, which ften calls for more skill in delivery than the head (if laceration is to be avoided), one of the causes at least of puerperal septicaemia from absorption of morbid secretions without the help of accoucheur's fingers or nurses, and in which the said poison was not so introduced.

ANSWERS.

o Practitioner.—The risk of conveyance of infection in clothes varies with different diseases, and no general statement can therefore be made. The admission of visitors is matter which should be regulated by the rules of the hospital.

RIDER'S SPRAIN.

P. B. Giles (Bletchley, Bucks) writes: "Adductor" will nd three things of use—(1) To wear some retaining bandage check abduction. (2) Free massage, particularly if used after Turkish bath. (3) Altering his seat in the saddle, the end med at being to ride as short as is consistent with comrt, with the foot well home in the stirrup, the toes slightly and down.

CRYPTOGAMIC BOTANY.

LOGY asks to be recommended a recent work on cryptogamic tany.

*** The *Introduction to Structural Botany*, by D. H. ott, Part II, Flowerless Plants (London: A. and C. Black. 04. 3s. 6d.) is an excellent elementary work. There is recent advanced book in the English language devoted cryptogamic plants alone.

LEPROSY.

Y. Z.—Leprosy is not notifiable in this country. As to ssibility of infection it depends very much on the nature the symptoms. If the patient's condition comes into the erve variety the danger is practically nil. But if there are cerated, broken down, cutaneous lesions, with involvement of the mucous membrane of the mouth and nose, precautions should be taken in the way of sleeping accommodation, table utensils, cleanliness, and so forth. In this country the risks of spread are small where the hygienic environment is good. There are no recognized homes or asylums for such cases. It is important that such patients should be treated, however, and not given up as hopeless.

LETTERS, NOTES, etc.

PNEUMOCOCCAL PERIMETRITIS.

Dr. **E. S. Moorhead** of Winnipeg has been good enough to forward clinical notes of a somewhat curious case, of which the following are the main outlines: The patient was a woman, aged 26, who had had three children, the youngest being aged 3. She had had no miscarriage but at one period of her married life had required intrauterine medication of some description. When she first came under Dr. Moorhead's observation she had had a blood-free vaginal discharge for several years and severe dysmenorrhoea, the pain being mainly suprapubic. The illness which led to his assistance being sought was acute lobar pneumonia. It ran a normal course but was followed by symptoms of pelvic inflammation, accompanied by fetid discharge from the vagina and diarrhoea. All the pelvic organs were found tender, swollen, and immobilized. A few days later there was a discharge of pus from the rectum, amounting in the course of the day to 10 oz., from which a pure culture of pneumococcus was obtained. After this the local symptoms materially improved for a time. A little later, however, the local and general conditions again became seriously aggravated, and at last an exploratory operation was undertaken, an opening being made above Poupart's ligament on the left side. No abscess could be discovered, but in the peritoneal cavity a little serous fluid was found which also gave a pure culture of the pneumococcus. Healing of the wound was retarded by the severe vomiting, and the condition of the patient, though relieved from time to time by the escape of pus into and out of the rectum, continued grave for some weeks. Little by little, however, the signs of inflammation subsided, and by September, or some four and a half months after the attack of pneumonia, the patient was again up and about. In December Dr. Moorhead visited her again to take note of the final result. The patient reported that she had never felt better during all her married life, her weight (8 st. 11 lb.) was 11 lb. greater than it had ever been and dysmenorrhoea had ceased; there was still some vaginal discharge, but defaecation was painless. Subjectively, except for a little pain in the back the patient was quite well; objectively a little tenderness on pressing the anterior wall of the rectum, was the only abnormal condition.

THE TREATMENT OF NEURASTHENIA.

Dr. W. F. Somerville (Glasgow) writes: I have read with interest Dr. Guthrie Rankin's excellent article on ‘The Treatment of Neurasthenia" in the British Medical Journal of March 3rd, page 492, in which he gives many important hints to the practitioner. I venture to offer two further suggestions, first, to omit the morning visit of the masseur or masseuse, and to substitute a course of physical and carefully-regulated medical exercises. It will be to the advantage of the patient if the doctor himself gives these exercises. He alone can determine accurately what form of exercise should be given and to what amount, and further, how much resistance in each exercise the patient is able to bear. It will be found that the muscular system will greatly improve by these exercises, and the circulation will be encouraged. In addition, if at the same time proper care be taken to encourage deep respiratory movements, there will result better combination of oxygen with the haemoglobin of the blood; and so the tissues will be better nourished and the anaemia overcome. Another important point is that slight active exercise by the patient has a more beneficial effect on his mind than mere massage or passive movements. Proper and moderate fatigue will be produced, resulting in increased appetite and sleep.

The second suggestion is to employ high-frequency currents as part of the daily treatment. For fifteen years I have dealt with nervous patients in a Home, and during the last four years I have included this method of applying electricity with specially gratifying results. I need hardly say that this and any other form of electricity should be administered by the medical attendant only. To entrust so powerful a remedy to the hands of a nurse or other unqualified person is a serious medical blunder. High-frequency currents induce sleep in the majority of neurasthenic cases—men and women; the disturbed metabolic functions are restored to their normal conditions; the nervous system is invigorated in a way unobtainable by any drug; appetite is increased; neuralgic pains are removed; the surface temperature of the body is raised, through the inhibitory action of the vasomotor system acting on the peripheral circulation, and arterial pressure is lessened. It may be, too, that the treatment itself has by suggestion a good influence on the mind of the patient. Be that as it may, there is a good effect produced on the sufferer, and I have had ample opportunity of witnessing the great benefit that may be derived from high-frequency currents.

A SECRET ANTITUBERCLE SOCIETY.

A SECRET league against tuberculosis has been formed in Switzerland. Its special object is said to be to prevent the marriage of tuberculous persons. It would be interesting to know its method of procedure. Does it convey information privily and under seal to a confiding person about to enter the holy estate of matrimony that the other party to the proposed contract is tainted with tubercle? If the warning is unheeded, does the Society follow it up with letters adorned at the top with sections of tuberculous organs and pictures of scrofulous children, the point being enforced by a coffin? If this, too, fails to prevent the course of true love from running smooth, does the Society send masked emissaries by night to frighten the couple away from the altar of Hymen? It is certainly the case that, to tuberculous persons about to marry, *Punch's* famous advice applies with special force. But we confess we had rather see consumptives left free to marry openly than perhaps coerced into a union antisocial, and immoral besides, by the pressure of a society working in the dark.

REFINED FOOD AND FOLLY.

DR. J. STENSON HOOKER (London, W.) writes, in the course of a reply to an annotation under this heading published in the BRITISH MEDICAL JOURNAL of February 24th, p. 461: In the first place, as regards myself at any rate, it is scarcely true that I have reserved my more "illuminating deliverances" for the lay press; as a matter of fact, the articles in question were the first I have ever published in a daily paper; secondly, I have, from time to time, as occasion arose, sent short literary contributions to you and to your contemporary, the *Lancet*; it, however, never entered my head to attempt to teach—through your columns—medical men what to eat and drink and what not to eat and drink. It would be indeed arrogance on my part to strew my modest little daisies of thoughts along the paths of those, many of whose shoe-latchets—no, let us have a more modern simile since you admit me capable of newness of thought, and say—many of whose motor cars I am not worthy to enter!

The editorial note calling me a "scientist" was inserted without my knowledge or sanction, and it is strange, not to say ungenerous, that when you quote this you did not mention the refutation which I instantly sent to the *Daily Express*, and which refutation was inserted in the next issue of that paper. I can only (in charity) surmise you did not see it. I have never claimed to be a "scientist," it would be of no use for me to do so! I simply toiled through some three hundred experiments in psychometry, using up for this purpose the odd moments of three whole years in order to see for myself what claim for truth the students of occultism had in asserting that we were surrounded by (invisible to most people) coloured emanations. My experiments corroborated to the full all that had been said and written on the subject for ages past.

My main reason for writing to the lay press on this occasion was the purposive one of endeavouring to put on to a better track of living a large section of the British middle-class public.

Many medical men are to-day taking an active part in the public preaching and teaching of health. Hence my motives in the matter have not been unworthy ones. I must live my own life, preach and teach my own opinions and not those of others, and though I may fall in the estimation of the writer of your article, and possibly send a smile of ridicule around the mouths of some of your readers, it is some sort of solace and satisfaction that my efforts in the way of various reforms (as I think them to be) are meeting with recognition from a large number of friends and the public.

May I say that by a "refined diet" I mean fruits, nuts, salads, fresh vegetables, cheese, butter, eggs, etc., in contradistinction to what is always the dead carcass of bullock, and often measly pork, tuberculous chicken, diseased organs of animals, etc.? I do practise what I preach, and have gained immense physical benefit therefrom.

DEATH UNDER ETHYL CHLORIDE.

DR. ARTHUR WATSON (Leamington Spa) writes: Your account of this case in the BRITISH MEDICAL JOURNAL of March 3rd, p. 538, does not state whether the patient was sitting up or reclining during operation. If the former position was adopted I am the less surprised at the catastrophe.

CHLOROFORM IN CONSUMPTION.

DR. J. HOLMES (Ainsdale) writes: I am pleased to find that my letter on the use of chloroform in consumption in the BRITISH MEDICAL JOURNAL of January 27th has brought a communication from Dr. H. de C. Woodcock (March 10th, p. 557). May I suggest to him that he use pure chloroform, not spt. chloroformi? I think the result would be more satisfactory. Further, that he give it a thorough trial with early cases. We all know that the more advanced a case is the less likelihood of a satisfactory result from any treatment. To ensure a complete cure it may be necessary to use a large quantity of chloroform. I have some recollection of a note by a German physician, published in the EPITOME some years ago, of a cure being actually accomplished by chloroform. In this case about 1 to 2 kilograms of chloroform were used. This ought to encourage the free use of the drug.

JAPANESE ZEAL FOR ASEPTICISM.

IN the BRITISH MEDICAL JOURNAL for September 30th, 1905, at page 825, several details were mentioned of the care taken by Japanese naval surgeons to prevent the wounds of those struck in battle from becoming infected. But this care and foresight were exercised not only in the army and navy in the face of the foe, but also in the making of the field dressings, to which numbers of ladies devoted themselves during months for nine or ten hours daily. Mrs. Hugh Fraser, in a letter to the *Times*, describes how these dressings had to be exactly correct in size and shape and quite aseptic. The ladies had been informed by the surgeons at the start that a man's life might depend on the condition of the dressings when they came to be applied to raw wounds in battle. The ladies consequently before entering the room in which they had to work were ordered to remove every article of clothing in which they had arrived, to disinfect their bodies, and put on the garments kept at the work buildings for that purpose. They had to cover their hair with a cotton cap, and rinse mouth and nostrils with carbolic fluid. They were not allowed to speak in the workroom, and if they wished to cough or blow the nose, or even clear the throat, they had to go outside. And for months the ladies, led by the princesses, carried out these onerous orders. All classes patriotically gave of their best to assist the nation's warriors. Even "the little girls made thousands of the white caps with red crosses" which have since become a familiar sight in Japan as the invalids have been moved, a hundred at a time, each in his separate jinriksha, from one dépôt or hospital to another. In the forcible words of the authoress, "the object of which the invalid is most proud, and which will go back with him to his home to be treasured by his descendants, is that flat white cotton cap with the red cross on it. Why is the cap such a treasure? Because the Japanese surgeons, hurrying over the field piled with dead and dying, fearing to miss some sufferer in the darkness and confusion, bethought themselves of inventing a sign which the advance party, who went ahead to find those in need of help, could place on such to distinguish them from the poor fellows that were past it. Whenever the scouts found a man still breathing they dropped the big white cap on his head—or on his body if his head were laid open—and wherever the surgeons saw this sign (it will shine out crudely and clearly even on a dark night) they knew there was a man to be tended, a life to be saved for the country."

A RAPID CURE FOR LUMBAGO.

DISAPPOINTED writes: Being myself a sufferer from attacks of severe lumbago, which resist remedies generally of service, I hailed the note on "A rapid cure" in the JOURNAL of January 13th, and made a memo. for future trial, which, unfortunately, was not long in coming. The tartrated antimony ointment was well rubbed in, and the pustules appeared in due course, but alas the lumbago refused to budge in the slightest, and in addition to the original helplessness and discomfort was that of the sticking of the clothes to the sore back, so that on turning round in bed it felt like a plaster being dragged off. The condition of skin also prevented the use of remedies like methyl salicylate, etc., which at times seemed to give some relief. I still await a rapid cure for lumbago. At present I have found the high-frequency current of most service in clearing off an attack, but am unable to go for this treatment in the acute stage.

A TRIUMPH OF RED TAPE.

WE not infrequently grumble at the vagaries of red tape in this country, but we doubt whether even the War Office can produce a finer specimen than the following, which we take from the *Tatler*. On December 6th, 1877, a young French doctor sent in an application for a small post under Government. Another man was appointed, and getting no answer the applicant forgot all about the matter. Quite recently he received an official document, which he was required to fill up in order to get a nomination for the position he had applied for nearly twenty-eight years before. But while his letter had been reposing in an official pigeon hole the doctor had made his way in the world, and had long since ceased to think of such trifles as a small Government berth.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	**...**	**...**	**...**	**£0 4 0**
Each additional line ...	**...**	**...**	**...**	**0 0 6**
A whole column	**...**	**...**	**...**	**2 13 4**
A page...	**...**	**...**	**...**	**8 0 0**

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

Demonstrations
ON
THE CYSTOSCOPE

A METHOD OF ILLUSTRATING DISEASES OF THE BLADDER AND THE APPEARANCES IN RENAL DISEASE BY THE OPAQUE PROJECTOR.*

BY **DAVID NEWMAN, M.D., F.F.P.S.G.,**
SURGEON, GLASGOW ROYAL INFIRMARY.

PART I.—THE CYSTOSCOPE.

TLEMEN,—In the name of my colleagues and on my behalf I welcome you very cordially to join us in our avour to establish post-graduate medical classes in city. The very large, practically unlimited clinical rial at your disposal affords abundant opportunities udying disease in all its phases, and it will be our t to present it to you by demonstrations in as prac- a form as possible.

e medical and surgical staff of the hospital, with earty co-operation of the managers, have arranged terms, one during February and March, the second lay and June, and the third during October and mber. We recognize that success depends upon lves.

is demonstration is the first of the winter term, and eries includes in all seventy-five meetings, details ich you will find in the syllabus. The subject I selected is surgical diseases of the urinary organs, I intend to make the teaching as far as possible ical and clinical.

studying diseases of the bladder and kidneys, it is necessary in the first place to know the technique of odern cystoscope, and in the second place to become iar with the appearances presented by it to our view. ormer is quickly and easily acquired, the latter in details demands many years' experience.

relationship to diseases of the kidney, examination e bladder with the cystoscope has proved of great cal value, not only in a negative way by eliminating s of the bladder from the diagnosis, but also by positive evidence of the presence of disease in one h kidneys. When nephrectomy is contemplated on idney, a knowledge of the presence and functional ty of the other is of primary importance. From inspection, if carefully carried out by an educated xact conclusions may be drawn which cannot be d at by other means, and the course of treatment decided upon early in the course of the disease. employing this method, most valuable time may be d which would otherwise be wasted waiting for evidence to prove the nature of the renal lesion. ften, when we wait until the symptoms are ntly significant to form a basis for diagnosis, the has advanced beyond our power to remedy.

oscopy, when conducted with aseptic precautions, ttended with danger, and is comparatively easily l out in both sexes, but for obvious reasons with facility in the female.

r over twenty years' work with the electric cysto- n its various forms, I feel that I have much still to It must be admitted that while in many instances stoscope is not a difficult instrument to use, in the greatest caution and care is required in order irately appreciate what is seen. This I will fully later on. It may, however, be encouraging to you w that although necessarily self-taught, I found my early experience many of the grosser lesions of adder were easily recognized at first sight, and ss in using the instrument you will have the same nce, but with the advantage that you will have itiation to the work. As in disease of other organs in those of the kidney. It is the more obscure s that demand experience in their detection. er, the great majority of the lesions of the bladder the ureter orifices, after having been once de- ated to you, you will easily recognize when seen

any diseases of the kidney the symptoms simply point the direction in which information may be obtained, nothing more. For example, pain and bleeding may originate in any portion of the urinary tract; but, while in many instances the character of the haemorrhage and the situation of the pain correctly indicate the nature and site of the lesion, in others they seriously mislead, unless resort is had to physical proofs to guide and correct the conclusions deducted from the subjective symptoms.

One of the methods employed to eliminate the difficulties in the diagnosis between bladder and kidney diseases is a cystoscopic examination of the bladder, including the appearances of the orifices of the ureters and the nature of the fluid escaping from them. The facts revealed by the cystoscope, combined with the information that may be obtained from bacteriological research, inoculation of animals, chemical examination, radioscopy, and segregation of the urine, added to ordinary clinical inquiry, enable us to advise operation or to refuse it, knowing that we have employed all the methods to our hand.

The majority of surgeons recognize the use of the cystoscope in its application to vesical disease, even although they may not practise its use, but few fully appreciate its value in gaining information regarding renal lesions. It has been my routine practice to make an examination of the bladder of all renal cases prior to operation, almost as regularly as I examine the urine, and I am convinced that by so doing I have been saved from many fallacies in diagnosis and errors in treatment.

In describing the apparatus I shall limit your attention only to the appliances which I have personally found most useful and successful.

For cystoscopic examination a reliable battery is of the first importance, one that will be ready for use at all times, and one which does not deteriorate by lying unused. Primary batteries and dry cells do not fulfil the requirements of men who are using them only occasionally. They are irregular in their action, rapidly deteriorate when not in regular use, and are constantly going out of repair. An arrangement of secondary wet cells, which I devised and have used for over seven years, answers admirably, and during that time the battery has not failed me on a single occasion, whereas, prior to finding out the way of working cells by the method I am about to describe, constant trouble was given even by the best primary and secondary batteries procurable.

The battery* consists of four secondary cells (Fig. 1), the glass or celluloid baths of these measuring 9 in. × 5 in. × 1½ in. These are mounted in a teak box open at the sides, so that the condition of the plates and the solution can be seen, and, if required, a fresh supply of the latter can be made up without dismantling anything or interfering with the connexions.

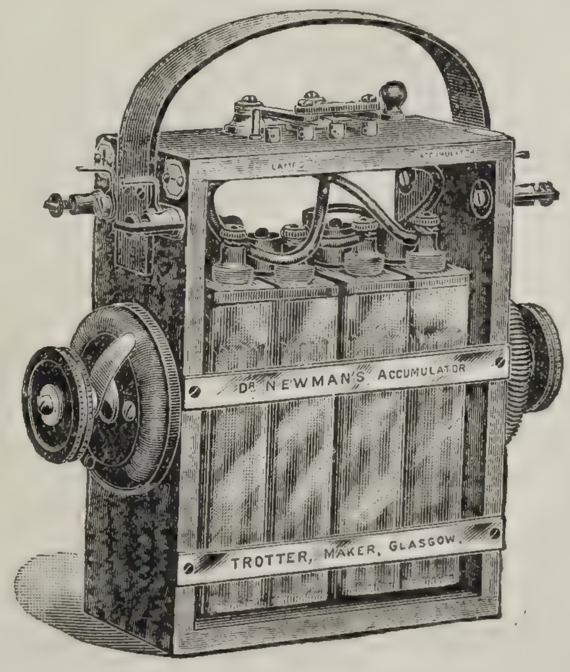


Fig. 1.

This accumulator is suitable for most surgical purposes where electricity of modern voltage and ampèrage is required. By means of a switchboard consisting of taper plugs the cells can be coupled up so as to give two volts, four volts, or eight volts as required. The electrodes of the individual cells are conveyed to a switchboard, and the terminals of the cells when combined are carried to two rheostats, one at each end of the box, one rheostat of low resistance for the low-tension currents, two and four volts, the other a higher-resistance rheostat for the eight-volt discharge. The former is used for cautery work, the latter for the light. The power of the accumulator is an eight-volt current of 20 ampère-hours, four-volt current of 40 ampère-hours, or two-volt current of 80 ampère-hours. It will be understood that at two volts the cells are coupled in what is known as parallel—that is, all the positives and all the negatives together (Fig. 2 *a*). For the four-volt current four negatives are coupled, two at each end of the battery, while in the centre one negative and one positive are connected (Fig. 2 *b*). For the eight-volt current the negatives and the positives are coupled together (Fig. 2 *c*). This arrangement of a switchboard enables the voltage to be carefully regulated, and prevents wastage of electricity, but in its use care is required. Care must be taken not to short circuit by placing plugs making three connexions between two cells—that is to say, both diagonal and parallel connexions between two cells. The safest plan is to remove all the plugs, and put them in as marke on the diagram on the box. Should only one change i voltage and ampèrage be required—the one eight volts 20-ampère hours, the other two volts of 80-ampère hours- then a switchboard, as shown in Fig. 1, may be employe in place of the one just described.

---

* st of a series of Post-graduate Demonstrations given at the Royal Infirmary, Glasgow.

* Made by Mr. Trotter, Optician, 40, Gordon Street, Glasgow.

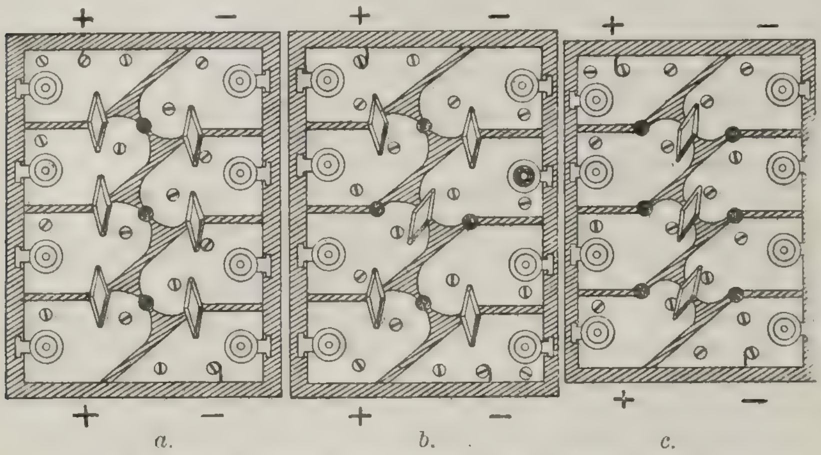


Fig. 2.—*a*, plugs placed connecting all the positive cells together and all the negative cells together = 2 volts for 80 ampère-hours. *b*, plugs placed so as to give a 4-volt current of 40 ampère-hours. *c*, plugs placed so as to give 8-volt current for 20 ampère-hours.

The cystoscope has now gained for itself a hardly earned and well-deserved place as an instrument of precision. Only those who have closely followed th literature of the subject are fully aware of the stron opposition offered against its use. In the past this ha been largely due to the difficulties experienced in teaching the subject and in demonstrating the appearance observed. Hitherto it has been found very difficult t show others what one sees, unless the lesion is of a gros nature. The slightest movement of the cystoscope in th passing of it from the hands of one observer to anothe changes the field of observation. Consequently th student may not see what his instructor desires him t observe. He is apt, in receiving the cystoscope, eithe to push it further into the bladder or to withdraw i slightly. This is the strong objection to the use of th ordinary cystoscope for teaching purposes. Now, however the difficulty has been overcome. The instructor and th student may examine the object under review simultaneously. Mr. Trotter now makes for me a wash-ou cystoscope with a double objective by which two observer can see the same object at one time.

Over those of last generation, in taking up the study o the cystoscope for the first time, the practitioner of to-day has many advantages. Having been trained by expert he is familiar with physical methods, and is wel acquainted with the use of the microscope, the ophthalmoscope, and the laryngoscope. His predecessors had n experience in their use. I feel, therefore, that to teach you the elements of cystoscopy is not a heavy task although I may warn you at the onset that the instrument is not only a difficult one to use, but experience i required in order properly to appreciate its full value an to justly judge what is presented by it to your view.

To narrate the history and development of the electric cystoscope is unnecessary in a course of clinical instruction, but it may interest you to see my first cystoscop

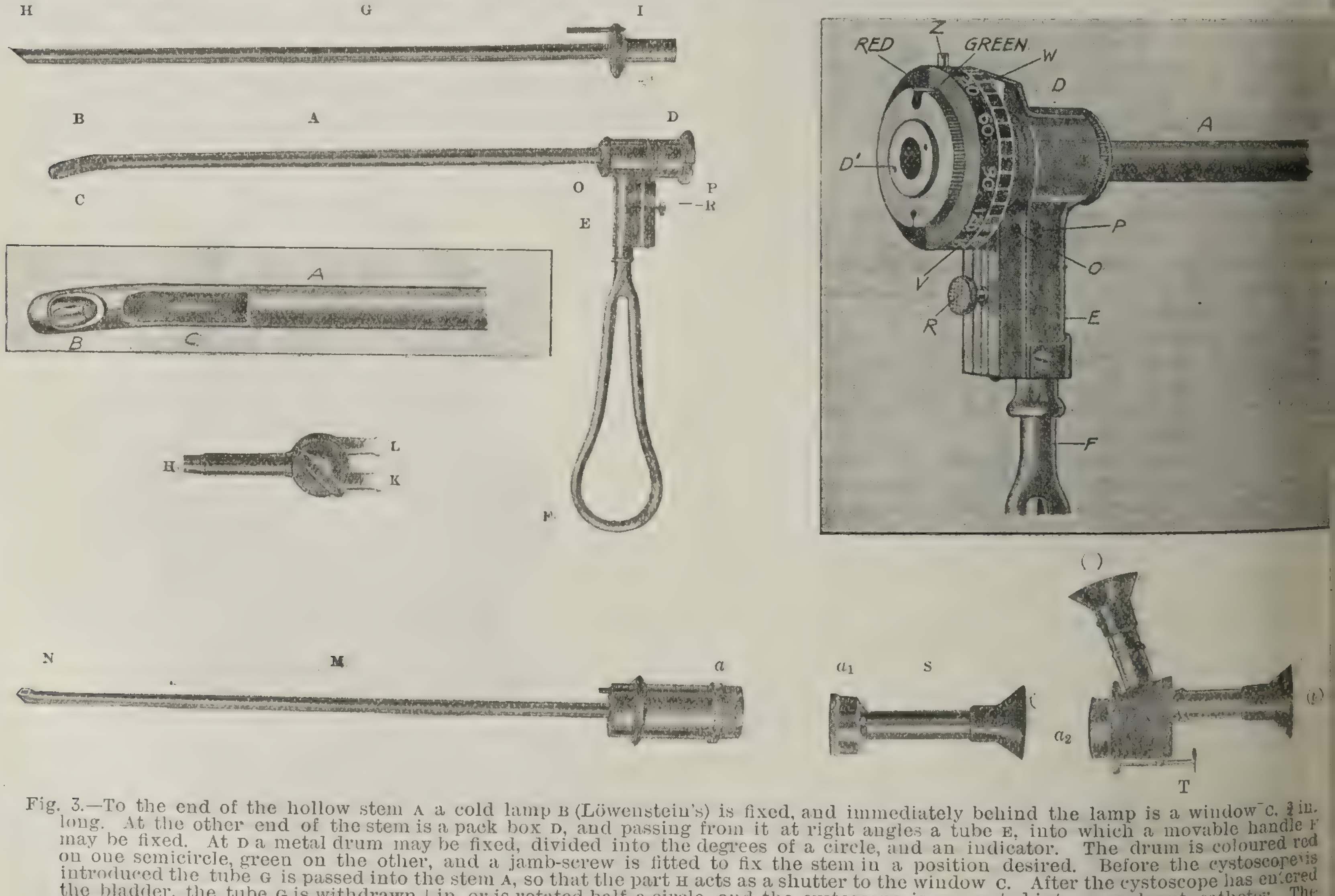


Fig. 3.—To the end of the hollow stem A a cold lamp B (Löwenstein's) is fixed, and immediately behind the lamp is a window C, ¾ in. long. At the other end of the stem is a pack box D, and passing from it at right angles a tube E, into which a movable handle F may be fixed. At D a metal drum may be fixed, divided into the degrees of a circle, and an indicator. The drum is coloured red on one semicircle, green on the other, and a jamb-screw is fitted to fix the stem in a position desired. Before the cystoscope is introduced the tube G is passed into the stem A, so that the part H acts as a shutter to the window C. After the cystoscope has entered the bladder, the tube G is withdrawn ¼ in. or is rotated half a circle, and the cystoscope is converted into a wash-out catheter. The double-action stopcock H should then be fixed to the tube at I, so as to regulate the direction of the flow of fluid. A rubber tube leading to the limb K should contain solution under fluid pressure of a 2-ft. column, while a rubber tube leading from L should contain fluid having suction of a 2-ft. fall—the former for ingress, the latter for exit of solution from the bladder. This part of the apparatus practically affords a wash-out catheter by which the badder is cleared before the introduction of the telescope M.

efore I demonstrate the construction and use of my atest one. My original electric cystoscope (January 18th, 883), which is still armed with the first electric lamp ntroduced into a human bladder, I now pass round for our inspection. Edison's incandescent lamp had just een patented, and one or two were sent to Glasgow for ir William Thomson (Lord Kelvin). The late Mr. White howed them to me. At the time I was struggling with e difficulties of cystoscopy by reflected light, and at once ppreciated the value of direct illumination.[1]

Since 1883 great changes have taken place. The cystoope I now show you is the one I use, and it fulfils all e following requirements.

(1) Comparatively small lumen of the stem, so that the strument may be introduced without injury to the rethra or to the neck of the bladder; (2) large field of ision and a clear view; (3) good view of the neck of the ladder; (4) good illumination without danger of scalding e mucous membrane of the bladder; (5) ease in sterilizing e instrument; (6) facility in emptying the bladder ould there be clamant call to urinate, without necessiting the removal of the cystoscope; (7) ability to monstrate to a second observer the object seen; (8) easy eans of clearing the field should it become obscure, ithout removing the stem of the instrument from the ladder; (9) means of steadying the instrument while an amination is being made, of fixing the cystoscope prism any particular point, and of defining clearly the posion of the lesion. The cystoscope (Fig. 3) fulfils all these quirements.

Prior to introducing the cystoscope the lamp must be sted and the rheostat adjusted. When the bladder has een washed out, and is distended to the required extent, e tube G is withdrawn and replaced by the telescope M, that the prism N comes to be immediately opposite the indow C.* The electrodes are introduced into the opengs O and P, the circuit completed by pressing the itch R against the body of the cystocope, the lamp is hted, and the observation made. Should the fluid come opaque before the examination of the bladder is mpleted, the bladder may be rewashed by withdrawing e telescope and reintroducing the tube G without movg the stem of the instrument. This instrument differs m the ordinary cystoscope also, in that two eyepieces ay be screwed on to the telescope (M), one a single (S), e other a double eyepiece (T). In the latter the age is refracted into a second eyepiece at right angles the shaft of the cystoscope, so that a student can look rough this second eyepiece (x) while his instructor is aking observations through the first eyepiece (y). This vention greatly facilitates instruction in cystoscopy. e surgeon seats himself in front of the patient in the ual way, and while he is making an inspection of the adder and describing it to the student, each feature esented is as clearly seen by the second party as by the st.

Now you understand the construction of the cystoscope, lesire to point out its advantages. Divided into two stinct parts, the wash-out catheter and the telescope th the prism attached, the instrument is constructed so to enable the examination to be completed from beginng to end without the stem being withdrawn. Pracally only one instrument is introduced through the thra. The optical arrangements are such that 90° of e sphere of the bladder can be seen at one time. One the great faults of the Leiter cystoscope is that the adder is first washed out by means of a catheter, and en the cystoscope is introduced the prism is liable to soiled, so that when the lamp is lighted in many cases clear view can be obtained. In order to cleanse the sm the whole instrument requires to be withwn, and may be again soiled on reintroduction. th the cystoscope I have shown you the telescope not in the stem while it is introduced, it is only after cystoscope has been in the bladder that the wash-out heter is withdrawn, and the telescope with the prism ached introduced; therefore it cannot be soiled during roduction. Should it be soiled after introduction, then an be easily withdrawn and cleansed without removing stem of the cystoscope from the bladder. Then, again, uld there be, as is frequently the case, a clamant call to urinate the telescope can be withdrawn and the bladder emptied, and after an interval redistended with clear fluid. By using lamps embedded in asbestos the conduction of heat is reduced, and consequently the danger of scalding the mucous membrane greatly diminished. The optical portion of the instrument being separate from the wash-out catheter the latter can be thoroughly sterilized without the danger of injuring the instrument. The double eyepiece facilitates the demonstration of objects to the student while they simultaneously pass before the instructor, and by employing a prism placed at an obtuse angle to the stem the neck of the bladder can be easily seen. This is impossible to observe by means of the ordinary prism.

In certain works and articles on cystoscopy diagrams are given showing the incandescent lamp shining and illuminating limited areas only. Such representations are misleading. A good lamp lights up the whole bladder. In young persons examined in a darkened room the light can be seen shining through the perineum and the anterior wall of the abdomen in front. The light is not limited, but the range of vision through the rectangular prism is usually restricted to about 60 degrees. By it the neck of the bladder cannot be seen. To see the neck a second telescope is required, with an obtuse-angled prism, as shown in Fig. 4*a*. Fig. 4*b* shows the direction of refraction of the ordinary right angle prism.

To describe the method of conducting an examination will take some time, and at first sight it may appear complicated, but when you see me employ it you will admit the simplicity of the whole procedure. My purpose is to enable you to make an examination with the greatest safety and the least discomfort to the patient. The cystoscope is constructed with the object of getting a complete view with the least possible movement of the stem of the instrument. The movements are a combination of rotation of the stem and an outward and inward sliding of the telescope. The window (Fig. 3, C) is an elongated one, so that while the stem remains stationary in the urethra, the telescope may be moved along the stem and the observer may look through the window from different points of view.

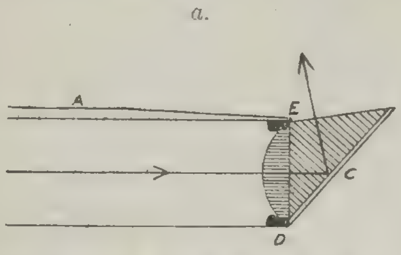


Fig. 4*a*.—The telescope A, with a short-focus lens D, for examining the neck of the bladder, which is close to the obtuse angle prism E. The angle of refraction is shown at C, and the direction of the central line of light is indicated by arrows.

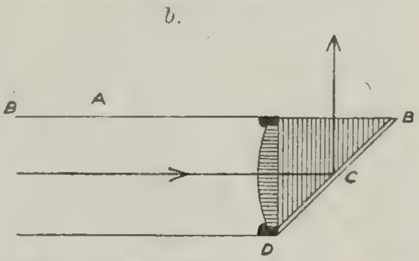


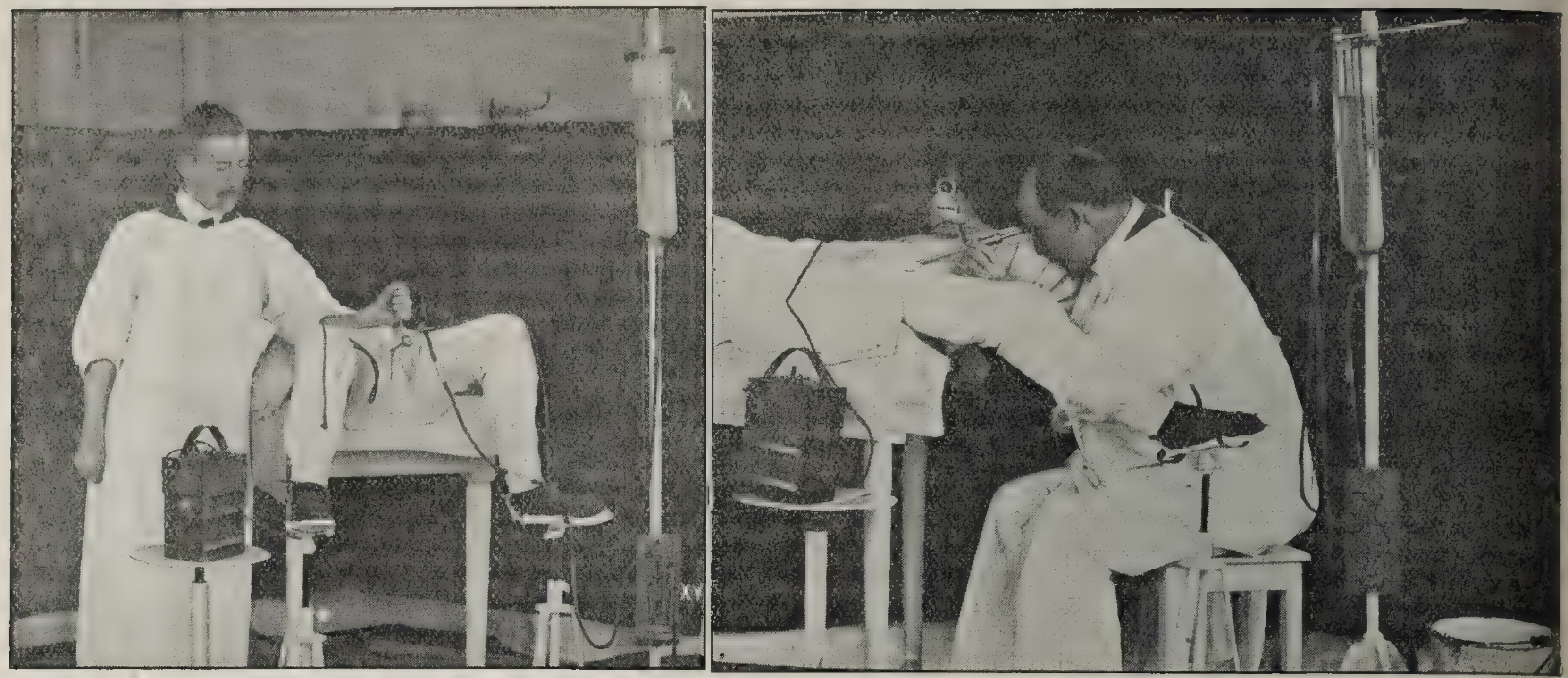
Fig. 4*b*.—The telescope A is provided with a long-focus lens D for examining the surface of the bladder. The angle of refraction of the rectangular prism is shown at C, and the direction of the central line of light is indicated by arrows.

Prior to a cystoscopic examination careful inquiry should be made into all the circumstances of the patient. In those suffering from serious disease, and in whom the introduction of an instrument is likely to be followed by aggravation of the symptoms, cystoscopy should not be resorted to unless the patient is prepared to submit to an immediate operation should it be deemed necessary; for example, in advanced tuberculous disease, in chronic retention in persons of advanced years, and in chronic cystitis with sacculation of the bladder, instrumentation is liable to do harm.

The evening before an aperient should be administered, and on the morning of the examination an enema. The meatus and urethra should be washed from above downwards with a mild antiseptic solution. The cystoscope should be sterilized by careful cleansing and steeping in a 1 to 40 carbolic acid solution. Half an hour before the inspection the patient should partake of one pint of hot fluid, such as milk or weak tea, so that the kidneys may be moderately active at the time of the examination, and to ensure that the bladder contains a quantity of freshly secreted urine. It is not desirable that the excretion be very active, for if so, small quantities of blood escaping from a ureter may evade observation. To lessen pain during the examination, 2 or 3 drachms of a 10 per cent. solution of cocaine may be injected into the urethra, and retained for four to five minutes and then allowed to

---

The telescope usually employed has a rectangular prism, but a ond telescope is required to obtain a good view of the neck of the dder.



Figs. 5 and 6.—For washing out purposes I use a graduated cylinder irrigator (*a*), capable of holding 2 litres of boracic acid dissolved in sterilized water (half full strength). A rubber tube, with fluid pressure of about 2 ft., leads from the irrigator to the limb K (Fig. 3) of the double action stopcock H, while a second tube leading from L contains fluid with suction of a 2 ft. fall. When the stopcock is turned to the left fluid flows into the bladder, when turned to the right the fluid flows out, and when the stopcock is placed midway between both K and L are closed. The temperature of the solution should be 100° F. With the stopcock H fixed in it, the tube G (Fig. 3) is inserted into the stem of the cystoscope, and the solution is allowed to flow freely through the window C until the metal is heated to the temperature of the fluid.

escape externally, not into the bladder. Only when there is considerable irritation is it advisable to introduce cocaine into the bladder, for while it serves to deaden the sensitiveness of the mucous membrane it also alters the colour considerably. If carefully and gently conducted, the pain during an examination should not be greater than that induced by passing a full-sized catheter, and certainly much less than that caused by sounding. By keeping the handle perfectly steady, and simply rotating the cystoscope and moving the telescope out and in the stem, a complete view may be obtained with very little pain. A general anaesthetic may be exhibited to females from motives of delicacy, to nervous patients who dread the examination, and to those with a very sensitive bladder or when it is necessary from any cause to make a protracted examination—as, for example, in observing shoots from the ureters, catheterizing the ureters, determining the exact relationship of a tumour, discovering the nature of an obscure lesion, or in demonstrating the condition to other observers. General as well as local anaesthetics influence the colour of the mucous membrane. I therefore prefer, where colour is an important factor, to avoid their use. Immediately before the patient is brought in, all the apparatus should be thoroughly tested. By not attending to this simple rule, much trouble may be caused, and the instrument may be blamed for what is really the fault of the observer. The prism and the lenses should be carefully examined and if necessary cleansed. The battery being in good working order, with the rheostat at the point of greatest resistance, the wires should be connected with the cystoscope with the switch drawn back. The lamp should then be placed under water and the circuit closed. With the full resistance in circuit, the lamp will merely show a red glow, but by turning the rheostat to the left the resistance will be gradually diminished until the filament becomes incandescent. The amount of current required varies greatly with different lamps. Half a dozen taken at random shows the following: the lamps generally are 7 or 8 volts, and the amount of current required varies from ½ to 1½ ampères. The rheostat regulates the current so exactly that a ½ ampère lamp may be simply heated to redness on the one hand, or a 1½ ampère lamp may be rendered incandescent according to the resistance used.

With the battery I described to you, sufficient current is supplied for any of these lamps with about one-third of the rheostat still in circuit. The advantage of this amount of power is that there is always plenty of electricity in reserve for any emergency. Hence lamps of various capacities may be used, but in each case the current required must be tested before the cystoscope is introduced.

The patient is placed on his back with the buttocks resting a little above the edge of the table and the feet supported upon rests (Fig. 5), which can be fixed at a height suitable to the individual patient. The legs are wrapped in sterilized towels. The surgeon then takes a sheet of jaconet 18 in. square, with a small hole cut in the centre, passes the cystoscope through this opening, lubricates the instrument with glycerine, and, standing on the left side of the patient, introduces the cystoscope into the bladder. At the triangular ligament a little resistance may be offered to the passage of the beak, but by gentle and steady pressure while the handle of the cystoscope is brought well down between the thighs the elbow turns the corner and the beak suddenly glides into the bladder. An assistant steadies the cystoscope by holding the handle, as shown in Fig. 5, or by resting the loop on the end of the table. The operator, now seating himself on a low chair at the end of the table, withdraws the tube G (Fig. 3) about ¼ in., turns the stopcock to the right and allows the bladder to empty itself into the receptacle X, Y (Fig. 5). This receptacle is constructed on the principle of a wash-out cistern. It holds 6 oz. of fluid, and as soon as filled it quickly empties itself into a bucket, so that each succeeding flow from the bladder can be clearly seen. When the fluid flowing into the receptacle becomes quite clear and translucent the height of the solution in the graduated cylinder is noted and the quantity which readily flows into the bladder is measured so that the examination may be made under various degrees of distension.

Suppose the bladder capable of holding without discomfort 300 c.cm., the catheter tube is now withdrawn and replaced by the telescope. The observer looking through the eyepiece (Fig. 6) presses the switch home and completes the circuit. The prism of the cystoscope being directed towards the anterior wall, when the lamp is lighted nearly always an air bubble which has found its way into the viscus with the fluid is the first object which attracts attention. If small, it appears as a shining spherule which sways with every movement of the patient or of the instrument. If large, it resembles a vibrating mirror which reflects brightly the image of the cystoscope. With the patient on his back, the air bubble occupies the apex of the concavity of the bladder, and, marking the meridian of the sphere, it acts as a polar star, and so serves as a useful guide in locating lesions. The indicator W (Fig. 3) of the cystoscope is made to coincide with the position of the centre of the air bubble. With the telescope pushed fully home the stem of the instrument is slightly rotated to the right of the observer, a systematic search is made, a general view of the bladder is obtained, and, should any abnormalities be seen, their position is noted. A general inspection having been made, special attention should be directed to the area of the trigone, as it is at the base that evidence of disease is most likely to be found, such as ulceration, tuberculous disease, sacculation, tumours, calculi, and foreign bodies. The orifices of both ureters

hould be seen and their appearances carefully noted.
he power of detecting them can be easily developed
ith a little practice; I can usually find them in a few
conds.

Viewed during life the appearance of the mucous mem-
rane of the bladder is seen to vary greatly both in form
d colour. These variations depend upon many circum-
ances, but one only shall I refer to now—namely, the
gree of distension of the viscus. When well filled—say
the extent of 16 oz.—its mucous membrane is of a pale
llowish-pink colour, is attenuated and free from folds,
e blood vessels are hardly perceptible, the lips of the
eters become almost obliterated, and the orifices flat-
ned, but, if by slow degrees the contents be permitted
escape, the colour brightens, and the mucous membrane
adually appears more bulky. The folding of the mucous
embrane first becomes visible immediately above the
igone on the posterior surface, and gradually fold after
d appears like small waves extending from above down-
rds, and gradually assume larger dimensions. The
od vessels slowly become more and more dilated, the
s of the ureters pronounced, and the orifices distinct.
fully-filled bladder is anaemic, one moderately distended
well supplied with blood, an empty one is congested.
ese conditions must be considered in making observa-
ns. In a partly distended bladder the folds of mucous
mbrane may hide lesions, consequently never be satis-
d by one examination or one degree of distension only.
e appearances presented by the trigone and by the
ges corresponding to the lines of the ureters also vary
different individuals, and according to the degree of
tension. In many instances, when the bladder is well
tended, the ridges of the trigone are hardly apparent,
l the orifice of the ureter appears to lie upon a flat sur-
e. In other cases the ridges limiting the trigone are
nounced, the interureteric ligament appears as if a
d was placed transversely under the mucous membrane,
l the openings of the ureters are situated upon dis-
t eminences. Between these two extremes there may
innumerable gradations. The mucous membrane of
trigone is smooth and more deeply coloured than that
the rest of the bladder, and, when the viscus is only
lerately distended, the limits of the trigone are clearly
ned. In disease other aspects present themselves,
nges in colour, in size, in shape, and in the appearance
he surrounding parts. Sometimes the mouths of the
ers seem to be pushed out towards the lumen of the
lder, in others they seem to be drawn in. These con-
ons must be studied in the living subject, as after
h the appearances lose most of their characteristic
ures.

health the urine collects slowly above the closed
ncters at the orifices of the ureters, and at intervals
hrown by squirts with considerable force into the
der. The length of the intromissions depends upon
activity of the kidney. Under favourable circum-
ces, about 10 to 15 drops are ejected, alternately, from
ureter every 30 or 40 seconds. By carefully watch-
he line of the ureter, the portion coursing through the
of the bladder, the part immediately above the
ncter, will be seen gradually to distend. Immediately
re the urinary squirt appears, the expanded duct,
ing in form not unlike a miniature engorged leech, is
n slowly upwards and outwards. It gives a sudden
gle, its muscular fibres contract, the sphincter is
d open, and the contents are ejected. The urine, as
thrown into the bladder, forms a distinct jet which
ts downwards and inwards. The spurt occupies about
seconds. The form of the spout can be seen most
y in cases of renal haematuria. The aspect of the
es of the ureters individually, and in relation to each
, is important to observe. It may be stated as a
ral observation, that when the appearance of the
e of one ureter is altered, while that of the other is
al, the renal lesion is on the side of the morbid
r. And, again, if the number of urinary shoots be
ted within a given time, as they occur from each side,
marked difference is observed, the side on which
shoots are seen is either the site of considerable
irritation or is the most active organ functionally.
due to morbid irritation, the shoots not only
ed one another rapidly, but they are of short dura-
and the urine which escapes is small in quantity;
eas in increased functional activity the shoots, in
addition to being frequent, are prolonged, and the amount of the urine is large. Instead of coming in regular and distinct jets every 20 or 30 seconds, the force of the shoots may be diminished. The manner in which the urine enters the bladder may be so slow as to be hardly perceptible. In stricture of the ureter, or when its lumen is obstructed by a stone, the urine may dribble into the bladder, just as it dribbles out of it in enlarged prostate or in stricture of the urethra. In describing the orifices of the ureters we may speak of the inner and outer lips and the upper and lower angles. In many cases the orifice of a ureter may not be visible, but it is not necessarily to be concluded that the orifice is absent or displaced; it may be merely hidden—at one examination easily seen, at another not to be found.

In some cases certain facts can be ascertained regarding surgical renal lesions by an examination with the cystoscope. For example, in many cases of renal haematuria, and in some cases of pyuria, the escape of blood or of pus from a ureter can be readily seen by the cystoscope. When the amount of blood present is small, but still sufficient to perceptibly stain the urine, the cystoscope is, in the male, more reliable than the ureter catheter, the introduction of which into the inflamed ureter may cause a little bleeding and so vitiate the value of the observation. When we come to consider the question of effluxes from the ureters, I shall point out to you the importance of their various characteristics. Pus may escape in different ways, according to the consistency of the fluid. In many cases the quantity of pus discharged from the kidneys is small and its escape so irregular that the cystoscope fails to establish from which kidney the purulent urine flows. When, however, the diseased kidney is secreting little urine, and the quantity of pus is considerable, the discharge may be readily seen escaping from the ureteral orifice. In some instances it is forced out of the ureter in form and appearance not unlike a cheese maggot, and little masses of purulent discharge may be seen on the floor of the bladder curled up like dead maggots, unmixed with the solution introduced for the cystoscopic examination, but when the bladder contracts to expel its contents, the force required to drive them out causes the purulent masses to lose their form and become intimately mixed with the fluid. In this way they are deprived of their characteristic form, which can be observed only while they are within the bladder. The appearance of more or less slight effluxes indicates that the kidney from which they come has ceased to be functionally active. On the other hand, when the pus is seen to escape in distinct shoots, the kidney may be presumed to be still secreting a considerable quantity of urine.

A very important area of the bladder still remains to be examined—namely, the neck. The first telescope is now withdrawn and the second one inserted. With it the neck of the bladder is clearly seen, and the telescope lens being one of short focus it is necessary to make certain allowances as regards the size of the objects seen according to the power of the individual lens.

In making our systematic examination, suppose that we have seen the lesion, say an ulcer covered by a white slough. How are we to locate the position of the lesion? It is clearly not on the floor of the bladder, and it is not on the anterior wall. It first came into view when the cystoscope had been rotated some distance to the right of the perpendicular. As the view obtained by my cystoscope includes 75 per cent. of a circle or sphere, it is impossible to define for descriptive purposes the limits of the ulcer unless an exact method be followed. I have had considerable difficulty in selecting a method for recording the situation and extent of lesions. The sphere of the bladder might be divided as the face of a clock, and we might speak of an ulcer occupying a space corresponding to 4 o'clock, or a circle might be made similar to the mariner's compass, and we might regard the ulcer as being SE by E, but I fear to a landsman that would not convey a very clear idea. The plan I have adopted I shall explain in a few words. Immediately opposite the handle (Fig. 3) and fixed to the metal collar (D) within which the cystoscope (A) rotates, there is a small pointer (Z) which corresponds in position to a hair line in the telescope. In making the examination the handle is allowed to rest upon the operating table, and is maintained in a perpendicular position, so that the pointer corresponds exactly with the middle line in front. This point we fix as the meridian. The circumference of the drum (Fig. 3, V) is graded 180 degrees to the right and left of the meridian, and in order to avoid mistakes in recording (the observer's right being liable to be substituted for that of the patient), one semicircle is coloured green (starboard) and the other red (port), indicating that the prism is pointing to the patient's right or left as the case may be. Let us take an example, and note that in making comparative observations the distension of the bladder must be always the same. The cystoscope has been passed, the air bubble seen ; the line on the prism is made to correspond with the centre of the air bubble, the pointer is at 0, the stem is now rotated to the observer's right—the patient's left—and a search is made. I show you on the screen with the projector exactly what is observed with the cystoscope. You see a small white slough, the centre of which nearly corresponds with the thread line on the disc of the telescope. On looking at the register on the drum we find by the pointer that the cystoscope has been rotated 110° to the left of the meridian, and on measuring from edge to edge of the ulcer, that the lesion extends between 105° and 115° to the left of the middle line in front. The pointer (Fig. 3) is covering the red hemisphere. Now, in order to find the degrees from the middle line posteriorly we make the following calculation :

$$180^\circ - 115^\circ = 65^\circ \qquad 180^\circ - 105^\circ = 75^\circ$$

that is to say, the ulcer extends from 65° to 75° from the middle line behind. We are therefore able clearly to define the longitude of a lesion, and approximately measure the degrees of the sphere of the bladder occupied by it. To define the latitude is more difficult, and although I have tried several methods I have not been able to hit upon a reliable one.

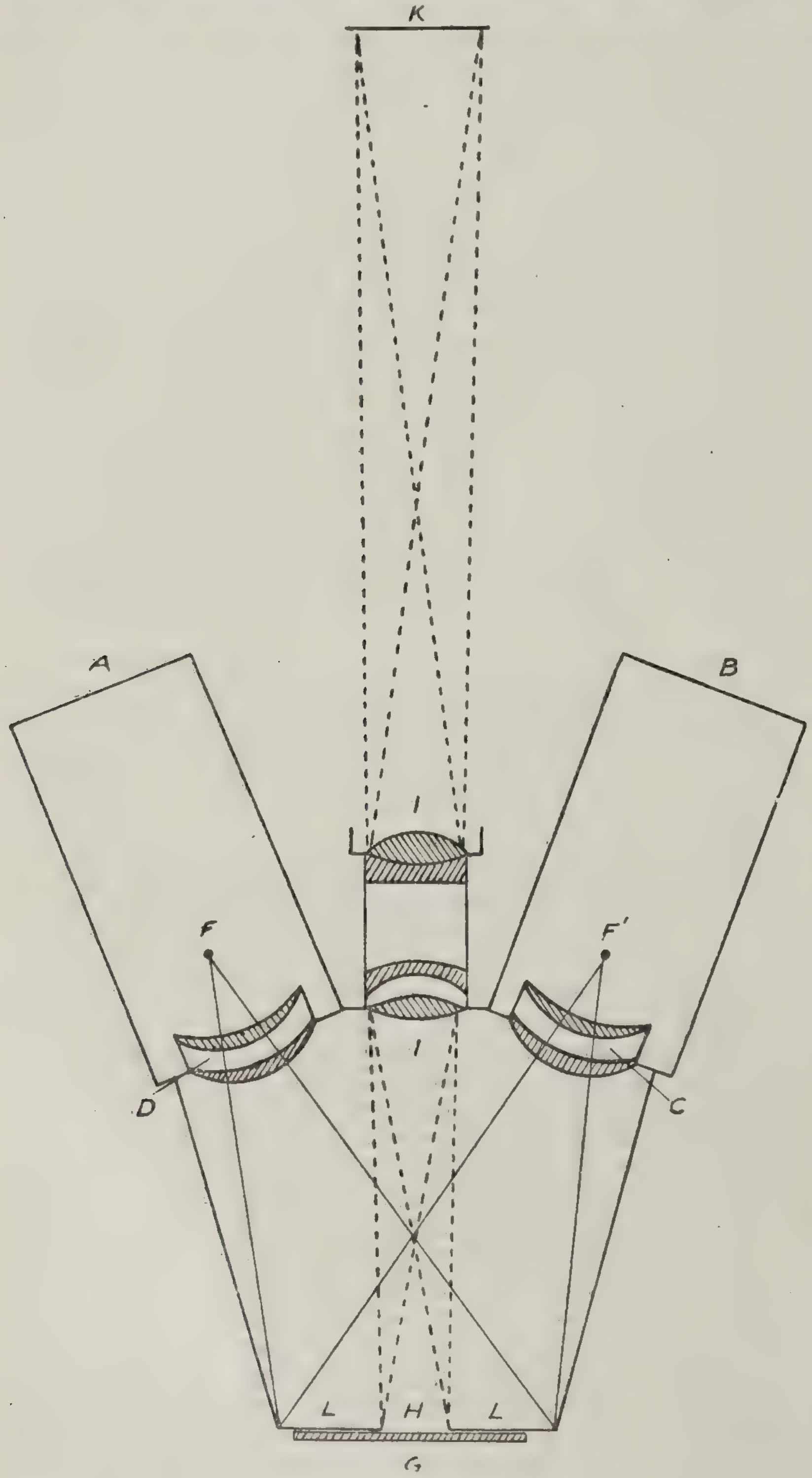


Fig. 7.

Now, having shown you the method of using the cystoscope, I may say a few words as to the method I employ in recording the appearances seen and in illustrating them by means of an opaque projector.

To accurately portray the appearances presented by the cystoscope is difficult for several reasons :—(1) The field is small, and to represent the whole picture a number of separate drawings may be necessary ; (2) the slightest movement of the cystoscope or of the patient may suddenly alter the relationship of parts ; (3) the field of vision may become obscure before the artist has time to complete his picture ; and (4) the artist requires considerable experience and instruction in the use of the cystoscope before he can appreciate and reproduce in colour the morbid changes presented to view. I am fortunate in having obtained the services of Mr. Alexander K. Maxwell who has shown much aptitude in appreciating what has to be seen by the cystoscope, and in transferring his impressions to paper. It seems to me that the easiest and most perfect method of teaching men to observe by the eye is to teach them through the eye, not through the ear, therefore during this course I shall have several opportunities of showing you his productions, which are specially drawn to illustrate lesions by means of the opaque projector. The projector is a very simple and inexpensive apparatus.* It consists of two lanterns (Fig. 7, A and B), which through condensing lenses (C and D) throw on the image (G) placed at the back of projector (Fig. 7, E) the full light of two large lime lamps (F and F′). To limit the extent of the surface illuminated, blackened diaphragms (L, L) of various sizes are employed according to the size of the object to be shown. For my present purpose a disc (L) having an opening (H) 3 in. in diameter is used. When the object (G) to be shown is placed behind the opening (H) in the diaphragm, its image is reflected through a series of lenses (I) and focussed on a translucent screen (Fig. 7 K and Fig. 8 A). Only a small portion of the large diagram of the bladder (G) is illuminated at one time. By moving it I can show you the mucous membrane bit by bit, just as it is seen in making an inspection with the cystoscope.

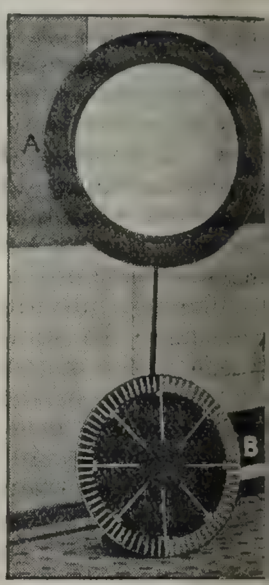


Fig. 8.—A, translucent screen of tracing paper in metal disc 26 in. in diameter, upon which image from projector is thrown ; B, metal plate which fits into the disc in front of the paper screen, and is used to illustrate the method of locating lesions in the bladder.

In order to demonstrate the appearances of "shoots" of healthy urine or of morbid fluids escaping from the ureter I have constructed small cells made of block tin. The cell measures 6 in. by 6 in. by 1 in., and on the inside a diagram of the bladder wall and of the orifice of the ureter is painted. Corresponding to the ureter orifice in the picture there is an opening through the back of the cell and from it a tin tube leads to a 2-oz. syringe also to a hypodermic syringe. The opposite side of the cell is glass. The cell is nearly filled with water, which has been boiled to drive off the air in solution otherwise air bubbles are liable to adhere to the cell wall and obscure the view. To demonstrate a shoot of normal urine, the cell is filled with water and placed behind the projector. The 2-oz syringe is filled with a concentrated saline solution coloured yellow, and connected with the tube to the

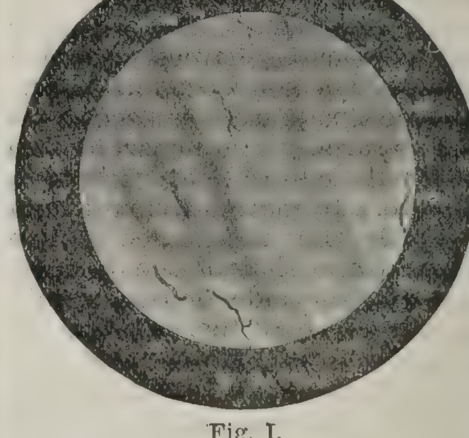


Fig. I.

---

* Mr. Trotter supplies the projector complete for £15 : about one-tenth of the cost of similar apparatus provided by Continental makers.

syringe. By suddenly squeezing ½ oz. of the saline solution through the hole into the cell, an appearance is produced which, when represented on the screen, is exactly similar to what is seen when a urinary shoot occurs into the living bladder. The image at the back of the cell (Fig. I) represents the orifice of the healthy ureter, when the bladder is distended with 7 oz. of solution. The mucous membrane is of a pale colour, and has only a few vessels ramifying on its surface. The lips of the orifice are rounded and slightly elevated. The ridge is moderately marked, and the opening is sharply defined, and the space between the lips is of a darker hue. The upper and lower angles are rounded and smooth. When the fluid is injected from the syringe the clear definition of the orifice is lost for a second or two, until the dense fluid mixes with the cell contents.

The mingling of the saline solution with the water produces the same appearance as the mixing of urine with the sterilized water in the bladder. You have now seen the appearance of shoots of healthy urine. Later on, by substituting coloured fluids and semi-fluids, I shall demonstrate to you the escape of pus, blood, and blood clots.

[Some of the more easily recognized diseases were then demonstrated, as will be explained in the next part.]

REFERENCE.

[1] *Glasgow Medical Journal*, 1883, vol. xx, p. 132.

(To be continued.)

THE SCIENCE COMMITTEE

OF THE

British Medical Association.

REPORT XCIV.

ANAESTHETICS AND RENAL ACTIVITY:

AN EXPERIMENTAL INVESTIGATION INTO THE EFFECTS OF PROLONGED CHLOROFORM AND ETHER NARCOSIS.

BY W. H. THOMPSON, M.D., Sc.D., ETC.,
KING'S PROFESSOR OF INSTITUTES OF MEDICINE, TRINITY COLLEGE, DUBLIN.

(Concluded from page 614.)

PART II.—ETHER NARCOSIS.

EXPERIMENTS with ether were carried out in the same way as with chloroform. In the earlier series the urine was collected from the ureters, in the later from the bladder.

EFFECTS ON THE QUANTITY OF URINE.

Of previous observers, Kemp[33] found that the secretion of urine was early diminished, and finally stopped under ree and continuous inhalation of ether. In the experiments of Buxton and Levy[34] the secretion of urine was slowed, but a complete suppression from the effects of ether was never witnessed. A temporary suppression, which did occur in certain cases was attributed to accidental traction on the ureter. My own earlier conclusions[35] (drawn solely from "ureter" experiments) were, that during its administration, ether causes an increased ecretion of urine, followed after removal by a still greater outflow. One case of marked depression was treated as an xception. Further inquiry, however, has made it quite lear that both effects are usual—the increase representing n earlier and lighter influence, the decrease a later and more profound action.

Table IX gives the detailed effects upon urine ecretion in both "ureter" and "catheter" series of xperiments.

A glance at the table will show that the increased effect n urinary section is practically confined to the ureter roup. In Experiments 2, 3, and 4 of this series both ffects are demonstrated, the "decrease" being obtained y a fuller degree of anaesthesia. The latter are amongst he most recently performed of the ether experiments, nd were undertaken to ascertain if both effects could be btained in one and the same animal by varying the degree of anaesthesia. Blood-pressure tracings of 3 and 4 are given later.

TABLE IX.—ETHER: EFFECTS ON THE QUANTITY OF URINE.

Experiment.	I.	II.		III.	IV.	V.
		Ureter Series.				
1 ...	6.7	31.70		31.7	21.10	8.3
		(a)	(b)			
2 ...	11.4	14.65	8.30	63.0	17.65	—
3 ...	35.2	29.35	17.00	15.1	—	—
4 ...	10.6	21.90	4.35	9.4	9.70	—
		Catheter Series.				
1 ...	7.7	18.90		7.7	4.00	4.5
2 ...	8.5	4.00		51.0	45.00	—
3 ...	278.0	23 50		130.0	66.00	—
4 ...	16 5	2.25		29.5	144.00	—
5 ...	12.0	2 00		55.0	55.00	—
6 ...	10.5	3.50		16.5	33.00	—
7 ...	14.5	8.00		11.0	20.50	26.0
8 ...	38.0	1 00		13.5	48.50	30.0
9 ...	15.5	10,00		32.0	79.00	44.0
10 ...	9.5	1.00		14.5	25.00	16.0

The periods are of two hours' duration, except in Experiment 1 of each series, where they are one hour each.

N.B.—In Ureter Experiments 2, 3, 4, the double columns during the anaesthetic period represent (a) the early; (b) the pronounced effect.

The averages per period, drawn from the four "ureter" experiments are:

I.	II.		III.	IV.	V.
	(a)	(b)			
15.99	24.4	7.6	29.8	12.11	8.3

The increase during the first stage of Period II amounted to 152.6 per cent.; the fall during the second stage brought the rate down to 46.65 per cent. of the normal.

In the "catheter" series, with the exception of the first experiment, all show during the anaesthetic period a very marked decrease of secretion. The drop in one case—namely, Experiment 3, was unusually great, as was also the rate of secretion during the normal period. In this case the animal had inadvertently got access to slops in which meat had been boiled, and drank freely a short time before the experiment was begun. This only transpired when the normal sample of urine was drawn off and found to be unusually great. It was decided, however, to proceed with the observations, in order to test the effect of ether under such conditions. The experiment, however, is treated as exceptional, and is not included in the following averages, which are drawn from the remaining eight "decrease" experiments in the series:

I.	II.	III.	IV.	V.
15.62	4.0	24.25	56.25	29.0

During Period II the rate of secretion dropped to 25.4 per cent. of the normal, and rose again in Period IV to 360 per cent. of that amount. The depression and reaction effects of ether are therefore more pronounced than those of chloroform. In several of the experiments the secretion of urine was stopped, or practically so, for considerable periods of time. In these it did not appear that the degree of anaesthesia was greater, though more prolonged, than that required as a rule for surgical operations on the human body. Observations in the later ureter experiments confirmed this. At a degree of anaesthesia just beyond the loss of conjunctival reflex, the urine frequently ceased to flow from the cannulae, and remained suppressed as long as the anaesthesia was kept up. The matter will be referred to again when the vascular effects are considered.

A preliminary note upon this effect in dogs was published by me last year.[36] Corresponding observations have also been carried out at my suggestion on the human subject by Dr. Harold Pringle, Mr. C. B. Maunsell, and Dr. Seton Pringle,[37] which fully bear out the results obtained on animals in the laboratory. This effect of ether—in suppressing urinary secretion—appears also to have been known to the late Mr. Lawson Tait, who refers to it in a short letter to the *Lancet*, vol. i, p. 988, 1897. It was likewise seen by Kemp, in his experiments on dogs. It is, I believe, less liable to occur when morphine has been previously given.

Effects on the Excretion of Nitrogen.

Leppmann[38] found the excretion of nitrogen to be slightly increased by ether narcosis. The results of my own earlier observations[39] agreed with this, except in the one instance in which the quantity of urine was diminished. In the following series it will be seen that the output of nitrogen per period corresponds on the whole with the effect on the quantity of urine.

In the "ureter" group during the early stage of increased urine secretion, the quantity of nitrogen also increased, while during the later stage of diminished flow, the excretion of nitrogen also fell. After removal of the anaesthetic a rebound occurred, which reached its maximum in Period III, and thereafter receded to a rate of excretion below the normal level.

Table X.—Ether: Effects on the Excretion of Nitrogen.

Experiment.	I.	II. (a)	II. (b)	III.	IV.
		Ureter Series.			
1 ...	0.1169	**0.2618**		0.2530	0.1772
2 ...	0.1401	**0.1349**	**0.0552**	0.3523	0.1270
3 ...	0.2523	**0.2219**	**0,1490**	0.1296	—
4 ...	0.1941	**0.2091**	—	0.1126	0.1162
		Catheter Series.			
3 ...	0.3892	**0.1020**		0.3749	0.2365
4 ...	0.1650	**0.0227**		0.1776	0.2217
5 ...	0.1747	**0.0204**		0.2787	0.2849
8 ...	0.3352	Negligible		0.1640	0.2838
9 ...	0.2040	**0.2243**		0.2939	0.3163
10 ...	0.2370	**0.0235**		0.1705	0.2723

Including the output of the anaesthetic period of Experiment I amongst the early effects the averages for the ureter series in the above table per period are:

I.	II. (a)	II. (b)	III.	IV.	V.
0.1759	**0.2070**	**0.1021**	0.2119	0.1401	0.1240

During the first stage of Period II the increase rose to 118.25 per cent., and during the second stage fell to 58 per cent. of the normal, with a subsequent rebound to 120.5 per cent. The corresponding effects on the outflow of urine, as shown above, were in the same direction, but somewhat more marked.

For the experiments in which nitrogen determinations were made in the "catheter" series, the averages—excluding the special Experiment 3, where the rate of outflow was very unusual—are:

I.	II.	III.	IV.
0.2232	**0.0581**	0.2169	0.2758

That is to say, during the anaesthetic period the excretion of nitrogen dropped to 26.03 per cent. of the normal, returning in Period III, as shown by the averages, to somewhat below the latter amount. In most of the individual experiments the rebound was continued into Period IV, and the output did not always come down to normal level within the period of observation.

It is of interest to recall that during Period II the outflow of urine in the same series dropped to 25.4 per cent. of the normal, which corresponds closely with the effect on the excretion of nitrogen. Further, in the exceptional experiment, No. 3, the drop in the output of nitrogen was also to about the same figure—namely, 26.23 per cent. of the normal, although the secretion of urine fell to 8.45 per cent. These facts are, I think, of importance in showing that the ether influence on the excretion of nitrogen is in the main to be ascribed to its effect on the outflow of urine, and hence to vascular influence, while with chloroform this is not so. With ether also, in the later stages, the effect is not wholly vascular. The output of nitrogen in some cases suffers a greater depression than can be accounted for by the decrease in urine.

Effect on the Concentration of the Urine.

It is of interest to contrast the effects produced by ether on the concentration of the urine with those of chloroform. It will be remembered that under the influence of chloroform the concentration of the urine was nearly always reduced even when the volume was diminished. With ether the rule is reversed. The diminished urine is for the most part more concentrated than the normal. The following table gives the percentage concentration of the urine for each period:

Table XI.—Ether: Effects on the Percentage Excretion of Nitrogen.

Experiment.	I.	II. (a)	II. (b)	III.	IV.	V.
		Ureter Series.				
1 ...	1.694	**0.826**		0.798	0.840	1.9096
2 ...	1.2292	**0 9212**	**0.7560**	0.5592	0.7196	—
3 ...	0.7680	**0.7560**	**0.8764**	0.8582	—	—
4 ...	1.8312	**0.9548**	—	1.1984	1.1984	—
		Catheter Series.				
3 ...	0.1400	**0.4340**		0.2884	0.3584	—
4 ...	0.9940	**1.0080**		0.6020	0.1540	—
5 ...	1.4560	**1.0080**		0.5068	0 5180	—
7 ...	0.8820	—		1.2152	0.5852	0.7588
9 ...	1.3160	**2.2428**		0.9184	—	—
10 ...	2.4948	**2.3520**		1.1760	—	—

N.B.—In Period II, columns (*a*) and (*b*) represent early and late effects respectively.

The difference between ether and chloroform in this respect is probably in the main a relative one. There are exceptions in the above table to the diminished urine being more concentrated, chiefly where the influence of the anaesthetic has been more marked than usual. Further, the increase in the percentage of nitrogenous solids was not, in the inverse sense, fully proportionate, as a rule, to the diminution in the volume of urine.

Effect on the Chlorides of Urine.

An analysis of the chlorides was made in five of the "catheter" experiments. It was found that, as with chloroform, ether produces an increase which continues to augment for some hours after removal of the anaesthetic. The increase, however, is very small in comparison with that after chloroform.

The following table gives the results:

Table XII.—Ether: Effect on the Chlorides of Urine.

Experiment.	I.	II.	III.	IV.	V.
		Catheter Series.			
6 ...	0.0189	trace	0.0660	0.1320	—
7 ...	0.0087	**0.0704**	0.0154	0.0041	0.0806
8 ...	nil	not done	0 0405	0.0145	0.0150
9 ...	0.0062	**0.0270**	0.0256	0.1027	0.0484
10 ...	0.0541	not done	0.0261	0.0300	0.0352

The averages per period for the above experiments are:

I.	II.	III.	IV.	V.
0.0176	**0.0325**	0.0347	0.0566	0.0448

In Period IV the output was three times that of the normal. A search in the literature for previous observations on the output of chlorides under ether narcosis gave negative results.

It will be remembered that normal animals placed in the same conditions without anaesthesia showed an increase of chlorides during Periods II and III. The increase was, however, much less than that with ether. The fact that ether causes an increase makes it very probable that the whole of the augmentation seen under chloroform cannot be derived from the chlorine of the anaesthetic itself.

Vascular Effects.

Kemp[40] compared blood pressure with renal secretion during ether anaesthesia. The former (as recorded from the carotid artery) showed a rise from the beginning, which continued, or even slightly increased, when the ether was pushed. The secretion of urine was early diminished and finally stopped. The kidney volume increased at first, but rapidly fell under full anaesthesia. This shrinkage, which was not reflected in the blood-pressure tracing, was considered by Kemp to be evidence of a specific ether effect on the renal circulation. Buxton and Levy[41] repeated the work of Kemp, but found that after an early increase the blood pressure frequently fell,

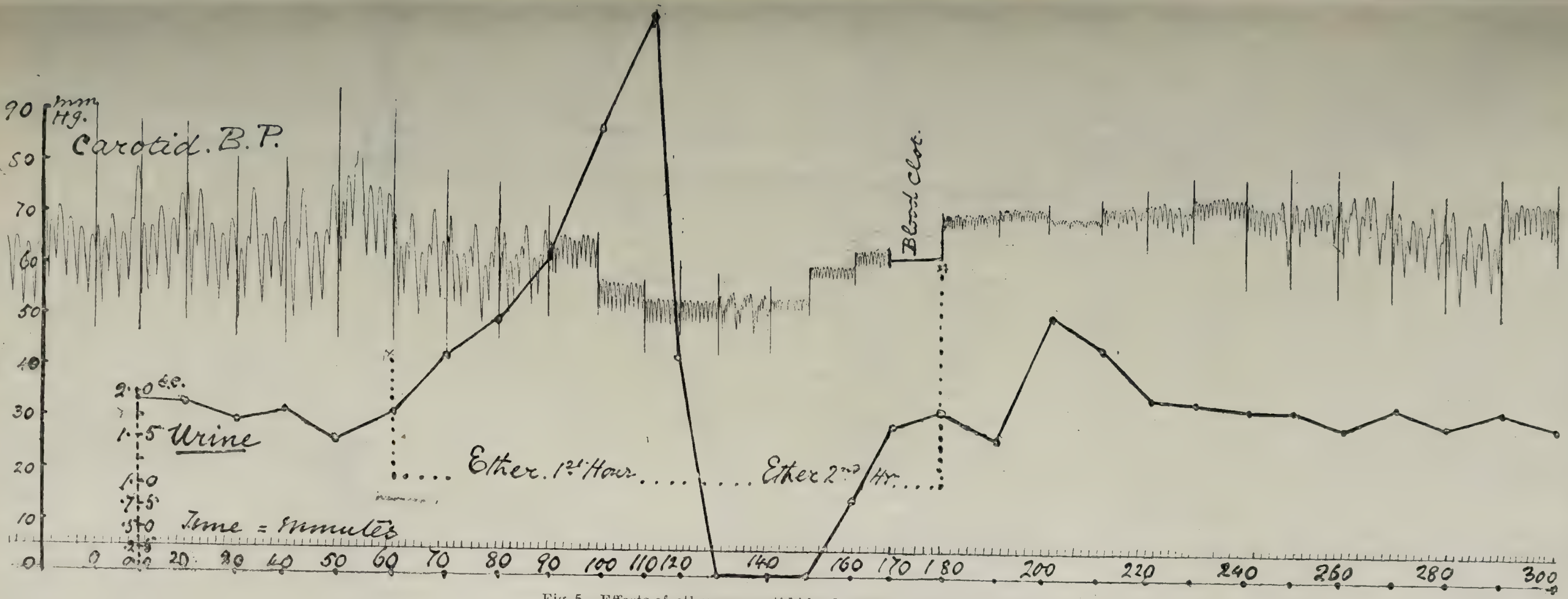


Fig. 5.—Effects of ether on carotid blood pressure and urine outflow.

and did so markedly when the ether was increased. The secretion of urine was slowed but not entirely stopped. The specific ether effect of Kemp was only obtained after prolonged administration of ether, or after repeated large doses, and was usually accompanied by a fall of blood pressure. The oncometer showed diminution in volume but not the extreme contraction observed by Kemp.

In the present series, owing to differences in the methods and length of observations, it was considered necessary as a starting point to compare urinary secretion with blood pressure throughout the different periods.

(a) Comparison of Blood Pressure and Urine Secretion.

The accompanying Fig. 5 gives a tracing of blood pressure from Experiment 4 (Ureter Series) upon which the outflow of urine is superimposed in curve form.

In the above experiment morphine had been given before collecting the normal sample, but no other means of anaesthesia till the ether administration. The ether was given for two consecutive hours, to a light degree in the first, to a pronounced degree in the second. During the first hour, the curve of secretion shows a great increase in the rate of outflow which gave place to a rapid fall when the anaesthesia was increased. For a period of fifteen minutes in the middle of the second hour the secretion was suppressed, and during this time the fall in blood pressure was not of itself sufficient to account for the suppression. After the ether was completely removed the rate of secretion recovered and rose for a time above the normal. The end of the tracing shows the characteristic decline in urine secretion seen at this stage, in all the experiments in which morphine had been given at the outset.

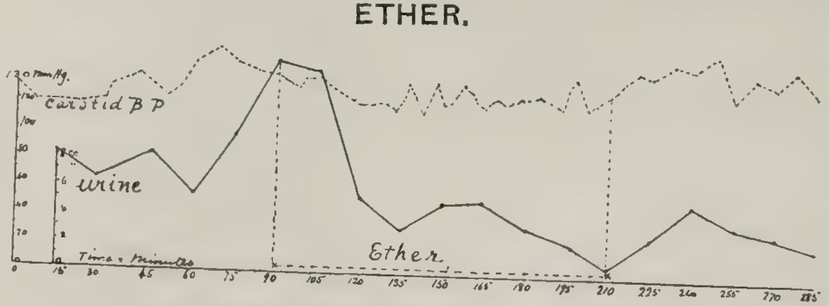


Fig. 6.—Chart showing ether effect on blood pressure and urine secretion.

Fig. 6 is a chart constructed from the results of Experiment 3 (Ureter Series), and represents a somewhat different type of ether effect.

It will be observed, on examining the above, that the rate of urinary secretion rapidly increased towards the end of the normal period. Blood pressure also rose somewhat anterior to the urinary increase. The same effect had been several times observed, but only when ether or chloroform or a mixture of these had previously been given. In the experiment in question a light ether-chloroform anaesthesia was used to supplement the morphine narcosis during the preliminary operations. This increase is, I believe, always liable to occur under similar circumstances, and can only be guarded against by a wait of several hours after removing the anaesthetic before collecting the normal sample of urine. When ether was subsequently given to observe its effect on the urine, the secretion rapidly fell, but not to complete suppression. The flow also remained low throughout the second hour, notwithstanding a high blood pressure. In the after-period, the feeble character of the reaction, which I have attributed to morphine influence, is shown.

(*b*) *Kidney Volume and Urine Secretion.*

Four experiments were performed with ether, in which kidney volume, blood pressure, and urine secretion were recorded. The same precautions were observed, and the same difficulties met, to which reference is made under "chloroform." The left kidney was placed in the oncometer.

The following table gives the urinary secretion per period for each kidney separately:

TABLE XIII.—ETHER: EFFECTS ON URINE VOLUME IN ONCOMETER EXPERIMENTS.

Experiment.	I.		II.		III.	
	L.	R.	L.	R.	L.	R.
1 ...	13 45	27.60	9 00	22 40	2 80	11.20
2 ...	2.00	2.90	2.90	2.70	2.50	2.45
3 ...	22.00	18.30	41.20	5.400	10.30	13.30
4 ...	3.90	4.50	4.50 1.30	6.60 1 80	6.10	7.50

In all the above experiments the periods are calculated for one hour duration. The anaesthetic period of Experiment 4 is subdivided into two half-hours.

In Experiment 1 the rates of secretion from the oncometer and normal kidneys were markedly different, and in consequence the experiment is excluded from the following averages. The averages taken for the different periods from the remaining three are:

L. Kidney (onc.)	9.3	16.6	6.3
R. Kidney	8.6	21.7	7.5

The rate of secretion was little affected by ether in Experiment 2. In Experiment 3 the "increase" effect is well shown, while in Experiment 4 the "increase" effect, which is shown in the first half of the anaesthetic period, is followed by a converse influence in the second half. Tracings from Experiments 3 and 4 of this group are given subsequently.

The output of nitrogen in Experiments 2, 3, and 4 of the above series was also determined, and is given in the following table:

TABLE XIV.—EFFECTS OF ETHER ON OUTPUT OF NITROGEN IN ONCOMETER EXPERIMENTS.

Total Output per Period.

Experiment.	I.		II.		III.	
	L.	R.	L.	R.	L.	R.
2 ...	0.0348	0.0483	0.0299	0.0545	0.0113	0.0439
3 ...	0.0739	0.0845	0.0703	0.0977	0.0374	0.0517
4 ...	0.0711	0.0805	α 0.1094 β 0.0246	0.1375 0.0312	0.0891	0.0888

Percentage Output, to show Concentration of Urine.

Experiment.	I. L.	I. R.	II. L.	II. R.	III. L.	III. R.
2 ...	0.3108	0.2100	0.3332	0.2436	0.4030	0.3920
3 ...	0.3360	0.4620	0.1708	0 1792	0.3640	0.3892
4 ...	1.8228	1.7304	α 2.4304 β 1.8830	2.1832 1.8690	1.4616	1.1844

N.B.—α and β represent early and late effects.

The output of nitrogen and concentration of urine are little affected during the anaesthetic period of Experiment 2. The same may be said of the output in Experiment 3, notwithstanding the great increase in urine volume—namely, to double the normal amount. In Experiment 4 the output of nitrogen is raised during the first part of the anaesthesia, partly owing to increase in the urine volume, partly also to a slight increase in the concentration. During the second part of the anaesthetic

ETHER.

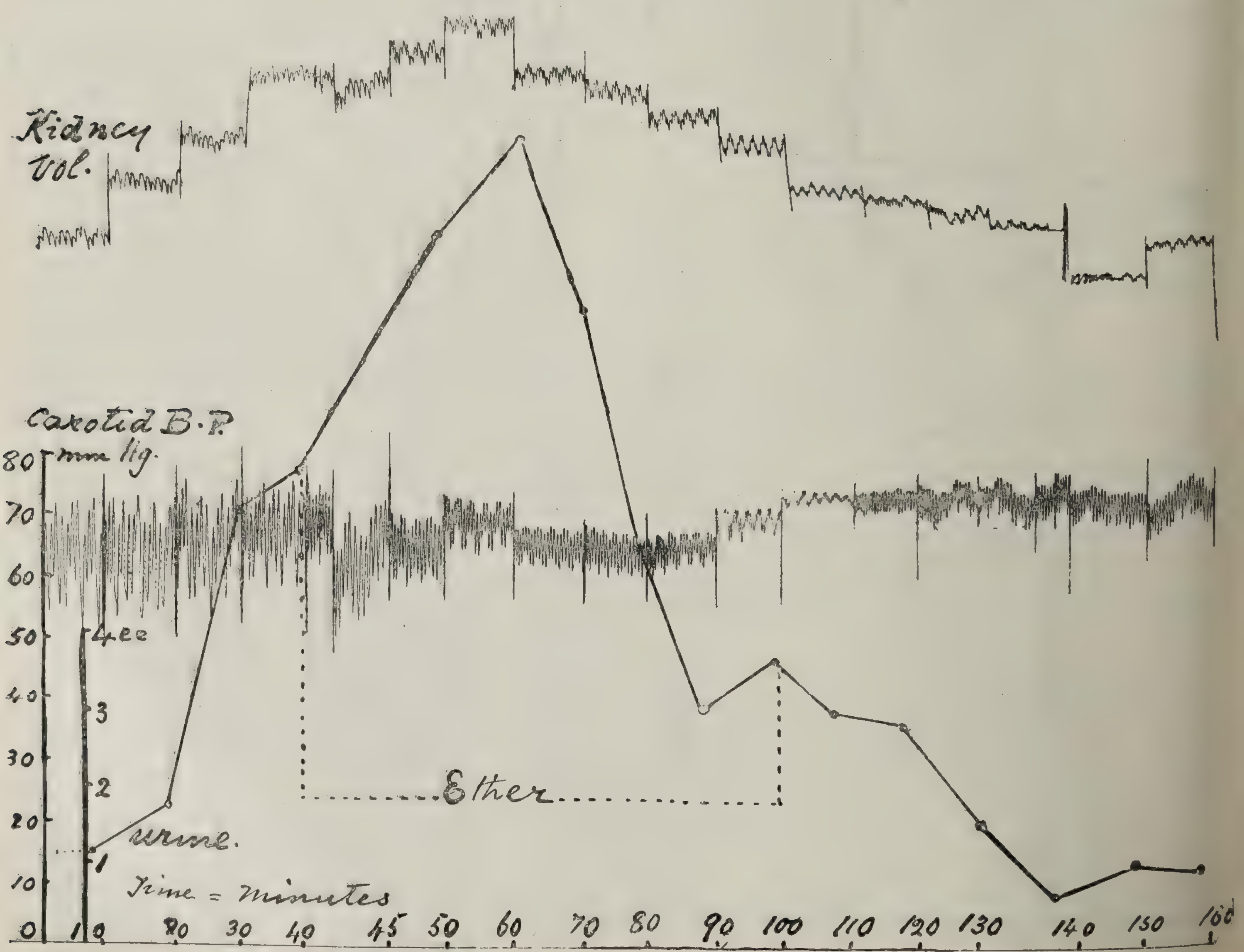
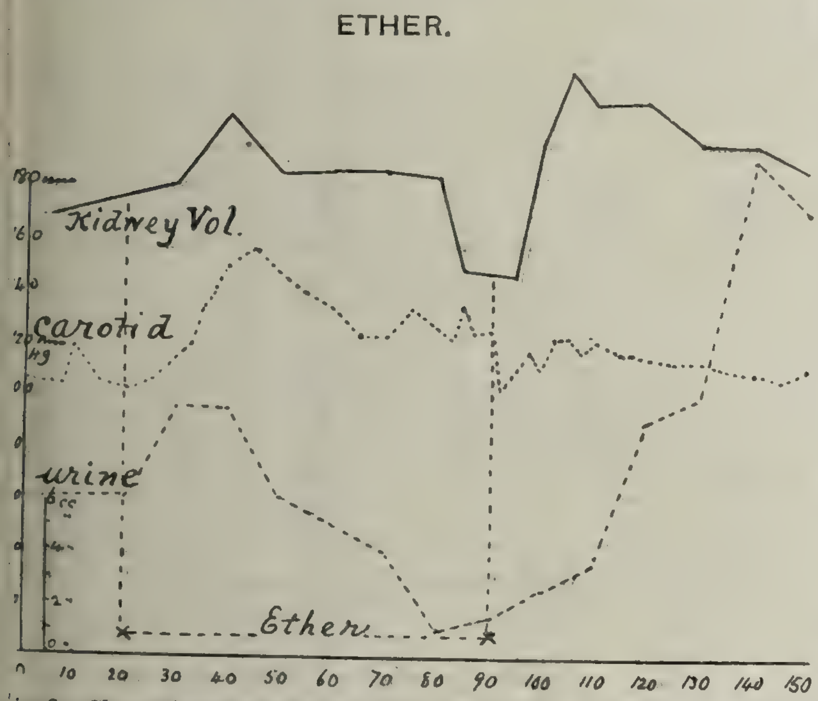


Fig. 7.—Effects of ether on kidney volume, carotid blood pressure, and urine secretion.

period the total output of nitrogen is very greatly reduced, s is also the concentration, when compared with that of he previous half. The reduction in concentration did ot, however, proceed lower than that of the normal ample.

In Period III the total output of nitrogen is subnormal, xcept in Experiment 4; the concentration of the urine s the reverse. These effects agree in the main with the nfluence on urine volume. Fig. 7 gives the results of xperiment 3 in graphic form, the curve of urine ecretion being imposed on the tracing of blood pressure nd kidney volume.

The normal period was forty minutes, during the latter alf of which the secretion of urine increased rapidly. his is another instance which shows the effect of using ther-chloroform mixture to assist in the preliminary naesthesia. A period of three-quarters of an hour had lapsed in this case after removal of the ether-chloroform efore the urine collection was begun. Notwithstanding e increased rate of flow, the ether when subsequently given roduced its usual effects. During the early part of the halation an increase in kidney volume occurred, with ugmentation of the outflow of urine. During the fuller ffect the outflow of urine rapidly fell, as did also, though a less extent, the volume of the kidney. The effect on lood pressure was a slight fall. During the after-period e fall in kidney volume brought its size gradually down a point below normal level with a slight rebound at the nd. These conditions were reflected in the urine curve, ut not in that of blood pressure. This distinctly rose in e later stages of the experiment.



ig. 8.—Chart showing effects of ether in Oncometer Experiment 4.

No ether-chloroform anaesthesia was used to supplement the preliminary morphine narcosis and the normal te of urine secretion is consequently uniform. During e anaesthetic period of seventy minutes both phases of e ether effect are shown on the urine volume. The early crease is accompanied by a rise in blood pressure, with gmentation of kidney volume. During the later part of e same period, and still more so in the after-period, a nt of correspondence at different parts of the curve is ry obvious. The divergence is, however, on the whole, ich less between the curves of kidney volume and urine tflow than between the latter and blood pressure. The ndition of the kidney volume during a state of almost mplete arrest of urine outflow is shown towards the end the anaesthetic period, and is by no means extremely all. It is difficult to guard against leakage in the lume-recording apparatus, and it is possible that the ninution shown in Kemp's results may have been exaggerated in this way. In the present experiments the paratus were always carefully tested beforehand against kage.

Reviewing the matter as a whole, it would seem that th ether there is a greater approximation to parallelism tween the urine outflow and the changes due to vascular ects than was seen with chloroform. This conclusion is o supported by comparisons between urine volume and ne concentration.

These latter tend to show that the depressing effects of ether on renal activity are primarily vascular, in contrast to those of chloroform, which are primarily parenchymatous or protoplasmic.

Under extreme or prolonged effects the degree of vascular stasis caused by ether seems also to be more pronounced than is the corresponding condition referred to under chloroform. Flocculi in the glass tubes conducting away the urine from the ureters after great diminution or arrest of secretion are even more frequent than with chloroform. They are mainly composed of collections of leucocytes.

Similar results in the same or other vascular districts have been frequently observed after ether. Da Costa[12] found contraction of the pulmonary capillaries with irregular changes in the leucocytes of the blood. Lindemann,[13] on the other hand, found great dilatation of the lung capillaries, with more or less oedema. Increase in the leucocytes of the circulating blood was observed by Lerber[14] on the day following ether narcosis. The same condition was found immediately after the anaesthesia by Chadbourne,[15] amounting in some cases to an increase of over 70 per cent. During the narcosis, on the other hand, the leucocytes were diminished. Eisendrath[16] describes the occurrence of casts with or without albuminuria, both after ether and chloroform. They disappeared sooner after the former. Ogden[17] also found casts in the majority of cases after ether.

ALBUMINURIA AFTER ETHER NARCOSIS.

Observations were made in eight of the "catheter" experiments, namely, 2, 3, 4, 5, 7, 8, 9, and 10. The reagent used for the detection of "albumen" was Spiegler's. Of the eight normal samples, six were free from albumen, one (Experiment 5) gave a distinct positive reaction, and one a doubtful result. In all of the experiments the urine at one or other of the later periods contained albumen. In that of Experiment 5, in which it was present at first, the quantity was increased by the anaesthetic.

In Experiment 3 the albumen reaction after ether was never more than faint, and was only obtained in the urine of two periods, namely, II and III. In five of the experiments the albumen had disappeared before the observations were concluded.

These results as a whole confirm the conclusions of numerous other observers, namely, that ether narcosis is more fruitful in producing temporary albuminuria than that of chloroform.

REDUCING SUBSTANCES IN THE URINE AFTER ETHER NARCOSIS.

Seelig[48] finds that ether inhalation always produces glycosuria, sometimes to the extent of 10 per cent.

An examination for osazone-yielding substances was made after ether inhalation in ten of the foregoing experiments—one "ureter" and nine "catheter." Morphine had been administered in two of the cases, and both gave abundant crystals, one in the normal sample. Of the remaining eight, none gave crystals in the normal period, but four gave them in one or other of the succeeding periods. In none of these were crystals obtained in two periods of the same experiment. In two of the experiments the crystals occurred in the urine of the anaesthetic period, in another in that of Period III, in the fourth in that of Period IV. In all cases the crystals differed in appearance from those of glucosazone, and resembled those seen after chloroform. The quantity judged roughly was, however, much less, and the frequency of occurrence also less in the case of ether. The substance yielding the crystals was probably the same in both.

MIXTURES CONTAINING CHLOROFORM AND ETHER.

Observations were made on the effects of two more or less commonly employed anaesthetic mixtures, containing ether and chloroform. These were the so-called A.C.E. mixture and a mixture of ether and chloroform in the proportions of two parts of the former to one of the latter.

A.C.E. MIXTURE.

Effects on the Quantity of Urine.

The following table gives the results of six experiments:

TABLE XV.—A.C.E.: EFFECT ON THE QUANTITY OF URINE.

Experiment.	I.	II.	III.	IV.	V.
		Ureter Series			
1 ...	11.00	**10.00**	16.80	16.80	—
		Catheter Series.			
1 ...	20.50	**2.00**	20.00	57.00	—
2 ...	20.50	**7.50**	45.00	117.00	21.00
3 ...	27.50	**16.50**	31.00	36.00	36.00
4 ...	6.50	**1.00**	12.50	9.50	7.50
5 ...	13.00	**8.25**	14.50	15.50	12.50

A slight decrease in urine outflow is seen during the anaesthetic period in the ureter experiment; in all others there is a marked diminution. The averages from the latter in cubic centimetres per period are:

I.	II.	III.	IV.	V.
17.6	**7.05**	24.6	47.0	15.4

The quantity in Period II fell to 40 per cent. of the normal, and during Period IV the rebound reached to 267 per cent. of that amount. Compared with the effects of chloroform and ether singly, the A.C.E. mixture caused less diminution during Period II, but is followed by a more pronounced reaction in Period IV. The latter result is not reflected in the output of nitrogen.

Effect on the Output of Nitrogen.

Analyses of nitrogen were made in all of the foregoing experiments. In the "catheter" series, and also in the single "ureter" experiment, the output rose and fell with effect upon the quantity of water, but not in a proportionate degree. The following table gives the particulars:

TABLE XVI.—A.C.E.: EXCRETION OF NITROGEN PER PERIOD.

Experiment.	I.	II.	III.	IV.	V.
		Ureter Series.			
1 ...	0.1430	**0.1440**	0.1740	0.1650	—
		Catheter Series.			
1 ...	0.1607	**0.0311**	0.2352	0.4309	—
2 ...	0.2210	**0.1277**	0.2898	0.3341	0.1670
3 ...	0.3158	**0.2264**	0.4409	0.5735	0.4999
4 ...	0.1824	—	0.2828	0.2346	0.1884
5 ...	0.2439	**0.0963**	0.2728	0.3090	0.2905

The averages per period for the catheter experiments are as follows:

I.	II.	III.	IV.	V.
0.2038	**0.1204**	0.2962	0.3232	0.2138

The decrease in the anaesthetic period represented 58.77 per cent., and the increase in Period IV 1.5858 per cent. of the normal output. The fluctuations in nitrogen were therefore considerably less than in the escape of water. Compared with the effects of ether and chloroform singly, those of A.C.E. were less marked. During chloroform narcosis the average excretion of nitrogen fell to 18 per cent. of the normal, and in the case of ether to 26.03 per cent.

Effect on the Concentration of the Urine.

In half the "catheter" experiments the concentration of the urine fell during the anaesthetic period notwithstanding diminution in urine volume; in the remainder an increase occurred.

The following table gives the percentage excretion of nitrogen:

TABLE XVII.—A.C.E.: EFFECT ON THE CONCENTRATION OF URINE.

Experiment.	I.	II.	III.	IV.	V.
		Ureter Series.			
1 ...	1.3020	**1.4140**	1.0360	0.9800	—
		Catheter Series.			
1 ...	0.7340	**1.5540**	1.1760	0.7560	—
2 ...	1.0780	**1.7024**	0.6440	0.2856	0.7952
3 ...	1.5120	**1.3720**	1.4224	1.5932	1.3888
4 ...	2.8056	—	2.2624	2.4696	2.5116
5 ...	1.8760	**1.1676**	1.8816	1.9936	2.3240

The averages from the catheter series are:

I.	II.	III.	IV.	V.
1.6111	**1.4490**	1.4773	1.4204	1.4039

Effect on the Excretion of Chlorides.

An estimation of chlorides was made for each of the catheter experiments in the above table. The average output per period is as follows:

I.	II.	III.	IV.	V.
0.0179	**0.0505**	0.0990	0.1375	0.0511

A very considerable increase was caused by the narcosis, which reached its maximum in second period after removal of the anaesthetic. The output was then eight times the normal. The results as a whole are intermediate between the effects of chloroform and ether singly, a less augmentation than the former, a greater than the latter. In duration they resemble those of ether, that is to say, the decline towards normal sets in within the time limits of the experiments.

ETHER-CHLOROFORM MIXTURE.

As already stated, the research originated in the necessity (for control purposes) of ascertaining the effect of ether-chloroform mixture (2 to 1) upon the work of the kidney.[49] This mixture is frequently employed in physiological experiments owing to its greater safety with lower animals than chloroform alone. The following results may, therefore, be of some interest:

Effect on the Quantity of Urine.

The results of six experiments not previously published are as follows:

TABLE XVIII.—ETHER-CHLOROFORM MIXTURE: EFFECT ON THE QUANTITY OF URINE.

Experiment.	I.	II.	III.	IV.	V.
		Ureter Series.			
1 ...	8.7	**8.7**	11.9	8.5	—
		Catheter Series.			
1 ...	8.5	**4.25**	6.25	6.25	—
2 ...	23.0	**6.0**	11.5	26.0	20.0
3 ...	43.0	**8.5**	35.0	71.0	36.5
4 ...	98.0	**11.5**	25.0	28.5	26.5
5 ...	20.5	**8.5**	9.5	30.0	25.0

The averages per period from the catheter experiments (excluding No. 4, in which the normal rate of secretion was unusually high) are:

I.	II.	III.	IV.	V.
28.8	**7.66**	18.66	42.33	27.2

During the anaesthetic period the secretion fell therefore to 26.6 per cent. of the normal rate, and rose in Period IV to 147 per cent. of that amount. It would thus seem that the immediate effect in this class of experiment is more pronounced than with chloroform but somewhat less than with ether. The after-effect is considerably less than with either constituent when given singly. In the special case, Experiment 4 (Catheter Series), the secretion during Period II dropped to 11.73 per cent. of the normal rate.

The foregoing results differ from those previously published, to which reference has been made, and in which a less-marked influence on urine flow was observed. The two sets of experiments are, however, hardly comparable; the earlier were all "ureter" experiments, in which morphine was used, and the ether-chloroform influence kept as light as possible, the latter chiefly "catheter" experiments in which a full effect was produced. I am also inclined to believe that too little influence was at that time attributed to the after effects of the anaesthetic mixture used during the preliminary operations.

Effects on the Excretion of Nitrogen.

In its effects on the output of nitrogen per period, the ether-chloroform mixture resembled that of ether alone rather than that of chloroform. The effects were, however, less pronounced than with ether. The following table gives the results:

ABLE XIX.—Ether-Chloroform Mixture: Effects on the Excretion of Nitrogen.

Experiment.	I.	II.	III.	IV.	V.
		Ureter Series.			
1 ...	0.3780	**0.4156**	0.3915	0.3237	—
		Catheter Series.			
2 ...	0.1835	**0.0961**	0.2019	0.2120	0.2201
3 ...	0.3130	**0.1323**	0.2646	0.2266	0.3015
4 ...	0.4719	**0.1352**	0.3500	0.4365	0.3710
5 ...	0.1538	**0.0878**	0.1987	0.2243	0.1652

The averages from the above (excluding Catheter Experiment 4 which is treated separately) are:

I.	II.	III.	IV.	V.
0.2168	**0.1054**	0.2217	0.2209	0.2289

During the anaesthetic period the nitrogen output fell 48.6 per cent. of the normal. There was little or no fter-effect. In the special case (Catheter Experiment 4) ne nitrogen excretion fell to 28.65 per cent., a much less ll than that which occurred in the watery constituent.

Effect on the Concentration of the Urine.

Without exception, the urine of the anaesthetic period as more concentrated than normal. This again is a deation from the effects of chloroform singly and a remblance to those of ether. The following table gives e particulars:

ABLE XX.—Ether-Chloroform Mixture: Effect on the Concentration of the Urine.

Experiment.	I.	II.	III.	IV.	V.
		Ureter Series.			
1 ...	4.578	**4.7768**	3.2900	3.8080	—
		Catheter Series.			
2 ...	0.7980	**1.6016**	1.7556	0.8156	1.1004
3 ...	0.7280	**1.5568**	0.7560	0.3192	0.8260
4 ...	0.4816	**1.1760**	1.4000	1.5316	1.4000
5 ...	0.7504	**1.0332**	2.0916	0.7476	0.6608

The averages from the catheter series are:

I.	II.	III.	IV.	V.
0.7588	**1.3972**	1.5344	0.6275	0.8624

It is remarkable that the percentage content of nitrogen s greatest in Period III, although the quantity of urine s considerably greater then than in Period II. It would m to indicate a retention of nitrogen constituents in blood during the period of anaesthesia rather than an ibition of their formation.

Effect on the Excretion of Chlorides.

he chlorides were estimated in three of the "catheter" periments, two of which showed an increase, and one a rease. The averages from the three are:

I.	II.	III.	IV.	V.
0.0497	**0.0661**	0.0371	0.0959	0.1188

he augmentation continued to the end of the periods bservation when it reached its highest level, the output ng about two and a half times that of the normal. In period at which the maximum occurred, the effect mbled that of chloroform, but the total influence of the ture in augmenting the chlorides was less than that ny of the previous anaesthetics used in this research.

UMÉ OF THE PRONOUNCED EFFECTS OF THE FOREGOING ANAESTHETICS ON RENAL ACTIVITY.

n the following table are given the effects of the erent anaesthetics already considered on urine volume, ogen per period, and nitrogen per cent. during the e of anaesthesia. In each case the normal standard ken as 100.

LE XXI. — Renal Activity under Different naesthetics (Effect during Anaesthesia Compared ith the Normal).

	Urine Vol.	Nitrogen per period.	Nitrogen per cent.
roform	35.0	18.00	70.20
r	25.4	26.03	110.00
C.	40.0	58.77	89.94
-chloroform	26.6	48.60	184.13

The similarities between the effects of chloroform and those of A.C.E. are seen at a glance, likewise those between ether and the ether-chloroform mixture.

Summary.

Ether.

1. During ether narcosis the volume of urine secreted, as in the case of chloroform, is affected in two ways. In the majority of experiments there is a decrease, in a few an increase. The latter is probably an early or light effect, the former a pronounced effect. The depressing effect is, however, more marked than with chloroform, and complete arrest more readily occurs.

2. The after-effect is also similar to that of chloroform, but, as a rule, less marked. The maximum outflow of urine occurs about three hours after removal of the anaesthetic.

3. The effect of ether on the output of nitrogen corresponds more closely with its influence on the outflow of urine than is the case with chloroform. In the later stages of the anaesthesia, where the urine volume is decreased, the excretion of nitrogen is diminished almost exactly to the same degree as the urine volume. In the group of catheter experiments the excretion of nitrogen fell to 26.03 per cent., the quantity of urine to 25.4 per cent. of the normal amount.

4. The effect of ether narcosis on the concentration of the urine differs also from that of chloroform. With the former, the urine when diminished in volume is, as a rule, more concentrated (contains more nitrogen). The converse was the case with chloroform. The effect of ether is, therefore, primarily vascular.

5. In ether narcosis, when the curves of urine outflow, kidney volume, and blood-pressure are compared, although there is not complete parallelism there is, on the whole, a closer correspondence than is the case with chloroform. This statement does not apply to the arrest of urinary secretion, which occurs more readily, and with a relatively higher blood-pressure, in ether than in chloroform narcosis.

6. The escape of leucocytes into the urine after full ether narcosis is more marked than with chloroform, probably indicating a higher degree of stasis in the glomerular capillaries. Dilatation of capillaries and escape of leucocytes have been seen by previous investigators after ether inhalation in the case of other vascular districts than renal.

7. An increased excretion of chlorides is seen after ether inhalation, but much less and of shorter duration than in the case of chloroform.

8. Temporary albuminuria appears in dogs in a much larger proportion of experiments with ether than with chloroform.

9. Reducing substances, not sugar, which were not present in the normal urine, appeared in a small number of the experiments after ether narcosis.

A.C.E. Mixture.

1. During full narcosis from the above the outflow of urine is diminished, but to a less degree than with either chloroform or ether. The after-effect is usually greater than with either.

2. The excretion of nitrogen is less depressed than the volume of urine. The average in the two cases are 58.8 per cent. and 40 per cent. respectively.

3. The effect on the concentration of urine is variable. In half the experiments with diminished volume there was also diminished percentage of nitrogen. In the remaining half the percentage of nitrogen was increased. The results, therefore, alternate between those of chloroform and ether.

4. The chlorides are increased to a less degree than with chloroform, but to a greater degree than with ether. In its short duration the effect resembles that of ether.

Ether-Chloroform Mixture.

1. The full influence of the mixture produces a diminution of urine less than that of ether, but more than that of chloroform. The after-effect is considerably less than with either chloroform or ether.

2. The excretion of nitrogen is less influenced than that of urine—a fall to 48.6 per cent. in the former case as contrasted with one to 26.6 per cent. in the latter. The effect resembles that of ether more than that of either chloroform or A C.E. mixture. The after-effect was inappreciable.

3. The urine of the anaesthetic period was in all cases more concentrated than normal, in this respect also resembling the influence of ether.

4. The chlorides were increased, but to a less degree than with any of the previous anaesthetics. The effect closely resembled that of ether.

[Towards the expenses of the foregoing research a grant of £10 was made by the Science Committee of the British Medical Association.]

REFERENCES.

[33] Kemp, New York *Medical Journal*, vol. lxx, (1899). [34] Buxton and Levy, BRITISH MEDICAL JOURNAL, 1900, vol. ii, p. 839 [35] W. H. Thompson, BRITISH MEDICAL JOURNAL, 1900, vol. ii, p. 833. [36] BRITISH MEDICAL JOURNAL, 1905, i, p 649. [37] BRITISH MEDICAL JOURNAL, 1905, ii, p. 542. [38] *Mittheilungen a. d. Grenzgeb. d. Med. u. Chirurg.*, iv. 21. 1898. [39] Vide footnote, p. 608, BRITISH MEDICAL JOURNAL, vol. i, 1906. [40] Kemp, loc. cit. [41] Buxton and Levy, loc. cit. [42] Da Costa, *Medical News*, Philadelphia, 1895, p. 225. [43] W. Lindemann, *Centralbl. f. allgem. Path. u. path. Anat.*, 1898, ix., s. 442-449. [44] A. von Lerber, Ueber die Einwirk d. Aether Nark auf Blut u. Urin, Inaug. Dissert., Bern, 1896. [45] Chadbourne, *Phil. Med. Journ.*, 1899, pp. 390-3. [46] Eisendrath, *Chicago Med. Recorder*, 1896, x. p. 89. [47] J. B. Ogden, *Journ. of the Boston Med. Sciences*, 1897, No. 15, pp. 18-23. [48] *Zentralbl. f. inner. Med.*, 24, 202 3. [49] Thompson, *Journal of Physiology*, xxv, p. 491, 1900.

TREATMENT OF CICATRICIAL STRICTURES OF THE URETHRA WITH THE ELECTROLYTIC NEEDLE.

By S. B. SELHORST, M.D.,

THE HAGUE, HOLLAND.

THE far from satisfactory results obtained by me, during several years of my special practice, from the methods usually followed in the treatment of cicatricial strictures induced me to try another process that might lead to a complete recovery. In the Chirurgico-Urological Section of the Thirteenth International Medical Congress, held in Paris in 1900, Dr. Albarran declared, in the discussions on non-complicated inflammatory constrictions, that no treatment had hitherto led to a perfect cure. He stated that resection and the plastic method were still those that gave comparatively the best results. Internal urethrotomy gave less favourable results, relapses occurring not less frequently than after progressive dilatation. The most frequent cases of relapse had been met with by him in cases of circular and linear electrolysis.

Tripier and Mallez are of opinion that these operations are by no means free from danger, as they have often seen undoubted evidence of attendant complications; nor have I myself been able to obtain any better results, and the repeated relapses would compel the patients to have recourse to the bougie for years, followed, after a time, by deviations of the vesical passage, with all its injurious consequences. The same favourable effects obtained by Professor Oberländer from the treatment of the different degrees of infiltrations and constrictions of the urethra with his two-branched and afterwards a four-branched dilator, have also been verified by me in soft and in hard infiltrations of a slight and moderate degree; but in cases of the densest infiltrations and longest cicatricial strictures this method did not afford the desired results, and relapses always occurred.

In his book treating of strictures of the urethra, Hamonic gives the following definition:

> The name of stricture of the urethra is given to any fibrous neo-formation of an inflammatory or cicatricial nature, deposited either in the form of a ferule or a ring on the inner circumference of the urethra, or in the form of a valvule or of a callosity on one of the wall coats, the direct consequence of which is to diminish gradually the calibre of the passage, thus giving rise to a number of different troubles, to produce secondary injuries to the genito-urinary organs, the gravity of which increases as they approach the kidneys, and finally to render various surgical operations imperative according to the nature of the case.

Looking upon the constriction as a new fibrous formation, I thought I might obliterate it by means of an electrolysis needle, a method sometimes used to destroy small cicatrices and glands in the skin, and one which Professor Oberländer recommends to remove the marks left by his treatment with a dilator.

The following is my method of procedure: After the dilatation of the constriction up to No. 23 of the Charrière gauge, either with Béniqué bougies or by internal urethrotomy, if the induration of the cicatrized tissue be very strong and the bore of the passage too small, I commence the treatment with the electrolytic needle. I first make a thorough and minute irrigation of the urethra with a solution of oxycyanate of mercury; I then insert Oberländer's urethroscopic tube, corrresponding with No. 23-30 of the Charrière gauge, passing along the whole length of the stricture. In examining the urethra I slowly withdraw the tube until the surface of the constriction is shown in the opening. The needle, ending in a strong platinum point from 1½ cm. to 2 cm. in length, isolated almost quite close to its point, is forced to a depth of ½ cm. to 1 cm. into the fibrous tissue according to the dimension, thickness, and hardness of the tissue. The needle is the negative pole of a galvanic battery, the positive pole of which, a large moistened, wetted disc, is placed on the thigh or on the belly. I allow the electric current of from 4 to 6 milliampères to work for three minutes. Before withdrawing the needle I interrupt the current, and drive the needle into another part. This operation may be repeated four or five times during a sitting, and, if executed by an expert hand, is not very painful.

In cases in which the constrictions are extensive and thick, the operation may be practised in the beginning at least twice a week. Later, one sitting a week will suffice. After each sitting the urethra is duly irrigated with a solution of oxycyanate of mercury or of nitrate of silver 1 in 4,000. These irrigations before and subsequent to each sitting are indispensable for the prevention of complications.

During the six years that I have treated cicatricial constrictions in this manner, I have never met with such complications as epididymitis, cystitis, or "bacteriuria," etc.

During the whole period of treatment a bougie is introduced once a week, followed by an irrigation with a nitrate of silver solution to promote reabsorption, and to maintain the passage of the urethra at the size required. The number of the sittings will depend on the extent of the stricture as well as on its thickness and hardness. Sometimes three or four sittings will prove sufficient; sometimes, however, it does happen that the treatment has to be continued for several months.

With the help of the urethroscope the process of the cure may be verified by observing the progressive change in the aspect of the surface of the constriction, the greyish colour of which gradually changes to a pale red. The surfaces again become supple and level, and, later on, shiny.

Owing to the fact that the lacunae and the glands only partly show themselves, and the longitudinal folds and the longitudinal streaks but faintly, the place in the urethra where the stricture was situated will easily be found. When the whole surface of the mucous membrane has come to be of a reddish colour, I insert every fortnight a Béniqué bougie corresponding with No. 25-26 of the Charrière gauge, and from time to time I again use the needle to destroy the remaining traces of the cicatricial tissue.

The treatment here described has been productive of the best results during the six years I have applied it. In several cases in which I have had the advantage of again seeing my patients two years after the treatment, I have been able to verify and confirm the fact of the permanence of the cure by introducing with facility into the urethra a Béniqué probe corresponding with No. 26 and 27 of the Charrière gauge.

With the aid of the urethroscope the side of the urethra is seen to be quite flexible, limp and shiny at the site of the stricture, whilst the longitudinal folds and striae and the lacunae have not been quite restored, and are even almost completely wanting.

The results thus obtained have induced Dr. Schoemaker, chief of the surgical section of the Hague Municipal Hospital, and myself to try to reduce or obliterate hypertrophied prostates by way of the urethra, in accordance with the aforesaid method.

I insert, if possible, the largest tube of Oberländer's urethroscope right into the bladder, withdrawing it again until the tissue of the prostate is seen, which is easily verified with the aid of the urethroscope, and is further indicated by the suppression of the flow of urine. At the same time, with my finger in the anus, I determine the position of the tube. By these means the right place may exactly be chosen at which to force the needle rough the tube right into the tissue of the gland. The edle must be armed with a very sharp platinum or steel oint, 4 to 5 cm. long at least, in order to be able to netrate deep enough into the tissue of the prostate. he positive pole, a large moistened disc, is placed gainst the belly or the thigh, in the same manner as in e electrolysis of constrictions.

The needle—the negative pole—is thrust in to a depth 2, 3, or 4 cm., according to the length and thick-ss of the prostate, whilst the needle may be traced with e assistance of the urethroscope, and with the finger in e anus. I now apply for three or four minutes a lvanic current of from 4 to 6 up to 8 milliampères. fore withdrawing the needle I stop the current. By tering the position of the tube the needle may be used different directions, so that a large part of the prostatic sue may be treated.

When the lateral lobes of the gland are very much en-rged, it would not be possible to reach them with the edles described above. In order to be able to treat ands so extensively enlarged I have had a needle made ovided with springs, which, being thrust into the ostatic tissue, will bend into the lateral lobes.

To effect this manipulation we have placed the probe, ding in a steel point with a spring and very sharp, in a ass tube very smooth inside. This glass tube is inserted the tube of the urethroscope, which is already placed ady for the operation.

The loss of blood and the pain are very slight, as well the reaction that is apt to follow each sitting, which ll quite allow of two or three sittings a week.

I intend to publish the results later, not having as yet perimented long enough to feel justified in coming to finitive conclusions.

One of the patients was able to pass urine without a heter after the third sitting, though the bladder was ly partly emptied.

have published my experience here in the first in-nce because the operation is simple and easy enough perform, and also because I hope that some of my leagues will be willing to take the trouble to follow in footsteps and put the operation to further tests.

Several methods of the electrolytic treatment of pro-tic hypertrophy have been tried, but the results have proved very favourable. Tripier, Minervini, and utrin among others, have applied the faradic and vanic current, often to 30 to 100 milliampères, with but le success however. Electrolysis and the electric ncture were performed first in France, and afterwards Germany by Biedert and Casper, and in Switzerland by ux.

Casper performed the operation in the *à la vache* posi-n. With his finger he determined the place to insert needle on the posterior surface of the prostatic gland, he same time introducing the isolated needle with the ative pole with his free hand. He used the 10 to 25 liampères electric current for five minutes, applying it several places. The number of sittings amounted to nty or more. Notwithstanding the poor results, the fact that in one case a vesico-rectal fistula owed upon the operation, Casper recommends further ls of the electrolytic treatment. While Casper ployed needles of platina-iridium, Biedert used a ved platinum needle, and Roux a steel one. These ous methods of treatment have not succeeded gaining a permanent place among the recognized hods of treating prostatic hypertrophy, mainly on unt of the likelihood of evil after-effects ensuing, such bscesses, fistulas, etc.

the surgical procedure that I have here described ve not as yet seen any evil consequences, and I am vinced that among the methods of treatment adopted rostatic hypertrophy ours will in all probability prove e of a lasting nature.

Cases treated with Electrolytic Needle.

e treatment of cicatricial strictures by the help of the trolytic needle cannot be successful without a previous ute and precise diagnosis of the exact place, the depth, It is, therefore, absolutely necessary for the patient lace himself in the hands of an expert accustomed to daily use of the urethroscope, and it is even advisable im to be kept under supervision for some time after cure, in order to guard against relapse.

I append reports of four cases, all of a very serious nature, and affording an exact idea of the evolution of the malady. In the case of slight cicatricial infiltrations without complications, the treatment and the development are very simple.

I.—*Chronic Urethritis: Cicatricial Stricture: Mixed Form: Glandular Urethritis: Dry Follicular Urethritis.*

M.B., 40 years of age, had a gonorrhoea twenty-one years ago, which took several months to heal. In the morning the labia of the meatus were often stuck together, from which, upon a slight pressure being applied, a drop of purulent mucus issued. This induced the patient to consult me in March, 1894, after he had been treated in vain with bougies, irrigations, etc., besides having an attack of cystitis. On examination with a ball catheter, I found a long, hard, and callous constriction in the bulbous part of the urethra. The urethroscope showed a periglandular infiltration, a cicatricial tissue of a reddish-grey with a proliferation of epithelium. The longitudinal folds and the longitudinal striae had almost completely disappeared, as was likewise the case with the glandular orifices. On inserting the tube, there was no haemorrhage. Dilatation, followed by cauterization for five months, restored the mucous membrane to its normal aspect. I performed the ultimate extensions at much longer intervals. The patient married in the following year. He had two children, and his wife was never infected. In 1901, seven years after the last treatment, the patient again came to see me with his gleety droplet. An exploratory bougie showed an infiltration, about 5 or 6 cm. thick, dry and callous, in the bulbous and partly in the membranous part. On closer scrutiny a callous cord with indurated nodules was discovered. Thus, exactly in the same place, the infiltration had been developed as a relapse of the old inflammation, an infiltration which, after an enlargement of the urethra by means of Béniqué bougies up to No. 22 (Charrière gauge), showed itself in the form of a long cicatricial and callous tissue of about 6 cm., which had extended over the whole surface of the urethra. The long duration of the inflammatory process had given rise to a hard moist tissue, in which the longitudinal folds and the longitudinal fillets and striae were altogether absent, as well as the glandular orifices. The great hardness and the development of the cicatricial tissue in breadth as well as in depth led me to conclude that the electrolytic needle alone would be productive of lasting results.

Application of the Needle.—Current, 4 to 6 milliampères; duration of the application, three minutes; number of applications each visit. four; if possible, one visit a week. Once in the interval a bougie was introduced. Before and after the application of the needle, irrigation of the urethra with a solution of nitrate of silver of 1 in 4,000. Whenever this irrigation was omitted the patient became subject to a violent attack of urethral fever; the urine was very turbid, with numerous *B. coli.* During the summer season the patient was absent for two months, with a consequent interruption of the treatment.

Number of visits, twenty-three. A few weeks after the last treatment the mucous membrane presented a palish red colour with a regular surface, level and smooth, and a bougie 27 (Charrière gauge) was passed through the urethra pretty easily.

In December, 1902, and in January, 1903, I again used the needle at certain intervals on account of a few plaques of a suspicious nature; from this time forward there was no electrolysis.

From time to time I examined the patient and introduced bougies of 27 and 28 (Fil. Ch.). for in these forms of infiltration cases of relapse are well known to be very frequent.

At the commencement of 1904 I had not seen the patient for seven months. On inserting tube No. 26 (Charrière gauge) there was a slight haemorrhage, probably originating in a small plaque of infiltration.

II.—*Chronic Urethritis: Cicatricial Tissue: Glandular Hypertrophic Urethritis: Urethritis Glandularis Stringens.*

M. M., a student, contracted gonorrhoea in February, 1899. Four months and a half afterwards he placed himself under my treatment, and by means of the ball-sound and the urethroscope I ascertained the existence of a subacute gonorrhoea and of a simple glandular infiltration in the bulb of the urethra. The urethra was very wide. The patient had no leisure to have irrigations applied regularly, and so used injections himself, at the same time leading the life of a student.

In the month of November I saw him again. In the meantime a surgeon had performed an internal urethrotomy, probably on account of the infiltration in the bulbous region. The gonorrhoea was still subacute, with an abundant discharge. After the cure of the acute symptoms I again saw the patient in May, 1900. The infiltrations in the bulb were already of the nature of proliferous urethritis glandularis; the mucous membrane was swollen, thick in several places, of a pale-red colour, showing granulations with proliferations of the epithelium.

Treatment.—Dilatation and cauterization. After a few months he was cured.

In 1901 a fresh gonorrhoea. After the cure, in September, there remained a constriction at the place where the old infiltrations had been. Treatment: Dilatation and cauterization. Nevertheless fresh relapses continually occurred.

In March, 1903, the patient submitted to an examination, and I discovered an indurated stricture which the tube could pass only with some difficulty. At this point the longitudinal folds and the longitudinal striae had disappeared. I had clearly and fully before me all the aspects of a urethritis glandularis hypertrophica stringens.

After applying the electrolytic needle six or seven times I effected a cure. In October of the same year I again made two more applications of the needle on a little plaque, after which no further application was deemed necessary, and there was no relapse.

III.—*Chronic Urethritis: Cicatricial Stricture: Glandular Hypertrophied (Proliferous) Urethritis: Follicular, Dry Urethritis.*

M. de R., aged 38. In October, 1893, the patient had for the first time an attack of gonorrhoea which lasted a long time. In 1894 there was no further discharge, and M. de R. was pronounced to be cured. In 1895, however, there was a relapse, since when a drop of white purulent matter showed itself every morning at the urinary meatus.

In June, 1903, he returned from India, and was treated by massage, bougies, and instillations, but without benefit. In October he came to me, when on examining him with a ball bougie I found a constriction of the urethra in the pars pendula, which presented itself to the touch in the shape of a filament of a callous nature, formed of little hard nodes. Upon examination with the urethroscope, the organ had the aspect of a dry glandular hypertrophied and follicular urethritis. It was difficult to introduce the apparatus. There was no longer any trace of longitudinal folds or longitudinal striae, but some red and gaping glandular openings were visible. The infiltrated plaques were about 2 cm. by 3 cm. in length. After inserting a Béniqué bougie several times with subsequent irrigations of ichthargan of 1 in 4,000, I applied the electrolytic needle, the operation being preceded and followed by an irrigation of nitrate of silver of 1 in 4,000.

At the commencement the visits were weekly; the force of the current was 4 milliampères and the duration of the application three minutes. The number of punctures was four. Two or three days after each sitting I introduce a Béniqué bougie. After the fourth visit a longer interval was required on account of a reaction that supervened. The patient imbibed too much liquor the previous night and had indulged in sexual connexion. This irritation yielded to irrigations with a solution of ichthargan. I was soon able to allow of a space of ten or twelve days between the sittings until a perfect cure was effected. The total number of sittings since the month of April, 1904, was fifteen. In December, 1904, there was a slight relapse, necessitating a few more punctures in the hard and white plaques on the mucous membrane, which for the rest presented a normal aspect.

As in all chronic processes of infiltration, the relapses are also very numerous in such a case, and it is indispensable that this fact should be taken into account.

IV.—*Chronic Urethritis: Cicatricial Stricture: Proliferous Glandular Urethritis.*

M. H. was affected in 1888, and again in 1891, with a gonorrhoea, which passed into the chronic state, with epididymitis and other complications. This chronic urethritis gave rise in 1893 to a stricture, which was treated until the spring of 1895. In 1900 the patient showed symptoms of a stricture, with a slight discharge. After having been unavailingly subjected to treatment by means of bougies and injections, the patient called on me in the middle of November.

Examination showed a slight discharge and a stricture of the urethra in the pars pendula, extending to the pars bulbosa. There was also inflammation of the prostate gland. By means of the urethroscope I discerned all the signs of a proliferous glandular urethritis.

After inserting a Béniqué bougie several times and massaging the prostate, in the middle of January, 1901, I applied the electrolytic needle in the manner described above. I gave five sittings up to February 15th, making four punctures on each occasion.

After a slight reaction had shown itself the patient was soon cured by means of irrigations, and stayed away until the middle of May.

At the urethroscopic examination I found a remarkable amelioration in the infiltrated part of the urethra. A Béniqué bougie 52 (Charrière gauge) passed through very easily. But, at this place the mucous membrane presented almost entirely the same appearance.

The patient was not able to remain under treatment, and on his return (at the end of September, 1901) I found that the disease had become worse. Up to October 26th I applied the needle on four occasions. Long marches and frequent rides on horseback brought about an epididymitis and colli-cystitis, which, however, were completely cured in a few weeks. I did not see him again before January 30th, 1903.

The infiltrations had resumed their old form; but I had the opportunity of treating the sufferer regularly, and after twelve sittings the infiltrations were destroyed.

Some months afterwards, on Mr. H.'s departure for India, I found no sign whatever of a relapse. We can here confirm the advantageous results of the electrolytic treatment to which, however, the patient must regularly submit.

The favourable results everywhere obtained by this method have induced Dr. Schoemaker and myself to apply it in combating prostatic hypertrophy of the urethra. The operation is effected in the following manner: We insert the large tube of Oberländer's urethroscope, if possible right into the bladder; we then withdraw it until the anterior lobe of the prostate is visible, which can easily be recognized with the aid of the urethroscope; another sign is a flow of urine. At the same time by introducing the finger into the rectum we feel the extremity of the tube and we are thus enabled to determine pretty fairly the place where the tissue of the prostate must be touched by passing the needle through the tube.

The needle must be very sharp, and provided with a platinum point at least from 4 to 3 cm. long in order that it may penetrate deep enough into the tissues. In the electrolysis of strictures, the positive pole, a thick disc, is placed on the abdomen or thigh of the patient and thoroughly moistened. The needle of the negative pole is thrust in to a depth of 2, 3, and up to 4 cm., according to the length and thickness of the prostate. The situation of the needle must always be controlled by means of the urethroscope. A galvanic current of 4, 6, or 8 milliampères is then allowed to circulate during three or four minutes. Before withdrawing the needle the current is interrupted. By modifying the position of the tube the needle may be displaced, and a large part of it, if not the entire gland, may be treated.

For cases of very great hypertrophy of the lateral lobes we have constructed an elastic needle in order to be able to reach the whole of the enlargement, and by means of this needle we can traverse the whole of the tissue. This needle, consisting of a flexible steel point, is contained in a glass tube which completely isolates it, and which, owing to its smooth walls, greatly facilitates the various movements.

When the tube of the urethroscope is inserted and stopped at the desired point of the prostatic tissue, the glass tube together with the needle are introduced into the urethroscope. If the needle is projected still further its point penetrates into the lateral lobes of the gland. The loss of blood and the pain are but very slight, as well as the reaction following upon each *séance*. Two sittings a week may safely be given.

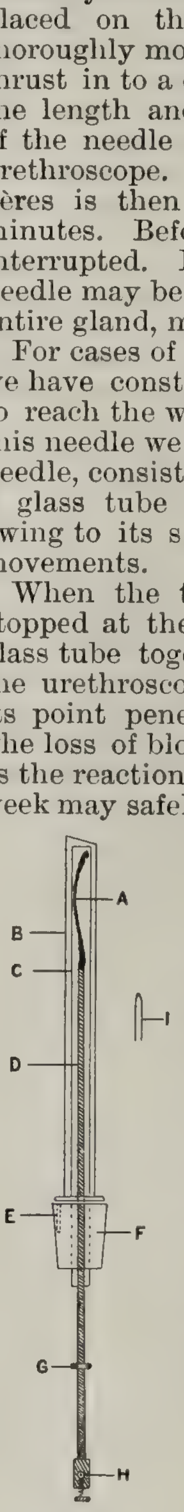


Fig. 1.

Fig. 1.—A, needle withdrawn; B, tube of the urethroscope; C, glass sheath to isolate the needle; D, stem of the needle; E, small shank of the tube inserted in cork for the purpose of fixing the tube; F, cork; G, knob to hold back the needle when introduced; H, opening for the electrode; I, point of the needle A.

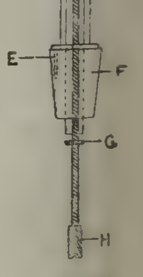


Fig. 2.

Fig. 2.—A, needle in action; B, tube of the urethroscope; C, glass sheath to isolate the stem of the needle; D, stem of the needle; E, shank of the tube piercing the cork; F, cork for fixing the tube; G, knob to hold the needle on insertion; H, opening for the electrode.

As regards the results, our investigations have not yet been pursued long enough to allow of our coming to a definitive conclusion. We shall pronounce our opinion on the subject later, and go more into details.

One of the patients was able to void urine without the aid of a catheter after the third sitting, though the bladder was only partly emptied.

We have made this communication because the operation is simple and easy enough to perform, and also in the hope that some of our colleagues may pursue our researches.

The treatment of cicatricial strictures as well as of hypertrophy of the prostate by means of the electrolytic ieedle is sure to prove effectual only when a precise liagnosis can be made of the place and of the depth of the njury. These can be ascertained only by specialists who ire in the daily habit of using the urethroscope.

The method of treatment in prostatic hypertrophy by neans of electricity has been studied in several ways and vith variable results. Tripier, Minervini, Mallez, and 'autrin have applied the faradic and constant current f an energy of 30 to 100 milliampères, but with slight uccess.

Electrolysis, or electropuncture, was first applied in 'rance, at a later period in Germany also by Biedert and asper, and in Switzerland by Roux. Casper operated on ie lateral lobes; he determined with the finger the site f the posterior wall of the prostate, and with the other and he forced in the glass-protected needle charged from ie negative pole. The current lasted five minutes, and as applied in different places; the energy of the current as from 10 to 25 milliampères; the number of sittings as twenty and higher. Though the results were not ry favourable, and though once a vesico-rectal fistula ipervened, Casper nevertheless recommends the electrotic treatment, so that further experience may be gained. e used a platino-iridium needle, Biedert a curved atinum needle, and Roux a steel one.

The electrolytic method of treatment does not as yet nk among the recognized and lasting treatments of ostatic hypertrophy, on account of the incidental comications—abscesses, fistulas—and also owing to uncern results. May I again call my colleagues' attention this method, which assuredly has a great future fore it?

INTRACRANIAL HAEMORRHAGE IN THE NEWBORN.

By J. CAMERON TURNBULL, M.D.GLAS.,

BURY, LANCASHIRE.

a commentary on your article on the above subject in ecent number,[1] may I be permitted to give the follow- notes of a case which occurred about eighteen months a:

was called one night by a midwife to attend a multia. She had been in labour for three days, and during previous day had had severe pains without making ch progress. When I saw her she was in a state of vous prostration and her pulse was rapid. The pains e almost continuous, their character suggesting uterine gue. On vaginal examination, the os was found fully ted, and the head engaging in left oblique, occiput rior. The pelvis was capacious and there was no rmity. Forceps were introduced, and grasped the l over the left frontal and right occipital regions. y moderate traction was required to bring the head the brim, and the instruments were reintroduced in transverse diameter, delivery being completed easily. child was well developed, and not asphyxiated to any t extent. Within a few minutes it was crying lustily. ing the first day it appeared perfectly well except for a t ecchymosis over the left eyebrow. About twenty- hours after birth the mother noticed that it had a ge cry, and a short time afterwards I was sent for to t in convulsions. These were tonic in character and ted the whole body; and, except that the right was thrown about more than the left, they were equal oth sides. The pupils were equal and moderately racted, and there was no squint. The respirations jerky and stridulous, and at times would cease, the becoming suffused with a deep flush. Deglutition very imperfect. The application of ice to the head ed to quieten the child, but on the slightest move- or sound in the room the fits would recommence as ely as before. The child gradually became comatose, lied forty-five hours after birth.

th the assistance of my friend, Dr. J. Dunlop Lickley, ead was opened, and the following condition of affairs led. There was no fracture, and no extradural orrhage. The brain matter was soft and pulpy and ial vessels congested. The whole base of the skull th sides, but chiefly on the left, was filled with dark blood and blood clot, up to the level of the Sylvian e, the upper aspect of the hemispheres being clear. On the left side it extended over the temporo-sphenoidal lobe, into the lips of the Sylvian fissure, and backwards on to the occipital lobe. On both sides it was found between the occipital lobes and cerebellum, and on the orbital surfaces of the frontal lobes. On removal of the brain, all the subarachnoid spaces were found filled with blood-stained fluid. The main arteries and venous sinuses were followed out but no trace of rupture or disease was discovered. None of the fissures contained any effused blood, the Sylvian fissures being notably clear except for the small amount previously mentioned as extending between the lips on the left side. No *ante-mortem* clot was found anywhere. Section of the brain substance showed it to be markedly congested and oedematous, but free from extravasation. The lateral ventricles were considerably distended with clear fluid and the choroid plexuses were engorged.

The appearances, therefore, seemed to indicate a haemorrhage into the subdural space, probably from rupture of one or more vessels in the pia covering the lower aspect of the left hemisphere. The pressure of the effused blood on the veins of Galen and cranial sinuses had given rise to oedema of the brain and internal hydrocephalus.

The inferences which I draw from this case are: (1) That the haemorrhage cannot wholly be accounted for by direct injury to the head from either forceps or pelvic bones. To my mind, the high cerebral blood pressure which must result from rigid contraction of the uterus on the placenta and soft parts is a much more important factor, and indicates delivery before the uterus is fatigued, as a prophylactic measure. (2) That it would be extremely difficult to locate and ligature a ruptured vessel if craniotomy were performed, as Cushing suggests.

REFERENCE.

---

[1] BRITISH MEDICAL JOURNAL, February 10th, 1906, p. 342.

ASCARIS LUMBRICOIDES AND APPENDICITIS.

BY F. E. ANLEY, M.R.C.S., L.R.C.P.,

SURGEON, R.N.

THE following remarks concern a possibility which I have never yet seen discussed, and may prove of some interest to medical men, especially those serving in foreign countries, where the above nematode is more commonly met with than in Europe. China may be looked upon as the particular happy hunting grounds of the *Ascaris lumbricoides*. In some parts of the country it is so common that many people go through a regular course of santonin every year in the spring, and it is often heard said of the Chinese that they are not healthy without one of these inhabitants of the intestines. While serving in H.M.S. *Leviathan* on the China station I found how common the ascaris was, but it was not until I was lent to the Royal Navy sick quarters at Wei-hai-Wei that the idea of connecting them with the above disease occurred to me. The following are cases in point:

Lieutenant X, H.M.S. *Leviathan*, while bringing a destroyer up from Hong Kong, was suddenly seized with what appears to have been a typical attack of appendicitis (catarrhal). The attack began with vomiting, accompanied by pain, tenderness, and rigidity in the right iliac region, constipation; temperature, 100.8°; pulse, 100; tongue furred, etc. When admitted to Wei-hai-Wei sick quarters he was beginning to improve, the abdominal symptoms were still present, and a tumour could be felt in the region of the appendix; temperature, 99.4°. He passed a typical convalescence, and returned to duty. A few days later he passed a round worm.

The second case is that of Midshipman Z, H.M.S. *Centurion*: the history of his case is very similar: catarrhal appendicitis with nausea, vomiting, pain, tenderness and tumour; temperature, 102°. As the patient did not improve on treatment in hospital it was decided one evening to operate on the following morning, examination of the blood having shown leucocytosis to be present. In the morning, however, he passed a small motion containing a round worm, and from that time made an uninterrupted recovery.

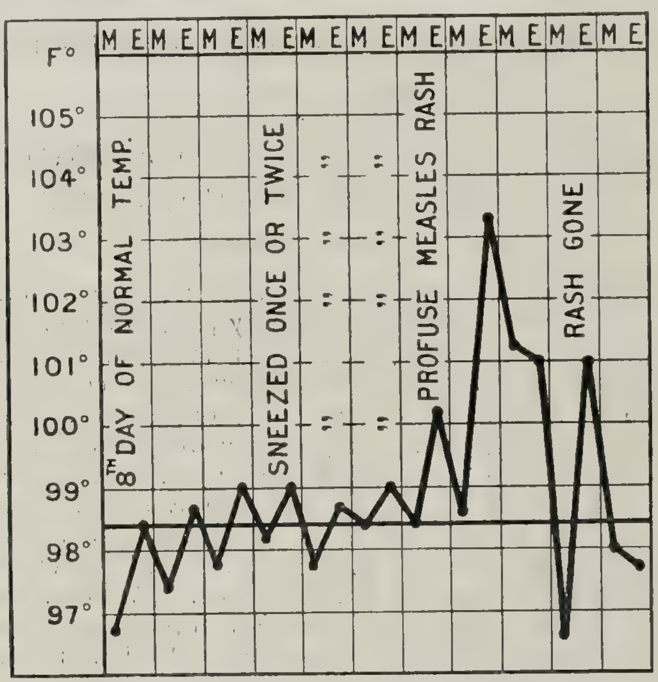
On speaking to Fleet Surgeon Vidal Thorpe I learned that he had had 2 similar cases in Wei-hai-Wei sick quarters one of which was operated upon and the appendix removed; during convalescence the patient passed a round worm.

The habit of the ascaris of inserting itself into apertures and ring-like bodies is well known, and it has seemed to me that an inflammation may be set up by the worm attempting to enter the appendix, sufficient to cause blocking of the lumen, leading to a resultant catarrhal appendicitis; or the worm may actually obtain a partial entrance if not more.

MEMORANDA:
MEDICAL, SURGICAL, OBSTETRICAL.

MEASLES COMPLICATING ENTERIC FEVER.

IN the BRITISH MEDICAL JOURNAL of February 10th Dr. Malcolm Campbell called attention to some interesting details in three cases of measles, in one of which pregnancy and the puerperium seemed to delay and modify the attack. In connexion with this subject the following case is of interest, the patient contracting measles during convalescence from enteric fever. He was visited by a relative who was in the prodromal stage of measles, and who subsequently had a severe attack, with well-marked bronchitis, the temperature not falling to normal for ten days. About a fortnight after this my patient developed measles and had a pronounced rash, but the whole attack was over in four days. The most interesting feature of the attack was the complete absence of catarrhal symptoms, or, indeed, of symptoms of any kind, for the patient never felt ill. There was no sputum, no cough, and no bronchitis; not even sore throat or nasal catarrh. Since both measles and enteric fever are often associated with or followed by pulmonary complications, it was natural to watch the lungs with special apprehension, yet they remained singularly free throughout. Neither of these patients had previously suffered from measles. The whole course of the attack in the enteric fever patient makes one wonder whether or no there is any natural antagonism between the virus of enteric fever and that of measles. On the other hand, the mildness of the attack of measles might have been due to the freedom from exposure during the prodromal period. This would apply equally to the parturient lady mentioned by Dr. Campbell. I should add that in both of my cases the incubation period could be fairly accurately measured. In the first it was exactly fourteen complete days; in the enteric fever patient it was fourteen, fifteen, or sixteen days.



San Remo, Italy. CECIL F. LILLIE, M.A., M.D.Cantab.

LUMBAR PUNCTURE IN PUERPERAL ECLAMPSIA.

IN considering the pathology of infantile convulsions and the recent treatment of lumbar puncture in these cases, I was led to speculating on its value in the analogous condition of some parturient adults. Eclampsia usually arises in cases with marked symptoms of disturbance of the kidneys, but whether the convulsions are due to toxaemia or to pressure on the cerebral centres has not been finally settled by pathologists. I shortly had an opportunity trying the treatment in two cases, with results gratifying that I think my experience may be of value.

CASE I.—On Sunday, June 5th, 1904, I was called to Mrs. a primipara, at 4.30 p.m. The labour was normal, a terminated at 7.30 p.m. At midnight I was called aga and informed that the patient had had a fit; whi I was in the room she went into an eclamptic c vulsion. I gave a whiff of chloroform, and the convuls stopped, the patient regaining consciousness in a f minutes. From then onward until the following afterno she had fits at about two hours' interval, regaining conscio ness between; from 4 p.m. to 7 p.m. she had fourteen f with deep unconsciousness throughout. I had given chlo salt solution, croton oil, and wet packs. At 7 p.m. her pu was irregular, quick, and feeble; in fact, she was rapi dying. I then punctured in the third lumbar interspace w the needle of my antitoxin syringe and obtained a ra dropping of fluid for some minutes. The fits ceased, and patient gradually resumed consciousness, so that at midni she was rouseable and the pulse distinctly better. At 3 a she had a slight fit, but otherwise a quiet night, and w quite conscious in the morning. Thence onward the progr was uneventful.

CASE II.—On February 12th, 1905, I saw, at 10 a.m., consultation, Mrs. B., a primipara, who had been having from 6 o'clock the previous evening. She was in a convulsi as we entered the room. The head of the child was on perineum, and I at once delivered with forceps, whi my colleague controlled the convulsions with chlorofor Afterwards the patient remained deeply unconscious, w stertor and blue face; the pulse was irregular and qui I returned about an hour later and found her worse; there been no return of consciousness. The pulse was scarcely p ceptible, and the breathing was bad, only about one respirati in three getting any air into the chest, showing the respirat centre giving way, either from poison or pressure. Pilocarp hot pack, croton oil, and other remedies had been tried, a I now introduced a needle into the third lumbar interspa I used a needle from my aspirator of larger calibre than on previous occasion, and there was at once a quick gush of flu evidently under pressure. About ½ oz. escaped, when patient became unruly and I had to withdraw the needle; breathing was now regular and her eyes opened intelligent She had no more fits, and gradually recovered consciousn during the day and made a normal convalescence.

Since these cases I have had two others of a mil form, both recovering on emptying the uterus witho resorting to other measures.

Maryport. F. PROUD, M.D.Durh.

HIGH-FREQUENCY CURRENT IN ERYTHEMA PAPULATUM.

MRS. S., aged 23, was first seen in May, 1904. She ga a history of an attack of rheumatic fever two years p viously, and since then she has suffered from rheumati more or less. The larger joints were principally involv Shortly after the first attack she observed an eruption her face and arms, which has remained more or l constant ever since.

When she first came under observation she complain of pain mostly in the ankles and knees, which w slightly swollen. She was anaemic, and her gene health poor. The heart and lungs were normal. T condition of the skin was as follows: There was an eru tion on the back of both forearms, on the back of b shoulders, on the nape of the neck, and on the face, pr cipally on the forehead and round the eyes, with a f isolated spots on the cheeks and nose. This erupti consisted of papules varying in size from a millet seed the size of a wooden match-head. The smaller ones w of a red hue, which paled on pressure. The larger o were firm and elastic to touch, and were of a deeper r passing on to a blue colour. Some of them assumed cyanotic appearance. All the papules were elevated ab the general cutaneous surface, and crowded toget without any order. In some of the larger ones vesic formed in the centre, which broke and dried up. In t case the papule tended to pass through bruise-like chang and in the event of its subsiding altogether, as some d a small pit of a bluish colour showed where it existed.

Drug treatment was employed in the first instan Internally, salicylate of soda, iodide of potash, ir arsenic, and sulphide of calcium were given from time time. Locally, sulphur lotion, lead lotion, ung. hydra nit., and ung. ichthyol. were applied. The rheumati and the general condition of the patient improved som what, but the skin condition made no progress whatev

twithstanding the fact that the treatment was perse-
red in till the middle of October.
I then resolved to try the effect of the high-frequency
rrent, and from this time till the end of December the
tient had in all 36 sittings, consisting of auto-condensa-
n (300 milliampères) for twenty minutes, and also the
plication of the "effluve" to the affected parts of the
in sufficiently near to cause sparking. At the end of
cember it was noted that she was entirely free from
umatism, and that the skin condition was very much
proved. There were only a few isolated papules left,
ncipally on the face. The skin over the affected areas
s slightly pitted and deeply pigmented. Treatment
s suspended during the month of January. She
urned in the beginning of February, and as the papules
the face did not seem to be disappearing I gave her
elve more applications, with the result that the trouble
ared up. I saw her on January 30th, 1906, when the
owing note was made: Rheumatism gone, skin
mal, all pitting and pigmentation entirely disappeared.

nryn. **Alex. Gregor, M.B., C.M.**

TRAUMATIC PNEUMONIA.

some years I have made inquiry in every case of
umonia I have attended as to injury, and I have been
prised at the frequency with which such a history is
ainable. To illustrate the amount of damage possible
lung tissue without much cutaneous bruising I will
ition a case which came under my notice some
rs ago.

lad was brought to the Salisbury Infirmary suffering
n symptoms of internal haemorrhage. He had been
nd in the road, and although there was no eye-witness
ne accident, the presumption was that the wheel of a
on of which he was in charge had passed over his
st. He died, and I made a *post-mortem* examination in
presence of members of the staff. One lung was
rely lacerated, so much so that a large piece of lung
ne was lying free in the pleural cavity. There was no
tured rib, and hardly any external bruising visible.

riously enough, only about a week ago I was called
e a patient who had the misfortune while driving to
t a motor car, and was upset. Among other injuries
ad local tenderness over one rib, but, as far as I could
rtain, no fracture. On auscultation there was present
stinct pleural friction sound about 2 in. round the
er spot. This must have been traumatic. There was
yrexia and no extension of the trouble, so I take it
neumococcus had not time to take up its abode.

elieve traumatism to be a much more frequent cause
eumonia than is generally recognized.

sbury. **H. L. E. Wilks.**

VARICELLA BULLOSA.

following case of varicella bullosa occurred in my
ice during a recent epidemic of chicken-pox in this
:

e patient, aged 3, was the last of three children to
op varicella, the eruption having appeared on the
two, aged 5 and 2 years respectively, quite a week
e. The eruption was at first of the ordinary
en-pox type, but on the third day of its appearance
large bullae formed, the largest, on the right side
e abdomen, measuring 4½ × 3½ in., another on the
and inner side of the right thigh, and a third over
ight great trochanter of the femur. The child's
rature was 99° on the day the bullae made their
rance, and the latter dried up and healed quite
ntfully.

gollen. **H. Freeth, M.D.**

---

day Rests for Druggists.—We have already re-
to the recent initiation of a Sunday rest movement
edical practitioners in Germany. A similar move-
on behalf of the druggists is now reported from South
ica. The National Board of Public Health of the
lic of Argentina has issued new regulations respect-
inday rest. Among them is one which requires the
acies to close on Sunday, only one in each district
ning open. Each pharmacy takes its turn in remain-
en and the Board has issued a list of the various
acies with the date of their open Sunday. The police
structed to enforce the decree.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

GENERAL HOSPITAL, BIRMINGHAM.

A CASE OF DANGER DURING ETHYL CHLORIDE ANAESTHESIA.

(By A. J. Fairlie-Clarke, M.C., F.R.C.S., Resident Surgical Officer.)

The following case of grave difficulty occurring in the administration of ethyl chloride is, I think, worth recording, for we learn more of the dangers of a new drug by our mistakes and failures in its use than we do by recounting successes obtained with it.

A spare Irish woman, aged 33 years, was admitted to the General Hospital, Birmingham, on March 13th, 1906, with cellulitis of the right forearm. As immediate operation was advisable, it was done as soon as she could be got ready for it; thus no time was available for her to be adequately prepared for an anaesthetic.

After examining her chest and finding nothing amiss there, I decided to give ethyl chloride. I gave it in an Ormsby's inhaler, the sponge being pushed well to the top of the wire cage to allow free air-way to the bag. I sprayed 8 c.cm. of ethyl chloride, partly on to the sponge, but chiefly into the bag beyond, and applied the mask. The patient did not expand the bag well with her first breath, as asked, but struggled violently, and so got a good deal of free air owing to the displacement of the mask by her struggles. In a few moments she began to breathe deeply and was quiet and anaesthetic. The operation was then performed, the patient breathing regularly, with a slight stertor, and being allowed an occasional breath of air; but in a few moments she became blue and stopped breathing. The jaw was drawn forward and the tongue drawn out without difficulty, for there was no jaw spasm. Artificial respiration was employed. At this time the pulse at the wrist was imperceptible.

Under this treatment her colour quickly improved, and in a minute she began to breathe again, at first in deep gasps, then more regularly and quietly. During this time the muscles were rather rigid, and she had slight spasmodic movements of the limbs, while there was marked conjugate deviation of the eyes to the left, with slight nystagmus. The pupils all the while were moderately dilated. As the breathing improved she screamed loudly several times and struggled a little, being unconscious the while. Soon after this breathing and pulse again became very feeble. Artificial respiration was recommenced, 7 minims of the solution of strychnine were injected subcutaneously, and hot cloths were applied to the front of the chest. There was now marked jaw spasm, and much difficulty was experienced in opening her mouth to draw out the tongue; at the same time the general muscular spasm, with twitching of the limbs and deviation of the eyes, persisted, or was even more marked than before. Gradually she improved a second time, both pulse and respiration getting stronger, yet once or twice they showed signs of failing again. Quite a quarter of an hour elapsed from the conclusion of the administration (which itself did not last longer than three minutes) before the patient slowly regained consciousness, and the deviation of the eyes and twitchings ceased. Shortly afterwards she was able to swallow some brandy, and after that made a good recovery, not vomiting, or being otherwise distressed.

I hope that this short account may be of interest as showing one of the uncommon sequels of the administration of ethyl chloride, an anaesthetic which is very largely used for minor surgery at this hospital.

Medical Students in Austria.—The total number of students in the medical faculties of the universities of Austria on December 31, 1905, was 3,133, of whom 107 were women. These figures show an increase of 341 in the number of male and of 17 in that of female students as compared with the corresponding period of 1904. The numbers of matriculated students in the several universities were as follows: Vienna, 1,107; Graz, 255; Innsbruck, 141; Prague (German), 224; Prague (Czech), 407; Lemberg, 113; and Cracow, 227.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

Lieutenant-Colonel W. B. LEISHMAN in the Chair.

Tuesday, March 20th, 1906.

A METHOD OF ENUMERATING LEUCOCYTES.

LIEUTENANT-COLONEL W. B. LEISHMAN described a method of enumerating leucocytes by which it was possible to dispense with the use of expensive apparatus, of a special diluting fluid, and of a mechanical stage. Two pipettes were required, one an ordinary 1 c.cm. pipette graduated to $\frac{1}{100}$th of a c.cm., and the other a capillary pipette to deliver 5 c.mm.; both could be purchased at small cost, but the latter could be readily made and calibrated in the laboratory; 5 c.mm. of the blood to be treated is taken from a finger-prick into the capillary pipette and at once diluted 200 times by being blown out into a watch-glass containing 995 c.mm. of water previously measured by the larger pipette. Haemolysis of the red cells occurs, but the leucocytes are unaffected. The mixture is well stirred and shaken, and by means of the capillary pipette, which has meanwhile been washed and dried in the flame, two successive volumes of 5 c.mm. each are taken and discharged side by side, in the form of small drops, on a clean microscope slide. The drops are allowed to dry, and, if desired, the slide may be marked and set aside to be counted at leisure. The specimen is stained by Colonel Leishman's stain in the usual way, when the outlines of the drop will be clearly defined, and the leucocytes stand out clearly and deeply stained. The whole of the leucocytes in each drop are now counted with the help of a ruled cover glass. A drop of Leishman's stain is allowed to evaporate on the well-polished surface of a cover glass; a thin film is left, insoluble in water or cedar oil, in which is ruled a series of parallel lines with the point of a stamp needle. A drop of cedar oil is now placed on the stained film, and on it is dropped the cover glass, ruled surface downwards. The thin film of dried stain does not affect the easy recognition of the leucocytes with a $\frac{2}{3}$ in. lens; and, with the help of the lines, the whole of the drop is quickly and systematically searched by reading up one column and down the next; no mechanical stage is necessary. The cover glass is then transferred to the adjacent drop, which is counted in the same way. In this manner the whole of the leucocytes in 10 c.mm. of the diluted blood are rapidly counted, and the number per c.mm. of undiluted blood is at once obtained by multiplying the result by 20. In dealing with leucocythaemic or leucopenic blood the dilution is readily altered to facilitate counting. As compared with Gowers's haemocytometer, the readings given by this method appear to underestimate about 5 per cent., which may be either allowed for or neglected.

Lieutenant-Colonel LEISHMAN also showed specimens of spirochaetes, demonstrating the structure described by Schaudinn as an undulating membrane. The specimens were blood films which had been obtained by Lieutenant Tulloch, R.A.M.C., at Uganda, from a monkey whose blood was found to contain spirochaetes in considerable numbers. A description of the staining method was given, and the importance of the presence of an undulating membrane as bearing upon the classification of spirochaetes was pointed out. Schaudinn had examined some films sent him by Colonel Leishman, and confirmed his results as regards the presence of the membrane and the absence of flagella. As to the nature of the particular spirochaete, it appeared possible that it was identical with the spirochaete of African tick fever—a disease which Koch considers to be the same as relapsing fever.

DYSENTERY IN SOUTH AFRICA.

Lieutenant-Colonel C. BIRT said armies in the field had hitherto been always attacked by dysentery, which had caused a mortality of 5 to 10 per 1,000 strength. The war in South Africa was no exception. Among the speaker's autopsies 58 deaths were due to dysentery, and 188 due to enteric fever. With improved sanitation, consequent on cessation of hostilities, the incidence of the disease had become much reduced among the troops, but it was still prevalent among the civil population. Nearly one-sixth of the deaths in Johannesburg was recorded under headings Dysentery, Enteritis, Diarrhoea. The speaker isolated Shiga's bacillus in 26 cases of dysentery out of 55 examined. The method adopted was as follows (it will be noted that mannite fermenters were excluded by it): A stool from a patient in the early stage of the disease was selected as free from faecal matter and urine as possible, and examined immediately for living amoebae. These were found once only. Bruce, who carried out investigations during the war, was unsuccessful in his search for them. Beveridge detected them three times in 143 patients. A fragment of the blood-stained mucus was then washed in sterile normal salt solution, transferred to a second tube of this fluid and shaken vigorously. As a rule, no further dilution was necessary. The bacteria incorporated with dysenteric slime were not numerous. Plates were made of this on Drigalski and Conradi's medium—taurocholate neutral red, crystal-violet lactose agar, lactose litmus agar, or ordinary agar (+ 25 Eyre's scale). Next day the more delicate colonies were transplanted into Doerr's modification of Barsiekow's medium, which consists of nutrose, mannite, litmus, and water. Shiga's bacillus leaves this unchanged. The colon bacillus curdles and pinks it. Subcultures from the unaltered tubes were made on agar, which, if they proved to be Gram-negative rods, were put up in sedimentation tubes with the patient's serum, normal human serum, and with the serum of an animal immunized with Shiga's bacillus. In several instances almost pure growths of Shiga's bacillus were obtained directly from the dysenteric mucus emulsion. These were compared with Shiga's, Flexner's (mannite non-fermenting), Vaillard's, Bruce's S. African, Firth's S. African, and Indian strains, and were found to possess similar cultural characteristics. All the above and eight isolated by the speaker were found by Eckersley and himself to be flagellated when deeply stained by Loeffler's method. Among the 55 cases were 10 infants. Shiga's bacillus was obtained from 7. Clumping reactions were not always very marked. The highest dilution noted was 600. The usual figure was 20 to 50. Normal human serum was without effect in a 10-fold dilution. The agglutinating power of the blood was not of long duration. The patient's blood, which reacted up to 600 on the twelfth day, agglutinated the bacillus in a 20-fold dilution only on the fortieth day. The *post-mortem* appearances consisted generally in great nodular infiltration of the lower part of the large bowel. The summits of the bosses became gangrenous, and large excavated ulcers were formed. In about one-eighth of the cases the lower part of the ileum was invaded with a diphtheritic-like layer. Multiple liver suppurations were found in one-half of the cases. In the autopsies in which a bacteriological examination was made, the spleen was sterile and the liver abscesses contained the *Staphylococcus pyogenes aureus* only. Enteric fever predisposed to dysentery. There was either a history of that fever, or lately healed or unhealed typhoid ulcers in half of the patients who succumbed. The antidysenteric serum prepared by Dr. Todd at the Lister Institute of Preventive Medicine was used in three cases in which Shiga's bacillus was isolated, with the best results.

PHAGOCYTOSIS OF BACILLUS TYPHOSUS.

Captain W. S. HARRISON, after giving a brief epitome of the work of Wright, Douglas, and others on "opsonins" and of Leishman on "stimulins," drew attention to the fact that, contrary to what happens in the phagocytosis of staphylococci and tubercle, when one is dealing with typhoid bacilli the use of a heated serum in a phagocytosis mixture almost always gives a higher phagocytic index than the use of an unheated serum. This was probably due to the effect of bacteriolysis, which reduced the number of bacteria available for the phagocytes to ingest. In order to obviate this effect, which might possibly mask the presence of a thermolabile opsonin, he first treated the serum with staphylococcus in order to rid it of its complement, and he then compared the phagocytic activity of a serum so treated with that of one which had been heated after the saturation with cocci; he found that he got practically identical results from heated and from unheated staphylococcus-treated serum. He concluded from this that there was no thermolabile opsonin for typhoid bacilli in either normal or immune human serums. Experiments were then undertaken to determine whether the thermostable substances in normal and in immune human serums, which are concerned with the phagocytosis of typhoid bacilli, act as opsonins or not. The heated serums were saturated with *B. typhosus* for one hour at 37° C., and then centrifuged free of bacteria, and a comparison was instituted between serums which had been so treated and those which had not been saturated with the organisms. It was found hat with normal human serum the saturation with *B. typhosus* removed almost all of its capacity for ncouraging the phagocytosis of typhoid bacteria; whereas with immune human serum, the saturation of t with the bacilli had very little effect on its influence on phagocytosis, the readings with mixtures containing erum so treated being only slightly lower than with hose mixtures which contained simple heated immune erum. He concluded that in normal human serum he chief element concerned in the phagocytosis of yphoid bacilli acts as an opsonin, which differs from he opsonins for cocci and tubercle in being thermostable. On the other hand, in immune human serum the chief lement concerned in the phagocytosis of typhoid bacilli s a thermostable substance also, but it does not act as n opsonin, and it most probably acts by its influence on he phagocytes. He suggested that these substances in nmune serum might very justly be named "stimulins," s Leishman had proposed.

CHELSEA CLINICAL SOCIETY.

JAMES BARRY BALL, M.D., President, in the Chair.

Tuesday, March 13th, 1906.

SERUM THERAPY.

ROFESSOR T. HEWLETT, in opening a discussion on this ubject, said he would confine his remarks to data and etails bearing on the practical application of serum erapy to treatment. Serum treatment had been applied various directions—in microbic diseases, not only in toxications in which extracellular toxins were freely rmed, but also in infections in which the toxins were ainly intracellular. It was to be noted that so far seases due to bacteria had proved to be more amenable serum therapy than diseases due to protozoa, in hich, up to the present time, little progress could chronicled in the direction of serum treatment. rum treatment had been applied in conditions in hich lifeless toxic agents were derived from without, tably in snake bites and hay fever. Serum treatent had been tried in conditions in which disordered tivity or secretion of the tissues or glands of the dy was the essential cause of the pathological condition, tably in the case of disorders of the thyroid gland. stly, it had been tried in conditions in which abnormal oliferation of cells was the essential feature as in alignant disease generally. It might at once be said at no other serum had anything like the therapeutic lue that diphtheria serum had. The value of diphtheria titoxin was admitted by all, and must be ascribed to a nbination of factors which were not present in any ease other than diphtheria. In the majority of the es of diphtheria and in the earlier stages at least the ease was localized to an external, or practically an ernal, limited site where the toxins which caused the nptoms were manufactured and from which they were sorbed. In the majority of cases that local site exhibited inflammation and exudation, and the presence of mbrane, whereby the disease might be diagnosed or at st be suspected at an early date. It must clearly be ognized that in most, if not in all, forms of serum rapy early treatment was of paramount importance if disease was at all acute. No serum could repair actual sue damage; if that exceeded a certain amount before atment was applied no amount of the most potent serum ld avert a fatal issue. That was well illustrated by the istics of the antitoxin treatment of diphtheria. With exception of diphtheria and tetanus practically all er infective diseases were due to microbes which did excrete any appreciable amount of extracellular in; the toxin was for the most part intimately ociated with the cells of the infecting microbe. In the e of protoplasm infections they had little evidence of existence of any toxin, extracellular or intracellular, and pathogenic effects might be due partly to mechanical effects, or to the results of tissue disintegration, etc. When the antimicrobic serums were considered, of which the antistreptococcic serum, antiplague serum, and antipneumococcic serum were types, they must confess that the results obtained were disappointing. Occasionally antistreptococcic serum acted like a charm in a streptococcic infection, but unfortunately that was the exception rather than the rule. One factor limiting very materially the potency of an antimicrobic serum was a deficiency of the active agent, "the complement," in the patient's body. The amount of that complement was assumed to be limited, and part of what there was was very likely used up in the early stage of infection. Unless the natural complemental substances in the patient's body could be increased antimicrobic serum must be expected to fail in anything but comparatively mild infections. As regards administration, every one was agreed that the antiserums must be injected into the body subcutaneously, intravenously, or directly into the site where the toxins became attached, as into the central nervous system in cases of tetanus. Reports, however, had from time to time appeared of the successful administration of serums by the mouth or rectum, but he hoped that no one would be misled by them. The site of the introduction of the serum was of importance. If a rapid effect was wanted and the serum was desired to bathe the whole of the tissues, intravenous inoculation was the proper method. In other cases the serum might be introduced at the site of infection or damage. In the case of chronic or local infections the splendid work of Dr. Wright and his co-workers had proved that there were methods of attacking disease other than by serums. It might be found that certain normal serums—that is, serums of untreated animals—would be effective means of treatment against certain toxins and infections, and though it must be said that the prospects were not very encouraging, still it was a line of inquiry that ought to be pursued. Professor Hewlett concluded by saying that serum treatment, in spite of the vast amount of research bestowed upon it during the last ten years, had not advanced much; and unless immunization by means of intracellular toxins on the lines of Dr. Macfadyen's work was successful in the preparation of efficient serums on some principles very different from the ones at present elaborated, they could not hope for much further advance in serum therapy.

Professor A. E. WRIGHT said that much of what Professor Hewlett put forward was in the nature of an apology for failure in regard to serum therapy from a practical standpoint. Except in so far as diphtheria was concerned, serum treatment had not been successful, but he did not know that bacteriologists could be blamed for having foisted it upon the medical profession. But they were responsible for the fact that many serums were used; practitioners complained that they had not got what they expected from serum treatment, and the hopes they had held out to patients had not been satisfied. Professor Hewlett had given many reasons for that result; but, taken broadly, Professor Wright said he was not in sympathy with those reasons. He suggested that, with certain exceptions, the process of serum therapeutics should be given up. Professor Wright then proceeded to discuss why serums had been ineffective in the cases where microbic diseases, such as puerperal fever and typhoid fever, were treated. In the case of antistreptococcic serum, he did not know that it ever acted like a charm, but he had seen some cases in which he thought it had done some good. Occasionally he had seen serum treatment do good in Malta fever. He was convinced, however, that the man was not alive who could tell what sort of protective substance was in the streptococcus serum that was issued. All that was known was that the manufacturing firms employed conscientious men to put certain things into horses, but what happened after that in the horses was absolutely unknown to man. He thought practitioners should return serum treatment to the bacteriologists, and go on treating patients without it. He urged that much might be done by means of inoculation, and they were working with the object of treating acute diseases by vaccines. He concluded by remarking that medical work would be improved if serums were taken out of the *Pharmacopoeia*, with the exception of diphtheria and tetanus, and possibly also anthrax.

EPIDEMIOLOGICAL SOCIETY.—At a meeting on March 16th, Dr. J. F. W. TATHAM, President, in the chair. Dr. J. T. C. NASH read a paper on *Evolution in Relation to Disease.* He referred to one he had read in 1902 in which he had suggested that one and the same saprophyte might be evolved into the Klebs-Loeffler bacillus of diphtheria and the streptococcus of scarlatina. Some authorities believed in a common origin for Loeffler's and Hoffmann's as well as of the intermediate forms, whereas others maintained the absolute specific difference of the two and the innocence of Hoffmann's. It might be easy to distinguish between typical forms, but it was difficult or impossible to do so in many instances, and he preferred to call them collectively "diphtheroid." He had seen undoubted membranous diphtheria with long chains of streptococci, those in successive cases acquiring more and more of a diphtheroid character, a like change coming over a pure culture of the streptococci that he had set aside. It was rare to find any diphtheroid bacilli without some history of contact or sore throats. Dr. H. M. Gordon's observations on the transformations of *Streptococcus glomeratus*, the presence of apparently *S. catarrhalis* only in an epidemic in which five or six exanthemata and fevers were represented or simulated, and the mild typhoid fevers of India all pointed to the utter untenability of the old botanical conception of species in connexion with bacteria. They were what their surroundings made them—acquiring and losing pathogenic properties, and varying in form. Professor Sims Woodhead had pointed out the loss of pathogenicity and the power of living in the animal body when parasites were long grown in artificial media. The microbes of scarlatina and diphtheria, of measles and rubella, of variola and varicella, had probably single origins differentiated on diverging lines of evolution. Dr. Klein's suggested phylogenetic relation between streptococci and baccilli analogous to that between true torula and saccharomyces, and the corresponding relation between the bacilli and the saccharomyces or oidia, and Dr. H. C. Bastian's recent remarkable observations on heterogenesis, the evidence for which seemed irresistible, were highly suggestive. Agglutination was the best evidence of specific identity, and Delépine had found *B. coli* from water react with typhoid serum. Evolution here was as much functional as morphological or more so, and specialization of properties might go far without change of form or vice versa. But our classification of bacteria must be reconsidered; we must recognize the utter incongruity of the botanical conception of species involving permanency, with all we know of bacteria, and admit that for the most part microbes were what their surroundings made them, and mutually convertible within wider ranges than had been suspected. A short discussion followed.

LIVERPOOL MEDICAL INSTITUTION.—At a pathological meeting on March 8th, Dr. HILL ABRAM, Vice-President, in the chair, after the exhibition of card specimens, Dr. BRADSHAW read a note on the recognition of *Myelopathic albumose in the urine*, and demonstrated the chief clinical tests. He laid special stress on the determination of the coagulation point and on the hydrochloric acid test, pointing out the uselessness of many of the tests frequently employed, such as the biuret reaction and Boston's test with lead acetate.—Dr. ERNEST GLYNN described the site of haemorrhage in 12 cases of *Fatal haematemesis;* in 7 the bleeding came from the oesophagus, 4 being secondary to hepatic cirrhosis. In 3 the haemorrhage originated in the stomach, 2 from ordinary gastric ulcers, and 1 from three minute gastric erosions. In two instances no lesion whatever was discovered in the stomach, oesophagus, or intestines, though the organs were removed a few hours after death, and most carefully examined. He suggested the haemorrhage might have arisen from the posterior naso-pharynx. A fatal case of acute *Haemorrhagic cystitis* was also described, the blood forcing its way into the pelves of both kidneys.—Dr. GROSSMANN read a paper on *Congenital anophthalmos and orbital cyst.* Of 5 cases of congenital anophthalmos seen by him, 3 had been shown before the Society, one with monolateral and the other two with double anophthalmos. In 4 patients altogether an orbital cyst was present monolaterally. The eyelids were well formed in all the cases, though the palpebral fissure was small; the conjunctiva formed a small and shallow funnel corresponding to an equally small orbit, in which no trace of an eyeball could be seen or felt. In the three cases demonstrated the tumour of the lower lid was the size of a pigeon's egg, was blue in colour, and cystic to the touch. In two of these cases the cyst had been removed and examined. Those cysts owed their origin to the arrest of the closure of the fetal fissure of the optic vesicle; the portion of the mesoderm which pushed into the secondary eye vesicle to form the vitreous did not stop growing at the normal time, and not only prevented the closure of the fissure, but often also produced a cystic extension which had for its walls the layers of the embryonic eye vesicle. The cyst might grow large, while the eyeball itself might remain smaller than normal, might be so small as to be completely overlooked, or might disappear altogether. In the one specimen a rudimentary eyeball about 2 mm. in diameter was discovered, a regular cryptophthalmos; in the other no trace of an eye could be found at all. In the former case the cyst was lined with a layer which appeared to be derived from the outer layer of the embryonic eye vesicle, that is, the pigment epithelium; in the other specimen the lining of the cyst reminded one very strongly of the inner layer of the optic vesicle which forms the retina proper. The paper was illustrated by slides and microphotographs.—Mr. HUGH E. JONES and Mr. STOCKDALE showed an *Angioma of the pinna* removed from a boy 16 years old; several attacks of severe haemorrhage had occurred, and some of the vessels entering the growth had previously been tied without effect. Microscopically the specimen showed the characteristics of tumours described as plexiform angioma, naevi, cylindroma and endothelioma, and haemangio-sarcoma. The whole auricle was removed.

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.—At a meeting at Liverpool on March 16th, Mr. R. FAVELL (Sheffield) in the chair, Dr. LLOYD ROBERTS (Manchester) showed a *Fibromyomatous uterus* removed by supravaginal hysterectomy after the preliminary enucleation of four intramural fibroids. Attention was called to the existence of the tumour by retention of urine, and 40 oz. was withdrawn by catheter on admission. Enucleation, as a preliminary step to hysterectomy, was recommended in certain cases as not only reducing the bulk, but also greatly increasing the mobility of the uterus and so facilitating its removal.—Sir W. J. SINCLAIR and Dr. FOTHERGILL (Manchester) showed a *Sarcomatous growth* of the right labium majus removed from a girl aged 17, who had a congenital pigmented hairy mole of large size over the right labium majus and extending over the right buttock. The tumour was not pigmented and consisted of connective tissue continuous with the cutis vera and in parts richly cellular.—Dr. WALTER (Manchester) gave particulars of a case of *Abdominal hysterectomy* for cancer of the body of the uterus. The patient, aged 58, was unmarried, and passed the menopause at 52. Although the disease appeared to have been present four years no lymphatic infiltration was found in the pelvis during the operation.—Dr. WALTER also showed a uterus 3½ months pregnant, whose entire anterior wall was occupied by an *Intramural fibroid.* It was removed on account of anaemia and progressive pain. He did not advocate the induction of abortion in such cases, believing abdominal section with enucleation or hysterectomy to be preferable.—Dr. A. W. W. LEA (Manchester) read a paper on the *Appendix vermiformis as a cause of pelvic inflammation*, dealing with the literature of the subject, and analysing 10 cases operated on by himself. He advised the removal of the appendix during gynaecological operations if it was "pelvic" in position, if pathological or adherent, or if near the stump of any organ removed. He had successfully removed the appendix thirty-five times during gynaecological operations.

MEDICAL SOCIETY OF LONDON.—At a meeting of the Medical Society of London, on March 12th, Sir LAUDER BRUNTON, President, in the chair, Dr. H. A. CALEY read a paper on the *Clinical Features of Types of Colitis*, which will be published in full. A paper was also read by Dr. J. J. PERKINS on *Syphilis in Medical Practice;* he dealt with diagnosis of obscure cases and the less-recognized results, quoting illustrative cases. Both papers were discussed.

LASGOW OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.
a meeting on February 28th, Dr. J. K. KELLY,
ident, in the chair, after the exhibition of specimens
JAMES LAURIE (Greenock) read notes of a case of
arean section in a 2-para, aged 27, with a rachitic pelvis.
internal conjugate measured under 2 in. At the
of labour there was a foul discharge from the
na. The operation was performed at the patient's
lence; the child was born alive, but only
ived 18 hours. The patient did well at her
ious confinement; craniotomy had been performed.
ılso read notes of two cases in which he had operated
ncomplete rupture of the perineum by Pryor's method.
operation gave in each case a perineum of 2½ in., and
ced the pre-existing rectocele.—Dr. R. O. ADAMSON, in
te on two cases of *Puerperal pyelonephritis*, dwelt on
ieed for extreme caution in dealing with the bladder
ng the puerperium. If a catheter had to be used,
tions of boric acid solution should be introduced into
bladder, and boric acid and salol be given internally.
ral members expressed views to the same effect.—
AMES CRAIG read a paper on two cases of *Hydramnios*,
of which ended in normal delivery, though in one of
there was delay in the third stage, owing to uterine
ia. Dr. CARSTAIRS DOUGLAS said hydramnios was
associated with fetal deformities. Dr. MUNRO KERR
it was common in uniovular twins, the placental cir-
ion being interfered with. Dr. JARDINE thought
the majority of cases of hydramnios were associated
deformities of the fetus.

ITISH LARYNGOLOGICAL, RHINOLOGICAL AND OTOLO-
ASSOCIATION.—At a meeting on March 9th, Dr.
os, President, in the chair, Mr. STUART LOW showed
tient in whom there was great and symmetrical
gement of the Eustachian cartilages without any
tom of nasal or pharyngeal obstruction. He also
ed a case of *Ulceration of the auricular lobule* of fifteen
' standing, in a woman. She complained of irritation,
times amounting to pain, in the affected part and of
nsightliness, and stated that fifteen years ago the
e had been pierced with a stocking-needle for the
se of wearing an ear-ring. Ever since there had been
le with it; it had never healed, and had gradually
d as a red scaly patch over the posterior sur-
of the lobule. By microscopic examination it had
pronounced to be lupus vulgaris. Under treatment
ointment of nitrate of mercury, the parts had
t healed over and now looked nearly normal.
AYO COLLIER showed a case of *Syphilitic disease of*
rynx, in order to accentuate the fact that under
ıry syphilitic treatment the larynx did not heal.
case, after some weeks of such treatment, was
erred to him. He stopped ordinary treatment, and
ed calomel fumigations or inhalations every second
The larynx healed well in three weeks.—Mr.
ELE NOURSE: Two cases showing the results of the
l mastoid operation practised by him. Dr. DUNDAS
r thought finality had not been reached. He had
excellent results in Mr. Nourse's hands, and he
ed that they depended greatly on his personal care
ttention. Some cases seemed to have an innate
ıcy to stenosis, and would yield to nothing except
ning and lining with Thiersch grafts.

TISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY.
a meeting on March 7th, Dr. HAMILTON CUMMING
ıay), President, in the chair, Dr. CHALMERS WATSON
ourgh) read a paper on *Diet*. Acute gout was in all
oility an acute infective process, while goutiness, a
et though allied condition, could reasonably be ex-
d as a hereditary deficiency in the digestive juices
that term in its widest sense) or an idiosyncrasy in
olism which rendered the subjects prone to this
ılar type of infection. As it was generally conceded
ong-continued indulgence in excess of animal food
important factor in the genesis of gout, the author
ade an experimental investigation into the effects
excessive meat diet on the structure and functions
e important organs in the first and also in the second
tions of meat-fed animals, from which he concluded
t an excessive meat diet modified the structure and
on of the thyroid gland; further, this modification in structure and function was very pronounced in the offspring of meat-eating parents; (2) the kidneys of the offspring of animals fed on an excessive meat diet were hypertrophied, and therefore subjected to greater strain than in perfectly normal animals; (3) the mucous membranes of young animals bred on an excessive meat diet were in the majority of cases modified in structure, and more susceptible to bacterial invasion. The author considered that these facts had an important and practical bearing on the problems of gout, holding that a modification in the function of the thyroid gland was one of the hereditary idiosyncrasies in the nutrition of typically gouty subjects; that there was an associated "renal inadequacy," and a vulnerability of the mucous membranes which render the subjects more prone to infection. —Dr. MOUILLOT (Harrogate) thought that its was quite natural to suppose that important structural changes would follow on the excessive use of food unsuitable to the animal; but the facts that the children of gouty parents often suffered from fever only cured by abstention from all farinaceous food, and that in middle life obesity and glycosuria were so common in gouty people, seemed to show that in man excess of carbohydrates was often the determining factor of gout.—Dr. SOLLY (Harrogate) was prepared to believe that gout, rheumatism, and rheumatoid arthritis were all in a sense due to a microbic infection; but in the growth of all micro-organisms the "soil" was very important. He also asked, in reference to the alteration in the thyroid glands produced in parent animals, if the suggestion was that this was directly inherited in the thyroids of the progeny: it involved a belief in an inheritance of acquired characters, in which biologists generally did not believe.—Dr. FORTESCUE FOX suggested caution in accepting the reactions of diet in the lower animals as necessarily comparable to man, considering the wide differences between human individuals, and in the same individual at different times. The gouty disturbances of middle life were due not so much to meat foods as to an habitually excessive diet and to mixtures of foods.—Dr. POYNTON thought Dr. Watson's paper and the one read some two years ago before this Society must be taken together. The first one dealt with acute gout and this one with goutiness. He himself still thought the strongest evidence in favour of an infective agent in gout was the demonstration of an infective element in rheumatic fever and the production of rheumatoid arthritis by micro-organisms. The best guide to a study of gout was a study of bacterial toxins, and not of uric acid.—Dr. LUFF did not consider that there was anything in the results obtained by the exclusive feeding of rats on meat which could be regarded as true gout.—Dr. F. PARKES WEBER mentioned that Burton-Opitz had found an increase in red blood cells in certain animals fed on a meat diet, whereas J. Bence had failed to observe a similar change in the blood in men treated by increase of meat in the diet.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—At a meeting on March 7th, Mr. T. J. DABELL, President, in the chair, the following were among the exhibits: Mr. MORLEY WILLIS: A girl aged 4½ years, from whom he had a month previously removed the right kidney for *Sarcoma*, the tumour being as big as a child's head at birth. Haematuria occurred once before admission, and a few pus cells were found in the urine. The temperature ranged from 99° to 100°. The swelling was not particularly tender, and when the kidney was exposed by an abdominal incision its consistency was soft enough to give typical fluctuation. The absence of tenderness made an inflammatory affection improbable, and the dilated veins seen on the surface of the tumour when exposed were suggestive of the true nature of the case.—Dr. REED: A child of 14 months the subject of *Infantile scurvy*. There had been bleeding from the gums, and the lower limbs were held in a stiff, awkward position, apparently pointing to haemorrhage into each hip-joint. With the exception of a short period of some patent food, the child had been kept since birth on milk which had been boiled for five minutes, and nothing else. Fresh milk and lemon juice set up a striking improvement, and the excruciating pain was greatly bettered within twelve hours of the commencement of treatment. Drs. W. B

Ransom and F. H. Jacob discussed this case.—Dr. Jacob: A child (the subject of a previous communication) in whom a *Naevus* had been successfully cured by radium.—Dr. W. B. Ransom read a paper (illustrated by lime-light views) on *Infantilism.* After a survey of the many causes held to be contributory to such a condition, such as cretinism, congenital syphilis, hydrocephalus, congenital heart disease, tuberculosis, mongolianism, imperfect sexual development, pancreatic deficiency, muscular dystrophy, Raynaud's disease, achondroplasia and normal infantilism, the classificaton adopted by Mr. Hastings Gilford, of Reading, was traced out, and the characteristics of each class pointed out and illustrated. Examples of the conditions named ateleiosis and progeria were also shown. Of special interest was the case of a female servant, aged 27, who died recently from diabetic coma in the Nottingham General Hospital ten days after admission. She was 4 in. 3 in. in height, but only weighed 3 st. 8 lb. She was backward when at school, and was said to have suffered from headaches and chronic diarrhoea. There was no history of syphilis or alcohol and she had never menstruated. The abdomen was prominent, the gluteal muscles undeveloped, the pelvis and thighs approximating to the male type, and latterly the bowels were constipated; the faeces were not fatty. Patches of atheroma were found in the aorta, while the pancreas, spleen, and mesenteric glands showed a slight degree of senile cirrhosis. The thyroid body was normal, the thymus absent and the pituitary body normal. The pancreas was thin and tapelike, weighing less than 1 oz. The suprarenals showed some cell-vacuolation as of fatty degeneration. The uterus was so little developed that its cavity would only admit a pin, and no ovaries or testes could be found. No cause of the condition of infantilism or ateleiosis was discovered, unless the absence of the sexual glands could be considered such.—Dr. Jacob showed photographs of *Cretins* before and after treatment with thyroid substance, and pointed out the extraordinary improvement which might follow such treatment, both in intelligence and physical stature.—Dr. Ransom: Specimens of *Malignant adenoma* of the suprarenal capsule (hypernephroma of Ziegler), and read notes of the case. The patient was a man of 68, and the most prominent symptom was intermittent haematuria. A large swelling could be felt in the region of the left kidney, and after the bladder had been opened and washed free of clots, this was removed by Mr. Anderson. Microscopically the tumour showed marked vacuolation of the glandular cells, as though loaded with fat, and it invaded both the renal structure and the surrounding fat.

Glasgow Medico-Chirurgical Society.—At a meeting on March 2nd, Dr. J. Galbraith Connal in the chair, the following were among the exhibits and cases shown: Dr. W. S. Syme: (1) Three cases illustrating the results of early discontinuance (after a week) of packing after the radical *Mastoid operation.* The cavity was more quickly covered with epithelium. (2) A case to illustrate the use of paraffin injection into the cavities after the double mastoid operation. Treatment was shortened and any unsightly depression obviated. (3) A case in which the radical mastoid operation was performed for urgent symptoms. The lateral sinus was extensively exposed and converted into a firm cord.—Dr. J. Stoddart Barr: (1) A boy operated on for *Extradural suppuration* in the lateral sinus consequent on middle-ear disease. The symptoms were headache, shiverings, vomiting and squint of the right eye. Dr. Rowan examined the eyes and reported paralysis of the right external rectus and marked double optic neuritis; no haemorrhages seen. After operation the paralysis of the sixth nerve slowly passed off; but the optic neuritis increased, and in four weeks haemorrhages were seen; it then began to subside. No sugar or albumen were found in the urine. (2) A man operated on for *Lipoma nasi.* The hypertrophied areas were removed in slices and the nose remodelled. The surface was covered with epithelium in six weeks.—Dr. Inglis Pollock reported a case in which he had removed a *Small dermoid* from a boy's eye. The tumour was remarkable in that two-thirds of the circumference were occupied by granulation tissue containing a large number of giant cells and embedded hairs.—Dr. James Scott: (1) A heart in which there was present in the pulmonary artery a *Minute aneurysm* in the left sinus of Valsalva; and (2) a small tumour resembling a papilloma growing from a vocal cord, attached by a pedicle to the edge of the corpus Arantii of the posterior semilunar valve.—Dr. Hugh McLaren: A large *Gastric ulcer* which had penetrated the stomach wall, but extension to the peritoneum had been prevented by adhesion to a mass of adipose tissue.

Laryngological Society of London.—At a meeting held on February 2nd, Mr. Charters Symonds, President, in the chair, among other exhibitors, the President and Dr. Dundas Grant showed cases of *Frontal sinus suppuration* which had been treated by intranasal methods, including dilatation of the infundibulum by means of bougies, and irrigation after removal of a part of the middle turbinal body. Skiagraphs were exhibited showing the cannula *in situ.* The President considered that in a certain number of cases where there was pure frontal sinus disease it seemed possible to effect a practical cure. He also exhibited a case of suppuration of the left frontal and the left maxillary sinuses, in which irrigation alone had not effected a cure. The frontal sinus was opened externally, the lining membrane was entirely removed, the wound closed, and the sinus treated by irrigation; the nasal suppuration being of eight years' duration, and no recurrence had followed the operation. He considered the method superior to packing or the use of drainage tubes through the nose.—Dr. Dundas Grant also exhibited a case illustrating the use of injection of cold paraffin for overcoming nasal deformity. The point in its favour was the immense convenience of being able to inject it without heating and without scalding the patient. It was urged on the contrary that the results would not be so permanent.

Manchester Medical Society.—At a meeting on March 7th, Dr. Arnold W. W. Lea made a communication on *Vaginal drainage in children,* pointing out that collections of fluid or pus in the pelvis could be more efficiently evacuated and drained by this route. He referred to 10 cases in which he had adopted this method in children of ages from 5 to 14 years, and stated that an india-rubber or glass vaginal drainage tube was very well borne by even young children.—Dr. J. J. Cox exhibited a boy, aged 12 years, with *Rheumatoid arthritis* of four years' duration. In addition to much general muscular atrophy, there was considerable contracture of the hands and of the upper and lower limbs, with limited movement in the cervical portion of the spinal column, but no interference with the movement of the lower jaw. Skiagraphs showed little local change in any of the joints, with the exception of the two shoulder-joints. It was suggested that myelopathic arthritis with muscular atrophy would be a better and more descriptive name for such an affection than rheumatoid arthritis.—Dr. Chevers read a paper on *Branchial fistula* and its treatment. After discussing the pathology of the condition, he mentioned a case occurring in a young lady, which he had treated by the application of croton oil to the lining membrane of the fistula. He immediately followed the treatment by the regular use of the galvanic current locally, at first to the fistula internally, and subsequently externally. Healing occurred, and the cure was apparently complete twelve months later.

Erratum.—In the report of the meeting of the Cork Medical and Surgical Society published on February 3rd, 1906, p. 263, first column, line 13 from the bottom, for "48" read "8."

Under the will of the late Mr. Benjamin Isaac, of 22, Great Winchester Street, E.C., which has now been proved, a large number of charitable institutions receive bequests. Among those made to medical charities are the following: The London Hospital, £500; the Royal Free Hospital and the Earlswood Asylum for Idiots, £300 each; Brompton Cancer Hospital, the Hospital for Consumption and Diseases of the Chest, the New Hospital for Women, St. Mary's Hospital, Paddington; the Great Northern Central Hospital, and the Metropolitan Hospital, £200 each. Sums of £100 each are also allotted to Guy's Hospital, St. Thomas's Hospital, the Central London Throat and Ear Hospital, St. George's Hospital, the City of London Hospital for Diseases of the Chest, Royal Hospital for Diseases of the Chest, the City of London Lying-in Hospital, and the British Hospital for Mental Disorders.

REVIEWS.

NATALITY AND FECUNDITY.

E book on *Natality and Fecundity*,[1] by Dr. C. J. Lewis l Mr. J. N. Lewis, F.I.A., is a valuable piece of scientific k on which they can be heartily congratulated. The a which they have utilized are already famous in the tory of birth statistics, as they comprise the Scottish h statistics of 1855, and it was on the Edinburgh and sgow statistics for this year that Dr. Matthews Duncan ed his well-known classical researches, which have n embodied in his work on *Fecundity, Fertility, and ility*. The present writers have extended this work to whole of Scotland for the year in question, and have hermore collated comparative statistics for various opean countries and for New South Wales, thus greatly ancing the value of the results which they have been to set forth.

he birth registers of Scotland for the year 1855 are que in Great Britain for their comprehensive detail, prising, in addition to the name, sex, and date of birth he child whose birth was registered, certain further iculars of which the most important were the ages of parents and the number of children previously born to n. Owing to the extra work involved in filling up this schedule, this additional information was omitted in following year, and an incalculable loss was thus sus ed by the science of vital statistics. Had the informa originally required been steadily obtained down to the ent time, a mass of information of the greatest value ecting fecundity—that is the capacity of child-bearing— lity—that is the number of children to each marriage— d have been now available.

e amount of work which has been expended on this can be inferred from the statement that the pre nary work of transcription of the birth entries occu a clerk six hours daily for a period of ten months. important to remember, in comparing the authors' ts with foreign figures, that the former include only g children.

e wider basis chosen by the authors brings out the ence in the mean age of wives-mothers. This for and was 30.6 years, about 53 per cent. of the mothers below 30.5 years of age and 47 per cent. above this In Glasgow and Edinburgh, on the other hand, r cent. of the wives-mothers were below and 40 per above 30.5 years of age. The reason for this dif ce is the fact that towns contain a younger adult lation than rural districts.

tthews Duncan confined his investigation to the e sex. The present investigators have also investi the influence of age of the father on fertility. g married women the number who had any children l—that is, the fecundity-rate—was greatest at ages 19, when it was 51 per cent. of the total wives. At xt age-period, 20 to 24, the fecundity-rate was 42.7 ent., gradually diminishing with each addition of At each age-period the fecundity slightly exceeded f Edinburgh and Glasgow. Among husbands there omewhat similar distribution of fecundity, without ame cessation of fecundity after 50 as occurs in n. Husbands under 40 are more than three and times as fecund as those over 40 and under 65. usly, however, this general result is deprived of of its value, owing to the dependence of male lity upon conjunction with a female of child-bearing In further tables this point is further elucidated. wives aged 15 to 19 show their highest fecundity usbands also aged 15 to 19, the fecundity remaining but diminishing gradually as the age of the husband ses up to 40 years. Wives aged 20 to 24 also show ighest fecundity with husbands of 15 to 19, and ecundity is high with husbands of any age up to 59. sults for other combinations of ages need not be ed in detail; but a comparative table giving both ean and Australian experience shows that the ium fecundity of married women is in most com ies attained at ages 15 to 19. In men the maximum lity is found at or near the earliest ages; fecundity becomes small after the age of 50, but does not wholly disappear even at very advanced ages.

The relative decline of the legitimate and illegitimate birth-rates between 1861 and 1901 is noted, the writers arriving at the same conclusion as that stated by Drs. Newsholme and Stevenson in their paper summarized in the British Medical Journal for February 3rd, p. 268, that the decline in the illegitimate is greater than that in the legitimate birth-rate.

Initial fecundity is another interesting problem. The authors' figures show that at ages over 24 the proportion of brides requiring more than two years to prove their fecundity increases as the age at marriage increases. Thus brides aged 20 to 29 show fecundity in 91 to 92 per cent. during the first two years of life, brides aged 30 to 34 in 85 per cent., brides aged 35 to 39 in 83 per cent., brides aged 40 to 49 in 78 per cent. of marriages. Interesting chapters dealing with multiple births and with illegitimacy cannot be summarized for lack of space.

At the main child-bearing ages of the mother more males than females are born at first births, the disparity disappearing after the age of 40 years. Broadly speaking, the Scottish figures show that about one-fifth of the annual recruits to the population were derived from primiparae. The proportion would now probably be greater. First, second, and third births together represented 50.5 per cent. of the total births; fourth, fifth, and sixth births 30.5 per cent.; seventh, eighth, and ninth births forming 14 per cent. of the total births. The remaining 4 per cent. belonged to families having more than nine children.

Mr. Coghlan has shown that one-third of the births in New South Wales are "prejudiced" by ante-nuptial conception. In Scotland in 1855, it is stated by the authors to be probably within the mark to say that in one-third of the marriages (sterile marriages excepted) the bride had had a child while unmarried, or was pregnant at the time of marriage. It will be remembered that by the Scottish law children born out of marriage are made legitimate by the subsequent marriage of their parents.

One of the most interesting chapters in the book, as well as the most detailed, is that dealing with masculinity. By this term is meant the proportion of the sexes at birth. This varies considerably in different nationalities, Greece and Roumania taking the lead with an average masculinity of 1,138 and 1,108 respectively (to every 1,000 female births). In Great Britain masculinity is declining, though less so than in France. Such figures as are available do not show that variations in masculinity depend upon similar variations in the birth-rate. Legitimacy has no certain relationship to masculinity.

The above summary of some of the contents of this valuable contribution to vital statistics by no means exhausts its interest to those interested in natality problems. We have only one regret in conclusion. The statistics relate to the year 1855, which was the first year of civil registration in Scotland; and there is little doubt that in that year many births escaped registration, and that the actual fertility and fecundity of the Scottish population at that time was considerably greater than the registered figures show. This point needs to be borne in mind in comparing the Scottish figures with other more recent figures for other countries whose registration is more complete.

SYNTHETIC DRUGS.

In the second edition of his remarkable book on synthetic remedies[2] Dr. Sigmund Fränkel has not only considerably enlarged the work, but has given numerous references to the original sources of his information. This has been done at the request of many of his fellow-workers on similar subjects, and without doubt has greatly enhanced the value of a volume in which the author with untiring industry and a wealth of literary knowledge has collected together all that is known regarding the actions and therapeutic value of the fatty and aromatic organic compounds. But in saying this we do not mean to imply that the book is a mere compilation; on the contrary, it is a well-reasoned treatise, showing evidence of great mental acumen and much original thought. While in former times we were dependent on plants for

---

lity and Fecundity. A Contribution to National Demography. Lewis, D.Sc., M.D.Edin., and J. N. Lewis, F.I.A. Edinburgh: nd Boyd. 1905. (Demy 8vo, pp. 170. 7s. 6d. net.)

[2] *Die Arzneimittel-Synthese auf Grundlage der Beziehungen zwischen chemischen Aufbau und Wirkung.* Von Dr. Sigmund Fränkel. Zweite Auflage. Berlin: Julius Springer. 1906. (Demy 8vo, pp. 761. M.16.)

such organic remedies as were found useful in practice' nowadays and during the last fifty years the chemical laboratory has supplied us with a large and constantly increasing number of substances which compete for therapeutical favour. Comparatively few of these, however, have managed to obtain a permanent place in practical medicine, but even a record of failures often indicates the way to future successes, and hence it is undesirable that all trace of the former should be lost. Dr. Fränkel has acted as the historian of this new movement, has pointed out its successes and its failures, and where possible has shown how these depend on chemical constitution and on chemical changes in the living body. There can be little doubt that in the long run plants will cease to be used as remedial agents and will be replaced by manufactured substances of fixed composition. Meantime, in the struggle to attain this and other desirable ends, many very undesirable tendencies have become manifest, chiefly on the part of the great drug-manufacturing houses. It is easy to make synthetic active substances, it is difficult to discover new remedies truly applicable in practical medicine. Yet if the former are freely advertised a gullible medical public seems often willing to take them for the latter. As a matter of fact, most of the remedies vaunted as new by "enterprising" drug houses are for the most part slight variants on older and well-tried substances, and to the initiated show a sad lack of real enterprise and invention. It is to be hoped that a close study of Dr. Fränkel's book will benefit this class of the community at least, and may even perhaps suggest higher ideals to them in their life-work, although it is perhaps too much to expect that they will cease to flood a much-enduring world with untried or imperfectly tried "remedies," the virtues of which take their origin chiefly in the imagination of the writers of their advertisements. For the serious scientific worker at the problems of therapeutics and pharmacology, Dr. Fränkel's book has already proved of great service, as it brings so much into a comparatively small space. It is a thoroughly good and useful piece of work well done.

ANKYLOSTOMA DUODENALE.

THE *Records of the Egyptian Government School of Medicine*[3] always contains interesting matter, and vol. iii, 1905, is no exception to the rule. It is devoted to a remarkable monograph on the anatomy and life-history of the *Ankylostoma duodenale*, by A. LOOSS, Ph.D. Though exceedingly technical and meant specially for zoologists, parts of it will appeal to medical men, especially to those who are engaged in the study of animal parasitology. The author intends this to be the first of a series of monographs; the second is to deal with the free-living larva and with the two channels by which it enters the human organism, and the third and last with the transformation of the larva into the sexually-mature animal. Dr. Looss, it is well known, discovered the channel of invasion by the skin, and the two papers when they appear should prove of great interest, more so even than that under review, though a knowledge of the anatomy is of course necessary.

The paper opens with a historical summary, and this is followed by a discussion on the name and systematic position of the parasite in the animal kingdom. The methods of investigation employed are next described, then the general anatomy, then the special anatomy, and then the literature, a series of ten beautiful plates with appropriate descriptions being added. The historical part is of special interest. In a criticism of Leuckart's statements on certain anatomical points, the author expresses the opinion that the discrepancies are due to the fact that that great authority was dealing with examples of the New World ankylostome, the *Uncinaria americana*, recently renamed the *Necator americanus*, and a perusal of the text certainly supports this view. However this may be, the merit of having first positively recognized the difference between the New World and the Old World species undoubtedly, as the author puts it, goes to Stile and in this we agree. The name, apparently, if the rule of zoological nomenclature are to be adopted, should b the *Agchylostoma duodenale*, and thus it is written in th title page, though throughout the text the more usua spelling of *Ankylostoma* is adopted.

A system of parallel instances in the cases of othe worms shows how very difficult it is to follow the rules c nomenclature recently proposed, and, after all, such discussions are rather of academic interest than practica importance. The methods of investigation described ar not strikingly good. It is very difficult to understand ho hot alcohol, 60 to 70 per cent., can fail to cause shrinkin and distortion of the parasites, and the splitting of th tissues when embedded in paraffin might have bee avoided by the use of celloidin as an embedding agent On the question of measurements the author is ver dogmatic, and does not see that he has laid himself ope to the same form of attack as he has used against others It is absurd to suppose that every one who has measure ankylostomes before must have taken dead and swolle specimens; equally well might it be said that the alcoho used to preserve his own specimens had caused them t shrink. There is nothing specially new in the article o the general anatomy, but the special anatomy is treate with the greatest minuteness, and in an admirable an exhaustive manner. There is a fair amount of destructive criticism on former authors, especially on Leuckart but it must be remembered that in describing th minutest microscopical objects different observers are ap to interpret the various phenomena seen in their ow particular way, so that slight differences are bound t crop up. Dr. Looss's monograph is the best, mos accurate, and thorough that has appeared on the anatom of the ankylostome, and as such will stand as a standar for the future.

HOSPITALS AND CHARITIES.

MOST of our readers are familiar with the annual volum which, under the title of *Hospitals and Charities*,[4] is published by Sir HENRY BURDETT every year. The mai section of the work consists of a directory of hospitals an philanthropic societies, and contains in a condensed form particulars of the governing body, staff, income and expenditure, terms of admission, and special features of th institutions with which it deals. An important feature o the volume is the review in the preliminary chapters o hospital finance and administration. Last year the autho was for the first time in a position to publish complet figures for ten consecutive years of the income and expenses of the London voluntary hospitals, when he showed that the total income of these institutions had increased nearly 65 per cent. in the period under review, as compared with a 6 per cent. increase in the population of the county of London. Turning to the other side of the account, he found the position is less satisfactory, there being not only an aggregate increase of expenditure corresponding with the growth of income, but also a marked increase in the cost per bed. Thus, after making allowance for out-patients, the cost per occupied bed of the twelve hospitals with medical schools was 26 per cent., and of the twelve general hospitals without schools was 18 per cent. greater in 1903 than in 1894.

In the present volume Sir Henry Burdett extends his investigations to the "outer ring" of the London area, with the result that he finds his last year's conclusions generally confirmed. He suggests that the amount of free medical relief rendered by the voluntary hospitals is far beyond the needs of those who can properly claim it; and asserts that, with the assistance of the King's Fund, the resources of the hospitals can now with economical administration be made ample to meet all legitimate claims upon them. He considers that faulty administration is responsible for much of the increase in expenditure, and suggests as a remedy that every great hospital should appoint a medical superintendent of proved ability, with a general supervision and control over the whole establishment. An interesting chapter is devoted to the work of the King's Hospital Fund and the League of Mercy, for both of which the author has nothing but raise, while in other chapters he deals with hospitals in e United States and British Colonies, the administration d finance of missions, homes and orphanages, the rsing staff of hospitals, etc. The work of the Hospital nday and Saturday Funds is also reviewed. In con- xion with the former it is interesting to note that hilst in 1904 Barnsley collected over £19 per 1,000 of the pulation, and London nearly £14, Burnley and South ields contributed less than £2, and St. Helens only 12s. r 1,000. Even greater divergences appear in the report the Saturday collections, for whereas Wigan collected out £90, Belfast raised less than £2 per 1,000 of the pulation. Such differences suggest the inference that ere is still plenty of scope for the organizers of these nds in many great centres of population. All persons terested in the work of the hospitals, whether as sub- ribers or otherwise, will find it worth their while to dy Sir Henry Burdett's observations carefully, even en they do not agree with his conclusions; for it is ly by a dispassionate consideration of the facts, and e freest possible criticism of apparent deficiencies, that e interests of the hospitals will best be served.

---

[3] *Ministry of Public Instruction: Records of the Egyptian Government School of Medicine.* Edited by the Director. Cairo: National Printing Department. 1905. Vol. iii. The Anatomy and Life-history of *Agchylostoma Duodenale* (Dub.). A Monograph by A. Looss, Ph.D. Translated from the original German manuscript by Matilda Bernard. Cairo: National Printing Department. 1905. (Demy 4to, pp. 159; 10 plates.)

[4] *Burdett's Hospitals and Charities, 1906, being the Yearbook of Philanthropy, and the Hospital Annual.* By Sir Henry Burdett, K.C.B London: The Scientific Press, Limited. (Crown 8vo, pp. 976. 6s.)

OPHTHALMOLOGY.

E two volumes describing the actions of drugs and isons on the eye[5] compiled by Drs. LEWIN and GUILLERY e truly encyclopaedic, embracing as they do references and descriptions of, the actions of all those drugs and stances, and of bacteria and other organisms, which ectly or indirectly have any effect upon the eye. Many the chapters are elaborate essays, affording an invaluable mmary of the physiological and pathological effects on eye of the substances and organisms referred to, l are full of clinical, experimental, therapeutic, and tistical detail well up to date. Among articles of cial value may be mentioned that on carbon bisulphide soning, which occurs among those whose work it is to canize india-rubber, and in which the effects on vision very characteristic. The articles devoted to opium, aine, atropine, alcohol, tobacco, and lead are also very plete. The action of toxins from meat, fish, and shell- ; of naphthalin and grape sugar, which may both lead opacification of the lens; of blood poisons, such as bon monoxide, aniline, dinitrobenzol; of malaria, snake sons, and external and internal parasites, are all fully sidered. The second volume is largely devoted to the teriology of the eye in all its various aspects, and is exhaustive as the first. Thus the chapter on the ptococcus reaches to a hundred pages, with a full con- ration of the ocular troubles which may arise in the rse of erysipelas and of puerperal fever. There are very articles on the pneumococcus, gonococcus, *Bacillus rculosus*, *B. diphtheriae*, *B. influenzae*, the diplobacillus of junctivitis, the Koch-Weeks bacillus, and many others ch are highly important from the ocular point of view. final chapters are devoted to the actions of local ants and caustics, antipyretics and antiseptics, helmintics and some other remedies, in so far as they e any bearing on the eye. There is a good index. The hors may be congratulated on having produced such eful work of reference.

ERGER and LOEWY have published a book of 232 pages ing with ocular conditions of genital origin occurring men.[6] It is divided into sixteen chapters, arranged er the headings of conditions affecting their organs. s, after a short historical sketch of conditions recog- d by the ancients, we have a chapter divided into five s, which deals with abnormal ocular conditions occur- in connexion with normal menstruation. Chapter II s with the condition in puberty, and then follows apter describing the eye conditions which have been in connexion with the various pathological and siological changes in the female genital organs. There doubt that the part these organs play in eye affec- s has been very considerably exaggerated, but in this the case is stated fairly. Although there are erous instances given of the two conditions occurring simultaneously, yet it is not by any means always easy to prove that the one is the cause of the other. The danger to the eye of the infant during confinement is universally recognized, and it is well described here. Still one cannot help feeling that a greater effect on the eye has been ascribed to the genital organs, more especially of women, than is justifiable or necessary. To any one interested in the subject we can commend the book, though from its nature it is hardly likely to have an extensive circulation.

NOTES ON BOOKS.

THE "MEDICAL REGISTER."

THE *Medical Register* for 1906,[1] which was issued on March 15th, shows that the number of new registrations during 1905 was 1,240; this is an increase of 72 over 1904, but is slightly below the average for the last five years; the number of names restored to the *Register* was 75, the lowest since 1897, when it was only 25; the average number of restorations for the last five years was 98. The names of 572 practitioners were removed through death, a decrease of 19 on the average for the previous five years; the names of 2 members of the profession were removed on their ceasing to practise. The number of names removed from the *Register* under Section XIV of the Medical Act 1858, which provides that a name shall be removed if the person addressed does not answer the Registrar's letter of inquiry, was 169, while those removed under Sections XXVIII and XXIX of the same Act numbered 5, the former showing a decrease of 39 and the latter an increase of 2 on the averages for the previous five years. The total number of names on the *Medical Register* for 1906 is 39,060, showing increases of 568 as compared with 1905, and 4,582 as compared with 1896. The foreign list contains the names of 16 practitioners holding Italian qualifications, as compared with 12 in the *Register* for 1905.

NOTES ON NEW REMEDIES.

Solurol.—As is well known to those readers who have studied papers contributed to our columns by Professor Halliburton[2] and Dr. Walker Hall,[3] the purin bodies, which are excreted chiefly by the urine, are derived from the nucleo-proteid of which the chromatin substance of cell nuclei is constituted.[4] The purin bodies comprise uric acid and the purin bases. They were so named by E. Fischer because they all contain the body C_5N_4; xanthin is dioxypurin, uric acid is trioxypurin. Uric acid is present in the urine in much larger proportion than the other purin bodies, the relation being about 10 to 1. Nucleo-proteid subjected to gastric digestion yields proteid and nuclein. Nuclein can be split again into proteid and nucleic acid. The final products of nucleic acid are phosphoric acid and the purin bodies, including uric acid. But, according to Kossel,[5] nucleic acid can be split into purin bases and another definite compound, thymic or thyminic acid, which is free from the purin basis. According to Kossel and Goto, thyminic acid has the power of uniting with uric acid to form compounds which are not salts, and therefore not decomposed by acids. Goto, for instance,[6] has prepared soluble compounds of uric acid with nucleic acid and thyminic acid from which uric acid is not precipitated by hydrochloric or the other common precipitants of uric acid, and Minkowski[7] has confirmed these observations. These combined bodies are stated to be very soluble in water, and the theory that uric acid may thus be kept in solution has led to the introduction into therapeutics of thyminic acid, which is sold by Messrs. Allen and Hanbury under the name of solurol. There is evidence that the administration of thyminic acid increases the excretion of uric acid in gout. The preparation under the name of solurol is supplied in the form of tablets containing 4 gr. in each.

Colalin.—Bile is an old-fashioned remedy for constipation, and purified ox-bile finds a place in most of the national *Pharmacopoeias*. The most important action of bile in the intestine is due to its influence on the digestion and absorption of fat; in addition to its direct emulsifying action it increases the action of the pancreatic ferments, the fat splitting as well as the diastatic and tryptic. Bile also checks putrefactive decomposition, and has a stimulating action on the muscular coat of the intestine. It is, however, a nauseous drug, and when free in the stomach interferes with peptic digestion. It is therefore recommended that it should be prescribed in keratin-coated pills or tablets. Messrs. T. Morson and Son (14, Elm Street, Gray's Inn Road, London, W.C.) have introduced cholalic acid as a substitute. The bile salt present in the largest amount in human bile is glycocholic acid, and, like taurocholic acid, it occurs in combination with sodium. Both when boiled with potassium or barium hydrate, or with dilute mineral acids, take up water and yield cholalic acid, also called cholic acid, and either glycin or taurin as the case may be.

---

[5] *ie Wirkungen von Arzneimitteln und Giften auf das Auge.* Von L. Lewin and H. Guillery. Berlin: August Hirschwald. 1905. vols. (Roy. 8vo, pp. 1,903, 99 illustrations.)

[6] *s troubles oculaires d'origine génitale chez la femme.* [Ocular bles of Genital Origin occurring in Women.] Par E. Berger and rt Loewy. Paris: Félix Alcan. 1905. (Cr. 8vo, pp. 232. Fr.3.)

[1] London: Spottiswoode and Co. 10s. 6d.

[2] BRITISH MEDICAL JOURNAL, 1900, vol. ii, pp. 736-7.

[3] Ibid., 1902, vol. i, p. 1461; 1904, vol. ii, p. 184; 1906, vol. i, p. 128.

[4] Landois, *Lehr. d. Phys. d. Mensch.*, 1905.

[5] *Zeitschr. für physiol. Chem.*, 1896.

[6] Ibid., 1900.

[7] *Verhandl. des 17t Kongr. für innere Medizin*, Wiesbaden, 1899.

$$\underset{\text{Glycocholic acid.}}{C_{26}H_{43}NO_6} + H_2O = \underset{\text{Glycin.}}{C_2H_5NO_2} + \underset{\text{Cholalic acid.}}{C_{24}H_{40}O_5}$$

Glycin is amino-acetic acid, taurin amino-ethyl-sulphonic acid. Cholalic acid is insoluble in water, but soluble in alcohol. It forms with alkalies crystalline salts readily soluble in water like soap. It occurs free only in the intestines, glycocholic and taurocholic acids being apparently decomposed by the putrefactive processes which ordinarily occur there. The preparation sold by Messrs. T. Morson and Son contains a trace of magnesium carbonate to prevent gumming, and they have given to it the name of colalin. According to Dr. J. Strickland Goodall, colalin (cholalic acid) increases the biliary flow, and the drug is introduced as a true cholagogue. It is issued in sugar-coated tablets, the dose being from ½ gr. four times a day upwards. The same firm also sells a colalin laxative made by extracting cascara bark with a solution of cholalic acid, which it is stated combines with the anthraquinone principle of the bark to form what Messrs. Morson have termed a cholalate of anthraquinone; it is issued in tablets containing 1⅕ gr. of this substance, which is held to be equivalent to ¼ gr. of colalin. These preparations are interesting, and appear worthy of trial.

PROPOSED GENERAL HOSPITAL AT PUTNEY.

A CONJOINT meeting of the Chelsea, Richmond, and Wandsworth Divisions of the Metropolitan Counties Branch, British Medical Association, was held on March 15th at the Putney High School for Girls, to consider the proposal to establish a general hospital on Putney Common, in accordance with the will of the late Mr. Henry Chester, of Putney. Mr. Chester, who died in 1900, by his will gave the residue of his estate to the Haberdashers' Company upon trust to pay out of the income arising therefrom certain annuities and sums of money, and subject to such payments directed the Company, if and when a general hospital should, by means of subscriptions or otherwise, have been erected ready for the reception of patients upon a site within the parish of Putney, to be approved by the said Company, to employ the income arising from his estate as a sustentation fund for such hospital. In the meantime, until such hospital shall have been erected, the income from the estate is to be accumulated by investment. Mr. Chester, without imposing any condition, expressed a desire that the hospital should be similar in its nature and objects to the West London Hospital, Hammersmith, and declared that if it was not built within twenty years from his death, the income from his estate, which it is believed will ultimately amount to £2,000 a year, was to be paid to Guy's Hospital.

A freehold site on Putney Common has been secured and over £5,000 subscribed towards the £20,000 required for cost of site and buildings; it has been proposed to establish an out-patient department, and it is to this especially that opposition has arisen on the part of medical practitioners in the locality, who attended in considerable numbers on the invitation of the Conjoint Hospital Committee of the three above-named Divisions.

Mr. HUGH R. KER, F.R.C.S.Edin., the Chairman, before calling on Dr. Gilbert Richardson to move the first resolution, explained that, although the inquiry with regard to the proposed General Hospital at Putney had been initiated by the Wandsworth Division, the neighbouring Divisions of Chelsea and Richmond, being also interested, had been asked and consented to nominate representatives to form a conjoint hospital committee. Every medical practitioner resident within the area of these three Divisions had received an invitation to b present. No other medical society extended over the ar likely to be affected. He added that the laity should b encouraged to look to the profession for an expression opinion as to the hospital needs of a district, and ther fore the profession, so far as possible, should be unanimou and very definite in its views. He hoped this meetin would stimulate the profession in other districts to a similarly.

Dr. GILBERT RICHARDSON then moved the followin resolution:

> That it is the opinion of this meeting of the medical pr fession resident within the area likely to be affected by th proposal to build a general hospital on the lines of th large general hospitals of London, on Putney Commo that such a hospital is undesirable, and there is reason to suppose it will ever be necessary.

Dr. Richardson said they were not opposing the erectio of a general hospital, but of one on the lines of the larg general hospitals of London. It required to be shown, firs that such an institution was wanted, and, secondly, tha no other way of supplying the want could be devised. H quoted Sir H. Burdett as saying that no more hospita were needed in London. Probably £2,000 a year would b required for the sustentation of a hospital of 12 bed and the difference between the sum required to suppo such a hospital over the cost of adding 12 beds to one the hospitals already existing was the measure of th extravagance of the proposal. Mr. Chester's legacy woul not support a hospital of 100 beds as suggested in th circular issued to the laity, and many of the old-establishe hospitals were in difficulties from want of funds.

Dr. CROOKSHANK seconded the motion. He considere it a misapplication of the funds left by Mr. Chester t found a hospital on the plan of the general hospitals o London. He understood it had been stated that thoug they had not very many poor in Putney, they had man who could not afford the half-crown fee of local practitioners. He suggested such persons should pay to Provident Dispensaries, and that they should be extended int Putney. Putney Common might be a good place t transfer St. George's Hospital to, but was not a goo place to start a new hospital.

Mr. WHITE said that when Mr. Chester died in 1900 th Haberdashers' Company asked him to find out th opinion of the medical profession in Putney. A circula was sent out and a meeting held, representing three fourths of the Putney practitioners, who resolved that i was desirable that such a hospital should be established Correspondence with the Haberdashers' Company followed and a meeting of laymen was subsequently held, at whic a committee was formed, on which he and Dr. Gay wer asked to serve. Some of the statements contained in th circular summoning to-day's meeting were, he thought quite unreliable, and especially the financial statements The proposal was to have a hospital of twenty beds, and h thought there was ample room for it. He asked how lon it would take before the alternative extension of the three surrounding hospitals would take place, and when they would be available for the inhabitants of Putney. He agreed that an out-patient department was not required and no one was more fully alive to the evils of the syste than he; but a hospital of twenty beds would be very useful, properly regulated as to its out-patient work.

Dr. DICKINSON thought it would be a great mistake t oppose the establishment of any hospital. The laity had a right to have what they desired and paid for, the profession having no *locus standi.*

Dr. HILLS said the establishment of such a hospital would be injurious to the general practitioner of the district. He recommended the establishment of a cottage hospital.

Dr. L. SHAW said the matter was of more than local interest. Medical charity was in a very peculiar position. Medical attendance at hospitals was given as a rule without payment, and this gave the profession a right to express its opinion on such matters as the establishment of new hospitals. He trusted the meeting would express its opinion definitely, but with due regard to the best traditions of the profession, not helping in the setting up of unnecessary charitable institutions or of any that merely tended to the advantage of individual members.

Mr. JOHN GAY wished to explain why it was impossible for him to vote for the resolution. The meeting of the ofession first held had been a thoroughly representative e of Putney practitioners, who were the most deeply terested. They had recommended the Haberdashers' mpany that the money should be spent on in-patients, d not on out-patients. He and Mr. White had agreed serve on the Committee, thinking they could thus best ve their profession. He said they were bound by the ms of Mr. Chester's will to have a large general hospital. believed it would be a general hospital more in name n anything else, having beds and a small casualty partment. The Putney people wanted to have it, and profession must do its best to have it properly regu-ed. He agreed that the fewer out-patients the better.

he resolution was carried *nem. con.*

r. **Bonney** moved the second resolution:

> hat any local hospital accommodation required could be well met by providing what is known as a general cottage hospital on a suitable site and with no out-patient department.

said that such a hospital in Putney would no doubt very useful, and urgent cases would derive benefit n its establishment; but there should be no out-ient department, which would be injurious to general ctitioners, and absolutely ruin some.

r. **Biggs**, in seconding, said that two cardinal principles uld be observed—not to pauperize the people and not xploit the profession. The cost of beds in cottage pitals varied from £48 to about £90 per annum, and money spent on the out-patient department was lute waste. The profession had an absolute right to y in the matter.

r. **Ford Anderson** congratulated the Divisions on g determined to rule in their own house. Before the ganization of their Association it was more difficult, now such subjects as contract practice and hospital se could be more readily tackled. Contract practice d be dealt with by the profession alone; but the lay ent in hospital administration was the difficulty. He ght the medical profession should first decide what necessary, and then apply to the laity. The general ciples governing cottage hospitals should be that e should be no out-patient department, and nothing ld be done to injure the general practitioner. He dis-ed the question of how the staff should be formed. e should be a small staff to attend to accidents, etc., every practitioner in the neighbourhood should have ight to get his patients admitted, even though he was on the staff. Payments might be taken from those itted according to their means.

. **Fothergill** stated that a legal opinion had been ned to the effect that a general cottage hospital would the requirements of Mr. Chester's will, that an out-nt department was not necessary, but that a consult-taff might be. The resolution was carried *nem. con.*

. **Parsons** moved and Dr. **Neville** seconded:

> t it is the opinion of this meeting of the resident edical profession, that were the Putney Hospital Com-ittee to meet in conference representatives from Guy's ospital, together with the London representatives on the entral Hospital Committee of the Association, as also presentatives elected from this meeting of medical prac-tioners, a scheme could be prepared which would satis-ctorily carry out the wishes of the late Mr. Henry hester, would be approved by the local medical pro-ssion, as well as the Haberdashers' Company, and would ceive legal sanction.

was also carried.

Wilson moved, Dr. **Lawson** seconded, and it was re-l that a committee of seven be selected by the Joint ital Committee of the three Divisions to carry out ove resolution and report.

meeting closed with a vote of thanks to the man.

Decline of Typhoid in Chicago.—The Com-oner of Health for Chicago states in a recent bulletin here has been a remarkable decline in the death-rate yphoid fever since the introduction in 1892 of a pure supply. In the decade 1885-1894 the average typhoid lity was 7.9 per 10,000, and in 1891 it was 17.31—the st of any city in the civilized world. In the decade 904 it was 3.2—a reduction of 59.5 per cent. from the e rate of the previous decade. The reduction from ghest in 1891 to the lowest in 1905 is more than 90 nt.

GARDEN CITY ASSOCIATION.

The Garden City Association held a conference at the Criterion Restaurant, London, on March 16th. The chair was taken by the Right Honourable **James Bryce**, M.P., Chief Secretary for Ireland.

Mr. **Bryce**, in opening the proceedings, said that the object of the Garden City Association was to find a solution of the problem of how to check the growth of great cities. With the extension of electric tramways London was continuing its process of annexing what were originally distinct towns. Few realized the great waste involved in carrying people to and from their work. Country life was better than urban life for the physical and moral condition of the race, and the idea that should be aimed at was new industrial centres or garden cities with a population of between thirty and sixty thousand people. It was thought that the problem of the growth of London might be dealt with by trying to plant communities such as Letchworth in well-chosen positions in the less crowded parts of the country. The natural community which Nature would prescribe was such a community as London was in the Middle Ages, where rich and poor lived beside one another; but that had disappeared, and perhaps inevitably so. In the model community there would be a much better representation of the various classes of society than was possible in the metropolis, where there were square miles of poor people in the East, and acres of rich people in the West. From all points of view, social, moral, and political, there were strong arguments for endeavouring to check the growth of great cities, and to substitute for them smaller industrial centres and the Garden City movement might do something to provide in the different classes of Society the sense of their dependence on one another.

The Housing Question.

Mr. **Ralph Neville**, K.C., the Chairman of the First Garden City Company, Limited, and Garden City Association, contributed a paper on the Garden City project as a solution of the housing question, which was read by the **Secretary**. He pointed out that in cities the density of the population raised the value of the land to an inconvenient extent, or to put it in another way, the excessive value of the land in itself led to overcrowding, and, if the question of improvements had to be considered, an immense area already densely populated had to be dealt with, so that the clearance of one quarter tended to the overcrowding of the rest. The cost of land in the central parts of London was so great that healthy dwellings for the working classes could not be built at a cost which allowed of a rent within their means, and they therefore had to choose between tenement buildings in a fairly accessible position where the hygienic conditions were bad or cottages huddled together fifty to the acre at a distance from their work, which involved the absorption of a greater part of their leisure time in going to and fro. The withdrawal from London of those industries which could be carried on with equal or greater advantage elsewhere must be encouraged, and care must be taken that such withdrawal should take place under such conditions as to prohibit reproduction of the evils from which such industries were escaping. The evils of life in London were largely due to the haphazard way and inefficiency of control under which the great city had sprung up. If fresh centres of industry came into existence in the same way those evils were likely to be repeated. The work of carrying on this movement must be done by public or quasi-public bodies not acting mainly for profit but in the interests of the nation, that is to say, by garden city companies formed on the lines of the first Garden City Company, Limited, but with statutory powers of acquiring sites, procuring incorporation, and levying rents or rates upon the land they developed. In towns built under such auspices the rent paid should, as development advanced, be the only rate levied. By those means the manufacturer would establish his works where land was comparatively cheap, and where labour would be available for his business. The low aggregate of rent and rates and the command of space would reduce the cost of production, and in the case of suitable businesses would more than counterbalance the advantages of proximity to great central markets. The workman would be lodged close to his work, and would be provided with a cottage, garden, recreation grounds, and allotments. It was the want of fresh air which went far to account for the deterioration of physique and susceptibility to phthisis so characteristic of dwellers in crowded cities. At Letchworth Garden City the rent of a three-roomed cottage worked out at about 3s. 6d. or 4s. a week, including rates, which were at present about 3s. 6d. in the £, as against about 8s. in London and the suburbs.

Professor P. Geddes then moved the following:

> That the housing problem can be solved, and the congestion in crowded centres relieved, by a concerted movement of manufacturers, co-operators, and others to new areas, arrangements being made for securing to the people the increased value which their presence will give to the sites, and the areas being carefully planned, so as to make adequate provision for the individual and social needs of the people, especially with a view to securing for all time the combined advantages of town and country life.

This was supported by Mrs. E. Fordham, Mr. Aneurin Williams, Mr. Hayes, Mr. H. Warren, Dr. Freemantle, and others, and on being put to the meeting was duly passed.

Co-operation in Cottage Building.

Mr. H. Vivian, M.P., Chairman of the Ealing Tenants and Garden City Tenants Company, in an address on co-partnership and housing, advocated the foundation of societies by means of which a workman could obtain practically all the economic advantages arising from the ownership of his own house. He explained how in the case of the Ealing Tenants Company the workmen got a house at a moderate rental. He could invest in the society of which he was a tenant any savings at 5 per cent. Should values go up the tenant would receive the benefit by a dividend on his rent or by paying a rental below the market value. The tenant secured practically all surplus profit after fixed charges had been met. The tenants as a whole could relieve themselves of dependence on outside capital altogether by acquiring through investment or by accumulated capital the value of the property. The capital for building was provided at a cheaper rate than could be obtained on any other commercially sound system. By gradual process, therefore, it lay with the tenants to transfer the ownership from non-tenant shareholders who took the main risk to begin with, to the tenant shareholder who it was hoped might become the ultimate owner. That followed the policy adopted by Godin with his employés in the co-partnership iron foundry at Guise. The proportion of non-tenant shareholders' capital was large to begin with, declining as the tenant shareholders' proportion grew. The system was comparatively simple and with a central organization to mould societies and guide them in their infancy their number would rapidly increase.

Mr. W. H. Lever, who had taken the chair in place of Mr. Bryce, pointed out that towns should acquire the land round their suburbs when it was of little more than agricultural value. The law gave ample powers to towns to secure surrounding areas in advance of population, and that land might be either sold for building at cost price or leased for ninety-nine years, and thus attract people from the central parts. Such a course would probably solve the housing problem; he knew of no better means of helping workmen to build their own houses than was provided by Mr. Vivian's plan.

The following resolution, moved by Miss S. Gurney and seconded by Councillor J. S. Nettlefold of Birmingham, was passed:

> That this Conference expresses its pleasure at the progress now being made in the application of the principle of co-partnership to the housing problem, and commends the movement to all interested in the welfare of the workers.

Rural Depopulation.

In the afternoon the chair was taken by Earl Carrington.

Mr. Rider Haggard said that a change had come over the life of the agricultural labourer within the last twenty or thirty years. The first cause of rural depopulation was the utter lack of prospects in the country for labourers; it was a life of constant monotonous toil at a stationary wage, and the workhouse at last. Through the Board schools the agricultural labourers had learnt about cities and how to get to them, and it was not surprising that he yielded to the attractions of the city. Landlords were not as a rule rich, and could not afford to build without a prospect of fair interest on capital, with the consequence that in a great many villages the houses of the labouring class were falling to pieces. If people could get land with security of tenure they would to a large extent solve the problem by building houses for themselves. Only one-seventh of the population was now in the rural districts and this depopulation of the country and the overcrowding of the cities, if unchecked, must end in a serious deterioration of the race.

The following resolution was moved by Mr. R. Winfrey, M.P., seconded by Mr. P. Alden, M.P., supported by Mr. Munro-Ferguson, Mr. J. St. Loe Strachey, Mr. C. R. Buxton, Mr. F. Knee, and Mr. Snelling, and duly passed:

> That the problem of the depopulation in rural districts can be largely solved by the removal of manufacturing industries from crowded centres to garden cities and garden villages created on new areas; by the development of small holdings carried out on a systematic plan and in touch with facilities for co-operation; and generally by bringing manufacture and agriculture into closer contact.

Garden Suburbs.

The Conference concluded with a discussion on garden suburbs, which was introduced by Mrs. S. A. Barnett, the Honorary Secretary of the Hampstead Suburb Trust. In the garden suburb she advocated it was arranged that every house, however small, should stand in a garden to be worked by the tenant himself, but sometimes, as in the case of clerks whose bread-winning employment took all the daylight hours, the gardens would be managed under a co-operative system, so as to ensure common benefit.

The Conference concluded its labours by passing the following resolution, moved by Mr. Rider Haggard and seconded by Sir Robert Hunter:

> That this meeting records its conviction of the necessity of the formation of garden suburbs as a means of securing the healthy development of London and other large towns.

Dinner.

The members and friends of the Garden City Association dined together on March 15th at the Criterion Restaurant, London. Lord Justice Fletcher Moulton, who was in the chair, said that the object of the Garden City Association was to improve the conditions under which people lived.

Mr. Neville, in responding to the toast of "The Garden City Association," which was proposed by the Chairman, said that unless the population of the United Kingdom progressed in physical development, efforts to produce moral and spiritual development would fail. Industries must be carried on in healthy conditions, and the task of the Association was to show that these industries could be so carried on. The Garden City at Letchworth only wanted faith and money to ensure its complete success. Mechanics were housed there within easy reach of factories, so that after their work ended they could be at home within a few minutes and could cultivate the land or enjoy outdoor recreation.

Amongst the other speakers was Mr. Rider Haggard, who declared that in London some people lived as even cattle ought not to live, and he asked what did such conditions mean to the race, and what was the good of abolishing a slum and doing nothing else. The remedy was to create new towns such as Letchworth.

Several medical men attended the dinner, and Dr. Arthur James, the Honorary Treasurer, and Mr. Reginald Harrison were especially prominent in advocating the movement set on foot by the Garden City Association.

Medical Education in Bolivia.—The Republic of Bolivia, which we are pleased to learn from the *Tribuna Medica* of Santiago de Chile is "progressing by gigantic steps," has decided to amalgamate its medical schools in one central University. Bolivia at present rejoices in the possession of at least three schools of medicine—at La Paz, Sucre, and Santa Cruz. It is proposed that Sucre shall be the seat of the new Faculty. This proposal naturally does not commend itself to the other two places, each of which thinks it has at least an equal claim to the distinction. The reasons for the centralization of medical study are the same as those which are put forward in favour of a like scheme nearer home, the disproportionate cost and loss of teaching power caused by the existence of a number of small schools competing against each other.

THE SOUTH WALES AND MONMOUTHSHIRE BRANCH CONTRACT COMMITTEE AND EMERGENCY FUND.

As readers have been reminded on more than one occasion, disputes as to contract practice have reached a very acute stage in South Wales and Monmouthshire; a warning notice with regard to the dispute at Ebbw Vale has appeared for some months past in the weekly advertisenent under this head. Impressed by the magnitude and mportance of the controversy, the South Wales Branch ast October decided to institute a standing Contract Practice Committee for the area of the South Wales and Monmouthshire Branch, and it was resolved that a Contract Practice Fund should be formed. The Branch Contract Practice Committee has now been constituted; it consists f representatives of the Branch Council, of representatives f each Division in the Branch, together with the honorary ecretaries of the Branch and Divisions, and the senior onorary secretaries of the Cardiff, Swansea and Newport edical societies as *ex-officio* members. Dr. D. J. Villiams, F.R.C.S., of Llanelly, one of the representaves of the South-West Wales Division, has been elected hairman of the Committee, and Dr. Ewen J. Maclean, 2, Park Place, Cardiff, honorary secretary.

The committee has issued to all members of the Branch memorandum stating the scope and objects of the comittee, and inviting subscriptions to a Branch Contract ractice Fund.

Subcommittees.

The general committee has appointed two subcomittees. The first, for works and collieries, will deal pecially with matters in dispute between the medical ficers and the various workmen's committees. In me cases these committees, though they do not inude even a single medical representative, assume not ly the financial but also the detailed executive control the practice. Thus it has come about that unfair and acting terms and duties have been imposed, with the evitable consequence of dissatisfied service, and the loss that harmonious personal relationship between doctor d patient which constitutes the best guarantee for ective medical practice. The Works and Collieries Subnmittee will seek to rectify the conditions of vice and representation, and will resist the extenn of the system in the interests alike of the fession and of the working men and their ilies. The other subcommittee is for general contract rk. It will deal with various grave developments the present system, among which may be instanced the tem of medical insurance practised by many of the ustrial and collecting insurance societies to which ention has been called recently on several occasions in se columns. It is pointed out that in a large propor of such societies the scale of payment to the medical ctitioner and the terms of his tenure of office are deatory, while the premiums payable are such as to nit to membership a large number of beneficiaries able ay ordinary medical fees. It is felt, therefore, that an rovement of the status of the medical man, whereby nay be enabled to insist on an equitable arrangement, is ntly called for. Organized effort on the part of the ession is necessary, because the two main classes of ract practice indicated by the names of the submittees are supported by highly organized and erful corporations with whom the practitioner is quite le to cope, his failure illustrating the common result ndividual bargaining with collective organizations. Chairman, Honorary Secretary and *ex-officio* members e committee are members of both subcommittees.

Contract Practice Fund.

e Branch Contract Practice Committee is formed to ze to a fuller degree the capacity of the British ical Association for general and collective defence, in order to be in a position to carry on the work ently an appeal is made for contributions to the al Branch Contract Practice Fund to provide finan- legal, or other assistance, or compensation to any ber of the British Medical Association carrying on ice in the area of the Branch who shall suffer loss rrying on contract practice in accordance with the and customs of the Branch. The fund will further vailable to pay expenses incurred by the committee, or by any member of it, in the prosecution of its work, and other incidental expenses, such as the publication of warning or cautionary notices in the press. The circular points out that any medical man engaged in any form of contract medical practice may at any time feel the need of the support a strong fund will offer, and, further, that it is to the interest of those not actually concerned in contract practice to strengthen a movement which will tend to check inroads on the general practitioner's livelihood.

The annual subscription is fixed at 5s., but, in addition, foundation donations are solicited, and already a considerable sum has been received or promised. Thus, Dr. D. J. Williams, Dr. Evan Jones, Dr. Trevor Jones, Dr. Banks, Dr. W. W. David, Dr. Leigh, Dr. Webster, Dr. Morgan (Ynysybwl), and Dr. E. J. Maclean have promised subscriptions of 10 guineas each, and Dr. T. R. LLewelyn, Dr. Weichert, Dr. Glanville Morris, Dr. Finney, Dr. B. M. Lewis, Dr. Howard Davies, Dr. Cochrane, Dr. Tribe, Dr. Lyttle, Dr. D. Naunton Morgan, and Dr. R. G. Price have promised 5 guineas. Further, to strengthen the fund and to provide against any extraordinary drain on its resources, such as might arise in a protracted dispute in a colliery district, or with a friendly society, members of the fund are invited to make weekly contributions to a guarantee fund should they be called upon to do so. The East Glamorgan and Monmouthshire Colliery Surgeons' Medico-Ethical Society resolved, at a meeting on March 6th, to subscribe individually as members 5 guineas to the Contract Practice Fund, to undertake to guarantee a minimum of 2s. 6d. weekly for a period of six months, and to make a donation of 20 guineas from the Society's funds. The Committee is thoroughly representative of the medical profession in South Wales and Monmouthshire, including men engaged in every department of practice. As the circular points out, it is well that this should be so, for every phase of professional work is vitally affected in the regulation and restriction within due limits of contract practice.

The organization of this committee and the foundation of this fund by the South Wales and Monmouthshire Branch constituted a new departure. It is earnestly hoped that the committee will be heartily supported by the members of the Branch. Apart from the importance of forming a fund adequate to deal with contract practice disputes in the future, the mere fact that every member of the Branch subscribed to the fund and joined in the guarantee would have a great moral effect. The issues at stake are of the utmost importance to the profession, and the working of the South Wales and Monmouthshire Contract Practice Committee will be watched with interest by members of the Association in different parts of the country. The proposal of the Central Council of the Association to form a central emergency fund, as described in the Memorandum published in the SUPPLEMENT of January 6th, 1906, page 6, was made on the recommendation of the Medico-Political Committee, and appears to have grown out of the consideration of the proposals of the South Wales and Monmouthshire Branch.

The Contract Practice Committee of that Branch is representative, and its direction is in very competent and experienced hands; its business will, we feel sure, be conducted with that combination of boldness, firmness, and fairness which invariably leads to success in practical affairs.

CONTRACT PRACTICE.

WARNING NOTICES.

IN the warning notice as to places in which appointments are vacant under conditions condemned by the medical profession in the localities two new entries appear this week (see p. 63 of advertisements).

Bangor.

The notice as to Bangor has reference to the appointment of medical officer to the workhouse rendered vacant through the resignation of the late medical officer, following upon a Local Government Board inquiry. The report of the Local Government Board on the matter includes, besides the reference to matters affecting the medical officer, a condemnation of the accommodation provided for the sick inmates of the workhouse, which is stated to be such as to preclude satisfactory treatment. The inspector has stated in his report to the Board that there was practically no maternity ward, as the ward was always full of other cases, there are no separate wards or day rooms of any kind, and the nurses' accommodation is also insufficient. The inspector points out that radical improvements are very necessary and that he has from time to time impressed this upon the guardians.

These deficiencies are presumably due to the same spirit of short-sighted economy which has expressed itself in the payment to the workhouse medical officer of what, in the opinion of the local profession, is an entirely inadequate remuneration for the duties he is called upon to discharge. At a meeting of the guardians a proposal was made to increase the salary offered for the vacant appointment from £50 to £60, but this was defeated by 21 votes to 17, one member of the Board expressing the opinion that the guardians would be able to obtain just as good a medical officer at £50 as at a higher figure. The unsoundness of this estimate is perhaps sufficiently indicated by the fact that at a general meeting of members of the medical profession in the town, held on March 20th, it was resolved that, having regard to the amount of work necessary to carry out the duties satisfactorily, the salary should be at least £70, and it is understood that no local practitioner will become a candidate on the terms at present offered.

Sheffield.

The warning notice as to Sheffield has reference to the "Sheffield United Friendly and Trades Societies' Medical Association," an organization in process of being formed, on lines which are unfortunately already familiar to the profession in many districts, and are fully described under the title of "Friendly Societies' Institutes" in Chapter 8, Section C, of the Report of the Medico-Political Committee on Contract Practice. For the convenience of any medical practitioner who may contemplate applying for the Sheffield appointment, we quote from that report the following description of the position of the medical officers to these organizations:

> The work required from the medical officer to these bodies is sometimes very heavy in proportion to the remuneration. In one case the medical officer gave over 13,000 attendances in the year for the payment of £275—that is to say, he received about 5d. for each attendance.
>
> The position generally of the medical officers of these institutions appears to be in many cases less satisfactory than that of the practitioners connected with any other form of contract practice, except perhaps the Medical Aid Societies. The medical officer has no independence in the practice of his profession, being absolutely under the control of a committee who have little or no knowledge of the conditions necessary for efficiency of a medical service.
>
> In many towns the institutes have been founded as the result of disputes between clubs and private practitioners regarding remuneration, wage limits, or other questions of difficulty, and the medical officers, by the mere fact of accepting the appointment, place themselves in a position of hostility to, and therefore of isolation from, the other practitioners of the district.
>
> This fact, the arduous work, and frequently inadequate remuneration, and the entire sacrifice of independence, probably account for the frequent changes of medical officers, and the unsatisfactory character, professionally and otherwise, of some who accept such appointments.

The information which we have received with respect to the Sheffield appointment affords no reason for supposing that the position of its medical officers will be in any respect more favourable than that of the majority of medical officers of such institutions as above described. The avowed object of the combination is primarily to obtain cheap medical attendance; therefore the work to be done must be expected to be greatly in excess of that for which the fixed salary offered would afford even a moderate remuneration. The medical officer can enjoy no security of tenure or professional independence, and to these disadvantages of the appointment as compared with the inducements offered by other forms of medical practice, he must add the consciousness that he has taken up a position of definite hostility to the general body of his professional brethren in the district in which he practises. It is difficult to conceive, in view of these facts, that this appointment will be accepted by any medical practitioner whose abilities, industry, and character entitle him to expect even average success in any other kind of medical career.

IRISH MEDICAL SCHOOLS AND GRADUATES' ASSOCIATION.

ANNUAL MEETING.

THE twenty-ninth annual general meeting of the above Association was held at the Hotel Cecil, London, on March 17th, when the following officers were appointed for the ensuing year:—*President elect:* Sir John William Moore. *Vice-Presidents:* Dr. Phineas S. Abraham; Sir James N. Dick, K.C.B.; Sir William Whitla; and Dr. H. Macnaughton-Jones. *Honorary Treasurer:* Dr. Michael J. Bulger. *Chairman of Council:* Dr. J. H. Swanton. *Vice-Chairman:* Dr. Kenneth Fraser. *Council:* Drs. George Vere Benson, William Barter, James Chambers, E. Wolfenden Collins, George Cowen, Sir Charles Cuffe, K.C.B., George W. Dawson, H. J. Hildige, W. Beech Johnston, J. J. Macan, Alex. McDonnell, W. Moyle O'Connor, W. Booth Pearsall, Redmond Roche, W. W. Scott, James Stewart, W. Bland Stokes, and Telford Telfordsmith. *Honorary Secretaries:* Dr. T. Hobbs Crampton, Mr. E. Canny Ryall, and Dr. William Douglas. *Honorary Auditors:* Colonel James Moorhead, R.A.M.C., and Dr. A. J. Preston.

The annual report was most satisfactory. A vote of condolence was passed in connexion with the domestic bereavement of Dr. James Stewart, and sincere regret was expressed at his retirement from the post of Provincial Honorary Secretary, which he had held for over twenty years.

DINNER.

The annual festival dinner of the Irish Medical Schools and Graduates' Association took place in the Grand Hall of the Hotel Cecil on March 17th, with the President of the Association, Dr. E. Irwin Scott, in the chair. Dr. G. Stoker having proposed the toast of "Our Defenders," Inspector-General W. H. Lloyd responded for the navy and Lieutenant-General Sir John French replied for the army. Sir John French excused himself from making a speech, remarking that so much had been heard of the army lately that all would agree it should have a "close time." The toast of "Our Guests" was submitted by Dr. Macnaughton-Jones, and Sir John French in acknowledging referred to the happy relations that existed between the Irish Medical Schools and the army. Those schools had furnished the army with many distinguished military doctors. In time of war when the soldier was resting after a march the military doctor spent his hours of rest in attending to the wounded, and therefore there was small wonder that his health so often broke down. Mr. Mayo Robson and Mr. W. Arbuthnot Lane also responded to this toast. Mr. R. G. Webster gave the toast of "Ourselves," and after this had been suitably acknowledged by the President of the Irish Medical Schools and Graduates' Association the proceedings terminated.

THE NATIONAL ASSOCIATION FOR THE PREVENTION OF CONSUMPTION AND OTHER FORMS OF TUBERCULOSIS.

ANNUAL MEETING.

THE seventh annual meeting of the members of this Association took place at 20, Hanover Square, W., on March 20th, at 4 p.m. The Earl of DERBY presided over an influential meeting, and was supported by Sir William Broadbent, Chairman of the Council. Amongst those present were Sir William Church, Dr. Theodore Williams, Dr. Hector Mackenzie, Dr. Theodore Dyke-Acland, Mr. Malcolm Morris, Dr. Weatherly, Mr. George Harwood, M.P., and Dr. Perkins (Secretary).

Lord DERBY, in moving the adoption of the report, referred to the important work which the Association was doing, which, however, could not be carried on without money. In the last report it had been necessary to call the attention of the members to the unfortunate financial position of the Association at the close of 1904, when there was an adverse balance on the revenue account for that year of £365. He was glad to say that the year 1905 closed on a much more favourable state of things. The debt had been cleared off, and a small balance remained to the credit of the Association. This result was in great measure due to the kindness of the Lord Mayor in granting the use of the Mansion House for a public meeting at which his Lordship took the chair, and at which an appeal was made to the City, in response to which the sum of £765 8s. was subscribed. The financial position of the Association could not, however, be considered satisfactory until it could command the general interest and support which similar movements had succeeded in winning in some foreign countries. Amongst several steps in advance taken by the Council during the past year, one of the most important was the issue of a memorial to all public authorities whose duties in any way bore on tuberculosis. Some thousands of copies had been sent to county, borough, and rural councils, Boards of Guardians, educational authorities and other similar bodies. The Council hoped much from this step. The Association had continued its efforts to induce the Metropolitan Asylums Board to add tuberculosis to the diseases it already dealt with, and make itself the tuberculosis authority for London. In this connexion his lordship referred with approbation to the memorandum recently issued by the Local Government Board for Scotland on the administrative control of pulmonary tuberculosis. The Association was also endeavouring to get as closely as possible in touch with the great labour associations and Friendly Societies. Representatives of the Association were on the Executive Committee of the National Committee for the Establishment of Sanatoriums for Workers suffering from Tuberculosis, and Mr. W. G. Bunn, a prominent member of that Committee, had been nominated a member of the Council of the Association. Mr. J. C. Gray, the General Secretary of the Co-operative Union, has also joined the Council of the Association. Two new Branches had been formed during the past year, bringing the total number of Branches to 26. The objects which the Association hoped to see more completely and generally carried out included the provision of sanatoriums for the treatment of early cases at a stage when cure was to be expected, institutions for the alleviation and possible arrest of cases somewhat more advanced, and homes of rest for the advanced and incurable cases. Disinfection of dwellings which had been occupied by advanced consumptives should be carried out by experienced officials.

Sir **WILLIAM BROADBENT** seconded the resolution, and gave a short review of the position of the Association and the preventive work which was being carried out in London and in the provinces.

Dr. **WEATHERLY** drew attention to the urgent need of extending the powers of county councils for dealing with tuberculosis. Borough and district councils had more power in this direction than the county councils, and some amendment of the Public Health Act was needed to increase the powers of county councils in the administrative control of this disease.

The **CHAIRMAN** then moved:

> That this meeting received with great regret the intelligence of Mr. Malcolm Morris's resignation of the office of Treasurer, and hereby records its appreciation of the great value of his services during the past eight years.

Mr. Morris was one of the founders of the Association, nd had been unsparing in his efforts to advance its nterests. The Association would continue to have his elp, as he had been elected to a seat on the Council.

Mr. George Harwood, M.P., was elected Treasurer in he place of Mr. Morris. In accepting the office, Mr. **ARWOOD** emphasized the importance of the workers elping themselves in endeavouring to prevent consumpion and in maintaining institutions for the treatment of hose amongst them who were stricken down by the isease. As an employer of labour he had watched the isease for twenty years, and had seen the ravages caused y it amongst the workers.

The Council has sustained a loss by the death of ir Robert Herbert, G.C.B., who was a regular attendant t meetings and took great interest in all the concerns of e Association.

The proceedings terminated with a vote of thanks to ord Derby for presiding at the meeting, which was oved by Dr. **THEODORE WILLIAMS** and seconded by r. T. D. **ACLAND**.

A NATIONAL Committee for the promotion of physical lucation has been established in Italy. It has its head arters in Rome.

LITERARY NOTES.

AT a recent meeting of the Lyons Academy Dr. Lortet, Professor of Parasitology and Microbiology in the University of that city, gave an interesting account of the preservation of the viscera of the great Sesostris, or Rameses II, who flourished thirty-one centuries ago. They were enclosed in four magnificent canopic vases of blue enamel. One of these contained, wrapped in linen cloths covered with natron and aromatic substances, the lungs reduced to magma, and the heart flattened but still recognizable. Professor Renaut and Dr. Regaud made a histological examination of the heart, and found the muscular fibres characteristic of the organ quite clearly defined.

Influenza, like the poor, we have always with us. It may be some comfort to know that in the good old days things were no better. The *Journal des Débats*, in a recent article on the subject, says that in Paris in the sixteenth century friends on meeting greeted each other with the question, *N'en as-tu point goûté un morcelet?"* Long before that the scourge was equally rife. It interfered with the work of the law and led to the maiming of religious rites. In 1403, and again in 1557, the sittings of courts had to be suspended. In 1427 sermons had to be abandoned because the preacher's voice was drowned by coughing and sneezing. In 1510 masses could not be sung. The features of the epidemics are said to have been incessant discharge from the nose "as from a fountain"; fever, and general lassitude. The patients complained of headache, and their chests were rent by coughing. All food tasted bitter. People did not care to eat or drink, and they could not sleep. The duration of illness varied from three weeks in 1411 and a fortnight in 1427 to six days in 1570 and four in 1557. The disease was variously known as *Joliette* and *Coquette* from its capricious nature. The name *Grippe* came into use in 1743; those of *petite poste* and *petit courrier* in 1762; and that of *général* in 1780. It was also known as *influences* and *influenza*. In addition to meteorological causes, the humming of questionable songs was believed to bring on influenza. The remedies were many and various. In 1510 sufferers put their faith in blessed coal water, theriaca, and camphor; in the eighteenth century in theriaca and bleeding. In 1411 the doctors confessed that they knew not what to do, and in 1803 Dr. Chauvot de Beauchesne had the courage to advocate in the *Journal des Débats* that the best treatment was to have nothing to do with doctors. The epidemics of 1580, 1676, 1703, 1732, and 1737 ceased after an earthquake or a volcanic eruption; but a supply of such remedies cannot be counted on to meet the demand.

In a delightful address entitled Legal and other Reminiscences, delivered at the annual dinner of the Guy's Debating Society, and published in the *Guy's Hospital Gazette* of February 24th, Dr. George H. Savage related the case of a boy of 12, with whom it was impossible to do anything at school. One day, finding his little sister half asleep by the fire, he killed her with a hammer, and then went for a walk. On returning, and finding the family in great distress, he asked what all the fuss was about, and said he wanted his supper. When Dr. Savage heard of the stupidity of the boy, he thought there would be no difficulty about the case. In this, however, he reckoned without the judge. We will let Dr. Savage tell the rest of the story in his own way:

> At last we got before the late Lord Coleridge, and I gave my evidence. "Did you find insanity in this lad?" I said: "He was a solitary boy; he was always poring over books but never learned anything; he never played games." Lord Coleridge said: "That describes Shelley." I said: "Well, my lord." That was an unfortunate remark of mine, for when the judge summed up he said: "Gentlemen of the jury, we have had expert evidence; a gentleman has given you evidence that this boy was insane because he was like Shelley. Gentlemen, this cannot be. If you find him insane, this poor boy will be sent to the criminal lunatic asylum to be detained during Her Majesty's pleasure, to associate with criminal lunatics. If, on the other hand, you find him guilty of manslaughter, it will rest with me." It did, and he gave him fourteen years' penal servitude. I have heard of that boy and watched him since, and he is completely weak-minded and useless.

The late Lord Coleridge, as is well known, professed the greatest horror of cruelty to animals. Apparently, as is sometimes seen in ardent philozoists, his feelings towards his own kind were less tenderly sympathetic. We are at a loss which to wonder at most in his dealing with the unfortunate child—the ineptitude of his summing up or the cruelty of the sentence. One understands how a man capable of such an outrage on humanity came to be called "the Roman father."

The *Vaccination Inquirer* of March 1st states that at the annual meeting of the National Antivaccination League, to which reference was made in the BRITISH MEDICAL JOURNAL of March 3rd, Mr. Bernard Shaw's letter, of which some choice extracts were there given, was read amidst "cheers and laughter." Readers of *Dombey and Son* may remember Lord Feenix's account of his Parliamentary experiences when it was a standing instruction to Tory members to cheer whenever the name of Mr. Pitt was mentioned. This mandate was obeyed with such mechanical regularity that his Lordship expressed his belief that, if any one had come into the House and said that Mr. Pitt had suddenly fallen down dead, the announcement would have been received with loud cheers from his followers. It would almost seem that a similar order had been issued with regard to Mr. Shaw to the rank and file of the antivaccinists, and is carried out with the like undiscriminating zeal by that highly-disciplined body. Otherwise it is difficult to understand how even fanaticism could find matter for either applause or laughter in the statement that vaccination is "really nothing short of attempted murder." Of course, coming from Mr. Shaw, this is nothing but what Lord Beaconsfield called "the babble of irresponsible frivolity." But it is doubtless taken seriously by many of the antivaccinists, a fraternity whose predominant quality is a praeternatural dullness of apprehension. How, then, does it come about that they cheer a random statement which they know to be false, and laugh at a reckless charge of crime? Is it because they look upon it all as nothing more than clever mumming? We do not think they have the wit to see Mr. Shaw's jokes, far as these are from being to any thick sight invisible. We are therefore inclined to believe that at their meetings they have an organized *claque*, scattered about like the masters at Westminster School who give the signal for laughter and applause to the boys at the Latin play.

MEDICAL NEWS.

THE will of the late Deputy Surgeon-General Sir Joseph Ewart, thrice Mayor of Brighton, has been proved at £24,029 net.

A MEETING will be held in Vienna on March 25th to consider a scheme for the establishment of organization of the medical profession throughout the Austrian Empire.

THE donations to the fund that is being collected for the establishment of an Institute of Cancer Research in connexion with the University of Heidelberg now amount to £34,000.

A FESTIVAL dinner in aid of the funds of the Royal National Hospital for Consumption, Ventnor, will be held in the Whitehall Rooms, Hotel Métropole, on April 3rd, under the presidency of Lord Roberts.

DR. W. BRAMLEY TAYLOR of Denmark Hill, a member of the committee of the Lambeth Division of the British Medical Association, has been placed on the Commission of Peace for the County of London.

M. MIRMAN, head of the Department of Public Assistance and Hygiene in the French Ministry of the Interior, has decided that women holding the degree of Doctor of Medicine are to be admitted to compete for the post of physician to lunatic asylums.

THE meeting of the Balneological Society on March 31st will be held at Bath. In the afternoon the members will hold a discussion on the treatment of disease by thermal methods, and in the evening attend a reception at the Pump Room given in their honour by the Mayor and Corporation.

A PRELIMINARY meeting to make arrangements for the Second International Congress of School Hygiene will be held at the University of London on Friday next, March 30th, when the Duke of Northumberland will take the chair at 5 p.m. The first Congress was held in Nuremberg in 1904, and it was there decided to hold the second Congress in London in August, 1907.

THREE or four years ago it was resolved that some memorial to Queen Victoria, who frequently visited the Riviera in the spring, should be erected there, and it was eventually decided that it should take the form of a cottage hospital, conducted on unsectarian lines. A suitable site was obtained on Mont Boron, Nice; the building was completed recently, and on March 17th was opened by Princess Christian, representing His Majesty. The need for such an institution has long been felt, and the movement was warmly supported by British medical men practising in the Riviera.

THE question of ambulance provision for the City of London has been under consideration at the Court of Common Council twice lately, much dissatisfaction being expressed at the continued delay of the Finance Committee in dealing with the horse ambulance scheme recommended by the Police Committee. The explanation given is that the delay is due to the fact that the London County Council was promoting a Bill in Parliament for a motor ambulance system for the whole of London. In this the County Council proposes to include the City area, and negotiations are in progress aiming at a harmonious rearrangement between the two bodies.

THE *Revista Medica del Uruguay* for February publishes the vital statistics of Montevideo for the month of October last *in extenso*, from which it would appear that the city, which has the large population of nearly 297,000, is in a satisfactory sanitary condition, the births being 700 in the month and the deaths 334. The third Latin-American Medical Congress is announced for January, 1907, and is to be held in Montevideo. Full details are given of the scheme and regulations. There are to be six sections, especial encouragement being given to hygiene. There will be held synchronously, but to remain open for two months, an International Exhibition of Hygiene, which will aim at representing fully all branches of the subject, both from its scientific as well as from its commercial aspect.

PROHIBITION OF ABSINTHE IN BELGIUM.—The Belgian Chamber of Deputies has recently passed by a large majority a measure forbidding the manufacture, importation, and sale of absinthe, under penalty of fines varying from £1 to £20, and imprisonment from a week to six months.

PRESENTATION.—Upon the occasion of his recent marriage, Dr. Herbert Coddington Major, of Swallowfield, Bushmead Avenue, Bedford, was presented with a handsome silver dessert dish, suitably inscribed in Latin, as the gift of all the members of the honorary staff of the Bedford County Hospital, in recognition of Dr. Major's services to the institution as honorary pathologist.

A COUNTRY HOSPITAL FOR TUBERCULOUS CHILDREN.—At a drawing-room meeting in Cadogan Gardens, last week, the claims of the Hospital for Children with Hip Disease were urged by Sir William Broadbent in writing, and by Mr. Warrington Haward, Chairman of the Invalid Children's Association, and by Mr. Tubby in person. The hospital is situated at Sevenoaks, but most of its patients are London children. It has a local staff of three medical practitioners and a London staff of five consultants. It was founded a good many years ago, but dates its more active existence from 1902, when new premises were provided for it. It is now desired to ensure greater efficiency by engaging a fully-trained nursing staff. This is undoubtedly a wise measure, while of course the general idea of treating surgical tuberculosis away from London is greatly to be encouraged.

A VETERAN.—Dr. T. H. S. Pullin, who was presented at a recent levée by the First Lord of the Admiralty, is by service the senior Admiralty surgeon and agent, having last month completed fifty years' service. Dr. Pullin has been in practice in Sidmouth for fifty-six years, and for thirty-five years has been Medical Officer of Health. He was one of the earliest Volunteer officers, receiving his commission in the Sidmouth battery of artillery, the first company to follow the 1st Devon volunteer company formed at Exeter in 1852 by the late Sir John Charles Bucknill, M.D., the originator and founder of the Volunteer movement in Great Britain. As a boy, Dr. Pullin was at Christ's Hospital, and was the chief choir soloist when on November 8th, 1837, "God Save the Queen" was first sung in public, on Queen Victoria's visit to the metropolis after her coronation. In 1849 he was appointed, with five or six others, by the General Board of Health to give assistance in the severe epidemic of cholera at Portsmouth. He became a Member of the Royal College of Surgeons of England and a Licentiate of the Society of Apothecaries in 1850. Dr. Pullin has never smoked and has been a total abstainer for forty years.

British Medical Journal.

SATURDAY, MARCH 24TH, 1906.

HE EDUCATIONAL VALUE OF FAILURES.

is a mere truism to say that, while much is heard of n's successes, the world knows little of their failures. every calling those who climb above the lower rungs the ladder of fortune are the envied cynosure of ir less-favoured fellow-mortals who, despite diligent l often heroic efforts, fail to rise above mediocrity. noderate amount of success may be predicted for all o, being possessed of ordinary capacity, apply them- ves with perseverance and honest endeavour to the ies of the business or profession which they have sen as the field of their life-work. But what is it in ne men that commands conspicuous success which is ied to others?

t may be conceded that some are born to oppor- ities which make the achievement of position and e a comparatively simple process; that others are owed with qualities which enable them to grasp the ntials and escape from the tyranny of details; and many are the favourites of luck, whatever that tly may mean, by which their destiny is happily successfully guided.

ut these are, after all, side-issues. In the vast ority of cases the real secret lies in the individuality he man. In one case the *ego* may mean brilliant us, in another mere prosaic capacity for taking s; but in all it connotes a power of concentration ergy, which, whether produced with scarce a con- us effort, or evolved with infinite toil, constitutes strength of control over the vicissitudes and cir- stances of environment as to enable its possessor ad where others follow, to act where others hesi- to prosper where others miss the mark of their ition.

though the glamour of success appeals to the envy wonder of the multitude, few trouble to inquire or ider to what extent it is the outcome of failure. confession of failure is the most powerful of all nce in favour of vigorous rectitude, but there ew possessed of moral fibre firm enough to bear strain of condemnatory criticism applied by selves to their own work. The fear that such ssions may tarnish the reputation which has acquired hinders the majority of men from any c avowal of the mistakes and failures which, the less, have been real stepping-stones in the opment of their lives.

our own profession, despite the enormous increase literature, there is room for books of a new type ed to an exposition of misses rather than of hits, es that have gone wrong rather than of those that gone right, of errors in judgement or in treatment than of novel methods or brilliant technique.

m time to time a spirit of heroism prompts a man to permit his fellow-workers to join him in tant retrospection, but such opportunities for learning from calamitous and regrettable experiences are few and far between. We ought to hail with satisfaction any testimony which reminds us of the imperfections of our art and the limitations of our science. It is a wholesome counterpoise to the prevailing note of optimistic self-satisfaction. It is stimulating, even if doleful, because it bears witness to the fact we so readily forget, that perfection is reached only through tribulation. In a paper entitled "The Teachings of Failures," recently read by Dr. Frank le Moyne Hupp before the West Virginia State Medical Association at Wheeling, we have a candid account of the class of chastening experience which it is good for us to have on record. The cases narrated refer only to errors in diagnosis, disappointing results from treatment, and misfortunes, more or less unavoidable, met with in surgical practice. But they are not without their parallels in the field of medicine. As instances may be cited the following: Pneumonia overlooked during an attack of influenza; latent pleurisy, undiscovered because of the absence of pain and other prominent symptoms; paroxysmal haemoglobinuria attributed to chill, and missed because the urine was not examined; malignant endocarditis unsuspected until revealed by the occurrence of infarction, because familiarity with an old valvular lesion had bred forgetfulness of the possibilities of infective invasion; a precipitate diagnosis of malignancy in a tumour, which speedily melted away under the influence of a sufficiency of potassium iodide; an unfortunate misapprehension as to the true significance of symptoms in a patient labelled as neurasthenic but actually suffering from general paralysis, the assignment of a slight albuminuria which had existed for several years to an attack of scarlet fever in early manhood when the true explanation was a renal calculus embedded in the right kidney, never thought of but unmistakably disclosed on the application of the Roentgen rays. Such faults and failures, though in some instances the outcome of negligence, are most often directly due to an ill-advised reliance upon an original diagnosis, or to a reprehensible habit of routine in treatment. That wise men learn from them lessons of infinite value is the strongest possible justification for a plea to have them more frequently narrated so that others may avoid the pitfalls by which the professional pathway of every medical practitioner, be he physician or surgeon, is constantly beset. It may be remembered how practice in the method of tying his cravat enabled Beau Brummel to attain such skill in the art that his tie became a model constantly imitated but seldom equalled. On one occasion his valet was met coming from his master's room with a large number of crumpled neckcloths under his arm, and on being asked for an explanation, he solemnly replied, "Oh, these are our failures." Ultimate perfection, even in such a trivial accomplishment as the correct set of a cravat, was only attained at the cost of many ties hopelessly crushed and spoiled.

So it is with medicine, surgery, and all human acts; success is reached through failure, perfection is attained through the laborious conquest of many imperfections, and facility is the ultimate reward of persevering enthusiasm.

RELAPSING FEVER IN EAST AFRICA.

ON November 26th, 1904, Drs. Dutton and Todd announced that they had found a spirochaete to be the pathogenic agent of the human tick fever which occurs in the Oriental province of the Congo Free State; they were also able to state that they had succeeded in infecting monkeys with spirochaetes through the bites of ticks. In a detailed report of their work[1] they expressed the opinion, based on clinical evidence, transmission experiments with ticks, and information received from residents in the Congo, that "tick fever" is a relapsing fever, produced by a spirochaete probably identical with *Spirochaeta Obermeieri*, and that this organism can be transmitted by the bite of the tick. They also announced that in one experiment they had been successful in transmitting the spirillum by the bites of young ticks newly hatched in the laboratory from eggs laid by infected parents. They were not able to identify with certainty the species of tick which they found to convey the infection, but they suspected it to be *Ornithodoros moubata*. This opinion was confirmed by Mr. R. I. Pocock, of the British Museum, who examined some of their specimens.

The accuracy of these researches has been recently confirmed by Dr. Koch, who described his investigations in a paper read recently before the Berlin Medical Society[2] on the etiology of relapsing fever as found in German East Africa.

It is almost incredible, but we have Dr. Koch's statement for authority, that before his arrival in the country the part played by the tick in the dissemination of the disease was not recognized by the German authorities, although they were aware that English investigators had found spirochaetes in the blood of persons suffering from "tick fever"; and Dr. Kudicke, on the assumption that the relapsing fever of German East Africa might be related to this disease, had endeavoured to produce the infection in monkeys by the bites of ticks. His experiments, however, had been unsuccessful, and, consequently, the opinion that ticks bore a causal relationship to the disease had been abandoned. But Dr. Koch, on his arrival, determined to reinvestigate the matter himself, and consequently obtained ticks from two localities on the caravan routes. He dissected large numbers of these insects, examined each organ separately, made coverslip preparations in diluted serum, and stained these with Giemsa's Azur II. He found in specimens from some of the ticks spirochaetes which closely resembled the parasites found in European relapsing fever; these organisms, he particularly noted, were only to be found in the ovaries. Encouraged by these results, he commenced investigations on a larger scale.

After briefly referring to several of the varieties of ticks met with in Africa, Dr. Koch describes in detail *Ornithodoros moubata*, the species which he found particularly associated with the spirochaetes in question. This insect is a blood parasite and has a special predilection for human blood. It lives in the huts of the natives, buries itself in dry soil during the daytime, and comes out at night to feed. It can easily be kept in captivity, glass vessels containing a layer of dry earth at the bottom being most suitable for this purpose. The insects are fed by placing them on the freshly-shaved skin of a monkey. To this they readily attach themselves when hungry; when they have engorged themselves with blood, they fall off and are restored to the glass vessels. When they are sexually mature, the females deposit their eggs in the earth.

The disease which is conveyed by the bites of these insects bears a striking resemblance to European relapsing fever. There are, however, certain points of difference. In the European form, the first attack lasts, as a rule, for six to seven days; then follows a period of apyrexia of five to six days, then a second attack of somewhat shorter duration, and then a somewhat longer period of apyrexia; after three or four attacks the disease comes to an end. The main difference observed in the African disease is that the individual attacks are of much shorter duration; a period of more than three days is unusual, even in first attacks. It is also found that in the African variety of the disease the number of parasites demonstrable in the blood is much less than with the European infection. Dr. Koch quotes a case in which, on the first day of the attack, only one spirochaete was discovered after careful searching of several preparations; on the second day only one was found; whilst on the third day the total number discovered was five. These results are, he says, typical of African relapsing fever. With the European form of the disease, on the other hand, it is usual to find as many as half a dozen spirochaetes in one microscopic field. In their morphological characteristics the European and the African spirochaetes closely resemble one another. Dr. Koch is, however, inclined to think that the African form tends to be slightly longer, a tendency which he associates with the greater difficulty which it finds in multiplying in the blood stream. According to Schaudinn, the morphology of the spirochaete is not permanent, but merely marks the developmental stage of a trypanosome; he maintains that it is possible, on minute examination of the spirochaete, to detect the rudiments of the more complicated structure of the latter organism. Dr. Koch has failed to corroborate this view, and has not, after the most careful examination, found any indication of that more complicated structure to which Schaudinn refers.

Passing on to consider the history of the microorganism in its intermediate host, the tick, Dr. Koch states that he has made daily examinations of ticks which have sucked the blood of patients, and of monkeys suffering from relapsing fever. During the first and second days he finds no change in the appearance or number of the parasites which the tick has absorbed; subsequently they decrease in number, though not altering morphologically, and by the fourth day they have disappeared from the stomach of the insect. But though absent from the stomach, they are soon found in increasing numbers in the ovaries; in this situation they multiply into dense masses. This observation naturally suggested the importance of an examination of the eggs. In about one egg out of every five Dr. Koch succeeded in detecting them. Immediately after the eggs were laid the number of spirochaetes they contained was scanty, but as the eggs grew older the spirochaetes increased in number and became aggregated into masses. As the embryo developed the parasites became more difficult to trace, and Dr. Koch is not able to say whether they find their seat of election in any particular organ. But they certainly do not disappear, because the young ticks which develop can convey infection with certainty when placed on the skin of monkeys. In order to secure the success of this experiment great care is necessary, and a large number of ticks must generally be used. This infection of monkeys with freshly-hatched ticks which have not come into contact with any material containing spirochaetes is obviously of high significance in its bearing on the etiology of this disease, and also forms a valuable contribution to the general study of the paths of infection in disease and their relation to biological processes. Dr. Koch naturally lays great stress on these considerations, and, e are glad to see, acknowledges that these facts have en established by Dutton and Todd.

---

[1] *The Nature of Human Tick Fever in the Eastern Part of the Congo Free State.* By J. E. Dutton, M.B., and J. L. Todd, B.A., M.D. With an appendix by Robert Newstead, A.L.S, F.E.S. Williams and Norgate: London. 1905.

[2] *Berliner klin. Wochenschr*, February 12th, 1906.

Having fully established the etiological significance the tick, Dr. Koch next proceeded to investigate the nge of distribution of these infection-bearing insects. e made a journey along several of the important ravan routes, and had ticks collected at every place iere he stopped. The total number of ticks examined this expedition was 645; out of these, 71, or 11 per nt., were found to be infected. The infection, more- r, was not confined to a few particular localities; on contrary, in almost every place where a search was de, some of the insects, though not always the same portion of the total number examined, were found to tain the spirochaetes. The infection, therefore, was seminated along the whole of the caravan routes. r were the parasites confined to these routes. Search made in outlying villages which did not come into tact with the caravan traffic; here, again, ticks were rywhere abundant, and amongst the ticks were many ich contained spirochaetes. The organism of relaps- fever, therefore, appears to be generally distributed ughout the land. But in many places, though cted ticks abounded, there was no evidence of psing fever. From this fact Dr. Koch infers that natives had acquired the infection in childhood, and then become as immune from further attacks as opeans are from measles.

the therapeutics of relapsing fever Dr. Koch has no observations to make. Quinine is quite useless, has any other remedy been found which can be rded as specific, though, as the disease is one h readily lends itself to animal experiment, we no reason to assume that a reliable cure will not tually be discovered. But if therapeutic measures not, at present, of much use, prophylaxis is easy. ticks do their work in the night, and never travel way from the dry earth of the infected huts where breed. If travellers in these districts take the le precaution of sleeping at a distance of some yards from any spot which has been previously as a camping ground they need not fear infection.

EPSOM COLLEGE.

HEW ARNOLD says it is the function of a journal to known the best that is thought and said through- he world. This function, within our own sphere, our utmost to fulfil. But there is another func- that equally belongs to us: to make known to the al profession whatever concerns its own interests. l be admitted that not the least of these interests education of our sons. In many instances they stined to succeed us when our place knows us no For the most part, however, fields of work must nd for them in other directions. In these days, the struggle for existence grows ever fiercer, a ng which promotes the development of all the ies of mind and body is a matter of constantly- sing importance. Comparatively few among us ford to send our sons to the historic schools of nd where for centuries the men who have made story have been trained. But the fact is not yet ntly appreciated that equal educational advan- can be had at a fraction of the cost at a school though in the largest sense public, has a special tion with the medical profession. We consider ty, therefore, even at the risk of appearing impor- to call the attention of our readers once more to ucational work which is done by Epsom College.

As a good deal of misconception still exists not only among the public but among members of the profession as to the character of the school, a brief history of its foundation and development may not be out of place. Epsom College owes its existence to a large-hearted medical man, the late John Propert, whose name should be held in ever-grateful memory by the profession. The foundation stone was laid in 1853, and the school was opened in 1855 by the late Prince Consort, who was accompanied on the occasion by his eldest son, now the gracious Ruler of these realms. The stress of financial necessity compelled Mr. Propert and the friends who supported him in his enterprise to give the institution which they founded the name of "Royal Medical Benevolent College." This title not unnaturally led to a widespread belief that the College was a charitable institution intended for a particular class. Yet it was well known to those who were associated with the "pious founder" that, although his object was primarily to help his less fortunate brethren and to bring a first-rate education within the means of the bulk of the profession, he had distinctly in his mind the idea of a school of the same character as the great public schools, and not limited to any class. The institution had indeed a medical foundation, inasmuch as provision was made for fifty foundation scholars who must be sons of medical men; but in this Epsom does not differ from schools like Wellington and Marlborough, which, while receiving boys of all classes, give special privileges to the sons of deceased army officers and clergymen respectively. The original name proved to be such a hindrance to the development of the school along the lines projected by its founders, that in 1903 the governors decided to get rid of the terms "medical" and "benevolent." The name was accordingly changed to Epsom College.

Nevertheless, the idea that the College is a charity school for the sons of doctors still survives to a large extent. How unfounded this notion is may be gathered from the prospectus which appears as an inset in this number of the BRITISH MEDICAL JOURNAL. The appearance of that prospectus in so conspicuous a place may be taken as an indication that the governors of Epsom College feel that neither the character nor the scope of its work is yet sufficiently known to the medical profession. The document speaks for itself, and we need only direct the attention of our readers to it. All that need be said here is that we are able, from personal knowledge, to testify to the completeness of the equipment, the high quality of the teaching, and the excellence of the arrangements for the comfort and health of the boys. In the matter of laboratories, the College is better provided than some medical schools were twenty-five years ago. It is now recognized by the Colleges of Physicians and Surgeons as a "School of Science" where students can be prepared for the greater part of the First Examination. A valuable addition to the equipment for scientific teaching has lately been made by the Council, which has given the school the ground and the material for the formation of a botanic garden. How careful the governors are to maintain the sanitary condition of the school at the highest attainable degree of perfection is shown by the fact that the drainage system has quite recently been relaid at a cost of nearly £8,000, an expenditure which, though felt to be necessary, has crippled the resources available for other purposes.

The best test of efficiency is achievement. Tried by this test Epsom College need not fear comparison with any school of its size either in regard to the university distinctions won by the boys it has trained, to the number for whom it has been the means of opening the portals of the various professions, or to the success achieved by those whom it has armed for the battle of life. A school which numbers among its pupils such men as Sir Augustus William Watson Hemming, G.C.M.G., of the Colonial Office, Sir H. H. Pinching, K.C.M.G., Director-General of the Sanitary Department, Cairo, Dr. Goodhart, Mr. Henry Morris, Surgeon-General Branfoot, C.I.E., and Mr. Bilton Pollard, to mention only the first names that come to mind, must be held to be fulfilling, to the full measure of its opportunities the function of training what Lord Rosebery calls an Imperial race. How well, in particular, the College prepares boys for the medical profession is sufficiently attested by the fact that at the present time there are no fewer than twelve old Epsomians on the staffs of the London hospitals, besides a number who hold corresponding positions at provincial hospitals. Surely an excellent record for a school of 234 boys!

Enough has been said to prove that Epsom College deserves to rank as a first-class public school, both in respect of the opportunities which it offers and of the work which it is doing. But progress is the law of healthy life for institutions, and to be stationary is the first step to decay. At the present day no institution, however good, can afford to blush unseen. Epsom needs to be better known to grow to its full measure of efficiency and usefulness. A school which has been the foster-mother of so many men who have worthily played their part in the great warfare against disease and suffering should not appeal in vain to the medical profession for support.

PROPOSED APPLICATION FOR A CHARTER.

The draft of a Royal Charter of incorporation for the British Medical Association, prepared under the circumstances fully set out in the introductory report and explanatory memorandum, is printed in the Supplement for this week. The draft consists of the Charter proper (pp. 113-118), the proposed Ordinances (pp. 119-126), and the proposed By-laws (pp. 126-137). The whole is by this publication submitted to the constituent bodies (Divisions or Branches) of the Association for their consideration. Appended to the explanatory memorandum is an estimate of the probable cost of obtaining a charter if the application is not opposed. It is only an approximate estimate, as much will depend on whether the Representative Meeting direct many alterations to be made in the draft and on their nature. Should the application be opposed the estimate would probably be exceeded, but to what extent it is not possible to say.

THE COMING ELECTION TO THE GENERAL MEDICAL COUNCIL.

The election of direct representatives for England and Wales on the General Medical Council takes place this autumn, and, as will be seen from the announcements published in the Supplement to the British Medical Journal during the last few weeks, a number of candidates have been nominated by the Divisions of the British Medical Association under the scheme published in the Supplement of October 7th, 1905. To that list must be added the names of Dr. L. S. McManus, Representative of the Wandsworth Division, and a member of the Medico-Political Committee, nominated by the Stratford Division; and Dr. Frederick J. Smith, Honorary Secretary of the Metropolitan Counties Branch, also nominated by the Stratford Division. The other candidates who have been duly nominated by Divisions are: Dr. Langley Browne, Chairman of Council of the Association; Mr. J. F. Bullar, M.B., a member of the Council of the Southern Branch; Mr. Andrew Clark, F.R.C.S., late Chairman of the Central Council, and now President of the Metropolitan Counties Branch; Mr. George Jackson, F.R.C.S., one of the sitting members, President of the South-Western Branch, and a member of the Medico-Political Committee; Dr. H. A. Latimer, Chairman and Representative of the Swansea Division, and a member of the Medico-Political Committee; Mr. J. Rutherford Morison, F.R.C.S., a member of the Council of the North of England Branch; Dr. J. Milson Rhodes, Chairman of the South Manchester Division of the Lancashire and Cheshire Branch; and Mr. C. R. Straton, F.R.C.S.Edin. (Salisbury), member of the Central Council and of the Medico-Political and Colonial Committees. Nominations can be received until March 31st. After that date the Medico-Political Committee will prepare a complete list of persons nominated, and each constituency in the Association will be requested to adopt such resolutions as may enable its representative at the Annual Representative Meeting in London in July to give effect to the wishes of the constituency. A special meeting of Representatives of Divisions in England and Wales will be convened during the Annual Representative Meeting to select from the list of persons nominated by the Divisions two persons for nomination as candidates for election to the office of Direct Representative on the General Medical Council, and every effort will be made by the Executive of the Association to secure the election of these two candidates. The candidates have been required to sign a declaration, stating that if elected they will in every way endeavour to give effect to the wishes and opinions of the British Medical Association as lawfully declared for the time being by the bodies constitutionally authorized to express such wishes and opinions. The candidate is also required to declare that if not selected for nomination by the Association he will not allow himself to be selected in opposition to any candidate so selected.

NORTHUMBERLAND MINERS AND THEIR MEDICAL OFFICERS.

Another stage has been reached in this controversy. When the 9d. contribution was gained some five years ago each colliery acted alone, some granting the increase promptly, some resisting for a time, some bringing in an outsider. On the present occasion the leaders in the movement for a reduction determined to make a Miners' Association affair of it, and succeeded in getting the Association to form a Doctors' Fees Committee, and this Committee has been the medium through which all negotiations have proceeded. The result of this move was to make the matter a county one, and collieries which had no desire to lower the fee were in some cases prevented from saying so outright by the fear that by so doing they would act disloyally. However, inquiries at head quarters made it clear that if any colliery wished to make an arrangement with its own medical officer at the old fee it was at liberty to do so, and at once, as previously reported, the majority of collieries not only agreed to go on paying the ninepence but set on foot an agitation to abolish the Committee, the reason for whose continued existence they did not see, it having failed in its avowed object to induce the medical officers to reduce their fee. A ballot of the whole of the collieries was taken, and the result, which was ascertained on March 17th, shows a large majority in favour of abolishing the Committee. This means that the great part of the collieries of Northumberland agree that the sum of ninepence a fortnight, for which the profession has been striving for years, is to be looked on as the standard fee payable to the colliery doctor. This is, of course, very gratifying, but the fight is not quite won. The collieries at which the spirit of dissatisfaction was most intense, are still at liberty to make arrangements at a lower rate if they so choose, and two or three collieries are doing so. As no local medical man will accept the lower fee these places are striving to bring in outsiders, and we hear hat at three places they have succeeded. The *modus perandi* at Ashington, the largest of these collieries, s to canvass the colliery workers, asking for signatures o a document promising to pay the sum of sixpence a ortnight to the unnamed doctor who is to be engaged y a Committee, this contribution to be kept up for hree years. It is understood that by advertising this Committee has succeeded in engaging a practitioner, who probably little understands the very uncomfortable position in which he is placing himself. The anvassing for the new medical officer and the extreme ressure that is put on the miners to discard their resent attendant may, however, lead to further ction. The splendid loyalty of the medical men to ie conditions laid down for their guidance by the orthumberland Committee of the North of England ranch is worthy of all praise, and the reorganization the Association has abundantly justified itself in this strict, inasmuch as it has enabled the matter to be alt with by the whole force of a large Branch, with e solid support of a great Association and its URNAL. The assistance given by Mr. Rutherford orison must also be mentioned, as from his prominence in the profession and the entirely disterested position which he occupies in this matter has been able to add a weight and a moral pport which have been invaluable, while the uning spade work of Dr. Alfred Cox, the Honorary cretary of the Branch, deserves, and we have no doubt ll receive, the amplest recognition.

WARNING NOTICES.

LSEWHERE will be found a full account of the action ken by the South Wales and Monmouthshire Branch the British Medical Association to form a special mmittee and a special emergency fund for dealing h disputes as to contract practice within the area of Branch. The nature of the disputes now existing s been explained in the columns of the BRITISH DICAL JOURNAL from time to time, and warning tices appear among those inserted weekly in the ertisement columns. The Committee formed in the nch contains representatives of the Branch Council, the various Divisions, and of the Cardiff, Swansea, Newport Medical Societies. It has Mr. D. J. liams, F.R.C.S., of Llanelly, as Chairman, and Dr. en J. Maclean, 12, Park Place, Cardiff, as Honorary retary; two subcommittees, one for dealing with putes at works and collieries, and the other general contract matters, have been formed. ticulars of the mode in which the contract tice fund is being formed are given elsere, and it will be observed that already the unt received in special foundation subscriptions unts to over £150. It will be remembered that a tral emergency fund has also been opened under authority of the Central Council of the British ical Association;[1] it is to be applied in the stance of members of the profession in any part he country, to maintain the interests of the proon against organized bodies of the community. fund will be under the control of the Medicoical Committee, and is vested in the names of the rman of the Committee and the Treasurer of the ciation. It will be administered by the Medicoical Committee. As is well known, cases of considerable hardship arise during the course of disputes, in which members of the medical profession may be called upon to vacate appointments in the general interests of the profession and the community. This has long been realized, and the formation of the funds makes a practical step towards remedying an admitted evil. A list of all the districts in which disputes exist, rendering it desirable that medical men should make full inquiry before accepting appointments within them, will be found at page 63 of the advertisements.

THE SWEET REASONABLENESS OF THE ANTIVIVISECTIONIST.

AT the annual meeting of the Liverpool and Birkenhead Branch of the National Antivivisection Society held recently the report on the year's work stated that "Dr. Charles Reinhardt (London) had taken part in "a series of debates in Liverpool, Garston, Port Sun-"light and Liscard, in each case receiving by a "large majority a vote in favour of antivivisection." How these large majorities are obtained may be inferred from the reports of similar meetings elsewhere. Thus at a meeting held at Hampstead a week or two ago, Mr. J. S. Fletcher, M.P., in the chair, the same Dr. Reinhardt of London, and Lady Pender were allowed to deliver themselves of the usual rant about the cruelties practised in laboratories. When Professor Starling asked leave to move an amendment, the Chairman said he could not allow that, and the audience showed the judicial spirit in which they. approached the question by shouting the professor down He was about to leave the platform when the Chairman' in whom apparently some lingering sense of fair play was awakened, recalled him and invited him to proceed. Professor Starling's speech was, however, constantly interrupted with hootings and hisses. And yet Hampstead boasts itself the centre of suburban culture and intellectualism! Another illustration of the sweet reasonableness of the antivivisectionist is afforded by Lady Pender's statement at Liverpool that "an "outsider would be inclined almost to commit murder if "he saw the cruelties practised, and which would be "found recorded in the medical press." Naturally that model of urbanity, Mr. Stephen Coleridge, gives a still better example of the fine humanity which is the badge of all his tribe. The Home Secretary having, in reply to a question in the House, stated that he was advised that certain experiments made by Dr. W. Bain "could not properly be described as painful," the Honorary Secretary of the National Antivivisection Society said that "all a plain man can say in com-"ment on such a reply is that he would view "with absolute satisfaction the application of a "precisely similar experiment upon the body of this "adviser of the Home Secretary, with the object of "enabling him to confirm after seventy days of it "the opinion he has given of its painlessness." At Hampstead the amiable lady whose benevolent quasi-suggestion we have quoted, said that "they must not "be gulled into the belief that because a man was "very eminent, he did not require supervision. "They supervised every one else, and why were "they to be told that the medical man was the only "one who was not to be overlooked?" The medical profession has no objection to supervision by competent authorities. But may we be allowed, like Mr. Chucks, to observe in the most delicate way—just to hint—that as everyone has to be supervised, it might not be amiss that supervision should be extended to the antivivisectionists themselves? To judge from their utterances about each other, they are animated by a spirit which can scarcely be called philanthropic. A meeting of Mr. Coleridge, Mr.

---

[1] SUPPLEMENT, January 6th 1906, page 6.

Sidney Trist, Secretary of the London Antivivisection Society, Dr. Hadwen, Honorary Treasurer of the British Union for the Abolition of Vivisection, and Mr. F. E. Pirkis, Treasurer of the Canine Defence Lergue, would need strict police supervision if bloodshed were to be avoided. What meaning the antivivisectionist mind attaches to the word discussion was amusingly shown at a meeting of the Ealing and Acton Branch of the British Union for the Abolition of Vivisection recently held under the presidency of Mr. Herbert Nield, M.P. The Chairman said he was present to listen, and he would listen most attentively, and he was perfectly sure he would treat the subject perfectly fairly; it was his duty to hear both sides of the question and form his opinion. The value of this profession of an open mind was, however, somewhat discounted by the fact that Mr. Nield had already stated that he had willingly consented to support a Bill for the exemption of dogs from vivisection, and expressed strong opinions as to the "torture" of animals in scientific research. Are we to infer from this that the honourable member expresses opinions before he forms them? This is what a good many politicians do; but it is rare to find one so frankly admitting the fact. Notwithstanding the chairman's declaration of impartiality, some doubt seems to have been felt whether the discussion to which he came to listen would be allowed. Mr. Sydney Holland asked the question, pointedly adding that at the last meeting held at Ealing, when the discussion was started, all the gentlemen on the platform had to catch a train. That there was some warrant for the doubt became apparent when, after a long tirade by Dr. Hadwen, the chairman announced that he would allow twenty minutes for "questions." On Mr. Holland's urging that he could not be expected to answer an hour's speech in questions, the open-minded chairman explained that he "put it that way "because by this means we are only having another "speech on the other side." We are as curious to have Mr. Nield's notion of a discussion as Mr. Pecksniff was to have Mrs. Todgers's idea of a wooden leg. The audience, however, insisted on hearing Mr. Holland, and Dr. B. J. Collingwood was able to convict the *Abolitionist* of serious misstatements in regard to certain experiments published in the *Journal of Physiology* for May, 1905. It should be added that the editor of the *Abolitionist* has since recognized and admitted the inaccuracy of the statements and apologized for their publication. The meeting was a stormy one, but it is gratifying that the voice of Truth for once succeeded in making itself heard.

BIOLOGY AND PHYSICAL DEGENERATION.

IN his address to the Sociological Society last week, Professor A. Thomson of Aberdeen offered no encouragement to those who would treat problems of sociology as if they were merely problems in the science of which Professor Thomson himself is a distinguished exponent—biology. A societary unit such as a nation or a tribe is a synthesis by itself, and Professor Thomson argued that inductions in respect of its behaviour can no more be imported from biology than can those of biology be borrowed from physics. The organism constituted by the societary synthesis must, he contended, be studied by itself, and any attempt to do otherwise is not only an inaccurate materialism, but involves a clashing of biological with sociological ideals. His condemnation of the fashion of applying the laws of the older science to the phenomena of the newer did not, however, lead Professor Thomson to recommend sociologists entirely to close their eyes to biological generalizations, such as those concerning variation, modification, heredity, selection, and isolation. On the contrary, he indicated that provided the essential limitations were steadily kept in view, they might be utilized as supplying a general scheme of sociologica analysis, while some of them would help to make socia phenomena more comprehensible. He himself appeared to think that in man variation counts but little, and modification, as brought about by environment for much. The continuance of almost identica environment generation after generation even accounts for much of what is apparently due to heredity. When we came to selection, the biological generalizations concerning it may be held true of sociology, but before they can be applied deliberately as part of a scheme of social reform, a closer agreement as to what is to be selected must be reached. This will not be an easy task if biologic experience be borne in mind. Thus (1) many variations are unknown quantities—the unpromising bud may burst into fair flower; (2) many of the apparently unfit are only modificationally unfit, ill-nourished plants in a crowded garden; (3) though pronouncedly evil characteristics have often great power of persistence, they also tend to work themselves out; (4) where Mendelian phenomena of inheritance occur we should be slow to say that it is not possible to get a clean thing out of an unclean. As for the existing state of affairs, Professor Thomson appeared to think a certain amount of disquietude was justified by the relative infertility of the apparently socially fittest, but he in no wise indicated that any support could be obtained from biology for those who would attempt to improve the race by surgical procedures and marriage legislation. Indeed, his advice that the social reformer should add to his *credo* "Eutopia" and "Eutechnics" as well as "Eugenics" would appear to indicate that his views do not materially differ from those so often supported in these columns—namely, that the path towards social regeneration and improvement lies in the application of medical common sense to methods of education, to the regulation of factory and other labour, and to the conduct of life in the home.

RURAL DEPOPULATION.

IT appears to be admitted by social reformers that every effort must be made to check the depopulation of the rural districts. It is only when the causes of, and therefore the remedy for, this depopulation come under discussion that a difference of opinion arises. Hitherto it has been too much the custom to attach undue importance to one cause while ignoring altogether the presence of others, so that Mr. Rider Haggard is to be congratulated upon the very broadminded manner in which he approached the subject at the conference recently held under the auspices of the Garden City Association and reported elsewhere in this issue. He would not admit that one cause alone was responsible for the steady decline in the population of the rural districts which has been going on for the past thirty years, but contended that the reasons were many and varied. They included, in his opinion, the lack of prospect of improvement in the country, the life of constant, monotonous toil with a stationary wage and the workhouse at the last, the attractions of a town life, and unquestionably the lack of housing accommodation. It is this last aspect of the question with which we are more particularly concerned, freely conceding that though a principal factor, it is by no means the only one to consider in an attempt to arrive at a solution of the problem presented by this rural exodus. In the book upon the conditions under which many of the inhabitants of country districts live which Mr. Haggard wrote a few years ago, many cottage dwellings were described from actual observation which ought not to have been tenanted; and there are not many medical officers of health in ral districts who have not had at some time or other deplore the existence of houses which are distinctly the border-line of those which may be occupied and ose which should not. One of the latest issued reports om the medical department of the Local Government ard contains passages which, though referring to the using of the working classes in the rural district of aford in Lincolnshire, might very well have been itten to describe conditions which are to be found in ny another rural district in England and Wales. . Darra Mair, the writer of the report, says that the sing accommodation stands in need of detailed pection; with certain exceptions no control is exered over the structural condition of new houses, and y many houses which were in need of eaves-spouting e to be observed in practically all parts of the dist. Lack of eaves-spouting, Dr. Darra Mair very perly says, leads to dampness of the foundations of ouse, and no doubt may thus be responsible for ry to the health of the inmates. It is not a little arkable that the owners of cottage property do not lize that to leave a building without eaves-spouting carry off the rain is to shorten the life that building by many years, quite apart m the shortening of the days of the inmates. first step on the road which ends in condemnation nfit for human habitation is taken when a house is dered damp by the absence of eaves-spouting. The trickling down the outside of the walls disgrates the mortar, soakage into the foundations s to the mischief, wall papers and then plaster fall and the house becomes just such as may be seen in oo many of our country districts. It ought never ave arrived at this stage, and never would if the er or his agent had been prudent enough to spend w shillings at the proper time upon the refixing or wal of the eaves-spouting. There are many other litions, such as a damaged roof, which, if ected, hurry a house on to still further and e irremediable dilapidations. It is not too much to that if the owners of such cottages had only been a more alive to their own interests, to say nothing e interests of their tenants, there would be less ssity than there is at present for the erection of ely new cottages by landlords, who, as Mr. Rider gard reminds us, are not, as a rule, rich, and who ot afford to build without a prospect of suitable est. If they continue to ignore, as some of them the necessity for repairs, even the cottages they dy possess will cease to be interest-bearing, and ural population will be still further depleted.

THE ABROGATION OF THE ALIENS ACT.

Home Secretary has issued an Order directing whereas formerly, on the grounds of economy, l batches of aliens—that is to say, batches numberess than thirteen—were allowed to land without ction, that number shall now be raised to twenty. ost of applying the Act to every port where ships t arrive with one or two foreigners would have enormous and quite unnecessary. The alien laws irected chiefly, if not entirely, against the wave of gration through Riga, Bremen, and Hamburg to ountry. They would not have been enacted had been for the fact that America, by selecting the or herself, leaves the worst class for England. By licious observation of the arrivals on non-immi- ships, it would have been easy to have named the trafficking in undesirables, and to have brought lines under the Act by special order. The naming y single line would have certainly acted as a ful deterrent to others from indulging in the same of traffic, as the delay occasioned by inspection a loss which cannot be covered by the passage money of some dozen immigrants. With this power in his hands, with the knowledge that Russian undesirables are, in fact, being brought over in small numbers, and can only be stopped by the moral effect in the ports of embarkation of rigid measures at home, the action taken by the Secretary of State is very open to criticism. By raising the number of undesirables that a ship may bring with impunity from 12 to 20, he has relieved the minds of the less scrupulous shipowners of any fears they may have entertained as to the consequences of bringing the leavings of regular immigrant lines. By a memorandum to immigration officers he has expressed a desire, which is tantamount to an order, that leave to land should be given to any immigrants who allege they are flying from persecution in disturbed districts, and that where any doubt exists as to the truth of an alien's statement to this effect, the benefit of the doubt should be given to the alien. Medical inspectors are asked to be mindful of the fact that cruel hardship might result to any alien in a critical state of health, should he be peremptorily ordered back to his own country. In one brief debate, the reports of which are in the hands of all the powerful agencies who encourage this tide of immigration for profit or from motives of racial sympathy, the moral effect of the Act has been destroyed, not so much by this or that new regulation or memorandum as by the patent disloyalty of the Home Secretary to the spirit of the provisions, which he has so manipulated as to render the Act a dead letter. With a delicate irony he has asked for a period of time during which he may watch the operation of the Act. Given the regulations and the memorandum by which immigration officers are effectually debarred from any kind of useful action, there should be no difficulty in finding at the end of six months' trial that the new law has entailed a vast expenditure with a minimum or even a negative result.

HUMAN AND BOVINE TUBERCULOSIS.

In a recent address[1] Professor Theobald Smith states that his own investigations and those of others have firmly established the conception of two types of mammalian tubercle bacilli, a bovine and a human type. It has also been shown that the bovine type is occasionally present in cases of human tuberculosis. How often the invasion of the human subject with bovine bacilli takes place cannot be stated with any accuracy, but there is, in Professor Smith's opinion, sufficient evidence to disprove the old notion that all tuberculosis originating in the intestinal tract is of bovine origin. Of 5 intestinal cases studied by him 1 was associated with bovine bacilli, and of 12 studied by the German Commission 6 were associated with bovine and 1 with both kinds of bacilli. In order not to exaggerate the significance of these cases of intestinal infection with bovine bacilli we must, he maintains, take into consideration the following circumstance: a certain proportion of the cases are stationary, the disease being restricted to the mesenteric glands. Tuberculosis of intestinal origin is a relatively rare affection, and the possibility must be borne in mind that where tuberculous ulcers due to the human bacillus exist, the bovine bacillus present in the ingested milk might gain admission through these ulcers, though its entrance would have been excluded had the mucosa been intact. It is also significant that in Japan, where milk has a very small share in the feeding of infants, human tuberculosis, including the intestinal disease, is as common as in other countries. When present in man the bovine bacillus has been found to occur almost exclusively in children under 10 years of age, whilst phthisis and the other forms of tuberculosis in adults appear to be almost wholly of human origin. Therefore, in institutions where children are cared for the source of the milk should receive careful attention, and herds belonging to the institution should be free from any trace of tuberculosis.

---

[1] *Boston Medical and Surgical Journal*, January 18th, 1906.

A SCHEME FOR A RESERVE R.A.M.C.

LIEUTENANT-COLONEL VALENTINE MATTHEWS, commanding the London companies of the Royal Army Medical Corps (Vols.) has called our attention to a paper published by him in the *Journal of Preventive Medicine*, vol. xiii, 1905, p. 775. In it he contends that as the officers of the Royal Army Medical Corps are maintained at a strength only a little above the peace requirements of the army, it is necessary to make provision for expansion during time of war, and proceeds to outline a scheme. He thinks that many young medical men who have recently qualified and not settled down to permanent practice would be willing to engage for military service for one year either at home or abroad, if the conditions were sufficiently attractive, and so framed as not unduly to interfere with their future career. During the whole period a reservist medical officer should hold military rank and wear uniform when on duty; in this way he would be placed on a better footing than if he were merely a civil practitioner, and this plan might be the means of inducing him to engage for a second or even a third year. The first four weeks or thereabouts should be spent in some military medical establishment for training purposes, and for the remainder of his time he should be available for service wherever required. As to remuneration, it is suggested that £25 a year clear after paying all expenses would induce a sufficient number of men to undertake the obligation of service. In addition to this the reservist medical officer should during training receive the pay and allowance of a lieutenant, and a grant to pay for uniform; this, it is estimated, would amount together to about £35, and when on actual service he should be paid at the same rate as a lieutenant, Royal Army Medical Corps. Lieutenant-Colonel Matthews points out that the average number of names added yearly to the *Medical Register* during the five years 1900-4 was 1,268, and he expresses the opinion that if steps were taken to make the reserve widely known throughout the country, about a third —say 400—would be available annually, that about a hundred of these would engage for a second year, and perhaps some fifty for a third year. On this basis it is calculated that in three years there would be 550 reserve medical officers at a cost to the country of £29,250, not a large sum to pay for the right to command the immediate services of a body of highly-trained professional men. The main points of the scheme are: (1) The limit of obligation for a year at a time with liability for a year's service if actually called out for service, from the time of being called upon. (2) The choice of serving abroad or at home as far as the exigencies of the service permit. (3) Military rank and status. (3) A clear £25 a year after payment of all expenses.

VOLUNTEER MEDICAL ORGANIZATION.

THE Central Council of the Association, at its meeting on March 14th, passed unanimously a proposal brought forward by Mr. Andrew Clark to appoint a Special Committee to inquire into the existing constitution of the Volunteer Medical Service, with a view of ascertaining whether it can be rendered more serviceable. It is proposed that the Committee should consist of medical officers representing all branches of the volunteer medical staff—that is to say, the medical officers of brigades, the volunteer medical staff corps, the bearer companies, and the regimental surgeons—and that in selecting its members regard should be had to the varying conditions in London and other large towns and in the country. Mr. Andrew Clark is himself brigade-surgeon-lieutenant-colonel to the 3rd London Volunteer Infantry Brigade.

THE PLAGUE IN EASTERN PERSIA.

ACCORDING to the report of the last two meetings of the Conseil Sanitaire at Teheran, plague broke out in January in Seistan, near Housseinabad, and close to the western border of Afghanistan. Many of the villages on Lake Neissar are infected, and the malady is of a virulent type, the pneumonic as well as the bubonic form occurring. Of 135 cases seen by an English doctor, whose name is not given, no less than 133 proved fatal. The disease is spreading southwards. A military cordon, apparently, checks its advance to the north, and, to the east, quarantine exists on the Afghan border on all the Seistan roads. The President of the Conseil Sanitaire, Dr. Schneider, gave some interesting details of the tribes round Lake Neissar. The northern portion of the lake is partly dry marsh, and can be crossed in six hours' travel. The affected district lies to the east, where the Sayyad tribe, a race of wildfowl hunters, and the Gawdars, a buffalo-rearing people, live. The latter dwell in the winter in huts by the waterside, and in summer in shelters built of reeds on artificial clay islets in the lake itself, their buffaloes living on the reeds. From time to time fresh islets and huts are built, but the people live a quite isolated and very primitive life, and are apparently in a chronic condition of famine, their bread being mixed with dried intestines and the pith of reeds. The appearance of plague among them is rather remarkable, for there is no case of the disease in Baluchistan, and there is no clue as to its origin. The President reported that the plague in Kurdistan, which has now become permanently established there, is of the pestis minor type, and is rarely fatal, but he laid stress on the fact that at any moment, under favourable conditions, the disease may assume a dangerous form.

SLEEPING SICKNESS.

THE Governor-General of the Soudan has appointed a Commission to investigate the possibility of the extension of "sleeping sickness" into Soudan territory. The Commission is to consist of Lieutenant-Colonel G. D. Hunter, D.S.O., P.M.O. Egyptian Army; Dr. Andrew Balfour, Director Wellcome Research Laboratories, Khartoum; a British medical officer, Egyptian Army, or medical inspector, Soudan Medical Department, or such members as may be hereafter appointed. The points to be investigated are: (1) To ascertain the distribution of various species of tsetse flies or other biting flies in the Soudan; (2) to ascertain if the disease at present exists in Soudan territory—if so, to determine the exact areas, and to what extent the distribution of the disease coincides with the presence of the tsetse or other flies in these areas; (3) a systematic investigation of the blood of a population in an infected district; (4) a thorough and complete research into the character of the disease, especially as regards its origin and spread.

BEFORE leaving India the Prince of Wales, by command of the King, held an investiture, when honours were conferred on those who had been most directly responsible for the uninterrupted smoothness of the tour which their Royal Highnesses have made. Among those who were invested with the insigna of a Knight Commander of the Royal Victorian Order was Lieutenant-Colonel Richard Havelock Charles, M.D., F.R.C.S.I., professor of surgical and descriptive anatomy in the Medical College, Calcutta, and surgeon to the Medical College

Hospital. Sir Havelock Charles, who entered the Indian Medical Service in 1882, was formerly a professor of anatomy and comparative anatomy at the Lahore Medical College, and is well known not only as a successful surgeon but for his writings on anthropology and anatomy.

Medical Notes in Parliament.

[From our Lobby Correspondent.]

Pharmacy Bills.—On Tuesday Lord Crewe moved the second reading of the Poisons and Pharmacy Bill in the Lords. He said the Bill was similar to one the late Government had intended to introduce. The first clause incorporated the additions made to the schedule of poisons, the second clause modified the conditions for the sale of poisonous substances used in agriculture and horticulture. The third clause provided that qualified chemists must be employed in all branch establishments; and Clause 4 dealt with shops carried on by companies, and provided hat a qualified chemist should be in charge of each establishment under penalties directed against the manger, and the chemist. The Government did not propose o interfere with the carrying on of the companies' shops. Colonial diplomas were to be recognized by the Pharmaceutical Society under the fifth clause, and the remaining lauses dealt with minor matters. Ireland was excluded rom the operation of some of the provisions of he Bill, but Lord Donoughmore asked for complete xclusion. Lord Monkswell said the Pharmaceutical ociety wished to make the clause dealing with companies trading as chemists more stringent in some espects. Lord Londonderry and Lord Halsbury pointed ut the difficulties of this kind of legislation, and he Bill was then read a second time. There is also Bill before the Commons promoted by the Pharmaeutical Society, and which deals with the same points. his measure is in charge of Mr. Winfrey, and will no oubt be considered with the Government Bill when the tter comes down from the Lords.

The Coroners Bill proposes to dispense with the comulsory viewing of bodies on the holding of coroners' quests. It is a short Bill of three clauses, and gives the roner or a majority of the jury the right to decide to ew the body if necessary. The measure is introduced by r. Luke White, who is a coroner himself, and is backed Mr. Bransdon, Mr. John Wilson, Mr. Cameron, Mr. oulmin, Mr. Arthur Henderson, and Mr. Summerbell.

Vaccine Lymph.—On Monday Sir William Collins asked e President of the Local Government Board whether he ould state what were the original sources of the lymph pplied from the National Vaccine Establishment; and hether any of the lymph supplied from that establishent had been derived directly or indirectly from the articial inoculation of calves with human small-pox. Mr. hn Burns replied that the lymph supplied by the tional Vaccine Establishment was in all cases derived rect from the calf, had been passed through a series of lves, and was in no instance directly derived from the tificial inoculation of calves with human small-pox. The ual method of renewing lymph for supply from the tablishment was by vaccinating calves with vaccine mph obtained from children, but it could not be stated hat this was always so.

Adulteration of Food—Mr. Young asked the First Lord of the Treasury whether, seeing that the Sale of Food and rugs Act only defined in general terms what constituted adulteration, the Government would consider the advisality of appointing a permanent board of reference, to hich appeals might be made for guidance and authoritative advice touching the permissible composition, and the finition and the brands which should be used in the sale of food and drinks. Sir H. Campbell-Bannerman replied that the establishment of a board of reference empowered to prescribe standards of quality and purity of food had been more than once suggested, and he might add that some authority of the sort appeared to him to be indispensable if the intentions of Parliament with respect to the administration of the laws affecting adulteration were to be rendered effectual. He was advised, however, that legislation would be necessary for the purpose, and the Government saw no prospect of introducing such legislation during the present session.

The Sale of Butter Bill, which has for some years failed to pass the Commons, has this year given rise to a Select Committee to consider the butter trade and the many qualities and varieties of butter on the market. The Committee consists of Mr. Dalziel, Sir E. Cornwall, Mr. Courthope, Mr. Lonsdale, Mr. Steadman, Major McMicking, Mr. Scott, Mr. Jas. Stuart, Mr. Osmond Williams, Sir E. Strachey, Mr. Warner, Viscount Morpeth, Mr. Hicks-Beach, Mr. Flynn, and Mr. Lundon. There was a good deal of comment on the composition of the Committee among the members of the House, and surprise was generally expressed that no medical man had been put on a Committee of this nature.

The Pure Beer Bill occupied the greater part of the afternoon of March 16th, and produced an interesting discussion. The Bill had been altered from that of 1903 and was much less drastic in its provisions, mainly seeking to enforce the production of barley beer, or beer in the making of which the saccharine matter should to the extent of 85 per cent. be derived from barley malt. The quasi-scientific discussion of former years on the chemistry of beer and the origin of arsenic in glucose were absent. After a dozen speeches, and when the Secretary of the Treasury had shown that the Bill, as it stood, was unworkable, it was rejected by a majority of 55.

Asylum Attendants and Lunacy.—Mr. James Parker asked the President of the Local Government Board whether his attention had been called to the number of working hours, ranging from fourteen to sixteen hours per day, worked by asylum attendants, and the percentage of these attendants who ultimately suffered from lunacy; and whether he was prepared to cause an inquiry to be made into the subject. Mr. John Burns said in reply that his attention had not been called to this matter, but he would cause inquiry to be made from the Lunacy Commissioners.

The Pimlico Clothing Factory is still the subject of questions by Sir Charles Dilke as regards its ventilation and inspection. This week he has obtained a promise that the plans for better ventilation shall be expedited, and has also elicited from the Home Secretary that His Majesty's women inspectors have free access to the factory.

Insanitation at Bromley.—Mr. Brooke last Monday called the attention of the President of the Local Government Board to the insanitary condition of the property between Bow Road and High Street, Bromley, E.; and Mr. John Burns stated that he was aware of the condition of the property referred to. He had communicated with the County Council, and was informed that they had considered the question of using some of this property as a site for an electric car shed, but it was found to be unsuitable for the purpose.

The Police and Sanitary Committee, which has charge of all the questions of public health touched on in private Bill legislation, has this year been constituted as follows:—Chairman, Mr. J. W. Wilson; Captain Balfour, Mr. C. Devlin, Mr. Corrie Grant, Mr. Hall, Mr. Helme, Mr. William Jones, Mr. Jowett, Mr. Layland-Barratt, Mr. S. Roberts, and Mr. Abel Smith. There has been some comment on the fact that although there are several medical members in the House not one has been placed on this Committee, where some special knowledge of public health might be most valuable.

The Prevention of Corruption Bill has passed through its stages in the House of Lords and has come down to the House of Commons, where it was read a first time last week, and is down for second reading on an early day.

Scotland.

Memorial to the late Dr. Milne Murray.

A monument has just been erected in the Dean Cemetery over the grave of the late Dr. Milne Murray by a number of his friends. It is in the form of a Greek stele in grey granite, which rests on a rough-hewn base. The shaft has a gentle entasis; this gives it the look of refinement which is a characteristic feature of pure Greek work. The inscription, in raised bronze letters on the face of the shaft, runs:

> Robert Milne Murray, M.B., C.M., F.R.C.P.E.
> Born May 6th, 1855. Died February 14th, 1906.

The rough-hewn base bears a portrait bust in relief of Dr. Milne Murray. The head of the stele is decorated with conventional acanthus husk and honey suckle flowers. A replica of the portrait bust has been offered to and accepted by the directors of the Royal Maternity and Simpson Memorial Hospital, and will be placed in that institution, where Dr. Milne Murray was so long a member of the staff.

Scottish Lunacy Law.

The case of Purves *v.* Carswell and Gilchrist was reported in the Journal of January 6th, 1906, p. 56, and in some comments upon it published at p. 39 it was pointed out that the case showed that the Scottish lunacy law needed reform. Meanwhile, however, Drs. Carswell and Gilchrist are left under an obligation to defray the expenses incurred in the defence of the action. The following appeal, which recalls the main features of the case, has accordingly been issued by a Committee consisting of:

Professor Sir Thomas M'Call Anderson.
Dr. Joseph Bell, Edinburgh.
Professor Sir Hector Cameron.
Professor Murdoch Cameron.
Dr. Neil Carmichael.
Dr. Clouston, Edinburgh.
Professor Sir Halliday Croom, Edinburgh.
Professor D. J. Cunningham, Edinburgh.
Dr. W. G. Dun.
Dr. Eben. Duncan.
Dr. James Finlayson.
Professor Sir Thomas Fraser, Edinburgh.
Professor Samson Gemmell.
Professor Glaister.
Dr. J. K. Kelly, President of the Obstetrical Society, Glasgow.
Professor Robert Muir, President of the Clinical and Pathological Society, Glasgow.
Professor Sir William Macewen.
Dr. C. W. MacGillivray, President of the Royal College of Surgeons, Edinburgh.
Dr. D. C. M'Vail.
Dr. Napier.
Dr. L. R. Oswald.
Dr. John Playfair, President of the Royal College of Physicians, Edinburgh.
Dr. W. L. Reid.
Dr. J. Crawford Renton.
Dr. Ritchie, President of the Northern Medical Society, Glasgow.
Dr. M'Gregor Robertson.
Dr. Lindsay Steven, President of the Medico-Chirurgical Society, Glasgow.
Professor Stockman, President of the Southern Medical Society, Glasgow.
Sir John Batty Tuke, M.P., Edinburgh.
Dr. Yellowlees.

The Appeal.

Glasgow, March, 1906.

Dear Sir,—Two members of our profession in Glasgow, Dr. John Carswell and Dr. Marion Gilchrist, have recently been subjected to an unjustifiable and vexatious prosecution for granting the certificates necessary for placing a patient in an asylum.

The patient was undoubtedly insane when admitted, and required asylum care, but insanity was denied, and alleged irregularities in the signing of the certificates were made the ground for an action at law and a demand for ten thousand pounds damages from each of the certifying doctors.

After a prolonged trial in the Court of Session, the verdict given was entirely in favour of the defendants, with expenses. The prosecutor is unfortunately quite unable to pay; and the expenses must be defrayed by the defenders themselves. The result is that, although declared blameless, they are jointly mulcted in fully £900.

Such a hardship demands not only sympathy but practical help. It will appeal to every member of the profession, and we as a committee ask your kind assistance in raising a suitable fund.

The Treasurer is Dr. W. G. Dun, 15, Royal Crescent, Glasgow, and we enclose a list of the subscriptions already received.

W. L. Reid, M.D.,
President of the Faculty of Physicians and Surgeons,
Chairman of the Committee.

J. Crawford Renton, M.D.,
Secretary.

The following is the first list of subscriptions:

	£	s.	d.
Dr. W. L. Reid	10	0	0
Professor Sir William Macewen	10	0	0
Dr. James Finlayson	10	0	0
Dr. T. S. Clouston, Edinburgh	5	5	0
Dr. Charles Watson MacGillivray, Edinburgh	5	5	0
Dr. L. R. Oswald	5	5	0
Dr. John Playfair, Edinburgh	5	5	0
Dr. J. Crawford Renton	5	5	0
Dr. J. M'Gregor Robertson	5	5	0
Dr. Jas. Rutherford, Dumfries	5	5	0
Dr. D. Yellowlees	5	5	0
Dr. J. D. Maclaren	5	0	0
Dr. D. C. M'Vail	3	3	0
Dr. Joseph Bell, Edinburgh	3	3	0
Professor Sir Halliday Croom, Edinburgh ...	3	3	0
Professor Sir Thomas Fraser, Edinburgh ...	3	3	0
Dr. Wm. Bruce, Dingwall	2	2	0
Dr. Neil Carmichael	2	2	0
Dr. J. Walker Downie	2	2	0
Dr. Wm. G. Dun	2	2	0
Dr. Eben. Duncan	2	2	0
Professor Samson Gemmell	2	2	0
Professor Glaister	2	2	0
Professor D. J. Cunningham, Edinburgh ...	2	2	0
Dr. Robert Jones, Claybury	2	2	0
Dr. Geo. S. Middleton	2	2	0
Dr. H. Hayes Newington, Ticehurst ...	2	2	0
Dr. J. Soutar M'Kendrick	2	2	0
Dr. Samuel Sloan	2	2	0
Professor Stockman	2	2	0
Dr. J. Lindsay Steven	2	2	0
Dr. John Rowan	2	2	0
Dr. H. Garnett Wilson	2	2	0
Dr. T. Outterson Wood, London	1	1	0
Dr. Alice M'Laren	1	1	0
Dr. Eliz. Pace	1	1	0
Dr. George Halket	1	1	0
Dr. R. O. Adamson	1	1	0
Dr. John Barlow	1	1	0
Dr. J. Mearns Taylor, Skelmorlie... ...	1	1	0
Dr. Ernest White, London	1	1	0

The Treatment of Consumption in Edinburgh.

The Public Health Committee of the Town Council of Edinburgh has at present under consideration the proposal for providing accommodation for advanced cases of phthisis in the City Hospital. Ward 5 has already been selected by the Committee as suitable; it affords 50 beds, which would be deducted from the number of scarlet fever beds. The result would be the abstraction of 50 sources of dangerous infection from the city, and the cost of the scheme is estimated at an annual expenditure of £1,000. In addition to this provision there has recently been opened the Liberton Cottage Hospital, which may be considered as a country annex of the Longmore Hospital for Incurables. Assisted by a legacy to be devoted to the purpose of building and furnishing a small hospital for the treatment of incurable cases of consumption, the Directors of the Longmore Hospital have erected a building to accommodate 42 patients, 18 of these patients coming under the bequest mentioned, the remaining accommodation being provided for various diseases. The hospital represents the latest ideas in building and furnishing, and stands in its own grounds of 4 acres. Both public and private wards are provided; the cost for site, buildings and furnishings has been over £20,000, or approximately £500 per bed.

Convalescent Home for the Royal Hospital for Sick Children, Edinburgh.

At the annual meeting of the contributors to this hospital a matter of the greatest importance was brought up by the Chairman of the Directors. In referring to the need for a convalescent home, he stated that the matter was now under special consideration, because they had recently received a legacy, part of which consisted of a house and grounds situated at the best possible place on which such a home could be established. Only want of funds prevented them from immediately establishing the home, and it seems not too much to expect that this want will very speedily be remedied.

WOMEN GRADUATES AND THE FRANCHISE.

A meeting was held on March 17th in the Students' nion, Dundee, in connexion with the claim recently put orward by women graduates of the Scottish Universities o exercise the right of voting in University Parliamentary lections. There was a good attendance. Miss Macnillan, Honorary Secretary and Treasurer of the Women raduates' Committee, gave an account of the movement, nd among the subsequent speakers were Miss Simson Edinburgh), who presided, and several others. The llowing resolution was unanimously adopted:

> That this meeting expresses its sympathy with the action of the Scottish women graduates to establish their claim to vote in the election of Parliamentary representatives for the Universities.

GALASHIELS COTTAGE HOSPITAL.

The report of this institution for 1905 shows a satisctory condition of affairs. The number of patients eated during the year shows a marked increase, and the spital has been taken advantage of to a great extent. nancially the institution is on a firm basis. and everying points to a most successful future.

Ireland.

THE ROYAL UNIVERSITY.

IE Council of the Royal University Graduates' Associaon. which has its head quarters in Belfast, has published e following resolutions:

> 'We, the Council of the University Graduates' Association, ve observed with profound distrust the resolution proposed Most Rev. Dr. O'Dwyer, seconded by the President of een's College, Belfast, and carried at the meeting of the yal University Senate on 7th inst.
>
> 'Having regard to the facts (*a*) that Bishop O'Dwyer's resoion is coached in terms of studied vagueness, and particuly that no hint is given as to the character and constitution he colleges proposed to be brought into organic connexion h the University; (*b*) that the proposer and seconder of the olution and a majority of the Senate itself are well known be strenuous advocates of sectarian endowment; and (*c*) t the Senate by a majority at its recent meeting refused to ept a rider proposed by the Rev. Dr. Nicholas, which dended the exclusion of such colleges as are avowedly sectarian under ecclesiastical control, we are forced to the conclusion t this latest move of the majority of the Senate is an inous attempt to have the University reconstructed on ominational lines.
>
> We consider that the official report supplied to the Press he proceedings of the above meeting of the Senate is wholly lequate, and we demand in the public interest that hencevard full and complete reports shall be issued of all busis conducted at the Senate, save the ordinary work of routine ninistration.
>
> 'We affirm our determined opposition to any settlement of university question, involving the expenditure of State ney upon ecclesiastical or sectarian institutions, and, in icular, we deprecate the scheme suggested by Sir West gway, whereby it is proposed that the Senate itself, despite lenominational proclivities, should be appointed a statucommission, with full power to allocate as it may think vithout the direct supervision of Parliament, a large grant ublic money for the purpose of higher education.
>
> Recalling the clandestine tactics by which the Queen's versity was destroyed, and by which the 'Underground owment' was originally conveyed to the University ege, Dublin, we demand that any grant in aid of university ation in Ireland shall be allocated only after full ssion in Parliament, and we call upon His Majesty's isters, when dealing with educational affairs of Ireland, ve effect to the principle so emphatically declared by them ng the recent elections, namely, that State education must eed entirely from ecclesiatical and sectarian control."

note of dissent is the expression of graduates mainly ng from the North of Ireland. In the South is her graduates' association, whose members are all an Catholic. Their views have not yet been declared. e is, however, a considerable Catholic body of opinion h does not wish to see any of the colleges in a renized university under ecclesiastical direction and rol. They are in favour of lay governing bodies. It en said that this would not be opposed by some of piscopal leaders, their desire being to have an open satisfactory settlement of the question of higher ation in Ireland, which would give them a college or ges with a Roman Catholic "atmosphere." It is d that a Catholic University is impossible since the Liberal Government could not hope to convert its Nonconformist followers to support that proposal. Therefore, unless the alternative of making the University of Dublin a national university, with endowed colleges, can be forced through Parliament, the solution of the difficulties would seem to lie in changing the Royal University into a new Queen's University with Colleges open to all, but with "atmospheres" dependent upon local conditions.

TRINITY COLLEGE AND ARCHBISHOP WALSH.

Dr. Francis Dixon, Professor of Anatomy in Trinity College, has replied in a very temperate letter to the criticisms of Archbishop Walsh on that institution. He maintains that the extracts from the reports of the Visitors of the General Medical Council "do not give a fair impression of the opinions formed by the Inspector and Visitor in 1902, or of the degree standard of the Medical School of Trinity College at the present time." "Every statement in the report favourable to Trinity College is omitted, and the importance of some of the criticism is much exaggerated." The most recent report, that of 1902, says:

> "The examination was conducted throughout with forethought, care, and efficiency"; with regard to the examination in ophthalmology, the visitors say: "We confirm the statement as to the satisfactory character of the examination made in the last report." After describing the clinical examination in surgery, and suggesting the introduction of a further test in the case of doubtful candidates, the report says: "Otherwise the examination, as a whole, was distinctly well planned and carefully conducted." The oral examination in medicine is described as "a very good and practical one." Of the oral examination in midwifery and gynaecology, it is stated, "the examination in both subjects was painstaking and thorough," and the papers read by the inspector and visitor "were well written, well expressed, and contained but few errors in spelling. Several of the candidates illustrated their answers by diagrams." No other remarks on the spelling of the candidates are contained in the report, and the sad examples so dramatically brought forward by the Archbishop were taken from the report of thirteen, and the examination papers of fourteen, years ago. With regard to the first part of the final examination in medicine the report says: "A perusal of the questions will show that they aim at a high standard of proficiency on the part of the candidates in the usual subjects of a final examination. And when it is borne in mind that, in addition to the written examination, the candidates are also given a viva voce in all the subjects with the exception of applied anatomy, it may be taken for granted those candidates who present themselves for the strictly clinical and practical final examination in medicine and surgery must have already passed a searching and satisfactory examination in all the other subjects of the curriculum." The report then goes on to notice with pleasure changes introduced into the examinations since the former visitation.
>
> Since the publication of the report of 1902 the Board of Trinity College have approved the appointment of additional invigilators at the various viva voce examinations.
>
> Archbishop Walsh draws marked attention to the fact that the graduates of the Catholic University Medical School have the quality of their work attested by the results of the examinations of "an independent public authority" (the Royal University of Ireland). I am far from desiring to speak slightingly either of the standard or of the conduct of these examinations, but would point out that if we were willing to accept isolated criticisms from the reports to the General Medical Council of the final examinations of the Royal University, and to judge these examinations in the same way that the Archbishop asks the public to judge those of Dublin University, we might easily arrive at very unfavourable conclusions. For instance, attention is drawn to the "defective supervision" at the examination in clinical medicine, at which "all" the candidates, "with one or two exceptions, displayed much ignorance," while "the prescriptions given showed, as a rule, great deficiency both in form and composition." In another place we have references to bad spelling, and we are informed that the University examiner had "stigmatized" the answers of two of the candidates as "illiterate." Further, we are informed that at the written examination in obstetrics the Superintendent reported that "he had detected one of the candidates making use of some written notes on the subject of the examination"; the visitor and inspector say that according to the published rules "the gentleman at fault should have been expelled from the examination hall," but that no such step was taken, "and the candidate was allowed to go on with his examination. He eventually passed it and obtained his degrees."
>
> In spite of such criticisms the public have rightly every confidence in the examination of the Royal University. I have given the quotations merely to show how absurd it is to ask sensible persons to judge of the merits of an examination from a series of extracts selected so as to emphasize the worst possible points in what may be most impartial and generally very favourable reports.

I venture to ask those interested to read the report in full, and to compare it with the reports on other universities (such as those published on Oxford, 1903, Cambridge, 1903, and Edinburgh, 1905) before lowering their opinion of the degree standard of the Medical School of Trinity College.

In over two columns of print Archbishop Walsh replies in the Dublin papers of Tuesday to Professor Dixon's letter, which he describes as discursive. He proceeds to restate his points. He says he has been criticized for going back so far as 1883, but the gravity of the case lies in the utter, not to say contemptuous, disregard with which repeated reports of the inspectors of the General Medical Council were treated by the College authorities. The report of 1892 was simply the old story over again. The professors, when pulled up for the second time, pledged themselves that the irregularity complained of would be removed. But in 1901 the inspectors reported that in the examination in midwifery "the candidates passed from one room to the other, as described in former reports, and with apparently the same want of adequate supervision." Dr. Dixon, he says, seems to to have missed the point of his criticism. His extracts do not in the most remote degree touch the indefensible laxity, pertinaciously clung to in spite of the protests of the inspectors. Dr. Dixon has confounded in his laudatory excerpts the character of an examination with the fatal weakness of the same examination resulting from inefficient supervision over the candidates. The Archbishop adheres to his views as to standard, and promises more, and he reiterates his point as to the spelling of some candidates. As to Dr. Dixon's reference to the Royal University, he asks: "What have I to do with any mere 'candidates' at the examination of the Royal University?" The report gave no testimony as to whether they were successful or unsuccessful candidates. The allegation regarding a student that he was detected making use of notes, was intended as a set-off against the reports in the case of Trinity College. This was wholly without justification. If Dr. Dixon had looked into page 70 of the report of the inspectors he would have found the following satisfactory statement from the Medical Committee of the Royal University.

1. Long before attention had been called to the case by the Inspector's report, it had been fully investigated by the Standing Committee of the University.
2. The candidate had not been "detected making use of written notes," nor had any "report" to that effect been made against him.
3. The candidate had, as a result of flurry, brought with him into the hall some papers, on which there were written "general notes on the whole course," such as an industrious student would have made, and not such as would have been specially prepared for unfair use.
4. These papers, which he had been reading on his way to the University, he had laid down, beside his hat and stick, quite openly and without any attempt at concealment, and "everything pointed to the conclusion" that he had made no use of the notes while in the hall.
5. To all this, the Medical Committee added the important information that "before the arrival of the report of the Visitor and Inspector, new rules had been framed with regard to bringing notebooks and the like into the examination hall," and, moreover, that "the penalty of instant expulsion for this offence was strictly enforced at the Summer and Autumn Examinations, even in cases where the violation was evidently the result of inadvertence."

THE PROPOSED INQUIRY AT TRINITY COLLEGE.

In reference to the motion in the House of Commons demanding an inquiry into the control and administration of the revenues of Trinity College, Dublin, the *Irish Times* of Monday says: "We learn that the College authorities have expressed to the Government their complete readiness to allow an inquiry of this nature to be instituted by a competent and impartial commission."

QUEEN'S COLLEGE, BELFAST.

Annual Dinner.

The annual dinner of the past and present students of the College was held in the Examination Hall on the evening of St. Patrick's Day. A large number of students, of the professorial staff, and of graduates were present. Professor Lindsay, M.D., occupied the chair, and the usual loyal toasts were duly honoured. Sir Hiram Wilkinson, LL.D., proposed "The College," which was responded to by the President, Rev. Dr. Hamilton; Professor Symmers, M.D., proposed the toast "Sir Donald Currie and the Better Equipment Fund;" and in doing so extolled the great services not only of Sir Donald, but also of Sir Otto Jaffé, the President, and others. Dr. J. Walton Browne gave "Our Guests," and referred in complimentary terms to Dr. Lorrain Smith, whom he asked to reply, and to his successor Dr. Symmers. Dr. Lorrain Smith, in returning thanks, referred to the fact that ever since the days of St. Patrick, Scotchmen had come to Ireland, and some, like that Saint, had stayed. He next mentioned the great improvements that had been brought about since he first knew the College about twelve years ago, and hoped that other advances would be related as each St. Patrick's Day brought round its annual dinner. Dr. J. S. Morrow gave a recitation, "The Battle of Moyvore," and Dr. McIlwaine a song. Mr. R. W. H. Davey, in replying to the toast "Q. C. B. Clubs," gave an account of the football teams, and the golf, tennis, camera, and swimming clubs that were in a flourishing condition in the College. The toast of "The Chairman" brought the proceedings to a close.

ULSTER MEDICAL SOCIETY.

The fifth meeting of the Ulster Medical Society was held in the Medical Institute, College Square North, on Thursday, March 1st, at 8.30 p.m. In the unavoidable absence of the President, the chair was occupied by the Vice-President, Dr. J. R. Davison. Dr. J. Singleton Darling showed a patient from whom he had removed the entire inferior maxilla for a sarcoma involving the bone. The result showed remarkably little deformity considering the total absence of the inferior maxilla; it was hoped that the condition would be still further improved by the handicraft of the dentist. Dr. V. G. L. Fielden read a note on the solar reflex that occurs in abdominal operations. It varied greatly in intensity from a mere momentary effect so slight as to be almost not appreciable, to one so severe as to require the greatest possible care and perhaps a change of procedure on the part of the surgeon. The presence of adhesions vastly increased the tendency to reflex effects. If the anterior surface only of the stomach was affected, few reflex phenomena might be noticed, because breaking down of the peritoneal adhesions from the freely movable anterior wall caused very little, if any, traction upon the solar plexus. But adhesions about the more fixed pylorus and on the posterior wall would be sure to develop to a greater or less extent the reflex symptoms with even the slightest traction. On many occasions he had been able to warn the surgeon of gastric adhesions as soon as the latter caught the stomach to pull it towards the abdominal wound. The breathing became shallow or ceased according to the severity of the impressions produced upon the solar plexus, and a cardio-inhibitory effect also occurred. The respiratory effect might be due to (1) spasm of the glottis; (2) directly upon the lung through the pulmonary plexus, as thought more probable by Professor Milroy; (3) or to an inhibitory action upon the respiratory centre. The effect of traction on the solar plexus was only temporary unless the impression upon the vagus was very strong. The presence of these reflex conditions demanded that the surgeon and anaesthetist should work hand in hand, each proceeding carefully; no surgeon would ignore the information given by an anaesthetist regarding the reflex effect of his operative procedures upon the respiration and the circulation. The depth of anaesthesia could not modify the state of affairs. He had tried the effect of pushing the anaesthetic to a condition bordering upon paralysis without improving matters. A change from chloroform (which is the routine anaesthetic he employs in such abdominal operations) to ether or A.C.E. had proved beneficial in his hands. Besides stomach cases, he had seen similar reflex effects during manipulation of a kidney through an anterior abdominal wound, and during the traction of a kidney through a lumbar incision. The right kidney was more liable than the left to show these reflex effects because of the shorter length of the renal vessels requiring a greater degree of traction upon them to bring the viscus into a wound. Operations upon the spleen, pancreas, and liver might likewise demonstrate similar effects, but unless the coils of bowel were bound down to the posterior abdominal wall they might be withdrawn, on account of the length of the mesentery, through an incision without exciting the solar reflex.

Dr. Thomas Houston and Dr. T. C. Rankin read a paper on the method and results of giving therapeutic inoculations in staphylococcic and tuberculous lesions. The ethods which Professor A. E. Wright had introduced were far-reaching importance and seemed likely to inaugurate more rational system of therapeutics. They had done umber of experiments on the nature of the opsonin, d these experiments seemed to confirm the view that e opsonin was a new body, and did not correspond in properties either to the immune body or a combination the immune body and complement. In some 25 cases chronic staphylococcic lesions the opsonic index s found below unity. The writers were of opinion at this low opsonic power was the cause of the per- tence of the lesions. There was some evidence to show at a low opsonic index might in some cases be the ult of an initial septic lesion, while in others the ndition was no doubt congenital. This low opsonic ver could always be raised by appropriate injections, several opsonic curves which they had worked out were on the screen. Often a negative phase was indicated h clinically by the slight aggravation of the lesion l by the examination of the blood; in other cases s negative phase was not evident, the positive ise supervening in a few hours. The results ich had been obtained in the case of furuncu- s were very good, as most of the cases had been manently cured by the inoculations. The acne cases wed more tendency to relapse, although great im- vement had been effected in many of the cases. A r's work was barely sufficient to form a just estimate he value of this method in the case of chronic tuber- ous lesions. They showed by the weights of the ents treated that almost without exception the ents had improved in weight and general condition as a ult of the inoculations. Three cases of tuberculous peri- tis seemed to have been perfectly cured, and were now ood health. Several cases of tubercle of the bladder kidneys had been treated and benefited, although of these cases could as yet be said to be entirely free disease. The cases of tuberculous adenitis had also roved in a remarkable way, and their glands had me smaller. One case of phthisis had also begun to up in a very extraordinary way, increasing in weight he extent of 9 lb. in three weeks. This case and ral others were still under treatment. The treatment iberculous lesions was a long and tedious one, but the that in the majority of cases marked improvement wed the inoculations demonstrated that tuberculin, given in appropriate doses and at appropriate vals, was of the greatest therapeutic value.

THE CHARGES AGAINST AN INFIRMARY SURGEON.

e inquiry conducted for the Local Government Board rgeon-Lieutenant-Colonel Flinn into the disciplinary ges brought against Dr. Mayne of Longford Infirmary continued during the past week.

e witness said that Dr. Mayne had refused to answer the ions put by members of the Board, and had slammed the after him. The witness admitted that he had called the r a surly beast, and had said that his manners savoured ppyism. He, however, did not say these things to his (Laughter.) He did not withdraw the statements; he over them.

J. W. Bond said the doctor had always attended to his s. The military authorities applied to have soldiers ad- d to the hospital, but the Committee refused.

McManus said Dr. Mayne and the old governors got on well. No consultants had ever been paid out of the ary funds until after the passing of the Local Govern- Act and the establishment of the present Committee.

J. W. Bond said Dr. Mayne had surrendered an arium of £40 a year to enable the governors to build the ing.

J. N. Edgeworth said the surgeon should be allowed to his own assistants in operations which might mean life th to the patient.

Mayne said he had been surgeon to the hospital for y-nine years. He had never been wilfully impertinent member of the Committee. He entered into explana- as to difficulties that had arisen between him and the ittee in reference to management.

inspector will report to the Local Government .

A REGRETTABLE OCCURRENCE.

Louis Byrne, the City Coroner, has been investi- at Dublin the circumstances under which a woman, 40, died in the infirmary of the South Union house.

was admitted on March 14th at 9 p.m., and was vomit- The Resident Medical Officer, Dr. Macnamara, examined her, and thought she was suffering from malignant disease of the stomach. He did not send for Dr. Cronyn, the Visiting Medical Officer.

Dr. Cronyn said he saw the patient at noon on March 15th. He found a strangulated hernia and tried to reduce it. He went away, and returned and made another attempt but failed. The only chance was an operation; but the last couple of cases did not "come off" well in the workhouse, and he thought the best thing was to get her into a city hospital. He went home and as soon as he could arranged with one of the surgeons of the City of Dublin Hospital to operate if she was sent there. After some delay he asked the assistant master by telephone to send the patient to hospital. The master was consulted, and replied that he would not send the patient without a written order from the doctor. Witness said that would cause much delay, and said the messenger could get the note on his way back from the hospital, but the master would not take that responsibility either. Witness had to go to an urgent case in Kingstown. The patient was then very bad, and she died next day. If she had been operated on a week before her life might have been saved. He would not take the responsibility of operating on her at the time.

Coroner: Although you asked another man to do it? Witness: I asked him to take her in. Coroner: Hernia is a very common disease? Witness: It is. Coroner: Strangulation is a common complication of hernia? Witness: Not infrequent. Coroner: You agree with Dr. Macnamara that an operation is the only remedy for strangulated hernia? Witness: Yes. Coroner: What staff have you here? Witness: Five qualified gentlemen. Coroner: How many sick people have you direct charge of? Witness: A little over 400. Coroner: If one of those got strangulated hernia what would be done? Witness: After the case had been diagnosed the staff is sent for. Coroner: Why was not that done in this case? Witness: They were not available at the beginning, except the resident. I inquired, and Dr. Thompson, I was told, was gone. Coroner: Did you try to see any one else? Witness: No. I thought the patient would be better treated elsewhere. Coroner: That is a very serious reflection on this institution. If that be the case, you should inform the guardians of it. They will have to inquire into it. To Mr. Lawlor (a juror): An operating theatre in the institution is necessary.

The Master said he acquainted the police of the occurrence.

The Coroner said it was one of the most serious cases he had met for a long time. One of the officers had sworn that cases had gone to the bad there. This must be remedied. He would adjourn the case.

At the resumed inquiry,

Dr. Herbert Byrne said he saw the deceased on the 13th for the first time. She complained of piles, and he suggested that she should go to hospital. She agreed to do this next day. She did not describe any symptom suggestive of strangulated hernia.

The Chairman of the Board of Guardians (Mr. Crimmins) said they had never refused anything that had been asked for the hospital.

The Coroner said it was natural to suppose that when the patient was taken in means would be at hand for her proper treatment, but they were not. The fact of the case being discussed so publicly would prevent a repetition.

The jury found that the patient died of natural causes, acquitted the doctors and guardians from all blame, and recommended that an operating room should be provided.

AN ASYLUM FATALITY.

An attendant at Cork Lunatic Asylum, named Cornelius Cronin, was charged at Blarney Petty Sessions, on March 16th, for having on March 5th feloniously killed Michael Coleman, an inmate of the asylum. The patient was suffering from general paralysis of the insane, and had been ordered a bath. There being no bathroom in the division to which the patient belonged, Cronin was directed to take the patient into another division to which a bathroom was attached. This he did, taking with him a reliable chronic patient to assist him. The attendant proceeded to mix the water for the bath, and took the temperature, which was 98° F. It being dusk, however, at the time, the attendant thought it would be better to have the gas lit, and called to another attendant who was in the ward adjacent to bring him the gas-stick; but either the latter did not hear, or wilfully did not attend; at any rate attendant Cronin left the bathroom, and walked into the adjoining ward for the stick himself. However, a little delay occurred owing to the tape not being in the gas-stick, and his having to substitute a piece of paper; when he got back to the bathroom he found the patient undressed and standing in the bath with the hot tap running. Perceiving the patient's legs looking red and scalded, he got him out at once, put him to bed, and reported to the medical officer, who, on examining the patient, found him scalded from above the knees down to and including the feet. Five days afterwards the patient died, death having been accelerated by the shock resulting from the scalds. The attendant gave his evidence at the inquest in a very straightforward way, and attributed the blame to the patient who turned on the hot tap during his absence. The solicitor for the defence said the charge was one of manslaughter, by reason of what was alleged to have been negligence on the part of the accused, but it was not wicked negligence, and it was necessary according to the law to be wicked negligence. It was necessary to prove that the attendant was reckless and careless, whether the man died or not, and there was no evidence of such malice in the case. The magistrates conferred together, and came to the conclusion there was no such neglect as would require them to send the accused for trial.

Newcastle-upon-Tyne.

North of England Edinburgh University Graduates' Club.

The annual banquet of the North of England Edinburgh University Graduates' Club, held on March 16th, was attended by upwards of 60 graduates and friends. The chair was occupied by the President, Dr. G. H. Hume, who was supported by the guest of the evening, Sir John Batty Tuke, M.P. for the Universities of St. Andrews and Edinburgh, Professor Page, Professor Oliver, Dr. W. C. Beatley, His Honour Judge Greenwell, and others, while the vice-chairs were occupied by Professor Howden and Dr. James W. Smith. On this occasion a larger number of members of the legal profession attended than hitherto, and were made most welcome. After the loyal toast had been honoured the President gave that of "Alma Mater," and in doing so portrayed in vivid terms the many attractions of Edinburgh as a city, and the part it has played as a centre of light and learning. Speaking of the University, and of its professors renowned in philosophy and literature, he paid a deserved compliment to its Medical Faculty, and alluded to the influence which it exerted half a century ago, when there existed in Edinburgh a galaxy of talent never equalled before or since in any university. The toast was enthusiastically received, and was followed by the company singing with warmth the well-known *Gaudeamus igitur*.

In replying to the toast, Sir John Batty Tuke stated that he owed his return to Parliament largely to the votes cast for him by the members of the North of England Club, whose guest he was proud to be that evening. He gladly acknowledged that academic rather than political influences had sent him to the House of Commons. Often the question had been raised, he said, as to the advisability of the medical profession being directly represented in Parliament. He was one of those who maintained that the presence of medical men in the House made for good, that their influence was not always to be seen or felt in the House itself, but in Committees, and in a silent leavening of the lay opinion on matters affecting the public health. The continuation of University representation in Parliament, Sir John admitted, was a subject in regard to which a certain amount of uneasiness prevailed.

Mr. R. Pybus, M.A., proposed the toast of "Sister Universities," which was responded to by his Honour Judge Greenwell, speaking for Oxford.

Dr. T. W. McDowall, as one of his oldest friends, submitted "The Health of the President," to which Dr. Hume briefly but fittingly replied.

Songs were rendered that contributed much to the enjoyment of an evening which was brought to a close by the company singing "Auld Lang Syne."

Liverpool.

The Stanley Hospital.

Annual Meeting: Proposed Appointment of a Qualified Female Practitioner to the Staff: A Clinical School for Women.

The report presented to the annual meeting of the Liverpool Stanley Hospital stated that during the year the in-patients numbered 1,434, and the new out-patients 18,097: the number of cases brought in by the ambulance was 538.

The Lord Mayor, in moving the adoption of the report said the hospital was one of the greatest of the Liverpoo charities; situated as it was in the northern part of the city, it supplied a great want for the large population in that neighbourhood, and was a ready door for accidents which necessarily happened where there were dangerous employments. The debit balance had been slightly reduced during the year, but it was very sad to think there was still a debt of £2,000. A large sum had been contributed to the new laundry and kitchens, including £1,000 from Mr. W. P. Hartley, and the work would shortly be put in hand. The sum received from legacies was increasing, nearly £400 having been received from tha source.

Sir Robert Hampson, President of the Hospital, in seconding the motion, paid a tribute to the way in which the efforts of the Committee had been seconded by the medical staff and the matron and nurses, and said that there were two facts which might be regarded with thankfulness. One was that, notwithstanding the various extensions and improvements, such as the enlargement of the out-patient department and the provision of a new operating theatre, there had been no increase in the adverse balance. This was due to the generosity of an anonymous donor, who had given £1,000 through the treasurer. He could not regard with complacency the suggestion that the hospitals should be placed on the rates; and the idea of the Chairman of the London Hospital that relief might be found in the provision of special hospitals for paying patients, opened a train of thought which led in various directions not profitable to follow at present. There was matter for congratulation in the fact that a committee of thirty ladies had been formed to take an interest in the hospital and the patients, and to provide them with such necessaries as bed jackets. The report did not mention a new departure which was proposed. Ladies wishing to enter the medical profession usually went to other centres for their education, but it was intended to provide for their accommodation at the Stanley Hospital, and first to appoint there a lady honorary medical officer of the highest attainments and efficiency. Rooms and other provision would be necessary, and this extension had been most generously promised by a family whose name was a household word in Liverpool and part of the heritage of the city.

The Bishop of Liverpool (Dr. Chavasse) said that the Stanley Hospital was planted in a district which sorely needed such an institution. If the hospitals had done nothing else they had brought out the devotion and nobility of the medical profession, which would be robbed of one of its greatest glories if hospitals were placed on the rates. Another merit of the hospitals was that they drew forth an immense amount of self-devotion and kindness from the community at large.

Sir James Barr said that as a trustee and a former member of the medical staff he took great interest in the success which the hospital had achieved. It had small beginnings, but it had grown and prospered. To-day its work was as efficiently and economically performed as that of any hospital in Liverpool. While he did not deny healthy rivalry between hospitals, he foresaw that sooner or later there must be elected a central committee to prevent overlapping. He was rather pleased to hear that the Stanley Hospital proposed to start a female medical school; but he must correct the remark of Sir Robert Hampson that Liverpool had hitherto made no provision for such a school, the Royal Infirmary having started a school for women nearly two years ago. One of the speakers paid a tribute to the work which had been done in systematizing the supply of provisions at the hospital, the aliment of patients, though the quality was excellent, costing only from 6d. to 7d. a head per diem.

Isolation of Consumptives.

In consequence of the report of the medical officer of health of St. Helen's, the Health Committee of that town has approved of the use of the spare accommodation of the isolation hospital for the treatment of consumptive patients, and has instructed the medical officer to make inquiries with regard to the isolation of such cases in other towns, and to report to the Committee.

Birmingham.

THE GENERAL HOSPITAL.

HE 156th annual report of the General Hospital shows at during last year 5,283 in-patients and 61,652 out- atients were treated. There have been 3,326 operations erformed, and of these many have been of a most serious aracter, causing increased expenditure. Although the ore chronic cases have this year been transferred to the ffray Hospital, yet a large number of patients have had wait a month or more before admission. The pressure work in the out-patient departments is enormous, and Special Committee, which has not yet made its final port, has been appointed to advise on this question. e system of steam heating is to be abandoned and placed by hot water—a change involving an expenditure £1,263. Sir John Holder is generously having built lconies at the north-west and south-west pavilions, ich will be very advantageous to the patients, especially the children's wards. Although £1,627 was received om the Hospital Sunday Fund, the hospital is not so ll off as under the old scheme, when the whole sum llected on Hospital Sunday was given to the hospital ery third year. From the Hospital Saturday Fund ,150 has been received. The late Mr. Riley of Leaming- has bequeathed £1,250 for an additional bed. The verse balance of £8,439 has this year been reduced to ,258.

THE QUEEN'S HOSPITAL.

rom the annual report of the Queen's Hospital it pears that 33,285 patients were treated during last year, 39 being in-patients. The chief feature of the report is large extension scheme, which has been fully explained recent issue. The hospital has received £2,100 from Hospital Saturday Fund, £1,668 from the Hospital day Fund, and £10,000 under the will of the late . Poncia.

MOSELEY HALL CONVALESCENT HOME.

t the annual meeting the open-air treatment of con- ption was shown to have been used with great benefit. -door shelters have been erected for the use of the ents. It was suggested that the parents should be ructed as to continuing such treatment at home. The ciency on the year's account is only £173, which is a ease on that of last year. The daily average of ents under treatment has been 53. During the year children have been admitted.

PRIVATE PATIENTS AT THE CITY ASYLUMS.

experimental scheme was adopted by the City cil last summer to admit paying patients to the local tic asylums, and there seems little doubt but that it be continued. The object of the scheme is to provide mmodation for patients whose friends are reluctant to hem maintained as paupers, and who cannot afford to he fees charged at the higher-class private establish- s. The weekly charge at Winson Green Asylum ges about 21s. a patient. After the patients have been tted to Winson Green suffering from the acute forms nacy, they are removed when convalescent, the to the Leveretts, Handsworth, and the women to thorne, Gravelly Hill. Up to the present 30 patients been received, and the committee is quite satisfied the progress of the scheme.

HEALTH OF ASTON.

the report of the medical officer of health for Aston r it appears that the death-rate for 1905 was 14.1 000, which is 1.9 lower than the average of the ous ten years. The total number of deaths was as compared with 1,277 in 1904. The diminution death-rate was partly due to the lessened mortality infantile diarrhoea and whooping-cough, but the ved sanitary condition was no doubt a considerable . There were 318 deaths of infants under 1 year, is pleasing to note that during the past three the rate has tended to diminish; 7 deaths were by suffocation of infants in bed with their parents. irth-rate was only 26.1 per 1,000, which is the on record for the borough, being 5.9 lower than verage for the last ten years. There were 2,129 registered, as compared with 2,336 in 1904. There has been a great reduction in the number of cases of notifiable disease, and this diminution was especially noticeable with regard to typhoid fever. Scarlet fever had not increased, and only 1 case of imported small-pox occurred. Measles was prevalent and caused some anxiety, it having been necessary to recommend the closure of several infant departments in consequence.

South Wales.

SANITATION IN GLAMORGAN.

AT the meeting of the Sanitary Committee of the Glamorgan County Council on March 2nd, the County Medical Officer of Health reported that there had been no cases of small-pox during the past quarter, as compared with 19 in the preceding quarter; of diphtheria 308 cases were reported, as compared with 255. The rates were highest in Gelligaer and Rhigos (2.0), Caerphilly (1.5), and Glyncorrwg and Margam (1.1). As for scarlet fever, it was more prevalent, the number of cases notified being 650. The attack rates were highest at Aberdare, Barry, Cowbridge, Briton Ferry, and Penybont. Enteric fever, on the other hand, was less prevalent. Dr. Williams referred to the absence of a proper water supply and sewerage system for Cowbridge and district, and it was decided to call the attention of the local authority to the matter. In reference to the typhoid outbreak at Bridgend, the County Medical Officer commended the Council for employing an experienced sanitary inspector to make a house-to-house inspection, the inspection revealing a sad state of affairs; he hoped that the Council would retain the services of the inspector until the work was completed, and it was decided to write to the Bridgend Council to this effect. In regard to the Oystermouth district, the medical officer said that the water supply had always been unsatisfactory, but owing to the wording of the agreement with the water company, the council was unable to compel the company to improve matters. The reservoir was unfenced and unprotected. The estimates for the coming year provided for an expenditure of £4,000 made up as follows: Contributions to isolation hospitals, £1,100; Cardiff and County Joint Laboratory, £400; University College of South Wales and Monmouthshire, amount voted in contribution to building fund, £2,000; Midwives Act, £500. The estimate for the year just ending was £4,500, but this included expenses under the Diseases of Animals Acts, which work has now been transferred to another committee. The estimate was adopted.

TYPHOID FEVER AND SPRING WATER.

At a recent meeting of the Bedwellty District Council at New Tredegar, the sanitary inspector directed attention to a case of typhoid fever at Aberbargoed, which the medical officer attributed to the use of water from a spring which had been condemned. Dr. Davies said the water used came from near a graveyard. It was decided to connect the houses with the water main, and charge the owner.

SPECIAL CORRESPONDENCE.

VIENNA.

Pressure Stasis in Children.—Professor Zuckerkandl on Tuberculosis of the Kidneys.—Diagnosis of Extrauterine Gestation.—Preparations for a General Strike of Country Doctors.

A FEW instances of very rare lesions were demonstrated by Professor Escherich at a recent meeting of the Paediatric Society. A few weeks ago an epileptic girl was seized with convulsions in a church. This caused a disturbance and a cry of fire was raised. A panic ensued, and hundreds, mostly children, rushed out of the building jostling and crushing each other. A number of children were so badly treated that they had to be taken to the hospital. They showed signs of enormous pressure—subcutaneous haemorrhages, livid areas, suggillations and suffusions of the conjunctiva, syncope, and fainting fits. The most unusual symptom was a deep purple blue colour of the entire face, reaching down nearly to the throat, especially in a boy, where the dark colouring was, as it were, marked off by his rather light shirt collar. These appearances soon passed away; the more severe injuries, as broken ribs and bruises, took the normal course. Professor Escherich laid stress on the fact that the colouring was not of haemorrhagic character, but more of the character of a diapedesis in a large degree. The sudden fright, with the pressure from all sides, caused a spasm of the glottis—contraction of the interarytenoid and the lateral crico-arytenoid muscles, thus checking the normal respiration, and causing disturbances in the vasomotor centres. Similar appearances are seen in cases where by a fall, or by a heavy weight, the body is doubled up, and remains a short time under high pressure. The children tried to cry but could not, and the intrathoracic pressure rose very high, with the unusual effects. All children but one—suffering from a compound fracture of the left tibia—are already at home again.

At the last meeting of the Clinical Society of Vienna, Dr. O. Zuckerkandl explained his method and his observations of surgical intervention in cases of tuberculosis of the kidneys. He finds that as soon as the disease reaches the calyx the ureter becomes infected and is changed into a thick, inelastic canal, with narrowing and occasional dilatation of the lumen. In 80 per cent. of the cases coming under observation the bladder is also diseased. The unilateral basal cystitis is almost pathognomonic of specific renal disease, and the diagnosis is definite if thickening and tenderness of the corresponding ureter are concomitant. If a catheter is passed up the ureter it often encounters much obstruction. Not seldom the ureter is diseased at a time when the symptoms point to the kidney, and in 6 per cent. Zuckerkandl found that the bladder was affected without any disease of the kidney. The operation consists in extirpating not only the kidney, but also—what is of even greater importance—the ureter. The skin is opened from the last rib across the lumbar region to the spine of the ilium, and thence above the Poupart's ligament to the symphysis. Then the abdominal walls are divided except the peritoneum, and the ureter is looked for retroperitoneally. The kidney must then be extirpated, the ureter divided between two ligatures by means of a Paquelin cautery, and the greater (upper) part of it resected. A drain tube is inserted into the stump; the site of the hilus is also drained by a tube, and during convalescence the ureter is cauterized by injections of 5 per cent. carbolic acid. The results of this method are very good; no sinuses form, and four to five weeks after the operation the patient is cured per primam. Dr. Zuckerkandl showed a series of patients treated by this method; among them were a boy of 13 and a woman of 70.

The dangers of extrauterine gestation and its wrong diagnosis were the subject of a paper read at the same meeting by Dr. Fabricius. He said the main point to be remarked is the fact that in nearly all women who complain of sudden colicky pains and bleeding from the vagina, suspicion of extrauterine pregnancy should be entertained if the menses have been suppressed for six to eight weeks. It is, in such cases, a routine practice of many practitioners to curette the uterus. Fabricius pointed out that it is easy to distinguish such cases from real endometritis or catarrhal changes of the uterine mucosa by careful palpation, when a small tumour of the tube will be found besides the enlarged uterus. Although it is possible that the adnexa may be enlarged on both sides, the missed menstruation is in favour of a one-sided tumour and an extrauterine gestation on the other side. In all such cases immediate operation is safest. If the colic and bleeding continue without surgical aid, it is possible that severe internal haemorrhage may end the life of the patient.

In continuance of the passive resistance in the country, to which allusion was made in a former letter, an important step towards a general strike has been made by the new organization. As the present method of obstruction by leaving the diagnosis of infectious diseases to the district officer of health and refusing notification and vaccination did not succeed in impressing official circles, a strike of all country practitioners has been planned. To ensure its success all doctors of the German-speaking parts of the empire, numbering about 6,000, have been asked to pledge their written word of honour that they will not accept a post as district officer of health or any other office and will not undertake any medical work in the rural districts of Lower Austria as long as the strike continues. The different "medical councils" have taken the matter in hand and are working in conjunction with the "free organization." Nearly 5,000 doctors have already answered in the affirmative, and when the last one has answered the strike will begin by all doctors laying down their office of Poor-law medical officers on the same day. The measure is very drastic, and will be a heavy burden to many poor practitioners. It is true the strike fund is being strengthened every day, but still the expenses will be very heavy, and the state of affairs cannot last very long, because such enormous interests are involved in it. Success is, however, expected in medical circles.

CORRESPONDENCE.

SARSAPARILLA IN SYPHILITIC CACHEXIA.

SIR,—In the BRITISH MEDICAL JOURNAL of January 13th, p. 61, Sir Felix Semon, in one of those lectures which too seldom appear from his hand, impressed upon us the advantages of sarsaparilla in large doses in the treatment of syphilitic cachexia. From the trend of his remarks it appeared to me—and I find that I am not alone in receiving this impression—that he attributed this discovery to German physicians, and in particular to two German physicians to whose decoction he attached peculiar virtues. At the time when Sir Felix Semon's lecture appeared I was very much engaged; but I did not forget that in this respect some vindication of English medicine was due from one or other of us. With the close of term I have had time to look up an article of mine in *The Practitioner* for 1870 (vol. iv), but I have not entered upon this search for my own honour; my article was but a corroboration of the clinical acumen of others. Used in the ordinary doses of an ounce or two, sarsaparilla had fallen into general disrepute; but I found in the practice of the Leeds Infirmary that the fault lay not in the drug but in the prescriber. To obtain the proper—I had almost said specific—effects of the drug much larger doses are required—namely, from one to two pints per diem. Unfortunately the expense of this liberal use of sarsa has led to its disuse and to its neglect, even by persons to whom expense is of less importance than an expeditious cure. As I pointed out in my article, even in hospital it is often cheaper—not to mention charity—to administer an expensive drug if thereby time is saved. Of late years this truth has received ample illustration in surgery.

In my article I offered a tribute of respect to Mr. Samuel Smith, so long the eminent and successful Senior Surgeon of the Leeds Infirmary. In the memory of my surgical colleagues, Mr. Teale and Mr. Wheelhouse, no name in our past is held in greater honour than that of Samuel Smith; colleague, as he was, of men no less than Thomas Teale and William Hey the second, to none of his contemporaries, as they were the first to testify, did that great hospital owe more in the maintenance of a high standard of surgical pathology and practice than to Samuel Smith. Unfortunately Smith did little—virtually, indeed, nothing in proportion to his powers—to make his work public. He had, however, his reward in a sound and permanent contribution to a great local tradition. When I went to Leeds I found that at the infirmary sarsa in doses of one to two pints daily had been administered in syphilitic cachexia for at least twenty-five years. May I venture to quote the following passage from my article, an article founded on out-patient practice where the contributory advantages of in-door treatment are not in action?

> Syphilitic patients who are in a thoroughly cachetic state, who have lost flesh and strength, and who are suffering from sluggish ulceration or indolent gumma, patients whose constitutions have been undermined by want of nourishment or by excesses, who have gone through many courses of mercury, who cannot bear any more iodide of potassium, and who are so sallow, so worn, so broken down, so eaten up by disease as to seem fit only for the grave, will often amend on large doses of sarsaparilla, as it is in such cases that this drug fills so important a gap. It will not supersede mercury and iodide of potassium in straightforward cases, but it has its place where these means have failed, or where they are on some grounds to be avoided.

As to the composition of the decoction, there is, in my pinion, little to be said; the formula of Smith's decoction still in use at the Leeds Infirmary, but I do not suppose at it is any better, unless in the matter of cost, than the mpound decoction of the *Pharmacopoeia*. This decoction ill be found to give results fully as good as any other rmula, home or foreign, if administered in sufficient antities.—I am, etc.,

ambridge, March 20th. T. CLIFFORD ALLBUTT.

STATE REGISTRATION OF NURSES.

SIR,—There is reason to believe that the question of e registration of nurses by the State will shortly be ming up for discussion, and that the Bills for this rpose will be considered by the Branch meetings of the itish Medical Association.

I should, therefore, like to draw the attention of those my colleagues who may not have had time to consider e question to the following points:

1. The many and great advantages of the proposed ister to us as medical men, in that it would provide with an assurance that those nurses we employ are roughly trained.

2. The construction of the proposed governing body. is I take to be the chief point under discussion at the sent time. The enormous improvement in nursing ich has taken place in the last 50 or 60 years is, we st all admit, chiefly due to the nurses themselves, and efforts made from inside their body; they claim, and my opinion ought to have, the chief control of their profession.

would suggest that one-third of their governing body uld consist of medical men and laymen, and that not than two-thirds should be matrons and nurses elected the nurses themselves. The Royal British Nurses' ociation Bill, though emanating from a nominally irses' Association," does not give this proportion; le the other Bill, that of the State Registration ety, does.

aking into consideration the extreme difficulty that ses would have in attending meetings regularly, I do think they claim too much, if they are to have any e at all in their own management.

ow, for years we had to fight for direct representation ne General Medical Council, and we still think that irect representation is inadequate.

ppeal to those holding these views to be generous fair enough to apply them to a "General Nursing ncil."—I am, etc.,

rnemouth, March 17th. E. HYLA GREVES.

R,—The result of the deputation to Lord Crewe[1] has d the registration of nurses within the range of prac- politics. It therefore behoves the rank and file of rofession to take such precautions as will safeguard nterests of the general practitioner in the inevitable gle for supremacy on the governing body hereafter created for the registration and regulation of nurses. e three parties to be considered are "the nurses, the al profession, and the public," and in the repre- tion of the profession it will be well to take to heart sson of the General Medical Council upon which the al practitioner has got direct but by no means ate representation. The lay governors are almost n to be Londoners, the representatives of the Privy il are also certain to be London consultants, and strong action is taken by the British Medical iation through its Divisions to secure the repre- ion of what, after all, is the backbone of the profes- the medical practitioners scattered over the three oms, we shall be once more left out in the cold.

look with confidence in this matter to the Divisions the Representative Meeting to protect our interests o the Council to put in motion the necessary nery for voicing us.—I am, etc.,

Bromwich, March 20th. HERBERT MANLEY.

OPOSED CENTRAL PAY HOSPITAL FOR LONDON.

—In a recent letter to the *Times*, the Hon. Sydney d, Chairman of the London Hospital, opportunely suggests that the hospitals should be relieved of the expense of treating, in the wards, the middle class who are neither very poor nor rich, and who could therefore afford at least a portion of the cost of special treatment and nursing. For this class Mr. Holland recommends the establishment of a large pay hospital, in the professional centre of London, as perfect for its purpose as science can make it, and where any "recognized surgeon" can attend a patient. Such a scheme would undoubtedly be approved by the special physicians and surgeons residing in the district indicated, and it is only fair that they should have, on a less imposing scale than Mr. Holland suggests, the opportunity of taking under their management cases sent from distant localities and of a special character, but it is defective in so far as it ignores the interests of the general practitioner and ultimately of the public. A central pay hospital on the scale suggested by Mr. Holland could not count, with the views now prevailing in the profession, on the support of the practitioners. In the first place there is no provision for a practitioner continuing his attendance on his cases in the institution, and even if he were included under the term "recognized surgeon," it would only apply in practice if he resided near the centre. The practitioners in the suburbs or elsewhere, some distance away, could not attend regularly, and therefore the requirement, for London at least, is a moderate-sized pay or cottage hospital in every locality where patients can be treated by their own doctors, and skilled specialists can be called in consultation if necessary, and there is no reason why such local pay hospitals should not be as up-to-date in all essential particulars as the proposed central pay hospital, even to the supply of Roentgen rays, Finsen light, massage, electrical treatment, etc., and if these are paid for by the wealthier patients in the locality it would be a legitimate source of income to the local pay hospitals, which would tend towards making these institutions ultimately self-supporting.

Such an arrangement would reproduce in pay hospital treatment the relation between doctor and patient which exists in private practice and works as a rule so happily, where the usual medical attendant treats ordinary illness and calls to his aid a suitable specialist when necessary.

Practically the scheme sketched is the same as that suggested by the Hospitals Committee of the British Medical Association, only they use the term "public nursing homes" instead of pay hospitals.

The members of the profession who have elected to enter general practice have hitherto acquiesced in the centralization of the larger hospitals with schools, chiefly because they have considered the existing arrangements necessary in the interests of medical education; but it is quite certain that they will not receive with the same complacency the proposal to collect all the important cases which occur in practice in the centre of London. It would also be for the advantage of the members of the community, when their day of sickness comes, that their medical attendants, who are the first to be summoned, should be in touch with the exact methods of observation and treatment which would be available in the institutions now under consideration.

It is not to oppose Mr. Holland's revival of the project of pay hospitals that this letter is written, but to suggest that his scheme, although possibly applicable to a smaller community, should be modified to meet the wants of London by establishing many cottage or pay hospitals, which would afford the benefits of hospital treatment to people of moderate means, and, being within the reach of all practitioners, the inestimable advantage of what would be practically post-graduate schools, to the great ultimate good, not only of general medical practice, but of the people of London.—I am, etc.,

London, N.W., March 19th. J. FORD ANDERSON, M.D.

THE HAMPSTEAD GENERAL HOSPITAL.

SIR,—The management of the Hampstead General Hospital has been the subject of much criticism by the local medical profession for some time past, and the matter has been coming to a head gradually in the course of the past year or two.

The hospital was originally founded, by a local general practitioner, as a home hospital, where individual local practitioners could themselves continue, under more satisfactory circumstances, the treatment commenced in the patients' homes. The hospital was in considerable difficulties for some years; finally it was only by the united efforts of the local profession that it was kept open.

---

[1] SUPPLEMENT, March 17th, p. 104.

From a home hospital, this institution has advanced, or degenerated, into a "general hospital," with a large out-patient department, limited staff of general practitioners, a few (pay) beds for the patients of practitioners not on the staff, and a management on which the outside profession is unrepresented. This divorce between the management and the local profession is greatly to be deprecated on every ground.

The hospital has recently become possessed of a very large donation, and it is rumoured that it is about to receive another. It has been transferred to a new specially-erected building quite recently (and objections might easily be made to the choice of site). The lines upon which the hospital authorities have been recently developing the institution indicate further alterations in the near future, and, indeed, there are rumours, apparently well founded, which foreshadow further drastic changes.

This letter is not for the purpose of opening a discussion in your columns, sir, but in order to request the general practitioners of Hampstead and its neighbourhood to keep an open mind upon the subject, in view of the proposal to call a meeting of the local profession in the course of the next few weeks to consider the whole matter.

I will, therefore, merely observe that there appears to be a consensus of medical opinion that an out-patient department in this neighbourhood is neither necessary nor desirable; that if any hospital be required in Hampstead it should be one of the nature of a home hospital; that the appointment of a small privileged staff is unfair to the patients of other practitioners, as, indeed, it is to the practitioners themselves (though the staff, by all reports, do their work in a very satisfactory manner); and that the appointment of a staff of consultants, which is rumoured as a possibility, in place of the existing general practitioner staff, is opposed both to the original objects of the founder and to the needs of the locality.—I am, etc.,

F. R. HUMPHREYS,
Chairman, Hampstead Division,
British Medical Association.

London, N.W., March 20th.

IMBECILES AND FEEBLE-MINDED OF MIDDLE CLASS.

SIR,—It is to be hoped that the Report of the Royal Commission on Imbeciles, etc., will give a prominent place to the question of making provision for private middle-class cases.

The failure of the county authorities to make provision for this class of cases has been a penny wise and pound foolish policy; it has been both harsh and extravagant. Every alienist will bear me out when I say that again and again he has been consulted about cases of mental disease where the friends were quite capable of paying £1 or a guinea a week, but unable to pay the 25s. or £2, the lowest charge in the ordinary private asylum; the only advice that can be given is to place the patient in the county asylum, where in many instances, on account of the crowded condition, the authorities can only accommodate pauper cases. The consequence is that some thousands of cases are more or less a burden on the rates which would have been provided for by their friends had suitable accommodation existed. Accommodation on the colony plan for private cases can be and is being provided in Germany, Austria, and the United States at a very much smaller cost than that entailed by our great corridor asylums. The consequence of our neglect to make this provision is that the ratepayers are paying at least £100,000 per annum more than they would have had to pay if broader views had been taken.

Equally if not more important is the want of classification in our asylums, according both to the type of the mental disease and the moral character of the patient. Again and again I have had complaint made to me that respectable people have been placed with those the very reverse. I know full well the difficulties that asylum superintendents have to contend with, but to make provision for private middle-class cases would certainly n aggravate their difficulties, as it would tend to reduce some extent the overcrowding that in too many cases present exists, and so allow for better classification of th pauper as well as the private patients.

I should be glad to hear the opinion of the professio on this question, as I have given notice to bring forward for discussion at the next meeting of the Lanc shire Asylums Board.—I am. etc.,

Didsbury, March 18th. JNO. MILSON RHODES, M.D.

MIDWIFERY OF THE PRESENT DAY.

SIR,—Twelve years ago I knew an able general pract tioner in large practice who gave chloroform and use forceps in the large majority of his midwifery cases. H argued that his mission was to save his patients as muc pain as possible, so long as he could do it with safety t mother and child. Now for the swing of the pendulum Dr. Peter Horrocks makes one vaginal examination accom panied by an elaborate asepsis ritual, drawn out over period of twenty minutes, with not too much regard fo any innate feelings of modesty on the part of the victim.

Then he says: "My good lady, I have made a thoroug examination of the presentation and the pelvic diameter I can assure you that your case is one of the 95 per cen normal cases. Labour is a physiological process. 'I pain shalt thou bring forth.' Good day! I will call agai later." He would be a great success as a general pract tioner. One thing is certain, that with trained midwive and lady doctors it will not be very long before D Horrocks's position as lecturer to male medical student on midwifery will become an absolute sinecure.

As our asepsis and antisepsis become more perfec why should we become more frightened of making vagina examinations? Is it absolutely necessary that a lying-i woman should endure a regulation amount of pain? Wha is the use of our knowledge and skill, our anaesthetics, an anodynes, if there is to be no diminution of human pain How did we get into the habit of putting on binders Because experience taught us that the women felt mor comfortable after labour with binders on. Why do midwives and nurses usually put support on the abdome during uterine pains? Because the woman feels that i helps her, and gives her comfort. Why do midwive usually follow the birth of the child with the hand on th abdomen? Because experience has taught them tha they thus obtain a well-contracted uterus, a shorte third stage of labour, and less liability to *post-partum* haemorrhage. Does experience count for nothing? Because labour is a physiological process, is the woman t get no outsider to lend her a helping hand, but must sh be left to fight the battle alone?

The doom of the man-midwife is sealed. It will not b long before the general practitioner will have no opportunity of acquiring the skill to be useful to the 5 per cent of females who have abnormal labours.

"One of the most remarkable facts in Nature is tha no animal, the female member of which gives birth to progeny, requires, as a rule, any assistance during parturition." Yes, but the more animals are domesticated, th more they depart from *fera natura*, the more frequently is this assistance required. The more civilized women become the more frequently they also require assistance Women living in towns need this assistance more frequently than country-bred women. And the more artificial life becomes in the town, the more frequent the nee becomes. Women who spend their lives in factories ar more likely to need assistance than those who have spent their lives domesticated in the family. So that, unless the policy of "going back to the land" is hurried up, th 5 per cent. is apt to become larger and larger.

As a general practitioner, one is inclined to call out "a plague upon lying-in hospital teachers." They do not know their own minds two or three years together. Their fashions change nearly as rapidly as does the fashion in ladies' hats. They are always looking after some "new thing." If there was "moderation in all things," and a proper use of common sense, there would be no reason for all these violent changes of fashion. At one time childbirth was a surgical operation carried out with all the absurd ritual of the operating theatre; now it is a physiological process with which it is criminal to interfere.

What is the value of medical knowledge and skill unless ve are going to apply the maxim, *tuto, cito et jucunde*, to ninimize the pains that humanity is heir to?—I am, etc.,

Wigan. FERDINAND REES, M.D.

SIR,—In Dr. Horrocks's most interesting address in the RITISH MEDICAL JOURNAL of March 10th, p. 541, he says at the so-called "support" of the perineum is altogether nnecessary. I would be inclined to go a step further d say it is almost always harmful. But it seems to me at Nature has a way of sparing the perineum. I am re many practitioners must have noticed that many omen, towards the end of the second stage of labour hen the perineum is being stretched to its utmost, stinctively throw back the head and straighten the body that the thighs and trunk form a straight line and metimes, indeed, the back is hollowed out into a condin allied to lordosis. It has struck me that the reason r this position is obvious. The strong muscles of the ck are attached to the sacrum and coccyx, so also are e perineal tissues. Now when the back muscles are laxed, as they are when the body is in the position I ve alluded to, the sacrum and coccyx have more "play," d therefore there would be less tension on the perineal sues at the critical moment. I believe, too, that this sition is in every way helpful to a woman at this stage her delivery; her expulsive efforts are aimed more ectly at the outlet of the pelvis—in other words, the turient canal is made straighter. I always encourage men to assume this position at this particular stage.—I , etc.,

David's, March 19th. W. WILFRED WILLIAMS.

OCCIPITO-POSTERIOR PRESENTATIONS.

IR,—Dr. Geddes's paper on occipito-posterior presenta- in the BRITISH MEDICAL JOURNAL of March 10th, 49, should not be allowed to pass without comment, e the diagnosis of the presentation is easier than he poses. Difficulties of diagnosis which are inherent in vaginal examination can be overcome by abdominal pation. For details of this method, reference may be le to Jellett's *Short Practice of Midwifery*, chapter vii, probably fuller details are given in his recently-lished textbook. I appreciate fully what Dr. Geddes of the anterior fontanelle, for I often mistook it for posterior until I disregarded the shape and counted sutures running into it.

important point, not referred to in Dr. Geddes's r, is the subdivision of these presentations made the late Dr. Uvedale West into bregmato-loid and fronto-cotyloid. The former rotate with the latter with difficulty, if at all, into occipito-rior positions. Having made my diagnosis of pito-posterior presentation, I devote my time atching the movement and exact position of anterior fontanelle to assure myself of the ivision in which the case must be placed, for this the treatment depends. Bregmato-cotyloid will deliver themselves, extra time being allowed e necessary reshaping of the head. Fronto-cotyloid ntation must be assisted, or, rather, ought to be ed, by using Milne Murray's occipito-posterior ps. I can recommend these forceps, as I have used in several cases, and know how easily they rotate ead. They are made to grasp the part of the head posterior half of the pelvis, not as ordinary forceps sp the part in the anterior half, are easily applied, ck without difficulty, and by them force is exerted e part which the accoucheur desires to move—y, the occiput. It seems to me that these forceps e Nature in their action; they do not turn the head , but pull the occiput down first and then forwards the pubis. No one need "think twice before using '—I am, etc.,

ley, March 12th. JAMES GARDNER.

ANGINA PECTORIS.

—In reference to Dr. William Russell's letter in the H MEDICAL JOURNAL of March 17th, p. 650, any nce between his views and mine may possibly be inological" rather than actual. The "inexactitude" aps on my part in not having made my meaning sufficiently clear. In the employment of the term "angina pectoris" I wished to draw a distinction between syncope, or, as we ought now to say, failure of "contractility" with and without breast pang, and to place in a separate category cases with such mental conditions as some have associated with other phrases—namely, angor animi, alarm, trepidation, and sense of impending dissolution—terms denoting some state not cardiac pain. If Dr. Russell considers there is no real distinction between these states and cardiac pain or angina pectoris, I regret that I should find myself at variance with one whose accord I should welcome. It is by no means my contention that the cause of pain in angina is of necessity "primarily nervous." I think there is evidence that it may in some instances be so, but admit that muscular and haemic conditions may precede and also follow the important incident of pain.

I am glad to note that we are in agreement as to the essential nature of pain, and regard it as a manifestation of sensory stimulation of, and perception by, the nervous system. My remarks on this point had reference to some myogenistic concepts of the new cardiology which I have possibly misapprehended, and possibly, again, from terminological misconception. They are set forth by Dr. James Mackenzie in the BRITISH MEDICAL JOURNAL of October 7th, 1905, and referred to by Dr. Russell in his paper.

With Dr. Russell's valuable anatomical researches into the nature of hypertonus and arterio-sclerosis I am well acquainted. The desirable investigations I had in view when I referred to this subject in my last letter pertain rather to the minute anatomical investigation of cardio-aortic states in fatal cases of cardiac pain in which a necropsy has been obtained. There appears to be a tendency at the moment to regard the revelations of the cadaver as less important than they were at one time considered. Physiological observation which affords more scope for imagination, tends rather to hustle anatomical observation off the pavement, to the possible injury of both passengers, whose amiable co-operation is necessary to the general good.

I regret that I should unduly have emphasized the importance Dr. Russell attaches to the influence of injudicious dietary in provoking attacks of angina. I was led into that error by the title of his paper, which is, On the Relation of Angina Pectoris and Allied Conditions to an Arterio-cardiac Reflex having its Origin in the Abdomen.[1]—I am, etc.,

London, W., March 19th. ALEXANDER MORISON.

SIR,—Might it not be possible to harmonize some of the conflicting symptoms and varying successes in the treatment of angina if we consider it as affecting sometimes the right side of the heart alone and sometimes the left side alone?

In the former case any constant obstruction in the lung to the circulation, such as emphysema, a chronic condition of lung strain and congestion, as in laborious occupations, even the lung torpor of neurasthenia and brain weakness, actual heart-strain, such as Professor Osler points out, more frequently affects the right side of the heart and tends to become chronic, arising from exertion, alcoholism, etc., might be the antecedent causes. Here venous congestion of the liver and brain would be most in evidence, with absence of pallor and a steady pulse of normal tension. Exercise would help the embarrassed lung, and sedatives, both respiratory and cardiac, would be likely to be beneficial, while nitrites would be unavailing. Most practitioners have seen cases of angina with flushed face and rapid, soft pulse from the use of nitrites, yet deriving no benefit. In such cases a hypodermic injection of morphine is often immediately beneficial.

In the second case, any increase of arterial tension, especially if sudden and coupled with aortic or mitral stenosis, would most likely be the exciting factor. Such might arise from exertion, stimulating food, emotion, etc.—the typical angina of textbooks. In such a case diffusible stimulants with nitrites would be the obvious remedy.

A different set of factors would, on this hypothesis, produce the same effect as regards pain, and completely opposing forms of treatment would produce relief, as we find in practice to be the case. In both forms I should be content to explain the actual pain as arising from the sudden stretching of the actual heart wall of either ventricle from the sudden increase of tension within it.—I am, etc.,

---

[1] BRITISH MEDICAL JOURNAL, February 10th, 1906, p. 301.

Rothbury, March 17th. C. W. Lawson.

THE POOR-LAW COMMISSION AND CONTRACT PRACTICE.

Sir,—I would like to traverse the statement made by "Another Anti-Club" that "no doctor can give club patients proper attention and not lose by it."

I hold club appointments bringing in £100 a year; and the fee received per attendance works out at 1s. 8d. a visit and 1s. 1d. a surgery consultation, on an average calculated from three years' careful book-keeping. That, though an inadequate fee, is not a loss; and compared with the average fee received (not earned) in many private practices, is fairly satisfactory. The introduction to further and more remunerative work is, in my experience, of decided utility; a further point is that the private work done for the families of club patients shows a much smaller percentage of bad debts than the rest of my private work.

As for the "proper attention," I have received each year from the members of my largest club a most cordial letter of thanks for my "care and attention during the past year"; and any complaints made by dissatisfied members have been referred to me for report, and promptly settled in my favour by the club executive.

"Another Anti-Club" may find that free excision is the best treatment for club practice in his own case; and if the methods he so lightly attributes to the majority of club doctors are the only methods he considers possible, I quite agree with him. The fact remains, however, that there is a large class of the community utterly unable to pay adequate medical fees, though able to pay something; and unless that something is to be altogether lost to the profession, some such scheme as that recommended by the Association must be adopted.

To attempt to make this class pay adequate fees, or to attend them for charity, which "Anti-Club" must, I suppose, do, is simply to shirk the difficulty.

Personally I think that contract work, arranged on a sliding scale according to the means of the patient, and controlled entirely by medical men under the supervision of responsible medical societies, is the only satisfactory method of work amongst the poorer members of the community—including also, most emphatically, poor professional and business men, who would then be able to obtain the assistance they require without being compelled to choose between evading payment altogether or being crippled by debts almost impossible to pay.

The crux of the whole question lies in obtaining a sufficient composition fee and securing reasonable conditions of work. The men who get from £50 to £100 a year under contract for attending the servants at a large house have, I imagine, small occasion for complaint.

I enclose my card, which you are at liberty to hand to any one who desires the information.—I am, etc.,

March 17th. Contractor.

Sir,—I have read with some surprise "Another Anti-Club's" letter in the British Medical Journal of March 10th. Some of his remarks with reference to contract practice are rather contrary to my experience, and yet I trust that as he has never had a club patient and I have had a large club practice for over eleven years, I may with even more right than himself lay claim to the title of "one who realizes what club practice really is." May I inform him that in my experience far from club work not paying, I have found it not only pay from a business point of view, but pay extremely well; my club patients give me very little trouble, practically never, except in sudden emergencies, come to the surgery at any time except proper surgery hours, do not trouble me at night—I have, perhaps, averaged one night call in three or four years. I have none of the numerous worries with them inseparable from private patients; there is no booking, no making out bills, no bad debts, and last, but not least, a nice cheque every quarter, which comes regularly. "Another Anti-Club's" remark that "no doctor can give club patients proper attention and not lose by it" is in my experience quite incorrect. I find that by giving club patients proper attention you gain immensely by it; ma and many a private patient has come to me through t recommendation of a club patient who I had paid so little attention to during an illness. I should certai expect to lose if I did not give them proper attention. N my club patients treat me very well, and I treat them the best of my ability, though I certainly do not wast lot of time with them in talking over local affairs, as c has to do sometimes with private patients. I venture think there are not many of my club patients who wo be chary of trusting their lives in my hands, as complai are practically unknown, though, of course, it is impossi to please everybody.

A properly-conducted medical club is, in a large to with a working-class population, a necessity to my mi and I think it is in itself an excellent means of training t public to carry that golden rule into practice of "layi up for a rainy day."—I am, etc.,

March 18th. Another Club Doctor

Sir,—I am afraid you will be tired of us and c diversions from the original point under discussion. B may I be allowed space to apologize to "Self-Preservatio for my careless and wrong assumption of the conditio under which he purchased his practice and secured l predecessor's appointments? I regret that I did him injustice. As long, however, as we are agreed that man can claim an absolute right to sell his Poor-l appointments we need not discuss whether in the p transactions somewhat resembling "purchase" have be customary.

There is, however, one point—altogether apart fr the Poor-law question—which arises in both "Se Preservation's" latest letter and in the letter of member signing himself "For Contract Work," whi in the interest of a proper understanding of the As ciation's aim with regard to "contract practice" sho be cleared up. Both these correspondents seem to assu that the establishment of a public medical service wou cause an injustice to those already carrying on contr practice in the neighbourhood, and that, in fact, it mig be necessary for the promoters of the service to "buy o the existing contract practices." It is not the experien of those who have inaugurated public medical servic that either any serious injustice has been caused or th any buying out was necessary. The service is really on a coalescence of existing clubs, provident dispensaries, other forms of contract practice. Whatever patients doctors are using contract practice at the time of t amalgamation will continue to do so.

Some slight modifications of charges or of wage lim may be necessary, and may to a certain degree modify t amount of work or remuneration of some of the medic men. The more satisfactory conditions and more rep sentative character of this public institution may induc few more persons to join as patients, while the bett enforcement of the wage limit will undoubtedly exclu some unsuitable persons. But practically the medic man who is doing the most club work before the service started is almost certain to continue doing so afterwar It is possible that some medical men who had not pr viously encouraged club practice might be disposed to so on the altered conditions, but it would always ha been open to such men even if there were no medic service to start clubs on their own account. The cond tions of these private clubs might be altogether unsat factory professionally, and these men could do far mo harm to their fellow practitioners independently than they were limited in their action by the rules of a publ service.

The object of the opening of contract practice to a medical men practising in the neighbourhood and willi to conform to the rules of the public service, is not to ta contract practice away from those who are carrying it on suitable terms, but to prevent others instituting riv contract practices on terms less suitable to the professio If "Self-Preservation" and "For Contract Work" fi their contract work both satisfactory and remunerati they should welcome the establishment of a public medic service which would consolidate their positions and pr vent improper competition, either by sixpenny dispensari or by the institution of contract practice of lower gra than that which they are conducting.—I am, etc.,

March 19th. Professional Union.

ETHYL CHLORIDE AS A GENERAL ANAESTHETIC.

SIR,—Dr. W. J. McCardie's able and instructive lecture upon this subject stimulates me to make some observations from my own experience of ethyl chloride as a general anaesthetic.

Its potency and rapidity of action are so remarkable when compared with other drugs that athletic and alcoholic patients, who provide the best test of these qualities n an anaesthetic, are easily plunged into a very deep narcosis within 40 seconds by a dose of from 5 to 7 c.cm. dministered by the present methods. Though uncon- ciousness may be produced with nitrous oxide in the ame time, such a depth of narcosis cannot be secured, nor s a like result possible with ether; but, though highly angerous, it could be obtained with chloroform if given n the same manner.

Ethyl chloride also more nearly resembles chloroform han either nitrous oxide or ether in its physiological ction upon the circulation. In a paper which I read t the Odontological Society of Great Britain on February 5th, 1906, I pointed out that under ethyl chloride, after very transient rise, the blood pressure falls as under hloroform—evidenced by the loss of vasomotor tone nd the slowness of the pulse. I further quoted facts show that in the sitting position the blood pressure is om 12 to 15 mm. of mercury lower than in the supine osition even without anaesthesia. I do not think that e need seek any further explanation of fatalities which ave occurred in patients with fatty hearts when seated a dental chair.

Dr. McCardie very wisely now sets before us all the talities which have come to his knowledge, and esti- ates the mortality at 1 in 3,000 cases; but this is the me as that of chloroform.

Owing to the simplicity of the apparatus required and e ease of effecting anaesthesia with ethyl chloride, we ve therefore at the present time an exceedingly potent, pidly-acting drug which, unlike either nitrous oxide or her, lowers the blood pressure and is especially danger- s to patients in the sitting position on this account, ssessing, moreover, a mortality record identical with at of chloroform, being largely used for dental extrac- ns throughout the kingdom. I greatly fear that its eness to chloroform will only be discovered at the pense of many deaths if its employment in the dental air is allowed to continue.

eneral anaesthesia cannot be rendered safe with any g whose action in one dose only is understood; the ninistrator must know what symptoms will be pro- ed by its continuous administration, for the great iation in build and temperament, to say nothing of the thological condition of different patients, renders a fixed e overwhelming to some and insufficient for other ple.

definite degree of anaesthesia in any case can only be ected and relied upon when the dose, commencing n that which is too small to poison the system, is usted in quantity by the clinical symptoms produced n each individual patient. A small dose, therefore, ually increased as required, is the proper method of inistering ethyl chloride, and this can best be secured Dr. Hewitt's plan of delivery from a tube at the bottom he inhaling bag.

r. McCardie's recommendation as to the admission of is undoubtedly right, but it would be better to admit reath of air at every fifth respiration as a routine hod to increase its safety.

consider that ethyl chloride obeys the laws which ail in the case of the other anaesthetics when not n to the patient in one overwhelming dose, and there- advise the constant careful testing of the corneal lid- x during the administration, which should never be ed beyond the point at which a weakly active response e upper lid remains on touching the centre of the ea.

sum up, my opinion is that, whatever be the con- ence of ethyl chloride in surgical cases, its use in the al chair and in unqualified hands is fraught with too h danger to life to be justifiable, and that, though ly volatile, it far more nearly resembles chloroform ether or nitrous oxide.—I am, ect.,

H. BELLAMY GARDNER, M.R.C.S., L.R.C.P.Lond.,
Late Anaesthetist, Charing Cross Hospital.
don, W., March 20th.

SIR,—I read with much interest the papers on ethyl chloride as a general anaesthetic published in the BRITISH MEDICAL JOURNAL of March 17th. I can cordially endorse Dr. Knight's statements regarding this anaesthetic, which I have frequently employed during the last two years. For many minor surgical conditions it is an ideal anaesthetic. The chief drawback which I have met with has been the occurrence in a few cases of strong spasmodic contractions of the jaw muscles. This complication is more annoying than dangerous, as one often finds that by the time the mouth can be opened the anaesthesia is passing off. Except in cases where it is necessary to separate the jaws to get at the part to be operated on, this complication can be, practically speaking, ignored.

I was much surprised at Dr. McCardie's statement that "the after-effects of ethyl chloride are, apart from its danger, too serious to be neglected in dental practice." When resident at Dumfries I had considerable experience with it in dental work, and I certainly did not find any serious after-effects following its administration. Preparation of the patient is, I think, essential, and neglect of this may account for disagreeable after-effects. It has always been my custom to make the patient take an aperient the night before, and to abstain from taking food for three or four hours prior to the anaesthetic. If these precautions are observed the risk of after-effects occurring is infinitesimal. If a patient is got well under, a quick and skilful dentist can easily remove from eight to twelve teeth. I have myself extracted six stumps under one administration, and I do not profess to be an expert dentist. Under these circumstances it is much superior to nitrous oxide.

I have only once had a fright with it, and that was when I unintentionally put a patient under its influence. I sprayed some ethyl chloride on a small abscess near one of the nostrils, intending to open the abscess under local anaesthesia. I suddenly noticed that the patient's eyes were fixed and staring, and, on examination, found that he was fully anaesthetized. The operation was completed without pain, but the fact that general anaesthesia supervened was a little alarming, as it was quite unexpected.

The recent fatality has brought its danger prominently before the public, but I trust that this will not cause medical men to discontinue its use. In the hands of qualified persons it is in my opinion a safe anaesthetic, and it is a reliable and an efficient substitute for chloroform or ether in minor surgical work.—I am, etc.,

Brighton, March 19th. J. ALLAN, M.B.

TRYPSIN AND EREPSIN IN CANCER.

SIR,—In the BRITISH MEDICAL JOURNAL of January 27th, 1906, p. 240, I noted the use of a preparation of intestinal glands (Allen and Hanburys) understood to contain "secretin," as an aid to trypsin in the treatment of cancer. I have since been much interested in the original work of Dr. H. M. Vernon[1] upon the peptone-splitting ferments of the pancreas and intestine, trypsin and erepsin, the latter a peptone-splitting ferment discovered by Cohnheim in the intestinal mucous membrane. According to Dr. Vernon, "an ereptic ferment. . . . is common to all animal tissues; it is present in the tissues of all classes of animals, cold-blooded as well as warm-blooded, invertebrata as well as vertebrata. . . . and not improbably in all plants also." He adds that "it has always been assumed that the whole of the proteolytic changes brought about by the action of pancreatic juice or extracts are due to a single ferment." In this respect, according to Dr. Vernon, "pancreatic extracts contain two independent ferments, namely, pancreatic erepsin—which does not exist in the form of a soluble zymogen, and—trypsin which does; and of the peptone-splitting effected by pancreatic extracts, the larger part is due to pancreatic erepsin, a ferment entirely distinct from trypsin . . . and different to intestinal erepsin." With regard to erepsin, in order of activity, the intestinal mucous membrane is before the pancreas. Another ferment of the succus entericus known as enterokinase (Pawlow) is described as "a ferment of ferments." While, therefore, the importance of the pancreas is self-evident in the production of proteolytic and glycolitic ferments, it is significant to note the additional part which the intestinal glands assume in discharging a similar function. In this connexion, Captain F. F. Carroll, R.A.M.C., who is especially interested in the conservative and operative work on the stomach and intestines, has drawn my attention to the facts—namely, that cancer of the stomach stops abruptly and sharply at the pylorus (Bergmann[2]); that the small intestine is but rarely the site of cancer; and that cancer of the large intestine and rectum for the most part increases in frequency the further the distance from the duodenum. Hiemann's statistics[3] for Prussian hospitals, as quoted by Captain Carroll, are:

> He found 20,544 cases of cancer, in 10.537 of which the alimentary canal was involved as follows: Tongue, 269 times; mouth and throat, 192; oesophagus, 1,011; stomach, 4,288; intestines, 1,706. The small intestine was involved 20 times; the large intestine 224; the rectum 1,204, while in 255 cases the portion of intestine involved was not given. The cancer involved the liver and gall bladder 979 times and the pancreas 92. Cancer of the large intestine, exclusive of the rectum, occurs most frequently in the sigmoid flexure, then in the caecum, and then in the hepatic and splenic flexures and other portions of the colon.

The natural and comparative immunity of the duodenum and small intestine, together with the slower rate of growth in cancer of the large intestine, would therefore appear to support the treatment of inoperable cancer by preparations of the pancreas, bile salts, and intestinal gland extracts and ferments, alone or combined.—I am, etc.,

J. A. Shaw-Mackenzie, M.D.Lond.

London, W., March 19th.

References.

---

[1] The Peptone-splitting Ferments of the Pancreas and Intestine. The Universal Presence of Erepsin in Animal Tissues, by H. M' Vernon, M.A.Oxon., M.D., *Journal of Physiology*, 1904-5. [2] *A System of Practical Surgery*, by von Bergmann, vol. iv, p. 372, 1904. [3] Ibid., p. 391.

AT WHAT AGE SHOULD A CLEFT OF THE PALATE BE CLOSED?

Sir,—I am pleased to see that the remarks I made on this subject have given rise to such an interesting discussion. At the same time it appears to me that if any practical conclusion is to be arrived at as to whether it is better, in the case of harelip and cleft palate, to close the cleft in the palate during early infancy, before the lip has been operated upon, or during early childhood, after the lip has been operated upon, is entirely a question of evidence, and this necessary evidence can only be obtained by hearing the children speak and not by reading what the surgeons write.—I am, etc.,

Liverpool, March 17th. R. W. Murray.

OBITUARY.

HENRY RICHARD LEECH, M.D., J.P.,

BIRMINGHAM.

Dr. Leech was for a quarter of a century or more a busy practitioner in Birmingham. He was a student of the Birmingham School of Medicine in the late Seventies, and was even in those days known as a man of wide reading and much culture. He became a Licentiate of the Apothecaries' Society in 1879, and in the following year obtained the licence of the Royal Colleges of Physicians and Surgeons of Edinburgh. He at once started in general practice in the Ladywood district of Birmingham, and soon acquired an extensive connexion. He was remarkably popular with his patients, on account of his unselfish devotion to his work, and his resourcefulness in treatment. About ten years ago, when spending his holiday in South Devon, he met with a serious accident from a fall from his tricycle, which caused a severe fracture of the thigh. After this accident his health suffered, and a few years later heart troubles began, which continued up to the end. Dr. Leech, who was always a great student, took advantage of the rest required after his accident to prepare himself for the M.D. examination of Durham, and took that degree in 1899. Besides being a busy practitioner, he always showed an active concern in all matters relating to the politico-social advancement of the profession. He was a member of the British Medical Association, and took a prominent part in the work of his Branch, being a regular attendant at all its meetings. He was in all respects an excellent citizen, and took a very keen interest in the municipal affairs of Birmingham, although he never served on the city council. He frequently gave addresses on such matters as the water supply of Birmingham and other subjects connected with public health. His wide reading and powers of illustration made him very popular as a lecturer to large working-class audiences. He was made a Justice of the Peace for the city in 1892. H retired from practice only in October last, and was pr sented with a handsome testimonial by his friends an professional brethren. His last days were spent a Weston-super-Mare, where he died on March 16th in th 52nd year of his age.

On Saturday, March 10th, at Hurworth-on-Tees, nea Darlington, the death took place of Dr. **William Chisholm** a member of the Darlington Division of the British Medical Association. He was a native of Maxton, Roxburghshire, and took the degree of M.D. at Edinburgh University in 1865. A few years later he settled at Hurworth-on-Tees, where for the remainder of his life h devoted himself zealously to the practice of his profession Being a man of undoubted ability, and much shrewdness and kindliness of disposition, he enjoyed to an unusua degree the confidence of his patients. He became very well known in the district, his unostentatious and unassuming demeanour gaining him the respect of all classes who will now miss his familiar figure. Dr. Chisholm was married twenty years ago to Miss Janet Hope, daughter o the Rev. Dr. Hope, of Lamingtoun, Lanarkshire, by whom he is survived. He was buried in the family burying ground at Maxton, on March 16th.

We regret to record the death, on February 26th of Mr. **Joseph Skelding**, of Tenterden, Kent, formerly in practice in Euston Square, London. He was educated at University College, London, and obtained the diploma of M.R.C.S.Eng. in 1844. For many years he was connected with the principal northern railways running into London, being Medical Officer to the London and North-Western and Midland Railway Companies, and to the Railway Clearing House, and Honorary Surgeon to the Railway Benevolent Institution. He was well known as an expert in cases of railway injuries. He was contemporary with, and an intimate friend of, Erichsen, Quain, Savory, Jenner, Haynes Walton, and other leading men of that time. One of his sons is in the profession, and is now practising at Bedford.

MEDICO-LEGAL AND MEDICO-ETHICAL.

CONVICTIONS UNDER THE MEDICAL ACT, 1858.

Heavy Fines.

On March 14th, at Marylebone Police Court, Emil Otto Muschik was prosecuted by Mr. S. G. Lushington, on behalf of the Medical Defence Union, under Section 40 of the Medical Act, 1858, for wilfully and falsely taking and using the title of Doctor of Medicine.

The defendant had a brass plate on his door at 12, Marble Arch, on which he was described as "Dr. Muschik." On February 9th Mr. T. W. Tyrrell, acting under the instructions of the solicitor of the Medical Defence Union, called on the defendant. Mr. Tyrrell was in good health, but the defendant, after feeling his pulse and taking his temperature, pronounced him to be suffering from fever; no qualified medical man after taking Mr. Tyrrell's temperature could have supposed this to be so. Three days later he called again, when the defendant stated the fever had not quite subsided; a further visit was paid a fortnight later; on each occasion the defendant gave him a certificate signed "Dr. Muschik" to enable him to obtain leave of absence from business; on the first visit he gave him a pamphlet relating to "Dr. Muschik's Vibration" and a prescription, and asked him for a fee of five guineas; when this was refused he reduced it to three guines, and ten shillings was paid on account. On the other occasions Muschik gave him packets of herbs and further certificates recommending absence from business. The defendant also had branches in Pimlico and Harrogate.

Mr. de Fleury on behalf of the defendant pleaded guilty: he said his client was a German, and was the holder of certain foreign diplomas, but was unaware of the necessity of registration in England.

There was a summons in respect of each certificate, and the magistrate, Mr. Paul Taylor, inflicted the maximum fine of £20 in respect of each, and £10 10s. costs.

PERSONATION OF A MEDICAL PRACTITIONER.

Sentence of Penal Servitude.

On March 13th, at Warwick Assizes, before Mr. Justice Sutton, John Dale Tucker was found guilty of giving a false certificate relating to the death of Mary Anne Lyne, the certificate being false in that he described himself therein as "M.B., B.C." (Forgery Act, 1861, sec. 36).

The prisoner had bought the practice (in the course of which he gave the certificate) by representing himself to be W. E. Tucker, who was a registered medical man practising in ermuda. For many years he had been using numerous iases. He alleged that he was entitled to use the letters M.B., B.C." before the Charter of Philadelphia University is taken away. The Secretary of the Medical Defence nion, however, proved that at no time did that University ant the degrees which the prisoner declared he had quired.

There were other charges which were not proceeded with, cluding one of fraudulently selling a practice. There were so two previous convictions.

The prisoner, who was prosecuted by Mr. W. R. D. Adkins d Mr. B. S. Foster, on behalf of the Medical Defence nion, and conducted his own defence, was on the next day itenced to three years' penal servitude, the judge saying it s clear he had for some time been carrying on a system of ud.

MEDICAL ETIQUETTE.

RAE.—We do not understand how, if the patient "exercised his choice," as our correspondent says he did, Dr. D. emained in attendance. Surely, however, the patient did iot exercise his choice, for, as our correspondent says, he 'accepted the services" of Dr. D. "for fear of offending is employer." It is impossible for us to go into motives; e all know how weak people sometimes are; it is possible hat the patient has made one statement to C. and another D.; we can only judge by what he does; and it is clearly dmitted by our correspondent that the patient accepted .'s services, whatever his motives may have been. We espect our correspondent's claim to be superior to monetary onsiderations, and agree that the question of injury to his ocket is not everything, but there are so many more serious uses of dispute between medical practitioners that we eprecate attaching too much importance to a small thing, ich as this appears to be.

).LOND. writes: A patient is under the care of a medical an in the country. A well-to-do neighbour who is terested in the patient and not satisfied with his proess applies to me for the name of a London specialist give an opinion. I suggest that the patient come to see e and that I take him to a suitable consultant so as to get at opinion. This is done; my well-to-do friend pays the es and gets the opinion. I am now accused by the country actitioner, whom I have put in possession of the facts, unprofessional conduct. Is this accusation justified?

⁂ Our correspondent appears to have acted with want of nsideration towards the country practitioner. His proper urse was to tell the well-to-do person that the consultation ist be proposed to the practitioner in attendance, with equest that he should name a specialist. If this request d been rejected our correspondent might have been justid in suggesting a suitable specialist, but he should not ve taken any personal part in the proceeding.

LIABILITY OF WIFE.

RUPT writes that he attended a lady in her confinement l made other attendances on her family. Later on he t in his account to her husband, but has not been paid. husband has since been made bankrupt and left the ghbourhood. His patient has means of her own, and he hes to know if he can legally recover from her.

⁂ As the patient was living with her husband at the time he attendance, in the absence of any special agreement to contrary, the husband would alone be liable to pay for same. It is to be feared that our correspondent can only l in his account to the trustee and receive his dividend in same way as other creditors.

A FRIENDLY LEAD.

urgeon to a Friendly Society, which proposes to establish ther lodge at the other end of the town. Would it, he , be unprofessional for him to attend at the place—a lic-house—where the lodge is held, to examine candis, who think it too far to come to his house.

⁂ It is very unusual for a medical practitioner to attend public-house to examine candidates for a Friendly ety, and it would be better if "A." declined to be a party ich an arrangement.

PITAL OFFICERS AS WITNESSES AT INQUESTS.

V. writes: I am a resident medical officer at a hospital orted by voluntary contributions. I attended to and itted a child who had sustained an injury to the head who had died within twenty-four hours. The coroner red me to make a *post-mortem* examination and attend e inquest. I did so, but received no fee. Also, at the ier's request, I supplied him, previous to the inquest, a written report of the case and of the *post-mortem* examination. Is the coroner within his rights in ordering me to make a *post-mortem* examination without paying a fee? Can I claim a fee for the report? I may add that the court is about a mile from the hospital; I was absent at the inquest over two hours at the busiest time of the day, and had to get a substitute to do my work. I do not even get my out-of-my-pocket expenses, though of course these are small.

⁂ There is no fee payable for making a *post-mortem* examination, or for giving evidence at the coroner's court, to medical officers of hospitals, if the deceased died in the hospital. This is by statute law. For the report which our correspondent furnished to the coroner previous to the inquest no fee is payable, but any information which the medical witness can furnish previous to the inquest frequently saves the time of the court and his own too. It is not, of course, obligatory, but only a matter of courtesy. As to out-of-pocket expenses, some county councils allow witnesses such expenses at the rate of 2d. per mile, but not exceeding 2s. Should any alteration in the law take place (which is contemplated), all medical officers rendering service to the State will be remunerated.

"MESSAGES RECEIVED."

AJAX writes: Would it be considered bad form, or in any way unethical, for a medical man living in a suburb of a large town to put a plate up in an adjoining district, where there are other medical men—the plate having on his name, qualifications, and a notice saying messages may be left?

⁂ This is a practice which may easily be abused. In widely-scattered country districts it has to be sanctioned, but under other circumstances it is liable to evoke protest when brass plates are put upon houses of which the medical man is not a tenant.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Degrees.—In a congregation held on March 15th, the following degrees were conferred:

M.D.: F. P. Nunneley, Brasenose College.

M.B., B.Ch.: C. J. Singer, Magdalen College; W. D. Sturrock, Magdalen College.

D.Sc.: W. Garstang, Lincoln College; D. Randall-MacIver, Fellow of Worcester College.

UNIVERSITY OF CAMBRIDGE.

DR. G. H. F. NUTTALL, M.A., F.R.S., of Christ College, has been approved for the degree of Doctor of Science.

The following degrees were conferred on March 15th:

M.B.—R. E. French, King's.

M.B., B.C.—C. N. le Brocq, Pemb.; T. W. N. Dunn, Gonv. and Cai.; H. E. Graham, Jes.; T. L. Drapes, Sid. Suss.

UNIVERSITY OF EDINBURGH.

UNIVERSITY COURT.

AT a meeting on March 12th the Court approved of arrangements for the taking over of the anatomy rooms of the New School of Medicine, Bristo Street, till recently occupied by Dr. R. J. A. Berry, for purposes connected with the Anatomical Department of the University. Subject to the approval of the Senatus, Dr. E. B. Jamieson, Second Demonstrator of Anatomy at the University, was appointed Lecturer, and to have the chief charge of the rooms taken over.

On the recommendation of the Senatus, the Court approved of an arrangement under which Dr. Logan Turner, Senior Assistant Surgeon to the Ear and Throat Department, Royal Infirmary, should conduct the class of the University Lecturer on Diseases of the Larynx, etc., during Dr. McKenzie Johnston's absence on account of ill health for part of the current session.

On the recommendation of the Senatus, the Court appointed Dr. A. H. Freeland Barbour to be University Lecturer on Systematic and Clinical Gynaecology, and the Managers of the Royal Infirmary have agreed that Dr. Barbour in that capacity should have charge of Ward 35.

UNIVERSITY OF LONDON.

PRELIMINARY SCIENTIFIC EXAMINATION.

The following candidates have been approved:

Part II (Organic Chemistry).—W. R. W. Asplen, J. L. Atkinson, W. A. Berry, B. Blackwood, C. F. S. Broom, Barbara Broster, S. J. Clegg, G. B. Cockrem, Ethel Mary Connan, C. H. Crump, G. V. Deshmukh, A. Ferguson, A. J. Gibson, T. Hare, W. R. Harris, R. S. Harvey, R. M. Hiley, F. W. Hogarth, J. S. Hopwood, Florence Ida G. Hunter, R. P. Jones, E. C. Lindsay, G. G. Lyttle, Gladys Muriel Macaskie, D. A. Mitchell, R. Montgomery, A. E. Morgan, T. T. O'Callaghan, A. C. Palmer, T. C. Reeves, D. Scurlock, W. F. V. Simpson, W. R. Thomas, C. U. Whitney, G. Whittington, Violet Katherine Maria Wilde, C. Witts, S. Wyard.

UNIVERSITY COLLEGE.

Annual General Meeting.

THE annual general meeting of the members of University College, London, was held on February 21st, when the chair was taken by the President, Lord Reay.

New Fellows.—The following graduates in the Faculty of Medicine were elected Fellows in the College: Thomas Lewis, M.B., B.S., C. S. Parker, M.B, B.S., F.R.C.S., and W. B. L. Trotter, M.S., F.R.C.S. Three graduates in the Faculty of Arts and Laws, two of them ladies, and three in Faculty of Science, one of them a lady, were elected Fellows at the same time.

The President, in moving the adoption of the report, dwelt upon the services rendered to the College by the late Emeritus Professor Christopher Heath, F.R.C.S., who was a member of the Council, and devoted his life to the College, and by the late Sir John Burdon-Sanderson, formerly Jodrell Professor of Physiology. Lord Reay mentioned that the gift of £16,000 by Mr. E. G. Bawden had completed the sum of £200,000 required for the incorporation, and referred to the gifts of the Fishmongers' and Drapers' Companies. The financial position of the College had been further improved by the permanent increase in the Parliamentary grant. There had been during the year 90 graduations in the University of London in the different faculties. The meeting was the last under the old order; by incorporation the College would to a certain extent lose its independence, but all were convinced that unless and until the University obtained direct control of all the chief centres of university education in London, the task committed to it of organizing and directing university education in London would not be completed. It was therefore satisfactory to know that the authorities of King's College were proposing to follow the example of incorporation set by University College, but he regretted that the report of the Departmental Committee on the Royal College of Science showed that there was doubt in the minds of the members of that Committee as to the nature of the relationship between the College of Technology and the University. The President was convinced that increased facilities for higher technological work were required in London, but that unless all the higher technological work was in the hands of the same authority there would be the same risk of overlapping, duplication, and possibly triplication, that there has been in the past. If brought within the University, the new College of Technology might be managed by a college committee, much as University College would be managed. That college committee would be subject to the general direction of the Senate on matters of university policy, but in all other matters it might be practically self-governing. He believed, therefore, that it would be possible to start the new college at once within the University and while starting it with a committee under the Senate constituted in the way suggested in the report, there would be time to consider what modifications in the general constitution of the University are necessary. The incorporation of University College and the developments of the last few years, together with this proposed College of Technology, might make some modifications in the organization of the University desirable. It was possible that the Senate itself might in the course of the next few months be prepared with a scheme, but if not the suggested Royal Commission could be appointed for the purpose.

APOTHECARIES' HALL OF IRELAND.

THE Spring Medical Examinations, 1906, will commence on Tuesday, April 17th, with the First Professional. All entries must be lodged at least fourteen days previously with the Registrar, 40, Mary Street, Dublin.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE LOCAL GOVERNMENT BOARD ON WHOLE-TIME PUBLIC VACCINATORS.

AT the meeting of the Croydon Board of Guardians on March 20th a letter was read from the Local Government Board with reference to the post of public vaccinator for the Croydon district, rendered vacant by the death of Dr. T. R. Adams, who had held the appointment for many years. The guardians had proposed to divide the district and to appoint several private medical practitioners. The letter from the Local Government Board drew attention to paragraph 93 of the report of the Departmental Committee on Vaccination, and on the score of efficiency and economy the Board advised the guardians to appoint a permanent public vaccinator at a fixed salary, the duly-qualified medical practitioner appointed being required to give his whole time to the work, or, at any rate, agree not to engage in private practice. The letter continued: "He might, perhaps, if the district were not large enough to occupy the whole of his time, be allowed to engage in certain other professional work of a public character, but the Board think it would be better so to arrange the district that the whole of the officer's time would be occupied in public vaccination. They think, too, that the appointment of the public vaccinator should be in the nature of a permanent appointment, and that it should only be determinable with their approval." In the course of the discussion which followed, the Chairman stated that the fees recently paid for vaccination amounted to between £400 and £500 a year. The matter was referred to the finance committee.

DEATH FROM RUPTURE OF INTESTINAL ULCER.

A DEATH from an unusual cause has given occasion for an inquest in the Battersea Coroner's Court, and has afforded Mr. Troutbeck an opportunity of pillorying a member of the medical profession, and various newspapers occasions for some striking headlines. The deceased person, a horsekeeper, aged 57, who had been in and out of the workhouse for about seven years, had at various times been under the treatment of Dr. Dodson, the medical officer to the workhouse, for hydrocele, stricture, and chronic valvular disease of the heart. He was employed as a helper at St. James's Road Branch Workhouse. Death was proved on *post-mortem* examination to be traceable to perforation of a small chronic ulcer of the small intestine, about 8 ft. from the stomach; it was about ¼ in. long by ⅛ in. wide; through this a few drops of faecal matter had percolated, and there were signs of commencing peritonitis. The history was that on the evening of February 10th the man, while carrying a tray and passing through a door, ran against the corner, hurting himself. At the *post-mortem* examination a bruise was seen in the left groin, and a slight bruise on the internal abdominal wall, corresponding with the bruise on the surface; the bruise was about a foot from the spot at which the ulcer in the intestine had ruptured. The assistant master of the branch workhouse telephoned to Dr. Dodson about 10 20 p.m. on February 10th, stating that the man had knocked himself in the groin and was unable to pass water. Dr. Dodson, knowing the patient well, directed that hot fomentations should be applied and an opium pill and a dose of stimulant mixture given, adding that if the man was not relieved he would respond to a telephone call during the night. At 9 a.m. on February 11th, he communicated by telephone with the branch workhouse master, and was informed that the man had passed water o the previous evening after the fomentations, had slept, and was much easier. At 11.30 a.m. Dr. Dodson visited him and found him in bed, not suffering any pain, and free from tenderness or distension; the pulse was 80; the patient begged not to be sent to the infirmary, and took a meal o bread and milk. At 1 a.m. the following morning he died suddenly.

The Coroner (Mr. Troutbeck) apparently not appreciating that the latency of symptoms in this case rendered diagnosi difficult, if not impossible, took a very serious view of Dr Dodson's conduct and referred the matter to the Loca Government Board.

At a meeting of the Wandsworth Board of Guardians o March 16th the report of a special committee appointed to investigate the case at the request of the Local Governmen Board was adopted. The committee reported that they di not think any great blame could be attached to the medica officer, who, in saying that he would come and see the patien if he was not better, was evidently not unmindful of the case but, while making allowance for the fact that the assistan master did not realize the patient's serious condition, they fel that considerable blame attached to him. They thought i advisable that Dr. Dodson should arrange for some medica man living nearer the workhouse to visit cases of emergenc This Dr. Dodson has undertaken to do.

VACCINATION.

The Relations of Public Vaccinators with other Practitioners.

BRISTOLIAN.—(1) A public vaccinator is exceeding his leg requirements in calling to offer to vaccinate a child 3 months old, unless the parents, or guardians, request hi to do so. Failing such request he ought not to call until h receives notice (Form H, Vacc. Acts, 1898) from the vaccin tion officer; such notice ought not to be issued by the latt until the child is 4 months and 7 days old, and after a pe sonal visit from the vaccination officer to the paren [General Orders, Schedule IV, 6 (*a*)]. It is difficult to b lieve that a public vaccinator could "over-rule" the wish of a mother, and vaccinate without her consent, and son other evidence than the statement of the person would necessary. (2) In the second case also it is difficult credit that the public vaccinator vaccinated the childr "against the mother's wishes"; such a procedure wou constitute a grave assault. It is impossible to decide such a case upon the mere statement of the mother; sh was probably threatened with summary proceedings, whi were legally justifiable, and gave a grudging consent. On th larger question as to whether the vaccination of childre whose parents can pay, should be provided gratuitously the State it must be remembered that a general princi has grown up in English legislation that when certain p ceedings are forced upon individuals by statute, the expen of such proceedings shall be borne by public taxation. T principle is not confined to vaccination; it was applied compulsory education, at the instigation mainly of M Chamberlain in 1886, and under lies many other enactmen

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

☞ *Queries, answers, and communications relating to* *bjects to which special departments of the* BRITISH EDICAL JOURNAL *are devoted will be found under their spective headings.*

QUERIES.

. asks for references to literature on the economic aspect of declining or stationary birth-rate in relation specially to the theory of Malthus.

. DULBERG (260, Oxford Road, Manchester) would feel greatly bliged if those who have had experience of women resident ouse-surgeons to small hospitals for both sexes will kindly ommunicate to him their views.

NAE CASTRA writes: A young lady suffers from some uterine yperaesthesia, but is otherwise well and of wonderful uscular development. She is very fond of cycling, and can o sixty miles "without turning a hair," but she is afraid of ts increasing the tenderness of the uterus. What is the est saddle for her to use—one that will avoid all pressure n the fork? And where can it be obtained?

PHA (Ireland) asks if there is any institution or home where boy aged 19 years, strong, and in good health, but subject o uncontrollable fits of passion and generally unmanageable, night be placed.

*** Application might be made to the Superintendent, tewart Institution, Palmerston, Chapelizod, near Dublin; r, if the patient is a Roman Catholic, to one of the Com-unities of Christian Brothers.

SERUMTHERAPY OF GRAVES'S DISEASE.

G. W. wants to know where he can find accounts of the erum treatment of Graves's disease. Also where he can btain the serum.

*** A note on the treatment of Graves's disease by a erum prepared by Dr. S. T. Beebe, of the Loomis Labora-ory, Cornell University, appeared in the BRITISH MEDICAL OURNAL of March 3rd, 1906. The full text of the paper, hich contains references to the whole literature on the bject, was published in the *Journal of the American edical Association* of February 17th, 1906. A clinical aper on the use of the serum by Rogers appeared in the me number. We are unable to say where the serum can procured at present.

ENTRANCE EXAMINATION FOR WORKS CLUB.

ARIUS has been surgeon for many years to a works club ot governed from the office. He has now been approached the office to know for what fee he would examine every plicant for work in the foundry. Such examination would ve to be thorough, including testing the urine for sugar d albumen, and ascertaining presence or absence of ricose veins and hernia, loss of sight or hearing, etc. oughly, the number of men taken on last year was 500, but at was a very good year; 400 would, it is said, be a fair erage. He is asked to state what fee a case, or what salary year, he would accept, and asks for advice as to what ould be a fair fee or salary.

*** The examination is such as is usual with the large ilway companies, except that they do not require an amination of the urine, unless there are special reasons r it. Five shillings is the ordinary fee when all new hands e examined, and that is the minimum—or, say as salary, 00 a year. The railways also pay fees of 10s. 6d. for special aminations, not being entrance examinations. Half a inea is not too high, but is probably more than the mpany in question would pay.

ANSWERS.

IRRITATION OF THE SKIN AFTER BATHS.

rites in reply to "Cape": I have such another case ich has taxed all my ingenuity. My patient, a lady, finds st relief from very hot baths taken daily, with a packet of dson's dry soap dissolved in the water, and the careful idance of friction in drying herself, which she effects nply by wrapping herself in large, hot bath towels and ng down till dry and cool. The disease appears to be amily one. My patient is one of six brothers and sisters, whom four suffer in a similar way, and of these four three sufferers from rheumatism. It first appears in early ult life, about 18 to 20, and it varies much in intensity m time to time from no appreciable cause. The sensation nplained of is described as a severe, stinging, pricking h, which affects most parts of the skin with varying ensity; there is no rash, though my patient at first had liffuse redness, with prominence of the papillae like an intensely red "cutis anserina." The irritation comes on whilst in the water, persists for a varying time after leaving the bath, and is so severe that the sufferer dreads bathing, and if not strong-minded, would not have a bath for weeks or months. In my patient's case it is now caused at times by a chill, such as may be incurred in changing her clothes in a cold room or by washing the face or hands in cold water. She never experiences it when in a profuse perspiration, which is a rare occurrence for her, the skin appearing to be exceptionally dry, and strange to say she had no trace of it during her puerperium, when she was sponged down daily in the usual manner; but as soon as she was up and about again and taking her regular baths it reappeared.

DR. JAMES STILWELL (Lee, S.E.) writes: Arrest the hyper-idrosis by appropriate bracing tonics internally, and also apply belladonna ointment locally. The decomposition of the sweat must be counteracted, and its irritating contact with the skin prevented. Wash the part affected twice daily with thymol soap and dust freely with an antiseptic powder.

TREATMENT OF UTERINE FIBROIDS BY ELECTROLYSIS AND X RAYS.

YORKSHIRE is doubtless aware that whilst small uterine fibroids causing neither pain, pressure, nor haemorrhage are best left alone, the general opinion of authorities is that hysterectomy or myomectomy is advisable when the tumour tends to increase or is associated with the above-mentioned symptoms. Hysterectomy, at least when skilfully performed with aseptic precautions, involves little risk to life. Skene Keith and Inglis Parsons advocate electrolysis, and claim good results. He must remember that Apostoli's treatment requires a thorough knowledge of electricity and skill in its application, nor is it unattended with danger. The alleged "disintegration" of the tissues of the tumour has been shown, in some instances at least, to be simple cauterization. As for the *x* rays, they should be reserved, in cases of fibroid and other abdominal tumours, for purposes of diagnosis, especially where pregnancy is suspected.

LETTERS, NOTES, etc.

INSURANCE AGREEMENTS.

WE have received from a correspondent in the South of England particulars of a controversy between himself and the manager of an insurance company which involves a point of some importance to medical referees. Our correspondent had accepted an appointment as medical referee, and signed an agreement under which he was to receive a fee of half a guinea for each examination. He soon found, however, that he was expected to visit the proposers for insurance at their residence or place of employment. This he declined to do, on the grounds that he had not contracted to visit (often at a considerable distance) for the fee specified, and that he could not properly fulfil his duty to the company apart from certain apparatus in his consulting-room. In several cases the proposers were sent to our correspondent after these representations, but in another he had to visit the case under protest. Finally, the manager of the company, while maintaining that the fee of half a guinea provided for in the agreement is inclusive of visiting when necessary, has undertaken to arrange that in future "proposed members" shall call upon our correspondent at his surgery. If not quite conclusive, this is an amicable arrangement which will probably prove to be satisfactory in practice, and may be a guide to other practitioners who find themselves similarly placed.

A CONGRESS OF CRANKS.

THE *Journal de la Santé*, which is edited by Dr. Madeuf, founder of a League against Seasickness, announces that a Congress for the promotion of the "liberty of medicine" is being organized under its auspices. The Congress is to meet in Paris in May. We do not exactly know what the "liberty of medicine" means; but, as it is stated that the sole object of the Congress is to defend the rights and interests of the "protestants and independents of medicine," it may perhaps be surmised that it is to be a gathering of cranks. It appears that a Congress similar in character was held in Paris in 1872; it is described as having been a "great success." The poet says: "The world knows nothing of its greatest men." This is doubtless why the world has heard so little of the "protestants and independents of medicine" who foregathered on that occasion.

TO TELEPHONE SUBSCRIBERS.

A VICTIM (London) writes: May I offer a word of warning to the above through the columns of the BRITISH MEDICAL JOURNAL? The National Telephone Co. are now putting in new instruments, and their inspectors are canvassing the subscribers with respect to the same. These new instruments are, in a way, much better than the old, and work very well, but we are confronted with (to medical men especially) a very serious difficulty, which is, that if there is an extension instrument when the line is switched "through" the whole conversation from either end can be heard with equal distinctness on the main as well as on the extension instruments. As many of us have an extension instrument in our consulting room for the sake of extra privacy, it seems to me to be a very wrong method which allows the whole of that privacy to be intruded upon (without the speaker's knowledge) by any one who chooses to take the receiver off the main instrument. I have already objected several times, and am now told that it cannot be altered, and that it ought to have been fully explained to me by the canvasser that there would be no privacy of conversation on the extension. Under these circumstances I would wish to warn all my professional brethren who may have, or wish to have, an extension instrusion of the conditions that will exist unless they stand out against them, so that they may not be as I am.

COMPLICATIONS OF SCARLET FEVER.

MEDICAL SUPERINTENDENT OF INFECTIOUS DISEASES HOSPITAL writes: Dr. Hunter's article upon scarlatina and diphtheria at the London Fever Hospital is one of great interest. Having had the charge of a fever hospital with 161 beds for the last twenty years, I was hoping, as I read through the Doctor's report, that I might find mention of cases of a similar character to many which have been sent into the hospital under my care. These are patients with well-developed scarlatinal rashes, but with a condition of throat resembling very much the appearance of diphtheria—that is, having a greyish-white membrane; in some instances it covers both hard and soft palate and tonsils, and in others it is limited to tonsils and uvula. Bacteriological examination of the membrane gives about 90 per cent. of negative results as far as the bacteria of diphtheria is concerned; but great numbers of both streptococci and staphylococci are found. In the 10 per cent. of positive cases the membrane yields readily to the diphtheritic treatment of injections of serum, but in the 90 per cent. of negative cases this treatment is of no avail, and, in fact, remedies of all descriptions, both local and medicinal, have very little effect; in many of the patients the membrane has remained for a fortnight or even longer. The local remedies used have included sulphur, sulphurous acid, boracic acid, iodine, silver nitrate, hydrogen peroxide, etc. The peroxide has had good results in some, but failed in many. The condition of the patient has not seemed to be embarrassed by the membrane, neither has the temperature been unduly high; 103° was about the greatest height of any case. The membrane of the negative cases does not infiltrate deeply into the submucous tissue, but is apparently more in the superficial layers of epithelium, and has a tendency to spread; it also has a distinctly-defined margin, not fading away into the surrounding mucous membrane. When it disappears it does not leave such an amount of deep destruction of the under parts as follows diphtheritic membrane. It has rarely been followed by paralysis of the parts affected. From April 1st, 1904, to December 1st, 1905, I have received into hospital 104 patients suffering in this manner. *In every case the condition of the throat mentioned was there when the patient was admitted into the hospital.* They were removed from five different towns, each town having its own sewage system separate from the other; the houses from which patients were taken varied from back streets to good class houses, shops, etc., and moved from different localities in each town, and not confined to any special area. In writing this note I am wishful to learn whether a similar condition of throat is being met with in any other hospitals. Prior to the date mentioned—April, 1904—it was a very unusual thing to meet with, and now it is of very frequent occurrence. To what is it due? Is it a fresh development—a new complication—or does it arise from sanitary defects in the towns? Is it possible to be a form of diphtheritic membrane without the true bacilli being found, and, if so, how is it that treatment for diphtheria fails to have any effect upon the membrane. In many of the very severe and persistent cases the injection of antistreptococcic serum has been most effective, but in others it has been of no benefit. The writer will be pleased to have the benefit of the advice of any one who has met with a similar condition, and also what remedies are found to be of use. The bacteriological examinations have all been made by an expert bacteriologist, so that there is no doubt about the exactness of the examination of the cultures.

POST-OFFICE AMENITIES.

KLOFRON writes: "West Somerset's" is not an isolated case. I, too, in 1904, received an application from the Post Office asking me if I wished to apply for the post of surgeon to the Post Office, this post being created for the first time. If so would I return the form, filled in? I did so, and the postmaster, whom I then attended medically, as well as all the employés, most of whom are in my clubs, told me that he wished me to obtain the post, and would use his best efforts to that purpose. I heard no more from him, but later on I heard casually that another medical man had been appointed. Three months later this medical man sold his practice, and I then received another notice, similar to the first, and a form to fill in. I did so, and also wrote a letter pointing out that the care of the employés had always been in my hands previous to the creation of the post, and that they still had to call me in when ill in order to obtain their club certificates. (I hold all the club appointments.) I had no reply, and I learnt, again casually, that the successor had obtained the appointment. Many months after I met the postmaster, and on questioning him as to the silence he said, "Oh, that application I sent you to fill in was only a matter of form; the appointment was handed straight over to Dr. ———'s successor." My comments to him on the matter of form were sufficiently strong to ensure the continuance of the silence.

TUNING-FORK TESTS.

MR. RICHARD LAKE, F.R.C.S. (London), writes: As none of our senior aural surgeons appear to have seen Mr. Paget's remarks on the futility of tuning-fork tests, in which he says: "Tests with a tuning fork—are they of much practical use? . . . It is claimed for them that they can distinguish affections of the middle-ear from affections of the internal ear, and that is just where they so often fail. . . . I confess that I have given up the tuning fork . . ." (BRITISH MEDICAL JOURNAL, p. 248, 1906). I take up the burden of opposition, for I have no hesitation in traversing all Mr. Paget's remarks on tuning forks in this paper—that is, by their aid middle and internal ear diseases are easily separated. Not only are these tests well known and well understood in this country, but they are regularly and systematically taught at the Royal Ear Hospital.

A RAPID CURE FOR LUMBAGO.

ESSEX writes: Ung. antimonii tart. is worse than useless in the treatment of lumbago, inasmuch as it causes a breach of surface. I found the rheumatism worse after the third application than at the outset, the pustular eruption making its appearance after the second inunction. Of course, friction will always give temporary relief, but of very short duration.

*** In answer to an inquiry appended by our correspondent, it may be stated that this ointment is no longer in the *British Pharmacopoeia*. It is not mentioned in the *Extra Pharmacopoeia* of Martindale and Westcott, nor in Squire's *Pocket Companion*.

AN APPEAL FOR INFORMATION.

A MEMBER OF THE BRITISH MEDICAL ASSOCIATION writes: There are in England certain districts which are without the services of any medical man, either because the population is too small or because the people are too poor to be able to furnish an income from practice which will make it worth while for any medical man to reside amongst them. The present inquirer will be greatly obliged to any one who can tell him about any such district. The object of the inquiry is to find an opening for a young medical man who is much interested in his profession, but who from deafness is too severely handicapped to be able to compete with others. He would be content with a very modest income if he could find such an opening in a country place, where he could obtain in a garden some relief from the perpetual silence and introspection of the deaf man.

FIRST AID FOR INJURED LEGISLATORS.

THE *Pall Mall Gazette* states that a chemist's shop—completely equipped with drugs, and surgical appliances—has just been installed in the Vienna Parliament building in close proximity to the Lower House. It is intended for use only in cases of accident and other emergencies, such as fainting fits, which frequently result from the over-heated atmosphere of the Chamber. There will be no official dispenser, however, and the shop will be kept locked, and the key given in charge of an attendant posted outside. Other keys will also be furnished to the medical members of the House, of whom there are eight, including Dr. Adler, the well-known leader of the Socialists. We venture to suggest that in view of the combative temper displayed by Vienna legislators more than once in recent years, it would be an advantage if a surgeon were in attendance. Even in our own comparatively peaceful Parliament there have been times when a supply of medicines and surgical appliances would have been useful.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	**£0 4 0**
Each additional line	**0 0 6**
A whole column	**2 13 4**
A page...	**8 0 0**

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

The Lumleian Lectures

ON

TABES DORSALIS.

DELIVERED BEFORE THE ROYAL COLLEGE OF PHYSICIANS

BY DAVID FERRIER, M.D., F.R.S.,

FELLOW OF THE COLLEGE; PROFESSOR OF NEURO-PATHOLOGY IN KING'S COLLEGE, LONDON; PHYSICIAN TO KING'S COLLEGE HOSPITAL, AND TO THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

LECTURE I.*

MR. PRESIDENT AND GENTLEMEN,—The choice of a subject must always, I imagine, be a matter of difficulty to the one who has the honour of being appointed to deliver the Lumleian Lectures. Having been invited to open a discussion on tabes at the forthcoming International Medical Congress, it appeared to me that I might with advantage to myself, and I hope not without profit to you, take as the basis of my lectures some questions relating to the nature and pathology of tabes which are likely to be debated by the neurologists assembled in Lisbon.

Tabes seems to be of perennial interest at neurological and medical congresses. Nor is this much to be wondered at, considering the vast field which it covers, and the variety of questions which it raises.

The literature of tabes is enormous, and the treatises and memoirs relating to it literally count by thousands. It will be my endeavour in these lectures to present to you as succinctly as I can the evolution of our knowledge of tabes, its nature and causes, and to indicate the problems as yet unsolved and on which we need further light.

Tabes dorsalis, in the modern acceptation of the term,† is a very different thing from the tabes dorsalis or dorsualis—*φθίσις νωτιάς*—of the Hippocratic writers. This was essentially a condition of neurasthenia associated with spermatorrhoea, and attributed to sexual vice or excess. It was supposed to be due to wasting of the spinal cord, but on what evidence this was based there is nothing to show. That true tabes ever existed in Europe before the introduction of syphilis in the fifteenth century is more than doubtful. The retention of the name tabes dorsalis (or dorsualis) by the older German writers for the disease as we now understand it, though strictly correct according to modern pathology, tended largely to create confusion, and excite prejudice against its unfortunate victims. Though cases of what we now know must have been tabes had been described by various observers, such as Ollivier (1824), Hutin (1827), and Cruveilhier (1835-42), who figures the *post-mortem* appearances in his atlas), in France; and by Horn (1827), Jacoby (1842), Steinthal (1844), etc., in Germany; and though in this country Todd (1847) had drawn a clear distinction between paralysis and nco-ordination,‡ and was the first to connect inco-ordinaion with disease of the posterior columns of the spinal cord, yet there is no doubt that the first systematic account of the etiology, symptomatology, diagnosis, prognosis, and treatment of tabes was given by Romberg 1840 to 1857). In his *Lehrbuch der Nerven-Krankheiten* he describes the characteristic gait; the pathognomonic symptom now called by his name; the increase of the ataxic disorders on shutting the eyes; the shooting pains, anaesthesiae and parasthesiae; the bladder troubles; the ffections of vision, and the striking myosis and fixity of he pupils.

He mentions the relative infrequency of tabes in women; and as to prognosis, he utters the gloomy verdict:—"To none affected by this malady is there any ope of recovery; *über alle ist der Stab gebrochen.*"

Of the morbid anatomy, he says that, notwithstanding considerable differences, the *post-mortem* examination shows for the most part partial atrophy of the spinal cord, mainly in the lower part of the lumbar enlargement and onwards, and in the nerves issuing from it. The diminution of volume amounts to the half or two-thirds of a normal cord, affects the grey and white substance, or only one of these. The atrophy of the nerves in the leash of the cauda equina is often so pronounced that only the empty neurilemma sheaths remain. Also the roots of higher inserted nerves participate in the atrophy; and, what is of particular interest, the posterior roots are sometimes alone affected, at other times along with the posterior columns of the cord, while the anterior roots appear normal.

Romberg, however, did not clearly differentiate the basis of ataxy from that of muscular paresis or paralysis, and he describes as equally belonging to tabes leathery induration of the white substance and, more frequently, softening of the grey matter.

There was no notable addition to the literature of tabes until Duchenne in 1858 published his researches on "ataxie locomotrice." These were the starting point of the extraordinary amount of attention that the subject has attracted since his time. Duchenne, purposely endeavouring to divest himself of all preconceived notions, and pursuing his investigations in the limbo of so-called general spinal paralysis and unclassified forms of chronic myelitis, discovered what to him was a new disease, which, from its most striking symptom, he termed "ataxie locomotrice," adding the further term "progressive" on account of its habitual tendency to advance rather than recede. He clearly differentiated the affection from muscular paralysis or paresis, and described with a masterly hand its most characteristic manifestations. Trousseau, in his brilliant clinical lectures, largely spread abroad the knowledge of this affection, but he did scant justice to previous writers in calling it Duchenne's disease. For, though practically a discovery on Duchenne's part, it was no discovery in the true sense of the term, as the malady was undoubtedly the same as had been known under the name of tabes dorsalis. And though Duchenne differentiated the affection more precisely than had been done before him, yet he contributed nothing to the pathological anatomy of the disease, and was inclined to attribute it to some affection of the cerebellum rather than that of the spinal cord.

Trousseau went so far as to look upon the malady as a pure neurosis, and considered such changes as had been observed by others in the spinal cord and posterior roots as probably only the secondary result of the functional disturbances created by some obscure general condition. This view was maintained by others of his school, notably by Isnard, who regarded tabes as a neurosis of the muscular sense.

The connexion between the symptoms of tabes or locomotor ataxy and degeneration of the posterior columns, first termed grey degeneration by Cruveilhier, had, however, been satisfactorily established by many observers, among others by Todd and Gull in this country.

The minute anatomy of the morbid changes began with the microscopical investigations of Virchow (1855) and Rokitansky (1857). Rokitansky described it as a proliferation of the structureless, ependyma-like connective tissue and stroma of the nerve centres, which caused destruction of the nerve elements proper, and resulted in induration or sclerosis of the affected parts (schwielige Degeneration). The process was not inflammatory, however, as there was no exudation; and Rokitansky included in the same term the end results of various other forms of lesion of the nerve centres.

But the first important microscopical investigations, specially in reference to the now well-defined symptom-complex of locomotor ataxy, were made by Bourdon and Luys (1861).

They defined the condition as sclerosis of the posterior roots, the end-result of a chronic inflammatory process; and similar views as to the inflammatory origin of the degeneration were held by Charcot, Vulpian, Gull, and others. V. Leyden, however, in his celebrated monograph, *Die graue Degeneration der hinteren Rückenmarks-stränge* (1863), combated the inflammatory origin of the degeneration, and maintained that it had more the characters of a simple atrophy, and that such indications as there might be of chronic inflammation in the membranes and vessels were only secondary or accidental. He regarded the process as a peculiar degeneration of the sensory tracts of the spinal cord ascending generally from below upwards.

---

* The lecture was illustrated by lantern slides.

† In reference to the term I would remark at the outset that but for heir consecration by custom, I should like to discard the term orsalis altogether, and the still more barbarous adjective tabetic, in vour of tabes and tabid.

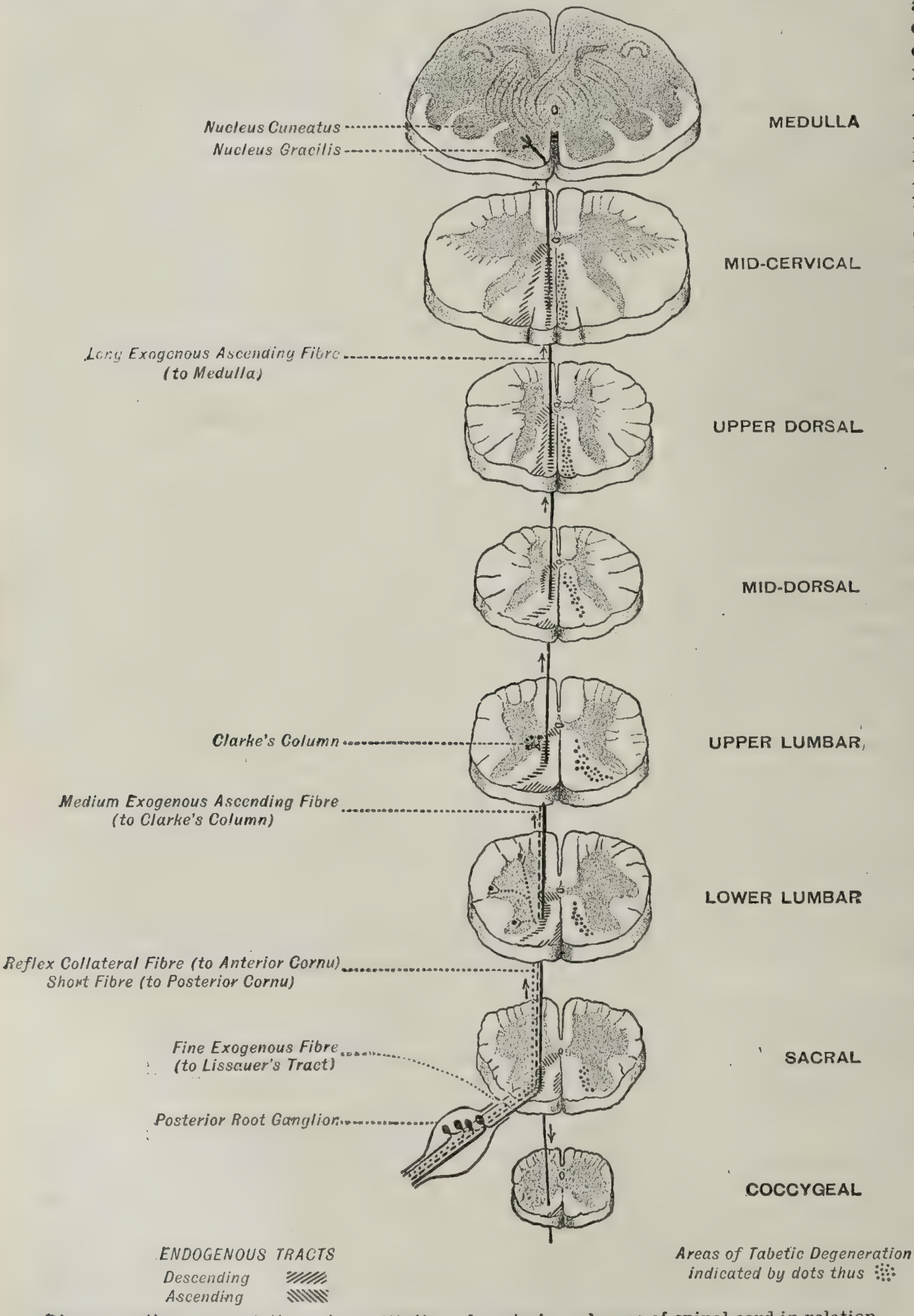
‡ Todd (*Cyclopaedia*, vol. iii, p. 621) says two kinds of paralysis ay be observed in the lower extremities—"the one consisting mply in the impairment or loss of voluntary motion, the other istinguished by a diminution or total loss of the power of co-ordinating movements." In two cases of the latter affection he predicted isease of the posterior columns of the spinal cord, to which he tributed the faculty of harmonizing the movements of the limbs ith each other.

At this time, however, he did not, as he has done in later times, causally connect the degeneration of the posterior columns of the cord with that of the posterior roots or sensory nerves, though he specially noted their almost constant coincident affection. In fact, in commenting on a case reported by Gull, to whom it seemed as if the degeneration of the posterior roots caused by inflammation of the pia mater had propagated itself to the posterior columns, he says explicitly: "But the view that the atrophy of the posterior roots caused by inflammation of the pia mater leads to a similar degeneration of the posterior columns is very unlikely. Moreover, the disease of the posterior columns progresses more from the posterior periphery and middle line, rather than follows the distribution of the roots" (p. 152).

The next great advance in the pathology of tabes was made by Pierret (1871), who in the course of his investigations observed that the primary lesions of tabes consisted, not in a degeneration of the posterior columns as a whole, but "in two symmetrical islets of small extent, situated in a special region of the posterior columns."

"This region," he says, "which I propose to call the 'rubans externes' of the posterior columns, appears on transverse section in the form of two narrow bands skirting the internal aspect of the posterior horns. It appears to contain two orders of fibres—commissural and internal radicular. The sclerosed areas do not actually touch the posterior cornua, but are separated from them by tracts of healthy white substance, though they are connected by fibrous bands. The sclerosis, beginning in the middle of the rubans externes, tends to spread inwards towards the median column, and outwards towards the posterior cornu."

Tabes then came for a time to be considered a system disease or sclerosis of the rubans or bandelettes externes of the columns of Burdach. But at this epoch nothing was known as to the relation of the bandelettes externes to the posterior roots. Vulpian, however (1879), saw the difficulty of connecting the supposed primary disease of the bandelettes externes with the atrophy of the posterior roots. A primary degeneration of the posterior columns could scarcely, he maintained, lead to atrophy of the posterior roots whose trophic centre was in the spinal ganglia. This would be a retrograde degeneration and opposed to the Wallerian law. He therefore regarded the atrophy of the roots as undoubtedly of primary origin. That of the bandelettes externes might perhaps be so also, but only in so far as they contained fibres not directly continuous with the posterior roots themselves.


Nucleus Cuneatus
Nucleus Gracilis
MEDULLA
MID-CERVICAL
Long Exogenous Ascending Fibre (to Medulla)
UPPER DORSAL
MID-DORSAL
Clarke's Column
UPPER LUMBAR
Medium Exogenous Ascending Fibre (to Clarke's Column)
LOWER LUMBAR
Reflex Collateral Fibre (to Anterior Cornu)
Short Fibre (to Posterior Cornu)
Fine Exogenous Fibre (to Lissauer's Tract)
SACRAL
Posterior Root Ganglion
COCCYGEAL
ENDOGENOUS TRACTS
Descending ▨
Ascending ▨
Areas of Tabetic Degeneration indicated by dots thus ⁘

Diagrammatic representation of constitution of posterior columns of spinal cord in relation to tabes.

He proposed to substitute for the formula "sclerosis of the posterior columns" "sclerosis of the posterior roots" as the primary basis of tabes. He thus inaugurated the radicular or root theory of tabes which is now entertained in one form or another by the majority of neuro-pathologists.

In order to follow the bearing of this theory on the pathological anatomy of tabes it is necessary to make some preliminary remarks on the relation of the posterior roots to the posterior columns of the spinal cord.

The facts on which this is based have been established mainly on the results of degeneration consequent on lesions of the posterior roots by disease in man, and of experimental section of the posterior roots in animals, especially in monkeys. These we owe in part to the labours of Schiefferdecker, Schultze, Kahler and Pick, Singer and Munzer, etc., and notably to the careful experiments and investigations of Tooth, which he made the subject of his Gulstonian Lectures before this College in 1889.

The posterior roots emerging from their respective ganglia penetrate the cord in two divisions—an external, consisting of fibres of small calibre which enter the apex of the posterior cornu, or zone of Lissauer, and distribute themselves here; and secondly, an internal division, formed of fibres of large calibre which alone take part in the formation of the posterior column. This division of the posterior root gives off short, medium, and long fibres. It occupies in the first place a crescentic area on the inner border of the posterior cornu—the *cornu-radicular zone* (Marie)—and gives off short fibres to the adjoining cells of the posterior cornu. With the advent of the next and successive roots above, the lower roots are displaced from the cornu-radicular zone inwards towards the middle of Burdach's column, and occupy a space elongated antero-posteriorly, which corresponds to what was termed by Pierret the bandelette externe. The bandelette externe is only the second stage in the course of the posterior roots. From this are given off the medium fibres, which form two principal groups: first, the sensitive-reflex group or reflex collaterals of Kolliker, which arise mainly from the middle of the bandelette, and are distributed among the cells of the anterior cornu; secondly, the fibres to Clarke's column. These emerge principally from the anterior aspect, and if derived from the lowermost roots, ascend a considerable distance before they finally reach their destination, inasmuch as the cells of Clarke's column do not descend below the second lumbar segment. Besides the short and medium fibres above described there is another set of fibres which, instead of ending in the cord, ascend in the column of Goll as far as the nucleus gracilis of the medulla oblongata. These fibres appear to come from the posterior aspect of the bandelette externe and postero-lateral zone, and gradually pass inwards, and ultimately reach the mesial septum. The lowest fibres are those which are nearest the middle line.

Only the long fibres from the lumbo-sacral and lower dorsal roots ascend in the column of Goll. Those from the upper dorsal and the cervical roots ascend in the column of Burdach, the lowermost nearest the column of Goll, and end in the nucleus cuneatus.

The columns of Goll, therefore, are formed by the long fibres of the lumbo-sacral and lower dorsal roots, and belong to the root system of the cord—the *exogenous* or extrinsic system (Marie). All these degenerate upwards on transverse section of the spinal cord at any part.

But, in addition to the exogenous, or root fibres, the posterior columns of the cord contain tracts which are probably commissural in function between different segments and different levels of the spinal grey matter. These tracts constitute the *endogenous* system of the spinal cord (Marie), and form two divisions, the ascending and descending. They only degenerate on destruction of the grey matter, and remain intact after all the exogenous fibres consequent on destruction of the posterior roots have undergone degeneration.

The ascending fibres occupy the *cornu-commissural* zone or ventral field of the posterior columns, lying posterior to the grey commissure, and extending some distance along the inner aspect of the posterior cornua. These vary in size according to that of the horns of the umbar, dorsal, and cervical regions, and degenerate *above* esions of the grey matter.

The descending system of fibres degenerates, on the contrary, *below* a transverse lesion of the grey matter. This system of fibres was first described by Schultze 1883), and is known in the cervical and dorsal regions as the "comma" tract. It occupies a position in the column of Burdach, running obliquely in an antero-posterior direction parallel to, but at some distance from, he internal border of the posterior cornu. Schultze described it as not reaching either the grey commisure or the posterior surface of the cord, but the Marchi method has shown that this is not quite correct.

This comma tract was supposed by him to consist only f descending root fibres, but the researches of various athologists, especially those of Gombault and Philippe, ave shown that this comma tract is continuous from bove downwards with other tracts which have been ifferently named according to their appearance in ifferent parts of the cord—namely, the *septo-marginal* tract of Bruce and Muir in the lower dorsal region, the *oval field* of Flechsig on each side of the mesial septum in the lumbar region, and the *median triangle* of Gombault and Philippe in the sacral region.

These variously-named tracts thus constitute one ontinuous system of descending commissural fibres, eceiving and giving off fibres at different levels of he grey matter, and connecting together the various egments, as well as the upper and lower spinal centres, ith each other. The continuity of these systems with ach other has been clearly demonstrated by Purves tewart in a case of crush of the cervical cord.

We may now proceed to consider the degenerations characteristic of tabes, and to inquire how far they correspond with the exogenous and endogenous systems of fibres above described.

In a moderately-advanced case of tabes one observes a notable atrophy of the posterior roots. These are thin, flattened, and greyish in colour, contrasting vividly with the white and plump anterior roots. This appearance is most marked in the roots forming the cauda equina. The posterior columns of the cord are also thinned, and of a greyish, semitransparent aspect, and the posterior cornua are often similarly affected. The pia mater over the posterior columns more especially is frequently thickened and adherent.

The changes are, as a rule, most pronounced in the lumbar and lower dorsal region, but may in certain cases —so-called cervical tabes—be more or less limited to the cervical region. In advanced cases the whole of the posterior roots and whole of the posterior columns may be affected.

If one examines a transverse section of the lower dorsal or upper lumbar cord in an early case, one observes an area of degeneration occupying the middle third of the posterior column, extending from the posterior cornu forwards and inwards towards the posterior commissure. This area constitutes Pierret's bandelette externe, and varies in breadth according to the number of posterior roots involved. The two bandelettes, not always symmetrical, may meet almost in the middle line. They correspond to the middle stage of the traject of the posterior roots. From this part of the course, as we have seen, are given off the reflex collaterals to the anterior cornua, and the fibres to the vesicular columns, or columns of Clarke. These are the fibres first, and specially affected in tabes.

For a considerable time after the degeneration has appeared in the bandelettes externes comparatively little degeneration may be visible in the cornu radicular or root entry zone, in the long fibres occupying the postero-external zones, and still less in the cornu commissural zone and oval fields bordering the posterior median septum. In more advanced cases, all the posterior columns are degenerated except the cornu commissural zone and the oval fields of Flechsig. These form, as already remarked, the endogenous systems of the cord, and only degenerate in very advanced cases in which the upper regions of the cord are invaded.

The appearance of sections of the cord higher up will vary according as the degeneration of the posterior roots is confined to the lumbo-sacral region, or also implicates the dorsal. In the first case the only degeneration visible is in the posterior median columns, which contain the long fibres from the lumbo-sacral region in their course up to the nuclei graciles of the medulla oblongata, all the short and medium fibres having by this time found their primary termination in the cells of the posterior and anterior cornua and in the columns of Clarke.

The appearance presented will be that seen in the figure which I throw on the screen.

If, on the other hand, the dorsal roots are also affected, we get, in addition, degeneration in the columns of Burdach, varying in extent according to the number of roots involved; and we may have a degenerated zone in Burdach's column separated from that of the column of Goll by healthy tracts corresponding to healthy roots entering at a lower level.

In the cervical cord, if only the lower dorsal and lumbo-sacral roots are affected, the degeneration will be confined to Goll's columns, as these are composed exclusively of the long fibres passing up from these regions. If the upper dorsal is affected, degeneration of Burdach's column will be found immediately adjoining that of the column of Goll; and if the cervical roots are also implicated, the degeneration will occupy the columns of Burdach, varying in extent with the amount of degeneration of the roots. In cases of cervical tabes there is no degeneration in the columns of Goll. The degeneration is confined exclusively to the columns of Burdach, and the long fibres of these roots end in the nuclei cuneati.

It is only in the most advanced stages of tabes that all the posterior columns, exogenous as well as endogenous tracts, are alike degenerated. Of the exogenous system we have seen that they are not all equally affected at the same time. The first incidence of the degenerative process is on the medium fibres, namely, the reflex collaterals and those to Clarke's columns. The long fibres which, in large measure at least, constitute the postero-external root zones are more resistant, and often exhibit scarcely any degeneration when the bandelettes externes are completely sclerosed. There is some doubt, however, whether the postero-external root zones are composed only of long fibres. There are grounds for believing that they contain also endogenous fibres which are relatively more resistant to degenerative change (Schmaus and Sacki).

Similarly, the fine fibres of the posterior root which enter the zone of Lissauer often escape degeneration when it is already well-marked in the medium fibres of the column of Burdach.

The tabetic degeneration would therefore appear to be selective in character, unlike the Wallerian, which affects all indiscriminately, attacking in succession fibres and tracts of perhaps different functional significance. In this aspect it has been attempted to establish a relation between the tabetic degeneration and the fetal differentiation of the various tracts which enter into the composition of the posterior columns as determined by the stage of development at which they respectively receive their myelin sheaths. Flechsig, by the myelinization method, has divided the posterior columns into six main divisions, which receive their myelin sheaths at four successive stages of fetal development. He thus divides the posterior columns into an anterior, middle, and posterior root zone; this, again, into a medial and a lateral. Added to these are Goll's column, and a mesial tract bounding the posterior median fissure. The first tract of fibres to myelinate—his anterior root zone—corresponds with the cornu commissural zone of Marie; the last to myelinate—his postero-lateral zone—corresponds with the zone of Lissauer. These various tracts constitute according to Flechsig elementary systems, and it has been assumed that they are composed of fibres of common functional significance. The researches of Trepinski, however, on the same subject differ in many important respects from those of Flechsig; and there are many discrepancies between both, and the results of secondary degeneration. Nor has it as yet been satisfactorily shown that the tabetic degeneration coincides precisely with any of the fetal systems described by these authors. Further research, however, may clear up many doubtful points, for it is not improbable that the tabetic degeneration follows the lines of functionally different fibres, which myelinate at different stages of fetal development.

The tabetic degeneration, so evident in the posterior columns and posterior roots, appears to stop short at the spinal ganglia. The sensory nerves distal to the ganglia have a normal appearance and normal structure. But not infrequently, as has been shown by Westphal, Pierret, Déjerine and others, the finer peripheral ramifications in the skin, muscle, etc., undergo atrophy similar to that in the intramedullary terminations. Nor is the process limited to the spinal cord and the spinal nerves. The optic nerve is frequently affected, and occasionally, also, other cranial nerves. Degenerative changes have also been demonstrated in the ciliary ganglia and in the sympathetic nervous system, particularly in the cardiac plexus. These will be considered more in detail in connexion with the physiological pathology of some of the more prominent symptoms of tabes.

If we now turn from the more gross anatomy of tabes, and consider the intimate nature of the process, we find, according to the most modern research, that its essential character is a progressive dystrophy, or demyelinization and ultimate destruction of the nerve fibres. The myelin sheath, as shown by the Marchi method, breaks up, becomes granular, and finally disappears. The appearances vary somewhat according to the acuteness of the process, but in general a proliferation of the neuroglia network occurs only in proportion to the atrophy of the nerve tissue proper. There is no active hyperplasia of the neuroglia, and no vascular changes such as can be considered as the primary starting point of a sclerosis leading secondarily to atrophy of the nerve fibres. The Marchi method in the early stages of the process reveals the degeneration of the myelin long before proliferation of the neuroglia has occurred, and such sclerosis as ultimately ensues is only what may be seen in any organ consecutive to degeneration of its true parenchyma.

The obvious relationship of the exogenous tracts of the spinal cord to the spinal ganglia—being, as it were, the central prolongations to the sensory neurons of which they are composed—naturally suggests that the cause of the progressive dystrophy of the posterior roots and their intramedullary terminations may be found in some morbid alteration of the cells of the spinal ganglia, the trophic centres of the fibres in question. For, as Marie remarks, it is difficult to believe that the branches of a neuron, whether central or peripheral, and performing the functions only of conductors, can undergo degeneration apart from that of the cell body which is their trophic centre. Therefore, in every case of degeneration of a nerve fibre, whether central or peripheral, the point first to investigate is the *cellule malade*.

Much research has been spent on this point, but the conclusions reached as to morbid changes in the spinal ganglia, or their constituent cells, have been far from harmonious. Gross changes such as were described by Bourdon and Luys in one case are uniformly absent.

As regards the cells, Marie himself found in one case that they appeared less numerous than normal; that some of them seemed to show signs of degeneration, and that there was distinct atrophy of a considerable number of the nerve fibres traversing the ganglia. Some support has been given to Marie's view by the investigations of Wollenberg, Oppenheim and Siemerling, Stroebe, Redlich, Marinesco, Thomas and Hauser, etc.; but on the other hand, Schaffer, Juliusberger, Meyer, Mott, and many others have found them practically normal.

The alterations which have been described by Wollenberg, Marinesco, and others who have obtained positive results, consist mainly in chromatolysis, pigmentation, or fatty changes in the cells, occasional deformity or diminution in numbers, and increase of the connective-tissue elements. Köster, the most recent investigator on this subject, states that in the early stages of tabes he has observed appearances similar to those described by Wollenberg; but that in more advanced cases there are marked changes, such as chromatolysis, pigmentation, abnormalities in the nucleus, and deformation of the cells. They were similar to those resulting in course of time from experimental section of the posterior roots in animals.

It is therefore doubtful whether such changes as have been discovered in the spinal ganglia afford a sufficient anatomical substratum for the amount of degeneration, more particularly in the posterior roots and in their intramedullary terminals. And it is considered (Schmaus) a powerful argument against the spinal ganglion being regarded as the primary origin of the dystrophy that the peripheral process, as it emerges from the distal pole of the ganglion, practically shows no abnormality (with the exception, perhaps, of some of its cutaneous terminals); while the central process, the posterior root, may be degenerated right into the ganglion itself. Whether these and other arguments are altogether valid against the primary ganglionic origin of the tabetic process will be considered later, but it must be admitted that the anatomical changes hitherto actually demonstrated in the ganglion cells are altogether incommensurate with the degree of degeneration of the processes (central and peripheral) as compared with that observable in other forms of cell degeneration, such, for instance, as in the multipolar cells of the anterior cornua in atrophic spinal paralysis.

Instead of regarding the spinal ganglia as the primary origin of the degeneration of the posterior roots and exogenous medullary tracts, v. Leyden and Goldscheider are inclined to look upon the peripheral nerve endings, which not infrequently exhibit dystrophic or neuritic changes, and are naturally more exposed to traumatic influences, as more probably the starting-point of the process. It is known that after amputations and section of nerves, atrophy occurs in the posterior horns, posterior columns, and also in the anterior horns of the spinal cord. This is the form of degeneration termed retrograde, and is probably due to the cessation of the normal influences which serve to excite and maintain their functiona activity. And it has been shown by Lugaro, Cassirer, and more recently by Warrington, that marked chromatolytic changes occur in the cells of the spinal ganglia on section of the sensory nerves, and of certain cells in particular, according to the kind of afferent nerve—muscular or cutaneous—which is divided. It is assumed, therefore, by the supporters of the peripheral origin of tabes, that changes, organic or functional, in the spinal ganglion cells may be induced by neuritic or other processes in the peripheral nerve endings, and thus secondarily lead to degeneration of the posterior roots and posterior columns. It has not, however, been demonstrated that degeneration of the peripheral nerves always precedes that in the cord, nor has it been shown that such peripheral degeneration is a constant feature of the morbid anatomy of tabes, which it ought to be if the theory is at all well founded. Nor does it seem likely that neuritic or other degeneration, ascending from the periphery, can induce such dynamical or organic impairment of the ganglion cells as the theory postulates, without making itself evident at the point where the sensory nerves enter the ganglia. The peripheral theory of the pathogeny of the tabetic degeneration of the spinal cord has therefore to overcome many serious objections before it can be accepted as at all a satisfactory one.

Other pathologists are of opinion that they have discovered the origin of the tabetic process in inflammatory conditions of the meninges affecting the posterior roots. The theories of Nageotte, and of Redlich and Obersteiner are the most important in this relation. Nageotte, whose views have received a large amount of support, especially in France, has called attention to an anatomical disposition of the posterior roots which renders them peculiarly liable to noxious influences. Nageotte holds that in tabes there is a diffuse chronic meningitis which has all the characters of syphilitic origin—namely, infiltration with lymphocytes and plasma cells especially round the veins, a meningomyelitic affection of the periphery of the cord, medulla, and even the cortex cerebri.

This general meningitis induces the degeneration characteristic of tabes by implicating the spinal roots at the point of their emergence from the dural sac. The anterior and posterior roots after leaving the spinal cord traverse the subarachnoid space, and at the point of exit from the dural sac receive a sheath both from the dura and arachnoid, which constitutes the perifascicular sheath of the roots, and beyond the ganglion the two roots unite to form the mixed nerve. The portion which lies between the ganglion and the dural sac, which varies in length in different regions, he terms the radicular nerve. The perifascicular sheath, derived from the dura and the arachnoid, divides the radicles into compartments, and the intrafascicular tissue is continuous with the pia mater. The lymphatic spaces of the radicles communicate with the subarachnoid space, and constitute a narrow and complicated channel between the great lymphatic sac and the efferent vessels. Owing to this disposition the radicles are specially liable to injury by meningeal inflammation and toxins circulating in the cerebro-spinal fluid. Hence is developed a transverse interstitial neuritis, which specially affects the posterior radicles; and the anterior also to some extent, which, however, is only transient.

In consequence of this neuritis, secondary degeneration is set up in the intramedullary continuations of the posterior roots, and spreads back to the spinal ganglia. The process, however, is not a true Wallerian degeneration, but a mere dystrophy, or lowered vitality, which affects more particularly the short and medium fibres of the posterior roots. In support of his views, he adduces the lymphocytosis of the cerebro-spinal fluid which occurs in tabes, to which I will call your attention presently. But in the meantime Nageotte's theory appears to offer such a simple explanation of the tabetic degeneration that it seems almost a pity to subject it to destructive criticism.

But it is open to the same objections as can be urged against the theory of Redlich and Obersteiner, in that the meningitis, which it postulates, is not a constant phenomenon, and is perhaps more frequently absent than present, and when it exists is more often of the character of a secondary thickening than an inflammatory process. And, further, it has been found in the early stages of tabes that the intramedullary degeneration is often well marked when the posterior roots exhibit no appreciable change and no indications of a local neuritis. The practical escape of the anterior roots is, I think, a fatal objection to Nageotte's theory. That the neuritis which he also finds in the anterior radicle should be evanescent, while that of the posterior radicle leads to such profound intramedullary degeneration is unintelligible; and is, moreover, opposed to the usual relatively greater affection of the motor than of the sensory fibres when neuritis attacks mixed nerves.

Redlich and Obersteiner maintain that at the point where the posterior roots penetrate the pia mater there is a constriction which constitutes a *locus minoris resistentiae*, and that in consequence of meningeal inflammation and the retraction of cicatrization, as well as by thickening of the closely-adherent blood vessels, the posterior roots become, as it were, strangled. Hence ensues degeneration in the intramedullary exogenous tracts, followed at a later stage by that of the posterior roots in a retrograde manner.

Redlich and Obersteiner's view has the merit of harmonizing better with the more common starting-point of the tabetic degeneration than that of Nageotte, but, as has been remarked, the meningitis basis on which it rests is not very substantial. It is not universally present, nor is meningitis, syphilitic or otherwise, when it does occur, a common cause of intraspinal degeneration by implication of the posterior roots. That such a result is possible, and perhaps actually occurs in some cases, may be admitted, but it is extremely rare. The symmetrical and segmental character of the tabetic degenerations, which it would be difficult to correlate with any, so to speak, brutal meningeal inflammation, and the occurrence of degenerations elsewhere, such as in the optic nerve, ciliary ganglion, and sympathetic system, are all formidable arguments against the meningitic origin of tabes, whether at the point maintained by Nageotte or that of Redlich and Obersteiner.

But that the so-called "ring of Obersteiner" is a *locus minoris resistentiae*, or specially vulnerable point, in the course of the posterior root fibres, has been argued with much force by Orr and Rows in their memoir on the system lesions of the posterior columns in General Paralysis.

At this point the extramedullary fibres of the posterior roots lose their neurilemma sheath, and the myelin sheath is also much thinned. That the absence of the neurilemma sheath renders the nerve more vulnerable is probable from the researches of Kennedy, Bethe, Ballance, and Purves Stewart, which have demonstrated the importance of the neurilemma and its cells in the nutrition and regeneration of nerves. These show that even in the distal segment of a divided nerve regeneration of the axis cylinders and medullary sheaths takes place, although the full maturity of the new nerve fibres is not attained until union of the proximal and distal segments occurs, and the fibres become functionally continuous with each other. This regeneration is dependent on the cells of the neurilemma sheath. Where these are absent, as in the intraspinal fibres, regeneration does not occur; and it is probable, therefore, that the absence of the neurilemma cells is the cause of the greater proclivity to degeneration of the intramedullary terminals than of the other branches of the sensory protoneurone in the tabetic dystrophy.

It has been shown, also, that degeneration of the intramedullary root fibres similar to those of tabes may occur in the course of cerebral tumours, diabetes, anaemia, and other cachectic states (Homén, Nageotte, Williamson, Bruce, Erbsloh, etc.). The degeneration extends from Obersteiner's ring into the reflex collaterals and fibres passing into Clarke's columns. Whether it begins first in the terminal fibres, and gradually extends backwards, or vice versa, is the subject of some difference of opinion. Orr and Rows hold that it commences at Obersteiner's ring and extends centrifugally; while Nageotte considers that the terminal fibres of the reflex collaterals and those of Clarke's columns are first affected. The more recent investigations of Spielmeyer, by means of Cajal's new axis cylinder stain, are in favour of the view that the terminal fibres which arboresce around the cells of Clarke's columns as well as those of the posterior column nuclei first shows signs of degeneration. This is followed by glia proliferation in proportion to the destruction of the nerve filaments.

Whether we regard the intramedullary degeneration as centripetal or centrifugal, or more probably simultaneous, it is clear that this portion of the posterior root is more liable to show signs of impaired nutrition at an early stage than either the extramedullary portion or the cells of the spinal ganglia. Some conditions probably exist favouring the incidence of noxious influences on this portion of the sensory protoneurone. In this connexion Marie and Guillain have laid great stress on the peculiarities of the lymph circulation in the posterior columns of the spinal cord. They maintain that in the pia mater of the posterior columns, between the outer and inner layer, there exists a lymphatic system, the spaces of which communicate with those of the posterior columns, but are independent of those of the antero-lateral columns. In this system the current of lymph is upwards and towards the central canal. In tabes they have found this system dilated, and, by the Marchi method, black granules in the cells of the ependyma in cases where the central canal is permeable. They attribute the condition to a syphilitic affection of the posterior lymphatics, and derive the lymphocytosis of the cerebro-spinal fluid from the elements of this system.

That noxious substances or toxins originating in the periphery ascend to the spinal cord more readily by the posterior than by the anterior roots has been shown by Homén, and also by Orr and Rows; and that in this way, or by peculiarities in the lymphatic circulation in the cord, the posterior roots and posterior columns are specially exposed to injury is extremely probable. But that there is in tabes a posterior meningitis of a syphilitic character, as maintained by Marie and Guillain, is not generally admitted. It is not supported by the results of anti-specific treatment, nor can the lymphocytosis of the cerebro-spinal fluid be adduced as a conclusive argument in its favour.

[Bibliography will be given at end of third lecture.]

Demonstrations

ON

THE CYSTOSCOPE

AND A METHOD OF ILLUSTRATING DISEASES OF THE BLADDER AND THE APPEARANCES IN RENAL DISEASE BY THE OPAQUE PROJECTOR.*

BY **DAVID NEWMAN, M.D., F.F.P.S.G.,**
SURGEON, GLASGOW ROYAL INFIRMARY.

[WITH SPECIAL PLATE.]

PART II.—CYSTOSCOPIC APPEARANCES IN SOME DISEASES OF THE BLADDER AND KIDNEYS.†

IN the cases to be presented to you to-day I have selected those suited to illustrate the conclusions to be submitted. I have avoided taking what might be regarded as "typical cases," choosing by preference (with one or two exceptions) those most commonly met with in practice.

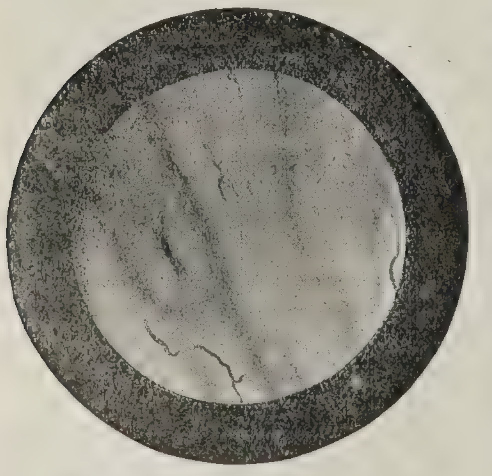


Fig. I.—Normal ureter opening.

Fig. I represents the appearance of the normal ureter opening and the mucous membrane of the bladder when the viscus is distended to 6 fluid ounces. The lips of the opening are distinctly seen and slightly parted so that the mouth is easily recognized on the ridge of the trigone.

A. CALCULUS.

1. *Stone Lying Free in Bladder.*

Probably the most easily-observed morbid object within the human bladder is a stone lying on its floor (Fig. II).

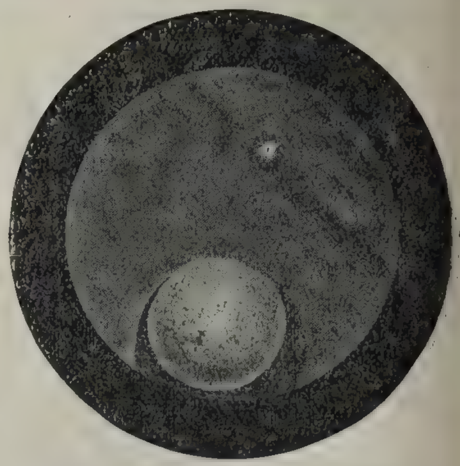


Fig. II.—Stone loose in bladder.

The presence of such a foreign body can easily be discovered by means of a sound, but its probable composition, its form and size can only be accurately determined by the cystoscope. The spherical, smooth phosphatic calculus caused comparatively little irritation, and its presence did not induce much change in the appearance of the mucous membrane of the bladder.

The patient had complained of symptoms of stone for over two years, the most pronounced being pain at the end of micturition, but the suffering was not sufficient to preclude him from following his occupation (a salesman in a grocer's shop) until within two weeks of the time I saw him. He sought advice on account of a haemorrhage; when examined the stone was at once seen, and the following day it was removed.

In many cases, however, without the aid of the cystoscope, stone may elude detection, either from being covered by a thick layer of mucus or by being placed in such a position that it cannot be reached with the sound.

2. *Stone Obscured by a Thick Layer of Mucus.*

When the surface of the stone is regular but finely honeycombed without having prominent projections, thick mucus may become adherent to it, so that it presents the appearance of being covered with wet cotton-wool (Fig. III), and this mucous layer may form a very efficient protection to the mucous membrane of the bladder. I have seen several instances of this kind, some where a stone has been present in the bladder for a considerable period without inducing signs of irritation, others where the symptoms have abated in a most remarkable way, as a consequence of the protective coating.

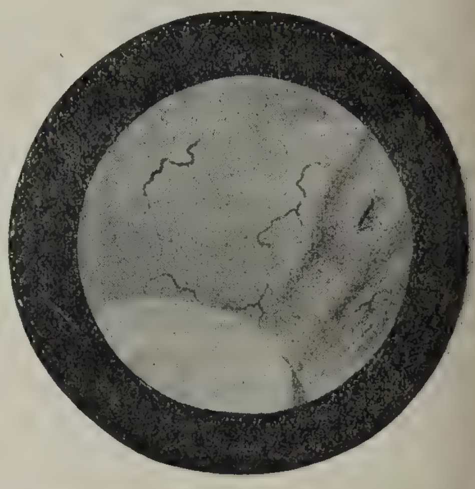


Fig. III.—Stone obscured by mucus.

Fig. III is an illustration from a case in point. The history was that of chronic cystitis, frequent micturition, pyuria, but no haematuria. The pain was so slight that the presence of a stone was not suspected. The case was rather regarded as one of septic cystitis. I found, however, a white woolly mass occupying the floor of the bladder, the shape and size of a pigeon's egg. From its appearance and form, the presence of a stone was suspected, but on passing a sound into the bladder no hard object could be found. The bladder was washed out regularly twice daily for a week, and a considerable quantity of mucus was in this way removed. Then a second examination was made, when a phosphatic stone was seen lying on the floor of the bladder, only with a light covering of loose flaky mucus.

3. *Calculus in Saccule.*

A calculus may be hidden in a saccule or diverticulum in which to find a stone may be extremely difficult (Coloured Plate, Fig. IV). The mucous membrane of the bladder was practically normal. The colour, except immediately around the opening of the saccule, was pale, but the lips of the opening were deeply congested, rounded, thickened, and, in marked contrast to the bright red lips of the orifice of the diverticulum, a pale white object was seen.

In such cases the difficulty when first seen is to determine whether such a white object is a stone or a tuberculous ulcer covered with a slough, but by carefully washing out the bladder the mucus covering the stone is removed and by passing the finger into the rectum or the vagina, while at the same time observing through the cystoscope, if the object be a stone, the bladder wall is pushed forward in a degree represented by the size of the stone and not by that of the point of the finger.

---

* The second of a series of Post-graduate Demonstrations given at the Royal Infirmary, Glasgow.

† The writer has much pleasure in owning his indebtedness to the Editor of the *Practitioner* for the use of the blocks to illustrate Figs. III, X, XII, XVIII, XXIV, and XXVI.

4. *Stone behind Prostate.*

Not uncommonly a stone is hidden behind the prostate (Coloured Plate, Fig. V), and can only be detected with a sound when the patient is placed in the elbow-knee, or in the Trendelenburg position. The case from which the drawing was taken was one of enlarged and greatly congested prostate, a stone was suspected but could not be detected with the sound, but was readily seen with the cystoscope.

5. *Calculus Impacted in the Orifice of the Left Ureter.*

The following case is an instance of this condition:

There was evidence of obstruction to the escape of urine over a period of fully four years, and the family medical attendant correctly diagnosed a recurring hydronephrosis. For the first two and a half years the attacks came on about once in four months, and were neither prolonged nor very severe, but during the last eighteen months the patient had never been free from pain for a longer period than six weeks, and sometimes the pain recurred as often as twice in the fortnight. The attacks of pain in the lumbar region were associated with all the symptoms of hydronephrosis, but on no occasion within the first three years since the onset of the disease was blood discovered in the urine. The first haematuria was on January 3rd, 1900. The bleeding at that time was very slight, but, on account of a rather profused haematuria, I was asked to examine the patient. On cystoscopic examination the mucous membrane of the bladder was found to be slightly congested, and the arterioles were more numerous than normal. The mucous membrane was slightly thickened, and, considering the degree of distension, the folds were numerous and distinctly marked. The line of the ureter was unduly prominent and rounded, and at the orifice somewhat club-shaped. The mouth of the ureter was widely dilated, and between its lips an irregular-shaped, pointed calculus was seen (Coloured Plate, Fig. VI). The surface was of a dark brownish-red colour, roughly nodulated, and frosted over with a slight covering of phosphates. A suprapubic operation was performed and the calculus removed.

B. BALLOONING OF URETER.

1. *Slight Ballooning of the Mucous Membrane due to Impaction of a Small Calculus.*

The history was that of repeated attacks of renal colic without suppression of urine, but followed by haematuria, marked irritation of the bladder, frequent but not painful micturition, and latterly almost constant presence of blood. There were no renal symptoms. The swelling in the bladder was at first diagnosed a tumour, but at the operation it was discovered to be a small calculus included in a sac formed of the mucous membrane of the bladder. The following is a short history of the case:

J. H., aged 35, a marine engineer, first suffered from renal colic for about twenty-four hours only, on a homeward voyage from India in December, 1893. Complete relief from pain followed, and lasted for seven weeks. Travelling from London to Leeds brought on a second seizure, which lasted for five hours, but although shorter in duration, the suffering was more severe in this than in the first attack, and when the pain passed off the patient noticed that the urine contained blood. During 1894 the patient suffered from seven attacks, three of which were followed by haematuria. At no time were there any symptoms suggestive of suppression of urine nor of hydronephrosis. Towards the end of 1894 the patient complained greatly of frequent micturition; during the act he suffered little or no pain, but on many occasions blood appeared in the urine in moderate quantities. Only twice could the haematuria be described as profuse. There were no symptoms pointing to any renal lesion, nor could swelling or tenderness be made out in either lumbar region. No information was gained by rectal examination. No tube casts and no albumen were in the urine except from the presence of blood. A cystoscopic examination showed the presence of a rounded swelling immediately over the orifice of the right ureter, about the size of a small cherry, very vascular on the surface, but smooth and free from ulceration (Fig. VII). The swelling was diagnosed as a fibroma of the bladder pressing upon the orifice of the ureter, and so causing an obstruction to the escape of urine. Suprapubic cystotomy was performed, and the swelling was seized with ring vulsellum forceps. Immediately pressure was made the swelling cracked, and a little traction brought away a calculus, and a thin but complete covering of mucous membrane.

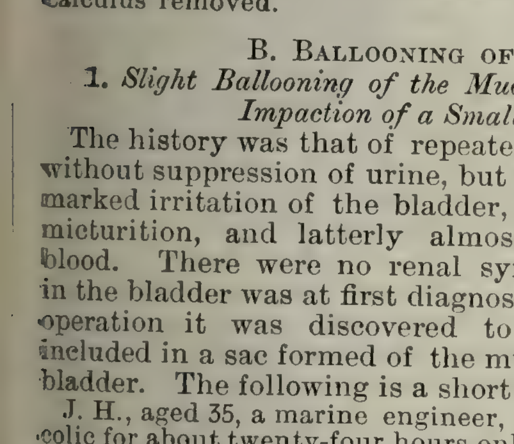


Fig. VII.—Ballooning (slight).

2. *Extensive Ballooning of the Mucous Membrane of the Bladder* (Fig. VIII).

The patient was sent to me with a very complete history of her illness, and the conclusion her medical attendant came to was that there was some obstruction to the escape of urine from the right ureter, and he suspected an impacted calculus.

The symptoms were those of intermittent obstruction to the ureter. Beyond the elevation of temperature during the acute attacks, and the presence of pus in the urine, pain in the right renal region and in the bladder was the only symptom which attracted attention. Suspecting a calculous obstruction to the right ureter, I made a cystoscopic examination on November 22nd, 1905, when a swelling was found occupying the right half of the bladder. The surface of the swelling was paler than that of the vesical mucous membrane, perfectly smooth, translucent, and meagrely supplied with blood vessels. The swelling was distinctly pedunculated, floated in the fluid contents of the bladder, and moved freely with respiration (Fig. VIII). The bladder, distended with 10 oz. of solution, allowed the greater part of the rounded swelling to be seen, but the site of its attachment to the bladder wall could not be ascertained. On opening the bladder in front, the cyst was found to be about the size of a duck's egg, and to have a pedicle about ¼ in. in diameter. On pressure between the fingers it was readily emptied, and its fluid contents escaped into the bladder, after which a round opening was discovered in the bladder wall, in the situation of the orifice of the right ureter. It was simply a sac protruding into the cavity of the bladder. The precise cause of obstruction was not ascertained, but a careful examination failed to reveal the presence of a calculus. The sac was incised, a tube was inserted into the bladder, and the urine was drained off until November 28th, when a second examination was made with the finger, and by means of a speculum through the wound. The cyst was found to have completely collapsed. The wound in the parietes was sutured, allowed to heal; the patient made a good recovery. Prior to returning home a cystoscopic examination was made, when no trace of the cyst could be found beyond some wrinkling and irregularity of the mucous membrane on the right side of the bladder. The orifice of the right ureter was represented by an irregular lacerated opening.

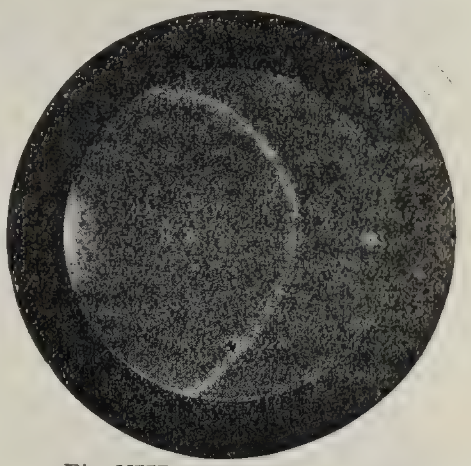


Fig. VIII.—Ballooning (large).

Cases of ballooning of the ureter have been published from time to time as pathological curiosities, but I think this is one of the first in which such extensive ballooning has been observed during life, and for which an operation has been performed.

C. TUMOURS.

1. *Papillomata.*

Papilloma is one of the most common tumours of the bladder, and arises from the mucosa and submucosa. At present there are three cases in the ward and these I will show you at the next demonstration. The tumour may simply be a large group of villi, with an extensive vascular network, and attached to the bladder by a long pedicle, or the fibrous tissue elements may predominate and the papilloma consist of a sessile wart. The illustration (Fig. IX) represents one of the former class.

The patient was admitted to the Royal Infirmary on October 20th, 1905, complaining of blood in his urine and pain of two years' duration. About two years ago he caught a chill, and soon afterwards noticed that blood was present in the urine, which lasted for

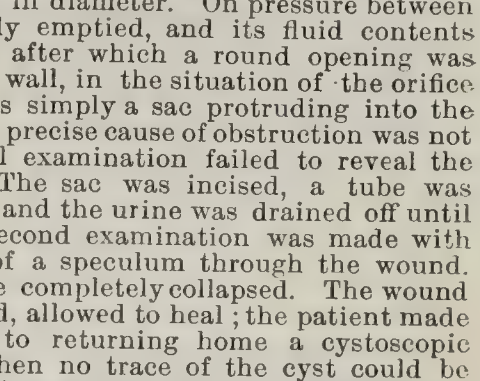


Fig. IX.—Papilloma.

two or three days at a time. Recurrence took place only at long intervals until within the last six months. Since then blood had been noticed to be present two or three days every week, sometimes the haemorrhage being so severe that the evacuation appeared almost like pure blood, and frequently it contained large clots. The pain generally came on immediately after the act of micturition, was shooting in character, but no pain was present before or during the act. Immediately prior to admission the pain became so severe as to be almost unbearable, extending on some occasions to both sides of the back. During the last two years the patient has lost considerably in weight, has become anaemic, but otherwise there is nothing of special note.

On October 24th a very clear view was obtained of the bladder, the mucous membrane of which was pale in colour and was ramified by unusually large veins, which, however, were not greatly distended with blood at the time of the examination. On the left side of the bladder there was a large pale papillomatous growth, with long fimbriated processes, which floated freely in the solution.

Fig. IX represents the appearance of a small portion of the tumour with a shaded part of the bladder in the background which throws the soft fimbriated processes prominently into relief. During the examination there was no bleeding, and beyond the presence of the tumour the bladder was strictly normal.

2. *Epitheliomata.*

Epitheliomata usually attack the base in the vicinity of the ureteral orifices, and as a rule remain solitary. In the case from which Fig. X (see Coloured Plate) was taken, two separate tumours were seen—a large one close to the mouth of the left ureter, and a small isolated nodule on the left side of the middle line posteriorly. Both growths were similar in appearance, differing only in size, and were quite free from villous projections on the surface; the margins irregular in outline, elevated, overlapping the mucous membrane, coarsely granular, and deeply pigmented. The surface of the tumour was flat, finely nodulated, and covered by glistening material, like pure mucus. At one or two small points ulceration was seen. The symptoms were frequent micturition, and occasionally slight bleeding. There was almost no pain, and, until discovered by the cystoscope, the presence of the tumour was not suspected. The growth was rather an unusual one to find in the bladder, namely a flat-celled epithelioma, of dense consistence. Further examination showed that the growth involved to a slight degree the walls of the rectum; there was no breach of surface, but with a sound in the bladder and a finger in the rectum, the connexion was easily established. The case was not a suitable one for operation, on account of secondary involvement of lymphatic glands.

COLOURED ILLUSTRATIONS.

IV. Stone in saccule.
V. Stone behind prostate.
VI. Stone in ureter.
X. Epithelioma.
XIII. Mucous polypus.
XIV. Solitary ulcer.
XV. Tuberculous ulcer.
XIX. Pneumococcus infection (right side).
XX. Pneumococcus infection (left side).
XXI. Acute septic pyelitis.
XXII. Acute tuberculous pyelitis.
XXV. Ascending ureteritis.

3. *Fibromata.*

Fibroma of the bladder is also a rare disease, but probably some of those growths described as myomata are really fibrous tumours, such as the one about to be described. Little was known of the history of the case, except that the urine was normal at all times, with the exception of three occasions when it contained blood; the last haematuria, being considerable, led to a cystoscopic examination, when the tumour was discovered attached to the anterior wall of the bladder. The growth (Fig. XI) was about the size of a horse-bean, pale in colour and regularly nodulated on the surface, almost like a yellow raspberry, and the colour vividly contrasted with the deeply-injected mucous membrane which formed the background. The growth was pedunculated and easily removed.

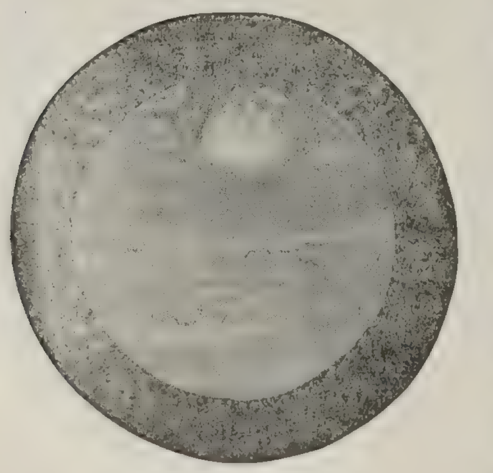


Fig. XI.—Fibroma.

4. *Sarcomata.*

This variety of tumour in the bladder was considered to be very rare; out of 41 cases of tumour, Thompson found 3 of sarcomata; Albarran, out of 82 cases, 2; Guyon in his practice met with 1 case, and that *post mortem;* and I have seen only 2.

The most characteristic case was that of a man, aged 26, who had been operated upon several times for "recurrent fibroids," one on the right knee, a second on the hip, and a third on the right lumbar region. When I saw him for the first time there were seven such tumours below the level of the waist, and one over the left shoulder in front. He complained of frequent and painful micturition, and had occasional attacks of haematuria. Cystoscopic examination revealed a large rounded tumour on the anterior wall of the bladder (Fig. XII). In colour the surface was mottled blush-red, and there was an irregular lozenge-shaped pale-blue patch almost in the centre; over the surface there was a large number of small capillaries. The mucous membrane was deeply injected and the vessels dilated. Operation was deemed inadvisable, but a section of the tumour *post mortem* showed it to be a round and spindle celled sarcoma.

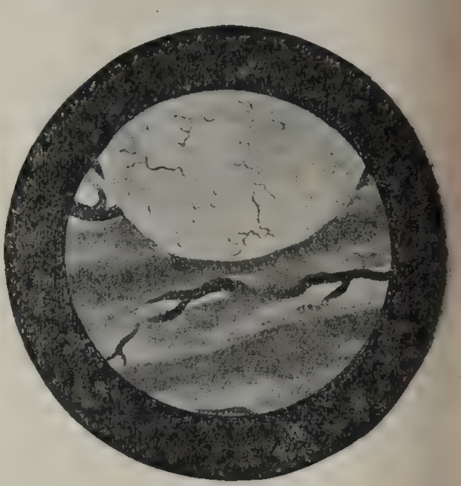


Fig. XII.—Sarcoma.

In 24 cases collected by Hintertroisser, it has been shown that these growths arise from the submucosa and muscular layers, that metastasis is comparatively rare, and that the sarcomata are relatively most frequent in childhood.

5. *Polypi.*

Mucous polypi, which have been erroneously described under the term myxomata, are found usually in young children, and may protrude from the urethra if the patient be a girl.

Fig. XIII (Coloured Plate) shows a polypus hanging from the bladder, about the level of the arch of pubis. The symptom in this case was due to the ball-valve action of the polypus. The bladder could not be completely emptied on account of the polypus hanging into the urethra. After spontaneous micturition, when a catheter was passed, fully 7 oz. of healthy urine could be drawn off. This was a constant feature in the case. The cystoscope showed a translucent pale growth hanging from the anterior wall of the bladder by a narrow neck, and on any agitation of the fluid contents the tumour swung backwards and forwards freely. The polypus was removed through a suprapubic incision.

D. ULCERATION.

1. *Solitary Ulcer with Necrosis of a Portion of the Mucous Membrane* (Coloured Plate, Fig. XIV).

The symptoms in this case were frequent micturition, pain on and for a short time after micturition, especially marked at the base of the penis, and occasionally followed by distinct but not very severe spasm. During the day the symptoms were not marked when the patient took large quantities of fluid, and the specific gravity of the urine remained low—say 1010 to 1015; but from 8 p.m. till 8 a.m., although fluid was taken freely, the quantity of urine was persistently small and the specific gravity almost constantly high. Whenever the specific gravity was above 1020 the patient complained of pain, and was unable to retain more than 4 or 5 oz., and when the specific gravity rose to 1030—as at the onset of the disease it did almost every night—spasms of pain occurred, lasting usually for ten or fifteen minutes. The mucous membrane of the bladder was only slightly

TO ILLUSTRATE DR. NEWMAN'S PAPER ON THE CYSTOSCOPE.

Fig. IV.

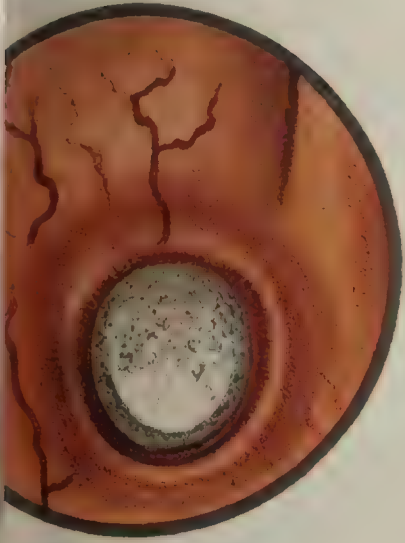


Fig. V.

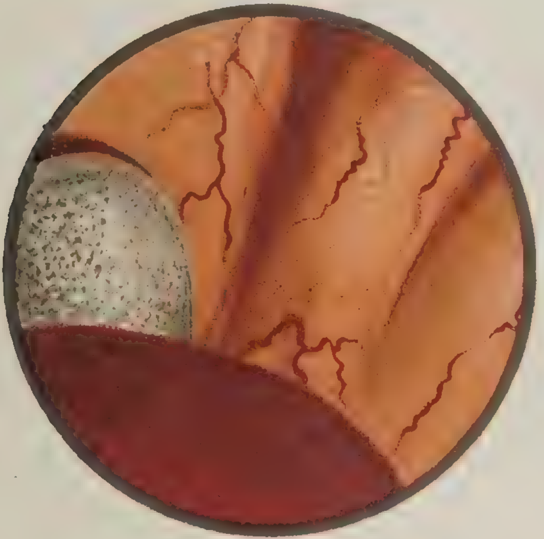


Fig. VI.

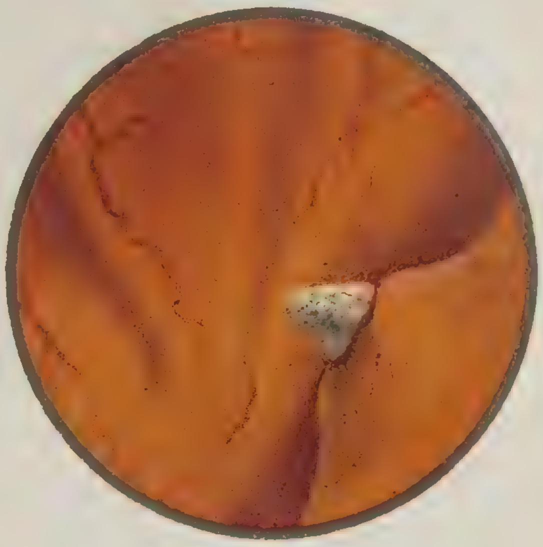


Fig. X.

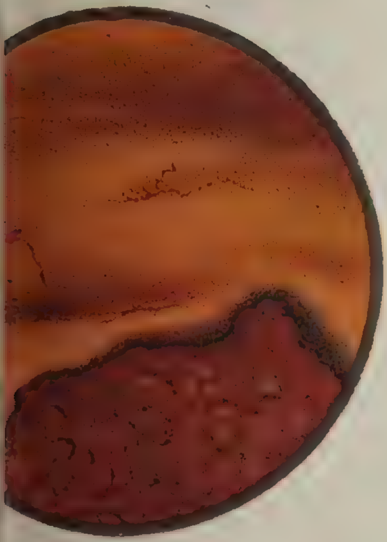


Fig. XIII.

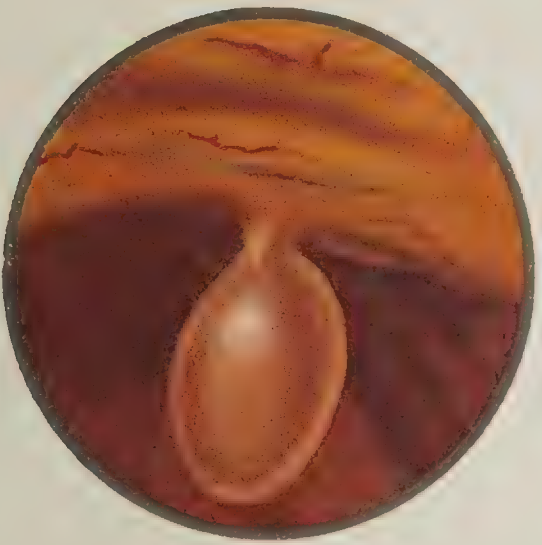


Fig. XIV.

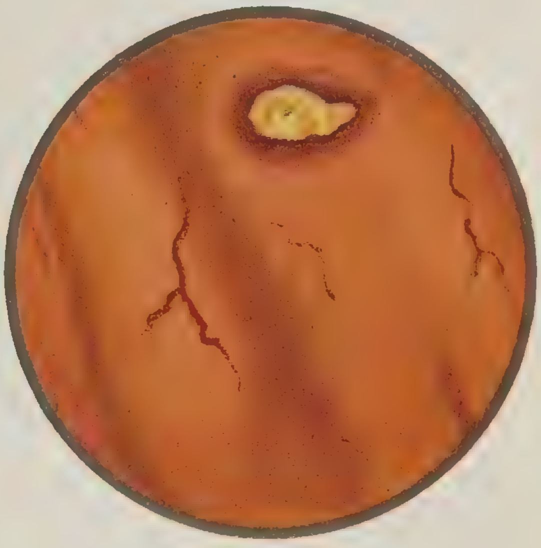


Fig. XV.

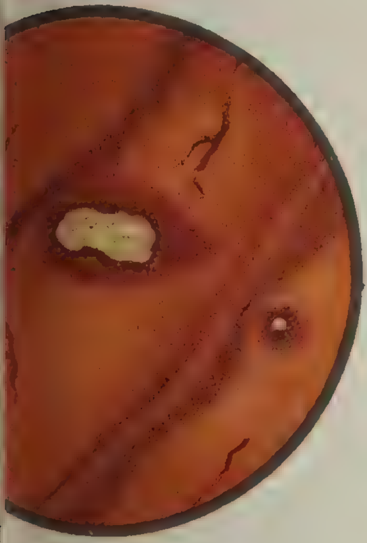


Fig. XIX.

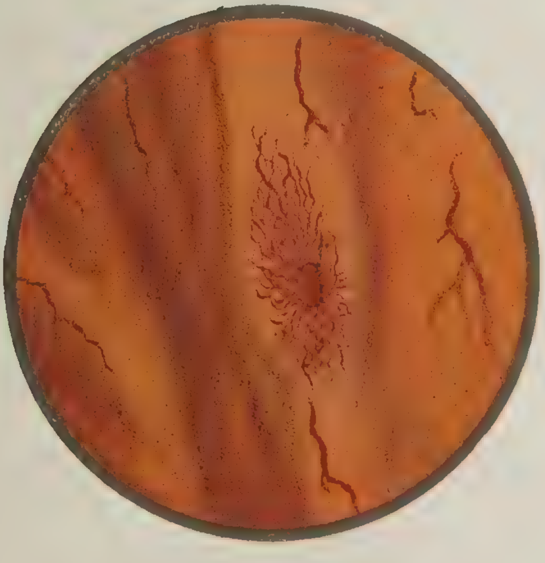


Fig. XX.

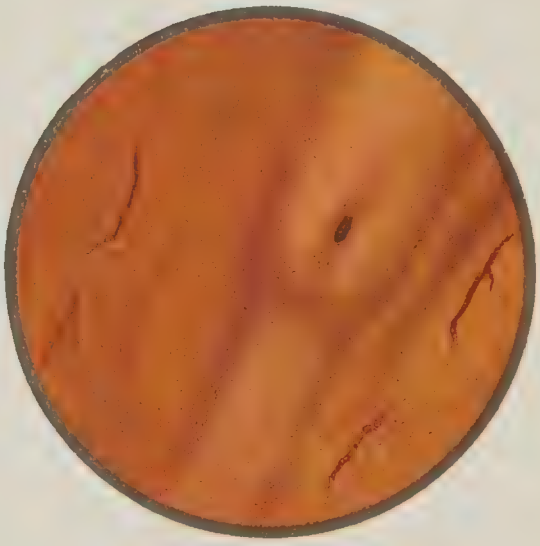


Fig. XXI.

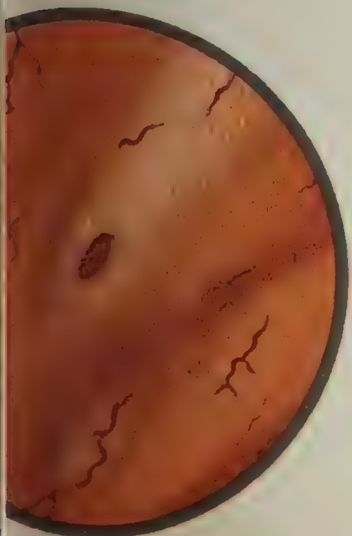


Fig. XXII.

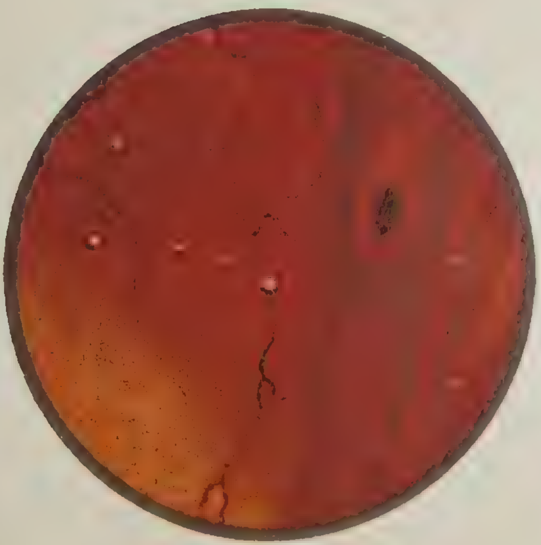
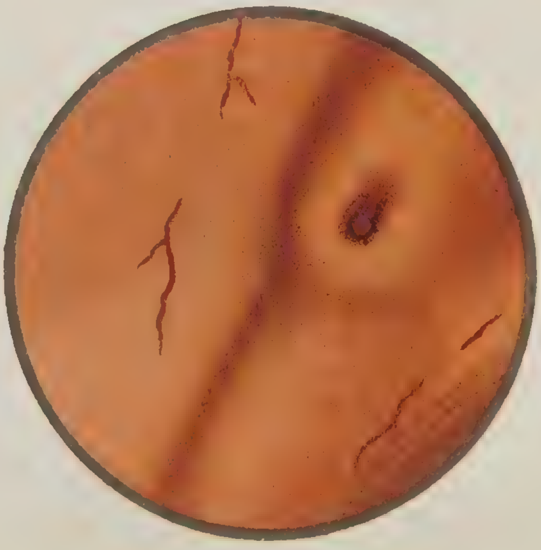


Fig. XXV.



LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

injected, and there was little change in its appearance, except around the ulcer, which was situated on the posterior wall. The ulcer (Coloured Plate, Fig. XIV) was solitary, irregular in shape, and extended from 165 to 180 degrees to the left of the middle line. It was superficial and its edges very slightly raised. The margin of the mucous membrane was of a bright red colour, and contrasted very clearly with the pale yellow slough which covered the ulcer. Passing outwards from the margins, the coloration gradually became paler, until it merged into that of the pink mucous membrane. The urine passed during the night contained pus, blood, and gave pure cultures of the *Streptococcus pyogenes;* what was evacuated during the day was clear, and a deposit could only be obtained by using the separator. After treatment for eight weeks the symptoms disappeared. The urine became normal and the ulcer was found to be healed, leaving only a slight pale scar.

2. *Tuberculous Ulceration.*

In the early stage this may readily be mistaken for solitary ulcer.

In the case from which Fig. XV (Coloured Plate) was taken, the symptoms were very insidious at the beginning, consisting of frequent micturition, evacuation on an average every two hours, and pain at the commencement and at the end of the act only. The urine was generally clear in colour, but what was passed first in the morning contained more or less blood, almost no pus, and no organisms could be discovered by the microscope. At this time (May, 1902) the patient appeared in typically good health, and weighed over 14 st. Gradually the discomfort increased, and by August, 1902, the irritation was so great that he was confined to bed. Occasionally blood was present in the urine, but not in large quantities, and was not increased in amount by exercise or relieved by rest. Ten examinations were made for tubercle bacilli up till August 25th, 1902, with negative results. At that date several groups of bacilli were discovered, and subsequent inoculation experiments proved the presence of tuberculous infected matter in the urine. Cystoscopic examination revealed one large and several small tuberculous ulcers. They were situated within the area of the trigone. The largest was irregular in shape, and was covered by a white slough, while the margins were deeply injected, and of a bright red colour. The smaller ulcers were rounded, with minute caseous centres. The ureter orifices were normal in appearance. Suprapubic cystostomy was performed, the ulcers curetted, and when seen in April, 1905, the patient could retain urine for four and a half hours, suffering no discomfort, and the urine was free from tuberculous infected matter, as proved by inoculation.

3. *Tuberculous Infiltration.*

In this case there was recent tuberculous deposit close to the neck of the bladder (Fig. XVI).

The symptoms did not point to any serious bladder lesion, the only inconvenience complained of being frequent micturition. The urine contained a trace of albumen, tubercle bacilli were found in considerable numbers, it deposited a minute quantity of pus, but no tube casts were discovered. The kidneys were free from disease, and no evidence of tuberculous disease could be discovered except in the bladder. The mucous membrane of the bladder was moderately injected, and the vessels in its walls were more numerous and larger than normal. Extending along the floor of the bladder from a little below the orifice of the left ureter to the neck of the bladder there was a pale mass, like oedematous granulation tissue, and in it a number of small, white, caseous points were seen; these were tubercles ust beginning to break down. There was no distinct ulcera- ion. Two years ago the urethra was dilated, and the whole f the tuberculous deposit was removed with a curette. The ladder was washed out regularly for ten days, after which ilver nitrate solutions of varying strength were injected at ntervals. The patient made a good recovery, and when een in August, 1905, there had been no recurrence of the isease.

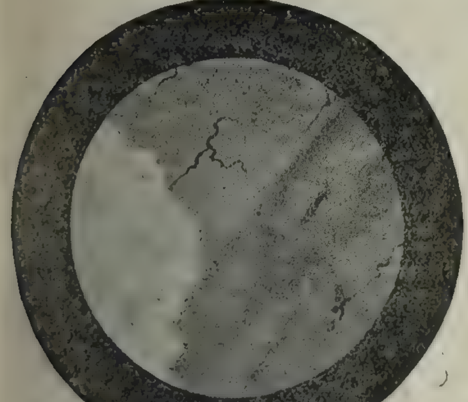


Fig. XVI.—Tuberculous infiltration.

4. *Advanced Tuberculous Ulceration.*

The history of the case, stated briefly, was:

Gradual increasing frequency in micturition, at first most marked in the afternoon, if the patient had been active during the day. Rest in bed afforded relief at first only; after a time no benefit was derived from it. Two months after onset of urinary trouble suddenly the irritation in the bladder increased, and was accompanied by persistent pyuria and occasional haematuria. Temperature febrile. Constant pain at the same time was complained of in the right lumbar region, short remissions of the suffering only following evacuations of highly purulent urine. There was evidence of tuberculous disease of the right ureter and left testicle, and of chronic pulmonary tuberculosis limited to the left apex. Cystoscopic examination revealed at some parts considerable thickening and marked hyperaemia of the mucous membrane, while at others it was thin and anaemic, thus presenting a peculiar coarsely-mottled appearance (Fig. XVII). There was considerable ulceration at the base; some of the ulcers were rounded, covered with grey and white sloughs, and their edges were undermined, others were irregular in shape, with bright red margins, and these surfaces were covered with blood and blood clots. The mucous membrane at the neck of the bladder was very highly coloured, swollen, and oedematous, while in the area of the trigone the mucous membrane was of a dark reddish-grey slate colour, with a large number of distended arterioles showing on its surface.

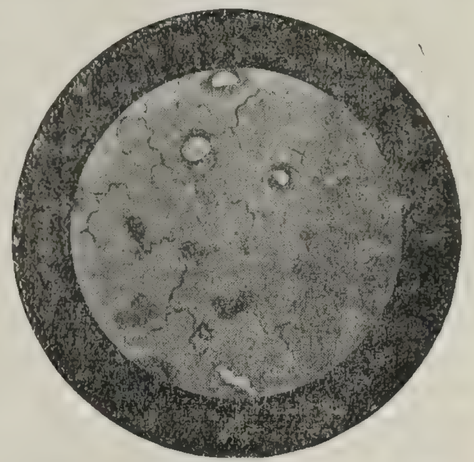


Fig. XVII.—Advanced tuberculous ulceration.

The cystoscopic examination was accomplished only after several unsuccessful attempts on account of haemorrhage from the neck, and difficulty in retaining sufficient fluid in the bladder.

The appearance presented by advanced tuberculous ulceration of the bladder, as viewed during life, contrasts markedly with what is seen *post mortem;* in fact, to see a bladder the site of tuberculous disease after death does not convey the slightest idea of the appearances revealed by the cystoscope. Unfortunately, in advanced tuberculous disease, the bladder is so irritable and contracted that one seldom has the opportunity of seeing what was observed in this case.

5. *Malignant Ulcer.*

In the case of carcinomatous ulceration at the base of the bladder, shown in Fig. XVIII, the point of interest was that, while the bladder symptoms were insignificant and the ulcer in the bladder small, the primary vesical lesion led to very wide secondary extension.

The cancerous disease was situated in the trigone, to the inner side of the orifice of the left ureter, and occupied an area less than an inch square. The mucous membrane was hyperaemic, but beyond the area above described it was not involved in the cancerous disease. The only urinary symptoms were frequent micturition and very slight haematuria. The patient died of acute and widely disseminated cancerous disease, probably as a consequence of infection of the blood stream.

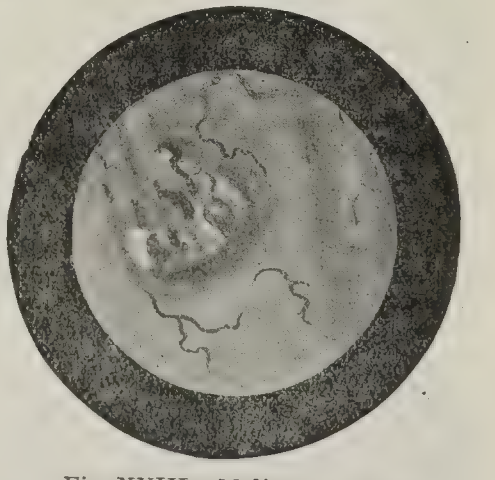


Fig. XVIII.—Malignant ulcer.

The Orifice of the Ureters in Renal Disease.

The appearance of the normal ureter opening is shown in Fig. I, with the bladder distended to 6 oz. The mucous membrane was pale in colour, and was ramified by a few small-sized arterioles. The ridge of the trigone is marked, the lip of the orifice distinct, and the opening is easily seen. Observe, not only the form, but also the colour.

Beyond determining the precise nature and extent of vesical lesions, the cystoscope is most useful in enabling us to diagnose renal disease. Many years ago I pointed out the importance of ascertaining the appearance of the orifices of the ureters in diseases of the kidney, and stated that "when there is a distinct evidence of irritation of the orifice of one ureter, while the other is normal in appearance, it may be safely inferred that the renal lesion, if unilateral, is on the side of the morbid ureter."

From that original axiom we have during the last fifteen years made enormous advance; and, while it may be safe in some cases and rash in others to dogmatize as to the conclusions to be drawn from the appearance presented by the ureter orifice, in the majority of cases we may gain information of the highest value. In some instances it may be necessary to make more than one examination before a definite opinion can be expressed regarding the condition of each kidney, but a patient seldom raises serious objection when the importance of knowing the precise condition of both kidneys prior to operation is fully explained. When the second kidney is known to be healthy, the surgeon can recommend an operation, which he would not be justified in advising if he had not ascertained the condition of the opposite kidney. In ignorance of this he might very readily remove only one of two diseased kidneys, and lose his patient.

I cannot here enter into a full consideration of the various points to be attended to in an examination conducted with a view to ascertaining the presence of unilateral renal disease. I may here simply state that, in examining the mouth of the ureter, three main points demand attention: (1) The appearance of the orifice of the ureter; (2) the character of the material which escapes from it; and (3) the nature of the shoot as regards force, quantity, frequency, and rhythm.

A. ACUTE DISEASES.

A condition which has interested me within the last few years is one which has not been sufficiently recognized; a malady of a very grave nature, and sometimes involving the life of the patient. As it is one in which the appearances of the ureter orifices is very striking, I have selected it to illustrate my fundamental assertion that when disease is unilateral, it is on the side of the morbid ureter.

1. *Acute Unilateral Disease of the Kidney due to Pneumococcus Infection.*

The patient came under my observation on November, 1905, complaining of pain in the back in the region of the right kidney, but most marked over the last rib, where there was considerable tenderness on pressure. The onset of the pain was accompanied by slight oedema of the feet and face. It was dull and aching in character, but on admission to the "Home," the patient said that while she lay in bed on the right side the pain became relieved. There was no increased frequency in micturition, and the patient never complained of any pain on urination. On admission the temperature was 102.5°, and remained elevated for some days. On examination of the abdomen the right kidney was found to be much enlarged, slightly movable; on gentle pressure considerable tenderness was elicited, and on firmer pressure the patient complained of severe pain. The left kidney could not be felt, and certainly there was no enlargement, nor was there any pain on pressure. Urine specific gravity 1018, acid in reaction, albumen and blood present in considerable quantities; deposit —abundant granular tube casts, mucus, blood, and pus.

A cystoscopic examination was made on November 11th, when the mucous membrane of the bladder was seen to be normal, with the exception of hyperaemia in the area of the trigone, at the orifice, and along the line of the right ureter (Coloured Plate, Fig. XIX). The lips of the orifice were dilated, thickened and swollen, and extending upwards, and on either side there were a large number of widely-dilated capillaries. This gave the appearance as if the ureter orifice was covered by a pear-shaped veil of dark red lace, the apex of which pointed upwards. Within this deeper coloration there was a ring of paler pink. From the mouth of the right ureter dark blood-stained urine was seen to escape in small quantities at short intervals—on an average event twenty to thirty seconds. The left ureter orifice (Coloured Plate, Fig. XX) appeared as a little round opening, the mucous membrane surrounding it being normal in appearance, and from it clear urine flowed at intervals of about a minute and a half.

On November 15th the segregator was used and the following results obtained: From the right kidney, urine specific gravity 1025, acid, dark red colour, pus, blood, tube casts, finely granular tube casts present; almost pure culture of pneumococcus obtained. From the left kidney, urine specific gravity 1910, acid, dark yellow colour, no blood, pus, or tube casts, slight trace of albumen, a few *B. coli* present and very few pneumococci. The general condition of the patient was that of one suffering from acute febrile disease. The skin was dry, the tongue furred, red at the point and margins, the pulse rapid, and she complained of loss of appetite, headache, and a constant inclination to be sick. From November 18th the symptoms began to abate, temperature was reduced, the enlargement of the kidney diminished, the tenderness on pressure less marked, the quantity of blood in the urine smaller, and the general condition more satisfactory.

On November 25th, on cystoscopic examination, the trigone was found to be practically normal in appearance, but there was still some thickening about the orifice of the right ureter, although the hyperaemia had subsided. The urine escaping from the right kidney was still darker in colour than that flowing from the left, although the urine passed from the bladder did not contain any blood. (The difference in colour was probably due to greater concentration of the urine from the right kidney.) The urine from the left kidney was pale in colour. Bacteriological examination failed to reveal the presence of pneumococci. No tube casts could be discovered, and only a slight trace of albumen. The patient ultimately made a good recovery, and the kidney became reduced in size.

2. *Acute Septic Pyelitis.*

The onset of the disease was very acute, and followed upon a carbuncle at the back of the neck, so that probably the infection was due to blood contamination. The illness began with a rigor and severe pain in the region of the left kidney. There was no evidence of increase in the size of the kidney, but pressure in the renal region caused pain; there was considerable irritation on micturition, and at the end of the act small quantities of blood escaped, but at this period there was no pus in the urine. The symptoms resembled those of renal calculus impacted in the ureter, but from the circumstances that the pain was suddenly relieved by the escape of pus, coincident with a fall in temperature from 103° to 100.5°, it was inferred that the symptoms were due to an infective lesion rather than to mechanical obstruction simply. On cystoscopic examination, the orifice of the left ureter was seen to be greatly dilated, the margins clear and sharply defined, the wide space between the lips deeply injected, and of bright red colour, in marked contrast to the pale pink mucous membrane of the bladder (Coloured Plate, Fig. XXI). The right ureter was strictly normal. From the left ureter pus mixed with urine was seen to escape in small quantities, at short intervals, the shoots sometimes being as rapid as fifteen seconds apart.

3. *Acute Tuberculous Pyelitis.*

The involvement of the kidney, which was secondary to phthisis pulmonalis, in this case came on very suddenly, with severe pain over the region of the right kidney. The symptoms were frequent micturition, with lacerating pain at the external meatus and in the perineum. On pressure over the kidney the patient complained of severe pain, but no swelling could be discovered. Prior to the present attack, at intervals there had been symptoms of cystitis for four months, and on vaginal examination a thickened right ureter was discovered. The urine was acid, specific gravity 1015, pale straw colour; contained a small quantity of albumen and a slight deposit of pus; no tube-casts nor blood. Microscopic examination revealed the presence of large numbers of tubercle bacilli both in the urine and in the sputum. A cystoscopic examination showed (Coloured Plate, Fig. XXII) the mucous membrane to be deeply injected and pigmented, especially along the line of the ureter, so that there was a distinct elevated ridge extending like a bar underneath the mucous membrane. The orifice was oval-shaped, and the space between the lips was of an unusually dark-red colour. On the surface of the bladder there were a number of little round white pellets, which, on agitation of the fluid, floated about freely, otherwise they presented very much the appearance of miliary tubercles in the mucous membrane.

B. CHRONIC DISEASES.

1. *Septic Pyonephrosis of the Left Kidney.*

This case illustrates very well the appearances presented by the mouth of the ureter in a case of very chronic septic pyonephrosis, due originally to infection following the impaction of a phosphatic calculus in one of the kidneys. There had been repeated attacks of renal colic, sometimes with symptoms of complete obstruction to the left ureter. Each attack was preceded by a rigor and accompanied by sickness, vomiting, and profuse perspiration. The suffering was sometimes so severe as to cause the patient to at once lie down; relief was obtained by hot applications and the administration of morphine. Palpation of

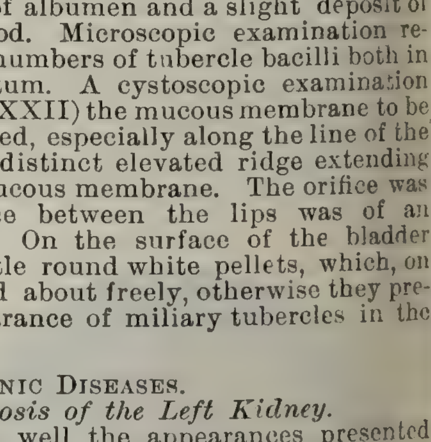


Fig. XXIII.—Septic pyonephrosis.

the abdomen showed marked increase in size of the right kidney. The swelling was rounded, and extended to within 3 in. of the umbilicus, and fluctuation would be readily made out. Cystoscopic examination showed that there was no fluid, either urine or pus, escaping from the right ureter, but the duct could be easily felt on vaginal examination as a thickened cord. The orifice was distinctly retracted, almond-shaped, the lips thickened, widely parted, forming a large, gaping mouth; the mucous membrane seen between the lips, and covering the distal aspect of the ureter, was bright red, a much deeper hue than the lips of the orifice, which formed an oval ring mounted on an elevated ridge Fig. XXIII). In cases of septic kidney the involvement of the ureter is almost a certain consequence.

2. *Ascending Ureteritis* (Fig. XXIV).

The case was one of subacute septic cystitis, due to mixed infection of *Bacillus coli* and *Streptococcus pyogenes*, ollowing an old-standing stricture of the urethra, which had been dilated on many occasions, but owing to neglect on the part of the patient the treatment had not been consistently carried out. Prior to the patient oming under my care the urine was alkaline, contained pus, with large quantities of mucus and a considerable deposit f triple phosphates. When the stricture had been well ilated, and the bladder condition improved sufficiently to ermit it retaining 6 oz. of fluid, a cystoscopic examination howed marked thickening of the orifice of the left ureter, with eep pigmentation of the mucous membrane, marked dilatation, and a varicose condition of the arterioles (Fig. XXIV). The mouth of the ureter was situated on a rounded eminence, and appeared as a hole punched out of very swollen and congested mucous membrane. There was marked hypertrophy of the muscular coat, shown by prominent trabeculae.

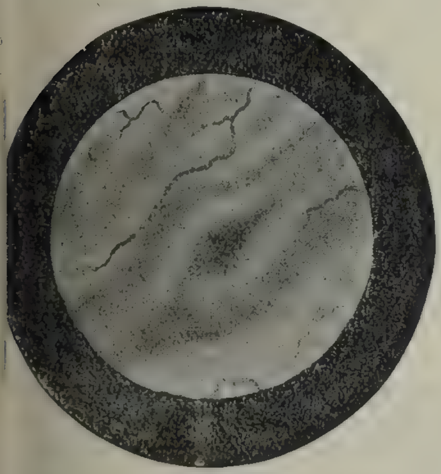


Fig. XXIV.—Ascending ureteritis.

Fig. XXV (Coloured Plate) shows the appearance of a less chronic case, in which changes were not so marked. In both the septic infection extended to the correspondg kidney, and the walls of the ureter were greatly thickened nd indurated.

In chronic cystitis the nature of the changes induced the ureters depends upon the nature of the primary sion, and the mode in which the secondary infection kes place. In those instances where the infective aterial gains access along the surface of the mucous embrane, the inflammatory changes induce early imdiment to the escape of urine through the orifice. onsequently, dilatation of the ureter in such cases is e first, the most common, and most marked change. hen, on the other hand, the infection is by the lymatic channels, the lowermost limits of the ureter may nost entirely escape, and the most marked morbid anges consist in fibrous induration of the submucous nnective tissue, the wall of the ureter being thereby uch thickened, while until late in the case the lumen is t materially altered. The circumstance that the interrietal portion of the duct is free from disease accounts for the absence of dilatation, and the valvular action of the ureter is maintained. In septic cystitis, when the infection is conveyed along the surface of the mucous membrane, the lips of the orifice are greatly thickened, congested, and may even be ulcerated. Frequent and spasmodic contraction of the bladder, the resistance offered to the escape of urine from the duct consequent upon the anges I have just described, cause protrusion of the ureteral orifices into the bladder, and gradual separation of the lips, so that the valve action of the mouth of the ureter is ultimately lost. The physiological barrier to septic infection is removed, the door being open for infection of the ureters and kidneys. When the infective process proceeds through the lymphatic channels, the walls of the ureter become sclerosed, the mucous membrane being enveloped in a dense connective tissue sheath of considerable thickness, but, while the duct for a considerable distance above the level of the bladder may be converted into a dense cord, the lumen may remain undiminished, and the mucous membrane may not be seriously involved in the infective processes. Consequently, for a considerable period the kidney may escape, but sooner or later the dense cicatricial tissue contracts, and more or less impediment may be offered to the passage of urine. In these old-standing cases the ureter orifice is contracted to a pin-head opening (Fig. XXVI), and the mucous membrane extending along the line of the ureter is elevated into a sharply-defined ridge of deeply-pigmented mucous membrane.

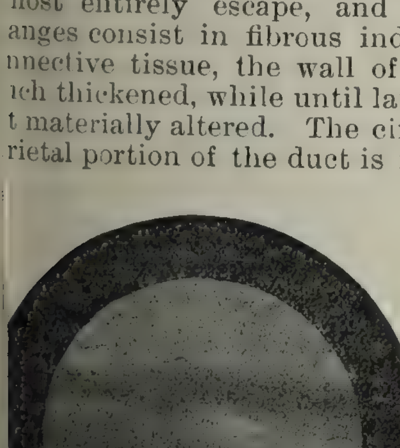


Fig. XXVI.—Ascending ureteritis, pinhead opening.

3. *Renal Calculus of Old Standing.*

The case was one of renal calculus, with symptoms extending over a period of ten years. They consisted of severe attacks of renal colic with occasional haematuria and almost persistent presence of pus in the urine. The quantity of pus varied from time to time, and was always associated with an acid condition of the urine. Although frequently urged to have an operation performed, the patient refused, until he was compelled to submit by reason of the frequency of the attacks and the increased severity of the pain. Haematuria was by no means a marked symptom. It occurred seldom, and was never severe. On cystoscopic examination the orifice of the left ureter was seen to be greatly dilated (Fig. XXVII), and the margins thickened and of a dark purple colour. The mucous membrane of the bladder in other parts was little altered, but around the orifice of the left ureter it was deeply injected, and one or two of the blood vessels in close proximity to the orifice were distended. The mouth of the right ureter was normal in appearance.

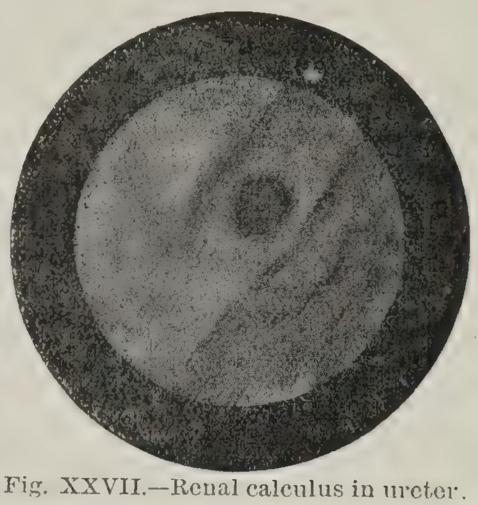


Fig. XXVII.—Renal calculus in ureter.

4. *Calculus Impacted in the Left Ureter.*

The interest in this case was that while it was under observation the stone was passed. The history was that of repeated attacks of renal colic with the passage of gravel on several occasions. On September 9th, 1905, an *x*-ray photograph was taken, when the shadow of a stone was found corresponding in position to the union of the lower and middle third of the left ureter. On September 10th a cystoscopic examination was made, when the mucous membrane of the bladder was found to be practically normal, but, on account of the enlargement of the middle lobe of the prostate, a cystoscopic examination was difficult. The orifice of the right ureter was normal, that of the left was considerably dilated and the shape of a melon seed (Fig. XXVIII). The margins were very slightly thickened, and on the left lip the line of the mouth was obscured by a trickle of blood escaping from it, so that the whole contour was not clearly seen. The line of the ureter was very distinctly marked, and the mucous membrane covering it was pigmented and congested. On September 11th I received a letter from the patient, saying that he had passed the stone on the evening of September 10th, and that he "felt all right now," but should I wish him to do so he was willing to undergo another cystoscopic examination.

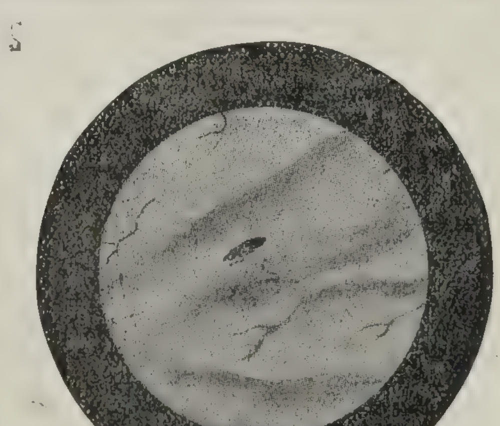


Fig. XXVIII.—Renal calculus in ureter while impacted.

A second *x*-ray photograph was taken on September 11th, and failed to show the shadow seen in the first plate, proving that the shadow seen was due to the stone which had been passed. A second cystoscopic examination showed the same appearances as formerly presented, with the addition that close to the middle of the upper lip there was a small submucous haemorrhage, and a similar spot was seen on the margin of the lower lip, but no blood was found escaping from the orifice. The stone passed was the size of a horse bean, but very irregular in shape, and distinctly nodulated. It is worthy of remark that the passage of this concretion caused no laceration of the lips of the ureter or other injury recognizable with the cystoscope further than the minute submucous haemorrhages just described (Fig. XXIX).

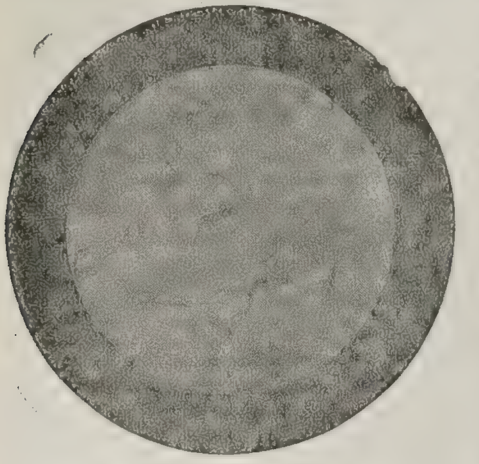


Fig. XXIX.—Renal calculus in ureter, passed.

CONCLUSIONS.

It is impossible with our present knowledge to dogmatize, and the conclusions which I have come to may be either confirmed or contradicted by a larger experience. I think, however, it is well to state as clearly as possible the opinions I have formed after a somewhat lengthy series of investigations. They may form a foundation for others to build upon.

1. When one orifice is altered and the other normal, the renal lesion is on the side of the abnormal ureter, and the character of the deformity of the orifice may indicate the nature of the renal lesion.

2. Active congestion and swelling of the mucous membrane in the neighbourhood of the orifice and along the line of the ureter (Fig. XIX), also swelling and pouting of the lips, denote acute irritation of the pelvis or parenchyma of the corresponding kidney.

3. A dilated orifice, the lips being sharp and clearly defined, the mucous membrane between the lips acutely congested, while the colour of that of the bladder is little changed, denotes recent and acute inflammation or mechanical irritation in the corresponding pelvis (Fig. XX, etc.).

4. A dilated orifice, the lips being thickened and only slightly rounded, the mucous membrane between the lips of a dark-red colour, while the mucous membrane of the bladder is deeply injected and pigmented, especially along the line of the ureter, denotes decending ureteritis with dilatation (Figs. XXI, XXII, and XXIII).

5. An elongated or dilated mouth with hyperaemia of the lips indicate acute inflammation of the parenchyma or recent distension of the renal pelvis.

6. A punched-out orifice, marked thickening of the lips, induration and congestion of the surrounding mucous membrane, indicate a dilated ureter with ascending ureteritis, the infective process extending along the surface by continuity (Figs. XXIV and XXV).

7. A pinhead opening on a well-defined ridge of deeply-pigmented mucous membrane denotes induration of the walls of the ureter from ureteritis, the infective material being conveyed from the primary focus in the kidney or bladder, principally through the lymphatic channels (Fig. XXVI).

8. Pinhead contraction of the mouth without other vesical changes denotes spasm induced by the presence of a rough calculus impacted in an irritable ureter.

9. Inflammation of the mouth and thickening of the lips, with inflammatory changes limited to the mucous membrane immediately surrounding the ureter orifice, denotes mechanical irritation of old standing (Fig. XXVII).

10. Simple dilatation of the mouth, without much thickening of the lips, and with congestion limited to the orifice and neighbouring parts, suggests mechanical irritation of recent origin (Figs. XXVIII and XXIX.)

I may now indicate the inferences which may be drawn from a study of the changes to be observed in the rhythm, size, form, frequency, and composition of the efflux.*

A. *When the Urinary Shoots are in Distinct Jets, but are more frequent on one Side than on the Other.*

1. Greater functional activity is indicated when the shoots are large, uniform in size, and regular in rhythm.

2. Undue irritation and congestion of the kidney is to be inferred when the shoots are more frequent, small in size, unequal, and irregular in rhythm.

3. Stricture, stone, or ureteritis should be suspected when the shoots are distorted in form, or irregular in amount.

4. The action of drugs, administration of fluid, excitement, pain, or sudden surprise, may cause very rapid secretion of clear urine from both orifices.

B. *When the Urine does not escape in Distinct Jets.*

1. Inefficient secretion, or dilatation of the ureter without paralysis of the sphincter is indicated when the urine dribbles into the bladder at intervals.

2. Destruction of the sphincter action is denoted when the urine floats into the bladder almost continuously.

C. *Absence of Efflux may be noted when*

1. Inhibition of the secretion is temporary only, the ureter orifice being distinct, but not gaping.

2. Absence of secreting tissue is indicated when no shoots are seen after several examinations conducted under varying circumstances; the orifice may be difficult to find, or may be wanting.

D. *The Urinary Shoots contain some Morbid Material.*

1. It consists of blood-stained urine.

(*a*) In acute inflammation of the parencyhma of the kidney marked hyperaemia (passive), the effluxes are of a dark-brown colour, and may be copious and continuous.

(*b*) In carcinoma or sarcoma where the tumour has originally invaded the pelvis, or has ultimately broken down and communicated with the pelvis, and in injury to the kidney large quantities of blood may escape.

(*c*) In ulceration of the pelvis in malignant disease and in syphilis haemorrhage may occur into the pelvis in large quantities, and blood may be expressed from the ureter by pressure with the hand over the affected kidney.

(*d*) In chronic interstitial nephritis, in stone, and in early tuberculous disease, occasional small quantities of blood may be seen trickling from the ureter. If the trickle of blood succeeds a urinary shoot, the bleeding is probably due to calculus impacted at the lower end of the ureter.

2. It consists of pus-stained urine.

(*a*) In septic pyelitis and pyonephrosis, where the kidney is still active, pus-stained urine may be ejected at regular intervals. Pus is constantly present, is intimately mixed with the urine, and flakes are not numerous.

(*b*) In tuberculous pyelitis the pus is not so intimately mixed with the urine, many shoots are not purulent, and pus, when present, is usually flaky.

3. Effluxes of thick fluid or semi-fluid. When the kidney is inactive, as, for example, in old-standing pyonephrosis, in malignant disease where the greater bulk of the organ has become involved in the neoplasm, in advanced tuberculous disease, and in syphilitic disease of the kidney, the parenchyma of the organ may become so destroyed, or its function impaired, so that little or no

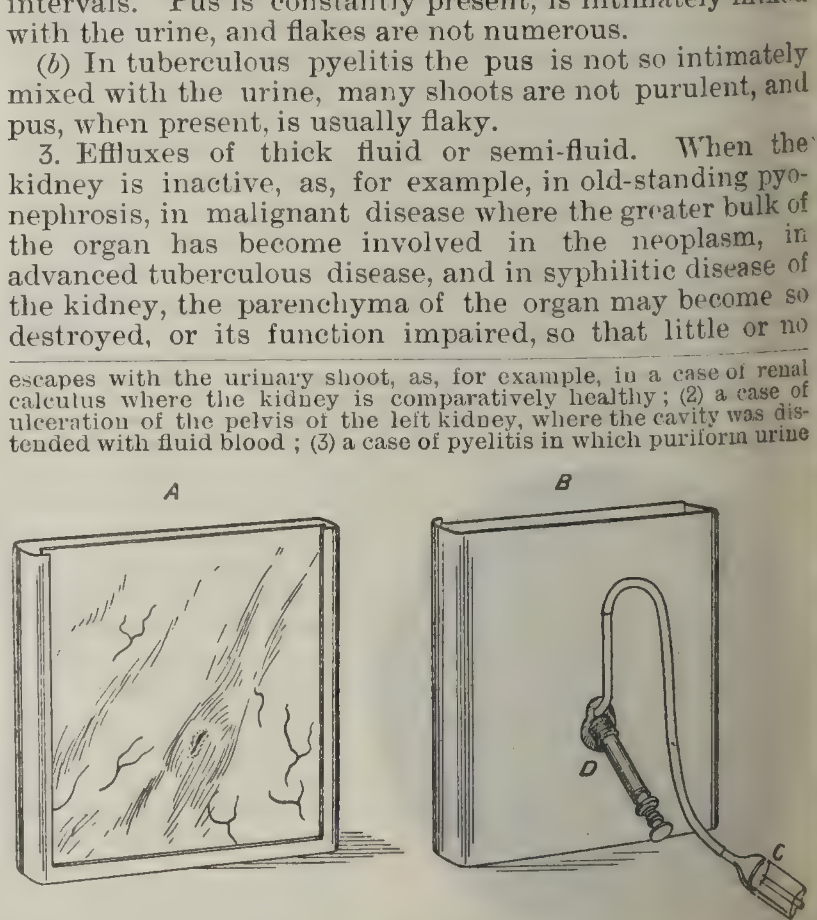


Fig. 9.

---

*The shoots were demonstrated in the projector by means of the cells (Fig. 9) described at p. 666. So as to give a clear idea of effluxes, five illustrations were given: (1) Where a small quantity of fluid blood escapes with the urinary shoot, as, for example, in a case of renal calculus where the kidney is comparatively healthy; (2) a case of ulceration of the pelvis of the left kidney, where the cavity was distended with fluid blood; (3) a case of pyelitis in which puriform urine escaped in distinct shoots; (4) a case of chronic pyonephrosis where the function of the kidney was in abeyance; and (5) a shoot containing flaky pus, such as is seen in tuberculous pyelitis.

urine is excreted. Under such circumstances, pure blood or blood clot may be passed through the mouth of the ureter, or pus may escape in putty-like bands which issue slowly from the ureter.

When haemorrhage takes place into the pelvis of the kidney, and the blood is retained there for a considerable time, it becomes so altered that it does not mix freely with the contents of the bladder. When it passes from the ureter it may appear like a ribbon or band of melted red wax, which flows slowly from the mouth, and, after it has attained a certain length, breaks off and floats away.

ERRATUM.—In the BRITISH MEDICAL JOURNAL for March 24th, p. 665, col. 2, line 17 from bottom, the words, "includes 75 per cent. of a circle" should read, "includes 75 degrees of a circle."

THE PROGNOSIS IN POSTERIOR BASIC MENINGITIS.

By O. HILDESHEIM, M.D.Oxon.,
LATE HOUSE-PHYSICIAN, HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET.

POSTERIOR basic meningitis is by no means so rare a disease as is generally supposed. It accounts for one-third of all the cases of meningitis which occur among the in-patients at Great Ormond Street Hospital—133 out of 596 consecutive cases. Some account of the general prognosis in this disease, therefore, may be useful, the more so since there is no illness in which it is more difficult to orecast the future. This difficulty arises in chief from he frequency with which the inflammatory exudate intereres with the circulation of the cerebro-spinal fluid, giving rise to some degree of hydrocephalus. The symptoms of concealed hydrocephalus have been described lsewhere.[1] They were divided for purposes of description into four groups.

1. Sudden death; relapse; sudden attacks of vomiting, headche, and pyrexia.
2. Convulsions; insanity.
3. Paralysis; retarded development.
4. Inability to gain flesh, headaches, incontinence, peculirities of temper, morals, or emotions.

There are, however, certain other sequelae which cannot e ascribed to hydrocephalus, which must be considered n some detail before we proceed to a general survey of the rognosis.

Amaurosis without Optic Neuritis.

This is the most remarkable of these. Carr[2] does not mention this condition. Lees and Barlow[3] say: "Although optic neuritis is rare yet blindness more or less complete s not uncommon," and they cite cases. Stephenson in 902 reported from the Royal London Ophthalmic Hospital cases of "fleeting amaurosis in infants presenting ymptoms of meningitis."

In more than one-third of my cases the child was either lind, or its power of vision was uncertain at some period the disease. Of these, over 60 per cent. were under months at the time of onset of the disease, showing that he condition is more common in younger patients. The dest child was 2½ years. In most instances the blindess begins insidiously. In half my cases it was not corded until more than a month after the disease set in. enerally the condition endures for a few weeks—from ree to six weeks; sometimes it lasts much longer. In cases it was present ten months, one year, and two ears respectively, but the following history presents my ost remarkable example of the condition.

CASE X.—Aged 3 months. He "fell out of bed and injured s brain." In the next five weeks he had nine fits. A week ter the fall he was found to be blind. He was an in-patient three London hospitals. He remained blind for five years, d then sight gradually and completely returned. Two years er, at the age of 7, he began to talk. My own notes say: Age 10. Can't walk. Legs slightly spastic. Big, healthy-oking boy. Idiot. Very hilarious and good-tempered. sion normal." There was evidence in the old notes of an rly hydrocephalus which became arrested.

Vision returns gradually. In one case two years after he illness the mother told me that, although the sight s perfect usually, yet "when the child is indisposed sion seems blurred." Stephenson gives an almost entical description. Six months after the attack "the ght seems to fade away when the baby is poorly." e fundus oculi is usually pale, but otherwise normal. The condition is often referred to the excessive intracranial pressure so commonly found. The following facts militate against such a view:

1. There was other evidence of hydrocephalus in 29 per cent. of these cases, as against 36 per cent. of all my cases of posterior basic meningitis.
2. Blindness sometimes begins long before there is reason to suspect increased pressure—for example, Case IX became blind immediately after the onset of the disease. Eight months later the head was first noticed to enlarge.
3. The amaurosis disappears, although the hydrocephalus may be progressive.
4. The condition is not included in descriptions of chronic hydrocephalus.[4]

The condition is probably never permanent. In only one case, which I was unable to trace, was the amaurosis persistent when the child was last seen.

Optic Neuritis.

Optic neuritis does undoubtedly occur in posterior basic meningitis, but it is very rare. In many cases there are ill-defined appearances of some change in the fundus insufficient to warrant a diagnosis of neuritis. A necropsy of a case in which optic neuritis and retinal haemorrhages occurred is described in vol. xv of the Great Ormond Street records. It occurred in only one undoubted case in my series[5]; the boy's general condition, seven months after the attack, was steadily improving, but he remained totally blind.

Pseudo-glioma.

Lees and Barlow[6] describe one case; another has been recently recorded by Dr. Blaber.[7] I have two instances to add.

CASE LXXXIX.—The child was an out-patient, and the notes are scanty. About the third week, the right eye became affected. "Mr. Lister and Dr. Batten are agreed that the condition is probably a mild degree of pseudo-glioma." A year later vision is normal.

CASE XXXVIII.—Aged 1¾ years. An illness which was probably posterior basic meningitis. At the age of 2 years and 3 months he was admitted for fits and blindness. Well nourished; head retracted; legs strongly adducted. Whilst in hospital hydrocephalus rapidly developed. Note by Mr. Lister: "In my opinion there is undoubted chronic iridocyclitis (pseudo-glioma)."

Deaf-mutism.

Apparently this condition is rare. Its frequency is apt to be overrated because it is quite common in certain epidemics of cerebro-spinal fever. I have found only two cases, of which one (Case XXIX, loc. cit.) developed the condition after several operations for subdural drainage.

CASE XXXIV.—Aged 2½ years. Posterior basic meningitis. At the age of 2 years and 10 months, in hospital, "comparatively well, but is not sane; her memory is gone; she does not know her people; she is dirty in her habits; her mother thinks she does not see at all. The child is an idiot." At the age of 6 years and 10 months the father writes, "I am pleased to state she enjoys the best of health, and appears to have all her faculties. I am sorry to say she cannot speak, and her hearing is very dense."

Insanity.

Insanity is not very uncommon, and it often lasts for some months. Consequently the patient is often sent from the hospital *in statu quo*, and this has given rise to the idea that the condition is not rarely permanent. I have records of three such cases where the child ultimately became quite sane. My only permanent cases are the idiot child described above (Case X), and another who had frequently recurring fits during the two years that she survived (Case XXX, loc. cit.).

General Prognosis.

Out of 133 cases in which the diagnosis of posterior basic meningitis was made, 43 were sent out of hospital alive. This does not indicate that one-third of all the cases recover, because:

1. The more severe cases are more commonly sent to hospital.
2. Mild cases are treated in the out-patient department.
3. Many of those who are sent out alive die subsequently.

Probably the survivors of the original illness number considerably more than 1 in 3, whilst in distinctly less than one-third of all cases can ultimate recovery be expected.

(*a*) I was able to follow up 17 cases which were sent out "cured." None of these have died, although the history, with one or two exceptions, extends over several years; 8 are completely cured; 5 have very minor troubles, which may be of no significance; 2 belong to the group "retarded development" (Cases LXIX, LXXXVIII, loc. cit.). There remain 2 who have developed hydrocephalus since leaving the hospital, but neither of these was really normal on leaving—one was still frequently vomiting, and in the other the limbs were still slightly spastic—so that one may conclude that once a child appears to be *completely* cured of the disease the prognosis is very good; but when one turns to those who were sent out "better" or "improved" the outlook becomes distressing.

(*b*) Out of 7, only 3 survive. Of these, 1 has hydrocephalus, another is paralysed, and the third shows "retarded development"; at 3½ she cannot walk alone; 4 died, 1 from scarlet fever (the exanthemata not infrequently carry off these patients during convalescence), and the other 3 from the disease itself or its sequelae.

(*c*) Out of 13 cases sent out "*in statu quo*," 4 developed hydrocephalus whilst in hospital; 2 others died of "water on the brain" subsequently; 1 died of the disease itself, and 1 of measles; 3 are permanently disabled, and only 2 are cured.

It is almost impossible to give any prognosis early in the disease. One can judge of the severity of the infection by the pyrexia, spasticity, mental condition, amount of vomiting, presence of fits, and so on; but the very mildest cases sometimes develop hydrocephalus, and in one fatal case which I saw there was for many days some inflammation about the joints before there was any indication of intracranial disease. On the other hand, Case XCI, who represented the very worst type, was, seven months later, steadily improving, and many of the cases that ultimately recovered were ill for several months.

It is well known that the prognosis is better the older the child. Nevertheless, one-third of my cases who completely or partially recovered was under 6 months at the time of onset.

In conclusion, it should be recognized that the prognosis largely depends, in not a few cases, on careful and unremitting attention to the artificial feeding of the child; the value of this process should be regularly checked by weighing the patient, and every effort should be made to avoid setting up a catarrh of the nasopharynx and respiratory system.

REFERENCES.

[1] Hydrocephalus and Posterior Basic Meningitis, *The Practitioner*, August and September, 1905. [2] *Med. Chirurgical Trans.*, 1897. [3] Simple Meningitis in Children, Clifford Allbutt's *System of Medicine*. [4] *Brain*, vol. xiii. [5] Case XCI, loc. cit. [6] Loc. cit. [7] *Lancet*, November 4th, 1905.

A CASE OF POSTERIOR BASAL MENINGITIS WITH FEW CEREBRAL SYMPTOMS.

BY J. G. G. CORKHILL, M.D., L.R.C.P.

THE following case possesses much interest from the almost entire absence of symptoms. Certainly there were none of the classical ones present, and their absence gave rise to great difficulty and delay in diagnosis. The onset was similar to that of one of the zymotic diseases, and though these one and all were eliminated by time, there was nothing of a very definite nature pointing to the condition of the brain until very late in the case.

The entire absence of headache, the slight amount of vomiting, the absence of head retraction and rigidity and of Kernig's sign made a positive diagnosis wellnigh impossible, and caused much anxiety alike to the parents and the medical attendant.

V. S., female, aged 2 years and 2 months, was always a robust child, weighing at birth slightly over 9 lb.; the head somewhat large. Twelve months ago she had a sharp attack of vomiting at Christmas-time, which lasted three or four days; with this exception she had always been strong, healthy, bright, and intelligent.

Family History.

Some thirty years ago one of the father's sisters was said to have died of "water on the brain"; with this exception, all members of the father's and mother's families were strong and healthy.

History of Illness.

On January 20th suddenly vomited and appeared to be ill; the vomit was nothing more than undigested food. The child, seen in my absence by my friend, Dr. Brown, seemed to have a cold in the head. The temperature was 102°, though four hours later it had risen to 104.4°; respirations 60, pulse 160; no examination was then made, as the child was sleeping well and peacefully.

On January 21st the temperature was 103.2°, respirations 50, pulse 148. The bowels were constipated, and the tongue coated with a thick white fur. There had been no further vomiting. Careful examination showed lungs, heart, and kidneys healthy; the abdomen was distended. Child bright and intelligent, making no complaint, though wanting to be put back to bed during the examination.

On January 22nd temperature varied from 102° to 104° F., respiration was hurried and somewhat of the Cheyne-Stokes type; the bowels had been well moved, the motions being slimy and green, and containing much curd. Examination proved negative.

On the morning of January 23rd the condition was much the same; but in the afternoon I was called by the parents, as they noticed that she had become "strange," lying on her right side, looking vacantly towards the right, and no longer "taking notice," though answering questions when spoken to; there was some paresis of the external rectus; the pupils reacted readily to light, and were neither dilated nor contracted; there was no retraction of the head; she had vomited curdled milk. I ascertained that two quarts of milk were being given in twenty-four hours, and ordered one pint of whey instead.

On January 24th I saw her with Dr. Ashby; the result of the examination was negative. Temperature, pulse, and respiration much the same; there was no optic neuritis; no diagnosis was made.

On January 25th the child had improved in general condition, and was playing with dolls, though the temperature rose to 104° towards evening. From this date till February 1st the condition remained very much the same; the temperature was easily controlled by phenacetin gr. v whenever it rose to 101°; then it rose suddenly to 106.4° at 5.30 p.m., though at 8.30 p.m. it was normal. The child was intelligent, doing as told, and answering questions. The paresis of the external rectus had disappeared on January 27th. The bowels were moved during this time three or four times in twenty-four hours. The motions were somewhat loose, with more or less slime, but the colour became more natural. Some spasmodic pain in abdomen, which was distended, was complained of. Examination of the blood for typhoid gave a negative result.

On the morning of February 5th the child was much as before, but at 12.30 p.m. I was hurriedly called as the breathing had become "strange." There was marked rigidity of arms and legs; the pupils were dilated, but reacted to light, and there was no optic neuritis. The temperature was 105.4°; the pulse small and too rapid to count; tepid sponging brought the temperature to 101° in half an hour, and the rigidity passed away entirely with the fall of temperature. In the evening the temperature was normal.

On February 6th I had a further consultation with Dr. Ashby. The child was bright and intelligent, the temperature as before. Lungs and heart were normal, and the bowels as described above. No diagnosis was made.

On February 8th the temperature ran up in the afternoon to 105.6°, but fell rapidly after sponging. In the evening the child was dull, taking no notice; the pupils reacted very sluggishly. There was slight retraction of head.

On February 9th the general condition was much the same, though there was more marked listlessness and some rigidity of the upper cervical muscles.

On February 10th the child was comatose, or almost so, rigidity of the head and neck being very marked. I had a consultation with Dr. W. B. Warrington of Liverpool. The condition much the same as on the previous day. Kernig's sign was absent, lumbar puncture was advised, about 1 drachm of turbid fluid was drawn off; when dried and stained with methyl violet it showed many multinuclear cells and small diplococci.

On February 11th the right arm and leg were rigid, and later in the day the jaw became so rigid that she could not be fed. This rigidity of jaw passed away on the following day, but the limbs on the left side became rigid, and the spine so much so that she could be lifted by the hand under the occiput.

On February 13th, after a good morning and a show of marked improvement, she suddenly vomited at 5 p.m., and half an hour later, after some grinding of the teeth and one or two convulsive movements, died.

THE PREVENTION OF TUBERCULOSIS IN SPAIN.—The Permanent Commission for the Prevention of Tuberculosis recently nominated by the Spanish Minister of the Interior was formally constituted at a meeting held in Madrid on March 16th, under the presidency of the Minister, Count de Romanones. Addresses were delivered by Señores Espina, Ortega Morejon, and other members of the Commission. Count de Romanones stated that a Committee had been appointed to draft rules for the conduct of the work of the Commission.

FOLIE À DEUX (?).

By CHARLES MERCIER, M.D., F.R.C.P.,
PHYSICIAN TO CHARING CROSS HOSPITAL.

It is not very unusual for husband and wife mutually to charge each other with insanity, and cases have occurred to me in which it was some little time before I could decide which was indeed the true patient. In the case I am about to describe, the difficulty was so unusually great that, of two practitioners who had examined the couple before me, and at whose instance I was consulted, one was prepared to certify the husband, while the other was equally convinced that the wife was insane.

They were Colonial people, who had come to London partly for sight-seeing and partly for self-improvement. For a short time they stayed at a well-known hotel, at which they had stayed before. They left this, and went to another large hotel close by. After some days they quitted this hotel, leaving some hundreds of pounds worth of jewellery behind them, and went into very respectable lodgings. The same night the lady rushed up to the landlady declaring that the husband was out of his mind, and was trying to murder her. The landlady went down, found the husband quite tranquil, and persuaded the wife to return. Next day the couple quitted this lodging for another, leaving all their clothes and belongings behind them. After two nights in the new lodging they transferred themselves to hotel No. 2, and the next day they both arrived at breakfast time at the house of some adies, strangers to them, but friends of other members of heir family. These ladies live a quiet life in a suburban own, and were so much embarrassed by the sudden irruption into their peaceful circle of this connubial thunderstorm, that they sent for assistance to their friend and medical adviser, Dr. C. On his appearance, the wife, n much excitement, declared that her husband was nsane, violent, and dangerous, and implored him o be calm and restrain himself. The husband, much gitated, though the calmer of the two, did not protest gainst the charge, and, after an agitating and stormy cene, the whirlwind tore itself out of the house and eturned to town, to hotel No. 2. The storm being passed, he elderly ladies resumed the tranquil life from which hey had been so unexpectedly disturbed. Next morning, owever, their early suburban breakfast was again interupted by a tempestuous visit of the friends of their amily. Again Dr. C. was requisitioned, and this time he ecided to ride the whirlwind and direct the storm, guiding t to a neighbouring nursing home, where the gale abated, nd the disturbed elements subsided into tranquillity. till, however, there remained a ground swell after the torm. The lady was afraid to occupy the same room ith her husband, and must be separately accommodated. t midnight she reappeared with her arms full of clothes, nd declared that she could not bear to be separated from im. In the small hours of the morning she found that his arrangement was impracticable, and that she must esume her separate chamber.

In several interviews with Dr. C. each of them declared hat the other was insane, the wife alleging that her usband, several of whose relatives were insane, was at mes so violent that she went in fear of him, while the usband declared that his wife had been subjected to ccult influence by a malefactor, until she had been ereft of her true individuality—she was no longer istress of herself or responsible for her own actions. uzzled as to which account was correct, Dr. C. called the aid of his neighbour, Dr. P., who has had much xperience, both as medical man and as magistrate, in ses of insanity. Dr. P. examined the husband, and ecided that he, at any rate, was of unsound mind, and uld, if it were desirable, be certified forthwith. About e wife he was not so sure. Excited she was, no doubt, range in her manner and odd in various respects; but uch allowance must be made for a woman, far from iends, from help and counsel, associated day and night ith a husband who was insane and intermittently prone to olence. Dr. C., on the other hand, while admitting that e husband had behaved very strangely, and entertained otions that were, to say the least of it, very odd, yet garded the wife as the more insane of the two; but then e had witnessed the extraordinary demeanour of the wife the breakfast table of his patients, which Dr. P. had not seen; and he had not heard the extraordinary statement of the husband to Dr. P., which will presently be recounted, about the singing of the wife. Meanwhile both husband and wife enjoyed being at the nursing home, and expressed no wish to leave it. They said it was perfect peace after the turbulent experiences through which they had recently passed. Under these circumstances I was asked to see them both, and to decide whether both or either, and if so, which, was insane, and what had better be done.

I found them sitting tranquilly in the garden, the gentleman, an anaemic man of 38 or so, with a weak face and an air of weariness and indecision, reading a book; while the wife, a plump little woman of about the same age, with bright eyes and intelligent but unsatisfied expression, was doing some needlework. The gentleman at once assented to my suggestion that I should interview his wife alone, and took himself off. The lady's account was that they had been married ten years, and had had no children. No trouble like the present had ever occurred before. This was not their first visit to this country. They came, not to see the sights, but for self-improvement—her husband to learn languages, while she took singing lessons. She had lately become convinced that she was wasting her life, and that she ought to pay more attention to her spiritual development. She could not quite explain what she meant by that. No, it was not devoting herself to good works—at least it was that, but it was much more. She found that her singing lessons helped greatly towards her spiritual development; they elevated her spiritually. She found that her singing master was a great spiritual force, and that in all his lessons there was a double meaning. When he spoke of the upper resonance and the lower resonance, that applied to her voice, no doubt, but it also had a spiritual meaning of great significance. She could not explain what the meaning was. It applied to her moral nature; it was spiritual. At first she thought she ought to pursue her spiritual development, regardless of the cost to herself, or her husband, or any one else; and she had tried to convert her husband to the higher life; but now she recognized that she ought to make her spiritual development harmonize with his welfare and comfort, and carry him along with her. Sometimes her faith had failed, but she was thankful to say it was now restored to her, and it would never fail again. She would be spared that sin. She had been living without an object in life, and now she had the greatest of all objects. Yes, her husband had been violent with her, and she was afraid he was out of his mind. It was in his family. She had feared him, but she did not fear him now, because she felt she had an inner strength, and as long as she did not lose faith she would be able to overcome him. He had been very violent at lodging No. 1; and again at hotel No. 2, at 4 o'clock in the morning, he had rushed at her and held her by the arm and the chest. She was at first afraid he would injure her. But she felt an inward conviction of her own strength, and as long as she had that and held to her faith, he could do her no harm. It was after this fracas that they decided to visit these old ladies, the friends of their family.

There was no very definite insanity in all this. It is the sort of trash that we hear from members of the Society for the Investigation of Spooks. One hears the same kind of thing from plenty of other silly weak women who have not enough to do, not enough interests in life, and who, for want of healthy occupation and interests, become sentimental and emotional, and plunge into mysticism. She evidently belonged to the class of women who go into convents when they are disappointed in love; who become devotees; who fall under the influence of high-church curates, and embroider for them slippers and braces; who wear hair-cloth chemises; take their tea without sugar to mortify the flesh; and go without breakfast to attend "matins" and "prime." Should they fall in with designing spiritualists they fall an easy prey. They are the kind of people who constitute the triumphs of the revival meeting. They are the objects of endless hilarity to their profane brothers; and of sympthetic pity to the understanding physician; but they are not insane.

From her I went to her husband. I was prepared to find him a weak, unpractical kind of creature, without much harm or much sense in him; and I was not far wrong. He had come to this country, it appeared, to study "psychic" phenomena, and to join in "psychic" research, so called. He had fallen into the slough, and become a convinced believer in "occultism," and various kinds of trash; when, to his horror, his wife followed his example, and, his eyes being opened to the perniciousness, though scarcely to the humbug, of the thing, he had wrenched himself out of it; and then had the misery of recognizing that his wife was captivated, and that his connubial happiness and comfort were like to be wrecked by it. She had been taking singing lessons of a well-known and worthy professor, and had erected the unwitting man, first into a spiritual guide, philosopher, and friend; then into a demigod and medium between her and the spiritual world; and at length had confided to her husband that her music master was a reincarnation of Christ himself. Inexpressibly shocked and horrified, the husband tried with frantic eagerness to free his wife from the domination of a man whom he now looked upon as a veritable Svengali, who had the power to work upon the wife a supernatural metamorphosis. It was the expression of this belief that led Dr. P. to the conclusion that the husband was insane. "My wife was having a singing lesson," said Mr. X., "when I heard a new and magnificent voice, that I had never heard before, sing in the most superb and entrancing manner. I said to myself it was not fair to my wife that such a voice should be brought into contrast with hers, and that the professor had no business to bring such a singer, and then make my wife sing after her. I went upstairs to remonstrate, and found that this extraordinary singer was my wife herself. When the professor was gone, her ordinary voice returned." Mr. X. was convinced, not only that the professor had a supernatural power over Mrs. X., and used it, but that he used it for the very nefarious purpose of exploiting Mr. and Mrs. X., and making money out of them. In corroboration of this view, he told me that, on one occasion, the professor had seriously assured him that Mrs. X. was on the verge of an attack of brain fever, and that Mr. X. had better not thwart her desire to continue her singing lessons, or she might have a serious illness. Moreover, the professor had the power of "drawing" Mrs. X. to him, wherever he or she might be; for, one evening, Mr. X. had left Mrs. X. temporarily, and, when he returned to his room, she was gone—gone without leaving word whither, and without assuming her proper out-of-doors attire (she was not without hat and boots, however). In a short time she was brought home in a cab by the professor, to whose house she had "been drawn." I pointed out that the professor had not been far wrong about Mrs. X.'s state of health, and elicited that he had suggested that, while her singing lessons had better continue, they might very well be given by some one else. As to her being "drawn" by him, it appeared that she had indeed gone to him, as, with her peculiar view of his nature and powers, was not unnatural, but there was not a tittle of evidence that he was an active, or even a consenting, party to her excursion. Moreover, he seemed to have acted the part of the Good Samaritan in bringing her home at the time of his own dinner hour, instead of putting her in a cab, and sending her home by herself. This view of the matter seemed to bring great relief to Mr. X. He then went on to explain some of the events of the last few days. About the transfer from hotel No. 1 to hotel No. 2 he was reticent, and gave me to understand that there were private reasons. From hotel No. 2 to lodging No. 1 they went to facilitate the singing lessons. No sooner had they arrived at the lodgings than Mr. X. recognized that his wife was fallen completely into the toils of her Svengali; and, upon making this discovery, Mr. X. determined that he must "fight fire with fire"—that he must exert his authority, dominate his wife, oust the intruder, and compel her, by the power of a stronger will, to return to her allegiance. Unfortunately, a weak man cannot assume strength by the mere effort and desire to do so. His method of dominating his wife by superior power seems to have been to storm at her; and, so foreign to his usual nature was this mode of treating her that, instead of substituting his influence for that of Svengali, she rushed up to the landlady and screamed that he was gone out of his mind. He did not reduce her beneath the power of his will, but he succeeded in scaring her into hysterics. No lion so dreadful as a *brébis furieux*. After this they were reconciled. Mr. X. won his wife over to his view of the matter; and, holding each other's hands, they together asseverated, with great solemnity, "*We will throw off this evil influence!*" This was one of the occasions to which Mrs. X. had referred when she told me she had once or twice lost faith, and sinned by doubting. Determined to act at once, to sever themselves from Professor Svengali, and begin a new life, they had walked straight out of their lodging, to which they had been recommended by him, and went to another. So urgent was the necessity, that they waited not to pack their belongings nor to say farewell. They stood not on the order of their going, but went at once. The so-called assault, at 4 a.m., in hotel No. 2, was explained thus:—Mrs. X., in a state of great excitement, rushed to the bell, and her husband held her hands to prevent her from disturbing the house without reason. The visit to the suburban family seems to have been prompted by the craving, in their forlorn bewilderment, to seek somewhere, anywhere, that support and succour which their poor weak natures so sorely needed. In the nursing home they have found a haven of rest in which they can shelter themselves, and cling to the strength of others, while the nearer waters roll, while the tempest still is nigh.

My researches did not disclose any insanity in either of them. The man was weak and silly, and the woman was silly and weak. They were neither of them fit to be trusted in the streets without a dry nurse. The heads of both of them were stuffed with spiritualistic rubbish, and they seemed to me like boy and girl, who had never before been beyond the precincts of some dame's school, suddenly set down in the great world to fend for themselves. I advised them to rest at the nursing home until they had recovered their morale and become reconciled to each other, and then to return to their native land. Here I recommended they should carry out a project, often discussed between them, and adopt a child, since they have none of their own. I assured Mrs. X. that if she had a child to dress and undress, to wash and bathe, to feed and cherish and care for, she would soon forget her aspiration to "develop her spiritual nature," which was after all merely a perversion of, and a poor substitute for, her unsatisfied maternal instinct.

"If you, Mrs. X., had had a floor to scrub, this barrier between yourself and your husband; this aspiration to develop your spiritual nature; this deifying of a matter-of-fact teacher of singing; these migrations and quarrels, and strivings and yearnings after you know not what, would never have happened. You are suffering from emptiness of life. Get something to do, if it is only scrubbing floors, but get something to do."

She caught eagerly at the notion; she jumped at it. She was ready then and there to drop on her knees and scrub the gravel path if by so doing she could rid herself of her morbid incubus, and resume her place in her husband's affection and her own esteem. At this point I took an abrupt leave of them, lest I should be installed in the place of spiritual director, vice Svengali, dismissed the service.

THE GALTON-BERTILLON SYSTEM IN PORTUGAL.—A law for the institution of a regular anthropometric system has just been passed in Portugal, and is likely to come into effect immediately. In all individuals who have been condemned for criminal offences, as well as in any case where the legal authority considers it advisable, a form of the Bertillon system is to be employed. Four separate classes of bureaux are organized—the central, the local, the special, and the penitentiary. The first speaks for itself, the local are in connexion with the district courts, the special with the reformatories, and the last class with the penitentiaries of Lisbon and Coimbra. The identification of males below 25 and above 45 years of age, as well as of all women, is carried out by Galton's method with the modifications of Henry. Males between 25 and 45 are registered by a process which is a combination of Bertillon's and the Galton-Henry system, though when the head of a post considers it necessary, he can order complete measurements and records to be taken. The local bureaux normally employ only the Galton-Henry finger-prints, though tattooings are also registered. On being taken, the record is sent at once to the central office, where it is duly classified. The special bureaux are principally intended to record the effect that correctional education produces, and, similarly, the bureaux in connexion with the Lisbon and Coimbra penitentiaries will, it is hoped, throw some light on the results obtained from the penitentiary methods.

MEMORANDA:
MEDICAL, SURGICAL, OBSTETRICAL.

PAINLESS LABOUR.

Dr. Horrocks's statement that there is no such thing as painless labour is contrary to my experience. About sixteen years ago a lady engaged me for her fourth confinement, and incidentally mentioned that all her children, ncluding the first, had been born before the doctor's rrival. I noted this, mentally resolving to be in time. It was in vain. Within ten minutes after receiving the summons I was at the patient's bedside, but the infant was born. To my astonishment I learned that she had never yet experienced what are known as "labour pains," nor did she ever suffer "after pains." Eighteen months ater she wanted me again. One evening she and her husband with a couple of friends were enjoying a game at cards, when she suddenly told her husband to fetch the doctor while she went upstairs. As before, ten minutes probably covered the interval between her rising from the able and my arrival, and again I found the child born. A third opportunity in due time was given me to attend his lady, but as this proved to be a twin pregnancy I was n time to witness the birth of the second child, the first having appeared on the scene before I could reach the house. All through there were no pains, no warnings of mpending accouchement until birth was almost accomplished—no complications or after discomfort of any kind. This patient informed me that her sister, the mother of everal children, was likewise fortunate in absolutely scaping the pains which usually accompany labour.

Scarborough. **John Irving, M.D.**

N corroboration of Dr. Allan's case, the following may be f interest;

I was engaged by a young lady to attend her at her first onfinement. One morning her husband came for me in reat excitement, and on my asking when she was taken ad he replied, "Just now." I said probably the baby would not be born for eight hours, but went at once, meeting a second messenger on the way. On arrival t the house I found the baby born and the afterbirth xpelled. The patient, it appeared, said to her mother, who lived with her, that she felt "queer," and the mother aid, "Well, perhaps it will come to-day," and then the atient stepped across the room and leaned on the mantelshelf, when without warning the baby fell on he floor, rupturing the cord, and almost immediately he placenta was expelled. The patient made an ninterrupted recovery.

Ashton-on-Mersey. **Harold Renshaw, M.B.**

THINK the following is a case of almost complete bsence of pain in labour. In January, 1901, I was called o a case at 7 a.m., and found the child born when I rrived. The patient, a 3-para, aged 28, stated that she woke at about 6.30 a.m., and the child was born immeiately. She told me that she had "neither ache nor ain." Recovery was uneventful. In December, 1905, I as again called to the same patient at 4.30 p.m., and ound the child born. She stated that she had been in he next house talking to her neighbour, and feeling as ell as usual, when she was seized with a "pain in her ody." She was only just able to get back to her house, nd throw herself on to the bed, before the child was orn. In neither of her first two labours did she suffer uch pain, and they both terminated quickly. The first sted somewhat longer than the second, but she was not ure about the time.

King's Lynn. **G. D. Trevor-Roper.**

DEATH FROM ENLARGED THYMUS GLAND.

HE thymus gland is of such extreme interest both clinilly and pathologically that cases of death due to its gency should always be recorded.

The child in this case had been sitting up at its tea hen it was suddenly seized with a fit of choking, and ed; at the time of choking he was not eating anything. He history of the boy was as follows: He was a healthy oy, aged 18 months, but had been subject to attacks of dyspnoea almost from birth, attacks in the nature of laryngismus stridulus; the day previous to his death he had been taken to the Children's Hospital for this complaint, and there adenoids and enlarged tonsils were diagnosed, and he was ordered in for operation in two days' time. In the intervening time he died.

At the *post-mortem* examination the body was found to be well nourished and well grown. On opening the thorax a large thymus was found occupying the usual mid-sternal position, and embracing the bifurcation of the trachea. Its weight was 1 oz. 6 drachms, and its length from above downwards 3½ in. There is no standard of weight to which to compare it, as the greatest diversity of opinion holds as to an average weight; but, taking 2 drachms as approximating the average, one can appreciate the enlargement. In addition to the lymphatic hyperplasia seen in the thymus, tonsils and adenoids, there were no other signs except in the spleen, which weighed and measured the same as the thymus. Rickets is so often part of the status thymicus that careful search was made for signs of it; none were found, though the lower ribs were drawn in as is usual in attacks of dyspnoea in children. As to the cause of death there are, of course, two principal theories, the toxic and the mechanical. Considering the small space between the manubrium sterni and vertebral column in a child, and the intimate relations of the thymic mass to the innominate arteries and veins, the auricles of the heart and the trachea, the mechanical theory presents no difficulties whatever to my mind; in those cases where young adults have died owing to some shock, and a status lymphaticus has been found, it is reasonable to inquire whether toxic agencies have not been also at work.

I would urge all practitioners to make *post-mortem* examinations in so-called cases of overlaying, as it is almost certain that a percentage of these deaths are due to the status thymicus, and many women consequently are wrongly accused of suffocating their infants.

Brighton. **James Rooth, M.R.C.S., L.R.C.P., B.A.Oxon.**

SCARLET FEVER AND THE PUERPERIUM.

On February 1st I delivered a woman, aged 27 years, of her second child; labour was tedious, and forceps were used with antiseptic precautions. All went well till the third day, when she developed obvious scarlet fever. The uterus was immediately washed out with four pints of hot water, to which tincture of iodine, ʒij, were added, and an injection of antistreptococcus serum administered; both douche and serum injection being repeated the following day, February 4th.

On February 5th the temperature fell from 104.2° to 101°, and never rose again above that point. The lochia never ceased, but continued as usual in a normal labour case. As soon as scarlet fever was diagnosed the infant was weaned, and milk gradually disappeared. Desquamation was free, hands and feet especially. Slight rheumatic pains occurred in wrists, hands, and shoulders at the end of the second week, and was relieved by a few doses of salicylate of soda (15 gr.). The temperature remained between 100° and 101° in the mornings till February 21st, when the patient was convalescent. Infection was traced to the patient's attendant; she lived close by, and had two unrecorded cases of scarlet fever in her family, and a third during her attendance on my patient. My patient had herself been in the infected house a day or two before she was delivered.

In addition to the treatment noted quinine was given all through the case, and brandy in regular doses of a tablespoonful every three hours during the first week. This is the first case of scarlet fever I have seen in a puerperal case in my own practice during the last ten years, and as I am constantly called to fever cases of all kinds, it must be very unusual for infection to be carried by the medical man with ordinary precautions, such as washing hands (biniodide of mercury tablets have always been used) and changing clothes.

P. S. Harris, M.R.C.S., L.R.C.P.

Heanor, R.S.O., Derbyshire.

VENTRIFIXATION.

In a recent communication to the British Medical Journal, Sir William Sinclair expressed an opinion to the effect that ventrifixation in cases of prolapse at or past the menopause were just those in which the operation was not indicated, and altogether unjustifiable. I venture to think that the following case proves this view to be incorrect.

K. E., aged 45, married, four children, youngest 14 years of age. Consulted me April, 1901. Complained of prolapse of the uterus, inability to walk owing to this, menorrhagia, and all the symptoms of extreme anaemia.

Examination: The cervix, hypertrophied to about the size of a Tangerine orange, was protruding from between the labia. It was seen to be excoriated in places from constant exposure and friction. Upon pushing this back into the vagina it was found that the body of the uterus was retroverted. The appendages could be easily felt and appeared healthy. There was an old rupture of the perineum extending nearly to the anus. The patient informed me that she used to push the lump back when she went to bed, but it was always outside when she woke in the morning. The patient was extremely anaemic and very feeble.

By way of treatment the patient was confined to bed for one month and the cervix kept within the vagina by a pad and tapes attached to a belt round the waist. Warm boracic douches were given once a day, and she was put on a nourishing diet, with iron and arsenic for medicine. At the end of the month she was much improved in general condition, but still extremely anaemic. Ventrifixation was then performed in the following manner: An incision 2½ in. in length in middle line. The uterus was pushed up by an assistant from the vagina, and a No. 4 silk suture passed through its muscular wall fairly deeply; gentle traction was then made upon this, and the uterus drawn up into the wound as far as it would come. Then while still held by the suture the silk fixation sutures were passed, three in number of No. 3 size. They were all passed in the following manner: first through the parietal peritoneum from below upwards, and then over a space of about ⅛ in., and then from above downwards; then through the uterine tissue, and finally through the parietal peritoneum at the opposite side in the same manner as described. The suture used for traction in the first instance was passed through the skin on either side after the fixation sutures had been tied and cut short, and after the incision had been closed with silkworm this suture was tied over the gauze pad, being subsequently withdrawn on the fifth day. As she was not fit to bear the further prolongation of the anaesthetic the plastic operation upon the perineum was deferred. I performed this some two months later. She made an uninterrupted recovery from both operations.

The after-history of this case is very satisfactory, and bears out, I think, my contention that Sir William Sinclair's view is not tenable. Thus, it is now nearly five years since her operation, and I have examined her recently within a few months. The uterus, as can be made out easily by palpation, is still in position as fixed; the cervix is almost of normal size, the perineum is sound. The patient is now past the climacteric. She can walk a matter of three miles to do her shopping, and on a Saturday carry her purchases home, which amount to a fair load.—I am, etc.,

Marske-by-the-Sea. B. Mayhew Bone, M.B., C.M.Edin.

ANTIDIPHTHERIAL SERUM BY MOUTH.

I was much interested by Dr. A. M. Pilcher's list of cases in which antidiphtherial serum was administered by the mouth. May I venture, however, to make the following criticism? Since the majority of his cases were only slight, it appears hardly justifiable to attribute to a method of treatment a result which may have been due to the *vis medicatrix Naturae* alone. In pre-antitoxin days the multiplicity of "remedies" for diphtheria bore testimony to their inefficacy. Then, as now, benign cases tended to get well, whatever treatment was adopted, or, indeed, with no treatment at all.

Inestimable as are the benefits conferred by the introduction of antitoxin, there is no doubt that a certain number of cases can dispense with such treatment without any untoward results. Thus, out of 900 consecutive cases of diphtheria that have been under my care at the Grove Hospital during the last few years, 35 patients, or 3 per cent., did not receive antitoxin, and only 13 of the 35 had local treatment—for example, syringing the throat with boracic lotion, or a solution of potassium chlorate and myrrh. Dr. Pilcher, unfortunately, does not state if his patients received local treatment in addition to the oral administration of the serum. Beyond slight and transient albuminuria, no complications developed in my 35 cases to make me regret abstention from specific treatment. All the cases were detained in hospital long enough for any paralysis to develop, but none occurred.

It is to be regretted that Dr. Pilcher has not stated the ages of his patients. Older patients, in my experience, are, as a rule, afflicted most by serum phenomena and least by paralysis, and are therefore less likely to suffer than younger ones through want of antitoxin treatment. The average age of my 35 patients was 11.5 years, which may be regarded as a relatively advanced age, as 769 of the total 900 were below that age.

The value of the oral administration of antitoxin as a preventive measure cannot be gauged from so small a number of cases as is given by Dr. Pilcher, especially if one considers how large a number of those exposed to infection escape an attack of diphtheria without prophylactic treatment, not only among the nursing and medical staffs of large fever hospitals but also among the more susceptible population of younger persons. On the other hand, the value of preventive injections is well established, and has recently been exemplified by the fact that among 671 children who received such injections at the Hôpital des Enfants Malades at Paris no case of diphtheria developed (vide *Bull. et Mém. de la Soc. Méd. des Hôp. de Paris*, December 8th, 1905).

Tooting. J. D. Rolleston, M.D.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

BOLINGBROKE HOSPITAL, WANDSWORTH COMMON.

A CASE OF URAEMIA WITH PERSISTENT HICCOUGH: DEATH.

(Reported by W. A. Rees, M.B.Lond., F.R.C.S.Eng., Registrar to the Hospital.)

A patient, E. C., male, aged 52 years, was admitted to hospital on July 28th, 1905, under the care of Mr. Ryall. He was sent in as a case of cystitis and chronic ischio-rectal abscess. The history obtained from the man and from his friends was as follows:

History.—For the last twenty years he had suffered from rheumatism affecting the small joints of hands and feet and also the knees; this had led to the deformity of the hands characteristic of rheumatoid arthritis. In addition he had suffered from very severe gout, tophi forming in his ears and at the finger tips. The trouble with his urine first began three years ago, and throughout the symptoms were chiefly those usually associated with bladder trouble—namely, frequency of micturition and difficulty in starting the act. Blood had been present in the urine at times, and he had also passed "gravel." During the same time he had suffered from painful defaecation, and lately with the motions there had been a discharge of pus from the anus. Ten days before admission he began to suffer for the first time from hiccough, which varied, however, from time to time in severity. Thus he had one severe spell, with two or three hiccoughs to the minute, lasting thirty-six hours, and interfering greatly with sleep and the taking of food, but when this had passed off he was only troubled by an occasional hiccough through the day. When first admitted into hospital, and for the first two days after admission, the hiccoughs were only occasional, and hence no notice was taken of them, and this history concerning them was only elicited two or three days after admission when the hiccoughs became more frequent. The man stated that his appetite had been very bad lately, that his sleep had been very disturbed, and he had frequent headaches, which he put down to a blow on the head received when in the police some years before.

State on Admission.—The man was evidently very ill. He was greatly emaciated; the skin was harsh and dry, face sallow, and a general appearance of cachexia was present. His chief complaint was of pain in the region of the anus, and also of the difficulty and pain that he had on passing his urine, there being a feeling of soreness throughout the urethra. He had a slight cough, pulse was 100 to the minute, and temperature 100° F. The superficial cardiac dullness was enlarged, and the first sound of the heart accentuated at the apex; throughout the body the arteries showed well-marked arterio-sclerosis. On examining the anus, a swelling could be seen on the right side of the anal margin, pressure on which caused pus to ooze out from the anus; a chronic ischio-rectal abscess with an opening into the rectum was diagnosed. The urine was alkaline and rather offensive, specific gravity 1012, and contained pus and albumen, but no red blood corpuscles could be seen under the microscope. There was rather more albumen than could be accounted for by the amount of pus that was present.

Treatment and Progress.—As the patient complained so bitterly of the pain in the rectum, it was decided to open the ischio-rectal abscess freely from the perineum. This was done under chloroform three days after admission, and the same evening he expressed himself as being much relieved by the operation. The day before the operation the hiccoughs had become somewhat more frequent, and the evening after the operation the hiccough was worse and vomiting occurred several times. On August 2nd hiccough continued day and night every thirty seconds; it prevented sleep almost entirely; if the patient fell asleep the paroxysms could be seen to be occurring all the time and would soon wake the patient up again. Vomiting also continued at frequent intervals, and the patient could not take any nourishment whatever. On August 3rd and 4th the patient gradually got weaker; no remedy had any effect on the hiccoughs, which continued as before. The bowels were obstinately confined, and would respond to no drugs. Each day about 18 to 20 oz. of urine were passed, always of a low specific gravity. The optic discs were examined, but were found to be normal. The temperature came down to below normal, and the patient died of exhaustion just seven days after admission; he was quite conscious up to the last. Slight twitchings of the muscles on the right side of the body were noticed before death.

Post-mortem Examination.—After death a large branched calculus was found in the pelvis of each kidney. The secreting tissue of the kidneys to the naked eye had completely disappeared as a result of the chronic inflammation set up by the presence of the calculi, its place being taken by fibrous tissue with numerous cysts containing turbid urine or small calculi; firm adhesions were present between the capsule of the kidney and the surrounding parts. Except for the kidney, no other marked pathological change was found in the body.

REMARKS.—In this case all medicinal remedies were found to be quite without effect in the prevention of the hiccoughs. Gastric sedatives—for example, chloretone, bismuth, ginger, bicarbonates, etc., were quite useless. The antispasmodics, also, that were tried—namely, potassium bromide, chloral, and morphine—failed entirely to control the hiccoughs. Tongue traction, which is often very useful in hysterical cases, did no good, and the same may be said of the remedies that were tried for uraemia when it was suspected that the hiccoughs were due to that cause. Powerful stimulation of sensory nerves seemed to stop the hiccough for the time; thus, when a strong light was thrown on the retina in examining the optic discs, the spasms ceased for the time, and small doses of undiluted brandy had a similar effect, acting presumably through the sensory nerves of the stomach.

Hiccough may be caused either by afferent stimuli passing to the centres of origin of the phrenic nerves in cord or medulla, or by the direct action of toxins circulating in the blood on these centres, just as venous blood stimulates the respiratory centre to increased activity in asphyxia. Efferent impulses pass by the phrenic nerves to the diaphragm, and cause its sudden contraction and descent. The sudden jerk produced thereby gives the hiccough its distressing character, as the whole body of the sufferer is violently shaken. In the present case, by means of the *post-mortem* findings, we can exclude any afferent impulses to the centres; there was no inflammation of the diaphragmatic pleura or of the peritoneal covering on the under surface of the diaphragm; no irritating contents were found in the stomach, and its walls appeared fairly healthy. No pathological change in the central nervous system, such as tumour formation, meningitis, etc., which could be the cause of the hiccoughs, was met with in examining the head. The hiccough could have only been caused by the toxic effect of the products of the uraemic state circulating in the blood and acting on the centres of origin of the phrenic nerves; the convulsions and vomiting that occur in uraemia are caused by the same toxins stimulating the nuclei of origin of the motor nerves for these acts. It is always taught that, accompanying the sudden contraction of the diaphragm which occurs in a hiccough, there is a constriction of the glottic aperture which prevents the air entering the lungs, and so the diaphragm is suddenly hindered in its descent; this statement has, however, been shown to be probably erroneous by the late Dr. Vivian Poore. He showed that it is unnecessary to suppose that any contraction of the glottis takes part in the act. During normal respiration the descent of the diaphragm in inspiration is accompanied by a contraction of the posterior crico-arytenoideus muscles, and these, by causing an outward rotation of the arytenoid cartilages, dilate the glottic aperture. The diaphragm and the larynx keep time together, but when hiccough occurs the diaphragm gives a sudden descending jerk, irrespective of the condition of the glottis, whether in a position of inspiration or not. The noise is not a constant phenomenon, not occurring when the hiccough accompanies inspiration.

I am indebted to Mr. Ryall for permission to publish this case.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

Cardiff, March 8th, 1906.

W. WILLIAMS, M.D., President, in the Chair.

The X Rays in the Treatment of Fracture.—A discussion on What influence the use of *x* rays has had upon the treatment of fractures and dislocations, was opened by Mr. LYNN THOMAS, C.B. The conclusions he had arrived at from his own experience were the following: (*a*) That *x* rays has had no influence upon the treatment of fractures and dislocations; (*b*) *x* rays is of great value in diagnosis of obscure cases, in ordinary cases its use is not necessary; (*c*) the evidence of the *x* rays is misleading, deceptive, and of little value in forming an opinion as to proper methods of treatment. In the discussion which followed, opinions differed as to its utility, Messrs. D. J. WILLIAMS, RHYS GRIFFITHS, and T. D. GRIFFITHS agreeing that treatment had not been influenced; whilst Messrs. WILLIAM SHEEN, BROOK, and CORNELIUS GRIFFITHS considered that Mr. Lynn Thomas went too far; that what was an aid to diagnosis must influence treatment, unless treatment was perfect before.—Dr. LATIMER considered that skiagraphs should not be permitted in a court of law. —Mr. LYNN THOMAS, in his reply, said he had purposely left out the medico-legal aspect, and repeated that not a single instance of a new method of treatment had been brought forward, nor was the *x* rays of use in forming an estimate of the utility of a limb.

Purulent Nasal Discharge.—Dr. PATERSON read a paper on the significance of purulent nasal discharge. He illustrated the anatomy of the sinuses in connexion with the nose by a series of very excellent lantern slides. —Mr. FRANK THOMAS spoke as to the importance of these sinuses in relation to ophthalmology.—Messrs. LYNN THOMAS, RHYS GRIFFITHS, and BROOK also discussed the paper; and Dr. PATERSON replied.

Abdomino-perineal Excision of Rectum.—Mr. WILLIAM SHEEN read a paper on abdomino-perineal excision of the rectum, with reports on two recent cases, one of which he showed. The advantages he claimed for the operation were: (*a*) The upper limit of the growth can be determined; (*b*) all the growth and infected lymphatics and glands can be removed together; (*c*) all bleeding points can be tied, so that the procedure is almost bloodless; (*d*) certain other parts, if involved, can be removed; (*e*) the risks of infection are reduced to a minimum.

Demonstration.—Dr. T. LL. LLEWELLYN demonstrated an apparatus of his own for administering ethyl chloride, alone or in conjunction with ether.

OXFORD AND READING BRANCH: OXFORD DIVISION.—At a meeting held in the Radcliffe Infirmary, Oxford, on March 23rd, Dr. INNES GRIFFIN in the chair, Mr. WHITELOCKE showed a case where he had performed nephrectomy for a large branching calculus (oxalate of lime), filling the pelvis and calyces of the kidney; hundreds of very minute calculi were also found in the kidney. He also showed three calculi removed from the kidney of another patient who suffered from perirenal abscess; this was drained, and the patient made a good recovery.—Mr. PARKER showed a case of Bassini's radical cure for hernia, in an old man aged 75, who had a large irreducible hernia, and discussed the advisability of operation in such cases.—Dr. ROUTH read a paper on a remarkable series of cancer cases in a small village in the neighbourhood. No less than 12 fatal cases (11 of which were women) occurred in the course of a few months, out of a total population of 300. The chief organs affected were the stomach, breast, uterus, and lip. The houses in which these cases occurred were situate in a valley along the course of a small stream, and the water supply was entirely from surface wells. In the discussion which followed, Professor Osler expressed the hope that Dr. Routh would send his report to the Cancer Research Association.—Dr. Innes Griffin opened a discussion on the value of isolation hospitals in the treatment of scarlet fever. Both he and Dr. Collier were of opinion that a shorter period of isolation would be beneficial, and that simple uncomplicated cases might be disinfected, their skin being kept well anointed with antiseptic ointment, and allowed to return home within a period of three to four weeks. An animated discussion followed.—Dr. Turrell read notes of a case of puerperal pyrexia occurring on the fourth day after normal labour, no vaginal examination having been made. On the twelfth day, the temperature being 105.8° F., he injected polyvalent antistreptococcic serum (B. and W.) at Professor Osler's suggestion, and repeated the injection the next day, using Lister Institute serum, the temperature falling to normal. A third injection was required before the temperature remained at normal level and the patient recovered. There were no pelvic symptoms throughout the course of the pyrexia, and no source of possible infection was discovered. He also showed a specimen of intestine of a case of melaena neonatorum, which proved fatal on the second day. No ulceration of stomach or bowels was found. Professor Osler related a similar case where an ulcer was eventually found at the junction of the oesophagus and stomach.—Other papers were postponed till a subsequent meeting.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY

J. Warrington Haward, F.R.C.S., President, in the Chair.

Tuesday, March 27th, 1906.

Value of Doyen's Serum in Malignant Disease.

Dr. Alexander Paine and Dr. D. J. Morgan read this paper, which contained a summary of Dr. Doyen's work on cancer, followed by a clinical account of 9 cases of malignant disease, treated by injections of serum and vaccines, at the Cancer Hospital, together with an investigation into the presence of the *Micrococcus neoformans* in malignant and other growths. The cases treated clinically were all clear examples of malignant disease, and were divided into: those in which the course of the disease was uninfluenced by the treatment; those in which the injections were followed by severe pain; and those in which they were followed by severe constitutional disturbance. In none of the cases treated was there any improvement. In 44 malignant and other tumours the *M. neoformans* was found in 25 per cent., and a streptococcus in 30 per cent. Other organisms were also found in many cases; 36 per cent. of the cases were sterile. The characters of the *M. neoformans* were described, and the result of inoculation of 200 animals with the organism, which was not followed by the formation of a new growth, but by inflammatory reaction. Their general conclusion was that the *M. neoformans*, although like other micrococci often present in malignant tumours, was not present in sufficient numbers, or with such reasonable constancy, as to be regarded as the etiological factor in the evolution of these growths.

Dr. E. S. Pattison gave details of four cases of cancer treated with Dr. Doyen's serum. One that of a man, of 68, an inveterate smoker with cancer of tongue, who was taken to Paris and treated by Dr. Doyen, with relief of pain and fetor and some improvement in general condition. He developed a secondary patch in the alveolus of the lower jaw, and death followed in a few months. The second case was that of a woman of 48, who had had the uterus excised for malignant disease. An abdominal cancer developed, with much pain, intractable constipation, and vomiting. After twenty-four injections she improved for a time, but relapsed and shortly died. Two other cases were described without any definite improvement, except slight retardation and relief of pain.

Mr. Ryall said that all Dr. Doyen's patients in Paris acknowledged some improvement in regard to pain. There seemed, however, to be considerable risk in the method; the symptoms of overdose appeared to be like those of an overdose of Coley's fluid.

Mr. Howell Evans alluded to the natural tendency of the disease to show periods of amelioration and exacerbation.

Mr. Swan said that in one case there was no difference in the microscopical characters before and after the treatment.

Dr. Paine, in reply, said there might be a dual infection in cancer, and it was difficult to say how much influence on extraneous organisms any special treatment might have.

CHELSEA CLINICAL SOCIETY.

Annual Clinical Debate.

James B. Ball, M.D., M.R.C.P., President, in the Chair.

Tuesday, March 20th, 1906.

Serum Therapy.

Dr. F. Foord Caiger, in resuming the adjourned discussion, first described the great benefits derived from the antitoxin treatment of diphtheria. In regard to the few exceptional cases that did not show the improvement one would expect, he supposed that the most reasonable theory was that the organism against which the horse had been immunized was of a different strain from those which were acting in the human body. In regard to dosage, one view was that the antitoxin should be given in large doses to start with; another view was that more benefit was derived by spreading the dosage over several days. For some years past his practice had been to give a dose of 6,000 to 8,000 units and repeat that at the end of twelve to twenty-four hours, according to the urgency of the case, and to continue that treatment practically until the membrane showed definite signs of separating. In his experience no further benefit had been obtained by giving larger doses. The dosage should be regulated according to the amount of toxin which was present, and which required to be neutralized. Unfortunately, this was impossible to ascertain. According to recent opinion, it was only the toxin which had been formed in the previous half-hour or so which could be attacked by the antitoxin, and according to that view it was not necessary to give "colossal" doses. But the difficulty was to know what was meant by the term "colossal." One thousand units was by no means colossal if it was only given in the late stage of an attack, but it was certainly colossal if given very early. Dr. Caiger determined his dose of antitoxin according to two factors: first of all, by the urgency of the symptoms, more particularly in the case of laryngeal attacks; and secondly, by the time at which the patient came under treatment—that is to say, the stage which the disease had reached when the case came under treatment. There could be no question that 1,000 units on the first day was better than 2,000 or 3,000 units on the second day, and so on. Referring to the method of administration, the usual custom was to give the antitoxin subcutaneously. If a more rapid effect was desired owing to the urgency of the symptoms, that could be secured by adopting intravenous injections, but as a matter of fact, Dr. Caiger said, in those cases where it had been given in that way the patients had died, though it had to be remembered that it was only administered in desperate circumstances. Personally, he had not had a very wide experience of intravenous injection. The subcutaneous method in the majority of cases was sufficient. It had been seriously recommended by some that the antitoxin should be given by the mouth and even by the rectum, but he himself had never yet had sufficient courage to trust to either of those ways. He considered that the complications due to the injection of the antitoxin were of undoubted importance, although the tendency was to minimize them. In the cases with which he was concerned it was found that in something between 40 and 50 per cent. a distinct complication arose as a result of the injection. There was always a risk of a subcutaneous abscess developing when anything approaching carelessness had occurred in the injection, but there was no doubt that with proper care that possibility could be reduced to a minimum. During the course of the year 1905 no abscess had occurred at the South-Western

Fever Hospital, although the injections numbered over 1,000. Referring to the giving of prophylactic doses of antitoxin, Dr. Caiger said that he would not hesitate to give it at sight or on suspicion in the case of a young child who was a "contact," but when he had to deal with an adult and that adult was under medical inspection he thought it was a mistake to use prophylactic injections, for the treatment could be commenced on the first symptom of illness.

Dr. **Bertram Abrahams**, in the course of his remarks, discussed statistics of the tuberculo-opsonin work which had been done at Westminster Hospital. His conclusion was that all that could be said about opsonins was hat they were of some value from the point of view of prognosis by virtue of the opsonic index which they upplied.

Dr. **Allan Macfadyen** said that he believed all future progress in serum therapeutics would be advanced by general knowledge which would be gained in regard to the oxins produced by infective bacteria, about which they ad still a very great deal to learn, and about which he elieved with efficient research they would learn still more. Dr. Macfadyen described his experiments by means f which it was possible to produce antibodies in coniderable amount in connexion with the class of toxins coming into play in the majority of pathogenic organisms ith which they had to deal. He concluded by declaring hat bacteriologists must endeavour to produce some common factor on the antitoxin basis which would eutralize such toxins as those of the streptococci indeendent of any individual virulence of the strains which might be present, especially in regard to plague, typhoid, nd cholera.

CLINICAL SOCIETY OF LONDON.

Clinical Evening.

T. **Dent**, M.C., F.R.C.S., Vice-President, in the Chair.

Friday, March 23rd, 1906.

Mediastinal Sarcoma Treated by Roentgen Rays.

r. **Zum Busch** showed a man, aged 37, who had suffered om syphilis since 1896, and had had for years vigorous eatment with mercurial inunctions and pills and intrauscular injections of hydrarg. salicyl. In September, 04, the face and neck swelled and were cyanosed; the ght half of the thorax was painful at night, and swallowg became difficult. A swelling appeared near the econd and third sternocostal joints, and another was parent in the right supraclavicular space. Pot. iodid. gram *ter die* was ordered, but the patient became rse. In February, 1905, he went to Vienna; the elling beneath the manubrium was growing, and the joining costal cartilages were prominent. The blood-unt was normal. The Roentgen rays were applied, and provement at once occurred, pain disappeared, and the ficulties in breathing and swallowing lessened. A gland noved from the supraclavicular space proved to be a rcoma. He had since gained in weight and lost all in. Reference was made to similar cases, most of which d improved, whilst some had not improved, under this atment.

Mr. W. G. **Spencer** remarked that cases of lymphenoma (so-called in this country) had been known to appear after treatment by iodide of potassium and enic years before Roentgen's discovery. Of some comata treatment by Roentgen rays would be sheer ste of time; on those which were here called lymphnomata it might be serviceable.

Bony Tumour of Skull.

Dr. H. G. **Turney** showed a man, aged 42, who for seven rs had had a hard smooth growth, occupying the right l upper portion of the calvarium, without optic neuritis sign of nerve involvement, but with headache during day, not at night. Dr. Turney believed the growth to of bony character.

Mr. E. P. **Paton** described a similar case in which re were four or five such tumours. One was excised; was found to be superficial to the bone of the skull, proved to be a sarcoma. The wound healed, and the mour did not recur.

Adiposis Dolorosa.

Dr. B. **Abrahams** exhibited a mother and daughter. The former, aged 40, was slight until the birth of her last child three years ago. Since then she had become steadily stouter, especially in certain well-defined areas, particularly on the upper limbs, and had constant aching pain in various places. The daughter was stout, and complained of pains not definitely localized.

Dr. **Turney** described the case of a girl who lost 5 or 6 st. on two occasions under thyroid treatment, but relapsed when it was intermitted, and whose case eventually after some years came to be one of adiposis dolorosa.

Dislocation of Metatarsus.

Dr. **John J. Douglas** exhibited a man, aged 24, who was thrown from a cart in January last, the wheel going over his right foot. When the swelling subsided the internal cuneiform bone was found unduly prominent, and the whole metatarsus dislocated outwards. Attempted reduction under an anaesthetic failed. The joint being exposed, a portion of the tibialis anticus tendon was found to be between the first metatarsal and internal cuneiform bones, and, this being replaced, the metatarsus was easily pushed into position.

Mr. **Nitch** exhibited (for Mr. **Clutton**) a cast of a similar case; and remarked on its rarity without fracture.

Fixation of Omentum for Ascites.

Mr. W. G. **Spencer** exhibited a woman who four years ago had alcoholic hypertrophic cirrhosis and ascites. The abdomen constantly refilled after drainage and tapping until the omentum was fixed in the epigastrium to the rectus muscle, since when there had been no ascites nor oedema, though she had taken alcohol as before. She had meanwhile, too, had the left breast and adjoining glands removed for carcinoma. The benefit was produced by the anastomosis of the veins of the omentum with those of the rectus muscle.

Spleno-medullary Leukaemia.

Dr. **Voelcker** exhibited a boy, aged 10½ years, whose illness had lasted four months. He had lately suffered frequently from epistaxis. The spleen was very large. In a blood count the erythrocytes were 3,302,000, the leucocytes 400,000, per c.mm. Dr. Voelcker said that only 5 cases in children had been recorded.

Congenital Absence of Fibula and Congenital Coxa Vara.

Mr. T. H. **Openshaw**, C.M.G., showed a girl aged 6, with this deformity of the left lower limb, which was 13⅞ in. long, the right leg being 19⅝ in. The whole limb was rotated outwards to an angle of 35 degrees. *X* rays showed the head of the femur to be in the acetabulum, which appeared to be well-formed, but the upper end of the femur consisted of seven pieces. The child stood with the right knee flexed almost to a right angle, and the pelvis drooped slightly to the left. Mr. Openshaw discussed methods of treatment: (1) great abduction of the limb; (2) osteotomy of a wedge-shaped piece of bone; (3) linear osteotomy below the great trochanter, and subsequent retention of the femur in a greatly abducted position. Of these he considered the last the most suitable.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Medicine.

Dr. **Finny** in the Chair.

Friday, March 2nd, 1906.

Cirrhosis of the Liver.

Dr. **Drury**, with Dr. **Taylor**, described a case of cirrhosis of the liver in which the patient developed acute ascites, apparently within a week, with great oedema of the legs and suppression of urine to 3 oz. The abdomen was tapped, but no great increase of secretion of urine resulted, and it began rapidly to diminish as the ascites again collected. A Talma-Morrison operation was then done, and the patient made a good recovery.

Anaemia Splenica Infantum.

Dr. T. **Gillman Moorhead** read a paper on this subject, and exhibited the organs from a case of the disease. The patient was a child aged 3 years, with a good family history, who had developed symptoms of anaemia, with abdominal distension, after an attack of measles a year previously. On admission to hospital the spleen was found to be enormously enlarged, extending down as far as Poupart's ligament, and forward as far as the umbilicus. There were slight rickety signs, and the blood was in every way typical of von Jaksch's disease, except that there was no increase of white cells. Iron, arsenic, and bone marrow were given at first, and the child was carefully dieted, but without any signs of improvement taking place. Later *x*-ray treatment was adopted, the rays being directed upon the spleen, but without any apparent effect, and the child died six weeks after coming under observation.

PNEUMOCOCCUS VACCINE.

Dr. J. B. **COLEMAN**, C.M.G., read the notes of a case of unresolved pneumonia in a patient aged 50, who was admitted to hospital suffering from a very severe attack of acute croupous pneumonia, the onset of which had occurred six days previously.

He was in a low typhoid state, his pulse ranging from 126 to 138; respirations, 44 to 48; and temperature, 102.6°. There was consolidation of upper and middle lobes of the right lung. On December 23rd the consolidation had involved the lower lobe of the right lung, and on December 26th the lower lobe of the left lung was similarly affected. There was no critical fall of temperature, and though the patient's condition somewhat improved convalescence was very slow. On January 14th a painful inflammatory swelling developed in the left supraclavicular region; this subsided in three or four days. On January 20th there was dullness and tubular breathing over the entire right lung, with, in addition, crepitus over the lower lobe; the left lower lobe was dull on percussion. At this date, 37 days after the onset of the disease, the patient's general condition was very unsatisfactory, and there was no sign of resolution in the lungs. On January 21st the pneumococcus opsonic index was 0.60, and on the 23rd it was 0.62, whilst the tubercle opsonic index was 1. On January 24th he was inoculated with 46½ millions pneumococci. During the following fortnight the pneumococcus index began to rise, and on February 6th stood at 0.91. Two days later the left lung had cleared up. On February 9th a second injection was made, the index rose to 1.07, and by March 2nd the patient had completed convalescence.

The author remarked that this was only a single case, and that it would not be fair to deduct too much from it; but the facts pointed to the favourable result being due to the injection of pneumococcus vaccine administered by Professor Wright's method.

MEDICAL SOCIETY OF LONDON.

Sir T. **LAUDER BRUNTON**, M.D., F.R.C.P., F.R.S., President, in the Chair.

Monday, March 26th, 1906.

RESULTS OF OPERATION FOR RADICAL CURE OF HERNIA.

MR. J. HUTCHINSON, jun., read a paper on this subject including details of 113 hospital cases of inguinal hernia for an average period of six years after operation. In 13 the hernia was strangulated, in 5 undoubted recurrence followed, and slight or doubtful recurrence in 3, a total of 8 per cent. In 3 recurrence happened two years or more after the operation. The evidence was strongly in favour of opening up the inguinal canal and narrowing it by deep sutures in all adults, and in all but the simplest cases in young boys. In operating on recurrent cases, in inguinal hernia in women, and in those cases where the conjoined tendon was poorly developed, the inguinal canal should be obliterated as far as practicable. Of the various methods of narrowing the canal Bassini's was the best, and kangaroo tendon he thought the most suitable suture. If the canal were narrowed too tightly or by unsuitable material there was special risk of testis complications, including orchitis, atrophy, and hydrocele. Results had much improved since Bassini introduced the open method of dealing with the canal and the narrowing of its upper part, towards the internal ring. In the last fifteen years the chance of recurrence after operation in adults was apparently less than one-fourth of what it was, and patients were no longer made to wear a truss after operation. Cases of double direct inguinal hernia were especially prone to relapse; 3 out of the 8 were of this kind. Torsion of the neck of the sac and its displacement away from the canal were also important. Eight patients cured of one hernia developed a second elsewhere. Prolonged abstention from work after the operation for radical cure was neither necessary nor advisable; three to four weeks were usually enough.

Mr. F. S. **EVE** described the results in 141 of his own cases of radical cure of inguinal hernia, including 71 cases by Bassini's operation, 15 by Macewen's, 26 by ligature of the neck of the sac in adults, and 29 on children under 10. Of the 112 adults operated on not one died; of 40 cases by Bassini's method that could be traced, recurrence occurred in 3. Statistics on the cases by Macewen's method were not available. Of the 26 cases of simple ligature of the neck of the sac, 16 were traced, and in these recurrence occurred in 3. Of 29 cases in children under 10, 17 were under 2, and 5 under 1 year, while strangulation was present in 4. No death occurred from the operation. Among the 20 of these cases that were traced, recurrence had occurred in only 1; 18 had been treated by simple ligature, and 2 by Bassini's method.

Mr. H. J. **WARING** thought recurrence chiefly occurred in cases in which there was suppuration. It was much more common in acquired than in congenital hernia.

Mr. T. H. **KELLOCK** believed that much so-called recurrence was really hernia into the scar, or of the nature of ventral hernia.

Mr. **HUTCHINSON** replied.

CASE OF ANGIO-SARCOMA OF BREAST.

Mr. H. **BETHAM ROBINSON** described a case in which an angio-sarcoma of the breast was removed from a married woman, aged 38. It was not adherent to the skin or fixed to the deep tissues, and there was no retraction of the nipple. The glands in the apex of the axilla were enlarged, but showed no secondary deposit. The growth proved to be round-celled sarcoma specially grouped round vessels, the cells being held together by a reticulum resembling lymphoid tissue.

LIVERPOOL MEDICAL INSTITUTION.—At a meeting on March 15th, Mr. **FRANK T. PAUL**, F.R.C.S., President, in the chair, Dr. **CHARLES MACALISTER** read a note on *Chorea*, in which he expressed the opinion that just as the rheumatoid fevers, which so closely resembled acute rheumatism, were due to an entirely different toxin, so chorea, which presented features associated with the rheumatoid diathesis, was probably due to a toxin different in its constitution as well as in the effects it produced from that of rheumatic fever. He discussed the various types of chorea, especially those which tended to be associated with endocarditis and joint pains as distinct from those which did not, and suggested that the conditions, although presenting symptoms in common, might be due to essentially distinct toxins. He referred to his view that the explanation of the long course of chorea depended on the poisons being neutral, as stimuli, to the organs of elimination, and that success in treatment would probably depend on the addition to the blood of some substance which would alter the constitution of the toxin and convert it into a stimulus for the skin or kidneys, which would then be able to remove it. The author had tried giving peroxide of hydrogen, especially in cases of chorea presenting skin eruptions (peliosis rheumatica), and he thought some benefit had followed its use.—Mr. R. C. **DUN** read notes of a case of *Congenital Umbilical Hernia*. The large size of the hernia, its thinned coverings, and the wide separation of the recti muscles made it probable, he thought, that it was an example of the embryonal type of umbilical hernia—that is, a persistency of the developmental condition normally present during the first three months of intrauterine life.—Dr. F. W. **BAKER YOUNG** read a paper on the *Intravenous Injection of Formic Aldehyde for Pulmonary Tuberculosis.* He referred to the lecture delivered by Dr. Robert Maguire before the Harveian Society, and published in the medical journals of November 15th, 1900, wherein Dr. Maguire's method of injecting haemasepsin, a solution of formic aldehyde in normal saline, and the strength of the solutions used might be found. The treatment of an advanced case took about six months; at the end of six weeks, if the treatment was going to be of any service, the patient showed a marked improvement both in physical signs and symptoms. The immediate results of injection were: (1) Pain over the vein, which, if severe, could be relieved by firm pressure; (2) increase of moist sounds in the chest for a short time; (3) suffocative cough of a few seconds' duration; (4) taste of formaldehyde; (5) odour of formaldehyde in the breath; (6) rigors, which occurred in every case but not after every injection, varied considerıbly in their severity, and were to be treated by hot-water ɔottles, hot drinks, etc. Formaldehyde could be detected n the urine one week, and in the sputum two days, ıfter an injection of the 1 in 500 solution. If it vere objected that formaldehyde would be rendered nactive by reacting with other substances, he would eply that, since the velocity of any reaction was proportional to the concentration of the reacting substances, and hat with injections of the strength of 1 in 500 the dilution vould be, in the pulmonary circulation, 1 in 25,000, and n the systemic circulation still greater, reaction with ther substances in the blood, if any, must be extremely low; that very little reaction did actually take place was roved by the appearance of formaldehyde in the urine week after the injection. The author then read otes of a case of phthisis of nine years' duration which e had treated by this method for seven months. The hronic course of the case had been interrupted by three cute attacks marked by high temperatures and haemorhages (in 1896, 1900, and the fall of 1904). Injections ere begun February 26th, 1906. At that time the hysical signs were well marked, and bacilli were bundant in the sputum. A steady improvement took lace until, in August, no bacilli could be found in the putum. The injections were continued until October, hen examination revealed no signs of active tuberculosis, ıough a small area of dullness existed where formerly a leuritic rub could be heard. The urine had never contined albumen, and the diazo reaction, tried twice towards ıe end of the illness, was negative. The patient was now ıeep farming in Punta Arenas, and reported himself free om recurrence. Dr. Robert Maguire said it was not aimed that the method was entirely free from danger, that formaldehyde could cure all cases, but the results ɔtained were often very remarkable. Dr. J. Torrey ated that in such dilute solutions any of the ordinary ıemical reactions peculiar to formaldehyde would be tremely slow, and pointed out that as it had been shown at condensation products of formaldehyde with more mplex bodies were usually antiseptic, such reactions, at ast, would not render formaldehyde inert toward bacilli. r. A. G. Gullan said he had employed formalin in this ıy in three cases and had never seen any harm follow, ough about half the injections were followed shortly by gors lasting about two hours. His first case was one of vanced acute miliary tuberculosis of the lungs, which er a slight temporary improvement rapidly advanced d ended fatally. The other two cases were favourable es in young men, in which, beyond a diminution of ɔist râles, no improvement took place. He doubted ıether the same result could not have been got by other ethods of treatment. Dr. G. S. Stansfield said that in nuary and February, 1901, he had treated six cases by is method, but was disappointed with the result.

Glasgow Pathological and Clinical Society.—At a eting on March 12th, Professor Muir, President, in the air, Dr. James A. Adams showed a patient from whom removed a *Supernumerary lobe* of the liver. The patient, ıan, aged 28, had suffered intermittently for some years m pain in the stomach region, with attacks of vomiting, l on three or four occasions haematemesis, and latterly had well-marked symptoms of pyloric obstruction. At ration a pedunculated accessory lobe of the liver sing from its under surface to the left of the gall dder was found, which pressed on the pylorus. The e was removed, and the patient made an excellent overy. The symptoms from which he had suffered had atly improved.—Dr. A. N. McGregor read a prelimiy note on a rational operation for the radical cure of uinal hernia. The operation did not involve the aration of the layers of the areolar tissue covering the iae, and thus preserved better the blood supply and wed of a quicker recovery.—Dr. John W. Findlay read es of two cases of chronic lymphatic leukaemia which sented similar characters as regards duration of the ase, general enlargement of the lymphatic glands, rgement of the spleen, and the occurrence of a lium-sized lymphocyte in the blood and in the cellular liferations in the organs.

---

athological Society of Manchester.—At a meeting March 14th Mr. Burgess described and exhibited two cimens of the bladder and urethra obtained from patients upon whom the operation of suprapubic prostatectomy had been performed, two years and nine months before death from bronchopneumonia in one case, and nine months before death from dilated heart in the other case. The specimen removed at the operation was also shown in each instance. The cavity left after enucleation of the enlarged gland had been very considerably contracted, but was still evident as a distinct cavity at the base of the bladder, communicating with that organ above by an opening with a well-marked posterior edge, and being continued below into the membranous urethra. In neither case was there any evidence of a tendency towards stricture.—Dr. O. C. Gruner read a communication on cryoscopy and electro-conductivity in medicine, and a short account was given of the principles on which the methods depended. The question of the determination of the adequacy of the kidney from an examination of the blood or urine, or both, was gone into at some length, and it was shown that the more hopeful results were obtained when segregated urine was examined in order to determine the existence of unilateral renal disease.

Cork Medical and Surgical Society.—At a meeting on February 28th, Dr. R. P. Crosbie, President, in the chair, Dr. Cotter read notes of a case of a large *Vesical calculus* in a girl, aged 9. He removed it by suprapubic cystotomy, putting the patient in the Trendelenburg position.—Dr. Cummins showed a girl, aged 16, with *Repeated excision of the knee-joint*, on whose left knee he had done, four years ago, an excision. He used Allingham's method, that is, longitudinal section of the patella, and removed all the affected tissues. The patient made a good recovery, and he showed her to the Society at that time. Unfortunately, some time after this she injured the joint in a fall, and presented herself again with the knee flexed at right angles. He again operated, this time adopting the transverse U-shaped incision, with transverse section of the patella, and removing a wedge-shaped piece of bone. The result was that the patient had an excellent limb, which was only 1½ in. short.—Dr. Cotter preferred the U-shaped incision, as it gave better access to the joint, and thought that it was of the utmost importance to fix the joint carefully after operation. He recommended Howse's splint for that purpose.—Dr. Cummins showed the suprarenal glands of a woman, who showed the classical signs and symptoms of *Addison's disease*—pigmentation and grave asthenia. There was no deposit of pigment in the buccal mucous membrane. *Post mortem:* Fibro-caseous disease of the suprarenal glands was discovered, with evidence of considerable inflammation around them, the right organ being adherent to the liver. Emphysema of both lungs existed, and a headed nodule, probably tuberculous, was found in the left lung. As the suprarenals at both sides had alone become affected, the small deposit in the lung excepted, the author thought there must be some selective action at work in such cases.—Dr. Booth read notes of a case of *Perforated gastric ulcer* in a young lady, with a history of indigestion, who had suddenly been seized with intense pain and collapse, followed by vomiting. Examination revealed intense tenderness in the epigastric angle, the seat of the pain, board-like rigidity of the recti muscles, and disappearance of the liver dullness. The temperature was 97°, and pulse 115; respiration rapid, shallow, and thoracic, whilst the patient had a very anxious expression of countenance. Recognizing the gravity of the case and suspecting a small perforation of a gastric ulcer, a second opinion was asked for, and Dr. Cummins came and confirmed the diagnosis. The friends refused to put her into hospital, and would not hear of an operation, should such prove necessary. Accordingly morphine was given hypodermically for forty-eight hours, saline enemata, which were well retained, given twice daily, and nothing at all given by the mouth for a week, patient being fed on nutrient enemata, given every four hours. At the end of a week hot water, in small quantities, was given by the mouth, subsequently albumin water and chicken broth, and finally peptonized milk. The temperature varied between 99.2° and 100.8° for the first week or ten days, the pain and tenderness gradually disappeared, and the patient made a good, if tardy, recovery.

Dermatological Society of London.—At a meeting held on March 14th, Dr. J. Herbert Stowers in the chair, Dr. James Galloway showed a man, aged 47, who for three to four years had had circinate patches of red scaly dermatitis varying in size from 1 in. to 3 or more inches in diameter, and distributed chiefly upon the trunk. These were not deeply infiltrated, and hardly at all itchy. He was otherwise in robust health, and had remained so for the whole time of his eruption. Some of the patches had improved and almost disappeared with treatment. Dr. Radcliffe Crocker considered the case to be probably an instance of the disease which he had named "*Xanthoerythrodermia perstans.*" Other suggestions were that it was a case of the premycosic stage of mycosis fungoides.—Dr. T. Colcott Fox showed (1) a case of *Lichen planus* with typical lesions of that disease on the mucous membrane of the mouth, and with a few small groups of papules, acuminate in type and arranged like those of lichen spinulosus. There were no flat papules such as are more commonly seen in lichen planus, and the exhibitor showed the case as an instance of a rare form of lichen planus of Wilson which might easily escape recognition. (2) A case of a *Papulo-nodular tuberculide* distributed on the legs of a young woman, aged 22. Some of the lesions showed a central crateriform necrosis. The patient had in addition an old lupus vulgaris of the nose which had been cured by x rays.—Mr. Gerald Sichel showed for Sir Cooper Perry (1) a case of acute *Lupus erythematosus* of the face and hands in a girl, aged 22, in whom the disease had commenced two and a half months previously, and had spread thus rapidly in that short time; there were no mouth lesions; (2) a case of an itchy papulo-nodular eruption which had persisted since the age of 13, the patient being now 24. Sir Cooper Perry had suggested the diagnosis of "*Itching keloid.*" The eruption was distributed on the arms, legs, and back of the trunk. Dr. Crocker thought it was more probably a case of urticaria perstans, an opinion in which several members agreed. (3) Two children with curious fibrous tumours on the digits. In the younger child these were at the extremities of the distal phalanges of the left hand, and were congenital. They were perfectly painless, and did not involute at all. A section had been obtained, and showed their fibrous character in the older child who had been shown previously. The tumours occupied the shafts of the phalanges of the left hand, and were larger, flatter tumours. These had appeared at the age of 8 months. In this case some members were of the opinion that the tumours resembled the lesions of *Erythema elevatum diutinum*, in the cases recorded some years ago by Dr. Crocker under that title.

Hunterian Society.—At a clinical meeting at Guy's Hospital on March 14th, Dr. Frederick J. Smith, President, in the chair, the following were among the cases shown:—Dr. Frederick Taylor: (1) a case of *Spastic diplegia* in a child of 2¾ years. The legs had been weak and more or less rigid since the age of 9 months, when fits occurred. There was obvious defect of mental development. The legs were spastic, adducted, and crossed; the muscles were not wasted; the rigidity occurred in the extended position; the arms were weak and moved jerkily; the lesion was probably cortical, perhaps congenital. (2) A case of *Muscular atrophy* in a man, aged 38, coming on gradually at the age of 25. The gluteal and thigh muscles, especially the adductors, were much wasted, while the muscles of the legs, trunk, and arms appeared to be normal. On rising from the recumbent position the patient "climbed up himself." There was no history of syphilis. An elder brother was said to be similarly affected. The condition resembled pseudo-hypertrophic dystrophy but there was no hardness of the muscles; the knee-jerks were absent.—Dr. Newton Pitt: A female patient, aged 44, with *Syringomyelia*, of insidious onset. It began twenty years ago with weakness in the left arm, and subsequently cramp and numbness in the left leg; there was loss of power in the left shoulder twelve months ago; there was no pain; the left hand was claw-shaped, with wasting of the thenar, hypothenar, and interosseous muscles. The left knee-jerk was absent, and the sensation of heat and cold was affected.—Dr. Herbert French (for Dr. Hale White) showed: (1) A woman of 23 with *Myasthenia gravis* of four months' duration. The external recti and levatores palpebrarum muscles soon tired, and her speech became mumbling. She swallowed with difficulty. (2) A case of *Spleno-medullary leukaemia* in a woman of 45. She had been subjected to x-ray treatment, under which the white corpuscles fell from 400,000 per cm. to 17,000 per cm.—Dr. Walker (for Dr. Beddard) showed a case of *Pseudo-leukaemia* in a child of 3. The spleen was enlarged, reaching almost down to Poupart's ligament, and there was slight enlargement of some lymphatic glands. The blood count showed 2,000,000 red and 7,500 white cells, myelocytes from 5 to 10 per cent.—Mr. Charters Symonds sent two cases of *Tuberculous disease of the hip-joint.* The joints had been excised some years before, and shortening of from 4 to 6 in. had taken place.—Mr. Arbuthnot Lane sent a case of *Multiple arthritis* in a child of 3. The symptoms corresponded closely with those of Still's disease. There was considerable glandular enlargement.—Mr. R. P. Rowlands (for Mr. Lane) showed a young woman in whom *Sarcoma of the tibia* had been diagnosed. It appeared to be a case of spontaneous fracture of the tibia and fibula which had occurred two years before. No treatment was applied, and oedema had been present ever since.—Mr. A. W. Ormond: a case of *Essential shrinking of the conjunctiva* in a boy of 17 of one and a half year's duration. Vision was very defective. The cornea of the right eye was invaded by thickened conjunctiva. There was no history of pemphigus.

Laryngological Society of London.—At a meeting of the above Society on March 2nd, Dr. Watson Williams, Vice-President, in the chair, Mr. H. Barwell showed two cases of tuberculous laryngitis, which had benefited by local active measures and sanatorium treatment.—Dr. Walker Downie showed recent photographs of some cases of paraffin injection for nasal deformity, as well as others taken immediately after treatment four years ago. In the discussion which followed there was a consensus of opinion that, with such good results from the use of paraffin for overcoming definite nasal deformity, the theoretical objections recently put forward by a German doctor, and quoted by Sir Felix Semon at the previous meeting, need not be taken too seriously.—Dr. Brown Kelly exhibited a sketch of a larynx and the microscopic section of the uvula from a case of hyperplastic congenital syphilis.—Mr. Betham Robinson showed a case of fibro-angeioma of the nasal septum, and Mr. H. Smurthwaite exhibited again for further diagnosis a patient previously shown to the Society in June, 1905. Several opinions were expressed at that time in favour of malignant disease of the larynx. The improvement which had taken place in the interval, and without operative measures, had negatived the opinions previously expressed.

Society for the Study of Disease in Children.—At a meeting on March 16th, Dr. G. A. Sutherland, in the chair, the following were among the exhibits: Dr. Eric Pritchard: a case of *Symmetrical dimpling of the skin* on the dorsal aspect of the extremities of both acromial processes of a girl of 8; the condition was noticed at birth. Dr. Kenneth R. Hay; a case of *Achondroplasia* in a child, aged 2 years, which he considered a typical example of the condition. Mr. Hugh Lett: (1) a case of *Erb's paralysis* in a child, aged 4½ months, involving the fifth, sixth and seventh cervical nerves, and (2) a case of *Precocious development* in a boy, aged 4. He had been rather backward until he was 2 years old, the pubic hair then appeared, and development took place with extreme rapidity. There was a remarkable growth of hair all over the body, especially over the pubes and in the lumbar region. The penis and testicles were large and resembled those of a young adult. His voice was deep and like a bass voice not yet under full control. His muscular development was remarkable, especially in the thighs, and he was possessed of proportionately great physical strength. Dr. Peynton exhibited a case of *Acne scrophulosorum* in a delicate child with somewhat large cervical glands, and a history of tuberculosis on the mother's side. The rash commenced upon the arms and legs in the form of discrete papules, which at first itched very slightly. Since that time these papules had been coming out in crops, some of them appearing on the trunk and an occasional one upon the face. Mr. Sydney Stephenson showed a case of *Coloboma of the eyelid* in a child aged 3 months. On account of a deformity it had been present since birth. Dr. W. **EWART** exhibited drawings of a child recovering from *Chorea*, and read a short paper on the treatment of chorea by strychnine. Obvious benefit had been obtained in children of 6 to 12 years of age from doses of the liquor, from ♏v to ♏x, administered three times daily and guarded by bromide. Dr. **EDMUND CAUTLEY** showed a specimen of *Congenital hypertrophic stenosis* of the pylorus removed from a child aged 9 weeks. The vomiting was by no means marked. A normal stool was passed a few days before death. The case illustrated moderate pyloric hypertrophy which had not produced complete obstruction, and nothing in the history suggestive of spasm. Dr. C. O. **HAWTHORNE** read notes on (1) a *Tumour of the pons Varolii* in a boy aged 8. The most noticeable symptoms were a constant series of jerks and spasms mainly affecting the trunk, extreme retraction of the head without rigidity, optic neuritis, and well-marked knee-jerks. (2) Specimens from a case of *Small white kidney* from a girl of 12. The microscopic changes were those of chronic interstitial nephritis.

REVIEWS.

PHARMACOLOGY.

IN Dr. **WALTER E. DIXON**'s *Manual of Pharmacology*[1] we have, in the author's own words, "not a textbook on materia medica" nor a "book on therapeutics," the therapeutics included in it being "only such as serve to illustrate the pharmacology," and, if we accept these limitations, we can unhesitatingly say that the volume before us gives a most admirable account of the physiological actions of the more commonly-used drugs. Perhaps Dr. Dixon is too sanguine when he says that such knowledge will save the practitioner of medicine from becoming "a slave to habit and empiricism" in his prescribing, but it may possibly help to do so if the knowledge be well assimilated and directed to practical purposes. Materia medica is excluded from consideration on the ground that the practitioner has no longer "to gather his own simples," and therapeutics because it is "an art which can be dealt with properly only at the bedside." In spite of these dicta, however, some slight acquaintance with drugs and their preparations and doses must surely always remain of value to the bona-fide prescriber as contrasted with the medical distributor to the public of proprietary formulae and ready-made tablets and "tabloids," while textbooks on medicine, surgery, and midwifery exist in large numbers, and are even bought, and, presumably, used by practitioners, although these also are arts which can only be properly learnt at the bedside or in the operating room. Surely it cannot be seriously argued that therapeutics is on a different footing from these other practical branches of medicine, and that a written treatise on its principles and practice is of no value. Dr. Dixon classifies drugs in groups according to their actions, and n discussing them individually shows a thorough mastery of his material and an exact knowledge of experimental details. This is evidenced in one direction by the large number of original tracings with which the book is illusrated, and in another by the clear manner in which the organic chemistry is presented to the reader. We know no other English work of the kind in which this has been done with anything like the same completeness, and it is of great help in following the text. Throughout he book the style tends to be rather terse and dogmatic, but the meaning is always clear, and the account given of any particular drug, or class of drugs, can be read in a few minutes, as there is no wandering from the main points at ssue. We repeat that the book, small as it is, forms an admirable exposition of our present knowledge of pharmacology, although we are disposed to question he account given of the action of bismuth compounds, while the definition of pharmacology, the account of protoplasm, and many of the arguments advanced may perhaps be modified in the next edition. The spelling of botanical names, and the use of capital letters in connexion with them, tend to be inaccurate all through the book, but in respect of these an easy remedy is to be ound by reference to the *British Pharmacopoeia*, which is a model of accuracy. On p. 241 the formula for cresol is incorrectly given.

TROPICAL DISEASES.

A USEFUL little book on the technique of tropical microbiology has been published by Dr. F. Noc.[2] The system and scheme of the book is similar to that of such English books as the work by Stephens and Christophers, which deals with tropical questions from the practical side. Dr. Noc covers more ground, but does not enter into sufficient details on many very important points. For example, the chapter on filaria is not full enough, and some slight errors have crept in; the chapter on animal parasites is scrappy, and the same may be said of the part dealing with the dissection of mosquitos and the development of the malarial zygotes in their stomachs. On the other hand, the chapters on flies and other insects are better, and the ordinary microscopic examination of the blood is well treated. The third and fourth parts of the book, which deal with the public health side of tropical medicine, usually not included in books of this class, increase its value. The questions of plague, cholera, and yellow fever are entered upon. Disinfection is included, sterilization of water, prophylaxis against rats and insects; the last chapter deals with preventive serums for hot climates. The book is well and profusely illustrated, but a little originality in diagrams would have been a welcome change. The table of contents is full, but the absence of an index is felt. The book should be useful for French students, but its merits would not justify a translation into English.

The study of the diseases of the spermatic cord in warm climates forms an interesting problem to the pathologist, and an essay by Dr. **MENOCAL**, of Havana,[3] shows that the etiology in many instances is by no means clear. The *Filaria nocturna* is, as the author says, responsible without doubt for most of the cases, but in a minority other causes would seem to be capable of exciting this common tropical complaint. The pathogeny, however, is not the subject of the paper, which deals with the clinical symptoms, pathological anatomy, and treatment of the condition. More stress might have been laid on the absence, in many cases undoubtedly filarial in origin, of filarial embryos from the blood; this only means that either the adults have died, or that the irritation they have caused has blocked the lymphatic, thus preventing the ingress of the young into the blood. Clinically, Dr. Menocal recognizes four varieties of lymphangitis of the cord, or as he more correctly terms it, lymphophlebitis: (1) slight; (2) a severe, with or without suppuration; (3) hypertoxic; (4) chronic. This is a good classification. The first form might be described as the pure form, the others as mixed, bacterial invasions playing a part. The hypertoxic form is invariably fatal. A description of the organisms found in the septic peritonitis that accompanies it would have been useful. One important point not universally recognized brought out in discussing the pathological anatomy is the dilatation and inflammation of the veins. The treatment must be directed to the treatment of symptoms as they arise; abscesses should be opened, but little can be done for the fatal type. More research is required into the pathogeny of those conditions, and, in fact, into the general pathogeny of all the filarial manifestations, especially elephantiasis. Meanwhile, Europeans residing in filarial countries should be specially careful to prevent inoculation by mosquitos, for in this, as in so many other instances, prevention is better than cure.

The Lane Lectures on tropical diseases for 1905, delivered by Sir Patrick Manson in San Francisco, have been published in a volume.[4] In the ten lectures the author has contented himself with running over some of the more common diseases of warm climates, finishing up with the diagnosis and treatment of fevers, and what are called problems in tropical medicine. The lectures, as suited the occasion, are elementary, chatty, interspersed with plenty of anecdotes, and fairly full of theories and conclusions. A few of the author's rather important conclusions may be discussed. The lateral-spined ova of the bilharzia described at once suggests the possibility of its being an egg of a separate species, but unfortunately there is no proof. According to the author, the sheath of *Filaria nocturna* acts in an analogous manner to the rim of the red blood corpuscle round the malarial crescent; and, further, as a muzzle to prevent the embryo from breaking through the vessels where it would be beyond the reach of its intermediate host. This sounds exceedingly plausible, and appears as one of Nature's finer adaptations; but, examining it critically, we may ask why the *F. immitis*, the *F. perstans*, and *F. demarquaii*, all of which are non-sheathed, and the last two actively motile, do not burst through the vessels, and so commit suicide? In the chapter on sleeping sickness the disease is spoken of as jumping the watershed from the Congo to the Nile. This statement has never been supported by any direct evidence; on the contrary, recent observations show that the disease existed in Uganda years before 1900, when it was supposed to have accomplished this feat, and again, it is a mistake to state that the African does not show febrile disturbance in the early stages of sleeping sickness; as a matter of fact, fever is one of the most important early clinical signs. Many other interesting points are raised, the problems of tropical medicine and the modes of teaching supplying many opportunities for criticism and comment.

---

[1] *A Manual of Pharmacology.* By Walter E. Dixon, M.A., M.D., B.Sc., D.P.H. London: Edward Arnold. 1906. (Demy 8vo, pp. 451. 15s.)

[2] *Technique de Microbiologie Tropicale.* Par le Dr. F. Noc. Médecin-major des troupes coloniales, detaché à l'Institut Pasteur de Lille. Précédé d'une préface du Dr. A. Calmette, Membre correspondant de l'Institut et de l'Académie de Médecine, Directeur de l'Institut Pasteur de Lille. Paris: Octave Doin. 1905. (Crown 8vo, pp. 320. Fr. 4).

[3] *Contribution à l'étude de la funiculite lympho-toxique dans les pays chauds.* Par le Docteur R. Menocal, Professeur de clinique chirurgicale à la Faculté de Médecine de la Havane. La Havane: M. Ruiz y Ca. 1905. (Demy 8vo, pp. 28.)

[4] *Lectures on Tropical Diseases, being the Lane Lectures for 1905,* delivered at Cooper Medical College, San Francisco, U.S.A., August, 1905. By Sir Patrick Manson, K.C.M.G., M.D., LL.D.Aberd., F.R.C.P., F.R.S., Hon. D.Sc.Oxon., Medical Adviser to the Colonial Office; Lecturer London School of Tropical Medicine, St. George's Hospital Medical School, etc London: Archibald Constable and Co. 1905. (Demy 8vo, pp. 230. 7s. 6d.)

Captain S. P. JAMES has contributed to the *Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India for 1905*[5] a paper on kala-azar, malaria, and malarial cachexia. The author believes that the textbook descriptions of malarial cachexia are wrong, on what grounds it is rather hard to say; he describes a certain group of signs and symptoms which he believes are found in this condition: (1) enlargement of the spleen; (2) a temperature curve which shows definite pyrexial and apyrexial periods, and during the pyrexial periods characters met with only in cases of malarial fever; and (3) absence of serious symptoms, especially during the apyrexial intervals. It is quite true that these symptoms occur in chronic cases of malaria, but there is nothing new in this; they are well known to any one who has studied malaria seriously at home or abroad. It is already known that kala-azar is a distinct disease, the symptomatology of which has been accurately described; we know that it has no connexion with malaria, we know the Leishman-Donovan body is probably the cause of the disease, and also that the distribution of Oriental sore and of kala-azar do not correspond. What is required rather than a new account of the symptomatology is more work on the question of what the Leishman-Donovan bodies are, what their life-history is, what their extra-corporeal stage is, and how they get into man.

In a pamphlet on trypanosomiasis in Europeans,[6] M. BRODEN discusses some of the symptoms and treatment of this disease. His observations are based on the study of six cases observed in Léopoldville since the beginning of 1903. There is nothing new in the paper, which is more or less a summary of the work done on the subject within the last few years. As regards the treatment, large doses of arsenic have been most successful. Trypanroth, an aniline dye, is also advised; but, as the author points out, it ought to be used with care, as apparently in the human subject it is very irritating to the kidneys. The subsequent histories of his cases are not given, some having returned to Europe; it would be interesting to note the final result if they could be followed at home.

SANITATION OF ARMIES IN THE FIELD.

DR. DEWAR in his essay *On the Sanitation of Armies in Active Service in the Field*[7] approaches the subject with the advantage of practical experience gained on service in South Africa during the late campaign. This experience has enabled him duly to appreciate the difficulties of accurately carrying out schemes involving the use of complicated apparatus and methods theoretically perfect in the laboratory, and perhaps practicable in standing camps and cantonments, but certain to break down in the field. Therefore special education of officers and men is required to enable them to adopt such measures of sanitation as occasion will enable them to carry out. The special merit of this essay lies in the attention drawn to the need of a sanitary corps in the army, so ably set forth last year by Colonel Firth and emphasized in these pages (vol. ii, 1905, p. 741). Dr. Dewar's contention that the men of the sanitary corps should wear the badge of the Geneva Convention is open to argument, for it would appear on the face of it that a body of men engaged in maintaining the fighting strength of an army would legitimately be looked upon by the enemy as adversaries to be destroyed. Until the special assent of the Powers has been accorded such a corps cannot be considered entitled to wear the Geneva Cross. A sanitary corps, as defined by the English language, does not yet exist in any army. Dr. Dewar is mistaken on this point, in which he is not supported by his reference to Colonel Howard's *Handbook of the Medical Organization of Foreign Armies*. Inferences drawn from the reputed freedom from disease of the Japanese Manchurian Army are, to say the least, premature. The Japanese did not parade any of their weaknesses before a curious public. It is not possible to agree that the tinned ration is a desirable routine food, and that fresh food should be regarded as "an addition and variety." Neither are we warranted by history in estimating plague as a disease not likely to affect armies to a formidable extent. Dr. Dewar recognizes that "the military sanitarian must base his proposals on practical and tactical considerations"; these have been embodied in army regulations, such as *Combined Training* and *Manual of Military Engineering*, which are not included in his voluminous bibliography of recent current literature on the subject, although they contain instructions for giving effect to the most important of the author's conclusions.

NOTES ON BOOKS.

THE latest edition of the *Year Book of Pharmacy*[8] has been edited by Mr. J. O. BRAITHWAITE, and appears between the same covers as the *Transactions* of the British Pharmaceutical Conference in 1905, for the preparation of which Messrs. Saville Peck and Edmund White are responsible. The abstracts of articles which have appeared in British and foreign journals are particularly clear, and the two parts together complete a most informing volume on everything new in connexion with pharmacy, materia medica, and chemistry. A scientific appreciation from the point of view of practical pharmacy of nearly all the remedies and drugs now freely advertised can be found within its pages as well as a vast amount of detail in respect of new chemical processes. A very useful part of the book is a carefully prepared list of points in chemistry and pharmacy for the elucidation of which further research is required.

A cursory examination of the twenty-second issue of the *Year Book of the Scientific and Learned Societies*[9] appears to show that every association within the three kingdoms which can possibly claim a place in such a classification has been duly included. As a reference book the compilation is valuable, as it contains, in a handy form, information which cannot be obtained readily elsewhere. Another good feature is that lists of the principal papers read at each society during the year are supplied. Hence a glance in each of the sections into which the book is divided gives a conception of the current direction of scientific thought.

THE executors of the will of the late Mr. David Charles Keeling of Blundellsands have allocated £4,000 to the University College of Wales, Aberystwyth; £800 to the Stanley Hospital, Liverpool; and £500 to the Royal Southern Hospital and the Infirmary for Children in the same city.

---

[5] *Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India.* New Series. No. 19. On Kala-azar, Malaria, and Malarial Cachexia. By Captain S. P. James, M.B., I.M.S. Calcutta: Office of the Superintendent of Government Printing. 1905. (Demy 4to, pp. 47. 1s. 11d.)

[6] *Publications de la Société d'Etudes Coloniales de Belgique. La Trypanosomiase chez l'Européen.* Par A. Broden, Laboratoire de la Société d'Études Coloniales. Brussels: L'Imprimerie Nouvelle, Société Anonyme. 1905. (Demy 8vo, pp. 22.)

[7] *On the Sanitation of Armies on Active Service in the Field.* By Thomas F. Dewar, M.D., B.Sc. (Printed for private circulation.)

[8] London: J. and A. Churchill, 1905. (Demy 8vo, pp. 572.)

[9] London: Charles Griffin and Co. 1905. (Demy 8vo, pp. 315. 7s. 6d.)

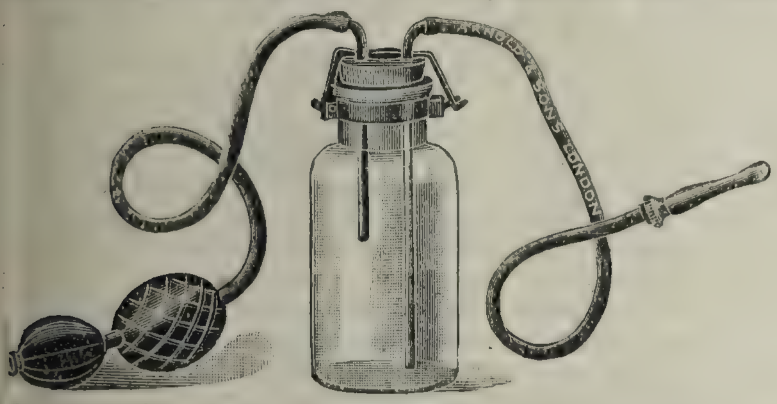
MEDICAL AND SURGICAL APPLIANCES.

Household Soap.—The Vinolia Company, Limited, has cently placed on sale a white household soap for which ey claim that it contains no caustic and is free from sin. Allen (*Commercial Organic Analysis*) says of ordinary llow soap : “More or less resin is always added, but the e of too large a proportion renders the soap dark, soft, o readily soluble, and too strongly caustic.” A moderate oportion of rosin is commonly employed, not only as ing cheap material, but to increase the solubility of the oduct; alkali resinates, however, are not soaps in the emical sense, and have not the properties of soap. The alysis of white Vinolia soap gives the following results :

Water	15 per cent.
Total alkali, equivalent to ...	10 per cent. Na_2O
Free caustic alkali	None
Rosin...	None
Foreign substances	None

The claim that the soap is free from rosin and from ustic alkali is therefore justified, and the solubility o e sample examined leaves nothing to be desired. The im, therefore, that it is a good soap for the bath as well for ordinary domestic purposes appears to be justified.

Apparatus for Ear-syringing. — Dr. Burton Brown ondon, W.) writes : I have been using for some ne air pressure as a means of forcing fluid into the ternal meatus, as I find it handier than the ordinary ringe. The cannula is under better control, and the rce of the stream may be better regulated and directed. usually allow the patient to compress the small hand llows, and manage the cannula, etc., myself. The paratus, being readily sterilized, may also be used, th a suitable needle, for transfusion. The engraving ows the apparatus in use. It is made by Messrs. nold, of West Smithfield, and different-sized bottles l cannulae may be obtained.



IE OPEN-AIR TREATMENT OF CONSUMPTION.

The Royal National Hospital for Consumption for Ireland.

s Excellency the Lord Lieutenant of Ireland and the ntess of Aberdeen were present at the annual meeting the supporters of the Royal National Hospital for nsumption for Ireland, when Mr. O'Brien Furlong sided.

he medical report stated that the completion of the v block for women patients a year ago brought the total ommodation of the hospital up to 100 beds. The open- treatment was carried out with thoroughness, and e, as in similar institutions, it was found that most of patients preferred to sleep altogether out-of-doors, ough the ventilation was so free in all the rooms and mitories that the air inside the building did not sibly differ from that outside. During the year 470 ients had been under treatment, but the tables showing lts only dealt with 381 patients, since no “results” ld be given for those who still remained in the institution ler treatment. The classification of the cases according he stage of the disease in the lungs was that employed revious reports. The patients were divided into four ses. A “comparatively early” case had signs of slight solidation, and had, in at least two lobes, crepitation on ghing, or had somewhat more advanced disease in one e and no (or very slight) signs elsewhere. A oderately advanced” case had early cavity formation ne lobe, with crepitation also in two other lobes, or h more advanced but less extensive signs. All who less signs than a “comparatively early” case were sed as “incipient”; all in whom the signs were more developed than in the “moderately advanced” were classed as “advanced.”

The influence of the extent of disease upon the results of treatment was well shown in the first table, from which it appeared that 19 out of 62 incipient cases were “very much improved”; whereas only 8 out of 144 comparatively early cases, and but 1 out of 118 moderately advanced cases were so classified.

Taking the “very much improved” and “much improved” cases together, we find that nearly 68 per cent. of the incipient cases were so classed on leaving; whereas less than 40 per cent. of the comparatively early, and under 17 per cent. of the moderately advanced cases came within this satisfactory category, and amongst the advanced cases none were very much improved, and only 1—that is, under 2 per cent.—was much improved.

It is interesting to note that tubercle bacilli were identified in the expectoration of 81.4 per cent. of the cases.

Of the 71 cases in which the tubercle bacillus was not identified in the sputum, 6 appeared to have been free from any evidences of tuberculosis. It is interesting to note that of the remaining 65 as many as 49 had physical signs of a more or less advanced lung disease. It is in some respects to be regretted that further details were not given as to the extent and stage of the mischief in the lungs in these cases, in view of the opinion which appears still to be prevalent that the detection of tubercle bacilli in the sputum is necessary in order to diagnose pulmonary tuberculosis.

Out of 266 cases in which definite information on the subject was obtained, 63.2 per cent. had haemoptysis, serious or slight, either before or, less frequently, after their admission. This agreed very closely with the figures for the previous three years, according to which 62.7 per cent. of 808 cases had haemoptysis.

The inquiry which was noted in last year's report as to the influence of hereditary predisposition in modifying the prognosis in cases of consumption was carried on in this report.

In 225 cases amongst the patients admitted during 1905 definite information had been obtained as to the presence or absence of tuberculosis amongst either the parents, brothers or sisters of the patient. Of those (78 cases) with tuberculous family history 78 per cent. were improved, whilst of the 147 patients with no tuberculous family history 78.9 per cent. improved. Another table, including the patients treated during the previous two years, showed a somewhat similar agreement in the percentage of improvements between those with and those without tuberculosis in the family.

Including still earlier patients, making a total of 779 cases, 35.8 per cent. gave a history of tuberculosis in at least one parent, brother, or sister, and of these, 83.6 per cent. improved and made an average gain in weight of 11 lb. 5 oz.; whilst of the remaining 64.2 per cent. with no tuberculous family history 81.7 per cent. improved, with an average gain in weight of 11 lb. 4 oz. These figures showed that the fact of tubercle being in the family does not render a case of consumption less hopeful.

The seat of the commencement of the disease in the lung had been determined as far as possible. In 16 per cent. of the cases both lungs were apparently equally affected. In 53.1 per cent. of the remaining 292 cases the left apex appeared to be primarily affected; in 45.2 per cent. the right apex, and in 3.7 per cent. a lower lobe, seemed to have been the seat of the primary disease. This agreed very closely with the percentages found in previous years for a total of 689 cases. It would be interesting to know whether the proportion of right and left apex commencement differed according to the sex of the patients.

The permanent results of treatment, so far as nine years of work allow this term to be used, were considered most encouraging, and afforded an answer to the question, “Is the sanatorium treatment worth while?” Several examples of patients who had been at work for years and remain well were given, including one of the patients who was discharged during the first year of the hospital's work, and who reported in December, 1905, that he “has been at work ever since and is keeping quite well.”

The annual report for 1905 shows that the Royal National Hospital for Consumption for Ireland is doing excellent work, not only in the treatment of the patients admitted to the wards, but in the making and recording of observations which tend to increase the sum of our knowledge of tuberculosis.

The Chairman stated that 1,700 persons had been treated since the hospital was established. Of the cases discharged during the year—28 were very much improved, 92 much improved, and 157 improved. Of the cases in which the tubercle bacillus was discovered, 233 were improved out of 310. In England and Scotland the death-rate from tuberculosis was steadily diminishing; in Ireland it had increased. Of all the deaths in Ireland between 15 and 35, one half were caused by various forms of the disease, chiefly phthisis.

Sir William Smyly seconded the adoption of the report.

His Excellency, in supporting the resolution, said he would be proud to be associated in any way with the work of the hospital.

The other speakers were Sir J. William Moore, Sir C. Cameron, Sir W. Watson, Mr. J. Mulhall, Dr. Lumsden, and Mr. J. R. O'Connell.

A special vote of thanks was passed to Dr. J. B. Coleman, C.M.G., and Dr. Parsons, the visiting physicians.

The Prevention of Consumption.

The annual meeting of the Ulster Branch of the National Association for the Prevention of Consumption was held in the Town Hall, Belfast, on March 20th, the Lord Mayor, the Right Hon. Sir Daniel Dixon, M.P., in the chair.

Mr. Robert Brown, Honorary Secretary, read the annual report, which showed that a large number of booklets had been distributed. The Lord Mayor moved the adoption of the report.

Professor Byers, M.D., in seconding, said that the death-rate from consumption in England had steadily declined, but that in Ireland it had risen from 178 in 1864 to 215 in 1901-3 in 100,000 of population. He grouped the main causes of this increase as follows: (1) Want of knowledge on the part of the public of the nature of the disease; (2) improper food; (3) the enormous increase in Ireland of pauperism relieved at home and by the dispensary system, which favoured the treatment of even advanced cases of phthisis at home; (4) want of proper teaching of the ordinary laws of hygiene. He urged that measures should be taken to diminish the opportunities of infection and the adoption of means to increase resistance to the disease by an improved nutrition of the people. Various solutions had been offered for the problem of incipient cases; all taught the value of open windows and sunlight. More advanced cases became dangerous, and ought to be shown the absolute necessity for proper management of the expectoration. Patients in the third stage were the most dangerous, and ought to be isolated in hospitals. He urged the appointment of a subcommittee of the Public Health Committee to form a bureau of information on all questions relating to tuberculosis.

Professor Caton (Liverpool) then delivered an interesting and instructive popular lecture on the subject, and, amongst other recommendations, said that the Poor-law dispensary regulations would have to be amended in order that the dispensary medical officers might render the useful aid they were qualified and ready to give, especially among the poorer districts.

Professor Lindsay, M.D., moved a vote of thanks to Professor Caton for his address and urged the necessity of many hygienic precautions. The motion was seconded by Sir Otto Jaffé and passed with applause.

Hospital for Consumption, Hampstead and Northwood.

The annual meeting of the Governors of the Mount Vernon Hospital for Consumption and Diseases of the Chest was held in the lecture hall at the Central Out-patients' Department in Fitzroy Square on March 22nd.

The chair was taken by Sir Benjamin Cohen, Bart., one of the vice-presidents of the institution, who, in opening the proceedings, referred to the satisfactory work of the hospital during the past year as evidenced by the report presented by the Committee of Management.

The report stated that the large waiting list of accepted applicants for admission was evidence that the institution is appreciated by those for whose relief it is maintained. Want of adequate funds prevents all the 250 beds at the disposal of the Committee from being utilized, and there still remain nearly 100 not fully occupied.

The medical report showed that 6,356 patients had been treated during the year; 5,270 as out-patients (16,810 attendances) at the Central Out-patient Department in Fitzroy Square, and 1,086 as in-patients at the hospitals at Hampstead and Northwood. A medical report on the Branch Hospital at Northwood opened for the reception of patients in September, 1904, stated that 488 patients had passed through its wards by the end of 1905.

The medical report on the hospital at Hampstead gave a sketch of the progress of the charity since its formation in 1860, from a local institution to one receiving patients from all parts of the kingdom, as is shown by the table indicating the locality of the homes of 556 patients. Both at Hampstead and at Northwood the open-air treatment is fully carried out, many of the patients sleeping on the open-air balconies throughout the year. The report states that it is "interesting to observe the marked improvement under open-air conditions in disease other than tuberculosis, and in the advanced cases of tuberculosis pulmonalis as well as in the earlier cases." It is also interesting to note that the patients who slept on the balconies when there was dense fog did not seem to suffer from this, "in fact many of them slept better on those nights, although some had tuberculous laryngitis in addition to their pulmonary mischief."

The branch hospital at Northwood has proved in actual working to be admirably adapted for its purpose. The construction of the wards allows of practically an open-air life even for bed cases. The large French windows permit of beds being easily wheeled on to the wide terrace, and many patients have slept outside both in summer and winter with great advantage.

The extensive grounds have afforded opportunities for exercise on the paths of varying gradients, and for providing employment in making paths, gardening, etc., for those patients whose condition permitted work under supervision. Special efforts have been made to provide work of a suitable nature for all capable of performing it. It is recognized that with a prolonged stay in hospital some occupation is necessary to prevent moral deterioration. At Northwood, where the period of residence is often three months and more, this requirement has received particular attention. In about 30 per cent. of the cases the local disease was reported "arrested."

Some interesting statistical tables show the essential importance of commencing treatment in the earlier stages of the disease and thus emphasize the importance of early diagnosis. A table giving the percentage improvement in 1,532 cases shows improvement in 90.3 per cent. of the cases in which only one lobe of the lung was affected; 66.6 per cent. improved of those with two lobes affected; whilst, when three lobes were affected, 57 per cent. improved, and only 46.4 per cent. of those with more extensive mischief. Every effort is made to follow up the patients after they have left the hospital, and the reports received from time to time witness to the permanency of the improvement in many cases. A table of the laryngeal cases, drawn up by Mr. H. Barwell, the surgeon-laryngologist, showed most satisfactory results, and some remarks in regard to the condition of the patients' teeth by Mr. Lawson Dodd, the surgeon-dentist, are worthy of attention.

THE CENSUS OF THE BRITISH EMPIRE.

The recently-issued census of the British Empire, to which brief allusion has previously been made in these columns, is a document dealing with items of an almost staggering magnitude. This appears whether we have regard to area, population, religions, or any of the other details which may form the subject of a census.

Increase of Area.

Between 1861 and 1901 the British Empire has grown from 8½ millions to close on 12 millions of square miles in area; more than 4 millions of square miles are situated in North, Central, and South America, 3 millions in Australasia, 2½ millions in Africa, and nearly 2 millions in the Indian Empire and other parts of Asia. The area of the country in Europe controlling this vast Empire is only about 125,900 square miles!

Increase of Population.

During the same interval the population of the British Empire has grown from about 259 to 400 millions. Of this population 41½ millions is within the United King-lom, over 5 millions in Australasia, 7½ millions in America, about 43 millions in Africa, over 300 millions in Asia.

It is important in considering this increase of popula-ion to distinguish carefully between increase due to dded territory and increase due to natural increase or nigration. This is fully set out in the report. Thus, omparing the period 1871-81 with 1881-91, the population of he British Empire increased 12 per cent. by added territory, .0.7 per cent. by actual increase, while in the most recent lecennial intercensal period it only increased 1.4 per cent. y added territory and 3 per cent. by actual increase. To rrive at the true inwardness of this diminished rate of ncrease the Indian Empire must be separated from the est, as during the last decade its native states and gencies showed an actual decrease of 5½ per cent., due to amine and pestilence. Then it will be seen that the ncrease of population—excluding such increase as was lue to added territory—was in each of the four last ecades 11.8, 14.5, 11.6, and 8.6 per cent. respectively. Evidently, therefore, the decline in the rate of actual ncrease was not confined to the Indian Empire. The eport connects this fall in large measure with the con-inued depression of the birth-rate, "which has become eneral in nearly all countries." The increase of popula-ion in India in the last decade was only 2.5 per cent., as ompared with 13.2 per cent. in the preceding and 23.2 per ent. in 1871-81. Confining our attention to the decade 891-1901, it is interesting to note the differences of ncrease of population in the chief parts of the Empire, part caused by variations of the birth-rate and in part y variations of migration. The population of the United Kingdom increased 9.9 per cent. in the decade, that of ape of Good Hope 57.8 per cent., of Natal 54.2 per cent., f Hong Kong 34.2 per cent., of New Zealand 21.8 per nt., of the Australian Commonwealth and of Ceylon 18.6 er cent., of British West Indies 15.8 per cent., of Malta 1.9 per cent., of Straits Settlements 11.8 per cent., of anada 11.1 per cent.

DENSITY OF POPULATION.

The figures as to density of population shed an interest-g light on variations in conditions of life. In the nited Kingdom there were at the last census 324 persons a square mile, and in the Indian Empire 172, while in e Dominion of Canada the density was as low as 1.4 and 3 persons per square mile respectively. Some provinces India approximate to England and Wales in density of pulation. The latter has 558 persons per square mile, hile Oudh has 535, Bengal 495, Madras State 420, and gra 419 persons per square mile. Mauritius and its pendencies have 453 persons to the square mile. The umber of towns over 50,000 persons throws light on the me point. There were 187 such cities or towns in e Empire at the date of the last census, 87 of these ing in the United Kingdom, 78 in India, 7 in Australasia, d 5 in Canada. The increase of urban at the expense of ral population is one of the most important social pro-ems of the day. At the last census 31 per cent. of the tal population in Ireland, 70 per cent. in Scotland, and per cent. in England and Wales were living in towns. Australasia the proportion of the populations enume-ted in town areas varied from 68 per cent. in New South ales to 39 per cent. in South Australia, Queensland, and smania. In Canada the proportion was 38 per cent., in e Cape of Good Hope 26 per cent., in Orange River lony 22½, in the Transvaal 19½, and in Natal nearly per cent. of the total population. In India a marked ntrast is seen. Of its total population of nearly 295 llions, less than one-tenth live in places classed as ban areas.

OCCUPATIONS.

Closely connected with the subject of density of pulation and of aggregation in towns is that of cupations of the population. The agricultural industry still, judging by the number engaged in it, one of the st important in the British Empire. The proportion the male population engaged in agriculture at the last nsus was approximately 44 per cent. in the Orange River lony, 43 per cent. in Cape Colony, 42 per cent. in the itish Empire, 39 per cent. in Ceylon, 36 per cent. in inidad, 35 per cent. in Ireland, 21 per cent. in New aland, 18 per cent. in the Australian Commonwealth, 7.8 per cent. in Scotland, and 6.8 per cent. in England and Wales. The stupendous significance of these figures is best realized when they are considered in connexion with the populations to which they refer. Thus, in India 90 million persons, or nearly one-third of the total population, is returned under the heading "Pasture and Agriculture," while the dependents of these people numbered over 104 millions.

The proportion of men and women engaged in domestic service throws much incidental light on social circumstances. In England and Wales such persons form 12.5 per cent. of the total population, in Ireland 9.6, in Scotland 8.8, in the Australian Commonwealth 7.5, in New Zealand 6.1, and in the Indian Empire only 2.5 per cent. of the total.

RELIGIONS.

But perhaps the most remarkable part of the report is that dealing with the religious beliefs of the Empire. Although no religious census is tolerated in England, no insuperable difficulty has been experienced in obtaining information as to the religious beliefs of the people in other parts of the Empire. Of the 319 millions whose religious beliefs are enumerated, only a little over 20 millions are returned as possessing the Christian religion. If we include Great Britain, etc., then about 57½ millions is a rough estimate of the number of persons in the British Empire possessing one or another form of the Christian religion. We may, then, broadly classify about 395 millions of the population of the British Empire as follows: Hindus, 208; Mohammedans, 94; Christians, 58; Bhuddists, 12; Primitive Animistics, Pagans, and other non-Christian religions, 23 millions.

BIRTH-PLACES.

The statistics as to birth-places give some clue as to pressure of population on subsistence. Thus, between 1891 and 1901, the numbers born in foreign European countries living in England increased from 194,000 to 284,000; in the Cape of Good Hope this number increased from 11,150 in 1891 to 30,160 in 1904; in Canada the increase in ten years of Russians was from 9,917 to 31,231, and of Scandinavians from 7,827 to 18,388. The Commonwealth of Australia was exceptional in showing an actual decrease in the number of European foreigners in the decennium.

Of the 398 millions in the British Empire, "whites" formed 13.6 per cent., and "coloured" persons 86.4 per cent. of the total population. The largest number of the latter were, of course, in India, but 29 millions were in West Africa, and 5½ millions in South African colonies. The number of Chinese in the Empire was over 300,000, of whom 230,000 were in Hong Kong, 47,000 in the Indian Empire, 30,000 in the Australian Commonwealth, and 17,000 in Canada.

CONCLUSION.

Although in the preceding account of the Imperial census we have excerpted the statistics of widest interest, we can only pretend to have given a very incomplete conception of the value of this report, which deserves detailed study. Its last paragraphs contain certain general considerations and conclusions which will doubtless receive the attention of all responsible census officials when the details of the next census are arranged. If these details are codified, and entire uniformity of information can be secured for every part of the Empire, the next Imperial census report will be even more valuable than the present, on the issue of which the Registrar-General, Mr. A. C. Waters, and Dr. Tatham, who sign it, may alike be congratulated.

ALCOHOL AND CRIME.—The *Zeitschrift für Socialwissenschaft* gives the following figures as showing the close relations between alcoholism and crime. Of 380 crimes and offences perpetrated in one German town during one week, 165 (43 per cent.) were committed on Sunday; 68 (18.1 per cent.) on Monday; 62 (16.3 per cent.) on Saturday; whilst 85 (22.6 per cent.) were committed on the four other days of the week. Of 261 assaults in another town, 124 (47 per cent.) were committed on Sunday; 54 (20 per cent.) on Monday; 20 (8 per cent.) on Saturday; while 63 (25 per cent.) were distributed among the other four days of the week. Of the 261 assault cases, 196 (or three-fourths) took place in cafés and taverns after 6 p.m.; it is therefore a probable inference that they were committed under the influence of drink.

LITERARY NOTES.

MENTION has already been made in the BRITISH MEDICAL JOURNAL of the fact that M. Clemenceau, the new French Minister of the Interior, is a Doctor of Medicine. Some one, we learn from the *Journal des Débats*, has had the curiosity to hunt up his thesis which was presented to the Paris Medical Faculty on May 13th, 1865. The title of the thesis is "De la Génération des Éléments Anatomiques." The opening sentences are characteristic of the man: "The accurate observation of phenomena is the starting-point of science; the grouping and interpretation of them is its goal. I bring no new observations; I have collected facts. For the opinions I shall express I alone am responsible. I do not hold them because I have produced this work; I have produced the work because I held them."

In the *Indian Medical Gazette* for March Lieutenant-Colonel D. G. Crawford, who has worked from time to time during the past twenty years at the manuscript records of the India Office in the Calcutta Record Office, and who has contributed many interesting articles embodying some results of his researches to the *Gazette*, sketches out the plan of a history of the Indian Medical Service. We join with our contemporary in the expression of a hope that Lieutenant-Colonel Crawford will continue to work at the history, and that he will not fail to publish it in due time.

Readers of Dickens's *Uncommercial Traveller* will remember his account of a night crossing to Calais, in which the words and melody of the song "Rich and Rare were the Gems She Wore" became mixed up with the dashing of the waves and the throbbing of the engine, but it appears that the recital of verses has been used successfully as a preventive of sea-sickness. Professor Sidgwick is said to have been able to defy that ignoble affliction by this device. Macaulay also is said to have used the same plan with success. He did not, however, recite, but repeated to himself Milton's *Paradise Lost*, which occupied the time of the passage from Holyhead to Dublin. These facts suggest a new use for poetry. Could an ocean-going steamer engage professional readers of verse to charm away sea-sickness? The experience of the eminent men referred to opens up interesting regions of speculation as to the prophylactic and therapeutic properties of poetry. If verse can keep off sea-sickness, might it not cure a colic and thus gain a place in the *Pharmacopoeia* as a genuine "carminative"? Might it not take the prisoned soul and lap it in Elysium while a refractory molar is being extracted? The virtues of poetry as a soporific are well known. The late Mr. Lecky recommended the mental repetition of verses as a means of wooing sleep in the watches of the night. The reading of poetry is for some an almost infallible sleep compeller, and Sir Henry Holland, after trying every other kind of metrical composition, came to the conclusion that the sonnet in any language was the best for the purpose.

Professor Byers has done well in publishing the address on Lord Dufferin as a Speaker which he recently delivered to the members of the Literary and Scientific Society at Queen's College, Belfast. He traces Lord Dufferin's career as an orator from his early triumphs at the Oxford Union, of which he was President, to the later periods of his life, when he was acknowledged as the most graceful and wittiest speaker of his time. He came, as is well known, of a stock which affords a striking illustration of the heredity of genius; Professor Byers says that in two hundred and fifty years the Sheridan family produced twenty-seven authors and upwards of two hundred books. Professor Byers, who had many opportunities of hearing Lord Dufferin speak, was struck by the simplicity of his diction, the easy grace of his delivery, and the facility with which he held the attention of his audience. He seemed to have the most perfect control of himself, yet, like all great orators, he must have felt the nervousness without which Cicero never mounted the rostrum. As he humorously put it in his speech to the students at Belfast: "Should the young speaker feel his tongue grow twice too big in his mouth, and curl itself inextricably round one of his canine teeth, he may console himself with the conviction that he possesses one at least of the characteristic qualities of a great speaker." The mention of the Roman orator recalls Lord Dufferin's account of a speech supposed to have been delivered by himself at a dinner in Iceland, when his health was proposed in Latin by the bishop of the island. We may be allowed to quote the opening sentence as an example of the ready adaptability of Latin to purposes of modern intercourse:

> Viri illustres, insolitus ut sum ad publicum loquendum ego propero respondere ad complimentum quod recte reverendus prelaticus mihi fecit, in proponendo meam salutem, et supplico vos credere quod multum gratificatus et flattificatus sum honore tam distincto.

Esperanto could not be more up-to-date. We have to thank Professor Byers for half an hour's delightful reading.

In her recently-published book of reminiscences, *In the Sixties and Seventies*, Laura Hain Friswell (Mrs. Myall) relates the following story:

> Talking of truth reminds one of an anecdote of Dr. Richardson and my father. When Dr. Richardson's book, *Hygeia, the City of Health*, was published, my father said to him one day, chaffingly: "What do you mean by telling us that all our houses are unhealthy and insanitary because we have paper on our walls, and because we haven't our kitchens in the attics?" "Ah, Friswell," he replied, "if you want people to notice you it's no use telling them the truth; the thing is, to start a thundering big lie—then they'll believe in you."

This is a somewhat crude way of saying that wisdom when it calls out in the streets must cleave the general ear with horrid speech if it is to excite attention.

In an address recently delivered to the Medical Society of the State of New York, and published in the *Albany Medical Annals* for March, Dr. Samuel B. Ward gave an interesting review of the history of medicine in the State during the last hundred years. The Society was organized in February, 1806. It would seem that at that time the attention of the medical profession was largely directed towards climatology and atmospheric and telluric influences, for the Society offered prizes for dissertations on those subjects. Every member was required to present to the Society "all proper information respecting the geography and topography of the county in which he resides, together with an historical account of the diseases which prevail at any season of the year." In 1809 a Committee was appointed "to petition the Legislature for a law to prohibit the inoculation of the small-pox in this State." The Society had evidently fully accepted the teaching of Jenner, to whom in 1810 the President referred as having "taught us to elude a loathsome and often fatal disease, small-pox." Dr. Alexander Coventry, in his address delivered in 1824, quotes from the *Revue Médicale* for February, 1823, the following account of an experiment made by a doctor of Port Royal, Martinique:

> M. Guyon put on the shirt, while yet warm, of a man with yellow fever, wore it two hours, inoculated himself repeatedly with matter from blisters, and drank black vomit; he went into the bed soiled with various excrement of a soldier sick with yellow fever, and lay in it for six and a half hours. This patient died, and in his stomach was found a large quantity of black matter, yet M. Guyon remained in perfect health. It would be a waste of time to recapitulate the innumerable well-authenticated proofs of the non-contagious character of yellow fever.

It is sad to think of the waste of such heroic devotion to the cause of truth; nevertheless M. Guyon's experiment may be commended to the notice of the anti-vivisectionists. Before 1806 the laws regulating the practice of medicine in the State were extremely lax. By an Act passed on April 4th of that year the qualified physicians and surgeons of each county were authorized to form themselves into a society and to appoint a Board of Censors to examine and license all applicants for admission into the profession in their respective counties. The applicant had to furnish evidence of having studied for three years under some practitioner. In 1827 three years of study and attendance on two courses of lectures was made compulsory. At that time there were but twenty medical colleges in the United States. Of these, two were in New York State: one was the College of Physicians and Surgeons, the other was at Fairfield, in Herkimer County.

UNDER the will of the late Alderman Thomas Sanderson, of Middlesbrough, the North Riding Infirmary receives £100, and the North Ormesby Cottage Hospital and the Middlesbrough Nursing Association sums of £50 each.

NSURANCE COMPANIES AND THE MEDICAL PROFESSION.

The Foundation of an Insurance Company.

Ve have received from several correspondents in Lancahire and Yorkshire copies of a circular from the Glasgow ffice of the United Sickness and Accident General nsurance Company, Limited, which claims to be of a private and confidential nature." It is an invitation "to very select number of the Medical Faculty" to take hares in the company on the strength of the chance of an ppointment as "official referees for specified districts, or s members of the Board of Directors and medical advisers f the company, which (*sic*) must not exceed 7 nor be ss than 3." It is further pointed out that, though edical referees need not necessarily be shareholders, e qualification for a director or medical adviser is minimum of 100 £1 shares, but preference will e given to those applicants for the post of referee ho apply at the same time for shares. Naturally! urther on we find a paragraph of figures headed Fifty Years' Record." This shows an expansion of siness between 1847 and 1898 from a membership of 4 and a reserve fund of £456 to a membership of 229,416 d a reserve fund of £2,032,016. A more careful perusal the text, however, discloses the fact that these figures fer, not to the United Sickness and Accident General surance Company, which at the time the circular was sued had not, it would appear, been floated, but to an named society which the latter proposes to imitate. is unnamed society, we are told, is the "only society ansacting the class of business which this company is w empowered and ready to transact"!

The new company offers medical men (in thick type) ixed remuneration at £100 to £150 per annum, subject share qualification and approval by the Board." To ch copy of the circular at present before us the following yptic utterance is appended in pen and ink:

"The fixing of medical honorariums is not altogether e to the fact of their investing in the company, but as *quid pro quo* by virtue of the numerous examinations y will be called upon to make during the course of the ar."

We have not succeeded in penetrating the meaning of is sentence, and invite solutions from our readers.

We quote the following from letters before us which ve been written by the general manager of this company another correspondent:

t might be advisable to subscribe for a larger holding, ing that not more than 10s. per share will be called up. The wer to your letter, then, in a nutshell is—if you take up less than 100 fully paid-up [£1] shares you will be appointed medical referee at a fixed fee of £100 per year.

rankly, I do not know whether it is wise to delay making r application for shares . . . as private negotiations are ady proceeding for placing the remaining 6 per cent. ference Shares that are open now for subscription.

ur correspondent is further warned to put down his ney quickly if he wants the appointment and the xed fee of £100 per year," as there is a rival in the d, an M.D. who is "anxious to take up a few hundreds he shares."

Ve hope our readers will be very careful to satisfy mselves as to the security offered for their money ore endeavouring to purchase an appointment worth 0 a year and 6 per cent., all for a hundred pounds.

The Methods of Agents.

case was lately decided in the Bridgwater County Court, which a cabdriver sued the Refuge Insurance Company £12 10s. under a policy effected by him on the life of dy resident in Bridgwater, and lately deceased. The ntiff was in no way related to the deceased lady, and acquaintance with her was limited to his having sionally driven her as a "fare." He asserted that had only effected the policy on her life after longed solicitations from the agent. He supplied agent only with the lady's name, address, and age. re was no medical examination, and the agent filled the proposal form, and obtained the lady's signature. dence was called to prove that the same agent had ught pressure to bear on numerous other persons to ct policies on their and other lives, and that several policies were at the time actually in force. In the case before the Court the insured person had died of alcoholism within twelve months of the insurance being effected, and it was proved that she had been suffering from that condition for a considerable period. His Honour Judge Beresford, in summing up, exonerated the company from all blame, and said the transaction was entirely due to the "great dishonesty of the agent." He gave judgement for the amount claimed, and allowed costs on the higher scale, as the matter was one of public interest. The judge throughout the case expressed a degree of surprise at the possibility of such transactions which will not be shared by medical men who have had experience of working-class practice. This was undoubtedly an exceptionally flagrant instance of a practice which is only too common; and while we may agree with Judge Beresford's remarks in this case, it cannot be supposed that the companies are always ignorant of the methods of their agents, while it is clear that the agents are under great temptation to get business by hook or by crook, since they depend for their living on the amount of their "debit."

Mr. J. Lionel Stretton, Senior Surgeon, Kidderminster Infirmary and Children's Hospital, writes: One of my hospital patients lately asked me to fill up a certificate form for an insurance company. I instructed him to inform the company, through his employer, that they must apply to me and pay me my usual fee of a guinea. To-day he brings me the following letter:

> CITY OF BIRMINGHAM WATER DEPARTMENT.
>
> March 23rd, 1906.
>
> Dear Sir,—In reply to your letter of yesterday, I have communicated with our insurance company on the matter, who say that you had better forward an ordinary doctor's certificate stating that you are unfit for work, the fee for which should be sixpence.
>
> Yours faithfully,
>
> Fred. W. Macaulay.
>
> Mr. —— ———.

Mr. Stretton adds: If the statement contained therein is correct, it is evident that those members who accept such terms are not only unjust to themselves, but discreditable to the profession.

THE INTERNATIONAL MEDICAL CONGRESS, LISBON.

We have received the latest official programme, dated March 6th, of the Fifteenth International Medical Congress, which is to be held at Lisbon, April 19th to 26th. A considerable part has already appeared in the British Medical Journal. We note with special satisfaction that only three languages—French, English, and German—are recognized as mediums of addresses to general meetings and communications to sections; in the latter, however, other tongues are allowed on condition that the communications are forthwith translated into one of the three languages permitted. The time limit for communications is a quarter of an hour; in the discussions no one will be allowed to speak more than five minutes, and the reader of the report or other communication will be given ten minutes to reply.

In consequence of representations made to the Organizing Committee, certain changes have been made in the division of the Sections. The Section of Therapeutics and Pharmacology has formed a separate branch of medical electricity. The Section of Paediatrics has been divided into two subsections (medicine and surgery); and the unwieldy Section which originally comprised rhinology, laryngology, otology, and dentistry has been resolved into its constituent elements by division into three bodies, which, though still called subsections, are expressly declared to be independent of each other.

The following is the list of British delegates:

The British Government is represented by Colonel A. T. Sloggett, R.A.M.C.; no delegates seem to have been appointed by the Army Council, the Government of India, or the Medical Service of the Royal Navy.

The following are representatives of Universities and Colleges: Birmingham, Professor R. Saundby; King's College, London, Dr. T. Buzzard; London School of Medicine for Women, Mrs. A. D. Waller; Guy's Hospital, Dr. F. W. Pavy; Royal College of Physicians of Ireland, Sir John Moore; Royal College of Physicians, Edinburgh, Dr. John Playfair; Royal College of Physicians, London, Sir Dyce Duckworth; Royal College of Surgeons in Ireland, Sir Arthur Chance and Sir

Lambert Ormsby; Royal College of Surgeons of England, Mr. A. W. Mayo Robson; St. Bartholomew's Hospital and College, Mr. H. J. Waring and Mr. W. H. Jessop; University of Edinburgh, Sir Thomas R. Fraser; University of London, Sir Thomas Barlow and Dr. A. D. Waller, Dean of the Faculty of Science of the University; University College, London, Sir Thomas Barlow; University of St. Andrews, Professor James Musgrove.

The following are representatives of Societies and other bodies: Association for the Advancement of Medicine by Research, London, Dr. F. W. Pavy; Brighton and Sussex Medico-Chirurgical Society, Dr. Gordon Dill; Bristol Medico-Chirurgical Society, Dr. Singleton Smith and J. Paul Bush, C.B.; British Gynaecological Society, Dr. J. J. Macan, London; British Medical Association, Dr. H. Radcliffe Crocker, Professor J. W. Byers, and Mr. George Jackson; Fylde Medical Society, Blackport, Dr. J. Cecil Fisher; Incorporated Medical Practitioners' Association, London, Dr. Boyd Joll; Incorporated Society of Medical Officers of Health (Scottish Branch), Drs. A. K. Chalmers and Alexander Robb; Liverpool Medical Institution, Mr. Robert Jones; Medical Society of Wigan, Drs. Berry and Chronnell; Otological Society of the United Kingdom, Mr. Macleod Yearsley; Pupils' Physical Society, London, Dr. A. F. Hertz; Royal Academy of Medicine in Ireland, N.N.; Society of Anaesthetists, London, Dr. R. J. Probyn-Williams.

The communications received are already in type, and the work of some of the Sections, if we may judge from the names of those who are to take part in them and the importance of their communications, gives hope of brilliant results.

A *Medical Guide to Lisbon*, which is in preparation, should be of great value to congressists and to all medical visitors to the Portuguese capital. It contains all information likely to interest a visitor on matters relating to medicine, hygiene, medical education, public assistance, medico-legal organization, and social medicine in Portugal. In addition to this, full particulars are given as to the arrangement of the work of the Congress, the buildings in which the meetings are to be held, and the places in Portugal best worth a visit, either on account of their scientific importance, the beauty of the scenery, or their historic interest. The programme of receptions and entertainments will be published later. In the meantime it is announced that a garden party will be given by the King and Queen of Portugal to all members of the Congress on April 24th. The heads of the official delegations will be entertained at a grand banquet on April 21st. The city of Lisbon will give a ball, and other festivities are being arranged by the Geographical Society, Count de Burnay, etc.

The number of members who have already inscribed their names is 836.

The Hungarian delegates will propose Buda-Pesth as the place of the next meeting in 1909. The Hungarian Government has offered 100,000 crowns, and the chief magistrate has asked the city council to vote an equal amount for the purposes of the Congress. It is pointed out that the meeting would be of great moral and material benefit to Hungary.

BRITISH MEDICAL BENEVOLENT FUND.

COMMITTEE MEETING.

At the monthly meeting of the Committee held on March 20th, fifteen applications were considered and sums amounting to £176 voted in relief. Mr. Parker Young was unanimously re-elected chairman for the ensuing year and the Annuity Subcommittee was reappointed for the same period.

The following is a short abstract of the cases relieved:

1. Daughter, aged 56, of late M.R.C.S., who practised in Wiltshire. Is given a home by brothers in return for services, but receives no salary. Health delicate. Relieved five times, £84. Recommended by Mr. T. H. Cheatle. Voted £12 in twelve instalments.

2. L.S.A., aged 62. Used to have an excellent practice in the South-West of London, but the neighbourhood degenerated and applicant's difficulties were increased by severe and prolonged illnesses in his family. He is now endeavouring to establish a cash practice and has exhausted the proceeds of the lease of his former house in doing so. Recommended by Dr. Mitchell Bruce, Vice-President. Voted £18 in twelve instalments.

3. Widow, aged 48, of L.R.C.P.Edin., L.R.C.S.Glas., who practised in Cumberland. Small capital left at husband's death was spent in paying his debts, and applicant's children, although doing all they can to help, are unable to contribute sufficient to support her. Recommended by Dr. G. H. Hume. Voted £10 in two instalments.

4. Widow, aged 63, of M.R.C.S., L.S.A., who practised in New South Wales. For fifteen years since her husband's death applicant has supported herself as cook in a large lodging-house kept by a friend, but now has to give up her post as the house no longer pays expenses. Recommended by Dr. W. Travers. Voted £14 in twelve instalments, the first instalment to be £3.

5. Widow, aged 48, of L.R.C.P., L.R.C.S.Edin., who practised in London. Quite unprovided for at husband's death; tries to support herself by needlework, and proposes to obtain employment which will give her a home. Relieved once, £12. Recommended by Dr. Mitchell Bruce. Voted £5 in one sum, with leave to apply again in six months.

6. Widow, aged 61, of M.D., C.M.Glas., who practised in Lancashire. Receives £14 a year from a Working Ladies' Guild, and a few shillings a week from a son who is a railway signalman. Relieved six times, £72. Recommended by Miss Farquhar. Voted £12 in twelve instalments.

7. Widow, aged 45, of M.B., C.M.Edin., who practised in Perthshire. Income, £20 a year and supplements this and the slight help given by a relation by taking boarders in the summer. Six children, aged 15 to 8, two being at an institution. Relieved seven times, £78. Recommended by Dr. Urquhart, Hon. Local Secretary. Voted £12 in twelve instalments.

8. Widow, aged 47, of L.R.C.P.Edin., M.R.C.S.Eng., who practised in Herefordshire. Five children, only two of whom are able to contribute to their maintenance. Just manages to make both ends meet by taking several boarders. Husband was totally incapacitated for several years before death, and applicant was consequently left unprovided for. Relieved three times, £48. Recommended by Surgeon-Lieutenant-Colonel Deeble. Voted £12 in twelve instalments.

9. Widow, aged 55, of L.F.P.S.Glas., who practised in London. Ten children, of whom one is an invalid, two are out of work, and two at school, the rest contributing what they can for themselves and the maintenance of the rest of the family. Relieved seven times, £108. Recommended by Dr. J. O. Adams, Vice-President. Voted £12 in twelve instalments.

10. Widow, aged 42, of L.R.C.P., L.R.C.S.Edin., who practised in Cardiganshire. Left unprovided for at husband's death, and was dependent on her father—now deceased. Two children in the Merchant Service, one just self-supporting, the other only apprenticed. Relieved once, £12. Voted £3 immediately, and case to be further considered at the next meeting.

11. Daughter, aged 58, of M.R.C.S., L.S.A., who practised in Lancashire. Was comfortably provided for at father's death, but the capital was misappropriated by the trustee, and applicant now has no means of subsistence. Relieved once, £18. Recommended by Dr. J. E. Nevins, Honorary Local Secretary, and by Dr. J. Cameron. Voted £18, in twelve instalments.

12. Widow, aged 45, of L.R.C.S., L.S.A., who practised in Durham. No income; endeavours to support herself by needlework. Indifferent health; two children, one just self-supporting, the other a schoolgirl. Relieved four times, £35. Recommended by Mr. Henry Power. Voted £12 in twelve instalments.

13. Widow, aged 62, of L.R.C.P., L.R.C.S.Edin., who practised in Glasgow. Only income £10 a year from a charity; endeavours to support herself by taking boarders, but health so bad that at present she can only look after one. Only child, a daughter, has just finished a course of training as a teacher, and is waiting for a post. Relieved seven times, £84. Recommended by Dr. Joseph Bell, Honorary Local Secretary, and by Sir Patrick Heron Watson. Voted £12 in twelve instalments.

14. Widow, aged 44, of M.R.C.S., L.S.A., who practised in Sussex. No income; receives a home and small salary for services as working housekeeper, but applicant's health is so indifferent that she often has to pay for a substitute. Children unable to help. Relieved seven times, £88. Recommended by Dr. Shingleton Smith. Voted £12 in twelve instalments.

15. Daughter, aged 50, of M.R.C.S., who practised in London. No income; allowed £18 a year by a sister. Health too precarious for continued exertion. Relieved eight times, £89. Recommended by Mr. W. Bramley Taylor and Mr. Frank Hewkley. Voted £12 in twelve instalments.

SPECIALISTS IN GERMANY.—Cultured Germany appears to be the land where medical specialism most runs riot. The proportion of specialists to ordinary practitioners is said to be: In Berlin, 1 to 3.3; in Dresden, 1 to 2.4; in Frankfort, 1 to 2.4; in Leipzig, 1 to 2.7; in Breslau, 1 to 2.8; and in Munich, 1 to 2.5.

POPULAR LECTURES ON VACCINATION.—The Austrian Antiquackery Society has decided to send a representative to any place in Lower Austria to lecture on the advantages of vaccination when a wish to that effect is expressed by a local practitioner. This is an example that might well be followed in this country, where the case, not only for vaccination, but for vivisection and for rational medicine generally is for the most part allowed to go by default by the medical profession in the newspapers and on public platforms.

MEDICAL NEWS.

IN August, 1908, the University of Jena will celebrate the 350th anniversary of its foundation.

A SCHOOL of criminology has been founded in Madrid, and, it is hoped, will shortly be in working order.

THE *Jewish Chronicle* announces the appointment of Dr. Charles Singer as Resident Medical Officer in charge of the Government General Hospital, Penang. Dr. Singer served as Medical Officer to Sir Charles Harrington's Abyssinian expedition.

IT is announced that Professor von Recklinghausen, who has been head of the Pathological Institute of the University of Strassburg since it was constituted a German University, will retire at the end of the current semester. The distinguished pathologist is in his 73rd year.

THE Middlesex Hospital Musical Society held its annual concert to the nurses and patients in the Board Room at 5.30 p.m. on March 21st. A very good programme had been provided, and was very much appreciated. Dr. J. J. Pringle conducted, and Mr. T. G. A. Burns accompanied.

DR. JOHN ROBERTSON, Medical Officer of Health for Birmingham, will read a paper upon some aspects of housing reform in Germany at the meeting of the Incorporated Society of Medical Officers of Health to be held at 7.30 p.m., on Friday, April 6th, in the Society's Rooms, 1, Upper Montague Street, Russell Square.

WE learn from the *St. Thomas's Hospital Gazette* that Baron Takaki, Director-General of the Medical Service of he Japanese Navy in the late war, who is on a visit to Europe, has undertaken to give a course of three lectures at St. Thomas's Hospital. The dates provisionally fixed are May 7th, 9th, and 11th. Baron Takaki, who is a Fellow of the Royal College of Surgeons of England, is an old tudent of St. Thomas's.

THE Postmaster-General (Mr. Sydney Buxton, M.P.) has ccepted an invitation to attend the annual dinner of the Association of British Postal Medical Officers, which is to ake place at the Whitehall Rooms of the Hotel Métropole, London, on Wednesday, July 11th. The honorary secre-ary is Dr. Giddings, 206, Mansfield Road, Nottingham, nd medical men who have recently become medical fficers to the Post Office are advised to communicate with im.

THROUGH the generosity of Mrs. Phillips there has een established in the Aberdeen University Union a medical reference library in memory of her husband, he late Dr. C. D. F. Phillips. Every branch of medical cience will be represented in the library, but special ttention will be paid to the pharmacological section, hich it is desired should be brought and kept abreast of he latest advances in materia medica. The Library Committee will welcome any reprints of papers on original work in pharmacology, a good number of which have been ready received from Dr. William Murrell, Professor ockman, Professor Cash, and others.

THE permanent staff of the British Medical Association, dministrative and executive, dined together in the Medici oom of the Hotel Cecil on March 23rd, as the guests of r. Langley Browne, Chairman of Council. The pro-eedings were pleasantly unceremonious, and in addition to The King" the only toast was one to the host, which was ceived with musical honours and an extra cheer. In pro-osing it Dr. Dawson Williams reminded the company that ey had to thank Dr. Langley Browne not alone for a Red-tter day in the history of their service under the Associa-on but for his very material assistance in the successful tablishment of a scheme for a Clerical Staff Super-nuation Fund. In reply Dr. Langley Browne said that e idea of giving a dinner party had occurred to him as a easant way of making the acquaintance of those with hose work he was now associated as Chairman of Council. he British Medical Association was now a great, powerful, d beneficent machine. Its success it doubtless owed to ny factors and persons, but it owed it not least to its tle-seen working parts; to the intelligent daily industry those whom it employed; to the conscientious per-rmance by each of his guests of the duty it was given to n to fulfil. As Chairman of Council he felt this strongly nself, and they would be glad to know that in paying s meed of recognition to their services he had the pport of another of his guests, Dr. Radcliffe Crocker, the easurer. The party separated shortly before eleven lock on the completion of a programme of vocal and trumental music which served to reveal that the clerical ff can boast of a good deal of real musical talent.

ANTIRABIC INSTITUTE IN BORDEAUX.—The Bordeaux Municipal Council has adopted a report presented by one of its members, Dr. Lamarque, urging the erection of a large building for the adequate housing of the antirabic, antidiphtherial, and vaccination stations. The City of Bordeaux will thus have an independent Pasteur Institute, of which Professor G. Ferré has been appointed Director.

ANTITOXIN AND DIPHTHERIA.—*American Medicine* states that in the few months that the system of free distribution of diphtheria antitoxin throughout Pennsylvania has been in force, the death-rate from that disease in the State has been reduced by almost 80 per cent. This means that instead of claiming 420 lives out of every 1,000 children or adults afflicted with the disease, diphtheria now slays only 88 out of every 1,000 whom it attacks.

THE POISONS AND PHARMACY BILL.—The Society of Apothecaries has addressed a vigorous protest to the Lord President of the Council against the introduction of any amendment to this Bill which would tend to deprive the numerous holders of the assistant's or dispenser's certificate granted by the Society of their right to dispense medical prescriptions, or to limit that right. An answer has been received which is deemed satisfactory.

TOTAL ABSTINENCE AND LIFE ASSURANCE.—Our recent note on the relative experience of teetotalers and non-teetotalers in insurance offices has brought us two further annual reports, on which a note may be made. The Sceptre Life Association at its recent annual meeting showed in its general section a mortality experience which was 80 per cent. of the experience expected on the basis of the Institute of Actuaries H^m Table, while in its temperance section the mortality experience was 48 per cent. of the expected mortality. Similarly, in the Abstainers and General Insurance Company the mortality experience of the abstainers' division was only 47.4 per cent. of the expected mortality.

MALARIA IN THE CAMPAGNA.—The King of Italy recently received in private audience Professor Postempski, Medical Inspector of the Red Cross of Italy, who presented to His Majesty the first copy of his report on the antimalarial campaign in the Roman Campagna in 1905. In the first campaign, which was undertaken in 1900, no medicinal prophylaxis was used, the proportion of cases among the population being 31 per cent. In the second campaign (1901), when quinine was given prophylactically, the proportion fell to 26 per cent.; in 1902 it fell to 20 per cent.; in 1903 to 11 per cent.; in 1904 to 10 per cent.; and in 1905 to 5.1 per cent. The King expressed the greatest satisfaction at the good results of the efforts of the Red Cross Society.

INTERNATIONAL MEDICAL ASSOCIATION FOR THE SUPPRESSION OF WAR.—The annual general meeting of the International Medical Association for the Suppression of War was held in Paris on March 21st, under the presidency of Dr. J. A. Rivière, and was attended by a number of doctors of various nationalities. Resolutions were passed that in future international disputes should be settled by two tribunals (International and Humanitarian); that in the twentieth century a generous spirit of human solidarity should be substituted for racial, religious, and class hatred; that force should not be employed in any form for the modification of the natural groupings which occur in society; and that the good direction which orders the acts of the individual should find its application in the family and in society as well as in nationalities.

CANCER RESEARCH IN GERMANY.—Some particulars as to the arrangement and organization of the Institute of Cancer Research about to be erected at Heidelberg are given by the *Allgemeine medicinische Central-Zeitung*. They are taken from an explanatory statement of the Budget Commission of the Baden Government. The Institute is to consist of two departments—clinical and scientific. The former is to be built on a site, opposite the University Hospital, which has been given by the State. It will contain eight beds for patients of the first and second classes, and twenty-three for patients of the third class. In the Scientific Department the nature and causes of cancer will be studied by experimental research and bio-chemical and anatomical investigations. The Institute will be under the superintendence of the Baden Ministry of Education. Professor Czerny, to whose initiative and active efforts the Institute chiefly owes its establishment, has accepted the post of Director for a period of at least five years. The laboratory buildings are already in course of construction, and the main building will be proceeded with at once. It is hoped that the Institute will be in working order by the middle of next September.

British Medical Journal.

SATURDAY, MARCH 31st, 1906.

EXPLOSIVE EPIDEMICS OF TYPHOID.

The clear and carefully collected evidence presented by Dr. Reece in his report to the Local Government Board on the epidemic of enteric fever in the City of Lincoln, 1904-5, leaves no room for doubt as to the correctness of his inference that the fever which affected the city of Lincoln and its adjoining suburbs "owed its origin to "the specific pollution of the public water supply, "shared in common by these places, and that this "supply was the medium whereby the infection was "transmitted, in the large majority of cases, during the "epidemic which ensued." This history accords in nearly all respects with the reports published in this Journal during the course of the epidemic, from February to June, 1905.

Dr. Reece's conclusion that the epidemic owed its origin to the water supply is based chiefly on the following considerations: the absence of evidence indicating that the conditions of dwellings, drainage and sewerage, or of the milk supply, could have given rise to the epidemic; the wide separation locally of the earliest cases; the sudden explosive outburst of the disease, followed by an abrupt decline; the diffusion of the cases over the whole area served by the city water-supply; the obvious pollution of the river and streams from which the water was derived; the inadequacy and irregularity of the filtering arrangements, especially at the time of widespread infection; and the discovery of the specific germ of enteric fever in an intake to the waterworks.

According to our standard methods of dealing with extensive outbreaks of enteric, the investigations recorded in this report, and the administrative measures carried out for the suppression of the epidemic, were as complete and perfect as possible under the circumstances. The question arises whether more might be done in order to ensure the earliest possible detection and actual prevention of invasion, to clear up the many obscure problems connected with the etiology of this disease, and to estimate the relative effects produced by the various agencies at work in the production of an epidemic. It should be noted that, in the case of Lincoln, and also in other great epidemics, nearly half the number of cases, or more, had already taken the infection by the time the presence of an epidemic was realized. The process of infection had in each case been progressing for some three weeks before its full recognition. Nor will it ever be possible to detect and verify the commencing onset of these explosive outbreaks of enteric, when conveyed in the water supply, unless some ready and reliable proof of the presence of infection can be provided. In several cases the onset of the epidemic has been preceded by an abnormal prevalence of diarrhoea; in others, as at Lincoln, by dropping cases of enteric fever. There is good reason for regarding such cases as premonitions of the coming invasion. It becomes, therefore a matter of high importance to make an immediate and exhaustive investigation of such cases, with a view, first, to determine whether special and immediate preventive measures are called for, and, secondly, to establish the etiological relations of these cases—that is, to decide whether they are in reality the first indications of a coming invasion. At present almost the only way in which explosive invasions can be detected and arrested at the very onset is by regarding all abnormal prevalence of diarrhoea or enteric as a possible indication of a coming invasion, and by immediately making an exhaustive investigation of all suspected cases and completely safeguarding all channels through which the infection might be conveyed and diffused. It is not too much to say that by such a course most of our great waterborne epidemics might have been prevented.

The detection of a micro-organism, "which resembled the *Bacillus typhosus* in all essential respects" in an inlet to the waterworks at Lincoln is an event of high interest. Dr. Klein reports this micro-organism as being "most probably *B. typhosus*." The fifteen morphological, chemical, and biological tests which were applied to it, with positive results, comprise all, or nearly all, the tests demanded by bacteriologists for the identification of this bacillus. It is unfortunate that the report does not give more information with regard to the "laboratory rabbit serum" which was used for the most important test of all—the agglutination test. So far as we are aware, however, the presence of the *B. typhosus* in a suspected water supply has never before been so definitely demonstrated, at any rate in this country. It is much to be regretted, from the etiological point of view, that such investigations were not made at Lincoln at an earlier period, and on a more extensive scale, with a view to detecting the *B. typhosus* in the various sources, as well as in the filters, reservoirs, and supply pipes of the waterworks.

It must be admitted that we do not make sufficient use of the most advanced methods of bacteriological research for the detection of the presence of *B. typhosus* during enteric outbreaks. With the aid of the Drigalski-Conradi medium and the agglutination test strong evidence of the presence of this bacillus may be obtained in the course of twenty-four hours by a successful bacteriological examination, and within forty-eight hours this evidence may be confirmed sufficiently for practical purposes, that is, sufficiently to warrant the undertaking of special preventive measures. Koch claims that by such methods he is able to detect the presence of the specific germs in the faeces of an infected person within three or four days of the actual infection. It is not likely that the British public would submit to the inquisitorial and harassing measures which are carried out in Germany where Koch's system of campaign against enteric fever is instituted. But it is obvious that methods of this kind must be adopted if we are to obtain full information with regard to the secondary infections, and also with regard to the general etiology of the disease, and especially the incubating and mild or abortive cases which contribute such a large proportion to extensive epidemics.

LUNACY AMENDMENT AND THE BOARDING-OUT SYSTEM.

Attention was drawn on January 13th to the important recommendations of the Lunacy Subcommittee of the British Medical Association with regard to the treatment of cases of incipient or unconfirmed insanity. As may be seen from the report of the Medico-Political

Committee on the amendment of the Lunacy Laws, published in full in this week's Supplement, the Council of the Association, on the recommendation of the Committee, has decided to take action in other germane and equally important matters.

First, in reference to Section 202 of the Lunacy Act of 1890, the Committee recommended that provision be made for the supervision under the Commissioners in Lunacy of all persons of unsound mind who are in receipt of parochial relief, and the Council has determined to bring this recommendation under the notice of the Royal Commission on the Care and Control of the Feeble-minded. Section 202 regulates the supervision, maintenance, and care of the out-door pauper lunatics in England and Wales, who in 1904 numbered 5,562. Those who read the detailed description of the working of this mode of provision which appeared in our columns on July 8th, 1905, will remember that these cases are, in point of fact, entirely separated from the general lunacy administration of the country. They are not visited by any Commissioner in Lunacy, but are under the care of the Boards of Guardians who stand *in loco parentis* to them. They are, therefore, under the jurisdiction of the Local Government Board, but in 30 per cent. of the several hundred cases visited by our Special Commissioner in widely separated districts in England and Wales the patients were in obviously bad hands, neglected and practically uncared for, with, in a still greater proportion, a lack of proper sleeping accommodation which can only be fitly described as appalling. As a result, breaches of the moral code are by no means uncommon, and cases were brought under our Commissioner's notice and mentioned in his report, of which t may be truly said that they constitute offences so rank hat they must smell to heaven. In saying this we are ery far from any intention of decrying the laudable fforts of Boards of Guardians to relieve the necessitous r infirm, though we cannot suppose that they are as et fully alive to the difference between the ordinary nd the lunatic poor in respect of the degree of care and upervision which should be exercised over them.

We may here recall that it is not many years ago ince the British Medical Journal had to point ut the scandalous state of provincial workhouse nfirmaries as revealed by a Special Commissioner ppointed to inquire into the matter, and that the ublication of the facts led directly to reform. The vils we have indicated as occurring amongst the utdoor pauper lunatics, however, are entirely the sult of a pernicious system, a system which to-day an anachronism. The remedy consists in making he parochial authorities, in respect to their pauper natics, responsible to the Lunacy Commission, and in inging these cases under the direct supervision of the unacy Commissioners. Immediate reform will, we elieve, undoubtedly follow the putting into effect of e recommendations of the Committee.

A reform of much wider application, however, is indicated by the action taken by the Council in informing e Asylums Committee of the London County Council the concurrence of the Medico-Political Committee the British Medical Association in its views as to the arding out of pauper lunatics. It will be remembered at Section 57 of the Lunacy Act of 1890 contains the ovision, "Where application is made to the visiting ommittee of an asylum by any relative or friend of pauper lunatic confined therein, that he may be elivered over to the custody of such relative or riend, the Committee may, upon being satisfied hat the application has been approved by the uardians of the union to which the lunatic "is chargeable or the local authority liable for his "maintenance, and, in case the proposed residence is "outside the limits of such union or area subject to "such local authority, then also by a justice having "jurisdiction in the place where the relative or friend "resides, and that the lunatic will be properly taken "care of, order the lunatic to be delivered over accord"ingly." Section 57 further provides for the payment to the person to whom the lunatic is handed over by the authority liable for his maintenance of such sums as it may think proper, provided that such sums do not exceed the amount which would be paid were the patient in an asylum; the patient, still further, to be deemed, for the purposes of Section 24 of the Local Government Act, 1888, which concerns the application of the four shilling grant, a lunatic maintained in an asylum.

The defects of this provision are apparent at a glance. In the first place, the Visiting Committees have no power to board out suitable cases except on the application of a "relative or friend," and, however elastic the term "friend" might appear to be, it is in practice restricted to near kin. This restriction, apart altogether from the fact that in the greater number of cases the immediate relatives of insane people make the most incapable guardians, seriously cripples at the outset a proceeding which might otherwise be of considerable benefit. Secondly, the act is rendered still more cumbersome by the necessity of obtaining the approval of the Boards of Guardians; and, lastly, the complete detachment of the patients from the supervision and treatment of the medical officers of the asylum cannot fail to prejudice the whole system in the eyes of the asylum authorities. As the result of these defects the present system has been found to be unworkable, and is to-day, in the words of the London County Asylums Committee, a dead letter in England and Wales.

To make this section of the Lunacy Act really efficacious it requires to be so altered that it will permit the visiting Committees of asylums to board out suitable patients with selected guardians, not necessarily relatives or friends, without the approval of the Boards of Guardians, the patients to remain on the books of the asylums and to be supervised and cared for by the asylum officials. In 1900, and subsequently, at the suggestion of the London County Council Asylums Committee, clauses were inserted in Lunacy Bills modifying Section 57 in this direction but so far without success. Since then, however, an increasing amount of attention has been directed to the family-colony system, its more than satisfactory results have been described by many writers in many medical and other journals all over the world, including, prominently, our own; and not only alienists but the governing bodies of asylums and many others concerned with philanthropic endeavour, are arriving at the conviction that in the adoption of this system is to be found the solution of the important questions of the relief of congested asylums and the furnishing of healthy natural occupation and a considerably increased degree of liberty to many of the insane at present, for lack of this, necessarily detained in institutions; in fact, the establishment of half-way houses between the asylum and the home. These are some of the notable benefits which would follow the modifications of Section 57 proposed by the Asylums Committee and concurred in by the Medico-Political Committee, and we trust, and have grounds for believing, that the London County Council Asylums Committee will embrace an early opportunity of again taking steps in this direction. By doing so it will be fighting the battle, not only of

London County, but of many thousands of the insane all over England and Wales, in the pursuance of an enlightened policy which is working admirably in many countries abroad, and which does not forget, with regard to the insane as much as with any others, that

> Work, without Hope, draws nectar in a sieve,
> And Hope, without an object, cannot live.

LIFE-SAVING IN MINES.

THE appalling colliery disaster at Courrières has, like all such accidents, many lessons. The Press in this country has dwelt on the international amity which the advent of the German rescue corps is sure to promote between two peoples estranged by the memories of past conflicts. Common effort in saving life to-day ought surely to neutralize the bitter recollections of the struggle to destroy life of a generation ago, and we rejoice on this ground in the service rendered by the German colliers to their brethren in France.

There are, however, other lessons to be learnt from this terrible catastrophe, and we wish to call special attention to some questions on the subject asked last week in the House of Commons, and answered by the Home Secretary. Several members were anxious to know whether the life-saving apparatus for giving oxygen brought by the Westphalian colliers to the help of the French miners was available and supplied at collieries in this country. The Home Secretary said the subject had engaged the attention of his department for some time, and he had decided to refer it to the Royal Commission on Mining to be appointed shortly. We are afraid that from this answer we must infer that if a disaster similar to that at Courrières occurred in this country to-morrow, we should find there was no salvage corps equipped like that of Westphalia. The Westphalian rescuer wears a safety mask with a respiratory apparatus by means of which he can breathe without danger from the after-damp. He carries on his person enough caustic soda to absorb the carbonic acid of the air he exhales, and a small cylinder of oxygen by which he can renew the air he inhales. There is no reason why our miners should not be furnished with the same appliances.

In Dr. Haldane's report to the Home Office "on the "causes of death in colliery explosions and underground "fires," written early in 1896, we find the whole subject reported on very thoroughly and the necessary apparatus described. The carbon monoxide present in a mine after an explosion affects the miners by forming as they breathe it a stable compound with the haemoglobin, so that the carrying power of the blood for oxygen is more or less destroyed, and loss of power in the limbs and finally death result. If the percentage of carbon monoxide is small, the breathing of pure air may save; but if it is larger, an addition to the percentage of oxygen in the air inhaled is necessary in order to save life. The process of driving out the carbon monoxide from the blood is five times more rapid with pure oxygen than with fresh air.

Dr. Haldane reported—in 1896, be it remembered—that it would require 4 cubic feet of oxygen to keep a man alive for two hours while making his escape to the shaft, or for six hours while remaining at rest. This volume of oxygen could be compressed in a steel cylinder of less than two pints capacity, and the apparatus for breathing this oxygen was described in 1894 before the British Association. It is the old story. British research and British invention devise and describe methods of saving life; years of neglect follow, and then an object lesson of the use of this scientific knowledge practically applied given us by our German neighbours or our American cousins. Now, ten years later, we are told that the subject will be referred to a Royal Commission not yet appointed! More years of waiting, and then, when more lives have been lost, something done at last. We must say that this is not good enough. Every colliery ought to be supplied with all apparatus proved valuable for life-saving on the occasion of these terrible accidents. The expense should never be pleaded, for, apart from any considerations of humanity, apart from the thought of the widows and orphans, the capital value of the lives saved to the country would pay the cost many times over both to the nation and to the mine-owner. Surely the Home Office, on knowledge before the department for many years, could enforce this by rules, without waiting for another report from a Royal Commission not yet in existence.

THE CARSWELL-GILCHRIST FUND.

IN the BRITISH MEDICAL JOURNAL of January 6th and March 24th, 1906, references were made to the case of Purves *v.* Carswell and Gilchrist, and attention was directed to the effort now being made to defray part of the heavy expense of £900 to which the defenders were put. Any medical man might find himself in the position of having to defend himself against such vindictive and speculative legal actions, and we are sure that practical help will be generously given to these two members of our profession. The money risk of such actions is only one of their perils. The worry, uncertainty, and protracted duration of them would be an equally serious addition to the many cares of a doctor in practice. This action has strongly directed attention to the legal position of medical men in Scotland who sign lunacy certificates. In England, by the 330th Section of the Lunacy Act, 1890-91, a certain amount of real protection is given to the profession. This section provides in Clause 1 that any one "who "does anything in pursuance of this Act shall not be "liable to any civil or criminal proceedings, whether "on the ground of want of jurisdiction or on any other "ground, if such person has acted in good faith and "with reasonable care." To the non-legal mind this would seem a sufficient protection. But in Clause 2 of the same section it is provided that "if any proceedings are taken against any person "for signing or carrying out or doing any act "in pursuance of this Act, such proceedings may, upon "summary application to the High Court or a judge "thereof, be stayed upon such terms as to costs and "otherwise as the Court or judge may think fit, if the "Court or judge is satisfied that there is no reasonable "ground for alleging want of good faith or reasonable "care." This implies that the judge must first inquire into the question of the relevancy of the action before the "proof," to use the Scottish term, is gone into. Unfortunately the onus of the proof of good faith and reasonable care is on the defendant, and this may imply much cost in time and money. The clause should have provided that the onus of proof of want of good faith or the exercise of reasonable care should have lain on the pursuer. The vagueness of the words "reasonable care" gives an opening for costly litigation, and so makes the protection to the profession much less effective than the plain reading of the section would seem to mean. In Scotland the only protection given is that any such action must be begun within twelve months of the discharge of the patient from the asylum (29 and 30 Vict. cap. 51, Sec. IV). If this provision is complied with, the judge must go into a "proof," which may, as in the case of Purves *v.* Carswell and Gilchrist, be a long and most costly procedure. If the medical men proceeded against, as in this case, get a verdict in their favour with costs, they most likely will find, as the two defendants found, that the pursuer has no means to pay such costs. After this action was decided by Lord Pearson, a deputation, in which the Medical Faculties of the Scottish Universities and the three Scottish Medical Corporations were represented, waited on the Lord Advocate, and, after stating the case, asked that the Government would bring in a Bill to give the medical profession in Scotland at least as effective a protection against such actions as the profession in England enjoyed. They pointed out the consequences of such want of reasonable protection n the certain refusal of many medical men to sign any unacy certificates at all, and of the disinclination of most others to do so in all cases in which any risk of egal action was incurred, thereby, in many patients suffering from acute or dangerous mental disease, causing delay in placing them under early and efficient curative treatment, and also causing much risk of danger o the lieges through avoidable suicide and homicide. The Lord Advocate expressed to the deputation his cordial sympathy with their object, and said he hoped hat the Secretary for Scotland would be able to bring n a short Bill on the English lines.

“MEDICAL PRACTITIONER” OR “DOCTOR”?

BYRON sang, “I want a hero—an uncommon want.” We want something much less uncommon—that is, a ingle word that shall denote a person who practises medicine, without reference to any special department r province of the art of healing. All other nations ave such a word. The Latin races have their médecin” or their “medico”; the Germans their Arzt”—a relic, we believe, of the title borne by high unctionaries of imperial Rome; the Russians their vratch”; the Swedes their “läkare”; the Danes and orwegians their “læge.” The last term reminds us f the old English word “leech,” as to which Dr. Payne, n his FitzPatrick lectures, says: “It seems a pity that we have lost this useful word ‘leech,’ which survived through the Middle Ages (and, according to Archbishop Trench, much later in Ireland). At the present day we much need a collective expression for physician, surgeon, apothecary, doctor, medical man, all of them either partial or ambiguous in meaning; and in place of the seven syllables ‘medical practitioner’ it would be a great convenience to use the one syllable ‘leech.’” It would rtainly be a convenience, but we are inclined to think at the convenience would be too dearly purchased. o modern ears the term “leech” connotes only a ood-sucking creature which has medicinal uses, and s application to medical practitioners would simply vite every witling to devise fresh matter for laughter ainst our noble profession. This would soon come to a serious addition to the dullness of a country on hich the New Humour already weighs heavily. By what me, then, are we to be called? The Americans, with eir practical sense, use “physician” as a generic rm; this, however, is open to the objection that it ust often be ambiguous. “Medical man,” or the obbish variant, “medical gentleman,” is not comprehensive enough for the present day, unless we apply the ammatical rule that the masculine embraces the male. It is probable, however, that this would be jected to by lady doctors. The same objection lies to medico,” which, besides, has a smack of vulgarity. “Surgeon” and “apothecary,” both of which were used by ople in comparatively recent years to designate the neral practitioner, are now obsolete in that sense. If a y in society were to speak of “using the potticary,” no e would understand her; yet Mr. George Russell, o is still in vigorous middle life, says he is just old ough to remember a great-grandmother who used that expression when she meant sending for the doctor. Mr. Richard Grant White, in his book *Words and their Uses*, sniffs disparagingly at “practitioner” as “an “unlovely intruder which has slipped into the English “language through the physician’s gate.” The fact appears to be that it is the lawyer’s gate through which it has gained admission. It is formed from the old French “practicien,” which is defined by Cotgrave in his *Dictionary of the French and English Tongues* (1632) as “a practiser, or practitioner in law, a pleader, etc.” Another seventeenth-century writer who says the word was originally “pragmatitioner,” applies it exclusively to lawyers. If a phrase of old Bishop Latimer in his sermon on the Lord’s Prayer, “Consider how long he [to wit, Satan] hath been a practitioner,” be quoted in disproof there are many who would not accept this as a rebuttal. A word of more correct formation would be “practiser,” and for this we might quote the authority of Chaucer, who says of his “doctour of physik” that he was “a verray parfit practisour.” But why should we not gracefully bow to the force of usage, and adopt the designation already given us by the voice of the people, which has been called the voice of God? We venture to think it is mere pedantry that finds fault with “doctor” as the English equivalent of “médecin.” There is the highest authority for this use of the word. Falstaff asks his page, “What said the doctor to my water?” In the *Merry Wives of Windsor*, mine host of the Garter Inn says: “Shall I lose my doctor? No; he gives me the potions and the motions.” Dryden—whom we quote with regret on account of the rudeness of his speech—says, “So liv’d our sires ere doctors learned to kill.” Defoe, in his *Voyage Round the World*, says, “Our doctors themselves (so we call the surgeons at sea).” A word which was good enough for Shakespeare and Dryden is surely good enough for us, more particularly as it conveys an implied compliment that we are, *par excellence*, the depositaries of learning and the distributors of its fruits.

THE HISTOLOGY OF CONGENITAL SYPHILIS.

DR. C. LEVADITI has published[1] an important histological study of the lesions found in congenital syphilis and their relation to the distribution of Schaudinn’s *Spirochaeta pallida*. His observations are based on material obtained from the bodies of 6 syphilitic offspring. One of these survived birth for a period of about three months; the remaining 5 were either stillborn or died very shortly after birth. The author finds that the tissues which contain Schaudinn’s parasites in greatest numbers are, in descending order, the liver, the lungs, the suprarenal capsules, and the skin. These situations correspond precisely to the regions for which, as shown by histological examinations and naked-eye appearances, the syphilitic process has an especial predilection. These observations—which are supported by the fact that in regions which have preserved their normal aspect and are less frequently attacked by the syphilitic process, such as the brain and the kidneys, the spirilla are either absent or rare—are sufficient definitely to exclude the hypothesis that the *Spirochaeta pallida* may be no more than a secondary infection. Moreover, the demonstration of large numbers of spirilla in stillborn fetuses, and in infants which died after the first few inspirations and had received nothing within their digestive tracts, renders the secondary-infection theory completely out of the question. There also appears to be a direct relationship between the type of the infection and the distribution of the spirochaetes. In the acute forms, which terminate rapidly in the death of the infant, the parasites are more widely distributed, whilst in a case of more tardy development the organisms were found to be mainly located in the liver, the organ which is the seat of election for the syphilitic process. There can be no doubt that the blood stream is the channel by which the organisms are transmitted, and this fact is attested by the perivascular disposition of the spirilla in organs such as the spleen and the lung; but the blood is not the medium which they choose as favourable for their development. Their intravascular occurrence is relatively rare, a feature which is in marked contrast with the septicaemic character of other forms of spirillosis met with in animals and man. The *Spirochaeta pallida* escapes from the blood vessels as soon as possible, and then begins to multiply in the cellular tissues. According to Dr. Levaditi, it has a special affinity for glandular epithelium, and has the power of penetrating the relatively intact protoplasm of epithelial cells, such as those of the liver, kidney, suprarenal, and, probably, the sudoriparous glands. He therefore considers it an error to suppose that the syphilitic virus attacks exclusively the vascular system and the connective tissues. Dealing with the typical changes which characterize the syphilitic process, namely, endarteritis and periarteritis, infiltration of the connective tissue with mononuclear cells followed by sclerosis, and degeneration of parenchymatous cells, Dr. Levaditi raises the question whether these changes are due to the direct action of the spirochaetes or whether they are partly attributable to the intervention of certain soluble products elaborated by these parasites. He is inclined to accept the former alternative, since he finds that the spirochaetes are found in active multiplication in exactly those places where the morbid histological processes are at work. In speaking of the efforts of the body to resist the invasion of the parasites, the author asserts that, even in the fetus, there is clear evidence of a phagocytic action.

---

[1] *Ann. de l’Inst. Pasteur*, January, 1906.

ELECTRICAL QUACKERY.

We have received from a medical practitioner the letters sent from the London office of an enterprise trading under the title of the British Electric Institute to a patient of his who was suffering from peripheral neuritis and was persuaded by a friend to make inquiries as to its terms. In the first instance the applicant received a copy of a book and a blank form to fill up giving some account of his case; these have not reached us, but we have the "Diagnosis of Case No. 3,895," which covers eleven pages of type-written matter. The length of this document suggests that the flies who wander into the web of these spiders cannot be numerous, since it has the appearance of having been written *ad hoc* and must have taken some time to prepare. It is an amazing and amusing piece of ignorant verbosity, in which the patient is informed that "The cure of rheu-" matism is one that we have made a speciality of for " years," and that "There are many forms of rheu-" matism, but whatever they may be and wherever they " may settle, 'Ajax' Dry-Cell, if used according to direc-" tions will drive the disease from the system, and " cause a complete cure." His "complaint is caused by " an accumulation of uric acid, and other poisonous " substances in your blood," but this condition is due to his liver, which "if healthy and strong could filter from " the impurities from the blood." Having served its purpose for this "diagnosis," the liver is dropped and in the remainder of the letter the kidneys are specially referred to as the organs affected, possibly because the apparatus is worn round the waist and, therefore, its action is more conveniently explained as a kidney stimulator. The "nervous system," stomach, and bladder are all, however, said to be in need of the health-giving action of electricity. The writer says: " We do not hesitate to assure you, Mr. ——, that we " have a certain remedy for the complaint, one which " will cause a complete restoration of your health and " strength," and so he runs on for eleven pages of ungrammatical and ignorant stuff, of which the following may be taken as a sample: "Now with reference to " your piles. The origin of this trouble is congestion of " the abdominal venous circulation, together with a " relaxation and distension of the muscles leading from " the small of the back to the bowels." Varicocele is said to be a "congestion of the blood upon the inner walls of " the veins," while the peculiar effect of electricity when properly applied, of "dissolving and scattering conges-" tion, is the secret of its success." The writer seems to have some doubt of his ability to carry conviction to his reader, for he adds this appeal: "You may not have " full confidence in the treatment we are offering you, " but it is worthy of your most serious consideration." The patient is recommended to purchase an appliance with special attachments, prices 7 guineas, 10 guineas, and 15 guineas, the differences being in their strength, the patient being naturally advised to buy the strongest, which is also the most costly, if he desires to get well quickly. The next letter indicates that the patient demurred to pay such a large sum of money; he is therefore told that a substantial deposit will be accepted, the balance to be paid in convenient instalments; but even this generous offer was not accepted, and the patient, who was evidently a mistrustful person, asked to have the apparatus sent "on trial." This proposal was met with a fine show of indignation as being "against all rules of professional etiquette." It would jeopardize their reputation "by prejudicing our posi-" tion with the medical profession"; rather than run this risk they would even lose the sale of the appliance, their desire above all things being to obtain "the sup-" port of the medical profession." The writer adds that " we stand very high with all physicians who have taken " the trouble to investigate our claims, and inspect our " Appliances." His business principle evidently is cash in advance, and he considers that it is only "firms and " individuals of a questionable character" who are willing to part with their appliances on trial. Although calling itself the British Electric Institute, the literary style and the spelling are American. It is scarcely doubtful, therefore, that our fellow-countrymen are indebted to their Transatlantic cousins for the questionable advantages of the Ajax Dry-Cell, as they are also for nine-tenths of the quackery which supports, and is supported by, the cheap newspapers and magazines.

THE CANCER CURE IN SOUTH AFRICA.

From an article by Dr. John Muir, District Surgeon, Sterkstroom, which appears in the *South African Medical Review* of January 25th, it may be gathered that South Africa is a happy hunting ground for the cancer-curer. His methods are, perhaps, a trifle antiquated. One dainty application of frogs Dr. Muir traces back to Theophilus Bonet, and he makes the interesting suggestion that the prescription of the seventeenth century Geneva physician may have been taken to Africa by some of the Huguenots, who sought a refuge there after the revocation of the Edict of Nantes. As an illustration of the use of frogs for the cure of cancer, Dr. Muir cites a case from a Dutch book of recipes, an eighth edition of which was published in 1905. It is there gravely recorded that a woman suffering from a cancer of the breast, "which was already so severe that eight holes " had been eaten into it," applied to it eight frogs in a muslin bag. The frogs at once fastened on the diseased part as firmly as leeches. "When they had sucked to repletion they dropped " off in violent convulsions without the sucking causing " pain." This process was repeated until 120 frogs had been applied. The breast was cured, but the frogs died. When Mr. Coleridge has stopped the "torture" of frogs by physiologists in this country and sighs, like another

Alexander, for other worlds to conquer, he may perhaps be induced to turn his attention to the protection of batrachians from the cancer-curers in South Africa. Another Dutch domestic remedy for cancer is the application of the liver of a tortoise. Of indigenous herbal remedies the most popular seems to be the "cancer bush," or "kanker boschje," the *Sutherlandia frutescens* R. Br., order Leguminosae. An infusion is made of the bark and leaves, and a cupful taken internally thrice a day. On the veld the external application of the oil which accumulates in the pipe of a dagga (*Cannabis sativa*) is considered the sovran'st thing for cancer. "If the roots 'die and become elevated, pull them out with pincers." This remedy is said to have cured cancer in certain cases in three days. Dr. Muir quotes a letter from Dr. Bashford, the Director of the Cancer Research Fund, stating that a considerable number of the remedies used by cancer-curers in South Africa have been forwarded to him by the proprietors. Although put orward as herbal remedies, they have on analysis been ound for the most part to contain as their active ingredients antimony, arsenic, lead, and zinc chloride. As nstances of cases treated by quacks, Dr. Muir cites one of fatty tumour in which a large hole was eaten by austics; one of neuralgia of the breast in a nervous, ll-nourished woman, where the "cure" had only gone o the extent of excoriation; one of dental fistula caused y a bad tooth in a young lady in which the quack had estroyed much of the cheek; and one of a small ngioma on the tip of the nose in a young lady. The ose was much disfigured after the "cure." But the ancer-curer would soon lose the confidence even of the redulous if he did not succeed now and then. The ases in which he succeeds are for the most part rodent lcers and small localized epitheliomas in the early age. Dr. Muir says that many cases of rodent ulcer ave been cured by South African quacks by the use of austics and escharotics, such as arsenic and zinc loride.

POISONING BY SODIUM ARSENITE.

HE recent case in which, over a period of four weeks, a rvant administered sodium arsenite in the form of weed killer" to the family with whom she was living, ises in a definite form several points of interest. It as pretty conclusively proved at the trial that there as no desire on the part of the girl to kill any one or en to cause serious injury, the striking feature of the se from the mental side being the inadequacy of the otive and the absence of strong feeling of any sort on r part. Dr. Hoar, who had the girl under observation hilst she was in Maidstone Gaol, found her to be orose and sullen, but, with regard to her crime, only terested in it as an experiment; he discovered no lusions, and gave it as his opinion that it was a case moral, but not of legal, insanity. Dr. Griffiths of olloway Gaol, on the other hand, considered her to be sane. Mr. Justice Grantham, before whom the case s tried, decided that she was quite sane, and, of urse, the legal and not the medical opinion deter- ned the nature of the sentence. In the interests the general public, however, there is no doubt at there is distinct danger in leaving a person large who is so incapable of understanding the ure of a crime that she administers, not once, repeatedly, a strong poison, and afterwards can give better excuse for having done so than that her stress wanted her to go to church, or that she had spoken to her for three days, and further, who, en the results of her action are pointed out to her, nces only a mild curiosity in them, professing to look on the whole affair as a somewhat interesting experi- nt. Such a mental state surely demands, on the one nd, treatment in an asylum rather than in a prison; ilst, on the other, the determination of when such a person should be again allowed her liberty, should depend upon the condition of her mind at the time, and not upon the arbitrary termination of a three years' sentence. The judicial point of view in this case apparently was that there was a lack of self-control on the part of the prisoner, and that therefore punishment was indicated as a deterrent to further wrong-doing when she came out of prison. The inevitable medical conclusion from the evidence, however, appears to be that the girl was mentally incapable of appreciating the seriousness of the results likely to accrue from her actions either to her victims or to herself, that she was incapable of understanding the nature of her crime, and was in fact insane. The chief point of interest from the clinical side was that owing to the greater solubility of sodium arsenite than of the ordinary white arsenic the amount of arsenic dissolved in the milk, tea, or soup in which it was given was probably considerable, and its solution complete, with the result that almost immediate and effective emesis occurred on each occasion on which the poison was taken. Consequently there was not as much purging as would have occurred had the arsenic been in the common form. For the same reason recovery was rapid in the intervals during which no poison was being taken, and the depressing effects were not very marked. At the same time the quantity of arsenic absorbed must have been relatively small, as it was only towards the end of the fourth week that the classical symptoms of chronic arsenical poisoning developed.

BREAD AND MILK.

DURING the recent discussions on the causes of physical degeneration one factor has emerged with great prominence, namely, the almost universal tendency in children to early decay of the teeth, with all its disastrous consequences to nutrition and development. It is now practically demonstrated that one of the causes of this decay of the teeth is the general use of bread made from flour which has been prepared by the modern steel roller process instead of ground as of old between an upper and a nether millstone. It is to be feared, however, that comparatively few of the profession at large, and still fewer of the public, understand what is really the difference between the two processes. This difference is clearly explained, and its importance emphasized, in an article entitled Bread, by Mr. Francis Fox, which appeared in *Macmillan's Magazine* a short time ago. The writer points out that a grain of wheat consists of the germ, which, of course, is rich in proteids and fats, surrounded by an envelope of starch provided for its nutrition, and enclosed in a cuticle. In the old process of milling the grain was ground in its entirety, only the cuticle being removed in the form of bran. In this way flour was prepared which contained all the three elements of food—proteids, fats, and carbohydrates—in their proper proportions, and bread baked from such flour was truly called the "staff of life." When, however, the modern craze for perfectly white flour and bread came in, millers at once set to work to eliminate the germ, which, while it contained two out of the three necessary elements of food, was guilty of colouring the flour yellowish or brown. To this end the steel-roller process was introduced, by which the germ is not crushed but flattened out into a little disc, which is removed from the flour by a process of sieving. The situation may perhaps be appreciated if we say that the modern process of milling would be exactly paralleled if we were to prepare eggs for the table by first removing their yolks. On these grounds the writer of the article makes a strong appeal to the public to assist in creating a demand for the old-fashioned flour known as "households" or "seconds," and he gives some information as to where this can be obtained. At present it is almost unattainable in the provinces, although there are certain proprietary articles which are practically the same thing. For these, however, a higher price is actually charged to the consumer, although ordinary "seconds" are regarded as an inferior article, and are therefore cheaper than the ordinary "best quality" of flour. In spite of the slip which describes the wheat germ as "rich in proteid *or* fat," the article is a most valuable one, and contains information which should be as widely disseminated as possible. A more recent number of the same magazine contains an article on similar lines concerning milk, and the policy of providing the public with simple and accurate instruction on these important topics is one which certainly merits, and is sure to obtain, the hearty co-operation of the profession.

A COUNTERBLAST TO EUTHANASIA.

THE proposals to legalize the killing of sufferers from hopeless disease seems to be taken more seriously in America than might have been expected. We learn from *American Medicine* that a Bill has been introduced into the New York Assembly providing that any person "who by word of mouth, or by written or printed circulars, message, letters, documents, pamphlets, newspaper or magazine articles or publications of any kind, made, issued or circulated by him or his authority, advocates or teaches the duty, necessity or propriety of putting to death by legal sanction or otherwise, persons afflicted with an incurable mental or physical disease, because of their said condition, is guilty of a felony." Legislation of this kind is as hysterical as that against which it is directed. Moreover, it must tend to defeat its own purpose. Besides declared cranks, there are always a number of people in any community who are by the temper of their minds "agin the Government"; and, if such a measure as that referred to ever chanced to become law, they would, simply in a spirit of opposition, advocate the thing which it is meant to proscribe.

THE REFORM OF THE CORONER.

THERE is an old proverb to the effect that "Too far east is west," and that notable person, Mr. Troutbeck, is engaged in exemplifying it. His divagations against medical men have led him so far round the circle that he is now, though unconsciously, treading in the steps of the medical profession itself. Mr. Troutbeck, in short, wishes to reform the coroner's court and all its connected procedure; so do most of us. He also wishes to see the regulations with regard to death certification amended; so do we all. Mr. Troutbeck, however, combines his two reforms in one. He would make it illegal for anybody to be buried except on a medical certificate or a coroner's order, given under medical advice, and apparently he would take steps to ensure that medical certificates were given only by medical men who have real and personal knowledge of the death. All such certificates he would have sent, not to the registrar of births and deaths, but to a new official, whom he would name "Medical Investigator." It would be the duty of this official to inspect the bodies of all persons in respect of whom he received certificates. If satisfied of the accuracy of the certificates and of the absence of any need for further inquiry, he would initial it and forward to the registrar of births and deaths. In the contrary case, he would order the removal of the body to the public mortuary and inform another new official called the Coroner's Pathologist. This officer would take such steps as he thought necessary to ascertain the cause of death and then advise the coroner as to whether any inquest was necessary. Under this system it is obvious that the position of a coroner would be materially altered; his functions would no longer be hybrid but purely executive and legal. His power for good and evil would, indeed, be so severely clipped that it is conceivable that the suggestions come, not from Mr. Troutbeck in the flesh, but from a self-accusing astral body. Far be it from us to do anything to dissuade Mr. Troutbeck from reforming himself out of existence, but really so drastic a step is not essential to the establishment of adequate protection for the public. This Mr. Troutbeck will learn for himself if, before he talks further on the subject, he will take the trouble to read the Report of the Select Committee of the House of Commons in 1893, and will supplement this by studying the exhaustive review of the whole matter published in the BRITISH MEDICAL JOURNAL in 1900 (vol. ii, pages 1509, 1579, 1647, 1736, and 1797). He will find that in all his points he has been anticipated in a practical manner by persons who really understand the subject, and may perhaps be led to refrain from endeavouring to foist into the conditions of life in England what appears to be merely a crude hotch-potch between the French system, which is responsible for the expression "The doctor of the dead," and the leading features of a Bill introduced last year in the Legislative Assembly of New York State.

WAR OFFICE SCHEME FOR A MEDICAL RESERVE.

THE following statement has been issued by the War Office: It is impossible to maintain in times of peace the whole of the medical *personnel* necessary for an army in the field, and it has therefore been determined to deal with the deficiency in the medical officers required by the formation of an Army Medical Reserve, subject to the rules that govern the employment of Reserve officers generally. It is proposed to commission young medical men in the Army Medical Reserve, the rank on joining to be that of Lieutenant, with promotion to Captain after three and a half years' satisfactory service. A practitioner joining the Reserve would have to undergo a course of training and instruction at the Dépôt of the Royal Army Medical Corps at Aldershot, during which time he would receive the pay and allowances of an officer of his rank in the R.A.M.C. If this probationary period of service were satisfactory he would be confirmed in his rank and receive in his second and third years a retaining fee of £20 per annum. He would then be called upon to undergo another course of instruction preparatory to passing the examination necessary for promotion to the rank of Captain, and during this course, the duration of which would be one month, he would be paid as before. After promotion the retaining fee would be increased to £25 per annum. It is intended to limit the period of service in the Reserve to seven years, as it is thought that after that time practitioners would not care to incur the general liability of Reserve Officers to serve at home or abroad in time of emergency. Reserve Officers would be able to resign their commissions under the usual conditions.

HOME HOSPITALS.

SPEAKING at the annual meeting of the Home Hospitals Association for Paying Patients on March 23rd, Sir Henry Burdett stated that it had been found impossible in this country to receive patients in pay hospitals, and give them the accommodation, care, and skill demanded by modern conditions, for two or three guineas a week. He suggested, however, that the needs of persons above the class of ordinary hospital patients would be met in a satisfactory way by an extension of the system of attaching pay wards to ordinary hospitals. He added that if £250,000 were advanced for such a purpose, and a minimum weekly charge of £3 3s. made in each instiition to each paying patient, the result ought to yield per cent. on the capital outlay. It is futile, however, e may suggest, to instance in this connexion the xample of foreign countries, where all hospitals are ipported either by the State or by municipalities, and which nearly every patient pays something for his aintenance, or has it paid for him by the district to hich he belongs. The system, moreover, which Sir enry now advocates is one to which the voluntary pporters of British hospitals might well object, for it fairly certain that paying wards, whomever else they y, do not pay the charities which keep them open; deed, we are under the impression that Sir Henry irdett was himself some time ago at much pains to ake this fact clear. It is likewise more than doubtful hether consulting surgeons attached to public hos- als would be ready to fall in with any such plan. ey may find it convenient to have a certain number beds at their disposal into which they can admit tients who, though not of the ordinary hospital class, y know to be unable to pay operation fees, but to ce their services at the disposal of all comers is quite different matter. If there be any solution of the estion at all, it undoubtedly lies not in multiplying number of pay wards attached to ordinary hos- als, or in the foundation of new general hospitals ere treatment would be bestowed against payment, in the establishment of a sufficient number of con- iently placed public nursing homes. Even these too ald fail to be successful unless it were open to every istered medical man to treat in them his own ients if they so desired, and unless safeguards were ablished against reduction of the ordinary charges attendance and operation on the inmates except on cause shown to the approval of a managing mittee.

THE PREVENTION OF PUERPERAL FEVER.

his report for 1905, Dr. Bushell Anningson (M.O.H., nbridge), expresses the following opinion: “Many s might be saved if, in addition to the provisions ting the midwife, there were additional provision le for the disinfecting and cleansing of the lying-in n *before and after* use, and if needful the free pro- on of clean bedding and appliances wherever the wife considers it necessary.” Of course, anything makes for cleanliness is a good thing. The free ision of “clean bedding and appliances” for every woman who is about to have a baby, for that is t it would come to, as no midwife could refuse to k it necessary, would no doubt be popular among oor. But the disinfection and the provision of free ling would be a burden on the rates; and therefore ust be considered whether it is necessary, whether ould really save many lives. The question of influence of insanitary conditions in produc- puerperal fever is no new question. It was thoroughly discussed in the correspondence nns of the British Medical Journal in the latter of 1893; and that correspondence will show that ll obstetricians accept the doctrine that puerperal is transmitted otherwise than by direct contact. may mention one historical piece of evidence ng on the question. Before the introduction of eptics there used to be frequent outbreaks of eral fever in the General Lying-in Hospital. These much anxiety to the committee and staff. Then, w, there were people who thought that puerperal came from bad drains, smells, etc. Therefore the nittee asked the late Professor de Chaumont to t upon the sanitary condition of the hospital. eport was to the effect that the plan and construc- f the hospital were so faulty that it never could ade a place in which women could safely be delivered. Yet within a few years the introduction of rigid antisepsis banished puerperal fever from this very defective building. And although disinfection and clean bedding are in themselves good things, over-insistence upon them, beside the expense, has the possible disadvantage of diverting the attention of midwife, patient, and friends from the thing that is really important, that is, the making aseptic by antiseptics of the midwife's hands and instruments. To prevent puerperal fever we want not only midwives trained to use antiseptics, but patients and patients' friends trained to expect them to do so, and to notice and resent omission of such precautions. There is no evidence that puerperal fever infection clings about buildings. An epidemic has been reported as due to imperfectly-washed napkins, but in that case the antiseptic knowledge and habits of the medical staff were not above suspicion.

THE ANNUAL MEETING AT LEICESTER.

The President of the British Medical Association, Mr. Geo. C. Franklin, recently entertained the members of the Executive Committee of the Leicester meeting at a soirée at his residence to mark the completion of the business in connexion with the annual meeting of the Association of 1905. The opportunity was taken by the Committee to present the President with an illuminated vellum on which was inscribed their appreciation of his services for the welfare of the Association as well as for the meeting in July last. Dr. Pope, President of the Midland Branch, made the presentation in a felicitous speech. After a suitable reply, in which the work of the Association for the benefit of the profession was referred to, the President presented to Dr. Bennett, Treasurer of the meeting, an illuminated vellum commemorating his valuable services towards the success of the meeting. Dr. Astley Clarke was the recipient of a similar vellum together with a gold non-magnetic watch, presented to him by the Executive Committee for his work in the arrangements for the meeting, and in recognition of the able manner in which he performed the arduous duties of honorary local secretary.

The warning notice with regard to vacant medical appointments will be found at p. 59 of the advertisement columns. In nearly all instances the nature of the difficulty has been fully explained in this column within the last few weeks. The advertisement contains the name of the Honorary Secretary of the Division or Branch of the British Medical Association, who is ready to give full explanations to any medical practitioner who may be approached with regard to accepting an appointment in any of the localities mentioned.

Medical Notes in Parliament.

[From our Lobby Correspondent.]

The Workmen's Compensation Bill was introduced by the Home Secretary on Monday, and was very favourably received. The Bill is framed to include all workers except police constables, clerks, domestic servants, or outworkers, and also brings in injury arising from disease. Mr. Gladstone said that of all the casualties to which the industrial army was liable, those arising from disease were the most pitiable and disastrous. The Government proposed to include in the Bill, anthrax, lead poisoning, phosphorus poisoning, arsenic poisoning, and ankylostomiasis. The Secretary of State would have powers by Provisional Order to extend this provision to other diseases. Another important point dealt with referred to medical referees. As the law now stood, when there was an accident the injured workman had to submit himself to the employer's doctor, who reported to the employer. If there was disagreement then there was no remedy but proceedings in court. The Bill provided that if there was no agreement, after injury, between the employer and the workman on the report of the employer's doctor, the employer or the workman on payment of a fee could apply to a Court and the Registrar might appoint a medical referee, whose judgement would be final. In the course of the debate satisfaction was generally expressed at the inclusion of industrial diseases, but some difficulties were pointed out as regards the origin of disease and the apportionment of compensation between successive employers. The plan in work in the Potteries was recommended by one speaker. Here a trade fund had been created, and no matter in whose employ the person was injured by lead poisoning the compensation was taken from the common fund of the whole industry. The opinion was also expressed that the Bill might be extended so as to include clerks and domestic servants, and persons engaged in any small workshops. The discussion lasted most of the afternoon, and the Bill was then brought in and read a first time.

Vaccination still produces many questions. Last week the President of the Local Government Board told Mr. J. W. Benn that the usual method of obtaining lymph at the National Vaccine Establishment was by vaccinating calves with vaccine lymph obtained from children. On Tuesday last Mr. Ramsay Macdonald (Leicester) asked the President of the Board of Education whether he had received an application from the Education Committee of Leicester asking that the teachers might be excused from being vaccinated against their will; and whether, in view of the fact that vaccination was no longer compulsory by law, he will allow persons with a conscientious objection to vaccination to be accepted as teachers. Mr. Birrell, in reply, said that he had received the application mentioned in the question. It had always been the practice of the Board to require that all persons proposing to be engaged as teachers should be vaccinated. He understood that in certain districts local authorities found it difficult to obtain teachers owing to the fact that a considerable part of the population had not been vaccinated. As it was the local authority and not the Board which engaged the teacher, it was a matter for consideration whether it might not be possible to throw upon local authorities the onus of consenting or refusing to employ unvaccinated teachers. But the question was one of so much importance that he was not yet prepared to make any definite statement. Mr. Arnold Lupton has given notice for next week to call attention to the whole subject of vaccination at the evening sitting of Wednesday, but as he is second on the list his motion will most probably not come on.

The Merchant Shipping Acts.—The Bill to amend these Acts, which is the first large Bill introduced by the Government this session, was explained to the House by the President of the Board of Trade on its first reading last week. One part of the measure relates to the scale of provisions for sailors. Mr. Lloyd-George said that at the present time there was no statutory scale enforced upon British shipowners. The so-called Board of Trade scale was merely a skeleton, and contained little beyond salt meat, biscuits, tea, and sugar. In the great majority of cases that scale was improved upon considerably. The owners of the great liners and the great tramps had provided a diet scale much more generous than any that could be put in an Act, but there was a minority of owners of smaller vessels who provided a dietary which was unsatisfactory. This ought not to be allowed. The Government proposed to make the minority act up to the standard of the majority. The first condition necessary to make the mercantile marine attractive as a calling was to provide fairly good food. The Government proposed to set up a minimum scale, printed in the First Schedule of the Bill, and ask the shipowners to conform to it. They must also have a provision as regards cooking, and they proposed to require cooks to be certificated or to have had two years' service at cooking. The Bill also enforced the inspection of provisions for all voyages, as well as for the few long ones now inspected. The inspection would not be obligatory, but the Inspector of the Board of Trade could inspect whenever he chose. To see that the provisions were good was a duty which, when performed, would be useful to the owners as well as to the men. An Advisory Board would be constituted to assist the Board of Trade in respect to diet and other matters. In the debate which followed, Mr. Havelock Wilson, speaking for the sailors, said he was glad a food scale had come at last so far as he could judge, it was not liberal enough. He agreed that the majority of shipowners fed their men well, but there was a minority to whom a scale of 8d. a day would seem an extravagance. Sir E. Ropner said shipowners would be ready to acquiesce in any fair proposal as regards food. The suggested scale might possibly add 3d. a day to the cost per man, the present cost in steamships being 13d. to 15d. There could be no objection to the inspection of food. Several other members spoke, and the Bill was read a first time without a division. The second reading was taken on Tuesday last, and the discussion lasted most of the afternoon. There was a general approval of the Bill, and especially of the dietary and the cooking provisions. Mr. Havelock Wilson complained that a sick sailor when sent home from a foreign port had all the expenses of his return deducted from his wages, and so was often landed penniless or in debt. Mr. Lloyd-George said the food scale had been considered very carefully, and on the whole it was a better scale than that introduced into the navy. He contended that the Bill was a sailors' Bill The second reading was agreed to, and the measure referred to the Standing Committee on Trade.

The Public Health Acts Amendment Bill was read a second time in the Lords on Thursday in last week This is the measure which Lord Hylton passed through the House of Lords last year, but it made no progress in the Commons. The object of the Bill is to encourage the building of cottages in rural districts by relieving builders of the severe conditions now imposed by by-laws. It also provides an easy method of settling difficulties as to the construction of the by-laws. Lord Zouche supported the second reading, and said that all the witnesses before the Select Committee to which the Bill was referred last year urged some amendment of the present by-laws. Lord Carrington said the Government were in entire sympathy with the principle of the Bill, believing that the building by-laws now in force required revision and amendment Several clauses would have to be recast, and among other objections he pointed out that the Bill gave fresh power to the Local Government Board, and most people though that would be resented by local authorities. It must in any case be an experimental Bill, of which the operation would have to be carefully watched. Lord Burghclere supported the second reading, as the measure might help to check rural depopulation.

The Physique of Recruits for Yeomanry and Volunteer was the subject of a question by Mr. Vivian last week, wh sought to relax the regulations as to the physical develop ment and the teeth of recruits. The Secretary of State fo War said he was not aware of any reasons for considerin that the standard laid down was too high, and none wer suggested by the questioner. As regards teeth, there wa no fixed standard, and the matter was left to the judgemen and discretion of the examining officer.

The Notification of Births.—The Police and Sanitar Committee, when the Huddersfield Corporation Bill wa before them last week, had to consider a clause providin for the notification of all births to the Local Authorit within forty-eight hours of the event in addition to th ordinary registration. The object of the proposal is t enable advice and assistance to be given to poor mother for the rearing of their infants, and by this means to reduc the infantile mortality. Sir William Broadbent gav evidence in favour of the proposal, and argued that generally accepted it would prevent the sacrifice of infan life from ignorance and poverty. The Committee approve of the clause being in operation for five years, with penalty of 20s. for neglect of notification.

Leeds.

THE GENERAL INFIRMARY.

E 138th report of the General Infirmary at Leeds was sented at the annual meeting held under the chairman- p of Mr. Charles Lupton, the Treasurer, on March 22nd. number of patients treated in the various departments already been commented on in this column, as the istics for 1905 were available some weeks ago. It may emembered that last year Mr. Lupton made some very resting remarks on the comparisons which were often wn between different hospitals as to expense of intenance, such comparisons being based on the figures en in annual reports under the heading of "cost per ." He showed that, unless the cost per bed was worked in precisely the same way in different hospitals, oneous and misleading impressions were apt to be duced. The average cost of each in-patient for treat- it, nursing, and maintenance was £3 9s. 2¼d., or, uding every item of ordinary expenditure, £3 19s. 1¼d., former sum being at the rate of £1 4s. 9½d. per k and the latter at that of £1 8s. 5¼d. The average of each occupied bed, based on the total ordinary enditure, was £73 8s. 8¼d., or, exclusive of fittings, irs to the buildings, etc., £64 2s. 7¼d. Including, how- , the whole of the expenditure, except the cost of ntaining the Ida and Robert Arthington Hospitals, deducting the estimated cost of the out-patients, the per bed worked out at £78 2s. 1d. as against 12s. 3¾d. for the previous year. This increased cost cupied beds was due to large repairs and renewals, additional machinery in the laundry (£606), new hinery for ventilating the operating rooms (£230), ing the Nurses' Old Home (£326), certain extensions he terrace and the building of a verandah (£512), unting in all to £1,686, being equal to £4 13s. 4¾d. occupied bed. It has been pointed out in this mn how the consumption of stimulants has de- sed in the Infirmary since the plan was adopted of iding each member of the honorary staff with a ly return showing the patients who were under are having stimulants, and when they were ordered. This n is welcomed by the honorary staff, as are also more it returns showing the cost of massage for patients who under the care of each of them, the number of extra es employed in respect of these patients, the number escriptions the dispensing of which is above a certain and the cost of any dressings used. The cost of the ings used in each of the wards is also circulated, and is way it is hoped that extravagance may be guarded st.

e method which has been adopted for some years to nt the abuse of the charity by exercising supervision the applicants for treatment was explained in this an last year (vol. i, page 743). It is felt that the work e inspector is productive of good, not only by sifting hose who should not have applied for gratuitous nent at a public institution, but probably also by ring others who are aware of his existence from try- impose on the charity. In the waiting hall 14,482 ries were made. In 117 cases the applicants ssed their ability to pay for advice, and were sent Further inquiries were made at the homes of a ed number of those who had replied to the ques- put to them in the waiting hall; of 991 applicants re ascertained in this way to be unsuitable in respect ir ability to pay for such treatment as they seemed uire.

vas pointed out that, including the patients sent the infirmary to the two semi-convalescent hospitals are under the direction of the Board, and are ed exclusively for patients who have been in the , 17 per cent. of the in-patients were sent to con- ent homes during the year. In some of the lescent homes the infirmary has the right e use of a certain number of beds, while to patients may be sent at the expense of the ary. The institution is, however, fortunate w having under its own management two semi- escent hospitals some four miles from the centre of ty—the Ida and the Robert Arthington Hospitals. rmer has 40 beds for men and the latter 48 beds, of which 33 are for women and 15 for children. To these two institutions patients are in many cases drafted from the infirmary as soon after operation as is deemed advisable, and medical cases, which may not be so far recovered as to be suitable for admission to ordinary convalescent homes, may here have the benefit of skilled nursing and medical supervision. The two hospitals in this way really form an extension of the accommodation at the main institution; and as the cost of each patient based on the ordinary expenditure was £2 7s. 8¼d. as against £3 19s. 1¼d. quoted above as the cost of each patient at the parent institution, this extension is an economy. There are thus at the infirmary and its two semi-convalescent hospitals 485 beds ready for occupation.

Liverpool.

LIVERPOOL AND BIRKENHEAD DIVISIONS.

ON March 22nd the Divisions of the British Medical Association in Liverpool and Birkenhead held a dinner at the Adelphi Hotel, the guest of the evening being Dr. Smith Whitaker, the Medical Secretary of the Association. Sir James Barr, President of the Lancashire and Cheshire Branch, was in the chair, and covers were laid for about sixty. Dr. Smith Whitaker delivered a most interesting address, describing the work which the Association had lately accomplished for the benefit of the medical profession, especially in putting a stop to the unfair exploiting of medical men by public bodies and societies.

PRESERVATIVES IN JAM.

A shopkeeper in Warrington was recently summoned before the bench of magistrates at the instance of the health authorities of the town, for selling jam containing salicylic acid in the proportion of 2.1 gr. per lb. The witnesses for the prosecution pointed out that the quantity was in excess of that recommended by the Departmental Committee on Preservatives, and maintained that it might be injurious to persons with heart or kidney disease. For the defence it was maintained that salicylic acid in such quantities could not have any appreciable effect whatever on the economy, that the possibility of its doing harm in heart and kidney disease, if it existed at all, had been grossly over-rated, and that jam itself was not a desirable article of diet for people who were seriously ill. Mr. Herbert Davies, analytical chemist, maintained that a smaller quantity than that found was not merely useless as a preservative, but was harmful and likely to promote fermentation. The magistrates dismissed the case.

AMBULANCE COMPETITION.

At the annual ambulance competition for the Liverpool district of the London and North-Western Railway Company eleven teams took part. The men were carefully tested in stretcher work, and in artificial respiration after suffocation, choking, and drowning by Dr. J. A. Cornett and Dr. W. T. D. Allen, and there was also a brief viva-voce examination.

CHICKEN-POX.

In consequence of the cessation of small-pox in Liverpool the health authorities have issued a notice to the effect that chicken-pox has been removed from the schedule of notifiable diseases.

Sheffield.

THE SHEFFIELD EDINBURGH UNIVERSITY CLUB.

THE first annual dinner of this club was held on March 24th. Dr. J. H. Keeling, the senior member of the medical profession in Sheffield, occupied the chair, and the company comprised ninety members and guests. Mr. Annandale, Professor of Clinical Surgery at Edinburgh University, was the guest of the evening. The toast of the evening, "Alma Mater," was given from the chair by Dr. Keeling. In the course of an interesting speech he briefly alluded to the history of the Edinburgh University, and gave reminiscences of his student days in the Fifties, when Edinburgh claimed among its teachers a remarkable number of distinguished men. Among these he mentioned the names of Simpson, Syme, Hughes Bennett, Christison, and Goodsir, and referred to the work and characteristics of these leaders at that time in the Scotch capital. He coupled with the toast the name of the guest of the evening, Professor Annandale, the distinguished successor in the Chair of Clinical Surgery of Syme and Lister. The toast was received with enthusiasm, and Professor Annandale, on rising to reply, had a most hearty reception. He mentioned the pleasure it gave him to be present at the inaugural meeting of the club, and warmly congratulated its members on its making such an excellent start. He referred to Dr. Keeling's observations of his great predecessors in the Chair of Clinical Surgery, and made some interesting anecdotal remarks, especially concerning Syme and Lister, with both of whom he had been closely associated. A speech, however, from the professor would hardly have been complete without humorous anecdotes, and these were given in characteristic style, and reminded many of those present of their student days. Dr. Gordon proposed the toast of "The University of Sheffield," which was replied to by Professor Hicks, F.R.S. Other toasts were "The Guests" and "The Chairman."

DIACHYLON AS AN ABORTIFACIENT.

At an inquest in Sheffield last week on the body of a woman, one month pregnant, who died from convulsions brought about by lead poisoning, the jury attached to its verdict the following rider, and requested the coroner to forward it to the Home Office:

> That the indiscriminate use of diachylon is dangerous and leads to most serious injury to life and health, and strongly suggests that it should be placed in the schedule of poisons and subjected to the restrictions thereof.

Birmingham.

LADY HEALTH VISITORS.

So successful have been the results from the appointment of lady visitors that the Birmingham City Council Health Committee have decided to add thereto. The new staff will consist of 19 ladies, including a chief inspector of midwives and a chief inspector of workshops. The experiment began in 1899 by the appointment of four ladies, and this number has been added to from time to time. They visit the poorer parts of the city, and advise parents as to the feeding of children and the necessity of cleanliness. No charity is directly distributed by them, but they are in touch with the various charitable associations. Dr. Robertson, the Medical Officer of Health for the City, appreciates very highly the work of these ladies, and the visible improvement resulting from their efforts is highly satisfactory. Birmingham in this respect appears to have profited by the example set by the Manchester and Salford Ladies' Public Health Society, the working of which was described in the BRITISH MEDICAL JOURNAL of January 20th, 1906, page 151.

CITY ANALYST'S REPORT.

Mr. Liverseege, the City Analyst, has presented his report for 1905 to the Health Committee. There have been 237 samples per 100,000 persons taken, women and children being employed to buy samples in the ordinary course of trade, a very sure way of detecting habitual fraud. It was found that 2 per cent. of the samples were adulterated with preservative; but since 1896 this has prevailed less than in previous years; 8.2 per cent. were adulterated in other ways, which is a greater percentage than in the four previous years. With regard to the milk supply 2.8 per cent of the samples were adulterated with preservatives as against 4.5 per cent. in 1904, when systematic testing was begun; this is an improvement on any previous year. The Health Committee has prosecuted 38 persons. There were 239 samples of butter, or 10.5 per cent., in which adulteration had occurred—a proportion twice as high as in 1904 and higher than any previous year since 1898. The Welsh water has proved successful, but owing to the possibility of lead being present in soft water drawn through lead pipes, it is recommended that the first quart drawn from a tap should not be drunk, and, further, that as galvanized kettles yield a dangerous amount of zinc to the water enamelled kettles should be used.

Bristol.

THE fortieth annual meeting in connexion with the Royal Hospital for Sick Children and Women was held on March 17th, when the Lord Mayor presided over a large gathering. The report for the year stated that 804 children and 76 women had been in-patients, and 3,473 children and 1,736 women out-patients. In the dental department there had been 975 patients. The total ordinary income was £4,395 12s. 2d., the expenditure £4,909, so that there was a deficiency on the year's working. Reference was made to the various bodies helping in collecting funds and the generous donors during the past year.

South Wales.

LLANELLY WATER.

AT an extraordinary meeting of the Llanelly Urban District Council the chairman complained that it had been suggested that the council had received some weeks ago a communication from the Local Government Board dealing with their inspector's visit to the watershed, which they had suppressed. It was absolutely untrue, as the letter had only been sent from London on February 23rd and an extraordinary meeting of the council was convened to consider it. The letter of the Board stated that it was advised by its inspectors that although the use of the additional impounding reservoir and the byewash would permit of a certain amount of purification of the water by sedimentation, yet the possible sources of pollution on the gathering ground would remain practically the same as at their previous inspection in 1901. The Gellybysgod stream was liable to serious pollution, as also the majority of the streams running into the reservoir on this side. The Board was still of the opinion that the urban district council should take steps for reducing the sources of pollution, and for purifying the water as far as might be practicable by efficient filtration before it was delivered to consumers for domestic uses. It appeared to the Board that unless such steps be taken the urban district council would incur a grave responsibility in the event of disease breaking out in the district through preventable pollution of the water supply or the absence of efficient means of purification. The Chairman remarked that the Board adhered to its former decision not to sanction the supply to the rural area until an efficient means of filtration had been provided. After much discussion it was decided that the Clerk should ascertain if the Board would approve of high-pressure filters, the Surveyor remarking that the construction of filter beds would reduce materially the pressure from the reservoir. The Surveyor was instructed to report upon the best method of preventing pollution.

NEWPORT WATER SUPPLY.

The Mayor and Corporation of Newport (Mon.) recently inspected the Wentwood reservoir, whence the principal water supply of the borough is derived. The Wentwood reservoir holds no fewer than 384,000,000 gallons of water and at the present time is full to overflowing. The Corporation acquired its water undertaking from the Newport Waterworks Company in 1888, for the equivalent of £278,000, and with the undertaking were transferred the Parliamentary powers obtained in the previous year by the company to construct a new reservoir at Wentwood. The scheme is what is known as a flood water scheme, the drainage area comprising some 1,604 acres of land. Water is drawn into the main reservoir from the Llanvaches and Newchurch Valleys, and the Castroggy and Nantypridd streams, by means of a tunnel nearly 2½ miles long, which has a discharging capacity of 71,600,000 gallons of water a day at the lower end. The embankment, the construction of which was at one time a source of great anxiety to the Corporation, is now as firmly established as the surrounding hills, and can be elevated 3 ft. to increase the storage capacity of the reservoir. The capital authorized by Parliament was £120,000, but this was increased as the works proceeded to the extent of £406,000. In addition to the Wentwood reservoir, Newport has three other supplies the Ynysyfro reservoir, a subsiding reservoir in the same district, and the Pantyreos reservoir, all four yielding 621,700,000 gallons of water.

Ireland.

THE UNIVERSITY QUESTION IN IRELAND.

ROFESSOR EDWARD CULVERWELL, one of the Fellows of inity College, has addressed a letter to the Dublin wspapers, pointing out that on the University question speedy legislation is a foregone conclusion."

What are we in Ireland going to do? Are the University-ing youth of the country to be divided into two camps in ich, unnaturally isolated from each other, their different d perhaps antagonistic aspirations, unsoftened by the vent power of youthful intercourse and friendship, will velop into permanent hostility and misunderstanding? is there any means by which they can be brought together one College or University?

ould no solution be found on fairer lines than we have herto attempted? Might we not recognize frankly the tarian character of opinion in regard to history, ethics, and ilosophy, as well as catecheticals (that is, religion), and have ernative and avowedly denominational courses and chairs in ose subjects? For they are subjects in which opinions will er be diverse, and by frankly recognizing that, the hateful stem of religious balance, everywhere condemned, might be oided, and appointments to the staff made on merit alone. science it is different; progress in it must be untrammelled any institution worthy the name of a university. And here have the declaration of Bishop O'Dwyer, speaking on behalf the hierarchy, at the late Royal Commission. He said uestion 753): "I believe the late Professor Huxley was an inent biologist. If he was teaching biology, he might teach ll his life as long as he confined himself to biology. But if gave his lay sermons to the students, and went on to show impossibility of revealed religion and the impossibility of supernatural, then I would stop him." If this means that would not be stopped until he did that, and if valid urances were given of such a spirit in regard to science, no ection could be made as to insufficient freedom in scientific ught and research.

n any solution which would make Dublin University really ional, something must be yielded on both sides. And there much that we might yield with positive gain to the interests ducation and of the country. Our present relation to Irish rature and archaeology is quite unworthy; our staff in nch (now made a most important part of the University rse) is far too weak. In both these directions our staff ght be greatly strengthened by addition from outside.

here is another matter of vital importance. No one who is uainted with the results of the secondary education of the ntry can doubt that Trinity College loses a large proportion he most intellectual youth of Ireland, and that if the scope he University could be so widened as to absorb it all, the uence of the change would be most beneficial in all direc-ns, and especially in securing a staff of even higher lifications than we now possess. In view of the present ll competition for Fellowship this is a matter of paramount ortance.

rofessor Culverwell says changes in the system of uring Fellows would not be necessarily disadvantageous. he system of government by the Provost and the seven ior Fellows stands condemned already." The alterna- policy is "hands off Trinity." But he asks, "Whither it lead"? The classes which have hitherto fed the versity must continue their steady decline in view of sale of landed estates. And he goes on:

> hat would be our numbers if, in addition, we had to face competition of two well-equipped colleges or universities— in Belfast, which would draw men from our progressive ineering School, and tap the supply of Presbyterians and lster Episcopalians—and one in Dublin, which, with its l education, its low fees (and perhaps the prospect of ission for all its graduates, Protestant as well as Catholic, ppointments under the Local Government Act in the south west, where our graduates are now *de facto* excluded), ld also draw our Episcopalian Protestants from us? Both late and the present Provost have dwelt on the seriousness he loss to our numbers in such a contingency. We may obtain such terms as we should look for in vain when n numbers had deprived us of our present pre-eminence.

TRINITY COLLEGE AND ARCHBISHOP WALSH.

r. Henry Jellett writes to the Dublin papers explain-that he was the Extern Examiner in Midwifery on the sion referred to by the Inspector of the General ical Council, whose remarks as to the inadequacy of rvision are quoted by Archbishop Walsh. He says:

> the viva-voce examination in midwifery and gynaecology method of procedure adopted was as follows: There were xaminers, who sat in adjoining rooms. In a third adjoin- room, at the commencement of each hour a batch of four idates was incarcerated temporarily. The examination menced at 10 o'clock, when two candidates were called out from the incarcerated batch, and sent one to each examiner, who examined him for fifteen minutes. The candidates were then changed; he who had been with my co-examiner, Sir Arthur Macan, coming to me, and the candidate who had been with me going to Sir A. Macan. They passed one another in the corridor, and were within speaking distance for a matter of at most ten seconds, during which time the examiners' doors were open, and a college porter was hurrying them from one examiner to the other. When these gentlemen had been examined, they were dismissed, and were free to go where they liked, save into the room where the remainder of their batch was waiting. The latter candidates were then brought in, and were examined by each of us in a similar manner. Every one of the four candidates were asked the same questions in each subject. The examination of the four was concluded at 11 o'clock, at which hour a fresh batch of four candidates was brought into the waiting room, and for these the examiners selected an entirely different set of questions. This routine was continued throughout the examination, each batch of candidates being isolated prior to examination, and the examiners' questions being changed with each batch of candidates. A similar routine prevailed at every examination with which I was connected.

Some other points are dealt with, and Archbishop Walsh has replied in two more columns of print. He refers to "the notable substitution of champion after champion at each new turn of the case." When he spoke of this matter last summer the Provost replied in twenty-four hours.

> To the Provost's letter I replied next day, but his place was at once taken by Dr. Little, the University Regius Professor of Physic. I then replied to Dr. Little, and, as far as I can recollect, we have not heard from him since.
>
> Dr. Jellett, as it happens, makes the worst champion of them all.

Archbishop Walsh points out that the reply to the report of the inspector was the reply of the two examiners, but not of the Medical Committee of the school. "Naturally they (the examiners) were satisfied with their own way of doing that work, and no less naturally they took the opportunity of saying so."

In a further letter Dr. Jellett points out that the statements did come from the examiners primarily:

> From them it passed, not to the Medical School Committee as I at the time believed, but to a meeting of the whole body of the Professors and Examiners of the school—a body which includes in its ranks every member of the Medical School Committee. By this meeting it was approved, after which it was forwarded to the General Medical Council.

SCHOOL HYGIENE.

Professor Lindsay, M.D., delivered a lecture on Some Elements of School Hygiene, under the auspices of the Belfast Branch of the Irish National Protestant Teachers' Association in Belfast on the evening of March 23rd. Sir Otto Jaffé occupied the chair. After recounting the advances that had been made in Japan, America, and on the Continent, the lecturer pointed out the deficiencies and backwardness of the primary schools in Ireland; for this unhappy state of affairs the poverty of the country, but mostly the miserable sectarianism so prevalent was to blame; they were not in earnest about education in Ireland; and they would never attain much till they had a well-informed and influential public opinion. The London County Council set an example which could not be too much praised or widely followed. The conclusions he arrived at were three: (1) that the question of school hygiene was one of vital importance; (2) that much ignorance existed in Ireland on the subject; (3) that other nations were making progress which Ireland would do well to imitate. Dr. Lindsay then considered the questions of heating, lighting, sanitary arrangements, the provision of playgrounds, the state of health of the scholars, and finally the instruction of teachers in the elements of hygiene. He also dealt with the necessity of medical examination of pupils, and the great aid that would be afforded by a physical register.

LIMERICK DISPENSARY DOCTORS' SALARIES.

The Local Government Board has approved of a new scale of salaries for the dispensary medical officers. The initial pay will in future be £150 per annum, with a quinquennial increase of £12 10s. per annum until £200 a year is reached. The compounder will receive £125, with an increase of £7 10s. until £155 is reached; and the compounder at the workhouse will get £100, rising to £150. In the case of the workhouse visiting medical officers it was proposed to increase the salary from £50 to

£100. The Local Government Board declined to sanction this arrangement on the ground that the medical officers had only held office since 1902, and that they held other appointments. The guardians were sharply divided on the subject of increases of salary.

Scotland.

SCOTTISH ASSOCIATION OF MEDICAL WOMEN.

As the result of several conferences, a Scottish Association of Medical Women has been formed, and the first meeting was held in Edinburgh on March 24th. The object of the Association is to deal with questions of interest and importance to medical women. The Council was elected by ballot as follows: Miss Inglis, M.B., Mrs. Mears, L.R.C.P.I., Mrs. Russell, M.D., Mrs. Chalmers Watson, M.D., Edinburgh; Miss Marion Gilchrist, M.D., Glasgow; Miss Laura Sandeman, M.D., Miss Mercer Watson, L.R.C.P., Aberdeen; Miss Emily Thomson, M.B., Dundee; and Miss Elizabeth Macrory, M.B., Dunfermline. The officials of the Association are: Miss Emily Thomson, President, and Miss Elsie Inglis, Vice-President; Mrs. Chalmers Watson, Secretary; Mrs. Elizabeth Macrory, Treasurer.

THE INFANTS' MILK DÉPÔT, LEITH.

In his report for the year 1905 Dr. Robertson, Medical Officer of Health for Leith, refers to the success of the Infants' Milk Dépôt. The milk is modified according to the age of the child, and pasteurized, and is issued daily in bottles, each of which contains sufficient for one feeding. The following statistics taken from the report demonstrate the value of the institution:

Infant Milk Dépôt Statistics, 1905.

Number of infants on books at beginning of year	52
Number of infants put on books during year ...	152
Total number on books during year	204
Number of deaths, from all causes, of infants on books at Milk Dépôt	6
Total deaths, from all causes, of infants under 1 year in burgh (excluding 6 on books at Milk Dépôt)	241
Deaths due to diarrhoea of infants on books at Milk Dépôt	3
Deaths due to diarrhoea of infants under 1 year in burgh (excluding 3 on books at Milk Dépôt)	45
Percentage of deaths due to diarrhoea of infants on books at Milk Dépôt... ...	1.4
Percentage of deaths due to diarrhoea of infants not so fed and under 1 year in burgh (excluding 3 on books at Milk Dépôt) ...	18.2

THE CITY OF EDINBURGH AND CONSUMPTION.

A special meeting of the Edinburgh Town Council was held on March 27th, to consider a report by the Public Health Committee, recommending that temporary accommodation should be provided at the City Hospital for fifty advanced cases of phthisis. The Convener of the Public Health Committee made a statement relative to the duty of the City Corporation in treating consumption. He pointed out that the joint committee of the Medical Faculty of the University and of the Royal Colleges of Physicians and Surgeons had come to the conclusion that it was well within the scope of the municipal duty to provide means of isolation for patients who, in the words of the Medical Officer of Health, "imperfectly nursed in their ill-ventilated and too often overcrowded homes were constant sources of danger to the community." On the information supplied by Sir Henry Littlejohn, the Public Health Committee had come to the conclusion that there was a plain duty incumbent on the Town Council to devise means to deal with cases in the last stages of the disease found in houses of inadequate accommodation. The cost would be about £1,000 a year. The average life of such patients was found in Paris to be about 3 months. Since the attention of the Public Health Committee was first directed to this question in 1898 they had followed the only policy possible to a satisfactory solution of the problem, namely:

(1) Inquiry as to the mortality from consumption, and its effect on the annual death-rate. (2) Distribution of leaflets directing attention to the absolute need of: (*a*) Fresh air, light, and ventilation, strict attention to the destruction of expectorations from infected persons; (*b*) thorough disinfection of all bedding, blankets, and body clothes used by the patient; (*c*) fixing of notices to the lamp-posts directing the public not to spit on the pavement; (*d*) notification with the view of ascertaining the prevalence of consumption among the citizens; and (3) now the Local Authority were invited to approve of the proposal that provision be made for the reception in the City Hospital of the most dangerous cases.

During 1905 there had been 500 deaths from phthisis in the city, and in only 210 of these cases had the offer of the Committee to disinfect the houses been accepted. This year, from January to March, of the 112 deaths, the offer had been accepted in only 51 cases. He thought that at no distant date the Council would accept compulsory notification as a necessity. Evidently the medical faculty was not cordial in regard to voluntary notification, as only 67 cases were reported by private practitioners in 1905, while in 1904, 451 cases were notified. Dr. Cullen seconded the Convener's motion, which, after lengthy discussion, was adopted.

Canada.

NURSES' ASSOCIATION BILL.

In the Legislature of Ontario Mr. Crawford introduced a Bill to incorporate the "Graduate Nurses' Association of Ontario," providing that after the appointment of a Secretary by the Council of the Association, when constituted, no person who is not registered as a member of the Association in good standing shall be appointed to act as nurse in any hospital, asylum, or other institution maintained by the province for the reception of the sick or diseased, or the mentally or physically defective or insane. The Association may hold property up to 5,000dols., and will be authorized to prescribe a course and conduct examinations for certificates. Any one using the title of the Association without authority will be liable to punishment. Graduates of two years' standing prior to the passing of the Act will be eligible, and hospitals of good standing will be recognized. A fee of not more than 3dols. is provided for. The Council of the Association will have 15 members, 4 of whom will be medical practitioners. The Victorian Order of Nurses, instituted a few years ago through the efforts of Lady Aberdeen, are applying for provincial registration.

THE CLEANING OF RAILWAY CARRIAGES.

In a country where there is so much through travel as in Canada, the cleaning of the railway cars becomes a matter of public interest. In a recent official report on the subject, it is stated that when a Pullman's sleeping carriage completes its trip it is stripped of everything movable, including seats, backs, pillows, mattresses, blankets, curtains, etc., which are cleaned by being blown with compressed air, and the whole interior of the car is blown out in a similar manner before the furnishings are replaced. In this manner the dust and most of the dirt are removed from the cars and building. To accomplish this work requires the services of four men for each car, and a number of gangs are employed at each terminus. When carriages run on lines passing sanatoriums, the conductor is required to report the conveyance of invalids, and in all cases the car is fumigated with formaldehyde and kept closed for six hours, after which it is aired and put in commission again. If a case of tuberculosis is reported special precautions are taken, and the blankets are sent to the mills to be scoured.

Special precautions are taken also in making the beds to render it impossible for the blanket to come in contact with the person by the use of three sheets of extra length. Great care is exercised in the handling of the linen to prevent it being soiled before use, and it is carried to the cars in large, heavy duck-bags. Separate towels and cakes of soap are, of course, supplied to each passenger.

Recently experiments have been made with the use of the vacuum cleaner, and it is found more effective than the compressed-air method, and is undoubtedly better from the hygienic standpoint, as it collects instead of scattering the dust laden with germs, and it will doubtless be adopted in the near future. The inspector advises the use at the terminal points of a steam sterilizer, in which all the fittings, bedding, etc., could be sterilized, and the interest taken in the suggestion by the managers is encouraging. The Pullman Company of Chicago, which operates the sleeping and parlour cars on the Grand Trunk ailway, has recently appointed Dr. Thomas Crowder a iperintendent of Sanitation; the Canadian Pacific Rail- ay operates its own cars.

INSURANCE COMMISSION.

As a result of the disclosures as to the methods of the eat American life insurance companies, and the iticisms which have been directed against companies erating in Canada, a Commission has been issued by e Dominion Government to make a thorough inquiry to the standing and methods of the companies. It has t been suggested that there is any question as to lvency, the stability of these institutions is beyond vil, but, as in the case of the American companies, the st of obtaining insurance business has so increased by ason of competition, especially with American in- rance companies, that the profits of the old business e, it is said by the critics, eaten up by the expense of tting new. The critics doubt whether the policy holders sharing as fully in the profits of the business as they ould, as most of the insurance in effect in Canada is on profit-sharing basis. There has been no definite arge made against any Canadian company which has n sustained, and the companies themselves court the lest inquiry. The scope of the Commission's work has t yet been announced, but it is a matter of great interest the medical profession, all of whom have a personal ation to the companies, either as policy-holders or as cials.

A SEVERE OUTBREAK OF TYPHOID FEVER.

very serious outbreak of typhoid fever has taken ce in Fort William, a city situated at the head of igation on Lake Superior. It has been repeatedly nted out by the Provincial Board of Health that the er supply was in danger of contamination from sewage, l the necessary changes were advised; but, as usual in h cases, decision came too late, and there have been to e several hundred cases of typhoid; the hospitals are rcrowded and patients are being nursed in the town l; several of the doctors have succumbed, and nurses doctors are going north to their assistance.

THE LATE DR. MATTHEW WALLACE.

he death of Dr. Matthew Wallace of Toronto on rch 3rd removed a figure well known in the East End his faithful and self-denying work among the poorer zens of that locality, and his funeral was attended by a at concourse of sorrowing friends and those who had n the recipients of his kindnesses. His open-handed rity and carelessness as to his own comfort and antage were a proverb. A memorial in the form of a d for the education of his children, to amount to 00 dol., has been raised.

ULMONARY TUBERCULOSIS IN PROVINCIAL ASYLUMS.

the month of February, 1905, there were in the nine vincial asylums 5,649 patients, of whom 130 suffered pulmonary tuberculosis diagnosed as such. The erintendent of the London Asylum remarks that it ery difficult in many cases to recognize the disease, he inmates in many cases do not make any com- nt, so that there are probably a larger proportion of rculous cases. At the Asylum in Kingston, under care of Dr. Clarke, special accommodation has been ided for the tuberculous in large tents and wooden ges, with very satisfactory results, as the condition in most cases greatly improved.

South Australia.

GULATION OF HAIRDRESSING AND SHAVING SALOONS.

Adelaide City Council has, we learn from the *Austra- n Medical Gazette*, adopted the following regulations: hairdresser shall use upon any person any brush, comb, ors, clippers, or other implements or tools unless oughly clean; use any dirty towel, or any towel which has used upon a previous customer, unless such towel shall e meantime have been duly cleansed; use upon any n a powder puff or sponge; use upon any person alum or styptic or magnesium or other emollient in block form; any styptic or emollient in powdered form to the face of erson except by means of a clean-towel; every hairdresser shall cleanse his hands by washing after shaving any person, or before shaving any other person; every hairdresser shall, once at least each and every day, cause all brushes, combs, scissors, and clippers in use in his business upon such day to be efficiently cleansed and disinfected. Any person offending against any of the above by-laws shall, for each offence, upon conviction, forfeit and pay a penalty or sum not exceeding £10.

THE PLAGUE.

PREVALENCE OF THE DISEASE.

INDIA.

DURING the weeks ended February 17th, 24th, and March 3rd the deaths from plague in India numbered 7,362, 8,312, and 8,770 respectively. The principal figures were: Bombay Presidency. 940, 1,113, and 1,185; Bengal, 2,300, 2,930, and 2,732; United Provinces, 1,935, 1,871, and 1,264; the Punjab, 855, 1,048, and 1,030; Central Provinces, 822, 747, and 1,072; Burma, 224, 244, and 145.

During the week ended March 3rd, in the North-West Frontier Province, which had been for some time free from plague, 15 cases were reported. During the same week there were: In Rajputana, 29 deaths from plague; in Kashmir, 73; in Hyderabad, 78; in Central India, 51; in Mysore, 88; in Madras, 24.

SOUTH AFRICA.

No plague in men or animals during the weeks ended February 17th and 24th.

MAURITIUS.

No case of plague since February 11th.

HONG KONG.

During the weeks ended March 3rd, 10th, 17th, and 24th the fresh cases of plague numbered 8, 15, 7, and 15, and the deaths from the disease 7, 16, 7, and 15 respectively.

FORMOSA.

During the month of January 48 fresh cases of plague were reported, and 38 deaths from the disease.

BRAZIL.

At Pernambuco 1 case of plague was reported during the week ended January 31st.

PERU.

Between January 21st and 31st there occurred 21 fresh cases of plague and 10 deaths from the disease. The principal places from which plague was reported were Choisica, Lima, Mollendo, and Trujillo.

CONTRACT MEDICAL PRACTICE.

CLUB PRACTICE.

THE members of the Launceston Medical Society have adopted the following resolutions in connexion with all clubs:

1. That all full members at present in clubs shall remain as such.
2. For future membership, only those shall be taken on the doctors' lists who belong to the wage-earning class.
3. Sons of the wage-earning class are eligible to become members, so also the sons of tenant farmers and master tradesmen, so long as they are working for weekly wages. When they become tenant farmers or master tradesmen their names shall be removed from the doctors' list at the end of the current year.
4. If a medical man thinks it desirable to admit on the doctors' list a tenant farmer, master tradesman, or a member of his family who is not earning a weekly wage, his case shall be reported to the Honorary Secretary for the decision of this Society. Such decision to be final.
5. No juvenile member to be taken under 7 years of age, and the fee to be paid to the doctor to be the same as for an adult, namely, 4s. a year.
6. When a club member desires a consultation the club doctor shall be paid by such member one guinea, irrespective of the consultant's fee.
7. When called in to assist a midwife or nurse who has been engaged for a confinement the fee to be one guinea for the wage-earning class, two guineas for others.

CONGRESS OF FRENCH-SPEAKING ALIENISTS.—The sixteenth meeting of the Congress of French and French-speaking alienists and neurologists will be held this year at Lille, August 1st to 7th, under the presidency of Professor Grasset, of Montpellier. The following reports will be presented and discussed:—The cytological, bacteriological, and experimental study of the blood in the insane, by Dr. M. Dide, of Rennes; the senile brain, by Dr. A. Leri, of Paris; the responsibility of hysterical persons, by Dr. R. Leroy, of Evreux. Communications relative to the Congress should be addressed to the General Secretary, Dr. G. Chocreaux, Médecin Chef en de l'Asile Public d'Aliénées de Bailleal (Nord).

SPECIAL CORRESPONDENCE.

PARIS.

Académie de Médecine: Professor Landouzy on Dust and Tubercle among Carpenters and Laundry Workers.—Opening Lecture of Professor Robin.—Regulations for Sale of Ice.—Plan for Organization of Fight against Tubercle in Paris.

AT the last meeting of the Académie de Médecine Professor Landouzy communicated the results of an inquiry into the morbidity and mortality among a group of workmen exposed to dust, dealing with 257 carpenters, packers, and parquet flooring layers treated as in-patients in the Laennec Hospital during the years 1900-4. All these men came from the same hospital area, and lived in the same surroundings at home and at work; they had the same wages, the same number of hours of work; the same kind of food; they had also the same alcoholic habits, taking rum or wine fasting, cognac in their coffee, and "apéritifs." They worked in the same class of houses and were treated by the same medical officers in the same hospital. In the 257 cases considered the tuberculous morbidity was 31.90 per cent. and the tuberculous mortality 7.78 per cent. A similar inquiry among 238 washermen and women, which Professor Landouzy embodied in a communication to the Tuberculosis Congress in Paris, showed that 143, or 60 per cent., died of tuberculosis; in 1903 alone, among 37 deaths among laundry workers, 29, or 78 per cent., were from tuberculosis. Tuberculosis in both groups was almost exclusively pulmonary. The bacilli-laden dust of dirty linen was the most active agent of trade tuberculoses. A woman dies after fifteen years at this trade. A strong girl who starts as a washerwoman at the age of 17 or 19 is dead at 32 or 34. Men resist rather longer when not alcoholic.

Professor Albert Robin, recently appointed to the new chair of clinical therapeutics, gave his inaugural lecture in the amphitheatre of the Beaujon Hospital. The Dean of the Faculty of Medicine, Professor Debove, introduced Professor Robin to an overflowing audience. Professor Robin said that materia medica and pharmacology were indispensable as a basis for the future practitioner; but this was insufficient, as he found himself greatly embarrassed before his first patients. The individuality of the patient was outside any dogmatic formula, and the treatment should apply not to a given disease, but to the particular case to be treated. The responsibility made the young practitioner hesitate. The new chair filled a veritable lacuna; it would accustom the student to those difficulties, and would be to therapeutics what clinical instruction was to pathology. Clinical therapeutics was at once the art and science of treatment, not of diseases but of patients. Therapeutics should form an important part of examinations, giving them a practical character. In every examination candidates should work out the therapeutic conclusions which the diagnosis required.

M. Laveran has made an interesting report to the Conseil d'Hygiène on the question of ice for sale, and new regulations are being drawn up by the Prefecture of Police to regulate the ice trade during the summer months; of these the following is a summary:

1. It is forbidden to all merchants, manufacturers, ice sellers, keepers of cafés, restaurants, milk shops, etc., to sell or supply for human consumption any ice which when melted will not give drinkable water.
2. That such ice shall not be given to their clients except in containers bearing in legible letters the words "*glacé alimentaire.*"
3. That manufacturers and depositories of ice for industrial purposes and for human consumption must freeze these two kinds of ice in entirely separate premises.
4. That vehicles used for the transport of ice shall bear special inscriptions painted on both sides of the vehicle, stating whether they are for the transport of ice for industrial purposes or for human cosumption.

M. Léon Bourgeois, in the name of the Commission on Tuberculosis, addressed a report on the question of the hospitalization of tuberculous patients to the Council of the Assistance Publique of Paris, which has adopted it. The following three important headings indicate the extent of the proposed scheme, which, with details of the cost, will be submitted to the Municipal Council.

1. The Assistance Publique will accomplish its strict duty towards the other patients by the isolation of tuberculous cases. For the latter, it is not enough to open special hospitals or portions of hospitals, but to provide special conditions of treatment varying with the state of the disease.

2. It is not enough to treat temporarily in hospital certain acute accidents during the disease, or to collect chronic cases to relieve the overcrowded general wards. According to the stage of the disease the treatment should be:

a. Either provided in the patient's home, when such would be free from risk to himself or his family, by organizing a system of out-patient cliniques, with help in money and food, forming the type of cure by a dispensary;

(*b*) Or carried out in a special hospital in Paris when the case demands this, or when for family reasons the patient cannot be separated from the family by being treated outside the city. These special hospitals in Paris should be organized for the best treatment of tuberculosis as regards lighting, etc.;

(*c*) Or carried out in special hospitals outside Paris, especially when a long stay is possible.

3. That each patient may find the best treatment for his case, these three methods of action must be under a common direction; the patient, as his condition changes, should be observed and followed by the dispensary, or placed in a ward of the hospital to which the dispensary is connected, or else directed to one of the hospitals outside the city. It is probable that several of the patients will be able to pass from one to the other. It is therefore necessary for each Paris hospital for tuberculosis to have its dispensary, and to be in regular communication with one of the suburban hospitals.

In order to put this vast plan into execution, the Council of the Assistance Publique has decided as follows:

1. To create at the Laënnec Hospital an out-patient department, and a hospital dispensary for tuberculous patients.
2. To set aside a special quarter of the Laënnec Hospital (4 male and 4 female wards, 250 beds in all) for the treatment of patients examined in this dispensary, and designated for immediate hospital treatment in Paris.
3. To arrange this portion of Laënnec Hospital for the curative treatment of patients (sun galleries, etc.).
4. To set aside 500 beds at Brévannes for cases notified by the Laennec consultation for treatment in the country.

After this first experiment a similar plan will be organized at the Tenon Hospital by establishing a dispensary, 400 beds at the hospital, and assigning the sanatorium at Angicourt as hospital in the country. By borrowing Fr.45,000,000 a special quarter can be created at the St. Antoine Hospital with 1,700 beds for tuberculous cases, and a sanatorium in the country at Ivry or Vancresson.

VIENNA.

A Foreign Body in the Bronchus.—The New Edition of the Pharmacopoeia.—Proposed Nothnagel Lectures.—A Meeting of Antivivisectionists.

A VERY interesting case of extraction of a foreign body from the main bronchus was shown at the last meeting of the Clinical Society of Vienna by Professor Chiari. A woman aged 67, whilst partaking of boiled soup, had swallowed something hard. Violent fits of coughing followed during the next few days, and she brought up some blood-stained mucus. She experienced much difficulty in breathing, and suffered from pain at the junction of the fourth right rib and the sternum. Ten days later she was seen at the hospital. The lungs appeared to be fairly sound, auscultation revealing nothing but slight rhonchi (bronchitis? emphysema?). The expectoration still continued to be blood-stained. The first attempt at extraction failed. With the patient in the sitting position, all that could be made out with the bronchoscope was a mass of phlegm in the right main bronchus. The next day she was placed in the recumbent position, the larynx was anaesthetized with cocaine, and the direct bronchoscope introduced through the glottis. After mopping away the mucus, granulations were visible in the right bronchus. Some of them were removed with a pincette, whereupon the edge of the bone became clearly discernible. That also was removed; it was about 28 mm. long, 10 mm. broad, and 8 mm. thick. It had been embedded in the mucosa of the bronchus at a distance of 29 cm. from the teeth. The patient made an uneventful recovery, except on one day, when the temperature rose to 104° F. It is an interesting point that repeated examinations with *x* rays failed to show the presence of an abnormal shadow-giving body within the thorax. Cases of foreign bodies within e trachea or the bronchi are rare. Altogether there are fty-two on record, of which four were seen here within e last seven years. On the other hand, foreign bodies the larynx, pharynx, and nose are not infrequent, but ly in a minority of such cases are operative measures quired.

The eighth edition of the Austrian *Pharmacopoeia*, which ill be published in July, has, by order of the Ministry of e Interior, been enlarged by the inclusion of a very large umber of definite chemical preparations much used by edical practitioners. Within the last few years scores laboratories have produced numbers of different more less active compounds, such as aspirin, pyramidon, renalin, alboferin, and the like, which hitherto, at least re, have been of the nature of patent medicines, not ing recognized officially in the *Pharmacopoeia.* The mission of these new therapeutic agents necessitates a umber of experiments in order to fix officially the aximal doses, but has the advantage that it will sure Governmental control of the purity of the chemical oducts. The price of these chemicals will also be gulated accordingly, so that they will be more used by e public. Apart from this edition, the *Pharmacopoeia ilitaris VII*, which is now in course of compilation, will so be enlarged by the introduction of modern thera- utic agents. In the military hospitals some drugs were ed in "heroic" doses, according to the prescriptions of e present *Pharmacopoeia*, and military surgeons, when, er retiring, they took to private practice, had sometimes her unpleasant experiences with their prescriptions military doses.

A fund is being collected for the erection of a monument Professor Nothnagel, and also of instituting a novel d of honouring the dead, which is well known in gland, but unknown with us. It is proposed that a ies of "Nothnagel lectures" on metabolism, on diseases the brain, or on diseases of the intestines shall be livered by eminent physicians in the hall where thnagel used to teach. The date will be, no doubt, the ne as that of Nothnagel's death (July 7th), and this uld afford the advantage of finishing the medical term a very appropriate lecture.

very lively meeting of antivivisectionists and anti- cinators took place recently, an interesting feature ng the presence of an extraordinary number of medical n, amongst whom were the leaders of the newly-formed iety for the repression of quackery, Professor Ressowitz, Grün, and others. The present conflict of the parish dical officers and the country communal officials gave ficient topics for discussion, as the main grievance on medical side is the ridiculously low rate of payment . for each case) of vaccination. Needless to say the i's were unanimous in approving of the attitude of the cials in regard to the present medical strike which ans an absolute decrease of vaccination, whilst the resentatives of the medical profession were just as nimous in condemning the practice of sweeping state- nts as to the necessity of interfering with the progress nedicine and experimental work. The Austrian Anti- ckery Society has, during the short time of its stence, done some very useful work. It also promotes distribution of small leaflets with all kinds of useful ruction for the benefit of the lower classes with the ct of teaching them the value of regular hygienic its and proper medical aid even in so-called minor ases, when the poor are not infrequently wont to rt to herbalists and other quacks, thus losing valuable e.

HE annual general meeting of the Medical Graduates' lege and Polyclinic was held at 22, Chenies Street, don, on March 23rd, the chair being occupied Dr. C. odore Williams, who, in moving the adoption of the rt and balance sheet, said that though the College was ding less money than formerly, it was nevertheless ing about the same. The number of members was sfactory, and the number of temporary subscribers was e. He referred with pride to the lectures delivered ng the last year dealing with surgery, medicine, and specialities. A new departure was the formation of rial classes started by Captain Pinch, which had been successful in preparing candidates for various ninations. The following five new members of council elected :—Dr. H. Campbell, Dr. W. Ewart, Dr. E. N. Dr. Dundas Grant, and Dr. R. Purdie.

CORRESPONDENCE.

THE ADMINISTRATIVE CONTROL OF PULMONARY PHTHISIS.

SIR,—Surely many will be struck with the temerity of the Local Government Board for Scotland after reading the summary, as printed in the BRITISH MEDICAL JOURNAL of March 17th, of the circular dated March 10th on the administrative control of pulmonary phthisis, together with your leading article on the subject.

Enthusiasm for the prevention of tuberculosis appears to have swept into oblivion the elementary facts that the disease is not one that runs a definite course of a few weeks, nor an infectious disease with a virus as active, virulent, and diffusible as that of the principal zymotic diseases.

Among the many provisions of the circular I will note a few. To quote from your leading article: "Local authorities are assured that they have power to prevent infective persons from exposing themselves in streets or public places without proper precautions against spreading the disease." Does the Local Government Board for Scotland desire to make the unfortunate consumptive a social leper?

Again, "Disinfection is likewise recommended in connexion with all places of public resort (schools, churches halls, theatres, markets, railway stations) and public conveyances (railway carriages, tramcars, omnibuses, cabs, etc.)."

This is as impractical as it is irrational. Is it really suggested that a serious attempt is to be made to disinfect, a church or a theatre after the presence of a consumptive worshipper or playgoer?

The adoption, as suggested, of Sections 51 and 53 of the Public Health (Scotland) Act, 1897, as regards phthisis, while eminently desirable, is not, I believe, practicable, unless all consumptives are to be rigorously segregated and all travelling prohibited; but much of the advantage aimed at by these sections may reasonably be expected to be attained as the people become better educated in this matter.

The Local Government Board of Scotland would appear to favour the establishment of

(*a*) Curative hospitals (sanatoriums) for early cases.
(*b*) All-day hospitals.
(*c*) All-night hospitals.
(*d*) Convalescent colonies and homes; work colonies.
(*e*) Hospital wards for educative treatment and control.
(*f*) Hospital wards for isolation of advanced cases.
(*g*) Dispensaries for pulmonary phthisis.

All of the suggested administrative control appears to meet your approval, and induces me to believe that you hope other Local Government Boards will take similar action. I sincerely trust not.

It should be borne in mind that in London, and no doubt elsewhere, there has been during the last forty years a reduction of nearly 50 per cent. in the mortality from phthisis, brought about by better drainage and housing and better hygiene generally. These conditions will continue to improve and to diminish mortality from phthisis, aided by the direct measures for the prevention of the spread of the disease, which have been, and continually are being, initiated since the first meeting of the National Association for the Prevention of Tuberculosis held at Marlborough House in 1898, and the Congress on Tuberculosis held in London in 1901. The Council of the Royal Borough of Kensington has, under the guidance of its medical officer of health and councillors, who are also members of the medical profession, adopted the system of voluntary notification of consumption, and pay the usual fee of 2s. 6d. The Council has drawn up a leaflet based on that of the National Association entitled "How to Prevent Consumption," which has been and still is being distributed in the borough. The Council has made it known that they are willing to disinfect free of cost articles of clothing, etc., and rooms on removal or death of a consumptive invalid. The sanitary inspectors and lady health visitor visit selected houses for the purpose of imparting knowledge on how to prevent the spread of consumption, and to leave the instruction leaflet. Such simple direct means as these, entailing no great cost, if carried out throughout the United Kingdom, together with the indirect means already at work, may reasonably be expected to diminish the mortality from phthisis very considerably.

But certain enthusiasts seem to have taken the bit between their teeth, and desire to make the consumptive a social leper, to notify him compulsorily for the purpose of a census, and then to help on the ruination of the ratepayer by the provision of sanatoriums at the expense of the rates.

How is a consumptive to be compelled to enter a sanatorium, or, when there, how is he to be compelled to remain until he is no longer capable of spreading the disease? Sir William Broadbent has estimated that there are between 40,000 and 50,000 actually suffering from tuberculosis at a given time in London alone. Dr. Dudfield has assumed that the cost of maintenance would not be more than 25s. a head a week. I will not suggest a figure for the erection of the sanatoriums, and will leave to your imagination the cost that would fall on the already heavily-burdened ratepayer, by any serious effort made to prevent the spread of consumption by compulsory notification with its consequential provision of sanatoriums.

Let us continue vigorously our indirect means and those simple direct means I have mentioned, encouraging the provision of sanatoriums and dispensaries by private philanthropic efforts, and thus control and diminish this scourge.—I am, etc.,

London, S.W., March 20th. F. HERBERT ALDERSON, M.B.

SCARLET FEVER AND MIDWIFERY PRACTICE.

SIR,—The case of Crier *v.* Hope and Currie is of such great importance to the medical profession that it seems to me a pity that you should make a statement in your article (page 637) so contrary to the very careful and plain ruling of the judge.

You say: "It would have been better had Dr. Currie, when summoned to Mrs. Crier, frankly told her husband that he had been to a scarlet-fever case two hours before, but that he believed himself sufficiently disinfected, and left Mr. Crier to decide whether he should send for another doctor or ask Dr. Currie to attend to the lady."

Mr. Justice A. T. Lawrence said: "It would be wanting in due respect and courage to give up a case and to put the burden of the responsibility into the hands of a layman, who would know nothing about the power of infection and the necessary and proper means of disinfection," etc.

Surely this is the feeling of the majority of the profession, just as much as the further fact that "if a medical man thinks his precautions are adequate and good he need not ask another to work for him."

The great importance of these facts being made known as widely as possible amongst the medical profession is my reason for troubling you on the subject.—I am, etc.,

Thornton Heath, March 21st. C. OWEN FOWLER.

SIR,—It is, of course, as a rule, foolish to place second-hand before first-hand medical opinion; but surely it must have appeared to most of your readers of the case of Crier *v.* Currie that the illness which caused the litigation was one of ordinary puerperal septicaemia. Playfair, in his description of puerperal septicaemia, especially alludes to the skin rashes "not uncommonly observed," and even adds, "such eruptions have often been mistaken for those of scarlet fever or other zymotic disease."

The whole course of the disease, as detailed in the report, from the initial rigor to the pelvic abscess, including the phlegmasia dolens, seems to point to puerperal septicaemia, and to nothing else.—I am, etc.,

March 29th. R. A.

SARSAPARILLA IN SYPHILITIC CACHEXIA.

SIR,—I am grateful for Professor Allbutt's letter respecting the value of sarsaparilla, for I have long held this drug in esteem. I was first taught its virtues by the late Dr. Nevins, of Liverpool, one of the best therapeutists of his time. I think it is likely that he had learned its value in the Leeds School of Medicine, where he was originally a pupil.

When I went to Edinburgh, I remember that Professor Syme was wont to express alleged contempt for the virtues of sarsaparilla, and remarked that a decoction of it was of "no more use than that of a decoction of hay." At that time the teaching there in respect of the treatment of syphilis was heterodox, mercury being regarded as not only unnecessary, but harmful. I had to unlearn all this subsequently in London, and came to gather my own experience of the value both of mercury and sarsaparilla. I have long been impressed with the value of the latter, not only in the cachexia of syphilis, but in many other cachectic conditions associated with wasting and anaemia. Its full value, however, is only to be found when employed in full doses. Ordinary doses of the *Pharmacopoeia* liquid extract are of little avail. The concentrated compound decoction in ½ to 1 oz. doses, diluted, taken several times a day for some weeks, proves a remarkable remedy in improving nutrition and restoring health. It is possible that it gained its repute originally from "Zittmann's decoction."[1] My friend Dr. Carter, of Liverpool, has done much to emphasize its value, and has published excellent reports as to its good effects. I have long impressed these opinions on successions of my clinical pupils, and I can only hope that this correspondence may lead to a higher appreciation of the virtues of this drug when used in appropriate quantities.—I am, etc.,

March 26th. DYCE DUCKWORTH.

SIR,—In view of Sir Felix Semon's remarks on Zittmann's and Kobert's decoctions in the BRITISH MEDICAL JOURNAL of January 13th, and of Professor Allbutt's letter about sarsaparilla in the JOURNAL of March 24th, p. 710, it may be worth while to call to mind that the usual formula of the preparation known as Zittmann's Decoction, besides sarsaparilla, senna, and other things, also contains mercury in the form of calomel and cinnabar.

Another preparation, which was recommended by the late Dr. Tilbury Fox, though similar to the other in most respects, contains antimony instead of mercury.

Sir Felix Semon states in his account of Case I that "Zittmann's sarsaparilla decoction was prescribed for the patient with immediate and brilliant results," but the formula is not given. Judging from his remarks, however, it seems unlikely that Sir Felix Semon was referring to any preparation containing mercury, and it would be interesting to know the composition of the decoction prescribed, especially as such good results followed the administration of what appear to have been unusually small doses.—I am, etc.,

London, W., March 26th. ARTHUR COOPER.

SIR,—Professor Clifford Allbutt's letter in the BRITISH MEDICAL JOURNAL, p. 710, must have touched a tender chord in the heart of many an old Leodiensian, as it did in mine. "Old Sam Smith," as he was familiarly known, was one of the founders of the Leeds School of Medicine in 1832, and for forty-five years he adorned that chair of midwifery, which—under altered conditions—I have now the honour to fill. There are still living many who well remember his racy and practical lectures—delivered at 7 a.m.—and his characteristic bedside teaching at the old Leeds Infirmary. Mr. Smith also lectured jointly on surgery for a time. What would the Regius Professor at Oxford say of a man taking up a new course of lectures at 75, as he did?

I find in my formula book the old infirmary preparation of syrupus sarsae, with Samuel Smith's name appended. The late Mr. Jessop, who was house-surgeon in Mr. Smith's time, and who was a warm advocate for the use of sarsaparilla in many forms of cachexia, used to attribute the virtues of the above to the sugar used in preparing it—half-pound to the pint—which did not exist in the pharmacopoeial decoction (*British Pharmacopoeia*, 1885), a compound which I fancy was not esteemed very highly, and which was omitted altogether from the last (1898) *British Pharmacopoeia*, neither is there any sugar in the preparation (Kobert's) named in Sir Felix Semon's paper (p. 62); but could the sugar do more than act as a preservative? I see in some preparations glycerine is now used in place of sugar (Squire's *Companion*, p. 559). The chief point enjoined was that patients should make the sarsaparilla for themselves, or at least have it freshly prepared, and should take plenty of it. Although it is an old and lmost disused remedy, and one now seldom prescribed, xcept as a medium for iodides, it certainly is one of considerable value as a substitute for the latter if administered in sufficiently large doses.—I am, etc.,

---

[1] *Pharm. Borussica*, 1847. This preparation contained lemon peel, cinnamon, cardamoms, and liquorice, and probably a little bichlori of mercury.

Leeds, March 26th. Chas. J. Wright.

Sir,—The fact that my friend Professor Clifford Allbutt as found it necessary to vindicate English medicine gainst me fairly takes my breath away. I cannot, on e-reading my lecture, conceive what expression of mine ould have given rise to such an erroneous interpretation f my intentions. The facts are simply these: Finding at some patients of mine, whom I had sent to Aix-la-hapelle, and whose cases had proved refractory to both ercury and iodide preparations, had derived great benefit t the hands of the Aix-la-Chapelle physician from the dministration in large doses of two sarsaparilla preparaons ordinarily used by him, of which the one, Zittmann's, universally known, whilst the other, Kobert's, had been far unknown to myself, I thought it simply right to ive the formula of the latter, and to recommend the dministration of sarsaparilla in these forms in my lecture order to let other patients derive the same benefits that y patients had obtained. That is all, and I really do not ink that anything could be more natural than that. here is not one word in my lecture which could, so far as can see, justly be interpreted that I had attributed the discovery" of administration of sarsaparilla in large ses in the treatment of syphilitic cachexia to German ysicians, and in particular to two German physicians, whose decoctions I am supposed to have attributed culiar virtues. Good Anglo-German relations are much o dear to me than that I should contribute to cause elings of irritation by indulging in Chauvinism, which perhaps even more intolerable in science than anywhere se.—I am, etc.,

London, W., March 24th. Felix Semon.

ECENT SURGICAL METHODS IN THE TREATMENT OF CERTAIN FORMS OF PARALYSIS.

Sir,—Mr. Mayo Robson's name is so well known in nnexion with other branches of surgery that he may ell be pardoned the amiable weakness of desiring to ndicate the claims of English (or rather British) surgery the region of the peripheral nerves.

In a letter published in the British Medical Journal March 10th he rather sharply criticizes certain portions the oration delivered before the Hunterian Society by r. A. H. Tubby, and which I had the privilege of aring.

Mr. Mayo Robson is apparently under the impression at he has some claim to priority in attempting to restore e continuity of a divided nerve; and as far as the exact ethod followed in the case mentioned, in which at a condary operation a gap in the median nerve was filled by a piece removed from the posterior tibial of a ently-amputated limb, there may be some basis in his ntention.

But one would have thought that sufficient was known wadays about the method of regeneration of divided rves to prevent such a procedure being advocated, or en rescued from oblivion. Mr. Mayo Robson's first eration of this kind was in 1888. But as long ago as 79[1] Mr. Hulke showed how very successful even late condary suture of a divided nerve may be. And the periments of Brown-Séquard[2] showed that a considerle length of nerve may be excised, yet the nerve be produced without its continuity being restored at all by erative measures. It is possible that the anatomical h for regeneration may be kept open by filling the gap h the spinal cord of a rabbit, as Mr. Mayo Robson ggests, but it may also be kept from obliteration by less blematical means. In fact a great deal remains to be d on this subject, and I do not doubt that indirectly it l be advanced by the study of the class of cases with ich Mr. Tubby was dealing in the oration in question. t however interesting this point may be, it does not pear to me to be the subject that Mr. Tubby was ling with at all. And it is difficult to see how the stion, for example, of grafting a slip from the internal pliteal on to the paralysed external popliteal in infantile paralysis is much elucidated by the interesting cases Mr. Mayo Robson mentions.

The subject is so recent that the terminology is as yet hardly stereotyped. But grafting seems to me to express well the idea, in contradistinction to the suturing of nerves, practised since the early Sixties of the last century. The restoration of continuity of an individual nerve, as described by Mr. Mayo Robson, belongs rather to the latter category.

Mr. Mayo Robson is astonished that one "who professes a speciality, and essays to give the history of it, etc." And I expect that his astonishment is equalled by Mr. Tubby's at finding that a short essay, such as the oration in question, is assumed to be an exhaustive account of the surgery of the peripheral nervous system; whereas it is evident that Mr. Tubby was only dealing with a special development thereof.—I am, etc.,

Finchley, N., March 14th. Vincent Moxey.

Sir,—My attention has been called to Mr. Mayo Robson's letter referring to the question of priority in "nerve grafting," and in his communication he places me under the reproach of minimizing the pioneer work of English surgeons in this procedure. It is evident that restoration of a "nerve in its continuity," which Mr. Mayo Robson terms "nerve grafting," is not identical with "nerve anastomosis," which was the subject of that portion of the Hunterian oration to which he takes exception. It therefore seems to me that the reproaches are undeserved.—I am, etc.,

London, W., March 27th. A. H. Tubby.

THE INFLUENCE OF POSTURE ON THE NORMAL CARDIAC SOUNDS.

Sir,—I am sorry I cannot gratify Dr. Samways by dropping the word "weight," which, as I have used it, is perfectly correct, or in admitting my theory wrong. Those who take the trouble to read the correspondence may easily satisfy themselves that no satisfactory evidence against my view has been adduced. Dr. Samways, if he re-reads his own most interesting letters, will find he has twice contradicted himself—first, with regard to the action of gravity on the valves; secondly, with regard to pressure generally acting on them. His arguments of a closed system of vessels and of aortic siphonage, as adduced in his first letter, are also incompatible. It can be readily shown that gravity acts above the level of the valves by holding up one's hand and noting its pallor in consequence; and Leonard Hill has shown that gravity acts below their level. Then why can it not act at their level? I maintain it does. I much value Dr. Samways's criticism, but in the present instance I believe he is wrong.—I am, etc.,

Exeter. W. Gordon.

ETHYL CHLORIDE AS A GENERAL ANAESTHETIC.

Sir,—I think Dr. McCardie, in his paper on ethyl chloride, sets the mortality somewhat too high. I can well believe that he was acquainted with all the deaths in the Birmingham district, but how does he estimate the number of administrations? In a large and populous district such as this I should have thought the number of administrations might well have largely exceeded the 12,000 he estimates up to November, 1905—that is, if cases in which ethyl chloride was given as part of a sequence were included, as they should be. I think that one reason the mortality from ethyl chloride has been higher than it should, and in the future will be, is that, owing to the facility of administration and much-vaunted safety, it has been given largely by those who are unskilled in the administration of anaesthetics, and perhaps with undue confidence.

With regard to the propriety of admitting air during the induction, this may be well enough in women and children; but if it is to be made an essential of safe induction will lead to the abandonment of this anaesthetic in men, owing to the uncertain results obtained.

In the case of danger recorded in your issue of March 24th I should consider that 8 c.cm. was too large an initial dose for a "woman of spare build"; also that after the induction something more than an "occasional breath of air" was required. I find an occasional whiff of the anaesthetic is usually all that is necessary.

---

[1] British Medical Journal, 1879, vol. i, p. 819.

[2] *Comptes rendus de la Société de Biologie*, Paris, 1882.

I quite agree that ethyl chloride is inferior to nitrous oxide for dental work, and for the reasons given by Dr. McCardie. The after-effects, if not serious, are certainly liable to be somewhat unpleasant.

Dr. Knight mentions the two methods of inducing ether anaesthesia with the aid of ethyl chloride, and states that they are equally satisfactory. After a considerable experience of both I have no hesitation in saying that if the patient is first got well under ethyl chloride and then ether rapidly pushed on to "3," there is great liability to spasm, cyanosis, and free secretion of mucus, symptoms absent when the method of gradually turning on the ether after a few breaths of ethyl chloride is employed.

In the induction of chloroform anaesthesia I think ethyl chloride most useful, but for reasons given elsewhere,[1] I do not think the usual method is desirable. The method I have described as the C.E.-ethyl chloride-chloroform sequence I find increasingly satisfactory. Briefly it is this: a small amount of C.E. is sprinkled on the flannel mask and inhaled for a minute or so, then a few c.cm. of ethyl chloride is sprayed on, and the whole well covered in by a folded towel; as soon as corneal reflex is abolished, or in another two minutes if this is still present, the towel is removed and the tone of the jaw muscles tested. If, as is generally the case, there is some spasm, chloroform or C.E. may be given safely until it tends to relax. An analysis of my last 100 consecutive cases gives the following results.

Males, 21; females, 35; children (up to 16), 44. Average initial dose of C.E., ʒij; average time of inhalation before spraying on ethyl chloride, 1.18 minutes; average amount of ethyl chloride sprayed on, 5.24 c.cm.; average time between spraying on the ethyl chloride and removal of the towel, 1.08 minutes.

At this stage the corneal reflex is nearly always lost, and patient ready for operation. In 8 cases this was not so, and some minutes longer were required before the induction was complete; there was, however, some special reason for this in nearly every case. The ages ranged from four months to 73 years, and the amount of the anaesthetics used and time of induction varied in proportion to the age of the patient.

In an experience of about 2,000 administrations of ethyl chloride, though I have not infrequently seen danger ahead, I have only known really alarming symptoms to develop in 3 cases, and in all the anaesthetic was being administered continuously. In one the trouble was due to spasm of the respiratory muscles with cyanosis; in the other two there were the usual symptoms of syncope, and in one of these they did not arise till what should have been the period of recovery.—I am, etc.,

London, W., March 26th. G. A. H. BARTON, M.D.Brux.

SIR,—In Dr. McCardie's paper concerning ethyl chloride in the BRITISH MEDICAL JOURNAL of March 17th, p. 616, he is enabled, by the courtesy of the administrator, to refer to a case of death in a man, aged 29, admitted to hospital in very bad condition, where an ethyl chloride and ether-chloroform sequence was used.

> . . . . 5 c.cm. of ethyl chloride were administered from an Ormsby's inhaler, when the breathing became stertorous, the pupils rather dilated and the jaws spasmodically closed. The patient's thighs were then flexed on the abdomen. Two breaths of a mixture of ether (two parts) and chloroform (one part) were given from a Silk's inhaler. Then the patient suddenly stopped breathing, became blue, and his pulse impalpable. *Post mortem* the heart was found to be small, pale and soft, and there was a large and very malignant sarcoma of the prostate, with secondary growths in the lung.

Surely it is a most dangerous practice to administer any mixture containing chloroform where the *close* system of anaesthetization has been so recently employed, with its deliberate limitation of air supply and its retention of expiratory products for rebreathing. Is it not an admitted principle that one safeguard in chloroform administration is ample access of fresh air? Hewitt remarks in his work on anaesthetics (Ed. 1901):

> The half-asphyxiated condition into which a patient passes when his air-way is intermittently occluded, or rendered temporarily useless for respiratory purposes in consequence of muscular spasm, rapidly tends to embarrass the heart's actio during the inhalation of chloroform. (Page 332.)

Surely another valuable safeguard in chloroform anaesthesia is the administration of definite doses of know percentage by suitable apparatus. Dr. Dudley Buxton, i a paper read at a meeting of the British Gynaecologica Society on March 10th, 1904, said:

> If we admit that a 2 per cent. vapour of inhaled chloroform even taken for a prolonged period, is not destructive to nerv and other tissues, that it does not render the dilated hear unable to contract sufficiently to maintain the circulation that it does not involve risk of fatal vagal inhibition, that i does not cause a dangerous fall of blood pressure, we have a least got to know what haven of safety we should seek. Fo the present we are, I submit, warranted in believing that possibly as our methods improve and our knowledge increase we may recognize that 2 per cent. is too high a concentration.

Dr. Buxton refers to Professor Waller's article in the BRITISH MEDICAL JOURNAL of April 23rd, 1898.—I am, etc.,

March 20th. M.R.C.S.Eng.

RURAL INSANITATION.

SIR,—My experience during a long and intimate familiarity with rural conditions and the homes of the poor compels me to contradict the assertion of "Limitation II" in the BRITISH MEDICAL JOURNAL of March 17th, p. 652 that "even mere hovels are all that is necessary for a hardy race of bone and muscle."

How about floors and walls reeking with damp, and accompanied by rheumatism and all manner of chest complaints? And how about tiny, close bedrooms, with windows that do not open, or are almost on a level with the floor, and in which there is a perpetual smell of closeness and unwholesomeness? Have these conditions nothing to do with constant headache, want of appetite, and indigestion? Only yesterday I was in such a hovel, with low ceilings, broken brick floor below the ground level, no damp course, general want of ventilation, and in the very small bedroom I was oppressed by the sense of chronic unhealthiness pervading the atmosphere, and the old, crumbling, bulging walls and rotten floor. Of course, there was no fireplace. The sick woman, who had sent to ask me if she could have a nurse, complained that she was never well, and believed her home to be a very unhealthy one, but there were no better ones to be had, so it was useless to complain.

If those who write would only acquaint themselves with the facts, and would observe the wonderful improvement in health on moving from insanitary to sanitary cottages, they would realize more justly the immense importance of healthy homes.—I am, etc.,

St. Neots, March 19th. C. COCHRANE, M.R.San.I.

THE POOR-LAW COMMISSION AND CONTRACT PRACTICE.

SIR,—I am pleased to see the question of club practice again raised in your correspondence columns. In face of diminishing work to do, and increasing numbers to do it, the question is becoming more acute. If club practice is extensive in any district it must adversely affect the rate of pay for private practice also. If one penny a week satisfies the doctors in a district for a large proportion of the work they do, they certainly need not be surprised if the public values the rest of their work about the same rate and pays for it accordingly. And, unfortunately, the habit of paying their doctor's bills so badly extends also to the patients of the general practitioner. It is idle to pretend that it benefits very poor people. Those who pay to clubs are of the more thrifty class who would endeavour to pay a little, and would certainly pay more towards a private account than they do through their clubs.

The thriftless, shiftless, careless, and drunken do not join clubs, and they are at present attended by the private practitioner, who has to do his share of this work without either thanks or reward. The club doctor probably escapes this class of work better than the ordinary general practitioner. The system is radically wrong and unfair, but if only self-preservation is to be considered as the aim of each then any progress will be impossible.

The abuses of the system are notorious, and no effective check seems possible. Personally I feel sure that the clubs will never universally submit to the imposition of a wage limit and its constant inquisitorial revision. The only effective remedy would seem to be—end it.—I am, etc.,

March 19th. J. J. H. H.

---

[1] *Guide to the Administration of Ethyl Chloride.*

Sir,—With all due respect it is sheer nonsense to say at my position will not be damaged if my club and rish patients, instead of being limited to myself, have eir choice of several medical attendants. It stands to ason that it must be so, although I get on very well ith them all, and have never had any complaint made ainst me since I have been here—nearly ten years.

Two of the clubs in the village give their members e choice of two medical attendants, and some of them ve my colleague. If the other clubs follow suit he uld have some of their members too. In two of the tlying parts of my parish, which are nearer the resinces or branch surgeries of my neighbours, I do comratively little private practice, although I still retain e contract work; but if those contract patients have eir choice they will follow the example of the private tients, and have the nearest man.

One of those neighbours tells me that I should probably se all my practice in the district in which he has a rgery unless I opened an opposition one. That I do not opose to do. Nothing annoys me more than to see in a ttage window a piece of paper with the notice: "Dr. A. B. attends here Mondays, Wednesdays, and Fridays at .m." I am always in doubt at first whether I shall read nangling done here," or "rags, bones, and bottles ught here."—I am, etc.,

larch 25th. Self-Preservation.

MIDWIFERY OF THE PRESENT DAY.

Sir,—Dr. Rees's letter on this subject expresses a ich-needed protest against the dominance of the present *ssez-faire* school of midwifery, and will, I am sure, be artily endorsed by the majority of general practitioners. hile all admit that parturition is a physiological and t a pathological phenomenon, it is essential to remember at the civilized woman is not in a normal environment, d cannot vie with the independence displayed on these casions by the Indian squaw or the Esquimaux mother. rther, to compare parturition in women with the same in the lower mammals is positively unscientific, since, h the adoption of the upright position, the human ecies has exchanged a straight pelvic axis for a curved e, and it is this curvature of the pelvic canal that has essitated all the chapters that have been written on the echanism of labour."

he fear of sepsis is, as Dr. Rees remarked, largely a tter of the "swing of the pendulum." The meddlesome dwifery of the past, and the congregation of women in ng-in hospitals, naturally begat a horror of puerperal sis that tends to make the modern obstetrician forget t Nature has her own weapons against a limited num- of germs. Between the actual marshalling of the es of infection which took place in the pre-Listerian s, and the present hopeless and unnecessary attempt ttaining absolute and impracticable asepsis, there is a media along which the experienced practitioner now ks in safety, and earns the thanks of his patients for ening their pain without prejudicing their recovery. ile I hold strongly that it is the duty of every practiier to learn to diagnose accurately the position of the s by external palpation alone, experience shows that frequent vaginal examinations are quite innocent, out the adoption of any elaborate ritual of asepsis. h regard to chloroform the administration of a very ll quantity just as a "pain" is approaching its culation is a source of the greatest relief to the mother, has no effect in lessening either the strength or the uency of the uterine contractions. It is important to d that stage of narcosis in which self-control is lost le sensibility to pain remains, but in very sensitive en it is often possible by suddenly pushing the chloron to produce "primary anaesthesia" during the actual lsion of the head. Used in this way I have never wn chloroform to be responsible for *post-partum* norrhage.—I am, etc.,

Fred E. Wynne, M.B., T.C.D.

gh, Lancs., March 26th.

R,—The method of midwifery described by Dr. rocks in the British Medical Journal of March 10th t be better described as antediluvian. Nature aded women to deliver themselves easily, but civilization, injudicious breeding, and modes of dress and occupation have interfered, and the art of midwifery must come to the rescue.

Nature was innocent of antiseptics, or she would have provided glands for the secretion of carbolic acid, etc., and of course, asepsis as at present understood was out of the question in the Garden of Eden. Therefore, the evolution of antiseptics and asepsis cannot, in spite of Dr. Horrocks's dictum, have brought about a revolution in the practice of his method of midwifery.

It used to be said that an obstetric physician should be confined to the scissors. To bring the saying up to date I would suggest that an obstetric physician of the Garden of Eden type ought to be confined simply. One single experience would revolutionize the practice of midwifery and justify my practice. I use chloroform and the forceps in every possible case, and have done so for many years. The whole proceeding occupies from 15 to 40 minutes, according to the difficulty of the case.

I support the perineum, or rather, push the head forcibly forward. Ruptures of the perineum occur more frequently where women deliver themselves.

I remove the placenta with the hand when it does not come away by attempted expression within five minutes of the birth of the child. I use a tight binder, and make sure the uterus is quite contracted by squeezing it just before leaving the house. Hence, and because the uterine muscles are never allowed to get over-tired and no piece of placenta is left behind, *post-partum* haemorrhage never occurs.

Antiseptics are worse than useless. Practical asepsis may be obtained by observing the following rules:

Always use thick rubber gloves when doing a *post-mortem* examination.

Never touch a case of infectious or contagious disease if possible.

After having been exposed to infection do not attend a midwifery case without changing the clothes and having a bath, and scrub the hands thoroughly with pumice stone soap. Do not wear gloves if you can help it. Wash the hands at the patient's house before examining. Having observed these rules do not bother about micro-organisms. Their status is not yet proven, and none will be left to do any harm. The present system of sterilization of the hands will follow the carbolic spray into oblivion.

If anything savours of being "almost criminal" it is the turning out on the public of young doctors who have never used the forceps.

Three thousand cases are running every year to waste at Guy's, many of whom would be only too glad to be relieved speedily of their sufferings. Under proper supervision by skilful men this might easily be accomplished, and not only would the patients derive benefit, but also the students and the rising young obstetricians who might be put in charge of this department.

I hope midwifery will no longer lag behind the times, and I am sure there are hundreds of general practitioners who, like myself, can testify to the safety and advantage of the advanced method.—I am, etc.,

North Shields, March 26th. F. C. Mears.

THE TYPHOID AND COLON BACILLI.

Sir,—I notice that, in your abstract of Dr. Nash's paper read before the Epidemiological Society on March 16th, it is stated that I "had found *B. coli* from water react with typhoid serum." I do not remember having made such a statement. I have certainly stated that the blood, or blood serum, of patients affected with typhoid fever could not be used to test whether a bacillus was the *Bacillus typhosus* or the *Bacillus coli*, because it was impossible to exclude the possibility of a *Bacillus coli* infection being superadded to the typhoid infection. In such cases of mixed infection the blood may give a distinct clumping reaction with more than one kind of bacillus. This, however, is not proof of the non-specificity of the reaction. There are other proofs that the clumping reaction is not an absolutely specific one, but, when proper care is taken to estimate the degree of action, it is found that there are few reactions more specific.—I am, etc.,

Sheridan Delépine,
Director of the Public Health Laboratory.

Manchester, March 25th.

PROPOSED GENERAL HOSPITAL AT PUTNEY.

Sir,—With reference to your report of the meeting called to consider the above question, will you allow me to deny that I said that the profession had no *locus standi?* What I said was that "they that pay the piper have a right to call the tune," and that it was useless for us to dictate to the trustees and the public what type of hospital they should erect with their own money; also that, the hospital being established, we should see to it that it was conducted on lines that would not prejudice the interests of the local profession. Those whom I said had no *locus standi* were medical men imported from distant places to vote for the resolutions, whose interest in the matter must have been purely academic.—I am, etc.,

Putney, March 24th. W. G. Dickinson.

MEDICO-LEGAL AND MEDICO-ETHICAL.

AN INQUISITION IN LUNACY.

Lunacy inquiry on Mr. Percy C. Gilchrist, F.R.S., held before Master Fischer, K.C., and a special jury at Shrewsbury, March 20th, 21st, and 22nd. The petition was presented by the family of the respondent for the control of both person and property. Mr. McCall, K.C., appeared for the family; while Mr. A. Powell, K.C., appeared for the alleged lunatic. In opening the case, Mr. McCall pointed out that the respondent was a F.R.S.—a distinguished inventor, who had made a considerable fortune, but who, unfortunately, had on more than one occasion been of unsound mind, and once before had been the subject of an inquisition, when, in 1899, he was found to be a person of unsound mind, unfit to manage himself or his affairs. He was in the institution at Virginia Water then, but recovered and was discharged, and lived a normal life for so long that it was decided to apply for a *supersedeas*, the medical men who originally signed the certificates for his detention now certifying that he was sane and again fit to manage his affairs. He remained well till, in the spring of last year, when at Pau, he almost suddenly became maniacal, and had to be placed in a French asylum; he was seen by Dr. Brown of Pau, and later, with attendants, was brought to England, where he was placed under Dr. J. Adams at Brooke House, Upper Clapton. There he was frequently seen by his private medical man, Dr. Andrews of Hampstead. He was transferred to the care of Dr. Sankey, Boreatton Park, Baschurch, near Shrewsbury. There he was allowed a very considerable amount of liberty, but as he did not improve it was determined to hold another inquisition.

Evidence having been given as to the patient's condition at Pau, on the journey home, and at Brooke House, Dr. Savage and Dr. Percy Smith gave expert evidence as to their visits and examinations of the alleged lunatic. They both pointed out the insanity of his conduct, instancing, among other things, that being a highly-trained and scientific man he spent his time in childish experiments in boiling urine with vague ideas that he was going to make fortunes. They also pointed out that his dress was unusual, and it was proved in evidence that he had on a large series of garments, ranging from a sack next his skin to thick woollens externally. It was suggested in cross-examination that the experiments, though apparently silly, might have great value, as many inventions have been the result of accident, and that though he might suffer from mental excitement, that could not be considered insanity. Finally, it was suggested that even though he was peculiar, or perhaps of unsound mind, yet he might be treated away from an asylum. Medical witnesses for the respondent, while admitting that there was evidence of unsoundness of mind, considered that he might be treated in single care.

The Master summed up at the end of the three days' inquiry, and the jury by a majority of 17 to 6 decided that he was of unsound mind and unfit to manage his affairs.

The chief points of interest in the case are that a patient suffering from recurrent mania was, after a costly process in 1899, found to be of unsound mind and unfit to manage his affairs, and yet recovered so far as to be allowed perfect liberty again, only to once more break down and cause immense expense and trouble before he could again be deprived of liberty to injure his own prospects and those of his family. Is it beyond the wit of man to devise some legal process by which a man who, having once been found insane and unfit might on recurrence of the symptoms be again placed under the Court rapidly and without the publicity and cost involved in an inquiry? The case itself is full of medical interest. A man of great originality and power loses, when insane, all his common-sense in the pursuit of experiments of the most childish nature. It was pointed out by various witnesses that Mr. Gilchrist now is altogether a different man, so that instead of being what one witness described as the "beau ideal of a gentleman," he is boastful and even tending to coarseness. The Master fully appreciated the danger involved in any form of treatment other than that in an asylum.

SICK CERTIFICATES GIVEN BY UNQUALIFIED PRACTITIONERS.

The case reported in our columns last week, in which unqualified practitioner was fined £60 and £10 10s. costs three summonses for illegal use of the title of "Doctor," has special importance at present, in view of the Medical Ac Amendment Bill which is being promoted by the Associatio It was proved that the defendant had on his door a brass plat inscribed "Dr. Muschik"; that on the three occasions which a witness for the prosecution visited him he posed as qualified medical man, took his temperature, felt his puls and otherwise examined him as a medical man woul prescribed warm baths and his own peculiar form of "vibr tion," and for all this charged a fee of five guineas, which consented to reduce to three guineas, claiming that h extensive practice comprised Members of Parliament a other distinguished persons, who paid him fees varying fro three to five guineas. All this is but the familiar routine the quack, but the chief interest in this case lies in the fa that the defendant not only informed the plaintiff (a perfect healthy clerk in the employment of the solicitor to the Medic Defence Union, who instituted the proceedings) that he w suffering from "fever," and suggested that he must at on take to his bed, but signed a certificate to that effect f presentation to the plaintiff's employers.

It may fairly be inferred that what was done in this ca had often been done before, and the case therefore proves th more adequate protection against unqualified practice required, not only in the interests of members of the publ who may resort in all innocence to such persons, but employers, sick clubs, Friendly Societies, and insurance cor panies, any of whom might be mulcted on the strength of certificate signed by a quack for his own purposes, with a vie to the retention and exploitation of his misguided and innoce patient.

Mr. Paul Taylor's characterization of the defendant as " particularly impudent impostor" was thoroughly justifie and the Medical Defence Union is to be congratulated on tl exemplary penalty inflicted. It is to be hoped that the poi raised in this case by the certificate of unfitness for work wi be sufficiently emphasized when the Bill for the Amendme of the Medical Acts comes up for discussion in the House Commons.

MEDICAL WITNESS AND INQUEST.

M. B. writes as follows: I was called a few nights ago to see child who had fallen off a sofa on its head on a tiled flo It was still unconscious when I saw it about six hours afte wards. There was no external wound, and no localizi signs of internal injury, but only a large bump above tl right eye. It died about twelve hours after the acciden without regaining consciousness. I informed the corone and heard no more about it. Should I not have been call to attend the inquest? In such a case am I bound to gi information to the police, if they ask for it, or can I refuse Am I bound to attend an inquest if I only receive a verb message, and not a formal printed notice?

⁂ The coroner can call what witnesses he likes at tl inquest, and adjourn further, if the case is not proper explained to himself and the jury in the absence of a medic witness, whom he is not bound by law to call. A medic man need not give the police or coroner's officer any info mation before the inquest, but it is usually done, that tl coroner may know something of the case beforehand. If medical man receives a verbal message from the corone officer to attend an inquest, he should do so if he accepts i but otherwise he should request a formal summons.

MEDICAL FEES AT INQUESTS.

J. A. R. states that he is house-surgeon at a hospital in the Nor of England, and one of his duties is to visit out-patients their homes. Recently, he says, I had occasion to attend a inquest held on the body of one of these patients and to pe form a *post-mortem* examination on the body at his hous The man was never at the hospital at all. On applying the coroner for my fees he refused them, as I was a hospit doctor. Can you tell me if I am legally entitled to them?

⁂ Our correspondent is legally entitled to two guinea one for giving evidence, and one for the *post-mortem* exan nation. Had the patient died in the hospital J. A. R. wou not have been entitled to fees. (See Coroners Act, 188 Section 22.) The coroner must have made a mistake.

THE ACTION OF A SPECIALIST.

Seniat asks for our opinion on the following case: A. and h family had been Seniat's patients for years, but when in tow A. consulted B., who advised and performed certain oper tions; when A. returned home, "acting under pressure from B., he sent for C., without communicating in any wa with our correspondent, who complains that this is tl second time B. has sent back one of his patients to be und C.'s care.

⁂ As B. had no relations with our correspondent he w e to recommend the patient to place himself under the e of his friend. While such conduct is injudicious, as ely to offend the regular medical attendant, it does not volve a breach of etiquette, as would be the case if the tient had been sent by Seniat to B., who probably asked questions, and was ignorant of Seniat's connexion with case.

MEDICAL CERTIFICATES.

E says that he has been asked to fill up a certificate for an ident insurance company in which the two following estions occur as to the applicant; (1) Is he of sober and nperate habits? (2) Was he in your opinion perfectly er at the time of the accident? and our correspondent s whether if he were unable to reply in the affirmative to h these questions he would be justified in answering in cordance with the truth or whether he would be liable in h case to an action for damages. He adds that in his nion "any man who would grant a certificate in general ms to a patient knowingly unqualified in such a manner, uld not violate his conscience greatly by filling up the eries in question in the affirmative."

* Any such difficulty is avoided if the medical practiner recognizes that he has no right to answer such quesns for an insurance company without first obtaining the mission of his patient, which should be in writing; if the wers are likely to be prejudicial to the patient's claim s should be made known to him when asking his consent. e meaning of our correspondent's final remark is not quite ar, but it is a truism that any one who is in the habit of ling with his conscience in small matters will find it no ger a sure monitor on greater occasions. It is hardly essary to say that it concerns the honour of the medical fession that medical certificates should be given with the st scrupulous regard for the truth.

AGREEMENTS NOT TO PRACTISE.

B. EAMES writes: A. buys a practice from B., B. signing agreement not to practise within ten miles for a period of years. A. sells this same practice to C. After fourteen rs have elapsed B. comes back and puts up his plate in same house he practised in before. Would (1) this be sidered correct medical etiquette? (2) or an honourable ceeding? As B. has called on the doctors around, what uld be the correct way for those doctors, including C., to t B.?

* As the contract was limited to ten years, it does not n reasonable to complain of B. for returning after rteen years.

COMPETING FOR CLUB APPOINTMENTS.

MBER writes: A. is medical officer to a certain provident itution, B is a member of its committee, and C. is a lical practitioner in the district. B. came to C. as a vate patient, and incidentally told him that several nbers of the said institution wished C. to join it, because y did not get proper and personal attendance from their sent medical officer, who resides at a longer distance, and B sked whether C. would accept the appointment if offered im. C. consented, and B. brought the matter before the mittee, who said that if at least twelve members of the itution sent in a written requisition their application ld be considered. B., along with others, sent in such a isition; the result is not yet known. A. complains of or canvassing to his detriment. Is it justifiable?

* It is generally regarded as unfair to allow oneself to be in competition for a club appointment before a vacancy eclared.

ESTIMONIALS IN TRADE ADVERTISEMENTS.

—The Dr. Andrew Wilson, F.R S.E., whose pamphlet on atogen has been received by our correspondent, is not gistered medical practitioner, but a popular lecturer on siology, and the writer of numerous articles on diet and d subjects in the newspapers and magazines.

TAL PRACTICE QUALIFIED AND UNQUALIFIED.

) At the last session of the General Medical Council several stered dentists were brought before it on account of their nexion with an advertising company, and certain of them struck off the *Dentists' Register*. (2) There is nothing revent a registered practitioner, whether medical or al, from opening a medical or dental institution for gain ng as the conduct of such institution does not include proceeding which has been held by the General Medical cil to constitute infamous or disgraceful conduct in a essional respect. (3) Any unqualified person calling self surgeon-dentist is liable to prosecution in an nary court of law, and any one can prosecute (see Dentists Act, sec. 4, amended by Medical Act 1886, sec. 26). (4) Probably a person holding the diploma L.D.S. could continue to call himself L.D S., even after his name has been erased from the *Dentists' Register*, if the licensing body has not itself taken steps to remove his name from their own lists. But they generally take this step. The legal point has not however been, so far as we are aware, decided by a law court.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

The Quick Professorship of Biology.

THE Council of the University has recommended to the Senate a scheme for the administration of the Quick bequest which contains the following proposals: That a Quick Professor of Biology be appointed at a stipend of £1,000 a year; that the professor shall devote himself to the study of protozoology; and that the professorship shall not be tenable for more than three years without a fresh election, the election of the professor to be made by the Board of Managers for the administration of the fund. The report embodying these proposals will be voted on by the Senate next term. The electoral body for the Quick Professorship cannot be appointed until after the report has passed the Senate. Teaching and research posts in biology and assistance in the general maintenance of the laboratory will also be provided out of the income of the fund.

Readership in Hygiene.

The General Board of Studies recommend that Dr. G. H. F. Nuttall, M.A., F.R.S., of Christ College, be appointed Reader in Hygiene, at a stipend of £250 a year; £150 of which will be provided by the State Medicine Syndicate.

Compulsory Greek.

The Studies and Examination Syndicate have issued a second report to the Senate. It is proposed to make a distinction between students in Letters and students in Science, and that the former only shall be required to take both classical languages in the Previous Examination. Students in Science must take either Latin or Greek, and one other language, either French or German. The Tripos Examinations would be divided into two groups, one for Letters and the other for Science, and the corresponding degrees would be Bachelor of Arts in Letters or in Science. Other proposals are made also for the examination for ordinary degrees. A notice of non-placet has already been issued by the Master of Emmanuel, and the Syndics are not unanimous, so that opposition is expected.

UNIVERSITY OF LONDON.

INSTITUTE OF MEDICAL SCIENCES FUND.

THE Senate has authorized the formation of a general committee to promote the objects of this fund. The following have expressed their willingness to join the committee:

The Chancellor, the Earl of Rosebery, K.G. (President), Sir Edward H. Busk (Vice-Chancellor), Sir Arthur Rücker (Principal), the President of the Royal College of Physicians of London, the President of the Royal College of Surgeons of England, Lord Avebury, Lord Justice Cozens-Hardy, Lord Rothschild, the Bishop of London, the Bishop of Stepney, Sir Thomas Barlow, Bart., Mr. Alfred Beit, Mr. Cosmo Bonsor, Sir Wm. Broadbent, Bart., Mr. A. C. Cole, Sir Michael Foster, K.C.B., Sir Edward Fry, Mr. Henry Harben (Chairman of St. Mary's Hospital), Sir Francis Laking, Sir Charles Metcalfe, K.C.M G., Sir Walter Palmer, Sir Cooper Perry, Sir William Ramsay, Sir Henry Roscoe, Mr. Alfred de Rothschild, Mr. Leopold de Rothschild, the Hon. W. F. D. Smith, Sir Frederick Treves, Bart., Mr. J. G. Wainwright (Treasurer of St. Thomas's Hospital), Sir John Wolfe-Barry. The Honorary Treasurers are Dr. J. K. Fowler and Mr. H. T. Butlin. A considerable sum is still required in order to carry out the scheme.

KING'S COLLEGE.

THE Chair of Obstetric Medicine and Diseases of Children at King's College, London, having become vacant through the resignation of Dr. T. C. Hayes, the Council resolved to divide the Professorship, and to appoint a Professor of Diseases of Children and a Professor of Obstetric Medicine and Diseases of Women. Dr. G. F. Still, Assistant Physician for Diseases of Children to the hospital, has been appointed to the first-named chair, and Dr. John Phillips to the second. So far as we are aware, Dr. Still is the first Professor of the subject in this country, although in many of the medical faculties of the universities of Germany and America professors of the diseases of children were appointed many years ago. Dr. Still, who has made many contributions to the knowledge of disease in childhood, especially with regard to posterior basic meningitis, has previously lectured on the subject at King's College, and in future will give six lectures during the winter session.

Dr. W. E. Dixon, of Downing College, Cambridge, has been appointed to the Chair of Materia Medica and Pharmacology. Dr. Frank E. H. Taylor has become Demonstrator of Bacteriology.

UNIVERSITY OF LEEDS.

At a congregation of the University held at the Medical School on March 23rd the following were presented by the Dean of the Faculty of Medicine for the degrees of Bachelor of Medicine and Bachelor of Surgery, which were conferred by the Vice-Chancellor:

J. S. Crawford, R. B Radcliffe, and A. L. Walker.

The following students have passed Part I (Anatomy and Physiology) of the Second M.B. and Ch.B Examination:

H. L. Fline, J. H. M. Frobisher, S. M. Hepworth, G. A. C. Mitchell, G. C. H. Nicol, and H. Vallow.

The third term or summer session begins on April 23rd, and closes on July 13th.

VICTORIA UNIVERSITY OF MANCHESTER.

The following candidates have been approved at the examinations indicated:

Anatomy and Physiology.—J. A. Bateman, T. B. Bolton, Norman Booth, C. H. Broomhead, G. Crawshaw, W. C. Denniston, H. M. C. Green, J. H. C. Green, Frances M. Huxley, F. F. Laidlaw, E. K. Lomas, W. P. Marshall, W. W. Martin, John Morley, L. M. C. Skillern, J. Thompson, R. B. Thompson, W. W. Uttley, T. G. Williams, A. E. Woodall.

Materia Medica and Pharmacy.—Elsie Brown, W. A. Bullough, E. Gandy, C. Pimblett, B. E. Trevor-Roper.

Final Examination (Part I)—J. W. Bride, J. F. Dow, J. A. Fairer, F. Hartley, C. G. Howlett, R. Lakin, W. P. Moffet, P. Moran, W. Nightingale, Alice Oberdorfer, C. H. S. Redmond, R. Robertson, Elsie M. Royle, A. C. Turner, G. B. Warburton, H. Whitehead, N. R. Williamson.

Part II.—C. Brown, F. da Cunha, H. M. Fort, W. George, P. J. Harris-Jones, G. Heathcote, A. W. Howlett, F. H. Lacey, R. Nightingale, P. L. Pollard, M. R. Potts, Julia C. White.

Diploma in Public Health (Part II).—H. J. Crompton, C. H. Dyer, H. D. Haworth, A. S. Parkinson, F. E. Tylecote.

CONJOINT BOARD IN IRELAND.

The following candidates have been approved at the Preliminary Examination in March:

J. Gormley, F. J. Eager (with honours); E. T. Beatty, T. Buckley, W. N. Burack, S Carroll, H. F. Connolly, H. G. Crawford, L. E. Egan, T. FitzGibbon, P. Grace, F. Healy, G. J. Hosty, D. Kelly, B. F. Murphy, P. McGrath, J. J. O'Connell, M. O'Donnell, C. H. Oliver, C. Petit, J. J. Reynolds, J. R. Kelly, E. U. Russell, W. Stewart, W W. Shorten, L. J. C. Smyth, T. M. Thomson, F. W. Warren, and L. Wynn-Roberts.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

The President and Council have appointed Dr. Wolfenden Collins, of Sydenham, formerly Surgeon to Jervis Street Hospital, Dublin, a delegate to represent the College at the coming International Medical Congress at Lisbon.

TRINITY COLLEGE, DUBLIN.

The following candidates have been approved at the Intermediate Medical Examination, Part I:

S. F. A. Charles, W. E. Hopkins, G. G. Mecredy, N. P. Jewell, D. P. Clement, A. H. Smith, *C. W. Laird, *F. R. Seymour, †E. C. Lambkin, †H. H. Ormsby, †R. de C. Wheeler, J. F. Clarke, A. S. M. Winder, F. A. Anderson, W. H. McCarthy, H. R. Kenny, J. H. Morton, W. E. M. Armstrong, F Smartt, J. B. Jones.

* Equal. † Equal.

SOCIETY OF APOTHECARIES OF LONDON.

The following candidates have been approved in the subjects indicated:

Surgery.—†A. J. Ambrose, †*J. B. Banister, *W. V. Pegler, *T. R. Roberts, †*A. F. Van Dijk.

Medicine.—†*J. B. Banister, †A. W. S. De Vine, *R. C. T. Evans, J. P. E. Henery, F. F. L. How, *F. J. F. Jones, †*E. Lowry.

Forensic Medicine.—J. B. Banister, F. J. F. Jones, J. W. Peatt, C. S. Spencer.

Midwifery.—J. B. Banister, M. L. A. Boileau, A. W. S. De Vine, P. Moxey.

The diploma of the Society has been granted to Messrs. J. B. Banister, J. P. E. Henery, F. J. F. Jones, E. Lowry, T. R. Roberts, and A. F. Van Dijk.

† Section I. * Section II.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

EVOLUTION AND CONSCIENCE.

Speaking at a meeting of the York Health and Housing Reform Association last week, the Bishop of Ripon put the present position of public feeling in regard to questions of hygiene in a somewhat interesting light. He was optimistic as regards the future, because, he said, he was a thoroughgoing evolutionist, and believed that this world of ours was ordained by God to go forward. Physical evolution might have ceased because physical development had reached its climax, but evolution itself had not ceased; it was merely taking another direction—that of intellectual, moral, and social progress. One of the direct results was the development of a collective conscience. Truly, to estimate the magnitude of this and to assess the improvements to which it had led and would lead, they must look back sixty or seventy years. At that time there was very little in the nature of the feeling which he described as a collective conscience among the public at large respecting poverty, weakness, and suffering in relation to insanitation and neglect of hyg But if we looked at what was going on at the present d America, in France, in Germany and among ourselves, was evidence of a wonderful advance in the sense of res sibility towards the weak. As for the national life of Britain in particular, we were beginning to see people tal interest, and to feel bound to take an interest, in the c tions of the life of the poor around them. The evolutio process had gone on, and not only was a collective consci aroused, but there was an individual sense of responsib obligation, and affection within the limits of the family the tribe; it was growing too, but more slowly with regar the nation as a whole. Such societies as the York Health Housing Reform Association were valuable, because stimulated the evolution of the collective conscience, showed the way in the direction of practical work. By stupidity of our own arrangements we often at present c God's gifts; we made fresh air impossible to some and sunshine out of the reach of a great many. T was no good reason why people should be crowded insanitary dwellings nor was it right that chil should be brought into the world and so inadequately fed they had no chance of maturing. It was our duty to see every fresh human being born had a fair chance to dev healthily. To those engaged in preaching the gosp hygiene and in endeavouring to secure its practical app tion, the progress is apt to seem slow, and the Bishop' minder that we should compare the present with the past the point On the other hand, he has perhaps rather estimated the extent to which the formation of a colle conscience has been completed. Whatever opinions ma held on this point, the medical profession, at any rate take credit to itself for the existence of any public consci in matters of hygiene at all.

FEE FOR ATTENDANCE ON COMPLICATIONS AFT CONFINEMENT.

P. V., a district medical officer, in obedience to medical o attended a patient who had been confined (under a midw three days previously. He found the woman in alm hopeless condition from retention of parts of placenta, w he removed under chloroform, and, after much subseq attention, she recovered. He asks whether he is entitle the fee of £2.

*** As the proper order for medical attendance on this was granted soon after confinement and the patient was in a serious, or perhaps more correctly a very danger condition, which was unmistakably a direct consequenc her past labour, our correspondent is no doubt entitle the maximum fee of £2.

DISTRICT MEDICAL OFFICERS' APPOINTMENTS

Agricola is a medical man resident in a union divided two districts, No. 1 and No. 2; the latter is further subdiv into two wards. Agricola is a new comer, who has recently appointed medical officer and public vaccinat one ward only of No. 2 district. He asks whether h entitled to hold the appointments for the whole of N district, and if so what steps he ought to take in the mat

*** We do not quite understand how it is that "Agricola" become appointed to any *part* of a medical district. If is really the case it is quite an exceptional appointment whether it be a correct description of his present positio not, we cannot advise him to take any steps whateve disturb present arrangements unless a vacancy to some now filled should be declared.

FEE FOR TEMPORARY TREATMENT OF FRACTUR THIGH.

Goidel, a district medical officer, attended a tramp who fracture of the femur, which he put up temporarily, and sent the patient to the workhouse, where he was su quently treated by the surgeon there. He asks what fe can claim.

*** We assume that attendance on the patient in ques was in compliance with a formal medical order, and, i our correspondent would have been entitled to a fee of but this only if he had continued to treat the case. Th evidently could not undertake, and consequently he is entitled to the full fee. We should recommend him, th fore, to make a claim for one-half of that amount only, even this might be disputed by the guardians if no me order for attendance was given.

THE LOCAL GOVERNMENT BOARD ON WHOLE-T PUBLIC VACCINATORS.

A Public Vaccinator writes: The action of the L Government Board in advising the appointment "whole-time" public vaccinator at Croydon denotes a concession to the clamour of public bodies for econom the expense of their servants), and connotes a strange ard of the interests of the medical profession with which work of the Board brings it so much in touch. It has er yet been shown that public vaccinators are too highly d, but, even if they were, this method of meeting the iculty shows a regrettable lack of ingenuity. Boards of rdians will, of course, be satisfied; their concern is only h the cost of vaccination, not at all with the efficiency of performance or the welfare of their professional em- yés; indeed, most of them would view with complacency abolition of vaccination and the extinction of the office ublic vaccinator; but it is the duty of the Local Govern- t Board to see that the Vaccination Acts are properly ried out, and it is no less a duty to ensure that those aged in the work receive fair play, and fair pay. The ydon guardians did not apparently regard the cost of cination (between £400 and £500 per annum) as an intoler- burden; it was left to these economists of the Local ernment Board to point out the necessity for a reduction. the Board adopted the axiom that no man outside its *personnel* is worth £500 a year?

is disturbing to consider the consequences of a wide- ad adoption of the new "whole-time" policy. Much dship may be inflicted on existing public vaccinators. ew order of practitioners will be created, condemned to deadly monotony of scratching arms day in and day out. will be a dull dog indeed who will not strive to escape n a position which offers no hope of advancement and ars him from the exercise of a profession which he has uired with so much toil. An outlet will be sought, and nay well be in the direction of cultivating a private ctice within his vaccination area. Is there no danger e to the private practitioner?

it be imperative that the cost of vaccination should be uced, it should not be difficult to achieve this without ous disturbance of existing arrangements. Poor-law lical officers are paid by annual salary. Why not public cinators? Most public vaccinators would consent to e reduction in the amount received from fees in return security of tenure. And the analogy of the Poor-law lical service suggests again: if Poor-law medical officers permitted private practice, why should vaccinators be arred? If it be urged that the system of home visiting s the vaccinator in practice an unfair advantage there be few vaccinators who will object to its abandonment. eed, it would be heartily welcomed by those who, like elf, have become widely regarded as a "vaccination tor" only, and so suffered actual loss. And we should be eved of the odium of being considered one of the crowd allers that beset the doorsteps of the working class—the collector, the sewing-machine man, *et hoc genus ne!*

he voice of the profession should unanimously condemn heme which, whilst benefiting none, seriously affects the rests of a large section of its members, and which has arently been framed in a spirit of indifference to any sideration except that of economy.

OBITUARY.

JOHN MICHAEL HARDING MARTIN,

M.D., F.R.C.S., J.P.

MARTIN, of Blackburn, whose death occurred with pected suddenness at his residence on March 20th, cerebral haemorrhage, was born at Liverpool on 5th, 1847, and was the son and grandson of medical He was educated at the University of Edinburgh, ersity College, Liverpool, and Brussels. He became . in 1874, but always remained an active student, and ugh engaged in a busy and extensive practice he ned the following additional diplomas and degrees: .P.Lond. (1881), F.R.C.S.Eng. (1889), M.B. and B.S. , and M.D. Victoria University of Manchester (1892).

Martin had practised in Blackburn for nearly y-five years, and at the time of his death was a g surgeon in the town and district. He had been on to the Blackburn and East Lancashire Infirmary wenty-one years, and retired in 1904, according to His services to that institution were of the greatest ole value, and will long be remembered.

interest in the British Medical Association was ially great and useful, and for many years he acted local secretary. One of the honours which he most was that of being elected the first President (under ew constitution) of the Lancashire and Cheshire h of the British Medical Association. Many will mber the scholarly, scientific presidential address he delivered in Blackburn on that occasion, entitled Vomiting of Pregnancy." He contributed occasion- o the medical press, and was the author of *Ambulance res* (1895), of which there were four editions. Himself possessing a fine military figure, he encouraged the development of manly sports. He was President of the Blackburn Cycling Club, and gave a silver cup to be won outright each year. The volunteer movement also claimed much of his attention, and he was Major Commanding the North-East Lancashire Bearer Company (R.A.M.C.), and Surgeon-Major of the Army Medical Reserve.

He was made a Justice of the Peace for Blackburn in 1887. A Roman Catholic and a Conservative, he held decided views on the question of denominational teaching in the day schools.

He loved his profession, and worked generously and enthusiastically. His presence at social and scientific meetings was always appreciated, and he was a fluent and able speaker. Sympathetic to a degree, he was always loyal to his colleagues. His home life was particularly happy, and there existed between himself, his wife, his four sons, and four daughters the most complete understanding. Small wonder, then, that when his remains were laid to rest on March 23rd, there was a striking manifestation of respect and sympathy. The funeral was joined by a long procession consisting of Police, Magistrates, Infirmary Board of Management, Infirmary Staff—practically all the medical men of the town—and others. The town is deeply sensible of the heavy loss it has sustained in the death of one of its most prominent citizens, cut off as he was in the prime of life, and removed from a sphere of immense usefulness to his fellow-men.

MAX NITZE, M.D.,

PROFESSOR OF UROLOGY, UNIVERSITY OF BERLIN.

DR. MAX NITZE, whose death was announced in a recent issue of the BRITISH MEDICAL JOURNAL, was born in 1848, and studied medicine at Heidelberg, Würzburg, and Leipzig. He took his Doctor's degree in 1874, and from 1876 to 1878 was Assistant in the Dresden Municipal Hospital. During that period he gave much attention to the illumination and inspection of deep-seated, hollow organs. In 1877 he demonstrated his cystoscope to the members of the Saxon Landesmedizinalcollegium. The apparatus was somewhat rudimentary, but the principle was established. In 1898 he migrated to Vienna, mainly with the object of finding better technical help in the perfecting of his instruments. In 1879, in conjunction with Professor von Dittel, he demonstrated to the Vienna Medical Society his methods of exploring the urethra and bladder by means of appropriate instruments. His methods met with a good deal of opposition from surgeons who used the older method of endoscopy by reflected light, and it was only after overcoming many difficulties that the merit of Nitze's inventions were recognized. In 1889 he published a textbook of Cystoscopy in which the technique of the method and its clinical results were fully set forth. In the same year he qualified as *Privatdocent* in the University of Berlin, and in 1890 he was appointed Extraordinary Professor of Urology. In 1894 he published his *Cystophotographic Atlas.* In 1904 the titular distinction of Medical Privy Councillor was bestowed upon him.

DR. CHARLES EDWARD STEELE-PERKINS died on March 7th at Exeter, aged 58. He entered Guy's in 1866, became M.R.C.S.Eng., L.S.A.Lond. in 1870, and took honours in the M.B. examination at the University of London in 1872. After holding the offices of House-Surgeon and Resident Obstetrician at Guy's, and Clinical Assistant at the Children's Hospital, Great Ormond Street, he started in practice at Sydenham, being at first in partnership with Dr. Arthur Turner. For close on thirty years he had a large practice, and was much respected by a large circle of patients and friends. He was Consulting Physician to the South London Dispensary for Women and Children, and to the Home and Infirmary for Sick Children, Sydenham, and was Medical Officer to the Sydenham Dispensary. The death of his only child, six years ago, followed by a severe attack of influenza, completely broke down his health, so that he was obliged to retire from practice. He went to live at Exeter with his wife, but never regained his health, and after a prolonged and painful illness, extending over eight months, gradually sank and died. He was one of a medical family well-known in the West of England; in Exeter there has been a continuity of the family practice for nearly eighty years. His father, uncle, three brothers, three nephews, and a cousin were, or are, members of the medical profession and were all educated at Guy's. In his younger days at the hospital he was well known as a good athlete, both on the cinder track and on the water, and took his place in the hospital boat.

By the death of Mr. **FREDERICK HAROLD HAND**, House-Surgeon of the West Norfolk and Lynn Hospital, the medical profession loses another member whose life has been sacrificed in the performance of duty. He was a son of Rear-Admiral G. W. Hand, and was a student of St. Mary's Hospital. He had held the post of House-Surgeon at Lynn for upwards of a year. After a very brief illness he died from cellulitis following a *post-mortem* examination on March 2nd. His genial manner and the kindness of his disposition made him a general favourite. He was buried in the Lynn Cemetery on March 5th. His funeral was attended by the Mayor, the members of the Weekly Board, and the medical and other staffs of the hospital, while several hundreds of the inhabitants of the town testified their respect by being present at the interment.

THE death occurred at Matlock on February 4th of Dr. **JOHN CHESTNUTT**, of Howden, Yorkshire, at the age of 55 years. He was the eldest son of the late Rev. W. Chestnutt, of Tralee. He had a distinguished career at Queen's College, Cork, being senior scholar, exhibitioner, and prizeman. He studied also at Leeds and Edinburgh, graduated B.A. with honours at Queen's University, and obtained the licence of the Royal Colleges of Physicians and Surgeons of Edinburgh. He settled at Howden some twenty-five years ago, having succeeded the late Dr. H. Morris. He enjoyed a large practice, being extremely popular with all; he was Medical Officer to Howden Workhouse and district, to the post-office staff, and to various clubs. For many years he was Lecturer and Examiner to St. John Ambulance Association, of which he was a member. Through his efforts, also, the Howden Nursing Association was formed for work among the sick poor. An ardent Volunteer, he retired some years ago with the rank of Major, receiving the "Volunteer Decoration" for long and good service. He rejoined in the Medical Department as Surgeon-Lieutenant, being gazetted Surgeon-Major just a week prior to his death. He was a member of the British Medical Association, Royal Society of Antiquarians of Ireland, of the Yorkshire Archaeological Society, and of British Gynaecological Society.

DR. **E. GÉLINEAU**, who died not long ago at Blaye in his 79th year, was the founder of the Prévoyance Médicale, a medical benevolent society which has now a membership of 3,800. Born at Blaye in 1827, Dr. Gélineau spent the early years of his professional career as a medical officer of the French navy. On retiring from the service he settled in practice at Aigrefeuille, in the department of Charente-Inférieure. After working as a country doctor for fifteen years he went to Paris, where he made a reputation as a specialist in nerve diseases, particularly epilepsy. He embodied his experience in a large volume.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Constant Vernet, Chief Physician of the Men's Department in the Lunatic Asylum of Maréville, aged 53; Dr. Otto Wanscher, Extraordinary Professor of Surgery in the University of Copenhagen; Dr. Phisalix, Assistant to the Chair of Comparative Pathology (Professor Chauveau) at the Paris Natural History Museum, aged 50; Dr. Paul Stolper, Professor of Forensic Medicine in the University of Goettingen, aged 40; Dr. H. F. von Hoelder, of Stuttgart, widely known as an anthropologist, aged 88; Dr. Ignaz Kraus, one of the best-known physicians of Carlsbad; Dr. N. Ljubinoff, Professor of Pathological Anatomy in the University of Kasan; and Dr. Marduel, one of the founders of the *Lyon Médicale*, to which he was for many years a constant contributor, and a prominent figure in the professional life of Lyons, in his 65th year.

HOSPITAL AND DISPENSARY MANAGEMEN

WOLVERHAMPTON EYE INFIRMARY.

AT the annual meeting of the Wolverhampton Eye Infirm
the report showed the subscriptions for the year to be £
as against £845 in 1904; the workmen's contributions
increased to £989, although trade had not shown any great
responding increase. The total receipts were £2,524.
total number of patients was 5,841, of whom 485 were
patients. Over 2,500 injuries were attended to during
year. Inasmuch as eye infirmaries have recently been ope
at Dudley and Stourbridge, it is expected that in the fut
the number of cases sent to Wolverhampton will diminish.

CHARING CROSS HOSPITAL.

THE eighty-fifth annual general meeting of the supporters
Charing Cross Hospital was held on February 21st. The rep
of the Council showed that although the new wards cont
some ninety beds, others have had to be closed, so that
actual number of beds available still falls 67 short of the
which, nominally, the hospital provides. It is a questi
indeed, whether the beds in use will not have to be redu
to 150, for although the Council has determined to let
remainder of the rebuilding scheme stand over, the financ
outlook is not promising. Practically a sum of £120,
appears to be required to put the finances of the institution
a sound footing, and a special effort is to be made this year
raise a sum sufficient to prevent the accommodation of
hospital being further reduced. An interesting account w
given at the meeting of the work which the hospital did
connexion with the collapse of Charing Cross Station, a use
object lesson in proof of the great utility of the hospital on
present site.

THE ROYAL FREE HOSPITAL.

FROM the report laid before the supporters of the Royal F
Hospital, Gray's Inn Road, on February 21st, it appears th
all the structural improvements and renovations in progr
during the last few years have now been completed and pa
for. Before other work, such as another operating theatre a
a better out-patient department, can be undertaken, furth
ground as well as further funds will have to be found. The i
come from all sources did not fall very far short of expenditu
last year, but as the expenditure is fairly fixed at some £15,
a year and the income fluctuates greatly, large additions
the invested capital of the charity are still required to pla
matters on a satisfactory footing. The census of in-patien
which is taken at this hospital on the second Sunday
January every year, showed, as on previous occasions, th
over 50 per cent. of all inmates belonged to the districts
its immediate neighbourhood. The maternity work carri
on by the students appears to be growing considerabl
431 maternity cases having been treated in their own hom
last year.

ROYAL LONDON OPHTHALMIC HOSPITAL.

THE report presented to the annual general meeting of t
supporters of the Royal London Ophthalmic Hospital (Mo
fields Eye Hospital), on February 22nd showed that 20 of t
beds still remain closed for want of funds. During last ye
2,051 persons were treated in the wards and 42,336 in the ou
patient rooms, the attendance in the latter averaging 418
day. The income for the year from donations serious
diminished, while expenditure remained about the same as
the previous years. The Ladies' Guild working in connexi
with the institution was noted as having afforded mu
assistance.

HOSPITAL FOR CHILDREN, SHADWELL.

AT the annual Court of Governors of the East London Hospit
for Children, Shadwell, held on February 26th, it was reporte
that in default of materially increased financial assistan
some of the wards will have to be closed. Its revenue fro
investments is less than £1,100, against an expenditure of te
times that amount. The institution received last year fro
the King's Fund a donation of £1,700, and this was pointe
out as satisfactory proof that the work of the hospital is bein
conducted on desirable lines.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL.

THE admissions last year to Queen Charlotte's Lying-in Ho
pital, Marylebone Road, as reported at the annual meeting o
February 26th numbered 1,560, while 1,969 other maternit
cases were attended in the patients' own homes. There wer
five deaths among the in-patients, all the cases, it was stated
being admitted in a very grave condition. Among the exter
patients there was no mortality. The ordinary income for th
year fell some £1,200 short of ordinary expenditure, which wa
£6,168. The principal present need of the hospital is a
extension of the nurses' home. To effect this, and to pay o
the outstanding debt on the new wards, a sum of £10,000
required.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Queries, answers, and communications relating to *ects to which special departments of the* BRITISH ICAL JOURNAL *are devoted will be found under their* *ctive headings.*

QUERIES.

LED asks for advice in the treatment of dilatation of the cutaneous vessels of the nose in a lady aged 37. The conion has been coming on slowly for the past four or five rs. There is absolutely nothing in the general health or tory to account for such a condition.

WORKERS IN PORTLAND CEMENT.

asks for suggestions as to a form of glove suitable for a ker in Portland cement, the maker, and approximate ce.

ANSWERS.

. SHEPLEY PART (Bedford Park) writes: "Cape" in his ry of March 17th, page 659, does not say if his patient s in a hot climate, has suffered from malaria or "prickly t," or takes his baths hot. In any case I would recomd him to try cool, not cold, bathing, and a thorough ubbing with an india-rubber sponge and some of Calvert's r cent. carbolic veterinary soft soap. This I have used many years in hot climates, and have frequently ordered my patients with good results.

PULSATILLA.

ST. D.—Pulsatilla, the dried herb of *Anemone pulsatilla* pasque-flower, meadow anemone or wind flower, or of *mone pratensis* is official in the United States *Pharmaeia*, and there is a tincture in the Formulary of the ish Pharmaceutical Conference. It contains a yellowish d volatile oil, the active principle of which is a peculiar talline camphor readily decomposed by water into nonin and iso-anemonic acid. We learn from the new ion of the *National Standard Dispensary* that "Acing to Galen the anemones are endowed with acrid draw- cleansing and opening virtues. When chewed anemone tes a secretion of mucus, its juice cleanses the brain nostrils, and lessens or removes opacity of the cornea. rifies ulcers, cures lepra and pityriasis, is emmenagogue galactagogue. Neither Dioscorides, Pliny, nor the ians added anything to the enumeration, and the drug s to have been almost forgotten until the close of the teenth century." Since then it has been recommended ifferent times in the treatment of cataract, paralysis, matism, melancholia, syphilis, dysmenorrhoea, and a of other morbid conditions. According to Martindale Westcott's *Extra Pharmacopoeia* it has been used in rh of the air passages with spasmodic cough.

RY OF PREGNANT WOMEN FOR LIMITATION OF GROWTH OF FETUS.

—Prochownik and Florschütz are, we believe, the chief orities on the limitation of weight of the fetus by dieting mother. They found that carbohydrates should be inated as much as possible, and that the patient should very little fluid. Under these restrictions premature r was often rendered unnecessary and delivery at term Prochownik's "Versuch zum Ersatze der künstlichen geburt" appeared in the *Zentralblatt für Gynäkologie,* p. 577, and Florschütz's *Kritik der Versuche durch bestimmte Diät der Mütter die Gefahren der Becken- zu umgehen* is a thesis published at Giessen in 1895. series of 48 cases representing sixty-two confinements in h the conjugate of the brim varied from 3½ in. to 4 in., ownik found that labour occurred normally at full whereas previously instrumental delivery or the inon of premature labour had been employed, Prochowecommends the diet where the conjugata vera is not han 8 centimetres. This summary of Prochownik and hütz's dietary will be found in Clarence Webster's *ook of Obstetrics* (1903), together with details as to the nt's meals during the last months of pregnancy. We stand that Professor Jardine, of Glasgow, and other British authorities have tried this dietary with varying s.

LETTERS, NOTES, etc.

INFANTICIDE.

EID (London, E.C.) writes: The case of Dr. Turnbull in RITISH MEDICAL JOURNAL of March 24th, 1906, p. 677, my evidence in an inquest on a child recovered from ater. The epidermis was removed from the body, and rface was livid. The head was distorted antero-posly. The umbilical cord was attached to the body and ll part of the placenta. An autopsy revealed fracture h parietal bones, and a pulpy state of the brain. The organs of the body were in good preservation, a little fluid blood escaped from the heart, but the organs on section were almost bloodless. Meconium was in the bowel, and about a foot of jejunum was red (*post mortem*). The lungs floated in whole and in part, even after a pressure of 14 lb. was applied. Microscopic examination seemed also to bear out the idea of full respiration. I concluded that as there were no indications of violence on the head, or injury by forceps, and as the blood seemed to have gone to the head chiefly, death was due to fracture after birth—within twenty-four hours. Was this a justifiable conclusion, or was fracture *post mortem* by barges, etc., more likely?

PAINLESS LABOUR.

DR. C. H. FOLEY (Ardrahan) writes: Relative to Dr. Allan's case in support of his contention which controverts the statement of Dr. Horrocks "that there is no such thing as a painless labour," I consider his case may be explained as being one of the many to which it is a bad custom to apply either of the terms "precipitate," "sudden," "painless." In Dr. Allan's case I read: "The os was slightly dilated; the examining fingers were with difficulty introduced into the vagina. The child was born half an hour after. There had been no pains since I was there (that is, examining patient). There was not the slightest tear in the perineum and the child was born unconsciously." Here we have a summation of the slow definite progress of a child in what we call normal labour, concentrated into probably a few seconds of time—a six hours' labour with dilatation of the os, vaginal passage of head, compressed into six seconds. I have met with many instances, particularly in primipara, of what I like to call "natural unconscious labour," to distinguish it from the unconsciousness anaesthesia confers, but there is the element of pain in each, and I think the condition can be explained in this way: A powerful contraction of the musculature of the uterus, not fatigued by previous contractions, sets in. If of a lesser degree the contraction would be translated by the senses of the patient as being a massive pain. The direct result is that, on the one hand, the mother's consciousness is stormed, she becomes unconscious, with accompanying general flaccidity. The lower limbs rotate out as they do in syncope, on the other, labour has progressed like lightning, the child is born, the mother regains consciousness, with, of course, no memory of detail save that of the birth of the child, though some tell us, "I think I fainted." It is a copy of what the lower one goes in the biological series, the commoner one sees. Most births in horses are "precipitate." Pain is but a term to measure, in labour, uterine contraction.

AN ANONYMOUS LETTER.

IT is not the practice of this JOURNAL to take any notice of anonymous letters, but the following expresses so well the attitude of mind of members of the medical profession who apply for, or accept appointments to, organizations condemned by the general opinion of their brethren, that it seems worth while to break through the rule:

"The writer applied for a post as 6d. a fortnight colliery doctor in Northumberland near Morpeth. After three applications he got an answer that they had forty-three applications, and could not answer each separately. *This* after all the advertising asking medicals not to take less than 9d. a fortnight. What a rotten profession! Lancashire is simply swarming with doctors, many of whom, I am certain, are not getting anything like 6d. a fortnight per family. They had the applicants right enough, as I have it confirmed from another source, namely, a man holding an official position in the district, who, although he did not know the exact figures, says they had a large number of doctors asking for the place. And according to the so-called medical etiquette these are blacklegs. What rot!"

We should not be surprised to hear that there were a number of applicants for the appointment mentioned, for in a profession such as the medical there must always be flotsam and jetsam. We believe we are correct in saying that out of the twenty medical men, or thereabouts, who have accepted appointments within the area of the North of England Branch during the six years of contest on the miners' question, only one has remained throughout. Most of those who have accepted positions have either left in disgust at the position in which they found themselves in their relations both with the medical profession and with their employers the miners, or their engagement has been terminated by those employers.

SOULS AND SHADOWS.

A REALLY attractive discovery has been reported this week from America by our new contemporary the *Tribune*. It appears that in Washington a gentleman named Elmer Gates, who of course enjoys the title of professor, has discovered a new form of ultra-violet rays of a "certain wave length." To the passage of these rays a dead body offers no resistance, and therefore throws no shadow. A living body, on the other hand, offers a varying amount of resistance, and hence a shadow of greater or less intensity is created when the rays are thrown upon it. The relative opacity of a live body is caused by the presence of electric currents in the nerves and muscles, and the transparency of a dead body is due to the cessation of these currents and not to absence of a soul. This seems rather a pity, for had it been otherwise it would have been possible to set at rest all doubt as to whether our favourite animals have souls; we could have told, too, whether our own souls are really as black as some of our neighbours think. Nevertheless, the new discovery will obviously be of great use. For instance, by comparative shadow tests, we can tell, it appears, what part of our patients' bodies are already dead or half dead, and we can foretell the approaching death of our patients at a time when, gauged by every other test, they appear to be in the most perfect health. Moreover, as the shadows are due to electric currents, the strength of these, and hence the amount of mental work done between any two tests, can be determined with the greatest accuracy. The latter is a point which conceivably may make this discovery one of far-reaching importance. For instance, the brutally rough-and-ready methods by which the value of labour is at present assessed might be transformed. A medical man, for instance, could carry with him in his motor car a new radiograph machine, and instead of making an all-round charge of so much a visit, radiograph himself before entering his patient's room and on leaving it, and then work out his fee in decimals of a pound according to the comparative depth of the shadows in the two photographs. Similar machines might be established in every office and workshop door. The discovery, in short, is charming in its possibilites, and undoubtedly reflects great credit upon its inventor if not upon those to whom we in England are at present indebted for our knowledge of its existence.

Cutaneous Diphtheria.

Dr. J. M. Mackenzie (Kirkby-in-Ashfield, Notts) writes: In the British Medical Journal of March 10th Drs. Heelis and Jacob describe a series of four interesting cases of cutaneous diphtheria; one of the cases with an ulcer on the hand infected also the outer canthus of one eye, the infection spreading to the conjunctiva, but was rapidly cured by painting with silver nitrate in aqua solution (gr. x to ℥j). The ulcers were slow in healing. It is extremely interesting to learn that diphtheria of the conjunctiva so readily yields to 2 per cent. silver nitrate. Was the same benign solution applied to the slow-healing ulcers? My personal experience of diphtheria of the conjunctiva has been far otherwise. On November 5th, 1898, at 11 a.m. (see *Lancet*, October 13th, 1900), whilst taking a swab from a diphtherial throat, the patient was seized with a sudden violent cough. I felt a small piece of presumably mucus strike my right eyeball; in a few minutes the eye was irrigated with warm water. At 10 p.m. the same day a small congested spot was seen on the lower conjunctiva. Next morning the conjunctiva was inflamed throughout; a solution of silver nitrate (gr. ij to ℥j) was now dropped into the eye every three hours. On the evening of the second day the conjunctiva up to the margin of the cornea presented one pale red jelly-like mass. Thoroughly alarmed, I sought the advice of Dr. Kingdon, of the Midland Eye Infirmary, Nottingham, who painted the conjunctiva with a 3 per cent. solution of silver nitrate. Thirty-six hours after the accident a small greyish-white patch was seen in the fold of the lower eyelid. Culture showed Klebs-Loeffler bacilli. The eye was washed out with a saturated solution of boric acid, and painted with silver nitrate (15 gr. to the oz.) 3 per cent. After a restless night, I found in the morning that the membrane had not been eradicated, but had made rapid progress during the night, covering the lower half of the conjunctiva. Not till 4,500 units of antitoxin were injected was this rapidly-developing membrane arrested, notwithstanding the most vigorous local treatment. Another patient, the mother of a child suffering from diphtheria, whilst swabbing out the patient's throat felt mucus entering both her eyes. I saw her three hours after the accident. Both conjunctivae were deeply congested; 1,500 units of antitoxin were injected and repeated in six hours. The congestion developed into an acute inflammatory condition, and disappeared in about twenty-four hours. No membrane formed.

Hypnotism and the Press.

Dr. Edwin Ash (St. Mary's Hospital, W.) writes: It seems indeed true that modern journalism fails in its highest function when, instead of helping to lighten the darkness of a superstitious public, it fosters and encourages the popular belief in such things as telepathic hypnotism and overpowering mind-influences. Recently articles have appeared in certain journals stating that it is not only possible, but actually common, for criminals to exercise hypnotic influence over their victims at distances of even two thousand miles; moreover, that anybody who has once been hypnotized is for evermore at the mercy of the operator, who can whenever so inclined summon him from a distance, or telepathically induce hypnosis in him with criminal intent. In the account of some experiments in hypnosis which I published in the *Lancet* a few weeks ago, I endeavoured to make it clear that the state I induced was one not necessarily of sleep, but rather of increased alertness of the senses, and one in which, although very susceptible to suggestion, the subject only responded to such suggestions as were made through the physical medium of the sen organs. And, further, was able to resist suggestions that should subsequently perform some very unusual act. these experiments it was the subject who induced hypnos in himself under my direction; and it is similarly the ca whenever the condition is produced either for experiment for the cure of disease. It is certain that no effort of will the part of the operator affects the result, and no sugg tions can be given except through the usual media, and, course, most conveniently by word of mouth. It seems pity that attempts have not been made to educate the publ with regard to certain psychic phenomena, and so help dispel the mists of ignorance and superstition that remain vestiges of the mediaeval fogs of demonology and witchera When it is seen how much suffering has been relieved suggestion during hypnosis—and one has had convinci experience of the efficacy of this method of treatment— cannot help thinking that sensational articles, which te to frighten away people from such an important therapeut measure, are almost criminal. If people allow themselves be hypnotized in public places by all manner of quacks ar charlatans, they must not be surprised if unfortunate resul accrue. There certainly would be danger if such a pers was improperly restored to the normal condition, and might even be possessed of a fixed idea that he must go ba to the operator; but the possibility that the latter cou actually influence him from a distance is absolutely unsu ported by scientific evidence. On the other hand, hypnos properly induced for therapeutic purposes and as careful removed, is as harmless as an ordinary gas anaesthesia; a we must hope that in time it will be generally recogniz that hypnosis in skilled hands is safer than most drugs, a is the rational treatment for a large number of functio disorders.

Successfully Vaccinated Five Times.

Dr. C. E. R. Gardiner (M.O.H. Dungloe, co. Donegal) write My personal experience of vaccination is, I venture to thi exceptional. I was vaccinated first as an infant; second (during an epidemic of small-pox), when I was about thirdly, when resident pupil in the Richmond Hospital, on t admission of small-pox to the neighbouring Hardwicke Fev Hospital; fourthly, when we had a solitary case of small-p imported here in April, 1904; fifthly, on March 7th, I accide ally vaccinated myself on the lip by blowing through a tu of lymph, my artificial blower not working. On the last t occasions the disease was very slight.

Food Fever in Children.

Dr. T. Blanchard Sellors (Balham, S.W.) writes: As an dition to the pathology of "Food fevers" which forms t subject of Dr. Eustace Smith's paper (British Medic Journal, February 10th, 1906, p. 307) I would point out th influenza is undoubtedly one of the predisposing caus My own son had a severe attack of genuine influenza abo two and a half years ago, and for some time suffered fr catarrh of the colon in the way described by Dr. Smith abo every three months. I have since met many similar cas in which the original cause was influenza. Another sympt is fairly constant in these cases, namely, marked swelling the lymphatic gland over the tonsil, which subsides with t catarrh.

A Curious Conjunction.

Delta writes: The amusing paragraph *re* "Anaesthetists Coroners" in a recent issue of the British Medical Journ recalls a curious conjunction of signs which at one ti adorned a certain house in this neighbourhood. One wa "Dr. —— attends here daily at —— o'clock. Residen ——"; the other: —— "Undertaker and funeral furnishe

Engine Sparks.

Mr. Algernon Ashton (Hamilton Gardens, N.W.) writes protest against railway engine drivers allowing th machines to emit sparks while passing through towns. is a circumstance which he believes to be within th control, and owing to negligence in respect of it, he recen suffered severe pain for some hours, a spark having fall into his eye.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	£0 4 0
Each additional line	0 0 6
A whole column	2 13 4
A page...	8 0 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manage at the Office, not later than first post on Wednesday mornin preceding publication; and if not paid for at the time, should accompanied by a reference.

Post-Office Orders should be made payable to the British Medic Association at the General Post Office, London. Small amoun may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters *Postes Restantes* addressed either in initials or numbers.

A Clinical Lecture

ON

ACUTE PERITONITIS DUE TO APPENDICITIS

AND ON SOME CASES OF SIMPLE PERFORATING ULCER OF THE DUODENUM.

By BYROM BRAMWELL, M.D., F.R.C.P.E.,
PHYSICIAN, EDINBURGH ROYAL INFIRMARY.

APPENDICITIS.

THE specimens, gentlemen, which are on the table were removed from the body of a woman, aged 35, who was admitted to the hospital on January 21st, suffering from great pain in the abdomen, vomiting, and collapse. On examination it was found that she had general peritonitis and mitral stenosis. The condition of the heart and pulse was so bad that any operative interference seemed contra-ndicated.

The case presents several features of great practical mportance; I take the opportunity of bringing it before ou, and saying something with regard to acute peritonitis.

As I have said, this patient had mitral stenosis. A well-narked presystolic and a slight systolic murmur were present in the mitral area; the heart was beating extremely apidly (150 to 160), and half of the cardiac pulsations did ot reach the wrist; the heart's action was very weak and rregular.

On inquiring into the history, we found that since early ife, as long as she could remember, she had been short of reath on exertion; that a month before admission to ospital she had had an attack of rheumatic fever, from hich, however, she had completely recovered; that while oing about her ordinary household duties she was uddenly seized with acute pain in the abdomen and omiting. This, as I told you, was followed by the evelopment of general peritonitis and collapse.

Now, two questions of course arose: (1) What was the ause of the peritonitis? and (2) How was the peritonitis be dealt with?

Acute general peritonitis may be due to a variety of ifferent causes, some of which may be regarded as edical accidents—that is to say, sudden unforeseen sions, occurring in the course of some previous diseased ndition. In the *Lancet* of January 27th there is a luable clinical lecture by Mr. William Henry Battle on e "Acute Abdomen"; in that lecture he has tabulated l the cases of the "acute abdomen," as he terms it, hich occurred in St. Thomas's Hospital during the three ars 1900, 1901, and 1902. They were 456 in number; is shows that the condition is a common one. Of these 6 cases, 37 per cent. were cases of appendicitis and its mplications; 24 per cent. were cases of intestinal struction other than intussusception; 16 per cent. were ses of intussusception; 11 per cent. were perforations of e alimentary tract, stomach or duodenum; 6 per cent. re gynaecological cases; 3 per cent. were cases of dominal abscess other than appendicitis; and the mainder of 3 per cent. were not classified.

From this statement you will see that the great majority re cases of appendicitis, strangulation of the intestine, d intussusception. The cases of appendicitis and its nplications, intestinal obstruction, and intussusception ether amounted to no less than 77 per cent. of the total cases.

n making a differential diagnosis, when you may have variety of different possible conditions, it is of great portance to know not only what are the possibilities but at are the probabilities. A statistical analysis of es, such as that published by Mr. Battle, is conse-ntly of great value, provided of course that the figures large enough to warrant general conclusions.

But we do not, of course, make a diagnosis merely on relative chances or frequency of different diseased nditions; if that were so, it would be easy for any one make a cut-and-dried diagnosis in every case. We have ake into consideration all the factors that go to form individual and personal equation of the case. After ing ascertained all of the facts we draw a logical con-sion from those facts, taking, of course, into account, one of the facts on which our judgement is based, the ative frequency of the different possibilities (causes).

Well, in this particular patient we had an old-standing heart lesion (mitral stenosis) and a history of recent rheumatic fever. Now, in cases of old-standing valvular disease a recent attack of rheumatic fever is, as everyone knows, very apt to be attended with a fresh endocarditis. The history showed that this patient, after recovering from the rheumatic fever, was suddenly seized on Friday, January 19th, with acute pain in the abdomen and vomiting, followed by acute peritonitis. She was admitted to hospital two days later, January 21st, 9 p.m. Her condition was then very grave, and in the opinion of Dr. Greer, my house physician, precluded any operative interference.

I saw her the next day and confirmed the diagnosis of acute general peritonitis. The pain was most marked in the left hypochondriac region, and over the left side of the abdomen the skin was excoriated, the result of the application of hot fomentations; the fact that the fomentations had been applied over the upper part on the left side of the abdomen showed that in the early stages of the attack the pain was most marked over this part of the abdomen. I agreed with Dr. Greer that any operative procedure was out of the question; the patient's condition was so desperate that she would in all probability have died on the table if anything had been attempted; her heart was beating very irregularly at the rate of 160 to 200 per minute, and many of the pulsations did not reach the wrist.

As regards the cause of the peritonitis I was disposed to think that it was probably an embolism of the mesenteric artery. We had a patient with mitral stenosis; we had a history of recent rheumatic fever likely to produce fresh endocarditis; we had the sudden occurrence without any previous abdominal symptoms, of severe abdominal pain and vomiting, followed by acute peritonitis, the pain being chiefly located in the upper part of the left side of the abdomen. It seemed to me that it was probable that there was some connexion between the cardiac condition and the development of these fresh symptoms. I consequently concluded that the lesion was probably an embolism of the mesenteric artery. I have seen a few other cases of the same kind. It is a rare accident. All of you who know anything about mitral stenosis know that one of the risks in that condition is the production of embolic infarction. A little piece of clot becomes detached from a thrombus in the left auricular appendix, or—but this is much less frequent except in cases of ulcerative endocarditis—from a vegetation on the stenosed valve; it is swept into the circulation and carried to some distant vessel; it may be carried to the middle cerebral artery, producing hemiplegia and aphasia; to the spleen, producing acute abdominal pain and localized perisplenitis; to the kidney, producing perhaps pain over the kidney, and, if it is a large infarct, haematuria and albuminuria; to the mesenteric artery. If a large branch of the superior mesenteric artery is plugged, the blood supply is cut off from a large portion of the intestine; this causes gangrene of the gut and general peritonitis.

Let me briefly describe the leading features of a typical case which I met with a few years ago:

Case of Aphasia in which Death was due to Embolism or Thrombosis of the Superior Mesenteric Artery with Resulting Gangrene of Several Coils of the Small Intestine and Peritonitis.

Mr. A., aged 70, was seen in consultation on March 4th, 1898, suffering from aphasia due to embolism of the branch of the left middle cerebral artery supplying Broca's convolution. From the aphasic point of view, the case is, I think, one of the most interesting and remarkable cases which has ever been recorded; but this point does not concern us at present; any of you who would like to study it will find it recorded in *Brain*, vol. xxi, 1898, p. 343. The interest of the case for my present purpose is that the patient died from gangrene of the small intestine and peritonitis, the result of an embolism or thrombosis of the superior mesenteric artery.

After I saw the patient on March 4th, 1898, he slowly improved so far as the speech defects were concerned. On April 8th he was at business all day and seemed in good health. On April 9th he complained of pain in the region of the stomach. I saw him the next day (April 10th). He did not look ill, but there was considerable tenderness over the abdomen. The pulse was slightly quickened—about 80 per minute—but there was no temperature. Up to this date, from the onset of the aphasic attack, the pulse had been slow (45 to 50 per minute). On April 11th the temperature went up to 100°, and the pulse to about 96. He complained of intense pain over the abdomen and vomited frequently. The abdomen was moderately distended and very tender all over. General peritonitis was obviously present. During the attack the bowels were more than once freely opened by medicine. There was no intestinal obstruction and no apparent cause for the peritonitis. On April 12th and 13th he remained much *in statu quo*. On April 14th he vomited a small quantity of blood. On April 15th he died. He remained mentally quite clear up to the end. On the day of his death he drew and signed a cheque quite correctly; the writing was good.

Post-mortem Examination.—This was made on April 16th. Several coils of the small intestine were black and gangrenous, and there was general peritonitis. There was no constriction and no hernia, either externally or internally. The portion of mesentery going to the affected part of the small intestine was markedly swollen and oedematous. The gangrene of the intestine was obviously due to blocking of the mesenteric artery. The abdominal aorta was somewhat atheromatous. The heart was moderately dilated, the valves healthy, the muscular substance markedly fatty and degenerated. The thoracic aorta was atheromatous. The kidneys were slightly enlarged and somewhat granular. (The urine was tested on several occasions during the course of the patient's illness, and was always free from albumen.) A few recent small petechial haemorrhages were scattered over the mucous membrane of the stomach. The posterior end of Broca's convolution (third left frontal), the subjacent white matter, and the island of Reil were completely destroyed and softened; the posterior end of the second left frontal convolution was slightly affected.

In my experience, gangrene of the intestine due to embolic or thrombotic plugging of a large branch of the mesenteric artery always results in death. I do not know if any case of this kind has been successfully operated upon.*

I repeat that embolism of the mesenteric artery seemed to me to be the most likely cause of the acute abdominal symptoms in this particular case; and, if this diagnosis was correct, it was additional reason against operative interference, for the chances of successful operation are much less in the case of gangrene of the intestine due to embolism of the mesenteric artery than in cases of ruptured gastric or duodenal ulcer or to a ruptured appendix. The possibility of a ruptured appendix or a ruptured ulcer of the stomach of course occurred to us, but for the reasons I have already stated, embolism of the mesenteric artery seemed to me a much more probable cause in this particular case. But, as I have already told you, we did not entertain the question of operation; the extremely grave condition of the patient, and the fact that the course of the peritonitis appeared to be embolism of the superior mesenteric artery, seemed to all of us who saw the case to preclude operative interference.

The patient remained much *in statu quo* until January 25th, four days after admission, then hiccough developed, and she died on January 26th, the temperature going up very rapidly just before death from 95° to 102.8° on the morning of the 26th.

Post-mortem examination showed general peritonitis due to ulceration and rupture of the appendix vermiformis. The heart presented the conditions which we had diagnosed, a marked stenosis of the mitral valve and a few small vegetations indicative of recent endocarditis. The left auricular appendix was filled with an old adherent thrombus. All the conditions for the production of an embolism were therefore present, but there was no embolism, as we had supposed.

It not infrequently happens, in consequence of the presence of old disease or of a history of symptoms which in reality have nothing to do with the present condition of the patient, that one is thrown off one's guard, and led to form an erroneous diagnosis. This is a point that has to be remembered in practice. Let me give you another illustration:

Case of Acute Peritonitis due to Ulceration and Rupture of the Appendix Vermiformis, in which the previous history and symptoms (more especially vomiting of blood) seemed to me to indicate the rupture of a duodenal ulcer.

About a month ago I saw in consultation a man, aged 50, who was suffering from acute peritonitis. He had been quite well on the last day of the year; on the evening of that day, somewhat late at night, he had taken a hearty supper. He went out on the morning of the first day of the year to see his friends and make calls; he came back to lunch at midday saying that he was not well; he complained of pain in the abdomen and vomited. For the first thirty-six hours of the attack the abdominal symptoms were not severe. I saw him on the afternoon of January 3rd, two days after the symptoms had developed. He was then suffering from acute general peritonitis; the abdominal symptoms had become greatly aggravated a few hours before my visit; his pulse was quick; he was vomiting blood—coffee grounds and streaks of blood mixed with mucus.

On inquiring into the history I found that for some months before the development of this acute attack he had occasionally suffered from abdominal pain and flatulence, that the abdominal pain occurred some hours after eating, and that it was (usually) relieved by eating. There had never been vomiting.

Now, here again I was thrown off my guard, partly by this history of previous digestive trouble, but chiefly by the fact that the patient was vomiting blood. The haematemesis seemed to suggest that the most probable cause for the acute peritonitis was the rupture of an ulcer of the stomach or duodenum. The facts that the pain used to come on some hours after eating, that it was usually relieved by eating, and that there had been no vomiting (until the acute symptoms developed), seemed to me to indicate a duodenal rather than a gastric ulcer. The vomiting of blood seemed to me to be strongly in favour of a gastric or a duodenal ulcer. The patient's medical attendant, however, was inclined to think that it was a case of appendicitis. We both agreed that immediate operation was necessary. A surgeon was immediately telephoned for. He agreed with the medical attendant that the cause of the peritonitis was probably appendicitis; he opened the abdomen, and found a ruptured appendix.

In subsequently discussing the subject with Mr. Stiles, he informed me that in the later stages of cases of appendicitis, in which septic peritonitis is developed, vomiting of blood is of frequent occurrence. Though the occurrence of haematemesis in the later stages of acute appendicitis with peritonitis is mentioned, it is not sufficiently emphasized in the textbooks which I have consulted. I am anxious you should be acquainted with it. It is a misleading symptom. I am anxious that you should profit by my inexperience and by my mistake, so that if you should, after entering practice, happen to meet with a case of acute peritonitis with haematemesis, you should not too hastily conclude that the peritonitis is due to the rupture of a gastric or duodenal ulcer. It may be due to a ruptured appendix.

SIMPLE OR PERFORATING ULCER OF THE DUODENUM.

In the remarks which I have just made I have referred to duodenal ulceration. I wish now to say a few words with regard to that condition.

You all know that ulceration of the stomach (simple or perforating ulcer of the stomach) is a very common condition. It is much more common in women than in men, and usually occurs in young women, anaemic (chlorotic) women; it is the most common cause of vomiting of blood (haematemesis), and is an important cause of acute perforative peritonitis—the "acute abdomen," as Mr. Battle terms it. A similar form of ulceration occurs in the duodenum. "Simple" or "perforating" ulcer of the duodenum is much less frequent than simple or perforating ulcer of the stomach, but is probably much more common than is usually sup-osed. It differs in some of its features very materially om the same form of ulceration in the stomach. As I ave just said, it is less frequent; it is much more common men than in women: it occurs at a somewhat later age ian simple ulcer of the stomach in women; simple ceration of the duodenum is most frequently developed tween the ages of 30 and 45, whereas simple ulceration the stomach is most frequently developed in young omen between the ages of 16 and 30. Of course, simple ceration of the stomach may be met with at any age. e recently had a case in hospital in which the patient as a man aged 70; in that case the diagnosis was rified by *post-mortem* examination. So, too, simple ceration of the duodenum may occur at any age, that , in young people. I am speaking of the relative ages which the two conditions are usually developed. repeat that simple ulceration of the duodenum occurs uch more frequently in men than in women, and more quently in middle-aged than in young men.

---

* In a recent number of the BRITISH MEDICAL JOURNAL (February 17th, 1906, p. 366) there is a valuable paper by Mr. George Heaton on *Some Acute Abdominal Disorders which resemble in their Symptoms Acute Intestinal Obstruction.* In that paper Mr. Heaton records a case of gangrene of the intestine due to blocking of the superior mesenteric artery and makes the following remarks on the condition: "It is an uncommon condition, but some 214 cases have been collected by Drs. Jackson, Porter, and Quinby (*Journal of the American Medical Association*, 1904, 1 and 2). In the large majority of these cases there has been some endocarditis found as the cause of the embolus. When there is thrombosis of the mesenteric vein, it has usually followed some enteritis of the intestine or intra-abdominal suppuration, but is in some cases secondary to a portal cirrhosis. The attack is usually quite sudden. The patient, who is generally a male, is seized with acute abdominal pain in the umbilical region. With the pain there is much collapse and sickness. The temperature is, as a rule, subnormal throughout the course of the disease, and extreme restlessness is often a marked symptom. The bowels are in some cases opened repeatedly, and in these cases large quantities of blood may be passed, but in the majority of cases constipation is absolute. The abdomen soon becomes distended and tympanitic, but later on evidence of free fluid may make its appearance. The pain throughout is colicky in character, and comes on in paroxysms, as in intestinal obstruction. The patient's general condition becomes rapidly worse; his pulse, frequent from the first, becomes more and more rapid, and towards the close may be uncountable. The prognosis is extremely bad, and the fatal issue in the acute cases is not often delayed beyond the eighth day. The diagnosis from acute intestinal obstruction is extremely difficult. The large majority of the recorded cases have been operated upon as such, and the condition only recognized at the operation or at the *post-mortem* examination. The points which in a doubtful case would make one suspicious of an embolus or thrombosis being the cause of the symptoms are the presence of cardiac mischief, or some source for an embolus, a previous history of embolism in other parts of the body, copious haemorrhage from the bowel, and a very low temperature, with extreme collapse and colic. An abdominal section, however, even if undertaken in mistake, gives the patient his only chance in this as in obstruction. The bowel supplied by the thrombosed vessel almost invariably becomes gangrenous, and a resection of the loop supplied by the thrombosed vessel gives the patient his only chance, though it is a very remote one."

In my experience, simple ulceration of the duodenum a more serious condition than simple perforating ceration of the stomach. It is more difficult, I think, heal, perhaps because the healing of the ulcer is prented by the irritation of the bile; but in this conxion—in opposition to this theory—it is important remember that simple ulceration of the duodenum is more frequent in the upper than in the lower end of e duodenum.

In my experience, perforating ulceration of the duonum far more frequently causes fatal haemorrhage n perforating ulceration of the stomach. This is a st important practical point which I wish particularly emphasize. In simple perforating ulcer of the mach profuse and recurring haemorrhages are exmely common, but fatal haemorrhage is rare. I have n and recorded many cases in which very large bleeds occurred from the stomach: in some of these cases patients were completely blanched by the bleeding; in ne of them repeated large bleedings occurred; in all them, almost without exception, recovery took place. is extremely rare for a young woman to die from matemesis of this kind. This fact should, I think, ke one hesitate in too hastily advising operative rference for gastric haemorrhage in young women.* is a very different state of matters when you have to l with haemorrhage due to simple ulceration of the denum; then the haemorrhage is very frequently l. It so happens that during the last two months ve seen 4 cases of simple ulceration of the duodenum, f which have died from haemorrhage. That is a arkable and lamentable experience which has prondly impressed me. Let me briefly describe the ing features of these cases:

ase I.—The first patient was a man, 46 years of age. il two and a half years previously he had enjoyed good th. He then began to suffer from dyspeptic symptoms in in the stomach, flatulence, water-brash, constipa-, loss of weight. The pain usually occurred two hours ore after eating and was not attended with vomiting; pain usually lasted for several hours and was generally ved by the introduction of food into the stomach. these facts were suggestive of ulceration of the lenum.

cases of gastric ulcer, as I have already told you, the nts are usually young women; they are often mic; the pain generally comes on immediately or after the introduction of food into the stomach—the irritates the raw surface and causes the pain; there most always vomiting; the vomiting, like the pain, rally comes on soon after the introduction of food— ting is Nature's effort to expel the irritating material. ses of ulceration of the duodenum, the patients are lly men from 30 to 45 years of age; the pain usually s at a considerable interval after eating, that is, the food passes from the stomach into the duom. The pain is often relieved by the introduction of into the stomach—this is a point, I think, of great ostic importance; there is usually no vomiting.

ll, this man suffered for six months from these toms—pain in the stomach, flatulence, constipation, of weight. The pain was often extremely severe. one day while he was at work he vomited a large quantity of blood, fainted, and became blanched; during the next two days he passed a large quantity of blood by the bowel—frequent large tarry stools. For a week he was so ill that he could not be removed to the hospital. Then he was brought to Ward 28. On examining him we found that he was very anaemic and very weak; no hardness or tumour could be detected in the abdomen, which was easily examined because it was collapsed; there was slight tenderness to the right of the middle line in the epigastric and hypochondriac regions.

Two days after his admission to hospital he suddenly complained of feeling faint and became more blanched; there had obviously been another haemorrhage; he did not vomit blood on this occasion, but soon after the attack he passed several large tarry stools. Now we had no difficulty in diagnosing that the case was one of duodenal ulcer—the time at which the pain occurred after taking food, the fact that the pain was relieved by the introduction of food into the stomach, the very severe character of the pain, the absence of any vomiting except on the one occasion when he vomited blood, the age and sex of the patient, and the fact that during the second bleeding the blood was all passed into the intestine and not into the stomach—all pointed to ulceration of the duodenum. After the second bleeding uninterrupted recovery took place, and in the course of six or seven weeks the patient was discharged from the hospital apparently quite well.

After his discharge the patient returned to work—he was the keeper of a public weighing machine—and continued to work for more than a year without any discomfort or abdominal symptoms. Then in June, 1905, the symptoms returned, and he again passed blood by the bowel. From June until October he continued to have attacks of severe abdominal pain, on more than one occasion passed tarry stools, and lost a stone and a half in weight.

On October 18th, 1905, he came to the hospital as an out-patient; he looked thin, pale, and ill; there was some tenderness on pressure in the right side of the epigastrium, but no hardness or tumour. The diagnosis was a recurrence of the duodenal ulceration. I gave him strict injunctions with regard to diet and regulation of the bowels, and prescribed Hewlett's preparation of bismuth and pepsin (it contains bismuth, pepsin, and a little opium). Three weeks later he again came to the infirmary, saying he felt very much better; he had gained 3 lb. in weight, there had been no fresh bleeding, he still occasionally felt pain, but it was much less frequent and severe. He was told to go on as he was doing.

A few weeks after this his doctor telephoned me saying that he was suffering from agonizing pain which failed to yield to any of the remedies he had tried. I advised that the patient should be at once sent to the surgical side of the infirmary in order that an operation should be performed without delay. This was done, but before an opportunity of operating occurred he became suddenly blanched and died. On *post-mortem* examination it was found that the intestine was full of blood, and that there was a simple (perforating) ulcer of the duodenum.

Case II.—About two months ago I saw in consultation a young man, 29 years of age, who that morning had had a very profuse bleeding into the intestine. I learned that this was the second bleeding which had occurred. The patient had been an extremely healthy, active, athletic young man until some six months before the haemorrhage occurred. He then began to suffer from pain in the stomach; the pain appeared some hours after taking food; it was not attended with vomiting; there was no flatulence. A week before I saw him he was suddenly seized while at work in his office with faintness; after getting home he vomited a large quantity of blood and subsequently passed a large quantity of blood by the bowel. He was treated by rectal feeding (for several days), adrenalin chloride by the mouth, and the application of ice to the pit of the epigastrium. Two days before I saw him, small quantities of peptonized milk were given by the mouth. On the morning of the day on which I saw him (a week after the first bleeding), he suddenly became collapsed and passed several large tarry motions. When I saw him he was recovering from this attack; his pulse was much better than it had been a few hours previously. I advised that he should go on with the same treatment (rectal feeding, adrenalin chloride by the mouth, ice to the

---

my *Clinical Studies*, vol. i, pp. 278, 352, 368, and vol. ii, p. 3, I iscussed this question in detail.

epigastrium). His medical attendant agreed with me in thinking that if any further bleeding occurred an operation was advisable. He continued to improve for a week, then he had another attack of collapse, evidently another intestinal haemorrhage. The surgeon who was called in found him too ill to bear an operation; he died soon afterwards from this, the third, bleeding. I have no doubt that in this case the haemorrhage was due to an ulcer of the duodenum.

Case III.—A short time ago I saw in consultation a gentleman, aged 35, who for fifteen years had suffered from recurring attacks of dyspepsia; pain in the stomach, coming on again at a considerable interval after taking food, and lasting some hours, relieved by the introduction of food into the stomach; no vomiting; no flatulence. On several occasions these attacks were attended with tarry motions, and on one occasion with vomiting of blood. These attacks only occurred in the winter, and were apparently due to exposure to cold; the patient's occupation exposed him to cold and wet. He always was better, and free from the attacks during summer and warm weather. I saw him just as he was recovering from a severe attack. There was nothing to be made out on examination. I agreed with his medical attendant in thinking that the case was one of ulcer of the duodenum. We advised that as soon as he was able to travel he should go to Egypt, in order to get into the sun; as I have already said, he always got better in warm weather. Unfortunately that prescription could not be carried out; he went on well for a week, and then suddenly died from very acute haemorrhage.

Now these three cases of duodenal ulcer, in all of which the patients died from haemorrhage, have made a very profound impression on my mind; they show that in cases of duodenal ulcer the risk of death from haemorrhage is very great; they seem to me to suggest that one should advise an operation as soon as one makes a definite diagnosis of duodenal ulcer, provided, of course, that the patient is in a condition to be operated upon. I am convinced that the risk of fatal haemorrhage is very much greater in cases of duodenal ulcer than in cases of gastric ulcer, at all events, gastric ulcer in young chlorotic women. In cases of duodenal ulcer there is also the risk of perforation and fatal peritonitis. I have seen several cases of that sort.

Case IV.—The fourth patient, a gentleman, aged 37, I saw in consultation about a month ago. For four years he had suffered from the same group of symptoms—recurring attacks of severe pain in the epigastric region, the pain occurring a considerable time after eating, and relieved by taking food; no vomiting; no flatulence. On several occasions he had had melaena, and on one or two occasions very profuse vomiting of blood. I diagnosed a duodenal ulcer, and advised that he should be operated on without delay. There was no ulcer in the anterior wall of the duodenum; one cannot get to the posterior surface. A communication was established between the stomach and intestine (gastro-enterostomy). The patient has done well.

In conclusion, let me say that in cases of acute peritonitis due to the perforation of a gastric or duodenal ulcer immediate operation is imperative; every hour that passes, that is put off, diminishes the patient's chances of recovery. I am strongly convinced from personal experience that in cases of this kind the patient's chance of recovery largely depends upon two things in particular—one is early operation and the other is quick operation; every hour that elapses between the occurrence of the perforation and the operation diminishes the risk of recovery, and the quicker the operation (other things being, of course, equal) the greater the chances of recovery. If I were to develop peritonitis in consequence of the rupture of a gastric or duodenal ulcer, I would have an operation at the earliest possible moment, and I would ask the surgeon to perform the operation as quickly as possible.

Under the will of the late Mr. Vyell Edward Walker, formerly a famous amateur cricketer, who died on January 3rd, the London Hospital and the Cancer Hospital each receive £2,000, and the Middlesex Hospital, the City of London Hospital for Diseases of the Chest, Victoria Park, the Royal Hospital for Incurables, Putney, the Poplar Hospital for Accidents, the Idiot Asylum, Earlswood, the Hospital for Consumption, Brompton, and the Victoria Hospital for Sick Children, sums of £1,000 each.

A Clinical Lecture

ON

THE SURGICAL TREATMENT OF GASTROPTOSIS,

WITH AN ACCOUNT OF FIVE CASES.*

By **FREDERIC EVE, F.R.C.S.,**

SURGEON TO THE LONDON HOSPITAL.

Gastroptosis, or falling of the stomach, may be associated with Glenard's disease, or falling of all th abdominal viscera, with mobility of the right kidney, o it may exist alone. The condition depends mainly o stretching of the suspensory ligaments of the stomac —namely, the gastro-phrenic ligament and gastro-hepati omentum. It may be further exaggerated by displacement downwards of the liver, to which the latter structur is attached.

Gastroptosis is by no means uncommon, Glenard himself having observed it 400 times among 1,300 patients The causation is obscure, but its chief basis is probabl anatomical. The subjects are usually women the lowe orifice of whose thorax is narrow, the dome of th diaphragm low, and the costal margins diverging les obliquely than usual. Tight-lacing, by producing thi condition, is undoubtedly an important factor. Th muscular parietes of the abdomen are as a rule lax the muscles ill-developed, and sometimes there is separation of the recti. This condition may have been increased by pregnancy. Loss of fat and consequen diminution of intra-abdominal pressure is a determinin cause. In one reported case the omentum was firml adherent in the pelvis, and in one of my own cases ther were adhesions between the anterior wall of the stomac and the parietes. The right kidney is usually movable In two cases at present under my care this peculiarit exists.

Neurasthenia, often in a high degree, is almost invariably present, and materially adds to the difficulties o treatment. It is not my intention to discuss the relatio of neurasthenia to the physical condition; but I hav little doubt that in many cases the neurosis is secondar and the result of malnutrition following on the disturbance of the functions of the alimentary canal.

Symptoms.

Dr. Beyea well sums up the symptoms when he says "The picture is that of chronic severe atonic dyspepsi with neurasthenia and increasing emaciation."

The patient complains of severe chronic dyspepsia o long standing, with eructations, sense of fullness an weight at the epigastrium and pain after food. In th more severe cases she is unable to take meat or even soli food; there is vomiting, either slight or only of mucus, i attacks at infrequent intervals, and, in the worst case where considerable dilatation of the stomach has occurre the vomiting is frequent and copious. Severe lumba pains may be complained of. In two of the cases quote below there was a tender spot on pressure over the epigastrium, and in two a history of haematemesis. In my firs case the functions of the stomach were so much altere that free hydrochloric acid was absent from a test meal.

Physical examination shows displacement downwards o the stomach, the lesser curvature being situated in th neighbourhood of the umbilicus, just above it, or eve well below it. The pancreas can be felt above the lesse curvature of the stomach, a condition on which Bertran Dawson[1] has laid stress. The stomach is often dilated a well as displaced, and splashing may be obtained. Lavag in one of my cases proved distinct gastrectasis to exist.

The coincidence of mobility of the kidney may raise question as to the part respectively played by the stomac and kidney in the production of the symptoms. The sea of the pain and the character of the symptoms wi usually define which organ is mainly responsible. Reported cases, however, show that nephropexy has bee first performed without relief to symptoms; on the othe hand, Dr. F. J. Smith informs me that in two cases unde his care, believed to be suffering from gastroptosis, th symptoms were entirely relieved by fixation of the kidney.

---

* Part of a clinical lecture delivered at the London Hospital.

Allusion has already been made to the occasional coexistence of hepatoptosis, and owing to the form of the thorax a Riedel's lobe is commonly present.

Cases.

The following is a brief account of the patients upon whom I have operated. With one exception, all had been previously under the care of my colleague, Dr. Bertrand Dawson, who had exhausted the resources of medical treatment, and to whose notes I am indebted for results of the medical investigation of the cases. He was also present and conferred with me at the operations.

Case I.

Elizabeth C., aged 50, was admitted on August 3rd, 1903, aving been treated in the medical wards for about six weeks. Her symptoms had existed for ten years. They consisted of ain after food, vomiting of frothy phlegm soon after food, ut no return of the food itself. Four years ago she brought p about a quart of black coffee-like material. No gastrectasis xisted, but there was tenderness on deep pressure in the pigastrium. The lesser curvature was only just above the mbilicus, and the stomach was dilated after inflation. A est meal showed that free hydrochloric acid was absent, but hat butyric and lactic acid were present.

Operation.

The following operation was performed on August 4th, 1903: he dependent greater curvature was raised and fixed by everal silk sutures to the anterior abdominal parietes, bout 2 in. above the umbilicus. The stitches were passed hrough the great omentum at its attachment to the stomach nd also through the stomach wall, and then through the arietal peritoneum and the subjacent muscles. The stomach as also raised by passing some sutures between the lesser urvature and the under surface of the liver.

After-history.

Improvement followed the operation; there was considerably ss pain, less flatulence and sickness. A year after the operaon Dr. Cuthbert, of Croydon, wrote me: "Mrs. C.'s life has een quite bearable since the operation; it was not before."

It is probable that in this case the secretory functions f the stomach had been greatly damaged by longntinued chronic gastritis, as evidenced by the absence f free hydrochloric acid from a test meal.

Case II.

Jane B., aged 30, had suffered from severe indigestion for urteen years, never being able to take meat; at intervals the mptoms were more acute, pain being increased by food and ten followed by vomiting. After the birth of her first child, ght years ago, her symptoms became more marked. She casionally brought up blood, but never more than two tableoonfuls. Latterly she has only been able to take soda and ilk, and even this was followed by pain and vomiting. ee hydrochloric acid was present, but no lactic acid. No strectasis. The lesser curvature was $1\frac{1}{2}$ in. above the nbilicus, and the greater curvature $2\frac{1}{2}$ in. below it. The ncreas could be clearly felt above the lesser curvature.

Operation.

An operation was performed on April 29th, 1904. There were hesions of the anterior wall of the stomach, near the lesser rvature, to the left lobe of the liver and to the abdominal ll. The lesser curvature was on a level with the umbilicus, d the liver was prolapsed.

The gastro-hepatic omentum was extremely stretched, and thin that it would not hold a stitch. The feasibility raising the lesser curvature of the stomach by running ckering sutures through the gastro-hepatic omentum was scussed, and discarded as impracticable. Pushing up the er, however, was found to raise the stomach, and theree the first step in the operation consisted in raising d fixing the liver by four strong silk sutures passed through anterior surface and edge, and then through the anterior lominal parietes, just below the costal margin. The greater rvature was then raised, and attached by two sutures to the terior abdominal parietes above the umbilicus.

After-history.

saw her fifteen months after the operation, and she orted herself greatly benefited. Before the operation she s constantly laid up with pain and vomiting; now she is e to do her housework, and can digest fish but not meat.

It may be stated that the two operations described ve were performed on the spur of the moment, to meet condition found on opening the abdomen, and I was then aware that somewhat similar operations had been viously performed.

Case III.

ate B., aged 38, began to suffer from indigestion twenty rs before admission. Two years subsequently she had an attack of haematemesis to the extent of $1\frac{1}{2}$ pints, and a few months later of melaena. Ever since she has suffered severely from indigestion, and has pain, especially after meals, with frequent nausea, but rarely vomiting. Hard exercise made the pain worse. The lesser curvature occupied a position just above the umbilicus, and the pancreas could be felt above it. The right kidney was movable; the lower aperture of the thorax was extremely narrow.

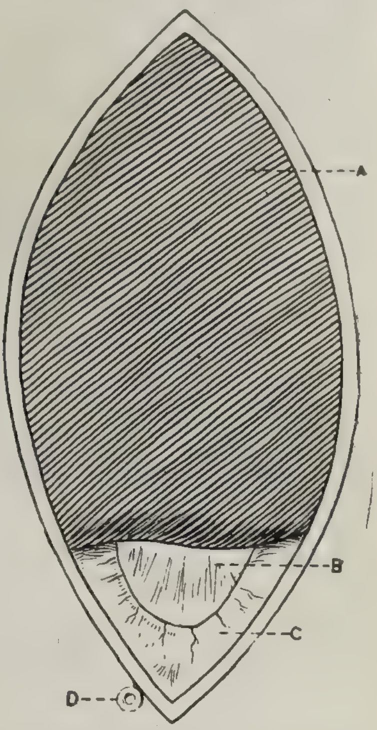


Fig. 1.—Condition on opening abdomen with liver in position. A, liver; B, small omentum; C, stomach; D, umbilicus.

Operation.

On opening the abdomen, February 9th, 1906, the lesser curvature was found to be an inch above the umbilicus and the stomach not materially dilated. (Fig. 1.) There was no sign of ulcer, and the pylorus was natural to touch, although somewhat suddenly bent on itself at its junction with the duodenum. The lesser omentum consisted of a membrane so thin that it would scarcely bear touching. The left lobe of the liver was prolonged downwards (see Fig. 1). A sand-bag was placed beneath the back, and the liver raised and held upwards (Fig. 2) as in performing operations on the gall bladder. Five silk sutures were then passed through the lesser curvature of the stomach, ranging from the pylorus to the cardiac orifice, and above they were carried through the attachment of the lesser omentum to the liver, and forwards, somewhat deeply, through the liver substance itself, in order to obtain a better hold (Fig. 3).

When these sutures were tied the lesser curvature was effectually raised (Fig. 4), and the greater curvature was roughly 2 in. above the umbilicus. There being a tendency to displacement of the liver downwards, a series of interrupted sutures were carried through the anterior surface of the left lobe of the liver, and then through the margins of the costal cartilages. It was quite impossible to expose the right lobe of the liver without making a transverse incision along the costal margin, and this was not thought desirable. The left lobe seemed to be partly instrumental in pushing the stomach downwards. The patient left the hospital a month after the operation, and stated that she felt quite well; her future progress will be watched.

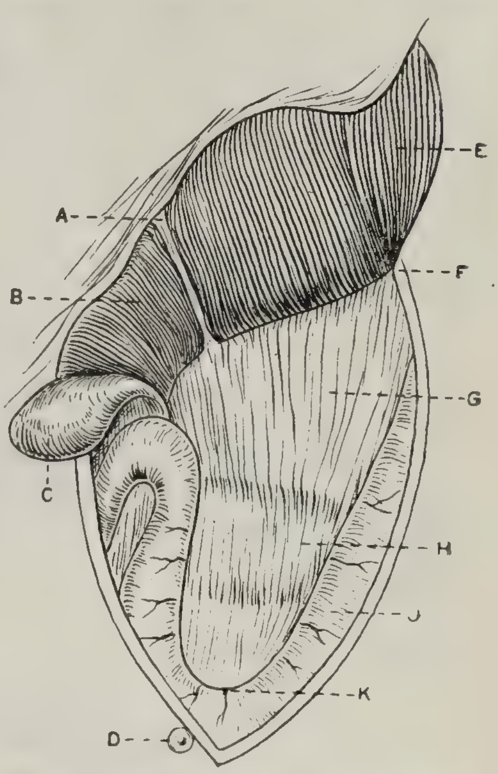


Fig. 2.—Condition when liver turned up. Liver held up and partially covered by gauze. A, round ligament; B, quadrate lobe; C, gall bladder; D, umbilicus; E, liver—left lobe; F, transverse fissure; G, small omentum, very much thinned; H, pancreas seen through small omentum; J, stomach; K, lesser curvature 1 in. above umbilicus.

I regard this as by far the most satisfactory operation of its kind I have performed in regard to the position of the stomach after the operation; and I think it superior to the operation performed by Beyea, on the grounds that the gastro-hepatic omentum is so stretched in many cases as to be unsuitable for the application of sutures. On the other hand, the firm liver substance, just in front of the attachment of the lesser omentum, constitutes an admirable medium for suturing, and the lesser curvature of the stomach is scarcely altered from its natural relationships.

Case IV.

Agnes F., aged 34, was admitted to the London Hospital February 12th, 1903. She had suffered from indigestion for three years. There was pain coming on immediately after food; vomiting, which relieved the pain, and latterly she had vomited increasingly larger quantities. Often articles of food, such as currants, which had been taken a day or two previously, were noticed in the vomit. Haematemesis had occurred three or four times, the largest amount being half a pint. Free hydrochloric acid was present, and lavage showed distinct gastrectasis.

The lesser curvature of the stomach was situated at the junction of the lower third with the upper two-thirds of a line between the ensiform cartilage and the umbilicus; the greater curvature between the umbilicus and the pubes. Splashing was readily obtained.

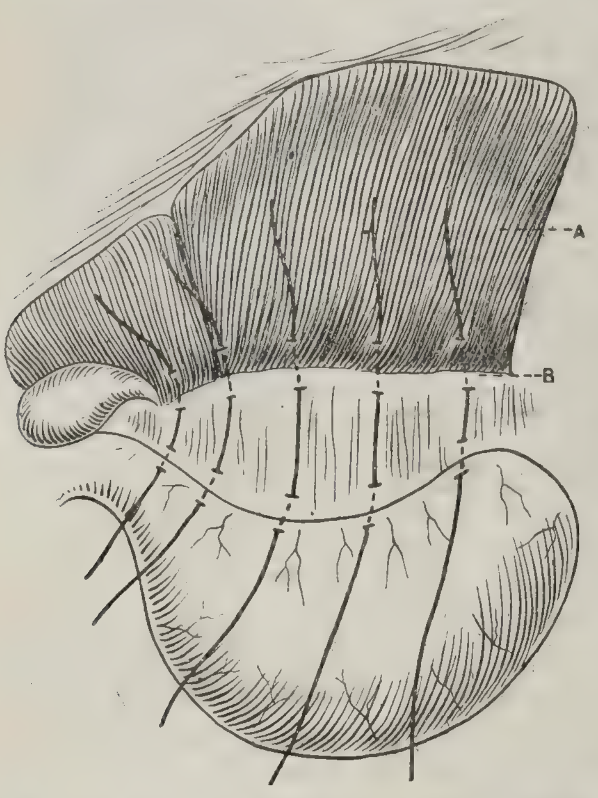


Fig. 3.—A, liver; B, junction of gastro-hepatic omentum with liver.

Operation. At the operation on February 13th, 1903, the stomach was displaced, considerably dilated, and distinctly atonic. There was no evidence of ulcer, and the pylorus was patent. Posterior gastro-enterostomy was performed in the usual way.

After-history. I saw her two years and five months after the operation. The stomach had contracted considerably, the greater curvature being 1½ in. above the umbilicus, but the epigastrium was still somewhat hollow. She had put on flesh, and could eat anything except pork. Since the operation, however, she has had five or six attacks of sickness, the last being five months ago.

CASE V.

Mrs. W., aged 43, had suffered with gastric pain, vomiting, and haematemesis for seven years. There was distinct gastroptosis, the pancreas being felt above the lesser curvature. Gastric ulcer with gastroptosis was diagnosed.

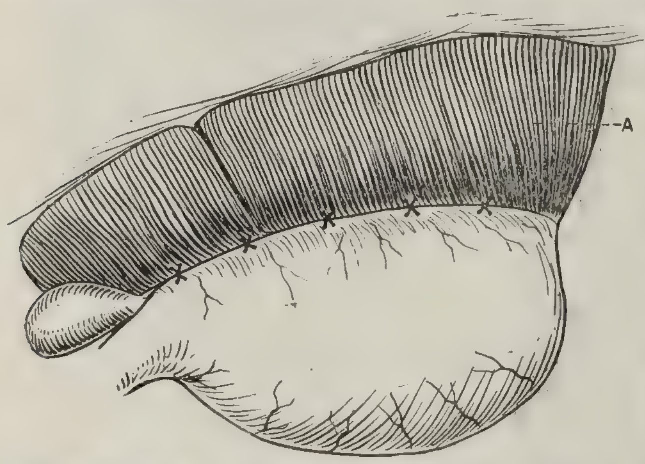


Fig. 4.—Liver turned up. Sutures shown in Fig. 3 now tied.

Operation. Posterior gastro-enterostomy was performed, there being distinct evidence of a healed ulcer on the lesser curvature near its pyloric end. This patient was last seen six months after the operation, when she had put on weight and could eat anything.

The Operation of Selection.

There were distinct indications for the performance of gastro-enterostomy in the last two cases, and it would probably have been better to have performed the same operation in Case I. This procedure, however, cannot be considered the operation of choice in gastroptosis, the special reasons for excluding the stomach from the alimentary canal which exist in chronic ulcer being absent.

Dr. Beyea[2] has given a full account of the various operations performed for the condition under consideration. Duret[3] of Lisle, in 1894, was the first to treat gastroptosis by an operation, which consisted of suturing the lesser curvature of the stomach to the anterior abdominal parietes just below the ensiform cartilage. This procedure would be impracticable in many cases owing to the position of the left lobe of the liver. Davis[4] adopted a similar procedure, but attached the lesser omentum to the parietes. Rovsing[5] in 3 cases sutured the anterior wall of the stomach by means of three vertically-placed rows of interrupted sutures to the anterior abdominal parietes. Coffey[6] sutured the great omentum below its attachment to the transverse colon to the anterior abdominal wall. Beyea[7] himself adopted a much more scientific procedure in 4 cases.

Three rows of interrupted silk sutures were introduced so as to plicate and thus shorten the gastro-hepatic and gastro-phrenic ligaments in the following manner: The first row, beginning in the gastro-phrenic ligament, and extending across the gastro-hepatic ligament to almost opposite the pyloric orifice and hepatico-duodenal ligament, was introduced so as to form a plication in the centre of these ligaments, and included from above downwards or vertically about 4 cm. of tissue. Five sutures, about 1 in. apart, were introduced from right to left, and caught in haemostatic forceps. The next row of sutures was introduced in the same manner, but 2.5 cm. above and below the first row. Then a third row was introduced just above the gastric vessels and a short distance below the diaphragm and liver. The suturing was strictly confined to the normal ligamentary supports, and the distance between the rows from left to right was increased with the length of the ligaments, being greater towards the right.

Bier[8] of Griefswald reported 4 cases operated on in a manner very similar to the procedure of Beyea. Three or four sutures were placed through the gastro-hepatic omentum from above downwards so as to form two plications one above the other in the ligament. The first suture attached the serous and muscular coats of the pyloric end of the stomach at the lesser curvature to the capsule of the liver; the others included only the ligament. Also, in two cases, the shortening of the gastro-hepatic ligament was supplemented by passing two sutures through the serosa of the lesser curvature of the stomach, and then through the capsule of the left lobe of the liver. From this latter circumstance it would seem that Bier had met with the same difficulty as regards the tenuity of the lesser omentum as myself.

It is evident that our aim should be to raise the stomach into its normal position, if possible by means of its natural suspensory ligaments, the gastro-phrenic ligament and gastro-hepatic omentum. This is carried out by Beyea's operation, which would naturally suggest itself to any one looking carefully at the condition of the parts, as it did to myself. But unfortunately, in three of my cases, this procedure was absolutely impracticable on account of the extreme tenuity of the gastro-hepatic omentum; it would scarcely bear touching, much less suturing. Under these circumstances the next best course is to utilize the structure to which the gastro-hepatic omentum is attached, namely, the liver and the stronger portion of the omentum forming its upper root of attachment. Again, the lower sutures must be placed through the serous and muscular coats of the stomach and the anterior attachment of the omentum, in order to avoid the gastric and pyloric arteries. Such a procedure gives a firm hold to sutures, and at the same time is not likely to interfere with the mobility of the stomach. An important reason for raising the lesser curvature is that owing to the falling of this part of the stomach, and the greater fixation at a higher level of the pylorus, a sudden bend, described in some instances as a kink, has been produced near the pyloric orifice. Hence the necessity of effectively raising the prepyloric portion of the lesser curvature to the level of the orifice.

In my second case there was marked falling of the liver, and this existed to some extent in Case III. The stomach being largely suspended from the liver, this hepatoptosis must clearly be remedied, and the simplest manner of effecting it is by suturing the liver to the costal margin.

In regard to operations of the type first performed by Duret, the obvious objection is that the adhesions to the anterior abdominal wall, if sufficiently firm to support the stomach, may embarrass the motility of the organ, and may possibly be a source of pain. Nevertheless, in the reported cases of patients operated upon in this manner all improved, and some gained weight.

I must express my indebtedness to Mr. Norman Patterson for making, during the course of the operation, the above semidiagrammatic drawings.

REFERENCES.

[1] *Clinical Journal*, 1905. [2] *Philadelphia Medical Journal*, vol. ii, 1903, p. 257. [3] *Revue de Chir.*, 1896, p. 430. [4] *Western Medical Review*, October, 1897, p. 291. [5] *Arch. f. Chir.*, Bd. lx, 1899, p. 812. [6] *Philadelphia Medical Journal*, October 11th, 1902. [7] Op. cit., p. 259. [8] *Deuts. Zeitsch. f. Chir.*, Bd. lvi, 1900, p. 374.

A COMPLICATED CASE OF APPENDICITIS.

By Sir EDMOND S. STEVENSON, M.D., F.R.C.S.Edin.,
RONDEBOSCH, CAPE COLONY.

OF all the surgical diseases there are few, if any, which resent the same constant similarity of symptoms, which esult in so many different pathological changes, and lead such a variety of complications as acute appendicitis. he following is an illustration :

Miss Z., a school teacher, aged 23, had been for several onths failing in health, losing flesh, anaemic, suffering from ome vague abdominal pains, and from an offensive vaginal ischarge. When seen with Dr. Syfret, of Mowbray, her edical attendant, she had been ill for five days, presenting ll the classical symptoms of acute appendicitis. The case as urgent, and immediate surgical interference suggested, but s her physician thought that there were signs of improvement, nd because she was in a very septic condition and her arents wished for delay we agreed to wait. Two days later, he symptoms getting worse, she was operated upon. Inside he peritoneal cavity coils of small intestines were seen glued gether, and on dealing with these a sac was opened con-ining a good deal of pus, and on a higher level another avity was entered and more offensive pus let out. As the ppendix could not be felt, the caecum firmly anchored down, nd the patient's condition septic, nothing further was done ; he sacs were cleaned with gauze and drained with split tubes. he immediate results were satisfactory. The drainage tubes ere removed on the tenth day, the discharge having stopped. he wound looked very unhealthy.

On the fifteenth day the temperature began to rise and the domen to swell, but there were no special pains. This ndition lasted a fortnight, and she was then operated on ain. The delay in operating was due to the unhealthy ndition of the wound, the greater part being covered with ey sloughs. To try to asepticize this was almost an impos-bility. The wound was painted with tincture of iodine and vered over with sterilized plaster, and the skin sterilized in e best way possible. The new incision was made outside e former one so as to enable one to work from without ward. The caecum was fixed and adherent to the lateral all and not covered by peritoneum. Carefully dissecting ways inward, a grooved cavity was reached, and in it a ecal concretion the size of a hazel nut found ; no appendix uld be seen, but low down in the pelvis the end of the pendix was felt adhering to the right tube or to the uterus ; could not tell which, for whilst attempting to solve this estion the appendix gave way. From the terminal end to origin the appendix was pocketed in a mass of adhesions. he appendix was then dissected upward, leaving in some aces its peritoneal covering behind. I could not find any ce of its mesenteriole. The pocket was cleaned out and e external wound sewn up without drainage. The appendix s large and ruptured in two places—at its end and a little gher up where the adhesion had taken place and where the ncretion had escaped. The wound healed by first intention, t the first wound remained very unhealthy.

A week after this last operation the temperature began to e and the lower part of the abdomen to swell, and in dition to this there was some indefinite pain in the right al region. The abdominal cavity was then reopened by an ision through the right rectus extending for 6 in. above the bilicus. Every inch of the abdominal cavity was explored touch and by sight whenever possible. Nothing could be nd to explain the cause of these symptoms. The liver peared to be normal ; the right renal pouch gave no indica-n of mischief ; bowels and stomach were healthy, and the een and pelvic organs were normal. The needle of an pirator was introduced in three directions : (1) into the er ; (2) between the ninth and tenth ribs posteriorly, aiming the subphrenic space through the diaphragm ; and (3) ough the fifth and sixth ribs into the pleura. The two first plorations aspirated pure blood, the last pleuritic fluid. e abdominal wound was sewn up and healed by first inten-n. The symptoms then became distinctly hectic, with eple temperature and profuse perspirations. The pulse was id and small, and at this time she complained of slight n and discomfort about the suprahepatic region. A careful mination gave no indication of mischief in the right chest. our days later a small abscess appeared at the site of the phragmatic puncture. The abscess was opened and a small ntity of pus let out. Two hypodermic injections of anti-in were given with no obvious result. A much larger cess formed at the same place as the other ; this was opened der cocaine, and a large quantity of dark offensive pus aped ; a small drainage tube was introduced. The first und still looked very unhealthy. The patient, who was very k and hectic, was suddenly seized with a violent cough, ame breathless, and brought up pus and blood ; an injection morphine relieved somewhat the severity of these symptoms, ing her exhausted and restless. At that stage some small pitation and dullness was heard at the right base, and from nipple upwards drum-like resonance and other signs of umothorax. Twenty-four hours after the first attack she had another but milder one. She was then without delay put under anaesthesia, laid on her left side, and the abscess opened along the drainage tube. During the operation respiration was very bad ; the face and hands almost black, and mucus and pus escaped through the mouth. Part of the ninth rib was resected, the bone was denuded of periosteum. The diaphragm could be seen pushing the pleura upwards. A sinus forceps was pushed through the muscle and some pus escaped ; a pair of dressing forceps was then introduced and opened, giving vent to a large quantity of dark-coloured, offensive pus. Two large rubber drainage tubes were introduced into a cavity measuring about 3 in. in depth and kept in position, one by a catgut, the other by a silkworm, stitch. From that time all bad symptoms rapidly abated and disappeared ; the cough ceased, and all pulmonary trouble left her. The catgut drain was removed after four days, the silkworm at the end of ten days. It is now six months since the last operation was performed, and she is in perfect health.

This case illustrates well my point that whilst ordinarily it is easy enough to diagnose inflammation of the appendix, it is impossible to foretell what you are going to find and what complications will have to be met.

The case has many points of special interest. The adhesions of the appendix to the tube, the disappearance of the offensive vaginal discharge after the operation, together with abdominal pains and failing health, point to the probability of chronic appendicitis leading to adhesion of the appendix to the right Fallopian tube, and subsequent rupture and discharge into it. Mr. Bland-Sutton lately described this condition well in the BRITISH MEDICAL JOURNAL.

The second point of interest is the double rupture. It is clear that the one at the apex of the appendix occurred first, and that the second, which brought on the acute attack, was caused by the pressure of the large faecal concretion, leading to gangrene of that part and rupture. Judging from the pathological conditions found at the first operation—the adherent and uncovered caecum—the tendency of the septic tract would have been to infect the right renal pouch, as indeed was suspected at first. The infection in this case must have been conveyed by means of lymphatics.

It was very fortunate for all that pus found its way through the aperture made by the aspirating needle, which made the last operation so much easier and shorter. But above all is the wonderful power of recuperation of the patient, considering that she had been ill for a long period previously, and had to undergo four very severe operations whilst in a toxic condition, and taking further into consideration the last phase of the disease, the rupture into the lung of an abscess which contained matter most likely extremely septic, causing severe shock, pneumothorax, and pulmonary infection.

THE IMPORTANCE OF THE COLON,

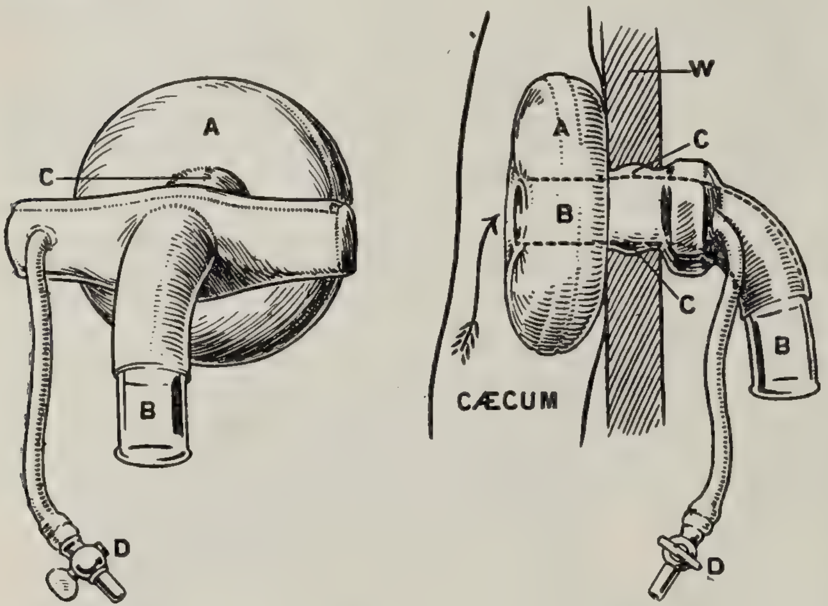
AS SHOWN BY A CASE OF ULCERATIVE COLITIS TREATED BY OPERATION.

By M. S. MONIER-WILLIAMS, M.A.Oxon.,
M.R.C.S., L.R.C.P.

IN an address entitled Clinical Remarks Round About Constipation, delivered by Dr. J. F. Goodhart on October 15th, 1902, and subsequently published by him, the following words occur: "I would not mind arguing the point with any one that the colon is the most important organ in the body." On the other hand, Metchnikoff in *The Nature of Man*, quoted by Sir James Barr in the BRITISH MEDICAL JOURNAL of January 20th, 1906, says: "Some very large parts of our alimentary canal must be regarded as useless inheritances, bequeathed to us by our animal ancestors. It is no longer rash to say that not only the rudimentary appendage and the caecum, but the whole of the large intestine, are superfluous, and that their removal would be attended with happy results." I think it will be admitted that the history of the case now related goes to show that, of these two entirely contradictory opinions, that of the English physician is the most worthy of acceptance.

The patient will probably be remembered by those members of the Medical Society of London who were present at a clinical evening on November 11th, 1901, as he very kindly showed himself on that occasion. He was 52 years of age when he first came under my care in 1897, suffering from abdominal pain and diarrhoea, with haemorrhage. The motions, from five to fifteen in number in twenty-four hours, were excessively offensive, semi-fluid in character, and occasionally contained, besides blood and mucus, a little pus. Examination of the abdomen and rectum revealed nothing abnormal. A course of mercury and potassium iodide had no effect. Rectal irrigations of the colon with a solution of silver nitrate (10 gr. to the pint) and of a saturated solution of boracic acid held the complaint in check for a time, and a course of sulphur waters at Llandrindod Wells and also at Harrogate benefited the patient for a little; but on the whole he got steadily worse, until December, 1900, when he was exceedingly ill. He had from 10 to 20 haemorrhagic stools daily, was very emaciated, and had lost control of the sphincter ani. Dr. Hale White, whose knowledge and experience of these cases are well known to be exceptional, considered the case to be the worst he had ever seen, and agreed that right-sided colotomy offered the best chance of saving the patient's life. Mr. G. R. Turner opened the large intestine close to the caecum, and purposely avoided making a spur, as it was hoped to close the opening at a subsequent date.

For many weeks after the operation his condition was one of great suffering. From the artificial anus flowed a greenish-coloured, highly acrid, and offensive liquid faecal discharge, which excoriated the skin for some distance round the opening. Ordinary colotomy plugs were quite useless to control the discharge, and it was necessary to invent a contrivance which would conduct the whole of the faeces out of the artificial anus without allowing leakage on to the skin. After much experimentation with Mr. Montague, the instrument maker, the plug now illustrated was devised.



It is made of rubber, and the bulb A is easily crumpled up round the central glass tube B for insertion into the intestine. When in position the bulb and rubber neck C are inflated with air through the tap D by means of a little brass syringe, and the plug is thus retained in its place until the air is let out by turning the tap; W is a section through the abdominal wall. Through the curved glass tube the faeces pass into a celluloid receptacle (not illustrated) modelled to the side of the body and kept in position by a belt. A differently-shaped receptacle can be used at night-time. The apparatus is, on the whole, quite successful, and generally prevents soiling of the skin or clothing. As soon as this plug was fitted the patient rapidly improved; he recovered control over the sphincter ani, and was soon able to follow his ordinary life with but little inconvenience.

His condition about a year subsequent to the operation, that is, in November, 1901, when shown before the Medical Society, was that his general health was quite good, but the colitis was not quite well, as occasionally a little blood and mucus was passed both by the caecal anus and by the rectum. Very little faecal matter passed the plug and so along the large intestine, as much perhaps in a week as would make one small motion.

About six months later, although there was no change in the local condition, he began to lose health. He became emaciated again without any apparent cause, and commenced to go downhill rapidly, so that in September, 1902, he was exceedingly weak and ill, and I was very anxious about him. It occurred to me that although two years previously his life had been saved by an operation which had secured such a measure of rest for his colon that the serious haemorrhage from which he had suffered was practically cured, he was now in danger of losing his life from want of use of his colon, our interference having deprived him for a prolonged period of time of the functions of that organ. Now the most obvious, and therefore probably the most important, function of the colon is the absorption of water. We know that little, if any, water is absorbed in the stomach, and, looking at the very fluid nature of the contents of the caecum, that the small intestine is probably equally inactive in this direction. The normal evacuation from the rectum is, however, solid, so that a great absorption of liquid must take place in the large intestine. It therefore seemed reasonable to suppose that my patient was suffering from want of absorption of water, and that in this way his nutrition had been gravely disturbed.

To supply the necessary liquid I commenced at the end of September, 1902, to make daily injections into the large intestine of 2 pints of distilled water containing 2 teaspoonfuls of sodium chloride. The injection was made with a funnel, and a soft oesophageal tube, the latter being passed through the caecal opening to about as far as the centre of the transverse colon. The liquid was allowed to flow in very gently indeed, the funnel being kept very low, and twenty minutes at least being occupied in the process. With all this precaution, ½ pint only, on an average, was retained, the remaining 1½ pints being returned through the opening. In this way, daily, for three and a half months, the patient had his colon fed with ½ pint of normal saline solution. I soon had the satisfaction of noticing a great improvement in his health. His strength began to return, and each week he put on a few ounces of weight.

At the end of this period—that is, in the middle of January, 1903—when I was no longer anxious about him, he suddenly developed purpura haemorrhagica. He commenced to bleed from every mucous membrane, except that of the bladder, and there were small haemorrhages into his skin all over his body. Blood poured from his colotomy wound, he vomited and coughed blood, and his gums and nose oozed continuously; 6½ pints of blood were collected in thirty-six hours. The injections were discontinued for a week, at the end of which time, the bleeding having ceased, they were resumed and continued for another two and a half months to the end of March, with occasional intermissions of a day or two about once a fortnight, owing to the recurrence of haemorrhages, chiefly from the gums and nose and into the skin. The blood was examined on two occasions by Dr. Eastes, and found to be quite normal. Notwithstanding the haemorrhages, the patient improved steadily in health and continued weekly to increase in weight.

From April 1st ordinary distilled water, without the addition of salt, was injected daily for three weeks, when a severe attack of purpura haemorrhagica supervened, and the treatment had to be stopped.

It was, in fact, impossible to resume colonic injections, and I determined to try daily hypodermic injections into the axilla. Half a pint of sterile salt solution was injected into the right axilla, followed the succeeding day by a similar quantity into the left, and so on alternately for three weeks, when there was another slight attack of haemorrhage from the gums. The patient so much disliked these hypodermic injections, which caused not a little pain, that he now refused to continue any longer with the treatment. Weight had continued to be added during the time hypodermic injections were used, and in fact he was now exceedingly well.

He had now submitted to eight months of treatment, and during that time had increased nearly a stone in weight, so that he was now, in fact, heavier than ever before in his life, and whereas before the commencement of the treatment of feeding his colon with fluid he was almost moribund, he was now strong, and enjoying as good health as he had ever before known. But the problem was what to do next, as it was clearly impossible to resume either colonic or hypodermic injections. The solution of the difficulty was in the end quite simple and effectual. I instructed the patient to completely block the caecal anus at night-time, by the insertion of a solid glass rod through the centre of his rubber plug, in place of the glass tube. During the day-time the tube and celluloid receptacle were retained. In this way the contents of the small intestine flowed normally into the large intestine during the night-time, but passed through the artificial anus into the bottle during the day-time. The colon had twelve hours of absorption, and twelve hours of rest, its working hours being of sufficient duration to keep the patient in good general health, and its resting hours sufficient to keep in check the colitis, which, though still not absolutely well, caused no inconvenience. This plan of blocking the plug during the night-time was adopted in May, 1903, and as the patient is still, nearly three years later, in perfect health, I think there is no doubt as to its success.

Three points of great interest arise in connexion with this case:

1. The haemorrhages seemed to be undoubtedly dependent upon the saline and even the plain water injections, but how? No pathologist has yet been able to help me with an answer. The process, whatever it may be, must surely be very complex, looking at the fact that it took three and a half months of injections to produce the effect in the first place.

2. Are we not justified in fearing that the scant respect now shown to the colon by some surgeons may possibly be followed by disaster? What fate may perhaps befall those whose large intestines have been short-circuited, or even boldly removed *in toto*, according to the latest fashion, for chronic constipation, or, one may hope, for greater evils? With regard to entero-anastomosis perhaps sufficient absorption may take place from the sigmoid and rectum to maintain nutrition, but with regard to complete removal of the colon there seems to be no saving clause. As far as my patient, at any rate, is concerned, I am persuaded that, should he cease to block his caecal anus in the way described for a sufficient number of hours in the twenty-four, and so exclude his colon from its duty of absorption, his progress downhill to ultimate death would be sure, if slow. Fortunately in his case he can regulate matters for himself.

3. Do not those people, and there are many of them (chiefly women), who every night take an aperient pill of such a character as to produce on the following day a liquid evacuation, interfere seriously with their own nutrition; and should they not be persuaded to withhold the dose, at any rate, every other night, and so give their arge intestines a chance of useful absorption? Certainly these people get very thin. The caecal cesspool is perhaps more worthy of praise than abuse, and at any rate should not be emptied too frequently.

REMARKS ON
A CASE OF LARGE OVARIAN CYSTOMA, WITH TWISTED PEDICLE, COMPLICATED BY SUPPURATIVE APPENDICITIS.

BY JOHN T. HEWETSON, M.D., M.CH., F.R.C.S.,
ASSISTANT OBSTETRIC OFFICER, GENERAL HOSPITAL, BIRMINGHAM.

THE following case, apart from its extreme rarity, illustrates points of such great interest in the production of ppendicitis, the effective drainage of localized peritoneal uppuration, as well as other clinical features connected with the diagnosis of the case, that one is certainly warranted in placing the facts before the profession.

E. T., aged 22, has been married twelve months, without amily.

Family History.

Father, mother, five sisters, and four brothers are all well nd strong.

Past History.

Catamenia commenced at the age of 11, and has been quite regular up to date of her admission to hospital; type twenty-ight days, duration five days. Since her marriage the menstrual periods have been a trifle more profuse. Patient has never suffered from illness or injury prior to her marriage.

Present Illness.

The patient states that her abdomen began to slowly increase in size during the first three months of 1905. One evening in March she was suddenly seized with severe pain in the left ide of the abdomen which lasted forty-eight hours. The bdomen during this time appeared to become very much rger. She consulted a medical man in London, who informed her that she was about four months pregnant. Having migrated from London to Birmingham, she consulted Dr. Faussett on April 6th, with a view to engaging him for her confinement. She told him that she had been getting larger, had felt quickening a week ago, that she had been examined in London and had been told that she was pregnant, in spite of the regularity of her menstruation. An abdominal examination was made by Dr. Faussett, who found a rounded tumour, median in position, partly fluid and partly solid in consistency, rising out of the pelvis and reaching as high as a point midway between the symphysis and the umbilicus. No vaginal examination was made. Without questioning the condition further Dr. Faussett assumed that Mrs. T. was pregnant, and booked her for the last week in July.

Nothing was heard of the case until July 4th, when Dr. Faussett was sent for to attend her labour. Abdominal pain had set in, with loss of blood from the vagina; this corresponded with her menstrual period. The abdominal tumour reached nearly to the ensiform cartilage, and was solid in parts. There was no uterine contraction, however, to be felt, and the cervix was quite closed. The condition was regarded as one of spurious labour, and the patient was told to send again when the pains became worse. The abdominal pain rapidly passed off, and she resumed her household duties in a day or two. On August 9th the patient was seized with severe pain in the right lower abdomen, accompanied by vomiting, constipation, and a temperature of 101°. This condition continued for four days, when the vomiting ceased; the bowels were opened by enema and the pain abated. Dr. Faussett now recognized the condition as one of ovarian tumour and not that of pregnancy. My colleague, Dr. Thomas Wilson, was asked to see the patient. He confirmed the diagnosis of ovarian tumour with some complication such as suppuration or twisted pedicle, and sent her in to the General Hospital under my care. On August 16th she was admitted into our special gynaecological ward, and the case presented the following clinical features:

Present Conditions.

The patient was a well-nourished girl, with flushed cheeks slightly cyanosed, but not apparently in respiratory distress. The pulse was 120 per minute, temperature 102.4°, and the tongue was coated with a thick, yellowish fur. She complained of pain in the right side of the abdomen, which was much exaggerated on taking a long breath. The last menstrual period had taken place on August 9th. The abdomen was enormously distended from pubis to ensiform, the circumference at the level of the umbilicus being 38 in. The distension was quite uniform, there being no irregularities visible. The subcutaneous veins were much dilated. On palpation, a large tumour could be made out filling up the whole abdomen. Its shape was roughly ovoid, with the long axis vertical. The right and left halves of the tumour were approximately equal; its greatest vertical measurement was 12 in. and the greatest transverse measurement 9 in. The lower two-thirds of the tumour appeared to be a tense thin-walled unilocular cyst. The upper third was somewhat irregular on palpation and solid in consistency. It was no doubt this solid mass which has led to the case simulating pregnancy. There was very marked tenderness over the right lumbar and right hypochondriac regions, and a coarse friction fremitus could be felt during respiration over these two regions. On percussion, the abdomen was dull everywhere except in the loins. On vaginal examination, the cervix was found low down within 1½ in. of the vulva, looking forward, was firm, closed, and nulliparous. The body of the uterus was retroverted, pushed to the right, and admitted the sound 2½ in. The lower border of a large thin-walled cyst could be felt projecting into the anterior fornix. The breasts were soft, not enlarged, and presented none of the changes characteristic of pregnancy. The cardiac beat was normal in position, and the valvular sounds were healthy. The upper margin of the liver dullness reached as high as the right nipple, the hepatic dullness below merged into the tumour dullness. The left lung was healthy, whereas over the base of the right lung coarse pleural friction could be felt and heard. Vocal fremitus and vocal resonance were, however, practically normal over the friction area. The urine was acid in reaction, gave a faint haze of albumen, and showed a distinct trace of blood, which in all probability was due to the menstrual period, which was just passing off on the patient's admission to hospital. There was no frequency of micturition, and prior to her attack the bowels had been very regular.

Diagnosis.

The size, consistency, and general outline of the tumour, together with the position of the uterus and the rapidity of the enlargement, all pointed to a multilocular tumour growing from the left ovary. The history of the attacks of left-sided pain, latterly associated with right-sided pain, tenderness, friction fremitus, rapid pulse, and fever, suggested previous rotation of the pedicle with recent superadded suppuration and leakage of contents, producing localized peritonitis and pleurisy.

Operation.

Laparotomy was performed by a median incision 8 in. long on August 17th. The tumour presented the usual pearly white glistening appearance of an ovarian cystoma. An exploring syringe was passed into its interior in order to ascertain the nature of its contents, and a straw-coloured ropy fluid was withdrawn. There were no adhesions to be felt in the upper and left half of the abdomen but only on the right side. In view of the tenderness and friction fremitus in this region, I deemed it advisable to tap the large clear cyst before liberating them. The cyst was tapped. It was then possible to determine the relation of the other abdominal viscera. The tumour was found to be one of the left ovary with one complete left-hand twist of the pedicle. The intestines were all situated above and behind the tumour. The upper part of the tumour was solid in consistency. The upper and left part of the abdomen was packed off by gauze swabs. My attention was then directed to the adhesions between the right half of the tumour and the abdominal parietes. As these proved to be recent there was little difficulty in breaking them down. Very little stripping had been accomplished, however, when a large abscess was opened containing about half a pint of fetid green pus and some gas. The pus was rapidly absorbed with gauze swabs as it welled up, so that there was fortunately no extensive fouling of the rest of the peritoneum. The remainder of the adhesions were then separated, and it was seen that the abscess cavity was an extensive flattened space extending from the right iliac fossa below to the liver above, and limited internally by the right wall of the cyst, and externally by the abdominal parietes external and anterior to the ascending colon. When the abscess had been completely emptied its cavity was filled with several swabs. The pedicle of the tumour was secured by clamps and the tumour was removed. Clean swabs were used to cover up the intestines to keep them away from the infected area. The clamped pedicle was secured with silk.

The right ovary was about the size of a hen's egg and showed early cystic disease with necrotic patches spread over its surface. This was removed with the corresponding tube.

The swabs filling up the abscess cavity having been removed, a careful inspection of this area was then made. The vermiform appendix was found running down into the right iliac fossa from the caecum and was plastered against the posterior surface of the lymph-covered abscess wall. About ½ in. below the caecum the appendix was half amputated by a large hole in its anterior surface through which projected a large faecal concretion. The concretion was removed, the appendix was slit downwards, and its gangrenous-inflamed mucous coat peeled off. This course was adopted because the distal two-thirds of the appendix could not be easily isolated from the indurated wall of the iliac fossa. The proximal side of the perforation, about ½ in. in extent, appeared to be shut off from the caecum and was not ligatured.

A small incision was then made in the right loin just above the iliac crest and external to the caecum. A rubber drainage tube was passed through this incision to serve as an outlet to the abscess cavity from behind. The abscess cavity was next filled with a large Mikulicz pack of iodoform gauze—bag of double sheets of iodoform gauze, having several strands of plain sterilized gauze — brought out at the median incision. In this way it was hoped not only to secure efficient drainage, but also to shut off the upper and left half of the abdomen from the infected area. The clean swabs keeping back the intestines were removed, and the abdominal incision was carefully stitched up except at the neck of the Mikulicz bag.

Specimen.

The fluid drawn off from the large cyst measured 13 pints, was of a pale brown colour, a ropy consistency, and contained pseudo-mucin. The solid part of the tumour, together with the cyst wall, weighed 4 lb. 3 oz. The solid part of the tumour consisted of numerous small cysts, the contents of some of which had become degenerated into necrotic cheesy-looking material. There was no sign of leaking anywhere.

Microscopical sections of the cyst confirmed the view that it was an ovarian tumour of the common pseudo-mucinous glandular type.

Cultivations from the pus of the abscess gave growths of *Bacillus coli* and *Bacillus pyocyaneus*, both of which were very pathogenic to rats.

After-history.

The patient bore her operation well, and never gave the slightest anxiety during her whole time in hospital. The abscess drained freely, both by the lumbar tube and the gauze packing. There was never any distension or faecal leakage. The bowels were opened naturally on the fourth day. The first strand of Mikulicz packing was removed on the fifth day, a little was removed each day, and the entire bag was taken out on the tenth day, when a rubber tube was substituted. The loin wound ceased to drain on the fourteenth day, and the tube was gradually withdrawn. The pleural rub disappeared a few days after the operation. As there remained an area of dullness at the base of the right lung, with diminished breath sounds, an exploring needle was introduced, but no fluid or pus was found.

A point of very great interest in the case was the permanent upward displacement of the liver. It was discovered soon after the operation that the liver had been pushed up well under the costal margin, and this position remained unaltered for fully two months after the operation, when the patient was last seen. The liver dullness had the following relations to th chest wall:

	Upper Border.	Lower Border.
Middle line ...	Base of xiphoid	Tip of xiphoid.
Nipple line ...	Fourth rib	3½ in. above costal margin.
Mid-axillary line ...	Sixth rib	Seventh rib.
Posterior axillary line	Eighth rib	

When seen on October 18th, one month after leaving hospital, the position of the liver remained unchanged.

The apex beat of the heart remained unchanged in position after the operation. The patient had no difficulty in respiration, and the abdomen moved quite naturally during this act. She left hospital on September 21st with a sinus 5 in. long from the median incision passing downwards and to the right. It discharged a small quantity of pus each day. I saw her again on October 18th, when the length of the sinus and the amount of the discharge were the same. Suspecting that the silk ligature which secured the pedicle of the small right ovarian enlargement was the cause of the slow healing, I passed a pair of fine urethral forceps down, and fished up the silk ligature in question. I asked her to let me know when the sinus healed up. She wrote on November 11th, saying that the wound had been healed about a week, and that she was in all respects well.

Since Pozzi and Terrillon in 1890 drew attention to the relation between the vermiform appendix and the pelvic organs in women numerous publications have appeared, especially in the last five years, showing how frequently the appendix and the uterine adnexa suffer concurrently. This is partly due to the fact that the appendix in women is frequently a pelvic organ, partly to the liability to bacterial infection of the Fallopian tubes, and partly to the tendency to enlargement of the uterus and ovaries. These phenomena distinguish the female pelvic contents very sharply from those of the male. It has been estimated that of all cases of pure appendicitis, 60 per cent. occur in men and 40 per cent. in women. If to these, however, be added all those cases in which there is associated disease of the pelvic contents, it will be found that appendicitis is more common in women than in men.

If an analysis is made of those cases of associated appendical and pelvic disease in women, it will be found that they comprise three great groups:

1. Those in which the pelvic disease is primary and the appendicitis is secondary.
2. Those in which the appendicitis is primary and the pelvic disease is secondary.
3. Those in which the appendicitis and the pelvic disease are independent of each other.

After carefully considering the case under discussion, I feel satisfied that it falls under Group 1, indicating that the ovarian cystoma was primary and the appendicitis secondary. Although cases of associated disease must fall into these three great groups, there might be great difficulty at times in deciding exactly in which group to place the case.

In this relation I should like here to draw attention to the apparently widespread idea in this country that appendicitis is very rarely found complicating pregnancy and the puerperium. This is probably due largely to the fact that the majority of the contributions to the literature of this subject have been made by Continental and American writers. The idea of the supposed rarity of appendicitis during pregnancy is rapidly being dissipated by more accurate methods of diagnosis. Hitherto only grave cases calling for operative interference have been brought to light, whereas mild attacks have been entirely overlooked. When appendicitis occurs during the puerperium it has generally been attributed to puerperal infection or the lighting up of an old salpingitis. The pregnant uterus has probably little or no evil effect on the healthy appendix. If, however, the appendix be the seat of chronic inflammation, extensive adhesions or a large concretion, it is quite easy to understand how the increasing pressure of the growing uterus or the frequent association of constipation could act as an exciting factor in the production of an acute attack of appendicitis.

The pelvic conditions which are commonly associated with appendicitis are, in the order of frequency: salpingo-oöphoritis, pregnancy, retroversion of the uterus, ectopic gestation, primary tuberculosis of the Fallopian tubes, ovarian tumours and fibroids of the uterus. It must be fully understood that this list does not include those numerous pelvic conditions in which the appendix is frequently adherent, but shows no evidence of appendicitis.

The rarity of the case just recorded will become evident when I say that after a careful search through the literature of the last ten years I can find references to only 7 cases of ovarian cystoma complicated by appendicitis. That this must represent the greater number of cases which exist is almost certain. Even if the appendical trouble were overlooked, ovarian cystoma is so easily recognized and calls for such prompt operative treatment, that the double combination would be readily revealed. Of the 7 reported cases the greater number were cases of catarrhal or chronic appendicitis, and not perforative or suppurative. It is rather astonishing that appendical trouble is not more common with ovarian tumours than the published records suggest. One would have imagined that the same factors which predispose to appendicitis, and which exist in pregnancy, would have existed also in cystomata. It cannot be that many chronic conditions of the appendix are overlooked, because it has become almost a routine for the gynaecologist to examine the vermiform appendix even when operating for purely pelvic conditions.

In the case before us it would appear that the appendix contained a larger faecal concretion which had probably occupied the appendix for some considerable time without giving any evidence of its presence. As the ovarian tumour increased in size the intestines generally were pushed into the upper abdomen, and the appendix containing its hard concretion became directly exposed to the pressure of the neoplasm. The appendix lying in the iliac fossa became steadily compressed between the growth and the iliacus muscle. This eventually became so pronounced that the appendical wall became gangrenous and gave way at the point opposite to the concretion. In this almost purely mechanical way suppurative appendicitis probably arose.

It must at the outset be evident that, in the evacuation of an intraperitoneal abscess complicated by a large tumour, there is an increased risk of the supervention of general peritonitis. This is especially the case in suppurative appendicitis, where the organisms present, unlike hose frequently met with in tubal infections, are almost always of the most virulent kind. The method adopted n the treatment of this case was, I feel satisfied, a sound one. It had for its justification three great objects in view: (1) To prevent fouling of the peritoneum during the complete evacuation of the abscess; (2) to efficiently drain the septic surface of the abscess; 3) to prevent for some days a spread of infection o the healthy peritoneal surface. It is for the hird object that I specially commend the Mikulicz bag. Dr. Wilson and I have used it very extensively in our department both in oozing cavities and in extensively-ouled surfaces, with very great satisfaction. This method of draining those peritoneal abscesses in which the peritoneal cavity must be opened in order to reach them, whether pelvic, appendical, or upper abdominal, is, in my pinion, better than the introduction of one or more ubber tubes. The drainage is quite as efficient, and, most mportant of all, it retards the spread of infection to the irgin peritoneal surface by setting up an artificial barrier ufficiently secure to keep back germ invasion until peritoneal adhesions have had time to form. When such dhesions are established the immediate danger of general eritonitis is passed, and rubber tubes may then advantageously be substituted. This mode of surgical procedure is familiar enough, and is based upon scientific principles hich are quite elementary. In the anxious moments, owever, of dealing with these urgent abdominal conditions I fear that the systematic adoption of sound method is not always carried out—a fact which accounts for many nfavourable results. One always feels that in the treatment of ovarian, tubal, or appendical infections, where the eritoneal cavity must be extensively exposed, we are far to content to resign ourselves to the uncertainty of hance as to whether general peritonitis will supervene or ot. I believe that in the method used in the above case e have one of the best means of obviating the necessity of trusting to chance and one which goes far to ensure uccess. The liver was primarily displaced by the pward pressure of the ovarian tumour, and later became nchored in this position to the chest wall by inflammatory dhesions induced by the appendicitis.

In conclusion, I would like to thank Dr. Faussett for e information he gave me concerning the case and for e assistance he rendered me during the operation.

Bibliography.

Shoemaker, *Amer. Journ. Obstet.*, N.Y.. 1904, xlix, 238. Ransford, British Medical Journal, 1904, p. 1077. Eitel, *North-West Lancet*, Minneap., 1904, p. 288. Michel, *Etoile Méd. par Boulogne*, 1900, p. 1011. Naumann, *Hygica*, Stockholm, 1898, lx. Werder, *Journ. Amer. Med. Assoc.*, January 1st, 1898. Thompson, *Washington Med. Ann.*, 1904-5, iii, p. 413.

A NOTE ON THE THERAPEUTIC VALUE OF SARSAPARILLA IN SYPHILIS.

By CHARLES J. CULLINGWORTH, M.D., F.R.C.P.,

CONSULTING OBSTETRIC PHYSICIAN, ST. THOMAS'S HOSPITAL.

In connexion with the interesting letter from Professor Clifford Allbutt in the British Medical Journal of March 24th on the value of sarsaparilla in syphilitic cachexia, I am sending what I have often thought I would publish, but never have published—a note of some observations I made when a student at Leeds, and afterwards when in charge of the medical wards as a resident officer at the Manchester Royal Infirmary. The observations had reference to the effect of sarsaparilla upon the body weight of syphilitic subjects. The preparation administered was that known at Leeds as syr. sarsae, which contained nothing but a decoction of sarsaparilla—prepared by boiling and reboiling, according to special directions*—and white sugar. Of this latter it never seemed to me there was enough either to render the preparation palatable or to justify the name of syrup. But that is a matter of opinion and does not affect the question. The dose of the syrup in all the cases here mentioned was 4 fluid oz. three times a day. The patients were on ordinary full diet unless the contrary is specified.

Case I.

J. W., aged 30, was admitted into the Leeds General Infirmary, August 8th, 1863, suffering from syphilitic cachexia. He was ordered syr. sarsae and no other medicine. His weight, not taken at first, was ascertained at the end of the first week and every week after that as long as he remained in the hospital, care being taken in this as in all the cases that the same clothes were worn on each occasion.

	st.	lb.		lb.
Weight on Aug. 15th ...	7	1¾		
,, Aug. 22nd ...	7	7¾	; a gain in the week of	6
,, Aug. 29th ...	7	10¼	,, ,,	2½
,, Sept. 5th ...	8	2½	,, ,,	6¼
,, Sept. 12th ...	8	6½	,, ,,	4
,, Sept. 19th ...	8	11	,, ,,	4½
,, Sept. 26th ...	9	1¾	,, ,,	4¾
,, Oct. 4th ...	9	6	,, ,,	4¼

Total gain, 32¼ lb. in 7 weeks=a little more than 4½ lb. per week.

Case II.

W. K., aged 31, was admitted into the Leeds General Infirmary, September 18th, 1863, suffering from syphilitic cachexia. He was ordered syr. sarsae and no other medicine.

	st.	lb.		lb.
Weight on Sept. 21st ...	8	11½		
,, Sept. 28th ...	9	1¾	; a gain in the week of	4¼
,, Oct. 5th ...	9	2¾	,, ,,	1
,, Oct. 12th ...	9	11	,, ,,	8¼
,, Oct. 19th ...	10	0	,, ,,	3

Total gain, 16½ lb. in 4 weeks = 4 lb. per week.

Case III.

J. E., aged 39, was admitted into the Leeds General Infirmary, June 5th, 1863, suffering from syphilis; pustules, sore throat, enlarged glands, hair falling off, pains in knee and shoulder, etc. On June 24th he was ordered syr. sarsae. On the 25th his weight was 7 st. 3½ lb. On July 31st he weighed 8 st. 6 lb., having gained 1 st. 2½ lb. in five weeks = 3 lb. per week.

Case IV.

W. T., aged 40, single, a stoker, was admitted into the Manchester Royal Infirmary under the care of Dr. Henry Simpson, January 30th, 1867. He had contracted syphilis some years previously, and was now suffering from cachexia with slight jaundice supposed to be from deposits in the liver. Mercurial ointment was ordered, and a few days later a mixture containing 5-gr. doses of potassium iodide. On March 7th, this was changed for a nitro-hydrochloric acid mixture. On March 16th, the weight (now taken for the first time) was 9 st. 13½ lb. A week later it was 9 st. 12 lb., showing a loss of 1½ lb. The syrup of sarsaparilla was now ordered, without other medicine.

	st.	lb.		lb.
Weight on Mar. 30th ...	10	3¼	; a gain in the week of	5¼
,, April 6th ...	10	6¼	,, ,,	3
,, April 13th ...	10	9¾	,, ,,	3½
,, April 20th ...	10	8	; a loss in the week of	1¾

Average gain per week, whilst taking sarsaparilla only, 2½ lb.

---

* The directions were as follows: Put 3 lb. of sarsaparilla root into 2 gallons of water; boil down to 1 gallon and strain; add 2 gallons of water, boil down to 1 gallon, and strain; again add 2 gallons of water, boil down to 1 gallon, and strain; then add 2 lb. of sugar. The result will measure 3 gallons.

CASE V.

S. C., aged 22, single, a seamstress, was admitted into the Manchester Royal Infirmary under Dr. (afterwards Sir) William Roberts, July 22nd, 1867, suffering from what was then called syphilitic rheumatism. After a course of alkaline carbonates and potassium iodide, these were on August 7th discontinued and the syrup of sarsaparilla in full doses was substituted.

	st.	lb.		lb.
Weight on Aug. 7th, 1867 ...	6	2¾		
,, Aug, 14th ,, ...	6	7½	; a gain in the week of	4¾

On August 15th the patient left the hospital at her own request.

CASE VI.

J. P., aged 49, married, a fustian-cutter, was admitted into the Manchester Royal Infirmary under the care of Dr. H. Simpson, July 29th, 1867, suffering from syphilitic cachexia, with a livid papular eruption and evidences of chronic peritonitis. He was at first treated with iron, but on August 9th syr. sarsae was substituted for the iron. He was at that time taking a milk and beef-tea diet; this he continued until August 20th, when he was ordered an ordinary meat diet.

	st.	lb.	Gain per Week.
Weight on Aug. 10th, 1867 ...	6	8	
,, Aug. 17th ,, ...	6	12¼	... 4¼ lb. on sarsaparilla only
,, Aug. 24th ,, ...	7	2	... 2¾ lb. ,, ,,
,, Aug. 31st ,, ...	7	4¾	... 2¾ lb. ,, ,,
,, Sept. 7th ,, ...	7	6¼	... 1½ lb. ,, ,,

Total gain in four weeks, 12¼ lb.=an average of a little over 3 lb. per week.

The greatest gain having been during the week when the patient was on a milk and beef-tea diet seems to show that the gain cannot entirely be accounted for by the diet.

CASE VII.

F. B., aged 25, married (but separated from her husband), a dressmaker, was admitted into the Manchester Royal Infirmary under Dr. T. H. Watts, February 3rd, 1868, suffering from syphilitic cachexia with periosteal symptoms. On her admission she was ordered a mixture containing 5-gr. doses of potassium iodide. On March 11th, syr. sarsae was substituted for this, but on the 19th, for some reason not stated in my notes, the sarsaparilla was discontinued and the potassium iodide resumed.

	st.	lb.		lb.
Weight on Feb. 14th ...	6	13½		
,, Feb. 21st ...	7	3	; a gain in the week of	3½

CASE VIII.

W. M., aged 29, single, a collier, was admitted into the Manchester Royal Infirmary, under the care of Dr. T. H. Watts, February 10th, 1868, suffering from syphilitic ulceration of the pharynx, said to be of five months' duration. On February 12th he was ordered syr. sarsae, 4 fluid oz., three times a day, without other medicine.

	st.	lb.		lb.
Weight on Feb. 13th ...	8	6½		
,, Feb. 20th ...	8	9	; a gain in the week of	2½

CASE IX.

J. D., aged 25, a widower, by occupation a wheelwright, was admitted into the Manchester Royal Infirmary under the care of Dr. T. H. Watts, March 6th, 1868, suffering from large painful swellings along the front of both tibiae and caries of the bones of the nose. He was ordered potassium iodide in doses of 5 gr., the quantity to be gradually increased. On March 28th he was taking 35 gr. per diem. On April 4th he was taking 45 gr. daily. He was now ordered syr. sarsae in addition, and continued to take it until April 25th.

	st.	lb.	Gain per Week.
Weight on April 4th, 1868...	8	1	
,, April 11th ,, ...	8	7¾	... 6¾ lb. on pot. iod. and sarsap.
,, April 18th ,, ...	8	12¼	... 4½ lb. ,, ,, ,,
,, April 25th ,, ...	9	0¾	... 2½ lb. ,, ,, ,,
,, May 2nd ,, ...	9	3	... 2¼ lb. on pot. iod. without sarsap.
,, May 9th ,, ...	9	4¼	... 1¼ lb. ,, ,, ,,

On May 11th he became an out-patient. For two weeks he was, owing to an oversight, entirely without medicine. On May 23rd he was ordered 10-gr. doses of pot. iodid. with iron.

	st.	lb.		lb.
Weight on May 16th ...	9	3½	; a loss in the week of	0¾
,, May 23rd ...	9	3¾	gain ,,	0¼
,, June 2nd ...	9	3	loss ,,	0¾
,, June 9th ...	9	5¾	gain ,,	2¾
,, June 16th ...	9	6½	,, ,,	0¾
,, June 30th ...	9	7	gain in 2 weeks of	0½

The following and last case is one in which improvement was greater when treated with potass. iodid. alone than when treated with sarsaparilla alone:

CASE X.

M. J., aged 27, married, was admitted into the Manchester Royal Infirmary, under the care of Dr. (afterwards Sir) William Roberts, April 17th, 1868, suffering from a syphilitic ulceration at the os uteri and at the posterior commissure of the vulva, a livid scaly eruption, intense headache, with tenderness of scalp (the pain being worse at night), and slight delirium. The potassium iodide ordered on admission was supplemented on April 25th by 4 fluid oz. of syr. sarsae, three times a day. On May 1st the sarsaparilla began to be given alone, but on the 7th it was for some reason discontinued, and the potass. iodid. resumed.

	st.	lb.	
Weight on April 17th, 1868 ...	7	1¼	
,, ,, 24th, ,, ...	7	3¼	; gain, 2 lb. (pot. iod.)
,, May 1st ,, ...	7	6	; gain. 2¾ lb. (pot. iod. and sarsap.)
,, ,, 8th ,, ...	7	6¾	; gain, 0¾ lb. (sarsap. only)
,, ,, 15th ,, ...	7	10	; gain, 3¼ lb. (pot. iod. only)
,, ,, 22nd ,, ...	7	12	; gain, 2 lb. (pot. iod. only)

I realize that these notes are not full enough or numerous enough to be of any very great value, but few and scanty as they are, they seem to me to be worth placing on record. The Manchester series of observations was watched at the time with considerable interest, not unmixed with a wholesome scientific scepticism, both by the resident and visiting staff. Those of my readers who are familiar with the atmosphere of a hospital common-room will well understand this. Nowhere have doubtful questions and "tall" stories to bear the brunt of a more unmerciful scrutiny, and this Leeds story of mine had to share the usual fate. I have had no opportunity since of following up these observations save in the most desultory manner. But I was pleased to know that sarsaparilla still holds its own at Leeds. I was also glad to be reminded that the credit of introducing the preparation at the Leeds Infirmary was due to that fine old surgeon (who was also lecturer on midwifery), Samuel Smith, in whose praise Professor Allbutt says not one word too much.

The Lumleian Lectures
ON
TABES DORSALIS.

DELIVERED BEFORE THE ROYAL COLLEGE OF PHYSICIANS

By **DAVID FERRIER, M.D., F.R.S.,**
FELLOW OF THE COLLEGE; PROFESSOR OF NEURO-PATHOLOGY IN
KING'S COLLEGE, LONDON; PHYSICIAN TO KING'S COLLEGE
HOSPITAL, AND TO THE NATIONAL HOSPITAL FOR THE
PARALYSED AND EPILEPTIC.

LECTURE II.*

IN health the centrifugalized deposit from the cerebro-spinal fluid contains scarcely any cellular elements beyond an occasional endothelial cell and perhaps one to three lymphocytes in a field with a magnification of 400 diameters.

In certain diseases the cellular elements are present in excess. In acute microbic affections of the cerebro-spinal meninges, as by staphylococcus, pneumococcus, and *Diplococcus intracellularis*, a leucocytosis occurs, in which the leucocytes are of the polynuclear type. On the other hand, in certain chronic affections of the meninges, syphilitic, tuberculous, etc., an excess of leucocytes also occurs. These are of the mononuclear type; in other words, there is a lymphocytosis. It has been shown by Widal, Sicard, Ravaut, and others—and their observations have been confirmed by my own and Purves Stewart's investigations—that in tabes, as well as in general paralysis of the insane, from the earliest to the latest stages there is a marked lymphocytosis of the cerebro-spinal fluid. I have in several instances relied on this lymphocytosis as establishing the diagnosis of general paralysis before there were any abnormalities of the pupils or other physical signs characteristic of the disease. In a case of tabes or general paralysis, instead of two or three, as in the normal state, one may count a hundred, or even several hundred, lymphocytes in the field of the microscope. At first sight this lymphocytosis would seem to confirm the views of those who ascribe the disease to a syphilitic affection of the meninges, either generally, or of Nageotte's meningeal root sheath, or of the posterior lymphatic system of the spinal cord as maintained by Marie and Guillain. But lymphocytosis occurs in other affections in which meningitis, syphilitic or otherwise, plays no part. Thus it has been found in Landry's paralysis, in the subacute combined degeneration of pernicious anaemia (Purves Stewart), and in herpes zoster (Sicard). Lymphocytosis cannot therefore be regarded as pathognomonic of meningeal inflammation, though no doubt meningeal inflammation would accentuate it. But the most powerful argument against the syphilo-meningeal origin of the lymphocytosis in tabes and general paralysis is the fact that it does not yield in the slightest degree to the most energetic antisyphilitic treatment (Milian, Purves Stewart). In active syphilitic lesions of the nervous system, however, the lymphocytosis that may be present tends to disappear in the course of treatment. In a case under the care of Dr. Purves Stewart, the lymphocytes had decreased after a month's antispecific treatment from 52.6 to 16.1 per field, and the symptoms had become greatly ameliorated.

---

* The lecture was illustrated by lantern slides.

Having thus passed in review the different theories which have been advanced in reference to the pathogeny of the tabetic degeneration, we have seen that there is not one which is not open to several more or less serious objections.

Instead of attempting to be more precise than the facts permit, I am inclined to adopt the hypothesis of Thomas nd Hauser, that the essential lesion of tabes is a dystrophy, similar to that induced by certain toxic agents, ffecting the sensory protoneurone as a whole, and maniesting itself in degeneration both of the peripheral and entral terminations, of which the intramedullary are the more vulnerable, and are usually the earliest to exhibit natomical change. The process, however, is not confined o the spinal protoneurone, but may affect among others he optic, the sympathetic, and certain motor neurones.

And here I would express, in concurrence with Fournier, Mott, and many other neuro-pathologists of the present ay, my belief in the essential pathological identity of abes and general paralysis. They are, in my opinion, merely different aspects of the same polymorphic disease. One cannot say that they are the same disease so far as heir clinical manifestations and course are concerned, any more than one would say that tuberculous meningitis and ulmonary consumption are the same. But the morbid rocess underlying both is identical.

Both are tabetic or wasting affections—of the sensory rotoneurone in the one case, and of the cortical neurones n the other. The essential etiological factor is, as we hall see, the same, and the date of development of the wo affections after the primary infection corresponds. No lind or crude primary meningeal inflammation could electively attack only such regions—the fronto-parietal y preference—as exhibit the atrophic cortex and dherent lepto-meninges characteristic of general aralysis.

The primary lesion in general paralysis, as in tabes, is dystrophy of the neurones and their connexions; the clerosis, thickening of the membranes and walls of the ood vessels, being only a secondary result of the arenchymatous degeneration.

Not infrequently tabes and general paralysis are comned, or succeed each other, in the same individual. linically, some of the characteristic signs, notably the rgyll-Robertson pupil, are common to both, and in both ere is the same cerebro-spinal lymphocytosis.

It would, in my opinion, conduce to a truer conception the pathology of these affections if we were to call them oth by the generic name "tabes," classifying them specially as Cerebral Tabes (general paralysis), Spinal Tabes abes dorsalis, locomotor ataxy), and Cerebro-spinal Tabes o-called tabo-paralysis), according as the disease affects e brain, or spinal cord, or both conjointly.

Etiology of Tabes.

Up to 1876, when Fournier first pointed out the great quency of antecedent syphilitic infection in tabes and dicated their probable causal relationship, tabes was ost commonly attributed to sexual excess, or the comex of injurious influences associated with exposure to ld. The supposed causal relationship between sexual cess and tabes was probably only a *damnosa hereditas* m the tabes dorsalis or sexual neurasthenia of the ppocratic writers.

Sexual excess, like all other debilitating influences, may placed among the exciting causes, and many tabetics ave probably exhausted themselves in this way; but the fluence of sexual excess in the causation of tabes has en greatly over-estimated, and if that were the only use the disease would certainly be much more common an it is.

Similarly as regards cold or damp cold, which Romberg ught, and which is still regarded by v. Leyden as one of principal causes of tabes, this view is probably founded more on the patient's belief that his tabetic pains are rheumatic in character, and that he must have caught a chill, slept in a damp bed, or the like, than on any more substantial basis. When we consider how often, when our etiology is at fault—not only in respect of diseases of the nervous system, but many others—it has been the custom to fall back upon exposure to cold as the probable cause, afterwards proved insufficient, we may without undue depreciation call it the last refuge of destitute etiology. Like sexual excess, exposure to cold and damp would without doubt have an injurious influence, and probably excite or intensify tabetic symptoms already incipient, so that the patient might have some grounds for ascribing his malady to this cause. But that exposure to cold by itself is a sufficient cause of tabes is, in my opinion, a mere vague assertion, supported by no accurate data and at variance with one's daily clinical experience. A history of exposure to cold is not found more frequently in tabes than in many other affections of the nervous system.

Fournier's views as to the causal relationship between syphilis and tabes were at first received with scepticism, not to say strong opposition, in many quarters; and the frequency of antecedent syphilitic infection in the personal history of the tabetic was not regarded as more than might be found in other forms of disease of the nervous system. But Fournier's views soon gained powerful support, among the first by Gowers in this country and by Erb in Germany; and Erb, who at one time (1878) was a strenuous opponent, is now perhaps the most eminent advocate of the syphilitic origin of tabes. It is now so generally admitted by neuro-pathologists, with some few notable exceptions, such as v. Leyden, that syphilis is the principal cause of tabes, that it seems unnecessary to quote the data on which this opinion is based. But as the elimination of cause and effect depends for the present mainly on the statistical method, and as this is liable to many fallacies depending on the personal equation of the observers and the material dealt with, it will be sufficient to state the results obtained by Erb, whose probably unequalled experience, and laborious inquiries, carried out with systematic uniformity, invest his inductions with exceptional value. In the most recent of his numerous contributions on this question, Erb states that among 1,100 cases of tabes occurring in his own practice among men of the better class, and therefore better witnesses than those living among poor and squalid surroundings, 89.45 per cent., or practically 90 per cent., had had chancre or syphilis; and only 10.54 per cent., or practically 10 per cent., had not been ostensibly infected. But of these, in only 3 per cent. was it impossible to find any ground for suspecting an antecedent syphilitic infection.

Now contrast these statistics, obtained from 1,100 tabetics, with those of 10,000 cases, also of men of the better class, of all varieties of disease, excluding tabes. Of these, only 21.5 per cent. had had syphilis, as against 89.5 per cent. among the tabetics, that is, that syphilis was found 4.5 times more frequently among tabetics than among other patients. Similar investigations among 138 tabetic men of the lower orders give a somewhat lower percentage of antecedent syphilis, namely, 77.2 per cent.; but among 1,300 non-tabetics only 6.54 had had syphilis, as against 93.46 non-infected.

Among women, who are less liable to tabes than men, and those of the better class less so than those of the lower orders, it is for various reasons much more difficult to determine the question of syphilitic infection. But Erb found that among 15 tabetic women of the better class, at least 86.7 per cent., and probably 93.3 per cent., had been infected. Among 16 women of the lower orders, however, syphilis was probable in only 68.7 per cent., and unproved in 31.3 per cent.

Taken altogether, a statistical inquiry among 1,321 cases—namely, 1,100 men of the better class, gives 89.5 infected; among 158 men of the lower class, 77.2 per cent.; and among 63 women, 80 per cent. as probably infected. Essentially the same is true of general paralysis.

So far for mere statistics, the general result being that in about 10 per cent. of the cases syphilis is unproved. These 10 per cent., however, constitute the pivot round which the essential question turns, whether tabes, like diphtheria or tuberculosis, is always due to a specific infection, or whether it may result from some other cause. This is not a mere academic question, but one of far-reaching practical importance. Can we in the present state of our knowledge give a definite, or approximately definite, answer to it?

We may, perhaps, do so by taking other facts into consideration besides mere percentages.

It has been established, and is generally recognized, that tabes frequently follows syphilitic infection of a mild type, and therefore more likely to escape notice, particularly among those in whom personal cleanliness is not a cardinal virtue. And syphilis ignota or occulta is familiar to syphilologists and dermatologists.

Some noteworthy investigations on this point have been made by Hirschl, the results of which are worth quoting. He found that, of 63 patients suffering from gummatous affections of indubitable syphilitic origin, in only 54 per cent. was there a certain history of syphilis; in 9.5 per cent. it was probable; while in 36.6 per cent. no evidence, other than the patient's actual state, was forthcoming of syphilis, hereditary or acquired. Practically the same results were obtained by him in reference to general paralysis.

Similar statistics to those obtained by him in reference to syphilis and tabes have been quoted by Gowers as having been arrived at by Dr. Pernet, of University College Hospital, in reference to syphilitic affections of the skin. Syphilis could only be proved in 80 per cent. of the cases.

One may therefore say with justice that the syphilitic origin of tabes and general paralysis is statistically just as well proved as that of gummatous affection of the skin.

Apart from juvenile tabes, which is always syphilitic, hereditary or acquired, and which affects both sexes in the same proportion, tabes occurs most commonly among men of from 30 to 40 years of age, and on the average from seven to ten years after the primary syphilitic affection. There are, however, exceptions to this rule, and I have seen it develop in a man of 70, some forty to fifty years after infection with syphilis; and there is a case on record (Berger) of a man of 74 becoming tabetic after syphilitic infection at the age of 70.

Tabes at from 30 to 40 is a significant harvest of the wild oats sown some ten years previously, and the classes who sow wild oats most freely are those who reap tabes most abundantly. Townspeople furnish more cases of tabes than those who live in the country; and great centres of population with their greater risks and temptations more than the smaller. Tabes and general paralysis are rare among priests, and of these only such as have had syphilis, or exposed themselves to it (Bouchard).

Tabes is less common among women of the better class than among those of the lower—doubtless, as Moebius has suggested, owing to the fact that men of the better class less frequently marry while still suffering from infective syphilis.

But conjugal tabes is not uncommon, and most neurologists have seen examples. Among others, Mott has given several interesting illustrations. Almost without exception there has been syphilitic infection (90 to 96 per cent., Hudovernig) on one side or the other; usually the husband has infected the wife. Nonne has related a very remarkable family history. A child of 5 was infected with syphilis through sleeping with a syphilitic bedfellow. At 18 he became tabetic. The child infected the mother, and the mother the father. Both these became tabetic. In another family, described by Souques (quoted by Erb), the father was syphilitic and became a general paralytic; the mother became tabetic, and two young daughters also showed signs of tabes—four in one family. Many similar cases might be quoted in detail, but it is unnecessary to multiply them. Syphilis, acquired or hereditary, was the common factor in all.

And the question has been mooted (Lavalle, Moebius, Erb) whether there may not be a form of the syphilitic virus falling with special incidence on the spinal and cerebral centres, and leading in due course to tabes or general paralysis. Thus Brosius relates the remarkable history of seven glass-blowers who were infected in the mouth from the same source in 1891. All were treated for syphilis and dismissed as cured after a few weeks of antispecific treatment. In 1902, that is, after eleven years, five of them came under his observation again. One was tabetic; the second had signs of general paralysis; the third was already a marked general paralytic; the fourth had Argyll-Robertson pupils, and indications of so-called tabo-paralysis; while the fifth at the time of examination was still in good health. The other two had not been traced. The only common factor in all these cases was the syphilitic infection.

It has been shown by Krafft-Ebing that general paralytics are insusceptible to inoculation by the syphilitic virus. This is a negative fact of great significance and of much more importance than if the converse were true, for reinfection is always a possibility. Whether the same holds in respect to tabetics has not, so far as I know, been yet demonstrated, but it is more than probable. Who has ever seen a tabetic with a primary sore, or even with secondary symptoms? A considerable number, both during life and after death, exhibit tertiary manifestations, or traces of antecedent syphilitic lesions. But these date from the infection which preceded the tabes. Yet it cannot be said that tabetics do not run the risk of reinfection, for it is notorious that in the pre-ataxic stage tabetics frequently exhibit excessive erotic propensities, and expose themselves freely to the possibility of acquiring syphilis.

Female children apart, tabetic *virgines intactae* are *rarae aves*. They are, however, not unknown. Of two of whom I have read, the one (reported by Nonne) was a tabetic girl of 20, infected in infancy by her mother suckling a syphilitic foster-child at the same time; the other (described by Erb) a virgin of 36, who some time previously had had a chancre on her lip.

One might multiply arguments in favour of the causal relation between syphilis and tabes, but they are unnecessary. For those above related, singly and collectively, leave in my opinion little room for doubt that tabes and general paralysis are in all cases syphilitic, and that tabes *per se* is as much a proof of syphilis as a gumma of the skin. Those who may be still unconvinced, and seek a more positive sign, will probably have to wait till in some pathological laboratory a monkey will be exhibited, inoculated with a virus of syphilitic origin (a product perhaps of the *Spirochaeta pallida*), showing Argyll-Robertson pupils and loss of knee-jerks; and the question of the syphilitic origin of tabes will be solved by the walk of a tabetic chimpanzee.

It has been urged by v. Leyden and Goldscheider as an argument against the syphilitic origin of tabes, that the disease is rare among prostitutes, among whom nevertheless syphilis is rife. But it must be remembered that tabes is less common among women than men; and one must also take into account the fact that as tabes is a late manifestation of syphilis, it is not to be expected among those who are still young enough to ply their wretched calling. This accords with the statistics of Kron, who, though he found no case of tabes among 148 young prostitutes, yet among 36 over 25 years of age found 5—a large percentage enough.

Similarly it has been contended that in certain countries and among certain races tabes is rare, though syphilis is common. Thus it has been asserted that in Bosnia and Herzegovina, in Japan, in Abyssinia, among the Arabs, and among negroes tabes does not occur. But more accurate investigations have proved this assertion to be unfounded. For tabes is common enough in Japan (Nose); it is not unknown in Bosnia and Herzegovina; it is as common in Abyssinia as in Vienna (v. Halban), and it certainly occurs among negroes (Collins, Hecht).

It may not be so common among primitive races as among those more advanced in civilization and all that this connotes, but this is not the point. The fact that tabes only occurs where infection with syphilis is possible is the essential point in this relation.

If tabes can be shown to exist, or to have existed, in any land or people among whom syphilis has never entered, and who have never had communication with any outside syphilized world, the exclusively syphilitic origin of tabes will have to be abandoned, but not till then.

The relative infrequency of tabes among those who have suffered from syphilis—it has been variously calculated at from 1 to 5 per cent. of the whole—is no argument against the syphilitic origin of tabes. For there are many affections due to syphilis, such as aortitis, hepatitis and orchitis, which are relatively rare. And as Erb remarks, the fact that perhaps only 1 in 10,000 of those infected with tubercle suffers from Addison's disease does not disprove the tuberculous nature of the affection of the suprarenal capsules. But the smallness of the percentage, as well as other considerations, suggest that, in addition to syphilis, there may be some predisposing or other co-operating causes, determining the incidence of the syphilitic virus on the nervous system, and the development of tabes either of the brain or spinal cord or both.

Heredity, as such, plays no part in the etiology of tabes, though, as we have seen, juvenile tabes indicates a syphilitic inheritance.

Mention has already been made of sexual excess and cold, to which great, but as we have seen, undue prominence has been assigned by certain pathologists. The same may be said of neuropathic inheritance, to which great importance was attached by Charcot. It is not more frequent in tabes than in other forms of nervous disease. Some facts, however, suggest that certain families are specially prone to develop tabes; and several instances might be quoted of more than one member of the same family becoming either tabetic or general paralytics after acquiring syphilis.

Certain malformations, or developmental anomalies, such as heteropia spinalis, have been recorded by several observers (Mott, Orr and Rows, Rebizzi) in the spinal cord of those affected by tabes or general paralysis. All these have, no doubt, their significance, but they are by no means constant nor are they even common.

The view that the substratum of tabes lies in some defect of development, or vice of inheritance, which predisposes to premature decay of the essential elements of a highly specialized tissue, and reversion to those of a lower type, so that certain individuals are, as it were, predestined to tabes, reaches its culmination in Benedikt's burlesque, "Tabicus nascitur; non fit!" No one who has had experience of tabes in all ranks, and has seen among its victims numbers of men of the most healthy stock and vigorous physique, can regard it otherwise than a gross libel to speak of tabetics in general as being "connective-tissue individuals" (Bindegewebs-individuen) or "degenerates" in any true sense of the term.

Among other exciting causes of tabes, injuries have been blamed, and many cases of so-called traumatic tabes have been put on record. There is no doubt that in certain instances—perhaps 5 per cent.—tabetic symptoms have first made themselves manifest after injuries of the spine or other parts of the body, and the limb injured has not infrequently been the primary, or principal, seat of the characteristic pains; but a critical examination of such cases by Hitzig and others has failed to substantiate the efficacy of trauma as a cause of tabes independently of antecedent syphilitic affection.

Of greater importance, perhaps, than any of the above-mentioned exciting or co-operating causes of the tabetic degeneration is the influence of over-exertion or of over-exertion in debilitated states of the system. The principle underlying these degenerations is that the normal equilibrium between waste and repair which characterizes health is disturbed, and that in consequence of the process of waste exceeding that of repair the neurons, especially those most engaged, tend to break down and show dystrophic change. Edinger and Helbing have found that in rats artificially rendered anaemic, which have been compelled to work in a treadmill, or, by other device, to engage in long-continued muscular exertion, the posterior roots and posterior columns of the spinal cord exhibit degenerations similar to those of tabes.

These facts are suggestive, and appear to harmonize well with the views of those who regard fatigue and over-exertion as the most important causes of tabes. As co-operative causes certainly, but not apart from syphilis; for the same degree of fatigue and over-exertion which may excite tabes in one in whom the soil is already prepared by syphilis, may be borne by thousands of others without material damage.

Edinger's "compensation theory" (Ersatz-theorie) seems also to afford a plausible explanation of the incidence of the affection in the parts most subjected to continuous strain, the most common being the sensory apparatus concerned in co-ordinated locomotion and maintenance of equilibrium. Occasionally, however, as in cervical tabes, the arms, for similar reasons, are more specially affected; and the pupils and optic nerves would in like manner probably suffer more readily than any of the other organs of special sense.

So also muscular atrophies would be more prone to occur in the muscles which are most taxed, similar to the occupation-muscular atrophies of blacksmiths, railway porters, and the like. Probably the same principle may serve to explain the incidence of the tabetic degeneration in one case on the brain, and in another on the spinal cord. Raymond has related an interesting narrative of two brothers, similarly constituted by inheritance, who both became infected by syphilis about the same age. The one who lived a fast life and indulged in sexual excess became a tabetic; the other who exhausted his brain in the struggle for existence, became a general paralytic. Facts like these are of eloquent significance. The sensory neurons and posterior columns of the spinal cord appear to be specially vulnerable to certain toxic agents. Whether this can be explained on evolutional or developmental principles; or more mechanically by peculiarities in the lymph circulation in the posterior roots and posterior columns; or by an elective affinity of certain poisons for special structures, such as nicotine for the cells of the sympathetic ganglia, is a question for the future. But degenerations similar to those of tabes have been shown to occur from poisons introduced from without or generated within, as well as in the course of cerebral tumours, in some more obscure manner.

In the great epidemic of ergotism which occurred in Hesse in 1880 Tuczek observed many cases of so-called ergotin tabes, in which, following the preliminary acute gastric and other constitutional disturbances, paraesthesiae and ataxic symptoms set in, sometimes several months after the ingestion of the poison. Occasionally there was a tendency to relapse, even when no further use was made of the poisonous grain in the dietary. These ataxic and sensory symptoms were found to coincide with degenerative changes in the posterior roots and posterior columns similar to those of tabes, differing only in their acute course and in the absence of sclerotic shrinkage. Lissauer's zones, however, remained intact, and there were no pupillary symptoms.

Somewhat similar degenerations, but less strictly confined to the posterior columns, have been observed in pellagra, endemic in certain districts, especially in Northern Italy, and due to the consumption of poisonous maize. The degenerations in this case affect not only the posterior columns, particularly that of Goll, but also the antero-lateral and pyramidal tracts. The exact nature and localization of these degenerations are, however, not as yet precisely determined.

So also in lathyrism, caused by the seeds of the *Lathyrus sativus*, degenerations occur in the spinal cord; and a large number of inorganic poisons, which specially cause peripheral neuritis, also occasionally lead to degeneration of the posterior roots and posterior columns, such as alcohol, lead, arsenic, and some others.

Many of the organisms which are the cause of certain epidemic and endemic diseases, such as those of diphtheria, beri-beri, and lepra, generate toxins which not only induce multiple neuritis, but also in some instances degeneration in the posterior roots and in their intramedullary processes and collaterals. Whether these degenerations are primary or secondary to the peripheral neuritic processes, or whether the two are simultaneous, is a question on which it is impossible at present to pronounce definitely. Further—and perhaps of greater significance—in reference to the pathogeny of tabes, it has been shown that in certain cachectic states of the system such as pernicious anaemia (Lichtheim, Minnich, etc.), and diabetes (Fischer, Williamson), probably by the autochthonous development of toxins, degenerations occur in the spinal cord, especially in the intramedullary processes of the posterior roots, and tabetic-like symptoms ensue in the form of paraesthesiae, pains, and ataxic disorders; but however much these toxic affections resemble tabes, they are in reality only pseudo-tabetic, and none of them conforms in its clinical history, course, and termination to tabes properly so-called. Though weeks, or even months, may elapse before the poisons introduced into the system, or engendered in it by the specific organisms, produce their deleterious effect on the nerves and nerve-centres, and though relapses may occur, there is a direct continuity between the introduction of the poison and the development of the symptoms, which run their course, and cease when the virus is exhausted. In none of them do years elapse between the original infection and the commencement of the symptoms, and none has the progressive character of true tabes. In none of them do the children suffer like the juvenile tabetics, "who have their teeth set on edge because their fathers have eaten the sour grapes" of syphilis.

The similarity, however, between the degenerations caused by these poisons and those of tabes, strongly support the hypothesis, originally advanced by Strümpell, that the tabetic degeneration is due to the action of a toxin of syphilitic origin. The tabetic degeneration is, as we have seen, a parenchymatous dystrophy, and has none of the features usually considered characteristic of tertiary syphilitic lesions. There are no cellular infiltrations; no specific vascular or gummatous changes; and it does not yield to the usual antispecific remedies. Hence it has been customary to term the lesions of tabes parasyphilitic (Fournier) or metasyphilitic (Moebius) manifestations. It may be said, however, that this is a mere *petitio principii* and that we have no certain criterion of what constitutes a syphilitic lesion. The *Spirochaeta pallida* has not yet been shown to be present in tertiary syphilis. But, in any case, it would be incorrect to term a state of abiotrophy (Gowers), or defective nutrition, a positive lesion. For this reason Lesser's term, quartary syphilis, however appropriate to certain late manifestations of syphilis in the liver and other organs, is not strictly applicable to a condition in which parenchymatous dystrophy precedes the development of the sclerotic process.

The most probable pathogeny of the tabetic degeneration, therefore, is that it is the result of a toxin generated or conditioned by the syphilitic virus. But this is at present a pure hypothesis, and one which has to surmount great difficulties. Even if, like the diphtherial neurotoxin, it may be the product of the action of the specific organism on the proteids of the body, or set free in the elaboration of protective antitoxins, that it should take so long to develop, or lie dormant for so many years before exhibiting any signs of activity, is unlike anything that we know of organismal toxins. There is no parasyphilitic or metasyphilitic cerebro-spinal lymphocytosis as such, apart from the commencement of the tabetic process, and this is a fact of great importance. Dr. Purves Stewart, who has made investigations for me on this point, found that, in a series of 12 cases, the average number of lymphocytes in the centrifuge deposit of the cerebro-spinal fluid in secondary syphilis was 2.7, while in tertiary syphilis it was 0.9, or not more than the normal. The tertiary cases with active cutaneous lesions in progress had more lymphocytes than the others, but even these were less than the average of the secondary cases. The lowest count in tabes, however, was 45. Most were between 80 and 100, while the highest was 316 in the same relative field.

Even if we were to consider it possible that there might be long years of apparently normal health, in spite of the presence of some malignant toxin in the system, we have to reckon with the fact that the tabetic process, once begun, is essentially of a progressive nature, and postulates a more or less continuous generation of the poison.

In this relation mention may be made of the researches of Ford Robertson, McRae, and Shennan. These observers have found a bacillus closely resembling the Klebs-Loeffler bacillus of diphtheria in cultures from the walls of the respiratory, gastro-intestinal, and genito-urinary tracts of patients dying from general paralysis, and from the genito-urinary tracts of general paralytics and tabetics during life. Rats fed on broth cultures of this diphtheroid bacillus became ill after some weeks, and, when killed, showed in addition to signs of gastro-enteritis acute degenerative changes in the cortex cerebri resembling to some extent those of general paralysis, as well as degenerative changes in the cells of the spinal cord. These observations are of much interest, but a definite causal relationship between this bacillus and tabes or general paralysis is far from being established. For the same bacillus was found by them in the genito-urinary tract in 10 out of 14 patients suffering from forms of insanity other than general paralysis.

Note.—I had written this before Dr. Ford Robertson had delivered his Morisonian Lectures on The Pathology of General Paralysis, now in course of publication, and I am indebted to him for allowing me to read the MS. of those as yet unpublished, and to examine some of his microscopical preparations. He holds that general paralysis is the result of a bacterial toxic infection from the respiratory and alimentary tracts, owing to the impairment of the resisting power of the organism by syphilis, alcoholism, or the excessive use of nitrogenous foods. The bacillus has the cultural and morphological features, and reaction to Neisser's stain, of the Klebs-Loeffler bacillus, of which it is an attenuated or more probably a special form, to which he gives the name—*Bacillus paralyticans*. The bacillus is polymorphic; and among other characters which distinguish it from the xerosis bacillus, and Hoffmann's bacillus, is its power of forming acid when cultivated in glucose broth.

The leucocytes of the blood of the general paralytic, he maintains, have a greater dissolving power over these bacilli than those of normal blood, and the serum is also more lysogenic.

These diphtheroid bacilli, more or less altered by lysogenic action, have been found by him and his colleagues in the catarrhal pneumonic foci of general paralytics, in the adventitial spaces of the cerebral vessels, and in the meshes of the pia arachnoid. They have also been found in the blood, in the centrifuge of the cerebro-spinal fluid, and in the urine of the general paralytics, especially during congestive attacks. From these fluids cultures of the bacilli have been obtained, when sufficient time has been allowed to destroy the phagocytic or lysogenic action of the blood. Rats infected or fed with cultures of these bacilli showed changes in the cerebral cortex suggestive of those of general paralysis, and similar appearances were also found in a goat which had ingested them.

He considers that in general paralysis there is a life and death struggle between the leucocytes and the diphtheroid bacilli, in which the leucocytes succumb. There is a bacillary invasion. Most of those which reach the blood are digested, but many escape from the circulation, either through the capillaries of the kidneys, or through the walls of the cerebral blood vessels into the adventitial lymph channels. The further disintegration of the bacilli in these lymph channels gives rise to a local toxic action in addition to the general toxaemia. The special cause of the cord lesion in tabes is probably the absorption of toxins from some peripheral septic focus such as the bladder.

Interesting as these views are, there are many difficulties in the way of their acceptance as a satisfactory pathogeny of tabes, cerebral or spinal. Eyre and Flashman, as the result of examination during life of the throats of large numbers of patients suffering from different forms of insanity, as well as of the tissues of a considerable number of cases *post mortem*, could not determine any greater incidence of diphtheroid organisms in the throats of the insane than of the sane, and found no evidence that *B. diphtheriae* is more common in the throats of general paralytics than of other insane patients. Of 10 cases of general paralysis examined *post mortem*, diphtheroid organisms were found in the respiratory tract in 4, and the same number in 26 cases of other forms of insanity. They were unable to trace any causal connexion between *B. diphtheriae* and general paralysis of the insane.

I have the authority of Dr. Bulloch, one of our eminent bacteriologists, for the following remarks: Diphtheroid organisms are ubiquitous both in health and disease. They may be found in the intestines, in the genito-urinary passages, in the throat; in the nasal secretions, and elsewhere in perfectly normal people, as well as in catarrhal conditions of the respiratory tracts. The characters given by Dr. Ford Robertson are not sufficient to distinguish his *Bacillus paralyticans* from other forms of diphtheroid organisms. The formation of acid in glucose broth is not special to the *Bacillus paralyticans*, for this is possessed in different degrees by various other diphtheroids.

If diphtheroid bacilli can be found in the blood films of living general paralytics, then general paralysis must be regarded not as a toxaemia, but as a form of septicaemia, ranking with relapsing fever as regards the dissemination of the organisms. If diphtheroid bacilli exist in the blood or cerebro-spinal fluid of general paralysis, they should be capable of cultivation at once without waiting for the cessation of any supposed bactericidal action, for no lysogenic action of the serum for bacilli of this group has been proved to exist.

Specimens of the cerebro-spinal fluid, blood, and urine of several cases of tabes and general paralysis have been cultivated for me by Dr. Emery of King's College Hospital, and by Dr. Bulloch, and have proved absolutely sterile. Dr. Ford Robertson emphasizes the fact that he finds bacilli particularly after so-called congestive attacks. It is not improbable, therefore, that the bacilli which he has found so largely diffused throughout the tissues in general paralysis are only the result of a terminal invasion.

In order to establish any causal relation between the *Bacillus paralyticans* and tabes, it would be necessary to show that a toxin prepared from these bacilli can produce the symptoms and *post-mortem* appearances characteristic of tabes, cerebral or spinal. Such evidence Dr. Robertson has not produced. The experiments on rats related by him are not convincing, for it has been found by other bacteriologists that rats are almost immune to the most virulent form of the Klebs-Loeffler acillus. In presence of these and other considerations, we ay, therefore, say that the diphtheroid-bacillary origin of the abetic toxin is at least not proven.

In the absence of any living organism capable of enerating the tabetic toxin, it may be that the syphilitic irus under certain conditions so affects some viscus or land that in time it develops, and continues to elaborate, me toxic internal secretion which exerts its noxious fluence on the nervous system.

In view of the brilliant therapeutic triumphs of the pre- nt day, it is not, I think, too optimistic to hope that, ith the progress of bio-chemistry, we may yet discover e source of the tabetic toxin, its nature, and the means neutralizing it and staying its ravages. We cannot pect to repair damage already done, for intramedullary generation is irreparable, but we may at least succeed arresting the disease. This not infrequently happens ontaneously; and the therapeutic measures last em- oyed are apt to get the credit of the happy result. But yond palliation, or the temporary relief of urgent sym- oms, no remedy, chemical or physical, has as yet been scovered which materially influences the morbid process. ntispecific treatment may be of service against possible incident tertiary lesions; or may even cure pseudo- betic syphilitic symptoms; but certainly ordinary anti- ecific treatment exerts no beneficial influence on true betic degeneration, and may if carried to extremes, ove positively harmful. If, however, we believe, as I ink we must, that the syphilitic virus is the *sine quâ non* the etiology of tabes, it ought to be our endeavour to mbat this with all the resources at our command.

The comparative mildness of the primary constitutional mptoms in those who ultimately become tabetic, would most seem to indicate that when the syphilitic virus pends itself in severe primary and secondary manifesta- ns there is less tendency to the subsequent develop- nt of the subtle poison which proves so disastrous to nervous system.

This mildness of the primary symptoms without doubt ds in many cases to insufficient treatment. Even the st efficient antispecific treatment, however, may fail to vent the subsequent development of tabes in certain es. But the facts recently brought by Fournier before Académie de Médecine in reference to the relation ween general paralysis and syphilis and its treatment worthy of careful consideration and probation.

ournier states that of 79 cases of general paralysis ning under his own observation, in which he was able btain precise data as to the character and duration of treatment to which they had been subjected, only er cent. had been treated with thoroughness; while in east 80 per cent. the antispecific treatment had been ried out in a more or less perfunctory manner. It is ugh, he says, to treat constitutional syphilis for weeks months only. Fournier contends that mercurial treat- nt should be administered for at least two years con- iously, and intermittently for several years longer. eat syphilis well, and you will have few cases of general alysis," he says. The same would hold true of spinal s. These views deserve the special consideration of se who have most opportunities of treating syphilis in earlier stages. If they are substantiated, tabes both bral and spinal will become one of the rarer, instead ne of the most common, and, it is to be feared, easing forms of organic nervous disease.

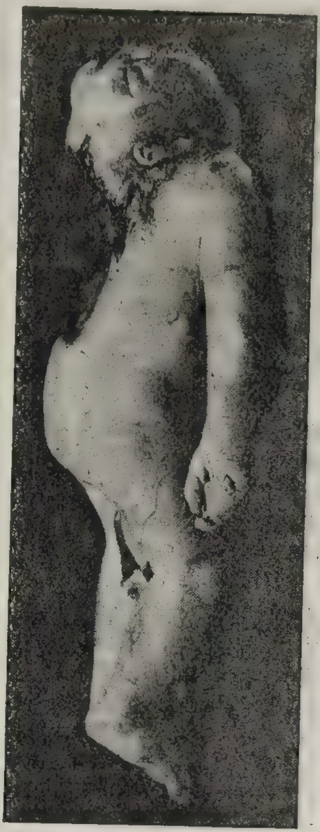
[e bibliography will be given at end of third lecture.]

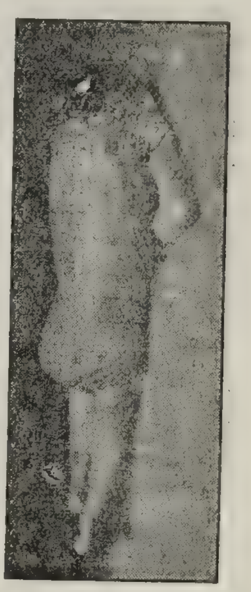
HOOL HYGIENE.—On the initiative of Dr. César Roux sanitary card has been introduced into the municipal ols of Nice. Each pupil is provided with a small , in which are recorded all particulars as to his age, icile, place and date of birth; successful vaccination, ht, height, chest girth, and aptitude for sports. The let also contains elementary notions of hygiene, ce for the correction of wrong positions in reading and ng, and on the dangers of alcohol and tobacco. A attached to the book is handed to the medical in- or, who is thus enabled to advise the parents of the l as to the care to be exercised in his bringing-up. A al advantage of the sanitary card is that, by means of observations recorded thereon, children whom the er might otherwise punish for idleness or mis- viour are shown to be suffering from adenoid ths, nervous troubles, or hereditary taint of one kind nother.

MEMORANDA:
MEDICAL, SURGICAL, OBSTETRICAL.

FETUS ANENCEPHALUS: TWO CASES WITHIN THREE MONTHS.

IT is very unusual to meet with two cases of anencephalic monsters in private practice within three months, and therefore I think it worth while to forward photographs of two instances of this type of monstrosity which came under my observation last year within that limited period. The smaller fetus was born prematurely at the sixth month; the larger specimen nearly caused the mother's death. After consultation with two other practitioners premature labour was induced at the eighth month owing to very severe albuminuria and general dropsy. The patient made an excellent and speedy recovery, and was able to attend to her duties in ten days. In the larger specimen there was a complete absence of the posterior bones of the skull, and the spinal column was widely open down to about the seventh dorsal vertebra.





F. W. KING, M.R.C.S., L.R.C.P.

Auckland, New Zealand.

CALCIUM SALTS IN CHILBLAINS.

THE name "erythema pernio" at once helps us to form some idea of the nature of the disease. It is associated with such general disorders as urticaria and erythema nodosum on the one hand, and with lupus erythematosus on the other. On both sides, therefore, it is associated with general diseases due to some poison which has the effect of producing characteristic local lesions.

Yet, notwithstanding such associations, it is usual to consider chilblains a purely local affection, aggravated, undoubtedly, or contributed to, by such general conditions as a "weak circulation" or "want of arterial tone." Based on such a pathology, the treatment has been to give cod-liver oil, iron, digitalis, and suchlike drugs internally, the external treatment being satisfied with painting iodine "till they break," and then applying fomentations.

The close association of chilblains with such general diseases as those above mentioned, and their appearance in persons who have tuberculous tendencies, suggested to me that the cause must be one affecting the body generally, but depending on climatic conditions for the characteristic manifestation. Cardiac and arterial tonics have been in the majority of cases so singularly unsuccessful, that I thought it advisable to administer drugs which would alter the character or quality of the blood, especially as regards its exudation properties.

Chilblains are particularly prone to occur in certain classes of the community, such as shop girls who tend to neglect themselves, and children in orphanages, and institutions for the deaf and dumb. The neglect referred to in connexion with shop girls shows its results very often in the form of anaemia, again helping to emphasize the fact that it is to the blood that attention should be directed.

The drug which seemed to me the most appropriate was calcium chloride, experiments having proved that the coagulability of the blood was increased by its administration. In haemophilia and in purpura this drug has been found useful, and I determined to try its effect on chilblains. I gave it in 10 to 15 gr. doses with liquorice extract three times a day, and the patients, most of whom were engaged in sedentary occupations, began in two to three days to show remarkable signs of improvement. Some whose chilblains had broken found that these were rapidly healing up, and others who were expecting them to break were agreeably disappointed to find them gradually subsiding. Several of the patients who had had experience of chilblains on previous occasions, remarked on one striking feature of the cure—namely, that previously, when healing, the fingers felt stiff for some time, but after taking this medicine the stiffness disappeared very quickly.

Another series of cases was found amongst the children of the Deaf and Dumb Institution in this town. One morning I had paraded before me twenty children, some of whom had very bad chilblains in the ulcerating stage. I put them all on 10-gr. doses of calcium chloride, and in three days all were very much better. One boy, whose toe was almost bad enough to suggest the necessity of amputation, the ulcer being deep and very offensive, showed a very ready response. Last year a boy with an equally bad toe, which did not improve under "general tonics" and local applications, had to have his toe removed.

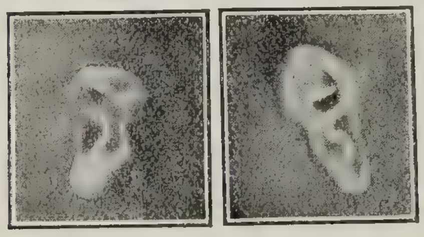
My friend, Dr. Evans of Fforestfach, with whom I had discussed the subject, agreed to give the treatment a trial, but, instead of giving calcium chloride, he gave calcium lactate with equally encouraging results. He was especially impressed with the rapid removal of the accompanying stiffness.

The only unpleasant effect he encountered was a sensation of giddiness in two young ladies, which prevented them from indulging in as many waltzes as usual at a dance they went to, while still taking the medicine.

G. Arbour Stephens, M.D., B.S., B.Sc.Lond.,
Honorary Physician to the Royal Cambrian Institution for
Swansea. the Deaf and Dumb

A CASE OF OCCLUSION OF BOTH EXTERNAL AUDITORY MEATUSES.

D. R., a female infant of 7 months, born of healthy multipara with no aural malformation, was found shortly after birth to have each external auditory meatus blocked by a membranous septum at a distance of about ¼ in. from the surface. This condition appeared identically the same in each ear, though the outward form of the right auricle was very different from the left, as will be seen from the accompanying photographs. The right ear more closely conforms to the normal than the left in general contour, the latter showing, besides the marked alteration in shape, the presence of a very deep fossa above the rudimentary concha. The sense of hearing is certainly not in abeyance, and this would appear to point to the septa being thin.


Left. Right.

Is operative interference in this case contraindicated?

From the references to similar cases observed it would appear such are by no means infrequent, but I can find no record of the after-results of surgical treatment.

York. A. B. Northcote, M.D.

A SIMPLE METHOD OF FREEZING TISSUES FOR SECTIONING.

Probably many histologists have refrained from adopting the liquid carbon dioxide method of freezing tissues for sectioning on account of fancied difficulties and complications.

Certain difficulties do exist when the liquefied gas is used in accordance with published instructions, whilst, in addition, considerable expense is necessarily involved if one of the microtomes especially constructed for its use be adopted. Moreover, some of these instruments appear to lack the precision of movement necessary for the preparation of perfect sections.

There is, however, another method of using compressed carbon dioxide which is free from difficulty and complication, economical, and effectual. It consists in connecting the cylinder of compressed gas, which is kept in the erec position, directly, by means of rubber tubing, with th ordinary ether-spray apparatus. The pressure from th cylinder takes the place of the pressure from the bellow and there is a slight additional cooling effect produce by the expansion of the gas. Ether is employed as usua but the freezing is accomplished so quickly that the extr expense may be disregarded.

The advantages of the method are its perfect simplicit and great convenience. Tissues can be frozen in a coupl of minutes and kept at any desired degree of hardness fo as long as necessary by simply altering the valve on th cylinder. One caution is necessary: the rubber tub should be loosely connected with the cylinder—that i should not be tied on, so that it may act the part of safety valve, and may be blown off in the event of to sudden an opening of the cylinder tap.

As a help in the rapid diagnosis of tumours durin operation the method should be of service, whilst fo ordinary work its convenience is very great.

Probably others have used a similar arrangement, but i seemed worth while to write this note in the interests c those who have little time for experiment, and who hav regarded the compressed carbon dioxide method a capricious and its advantages as doubtful.

Bristol. A. F. Stanley Kent.

THE EFFECT OF VARIOUS RAYS ON TRYPANOSOMES.

In the British Medical Journal for March 31st refer ence is made to a paper by Mense (*Archiv für Schiffs un Trop. Hyg.*, July, 1905), advocating the use of Roentgen ray in trypanosomiasis. It may prove useful to state that mor than a year ago liquid preparations of blood containin numerous active trypanosomes were exposed by me fo periods varying from half an hour to one hour to very stron rays of three kinds—Roentgen rays, Finsen rays, and thos of radium, the apparatus being kindly lent to me by D A. S. Grünbaum. No appreciable effect on the organism was observed, and I therefore concluded that the action o all the rays on them could scarcely be immediately lethal Further researches on the subject may, however, b suggested.

University of Liverpool. R. Ross, F.R.S., C.B.

AN UNUSUAL CASE OF ATROPINE POISONING

It being necessary to determine the refraction of a smal boy of 5, the child of highly neurotic American parents atropine drops, of a strength of 4 gr. to the ounce, wer ordered to be instilled into the conjunctival sac thre times a day. After a day or two the boy became delirious his gait staggering, and his temperature went up to 105° His pupils were widely dilated. I am unable to find thi symptom of pyrexia, described as occurring in belladon poisoning, but, as after a careful examination no othe cause could be discovered, and the other symptoms wer clearly due to excess of atropine, I think the pyrexia mus also be explained on the same pathology. The boy, unde no special treatment, in a few hours broke out into profuse perspiration, his temperature rapidly fell t normal, and next day he was quite himself again.

I have so frequently of late had cases of poisonin due to atropine drops instilled for refraction, that I hav adopted a plan which I think prevents it. The cause is of course, the carelessness of the parents in putting i the drops so that they run down the nasal duct and ar swallowed. (In one child who got delirious after usin the drops at home, I got a nurse to see to it on anothe occasion, and no bad signs followed.) I find this bella donna poisoning occurs more frequently in better-clas private patients than in hospital children, evidently I think, because the more educated child is mor readily affected by excess of the drug. To prevent i I now use in young children an ointment containin 4 gr. of atropine in an ounce of vaseline, a smal quantity of which is placed in the conjunctival sa three times a day. This does not run down the nasa duct, and I do not remember seeing any bad effects sinc taking to this plan.

L. A. Parry, B.S., F.R.C.S.,
Assistant Surgeon, Sussex Eye Hospita

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

GLASGOW HOSPITAL FOR DISEASES OF THE EAR, NOSE, AND THROAT.

TWO CASES OF GRAVE COMPLICATIONS OF PURULENT EAR DISEASE.

Reported by J. STODDART BARR, M.B., Ch.B., Assistant Surgeon.)

HE first case was one of septic thrombosis of the lateral inus, secondary to chronic otitis media purulenta in left ar, and complicated with septic infarctions in the ght lung.

The patient was a little girl, aged 7 years, who had had continuous discharge from the left ear for a year. During ie eleven days before admission she had a dozen severe rigors, ith violent oscillations of temperature, from normal to 104° F. here was also frontal headache and pain in the left side of ie neck. She vomited once or twice at the beginning of the lness. The discharge from the ear was profuse and fetid. nere was evidence of the early stage of optic neuritis in both es. The breathing was accelerated, with frequent cough. few moist râles were heard, and also tubular breathing over restricted area around the inferior angle of the right scapula. ie radical mastoid operation was performed by the writer, earing out pus and granulation tissue. The sigmoid sinus as exposed, and found converted into a yellowish, sloughy- oking mass, surrounded by, and partly filled with, pus. The ılb of the internal jugular contained solid thrombus. The nus was slit open backwards and cleared of septic disinte- ated thrombi to within 1½ in. of the torcular when a gush of ood appeared. After the operation the pulmonary symptoms ntinued to increase, and the patient died two and a half days ter admission to the hospital. At the *post-mortem* examina- on conducted by Dr. James Walker, well-marked septic farctions of the right lung were found. Bacteriological amination showed the presence of pneumococci, strepto- cci, and also a large bacillus, which did not grow on the lture media, and did not give the staining reactions of the id-fast group of organisms.

The second case was one of otitic extradural abscess sociated with paralysis of the sixth cranial nerve, and uble optic neuritis:

The patient was a lad of 17 years of age, who suffered from rulent right middle-ear disease for sixteen months before mission. He came to hospital owing to headache, diplopia, ralysis of external rectus (sixth nerve) and double optic uritis. The radical mastoid operation, performed by . J. S. Barr, cleared out cholesteatomatous masses m the antrum, aditus, and the attic of the tympanum. e opening of the sigmoid groove gave exit to a collection pus between the sigmoid part of the lateral sinus and bone. The sinus wall was involved, and covered with nulation tissue, but there being no signs of general septic ection it was not opened. There had been no pain over the stoid area nor behind, and the temperature was normal m the time of admission. After operation the paralysis of sixth nerve gradually but slowly passed off. The optic iritis for a few weeks became more marked, with occur- ce of haemorrhagic spots, and now, four months after the ration, the discs are undefined, with white spots and a dency to atrophy, but the vision is so far unimpaired.

EMARKS.—In the first of these cases it is highly pro- le that had operative treatment been employed a few s earlier, before the pulmonary infection had super- ied, a different result might reasonably have been pected. It should be emphasized that when rigors with lent oscillations of temperature appear in connexion h a purulent middle-ear disease operative treatment is ently called for. Judging from this case and others of milar kind the grave significance of this symptom in se ear cases is not yet duly recognized by some prac- oners. Operation carried out early is probably more cessful than in any other form of intracranial complica- is due to ear disease; hence the vital importance of y recognition of the condition present. In the second the pathological connexion between the septic pachy- ningitis at the sinus and the lesions causing the ocular nomena is not very clear. The most ready explanation at a limited basal lepto-meningitis originated in the on of the sigmoid groove and extended and involved sheath of the sixth nerve or the more distant optic missure, either by pressure or by producing an in- ive neuritis. There is also the possibility of the formation of thrombus in the cavernous sinus, originating in the sigmoid and, by pressure, involving the sixth nerve as it lies in the cavernous sinus, or, by producing stasis of the blood from the eye, causing optic neuritis. It is also to be remembered that optic neuritis seems to occasionally occur in connexion with simple purulent middle-ear disease presenting no intracranial symptoms.

LOWESTOFT HOSPITAL.

A CASE OF EMPYEMA TREATED WITH ANTISTREPTOCOCCUS SERUM.

(Reported by H. MUIR EVANS, M.D.Lond., Surgeon.)

A. W., aged 2 years, was admitted from the country on October 6th, 1905, suffering from high fever, cough, and wasting. On admission there were signs of bronchopneumonia and pleuritis at the left base. The temperature ranged from normal to 105°, the highest temperature being more frequently about noon than in the evening.

Progress.—The course of the temperature led one to suspect pus, but the child had an exploratory needle inserted on three occasions before a small localized empyema was discovered at the back of the middle third of the left pleural cavity. This was evacuated, and a small portion of rib excised on October 26th. About 2 oz. only of pus escaped. At the time the case appeared to be one that would speedily recover after the empyema was opened, consequently no culture of the pus was made, but only a coverslip preparation which showed no tubercle bacilli. From October 26th to November 10th the temperature ranged from 104° to normal; the child steadily went downhill, although the wound was healthy and appeared to be closing gradually. On the 10th I injected 5 c.cm. of antistreptococcus serum, and as no improvement was immediately manifest I repeated it the next day. On November 12th the temperature fell to normal, and remained between that and 99.6° for seven days. A slight relapse then occurred, which was met by another dose of serum (5 c.cm.).

Result.—The temperature fell on the 22nd, and has remained down since, with slight occasional rises. In the meanwhile the child has gained in weight, has a healthy colour, takes his food well, and sits up and plays with his toys, and the wound has closed up. (During January and February, 1906, he has successfully resisted a sharp attack of whooping-cough.)

REMARKS.—According to Musser, who gives a valuable synopsis of the bacteriology of pleuritis in Nothnagel's *Encyclopaedia of Practical Medicine*, most pleurisies may be accounted for by either one of three micro-organisms—tubercle bacillus, *Diplococcus lanceolatus*, or *Streptococcus pyogenes*. Many other organisms are occasionally found in pleurisies; for instance, *Staphylococcus pyogenes aureus* is frequently found in pleuritis secondary to suppurations elsewhere. The other organisms need not detain us here. The pleurisies due to streptococcus, of which this case appears to be one, occur chiefly in the empyemas of adults, and are usually secondary to pneumonia, bronchopneumonia, gangrene, abscess of the lung, and traumatism. Netter found it present in about one-third of purulent exudations; the same observer gives the pneumococcus as causing another third, while he believes that 40 per cent. of all primary exudates are tuberculous. I venture to think that in some cases of bronchopneumonia, either with or without effusion, antistreptococcic serum may be of value as a curative agent. I regret that no cultures were made, but in a hospital where no house-surgeon is maintained the ordinary routine alone takes up a full measure of one's day's work.

THE CARE OF CHILDHOOD.—We learn from the *New York Medical Record* that a Bill has been presented to the United States Senate having for its object the establishment of a bureau to investigate and report upon all matters pertaining to the welfare of children and child life, and especially to inquire into the questions of infant mortality, the birth rate, physical degeneracy, orphanage, juvenile delinquency and juvenile courts, desertion and illegitimacy, dangerous occupations, accidents, and diseases of children of the working classes. The Bill provides for the establishment of a children's bureau, to be under the direction of the Secretary of the Interior, with a chief, at 5,000 dols. salary (£1,000), an assistant chief at 2,500 dols. (£500), and a full complement of clerks. The Bill has been referred to the Committee on Education and Labour.

UNDER the will of the late Miss Frances Elizabeth Micklethwait of Rotherham, Yorkshire, the Rotherham Hospital and Dispensary receives a bequest of £500 and is made residuary legatee. The total which it is likely to receive is stated to be about £2,500.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BRITISH GUIANA BRANCH.

Georgetown, January 25th.

Dr. W. F. LAW, President, in the Chair.

President's Address.—The PRESIDENT delivered an address in which, after expressing his thanks for the honour done him by the members in electing him to the presidential chair, he went on to review the progress made in medical science in the last few years. He said that formerly it was taken for granted that medical work was concerned only in the cure of diseases and the relief of suffering. Now the public was beginning to recognize that the prevention of disease was another and equally important branch of medical science. Every advance in bacteriology and biology seemed to point out the preventability of diseases the causes of which were formerly looked on as beyond our control. Even that old scourge of the West Indies, yellow fever, was now shown to be absolutely preventable. In British Guiana the post of medical officer of health, even in Georgetown, was filled by a private practitioner, whilst in the country districts the Government medical officer in charge was responsible for sanitary matters, in addition to his other numerous official duties. In spite of these drawbacks good progress had been made in lowering the incidence of certain diseases. Unfortunately reliable statistics were not easily procured, and in order to obtain any accuracy he had had to confine his attention to one section of the community—that is, the East Indians on sugar estates—since with regard to these the figures obtainable might be considered fairly trustworthy. In regard to malarial fever, which was their most prominent disease, he exhibited tables of statistics showing the number of cases admitted into all the estates' hospitals in the Colony for the past fifteen years. The tables showed that the first period of five years gave an average annual rate of 55,591.2 cases; for the second period of five years the average rate was 49,601 cases per annum; whilst for the third period it was 38,278.4. That this decrease was not accidental would, he thought, be quite apparent. Neither could it be ascribed to differences in either rainfall or population. As regarded the former, a glance at the table given showed that, though for the first period the rainfall was high and for the second it was low, yet in the third period it had risen again to a fairly high figure, though not as high as it was in the first period, whilst the decrease in the amount of malaria was steady. As a matter of fact, it was very difficult to make any deductions from figures like these with regard to the relationship existing between rainfall and malarial fevers. To do so with any accuracy one would have to take into account not merely the total rainfall for the year, but its distribution as regards both place and time. It was quite common to have a very heavy rainfall in one part of the Colony whilst severe drought continued in another part. Again, it was known that a heavy rainfall of, say, 10 or 12 in. in four or five days, was inimical to mosquitos because it scoured out trenches and removed the larvae whilst killing the fully-developed insect, whereas the same quantity of rain distributed evenly over a whole month will produce conditions favourable for their development. As regards population, though there was a slight diminution in the years under review, it was not at all sufficient to account for the difference in the sick-rate. This lessened sick-rate must, therefore, be due in some way to an improvement in the conditions under which immigrant labourers lived. Those who had been longest in the Government Medical Service would remember that when Dr. Grieve was appointed Surgeon-General in 1885, one of the first things he endeavoured to do was to improve the dwellings of the immigrants by recommending increased ventilation, and greater attention to the drainage of the yards in which the dwellings were situated. It was slow work, but improvement was gradually effected. In 1901 the present Surgeon-General, then Medical Inspector, introduced a still greater improvement in these dwellings, and now the vast majority of immigrants, both indentured and free, who lived on sugar estates were housed in excellently-ventilated and well-constructed ranges. Synchronously with this improvement of dwellings increased attention was paid to drainage, and this would tend to directly lessen malarial fever by reducing the breeding places for mosquitos. That the improvement in the drainage of yards had been very general all over the Colony within the past five or six years the President could personally testify, and to that cause might to a great extent be attributed the lessened amount of malarial fever. In regard to diarrhoea and dysentery the tables showed that for the years 1889 to 1893 there was an annual average of 7,000.6 cases; for the next five years the average was 5,079, and for the last five years it was 4,840.8. There was, therefore, a great lessening of the disease in the second quinquennial period, whilst the third similar period showed a further, though very slight, decrease. During the last fifteen years a good deal more attention had been paid to protecting the drinking water trenches, and for the past five years at least matters in this respect had remained almost stationary. These facts would to a great extent account for the decrease in the number of cases of diarrhoea and dysentery in the second period under review and for the small decrease during the last period. They had got about as far as they could go in the improvement of the water supply under present conditions. Any further advance means a complete change of system, which would involve considerable outlay of capital. All who had done work on estates' hospitals knew how very frequently in former days large chronic ulcers used to be met with. Now such cases were comparatively rare, and such as did occur were of milder character than formerly. Though several factors, such as more prompt attendance of patients at the hospitals and more efficient methods of treatment, had contributed to this result, the improvement was probably mostly due to the better hygienic surroundings of the immigrants. That very preventable disease, chigoes, though unfortunately still common, was less so than it used to be. With regard to phthisis the tables showed that for the five years ending 1893 the average annual admissions under this heading were 630; for the next five years they were 271.8; and for the last five years 235. This remarkable decrease was attributable chiefly, if not solely, to better ventilation of houses and improved sanitary surroundings. The President, however, strongly suspected that not only the black but the creole East Indian population of the towns and villages suffered as much as ever from consumption. Turning to the consideration of ankylostomiasis, the President said as far back as 1888 attention was called to it by Dr. Grieve, and since then the subject had been steadily worked at by different medical officers, the first being Dr. Ferguson, who was followed by Drs. Ozzard, Daniels, Conyers, Kennard, and others. Till recently nothing was done to cope with the disease beyond treating in hospital such cases as happened to turn up. It did not appear at all in official statistics till 1899. Recently the subject had been taken up seriously by the present Surgeon-General, with the result that now practically on every estate's hospital in the Colony each patient who was admitted, from whatever cause, was systematically examined to ascertain whether or not he harboured the parasite; those who were found infected were treated as soon as their condition admitted. By this means it had been found that the disease existed much more widely throughout the whole Colony than was before suspected, and cases that were formerly recorded as "anaemia," "malarial anaemia," etc., were now classified under their true heading "ankylostomiasis." It was wonderful how quickly those cases which formerly were treated, perhaps for months, with iron, arsenic, and all sorts of tonics, now recovered after a few doses of thymol or beta naphthol. It was in the prevention of the disease that the greatest difficulty lay. In 1895 Dr. Daniels, writing on the subject in the *British Guiana Medical Annual*, called attention to the necessity for a proper system of disposal of excreta in villages and on estates; and in 1897 it was again written on very strongly by the President himself. Yet not a single step of progress was made till some two years ago, when on two estates particularly favourably situated a rough latrine system was adopted. Within the last nine months considerably greater progress had been made, and now, owing to the hearty way in which they had been supported in different quarters, both lay and medical, quite a fair number of estates were well supplied with latrines for their labourers. He hoped it would not be long before the same conditions existed on every estate in the Colony. Already the means taken had borne excellent fruit in lessening the amount of the disease, and it might be hoped that before many years had passed it would, at any rate on sugar estates, be comparatively rare. Speaking of the death-rate, the President said the mean death-rate of the immigrant population on estates from all causes for the three periods under review had fallen steadily from 3.33 per cent. to 2.53 per cent. These figures spoke for themselves. Much more might have been done had circumstances been more favourable, but the Colony was still going through a time of severe financial strain. With regard to malarial fever, what was wanted was to wage war much more effectually against mosquitos; this could be done on a large scale only by very extensive improvements in drainage, which would, of course, be costly. The country was an ideal one for rice production, but this industry, which was rapidly extending, was by no means an unmixed blessing; for rice ields necessarily meant mosquitos, and if the cultivation of that cereal was to be continued without undue danger o the people of the Colony, measures should be taken to prevent its being grown in the vicinity of dwellings. But eaving aside the question of extensive drainage schemes and rice cultivation, something could yet be done to essen malarial fever by advocating the filling up of all small water holes; the burying of bottles, tins, etc.; the protection of water vats, large and small, by mosquito-proof gauze, and the regular oiling of larger collections of water that could not be removed.

The Hon. Dr. Godfrey proposed a hearty vote of thanks o the President for his valuable and interesting paper. He said it was very gratifying to note that they had been advancing during the last fifteen years, and pointed out hat they were still working for the diminution of the diseases mentioned by the President. Referring to diarrhoea and dysentery, he pointed out how much depended on a good supply of water, and that on those estates where the drinking water had been improved there had been a considerable decrease in these diseases. With egard to malaria, which was very prevalent in the Colony, he believed that the very large majority of the profession were convinced that malaria was spread principally hrough the agency of mosquitos, and he hoped to see a igorous campaign started against the mosquitos, and more especially by the city authorities, as he had no doubt hat the enormous number of mosquitos could be coniderably reduced by periodically oiling the trenches in he city, and he felt sure that if the example was set by he city, the people in the country would take up the uestion and follow suit. With regard to phthisis on the estates, he was sure that the decrease was due to the better housing and improved ventilation given to the residents. The death-rate from phthisis in the city was ppalling; the matter, he was glad to say, was receiving ttention, and he hoped to see the death-rate from this cause considerably reduced. With regard to ankylostomisis, it was difficult to say what would be the figures in he next few years; the previous statistics were unreliable. He mentioned that over fifteen thousand cases had been reated on the sugar estates from June, 1904, to December 1st, 1905, and he was sure that those who had studied his subject would agree with him that this does not resent the sum total of cases; many of those cases were, e was much afraid, previously returned under the head of malaria. He was glad to say that the question had at last een tackled in a practical way, and that the planters, ho were principally concerned on the account of the loss labour from the disease, had erected latrines on the states, so that there was a chance of the disease being in he near future, if not altogether stamped out, considerably ssened. He mentioned that the attorney of one estate, here the disease was well marked on the labourers, had ld him quite lately that since the people had been gorously treated within the last eighteen months, and he precautions taken to prevent infection, he had never en such a change for the better in a large body of men, nd in place of having anaemic, flabby-looking labourers, e had now a robust, strong-looking lot; the Surgeon-eneral mentioned that this gentleman had taken a very een interest in the subject and had spared no expense in rrying out the suggestions and wishes of the medical ficer of the estate.

The vote of thanks was seconded by Dr. Kennard, and the President replied.

Northern Counties of Scotland Branch.—A clinical meeting of the Branch was held at the Northern Infirmary, Inverness, on March 24th, Dr. Wm. Bruce (Dingwall) in the chair. Dr. Mackay (Inverness) showed (1) a tuberculous kidney removed from a patient at present in the wards of the infirmary; (2) a specimen of myoma of the uterus removed by panhysterectomy; (3) two cases of chronic osteomyelitis; (4) a case of excision of knee-joint in a child; (5) cases of trephining for mastoid disease. Dr. Macdonald (Inverness) showed (1) a case of extensive crushing of foot, where by drainage and constant irrigation the foot was saved; (2) a case of colotomy performed for obstruction due to carcinoma recti. Dr. J. Munro Moir (Inverness) showed (1) a man aged 64, whose lower jaw was removed for sarcoma; (2) a patient operated on for large ventral hernia; (3) a patient after operation on foot, modified Syme being performed; (4) a case of Charcot's disease of knee-joints; (5) a patient, aged 11 years, operated on for ovarian tumour—tumour shown, which was a dermoid, and contained hair and sebaceous matter; (6) ovarian dermoid tumour removed from a patient aged 34—the sac contained several teeth attached to a bony plate; there was also a quantity of hair; (7) a specimen of intraocular tumour, with eyeball—melanotic sarcoma—removed from patient aged 70; (8) a specimen of large necrotic spindle-shaped sarcomatous tumour removed from a patient aged 64. Dr. de Watteville (Grampian Sanatorium, Kingussie), read an interesting paper on the treatment of phthisis, with special reference to sanatorium treatment. In his paper he referred to several cases coming under his care in whom the disease was arrested, the patients being at present in a satisfactory condition. The paper elicited an interesting discussion. Dr. Maclachlan (Dornoch) introduced a discussion on the relations of procurator-fiscals with the medical profession; the meeting was of opinion that greater facilities should be afforded medical men for granting certificates in cases of sudden death, and this could only be done by sanctioning *post-mortem* examinations. Several of the members pointed out that the question of granting permission for holding a necropsy did not rest with the Procurator-Fiscal, but with the Crown authorities in Edinburgh after the Fiscal had sent on his report. It was the opinion of the meeting that it would be in the interest of the public if necropsies were sanctioned in all cases of sudden death.—Dr. Pender Smith (Dingwall) exhibited a large collection of *x*-ray photographs.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

H. H. Clutton, M.A., M.C., F.R.C.S., President, in the Chair.

Friday, March 30th, 1906.

Treitz's Hernia, complicating Gastro-enterostomy.

Mr. A. E. J. Barker narrated a case. On opening the abdomen with a view to doing gastro-enterostomy for carcinoma of the stomach, no small intestine was found within the peritoneal cavity. The colon was higher up than usual, and the anterior layer of its mesentery bulged forward by the small intestine, that is, a Treitz's hernia. Upon opening the sac of the retroperitoneal hernia to examine the posterior aspect of the stomach all the small intestine was found in the sac. The stomach was too extensively infiltrated with cancer for the anastomosis. Mr. Barker commented on the difficulties which would be met with in such a case in completing a gastro-enterostomy. Fortunately these cases were rare.

Right Duodenal Hernia.

Mr. E. Percy Paton narrated a case in which the hernia was reduced but death followed in seven days, due apparently to gut re-entering the sac. The patient was an infant aged 3 months. The illness started suddenly with symptoms similar to those of intussusception. A swelling could be felt. Laparotomy revealed much small intestine apparently engaged under a peritoneal band. This gut was drawn out. No further investigation was possible owing to the child's general condition. The patient was at once relieved by the operation, but was taken suddenly worse on the seventh day and died. At the necropsy a right duodenal hernia was found into which a considerable quantity of gut had returned, which, however, did not seem to be strangulated. There was no peritonitis. The paper was illustrated by photographs and by the specimen now preserved in the College of Surgeons Museum.

Mr. F. Eve described the case of a woman, aged 64, in whom he had found a duodenal hernia during the performance of colotomy for chronic obstruction.

Large Cyst of the Common Bile Duct.

Mr. Frederic Eve related the case of a woman, aged 46, admitted with abdominal tumour and jaundice, which had existed for three years. The tumour extended from the right costal margin to the iliac crest and across the abdomen to the left of and below the umbilicus, and was evidently elastic. It was thought to be a cyst of the pancreas. At the operation the cyst was opened and attached to the parietes. It contained 7½ pints of clear fluid, pieces of grit, and clinical examination showed bile pigment. The fistula remained open, and seven months later a communication was made between the cyst and the hepatic flexure of the colon—choledocho-enterostomy. She recovered from the operation, but died two weeks later of progressive emaciation and exhaustion. Autopsy: The abdomen was normal, with the exception of the large cyst of the common bile duct, 4½ in. in diameter. The junction with the colon was firm. Within the cyst and just above the papilla bilvanis was a papilloma which had acted as a ball-valve. Mr. Eve, in a cursory examination of records, had found 24 cases, which, as regarded causation, fell into three groups: (1) Those due to a vascular formation, stenosis, or obliteration; (2) calculus; (3) a growth. Only one case besides that recorded had been found. Treatment: In the majority of cases the cyst had been opened and drained, with a fatal result, mainly due to emaciation and weakness from persistent jaundice. Other cases had been treated by uniting the cyst with the duodenum, jejunum, or colon.

Gastro-jejunostomy.

Mr. F. C. Wallis read notes of three cases. The first case was that of a female patient, aged 91, who made an excellent recovery, dying twelve months later from cerebral thrombosis. The other two cases were both instances in which chronic inflammatory thickening around an ulcer simulated a new growth both in appearance and to the touch. In both cases a posterior gastro-jejunostomy was done. In the one case, when the abdomen was reopened a month later to do a partial gastrectomy, the "growth" had almost entirely disappeared, and an ulcer on the posterior wall could be felt through the anterior. The patient had quite recovered, and gained weight. In the other case, the supposed growth occupied the cardiac half of the stomach. The operation relieved the pain, but the patient died on the fourth day from haemorrhage. A *post-mortem* examination showed a large ulcer on the posterior wall with a large vessel in its floor, in which was an opening. Mr. Wallis remarked that the first case illustrated the fact that even very old people stood operations well, when their tissues were young. The other two cases showed that when partial gastrectomy was under consideration a posterior gastro-jejunostomy should usually be first performed. Further, delays were dangerous in cases of gastric pain which did not readily yield to medical treatment. A gastro-jejunostomy could be done, and if there had been haematemesis to any marked degree, the stomach should be opened through healthy tissue near the ulcer, and the ulcer either cut out, cauterized, or ligatured.

Dr. Hale White remarked that old age by itself was no bar to serious operations. Mr. Wallis's first patient, whom he had seen, was greatly relieved by the operation. In reference to the second group of cases, masses of inflammatory material arising from the gall passages simulated new growths by pressing on the pylorus. In a recent case he was convinced of the presence of pus by the high leucocytosis, but had difficulty in inducing the surgeon to incise the mass, which resembled cancer, but after evacuation of the pus the patient completely recovered.

Dr. de Havilland Hall had seen great benefit follow simple laparotomy alone.

Mr. W. G. Spencer warned against the assumption that the diagnosis of cancer was incorrect because great improvement followed operation, since the course of gastric cancer was often very anomalous.

PATHOLOGICAL SOCIETY OF LONDON.

Dr. A. E. Wright, Vice-President, in the Chair.

Tuesday, April 3rd, 1906.

The Pathology of Streptothrix Infections.

Mr. A. G. R. Foulerton recorded a series of 39 cases of streptothrix infections. Of these, 1 affected the conjunctiva; 21 the tissues of the mouth; 7 the lung; 9 the intestinal tract, of which 5 were cases of appendicitis, 4 were examples of right iliac abscess, probably connected with appendicitis; and in 1 the kidney was the seat of the disease. The patients in 28 of these cases were, from the nature of their occupation, especially exposed to infection, directly or indirectly, from grain and grasses which are known to be the natural habitats of this class of micro-organisms. Only 2 cases concerned children under the age of 15 years. The example of renal streptotrichosis was unique. The kidney was removed on the supposition that the disease was tuberculous pyonephritis; there was a history of pulmonary disease some years previously. The patient made a satisfactory recovery. In 13 cases the species of the organism was identified: in only very few was the streptothrix akin to the bovine species, and in none was the organism the proper *Streptothrix bovis.*

A Note on Plague Vaccines.

Captain Douglas had made observations on the action of plague vaccines as studied upon rats, the vaccines being prepared from old broth cultures. It had been stated by the German Commission that the immunizing substance was contained in the sediment only; but this was untrue. The filtrate contained it in considerable quantity. The method of standardizing a vaccine, therefore, by weighing the dried sediment and ignoring the supernatant fluid, was erroneous. It was an interesting fact that a highly efficient vaccine could be prepared from cultures of quite low virulence. The efficiency of treatment could be judged of by studying the result upon the opsonic power of the blood.

The Chairman pointed out that the difference of opinion as to the efficacy of the vaccine in India arose probably from the difficulty of determining the dose to be used.

Observations on Malta Fever.

Staff Surgeon Reid recorded the results of inoculations in this disease. A rapid lowering of temperature occurred after the injections; and an investigation into the opsonic results showed that the opsonic index was raised. The method of inoculation could be equally successfully used as a prophylactic, and would if carried out in infected districts be a great source of economy.

Royal Academy of Medicine in Ireland.—At a meeting of the Section of Pathology on March 16th, Dr. J. F. O'Carroll in the chair, Dr. Parsons exhibited *Kidneys* which had all the appearances of the congenital-cystic form, only a small portion of the kidney substance being left intact. The patient, a labourer, aged 40, was in his usual good health until the day before his death. Suddenly becoming ill, he was admitted to hospital, where he died in twelve hours. Clinically he exhibited symptoms of gastro-intestinal irritation, with suppression of urine. The autopsy revealed nothing amiss except the kidneys shown.—Professor O'Sullivan showed an *Aortic aneurysm* from a patient brought in a dying state to hospital. The *post-mortem* examination showed an aneurysm of the aorta on the right side, ½ in. above the attachments of the valves, and perforating the pericardium. It had also perforated the pulmonary artery above the valves, and the valves themselves showed evidence of perforation. This latter was caused, he said, by the blood stream that had passed from the aorta into the pulmonary artery.—Mr. E. H. Taylor, who exhibited an *Epithelioma* involving part of the duodenum where the bile duct opened into the intestine, said that the man, aged 40, had several attacks of jaundice, which gradually disappeared after each attack. When he came to hospital his liver was somewhat enlarged and his skin ightly jaundiced. On opening the abdomen the gall adder was distended and a great number of gall stones re found in the common bile duct. He found a rd mass in the duct where it opened into the duo- num, which he removed. On the ninth day the tient's temperature rose, and he developed pneumonia, m which he died. Dr. O'Sullivan made the *post-mortem* amination, and found a cancerous mass at the mouth the duct. There was no obstruction to the flow bile, and the liver was enlarged and cirrhotic.— . O'Carroll suggested the jaundice in the case of the ithelioma of the duodenum was due to the gall stones, d not to the cancer.—Professor O'Sullivan said it was teresting to note that the diplococcus of pneumonia was ınd in the bile duct before any trouble appeared in the ng. It was held that croupous pneumonia did not iginate from the blood, but through the air passages. It s probable in this case, however, that the diplococci ight have reached the lung by extension from the under rface of the liver through the diaphragm.—Dr. Wallace atty exhibited a boy, aged nearly 4 years, the subject *Urticaria pigmentosa*, dating from a month after birth, d some microscopic sections of a nodule excised from side the knee. He demonstrated that the granules of e mast cells, which were stained red by polychrome- thylene blue in alcohol—fixed and hardened prepara- ns—were stained also by eosin if the skin was fixed in nker's fluid before final hardening with alcohol. Possibly e disease might be of congenital origin, like naevi. The ild shown was in the stationary phase of the disease; d he had never seen a further advanced case. He had ly met with 2 cases in the early stage.

---

ork Medical and Surgical Society.—At a meeting March 14th, Dr. P. G. Lee in the chair, Professor arson showed *Fibroid tumours* removed from two married women, aged about 30 years. In the first se, on opening the abdomen he found a large fibroid ached to the uterus by a short pedicle 2 in. wide. e great size of the vessels in it and their thin walls gatived the use of the ligature, so he made two ritoneal flaps and used a continuous suture. This ling to make the stump staunch, he put on a Braith- ite's clamp and stitched the stump to the parietal itoneum in order to prevent dangerous adhesions, left the clamp on for six hours. Recovery was eventful. The tumour was of the kind described by late Mr. Lawson Tait as "oedematous." In the ond case there were three tumours which he noved by myomectomy. As a rule he was adverse this operation, preferring hysterectomy in such es; but he was reluctant to deprive these women their uteri so early in their sexual life. Pro- sor Corby agreed that the major operation was more satisfactory as a rule, but thought it only r to choose the minor in these particular cases.—Dr. ullivan read notes of a case of *Chronic diarrhoea ulating Sprue*, and lasting for two years, in a woman d 30 years. The diarrhoea was principally in the rning, no pain being felt, but a great deal of discomfort. e motions were large, white, and not very offensive, aline in reaction, exceedingly bulky, and out of propor- n to the food ingested, and numbering from four to ht in the twenty-four hours. Under the microscope, y showed no special features. The urine showed hing abnormal except that the excretion of urea was rkedly reduced. Blood examination revealed marked inution in haemoglobin, but no other change in the ular elements. The patient herself was emaciated, l her tongue glazed and cracked. The liver dullness confined to a strip 2 in. long at the level of the nipple. was evident that the diarrhoea was due to the absence ile and of the other functions of the liver. Eventually, globules being detected in the faeces, the patient was entirely on Benger's liq. pancreaticus, and in three or r days she had the first formed motion for two years. size and number of motions diminished, and after ten s bile appeared in the motions.

---

eeds and West-Riding Medico-Chirurgical Society. t a clinical meeting on March 23rd, Mr. E. Ward the chair, the following were among the exhibits: r. Wardrop Griffith: a case of *Atypical leuco- aemia* in a boy aged 13, the high lymphocyte count, with enlarged liver and spleen, justifying the diagnosis. Dr. Bedford Pierce: a case of *Korssakow's disease*, with a history of seventeen years' intemperance, evidence of affection of the lateral columns, marked amnesia, and failure of orientation. Mr. H. Littlewood: a case of *Rheumatoid arthritis of the knee*, in which arthrectomy had been performed with benefit; also of a patient whose clavicle had been removed eighteen months ago for sarcoma, and who now had a tuberculous hip. Dr. A. G. Barrs: a case of *Hodgkin's* disease, with a high lymphocyte count and slight dyspnoea as the only symptoms. Dr. A. D. Sharp: a case of *Pachydermia of the vocal cords*, with pinkish nodules on their free margins. Mr. G. P. Anning and Dr. E. F. Trevelyan: a man with a history of lead poisoning and *Isolated paralysis of the extensor communis digitorum.* Mr. Michael Teale: a case of monocular *Vertical nystagmus.* Mr. Lawford Knaggs: a patient who had tuberculous disease of the knee; sepsis had occurred, and had been treated by laying open the joint completely in the transverse axis; a straight leg had been obtained; also a patient in whom gangrene of fingers had followed injection of spirits of camphor, given 4 in. above wrist; almost immediately the thumb and three fingers became cyanotic.

Therapeutical Society.—At a meeting on March 27th, Sir Lauder Brunton, President, in the chair, Dr. Gordon Sharp (Leeds) read a paper on native and other plants having some relationship to curare, including (1) *Anchusa officinalis*, alkanet, an imported plant containing an alkaloid; (2) *Echium vulgare*, viper's bugloss, an indigenous plant containing an alkaloid; (3) *Cynoglossum officinale*, hound's-tongue, a common plant containing two alkaloids. He showed that *Anchusa* rendered a frog's skin moist and hyperaesthetic at first, but afterwards insusceptible to stimulation, while the stimulus to the sciatic nerves or the muscles themselves caused contraction. The heart stopped in diastole, and atropine only produced a few contractions of the left auricle. *Echium* caused the same symptoms, with more hyperaesthesia and greater weakness of the muscles. After a large dose no stimulation of the sciatic nerve caused any contraction, though the muscles reacted to direct stimulation. The heart stopped in diastole. *Cynoglossum* rendered the skin moist and very hyperaesthetic; stimulation to either the sciatic nerves or the muscles direct only affected the unpoisoned side. It often acted somewhat like curare, but frequently death occurred suddenly with the heart in diastole. Among foreign plants, the *Delphinium bicolor* and *occidentale* from North America and the *Delphinium scopulorum* from Mexico resembled somewhat curare. Their extracts were bitter with a slight smell, and turned réd with sulphuric or nitric acids, though delpho-curarine, their alkaloid, gave no colour with either acid. The extract of *D. bicolor* acted like curare; at first it increased the action of the skin, but in two hours the muscles of the poisoned side only contracted on direct stimulation though on the unpoisoned side they were acted on by stimulating the sciatic nerve. *D. occidentalis* at first acted like aconite, increasing all secretions, but later the muscles became insensible to any stimulation either direct or through the nerves. *D. scopulorum* differed from the others, inasmuch as the nerve centres of the cord were greatly depressed, more than the nerve trunks or the motor ends. *D. staphisagria*, or stavesacre, first stimulated the secreting organs and the nerve centres, then depressed and at last paralysed both the nerve centres, the motor nerves, the muscles, and finally the nerve centres of the heart.

Nottingham Medico-Chirurgical Society.—At a meeting on March 21st, Mr. T. J. Dabell, President, in the chair, Mr. J. Mackie read a paper on the influence of *Nasal diseases* on the lower respiratory tract. After defining the scope of the subject as dealing with lymphoid hyperplasia, nasal fluxes, septal spurs, deformities and turbinal overgrowths, polypi and sinus disease, Dr. Mackie pointed out the natural results of family and hereditary tendencies to catarrh. In a typical case of adenoids, for example, if allowed to drift, not only was respiration obstructed and the naso-pharyngeal mucosa constantly in a state of engorgement and bathed in catarrhal secretion, but reflex symptoms frequently arose. Tracing the causal relationship between lymphoid hyperplasia or nasal discharge and actual deformity, he explained that bony enlargements, due to the irritating discharge, were often asymmetrical, and hence deformity arose. It frequently occurred that where the nasal passages were already in an unhealthy condition the occurrence of some specific fever was the exciting cause of actual sinus suppuration. Adenoids were frequently responsible for spasmodic cough and bronchial catarrh. Thus the first influences of nasal disease on the lower respiratory tract were reflex and not infective. Hay fever, paroxysmal sneezing, and asthma were common in simple, but rare in suppurative catarrh. The relation between asthma and intranasal disease was now established, and as a matter of experience, suppurative sinus disease did occur in children. Where cough and sputum occurred the sputum might be identical with the nasal discharge. It was not surprising that such cases were frequently suspected of early phthisis, especially if the breath-sounds seemed faulty, for the septic absorption might cause night-sweats and pyrexia and the sputum be bloodstained. The latter should be closely scrutinized and the blood would generally be found intimately incorporated with the mucus. At first the author had suspected such cases were apt to lead up to phthisis, but no actual proof of such an ending had ever come under his notice; and on the other hand similar cases had recovered completely where the nasal condition had been successfully treated. Chronic naso-pharyngeal catarrh really formed only a single type, and was merely a symptom of intranasal disease. The condition was attributable to anatomical continuity, irritating discharges, and mouth-breathing. Dr. W. B. Ransom confirmed the difficulty of diagnosis in many cases where early phthisis was suspected. He made a routine examination of the nose, naso-pharynx, and larynx in all such cases. Pure bronchitis was rare, while nasal and throat disease was very common. Even then a certain residuum of cases remained in which there was nasal trouble as well as actual pulmonary tuberculosis, and such cases usually did badly. Again, in association with nasal disease, fetid bronchitis and bronchiectasis were very rare, while asthma was not uncommon. He had had cases of haemoptysis in which the blood came from petechial spots at the root of the tongue, and there were cases presenting most of the symptoms of adenoids in which no adenoids existed. Dr. F. H. Jacob said that he had seen cases of asthma accompanied by masses of polypi, in which the improvement after operation was not noticeable. Bronchitis could not always be attributable to nasal causes. Mr. W. Morley Willis emphasized the importance of keeping patients under observation after operations for adenoids, and more especially watching the course of events in the nose. Mr. A. R. Tweedie mentioned the value of breathing exercises in the treatment of adenoids, and pointed out that pulmonary suppuration might be a sequel to nasal suppuration. Buccal operations were frequently followed by septic pneumonia, though this was exceptional after nasal operations. Dr. J. S. Bolton criticized the value of breathing exercises for the relief of anatomical difficulties, and insisted on the importance of teaching children to blow the nose efficiently. Dr. Wilson defended the use of breathing exercises in the prevention and treatment of adenoids. Dr. Mackay, in reply, stated that without any doubt purulent infection of the trachea did occur, and that where the nasal disease was successfully treated both lung and nose symptoms were relieved permanently. In childhood, however, the treatment of infective bronchial trouble was, as a rule, unsatisfactory. In operations for adenoids where the nose appeared crowded it was his practice to remove part of the turbinals with forceps before actually attacking the adenoids or tonsils. Suppuration of the antrum certainly occurred as early as 10 years of age, or earlier. It was not altogether wise to advocate blowing the nose forcibly, as otitis might be set up in this way.

Ulster Medical Society.—At a meeting on March 15th, Dr. William Calwell, President, in the chair, Professor Symington gave a demonstration of the *Cerebral hemispheres* in apes and in man, illustrated by lantern slides; these showed the evolution of the convolutions and sulci, and some of the histological results of Dr. A. W. Campbell, formerly Pathologist to the Asylums Board, County of Lancaster, which correspond with those of Sherrington. Dr. W. J. Wilson gave a demonstration of *Bacteri pleiomorphism*, illustrated by photomicrographs thrown the screen; these consisted chiefly of the effect of urea the growth of the *Bacillus coli*, which showed swellin and long filaments. Dr. Calwell said this was interestin and important, and desired to know what relation suc degenerate forms had with the alkalinity of the mediu as in cases of pyelitis due to the *Bacillus coli* cu was speedily obtained when the urine was kept steadil alkaline. Dr. Wilson, in reply, said he thought there wa a direct connexion, as ammonia was produced from th urea.—Dr. Lowry read a paper on *Irregular Contractions the Stomach*, and their relation to "hour-glass contraction based on twelve specimens collected from forty subject These tended to support the view that the cardiac portio served as an active reservoir, and that peristaltic actio was confined to the pyloric end of the organ. Th specimens agreed very closely with His's models. Pr fessor Symington said they had been enabled to get suc specimens only since the introduction of the use of fo malin; the stomach seemed fixed in position in differen physiological conditions. Professor Symmers thought i was a kind of rigor mortis. Mr. Mitchell said that non of these cases had been under treatment for their stomach and so it evidently was not a pathological conditio Dr. McKisack said he thought it was analogous to th enterospasm that was not infrequently discovered in th intestine. Other members having spoken, the Presiden said the first thing that should be decided was whethe there was really an organic narrowing, which woul amount to a congenital "hour-glass" stomach or not; an the next point was whether the phenomena presente would help to explain various gastric symptoms that a present were not at all clear, such as continuous vomitin of bile, vomiting of one portion of a meal while anothe portion was retained, continuous retching while th stomach was quite empty, which might be caused by th pyloric funnel or tube retaining some bile or other noxiou material while the fundus or cardiac reservoir was empty Dr. Lowry replied.

Liverpool Medical Institution.—At a meeting o March 29th, Mr. F. T. Paul, President, in the chai Dr. Hugh R. Jones read a note on the *Diminishing birth rate.* Although artificial means of preventing conceptio were being more generally and systematically adopted it must be remembered that families had always bee limited by prudential self-restraint to an extent no generally realized. The influence of the later age a marriage and the lower marriage-rate, and of the employment of women in intellectual and industrial occupation was being under-estimated. The death-rate had als fallen, and this fall began before the fall in the birth-rate The former was due in part to the high birth-rate i former years, but it also indicated an improvement in th social condition of the population. Improvement in th social status was always attended by a fall in the birth rate. The natural increment of the population was stil high. The low death-rate was masked and compensated for by the low birth-rate. It was to be regretted that except in 1904 and 1905, the rate of infant mortality ha been persistently high. He hoped that the present low birth-rate was only a temporary phase in the history o English civilization; for a high birth-rate and a robus young population were necessary to continue the pas policy of England. The growth of the population o a country depended on the sustained systematic policy of the mass of the people, which was guided by the action and teaching of the educated classes and upon them was the responsibility. Dr. Colin Campbell attributed the decreasing birth-rate amongst the working classes to the creation of the lower orde of practitioners in midwifery. They had been taugh the use of the uterine sound. He had exhibited, some years ago, samples of preventives sent to a midwife t retail to her patients.—Mr. G. P. Newbolt read a pape on *Tropical abscess* of the liver based on cases seen in the Tropical wards of the Royal Southern Hospital, Liverpool In all his cases there was a history of dysentery. Amoeba were found in the sloughs from the abscess wall in severa instances, but only once in the motions. The tendency was for the abscess to point posteriorly through the chest wall. He lay stress on the importance of exploring cute peritonitis, and enteric fever.—Dr. J. LINDSAY TEVEN read a paper on certain *Clinical aspects of rterial disease.* Clinically there were two varieties of igh arterial tension: (1) temporary and recurrent, and 2) continuous. The first was brought on by excess of iet, by constipation, or by nervous excitement, and could e relieved by the judicious use of aperients and the itrites. The latter form was associated almost always with chronic renal disease. In both, the exciting cause was he presence of toxic agents in the blood. In old people here might be arterio-sclerosis without renal disease, and n many of these cases no very marked high tension was resent. He doubted whether the enormous thickening f the left ventricle was entirely due to the increased peripheral resistance, and suggested that the toxic causes which led to the hypertrophy of the middle coat of the arteries might also produce hypertrophy of the heart. Haemoptysis in early phthisis he considered to be due to the relationship of the tubercle nodules to the walls of the smaller arteries, the wall being rendered brittle and easily ruptured.

REVIEWS.

THE RUSSELL MEMORIAL VOLUME.

No more fitting memorial to the late Dr. James Burn Russell, for many years Medical Officer of Health for Glasgow, and at the time of his death medical member of the Local Government Board for Scotland, could have been devised than the memorial volume entitled *Public Health Administration in Glasgow*,[1] edited by his successor, Dr. A. K. CHALMERS. Sir William Gairdner tells us in his preface that the idea originated with him, and he, as well as Dr. Chalmers, is to be congratulated on the result. It contains a biographical note by Dr. Chalmers, to which we may be excused further reference as the incidents of Dr. Russell's life were described in these columns in November, 1904, shortly after his death. The bulk of the book consists of essays and reports written by Dr. Russell himself, the editor having limited himself to supplying the necessary connecting links.

Any one undertaking to comment on this remarkable volume, standing as it does apart from the ordinary publications associated with the activities of public health officers, must do so in a spirit of reverence. For not only was the name of Russell of Glasgow profoundly respected by all those engaged in public health administration, but, now that he has passed away, we can estimate the great value of his lifework, and are more than ever impressed with the wide influence he exercised through the character and gifts with which he was endowed and used so well members of Parliament, county and city councils, and hosts of others engaged in local government, this part of his writings will be found instinct with vitality—indeed, just as instructive and improving now as when they first appeared.

In the same way he writes on the more or less controversial questions of vaccination and hospital accommodation for infectious diseases (which at the present time need to be studied by many others besides those actually engaged in public health work), always treating the subjects in a broad spirit and with a full recognition of the practical difficulties that have arisen in connexion therewith. The chapters on disinfection and the physical laws which govern the distribution of infection, the studies in epidemiology, the clinical studies, the studies in vital statistics, and the prevention of tuberculosis, contain material valuable for reference not only by medical officers of health, but also those in the profession who are taking a prominent part in urging preventive measures of a sweeping kind. We would especially commend the chapter on the prevention of tuberculosis to the careful consideration of the most enthusiastic and advanced members of the league devoted to the extermination of this widespread disease. They will find there the matured opinions of one of our most thoughtful and earnest workers in public health, and they can hardly fail to be impressed with the force of his arguments. The report, though first printed about ten years ago, would serve to-day as an excellent presentment of the case for moderate advance all round, chiefly on the well-established lines of the English system.

It only remains to congratulate the editor, Dr. Chalmers, on the success of his work, which has evidently been a labour of love, and to mention that the book contains an excellent portrait of the man who so endeared himself to

pathology for the paroxsymal neuroses, bilious atta
gout, high-blood pressure, and allied conditions.
morbid condition of the blood to which he attribute
large a part in the causation of disease is named by
"hyperpyraemia," by which he means an excess of fu
combustible material in the blood, but he does not d
more clearly the form in which this fuel exists, or b
any direct evidence of its presence. It may be admi
that many people eat more carbohydrates and fats
they need; but, according to the usually accepted vi
the excess is disposed of by being stored as fat, or accu
lated in the glycogen reservoirs of the body, from w
under normal conditions it passes into the circulatio
such quantities and at such times as may be needed

---

[3] *The Food Factor in Disease.* By Francis Hare, M.D. Two volu London: Longmans, Green, and Co. 1905. (Demy 8vo, pp. 30s.)

sudden discharge of the glycogen reservoirs is followed by glycosuria, while permanent incompetency of them is one of the causes of diabetes. The excess of combustible matter which Dr. Hare postulates is not present as sugar, for it is certain that sugar cannot accumulate in the blood, but that as soon as the proportion present rises above normal it passes into the urine, where it can be discovered by the usual tests; nor does Dr. Hare contend that it is present as fat, so that it is unnecessary to point out the obvious objections to this view. He therefore is left in the position of failing to indicate with any precision the condition upon which he lays so much stress, and upon which the whole of his book is founded. Passing over this fundamental difficulty, Dr. Hare argues that excess of carbohydrate intake must occur and is the cause of all the conditions previously alluded to. His grounds for such conclusions are mainly clinical, and the whole of the second volume deals with the clinical evidence and records a number of cases cured by restricting carbohydrate food. Dr. Hare admits the success of the opposite line of treatment by reduction of proteid prescribed by Dr. Haig and the vegetarians, but explains it by saying that the effect of reducing proteid is to diminish the digestion and absorption of sugar and fat—a statement which is so fundamental that he ought to produce more evidence in its favour than a quotation from Foster which it is hardly fair to expect to bear so great a burden. He advocates the kind of diet which goes by the name of Dr. Salisbury as on the whole safer and better than the opposite plan, which is often called Haig's diet; and his theory, if true, affords an explanation of the undoubted fact that gout may be cured by both these apparently diametrically-opposed systems. He suggests that "biliousness" is due to over-distension of the liver with glycogen, which may be true; but patients mean many different things by biliousness, and glycogenic distension could not cause jaundice, although it might be associated with catarrhal conditions capable of obstructing the choledoch duct. We cannot regard the theory of hyperpyraemia as possessing any sound basis, nor can the uthor expect it to be considered seriously until he has given a clearer definition of what he means by excess of uel substances in the blood, and has produced some lirect evidence of their presence.

Dr. **Herschell**'s book on *Indigestion*[4] having now eached a third edition, may be said to have established ts position. Indigestion is an expression so vague and oose, that it may include a vast number of diseases not nly of the stomach but of other organs, for it means disomfort arising after food and attributed by the sufferer to erangement of the processes of digestion. These results ay be due not only to conditions outside the stomach tself, but to various organic changes in that organ. Dr. erschell is disposed to use the word in this very comrehensive sense, so that the book includes a discussion f the treatment of such organic conditions as chronic astritis and dilatation of the stomach. The earlier hapters treat of the normal processes of digestion, and e mode in which derangement may be caused. The uthor rightly lays stress upon the frequency with which nperfect mastication is the cause of indigestion, but is doubtful if this is mainly due to "deficient salivation of starchy food," as more severe symtoms arise from the bolting of pieces of meat o large for the gastric juice to dissolve, but starchy od is easily softened, and, even if not converted, asses into the intestine without causing discomfort. urther, the distension which occurs soon after eating, d which with a great many patients is what they mean hen they speak of indigestion, occurs too soon to be the sult of fermentation, and actual observation of the gas these cases has shown it to consist mainly of atmoheric air. Nor is there any proof that gas reaches the omach directly from the blood. This explanation has, course, been given previously but always without a adow of proof. Another point is his condemnation of e use of tea taken with a meat meal. If he is ght in saying that albumen combines with the tannin of the tea, and is thrown down as an "insoluble precipitate, absolutely indigestible and chemically allied to leather," its use for breakfast is just as objectionable as its use with the meal called "high tea," which is the especial object of his denunciation. While tea containing much tannin causes indigestion, and although it is not advisable as a beverage with a large and heavy meal, we doubt whether its ill effects are correctly described by saying that the albumen of the food is converted into a "kind of leather." "A couple of ounces of Rochelle salt in a tumblerful of hot water" is a large dose, the usual one being from 2 to 4 drachms. Dr. Herschell is a disciple of the iatro-mechanical school of stomach specialists which originated in Germany but has reached its fullest development in America. It has for the main article of its belief the doctrine that the sick stomach must be washed very often, and even scrubbed with soap and water and a brush (!), or sprayed or douched with medicated lotions, or stimulated by means of the electrical current conveyed to it by intragastric electrodes. In this country these methods are not popular, and even in Germany the stomach tube is used much less than it was ten years ago. The benefit derived from many of them is doubtful, or may be ascribed to suggestion. There is always the difficulty of diagnosis; for example, on p. 77-8 Dr. Herschell describes 3 cases of hyperchlorhydria successfully treated by intragastric electricity. They seem, as described, to be purely functional, or at least he gives no evidence of organic disease, but a little lower down, on p. 78, he lays down the rule that "in purely functional hyperchlorhydria all intragastric measures of treatment are best avoided." In an appendix there is a section on cookery for persons suffering from diseases of the stomach, but we fail to see on what principle it has been written, as it contains many dishes, such as salads, which should be avoided by such patients, while other receipts, though good in themselves, are not quite what might be expected to be ordered for patients suffering from indigestion. For example, "to cook a small bird such as quail on toast," after the ordinary directions to clean and roast it, comes the injunction, "serve on hot buttered toast"!

Dr. **Fernie**'s *Meals Medicinal*[5] is a curious book which, although written by a medical practitioner, might quite well have been the work of any one with a fondness for scissors and paste, for it is merely an *omnium gatherum* of miscellaneous information arranged alphabetically. It cannot be said that it refers only to foods or articles taken as food, for it includes tobacco, and odours and perfumes. We understand the author to believe that diseases may be cured by food, and his index is arranged in this way, the disease being put at the head in heavy type and the various food remedies arranged under each heading. In order to fill his volume of nearly 800 pages he has ranged widely and stuffed his pages with quotations, not only from a few standard authorities on diet and medicine but from ancient and modern classics, from Virgil and Horace, from Shakespeare and Sir Thomas Browne, and from Tennyson and Browning down to *Alice in Wonderland*, Lear's *Book of Nonsense*, and *Wee MacGregor*. By this means he certainly gives us some amusing reading; but we cannot speak as favourably of the book so far as it has a serious purpose, for it includes and apparently sanctions the use of every kind of remedy such as the author could collect from old herbals, obsolete medical books, old wife's tales, and the customs of the peasantry, without making any attempt to determine their value, and with as little discrimination as if he had never heard of such a science as pathology. We may give a few examples to illustrate these remarks. He recommends charred fish bones for acidity; spiders for ague; millipedes for cancer, struma, and stone in the bladder; snail soup for enlarged tonsils; frog pottage for sore mouth; hedgehog fat for deafness; while celery is said to be "curatively efficacious" for rheumatism; carrots "relieve" asthma; eggs "disperse" jaundice; and whole-meal bread will cure ringworm. In another place (p. 83) he recommends the use of the common white kidney-bean for heart attacks, on the recommendation of a Dr. Cushing, who

---

Indigestion. The Diagnosis and Treatment of the Functional rangements of the Stomach, with an Appendix on the Preparation Food by Cooking; with especial reference to its Use in the Treatent of Affections of the Stomach. By George Herschell, M.D.Lond. ird edition. London: Henry J. Glaisher. 1905. (Demy 8vo, . 294. 5s.)

[5] *Meals Medicinal.* With "Herbals Simples" (of Edible Parts). Curative Foods from the Cook, in place of Drugs from the Chemist. By W. T. Fernie, M.D. Bristol: John Wright and Co.; and London: Simpkin, Marshall, Hamilton and Co. 1905. (Demy 8vo, pp. 793. 9s.)

found that "in his trial with it on himself he had become nearly suffocated, and his heart gave him all forms of anxiety." On no better ground than this we find in the index white kidney-beans recommended "to tranquillize the heart, and for angina." In the preface he tells, and spoils in the telling, the story of Sir Walter Scott and the cow doctor, and in his introduction (p. 13), throughout a paragraph in which he praises the taste for refined food, he repeatedly spells the word "friandise" fricandise, the misspelling occurring no less than four times in a few lines. He gives his reader a good deal of scrappy information, by no means unimpeachable, culled by the same method of scissors and paste, but not from the best authorities, and some even contradictory, as on p. 63 the name "asparagus" is said to come from the Persian "sparage," while on p. 67 "the old English name 'sperage'" is said to "bear reference to an ancient use of feathery brushes made with sprays of the wild plant to be employed for sprinkling (asperging) the congregation in old Roman churches of Southern Europe," by which it would appear that the author thinks the practice of asperging was confined to Southern Europe, though whether he believes the verb to have been derived from the noun or the noun from the verb is not at all clear. In another place he derives the word "honey" from the Hebrew "ghoneg," though he does not explain why our German ancestors went to the Jews for this word. And, again, under the heading Broth, he says: "It was about the year 1820 that the term 'broth' was for the first time given to the essential solution of meat, the strength thereof being determined by the weights of the principal ingredients used," a statement which can hardly be otherwise than misleading, for the word is as old as the English language in its meaning of the liquor in which flesh has been boiled; nor do we know that it has ever been generally applied to what he calls "an essential solution of meat." Another instance of strange confusion of language is where he introduces "iced cakes" under Ice, when speaking of the evil effects of eating ices and drinking iced water, for it is not to be doubted that "iced" cakes mean nothing but cakes covered with so-called "iceing" of white sugar. We do not think it worth while to quote more from this book. We have given enough to show our readers what it is like, and we regret that a medical practitioner should give the support of his name to a collection of unverified statements respecting remedies which is evidently intended for the lay public, and can only be misleading to them. It might be possible to write a book which should give judicious advice and indicate how health may be preserved or maladies removed by properly arranged food; but this desirable object cannot be attained by arranging together under headings a number of fantastic statements without any attempt to distinguish between the true and the false.

The manual of *Dietetics for Nurses*,[6] by Drs. Friedenwald and Ruhräh, is excellent, and we should have nothing but praise for it if it were not written for a special class. It is possible that the general standard of education and intelligence among nurses in the United States is higher than in this country, and they may be able to follow the scientific descriptions which the authors have thought fit to include in their work; or perhaps they skip them, and are therefore none the worse, directing their attention to the practical parts of the book, which are written clearly and concisely. It is not so well adapted for English nurses as works written in this country, owing to the differences in the articles of food in common use and variations in the little details of sick-room practice which nurses are expected to know.

SURGERY OF THE NOSE, LARYNX, AND EAR.

Dr. **Laurens**'s work on aural, nasal, and laryngeal surgery[7] is a compendium of operative treatment of diseases of the throat, nose, and ear, as taught and practised by the best authorities in all the countries of the world, though tested by the light of the author's own extensive experience. The indications for each operation are fully and judicially weighed. The relative advantages of operations through natural and artificial openings respectively are frankly compared, to the great advantage of the intending operator. Those on the ear vary from the smaller ones, such as the removal of the ossicles (the steps of which are detailed and copiously illustrated) up to the greater ones, such as those on the mastoid process, and the serious intracranial operations which form such an important chapter in the aural surgery of the present day. Grunert's method of exposing and evacuating the bulb of the jugular vein is very clearly described with the remark that though the operation is certainly delicate, its difficulties have been singularly exaggerated. In the exploration of the temporo-sphenoidal convolution, he advocates the "mastoid route" (method of the aurist) instead of the "para-mastoid" (former method of the surgeon), and supports his views by arguments which are practically irrefutable. The illustrations make his descriptions of the cranial operations required in otology extremely clear. The operations on the nose include those on the external organ, which are often omitted in works on rhinology. The intranasal technique is very fully described. Among other details may be mentioned the avoidance of plugs after operations for synechiae, and the little importance to be attached to the formation of perforations of the septum—a very practical point, but opposed to the ideal striven after by most operators on this part. There is a singular absence of reference to Killian's latest modifications of the submucous resection of the septum, but in return the fullest description is given of his operation on the frontal sinus. The treatment of this and of the other sinuses naturally occupies a considerable space, and the author's views are well balanced; he counsels the avoidance of an alveolar opening of the antrum in cases not dependent on dental disease, and reports cures effected by the removal of plugs or drains previously placed in such an opening. He advocates the radical operation when pronounced benefit is not attained after about a dozen irrigations, and in this operation advises the strictest moderation in curetting the lining membrane. He faces the question as to the effect upon the teeth of the opening in the canine fossa, and states that he has never seen any serious trouble follow. The various modes of access to the ethmoidal and sphenoidal sinuses are minutely described, and the pitfalls clearly pointed out. Even the operation for adenoids is invested with considerable interest, and the suggestion is made that in cases of defect in the palate they should not be removed, as the only result would be to make the dyslalia more marked. The internal and external operations for disease in and about the neighbourhood of the tonsils receive full notice, as also the various forms of pharyngotomy, thyrotomy, and complete or partial laryngectomy. Though evidently the possessor of a "call" to operative surgery, *la grande chirurgie*, the author is at all times ready to do justice to intervention through the natural passages, which it is the specialist's aim to perfect. These demand the most cultivated dexterity and a knowledge of detail which it is scarcely possible for the professor of general surgery to acquire in the same degree as the specialist. Such details Dr. Laurens gives with the utmost fullness, and with that ultra-logical schematisation of which only his countrymen are capable. If this leads to occasional excess of minuteness in regard to details the learner will find the book all the more valuable, and the expert will find many new suggestions which will reward him for the time spent in its perusal. Its size, however, is such that its place will be most readily assured as a work of reference.

MATERIA MEDICA AND THERAPEUTICS.

The *National Standard Dispensatory*[8] is a large and compendious volume which appeared shortly after the publication of the eighth decennial revision of the *United States Pharmacopoeia*, and includes all its material as well as that of the British and the German *Pharmacopoeias*, besides numerous references to those of other countries. A very large number of other medicinal agents are described in addition, so that the book practically includes all substances which have any recognized therapeutical value. It is therefore adapted to the needs of everybody who is engaged in the practice of medicine or pharmacy in all their many branches. In preparing the work the three editors-in-chief have been assisted by Mr. Geisler, Dr. Kremers, and Dr. Base, all of whom have special knowledge of certain departments of chemistry or botany, and who have contributed largely throughout. The work contains a large amount of information collected from many widely-scattered sources, and often difficult to obtain except by reference to this or some similar work. The aim of the authors and publishers has been to make it an authoritative repertory upon the entire range of materia medica, pharmacy, and therapeutics. In this they may be said to have succeeded, in so far, at least, as such a wide range can be covered in a single volume, however large. It ranks as a conscientious and capable compilation, well thought out and well put together. The contents and scope are modelled upon those of the well-known and useful *United States Dispensatory* and *National Dispensatory* brought up to date. The arrangement is alphabetical, and under each heading the botany, chemistry, impurities, tests, preparations, and therapeutical uses are described, along with the derived and allied products. Many of the plants are figured in a recognizable way. The volume is well calculated to serve as a work of reference.

---

[6] *Dietetics for Nurses.* By Julius Friedenwald, M.D., and John Ruhräh, M.D. London: W. B. Saunders and Co. 1905. (Crown 8vo, pp. 363. 6s. 6d.)

[7] *Chirurgie Oto-rhino-laryngologique* (Aural, Nasal, and Laryngeal Surgery). Par Georges Laurens. Paris: G. Steinheil. 1906. (Roy. 8vo, pp. 976; 471 illustrations. Fr. 30.)

[8] *The National Standard Dispensatory.* Containing the Natural History, Chemistry, Pharmacy, Actions, and Uses of Medicines. By Hobart Amory Hare, B.Sc., M.D.; Charles Caspari, jun., Ph.G., Phar.D.; and Henry H. Rusby, M.D. London: J. and A. Churchill. 1905. (Roy. 8vo, pp. 1860. 31s. 6d.)

In his Berlin prescriptions,[9] Dr. Paul Reckzeh has brought together in a convenient form a large number of the prescriptions in common use in the medical clinics of that city. After a few introductory pages devoted chiefly to the pharmaceutical preparation in vogue for the internal administration of remedies, the author proceeds to detail in alphabetical order a list of official and unofficial drugs, with their doses, therapeutical indications, and sample prescriptions. In this list artificial foods are included, as well as organotherapeutic preparations, serums, and bacterial products. In an appendix here is some very condensed information about diet, mineral waters, acute poisoning, hypodermic injections, and other miscellaneous matters. The book may be recommended to any one desirous of becoming acquainted with the present prescribing methods at the Berlin hospitals.

NOTES ON BOOKS.

Food Analysis.

HE volume of *Select Methods in Food Analysis*,[10] by Drs. EFFMANN and Beam, is, as stated in the preface, essenially a handbook for the practical worker in the detection f food adulteration, and may be highly commended. After two chapters of description of the physical and hemical methods employed, the work is divided into ections, dealing with the analysis of (1) starch flours and read, (2) fats and oils, (3) milk and milk products, (4) tea, offee, and cocoa, (5) condiments and spices, (6) alcoholic rinks, and (7) flesh foods. The details of each process mployed are stated clearly, and there are numerous gures of instruments with many tables of standard nalyses taken from the publications of the United States epartment of Agriculture. It is a work which amply ulfils the purpose with which it was written.

A Guide to Diabetic Cookery.

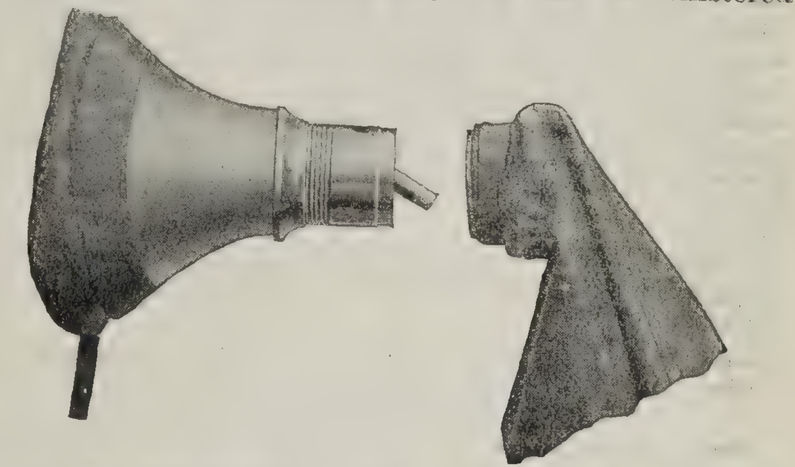
The *Guide to Diabetic Cookery*, published by Messrs. ALLARD and Co., is something more than a mere adversement of their specialities, as it contains a considerable umber of receipts which ought to be more widely known d employed in order to break the monotony of the diet the diabetic, which too often is a dreary round of meat d green vegetables. The dishes to which we allude are rtainly not those ordinarily prepared in English middle-ass households, and it is in them that the want of variety diet is most marked, but the study of such a book as this, aided by the natural desire to add to the comfort of an invalid, should enable any one with an elementary knowledge of cookery to prepare many appetising dishes. Some exception may be taken to the dietary for the diabetic published at the end of the book; it is not advisable to sanction the use of beer; it contains at least as much sugar as milk, which is placed among the articles to be avoided. It is surely better to leave directions of this kind to be given by the medical adviser.

The City of London.

As has already been pointed out in connexion with an earlier issue, the *City of London Directory*[11] is a work which stands by itself, and not a mere excerpt from the official Post-Office Directory. All the information concerning the City contained in the latter book is duly included, but, in addition, there is a large amount of useful detail respecting City institutions and all public and private bodies which either conduct their operations from head quarters within the area of the City, or are otherwise directly or indirectly connected with it. Nor is the work in any way Chauvinist in tendency, for the information given about the members and working divisions of the London County Council is just as full as that concerning the Corporation of the City of London itself. The publication of the book is habitually deferred until March, so that it may include the changes of address brought about by New Year removals, and this fact has had a particular advantage this year in that the Editor has been able to furnish, in the present or thirty-sixth edition, fuller information about the new Government than is to be found in any similar directory.

MEDICAL AND SURGICAL APPLIANCES.

An Ethyl Chloride Inhaler.—Dr. Edward Phillips, Honorary Surgeon to the Coventry and Warwickshire Hospital, writes: An ethyl-ether inhaler was figured in the British Medical Journal attached to a Clover's inhaler. The details of this inhaler were so like the one made for me by Messrs. Wyleys Limited, of Coventry, which they showed at the Leicester Meeting, that I send you a sketch. Chloride of ethyl is best administered through an inhaler with a large airway, which should be straight instead of having a right-angle bend. In the sketch the arrangement is shown connected up to a Hewitt's inhaler, and, like it, it is constructed of 1½-in. tube instead of ¾-in. used in the manufacture of Clover's pattern. A rubber band closes the hole through which the ethyl is admitted and the tube projects an inch into the bag.



A Case of Longevity.—The Madrid newspapers state that in one of the hospitals of that city there is a woman from Granada who is 125 years old. The Royal Academy of Medicine is said to be preparing a report on this remarkable case of longevity.

Academic Dress for Foreign Paris Graduates.—According to the *Journal des Débats* the Council of the University of Paris has recently decided to comply with the request of foreign doctors of the University that they should be granted a distinctive academic badge which could be worn in public ceremonies in their own countries. Henceforth foreign holders of the degree of Doctor of the University of Paris are authorized to wear on such occasions a hood in the colours of the City of Paris with three rows of ermine. This hood may be worn over the gown of any university. In cases in which the Paris doctor has not the right to array himself in the robes of any other university he will be entitled to wear the black gown which is the official dress of public teachers in France.

---

[9] *Berliner Arzneiverordnungen.* Von Dr. med. Paul Reckzeh. Berlin: Karger; and London: Williams and Norgate. 1906. (Demy 8vo, . 227.)

[10] *Select Methods in Food Analysis.* By Henry Leffmann, A.M., M.D., .D., and William Beam, A.M., M.D., F.I.C. Second edition. London: Rebman Limited. 1905. (Demy 8vo, pp. 402; 54 illustrations. .)

[11] *The City of London Directory*, 1906. London: W. H. and L. Collingridge. (12s. 6d.)

LITERARY NOTES.

The Folio Shakespeare which originally belonged to the Bodleian Library, and which was allowed to pass into private hands more than two centuries ago, has happily been recovered. It seemed as if it were destined, like so many literary and artistic treasures, to pass into American hands, and it was doubtful whether the £3,000 required to keep it in this country could be collected in time. Almost at the last moment, owing to the strenuous efforts of Professor Osler, Lord Strathcona gave £500, which more than completed the sum needed.

Messrs. J. and A. Churchill will issue in the course of the present month a thirteenth edition of Heath's *Minor Surgery and Bandaging*, prepared under the supervision of Mr. Bilton Pollard; a translation from the Russian of *Rational Organotherapy with Reference to Urosemiology*, by Professor Dr. A. von Poehl, Professor Prince J. von Tarchanoff, Dr. Alf. von Poehl and Dr. T. Wachs; an illustrated *Manual of Pathology, General and Special*, by Professor R. T. Hewlett; *Carbohydrate Metabolism and Diabetes*, by Dr. F. W. Pavy; *Preservatives in Food and Food Examination*, by Dr. J. C. Thresh; a third edition of the *Pharmacopoeia of the Evelina Hospital for Sick Children; Medical and Pharmaceutical Latin*, by Mr. R. R. Bennett; and Professor Rubert Boyce's *Report to the Government of British Honduras upon the Outbreak of Yellow Fever in that Colony in 1905, together with an Account of the Distribution of the Stegomyia fasciata in Belize, and the Measures necessary to stamp out or prevent the Recurrence of Yellow Fever.*

Professor Churton Collins protests in the *Times* against the "monstrous word 'electrocute,'" which he described as "the latest hideous importation from American journalism." "When," he says, "we have the legitimately-formed word 'electrocide' at our service, why should it not be adopted, and so detestable a solecism as the word referred to be repudiated?" The suggestion does not strike us as particularly happy. A mongrel like "electrocide" can scarcely be called a legitimately-formed word, though in our opinion the etymological bar sinister does not constitute a valid objection to the use of a word which is really wanted. A more serious objection is that, on the analogy of homicide, regicide, and other words of kindred formation, "electrocide" would be a noun, not a verb. We are aware that in America "suicide" is used as a verb, but this is as detestable a solecism as the one so vigorously banned by Professor Churton Collins.

In the *Times* of March 7th, there appeared the following excerpt from its advertisement columns of a century ago (March 6th, 1806):

> FIFTY POUNDS may be had by procuring the Advertiser an ASSISTANT-SURGENCY in the East India Company's Service. Address (post-paid) to A.M. at Peele's Coffee-house.

Appointments in the medical service of John Company could then be obtained only by influence. The advertisement shows how influence was sometimes secured. What influence could do is well illustrated by the case of John Leyden, poet, folklorist, linguist, and last but not least, friend of Sir Walter Scott. He was undoubtedly a man of genius and of great learning besides, but of medicine he knew only as much as could he picked up by attendance on some lectures as an intelligent amateur. His friends procured for him an appointment as surgeon in the East India Company's service, but the condition was attached that he should qualify for the post within six months. This he did. There is only one shorter curriculum on record—that of Gil Blas, who "learned the whole art at once" from his master, Dr. Sangredo. But though he learnt the art, Gil Blas did not, like Leyden, get an official *licenciam et puissanciam occidendi impune per totam terram.*

The *Journal of the Outdoor Life*, which is published at the Adirondack Cottage Sanatorium, Saranac Lake, New York State, and which has just entered upon its third year of existence, has been made the official organ of the American National Association for the Study and Prevention of Tuberculosis. The *Journal*, from which we have more than once had the pleasure of quoting interesting passages, makes it its function to point out the more common pitfalls that beset the unwary health-seeker and awaken in its readers a healthful interest in an outdoor life. It advocates competent medical supervision, fresh air, nourishing food, and carefully-regulated exercise. The number for March, just to hand, contains, among other matter of interest, a note by Dr. R. C. Beebe, Superintendent of the Nanking Hospital, on curious "cures" in China. He says tuberculosis is common in the Celestial Empire. Although joint affections are frequent, the Chinese do not recognize the disease until it attacks the lungs, when it is called "tri yung," or abscess of the lung. Pulmonary haemorrhage is regarded with great alarm, and in a controversy, when one of the disputants threatens to "spit blood," this usually brings his antagonist to terms. There is a native saying that "tuberculosis infects near relatives but not neighbours," which shows that they have some notion of its contagiousness. Dr. Beebe says there are two reasons why consumption is not more prevalent than it is in China. One is that the Chinese homes as a rule open on to a court on the south side. In cold weather they put on more clothes and go out into the open air. Another reason is that it is the custom for any one suffering from a cough to keep a spittoon at hand. Every sedan chair is provided with a neat little spitting-box fastened on one side and a pretty flower-holder on the other.

In the February number of the *Cleveland Medical Journal* Dr. A. G. Hart assigns the credit of the discovery of the chemical substance, chloroform, to an American surgeon, Dr. Samuel Guthrie. Guthrie was born at Massachusetts in 1782, and after qualifying as a doctor settled in practice at Sackett's Harbour, New York, where he established a chemical laboratory. He soon gave up the practice of medicine, and devoted himself to the improvement of fire-arms and to the manufacture of drugs by improved methods. In *Silliman's American Journal of Science and Art* for October, 1831, he described a "new mode of preparing a spirituous solution of chloric ether." After describing the process of production, he says: "During the last six months a great number of persons have drunk of the solution of chloric ether in my laboratory, not only very freely, but frequently to the point of intoxication; and, so far as I have observed, it had appeared to be singularly grateful, both to the palate and stomach, producing promptly a lively flow of animal spirit and consequent loquacity, and leaving after its operation little of that depression consequent to the use of ardent spirits. This free use of the article has been permitted, in order to ascertain the effect of it in full doses on the healthy subject; and thus to discover as far as such trials would do, its probable value as a medicine. From the invariably agreeable effect of it on persons in health, and the deliciousness of its flavour, it would seem to promise much as a safe, quick, energetic stimulus." The new drug was tried by Professor Eli Ives of Yale, who reported in January, 1832, that he had administered it in asthma and scarlet fever, and by inhalation in lung diseases. A committee of the Chicago Medical Society presented a report on February 6th, 1888, in which the conclusion was stated that Guthrie was "justly entitled to the honour of discovering chloroform, and that his publication of it antedates that of either Liebig or Soubeiran. It is clear, however, that Guthrie had no suspicion of the anaesthetic properties of the agent which he discovered.

The New York *Medical Record* states that advance copies of a work, the first of a series of publications on Egyptian archaeology, have been received from Leipzig by the University of California. The author is Dr. Geo. A. Reisner, Hearst Lecturer on Egyptology in the University. The series is dedicated to Mrs. Phoebe A. Hearst, who, in the interest of the University, undertook to bear the expense of expeditions to Egypt, Peru, and other countries, which occupied five years. Dr. Reisner's work contains the text of the medical prescriptions and incantations contained in the original papyrus which was brought to the camp of the Hearst Egyptian Expedition by a peasant in 1901. The papyrus belongs to a period between the twelfth and eighteenth Egyptian dynasties. The prescriptions are less systematically arranged than those contained in the famous Ebers papyrus.

THE MIDWIVES ACT.

RACTICAL SUGGESTIONS FOR REDUCING THE PUERPERAL DEATH-RATE.

By Percy Rose, L.R.C.P.Lond.,

EPRESENTATIVE OF THE STRATFORD DIVISION OF THE METROPOLITAN COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

HERE is no class of deaths more tragic than that occur- ng in puerperal women. The tedious months of preg- ncy are at an end, labour has been satisfactorily rminated when in some unexpected way ominous sym- oms develop in the mother, and in a few days an parently healthy young woman loses her life in carrying t a perfectly ordinary natural process. To the obstet- ian the tragedy is intensified by the haunting reflection at the fatality might have been avoided.

The redeeming feature of the Midwives Act is the owledge that its promoters hoped by its means to ssen the death-rate from puerperal fever. They would tter have achieved their purpose had they obtained gislation for the compulsory training of maternity rses, or gone further and insisted that fully-qualified dical assistance should be at the disposal of every rturient woman. However, they have arrested, and in e years' time will have stopped the habitual practice of dwifery for gain by the frequently unclean and pelessly uneducated midwife of the past.

It is well to remember here that women do not employ dwives from any sex bias. Women medical practi- ners at the present day are not overwhelmed by the mber of their midwifery engagements. Cheapness is sole recommendation of midwives in the minds of st pregnant women. It thus occurs that the poorer sses have the services of a midwife who to a certain gree officiates as a skilled and clean maternity nurse; ile the strata above who can pay a small fee employ a dical practitioner, and promptly horrify him or her by roducing some decrepit and untrained woman to act their nurse, whose ignorance is capable of untold schief when the doctor's back is turned. Here, then, providing trained maternity nurses is ample room for lanthropic reformers who desire to see this puerperal th-rate lessened.

t present it remains, then, to make the best use of the sent Act in lessening puerperal fatalities.

t was recognized that the Midwives Act could only be iently administered by the establishment of Local ervising Authorities to exercise supervision, and on sion to investigate charges of negligence, etc., and pend a midwife from practice. In addition, they are ake reports to the Central Midwives Board.

was, of course, impossible for any body of laymen or vomen comprising a Local Supervising Authority to e the scientific knowledge of midwifery which would ble them by themselves properly to comprehend and iently carry out these duties. They have in most s fallen back on the medical officer of health to se them. But in many districts the time of the ical officer of health is being more and more occupied he demands of the public for increased efficiency in tation and public health, and it would be impossible him to give the necessary personal attention to the erous details of efficient supervision of midwives. So ome cases the Local Supervising Authorities appear ave appointed an outside medical practitioner as ector of midwives, and in others to have selected a vife for that responsible post.

hen the duties of an inspector of midwives are con- ed, it will be seen that the selection of a midwife for work is unfortunate, and that the post should be l by a fully-qualified medical practitioner residing in listrict.

e inspector is to have a personal knowledge of all the ives. A midwife in difficulties appeals not to a sister vife, but to a medical practitioner who on attendance tains what has been done by the midwife. It fol- therefore, that a practitioner at the present time s far more about any individual midwife and her ods of practice than another midwife would.

e inspector must regularly inspect their homes, so as sure the practice of domestic cleanliness. This is vork that absolutely requires a midwife's qualifica- , but a doctor's eye would at once detect an insanitary reacting on the health of the inmates; the midwife's festered finger or eczematous ear would at once arrest his attention, and he would take steps to prevent danger to the midwife's patient.

The inspector must ensure attention to sanitary details in the midwife's clothing and appliances. The details of importance in the midwife's clothing are laid down in Section E of the rules of the Central Midwives Board—the dress of washable material, the clean washable apron, the sleeves capable of being tucked up—and there are hints as to care of nails and hands. The dangling strings of bonnets should also be prohibited. The midwife would submit to a scrutiny of her hands and nails by a doctor, but would probably resent such action on the part of a sister midwife. The inspection of her appliances should include an inquiry into her methods of disinfecting both appliances and her own hands. This work implies a knowledge of bacteriology and of the comparative values of the various antiseptics in vogue far beyond the education and comprehension of a midwife. The inspector, too, must help the midwife to understand properly the confusing Rules 2 and 14, Section E, of the Central Midwives Board, which compel the midwife to carry four antiseptics—(1) for disinfecting the hands, (2) for douching, (3) an antiseptic lubricant, and (4) for cleansing the eyelids. No particular antiseptic is named in the rules, but the midwife in practice will gladly rely on a doctor's advice.

The inspector is to make strict investigations into the antiseptic precaution taken by the midwives to prevent the entrance of infectious diseases into the lying-in room. On this point, again, the midwives would gladly come to a medical inspector for advice when they feel in doubt as to the presence of any infectious disease or its dangerous proximity to the room of their patient. It is not likely that they would appeal with the same amount of confidence to a sister midwife.

The inspector must report any charge of inattention, misconduct, or malpractice. A useful additional rule would be that the inspector should have powers to advise or order a midwife to cease practice pending reference to the medical officer of health or Local Supervising Authority. Circumstances might arise under which a delay of even twenty-four hours in securing the assistance of the medical officer of health in dealing with a self-opinionated midwife would be fraught with danger to her patients. A midwife inspector would have difficulty in dealing with such a woman, who would be far more amenable to the orders of a medical practitioner. The public, however, would hardly approve of such arbitrary powers being entrusted to any one but a doctor. Discretion based on sound knowledge and wide experience would be required to distinguish between well-founded charges and mere idle gossip.

The inspector must give assistance to the midwives in the discharge of their duties and explain to the untrained women on the local roll their obligations and responsibilities. The books which have to be kept by 'the midwife are to be inspected. The tedium of the inspector's work will here meet with a welcome relief. Jaded practitioners will hear with envy that in the practice of one untrained certified midwife whose case-book came under my notice the average total duration of labour in her 93 cases was two hours and twenty-six minutes. A requisition for medical aid which reached me from a trained certified midwife was worded: "Prolonged second stage, requiring forceps." Both these midwives are on the Roll, but with such innocent ignorance on one side and equally innocent presumption on the other, there is ample scope for further tactful instruction.

What kind of inspector can best give this instruction? If left to another midwife, one is tempted to say curtly but courteously that it would be a case of the blind leading the blind. There are trained midwives practising in various parts of England who have been taught that it is part of their work to sew up a ruptured perineum should such an accident occur in their practice. They have been so taught by their instructors. These instructors, being leading lights in the midwives' world, are just the women that a Local Supervising Authority might be tempted to appoint as inspectors, with the result that under such inspectors the midwives would feel encouraged to take far more in their hands than the law intended or their knowledge justified.

About one-half of the present certified midwives are women who have received no systematic training. These will require continual encouragement and instruction to secure that their work is properly performed, and to endeavour to bring their knowledge up to the standard of the trained midwife. They will attach more importance to a doctor's instruction than that of any midwife. The doctor's orders will be confidently quoted to refractory patients, while the hints of a midwife inspector will probably be sooner or later resented as coming from one who, after all, is only a certified midwife like herself.

The law demands in the interest of the health and lives of thousands of mothers that the practice of trained and untrained midwives should be supervised. Surely it would be safer to entrust this work to a fully-qualified practitioner than to put it in the hands of a certified midwife who need only have had three months' training.

There remains for consideration the matter of puerperal fatalities occurring among the patients of medical practitioners. Only the reflection that he has used skill, scrupulous care, and cleanliness will enable the practitioner to absolve himself from any share in the disaster.

If a shed is burnt down in the City of London, the coroner may proceed to hold a public inquest. Why should not a similar inquiry be held by the coroner or Sanitary Authority on every puerperal fatality? The law already shows more curiosity in the case of deaths occurring during or soon after pregnancy than it does in connexion with any other deaths, for the 11th suggestion attached to our death certificate books says that whenever parturition or miscarriage has occurred within one month before the death of the patient the fact should be certified, even though childbirth may not have contributed to the fatal issue. No midwife nor practitioner with clean hands need fear the result of such an inquiry.

We are all agreed that tragedies are to a certain extent avoidable. My certificate books show that 21 puerperal fatalities have occurred in my eighteen years' practice; 18 of these cases were primarily in the hands of untrained midwives. There is a strong presumption that ignorance, dirt, and neglect were responsible for the majority of these deaths.

These are the methods, then, which would tend to reduce the puerperal death-rate:

The compulsory training and registration of maternity nurses should be enforced.

The inspection, instruction, and control of the certified midwives should be in the hands of a fully-qualified medical practitioner.

A public or semi-public inquiry should be held on every puerperal fatality. As years go on and as the practice of midwifery is improved these inquiries would become fewer and fewer.

NORFOLK.

We have received a copy of a report presented in December, 1905, to the County Council by Miss F. M. Bernard-Boyce, Inspector of Midwives. It is stated that during the months of September, October, and November, 140 visits of inspection were made of women who are practising and acting as midwives in the various divisions of Norfolk. Seventy-eight of the women practising, registered and unregistered, were found to be clean and satisfactory in their person and residence, and their mode of work; many of them wore washing dresses, as recommended by the Central Midwives Board; 41 were only fairly clean; 21 very indifferent and dirty. Eleven women have become midwives since the last report was issued. There were 2 deaths of women during childbirth. There were 4 notifications of sending for medical help during the months of September, October and November, and 2 notifications of births of stillborn children. It was found necessary to caution 15 unregistered women as to their method of work and as to the use of the word "midwife." Miss Bernard-Boyce states that in some instances when visiting a centre she managed to pay a second visit of inspection to those women who are now registered. She says: "It is interesting to note the general improvement in the women as regards their general cleanliness and tidiness of their person and belongings, a few of whom were formerly dirty and untidy, with hands and nails indescribable. They have with few exceptions obtained the necessary appliances, and have carried out the various suggestions made to them. The majority of them are glad to learn and improve on their general knowledge in connexion with their work. Many have procured some special sort of working washing dress and keep that solely for their maternity work. Though many of the women cannot read or write, and some indifferently, it is also interesting to note their eagerness and desire to keep the correct necessary record of their cases by getting some relative or friend to write them up from the rough dictation or copies." A great deal of time has been take up instructing the women, as the rules and regulations no issued by the Central Midwives Board are too complicated f the majority of the untrained women now practising to unde stand. Many unqualified women who formerly acted as midwiv in the county have ceased to practise. The total number o women who are registered and certified midwives is now 6 Several of these women are very old, and at the end of anoth four years will possibly be too old to practise. Miss Bernar Boyce points out that there are many difficulties in the way o training women as midwives. It is difficult to induce many o the women to leave their homes, even for a short time, to ent for a course of training. Others have no real liking for th work. Moreover, there is not sufficient work to enable a woma to gain a living solely as a midwife in many of the rur districts unless she can take up some other form of employment and work between her cases. Since the coming int operation of the Act, and the circulation and distribution o copies of the Midwives Act throughout the county, a grea number of the women who formerly practised in Norfolk hav become too frightened to continue work, and have consequentl given up acting as midwives.

CANCER IN THE COLONIES.

FURTHER correspondence relative to the Cancer Research Scheme recently issued as a Blue Book[1] contains a considerable amount of information as to the distribution o malignant disease in the British Colonies. A summary o the chief facts will doubtless be interesting to our reader

British Central Africa.

The Principal Medical Officer, Dr. H. Hearsey, writin from Zomba under date January 5th, 1905, states that n difficulties are encountered by medical officers in endeavouring to discover cases of cancer in aborigines There can be no doubt that cancer in natives of British Central Africa is of the utmost rarity. Repeated efforts made by Government medical officers throughout th country for some time past have so far resulted in th discovery of but a single case. Non-malignant growths on the other hand, are by no means uncommon.

Hong Kong.

The returns made to the Registrar-General show that th total number of deaths among the Chinese in the period 1895-1904 was 119, giving an annual death-rate from cancer of 4.45 per 100,000 of population, which, as Dr Francis Clark, Acting Principal Civil Medical Officer points out, compares very favourably with the death-rate from the same cause in England, which for the perio 1891-5 was 71.0 per 100,000. Dr. Clark says the most striking figures are those obtainable from the records of the public mortuary. During the past ten years no fewer than 15,365 *post-mortem* examinations have been made on the bodies of Chinese dying in the Colony, and out of this total number only 10 are returned as having died of malignant disease. This represents a proportion of only 0.65 per 1,000 deaths. It is principally the alimentary canal and the abdominal viscera that are affected. With regard to the habits of the natives, Dr. Clark points out that the Chinese in Hong Kong smoke but little in comparison with Europeans, and practically do not chew at all. Their diet consists in the main of rice with small quantities of fish or pork; spices, peppers, and hot chillies are not used by them to any appreciable extent.

British New Guinea.

Dr. A. J. Craigen, writing from Port Moresby under date February 1st, 1905, reports that during his stay of nearly four years in the Possession he has not yet seen a single case of cancer among the native population. While unable to assign a reason why the disease is absent or comparatively rare, he mentions three causes that have some bearing on the fact: (1) The average life of the Papuan is considerably less than that of the European, and one seldom sees a native over 60 years of age; (2) malaria is found throughout the Possession, and it has been shown that cancer is not so common in such places as it is in non-malarial countries; (3) an item perhaps orthy of note is that the Papuan does not eat any food ncooked. No grain food is grown, and his principal iet is a vegetable one, consisting of bananas, yams, taro, id sweet potatoes. Fish and shellfish, together with her sea products, such as turtle and dugong, are eaten the coastal tribes. Pig and wallaby are the most usual eats consumed, but as a general rule very little meat eaten except at feast times and during the hunting ason. Fish and meat are often partaken of in a rather stage of decomposition. Referring to predisposing uses, Dr. Craigen says that scars are common throughit the Possession, and in certain districts it would be fficult to find a single native without at least one scar his body. With regard to smoking, although nearly ery Papuan smokes, he does not use an ordinary pipe, t a section of bamboo which is filled with smoke and haled. Dr. Craigen has seen only two cases of an doubtedly cancerous nature in Europeans; one of ese was an epithelioma of the face, the other a rodent cer.

---

[1] London: Printed for His Majesty's Stationery Office by Darling and Son, Limited, 34-40, Bacon Street, E.; and to be purchased, either directly or through any bookseller, from Wyman and Sons, Limited, Fetter Lane. E.C., and 32, Abingdon Street, Westminster, S.W.; or Oliver and Boyd, Edinburgh; or E. Ponsonby, 116, Grafton Street, Dublin. 1906. Eyre and Spottiswoode, East Harding Street. E.C. Price, 4½d.

Federated Malay States.

Dr. C. W. Daniels (Director of the Institute for Medical search at Kuala Lumpor), writing on May 26th, 1905, orts that malignant growths were noted only among Chinese. The number of Tamils (32) was too small any conclusion to be drawn from the absence of such es; and as no *post-mortem* examinations were made on lays, no information is obtainable as to the frequency naccessible malignant growth in that race. Malignant wth was present in 10 cases. The total number of ths was 805, so that the percentage of deaths from cer was not less than 1.24. In 7 of the cases the an affected was the liver—in 5 primarily, in 2 ondarily to disease of the stomach or pancreas. The rmous preponderance of hepatic malignant growth was limited to the District Hospital; similar cases were with at the General Hospital and elsewhere. Dr. iels says it is a common feature of the distribution of ignant disease in other tropical countries, as in tish Guiana, and is not restricted to any one race, as has observed it in negroes, Indians, and half-castes. adeno-carcinoma of the liver is certainly the monest malignant growth in the Federated Malay es.

Sierra Leone.

he Acting Principal Medical Officer, writing on 8th, 1905, reports that there have been only 2 cases of ignant tumours operated on this year. He adds that ignant disease is not very prevalent either in the ectorate or in the Colony.

Jamaica.

J. A. Allwood, Senior Medical Officer and Registrar ie Public Hospital, Kingston, reports that of 16,996 nts admitted into the hospital during the five years November, 1900, to October, 1905, the number sufferfrom malignant disease was 110; of these, 32 were s and 78 females. In 71 of the cases the disease was er; in 39 it was other than cancer. Of the cancer the patients in 20 were males, and in 51 females. ie cases of malignant disease other than cancer, the nts in 12 were males and in 27 females. Dr. Allwood s that malignant diseases are fairly common in ston, the bulk of the cases being cancer. The most non sites of cancer are the generative organs, this especially the case among females. Cancer of the ie and lip are curiously uncommon in a country in smoking is almost universal among both sexes. en, as a rule, smoke pipes, and, in the event of ing cigars or cigarettes, do so generally with the d end in the mouth.

Ceylon.

Allan Perry, Principal Civil Medical Officer and ctor-General of Hospitals, writing from Colombo on 4th, 1905, states that there were in 1904, 234 persons ed from the various medical institutions of the suffering from cancer in a population of 3,812,931, gives an incidence of 1 in 16,200. The racial nce is shown by the following figures: Sinhalese giving an incidence of about 1 in 15,700; Tamils 42, about 13,000; Malabars 23; Moors 8; Burghers 6 ,000); Malays 1; Europeans 1. There were 35 cases coma in the island, giving an incidence of 1 in 108,940. In conclusion, Sir Allan Perry says that the average number of cases per annum is about 227. Cancer is a rare disease in Ceylon. It is more common in males than in females. The average age is over 40. The most common sites are the parts associated with mastication and the generative organs. Sarcoma is to cancer as 1 in 12. The average age for sarcoma is under 30; and the commonest site is in the bones.

Natal.

Dr. Wilfred Watkins-Pitchford, writing from the Laboratory, Pietermaritzburg, on November 11th, 1905, reports that a Standing Cancer Research Committee for the Colony of Natal has been formed of which he has been appointed Honorary Secretary.

An Alleged Cancer Cure.

The Secretary of the Natal Medical Council reports that the Council, having fully considered reports on Mr. Spearman's alleged cancer cure, is unanimously of opinion that there is no evidence that the alleged remedy is a cure for cancer, and that there is nothing to show that the so-called cures would bear the test of scientific investigation.

Other Colonies.

The replies from other colonies are simply formal statements of the readiness of the authorities to take the necessary measures for the collection of the information required by the Cancer Research Fund.

Printers' Errors.

We regret to notice in a document published under the auspices of a great department of State such gross misprints as "cancer en cuiram" and "excema" (p. 27). "Noevus" appears at p. 5.

MEDICAL NEWS.

The *Clinical Record* of Chicago says it is estimated that there are 140,000 doctors, "good, bad, and indifferent," in the United States.

The jubilee dinner of the Society of Medical Officers of Health will be held at the Hotel Cecil, London, on Friday, May 11th. Particulars can be obtained on application to Dr. Priestley, 22, Telford Avenue, Streatham Hill, S.W.

An anonymous donation of £10,000 was received last week by King Edward's Hospital for London, the stipulation being made that the sum should be treated as capital.

Dr. Charles J. Renshaw of Ashton-on-Mersey has been appointed a delegate of the Apothecaries' Society of London and of the Lancashire and Cheshire Branch of the British Medical Association to the International Medical Congress at Lisbon.

At the weekly meeting of the Managers of Edinburgh Royal Infirmary on March 26th it was intimated that Consols to the value of £5,265 1s. 1d. had been transferred to the infirmary out of the residue of the estate of the late Dr. W. W. Allan of Dawlish, Devonshire.

At the meeting of the Royal Sanitary Institute at the Parkes Museum on Friday, April 27th, at 5 p.m., a discussion on the consumptive at home will be opened by Dr. Heron. The annual dinner of the institute will take place at the Langham Hotel, London, on Wednesday, May 9th, when the Duke of Northumberland, the president, will take the chair.

At the annual general meeting of the governors of the Queen's Jubilee Hospital, Earl's Court, on March 31st, it was stated that Mr. R. Fitzroy Benham had executed a declaration of trust, in which he had consented to assign the deeds of the hospital, which had hitherto stood in his name, to the trustees. It was resolved to change the name of the institution to "The Kensington General Hospital," and to take steps to incorporate it.

Dr. G. Dalgado asks us to invite the attention of members of the International Medical Congress in Lisbon to two health resorts in its immediate vicinity. The one is Cintra, frequented as a summer resort, and the other Mont'Estoril, thirteen miles from Lisbon, at the mouth of the Tagus. During the winter Mont'Estoril has a small daily range of temperature, and the number of rainy days in December, January, and February is few; the drainage system is stated to be modern and the water supply very pure.

The London, Brighton, and South Coast Railway Company gives notice that it is prepared to issue return tickets from London to Irun to members of the International Congress of Medicine, their wives, and children until April 19th, at the Victoria and London Bridge stations of the L.B. and S.C.R., the only formality necessary being the presentation of the *carte d'identité*. The tickets are available for sixty days via Dieppe-Paris and Bordeaux. The return fares from London to Irun are £5 15s. 5d. first class, and £4 1s. 0d. second class.

It having been proposed by some friends to present Dr. T. J. Walker with a testimonial on the occasion of his retirement from the office of Surgeon to the Peterborough Infirmary after forty years' service, a letter was recently addressed by Dr. Walker to the Committee which had the matter in hand, expressing his appreciation of their kind intention, but asking that the proposal should not be carried into effect. Dr. Walker considered that a single member of the staff of a hospital should not be picked out as a recipient of a testimonial simply because success had crowned his efforts to advance the interests of the institution.

The Organizing Committee of the Second International Congress on School Hygiene held a meeting on March 30th at the University of London, South Kensington, to consider the arrangements for the Congress which is to be held in London in August, 1907. The objects and aims of the Organizing Committee were briefly explained by the Chairman, the Duke of Northumberland. Sir Lauder Brunton having made a statement as to the arrangements already made, said that teachers at training colleges must be taught not only abstract notions concerning health but also practical ideas. It was resolved to open a guarantee fund, and Dr. James Kerr and Mr. E. White Wallis were appointed secretaries.

Medical Legislators in Austria.—The representatives of the medical profession in the Austrian Chamber of Deputies are: Drs. Adler, Chiari, Ellenbogen, Gladyszowski, Gregr, Jaeger, Kindermann, and Ossydo. The President of the Chamber (Count Vetter) studied medicine at a comparatively advanced age, but his studies were interrupted by his election to the presidential chair.

British Ophthalmic Hospital, Jerusalem.—The report of the British Ophthalmic Hospital, Jerusalem, for the fifteen months ending December 31st, shows that 1,062 persons were treated in its 42 beds, and 10,088 in the outpatient room. Some 1,761 operations were performed, including 947 under anaesthesia. The financial report for the year ending September 30th shows a debit balance of £700 on a total expenditure of £1,300.

The Notification of Phthisis.—The guardians of the Scarborough Union, having been asked by the Hull Union to support it in a request to the Local Government Board to class phthisis as a notifiable disease, sought opinions from the medical officers within the Union area, and the letters sent in reply were considered at a meeting on March 22nd. Five out of the seven were entirely favourable to notification, and after some discussion it was resolved to support the Hull Union.

Discussion on Syphilis.—The Hunterian Society will devote two evenings this month to a discussion on syphilis. At the first meeting on Wednesday next at 8.30 p.m. the discussion will be opened by Mr. Jonathan Hutchinson; he will be followed by Dr. Savage (syphilis and mental disease); Dr. Purves Stewart (syphilis and the nervous system); and Dr. Hale White (visceral syphilis). The evening of April 25th will be devoted to the consideration of congenital syphilis and syphilis of the eye and skin, and general treatment.

Clinical Research at Cambridge.—The Committee for the Study of Special Diseases at Cambridge announces that its Treasurers will shortly proceed to elect a research scholar to investigate the diagnosis or treatment of rheumatoid arthritis and allied diseases. The scholarship is of the annual value of £100, and the Committee is enabled to make the appointment through the generosity of an anonymous friend. Candidates must be recently qualified, and preference will be given to those who have held a resident post at some hospital. The appointment will be made in the first instance for six months, but this period may be prolonged. The holder of the scholarship will be required to work under the direction of the Huddersfield lecturer in special pathology. The results obtained may be used for a treatise if desired. Letters of application should contain a full account of the medical curriculum through which the applicant has passed, but testimonials are not required. Further particulars can be obtained from Mr. T. S. P. Strangeways, Department of Medicine, the Universi Cambridge.

Street Accidents.—The provision of an ambulan system for London seems at length to be really witl sight, though the scheme will apparently be at fi of a tentative character. The Bill which the Lond County Council is promoting came before the Police a Sanitary Committee of the House of Commons this wee and its purport was explained by counsel and by William Collins, M.P., who has been principally sponsible for the adoption of the scheme by the Lond County Council. The Committee approved the clauses the Bill relating to the provision of ambulances, b exempted the City area from their operation. Hither there has been an inclination in the City to insist on t establishment of an independent service of its own on tl lines recommended by the Police Committee. Now, ho ever, that the City has successfully opposed its compulso inclusion in the London County Council scheme, it m perhaps be less disinclined to take part in a comm arrangement. In many ways this would seem to be ver desirable, for, apart from financial considerations, the di tribution of ambulance stations and of call boxes would much more likely to be satisfactory if the whole servi were arranged and administered by one authority. Th London County Council's present scheme contemplates tl establishment and equipment of two stations, one near S Thomas's Hospital, and one at Charing Cross. Each these stations would serve a radius of at most two mil and cover the area in which at present street accidents a most common. If the system proves successful oth stations will be established elsewhere. The ambulanc are to be electro-motors, and stand-posts in telephonic co munication with the stations will be placed at select spots within the areas mentioned. Under the City schen there will likewise be two stations, one at St. Barthol mew's Hospital to serve the Western half of the City, an the other somewhere between Guy's Hospital and tl London Hospital. The ambulances will be horsed and tl system will be worked by the City Police.

Sanatoriums for Consumptives.—The Metropolita Asylums Board has had under consideration for a lon time past, as our readers are aware, a scheme by whic it would virtually become the tuberculosis authorit for the whole of London, and sought views upon tl subject from the Local Government Board, boroug councils, boards of guardians, and many other loc bodies. The replies from local bodies were in the mai favourable to the project, while the Local Gover ment Board abstained from committing itself to a opinion. The Metropolitan Asylums Board therefo recently again addressed the Local Government Boar supplying it with copies of the statements from tl local bodies, and pressed for an authoritative deliveranc This it has now received in the form of a letter stating tha the information received does not appear to affo sufficient justification for the very heavy outla involved by the proposal, and forwarding a copy of communication received from Sir William Broadben stating that since sending to the President of the Board copy of the memorial he had addressed to the Metropolita Asylums Board on the subject of tuberculosis, he ha learned that that body was too extensively associated wit Poor-law administration to act as a tuberculosis authorit for non-pauper classes. These communications we referred, at a meeting of the Metropolitan Asylums Boar on Saturday last, to the General Purposes Committee, a the final result remains to be seen. It seems probabl however, that the project must be regarded as dead, sinc the attitude assumed by the Local Government Board, if does not make any further action in the matter impossibl will at least strengthen the hands of those who have bee opposed to the scheme from the commencement. Th outcome is one which many will regret, for, though th Metropolitan Asylums Board may not be an ideal authority the proposal that it should assume that position ha certain advantages. For instance, apart from the fa that there is at present no other body which ca step into the breach, the Board already has a its command several buildings which could be readil converted into sanatoriums, so that much of th expense which would have to be faced by any othe having the provision of sanatoriums for the whole London in view would be saved. It is true, too, tha tuberculosis has very direct connexion with the Poor-la authorities whose medical work the Metropolitan Asylum Board already in some degree supplements and co-ordinates for nothing—probably not even alcoholism—drives mor workers from the self-supporting into the rate-supporte classes than does tuberculosis.

British Medical Journal.

SATURDAY, APRIL 7th, 1906.

PROFESSIONAL USAGE AND THE LAW.

E case of Tughan *v.* Darnell, a report of which appears where, raises a point of great importance to the mem- s of the medical profession. The essential facts are that nages were recovered against a medical practitioner negligence in prescribing belladonna liniment with- warning those who were nursing the patient of the gerous character of the drug and the consequent d for caution in using it. It was established that the ndant acted in accordance with the ordinary usage the profession, giving the directions usual in the cir- nstances, and it might be supposed that, having done , he would be held to have exercised the care which a dent and reasonable man must use in order to be nerated from a charge of negligence. The learned ge, however, ruled that this standard was not cient, and that the high degree of protection which law of this country affords to human life requires a physician should use the highest degree of care, lence, and foresight known to the law; this he rred to as having been well described by a learned ge as "consummate care, prudence, and foresight." decision has created a considerable local stir ngst medical men, due mainly to a feeling that standard of diligence set up is, in practice, an ssible one, and one which would render the prac- tner liable to the risk of proceedings in respect of s which he has to treat every day in the week. acts from day to day in accordance with what nows to be the custom of his profession; and nds largely upon such custom for light as to the se to be pursued in the difficult and delicate mstances in which he is constantly placed. He als to professional usage as his guide in deter- ng what is reasonable care, foresight, and prudence, having ascertained that usage, he has been in the of following it without fear of the consequences. effect of the decision is that, in future, having ascer- d the custom, he will have to inquire whether the lard of diligence which it sets up falls short of that summate care, prudence, and foresight" to which earned judge in his charge to the jury referred. nderstand that an appeal is under consideration, we should be glad to see one preferred; for the iple involved is, as we have said, of great practical rtance to the profession in its everyday work.

amount of care and skill required of a medical the absence of which will render him liable to an , is well laid down in Lanphier *v.* Phipos (8 C. and 5). In this case the defendant, a surgeon, was in to attend the plaintiff for an injury to the hand rist, and the defendant, mistaking the nature of jury, used such improper treatment for the case he plaintiff lost the use of her hand. Chief Justice l, in summing up to the jury, said: "Every on who enters into a learned profession ertakes to bring to the exercise of it a onable degree of care and skill. He does not "undertake, if he is a surgeon, that he will perform a "cure, nor does he undertake to use the highest pos- "sible degree of skill. There may be persons who have "higher education and greater advantages than he has, "but he undertakes to bring a fair, reasonable, "and competent degree of skill; and the ques- "tion is whether the injury must be referred to "the want of a proper degree of skill and care in "the defendant or not." A verdict was given for the plaintiff with damages of £100. In Rich *v.* Pierpont (3 F. and F. 35), which was an action against a surgeon and accoucheur for injury caused to a woman he had attended in childbirth by reason of his neglect and want of proper care and skill, Chief Justice Erle, in summing up to the jury, said that a medical man was certainly not answerable merely because some other practitioner might possibly have shown greater skill and knowledge, but he was bound to have that degree of skill which could not be defined, but which in the opinion of the jury was a competent degree of skill and knowledge. What that was the jury were to judge. It was not enough to make the defendant liable, that some medical men of far greater experience or ability might have used a greater degree of skill, nor that even he might possibly have used some greater degree of care. The question was whether there had been a want of competent care and skill to such an extent as to lead to the bad result. With reference to the medical evidence, which was greatly in favour of the defendant, his lordship remarked that, considering how much the treatment of a case depended upon its varying phases, which changed as quickly as the shifting hues of the heavens, it was hard for one medical man to come forward and condemn the treatment of a brother in the profession, and say he would have done this or that, when probably, had he been in a position to judge of the case from the first, he would have done no better. The verdict in this instance was for the defendant.

In neither of the charges quoted is the usage and custom of the profession actually referred to, but it is, in fact, the underlying principle on which the question of negligence or no negligence has in the past been determined. The question whether reasonable and proper care, diligence, or skill has been exercised is always left to the jury to determine, and in placing the defence before the jury in Dr. Darnell's case defendant's counsel relied almost exclusively upon the custom and usage of the profession, and the improbability, in the light of past experience, that poisoning would have resulted under the circumstances detailed. So far as we can ascertain, there is no reported case in which it is stated in so many words that the usage of the profession shall be the guide to be followed in determining whether or not a medical man has been guilty of negligence, but it seems clear that the Lord Chief Baron in his summing up in this case in using the word "consummate" went beyond the view held by the two Lord Chief Justices of England whose words are quoted above.

THE ALLEGED EPIDEMICITY OF APPENDICITIS.

According to the definition in the Sydenham Society's *Lexicon* adopted in Murray's *New English Dictionary*, the primary meaning of epidemic is "prevalent among a "people or a community at a special time, and produced "by some special causes not generally present in the "affected locality." Its secondary, or more extended, meaning is "wide-spread, widely prevalent, universal." For this extended meaning Murray quotes the authority of Milton and of Swift, as well as that of Burke and Benjamin Brodie. Nevertheless there can be no doubt that with the development of the idea of bacterial specificity the word is in the minds of most people becoming more and more restricted to its primary meaning, and more and more importance is attached to the existence of some special cause. So long, however, as the term is employed in a double sense we shall hear of epidemics of diseases such as appendicitis, for which no *specific* organism has been demonstrated, but the occurrence of which in groups or "runs" every medical man nowadays recognizes. There has been, for instance, in circulation a rumour to the effect that Paris has recently been afflicted by an epidemic of appendicitis, occurring as a sequel of influenza. It is true that there has been a good deal of influenza in Paris, but there has been no unusual prevalence of appendicitis. Curiously enough, a Parisian physician, Dr. Cheinisse, has just published an essay[1] in which he has collected the views of many authorities, both as to the "infectious" nature of appendicitis and as to its epidemicity. Although no "actual and responsible" organism has yet established an exclusive claim, a great deal is known about the bacteriology of the condition, and there is little to show that the nature of the organism is the most important factor; rather is it some local condition of the appendix and adjacent parts. Many attempts have been made to establish a sequential relation with influenza, especially of the gastro-intestinal type, with other forms of enteritis, with the exanthemata, and with acute rheumatism, but in point of fact no case has been made out.

Some twelve years ago Dr. Burney Yeo related a case of rheumatic perityphlitis in our columns, and Dr. Kelly attaches a good deal of importance to the rheumatic theory. The similarity alleged between the lymphoid tissue of the appendix and that of the tonsil, considered in relation with the well-known frequency of antecedent tonsillitis in "rheumatic" fever, affords a basis for this idea which is certainly fascinating. Deaver, too, in 1900 pointed out the predominance of lesions of the tonsil, the cervical, and mesenteric lymphatic glands during development, and their relative infrequency after 30, when the lymphoid tissues have to some extent atrophied. Appendicitis is, of course, mainly a disease of the earlier years of life. On *a priori* grounds, infective conditions of the intestine, and particularly of the caecum and colon, may well be adduced as a predisposing cause of disease in such an annex as the appendix, but the clinical facts are as yet insufficient to establish the theory to the satisfaction of all observers.

Talaguier, Finney, Franke, Leudet and many others, have noted an association with the specific fevers; Kelly mentions the case of Turk who whilst attending a boy suffering from scarlet fever in the course of which appendicitis with local abscess occurred, himself caught scarlet fever and developed appendicitis with local abscess early in the illness. Dr. Cheinisse quotes the fanciful passage in which Thibault has anticipated evidence of ward contagion, and it may therefore be mentioned that recently in a London hospital, of the day and night nurses of a ward in which several cases of appendix abscess were being nursed, two developed the disease in suppurative form within twenty-four hours of one another. Against such isolated instances, however, must be put the relative infrequency of appendicitis among operating surgeons and others who have much to do with such cases at and af operation.

Dr. Cheinisse scouts the notion of true epidemici but his reasoning is based upon an endeavour to pr that there has been no increase in frequency during t last fifteen years. He appeals to figures, and quotes t statistics compiled by Stricker for the German army the years 1873 1885-6, 1900-1, showing that althou the morbidity of typhlitis has increased by 70 per cer yet during the same period the morbidity of diseases the liver, of the stomach, and of "peritonitis," w which it is supposed the true diagnosis of appendici may have been confused in earlier times, have decreas respectively by 64 per cent., 70 per cent., and 79 per cer and that the whole four groups together show a decrea of 44.5 per cent. He thus implies that the who apparent increase is accounted for by improved di gnosis, a suggestion easier to make than to disprove.

An examination of the records of one of the Lond hospitals taken at random has revealed not only a gr increase in the number of cases labelled appendici in the five years 1900-4, as compared with the peri 1890-4, but in almost any of the later years the numb of appendix abscesses alone has exceeded that of cases of typhlitis and "peritonitis" together in a year of the earlier period; moreover, the *post-mort* records show that 80 per cent. of the cases of "pe tonitis" were not due to appendicitis in any form.

Now, whether an intra-abdominal abscess we labelled "appendix" or not, the great proportion those occurring between 1890-4 were certainly di gnosed, and would appear in the clinical or *post-mort* records. It is difficult, then, to deny that, so far London is concerned, there has been of recent years increase in the number of cases of acute appendicitis

But Dr. Cheinisse goes further: he quotes M. Ro tovtzev, who found that the mortality from appendicit in the eleven hospitals of St. Petersburg varied le between 1890 and 1902 than that of, for instan internal strangulation. Looking at the *post-mort* statistics of the same London hospital, it is found th the number of deaths from appendicitis (1900-4) on exceeds that of 1890-4 by 40 per cent., whilst t incidence increased by 350 per cent.; and deaths fro peritonitis have actually diminished to one-fourth the number.

Mortality statistics, then, have been so influenced improved methods of treatment as to afford qui untrustworthy criteria for pointing Dr. Cheiniss argument.

THE ARMY MEDICAL VOTE IN THE COMMON

THE discussion which took place last week in t House of Commons on the Army Medical vote deserv some notice over and above the report given in anoth part of the JOURNAL. Mr. Burdett-Coutts was amp justified in pointing out the great improvemen which have been effected in the service. If other branch of our army has learned the lessons the South African war, the Medical Service certain has done so; consequently, it is now on a better footi than it has been for many years. The service is longer greatly undermanned, the pay of the officers h been increased, the principle of promotion by merit h been recognized, opportunities for study in civil ho pitals have been provided, nursing has been ma more efficient, and a civilian medical element has be admitted into the administration of the Department the form of the Advisory Board, which has done mu good work, and may be expected to continue to useful if its *personnel* is revivified at suitable intervals.

---

[1] *La Semaine Médicale*, March 7th, 1906.

Great of credit is due to Mr. Brodrick for these reforms, and now Mr. Haldane has added another improvement in instituting a Civilian Medical Reserve by which some 450 young surgeons will be trained year by year in those duties by which an ordinary civilian medical man can be made efficient for service in time of war. The £4,500 voted in the Estimates for this purpose will, if wisely applied, yield most valuable results and provide for the time of need an adequate Reserve for the Royal Army Medical Corps trained in the special duties of an army medical officer and eager for service. The Secretary of State must not stop here. The Voluneer Medical Service equally, if not more urgently, demands his attention, and we are glad to observe from n answer to a question in the House last week that it as not been forgotten. The medical services of the Militia and Yeomanry must all be regularized and eformed so as to bring all into an efficient condition, f we are to attain anything like the perfection reached y the Japanese in the late war.

Mr. Haldane is seeking to create a scientific system f medical service for the army. We congratulate him n the ideal which he has set up, but we must warn im that if he is to realize high success he must neglect o branch, but direct his energies to the improvement f the Militia, the Yeomanry and the Volunteer Medical ervices, so as to co-ordinate and organize all on a ientific system. The system must be framed with e regard to the exigencies of civilian medical actice, and we would venture to add must not be mposed from above. Mr. Haldane has promised to nsult with those who are in a position to state the ews of the persons concerned, and the appointment the special committee approved by the Council of e British Medical Association last month is therefore ry opportune. This committee will be thoroughly presentative of the Volunteer medical officers, both gimental and corps. It will be formally constituted t the meeting of the Central Council this month, and ll, it is to be hoped, lose no time in gettting to work. n this matter the Association has no particularist erests to serve; it knows nothing of the controversies ich in the past have paralysed the action of certain lunteer medical societies. Its one object will be to lve an efficient scheme for the Volunteer Medical vice, so that it may be an honour to the profession a sure standby for the nation in its hour of need.

◆

THE HAMPSTEAD GENERAL HOSPITAL.

have received from the Chairman of the Council of Hampstead General Hospital a circular letter with rence to the question of paying patients, stating that n the hospital is in the near future enlarged to beds it is intended to provide a special block with eds for paying patients. Certain beds restricted to ents from the districts naturally served by the ital are charged at the contributing rate of 12s. a , and the charge for private rooms is three guineas ek, applications from the neighbourhood receiving erence. The patients are attended by their ordinary ical attendants, and the necessary arrangements for attendance of consulting physicians and surgeons is in their hands. We published a fortnight ago 712) a letter from Mr. F. R. Humphreys, rman of the Hampstead Division of the British ical Association, stating that it was proposed all a meeting of the local profession in the se of a few weeks to consider the whole matter of dministration and future of the Hampstead General pital, and inviting general practitioners in Hamp- and its neighbourhood to keep an open mind upon the subject. From a letter which Mr. Humphreys has addressed to the Chairman of the hospital, it appears that a circular has been issued to the medical profession of Hampstead asking for replies to a series of questions dealing with the proposed consulting staff of the hospital. Regarding this as an attempt to forestall the decision of the general meeting of the profession already mentioned, Mr. Humphreys protests, both in his official and in his private capacity, against this manner of dealing with a matter of public importance, and adds that in view of the restricted nature of the questions issued, and his recent appeal to the profession to reserve its opinion until the general meeting, no deductions drawn from the replies could indicate accurately the trend of professional opinion, and will therefore be worthless as evidence which would be useful in making a report.

FOREIGN MEDICAL VISITORS.

THE Chairman of Messrs. Southall Bros. and Barclay, Limited, at the annual meeting of the company, recently stated that he had received from the company's traveller in India the following reply to an inquiry as to Japan: "I hear that in Japan everything is German, German "Even the medical man at the British Embassy is a "German. In all the hospitals, colleges, etc., the "doctors and teachers are German, and the German "*Pharmacopoeia* is used and instilled into the minds "of the Japs. Therefore, the *B.P.* is almost unknown "and consequently the British pharmaceutical pre-"parations are not required." The Chairman said that this statement was unfortunately correct, and that the Japanese medical students were in the habit of going to Germany to complete their post-graduate education, with the result that German methods, textbooks, including the *Pharmacopoeia*, etc., became their everyday companions. This he thought was anything but complimentary to British universities and schools of medicine. From time to time we hear personal statements from foreign visitors, especially those from America and France, to the effect that they find the facilities for clinical post-graduate study in this country very defective. These complaints have reference as a rule to London, and are so general that we think it well to place the fact on record for the information of those whom it may concern. There are, of course, the London Polyclinic and the West London Postgraduate College, both of which are well known, and there is also the London Postgraduate Association, with offices at the Examination Hall, which seems rather disposed to hide its light under a bushel. The two first-named institutions are doing extremely useful work, but they appear not at present to meet the particular demand to which we refer. The foreign practitioner comes to Great Britain with the intention of seeing something of our medical schools, and of getting an insight into the methods and clinical teaching in practice. A few personal introductions will cause him to receive every courtesy from the individuals addressed, but this is not exactly what he hoped for; he wants a general view, and this he cannot easily get, if at all. The desirability of establishing some scheme of reciprocity in post-graduate study with foreign universities in other faculties is, we believe, engaging the attention of the officers of the University of London. We venture to think that the creation of such facilities under the auspices of the University in the medical faculty is a matter deserving of the fullest consideration at the hands of the University authorities.

EUTHANASIA.

REFERENCE was recently made in the JOURNAL to proposals lately submitted to certain State Legislatures in America that it should be made permissible in cases of painful incurable disease to put the sufferers to death *cito, tuto*, and, as far as possible, *jucunde*. The Bill, which was passed on a first reading in the Ohio Legislature, provides that if a patient of full age and sound mind “be so seriously injured or ill or diseased that he shall believe that he cannot recover his bodily health and soundness; and if he shall be in enormous physical pain and torture and bodily suffering; and if, in the opinion of his attending physician (who shall not be a member of his family or interested in his estate in any manner whatsoever, except for payment of his medical services), his condition is as he states his belief to be, and that his pain, torture, or bodily suffering cannot be otherwise relieved; and if such physician's opinion shall be concurred in by three other reputable and regular practising physicians of the community (who are not of the family or interested in said estate of such patient) who shall be selected by the person so suffering or by another person at his request, and shall make personal examination of such patient; and if the patient so suffering shall in the presence of three disinterested witnesses request said physicians so to do . . . it shall be lawful for such physicians, with the aid and assistance of such consultants, to administer narcotic or anaesthetic drugs to such person so suffering to the extent of inducing a state of complete anaesthesia (or complete insensibility to pain with or without unconsciousness), and to maintain that condition until death shall release the sufferer.” It will be noted that the opinion of the physicians as to the incurable condition of the patient is made, so to speak, the warrant of execution. Apart altogether from the moral aspect of the proposal, an obvious objection is that it postulates an accuracy of diagnosis and a certainty of prognosis not yet attained by medical science. This point receives forcible illustration in a letter from Mr. Edmund Owen which appears in the *St. Louis Medical Review* of March 3rd. He relates two cases in which he might possibly have been inclined to take advantage of the provisions of the Ohio Bill had it been in his power. One of these was diagnosed as a case of osteosarcoma starting from the sacro-iliac synchondrosis. The tumour was as hard as a board. “There was pressure on the bowel, on the upper sacral nerves, on the iliac vessels—on everything.” Mr. Owen's colleagues all agreed that the case was past all surgery. The man was therefore sent home to Cornwall to die. Several years later an old student turned up, who reported that the man was not only alive but had rowed him about off the Cornish coast all the holidays. It appeared that some weeks after he was discharged, an abscess formed in the loin, and an inch of wire of the gauge of an ordinary steel penholder came out, and the man got quite well. He had swallowed the piece of metal long before the tumour appeared and forgotten all about the accident. Another case was that of a lady with what was diagnosed to be cancer of the stomach. When the abdomen was opened, a mass “as hard as ever a cancer of the pylorus could be” was seen. An anterior gastro-enterostomy was done and a gloomy prognosis given to the husband. The patient, however, changed gradually from a great sufferer to a healthy woman, and a year after the operation she was the victor in a tennis tournament. Mr. Owen feels sure that there must have been a mistake in the diagnosis which he “with three other reputable and regular practising physicians of the community,” made after much “careful personal examination.” Mr. Owen's experience of the fallibility of the most skilled diagnosis could doubtless be paralleled by that of many other physicians and surgeons. Until science can pronounce a sufferer's doom with absolute certainty, “euthanasia” must always involve a serious risk of murder.

THE SENSATION OF DEATH.

Preaching at St. Pancras Parish Church recently, the Bishop of London—who had undergone a slight operation two or three days before—told his hearers how he thought it must feel to die. His lordship said: “At an operation, when you receive whatever it is that makes you for the time being insensible, you seem to be carried for the moment out of the body—the body is for the time dead. Your spirit, your mind, is perfectly active. I daresay it is the experience of many others that you seem to be swept swiftly under the stars towards your God. When you are out of the body, or seem to be, if only for a few moments, you realize what death will be.” The Bishop's experience is interesting, but we do not think that it affords ground for an accurate forecast of the sensation of dying, nor does it throw much light on the psychology of the anaesthetic state. Many ingenious speculations have been framed on this subject, but the fact is that little or nothing is known about it. Before consciousness is utterly abolished one man sings, another swears, a third confesses his sins. The dreams of women under anaesthesia lightly turn, as is well known, to thoughts of love. Some men, like the Bishop, feel that their spirit, freed for the moment from the fetters of the flesh, is wonderfully active. Oliver Wendell Holmes believed that ether had opened to him the gate to the innermost sanctuary of truth and enabled him to read the riddle of the universe. Like Hamlet he said to himself, “Quick, my tablets: let me write it down!” Alas! on recovering his senses he found that the illuminating revelation was that “a strong smell of turpentine pervades the whole”! As regards the sensation of dying, there is a preliminary question to be answered: “Is there any sensation at all?” Fanciful persons speak as if the soul violently wrenched itself asunder from the body. Those, however, who have stood by many deathbeds know that most people pass into the silent land as peacefully as if they were going to sleep. Even when great pain has been suffered in the last struggle for life, when Death finally claims his victim for his own, he mercifully lulls him into insensibility or indifference. Whatever fear of the unknown there may previously have been seems to pass away with the ebbing tide of life.

SNAKE-POISON ANTIVENENES.

The *Revista Medica de S. Paulo* (January, 1906) publishes the result of a commission composed of Drs. Palacios, Meyer Flegel, and Elias Rodriguez to report on the therapeutic value of the antiophidic serum of Dr. Vital Brasil, and its comparison with the antivenene of Dr Calmette of the Lille Pasteur Institute. Dr. Brasil, in his work *Do Envenenamento Ophidico*, claimed that the latter preparation was useless against the bites of the Crotalidae, and the investigations seem to bear out this contention. Most of Calmette's experiments were made with snakes belonging to the group of the proteroglyphs, like *Naja tripudians* (cobra), and *Naja haje*, and this is of importance, since it is a known fact that the venom of different species has no one peculiar principle in common. Thus Dr. Oppenheimer recognizes four principles in the poison of different snakes, these being: (1) haemorrhagin (principally in crotalus), (2) haemoaglutinin, easily destroyed by a temperature of 170°, (3) haemolysin, and (4) neurotoxin. Nos. 2 and 3 attack the red blood corpuscles; No. 1 the endothelium of the walls of the blood-vessels; and No. 4 the cells of the central nervous system. The factors of rattlesnake venom, which is principally employed in Dr. Brasil's serum, are chiefly haemorrhagin and small quantities of neurotoxin. Both this and the venom employed by Calmette have haemolysins which are peculiar to them, and MacFarland showed that the antivenene of the cobra contains an antitoxin for the neurotoxins of other snakes of this genus, and also antitoxins against the haemolysins, but it fails completely to have any effect on the haemorrhagins of the Crotalidae. The experiments of the Caracas committee to which we now refer were carried out with venom from *Crotalus durissus*, and it was found that three-tenths of a milligram was a fatal dose for a guinea-pig. Two were accordingly taken and injected with half a milligram of the venom, one having previously received an injection of 5 c.cm. of Dr. Calmette's serum, and the other the same amount of Dr. Brasil's. The first died n six hours, but the latter showed no ill-effects. These experiments were repeated three times with more or ess identical results, and from them and others it was oncluded that Dr. Calmette's serum was powerless gainst crotalus venom. Dr. Brasil's antivenene, made rom *Crotalus horridus*, is, nowever, quite efficacious gainst the bite of *Crotalus durissus*. With regard to its uggested effect on the venom of *Bothrops*, which has a ore phlogogenic and haemorrhagic action than that f crotalus, the experimenters are not very hopeful.

MEDICAL ARRANGEMENTS OF THE JAPANESE ARMY.

HE *Journal of the R.A.M.C.* for March contained a escription of the medical system employed by the panese army, the perusal of which may be strongly mmended to all interested in such subjects. The ticle tends to suggest that opinions formed as e result of former reports on this subject should t be hastily pressed into action until more idence of an exact nature is forthcoming. Atten n is particularly attracted to certain remarkable fferences between the Japanese medical system and r own. The first point is the relegation of much the work now carried out by medical officers in our n army to officers of the train, who are combatant icers. Thus, between the fighting units and the field spitals are "bearer battalions," each commanded "by major of infantry or train." The sick and wounded nsport department is similarly commanded, and so the medical and surgical reserve dépôts. As Colonel cpherson tells us that the large mass of casualties s dealt with rapidly and without confusion from inning to end, it is only fair to conclude that this tem of relegating medical officers to purely profes nal work has suited the Japanese character. Dual trol of medical *personnel* has long since been aban ed by us. In view of the admirable results achieved he late war, the question of supplying somewhat simi units for evacuation purposes deserves consideration. want of such units was badly felt in South Africa, it seems strange that no organization exists, so far as been made public, to supply the want. Another t is the value attached by the Japanese to their or grades. Though they do not give combatant s to their medical officers, they consider ers of the rank of Major (attained after en years' service) sufficiently trustworthy to commands such as field hospitals, usually allotted ieutenant-Colonels in our medical service. A third t is their economy of fighting material, the nursing hospital attendance being carried out in peace en y, and in war largely, by "a class of men who are of sufficient height, age, or physique for military vice." These men are not enlisted as soldiers. nother difference is that the line of communica hospitals are not definitely organized units, but are of the nature of our stationary than of our general tals, being built up as required from stationary hospitals with additional equipment and *personnel* eded; in fact, in much the same way as many of ospitals in South Africa were built up. Further, pecially-constructed hospital trains were employed. After this, one reads that the reserve hospitals, which were simply the peace garrison hospitals of Japan, had to be expanded, and that many of these garrison hospitals were expanded to accommodate 10,000 to 15,000 patients! It has been reported that the Japanese were content with 1 per cent. of sick; the actual return of sick of the Japanese army during the war will, perhaps, furnish some explanation of the necessity for this vast hospital accommodation. With regard to the sanitary duties of the medical service we learn that the Japanese embarked on their war with "no sanitary equipment "with units with the exception of supplies of quick-"lime and alum." It was only during the later part of the campaign that special water-sterilizing apparatus was issued to battalion units. The Japanese medical officers, like ours, are merely advisers on sanitary matters, and Colonel Macpherson's further observations on these points do not indicate that the Japanese possessed any more special arrangements for water analysis and scientific hygienic investigations than did our medical officers towards the close of the South African war. With the greatest interest, therefore, the medical world will await the statistical returns of the Japanese casualties during the war in Manchuria, in order to elucidate the cause of the reputed freedom from sickness of the Japanese armies. If the Japanese had no better sanitary machinery in the field than that possessed by ourselves, it becomes a matter of supreme practical importance, from both the humanitarian and the monetary standpoints, to know whether their alleged freedom from disease was due to disciplinary measures added to personal education among the fighting men, or whether it must be attributed to the immunity to enteric fever said to be acquired by Eastern races during childhood and youth.

THE UTILITY OF DISINFECTION.

The practical absurdity in which reasoning, of a logical though strictly limited logical character, sometimes lands the critic of sanitary administration could not be better illustrated than in an editorial article which appeared in *La Semaine Médicale* for February 14th, 1906. In this article it is contended that "the application of "measures of disinfection in Paris has not produced an "appreciable effect on the number of cases of scarlet "fever and diphtheria, which were in 1904 as numerous "as in 1895." Not only so, but "disinfection has not "prevented the morbidity from typhoid fever and small-"pox from very sensibly increasing." This is regarded as a "demonstration" of a great truth, and is used as an argument against the extension of compulsory notification to other diseases. The fallacy lies in the assumption that any one measure against infection can by itself be effectual in preventing its spread. To assume, for instance, that disinfection of scarlatinal sick rooms will effect an amount of good that will show itself in the statistics of a large community, while the patients themselves are not kept isolated at home or in hospital, as in the main is the state of matters in Paris, is to make an assumption contrary to all that we know as to the relative importance of direct personal infection and infection by fomites. The same remark applies to both diphtheria and small-pox. In the case of enteric fever, if, as is likely, a high proportion of the total cases is due to infection from drinking water, we are asked to believe that disinfection ought to have had an effect on the spread of typhoid fever which would make itself felt notwithstanding the continuance of the chief means of spread of the disease. Measures against the spread of infection must be based on knowledge of the natural history of each infectious disease, and the relative importance of measures of isolation, disinfection, and of indirect sanitary measures will vary with each disease. If, for instance, all of these three measures are being neglected in regard to a particular disease, it is hopeless to assess their relative importance apart from our previous medical knowledge. If two out of the three are being neglected, we are equally unable to determine exactly what share in the lack of success is borne by each of the two. This appears to be the case in Paris. There is vigorous disinfection in a certain proportion of the total number of cases. There is no compulsory isolation; there is no efficient machinery for the detection and isolation of slight contact cases. Under such circumstances it cannot be said that the strictures of the *Semaine Médicale* against disinfection possess either scientific or practical value. The case is not without practical bearing on the interpretation of English experience.

A CRUSADE FOR THE SALVATION OF MAN.

WE have to announce the appearance of a new saviour of society—the founder and general superintendent of a Society for the Prevention of Diseases in the Human Race. He calls himself "Professor Blitz," and, writing from Nice, he expresses his anxiety "to espouse" our "good sentiments of humanity to a crusade for the "salvation of man." Fourteen years ago, he tells us, he, "after more than twenty years of the most tedious "research work, found out the existence of the creative "power of the vital force." We seem to have heard of vital force at a still more remote period; but perhaps the Blitzian vital force is something different. Ten years ago, he says, he published for the first time his discovery in *The Cure of Tuberculosis*, a literary planet which we regret to say has never swum within our ken. He is apparently a Professor of "Biozymology," a science which teaches: "(1) That life is created "through the radiation of the vital force, which he "calls vital fermentation, and that disease is not "caused by microbes directly, but by autotoxines "which one always produces, if he is not living in "harmony to the laws of Nature, or through the inoculation of a virus or of a serum. (2) That microbes "possess two different princips, first the princip of "desintoxicating poisons, or the curatif princip, and "secondly the intoxicating or the destroying one. (3) "That if the inherited predisposition for disease of an "individual is so modified that his vital fermentation "is working in harmonious life, his blood is strongly "constituted, and the curatif princip of microbes increased to such an extend that all toxines in his "system are gradually annihilated, thus impossible to "maintain or engender disease." Professor—we had almost said, Prophet—Blitz proceeded to deliver himself in the following defiant if somewhat cryptic style: "For "praxis, this discovery has proven to be an infallible "boon to suffering humanity and have found every-"where the professionals, especially the followers of "serumtherapy, as Our deadly enemies Owing to "Our science being crowned with results which "destroyed their dogmes." Our discoverer, however, possessed his soul in patience till the Tuberculosis Congress in Paris, when he felt that "destiny has decided to break down Our enemies "and has bespirited the King of the serumtherapists, "Professor v. Behring, to publish the false statement that he has discovered the curatif princip in "microbes," which was, we are invited to believe, discovered and published ten years ago by Professor Blitz. There is really no excuse for Professor von Behring, because Professor Blitz "out of politeness sent to all the serumtherapists of mark a copy "of his work." The Marburg Professor is further taxed with having left a letter of protest on the subject unanswered, thereby avowing that he "has committed "a scientific swindle for the purpose of saving the "serumtherapy from the menacing Downbreake." "Professionals" with "dogmes" to push are so unscrupulous! "Would this controverse be a pe "sonal fight between the two professors," the meel Blitz would turn the other cheek, but it is a questio of what Mr. Chadband would call the "Terewth. "There exists a great danger for the entir "humanity, if We pass over this theft of a scienc "which in our estimation is a finger of God." It i argued that Blitz's discovery must be true, or Behrin would not have thought it worth stealing. Professo Blitz's psychological processes are a little obscur otherwise we should be inclined to think that the forc of this argument is somewhat lessened by his furthe contention that "this discovery would have bee "slandered in Behring's hands and humanity depriv "of a boon; therefore, for the profit of the sufferin "world and the saké that false scientific speculation b "rooted out entirely, We cannot do otherwise than t "force Behring to take his judgement from a court c "arbitration consisting of the principle heads of huma "intellect." Behring, in fact, is charged with havin stolen something that not enriches him and leaves Blit and the human race, poor indeed. It is probable tha Behring and Blitz would not agree in their selection the "heads of human intellect." It would be altogeth more satisfactory to Blitz if he were to choose his ow their verdict would enable his "vital fermentation to "work a harmonious life" to a greater "extend than before. If the matter were of any impo tance to "the salvation of man," we might inqui as to the constitution and membership of the Societ for the Prevention of the Diseases of the Human Ra Has the General Superintendent any one to supe intend? If he has but one English member, he migl with advantage be entrusted with the supervision of tl style of Blitz's English circulars. But your Almain h usually so good a conceit of himself in respect of h knowledge of tongues that he cannot be got to see th he needs any help. The danger of such over-confiden is well illustrated by the following story told in circular recently issued by a great London banki house. The Empress Maria Theresa's chaplain, wl was also Keeper of her Privy Purse (*Schatulle*) was se to France charged with a mission to Marie Antoinet Thinking it necessary to have special cards for the occ sion, he had them printed in French of his own man facture. On these he described himself as "L'Ab "Simon d'Eberlé, *Chatouilleur* de sa Majesté l'Impe "trice d'Autriche." *Traduttore traditore* is a true enou saying. But it is particularly true when the author his own translator.

THE WHITE MAN IN THE TROPICS.

AT the present moment, when the final repatriation the blacks from the Queensland plantations is imn nent, the discussion by a physician well acquaint with the country whether tropical Australia is or is suitable for a working white race is of special inter Dr. J. S. C. Elkington, Chief Health Officer of Tasman lately read a paper before the Royal Society of T mania on this subject, which, doubtless not solely fr scientific reasons, was ordered by the Australian Parl ment to be published, and we accordingly turned to with some curiosity to learn what the author has to s There is no lack of definiteness in his conclusions, whi are that, "given sufficient industrial attraction, po "lation will soon be forthcoming, and there is "reason why that population should not be a wh "one." This, no doubt, as far as it goes, is tr and would be admitted, probably, by most peo who are acquainted with Queensland, but it is har an answer to the question, "Is tropical Australia s "able for a working white race?" which most perso especially under present-day conditions, will und stand to mean, "Can ordinary hard physical work, s "as agriculture, mining, etc., be carried on with detriment to the health and constitution by white men in the northern portion of Australia?" Dr. Elkington lduces a vast amount of general evidence to show that e tropics are not so black as they are painted, and at the area included in the Northern Territory and orth Queensland is specially fortunate in having a od deal of plateau land at elevations of 1,500 ft. or ore. We may grant this without following him so far to say that "the tablelands of North Queensland afford for many months of the year as bracing an atmosphere as can be found anywhere in the world." e may grant also that malaria, dysentery, and other rmidable disorders have lost much of their terrors since have learnt how to combat them, but we must demur the inference which Dr. Elkington draws that there really nothing detrimental to the white constitution a tropical climate. Indeed, he would seem to imply at the latter is actually preferable to our temperate gions, since diphtheria, scarlet fever, and some other seases greatly prevalent with us are rare in the uatorial zone. The immense strides made of late in pical medicine and hygiene we should naturally be last to deny, and still less should we endeavour to nimize the extraordinarily promising outlook that is work seems to foreshadow. But that prolonged sidence in the tropics must always tell upon the ropean no one can doubt, and it is useless to deny it. r do we imagine for a moment that plantation work ll ever be possible in such regions without the aid of oured labour. Mauritius, Cuba, Ceylon, Borneo, all world of the tropics in short, are witnesses to the ntrary. It is not a question of politics, with which we ve nothing to do, but of medical geography.

HUMPTY DUMPTY.

ERE have been rumours for a long time past that was not well with Dowie of Zion City, and half-expected crash has now come. He has, in ort, been formally excommunicated by his disciples, l a new prophet appointed in his place. The l, however, is not yet, for nearly all the title deeds the rich properties in the City of Zion are in wie's own name. The match which set light to the in and led to the final explosion seems to have been elegram which Dowie, absent on business, sent from xico deposing his regent and a number of deacons. ree prominent officials thereon, we are told, held a ret meeting, at which they considered the situation h prayer and fasting, and then summoned a general eting. This resulted in a telegram being sent to the "ofit," informing him that he was deposed. This course ms to have been adopted unanimously, though dif- ent views were expressed as to why it was necessary. vie, in spite of the fact that it is a fundamental part his creed that all diseases are curable by prayer, is l to be suffering from paralysis, and some speakers he meeting, including his wife, put forward ill-health the ground for deposition. Others alleged "com- cial incompatibility" on his part, while yet a third ity stated that his revised creed propagated harmful immoral doctrines. The meeting, however, declined ccept ill-health as an excuse, and the main body ns to be moved by a belief that the "Prophet" is to be trusted financially. Dowie, who is a Scotsman, n in Edinburgh some fifty-nine years ago, com- ced his career in Australia, where he was pastor of Free Christian Tabernacle." He fell out with his porters, however, and finally migrated to the United es of America. The efforts which he made in on to win London and New York to his cause are iciently recent to be well remembered; they failed strously and even ludicrously, and never since has vie quite recovered his prestige. The heathen, in blindness, as we used to sing, bows down to wood and stone, and travellers have even informed us that when his wooden gods do not do what they ought to, the ignorant heathen sometimes beats their inanimate images. The treatment accorded to Dowie by his followers is even worse, for many Zionites, it is stated, are now expressing the opinion that he is not Elijah the Second after all. This is indeed unkind. The late Prophet's son and heir presumptive, Dr. Gladstone Dowie, is also entitled to sympathy, for it now appears more than probable that he will remain uncrowned as well as "unkissed."

INTERNATIONAL MEDICAL CONGRESS.

We have received from Dr. Miguel Bombarda, the General Secretary of the forthcoming Fifteenth International Medical Congress, the "definitive programme" of the public entertainments which are to be offered to the members. On April 19th the opening ceremony will take place at 2 p.m. in the premises of the Geographical Society. In the evening a reception will be held by the President of the Congress in the medical school. On April 20th, in the afternoon, Mr. Cook will give a garden party at Monserrate. On April 21st the King of Portugal will give a banquet to the delegates representing Governments. On April 22nd there will be a bull fight at Villa Franca; the journey there and back will be made by water. On April 23rd the Geographical Society will give a *soirée*. On April 24th the King will give a garden party at Necessidades. In the evening the Government will give a reception to the delegates representing Governments, medical schools and scientific societies. On April 26th the City of Lisbon will give a reception. All members of the Congress will be admitted to these entertainments, except the banquet given by the King and the reception by the Government. Many other festivities, excursions, and visits to public institutions are being arranged, but the programme is not yet finally settled. In addition to the British delegates named in the British Medical Journal of March 31st, we are requested to state that Deputy-Inspector-General A. J. J. Johnston, R.N., has been selected to represent the Admiralty at the Congress; and that Surgeon-General Sir Benjamin Franklin, K.C.B., I.M.S. (retired), and Surgeon-General A. M. Branfoot, M.B., C.I.E., President of the Medical Board, India Office, have been appointed delegates by the Indian Government.

THE OPIUM QUESTION IN THE PHILIPPINES.

The Commission appointed by the United States Government to examine and report on the question of the sale and control of opium in the Philippines has issued a preliminary report. We are indebted to the *Indian Medical Gazette* for the following summary of its conclusions, which are said to be supported by the Government at Washington. Prohibition may be either immediate or progressive. Immediate prohibition is likely to lead to much suffering among habitual users of opium. Where opium has been used, therefore, progressive prohibition is considered as the more reasonable method of procedure. This should be brought about by Government monopoly whereby the completest control possible under the circumstances may be attained. The revenue obtained from such monopoly should be regarded in such a way as to prove that the method aims solely at control and is not employed as a means of revenue. The definite recommendations are made that opium and the traffic therein be at once made a strict Government monopoly; that at the end of three years no opium shall be imported, bought, or introduced into the islands, except by the Government, and for medical purposes only; that the use of opium shall be prohibited to all inhabitants who are not males over twenty-one years of age; that males over twenty-one may be licensed to use the drug; that no one known to be an habitual user of opium shall be allowed to exercise the franchise, or hold Government office; and that punishment shall be meted out to those who violate the laws and regulations regarding the use of opium. All habitual users of opium desirous of being cured, shall be admitted to the hospitals free of charge if indigent. Public smoking places shall be prohibited, and finally the cultivation of the poppy for the purpose of producing opium shall be made illegal in the Philippine Islands. Looking at the spread of the cocaine habit in the cities of India and Burma within the last few years, the *Indian Medical Gazette* expresses the fear that if the American Government succeed in avoiding the Charybdis of opium, the Filipinos will fall into the Scylla of cocaine.

WARNING NOTICES.

Among the warning notices appearing in our advertisement columns (p. 59) is one from Cardiff with reference to certain industrial insurance societies. Particulars have already been given from time to time with regard to the methods of these collecting insurance societies. The list includes Northumberland and Durham, Sheffield, Leigh (Lancs.) Infirmary, Rusholme Dispensary, Coventry, Macclesfield, Aberaman, and Bridgend in Glamorganshire, Abertysswg, Blaenavon, and Ebbw Vale in Monmouthshire, Aberystwith, Bangor, Southampton, Bitterne, and the neighbourhood, Portsmouth, Lowestoft, Cork, Auckland (New Zealand), Orange River Colony, and Pretoria (South Africa).

Medical Notes in Parliament.

[From Our Lobby Correspondent.]

Vivisection.—It is understood that the Home Secretary has decided to appoint a Royal Commission to consider the whole subject of experiments on animals. This resolve on the part of the Government will of course prevent any hasty legislation being pressed through the House of Commons, and will ensure a thorough investigation of the whole subject, including the existing Act and its administration.

The Committee of Medical Members met on Tuesday last in one of the committee rooms of the House of Commons and discussed the Workmen's Compensation Bill, the Pharmacy and Poisons Bill, and other subjects likely to come before the House in connexion with notices of motion and private members' Bills. The Public Health Bill, giving security of tenure to medical officers of health, will be introduced shortly by Sir Francis Powell.

Cancer Research and the Post Office.—Sir Walter Foster called the attention of the Postmaster-General on Monday last to the vexatious restrictions of the Post Office as regards the transmission of pathological specimens and the serious interference therefrom with the work of the Imperial Cancer Research Fund. Mr. Sydney Buxton, in reply, stated that, with a view to the protection of the public and of Post Office servants, the regulations of the foreign and colonial post forbid the transmission of dangerous articles, and require their destruction if found in the post. Pathological products generally had been regarded as coming under this prohibition, since many of them were undoubtedly of a highly dangerous character, and it was difficult for postal servants to distinguish between those which were harmful and those which were innocuous. The cancer specimens addressed to the Cancer Research Fund were, he was informed on the highest authority, harmless, and, as he was assured that the use of the post was of great importance for the successful prosecution of the researches of the fund, he hoped to be able to make a special exception in their favour. He thought it desirable, however, that the matter should be discussed with the delegates of the countries principally concerned at the approaching Postal Congress, and he had instructed the British delegates accordingly. In the meantime packets addressed to the Cancer Research Fund would be delivered.

The Army Medical Establishment.—The vote for this service came on in Supply on Thursday last week. Mr. Burdett-Coutts opened the discussion, and spoke at some length on the conditions which prevailed during the South African war, and the reforms which had been effected since. He specially urged the creation of a civilian medical reserve which could be called upon in time of war. He based his recommendations on the splendid service rendered by the voluntary hospitals during the war, and contended that civilian medical units organized and trained, with full equipment ready to be supplied, should be instituted as a regular medical reserve. Mr. Haldane, in his reply, said that a start had already been made, and he recognized that the civilian doctor must go through a special training to be of use in time of war. They could not keep up in time of peace the great body of men necessary in war, and there must be some other way of getting them trained in time of peace so as to be ready. There was a sum of £4,500 in this vote for a reserve of civilian surgeons, and what they proposed was to take 450 young medical men who were willing to enter the new army medical reserve and train them. They would be subject to the rules that governed the employment of Reserve officers generally, and would have the rank of lieutenant on joining, with promotion to captain after three and a half years' satisfactory service. A practitioner joining the reserve would have to undergo a course of special training at the dépôt of the Royal Army Medical Corps at Aldershot. During this time he would receive the pay and allowances of an officer of his rank in the Royal Army Medical Corps. If this probationary period of service was satisfactory, he would be confirmed in his rank and receive, in his second and third years, a retaining fee of £20 a year. He must, of course, do something for that money, and he would be called upon to undergo another period of instruction preparatory to passing the examination which was necessary for promotion to the rank of captain. During this second course, the duration of which would be one month, he would be paid as before. After promotion to the rank of captain his retaining fee would be £25 a year. They proposed to limit the period of service in the reserve to seven years, by which time he would have learned enough to make him, with his civilian knowledge, able to take the field with the knowledge that was requisite in these matters. The reserve would primarily be composed of civilian surgeons, but they did not intend to exclude officers of the Auxiliary Forces and medical officers of the Volunteers, provided they were seconded in their Volunteer corps. These Reserve officers could resign their commissions under the usual conditions. They also hoped to get a certain number of reserve attendants in the same way, and to make this medical department of the army one which would turn out to be of great service in the future. The Committee would observe that they were increasing the vote for the medical service. If they were to make the army really efficient and really cheap they must get rid of the wastage as far as possible and the increasing cost which came to the State in enormous sums through not properly looking after the men. They had increased the vote for nurses in like manner. He felt that this matter was only in its infancy, but they were making a beginning. The strides that had been made in this department of the army were enormous. He did not think anybody who had not had his attention called to it could realize the immense changes that had been made for the better in the care of the sick in our army. They had got the whole matter on to something like scientific principles and they were reaching a stage at which, he thought, they would find that there really was a scientific system of looking after our soldiers. He was glad to think that, in the British army to-day, the same attention was being bestowed upon these matters as was given to them in the Japanese army during the late war and in Germany for a long time past, and the same anxiety was being displayed to improve the general condition of our men. Mr. Arnold-Forster said that a step had been made in the right direction by requiring something from the civilian surgeon in return for his fee. Had anything been done to utilize the militia as attendants? Mr. Haldane said a start had been made with 500 of these, and he acknowledged this idea to have originated with his predecessor in office. After speeches by Colonel Legge, Mr. Cox, and Colonel Lockwood, the debate closed with a statement by the Secretary of State that it was part of the regular training of the army surgeons to go through professional courses of study at ordinary hospitals. The fees were paid and the pay was not stopped. It was desired to keep the civilian and military courses of training as much in touch as possible.

The Volunteer Medical Service.—In answer to Mr. Remnant, Mr. Secretary Haldane stated, last week, that he whole question of the effective organization of the Volunteer Medical Service, with a view to rendering it efficient and bringing it as a whole in close connexion with the Army Medical Service, was under consideration, as well as the recognition of services of regimental Volunteer medical officers, as recommended by the Departmental Committee in 1886. The opinions of ndividual medical officers and associations were being collected on the subject.

Vaccination Officers and the Guardians.—On Monday Mr. Barker asked the President of the Local Government Board to consider the advisability of transferring the ontrol of the vaccination officers from the Poor-law Guardians to the Local Borough Councils. Mr. Runciman, n reply, said that the proposal in the question would eem to involve a transfer of vaccination duties generally rom Boards of Guardians to sanitary authorities. The uggestion that such a transfer should be made was considered by the Royal Commission on Vaccination, who eported that it raised very great difficulties—chiefly wing to the number of the sanitary authorities as compared with that of Boards of Guardians, and the difference f the areas for which they respectively acted. Upon the hole, the Commissioners came to the conclusion that it ould be impracticable to vest the sanitary and vaccination duties in all cases in a single local authority without complete recasting of our present areas of local administration. He was afraid he could not give any romise at present to give effect to the proposal of the uestioner.

Vaccination.—Mr. Arthur Black introduced last week a ill to amend the Vaccination Acts, by providing (1) that o officer should initiate proceedings under the Vaccination cts against any person until authorized to do so by a solution of the Board of Guardians, and (2) by directing at certificates of exemption should be granted on yment of 1s., and that the magistrates should not techize an applicant, but grant the certificate on oath ing taken of conscientious objection to vaccination.

Dispensary Doctors in Ireland.—In answer to inquiries Mr. Young as to the number of Irish dispensary ctors over 65 years of age and the number incapable from e and infirmity of discharging their duties, Mr. Bryce informed the House last week that the Local Government ard had no information as to the number of dispensary ctors in Ireland who were over the age of 65. In 1903 e Board ascertained that, out of a total of 810 medical icers, 77 had over thirty years' service, and it was ssible that a considerable proportion of these were vanced in years. The Board had no information as gards the second part of the question, but doubtless there re medical officers in the service who would retire if they re entitled to a superannuation allowance. With reference to the Tullyvin dispensary district, Mr. Bryce said that a proposal was made to superannuate the medical officer, and the Local Government Board had asked the guardians to consider whether the medical officership could not be abolished without inconvenience to the sick poor, and the dispensary districts rearranged. The medical officer, however, had not resigned, and the proposal, therefore, had not been considered.

The Treatment of Sick Prisoners.—Mr. Barker called the attention of the Home Secretary, last week, to the case of a prisoner who died in Coxheath Workhouse two days after being admitted from Maidstone Prison, where he had contracted bedsores and paralysis, as well as verminous disease. Mr. Secretary Gladstone replied that the Prison Commissioners had already made inquiry into this case, and they reported to him that there was carelessness on the part of the prison officers in not sooner discovering the presence of vermin in the prisoner's hair, and in not reporting its condition to the medical officer of the infirmary to which the prisoner was removed on discharge from gaol. The Commissioners informed him that they were making further inquiry into this point. Apart from this, all proper care was taken of the man; he was attended day and night, and the medical officer visited him daily.

The Mortality in Prisons in England and India.—In answer to questions put by Sir Henry Cotton, some interesting figures were given last week. From them it appears that between 1896 and 1905 the deaths per 1,000 in local prisons in England and Wales were highest in 1902, when a death-rate of 8.2 was reached; and lowest in 1904 and 1905, when the rate was 5.3. In convict prisons, the highest rate was 11.8 in 1900, and the lowest 3.9 in 1904. In India, from 1895 to 1904, the death-rate was highest in 1897, when it reached 39.6, and lowest in 1904, when it was 17.7 per 1,000. The cases of corporal punishment averaged in English local prisons just over 43 per year, and in convict prisons just under 14, while in India the total number of corporal punishments in gaols averaged 1,471 per year.

Anthrax at Bradford.—Mr. Jowett called the attention of the Home Secretary last week to the two recent deaths from anthrax at Bradford, and to others which had occurred among Messrs. Campbell and Harrison's workpeople. Mr. Secretary Gladstone stated that he had had reports in the two cases referred to. In regard to one of these the jury expressed the opinion that sufficient care had not been taken to extract the dust from the wool, but in the other case they considered that every possible precaution seemed to have been taken for the protection of the workpeople. It was the fact that during the last two years a number of cases of anthrax had occurred at this firm's works, 16 in all, of which 8 proved fatal; and he should be happy to furnish the honourable member with a list of them if he desired to have it. In the majority of the cases the wool used was of Persian origin, but, as the firm did not purchase wool but combed it on commission for other firms, it had not been possible to ascertain the price paid. He might add that, in compliance with the new regulations a number of structural improvements had been carried out by the firm, as well as several suggestions on points outside the regulations which had been made by the inspector, and a doctor had been engaged at the company's expense to visit and treat any person in their employ who reported illness from any cause. Special attention would continue to be given to these works, especially in connexion with the process of sorting.

The Prevention of Corruption Bill came up for second reading in the Commons on Tuesday last. Its rejection was moved by Mr. Dickinson, and formally seconded by Mr. Hay, but the general sense of the House was in favour of the Bill. In the course of the debate Mr. Vivian trotted out the old story of doctors taking commissions from undertakers, but the statement was not taken seriously, and in spite of a strong protest from Mr. Lupton the Bill was read a second time without a division, and referred to the Standing Committee on Trade.

Liverpool.

The Consumption Hospital and Kingswood Sanatorium.

The annual meeting in connexion with the Consumption Hospital and the associated Kingswood Sanatorium took place in the Town Hall on March 21st. The report for 1905 (the forty-second) showed that there was a debit balance of over £1.200, but all the accounts for the rebuilding of the hospital had been liquidated. The cost of maintenance exceeded the revenue. Further experience of the new buildings in Mount Pleasant had decided the question of their suitability for the work of the hospital. The number of indoor patients for 1905 was 174, and of out-patients 1,910. The committee had inaugurated a system whereby the names and addresses of certain patients were furnished to the medical officer of health at the discretion of the honorary staff. Dr. Hope had kindly proposed to instruct the inspectors to undertake surveillance of such cases. By this means it was hoped that the risk of infection in the homes of the people would be reduced. The proved usefulness of the sanatorium was capable of being largely increased if patients would seek its treatment in the earlier stages. The committee had not ceased to emphasize this from year to year, and did so again in the hope that relatives and physicians might join them in an effort to secure these ends.

The Resident Medical Officer of the Kingswood Sanatorium reported that 183 patients were under treatment in the institution during the year, and that 146 had left. The results had been good. During the few months that most of them were able to stay, health and strength were gained in a surprising degree. Patients left the sanatorium impressed with the absolute necessity of living a quiet, healthy life, and this education proved of the utmost value. He had proof of this in the numerous encouraging letters sent him from old patients in all parts of the world who were now well. Nearly 100 per cent. of quite early cases were restored to complete, or almost complete, health; and of those in the second stage, a large proportion were very greatly improved.

The Lord Mayor said that Liverpool was the first city to undertake the building of a sanatorium. Sir William Broadbent had singled out Liverpool and Manchester for the praise for the energetic measures taken for preventing consumption. He hoped the municipality would some day take practical steps to stop the spread of consumption.

The Ladies' Charity and Lying-in Hospital.

The annual meeting of this institution was held in the Town Hall on March 27th. The number of patients attended in the out-patient department was 1,847, against 1,900 in the previous year. The services of the district medical officers were called for in 135 cases, either for mother or infant. The number of patients attended in the hospital was 322, against 281 in the previous year. Eleven were single girls (first cases) admitted by the Ladies' Subcommittee after investigation had shown them to be deserving of consideration. In the school of midwifery 63 pupils were trained during the year, and 21 medical students had taken their midwifery practice in accordance with arrangements with the Liverpool University. This showed a considerable increase. There were 11 deaths among the 322 patients in the hospital. The expenditure was £4,551.

St. Helen's Corporation and Consumptive Patients.

At a recent meeting of the St. Helen's Health Committee a lengthy report was submitted by Dr. Buchan, the medical officer, on the inquiries he had made as to how the isolation of consumptive patients was carried out in other towns. The report arose from a resolution of the committee at a former meeting that consumptive patients should be isolated in the vacant wards of the fever hospital. After some discussion a resolution was adopted empowering the medical officer to admit cases of consumption to the fever hospital on the same lines as fever patients. All cases are to be considered every month, to decide whether they should be retained or discharged.

The Warrington Infirmary: Proposed Enlargement.

The statement of accounts presented to the annual meeting of the Warrington Infirmary and Dispensary showed that the ordinary income for 1905 had been £3,134, which was a few pounds less than last year. The Committee regretted the decrease in the collections from the churches, but chronicled an increase from the Workingmen's Committee, due chiefly to the larger number of systematic collections from the works. For some time past it has been felt that an extension of the infirmary was called for by the increase of the population of the town and district, and by the constantly-growing number of applicants for treatment in the institution. Plans have been prepared for the erection of a new pavilion with three floors, to accommodate sixty-six extra beds. It is also proposed to erect a home for the nursing staff on ground adjoining the present buildings. It is estimated that the cost will be from £10,000 to £12,000.

South Wales.

Aberystwith Guardians.

Mr. Bircham, Local Government Board Inspector, attended the meeting of the Aberystwith Guardians and told their members that the case of Dr. Bonsall had been before the head of the Local Government Board department, and the decision of that Board was that they could not call upon Dr. Bonsall to resign the other appointments held by him, and the instructions of the Local Government Board to him was to inform the guardians that they should either reappoint Dr. Bonsall at an increased salary or advertise the appointment. It will be remembered that Dr. Bonsall resigned when the guardians declined to increase his salary from £30, which included the cost of medicine. Mr. Joseph Parry now moved, and Mr. W. Morris seconded, that they advance Dr. Bonsall's salary by £10; this was defeated by 20 votes to 11, and the guardians passed resolutions in favour of the three appointments of Dr. Bonsall being merged into one office, and that Dr. Bonsall be called upon to resign, and that an appeal be made to the Local Government Board on these grounds. Later, Mr. Bircham recommended the Board to study the report of the Vagrancy Commission recently issued. The Local Government Board wanted to know the feeling of the country. A member said: "What is the use of that if they don't let us have our ways?" Mr. Bircham: That depends if your ways are the right ways.

New Mortuary at Newport.

Newport claims to have the finest mortuary in South Wales. Altogether the building, including the yard space, measures 45 ft. by 42 ft. On one side of the yard is situated the mortuary proper, containing viewing room, the catacombs, and a special clothes department. The catacombs are six in number, and are so constructed as to render the passage of air from one to another impossible. Each catacomb has a patent ventilator, and these are connected in the roof by one of Webb's patent sewer gas extractor and destructor lamps, an apparatus which renders the outlet of bacilli and nauseous organic matter impossible, as they are cremated into CO_2 and watery vapour. On the other side of the yard is situated the *post-mortem* room, which is also fitted up-to-date. The main feature of this apartment is a Doulton table of white vitreous enamel set on a cast-iron pedestal. Included also in this part of the building is a medical officer's room, an ingeniously-constructed instantaneous gas heater, and other conveniences. The whole building, which cost £800, both as regards conception and construction, reflects the greatest credit on all concerned, and the Newport Corporation is to be congratulated on its enterprise. Mr. Lyndon Moore, the borough coroner, who recently inspected the building, expressed himself highly satisfied with all the arrangements.

New Hospital for Barry.

Dr. George Neale, J.P., presided at a meeting of the Barry Accident Hospital Committee held on March 28th. The estimates were approved, the chairman stating that the institution cost the ratepayers only £400 a year. Sketch plans were produced for the proposed new hospital buildings on land near Wyndham Street, providing accommodation for ten beds. A subcommittee was appointed to revise the plans and report; the tenancy of the present buildings will be continued for two years.

University College, Aberystwith.

The Law Department of the University College, erystwith, has received a grant of £250 from the orporated Law Society on account of lectures on glish law delivered at Swansea and other work of the ne nature. This makes a total of £350 received during present year from the same source. The grant was de in response to a joint petition sent up by the ansea and Chester Law Societies, and it is expected t it will be an annual one.

Eyesight of School Children.

At a meeting of the Pontypridd Education Committee d on March 29th, the Secretary reported that he had t out 210 letters to parents of children with defective sight, suggesting that the scholars should undergo an mination by the expert appointed by the Committee. plies had been received from 102 parents, a number eeing to the proposal and to pay a fee of 7s. The con- eration of the question was adjourned until further lies were received.

The Eyton Williams Bequest.

The six months' grace given to the University College Wales, Aberystwith, and the North Wales University lege, Bangor, in which to accept the £20,000 left by Eyton Williams, of Chester, is rapidly expiring and ther has yet asked for the £10,000 each to be paid over the trustees. Mr. Eyton Williams imposed a religious that every winner of a scholarship under his bequest st believe in the Deity and accept the tenets and prin- es of the Protestant Church. Hence the difficulty ch both institutions experience in claiming the efactions.

Cardiff Infirmary.

t a meeting of the Governors of the Cardiff Infirmary l on March 28th, Dr. Cyril Lewis was appointed istant Physician in succession to Dr. D. R. Paterson, has been appointed head of the nose, ear, and throat artment. Dr. Cyril Lewis has been anaesthetist to the rmary during the past four and a half years, and this is now vacant.

Newcastle-upon-Tyne.

orthumberland and Durham Medical Society.

Address and Banquet to Professor D. J. Hamilton.

session of the Northumberland and Durham Medical ety was brought to a successful close on March 23rd a lecture delivered in the University of Durham ege of Medicine by Professor D. J. Hamilton, of rdeen, on The Alimentary Canal as a Source of tagion. The Medicine theatre of the College was d to overflowing.

ofessor Hamilton, who was briefly introduced by the ident of the Society, Dr. I. G. Modlin, said that he chosen rather an unusual subject for his lecture, e it concerned diseases affecting sheep, and vn by the names of "louping ill" and "braxy." these might be added a third, chorea paralytica. he lecturer proceeded the value of the study of parative pathology became more and more apparent. uping ill" and "braxy" had become veritable scourges neep farmers both at home and abroad. For much he knew of these maladies Professor Hamilton stated as indebted to the Duke of Northumberland, who had d Keilder Castle at his disposal and the huge ches of moorland in its neighbourhood. The lecturer attention to the almost complete absence of microbes l kinds from the alimentary canal of sheep as compared other animals. In pursuing his investigations into ping ill" little assistance was at first obtained from *mortem* examinations, for every organ examined ed to be perfectly healthy, and neither in the blood, leural, pericardial, peritoneal, or cerebro-spinal fluids it possible by microscopical examination or bacterio- al cultures to detect anything abnormal. Later on, st by accident he found in the body of a lamb a small tity of turbid peritoneal fluid swarming with bacilli unlike those of tetanus. Myriads of the same bacilli found in the intestinal canal. Here, then, lay the e of the disease, an anaërobe in the intestine. It ared that at certain periods of the year the sheep was immune to the micro-organism. This fact raised the question whether in man some trace of a similar tendency to infectious disease only at particular periods of the year did not also exist. The large audience followed the lecturer with rapt attention, and thoroughly appreciated his extremely able and suggestive address. On the motion of Dr. G. H. Hume, seconded by Professor Oliver, a hearty vote of thanks was awarded to Professor Hamilton.

In the evening Professor Hamilton was entertained to dinner by the members of the Society. The President (Dr. Modlin) was supported by the guest of the evening, Dr. Drummond, Professor Oliver, Dr. James Adamson, Dr. Black (Harrogate), Dr. T. Wilson, and others. Fifty-three gentlemen sat down to dinner, and a most enjoyable evening was spent, thanks to the excellent arrangements made by the Honorary Secretaries, Dr. R. A. Bolan and Mr. H. B. Angus.

Secret Treatment of Alcoholism.

At a public meeting recently held in Newcastle-upon-Tyne, the Mayor in the chair, an address was given by the Reverend Hugh B. Chapman, Secretary of the Normyl Treatment Association for the Cure of Alcoholism. Before becoming connected with the society Mr. Chapman stated that he had tested the efficacy of the treatment of 230 patients who had submitted to it; 220 had been cured. On the list of officers of the association several names of important personages appeared. In nine months following the foundation of the society 1,375 patients had been treated, with only 88 failures. The secretary maintained that the association received no pecuniary benefit from the sale of the medicine, and that the treatment consisted in taking 24 bottles of medicine in twenty-four days. one dose every hour. By the fifth day all craving for alcohol was said to disappear. Several medical men in the audience subsequently addressed the meeting, and expressed themselves sceptical as to the benefits likely to be derived from the Normyl treatment, which they maintained was kept a secret for purely proprietary purposes. Most of the doctors present doubted the curability of confirmed drunkenness, and while one medical man recommended imprisonment and total seclusion for a year he questioned the cure of the patient even after that deprivation. The treatment of the drunkard is one of those vexed social problems which all would gladly see solved if possible; the only question is how, by what means, and by whom?

Expected Visit of the King.

No information is yet to hand as to the date of the expected visit of the King, although June and September are the months spoken of. The Armstrong College is now completed, and quite ready to be opened. From the new roadway in front of the building the handsome proportions of the College can be appreciated. The Royal Victoria Infirmary, in close proximity, is being rapidly pushed forward, in the hope that it may share in the Royal favour.

Ireland.

The Lord Lieutenant in Belfast.

Lord Aberdeen and the Countess of Aberdeen paid a short State visit to Belfast on March 27th. A large number of deputations presented addresses, including the Ulster Medical Association. Among the representatives were the Chairman of the Medical Staff of the Royal Victoria Hospital, Dr. J. Walton Browne, and the Honorary Secretary, Dr. H. L. McKisack.

Royal Victoria Hospital, Belfast.

The annual meeting of this institution took place in the large out-patient department of the hospital on March 28th. Mr. R. H. Reade, D.L., presided. The financial statement showed that the revenue from all sources amounted to £15,237, and the total disbursement to £15,095. The medical and surgical report was read by Dr. McKisack, Honorary Secretary of the Staff; 1,033 medical and 1,805 surgical new cases were admitted to the wards during the year; there were 1,117 medical operations; 176 deaths occurred, including 62 cases admitted in a moribund condition; 50 deaths occurred after operation, being a mortality of 4.4 per cent.; the mortality, excluding the moribund cases, was 5.3 per cent. in the medical wards and 2.8 in the surgical. In the out-patient department, 25,967 new cases were treated. Dr. McKisack referred to the insufficiency of accommodation that still existed, and urged the opening of six new wards. The Chairman, in proposing the adoption of the report, said that three years ago, on the opening of the new institution, serious misgivings were entertained by many friends of the hospital which might be grouped under three heads: First, the fear that the arrangements of the wards might not be satisfactory; secondly, that the Plenum system of heating and ventilation might not prove efficient; and thirdly, that the hospital, with its larger equipment, might not obtain sufficient revenue. The practical experience of three years' working afforded an answer to all these fears. Last year a new unit was opened, and still there was a credit balance; the ventilation and heating were all that could be desired, and the time patients were retained in the hospital was reduced by one and a half days; the arrangement of the wards was a great help to the general administration of the hospital.

THE IRISH UNIVERSITY QUESTION.

The *Irish Times* discusses a letter from Mr. T. W. Russell, M.P., who expresses surprise that no steps have been taken to settle the university question on the lines of the Royal Commission report, and refers to a speech by Archbishop Walsh in which he said—

> For my part, as I have been saying for the last twenty years, I, for one, will never acquiesce in any settlement of the Irish university question that does not take for its starting point the establishment in Dublin of a great central university college, a college constructed on lines acceptable to the Catholic people of this Catholic country, set up with every possible provision that can be made to secure the efficiency of its teaching, and in the dignity of its buildings, in the emoluments of its teachers, in the adequateness of its equipment, and in every other advantage with which it is within the power of the State to endow it, placed in such a position that it will no longer be open to the Catholics of Dublin and of Ireland to point to Trinity College as a standing monument of the favour ever shown by English statesmen to the Protestant minority, as distinct from the vast Catholic majority, of the people of Ireland.

The editor observes, however:

> We greatly fear that we must take it that the Archbishop is not prepared to accept a solution which appeals on many grounds to large numbers of thoughtful Irishmen. "A great central university college" is indeed a term which might possibly cover the development of Trinity College into the one great national College in a great national University; but in view of the usual nicety of Dr. Walsh's phraseology we can hardly hope that his words were not intended to exclude this solution. If our fear be justified, we believe that the Archbishop's attitude will be deeply regretted, not only by many friends of Trinity College but by many Irish Roman Catholics. We admit that the difficulties in the way of making Trinity College acceptable to the Roman Catholic Bishops are many and grave; but we cannot believe that they ought to be insuperable. We are confident that many obstacles are likely to be removed as a result of the report of Mr. Bryce's forthcoming Commission, and it is certainly too soon to despair of finding a solution for some of the more serious difficulties which involve questions not merely of government but of religion. Mr. Culverwell's recent letter showed that he, at least, is prepared to accept the establishment of Roman Catholic chairs of History and Philosophy in Trinity College.

The *Irish Times* says that the establishment of a second college in Dublin University is advocated by many Irishmen. It seems to it a solution infinitely preferable to the establishment of a new University. Archbishop Walsh's statement does not exclude this method of settlement, and the journal hopes that, if it be found impossible to attract the Roman Catholic youth of Ireland to Trinity College, Dr. Walsh's powerful influence will not be employed to keep them out of the University of Dublin.

LIMERICK DISPENSARY DOCTORS' SALARIES.

The Board of Guardians of Limerick Union have rescinded the resolution which granted increases of salary to their dispensary doctors. A special meeting was called, and the resolution was carried owing to the silence of several guardians who had supported the original motion. An indignation meeting has been held by the ratepayers, who have petitioned the Local Government Board, asking for an inquiry before sanction is given to the proposed changes. It was stated that the increases amounted to £1,100 to £1,200 a year, and that the present depression in trade made the proposal inopportune.

THE CASE OF TUGHAN V. DARNELL.

A combined meeting of the Ulster Branch of the Briti Medical Association and the Ulster Medical Society w held in the Medical Institute, Belfast, on March 29 (1) to discuss what action, if any, should be taken wi regard to the legal aspects of the decision in the rece action Tughan *v.* Darnell; (2) to consider the advisabili of raising a fund to assist Dr. Darnell in defraying t expenses of the case. Dr. William Calwell, President the Ulster Medical Society, occupied the chair; Drs. Ce Shaw and Houston acted as Secretaries. There was a lar attendance, and apologies were received from Dr. Ki Enniskillen, President of the Ulster Branch, and ma others. The Chairman said the first thought that enter their minds was one of strong personal sympathy wi Dr. Darnell; few could realize the trouble, the anxiety, t worry that Dr. Darnell must have endured during the l two years with its five different trials. The facts were fresh in their minds, and it now lay with them to deci what was to be done. Mr. Kirk explained that a list questions had been drawn up with regard to the prese position of the profession under the ruling of the judge this last trial. These were read and further amend It was decided to refer the matter to the councils of bo societies, with the recommendation that the list be p before counsel, and that the societies pay the expenses the proceeding. Subsequently, after considerable deba in which many joined, it was considered best to postpo any further action till the opinion of both the societi counsel and of Dr. Darnell's counsel had been receive and to defer opening a list of subscriptions. Some of t legal aspects of this case are further discussed at p. 815.

THE DUBLIN ORTHOPAEDIC HOSPITAL.

The Lord Chancellor of Ireland presided over t annual meeting of the friends of the Orthopaedic Hospi at Dublin on March 21st. The report showed th 135 patients were admitted, of whom 75 were cur 2 improved, and 3 died. The speakers included t Chairman, Mr. Wynne, Mr. Dennehy, Dr. Stevens Mr. Coffey, Mr. Mooney, and Mrs. Meade, T.C.

CHILDREN'S HOSPITAL, DUBLIN.

The friends of the Children's Hospital, Temple Stre Dublin, met on March 23rd under the presidency of t Very Rev. Dr. Donnelly, Bishop of Canea. The rep stated that 913 cases were treated in the wards. T importance of increased support was urged by Mr. P. O'Neill, Mr. O. Shaughnessy, Recorder of Dublin, M MacNeill, Dr. M. F. Cox, and Dr. Mooney. La MacDonnell was moved to the second chair. A vote thanks to Bishop Donnelly and to Lady MacDonnell w moved by Dr. J. H. Davys and seconded by Mr. MacArdle, and cordially adopted.

MONKSTOWN HOSPITAL, CO. DUBLIN.

At the annual meeting of the Monkstown (Dubl Hospital on March 23rd, His Grace the Archbishop Dublin (Dr. Peacock) presided. The report stated th 230 patients were admitted and 2,000 were treated at t dispensary. The mortality-rate was a little over 2 cent. There was a debit balance of £89 and a furtl debt of £135. The Archbishop, Rev. Stuart Gardin Mr. G. B. Pilkington, Sir Maurice Dockrell, Mr. R. White, Mr. Galloway, Mr. Barren and others addressed t meeting.

Scotland.

HOME FOR FEEBLE-MINDED CHILDREN.

AN association for the care of defective and feeble-mind children has been started in Glasgow. Its inception due to the interest created in the subject through a lect delivered by Miss Helen Dendy of Manchester. T School Boards of Glasgow and Govan are represented the committee of management, and the association been fortunate in securing as their first president Yellowlees. The association has acquired a house wit large garden at Kirkintilloch, which will be opened in course of the next few weeks as a home for defecti minded girls who are over the school age. There is ev reason to suppose that this home for defective-mind children will be successful. Meantime it is the o

stitution of its kind in Scotland. The beginning is to be
quite a small scale; it is proposed to start with ten or
elve girls, but the premises are suitable for accommo-
ting a much larger number. The Association is sup-
rted by voluntary subscriptions. It is proposed to
dertake simple industrial work, as laundry work, and it
hoped that the girls will then be able in some measure
contribute towards their maintenance.

SIR HENRY LITTLEJOHN.

On the occasion of the retirement of Sir Henry
ttlejohn from the Chair of Forensic Medicine in the
iversity of Edinburgh a number of friends and former
pils have decided to present him with his portrait by
eminent artist. An executive committee has been
med consisting of Principal Sir William Turner, Lord
rmonth Darling, the Presidents of the two Royal
lleges, Dr. Joseph Bell, Dr. John Smith, and Dr. G. A.
bson, with Dr. Francis D. Boyd as Secretary. It is ex-
ted that a large number of former pupils both in
dicine and in Law will avail themselves of this oppor-
ity to express their appreciation of Sir Henry's brilliant
vice as a teacher in the Edinburgh School.

ROYAL EDINBURGH HOSPITAL FOR INCURABLES.

Opening of the Liberton Cottage Hospital.

he new Cottage Hospital at Liberton, erected as an
unct to the Royal Edinburgh Hospital for Incurables,
formally opened on March 19th by the Earl of
keith, one of the Vice-Presidents of the hospital.

he Longmore Hospital was originally opened on
ruary 15th, 1875, in an altered and enlarged dwelling-
ise, and had 22 beds. In 1880 this had become too
ll. A new hospital was erected for 50 beds, and was
ned in 1883. In 1886 two adjacent houses were taken
giving 14 more beds. In a few years the annexe was
its turn pulled down, and a large wing erected on its
, which, in addition to affording 36 additional beds
in all), also enabled the managers to improve the
itary arrangements of the hospital. A children's
d of 10 cots was now a feature of the institution. In
the west wing for tuberculosis and cancer was
ted. This raised the total number of beds to 150.
some years it has been apparent that further exten-
was necessary, and that it would be of great
ntage to have a separate building outside the city,
h would both relieve the pressure at head quarters
permit of transferences of patients when that seemed
rable. Three years ago the late Miss Brown, of
ine, left £20,000, of which £6,000 was to be employed
uilding and equipping a cottage home for incurables
ring from consumption. It seemed that instead of
ding a separate cottage out of the bequest money, and
her or others out of such funds as might be avail-
, it would be better to construct one continuous build-
on the cottage plan. By this means great economies
d be effected in construction and in subsequent
inistration. The portions set apart for consumption
o be known as the "Brown of Lanfine Wards," are
tructed according to the most modern ideas of what
wards should be, and contain 14 adult beds and
ts. In addition, there are four private wards and
public wards, containing in all 26 beds for
ns suffering from other forms of disease. The
e area of the hospital grounds is almost 4 acres.
e is ample recreation space available for those
nts who may be able to take advantage of it, and
sion has also been made for sheltered resting
s well exposed to the sun. The central portion
e building contains the administration departments
wo floors, the ground floor having the nurses' and
nts' dining rooms, the hospital kitchen, business and
al officers' rooms, while on the flat above are rooms
e nursing and serving staff. The ward accommoda-
s provided in two wings, running east and west, one
ch side of the central block, each wing containing
sumption ward of 7 beds and 2 cots, a private ward
eds, a private ward of 1 bed, and a general ward of
ds. All the wards face south, and there is ample
sion for ventilation and heating. There are French
ows opening outwards, and the electric light has been
led. Behind the wards, and running the entire
of the building, a hundred yards long, is a marble-
corridor. The partition between it and the wards is glazed from the roof downwards for a space of about 4 ft. In each ward a number of fanlights give communication between the atmosphere of the corridors and the wards, and the corridor itself has numerous windows. The heating is partly by fires in the wards, but mainly from a large number of hot water radiators in the corridor. The consumption wards are long, airy, and well lighted, and each is provided with five window embrasures, each wide enough to permit of a bed being placed lengthwise in it. The walls from floor to ceiling are covered with white glazed tiles. The floors and other woodwork of the wards are of teak.

Cape Colony.

STATISTICS OF INSANITY.

DR. T. GREENLEES, Medical Superintendent of Grahamstown Asylum, Cape Colony, last year read a paper before the local Branch of the British Medical Association, in which he stated his conviction that insanity was steadily on the increase in the colony.

Increase in the Number of the Insane.

He stated that the number of certified insane in Cape Colony in 1890 was 572, and on June 30th, 1904, it was 1,744. The population of the Colony in 1891 was 1,252,347, and at the last census (April, 1904) it was 2,409,804. That is, the general population increased in thirteen years by 92.4 per cent., and the certified insane by 193 per cent. Expressed otherwise, there was in 1891 one insane person to every 2,189 of the population, while in 1904 there was one to every 1,381. Unfortunately, Dr. Greenlees does not quote the figures of the actual occurrence of insanity as revealed by the admission-rates to population during this period, and those he does instance, though suggestive, cannot be considered conclusive. Another remark in this connexion is also open to criticism. In discussing the fact that the average age of the asylum population shows a distinct rise of late years—that is, that aged patients are being sent in ever-increasing proportion to asylums, a fact beyond dispute—he says: "Now, I think the statistics I am prepared to submit—and we have no reason to doubt their universal application—prove quite the reverse, and that the average age of our asylum inmates is not in excess of what it was, say, twenty years ago." The fact that the average age of the asylum population in Cape Colony has not risen in this period is interesting, but it is surely not capable of universal application.

Admissions.

During the past fifteen years—1890-1904—2,105 cases were admitted. These consisted of 605 male and 364 female Europeans, and 739 male and 397 female natives. The numbers admitted in each year varied, 241 being the highest number recorded in one year. Concerning the interesting question whether the type of insanity among the natives has altered in this period under review, Dr. Greenlees considers that civilization has not advanced to such an extent as materially to influence the type of insanity. As to general paralysis among the natives, he says that this disease, if not unknown, is extremely rare with the pure unsophisticated savage, although syphilis is by no means uncommon.

> It is only when the native has been long in contact with the white man, learning his bad, rather than his good, characteristics, that general paralysis affects him; it would seem as if alcohol *plus* syphilis accomplishes in the native what syphilis alone may do in the white man.

This is, of course, a surmise, and beyond that it is evident that the term "general paralysis" is limited in its application by Dr. Greenlees in such a way as to leave the question as to whether general paralysis is becoming more common among the natives unanswered. He says:

> The analogue to general paralysis in the native is "organic dementia," where the mental symptoms are from the first those of dementia, and the motor symptoms, as well as the pathology of the disease, resemble general paralysis.

General paralysis, however, is not a "mental disease," but is a nervous disease accompanied by mental symptoms, which latter may be, and are, extraordinarily variable; and if the "motor symptoms," as well as the pathology of the disease, resemble general paralysis, the mental symptoms need not conform to the classical type in order to be included within the category of general paralysis. Other broad statements are similarly open to question, such as that "epilepsy is essentially a disease of fully-developed brain," whereas Gowers shows that three-quarters of the cases of epilepsy begin under 20 years and nearly one-half (46 per cent.) between 10 and 20. Leaving aside debatable matter, we see that 1.14 per cent. of the total admissions belonged to childhood, 20.5 per cent. to adolescence, 54.17 per cent. to adult life, and 7.06 per cent. to old age.

Causes of Insanity.

The question of the causation of insanity is discussed at considerable length, but Dr. Greenlees's main contention is that alcoholic intemperance and heredity are the most potent factors in the increase of insanity. Hereditary influences were ascertained in 13 per cent. of all cases in the period under review—an unusually low proportion—and alcoholic intemperance was assigned as cause in 13 per cent. of the whole, the proportion being 25.4 per cent. for males and 4.08 per cent. for females, the proportion being greater in each class for the white than for the coloured patients. Proceeding on the assumption that alcoholic intemperance is one of the main causes of insanity—this being the main argument of the paper—Dr. Greenlees presses for legislative measures with a view to a restriction of this evil. There can be no question, we take it, that the undue consumption of alcohol tends to mental reduction, and that in a certain proportion of the cases, a proportion exceedingly difficult to estimate, admitted to asylums the mental condition is due to intemperance; and that, further, a very much greater proportion of criminal acts are directly due to this same agent, though in this latter relation Dr. Greenlees's 90 per cent. is probably an over-estimate. Colonel McHardy has given that proportion for Scotland, but it is not considered true of England and Wales. However this may be, we have no hesitation in endorsing the resolution of the Eastern Province Branch which followed the reading of Dr. Greenlees's paper.

> That this Eastern Province Branch of the British Medical Association recognizes the serious increase of insanity in this colony, and is of opinion that this increase is, to a large extent, due to the excessive use of alcoholic stimulants in a form that can neither be considered a food nor a medicine; further, owing to the form in which it is usually sold, it is more of a poison to both body and mind than a stimulating luxury.
>
> That this Branch urges upon the Government of the colony, in the interests of the health, both present and future, of the people, to so discourage the consumption of alcohol as a beverage, by means of increased taxation or such other means as the Government may think fit, as will be an inducement to temperance, in the hope thereby of diminishing crime, poverty, and insanity, all of which are mainly caused by intemperance.
>
> Further, that provision be made for the teaching in our schools of the simpler laws of hygiene and the evils and dangers of intemperance.

SPECIAL CORRESPONDENCE.

PARIS.

Tuberculosis and its Prophylaxis.—Tubercle Bacilli and Milk.

Ever ancient, ever new, the terrible subject of tuberculosis has held the place of honour in nearly all the discussions of our scientific societies during the past month. At the Academy of Medicine, statistics, contagion, disinfection, and prophylaxis were successively dealt with. To understand the discussions it would be necessary to have before us accurate figures that would form a solid basis for comparison. Professor Albert Robin's figures, however, are altogether different from those of Professors Brouardel and Landouzy. The conclusion drawn by the ordinary practitioner from such debates is that, as is always the case, statistics are made to show whatever the speaker wishes to prove. And in spite of it all, there is not a consumptive patient the less. Steering clear of vague generalities, Professor Landouzy gives more precise data by his statistics of occupations which expose those who pursue them to dust. He gives the results of an inquiry made on 257 working carpenters, packers, and floor layers. These workmen, living in the same quarter, in similar sanitary conditions, and examined during a period of five years by the same physicians, give a morbidity of 30 per cent. and a mortality of 7.78 per cent. These figures are much lower than those for laundrymen, among whom morbidity is as high as 75 per cent. and mortality more than 40 per cent. This formidable proportion is unquestionably due to contagion by contaminated linen and particularly by pocket-handkerchiefs. In the interest of our laundresses we should return as speedily as possible to natural custom and suppress the use of the handkerchief, which is a most dangerous thing. It might be gathered from the facts above stated that tuberculosis is contagious, and should therefore be notified and included in the list o diseases against which active measures of disinfection should be adopted. If you think so you are mistaken, and far behind our academicians. After the laborious discussions of March 7th, 13th, 20th, and 27th, you will be convinced that unwholesome dwellings and overcrowding act only as secondary predisposing causes, and not as causes of the direct propagation of tuberculosis. I the bacillus is found sometimes in such places, it must be by chance, by pure caprice. Its absence or its presence is really of no great consequence. Therefore, let any one that likes notify his cases of tuberculosis. As regards disinfection, which some ingenious person suggested should be made compulsory, it must be purely optional. We may perhaps be thankful that the Academy did not express the opinion that any one who carried out disinfection ought to be fined.

At the Academy of Sciences an altogether differen language was heard. The spread of tuberculosis of digestive origin was the subject of an important communication made by Professor Calmette of Lille, and M. Breton According to those authors the tubercle bacilli killed by heat, when they are ingested in small doses by animals already tuberculized, hasten considerably the evolution o tuberculosis. Those same bacilli killed by heating are no harmless to healthy animals. In time they produce the lesions which are observed to follow the repeated ingestion of tuberculin. Therefore, the milk from cows known to be tuberculous or presenting suspicious appearance must be rigorously eliminated from the diet of sufferer from tuberculosis and of even healthy nurslings, even i the milk has been sterilized. Sterilization is not sufficien to make innocuous a milk derived from tuberculous milch cows. Most of us lived in the comfortable persuasion that, ignorant as we most frequently are of the state o health of milch cows, prudence demanded that the milk should always be boiled before being taken by adults, and *a fortiori* by children. According to the teachings o hygiene ten minutes' boiling afforded an adequate safeguard. Now it appears that this is not so, and Professo Calmette and M. Breton have made researches on the subject which must seriously shake our too easy conviction One can readily conceive that simple boiling is scarcely enough; it does not, as is known, exceed 85° C., bu under pressure ordinary apparatus makes it possible t raise the milk to a temperature of 100° C., and with th autoclave to 110° C., and even 115° C. The milk has peculiar but not unpleasant taste, while it is agreeable t think that by such heating the tubercle bacilli ar absolutely killed. The old proverb, *Morte la bête, mort venin*, which has ceased to apply to so many diseases, suc as anthrax, hydrophobia, etc., has now been shown to b absolutely false, and consequently dangerous, as far a tuberculosis is concerned.

The Medical Profession in Germany.—The numbe of candidates who passed the qualifying State examinatio in the German Empire during the year 1904-5, was 72 This shows a decrease of 31 per cent. as compared with th previous year when 1,057 candidates entered the officia portal to the medical profession. Of the candidates 36 were admitted in Prussia; 153 in Bavaria; 25 in th Kingdom of Saxony; 14 in Württemberg; 62 in Baden 47 in Hesse; 25 in Mecklenburg-Schwerin; 17 in the Gran Duchy of Saxony and the Saxon Duchies; 22 in Alsace Lorraine. Of the total number of newly-qualified pract tioners, 3 were women.

Belgian Cremation Society.—A society for the pro pagation of cremation has been founded in Belgium Its aim is to obtain legal recognition of the practice a an optional mode of disposing of the dead. It will als endeavour to educate the public mind on the subject b popular lectures, journals, tracts, expositions, and othe means.

CORRESPONDENCE.

THE SELECTION OF CANDIDATES FOR THE GENERAL MEDICAL COUNCIL ELECTION.

IR.—In your reference to the selection of candidates the General Medical Council last week, the impression given that only two candidates will be required in the umn. I think Sir Victor Horsley has made it pretty l understood that it is his intention not only to retire, to do so at the same time as the other members, so t one election will serve. It would be as well if this ld be stated officially in the BRITISH MEDICAL RNAL, as the number of candidates required will terially influence the action of the Divisions when they ne to instruct their representatives shortly.—I am, etc.,

teshead, April 3rd. ALFRED COX.

* We have Sir Victor Horsley's authority to repeat he will retire, and that there will therefore be three ancies. There seems to be no reason why the ociation should not nominate three candidates.

THE IDEAL DIET.

R,—I have read with great interest your leading le on the value of proteid diet in the BRITISH MEDICAL RNAL of February 17th, and venture to believe that it be the beginning of a change in medical teaching; p in the direction of the "simple life," and one of the ns of checking that physical degeneration of which ear so much in these days.

e conclusions at which Mr. Fletcher and Professor tenden have arrived are facts of common experience he Highlands of Scotland, and probably among the antry of other countries also, where the old beliefs customs have not too readily given way to the ries of civilization. Oatmeal in one form or another daily ingredient in the diet of a Highland peasant. potato also is a staple food, and is consumed in large tities with salt herring or other fish, and perhaps in cases salt mutton or pork. Milk and eggs are used most. The growing consumption of tea, however, and ncreasing relish for sweets, cakes, pastry, and bis- threaten to destroy the old way of living. A typical diet for a crofter or fisherman who still believes in raditional diet would be somewhat like this:

akfast:
atmeal porridge or brose with milk; bread, butter, and tea.
ner:
otatoes galore and herrings or other salt fish.
per:
orridge and milk, or oat bread and cheese, and tea.

ave often been assured by shepherds that they could all day "on the hill" after a breakfast of oatmeal and milk without fatigue and without feeling y, returning in the evening to partake of a dish of , potatoes, and salt mutton. In these diets proteid a very small proportion, and yet a hardier race than shepherds and fishermen cannot be found any- .

haps I ought to explain that "brose" consists of a andfuls of oatmeal placed in a bowl, over which y-boiling water is poured. The whole is stirred usly and left to stand for two or three minutes near e. It is then eaten with milk, or better, cream.

r reading Mr. Horace Fletcher's book nine months determined to give the minimum-of-proteid diet a ial in my own case. The result was that I was d of a lifelong tendency to acid dyspepsia and onal sick headaches; my fitness for work, my appe- d relish for food were increased, without any dimi- , but rather a slight increase in my weight.

practice extends over a wide area of rough moun- s country involving long journeys on cycle, on foot, , and in open boats, in fair and foul weather. The lar exertion and endurance necessary for the work seem to require a large proportion of proteid and a us diet altogether, but since I began to experiment suffered less than formerly from fatigue, and seem in all a smaller quantity of food. My diet consists

Breakfast, 8.30 a.m.:
Oatmeal cakes, bread and butter, about 1 cubic in. of cheese or bloater paste, marmalade, and one breakfast cup of tea.
Lunch, 1.30 p.m.:
Same as breakfast, with occasionally a boiled egg, and sometimes coffee instead of tea.
Dinner, 7 p.m.:
Thick soup containing vegetables, with bread, followed by suet pudding or fruit tart; or vegetable stew, containing 2 or 3 oz. of meat, with boiled potatoes, followed by milk pudding and jam—occasionally a cup of black coffee; no alcoholic beverage at all.

I wish to place in contrast with this the diet of a ladies' philanthropic settlement in London.

Breakfast, 8.30 a.m.:
Hot meats, cold ham, tea, coffee, bread and butter.
Auxiliary Breakfast, 11 a.m.:
Milk, bread and butter.
Lunch, 1 p.m.:
Hot joints, potatoes, two vegetables, suet pudding and milk pudding, coffee, bread and butter.
Afternoon Tea, 4 to 5 p.m.:
Tea, bread and butter, and cakes.
Dinner, 7.45 p.m.:
Hot joints, vegetable and potatoes, suet pudding, milk pudding, coffee, and bread and butter.
Supper, 9 to 10 p.m.:
Hot milk, bread and butter.

This diet is given as it was reported to me by a friend who spent some days in this settlement as a visitor, and whose digestion was none the better of the experience. "Who leads a good life is sure to live well."—I am, etc.,

March 1st. ARAN COIRCE.

HOME HOSPITALS.

SIR,—In a paragraph which appears in the BRITISH MEDICAL JOURNAL of the 31st ultimo, the statement is made that the system which I now advocate "is one to which the voluntary supporters of British hospitals might well object, for it is fairly certain that paying wards, whomever else they pay, do not pay the charities which keep them open." No doubt some paying wards may not have produced a profit, but the business aptitude of the Americans has caused them to evolve the pay pavilion which, being kept distinct with separate accounts, does in fact yield a profit. St. Thomas's Home, in this country—that is, the pay pavilion of St. Thomas's Hospital—has been maintained on this basis with success.

My proposal is to provide certain of the hospitals which can offer a site with a pay pavilion fully equipped and ready for occupation, without cost to the general hospitals. The managers who grant the site would then undertake the management of the pay pavilion, to which patients would be admitted at a payment of three guineas a week and upwards. The three guineas should be sufficient to defray the whole cost of maintenance and to allow 4 per cent. interest on the money sunk in the buildings and equipment. I do not think, however, that the class of patient who gets free in-patient relief to a certain extent at the present time, and many others who suffer a good deal for the want of such provision, are able to pay three guineas a week, with the medical fees in addition. To meet this difficulty, my proposal is to establish a system of insurance and to issue hospital policies which will cover the risks of hospital care and medical attendance, including the operation fee where necessary, for an annual premium within the means of the class to be provided for. After consulting an eminent actuary, and having the matter under consideration for some years, I find that this is possible as a business proposition.

The pay pavilions, though under the management of the authorities of the general hospital, would be quite distinct and apart from the free hospital, and each patient in a pay pavilion would have the right to be attended by his own medical man. The co-operation of the medical profession will be necessary to the extent of an agreement between those consultants who may be willing to attend patients of this class at a reduced fee, on a scale similar to that arranged at Birmingham. You will see that the system here outlined, though simple, really meets all the difficulties, including a guarantee—to the hospitals for the patients' payments, to members of the profession for the patients' fees, and to the general practitioner that, where it is desired, he shall have the right to attend his own case in the pay pavilion. In this way all possibility of in-patient abuse should be removed, the hospitals would have the opportunity of training their nurses for private work, the profession would retain many fees which are now lost, and the patients would be able to maintain their independence and self-respect by defraying the cost of their treatment and residence in the pay pavilions.

The writer of the annotation suggests the establishment of a sufficient number of conveniently-placed public nursing homes. Such a system must entail a large expenditure of capital, and must indefinitely multiply the cost of maintenance, because each home would require separate management, which cannot be secured without greatly adding to the cost. I am afraid, therefore, if we are to wait until such a system of nursing homes is forthcoming, hospital abuse must continue to increase, and that the needs of a large and growing number of residents in towns, who are able and willing to pay for hospital care, are not likely to be met in the present generation. On the other hand, the system of pay pavilions with insurance should become self-supporting and self-extending from the outset, by utilizing the 4 per cent. on the capital, to provide a sinking fund of 1 per cent., with 3 per cent. interest for the use of the money. My scheme is the result of twenty-five years' experience in the working of a home hospital, and rests upon an intimate knowledge of the practice in other countries and the requirements of a great number of middle and lower middle class patients in England. It is backed by a survey of the whole hospital position, and the patent fact that an excessive amount of free medical relief is at present given to patients through the voluntary hospitals.—I am, etc.,

London, W., April 2nd. HENRY C. BURDETT.

PROPOSED GENERAL HOSPITAL AT PUTNEY.

SIR,—As the letter of Dr. Dickinson in the BRITISH MEDICAL JOURNAL of March 31st contains statements which are hardly correct we think it necessary to point out to your readers without delay where he is in error.

We leave it to the readers of the JOURNAL to decide the question whether what he acknowledges he did say in the first part of his speech is not properly reported by the statement that the profession had no *locus standi*.

We are more concerned with the latter part of his letter.

At the meeting Dr. Dickinson complained that another medical society, of which he was one of the honorary secretaries, had not been officially invited to the meeting. When he was informed that this had been done through the President of the Society he withdrew the remark. His ignorance was due to his being absent from the meeting of the society when the letter was read.

Had he said at the meeting held at Putney what he now states he did say, "that medical men had been imported from distant places to vote for the resolutions," he would undoubtedly have been called to order, and asked to withdraw such statements.

The members of the three Divisions invited—Chelsea, Richmond, and Wandsworth—were entitled to a voice in the question discussed. Of the Chelsea and Richmond Divisions, only some six members were present, the remainder being from Wandsworth Division. They came voluntarily, and were all personally interested as practising, or representing colleagues practising, in the neighbourhood of the proposed site of the hospital.

With regard to the members of the Central Hospital Council and Central Hospital Committee invited to attend and speak on general principles involved in the hospital question, we may say that such invitations contained an express stipulation that they must not vote, and it is quite certain they did not do so.

It is to be hoped that Dr. Dickinson will see his way to withdraw, by means of your columns, this additional accusation, which is quite incorrect, and was evidently made in ignorance of facts.—We are, etc.,

HUGH R. KER,
Chairman of the Wandsworth Division.
WILLIAM A. BONNEY,
Chairman of the Chelsea Division.
R. W. WILSON,
March 31st. Chairman of the Richmond Division.

SIR,—As a medical man who attended the recent meeting to discuss the above question, although not a resident in the district, I have been asked by the Honorary Secretary to state that in the circular letter which I received presumably as a member of the Hospitals Committee o the British Medical Association, inviting me to be presen at the meeting, it was specially stated that I should no be allowed to vote. I did not vote.—I am, etc.,

London, W., March 31st. LAURISTON E. SHAW.

SIR,—As I was one of the "medical men imported from distant places" present at the Putney meeting on March 15th, referred to by Dr. Dickinson in his letter publishe in the BRITISH MEDICAL JOURNAL of March 31st, I writ to say that I did not vote myself, nor did any one of th three other gentlemen whom I knew to be visitors at th meeting. If any one of us had thought of doing s through ignorance or inadvertence, the Chairman's cautio at the commencement of the meeting, that visitors migh speak but not vote, would have been sufficient to deter u from committing such a flagrant breach of good manner —I am, etc.,

London, N.W., March 31st. J. FORD ANDERSON.

ETHYL CHLORIDE AS A GENERAL ANAESTHETIC.

SIR,—We must recognize the fact that an anaestheti as convenient and as efficient as ethyl chloride wil certainly find wide employment, and that it is, therefor of more practical value to try and lay down the rule which should guide its use than to decry its employmen altogether.

Although in London and other large cities, where n considerations of mere portability or of time-saving ma interfere with the attempt to realize always the mos perfect conditions of induction and continuance anaesthesia, ethyl chloride will probably play only small part, yet the case is far otherwise in other places.

Mr. Bellamy Gardner in his excellent letter might hav pushed his simile a little further and have shown tha just as anaesthetists have with increased experience an experimental work come more and more to regard fatalitie under chloroform as due in the majority of instances t use of too strong a dose, so, too, with ethyl chloride ove dosage appears more likely in any fresh fatal case recorde to be the true explanation of the result.

I am convinced that many who use ethyl chlorid habitually give too large doses, and do not realize wit what extremely small amounts the required anaesthesi can be obtained. Personally I find that, generall speaking, 2 c.cm. for children, 3 c.cm. for women, an 4 c.cm. for men are the maximum doses to be use whether for short operations or when ethyl chloride used before ether. I do not use ethyl chloride at a for prolonged operations, nor do I believe that it shoul ever be followed directly by chloroform. This dosag has to be combined, of course, with the strictest limitation of air supply, but such limitation is essential success with ethyl chloride, as was plainly proved Dr. Hewitt's experiments, in which, starting with liber air percentages, he showed that even fair results were n attained till the method of "rebreathing" a concentrat vapour was reached.

Exactly in what way an overdose of ethyl chloride pr duces its fatal result does not seem at present at all clea though clinically it appears that the deaths resemble th from primary heart failure rather than asphyxia. Th only experimental work, however, bearing on the subje with which I am acquainted showed that death w attained with ethyl chloride through respiratory paralysi the heart's action and the blood pressure being well mai tained. The way in which bleeding occurs under eth chloride, the remarkable absence of cyanosis with excl sion of air, the protracted headache and prolonged sic ness that sometimes follow, seems to suggest that a bloo change may really be the explanation. However that ma be, I believe that if ethyl chloride were used only—(1) wi strict attention to dose, (2) alone or as a preliminary ether, (3) with small prop between the teeth, (4) fro simple "bag and face-piece," with no intervening lint sponge, there would be less frequent occasion to deplo its employment.—I am, etc.,

J. BLUMFELD,
Senior Anaesthetist, St. George's Hospital, etc
London, W., March 26th.

THE TYPHOID AND COLON BACILLI.

Sir,—Professor Delépine's communication to your lumns in the British Medical Journal of March 31st, 773, compels me to repeat what I said a few days ago in private letter to a correspondent, "the report in the urnal was not only very brief, but was not altogether curate." The truth of the matter is, I made no reference atever in my paper either to Professor Delépine or to s valuable observations. It is possible that a speaker in e discussion that followed my paper made some such usion; if so, it escaped my notice.

While wishing to make it quite clear that I am in no y responsible for the statement that Professor Delépine ad found *B. coli* from water react with typhoid serum," m not sorry that this inaccuracy in the report occurred, ice it procured from Professor Delépine a brief expresn of his valuable experience and opinion *re* the clumping tion.—I am, etc.,

J. T. C. Nash,
Medical Officer of Health.

outhend-on-Sea, March 31st.

E EARLY DIAGNOSIS OF PULMONARY TUBERCULOSIS BY THE ROENTGEN RAYS.

ir,—I am quite in accord with all Dr. A. Stanley Green s in his letter on the diagnosis of early tuberculosis of lungs by the Roentgen rays. Success in the detection arly pulmonary tuberculosis, like most other things, ends on the time and trouble taken in the investiga. If a cursory examination be made with the screen y many cases of early pulmonary tuberculosis will be pletely overlooked. An experience of upwards of t years has convinced me that before a definite ion can be expressed a skiagraph of the chest must taken. Over and over again I have found distinct lows at one or other apex on the plate which had been pletely missed in the screen examination.—I am, etc.,

ndon, W., March 20th. Hugh Walsham.

MIDWIFERY OF THE PRESENT DAY.

r,—I consider Dr. Horrocks has conferred a lasting fit upon womankind by the address published in the ish Medical Journal of March 10th, p. 541. Of the ctness of his views I think there can be no sort of t to those whose minds are open to the teachings of riology, modern surgical technique, and commone physiology.

me years ago a mare of mine had a foal; she easily ered herself, to the surprise of my coachman, who had led for the attendance of a veterinary surgeon; but the branes were not quickly shed, and two hours after the she was walking about with them dangling from her. oachman's mind was considerably agitated, and he ne very anxious to do what he said they did in the try, and tie a brick to them! An old practitioner ened to be passing, and I beckoned him in; he heard an's suggestion, and wisely said: "You leave that alone. Nature has been at that game a great deal r than you have." The suggestion seemed irresistible; re was true to her trust, and all went well.

arnt a lesson from that case! It was easy to learn, h very difficult to follow, but the truth had been ing slowly upon my mind for years—at first, that ptics wonderfully improved one's results, then, that ss one interfered with the placenta the less haemor one had, then, that most cases go on all right ut any assistance, and that cases which were "all efore the doctor arrived" did the best of all; and st lessons I have learnt are to examine vaginally eldom (not at all if possible), and to allow the uterus everything in expelling the body of the child—a I do not think Dr. Horrocks sufficiently emphasized, hich I find almost a sovereign safeguard against rrhage. The temptation to extract the child's body pull at things in midwifery is almost irresistible; ild's face becomes congested, the mother and nurse ient, and the practitioner apparently culpably ve; still, if one can overcome this almost universal ley, it is amazing how seldom Nature fails to do her and how remarkably well she does it!

se have been my guiding principles for some years, th what success? increased suffering at the time to tients, but excellent convalescence, and admirable results; and sepsis and haemorrhage declining, I might say vanishing, quantities, and, lastly, a diminishing midwifery list. And here I come to a most important point, and one which cannot be passed over without allusion, and which needs some courage, moral as well as financial, to face. The public have been badly educated, and we in our past ignorance have had our full share in the work. The parturient woman expects us to help her, she constantly regards her case as abnormal, and in her suffering she appeals to us to shorten and abrogate a natural process; and the higher her social scale and the deeper her pocket the less she expects to suffer the natural distress. We must face the situation and educate the patient, and school ourselves into that restraint which is all for her good, although to our present harm, as she will think us at once somewhat useless and inefficient, or perhaps incapable, and probably indifferent to her sufferings.

The crux of the matter is to wait, and inside this problem is another—the fee. This waiting midwifery, this scientific midwifery, cannot be done at the price, and the public must be taught this. We cannot dance attendance upon a case for a day and a night, and neglect all our other work, and knock ourselves up with fatigue for the miserably inadequate fees for which most general practitioners have been accustomed to work; but this is really the key to the question: the woman engages us to attend her at her confinement, and expects us to do so, and is, as Dr. Horrocks says, disappointed if we are not there and at the birth; but without frequent examinations, and chloroform, and forceps, and expressed placenta, and all this meddlesome midwifery so wofully common to-day, hours, sometimes days, of the practitioner's time must be consumed upon a case, and the remuneration he receives is probably a fraction of what a cabman would obtain for waiting at the gate.

Dissemble as we may, we general practitioners are an impecunious class, and the chance of providing for old age out of our professional earnings is for most of us a vain fancy! It is midwifery that takes the life out of us, and yet it is the foundation of family practice and upon it few of us dare turn our backs. Midwifery must in the future either be attended by a patient and aseptic midwife who has nothing else to do and can give the required time to the one case, or if a qualified practitioner is to have the work, it must be remunerated on an entirely different scale to that which prevails in the majority of our present cases. I believe this is the question that really will underlie all reform: modern scientific midwifery, holding a watching brief for the patient, is impossible in the rush and hurry of an ordinary general practice, and at the usual rate of remuneration. Let us band ourselves together, raise our fees, realize our great responsibilities and more accurately estimate our true worth if we are up-to-date and high principled practitioners.—I am, etc.,

Twickenham, March 24th. J. R. Leeson.

Sir,—Dr. Mears's practical methods are as excellent as they are in striking contrast to the teaching of certain midwifery schoolmen.

Unfortunately, Dr. Mears goes out of his way in trying to prove a negative anent microbic influence. Further, I cannot see why Dr. Mears should use rubber gloves for the dead and apparently not for the more important living. In obstetric work, after a patient's rectum is cleared out by a copious enema with subsequent careful local toilette, the further conduct of the case is, to the practitioner with clean rubber gloves, robbed of most of its unpleasantness. Diagnosis and the application of forceps, etc., are practically as readily achieved with the gloved as with the bare hand. Again, the wearing of the gloves conveys to the patient's mind—apart from aesthetic reasons, which indeed bulk largely—that due care is being taken, as now, by reason of several lawsuits and the dicta of unpractical teachers, the practitioner is liable to be held "suspect" until the successful termination of the puerperium. When using gloves, the incompatible sequence of "lysol" and $HgCl_2$ solution is not required, the practitioner simply dipping his gloved hand for a few seconds in boiling water before examination and again washing in cold water afterwards. The hands are saved the eczema-producing effects of the chemical irritants.

Finally, rubber gloves are now so cheap and excellent that were a new pair each allowed in each case for practitioner and nurse it would distinctly "pay"; and although, in spite of all precautions, there will be cases now and again of "temperature," etc., from causes over which the practitioner has no control, I believe the use of gloves will shortly be general in obstetric practice.—I am, etc.,

Edinburgh, April 2nd. JAMES CAMERON.

THE PUBLIC MEDICAL SERVICE AND THE ALTERNATIVE.

SIR,—No satisfactory reason has been given as to why we should have this new scheme foisted upon us. Under it we are all to become contract practitioners.

The scheme assumes that contract practice is necessary, but, as at present conducted, it is not. The most it offers is to substitute one form of contract practice for another. It is certain that medical men who have held club appointments for years will not give them up for others to share. Therefore the scheme will not suit all club doctors, nor will it pacify those who do no club work.

What an enormous amount of work will be thrown on the Association and its Divisions! Contract practice and the proposed Public Medical Service are fraught with much unprofitable labour and disaffection. No remedy for abuse; no relief for the sick poor; nothing but the perpetuation of the depressing influence of contract practice on general medical work.

What is the alternative? Let us go back for a moment to 1836, when the first Committee, appointed by the British Medical Association, sat to arrange a scheme of medical relief for the deserving poor who could pay a little, but could not afford the rates of private practice which then obtained, and who were of too independent a spirit to crave attendance under the humiliating requirements of the Poor-law system. There was no provision then against the time of sickness such as avails to-day in club insurance. The Committee gave expression to two opinions which are worth recalling:

1. The Committee recognized that "the Legislature by means of the rates provides medical relief for the sick poor."

2. The Committee held "it was not required of the profession, which paid its share of the rates, that it should bear extra burdens which should be borne by the whole community."

We have ignored these opinions, hence our present dilemma. We have allowed the undeserving to usurp the charity intended for their poorer brethren, and we have taken upon ourselves burdens which should be borne by the whole community.

It is frequently observed that we cannot do away with contract practice nor prevent medical men from doing cheap work; yet we have seen what influence for good is exerted by small local organizations in improving conditions of medical practice for both practitioner and patient. That being admitted, may we not hope for better things from a body possessing the power and influence such as our Association can command? It is well to bear in mind that medical men are too often driven to cheap practice by stress of circumstances under the present intolerable state of medical practice.

How are we to prevent men from undertaking cheap practice? Make it worth their while to join our Association. Raise the standard of medical practice to that of private practice rather than depress it to the rates and conditions of contract practice. Given a resolute, united Association, would it be impossible to decide that no further contract work shall be taken on when those who are now engaged in it shall fall out?

Fix a minimum rate of remuneration for private practice, and make it a condition of membership that thereby our members shall be in a position to apply the latest medical and scientific improvements in their treatment of patients. Guarantee, as far as possible, the practitioner's reputation from the invidious distinctions too frequently drawn by the public. Every member should feel secure from the unfair, exhausting competition which rules at present in the various forms of cheap practice. The social and professional status of the general practitioner calls for reform, not retrogression.

It should be possible for our Association to use moral suasion in favour of private practice with those who would stand out, such as occurs weekly in the advertisement *re* contract practice. Let us unite in urging the duty of the State to relieve the sick poor, free from irksome restrictions. There is need for improvement and extension of the work of the parish doctor, whose position and remuneration should be greatly enhanced. Contract practice, properly conducted by the State for the relief of the sick poor, is necessary, but the practice, conducted indiscriminately, with which we are too familiar, is not necessary. As for the poor who wish to pay something but who cannot afford the ordinary rates of private practice, the State will be able to accommodate them.

We have a splendid union in our Association, which is and does, what we decide. We look to it to better our position.—I am, etc.,

West Gorton, March 31st. J. D. WILLIS.

PAROCHIAL MEDICAL OFFICERS IN SCOTLAND.

SIR,—I have read with much pleasure the letter o Dr. H. P. Taylor, Mid Fell, Shetland. Taken along witl the action of Dr. Macara of Durness, it shows that th oppressed parochial doctors of the highlands and island of Scotland are bestirring themselves to defend thei position, instead of crying to the gods like the wagone of old to come to their assistance.

Security of tenure, while a short way out of the diffi culty, will never be granted by a House of Common in which trades-unionism flourishes, paradoxical as thi result may appear.

Assuming without further argument that this is so what other remedies for such a deplorable state of thing are open to Scottish parish doctors and their friends?

As a member of the General Medical Council who ha often been appealed to, may I, Sir, explain why that bod is unable to lend any effective help.

My friend, Sir William Thomson, was clever enough, b grace of the President, to bring up before the Council las session the grievances of the Irish Poor-law doctors. In a eloquent speech he brought out very vividly the intensel miserable condition of the ordinary Irish peasant, and th many proofs of the unselfish devotion of his fellow countrymen to the care of their patients—a state of thing demanding national attention and national assistance It was my privilege to follow my colleague and to try in few hurried words to show that matters were as bad in th island of Lewis and in other parts of the West Coast o Scotland and equally were crying out for remedy.

Alas! the Medical Council, as was pointed out, can d nothing, having no powers beyond what are strictly lai down by law. And so the matter had to drop, without th smallest hope of its being taken up by the Council agai with any good effect. Where else is reform to be looke for? More than forty years ago, in the case of my lamente friend, Mr. Patrick Jamieson, of Peterhead, Aberdeenshire the Parochial Board violently deprived him of his office o medical officer. The profession in the district of Buchan that is, in and around Peterhead, came to his rescue, and with others tried in every way to secure justice for ou ill-used colleague. We failed. But I was convince then, and I am more convinced now, that it was an is in the power of the Local Government Board c Scotland to stand up for and defend the parish docto That Board contributes, not, unfortunately, as in Englan the full half, but a very considerable proportion of th medical officer's salary. It is his master, as some of us i the past have known to our cost. I do not say unjustl Why should they not interfere to stop unfair dismissal I think, and with Dr. Taylor, they are likely to do so whe backed up, as they are sure to be in every flagrant case manifest bad usage, by the inhabitants of the localit affected.

And here, perhaps, is the proper place to explain t those in more favoured parts of the country tha the Highlands of Scotland. Like Ireland, whose cas was so vividly placed before the profession in article by your Commissioner some time ago, the problem is n merely the medical attendance on paupers alone, but als and it may be in greater measure, on the population a large of the parish or district of which the resident docto is expected to take charge. Thus it comes about that i those remote and wretched regions we have to face th never-ending problems connected with club practic identical in their essence there as in the crowded cities the South.

There is only one way to save the medical officer fro eing submerged. A large part of his pay comes from he public purse, and in that proportion should the nation ave a say in his appointment and dismissal. Fortunately here is a substantial precedent entirely on all-fours. In he island of Lewis the schools were for many years so tterly mismanaged that the Scottish Education Department had perforce to interfere with those incapable parish oards.

The department did two things: it gave special subidies to the poorest places, and—this is the important oint—they appointed a strong man, in the person of my iend Mr. Robertson, His Majesty's School Inspector, eir representative as Chairman of these defaulting chool Boards. What has been the result? Order out chaos, good management and practically security of nure to every school master willing and able to do his uty. Give an additional medical grant to these conested districts, and on the principle that he who pays e piper has the right to call the tune, let the Scotch ocal Government Board appoint one of their inspecting ficers to preside as Chairman over such of them as claim tra pecuniary assistance.

The very first thing a far-seeing administrator should would be to put an end to the scandal of a Poor-law edical officer not only being ill-paid and subject to just dismissal, but being required to provide for himself d his dispensary suitable quarters from his own pocket. have known a case in which a medical officer became nkrupt by building himself a decent house, only a black t being available otherwise, who died from fever caught the prosecution of his profession, leaving as a legacy to s widow and children property practically worthless, ere being no offerer but one—his successor, small blame him.

Having been myself a parochial medical officer for irty years, fortunate, I confess, above my fellows, but t deeply sympathizing with their troubles, I claim to derstand their position. I conclude as I began, and vise every such doctor to at once join some medical fence union, and when oppressed appeal to the Scottish cal Government Board, and if he is to die, die hard.— m, etc.,

ingwall, N.B., March 18th. WILLIAM BRUCE.

REPRESENTATIVES' DEPUTIES.

IR,—The question of the appointment of deputies for Representatives' meeting is one which it will be well the various Divisions to take into consideration when ting their Representatives. No medical man can rantee that he will be able to attend; therefore, in er to make certain that the Divisions will be repreted a deputy ought, I venture to suggest, to be elected he same time. There may be Divisions where it may difficult to find even a Representative, and perhaps it ld be as well for them to look for one outside their members. As the meeting is to be held in London, ight be advisable to see if any members residing in or r would consent to act in either capacity. I would like to suggest that those willing to act as such should d in their names to the Medical Secretary, so that if lied to by Divisions he could supply a list for them to ose from.

can give two instances of Lancashire Divisions re they were deprived of representation at the last nent. The first was at Swansea, when the Repreative had to return at once, as a telegram was awaiting arrival summoning him on account of an outbreak of ll-pox in his district, he being the medical officer of th.

e other case was at the Leicester meeting, and the resentative could not attend on account of illness. In her of these Divisions had a deputy been elected, Lancashire above all places ought to have all its men ne, if not to the front.—I am, etc.,

nchester, April 2nd. G. H. BROADBENT.

HOSPITAL FOR ADVANCED CASES OF CONSUMPTION.

R,—It may interest your readers to know that there recently been opened near Northampton a hospital for solation of advanced cases of consumption occurring e town.

addition a resolution has been passed by the Town Council to retain at certain sanatoriums a few beds to which consumptives in the early stages are to be sent.

The hospital for advanced cases is a measure of prophylaxis which I have been advocating for a considerable period. I believe it marks a distinct advance, so far as this town is concerned, in the preventive measures applied to the disease. Some prejudice on the part of advanced cases to avail themselves of the facilities offered to them to remove the possibility of infection from their relatives has shown itself, but I have no doubt the experience of those in the hospital will remove this prejudice.—I am, etc.,

JAMES BEATTY, M.A., M.D.,
Medical Officer of Health of Northampton.
Northampton, March 19th.

MEDICO-LEGAL AND MEDICO-ETHICAL.

ACTION FOR ALLEGED SLANDER.

AN action for alleged slander was heard in the Sheriff's Court at Peterhead last week, the plaintiff being a chemist of Fraserburgh, and the defendant a medical man in the same town. The alleged slander was contained in a letter addressed by the defendant to the plaintiff, threatening to bring to the notice of the police (who are responsible for the execution of the Food and Drugs Act) his action in dispensing a prescription of the defendant's otherwise than as intended. One ingredient was "mist. bismuth co." the term representing an alkaline mixture used by the defendant. In its place the plaintiff used an acid bismuth mixture, and it appeared that after the receipt of the defendant's letter the plaintiff dispensed the same remedy a second time. A large number of witnesses, medical men and chemists, gave evidence as to the practice prevailing at Fraserburgh respecting the dispensing of medicines, and this, as ruled by the Sheriff in giving judgement, would appear to be as follows: Each medical man has some chemist who does most of his dispensing, and in writing prescriptions it is common for them to indicate favourite mixtures by using special names. Such prescriptions can primarily only be interpreted by the chemist with whom the medical man habitually deals; but if the prescription should happen to be taken to another chemist the latter can obtain the formula indicated in code on applying to the chemist of the prescriber. The chemists know who habitually dispenses for each doctor, and the public is also aware. In this case the plaintiff did communicate with the defendant's chemist, sending for the second ingredient, pepsin, but did not make any inquiry as to the formula indicated by mist. bismuth co. Instead, he used the formula of a bismuth mixture used by another practitioner. He considered that he was entitled to use either this, as, being a bismuth mixture well known in Fraserburgh, or the compound bismuth mixture of the British Pharmaceutical Formulary.

The Sheriff held that the plaintiff had committed an error of judgement, and that the defendant's letter was privileged, and after summing up at great length gave a verdict in the defendant's favour wilh costs.

A CHARGE OF NEGLIGENCE.

THE action for negligence against Dr. Charles K. Darnell, of Bangor, co. Down, to which reference was made on page 1550 of the BRITISH MEDICAL JOURNAL for December 9th, 1905, was tried at Belfast for the third time on March 19th and following days, before the Lord Chief Baron and a special jury. The alleged negligence consisted in prescribing belladonna liniment without warning the patient, a boy of 17, and (through his father) plaintiff in the present action, or those in charge of him, of its dangerous character, or giving sufficient directions as to the caution to be exercised in using it, the result being that the plaintiff suffered from acute belladonna poisoning, endangering his life. The case turned upon the directions given by Dr. Darnell when prescribing the liniment, and whether they had been properly carried out by the patient's parents, and there was a direct conflict of evidence on the point. The medical witnesses called supported Dr. Darnell's treatment as being correct, and also gave evidence as to his directions being those usually given, stating that poisoning would never have been anticipated.

His lordship, in summing up, directed the jury to consider whether the defendant was wanting in the exercise of reasonable care, prudence, and foresight in respect of six specified matters. He charged them that they were to be guided by the law, not by the usage of the profession, if that usage did not come up to the standard required by law. The usage and custom of the profession were, according to his ruling, evidence in favour of the defendant upon the question whether he had used due care or not, if he showed that he used the usual care; but if such usage and custom had fallen below that high degree of protection that the law required for the protection of human life, then the issue was to be determined, not by the usage of the profession, but by the opinion of the jury. The degree of care, prudence and foresight which the law considered needful had been, the learned Judge stated, well described as "consummate care, prudence and foresight," and, although he eschewed superlatives, he characterized it as the highest degree of care, prudence and foresight known to the law, and must be proportionate to the risk involved in the treatment. The law cast a duty upon the physician to give reasonable warning of a danger which he, as a skilled physician, ought reasonably to foresee. No usage of the profession could protect him from liability for the reasonable consequences of the omission of any precaution or warning which reasonably ought to have been given. That was, he stated, the law, and it was not for him to say whether it was hard law or not.

The jury found for the plaintiff, damages £65, and judgement was entered accordingly. The case was reported in the *Belfast News Letter* of March 20th-22nd, 1906.

OYSTERS AND SEWAGE.

IN the Court of Appeal, on April 3rd, a decision of importance was given in an action arising out of the famous Winchester oyster poisoning case, now four years old. The Court confirmed the judgement of the lower court, which gave damages against the Sanitary Authority to the oyster breeder involved in the case. It held that it was proved that the plaintiff's oyster beds were contaminated by the discharge from the Authority's sewers, and ruled that though the Authority was entitled to discharge sewage into the creek where the beds were situated, it must be held responsible for any damage caused thereby.

MEDICAL ETHICS IN A SMALL TOWN.

DISGUSTED.—Some of the complaints seem rather trivial, but in any case our correspondent has not stated that any of them have been brought before the local ethical society, and that it has failed to express an opinion upon them. It is, however, quite likely that an ethical society in a small town would be unable to exercise sufficiently impartial authority to carry weight, and we see in this an argument in favour of such questions being dealt with either through the local Division or, if that is too small, through the Branch of the British Medical Association, which has or should have rules regulating its proceedings, and can in all cases refer questions to the calm judgement of the Central Ethical Committee in London.

PARTNERSHIP AGREEMENTS.

VIATOR asks: (1) Is it absolutely safe from a legal standpoint to have a partnership deed drawn up by a medical agent? (2) A., aged 42, and B., aged 30, form a partnership. B. being the junior partner pays A. £200 for a third share. If A. retires, or dies, B. has the practice, paying £500 for the same. Should the £200 paid originally by B. be deducted from this purchase money? Conversely, if B. retires, should he get back his third share valued at the time of retirement?

⁂ (1) If the deed be properly drawn, t matters not whether it is prepared by a medical agent or by a solicitor but in so important a matter it is always better to consult a solicitor. (2) No, unless specially agreed the £200 would not be deducted. When B. retires he should receive the value of his third share at the time of his retirement.

A. and B. are partners, A. having purchased the share of C., who had previously been in partnership with B. Soon after signing the partnership deed A. receives an intimation that B. has alienated his share, but without the formal consent of A., or any communication to him about the matter. Under these circumstances is A. justified in dissolving? If so, could he make such dissolution date from the time of B.'s alienation of his share?

⁂ If under the original partnership deed between C. and B., C. had the right of selling his share, and B. agreed to accept the purchaser in C.'s place, and by the same deed it was stipulated that either partner should give the other notice before alienating his share, then B.'s action might give A. the right of claiming a dissolution. The matter depends entirely on the wording of the partnership deed between C. and B., and on the conditions accepted by A. when he purchased C.'s share. Our correspondent would do well to consult a solicitor before he takes any action.

MEDICAL ADVERTISING.

PECCAVI sends us a long letter, which we are glad to think was written under a misapprehension of the meaning of our answer to "W. A. M." on page 659. He says that, having attended the child of a chemist in his neighbourhood, he has since had several patients recommended to him by the father, and, in recognition of his courtesy, "Peccavi" has called and left a card, which action he considers to be by implication censured in our answer.

⁂ The objection is to a practice, repeatedly reported to us, of a chemist acting as a tout for the medical practitioner and being supplied with a sheaf of the medical practitioner's cards for this purpose. We do not think any right-minded practitioner would give his cards to be used in this way. Nor is it likely that any chemist would agree to distribut them, unless there were an arrangement of a corrupt natur to recompense him for such services.

MEDICAL MEMBERS OF SCHOOL BOARDS AND FEES FOR CERTIFICATES.

R.C.M. asks: Can a member of a School Board, being medica officer of parish, charge fees for duties done for School Boar such as granting school-closing certificate, etc.

⁂ No member of a School Board can hold any office profit under the Board, nor can he charge fees for grantin school-closure certificates or the like.

THE PRACTICE OF DENTISTRY BY MEDICAL MEN.

C. L.—Registered medical practitioners are wholly exempte from the operation of the prohibitory clauses of the Dentis Act. Our correspondent would be able to use the tit Surgeon-Dentist or Dental Surgeon even though he had n received special instruction in dentistry.

RELATIONS WITH AN UNQUALIFIED DENTIST.

SLOW-COACH writes: A. is an unqualified man practisin dentistry with the occasional employment of a register assistant. B. is a qualified medical practitioner who has patient under the care of A. A. wishes B to administ ether, whilst his registered assistant operates on the sa patient. What should be B.'s attitude in such a situation

⁂ B. must not recognize A., whose qualified and regi tered assistant seems to be covering him and who is himse liable to be brought before the General Medical Council.

FEE OF MATERNITY NURSE.

C. E. asks: Is a maternity nurse entitled to any remuneratio for the waiting period, where she was not called in for a fo night after the time mentioned, when engaging her, provid she is again free before her next case becomes due?

⁂ A maternity nurse is entitled to be paid from t time she was engaged, whether required or not. The fa that she was free before her next case came on would prove that she had sustained no loss.

MIDWIFERY ENGAGEMENTS.

DEUTSCHER asks whether it is proper to book a confineme for a time when one is pretty sure not to be able to do it person but only by proxy.

⁂ Every medical practitioner in busy practice kno that many of his confinements will have to be attended his partner or assistant.

LOCUM TENENS AND INQUEST FEES.

A **CORRESPONDENT** inquires whether a *locum tenens* is entit to the fees for an inquest and *post-mortem* examinati attended after he had left his principal. He further sta that immediately after leaving this principal he entered service of another, although he stipulated for time to att the inquest in question. Has the second principal claim to the fees?

⁂ A *locum tenens*, who has left his principal at the ti is legally entitled to retain these fees, but it is a m honourable course to divide them with his late principal the work in question arose out of his practice, unless *locum tenens* in carrying out the work incurs expenses to the value of the fees. As our correspondent stipula with the second principal for time to do this work, the lat has no claim; but had no such agreement taken place fees would have been due to the second principal, should have shared them with the first principal.

QUALIFICATION OF CORONER.

LEGAL.—A surgeon and coroner for part of the cou appoints B. as his deputy-coroner. B. is a qualified solici but has not taken out his certificate for practising for s years. (1) Is it legal for B. to hold inquests? (2) If no there any penalty attached to his so doing?

⁂ The only qualification necessary for a coroner by is that he be "a fit and proper person." The cor appoints his own deputy, who must be similarly quali and approved by the chairman of the county cou Usually a medical man or a solicitor is appointed coroner, but we have known of the office being held b auctioneer and an officer of the army.

ATTENDANCE UPON THE FAMILIES OF MEDICA MEN.

F. B.—While deprecating the use of the expression "infam conduct" which should be reserved for grave professi offences, we share our correspondent's dislike of char y fee to a professional colleague, but there is no objection principle to receiving payment for services if pressed. e think where gratis services are expected they should be ked for, and in the case of a servant it is only courteous d right that the employer should send a note asking his lleague to be so good as to give the needful advice. In the esent instance this does not seem to have been done; so it uld be well to call upon the employer in a friendly way d put the matter upon a proper basis. In return for such all services, if there is no likelihood of repayment in kind, is usual to send some acknowledgement, if only a letter of anks.

MEDICAL AID ASSOCIATIONS.

LISSIMUS has probably overlooked the resolution of the neral Medical Council adopted on June 6th, 1899, which is follows:

> hat the Council strongly disapproves of medical practitioners associating themselves with medical aid associations which systematically practise canvassing and advertising for the purpose of procuring patients.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF LONDON.

THE LONDON HOSPITAL MEDICAL COLLEGE.

following sums have been received during March for the wment Fund of this College: Anonymous, through the Sydney Holland, Chairman of the London Hospital, ; E. P. Thompson, Esq., £100; Martin Sutton, Esq., £5 5s. dition, the anonymous donor has promised a further sum ,000, provided an additional sum of £5,000 be obtained by st 1st from others. It is earnestly hoped that, by the ness and liberality of those who know the London Hospital cal College and the excellent work carried on there, the red amount may be forthcoming by that time.

UNIVERSITY OF EDINBURGH.

st Professional Examination.—The following candi- have passed in the subject of Botany in the first ssional examination:

ine R. Benjamin, J. G. Boal, H. R. Borcherds, C. M. Bradley, . C. Burke, L. D. Callender, Andrew Campbell, J. A. H. Carter, . B. Chamberlain, J. P. Charnock, G. J. Cillie, T. D. Crawford, . J. Dolan, T. R. Evans, J. D. Gunn, H. J. Guthrie, T. E. uthrie, T. E. Harwood, A. B. Jamieson, A. M. Jones, G. J. oubert, S. G. Kriegler, A. S. Loutit, W. W. M'Cowat, A. E. ackenzie, A. H. G. Mackintosh, Robert M'Laren, Mary acmillan, D. F. MacRae, R. C. Malhotra, D. B. Maunsell, . P. Moore, Rhoda M. Murdoch, K. Nehru, F. H. Noronha, ora E. Paterson, C. R. Patton, J. A. Pienaar, S. Pinion, . Ram, D. R. B. Sivright, T. C. Smith, R. O. Spencer, C. B. udehope, Jane A. Walke.

UNIVERSITY OF LIVERPOOL.

ollowing candidates have been recommended for the na in Tropical Medicine: F. A. Arnold, M.B., D.P.H.; Bate, L.S.A.; J. Dundas, M.B.; N. Faichnie, Major, .C., M.B.; D. F. Mackenzie, M.B.; A. Pearse, Major, .C., D.P.H.; R. D. Willcocks, Captain, I.M.S., M.B.

TRINITY COLLEGE, DUBLIN.

llowing candidates have been approved at the examina- ndicated:

mediate Medical Examination.—Part II.—*W. Pearson, *J. C. retorius, *R. E. Wright, *W. E. Hopkins, *J. A. W. Ponton, . S. Thacker, D. J. Miller, D. P. Clement, J. F. Clarke, W. J. unn, T. P. Dowley, A. H. Smith, J. C. C. Hogan, G. A. Jackson, H. Morton, T. P. S. Eves, N. P. Jewell, A. T. Powell, J. B. nes, J. R. Yourell, E. C. Lambkin, O. Gogarty, E. H. Sheehan, . S. M. Winder, W. Knapp, F. R. Seymour.

Examination in Medicine.—Part I.—*T. O. Graham, F. W. H. igley, C. T. Conyngham, H. D. Woodroffe, E. C. Crawford, G. Sherlock, A. E. Knapp, A. T. J. M'Creery, F. O'B. Kennedy, . L. Hogan, H. B. Leech, J. A. Hartley, J. C. Ridgway, W. D. itchell, G. H. Stack.

II.—*S. G. S. Haughton, *G. W. Thompson, *J. D. Sands, R. A. skins, J. C. P. Beatty, B. G. Brooke, T. H. Peyton, F. Casement, Coppinger, G. Dougan, G. G. Vickery, R. S. Oldham, E. ibbon.

* Passed on high marks.

L NAVY AND ARMY MEDICAL SERVICES.

OYAL ARMY MEDICAL CORPS VOLUNTEERS (LONDON COMPANIES).

rch 31st a smoking concert was held by the London nies of the R.A.M.C. (Vols.) at their head quarters, rpe Street, Gray's Inn Road, to bid farewell to Mr. G. late Sergeant-Major and Senior Instructor to the corps. lress and a purse of money, subscribed by members of ps, past and present, were presented by the commanding Colonel Matthews, who spoke warmly of Mr. Small's nfluence on the corps during his connexion with it, ing off and on over a period of nearly twenty-two years, ince its first inception; at the same time he paid a graceful tribute to Mr. Small's high personal character. In thanking the donors, Mr. Small expressed the great pleasure he experienced in accepting the gift.

SURGEON-CAPTAIN.—A medical officer of Volunteers who has completed fifteen years' service may, on the recommendation of his commanding officer, be permitted to retain his rank and uniform on retirement. As the recommendation of the commanding officer is required it may be assumed that fifteen years as an "efficient" will be necessary.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE LOCAL GOVERNMENT BOARD ON WHOLE-TIME PUBLIC VACCINATORS.

THE Croydon Board of Guardians on Tuesday, April 3rd, considered the proposal of the Local Government Board that a whole-time public vaccinator should be appointed at a fixed salary. If the district was not large enough, the Board suggested that he should be allowed to engage in other professional work of a public character, but should not undertake private practice, that the appointment should be permanent, determinable only with their approval. The question arose in Croydon through the death of Dr. T. R. Adams, who was public vaccinator for the larger part of the borough. Owing to the great growth of the town since Dr. Adams's appointment, the guardians in January decided to divide his district into four and appoint a public vaccinator for each. The Finance Committee now recommended that that arrangement should be adhered to, the fees to be the minimum prescribed by the Local Government Board. The Committee were of opinion that this would conduce as much if not more to efficiency and economy as the appointment of one whole-time salaried official.

Mr. F. SMITH, moving the report, said the Committee considered that a salary which would economize on the present outlay for vaccination would be inadequate for one medical man attending a district covering such a large area. At the same time, being a permanent appointment, it would be subject to a pension. They felt that vaccination could be better carried out by four local medical practitioners covering comparatively small districts.

Mr. MENEAR seconded.

A letter was read from the Croydon Antivaccination League, expressing the view that if the proposed appointment were made the guardians would pay the whole-time public vaccinator, but probably he would take his orders from the Local Government Board, and thus be practically independent of the guardians. A further reason advanced against the proposal by the League was that they believed it was "somewhat of the nature of a feeler" from the Local Government Board, it being understood that only Croydon and Derby had, as yet, been approached with this particular suggestion. The League urged the guardians to retain the full and complete control over all the officials whom they appointed.

Some surprise was expressed that the antivaccinators were supporting the guardians in the matter, and the recommendation of the Finance Committee was adopted *nem. con.* without further comment.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE ROYAL NATIONAL ORTHOPAEDIC HOSPITAL.

THE first annual meeting of the Royal National Orthopaedic Hospital, the institution which represents the amalgamated National Orthopaedic and Royal Orthopaedic Hospitals, was held on February 28th. The report, after congratulating the Governors on having successfully effected the amalgamation, recorded the consent of the King and Queen to become Patron and Patroness, and the granting of a Royal Charter. Attention was also drawn to the satisfactory results being obtained from the tuition given to the children undergoing treatment in the wards, under the direction of the London Education Committee. The income of the new institution for the year showed, it was stated, a considerable increase over the combined incomes of its predecessors, a similar increase being noted in the number of in-patients treated. The out-patients, on the other hand, were fewer. The next step that will have to be taken is the rebuilding of the premises and the erection on the site of a new hospital, plans for which are now ready, with every modern appliance.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST.

DURING last year, as shown at the annual meeting on March 14th, the out-patient total attendances at this hospital were reduced by 5.5 per cent., but still reached nearly 26,000. The number of admissions decreased in corresponding fashion. As for finances, the building appeal fund was shown to have been very successful.

OBITUARY.

LIONEL SMITH BEALE, M.B.Lond., F.R.C.P., F.R.S.,

CONSULTING PHYSICIAN, KING'S COLLEGE HOSPITAL.

Lionel Smith Beale was born on February 5th, 1828, in London, in the neighbourhood of Covent Garden. He was the only son of Mr. Lionel John Beale, M.R.C.S., who practised in Long Acre. At the age of 12 he entered King's College School, and from that time his life and work were closely associated with the institutions which are under the direction of the Council of King's College, London. He remained at the school for four years, but during that time he was indentured as an apprentice to Mr. Joseph Rose, surgeon and apothecary, at Islington. In 1845 he entered the medical department of King's College, but did not matriculate at the London University until 1847. After matriculating, he went to Oxford as assistant to Henry Acland in the Anatomical Museum. He held this post for two years, and was succeeded in it by Victor Carus of Leipzig. There can be no better proof of the energy and ability which Beale possessed than the work which he accomplished in those two years at Oxford; for while engaged in the practical labours of the Museum, he studied for the First M.B. Examination at the London University, and for the examination for the Licence of the Society of Apothecaries. In 1849 he passed both these examinations, thus becoming qualified to practise. Further, it was during this period that, at the request of the Board of Health, he conducted a most laborious house-to-house inspection at Windsor during the cholera epidemic, for which work he received a certificate.

In 1850-1 he was Resident Physician in King's College Hospital, and in the latter year he obtained his M.B. degree at the London University, being then 23 years of age. From this time he devoted himself to teaching, to original research, to authorship, and to the practice of medicine.

In 1852 he established a laboratory, where he taught normal and morbid histology and physiological chemistry, and where he engaged in original research work. In 1853, at the age of 25, he was appointed to the Chair of Physiology in King's College, London, Thomas Henry Huxley being his unsuccessful rival for the appointment. For the first two years of his professorship Beale shared the duties with Bowman, but afterwards he was the sole professor, and remained so until he resigned the chair in 1869. The amount of work which he got through in these years is almost incredible. In addition to the teaching of his own students and the lectures which he gave in other places than King's College, he was constantly carrying out original researches, and writing, illustrating, and publishing the results of his investigations. He always spoke of research work with an enthusiasm which convinced his hearers that the happiest hours of his life were passed in planning and prosecuting scientific experiments and observations. He was proud of having done original work at a very early age, and encouraged his pupils to follow his example. He was himself so fascinated by the study of the phenomena of Nature that he could scarcely understand that others should be indifferent to it, and he has been heard to express, half humorously, a poor opinion of Mr. Gladstone, because, at a scientific soirée, that great statesman had inspected the circulation of the blood in the web of a frog's foot through the microscope, and had shown not the slightest sign of interest.

It is difficult to fix the exact date at which the results of Beale's first observations appeared, because his early works were, for the most part, published in the form of pamphlets, which were sent to learned societies, personal friends and any others who were thought to be interested in the subject. Many of these became the basis of more important papers which were read before the Royal Society or were used to form parts of a book. In 1854, he published a small book on *The Microscope and its Application to Clinical Medicine*. This was the forerunner of his larger book, *The Microscope in Medicine*, which ran through so many editions and which contains so many valuable illustrations. He also wrote books on *The Liver*, *On Kidney Diseases*, *Urinary Deposits and Calculi*, *On Slight Ailments and their Treatment*, *The Mystery of Life*, *Our Morality and the Moral Question*, etc.

It may fairly be claimed that the present age does n do justice to Beale's scientific work. If no epoch-maki discovery or method of observation can be attributed him, he nevertheless greatly improved the methods whi were in use when he started work, and he faithful recorded and illustrated the appearances which he obtain by these methods. The conclusions which he drew fr these appearances may not always have been confirmed those who work with improved methods and apparat but his value as a pioneer was great, and the defini ness of his views and the courage with which stated them have at least given his successors data work on.

As regards the contributions of Professor Beale to t Science and Faith controversies of his day, his views m be fairly stated by saying that he boldly announced l willingness to abandon his "most cherished hopes" any thoroughly-established scientific facts should ren them logically untenable; but at the same time he stou denied that any such necessarily destructive facts h been produced, and expressed a conviction that th would never be forthcoming. As his claim to be a man science could not be denied, and as he was a strong polemi writer, it followed that the Christian world came to reg him as the champion of Christianity against those wh interpretation of scientific discoveries led them to ad an attitude which was considered to be hostile to t Christian faith. As regards religion, he was a br Churchman, sympathizing with the views of Dr. Thri the late head master of Uppingham, and Dr. Wace, present Dean of Canterbury. His friendship with Thring was deep and lasting, and much of his writi on religion and morality was influenced by the str personality of his friend.

On his resignation of the Chair of Physiology in 1 Dr. Beale was made Professor of Pathological Anatomy King's College and also Physician to King's College H pital. He lectured on pathological anatomy until 18 when, on the retirement of Dr. George Johnson, he made Professor of Medicine. In the wards Dr. Bea work was very remarkable. He possessed an extraordin gift of what may be called diagnosis by facies. Not t he ignored the value of physical signs. It was rather t a kind of instinct led him to detect the real nature of malady with what seemed to be slight aid from laborious methods of investigation adopted by oth His house-physicians were greatly attracted by faculty and speak of it with admiration to this day; the method was not adapted to students who have aminations to pass, and it may be said that Dr. Be clinical teaching never drew a large class. The same be said of his lectures on medicine. They were ful good things, but scarcely supplied what was wanted examination purposes. In private practice, his opi was greatly valued by many friends and old pupils.

Professor Beale was made a Fellow of the Royal Societ 1857, at the exceptionally early age of 29. He read m papers before the Society, notably the Croonian Lect on "The Ultimate Nerve Fibres distributed to the Mus and to Some Other Tissues," in 1865. His connexion the Royal College of Physicians was, of course, r intimate. He was made a Fellow of the College in 1 and, in addition to other lectures at other times, in he delivered the Lumleian Lectures, choosing as his ject, "Life and Vital Action in Health and Disease." was an Examiner for the College for several yea Member of the Council in 1877 and 1878, and one of Censors in 1881 and 1882. He was Curator of the mus from 1876 to 1888, and the College is deeply gratef him for the care and skill which he placed at their se in this capacity. He was a recipient of the Baly M Dr. Beale also took an active part in the manageme the Nursing Institution of St. John's House and supported the scheme which laid the foundatio modern scientific nursing.

In 1896, while still vigorous in mind and body while still looking extremely young for his age, he ha attack of cerebral haemorrhage, or thrombosis. Thi to his resigning the Chair of Medicine and his po Physician to the hospital. He was then made Eme Professor of Medicine and Consulting Physician t hospital. It may be mentioned that some time b this his son, Mr. Peyton Beale, F.R.C.S., was appoi Assistant Surgeon to King's College Hospital, so er and son were on the hospital staff at the same .

ofessor Beale married, in 1859, Frances, only daughter le Rev. Peyton Blakiston, M.D., F.R.S., of St. Leonards, formerly of Birmingham. They lived for many years 1, Grosvenor Street, where Dr. Beale's floricultural and skill enabled him to grow successfully a number chids, ferns, and bulbs in a small greenhouse and on t roof at the back of the house. In 1882, on account s wife's health, he took a cottage in a pine wood at bridge, and travelled to and from London daily. Here ad more scope for gardening, and his wild garden me famous among his friends, among whom was the Mr. G. F. Wilson, whose wild garden at Wisley has y come into the possession of the Royal Horticultural ety. Dr. Beale had few really intimate personal ds. In his early days he received much help and advice from Dr. Todd, Mr. Sambrooke, and Mr. rt Cheere, names well known in connexion with King's. Thring, who has been already mentioned, Sir Henry nd, Victor Carus of Leipzig, Sir William Bowman, and H. T. Wells, R.A., were also close friends. The last tioned painted in 1876 a portrait of Dr. Beale, which exhibited in the Royal Academy, and, later, among nasterpieces of British art, at the Paris Exhibition.

rs. Beale died at Weybridge in 1892, and after the bral attack in 1896 Dr. Beale resigned all active . Some years later certain symptoms set in which e the greatest care essential to his welfare, and in he returned to London to live with his son, Mr. on Beale, in Bentinck Street, Manchester Square. e his general health improved, but on March 19th another cerebral attack occurred, and of this he on March 28th. He was buried in Weybridge etery in the simplest manner (as was his wish), and in resence of his near relatives, and a few of his oldest best friends in London and Weybridge.

WILLIAM ROBERT HENRY STEWART,
F.R.C.S.Edin.,

CONSULTING SURGEON, LONDON THROAT HOSPITAL.

W. R. H. **Stewart**, whose death occurred on March at the age of 54, from exhaustion after an operation luodenal ulcer, was the eldest son of the late Mr. E. Stewart, F.R.C.S., of Harley Street. He studied icine at University College Hospital, and after passing rofessional examinations and serving as surgeon on steam yacht *Ceylon* during a cruise round the world as surgeon on the yacht *Tyburnia*, he devoted himself n early period of his career to the special study of tions of the nose, throat, and ear. He became Clinical stant to the late Sir Morell Mackenzie at the Throat pital, Golden Square, and was appointed Surgeon to institution, but left it with the majority of his agues in 1887 when the London Throat Hospital was ded. To this institution he gave his services until ng health necessitated his retirement a few years ago, n he was elected Consulting Surgeon.

e was also attached at various times in his career to North-West London Hospital in the capacity of eon and Surgeon for Diseases of the Throat and Ear, e Hospital for Ladies in Harley Street as Surgeon for Throat and Ear, and in a similar capacity to the Great hern Central Hospital.

e was a Fellow or member of several London Societies, one of the founders of the Laryngological Society of lon. He acted as one of its first secretaries, becoming a member of the Council, Vice-President, and surer, an office which he held as late as last year.

e wrote numerous papers and treatises, some of which, his *Otorrhoea and its Complications*, *Aids to Otology*, *The Practitioner's Handbook of Diseases of the Ear and -pharynx*, went through several editions.

was, however, owing to his personal qualities no less to his scientific attainments, that Mr. Stewart me universally respected by his fellow workers. He a most charming, manly, upright man, who knew how mbine the *fortiter in re* with the *suaviter in modo*. He devoted to his patients, and beloved by them, and his agues at his hospital, as well as the larger circle of fellow specialists, justly saw in him an ornament of r branch. His loss is mourned not only by his widow but by the numerous friends whom he acquired and retained during thirty years of an honourable career.

T. F. ODLING, C.M.G.,

LATE PHYSICIAN TO H.M. LEGATION, TEHERAN, PERSIA.

We regret to announce the death of Dr. Tom Francis Odling, C.M.G., of Teheran, familiarly known to the British community of Teheran as the "Hakim." Having been admitted a Member of the Royal College of Surgeons in England in 1872, he joined the Indo-European Telegraph Department in March, 1873. At the time he signed his covenant with the Secretary of State for India he was just 22 years of age. On his arrival in Persia he was posted to Ispahan in medical charge of that station.

We are indebted to Dr. Joseph Scott, of Teheran, for the following sketch of Dr. Odling's career:

Six feet in height, scaling close on 14 st., with large bones and well-developed muscles, young Tom Odling must have been a stalwart specimen of an Englishman. He was an immensely powerful man, as his opponents in the football field of St. Bartholomew's could tell. But like many really strong men he had an exceptionally kind and tender heart, and throughout his life he was solicitous to a degree about the welfare of his friends. This big man has been known to relate the sufferings of a patient with tears in his eyes.

After a very short stay at Ispahan, Odling was posted to Shiraz, where he remained, with but short absences to Ispahan, till 1885. During his twelve years' residence at Shiraz he did not confine himself to his Government duties, but worked up a large practice among the European and Persian residents, and was especially successful as a surgeon. He was beloved by all classes of men in Shiraz, not only professionally, but socially. Up to the last he would speak with pride of his Shiraz days, and his many friends there who still remembered him after a lapse of twenty years.

Dr. Odling was a keen all-round sportsman, but excelled as a strong rider and a snipe shot. There was no better judge of a horse in the country, and in this respect up to his last days his advice was keenly sought and accepted by any intending purchaser.

In the autumn of 1887 Odling returned to Persia from long leave to England, and was posted to Teheran, where he officiated as Medical Superintendent. His sterling qualities soon gained for him the high opinion of the Teheran community, and he became one of the best known and most respected of its members. In 1888 he was unofficially attached to H.B.M.'s Legation as Physician, Sir H. Drummond Wolff being Minister at the time. In the summer of 1890 Sir Henry had a dangerous illness; and later, referring to it in a dispatch to the Viceroy, he says: "It is to Dr. Odling that, humanly speaking, I am indebted for my recovery." Dr. Odling accompanied Sir Henry to England, and for his services he received the honour of a C.M.G.

In June, 1891, he was promoted to be permanent Medical Superintendent, and in May of the following year he was definitely appointed Physician to H.B.M.'s Legation, a post which he held to the day of his death. This dual appointment, in addition to the Medical Charge of the Staff of the Indo-European Company and the Imperial Bank of Persia, gave him a great deal of work, and the Administration discussed whether it was not too much for him. In a letter to the Government of India, it is stated that Dr. Odling was overworked owing to his "deserved popularity as a private practitioner." He had to give up some of his private practice.

The cholera epidemic of 1892 called forth fresh exertion on Odling's part, and earned further eulogy. He was "thanked for zeal and devotion to the sick, and for skill and tact in helping to establish cordial relations with the Persians."

In a letter under date September 16th, 1892, to the Director-General of Telegraphs in India the following appears:

> Dr. Odling's conduct was zealous and devoted, he earned the gratitude of all nationalities and all classes. He worked in a most praiseworthy manner, never refusing attendance if he had a moment to spare, and as may be imagined, with the popularity and reputation he enjoys, the calls upon his time were incessant.

The summer of 1898 proved an exceptionally trying one in Persia, and Odling, in acknowledging a letter referring to his services, writes as follows:

> Will you please convey to .... my grateful thanks for his kind and sympathetic message; it has been a very anxious summer to both you and me, but as I am responsible to you for the health of the staff it has been a most anxious time for me. During my twenty-five years' service no such disastrous year has occurred, and since I have been in charge of Teheran (eleven years) I have lost no one of the staff, with one exception, during the severe epidemic of cholera in 1892, and there has been no loss among the wives of the staff.

After twenty-seven years of service in the Indo-European Telegraph Department, Dr. Odling retired in 1900, taking a pension, and in the same year he was granted a substantial increase of his salary as Legation Physician.

Dr. Odling's farewell telegram to the members of the Department shows his thoughtful and kindly nature, and the regard in which he was held is evinced by the reply:

> To —— and every member of the staff:
> On severing my connexion with the Department I wish to thank one and all for the kindness, courtesy, and assistance that I have invariably received. Although no longer a member of the Department, I shall always remember with gratitude the many marks of kindness and goodwill I have received from all.

The reply was:

> To Dr. Odling: I am sure in expressing my own regret at the loss the Department is sustaining by your retirement I am expressing the regret of all. We wish you happiness and prosperity in the future, and are glad that, though losing your valuable services, you are still to be present among us, as you have always been, the valued friend of all.

Dr. Odling had only returned from a six months' leave to England in the middle of December, 1905. He contracted typhoid fever in the beginning of February, 1906, and succumbed to the disease on the 17th of the month. He had just completed his 55th year. He leaves a widow and five children to mourn his loss.

Dr. MINAS MANOOK BASIL of Teheran writes: Dr. Odling was the best known Englishman in Persia, and everywhere he was known to his credit. I have known him intimately during the last sixteen years. He was enthusiastically devoted to his professional work, ever ready to do his best for his patients, poor or rich alike. His last illness was probably caught from devoted nursing of some patient. He understood that in Persia a doctor must often do the nursing of serious cases personally. He worked himself to death during two severe epidemics of cholera. His perfect candour, uprightness of character, and devotion to duty forced the respect and admiration of all who came in contact with him. His untimely death deprives Persia of a great benefactor.

JESSIE MACLAREN MACGREGOR, M.D.EDIN.,

DENVER, COLORADO, U.S.

THE Scottish friends of Miss Jessie MacLaren Macgregor, M.D., L.R.C.P. and S.E., learned at the end of last week with a shock of pained surprise that she had died on March 22nd in Denver, Colorado, after a few days' illness, of acute cerebral meningitis. She had left Edinburgh only a few months before in the full vigour of health to take up practice in Denver, in and near which city her immediate relatives had settled.

Dr. Macgregor was one of the first group of women who studied in Edinburgh after the Royal Colleges threw open their qualifications to both sexes. She had a brilliant career as a student. While maintaining herself entirely by her own exertions, she gained first-class honours in every subject of the curriculum, and amongst other prizes obtained the Arthur Scholarship. She was one of the first women to take the M.B. degree in the University of Edinburgh in 1896, after passing all her professional examinations in the shortest possible time. Three years later, in graduating as M.D., she obtained a gold medal for a thesis on the comparative anatomy of the auditory nerve. Subsequently she was appointed Junior Physician to the Edinburgh Hospital for Women and Children, and Registrar and Assistant to the Extra Physicians in the Royal Hospital for Sick Children in Edinburgh. She took a deep interest in, and was largely instrumental in founding, the Muir Hall of Residence for Women Students, and the Hospice, a nursing home for women, in a working-class quarter in Edinburgh. As a Fellow of the Obstetrical Society she communicated several papers of value to its meetings. Last year she published a contribution to the pathology of endometritis, a work which w
favourably reviewed recently in the BRITISH MEDIC
JOURNAL. Time was found for all this and other wo
amidst the calls of a busy and rapidly-increasing practic
in the pursuit of which she had earned the respect of t
whole medical profession in Edinburgh, as well as t
love and devotion of the patients. Universal regret w
expressed by those who knew her when they learned th
she felt impelled by the call of duty to leave Edinburg
and to give up the position which she had won for hers
there; but they were gratified to learn that she had, in h
new home, begun to make her mark as a scientific work
and as a clinician.

In a short notice it is not possible to convey an ad
quate idea of her remarkable personality. She had int
lectual and artistic gifts of a high order, and to these s
added a womanly sympathy, a generosity of nature, and
breadth of mind such as are rarely met with. Her cha
of manner without affectation, her kindly considerati
for all, whether rich or poor, with whom she was broug
in contact, and her devotion and tenderness towards t
unfortunate and the suffering endeared her to a very la
circle of true friends who are now mourning her loss.

THE death is announced from Lancashire of Dr. ROBE
HORN of Padiham, Lancashire, who, although still a co
paratively young man, had been in the district so long
to be one of its oldest practitioners. Dr. Horn receiv
his professional education at Glasgow University, where
graduated M.B., C.M. in 1882, and M.D. six years later.
some four years after graduation he assisted a practitio
in Burnley, and then, after a short stay at Read, establis
himself in Padiham. For a considerable time past
had been in bad health, but he continued at work u
only a few days before his death, the immediate cause
which was diabetic coma. Dr. Horn, who was a mem
of the Burnley Division of the Lancashire and Chesh
Branch of the British Medical Association, will be mu
missed, as, although of a very retiring disposition, he h
long been sincerely esteemed by his colleagues a
patients. He was married, and is survived by his wife.

DEPUTY-INSPECTOR-GENERAL VALENTINE DUKE, M
R.N., Examining Medical Officer for Recruiting Dut
Birmingham, died in that city on March 6th, aged 62.
joined the Royal Navy as Surgeon, September 7th, 18
was made Staff Surgeon, December 20th, 1878; Fl
Surgeon, December 22nd, 1887; and Deputy-Inspect
General on retirement, January 5th, 1899. He was Fl
Surgeon of the *Calliope* at Apia, Samoa, in March, 1889,
the "terrible hurricane which" (according to Capt
Kane's report) "caused disaster unprecedented since
introduction of steam;" and on which occasion the Lo
of the Admiralty expressed their high approval of
conduct of the officers and men.

STAFF SURGEON ALWORTH EDWARD MEREWETHER, M
of H.M.S. *Crescent*, died at Simon's Bay, Cape Colony,
March 7th of malignant malarial fever, aged 36. He t
the degree of M.B. at Durham with honours, and fo
time was Assistant Demonstrator in Anatomy at the N
castle-on-Tyne School of Medicine. He entered the Ro
Navy as Surgeon, May 13th, 1896, and became S
Surgeon, May 13th, 1904.

LIEUTENANT-COLONEL CHARLES EDWARD DWYER,
tired pay, late Royal Army Medical Corps, died
Kingston, co. Dublin, on January 1st. He was appoin
Assistant Surgeon, September 30th, 1871; Surgeon, Ma
1st, 1873; Surgeon-Major, September 30th, 1883; gran
the rank of Lieutenant-Colonel, September 30th, 1891;
made Brigade-Surgeon-Lieutenant-Colonel, March 3
1896. He retired from the service, August 9th, 1899.
has no war record in the Army Lists.

MAJOR JOHN STEWART SHEPHERD LUMSDEN, M.B., In
Medical Service, died in London on February 16th, a
40. He was appointed Surgeon-Captain July 28th, 1
and Major, July 28th, 1903. He was in the Burmese ca
paign in 1892-3 (medal with clasp), and with
Waziristan expedition in 1894-5 (medal with clasp).

ETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Queries, answers, and communications relating to ts to which special departments of the BRITISH CAL JOURNAL *are devoted will be found under their tive headings.*

QUERIES.

ERBERT DE C. WOODCOCK (Leeds) asks for information as he results of any experiments in the application of the nograph to clinical medicine.

s for advice in the treatment of (*a*) a mild case of Ray- d's disease (the local asphyxiation variety), (*b*) a case of eminated sclerosis with considerable loss of motor power he legs.

UBBERSTY (Sunderland) would be glad to receive infor- ion about sailing ships which visit warm climates and y invalids, as to (1) the firms which manage them, the accommodation provided, (3) number of passengers ied.

asks for advice in the treatment of sore lips due to liation; there are no cracks. The patient is a middle- lady; as soon as one set of scales peels off others form, the condition is a great disfigurement; lead ointment, line, and vaseline have been tried without permanent efit.

C. has a patient, aged 28, who about a year ago was d to have phthisis in a rather advanced stage; he has t six months at a sanatorium and five months on a farm marked benefit. He had a distinguished university er, and had intended to become a minister of the United Church of Scotland, but his disease is too far advanced ermit this intention to be carried out. Our corre- dent asks for suggestions as to some outdoor employ- t, and asks whether there is any opening in the direction ientific botany.

A Function of the Male Prepuce.

EONARD J. KIDD (London) writes: In the act of emptying ll, or fairly full, bladder, the stream is quickest and t powerful when the prepuce is about half way, or a little e, over the glans, and is less powerful and rapid when glans is completely uncovered. For aught I know to the rary, this compression of the glans and urethra may be nly *a* function but *the* function of the prepuce. A con- ration of all this has naturally led me to ask myself ther circumcised men who contract tabes, disseminated rosis, or any other lesions that may lead to residual urine cystitis suffer more frequently and more severely than ircumcised men similarly afflicted by disease. Here it at I wish to enlist the co-operation of your readers; the t ought to be widely investigated. Should it be found the prepuce is at all protective in this way, then clearly ought to pay special attention to those tabetics, etc., who *minus* the foreskin.

Epidemic Stomatitis.

Essex) asks for suggestions in the diagnosis and treat- t of a number of cases occurring lately in his practice the following symptoms: The patients, usually children young adults, and rarely more than one in a house, are lenly taken ill with vomiting, diarrhoea, and pyrexia. first symptom may persist and be so severe as to cause iety, while the other two symptoms are usually slight and escent. The unusual symptom is the presence of in- mation of buccal and gingival mucous membrane, ing in intensity from simple redness and swelling to ration and alveolar pyorrhoea, with great fetor. In some s there has resulted great prostration, and, while most ents quickly recover with antiseptic mouth washes and ple mixtures, as bismuth and morphine, some resist treat- t and remain grave for a week or so, with persistent iting or great prostration.

eparation of Finger-Nails from their Matrix.

.—I should be glad to hear of a remedy for the raising of er-nails from the free end of their beds by a mass of umulated epithelium, which gets discoloured and is very cult to remove; the nails are somewhat brittle, with itudinal groovings. The condition started three or four s ago in the nails of the hand used for constant gynaeco- cal examinations; the separation has recently began in nails of the non-examining hand. The condition seems nprove at times, but the nails that have been affected er get really normal. General health fair.

* The differential diagnosis of nail affections requires e investigation than is generally supposed. In the ent case, judging from the description, arsenic in small s (in form of a pill or of liq. Fowleri), together with the of an ointment of salicylic acid (gr.v to x, ad ℥j) pushed er nail and nail-bed and also under the nail-fold, might good. But this sort of treatment in the dark, without examination of urine and so forth, is neither fair to prescriber nor patient. A perusal of Mr. Pernet's article on Affections of the Nails (*Encyclop. Medica*, vol. viii, 1901) might be of some assistance in diagnosis.

ANSWERS.

STAFF SURGEON.—Phenacetin is considered to be one of the least, probably the least, injurious of the remedies of its class, but it is merely an analgesic. Surely the frequent recurrence of the headaches is an indication that the subject, though careful in his living, is living in the wrong way. Probably he is ingesting more purin bodies than he can excrete.

Antidiphtheria Serum by the Mouth.

DR. A. M. PILCHER (Mosborough, Sheffield) writes: In answer to Dr. Rolleston I may say that the average age was about 7 in my series of cases, the majority being from the infant department of the village school. Also that I seldom use local treatment, owing to the young age and the general unhandiness of the majority of the mothers and also the carelessness of the latter in not using soap and water after such attention and the consequent danger of spreading the disease. If Dr. Rolleston reads the number of preventive doses given, he will find very few cases of infection in the household.

Works Hospitals.

INDIA will find much useful information as to the housing of bodies of men in huts or tents in Notter and Horrocks's *Theory and Practice of Hygiene*, second edition (London: J. and A. Churchill. 1900. 25s.), and also in the first volume of the *Treatise on Hygiene*, by Stevenson and Murphy (London: J. and A. Churchill. 1892. 28s.). Without details as to the nature of the works, the climate in which they are, etc., it would be impossible to give an estimate as to the number of beds required, the provision of infectious blocks, operating theatre, and other matters requiring detailed attention. It is possible that the provision made by the Corporation of Birmingham at its waterworks might afford our correspondent some assistance.

Diagnosis of Disease of the Gall Bladder.

GAMMA.—Murphy's sign is described by himself as follows (*Medical News*, vol. i, 1903, p. 825): "The most characteristic and constant sign of gall-bladder hypersensitiveness is the inability of the patient to take a full inspiration when the physician's fingers are hooked up deep beneath the right costal arch below the hepatic margin. The diaphragm forces the liver down until the sensitive gall bladder reaches the fingers, when the inspiration suddenly ceases as though it had been shut off." The "sign" is thus one which demonstrates gall-bladder tenderness, and does not in any way differentiate the various conditions which may cause this

Serumtherapy of Graves's Disease.

IN reply to "F. G. W.," A. F. R. writes that he is at present prescribing the antithyroidin of Moebius in a case of Graves's disease. The patient obtains the serum from Mottershed, chemist, Manchester, and is improving under the treatment. She takes 10 drops three times a day by mouth, and a bottle containing 2 drachms or so costs about 4s. 6d. Professor Murray, of Newcastle, in the Bradshawe Lecture of 1905 (BRITISH MEDICAL JOURNAL, vol. ii, p. 1445) went fully into the subject.

DR. CHARLES PINKERTON, of 6, Queen's Road, Southport, has also obtained the serum through the same firm, and offers to afford further information if "F. G. W." will write to him direct.

LÅNGMJOLK.

DR. G. B. JACOBI (London, W.) writes: With reference to Dr. Corlith's inquiry about "Långmjolk" in the BRITISH MEDICAL JOURNAL for March 3rd, I have made inquiries and find that this milk is only used by the country people in the North of Sweden, and is prepared in the following way: The inside of a wooden vessel is rubbed with the petals and leaves of the *Pinguicula vulgaris* (Fam. Lentibularicae), and when the milk is poured in it coagulates into a stringy, tough mass. It does not appreciably alter the taste of the milk, and it can be kept for a long time. One hears of woodcutters twisting some of this milk round the handles of their axes when they go to work. As there is no demand for artificial milk preparations in Sweden, this kind of milk is looked upon more as a curiosity, and I have been unable to find an account of the chemical nature of this milk. The pinguicula has a small bluish flower and very thick, slimy "root leaves," and the coagulating ferment or alkaloid it contains is of such strength that a piece of linen dipped into the milk and dried is afterwards sufficient to coagulate an unlimited amount of milk.

LETTERS, NOTES, etc.

Inebriety and Drug Treatment.

IN a note upon the drug treatment of inebriety in America, with which Dr. T. D. Crothers, of Hartford (Conn.), has favoured us, he says: The following is the general plan of drug treatment used in the best institutions, managed by scientific men. On admission the patient is examined with great care. If a continuous drinker, the digestive and circulatory systems are minutely investigated. If a periodic drinker, his heredity and present mentality are studied, together with the influence of climate, occupation, and surroundings. For the toxaemic states present in all cases elimination through the bowels by calomel and salines, also through the skin by baths, either hot water, hot air, or radiant light. Baths are the most effective measures for the first treatment, and should be associated with vigorous massage and vibratory exercise.

If there is much irritability of the stomach, remedies are administered by the hypodermic needle. A common and very effectual combination, one that can be used in a very large portion of cases, is strychnine $\frac{1}{60}$ and sulphate of atropine $\frac{1}{200}$ of a grain; this can be given at least four times a day, particularly in persons who are constant drinkers, great care being taken to watch for the poison symptoms, and diminish the quantity if they appear. Often in one or two days all restlessness and desire for spirits disappear, and these drugs may be continued for three or four weeks, at the end of which time they should be dropped for a week or ten days, and then resumed again in decreasing doses.

If there is no pronounced irritation of the stomach, a concentrated solution of cinchona bark, or quassia may be given every three hours following the withdrawal of spirits. If the patient insists on the gradual withdrawal, larger doses of these tonics may be given, with the result that the desire for spirits disappears very quickly. Both of these drugs have sedative effects in large doses, but should be discontinued soon. States of hyperacidity of the secretions should be remedied by the free use of alkalies. If atropine is not well borne, and its poisonous effects very marked, bromides are given in large doses for a short time, care being taken to give hot baths daily while they are used.

Chloral is an uncertain remedy, and all the coal tar derivatives. For states of delirium, and an exasperating thirst for spirits, small doses of apomorphine not only produce relaxation, but profound sedation, which gives complete control over the patient. Strychnine is frequently dropped, and taken up again at intervals, depending on its effect.

For the derangements of nutrition, salines, iron, and phosphorus are excellent remedies. For nervous irritation and excitement lupulin, and some of the vegetable sedatives and narcotics, are the safest and most effectual remedies.

The static form of electricity is both a tonic and sedative of almost specific value in some cases, and is used very commonly. For excessive nervousness and emotional disturbances, vibratory treatment along the line of the large nerves and muscles is also very valuable. Permanganate of iron is a favourite remedy, and many preparations of arsenic are used to good advantage. Where there are specific histories mercury and potassium aid materially in building up the system. In one institution a restricted diet, together with atropine and saline, constitute a large element in the treatment. In all institutions the diet should be restricted at the beginning to grains and fruits, and meats are only sparingly used. The baths of various kinds should be administered daily. Each case should have a special drug treatment adapted to the conditions present, and while strychnine, atropine, cinchona, salines, and baths should be given, the size of the dose and the conditions for their use will vary. The removal of alcohol at once is the custom in all institutions. The reactionary symptoms quickly disappear by eliminatives. Toxaemic states, with metabolic changes and nerve fatigue and cell exhaustion, are conditions demanding drug treatment. If to this are associated measures for the removal of every possible physical and psychical cause and continued long enough, restoration should be the rule in all cases.

The central idea in the drug treatment of inebriety is that the use of alcohol should be regarded as an effect, as well as a cause, and oftentimes a period of active drug treatment will effectually remove all desire for spirits and restore the patient to health. In some cases eliminative measures are very nearly specific, and in all cases elimination is a very essential measure. Atropine and other narcotics have a certain value in diminishing irritation and accumulation of nerve energies and their explosion in the drink craze. Apomorphine, by its relaxing and sedative action, diverts abnormal energies and produces both mental and physical effects.

All these means are made more specific by the psychical remedies of suggestion, obligation, occupation, duty, exercise, and every rational effort to bring about nerve restoration. The drug treatment of inebriety has by no means attained the prominence which it will have in the near future, but it will not be used alone, but only in conjunction with every other means known to encourage health.

TREATMENT OF SCIATICA AND LUMBAGO.

DR. BRINDLEY JAMES (Hammersmith) writes to draw attention to a method of treating sciatica and lumbago which he has found very satisfactory, and has described fully in his book on the *Treatment of Rheumatism by the Use of the Percusso-Punctator.* After a preliminary dry cupping over the seat of the lesion, he injects 10 drops of sulphu ether subcutaneously daily, and if no favourable progr takes place gradually increases the dose to a maximum 30 drops. Concurrently with this treatment he gives a br purgative, and follows it up by four-hourly doses of following mixture: ℞ Sodae salicyl., gr. v; sp. ether. chl and tinct. zingib., āā ♏x, inf. gentian. ad ℥j.

THE *X*-RAY TREATMENT OF RINGWORM.

MR. GEORGE PERNET (Assistant to the Skin Departme University College Hospital) writes: With reference to *x*-ray treatment of ringworm of the scalp, which has b discussed in your columns, may I be allowed to state th have had good results from the one exposure method on lines laid down by Sabouraud and Noiré? The pastille is not accurately scientific, it is true, but in practic answers very well. Of course, parasiticide ointments m be used concurrently, as the rays do not destroy the fung but only epilates the parts exposed; and every precaut must be taken against reinfection. I have not found necessary to rely on good daylight—a luxury not alw obtainable in London. I have compared the tint of exposed pastille with the standard by the ordin electric light without drawbacks. One of the ca so treated I brought before the Dermatological Society London. The results were excellent. When the surface be treated is large, and on a convex part of the head, borders of the patch are not as effectually affected as central portions, owing to the rays striking the former m or less tangentially. But in one case of this kind the u mate results have been very good, the peripheral disea stumps taking a little longer to be shed. The process been carried out without any special apparatus, the pa beyond the patches being protected by means of ordin lead foil. In treating patches it is advisable to expose scalp a little beyond the borders of the diseased areas.

ACUTE OEDEMA OF LIDS AND CONJUNCTIVAE.

DR. A. J. SWANTON (Skibbereen, co. Cork) writes: August 26th I attended a girl, aged 19, suffering from ac oedema of both lids. She had suffered during the month July and August from four such attacks. On each occasi just previous to the onset of the oedema, she had b engaged in watering a flowering plant, commonly called Chinese primrose. She stated that within an hour of contact with the plant her left eyelid became greatly swol and of a red colour, presenting all the appearance of erysipelatous swelling. In less than half an hour the ri eyelid was similarly affected, and in the case of this lid noticed that the redness preceded the onset of the swelli The conjunctivae were hyperaemic, but not markedly oe matous. The enlargement of the left lid was of suc degree as to render the patient utterly incapable of open the eye. She complained of itching in the affected pa but in all other respects felt in her usual perfect hea There was no headache or pain of any kind associated w the enlargement of the lids. The urine could not be tained until some hours after the onset of the attack, an was then found to be normal. Cold fomentations were quently applied to the lids, and on the following day oedema had completely subsided; subsequently the red coloration gradually faded away. Having never heard similar case I am rather anxious to be acquainted with etiological and pathological features which characte such a condition as that met with in this case.

ROYAL MASONIC INSTITUTION FOR BOYS.

THE application of Henry Percy Mackinnon, aged 9, so the late Lieutenant-Colonel H. W. A. Mackinnon, D.S R.A.M.C., who died a little over a year ago, leaving widow and two children almost totally unprovided fo strongly commended to Masons having a vote for the R Masonic Institution for Boys by a number of med Masons, as well as by Earl Roberts, the Earl of Onslow, other distinguished members of the Craft.

SCALE OF CHARGES FOR ADVERTISEMENTS IN TH BRITISH MEDICAL JOURNAL.

Eight lines and under	£0 4 0
Each additional line	0 0 6
A whole column	2 13 4
A page...	8 0 0

An average line contains six words.

Advertisements should be delivered, addressed to the Mana at the Office, not later than first post on Wednesday mor preceding publication; and if not paid for at the time, shoul accompanied by a reference.

Post-Office Orders should be made payable to the British Med Association at the General Post Office, London. Small amou may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letter *Postes Restantes* addressed either in initials or numbers

Remarks

ON

HE TREATMENT OF TAENIA.

J. KINGSTON FOWLER, M.A., M.D., F.R.C.P.,
SENIOR PHYSICIAN TO THE MIDDLESEX HOSPITAL;
CONSULTING PHYSICIAN TO THE HOSPITAL
FOR CONSUMPTION, BROMPTON, ETC.

; method of treatment here described has been followed some years in my wards at the Middlesex Hospital, and ough it differs only in details from that generally mmended it may be worth recording, as the results ear to be somewhat more favourable than are usually ined.

he routine method in vogue in the out-patient depart- t years ago was only rarely successful, but since it has me the custom to admit these cases to the wards, ire has been as rare as success was formerly. The hod is as follows:

The patient is kept in bed.

For two or three, or in some cases four, days the patient iven a diet consisting of: Beef tea, 2 pints; Mason's nce, one tin; two rusks; and port wine, 4 oz. During the period the patient takes tabloids of cascara sagrada (gr. ij) e times daily.

On the fourth day (usually) at 5 a.m. haustus sennae ℥j; at 9 a.m. a capsule containing ♏xv of the extract of fern; at 9.15 ditto; at 9.30 ditto; at 9.45 ditto; at 11 a.m. tus sennae co. ℥j. If by 1 p.m. the worm has not been d and the head found, a second course of treatment with fern at intervals of fifteen minutes is begun; to be wed in an hour by a purgative draught. If the head is ound a third course of treatment is prescribed.

is rarely advisable to continue the treatment beyond without an interval of a day, as the patient may be what exhausted.

will be seen on reference to the table that in Case 18 head was not found until the treatment had been ated four times, and that in Case 12 the treatment was ated six times. In the latter case, although the head not found, the patient was cured, as he had not passed segments when heard from seventeen weeks later.

the first 8 cases the treatment was as described e, but, in addition, a single dose of ʒj of extract of male fern was given after the four doses at fifteen minutes' interval. As this was subsequently found to be unnecessary, it was omitted.

Having regard to the prolonged duration of the affection in many of the cases and to the frequent failures of previous attempts to dislodge the parasite, it may fairly be claimed for this method that it presents advantages over that which is apparently still generally adopted.

The chief points of difference are:

1. *Complete Rest in Bed.*—It is not advisable for patients taking such an inadequate diet as is necessary to continue at their ordinary occupation.

2. *Prolonged Period of Restricted Diet.*—The usual instructions given to out-patients were to eat no solid food after mid-day and to take the draught prescribed on the following morning; this to be followed by a purgative an hour later. The following, which is taken from a well-known textbook of therapeutics, shows that this method is still approved:

> The oil (male fern) should be given in the morning on an empty stomach, the bowels having previously been evacuated. At noon an ordinary meal may be taken, and in the evening a brisk purge.

To ensure that the bowels shall be as nearly empty as possible when the vermicide is administered, it is necessary that a diet which leaves little solid residue shall have been taken for some days, and that for the same period a laxative, such as cascara sagrada, which is said to act most efficaciously when given in small and repeated doses, should be used. The duration of the period of restricted diet depends upon the strength of the patient.

3. *The Method of Administering the Vermicide.*—If a single dose is given, it is conceivable that it may pass rapidly over the worm and fail to destroy it, whereas it is possible that the prolonged action of repeated doses is more effective. The nauseous taste of the drug is avoided by the use of capsules.

4. *The Search for the Head of the Worm.*—As the worm usually breaks at a distance of about 1½ in. from the head, and as the portion left is an exceedingly slender filament, a very careful search is necessary to find it. To facilitate this, the pan into which the motion is passed should be covered with black crape, as against this the fine white filament terminating in the head is more readily seen.

It will be observed that the head of the worm was found in seventeen out of the twenty-two cases, and that a cure

e l ber.	Name.	Age.	Sex.	Duration of Symptoms.	How often Previously Treated.	Duration of Limited Diet.	Number of Treatments.	Nature of Worm.	Remarks.
	F. R.	32	M.	3 years	No information	3 days	Two	? *Taenia mediocanellata*	Head not found.
	K. W.	22	F.	5 years	"Many times"		Three	? *T. medio.*	Head not found.
	M. D.	35	F.	5 months	Four times	2 days	Two	*T. medio.*	
	A. R.	27	M.	2½ years	"Several times"	3 days	Three	*T. medio.*	
	H. F.	29	M.	9 months	Once	3 days	Two	*T. medio.*	
	D. C.	37	M.	2 months	Not previously	3 days	Two	*T. medio.*	
	W. W.	20	M.	18 months	Twice	3 days	Three	*T. medio.*	
	E. B.	28	M.	6 months	Twice	3 days	Two	*T. medio.*	
	G. F.	29	M.	12 months	Four times	3 days	Three	? *T. medio.*	Head not found. Patient wrote 15 weeks later no segments passed.
	J. H.	30	M.	?	Once	2 days	One	*Bothriocephalus latus*	
	J. W.	43	M.	16 years	Eight times at least	4 days	Three	*T. medio.*	
	H. L.	20	M.	2 months	Once	3 days (twice)	Six	? *T. medio.*	Head not found. Patient wrote 17 weeks later no segments passed.
	E. G.	28	F.	3 years	Once	3 days	Two	*T. medio.*	
	M. C.	22	F.	3 years	Eight times	3 days	Two	*T. medio.*	
	E. J.	21	F.	2 years	"Many times"	3 days	Three	? *T. medio.*	Head not found.
	C. M.	25	M.	2 years	No information	3 days	Two	*T. medio.*	
	M. T.	48	F.	8 months	Once	2 days	One	*T. medio.*	
	M. V.	23	F.	2 months	Not previously	3 days (twice)	Four	*T. medio.*	
	M. L.	50	F.	5 years	Twelve times	4 days	Two	*T. medio.*	
	H. I.	19	M.	9 months	Not previously	3 days	One	*T. medio.*	
	C. W.	30	M.	1 month	Not previously	3 days	One	*T. medio.*	
	R. F.	36	M.	8 months	Not previously	4 days	One	*T. medio.*	

was certainly effected in two out of the remaining five cases, 86 per cent. in all.

The other three patients have changed their address and have been lost sight of, but as they were instructed to report themselves if not cured and have not done so, it is probable that the treatment was effective in those cases also.

Great credit is due to the sisters in charge of King's ward (males) and Murray ward (females) for the careful search for the head of the worm which they have made in every case. In the former ward the treatment has been successful in the last thirteen cases; and in the latter, where the cases are not so numerous, in three successive cases.

There appears to be a belief that oil of male fern is less successful against *Taenia mediocanellata* than against *Taenia solium* and the *Bothriocephalus latus.* This series of cases, so far as it has any bearing on the point, does not support such a view. None of the very various toxic symptoms described as having occasionally followed the administration of this drug were observed.

An Address

ON

PSORIASIS AND ITS TREATMENT.

Delivered before the Ealing Division of the Metropolitan Counties Branch of the British Medical Association.

By **P. S. ABRAHAM**, M.A., M.D., B.Sc., F.R.C.S.I.,

SURGEON, HOSPITAL FOR DISEASES OF THE SKIN, BLACKFRIARS; DERMATOLOGIST, WEST LONDON HOSPITAL, AND LECTURER ON DISEASES OF THE SKIN, POST-GRADUATE COLLEGE.

When your Honorary Secretary did me the honour to invite me to read a paper before you, I happened to be in a somewhat depressed state of mind. I was thinking of our, or I should say my, deplorable ignorance concerning things which are constantly around us. Take this common disease psoriasis, for instance, cases of which must frequently come under the notice of all of us. At first sight it might appear almost a waste of time—a work of supererogation—to make it the subject of a paper to be read before such a body of medical men as this; but I fear that, although this disease has been so long known to medical science, we must confess that, as with many other diseases with which we have to do, our knowledge of it is still far from complete. In point of fact, opinions still differ with respect to its etiology, its pathology, and even in regard to its treatment.

I propose to discuss shortly a few points in connexion with some of the various views, and to refer particularly to some observations that I have made, and some conclusions that I have arrived at from a study of a number of cases which have been under my own care at the Hospital for Diseases of the Skin (Blackfriars) and at the West London Hospital.

Etiology.

For a long time, and by many authorities in this country, psoriasis was regarded as largely a manifestation of the "gouty diathesis," and in France the "arthritic" constitutional condition was and still is by many considered to be the important etiological factor; on the other hand, it has been looked upon, especially in Germany, as a purely local or external affection unconnected with any internal or constitutional defect. Many dermatologists in Europe and America now consider it to have a "neuropathic" origin, while a still larger and increasing number believe that it is really a parasitic disease, and that it is communicable by contagion.

Arguments and cases in illustration can be, and have been, brought forward in favour of all these different views, and yet, as far as I can see, the matter stands very much where it did: that we do not, beyond all doubt, know the true cause of psoriasis.

If we take, moreover, the numerous observations that have been made on the histo-pathology of the efflorescence, it is extraordinary how the various investigators differ, and at what diametrically opposite conclusions they arrive. According to a large number of excelle authorities, such as Kaposi, Neumann, Rindfleisch, Wey Vidal, Bazin, and a host of others, the initial lesion i psoriasis occurs in the true skin; while according to ju as many equally able observers—for example, Besni Unna, Neisser, Auspitz, Rosenthal, etc.—the prima lesion is in the epidermis. Comparatively recently the fundamently-different theories have been accentuated two important observations: one by Munro, who mai tains that the first lesions seen in psoriasis are sma erosions in the horny layer of the epidermis, followed the formation of small miliary abscesses; and the oth by Verrotti, who claims that the early changes take pla in the true skin, and are caused by an "acid auto-intox cation," which is in direct relation to the renal functions

The only points upon which every one seems to agr and which my own sections taken from 6 cases confir are that microscopic sections show at some time or oth hyperaemia of the vessels of the papillary and subpapilla layers of the corium with perivascular cell infiltration, a hyperplasia of the Malpighian layer of the epidermis wi parakeratosis or anomalous keratinization.

I would venture to suggest that the explanation of great part of all this divergence of opinion (and not on in pathological matters) is to be found in the tendency so many observers to generalize from insufficient da A microscopist makes a few sections from a case or two a disease, and prepares and stains them in his favour manner. If he has a theory, he naturally is inclined see what he thinks ought to be there, and to attach gre importance to whatever bears out his view, at the sa time (no doubt unconsciously) overlooking or minimizi other points which are perhaps really existent in the sa sections. But apart from this possibility of error he often too apt to jump to a decided conclusion—*Ex u disce omnes*—and to think that what those particul sections show him must be the true and only pathology the disease. I am afraid that this criticism is applica to some of the publications of even our "grea authorities.

I shall say but little in reference to the micro-organis which have been from time to time described in co nexion with psoriasis. Lang's fungus "epidermophytos is believed by most pathologists to be nothing more th particles of eleidin made manifest by the mode of prepa tion; and the morococci described by Unna and t microbes seen by others are not yet generally accept as pathognomonic of the disease. The arguments favour of microbic origin, indeed, are mainly based up other considerations, such as the clinical behaviour of t eruption, the undoubted effect of parasiticide remedi the occasional instances of possible contagion a successful inoculation.

Some twelve years ago I made a short communicat on the subject of psoriasis at the Newcastle meetin the British Medical Association, and presented so statistical notes concerning 355 cases of the affect which had occurred among 3,700 patients suffering fr various diseases of the skin that had been under observation during the preceding two or three years. may be interesting to compare these notes with somew similar statistics of cases that have more recently—wit the last five years—been under my care at the two h pitals. I have to thank Dr. E. J. Cowen, my able clin assistant at Blackfriars, for compiling and annotating small work!) the statistics of that hospital. These rec figures refer to 582 cases of psoriasis occurring within last five years among a total of 10,759 skin patients. numbers show a percentage of 5.4 of psoriasis in relat to other diseases of the skin. As seen in the table, ratio differs to some extent in the two hospitals; at Bla friars it is 333 in 5,368, or 6 per cent., and at the W London Hospital 249 in 5,391, or 4.8 per cent.

In my 1893 figures the proportion of psoriasis to ot diseases of the skin was 9.5 per cent., a ratio considera higher than the above, and indeed higher than that viously published by other observers in this country, wh was about 7.5 per cent.

Are we to conclude from the present obviously sma percentage that psoriasis is diminishing in London in hospital class? I am not prepared to say yes, for i plain that any such deduction could only be even appr mately made by including the similar statistics of all other special skin hospitals and dermatological dep

Statistics of Psoriasis.

	Black-friars (1900-4).	W. L. H. (1900-4).	Total.	1893 Statistics.
n patients	5,368	5,391	10,759	3,700
riasis ...	333=6%	249=4.8%	582=5.4%	355=9.5%
ales ...	147	92	239	133
emales ...	186	157	343	222
of onset:				
rth to 3...	12	16	28 } =50%	
4 ,, 7...	41	46	87	Birth to
8 ,, 15...	89	89	178 } =60.8%	13, 90 } =64%
16 ,, 20...	48	13	61	14-20, 62
21 ,, 30...	73	37	110	42
31 ,, 40...	32	20	52	26
41 ...	26	20	46	18
st came to ospital:				
. —March	83	60	143	
ril—June	94	71	165	
ly—Sept.	56	55	111	
t. —Dec.	77	54	131	
atives affected:				
ther ...	21	15	36 } =23.8%	21
ther ...	16	7	23	9
others and isters ...	27	16	43	26
ers ...	17	7	24	11
nmatism gout ...	37	22	59 } =30.9%	5
pepsia, nstipation	31	8	39	
of health	23	38	61	
ling or egnant ...	15	6	21	12

ts of the general hospitals of the metropolis. Apart n the advisable caution with which every careful man ives statistics in general, it must be remembered that e are numerous and varying conditions especially cting the various hospitals and the different localities s exemplified by the figures I give for my two hospitals nd that in any case any conclusions based upon such istics can, at the best, and however carefully one may to elicit the truth, be regarded as only approximate. n, indeed, only say for myself that I am at present ng proportionately fewer hospital cases of psoriasis n I did formerly, and that if the experience of others firms mine, there must be something to account for a diminution.

SEX.

ne of the points that I laid especial stress upon in my ner communication was that females in my experience ned to be more often affected with the disease than es, the ratio being as 1.7 to 1; and I then remarked greatly that observation differed from the figures n by other observers.

he British authorities consider that the sexes are about l in psoriasis, but on the Continent it appears to be ond doubt that the males largely predominate—according to Nielsen in the proportion of 3 to 2, and in some ntries in a much greater ratio. My present figures to a t extent corroborate my older ones, the ratio for the hospitals being about 1.5 females to 1 male (Black-s, 186 to 147, and at the West London Hospital 157 to It is possible, of course, that adult men in England ot think quite so much of their skins as the men ad, and do not come so much to the hospital for a e patch or two of psoriasis; be that as it may, I still k that some other more satisfactory explanation is led of the fact that I have seen at the hospitals far e cases of psoriasis in females than in males. I should, he other hand, state that the disparity between the s is far less marked in the case of the children who brought to the hospitals with psoriasis than in the r patients.

AGE.

believe that Nielsen was the first to emphasize the that psoriasis ought really to be regarded as a disease arly life—a conclusion that I confirmed by my own iries in 1893. It is true that the majority of the nts who come before us are of adult age: but if we fully note the age of onset, or the time that the affec- first appeared in the patient, it will be found that in nsiderably larger proportion of the cases it begins in youth. My 1893 statistics gave 64 per cent. as commencing before maturity, and my present figures further trate this truth. Of the total number of 582 cases, ss than 50 per cent. were affected before the age of 15—142 in 333, or 42.6 per cent., at Blackfriars; and 151 in 249, or 60 per cent., at the West London Hospital. A total of 120 actually commenced before the age of 7, and the disease was stated to have started in 28 cases in the first three years of life—in 2 shortly after birth, in 1 at 4 months, and 1 at 9 months. One old man of over 78 declared that the disease had only just appeared, and denied ever having until then any "blemish of the skin."

HEREDITY.

These statistics do not lend much weight to the theory of heredity. In 1893 about 14 per cent. gave a family history of the disease, while the present tables show 23.8 per cent. It would seem that brothers and sisters are more often affected than the parents, and of the latter the father is more frequently stated to have had the disease than the mother, in the proportion of 3 to 2. Those who believe that psoriasis is a parasitic disease consider that the fact of other members of a family having occasionally the same complaint is as well explained by personal communication of the virus as by heredity, especially where, as in this instance, a direct history from parent to offspring is comparatively rare. It seems to me, however, that from other considerations we are justified in the view that although psoriasis is not a hereditary disease there may be a "family susceptibility" to its acquisition.

It was long taught, and is still widely believed to be the case, that psoriasis may be regarded as "the skin disease of good health," and it is so far true that many patients complain of little or nothing else. A great number, however, in my experience do show evidence of more or less defective health or faulty nutrition, and in looking over my case-books I am surprised to find how often I have had to order digestive, tonic and other medicines—although not as specifics for the psoriasis. In my older statistics, only about 10 per cent. were especially noted as being otherwise ill; but the present ones give a ratio of nearly 31 per cent. (36 per cent. at the West London Hospital), and these figures by no means represent the number to whom medicines for constipation, debility, etc., have been given. Indeed, I am inclined to think that there is something constitutionally and functionally wrong in a very large number of the cases, although the symptoms may be only manifested by such common and comparatively trivial disturbances as constipation, defective excretion and the like. A rheumatic or gouty history has been particularly noted in about 10 per cent., and the bearing of this with regard to treatment we shall see directly.

Neuroses in these cases have been occasionally observed, including "paralysis," chorea, sciatica, neuralgia, extreme nervousness, etc., but not in sufficient ratio to indicate any general etiological significance. Four cases were stated to have come after measles, three after scarlatina, one after small-pox, three after vaccination, one after erysipelas, one after typhoid, and one after gonorrhoea. Three cases had congenital xerodermia, two alopecia areata, one carbuncle, and one extensive furunculosis. Very severe rosacea was noted in one case.

TREATMENT.

Most of us, it must be admitted, still treat many diseases absolutely empirically, and we often cannot well do anything else. If we find that some particular method of treatment is successful in curing a disease, we are quite justified in employing that method, whether it bears upon this or that theory of pathogenesis, or whether it fits or does not fit in with the hitherto known pathological or etiological factors of the complaint. Our empiricism may be in one sense unscientific, but it is obvious that a rational treatment founded upon pathology and etiology can only be possible when the facts connected with these latter are quite certain. Now, as we have seen, we do not know the whole of the facts connected with the causation and true nature of psoriasis.

In olden times, internal medication was practically the only method of treatment irrespective of taking the baths at the various well-known and fashionable watering places. By degrees, external medication came into vogue, and in Germany it was for long chiefly relied upon. We must admit that patients have been cured—or perhaps, what is not always quite the same thing, have lost their psoriasis while under the treatment (psoriasis indeed sometimes disappears spontaneously)—by taking internal medicines alone, as well as solely by bathing in medicated waters or by rubbing in ointments. We have to remember that a disease is not absolutely proved to be local or superficial because it disappears under purely local applications, or constitutional because it disappears under purely internal treatment. In the one case, we may have absorption of the drug into the tissues and blood, so acting internally; and in the other, the drug may reach the skin from within through the circulation, and then produce its effect.

I do not propose to enumerate the enormous number of medicines that have been used internally or externally for psoriasis. I shall allude to but very few and more particularly to those which I have myself found useful in combating the disease, and to the methods of their application which I employ. If I were asked whether external applications or internal medicines were most efficacious, I should reply undoubtedly the former. In my experience the eruption of psoriasis always disappears under tarry applications adequately used, and still more rapidly and certainly under chrysarobin, whether other medicines be given internally or not.

From what I have already stated, however, it will be gathered that I do believe that internal medication is often very useful in a great number of cases—that is, where there is the least suspicion of the uric acid diathesis, indigestion, debility, etc. In point of fact, I always employ vigorous external treatment, while at the same time giving whatever internal medicine that may be indicated.

I may here state that I do not believe that there is any one drug administered internally which can rightly be regarded as a specific for psoriasis. I am quite aware that this is a very heterodox opinion, and I always advise students, when going up for examination, not to say anything to this effect to the examiner, for they would run great risk of being "ploughed" if they did not state that arsenic was *the* specific for psoriasis.

In 1893 I ventured to express my doubts as to the efficacy of arsenic in this disease; I had seen so many cases which had been under its influence for years without the slightest benefit, and I had also seen a great many which had been cured without its use. I then wrote: "I cannot help thinking that, with regard to psoriasis, this arsenic 'tradition,' like the tradition of a great many other drugs for other complaints, will sooner or later become obsolete." My subsequent experience has strengthened this opinion. It must, however, be admitted that a great many experienced physicians—and even dermatologists—still put faith in arsenic for psoriasis; but I think I am right in believing that an increasing number of those who have most to do with the disease agree with me in this matter. I do not deny that arsenic may occasionally appear to benefit a patient—for example, as a nerve tonic in cases which have a neurotic complication, or that, when greatly pushed almost to the toxic effects, the eruption may sometimes temporarily disappear. A similar result is not infrequently observed during the existence of some intercurrent disease. I have more than once seen the skin get clear in a psoriasis case during an attack of gastritis, severe influenza, and other acute diseases. Anything, in fact, which profoundly alters the general nutrition of the system will at the same time affect the skin and its efflorescence, and the latter may vanish for the time. Under these circumstances, however, it very soon returns, in my experience, when the superimposed illness is over.

Another substance which with less doubt influences the nutrition of the skin, and sometimes has a beneficial effect on psoriasis, is thyroid gland. When Dr. Byrom Bramwell published his important observations on this subject, and reported his successful results in three cases, I at once made trial of the new remedy, and within six months had 65 cases under it. Only in a few of them did I note marked improvement; in considerably more than half the cases the results were either negative or the eruption actually increased while the thyroid was being administered. I very rarely order it now, and only in cases which "hang fire" and are under close observation as in-patients at the hospital.

In my experience, magnesium sulphate, with a little iron and some bitter tonic, is often useful in regulating the bowels, promoting excretion, and improving the general nutrition, and in every case in which there is the least suspicion of an excess of uric acid in the system I give salicylates, salicin, and alkalies. D Radcliffe Crocker some years ago published some goo results in psoriasis from the exhibition of salicylate and salicin in large doses. I find them useful, especiall under the circumstances mentioned.

As regards external remedies: my usual plan is to orde a thorough soaking for at least ten minutes in a weak ta bath every day, to be followed by a copious inunctio with some tarry ointment. I do not think it matte much what tarry substance one uses. I find creolin fro gas tar convenient and as good as any. I generally orde ʒj to 6 gals. of water in the bath, and my favourite oin ment, especially for indurated patches on the extens surfaces, contains:

℞ Creolini ʒj to ʒij.
Acidi salicyl. gr. x.
Hydrarg. ammon. gr. x
Lanolini.
Vaselini ad ℥j.

I sometimes add soft soap ʒij to ʒiij to this and occasio ally sulph. precip. pur. gr. xv.

It need hardly be said that the proportion of the i gredients must be varied, diminished, or increased or son of them left out, in accordance with the special circu stances of the case, the idiosyncrasies of the patient, t parts affected, etc. Most cases yield to this treatment a few weeks if copiously and thoroughly applied, but wh progress is slow, I add chrysarobin gr. x to xx to the abo ointment, that is, in in-patients or where the case can adequately watched. In out-patients and in private practi I frequently rub in obstinate patches with a stiff bru chrysarobin in benzine, the parts treated to be afterwar painted over with flexible collodion. I prefer this appli tion to the usual chrysarobin in traumatism. For psorias of the scalp my routine ointment, for a few weeks, is:

℞ Hydrarg. ammoniati ʒj.
Saponis mollis
Vaselini, ℥j.

with the addition sometimes of resorcin or some tarry oil.

Many cases do well at places like Harrogate, Aix, et and some even at Bath and Buxton, but, of course, ord ing to watering-places is out of the question for hospi patients.

[The question of the differential diagnosis of psoria from certain cases of squamous syphilides, eczema seb rhoicum, pityriasis rubra, pityriasis rosea, lichen plan lupus erythematosus, etc., which might be superficia mistaken for psoriasis, was then discussed.]

Remarks

ON

EYE ACCIDENTS AND COMPENSATIO

AN ANALYSIS OF A SERIES OF 170 CASES.

BY SIMEON SNELL, F.R.C.S.EDIN.,
OPHTHALMIC SURGEON, ROYAL INFIRMARY, SHEFFIELD; PROFESSOR
OPHTHALMOLOGY, THE UNIVERSITY, SHEFFIELD.

AT different times I have been requested to report o large number of eye accidents, and especially since Workmen's Compensation Act came into force. A c sideration of such cases will show many points of inte and importance. In this article I propose to ana about 170 consecutive cases. They are claims, savin few, in connexion with the Compensation Act, the exc tions being cases in which a lump sum was sought t obtained from a Friendly Society or accident insur company. A few (5) were instances referred to me report on soldiers seeking pensions after the So African war. It is impossible, as well as unnecessary discuss the cases in detail; it will suffice to mention s of them particularly and to give a general staten respecting the others.

As to the ages of the applicants there were 8 u 20 years, 44 between 20 and 30, the same number betw 30 and 40, 31 between 40 and 50, 27 between 50 an whilst those older than 60 were 2 aged 62, 3 aged 2 aged 67, 1 aged 69, 1 aged 71, and 1 aged 73.

Nearly half of the claimants had been employed in various occupations connected with the iron and s industries, the total being 82. Forty-one were coll whilst the others represented many different trades.

Table I.—*List of the Occupations.*

Sheet roller	2	Boiler maker	2	Puncher	1
Collier	41	Stonemason	1	Carriage proprietor	1
Steel melter	6	Breaking up ship	1	Gas tester	1
Striker	2	Forger	1	Labourer (hot metal)	2
Pearl cutter	1	Wire drawer	3	Cold steel drawer	1
Cutler	1	Quarryman	2	Stoker	2
Silversmith (tram accident)	1	Wire turner	1	Gardener	1
Railway fireman	3	Puddler	1	Pony driver in mine	1
oiner	4	Miner on bank	1	Machine driller	2
Railway ganger	1	Army	5	Agricultural labourer	1
Show assistant	1	Fireman (not railway)	1	Engineer	2
Moulder	1	Machine knife maker	1	Platelayer	1
Trammer	1	Wagon builder	1	Moulder	4
Planer	1	Machine joiner	2	Tube sweeper	1
Leverman	1	Bicycle polisher	1	Fitter or fettler	18
Pattern maker	1	Blacksmith	4	Not classified	1
Gas maker	1	Furnaceman	6		
pring smith	1	Shearer	1		
urner	10	Mechanic	1		
Farmer (gun)	1	Labourer	7		
rankmaker labourer	1	Filesmith	1		

n 66 instances the right eye was the one injured, and 77 the left; in 7 both, whilst in 16 the eye was only ged to be indirectly implicated.

n 31 cases the injured eye had been enucleated pre-us to the date of examination; 12 were right, and 19 eyes. The ages were as follow: Two were under years, 7 between 20 and 30, 8 between 30 and 40, 7 ween 40 and 50, and 5 between 50 and 60.

n 12, the eye was struck by a piece of metal; in 8, a ign body had become located in the interior of the ; in 2, the eye was damaged by being hit by the pick it; in 7, the injury was from molten metal; in 2, the ball was ruptured, 1 by direct force of the blow, and in other by being gored by a bull. Nineteen were kers in steel and iron, and 3 were colliers.

Table II.—*Occupations in Cases of Enucleation.*

rner	1	Moulder	1	Bricklayer's labourer	1
acksmith	1	Cutler	1	Employed at shot works	1
gineer	1	Wireworker	1	Stonemason	1
ipper	1	Cranemaker's labourer	1	Shipbreaker	1
tter	2	Farmer (gunshot)	1	Pearl cutter	1
iker	1	Colliery contractor	1	Quarryman	2
ilermaker	1	Collier	3	Not classified	1
eel melter	3				
chanic	1				
rnaceman	2				

as many as 58 cases the situation of the injury was cornea, the larger majority being in colliers. A piece oal, or even a splinter from the pick, hits the eye, sion or ulceration ensues, and a nebula or leucoma is result. It is important in these cases to bear in mind situation of the opacity; a small nebula in front of pupil and in the direct line of sight may occasion us interference with vision, whereas a much larger situated more peripherally will be of considerably consequence. Corneal abrasions, especially in miners, too, very prone to become hypopyon ulcers. The a and lens were injured in 9 instances, the sclerotic , the conjunctiva in 11; a foreign body was embedded e retina in 1 case, and there were 8 others in which a ment of metal was located in the globe. In 11 the nce of accident was meagre or it was doubtful.

sy of the ocular muscles was met with in only ances, and in each it was the external rectus which ffected. In one, a railway fireman (41),* aged 48, had ead crushed when coupling a carriage to the engine. as seen nine months after the accident, and my on was that he was unable to continue his employ-. The other was a man, a show assistant (70), 67, to a large engineering firm. As a result of a tram ent his head had been hit by a fall. The palsy and quent diplopia in this instance was disappearing I saw him five months after the accident. Vision h eye was $\frac{6}{6}$, and it was anticipated that he would in t time be able to resume his occupation.

re were 3 instances in which the injuries were d by explosions, the agent being in 2 cases dynamite, n the third gas. All three workmen were very ly burnt, both eyes being affected in each case. y they are:

A youth (26), aged 16, employed in shot-making factory, was injured by explosion of some detonators. The left eye was shrunken and had no light perception. It was enucleated. The right cornea and conjunctiva showed slight evidence of injury, and one hand was severely damaged.

A quarryman (34), aged 26, owing to explosion of shot, lost both eyes.

A gas tester (65), aged 24, had both eyes injured by an explosion of gas, the left so seriously that enucleation was advised. R.V. with + 1.5 D = $\frac{6}{9}$.

In the following 5 cases the injury was occasioned by a pick point. Four of these were colliers. In the first case (25), a collier, aged 31, when examined twelve months after the accident, no evidence of injury could be found, and V. = $\frac{6}{6}$. In another (85), a collier, aged 28, five months after the accident the eye was practically normal. In one case (100) the eye was enucleated, and in another (31) it was completely lost but was not removed. The fifth case (121) occurred in a navvy, and here also removal of the eye was required.

There was only one instance, a cutler (115), aged 51, of sympathetic ophthalmitis. The right eye had been injured by a fragment of steel nine years before. There had been recurring attacks of ophthalmitis, the exciting eye not having been enucleated. In spite of its removal complete blindness followed.

The following case is of unusual interest, and was referred to me by a county court judge, acting as arbitrator:

A man, aged 53, a tool grinder (129), when engaged at his work in July, 1903, was struck in the left eyeball by pieces of grindstone which flew off from the stone. He continued to work for some days. Subsequently he lost the sight of this eye and also of the right, becoming totally blind in October of that year. It was given in evidence "that the total loss of sight was not occasioned, or contributed to by, the accident, but was caused solely by disease of the optic nerves, causing paralysis of the nerves of the eye." I found optic atrophy in each eye. The man was suffering from "tabes," and in short, my report was that I found no evidence that the alleged injuries had contributed to the loss of sight, and that such was sufficiently accounted for apart from the alleged accident.

The youngest in my list was a boy (134), aged 14, a pony-driver in a pit.

A fall of dirt from the roof had hit the left eye. The optic disc was atrophied, and there was pigmentation at the macula and between it and the papilla. V = perception of light. He had only recently commenced work in the mine, and it was not deemed advisable for him to continue it.

In five instances the injury was occasioned while the man was not in pursuit of his occupation.

A pearl cutter (8), aged 30, was gored by a bull and lost his right eye.

A silversmith (21), aged 41, was injured by glass in a tram accident. There was a small wound at the periphery of the cornea, but it did not cause much interference with sight.

A shearer (51), aged 36. The left eye was practically lost as a result of lime entering the eye.

A show assistant (70), aged 67, alleged injury to head in tram accident. The eyes were not affected, but there was diplopia owing to injury to the left external rectus.

A fitter (119), aged 41, was hit on the head by some sheet lead falling on it.

Here it may be mentioned that objection is sometimes taken to a man wearing glasses. The following is an instance:

A fitter (14), aged 59, was sent to me by a Trades Union for an opinion as to his need for glasses at his work. Vision in each eye, with + 1D, was $\frac{6}{6}$, but as he required his presbyopia correcting for the efficient performance of his employment the Union held that he was unfit for his work as a fitter and gave him the grant he claimed.

The following instance requires separate mention:

A collier (12), aged 41. He had suffered a severe accident in the pit sixteen months previously. His head was crushed between a corve and the timber propping the roof. His ears were torn, and there was a large scalp wound; there was bleeding from the ears and nose. He was rendered unconscious, and no doubt suffered from fracture of the skull. I found optic atrophy in each eye. In the right there was only perception of light, and in the left he could see little more than fingers.

The following case is the only one among the series in which the deeper structures of the orbit were involved as a result of the injury:

A man (107) was engaged underground at a colliery with haulage machinery, and was inserting a rope into a groove prepared for it, when the splicing needle he was using for this purpose (a dirty one) slipped and bounced upwards, penetrating the right eyelid. Acute cellulitis of the orbit followed, the

---

The figures in brackets refer to numbers in my record book.

eye becoming very prominent, and the cornea ulcerated. Vision was reduced to light perception, but the appearance of the eye was good. He was unable to obtain another post in consequence of the accident. He succeeded in getting one, but when it was found that he only had one seeing eye, and that a glass was required for it, the employers declined him, and cancelled the engagement.

Another case is of interest as showing that in some instances, at all events, it is impossible to arrive at a positive conclusion as to the ultimate result as far as sight is concerned, and of a man's capacity for his employment.

A joiner (62), aged 28, was injured in the left eye by a piece of steel which penetrated the sclerotic beyond the outer ciliary region, and became lodged in the vitreous chamber, from which it was extracted by the electro-magnet. The vitreous was filled with haemorrhage, which for more than twelve months showed little or no evidence of undergoing absorption. In the meantime he had received a moderate sum for compensation after another opinion had been obtained. Two years after the accident the vitreous had become perfectly clear and vision was excellent.

Five cases were referred to me by army officials for report to the War Office. All were in connexion with the South African war, and the claimants asserted that their defective sight had been the result of injuries received on active service. In only one was injury alleged in actual fighting, two resulted from blows from a knot in a rope, one had his eyes filled with sand whilst in a sandstorm, and in the other the defect was accounted for by constitutional causes. In none of the cases was I able to recommend the granting of a pension.

The age of the employé is a matter for consideration. The younger men will adapt themselves to the altered circumstances and to the want of the proper estimation of distance and size of objects which follows the loss of an eye more rapidly than the older workers.

Of importance, too, is the condition of the remaining eye in deciding the capacity of a man for his occupation. The following cases may be referred to in this connexion:

A boiler-maker (15), aged 45, had the right eye destroyed as a result of injury by a piece of steel. The left, with correcting glass, only had V. = $\frac{6}{60}$.

A pearl-cutter (8), aged 30, had the right eye gored by a bull and destroyed. The left eye had V. = $\frac{6}{18}$.

Another instance occurred in a man (9), aged 41, working on a planing machine. The left eye was lost by injury by a piece of steel. The right, with + 2 D., had V. = $\frac{6}{18}$.

A chipper (94), aged 46, was injured by a piece of steel. The left eye was rendered practically useless (V. = fingers, poorly) by large corneal opacity with adherent iris. The right eye had only with + 5 D., V. = $\frac{6}{18}$.

Also a striker (16), aged 25. The left was enucleated after injury by a chipping. The right unaided had V. = $\frac{6}{60}$ only.

A shearer (51), aged 36. The left cornea became opaque after injury from lime. V. = fingers at the most. Right V. = $\frac{6}{18}$ unaided.

A collier (54), aged 44. Right eye lost after being struck by a piece of coal. Left eye was injured in childhood. V. = $\frac{2}{36}$.

The loss of one eye, whilst it lessens a man's wage-earning ability, does not necessarily mean that he is incapacitated from following his employment. Each case must be judged on its own particular merits. In all or most occupations, however, one-eyed men are to be found pursuing their avocation like their two-eyed fellow workmen. Thus Nieden[1] states that

> In an examination of 85,000 colliers at Bochum he found 310 one-eyed persons who could follow this trade as well as the others. As a result of this examination the management of the mines in that district does not now regard the one-eyed condition as an obstacle for the mining trade, and one-eyed persons are accepted as miners, and those who lose an eye whilst working are allowed to continue.

Notwithstanding this there is a disinclination among employers to accept one-eyed men, and the men fear there may be a tendency to get rid of them when opportunity occurs. In this connexion the following case is of interest.

A young man (137), aged 20, who had worked for some years as a pattern maker, desired admission to his trade union, and as he only possessed one eye, the other having been blind from infancy, but quiescent, the society, before admitting him to its benefits, required a satisfactory certificate. I found the remaining eye a good one in all ways, with V. = $\frac{6}{6}$, and in my opinion he was entitled to the certificate he needed.

In certain employments faulty eyesight is liable to be a danger to a man's fellow-workmen as well as to himself. Among these may be named those dealing with molten metal, the steel melter and moulder. The total loss of one eye may, in most instances, be strong presumpti evidence of a man's incapacity to again follow such employment; but even in these cases each must be car fully investigated and a decision only arrived at after fu inquiry.

A steel melter (142), aged 32, had the left eye destroyed consequence of a splash of hot metal. It was subsequent enucleated. In the right eye, V. = $\frac{6}{6}$. It was ascertained th he worked on a raised platform and in circumstances special requiring quick sight. The foreman and others with whom had worked regarded him as unfit for such an occupatio His inability was recognized, and he received compensati accordingly.

Colliers finding discomfort from nystagmus are apt assign the distress due to the disorder to the result accident. Inquiry, however, usually demonstrates th the symptoms of nystagmus actually existed prior to t date of the alleged accident.

Men getting on in life—50 years and upwards—and w are finding their capacity for many kinds of work faili are very apt to allege that slight injuries have rende them permanently unfit to follow their employme Youths and young men, too, who can readily change th occupation, are more apt to assert their incapacity tl those of 25 to 40, who have learnt their trade and feel tl they can only earn a living in another way with difficul

Exaggeration of the effects of injury was present many instances, but real malingering only in a few. T following cases are of interest:

A collier (13), aged 43, alleged that the left eye had been inju at the inner corner under the eyelid by a piece of wire, mak the eye bleed and occasioning a swelling so that he could open the eye for a few days. When sent to me, twelve mon later, I found no evidence of this injury, but he asserted t he had no light perception with this eye and only admit V = $\frac{3}{60}$ with the other eye. In consequence of the alle accident he sought to recover a grant of £100 from a Frie Society as permanently unfitted to follow his employment refused to grant a certificate. Six months later, in conseque of an agitation among the man's fellow-workmen, he was a sent to me. In the meantime he had obtained a certifi from an ophthalmic surgeon at some distance stating his capacity for his work. At the time he came to me the left was asserted to be as before, there being no light percep and the sight of the right had become still further reduce $\frac{2}{60}$. The history of the accident was most obscure and he unable to bring me a witness of it. Detection in this case unusually difficult; ultimately, however, it was complete the sequel is not without interest. The agitation among fellow-workmen continued and the society felt themse unable to resist it and therefore took him to another city an opinion. A certificate of his permanent incapacity for work was given, the money was paid to him, and he was very short time back at his old employment.

A collier (22), aged 56, alleged two accidents, both to the eye. The first was in 1893, when the left eye was struck piece of bind, the second being at the end of 1898, whe eye was hit by a piece of coal. When examined, six mo later, there was no reason for believing that the eye had made worse by the second injury, and there was no evid of the first. It was held that he was fit to return to his w The claim collapsed immediately after my examination.

A platelayer (10), aged 31, asserted that he was struck ove left eye by a steel bar. It was ascertained that there had injury to the same eye ten or twelve years previously, wh was struck by a piece of steel. The lens had under absorption, and there was opaque capsule. The eye divergent and vision was at the most light perception. I right eye V. = $\frac{6}{9}$. He had evidently pursued his occupatio spite of the loss of this eye for several years, and the certi for obtaining a grant of £100 from a Friendly Society refused.

In another case, in which the alleged original i had not been serious, I had reason to believe that recurring conjunctivitis was due to the use of an irri most probably turpentine. It is not easy to be always of the precise irritant employed for such a pur Two recent cases, not among this series, have shown be tobacco dust in one, and, in the other, the redne the eyelids and streaming of the eyes was admit occasioned by the application of a menthol cone t eyelids.

In two cases no effects of the accident could be fou

A collier (25), aged 31, alleged having had a blow on the eye from a pick. When examined a year later there w marks of any injury and vision in the right = $\frac{6}{9}$, unaided in the left, $\frac{6}{12}$, unaided.

A collier (122), aged 54, alleged that the right eye w by a piece of stone. On examination 18 months after there was very little evidence of any injury. The patie myopic (−5 D.) in both eyes, and in the left there was inc cataract. He also suffered from nystagmus.

man aged 30 (17), whose work was the cleaning of tubes locomotive engines, alleged that 12 months before he s sent to me, whilst at his work, something from the fire- entered the left eye, and as a result both eyes had become ective, and he considered he was unfit for his employment. ound he was myopic in each eye (R., − 7 D., L., − 8 D.), and ugh he only admitted to $\frac{6}{60}$ I had reason to think vision better. He claimed £100 from a Friendly Society. I was ble to certify that the accident had at all affected his acity for work.

joiner (124), aged 51, had fallen from a roof, and alleged t his sight thereby had become affected, and prevented his owing his employment. Each eye was found to be normal, aided.

fitter (119), aged 41, asserted that in consequence of sheet falling on his head vision had become deteriorated, and he was unable to follow his employmnt. Vision in each was ascertained to be $\frac{6}{18}$, and with +1 D., $\frac{6}{9}$. He was held e as fit for his work as before the accident.

platelayer on the railway (68), aged 60, injured his right towards the end of 1899. At the end of the same year he an inmate of a hospital. Whilst there the left eye became ted. There was evidence, when I examined him in the mn of 1902, of there having been ulceration of the cornea, h was nebulous, causing vision to be very imperfect. The t eye had been lost by a blasting accident many years iously. His contention was that the corneal condition been occasioned by the accident to his knee some months re.

railway fireman (48), aged about 30, stated that when aining an engine from underneath some hot oil or other id had fallen into the right eye. As a result he had been tted for his employment. The accident was in the early of 1901, and my examination was made nine months later. s not able to satisfy myself that there was evidence of ry, but I found that vision in the same eye, with correc- (+ 3 D.) = $\frac{6}{12}$, and in the left (+ 3 D.) = $\frac{6}{6}$.

medical man is not called on to assess pecuniary ages, but he is nevertheless often able to render rial assistance in the settlement of a case. Care and racy in examination are most essential. Let it een that your desire is to arrive at a full know- of all facts relating to the case, and be careful to l even any appearance of partisanship in the matter. rts should be in direct, simple language, and without guity.

e number of cases in which I was called to support eport in court were very few, the total being 6, or t 3 per cent. In my experience a careful and thorough ination has, with few exceptions, led to a speedy ment of the claim. In each instance in which I was d to give evidence the result was in accordance with eport I had previously given. The following cases be cited:

ick sharpener at a colliery (50), aged 56, alleged that when g a hot pick out of the fire something flew from the fire truck the right eye. He was absent from his work for teen weeks. Then he returned to it for three weeks, but desisted, as he could not stand the heat of the fire. He ent to me eleven months after the accident, but I was e to find any evidence of the alleged injury; but, usly, I recognized him as an old patient, who, several before, had been under my care in consequence of an to the same eye by a piece of metal striking it. There t that time a wound of the cornea and prolapse of iris; olapse I had excised, and had removed a foreign body he magnet. I had no reason to suppose the eye was any than it had been for several years.

rpenter (123), aged 57, employed by a colliery company, ed that when putting up tubbing in the pitshaft to pre- he inrush of water, the wooden wedge flew out, striking ft eye, and at the same time some dirty grease and water tered the eye. As a result of this injury it was alleged he had become unfitted for his employment. He was ent to me for examination fifteen months after the nt. At the inner side of the cornea was a linear scar, s which the iris was drawn; a little capsule occupied pil, the lens had become absorbed, but the details of the s could not be made out. It was held that these appear- pointed to an accident anterior to the date given, and y disclosed a history of an injury to the eye in early ood, the details of which it was impossible to ascertain. r later, or twenty-five months after the date of the injury by the wooden wedge, the case went before an tor, when it was admitted that the eye had in childhood njured by a fork running into it.

ther case in which my evidence was required was llowing:

llier (139), aged 53, early in 1903 received injury to the left its being hit by a piece of coal. The following month e was removed. A year later it was alleged that the right d become affected. He had not resumed his employment he accident, and it was asserted that he was unfit to do f even a light character and above ground. Fifteen months later I found a small nebula on the cornea, not, however, covering the pupil, V. = $\frac{6}{15}$. The case was heard before an arbitrator, when it was ascertained that in 1904 he had been under treatment for ulceration of the cornea with hypopyon; this, it was held, had no connexion with the accident which had necessitated the removal of the left eye.

It not infrequently happens that, in addition to the half-wages paid to claimants under the Compensation Act, men are in receipt of sick pay from Friendly Societies which makes up, in some instances, a sum more than equal to that obtained during the most lucrative period of their work. As such instances are the following:

A. C. M., whose wages were 35s. 2d., received total relief pay of 37s. 7d. per week.

J. F. earned 35s. and got in relief pay 37s. 6d.

W. R. earned 29s. 2d. and had relief pay of 35s. 7d.

E. T. earned 28s. 4d. and got 33s. 8d.

J. A. H. earned 24s. 6d. and had relief pay of 30s. 3d.

A further point is that lump sums may be received from various different sources besides the amount awarded under the Compensation Act. As an instance is the following:

A striker (16), aged 25. The left eye was lost and subsequently enucleated, owing to injury by a chipping. The remaining eye only had $\frac{6}{60}$, unaided, or, with best correction, $\frac{6}{24}$. In addition to his compensation award he received amounts from three different Friendly Societies on account of his inability to follow his former employment, £100 each from two, £50 from the other, the total sum received from these latter sources being £250.

Reference.

[1] Magnus and Wurdemann, *Visual Economics*, p. 86.

A Lecture

ON

IMPORTANT SYMPTOMS IN DISEASES OF THE EYE.

Delivered in the Post-graduate Course at the Ophthalmic Institution, Glasgow Royal Infirmary.

By A. MAITLAND RAMSAY, M.D., F.F.P.S.G.,
SURGEON TO THE INSTITUTION.

A symptom has been defined as "one of the departures from normal function or form indicative of disease." In a narrow sense symptoms are distinguished from physical signs, the former (subjective) including all abnormal feelings on the part of the patient, and the latter (objective) being limited to what is evident to the senses of the observer. Certain symptoms are, therefore, concurrent with certain diseases, or with certain stages of any one disease, and accurate observation and interpretation of both symptoms and physical signs are essential alike in diagnosis, prognosis, and treatment. It is by searching for, and by reading aright, all symptoms and signs, and especially those that are pathognomonic, that the sagacious physician is able to discover the hidden ailment of which they are the outward manifestation, and to gain the most reliable information as to its nature.

In practice it is a wise rule to give careful attention to the patient's own account of his illness. The older physicians attached greater importance to this than we do, for, at the present time, diagnosis is in a large measure carried on by the observation of the purely objective features of a disease, while the subjective symptoms are perhaps too often passed lightly over. This is in great part due to the instruments of precision and to the accuracy of the processes which are now employed in clinical work. The value of these is indeed enormous, because they enable the practitioner to make accurate observations quite apart from the patient's sensations, and even to discover important facts of which the patient is altogether ignorant. The latter may, in his description of what he feels, consciously or unconsciously exaggerate the importance of certain symptoms and so mislead the physician who accepts what he is told without testing, by careful physical examination, the truth of the statements made to him.

The use of the ophthalmoscope, for example, may reveal intense optic neuritis in a case where there has never been the slightest complaint of defective sight, and the knowledge thus obtained prevents a doctor from falling into the error of regarding the head pain and vomiting which are present as due only to gastric disturbance, when they are, in reality, symptomatic of tumour in the brain. The objective and subjective phenomena of a disease are, however, mutually dependent. They are complementary and not merely supplementary, and, in order to arrive at a complete diagnosis, both must be carefully and fully considered, and each looked at in correct perspective and in proper proportion to the whole.

Taking the term "symptom" in its limited sense, as applying to uneasy or unnatural sensations, or to disorders of function, we may consider diseases of the eye, in their purely subjective aspect (to which alone I propose to direct attention in this lecture), under the two heads of, first, disorders of general sensibility, and, secondly, disorders of the function of vision.

DISORDERS OF GENERAL SENSIBILITY.

Of all uneasy sensations pain is the most common and the most important. It is a purely subjective symptom, for we have no means of measuring it except by the patient's own account, and, as some feel pain much more keenly than others, the full value of its significance can be arrived at only after a careful estimate of the patient's constitution and temperament has been supplemented by a thorough examination of the eye itself. Though this feeling always accompanies inflammation, it may arise from other causes, and so we may arrange all abnormal sensations under two great groups, according as they are inflammatory or non-inflammatory. The latter are commonly described as "neuralgic," and are frequently associated with the use of the eyes. This condition—usually the result of an error of refraction or motility, and then spoken of as asthenopia—presents an easily recognized clinical picture. It is impossible to see any minute object distinctly, and every attempt to read is attended by a sense of confusion. The print first becomes unsteady and blurred, and then gradually fades from view; and, though it becomes visible again after the eyes have been rested and gently rubbed for a few minutes, persistence quickly brings about exhaustion. Complaint is usually made of a dull aching pain (sometimes accompanied by twitching of the lids and facial muscles) behind the eyeballs, and these feel tight and hot, and may be unduly sensitive to light. There may or may not be signs of congestion in the structures of the eye, but whenever the patient reads or writes there is always headache. The pain may be dull and throbbing, or acute and neuralgic; it may come on while the eyes are being used, or it may not be felt until the following morning on first waking; it may be constant or periodic; it is frequently frontal (just above the eyebrows), but is also often occipital or in the nape, radiating down the back or along the arm; and at still other times it is felt most severely in one or both temples. In this last form, especially when unilateral, it is almost always very severe, is often accompanied by nausea and vomiting, and may be preceded either by sleeplessness or by excessive drowsiness. Premonition of the onset is often given by the appearance of coloured spectra or by a transient attack of hemianopia.

Pain is, however, often present apart from the use of the eyes. It is then mostly unilateral, confined to one or several branches of the fifth cranial nerve, and accompanied by spots which are painful on pressure. Neuralgia is the usual diagnosis, but a determined effort should always be made to discover a cause. Though the suffering may be merely the expression of a lowered condition of general health, it is, in many instances, symptomatic of disease in some distant part—of, for example, a carious tooth, an ulcer of the nasal septum, a morbid growth implicating the Gasserian ganglion, etc. Intense supraorbital pain also precedes an eruption of herpes.

Itching is an uneasy sensation nearly allied to the symptom we have just discussed. It is often associated with inflammation of the edges of the eyelids, but is at other times the result of defective metabolism and non-inflammatory. Its recognition and right interpretation, therefore, not only point the way to a correct diagnosis but also indicate the proper line of treatment.

Of inflammatory pains, photophobia, though not pain in the strict sense of the word, is, nevertheless, a most distressing symptom. In all forms of external inflammation of the eye it is more or less pronounced, and in phlyctenular keratitis it is the most striking subjective feature. Although absent in inflammation of the opt nerve, it may be present acutely in retinal asthenopi where it is so distressing that the patient is quite unab to read or write, and in many cases ceases to try to tak any active part in life, and thinks and speaks of litt besides his or her ocular troubles. One frequently fin that health has originally been impaired by illness, prolonged sick-nursing, or by some serious mental moral shock, and that the photophobia has come during the period of convalescence. It is difficult account for this hypersensitiveness to light. Doubtle an irritation of the fifth nerve is conveyed to, a stimulates, the optic nerve, but there is no exact similar form of reflex action in any other part of t body.

The character of the pain varies as the ocular inflamm tion is superficial or deep. In the former case, in simp conjunctivitis for example, patients complain that th feel as if a foreign body were present between the lids a the ball, and that the irritation is aggravated by eve movement of the lids. In deep-seated inflammations, the contrary, they describe the pain as dull and gnawin like toothache. Here it radiates along the branches of t fifth nerve, and is always most severe in the early hours the morning. It may also be associated with tenderne on pressure, and this heightened sensibility of the eye touch is of the greatest value in the diagnosis of inflamm tion of the ciliary body, and in distinguishing betwe conjunctivitis and sclerotitis. The pain may be comp cated by increase in the intraocular tension, and wh that is so, subacute glaucoma should always be thoug of, and without a moment's delay the visual acuity a the visual field ought to be carefully tested. The fund should also, if possible, be examined with the ophthalm scope, and the size and mobility of the pupil, as well the depth of the anterior chamber, noted. Pain occurri from twelve to twenty-four hours after an operation oug always to be regarded as a signal of danger and as poi ing to possible infection of the wound. In short, t character of the pain may by itself afford valuable in cation of the nature of the ocular inflammation. If it sharp and cutting, as if a foreign body were in the e the disease is in all probability superficial. If, on t other hand, it be throbbing and gnawing, radiating ward along all the branches of the fifth cranial nerve, a usually worst late at night and in the early hours of t morning, there is in all likelihood implication of t deeper structures.

In reaching a conclusion by the method of different diagnosis, the accompaniments of the pain—photopho condition of the pupil, high tension, tenderness on pr sure—are most helpful. As to the first of these, which always most marked in the so-called strumous inflam tions, it may be said that the more superficial the les the more distressing is the photophobia. In deep and tensive ulceration of the cornea, on the contrary, tho the pain may be agonizing, there may yet be comparativ little intolerance of light. The state of the pupil ena the surgeon at once to distinguish between superficial deep inflammation. If it be of normal size and r readily to the stimulus of light, there is no involvemen the iris or of the ciliary body; whereas if it be contra and sluggish, there is a superficial lesion which is cau great irritation. If, in addition to being contracted, it irregular, as the result of the formation of poste synechiae, with the anterior chamber normal or dee than usual, then iritis is present, and, should the infl mation be acute, it must at once be determined whethe not the ciliary body is involved. This is easily done gently pressing on the eyeball through the closed lids there be much tenderness cyclitis undoubtedly exists. on the other hand, the pupil be dilated, suba glaucoma ought at once to be suspected, and in this the eyeball must be carefully palpated. Should incr of tension be found associated with a shallow ant chamber and with impairment of sight, the diagnosi primary glaucoma will be amply confirmed.

DISORDERS OF THE VISUAL FUNCTION.

In all cases where there is complaint of dimini visual acuity it is necessary to make a careful estima the refraction, and to note to what extent suitable gla improve sight, and what is the amount of defect remains after the ametropia has been corrected. Su of sight—complete or partial, and attacking either eye or both simultaneously—is a different matter, in the search for the probable cause, much help is ined from the patient's account of the onset of the dness. When the loss of sight has been sudden and ilateral, a toxic origin (uraemia is probably the most mon) ought always to be suspected. Embolism of the ral artery of the retina destroys sight without a nent's warning; but in nearly every case one eye only ffected, and ophthalmoscopic examination leaves no n for doubt regarding the diagnosis. Again, sight may ompletely lost immediately after a blow on the forehead, but in that case ophthalmoscopic examination als at first nothing abnormal, the reason being that optic nerve has been injured through fracture of the es at the optic foramen, and not till some weeks after accident can atrophy of the optic disc be recognized. en the blindness is sudden, but incomplete, much rmation is obtained by testing the field of vision. A k in a portion of the periphery is due in all likelihood detachment of the retina, or to an extensive haemorge into the vitreous; should the patient complain that lights seem to be blood-red in colour, the latter lesion lmost certain to exist.

ought, however, to be noted that the reason for a ent's assertion that he has suddenly lost the sight of eye may be merely that he has by accident discovered fect which has existed all through life, or which has , perhaps, gradually increasing for a long time without g noticed. In such cases the ophthalmoscope may v nothing abnormal, or it may reveal atrophy of the c nerve, and this, which might in itself be due to some ly local cause, may, when the clinical associations of monocular blindness are carefully scrutinized, assume ntirely different aspect. There may be no complaint efective sight in the other eye, nor, on ophthalmoscopic nination, may any disease of the other optic nerve be cted; but the perimeter will reveal contraction of the al field, both pupils will be found contracted and sponsive to light, though responding normally in the of convergence, and the knee-jerks may be absent. this corroborative evidence makes it certain that the is one of disease in the spinal cord and not of simple phy. Here, then, the onset of blindness in one eye the physician on the alert, and suggests the careful nination which enables him to diagnose the real cause e mischief in which atrophy of the optic nerve is, the outset, the predominant feature.

gain, a patient may come and say that for a considerperiod his sight has been misty—so much so, indeed, he has often experienced difficulty in reading ordinary , and that it has suddenly become so much worse that s quite unable to read or write at all, and cannot even gnize friends when he meets them in the street. He also add that he sees best in a dull light; and testing show that, while he has, in the peripheral parts of the al field, no difficulty in distinguishing red and green, , in the central area, quite unable to perceive these urs. Under such circumstances the first idea is that trouble is due to excessive indulgence in tobacco, or hol, or both; and careful examination will in most nces confirm the opinion. Sight may also fail lenly, so as to cause a patient to change his reading ses time after time, and in speaking of the matter he say that now and again he suffers from transient loss ision, and that, more or less constantly, he sees ured halos round gas, lamp, or candle flames. Such ccount is most suggestive, for almost to a certainty e symptoms are premonitory of glaucoma. So little be thought of them that their occurrence is mentioned e doctor in the most casual way, but their importance ot be overestimated, for if they be appraised at their er value, means will at once be taken to check the se before high tension has become permanently established. If their significance be not properly appreciated patient is allowed to drift till sight is so seriously ired that it cannot be improved by any form of ment. Then again a patient may say that he sees y well during the day, but after sunset he becomes to tents and purposes blind. This symptom, commonly d night-blindness, is almost pathognomonic of that ressive form of degeneration of the retina known as itis pigmentosa, which sooner or later leads to plete loss of sight.

It occasionally happens that a patient complains that every object looked at is altered in size or is thrown out of proportion and twisted. This symptom is known as metamorphopsia, and is often of very serious import. The distortion may, of course, be due to errors in the optical construction of the eye; but it may also be induced by pathological changes in the retina itself, and is then significant of grave disorder of vision, and usually symptomatic of inflammation of the choroid. In this case it is caused by some change in the relative position of the rods and cones, and is most serious when the macular region is implicated. In some instances, where the percipient elements of the retina are separated by exudation, objects appear too small (micropsia); in others, where the percipient elements are crowded together owing to cicatricial alterations, they seem too large (macropsia); and in still others they assume very irregular shapes. It is sometimes difficult to detect with the ophthalmoscope the changes that give rise to the metamorphopsia, and hence the value of the symptom in leading to a correct diagnosis.

Patients frequently complain of muscae volitantes, but though these often give rise to much annoyance, they do not, as a rule, unless floating bodies be seen on ophthalmoscopic examination, indicate the existence of organic disease. They point, at the most, to a condition of retinal hyperaesthesia, determined, in all likelihood, by prolonged application of the eyes at close work. Under these circumstances the refraction ought to be carefully tested, the urine examined for oxalates or uric acid crystals, and the patient discouraged from looking for the muscae, as these are only too prone to reappear whenever the attention is directed to them. It is, however, sometimes not easy to draw the line between what may be regarded as physiological and what is pathological. A careful ophthalmoscopic examination is therefore necessary in every case, more especially if the patient be short-sighted, for then opacities in the lens, or floating bodies, or haemorrhages, may be detected in the vitreous chamber.

It is very significant when a patient who has required to wear glasses for reading finds that he sees better without them. He is generally much pleased at the discovery, and says he has got his "second sight." If, however, his vision be tested, it will be found that he is now myopic, and requires concave glasses, and very probably he may say that when he looks at the moon it appears doubled or quadrupled—monocular polyopia. Such a combination of symptoms is certainly due to changes taking place in the lens, and is in most instances premonitory of cataract. It is very important that the disease be recognized at such an early stage, because this allows a careful ophthalmoscopic examination of the fundus to be made, and any pathological changes in the choroid or retina to be detected, at a time when the lens is still sufficiently transparent to permit these structures to be seen.

Up to this point the symptoms referred to have been due to changes in the eyeball itself, but those of which I am now to speak are of extraocular origin, having their rise in the ocular nerves, in the optic tracts, or in the cortical visual centres. Each of these groups has, when it is out of order, its own peculiar symptom associated with it—diplopia with the ocular nerves, hemianopia with the optic tracts, and mind blindness with the cerebral cortex. These symptoms may often be of supreme value in the localization of cerebro-spinal disease; but as they are frequently subtle and transient, and mostly subjective, they are in many instances difficult to detect and to appraise at their proper value. For their right appreciation it is necessary to possess an accurate knowledge of the anatomy and physiology of the parts concerned, and in this lecture such knowledge is, for the most part, taken for granted.

Paresis of any of the ocular muscles is usually followed by strabismus, and there is then no difficulty about the diagnosis, but in other cases the patient complains of double vision without there being any obvious squint. In these last there must be careful study of the diplopia in order to find out which muscle or group of muscles is at fault, and the knowledge thus obtained may be of great importance in localizing the exact site of a lesion. The principles underlying such an examination are readily enough understood, but it takes considerable experience to carry the examination itself out in detail, and to find out the muscle or muscles at fault. For our present purpose, however, we simply accept the fact of the diplopia quite irrespective of the cause, and the first point the physican ought to determine is whether or not the double vision disappears when either eye is covered. If it persist when one eye alone is used, it is called monocular diplopia, but if it disappear with the closing of one eye, it is spoken of as binocular diplopia. The former condition is a variety of monocular polyopia, referred to when speaking of incipient cataract, and for the present need not engage our attention further; but the latter requires more consideration, for it occasionally affords clinical information of the utmost diagnostic value. Although paresis of any of the ocular muscles may be purely local, and due to disorder of refraction, or of motility, or, in a gouty or rheumatic subject, to such a simple cause as exposure to cold, yet its occurrence must in every case excite suspicion regarding the state of the nervous system as a whole. More especially is this so when the diplopia is transient but recurrent. It is true that the symptoms mentioned may seem to be purely functional in character, but it must be borne in mind that these so-called hysterical manifestations may herald the approach of organic disease. Under the circumstances described, the diplopia is probably an early symptom of tabes dorsalis, or of disseminated sclerosis of the brain and spinal cord, and diligent search requires to be made for other signs confirmatory of such degeneration—Argyll-Robertson pupil, optic atrophy, absence of knee-jerks, contracted visual field, impaired sensation, etc. Even if confirmatory signs be wanting, it is only the lapse of time that enables us safely to alter the prognosis.

The chief cause of an ocular paralysis is syphilis, which is also one of the most frequent etiological factors in degeneration of the nervous system as a whole, consequently if a transient diplopia occur in a person of middle age with a clear history of syphilis, it ought to be regarded as a danger signal indicative of the approach of widespread organic disease of the nervous system. The fact that under these circumstances the diplopia is usually one of the very earliest indications greatly enhances its clinical value, for its correct interpretation leads to an accurate diagnosis at a time when there is some chance of doing good—a very remote probability after the disease has fully declared itself.

A patient may complain that when he looks at an object he sees only part of it, that he has difficulty in reading because he sees only one or two words at a time, or that he cannot see when he looks to the right, although he sees well enough when he turns his eye to the left, or vice versa. A very simple examination will usually reveal the existence of a symmetrical defect in the fields of vision, the explanation of which lies in the partial crossing of the optic tracts at the chiasma, each tract supplying the temporal half of the retina of its own side, and the nasal half of the retina on the opposite side. This defect is called hemianopia, and is usually homonymous, but, if the lesion or lesions be situated at the chiasma, it is bitemporal or binasal. A transient attack of hemianopia may be a premonition of the onset of sick headache, in which case the partial blindness is accompanied by balls of light, zigzag lines, or the so-called fortification spectra, whose gorgeous colouring always attracts the patient's attention. These visual symptoms usually last from ten to twenty minutes, and are followed by severe head pain—ophthalmic migraine. When, however, the hemianopia is permanent, it always indicates organic disease, and is a symptom of great localizing value. It may be caused by a lesion of of the cerebral cortex, or by one situated anywhere in the course of the visual pathway between the occipital lobes and the optic chiasma. It always indicates an intracranial lesion on the same side as the blind half of the retina, and therefore of course on the opposite side from the dark visual fields. Hemianopia is frequently associated with hemiplegia, with monoplegia, with pupillary disturbances, with optic neuritis, with optic atrophy, with contraction of the field of vision, and, what is more important still, with aphasia and mind-blindness.

The term "mind-blindness" is used to imply the loss of the visual memory for words, letters, numerals, forms, and objects generally; and the centre affected is supposed to be situated in the angular gyrus of the left side. Obviously, this area must increase as the individual becomes older and more experienced, and on the other hand a child in whom it is defective or inefficient is unable even learn the alphabet—the congenital word-blindness Hinshelwood, Nettleship, and Sydney Stephenson. T furnishing of these dark chambers of imagery, then, wi sense impressions of all kinds—letters, words, or what n —conveyed to the brain through the eye, may be regard as the measure of intellectual capacity, and anythi which interferes with the acquisition of new pictures, which destroys those already acquired, gives rise to min blindness. As different classes of pictures are, if I may speak, stored in different rooms placed side by side, a perhaps communicating with one another, the conten of one chamber may be destroyed, while those the others remain intact; and hence the particul character which the mind-blindness assumes may, our knowledge increases, form an important factor localizing cerebral disease. The storage in ordinary c cumstances, with right-handed individuals, takes pla only on the left side of the brain; but undoubtedly similar series of cells exists in the right side, and, shou the others be destroyed, these may be educated to perfor the functions of those that have perished. For this, ho ever, it is necessary that the patient should possess qui unusual force of character, as an immense amount of pe severance and patience is required before the new cel can accumulate fresh memory-pictures capable of bein reproduced at will. The following case, one of the mo interesting in my own experience, illustrates particular well the more important clinical facts relating to min blindness:

The patient was a gentleman over 60 years of age, w suddenly discovered that he was unable to recognize t objects around him in his own bedroom. His mental powe were quite unaffected, and he told me that when he looked a timepiece his only idea of what he saw was derived fro the sound of the ticking. When he looked at the dial perceived the hands and the numerals, but they conveyed meaning whatever to his mind. His wife and daughters we recognized merely by the sound of their voices; and althou visitors might not detect anything very far wrong, that w because he had been informed beforehand who they wer Right-sided hemianopia coexisted with the mind-blindnes and throughout the whole course of the case remained u changed. He very soon reacquired the power of distinguis ing persons and the familiar objects around him; but a print page was just as great a puzzle as it is to a child who has nev learned to read—greater, indeed, because he was troubled by sense of his own incapacity. When, however, it was explained him that the difficulty was due to a localized cerebral defe and that a similar area on the opposite side of the brain w ready to be utilized, he at once, with characteristic determin tion, set himself to learn the alphabet over again. His meth of procedure was to provide himself with a number of lett games which he played constantly with his daughters till knew all the letters by sight, and was able to combine them form short words. This was the most difficult part, for aft he had got on so far he made much more rapid progress, a was, in less than a year, able to read with comparative ea He then tried to write, and made the additional discovery th although he could form the letters and words and compo sentences quite accurately, yet he could not read what he h written. He accordingly set himself to relearn the writt characters, and was making excellent progress when he di from an attack of pneumonia before he had time thoroughly master them.

I know that each of the symptoms I have mention might, instead of being dismissed in a few words, ha formed a subject sufficient to occupy a whole lecture. M aim to-night, however, has been not to give an exhausti explanation, but simply to draw the attention of the fami doctor to some subjective disturbances of vision, whi are, for the most part, transient, and on that account easi overlooked or forgotten, but which, when rightly unde stood, convey much information at a time when to posse it redounds not only to the benefit of the patient but al to the credit of the physician.

The late Miss Winifred Julia Cox of Edinbur bequeathed £500 to Dr. Herbert Milton, to be applied him for the benefit of the Victoria Nursing Home Cairo.

Air Embolism.—At an inquest in Lambeth on Mar 17th on the body of a clerk, aged 19, it was shown that t deceased died suddenly in St. Thomas's Hospital just aft the commencement of an operation, and while under t influence of chloroform. Death, however, was proved have been due not to chloroform but to air embolism, t veins at the seat of operation being diseased, and havi failed to collapse when cut.

The Lumleian Lectures
ON
TABES DORSALIS.

ELIVERED BEFORE THE ROYAL COLLEGE OF PHYSICIANS

By **DAVID FERRIER, M.D., F.R.S.,**
FELLOW OF THE COLLEGE; PROFESSOR OF NEURO-PATHOLOGY IN KING'S COLLEGE, LONDON; PHYSICIAN TO KING'S COLLEGE HOSPITAL, AND TO THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

LECTURE III.*

PHYSIOLOGICAL PATHOLOGY OF TABES.

UST now pass from the realms of speculation as to the ture of the tabetic toxin and the therapeutic possi- ities of the future to a more abstruse part of my sub- t—namely, to attempt to correlate the essential mptoms of tabes with their anatomical and physio- ;ical substrata. For then only can we be said to have structed a complete pathology of a disease when we able to refer each symptom to its organic basis. To this, however, in the case of such a polymorphic ease as tabes is a vast undertaking, and involves a wide d deep survey of the relations of the nervous system almost every function of the organism—somatic, ceral, and trophic. For no disease exhibits such a nplex symptomatology or puts to us such a host of uropathological problems. On many of these problems hould despair of being able to say anything worthy of ır attention which has not been said, and perhaps ter said, by others before me. I purpose, therefore, to it my survey of the physiological pathology of tabes a few only of its more prominent symptoms, in respect which clinical and experimental research have lately n busy and more or less suggestive or fruitful in ults.

)f all the symptoms of tabes, ataxy is the most racteristic. All tabetics, however, are not ataxic, for ne become blind from optic atrophy, or suffer for years h excruciating lightning pains, bladder and other ceral troubles, without becoming ataxic. Some neuro- hologists, with strange logical incoherence, regard the urrence of optic atrophy as exerting a kind of inhi- ory influence on the development of ataxic symptoms. that is justified is that the ataxic and amaurotic forms tabes are often more or less distinct, though not lusive of each other. Tabes is, as we have seen, entially an affection of the sensory spinal protoneurone, ether in its ganglionic cell, peripheral, or intra- dullary process, and in this we have to seek for an lanation of its most important symptom. For all er changes, whether in the peripheral motor nerves, erior cornua, or bulbar nuclei, molecular layer of the ebellum (C. Weigert), tangential fibres of the cortex ebri (Jendrassik), or large cells of the post-central us (Campbell) and their processes, are either onstant, or mere concomitants, if not the results, of primary sensory degeneration. The motor urone is intact; the electrical reactions of the scles are normal, and their dynamic strength necessarily impaired. The paths of impulse m the cortical centres are free from degeneration; so also are the efferent tracts from the cere- llum by way of Deiter's nucleus, as well as the drigemino-spinal, and rubro-spinal antero-lateral cts from the mesencephalon. The lesion is therefore the afferent or sensory side of the apparatus of move- nt. If it is possible to give a satisfactory explanation tabetic ataxy by the demonstrable lesion of the centri- al paths to the spinal, subcortical (mesencephalic and ebellar), and cortical centres, it would seem unneces- y, with Erb and others, to ascribe the ataxy to lesion some hypothetical centrifugal tracts of motor co- ination.

t is more than probable that certain ataxic, or better atic, muscular disorders may arise from anomalies of itation, or irregularities in the transmission, of pulses from the motor centres, such as are exemplified multiple sclerosis, lesions of the tegmentum, and some other intracranial lesions. But these differ in all their essential features from tabetic ataxy, and therefore need not occupy our attention further in reference to the question before us.

The degeneration of the centripetal tracts in tabes manifests itself in manifold abnormalities:—perversion, retardation, diminution, or total loss of sensory conduction in the domain of epicritic (tactile proper); protopathic (algesic, thermal); and deep sensibility, including all those factors—muscular, tendinous, articular—which form the basis of the sense of pressure, and the complex muscular sense (Head).

Associated with this from the commencement, and it may be throughout the whole course of the malady, and dependent on some subtle bio-chemical or bio-physical processes into the arcana of which we have not yet been able to penetrate, are those repeated and violent storms, somatic and visceral, which torture and rack the unhappy patient. Whether these lightning pains and crises depend on changes in the peripheral nerves, as some observers (Gowers, etc.) are inclined to believe, or have their basis in the central processes of the spinal ganglion, is uncertain and difficult to determine; but the fact that many of the subjective paraesthesiae (such as the girdle sensation) and the objective signs of sensory impairment are to a large extent of a segmental or root distribution is, *inter alia*, in favour rather of the root origin of the tabetic neuralgia. And the fact that peripheral neuritis is relatively much less common in tabes than the lightning pains points in the same direction.

The impairment of cutaneous sensibility—epicritic or protopathic—varies enormously in frequency, degree, and range, and there is no constant relation between the ataxic symptoms and the extent to which cutaneous sensibility is affected. It may even happen that there is no obvious affection of cutaneous sensibility to the most delicate tests. This is a valid argument against the sensory theory of ataxy as first propounded by v. Leyden, who at one time put too much stress on the impairment of cutaneous sensation. The impairment of cutaneous sensibility is more marked in its protopathic (algesic) than in its epicritic (tactile) form, and is most common below the knees. Roughly speaking, the incidence of tactile (hyp-) anaesthesia corresponds with that of (hyp-) analgesia, though the percentage of the latter is much greater than that of the former.*

It is quite otherwise, however, in respect to the relations between ataxy and impairment of the deep sensibility, which, as has been shown by Sherrington and Head, is dependent on the nerves which run with the motor nerves and originate in Pacinian-like organs (muscle-spindles, Golgi organs, etc.), and are specially adapted to be influenced by pressure, muscular contraction, and change of position. A third to a half of the nerves which are distributed to muscles are of this afferent type (Sherrington).

Affections of this system of nerves reveal themselves subjectively in various ways, such as by insensibility to passive movements of the joints, inability to determine the exact position of the limbs or their segments, and defective sense of muscular contraction; these are individually affected with great diversity in different cases.

Frenkel holds that in every case of ataxy careful investigation, by precise methods calculated to eliminate all active muscular movements on the part of the patient, never fails to reveal a more or less extensive impairment of the sense of passive movements of the articulations; and that this is more pronounced and more widespread in the more ataxic limb, when, as is not infrequently the case, they are unequally affected. The loss of the sense of passive movements is, according to Friedländer, always manifested first in the toe-joints, and tends to spread upwards to the higher joints with the increase of the ataxy. But the results of Golla's investigations at the National Hospital would lead me to question the accuracy of Frenkel's statements; for in a considerable percentage of cases of obvious ataxy he was unable to obtain any evidence of impairment of the sense of passive movements. And though it is the rule that this sense is more impaired in the more ataxic limb in the same individual, the rule is by no means absolute (Friedländer). And it is a remarkable fact that the ataxic disorders vary enormously in different patients in whom, to all appearances, the affections of superficial and deep sensibility are alike.

---

* The lecture was illustrated by lantern slides.

* I am making these general statements on the basis of a careful investigation of the affections of sensibility in 50 cases of tabes by Dr. Golla at the National Hospital for Paralysed and Epileptic, who has kindly placed his results at my disposal.

The muscles of the ataxic limbs are often tolerant of the severest pressure without discomfort. Closely related to this is the fact to which my attention has been called by Golla, and which I have frequently verified—namely, that the sense of tonic or tetanic muscular contraction induced by the faradic current is greatly diminished or totally lost, while the sense of minimal or rapid contraction is well preserved. This is at once capable of demonstration in cases in which there is already complete cutaneous anaesthesia, and can in others be shown after preliminary kataphoresis of cocaine into the skin.

Not infrequently both forms of musculo-contractile sensibility are diminished or lost, but the two stand in no constant relation to each other; the sense of tonic contraction being by far the most frequently affected.[*]

Golla has luminously suggested that the loss of the sense of tonic contraction is the sensory side of the loss of reflex tonus which seems the leading feature of tabes, while the sense of quick contraction may be the sensory analogue of the quickly contracting elements of the muscle.

This latter suggestion would be in harmony with the contractile nature of the muscle spindles, which, as Sherrington has suggested, may function in signalling active rather than passive movements.

Another form of sensibility which is frequently impaired or lost in tabes is the sense of vibration (pallaesthesia) of a tuning-fork, first described by Egger (1899), and attributed by him to the bones or periosteum. But it can be perceived in parts where there are no bones (Rydel and Seiffer), and the continuity of bone is not necessary to its propagation (Minor).

It is probably dependent principally on the deep sensibility which forms the basis of the perception of passive movements and the position of the limbs, but it does not vary exactly with this (Déjérine, Marinesco, self) and its influence in respect to motor co-ordination is still *sub judice*.[†]

Of greater constancy, and therefore of greater fundamental importance in the pathology of ataxy, is the impairment or total loss of those centripetal impressions which, arising chiefly in the muscles themselves and acting on the spinal and subcortical (cerebellar) centres, are the basis of reflex muscular tone. This is shown in the loss of the so-called, but falsely so-called, tendon reflexes, of which the best known (since Westphal first called attention to it in 1875) and most commonly tested is the knee-jerk; though the Achilles-jerk is of equal or even greater importance. Others, also, usually obtainable in normal conditions, disappear as ataxy becomes more general. Associated with this is that remarkable condition of the muscles to which Frenkel has given the appropriate name *hypotonia*. This condition, so general in ataxy, had not altogether escaped the notice of v. Leyden, but it is to Frenkel that we owe a more precise knowledge of its characters and significance. The muscles are not necessarily flaccid to palpation, but they permit an undue mobility of the limbs and trunk, and do not develop resistance as antagonists when put on the strain li normal muscles. To this condition many of the chara teristic attitudes of the ataxic, recumbent or erect, and t brusque overaction of the prime movers of the limbs walking are largely due. Better than verbal descripti of this condition are the illustrations which I will n throw on the screen.

This condition is due, as we have said, mainly to t loss of the tonic action of the spinal centres, but it may part also be dependent on failure of the similar ton influence which Luciani in animals, and Holmes a Grainger Stewart in man, have shown to be exercised the cerebellum. The loss of the cerebellar tone, howev is not associated with loss of the tendon-jerks, and m exist when these are normal, or even increased. The no correspondence between the state of the knee-jerks aft lesions of the cerebellum and spinal lesions with loss tone, made me at one time question the existence Luciani's cerebellar atonia. I do not, however, doubt t reality of a condition to which perhaps the term is n altogether inappropriate.

The basis of this loss of tone, and of the norm antagonistic counter-tension to active and passive mov ments, is the degeneration of the reflex collaterals of t posterior roots to the anterior cornua, and those to Clark columns, and thence indirectly to the cerebellum by w of the direct cerebellar tract. By the long fibres of t posterior columns in some measure, and by other pat the position of which in the spinal cord is still t subject of considerable diversity of opinion, and on whi the last word has not yet been said, all the conscio impressions, or sensations proper, derived from the sk muscles and deep structures are conveyed to the cerebr centres or centres of perception. To discuss these, ho ever, at greater length would be beyond the scope of t subject in hand. And it is not as yet possible to say f certain how much of the sensory loss in tabes is due the affection of the posterior roots themselves, and ho much to that of the intraspinal paths, or how much both combined.

Tabetic ataxy is probably the complex result of blocki of all the forms of sensory impression, conscious as we as unconscious, more or less, and not of one ki exclusively.

Ataxy may result from lesion of the sensory nerv alone, apart from any implication of the spinal tract This is well exemplified in the pseudo-tabes or neur tabes peripherica (Déjérine), which is not an uncomm result of the toxic action, of alcohol, diphtheria, and oth peripheral nerve poisons.

So far as the ataxic symptoms are concerned these cas are not distinguishable from those of true tabes. T abnormalities of superficial and deep sensibility a similar; Romberg's symptom and inco-ordination of t limbs, intensified by shutting the eyes, are alike; t knee-jerks are absent, and though there are sy ptoms and signs which enable a differential diagnosis be made, yet the two affections resemble each other closely that they can be readily mistaken for each other.

As to the effects on movement of experimental secti of the posterior roots, which means cutting off centripet impressions of all kinds, conscious and unconscious, the has been some controversy of late. In the first instanc at least, as has been known since Bell's classical expe ment of section of the fifth nerve, and illustrated by Mo and Sherrington in their experiments on the posteri roots of the brachial plexus in monkeys, there is indirect paralysis—termed *centripetal paralysis* by Heri —in the related parts. This, however, as one mig *a priori* expect from clinical observation in man, shou only continue so long as the sensations from t anaesthetic limb had not been replaced or compensat by the eye. And in reality, as Munk, who has repeat Mott and Sherrington's experiments has shown, even monkeys the paralysis is only temporary, and in course time the animals learn to use the anaesthetic limb agai But, and this is the cardinal point, the movements of t limb are never normal, but remain "brusque, excessiv and awkward" (*brusk, übermässig, ungeschickt*). This, thoug somewhat wanting in precision, is a fair description of ataxic limb.

And Bickel and Ewald found, after similar experimen on dogs, that the ataxic movements of the limbs, whi tended in course of time to diminish, were reinduced wh animals were blindfolded or placed in a dark room, ir limbs being rendered visible by luminous paint. e resemblance of these symptoms to those of ataxy in n is remarkable.

---

[*] Dr. Golla has furnished me with the following statement: In two cases there was no obvious ataxy of the arms or hypotonia, while the legs were markedly hypotonic, and completely anaesthetic and algesic, with nearly complete loss of the sense of position. In both these cases there was only very slight difference in the acuity of the sense of rapid muscular contraction; while both cases had lost the sense of tonic contraction of the legs, and preserved it, little if at all affected, in the arms. I regard these two cases as of cardinal importance, as we were able to compare limbs deeply affected with limbs hardly at all affected, either as regards ataxy or any other form of sensation or hypotonia. In seven other cases there was in all more or less marked depression of the sense of tonic contraction in the less affected limbs, and complete absence of that sense in the limbs in which hypotonia and ataxy were well marked. In none of these cases was there any affection of the sense of rapid muscular contraction with the exception of two, where all forms of muscular sensation were completely lost. That the sense of rapid contraction of the muscle does not depend on the cutaneous sensibility is shown in three cases where it was preserved with complete cutaneous anaesthesia. That the absence of the sense of tonic contraction is not a cause of loss of sense of position, but rather a specific phenomenon of tabes associated with the loss of the reflex tonus and depression of the spinal reflexes, is suggested by two cases of ataxy following neuritis, where it was preserved, though there was complete absence of the sense of position and of passive movement. In these cases tonicity had returned to the affected limbs.

[†] Dr. Head informs me that in his opinion it may be partly due to the rapidly-repeated single shocks acting on the epicritic nervous system, and therefore akin to the appreciation of simultaneous compass points.

he spinal paths of afferent impressions include not y the reflex collaterals to the anterior cornua and rke's columns, but also those of sensation proper to cortex cerebri. It would seem almost impossible to sociate these from each other, but yet such a thing parently occurred in one case which has been put on ord (Schüppel) so long ago as 1874. This was a case bably of syringomyelia, and though the symptoms and -*mortem* appearances have not been recorded with such ness as we should consider necessary at the present , yet it is one of great importance as showing that l interruption of the spinal paths of conscious sensa- does not of itself cause ataxy proper. The case was t of a man who became completely anaesthetic to ile, thermal, and painful stimuli; lost all sense of ssure, and had no sense of active or passive move- nts of his limbs or joints, and yet, under the guidance vision, could stand, walk, and execute all voluntary vements in a fairly normal manner. The cord lesion a cavity occupying chiefly the grey matter, especially posterior cornua and grey commissure. The anterior nua were intact. Whether in this case the reflex aterals were spared we cannot from the description positively, but it is not improbable.

we ascend higher towards the cerebrum we have no lence of organic lesion strictly limited to the paths of sation, apart from those of motion, either in the mesen- halon, internal capsule and optic thalamus, or higher. l though in such cases certain so-called hemiataxic dis- rs of movement may be observed, probably, in part at t, dependent on impaired transmission of sensory nuli, they are in many respects quite unlike tabetic y. The only conditions which enable us to eliminate influence of true perception on the co-ordination of ements are, *inter alia*, cases of functional anaesthesia. se are usually hysterical and mostly unilateral, and the ptoms are so equivocal and contradictory of each other they do not afford a safe basis on which to build. It fficient to say that in functional cerebral anaesthesia, withstanding the apparent total loss of all kinds of sen- on, cutaneous and deep, co-ordinated movements of t complexity may still be affected under the guidance ision, actual or ideal. That clear consciousness of esthetic impressions is unessential is proved by the nomena of sleep walking and other states in which the tions of the highest centres are for the time in ance.

e general result of this analysis is, that tabetic ataxy nds on impairment or loss of centripetal impressions ll kinds, conscious as well as unconscious, and, of , those from the deeper structures (muscles, tendons, s) are more important than the superficial; and if one single out one class as more essential than the others e complex, I would specify those to the spinal, sub- cal and cerebellar centres.

sion can more or less completely compensate for loss naesthetic sensation; and largely also, but to a much xtent, for the loss of the purely afferent impressions e spinal and cerebellar centres. In the absence of n, all the disorders of co-ordination, static and mic, are greatly intensified, and this is the patho- nonic feature of tabetic ataxy.

e constitution and connexions of the spinal and sub- cal centres provide for the combined action of the us muscles (prime movers, synergics, antagonists, and terals) concerned in simple and co-ordinated acts— xample, the synergic extension of the wrist in closure e fist; and the combined flexion of the thigh, leg, dorsiflexion of the foot of the swinging leg in walking. is is proved by the perfectly co-ordinated movements h occur in decapitated animals in response to various nal and internal stimuli, and by the similar omena that can be elicited by stimulation of the rior roots after transection of the cord in monkeys May).

he afferent path evokes discharge only of har- ously related muscular groups. If it be stimulated gly the number of motor groups excited may be ex- ve, and their situation involve the whole length of the l axis; but the groups excited contemporaneously are always harmoniously acting groups—for example, flexors of hip with flexors of knee, and not groups mutually subversive of each other's action. Each individual muscle of each group, so far as analysed, seems in its action balanced and subordinated as in a "natural" movement" (Sherrington).

The conscious accompaniments of muscular action, both in the process of learning and throughout life, play a more important rôle in human actions in all their manifold diversity than in the more simple activities of the lower animals, and their removal—potential or real—exercises a greater disturbance of the whole mechanism; but the mechanism is not formed by conscious activity—it already exists.*

In volition, or action conditioned by conscious discrimination, the cortical act through the spinal centres, but in the cortex there is greater differentiation and power of dissociation than in the spinal cord, so that individual movements, if not individual muscles, can be isolated from their usual synergists. Thus we can voluntarily flex the fingers without extending the wrist. But our powers in this respect are limited, and we can only eliminate such synergists and collaterals as we are clearly conscious of; while others, to which our attention has not been specially called, co-operate as usual, and their action comes to us almost as a revelation when it is pointed out.

How the cortical motor centres act on those of the spinal cord, whether directly through the pyramidal tracts, or indirectly through association cells (Gad, v. Monakow, Beevor), or through the same channels as the reflex collaterals (Schäfer), is at present a matter only of speculation. But if, as Schäfer contends, the fibres of the pyramidal tracts arboresce not around the cells of the anterior cornua but around those of Clarke's columns, and at the base of the posterior cornua, then the hypothesis that the cortical centres act through the same channels as the reflex collaterals would be the most probable. For the phenomena of ataxy and pseudo-ataxy clearly demonstrate the necessity of kinaesthetic impressions to secure the due co-operation of the synergic, antagonistic, and collateral muscles with the prime movers in any given movement.

It would appear from the researches of Sherrington and Hering that the innervation of a given muscle *ipso facto* inhibits its true antagonist—so-called reciprocal innervation. This is well exemplified in the case of paralysis of the internal rectus of the one eye—say the left. On innervation of the lateral conjugate movement to the right the divergent strabismus of the left eye diminishes, and the eyeball swings up to the middle line, owing to inhibition of the tone of the unantagonized external rectus.

The simultaneous removal of all obstruction to the unfettered action of a muscle, implied in the law of reciprocal innervation, may be regarded as a useful provision; but it is a law subject to being overruled by the varying necessities of the case and the effects desired. Thus in sudden extension of the forearm the flexors are inhibited; but in extension of the forearm against gravity the flexors are obviously in action as well as the extensors. And as Duchenne, Richer, Demeny, and others have demonstrated, the action of the true antagonists is in manifold ways brought into play to moderate and steady that of the prime movers.

The essence of ataxy, in all its manifestations, is the loss of, or impaired transmission of the kinaesthetic impressions to the spinal, subcortical, and cerebral centres on which the graduated and harmonious co-operation of all the muscles concerned in our various actions depends.

To analyse these in detail, however, would take a volume. Nothing could be more admirable in this respect than the masterly analysis of tabetic disorders given by Förster in his work on the *Physiology and Pathology of Co-ordination* (1902).

---

* It has been said by Förster that in the newborn infant the synergic extension of the wrist on reflex closure of the fist does not occur, and that it only becomes developed as the result of cerebral selection. I should seriously question the accuracy of this statement, for though it is difficult, as I have found, to be certain of the simultaneous action of the extensors of the wrist in the reflexly-excited closure of the fist in newborn infants, I have occasionally observed it, and Dr. Beevor informs me he has done the same; and it would be difficult to explain the extraordinary power of grip possessed by newborn infants without assuming that the extensors of the wrist were acting synergically at the same time; for infants only a few hours old, as Louis Robinson has shown ("Darwinism in the Nursery,' *Nineteenth Century*, November, 1891), can hang on to the finger or a small stick, and sustain their whole weight for several seconds—a power which increases for several weeks after birth. Certainly, the synergic extension of the wrist becomes manifest long before the child can have developed it by conscious selection.

One of the most characteristic features of tabetic ataxy is the overaction of the prime movers. This is manifested in almost every form of voluntary movement. It is most marked when there is also impairment of conscious sensation in the limbs. It is no doubt largely due, and has been attributed almost exclusively, to the defective sense of movement achieved, so that the patient has no guide to the inhibition of further motor innervation. Hence, especially when his eyes are shut, he continues the action beyond what is required, and is himself astonished when he sees how far he has overshot the mark. But this is not all, nor is it the most important factor in the sudden and immoderate character of the prime movements of the ataxic. This consists in the hypotonia and default of the afferent impressions which normally secure the development of the reflex resistance of the antagonists. The recumbent ataxic, therefore, when told to lift his foot from the bed does so with abnormal energy and brusqueness, because the extensors of the thigh fail to develop the resistance necessary to moderate the action of the flexors. So also the collateral muscles fail to steady the limb, so that it swerves from the direct line, or oscillates in various directions about the mark aimed at. The default of the centripetal spinal and subcortical impressions is exemplified in many other ways. Even in the recumbent attitude the limbs of the ataxic exhibit abnormalities of position. The legs are rotated outwards or inwards, from defective reflex tone of the inward or outward rotators of the thigh; and in particular the foot assumes the equino or equino-varus position from defective tone of the dorsiflexors.

When the leg is used as an instrument of progression, the "impulsive association," as Duchenne expresses it, or the synergic combination of the flexors of the thigh, flexors of the leg and dorsiflexors of the foot, is dissociated, so that the dorsiflexion of the foot fails to occur, and the toe tends to drag on the floor. This defect is corrected under the guidance of the eye, but it is generally overdone. So also when the foot is again planted on the floor it not uncommonly becomes inverted or everted, from failure, as Förster points out, of the reflex tone either of the peroneus brevis, or tibialis posticus, by the joint action of which the sole of the foot is kept in the normal middle position.

Similarly, when ataxy invades the arms, we see dissociation of the synergic extension of the wrist from the flexors of the fingers, so that the wrist bends, and the grip is thereby rendered feeble and ineffective.

When the patient stands up, he has difficulty in maintaining his balance, owing to the failure of the centripetal impressions which are necessary to excite the muscular adjustments innervated by the cerebellum.

Here the loss of conscious sensation when present adds greatly to the difficulty; for blunting of the sensibility of the soles of the feet even by itself, as has been proved experimentally by Vierordt and Heyd, renders the maintenance of equilibrium very unsteady. So long as vision is unimpeded, and the vestibulo-cerebellar centripetal impressions operative, standing is possible on a wide base; it is more difficult as the base of support is narrowed; and is altogether impossible when the eyes are shut.

When the patient sits down, instead of doing so gently with graduated flexion of his trunk, thighs and legs, he bumps down on his seat, owing to defective reflex antagonistic tone of his quadriceps extensors.

When he endeavours to maintain his equilibrium, and also to walk, he assumes attitudes, and makes compensatory movements which are almost pathognomonic. Thus if alone and unsupported he will walk with a constrained gait, his legs over-extended and knees recurved (so as to prevent the sudden giving way of the legs so well described by Buzzard), his body bent forward, and with his eyes steadfastly watching his feet.

But his actions vary with the conditions under which he is placed. For the same patient, if supported on both sides, and thus saved from the necessity of attending to his equilibrium, will throw out his legs, and dorsiflex his feet with excessive energy, and set them down again with equal brusqueness, stamping his heels on the floor.

Throughout all the same purpose runs. It is the attempt, clumsy at best, by conscious effort to make up for the failure of a self-adjusting mechanism which und normal conditions works better without conscious inte ference. Clumsy though it be, however, the best trea ment that has been hitherto devised for the palliation ataxy is the assiduous cultivation and judicious directio of these conscious efforts at compensation in accordan with the rules laid down by Frenkel and Förster.

THE TABETIC PUPIL.

One of the most important signs of tabes is the co dition of the pupil, first described by Argyll-Robertson i 1869, and known universally after his name. It is scarcel necessary to say that this consists in the loss of the refle contraction of the pupils to light, while that on co vergence and accommodation remains. The frequency the Argyll-Robertson pupil in tabes was first noted b Erb, as well as the usually associated loss of the refle dilatation to sensory or psycho-sensory stimulation.

The reflex iridoplegia is not always present, nor is always absolute, there being frequently only sluggis reaction, instead of total absence of contraction to lig But it is so frequent—in general, about three-quarters the cases—and so characteristic that the other symptoms tabes must in its absence be well marked to allow of definite diagnosis of tabes to be made.

Sometimes it is unilateral, or more marked in one e than the other. It is in a large proportion of cas associated with myosis, so that a peculiar appearance given to the eye of almost a pathognomonic character.

But myosis is by no means universal; sometimes t pupils are of medium size, or even larger than normal, a they may be unequal. The essential and characterist feature of tabes is the reflex iridoplegia. This rare passes into absolute iridoplegia. This, however, som times occurs unilaterally, but it is then more probab due to a local syphilitic affection. Absolute iridoplegi however, occasionally gives way to reflex iridoplegia.

The outline of the pupil, also, generally undergo change, and this not infrequently precedes the loss light reflex. The tabetic pupil is rarely quite circul and it is often eccentric in position.

What has been said of the pupils of tabes is true also those of general paralysis, but here they are more oft unequal in size. Reflex iridoplegia once complete incurable; but occasionally when incomplete the reacti may return. It may exist for many years (Erb) witho any other obvious symptoms either of tabes or gene paralysis. Usually it is associated with lymphocytosis the cerebro-spinal fluid, but, as I have found, this is n invariable.

But one may say with Bumke that a permanent isolat reflex iridoplegia occurs only in tabes, general paralys and as a consequence of congenital or acquired syphili while the cases in which, as a residuum of absolute iri plegia, a condition remains which is not distinguishal from the Argyll-Robertson pupil, are so rare that they m be practically neglected. The general result, therefore, we consider the syphilitic origin of tabes and gene paralysis as proven, is that reflex iridoplegia is alway result of syphilis.

The pathology of the Argyll-Robertson pupil is subject of great difficulty, for we are still far from p sessing a complete knowledge of the mechanism pupillary variations. The pupil varies in size not mer under conditions of illumination and accommodation, b with the intraocular tension, and fullness of the vessels the iris; it contracts with the orbicularis oculi, dila under the influence of sensation and emotion, and var with psychical activity in a manner extremely difficult analyse. We do not yet know for certain whether t retinal elements which subserve light sensation are t same as those which excite the reflex pupillary contr tion. There are conditions of the retina in which vis may be affected and the light reflex continue, and v versa; and Schirmer concludes from pathological con tions that the parareticular or amakrine cells of the in granular layer are the special centripetal organs of light reflex.

Whether this is well founded or not is a question, both anatomical and clinical facts point to a differen tion in the optic nerve between the fibres conveying li impressions and those which excite the pupillary ref In man, as in all animals with semidecussation of optic nerves, the centripetal reflex pupillary fibres unde so partial decussation. Hence lesion of the optic tract, in Wernicke's well-known hemiopic test, not only uses contralateral homonymous hemianopsy, but also ss of the light reflex from the corresponding retinal lves.

In front of, or in the immediate neighbourhood of, the rpus geniculatum externum the centripetal pupillary icts separate from those which form the optic radia- ns, and pursue their course towards the oculo-motor ntres. But what this course precisely is, is still a vexed estion.

That the pupillary and other oculo-motor reflex centri- tal paths do not pass through the vault or tectum of the rpora quadrigemina is evident from the results of experi- ntal lesions of these ganglia in monkeys, as described Aldren Turner and myself. After such lesions the ction of the pupils was intact; and many cases have en related of tumours invading the corpora quadri- mina without affecting the pupillary reflex.

It has been held by some that the fibres of Meynert's ciculus retroflexus, which courses, internal to the red cleus, from the ganglion habenulæ towards the base, is centripetal reflex pupillary path, and that therefore a ion of this tract would cause reflex iridoplegia.

But no such lesion has ever been demonstrated in the lex iridoplegia of tabes; and von Monakow has observed struction of Meynert's fasciculus retroflexus without affection of the pupillary reflex. Moreover, after irpation of both eyeballs this tract remains free from generation.

The probability is that there is no direct connexion ween the centripetal optic paths and the oculo-motor tres, but that the connexion is indirect, through inter- ary or association cells, which again form synapses with oculo-motor nuclei. But these and their respective ations to the centripetal reflex paths from each eye are tters more of hypothesis than of actual demonstration.

n order to account for the various disorders that may observed in reflex pupillary innervation the diagram the screen has been suggested by Bumke. This shows hemiopic, as well as unilateral or double reflex loplegia may occur according to the position of the ion.

But it has been said, the only verified basis of this eme is Wernicke's hemiopic pupillary reaction from on of the optic tract. No lesion in the central grey tter of the aqueduct of Sylvius has been established in nexion with the tabetic pupil, though Moeli has orted a case of tumour compressing the hinder wall of third ventricle in which reflex iridoplegia was said to e been present.

Whether in the conglomeration of nerve cells which stitute the nucleus of the third nerve there is an ated group presiding over the movements of the iris, whether the iris is represented more or less diffusely ig with the various muscles with which it acts in ociation, is not as yet positively determined. The eriments of Hensen and Volkers, however, are in our of the centres of the iris and ciliary muscle being in anterior part of the oculo-motor nucleus, and their ves in the most anterior roots of the third nerve.

ernheimer maintains, mainly on the results of experi- its on monkeys, that the centres for the sphincters of pupils are situated in the paired small-celled nucleus ned the Edinger-Westphal nucleus.

e states that the cells of the corresponding nucleus degenerative changes after enucleation of the eye- ; that unilateral destruction causes reflex iridoplegia ne corresponding eye; and that electrical irritation of nucleus causes contraction of the pupil of the same . Bernheimer's experiments have been subjected to ching and destructive criticism by Bach, and they ainly appear to me far from convincing. They are osed to many recorded and carefully-investigated ical cases. Thus von Monakow has observed cases tal ophthalmoplegia, external and internal, in which e was complete degeneration of all the cell groups of oculo-motor nerve, with the exception of the Edinger- tphal nucleus. And conversely, the Edinger-Westphal leus has been found destroyed without impairment of upillary reaction (v. Rad's case quoted by v. Monakow).

gainst the localization of a definite circumscribed re for the sphincter pupillae is also the fact, that the n of the pupil is usually unimpaired in ophthalmoplegia dependent on acute lesion of the oculo-motor nuclei (polioencephalitis superior).

A strictly-limited lesion of one particular cell group of the oculo-motor nucleus has never been demonstrated in man in relation with reflex iridoplegia or ophthalmoplegia interna. Marina, who has investigated many cases of reflex iridoplegia in tabes, has uniformly found the Edinger-Westphal nucleus normal.

The pupillary fibres of the third nerve do not directly pass to the sphincter papillae, which is an involuntary muscle, but indirectly, by the short root of the ciliary ganglion, with the cells of which it forms synapses, and thence by the short ciliary nerves to the sphincter.

In reflex iridoplegia no lesion has ever been demonstrated in the trunk of the third nerve. Complete transverse lesion of this nerve, in addition to the paralysis of the external muscles which it innervates, causes dilatation and complete immobility of the pupil both to light and convergence—absolute iridoplegia. It is, however, to be observed that less complete lesion of the third nerve may produce external ophthalmoplegia without affecting the pupil. Many such cases are on record. Cushing has reported 3 cases in which the third nerve was accidentally injured in the operation for excision of the Gasserian ganglion, in which there was temporary total paralysis of the external ocular muscles, while the pupil remained unaffected, reacting normally to light and accommodation.

From this brief review of our knowledge respecting the reflex pupillary arc it is evident that there is still great obscurity as to its precise constitution, and that, though theoretically reflex iridoplegia may be explained by interruption of certain hypothetical centripetal paths of the light reflex, no actual pathological changes have as yet been demonstrated in the reflex iridoplegia of tabes.

The frequent association of reflex iridoplegia with degeneration of the cervical region of the cord has led several observers—notably Rieger and Förster—to place the centre for the light reflex in this region. But it is obvious that in tabes the loss of the light reflex and degeneration of the posterior columns need not be causally related to each other. And the medulla has been found normal in two cases of general paralysis with iridoplegia (Marina), and in a case of congenital Argyll-Robertson pupils by Reichart.

Degenerations of the posterior columns, otherwise than tabetic, have also been found by various observers with normal reaction of the pupils. This is notably the case in Friedreich's disease, in which there is no abnormality of the pupillary reactions.

Bach, however, who at first was inclined to place the centre of the light reflex in the cervical cord just below the medulla oblongata in his more recent work relates various experiments, made in conjunction with Meyer, which lead him to believe that at the spinal end of the medulla oblongata, near the respiratory centre there is an inhibitory centre of the light reflex, to which the reflex centre of the corpora quadrigemina is subordinate; and, in addition, in close proximity, there is another centre inhibitory of the reflex dilatation of the pupil.*

That such a complicated mechanism—which reminds one of the cycles and epicycles of the Ptolemaic astronomy—is needed to explain the facts is in the highest degree improbable, and that the reflex iridoplegia of tabes, often of years' duration, can be explained by persistent irritation of these hypothetical inhibitory centres of pupillary action has little in its favour.

Of all the investigations on the pathology of the tabetic pupil in recent years, those of Marina appear to me the most suggestive.

---

* The facts on which Bach bases his hypothesis are as follows: (1) Total division of the cord several millimetres caudally from the fourth ventricle causes no change in the pupillary reaction. At the moment of section there is a temporary dilatation of the pupils, after which the light reflex can be elicited as before. (2) Bilateral section of the medulla at the spinal end of the fourth ventricle at a definite level causes immediate immobility of both pupils to light. (3) Unilateral division of the medulla at the same level on the right side produces not a right-sided, but a left-sided, reflex iridoplegia. (4) Exposure of the medulla, with its mechanical and other irritation, generally suffices to cause the disappearance of the light reflex or absolute iridoplegia. With this there is marked myosis and often inequality of the pupils. This fixity of the pupils, even after persisting from a quarter of an hour to one hour, at once disappears, and is replaced by prompt reaction of the pupils when a section is made through the middle of the fourth ventricle or at higher levels. This prompt reaction lasted in one case for a whole hour. (5) Unilateral division of the medulla at the middle of the fourth ventricle and brainwards therefrom renders the previously sluggish or absent light reflex again evident. The persisting inhibition can be counteracted by cocain or the action of ether.

Marina has investigated, by the most approved modern histological methods, 13 cases of general paralysis with normal pupils, 23 cases with Argyll-Robertson, 5 cases of tabes, and 29 other cases with normal or abnormal pupils. In all the cases of tabes and general paralysis with the characteristic pupils he found signs of degeneration in the ciliary ganglia and short ciliary nerves. If the pupils were normal the ciliary ganglia were also free from degeneration. In one case of unilateral Argyll-Robertson pupil the ciliary ganglion of the affected eye was profoundly altered, while that of the other eye was practically normal. The changes in the ciliary ganglion in tabes are of a chronic character, and consist in a gradual wasting of the nerve cells, with chromatolysis and distortion of the nuclei.

Degeneration of the short ciliary nerves was constantly found, and apparently secondary to that of the ganglion cells. The roots of the ganglion were always found normal; so also, with one exception, were the oculo-motor nerves, the oculo-motor nuclei, the Edinger-Westphal nucleus, that of Darkschewitch, as well as the grey matter surrounding the aqueduct of Sylvius.

Besides the ciliary ganglion, the Gasserian ganglion showed degenerative changes in 3 out of 16 cases of general paralysis, and in 3 out of 4 of tabes. The superior cervical ganglion also showed degenerative changes in 2 out of 4 cases of tabes; while in general paralysis one-third only exhibited degeneration, the other two-thirds being doubtful or normal.

The results obtained by Marina are evidently of the utmost importance in reference to the pathology of the tabetic pupil.

The physiology of the ciliary ganglion is still very imperfectly understood. That it is not an independent centre for the pupillary reflex is evident from the fact that the pupil is quite immobile when the third nerve is completely severed.

Anderson holds that the cells of the ciliary ganglion are purely of the sympathetic type; and that most of them are of this character is also held by Marina. But the ciliary ganglion has three roots—the short or motor root from the third, the long or sensory root from the fifth, and the sympathetic root from the carotid plexus. The long ciliary nerves which come from the fifth, and which supply the dilator of the iris, do not go through the ciliary ganglion.

Anderson has not been able to trace any degenerated fibres in oculo-motor, fourth, fifth, or sixth nerves after extirpation of the ciliary ganglion in the cat. If, therefore, he says, cells comparable with the cells of the posterior root ganglia are present in the ciliary ganglion, they must belong to a type of cell not yet demonstrated, and send non-medullated processes to the central nervous system.

On the other hand, Marina has observed degeneration in some of the cells of the ciliary ganglion, probably of a sensory type after lesions of the cornea. And Bumm finds that the number of cells which remain intact after section of the short ciliary nerves, is again reduced by extirpation of the superior cervical ganglion. A considerable number, however, still remain, some of which at least appear to be connected with the fifth. The ciliary ganglion would therefore, if these observations are correct, appear to be a complex structure. That some of the sympathetic fibres which supply the dilator of the pupil pass into the ciliary ganglion by way of the sympathetic root from the carotid plexus, instead of all going by the long ciliary nerves as is commonly held, is, I think, probable. For though division of the ophthalmic branch of the fifth, as Turner and I have demonstrated in monkeys, causes contraction of the pupil from paralysis of the dilator, this effect is only of temporary duration, lasting usually only a week or so. And in man, as I have ascertained, after extirpation of the Gasserian ganglion for inveterate trigeminal neuralgia, the pupil does not remain permanently affected, but contracts and dilates as under normal conditions. This is very different from the state of the pupil after division of the dilator fibres as they emerge from the upper dorsal roots. Even years after this lesion the pupil remains smaller, and the eyeball sunk as compared with the other. Nor does cocaine cause dilatation, as in the normal pupil, except in relatively very large doses. There must, therefore, be some other path for the dilator fibres of the iris than the long ciliary nerves, and it is probable that they go through the ciliary ganglion by the sympathetic root of the carotid plexus.

The ciliary ganglion, as Langley and Anderson have shown, is, like sympathetic ganglia in general, capable of being paralysed by nicotine; so that impulses to the sphincter pupillae are blocked and ineffective, while direct irritation of the short ciliary nerves causes contraction.

The question is whether the degeneration found by Marina in the ciliary ganglia, in tabes, taken in conjunction with what we know of the physiology of these structures, throws any light on the pathology of the tabetic pupil. In this relation the researches of Piltz appear to me to be of great significance. Piltz calls special attention to the fact, to which I have previously alluded, that the pupils in general paralysis and tabes commonly exhibit irregularities of outline, being angular, jagged, or otherwise misshapen, and not infrequently excentrically situated, instead of having the smooth circular contour and central position of health.

This condition often precedes the development of the Argyll-Robertson pupil, and Joffroy and Schraneck maintain that every alteration in the form of the pupils—congenital anomalies and synechiae excepted—even though the light reflex may be retained, signifies that we have to deal with general paralysis, tabes, or syphilis, and that the semiological value of irregularity of the pupil is not les than the Argyll-Robertson phenomenon itself, which i often precedes. This is also the opinion of Babinski Piltz, and others.

After complete exposure of the ciliary ganglion and th ciliary nerves in the dog, and irritation of various twigs o the short and long ciliary nerves, Piltz produced irregularities in the outline of the pupil and in its position such as are indicated in the diagram on the screen.

The similarity of these appearances to those of the pupils in tabes and general paralysis is obvious, and seems to justify the conclusion that these abnormalitie are indications of irritation, paresis, or paralysis of different portions of the iris, due to pathological changes in the long or short ciliary nerves or their ganglia. It ha also been shown by Dupuy-Dutemps that in the Argyll-Robertson pupil the inner margin of the iris, instead o having the normal cushion-shaped outline on section, i extremely attenuated. This atrophy of the iris may b general, or in cases where the pupil is irregular it ma affect only certain segments of the iris. This atrophy i undoubtedly due to affection of the short ciliary nerves.

It is difficult to conceive how such irregularities of th pupil could be produced by any central lesion; and seein that they so often precede the reflex iridoplegia of tabes the presumption is strong that both phenomena hav essentially the same anatomical basis, namely, degeneration of the ciliary ganglia and short ciliary nerves.

Piltz's experiments enable us to understand the irregularities in the outline of the pupils, but how can w explain the loss of the light reflex, with the retention o the contraction or accommodation? We can, I think, cit analogous facts. We know that different nerve fibres i the same trunk may be differently affected by destructiv or toxic agencies. The extensor muscles are principall affected in the peripheral neuritis of alcohol, lead an arsenic; and pressure on the recurrent laryngeal firs affects the abductor nerves of the larynx. Langley an Anderson have shown that nicotine paralyses the sphincte of the pupil and ciliary muscle long before causin paralysis of the external ocular muscles; and we kno that the toxin of diphtheria may affect the ciliary musc alone, leaving the actions of the pupil and the externa ocular muscles intact. It has also been mentioned tha partial lesions of the trunk of the third nerve may cau ophthalmoplegia externa without impairing the action o the pupil. And total ophthalmoplegia interna due syphilis may, under antispecific treatment, give way to condition merely of reflex iridoplegia.

There is therefore nothing improbable in the assumption that in tabes the ciliary ganglion and ciliary nerve are so affected that, though they cannot transmit th reflex impulse of light to the sphincter pupillae, they ca readily allow the more powerful stimulus associated wi accommodation to pass through. It is also probable th the myosis, which is so commonly associated with th reflex iridoplegia in the tabetic pupil, is due to degenerative changes of an irritative character which are going o in the sphincter.

In a similar manner may be explained the absence of the dilatation which normally results from sensory or emotional stimuli.

The dilatation of the pupil which occurs under such conditions is practically independent of the cervical sympathetic, and may be observed, though to a less extent, when this nerve is divided. This was first noted by Vulpian, and has been verified by Bumke as well as by myself in cases of lesion of the dilator roots of the cervical sympathetic.

And in tabes the dilator of the pupil is not paralysed, for under the influence of cocaine the pupil enlarges as in the normal state, and all the irregularities of its contour become accentuated.

Pyscho-reflex dilatation is due, according to Braunstein, to inhibition of the oculo-motor nucleus acting through the third nerve, and therefore through the ciliary ganglion, for it does not occur in oculo-motor paralysis. Therefore, though the exact mechanism may require further elucidation, the probability is that the condition which blocks the path of reflex pupillary constriction blocks also that of psycho-reflex dilatation; and that in the degeneration of the ciliary ganglion we have the explanation of the tabetic pupil.

If time had permitted I might have offered some considerations on the pathology of the disorders of innervation of the bladder, visceral crises, arthropathies, muscular atrophies, and some other notable symptoms of tabes; but I found, as I filled page after page, on the question, to which I have devoted these lectures, that it would be impossible for me to deal effectively with them all, and it seemed to me better to discuss a few points with some fullness of detail, than range cursorily over the whole field. Such as I have chosen I might have treated at much greater length, but I shall be glad if I have succeeded in showing that in such a well-worn subject as tabes there are still many problems of surpassing interest, and worthy of further diligent study and research.

BIBLIOGRAPHY.

nderson, *Jour. of Physiology*, vol. xxxiii, No. 2, 1905.
ach. *Zeitschrift für Augenheilkunde*, Bd. xi, 1904.
allance and Purves Stewart, *The Healing of Nerves*, London, 1901.
enedikt, Tabes Fragen, 1901, *Internat. Med. Cong.*, Moscow, 1897.
ernheimer, *v. Gräfe's Archiv f. Ophthalmol.*, Bd. xliv.
ethe, Ueber die Regeneration peripheren Nerven, *Neurolog. Centralbl.*, 1901, p. 720.
ickel and Ewald, *Pflüger's Archiv.*, 1897, Bd. lxvii.
ourdon and Luys, *Archives Générales de Médecine*, 1861.
rosius, *Neurol. Centralbl.* 1803, p. 606.
umke, *Die Pupillen-Störungen bei Geistes und Nervenkrankheiten*, p. 101.
umm, *Neurol. Centralbl.*, 1902, p. 423.
ampbell, *Localization of Cerebral Function*, 1905.
ushing, *Jour. of the American Med. Assoc.*, April 8th, 1905.
éjerine et Thomas, *Maladies de la Moëlle Epinière*, 1902.
éjerine et Thomas, *Semiologie du Système Nerveux*.
emeny, Du role mécanique des Muscles Antagonistes dans les Actes de Locomotion, *Archiv. de Physiol.*, 1890.
uchenne, De l'Ataxie Locomotrice Progressive, *Archiv. Gén. de Méd.*, December, 1858, *et seq.*
uchenne. *De l'Electrisation Localisée.* 1861.
upuy-Dutemps, *Annales d'Oculistique*, September, 1905.
dinger and Helbing, *Verhandlungen des XVI Congresses für innere Medicin*, Wiesbaden, 1898.
dinger. *Einiges über Wesen und Behandlung der Tabes.*
linger. *Verhandlungen des XVI Congresses für innere Medicin*, 1898.
gger. De la Sensibilité Osseuse, *Jour. de Physiologie*, 1899.
rb, *Berliner klin. Wochenschrift*, 1904, Nos. 1 to 4.
rb, Syphilis und Tabes, *Berliner klin. Wochenschrift*, 1904, Nos. 1 to 4.
b. *Die deutsche Klinik*, 1905 (Sonderabdruck).
re and Flashman. BRITISH MEDICAL JOURNAL, October 28th, 1905.
errier and Turner. Experimental Lesions of the Corpora Quadrigemina, *Brain*, 1901.
echsig. Tabes u. System-Erkrankung., *Neurol. Centralbl.*, 1890.
rster. *Die Physiologie und Pathologie der Co-ordination*, Jena, 1902.
urnier, *Affections Parasyphilitiques.*
urnier et Raymond, Paralysie générale et Syphilis, *Acad. de Méd.*, 1905.
iedländer. Über Störungen der Gelenksensibilität bei Tabes Dorsalis, *Neurol. Centralbl.*, No. 13, 1905.
wers, Sir W., BRITISH MEDICAL JOURNAL, July 8th, 1905.
ll. Cases of Paraplegia, *Guy's Hosp. Reports*. 1858.
ad. The Afferent Nervous System from a New Aspect, *Brain*, Pt. ii, 1905.
rschl, *Die Aetiologie der progressiven Paralyse*, Wien, 1893.
tzig, Ueber traumatische Tabes und die Pathogenese der Tabes in allgemein, *Neurol. Centralbl.*, September, 1894.
lmes and Grainger Stewart, Symptomatology of Cerebellar Tumours, *Brain*, 1904, p. 522.
mén, Strang und Systemerkrankungen des Rückenmarks, *Handbuch der path. Anat. des Nervensystems*, Abth. 3, Flatau, Jacobsohn, und Minor, Berlin, 1903.
ffroy and Schrameck, *Revue Neurol.*, 1902, p. 275.
nnedy, On the Regeneration of the Nerves, *Phil. Trans. Roy. Soc., Lond.*, 1897, vol. clxxxviii, p. 257.
ster, *Zur Physiologie des Spinalganglien und der trophischen Nerven, sowie zur Pathogenese der Tabes dorsalis.* Leipzig, 1904.
on, *Deutsche Zeitschr. f. Nervenheilk.*, 1898.
sser, *Berlin. klin. Wochenschr.*, 1904.
Leyden und Goldscheider, *Die Erkrankungen des Rückenmarks und der Medulla oblongata*, Wien, 1904.
V. Leyden, *Die grave Degeneration der hinteren Rückenmarks Stränge*, 1863.
Marie, *Maladies de la Moëlle*, 1892.
Marie et Guillain, Les Lésions du Système Lymphatique Postérieur de la Moëlle sont l'Origine des Processus Anatomo-Pathologiques du Tabes, *Revue Neurol.*, 1903, No. 2.
Marina, *Deutsche Zeitschr. für Nervenheilkunde*, 1901, Bd. xx.
Marina, *Annali di Nevrologia*, 1901, Fasc. iii and iv.
Marinesco, Recherches sur les Lésions des Cellules des Ganglions Epinaux dans le Tabes, *Revue Neurol.*, Tom. viii, 1900, p. 1125.
Marinesco, Les Troubles de la Pallesthésie et leur Coexistence avec l'Anaesthésie Vibratoire, *Semaine Médicale*, November 29th, 1905.
Milian, *La Nature du Tabes*, *La Syphilis*, January, 1904.
Minor, *Neurol. Centralbl.*, 1904, p. 146.
Moebius, *Ueber die Tabes*, 1897.
V. Monakow, *Gehirn. Pathol.*, Bd. ii, 1905, p. 1053.
Mott, *Trans. Path. Soc. of Lond.*, 1900, vol. li.
Mott, Tabes in Asylum and Hospital Practice, *Archiv. of Neurol.*, vol. ii, 1903.
Mott and Sherrington, *Proc. Roy. Soc.*, 1895, vol. lvii.
Munk, Ueber den Folgen der Sensibilitätsverlustes der Extremität für dessen Mobilität, *Sitzungsberichte d. k. Acad. d. Wissenschaften*, Berlin, 1903.
Nageotte, Pathogenie du Tabes dorsal, *La Presse Médicale*, December 10th, 1902, and January 3rd, 1903.
Nonne, *Fortschritt. d. Medicin*, 1903.
Nonne, *Syphilis und Nervensytem*, 1902.
Nonne, Zur Casuistik der Betheiligung der peripheren Nerven bei Tabes dorsalis, *Archiv f. Psychiatrie*, Bd. xix.
Oppenheim und Siemerling, Beiträge zur Pathologie der Tabes dorsalis und der peripheren Nervenkrankung., *Archiv f. Psychiat. und Nervenkrank.*, Bd. xviii, 1887.
Orr and Rows, System Lesions of the Posterior Columns in General Paralysis, *Brain*, 1904, p. 461.
Orr and Rows, Lesions of Spinal Cord the Result of Absorption from Localized Septic Foci, *Rev. of Neurol.*, January, 1906.
Page May, Segmental Representation of Movements in the Lumbar Spinal Cord, *Phil. Trans.*, vol. clxxxviii, 1897.
Pierret, Sur la Sclérose des Cordons Postérieurs, *Archiv. de Physiol.*, 1871, Th. iv, p. 364.
Piltz, *Neurol. Centralbl.*, 1903, p. 662 et seq.
Purves Stewart, *Brain*, 1901, p. 229.
Redlich and Obersteiner, Ueber Wesen der Pathogenese der tabischen Hinterstrangdegenerationen, *Vorläufige Mittheilungen*, Vienna, 1894.
Rydel and Seiffer, *Archiv f. Psychiatrie*, 1903.
Richer, *Physiologie Artistique de l'Homme en Mouvement*, 1894.
Robertson, M'Rae, and Shennan, *Rev. of Neurol. and Psychiat.*, 1903, vol. i, p. 225.
Robertson and M'Rae, *Rev. of Neurol. and Psychiat.*, 1905, vol. iii, p. 321.
Robertson, Morisonian Lectures, *Rev. of Neurol.*, 1906, vol. iv.
Robinson, Louis, Darwinism in the Nursery, *Nineteenth Century*, November, 1891.
Romberg, *Lehrbuch der Nervenkrankheiten des Menschen*, 1st edit., 1840, 3rd, 1857.
Schüppel, *Archiv für Heilkunde*, 1874, Bd. xv.
Sherrington, *Schäfer's Physiology*, vol. 2, p. 843.
Spielmeyer, Ein Beitrag zur Pathologie der Tabes, *Archiv f. Psychiat. u. Nervenkrankheiten*, 1905, Bd. xl, p. 369.
Stroebe, Ueber Veränderungen der Spinalganglien bei Tabes dorsalis, *Centralbl. f. allgem. Pathol. u. patholog. Anat.*, Bd. v, 1904.
Thomas et Hauser, Études sur les lésions radiculaires et ganglionaires du Tabes, *Nouvelle Iconographie de la Salpêtrière*, 1902.
Thomas, Société de Neurol., Paris, March 1904, ref. in *Neurol. Centralbl.*, 1905, p. 495.
Trepinski, Die embryonalen Faser-systeme in der Hintersträngen, *Archiv f. Psychiat.*, 1898.
Vulpian, *Maladies de la Moëlle*, 1879.
Warrington, The Cells of the Spinal Ganglia, *Brain*, 1904, p. 297.
Weigert, C., *Neurol. Centralbl.*, 1904, p. 73.
Widal, Sicard, et Ravaut, Cytodiagnose du Tabes, *Revue Neurol.*, 1903, p. 289.
Williamson, BRITISH MEDICAL JOURNAL, January 16th, 1904; *Med. Chronicle*, May, 1905.
Wollenberg, Untersuchungen über das Verhalten der Spinalganglien bei der Tabes dorsalis, *Archiv f. Psychiat. u. Nervenkrank.*, Bd. xxiv, 1902.

THE annual general meeting of the Association of Medical Men Receiving Resident Patients was held on March 30th at 429, Strand. In the absence of the president, Dr. Walsh, through illness, the chair was taken by Dr. H. Forbes Winslow, vice-president. The minutes of the previous general meeting having been read and confirmed, the honorary secretary read a statement of the affairs of the association, which was considered to be satisfactory. The membership is 93, of whom 13 are life members. Dr. Walsh was unanimously re-elected president.

THE YARROW CONVALESCENT HOME.—The tenth annual report of the Yarrow Convalescent Home at Broadstairs shows that the average number of patients in residence throughout last year was 91, the total accommodation equalling 100, and the number admitted 980. As for duration of stay this, nominally, should not exceed three weeks, but in suitable cases it is extended and the average in 1905 was 33.75 days. The medical officers note that the extensions accorded have in some cases given very gratifying results. The institution is completely endowed and during the year the founder has added to its grounds some two acres for use as playing fields. The home is intended for children of the middle classes whose parents are not in a position to give their convalescent children the advantage of a temporary residence at the seaside, the charge made being five shillings a week. Two wards are set apart for a limited number of cases more serious than those generally received at convalescent homes. The London office, whence other particulars can be obtained, is at Terminus Chambers, 6, Holborn Viaduct, E.C.

MEMORANDA:
MEDICAL, SURGICAL, OBSTETRICAL.

ANGINA PECTORIS WITHOUT APPARENT DISEASE OF THE HEART OR BLOOD VESSELS.

IN the BRITISH MEDICAL JOURNAL of January 6th Professor Clifford Allbutt emphasizes his opinion that angina pectoris is due to some morbid condition of the first portion of the aorta. The following case seems to point to this affection as liable to occur in a typical form as a result of blood pressure.

W. M., aged 59, a builder, suffers from cancer of the pancreas, with secondary deposit on the under surface of the left lobe of the liver. The diagnosis has been confirmed by abdominal section. His previous history is one of unbroken health until about two years ago, when he began to complain of dyspeptic symptoms. There is no history of rheumatism or venereal disease, and he has been practically a teetotaler all his life. The area of cardiac dullness is reduced and the heart sounds are valvular, the first resembling the second. The pulse, 110, is of low tension, and the radial artery is soft. There is no tortuosity or other apparent disease of superficial arteries. Except when controlled by morphine, the abdominal pain is very severe, radiating to the inguinal canals, the back of the testicles and perineum, and down the inner side of the thighs as far as the knee; its most prominent feature is a girdle sensation about the level of the tenth intercostal space. At no period of his illness has there been any pain referred to the stomach area as defined by Head.

Recently while giving a hypodermic injection the lumen of the needle got choked, and some of the contents of the syringe escaped between the nozzle of the barrel and the head of the needle. Not knowing how much escaped in this way, I decided not to supplement the injection. He had a bad night, and towards early morning the pain became very severe, and culminated about 4 a.m. in an attack of angina pectoris. I saw him fifteen minutes after the attack, which he described as an awful crushing of the chest accompanied by a sensation of impending death and with pain over an area extending from the epigastrium to the middle of the neck and radiating down the inner side of the left arm to the elbow, the point of most intensity being at the shoulder. After the attack the pulse was intermittent, losing about one beat in four, and his hands and face were cold.

The essential condition of the attack was obviously an extreme contraction of the systemic arteries, and especially those of the splanchnic area, probably induced by involvement of the solar plexus in the cancerous growth, and consequent damming back of the blood on the left ventricle, which, owing to the attenuated condition of its walls, became suddenly stretched and perhaps dilated, and therefore unable to bear the stress on its increased superficial area.

This is analogous to what occurs in other viscera as a result of undue stretching. The low sensibility of the viscera is well known to surgeons. The stomach, for example, is insensitive to cutting or any gross manipulation, but when much distended or dragged upon, syncope, pain, and arrest of respiration occur, which may be explained by a reflex through the vagus. The heart may, and frequently does, deal with a passing rise of blood pressure without much discomfort, but if the pressure is continued a very acute attack of pain may result, and may continue until the depressor nerve comes to the rescue. In the former case the intraventricular pressure lies below the limen for pain, and its continuation may bring it beyond the limen and make it effective, resembling the summation of contraction in a muscle when subjected to quickly-repeated induction shocks or the continued contraction of the biceps and brachialis anticus when the arm is held horizontally to the body for some time.

In tobacco angina and pseudo-angina the irritation probably originates in the stomach, because the epigastric precedes the chest pain, and gives rise to the latter should smoking be persisted in. Moreover, there is no pain in the region of the upper sternum or clavicle, which would probably be the case if the heart or upper portion of the lungs were affected. The fact that pain is confined to the left side would also seem to exclude the lungs. Another point in favour of stomach origin is that anaemic girls who suffer from dyspepsia may also suffer from pseudo-angina, the pain being referred to the stomach area (between the sixth and ninth intercostal spaces and in front of the anterior axillary line). In these cases there is also a feeling of dyspnoea and tension or oppression about the heart, sometimes amounting to a sharp pain in the region of the apex, but not extending to the upper sternum. The pulse also remains regular, or is slightly slowed.

The sensory nerves of the stomach are, according to Head, derived from the dorsal segmental area from the sixth to the ninth dorsal, the lungs and heart receive filaments from the same area, and when any organs send impulses to the same segments of the central nervous system any affection of the one which causes referred pain and superficial tenderness tends to cause a reflex disturbance in other organs associated with the same area, hence in stomach affections an oppressive sensation or pain in the lower cardiac region may be accounted for. If the heart were primarily affected the pain would not be confined to the lower dorsal areas, but would extend as high as the second intercostal space, which is not the case in tobacco angina.

The most typical condition for angina pectoris is aortic regurgitation and stenosis, without mitral lesion. The constant strain and subsequent dilatation from exhaustion of the left ventricle may permit mitral regurgitation, and so relieve intraventricular pressure by throwing the blood back on the pulmonary reservoir. When this happens referred pain disappears.

Every one with much experience of *post-mortem* examinations must have been struck by the frequency with which calcareous deposit is found in the aorta—a deposit sometimes large enough to convert the vessel into a rigid bone-like cylinder—and this without previous gross cardio-vascular symptoms, although the subjects may have taken violent exercise, enough, one would imagine, to embarrass a healthy condition of the vascular system.

From the foregoing considerations, it appears to me that, notwithstanding the views of such a recognized authority as Professor Clifford Allbutt, the morbid train of symptoms known as angina pectoris arises from other causes than aortic disease, and that intraventricular tension in a weakened heart may bring about a typical attack.

Bournemouth. E. CURTIN, M.D., R.U.I.

REFERENCES.
Schäfer's *Physiology*. Head, in *Brain*.

ANGIO-NEUROTIC OEDEMA.

THE following two cases of a somewhat rare affection are not without interest:

The first was in a woman, aged 35, married, one child, who came to my surgery with her right upper and lower eyelids swollen to such an extent that the palpebral fissure was closed and could not voluntarily be opened. She gave a history of fright from seeing five or six men fighting in the road. This was followed during the period of a week by night starts and screams; during one such attack she awoke to find herself holding her baby by the heels in the middle of the room. On the eighth day the oedema began, and the ninth I saw her. She had no abnormal temperature, no signs of traumatism, and no albumen in urine. I gave a mixture containing potassium bromide, and in two days it had subsided, but it returned again within a week, and lasted three days again. After this I lost sight of her.

The second case was a more acute one. The patient is a man, aged 55, who had suffered at intervals from the same affection for twelve months, and now has an attack about every two weeks.

There is no history of a similar complaint in the family. He gets the swellings chiefly on the face, and they take about twenty-four hours to reach their maximum, and remain so another twenty-four and forty-eight hours and then subside. The first came on the forehead. When they come on the lip they often begin at one part, and as they subside spread via the canthus to the other lip, completing the circle before convalescence is reached. He has swellings more often on the front than the back of the arm, and never on legs, body, hands, genitals, or ear. The commonest sites are under the chin, lips, eyes, and forehead. He describes himself as of a nervous disposition and easily startled by noises. At each attack there is generally a definite cause in some business or household worry which seems to affect him inordinately, and is followed the next day by one of these attacks.

His past history is unimportant, pulse small and hard, and no albumen in urine. I could discover no tendency to Raynaud's disease. He has been treated with ergot, potassium bromide, arsenic, and that counsel of perfection, "avoid worry," without the slightest permanent benefit.

Suggestions as to treatment would be welcomed.

Coventry. W. H. Lowman, F.R.C.S.

PAINLESS LABOUR.

Dr. Horrocks's remark has called forth a great deal of protest, but it is doubtful if he had in mind these cases of precipitate labour. I took him to mean that "there is no such thing as a labour, normal in all other respects, but painless." So far as I have noticed none of your correspondents have brought forward any cases to illustrate such a departure from woman's usual lot save those of precipitate labour, with which I should think most practitioners meet from time to time.

It has been my good fortune to attend a case of the kind which I take to be within Dr. Horrocks's definition. On January 15th, 1903, I was called to Mrs. D., primipara, at term. The nurse was in attendance, os dilated, presentation normal, and labour progressing satisfactorily. I told the patient as usual to bear down when she felt the pains; but to my astonishment she said: "I don't know what you mean by 'pains.' I don't feel any pain." The labour went on quite normally to delivery, and during the whole time the patient, who was a very intelligent young woman, declared she felt no pain—only a sense of something being there and a desire to be rid of it. This was the most remarkable case I have ever seen. The girl's mother said she knew of no such incident in her own family.

Most practitioners must be familiar with cases of "physiological anaesthesia" in strong women at the height of the pains. This, which the late Professor Wallace was fond of insisting upon, of course is very different from a *painless* labour.

Cambridge. W. J. Young.

A CASE OF HENOCH'S PURPURA.

The patient in this case was a delicate girl of 11 who had suffered from tuberculous lesions in spine, hip and wrist joints for several years. One day she got wet through, and ten days afterwards an extensive purpuric rash came out, especially marked on the legs. She complained of severe pains in the joints, which were slightly oedematous. Her temperature was a little raised. She was sent home to bed. Two days later she expressed herself as being quite free from pain, and was cheerful and seemed in her usual health. The eruption had almost entirely disappeared, leaving a few yellow stains. On the sixth day she complained of abdominal pain and began to vomit everything that was given her by the mouth. At the end of some twelve hours her condition seemed very grave. The face was pinched, the eyes sunken, the expression anxious. The pain was so severe that she was forced to cry out, although she had been a sufferer almost all her short life. Temperature subnormal. Pulse almost imperceptible at the wrist, very quick and small. Tongue clean and moist. Constipation absolute. The abdomen was markedly retracted, quite hard, and acutely tender all over. The symptoms were of such gravity as to suggest perforation, but the liver dullness persisted. The child seemed *in extremis*. Belladonna and opium fomentation were ordered, but seemed to give very little relief. An opiate mixture was immediately rejected by the stomach.

A morphine suppository was retained and eased the pain slightly. Child slept 1½ hours. Later in the day vomiting recommenced, and large clots of blood were ejected, and a faecal smell was noted. No nephritis, urine free from blood and albumen. She now began to keep down milk and soda water, and was given a bismuth and chlorodyne mixture. An aperient was then administered, which acted well, and gave great relief. This was some thirty-six hours after the commencement of the attack, and convalescence was rapid. At intervals of about a week, fresh crops of eruption came out on the legs and thighs. As this subsided, the abdominal pains recommenced, but were not so severe as in the first instance.

About three weeks after the first severe attack, the patient had a second, which commenced with pain and swelling in the left wrist-joint. There was a papular rash on right elbow. These symptoms disappeared in twenty-four hours, and then severe gastralgia and emesis supervened. The patient vomited blood again, and could keep nothing whatever on her stomach. This time blood was detected in the urine. The pain was so severe that morphine (gr. $\frac{1}{8}$) per rectum failed to give any permanent relief.

After some hours, a slight improvement manifested itself, and the patient was then given a mixture of adrenalin ♏ij, with liq. arsenical. ♏iij in water four times a day. This acted like a charm, checking the vomiting and internal pains. She was kept on this mixture for three weeks, during which time she made steady progress, gaining appetite and strength, and putting on flesh. The tachycardia, which was such a distressing symptom during the attacks, also disappeared, and the pulse became normal. I have now had her under observation for six months, and there has only been one slight attack a month ago, which was speedily checked by the adrenalin and arsenic combination.

Remarks.—The case is interesting, first, because, I think, it is admitted that Henoch's form of purpura is rare enough to be worthy of record; secondly, the relationship between tuberculosis and purpura has been pointed out recently by Raffin[1] and other writers; thirdly, the value of adrenalin both in cutting short the attacks and as a prophylactic agent seemed to me most evident.

J. A. Noel Longley, M.B., B.Ch.Birm.,
Bristol. M.R.C.S., L.R.C.P.

A CASE OF CENTRAL RUPTURE OF THE PERINEUM.

G. G., a primipara, well developed, aged 21, was admitted to the lying-in ward of the Wandsworth Union on February 4th, at 7 p.m., in labour.

She was examined by the midwife and the head found to be in the first position, high up, and the os just commencing to dilate; pains were regular and good. At 10.30 the head was descending well and the perineum stretching; at 10.45 the girl gave a shriek, and the child's head was seen coming through the centre of the perineum, and within about a minute the child was born, the placenta following through the same opening shortly afterwards.

I was at once telephoned for, and on arrival found a lacerated wound 5 in. long in the median line of the perineum; from the anterior end it ran outwards and forwards to the left side of the vaginal orifice for about 2 in., while posteriorly, at about 1 in. from the anus, it was continued outwards and backwards for about 1½ in. by the side of the rectum. Both the vaginal and anal orifices and the rectum were intact and undamaged.

The wound was thoroughly cleaned with a 1 in 2,000 solution of mercuric perchloride and boiled water, and I put in six deep sutures, drawing the parts well together, the floor of the vagina was packed with iodoform gauze, and the external wound dressed with powdered iodoform; the supine position was avoided. The patient made an uninterrupted recovery, and has now been discharged from the lying-in ward.

Cases in which the rupture of the perineum commences in the centre and runs into the vagina, or into the vagina and rectum too, are seen in obstetric practice, but for a child weighing 6 lb. 12 oz. to be born through the perineum by a tremendous uterine contraction without involving either the vaginal or anal orifices is, I think, sufficiently rare to be recorded, especially when, as in this case, there was no condition of the pubes causing excessive downward pressure and the vaginal orifice was of normal calibre and elasticity.

London, S.W. Arthur E. Dodson.

TREATMENT OF PROSTATIC ABSCESS AND CONGESTION.

I was called to see a young man in December last on account of retention of urine. He had had gonorrhoea for some weeks past. I found rectal evidences of prostatic suppuration deep in the gland, and not superficial enough, I thought, to suggest interference in the usual way. Having cocainized the deep urethra, I proceeded as follows: I passed a rubber catheter through my smallest endoscopic tube, allowing it to protrude 1½ in. from the distal end of the tube—my usual mode of passing these tubes into the deep urethra. I then introduced the combined instrument just far enough to empty the bladder. This accomplished, I pushed on the instrument another inch and withdrew the catheter from the tube. I was then enabled, of course, to see the prostatic urethra bulge through the tube by means of an endoscope—a proceeding not, however, essential. I next passed a long, narrow, triangular pointed and shouldered knife through the tube and into the prostate as far as its shoulder. Pus flowed freely, the relief was marked, and the result good. I will soon illustrate this knife, which on another occasion I used to deplete a hyperaemic prostate in the same way.

---

[1] *Thèse de Bordeaux*, 1905.

James MacMunn.

Finsbury Pavement.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

RAMSGATE GENERAL HOSPITAL.

A CASE OF INTESTINAL OBSTRUCTION.

(Reported by J. P. S. Jamieson, M.B., Ch.B., House-Surgeon.)

The patient in this case, aged 61, was first seen on October 10th, when he complained that for about six months he had had irregular and small evacuation of the bowels with increasing distension of the abdomen and griping.

State on Examination.—His temperature, pulse, and respiration were all slightly below normal, and the abdomen so much distended that nothing could be discovered by palpation. It was tympanitic in all areas, but there was no localized tenderness or hernia. Nothing was revealed by rectal examination except a small scybalous mass; there was much gurgling but no diarrhoea. He stated that he had occasionally vomited during the previous fortnight just after food, but there was no vomiting when seen or even nausea. The bowels had moved slightly on the previous day, and he said he was passing flatus. His heart was noted to be feeble.

Progress.—As the symptoms did not appear to be urgent, and it seemed most probable that the obstruction was due to scybala, an attempt was made to procure evacuation by means of castor oil, calomel, and enemata. After three days, during which the patient became no worse, and pulse and temperature remained below normal, there was a small action of the bowels. The following day his pulse and temperature rose slightly, so he was sent into hospital with a view to laparotomy. Enemata of olive oil were passed high but without effect, and in a few hours his heart became so feeble that operation could not be attempted. He died next morning.

Post-mortem Examination.—The large intestine was found completely empty, and the small intestine greatly distended. An annular malignant stricture was situated at the ileo-caecal junction. The strictured portion being excised, the block was found to be so complete that water could not be forced through it from a tap. On investigation a quantity of vegetable skins was found plastered over the strictured orifice. This being removed, the lumen was so patent that a finger could be passed through with ease. On histological examination the tumour was found to be a carcinoma, and the vegetable matter appeared to be potato skins.

Remarks.—The interest of the case is twofold. First, that owing to the loss of elasticity and of peristaltic action of the bowel at the seat of the tumour, such apparently harmless matter as potato skins should effect a complete block; secondly, that with such absolute obstruction there should have been practically no rise of pulse or temperature, and no faecal or persistent vomiting.

AYR COUNTY HOSPITAL.

A CASE OF CROUPOUS PNEUMONIA.

(Reported by John Allan, M.B., Ch.B., late House Surgeon.)

H. B., aged 17, a baker, was admitted to Ayr Hospital on April 23rd, 1905. On the previous day he went out to work as usual in the morning, but feeling ill returned home to bed and sent for his doctor, who diagnosed croupous pneumonia in the right lung, and sent him to hospital.

State on Admission.—The patient was found to be a rather anaemic-looking youth of fair development and muscularity. His breathing was rapid and laboured, and there was slight cyanosis. He complained of pain on the right side of his chest, the pain being aggravated when he breathed deeply or coughed. The cough was short and suppressed, and the sputum was scanty, viscid, and blood-stained. On examination the right lung (lower lobe) was found to be consolidated. The pulse was accelerated and rather feeble, but the cardiac sounds were healthy. There was no albumen in the urine and the other systems called for no special note. The temperature on admission was 102.6° F.

Treatment.—He was given milk, beef-tea, and egg flip for nourishment. Tinct. digitalis ♏x six-hourly, and creosotal ʒss every four hours were administered. A mustard leaf was applied over the seat of pain.

Progress.—He was very "heady" during the next two days, and had to be constantly watched to prevent his getting out of bed. On April 25th, or the fourth day of his illness, his temperature fell from 103.6° F. to 98.4° F., and thereafter remained practically normal. Immediately after the occurrence of this crisis he complained of being very hungry and his diet was increased. An examination of the chest showed that the consolidated area had begun to resolve. The digitalis was now given in 5-minim doses thrice daily, and the creosotal was reduced to ʒss three times a day. He rapidly improved, and two days later the creosotal and digitalis were discontinued. He was allowed up on May 3rd, and he did not show those signs of weakness that one often finds after an attack of pneumonia. A week later he was discharged.

Remarks.—The points of interest in this case are the cutting short of the course of the disease, the rapid convalescence, and the absence of debility on first getting up. These, I think, were due to a large extent to the treatment with creosotal or carbonate of creasote. When used in cases of pneumonia this drug should not be stopped abruptly, but be continued in smaller doses for two or three days after the crisis has taken place.

I am indebted to Dr. Rowand for permission to publish this case.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BIRMINGHAM BRANCH.

Pathological and Clinical Section.

Birmingham, Friday, March 30th.

Professor J. W. Taylor, F.R.C.S., M.Sc., in the Chair.

Tachycardia.—Dr. **Emanuel** showed a lad of 8, who had suffered from paroxysmal attacks of tachycardia since the early age of 2 years. The attacks seemed to be brought on by exertion, generally beginning suddenly while the boy was at play. The intervals between the attacks varied between one and three months. In an attack the boy turned ghastly pale, there was visible very rapid pulsation of the vessels in the neck, and soon afterwards repeated vomiting set in. The sickness was a constant feature of the attack, but as a rule followed the tachycardia, which persisted for some hours after the vomiting had ceased. During the attack the pulse was almost imperceptible, the heart-sounds were tic-tac and uncountable, and the boy screamed out with pain in the heart. Each attack lasted from three days to one, two, or three weeks. There was no apparent organic disease of the heart. The patient was of a nervous disposition.

Syphilitic Disease of Lung.—Dr. **Douglas Stanley** showed a woman, aged 32, presenting signs of bronchiectasis, retraction of the left lung with cardiac displacement to the left, irregularly impaired resonance and breath sounds varying from high to low pitched bronchial. There was a history pointing to congenital syphilis, and the skin round the mouth presented radiating striae. The lung symptoms began two and a half years ago. Previous to that time there were no symptoms of chest disease. The sputum had been carefully examined on many occasions, but no tubercle bacilli were ever found. Dr. Stanley regarded the case as one of syphilitic stenosis of the bronchi, with fibrosis of the lung tissue.

Interscapulo-Thoracic Amputation.—Mr. **Gilbert Barling** showed a girl, aged 10, for whom he had performed this operation in January, 1906. When the child was first seen there was a swelling occupying the outer part of the supraspinous fossa of the right scapula. It was rather tender and very elastic, possibly fluctuating; there was a little thickening of the spine of the scapula and doubtful fullness of the venter of the bone. The history was one of discomfort about the shoulder for twelve months, with increasing inability to use the arm. The diagnosis was between sarcoma and tuberculous periostitis of the scapula. Exploratory incision showed that the growth was a round-celled sarcoma running right on the capsule of the shoulder-joint. Berger's amputation was resolved upon, but the child had such distinct catarrh of both lungs that she was quite unfit for a severe operation, and she was consequently transferred to the medical ward under Dr. Simon for nearly five weeks, during which time the chest cleared up and the patient gained weight. Amputation was performed on January 9th, 1906, Berger's method being slightly modified, so that the posterior incision was taken down the vertebral border of the scapula to avoid leaving any of the skin over the growth. A very good recovery followed the operation. The growth proved to be a central sarcoma invading both surfaces of the scapula, and so encroaching upon the shoulder-joint that excision of the scapula would have been a quite insufficient operation. Mr. Barling mentioned that this was the fifth time that he had performed this operation, all the patients recovering. The first case died in a few months of widespread dissemination from a neglected myeloid sarcoma. The second case had remained well for more than ten years; he was the subject of a mixed round and spindle-celled sarcoma of the humerus. The third patient had sarcoma of the scapula which was fungating, and she was known to be well four years after the amputation, but had not been traced recently. The fourth case was a lady who suffered from a huge growth in the left axilla pushing up the clavicle and involving the skin of the lower axillary boundary. This was a mixed round and spindle-celled sarcoma; recurrence took placed in a few months, and death occurred a year after the operation.

Precocious Development.—Mr. **Milward** exhibited a case of precocious development in a boy aged 5 years and 2 months. His weight was 3 st. 11 lb., and height 3 ft. 6 in. Girth of chest, 27 in. The whole configuration was of the adult type, the hands, feet, and head being extremely heavy and large. The genital organs were of adult size, and the pubic hair well developed. There was strong evidence of rickets, and osteotomy had been performed on both legs. The boy was shy and bashful before strangers, but his inclinations were to smoke and drink beer when at home. He was given to habits of self-abuse. His voice was gruff in tone, as though it had recently broken. His mind was undeveloped, education having been as yet neglected.

Congenital Heart Disease.—Dr. **Kauffmann** showed specimens from a case of congenital deformity of the heart. The patient, a boy, had been under observation from his 8th to his 11th year. He had presented the following signs and symptoms: Meagre growth, very feeble health, deep cyanosis, varying in intensity with the slightest causes of disturbance; the heart had shown no enlargement, its action had been regular, moderately frequent—70 to 80—and a loud, rough systolic murmur had been present all over the precordium, but most intense at the third left costal cartilage. In this spot it had a churning character, and completely shut out the normal first sound. Elsewhere, over the heart, the first sound had still been audible at the commencement of the murmur. The second sound had everywhere been pure and of normal intensity. In three years the cardiac symptoms and signs had undergone no change; the body had grown but very little; the mind had developed satisfactorily. The boy had died of cerebral abscess, the result of suppurating middle-ear disease. The heart now shown presented abnormalities—a widely-open foramen ovale, and the aorta rising from the right ventricle, while the pulmonary artery took origin from the left ventricle. All the valves were healthy, and the myocardium showed no degenerative change. The two venae cavae entered the right auricle in the normal manner, and the pulmonary veins entered the left auricle. The ductus arteriosus was easily recognizable as a thick fibrous cord but was not patent. All the vessels were well developed and healthy. The circulation must have been carried on by means of two currents of blood, both passing through the foramen ovale—one from the right into the left auricle, and the other from the left into the right auricle. In no other manner could the circulation be explained, for, since the right auricle received all the systemic venous blood and the right ventricle discharged entirely into the aorta, this trunk could have received only venous blood, and the latter could never have become aërated unless it had, at least partly, passed from the right into the left auricle, in the fetal manner. On the other hand, since all the blood from the lungs entered the left auricle, and the left ventricle discharged only into the pulmonary artery, the aërated blood must have got across into the right auricle, at least in part, in order to reach the right ventricle, and thus the aorta. The murmur could be ascribed to the crossing of currents in the foramen ovale. The right ventricle resembled in thickness of walls the normal left ventricle, but in internal arrangement it had the characters normally possessed by the right ventricle. The left one was a little thicker-walled than a normal right ventricle. The defect in development was clearly limited to a deficient rotation of the septum, which, growing downwards from the interval between the left fourth and fifth branchial vascular arches, separates the primarily common arterial trunk into aorta and pulmonary artery. A half turn less than normal in this position would throw the pulmonary artery into the left ventricle and the aorta into the right, as had happened in this case.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

J. Warrington Haward, F.R.C.S., President, in the Chair.

Tuesday, April 10th, 1906.

Endemic Goître in the Chitral and Gilgit Valleys.

Agency-Surgeon R. McCarrison contributed a paper on this subject based on three years' observation in Northern India. The following conclusions were drawn: The water supply of Gilgit was the vehicle of the spread of the disease. At its source it was able to produce 11.8 per cent. of goître. At its terminus, after passing through seven villages, it reached a minimum of 45.6 per cent. There must, therefore, between source and terminus, be added some poisonous element, which was matter in suspension, and might be either inorganic substances or micro-organisms. The case of Nagar could only be explained on the latter assumption, leading to the spread of goître in a typically epidemic form. This hypothesis was further supported by the large percentage of goîtrous children under 1 year of age in Chitral, the regular increase of the disease from source to terminus of the Gilgit water supply, and evidence indicating the natural, if slow, end of an epidemic of goître in Gilgit.

Mr. James Berry said that the observations in the paper agreed with those made by others in Europe; the affected districts were mountainous, and the geological formation contained vast masses of limestone; McLelland, for example, had found that 50 per cent. of persons living in certain limestone districts in India had goître, while in only 1 or even 0.5 per cent. did it occur in non-limestone districts. Glacial drift might lead to wrong conclusions as to geological factors in the causation of goître. As to the essential constituent in goître-producing water, it was difficult to decide whether it were lime, magnesia, or iron, or some other substance in solution, or more probably something in suspension. The bulk of cases occurred in places with running surface water and in country districts. It was probable that the poison was not in solution, but in suspension, hence not always present, and therefore liable to be missed by chemical analysis. There was much in favour of the idea that glacier and snow water produced goître, but only when coming turbid from below a glacier or snow bed. Probably suspended mineral matter was the responsible factor.

Dr. Louis Stevenson thought there was no doubt that the poison was in the water. Rain water had never been known to produce goître, and a recent goître would subside if rain water were drunk. As to the bacillary theory, it had not been definitely proved that the removal of the bacilli abolished the goitre; but filtering lessened the danger, and boiling removed it. Its epidemicity, its occurrence in villages, and after the drinking of surface water, were in favour of this theory. As to the iron pyrites theory, goitre was very prevalent in certain districts where iron pyrites occurred in the rocks.

Captain Hugo, speaking from experience in Nepaul, said that goître was very prevalent among the poorer inhabitants and the domestic animals there. The richer people got their water from tanks away from the residential parts, the poorer from surface water on the spot. In this surface water no sediment was perceptible. In one mountain station goître was prevalent in the rainy season when turbid surface water was drunk. In Central India goître was very rare. If goître were due to a micro-organism it would have been expected to follow the trade route, which it did not. It was probably due to some suspended matter in the water. Mica in suspension in the water was often seen in goîtrous districts.

Mr. W. W. Claridge referred to Mampon in Ashanti, where goître was very prevalent and hills and limestone found. Although there was ironstone there, the amount was much less than in other places that were not goîtrous. There was no relation to trade routes in that district. He had never seen goître in bodies of people consuming rain water.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Surgery.

Sir Arthur Chance, P.R.C.S.I., President, in the Chair.

Friday, March 23rd, 1906.

Treatment of Acute Peritonitis.

Mr. Edward H. Taylor read a paper on the above, laying emphasis on the importance of accurate diagnosis of the starting-point of the infection. He discountenanced the administration of morphine before a diagnosis had been made, owing to the way in which it masked symptoms. He advocated general anaesthesia, but recommended that it should not be unduly pressed. Local anaesthesia might suffice if it were desired merely to evacuate an encapsuled collection of pus or establish a faecal fistula. He regarded drainage of the general peritoneal cavity as practically impossible, owing to the rapidity with which drains of all kinds were encapsuled. When acute peritonitis had reached an advanced stage, the abdomen being greatly distended, the extremities cold and livid, the heart's action weak, and the pulse very frequent and feeble, it was doubtful if operative measures could hold out much hope. Abstention from operation in such cases would probably afford evidence of a wise discretion. If intestinal paralysis were impending, the caecum might with advantage be opened and drained (typhlotomy). Incision and evacuation of the small intestine (enterotomy) or drainage by one or more apertures (enterostomy) too often proved disappointing measures.

The President regarded the administration of morphine in peritonitis cases as usually unwise; it might, however, be useful before operation. Flushing of the peritoneum tended to revive the patient, and stimulate peristalic action of the intestine. He was inclined to sanction operative measures even in desperate cases, as they alone appeared to offer any prospect of recovery.

Mr. R. Charles B. Maunsell considered morphine before operation harmful, as it tended to cause flatulent distension of the intestines. His own practice was to mop out and dry the peritoneum with gauze, and drain in cases of diffuse (not generalized) peritonitis. He did not flush under such conditions. When flushing was indicated two openings were necessary, one above, and the other below, the umbilicus in the hypogastrium.

Dr. Goulding was not strongly opposed to the use of morphine, he regarded it of enormous value in relieving pain. He was in favour of flushing as a means of cleansing the peritoneum.

Section of Medicine.

Dr. George Peacocke in the Chair.

Friday, March 30th, 1906.

Keratosis.

Dr. W. J. Thompson exhibited a case of keratosis. The patient's personal and family history was good, and before Christmas he was quite well. Then the palms of his hands and soles of his feet became rough, thickened, and swollen. The inside of the mouth became very much swollen, and the gums covered the teeth. His eyes were bloodshot; the skin thickened in the axilla, and about the elbows and chest. All the openings of the body, ears, eyes, etc., were swollen; that of the nose sometimes became ulcerated and painful. His organs, nervous system, reflexes, and thyroid were normal. The genitals were atrophied. He had been taking thyroid extract for three weeks with benefit.

Dr. Wallace Beatty considered it to be an example of acanthosis nigricans, and exhibited a plate illustrating the affection.

Bradycardia.

Dr. Finny read the notes of a case of bradycardia, with arrhythmia and epileptiform fits, which had been under observation for nine months, and ended fatally after very severe and prolonged fits of syncope. The patient was a seemingly healthy married woman, aged 42, the mother of three children, in whom there was no evidence of any cardiac or arterial disease, or organic disease of any of the viscera. Her illness began fourteen months before admission to hospital by a fit of unconsciousness, the unconscious attacks were frequent during her stay and were preceded by marked arrhythmia. He claimed that their cause lay in the cerebral anaemia, produced by the long periods of ventricular arrest, and not that the epileptiform attack caused the arrhythmia or heart block. He thought the case clearly demonstrated that, for some reason unknown, the contracting muscles of the auricles did not convey their stimulus to the muscles of the ventricles except once in three or even ten contractions, also that the want of agreement of the pulse and auricular contractions was not explainable on the theory that the left ventricle did not contract while the right did—hemisystole—a theory propounded by Broadbent.

Leukaemia.

Dr. Parsons read notes of a case of leukaemia in a patient, a man aged 38 years, admitted to the Royal City of Dublin Hospital on September 8th, 1905, complaining of swelling in his abdomen, shortness of breath, and palpitation of the heart. On examination the spleen extended 3 in. to the right of the umbilicus, and as low down as the anterior superior spine of the ilium. There was practically no enlargement of the lymphatic glands, and no tenderness on percussion over the long bones. The blood-count made on September 21st showed red blood corpuscles 3,070,000 and white blood corpuscles 260,800. When discharged on March 14th the spleen had greatly diminished, the red blood corpuscles had increased to 3,900,000, and the white blood corpuscles had fallen to 9,000. The myelocytes were present in only 8 per cent. of the total leucocytes. The treatment consisted of arsenic, iron, phosphorus, and the x rays.

Dr. C. M. Benson remarked that the patient did not suffer from any nausea or giddiness, and the dermatitis, after the x-ray treatment, was slight. The x rays were said to have an antiparasitic action and to cause partial destruction of the white cells without affecting the red corpuscles.

Dr. Watson believed that a gland, after prolonged exposure to the rays, would become fibrous.

OBSTETRICAL SOCIETY OF LONDON.

W. R. Dakin, M.D., F.R.C.P., President, in the Chair.

Wednesday, April 4th, 1906.

Chronic Infective Metritis.

In a paper on chronic infective endometritis, Dr. A. Addinsell said in the cases referred to there was a history of infection following childbirth, miscarriage, gonorrhoea, or local interference. In none was there any gross lesion, such as a fibromyoma or malignant disease, and in all the predominant feature determining hysterectomy was persistent, excessive, and uncontrollable haemorrhage. He described three stages. In the first the chief characters were perivascular inflammation, a gradual encroachment of round cells along the line of vessels and invading the intermuscular connective tissue, and round-cell proliferation surrounding those mucous glands which lay deepest in the muscle wall. The second was marked by increase of fibrous tissue, a condition described by Mr. Bland-Sutton as "fibrosis," and by Dr. Palmer Findley as "arteriosclerosis." In the third stage there was still greater increase in vascularity. The fibrous tissue underwent degeneration, capillaries were dilated, and it was difficult to make out any muscular tissue. The conclusion reached was that recourse to hysterectomy was eventually necessary when the usual remedies had failed.

Dr. Blacker pointed out that there were several different conditions all associated with intractable haemorrhage from the uterus, and wished to know if

Dr. Addinsell had taken the precaution to exclude the possible effects of pre-senility and child-bearing in his cases as etiological factors. Further evidence was required that these cases were due to infection. As for treatment, steaming the uterus was of the greatest possible value, and should always be adopted before hysterectomy was carried out.

Dr. Griffith was not in favour of steaming the uterus in cases of this kind. He considered cases of haemorrhage so intractable as to justify hysterectomy (excluding cases of cancer and fibroids) were exceedingly rare.

Dr. Eden could not accept the view that the changes in the uterine musculature shown by Dr. Addinsell were inflammatory in their nature. The real difficulty in interpreting histological detail in the uterine wall was that no precise study had ever been made of the uterine tissues at different stages of the fertile period of life.

Abdominal Pregnancy.

Dr. Maclean read notes of a case of abdominal pregnancy in which the fetus was removed six months after spurious labour at term.

The patient, a married woman, aged 34, not previously pregnant, was admitted into the Cardiff Infirmary on February 17th, 1906. The last menstrual period had occurred in November, 1904. Two months later some indefinite discomfort was experienced in the lower abdomen, and a brown vaginal discharge appeared. The patient apparently was then supposed to have been normally pregnant, and the confinement had been expected about the last week in August, 1905. Spurious labour occurred towards the end of August, but the pains passed off, the breasts became smaller, and the abdominal swelling also diminished in size. The patient continued in good health until a week before her admission to the infirmary, when severe pain in the abdomen and back set in, with fever and vomiting. Abdominal pregnancy with recent infection of the sac was diagnosed, and patient was operated on next day. A full-term fetus was removed showing evidence of putrefactive change. The peritoneal cavity was completely shut off from the sac containing the fetus, and was not opened at any time during the operation. There was a pinhole communication between the bowel and the sac. A gauze drain was inserted at the time, and subsequently further drainage was provided by incision into the posterior fornix per vaginam. The patient's general condition had much improved since the operation. The abdominal wound had closed.

Medical Society of London.—At a clinical meeting of this Society held on April 9th, with Sir Lauder Brunton, F.R.S., President, in the chair, Dr. F. Parkes Weber showed a case of congenital paroxysmal cyanosis in a girl aged 16, and a case of probable aortic aneurysm in a woman aged 35.—Dr. F. J. Poynton showed cases illustrating imperfect development in childhood, including a cretin, a case of achondroplasia, and a case of "osteogenesis imperfecta"; and Mr. H. E. Corbin showed a Mongolian imbecile.—Dr. O. K. Williamson showed a case of pulmonary stenosis in a woman of 37, and a case of probable congenital morbus cordis in a man.—Mr. James Berry showed a case of thyroid tumour of uncertain nature, possibly primary chronic (canceriform) inflammation; Mr. C. B. Keetley one of congenital varus of both hands.—Mr. Maynard Smith exhibited photographs, specimens, and microscopic sections from a case of suppuration in the thyroid gland, which was exhibited before the Society on February 12th, 1906; and Mr. J. Lynn Thomas showed a portable operating table, devised to enable the operator to dispense with assistance in placing the patient in position.

West London Medico-Chirurgical Society.—At a clinical meeting on April 6th, Mr. L. A. Bidwell, President, in the chair, the following were among the cases shown: Dr. Phineas Abraham: A case of *Dermatitis exfoliativa*, which commenced as an eruption indistinguishable from pityriasis rubra pilaris; an infant the subject of several *Cornua cutanea;* and an unusual form of *Impetigo contagiosa*, sometimes called impetigo annulata.—Dr. Arthur Saunders: A case of *Sclerodermia* involving a localized area on the back, which had followed, and appeared to be the result of, an injury; a case of *Syphilis* in a man with great enlargement of the skull, and also of the liver; a child of 12 with a greatly enlarged head and spleen, the result of *Hereditary syphilis.*—Mr. Donald Armour: (1) A woman from whom he had removed a large polycystic kidney sixteen months before; the specimen was shown at the same time; the patient was in perfect health; (2) a patient for whom he had excised both temporo-maxillary joints for bony ankylosis some months previously, with a very satisfactory result.—Mr. Astlett Baldwin: A case of hereditary ataxia with marked deformity of both feet.—Mr. L. A. Bidwell: A case of rodent ulcer, in which the ulcer had developed in the situation of an old syphilide.

Hunterian Society.—At a pathological meeting on March 28th, Dr. Fred. J. Smith, President, in the chair, the President showed a large *Melanotic growth of the liver* from a woman of 35, one of whose eyes had been removed at Moorfields a few months before her death.—Dr. Russell Andrews showed: (1) Four specimens of *Complete abortion*, in the earliest of which the ovum was not more than ten days old; they showed the different stages in the development of the decidua capsularis; (2) an *Ovarian teratoma* removed from a child of 12, containing fat, hair, skin, cartilage, glandular tissue resembling that of the large intestine, etc.—Dr. J. F. Zum Busch showed: (1) A *Melanotic sarcoma* of the rectum removed from a woman of 32, who was quite well two years after the operation; microscopically it was seen to be alveolar in structure, the septa containing much pigment; (2) a rudimentary *Uterine horn* and Fallopian tube filled with blood, removed from a woman who complained of constant pain after her first confinement.—Dr. Fortescue Fox showed a specimen of thumb-base arthritis from a patient aged 80. He considered that the condition was due to the action of trauma on senile tissues.

Incorporated Society of Medical Officers of Health (Metropolitan Branch).—At a meeting held on March 23rd Dr. Louis Parkes read a paper on the *Compulsory notification of phthisis in London.* He said they would probably all be agreed that the time had arrived when tuberculous disease of the lung in London should be made compulsorily notifiable. In many of the London boroughs voluntary notification of the disease had been in force for varying periods, and, so far as relief and benefit to the persons the subject of notification and their families were concerned, he believed there could be no question that great good had resulted. In many boroughs, however, the number of cases of tubercle of the lung voluntarily notified had been so small, having regard to the total number of cases that must have existed judging by the mortality returns, that it was evident that there was some strong reason generally prevailing why medical practitioners had not availed themselves of the facilities afforded by the system. The reason, no doubt, for the failure of voluntary notification—and it had been nearly everywhere a comparative failure—to secure the due reporting of a majority of the cases of phthisis that existed, must be looked for in the professional relations subsisting between a medical man and his patient. No medical man was justified in imparting professional knowledge acquired from a patient to any one else, except with the patient's consent. There was naturally a prejudice in the minds of most patients, no matter what their social standing, against consenting to the divulgence of a knowledge of their condition to any one outside a strictly limited circle. Hence the paucity of certificates under any system of voluntary notification. But if the medical practitioner was by law compelled to notify, the strictly confidential relations subsisting between doctor and patient became modified to the extent that a third person must be informed of the patient's illness, and the patient's consent was no longer required. In Sheffield there had been compulsory notification of tuberculosis of the lung since November 1st, 1903; and Dr. Parkes said he was informed by Dr. Scurfield, the Medical Officer of Health of Sheffield, that at the date of writing (February, 1906) the provisions of the Act were being carried out without friction; there had been no opposition on the part of medical practitioners or the public, and a considerable amount of good work was being done under the Act. In Sheffield every medical practitioner was bound to notify a case of tuberculosis of the lung occurring in his practice, in the same manner as he notified a case of compulsorily notifiable infectious disease. If he did not wish his patient to be visited by the medical officer of health or one of his staff, he filled up a form to that effect which he transmitted with his certificate, and no such visits were made. In these cases it was expected that the medical practitioner would himself instruct the patient in the precautions necessary to prevent the spread of the disease to other persons. The mere fact of notification conferred no powers upon the medical officer of health or his staff which they did not already possess under existing statutory enactments. Consequently there was no compulsion upon consumptive patients to submit to isolation at home, or to removal to hospital, or to give up their occupations, or to undergo any kind of supervision or control. The only extra power given under the notification section of the Sheffield Corporation Act, 1903, was that of enabling the medical officer of health to enforce the cleansing and disinfection of any premises that had been in occupation by a consumptive, and to require the removal for disinfection of any bedding, clothing, or other articles that had been exposed to the infection of tubercle. No provisions contained in any general or local Act of Parliament relating to infectious disease applied to tuberculosis of the lung, or to any proceedings relating thereto. In this way the measures adopted by the sanitary authority after receipt of the notification were deprived of any possibility of being harsh or creating any hardships for poor consumptives which they were not at present called upon to bear. The whole object of compulsory notification in Sheffield, as it would be elsewhere when adopted on similar lines, was to educate in methods of hygiene, by persuasion and advice, persons who were subjects of communicable disease, but who, through ignorance or carelessness, were liable to be the means of spreading such disease, and not to hedge them round with disabilities, which would have the effect of cutting them off from social intercourse. In Scotland the Local Government Board in its recent memorandum (March 10th, 1906) had defined pulmonary phthisis to be an infectious disease within the meaning of the Public Health (Scotland) Act, 1897, to which certain penalizing sections of that Act would apply. In England and Wales it would appear to be preferable to proceed along the lines of the Sheffield Act; and, whilst requiring compulsory notification of the disease by medical practitioners, to cause the administrative measures following upon notification to have for their object merely the education in hygiene of the patient, and the destruction or disinfection of his infected excretions and belongings, the provisions of the penalizing sections of the Public Health Acts being expressly excluded from applying to tuberculosis of the lung. On such lines as these there was no reason to apprehend any opposition from the medical profession or the public of London to the suggested measure, and he therefore moved the following resolution:

> That in the opinion of the Metropolitan Branch of the Incorporated Society of Medical Officers of Health it is desirable, in the interests of public health, and for the prevention of the spread of tuberculous disease of the lung, that such disease should be compulsorily notifiable by medical practitioners to the Metropolitan medical officers of health, such notifications to be on the lines of the section in the Sheffield Corporation Act, 1903, dealing with tuberculosis of the lung.

The resolution was put to the meeting, and carried with only one dissentient (not a Metropolitan medical officer of health). It was further resolved that the resolution be forwarded to the Local Government Board and the London County Council, and that the National Association for the Prevention of Tuberculosis be requested to support the proposal for the compulsory notification of tuberculosis of the lung in the county of London.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.—At a meeting on April 6th, Mr. EDWARD WARD in the chair, Dr. E. F. TREVELYAN read a paper on the *Laryngeal Complications of Phthisis*. He emphasized the importance of inspection of the larynx in every case of phthisis. Among his 100 cases of laryngeal complications various stages and phases were represented, including perichondritis, cord fixation and paralysis, and also stenosis. Infiltration was by far the most common lesion. In single instances he had seen tuberculous laryngitis progress through the catarrhal stage to the stage of infiltration and even ulceration. Tuberculous laryngitis might supervene under the best hygienic conditions and in spite of all precautions. It was usually an event in phthisis of the gravest import. He had seen three cases of interarytenoid infiltration, two in early and one in advanced phthisis, in which healing might be said to have taken place. In one of the early cases pieces of apparently necrosed cartilage were spat up. Local treatment (lactic acid) was only employed in the other early case. In a hopeful case absolute rest for the voice (adopted in the second-mentioned early case without local treatment) was of paramount importance. Judicious local treatment in selected cases, including curetting, was undoubtedly beneficial, but was best carried out in institutions for phthisis (including sanatoriums) and not in the out-patient room. It was assumed that intact infiltrations were best left alone. In one case in which tracheotomy became necessary forty months ago both pulmonary and laryngeal lesions appeared now to be in a state of arrest. Thyrotomy and laryngectomy were not to be recommended. In a case of laryngectomy, quite successful from the operative standpoint, the author had seen a foudroyant and fatal extension of the pulmonary disease. Palliative treatment was often of much importance, including amputation of a diseased epiglottis in distressing dysphagia.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY.—At a meeting at Bath on March 31st, Dr. HAMILTON CUMMING (Torquay), President, in the chair, a discussion was held on *Thermal Methods*, in introducing which Dr. Cumming said he hoped that cases proved to be unsuitable for treatment at Bath would be mentioned. Dr. CHARLES BEGG (Bath) laid emphasis on the superiority of a natural thermal water in the treatment of disease. Bath was the only natural hot-water spa in Great Britain. When cold mineral water was heated, gases were given off and solids precipitated, and the result approximated more or less closely to pure water. Bath had been called relaxing in summer, but that was its strong point. A patient from whom one was trying to eliminate a systemic poison could not be too much relaxed. Dr. ALEXANDER MORISON argued from the ancient reputation of Bath that the waters could effect much without the complication of electric baths and other modern addenda to balneological treatment. He considered that the interests both of Bath and its invalid visitors would be best consulted by the special treatment by natural balneological methods, of suitable articular and neuritic affections only. Dr. PAGAN LOWE (Bath) said the thermal methods employed at Bath did not differ materially from those which obtained at other first-class balneological resorts, such as Buxton and Harrogate, and included, in addition to every modern thermal water appliance, the Greville, Dowsing radiant heat, sinusoidal electric baths, and high-frequency appliance. Forty years ago the "season," like other watering places, was essentially a summer one, but now Bath was the only winter health resort of the kind in Europe, and its "season," which began in October, continued without interruption until the following June. Dr. H. FORESTIER (Aix-les-Bains) thought the effect on metabolism of douche massage was much greater than the simple douche. Dr. W. JOHNSON SMYTH (Bournemouth) said some rheumatic conditions associated with or due to morbid functional activity on the part of the nervous system were readily amenable to thermal treatment. In neurasthenia thermal treatment was of the greatest use. Dr. LEONARD WILLIAMS said that thermal treatment was in reality the recognition of the importance of the excretory and other functions of the skin. All thermal methods stimulated this large and important organ, and these methods constituted in reality the only means available for producing such stimulation and maintaining it over long periods of time. Herein lay the secret of that efficacy of spa treatment in chronic disease. Dr. E. H. THOMPSON (Buxton) wished to emphasize the importance of first using thermal water in preference to other methods of treatment in suitable cases. Every form of bath, douche, etc., should be available, but the simple immersion bath was often sufficient. At Buxton, by simple immersion about 80 per cent. favourable results were obtained.

REVIEWS.

PRITCHARD THE POISONER.

IE full account of the *Trial of Dr. Pritchard*,[1] edited by r. WILLIAM ROUGHEAD, W.S., in the series of notable ottish trials, recalls a case which must be in the emory of many members of the profession no longer ung, and the circumstances of which were in some spects unparalleled, Pritchard himself being a psycho-gical problem of considerable interest. Briefly told the ry is as follows:

Edward William Pritchard, the son of a captain in the yal Navy, was born at Southsea in 1825; he was ap-enticed in 1840 to Messrs. E. J. and C. H. Scott, surgeons Portsmouth, and afterwards studied in London, accord-g to his own account at King's College, but the authori-s of that school may be excused for raising a doubt as the true Alma Mater of the murderer. He became R.C.S. in May, 1846, and the same year was gazetted sistant-Surgeon in the Royal Navy, in which service he nained four years. While serving on the home station met, at the house of Dr. David Cowan, a retired naval rgeon living at Portsmouth, Miss Mary Jane Taylor, om he married in 1850. In the following year he re-ned his commission in the navy and commenced prac-e in Hunmanby in Yorkshire, but in 1858 he sold his actice in order to give his children the advantage of a n education. He obtained from the University of Erlan-n the degree of M.D., conferred *in absentia*, and in 1860 nt to live in Glasgow, where he was looked upon coolly the medical profession, failing to gain admission to the culty of Physicians or Surgeons or to any medical iety. He made himself known by delivering several pular lectures, which dealt with his own travels and ventures, and with some of his hearers gained a utation for being fond of pulling the long bow; he also ame a diligent Freemason, being admitted to several h degrees in that order; by these means he formed onnexion and acquired a fair practice. At that time he described as being a tallish, well-built man, of rather iking appearance, with pleasant features, light-brown r, and sandy beard, always neatly dressed, and with nners "characterized by an elaborate, studied polite-ss, the very perfection of the *suaviter in modo*." Three rs after he settled in Glasgow, a maid servant lost life in a fire which took place at his house, the girl ng found dead in her bed without having made any rt to escape. After the fire Pritchard acquired by chase 131, Sauchiehall Street, the house in which the mes were committed; he paid £2,000 for it, of which 600 remained on mortgage, the other £400 having been anced to him by his mother-in-law. The family in chiehall Street consisted of Pritchard and his wife, r children, a cook, and a girl named Mary M'Leod, who ed as nurse and housemaid, and who admitted at the l that she had become pregnant by the prisoner, that had made her some trifling presents, and that s. Taylor (the mother-in-law) had seen him kissing her a bedroom. Two medical students, King and Connell, ned the household in November, 1864. About this e Mrs. Pritchard was taken ill with vomiting, and for some time confined to her bed; but, having tially recovered, she went to stay with her parents Edinburgh, returning to Glasgow for Christmas. ile in Edinburgh the sickness ceased and her health roved, although she remained very weak, but soon r her return home the symptoms reappeared, the niting occurring usually after meals; from this time ard she was seldom able to go downstairs to take meals with the family, and her food was sent up to her m, Pritchard himself often taking it to her. Pritchard nown to have bought large quantities of poisons for ch he had no obvious use, as he did not dispense his licines. Thus from September 19th, 1864, to February n, 1865, he bought 10 gr. of strychnine, 4½ oz. tinct. ii, 1½ oz. laudanum, 1 oz. tartar emetic, 3 oz. tinct. niti (*B. P.*), 2 oz. Fleming's tinct. aconiti, 2 oz. t. digitalis, 2 oz. solution of morphine, and 8 gr. of pine!

n February 1st Mrs. Pritchard became seriously ill h cramp, accompanied by severe pain, which left her in a very exhausted state. Pritchard wrote to Dr. J. M. Cowan, a retired medical practitioner living in Edinburgh, and a cousin of his wife's, asking him to visit her. Dr. Cowan came on February 7th, and stayed the night, but did not regard the case as serious; he prescribed a mustard poultice and small quantities of champagne and ice. The night after he left Mrs. Pritchard was again attacked by cramp, and Dr. (now Sir) W. T. Gairdner, Professor of Medicine in the University of Glasgow, was asked to see her; he was puzzled by the case, thought the patient intoxicated, ordered stimulants to be discontinued, and prescribed simple diet, but no medicine. The next day he called again, and found her better, but was not asked to return, Mrs. Pritchard having objected to him, although her brother, Dr. Michael Taylor of Penrith, an old friend of Professor Gairdner's, urged her to allow him to continue his visits. Professor Gairdner wrote to Dr. Taylor expressing his concern about the case, and strongly recommended that Mrs. Pritchard should be removed to Penrith, a suggestion which was accepted by Pritchard, for such time as she should be in a fit state to travel. On Dr. Cowan's advice Mrs. Taylor went to Glasgow to nurse her daughter, as she had refused to allow a professional nurse to attend her. On February 10th Mrs. Taylor arrived, and two or three days after Mrs. Pritchard had another attack. On February 13th she having expressed a desire to have some tapioca, a packet was fetched from the grocer, which was left for a short time on the hall table and then taken down to the kitchen, where half a breakfast-cupful was prepared by the cook. It is not certain that Mrs. Pritchard had any of this tapioca, but Mrs. Taylor did, and immediately vomited, remarking that she thought she must have "got the same complaint" as her daughter. The tapioca was not used again, and the remains of the packet, when afterwards found in a cupboard in the kitchen, proved to be mixed with a considerable proportion of antimony, although the stock from which it had been obtained at the grocer's was free from poison.

Mrs. Taylor was in the habit of taking opium, in the form of Battley's Sedative Solution, in considerable quantity; it was given in evidence that she had bought 6 oz. between January 18th and February 4th, and after going to Glasgow she sent a 5 oz. bottle to be filled. Friday, February 24th, was spent by Mrs. Taylor in her daughter's room, and in the evening she had tea with Pritchard and the family in the dining-room, after which she wrote some letters in the consulting-room, and then went upstairs to Mrs. Pritchard's room. A few minutes after the bell rang violently, and the servants on going up found Mrs. Taylor sitting in a chair, very ill and trying to vomit. Pritchard was summoned, and having examined her, sent Connell for Dr. Paterson; meeting him in the hall, he said that the old lady "had fallen from her chair in a fit" and had been carried upstairs to her room, adding that she was "in a habit of taking a drop." Dr. Paterson found Mrs. Taylor lying fully dressed upon her daughter's bed, still alive, but according to him she was under the influence of some powerful narcotic; he thought her dying and her state quite hopeless. He said in his evidence that he noticed Mrs. Pritchard, whom he then saw for the first time, and that "he could not banish from his mind the idea, or rather the conviction, that her symptoms betokened that she was under the depressing influence of antimony," but he said nothing about her condition and went home. Later on his bell rang again, and he was asked to return to see Mrs. Taylor, but he excused himself on the ground that he could be of no use. On the following day old Mr. Taylor called upon Dr. Paterson and asked him to give a death certificate, but he refused to do this, and later, when applied to by the registrar, he sent the following letter:

> Dear Sir,—I am surprised that I am called on to certify the cause of death in this case. I only saw the person for a few minutes a very short period before her death. She seemed to be under some narcotic, but Dr. Pritchard, who was present from the first moment of the illness until death occurred, and which happened in his own house, may certify the cause. The death was certainly sudden, unexpected, and to me mysterious. —I am, Dear Sir, yours faithfully, James Paterson, M.D.—To Mr. James Struthers, Registrar.

Pritchard gave a certificate of death from apoplexy, and the body was removed to Edinburgh and buried. On March 1st Paterson met Pritchard in the street, and was asked to visit Mrs. Pritchard on the following day; he did so, and found her in bed, very weak and prostrate, complaining of vomiting, pain in the stomach, purging, and constant urgent thirst; her tongue was foul, her features were sharp, her face flushed, pulse weak, contracted, and rapid; her skin was moist, but cool; her eyes watery, but clear and intelligent. He prescribed small quantities of champagne and brandy with ice, to relieve the thirst and irritability of the stomach. If she tired of these she was to take "granulated citrate of magnesia" and have a mustard plaster applied over the stomach; her diet was to consist of beef tea, jelly, chicken soup, and so on, and he wrote a prescription for some powders containing calomel, grey powder, ipecacuanha, and aromatic powder, of which one powder was to be taken every day. He did not see Mrs. Pritchard again until within four or five hours of her death, when he went at Pritchard's request, and found her propped up in bed, looking wild, her face flushed, tongue foul; she was picking at the bed clothes and wandering in her mind. He thought her state most alarming, and prescribed a draught containing morphine, and it was on this occasion that Pritchard informed him that he kept no medicines in the house, except chloroform and Battley's Sedative Solution! Dr. Paterson returned home, but about one o'clock the door bell rang, and he was told Mrs. Pritchard was dying, but before he had had time to dress another messenger came to say she was dead.

---

[1] *The Trial of Dr. Pritchard.* Edited by William Roughead, Writer to Signet. London: Sweet and Maxwell. (Demy 8vo, pp. 343. 5s.)

Pritchard certified the cause of death as gastric fever and accompanied the body to Edinburgh with a view to its interment beside that of her mother; it is said that the coffin was opened at his request and that he kissed his dead victim on the lips. On this same day an anonymous letter was received by the Procurator-Fiscal, which was popularly attributed to Paterson, and of which a facsimile appears in the book: it is evidently written by an educated person who knew the circumstances. A warrant was obtained, Pritchard was arrested on his return from Edinburgh and his house searched, while a *post-mortem* examination of the body of Mrs. Pritchard was ordered to be undertaken by Dr. (afterwards Sir Douglas) Maclagan and Dr. (afterwards Sir Henry) Littlejohn. The result showed no obvious cause of death, but the chemical analysis disclosed the unmistakable presence of antimony; a warrant was, in consequence, issued for the exhumation of the body of Mrs. Taylor, with practically the same result. A bottle found in Pritchard's house was identified as the bottle of Battley's Sedative Solution belonging to Mrs. Taylor, and found in her pocket after her death; it contained a considerable quantity of aconite and antimony in addition to the Battley's Solution!

Under these circumstances Pritchard was brought before the magistrates and committed on the charge of murdering his wife and his mother-in-law by the administration of poison. The case was tried in Edinburgh in the early part of July, 1865, when the facts, of which we have given the main outline, were clearly proved, and were not disputed by the defence, which relied on the absence of motive and the unlikelihood of Pritchard being the murderer of two women with whom he lived on most affectionate terms, by whose death he had nothing to gain, while it was suggested that the real culprit was Mary M'Leod, the nurse housemaid, animated by spite and jealousy and the desire to supplant her mistress. This defence was not accepted by either the court or the jury; the Lord Justice-Clerk who presided, summed up strongly against the prisoner, and the jury unanimously found him guilty upon both counts. He was sentenced to death and taken back to Glasgow: before his death he signed a written confession admitting the sentence pronounced upon him to be just, and his guilt of the death of both women, but he gave no explanation of his conduct beyond attributing it to "a terrible madness" and the "use of ardent spirits"; but there was no evidence that he took spirits, and of the many evil things alleged against him after his downfall intemperance is not one. He was hanged on July 28th and buried in the prison.

Mrs. Taylor probably died from the effects of aconite, introduced by Pritchard into the bottle of Battley's Solution, which she was in the habit of taking in large doses, so that she would swallow enough aconite in the mixture to kill her. It was never known by what poison Mrs. Pritchard's death was ultimately caused, but there was no doubt that she was gradually weakened by the persistent administration of antimony continued over many months.

There was no adequate motive for the murders; Pritchard made no pecuniary gain by the death of either victim, while it cannot be seriously contended that he desired to get rid of his wife in order to marry Mary M'Leod, the last thing such a selfish and ambitious man would be likely to do. He probably poisoned the servant who was found dead in bed at the time of the fire, and afterwards set fire to the house to hide his crime. He mixed poison indiscriminately with the food in the house and every one in it ran a considerable risk of taking it the medical students, the servants, and even Pritchard himself had attacks of vomiting and purging, the result of swallowing food containing antimony. The most reasonable explanation of his action is that he was a homicidal maniac.

The conduct of Dr. Paterson was the subject of strong censure by the Lord Justice-Clerk in his charge to the jury. He said: "Dr. Paterson was under the decided impression when he saw Mrs. Pritchard that someone was practising upon her with poison, yet had thought it consistent with his professional duty, and, I must add, with his duty as a citizen, to keep that opinion to himself There is a duty that every right-minded man owes to his neighbour—to prevent the destruction of human life in this world—and in that duty I cannot but say Dr. Paterson failed." Paterson replied to this in a long letter published in the press, wherein he contended that his refusal to certify to the cause of death of Mrs. Taylor should have been enough to arouse the attention of the authorities and to have saved Mrs. Pritchard; but the registrar, upon whom Paterson threw the blame, pointed out that if Dr. Paterson wished to have an inquiry made into the cause of death he should not have referred him to another medical man for the certificate, but should simply have declined to certify, and then it would have been the duty of the registrar to report the case to the proper authorities, who would have insisted upon a *post-mortem* examination. The registrar's letter is not printed in Mr. Roughead's book, but is to be found in this JOURNAL for July 22nd, 1865, p. 63. Both the *Lancet* and the BRITISH MEDICAL JOURNAL of that day concurred in condemning Paterson for shielding himself under the rules of medical etiquette, which he said forbade him to return to watch the progress of the case. The view taken in the editorial articles of both papers is that if Paterson really entertained the conviction that Mrs. Pritchard was being poisoned he should have insisted upon a consultation and have discussed with the consultant what had better be done. It is difficult to believe that Paterson could have been so sure of the nature of the illness as he boasted in the witness-box, and in his letter to the press, where he takes credit to himself for having rightly diagnosed the complaint when Professor Gairdner and Dr. Cowan had been unable to recognize it. He was not without sympathizers in the profession and among the public, for at the end of the year he received a testimonial consisting of a purse containing 200 guineas and handsome silver salver, bearing a suitable inscription contributed by a large number of citizens, as a mark of respect and sympathy for him in the difficult position in which he was placed in connexion with the case.

What should be the conduct of a medical practitioner placed in the position of Dr. Paterson? In the first place, he may naturally seek to have his opinion confirmed and his judgement supported by a consultation, but this only shifts part of the burden of responsibility on to the shoulders of a colleague, and in itself does nothing to protect the supposed victim. In the recent case of Mau Chapman the judge expressed his surprise that none of the doctors who had seen the murdered girl in the course of her illness had been able to recognize the symptoms as due to chronic poisoning by antimony. One of them, however, was so suspicious that he insisted upon a *post-mortem* examination, which led to the detection of the crime; yet he was not sufficiently confident to be able to prevent the consummation of the crime. When a medical practitioner is in attendance upon a case where he suspects poisoning he should procure some of the vomited matter, stools or urine, and have it analyzed; if in this way he able to get evidence of the presence of poison, he should in England, inform a justice of the peace, or, in Scotland the Procurator-Fiscal.

PHYSIOLOGY.

SINCE the first edition of *Practical Physiology*[2] was reviewed n the BRITISH MEDICAL JOURNAL a little over two years have elapsed, and in the preface to the second edition the authors state that considerable changes have been made n those portions of the work which deal with physiological chemistry. The new exercises have involved a slight increase in the total number of pages, and several new figures have been added. This leaves one to infer hat the other parts have undergone but little change, and this is so. Certain shortcomings pointed out n the previous edition have been rectified. Apart altogether from the excellence of the book and its added pages, its rearrangements of chemical paragraphs, and its additions on the chemical side, we should like to ask, How is it possible for a medical student to deal with he mass of facts and technical details set forth in what is now known as *Practical Physiology?* If one may judge rom the facts it has been thought desirable for five ecturers or teachers to combine to produce this work n its several parts, and that the medical student has many other subjects to study, the time would seem to have come when a more restricted range of treatment of he subject, at least for the medical student, may be advisable. The book will prove most useful to the student working for a science degree and to teachers of the subject. In the table showing the changes which take place in food n the intestine, the terms "hemipeptone" and "antipeptone" are still retained, although on p. 224 it is stated n a footnote that much doubt has been cast on the xistence of antipeptone. Surely the bile does more than precipitate the products of gastric digestion. In the index we do not find either enterokinase or erepsin, although they are mentioned in the text, while Grutzner, both in ext and index, should be Grützner. Perhaps the experiments of Valsalva and Müller might have found a place, s they can be done by every one without apparatus. As o the experiment on the deficiency of oxygen in expired ir (p. 91), a simpler method is the one long ago shown by Faraday in his lectures on the *History of a Candle*. It should be added that the title "Practical" is used in a road sense, to include not only experiments and practical work, but also categorical statements of facts and theories.

All who have used Landois's *Textbook of Human Physiology*,[3] whether in the original German or in the English translation, will be grateful to Professor ROSEMANN for the care which he has bestowed on the reparation of the new (eleventh) edition. He was for many years the assistant of Landois, and well acquainted ith his wishes with regard to the book. The publishers ere therefore well advised to entrust the task of editing new edition to him; in deference to their wishes, the sections on histology have been curtailed, and room has hus been found for many additions without unduly ncreasing the bulk of the book. Landois's text has been tered as little as possible, but every page has been ubjected to careful revision, and, as has been said, umerous additions have been made. It would be an ksome—and, indeed, a useless—task to attempt to ndicate all these additions, and it must suffice to say that, o far as we have been able to test the book by consultation, they are all of a judicious nature. Professor Rosemann has added to this edition a comprehensive bibliography—a most laborious undertaking, which will nhance the value of the book to working physiologists. is not, however, to them only that it may be recommended. We know of no book which may be so onfidently recommended to physicians who want a ork of reference on the institutes of medicine. The tention of those who have not a sufficient comand of the German language may be called to he translation into English which has been made y Professor Eshner of Philadelphia, and edited by rofessor Brubaker of the same city. It is from he tenth German edition, the last which Landois mself saw through the press. The full title of this translation is *Textbook of Human Physiology, including Histology and Microscopical Anatomy, with Especial Reference to the Practice of Medicine*.[4] The concluding words of this title are justified, for Landois always kept in mind his desire to "provide for physicians and students a book that should supply the needs of the practising physician," and with this end in view he appended "a brief outline of pathological variations to the description of the normal processes in every section."

Dr. NOEL PATON has published a second edition of his *Essentials of Human Physiology*.[5] He has rearranged and extended certain parts and introduced many new figures, and altogether made the book well fitted for the service for which it is designed—that is, to supplement the practical work and demonstrations from which a more real knowledge of physiology can be gained. Textbooks are apt to be unstimulating from the bareness of outline which they offer, and fail, in their definite statement of so-called facts, to develop the student's power of criticism and judgement. They also fail to give him an idea of the evolution of human knowledge and the methods of progressive work. The reading of a textbook should therefore be associated with the study of a few original papers chosen from the works of great men, such as Boyle, Harvey, Stephen Hales, Bell, and Lister. As far as textbooks go, Dr. Noel Paton's is, in its present form, one of the best. It is clear in exposition, well printed and illustrated, and by its moderate size suited to the needs of the average student.

Dr. AUSTIN FLINT, who is Professor of Physiology at the Cornell University Medical College, one of the largest of the New York schools of medicine, is well known as a voluminous writer on medical subjects, and is perhaps best known in physiological circles as the discoverer of stercorin, a derivative of cholesterin found in the faeces. As a veteran teacher, anything issuing from his pen is entitled to careful consideration and respect, and one therefore approaches his newly-issued *Handbook of Physiology*[6] with sympathetic regard. There are many men well advanced in years who continue youthful in their ideas and enthusiasms, who possess the power of assimilating the new discoveries which are true, and in exorcising the old theories on which they were reared. The late Sir John Burdon-Sanderson was a striking example of this type. But Dr. Austin Flint cannot be placed in the same category. His work was in the past; his thoughts and ideas are still there, and in those rare moments when in brief sentences or footnotes he attempts to interpolate something more modern the result is usually confusion. It is only fair to students to state frankly and at the outset that his present book is fundamentally imperfect, and can give them no notion of the present position of the science of physiology. It is now a good many years since anatomy and physiology were taught in a single textbook or by a single lecturer. Specialism in both has progressed so far that this is no longer possible. The advantage of the old system was wholly on the side of anatomy, the dry bones of which became more interesting when considered in physiological clothing. The disadvantage to physiology was that it was apt to be drowned in the sea of anatomical detail with which it was diluted. Had Dr. Flint's handbook appeared in this era it would have been welcomed with enthusiasm, but at the present day it bears so much the impress of the old anatomical physiology that one can only wonder that it is a product of that New World whose boast is that it is fully up to date in everything in general and in things educational in particular. Dr. Flint has not grasped the fact that physiology has become an experimental science, and cannot be deduced from mere anatomical considerations. Any account of the more exact methods of physiological study, like the graphic method, is almost entirely omitted. Any exposition of the reasoning by which deductions may be formed from experiment seems to be carefully expunged. For instance, we read that some physiologists regard the muscle spindles as sensory, or that lecithin is regarded as a phosphorized fat; but there is no guide given to the student to show him the evidence on which such statements are grounded. His attitude towards recent research is shown when he speaks of the "so-called neurone," and when he alludes to Pawlow's epoch-making conclusions as remarkable and extravagant, without either describing the experiments or explaining why he regards them with such doubt. He alludes to the work of Sherrington and Grünbaum on cerebral localization in a few lines, stating they have shown the motor area to be more extensive than was formerly supposed to be the case. We doubt whether Sherrington and Grünbaum would regard this as an adequate or even accurate description of their results; be that as it may, the illustrations of cerebral localization given do not represent the discoveries of these observers, nor of anyone else, so far as we can ascertain. The whole book teems with similar instances; and as it has been necessary to speak of the book with disfavour, it is only fair that a few more examples of its faults should be enumerated. The description of respiration is almost altogether confined to external respiration, and here figures from ancient writers as far back as Lavoisier are set forth as though they continued to possess authority. In the account given of the digestive system page after page is devoted to deglutition, a subject where anatomical considerations are paramount, whereas gastric digestion is dismissed in a page or two; and even here more space is given to describing how meat is reduced to a pultaceous mass than to the chemistry of proteid cleavage; albumoses and other substances are mentioned, and hardly more than mentioned, in a few brief lines. In the estimation of the heat value of foods, the latest figures are apparently those of Frankland, and no note whatever is made of those researches on metabolism founded on more accurate data. Du Bois Reymond's statements regarding electrical currents in muscle and nerve are reproduced as though they had never been questioned. The treatment of subjects like this and like electrotonus must be exceedingly difficult for students, seeing that no description of apparatus nor of simple experiments that the student himself might perform are allowed to intrude, and no figures in the text are present to aid him in grasping these somewhat difficult subjects. The description of the regulation of temperature in man will lead the reader to imagine that it is by clothing alone that we regulate the discharge of heat. How the unclothed warm-blooded animal and the naked savage get on is left to the imagination. The description of the nervous system is full of the most extraordinary mistakes; thus we read that the fibres of the columns of Goll and Burdach take origin in the grey matter of the posterior cornua of the cord, and that they degenerate when this part of the grey matter is diseased, as in locomotor ataxy; that the nerves of special sense, unlike those of cutaneous sense, have no ganglia on their course (the gustatory nerve alone excepted); that the rod and cone fibres are continuous with the bipolar cells, and these again with the ganglion cells of the second layer of the retina; evidently the "so-called neurone" is not allowed even a passing mention here. Curiously enough, in spite of this general disregard of physiological progress, a peculiar place of prominence is assigned to Ehrlich's side-chain theory in the introductory chapter. But even this exception to the rule is spoilt by a misconception; the side-chains are considered to be of the nature of actual projections from the surface of the cells; this accounts, we suspect, for the consideration of the subject so soon after amoeboid movement. We will quote the author's exact words (p. 9):

---

[2] *Practical Physiology*. By A. P. Beddard, M.A., M.D., J. S. Edkins, .A., M.B., L. Hill, M.B., F.R.S., J. J. R. Macleod, M.B., and . S. Pembrey, M.A., M.D. 2nd edition. London: Edward Arnold. 05. (Demy 8vo, pp. 503. 12s. 6d.)

[3] *Landois's Lehrbuch der Physiologie des Menschen mit besonderen rucksichtigung der praktischen Medizin.* Elfte Auflage bearbeiten n Professor Dr. R. Rosemann. Berlin and Vienna: Urban und hwarzenberg Crown 8vo, pp. 1128. M. 20.)

[4] London: Charles Griffin and Co. 30s.

[5] *Essentials of Human Physiology*. By D. Noel Paton, M.D., B.Sc., F.R.C.P.Ed. Second Edition. Edinburgh and London: William Green and Sons. 1905. (Demy 8vo, pp. 459.)

[6] *Handbook of Physiology*. By Austin Flint, M.D., LL.D. New York: The Macmillan Co.; and London: Macmillan and Co. 1905. (Demy 8vo, pp. 905, 247 illustrations, 16 coloured plates. 21s.)

> It may be diagrammatically illustrated by supposing that the cell sends out from its surface little prominences in the form of a side chain. These hypothetical prominences are called receptors, although their form has been inferred rather than seen. The different receptors have affinities for special nutrient matters; for example, there are certain receptors which have an affinity for proteid molecules, others for carbohydrates, and others for fats.

We do not think that any student reading this, and comparing the figure given with that of amoeboid processes which almost immediately precedes it will come to any other conclusion than that a receptor is a kind of pseudopodium. Sufficient has been said to prove the statement with which we started, that the book cannot be recommended as a trustworthy guide to the student o physiology.

When the second edition of Professor Raymond *Human Physiology*[7] was published we had occasion t notice it (June, 1902), and our verdict was far fron favourable. The third edition, which is now before u has not changed our opinion. A number of errors hav been rectified, but a number still remain unaltered; som paragraphs dealing with Chittenden's recent work o metabolism have been introduced, and the section on th nutritive value of alcohol has been elaborated, owing t the completion of Atwater's researches on that subjec There has also been an attempt to bring the subjec matter up to date on such matters as uric acid, haem lysis and bacteriolysis, and stomach movements. Som sections deal with subjects like the identity of huma and bovine tuberculosis and ovarian and abdomin pregnancy, which are hardly in place in a physiologic textbook. The parts relating to digestion and diet remai the best in the book. It is not, however, on the ground small errors in judgement or misstatements of facts th we feel bound to condemn the book. It still remains mere compilation of the works of others; the circumstance that the author has been for many years a teache of his subject is no ground for publishing a *réchauffé* well-known handbooks and labelling it as a new work. S far as we know, Dr. Raymond has contributed nothing t the progress of the science he teaches, and the lack originality in his life-work is abundantly reflected in hi book.

The short work, *Outlines of Physiological Chemistry*,[8] b a physiological chemist, Dr. Beebe, and a pathologis Professor Buxton, is not written on the lines with whic one is familiar in works bearing a similar title. It is n a laboratory guide, but an attempt to deal with the the retical side of many of the questions involved. Perha the scope of the work can best be set forth by enumeratin the subjects with which it deals. Something like twent pages are devoted to the theory of solutions, and to th of ionization. Next follows a short but clear account the organic chemistry of the carbon compounds Chapters III and IV deal with combinations of the oxid tion products of the paraffins with each other, and wi the halogen and nitrogen derivatives of the carbon co pounds; and Chapter V with "cyclic compounds," all ve much on the lines on which these subjects are dealt wi in textbooks on organic compounds. About sixty pag are devoted to the constitution of the proteids, the varieties, transformations, and derivatives. A chapter enzymes and their action leads up to a short accou of disease and immunity, which deals with ptomaine toxins, and such subjects as agglutinins, lysins, a Ehrlich's theory of antitoxins. The work will be fou useful as an introduction to the problems of physiologic chemistry.

INJURIES OF THE NOSE AND EAR.

Although the subject of injuries to the nose and t accessory cavities[9] receives a certain amount of co sideration in books on rhinology and on gener surgery, it has nowhere been treated so methodical and exhaustively as in the present work by I Friedrich Röpke, of Solingen. He is best known his work on the surgery of the frontal sinuses; an situated as he is in one of the most active industri centres of Germany, he is peculiarly well circumstanc for acquiring extensive experience of these injuries their clinical aspects. In addition the detailed nature the German enactments regarding insurance, workme ibs, compensation for trade injuries, etc., gives the dico-legal aspect an importance and interest which y surprise those who read the later chapters of this ok. There is no *Vorwort* or padding of any kind, but er a few necessary anatomical remarks, the author roduces us to the injuries of the external nose, most which are, however, familiar to those practising where king, polo, cricket, and other sports are indigenous. e bibliography is extensive and drawn from all sources. e reference is so remarkable that we cannot refrain m mentioning it, although transmitted through several ters. It is a case in which the eyeball was lost to w until the patient *saw* through his nose, when it was nd to have been dislocated into the nasal cavities. ong other points established by the author is the that blows on the nose may produce fracture the quadrangular cartilage without simultaneous ture of the nasal bone, although Zuckerkandl expressed the contrary opinion. Dr. Röpke refers the discussions in the Otological Section of the tish Medical Association with regard to the relation ween nasal obstruction and disturbance of hearing, and been led by it to make personal investigations. He come to the conclusion that "in the majority of cases hearing power was lowered, even if only to a slight ree, on the side on which the nasal obstruction ted." He further found that, again in the majority of s, "the hearing power improved or became quite nal within a few weeks after the removal of the nasal ruction, without resort to catheterization or any other apeutical treatment for the middle ear." He attri- s the aural trouble mainly to the driving of irritants the Eustachian tube during the efforts to clear the ructed side. He considers the complete absorption of al haematoma as quite uncommon, and attributes the acteristic depression following on so many cases of matic abscess of the septum to a luxation of the lrangular cartilage from the vomer, as shown by the riments of Mollière and Chevallet. The references to ature are of the most international character, and add iderably to the value of this most instructive and esting book.

---

[7] *Human Physiology*. Prepared with Special Reference to Stude of Medicine. By J. H. Raymond, M.D., Professor of Physiology a Hygiene in the Long Island College Hospital, New York City. Thi edition. Philadelphia and London: W. B. Saunders and Co. 19 (Demy 8vo, pp. 687, 444 illustrations. 15s.)

[8] *Outlines of Physiological Chemistry*. By S. P. Beebe, Ph.D., Phys logical Chemist to the Hurlington Fund for Cancer Research; a B. H. Buxton, M.D., Professor of Experimental Pathology, Corn Medical College. London: Macmillan and Co. 1904. (Fcap. 8 pp. 195. 6s. 6d.)

[9] *Die Verletzungen der Nase und deren Nebenhölen, nebst Anleit zur Begutachtung ihrer Folgezustände.* [Injuries of the Nose and Accessory Cavities, with Guidance as to the Formation of Opinio concerning their Consequences.] Von Dr. Friedrich Röpke (Soling Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 19 (Demy 8vo, pp. 135. 4s. 8d.)

ofessor PASSOW's work on injuries of the organ of ing[10] will be found most useful, not only on account e clinical observations it contains but also on account e medico-legal questions discussed. The details are fully treated than is possible in a general textbook liseases of the ear. The author summarizes and ts the literature of the subject in a manner which rs its comprehension easy and its study interesting nstructive, and he gives the results of experiments observations of his own for the purpose of arriving at ions where other observers seem to disagree. He difficulty in drawing the line between cysts and atomata of the auricle, and considers them, there- to be identical in nature, the effusion of blood being ental. The question as to whether orthoematoma is atic or spontaneous is fully discussed, and the r considers that it is generally of traumatic origin. thoroughgoing in urging immediate aseptic incision t in the case of insane or unruly patients who would rb their dressings, and for whom repeated puncture erefore, preferable. The anatomical variations in the on of the condylar process of the mandible to the us auditory meatus are specially described from the r's original investigation, particularly in view of res of the meatus from blows on the chin. He the danger to be least when the posterior articular le is well developed and vice versa. In the former the meatus is only likely to be fractured when the is received to one side of the chin (the "point" in g) not in the middle line. The cause and site of atic ruptures of the tympanic membrane naturally tute an important section of the book, and among points he proves that ruptures by direct violence the entrance of sharp bodies into the meatus may be in the posterior or the anterior segment according direction of the introduction, as proved by original ment on the cadaver and observations on patients. The chapters on injuries of the labyrinth and central nervous auditory apparatus, and on the detection of simulation are most complete. The scheme for reporting with a view to compensation for injury will be found invaluable to those who have to give expert evidence in cases arising under the Acts dealing with employers' liability for injury to workmen.

ORTHOPAEDIC SURGERY.

DR. JAMES K. YOUNG, of Philadelphia, modestly calls his book on orthopaedics a *Manual and Atlas of Orthopedic Surgery*.[11] As the work is a quarto weighing over 8 lb., the name of manual seems hardly appropriate. It is as the older publishers used to state, "profusely illustrated" by over 700 photographs and drawings. The preface states that it is the result of an experience of twenty years, and we may congratulate the author on being able to show so satisfactory a result of his labours, for he has succeeded in presenting us with a thoroughly up-to-date and almost complete account of the present state of orthopaedic surgery. We say almost complete, for despite the size of the book, some sections of it are almost cursory in their brevity. The first two hundred pages, forming Part I, are devoted to a consideration of general principles, while the remaining seven hundred are occupied by a discussion of particular conditions. As is usual in American works on orthopaedics, much space is devoted to joint diseases, and this section, and that on Pott's disease, are very thorough. We congratulate the author on the moderation of his remarks on prognosis, but, although he states that in Pott's disease the deformity, once present, never entirely disappears, he does not insist on the inevitableness of this result, owing to destruction of the growth centres on the front of the spinal column. In common with many others, he appears to attach more importance to the treatment by jackets or supports than to that by suspension or recumbency; and there is no mention of the valuable method of treatment by suspension in the sitting position. The statement, "When it is possible, efforts should be made to remove portions of the diseased vertebras (*sic*) through incisions made for the escape of pus, or by enlarging old sinuses," needs to be qualified by the proviso, "if the presence of a loose sequestrum is suspected." Otherwise such operations seldom shorten the course of the disease. The remarks on pressure paraplegia and forcible correction of deformity and on laminectomy are judicious and moderate, but there is no mention of Menard's operation for paraplegia, which in suitable cases has given good results. The chapter on lateral curvature is full and well illustrated, but we could wish that the author, as well as other writers on the subject, would give us some statistics showing the results achieved by treatment, especially as various elaborate machines for making exact records are described and figured. Compared with the scale of other sections, the chapter on infantile spinal paralysis is rather short. Tendon transplantation is dealt with briefly, but beyond a few words the value of the method which has been of late questioned is not discussed. For congenital clubfoot Dr. Young prefers to put off operations on tendons till the child is from 8 to 12 months old. We must confess, however, that we fail to see the force of his arguments. If tendons are contracted, the sooner they are lengthened and growth guided in the normal direction the better; and while we cordially agree with his remarks on the disadvantages of tarsectomy, we do not think that he appreciates the value of Phelps's operation when combined with a skin flap and grafting. The section on congenital dislocations of the hip is clearly and succinctly worded, and leaves little to be desired. On the whole, we can warmly recommend this book to all practitioners who want a textbook on orthopaedic surgery.

Drs. BRADFORD and LOVETT of Boston have published a third edition of their *Treatise on Orthopedic Surgery*.[12]

Verletzungen des Gehörorgans. By Dr. A. Passow, Professor of ederik-William University and the Kaiser-William Academy y Medical Instruction in Berlin. Wiesbaden: J. F. Bergmann. Pages 276, 41 illustrations in the text and 4 plates. 9s. 9d.).

[11] *A Manual and Atlas of Orthopedic Surgery*. By James K. Young, M.D., Associate in Orthopaedic Surgery, University of Pennsylvania, etc. Illustrated with over 700 photographs and line drawings, mostly from original sources. London: Rebman, Limited. 1906. (Demy 4to, pp. 942; 700 illustrations. 52s. 6d.)

[12] *Treatise on Orthopedic Surgery*. By E. H. Bradford, M.D., Surgeon to the Boston Children's Hospital, and R. W. Lovett, M.D., Assistant Surgeon to the Boston Children's Hospital. Third Edition. London: Baillière, Tindall and Cox. 1905. (Demy 8vo, pp. 676, 592 illustrations. 21s.)

A review of the second edition was published in 1900, and we are glad to observe that the need for a further edition has arisen so soon. In reading the volume the impression conveyed is that we have here detailed the matured experience of two surgeons who are second to none in America in their knowledge of the theory and practice of their branch of surgery. More recent subjects, such as tendon transplantation and nerve anastomosis, are dealt with in a satisfactory manner, while the remainder of the volume is a critical digest of all the conditions which come within the purview of a surgeon practising orthopaedics. As in former editions, full notice is given of the various diseases of the joints, and this feature of the book renders it a complete digest on the subject of deformities of the locomotor apparatus. In every way this volume merits great commendation.

MATERIA MEDICA AND THERAPEUTICS.

WITH the eleventh volume of the *System of Physiologic Therapeutics*[13] the editor, Dr. SOLOMON SOLIS COHEN, has brought this important undertaking to a close, and we may now congratulate him on the successful completion of his labours in connexion with it. As is well known, the previous ten volumes have dealt fully with all the physical methods of treating disease, such as electricity, climatology, light, heat, hydrotherapy, and so on, each subject being treated by a different author. The present volume deals with serumtherapy, organotherapy, radio-activity, counter-irritation, and bleeding, and concludes the whole with a short article on the principles of therapeutics. It contains, also, a very full therapeutical index to the whole series. The articles in this volume are scarcely up to the standard which their predecessors have led us to expect. Dr. McFarland's account of Serumtherapy is merely a short sketch, part of which is devoted to the now well-worn theme of Ehrlich's speculations regarding the mode of action of curative serums; while Organotherapy, by Dr. Osborne, is mainly a record of the many conditions in which these preparations have been given with or without benefit, no critical analysis of the results being attempted. The other articles are short; that on Counter-irritation, by Dr. Packard, is very clear and practical.

NOTES ON BOOKS.

THE latest volume—the twenty-fourth—of the *Transactions of the Epidemiological Society*[14] covers the session which terminated last spring, and contains accounts of some half-dozen discussions. All of these may still be studied with advantage; particularly, perhaps, those on the significance of phthisis rates and on the aërial convection of small-pox, which were introduced by Dr. A. Ransome and Dr. G. S. Buchanan respectively.

Some forty carefully-written papers are contained in the twentieth volume of the *Transactions of the Association of American Physicians*,[15] and a proportion of them are of permanent interest. Among them is one in which Dr. Weir Mitchell gives an account of an inquiry made by him into the subject of ailurophobia, and the power to recognize the presence of a cat, although neither seen nor heard. He concludes that many of these cases are real, though none of them may be explicable. Other papers which may be noted are two on the elimination of chlorides in nephritis, the first by Drs. A. O. J. Kelly and C. A. Fife, and the second by Dr. J. L. Miller. There is also an excellent study of metabolism in leukaemia under x-ray influence, by Drs. Musser and Edsall, and a record of a very informing laboratory study of the toxicity of bile, by Drs. Meltzer and W. Salant.

We have received a copy of the third edition of the *Bournemouth Formulary*, issued by the Bournemouth Pharmaceutical Association. It is intended to "include within a small compass some combinations which experience has proved to be in general demand in the district, and which by their character are not suitable for writing at length in individual prescriptions." The truth of this is obvious when we say that one contains thirteen items, another eleven, and another ten, and so on. Without expressing approval of this polypharmacy, we can conceive that if such complex preparations are used by local practitioners a formulary of this kind has advantages.

Under the title of the *Prevention of Yellow Fever*, the Colonial Office issued last month a short pamphlet givin an account of the cause and prevention of yellow fever. I is intended for popular consumption, and is excellently wel suited to the purpose, the matter being scientific and th language simple. Interest in its contents is further ex cited by some illustrations, one being a picture of the sor of domestic arrangements which furnish mosquito breedin grounds, another of a water cistern of a desirable kind an others, magnified pictures of the *Stegomyia fasciata* in th larval and adult stages of its nocuous existence.

NOTES ON HEALTH RESORTS.

BAD SALZSCHLIRF.

BAD SALZSCHLIRF, in Hesse-Nassau, claims to be a particularly effective spa in the treatment of gout, rheumatism, and allied disorders. The Bonifatius water contain sodium chloride, calcium carbonate, lithium chloride iodides and bromides, and some carbonic acid gas. Take on an empty stomach it is found to have a prompt an efficient laxative action, whereas its effect is, as a rule just the reverse when taken later in the day, while it influence on diuresis is then very pronounced. This wate is also exported, and the number of bottles disposed last year amounted to over half a million. There are als at Salzschlirf effervescent saline baths in three differen degrees of concentration, peat baths, an inhalatorium f the treatment of diseases of the upper air passages (Meyer system), mechano-therapeutics, massage, etc. Beside gout and rheumatism, a number of other diseases are als successfully treated there: renal and biliary calculu polysarcia, diabetes, heart diseases, and various forms women's diseases.

The climate is bracing; the heat by day is seldom reall oppressive, and the nights are cool and refreshing. Th country is hilly. The usual entertainments, includin fishing and shooting, are provided. The place has wate works, a sewage system, and electric lighting. Fulda the nearest town. Salzschlirf is a station on the lir Giessen-Fulda. Travelling via Cologne and Ostend, tl journey to and from London can be accomplished twenty-three hours.

CONTRACT MEDICAL PRACTICE.

A RAILWAY PROVIDENT SOCIETY.

WE have received from a correspondent a copy of the rules the Great Central Railway Mutual Provident Society, with h reasons for refusing to act as medical officer for his distric We note that the employés of the company are divided in two classes according to their wages. These two classes p respectively 8d. and 4d. weekly, in return for which th receive sick pay and medical attendance. For attendance these two classes of men, with their wives and children und 14, the medical officer receives respectively 8s. and annually. Four shillings a year is very inadequate remune tion for attendance on a whole family, and the supply of drug dressings, bottles, etc. Moreover, the principle involv in this distinction is objectionable in many respects. The is one rule under which the medical officer may be call upon to attend a member temporarily resident in his distr but employed in another district, and for such attendances remuneration whatever is provided! Medical officers to tl Society are subject to dismissal on fourteen days' notice, a under Rule 16 may be called upon to "visit and report on t case of a member" who is under the treatment of an in pendent practitioner. Finally, Rule 18 provides that a meml may employ a "practical bonesetter," either in the fi instance or if dissatisfied with his progress under the tre ment of the medical officer, the Society undertaking to the bonesetter's fees.

Such conditions as these are obviously derogatory to the p fession, and ought to be amended. Judging from the list medical officers employed by the Society, their number a the high standing of the majority ought to ensure immediate removal of these objectionable features if combir pressure were brought to bear in the proper quarter.

DR. CARRON DE LA CARRIÈRE, 2, rue Lincoln, Pa announces that the eighth Voyage d'Etudes Médicales w take place this year from September 1st to 12th. T mineral watering places and climatic health resorts to visited will be those situated in Savoie and Dauphiné.

---

[13] *A System of Physiologic Therapeutics.* Edited by Solomon Solis Cohen, A.M., M.D. Vol. xi. London: Rebman, Limited. 1905. (Demy 8vo, pp. 383. 12s. 6d.)

[14] London: Williams and Norgate 1903. (Demy 8vo. pp. 296. 6s.)

[15] Philadelphia: Published by the Association, 1905 (Demy 8vo pp. 546.)

THE SEVENTY-FOURTH ANNUAL MEETING
OF THE
British Medical Association,
TORONTO, CANADA, AUGUST 21st to 25th, 1906.

[FROM OUR SPECIAL CORRESPONDENT.]

SPORT IN CANADA.

THE following notes on shooting and fishing in Canada have been compiled for the information of those who have it in mind to end off the scientific work of the meeting at Toronto by a sporting holiday. The temptations to do so are very great, for the facilities for fishing and oting in Canada are unrivalled. The choice of localities ndeed, so large that we do not propose to do much e than indicate the principal laws which each province rces for the regulation of sport within its area.

will be observed that in some of the provinces the rges for fishing and shooting licences to non-residents high, but there is reason to believe that the payment such fees will not be essential for members of the ociation who merely desire a little casual sport and may be considered the guest of some sportsman in particular Province in which he finds himself. More-r, there are throughout Canada a great number of oting and fishing clubs. In these it is a recognized ctice to admit visitors to Canada to temporary member- and to place at their disposition all the numerous antages in the way of club houses in the best locali-, and information as to tariffs, guides, cañons, etc., ch they possess.

General Arrangements.

In Toronto and most of the principal cities there are shops at which shooting and fishing tackle can be hired on reasonable terms, but as many will prefer to use their own rods and guns, the Customs regulations may be mentioned. They are sufficiently simple; all sporting outfits, including guns, rods, canoes, tents and general camp equipment can be landed in Canada without paying duty. The importer makes a declaration that they are not for sale, and gives a deposit on their presumed value; in exchange he receives a certificate which enables the amount to be reclaimed if he leaves the country within six months. On the railways corresponding articles are carried free up to 200 lb. weight for each adult passenger ticket.

Fishing.

The variety of fish to be encountered in Canadian waters is very extensive, and in most provinces the more attractive breeds are strictly protected. These comprise bass, pickerel, white fish, many sorts of trout, salmon, maskinonge, and ouananiche. The latter is an Indian name for a species of salmon found in Canada and reported to afford the most excellent sport. As for the maskinonge, this is a variety of pike which runs up to as much as 60 lb. in weight. Of bass there are two varieties, the small and large mouthed black bass. The former is chiefly found in fast-running cold streams and lakes, over gravel bottoms, and the latter in shallower, warmer waters. Of these the small-mouthed bass is one of the gamest fish known, and a fierce fighter when hooked. Plenty of bass fishing may be obtained within easy reach of Toronto itself.

Ontario.

The regulations in force in the province of Ontario may be given in full, as it is that in which Toronto itself is situated, and as the rules afford some general indication of the nature of those in force in other parts of Canada.

The following fish can be taken at any time, except between the periods mentioned, both days inclusive, namely: Bass in Lake Erie, west of Point Pelee, May 25th to July 15th; bass and maskinonge, April 15th to June 15th; pickerel, April 15th to May 15th; speckled trout, September 15th to April 30th; salmon trout and whitefish, November 1st to November 30th.

No one shall fish for, catch, or kill, in any of the waters of the province, in one day by angling, or shall carry away a greater number than eight small or large mouthed black bass, four maskinonge, twelve pickerel (dore), or four lake trout.

No one shall fish for, catch, or kill, in any of the waters of the province, in one day by angling, or shall carry a greater number of speckled trout or brook trout than in the aggregate shall weigh more than 10lb., and no greater number than thirty speckled trout or brook trout, though said number weigh less than 10 lb.

No small or large mouthed black bass less than 10 in. in length; no specked trout less than 6 in. in length; nor pickerel (dore) less than 15 in. length; or no maskinonge less than 24 in. in length, shall be retained, or kept out of water, sold, offered, or exposed for sale, or had in possession; but any one who takes or catches any of the fish mentioned of less than the minimum measurement named—which measurement shall be from the point of the nose to the centre of the tail—shall immediately return such fish to the water from which it was taken, alive and uninjured.

It will be observed that, except in the case of trout, the months succeeding the meeting in Toronto are "open" for all fish. Provided they employ Canadian boats and guides and use Canadian foods, sportsmen from foreign countries are given fishing licences free in this province.

Quebec.

The open season is, for bass, from June 16th to April 14th; for maskinonge from July 2nd to May 24th; for ouananiche from December 2nd to September 14th; for pickerel from May 16th to April 14th; for salmon from February 2nd to August 14th; for speckled trout from May 1st to September 30th; for lake trout, grey trout, or lunge, from December 2nd to October 14th; for whitefish from December 2nd to November 9th.

Non-residents must apply for fishing licences to the Commissioner of Lands, Forests, and Fisheries, Quebec, P.Q. The fees are, for one month, 10 dols.; for two months, 15 dols.; for three months, 20 dols.

New Brunswick.

Bass may be caught with hook and line at all times of the year. The open season for lake trout is from May 1st to September 30th; for land-locked salmon from April 1st to September 30th; for speckled trout from April 1st to September 30th; for salmon from February 1st to August 18th.

Prince Edward Island.

The close season for all game fish is from October 1st to March 31st.

Nova Scotia.

There appears to be no close season in this province, but those fishing are required to take out a licence costing 5 dols. for three months or 10 dols. for six months.

British Columbia.

There are no regulations except in respect of trout, the close time for which is from November 15th to March 25th.

SHOOTING.

The shooting possibilities of Canada cover anything from a snipe to a wild turkey, and from a hare to a moose or a bear. For many varieties of game, both big and small, feather and fur, the open seasons are comparatively short, and begin, in some cases, rather late for those who visit Canada in connexion with the Association meeting. In all provinces the game protection laws are so very detailed that it is impossible here to do more than indicate those which are most likely to affect members.

Ontario.

The open season for ducks is from September 1st to December 15th; for geese and swans, from September 15th to May 1st. Grouse, hares, partridge, pheasants, plover, rail, woodcock, squirrel, from September 15th to December 15th. Wild turkey, otter, and beaver, after November 1st, 1906 (entirely protected during past years). Deer, moose, and caribou, from November 1st to November 15th, except in some of the northern districts, where moose shooting begins October 16th. Not more than one moose or caribou can be taken in one season by one person.

A shooting licence in this province] must be obtained from the Chief Game Warden, Toronto, the charge being 25 dols. A special permit to shoot and hunt for one week without a licence may be obtained for the guest of a resident in the province.

Quebec.

This province, for shooting purposes, is divided into zones, and the dates of the seasons vary somewhat. Big game, such as deer, moose, caribou, and bear, can usually be shot for two or three months after September 1st; beaver, fox, otter, lynx, hares, and muskrat after November 1st; duck, woodcock, snipe, plover, curlew, and tatler shooting commences on September 1st.

A shooting licence in this province must be secured by a non-resident, and costs 25 dollars for the season, or a dollar and a half for a single day.

New Brunswick.

Big-game shooting lasts for about six weeks from the middle of September. Small furred game does not appear to be protected, while game birds can only be shot for about two months, beginning on September 2nd.

Sunday shooting is prohibited.

Nova Scotia.

Moose may be shot during October, November, and Decem-

, and bear all the year round. Caribou and deer are pro- ed entirely. The game bird season begins a week or two ier than elsewhere, or on August 20th.

n Manitoba, the North-Western Territories, and British umbia there are corresponding regulations, the seasons ning somewhat later as a rule. Licences are essential, may be granted free to the guest of a resident so as egalize his shooting or hunting for not more than a k.

or much of the information contained in these notes are indebted to Dr. F. N. G. Starr, one of the local iorary Secretaries of the Toronto Meeting, while photographs have been supplied through him by the horities of the Grand Trunk Railway.

THE MENTAL ASPECT OF INEBRIETY.

he annual report of the Inverneith Lodge Sanatorium 1905. Dr. Donald makes some very interesting obser- ons with regard to the treatment of alcoholism and omania on the "short cure" system. He mentions several out of 78 cases now doing well have had a short course of treatment, but they are exceptional, in most cases have, by going to a new environment, saved the strain which most experience on returning eir old surroundings. Dr. Donald adds that most of lapsed cases are among those who stayed a short od only. He says that of late there has been a ten- y for patients to remain only a short time, and in ing for the cause he is led to believe that this is due great extent to the fact that certain institutions now n to effect a cure in a few weeks. Dr. Donald iders that such treatment is not to be recommended, use

> a patient has been a comparatively short time in resi- e he becomes physically strong, his health is restored, this restoration to physical health usually makes him ve that his mental capacities are also restored and his r to resist temptation, when in reality he is quite unable so. There is no tissue in the body slower to repair than of the nervous system, and particularly the neurons in ortical part of the brain which are related to mental sses, and which length of time only can re-establish after function has been impaired.

. Donald emphasizes the fact that every patient ld sign under the Acts, and criticizes the cause h, in his opinion, is hindering patients from doing , if they do so, only signing for a short period. He here to the method of curing by giving drugs which aid to act as specifics in removing the desire for ol, and thus curing the patient of his habit. The of public opinion seems at present to be in favour short cut or royal road to cure a disease of long ing. The cure of inebriety is to a great extent ylactic, and Dr. Donald, having tried the short and methods himself, expresses the belief that they not fail to do good, but often do actual harm. He s that slight cases have been cured by both ods, but he believes that it was rather by sug- n or by appealing to the credulity of the patient by the drugs swallowed.

Donald has treated 34 cases who came to him g previously undergone one of the drug cures, and ound them more difficult to deal with than those ad not been so treated; 8 of these cases died.

refers to the increasing use among patients of the ermic needle:

> of the treatment of inebriety by the drug method is nine and atropine injected hypodermically. A hypo- needle was an unknown article to a great many of tients when they entered one of these institutions. If lid know of it, they shrank from the physical pain by its use; but in undergoing the treatment there ot accustomed to it, and after they left it was a very step for them to inject such drugs as morphine and e. I have had several cases who became narcomaniacs means.

regards the morphine or cocaine habit, Dr. Donald ue has not been able to find any drug or drugs will abolish the craving or the dangers which some- arise when the habit is broken.

report of Dr. Gill, Medical Superintendent of the shire Inebriates' Reformatory, is equally instructive, ay very usefully be compared with that of Dr. l. Dr. Gill says of the patients committed to his

> The physical improvement manifested by increase in weigh and improved appearance is often very striking and rapid. The mental progress naturally takes more time, but, with few exceptions, is quite perceptible. Unfortunately, there is a considerable number whose progress towards mental stability never reaches beyond a certain point.

Dr. Gill classifies nearly 50 per cent. of his patients as higher-grade imbeciles. In these and in the weak-minded he notes an inherent incapacity for steady work. Impulsive carelessness and defective memory militate against remunerative employment. He classifies his patients committed last year as follows:

Normal	27
Slightly defective	29
Very defective	3
Lunatic	1

Dr. Donald and Dr. Gill are in charge of entirely different classes of cases, but their experience of patients under treatment and observation for many months after the patients have been "sobered up," after they have improved, to a very great extent, is that mental recovery is extremely slow, though it is not less necessary than physical recovery if the patient is to remain sober after being sobered. Their views are, of course, only in accordance with the views of all those who have made a careful study of the inebriate while under restraint. They seem worthy of consideration by those who undertake to restore the patient both physically and mentally in six weeks, or even in three.

RED CROSS ORGANIZATION IN FRANCE.

Mention was made a few weeks ago of the constitution of the Council of the British Red Cross Society, which has taken over the work of the British Red Cross Council appointed last year to co-ordinate the work of societies which exist to do Red Cross work in this country. Dr. F. F. Bond, of Brighouse, who commands a bearer company of the St. John Ambulance Brigade, has reminded us that in the appendix to the *Report of the Army Medical Department* for 1899 attention was drawn to the way in which civilian aid for the Army Medical Department in time of war is organized in France.

The account given of the system is very detailed and complete, and that it might be studied with advantage at the present time by those interested in the analogous question in England seems sufficiently indicated by the comments of the author of the report, Colonel W. G. Macpherson, C.M.G., at that time Deputy Assistant Director of the Army Medical Department. He sums up the system as "simple, logical, practical, and well adapted to our own requirements," while in speaking of the rules which govern the relations of voluntary medical aid with the Government, he says:

> The advantage gained by them is inestimable. The societies know exactly what they are to do and what they are not to do. Their position towards the Army Medical Service is definite and clear. Any proposals which they have to make can be made through a definite channel, can be considered by their representatives, and finally accepted or rejected by a committee on which all interests are represented.

Official Relations.

In France assistance for the Army Medical Service in time of war is not accepted from any society or association which has not been recognized for that purpose by the head of the Government during peace. Any body which has not been so recognized, but which nevertheless on the outbreak of war proffers help, must attach itself for that purpose to one of the officially-recognized societies. Of such there are at present three—La Société de Secours aux Blessés Militaires de Armées de Terre et de Mer, L'Union des Femmes des France, L'Association des Dames Françaises—the operation of all of them being spread wide throughout France.

Each of the societies is left to manage its own internal affairs, but its relations with the Government and the Army Medical Department are carefully defined by a Decree which provides that each society shall be kept constantly in touch with the needs and requirements of the department whose work it desires to supplement. Each of them is represented at the War Office by a delegate, who must be a member of the Central Council of the Society, and who has as his special colleague an army medical officer appointed by the War Office to represent it on the Society's own Central Council. These two persons are called the *commissaires* of the Society, and it is their duty to study every matter connected with its preparations for work in war time, and to express joint opinions on questions affecting its duties in the event of mobilization. They must confer together whenever requested to do so either by the President of their Society or by the Minister for War, and must furnish to each of these persons minutes of their proceedings; at the same time, the War Office must keep them informed of any official instructions or dispatches which bear upon their work.

Similarly in each district of an army corps the Society is officially represented by a local delegate accredited to the officer in command and to the principal medical officer. If this delegate has any proposals to make as to the work in his area he sends a copy of them to the Central Council of his Society on the one hand, and to the War Office, through the principal medical officer, on the other. In addition, on January 1st and July 1st he must submit to the principal medical officer a statement showing the position of the Society locally both in regard to matérial and *personnel*, and on this the principal medical officer of the district bases a half-yearly report to the War Office on the available voluntary-aid resources of the district.

Finally, there is a consultative body, called the *Commission Supérieure*. This is formed of six representatives of the three societies (their presidents, or persons deputed by them, and their three civil commissaires), and six representatives of the Government (the three military commissaires, the officer in charge of medical mobilization stores, a naval medical officer, and a quartermaster of the Army Medical Service, who acts as secretary). This body must meet at least once a year, and sits under the presidency of the Director of the Army Medical Department; its duties are to express an opinion on all questions connected with voluntary aid in time of war submitted to it either by the societies themselves or by the War Office.

THE FUNCTION OF THE SOCIETIES.

The function of these societies is to make all such preparations and arrangements as may enable them in time of war (1) to create, in the area of operations, in open towns and elsewhere, as requested by the War Office, auxiliary hospitals for sick and wounded soldiers crowded out of the regular army hospitals; (2) to establish similar hospitals on the lines of communication; (3) forward all gifts for the sick and wounded collected by them, whereever directed by the War Office; (4) arrange for "rest stations," where patients in ambulance trains may receive refreshment, and, when necessary, be disembarked for temporary treatment.

In addition, the societies can provide hospital ships, and share the work of the Army Medical Department in the task of providing Territorial temporary hospitals. There are schools, colleges, hotels, and the like, scattered throughout each district, with whom arrangements have been made, so that on the outbreak of war they can be taken over, and at once converted into hospitals.

The societies are not allowed to work with the advanced troops, and the employés of such of their hospitals as are on the lines of communication are subject to military jurisdiction. Wherever situated they have, during war, an army medical officer told off to each of them for purposes of general superintendence and maintenance of discipline. The societies provide their own hospital equipment and stores, etc., but may be helped by the War Office if need be, and in any case receive an allowance of 1 fr. a day for each patient they treat. The general system of dieting and interior economy must, as far as possible, resemble those of the regular military hospitals.

WORK DURING PEACE TIME.

The work of the societies during peace consists in collecting funds and training volunteer orderlies and nurses. Each of the societies has adequate arrangements for this purpose.

The hospital provision made by them is very large; thus, one society has ready everything required for immediately establishing sixty-nine fully equipped "Rest stations," while of auxiliary field hospitals the principal society has twenty-six, each ready equipped for 100 beds. Six of the auxiliary field hospitals, it may be noted, were employed during the South African war and with t China field force, two having been lent to the Boers a two to the British Red Cross Society.

The hospital arrangements of the societies do not ex merely on paper. No auxiliary field hospital can included in a half-yearly report to the War Office unless is really ready in every respect as regards complete equ ment, funds for its upkeep for a certain time, and a co plete staff—professional, administrative, and subordina The names, indeed, of all the principal officers of ea hospital are furnished in each report. The auxili territorial hospitals are classified in three categorie those which will be ready to receive patients on the ni day after mobilization, and have everything in hand at least two months' work; those which require sixte days' notice, and have only half the necessary *person* material, and funds for two months' work; and th which are still less well prepared. All the societies h many temporary territorial hospitals, one of them be prepared, if need be, to open 20,000 beds in different pa of the country whenever required.

The gross income of the societies is very consideral the largest of them having, besides valuable stores reserve sum of Fr. 8,000,000 (£320,000), and an ann income from members' subscriptions of betw Fr. 400,000 and Fr. 500,000 (£16,000 to £20,000). Th communicate with one another through their local offi delegates and their representatives on the superior c missions. There is a good deal of friendly rivalry betw them as to which can keep itself best prepared accord to the standards fixed by the Medical Department of War Office.

THE TREATMENT OF VENEREAL DISEASE THE ARMY.

THE final report of the Committee deputed by Advisory Board to inquire into this subject has b issued. It will be recollected that three previous rep have been published, the first dealing chiefly with curr literature; the second contained statements of vari surgeons and physicians representing expert opinion this subject in British military and civilian practice; third was a record, prepared by Major C. E. Poll R.A.M.C., of the opinions of experts abroad, and an acco of the treatment at present employed both in military civilian practice on the Continent of Europe. In this f report we find the principal conclusions which the C mittee draws from the information previously publisl together with practical recommendations as to treatme

As regards the thorny subject of the preventio venereal disease, the Committee concludes that in United Kingdom, at any rate, any attempt to grapple v this problem by methods of compulsory isolation treatment is neither practicable nor expedient. rightly believes that better results will be obtained by diffusion of the knowledge of the serious consequence these diseases and the provision of effective treatment both sexes under conditions to which no penal stigm attached. So far as syphilis is concerned, it emphas the fact that all the evidence at its command is favour of the administration of mercury in its treatm Whether the drug should be administered by the m or by inunction and injection is a matter on which exp differ, but, from the evidence at its disposal, the C mittee concludes that in military practice administra of mercury by inunction and injection is likely to p more efficient than by the mouth.

It then proceeds to analyse the evidence as to best means of administering mercury by inunction injection. For the former procedure the follo formula is recommended: ℞ Ung. hydrarg. grs. xl; a lanae (*B.P.*) grs. xx; mix thoroughly and wrap in paper. One such packet to be rubbed in daily, the a inunction lasting thirty minutes. The scheme of a gested course of treatment by inunction, extending two years, involves five distinct courses—namely, and second courses each of 42 daily inunctions, a three months' interval between the first and second the second and third; the third course involves 30 inunctions, followed by an interval of six months, comes a fourth course of 30 daily inunctions, followe another break of six months, ending up with a fifth c of 20 daily inunctions.

or this injection of soluble salts of mercury the Com-
ee suggests the following formula: ℞ Hydrarg. per-
r. gr. viij; sodii chloridi gr. iv; aq. destill. ♏400. Ten
ims of this solution, containing about one-fifth of a
n of perchloride, are to be injected three times a week
the symptoms abate, then twice weekly till all sym-
ns have disappeared. As in an ordinary case, to pro-
beneficial results, about 1½ gr. of metallic mercury
eek must be given for six weeks, and, as the per-
ride contains some 74 per cent. of metallic mercury,
llows that to inject the required 9 gr. of metallic mer-
some sixty injections of 10 minims each of the above
tion must be given. This may be considered to con-
te a full course, and is, indeed, a much larger amount
is usually given. For the injection of insoluble pre-
tions it is an essential that the mercury shall be
ended in as small an amount of medium as possible.
a result of careful experimentation, it has been
d that not more than 1 gr. of mercury can be
ended safely in 8 minims of an ordinary oily
um. The cream most frequently used in the
contains 1 gr. of mercury in 10 minims, and
nly slightly more bulky than is absolutely re-
d. It is suggested that this cream, made according
e following formula, be retained as a standard pre-
ion, namely: ℞ Hydrarg. 1 oz., adipis lanae (*B.P.*)
, paraffini liquidi (carbolisat. 2 per cent.) to 10 oz.
the mercury and the wool fat being measured by
it and the liquid paraffin added by volume. Fifteen
ms of this cream, containing 1½ gr. of metallic
ury, may be regarded as the full dose; it corre-
ds practically to the 10 cm. dose of Continental
rs. The Committee gives details to be observed in
eneral routine treatment of syphilis by intramuscular
tions of mercury; these do not permit of condensa-
but are eminently concise and practical. The
ne of treatment, extending over twenty-two months,
ves a first course of six weeks, with one injection
ek; then comes an interval of two months, followed
vo more months of treatment by fortnightly injec-
After a four months' interval a third course of
nent during two months with fortnightly injections
rried out; after this a six months' interval leads up
e final course, which lasts four months, the injec-
being made monthly. If each injection be made to
in 1½ gr. of mercury, a total of 27 gr. will have been
nistered in the whole period of treatment.

ercury is to be given by the mouth, the Committee
posed to advocate for routine practice a pill con-
g 1 gr. of the grey powder. A course of treatment by
ethod should extend over twenty-one months broken
o five courses of three months each, with one month
al after the first, second and third courses and a
months break between the fourth and fifth courses.
et the circumstances of constant change so liable to
in military life, the following scale of equivalents
different methods of treatment are given: One in-
of mercurial cream containing 1½ gr. of metallic
ry is equivalent to three injections of a soluble salt
s the perchloride containing ⅕ gr. in each injection,
even inunctions of mercurial ointment, using 20 gr.
rcury daily, or to twenty-one pills each containing
f grey powder, three pills being given daily. These
lents represent energetic treatment for one week.

report contains further useful information as to
rial baths, and the treatment of syphilis by other
ercurial methods, and concludes with an analysis
evidence relating to the treatment of gonorrhoea.
ommittee lays stress upon the necessity of accurate
sis, the great importance of employing the two-glass
d of determining the extent of the urethra infected
l as the stage of the inflammatory process. The
re gone when gonorrhoea could be regarded as an
matory catarrh, capable of being treated by general
res with rest. Recognizing the specific nature of
nococcus, treatment should be directed to the
tion of the infective agent, the precise mode of
ent varies according to the stage of the disease and
t attacked. In cases of acute anterior urethritis,
mmittee advocates treatment on Neisser's plan,
olutions of protargol varying in strength from ¼ to
ent. In cases of acute posterior urethritis, irriga-
ith a solution of potassium permanganate of the
h of 2 gr. to the pint of water is regarded with favour. In the more chronic cases, irrigations with nitrate of silver or albargin, of each one in 2,000, seem to be most successful. Although these and other detailed procedures fulfil the requirements of present-day knowledge in the treatment of gonorrhoea, the Committee makes the significant observation (p. 14) that the appliances and staff provided in the venereal divisions of our military hospital are at present not sufficient to carry out treatment on the lines indicated.

This final report and those which have preceded it are so good that we hope the Advisory Board will not rest satisfied with having shown what is the best treatment in a class of case notoriously difficult to manage, but continue to press that arrangements be made in all our military hospitals for the effective practice of all modern methods of treatment.

MEDICAL NEWS.

DR. VICTOR GEORGE ALEXANDER has been appointed a Justice of the Peace for Johannesburg.

THE foundation stone of the first wing of the reconstructed Bolingbroke Hospital at Wandsworth Common will be laid on May 5th, when the Princess Royal will receive purses.

THE Friday evening addresses at the Royal Institution of Great Britain will be resumed after April 27th, when Professor John W. Gregory will speak on ore deposits and their distribution in depth. On May 25th Dr. Leonard Hill will deliver a discourse on compressed air and its physiological effects.

THE Factory Girls' Country Holiday Fund, of whose work we have spoken with appreciation more than once, is again appealing for support. Its purpose is to assist women employed in factories to spend a short time in the country. Subscriptions may be sent to the Honorary Treasurer, St. Peter's Rectory, Saffron Hill, E.C.

THE annual meeting of the metropolitan auxiliary of the Temperance Collegiate Association will be held at St. Martin's Vestry Hall, Trafalgar Square, on Friday, April 27th. The objects of the association are to promote and encourage the systematic study of the temperance question in all its aspects; (*a*) by the provision of an examination Board, (*b*) by the award of prizes and certificates, (*c*) by the promotion of classes for the systematic study of temperance subjects. The association is unsectarian and nonpolitical in character, and its examinations are open to men and women.

THE Balneological Society held its provincial meeting this year at Bath on March 31st. The earlier part of the day was given up to an examination of the Royal Mineral Water Hospital and a discussion of thermal bath treatment. In the evening the Fellows first dined together at the Empire Hotel, having Sir Thomas Chavasse and the Mayor of Bath as their guests, and then attended a reception by the Mayor and Corporation at the Pump Room. The following day they attended service in the Abbey, and visited the bathing establishment. The afternoon was spent at Winsley Sanatorium, where an address was given by Dr. Lionel Weatherly on open-air treatment.

THE annual general meeting of King Edward's Hospital Fund for London took place on April 6th, the proceedings including the reading of a letter from the Prince of Wales, President of the Fund, commenting on the work of the year. The accounts showed that last year about £250,000 was added to capital, which now stands at over a million. It is estimated that the normal income from all sources will in future exceed what has hitherto been the ordinary rate of expenditure—namely, £100,000 a year. The expenses of administration constituted only 0.75 per cent. of the amount collected. The Council's report stated that a new form of hospital account has been prepared and is now being submitted to the consideration of the various bodies concerned. The Council see no objection to subscribers to hospitals earmarking their contributions as either for the hospital alone or for the hospital and its medical school, the matter being one for each subscriber's own consideration.

AT the annual meeting of the Metropolitan Hospital Saturday Fund Association on April 7th, the report submitted showed that receipts from workshops and business houses had reached £25,930, a total higher than has ever before been attained. The sum distributed,

£23,631, is similarly greater than usual. The fund has secured for the accommodation of its supporters fifteen endowed beds in the sanatorium about to be erected at Benenden by the National Association for the Establishment and Maintenance of Sanatoria for Workers. The expenses of management amounted to 9.47 of the gross receipts.

THE London County Council is prepared to award scholarships to students of midwifery. They are open to candidates ordinarily resident within the County of London. Not more than six will be awarded in July, and not more than six in January, the first award being made in July next. They are of the annual value of £25, payable to the institution selected by the applicant, in part discharge of the fee for board, lodging, and tuition. The institutions at present approved by the Council for this purpose are: Queen Charlotte's Lying-in Hospital, the East-end Mothers' Lying-in Home, the Clapham Maternity Hospital, and the Central Lying-in Hospital, York Road, Lambeth. Candidates will be required to pass a qualifying examination, the standard being substantially equivalent to Standard VI of the Elementary School Code. Forms of applications, which must be returned not later than May 5th, can be obtained from the Executive Office (Education), Education Department, Victoria Embankment, W.C.

JUBILEE OF DR. MAGNAN.—A committee has been formed for the presentation of a medal to Dr. Magnan on the occasion of his professional jubilee. For more than forty years he has laboured in the elucidation of the mysteries of mental disease and in the amelioration of the lot of the insane. The execution of the medal has been entrusted to Dr. Paul Richer, a member of the Académie de Médecine, who is also a professor in the Paris Ecole des Beaux Arts.

ANTIVIVISECTION IN GERMANY.—On March 27th two petitions were presented to the German Reichstag praying that the practice of vivisection may be surrounded by certain restrictions. It is suggested that special Committees should be established whose duty it should be to regulate experimentation on animals. The petitioners ask that notice of any experiment should be given in writing beforehand; that experiments for purposes of instruction be forbidden; that animals of highly-organized species—such as dogs, cats, apes, horses, asses, goats, etc.—should be employed for the purpose only in exceptional cases; and that vivisections should not be performed in hospitals or clinics. Professor von Bergmann pointed out that vivisection was based on a purely humanitarian purpose, and deprecated exaggerations such as were contained in the petitions. The House passed to the order of the day.

MEDICINE IN THE EAST.—The opening of the new Medical College for Chinese medical students at Peking seems, as described by a correspondent of the *Morning Post*, to have been rather a striking ceremony. It was performed by Na-Tung, President of the Chinese Foreign Office, accompanied by Mandarins and many other important Chinese officials. The new college is the outcome of the combined efforts of the various Protestant missions in Peking, but is to devote itself to science alone. Its organization is complete, there being a faculty of 9 members with Dr. Thomas Cochrane, Medical Officer of the Chinese Maritime Customs, as Dean, and 13 lecturers drawn from the various missions and medical establishments in Peking. The arrangements include a hospital, as well as lecture rooms and laboratory. The medical course is to last five years, the students being obliged to pass an entrance examination in Chinese, English, and preliminary science. There is provision for 80 students, and applications from 200 are stated already to have been received. The final examination is to be held by an International Board, and it is hoped that the successful graduates will be useful in setting up similar centres for the teaching of Western medicine and surgery in other parts of the Chinese Empire. One-third of the expense which has at present been incurred has been covered by contributions from the Dowager Empress and Court officials.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.—A meeting of the Northern and Midland Division will be held at the Derby Borough Asylum on Thursday next at 2.30 p.m. Dr. Macphail invites members to lunch beforehand. Papers will be read by Dr. Nathan Raw on the mental disorders of pregnancy and the puerperal period; by Dr. John Richards on the histology of some cerebral tumours; and by Dr. William Harding on the training and registration of the asylum nurse. The spring meeting of the South-Eastern Division will be held at the Herts County Asylum, Hill End, near St. Albans, on April 25th. The members are invited to lunch by Dr. Boycott at 1.30 p.m. Dr. W. H. B. Stoddart will read a paper on instincts, and Dr. D. G. Thomson will contribute one o the training and teaching of asylum nurses.

THE WARNING NOTICE.—The Warning Notice as t appointments vacant, published at p. 59, of the adver tisements, contains a list of 22 districts where dispute are still in existence between members of the medica profession and other organizations. Particulars have bee published in recent numbers of the JOURNAL of most of thes disputes. Medical practitioners are requested not to appl for any appointments in the districts mentioned withou first communicating with the Honorary Secretary of th Division or Branch whose name is given in each case, o with the Medical Secretary of the Association, 429, Stran W.C. The list includes Northumberland and Durhan Sheffield, Leigh (Lancs.) Infirmary, Rusholme Dispensar Coventry, Macclesfield, Aberaman, Bridgend, and Cardi in Glamorganshire, Abertysswg, Blaenavon, and Ebb Vale in Monmouthshire, Aberystwith, Bangor, Southam ton, Bitterne, and the neighbourhood, Portsmout Lowestoft, Castle Hedingham or Yeldham (Essex), Cor Auckland (New Zealand), Orange River Colony, an Pretoria (South Africa).

ROYAL NATIONAL HOSPITAL FOR CONSUMPTION.—The fe tival dinner of the Royal National Hospital for Consum tion, Ventnor, was held on April 3rd at the Whitehall Room Hotel Métropole, London, with Lord Roberts in the chai In proposing the toast of "Prosperity to the Hospital Lord Roberts said he could remember hospitals before th great discovery of Lord Lister. When he went into ho pitals now and saw al l that was done, he often called mind what patients must have suffered before that gre advance in medical science. Lord Roberts gave a interesting account of the special advantages of the ho pital, which is conducted on the separate principle, ea patient being provided with a separate sleeping apar ment. There is accommodation for 150. Sir R. Dougl Powell, in submitting the toast of "The Board of Manag ment and the Medical Staff," said that he had calculat that the cost of alcohol to the hospital was less than a ha penny a day per patient, and everything else was do equally economically and efficiently. He was proud to s that the institution was a pioneer in the fresh-air trea ment. Mr. P. B. Burgoyne replied for the Board, a Dr. R. Robertson acknowledged the toast for the medic staff, and pleaded that cases be sent to Ventnor in t early manageable state. The Lord Chief Justice England described, in proposing the toast of "T Chairman," the services of Lord Roberts abroad and home. Lord Roberts, in replying, announced that t sum collected at the dinner was £2,110, and that the Ki had sent £50 in addition. A musical programme und Professor Ganz concluded the evening.

MEDICAL SICKNESS AND ACCIDENT SOCIETY.—The usu monthly meeting of the Executive Committee of t Medical Sickness, Annuity, and Life Assurance Socie was held at 429, Strand, London, W.C., on March 30 Dr. de Havilland Hall in the chair. The accounts p sented showed that the business of the Society in the ea months of the present year has been exceptionally go For many years past the amount of sickness pay disburs in the months of January and February has larg exceeded the average monthly expectation. But t amount paid out in January and February, 1906, h been less than the expectation, and although the ha weather of March has caused a considerable number of n claims to be sent in they are for the most part of a slig nature, and the sickness experience of the Society for t year has been, so far, very satisfactory. The Society h been in operation for over twenty-two years, and many the members are now reaching the limiting age of 65 yea At the last valuation of the business it was arranged t every member reaching the age of 65 in sickness ben should receive a substantial cash bonus. Over £1,000 h been paid to members in this manner, and the bon usually 40 guineas, is much appreciated, particularly those who are actually drawing sick pay when they re the age of 65. Over £2,000 is now being paid annually members who are permanently incapacitated and theref entitled to an annuity, generally amounting to 104 guin a year, until the age of 65. The list of these chronic ca has grown steadily up to the present time, but ther some reason for thinking that it will grow very slowly at all, in future. Although fresh cases come on the every year the mortality of the chronic sickness meml is, of course, very high, and in this way the number on list is kept about the same. A large special reserv made at each valuation to cover the cost of the chro cases. Prospectuses and all particulars on applicatio Mr. F. Addiscott, Secretary, Medical Sickness Accident Society, 33, Chancery Lane, Lonndon, W.C.

itish Medical Journal.

SATURDAY, APRIL 14TH, 1906.

THE MARRIAGE OF EPILEPTICS.

evention of what Dr. Johnson might have called
pagation of phrenasthenia is one of the problems
ich civilized man, under penalty of increasing
acy, must find a solution. Public opinion is
e for the acceptance of the sterilization of
ates advocated by certain saviours of society,
lethal chamber as a means of disposing of such
able persons is not yet within the sphere of
l politics.

at society can do at present to protect itself is
s canon against the marriage of persons whose
g would be likely to swell the number of the
the criminal, who are a burden to the State and
to the community. Such a measure of defence
ady been adopted in certain States of the
n Union. In 1895 a statute was enacted in
icut, of which the first section reads as follows:
n or woman, either of whom is epileptic, imbe-
feeble-minded, shall intermarry, or live together
sband and wife, when the woman is under
s of age. Any person violating, or attempting
te, any of the provisions of this section shall
risoned in the State prison not less than three
A similar law has since been enacted by the
gislatures of Michigan, Minnesota, Kansas, and
uite lately the Indiana Legislature passed a
h provides that no licence to marry shall be
here either of the contracting parties is an
epileptic, of unsound mind, or under guar-
as a person of unsound mind, nor to any
son who is or has been within five years an
of any county asylum or home for indigent
unless it satisfactorily appears that the
such condition has been removed, and that
le applicant is able to support a family and
so continue; nor shall any licence issue when
the contracting parties is afflicted with a
ible disease, or at the time of making appli-
under the influence of an intoxicating liquor
ic drug. It is further enacted that, "if persons
in the State, with intent to evade these pro-
go into another State, and there have their
e solemnized with the intent of afterwards
g and residing in Indiana, and do so return
de in that State, such marriage shall be void,
h parties shall be subject to all the penalties
l for in the Act." A Bill is now before the
k Legislature forbidding the marriage of
pileptic, imbecile, or feeble-minded persons,
ng it a felony for any one of sound mind
rry or live with such a person.

esults of these laws, it is of course too early to
the meantime, a question has arisen as to
y of the law, and the matter is the subject of
eliverance by the Supreme Court of Errors of
ut, the text of which is published in the
the American Medical Association. In this judicial pronouncement the question is so fully discussed in all its bearings, that a summary of the judgement may be helpful to those who are striving to promote social reform in this country.

The Court laid it down that the constitution of the State guarantees to its people equality under the law in the rights to "life, liberty, and the pursuit of happiness." One of these is the right to contract marriage, but this right, it is pointed out, can be exercised only under such reasonable conditions as the Legislature may see fit to impose. It is not possessed by those below a certain age. It is denied to those who stand within certain degrees of kinship. The mode of celebrating it is prescribed in strict and exclusive terms. The universal prohibition in all civilized countries of marriages between near kindred proceeds, in part, from the established fact that the issue of such marriages are often, though by no means always, of an inferior type of physical or mental development. That epilepsy is a disease of a peculiarly serious and revolting character, tending to weaken mental force, and often descends from parent to child, or entails on the offspring of the sufferer some other grave form of nervous malady, is a matter of common knowledge, of which courts will take judicial notice.

One mode of guarding against the perpetuation of epilepsy obviously is to forbid sexual intercourse with those afflicted by it, and to preclude such opportunities for sexual intercourse as marriage furnishes. The Court holds that to impose such a restriction on the right to contract marriage, if not intrinsically unreasonable, is no invasion of the equality of all men before the law, if it applies equally to all, under the same circumstances, who belong to a certain class of persons, which class can reasonably be regarded as one requiring special legislation, either for their own protection or for the protection from them of the community at large. It cannot be pronounced by the judiciary to be intrinsically unreasonable if it should be regarded as a determination by the Legislature that a law of this kind is necessary for the preservation of health, and if there are substantial grounds for believing that such determination is supported by the facts on which it is apparent that it was based.

There could be no doubt as to the opinion of the Legislature nor as to its resting on substantial foundations. The class of persons to whom the statute applies is not one arbitrarily formed to suit its purpose. It is certain and definite. It is a class capable of endangering the health of families and adding greatly to the sum of human suffering. Between the members of this class there is no discrimination, and the prohibitions of the statute cease to operate when, by the attainment of a certain age by one of those whom it affects, the occasion for the restriction is deemed to become less imperative. Laws of this kind, in the opinion of the Court, may be regarded as an expression of the conviction of modern society that disease is largely preventable by proper precautions, and that it is not unjust in certain cases to require the observation of these, even at the cost of narrowing what in former days was regarded as the proper domain of individual right. It follows that the statute in question was not invalid, as respects marriages contracted by epileptics, after it took effect.

Furthermore, it was held that the Superior Court has the power to pass a decree of divorce from the bonds of matrimony in favour of a party to a marriage, not an epileptic, who has been tricked into it by the other party, who was an epileptic, through his fraud in inducing a belief that he was legally and physically competent to enter into the marital relation and fulfil all its duties, when he knew that he was not. The fraud, it is pointed out, which makes the contract of marriage fraudulent, as that word is used in the statute of divorce, is a fraud in law and on the law. This weighty deliverance seems to us to mark a forward step in human progress.

THE ACTION OF TETANUS TOXIN.

Dr. Leo Zupnik[1] denies that the muscular rigidity in tetanus is due to the action of the poison on the central nervous system, nor does he consider that the cause is to be found in the peripheral nerve fibres. The rigidity, he maintains, arises exclusively in the muscles themselves, and is only influenced by the nervous system, in so far as the nutrition of every tissue—and in particular the normal muscular tone—is dependent on nerve regulation. The frequently-recorded observation that where the nerve supply of a muscle has been destroyed the injection of tetanus toxin does not produce rigidity would appear to be inconsistent with this view; but Dr. Zupnik finds that this absence of rigidity is only observable when the dose is either too small or too large. It is true that when a sublethal or a minimal fatal dose is given, or, again, when a large multiple of the minimal fatal dose is inoculated, rigidity is absent from the limb to which the nerve supply has been destroyed; but he has discovered that when into a limb similarly treated a dose of toxin equal to about twice the minimal lethal dose is inoculated, either subcutaneously or, still better, intramuscularly, a primary rigidity of the limb is produced. This result he has demonstrated by numerous experiments upon rabbits, dogs, and cats.

Many investigators have maintained that the axis cylinders of the nerve fibres possess an elective affinity for tetanus toxin and that they provide the paths of conduction whereby the poison travels to the spinal cord. This theory Dr. Zupnik has put to an experimental test. If, as he argues, the peripheral nerves possess a specific affinity for the toxin and conduct it to the nerve centres, then small doses, capable of producing localized rigidity in a limb, ought when directly injected into the nerve supplying the part, to produce the same effect; but if, on the other hand, the nerves have no power to combine with or to conduct the toxin, then intraneural injections should not be followed by this localized rigidity of the muscles supplied by the nerve, but, on grounds explained subsequently, trismus alone should be produced. He performed his experiments on dogs, selecting the space between the tendo Achillis and the tibia, where there are no muscles, as the site for operation, and injected the toxin in the peripheral direction into the tibialis posticus nerve. The result of his experiments, as soon as he had become master of the somewhat difficult technique and was able to avoid any escape of toxin outside the nerve, was that the dogs invariably developed tetanic rigidity, which was confined to the head muscles. Dr. Zupnik's conclusion is that the peripheral nerves possess no special affinity for tetanus toxin, that they have no elective capacity for absorbing it, and that they do not conduct it to the nerve centres. The path of conduction, he maintains, is manifestly the blood stream. Those who support the nerve-conduction theory are inclined to explain the length of the incubation period as being conditioned by the length of time which it takes the toxin to travel along this tract. But the toxin is demonstrable in the blood stream a few minutes after
subcutaneous injection, and, therefore, when introd
either subcutaneously or intravenously, it must by
route reach the spinal cord almost immediately. M
over, when the toxin is inoculated directly into
spinal cord, there is no abbreviation of the incuba
period necessary for the production of musc
rigidity. There is, therefore, ample evidence to r
the theory that the slowness of incubation is due t
time required for the toxin to ascend by the perip
nerves.

The action of tetanus toxin is twofold. It proc
muscular rigidity, and it produces paroxysmal spa
The former phenomenon Dr. Zupnik regards, on ex
mental grounds, as due to the direct action o
toxin on the muscle, and he maintains that the
when not directly introduced into the affected mu
is conveyed to them by means of the blood st
The second phenomenon is due to the action of the
on the spinal cord. He has injected into the
cords of cats doses of toxin equal to from one-ten
one-twentieth of the minimal dose which is fatal
subcutaneous injection. The result was that aft
incubation period of at least fourteen hours there
an increased reflex excitability of one of the ext
ties, corresponding to the region of the cord inocu
this increased excitability then spread to the comp
limb, then to all four limbs, and finally to the
body.

The point of special interest in the experime
that, when this last phase was reached, the m
were still entirely free from rigidity. Dr. Zupni
therefore, effected experimentally a separation
two cardinal symptoms of tetanus; he has pro
the muscular rigidity by intramuscular injectio
he has obtained the paroxysmal contractions
jections into the spinal cord. Upon the
substance, he holds, tetanus toxin has no s
action.

The early appearance of trismus in tetanus int
tion is difficult to explain. Dr. Zupnik holds t
one muscle has a greater predilection for the toxi
another. Excluding cases in which the site of in
tion is in muscular tissue, the toxin, dissemina
the blood stream, is distributed in equal quantiti
in an equally effective form amongst all the mus
the body. The result is that the tonicity of the m
in every situation is continuously and simultan
increased. This intensification, which finally ma
itself in the form of continuous contraction, mus
purely physical and physiological laws, first m
appearance in those muscle groups the normal ac
which is dependent upon a finely-adjusted p
tween antagonistic forces. Consequently the c
mechanism of the muscles of mastication a
pharyngeal constrictors is the first to be affected.

As a practical corollary of his pathological
Dr. Zupnik infers that all injections of antitox
the nerves, the spinal cord, the subarachnoid,
cerebrum are without justification. The two
uses of antitoxin—the prophylactic effect a
neutralization of circulating toxin—are just as
attainable by subcutaneous inoculation.

MEDICAL INSPECTION OF SCHOOL CHIL

Mr. Birrell, in the whole course of the long
in which he introduced the Education Bill,
make a single reference to the hygienic aspects o
life. It was perhaps one of the subjects he had
when he said that the religious was not th
important aspect of the educational problem,

---

[1] *Deut. med. Woch.*, December 14th, 1905.

hich attracted most notice; and it was left to
sterman, Liberal member for West Ham (North),
r incidentally to the question of medical inspec-
ontending that what was wanted was not the
dic and random efforts of a few local authorities,
institution of a universal system embodied as
the national expenditure. Mr. Birrell, however,
t touch on the matter in his reply, and it is
tood that he gave to a deputation on the subject
the National League for Physical Education
which was far from sympathetic. Yet those
ally know the conditions under which elemen-
hools in the poorer districts are worked realize
ere is no question of more pressing importance
difficulty which might be dealt with more easily
ickly.

lan of systematic medical inspection of school
n for the detection of physical defects and the
ion of infectious diseases has produced ex-
results both in Germany and America, and,
illustration of the work done at a relative
cost in money, we may quote from the
Record a report issued by Dr. Darlington,
Commissioner of New York. He states that
e reorganization of the system of medical school
ion of the Board of Health on March 29th, 1905,
ectors have examined 55,332 children, and have
18,182 cases of defective teeth, 16,394 cases
ective vision, and 8,182 cases of defective
reathing. Treatment was necessary in 33,551
The conditions most frequently encoun-
ere enlarged anterior cervical glands, visual
and imperfect teeth, of each of which more
,000 cases were recorded. During the last
964 visits were made to the schools by medical
rs, and 18,844 children were excluded for con-
disease. Of this latter number, 8,833 were for
eases, 4,692 for pediculosis, 2,018 for skin
, 312 for measles, and 74 for diphtheria.
1903 65,294 children were excluded, and during
369. Much importance is attached to the work
school nurses, through which many children
uld formerly have been excluded are enabled
ue in attendance.

◆

DON SCHOOL OF CLINICAL MEDICINE.

ganization of the London School of Clinical
e, the objects and scope of which have been
cribed in the BRITISH MEDICAL JOURNAL, is now
, and the new institution will formally open its
students on May 1st. Already a dozen men
en out a course of operative surgery, and about
more are working in the School. We may
readers that the London School of Clinical
is fully equipped for post-graduate teaching
ranches of medicine and surgery, and for
work in every department of medical science.
ointed out in the JOURNAL of April 7th, com-
re often heard from foreign visitors that faci-
post-graduate clinical study are still, notwith-
the existence of several excellent institutions
expressly to meet the want, very defective.
school at Greenwich will, it is hoped, do
o redeem London from this reproach.
inence of its staff and the large op-
es of clinical, scientific and practical
ich it offers, combine to make it especially
practitioners who wish to furbish anew the
ge that has grown a trifle rusty with years; to
es for the public services who feel that a final
ill improve their chance of success; to officers of the naval and military medical services who desire to spend their study leave to the best advantage; and to foreign visitors who are anxious to make themselves familiar in the easiest and most expeditious fashion with British methods of practice. In our advertisement columns will be found a full account of the various fields of clinical observation, and the opportunities of practical instruction open to students. In a week or two the good ship will be fairly launched; and, in the assurance that she will help to carry the fruits of British medical science throughout the world, we wish her heartily God speed!

MEDICAL TERMS IN THE *NEW ENGLISH DICTIONARY.*

THE new part (a double one) of Dr. Murray's *New English Dictionary*[1] is very rich in medical terms. It includes, for instance, the word *medical* itself, and all its associates, such as *medic* (meaning a physician, but now obsolete save as U.S. college slang for medical student), *medicable* (admitting of cure), *medicament* "Tobacco is the only medicament in the world "ordained by Nature to entertaine good companie"), *medicaster* (a quack or charlatan), *medicastra* (a female quack), *medicate* (to treat medically or to impregnate with a medicinal substance), *medician* and *medicianer* (now obsolete words for a physician), *medicinable* and *medicinal* (having curative attributes), and *medicine* (in all its many meanings, direct, figurative, and extended). The *medicinal-finger* or *leech-finger* is the ring finger. An interesting note on the pronunciation of *medicine* appears: "The disyllabic pronunciation (recognized "by Johnson, 1755) has existed at least from the "fourteenth century, as occasional spellings indicate. "The trisyllabic pronunciation is less common in "England, and is by many objected to as either "pedantic or vulgar; in Scotland and in the "U.S. it is apparently the prevailing usage." Some of the obsolete or nearly obsolete uses of the word *medicine* are of considerable interest. Thus it was applied to drugs used for other than remedial purposes, such as cosmetics, poisons, and philtres, as in the illustrative quotation from Lyly's *Euphues*, "Knowest thou not that fish caught with "medicines and women gotten with witchcraft are "never wholesome?" It was employed for a medical practitioner sometimes, as in *All's Well that Ends Well*, "I have seen a medicine That's able to breath life into a stone." A slang use of the word is for intoxicating drink, and a comparatively recent one is for magic, especially among savages. *Medicine tree* is the horse-radish tree. A *medicine seal* or *stamp* is a name for small cubical or oblong stones with inscriptions in intaglio, found among Roman remains, which seem to have been used by physicians for marking their drugs. *Medics* is an obsolete term for the science of medicine, as is seen in a seventeenth-century quotation, "Apollo was made by the antient sages the god of medicks as well as musick." But there are many other medical terms in this part of the *Dictionary*, although there is hardly space to refer to more than a few. The up-to-date nature of the work is indicated by the inclusion of such a modern usage as that of *mediator*, "those constituents of a serum which actively produce haemolysis"; the synonymous word is amboceptor. Another medical word (which is marked as not naturalized) is *medulla*, with its various applications in anatomy and biology and pathology. Some interesting groups of medical words cluster round the prefixes *mega-*, *megalo-*, and *mero-*. *Megalacria* is defined as a morbid condition in which the hands and feet and the face are abnormally enlarged; and it might have been well to add that the more usual term is *acromegaly*. A very curious list of meanings appears under *megrim*, including hemicrania, vertigo, whim or fad, vapours or "blue devils," and the staggers (in animals). A quotation of 1668 tells us "By how much it is more honour- "able to Dye upon a sword's point . . . than for a Man "to snivel and sneeze himself into another World; or "to go away in a Meagrim." *Mesel* is an obsolete word for a leper, and from it come *meseled*, *meseledness*, *meseling*, *meselry*, and *meselness*. *Merry-gall* is a sore produced by chafing. *Mattoid* or semi-insane is a recent introduction into English, the earliest quotation being from the translation of Lombroso's *Man of Genius*, which appeared in 1891. A very old word is *maw*, in the sense of stomach or belly; a *maw-mother* is a moon calf or false conception. Probably few know the meaning of *may-butter;* but it is given here in an illustrative quotation: "If during the "month of May, before you salt your butter, you save a "lumpe thereof, and put it into a vessell, and so set it "into the sunne the space of that moneth, you shall "find it exceeding medicinable for wounds." Few, likewise, are aware that *mazolysis* is detachment of the placenta, and that *mazopathia* is a disease of, or originating from, the placenta. The medical meanings found under such words as *melancholy*, *melanaemia*, *melanosis*, *melanuria*, and *melaena* are many, and *meconium* and *meconic* come into suggestive juxtaposition. A large group of words is derived from mensis, a month, and illustrations are found in *menstrual*, *menstruum*, *menstruation*, *menopause*, and *menolipsis*. No mention, however, is made of *menarché*, the useful expression for the commencement of menstruation. Finally—for space and time fail to exhaust this part of the *Dictionary*—there is the word *measle*, more familiar to us in its plural form of *measles*, which is usually construed, let it be noted, as a singular. The derivation of measle is not certain, but what is known about it is admirably stated, including its confusion with *mesel*, a leper. Although the part of the *New English Dictionary* under review has been produced under the special charge of Mr. Bradley, we cannot allow the opportunity to pass of congratulating the veteran editor-in-chief (Dr. James A. H. Murray) upon the fact that his native town of Hawick is to give him its freedom next September. "In honouring the "prince of dictionary makers, Hawick is honouring "itself," says the *Scottish Review*.

---

[1] *A New English Dictionary on Historical Principles.* Edited by Dr. James A. H. Murray. Matter—Mesnalty (Volume VI) by Henry Bradley, Hon.M.A.Oxon. Oxford: Clarendon Press. London, Edinburgh, Glasgow, New York, and Toronto: Henry Frowde. April 1st, 1906. Double Section, 5s.

A TOXIC THEORY OF PAIN.

PAIN is one of those inscrutable facts in Nature which, in many respects, pass human comprehension. It is easy to understand how pain often serves a beneficent purpose in disease, but the necessity for its existence as a physiological manifestation is unrevealed and invests it with an unsolved mystery. It presents itself in many varieties and under a bewildering diversity of circumstances, but in intensity it is controlled by the cause producing it, the circumstances in which it occurs, and the idiosyncrasy of the individual. The anguish of angina pectoris is not capable of expression in the same terms as the stabbing pain of pneumonia, nor is it possible to compare the acute suffering of migraine with the dull postural headache of anaemia. Under circumstances of excitement the most intense pain may pass unperceived, whereas in conditions of enfeebled health discomfort, even of minor degree, becomes exaggerated and often unbearable. To the individual, pain is a varying quantity; by one person it is borne with fortitude and resignation, to another it is a distracting influence which completely upsets the equilibrium of health. Ease and luxury are inimical to physical powers of resistance; civilization, therefore, carries in its train a progressive intolerance of every fo suffering. Toleration varies according as brain an are vigorous or feeble, inherently stable or un But many differences in the capacity for end remain unexplained by such generalizations. W instance, do women, despite their more delicate zation, stand pain better than men? and why, nations, does the Hebrew race manifest such resistance to the tyranny of its manifestations? problems are beyond the reach of explai and will remain so, even if an adequate for the occurrence of pain be discovered and pro the fullest satisfaction of science. Neverthele hypotheses on the subject are fascinating, a latest promulgated by Mdlle. Joteyko, Chef des t au laboratoire de psycho-physiologie de l'Univer Bruxelles,[1] is not lacking in ingenuity. She ado theory of Max von Frey and others—that ther special nerves, or nerve strands, or end orga specific business of which it is to collect and tr painful impressions—and she contends that p aroused by poisoning of these nerve endings indu toxins generated at the moment of a suffi powerful excitation. The special sensations of smell, sight, and hearing are, it is suggested, d due to chemical changes resulting from the appr stimulus of each, but no sensation of pain is p according to this theory, unless under the influen summation of stimuli powerful enough to p certain "algogenic" substances which alone are of exciting activity in the specific nervous mec concerned in the conscious perception of painful i sions. To meet an obvious objection, it is that there is no necessity to suppose that these are carried in the blood to the brain, their dis effect on the nerve-endings at the seat of their tion being enough to account for a sequential c record of their evil influence. Pain is said to an appreciably longer time for its manifestation sciousness than other sensations, and this is ex by the time necessary for the formation and acc tion of the requisite toxins. The theory is speculative. It does not attempt to explain wh hypothetical toxins behave differently from an with which we are acquainted; why they produ varieties in the quality and intensity of their how they come to be elaborated often from tissue; or how they are inhibited under the infl analgesic drugs or high emotional tension. We agree with Mdlle. Joteyko that her suggestion is improbable than the toxic theory of fatigue, bu the algogenic substances, which we are not surp hear are difficult to demonstrate, have been e from the tissues, and when it is demonstrated by mental evidence that they are possessed of the claimed for them, we shall gladly have our sce converted to faith.

SYPHILITIC PLACENTA AND THE SPIRO PALLIDA.

AT the time that a summary of recent observa the relation of syphilis to a particular species chaete appeared in our columns,[2] Drs. Wall Levaditi were engaged in important researche clinique Baudelocque, under Professor Pinard, results have been recently published.[3] They e a series of placentas, and M. Metchnikoff assist in microscopic work undertaken at the Pas stitute. The familiar big placenta is frequent of hereditary syphilis, and Pinard will not per child born with such a placenta to be suckied voman than its mother. But the placenta may nal when maternal infection is recent, the so- ummata are no longer held to be pathognomonic was discovered that white infarcts are seen in centas in women with albuminuria, and, lastly, croscopic appearances of genuine syphilitic as are not uniform. Wallich and Levaditi y endeavoured to ascertain whether the e of the *Spirochaeta pallida* in the charac- heavy placenta would decide the syphilitic of suspicious lesions in the child when disease was only suspected in one or ner parent. The result was negative. Scrap om 13 cases brought away no specimens of iete; in other words, they were not detected in ernal organism, though it is admitted that the causes bleeding, and brings away broken-down which might have lost the spirochaetes it once ed. But in 5 cases sections of placenta were nd satisfactorily prepared. In only 1 out of the ne spirochaete detected. Wallich and Levaditi nt stress on the clinical history of this case. was a big placenta, and the child, born with and plantar pemphigus, died on the second day. was big and hard, and its surface was covered all white specks, sclerotic foci. Yet the mother no evidence of syphilis, whilst as to the father, s to have suffered from sore throat frequently, observers could not feel justified in rating him litic. Strange to say, they found that Menetrier bens-Duval discovered the spirochaete in the in a precisely similar case. The child was tly syphilitic, and subject to pemphigus of the nd soles, yet the parents showed no signs of In 3 out of the 5 cases where Wallich and succeeded in procuring successfully-stained the history of syphilis in one parent was clear, pirochaete could not be detected in the sections. , the positive evidence gained by two pairs of is the existence of the germ in question in the of two infants evidently syphilitic. This dis- vas no guide to the condition of the parents, allich and Levaditi have shown that the germ absent from the placenta when the history of in the parents is clear. The truth is thus the rse of the terms of the problem as set forth by rvers when they began their labours. Patho- these authorities have strengthened the theory *Spirochaeta pallida* has some close relation to whilst clinically speaking they have demon- hat in obstetrics its presence has hitherto only hat was already evident. In conclusion, they btful about the presence of the spirochaete in rnal part of the placenta, and we may add that llich and Levaditi inform their readers that udinn has admitted to them personally that he authenticated the presence of the germ in the

---

[1] *Revue générale des Sciences*, 1906, No. 5.

[2] Dr. Schaudinn on *Spirochaeta pallida*. BRITISH MEDICAL October 28th, 1905.

[3] Recherches sur la Syphilis du Placenta. *Annales de Gynéc.* February, 1906, p. 65.

As we said of him in October, so may we say wo French observers: they act in a genuine scientific comradeship, stimulate independent and show no tendency to establish plausible by clever argument. We have already noted, URNAL of March 31st, Dr. Levaditi's study of logy of the syphilitic fetus itself, and of the of the spirochaete in its tissues.

BIOLOGICAL ASPECTS OF THE CANCER PROBLEM.

ress delivered before the Australasian Medical at Adelaide in September last Professor D. A. Sydney gives an excellent review of recent n the minute histology of malignant disease, hasizes the importance of biological considera- e discusses the significance of the heterotypical mitoses which sometimes occur in senescent tissues, and arrives at the conclusion that tumour growth may perhaps prove to be a natural phenomenon determined by a definite concatenation of natural circumstances, amongst which the senescence of the particular tissue concerned is regarded as being especially important. If this view be corroborated by further investigations, "the nature and origin of cancer," Professor Welsh declares, "will be essentially a problem of "biology, and only accidentally a problem of "pathology." He regards with profound scepticism the hypothesis that cancer is due to the invasion of parasitic microbes, and points out that even if it should eventually be proved that the phenomena of cancer are initiated by some form of parasite, it does not necessarily follow that cancer is either contagious or infectious. On the contrary, it seems clear that the distribution of the presumptive parasite and its mode of action are wholly dissimilar to those of any known bacterium or protozoon, nor is this hypothetical infective agent capable of reproducing the disease in other persons after the manner of other pathogenic agents which are known or assumed to exist. Professor Welsh regards the difficulties attendant on the artificial transference of new growths as providing a very strong argument against the infection theory. Even in experiments with mice, where transference from animal to animal has been exceptionally successful, transmissibility appears to be affected to a remarkable extent by racial distinctions. Thus, a cancer originally growing in a German mouse meets a subtle antagonism when introduced into an English or a French mouse, and gives a very low percentage of successes; but as the malignant tissue becomes gradually accustomed to the new race, the percentage of successes rises, and may ultimately equal that attained by the direct inoculation of the original material into German mice. The conditions required for the successful transplantation of a new growth cannot be regarded as identical with those necessary to its primary origin. In becoming a new growth the cells have acquired potentialities which enable them to continue growing in circumstances inimical to their original development.

THE MEDICAL HISTORY OF JOHN CALVIN.

POSTHUMOUS diagnosis of the physical ailments of famous men has become a distinct feature in modern medical literature. It is an interesting, though seldom a very fruitful, field of inquiry, for in most cases facts bear to theory the proportion that the halfpennyworth of bread did to the intolerable deal of sack in Falstaff's tavern bill. To the medical mind it is, of course, a truism that disease plays as large a part in human history as death. It is not merely the madness of kings, but their gout, their stone, their indigestion, that brings woes upon the people. The misfortunes which clouded the last years of the reign of the Sun-King, have been attributed to the famous fistula which is a landmark in French history. Napoleon is believed by some historians to have lost the battle of Leipzig because he had dined too well of his favourite shoulder of mutton and onions. The religious intolerance of "Bloody Mary" has been ascribed to uterine disease. Much of the work of the world has been done by invalids, and it would be interesting to trace a connexion between their infirmities and their actions. Dr. George M. Gould seems to hold that "eye-strain" is the secret of the sufferings of most men of genius in these latter days. What ravages this comprehensive disorder must have caused before the discovery of the right kind of glasses came to bless mankind from Philadelphia! In the light of this doctrine the cruelties of Nero may be accounted for by the fact that he had weak eyes, and in regard to other tyrants the scientific use of the imagination will easily supply a suitable defect in the organ of vision. Both Horace and Cicero complain of "lippitudo," and this hint may furnish a key to the moral backslidings of the one and the political "spinelessness" of the other. To those not under the spell of a theory it is difficult to believe that the eye is the only peccant part. In the domain of divinity, for instance, we think it likely that functional disorder or organic disease of the digestive apparatus plays a considerable part. It is difficult to imagine a Grand Inquisitor with a healthy liver. To Carlyle it was unthinkable that John Knox was what he calls "eupeptic"; to ourselves it is still more incredible that Knox's master, Calvin, was not the victim of dyspepsy. This *a priori* conclusion is confirmed by the results of a careful inquiry into the physical constitution of the prophet of Geneva which has recently been made by Professor Doumergue. For our knowledge of his researches we are indebted to a paper by Dr. Léon Gautier which appeared not long ago in the *Revue Médicale de la Suisse Romande.* The sources from which the clinical history is derived are Calvin's own letters and those of his friends, and the biography left by Beza and Colladon. An abundance of detail is found in a statement of his case submitted by Calvin to the physicians of Montpellier a few months before his death. It appears that Calvin was from his youth onwards the victim of neuro-arthritism. Dyspepsy afflicted him throughout life. Beza says the *ventriculi imbecillitas* which in his youth had its origin in overwork and want of exercise, was at the bottom of all the ailments from which he suffered in after-life. He was tormented by frequent headache. not seldom lasting several days. He was often vexed by catarrh; later he was attacked by haemoptysis, which was followed by chronic cough and progressive dyspnoea, emaciation, and hectic fever. Haemorrhoids with perineal eczema were another thorn in the flesh. In later life he suffered sorely from gout, which, in his own words, caused him *acerrimos cruciatus.* He had sometimes to be carried to the church to preach. Renal colic came to aggravate his sufferings. In July, 1563. he says he passed a calculus almost the size of a hazel nut, and in the ensuing month several smaller ones followed, giving some ground for the patient's description of himself as a *lapidicina* or quarry. Two months before his death there was a stone of considerable size in his bladder. He died exhausted by his many infirmities on May 27th, 1564. Dr. Gautier is doubtful whether to ascribe his death to phthisis or to septic fever arising from urinary disease. The pathological record of the great Reformer must make even those who are least in sympathy with his doctrines admire the strength of will and lofty enthusiasm which enabled him to work so unremittingly as he did under such a burden of suffering. In his last illness he translated his own Commentaries on the Pentateuch, and revised the greater part of the translation and annotations on the New Testament: he did not cease to dictate till a week before his death, when his voice failed him. To those who know anything of the extent to which the state of the mind is governed by that of the body, it is easy to understand that the outlook on life of a man so racked by disease could scarcely have been very cheerful, that his temper was stern and his teaching terrible to the weak nature of man

> As when some great painter dips
> His pencil in the gloom of earthquake and eclipse.

Calvin is made more intelligible to us, as a man and as a theologian, by the knowledge that his conception of human destiny must have come to him through the fiery furnace of bodily suffering.

THE MEDICAL SERVICES OF JAPAN.

BARON TAKAKI, Surgeon-General (Reserve) o Japanese Navy, we learn from the *Medical R* recently gave an interesting account of m education in Japan to the New York Aca of Medicine. He said he had been for more twenty-five years engaged in educating m students both in the naval medical school a others. When he was a junior officer it was sidered necessary that they should have a s school for the education of the naval medical o In that school, which was started in 1872, sixteen were trained. Then the officers of the Medical B thought they could dispense with special trainin the school was suppressed. Baron Takaki was absent from Japan. On his return he found that who had not been trained in the naval school di understand any foreign language, while at the time their practical knowledge was inadequate therefore urged the re-establishment of the s and in it eighty more officers, making ninety-six gether, received special training. These wer chief acting members of the medical department Japanese Navy. Among the first sixteen graduate Surgeon-General S. Suzuki, the President of the p medical Bureau and the Chief Surgeon of the stations. Since Baron Takaki's retirement the school had again been abolished. The officers of th and navy received their education in certain s from the beginning; the youth or boy underwe cipline that gave him a special character, which guished him from those brought up in ordinary sc These men were inclined to look down upon m officers. Baron Takaki expressed the belief that near future special schools would be provided f training of medical officers of both the army and These officers must receive greater recognition th previously been accorded them; they certainly de such recognition. In the war between Japan and the Director of the Medical Bureau of both the ar navy had rank equal to that of major-general. three years ago any student who had a certain kno of preliminary subjects could enter a medical s since then, however, a new regulation had been and now no student could enter unless he had an examination in English. To-day there we students, of whom 350 had studied English. were in Japan three medical universities, each a four-year course. After completing their r studies many Japanese went to Germany, and r education in Japan was to a large extent foun that in Germany. In 1883 the Japan Hygienic was started in Tokyo. Soon branches were for every district and province, and gradually the came to appreciate the importance of the work medical profession; now they recognized of wha the medical service was to the country. The eff both of medical and surgical treatment had b creased in both the army and navy. The Bar cluded by saying that if the public would recogn importance of medical science when directed t the preservation of life, and not merely treatment of the sick and wounded, he thought would be accomplished. He laid strong stress point which has been put forward in these c with such earnest iteration—that, in the future, m science should be applied not merely to the tre of disease in the navy and army, but largely prevention.

STRANGULATED DUODENAL HERNIA.

RETROPERITONEAL hernia, in which the fossa d jejunalis plays the chief part, has attracted th tion of many writers, Lockwood, Moynihan, J and others. It is generally known by the n

; but Neubauer in 1776, Monroe and Astley r recognized this form of hernia. An example of ngulated hernia of this class was described last y Haberer of Vienna.[1] He notes that Narath in ublished an instance where an operation was led with success. In Haberer's case the patient 3 years of age. She had felt feverish five days coming under his care and abdominal pains set in, increasing. They were associated with constipa- o flatus passed, and vomiting with hiccough set in, ing constant. There was great distension and the ch was carefully washed out. An incision was from the ensiform cartilage to the umbilicus. the root of the transverse mesocolon a big r was discovered; it extended to the left of the ral column as far as the spleen, and pushed the ding colon away from the abdominal wall. The num was enormously distended; its fourth, or ascending portion entered into the tumour, was a true left duodenal hernia familiar to s of Mr. Moynihan's Arris and Gale Lectures. um issued from the sac over a foot above the ecal valve. The bowel was strangulated by the duodeno-jejunal fold, easily recognized by its n to the inferior mesenteric vein. The intestines not be drawn out of the sac by traction. The cting edge of the fold was then incised, two liga- eing first applied to the inferior mesenteric vein. when divided between the ligatures, was found lready thrombosed, so that no injury was done to trition of the intestine. The front of the sac was reely divided, as the descending colon lay far ds; while this was done there was no trouble in g the small intestines. The sac was then ed in sections and drawn down so that the o-jejunal fossa was obliterated. The patient ed. This case may rank with Tubby's and 's[2] as an instance of successful operation on duodenal hernia. Dr. Haberer publishes an tion which will doubtless become a familiar n future treatises on the rarer forms of hernia.

FFECTS OF AMPUTATION OF BOTH OVARIES.

SOR POZZI recently exhibited before a French a specimen of a fibroma of an atrophied uterus d eleven years after extirpation of both ovaries.[3] l hysterectomy was performed; the entire mass big as a large orange, and chiefly made up of a in the posterior uterine wall, including the The uterine cavity measured hardly 1½ in., parts removed looked like a bulky uterus with xion of its body. The true uterus, independent ibroid, was as small as in a child under puberty. eld it remarkable that the atrophy of the uterus, on inspection of this specimen, did not prevent elopment of a fibro-myoma, which probably as a minute nodule when the ovaries were taken Ie further ventured the theory that the presence nodule accounted for the persistence of the nia for many years, although the ovaries were In answer to objections raised by distin- authorities who discussed his paper, Pozzi maintained that he had examined the stumps edicles of the appendages in this specimen and to detect the least trace of ovarian tissue. brought forward a case where both ovaries were for mollities, and the operation appeared at the time to be easy and complete. The bad symptoms previously observed and the advance of the bone disease ceased. After delivery (it is implied that the patient was pregnant at the date of the operation) the catamenia returned, the bad symptoms also reappeared, and hysterectomy was therefore performed. The stumps of the pedicles were closely inspected and traces of ovarian tissue were detected in their substance. Accessory ovaries sometimes accounted for the persistence of menstruation after double oöphorectomy. Professor Pozzi maintained his opinion that no ovarian tissue was left in his case; the first operation was performed when the patient was 35, the second eleven years later, when she was 46, and the catamenia had ceased when she was 44. Therefore he believed that the fibroma kept up menstruation. He had observed the persistence of metrorrhagia after the removal of both ovaries where the uterus was big and unhealthy or where small fibroids lay in its wall. All the arguments made use of in this instructive discussion are familiar but unconvincing. It is possible that the persistence of the catamenia in Professor Pozzi's case was due to the continuation of active changes in the endometrium which, as Abel and Zweifel have shown, play an important part in the phenomenon of menstruation. Mr Doran, in the course of his notes on 60 cases of hysterectomy for fibroid read at the November meeting of the Obstetrical Society, related how in 1 case in that series both ovaries were removed with a fibroid uterus amputated a little above the os internum so that some endometrium remained behind. Menstruation continued for two years, the molimen being distinct. The endometrium must have been the maintaining agent, there could be no doubt as to the complete extirpation of the ovaries, since no ovarian pedicles are left when those organs are removed with a fibroid uterus. Pozzi's theory that the presence of small fibroids may keep up menstruation after double oöphorectomy is very questionable; Zweifel's teaching seems more reasonable. In the discussion on Pozzi's case, M. Lucas-Championnière noted how the menopause had come on at about the normal time, and that the atrophy of the uterus most probably began then, and not earlier, soon after the ovaries were removed. The endometrium undergoes atrophic changes at the menopause. Still it is quite possible that a minute trace of ovarian tissue was overlooked by the pathologists in the case under dispute. The recorded instances of pregnancy after double ovariotomy for tumours and after removal of both appendages for chronic ovarian changes, show not only that a trace of ovarian tissue in the ovarian ligaments can carry on its physiological functions, but also that the stumps of the Fallopian tubes must be able to emancipate themselves from their ligature, so that their canals, which manage to escape occlusion, are able to transmit ova from the relics of ovarian tissue to the uterine cavity. The effects of amputation of both ovaries are not easy to estimate from clinical records, as it is rarely certain that all ovarian tissue is removed from the subject; even if all be removed, we are not sure as to the part played by other structures in the catamenial phenomenon under normal and abnormal conditions.

TORSION OF OMENTUM SIMULATING APPENDICITIS.

A CASE of clinical and medico-legal interest has recently been reported by Dr. Cullen of Baltimore.[1] A railway conductor, florid, stout, and nearly 13 st. in weight, attempted to turn a drunken man out of his train. The man resisted violently, turning, or rather whirling, the conductor round twice. On the next day the conductor felt a little abdominal pain, referred twenty-four hours later to the region of the appendix. At the end of six

---

peratiṿ geheilter Fall von inkarzerierter Treitzscher Hernie. *in. Woch.*, No. 11, 1905, p. 274. (The journal is erroneously *ener medizinische Wochenschrift* in a well-known foreign agazine.)

athologie und Chirurgie der Hernia Duodeno-jejunalis. *ngen der deutschen Gesellschaft für Chirurgie*, 1903, vol. ii,

ome de l'utérus développé chez une femme ayant subi, onze avant, une castration ovarienne double," *Annales de Gynéc.* ., December, 1905, p. 753.

[1] Torsion of an Accessory Omentum producing Symptoms simulating Appendicitis. *Johns Hopkins Hosp. Bulletin*, December, 1905.

days Dr. Cullen saw him; no thickening of the appendix could be felt on palpation under anaesthesia. The abdominal cavity was opened; the appendix was found somewhat thickened and slightly adherent; it was removed. An area of induration was detected over the right side of the abdominal cavity. The "gridiron" incision made for reaching the appendix was enlarged. Adherent omentum was separated, and then a strange grey, vascular nodulated mass, looking very much like a cancerous tumour or a haemorrhagic pancreas, was discovered. It was free from other parts, however, and continued upwards, ending in a pedicle twisted very tightly, and traced "just to the outer side of the "jejunum." The pedicle was ligatured and divided. The mass was omental tissue, becoming gangrenous at the upper part, where it was twisted. There was slight adhesion to the gall bladder, which was free from disease. This twisted piece of omentum was entirely separate from the remainder of the peritoneal process; Dr. Cullen describes it as "accessory." The patient recovered, and was in good health seven months later. There could be no doubt that the torsion was produced when the stout, sturdy patient was wrestling with the drunkard, who for a time got the better of authority. It is easy to understand how a heavy, fat omentum might become twisted in this manner. The accident does not appear to be recorded as frequent amongst professional wrestlers or schoolboys, but amongst these two interesting types of humanity corpulence is exceptional. Fat men, on the other hand, tend to avoid brawls, and if involved in a scrimmage can be overcome by simpler methods than wrestling. Torsion of omentum is naturally painful, and the plugging of omental vessels (observed in Dr. Cullen's case) may cause great abdominal pain simulating appendicitis, a symptom observed after resection of fat omentum in an ovariotomy, or an operation for strangulated epiplocele.

DISEASES OF GERMAN EAST AFRICA.

ON March 12th Professor Koch delivered an address on the health conditions of German East Africa. According to reports which appeared in the political press (we learn from the *Deutsche medizinische Wochenschrift* that the medical press was not favoured with an invitation) the lecturer stated that the chief danger to settlers in the colony was malaria, from which few places within its area are free. The disease can, according to Professor Koch, be effectually prevented by the prophylactic use of quinine. The blackwater fever, which in certain persons is caused by this treatment, may be avoided by the administration of quinine in small doses very gradually increased. Standing next in order as a danger to health is relapsing fever, to which, however, colonists are exposed only if they live among natives. Typhoid fever, diphtheria, small-pox, leprosy, ankylostomiasis, and sunstroke are rare. Dysentery plays only a secondary part, and with sleeping sickness it is hoped that medical science will soon be able to deal. Tuberculosis does not exist. The climatic conditions vary according as one goes inland, or gets further from the Equator. Inwards from the coast, the climate in the higher-lying regions resembles that of the South of Europe. The diseases of animals of most importance to colonists are the tsetse-fly disease, coast fever, and cattle plague; there is, however, reason to believe that these can be prevented by serum treatment. On the whole, Professor Koch thinks that, from the medical point of view, East Africa is very suitable for colonization, especially as the sanitary measures already employed have had good results, and greater success may reasonably be hoped for in the future. Professor Koch's address was listened to with the greatest interest. The President, Vice-Admiral Strauch, conveyed the thanks of the Society to the lecturer, and the Cultus Minister expressed the best wishes f success of the new scientific expedition on Professor Koch was about to set forth.

MOTORS FOR MEDICAL MEN.

THE *Motor* journal of last week, containing a s physicians' and surgeons' supplement has, it is s been sent to a large number of medical practiti throughout the country. The supplement seems a little disappointing, both as regards its substanc the conclusions to which the reader is brought. opinion seems to be all in favour of a high-po engine, and therefore an expensive car, prices £750 to £1,000 being mentioned in the editorial art even so some of the medical correspondents wh written their experiences seem to think the pr medical practitioner will keep two cars. The editorial article recommends an engine having n than four cylinders, and giving from 15 to 22 which it is stated will provide ample power w extravagance in fuel consumption. The landaul considered the best type of body, and the recomm tions are summed up as follows: "A 15 to 2 "car, with a four-cylinder engine, cardan "large road wheels, and single landaulette "on a frame not too long and narrow "front to permit of greatest possible 'lock' t "steering wheels." We believe, however, that medical men get on very well with smaller cars an horse power. The letters published in our co porary's supplement are all in praise of the car, b have received a note from a correspondent who that his own experiences, including accounts of c running, etc., which were somewhat disheartening not been recorded, and he suggests that the writ the supplement of *The Motor* may perhaps have actuated by some unconscious prejudice in fav motor vehicles.

ON April 5th Lord Lister entered on his eightiet The whole profession will unite in wishing hi evening of life as serene as its noonday was br with the light of new truth and active in its diffus

DR. W. J. SIMPSON, Professor of Hygiene in College, London, has sailed for Singapore, having appointed by the Colonial Office, acting on bel the Government of the Straits Settlements, to se a commission to inquire into and report on the sa condition of Singapore.

A BUREAU has been established in German function of which is to supply foreign studen visitors with all the information they may requir university lectures and courses of practical instr Its head quarters are at the University of Berli the scope of its operations embraces all public i tions of the German empire as well as of other cou Applicants will be informed as to all the steps re for obtaining admission to universities, or for a ance on lectures; they may also learn all about s laboratories, museums, libraries, hospitals, an galleries. Dr. W. Paszkowski is head of the burea fees are charged.

Medical Notes in Parliame

Diachylon as a Poison.—Mr. Samuel Roberts ask Secretary of State for the Home Department wheth circumstances connected with two recent inqu Sheffield had been brought to his notice; whether aware that the taking of diachylon, a powerf poisonous drug, which resulted in the deaths me above, was an increasing practice among many who through ignorance of the properties of the dru ing their health serious injury; and whether he could his way to have this drug and its preparations scheduled a poison. Mr. Secretary Gladstone answered that eral representations on the subject of the taking of chylon had been received, and his notice had been led to one of the recent cases at Sheffield. He was in- med, however, that the Lord President of the Council, o was in charge of the Poisons and Pharmacy Bill now ore the House of Lords, was advised that to schedule chylon as a poison would not mitigate the evil com- ined of.

he Workmen's Compensation Bill.—When this Bill came for second reading last week Sir Charles Dilke moved amendment asking for such recognition and guarantee insurance as to prevent the defeat of legal expectation ompensation created under the law. The motion was a ndly one, designed to elicit discussion and not intended e pushed to a division. It received a general support, l the Home Secretary expressed his sympathy with it, ough unable to accept it. He admitted that compulsory urance was the only ultimate solution of the question. he course of the debate the subject of medical referees ited some interest, and Mr. Gill expressed the opinion t they should be given the status of Civil servants, have er areas under their supervision, and be debarred from other professional work. He said the working classes ld then have perfect confidence in them. The dis- sion lasted the whole sitting, and so the second reading deferred until Tuesday, when the motion was passed out a division, and the Bill referred to the Standing mittee on Law.

he Poor-law Commission.—On Monday Mr. Wedgwood d the President of the Local Government Board ther, in view of the importance of its deliberations to ny subjects of discussion, he would make representa- s urging the Royal Commission on Poor-law Ad- istration to issue interim reports or interim volumes of ence; and if he could say at what date approximately House would be in possession of such first report or me of evidence. Mr. Burns replied that he had com- icated with the Chairman of the Royal Commission on subject, and had learned from him that the Commission ld gladly make any interim reports which would be of in themselves, and would not at the same time prejudge general questions referred to the Commission. Whether ould be practicable to make any such reports the irman was at present unable to say, and he doubted xpediency of publishing evidence which was incom- e and must therefore be misleading.

berculous Pork.—Mr. Field asked a question las as to a recent abortive prosecution at Paddington, asked for the prevention of frivolous prosecutions nst native meat dealers. The President of the Local ernment Board replied that it rested with the local ority to determine whether they would institute pro- ings for penalties in cases of this kind, and he was not owered to interfere with their discretion in the matter. vas, however, informed that in the particular instance red to the carcass was seized at a butcher's as tuber- us by the meat inspector of the borough council, that iagnosis was confirmed by the acting medical officer alth, and that the carcass was ordered by the magis- at the Marylebone Police Court to be destroyed. He also informed that the borough council decided in ber last to take proceedings for penalties against the man at the Central Meat Market from whom the pig purchased by the butcher; but that the proceedings deferred pending an interview between the chairman e Sanitary Committee of the council and the medical r of health of the city, and that, subsequently, ng was adjourned for a month at the request of the dant.

e Insanitary Condition of the Lewis.—Mr. Weir, as in last Parliament, is still pressing the authorities to ove the sanitary condition of the island of Lewis. It een described by Dr. Dittmar, in his report, as a dis- to civilization, and the sanitary rate has reached the maximum of 1s. in the £. On Monday, in answer to a series of questions, the Secretary for Scotland said that the whole subject of the insanitary conditions prevailing in parts of Lewis was engaging his anxious consideration. The position of the local authority was one of great difficulty, as indicated by the facts mentioned. The subject involved considerations of general policy, and every effort was being made to hasten the time when some announcement could be made.

Sanitation on the Gold Coast.—Mr. Nolan last week asked the Under Secretary for the Colonies whether an increased duty on imports had been agreed to by the inhabitants on the expressed condition that the revenue so raised should be applied to improve sanitation. Mr. Churchill said that no conditions were made with the taxpayers as suggested, and that the subject of improving sanitation had continuously received much attention in the Gold Coast and considerable sums of money had been spent on it.

Vaccine Lymph.—Mr. J. W. Benn asked the President of the Local Government Board whether the lymph which had been or was now being issued by the vaccination authorities was entirely innocent of any culture by smallpox. Mr. John Burns said that the lymph used by public vaccinators was, he believed, almost entirely that which was issued gratuitously by the National Vaccine Establishment; and, with respect to this, he might refer to the answer he gave on March 23rd. He could not speak positively as to the source of any lymph used by a public vaccinator which he had obtained elsewhere, but the Vaccination Act, 1898, required that it should be glycerinated lymph derived from the calf.

The Magistrates and Vaccination Certificates. — On Monday Mr. Mansfield asked the President of the Local Government Board whether, in view of the attitude adopted by certain justices towards applicants for vaccination certificates, he would consider the desirability of introducing legislation which should specify the questions which justices should put to such applicants. Mr. Burns said that he would take note of the suggestion, but he doubted whether the method proposed would afford the best way of securing the object in view. Sir William Collins asked whether the late Government had not assured the House that no inquiry by the magistrates as to the plea of objection would be possible. Mr. Burns said he believed that was so.

Public Vaccinators and their Fees.—In answer to Mr. Corrie Grant, the President of the Local Government Board stated last week that the only available information as to the amount of the fees paid to public vaccinators in England and Wales during the past ten years was that contained in the report of the Departmental Committee on vaccination expenses, which showed the amounts paid during two periods of four years, namely:

Period.	Primary Vaccinations.	Revaccinations.	Fees.
Four years ended Lady Day, 1899	1,264,576	106,783	£149,338
Four years ended Lady Day, 1903	2,016,666	1,168,058	£930,804

In addition, public vaccinators received by way of grant from councils of counties and county boroughs £52,525 and £49,123 during the two periods above mentioned.

Vaccination Debate.—The motion which Mr. Lupton had down for last Wednesday week did not come on, and, indeed, was out of order. By a remarkable piece of good fortune he has secured the first place for Wednesday, April 25th, when he will move "That in the opinion of this House vaccination ought no longer to be obligatory on those who regard it as useless or dangerous."

Vivisection.—On Tuesday Mr. John Johnson introduced a Bill to provide for the total abolition of vivisection.

Bristol.

PROPOSED UNIVERSITY OF BRISTOL.

THE seventh annual dinner of the University College Colston Society will rank as the most successful held since its inauguration. At no previous dinner have so many been present, nor has the chairman on a previous occasion been able to announce such a large collection or such generous contributions towards the founding of a university for Bristol. This to some extent, perhaps to a large extent as regards the numbers present, was due to the popularity of the Chairman, Mr. J. W. Arrowsmith, who from the inception of the movement has worked indefatigably in the cause of the Society. In all about 170 sat down, the distinguished guests being the Ambassador of the United States, Sir W. Church, Mr. Augustine Birrell, M.P., and the Bishop of Hereford. Lord Strathcona had been expected; to atone for his absence, due to indisposition, he sent the Chairman a cheque for £500. In submitting "The Pious Memory of Edward Colston," the Chairman said that the great Bristol benefactor devoted to education purposes over £35,000, or three-fifths of the moneys he distributed. There were still generous donors in the city; one gentleman had for several years sent £1,000 to the sustentation fund, and remained anonymous. This fund required support, for it had fallen off recently. The Society had widened interest in the College, for a promise of £1,500 from Mrs. Whittock of Bath had been received towards the endowment of a chair of economic science. The Chairman believed that the Bristol University was near realization; a most influential General Committee had been got together representing the three counties, Gloucestershire, Somerset, and Wilts. From four gentlemen contributions amounting to £30,000 had been promised, and with this sum it was proposed that the Blind Asylum, building and land, should be acquired. He believed that, stimulated by the munificent gifts, other citizens would be induced to help. The collection that evening amounted to £591, without Lord Strathcona's £500. In responding to the toast of his health, proposed by Lord Winterstoke, the Ambassador of the United States referred to the close connexion his country had had with Bristol, and compared the educational opportunities of the United States with those in England. Mr. Augustine Birrell spoke in his usual happy style and strongly supported the idea of a University in Bristol. Bristol must rely on the energy and generosity of its citizens, and no gifts were more embalmed or consecrated in the memory of a city than those which went to promote its highest education. The Board over which he presided had little to do with universities, but the teachers would be their earliest graduates. They must see that they made the Board's teachers competent. Degrees after all were but tests of knowledge. The primary object of a university was to have professors who could teach students, but the teaching must be thorough and up to standard. Money was not everything, for a poor university might be able to do good work. In conclusion the Chairman introduced the President for next year, Sir William Selby Church, K.C.B., M.D.

Leeds.

ABERDEEN GRADUATES' SOCIETY.

THE West Riding Aberdeen University Graduates' Society held its fifth annual dinner at Leeds on April 5th. This Society was formed in 1901 on the occasion of a dinner given to Professor Stephenson, Professor of Midwifery in the University, by some graduates who were resident in the neighbourhood of Bradford. Dinners have been held at Bradford, Leeds, and Huddersfield, and it has been arranged that in future the dinners shall be held at Leeds and Bradford alternately. On this occasion the chief guest of the evening was Professor MacWilliam of Aberdeen University, and the Society was glad again to welcome Professor Stephenson, who has now been present at all its annual gatherings. A society of this kind is, as it ought to be, a success in the West Riding, where there are upwards of 100 Aberdeen graduates, mostly of the medical profession. It appeals to all patriotic graduates of the University, and has not taken, nor will take, any part i political matters. As honorary members it includes thos who have been present as chief guests, Professor Stephenson, Alex. Ogston, Ferrier, Mitchell Bruce, an Dr. Angus Fraser. To this list is now added the name Professor MacWilliam. The toast of "The University was happily proposed by Dr. Churton, who occupied th chair, and in reply Professor Stephenson gave one of thos delightfully reminiscent speeches which are now regarde as a necessary and appropriate feature of the gatherin In proposing "The Guests," Dr. Wardrop Griffith referre to the excellent work accomplished by Professo MacWilliam both as a teacher and as an investigato Following one of the most brilliant and inspiring of a lecturers—for he was appointed Professor of Physiology o the transference of Professor Stirling to Manchester i 1886—it could be said that Professor MacWilliam had fro the first maintained the high standard of excellence s by his predecessor. During the twenty years of hi tenure of office he had had the gratification of seein enormous developments in the University, and of feelin that he now had under his direction a series of laboratori thoroughly up to date and well equipped in every respe Professor MacWilliam, in his reply, referred to the fort coming greater centenary celebrations in September, an expressed the pleasure with which the authorities of th University had viewed the cordial manner in whic graduates all over the world had taken up the matte Both he and Professor Stephenson were fully of opinio that every one was determined that all should be done secure at Aberdeen a cordial welcome of her sons by the *Alma Mater*.

Ireland.

ROYAL UNIVERSITY.

HIS Honour Judge Shaw having resigned his seat on th Senate of the Royal University as a representative of Co vocation, Dr. J. Campbell of Belfast and Dr. E. Magenn of Dublin have declared themselves candidates for th vacancy.

DUBLIN HOSPITAL SUNDAY FUND.

Mr. Willington Darley presided over the thirty-seco annual meeting of the supporters of the Dublin Hospit Sunday Fund on April 9th.

From the report it appeared that collections were ma in 274 Protestant places of worship. The total amou contributed was £3,765 1s. 11d.

The awards to the various hospitals amounted £3,600, and were distributed as follows:

Sir Patrick Dun's, £295 16s. 1d.; Royal City of Dubli £469 0s. 6d.; Steevens', £104 14s. 10d.; Meath, £402 0s. 6 Mercer's, £251 17s. 3d.; Drumcondra, £45 12s. 6d.; Cooml £95 16s. 3d.; Rotunda, £167 8s. 4d.; Royal Victoria Eye a Ear Hospital, £377 16s. 9d.; Convalescent Home (Stillorga £195 3s. 11d.; Cork Street, £161 17s. 7d.; Adelaide, £502 11s. 8 Monkstown, £139 14s. 4d.; Orthopaedic, £191 19s. 5d.; Natio Children's, £198 10s. 1d.

Among the speakers were Sir John W. Moore, Mr. Drummond, Major Courtney, Mr. Marcus Moses, Thornley Stoker, Rev. J. D. Osborne, Surgeon-Gene Joynt, Colonel Backhouse, Canon Sherlock, and Capta Wade Thompson, who pointed out that it was only Protestant Churches which helped the fund. The va majority of those who gained the benefit of the fund we absolutely unconnected with the raising of it.

THE PROPOSED SANATORIUM FOR CONSUMPTION IN CO

At the monthly meeting of the County of Cork Jo Hospital Board held on April 7th, a letter was read fr the Local Government Board for Ireland refusing sanction the Mount Massey site for the purpose establishing a sanatorium for consumption. T is the outcome of the report of the medical inspec (Dr. Browne) and the engineering inspector (Mr. O'Bri Smyth) on the inquiry held by them with resp to the petition of the Joint Board for a provisional or to enable it to acquire compulsorily the lands m tioned, as well as the application for a loan of £14,500 defray the cost of providing the sanatorium. The Bo considers that the evidence tendered by Dr. C. Theod illiams and others as to the proximity of the site to the wn of Macroom, as well as the want of shelter—the site ing unprotected on the northern, north-eastern, and rth-western sides—form fatal objections to the prosed site. The local branch of the National Associam for the Prevention of Consumption, which in the y and county of Cork has borne the burden and heat of e day in connexion with this movement, were very phatic in their condemnation of the Mount Massey e. It is a matter for regret that the views of an ganization which devoted so much time and thought to e subject should have weighed so lightly with the Joint spital Board, and that the latter should have persered in having their own way in opposition to both pular and expert opinion. Happily, no harm has, so , come, and the local Branch of the Association is to be nked and the whole community heartily congratulated the result.

Scotland.

ASSISTANT GYNAECOLOGISTS AT EDINBURGH ROYAL INFIRMARY.

a meeting of the Managers of the Edinburgh Royal irmary held on Monday, April 2nd, Dr. Haig Ferguson l Dr. W. Fordyce were appointed Assistant Gynaecolots to the Institution. Additional interest was lent to appointments from the fact that in addition to the tlemen named and several other gynaecologists a strong lication for one of the posts was put forward by a eral surgeon.

GLASGOW HOSPITAL SUNDAY FUND.

he report for 1905 shows that the total amount conuted by the churches and Sunday schools was 330 14s. 11d., being an increase of some £30 as comed with the preceding year. The number of churches tributing to the fund increased, but the Sunday schools htly decreased in number. The sum set aside for disution is £4,560, and as in previous years the money been divided according to the number of fullyipied beds in each institution. The result of the cation is that the Western Infirmary receives '19 14s. 10d., the Royal Infirmary £2,194 9s. 8d., and Victoria Infirmary £645 15s. 6d. The last Sunday ovember has been fixed for the next collection, and Committee hope that this year the sum raised may n reach £5,000 as on two former occasions. Owing to extreme inclemency of the weather on the last collec- day the sum obtained was rather under the average. t the infirmaries urgently need all the financial aid can obtain is shown by the excess of ordinary enditure over ordinary income, which amounts in the of the Royal Infirmary to £8,271, in the Western mary to £9,434, and in the Victoria Infirmary to 82.

NEW CORPORATION RECEPTION HOUSE, GLASGOW.

new corporation reception house for the isolation of ll-pox and other contact cases has been opened in d Street, Townhead. It has been erected within the formerly occupied by the Kennedy Street Hospital. portion utilized for the reception house extends to square yards, of which 1,004 are occupied by build-, while the rest of the ground forms exercise courts. total accommodation provides for 190 adults, exclu- of the staff. The internal arrangements are such as readily permit of the building being used for three rent sets of contacts.

THE PREVENTION OF CONSUMPTION AT ABERDEEN.

a meeting of the Aberdeen Medico-Chirurgical Society larch 1st a scheme for the treatment of pulmonary rculosis among the poor was submitted for considera- by a Committee appointed to consider the matter; in result a memorandum was adopted by the Society as a for action, to be presented to the delegates from the Council, the County Council, and the Parish Council inted to confer upon the treatment of pulmonary rculosis. The memorandum is prefaced by an expres- of opinion that there is much to be said in favour of the whole subject of pulmonary tuberculosis being dealt with by the local authorities by the same agencies as other infectious diseases; but failing this, it is suggested that a voluntary local committee should be formed to deal with cases of pulmonary tuberculosis. An institute to consider questions relating to this subject and to take action towards the cure and prevention of the disease is proposed, managed by a Board of representatives from various public bodies and institutions.

The organizations to be represented are (1) the Town Council, the Lord Provost being a member by virtue of his office; (2) the Council of the County of Aberdeenshire; (3) the Aberdeen City Parish Council; (4) the Infirmary Board; (5) the Managers of the Aberdeen Dispensary; (6) the Aberdeen United Trades Council; (7) the Aberdeen Friendly Societies; (8) the Committee of the Morningfield Hospital; (9) the Aberdeen District Nursing Association; (10) Voluntary Subscribers to the Institute; together with the town and the county medical officers of health.

The chief duties of this Board would be to provide for the treatment of cases of pulmonary tuberculosis, to keep cases under observation whilst they are residing in the locality, to arrange for the medical examination of the homes and families of such patients with the aim of preventing the continuance and spread of the disease. Two medical officers would be appointed to advise the Board, to examine patients and to keep suitable records. These officers would also notify the cases to the sanitary authority. A further object of the Board would be the erection of a sanatorium for the treatment of early cases. Provision might also be made for the dependents of poor patients not paupers whilst such patients were in the sanatorium. The Board would also endeavour to provide suitable employment for cases discharged from the sanatorium.

The scheme is a very good example of the organization required if the prevention of consumption is to be undertaken by voluntary local societies.

New South Wales.

WOMEN RESIDENT MEDICAL OFFICERS IN GENERAL HOSPITALS.

FOR the last year or two there has been considerable discussion as to the appointment of women medical officers in the general hospitals, but hitherto no woman has been appointed a resident medical officer of any of the large general hospitals in the city of Sydney, though Dr. Ada Affleck, a graduate of the Sydney University, was one of the residents at the Coast Hospital for some two or three years, and discharged her duties with every satisfaction. Some time ago, however, as was stated in these columns, the Board of Directors of the Royal Prince Alfred Hospital resolved that, other things being equal, it was prepared to appoint a woman resident medical officer, subject to the confirmation of the Conjoint Board, composed of the Directors of the Royal Prince Alfred Hospital and the members of the Senate of the University of Sydney. The selection of resident medical officers is made annually from new graduates by a small Committee composed of the Dean of the Faculty of Medicine, the Secretary of the Medical Staff, and the Medical Superintendent of the Hospital. This year the Committee selected five male and one female, and in accordance with the usual custom these graduates took up their positions in the hospitals, although their appointment had to be confirmed by the Conjoint Board. Hitherto this has only been a formal matter, the Board being satisfied with the selection of the Committee, but on the present occasion the Board was not disposed to pass this over as formal business, inasmuch as it had not had an opportunity of discussing the general question of the appointment of a woman resident at the hospital. After considerable discussion the Board, by a majority, refused to accept a lady doctor, and she was therefore obliged to leave the hospital. Naturally, a great amount of public discussion has taken place over this action, and sympathy is felt for the lady, Dr. Jessie Aspinall, in the unfortunate position in which she has been placed through no fault of her own. Technically speaking the Conjoint Board was within its rights in refusing to confirm an appointment which was a new departure in the working of the hospital; nevertheless, it is felt that under the circumstances it would have been a kindly act for them to have confirmed the appointment temporarily, and to allow of a fuller discussion of the subject later on. The matter is still under consideration, and the Board of Directors, with a view to meeting the objections which have been raised as to the propriety of women residents attending on certain male patients, has drawn up a regulation, prescribing the duties of such women resident officers in the event of their being appointed. It is possible that this new regulation will remove the objections of some members of the Conjoint Board, and that Dr. Aspinall may be reinstated in her former position. It has been pointed out that it is hardly consistent to allow female medical students to complete their course of study, and obtain their degrees, and then prevent them from obtaining the necessary practical experience which can only be acquired in a large hospital.

Bubonic Plague and Rats.

No case of plague has been reported in Sydney for several months, but last month Dr. W. G. Armstrong, the City Health Officer, reported that five carcasses of rats found on two distinct premises were infected with plague. The premises were situated at some distance from each other, and in view of this apparent widespread infection amongst the rats, Dr. Armstrong has constituted a cleansing gang of five men thoroughly to examine all the produce stores in the neighbourhood, while the President of the Board of Health, Dr. Ashburton Thompson, has induced the Board to have a special cleansing of certain portions of Darling Harbour District. It is believed by some that this is a new infection of the rats and that the infection has been brought from New Caledonia. Although plague was known to exist in Noumea for several months no official notification of its existence there was made to the Board of Health. Nevertheless vessels arriving from Noumea have to submit to the restrictions that are always placed on vessels ariving from an infected port.

Advantages of the Australian Climate.

A small pamphlet has just been published anonymously by W. Brooks and Co., of Sydney, on the advantages of the Australian climate. The title of the booklet is sufficiently comprehensive, for Australia is a big place, and is so situated that one may pass from tropical heat to subtropical and temperate regions. The climate of Tasmania, for example, is not at all unlike the climate of England, while that of the northern parts of Australia is so hot that white people can scarcely live and work. At present the State of New South Wales is experiencing anything but a pleasant summer, intense heat inland, with droughts and bush fires, all tending to drive the inhabitants to the sea coast for change and recreation. Along the coast line, while the temperatures are not so high, the humidity of the atmosphere is very high, and a comparatively low temperature feels almost unbearably hot. These are some of the unpleasant sides of the summer climate in some parts of Australia, but those who are anxious to learn something of the other side of the question and to learn about the special features of the Australian climate and the advantage it confers upon man, animals, and on agriculture, may consult this book. There is no doubt that some parts of Australia have an ideal climate for tuberculous subjects, the degree of warmth and dryness of the air favouring a complete outdoor life.

Vital Statistics.

The population of Sydney was estimated to be 529,600 on December 3rd last year. Of this number the city of Sydney contributes 118,100, and the suburbs 411,500, this being an increase of 11,030 during the year. The number of marriages and the rate—9.43 per 1,000 of the population—are, with the exception of the year 1902, the highest on record. The birth-rate was 26.27 per 1,000 of the population; this is the highest since 1896. The death-rate was 11.01 per 1,000 of the population, this being the lowest on record. This low death-rate is attributed to the decline in deaths from infantile diseases, and this may have been due to the cool weather in the second half of the year. The improved state of the birth-rate is maintained during the first two months of this year. During January the birth record was 40 above the average for January during the previous five years, while during February the birth record was 26 above the average for February for the past five years. The decline in the infantile mortality-rate i also well maintained. In January the number of death of infants under 1 year was at the rate of 106 per 1,00 births, this being the lowest for that month during th last ten years. In February the infantile death-rate wa 114 per 1,000, which, with the exception of that during th month of February, 1905, is the lowest for that mont during the past decade. This reduction in the infantil mortality-rate must be attributed to the efforts of th health officials in securing the highest possible degree cleanliness in the milk supply, and also to the effort made to instruct mothers in the proper methods nursing and feeding their infants.

Chemists and the Early Closing Act.

Australia is overburdened with legislators and legisl tion, and in 1901 an Act was passed to compel sho keepers to close their shops at certain hours, thes differing with the different classes of trade. The pharma ceutical chemists were not exempt from this Act, and is somewhat amusing to read the official notice of wh goods may be sold up to 9 p.m., the closing hour, and wh may be sold up till 10 p.m. The following may be sold u to 9 p.m.: Toilet requisites, perfumery, toothpicks, bat gloves, spirit lamps, tooth-stopping, elastic stockings, an dyes. After 9, and only up to 10 o'clock, the followi may be sold: Bed-pans, artificial teats, feeding cups a bottles, sprays, douches, measure glasses, infants' food sponges, thermometers, syringes, plasters, patent pr prietary medicines, lint, cotton-wool, medical dressing tabloids, enemas, compressed herbs, ointments, ban ages, liniment, chemicals, and surgical appliances. chemist in the country sold some Odol, a tooth-brus and some camphorated ice at a quarter past ni one night. This was considered a breach of the A and he was fined 20s., with 6s. costs. This is a go illustration of the sort of tyranny exercised by the labo unions through Parliament in this country, and wh English people may expect before long if the Parliamenta Labour Party are allowed to have their own way.

LITERARY NOTES.

Messrs. Constable are about to issue a new book Professor Osler entitled *The Fixed Period.* The book co sists of a series of valedictory addresses delivered by hi before he left America, and it is named after the first these, in which the Regius Professor of Medicine in t University of Oxford made his famous pronounceme that a man's best work is done before he is forty.

One or two correspondents discuss the question rais in a paragraph entitled "'General Practitioner' 'Doctor,'" which appeared in the British Medic Journal of March 31st. Dr. Louis Vintras sugge "medician" as a word to denote a person who practi medicine. It would, he says, be free from ambigui and, moreover, would not clash with any existing p rogatives. "Medician," as may be learnt from Murray's *New English Dictionary*, is an old word, whi like "medic" is now obsolete. Neither of them is, think, to be regretted. Our literary conscience will suffer us to say of "medician" as Mr. Justice Shall said of "accommodated," that it is "very good; a g phrase." May we point out that our proposal to ad the word "doctor" touches no question of prerogative any kind? The word used as we suggest is simply description, not a title. Neither colleges nor universit can control popular usage, and our proposal went further than that, for want of a better word, we sho accept the word "doctor" as a general term for a medi practitioner. It is shorter, and we think we showed t it is better English. But to speak of a man as a "doct gives him no right to prefix to his name the title "Doctor."

From an editorial announcement which appears *American Medicine* of March 31st we gather that Philadelphia contemporary is about to undergo a me morphosis from a weekly to a monthly journal. I stated that a new series is to be published at a pop subscription price, "with no lowering of scientific, p fessional, or literary standards, but under conditions m in accord with recent developments in the professi Under the guidance of its distinguished editor, George M. Gould, *American Medicine* has always maintai he highest standard of professional independence and stood or all that is best in medical thought and aspiration. Vhile we regret the disappearance from the somewhat iotley crowd of American weekly journalism of a force iaking for professional righteousness, we cherish the ope that in its new development *American Medicine* may ield an even greater influence for good than it did before. s long as its policy is directed by Dr. Gould we have no ar that it will decline on a lower range of feeling or rinciple. He has, like Gregory, a "swashing blow," and in future he strikes at whatever is mean or of evil pute less frequently, the stroke of his Excalibur will, we oubt not, be all the heavier.

The immortal Crummles wondered how a statement iat he was not a Prussian got into the papers. We are minded of this by a letter which we have received from r. H. Kornfeld, of Gleiwitz, Silesia, who takes us to task r having said that Copernicus was a Prussian. But in is case we know too well how the thing got into our iper. We were misled by the *Encyclopaedia Britannica*, rather perhaps by our own hasty reading of that thority. It states that the Father of modern astronomy is born "at Thorn in Prussia." Dr. Kornfeld points out at in the fifteenth century Thorn was a city in West ussia, then a province of Poland. Nicolaus Koppernigk, erefore, was a Pole, a fact for which, by the way, we have s own authority, as he inscribed his name on the roll of e University of Padua as "Copernicus Polonicus."

Dr. Santini, the member of the Italian Chamber of puties whose name is associated with the campaign the exclusion of foreign doctors from Italy, has been object of what, to us at any rate, is a novel term of use. The other day another honourable member, inting the finger of scorn at him, called him "a eopteron." Mr. Harry Furniss used to represent a hly esteemed official of the House of Commons as a tle, but we are not aware whether there is anything in Onorevole Santini's personal appearance that may gest to those who have an imperfect appreciation of his r qualities that he should be classified among the eoptera. That the insult was out of the common run of eign parliamentary scurrility may be gathered from the that its utterance threw the Chamber into most nired disorder. It is probable that the most tolerant aker of the House of Commons would draw the line "coleopteron," and he might plead legal authority for iting the expression as unparliamentary. Did not ef Justice Maule once beg the aggressive counsel who rwards became Lord Westbury to treat the Court at t with the respect which the Almighty might be supd to feel for a black beetle?

r. C. N. B. Camac, a faithful disciple of Professor r, has for years made it a labour of love to collect acts from the master's lectures and addresses. Then rally came the idea of sharing the benefits of his nings with others. At Oxford in the summer of 1905, er Professor Osler's guidance, the idea became erialized into a book which was published under the of *Counsels and Ideals* (Henry Frowde). By way of tispiece to the book there is a facsimile of a letter in h Professor Osler says to Dr. Camac: "In the teacher ve always valued the message of the life above the sage of the pen, but if you think a mosaic of scrap my addresses, etc., would be of any service to young please do what you wish about it." The "scraps" are d enough. Dr. Camac tells us that all Dr. Osler's ings have been consulted. Many of them are from olume entitled *Aequanimitas*, which was reviewed not ago in the Journal. Professor Osler is always ome even in "scraps," but we cannot help feeling his essays lose much of their value as intellectual iment by being minced up into small pieces. To who know their Osler, Dr. Camac's book, which can rned over in idle moments, will serve to recall points e Professor's teaching and to freshen the recollection vourite passages. To others it will be useful if it s them to the original source.

. Cullingworth has issued in book form (London: y J. Glaisher) the address entitled *Oliver Wendell es and the Contagiousness of Puerperal Fever*, delivered e Trowbridge Division of the Bath and Bristol ch on October 28th, 1905, and published in the ish Medical Journal of November 4th. In an ndix is given a biographical sketch of Dr. Alexander Gordon of Aberdeen, in whose *Treatise on the Puerperal Fever*, published in 1795, the contagious character of puerperal fever and its intimate relationship with erysipelas are clearly set forth. A copious bibliography of the whole subject is added. All who are interested in one of the most striking incidents in medical history will welcome the republication of Dr. Cullingworth's admirable essay.

SPECIAL CORRESPONDENCE.

PARIS.

Treatment of Tuberculosis by Lime Salts.

At a recent meeting of the Société Médicale des Hôpitaux, M. Paul Ferrier made an interesting communication on the treatment of consumption by recalcification. Having noticed that patients who were cured showed pronounced calcification of the teeth, and other patients with teeth showing decalcification in evolution were rapidly nearing a fatal termination of their illness; considering also that in *post-mortem* examinations cured tubercle was found calcified, and that phosphaturia was found at the onset of the disease and in the predisposed, M. Ferrier was led to calcification as his line of treatment in consumption. Phosphaturia, and decalcification being synonymous, M. Ferrier assumes that an acid or acid salt alone can destroy the enamel and ivory of the teeth, and dissolve the salts in the bones. Among the agents which may be looked upon as possible causes he enumerated inorganic acids (hydrochloric, phosphoric, sulphuric) or their salts, acid phosphates and sulphates; or organic acids, taken in fruits (oranges, lemons, etc.) or formed by fermentation in the stomach (acetic, lactic, butyric acids). While it is easy to forbid a patient to put acids into his stomach, it is not so easy to discover the nature of a fermentation in the stomach, but in any case the cause must be looked for when the teeth showed acute caries. In addition to instances in which the drinking water lacked lime salts, the cause might be found in the non-evacuation of the stomach, due to meals not being taken sufficiently far apart (the first meal causing a premature fermentation of the following one), and also in the use of a certain number of substances which paralyse (wine, beer, cider, alcohol, butter, fats, and oils) or which ferment, as do some of these articles, and sugar pastry, and bread itself when made with yeast. Any one of these might cause true phosphaturia, and when their importance was recognized few cases of essential and nervous phosphaturia would remain.

A glass of water taken several hours after a meal left the stomach in half an hour, and was therefore an excellent means of emptying the organ before a meal and the best "apéritif"; but to clean a stomach containing an acid residue a base must be employed, and this should be lime not soda. St. Galmier water was the commonest type of such a water, containing a high percentage of calcium bicarbonate to restore the mineral waste of the organism. M. Ferrier in cases of tuberculosis does not give soluble salts, which pass away through the kidneys. The waste will be repaired by utilizing the hydrochloric acid of the gastric juice to render soluble and introduce lime into the organism, instead of giving it prepared and soluble. He forbids acids in any form, directs that the meals shall be taken at sufficient intervals, and regulates the *menu* according to the ideas given above; he gives a glass of water with a strong percentage of calcium bicarbonate half an hour before each meal; in addition, prescribes carbonate and tribasic phosphate of lime (0.40 gr.) and sodium chloride (0.35 gr.), to be taken three times daily with or after meals. By this means the food does not stay too long in the stomach, fermentation is stopped, and the digestion is restored in a surprising way, the blood regains its coagulating and plastic properties, and lung lesions of the first and second degree are rapidly and favourably modified. Even cases in the third stage, when the lesion is not very extensive, derive prompt benefit from this régime. The rapidity of improvement shows that the treatment answers a real hunger in the organism; when the stomach is incapable of transforming into chloride a sufficient quantity of lime salts, it is necessary to administer this salt all ready to take the place of this deficient function which is too often overlooked. The less advanced cases benefit more than the others from this addition to the treatment. If an aggravation occurs, before putting it down to the vagaries of the tubercle, errors in diet which may have caused a temporary decalcification should be looked for. In hospitals especially oranges play a very pernicious part. Water containing lime sulphate must be avoided. The use of milk must also be watched from the point of view of lactic acid production. Corroboration of the argument is found in the fact that, in all the maritime or other resorts known to give favourable results in tuberculosis, bicarbonate of lime is present in the drinking water.

Dr. Emile Sergent said that during the last eighteen months he has employed this treatment in a large number of cases, and although he began with much scepticism, he had come to apply it in all cases. This method, which did not exclude either the rest or air cures, or the use of balsams, especially creosote, had the great advantage of avoiding hyperalimentation, which was often badly supported, and did away with the abuse of fats, great factors in acid fermentation. It was simple and easy, and always readily accepted by the patient. Of all treatments, it gave the greatest number of successes. The digestive functions rapidly improved, the appetite returned, the strength increased, and the sweats disappeared.

The majority of cases increased in weight in a surprising way, some as much as 4 to 6 lb. in a fortnight, due, he considered, to the restoration of the digestive functions, and the better assimilation than when overfed. The sputum diminished, and the local lesions improved.

Dr. Renon also reported favourable results in cases treated in hospital. In support of the value of lime, he cited the town of Vermenton, in the Yonne department; since lime kilns had been started, the white dust covered everything and entered the houses, and there had been no tubercle among 200 workmen employed in this dusty occupation, although alcoholism was very common. Moreover, tubercle was less prevalent in the district since the lime kilns were started.

CORRESPONDENCE.

THE SELECTION OF CANDIDATES FOR THE GENERAL MEDICAL COUNCIL ELECTION.

SIR,—In a footnote to the letter of Dr. Alfred Cox published under the above heading on page 829 of the BRITISH MEDICAL JOURNAL of April 7th you say, in reference to the forthcoming election: "There seems to be no reason why the Association should not nominate three candidates." Permit me, Sir, to say that in my opinion there is a sufficient reason why the Association should not nominate, or even consider, the expediency of nominating three candidates—it is not in the bond. The scheme as agreed upon, and accepted by, those members who have come forward as Association candidates, and rejected by myself and others, who intend to offer ourselves as independent candidates, distinctly provides for the nomination of "one or two" candidates, notwithstanding the fact—unless I have been misinformed—that the delegates present when the scheme was agreed upon knew that Sir Victor Horsley had intimated his intention to retire before the expiration of his term of office, so as to leave the third seat vacant at the next election. I have been told that at that time there was no intention to monopolize the whole of the seats for nominees of the Association. I venture to suggest, therefore, that the twelve thousand or more medical practitioners in England and Wales who are not members of our Association might well complain if at the last moment our Divisional Representatives decide to attempt to take from them all three seats. I cannot think they would sanction such a breach of faith, or be parties to such a tactical blunder.—I am, etc.,

GEORGE BROWN,
One of the Direct Representatives for England and Wales and Vice-Chairman, Devonport Division.
Mount Lodge, Callington, Cornwall, April 7th.

HOME HOSPITALS.

SIR,—Sir Henry Burdett's scheme to supply home hospitals for the classes who are unable to pay the fees charged by private nursing homes, is one deserving of our sympathy if it can be worked without injury to th medical profession, but I do not know what he means b saying "the co-operation of the medical profession wi be necessary to the extent of an agreement between thos consultants who may be willing to attend patients of thi class at a reduced fee on a scale similar to that arrange at Birmingham." I have acted for some years as Chai man of the Consultants and Specialists Committee whic came into existence when it was necessary to oppose th scheme to establish a Consultative Institute in this cit and so far as I know no such scale of fees was eve arranged. We contended from the beginning that we ha always been willing to see bona fide working men reduced fees, and some sixty consultants and specialis agreed to see in our own rooms any member of th Ebenezer Provident Sick Society, a society numberi some 12,000 or 13,000 members, for half a guinea; i practice this is extended to any working man who stat that he is unable to pay the usual fee. I see some dif culty in arranging a scale of reduced fees for hom hospitals, which offer the highest medical and surgic assistance. In America we hear of presidents of ban and railroads taking advantage of similar establishment and there are plenty of mean people in this country, too

The insurance scheme is the right solution, as by it a man of moderate means should be able to provide again the risk of having to undergo an expensive surgic operation, and there should be no difficulty about drawi up a fixed scale of fees acceptable to the profession wit out involving any reduction of the recognized standard.

Sir Henry Burdett should, however, develop his schen further before asking the medical profession to express opinion on its merits. It is essential that the financ basis should be sound, so that these patients should n receive help directly or indirectly from charitable fun intended for the poor or make an additional claim up the already sufficiently-burdened medical profession. I am, etc.,

Birmingham, April 7th. ROBERT SAUNDBY.

VOLUNTEER MEDICAL ORGANIZATION.

SIR,—I look upon the appointment of the propos Committee on Volunteer Medical Organization by t Central Council of the British Medical Association a step in the right direction, and one, in fact, without whi there seems to be no possible chance of progress, but means of which I believe that just now very importa reforms in our branch of the service may be broug about.

It must be apparent that the authorities cannot h us unless we make an effort to help ourselves by s mitting our united views and desires to them.

The vast improvement in the army medical serv itself ought to make us feel proud of being in any w connected with it, and determined to follow its exam as closely as we can, for the credit of our own serv and the good of the State. We must realize, too, t success in such laudable imitation is not to be attai by a change in uniform alone, but by study and pract by every one of us all the year round—not for a week fortnight, ending with a paltry examination.

Since the regimental medical officer has been abolis in the regular army and almost in the militia, I hope will be unanimous for his abolition in the volunteer fo and I submit a scheme for his rescue and absorption which I have been trying to work in my own brigade. the regimental stretcher-bearers are also abolished in army, they, too, will have to go in the volunteers, and object is to preserve and utilize the disestablished med officer and his stretcher-bearers by transferring then the independent medical unit of their brigade—up to the bearer company. But the bearer company and field hospital have been abolished in the army in fav of the field ambulance, and the present time I bel would be opportune to apply for a similar change in volunteers.

By the means I propose I believe that the full establ ment (192) of one of these units could be ea maintained by the 6 brigades which contain 7 battali each and the 5 containing 6 battalions. Of the remair of the 46 brigades, there are 13 of 5 battalions, 19 and 3 of 3 battalions each, and I would suggest these should only aspire to a modified field ambula al to two bearer companies—namely, 128 officers, -commissioned officers, and men, or two-thirds of full field ambulance strength, and having two sections, tead of three. Forty-two of the 46 volunteer infantry gades have bearer companies each with a staff geant instructor of the Royal Army Medical Corps, ose time is very far from being fully occupied in itary duties, and I propose to utilize his services all nd.

o form a modified field ambulance I shall require 1 tenant-colonel, 1 major, 4 captains or subalterns, and uartermaster, 1 sergeant-major, 8 sergeants, 6 corporals, uglers, and 104 men. To obtain these, in addition to existing bearer company, I propose to ask the medical cers of each of the four battalions in my brigade to ct one of their number to join the field ambulance, be ne on its strength, and adopt its uniform, towards the of which he will obtain the £20 outfit allowance. I want a sergeant and 18 of his stretcher bearers to join him and be equipped with R.A.M.C.(Vols.) uniform, by the medical unit, to which all capitation grant ned by the transferred officers, non-commissioned ers, and men would be paid. My sergeant-instructor visit the four subsections at their own head quarters a week for drill, etc. The subsection officer and his eant should visit the field ambulance head quarters a week or as often as possible, until both are comnt by practice to drill their own men.

ich battalion may not be able to contribute so many at first, but I have no doubt the officer, who would have real command over his men, his sergeant, and men themselves would take a new pride in their unit, soon recruit up to the strength required in their hbourhoods. The commanding officer of their alion would be compensated for the men's khaki rms and a fair contribution be paid annually towards -quarter expenses, but they would lose the capitation t earned by the officer and men, a loss they ought to cheerfully in view of the improved organization for iding efficient medical attendance for themselves and men.

e more medical officer could be absorbed as quarterer, while the remainder, with a little elasticity in ations, could be borne on the strength as superraries of the reserve, all taking turns at drill, and ing first aid. The commanding officer of the new should have the assistance of the adjutant of the st company R.A.M.C.(Vols.) in his command, and officers should have drawn up for them at the dépôt ular course of study and instruction (with list of of reference) for volunteer medical officers of all , and the latter should pass an examination equivao the P.S. at the end of twelve months for the full allowance.

large brigades will have to be provided with extra ant-instructors at first. The most pressing want of bearer companies is suitable independent head ers, and this will be accentuated in the increased al unit. Their acquisition would absolutely insure rmanent success of the volunteer medical service, vith these dépôts secured we could look forward onfidence to the beneficent career of these medical studded about the country as efficient and connt schools of instruction for all civil surgeon ists and officers and men of the volunteer medical e—healthy and vigorous centres of ossification to the cartilaginous section of our corps.—I am, etc.,

John J. de Zouche Marshall,
Lieutenant-Colonel R.A.M.C.(Vols.),
ington, April 9th. Commanding E. Surrey Bearer Company.

E POOR-LAW COMMISSION AND CONTRACT PRACTICE.

—The letter signed "For Contract Work" appearing r last issue bears the stamp of insincerity on the it, and is evidently written by some one who knows g about general practice and contract work. It is irely fictitious production and is a cruel misrepreion and a parody of the real conditions that exist. ever heard of a general practitioner "toadying" pocketing his self-respect to push himself into s socially above him"? As a rule the boot is on the leg. In most districts if the medical man is a man all classes are glad to welcome him, but I can quite imagine that there are certain men who may have difficulty in gaining admission into good society, and it is such men who are the curse of our profession and who prevent any union and oppose all efforts for reform.

The writer also refers to his experience of private practice as "the continual worry of a large number of women private patients with their children and families, the incessant calls . . . and often for small things." Is this not a striking picture of ordinary club practice? But how lucky this practitioner ought to have considered himself in getting all this work. If he charged the usual fee of a minimum of half-a-crown surely by this time he might have retired altogether and be free from the worry of a doctor's life for which he was never originally fitted. I fear he did not charge them enough—perchance he kept a sixpenny dispensary himself! I can quite imagine him giving up so-called private practice in disgust.

Now, he states he has a club practice, and "he gets no night work," and is "free from the worries inseparable from private practice." Lucky man! most practitioners find that club practice gives them more worry than any other form of practice, and that club patients give more trouble than any one. Can he really be serious in his statements?

Then later on he says, "working men with families to provide for cannot afford to pay for each visit and medicine during an illness of some weeks' duration, therefore there must be contract practice." What a gratuitous assertion, and how sweeping! In my experience there are very few patients who, in a prolonged illness, can pay for each visit, or who, if they could, care to adopt such a system. Medical practice could not be carried on at all if no credit was given, nor could any business or profession. It is nonsense to ask a working man to pay ready money for his medical attendance in all cases, and is only adopted by the "sixpenny doctor." If "For Contract Work" will adopt the system of receiving payment by instalments, either by means of a debt collector or otherwise, he will find, as I do, that a working man with a family is quite as able to pay his doctor's bill as any other person. This bogie of the working man's inability to pay a bill is out of date. The working man is better off than anybody, except, of course, when he is out of employment, which among skilled mechanics and reliable men is not so frequent as many would make us believe.

Another correspondent asks by what means the families of labourers earning 12s. to 14s. a week are to be treated without clubs. My answer is that it is not always a case of the amount of wages. House rent, garden, cost of living, etc., come into play, and I would remind him that a labourer earning 14s. a week (a most unusually low wage) is just as well off as another earning £1 or more if the above considerations are taken into view. I have known working men earning a little above this sum (say 18s. a week) who pay their bills readily, and in the same place there are others earning double the amount who pay nobody, and who belong to the 1d. or ½d. a week club. The balance goes in beer and wasteful living, and such a line of conduct is directly encouraged by the so-called charity that is so fond of parading itself nowadays. He considers it *infra dig.* to send in a bill of £6 or £7 to an agricultural labourer. Why is it? It may be unwise, but surely there is no loss of dignity about it, and it may have the effect of keeping that patient away from his surgery for a time.

I am sorry to trespass so much on your space, but this club question must be threshed out, and no hastily-considered remedies adopted such as those recommended by the Medico-Political Committee. They have failed entirely to realize what the general body of practitioners think and feel about club work. It is useless to look for any local agreement except in certain localities. The lack of friendship and want of *esprit de corps* in many parts is appalling, and fatal to any reform.

Let the British Medical Association select men to represent them on the General Medical Council who are pledged to make it infamous conduct for any practitioner to act as a blackleg, and to accept appointments of a derogatory nature and contrary to the general interests of the profession. And, above all, let us get the Medical Acts Amendment Bill passed. It would be a distinct gain to our Association if it spent some thousands of pounds in getting it through Parliament.—I am, etc.,

March 19th. Anti-Club.

MIDWIFERY OF THE PRESENT DAY.

Sir,—I have read with great interest Dr. Horrocks's address on the midwifery of the present day in the British Medical Journal of March 10th, and with all the deference which every one, especially an old Guy's man, as I am myself, must give to his views on the subject, I cannot help thinking that he carries the doctrine of non-interference somewhat too far. Summed up briefly, one is forced to come to the conclusion that in at least 90 per cent. of his cases a medical man can do no good, and may very likely do harm—a somewhat discouraging reflection for those of us who have to spend many a weary hour by night and day at the bedside of women suffering pains which, though no doubt perfectly natural, are nevertheless often terribly severe. There are one or two points in which it seems to me that it would be difficult to carry out Dr. Horrocks's advice in general practice.

For instance, with regard to vaginal examination. Of course every one must agree that the less these are made the better, but at the same time if one is to leave a case to linger on indefinitely, with an occasional call to ascertain how the patient is getting on, I must confess that to me it seems almost impossible to form any accurate idea of the progress made without a vaginal examination at each visit, and even then I frequently find my prognosis wrong.

Then again as to chloroform, while certainly not upholding its use as a routine practice in all cases, I am sure that in many cases a small amount given during the pains in the later stages of labour does give an immense amount of relief, and in some cases—for example, when there is a rigid os or perineum—I believe that so far from retarding delivery it actually accelerates it.

I am rather glad to see that Dr. Horrocks does not advise washing out the infant's eyes, except in special cases, for I have never adopted the practice myself systematically, but I have a vivid recollection of a meeting of the West London Medico-Chirurgical Society some years ago at which the subject was thoroughly discussed by several well-known authorities, and the conclusion they arrived at was that whatever else might be done or left undone the one thing needful was thorough swabbing of the eyes with some antiseptic lotion.

But the most important part of Dr. Horrocks's address is that which relates to the use of forceps. Now, leaving out of consideration all those abnormal cases in which instrumental assistance is a matter not of choice but of necessity, I cannot help thinking that there are many cases of unduly prolonged labour in which the use of forceps is an immense boon to the patient; cases, I mean, in which the head is fairly low down, and the os dilated, and yet, in spite of severe pains, there is little or no progress, and the patient is getting worn out with fatigue and suffering. In such cases I have frequently used forceps (under an anaesthetic) with, I believe, excellent results. Of course, I quite admit that in making the decision a medical man is apt, perhaps unconsciously, to be influenced by his own convenience as well as by the good of the patient, and if I am ever tempted to do so in the future I hope that Dr. Horrocks's advice will not be without its effect.—I am, etc.,

Ealing, March 29th. A. L. Scott.

Sir,—Dr. Horrocks, in his interesting paper, misses one very important point. The modern middle-class educated woman neither can nor will bear pain as her mothers did. They see no necessity for it, and, after all, why should they?

If a young man starts practice imbued with Dr. Horrocks's ideas, he will not be able to make a provision for his old age if even a living. Practice goes by favour and recommendation. I fear ladies will not be scientific enough to recommend the obstetrician who comes and looks at them, tells them in an airy manner that pain is only a natural phenomenon, and leaves them in agony for perhaps days. I very much doubt whether that young gentleman would be allowed to witness even the termination of the labour; a more accommodating or humane practitioner would soon be in attendance.

Again, with regard to the falling birth-rate, how often does one hear to-day the exclamation from women—"Nothing would ever induce me to go through with it again"—even after her sufferings are mitigated with chloroform and forceps. I think now that the knowledge of how to prevent conception is common property to all, if Dr. Horrocks's views are ever brought into practice, the young generation of students need not trouble to learn obstetrics, for the excellent reason that there will not be any to practise. Woman has now revolted against the theory that woman is morally bound to suffer and that man should have all the pleasure while she should have all the pain.

Indeed, Dr. Horrocks's theories seem to me almost a return to the barbarism of the Middle Ages.—I am, etc.,

Boscombe, April 9th. Arthur M. Thomas, M.D.

ETHYL CHLORIDE AS A GENERAL ANAESTHETIC

Sir,—I have followed with much interest the recent communications to the British Medical Journal upon the subject of ethyl chloride, and particularly the suggestions made with a view to minimizing its undoubted lethal potency.

One would naturally hope that by using initially a weak vapour and very gradually increasing its strength, an opportunity would be afforded of following step by ste the successive stages of anaesthesia, but, in my experience such a procedure leaves a good deal to be desired. The subjective results obtained under the conditions mentioned may be excellent up to the point of the loss o consciousness, but thereafter ensues an unpleasant liabilit to a varied degree of excitement. This may occasionall manifest itself in the form of powerful muscular contractions which may be further complicated by a protracted suppression of the respiration and marked cyanosis, and suc phenomena are too reminiscent of certain features attending one class of recorded fatalities to be encouraged. Thi more or less intense excitement appears to be the outcom of the continuous inhalation of a weak vapour, and th apparently more crude, but certainly more popula method of resorting *ab initio*, or as rapidly as possible, t a concentrated vapour yields unquestionable better and, believe, safer results. I may add that the valuable observations made by Dr. Hewitt[1] with standardized vapou strengths largely tend to support this view.

A condition of imperfect narcosis has evidently in som cases accompanied the asphyxial type of fatality mentioned above, but there is a second type in which th patient passes quietly from a deep anaesthesia to deat as a result of simple overdosage, and as a gradually pr gressive administration is impracticable, the exercise the utmost vigilance is imperative.

Mr. Bellamy Gardner has indicated that the administr tion of ethyl chloride is peculiar in involving a process "single dosage." It is generally agreed that the mos effective method is that in which the vapour is inhale from a bag, and that a quantity generally termed "th dose," of about 5 c.cm. of liquid ethyl chloride must vapourized in this bag. Of course, the term "dose should be properly reserved to that portion of the vapou which becomes actually absorbed into the body, and th dimension of this moiety is largely controlled by the rel tion of the working capacity of the bag to the total amou of the vapour formed, or in other words, it depends up the concentration or so-called "tension" of the vapour the bag. A certain high concentration is requisite order to introduce an effective volume of vapour into th circulation with sufficient rapidity, but this may equally well attained with a comparatively small quanti of ethyl chloride, provided that the capacity of the bag proportionately small. It is obviously better to wo with the smallest efficient quantity of vapour, and ther fore I think that too much attention has been bestow upon the bulk of anaesthetic used, and too little on th size of the bag and the degree to which it is inflated.

If we assume that any vapour at a tension of ov 20 per cent. is rapidly absorbed, and that the absorpti becomes slow when the concentration has fallen bel 20 per cent., then if 900 c.cm. of ethyl chloride vapour administered in a 3,000 c.cm. bag—thus yielding a 30 p cent. concentration—300 c.cm. of the vapour, which will further assume to be an efficient body dose, will rapidly absorbed; by the abstraction of this 300 c.cm. t vapour tension in the bag will have fallen to 20 per cen and the absorpton will tend thenceforth to progress on slowly, and anaesthesia to deepen less rapidly. In ord however, to attain a similarly effective tension of 30 p

---

[1] *Lancet*, November 19th, 1904.

t. in a bag double the size, 1,800 c.cm. of vapour ld be required, and then no less than 600 c.cm. of our would be available for rapid absorption before the our tension would be reduced to 20 per cent.—that is ay, double the efficient dose would be liable to rapid orption.

hese figures are, of course, entirely arbitrary, and the iciple has been very broadly stated; but it is suffi- tly clear that, given two bags of different capacity but contents at an equal vapour tension, then the ller bag, whilst being equally efficient, acts as a safe- rd against the introduction of an excessive dose. The position thus stated appears almost self-evident, yet matter has had only the most casual recognition; it ertainly worthy of more extended consideration, and ay suggest as a practical working basis that the size of bag employed should be the minimum which is con- iently suited to the respiratory capacity of each indi- ial; in this way it becomes feasible to exercise the aution of economizing the amount of anaesthetic used he lowest margin of efficiency.—I am, etc.,

ndon, W., April 2nd. A. G. Levy.

---

r,—The five fatal cases quoted by Dr. McCardie rd ample warrant for his conclusion that "we should nitrous oxide whenever it be reasonably possible," ng that in at least three of those cases—the first, nd, and fourth—the cause of death remains xplained.

iere must be some danger in the use of ethyl ride, the exact nature of which is still obscure, so we are, as yet, unable to guard against it. Dr. ardie seems to hit the nail on the head when he ks of the liability to over-dosage due to "the rapidity which the various phases of narcosis pass by."

experience of about 1,850 administrations of ethyl ride (besides 1,700 of somnoform) has led me to the lusion that the length of the induction period is an mportant factor. For the successful administration of l chloride, removal of the mask at the right moment ore than half the battle, and the period of induc- is much more important than the precise exhibition ny given number of cubic centimetres of the drug. I herefore at a loss to understand Dr. Astley Knight's lusion that "the depth and length of anaesthesia ined with ethyl chloride is proportionate to the amount duced into the system, and *is not affected by the period uction*" [the italics are mine].

experience has always been that full doses and mal periods of induction give the best results. May ate a case in support of my opinion? I once poured tain amount of ethyl chloride into a Clover's bag, fitted the bag on to the "Clover" for the patient to le. To my surprise the patient began to snore almost ediately, and on looking at her eyes I saw the pupils ed, the eyeballs deviated downwards and fixed; and esting obtained no corneal reflex. The ether was d on, the bag removed, emptied of ethyl chloride and lied, and the anaesthesia proceeded normally. wards I found about 12 c.cm. had been poured into ag.

agree with Dr. Knight in attributing subsequent ea and headache to overmuch re-breathing, and d go further, and suggest that overmuch re- hing is often the cause of spasm, convulsions, osis, and arrest of respiration. I seek to avoid these backs by giving the ethyl chloride in a very dilute at first, and after about the second or third breath asing its strength as rapidly as possible by total sion of air for a minimal period.

e rigidities met with under ethyl chloride are, ieve, of two kinds. In the first stage there seems to increase of the normal tonus of the muscles co- ing with the loss of consciousness, and due, I believe, pairment of cerebral control. As the administration esses this usually disappears, first from the digits, last, as a rule, from the shoulder. In prolonged nistrations another rigidity appears with often more ss opisthotonos and sometimes cyanosis and arrest spiration, due, as I believe, like that of nitrous oxide, phyxia.

is because of the possible, one might almost say ble, supervention of these symptoms that I venture heartily to endorse Dr. McCardie's advice and always give ethyl chloride from a Clover apparatus charged with ether whenever there is any reasonable doubt of the surgeon being able to finish his operation within the limits of a single normal administration of ethyl chloride, say ninety seconds. Moreover, it seems to me far better to prolong or repeat the anaesthesia with ether, as I have seen a good many patients in a state of collapse, with very feeble pulse, after repeated administrations of ethyl chloride. For the same reasons I never think it advisable to change directly from ethyl chloride to chloroform. If the latter be given freely when a patient is under ethyl chloride it is not possible to be sure that spasm involving the respiratory muscles will not set in or that the breath may not be held if the effect of the ethyl chloride is beginning to pass off. For these reasons I advocate the use of A.C.E., or of C_1E_3, as a bridge by which to pass from ethyl chloride to chloroform, and so far have had no reason to regret the use of this sequence.

As Dr. Knight points out, the fact that the "leave off" signs of nitrous oxide anaesthesia are so striking gives that drug a great advantage over ethyl chloride in the hands of relatively inexperienced practitioners. I cannot, agree, however, as regards adult cases at any rate, that ethyl chloride is actually safer than "gas," even in experienced hands.

There are some pretty definite "leave-off" symptoms with ethyl chloride. Those most to be relied upon, as a rule, are the position and fixity of the eyeball and the size of the pupil. Extreme deviation of the eyeball either downwards, upwards, or laterally, especially when combined with fixation, is a valuable indication to leave off, and these signs become very valuable when corroborated by a dilated pupil. In about 5 to 15 per cent. of all cases these signs fail, and then appeal may be made to the conjunctival and corneal reflexes, though they appear of rather small value in children. For them a better guide is the condition of the arm; if this is fully relaxed to the shoulder, as a rule, the anaesthesia will last for at least a minute.

Sometimes all these signs fail, and then true stertor may give the needful warning. I never continue the administration to children once stertor is heard.

The administrator of ethyl chloride should never be misled by a young child's cries into thinking anaesthesia incomplete when such signs as I have mentioned are obvious. The effect of ethyl chloride continues to increase after the removal of the mask for a variable period, sometimes for nearly or quite a minute. The operator should be asked to begin despite the crying, for the anaesthesia will deepen, the crying as a rule cease, and at the end of a tonsil and adenoid operation the child may be found to have no conjunctival, or even sometimes corneal, reflex.

I have no hesitation in giving ethyl chloride to a patient seated in a chair, and agree on this point with Dr. Allan rather than with Mr. Bellamy Gardner, whose fears of the upright position seem a little exaggerated. I have given ethyl chloride or somnoform now about 3,500 times to patients in the chair, and have never had to do formal artificial respiration; but in two cases a few squeezes on the chest were required to restart respiration. These drugs have been given at the Central London Throat Hospital to about 7,000 patients of all ages, from 6 months to 60 years, in the sitting posture, babies being held by a nurse; and only twice has it proved necessary to perform formal artificial respiration as by Sylvester's method; both these patients recovered. It appears to me, therefore, that Dr. McCardie's paper affords a very valuable estimate of the proper uses of ethyl chloride.—I am, etc.,

A. Beresford Kingsford,
Second Anaesthetist to the Central London Throat Hospital, and
Third Anaesthetist to University College Hospital.
London, W., March 27th.

OCCIPITO-POSTERIOR PRESENTATION.

Sir,—I read Dr. George Geddes's article on the above with interest. During the fifteen years since I graduated I have attended 495 confinements. Of these, 25 per cent. were occipito-posterior positions, mostly in primiparae.

At first I experienced great difficulty in making out the position of the head, but since I adopted abdominal palpation in addition to the usual vaginal examination I have found diagnosis easy and sure.

As regards treatment, which is of greater consequence than theory, I hold somewhat different views to Dr. Geddes. In my opinion, delay is not quite fair to the patient, as it wears out her patience and strength, and worries her. It is a source of very great anxiety to the relatives, and little assistance to the attendant physician. In these days people look to a medical man for help, and resent procrastination. It is only fair, however, in support of the advice to delay, to record the fact that in this remote district fifty years ago, the "midwoman's" obstetrical equipment consisted of a testament and a razor; the former was read at intervals to cheer up the patient and pass the time, while the latter was placed underneath the pillow to keep away the witches. Delivery usually took place after suffering two or three days. I have been told that women with their first child often "suffered three solid days," when "the head was born at the back."

My method may not be quite orthodox, but I have always found it successful, inasmuch as I have been so fortunate as never to have lost a single confinement case since I commenced practice.

In parchment os, if I get a history of pains for twelve hours, I give chloroform, thoroughly and fully dilate the os with my fingers, and leave the case to Nature for from three quarters of an hour to an hour. If there is then no advance of the head, I rupture the membranes, deeply anaesthetize, apply axis traction forceps, and in a leisurely manner get the head down to the perineum, slacking off the screw between tractions to allow the head to mould itself, and permit rotation if such is to take place. I then allow my patient to recover from the anaesthetic, assist delivery slowly and carefully, rather retarding and guiding the emergence of the head than pulling it, giving a "whiff" of chloroform when a pain begins. By these means I prevent, or at least minimize tearing, so that if it does happen, it is generally so slight as to need no suturing. Slight tears, I think, are best left alone.

I allow my patient to recover from the chloroform, because I attribute my only case of *post-partum* haemorrhage to delay in the first stage, and deep anaesthesia during delivery of a child in one of these occipito-posterior positions.

Personally, I consider turning for occipito-posterior positions unnecessary, pressure on the front of the head useless, and artificial rotation of the head impossible in most cases. Where one succeeds in the latter procedure I imagine it twists the child's neck to a considerable extent, because the trunk does not turn at the same time, and one would really need to make nearly half a turn before the head could be made to occupy an occipito-anterior position.

I cannot enter into the theory of occipito-posterior positions. Pregnancy being one of the most natural processes in Nature, my belief is that probably in a multipara the child may have more room for movement than in a primipara, and so Nature seeks to adapt the child to the easiest mode of exit, which is either the first or second position. I believe a child to have considerable freedom in a multipara during the later months of pregnancy. One case to which I was called—a woman in her sixth pregnancy—was troubled with noctural pains during the eighth month. On examination, I with difficulty detected a hand. At the ninth month she was easily delivered, the head having descended and occupied the first position.—I am, etc.,

Mid Yell, March 23rd. HENRY P. TAYLOR, M.B., C.M.

THE SEVERELY INJURED AND THEIR IMMEDIATE TREATMENT.

SIR,—In theory, at any rate, medical men are agreed that in the case of a patient reduced by recent injury to a state of collapse the immediate treatment may be summarized as rest, warmth, arrest of haemorrhage, and, if necessary, stimulants. There are few who will deny the truth of the statement that to carry about a patient who is nearly dead will probably obliterate any chance of survival which might still be left.

Assuming that the truth of the above statements is generally admitted, it is difficult to account for such incidents as the following, which have been reported in the lay press of this year, and which are unfortunately only examples of many similar cases.

1. A man in a determined attempt at suicide severely cuts his throat, losing a considerable quantity of blood. He is once removed to a hospital, and dies on the way.

2. While at work in a field a man has his arm caught a thresher, with the result that the arm is torn off and man rendered unconscious. While still unconscious he carried a distance of about eight miles to a hospital, where dies a few hours later.

On glancing through the report of the inquest to d cover who was responsible in the above and similar ca for the carrying about of a patient who was in a state collapse, the reader finds that the responsibility rests, on "the man in the street," not on the policeman, not ev on the first-aid graduate, but on a member of the medi profession, for with monotonous regularity appears statement, "Dr. So-and-So was called, and he ordered patient's immediate removal to the hospital."—I am, et

Plymouth, March 4th. C. HAMILTON WHITEFORD

RURAL DEPOPULATION AND THE HOUSING QUESTION.

SIR,—Will you allow me a few critical remarks u your article which appeared under the heading "Ru Depopulation" in the BRITISH MEDICAL JOURNAL of Ma 24th, page 701? You quote from a report by Dr. Da Mair, concerning the condition of the rural district Sleaford, as follows:

> With certain exceptions no control is exercised over structural condition of new houses, and very many hou which were in need of eaves-spouting were to be observed practically all parts of the district.

You then comment upon the unreasonableness of la lords allowing their property to fall so out of repair as become insanitary and ultimately uninhabitable. you say nothing of the very pertinent fact that in Sleaford rural district, as in every district in Engla there is a sanitary authority, and sanitary officers, wh duty it is to see that no such conditions as dilapida roofs, walls, floors, drains, yard or path pitching, ra water pipes, spouting, etc., constituting in any degre nuisance injurious to health, exist and continue to ex All such defects can and ought to be remedied by noti under Sections 91, 41, 46, etc., of the Public Health A 1875. That the landlords do not carry out the necess amendments voluntarily is not worth mentioning, wh there are legal powers to compel them to do the wo and officers appointed to see that the law is put i execution.

The thing which does deserve mention, and wh should be impressed upon the Local Government Bo upon every available occasion, is the ineffectiveness of work entrusted to rural sanitary authorities and th officers, owing, in chief part, to the system of appoint officers at small salaries to give a small and indefinite p of their time to the duties of medical officer of healt inspector of nuisances. How ridiculous it is for Local Government Board to sanction these appointme and then supply the appointed men with a list of th duties, to carry out which would in many instances c more in travelling expenses than the whole sala including all expenses, that is paid!

Anybody is appointed to hold these offices without slightest reference to their qualifications and fitness the business, the conduct of which is consequen nothing better than the broadest farce. I do not int this to apply to the Sleaford rural district, as all knowledge I have of the sanitary affairs of that distric that acquired by reading your article. I need go further for an instance than the rural district wh adjoins this borough. In this district a gentlem Master of Arts, and one of our leading local architects, recently appointed inspector of nuisances. Before hi man who had no pretension to any knowledge of sanit science held the post. Before him one of the regular time sort, who for long before his death had grown inf and incapable, but still continued to hold the post pretend to do the work. The medical officers of healt rural districts are obliged to have medical qualificatio and are therefore educated men, but otherwise they commonly ignorant of practical sanitary work executive, never go to the meetings of their sanit authorities to exert a necessary leading influence getting adopted the sanitary measures required in th districts, and are little better than mere figure heads. would be invidious for me to give actual instances, and course I do not mean to infer that these conditions

iversal, but they are very common, and I believe I shall
well within the mark if I say they hold good for more
ın half of the rural and smallest urban districts in
gland.

I am sure that during the last thirty years the Local
vernment Board must have had ample evidence of the
ıth of the above remarks, but whether from being unfor-
ıate in the Governmental appointments to the head of
Department, or from another cause, the Board has
herto been slow in instituting the reforms so badly
uired in the sanitary administration of the country.
e can but hope that we are now about to see the Local
vernment Board take definite action in this regard, as,
instance, by the speedy introduction of a Government
blic Health Bill of a drastic and inclusive nature, which
ongst other subjects will insure an effective sanitary
vice in rural districts.—I am, etc.,

J. H. Garrett,
Medical Officer of Health,
Borough of Cheltenham.
heltenham, March 26th.

Sir,—While admitting the necessity of guttering for
tages, it is well to bear in mind that the absence of
damp course, particularly on a clay soil or a new
tage wall exposed to prevailing rain-bearing winds,
ll become damp; but more important if possible than
s to any one contemplating the erection of rural
tages is first to secure a pure water supply, as
pendence on rain water in a long drought is very
satisfactory, and at such times attended with con-
erable cost. In my case I laid about 2,000 yards of
n. iron pipes to convey the service water to the
ellings, but I am afraid what I intended as a blessing
somewhat of an annoyance to the cottars, as my
ighbouring landowner, the Duke of Devonshire, allows
gipsies to squat on his ground, and they curse and
ear at the little tenants because they will not allow
m to be free drinkers—in contravention of the com-
ıy's by-laws—though these nomads' horses are free
ders on a tenant's little plot which I purchased from
Duke's late father.

n my experience it is more costly to build in the
ıntry, in cartage and labour, etc.; the rents are lower,
l consequently the percentage of profit is considerably
s than in towns; further, the district councils have
in their power, with their by-laws, etc., to put you to
at pecuniary loss.

But in seeking after truth, is the rural exodus due to
nt of good cottages? It was non-existent when
iculture was prosperous; then came foreign competi-
n, the fall in the price of wheat below what in this
iable climate it could be grown at a profit, the gradual
ıversion of the land from arable to pasture (as shown
the annual agriculture returns) to lessen expenditure,
dismissal of labourers no longer required and their
noval to the towns to procure work, the consequent
npetition, and the artificial remedies proposed to
tore them to the land.—I am, etc.,

astbourne, March 28th. F. Marsdin, M.B.Lond.

THE REGISTRATION OF NURSES.

Sir,—I have been requested to forward you the follow-
resolution passed at a large and influential meeting at
County Assembly Rooms, Leicester, on March 29th,
l trust that you may be able by your personal influence
otherwise to assist in the passage of the measures
rein referred to.

Resolution.

hat this meeting of ladies and gentlemen interested in nursing from the County and Borough of Leicester hereby records its emphatic approval of the principle of the State Registration of Trained Nurses, and would urge the Government to give its support to the Bill already introduced into Parliament with the object of securing such registration.

am, etc.,

eicester, March 31st. Frank M. Pope.

ROPOSED GENERAL HOSPITAL AT PUTNEY.

ir,—I regret that I am unable to comply with the
joint demand of the worthy Presidents of the Wands-
rth, Chelsea, and Richmond Divisions that I should
hdraw my statement that medical men had been
ported from distant places to vote for the resolutions
before the meeting. I most undoubtedly did complain of this very thing, saying that the question was one for Putney, Wandsworth, and Barnes, and I was *not* called to order. I hasten to add, however, that my remark did not apply to gentlemen such as Dr. Lauriston Shaw and Dr. Ford Anderson, who, I was quite aware, were present to give us the benefit of their advice and experience, and not to vote. I referred to the invitation sent to practitioners in such relatively distant places as Richmond, Wimbledon, Balham, Battersea, and Chelsea, and I stated that these were but very remotely affected by the question under discussion. If only some half dozen of them attended the meeting, apparently the rest agreed with me.

The promoters of the meeting arbitrarily fixed a radius of two and a half miles as being the area affected by the proposed hospital. On their own showing, therefore, no practitioners residing at a greater distance should have been invited to vote, and I do not think that I can be accused of another mis-statement if I say that none of the three signatories to the letter in the British Medical Journal of April 7th reside within the area prescribed by themselves. One of them was obviously ignorant of the position of the proposed site for the hospital.—I am, etc.,

Putney, April 7th. W. G. Dickinson.

MEDICO-LEGAL AND MEDICO-ETHICAL.

PRESCRIBING CHEMISTS.

The conduct of a chemist came under consideration during an inquiry at Manchester on April 4th into the death of an aged woman from peritonitis. The chemist, as reported in the *Manchester Guardian*, admitted that he was in the habit of prescribing "in simple cases," and stated that from the information he received from the deceased's daughter he thought he would not be doing his duty if in this case he did not give something to relieve the patient. The coroner informed the chemist that he had committed an offence; he had no right to prescribe, and he was in entire ignorance as to what was the matter with the deceased. It was so common for chemists to act in this way that he had come across cases in which there was an impression in the neighbourhood that the chemist was a qualified medical man, and people called him "Doctor." He hoped that this case would be a warning.

MEDICAL INTERVIEWS IN THE LAY PRESS.

A correspondent sends us a cutting from the *Preston Guardian*, headed "Chats with a Doctor," by ———, Physician and Surgeon, in which he discusses such subjects as "Mr. Haldane and Physical Deterioration," "The Boys' Brigade," "The Cancer Death-rate," and the "Purity of Jam," to which no exception can be taken; but he also includes paragraphs on sore eyelids, for which he recommends an ointment of yellow oxide of mercury 20 (!) gr. to the oz., and another on congestive headaches, which he describes, and for which he recommends 4 or 5 (!) gr. of calomel, to be followed in two or three hours by 2 drachms of sodium sulphate in warm water. Below this column are answers to correspondents,, who are told to address "Medico, 69, Highgate, Kendal," from whom they receive advice and prescriptions for various ailments.

⁂ It should be clear to any properly-educated medical practitioner that it is unsatisfactory, if not dangerous, to prescribe treatment on the basis of the patient's own account of his symptoms without having had an opportunity for medical examination, as, for example, in the case of the correspondent "Cyclist," who complains of a weak heart, and is told that it is "chiefly his nerves which are wrong," he is to "take plenty of steady out-door exercise daily." A case such as this seems suitable for reference to the local Division.

THE RIGHT OF A MEDICAL SUPERINTENDENT TO CHARGE FEES.

The medical superintendent of a sanatorium for consumptives primarily intended for poor patients, but where better class patients are taken from time to time, now has such a patient under care; he is an employé of a large company which asked for a report on the patient's condition. The medical superintendent replied that he had already handed the patient a short report, and if a further report was needed he would charge a fee of 1 guinea. The P.M.O. of the company, in reply, stated that he would pay the guinea, but continued. "I would like to add, however, that in the course of our large experience this is the first occasion on which a fee has been charged in a similar case." Our correspondent, who is allowed to do private practice, asks for advice.

⁂ We think he should refer the matter to his Board, and get the Board to make rules by which he should regulate his conduct. Reports might be given gratis to non-paying patients, but employers or people who have merely a financial interest in the case might pay a fee of a guinea for each report.

MEDICAL MEN AS MUNICIPAL CANDIDATES.

RUSTICUS asks for an opinion as to whether it is correct or otherwise for a medical man who happens to be a candidate seeking School Board honours to go round canvassing in the houses of persons who are not numbered among his clientèle, and where there happen to be persons actually at the time under the care of another man.

*** So far as we understand our correspondent, he objects to a candidate who is seeking votes for a public position canvassing persons who do not happen to be his own patients. If this is a correct statement of his position we can only say that we think it quite untenable, as it would make it impossible for a medical man to be a candidate for any public position in which the canvassing of electors may be necessary.

LIABILITY FOR MALPRACTICE.

D. F. E. writes: Some few years ago I sold my practice to A., who now places a qualified assistant nearer to my residence than to his own. In cases of anxiety the assistant often calls me in and I give him any assistance in my power free. In case of an action for malpractice upon whom would the expense come and should I be in any way liable?

*** Although our correspondent performs the services for his colleague gratuitously, yet this would not relieve him from any liability for negligence on his part.

CONSULTING ROOM IN A HOTEL.

RECTUS writes: I attend the staff of a hotel in a well-known watering-place. My house, not being in the centre of the town, is inconveniently situated for consulting work among visitors, and I am anxious to have a consulting-room advantageously situated. Would there be any medico-ethical objection to my having the use of a consulting-room at the said hotel for an hour every morning?

*** We see no objection to the arrangement in itself, nor do we think the colleagues of "Rectus" should complain so long as no attempt is made to exclude them from practising among the visitors to the hotel.

MEDICAL CERTIFICATES.

NEMO writes that a firm of brewers have in the past made up the wages of their employés during illness provided they are in some benefit club; but owing to their having paid during the illness of an employé with alcoholism and delirium tremens, they have issued a form of certificate which they require to be signed by the medical practitioner in attendance before the money is paid. The firm refuse to pay the medical men for these certificates, "who are at present paid through the club to which the member belongs, or privately." Nemo says he has hitherto refused to do their "dirty work," on the ground that he is acting on behalf of the patient and not for the firm; but as this involves the patient losing the sum of 5s. a week, he has been given to understand that another medical practitioner is prepared to sign if he does not, and therefore he asks for an expression of our opinion.

*** The liability to pay for such a certificate clearly lies with the patient, to whom our correspondent must look. We assume that he means by the expression "who are at present paid through the club, or privately," paid for medical attendance, and not for the signing of the certificate, with which the club obviously has nothing to do.

ATTENDANCE ON A MEDICAL MAN.

DEVONIAN writes: Three or four months ago I was called in to attend a retired medical man, who had been certified as insane, and received under authority from the commissioners in a private house which is situated two miles away by rail. The patient had been in practice in America, and he and his family were quite unknown to me before this occasion. The patient has not the means for his own support, and expenses are met by his father, who is a well-to-do man and not a doctor. Will you advise (1) what would be a reasonable fee for the regular fortnightly visit and inspection? (2) What would be a reasonable fee for intermediate visits made simply to attend to the patient's health? (3) What fee, if any, should be charged for certificates required by the Commissioners?

*** (1 and 2) It would be in accordance with professional usage to offer to see the patient and do all that is necessary without charging any fees, but if the father wishes to pay, then the fees should be at the average rate charged by our correspondent. (3) The signing of the books or forms required by the Commissioners is work that should be considered to be included in the periodical visits and paid for by those fees.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

M.B. Degree in Absentia.—The Degree Committee of the Special Board for Medicine have appointed for the Degree of M.B.: H. M. Wilson, B.A.. B.C., of Trinity Hall, now resident in New Zealand.

UNIVERSITY OF LONDON.

UNIVERSITY COLLEGE.

The new Hospital built by the generosity of the late Sir Blundell Maple, the greater part of which has been in use for some time, is now complete. The general, medical, and surgical waiting-halls, medical, surgical, skin, ophthalmic, and dental examining-rooms, ophthalmic and skin waiting-rooms, the fully-equipped electro-therapeutic department, and the main entrance in Gower Street were the last to be finished. An official opening ceremony will probably take place shortly.

The new Medical School buildings, the cost of which is being defrayed by the generosity of Sir Donald Currie, have been begun on the commodious site in University Street. In these buildings there will be accommodation for pathology, medicine, and surgery in all their branches. There will also be ample provision for research.

A Register of Former Students in the Faculty of Medicine of University College is in course of preparation; former students who can give information about their contemporaries who are in the Colonies or abroad are requested to communicate with the Secretary.

The Summer Session in the Faculty of Medicine begins on Monday, April 23rd, and students can advantageously begin their course of study then.

THE JODRELL CHAIR OF ZOOLOGY.

Professor E. A. Minchin has resigned the Jodrell Chair of Zoology, in view of his appointment to the new Chair of Protozoology in the University of London. The Council will shortly proceed to fill the vacancy in the Jodrell Chair of Zoology thus created.

APPOINTMENT.

Miss Agnes Robertson has been approved Quain Studentship in Biology.

EMERITUS PROFESSOR OF ZOOLOGY.

The title of Emeritus Professor of Zoology was conferred upon Professor E. Ray Lankester.

AWARDS.

Liston Gold Medals in Surgery were awarded to Mr. Otto May and Mr. G. M. W. Hodges, who were adjudged equal by the Examiners.

UNIVERSITY OF ABERDEEN.

SPRING GRADUATION CEREMONY.

THE graduation ceremony, closing the winter session, took place in the Mitchell Hall on April 5th. On account of the fact that a large number of distinctions are to be conferred on the occasion of the quatercentenary celebrations in September, the proceedings on this occasion were quieter than usual, and there were no honorary graduates. There was, however, as usual, a very large audience, the galleries and the rear portion of the area being crowded. After the capping ceremony was over the Principal delivered an appropriate oration. The following is the graduation list in medicine:

Degrees of Doctor of Medicine (M.D.).—Lewis Davie Cruickshank, M.B., Ch.B. (Darlaston, Staffs.). *Thesis: Arterial Blood Pressures in Relation to Cardiovascular Degeneration and Cerebral Haemorrhage. John Charles Galloway, M.A., M.B., Ch.B. (Banff). * Thesis: Progress of the Mortality from Phthisis in Scotland from 1861 to 1900. Thomas Holt, M.B., C.M. (Burnley). Thesis: Conclusions drawn from a Personal Acquaintance with Migraine. George Hall Johnstone, M.B., C.M. (Wath-upon-Dearne, near Rotherham, Yorks). Thesis: Rheumatism (under old regulations). Dudley Macdonald Mackenzie, M.B., Ch.B. (Ealing). Thesis: Dyspepsia Clinically Considered. Robert Mitchell, M.B., C.M. (Hooton Pagnell, Doncaster). Thesis: Anaemia (under old regulations). Wilfrid William Pearse, M.B., C.M. (Acting Medical Officer of Health, Hong Kong). †Thesis: A Contribution to the Study of Plague (under old regulations). Alexander Rose, M.B., C.M. (South Norwood.) Thesis: The Use of Chloride of Calcium in the Treatment of Acute Croupous Pneumonia (under old regulations). Arthur Leslie Sutherland, M.A., M.B., Ch.B. (Darwen, Lancs). Thesis: Modern Views on the Etiology of General Paralysis and others bearing on some Modern Problems of Insanity.

* Honours for thesis. † Highest honours for thesis.

Degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) (with First-class Honours)—*John Frederick Gill, B.Sc., Pontefract; †William A. H. McKerrow, Workington.

* Passed Final Examination with "Distinction." † Passed Final Examination with "Much Distinction."

inary Degrees.—H. Chalmers, Inverness; G. F. Dawson, M.A., Aberdeen; Mary W. Durno, Aberdeenshire; A. D. Fraser, Banff: A. S. Garden, Portsoy; J. F. Grant, Aberdeen; S. C. Howard, Aberdeen; C. V. Impey, Capetown; A. Johnston, Fyvie; W. B. Keith, Aboyne; A. Kellas, Aberdeen; A. S. Leslie, M.A., Aberdeen; J. S. McConnachie, Lonmay; J. Mc R. Macdonald, Ross-shire; J. G. McGregor, Aberdeen; E. K. Mackenzie, Inverness; N. P. Macphail, Isle of Mull; Sophie J. Meiklejohn, Novar; W. L. Miller, M.A., Aberdeen; M. A. Milne, Aberdeen; S. W. Munro, Aberdeen; S. V. Van Niekerk, Transvaal; G. E. A. Petrie, Kincardine O'Neil; J. Raffan, Aberdeen; D. T. Skeen, Aberdeen; F. J. Stuart, Aberdeen; A. G. Troup, Aberdeen; W. H. Wishart, M.A., B.Sc., Aberdeen.

iversity Medals and Prizes in Medicine.—The following ls and prizes have been awarded:—Fife Jamieson orial Gold Medal in Anatomy: James Watt, M.A., Wartle. Lizars Gold Medal in Anatomy: James Watt, M.A., le. Keith Gold Medal for Systematic and Clinical Surgery: W. Archibald, Lhanbryde. Shepherd Memorial Gold Medal stematic and Practical Surgery: Wm. A. H. McKerrow, ington. Dr. James Anderson Gold Medal and Prize in al Medicine: John F. Gill, B.Sc., Pontefract. Proxime sit: A. S. Leslie, M.A., Aberdeen. Matthews Duncan Medal in Obstetrics: Geo. Ernest Ross, Tain.

OYAL COLLEGE OF PHYSICIANS OF LONDON.

traordinary comitia was held at the College on Monday, 9th, the President, Sir R. Douglas Powell, in the chair.

Announcements.

President announced that he had nominated Sir George ilipson as a second delegate to represent the College at eeting of the Sanitary Institute at Bristol in July next; Dr. W. Balls-Headley to represent the College at the ation of the fiftieth anniversary of the opening of urne University, and of the Public Library of Victoria ational Gallery of Melbourne.

Presidential Address.

President delivered an address dealing with the chief s of the past collegiate year, and gave brief biographical s of the eight Fellows of the College who had died g that period.

the motion of Dr. Pavy, a cordial vote of thanks was l to the President for his address.

Election of President.

ing then took place for the office of President for the g year, with the result that Sir R. Douglas Powell was t unanimously re-elected.

Licences.

Licence of the College was granted to James Alane and, Leeds, and Arthur Walker, Camb. and Guy's.

Communications.

following communications were received:

rom Mr. Cowell, reporting proceedings of the Council of yal College of Surgeons on February 8th.

rom the Clerk of the Privy Council, announcing the tment of Sir Dyce Duckworth to represent His Majesty's nment at the International Congress at Lisbon.

rom Mr. Charles E. Percy Forsyth, M.B.Aberd., resigns membership of the College.

rom Mr. F. Mill Pellatt, asking leave to have a copy made portrait of Dr. Thomas Pellett, in the possession of the e. Subject to certain conditions leave was granted.

rom Mr. Thurston Peter, asking leave to reproduce for ation the portrait of Dr. John Freind, lent by the College National Portrait Gallery. This was acceded to.

rom the Chelsea Physic Garden, giving notice of the tion of Dr. Cayley's term of office.

rom Mr. Edgar Williams, offering for the acceptance of llege a photographic copy of a profile drawing of his the late Dr. Robert Williams, F.R.C.P. This was ed, and a vote of thanks passed to Mr. Williams for his

Reports.

following reports were received:

rom the Committee appointed to prepare a revised edi- the College by-laws. Subject to two verbal corrections, oposed additions and alterations were enacted for the me.

om the Committee of Management recommending that lowing London County Council asylums be added to the lunatic asylums recognized by the Examining Board in d for clinical demonstrations in lunacy, namely, Bexley n, Horton Asylum, Manor Asylum. This was agreed to. me Committee reported that they had granted the use Examination Hall, rent free, for one week, in June r the International Congress of the Red Cross Societies'.

OYAL COLLEGE OF SURGEONS OF ENGLAND.

RTERLY Council meeting was held on April 5th, 1906; hn Tweedy, President, in the chair.

Awards of Prizes.

Jacksonian prize for 1905 was awarded to Mr. Reginald e Elmslie for his essay on The Pathology and Treatment ormities of the Long Bones due to Disease occurring and after Adolescence.

The subject chosen for the year 1907 is The Operative Surgery of the Heart and Lungs, including the Pericardium and Pleura.

The Walker prize was awarded by the Council to Professor Carl O. Jensen for his work upon Mouse Carcinoma.

Neither the John Tomes Prize nor the Cartwright Prize was awarded, no work of sufficient merit being forthcoming.

The subject for the next Cartwright Prize is The Prevention of Dental Caries.

Honorary Fellows.

The Honorary Fellowship of the College was conferred upon Dr. Justin Lucas-Championnière, Surgeon to the Hôtel Dieu, Paris; and Lieutenant-Colonel Sir Richard Havelock Charles, K.C.V.O., I.M.S., M.D., F.R.C.S.I., Professor of Surgery at the Medical College, Calcutta. The Honorary Medal of the College was also awarded to Lieutenant-Colonel Sir Richard Havelock Charles for his gift of anthropological specimens to the Museum.

Begley Studentship.

The first studentship was granted to Mr. Walter Burford Johnson, of St. Thomas's Hospital.

The Fellowship.

Under the rule authorizing the Council to admit to the Fellowship Members of twenty years' standing, Surgeon-General Arthur Mudge Branfoot, C.I.E., I.M.S., President of the Medical Board at the India Office, and Mr. Herbert Mackay Ellis, R.N., Director-General of the Medical Department of the Royal Navy, were elected.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

THE following candidates were elected Fellows of the College on April 6th: E. J. M. Watson, T. G. Moorhead.

At the same meeting Mr. James Spencer Sheill was admitted a Member of the College.

CONJOINT BOARD IN IRELAND.

SPRING SESSIONAL EXAMINATIONS, 1906.

THE following candidates have been approved at the examinations indicated:

First Professional Examination.—R. White (with Honours), S. Campbell, R. Charles, D. F. Curran, J. Donegan, J. Donoghue, J. W. Flood, F. R. Jones, L. C. King, J. Mitchell, T. Murray, J. T. MacDonnell, C. McDonnell, M. O'Brien, P. O'Farrell, W. R. O'Keefe, and R. A. Wright.

Second Professional Examination.—G. C. Sneyd and J. T. McKee (with Honours), E. M. Donovan, D. J. Lyne, J. O'L. Murray, J. M. Smythe.

TRINITY COLLEGE, DUBLIN.

THE following candidates have been approved at the Final Examination, Part II:

Surgery.—*J. D. Sands, †B. G. Brooke, †R. B. Jackson, R. S. Oldham, S. G. S. Haughton, A. G. Alexander, H. J. Knox, G. W. Thompson.

* Passed on high marks. † Equal.

The following candidates have been approved in Midwifery: *R. S. Oldham, *J. du P. Langrishe, *F. O'B. Ellison, W. Hutcheson, E. D. Caddell, T. D. Graham, T. King Edwards, H. D. Drennan, M. P. Leahy, A. C. Elliott, E. C. Phelan, R. Holmes, D. F. Torrens, J. Gray, F. Casement.

* Passed on high marks.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

VACCINATION CERTIFICATES IN IRELAND.

VAX.—While the Vaccination Acts (Ireland), 1863 and 1879, require the medical practitioner who performs the operation of primary vaccination to deliver a copy of his certificate to the parents or person having custody of the child, no such provision applies to revaccination, and Irish public vaccinators are right in withholding such certificates unless paid a reasonable fee for them. We are, however, of opinion that a Board of Guardians could require, by resolution, from any public vaccinator in its employment specific information as to the result of revaccination in any particular case or cases for which he claimed payment.

PUBLIC VACCINATORS AND THE SUPERANNUATION ACT.

R. B. writes: A. is the parish medical officer to a certain union, and B. is his partner and deputy. B. is public vaccinator to the same union, and A. is his deputy. A. and B. are paid quarterly, the guardians deducting the usual percentage for superannuation from both the salary of A. and the fees due to B. Are they justified with regard to the latter?

⁎ The guardians have no power to make any deductions from the payments made by them to public vaccinators, since it has been decided by a high legal authority as well as by the action of the Local Government Board that the Superannuation Act has no reference to public vaccinators.

OBITUARY.

SURGEON-GENERAL JOHN LUMSDAINE,

INDIAN MEDICAL SERVICE (RET.).

Surgeon-General John Lumsdaine, of the Indian Medical Service, retired, who died on March 11th at Weston-super-Mare, aged 79 years, had a most distinguished career and saw much active service on sea and land.

He entered the Bombay Medical Department as an Assistant Surgeon on November 10th, 1852, and in November, 1854, served in a boat expedition against Khatiff in the Persian Gulf, where he was present at the capture and burning of a pirate bungalow. Later he served in the 1st Eagle Troop Bombay Horse Artillery during the campaign in Central India in 1857, 1858, 1859, under Sir Hugh Rose (afterwards Lord Strathcona), and was present at the siege and capture of Ratghan, action of Borodea, relief of Sangor, forcing of the Muddenpore Pass, siege, storm, and capture of Jhansi, battles of Betwa and Kooneh (wounded), actions of Muttra and Despora, battle of Golowlee, capture of Calpee and pursuit to Surcula, advance on Gwalior, battle of Moran and taking of the cantonments (wounded), capture of Gwalior and battle of Jowra Alipore. He was specially mentioned in dispatches and received the medal with clasp. In the Abyssinian expedition of 1867-8 he served as a member of the Reconnoitring Committee and Sanitary Officer to the force, and was present at the storm and capture of Magdala; he was afterwards on the personal staff of the Commander-in-Chief, Lord Napier of Magdala. For this he received the medal, was specially mentioned in dispatches, and was promoted to substantive rank of Surgeon-Major for "valuable services" in the field.

Such is a brief record of the military services of a man who subsequently performed, if possible, more excellent work in his civil capacity as a model administrator before his final retirement from the service in 1883.

Lumsdaine was a man of great culture and ability, but this was only known to the men of his own department, who admired and appreciated his brilliant and comprehensive reports, now scattered through numerous Blue Books, where, like many similar literary labours, they remain buried and neglected.

The origin and growth of sanitary reform in Bombay was peculiar, and can hardly be said to have arrived at maturity yet, notwithstanding much bitter experience, and its history and progress, if recorded, would prove not only instructive but interesting, and perhaps stranger than fiction. The first President of the Bombay Sanitary Commission was a layman, Lumsdaine being his secretary—an anomalous position for a professional man, though not more ludicrous than that of medical officers a few years ago, when plague broke out, being placed under the orders of a civilian plague commissioner! This may seem incredible to western sanitarians, but it is nevertheless true, as was pointed out at the time.

The post of an Indian Sanitary Commissioner is no sinecure. He is the adviser of his Government on all the conditions and circumstances relating to the health of populations frequently more numerous than that of Great Britain and Ireland. In this he is, of course, assisted by several specially-qualified officers, inspectors, and a large staff of clerks and vaccinators, whose successful supervision requires considerable administrative judgement, discretion, and tact. He has to report on all schemes of water supply and drainage, and give expert opinion on sites, construction, and ventilation of all public buildings: visits gaols, places of pilgrimage, and camps during famines and epidemics at all times of the year, travelling by sea and land as best he can.

During the cold season he inspects certain districts, examining births and deaths and vaccination registers, always comparing the marks on the children's arms with the records in the village and vaccination registers, thus testing the efficiency and honesty of work which it is but just to say would compare favourably, as regards the nature and number of vesicles and foveated cicatrices, with similar operations and results even in Jenner's own country.

Lumsdaine shared in starting and carrying out this invaluable work smoothly and successfully by the help of his executive officers and subordinates, often in rather critical circumstances, with infinite patience, temper, and tact. It may be added that without exception, in his day "Lummy" was the most popular man in the society of Western India, and that his memory will be long cherished there for his many virtues and talents.

We regret to have to record the death of Dr. Arthu Blackwood of Liverpool, which took place at his residence, 100, Bedford Street, on April 6th. Dr. Blackwoo graduated at the Royal University of Ireland in 1884, an shortly afterwards was appointed Resident Medical Office to the Liverpool Parish Infirmary. In this position h evinced all the characteristics which give promise of useful and distinguished career in the profession o medicine. Highly intelligent, upright and honourable and deeply sympathetic with his patients, he gained th entire confidence of those in authority and endeared himself to all about him. He was deeply devoted t his work and unremitting in his attention to al who were seriously ill or the subject of grav operations. Unhappily, in the midst of this hopefu and useful career, in the course of his professional duties he had the misfortune to become inoculated with th germs of disease. His central nervous system becam soon affected, he was partially crippled by hemiplegia, an became subject to attacks of ill-health. A true martyr t duty, he struggled manfully against his infirmities, an as a public vaccinator obtained the grant for excellen work year after year. An attack of pneumonia, acting o an enfeebled frame, carried him off in a few days, to th great regret of his many friends.

We regret to announce the death of Dr. James Parson Thornton, one of the best known medical men in the neighbourhood of Southport. He received his early educatio at the Grammar School in Stockport, where his father wa a Congregational minister. On leaving school he firs went into business, and did not take up the study o medicine at the Durham University until rather olde than most medical students. Not very long after receivin the diploma of L.S.A. in 1879 and the degree of M.B.Du in 1880 he settled down in Southport some twenty od years ago, and soon acquired an excellent practice. H was Medical Referee to the Queensland Governme Emigration Department (of which he was at one tim Surgeon Superintendent). A few years since he abandone practice and went to live at Torquay, where he had house, but returned to Southport again two years ago, an resumed work with a partner. The position which occupied is well represented in the following passage of letter from one of his colleagues: "I knew Dr. Thornt for the last thirteen years, and in the early days of m practice in Southport he was a very good friend to me. that time he had a very considerable practice, and work hard at his profession. He owed his practice as much his kind, gentle, and breezy manner as to his professio knowledge. He had a cheery word for everybody, and h entrance into a sick room was quite a tonic in itself. H death at the comparatively early age of 57 will be muc regretted by a host of friends and patients, who will mi the kindly word and hearty greeting which he was accustomed to bestow on every one he knew during his dai round." The complaint which led to Dr. Thornton's dea lasted several months, and during its progress he receiv the devoted attention of several colleagues. He w married, and is survived by his wife and two daughters.

Lieutenant Gordon Stewart Mackay, M.B., Roy Army Medical Corps, died at Middelburg, Transvaal, February 22nd, in the 25th year of his age. He w appointed Lieutenant in the corps so recently as Aug 31st, 1903.

Deaths in the Profession Abroad.—Among t members of the medical profession in foreign countri who have died recently are Dr. Luigi D'Amore, Lecturer Experimental Pharmacology in the Medical Faculty Naples; Dr. Aubenas, formerly Professor in the Medic Faculty of the University of Strassburg, aged 76; Robert Ogden Doremus, one of the founders of the N York Medical College, the Long Island Hospital a Medical College, and the Bellevue Medical College, in b of which institutions he was for some time Professor Chemistry and Toxicology, aged 82; and Dr. Th. Gelp Surgeon in Chief to the Ophthalmic Institute, Carlsruh

·ETTERS, NOTES AND ANSWERS TO CORRESPONDENTS.

Queries, answers, and communications relating to *:ts to which special departments of the* British *·cal* Journal *are devoted will be found under their* *:tive headings.*

QUERIES.

C. asks for advice in the treatment of a middle-aged ı, of bilious temperament but active and apparently in ı health, who suffers from aching in the left calf and uent painless cramps in the calf muscles.

678 seeks suggestions about a male patient, aged 20, of ımatic family history. Twelve months ago he had peri- itis and endocarditis, resulting in mitral regurgitation aortic stenosis and regurgitation. He recovered suffi- tly to be sent, after some three months' convalescence, ıe seaside. There rheumatism and endocardial trouble n appeared, and ever since he has practically been con- l to bed. As a rule his general condition is fairly good, he is able to occupy his hands, but every fortnight for past four months there has been an apparently fresh :k of muscular rheumatism, affecting the scapular, oral, and epigastric regions. During these there is a ng of oppression in the middle line of the chest, a ɔd tongue, dilated stomach, a pulse of 106, a temperature 9.4°, and respirations, shallower than usual, 30. The :ks last about a week, the patient in the interval being and happy. Nothing can be discovered to account for e periodical attacks, and his mode of life scarcely ɔs. Quinine, mercury, aspirin, iodide, stomachics, and ylates have been thoroughly tried. During the attacks requently sweats freely, especially when taking sali- :e.

Thyroid in the Treatment of Obesity.

OG asks for experience in the treatment of obesity by ɔid, the best preparation thereof, and as to any points nterest and importance in its administration; and her any dietetic restrictions are advisable or necessary.

Home for Feeble-minded Cripples.

A. E. Griffiths (Meopham) desires to hear of a home boy, 14 years old, paralytic, crippled, backward in :h, and deficient in intellect. The parents can only pay t £20 per annum.

Such a case might be admissible to the department imbecile children connected with the East Sussex ım, Hellingly (particulars from Dr. Taylor, Medical rintendent), or to the Earlswood or Colchester Institu- . For particulars as to the former apply to Mr. W. ırd, 36, King William Street, London Bridge, E.C.; as e latter to Mr. J. J. C. Turner, Secretary and Super- dent, Eastern Counties Asylum, Colchester.

ANSWERS.

·ITAL Occlusion of the External Auditory Meatus.

Clair Thomson (London, W.) writes: I would refer ı. B. Northcote to the *Journal of Laryngology* for h, 1901. He will there find a most complete article on ıbject by Mr. Hunter Tod, founded on two cases from inic and one from his own. The article demonstrates lirect operative interference on the occlusion proves to eless, and that more, perhaps, can be done by careful perative treatment and by early and assiduous instruc- in speaking and lip reading.

Epidemic Stomatitis.

ISLAIN Houzel (Boulogne-sur-Mer) writes: The epi- which "M.D." has met is an epidemic, I think, of *aphteuse.* I have met several cases of this disease spitals for children, and three times this year in en fed with milk from a sick cow, and I have cured tients in a few days only by changing the milkman. plains why "M.D." has found this stomatitis in en and young adults, because they principally take for food. In these cases I order washes with dilute gen peroxide, I change the milk, and in three or four he patients prove better.

LETTERS, NOTES, etc.

Medical Golf Tournament.

ıual medical golf tournament will this year be held on day, May 31st, at Cassiobury Park, by kind permission West Herts Golf Club. The tournament will be played the usual conditions—namely, match play of 18 holes ey—in two classes, (1) handicaps of 12 and under, (2) caps over 12. Foursomes will also be played for sweep- . Competitors must send in their names by May 30th with lowest club handicap and 5s. entry fee, to the Honorary Secretary, Dr. Rolf Creasy, Windlesham, Surrey.

Professional Usage and the Law.

Dr. T. Stretch Dowse (Bournemouth) writes: In your article of April 7th "On Professional Usage and the Law," relative to the case of Tughan *v.* Darnell, you do not seem to have noted one important fact which, if it had been brought fairly and squarely to the notice and consideration of judge and jury, would unquestionably have led to a verdict in favour of the defendant. I refer to "constitutional idiosyncrasy." Had the judge been given to understand that rubbing into the skin of belladonna liniment would not produce belladonna poisoning in possibly 99 cases out of 100, and that no consummate care, prudence, or foresight could afford the medical practitioner any *raison d'être* as to the how or why poisoning followed the use of the liniment in the 100th case, it certainly seems to me that no reasonable being, let him be judge or juryman, could with such a recognized fact before him convict a medical man of carelessness or want of skill or foresight. In the case of appeal, I hope this point may not be forgotten.

The Etiology of Cancer.

Dr. Robt. B. Greaves (Sheffield) writes: It has repeatedly occurred to me that the cause of cancer, at least of the alimentary tract, may not unreasonably be looked for in the "tread" of an egg. Considering the great number of raw eggs swallowed it is not difficult to conceive of the tread being rapidly conveyed from the stomach and small intestines to the large bowel uninjured and there coming into contact with an abraded surface in the intestinal mucous membrane find a suitable nidus for the proliferation of the cells of the blastoderm. The multiplication and development of the cells would, of course, be very modified growing under such abnormal conditions as to environment and nourishment, hence could be understood the malignant effect. In any case, "all flesh is not the same flesh."

British Medical Literature in Algiers.

Dr. A. S. Gubb (Mustapha Supérieur, Algiers) writes: The medical library here is regrettably poor in English literature, and I am desirous of providing a set of the British Medical Journal for reference. Perhaps some or one of your readers may be willing to assist me by placing some of the back volumes at my disposal for that purpose. I will gladly pay carriage to Algiers, packing, etc.

A Note on the Therapeutic Value of Sarsaparilla in Syphilis.

Dr. Charles J. Cullingworth (London, W.) writes: In my "Note" on the above subject in the British Medical Journal of April 7th (p. 791), I omitted to say that further evidence to a similar effect will be found in a paper On the Use of Sarsaparilla in Syphilis, by Professor Clifford Allbutt, in vol. iv of the *Practitioner* for 1870, page 257; and also in a paper entitled Sarsaparilla in Syphilitic Cachexia, by Dr. W. Carter of Liverpool, in vol. xxvi of the *Practitioner* for 1881, page 357. May I take this opportunity of calling attention to an obvious error—probably my own—in the record of Case VII, in the sixth line of which "March 11th" should of course read "February 11th"?

The Advertisement and Sale of Quack Medicines.

Dr. Conrad Basan (London, E.) writes: The question raised by Mr. Myer in the House of Commons last Monday week upon the above subject met with such an unsatisfactory reply, that it is to be hoped that the hon. member will bring the matter forward again at no distant date. The Home Secretary stated that "he had no doubt that the advertisement and sale of quack medicine was often the cause of serious mischief, but it was an evil which must be met rather by the spread of education than by legislation or prosecution."

A more absurd reply it is difficult to conceive, because advertisements of quack medicine cannot infect and pollute and infect the lay press without the sanction (direct or indirect) of the proprietor, and I can only hope that the latter will fully appreciate the legitimate inference to be drawn from the Home Secretary's reply, that the spread of education has not yet reached them. One would have thought it unnecessary to invoke the aid of the law to compel the wealthy proprietors of newspapers and periodicals to refrain from publishing the lying advertisements of these pestilential charlatans. Conscience surely should put in a reminder that money obtained by such degrading methods of so-called business is dirty, and ignorance they cannot plead as an excuse; for whereas, on the one hand, they admit to their columns the most pathetic appeals (many of which are supported by Royalty) on behalf of the sufferers from cancer, consumption, paralysis, etc., yet on the other, and in the very same issue, and often on the same page, they give prominence to, and take money for, the advertisements of the obnoxious, fraudulent quack, who with unblushing effrontery announces in the plainest terms possible that he can permanently cure these very afflictions. To go further, would any one of these wealthy newspaper proprietors entrust themselves or those near and dear to them in their hour of sickness to the cure-all pretentious impostor whose nostrums they unceasingly advertise? Their answer must be, No! And yet for the weak-minded, the credulous, the sick and suffering poor, who look to their publications for recreation, enlightenment, truth, and honesty, do they permit these nefarious traps to be laid.

The Home Secretary further stated "that the difficulties of proving fraud in such cases were, he feared, almost insuperable. If the honourable member would refer to the proceedings in the Harness test case in 1894 he would understand some of the difficulties he referred to."

Why go back to 1894? A much more recent judgement, published in the BRITISH MEDICAL JOURNAL, was delivered by Lord Ardwall in the case of the vendors of Bile Beans against an Edinburgh firm of chemists, in which the learned judge refused the order, with costs, against the plaintiffs on the ground, amongst others, that the business was "founded entirely upon fraud, impudence, and advertisement."

Should this letter catch the eye of Mr. Myer, will he kindly ask the Home Secretary what action he proposes to take in this proven case of fraud? And, further, whether those who published the advertisements of this fraud are not amenable to the law for aiding and abetting the proprietors?

But the advertisements in the daily, weekly, religious, and lay press literally teem with the charlatan's cunning devices for extracting money from the sick and suffering poor. Glancing at one paper, I see that consumption, paralysis, nerve and heart disease, kidney and liver complaints can be permanently cured by taking Dr. ——'s rubbish; whilst another impudent quack can cure in a few days "anaemia," "locomotor ataxia," etc.; and as for the cure of consumption, paralysis, etc., by the same nostrum, the advertisement reminds the reader of the helplessness of medical men and hospitals, and implores the suffering to send for a free trial!

What a stimulus the Home Secretary's answer to Mr. Myer must be, not only to the unscrupulous quack, but to the wealthy proprietors of those offending periodicals who permit the dissemination of such abominable lies and trickery!

A Rapid Cure for Lumbago.

DR. J. SHEPLEY PART (Bedford Park) writes: I can from experience sympathize with "Disappointed" in his failure to get relief from his lumbago. I know of no "cure-all" for this condition, but I can strongly recommend high speed vibratory massage—say upwards of 6,000 vibrations per minute—as personally as on others I have had the most gratifying results, in fact by far the best of any treatment tried, of course not neglecting general treatment. If your correspondent will put himself in communication with me I shall be very pleased to give him what information I can on the subject.

Insurance Against Illness.

R. H. writes: A patient of mine has taken out an accident policy with a company which states under their schedule of benefits that compensation will also be given for scarlet fever. The exact wording of the clause is as follows: "H. In case the assured shall, independently of all other causes, be totally disabled by scarlet fever (scarlatina), enteric (typhoid) fever, typhus, measles (morbilli), diphtheria, or small-pox (variola) from attending to business of any kind, and provided that no claim shall arise for compensation under this section for the period of disablement during which the assured is entitled to any other form of compensation under this policy, then the company shall, from the commencement of and during such disablement, for a period not exceeding altogether twenty-six consecutive weeks, pay to the assured compensation at the rate per week written in the above schedule against section H." My patient contracts scarlet fever, which is complicated by rheumatism and also some chest mischief, and he has been totally incapacitated from following his usual occupation for eight months—in fact he is now abroad for the benefit of his health. The company contend that their liability ended as soon as the fever itself disappeared, but are they not responsible—up to twenty-six weeks—for the subsequent illness which resulted from the scarlet fever? If you can give me any help in the matter I shall be much obliged, as it appears to me to be a very important medical question.

A Vicarious Medical Examination.

A CORRESPONDENT sends us the following story: My friend Major L., R.A.M.C., himself a son of the soil, was stationed in a remote part of the South of Ireland. He did a certain amount of practice among the surrounding inhabitants. One day he received a notice from an insurance company that Mr. Jim Murphy would present himself for examination, and that the usual fee would be paid. In the afternoon the servant announced that Mr. Murphy was below. Major L.: "Show him up. Good evening, Mr. Murphy. Take off your clothes—strip everything." Examined him up and down and all over. "H'm! that's all right. Step this way, Mr. Murphy." (Pause.) "Ha! that's all right; no sugar, no albumen. Well, Mr. Murphy, I have much pleasure in informing you that you are a first-class life." "How do you mane, sur?" "First-class life for the insurance." "Arrah! what insurance?" "The life insurance, to be sure." " gob, I don't know what you are at." "Arn't you Mr. Ji Murphy?" "No, I'm Pat Murphy." "And what the d— did you come to me for?" "Sure I wanted you to come a see me wife!"

Treatment of Diphtheria.

ANTITOXIN writes: There were two eminently practical ar useful articles on this subject, one by Dr. Bolton in the *Lanc* the other by Dr. Rhodes in the BRITISH MEDICAL JOURN recently. Both use the classification, also used in t statistics of hospitals, of the "first" day of the disease, t "second" day of the disease, and so on. I cannot see h these periods are arrived at; one is called to a case a diagnoses it as diphtheria, but how can one tell with a certainty which "day" of the disease it be? The sympto and signs of diphtheria, local and constitutional, do n follow or appear in such consecutive order as to enable o at once to say, after examining the patient, "this is dip theria of, say, the 'second' day." On what grounds, the are such definite divisions made? or are they merely ar trary? In amplification of the stress laid in both artic on the importance of absolute rest and avoidance of t slightest strain, may I mention the following tragic cas A little child, an only girl, had apparently a fairly mi attack of diphtheria. She had four injections of antitoxi and in a few days seemed rapidly to convalesce; so much that at the end of eight days, the mother, in answer to t continual entreaties of the child, asked permission for h to get up. Of course, this was refused, and the importan of absolute quiet and rest impressed upon the mother. O morning, between two and three weeks of the illness, I w hurriedly sent for, and on my arrival the child was dea The child had begged for her doll; the mother fetched and was sitting on the bed dangling it about. The chi made a sudden snatch to get it, and fell back, and after gasp or two died.

As to the methods of administering antitoxin: I was und the impression that it was little, if at all, absorbed, either the stomach or by the rectum, yet I was surprised and i terested to read in the JOURNAL of February 17th of the seri of successful cases treated by mouth administration by I Pilcher. I wonder whether this method is at all larg employed? It certainly is much easier in every way th by injection. The question of expense in the use of an toxin is unfortunately a serious one. Some beneficent a far-seeing corporations—for example, Birmingham—dist bute this gratis to any medical man applying—I do not kn whether there is any limit to the amount—so that humb people, not paupers, may have the benefit of this most exc lent remedy. The birth-rate is going down. Would it n be wise, then, to keep the children we have by the tim and abundant use of antitoxin, provided for in some way Government or by local corporations? It is a pity that certain cases the medical man has to consider such a thi as money, and actually to withhold what, at the least, wou give a chance of recovery, as is doubtless the case at tim when, for instance, there is an outbreak of diphtheria. Th is no isolation hospital; there are three children in one hou "down" with diphtheria; the father earns 14s. a week. T actual cost of the antitoxin, if administerd in suffici quantity for the three would come to at least £3 or £4. T doctor's bill, of course, I do not mention, as that is a deta A reduction of the cost by the producers would be somethi but not all.

The Hospital "Atheist."

THE *St. Mary's Hospital Gazette* records the following fr the operation room as a thing "which really did happen Porter (calling Anaesthetist): "Please, sir, Mr. —— going to operate and wants an atheist." Perhaps porter's mistake arose from a confused recollection of old calumny: *Ubi tres medici, duo athei.* Mr. John All originally a member of the medical profession, used to known as Lady Holland's atheist. But in these un nominational days it will be rather hard on the anaesthet if they come to be known by a "short title" of such tru lently dogmatic import.

SCALE OF CHARGES FOR ADVERTISEMENTS IN TH BRITISH MEDICAL JOURNAL.

Eight lines and under	**£0**	**4**	**0**
Each additional line	**0**	**0**	**6**
A whole column	**2**	**13**	**4**
A page	**8**	**0**	**0**

An average line contains six words.

Advertisements should be delivered, addressed to the Manag at the Office, not later than first post on Wednesday morn preceding publication; and if not paid for at the time, shoul accompanied by a reference.

Post-Office Orders should be made payable to the British Medi Association at the General Post Office, London. Small amour may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters ***Postes Restantes*** **addressed either in initials or numbers.**

A Clinical Lecture

ON

NURESIS AND ITS TREATMENT.

BY HUGH THURSFIELD, M.A., M.D.,
STANT PHYSICIAN TO THE HOSPITAL FOR SICK CHILDREN, GREAT
ORMOND STREET, AND TO THE METROPOLITAN HOSPITAL.

VED from the standpoint of pathology, or in relation
ts effects upon the general health of the patient,
esis may appear a trivial and unimportant complaint,
unfortunately in the class from which hospital
ents are chiefly drawn there is a tendency to regard
that light, at any rate so long as its manifestations
omparatively infrequent. It is unfortunate that this
should prevail, because there are few ailments from
h children suffer where the force of habit plays so
a part; and there are few habits which exercise a
marked effect upon the moral and mental well-being
e patient, or, in later years, upon his material pro-
ts. The child in whom the habit is established is
st always timid and reserved, and not infrequently
and dull, though it may perhaps be contended that
e characteristics are associated with the condition
er in the nature of cause than of effect. As time goes
nd the condition remains unaltered, it becomes a
re handicap in his life. He cannot remain at a school
ore than a very brief period; and after puberty the
istence of the condition closes to him a considerable
ber of occupations, besides leading to physical and
tal discomfort in a marked degree. From these con-
ations it will, I think, appear that the condition is of
importance than would at first sight be evident.

PATHOLOGY.

hen we consider the act of micturition in an infant, it
ident that the evacuation of the bladder is a purely
x phenomenon. A comparatively slight stimulus to
utaneous nerves, such as is conveyed by the exposure
e body, is often sufficient to set the mechanism of the
x in action. This active condition of the reflex per-
in the majority of infants throughout the first year
e, but by the second birthday it has as a rule passed
r the control of the will, and though occasional
s may occur in the third year of life, anything like a
ent occurrence of incontinence of urine is distinctly
ological. I must here note that the education of the
t in regard to the power of control over the bladder
t to be neglected, and that an efficient nurse can
so train an infant that at the age of 18 months it
etain control of its urine during a sleep of eight to
ours. If after the infant has reached 2 years of age
reflex evacuation of the bladder is still excited by
t stimuli which in the normal child would have no
t, the condition of enuresis must be recognized.

e greatest number of cases of enuresis occur between
ages of 3 and 10 years, though it is not very un-
non to find the condition acquired by older children;
e, however, one finds it existing in adults, the history
st invariably is that they have suffered from the
laint from childhood. I have, however, notes of one
in a girl of 18 who had acquired the condition about
r and a half previously, and I have seen at least one
ar instance. It is usually said that the two sexes are
t equally affected, but in my own experience girls
umber the boys by more than two to one.

a general rule the patients are able to retain control
e bladder, at least to a moderate degree, during the
but this control disappears during sleep; but in a
in number of cases enuresis occurs by day as well
the night, and in a still larger number the diurnal
ol is less firmly established than in normal children,
at, unless there are frequent opportunities of evacu-
the bladder, the child becomes abnormally uncom-
ble, and finally loses control.

e character of the evacuation is nearly always the
—that is, there is a sudden uncontrollable contrac-
of the detrusor muscle and the contents of the
ler gush out. Occasionally, however, one meets
instances where this is not the case. One of my
nts, a boy aged 4, was said by his mother "to drip
like a tap," and the unusual description raised the suspicion that there was present some material cause, such as the presence of a calculus—a suspicion which was not confirmed. Since then I have met with some similar instances, but they are not common. Sometimes—and this is especially true in neglected cases, where the condition has been present for years—the bladder seems to have become so irritable as to be unable to tolerate the presence of more than a few drachms of urine at a time, so that the patient passes urine at intervals of a quarter of an hour by day and night. This condition has, I believe, led to the description which is found in some textbooks of a bladder which has become abnormally small. I have never been able to satisfy myself that this was the case; the bladder in this condition will always hold a normal amount of fluid.

From the consideration of the facts observed I believe, therefore, that the ordinary cases of nocturnal enuresis really represent a persistence, or a recurrence, of the normal infantile reflex irritability. However, there are causes, more rarely met with, which may be overlooked. That which is perhaps most likely to escape detection is the minor form of epilepsy. This is certainly not a common cause of enuresis, but there are a certain number of cases in which, after other methods have failed to effect a cure, a dose of 5 gr. of potassium bromide at bedtime has been immediately successful. In some of these cases there are other evidences of *petit mal* to be discovered by careful inquiry, but that is not always the case.

Mentally deficient children are not infrequently the subjects of nocturnal enuresis, which is a survival of the infantile condition. Stress is often laid upon the presence of dirty habits in determining the diagnosis between imbecility and backward development, but it is a point which should be most carefully considered, for an infantile condition in this respect may occur in backward children up to the completion of the fourth year without any real cerebral defect.

With regard to diseases of the spinal cord, the only common cause of incontinence is compression of the cord in the lumbar region consequent upon tuberculous caries of the vertebrae. Ordinarily the affection is an overflow incontinence. The bladder dilates, and after the lapse of a certain time the sphincter is unable to resist the pressure of the accumulated urine, which flows slowly away. Occasionally the bladder contracts uncontrollably on the slightest stimulation, which is usually not obvious, resulting in the condition known as precipitate micturition. But in these cases, even where the angular curvature is not a marked feature, there is nearly always a definite paraplegia, and the bladder symptom is a late manifestation. A rare and obscure cause of incontinence is the presence of an occult spina bifida, but here also there is an associated paralysis or paraplegia of the lower limbs. Hence it is quite improbable that the incontinence which accompanies these conditions will be confounded with a case of simple enuresis. The same remark applies equally to the common diseases of the bladder which are associated with incontinence, stone, tubercle, and new growth, and the ordinary forms of cystitis.

So far I have considered the causes of incontinence of urine which have a definite basis in some pathological condition of the nervous or urinary mechanism, and in examining any case of enuresis it is necessary to exclude the presence of such a cause before deciding that the enuresis belongs to the category of neuroses. When no sufficient cause can be discovered by physical examination, and when the history and symptoms of the case present nothing which can arouse a suspicion of the presence of some unusual cause, I think one is justified in considering the case as one of simple enuresis. Now, though in enuresis it is not possible to point definitely to the determining cause, it is easy to indicate many of the factors which predispose to the condition, and when we consider these it is evident that they have all one common feature: they all act in some way as stimulants of the afferent nerves. Now, in infants, I pointed out that almost any form of stimulation sufficed to set in motion the mechanism by which the bladder is evacuated, and the more closely one studies the character of the enuresis of childhood, the more clearly one perceives that it merely represents a recurrence to, or a persistence of, the infantile condition. There is in many medical textbooks much talk of a weak

2

sphincter, of a loss of muscular tone, and similar defects, but I am unable to convince myself that these explanations have any foundation in the facts. On the contrary, if one goes into the history of the precise sequence of events in a case of enuresis in an intelligent child, it becomes obvious that the sphincter is efficient up to and even beyond the normal, but that the voluntary control is not established so firmly as in healthy individuals. It is rare to find the urine dribbling away in this condition; it nearly always comes with a sudden gush; in other words, the spinal centre temporarily has got out of control of the cerebral centre. From these considerations it becomes clear that enuresis is a phenomenon related to an instability of the nervous system—a conception which is confirmed by the frequency with which it follows such a disease as diphtheria.

I do not think it is possible in the present state of our knowledge to obtain any more precise view of the definite cause of the disease, but fortunately it remains possible to trace out and attack some of the causes which most commonly excite the irritable reflex. Probably that which is most common is the presence of adenoid vegetations in the naso-pharynx. I should be expressing myself more cautiously if I were to say that it is a condition found with great frequency in cases of enuresis; for it is a tenable hypothesis that the same conditions of health which led to the growth of the adenoid vegetations produced at the same time the nervous instability. But, whatever may be the precise pathology, there can be no doubt that there is an intimate connexion between the presence of adenoids and the existence of enuresis, and that the removal of the hypertrophied lymphoid tissue is the first essential step in the cure of the enuresis.

Another commonly-associated condition is the presence of threadworms. Whether these act directly as stimulants to the afferent nerves, or whether the condition of the bowel which favours their existence is the exciting cause, I believe that it is important to eliminate this factor in the production of enuresis. Jacobi lays stress on the existence of small anal fissures in children who suffer from the complaint, and I should be quite prepared to accept these as a sufficient cause if I had been able to detect them; but I have examined a considerable number of children with special reference to this point, and have not met with a single instance.

Another factor in the causation, as to which I am sceptical, is the presence of vulvitis in girls, and balanitis or phimosis in boys. These ailments are so common among the children of the poorer classes that, if they were efficacious in causing enuresis, I should expect that complaint to be far more common than it is. But, where every possible excitant of the afferent nerves is under suspicion, it is necessary to insist on attention to absolute cleanliness in children who suffer from enuresis.

Next there is a group of cases in which the urinary secretion itself acts as an irritant. Hyperacidity is certainly found in some instances, and is sometimes associated with the passage of uric acid, and of a highly concentrated urine. Many authorities doubt the connexion between the phenomena, but there exist cases where the administration of an alkali in fairly large doses effects a quick cure of the incontinence, and on the whole it appears to me to be probable that hyperacidity is a sufficient exciting cause.

In convalescence from typhoid fever it sometimes happens that the urine becomes cloudy from the presence of large numbers of bacteria in the urine, and in this condition I have twice met with children who have acquired enuresis, which speedily disappeared with the disappearance of the bacteriuria. In a few other instances I have found a bacteriuria in children suffering from enuresis, and, though I do not regard it as a common cause, I always examine the urine directly it is passed. In those cases where bacteriuria is present the cloudiness does not disappear after heating or by the addition of acid, and the bacteria can be easily detected by the microscope. There are not any symptoms of cystitis in these cases, so that, unless the examination be made methodically, they are apt to be overlooked.

In a healthy child none of the factors I have mentioned will produce enuresis of itself; there must be other adjuvant causes. The subjects of the complaint are generally anaemic, listless, undergrown, or ill-fed, and often exhibit other signs of nervous instability; they suffer from night terrors, migraine, hysteria, and neuralgia; and there is a certain amount of evidence which points to an inheritance of instability. Thus it is not infrequent to see several children in one family affected, one or both of whose parents suffered from the complaint in childhood.

To summarize what I have said as to the pathology and etiology of the disease, there is as a basis a condition of nervous instability, which may be inherited, or is often acquired, as in those cases which follow an attack of diphtheria. Acting on this, there are a number of exciting causes, which may be grouped in three divisions: (1) Those which act on the nerve centres in the brain, as in epilepsy; (2) those which act on the cutaneous peripheral nerves and excite reflex action in the unduly irritable spinal centres; (3) those which produce irritative effects in the urinary tract.

TREATMENT.

Two points require emphasis. The first is that in order to ensure success prolonged treatment is necessary, and this for several reasons. Usually the condition has been allowed to become a habit before it is taken seriously, and it requires a long time under new conditions to break the force of the acquired tendency; and, again, though success is sometimes obtained early, relapse is frequent unless the treatment is sustained. The other point is the necessity of varying the surroundings of the patient; some patients who derive no benefit whatever from treatment so long as they continue their ordinary mode of life, improve from the moment that they are removed to a different environment, the reason probably being that some one or more of the exciting causes present in the home-life of the patient are eliminated by removal to a different surrounding.

In nocturnal enuresis the evacuation of the bladder takes place as a general rule in the first two hours of sleep. Therefore the first instruction to be given is that one hour, or one hour and a half after the child has gone to sleep, of course with a bladder properly emptied, it is to be awakened, and made to pass water again. This precaution in a considerable number of cases is sufficient to prevent the enuresis, but occasionally one meets with cases in which one awakening is insufficient, and then it is a wise plan to manage so that the child is awakened at regular intervals throughout the night; the intervals, of course, are made longer as improvement occurs. Secondly it is of advantage to encourage regular habits during the day. The bladder should be emptied only at stated intervals, and these should be as far apart as is consistent with the comfort of the patient. This measure is especially valuable where there is diurnal as well as nocturnal enuresis, for in such instances there often grows up a habit of unnecessary evacuation. It is sometimes stated that the bladder becomes contracted and incapable o retaining more than a few ounces at a time, and though there may be such cases, I can only say that they are outside my own experience, and that, as a rule, in enuresis the amount evacuated is quite equal to the normal contents of a healthy bladder.

The next point of importance is to avoid those articles of food and drink which have an irritative or diuretic effect. Tea and coffee are to be absolutely prohibited and the last meal and the last drink should be taken a least an hour before bedtime. In addition to tea and coffee, sugar in all its forms must be eliminated from th diet. Sweets are most potent causes of relapses. With these exceptions, the ordinary plain diet suited to healthy children is permissible, for though some authorities advocate the elimination of meat from the diet, I have neve seen any reason to follow that rule. It is a common practice of mothers to limit the amount of fluid taken by th patient, but I have no doubt that the consequent increas in the concentration of the urine is apt to increase th tendency to enuresis. On the contrary, the child shoul be permitted to drink water or milk as it desires, provided it be taken at regular times and limited in quantity at th last meal.

In nervous, excitable children, school work should b discontinued for a time, but in the children of the poore classes this is not always attended with the desired resul for they find excitement in the streets. When the die and the habits of the patient have been corrected, ther are further measures which aim at the elimination of th citing causes. Scrupulous cleanliness, the removal of enoid vegetations, the treatment of anaemia, and the portance of air and exercise, must receive proper atten- n. In boys, circumcision is sometimes advisable, and hreadworms are present, special measures must be used get rid of them, ordinarily an easy task.

The question of drugs is important. The number that ve been employed is enormous, and many of these have n praised as efficacious. I have used a large variety, t have found three only of much service, and of these ee belladonna or atropine is by far the most successful. may be used in the form of the extract, or the tincture, as liquor atropinae, and each has its advocates. I do regard the point as essential, though personally I ays employ the tincture. What is essential is that the e should be sufficient to produce evidence of its action, l that it be used over a long period. I usually give minims of the tincture three times a day as the initial e, and raise the dose week by week up to a drachm ee times a day. With these doses in a large number of es immediate benefit is obtained, and usually as time s on the frequency of the enuresis sensibly diminishes, l finally disappears. At this period it is essential not bandon the drug, but to slowly diminish the dose until an safely be dispensed with. A period of three to six nths will usually be required for the permanent relief he complaint, but occasionally there are cases where t time must be considerably prolonged.

he danger of poisoning is slight. Of the many cases ave treated in this manner only one has had delirium, ugh loss of accommodation is nearly always present in beginning. This, however, soon passes off, and it is an indication for relaxing the use of the drug. Dry- s of the throat and mouth and a smarting sensation in pharynx are also complained of sometimes, but these are temporary discomforts. I employ the belladonna conjunction with potassium citrate in the majority of s, and in a few instances where I have had reason to eve that hyperacidity of the urine was the chief cause ave found potassium citrate alone to be efficacious. third drug which has proved successful is urotropin, this is especially indicated in cases of bacteriuria. ust be given well diluted, for in concentrated solu- s it has been known to produce haematuria, and ful micturition. I used it on a series of thirty secutive cases, with good results in nine instances.

f other drugs my experience has been disappointing; ave never succeeded in obtaining good results with t, antipyrin, rhus aromatica, lycopodium, or any of the r drugs which others have found useful. In excitable dren, who are the subjects of night terrors, a small of potassium bromide at bedtime is beneficial, and in ourished, anaemic children, iron and strychnine are l tonics.

ectrical treatment, with one pole in the urethra, or the pubes, and one on the lumbar region, is said to eed where other measures fail, but it also fails fre- ntly, and I cannot ascertain that the cases in which icinal treatment fails are cured by the employment of electric current. It is true that all treatment in this plaint is empirical, but in my experience com- tively few cases resist, if the treatment indicated is everingly carried out. When, however, failure still nds one's efforts at the end of six months and e is no sign of improvement, the patient should be oved entirely from his or her surroundings, and ed in bed under supervision. What have been appar- y hopeless cases often derive striking benefit from such urse, and, the force of habit thus attenuated, the final lts are usually good. I believe that the prospects of ment are better than is usually supposed. I estimate between 70 and 80 per cent. of my cases get well in t four months, that 10 to 16 per cent. recover in about t months, and that from 1 to 2 per cent. remain almost d as before. Of these last, however, I do not despair; of them are improved; all are capable of improve- t, but subject to relapses. The only point remaining otice is that I find boys more amenable to treatment girls, and that the most hopeless cases are those in h mental development is below the average. Of s occurring in young adults I have little experience, l believe that the majority are in girls, and that they usually cases where treatment in earlier years has spasmodic or even wholly neglected.

THE CAUSES AND TREATMENT OF ENURESIS.*

By PERCY G. LEWIS, M.D.,
HONORARY MEDICAL OFFICER, VICTORIA HOSPITAL, FOLKESTONE.

This is a subject in which I have long taken great interest, and in 1899 I published in the *King's College Hospital Reports* my ideas on the matter, which followed a number of cases successfully treated by an antidiabetic diet. Since then many failures by this treatment, together with more work at the subject, have induced me to alter my views, or rather to enlarge them.

I will now endeavour to offer an explanation of the conditions which brings all the varieties of this malady into line, and of the reasons for the success or failure of the various treatments in common use.

Causes.

Nocturnal enuresis is a symptom the causes of which are believed to be various. Dr. Goodhart, in his work on *Diseases of Children*, says:

> There are few conditions which require more careful study than this, and few in which such a variety of circumstances conspire to bring it about. Whoever will treat enuresis with success must be prepared for a preliminary inquiry of a somewhat complicated nature.

This opinion becomes confirmed on reading the views of various writers on the subject, for it is found that hardly any two are in agreement as to the causes of this distressing malady. It may be that as the causes are admittedly various there is some truth in all. It will be our endeavour, then, to extract from this mass of contradictory material some general ideas which may bring these dicta into harmony, and so formulate a broad basis for treatment.

Condition of the Urine.

All writers agree that the urine shows variations from the normal. Owen noted that the urine might be acid or alkaline. At times it is extremely acid, loaded with urates and of high specific gravity. In these cases it is held by some that, being abnormally irritating, the urine excites the reflex act of emptying the bladder without the intervention of the consciousness. The more common variation, however, is a condition of low specific gravity, neutral or alkaline urine with triple phosphates or oxalates, a few pus cells, and a trace of albumen. Then it must be the amount of the urine which excites the reflex, for the quantity passed in twenty-four hours, and especially at night, is thrice or even more times than the normal. There is, in fact, a condition of polyuria. It is quite common to find a bed deluged with urine an hour or so after a child has been taken up and made to pass water.

Typical examples of urine from enuresis cases are as follow:

(*a*) Specific gravity 1030, highly acid reaction. Total quantity in 24 hours, 20 oz. Colour, mahogany. Urea, 6 per cent. Deposit, uric acid crystals in abundance. No albumen or sugar.

(*b*) Specific gravity 1005. Alkaline reaction. Total quantity in 24 hours, 3 pints. Colour, very pale straw colour. Urea, 0.3 per cent. Deposit, triple phosphates with a few pus cells. Trace of albumen. No sugar.

Condition of the Patient.

But if the urine is admitted to be abnormal, there is an equal agreement that the subjects of the complaint are also abnormal. The varieties of this abnormality have by different writers been made to include a very large number of the disorders to which the flesh of childhood is heir. Rachford found anaemia in 80 per cent. of his cases, and it is always present in the alkaline class. Trousseau says enuresis is essentially a neurosis, and often found in families prone to epilepsy. Some have considered it a mild form of nocturnal epilepsy. Goodhart says the tone of the nervous system is at fault. Some authorities have described the sufferers as mainly of a neurotic type, whilst others as flabby, anaemic, and lymphatic. A vasomotor neurosis of the renal vessels has been suggested as an explanation. Whitla finds enuresis very common in the neglected children sent into the industrial and charity schools, where it is often associated in its worst forms with a low standard of intellectual development. Ashby and Wright consider that mere delicacy of health may give rise to enuresis. It is usually affirmed to be more common in boys than in girls, but this is not the writer's experience. Of 38 cases, Goodhart found 20 in girls and 18 in boys. Eustace Smith says the worst forms are found in girls, and West and Whitla confirm this. Many observers have noted the occurrence of enuresis in the subjects of rickets, rheumatism, adenoids, and constipation. Slow carbonic acid poisoning has been given as a cause. Thus, G. W. Major and Zeim explain the incontinence of mouth-breathing children. Some local condition of the urethra or bladder or their neighbourhood has also been blamed as a cause. To mention only a few of these will be sufficient—namely, long prepuce, worms, hip-joint disease, polypus of the rectum, pinhole meatus, and urethral caruncle. Nocturnal enuresis has been noted as an early symptom in nephritis, renal calculus, diabetes, and in tuberculosis of the urinary organs.

---

* Read at a meeting of the Folkestone Division of the British Medical Association.

Condition of the Nervous System.

It is held by some that in these cases the nervous system is either generally or locally at fault. By others it is attributed to a retrogression to, or a continuation of, the infantile condition, to laziness, or to defective training. That there must be a debility of the whole nervous system is apparent from the large number of these sufferers amongst the insane, and also, as Whitla noticed, in the children of the charity schools. There can be no doubt that the habit of enuresis often remains long after the cause has been removed. It is owing to this that many methods get the reputation of curing when they have only broken a habit. In this category we may place nearly all those cases which are cured by operative procedures, and by the various forms of local treatment. Thus is explained the frequent failure of each method, and the fact that some methods, such for instance as circumcision, have been followed by enuresis in subjects who had not previously suffered from it. The contention is that such an impression is made on the nervous system by the surgical or other method of procedure, that the attention is forcibly directed to the new source of discomfort, and the habit of emptying the bladder during sleep is broken. The tendency to spontaneous cure is well known. Sachs is of the opinion that profoundness of sleep alone is sufficient to cause the phenomenon. Goodhart and others have noticed that in enuresis sleep is too profound, and it is a matter of common observation that when taking such a patient up at night, he hardly ever quite awakes, and that he relapses again into slumber directly he is put back into bed. Such cures as are brought about by corporeal punishment, or the cure by the American method of vigorously spanking the nates, may operate by causing sleep to be less profound and so breaking into the vicious circle. But corporeal punishment sometimes acts in a way not intended. The writer knows of boys who attempted to keep awake all night in order to avoid a thrashing, of others who tied pieces of string round the prepuce, and of one case where sloughing of the penis resulted from the application of a brass ring for the same purpose.

Condition of the Digestive System.

But behind the admitted weakness of the nervous system there is always a digestive disturbance. In the writer's opinion this is the key to the situation. Owen and several writers have noted the great importance of diet in treatment. But Owen admits that all treatment is empirical. A. Jacobi says that whenever the urine is abnormal the digestive system must receive attention, and that treatment is useless until the normal action of the digestive organs is restored. Goodhart recommends abstinence from meat, and this undoubtedly does good where the urine is too acid. Whitla noted the frequent bad effect of a too starchy diet. This is most noticeable where the urine is neutral or alkaline. The curative effect of a non-farinaceous diet is often immediate. The fact that the alkaline variation of the urine is the more common, accounts for the large measure of success which this treatment has effected. The researches of Luff, Chalmers Watson, and others, on intestinal fermentations and bacterial processes in the digestive organs, make it certain that the formation of a toxin as a result of their action is a very important element in the condition under review. In fact, it is held that this is another condition which is in a large measure the consequence of intestinal sepsis. Dr. S. J. Wright, in the *New York Medical Record* for July, 1897, records a case of a lady of 34, where the trouble had existed from childhood. She was cured by taking naphthol (an intestinal antiseptic) internally. It is now admitted that the highly acid urine of gout is due to bacterial action in the intestine. In the alkaline variety of enuresis the polyuria is probably due to a toxin acting on the renal vessels and causing their dilatation, or, even more possibly, to its effect on the general blood pressure.

In the BRITISH MEDICAL JOURNAL for February 17th Dr. Bushnell describes a condition of bacilluria, in which large quantities of living bacilli of various sorts are eliminated by the kidneys. This he says is a not infrequent cause of nocturnal incontinence in children.

One cannot but be struck by the ease with which this view that intestinal sepsis is an essential part of the condition explains the facts of enuresis. Enuresis with acid urine is the result of putrefactive decomposition of the albuminous constituents of the food. Enuresis with neutral or alkaline urine is the result of putrefactive decomposition of the farinaceous constituents.

Intestinal sepsis occurs most easily in those whose vitality is depressed from any cause, and hence all the various conditions which have been named as causes are brought into line by this hypothesis. Intestinal sepsis is much influenced by the state of the general health which accounts for the curative effects of tonics, for spontaneous cure, for recurrence, for the effects of regular diet, for the cures which so often follow on the improved health consequent on the removal of adenoids or other morbid conditions, and for the failure of altering the position during sleep or tilting the end of the bed, as noted by Crawford.

This fact of intestinal sepsis, combined with a nervous system (and consequently the local nervous mechanism of micturition) temporarily weak, together with what has been said as to the formation of a habit of enuresis, offers, indeed, an explanation of the success or failure of all the methods of treatment in vogue, and forms concord amongst the many apparently diverse explanations of the cause of enuresis which have obtained in the past. Hence is made plain the occurrence of the condition occasionally in adults, and its much greater frequency in children. The effects of intestinal sepsis are more manifest, and the results tend to remain longer as a habit in children owing to the little assistance which the breaking of the habit receives from the will. It is often necessary with them to make an impression on the mind, by surgical or other measures as before mentioned. There are no commonly used treatments which cannot have their success or failure explained on the theory of intestinal sepsis, with a weakened nervous system as an essential element, at some time or other in all cases.

TREATMENT.

General Considerations.

When undertaking the treatment of a case of enuresis i is first necessary to consider:

1. Whether the case is simply one of general want o tone.

2. Whether intestinal sepsis is now a prominent feature and if so, is the urine passed at night abnormally acid and of diminished quantity, or is it of low specific gravity alkaline or neutral, and of increased quantity?

3. Or whether the case is simply one of habit remaining after the cause has been removed, or after improvement i the general health has become such that enuresis need not occur.

As a rule it is quite easy to determine this point, but one must own that it is not always possible to be quite sure. In practice it is found that failure on one line o treatment will soon be followed by success by substituting one of the other two. At all events, viewing the matter in this way, we have a knowledge which enables us to judge with accuracy how long persistence in one line of treatment should be allowed.

Tonics.

In the first of these classes are those cases which different writers describe by saying that the children do not look ill, and also those in which anaemia is present without much evidence of intestinal sepsis, and mostly also those who have not suffered long. These are the cases which Ashby and Wright allude to as due t icacy alone. Almost any good tonic will effect a cure. ny physicians have a preference for phosphate of iron its popular form, or perchloride of iron as strongly ocated by West, or strychnine as advised by Ringer. luded in this method are all measures which tend to prove the health, such as cold douches, massage, nning wild" in the country, change of air, or any of many things which we are in the habit of prescribing mprove the general health and tone of our patients. practice of taking the patient up several times at ht is a convenient method of protecting the bed, but it n no sense a means of cure.

Treatment of the Digestion.

n the second class, evidences of indigestion are to be d more or less prominent, and all the causes which luce intestinal sepsis are to be looked for, and, if pos- e, removed. These are the cases which are often so ly cured by diet. In the acid form the cutting off of t alone may be followed by success, and in the line form the use of a non-farinaceous diet is often ediate in its good results. The failure of either diet ue to such method alone not being sufficient by itself tay the course of an intestinal sepsis once begun. re are, of course, a number of ways of combating stinal sepsis. A good routine treatment consists in ring a good daily evacuation of the bowels by giving . of calomel every night and a mild saline aperient in morning. In addition one may give one or more of many drugs which aid intestinal asepsis. Further tance may be obtained from any of the health- oving methods before mentioned, which can be ted at the discretion of the physician. He must also le each case on its merits, as to whether medicinal s can be used at the same time that the septic ition of the digestive organs is being combated.

ILLUSTRATIVE CASES.

Enuresis had existed for a long time in the son, aged rs, of a lodging-house keeper. He was at once cured by taken into hospital and kept on the ordinary hospital without any other treatment.

A girl, aged 21 years, the servant at another lodging , was cured as rapidly by the same method.

e obvious cause in each instance was intestinal s from irregular and injudicious feeding.

girl, aged 10, had had enuresis for three months. She mmediate freedom from this symptom while taking a rinaceous diet, but for the first six weeks relapse ed the slightest consumption of starchy food.

boy at school with enuresis and highly acid urine d no improvement when taken off meat. He was, how- rapidly cured by a course of $\frac{1}{4}$ gr. calomel every night, gr. of salicylate of soda thrice daily.

Breaking the Habit.

the third class one may look for sources of irritation might require treatment—for example, worms, *in ano*, adherent prepuce, etc. This is more ally the case as one may, so to speak, "kill two with one stone." That is to say, the operative treat- necessary to cure the local condition, acting strongly mind, or by making sleep less profound, frequently the habit of enuresis. And this it may do in spite fact that the local condition had nothing whatever with the formation of the habit. Other surgical ds, such as blistering the sacrum, blistering the freely cauterizing the urethra, the passing of large bougies, and the various ways of using electricity— t in one or other of these two ways. Equally ious and far more rational is it to talk seriously the patient of the possibility of one or other of measures having to be adopted if improvement ot immediately occur. This is the class of case the schoolmaster, much to his satisfaction if the ian has failed, succeeds in curing by corporeal ment. As, however, he cannot be expected to se as to which of the three classes the case belongs, ds are against his success, and, as previously pointed rse evils than enuresis may result.

Former Treatments.

her treatments, one need mention a few which have n previously dealt with. The success or failure of ers is easily explained if the view herein advocated pted.

The limitation of the amount of fluid drunk never gained much reputation—in fact, it rather tends to aggravate than relieve the symptom, by adding to the digestive disturbance.

Belladonna in small doses acts as a tonic to the nervous system, and may, as other tonics, succeed in the first class of cases. When given in semipoisonous doses it acts on the mind, and is then successful by diverting the attention. Professor Fonnsagrives thinks it acts by making sleep less profound, so that control of the sphincter muscles is not lost. This is interesting in connexion with Macalister's opinion that belladonna acts better when combined with strychnine. A. Jacobi says belladonna is only useful when there is vesical catarrh.

Sedatives such as chloral and bromide may succeed for a time by blunting the nervous mechanism of micturition, but they do not touch the cause, and their use is consequently unscientific.

CONCLUSION.

In conclusion I would contend that nocturnal enuresis is capable of the simple explanation here given, that order is by this explanation introduced into the chaos of conflicting views and opinions, that reasons are now obvious for the success or failure of the various methods of treatment formerly in use, and that treatment can now be carried out on rational and scientific lines instead of by the empirical and haphazard methods of the past.

BIBLIOGRAPHY.

Ringer, *Textbook of Therapeutics.* Holmes, *System of Surgery.* Ashby and Wright, *Diseases of Children.* Goodhart, *Diseases of Children.* West, *Diseases of Infancy and Childhood.* Eustace Smith, *Disease in Children.* Whitla, *Dictionary of Treatment.* Sachs, *Nervous Diseases of Children,* Trousseau, *Medicine.* Lauder Brunton, *Therapeutics and Materia Medica.* Strümpell, *Textbook of Medicine.* Owen, *Surgical Diseases of Children. Medical Annual,* 1896. *Year Book of Treatment,* 1889. Crawford, *King's College Hospital Reports,* 1896. Lewis, ibid, 1899.

UPON THE PROPERTIES OF AN ANTITYPHOID SERUM OBTAINED FROM THE GOAT.*

By ALLAN MACFADYEN, M.D.

(FROM THE BACTERIOLOGICAL DEPARTMENT, LISTER INSTITUTE OF PREVENTIVE MEDICINE.)

In this communication I propose to give a brief account of the results obtained by the immunization of the goat with the cell juices of the *Bacillus typhosus.* The experiments are a continuation of those already published, which had as their main object the production of an antibody for the endotoxin of the typhoid bacillus.[1] The difficulties to be overcome proved numerous, and served to retard the progress of the work. It will be sufficient for the present to say that the goat was found to be a more suitable animal than the horse for arriving at a solution of the theoretical and practical considerations involved. The experiments on the goat having fulfilled their purpose may now be recorded. That purpose was to determine the best method of producing with the material employed an anti-endotoxin, and of increasing to an adequate degree the antitoxic value of the treated animals' serum. It was the latter point that presented the chief difficulty in the initial stages of the investigation. It is, however, one of fundamental importance in the preparation of any serum which it is proposed to test for therapeutic possibilities. I therefore felt justified in devoting considerable time to the experiments on the goat, in order to arrive at a method that would give the desired result.

During the progress of the experiments two papers have been published by Besredka upon an antibody for the typhoid endotoxin and to these I will in the first instance make reference.[2] Besredka gives an account of the immunization of a horse with dead and living cultures of the *B. typhosus.* The intravenous injections of the bacilli extended over a period of two years. The horse's serum was then tested against (1) killed and dried cultures of the typhoid bacillus, of which 0.01 gram killed a guinea-pig on intraperitoneal injection; (2) a soluble endotoxin extracted from the dead and dried bacilli, of which $\frac{1}{8}$ c.cm. killed the guinea-pig. The main results were as follows: 10 cg. of the dried horse serum (about 1 c.cm. before drying) neutralized 10 lethal doses of the killed typhoid culture and 16 doses of the soluble endotoxin. This low titrate was obtained after two years' treatment of the horse with the dead and living cultures of the typhoid organism. These results I shall refer to more particularly at the conclusion of this paper.

---

* The results of this investigation were communicated on March 8th, 1906, to the Royal Society, with the exception of the subcutaneous experiments, and those upon guinea-pigs, which have since been completed.

EXPERIMENTS.

The typhoid cell-juices used in my experiments were prepared in the following manner: Virulent typhoid bacilli isolated directly from the peritoneal cavity of the guinea-pig were cultivated on nutrient agar in Roux bottles for eighteen hours at blood-heat. The growth was brushed off and washed with distilled water in a centrifuge for half an hour. The living bacilli were then triturated at the temperature of liquid air in the grinding pot already described by Rowland and myself.[3] The time allowed was thirty minutes per gram of bacilli. The resultant mass was taken up in 1 in 1,000 solution of caustic potash and spun for two hours. The fluid obtained represented a 10 per cent. extract of the typhoid cell-plasma, along with such bacilli as had not been removed by the two hours' centrifugalization. This was treated with chloroform vapour for half an hour. The cell-juices obtained under these conditions were sterile and toxic on intravenous injection into the test animals employed—goats and rabbits.

The endocellular toxins obtained in the manner described are unstable bodies, and the juices rapidly lost their original toxicity. The experiments with kept juices possessing feeble or no toxicity did not indicate that their injection would lead to any marked tolerance in the animals against fresh and markedly toxic juices. The probabilities were against this easier and less risky method of procedure. Recourse was accordingly made in the later experiments to the use of the fresh and acutely toxic cell-juices. These juices contained on an average 10 to 12 mg. of solid matter.

The fresh juices, an intravenous injection proved, as stated, acutely toxic for the goat. The first goat after an injection of 1 c.cm. died acutely, and $\frac{1}{10}$ c.cm was acutely fatal to several goats. In two instances $\frac{1}{20}$ c.cm. killed the animals within twelve hours. Death was preceded by acute diarrhoea and collapse. Where death did not ensue the injection of $\frac{1}{20}$ c.cm. was still followed by illness and diarrhoea, and $\frac{1}{30}$ c.cm. rendered certain animals ill but with less acute symptoms. It was obvious that the intravenous injections would have to be very carefully carried out to avoid unduly depressing or killing the animals. A goat after receiving doses of $\frac{1}{20}$ and $\frac{1}{10}$ c.cm. died, whilst another after the injection of $\frac{1}{20}$, $\frac{1}{10}$, $\frac{1}{2}$, and 1 c.cm. died within four hours after the last dose. The subsequent animals consequently received small sublethal doses which were raised very gradually at duly spaced intervals. One injection weekly proved to be the safest procedure, and the same dose was repeated until it failed to produce any toxic action on the animal. A slightly higher dose was then given and repeated in the same manner. This method proved ultimately successful, as only in this way was tolerance established to otherwise fatal doses of the typhoid endotoxin.

In the experiments here recorded, the anti-endotoxic action of the serum was tested by intravenous injections in rabbits. The endotoxin likewise killed rabbits acutely, for example, $\frac{1}{10}$ c.cm., with acute diarrhoea and collapse, at times within two hours, and $\frac{1}{20}$ c.cm. was not infrequently a lethal dose. The conditions were, therefore, sufficiently stringent as regarded any anti-endotoxic action of the treated goat's serum. The toxic cell-juices were titrated for the purpose of each serum test. I satisfied myself that neither the normal serum of the goat or the rabbit possessed any appreciable antitoxic power for the toxins employed. Controls in this respect were found subsequently to be unnecessary. Three c.cm. of normal goat's and rabbit's serum did not neutralize two or ten lethal doses of the endotoxin. The serum of the treated animals was tested against multiple lethal doses of the endotoxin. An estimate was likewise made of the agglutinative and bacteriolytic properties of the serum.

I now proceed to an account of the first successful immunizing experiment:

Billygoat 1.—Received the following intravenous injections of the toxic cell-juices of *B. typhosus*:

May 16th, 1905, $\frac{1}{20}$ c.cm., animal ill; May 24th, $\frac{1}{10}$ c.cm., ill; June 2nd, $\frac{1}{5}$ c.cm., ill; June 9th, $\frac{1}{2}$ c.cm., ill; June 16th, 1 c.cm., ill; June 23rd, 1 c.cm., ill; June 30th, 1 c.cm., ill; July 7th, 1 c.cm., no symptoms; July 14th, 1.5 c.cm., n symptoms; July 21st, 1.5 c.cm., no symptoms; July 28t 2 c.cm., ill; August 4th, 2 c.cm., no symptoms; August 11t 2.5 c.cm., dead.

It was evident that with subsequent animals an eve more careful system of dosage would have to be adopte The goat was bled at intervals and the serum tested. all instances given in the tables the serum-toxin mixtu was kept at blood heat for half an hour previous intravenous injection into the rabbit.

TABLE I.—*Test of Normal Serum of the Goat.*

Rabbit.	Serum + Endotoxin.	Result.
1	3 c.cm. serum + 1 c.cm. toxin	Dead.
2	2 c.cm. serum + 1 c.cm. toxin	"
3	Control, $\frac{1}{10}$ c.cm.	"
4	Control, $\frac{1}{20}$ c.cm.	Diarrhoea.

Three c.cm. of normal serum did not therefore neutrali 1 c.cm. of a toxin of which $\frac{1}{10}$ c.cm. killed and $\frac{1}{20}$ c.c produced acute diarrhoea in the rabbit.

TABLE II.—*Tests of Serum of Treated Goat I.*

Date.	Rabbit.	Serum + Endotoxin.	Remarks
June 23rd, 1905	1	3 c.cm. serum + 1 c.cm. toxin	Alive.
	2	Control, 1 c.cm. toxin	Dead.
July 7th, 1905	1	3 c.cm. serum + 2 c.cm. toxin	Alive.
	2	3 c.cm. serum + 1 c.cm. toxin	"
	3	2 c.cm. serum + 1 c.cm. toxin	"
	4	Control, 2 c.cm. toxin	Dead in hours.
	5	Control, $\frac{1}{20}$ c.cm. toxin	Dead in 1 hours.
July 14th, 1905	1	3 c.cm. serum + 2 c.cm. toxin	Alive.
	2	2 c.cm. serum + 2 c.cm. toxin	"
	3	1 c.cm. serum + 1 c.cm. toxin	"
	4	$\frac{1}{10}$ c.cm. serum + 1 c.cm. toxin	"
	5	Control, $\frac{1}{17}$ c.cm. toxin	Dead.
	6	Control, $\frac{1}{30}$ c.cm. toxin	Acute diarrhoea
July 21st, 1905	1	1 c.cm, serum + 1 c.cm. toxin	Alive.
	2	$\frac{1}{2}$ c.cm. serum + 1 c.cm. toxin	"
	3	$\frac{1}{10}$ c.cm. serum + 1 c.cm. toxin	"
	4	Control, 1 c.cm. toxin	Dead.
	5	Control, $\frac{1}{10}$ c.cm. toxin	Acute diarrhoe
	6	Control, $\frac{1}{15}$ c.cm. toxin	Acute diarrhoe
Aug. 4th, 1905	1	$\frac{1}{20}$ c.cm. serum + 1 c.cm. toxin	Alive.
	2	$\frac{1}{50}$ c.cm. serum + 1 c.cm. toxin	"
	3	$\frac{1}{100}$ c.cm. serum + 1 c.cm. toxin	" Lethal d not estima
Aug. 11th, 1905	1	$\frac{1}{20}$ c.cm. serum + 1 c.cm. toxin	Alive.
	2	$\frac{1}{50}$ c.cm. serum + 1 c.cm. toxin	"
	3	$\frac{1}{100}$ c.cm. serum + 1 c.cm. toxin	Dead.
	4	Control, 1 c.cm. toxin	Dead in hours.
	5	Control, $\frac{3}{10}$ c.cm. toxin	Dead in hours.
	6	Control, $\frac{1}{10}$ c.cm. toxin	Dead in hours.

The death of the goat prevented further tests be made. It will be seen from the table that, following injections, marked antiendotoxic properties had devel in the serum of the goat. After twelve injections $\frac{1}{50}$ c. of the goat's serum protected a rabbit against 10 as tained lethal doses of the typhoid antitoxin. This re could not be brought about by 3 c.cm. of the serum of normal goat. The experiment had therefore successful; not only had antiendotoxin been produ but the antitoxic power of the serum had been raise a marked degree in the course of the three mon immunization of the goat.

It is not my intention in this paper to refer in deta the production of agglutinins and bacteriolysins that wise occurred. It will be sufficient to state that w the amount of agglutinins present in the serum va the highest titrate obtained was with $\frac{1}{1000000}$ c.cm. of serum. The serum in this dilution produced a dis clumping of the typhoid bacillus.

The bacteriolytic titrate reached was also high, as a end of three months $\frac{1}{10000}$ c.cm. of the serum prote guinea-pigs on intraperitoneal injections against 10 le doses of the *Bacillus typhosus*.

he serum of Goat I possessed, therefore, to the above gree agglutinative, bacteriolytic, and antiendotoxic perties.

he next step was to control these results by the munization of fresh goats, and to carry out the injecns in a still more careful manner. The method adopted l be made clear by the following schedule:

annygoat II.—Received the following intravenous intions of the toxic cell-juices of *B. typhosus*:

ctober 13th, 1905, $\frac{1}{20}$ c.cm., animal ill; October 20th, .cm., no symptoms; October 27th, $\frac{1}{15}$ c.cm., ill; Novem- 3rd, $\frac{1}{15}$ c cm., no symptoms; November 10th, $\frac{1}{10}$ c.cm., symptoms; November 17th, $\frac{1}{10}$ c.cm., ill; November 24th, .cm., ill; December 1st, $\frac{1}{10}$ c.cm., no symptoms; Decem- 8th, $\frac{1}{8}$ c.cm., ill; December 15th, $\frac{1}{8}$ c.cm., no symptoms; ember 22nd, $\frac{1}{8}$ c.cm., no symptoms; December 29th, $\frac{1}{6}$ c.cm., January 5th, 1906, $\frac{1}{3}$ c.cm., no symptoms; January 12th, cm., no symptoms; January 19th, $\frac{1}{4}$ c.cm., no symptoms; uary 26th, $\frac{1}{4}$ c.cm., no symptoms; February 2nd, $\frac{1}{3}$ c.cm., February 9th, $\frac{1}{3}$ c.cm., no symptoms.

hree goats have been successfully immunized by the ve method of small and gentle dosage. It will be erved that whilst in the case of Goat I the dose of toxic -juice was raised from $\frac{1}{20}$ c.cm. to $2\frac{1}{2}$ c.cm, the final dose hed in the case of the present tests only amounted to cm., of juices containing 10 to 12 mg. of solid matter. results obtained must therefore be ascribed to the lity of the toxins employed in the process of nunization.

TABLE III.—*Tests of Serum of Treated Goat II.*

ate.	Rabbit.	Serum + Endotoxin.	Remarks.
29th, 905	1	$\frac{1}{20}$ c.cm. serum + 1 c.cm. toxin	Alive.
	2	$\frac{1}{50}$ c.cm. serum + 1 c.cm. toxin	Dead.
	3	$\frac{1}{100}$ c.cm. serum + 1 c.cm. toxin	Alive.
	4	Control, $\frac{1}{5}$ c.cm. toxin	Dead in two hours.
	5	Control, $\frac{1}{10}$ c.cm. toxin	Acute diarrhoea.
19th, 06	1	$\frac{1}{50}$ c.cm. serum + 1 c.cm. toxin	Alive.
	2	$\frac{1}{100}$ c.cm. serum + 1 c.cm. toxin	Dead.
	3	Control, $\frac{1}{10}$ c.cm. toxin	”
26th, 06	1	$\frac{1}{50}$ c.cm. serum + 1 c.cm. toxin	Alive.
	2	$\frac{1}{100}$ c.cm. serum + 1 c.cm. toxin	Dead.
	3	Control, $\frac{1}{10}$ c.cm. toxin	”
2nd, 06	1	$\frac{1}{10}$ c.cm. serum + 1 c.cm. toxin	Alive.
	2	$\frac{1}{20}$ c.cm. serum + 1 c.cm. toxin	”
	3	$\frac{1}{50}$ c.cm. serum + 1 c.cm. toxin	”
	4	$\frac{1}{50}$ c.cm. serum + $\frac{1}{2}$ c.cm. toxin	”
	5	Control, $\frac{1}{10}$ c.cm. toxin	Dead in $2\frac{1}{2}$ hours.
	6	Control, $\frac{1}{20}$ c.cm. toxin	Dead in 2 hours.
	7	Control, $\frac{1}{30}$ c.cm. toxin	Dead in 18 hours.
9th, 06	1	$\frac{1}{30}$ c.cm. serum + 1 c.cm. toxin	Alive.
	2	$\frac{1}{60}$ c.cm. serum + 1 c.cm. toxin	”
	3	$\frac{1}{100}$ c.cm. serum + 1 c.cm. toxin	Dead.
	4	$\frac{1}{100}$ c.cm. serum + $\frac{1}{2}$ c.cm. toxin	Alive.
	5	Control, $\frac{1}{10}$ c.cm. toxin	Dead.
	6	Control, $\frac{1}{20}$ c.cm. toxin	Diarrhoea and collapse.

e results detailed in Table III confirm those obtained e case of the first goat. The figures demonstrate the ction of an antiendotoxin in very considerable nt, inasmuch as $\frac{1}{50}$ c.cm. of the serum protected a t against 30 ascertained lethal doses of the typhoid toxin. As already stated, normal goat's serum sses no appreciable antitoxic power. The results in every respect equivalent to those obtained with I, despite the injection of relatively smaller doses of oxic cell-juices. The antitoxic power of the serum aised to the above-stated degree after 16 injections ding over a period of about four months.

the following experiments the serum was injected ately to the endotoxin into the rabbit:

bit I.—Received 15 lethal doses of the typhoid endotoxin right, and 1 c.cm. serum in the left ear vein, followed enty minutes by a second injection of 1 c.cm. serum. nimal survived.

bit II.—Received 5 lethal doses endotoxin in the right c.cm. serum in the left ear vein. The animal survived.

bit III.—Received 5 lethal doses endotoxin in an ear and three-quarters of an hour later, at the onset of toxic oms, 2 c.cm. serum were injected. The rabbit survived.

serum therefore acted when injected simultaneously parately to the toxin, and also when injected at the of toxic symptoms.

The action of the serum when administered subcutaneously was likewise tested. The serum was injected under the skin in doses of 5 c.cm., 3 c.cm., and 1 c.cm. On the following day the three rabbits received intravenously five lethal doses of the typhoid endotoxin, and survived the test. The experiment proved that the serum, when injected subcutaneously, protected animals against multiple lethal doses of the toxin.

Occasion was taken to ascertain the antitoxic action of the serum in respect of the guinea-pig. In the test made it was found that on simultaneous intraperitoneal injection $\frac{1}{50}$ c.cm. of the serum protected guinea-pigs against ten lethal doses of the typhoid endotoxin.

The serum was further tested for any possible action upon an endotoxin derived from an organism other than the typhoid bacillus. I used for the purpose the endotoxin of the cholera bacillus; $\frac{1}{2}$ c.cm. of the serum from Goat II was added to three lethal doses of the cholera endotoxin, and the mixture, after remaining thirty minutes at blood heat, was injected into a rabbit. The rabbit died two and a half hours after the injection. A serum, of which $\frac{1}{50}$ c.cm. neutralized thirty lethal doses of the typhoid endotoxin, did not in the amount of $\frac{1}{2}$ c.cm. neutralize three lethal doses of the cholera endotoxin. The serum was therefore proved to be to this extent specific in its action.

That the inactivation of the typhoid endotoxin is not due to any mere mechanical factor, such as a precipitating action of the serum on the toxic cell-juices, is negatived by the following experiment. The goat's serum was added in dilutions of $\frac{1}{10}$, $\frac{1}{100}$, and $\frac{1}{500}$ c.cm. to the freshly-prepared cell-juices of the typhoid bacillus. At the end of twenty-four hours no precipitin reaction was obtained with the serum, despite its marked antiendotoxic action.

The agglutinin titrate of the serum of Goat II rose to 1 : 1,000,000. The bacteriolytic titrate was also high. As in the case of Goat I, $\frac{1}{10000}$ c.cm. of the serum protected guinea-pigs against ten lethal doses of the *B. typhosus*.

GENERAL CONCLUSIONS.

The intravenous injection of the goat with the toxic cell juices of the *B. typhosus* in small and carefully regulated doses, resulted in the production to a very considerable degree of an antiendotoxin—inasmuch as $\frac{1}{50}$ c.cm. of the serum neutralized 30 lethal doses of the typhoid endotoxin. This property did not exist in 3 c.cm. of normal goat's serum.

This titrate was obtained after about four months' immunization of a goat with the toxic cell juices, and is quantitatively much higher than that obtained by so competent an observer as Besredka, even after two years' immunization of a horse with dead and living typhoid bacilli.

The serum acted when injected simultaneously but separately from the toxin; also when injected at the onset of toxic symptoms. Subcutaneous administration was also effective. The serum, in addition to antiendotoxic, possessed agglutinative and bacteriolytic properties.

The serum, whilst neutralizing the typhoid, did not neutralize the cholera endotoxin, and was to this extent specific in its action.

The method which has led to successful results on the goat will next be tested on the horse, in order to ascertain in how far it is feasible to obtain a corresponding rise in the immunizing value of its serum.

Analogous results have been obtained with regard to the production of an antibody for the cholera endotoxin.

I am indebted to Mr. E. T. Thompson for invaluable aid, as well as for an important modification which has rendered the grinding process void of danger.

REFERENCES.

[1] *Upon the Immunizing Effects of the Intracellular Contents of the Typhoid Bacillus*, Allan Macfadyen, *Proc. Royal Society*, March 12th, 1903; *Upon the Intracellular Constituents of the Typhoid Bacillus*, Allan Macfadyen and Sydney Rowland: *Centralblatt für Bakter. I. Abtheilung*, vol xxx, No 20, and vol. xxxiv, No. 7. [2] *Etude sur le bacille typhique et le bacille de la Peste*, Dr. Besredka, *Annales de l'Institut Pasteur*, vol. xix, July 25th, 1905; *De l'anti-endotoxine typhique et des anti-endotoxines en général*, Dr. Besredka, ibid., vol. xx, February 25th, 1906. [3] *Centralbl. f. Bakt.*, vol. xxxiv, 1903, No. 8.

POPLAR HOSPITAL.—The report presented to the annual meeting of the Governors of the Poplar Hospital on March 14th showed that its finances are in a satisfactory state. Last year it was able to add £7,000 to its invested funds, which now total £40,000.

The Science Committee
of the
British Medical Association.

REPORT XCV.

UPON THE BACTERIOLOGY OF THE SUMMER DIARRHOEA OF INFANTS.

By H. de R. MORGAN, M.A.Oxon., M.R.C.S.Eng., L.R.C.P.Lond., D.P.H.Camb.,
ERNEST HART MEMORIAL SCHOLAR.
(From the Bacteriological Department, Lister Institute of Preventive Medicine.)

Introduction.

The diarrhoeal diseases of infancy, on account of their appalling mortality, demand the most careful and thorough investigation.

A large number of inquiries have been made in various directions with reference to the predisposing and etiological factors in these diseases, for example, the influence of seasonal and hygienic conditions, of natural and artificial feeding, of milk pasteurization, etc.

These inquiries have yielded valuable results, to which it is beyond the scope of this paper to refer. Whilst recognizing that in infantile diarrhoeas many possible factors have to be taken into consideration, there exists a particularly virulent type occurring in summer, which there is every reason to believe has an infectious origin. To this type of infantile diarrhoea bacteriological research has been especially directed. Escherich[1] in Germany and Booker[2] in the United States were among the earlier observers to study the bacteriological flora of the diseased intestine. They were, however, unable to obtain evidence as to the presence of pathogenic organisms of a specific type in the diarrhoeic stools.

A fresh impulse was given to research by Shiga's[3] studies of Japanese dysentery in 1898, and the isolation by him of the *B. dysenteriae*. Shiga's results were confirmed by Flexner[4] in Manila in 1900, and by Kruse[5] in Germany in 1901. Acute bacillary or epidemic dysentery is now regarded as due to the bacillus first isolated by Shiga, with which the type described by Kruse is identical. The Flexner type of *B. dysenteriae* differs in certain cultural characteristics, and in its agglutinative properties from the former. A number of intermediate forms allied either to the Shiga-Kruse or the Flexner type of organism have since been described.

Bacilli of the dysentery group are widely distributed, and have been detected in cases of acute endemic, epidemic, sporadic, and institutional dysentery.

Duval and Bassett[6] in 1902 concluded that the dysentery bacillus "is an important, if not the most important, cause of the summer diarrhoeas of children." In 1903, the Rockefeller Institute for Medical Research undertook, under Dr. Flexner's direction, an investigation on the local or general occurrence of the dysentery bacillus in the summer diarrhoeas of children in the United States. The reports on the bacteriology of the cases are published in *Studies from the Rockefeller Institute*, vols. i and ii, 1904. I may quote from Dr. Flexner's summing up of the results.

> The type of *B. dysenteriae* which preponderated in the children is the so-called "Flexner-Harris" organism. The "Shiga" type of the organism is exceptionally met with, and occasionally both types are found in association. . . . Types of *B. dysenteriae* of less well-established properties have also been encountered. . . . The central fact brought out by this collective investigation is the frequent occurrence in the diarrhoeal diseases of children of a specific micro-organism, which hitherto has been held to be of specific pathogenic action in human beings, and to be the cause of that form of dysentery among adults and also among children which is characterized by necrotic and pseudo-membranous lesions of the intestine and marked infectiousness.

More recent papers are those by Dunn,[7] Parks, Collins, and Goodwin.[8] Critical observations on the above results are made in the papers of Weaver and Tunnicliffe[9] and of K. Collins.[10] Charlton and Jehle[11] consider that summer diarrhoea in children may be caused by various forms of micro-organisms of a non-dysenteric type, more particularly by the *B. coli communis.* They note th occurrence of "vast numbers" of streptococci in th green stools. Streptococci in large numbers were als found by the Rockefeller observers associated with th *B. dysenteriae.*

It remains to be determined how far the summer dia rhoeas of other countries conform in type to those of th United States.

Scope of Research.

Last summer (1905) I undertook the bacteriological ex mination of cases of acute infantile diarrhoea occurring London. The results are sufficiently advanced to be mad the subject of a preliminary report.

The clinical aspect of the disease here is different fro that described in America. Blood in the stools is qui the exception, whereas in America it is apparently ve frequent. There seems very little doubt, therefore, th we are not dealing with the same type of disease in th two countries, and that the causal agent may very well different. This being the case, I determined to make research into the bacteriology of as many cases of th disease in this country as I could collect during the tin of its prevalence last summer. To this end it seem advisable to collect all the aërobic bacteria of intestin type present in the stools and intestines of these case excluding, however, all the lactose-fermenting and th gelatine-liquefying bacteria, in order to determine whi types were the most prevalent. This was controlled an examination of the stools of healthy children of simil age, so that one might exclude from the list of possib causes any bacteria found constantly present in norm intestines. I am indebted to the staff of the Victor Hospital for Sick Children, Chelsea, and also to that of t Hospital for Sick Children, Great Ormond Street, for the aid and co-operation in this matter, the former sendi me the stools from 9 cases of infantile summer diarrho and the latter either the stools or the intestines, or bot from 49 cases of that disease, as well as blood sampl from each patient when obtainable, for agglutinati reactions.

Of the 58 cases examined, 28 were diagnosed clinica as "acute infective diarrhoea," the stools from these bei of the typical liquid consistency, green colour, and wit out blood. The remaining 30 cases were diagnosed "catarrhal diarrhoea," blood being found in the stools 4 of them; some of these latter were liquid and gre and of very similar appearance to those from the form cases.

Methods Adopted for the Isolation of the Bacteria.

A small portion of the material, either the faeces scrapings from the mucous surface of the large or sm intestine, was transferred to a tube of sterile peptone b broth and an emulsion made; from this the bile-sa neutral-red-lactose-agar-plates of MacConkey[12] were oculated, and incubated for twenty-four hours at 37° On the following day all the colourless colonies (that non-lactose fermenters) were picked off and put into tu of lactose broth. These tubes were then incubated three days at 37° C., at the end of which time all th that had not produced acid and gas were retained and rest discarded. The former were then used to inocul gelatine tubes, and set aside for future investigation.

In the numerous instances where no colourless co nies were to be found on the agar plates, the sa material, which had been kept frozen in the cold ro was used for reinoculating fresh agar plates, until colo less colonies had been obtained.

The advantages of the bile salt lactose agar were fou to be very great in this research, as practically all exc intestinal bacteria are excluded by the bile salt, and lactose fermenters are readily separated out by mean the deep red colour produced by the fermentation of lactose in the presence of neutral red; at the same ti it was found advisable to apply the further test of grow the cultures from the colourless colonies on lactose br for three days at 37° C., to exclude those bacteria t ferment lactose slowly.

The next step was to examine all the gelatine cultu that had not liquefied at the end of six weeks, and to g them on the various media used for identificatio namely, broths containing glucose, mannite, dulc lactose and cane sugar, and litmus milk; to exam eir morphology, motility, etc., and their capability of oducing indol in peptone beef broth when incubated for e days. It was found when the gelatine liquefiers had en discarded, that the number of cultures to be examined nounted to 304, and each of these cultures was then own on all the media above mentioned for identification. Each bacillus isolated was, immediately after isolation, ted as to its agglutination properties with the blood of patient from which it had been obtained, and the ne blood was also tested against Shiga, Flexner, typhoid, ertner, paratyphoid A, and paratyphoid B organisms. e strength of the dilution of serum employed in each e was 1 in 30, and of the forty-four bloods tested only gave an agglutination reaction with the bacillus lated from its own patient, and two with one or more the before-mentioned test bacilli. The result is unlike at was found in America, where the agglutination of patient's blood with dysentery bacilli was so fre- ntly demonstrated. This procedure involved great our, and was most disappointing in its results.

It will be observed that No. 3 also resembles *B. typhosus* in that it produces acid on glucose, mannite, and sorbite; in fact, it has some of the characters of both Flexner's bacillus and the typhoid bacillus, differing from the latter in its absences of motility, its alkaline reaction on milk, and its indol production. It was an interesting fact that No. 3 agglutinated equally well with either a Flexner or typhoid serum, as if it were a connecting link between the two bacilli. No. 4 agglutinates well with Flexner serum, but scarcely at all with typhoid serum.

That No. 3 was an infective agent in the case of one patient is possible, as it was agglutinated in a 1 in 30 dilution of the patient's blood serum, whilst the same serum agglutinated typhoid bacilli in a similar dilution.

No. 5 resembles *B. dysenteriae* of Shiga in its cultural reactions, but differs in its distinct motility and its absence of agglutination with either a Shiga or Kruse serum. Nos. 10 to 14 are organisms found fairly commonly in drinking water, and for that reason seem to be of small importance.

TABLE I.—*Morphological and Cultural Tests applied to the various Bacteria Isolated.*

No. of Cases in which Found.	Morphology.	Glucose.	Mannite.	Dulcite.	Lactose.	Cane Sugar.	Litmus Milk.			Litmus Whey.		Indol.	Sorbite.
							1 Day.	3 Days.	15 Days.	1 Day.	7 Days.		
28	B. Motile	A. G.	—	—	—	—	0	0	Alk.	Alks.	Alks.	+ +	
3	B. Non-motile	A. G.	—	—	—	—	A.	A.	Alks.	A.	Alk.	—	
5	,,	A.	A.	—	—	—	A.	A.	0	A.	A.	+ +	A.
2	,,	A.	A.	—	—	—	A.	A.	0	A.	A.	—	—
4	B. Motile	A.	—	—	—	—	A.	0	Alk.	A.	Alk.	—	
1	,,	A. G.	A. G.	A. G.	—	—	A.	A. S.	Alk.	A.	Alk.	—	
2	,,	A. G.	A. G.	A. G.	—	—	A. S.	A.	Alk.	A.	Alk.	+	
1	B. Non-motile	A. G.	A. G.	A. G.	—	—	A.	0	A.	A.	A.	—	
1	,,	A. G.	A. G.	A. G.	—	—	A.	A.	Alk.	A.	Alk.	—	
4	,,	A. G.	A. G.	A. G.	—	A. G.	A.	A.	A. C.	A.	A.	+ +	
3	B. Motile	A. G.	A. G.	A. G.	—	A. G.	A.	Alk.	Alk.	A.	Alk.	+	
2	,,	A. G.	A. G.	—	—	A. G.	A.	A.	A. C.	A.	A.	—	
1	,,	A. G.	A. G.	—	—	A. G.	A.	A.	A. C.	A.	A.	+	
5	,,	A. G.	A. G.	—	—	—	A.	A.	Alks.	A.	Alks.	+ +	
2	Streptococci	A.	A.	A.	A.	A.	A. S.	A.	A.	A.	A.	—	
1	,,	A.	—	—	A.	A.	A.	A. C.	A. C.	A.	A.	—	
1	Coccus	A.	—	—	—	—	0	A.	A. C.	0	A.	—	
1	,,	A. G.	A. G.	—	—	—	A.	0	Alk.	A.	Alk.	+	

In order to compare the above table with the morphology and cultural reactions of some of the best known pathogenic intestinal acteria, I add the following table compiled from my previous work. (Reference: Some Observations upon the Micro-organisms of leat Poisoning, and their Allies, BRITISH MEDICAL JOURNAL, June 10th, 1905, p. 1259.)

Bacterium.	Morph	Glucose.	Mannite.	Dulcite.	Lactose.	Cane Sugar.	Litmus Milk.			Litmus Whey.		Indol.	Sorbite.
							1 Day.	3 Days.	15 Days.	1 Day.	7 Days.		
ysentery, Flexner, lippines	B. Non-motile	A.	A.	—	—	—	A.	Alks.	Alks.	A.	Alks.	+	
sentery, Shiga ...	,,	A.	—	—	—	—	A.	Alks.	Alks.	A.	Alks.	—	
hoid	B. Motile	A.	A.	—	—	—	A.	A.	A.	A.	A.	—	A.
eritidis, Gaertner...	,,	A. G.	A. G.	A. G.	—	—	A.	Alk.	Alk.	A.	Alk.	—	
atyphoid B, Schott-ler	,,	A. G.	A. G.	A. G.	—	—	A.	Alk.	Alk.	A.	Alk.	+ Slight	
atyphoid A, Schott-ler	,,	A. G.	A. G.	A. G.	—	—	A.	A.	A.	A.	A.	+	
g cholera, McFad-1	,,	A. G.	—	—	—	—	A.	A.	A.	A.	A.	+ Slight	

A. = Acid. G. = Gas. C. = Clot. S. = Slight. — = No reaction.

ole I shows the results of the examination of the hology and cultural characteristics of 67 organisms ne lactose non-fermenting class isolated from the tines or faeces of patients suffering from infantile hoea.

will be seen on comparing the two tables that the ral reactions of none of the bacteria found by me fantile diarrhoea correspond with those of known genic bacteria, with the exception of Nos. 6 and 7, are similar as regards their reactions to *B. enteritidis* aertner and *B. paratyphoid* B of Schottmüller ctively. That they are identical with these organ- is open to doubt, as they did not agglutinate when with specific serums even in such low dilutions as 0.

re is a partial resemblance between Nos. 3 and 4 he Philippine dysentery bacillus of Flexner; No. 3, ver, differs in its reaction on sorbite, on which it ces acid, whereas Flexner's bacillus causes no on, and No. 4 does not produce indol, whereas er's bacillus produces an abundant indol reaction.

No. 1, if one can argue from its prevalence, seems to be the most important organism which I have so far isolated, having been found in 28 cases out of the 58 examined, and in 17 of these it was the only lactose non-fermenting organism present. It resembles in some respects the bacillus of hog cholera of McFadyean, differing, however, in its alkaline reaction on litmus milk, its greater production of indol, and in its failure to produce acid and gas on arabinose, maltose, and dextrin. Bacillus No. 1 produces indol in glucose broth in the presence of an excess of glucose, differing in this respect—as Dr. A. Harden kindly demonstrated for me—from most of the other indol-producing bacteria. That it produces true indol and not skatol-carboxylic acid I proved by distillation.

To determine in how far all the 28 cultures of No. 1 were identical each was grown on 11 additional media, as also was the bacillus of hog cholera of McFadyean, which in some respects resembles them. The cultures of Nos. 3 and 4 were also compared in the same way with all obtainable cultures of dysentery of the Flexner type, including two cultures isolated from infantile diarrhoea in America (Duval, Baltimore, and Duval, New York). Various strains of *B. dysenteriae* (Shiga and Kruse) were also tested in the same way, as also *B. typhosus*. To these were added three strains of dysentery bacilli isolated by Eyre from asylum dysentery, and two strains of bacilli isolated by MacConkey from monkey's faeces, one of which resembled *B. dysenteriae* (Flexner), and the other *B. dysenteriae* (Shiga).

In compiling Table II, two laboratory strains of *B. dysenteriae* (Flexner, Philippines) were used, and one from Kral; they were found to agree in all their reactions. In the same manner, three strains of *B. dysenteriae* (Shiga) were tested, and agreed culturally in every respect—they were obtained from Berlin, Kral, and the Institute. Two strains of *B. dysenteriae* (Kruse), one from Laar, and one from Kral were also found to be identical. It will be noticed that no cultural differences were found between *B. dysenteriae* (Shiga) and *B. dysenteriae* (Kruse), which many observers now regard as being identical.

The long list of media used proved very useful in distinguishing between bacilli Nos. 1, 3, and 4, and the other known bacteria which resemble them in some respects. It will be noted that No. 1 is quite different from the bacillus of hog cholera (McFadyean), and that Nos. 3 and 4, although of the dysentery type, are not identical with any known dysentery bacilli, nor with either of the Duval bacilli isolated from infantile diarrhoea in America.

No. 1, which will be subsequently shown to be of pathogenic importance, is a motile rod, slightly smaller than the typhoid bacillus, and, like the latter, multi-flagellated. As far as I can ascertain, this bacillus has not been recognized before. Dr. Houston very kindly examined his notes for me on the numerous bacteriological analyses of human faeces, sewage, and water, made by him, but was unable to find any record of a bacillus of this type, nor at the Lister Institute has this bacillus been isolated from the numerous samples of drinking water sent for analysis. This fact led me to make a bacteriological examination of the stools of twenty normal children under 2 years of age admitted to the Hospital for Sick Children, Great Ormond Street, for such operations as harelip or cleft palate.

The method of examination was identical with that employed by me in the cases of infantile diarrhoea, with the result that out of the 20 cases only one gave a colony at all resembling No. 1, and none gave colonies resembling Nos. 3 and 4. The culture resembling the No. 1 differed from those isolated from the cases of children's diarrhoea in its failure to produce alkalinity in litmus milk, in which it produced no change of reaction, and its production of a smaller amount of indol in peptone beef broth. This bacillus I subsequently found to be nonpathogenic for experimental animals, whereas No. 1 is distinctly pathogenic for young rabbits and rats when administered by the mouth.

The examination of the stools of normal infants established the fact that the non-lactose fermenting bacteria are very infrequent in the normal faeces, as, in spite of repeated plating on lactose agar, it was very difficult to obtain any colourless colonies. In addition to the single colony resembling the No. 1 beforementioned, I was only able to isolate one colony of a bacillus resembling No. 5, and a few colonies resembling Nos. 10 and 14.

AGGLUTINATION REACTIONS WITH THE BLOOD OF PATIENTS SUFFERING FROM INFANTILE DIARRHOEA.

Forty-four samples of blood were tested against all the bacilli isolated from the patients, against the dysentery bacilli of Flexner and Shiga, and the typhoid, Gaertner, paratyphoid A, and paratyphoid B organisms, in each case in a dilution of 1 in 30. Only one, however, gave a reaction with the bacillus isolated from its own patient, namely, bacillus No. 3, which was agglutinated by the patient's serum.

In the case of two of the patients, the serum agglutinated known bacilli, one in a case in which bacillus No. 1 was present in pure culture (lactose fermenters excepted), the serum agglutinating both typhoid and Gaertner bacilli, in a dilution of 1 in 60. The other case was that of the serum of a patient from whom bacillus No. 1 was isolated; this serum gave a reaction with the typhoid bacillus in a dilution of 1 in 30.

TABLE II.—*The various cultures are so arranged that those isolated by me from infantile diarrhoea can be easily compared with known bacteria which, in some respects, resemble them.*

Bacterium.	Motility.	Glucose.	Levulose.	Mannite.	Dulcite.	Maltose.	Dextrin.	Cane Sugar.	Lactose.	Galactose.	Inulin.	Amygdalin.	Salicin.	Arabinose.	Raffinose.	Sorbite.	Erythrite.	Indol.	Litmus Milk.		
																			1 day.	3 days.	15 days.
No. 1	B. Motile	A. G. S.	A. G. S.	—	—	—	—	—	—	A. G. S.	—	—	—	—	—	—	—	+ +	0	0	Alk.
B. hog cholera, McFadyean...	,,	A. G. S.	A. G. S.	—	—	A. G. S.	A. G. S.	—	—	A. G.	—	—	—	A. G.	—	—	—	+ Slt.	A.	A.	A.
No. 3	B. Non-motile	A.	A.	A.	—	A.	A.	—	—	A.	—	—	—	A.	—	A.	—	+ +	A.	A.	0
No. 4	,,	A.	A.	A.	—	—	—	—	—	A.	—	—	—	A.	A. S.	—	—	—	A. S.	0	Alks.
B. dysentery, Flexner, Philippines ...	,,	A.	A.	A.	—	A.	A.	—	—	A.	—	—	—	A.	A. S.	—	—	+	A.	0	Alks.
B. dysentery, Gray	,,	A.	A.	A.	—	A.	A.	—	—	A.	—	—	—	A.	A. S.	—	—	+	A.	0	Alks.
B. dysentery, Strong	,,	A.	A.	A.	—	A.	A.	—	—	A.	—	—	—	A.	A. S.	—	—	+	A.	0	Alks.
B. from infantile diarrhoea, Duval, Baltimore	,,	A.	A.	A.	—	A.	A.	—	—	A.	—	—	—	A.	A. S.	—	A. S.	+	A.	0	Alks.
B. from infantile diarrhoea, Duval, New York	,,	A.	A.	A.	—	A.	A.	—	—	A.	—	—	—	A.	A. S.	—	A. S.	+	A.	0	Alks.
B. from monkey's faeces, MacConkey II..	,,	A.	A.	A.	—	A. S.	—	—	—	A.	—	—	—	A. S.	A. S.	—	A. S.	+ trace	A.	0	Alks.
B. typhoid	B. Motile	A.	A.	A.	—	A.	A.	—	—	A.	—	—	—	—	—	A.	—	—	A.	A.	A.
B. dysentery, Shiga	B. Non-motile	A.	A.	—	—	—	A. S.	—	—	A.	—	—	—	—	—	—	A. S.	—	A.	0	Alks.
B. dysentery, Kruse	,,	A.	A.	—	—	—	A. S.	—	—	A.	—	—	—	—	—	—	A. S.	—	A.	0	Alks.
B. asylum dysentery, Eyre 7	,,	A.	A.	—	—	—	A. S.	—	—	A.	—	—	—	—	—	—	A. S.	—	A.	0	Alks.
B. asylum dysentery, Eyre 8	,,	A.	A.	—	—	—	—	—	—	A. S.	—	—	—	A. S.	—	—	—	—	0	0	0
B. asylum dysentery, Eyre 9	,,	A.	A.	—	—	A. S.	A. S.	—	—	A.	—	—	—	—	—	—	—	—	A.	0	Alks.
B. from monkey's faeces, MacConkey I ..	,,	A.	A.	—	—	—	—	—	—	A.	—	—	A.	A. S.	—	—	A.	—	A.	0	Alks.

A. = Acid.
G. = Gas.
G. S. = Slight Gas.
Alk. = Alkalinity.
Alks. = Slight Alkalinity.
— = No Reaction.

he time that had elapsed between the onset of the
ase and the obtaining of the patient's blood was found
ave varied from twenty-four hours to two months,
tically all intermediate periods being represented.
he three instances in which a reaction was obtained,
was with that of a blood taken at the end of twenty-
hours after the onset, one at the end of fifteen days,
the third at the end of two months.

e other agglutination reactions investigated were
e relating to the bacilli found by me with known
ms. In these experiments bacillus No. 3 was found
gglutinate equally well with both dysentery (Flexner)
m, and typhoid serum, thus accentuating its resem-
ce to these organisms. No. 4 was found to agglutinate
with dysentery (Flexner) serum, but only feebly and
w dilutions, with typhoid serum. No. 5, which but
its motility culturally resembles the *B. dysenteriae*
ga), failed to agglutinate with Shiga serum even in so
a dilution as 1 in 20. No. 7, which culturally resem-
B. paratyphoid B of Schottmüller, failed to agglu-
e with a paratyphoid B serum.

e various cultures of bacillus No. 1 obtained from
rent patients did not in every instance interagglu-
e. Five rabbits were immunized with five different
ns of this bacillus, and, although some did, there
many that failed to agglutinate with any of the five
ns.

l the cultures, however, obtained from the same
nt were found to agglutinate with a serum prepared
nmunizing a rabbit with one of their number. The
lus No. 1 in this respect forms no exception to other
ps of bacteria, such as the colon and Gaertner groups,
nembers of which do not invariably interagglutinate.

PATHOGENICITY OF THE BACILLI ISOLATED FROM THE PATIENTS.

r this test, organisms Nos. 1, 3, and 4 were selected,
ey appeared to be the most important.

o young rats were fed with half an agar culture each
. 3 mixed with their food; on the following day both
vere dead, and the bacillus was recovered from the
n of one of them. There was no evidence of diar-
having been caused in either case. Two young rats
also fed with No. 4 in the same way; one rat died on
llowing day, and the other on the second day. The
lus was not recovered from either of these rats,
h it was looked for in the spleen and in the blood.
was no diarrhoea before death.

hteen successful feeding experiments were made
the No. 1 bacillus, twelve with young rats and six
young rabbits. Half an agar tube proved to be
iably fatal in the case of young rats, and an agar tube
case of young rabbits. Death generally took place
n twenty-four hours, and was preceded by violent
oea. The bacilli were in each case recovered from the
in pure cultures, and in a few instances from the
blood as well. That this was not a mere *post-mortem*
ion was proved in one instance by killing the
nimal, and taking out the spleen immediately. The
bacillus was recovered in pure culture in this
ce from the spleen.

a control experiment, two young rats were fed on
an agar tube each of a mixture of three different
ies of *B. coli* freshly isolated from human faeces.
oung rat died at the end of four days, and the other
till alive at the end of a month, proving that the
nce of No. 1 bacillus is very much higher than that
oli.

first experiments to investigate the pathogenicity of
o. 1 bacillus were by intraperitoneal and intravenous
ion. These, however, entirely failed to have any
on the animals experimented upon, even so large
as 1 c.cm. of a very thick emulsion from an agar
e injected intravenously into a small rabbit failing
duce any result, nor did ¼ c.cm. injected intra-
neally into a mouse or 1 c.cm. into a guinea-pig
ny effect. No. 1 bacillus, therefore, seems only to
hogenic when introduced directly into the digestive

pathogenicity was next investigated of the bacillus
had been isolated from the stools of a normal
, and which resembled the No. 1 bacillus in all its
al reactions with the exception of its reaction in
milk. An agar tube culture of this was mixed with the food of two young rats, this being the dose that proved invariably fatal in the case of the No. 1 bacillus. The young rats, however, were not in the least affected by it, and were still alive at the end of a month, proving conclusively that this bacillus differs widely in its pathogenicity from the No. 1 bacillus.

TOXIN FORMATION.

The next point of investigation was to determine whether Nos. 1, 3, and 4 produced a toxin. For this purpose flasks of alkaline peptone beef broth were inoculated with each of these cultures, and incubated for four weeks at 37° C. At the end of this time they were filtered through a Berkefeld filter, and the filtrate was injected in doses of ½, 1, 2, and 5 c.cm. intravenously into rabbits.

The first experiment was made with No. 3 filtrate, which failed to produce any effect on a rabbit even when injected intravenously in so large a dose as 5 c.cm. The filtrate of No. 4 produced no effect in any dose less than 5 c.cm., when it caused death, preceded by diarrhoea; so that, although in the feeding experiments this bacillus caused no diarrhoea before death, its toxin when injected intravenously seems to have that effect.

The filtrate from the broth culture of No. 1 bacillus was found to cause death in about twelve hours when injected intravenously into a rabbit in a dose of 2 c.cm., in some instances causing diarrhoea before death. The toxin developed seems to be somewhat unstable, as the same dose failed to produce any symptoms after having been kept in a cold room at a temperature of about 0° C. for a week. The toxicity of the filtrate was found to be no greater at the end of four weeks than it was at the end of one week, the minimum lethal dose being also 2 c.cm. It may be that we are here dealing, as in the case of dysentery, with toxins of an intracellular type.

CONCLUSIONS.

These results, together with the evidence drawn from other sources, indicate that the bacillus No. 1 is not an organism normally present in human stools, sewage, or in drinking water. From its prevalence in the stools and intestines of cases of infantile diarrhoea (in 28 cases out of 58), also from the fact that it causes death, preceded by diarrhoea in young animals, in the spleens of which it is invariably found in pure culture, one is led to conclude that this bacillus may possibly be a factor, or one of the factors, in the disease. A very significant fact is that the bacillus was isolated in pure culture (together with lactose-fermenting bacilli) from the stools of a nurse who had contracted diarrhoea from the patients in the ward set apart for this disease in the Hospital for Sick Children, Great Ormond Street.

The evidence in favour of bacillus No. 3 being either the cause, or a cause of the disease, is perhaps almost equally strong, for although it was isolated in only 5 cases out of 58, one of these cases points very strongly to its being an infective agent, from the fact that the patient's blood agglutinated this bacillus, and also the typhoid bacillus. It will be remembered that it was proved by experiment that this bacillus was agglutinated equally well by dysentery (Flexner) serum, and by typhoid serum. That this patient's serum, therefore, should agglutinate typhoid bacilli, as well as its own bacillus, is a very strong point in favour of this bacillus being infective in this particular patient at least. It will be remembered, too, that it proved pathogenic to young rats which were fed on it, although no diarrhoea was produced.

The evidence in favour of bacillus No. 4 being a factor in the disease is based principally on its resemblance to the Flexner group of dysentery bacilli, which have been assigned as the cause of the disease in America. This bacillus, too, proved pathogenic to young rats when they were fed on it.

Bacillus No. 1 and bacilli Nos. 3 and 4 were found with about the same relative frequency in the cases clinically diagnosed as "acute infective diarrhoea" and "catarrhal diarrhoea." Bacillus No. 1 was found in 11 out of the 28 cases of the former type, and in 17 out of the 30 cases of the latter type of the disease. Bacillus No. 3 was found in 2 cases of "acute infective diarrhoea" and in 3 cases of "catarrhal diarrhoea," and bacillus No. 4 in 1 of the former and 2 of the latter. It will thus be seen that the relationship between the clinical diagnosis and the bacteriology of the disease is not well marked. Dr. Batten informs me in this respect that the distinction between these two types is not very definite, and it may very well be that the acute infective type is merely an aggravated form of the catarrhal.

The presence of a certain bacillus in the stools, or in the intestines, in cases of disease, even although that bacillus be not found in the stools of healthy individuals, hardly proves it to be the cause of the disease. If, however, it has been found to invade the blood or the spleen, this evidence is very strongly in its favour. Unfortunately, neither the blood nor the spleen of fatal cases were examined bacteriologically, so that the presence or absence of bacteria in these localities are matters for future investigation by me next summer.

My thanks are due to Dr. F. E. Batten, who took the greatest interest in this research, and supplied me with the material from the Hospital for Sick Children, Great Ormond Street; also to Dr. Allan Macfadyen, at whose suggestion and in whose laboratory the work was done, for his most valuable assistance and advice.

REFERENCES.
[1] *Jahrbuch. f. Kinderheilkunde*, N. F. Bd. 49, 1899. [2] *Johns Hopkins Hospital Reports*, 1896, vol. vi. [3] Uber den Erreger der Dysenterie in Japan, by Shiga. *Centralbl. f. Bact. u. Parasitenkunde*, 1898, xxiv, 599; 1899, xxiv, 817, 870, 913. Studien uber die epidemische Dysenterie in Japan, *Deut. med. Woch.*, 1901, xxvii, 741, 765, 783. [4] Acute Tropical Dysentery, by Flexner, *Johns Hopkins Bulletin*, February, 1900. [5] Aetiologie der epidemischen Ruhr, by Kruse, *Deut. med. Woch.*, 1901, xxvii, 370. [6] The Etiology of Summer Diarrhoea in Infants, by C. W. Duval and V. H. Bassett: *Studies from the Rockefeller Institute for Medical Research*, vol ii, 1904. [7] *American Med.*, 1904, vii, p. 737. [8] *Proc. New York Path. Soc.*, 1903, iii, p. 148. [9] Summer Diarrhoea in Infants, by Weaver and Tunnicliffe, *Journal of Infectious Diseases*, vol. ii, No. 1, January 12th, 1905. [10] A Study of the Dejecta of Normal Children and of those Suffering from Acute and Subacute Diarrhoea with reference to *B. dysenteriae*, by H. R. Collins, *Journal of Infectious Diseases*, vol. ii, No. 4, November 25th, 1905. [11] On the Etiology of Bacillary Dysentery and of Catarrhal Enteritis in Children, by G. A. Charlton, *Transactions of the Association of American Physicians*, 1904. [12] *Thompson Yates Reports*, 1901, vol. iii, part ii, p. 151.

REPORT XCVI.

THE INFLUENCE OF INCREASED BAROMETRIC PRESSURE ON MAN.*

By M. GREENWOOD, Jun., M.R.C.S., L.R.C.P.,
RESEARCH SCHOLAR OF THE BRITISH MEDICAL ASSOCIATION.

Although the idea of employing compressed air for submarine work is at least as old as the sixteenth century (Sturmius, Halley, etc.), the subject hardly possessed much industrial importance until the application of the principle to well-sinking and pile-driving by Triger, a French engineer, towards the middle of the last century. Triger's memoir was presented to the Academy of Sciences in 1841, his methods were speedily applied on a large scale, and since his time caisson works have been in operation all over the world. The pathological effects of living in compressed air are therefore of practical importance, and their scientific investigation worthy of attention.

The earliest description of caisson disease by medical men is that of MM. Pol and Watelle, published in 1854, but written in 1847, and founded on observations of caisson works in connexion with mining operations at Douchy. The theories of these authors, being destitute of experimental foundation, are erroneous; their practical conclusions, on the other hand, are much sounder than those of many subsequent writers. Thus they noted the importance of slow decompression in obviating accidents, a factor neglected or even derided by other workers. They say:[1]

> Compression up to $4\frac{1}{4}$ atmospheres is not in itself dangerous; it is quite well borne, far better than a proportionally much less rarefaction. The return to normal pressure is alone the dangerous part, this danger being proportional at once to the amount of compression and rapidity of decompression; the rate of the latter should accordingly be much reduced.

For the next twenty years although a good deal was written little of it has any value. In 1877, Paul Bert's treatise, *La Pression Barométrique*, was published. This work deserves to be regarded as one of the classics of physiological science, and proves its author to have been an experimenter and reasoner worthy to be ranked wit his illustrious countrymen—Claude Bernard and Loui Pasteur. By a series of well-planned and accurately conducted experiments Bert proved that:

1. Increased air pressures up to + 7 or + 8 atmo spheres do not produce any unfavourable symptoms.

2. Pathological accidents occur during decompressio only, and are due to the liberation of nitrogen bubbles i the blood and other tissue fluids, such bubbles leading i some cases to embolism, in others to transitory nerv irritation.

3. These symptoms can be prevented if the rate decompression be sufficiently slow—that is, at the rate about twenty minutes for each atmosphere of positiv pressure.

These conclusions have received abundant confirmatio from the more recent experiments of Hill and Macleo in England, and Heller, Mager, and von Schrötter i Austria.

In view of the attitude taken up by a small section the British public with regard to experimental physi logy, it is worth noting that Bert's epoch-making di coveries—discoveries which, if adequately recognize would be the means of saving many lives—resulted fro numerous experiments on animals.

It is somewhat discreditable to our intellectual cultur that Bert's work has been little regarded. Those respo sible for caisson works since his time have almost invar ably allowed far too short periods for decompression, an many preventable deaths have occurred. Even in Austri where scientific research is in closer touch with commer than in many countries, Heller, Mager, and v. Schrött speak bitterly of the obstacles placed in the way of a attempt to adopt suitable hygienic measures at t caisson works to which they were attached. The say [2]:

> Unfortunately during our work we were able to convin ourselves how difficult it is, without possessing speci authority, to carry out the necessary arrangements, with t result that well-thought-out and energetically-urged advi remains merely a pious expression of opinion, in that it frustrated by external factors and opposition.

This and other experiences indicate that the c operation of pure and applied science is still lamentab incomplete.

If we consider the effects of pressures greater than tho employed in caissons, we shall see that the same co clusions hold. Deep-sea divers have been exposed to ve high pressures, and in practice accidents similar to tho already noted have occurred.

The following are some "record" dives. Lambert, t famous diver employed by Messrs. Siebe and Gorma salved £100,000 at a depth of 160 ft., staying twen minutes below and occupying about the same time in h ascent. On his last journey he stayed rather long below, and became affected subsequently with sympto pointing to a lesion of the spinal cord—permanent i continence of urine, etc. Another diver, Walker, h descended to a depth of 189 ft. This man, to whom have spoken, attributes his immunity from accidents his habit of ascending slowly. Perhaps the greatest dep ever attained is one of 204 ft. (approximately equal $+88\frac{1}{2}$ lb. air pressure); the diver in this case expired returning to the surface, probably owing to a very rap ascent.

The experimental study of these higher pressures, applied to man was first undertaken by Hersent, who, 1893, compressed a workman to +71.2 lb., and subsequen to +76.8 lb., without misadventure. As the subject these experiments was not a trained observer, it seem desirable to reinvestigate the subject, and to furnish another proof of the accuracy of Paul Bert's work. Th has been done in the course of some researches by Leona Hill and the writer.

Messrs. Siebe and Gorman kindly placed their worksh at our disposal and constructed the pressure chamber, which a photograph is reproduced. In addition to t fittings represented in the figure, the chamber was p vided with a mattress, blankets and electric light; furth it was of such a size as to permit the observer to sit up lie down comfortably.

We first studied the effect of air pressures greater th those formerly employed.

In an experiment carried out in November last, t writer was compressed to +92 lb. (that is, a total pressure of seven atmospheres) in fifty-four minutes, and subsequently decompressed in two hours, seventeen minutes, without any inconvenience, beyond a little neuralgic pain in the arms which had completely disappeared within one and a half hours of quitting the pressure hamber.

---

* A full account of the experiments summarized in this essay will be found in a memoir by L. E. Hill, F.R.S., and M. Greenwood, jun., read at a meeting of the Royal Society on February 16th, 1906, and subsequently published in the *Proceedings*.

Subsequently L. Hill and the author were compressed o +75 lb. on more than one occasion without any serious ll-effects.

A positive pressure of +92 lb. corresponds to a water lepth of about 210 ft., and these experiments entitle us to onclude that it is possible for a man to endure a total ressure of seven atmospheres without unpleasant results, rovided that:

1. At least twenty minutes are allowed for each atmophere during the period of decompression—the decomression being carried out at a uniform rate.

2. All parts of the body are moved in turn, the joints eing flexed and extended, and the muscles contracted, so s to maintain the capillary circulation in every part uring compression. The importance of (2) will appear om the following considerations: In the experiment ferred to above, which was followed by some neuralgic ain in the forems, I had reained perfectly iet during the riod of decomession. In another periment I moved ery part of the dy except the ees; after leaving e chamber, there s some pain and nderness in these rts only. Still re demonstrative the experience Dr. Leonard Hill; one occasion he itted to massage s chest, and same evening a ll-marked purric eruption appared in the anrior thoracic ion, associated h local tenderss. This rash did fade for some rs.

learly, it is of portance to aid sluggish capilry circulation by scular movents and massage, thus avoiding any local stagnation blood containing a large quantity of nitrogen in solun. It is the sudden liberation of this excess in s where the circulation is feeble that leads to the t pains frequently experienced by caisson workers, called "bends" by them. In the case of the nal cord, where, of course, such bubbling would duce grave lesions, the action of the respiratory p is sufficient to avoid any stasis, under suitable ditions as to rate of decompression.

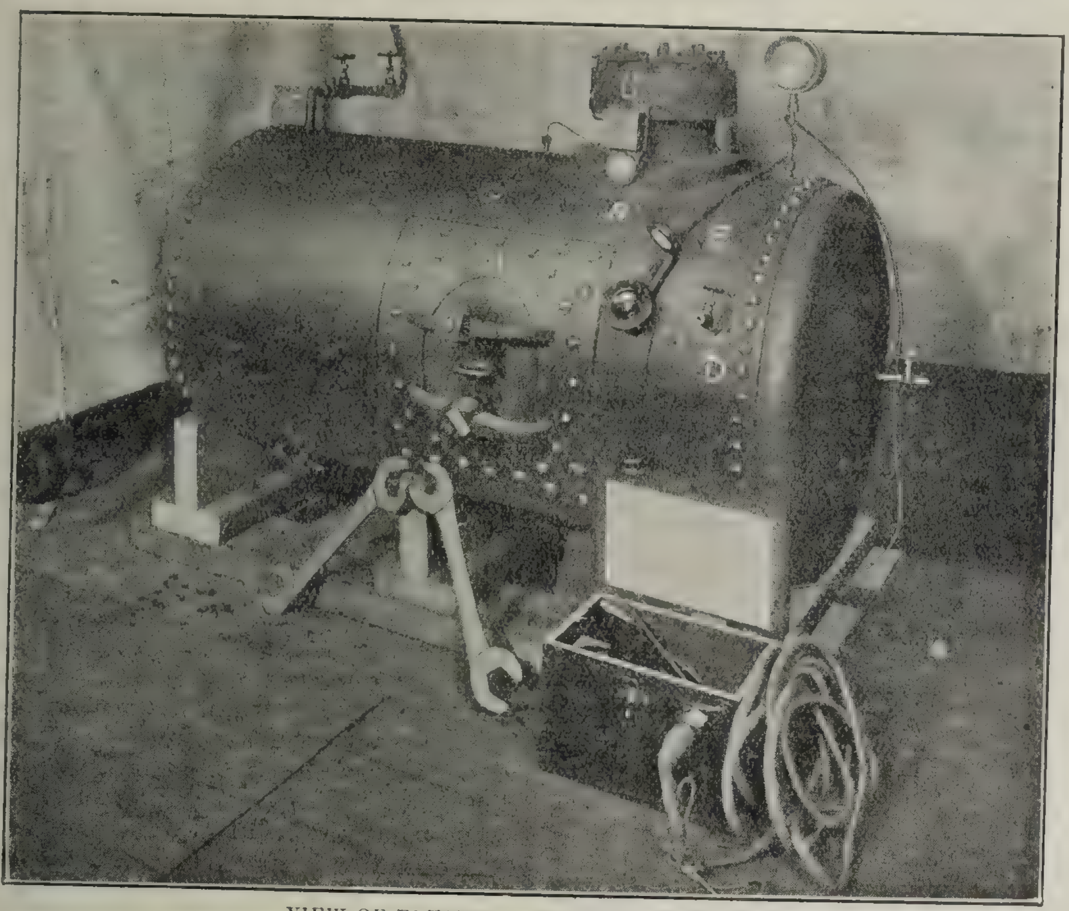
has often been asserted that quantities of carbon ide, innocuous at ordinary pressures, become toxic ompressed air. Our researches do not confirm this. have frequently allowed the percentage of CO_2 to rise siderably above the normal limit without any emassment of respiration or other inconvenience. Thus, ne experiment, at a pressure of + 16 lb., the chamber ained 1.2 per cent. CO_2, equivalent to 2.4 per cent. at nal pressure; in another, at + 30 lb., the percentage 0.5, equivalent to 1.5 per cent. at + 0; in another it 0.6 per cent. at the same pressure, equivalent, there. to 1.8 per cent.

e ventilation of caissons is, for reasons which need be discussed here, a problem of some difficulty, but it not appear to be necessary to go to great expense in ventilating for the sake of keeping the CO_2 percentage abnormally low.

It has often been observed that the power of whistling and whispering is lost in compressed air, while the voice undergoes peculiar changes, becoming nasal and metallic in quality. I can confirm these observations, and, in addition, Dr. Hill and myself experienced a peculiar lip anaesthesia, which is, we believe, dependent upon the loss of fine vibrations of the lips, owing to the density of the in-going and out-going air currents, that is, the sensory change depends upon a partial motor paralysis. Apart from this, we think there are no subjective impressions by means of which the increased pressure can be gauged. We have been unable to observe the marked diminution in pulse frequency, described by many writers.

Haldane and Priestley, in a recent paper,[3] have shown that the percentage of CO_2 in the alveolar air is normally constant. Now if high air pressure do not modify the respiratory metabolism, one would expect the percentage of CO_2 in the alveolar air to vary inversely as the pressure, so that the actual quantity of that gas in the alveoli may remain constant.

A numerical illustration will make this clear. At one atmosphere, our lungs hold about 3,000 c.cm., and we respire about 500 c.cm. at each breath, while the alveolar percentage of CO_2 is about 5, which gives about 5×30 c.cm. of carbon dioxide in the alveolar air. At three atmospheres we find that our lungs hold about 3,000 c.cm., and that the tidal air is 500 c.cm., and the alveolar percentage of CO_2 about $1\frac{2}{3}$. Reducing these values to terms of one atmosphere, the tidal air is equivalent to 500×3 c.cm.; and, as at one atmosphere, the volume of CO_2 in the lungs is $\frac{5}{3} \times 3 \times 30$ c.cm.—that is, the same as before.



VIEW OF PRESSURE CHAMBER (CLOSED).

A. Manhole. B. Electric bell. C. Observation window. (This was closed by a steel shutter during most of the experiments.) D. Decompression tap. (A second decompression tap is seen at the right end of the chamber.) E. Telephone. F. Tube leading to compressing pump. G. Wire to electric lamp inside chamber.

Our experiments are in perfect agreement with the above hypothesis, as the following records of two typical results show.

Subject.	Pressure.	Percentage of CO_2 in the Alveolar Air.	Percentage Reduced to Terms of One Atmosphere.
M. G. ...	0 lb.	5 3	5.3
	75 ,,	0.9	5.4
	60 ,,	1.0	5.0
	30 ,,	1.8	5.4
	15 ,,	2.7	5.4
	0 ,,	5.4	5.4
L. H. ...	0 ,,	4.7	4.7
	75 ,,	0.7 and 0.8	4.5
	60 ,,	0.9	4.5
	45 ,,	1.2	4.8
	30 ,,	1.8	5.4
	15 ,,	2.5	5.0
	0 ,,	5.0	5.0

These results, so far as they go, indicate that the respiratory exchange is not affected by an increase of barometric pressure.

Many points connected with the influence of high air-pressures on the physiological functions of man urgently need investigation. For example, the rate at which the body fluids are saturated with gas is a question of much theoretical and practical importance which has not yet been elucidated. The results described above do, however, show the prophylactic importance of slow decompression, and suggest that with careful attention to various details the upper limits of pressure, both for caissons and diving operations, can be much extended.

REFERENCES.
[1] Quoted by Paul Bert, *La Pression Barométrique*, 1878, p. 384. [2] *Luftdruck Erkrankungen*, etc., by Heller, Mager, and v. Schötter, Wien. 1900, p. 471. [3] *Journal of Physiology*, May, 1905.

A CASE OF EXOPHTHALMIC GOÎTRE,

WITH REMARKS ON THE PROBABLE NATURE OF THE DISEASE.

BY HENRY TEMPEST DUFTON, B.A.CANTAB., L.S.A.,
BROCKFORD.

THE following case has been selected (chiefly because the patient is at present under treatment) from amongst some forty to fifty cases of goître, both simple and exophthalmic, which have been treated successfully upon the same lines during the past twelve years.

Mrs. R., aged 51, married, of the poorer class, was first seen by me on July 12th, 1905; since then I have seen her eleven times in all.

SYMPTOMS.

A uniformly enlarged right lobe of the thyroid was easily seen and felt, and rather soft to the touch, measuring not quite 4 in. across; on the left side was a prominent hard knot, 1¼ in. in diameter, with the appearance and feeling of fibrous or tense cystic tissue. The enlargement on the right side had been noticed by the patient for certainly fifteen months; that on the left had existed for about fifteen years, and had been professionally treated many years ago. The pulsation of the carotids gave an impulse to the swelling on the right side.

Exophthalmos existed in a moderate degree, and von Graefe's sign was present. There was oedema of the eyelids in varying amount at different times. In addition to a general restlessness, shown in fidgety movements of hands, arms and head, a fine tremor of the hands was plainly seen.

The patient complained of palpitation, and it was observed that the action of the heart was rapid, and was increased by excitement or emotion. The pulse, usually regular, has not been below 112. The patient, intolerant of strangers, was chiefly in a state of subdued excitement. She was emaciated, and stated she had lately become thinner, but there was no loss of strength. She had to make a great effort to raise her voice above a whisper. She drove four miles in an open cart, on some of the coldest days, to the surgery, and did not complain of the cold; perspiration was, however, free upon slight exertion. There were pigmentary changes on her face, neck, and hands, and she stated that she was changed in colour. There was no itching. Appetite was good, and the bowels naturally regular.

RESULTS OF TREATMENT.

The treatment given was, I confess, almost entirely symptomatic. Rest, in the horizontal position, during a portion of the day, and in the open air when possible. The drugs given were tincture of belladonna and liquor arsenicalis, of each 5 minims; potassium bromide, 10 gr.; and tincture of digitalis, 8 minims—three times a day, in water, after meals. Liniment of iodine was applied externally, eleven times altogether.

The right lobe is now reduced to little over one half of its former size. The knot on the left is softer and smaller. The exophthalmos is scarcely noticeable. The patient of her own accord has frequently said she was better. There is still the tremor of the hands, but she says she does not notice it when at home. She feels much better when she is quite alone. She complained of dryness of the throat after taking the medicine (belladonna), but not before. Twice I have omitted this ingredient, and twice the arsenic. The pupils are moderately dilated, the left more than the right. She does not complain of palpitation, and the pulse is now just 100. She now has to make no effort to raise her voice.

NATURE OF THE DISEASE.

In certain parts of East Anglia simple goître is very common. The exophthalmic form is, I think, also frequently seen. In the textbooks the disease is classed with those of glands, but is it not probable that it is essentially a nervous disease? It is well known that many of the symptoms are suggestive of a nervous origin, and that the disease is sometimes associated with other nervous disorders; and, may I ask, is not that nervous origin intimately connected with the disturbances of the circulation? Let us inquire what nervous factors would produce tachycardia, palpitation, pulsation of the carotids, and from these possibly cardiac hypertrophy or dilatation.

The patients are readily upset by a loud noise, or good or bad news; they are irritable, peevish, and easily given to tears. These symptoms certainly suggest the sympathetic system as the origin, but not more than the others. To what symptoms would disease of the sympathetic ganglia connected with the cardiac plexus, for example, be expected to give rise? To an inhibition of function, certainly; to a loss of tone in the large arteries. This loss of tone, produced by disordered action of vasomotor nerves, would cause a general dilatation of the large arteries; it would be first felt on the right side and in the innominate artery, the first large vessel arising from the aorta; it would be followed in a direct line into the common carotid, the external carotid, and into the first branch of the external carotid—that is, the superior thyroid artery. Similarly, the loss of tone producing dilatation in the thyroid axis would be continued into the inferior thyroid artery. This would account for the usual prior enlargement of the right lobe of the thyroid gland The proximity of the middle cervical ganglion which gives off the middle cardiac nerve; the sympathetic nerve at the back of the sheath of the common carotid artery the upper and lower cervical ganglia with the interna carotid and subclavian arteries respectively are to be remembered.

It seems reasonable to argue that the tachycardia, and possibly the palpitation, may be caused by communication from the last cervical ganglion, through the accelerator nerves, as it is well known that when stimulated these nerves produce a quickening of the heart's beat. It is well known, also, that division of the cervica sympathetic causes vascular dilatation of the face, which is accompanied by increased perspiration.

As regards the exophthalmos, a similar argument wil obtain from the contiguity of the sympathetic root of th lenticular ganglion with the ophthalmic artery.

The persistent or enlarged thymus, the enlarged lymphatic glands, the increased connective tissue in th neck, are not these due simply to increased vascularization?

What actual evidence is there that these diseases reall originate in the sympathetic ganglia? All the evidenc of which I am aware is that found by Dr. Greenfield. H has described swellings of the sympthetic ganglia, invasion of their tissue by leucocytes, and degenerativ changes in the ganglion cells. If these morbid change are constant, what more can we want? In short, may no the hypertrophy and over-activity of the thyroid glan the exophthalmos, the persistent thymus, the enlarge lymphatic glands, the increased connective tissue in th neck, the tachycardia, palpitation, and tremor, besides th other subjective symptoms, be all the symptoms of disease of some of the chain of sympathetic ganglia? so, I see no reason why ordinary simple goître and th exophthalmic form should not be varieties of the san disease, and that a disease of the sympathetic ganglia.

A CASE OF WIDESPREAD MOTOR PARALYSI DUE TO MULTIPLE SYMMETRICAL PERIPHERAL NEURITIS,

FOLLOWING AN UNUSUALLY MILD ATTACK OF SCARLET FEVER.

BY FREDERICK W. PRICE, M.B., C.M., M.R.C.P.,
MEDICAL REGISTRAR TO WESTMINSTER HOSPITAL.

IT is well known that peripheral neuritis may occur as sequela in many of the specific febrile affections, and D Buzzard, among others, has pointed out that a mot paralysis having a very widespread distribution may caused by a lesion of the periphery of the nerve trunk The following is a remarkable example of such a ca occurring in the sequel of an unusually mild attack scarlet fever. When the patient first came under observ tion it was difficult to make a diagnosis between peripher neuritis and acute anterior poliomyelitis, but the subs quent progress put the matter beyond all doubt. T case is also interesting, because during its course presented the features of what looked like a very br attack of acute nephritis.

REPORT OF THE CASE.

A girl, aged 11 years, was admitted to Westminster Hospi on November 25th, with practically complete loss of power the legs, and some paresis of both arms.

Family History.—The only points of note in the family istory were that the father had died of intestinal obstruction, he mother was suffering from angina pectoris, one brother ad died of "brain fever," and one sister had succumbed to carlet fever.

History of Illness.—The patient had suffered from measles t the age of 4, and had had "influenza" several times. It as stated that she had suffered from an attack of "influenza" wo months before admission, but on close inquiry it was dis-overed that during the illness she had complained of some oreness of the throat, and a week or so after the acute symptoms had passed off the skin of her hands and feet began to eel. About this time she complained of a violent pain in the ead, chiefly in the right frontal region. The patient had for ears suffered from an occasional feeling of faintness, usually isting for a few minutes. On November 14th, eleven days efore admission, after sitting in a chair for some time, she und that she was unable to get out of it excepting with great ifficulty, as there was great loss of power in the legs. There as no pain, and no loss of cutaneous sensibility was noticed. his diminution of the muscular power of the legs continued r three days, when the patient took to bed. On that day she ad what was called a bilious attack, and vomited once: ere was no headache. The loss of power gradually increased severity, and also became more widespread in its distribu-on, so as to involve the arms. There were feelings of "pins d needles" in the tips of the fingers and toes, and it was so noticed that the child did not speak so distinctly. She ntinued in bed until brought to the hospital on November th.

Condition on Admission.—There was practically total ralysis of the lower limbs and of the muscles of the trunk d of the neck. The paralysis was of the flaccid type. Any tempt to raise the patient up from the bed or to turn her on her left side was attended with great pain in the back. This ggested the possibility of a spinal meningitis, but there re no muscular spasms or other characteristic symptoms of at complaint. As tested by the dynamometer, the grip of hands was feeble, but the patient was able to perform all vements. There was feeble action of the diaphragm. There s also paresis of both sides of the face, which was more rked on the right side than on the left; the paresis involved upper part of the face as well as the lower, the patient ng unable to completely close her eyes. The soft palate ved very little, if at all, with respiration; there was no dency to regurgitation of liquids through the nose. The scles of the limbs were flabby, but there was no evident sting. The patient complained of a prickling pain at the tom of the back on attempting to move and paraesthesiae the feet and fingers. Tapping the spine in the lower lumbar ion elicited very diffuse pain, but there was no pain on plying the hot sponge. There was some diminution of sibility to touch in the soles of the feet. No other sensory turbances were present. The plantar reflex was ent, the abdominal reflex was faintly present on both s, the knee jerks were absent, and the supinator and triceps exes were diminished. The palatal reflex was abolished. re were no bedsores, or bladder or rectal troubles. The d was very precocious, and there was no loss of memory. tongue was thickly furred, the pulse was 102, regular, volume, force, and tension being normal. The apex beat he heart was in the fifth interspace just internal to the ple line. There was a faint systolic bruit, localized to the al area. The pulmonary second sound was accentuated. subsequent history proved that the patient had a slight ree of incompetence of the mitral valve.

fter-History.—The urine was normal, and the evening perature was usually about 99°. On December 4th, the e, which had been repeatedly examined before, was found ntain a large amount of blood and a few hyaline casts. following day there was a moderate amount of blood and men present; on the third day the urine was free. By mber 8th there was considerable return of muscular er; there was a moderate degree of foot-drop at that time. nination of the cerebro-spinal fluid obtained by lumbar ture revealed no lymphocytosis. On December 11th the rical reactions were tested, and gave the following ts: The face showed partial loss of reaction to faradism, ially on the right side; there was poor reaction to nism, but the K.C.C. was greater than the A.C.C. on sides. The arms responded moderately to the faradic nt, and with the galvanic current the K.C.C. was found greater than the A.C.C. There was complete reaction of neration in both legs.

covery.—The patient's condition steadily improved, so by January 20th she was able to stand with the aid of support on either side. On January 26th the anterior muscles were still obviously weaker than the posterior group. On March 2nd there was still an absence of jerks, but the improvement had steadily continued, so on March 11th the patient was able to leave the hospital ing very fairly well.

[m much indebted to the kindness of Dr. de Havilland for permission to publish this case.]

LIAN RED CROSS SOCIETY.—The Italian Red Cross ty has now a membership of 24,000. It has a capital of £160,000, and material valued at £80,000.

PNEUMOCOCCIC ARTHRITIS.

BY

W. BERNARD SECRETAN, & WILLIAM WRANGHAM,
M.B.LOND., F.R.C.S.ENG. (Reading). M.D.LOND. (Ascot).

SINCE the isolation of the pneumococcus in 1880 and the subsequent demonstration by Fraenkel in 1884 of its connexion with lobar pneumonia this organism has gradually become recognized as the cause, not only of pulmonary disease, but also of many cases of meningitis, infective endocarditis, arthritis, and other inflammations of the serous and mucous membranes. In these cases, in which structures other than the lungs are infected, the clinical picture is often that of an intense septicaemia, the virulence of the parasite or resisting power of the tissues in such being respectively increased or diminished. In this connexion it has been found experimentally that subcutaneous injections of pneumococcic virus of full intensity into rabbits, mice, and guinea-pigs cause an acute—generally fatal—illness, like septicaemia, with characteristic *post-mortem* appearances, but there is no sign of pneumonia. An attenuated culture introduced beneath the skin does sometimes give rise to pneumonia or pleurisy, or both. As regards different species of animals, it has been found that in those least immune septicaemia is the more likely to occur; in those more immune, a local reaction, such as acute pneumonia.[1]

Before the recognition of the pneumococcus various stray references to arthritis occurring in cases of pneumonia may be found. Cave,[2] however, in 1901, was the first to tabulate in the English journals a series of cases of arthritis in which the micro-organism had been demonstrated in the joint effusions. Thirty-one cases are mentioned, comprising all those published up to that date. Amongst these we find that the joint affection varied from synovitis, with thickening of the synovial membrane and effusion of serous fluid, to intense arthritis with complete erosion of cartilage and baring of the ends of the bones. The severer forms were the more common, the ratio of suppurative cases to serous being as 27 to 5. The larger joints (with the exception of the hip) were more often infected than the smaller. Several articulations were at times affected simultaneously, and often there was a widespread infection; thus 6 cases were complicated by endocarditis, 5 by empyema, 6 by meningitis, 2 by pericarditis, and 1 by peritonitis. Two cases are reported in which the joint affection preceded the commencement of the pneumonia by three and seven days respectively, and in three cases no pneumonia was ever present, but the character of the joint trouble was demonstrated by the pneumococci in the pus. The disease was much more common in males than in females, and affected the upper extremity rather more frequently than the lower; the knee, however, was the commonest joint to be attacked. Ten cases gave direct evidence of previous injury to the affected joint. Out of 31 cases as many as 23 proved fatal.

We have been able to collect 25 cases of pneumococcic arthritis which have been published up to the present time in the English and American periodicals since Dr. Cave's paper. These we give summarized below:

CASE I (recorded by Allen and Lull[3]).—F., 40. Left knee; suppurative; no pneumonia present; treated by incision; later amputation. Died.

CASE II.—M., 28. Right sterno-clavicular joint; suppurative; pneumonia commenced three days before; complications, right otitis media and abscess of thigh (pneumococci present in pus from both sources); incised. Recovered.

CASE III.—M., 52. Right ankle and sterno-clavicular joint; suppurative; pneumonia two days after; complication, empyema; incised. Recovered with stiff joint.

CASE IV.—F., 49. Right shoulder; suppurative; pneumonia two days before; complications, empyema, cellulitis of shoulder, septicaemia; incised. Died.

CASE V.—M., 23. Right knee; serous; pneumonia two days before; aspirated. Recovered.

CASE VI.—M., 51. Both knees; serous; pneumonia two days before; complication, septicaemia. Died.

CASE VII.—M., 58. Right knee; suppurative; pneumonia three days before; incised. Recovered.

CASE VIII.—M., 42. Right shoulder; suppurative; pneumonia commenced about same time; complicated by cellulitis of shoulder. Died.

(CASES II to VIII recorded by Raw.[4])

CASE IX.—M., 47. Left knee; suppurative; pneumonia present; no record of treatment. Died.

Case X.—F., 30. Right sterno-clavicular joint; suppurative pneumonia five days before; complications, endocarditis and pericarditis; incised. Died.

Case XI.—F., 32. Left sterno-clavicular joint; suppurative; pneumonia present (crisis two days before); incised. Recovered.

Case XII.—M., 32. Left elbow; suppurative; pneumonia (crisis immediately before onset of arthritis); aspirated. Recovered.

Case XIII.—M., 41. Left hip* and left knee (previous injury to both); knee serious, hip (?); pneumonia fifteen days before; knee aspirated, hip untouched; recovered with movable knee and stiff hip.

Case XIV.—M., 26. Left knee; suppurative; pneumonia (crisis fifteen days before); complicated by pericarditis; incised. Died.

(Cases IX to XIV recorded by Herrick.[5])

Case XV.—M. 42. Right shoulder* and right ankle; sero-pus in ankle, no fluid in shoulder; pneumonia seven days before, complications, pericarditis, endocarditis (pneumococci present), meningitis (pneumococci present); aspiration of ankle. Died.

Case XVI.—M., 79. Left shoulder, both knees; shoulder and right knee suppurative; left knee* clear fluid; pneumonia seven days before; complicated by meningitis (pneumococci demonstrated). Died.

Case XVII.—F., 69. Right knee; suppurative; pneumonia ten days before; complication, endocarditis (pneumococci present). Died.

(Cases XV to XVII recorded by Howard.[6])

Case XVIII (recorded by Slaughter[7]).—M., 15. Right knee; suppurative (tubercle bacilli also present with pneumococcus); convalescent from pneumonia; septicaemia; treatment, incision; later amputation. Recovered.

Case XIX (recorded by Raw[8]).—F., 41. Left jaw; suppurative; during double pneumonia; complications, acute glossitis and double empyema; incised. Recovered.

Case XX.—F., 5 months. Left knee, suppurative; uncertain illness two weeks before; complication; suppurative otitis media; incised. Died.

Case XXI.—M., 6. Left knee, right hip and wrist; knee and hip contained sero-pus, no fluid in wrist; no pneumonia present; suppurative otitis media three weeks before; incised. Died.

Case XXII.—6 months. Right knee and interphalangeal joint; suppurative; no pneumonia; incised. Died.

Case XXIII.—M., 14 months. Right elbow and knee; elbow contained pale yellow pus, knee clear fluid. (?) Pneumonia three weeks previously; complication, abscess of neck (thick yellow pus yielding pneumococci); incised. Recovered.

Case XXIV.—20 months. Right hip; suppurative with complete disorganization of joint; no pneumonia; incised. Recovery.

(Cases XX to XXIV recorded by Dudgeon and Branson.[9])

Case XXV (recorded by Witt[10]).—M., 36. Right knee; serous; pneumonia ten days before; empyema and septicaemia; aspirated. Died.

In every affected joint, except those marked with an asterisk, which were not examined, the pneumococcus was proved to be present.

From these cases it is obvious that the knee is far and away the commonest articulation to be affected, as many as 15 cases out of 25 having this joint involved. The relation to pneumonia varies; in most cases the arthritis occurred a few days after the commencement of the lung trouble, but in some, especially among children, no pneumonia was present. In one of these infantile cases a pneumococcic suppurative otitis media seems to have been the primary focus of infection. Complications were present in the majority of cases, and were the cause of death in nearly all the fatal ones. As mentioned above, the incidence of arthritis is often indicative of an intense pneumococcic infection which may prove fatal in the same manner as a septicaemia due to non-specific micro-organisms.

The character of the fluid found in the joints varies from turbid serum to thick pus. Often in one patient its nature is different in each of the situations in which it occurs. Thus in one of the cases in children reported by Dudgeon and Branson the fluid from the elbow was a pale yellow sero-pus, from the knee a clear serum, and from an abscess in the neck a thick yellow pus. These writers state that in their opinion thin pus is of ominous import in pneumococcal infections. This is not borne out by our own case described below, and certainly in ordinary pyaemic joints we think that there can be no doubt that the patient's chance is better when the pus is thin.

As regards treatment, the proper procedure in all cases in which the fluid on aspiration is at all pus-like is to open and drain. The operation must of course be carried out with as great regard to asepsis as in opening a perfectly healthy joint. Frequently the only organism present is the pneumococcus, and the most disastrous results may obtain from the introduction of other pyogenic bacteria.

Report of Case.

The following is a description of a case recently under our care:

I. *By Dr. Wrangham.*

The patient, a lad of 16, on February 16th was feeling out of sorts, but continued at work. In the afternoon he lifted and carried a heavy sack of corn, and immediately afterwards complained of a severe pain in the back. He was brought to me, and had the appearance of being seriously ill. He had been shivering; his expression was anxious; face and lips pale. The pulse was 140, and temperature 103°, but on examination no physical signs were detected in the chest. On the following day, however, definite signs of right lobar pneumonia developed. On the 23rd and 24th the temperature gradually fell (there being no definite crisis) from close on 101° to normal. Two or three days before this, namely, on the fifth day of illness, the right knee became painful, and in a short time fluid began to collect. The pain and swelling increased, and, on the day following the fall of the temperature to normal and clearing up of the consolidated lung, there was a second rise of temperature to 100.8°. The knee was kept at rest on a splint at first, and fomentations were applied; but as sleep was seriously interfered with on account of the pain the splint was subsequently removed and the limb supported by a pillow. On the 25th, about a week after the commencement of the joint affection, as the temperature remained up and the effusion appeared to be considerable, the knee was aspirated with the greatest care. and a little over 4 oz. of greenish-yellow sero-pus was removed. This was sent to the Clinical Research Association, whose report was as follows: "Direct microscopica examination of various smear preparations of the pus di not show the presence of tubercle bacilli or other organisms but after incubation of the centrifugalized deposit from the fluid, inoculated upon the surface of inspissated huma blood serum, pure cultures of Fraenkel's pneumococcus were obtained." Relief of the pain followed, but the pyrexia continued, and the fluid soon began to reaccumu late. Moreover, the patient seemed to be losing ground he was pale and thin, and, though he took nourishment fairly, had little desire for it. The pulse range between 90 and 100. Under these circumstances I aske Mr. Secretan to see the case with a view to furthe operative measures.

II. *By Mr. Secretan.*

On March 3rd I saw the patient with Dr. Wranghan His condition was as follows: He appeared wasted, an had the typical sallow complexion of suppuration. Th temperature, strangely, had fallen that morning to 98.8° The right knee joint was swollen, painful, and tende being moderately distended with fluid. There was no re ness of the skin, but some slight oedema around. Th joint was held in the semi-flexed position, and could n be moved owing to the pain.

I introduced an exploring needle into the joint and dre off a syringeful of greenish pus. This, although somewha thin, was, I was told, considerably thicker and more pu like than the fluid withdrawn four days previously. Takin this into consideration and the lad's general conditio although the temperature had fallen (temporarily we afte wards found), I decided to open and drain the knee.

Under an anaesthetic I made two incisions in the capsul one on either side of the patella, letting out the remainin fluid, amounting, roughly, to about 4 oz. I then thorough irrigated the joint with formalin (1 in 500), and inserted tube, having holes cut in its sides, right through from o incision to the other, behind the patella. As the destructi changes did not seem to be very intense, and having rega to the thin character of the pus, I deemed this sufficie drainage. Had the condition been more acute I wou also have opened the joint posteriorly through the out part of the posterior ligament—the only way I think th a really satisfactory drainage can be procured in bad cas with the patient lying recumbent.

After the operation the knee was put up in a straig back splint. The joint was syringed out every day with in 1,000 formalin, and after forty-eight hours the long tu right through was replaced by two smaller ones, one fr each incision. These were gradually shortened.

The patient's condition rapidly improved, all pain and tenderness soon disappearing. His temperature, however, although normal in the mornings, persistently rose every evening to 100°. A week after the operation, as there seemed to be a little pocketing of the discharge below the patella, I made a small incision at this point on one side of the ligamentum patellae under eucaine. I think, though, now that this was unnecessary, as it made no difference at the time to the evening rise of temperature, which gradually fell some days later to normal. The side tubes were left out a little over a week from the operation, and the wounds soon healed. Passive movements were begun in about a fortnight, and diligently persisted n. Movement, however, from the first was very good.

The patient's condition six weeks after the operation was excellent. He could walk fairly well with the aid of a stick, and the range of movement in the joint was from he straight position to a right angle.

[We have now had an opportunity of examining our patient six months after operation; the movement in the oint is perfect, and the lad is able to walk and bicycle without the least difficulty.]

References.

[1] Green, *Pathology and Morbid Anatomy*, p. 298. [2] Cave, *Lancet*, anuary 12th, 1901. [3] Allen and Lull, *Annals of Surgery*, October, 1901. Raw, British Medical Journal, December 21st, 1901. [5] Herrick, *mer. Journ. of Med. Sciences*, July, 1902. [6] Howard, *Johns Hopkins Iosp. Bull*, 1903, p. 303. [7] Slaughter, *Amer. Med.*, 1903, vol. v, p. 605. Raw, *Practitioner*, April, 1903. [9] Dudgeon and Branson, *Lancet*, ugust 1st, 1903. [10] Witt, *New York Med. Journ.*, 1905, vol. lxxxi, . 25.

VASO-DILATATION IN HAEMOPTYSIS.

By EDWIN TEMPLE SMITH, M.B., M.R.C.S.Eng.,

CHARTERS TOWERS, QUEENSLAND.

HAVE ventured to report the following case for two easons: One, that it appeared to be one of haemoptysis a somewhat rare origin—namely, rupture of an athe- matous pulmonary vessel, and analogous to that con- tion met with in cerebral haemorrhage; to use a loose pression, and without regard to its etymological signi- ance, I looked on the case as one of "pulmonary poplexy." The other, that I wish to record the effects of eatment at a time when such diametrically-opposed ethods as lowering blood pressure with vaso-dilators, the one hand, and raising it with vaso-constrictors, ch as adrenalin, on the other, are being indiscriminately vocated in visceral bleedings. The clinical picture is follows:

A short, fat, thick-set man, of 13 st. weight and aged 52, nsulted me at 2 a.m., having walked about a quarter of a le, complaining of "coughing up blood." He said he had en doing so with brief intervals for four hours. On giving n a basin, a slight cough brought up half an ounce at a me of bright blood. Having cleared his trachea, in a few oments he was ready to do so again, and in the course of a w minutes he had brought up several ounces, and the eeding could only be described as profuse. His appearance s happy and not at all perturbed, only he said he "wanted stopped."

satisfied myself that the blood came up through the ttis, and was not a haematemesis. He said that he had had eadache for several days, but had been otherwise well. His mporal artery was atheromatous; he had an arcus senilis, d his pulse was full, hard, and strong. He did not look like e subject of lung disease, and examination of his heart dis- sed no obvious lesion. These facts took but a few moments arrive at, and seemed to suggest that the bleeding was due lethora, to use an old-fashioned but descriptive term; and, ng similar phraseology, antiphlogistic measures, and those ding to lower blood pressure seemed indicated.

myl nitrite was given freely on a towel, and phlebotomy ne at the bend of the elbow, about 10 oz. of blood being tracted. As soon as the nitrite was given the next clearing he air passages produced only blood-stained mucus. The t cough showed mucus only. After that there was no ther cough, the cause of it, blood in the tubes, being moved.

He then walked home, taking a mixture of sodium nitrate, roglycerine, and Epsom salts every two hours, and a mer- ial purge. I advised a hot mustard foot-bath, rest with the d elevated, and a spare diet. Next morning I saw him. had had no more blood-spitting, and said he felt much ter even than before it began. His headache was gone. arned that soon after getting home he went "queer and l" for a short time, probably a slight syncopal attack from action of the nitrites. No lung lesion has been detected, the patient has been quite well since. He has been olerable drinker, and his urine is slightly albuminous. I have advised abstinence, occasional purgation, and a timely phlebotomy when he gets an oppressive headache.

As regards the site and etiology of haemoptysis Foxwell quotes Dr. Reginald Thompson as follows:

> (1) The pulmonary circulation is the usual source of haemoptysis, slight or serious; (2) the pulmonary circulation is the only source of profuse haemoptysis, except in aneurysm of the aortic circulation or the existence of a haemorrhagic diathesis; (3) anatomically and pathologically the evidence is all against bronchial haemoptysis.

Presumably, therefore, the blood came from a branch of the pulmonary artery in the lung.

In the limited literature at my disposal I can find no reference to the condition I have termed pulmonary apoplexy, except in Douglas Powell's article in *Quain's Dictionary*, in which he gives as a last possible cause of haemoptysis "primary atheroma of the pulmonary artery within the lung."

As regards treatment: To have given adrenalin in this case, as seems to be advised latterly, without any qualification as to its particular indication, would, I believe, have caused a fatal haemorrhage.

The use of the nitrites, as advocated by F. E. Hare, lately of Brisbane, I have long been familiar with. Foxwell, in his scholarly *Essays in Heart and Lung Disease*, published in 1895, advocated this. He says:

> Anything which keeps the blood in the systemic circulation, and so produces anaemia of the lungs, is beneficial. We know that the splanchnic area can contain all the blood in the body; any therapeusis, therefore, tending to fill this area must be good. Large doses of the nitrites, which relax the systemic arterioles, should thus prove of service.

Having imbibed this principle as a student, I have always treated haemoptysis with the nitrites and nitroglycerine as adjuvants to other remedial measures.

In the case reported above probably no one would deny the indication for the vaso-dilators. But in haemoptysis from primary lung disease the case may, perhaps, not be so obvious. Yet I believe in the great majority of cases, if not in all, the parallel holds good.

Though a constant user of suprarenal gland or its active principle ever since its introduction, in various conditions, I could never see its *rationale* in the treatment of haemoptysis. If it be good in this connexion (we know it constricts the arterioles generally and raises blood pressure) it cannot be for this latter, but for its former (constricting) effect. In this case it must be conceded that the pulmonary vessels are acted on by the same vasomotor mechanism as those of the systemic circulation, and synchronously with them. And furthermore, that the vessel-constricting power of the drug, as regards the pulmonary vessels, is strong enough to counterbalance the manifest disadvantage of its also admitted pressure-raising action.

But can these premisses be admitted? I doubt it. Foxwell, in speaking of ergot in these cases, says:

> Even were it good to contract the arterioles of the lungs, how do we know that ergot will do this? The calibre of the pulmonary vessels is under very different governance from that of the systemic ones, and I am aware of no evidence tending to show that ergot can contract them.

Mitchell Bruce says "the arteries become distinctly smaller under ergot, and the blood pressure rises." I take it that adrenalin will act in much the same way, and that by acting on the muscular tissue of the vessels directly or through the nerves supplying them.

Foxwell says:

> Also, the vessel in the neighbourhood of the bleeding point is diseased, and its muscle fibres degenerated, and therefore the drug will act less upon them than upon the fibres of all the other arteries of the body; the injured arteriole it will not contract, but it will raise the pressure of the blood within it by its effect on all the health arterioles,

with the result of increasing the bleeding.

Without absolutely denying the possibility, it would seem clear, on *a priori* grounds, that the specific action of adrenalin of constricting the bleeding vessel is hardly likely to take place. If virtue it has, then, in this connexion, that virtue must lie in the secondary effect of its constricting action—namely, the raising of the blood pressure. Now this is a *reductio ad absurdum.* Nature's own remedy for this and all other bleedings is in lowering the blood pressure by means of faintness. Our own general treatment for haemoptysis is in the same direction—recumbency, quiet, and morphine.

In case of haemoptysis with a high-tension pulse, could we rationally, and with a due sense of our responsibilities, give so powerful a pressure-raiser as the suprarenal? And in lung bleeding with low pressure—probably the more usual case—should we not rather assist Nature by lowering circulatory tension by any means in our power than empirically use a drug which, though powerful for much good, when rightly and rationally used, is also capable of much harm.

MYCETOMA (MADURA FOOT) IN THE YEMEN.

BY FRANK G. CLEMOW, M.D., D.P.H.,
CONSTANTINOPLE.

THE geographical distribution of mycetoma, or Madura foot, is very imperfectly known. At one time believed to be confined to the Indian peninsula, it has more recently been shown to exist in many other tropical and semi-tropical countries. So far as I am aware, no authentic evidence of its presence in Arabia has hitherto been published. Suspecting its possible existence there, I last year requested some of the medical officers who are yearly sent from Constantinople to the Camaran lazaret for the period of the Moslem pilgrimage, to inform me of any case or cases which might come under their observation, particularly in native inhabitants of the neighbouring provinces of the Hedjaz, Assyr, and the Yemen. I am much indebted to Dr. Pappathanassiou, a member of last year's and of this year's missions to Camaran, for a careful record of ten cases, together with a number of photographs, which show conclusively that mycetoma exists, and is perhaps common, in the Yemen. The following is a brief summary of these cases.

CASE I.—Seit Abdou, aged 16, Imam, from Zodiah. Site of the disease, the right buttock. Has been ill for five years. He attributes the disease to the bite of an insect. He was operated upon in 1903, but the disease returned. When seen on October 4th, 1904, there were all the signs of mycetoma of the black variety. A second operation was performed on October 25th, and he left Camaran fifteen days later completely cured.

CASE II.—Hassan Hussein, aged 26, field labourer, from Zodiah. Site of the disease, the left foot; has suffered for seven years. He attributes the disease to the bite of a snake on the sole of the foot. When seen on February 3rd, 1905, the whole foot was swollen; the big toe alone was healthy. From a number of sinuses an oily liquid was constantly flowing, containing some pus, a little blood, and coarse black grains in suspension, resembling coarse gunpowder. On February 5th the foot was amputated, and seventeen days later the patient left the lazaret in good health.

CASE III.—Hassan Abdou, aged 28, field labourer, from Wady Aghem, near Hadjour. Had been ill for eight years. He also attributed the disease to the bite of a snake on the sole of the foot. When seen on February 3rd, 1905, the right foot presented much the same appearance as in Case II, save that all the toes were healthy. On February 6th amputation was performed, and fourteen days later the patient left the lazaret cured.

CASE IV.—Moeddin, aged 22, field labourer, from Zodiah. The disease began near the right elbow two years before. No cause could be assigned for it; he first noticed, while bathing, some small swellings on the external surface of the lower third of the upper arm, which later extended to the middle third. When seen on February 8th, 1905, there were three or four such tumours, with one or two sinuses from which an oily liquid escaped; this liquid was then clear or slightly purulent, but the patient stated that some time before it had contained in suspension black grains. The patient left without consenting to any operative treatment.

CASE V.—Otabi, aged 55, field labourer, from Loheia. Has been ill for ten years; he ascribes the disease to the bite of a snake in the left foot. When seen on February 20th, 1905, the foot presented all the signs of mycetoma of the yellow variety. On February 22nd the foot was amputated, and twenty-one days later the patient left the lazaret cured.

CASE VI.—Seit Ahmet, aged 38, field labourer, from Badjel. He also ascribes the disease to the bite of a snake ten years ago. As in the other cases attributed to a similar cause the swelling began at the site of the bite, was of very slow growth, and only after several months began to soften and break down, with the formation of sinuses and the discharge of an oily liquid, containing a little pus, some blood, and black grains in suspension. When first seen on April 8th, 1905, the left foot was in an advanced stage of mycetoma (see Fig. 1); amputation was performed on April 10th, and seventeen days later he left the lazaret cured.

CASE VII.—Mollah, female, aged 57, bedouin from Zodiah. The disease began in the right foot seven years ago. When seen on May 4th, 1905, only a cursory examination could be made, but it was seen that the foot was much swollen, and sinuses were present from which an oily liquid was flowing; the woman's companions stated that the fluid had contained black grains, and some of these were produced wrapped in a rag. The woman refused operation and disappeared.

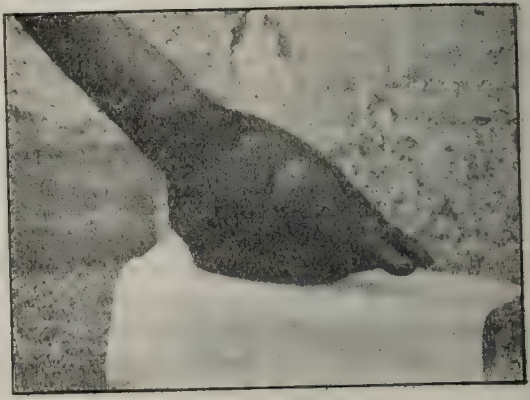


Fig. 1.—Case VI.

CASE VIII.—Selim, aged 32, field labourer, from Zodiah. The disease began in the right ankle ten years ago. When seen o June 2nd, 1905, the foot presented all the signs of mycetoma o the black variety. On June 4th amputation was performed and twelve days later he left the lazaret cured.

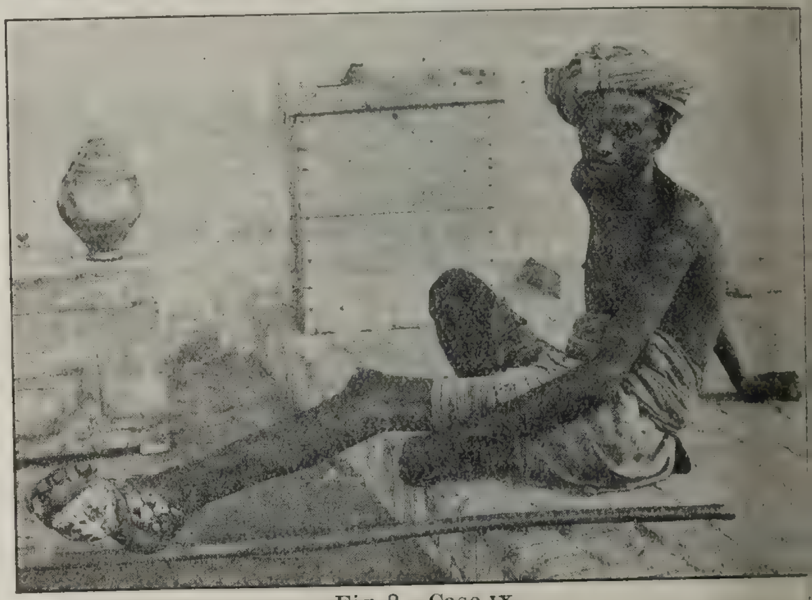


Fig. 2.—Case IX.

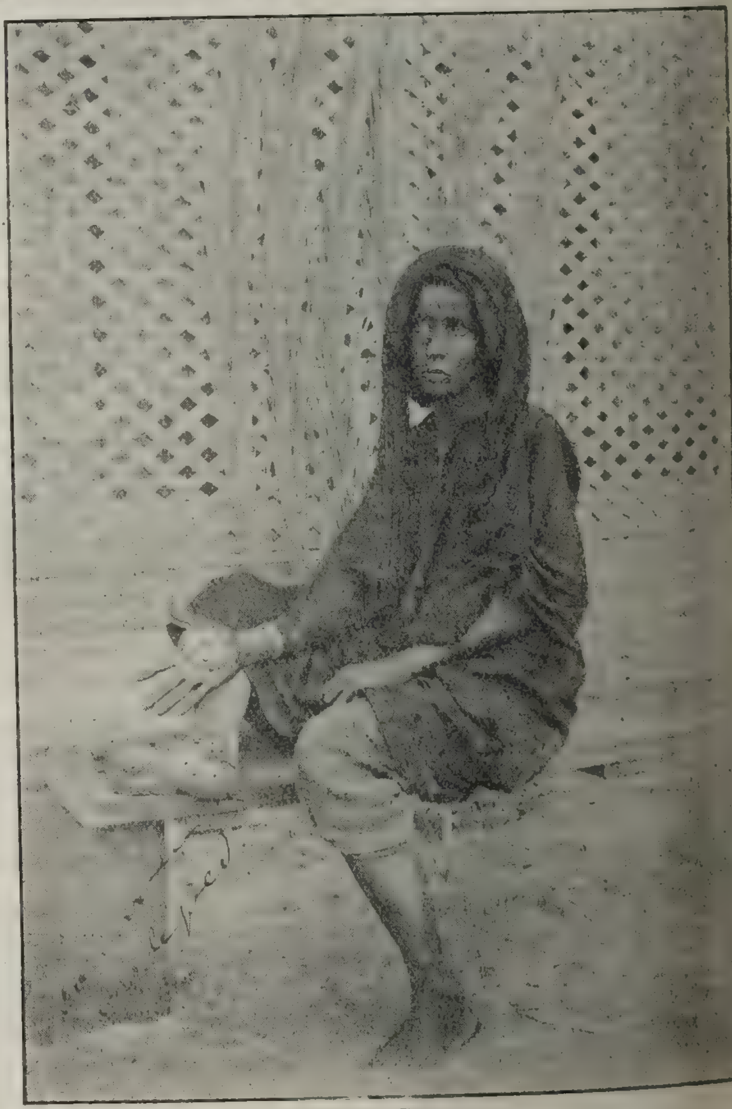


Fig. 3.—Case X.

CASE IX.—Omah, aged 30, field labourer, from Zodiah. T disease began seven years ago in the left foot. When seen ne 8th, 1905, it was very far advanced (see Fig. 2); the foot s enormously swollen, and from numerous openings an oily id was escaping in abundance, in which yellow particles, embling fishes' roe, were suspended. Amputation was per- med on June 10th.

ASE X.—Dr. Pappathanassiou has since sent me photographs a tenth case—that of a woman from the neighbourhood of diah. From one of these photographs (Fig. 3) it can be seen at the disease is present in the right hand, and has begun in right foot.

In all the above cases, where amputation was performed, pathological appearances characteristic of mycetoma re found to be present on cutting into the tumour. It s unfortunately not possible to make microscopic servations.

The above cases may be briefly summarized as follows: the 10 cases, 8 were in males and 2 in females; 7 of the les were field labourers and 1 an Imam; 7 came from liah or its neighbourhood, 1 from Wady Aghem, 1 m Loheia and 1 from Badjel; in 4 the left foot was cted, in 3 the right foot, in 1 the buttock, in 1 the ht elbow, and in 1 both right hand and right foot; the ation of the disease had varied from two to ten years; 7 the disease was of the black variety, in 2 of the low variety, and in 1 the colour is not stated; in 4 the ease was ascribed to a snake bite, in 1 to the bite of an ect, and in the rest no cause for it was suggested by patient.

ll the above-named places are situated in the Yemen, hin a comparatively short distance of the Red Sea st. Loheia is one of the principal ports of the Yemen; dy Aghem is some thirty hours inland from Loheia; diah (where the majority of the cases came from) is ee and a half hours inland from Ibn Abbas, which lies the coast, nearly opposite to Camaran, and between the ts of Loheia and Hodeidah; Badjel is ten hours inland n Hodeidah. All the cases were therefore drawn from hin a comparatively short radius of the Camaran ret, where the known presence of European medical n would naturally tend to attract such cases from the ghbouring mainland. It still remains an open ques- whether the disease also exists further inland in the nen, and in the Hedjaz, Assyr, and the other Arabian inces.

nce writing the foregoing I have myself seen the owing two cases during a fortnight's stay in Camaran: ne first case was that of an Arab boy, aged about 16, Deïr-Mohammad, near to Zodiah, the district from h so many of the cases already reported came. The ase was said to have begun three years ago in the of the left foot. The foot was in an advanced stage nycetoma, of the black variety, and there was marked asmus.

ne second case was that of an older man, aged about lso from Zodiah. Although the disease was said to appeared four years earlier, it had only affected the lle toe of the right foot. It was said to have begun ne upper surface.

ese cases are a further proof of the existence—and d of the frequency—of Madura foot in the Yemen ince. I cannot hear that it is met with in the jaz.

E Teeth of School Children.—In an official report r. Joseph J. Brittain, United States Consul at Strass- quoted in the *Medical Record*, he refers to the good ts of the establishment of a dental clinic for school ren in that city. In 1902 a clinic was opened for the and treatment of the teeth of the children in the e schools. Attendance at the clinic is compulsory, he children are treated free of charge. In the first 5,343 children were examined and 2,666 received ment. The third annual report, just published, there were 12,691 visits to the clinic in 1904 3,282 children were treated, for whom 7,065 teeth filled and 7,985 teeth were extracted, and 4,382 children had their teeth examined. The children aught to clean their teeth three times daily, and ially before going to bed. The dentist also instructs hildren in the use of the toothbrush, each child re- ng a brush for home use. Since the introduction of eatment there has been a marked improvement in eneral health of the public school children. Since oundation of the Strassburg clinic similar establish- s have been opened in Darmstadt, Mulhausen, and cities in Germany.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL.

ANGINA PECTORIS WITHOUT APPARENT DISEASE OF THE HEART OR BLOOD VESSELS.

Dr. Curtin is so good as to invite me to comment upon a case—a remarkable case—of angina pectoris.[1] He considers that his case stands against my hypothesis that the seat of origin of angina pectoris is the first portion of the aorta, and lies not in the heart itself. As Dr. Curtin's skill was successful in saving the life of his patient, the nature of the attack, decisive enough clinically, must remain pathologically ambiguous. But Dr. Curtin thinks the case clear enough for some argument. He surmises, and probably with truth, that in his case the intense irritation of a sensory nerve or nerves had its common consequence of a widespread arterial constriction, "with a consequent damming back of the blood on the left ventricle, which, owing to the attenuated condition of its walls, became suddenly stretched, and therefore unable to bear the stretch on its increased superficial area."

I will not follow Dr. Curtin into "pseudo-anginas," which are no more angina pectoris than colic is appendicitis.

It may be my fault, but on repeated perusal of Dr. Curtin's note I fail to find any argument which, while supporting his postulate of excessive intraventricular pressure, excludes that of excessive intra-aortic pressure; or which pits one against the other. Yet surely such a difference is of the essence of his discussion? I would dwell on excess of pressure in one area, Dr. Curtin on this in the other. If I admit his plus intracardiac pressure he must surely admit my plus intra-aortic pressure?

Again, it is the misfortune of both of us in this instance that Dr. Curtin did not see his patient during the attack. A statement of the behaviour of the heart during the attack is of the first importance, and we are without it. We rarely see our patients in these attacks, yet in this good hap I have been more fortunate than most physicians, and am able to testify that in the large majority of seizures the heart goes on its way with but little perturbation. Fifteen minutes after the attack Dr. Curtin finds the heart "intermittent, losing about one beat in four"—that is, the reflex (vagus) inhibition, which might well have stopped the heart in the seizure, still showed traces of activity. (This reflex, I admit, may have been either splanchnic or aortic, or, again, as I rather suppose, binary, with an unknown distribution of the responsibility between the two areas.)

If Dr. Curtin feels as insecure as I do in estimating the dynamic value of the heart by its physical signs, he will not pronounce upon the value of this patient's heart; it seems, at any rate, to have been good enough to ride through a terrific storm. So, if Dr. Curtin is disposed to attribute some defect to the fabric of this heart, I am disposed to suspect also some defect in the spring of the arch of the aorta of a man aged 59. I consider one surmise as good as the other, and my surmise is supported by my review of the whole subject in my Cavendish Lecture, a review I cannot of course repeat here. I must content myself with one quotation, and this is from Dr. Curtin's own note: "The most typical condition for angina pectoris is aortic regurgitation and stenosis, without mitral lesion"—that is, as I put it, a diseased aorta at a moment of excessive arterial pressure, the excess being either positive or relative to the morbid state of this part. That before the attack the pulse was of "low tension," even if Dr. Curtin attaches more value than I do to such an impression, does not affect the argument of either of us. Nor can we attach much importance to "softness" of the radial artery as an indication of the histological factor in other arterial areas.

In conclusion, I will venture to comment upon the way of nearly all writers in confusing the pain of angina pectoris with "feeling of dyspnoea, tension, or oppression *about the heart* . . . . pain in the *region of the apex*," etc. (the italics are mine). As in Dr. Curtin's case, the pain in unmixed angina pectoris is not epicardial but substernal; and "dyspnoea" is not a feature of it.

Cambridge. T. Clifford Allbutt.

---

[1] British Medical Journal, April 14th, 1906.

PURPURA ACCOMPANIED BY ARTHRITIS AND VISCERAL LESIONS.

W. M., aged 6 years, had a slight sore throat on November 6th, 1905, but continued to go to school until November 8th, when he complained of pain in the right elbow. When I saw him first on that day the right elbow was considerably swollen and tender, the tonsils slightly hypertrophied and inflamed, the tongue white and furred, and the heart normal; the temperature was 99°. On November 9th both elbows were swollen and painful, and on the front of the legs and thighs were numerous purpuric spots, varying in size from a pin's head to about 1.5 cm. in diameter, occurring in groups of about 4 cm. diameter. The throat symptoms had disappeared; vomited twice. On November 11th the swelling and pain in the elbows had disappeared, but a crop of purpuric spots had come out on both elbows. The ankles were painful and slightly swollen. Between this date and November 15th the joint pains and purpuric spots subsided, but he had several attacks of abdominal pain, and vomited several times, but had no haematemesis. The urine was normal. On November 16th the left ear was swollen and purple, and for the next four days diarrhoea and vomiting were continuous, but were checked by a mixture of tr. opii ℳij and tr. catechu ℳxxx. The motions occasionally contained blood, at other times were of a green colour. He had two slight attacks of epistaxis on the fourth day, and the right upper eyelid was swollen and discoloured. The urine contained a trace of blood and albumen.

On December 5th it was noted that the quantity of urine was in the twenty-four hours only 18 oz., containing much blood and albumen. There was considerable oedema of the feet, scrotum, and face. After this fresh crops of purpuric spots appeared every few days on the arms and legs. Some of these exposed to pressure, as on the ankles, knees and elbows, ulcerated. By January 10th, 1906, the patient was covered with purpuric spots and a bronze-coloured rash; the urine, very scanty, contained blood and albumen. He had had occasional abdominal pains, but no more diarrhoea. There was great oedema of limbs, chest and face, and the abdomen was distended with fluid. On February 10th he had two uraemic convulsions, and he died on February 16th after another convulsion.

Throughout the illness the heart was frequently examined, but there was never a suspicion of any endocarditis. After the first week there were no joint pains. The purpuric spots continued to come out in fresh crops up to the death of the patient.

Both mother and father suffer from rheumatism; of five other children, four are strong and healthy, while one, aged 17, is suffering from Ménière's disease. The patient was a strong healthy lad before this illness.

The boy was kept in bed throughout the illness, and on a milk diet, which he took fairly well, until the last two weeks. With regard to drugs, arsenic, iron, and sodium salicylate were all tried without the least effect. Liq. morphinae hydrochloratis ℳj every four hours seemed of use in checking the uraemic convulsions. Hot packs were tried also, but without any benefit.

A. F. Elliott, M.B.Camb.

Oundle.

THE ARTERIES DURING SOME INFECTIOUS DISEASES.

About the time when influenza was becoming sporadic and difficult to distinguish from cases of ordinary catarrh, the use of antidiphtherial serum was a recent agent in the hands of general practitioners. The serum was used in less heroic doses than are now customary, and although death was often averted, the disease was not fully controlled. Watching the results at that time, I became aware that within a week after the smaller dose was administered there occurred a perceptible thickening of the walls of the superficial arteries, most easily recognized in the radials at the wrist, but also present in all arteries which were within easy reach. It was not the hard artery of Bright's disease; it suggested rather the idea of swollen and oedematous walls. It was marked in elderly people, but was masked by the changes which attend advancing years. In youth it came more as a surprise, but investigation failed to elicit any evidence of kidney complications. It was not observed to be present in quite young children who had not yet learnt to walk, for in them the subcutaneous fat is too firm to permit of the vessel being readily traced; but from about the third year onwards it was obvious. The duration of the thickening varied from one week to over three.

In some cases which one hesitated to pronounce influenzal, but which sequelae demonstrated to be of that nature, a similar condition of the arterial wall was noted and it lasted about three weeks.

Enteric fever is rare in Guernsey in a grave form, but in some mild cases I noted this thickening of the radials attending a very dicrotic pulse and persisting for about nine weeks. In both instances I have become accustomed to regard it as an important diagnostic sign.

Since I began to use the antidiphtherial serum in larger doses I have failed to note this arterial change in many instances, and I now accept it as a criterion of the efficiency of the dose. It seems to be independent, in cases of diphtheria, of the existence of albuminuria, for I have failed to find it when both albuminuria was present and the palate was paralysed; while with no albumen in the urine and no signs of paralysis it has been obvious, provided that only a small dose of antitoxin had been given. I have observed it in some cases after a protective dose of antitoxin, and these cases have not developed the disease in a recognisable form; but if we accept Dr. Osler's figures for the City of New York—since January, 1895, 13,000 persons have been immunized, of whom only 40 contracted the disease—I venture to suggest that many more would have been found to show this sign, and that it is desirable to subject such cases as show this infiltration of the arteries to a careful bacteriological examination to determine how many of them are capable of conveying infection.

The vessel is not tortuous, not quite round like the artery of Bright's disease, and contains no gritty particles; it merely stands out large amid the subcutaneous tissue and is a little more movable than in health. I do no think that it is more loosely held, but it gives one a littl more leverage over it. It is best appreciated by a ligh touch, which conveys none of the sphygmographic characteristics of the pulse, but appreciates the fact of pulsation. It appears somewhat suddenly, at leas within twenty-four hours, and it wanes gradually.

Should these observations be confirmed, we shall hav a means of recognizing mild infections in doubtful cases an index of the efficiency of our dosage in at least one of the curative serums, and some information as to th possible spread of infection by persons who are unde observation. I may be wrong in assuming that it is caused by mild infections when phagocytosis is in exces of what is required for successful combat, or when th same condition results from the aid of a partial protective dose of a curative serum.

John Aikman, M.D.

Birnam, Guernsey.

REFLEX EPILEPSY AND OPERATION.

In 1896 Mrs. A., aged 32, came to see me complaining severe pain in the lower part of the back, etc. Ever sin the age of 20 she had suffered from frequent epilept attacks, sometimes as often as twice a week, not especial at the menstrual periods. Married at 24, she had nev been pregnant. The pain had existed for two years, a was becoming more severe. On making a vaginal exam nation a large and tender ovary was felt in Douglas pouch. Almost as soon as I pressed on the ovary s went off into a violent and characteristic epileptic attac At that time I thought it might be a mere coinciden but on every subsequent examination the same thi happened. She was then put on bromides, etc., but th did not have very much effect in diminishing the numb of the attacks. In 1897, just a year after being first see as she still complained of the pain in the pelvis, s begged me to operate. At the operation I found that bo ovaries were enlarged, cystic and cirrhotic, so I remov them. She got over the operation very well, but for least eighteen months afterwards she suffered much fr melancholia. She is now a strong, cheerful, and healt woman, and moreover, has never had a fit since the ope tion. I believe the number of reported cases of refl epilepsy cured by operation is few. It is for this reas that I record the case.

E. Laurie Robinson

Guernsey.

REPORTS
ON
IEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

TYNEMOUTH VICTORIA JUBILEE INFIRMARY.

ASE OF IDIOPATHIC (?) INTRAPERITONEAL RUPTURE OF THE BLADDER.

(Under the care of Lachlan Fraser, M.S., M.D.Durh.,
Surgeon to the hospital.)

I. C., a sailor, aged 38 years, was admitted under my care pril 3rd, 1906, suffering from pain in the belly of one ay's duration.

Family History.

Good.

Previous History.

Pneumonia twelve years ago. Gonorrhoea eleven years go, followed by a "slight stricture"; no history of etention.

History of Illness.

On April 2nd, after a jolly evening with some friends, e passed his water and retired to rest. He admits having had twelve glasses of beer, and to a feelng of elation, but denies that he was drunk "for a ailor." His landlady says he was "just happy," but cerinly not stupidly drunk. In the early hours of the orning he was awakened by a severe pain in the belly; passed from the back, round the loins, to the region of e bladder. The testicles were drawn up, he felt sick, nd was "curled up" with the pain; he also had a desire pass wind, but none came away; his bowels had not een moved for two days. Retching and vomiting soon t in, and became increasingly troublesome. Towards orning he rose to pass his water, but only a few drops of lood came away. He remained in this condition all day, d at 8.30 p.m. sent for Dr. Adams, who at once ordered is removal to the Infirmary.

Condition on Admission.

I examined him at 11 p.m., about eighteen hours after the set of his illness. He was lying on his back, his right ee drawn up, his respirations rapid, shallow, and oracic; pulse 120, temperature normal. He complained pain, which was paroxysmal, and worse in the hypostrium. Whenever a spasm came on he broke into a ofuse sweat, and the testicles were retracted. Taken by self the pain was very suggestive of renal colic.

On inspection, there was marked distension of the domen, especially at the upper part. Palpation elicited arked tenderness everywhere on percussion; liver dullss was diminished, and a dull note was elicited in both nks. A large metal catheter was passed easily and drew f a few ounces of clear urine, followed by a pint of ood-stained urine; there was no evidence of stricture. r. F. Gofton kindly saw the case with me. We agreed at the man had general peritonitis, probably due to rforation of some hollow viscus, and we decided upon mediate operation.

Operation.

At 12.30 a.m., assisted by Dr. Gofton, I opened the domen in the middle line. The belly contained a antity of blood-stained fluid, which, tested with litmus, oved to be acid. On passing my hand into the pelvis, found a rupture of the posterior bladder wall large ough to admit four fingers. This was sutured in two yers, and the peritoneal cavity was washed out with line. A Keith's tube was then passed down into the lvis and the parietal wound closed. A catheter was d into the bladder.

Result.

The patient improved slightly the day after the eration, but the following day he changed for the worse, d died about 6.30 p.m.

Remarks.

I had every chance of examining the bladder, ich showed no signs of ulceration or new growth, ese being the most usual causes of "pathological pture." There was no stricture of the urethra, nor s there any history of overdistension; indeed, the an emptied his bladder only a short time before the cident happened, and said he had no difficulty in performing the act. No doubt the beer would cause increased secretion of urine, and hence rapid refilling of the bladder. Still the man was not dead drunk, he was only "happy"; it seems unlikely, therefore, that he would not be roused by Nature's call, and that the rupture was due to simple overdistension. Lastly, he slept by himself; there was no history of injury and no sign of it; so that traumatism, the most common cause of rupture, cannot be blamed for it here. As to the history, had I only the man's statement, I might be inclined to have my doubts; but all the essential points were confirmed by his landlady in a separate interview. On the evidence I am inclined to call this a case of idiopathic rupture, a condition so rarely seen that I offer no apology for submitting this report.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

Southern Branch: Portsmouth Division.—At the spring clinical meeting, which was held on March 30th, Dr. R. **Emmett** (Chairman) presiding, Dr. **Trevelyan** read a paper on mucous colitis. He said that the disease was usually associated with neurasthenia, rheumatic, gouty, or uterine disorders. He considered diet very important in its treatment, and had found injections of glyco-thymoline useful. Right inguinal colotomy had been advised in chronic cases.—Dr. **Leon** showed a case (with skiagraphs) of symmetrical rheumatic enlargement of the knees and fingers in a boy. The attack began three months ago with tonsillitis, and there had been recurrent attacks of the same complaint from time to time. The joints began to be affected four weeks later, and the enlargements were confined to the knees and fingers. The skiagraphs showed enlargement of the joints, but not of the bones. Dr. Leon considered this one of the class of cases of septic infection of the joints, probably from the tonsils. A discussion followed.—Mr. C. P. **Childe** showed three specimens of ectopic gestation —two of ruptured tubes and one of tubal abortion. All had been diagnosed and operated upon at once, and all had recovered. He discussed the early symptoms of this important affection—generally an interval of sterility, followed by a missed period, crampy pains in the lower abdomen, and a vaginal discharge, when the rupture or abortion occurred, signs of internal haemorrhage, with acute general abdominal tenderness, and usually an absence of physical signs in the abdomen. He emphasized the importance, if possible, of diagnosis and operation previous to rupture. A discussion followed.—Dr. **Cashin** read a paper entitled The Modern Treatment of Chronic Endometritis. In mild cases of cervical endometritis he advocated pyroligneous acid applied by means of a Baudl's sound; in severe cases a saturated solution of picric acid in methylated spirit; in very chronic, with much erosion, curettage, followed by the application of Paquelin's thermo-cautery or Schröder's operation. In corporeal endometritis he advocated the treatment advised and practised by the late Professor Bandl of Vienna, namely, the application of pyroligneous acid to the interior of the uterus by means of his hollow sound; if this failed, a thorough curettage, followed by the application of formalin solution (1 in 4), and packing the uterus with iodoform or chinosol gauze. In haemorrhagic endometritis he advised curettage, followed by the application of chromic acid (ʒj to ℥j). He emphasized the difficulty of curing the disease, especially if caused by gonorrhoea. —Mr. **Ridout** showed a specimen of carcinoma of the cervix, removed by Dr. Cousins by vaginal hysterectomy in October, 1903. The patient was well and free from recurrence in February, 1906.

South-Eastern Branch: Brighton Division.—At a meeting held on March 28th, Mr. T. **Jenner Verrall** in the chair, Dr. **Marsh** showed a boy 16 years of age for whom he had removed the right lobe of the thyroid three years ago for dyspnoea and dyscrasia.—Mr. A. J **Martineau** read notes of a case of removal of cystic adenoma from the right lobe of the thyroid. The patient was a lad aged 17. He had had a cold two years before, and his voice had been affected ever since. He had noticed a lump in the neck for three weeks. There was slight prominence of the right side of the thyroid low down in the neck. The right vocal cord was motionless, and the trachea was seen to be flattened. An operation was performed on February 14th. The tumour was very tightly bound down, and caused great flattening of the trachea. The specimen showed a large adenoma in front and a small portion of normal thyroid tissue behind. There was slight movement of the right arytenoid, but the cord itself did not move. There was compensatory movement of the left cord.—Dr. MARSH also showed a specimen of sarcomatous polypus of the nose.—Dr. BENHAM read notes of a case of *Bilharzia haematobia.* The patient had served with the regular forces in South Africa during the war. He had, like most soldiers, two ages, an official and an unofficial one, but Dr. Benham gathered that he was about 34 years old. He was in the Bush Veld, which was a district noted for bilharzia, from April, 1901, to February, 1902, and many times drank the water of polluted streams, and bathed in them. February, 1902, was therefore the last date at which infection was likely to have taken place. In July, 1902, he was taken ill at Karee Siding, the first symptom being pain referred to the urethra and perineum, and occurring after micturition. Blood appeared in the urine a fortnight after the onset of symptoms. He had spent most of the intervening time in military hospitals—periods of one month and five months in Bloemfontein; Herbert Hospital, Woolwich, three months; then Fort Pitt, Chatham, six months. He returned to duty for short periods, but was always invalided again very shortly. In November, 1903, he was discharged on a pension, and had been able to do some work since. At the present time he was driving a van, and was in comparatively good health. The haemorrhage from the urethra had never completely stopped, but had varied from a few drops at the end of micturition to quantities amounting to about an eggcupful. At times he passed what he described as grit, which caused considerable pain, referred chiefly to the fork and the pipe, but also felt in the lower part of the stomach. He had had several severe attacks of pain in the precordial region coming on suddenly at night, but Dr. Benham was inclined to think these were due to flatulence. They were much relieved by bicarbonate of soda. On March 9th he passed urine in Dr. Benham's presence. There was no evident difficulty in micturition, and the pain was slight. The last few drops trickled away slowly, and contained blood, pus cells, and the characteristic ova. Bilharzia was a fluke which rejoiced in the euphonious names of *Schistosomum haematobium* or *Bilharzia haematobia.* It was endemic in Egypt and the North of Africa, and was common also in some parts of South and West Africa, Arabia, Persia, and the West Coast of India. Imported cases occurred in Europe, and had become much more common since the war. Unlike most other flukes, the sexes were separate. The female was long and slender, about ½ in. in length; the male shorter and thicker. The male was provided with a kind of trough running along its ventral surface, in which the female was carried. The adult worms appeared to inhabit the large veins of the portal system, and the female lays her eggs in the smaller vessels branching from these. The eggs were oval in shape and provided with a sharp spine, usually at one end, about 1.6 μ in length. The eggs thus tended to travel in the direction of the sharp point and infiltrated all tissues in their neighbourhood. They found their way especially into the kidneys and rectum, the anatomical structure of the veins rendering these paths easy, and caused proliferation of tissue and excrescences into hollow organs, such as the kidney, bladder, and rectum. The eggs were thus discharged into the kidney and bladder, or passed away in the faeces. The symptoms of the disease were those of irritation due to the passage of foreign bodies of an irritating nature, consequently haematuria and pain on micturition was the most constant symptom, and many cases also had some diarrhoea and tenesmus. The patient since his illness had married and had had a child, but his wife was unaffected. The constant loss of blood led in many cases to severe anaemia and great weakness. In the present case the anaemia was mild, and the patient was able to do his work. Dr. Curwen has very kindly made two blood counts, and from them it appeared that the red cells were if anything rather above the average in number, but that the Hb was below the average, though not greatly so. There was a slight but definite leucocytosis, which was constant at the two observations. There was marked eosinophilia, and a less marked increase of the lymphocytes. Eosinophilia was common to all the worm infections. In regard to prognosis, Dr. Benham said that many cases were fatal, through complications, such as the formation of calculus and blockage of the urethra by the ova, causing hydronephrosis. Some were worn out by the constant drain on the system, and succumbed early to intercurrent diseases. In view of these serious possibilities a guarded prognosis was desirable.

EDINBURGH BRANCH: SOUTH-EASTERN COUNTIES DIVISION.—At a meeting of this Division, held on April 6th, Dr. HENDERSON read a paper on some clinical manifestations of movable kidney. He said these were often the same as those of neurasthenia, and so much was this the case that all cases of the latter should be examined for the former. Pulsating aorta was common, so was tachycardia. Gastric crises were frequent, supposed by Dietel to be due to twisting of the renal blood vessels. Anaesthetics were advised for examination always if possible. Movable right kidney often led to gastric dilatation. Many interesting cases by various writers were given. Jaundice was associated with movable right kidney, and was produced by a pull or twist on the hepatico-duodenal fold. In one case, after exploration of the gall bladder for stone, cure was brought about by a stitch securing the kidney in position. The pain sometimes extended to the bladder, giving rise to strangury. This happened in a case of his own, which was cured by a suitable pad.—Dr. YOUNG read a series of kidney cases following or associated with labour. He discussed the toxins producing the eclamptic seizures, and the treatment, dwelling specially on bleeding and spinal puncture.—Dr. CULLENS read a paper on emotional haematemesis, relating two cases. Both occurred on the same day. The circumstances in both were very distressing, causing much emotional disturbance. In both vomiting set in, and blood in profuse quantity was brought up, the patients being exsanguine, and showing all the symptoms of extreme exhaustion. Ergotin was given hypodermically and saline solutions injected into the rectum with good result. There was no ulceration in either case. The haemorrhage was caused by increased blood pressure in the organ, the result of cerebral excitement.

YORKSHIRE BRANCH: BRADFORD DIVISION.—A conjoint general meeting of the Bradford Division and the Bradford Medico-Chirurgical Society, devoted entirely to the exhibition and description of pathological specimens, was held at the Bradford Royal Infirmary on Tuesday, March 20th, at 8.15 p.m. Dr. HANDCOCK presided. Specimens were shown by Drs. ALTHORP, BRONNER, HEILBRON, BASIL HALL, WOOD, and MITCHELL, after which a discussion took place.

LEPROSY IN THE PHILIPPINE ISLANDS.—According to a recent monthly report of the Board of Health of the Philippine Islands, the number of lepers now living in the Archipelago is 3,683. They are scattered through the various provinces. Cebu, which has 675, heads the list, but only one province is wholly free from the disease.

FIRST AID IN BERLIN.—The Berlin First-aid Association, which was founded some time ago by the union of three previously-existing societies of corresponding purpose, is stated to be in a very flourishing condition, and to have a surplus in hand. This it is intended to devote to the furtherance of allied objects, such as street ambulances, with which hitherto Berlin has not been very much better provided than London. The First-aid Association itself has no precise analogue in England, presumably because the needs which called it into existence are here otherwise met. It has some eighteen stations in Berlin, at each of which a medical man and a nurse are in constant attendance. Emergency calls whencesoever received—private houses, hotels, theatres, and the streets—are answered, but first aid is alone given, while fees are charged to persons who are able to pay them, either themselves or through the agency of any benefit society to which they may belong. If the persons in need are very poor they are attended gratuitously, or application is made to the municipality for payment.

REPORTS OF SOCIETIES.

Glasgow Medico-Chirurgical Society.—At a meeting on April 6th, Dr. J. **Lindsay Steven**, President, in the chair, Drs. T. K. **Monro** and A. N. **M'Gregor** showed a case of *Epiplopexy* for the relief of ascites in a dentist, aged 40, whose symptoms were haematemesis, pain and tenderness in the right hypochondrium, and latterly ascites. The former symptoms were only of six months' duration; there was no alcoholic, syphilitic, or malarial history. On the abdomen being opened in the middle line, above the umbilicus, a quantity of ascitic fluid was evacuated, and there were found a cirrhosis of the liver and an adhesion of the pyloric end of the stomach to the under surface of the liver. The stomach was healthy except for some dilatation of the veins, and no tumour was anywhere found. The omentum was then spread out, and attached by three rows of sutures to the peritoneal surface of the anterior wall, on each side of the incision. During the closure of the abdominal wound the omentum was picked up by each of the sutures uniting the peritoneal edges. The rest of the abdominal wound was closed in two layers. The wound healed aseptically, and the patient went home in a fortnight. When he reported himself, eight months after the operation, an enlarged superficial epigastric vein was visible, extending from the umbilical end of the cicatrix to the left groin. There were no other venous dilatations visible, and no ascites. The spleen was sufficiently enlarged to be distinctly felt on inspiration, and there was slight diminution in size of the liver. Since the operation his only symptom had been a slight haemorrhage, evidenced by melaena. The patient declared himself in better health than he had been for fifteen years.—Dr. J. W. **Findlay** showed (for Dr. **Munro**) a patient presenting the typical symptoms of *Syringomyelia*. The loss of the senses of pain and temperature involved the upper part of the trunk, the upper limb, the neck, and scalp—all on the right side. There was loss also of muscular sensibility in the right arm, as tested by compression of the muscles and by faradism. He also described the clinical features of a similar case which Dr. Munro had under observation in the Royal Infirmary. The patient died after a comparatively short residence, apparently from exhaustion and septic poisoning from bedsores, exposing several bones, and discharging pus in large quantities.—Sections of the spinal cord (shown by Dr. H. **McLaren**) contained one or more cavities extending through a great part of its length. The cavity was not simply a dilatation of the central canal, although it communicated with it. Widespread sclerosis was also present.—Dr. W. F. **Somerville**, in a paper on *The influence of high frequency currents on the surface temperature of the body*, said that, apart from any form of treatment, he found great variations in surface temperature, according to the locality and the individual, etc. High-frequency currents produced a rise of temperature on the surface of the body, varying with the dosage, the locality chosen, and the method of application. Their action on the vasomotor system caused increased peripheral circulation, and in some cases also a dilatation of deeper vessels. The rise of temperature varied from 1.4° to 17.4° F.

Liverpool Medical Institution.—At a pathological meeting on April 5th, Mr. **Frank Paul**, President, in the chair, after the exhibition of a large number of card specimens, Mr. **Paul** showed a patient with a sarcoma of the left iliac region, which had remained stationary for twelve months; a piece had been removed for microscopical examination.—Dr. **Grossmann** showed four early human embryos collected for the purpose of embryological examination of the development of the eye; they were of about 6, 7, 8, and 9 weeks respectively, and were all complete in amnion, and, with one exception, of chorion also.—Dr. **John Hay** showed a specimen of aneurysm of the ascending arch of the aorta, which had ruptured at its posterior portion into the superior vena cava. The rupture caused sudden loss of consciousness and intense cyanosis with distension of the veins of the head and neck, shoulders, arms, and upper half of the trunk. The patient recovered consciousness shortly after admission to hospital, but died in sixty hours.—Mr. **Paul** read a note on three cases of papillomatous growth, one of widespread villous tumour of the urinary organs, one of villous tumour of the rectum, and one of a large rapidly-growing papilloma of the tongue, believed to be malignant, but ultimately proved to be innocent. Villous tumour of the bladder he believed to be primarily innocent, with a marked tendency to become malignant; only favourable cases were permanently cured, some became cancerous, and others seeded themselves over the adjacent mucous membranes. Villous tumour of the rectum was almost invariably carcinoma from the first, but, being more accessible and less malignant than cancer of the bladder, was frequently permanently cured by operation. Papilloma of the tongue was perhaps always innocent primarily, but had an inveterate tendency towards malignancy in course of time. In discussing the value of reports by expert pathologists on the nature of new growths, he said that in difficult cases it was frequently impossible to decide, as was constantly done, on microscopical appearances alone. Such reports were frequently wrong. It was necessary to consider the clinical and the pathological evidence together, and he strongly supported the suggestion recently made by Mr. Mayo Robson that in important cases the pathologist and surgeon meet in consultation.—Dr. **Warrington** gave a short sketch of the pathological conditions in the spinal cord leading to acute paraplegia. This might be due to a primary vascular disturbance, haemorrhage, thrombosis, embolism; or the cause might be a primary inflammation. Primary haemorrhage was rare and usually traumatic; it was considered (*a*) as epidural, (*b*) subdural, clinically negligible, (*c*) into the substance of the cord, (*d*) into a pre-existing cavity—syringal haemorrhage. A primary thrombosis was considered to be the cause of the so-called "transverse myelitis," and in this condition syphilitic arteritis was the common lesion. Many other forms of local destruction of the cord were also considered to be due to a primary ischaemia: such were tuberculous and syphilitic, meningitis, compression of the cord, and the effect of tumours. The author attempted to explain the pathological appearances presented by acute diseases of the spinal cord, the effects of acute degeneration, softening, haemorrhagic infarction, coagulation, necrosis, and inflammatory oedema. He alluded to caisson disease as perhaps an example of pure ischaemia from gas embolism. Primary inflammation was, he thought, rare, and probably included the disseminated lesions characterized by demonstrably infective causation. A remarkable example of such acute disseminated haemorrhagic myelitis was mentioned, and specimens illustrating its pathology shown. Dr. Batten's view of the thrombotic nature of encephalitis and infantile palsy was noted, and the relationship of Landry's paralysis to the other acute paraplegias briefly considered.

Manchester Medical Society.—At a meeting on April 4th a paper on *The Present Treatment of Syphilis* was read by Lieutenant-Colonel E. **Butt** of Dublin. After an historical survey of the incidence of syphilis in the British army in recent years, an account was given concerning the past eight years' employment of the method of continuous treatment by intramuscular injections of mercury. The technique of the method was described in detail, and the lecturer claimed for it uniform success. In the discussion which followed the general opinion of those who had employed the method was that, while the method undoubtedly had its special indications, it was at the present time unsuitable for routine treatment in civil practice.

Nottingham Medico-Chirurgical Society.—At a meeting on April 4th, Mr. R. G. **Hogarth** showed a case of fractured humerus with resulting musculo-spiral paralysis. There had been a good recovery four months after operation.—Dr. W. R. **Smith** (Beeston) showed a patient with a primary chancre on the lip, and Dr. F. H. **Jacob** showed a case of ophthalmoplegia.—Mr. R. C. **Chicken**, amongst other specimens, showed: (1) A haematosalpinx from a case of pelvic haematocele previous to tubal abortion; (2) another from a case of pelvic haematocele during tubal abortion; (3) ovary and cyst from a case of pelvic haematocele due to ruptured haematosalpinx.—Mr. R. G. **Hogarth**, in a paper on the causation, diagnosis, and treatment of intussusception, described two cases in which the appendix vermiformis seemed to be the cause and formed (inverted) the apex of the intussusception. This, he said, was a condition which up till now had been overlooked or not recognized. Early diagnosis before the occurrence of blood and mucus in the stools was of great importance.

REVIEWS.

ABDOMINAL SURGERY.

MR. B. G. A. MOYNIHAN's work on *Abdominal Operations*[1] is, as its title indicates, a textbook on the technique of abdominal surgery; in the case of most of the procedures described a review is also given of the prognosis and results of treatment, and special points are freely illustrated by clinical examples. One of the first chapters is devoted to general remarks on the preparations necessary in abdominal operations, on the conduct of the operation, and upon the after-treatment of the patient. In these matters Mr. Moynihan follows the usual practice of what is loosely called aseptic surgery. Some of the remarks on after-treatment are of special interest, particularly those on the early administration of fluids by the rectum and mouth, and on the period during which the patient is kept in bed. "A patient," it is said, "after removal of the appendix may be out of bed in six or seven days and may return to light work in a fortnight." This is an example, of course, at the extreme end of the scale, and we agree with the remark that it is a general custom to keep patients in bed somewhat longer than is necessary. Many other surgeons have modified their practice in this respect of late years. Some of the recommendations appear to be rather counsels of perfection; for instance, that the patient should be clad in a suit of gamgee pyjamas before operation. Among the possible sources of infection during operation the operator's mouth and those of his assistants might have received mention with a recommendation of the necessary silence. Of the sequels and complications of operation special consideration is given to post-operative haematemesis, and Rodman's opinion that infection is its chief cause is approved. No mention is made of post-operative thrombosis—a complication on which the author's views and experience would have been of interest. Mr. Moynihan is among the surgeons who practise lavage of the peritoneal cavity in acute diffuse peritonitis. This raises a question of extreme importance and one on which opposite opinions are held by surgeons of experience; theoretically there is much to be said for it, but the argument of experience appears to be slowly pushing its way to the front in opposition to it, and certainly more than one surgeon who previously employed it has recently discarded it. On the subject of stomach surgery Mr. Moynihan speaks with the authority of a large experience. In the chapter on perforating gastric ulcer there are two matters of particular importance which are mentioned: First, the necessity of remembering that two ulcers, or more than two, perforate in 20 per cent. of the whole number of cases; and, secondly, the propriety of performing gastro-enterostomy after the ulcer has been closed. In regard to gastric haemorrhage, the question of the type of case which requires surgical intervention, primarily on account of this symptom, is not discussed. Mr. Moynihan advocates gastro-enterostomy as the best means of arresting this haemorrhage, and explains its value on the ground that continuance of bleeding is due to gastric distension, which the operation relieves. In the description of gastro-enterostomy and gastro-duodenostomy the only special point which calls for notice is the author's constant use of the clamp to isolate the area of anastomosis and prevent haemorrhage. The chapter on cancer of the stomach is one of the best and most efficiently illustrated in the book, admirable alike in its estimation of the bearing of pathological findings on the question and in its description of technique. As the final step the author advocates gastro-enterostomy rather than union of duodenum to the remainder of the stomach, and pertinently observes that a desire to finish by the latter method will tend to inadequate removal of the area of disease. In the chapters on intestinal surgery the use of mechanical appliances for anastomosis finds no place. Mr. Moynihan holds, in agreement with many surgeons to-day, that they are all unnecessary, that they have played their part in the development of surgical methods, and that it is now time that their use should be abandoned. Among the thirteen chapters in this section none is more valuable than that on rupture of the bowel; diagnosis, treatment, and prognosis are fully discussed, and the whole chapter is an admirable essay on a very difficult subject. We welcome a dogmatic assertion on p. 343 on the subject of resection of growths of the large bowel, and end-to-end anastomosis in the presence of acute obstruction; Mr. Moynihan holds that few rules are so binding on the surgeon as that which prohibits the simultaneous performance of these two procedures; he considers that the best method of dealing with such growths is that which was laid down by Mr. F. T. Paul ten years ago. The fourth section is on operations on the liver. Here we note particularly the author's arguments in favour of cholecystectomy, not only in inflammatory lesions of the gall bladder, but in many gall-stone operations also. In this he agrees with Kehr and others; he points out that it is within the gall bladder that the great majority of stones are formed, that it is here also that the secondary inflammatory troubles break out, and that there is abundant evidence that its removal does not interfere with digestion; on these grounds its routine removal is tentatively advocated. Operations on the pancreas and spleen are grouped together in the last section, among the chapters of which that on pancreatic cysts is especially worthy of commendation. On the subject of pancreatic calculus an account is given of the well-known case, the first in which a diagnosis was followed by a successful operation, which the author recorded in 1902. The work as a whole is marked by well-balanced estimate of the value of and the indications for the various operative procedures described, by discussion of the views of other surgeons, which shows a wide acquaintance with their practice and their writings, and by careful descriptions of technique which will place many a surgeon under an obligation to the author. We have noticed two misprints, "this" for "thin" on p. 103, "vertical" for "vertebral" on p. 180.

DR. MAYLARD is known as a practical authority on abdominal surgery, a subject on which he has already written treatises and articles. Hence *Abdominal Pain*[2] will be hailed as the work of an experienced surgeon and clinician. It is in the latter character rather than as a surgeon that Dr. Maylard's readers will study him, and therefore we suspect that they will consider that his zeal as an operator has outrun discretion when they find that nearly ninety pages out of three hundred treat of abdominal operations, that is to say, preparation, sterilization, ligatures, sutures, incisions, and results. Undoubtedly the observations on the abdominal incision are of high value, and the author defends, or rather supports, the transverse incision in terms which we must respect when we know that he has tested its merits in his own operative practice. We find, however, that he admits that he has only adopted it for three years and says nothing about its relation to post-operative pain. As to that kind of pain the author is also mute in his notes, in the last pages of this treatise, on the results of his abdominal operations—a much graver oversight. Thus painful stumps after removal of the uterine appendages receive no notice whatever, whilst two pages are filled with reports, most interesting no doubt, but hardly to the point, of bad immediate complications following severe operations for gall stones. At page 266 we find very reasonable and very sound surgical observations about the danger of infection from pedicles in cases of suppurative salpingitis and other intrapelvic septic conditions. Yet though the author dwells on infection and mortality, he says not a word about pain in the stump of a pedicle and adhesions, sequelae which were the curse of the old-fashioned oöphorectomies so largely performed twenty years ago. Lastly, in regard to this somewhat superfluous portion of the treatise, if the reader turns to page 223 he will come across some important passages about sunken silk ligatures. "In the course of periods varying between a few weeks and a couple of years some of my cases returned with a small painful swelling in the line of the cicatrix." Dr. Maylard has therefore abandoned silk as a material for sunken sutures. Many others have had a similar experience, and such information is precisely what the reader desires when he turns to a book on abdominal pain by an author of recognized authority. In a future edition it will be well if the purely surgical chapters be replaced by full notes on pain in relation to incisions, sutures, ligatures, cicatrices, pedicles, adhesions, and other post-operative complications. The first two-thirds of the treatise contains all that is essential. The reader will not blame the author for allotting two chapters to the purely anatomical details of the nerve supply of the abdomen and its viscera. Dr. Maylard rightly lays great stress upon the placing of the patient in a comfortable position for palpation. The directions on pp. 51 and 52 are very clear, and the author prudently dispenses with a class of illustration a little overdone in current textbooks, which are of small value for instruction in bimanual palpation and similar delicate manœuvres, and which are objectionable for several reasons, especially if the volume should fall into non-medical hands. The eleven chapters beginning with the fifth, treat directly of abdominal pain. They are written in a scientific spirit, as though designed to aid us in detecting the cause of suffering in any one case with a view to curing the patient. Too often surgical authors write as though pain were simply a light towards the diagnosis of a tumour or an argument in favour of some new operative procedure. Dr. Maylard consistently lays as much stress on regional pain as on pain in affections of particular organs. The chapters on pains in the lateral regions of the abdomen and iliac fossae are written in the most judicious spirit, and deserve to be read and weighed by the physician and surgeon alike. They are worthy of a Hilton—a high type of surgeon too rare nowadays, but appreciated by Dr. Maylard. In a future issue of this notable treatise we hope for more information about pain and its clinical associations, in place of long paragraphs on artificial anus and the after-treatment of abdominal cases—subjects discussed in countless current manuals and monographs.

---

[1] *Abdominal Operations.* By B. G. A. Moynihan, M.S., F.R.C.S. London: W. B. Saunders and Co. 1905. (Demy 8vo, pp. 694, 235 illustrations. 28s. net.)

[2] *Abdominal Pain: its Causes and Clinical Significance.* By A. Ernest Maylard, M.B., B.S.Lond., Surgeon to the Victoria Infirmary, Glasgow; late Examiner in Surgery to the University of Glasgow and Victoria University, Manchester, etc. London: J. and A. Churchill. 1905. (Demy 8vo, pp. 304. 7s. 6d.)

DISEASES OF CHILDREN.

THE first edition of Dr. SACHS's *Treatise on the Nervous Diseases of Children*[3] was received with such favour that translations into German and Italian have already appeared, and one into French is to be published shortly. These facts sufficiently attest the merits of the work. In this new edition every chapter has been revised, and much fresh matter added. The size of the work has been reduced by the judicious omission of chapters on anatomy and physiology, and the detailed histories of cases. Space has again been economized by many of the rarer diseases being dealt with in smaller type. It would seem to us, moreover, that a still further economy of space might well have been secured by the omission of any lengthy descriptions of nervous diseases that are common in adults and occur only very occasionally in children, and by the mere inclusion of the special features such complaints assume when they occur n the younger subjects. There is a valuable introductory chapter on the modes of examination, which many will ind of service, and the rest of the work is divided into sections dealing with general nervous diseases, organic nervous diseases, diseases of the spinal cord, and diseases of the brain—a reasonable and useful division of the ubject. Most of the complaints would seem to have received adequate and satisfactory treatment, and there is little o call for adverse criticism. Regarding the vexed question as to the connexion between chorea and rheumatism, t is interesting to find the author uninfluenced by the opinion, largely prevalent nowadays, that chorea is in every instance a rheumatic manifestation. So far, indeed, s the author from agreeing with this view, that he emphasizes the fact that he could find a history of chorea coming on after rheumatism in only 20 out of 184 cases. In these cases, too, he raises the question whether the associated heart disease was not in part responsible for the development of the chorea. If rheumatism in these cases were responsible for the heart disease, it may fairly be held responsible, also, for the subsequent chorea. To admit as rheumatic only those cases in which there is a definite history of rheumatism preceding the chorea, as the author does, is vastly to underrate the connexion between the two complaints. In many instances the manifestations of rheumatism in children are so slight and evanescent, that a history of its absence is wholly unreliable. Moreover, there are many children in whom attacks of chorea and rheumatism alternate, where chorea was the prior complaint. Clinical experience, again, amply shows that choreic children, in whom there is no evidence of rheumatism, are infinitely more prone to develop the last complaint in later years than the rest of the community. On this point Dr. Sachs would seem to err as far in the one direction as the rigid upholders of the panrheumatic origin of chorea do in the other. Under the title of Gyrospasm, Dr. Sachs treats of the disorders known under the various names of spasmus nutans, head-rolling, etc. But we much doubt if the uninitiated would be able, from his description, to distinguish between the temporary and harmless class of cases of head-rolling and the permanent examples associated with incurable brain disease. It would have been well, too, if he had given further reasons than the alleged absence of Trousseau's sign in the tetany of infants, for his assertion that the last complaint is a different and distinct disorder to the tetany occurring in adults, usually with abdominal disease. In the chapter on diphtherial paralysis we find no mention of palsy of the diaphragm; an omission of no mean importance. Dr. Sachs writes tersely and clearly, but at times would seem to display an almost Podsnappian intolerance for the opinions of those with whom he might chance to differ. A more thorough acquaintance with the general diseases of children, apart from the purely nervous disorders, would have saved him from some blunders, and might have led him to modify considerably many of the opinions expressed. But the merits of his work largely surpass its slight defects, and it is to be commended. The book is exceedingly well got up, both paper and type being excellent.

Dr. PERCY LEWIS's little book on *The Care and Management of Delicate Children*[4] is, he tells us in his preface, "specially designed for medical officers of schools and others to whom the care of delicate children is committed," but it may also be read with advantage by young medical men newly engaged in general practice. It is chiefly concerned with the management of children of well-to-do parents, and the experienced practitioner will recognize all the types of child and parent the author describes. Who does not know the anxious mother who sends instructions to the school authorities to allow extra food "in such quantities and so often that it virtually amounts to eight or ten meals a day"? We believe Dr. Lewis is right in stating that an overfed child becomes accustomed to abnormal dilatation of the stomach without which he feels hungry, and that some cases of chronic dilatation and dyspepsia in adult life originate in childhood in this way. Dr. Lewis, however, is no advocate of a low diet, for he would allow five meals a day, and his diet scale errs, if at all, on the side of liberality. His observations on actual disease and on tendencies to disease are judicious, and the suggestion that in the case of all delicate children, but particularly of those who have suffered from rheumatism, a record should be kept of their illnesses and passed on to the medical officer of each succeeding school, would be a useful outlet for maternal solicitude. The book is for the most part written in a popular style, but a syllabus of exercises is given in an appendix containing detailed directions for three series of exercises: I, home exercises; II, for home or gymnasium; III, gymnasium exercises. It is difficult to judge of the value of such a syllabus without seeing the exercises performed, but judging from the printed directions the scheme appears to have been well thought out, especially the set of home exercises.

---

[3] *A Treatise on the Nervous Diseases of Children.* By B. Sachs, M.D., Alienist and Neurologist to Bellevue Hospital; formerly Professor of Mental and Nervous Diseases in the New York Polyclinic, ex-President of the American Neurological Association. New York: William Wood and Company. 1905. (Demy 8vo, pp. 582.)

[4] *The Care and Management of Delicate Children.* By Dr. Percy Lewis. London: Cassell and Co. 1905. (Crown 8vo, pp. 192. 3s. 6d.)

It is difficult to imagine what class of readers could benefit from a book of the nature of Dr. RUHRÄH'S *Manual of the Diseases of Infants and Children.*[5] Ostensibly it is written "to enable the student to grasp quickly the more important parts of the subject of pediatrics, and to furnish him with a rapid reference book for clinical use." Further, "it is hoped that the volume is not too condensed to be of service to the busy practitioner." How far the last aspiration is likely to be realized can be readily gauged when it is stated that the author has attempted to deal with the whole of the medical and surgical diseases of children in about 350 small pages. Much of this space, too, is occupied by numerous illustrations inserted in the text. Of the available space 40 pages are occupied with the subject of infant feeding. Here no less than six different so-called methods are described. As the descriptions, however, are so curt, some of the methods so complex, and the numerous accompanying tables so elaborate, we fear the student must either have a previous intimate knowledge of the subject, or be gifted with a species of inspiration, if he is to benefit from the information afforded. Of the remaining subjects, in no single instance is the description approximately adequate, Many important diseases are dealt with under the headings of Definition, Etiology, Pathology, Symptoms, Prognosis, and Treatment, in the space of little more than half a page. Chorea, for example, occupies less than a page, laryngismus stridulus about ten lines, and diphtherial paralysis less than a dozen. These examples are taken at random, and numerous others could be cited where the accounts are totally inadequate and unsatisfactory. The result is the more disappointing in that on almost every page there is evidence that Dr. Ruhräh is a master of his subject. The faults of his work, indeed, are mainly those of omission, and these were inevitable from the nature of the task he had set himself. The book is well got up with soft leather covers, and many of the photographs and other illustrations are admirable.

The work on *Pediatrics*[6] by Dr. TULEY is one of a "Medical Epitome Series," edited by Dr. Pedersen, and the author has attempted to deal with the medical and surgical diseases of children in the space of 250 small pages. The same strictures can be passed on this work as on that of Dr. Ruhräh, but in even stronger terms. Infant feeding here occupies 32 pages, and several complex methods are given. In this section we notice more than one elaborate table occupying a whole page, and several other whole pages of mathematical formulae. How students and practitioners could be expected to grasp the subject from the details afforded passes comprehension. Little of the available space is occupied by illustrations, but as a set-off to this much of it is unnecessarily taken up by numerous sets of examination questions on the text. Under the conditions it is needless to say that no single disease meets with adequate or satisfactory description. Faults of omission and commission are apparent on every page. A sufficient indication of their nature is given when it is stated that the prognosis in tuberculous peritonitis is summed up in a single line, and is declared to be "favourable, particularly in the ascitic varieties." That tubercle of the peritoneum is in many cases less serious than tubercle in some other places is no doubt true. But to claim that the prognosis is "favourable" without qualification is to imply either a very limited, or a very exceptional, experience of a grave disease on the author's part. Even regarded as a mere epitome the work is not to be commended.

PULMONARY TUBERCULOSIS.

IN his thesis for the degree of M.D., entitled *The Relative Time of Infection of the Lungs and Bronchial Glands in Guinea-pigs Inoculated with Tuberculous Material,*[7] Dr. RUSSELL gives the result of his investigations, extending over eighteen months. The point is one of very grea interest in the etiology of pulmonary tuberculosis in mar and the general opinion at the present time is that th bronchial glands are infected at a date earlier than th lungs. This certainly appears to be the case on examining these organs with the unaided eye. Dr. Russell has however, found on a careful microscopical examinatio that when the glands are infected the lungs are als infected; and even before the bronchial glands present an microscopical changes, early changes may be found in th lungs. He has therefore been led to dissent from th generally-accepted view of the sequence of infection whe the lungs and the bronchial glands become affected wit tuberculosis, and his very careful investigations go a lon way to prove the correctness of his deductions. D Russell adopted the method of subcutaneous inoculatio on the inner side of the hind leg; in such inoculations remarkable uniformity has repeatedly been observed i the spread of the tuberculous process from the seat inoculation to the lung through the lymphatic system The sequence of the parts involved is the poplitea superficial inguinal, sublumbar, and retrohepati glands, the spleen, the liver, the bronchial an mediastinal glands, and the lungs. The materi used for inoculation was, in the majority of case milk containing bovine tubercle bacilli, but huma tuberculous material and pure cultures of human tubercl bacilli were also employed. The first endeavour was t fix a time after the inoculation at which to kill the guinea pigs consistent with the earliest infection of the bronchia glands and lungs. This was, however, found to be impossible. A difficulty was also found in the investigatio in that the interval of time between the infection of th lung and of the glands is very short. Some idea of th thoroughness with which Dr. Russell has carried out hi investigation may be formed from the fact that som 1,100 sections have been cut, stained, and examine from the 40 animals used for inoculation. Althoug careful search was made for evidence of infection the root of the lung from tuberculous bronchial gland no changes in the root of the lung were observe which could in any way correspond with the spread infection from gland to lung, but in nearly all the exper ments the first indications of pulmonary mischief showe themselves at a great distance from the root of the lun There is evidence to suggest a possible double source infection of the bronchial glands, either from the lung or from tuberculous lesions in the retroperitoneal gland or through the peritoneal cavity, diaphragm, or pleur In 39 cases 18 per cent. showed primary infection of th lungs and secondary infection of the bronchial gland and Dr. Russell states that he never found the bronchia glands to be affected apart from infection of the lung It seems, then, that we must modify our views as to th frequence of pulmonary infection originating from tube culous bronchial glands.

A translation of TURBAN's work on the *Diagnosis Tuberculosis of the Lungs,*[8] especially with reference to th early stage, comes most opportunely. The necessity f commencing treatment in the early stage of consumptio is now generally recognized, but there is still a want appreciation of the evidences by which the early stage the disease is to be detected in the absence of bacil in the sputum. Turban's *Beiträge zur Kenntnis d Lungen-Tuberculose,* published six years ago, is we known to many in this country who are interested in th study of lung diseases. It is the work of a caref observer, who has had exceptional opportunities studying the physical signs of chest diseases and of following the course of pulmonary tuberculosis. We therefor welcome a translation which makes it available to Englis practitioners who are insufficiently acquainted with th German language to enjoy the original. We may at onc say that the translator has done his work well, and havin had the constant co-operation of Dr. Turban, who ha sanctioned such additions and corrections as may hav been necessary, the subject-matter has been brought up t date. The introductory portion is mainly pathologica and full of most important and suggestive consideration

---

[5] *A Manual of the Diseases of Infants and Children.* By John Ruhräh, M.D., Clinical Professor of Diseases of Children in the College of Physicians and Surgeons, Baltimore. Philadelphia and London: W. B. Saunders and Co. 1905. (Demy 8vo, pp. 404. 10s.)

[6] *Pediatrics: a Manual for Students and Practitioners.* By Henry Enos Tuley, A.B., M.D., Professor of Obstetrics in the Medical Department of Kentucky University; late Secretary and Chairman of Sections on Diseases of Children, American Medical Association. London: Hodder and Stoughton. (Crown 8vo, pp. 266. 4s.)

[7] *The Relative Time of Infection of the Lungs and Bronchial Glands in Guinea-pigs Inoculated with Tuberculous Material.* By Harry William Russell, R.A.M.C., M.B., Ch.B.(Vict.). London and Manchester: Sherratt and Hughes. 1905. (Demy 8vo, pp. 71.)

[8] *The Diagnosis of Tuberculosis of the Lungs, with Special Reference the Early Stages.* By Dr. K. Turban. Introduction by Sir Dy Duckworth, M.D., LL.D., F.R.C.P. Translated by E. C. Morland, M.B. B.Sc.Lond. London: Bale, Sons and Danielsson. 1905. (Demy 8v pp. 135. 5s.)

The long period during which tubercle bacilli appear to remain dormant in certain cases, and the length of time during which active tuberculosis in the lung may remain "closed," and thus unattended with the expectoration of bacillary sputum, are discussed. The symptoms, the physical signs, and the diagnosis, prognosis, and treatment of early tuberculosis are also briefly reviewed in the first section of the book. Section II is devoted to the classification of tuberculosis of the lung, and details the classification adopted by the author as the scheme for statistical comparison of cases on a large scale, drawn up by him and accepted by the International Conference on Tuberculosis at Copenhagen in 1904. Turban in his classification distinguishes three stadia, which, though not free from the objection that their distinguishing characteristics are somewhat indefinite, yet are far more practical than the "stages" of consolidation, softening, and cavitation, which have been in common use in this country. It is, however, in Section III, on physical examination in tuberculosis of the lung, that the main value of the book consists. Physical examination cannot, of course, be earned from a book; it is essentially a matter of practical experience. The man of large practical experience may, however, impart the results of his experience, and this section teems with practical points which will not be ound in the textbooks. The accuracy and importance of nany of these points we are able to endorse from personal experience—as, for example, the method of determining he limits of the lobes of the lung. The author appears to agree with some of the more recent writers on physical examination of the chest that auscultation of the voice-ounds is of little value in diagnosis. This book deserves o be studied by all who may be called upon to examine nd give an opinion upon cases in which early tuberculosis f the lungs is suspected.

M. PAUL FERRIER's treatise on the cure of tuberculosis[9] is ased on the special view of the causation of the disease hich was stated by our Paris correspondent in a recent etter. That consumptives, especially amongst the poorer lasses, frequently have very bad teeth, must have been oticed by all who have come into contact with many uch patients. Whether the occurrence of this common efect in consumptives is merely a coincidence or whether he decay of the teeth may have some direct relation with uberculosis, either as cause or result, is open to discuson. The subject has not escaped notice, but there is as et no general consensus of opinion on the matter. M. errier appears to be convinced that the condition hich causes the destruction of the teeth is in self a predisposing factor in the causation of tuberulosis. According to his view certain nutritional efects in the body result in a deficiency of lime lts or in decalcification, of which the most easily ppreciated results are seen in the bones and in e teeth. In its most pronounced condition decalcifition is evidenced in the bones in osteomalacia, and it is ecalcification also which results in caries of the teeth. he nutritional and metabolic defects which lead to decalfication tend directly to favour the onset of tuberculosis. therefore decalcification predisposes to tuberculosis we ve, as the author argues, a key to the prophylactic and rative treatment of this disease. He seems to have en impressed by the occasional occurrence of calreous particles at the seat of obsolescent tuberculosis the lungs as an indication that calcification plays important part in the cure of tuberculosis, and finds this a further argument in favour of his thesis. ter sketching the evolution of his views, Dr. Ferrier scusses the conditions which lead to decalcification, such gastric fermentation. A deficiency of lime salts in the inking water is considered by him to have importance this connexion. The general line of treatment advoted as the result of the considerations discussed by the thor is guided by the view that tuberculous individuals also the subjects of phosphaturia. The treatment is rtly dietetic, in which salad and fruits take a useful ice, and, in addition, the administration of lime salts is ommended. Certain mineral waters containing such ts—for example, the Saint Galmier water—are useful vards this end. The book is interesting though not ogether convincing.

CLINICAL ANATOMY.

DR. BERRY's *Surface Anatomy*[10] will take a foremost place amongst books on this subject. It is not too large, it is well printed in clean, good-sized type, and it is well illustrated. The text is terse, clear, and to the point, and as a whole the volume will be very valuable to all who are interested in human anatomy, and who have to deal with it in their professional lives. It is not a book of applied anatomy in the ordinary sense, for it deals only to a slight extent with the application of a knowledge of anatomical facts to the purposes of medicine and surgery, but it gives all the details of relative positions of parts to each other and to the surface which are requisite for the purposes of localization and diagnosis, and it is a book that may be used with advantage both by senior and junior students. It is, however, like most books, not absolutely perfect, and on account of its many excellencies and its obvious value for teaching purposes, and not from captiousness, we desire to draw the author's attention to certain features which in our opinion are likely to prove a source of trouble and irritation to his readers, especially to those whose experience is limited. It has already been said that, as a whole, the book is well illustrated; but some of the figures are unsatisfactory. For example, Figs. 9 and 24 are bad specimens of process reproduction, and might with advantage be replaced either by diagrams or sketches in which the details could be seen. In Fig. 35 the left crus of the diaphragm is represented as being much longer than the right—a reversal of the ordinary condition—and the aorta and the oesophagus are shown passing through the same opening in the diaphragm—a very unusual if not a unique arrangement. A considerable amount of space is devoted to cranio-cerebral topography; and to this no objection can be urged, for the subject is one of importance; but one of the points from which lines are drawn on the skull is the nasion, and it is important that this point should be shown in its proper relative position. It is in its proper position in Figs. 3 and 6, which have been borrowed from *Quain's Anatomy*, but it is incorrectly represented in Figs. 1, 4, and 5, and how is the student to know which representation is correct? In Fig. 28 we find that the pulmonary orifice lies to the left of the sternum immediately above the third left costal cartilage, and the aortic orifice is behind the left margin of the sternum at the level of the third cartilage. On turning to the text, we are told on p. 85 that the ascending part of the aorta extends "from the aortic orifice upwards, forwards, and to the right to the second right costal cartilage," and upon p. 86 that "the trunk of the pulmonary artery may be indicated by a double line drawn from the pulmonary orifice upwards and behind, or slightly to the left of the left border of the sternum to the lower border of the left second costal cartilage." We were taught that the lower end of the pulmonary artery was in front of the lower end of the ascending aorta, and we find that the anatomical textbooks, and Dr. Berry's own *Regional Anatomy* still make the same statement, yet the figures and the text of the volume we are considering tell us that the aorta commences to the right of the pulmonary artery and runs to the right, whilst, the pulmonary artery runs upwards and backwards, therefore the latter cannot be in front of the former. Clearly the textbooks are wrong or the figure Dr. Berry gives is wrong; we hesitate to say which, but we wish the anatomists would not inflict upon us such irritating contradictions. There are other points of somewhat similar character, but no doubt Dr. Berry will discover these himself before he publishes his second edition, and we are convinced that the little imperfections we have noted do not prevent Dr. Berry's book being one of the very best of its kind, and one which the student and practitioner alike would do well to keep at his elbow.

There are many textbooks of applied anatomy, but the *Clinical Applied Anatomy*,[11] of which Dr. Box and Mr. MCADAM ECCLES are the joint authors, differs from all others, and some people will think that it might just as well

---

La Guérison de la Tuberculose, basée sur l'Etude des cas de Guérison ntanée. Par le Dr. Paul Ferrier. Paris: Vigot Frères. 1906. own 8vo, pp. 184. Fr. 2.50.)

[10] *Surface Anatomy.* By Richard J. A. Berry, M.D., F.R.C.S.E., F.R.S.E., Professor of Anatomy in the University of Melbourne. Edinburgh and London: William Green and Sons. 1906. (Demy 8vo, pp. 44: 48 figures. 7s. 6d.)

[11] *Clinical Applied Anatomy.* By C. R. Box, M.D., B.S., etc., and W. McAdam Eccles, M.S., F.R.C.S. London: J. and A. Churchill. 1906. (Demy 8vo, pp. 471, 45 plates and 6 figures. 12s. 6d.)

have been entitled a treatise on the elements of surgery and medicine. The authors claim to have approached the subject from the purely clinical side, and on the lines suggested by John Hilton in his classical lectures on *Rest and Pain*. They have not dealt with the details of anatomy associated with operative surgery, deeming them already "amply detailed" in manuals of operative surgery, and they address themselves mainly to the senior student and the practitioner. Throughout the volume it is assumed that the reader knows the ordinary details of anatomy, and no attempt is made to explain them except when, to the clinician, it appears possible to interpret them in a somewhat different way than that adopted by anatomists. A glance at the table of contents shows as clearly as possible that the authors have not approached the subject of applied anatomy in the usual way. They commence with inflammation, tuberculosis, syphilis, gangrene, burns and scalds, and specific fevers. They pass on to internal parasites, tumours, fractures, dislocations, diseases of bones and joints, and diseases of muscles, tendons, fasciae, and bursae. The succeeding chapters deal with the diseases of the various anatomical systems, and the volume terminates with an account of diseases of the eye and ear. The print is good, and the figures, which are mostly borrowed, with due acknowledgement, from other textbooks, are well adapted to the purposes of the text. It is, of course, impossible that all the opinions expressed in a book of this type will meet with the acceptance of all its readers, and on several points it is probable that the author's opinions will be questioned. On p. 47 it is stated that it is "probable that but little lymphatic absorption takes place in the trachea and bronchi where the basement membrane completely cuts off the deep lymphatics from the surface lining of the tubes." To the first part of the statement most observers will agree, but it is scarcely possible to admit the inference that the small absorption is due to the cutting off of one set of lymphatics from the other, for communications undoubtedly occur between them. On the other hand, the lymphatics of the trachea and bronchi are scanty and difficult to inject, and it is probable, therefore, that their absorptive powers are not great. In discussing the enlargements of bones in rickets, the authors say that "the epiphyses of the upper limb are enlarged first because the child crawls before learning to walk." If pressure is alone the cause of the enlargement, as here suggested, surely the epiphyses of the femur would enlarge at the same time, for the child cannot crawl without throwing some of the weight of its body on to its femurs. In the section dealing with thrombosis it is pointed out that it is more common in the left femoral, popliteal, and saphenous veins than elsewhere, and it is suggested that this proclivity is partially explained by the fact that the left common iliac vein is crossed by the right common iliac artery. The suggestion cannot be considered quite satisfactory, for the right common iliac vein also lies behind the right common iliac artery, and there is no reason for believing that the artery presses more on one vein than on the other. It is generally acknowledged that epiphyses are very liable to be attacked by tubercle, but it may be questioned whether it is quite admissible to assert "that the numerous articular vessels which supply an epiphysis in active growth render it more vulnerable than the diaphysis with its solitary artery," for this statement is not in accord with the beautiful injections of bone arteries made by Lexer, Kuliga, and Türck, which show that in many cases the epiphysis is less richly supplied with blood than the adjacent part of the diaphysis which receives numerous metepiphysial arteries in addition to the terminal branches of the medullary artery. The authors are, however, fully entitled to their own opinions, and our thanks are due to them for presenting their subject in so attractive a form. The book is interesting and readable from the first to the last page, and it is a forcible exposition of the importance of a really good knowledge of anatomy for the diagnosis, prognosis, and treatment of all the conditions which the physician and surgeon are called upon to deal with.

Mr. L. B. Rawling's handbook of *Landmarks and Surface Markings of the Human Body*[12] has earned a success which has called for a second edition within a year of its publication. It has been improved by the addition of fresh plates illustrating the head and upper limb, a new paragraph has been added on the surface anatomy of the perineum, and the appendix has been enlarged by a table giving the ossification and epiphyses of the bones of the upper and lower extremities. There are also changes in the original plates and in the descriptions which correct some slight inaccuracies of detail. We expressed a very favourable opinion of the book on its first appearance; it is one of the best handbooks of surface markings which has appeared.

NOTES ON BOOKS.

Colour Phenomena.

Of Mr. Lovibond's study of colour phenomena, and a new theory of colour based on experimental facts, with application to scientific and industrial investigations, as given in *An Introduction to the Study of Colour Phenomena*,[1] it is difficult to give a brief account. In a beam of white light the whole six colours are considered as primaries, and he assumes that a normal vision is furnished with a six-colour perceiving apparatus. Red, yellow, and blue are called the dominant colours of the system, whilst orange, green, and violet are the subordinates. The author sets up "nine laws" which govern visual colour phenomena. We must refer readers to the original text for these "laws" and their application to his theory of colour. At the outset the author recognizes the difficulty of recovering a given colour sensation, and also the want of a colour nomenclature by which that sensation may be quantitatively described. The work is an attempt to supply these. To this end he has constructed a series of glass standard colour scales, correlated to some physical colour constants by means of which a colour sensation can be measured, recorded, and reproduced at will. Also a system of colour nomenclature capable of describing a colour sensation in quantitative terms. The work is illustrated by ten hand-coloured plates. The author, whose name is well known in connexion with Dr. Oliver's haemoglobinometer, and for his work with the tintometer, was awarded a silver medal by the International Jury at the St. Louis Exposition in 1904.

First Aid.

Dr. Beatson's *Ambulance Handbook*[2] is issued by the St. Andrew's Ambulance Association as its official textbook. It is copiously illustrated with excellent plates, and the arrangement of the subject is based upon the syllabus of lectures of the Association. That the book has reached the eleventh edition, completing 55,000, may be taken as evidence that it has fulfilled the requirements of ambulance students, and this success almost disarms criticism. There is no doubt that the book is good; the only question is whether it is not almost too full of matter for the ordinary first-aid pupil. A volume extending to 400 pages takes a great deal of time to read through, and to master its contents will tax the leisure and intelligence of well-educated pupils. It is excellent for teachers, and perhaps also for advanced students, of first aid, but the average ambulance pupil requires a textbook in which the essential facts are briefly enunciated. The synopsis at the commencement of the book is excellent from this point of view and might with advantage be published separately.

Mr. Hanson very truly writes: "Intellectual fatigue and inattention (particularly at evening classes) are certain to affect a number of the lads whom you instruct." Taking this as his text, he has drawn up a leaflet with the title *Golden Rules for Instructors*,[3] containing a series of rules, or hints, to assist all commencing teachers, especially in the subject of first aid, in combating this weariness. He draws particular attention to the need of good ventilation in the class room, and does not forget the influence on the student's powers of attention of good light, sufficient warmth, and comfortable seats. In addition to the hygienic requirements the way in which the lecture hour is managed may minimize fatigue, and some useful hints to instructors on this point complete a series of rules which all lecturers should follow out if they wish to make their teaching successful.

---

[12] *Landmarks and Surface Markings of the Human Body*. By Louis Bathe Rawling, M.B., F.R.C.S. Second Edition. London: H. K. Lewis. 1906. (Demy 8vo, pp. 96; 31 illustrations. 5s.)

[1] *An Introduction to the Study of Colour Phenomena*. By Joseph W Lovibond. London: E. and E. N. Spon. 1905. (Demy 8vo, pl 48. 5s.)

[2] *Ambulance Handbook on the Principles of First Aid to the Injured*. By G. T. Beatson, C.B., V.D., B.A., M.D. Eleventh edition. Glasgow St. Andrew's Ambulance Association. 1905. (Fcap. 8vo, pp. 414.)

[3] *Golden Rules for Instructors*. By R. J. E. Hanson, M.A.Cantab. F.R.C.S.E. London: Harrison and Sons. (6d.)

THE COMPULSORY NOTIFICATION OF PULMONARY PHTHISIS:

A PLEA FOR ITS IMMEDIATE ADOPTION BY LOCAL AUTHORITIES IN SCOTLAND.

By THOMAS F. S. CAVERHILL, M.B., F.R.C.P.E.,
EDINBURGH.

IN the recent circular on the administrative control of pulmonary phthisis issued by the Local Government Board in Scotland, which declared pulmonary phthisis to be an infectious disease, and one to which the infectious disease sections of the Public Health Act, 1897, are applicable, the question of the notification of phthisis is stated to be left to the local authorities of Scotland for decision. It is declared by the Board that a system of notification as a matter of procedure is essential, and may be either voluntary or compulsory. The Board cannot order the notification of pulmonary phthisis. The initiative must be taken by the local authority, and it is only when the local authority of a district or burgh decides to add phthisis to the list of notifiable diseases mentioned in the Infectious Diseases (Notification) Act, 1889, and can satisfy the Board as to the steps proposed to be taken, that notification can be made compulsory in that district.

It may safely be assumed that many local authorities will not be at once prepared to apply for that sanction, but they cannot long remain behind more progressive communities in making available as early as possible all the benefits conferred by the Public Health Act. It cannot be doubted that great municipalities like Edinburgh and Glasgow will at once proceed to adopt compulsory notification. Edinburgh has no option. Voluntary notification has been tried for the past three years, and it is a disappointing failure. In that time only 452 (and last year 67) cases have been notified by private medical practitioners. The knowledge gained has thus been infinitesimal, and it has only resulted in the expenditure of about £300 per annum in direct measures for the prevention of the spread of the disease.

Pulmonary phthisis causes more deaths in Edinburgh than all the notifiable infectious diseases combined. The City Isolation Hospital, with its convalescent home, etc., costs the ratepayers £41,300 per annum. (This includes repayment of capital and interest.) There are under treatment in the City Hospital a daily average of 321 patients, so that that large sum is willingly spent to prevent 321 persons infecting those around them; but the average mortality of the people they would infect if they were not isolated is only 8 per cent.; the others attacked will recover completely after a short illness and convalescence of about six weeks' average duration. Far otherwise with phthisis. The infection, though weaker, is continuous. From Sir Henry Littlejohn's report on pulmonary phthisis it may be assumed at a low estimate that 3,300 patients are daily voiding infectious material, and a large number of these are actively propagating the disease in their houses and workshops, for, with increasing weakness, they become indifferent and careless as to the disposal of the sputum. Of those attacked few recover completely, and those who die do so after an illness of from three months to four years and upwards.

Pulmonary phthisis annually claims more than 6,000 victims in Scotland and over 500 in Edinburgh, and that latter figure does not include the large number who return to die in their homes in the country.

The medical profession of Edinburgh three and a-half years ago declared for compulsory notification. At a special meeting of the Edinburgh Medico-Chirurgical Society, held on November 19th, 1902, it was unanimously resolved:

> That, in the opinion of this meeting of the Medico-Chirurgical Society of Edinburgh, the compulsory notification of pulmonary phthisis is desirable, and the Society respectfully suggests that the Corporation of Edinburgh should adopt it.

Without compulsory notification to find out where the disease is, little headway will be made against its suppression. Not only is early notification required in carrying out measures of prevention, but early recognition of the disease is of the first importance in its cure.

Of the 5,000 estimated consumptives in Edinburgh, 3,300, or two-thirds, are living in three rooms or less. Many of these affected cases are at work, fatally infecting their fellow workmen as our medical case-books frequently prove. If that figure—3,300—is multiplied by 4.5, the average size of a family, then we have 14,850 people daily exposed to infection in their dwellings alone. Since the issue of the Board's circular, the city of Edinburgh has set apart 50 beds for advanced cases in the isolation hospital. In the county of Haddington, out of 29 deaths last year in the landward districts, 26 cases occurred in country cottages, so that 117 people of various ages, of all degrees of susceptibility, were in danger of contracting phthisis while living with cases in the last and most infective stage of the disease.

Compulsory notification will, it is said, be objected to by the leisured and well-to-do classes. Amongst them, by comparison, however, phthisis is now a rare disease. Domiciliary visits by the sanitary inspector will not be made except when desired by the physician or householder. Surely an essential provision for the suppression of phthisis will not be withheld by local authorities because here and there some personal and social interests are involved? Only when the tubercle bacilli are present in the sputum is the case infectious. When that stage is reached the patient is already far advanced in phthisis. Long before that, the early signs of phthisis will have been discovered. If a progressive physician is in attendance he will have prescribed either open-air treatment in a sanatorium or a change to some health resort. If, however, the person attacked remains at home with occasional visits to the country, open-air treatment—open windows by day and night, with probably a hut or shelter in the garden—will sufficiently notify the existence there of a sufferer from phthisis.

Under these various circumstances it is difficult to see what possible objection there can be to the medical attendant sending to the medical officer of health a notification which is absolutely private, either to his office or to his private residence (allowed by the Act). The notification can afterwards appear in statistics, either under a letter or number, as is done by the Income Tax Commissioners. It surely cannot be held to add publicity to what is already a matter of common knowledge in the vicinity?

As some misconception prevails as to the powers granted by the Infectious Diseases (Notification) Act, 1889, it may be stated that it has only two provisions—one to compel the medical attendant to notify, the other the householder.

Compulsory notification informs the local authority where the disease is to be found, the number affected, and their general distribution. Compulsory notification is merely registration. It sets the administrative machine in motion, but gives no powers of compulsory control. Any further action is taken under the infectious disease sections of the Public Health Act, 1897, which since the issue of the Board's circular of March 10th last is now the law of the land.

Much has been made of the supervision of the sufferer from such a chronic disease as phthisis, and that he is certain to be worried with the visits of the sanitary inspector. That idea is founded on a misapprehension. It is well to note in this connexion that the sections of the Public Health Act, which alone empower the sanitary inspector to remove persons to hospital and to make domiciliary visits, are not obligatory, and local authorities are not compelled by the Act to carry them out. Sanitary officials are controlled by the local authorities who are elected by the people. Local authorities know well that they can do their best work only when they carry public opinion along with them. In the case of phthisis, it will be found that the sanitary inspector is the helpful friendly adviser rather than the coercive official. A phthisical person will soon become his willing ally when he grasps the fact that the precautions he has to carry out for the protection of others are equally important for himself in guarding against the risk of reinfection.

Further, the sanitary inspector is able, under the infectious disease sections of the Act, to supply medicines, disinfectants, etc. He can make arrangements for providing medical treatment and nursing, if it can be carried out at home. Lastly, he can inform the patient what institutions and organizations are available for his relief at every stage of the illness, and how to obtain admission to them. He will also possess a register of all sanatoriums, hospitals, infirmaries, work colonies, convalescent homes, parochial hospitals, private houses, phthisis committees, etc., so that every variety of case can be provided for.

After he leaves a sanatorium, the industrial or other worker, if he is to remain well and fit for work, must be constantly looked after during the after-cure. Experience shows that this must be for two years. He needs to be helped in his fight against the disease and to be encouraged to persevere, especially when he loses weight, or has some return of cough and fever. Change of work or surroundings may be imperatively demanded, while his mind must be kept relieved from financial or other worries.

Voluntary notification, introduced as a temporary expedient, has been found unreliable as to the numbers affected. Phthisis has a nearly fixed annual death-rate. Two years of compulsory notification are required to get accurate information. The first year will give those at present affected, the second the number of new cases to be annually expected.

As much leeway has to be made up for past neglect, and as the Board's circular indicates the necessity for a considerable capital expenditure, it is reasonable to suppose that, before incurring it, local authorities will, by compulsory notification, provide themselves with accurate information as to the extent and distribution of the disease.

LITERARY NOTES.

Messrs. Putnam announce the publication of a book entitled *The Idyllic Avon*, by Dr. J. Henry Garrett, Medical Officer of Health for the Borough of Cheltenham. It describes the river from its mouth at Tewkesbury to above Stratford-on-Avon.

The *Journal of Abnormal Psychology* is the title of a new periodical which will be published bi-monthly. The editorial management will be under the direction of Morton Prince, M.D., Professor of Nervous Diseases, Tufts College Medical School; with the co-operation of Hugo Münsterberg, Ph.D., Professor of Psychology, Harvard University; Charles L. Dana, M.D., Professor of Nervous Diseases, Cornell University Medical School, New York; James J. Putnam, M.D., Professor of Nervous Diseases, Harvard Medical School, Boston; Adolf Meyer, M.D., Director, Pathological Institute, New York State Hospitals, and others. The journal is primarily intended for the publication of articles embodying clinical and laboratory researches in abnormal mental phenomena. The field of investigation includes such subjects as hysteria, hallucinations, delusions, amnesias, aboulias, aphasias, fixed ideas, obsessions, automatisms, alterations of personality, multiple personality, dissociation of consciousness, subconscious phenomena, relation of the mind to physiological processes, neurasthenic and psychasthenic states. The journal will also publish observations in the field of psychiatry proper, though it is intended that clinical or laboratory studies shall be given precedence over routine reports of cases or theoretical discussions. It is intended that the journal, though printed in English, shall be international in character. Articles may be printed in French or German if expressly requested by the author. The first number, which appeared on April 1st, contains the following articles: The Pathogenesis of Some Impulses, by Dr. Pierre Janet, Professor of Psychology, College of France; What is Hypnosis? by Professor W. v. Bechterew, St. Petersburg; Recent Experiences in the Study and Treatment of Hysteria at the Massachusetts General Hospital, with Remarks on Freud's Methods of Treatment by "Pyscho-Analysis," by Dr. James J. Putnam; The Psychology of Sudden Religious Conversion, by Dr. Morton Prince.

The first two (January and February) numbers of the *Philippine Journal of Science*, the forthcoming appearance of which was announced in the British Medical Journal some time ago, contain several articles on the cocoa-nut palm and its products which ought to possess a commercial as well as a scientific interest. Dr. P. G. Woolley describes a case of schistosoma infection in a Filipino. In the lesions in the lungs, liver, and bowel of his subject he found ova which agreed in shape, size, and colour with those of *Schistosoma japonicum vel cattoi*. The lesions in the bowel were ulcerations, closely resembling those seen in some forms of amoebiasis; the pathological changes in the liver were characterized by fibrosis. Dr. R. P. Strong produces an excellently illustrated paper on tropical ulcerations of the skin. He has found a rare form of skin disease which he regards as of blastomycetic origin; it contains torulae resembling in appearance the forms which have been described in certain cases of "Oriental boil" as species of protozoa related to the Donovan-Leishman bodies. Another article by Dr. Strong describes his new method of vaccination against plague. The new journal is edited by Dr. P. C. Freer, with the assistance of Dr. Strong and Mr. McCaskey.

A most appropriate memorial of the late Professor Rudolf von Leuthold, Surgeon-General of the Prussian army, and Physician-in-Ordinary to the German Emperor, has appeared in the form of two handsome volumes containing contributions by many medical officers of the army, and several leading physicians and men of science. The work is divided into sections devoted respectively to general and military hygiene, military medicine, war surgery, and some special subjects. Among the matters dealt with are hospital hygiene, which is discussed by Professor Max Rubner; tetanus, by Surgeon-General Hecker; ptomaine poisoning, by Professor Uhlenhuth; the transmission of typhoid by foodstuffs, by Professor Pfuhl; the prevention of typhoid and dysentery, by Dr. Jürgens; the purification of drinking water in the field, by Drs. Musehold and Bischoff; foreign bodies and wound infection, by Professor Gaffky; immunization by the mouth, by Professor Loeffler; the treatment of inflamed joints by Bier's method, by Professor von Leyden and Dr. Lazarus; on gunshot wounds in peace, by Professor von Bergmann; on hernia, by Professor Waldeyer; on spinal anaesthesia, by means of stovain and novokain, by Professor Sonnenburg. The work, which is illustrated, is edited by Surgeon-General Otto Schjerning, the present head of the medical service of the Prussian army. A portrait of Leuthold forms the frontispiece to the first volume, and a brief sketch of the distinguished officer's career serves as an introduction.

In his *Scottish Reminiscences* Sir Archibald Geikie relates the following: An able physician, who had an excellent practice for half of the year at Nairn and for the other half in Rome, was on a friendly footing with Sir William Gull, whose patients, worn out with the distractions of London, were sent up to him to be looked after in the salubrious climate of the Moray Firth. A lady resident of Nairn, who believed herself to be far from well, and to be suffering from some complaint which the local doctor did not understand, insisted upon going up to London and consulting Sir William Gull. That eminent physician diagnosed her case and prescribed. "What you chiefly require, madam," he said, "is to live for a time in a dry, bracing climate. There is one place which I am sure would suit you admirably, and that is Nairn in the North of Scotland!" One can imagine the solemn tone and general air of Sir Oracle with which this was said. The advice was excellent as a general maxim, though scarcely appropriate in its particular application. The moral is that the deliverers of oracles should take care to post themselves beforehand in the circumstances in the cases in regard to which counsel is sought of them.

Surgeon-Major W. T. Black, Army Medical Department (R.), has republished some reminiscences of the service contributed by him to the *Journal of the Royal Army Medical Corps*. His most pleasant recollections are of service at the Cape during the time of the Caffir war of 1846-52, in Caffraria and adjacent territories, where he learned to ride and to shoot and fish for daily existence. He also learned how to buy a horse, a cart, a fowling-piece; how to build a grass hut; how to cook a chop or carbonatchie, and how to make tea and coffee—"more useful arts than ever were taught at college or hospital at home." Typhoid or infectious fevers were unknown, or at any rate unrecognized, among the troops. In the Crimea Surgeon-Major Black's most interesting recollection is of a ride into Sebastopol two days after the surrender, before the place had been occupied by the allied forces. It was a scene of desolation, there being no inhabitants except a few Greek hawkers. "Open-house excavations were filled with dead Russians in their uniforms, piled to the top, and many bodies were lying about the earthworks as they expired from their wounds." Later Surgeon-Major Black again saw service in South Africa.

Nova et Vetera.

HE RELATION OF EARLY GREEK PHILOSOPHY TO EARLY GREEK MEDICINE.

IE tendency of modern civilization towards a minute d elaborate specialization is apt to make us forget that ere was a time when such important branches of human tivity as religion, philosophy, and medicine were hardly parated from one another. In the earliest days of cient Greece the mind ranged with equal energy over ery field of human knowledge; priests, philosophers, d doctors had not yet become differentiated into their eral castes. To map out, divide, and to some extent late the several provinces of the human mind was refore an important problem for the early Greek nkers. In the world of art a somewhat similar state of ngs existed, for we find music, dancing, poetry, paint-, sculpture, and architecture inextricably blended ether, so as to form one harmonious whole. All these eral arts, in accordance with the Spencerian doctrine a progress from homogeneity to heterogeneity, have dually become separated, and have developed along ir own individual lines to some extent independently. nce it has resulted that, in considering a picture or a tue, it scarcely occurs to us to regard the propriety of architecture of the room or gallery in which it is ibited, any more than, in listening to a great singer, it been customary to give particular heed to the words he song. In this region of art, however, Wagner some years ago undoubtedly effected a vast revolution, and mpted, with what amount of success the annual rimages to Baireuth bear witness, to reintegrate the ral arts and to bring them all harmoniously to the ice of his emotional expression. On this very account as been stigmatized by Dr. Max Nordau as a degenerate particularly evil type.

ie most enthusiastic Wagnerian and keen advocate of reintegration and co-ordination of the arts would ably admit that music, dancing, poetry, painting, had derived the greatest benefit from their long od of isolated development, and consequently had able to rise to a far higher pitch of excellence than ld have been possible had the differentiation never n place.

this be true in the sphere of the arts it is surely ess so in that of medicine, philosophy, and religion, it is interesting to consider how far medicine was ning to an independent and separate existence in the days of Greek civilization.

e close connexion of medicine with religion has been cteristic of all primitive races, and the Greek formed ception to the rule. The earliest records of Hellenic how that the power of healing was an attribute of all gods, though possessed in a pre-eminent degree by lo, Artemis, and Pallas. Rather later, in post-eric times, even the gods had begun to specialize, Asklepios appears as the sole god of healing, while cine was practised by the priests of his temples, who known as "asklepiads." The astonishing intellectual ity and mental vigour of this gifted race is shown by ay in which medicine emancipated itself from the nels of religious formalism and superstitious belief ery early stage of its development. When compared Egyptians, Indians, or Babylonians the contrast is ore striking. That the Greeks were as profoundly ptible to religious mysticism as the Orientals the e society of Eleusis amply testifies, but they dif-from the Orientals in the natural force and versa- of their intellect, which made them impatient of sanctioned only by external authority.

s emancipation of medicine from religion was due v to the speculations of the pre-Socratic philo-rs, but their usefulness to medicine has perhaps ather undervalued owing to other evils which they ht in their train, and more particularly the excessive yment of the deductive method. Their tendency to ever finding the general in the particular, and then g most sweeping deductions, was, doubtless, inim- a sober and steady pursuit of medicine. On the hand, though the conclusions to which this method re only too often fanciful and absurd, yet it was ly better than having no method at all, as was the case with the other nations of antiquity. At all events, it furnished a strong stimulus to intellectual activity, which is an essential pre-requisite to any sound progress, whether in art or science.

One of the earliest signs of interest in medical or rather physiological matters is the saying of Anaximenes that the world breathes. He considered that just as man is kept alive by drawing in draughts of air, so the world is kept going by the draughts of air which it inhales from the infinite mass beyond the heavens. This philosopher, who flourished 550 B.C., believed that air was the ultimate substance out of which the whole world was made, just as Thales had held water to be the primary substance. In this instance, we have an argument from the microcosm to the macrocosm, and Anaximenes utilizes his physiological observation of breathing to support his cosmological theory.

Heracleitus of Ephesus (flourished 500 B.C.) exercised a great influence upon succeeding philosophers, and even upon Plato, who was a Heracleitean in his youth. Medicine, too, was affected by his doctrines, as we gather from various passages in the *De Diaeta* of Hippocrates. His leading ideas are well known; thus:

> All things are in constant flux, and nothing has permanence; man cannot descend twice into the same stream, everything is continually passing over into something else, and this proves that it is one nature which assumes the most opposite forms, and pervades the most various conditions . . . all comes from One, and One from All.[1]

To this philosopher the world was an eternally living fire, certain measures of which were always being kindled, while like measures were always being extinguished, and so the constant flux of things was kept going, and yet the world in appearance was relatively stable. This theory of the cosmos was applied by Heracleitus to man, who, like the macrocosm, is made of fire, water, and earth; but as in the case of the world the fire is the only important element, and is identified with the one wisdom, so in the microcosm fire alone is conscious. When it has left the body, the remainder, the mere earth and water, is altogether worthless. The fire which animates man is subject to the "upward and downward path," just as much as the fire of the world; and again, we read in the *De Diaeta* that "all things are passing, both human and divine, upwards and downwards." We are just as much in perpetual flux as anything else in the world. We are not the same for two consecutive instants. The fire in us is perpetually becoming water and the water earth; but as the opposite process goes on simultaneously we appear to remain the same. Man, like the world, is subject to a certain oscillation in his "measures" of fire and water which gives rise to the alternations of sleeping and waking, life and death. Sleep was produced by the encroachment of moist, dark exhalations from the water in the body which causes the fire to burn low. In a soul where the fire and water were evenly balanced, the equilibrium would be restored in the morning by an equal encroachment of the fire on the water. The Heracleitean idea that the "unseen harmony" of the universe and man was maintained by the strife of opposites not unnaturally gave rise to some strange views on dietetics and medical treatment.

Pythagoras (flourished 550 B.C.) was the most famous of all these early thinkers, and his influence upon medicine has certainly been the greatest. Strictly speaking, his position is not quite analogous to that of the other Ionian philosophers; for he was not only a philosopher but also a religious leader, the founder of a brotherhood and teacher of a "way of life." His position is rather more comparable with that of Confucius and Laotsze in China, with whom, indeed, he was contemporary. The fame of Pythagoras has been kept alive rather by his religious and moral teachings than by the remarkable speculations on number, although at present we are more immediately concerned with these. This Pythagorean doctrine of number has often been misunderstood. When Pythagoras said "things are numbers," he was making an attempt to explain the sensible world from a sensible origin, it was not an idealistic or even semi-idealistic hypothesis. Numbers to Pythagoras were not abstract as they are with us, though it is difficult for us to think of them as being anything else. Aristotle tells us that these numbers were intended to be mathematical numbers, but that

---

[1] Zeller, *Outlines of Greek Philosophy*.

"they were not separated from the objects of sense"; they could not, therefore, be mathematical numbers in the ordinary sense of the term, inasmuch as bodies were made up of them. In reality these numbers of Pythagoras were spatial numbers—that is, their points had magnitude, their lines breadth, and their surfaces thickness. Thus, while a modern geometer regards a line as having only one dimension, the Pythagoreans identified it with the number two. They considered that numbers were built up of geometrical figures, that they were portions of space cut off and limited in a variety of ways. The properties of number were studied by means of geometrical constructions. The Pythagoreans spoke of square and oblong numbers, and they called odd numbers "gnomons."[2] Being unable to distinguish ideal or intelligible numbers from sensible or materialized numbers, they were forced to identify with magnitudes purely ideal things, such as justice, which was described as an equal number multiplied by an equal—that is, one of the two first square numbers, four and nine—because it returns equal for equal.

Medicine was undoubtedly influenced by this doctrine of the importance of number, and from it originated the medical teaching of "critical days." It is worth noting, also, that Empedocles, who was influenced by Pythagorean teaching, speaks of the fetus being formed in the womb on the thirty-sixth day, and completed on the forty-ninth, and was probably led into this speculation by the fact that these numbers are the squares of 6 and 7 respectively. To this number 7 Pythagoras and his disciples attached a special importance; perhaps their medical studies had led them to observe that the second teeth came out at the seventh year, puberty synchronized with the fourteenth, and the beard appears at the twenty-first.

In the matter of practice the Pythagoreans influenced medicine in the direction of diet and gymnastic treatment; their school used poultices and salves very little, still less internal medicaments, and least of all the knife and cautery. Many physicians gave in their adherence to this school of thought, of whom the best known is Alcmaeon of Croton.

Empedocles of Agrigentum (flourished 460 B.C.), in addition to being a philosopher, was also a practical physician, and Galen ascribes to him the foundation of the Italian school of medicine. Certainly some of his doctrines were more favourable to the scientific study of medicine than those of his predecessors. For instance,

> we must not attempt to construct a theory of the universe offhand, instead of simply trying to understand each thing we come across in the way in which it is clear.
>
> We must not reject the assistance of the senses, for they are the only channels through which knowledge can enter our minds at all; we must make use of them all, and neglect the testimony of none, not even that of taste.

Here, indeed, we seem to breathe for a moment something of the atmosphere of modern science. Various physiological or quasi-medical speculations have come down to us from Empedocles. Thus, with regard to respiration, he said,

> We breathe through all the pores of the skin, not merely through the organs of respiration.
>
> Alternate inspiration and expiration of the breath was caused by the movement of the blood from the heart to the surface of the body and back again.
>
> All things draw breath and breathe it out again. All have bloodless tubes of flesh extended over the surface of their bodies, and at the mouths of these the uttermost surface of the skin is perforated all over with pores closely packed together, so as to keep in the blood while a free passage is cut for the air to pass through. Then, when the yielding blood recedes from these, the bubbling air rushes in with an impetuous surge, and when the blood runs back it is breathed out again.

Tears and sweat arise from a disturbance which curdles the blood; they were, so to speak, the whey of the blood. Again, perception is caused by the meeting of an element in us with the same element outside; our knowledge varies with the varying condition of our bodies. To his views as to the dates of the formation of the fetus we have already referred in discussing Pythagoras, but in this connexion may be mentioned his curious description of the secretion of milk: "On the tenth day of the eighth month the white pus (πύον) arises," which clearly means the mammary secretion.

He discovered the labyrinth of the ear by the dissecting of goats; he also perceived that in plants two sexes are co bined, but thought that they came into being in an imperf state of the universe, and that the distinction of the sex was the result of the gradual differentiation brought abo by the entrance of hate into the world. He further h that love was the principle which was capable of bringi the four elements into union, but he regarded it from entirely physiological standpoint, and so considered t it was the same impulse to union as is implanted in hum bodies. Here, again, we have an instance of a phys logical observation being employed in the explanation the cosmos.

With Anaxagoras of Clazomenae (flourished 450 B.C.) come to the end of the pre-Socratic philosophers. occupies among them a most honourable position; he w the teacher of Pericles, and Aristotle speaks of him "the only sober man amongst drunkards." It was who introduced the idea of mind (νοῦς) as the caus motion among the elements, and has therefore b credited with the introduction of the suprasensible i philosophy. This, however, may be going too far, a there is some ground for supposing that the νοῦς Anaxagoras was only a highly differentiated kind matter; that, in fact, he conceived of it as a body, a substituted it for the love and hate of Empedocles, wh been introduced in order to explain the source of mot in the world.

Whatever may have been the precise meaning wh Anaxagoras attached to mind, he certainly considered t it was the same in all living creatures, both in the ani and vegetable kingdoms, and that the different grade intelligence depended entirely on the structure of body. Plants he regarded as animals fixed in the ea His interest in physiology is shown by his theory t sensation implies pain, for all unlike things produce p by their contact, and this pain is made perceptible by long continuance or by the excess of a sensation. man even sensible perception is the work of mind, bu it is effected by means of the bodily organs it is there inadequate.

Such were some of the random philosophical spec tions which affected the development of Greek medi prior to the advent of the master mind which was bring some kind of order out of this heterogeneous col tion of generalizations.

Hippocrates, as we all know, stands in the same rela to medicine as Homer does to poetry and Herodotu history. His title to this proud position was earned so much by any special observations, valuable as som these undoubtedly were, far less by any such ep making discovery as distinguished our English Har but because, in the words of Celsus, he separated medi from philosophy.[3] He continued the emancipation f religion which had already been in part accomplishe the dissolving influence of the sixth century philosop saying that one disease is no more divine or human t another, but that each occurs in accordance with Na (κατὰ φύσιν).

But, above all, he was the first to start medicine o independent line of its own and to free it from somewhat crude speculations of these early Ionian p sophers on the one hand and the sterile theories of Eclectics on the other—sterile for all purposes of im diate medical advancement, but fruitful indeed for birth of metaphysics in the future. For here it ma as well to point out that by philosophy in this conne we are not meaning metaphysics, for they, in the s sense of the term, hardly existed prior to the tim Plato and Aristotle. The latter tells us that the Socratic thinkers had no conception of reality excep cognizable by the senses (Περὶ μὲν τῶν ὄντων τὴν ἀλή ἐσκόπουν, τὰ δ᾽ ὄντα ὑπέλαβον εἶναι τὰ αἰσθητα μόνον).

Their philosophy could not be of much direct assist to medicine in its early stages before anatomy, and less physiology, had been seriously studied, while o other hand the influence of medicine on philosophy certainly at times far from favourable. Thus, from time of Thales to that of Plato and Aristotle, philos with many ups and downs, had gradually progress the foundation of a stable metaphysics, in which i recognized that there may be realities of which the s uld never conceivably take cognizance. For the purse of this kind of progress the mere accumulation and servation of facts can be of little use, however beneficial r the advance of medicine. In fact, the influence of edicine was sometimes directly harmful to advance in etaphysics; thus, at a time when all philosophic process was necessarily in the direction of pluralism, which lminated in the atomic theory of Leucippus, the edical theorizers of the day opposed this, believing that monistic foundation of the universe was required by edicine, as otherwise it would be impossible to underind how one thing could do good or harm to another.

---

[2] Burnet, *Early Greek Philosophy*.

[3] Primus quidem ex omnibus memoria dignis ab studio sapi disciplinam hanc separavit.

Hippocrates was considerably influenced by all these eculations, nor did he brush them aside as useless, t he showed that the observation of individual facts is the only method of proceeding in order to obtain y real progress in medicine.

It seems not unnatural to inquire how it came about at medicine, having once been set upon the right line progress by Hippocrates, did not continue steadily on this more scientific course. One reason would m to be that Hippocrates perhaps hardly realized the portance of his own work on its theoretical side. He d been led to a careful observation of facts by the turally practical bent of his genius, and not because fully comprehended the importance of the inductive thod for the study of medicine. Then, too, being a ctising physician, and actually busied with technical tters and the collection of facts, he had not time or asion fully to set forth the theory of his method as ogical instrument for the purpose of scientific pross. Bacon, on the other hand, when, nearly two usand years later, he forged anew the weapon of uctive reasoning, lent the whole weight of his genius the formulation of his method, so that though to ne extent he busied himself with the practicalities science, we cannot say that there are any special obserions of value made by him, or that he benefited any science in particular.

nother reason which prevented the method of Hiprates from being carried out by his medical succes- s was the growth and development of metaphysics ler the inspiration of Plato and Aristotle. Their hly imaginative philosophy drew away to itself many he ablest minds in Greece, so that the more prosaic uctive method, whether as applied to medicine or anyig else, fell more and more into the background. Then ie the gradual decay of Greece, and the decadence ll philosophic forms of thought. With the advent alen (flourished 160 A.D.) came an immense stimulus he study of medicine. He was a man of vast erudition immense medical knowledge, and to some extent ved the Hippocratean tradition. But, in addition to great contributions which he certainly made to licine, he also wrote extensively on philosophy, and eavoured to unite medicine with the metaphysics of o. This unfortunate move arrested the further pros of medicine for more than a thousand years. The em of Galen was taken as gospel by the Arabian sicians, and the extraordinary reverence for external iority in matters intellectual characteristic of this ole, combined with the growing powers and influence ie Church, stifled all independent thought, and consetly all medical progress, until the dawn of the aissance.

ie aim of Galen was praiseworthy enough, but it was nature, for medicine at that time had not been cing long enough in isolation to render fruitful such ion with religion or philosophy. As in all ages, how- , the contemporary religious and philosophic thought ie day has had an influence at least unconscious upon ical practice, which we may take some future opporty of discussing, the question arises whether the time not now have arrived for making the relationship definitely conscious, and effecting for medicine that dination with religion and philosophy which Wagner mplished for music with the sister arts.

NDER the will of the late Mrs. Elizabeth Ellen cingham, of St. Albans, the Middlesex Hospital, the pital for Consumption, Brompton, the Hospital for Children, Great Ormond Street, each receive a sum of ; while the Royal Hospital for Incurables, Putney, the Margate Dispensary for Scrofula, are each assigned

---

CHANCES OF PRACTICE ABROAD.

WE are often asked as to the chances of a British practitioner in various foreign countries. The question must always be difficult to answer, as in addition to local conditions, the personal character and professional skill of the practitioner have to be taken into account in estimating his chances of success. Some help may perhaps be derived from information which, as we learn from the *Echo Médical du Nord*, has been gathered by the Société Médico-Chirurgicale de Liége. Some time ago that body appointed a Committee to inquire as to the fields of work open to young Belgian practitioners in foreign countries. The Committee took as the basis of its work the results of an inquiry made by the Belgian Department of Foreign Affairs through its consuls abroad. The results of the inquiry are by no means encouraging. They show that the doctor is an article of export on which prohibitive duties are levied by foreign countries. All civilized nations have special laws, regulating the practice of medicine and protecting their own subjects against foreign competition. The following is a summary of the results of the inquiry:

In Russia the law allows foreigners to practise on condition that they pass an examination conducted in Russian. In Greece there is a plethora of doctors, and no chance for a foreign practitioner. In Roumania foreign practitioners have to submit to a general examination conducted in Roumanian; living is dear, the natives are poor, and the chances of success infinitesimal. In Servia there are numerous practitioners who have studied in Vienna, Paris, and Berlin. These have all the town practice; country practice is insignificant. Moreover, the authorization to practise can be obtained only by passing an examination carried on in Servian.

British India is described as inhospitable to any one not possessing a British diploma. Only British doctors can hope to succeed in the large towns, while the Hindu population pins its faith on native doctors or on quacks. The Dutch Indies may offer a field of enterprise to Belgian doctors who succeed in passing a general examination conducted in Dutch.

Persia, which has no medical schools, offers a better chance. The practice of medicine is free, neither diplomas nor examinations being required. On the other hand, the Persians hold most unsatisfactory views as to fees; they pay little or not at all. A doctor may nevertheless, it is said, succeed in Persia if he has energy and perseverance—and private means. Turkey welcomes foreign doctors; a simple examination, which can be passed in French at Constantinople, is all that is required. There are, however, two medical schools at Beyrout which supply the whole of Asiatic Turkey with practitioners. Moreover, the country is so poor that fees are small and uncertain. In Egypt a foreign doctor may practise without passing an examination, by simply registering his diploma. Morocco imposes no examination on foreign doctors, but medicine is held in little esteem and the people do not consult qualified practitioners. In Tunis medical appointments are kept as preserves for the French.

Natal and the Transvaal formerly offered a good field to foreign doctors, but since the South African war the British element has established itself in the regions near the Cape, and leaves no chance to other practitioners.

In North America protection is in force against foreign invasion.

Canada has six schools of medicine. Formerly it attracted all kinds of immigrants, including medical practitioners. At the present day its medical output exceeds its requirements.

In Central America the conditions vary. In Guatemala an examination must be passed, but the country is so disturbed by political crises that there is no security. Bolivia has three universities, and dispenses with the services of foreign practitioners. In Brazil the foreign doctor must be inscribed in a university of the country, and pass an examination which is conducted in Portuguese. Brazil swarms with doctors, and the only chance it offers is to specialists. Chili suffices unto itself. Mexico has numerous foreign doctors, who have succeeded very well. Practice was free till 1899, but a new law compels doctors to undergo an examination, which must be passed in Spanish. The Argentine Republic is more closed against foreigners, who have to go through their studies anew to obtain the right to practise. Living is very dear, and the country is very healthy.

The Republic of Domingo allows foreigners to practise. Dutch Guiana prefers Dutch doctors. The Republic of Hayti gives a licence after examination passed before a medical committee. It admits foreigners without difficulty, and they might find a fairly good opening.

In Japan the output of native doctors is sufficient for the needs of the country, and in China foreign doctors can practise only in the seaports.

MEDICAL NEWS.

The summer course of post-graduate lectures and demonstrations at Charing Cross Hospital will commence on April 30th.

The late Mrs. Ellen Rush of Hove, whose will has now been proved, bequeathed £100 each to the Sussex County Hospital and the Alexandra Hospital, Brighton.

A course of four lectures on the nervous system will be commenced by the Gresham Professor of Medicine at Gresham College on Tuesday, April 24th, at 6 p.m.

The late Mrs. Mary Day, of Lulsley, Worcestershire, bequeathed £2,000 to the Worcester Infirmary, £1,000 to the Brompton Hospital for Consumption, and £500 each to the Worcester Dispensary and the Birmingham Blind Asylum.

An inquiry into a case of death from lead poisoning, the second within a very short period, took place at Sheffield on April 3rd. The deceased was a married woman, aged 20, who took pills, made by herself from diachylon, for a "specific purpose." To a verdict to this effect the jury added a rider urging that diachylon should be scheduled as a poison.

The annual meeting of the British Association for the Advancement of Science, which is to take place this year in York, will begin on August 1st, when the President-elect, Professor Ray Lankester, F.R.S., will deliver an address. Addresses will be given at general meetings of the Association by Dr. Tempest Anderson on volcanoes, and by Dr. Waller, F.R.S., on the electrical signs of life and their abolition by chloroform.

The Committee of the International Congress for the Welfare and Protection of Children, held in London in 1902, has summoned a conference at the Guildhall, London, on Tuesday, May 22nd, to discuss (1) the free feeding of school children, and (2) children's courts, probation officers, and remand homes. Further particulars can be obtained from the Secretary, Mr. W. G. Lewis, 8, Wells Street, Gray's Inn Road, London, W.C.

The Medical Corps of the United States Army.—We learn from the *New York Medical Journal* that the Bill to increase the efficiency of the corps by providing an additional number of medical officers and abolishing the grade of contract surgeon, was passed by the United States Senate on March 29th by a vote of 42 to 5.

University of Vienna.—The programme for the summer semester of the Medical Faculty of Vienna comprises 369 lectures and courses to be given by 32 ordinary, 57 extraordinary professors, and 133 *Privatdocenten* and assistants. The total number of students in the faculty during the last winter semester was 1,657, of whom 96 were women.

A movement is stated to be in progress among associations devoted to bakery interests in London with the object of getting such restrictions placed on the retail trade in bread as will result in its being handled in a cleanly fashion, and not allowed to be contaminated in small chandlers' and other shops by contact with other articles. A somewhat similar proposition was considered by the London County Council some time ago, the argument then used being that bread is sometimes bought back by some bread retailers after lying in the dirty houses of their customers.

About a year ago the *Commercial Motor* estimated that before the end of 1906 there would be 1,300 motor omnibuses running in London. The new regulations of the Chief Commissioner of Police have, however, retarded delivery; and as the most important of these are designed to minimize the noise and rattle and the trail of half-burned petrol which we were learning to associate with these convenient vehicles, the average Londoner who has any sense or senses left will not regret the delay. On Easter Monday, we are told, there were 393 motor buses in the London streets.

Physical Efficiency and the Teeth.—A sidelight on the physical development and efficiency of the working classes is thrown by a step which Messrs. Peak, Frean, and Co. esteemed worth while to take last year. This fi
employs at its works in London 2,400 hands—men a
boys, women and girls—and some years ago, by way
ensuring such efficiency as is born of good health, engag
a medical staff to look after them. This plan was satisf
tory so far as it went, but last year the firm started a lit
dental surgery of its own, engaging a dentist to atte
twice a week and do any work required. The instituti
soon became so popular that after a month or two it w
found necessary for the dentist to attend three times
week instead of twice, and in the twelve months that ha
elapsed 338 patients have been treated, 167 being men a
boys, and 151 women and girls. Their average length
service is five and a half years, preference being given
those longest in the firm's employ, unless the applica
for relief are in actual pain. At intervals of about a fo
night there are anaesthesia days, when one of the medi
staff attends to give gas for extractions; at other tim
local anaesthesia is employed. The gas extractions duri
the year numbered 1,053, and the local anaesthe
extractions 316. The ordinary treatment is entirely fr
but a portion of the cost of artificial teeth must be co
tributed. The chairman of the company, who h
supplied us with these details, states that the manag
are satisfied that the company is fully compensated
the expenditure by the results. This we can well belie
to be the case, and the plan might well be followed in oth
quarters. As it stands, it is a notable practical comm
on the relation between physical deterioration and worki
efficiency. Apart from the benefit to the workers the
selves and to those who employ them, such a plan,
general, would do much to bring home to the working a
other classes how important a part teeth play in t
preservation of health.

Health Conditions in the Philippines.—The Board
Health for the Philippines may certainly be congratulat
upon the efficiency of their system and the way they ha
got it into working order. Their monthly report
October last, which has reached us, affords a very co
siderable amount of information upon the vital a
sanitary statistics of the archipelago. In Manila t
birth-rate and death-rate nearly balanced in the mon
under consideration, being 45.10 and 45.51 respective
The population of the city was 220,000, nearly 190,000
these being Filipinos, 21,000 Chinese, 2,528 Spaniards, a
4,389 Americans. Only one case of plague was report
and this proved fatal, but an energetic campaign agai
rats was carried on, and nearly 14,000 destroyed in t
crematoria. House inspection seems to be very thoroug
more than 56,000 have been visited. In the city 31 ca
of cholera and 29 deaths occurred, and in the provin
358 cases with 249 deaths. The epidemic began in the e
of August, and up to the end of October 767 persons h
died. It is remarkable how much higher was the mortal
per cent. of cases attacked in the city—nearly 88 per ce
—than in the country, where it was only 73 per cent.
spite of epidemics, a somewhat excessive death-rate, a
a tropical climate, the centenarian is apparently no rari
for no less than four persons over the age of 100 ye
died in Manila during the month. The tables reveal t
existence of a great amount of leprosy, which appears to
widespread, though especially affecting the island of Ce
where 707 cases are recorded out of the total number fr
all islands and provinces, so far as it can be collected,
3,544 cases. The disease is much more prevalent am
males than females, 2,238 of the former as against 1,306
the latter being affected.

Vienna Antirabic Institute.—During the year 1904 t
total number of persons who underwent a course of ino
lative treatment for the prevention of hydrophobia
the Vienna Antirabic Institute was 235. This does n
include 103 persons for whom the inoculations were co
dered unnecessary, either because the dogs that infli
the bites were subsequently proved to be free from rab
or because no wound was visible. From the total num
inoculated 45 have to be deducted either because patie
without a wound were very anxious to be treated,
because after the completion of the treatment 10 t
inoculations made on the suspected dogs in the Milit
Veterinary Institute proved that the animals were
rabid. In one of these cases the patient died of ac
suppurative inflammation of the larynx immediately af
the first inoculation. Among the remaining 190 th
were 4 deaths, 2 of which occurred within fifteen days
the beginning of treatment, and are therefore not inclu
in reckoning the mortality. The total number of ca
treated at the Institute now amounts to 2,127, with
deaths, a mortality-rate of 1.27 per cent. Deducting
fatal cases in which death occurred within the period j
stated, the mortality-rate is only 0.7 per cent.

British Medical Journal.

SATURDAY, APRIL 21st, 1906.

ANTIVACCINATION IN PARLIAMENT.

he *Vaccination Inquirer* is profoundly dissatisfied ith the doings of the new Government. "Hardly," it eclares, "had the new Parliament begun its work when the Secretary of State for War announced that he would continue to require the vaccination of the workmen at the arsenals." Also, owing to small-pox Plymouth, Mr. Haldane "has allowed an order to go forth" for vaccination of the troops at Devonport, d their wives and children. The Home Secretary, oreover, has shown the very reverse of "abounding sympathy with the sufferings of the conscientious bjector," and his action is "more than Pilate-like." xt, from the Education Department under Mr. Birrell, etters are being issued declining to sanction the ppointment of teachers unless they will be vacciated." But later on Mr. Birrell, it is pointed out, licated that local educational authorities might haps have to be allowed some relief if vaccinated chers were unobtainable. Finally, "and worst of all," the *Inquirer* moans, "Mr. John Burns is made the uthpiece" of a Department which is alike "disenuous," and "daring," and "crafty." All this is y dreadful, and it is no wonder the *Inquirer* weeps. linarily it would swear, but its depression is too deep expletives. Yet it is not without hope. It appeals he Labour members, and declares that the M.P.s are ving. And so they are, for a Bill dealing with two inistrative questions has been introduced and ted, and is backed by eight Members of Parliat, including Sir William Collins, who are favourable ome of the claims of the Antivaccination League.

he enacting clauses of the Bill are only two. One, much the more important, has for its stated pure to prevent vaccination officers from prosecuting ulters without first obtaining the sanction of their rds of Guardians. That an official can take legal eedings to enforce the law even if his Board is rely composed of antivaccinists, is a very sore point ngst the opponents of the Jennerian prophylaxis. y are able to urge in support of their contention that e is a subversion of the proper relationship between loyer and employed, if the latter is able to act indelently of one of his paymasters. Indeed, we have ys regarded as a mistake on the part of the late rnment its failure to institute a system by which ecution of law breakers would be undertaken, not e vaccination officer, but by an agent selected and nerated by the Local Government Board itself.

t correction of the alleged anomalous relation between employer and employed is not the l, but only the ostensible, basis of antivacion action in this matter. What the League y wants is to establish a system of local n as to the administration or non-administration e Acts. Parliament never intended vaccination to matter of local option. The statutes were passed to eyed, and Boards of Guardians were chosen merely as being then the most convenient local machinery for carrying out the law. That the election of such Boards in any parts of the country should ever hinge on the question whether they would or would not administer the law of the land was not contemplated when the Acts were passed; and still less could it have been contemplated that the approval of Parliament would ever be asked for any scheme whereby local opinion should be given a right to decide for or against the enforcement of statutes which were not intended to be merely adoptive, but to be equally administered all over the country. Antivaccinist Boards of Guardians complain that their servants are permitted to defy them. The real position is that they themselves have too long been permitted to defy Parliament, which required them to enforce a national law within their own areas of administration.

It is quite true that Parliament does intend that there shall be a certain degree of option with regard to vaccination, but it is to be individual option, not local option. The exemption clause of the Act of 1898 was passed for the purpose of giving this option. To superimpose local option on individual option would be a manifest absurdity. Parliament time after time has investigated, by one kind of inquiry or another, the whole subject of the value of vaccination, and on every occasion its verdict has been essentially the same. But whilst itself accepting the teachings of science, and of world-wide and century-long experience, that vaccination can and does protect against small-pox, and whilst giving effect to this belief by statutes for the promotion of vaccination, and by requiring that its own servants—its soldiers and sailors and teachers and post-office officials—should all be vaccinated, it yet decided that persistent disbelievers should be permitted to omit the operation in the case of their own children. At the same time it determined that the attention of every parent should be called to the need for vaccination, and that he should secure exemption only by means of a certificate obtained in a local court. But the effect of the Bill now before Parliament would be to allow every Board of Guardians in the country entirely to cease prosecution of those who continue to defy Parliament by declining alike to have their children vaccinated and to ask for legal exemption from vaccination.

As regards the obtaining of exemption certificates, which is dealt with in Clause 3 of the present Bill, any magistrates who have refused such certificates to persons definitely objecting to vaccination have acted unwisely. Where an antivaccinist has taken the trouble to lose a day's work and come before his local law court to request exemption in conformity with the Act of 1898, then, foolish and mistaken though he is, the magistrates who refuse his application are themselves utterly wrong, and are indeed among the very worst enemies of vaccination. It is most important to bear in mind the purpose of the exemption clause. In recommending it the Royal Commission desired to foster and encourage the practice of vaccination by doing away with cheap martyrdoms, which have always been so effective a weapon in the hands of the Antivaccination League. And though it is obviously absurd for antivaccinists who glory in their own defiance of the law to wax indignant over magisterial refusals of exemption certificates, those whose object is the protection of the public against small-pox by means of the promotion of vaccination cannot but deplore the unwisdom of magistrates who so wrong-headedly support the crusade against vaccination. We therefore sympathize with that part of the Bill which provides that if magistrates are not satisfied of the existence of conscientious objection they shall be satisfied by the administration of an oath. But the rest of the clause is bad; the father himself should be required to attend court, and thereby provide some prima facie evidence of the reality of his objection. The purpose of the Act of 1898 was to distinguish between real objection and mere parental indifference, and this was to be done by putting the parent to as much trouble as the procuring of the vaccination of his child would give him. To whittle down the procedure by accepting the mother instead of the father, and by limiting to a shilling the maximum fee for a certificate while not fixing any minimum fee, would be to reduce the whole test to something very like a farce. That might suit the Antivaccination League, but it certainly would not provide any reasonable or sufficient degree of pressure towards the performance of an operation which Parliament has always believed to be necessary for protection against small-pox.

MR. ARNOLD LUPTON, M.P.

THOSE of our readers who take an interest in politics would no doubt observe that Mr. Arnold Lupton, who issued in support of his candidature the shamefully false antivaccination leaflet commented on in the BRITISH MEDICAL JOURNAL of January 13th, succeeded in defeating Mr. Henry Chaplin by a comparatively narrow majority. His success was immediately trumpeted in the newspaper press as a triumph of antivaccination by the Honorary Secretary and the Stipendiary Lecturer of the Antivaccination League. To the *Morning Leader*, in which one of these paeans of victory was sounded, Dr. L. G. Davies, of Pelsall, Staffordshire, wrote that, though abhorring Mr. Chaplin's politics, he deplored that his rejection had not been accomplished by fair means. Referring to Mr. Lupton's "calculation" that "100,000 people are killed every year in our "country alone by vaccination," Dr. Davies declared that "a victory obtained by such methods as the circulation "of this appallingly mendacious 'calculation' is as "barren of glory as of fair fighting." Evidently stung by this exposure in a Liberal newspaper of the way by which Mr. Lupton had waded "through dirt to dignities," the editor of the *Vaccination Inquirer* wrote in a more or less apologetic strain to the newspaper, arguing that our article on the "unlucky leaflet" was circulated throughout the constituency, and that to the electors of Sleaford, whose capacity for statistical deductions manifestly quite pleases the *Inquirer*, "one "death from vaccination was . . . as good as 100,000, "when the argument was whether the acceptance of "vaccination should be optional or compulsory." In the *Inquirer* itself the editor writes: "We do not know "how Mr. Lupton arrived at the large estimate" of the number killed by vaccination, but it carefully avoids astounding even its own credulous readers by revealing that the estimate was 100,000 deaths per annum. And the *Inquirer's* ignorance of the basis of Mr. Lupton's calculation is most remarkable, for in the same column of the *Morning Leader* in which the editor of the *Inquirer* makes his apologetic defence of Mr. Lupton, that gentleman himself gives quite definitely his grounds for his own marvellous calculation. His explanation is no less notable than his calculation. Here it is:

> I based my estimate upon figures in a Government paper supplied to Parliament by the Government in response to a request by the late Mr. Hopwood, K.C., M.P. I write from memory, but according to those figures the increased number of deaths from fifteen specified diseases, including small-pox, since vaccination was made compulsory in 1853, was over 70,000 a year in the year 1875, and allowing for improve sanitation, as compared with the year 1847, there ought to hav been a great reduction. Vaccination was made compulsory i 1853, and in the twenty-two years succeeding there was steady increase in deaths from these fifteen diseases; ant vaccinators have repeatedly asked to have these figures carrie down to the present date, but the pro-vaccinators in offic have declined to give them. If my estimate is wrong, it i their fault not mine.

This statement makes us doubt whether antivaccin tion, in all its mad history, ever had a champion s so reckless and so strangely muddleheaded as M Arnold Lupton. To his friends of the League he mus be a constant source of terror. They tried hard som time ago to drag him out of one bog into which he ha tumbled as regards small-pox in Germany. Then cam what he alleged to be a quotation from the report the Royal Commission concerning small-pox in th British army, to the following effect:

> ROYAL COMMISSION, SECOND REPORT, p. 278.—"3,9 "revaccinated soldiers in the British army suffere "from small-pox, of whom 391 died of the disease."

The *Inquirer* suggests that possibly this was due to printer's or proof reviser's "trivial mistake," as if th statement itself were not miles from the truth, qui independently of its being falsely attributed to the Con mission. But at last even the *Inquirer* gets fairly si of such apologetics, and, giving up Mr. Lupton despair, it denies all knowledge of how he made h "large estimate," though, as just said, Mr. Lupto own detailed explanation stares the editor in the fa in the very column of the *Morning Leader* in which tries to find some excuse for his ally.

The nonsensical nature of the Parliamentary return which Mr. Lupton's credulity caused him to pin h faith has been repeatedly exposed, and nowadays a wa antivaccinist leaves it severely alone. The Royal Co mission deals with it. The fifteen "diseases" whi the late Mr. Hopwood hit upon as due to vaccinati were small-pox, tabes mesenterica, diarrhoea, bronchit pyaemia, skin disease, syphilis, convulsions, chole diphtheria, pneumonia, atrophy and debility, whoopi cough, erysipelas, and scrofula. The periods of ti compared were not, as Mr. Lupton imagines, the ye 1847 and 1875, but three groups of years, (1) 1847- (2) 1854-67, and (3) 1868-75. And the return proved th of the fourteen items (excluding small-pox) only showed an increasing mortality, four showed decreasing mortality, and four more exhibited irregular mortality. As the Royal Commission marked:

> There was no more reason for attributing to vaccination increase of mortality in the case of those diseases where mortality had grown, than there was for asserting that to beneficent influence was due the decrease of mortality in th cases in which the mortality had become less. The hypothe that it caused the mortality in some instances to grow, and other instances to decrease, and that it was responsible for balance of increase shown on an aggregation of the two, d not merit serious attention.

It need hardly be said that this balance of increa made not the slightest approach to 70,000 deaths a year suggested by Mr. Lupton. Perhaps, however, this another printer's blunder, or a proof-reviser's triv mistake, or a little slip of the memory, or anything e any one pleases to suggest, for the choice really does matter one single straw. But Mr. Lupton makes ref ence to some later requests for Parliamentary pape and to finish the story of the Hopwood Returns may be recalled that in February, 1880, a sec Return was asked for and obtained. But from all the diseases which had been shown in the fi Return to have a decreasing mortality were deliberat omitted. It referred to only the two years 1847

77, and to two age-periods—(1) under 1 year, and 1 year to 5 years. The Return disclosed that in second age-period several of the very carefully- ected diseases showed a definite diminution, and ally, in September of the same year, yet another turn was asked for and obtained, and from it the iod of 1 to 5 years, which showed these diminutions, s wholly left out. Whether any antivaccinist has lly been foolish enough to ask again for the ords of the fifteen original items to be carried down date we do not know. Mr. Lupton says that eated requests have been made, but it must be ious that any statement on this subject by him does in the least matter, one way or the other. We ıld not ourselves venture to place any limit on anti- cinist folly, and if such a request has been made, authors must be almost as wise as Mr. Lupton ıself.

ut to any sober-minded man Mr. Lupton's defence uld be a revelation as to the basis and methods of ivaccinist propagandism. He circulated throughout ıford a "calculation" that in this country alone 000 persons are killed yearly by vaccination. The l annual deaths in this country are roughly about a million, so that one in every five deaths at all was attributed to vaccination! This calculation ısed on the fact that some thirty years ago Mr. C. H. wood, K.C., obtained a return which showed that of en registered causes of death which he chose onceive had some relation to vaccination, six had ncreasing mortality, four a decreasing mortality, four an irregular or varying mortality in essive periods of time. These causes of death made up of diseases of most various kinds olera, an exotic infective disease that has sionally invaded this country and been spread he poison finding its way into the water supply; chitis, which is an inflammatory affection of the r air passages and is commonly caused by expo- to cold; convulsions, which is not a disease at all, a result of many different causes; and so with s in the list, while as to syphilis, which on certain rare occasions was conveyed by vaccination when anized lymph transferred from arm to arm was e, it was shown by the Royal Commission that eicester, the very home and centre of antivac- ion, the mortality from that disease had in- ed above its former amount nearly three as much as in England and Wales. But Mr. on knows nothing of all this, or still worse, does know, he gives no heed. To an imaginary ce of 70,000 he adds a further imaginary), making an imaginary total of 100,000, he circulates this "calculation" in Sleaford, lefends it, as above quoted. It is impossible to e that any responsible politician can pay the est heed to any views of Mr. Arnold Lupton on a t where his prejudices so marvellously overrule dgement.

observe that Mr. Lupton has obtained the place in the House of Commons on April 25th a motion on vaccination. That being so, hould frankly give himself into the hands ie League officials, and should only say y what they put into his mouth. We venture ophesy that this is pretty nearly what will ly occur, for it is simply inconceivable that, ıat he has succeeded in getting into Parliament aid of his leaflet, he will be permitted any longer te his own leaflets, or letters, or speeches on any on relating to vaccination.

A QUESTION OF PRIORITY.

A warmly debated controversy has been going on for some time in the *Berliner klinische Wochenschrift*[1] concerning the respective claims to priority of Manuel Garcia, Türck, and Czermak as discoverers of the use of the laryngoscope. Professor Joseph Kohler, the eminent Berlin jurist, strenuously opposes Garcia's claims, on the ground that Garcia's observations were incomplete and did not amount to an adequate discovery of the way to apply laryngoscopy for medical purposes. Having put Garcia out of court, he proceeds to award to Türck the distinction of being the author of laryngoscopy and then satisfies the claims of Czermak by conceding to him the credit of improved technique and the extended application of the method to clinical investigation.

The disparagement, in this cavalier fashion, of Garcia's invaluable discoveries has naturally given rise to a widespread feeling of resentment and indignation. We are glad to find that Sir Felix Semon has promptly come forward and has made it impossible for our German colleagues to ignore or misunderstand the merits of Garcia's work. Replying to Professor Kohler, Sir Felix surveys (*Berl. klin. Woch.*, 1906, No. 10) the whole subject with a masterly grasp of details which, being the expression of actual facts, carry conviction of themselves, and are independent of the subtleties of any forensic argument about the legal basis of a claim to priority. He shows that the idea of making the human larynx visible to the eye of the observer by means of mirrors dates back to 1743, and is attributable to Levret. Then followed numerous observers, amongst whom Babington, Liston, Avery, and Baumès are mentioned; these investigators grappled with the technical difficulties of the problem, but failed to establish the practical utility of the methods they recommended. The actual inventor of laryngoscopy is Manuel Garcia, who in his first communication on the subject, besides giving a clear description of his method, recorded a large number of new physiological facts which it had enabled him to discover. Garcia, therefore, not only established a definite method but actually demonstrated its scientific value; it is consequently absurd to insinuate that his ideas were merely vague and tentative or that they do not amount to a genuine scientific discovery. The first who systematically examined patients by the laryngoscopic method was Türck. But Türck failed to appreciate the value of this method for clinical medicine, though his investigations proved a useful stimulus to clinical research and bore fruit at a later date. It is to Czermak that the credit must be given of being the actual founder of clinical laryngoscopy.

This is Sir Felix Semon's summary of the main facts, and it seems to us impossible for any man to put the matter more fairly or with a more conspicuous absence of bias or special pleading. Being secure of his facts, Sir Felix finds no difficulty in disposing of the theoretical objections which Professor Kohler has raised as to the basis on which a claim to priority ought to be established. "An inventor," according to Professor Kohler's definition, "is a person who conceives a "technical idea in a manner capable of execution, and "gives to it such publicity that it acquires from him an "independent existence." Applying this principle to the question of the invention of the laryngoscope, the same jurist continues: "The dominant idea must be so "far elaborated that the anatomical difficulties are "systematically overcome; on the one hand, an "adequate amount of light must be thrown into the

---

[1] *Berl. klin. Woch.*, 1906, Nos. 1, 10, 12, 13, 14, 15.

“ larynx, and, on the other hand, the rays of light must “ be adequately reflected back into the eye of the “ observer. The difficulties presented by the palate, “ tongue, and epiglottis must be completely removed, so “ that the inspection can be made systematically.” Sir Felix shows conclusively that Garcia, in his publication in the *Proceedings of the Royal Society* in 1855[1] and in other announcements, has completely satisfied these forensic postulates of Professor Kohler, and, indeed, can only account for the German authority's strange antagonism by the suggestion that he may not have had the opportunity of adequately studying Garcia's works in the original.

So much for Professor Kohler. But it must be quite obvious to any person who is conversant with the spirit of medical and scientific research that claims to priority in these matters are decided not upon legal, but upon broader ethical grounds. The scientist does not take out a patent for his discoveries and inventions; he publishes them freely for the benefit of mankind. The only justice he expects from posterity is a just appreciation of the value of his work; quasi-legal questions of patent “priorities” and privileges, and the possible infringements thereof are a matter of indifference to him. Recognizing this spirit, Sir Felix Semon turns from the juristic criterion of Professor Kohler to the philosophical criterion of Schopenhauer. According to Schopenhauer: “He alone is entitled to the credit of “ discovery who recognizes a truth in its fundamental “ principles, and sees clearly into its consequences. “ He must develop the whole of its content, grasp the “ range of its significance, and expound it clearly and “ coherently, with full consciousness of its value and “ importance.”

Here, again, Sir Felix is readily able to prove by quotations from his writings that Garcia's knowledge of the value of the laryngoscope for the inspection of the vocal cords was clear, comprehensive, and entirely in accordance with the requirements of Schopenhauer's definition. Garcia's work was sound physiology, and as such was capable of a direct and simple application to medical practice. This application of his discoveries to clinical work was obviously the medical man's business, and not Garcia's, just as, to quote a parallel instance aptly suggested by Sir Felix Semon, it was the business of the surgeon, and not of Professor Roentgen, to employ the *x* rays for purposes of clinical diagnosis. But the surgeon, attaching more importance to commonsense principles of elementary ethics than to forensic subtleties, acknowledges, as a matter of course, that the discoverer of diagnosis by the *x* rays is Professor Roentgen; the question as to what particular surgeon happened to be the first to diagnose a fracture by their aid is so childishly trivial that it does not even enter his mind, and the laryngologist is as much indebted to Garcia as the surgeon is to the distinguished physicist. He fully appreciates the professional zeal and ingenuity of Türck and Czermak, but no amount of doctrinaire argumentation about a quite unnecessary “Prioritätsfrage” will ever blind him to the fact that to Garcia belongs the credit of having founded the science of modern laryngoscopy.

◆

INAUGURATION OF THE POLICLINICO AT ROME: FESTIVAL IN HONOUR OF PROFESSOR GUIDO BACCELLI.

The magnificent clinical institute which, thanks to the efforts of Professor Guido Baccelli and his colleagues, has during the last eleven years been in course of erection outside the historic Porta Pia of Rome, was forma opened on Sunday, April 8th. The occasion was tak to pay special honour to the veteran protagonist Italian medicine, and delegates from all the Italian U versities and from most European countries w present in the Capitol to join in conveying to him congratulations of the scientific world. In the gr hall of the Horatii and Curiatii, in the ancient centre civilization, His Majesty the King of Italy and brilliant court received the foreign delegates, and in name of the nation offered them a Roman welcome. Professor Baccelli magnificent presents were made golden tablet bearing the image of Minerva Salvat a doctoral diamond ring, a laurel wreath in bro and numerous addresses on vellum. Speeches w made setting forth his services as Minister of Educat as Conservator of Roman Antiquities, as Professo Pathology and of Clinical Medicine, and, lastly, as intrepid founder and finisher of the great Policlin After Professor Bouchard had spoken for France, announced that the President of the French Repu had conferred on the hero of the day the insigni Grand Officer of the Legion of Honour, Dr. MacAlis as President of the General Medical Council and Dep Vice-Chancellor of the University of Cambridge, called on to speak for Great Britain. Wearing scarlet robes, he delivered an oration in Italian Latin, which was loudly applauded. He recalled fact that Italy alone of European countries had ent into relations of complete medical reciprocity with United Kingdom. Referring to the fact that Tho Linacre and many others of the early founders and moters of medical education in England had owed t medical degrees to Italian universities, he added the honour done by Italy to Lister, whose st occupies the central position above the façade of new Policlinico,[1] seemed to show that the ancient incurred by England was in process of being re The reference to Lister was received with the gre enthusiasm, and His Majesty at the close of the sp shook hands with the orator and thanked him fo contribution to the proceedings. In the eveni banquet for 600 was held in the Teatro Adriano, speeches were again delivered, chiefly by the collea and pupils of the Italian *maestro*, who obviously a warm place in the affections of his countrymen. spacious halls of the Policlinico were thrown ope inspection on the morning of April 9th, and thousands of the citizens and guests of Rome pe bulated its vast wards and corridors. In every of construction and arrangement minute attentio been paid to the health and welfare of the patient to the convenience of the students and professor may indeed be said that up to the present the Polic of Rome, which is not one hospital but a netw connected hospitals, represents the last word in sa construction and equipment. It is not only a coll of wards, but a system of laboratories, lecture clinical schools, and garden spaces, sumptuously and wisely planned. The verse recited by Pro Cardarelli in giving the toast of his colleague's sums up the sentiment of Rome towards the foun

Tu dignum Romae monumentum, Guide, parâsti
Aegris hospitium discipulisque sedem.
Aegri multa tibi, tibi multa scientia debet:
Jure vocatque suum te medicina decus.

RECENT INVESTIGATIONS ON TYPHOID FE

The German Imperial Board of Health has publi a collection of studies, by various authors, on ty fever in its bacteriological and epidemiological a Dr. Klinger, of Strassburg, discusses the value ntly-invented methods for the identification of the phoid bacillus in intestinal excreta. He recognizes at an undoubted advance has been made in clinical cteriology by the introduction of the Drigalski-nradi culture medium, by means of which a diagnosis be effected in about 33 per cent. of cases within ty-eight hours. But he finds that the percentage of cessful diagnoses becomes appreciably higher if the ture method recommended by Endo is adopted. do's medium is made in the following way: To itres of tap water are added 20 grams of Liebig's ract, 20 grams of peptone, 10 grams of common salt, 80 grams of agar. After sterilizing, filtering, and king neutral to litmus, Endo adds 20 c.cm. of a ile 10 per cent. solution of soda, 20 grams of mically pure milk sugar, 10 c.cm. of an alcoholic sin solution, and 50 c.cm. of a sterile, freshly pre- d, 10 per cent. solution of sodium sulphite. The sin solution is prepared by adding 10 grams of tallized fuchsin to 100 c.cm. of 96 per cent. alcohol pouring off the solution after twenty hours. An t observance of these details appears to be essential he successful use of the medium. Plates prepared this fuchsin-agar medium have the great advantage the Drigalski-Conradi medium of restraining much e effectively the growth of contaminating organisms y to be met with in faeces. The differentiation een typhoid and coli colonies is clearly brought n from eighteen to twenty-four hours, the one set lonies are glassy, round, with a convex surface hich is seen a delicate rosy film, and measure t 2 mm. in diameter; the coli colonies, on the hand, are larger, dark red in colour, and have a ish fluorescence. Dr. L. Stühlinger has carefully d the Ficker method of applying the agglutination or the diagnosis of typhoid fever. The essential res in this mode of performing the test are that ile suspension of dead typhoid bacilli is used; the ion is performed in test tubes, and is visible to the l eye, no microscopic examination being requisite; quisite test fluids and apparatus can be obtained linary commercial rates, and can be used by the tioner without any special bacteriological know-

---

[1] The greater part of this paper was republished in the issue of the British Medical Journal for March 24th, 1905, p. 683.

[1] British Medical Journal, December 13th, 1902.

[2] *Arbeiten aus dem kaiserlichen Gesundheitsamte*, Bd. xxiv, H. 1

Applying the test to typhoid fever patients, he that a clear positive reaction can always be ned within six hours at the latest. The reaction is pronounced, on naked-eye inspection, than when typhoid cultures are used, because the flaky ity separates more definitely from the clear part fluid. Comparing Ficker's bacterial suspension a living typhoid culture, Dr. Stühlinger finds that sceptibility to agglutination of the former fluid arkably high, though not quite so high as that of ension of living typhoid bacilli. Using a rabbit's which was known to give a positive reaction ving bacilli in a dilution of 1 in 4,000, he found positive result is also obtainable, in equally lilution, with Ficker's suspension; but when ed a serum capable of giving a positive n with living bacilli in a 1 in 10,000 dilu- the limit of dilution with Ficker's sus- was, under the same experimental con- 1 in 8,000. Ficker's suspension is, therefore, ite so sensitive as living bacilli, but is a very and generally reliable substitute. Dr. Stühlinger stituted comparative tests in 50 clinical cases, und that in every instance the positive and e results obtained with Ficker's medium coin- espectively, with the results obtained on testing suspension of living bacilli. Amongst the other contained in this volume may be mentioned an ing account by Dr. Heinrich Kayser of the nation of typhoid fever by means of milk, a al description by Dr. Drigalski of the method by e has succeeded in obtaining cultures of typhoid bacilli from contaminated water, and descriptions of two epidemics, due to drinking water, which were investigated by Drs. Matthes, Gundlach, and Neumann.

MR. COLERIDGE ON TOUR.

The Hon. Stephen Coleridge has been performing in the provinces before appreciative, if somewhat scanty, audiences. The chief points in his rendering of the part which he has created for himself are so familiar to readers of the British Medical Journal that they need not again be dwelt upon. Mention may, however, be made of one or two new effects which he has introduced. Thus, at Worcester, he said England had "gone "beyond any other country in its malignancy, because "it was the only country that he was aware of which "had passed a law legalizing the torture of animals." Mr. Coleridge of course knows that the Act to which he refers does not legalize the torture of animals; he is fully aware that it was intended to restrict, and that it has in fact greatly restricted, experiments on animals in this country. The "malignancy" of the British nation consists in this, that it is the only one that has made a law for the protection of animals from unnecessary suffering. It is difficult to believe that this poor piece of sophistry could impose even on an antivivisectionist audience. Another new bit of stage business is his admission that there are humane vivisectionists who would not hurt an animal, and his appeal to them to "come forward and try and "strengthen his hands to enforce that humanity upon "their brother vivisectionists who were not human." Mr. Coleridge, it is well known, resents the least suggestion of inaccuracy; as we find this remarkable statement attributed to him by his own mouthpiece, the *Zoophilist*, we are driven to conclude that to certain vivisectionists he denies the title of fellow-men. This may help to explain his still more startling declaration that "a really valuable thing to the human race would "be for the vivisectors to be taken to the very deep sea "and sunk there." And yet we have our doubts about the interpretation of these passages. If some vivisectionists are not human, they must naturally be the objects of Mr. Coleridge's tenderest sympathies, and the wish that they should be sunk in the very deep sea would seem to indicate a certain inconsistency on his part. If, however, as we think most likely, the *Zoophilist* has lapsed from the path of typographical rectitude, and Mr. Coleridge regards even vivisectionists as human, albeit not humane, the cheerfulness with which he would doom them to the deep is a curious illustration of his claim that the position which his Society takes up is "one "based entirely on the deepest moral principles." Mr. Coleridge went on to speak of his little Bill, which he thinks has a good chance of being passed by the present Parliament, in which antivivisectionists have "at least "150 or 200 men" who they know will do anything for them. Mr. Coleridge is not as the pharisees of abolitionism are; he is a practical man who will take what he can get, while reserving to himself the right of asking for more later. In the meantime he will only ask Parliament to say that every dog, or other vertebrate animal experimented on, "shall "be placed under a complete anaesthesia before "the knife reaches it, and shall be destroyed "painlessly before it recovers consciousness." But he will not leave it to the operator to decide whether the animal is under anaesthesia. A Government inspector must be present throughout every operation. It would be interesting to learn how long it is since this blind faith in the "government inspector" has sprung up in his guileless breast. There are Government inspectors now whose duty it is to report on the work of vivisectors, but Mr. Coleridge has over and over again said that he does not believe them. Are the new inspectors to be persons of Mr. Coleridge's own choosing? Such observers, for instance, as the ladies on whose testimony Mr. Coleridge relied with results so expensive to some of his admirers? If the inspectors are medical men, Mr. Coleridge will doubtless refuse to accept their statements; if they are not, their judgement as to what constitutes "a complete anaesthesia" can be of no value. Some years ago Mr. Coleridge himself received some enlightenment on this subject from the Home Office when it was explained to him that "complete" and "incomplete" used in reference to anaesthesia are technical terms which express the degree of abolition of reflex movement, not any difference in sensitiveness to pain. Either Mr. Coleridge's memory is very defective or his use of the phrase "complete anaesthesia" is intended to mislead. At Torquay the other day Mr. Coleridge said "the object of the vivisector was not to take animal life with as little pain as possible, but to keep the animal alive, sometimes for seven or eight hours, whilst he inflicted upon it the most dire and diabolical form of torture." This he described as "an abominably wicked ungentlemanly act." We may remind the utterer of these wild and whirling words that the original meaning of "diabolical" is slanderous; it would be easy, therefore, to retort the epithet on those who make it the business of their lives to torture honourable men by calumny. But we will only ask Mr. Coleridge whether he really considers it a gentlemanly act deliberately and persistently to bear false witness against his neighbour? Is it gentlemanly to suggest, as he has done, that hospitals supply living human bodies for the study of disease by physiologists? Is it gentlemanly to use the names of eminent persons in such a way as to make it appear that they are in some way responsible for his publications or sympathize with his objects? Mr. Coleridge boasts that although he has written many pamphlets and delivered many speeches he has never been convicted of a single misstatement of fact. In view of the result of the action Bayliss *v.* Coleridge he seems to have felt that this assertion needed some explanation; he therefore, with characteristic caution in taking cover, adds: "I elected to believe what two ladies told me they saw, and I don't know whether, having paid the £2,000, I am not entitled to say that I still believe them." It is all very well for Mr. Coleridge to put his tongue in his cheek and hint that, like every man convinced—or convicted—against his will, he is of the same opinion still. But will he repeat definitely and unequivocally on a public platform the charges made by him against Dr. Bayliss for which he was found guilty of libel and mulcted in heavy damages? If he is not prepared to do this, he has no right to insinuate that he was wrongly punished. He was convicted in the High Court of Justice of very gross misstatements of fact, and the finding of the jury was generally ratified by public opinion. Long before that, his peculiar methods of controversy had earned the condemnation even of persons who sympathized with the cause which he professes to have at heart; the exposure of them in a court of law pilloried him before the world, and made him

A fixéd figure for the time of scorn
To point his slow unmoving finger at.

THE AMERICAN PRESIDENT AND THE PREVENTION OF CONSUMPTION.

At a recent meeting of the Board of Directors of the American Association for the Study and Prevention of Tuberculosis, President Roosevelt and ex-President Cleveland were elected honorary vice-presidents. Mr. Roosevelt, according to the *New York Medical Journal*, has already shown warm interest in the work of the
Association. He is actively using his influence
further the objects of the crusade against consumptio
He has recently issued an order to the heads of
executive departments of the Government at Washingt
to cause to be printed, posted, and distributed in eve
Federal building under their control a set of rules
prevent the spread of tuberculosis. These rules ha
been formulated by a committee previously appointed
the President. Besides posting and distributing ru
each department head must ascertain the names of
persons in his department suffering from tuberculos
and present every such person with a copy of the rul
Failure in observance of these rules may be made a cau
of dismissal from the Government service. The ord
provides for Government examinations of all perso
who are under any suspicion of tuberculosis. T
Surgeon-Generals of the army, the navy, and the pub
health and marine hospital service are directed by t
order to cause a thorough sanitary inspection of t
public buildings and workshops under their respect
departments, and are authorized to detail a sanita
board, or boards, for this purpose. The inspection
the public buildings and workshops, other than th
under the War and Navy Departments, is to
conducted under the Surgeon-General of the pu
health and marine hospital service. The sanit
board, or boards, thus appointed shall report up
(1) insanitary conditions immediately remediable;
insanitary conditions requiring structural chang
The sanitary board, or boards, are ordered to m
reports to the Surgeon-General of their respect
services, who must bring these reports before
committee appointed by an executive order da
December 7th, 1905. It will be the duty of the c
mittee to transmit a full report, with recommendati
to the President.

MEDICAL INSPECTION IN ELEMENTARY SCHOOLS.

It would appear from the leading article on med
inspection of schools which appeared in the *Time*
Tuesday last, that the letter of Professor Howard M
had closed the discussion which has been taking plac
that subject in our contemporary. This is regrett
as although many sides of the question have been
sidered, nothing as to the actual details of a sch
has been discussed, and as public sympathy
assistance are required, much must depend upon
form which medical inspection takes. There appe
be two distinct opinions as to the most efficient
of medical inspection of elementary school child
Some consider that to appoint special medical off
would solve the problem. This might possibly
the requirements set forth by the Bishop of Rip
that inspection should include the recording at
once a year of the height, weight, and chest-girt
every child, the detection of any local or general dis
deformity, or defect; but, while this might ren
some of the causes, it would not prevent the diffu
of offensive or infectious diseases among the chil
If the inspection ought to provide, as Professor M
maintains, for the prevention of such ailment
measles, diphtheria, and scarlet fever, then no effe
system can be established except through the em
ment of local practitioners, who would visit the sc
in their respective districts every morning to exa
such children as the teacher suspected of
sickening for one of these diseases. For years
we have urged that this system, so successfully wo
in America, should be introduced into this cou
We must face the fact that compulsory educ
introduced over thirty years ago into Great Br
cannot be discontinued unless we admit that w
ready to go back to a savage state. Therefore, the
duty of the State is to make education as profital

ssible to the community by turning it to the best
vantage. No one for a moment doubts that the cost
education is felt as a great burden by thousands
people, but what can well be doubted is that an
tempt to saddle the ratepayers with the cost of maintaining
ining the children in such a condition as to enable
em to derive the maximum of benefit from teaching
uld excite a warm and steadily-growing determina-
n to resist as has been asserted. We imagine that
at is likely to determine the ratepayers to resist is
e extremely unsatisfactory state of the present system
ereby children diseased or half starved are crammed
th unsuitable learning and turned out into the
rld to people, sooner or later, the hospitals, asylums,
d sanatoriums, maintained by the ratepayers. The
discriminate institution of gratuitous feeding would
deed be a deplorable mistake, but those who have
l acquaintance with the facts know that under the
w scheme of providing cheap dinners, cooked by
e children themselves at the cookery centres, so
ny parents are anxious to buy the tickets, which
ve to be paid for beforehand, that they are of necessity
ited in number, owing to the fact that the
chers and school keepers have to sacrifice their
re time to wait on the children; many applica-
ns have to be refused. The plan has proved success-
, and it is certain that so far from being abandoned,
will be extended. The bogey of expense is trotted
by the *Times*, but neither medical inspection nor
ool dinners, if instituted and carried out in accor-
ce with sound principles, need entail any serious
mediate expenditure, and will in the long run prove
be a true economy.

THE MEDICAL HISTORY OF MARY TUDOR.

a recent paragraph on the medical history of Calvin
noted that the religious intolerance of "Bloody
ry" has been ascribed to uterine disease. Sir
ncer Wells was of opinion that her death was due to
rian dropsy. "Treated with the knowledge now at
r command, the destinies of England might have
een strangely altered," observed the great ovariotomist
the course of the address in surgery at the Man-
ster meeting of the British Medical Association in
7.[1] He showed that Mary Tudor was subject to
menorrhoea and scanty menstruation all her life
r an illness in early girlhood apparently the result
over-study. In these days there are many such
ients. Her marriage to Phillip II, whom Beesly
aks of as Elizabeth's "ugly, disagreeable, little
ther-in-law," brought her no happiness. Wells
eves that Mary aborted early in her first and only
gnancy, and that there was no reason to suppose
er self-deception or imposture. She soon became
ectic, and abdominal enlargement revived her hopes
n heir. This time there was clearly delusion; the
lling was found to be disease, not pregnancy, and
had an illness diagnosed as a bad intermittent
r. She was moved from Richmond to Hampton
rt, and lastly to St. James's, where for a few weeks
languished and then died in full possession of her
es. This, in Spencer Wells's opinion, is not
history of death from ordinary dropsy, nor
usual end of fever, to which it was imputed.
points considered, it looked more like exhaus-
or pyaemia from an ovarian tumour with
or more of its compartments inflamed or suppu-
ng. Another fact which Spencer Wells noted as
porting this view is that the abdomen was not
ed. The tumour was in all probability too solid for
surgeons with their ideas of dropsy to attempt
tapping. The body was embalmed, but there is no account extant of any medical examination. Sir Spencer Wells's historical diagnosis seems quite reasonable; Mary Tudor very probably died of an ovarian tumour. A new growth, however, would not account for that unhappy queen's irritability and bigotry; the catamenial history is of far higher importance in that respect. The character of her father, the opinions and the fate of the "sweet saint of Aragon," her mother, to whom she was intensely attached, the bitter consequences, disputed legitimacy, anarchy in a sickly brother's reign, and the dreadful responsibilities of sovereignty were quite sufficient to spoil Mary's temper, independently of hypermetropia, to which she was probably subject, and ovarian disease, which only came on during the last years of her reign.

WARNING NOTICES.

Some time ago the appointment of Medical Officer to the workhouse at Bangor, North Wales, became vacant, and the guardians advertised the vacancy at a salary of £50 a year. The members of the medical profession residing in Bangor, having considered the terms and duties of the office, came unanimously to the conclusion that the salary was inadequate, and were supported by the local Division of the Association. In consequence of this decision, and of the warning notice published in the British Medical Journal, no applications were received by the guardians in response to their advertisement, and the Board, at its meeting last week, resolved to advertise again, offering £70 a year, which, in the opinion of the Division, is a salary which may properly be accepted. In this case, therefore, the profession has, so far, carried its point, but there is a rumour—whether true or not we are not in a position to say—that some of the guardians, annoyed at the way in which the dispute has ended, are casting about for some candidate from outside. It is to be hoped, if such be the case, that they will not be successful, for the practitioners of Bangor have been fighting the battle of the profession in general quite as much as their own, and it would be a reflection on the good sense and good feeling of the profession if a stranger should allow his name to be put forward in opposition to local candidates. As has already been stated, a somewhat similar difficulty exists at Aberystwyth, where the guardians refused to increase the salary of the medical officer of the workhouse. In consequence Dr. Bonsall, who had held the post for fifteen years, resigned, retaining the post of district medical officer. The guardians endeavoured to compel Dr. Bonsall to resign also the post of medical officer for the district, but the Local Government Board declined to support them, and matters are at a deadlock. The guardians have hitherto been able to make temporary arrangements for medical attendance at the workhouse with the house-surgeon to the infirmary, but he has now notified the guardians that the Board of the Infirmary has passed a resolution directing that this temporary assistance should cease at the end of April. At their last meeting the guardians rejected the motion to offer a larger salary, and resolved to send the letter from the house-surgeon to the Local Government Board, with an intimation that they would no longer be responsible for the care of the sick inmates in the workhouse after the end of April. The Local Government Board will therefore have to act promptly, and there can be little doubt that it will instruct the guardians that they are under an obligation immediately to proceed to the election of a medical officer to the workhouse, and that to this end they must offer suitable remuneration. In the Warning Notice, published at p. 59 of the advertisements, 22 districts are enumerated in which disputes are in existence between the local medical profession and other bodies, and practitioners are invited to communicate with the Honorary Secretary of the Division or Branch, whose name is given in each instance, or with the Medical Secretary of the Association, 429, Strand, London, W.C., before applying for any appointment in the districts mentioned. In addition to Aberystwyth and Bangor, the list includes Northumberland and Durham, Sheffield, Leigh (Lancs.) Infirmary, Rusholme Dispensary, Coventry, Macclesfield, Aberaman, Bridgend and Cardiff in Glamorganshire, Abertysswg, Blaenavon, and Ebbw Vale in Monmouthshire, Southampton, Bitterne and the neighbourhood, Portsmouth, Lowestoft, Castle Hedingham or Yeldham (Essex), Cork, Auckland (New Zealand), Orange River Colony and Pretoria (South Africa).

---

[1] ritish Medical Journal, 1877, vol. ii, p. 174. The address was subsequently reprinted with note.

THE UTILITY OF ISOLATION HOSPITALS.

In a report submitted to the Romford Joint Hospital Board on March 28th Dr. J. C. Thresh makes a contribution to the discussion which has been carried on intermittently during the past few years upon the desirability of continuing the erection of isolation hospitals. He states that in the county of Essex during a given period in fifteen urban districts provided with hospitals there was an increase of diphtheria in three districts, and of scarlet fever in six, while in six districts both diseases had decreased. In nine rural districts with hospitals, diphtheria had increased in three and scarlet fever in two; the two diseases together had increased in two districts and had decreased in two. In six rural districts without hospitals, diphtheria had increased in one, scarlet fever in one, both diseases together in one, while there had been a decrease of both diseases together in three districts. These results, he thinks, do not show any marked effect following the provision of isolation hospitals, more especially in rural districts. He appears, however, to appreciate that the problem of isolating infectious disease cannot be solved by recourse merely to statistical evidence, but the special requirements of each district must be considered. With this opinion the majority of medical officers of health will no doubt be found to agree, for there are many other factors to be taken into account when considering the incidence of infectious disease in a particular locality. There must be noted not only the class of inhabitants, their habits, their housing conditions, and their ages, but the activity of the sanitary administration, the number and alertness of the sanitary officers, and the particular method, having regard to efficiency, of disinfection. In a good-sized house occupied by intelligent persons an infected patient can be properly isolated in the spare room. For the present the isolation hospital is the poor man's spare room.

ANTIVACCINATION CONTROVERSY.

Newspaper correspondence is a stock method of propagandism of the Antivaccination League. There is an organized letter-writing ring, the duties of whose members are to send frequent contributions to the press in depreciation of vaccination. The nature of the arguments used in such correspondence has been frequently exposed in the British Medical Journal, but if misstatements are repeated often enough they are apt to be believed, and so the game goes merrily on, and it cannot be believed that it is unattended with some measure of success in misleading and prejudicing the public mind against the most beneficent operation that the world has ever known. It is seldom that medical men take the trouble to set themselves seriously to the task of systematically controverting the circulated falsehoods and fallacies, nor is it surprising that busy practitioners should as a rule prefer other uses for their scanty
leisure. In this work of newspaper correspondence
Bond of Gloucester has, however, for many years nc
done invaluable service, and we are glad to observe th
recently one or two medical men seem inclined to he
him. As noted elsewhere, Dr. L. G. Davies h
with excellent effect called the attention of new
paper readers to the methods by which M
Arnold Lupton won the Sleaford election. Dr. Arth
Drury, of Halifax, has also lately entered the field, ar
has tackled with the utmost success one antivaccin
tionist who is, if we mistake not, the official centre
the letter-writing ring. He has also "gone fo
Mr. Bernard Shaw in a quite delightful fashion, n
taking that *poseur* any more seriously than need be, b
so chaffing him and so replying to him as to le
Mr. Shaw to plead plaintively that "the public does n
"want to see us scoring off each other," and that
Dr. Drury wishes to engage him in a controversy
literary wit he must pay him more than £5 as the val
of his time; seeing him reduced to this condition
polemic collapse, the editor of the *Daily News* took pi
on poor Mr. Shaw and kindly closed the corresponden
after printing a half-column last letter from him. V
trust that Dr. Davies and Dr. Drury and others li
them will continue in the course they have begun.
first they may have a difficulty in knowing just whe
to lay their hands on the exact material for reply to t
usual string of fictions and suggestions of the false a
suppressions of the true which constitute the weapo
of the antivaccination army, but very soon they w
find that the reply which has served them in one ca
will serve them in another, and the time required
the work will quickly diminish as they get acquaint
with the regular stock of tricks and equivocations whi
they will require to meet.

SIR THOMAS BROWNE'S SKULL.

Reference has several times been made in the Briti
Medical Journal to the fact that the skull of
Thomas Browne, which was "knav'd" out of his gra
many years ago, is preserved in the museum of t
Norfolk and Norwich Hospital. It may be remember
that at the celebrations in honour of Browne's birth
was announced that Professor Osler had presented
crystal casket to serve as a shrine for the precio
relic. On that occasion, however, strong expression w
given by Bishop Mitchinson, Master of Pembroke C
lege, Oxford, to the feeling which was widely shared
admirers of the author of the *Religio Medici* that
proper resting place of the skull was the church
which his body was buried. Shortly afterwa
Mr. Edward Owen urged that the relic should
restored to the grave, its place in the museum bei
taken by a plaster cast. This suggestion w
strongly supported by ourselves, and in our iss
of January 20th we were enabled to state that th
was reason to hope that it might be acted on by
custodians of the relic. It is with great pleasu
therefore, that we learn that at the annual meeting
the Governors of the Norfolk and Norwich Hospit
held on April 14th, it was unanimously agreed that
skull should on certain conditions be returned to
tomb in St. Peter Mancroft from which it was tak
Those conditions are that the authorities of the chu
shall open the vault and coffin of Sir Thomas Brow
in the presence of representatives of the hospital,
order to prove whether or not the skull has be
removed; that the skull shall be reverently reinter
in the Browne vault, with as little delay as possi
and that in the meantime it shall not be exposed in a
way to the public. Finally, it is stipulated that
hospital authorities shall not be called upon to bear
expenses of the reinterment.

Liverpool.

SLEEPING SICKNESS.

April 10th, under the auspices of the African Trade ction of the Chamber of Commerce, Dr. J. L. Todd dressed a meeting in the board room of the Chamber on subject of "The Danger of the Spread of Sleeping Sick- ss throughout Africa and the Necessary Measures for its evention."

ir A. L. JONES, the Chairman of the meeting, in introcing Dr. Todd, said that he had just returned to this ıntry after a residence of three years in the Congo Terriy. Unfortunately Dr. E. Dutton had died on the ssion. No greater work had been done for West Africa d for Africa generally than by the study of tropical dicine, and those travellers who visited the West Coast ted that health there was 50 per cent. better than it was ore.

Dr. TODD, who illustrated his remarks on the prevalence leeping sickness in Africa by maps, said that the distrition was probably more universal than was indicated, ce the disease was often present and not recognized. Its ne was misleading, for sleep occurred only in the minal stage of the disease and in a small number of es. The disease was commonly supposed not to exist Freetown, but Captain Grant, R.A.M.C., by employing a fected means of diagnosis, had shown that it occurred re more frequently than had been thought, and he had l nearly twenty cases under his care during the past few nths. Epidemics of sleeping sickness had occurred in neighbourhood of Sierra Leone, and they must, refore, consider the possibility of its making appearance in that colony. It was practically impos- le to collect trustworthy statistics of sickness and th among the shifting African populations, but it ıld not be far from the truth to say that from 400,000 600,000 natives had died from the cause during the t ten years. The fact that the disease was so wide- ead was sufficiently disconcerting. What was more ming was the rapidity with which it was spreading. Congo Free State was a large dominion—nearly one- d the area of the United States. The maps showed the roximate distribution of sleeping sickness in 1884, 7, and 1905. In the first year, before white men had red the interior, it was practically confined to the er Congo and to the main river. In 1885 steamers e placed on the river, and long-distance travel along waterways became rapid and easy. Large numbers of ves coming from the Lower Congo district were en- d as porters or soldiers, and were taken up the river hite men to aid them in opening up the country and heir operations against the Arabs. In the opening-up he country sleeping sickness took a great extension, in 1905, not only had it spread generally along main river, but an entirely new centre of in- ion had been created in the heart of Africa. as along the much-used routes that the disease had ad and was spreading. The maps showed the posts inistered by white men in which the first recognized s had occurred amongst individuals imported into the rict by white men. The history of the spread of the ase in the Congo indicated that each of these posts ht become in its turn a centre of infection for the ounding district. The disease was spreading rapidly Africa. How far might it be expected to go? The icular variety of tsetse fly which conveyed the infec- was found in a region extending from 28° S. to 15° N. le districts had been made desolate through the se, and the weight of opinion at present was that no on once infected ever recovered. Yet nothing was g done by the Colonial Government to protect the es in British Central Africa. It was easy to recognize fected person, for as a rule an enlargement of the cal glands without obvious cause in Africans might aken as a sign of sleeping sickness. The way in h they had recommended that this fact should be in combating the disease in the Congo Free State briefly as follows: First, the establishment of medical s of inspection along the principal trade routes; and, ndly, the transportation of infected persons from fected to infected districts. Every employer of r would be expected to examine his staff to discover the existence of enlarged glands, and to place suspected cases under medical surveillance. No great difficulty was to be anticipated in carrying out such a scheme, and the natives were not unfamiliar with the idea of quarantine, since in many places in the Congo the natives of their own accord isolated their sick in huts far away from the main village.

The following resolution was unanimously adopted:

> That the attention of the Secretary of State for the Colonies be directed to the alarming spread of sleeping sickness in British and foreign areas in Africa, and to the desire of the African Trade Section of the Liverpool Chamber of Commerce that steps should at once be taken, in conjunction with the other African Powers, to investigate and as far as possible arrest the progress of the disease.

ST. PAUL'S EYE AND EAR INFIRMARY.

At a recent Committee meeting of this institution, Mr. Crosbie Oates, for nearly twenty years Treasurer to the hospital, was presented by the Chairman with his portrait in oils on behalf of the Committee.

ISOLATION OF CONSUMPTIVE PATIENTS AT ST. HELEN'S.

The recommendation of the Health Committee that consumptive cases should be treated in the wards of the Corporation Fever Hospital came up for consideration at the April meeting of the Town Council of St. Helen's. Alderman Gamble said he thought that infectious diseases hospitals were not the proper places for the reception of consumptive patients, and that the position of the St. Helen's hospital was very unsuitable. Mr. Brown, in proposing an amendment, said that the guardians had spent nearly £50,000 in erecting up-to-date hospitals, apart from the workhouse buildings, and had wards and a staff specially adapted for the treatment of consumption. The fever hospital lay in a hollow, and there was scarcely a breath of air to be got there. He proposed that the resolution of the Committee be deleted. This was seconded. In support of the resolution it was pointed out that there was a rooted antipathy to the workhouse in the minds of the people, and that the great majority of working men could not be induced to go there. If the term workhouse could be divorced from the workhouse hospital it would be good, but that it was impossible to divorce the term from the sanatorium at Whiston. A great deal could be done in the reduction of phthisis if the housing of the people of the town were improved. Dr. Bates said that a great many people did not seem to grasp the point at issue. The Health Committee did not expect to cure phthisis at the Fever Hospital. Their object as a public body was to prevent the spread of infection. If the proposal of the Health Committee was rejected, he feared they would be compelled sooner or later to undertake some very elaborate scheme. The housing question did lie at the bottom of the whole matter, but something could be done by removing cases from crowded houses. Brighton spent only about £400 last year in the treatment of consumptives by the methods now proposed for St. Helen's. The recommendations of the Health Committee were carried.

Birmingham.

HOSPITAL SATURDAY FUND.

THE Lord Mayor of Birmingham presided over the annual meeting of the Hospital Saturday Fund, when it was reported that last year had been most successful. In 1902 £18,146 was collected, in 1903 £18,612, in 1904 £18,643, and in 1905 £18,732. To the medical charities £10,000 had been contributed, and £6,800 had been given to the convalescent homes, and £550 to special surgical and other work; 1,056 males and 1,150 females had been sent to convalescent homes. The number of industrial establishments which contributed was 2,031, and Birmingham, leaving London out of the question, was far ahead of any other town in this respect. The expense of the collection in Birmingham was 5¼ per cent.

BIRMINGHAM MEDICAL INSTITUTE.

The annual report of the Birmingham Medical Institute states that there are 210 members, of whom 174 are ordinary, and 36 life members. The amount of subscriptions received in 1904 was £220, while in 1905 it fell to

£214 6s. The replacing of the volumes destroyed and damaged by the fire in 1904 has gone on steadily, and the Committee has also revised the list of volumes on the reference shelves in the reading room, and replaced many of them by others of more recent date. The library now consists of 13,937 volumes, including 345 volumes of pamphlets. During the past year 220 volumes have been added, and of these 99 were gifts; 78 periodicals are supplied to the reading room, and 36 are regularly bound and added to the library. During last year the expenditure was £549 0s. 1d., and the income £572 13s. 3d, The accumulated funds of the Institute amount to £14,044.

Public Health Lectures.

Dr. Robertson, the Medical Officer of Health for the City of Birmingham, in the last of a series of lectures delivered at the University, urged that statistics of sickness, as well as of deaths, should be prepared for public purposes. About 3,000 children under 1 year of age died annually in Birmingham. Nearly all these deaths occurred in the poorest and smallest houses. These deaths and the poverty of the parents were connected, improper feeding being a chief cause of this great mortality. Babies fed naturally died at the rate of about 7 per 1,000, those partly by the bottle and partly by nature 26 per 1,000, and those entirely bottle-fed 252 per 1,000. Too many parents fed their children by a traditional method; that is, by methods handed down in their families, originating in nearly all cases under country conditions. The health visitors were often fighting to cope with such conditions.

St. John Ambulance Association.

The Lord Mayor of Birmingham presided at the annual meeting of the St. John Ambulance Association. The report showed that 9,000 men and women have received first aid or nursing certificates. During the past year 31 classes have been held and 497 certificates have been issued. The Birmingham Corps consists of 310 officers and men. There have been 10 inspections during the year, which have all proved satisfactory. First aid has been rendered to 2,340 cases in the year. Owing to the continual increase in numbers and to the good work done it is necessary to have permanent head quarters, and an appeal is to be made to the public for special donations to meet this need. H.S.H. Prince Alexander of Teck, C.V.O., has graciously consented to become President of the Birmingham Centre.

Ireland.

Tuberculosis and its Prevention.

The Dublin branch of the Association for the Prevention of Tuberculosis held its annual meeting in the Mansion House on April 10th, Mr. W. Field, M.P., in the chair.

The report stated that the mortality from the disease in 1904 was 2.9 per 1,000 of the population, representing the deaths of 12,694 persons during the year. In the county boroughs of Dublin and Belfast the rates were 4.7 and 4.1 respectively per 1,000, and the deaths in all Ireland from tuberculosis in that year amounted to 16 per cent. of the total deaths from all causes. On the relations between pauperism and tuberculosis the report pointed out that in Great Britain, where institutional had replaced domestic relief of destitution, there had been a reduction of the death-rate from phthisis, roughly proportional to the change. In Ireland, on the contrary, the ratio of institutional pauperism to total pauperism had decreased, and this had been accompanied by some increase of the phthisis death-rate. If, then, the death-rate was to be reduced, institutional segregation of consumption must be encouraged, and should be rendered as attractive as possible to the sufferers, and the stigma of pauperism should not be suffered to rest on them. Outdoor relief in the case of consumption should be regarded as an evil policy. Spitting in tramcars and in public-houses was a well recognized source of infection. The constant passing in and out of customers provided the necessary conditions for pulverizing the sputum and causing infection particles to be suspended in the air. Publicans' assistants showed a high mortality-rate from tuberculous affections, especially pulmonary consumption. Licensed traders, therefore, would do well in the public interest if they put up notices asking their customers either not to spit, or if they must do so, to avail the selves of the accommodation provided which should ample and conveniently placed.

Sir Thornley Stoker, in moving the adoption of report, said it was a dreadful fact that 2.9 persons out every 1,000 died from tuberculous disease. He poin out that more died of tuberculous disease than of old a the disease was due to poverty, dirt, and ignorance or w of practice of proper decent human sanitation; the dea rate from it in Leinster was higher than in any ot province; Belfast ran Dublin very closely in the race death; four-fifths of the deaths from the disease were to phthisis of the lungs; the segregation of pers infected was of the utmost importance; finally, instead that Association having only 100 members it should h 1,000. Sir Thornley Stoker referred in eulogistic terms the work of the Honorary Secretary, Dr. Boyd, and to immense value of the admirable reports and statist issued by the Registrar-General, Mr. Matheson.

The motion was seconded by Mr. Clarke, Chairman the Rathdown Union, and supported by Mr. Mathes Registrar-General.

The report was adopted.

Professor E. J. M'Weeney moved a resolution urgi with a view to the prevention of consumption and ot forms of tuberculosis:

> (1) Compulsory notification; (2) establishment of a pu bacteriological laboratory; (3) the provision of sanatoriu for the poor by the sanitary authorities; (4) the establi ment of dispensaries for consumptives in large centr and (5) the prevention of spitting in public buildings vehicles.

He said that this was an economic disease; it avenged economic conditions. Ireland was the only place in wh the death-rate from it was increasing. Compulsory n fication would be of no use unless the municipality prepared to go to the expense of providing a special sa tary service to interview the patients. Early diagn was most important, and in the case of the poor t could only be provided by a public bacteriological labo tory, whilst for effective isolation and curative treatm sanatoriums were essential. All large towns abroad a in England had started such laboratories. In Dublin attempt had failed, and he believed the cause of failure was that the public health authorities took steps to have this urgent matter put in its proper li before the Council, but allowed it to be thrown out though it were a mere "fad."

The resolution, which was seconded by Dr. Rowle and supported by Dr. A. Roche, was adopted.

Royal College of Surgeons.

The election of examiners will take place on May The by-laws have been altered so as to allow others t Fellows to hold these appointments. Teachers in rec nized medical schools will now be eligible. The ef will be to bring the provincial schools into closer connex with the College.

Consumption in Belfast.

The annual meeting of the Local Branch of the As ciation for the Prevention of Consumption was lately h in Belfast, and the statements made by various speak attracted considerable attention. A deputation from Branch waited upon the Belfast Trades Council April 5th to draw attention to the prevalence of disease and to seek aid in the effort to combat it. At monthly meeting of the City Council the Chairman of Health Committee is reported to have said that that b "would welcome any suggestion for lessening the de rate or improving the health of the city." This challe as far as consumption is concerned, has been practic taken up by Professor Byers, M.D., in a long commun tion to the *Northern Whig* of April 11th. Dr. Byers po to the decline in the death-rate from consumption England and Scotland and its rise in Ireland, and als the death-rate from this disease in most of the lar towns of the British Isles, and shows that, instead falling, as in Glasgow, from 2.68 in 1881-90 to 1.74 in 1 it was, in 1905, still 3.1 in Belfast, despite the addit of a large suburban area to the town. Dr. B then gives a long series of statistics and rates, wh simply put beyond doubt what nearly every one kne that the death-rate from this affection is nearly, in Belf uble that of most English towns, and that there is no oof that it has fallen in the last ten or twenty years, or ly to a very slight extent. He then shows that numers excellent suggestions are lying ready to hand, with all e imprimatur of high authority, and gives long quotans from the circular issued on March 10th this year by e Local Government Board of Scotland. It is underod that a conference of delegates from various public dies will be asked shortly to meet to consider the estion.

The Discharge of Sewage into Belfast Lough.

The Belfast Harbour Board complain of the annual ılay of some £2,400 in keeping the channel of the rbour open. Continual dredging of the sewage silt is essary, and the Harbour Trust say that if the City uncil cannot treat the sewage of the city in some way avoid this deposit a demand will be made for recovery expense, for which the City Council would be held ponsible by the Commissioners.

ster Hospital for Women and Children, Belfast.

The report presented to the annual meeting of this spital showed a deficiency of £265. The report of the dical staff stated that 216 cases were admitted to the ldren's wards, and 126 operations performed; 81 men were admitted to the gynaecological wards, and operations were performed. There was also a large -patient attendance in both these and in the maternity partment. Several speakers mentioned the necessity new hospital buildings.

The Belfast Ophthalmic Hospital.

he annual meeting of this institution was held on il 9th, when the usual reports were read. Dr. J. lton Browne, surgeon, and Dr. Cecil Shaw, assistant geon, presented the medical report, which showed a ge and steadily-increasing number of patients and rations. Professor Symmers was appointed honorary hologist.

Cork District Hospital.

he Cork Board of Guardians have decided, on the remendation of Dr. Biggar, Local Government Board pector, to increase the medical staff of the Cork Dist Hospital. It is proposed that the present resident sicians be appointed assistant visiting physicians at a ry of £100 a year each, and that two new resident lical officers be appointed at a salary of £100 a year ı. One of the latest qualifications for the latter is that in a year they shall make themselves acquainted ı the Irish language. As the hospital contains 1,200 s, it will be readily admitted there is plenty of scope he augmented medical staff.

Scotland.

The Sanitary Inspector as Family Doctor..

TH of the Tweed we are accustomed to look to the tary inspector as our authority on house drains, ctural defects, and nuisances. North of the Tweed, ever, he seems occasionally inclined, to judge by ecent illustration, to usurp the functions of the ily doctor. We have before us a voluminous docut issued by the sanitary inspector of the Burgh of narnock on the Feeding of Infants. For this gentle-, who is able to attach to his name the letters C.S.I. atever these may mean—anatomy, physiology, and tical medicine have no mysteries. Fortified, doubtby a perusal of a popular manual of domestic icine, he proceeds to instruct mothers in the managet of infants. He observes, very judiciously if somet superfluously, that "the parent ought to be the nt's guide, not the infant the guide to the parent." talks, with what is intended for pathos, of "little tling lives." He appeals to parents to "follow the rience of *different* authorities"—surely a hazardous se! and he announces the singular fact that at vemonths "the capacity of the stomach is doubled"! ells us that "two or three ounces of *water*" will fill stomach of an infant to overflowing, leaving us to ecture the filling capacity of milk or a mixture of and water. He advocates the use as an article of of some substance known to him as "gravey." He improves upon the advice of the family doctor, who advises for the use of infants a mixture of milk, water, and milk-sugar, by substituting "brown" sugar, but he fails to explain wherein lie the superior virtues of unrefined cane sugar. The old rule of *ne sutor ultra crepidam* still holds good, and the sanitary inspector of Kilmarnock would be well advised to restrict his energies to the duties of his office.

Jubilee Nurses' Institute, Galashiels.

The sixteenth annual report of the Galashiels branch of the Queen Victoria Jubilee Institute for Nurses gives a record of uninterrupted and extended work. Owing to an increase in the donations, the Committee has been able to retain the services of a second nurse, and thereby the work has been benefited greatly. During the year 295 cases were nursed, and of these 180 recovered, 19 were transferred to hospital, 54 died, 4 were removed from other causes, and 38 were still on the books on March 31st.

The Cottage Hospital, Hawick.

In the report submitted at the twenty-second annual meeting of subscribers to the Hawick Cottage Hospital it is stated that the past year constituted a record as regards the receipt of special donations and legacies. Owing to this satisfactory condition of affairs the managers have been enabled not only to erect a children's ward, but also to enlarge the operating room, provide another bedroom, and effect various other improvements; 127 patients were admitted during the year, 11 having been in the hospital at the close of the previous year. Of the number 92 were cured, 18 improved, 6 were *in statu quo*, 6 died, and there remained 15 in the institution on December 31st. In the dispensary 305 prescriptions were made up for 90 patients.

Post-graduate Lectures in Glasgow.

The summer term of post-graduate classes at the Glasgow Royal Infirmary will commence on April 30th, and will include demonstrations on neuro-pathology, gynaecology, diseases of the throat and nose, clinical medicine, clinical surgery, bacteriology, and operative surgery. Further particulars will be found in the advertisement pages.

A Consumption Sanatorium for Ross-shire.

Seaforth, the chief of the Mackenzies, and Mrs. Stewart Mackenzie of Brahan Castle, the ancient seat of the earls of Seaforth, have intimated their intention of building, equipping, maintaining, and eventually endowing a consumption sanatorium in Ross-shire. The object of the sanatorium will be to submit early cases of pulmonary tuberculosis to treatment, and also to educate the patients in the system of open-air treatment, so that on leaving they may introduce the principles to their own homes, which will become centres of instruction to others. The sanatorium will be open to the inhabitants of the counties of Ross and Cromarty, and the treatment will be free. The site of the sanatorium will be on the Brahan estate, and building operations will be begun at once. The sanatorium is being modelled on that erected by the Brompton Hospital for Consumption at Frimley, in Surrey.

THE PLAGUE.

Prevalence of the Disease.

India.

During the weeks ended ended March 10th and 17th the seizures from plague in India numbered 10,665 and 13,325, and the deaths from the disease were 9,058 and 10,722 respectively. The principal mortality figures were: Bombay Presidency, 1,362 and 1,498; Bengal, 2,623 and 4,278; United Provinces, 1,897 and 3,365; Central Provinces, 867 and 879; North-West Frontier Province, 35 and 40; Hyderabad, 112 and 78; Mysore, 82 and 89; Madras Districts, 30 and 42; Burma, 502 and 402.

During the months of January and February the plague mortality in India were as follows: Bombay Presidency, 2,999 and 4,500; Bengal, 4,892 and 9,155; United Provinces (Agra and Oudh), 5,108 and 7,236; Punjab, 2,300 and 3,346; Kashmir, 107 and 183; Rajputana, 34 and 45; Central Provinces, 1,723 and 3,211; Central India, 112 and 120; Hyderabad State, 185 and 361; Mysore State, 467 and 339; Burmah, 554 and 816. No plague reported elsewhere.

SOUTH AFRICA.

No plague reported in South Africa during weeks ended March 3rd and 10th. The last plague infection in the Colony was discovered at Port Elizabeth in man on November 18th, 1905, and in rodents on January 22nd, 1906.

The Medical Officer of Health for the Cape Colony (A. John Gregory), in his report dated March 10th, 1906, states that, "in the event of no further infection occurring, the issue of these (plague) reports will be hereafter discontinued."

MAURITIUS.

During the weeks ended March 22nd and 29th the fresh cases of plague numbered 2 and 0. No deaths reported. From February 11th to March 24th no cases of plague were reported in Mauritius.

HONG KONG.

During the week ended March 31st and April 7th the fresh cases of plague numbered 27 and 24, and the deaths from the disease 25 and 22 respectively.

CONTRACT MEDICAL PRACTICE.

A RAILWAY PROVIDENT SOCIETY.

DR. FREDK. J. BURMAN, a medical officer to the Great Central Railway Company (Wath-on-Dearne), writes: On page 870 of the BRITISH MEDICAL JOURNAL of April 14th I notice some remarks under the heading of Contract Medical Practice which require some qualification. In stating the remuneration which medical officers to the Great Central Railway Co. receive, the impression is given that we are required to attend the members of employés' families for 4s. per annum. This is quite wrong. No mention is made of the free pass granted by the company to their medical officers, enabling them to travel within a radius of about twelve miles on goods and mineral trains as well as passenger trains. This in my case, and no doubt in that of many others, means a considerable saving to one's pocket, to say nothing of the great convenience of it in a country practice, and is a practice which might with great advantage be followed by other companies. The company are also very kind and liberal in allowing special free passes to medical officers and their wives occasionally. I think in all fairness to the company and their medical officers these facts should be stated. I think if the thing be fairly considered it will be found that the lot of a Great Central Railway medical officer is, after all, not an unhappy one. Rule 18 is very decidedly objectionable and derogatory to the medical profession, and ought certainly to be repealed; still, during the thirty-eight years that my father and I have acted as medical officers we have never known it to be put in force.

DR. W. WHITE (Hadfield) also writes: As regards the two classes of members, only those who pay 8s. per annum are entitled to medical attendance for their wives and families; the 4s. members for "themselves only" (see note, p. 9 of Rule Book) are a very small class, being mostly lads who receive less than 14s. a week. Again, the list of extras is a fairly liberal one, and there are many special cases not mentioned in the list for which extra fees may be obtained. But one of the chief advantages which the medical officer enjoys is the travelling facilities granted by the company—not as a right, certainly; but never, I think, refused. A yearly free pass to one's nearest large town, and a special free pass for one's self, wife, and perhaps a child or two, to any part of the company's system are privileges granted most liberally and freely, and ought not to be left out of consideration in appraising the value of the appointment. I have always understood that the Great Central is the most liberal of all the railway companies in this particular respect. The "practical bonesetter" clause of Rule 18 is a recent innovation. It is offensive and ought to be expunged until we get "bonesetters," like the midwives, registered. I do not wish to pose as an apologist for contract work. In fact, I am strongly opposed to it, and resigned my Poor-law appointment some years ago on account of the degrading rate of pay. But railway work is, I maintain, very much above the average of such practice.

*** The statement published last week as to attendance on employés' families was founded upon the wording of Rule 12: "A qualified Medical Officer shall be appointed by election by the members in each district . . . to render sufficient medical aid to any of the members (as well as their wives, and those of their children who are under 14 years of age) suffering from illness or disability, and who are receiving wages or are resident for the time being in such district. . . . These fees shall meet the expense of attendance, medicine, bottles, and appliances," with certain exceptions. The footnote to which Dr. White refers had escaped our attention.

THE following are the officers of the Newcastle-upon-Tyne Clinical Society for the session 1906-7:—*President:* Mr. W. H. Vickery. *Vice-President:* Mr. T. G. Ouston. *Treasurer:* Mr. G. G. Turner. *Secretary:* Mr. J. W. Leech. *Committee:* Messrs. G. Foggin, J. Clay, W. Martin, N. M. Cay, J. McCracken, T. H. Livingstone, R. A. Bolam, T. Beattie, W. Hardcastle, D. W. Patterson, H. B. Angus, and R. M. Hindmarch.

CORRESPONDENCE.

THE SELECTION OF CANDIDATES FOR TH GENERAL MEDICAL COUNCIL ELECTION.

SIR,—Now that the list of nominations for the electi has closed it is possible to draw certain deductior included we find seven general practitioners, five co sultants or specialists, and two candidates difficult place.

The main feature is the advent of the general pr titioner as a fighting force, for the first time in the histo of the profession, in some proportion to his overwhelmi voting power.

Invariably, hitherto, with a few sporadic exceptions, has been a *quantité négligée* in any matter savouring medical politics; his chronic condition of modest reti ment has deservedly become a byword, if not a reproac and, now that he seems to be waking to the fact that t matter lies entirely in his own hands, it is hoped that will rise to the occasion, on this his first great opp tunity, and insist that the direct representatives shall chosen from his ranks, remembering that the speciali and consultants are already adequately represented those nominated by the universities, schools, and c porations; that the general practitioners form ni tenths of the medical profession; that up to the prese they have been almost entirely ignored by all medi legislation; and that thereby their means of liveliho have been decreased by something like one-fourth duri the past twenty years.—I am, etc.

April 11th. SPERANS.

ACUTE PERITONITIS DUE TO DUODENAL ULCE

SIR,—The interesting lecture by Dr. Byrom Bramw in the BRITISH MEDICAL JOURNAL for April 7th, page 7 offers many tempting opportunities for discussion. Wi your permission, I propose briefly to refer to his remar upon the subject of duodenal ulcer.

I would, in the first instance, dispute the nomenclatu adopted by Dr. Bramwell. He speaks of "simple or p forating" ulcer of the stomach and duodenum. T epithets "simple" and "perforating" are not mutua interchangeable: a simple ulcer does not often perfora and a perforating ulcer is not necessarily simple. Bramwell's use of these adjectives is, I think, not or incorrect, it is also misleading. For example, of Case I says that *post mortem* "it was found that the intestine w full of blood, and that there was a simple (perforatin ulcer of the duodenum." This patient died, as is p viously asserted, from haemorrhage. Was there a p foration of the ulcer also?

The symptoms of duodenal ulcer are now well know and an assured diagnosis can be made in the majority cases. Since I described my first series of cases[1] it become an increasingly easy matter for me to recogn the condition and to confirm the diagnosis at the time operation. My second series[2] numbered 52 operatio and up to the end of 1905 I had operated upon 72 cas In almost every one of these later cases a diagnosis, eit certain or tentative, was made from the symptom-compl I have described in the papers mentioned. Recognition the cases by clinical investigation is, we may theref take it, now easy and almost certain. Dr. Bramwell c firms the opinion I have long held that duodenal ulce tion is a much more serious matter than is gast ulceration—more serious both from the risks of perforati and of haemorrhage. What I wish now to suggest— rather, to repeat and to emphasize—is the necessity surgical treatment in all cases of duodenal ulcer as so as the diagnosis is established.

It is true that with medical treatment a tempor abeyance of the symptoms may be observed, bleeding m cease and pain disappear. But we should, I think, he tate to say that in such a case there has been "unint rupted recovery," when the ulcer still remains, and, actually happened in the case of which this was said, competent to cause death from haemorrhage. It is t interval which follows upon the attack of haemorrha which should, if possible, be chosen for the performan of the operation, but operation while haemorrhage going on will sometimes be necessary.

---

[1] *Lancet*, December 14th, 1901, p. 1656.

[2] Ibid., February 11th, 1905, p. 340.

The recurrence of symptoms after the so-called recovery" must be treated very seriously. In such case I think operation should not be delayed, for the isasters which Dr. Bramwell's cases illustrate may llow fast upon delay.

When the surgeon can show, as he now does show, good sults and a very small mortality from the surgical treatent of duodenal ulceration, there should be no hesitation choosing operative measures as safer than medical eatment. It is not fair to Dr. Bramwell to assume that is recent experience is at all usual, but assuming that it most exceptional, three deaths in four cases within period of two months is a tragic record; and in each one these cases there was a long period during which aracteristic symptoms were present, a period during hich surgical treatment might have been adopted with almost certain prospect of success.

A further point upon which I wish especially to dwell this—that the performance of gastro-enterostomy in ses of duodenal ulcer is not in itself always sufficient to re the condition. At least one death from haemorrhage om a duodenal ulcer after gastro-enterostomy has been corded. Some treatment directed to the ulcer itself is sirable. Excision of the ulcer is often difficult and is metimes impossible. There may be more ulcers than e, a "kissing" ulcer being present on the posterior wall actly opposite to an ulcer on the anterior wall. Resecn of the gut is too severe a measure to be applicable in ything but a very small number of cases. What therere is to be done? It is my custom invariably to infold duodenal ulcer by suture in exactly the same manner I should adopt if the ulcer had perforated. *Postrtem* evidence shows that when an ulcer is infolded no ce of the ulcer can be found after three or four days. e result is apparently the same as if the ulcer had been cised. [I am obliged to Dr. Mitchell of Belfast for first suring me of this fact, which I have verified.] If the er be indurated, or on the posterior wall, and its agination impossible, the pylorus should be closed by ture. In one or other of these ways the duodenum st be closed off absolutely so that no particle of the mach contents can pass that way. The infolding of the er should be free, at least a double line of sutures ng taken. The vessels which supply the ulcer are in s way secured so that haemorrhage from them is vented.

cannot resist saying in comment upon Dr. Bramwell's t sentence that I, with all those who read and profit atly from his writings, very sincerely hope that he will er suffer from duodenal ulcer, but if he should unpily be so afflicted, may I express the fervent hope t a diagnosis will be made early and recourse had to ration not "at the earliest possible moment" after ture when peritonitis has developed, but long before h a catastrophe has time to overwhelm him? May I, h diffidence, suggest that when his symptoms have sed him to fear that a duodenal ulcer is present, he uld consult a surgeon? He would then be told that was suffering from duodenal ulcer; that this is, as his experience has warned him, a very serious affection, prone to lead to sudden and appalling catastrophes; t, if such catastrophes do occur, his hold on life will be le; that if surgical treatment, which is the only rational tment, is adopted in this early stage his recovery is ost certain; that the risks of operation, assessing them heir highest, are far less than the risks (or should one the certainties?) of delay, and that after a successful ration he doubtless will be restored to perfect health, out fear of recurrence or of sudden disaster. This is the ice Dr. Bramwell would receive, and being a prudent , desirous of living, and of continuing an honourable most distinguished professional career, he would btless act upon it. He would not wait for rupture, for peritonitis! Why should he?—I am, etc.,

eds, April 8th. B. G. A. Moynihan.

E ALLEGED EPIDEMICITY OF APPENDICITIS.

R,—Perhaps you will allow me space to make a few ments on the views of Dr. Cheinisse, referred to in leading article on the above subject in the British ical Journal of April 7th, p. 815. Dr. Cheinisse's oning is based upon an endeavour to prove that there been no increase in the frequency of appendicitis in recent years, this conclusion being arrived at largely from a study of statistics compiled by Stricker for the German army for the years 1873 to 1901. In your leading article you point out that an examination of the records of one of the London hospitals, taken at random, shows a decided increase in the number of cases labelled appendicitis in the 15 years ending 1904. I should like to supplement these figures by others obtained some time ago.

I investigated the figures of admission for appendicitis to two London hospitals (St. Bartholomew's and St. Thomas's) and also several provincial hospitals (Edinburgh, Liverpool, Manchester) for the past thirty years. In collecting these figures from the Registrar's returns special allowance was made for the different nomenclature of disease in former years. Thus, in the earlier period all admissions under such headings as typhlitis, perityphlitis, abdominal abscess, abdominal pain, and acute peritonitis are included in the appendicitis series. The records of all these hospitals agree in showing a striking increase in the frequency of appendicitis in recent years. The figures of admission to the two London hospitals for the quinquennial period 1876-80 and 1896-1900 may be cited, as this period corresponds closely to that involved in Stricker's statistics. I found that the total number of admissions of appendicitis in the five years ending 1880 was 138, and in the five years ending 1900 the figures had risen to 966, an increase of 600 per cent. These figures are very striking. It appears impossible to avoid the conclusion that there has been a remarkable increase in the incidence of this disease in this country in recent years. Further, clinical experience at the present time suggests that this increase is progressive, and that a prominent feature in this evolution is the earlier age-incidence of the disease, an increasing number of young children being attacked.

The view has frequently been expressed that this increasing incidence of the disease is etiologically associated with the alterations in the dietetic habits of the country that have taken place in the corresponding period. The most notable change in diet is the increase in the consumption of animal proteid food. I recently pointed out that the amount of imported meat had increased from 3 lb. per head per annum in 1850 to 50 lb. per head per annum in 1900. I venture to think that we have here the most important factor in the development of the disease. It is possible that the general and local nutrition of the tissues is modified by the continued indulgence in excess of animal proteid, and that one of the modifications is the establishment of a local condition in the appendix and adjacent parts favourable to the pathogenic action of the normal intestinal bacteria. It seems to me important that the statistics given by Stricker should be examined in the light of this hypothesis, and for this we require a knowledge of the dietary in use in the different periods. Assuming the correctness of the statistics, it is conceivable that a deeper insight into their significance would show that we have in them an important confirmation of the accuracy of this hypothesis.

I may add that in the course of an extensive experimental investigation on diet carried out on lower animals I have found that the administration of an excessive meat diet is frequently followed by structural changes in the intestinal tract, which are invariably most pronounced in the region of the caecum. This investigation has also shown that the same structural changes are frequently present in the offspring of animals fed on excessive meat diet; and further—and this is an important point—that these changes may be present in very young animals which have not themselves partaken of a meat régime.—I am, etc.

Edinburgh, April 7th. Chalmers Watson.

THE IMPORTANCE OF THE COLON.

Sir,—I have read with much interest, and I hope not without profit, Mr. Monier Williams's admirable account of his case of ulcerative colitis treated by right-sided colotomy. Although I am naturally diffident in offering any opinion after Mr. Monier Williams has stated that no pathologist has as yet suggested any cause for the occurrence of the haemorrhages, I feel that in putting forward the following tentative views I may at any rate give an opportunity to others of correcting any errors they may contain.

In the first place, I presume we must dismiss the view that the haemorrhages were due to deficient coagulability of the blood. As a rule this condition appears to be expressed by urticaria and perhaps albuminuria, which may be corrected by the administration of calcium salts. Moreover, Dr. Eastes's reports showed that the blood was normal, though the coagulability is not explicitly mentioned. Setting this aside, the facts seem to be that after three months, during which 2 pints of water containing 2 drachms of sodium chloride were injected daily into the colon, of which ½ pint of water to at least ½ drachm of salt were retained, purpura haemorrhagica supervened. After three weeks more of plain water injections there was a second attack, and after another three weeks of subcutaneous injections of ½ pint of normal salt solution there was a slight recurrence.

From this I think we may argue that: (1) The more important factor in the production of the symptoms was the introduction of ½ pint of fluid daily into the colon; (2) the less important factor was the introduction into the system of an extra ½ drachm of common salt. Now the attack of purpura haemorrhagica reminds one of one of the symptoms of scorbutus, a disease which in the adult form is held by many to be due to the ingestion of certain toxic substances from the intestine. Might it not be that the injections facilitated the daily absorption of toxic substances (perhaps bacterial) from the diseased colon, and that after sufficient time had elapsed their accumulation in the system resulted in the widespread haemorrhages? Now, against this theory comes in the fact that the subcutaneous injections also produced some haemorrhage, though of a milder sort. Here I think the second factor comes in.

It was suggested many years ago by Bunge that sodium chloride in excess might act deleteriously on the kidneys—the organs by which nearly all the sodium chloride is excreted. Recently Castaigne and Rathery and Achard and Paisseau have, among others, definitely shown that salt solutions of a higher or lower density than normal do set up actual changes in the renal epithelium. It is, therefore, not impossible that the passage of an extra amount of salt through the kidneys for three months, and then again, after an interval, for another three weeks, may have damaged them and led to an increased difficulty in eliminating toxic material. These two factors combined produced, then, on this hypothesis, the first attack of haemorrhage; the second attack was due to the first factor alone; while the third was due to a temporary disability of the kidney to excrete toxins normally, I may say, absorbed without the extra facilities afforded by the colonic injections. This theory would explain why similar cases have not been reported after removal of large portions of the colon, and would point to a restriction of chlorides and other bodies likely to damage the renal epithelium in cases of "short-circuiting" the large intestine. I am not aware of any cases of the last-mentioned operation in which continuous injections of salt solution have been given. Trusting this theory will at any rate produce some criticism from those better qualified than myself to comment on this case, I am, etc.,

J. M. FORTESCUE-BRICKDALE, M.A., M.D.Oxon.
Clifton, Bristol, April 10th.

FISH-EATING AND LEPROSY IN THE ORKNEYS.

SIR,—Although I claim to be one of your most constant readers, a letter from Dr. Skae respecting fish-eating in Orkney, which you published in the BRITISH MEDICAL JOURNAL of November 18th, 1903, p. 1437, escaped my notice. It was brought to my attention for the first time last week by an article in the *Tablet*, which quoted it. I much regret that I have not more promptly replied to it, and although now somewhat late in the day, must ask you to allow me to do so.

The history of the prevalence, decline, and final extinction of leprosy in the Orkneys, Shetlands, Hebrides, and Faroes, constitutes one of the most important and instructive chapters in our knowledge of that interesting malady. It is the more worthy of our study because what has been consummated in them is now in progress in Norway, Iceland, and many other places. In almost all the very numerous islands comprised in the groups just named,
leprosy was formerly very prevalent, and in all it is no
extinct. This fact is in itself, I submit, conclusive
opposed to the suggestion that leprosy is contagio
If it were so, surely it would have maintained its
somewhere.

Dr. Skae, in the letter to which I now reply, inforn
us that the inhabitants of Orkney still eat a great de
of fish, and that many of them prefer it when it is b
little salted and in a sour state, approaching decompos
tion. Although he does not expressly say so, he seems
think that these facts are opposed to the belief that b
fish is the cause of the disease. It may be replied
once that the belief referred to does not teach that tl
eating of decomposing fish necessarily causes leprosy or
any way conduces to it. If such were the case, no No
wegian peasant, no Burman, no Indian coolie wou
escape. The creed is rather that those who habitually e
such fish run the risk of taking on some accidental occasi
fish in which the bacillus or its equivalent has be
developed. Probably such contamination is very infr
quent. It may be compared with the occurrence
ptomaine poisoning in connexion with meat pies. I
each instance the risk will be in ratio with the frequen
with which the article in question is consumed and tl
carelessness with which it is prepared.

Now, I venture with confidence to trace the extincti
of leprosy in these islands—as, indeed, everywhere else
to diminished consumption of the risky article, to tl
substitution of other kinds of food, and to greater care
preparation and cookery of that which is still used. C
all these islands agriculture has been more or le
developed, the potato has been introduced, and commer
has made the exportation of the fish caught alike eas
and profitable. Salt and cooking are the two gre
antagonists of leprosy. I believe, although I have not
hand any statistical data, that the supplies of salt to the
islands has much increased during the last two centurie
and that it is of better quality. Dr. Skae tells us that th
still salt inadequately, but on the Rev. Mr. Debes
contemporary authority we learn that in the leprosy da
they often did not salt at all. This excellent observe
who wrote of what he had himself seen when the disea
was still rife (1676), ascribed it chiefly to diet; his wor
are:

> I find the cause of leprosie to be in the air and the dyet. . .
> The meat of all, especially of the poorer sort, is half-rott
> flesh or fish, all their nourishment in summer being likewi
> fresh fish and sweet milk *without any salt.*

The potato was introduced early in 1700 and other ir
provements in agriculture were then in progress.

Barry, who wrote in 1805, tells us that fishing w
almost wholly neglected in the Orkneys at that date, a
probably the neglect had begun much earlier. The She
lands, as contrasted with the Orkneys, were always tl
homes of the fishing industry and also the chief haunts
leprosy. It was in them and in the Faroes that tl
disease was most prevalent and remained longest. A
though there was a public thanksgiving for the disappea
ance of the disease in the middle of the eighteenth centu
yet a few cases were then still present. The disappea
ance of the disease from the Faroes is explained
Dr. Hjort in the following terms:

> We learn from the Faroe Islands that the disease has the
> diminished and is now almost unknown since the great s
> fishings were relinquished and more attention has been paid
> agricultural pursuits.

As to the Orkneys and Shetlands, on the authority
the *Encyclopaedia Britannica*, I may state that:

> As the herring fishery has increased, the deep-sea ling a
> cod fishing, formerly the mainstay of the islands, has prop
> tionately diminished.

Herrings, which are largely eaten fresh, are easily salte
and as there is ready demand for them they are much le
risky than the larger kinds, of which the coarser parts a
usually converted into what, as "stock-fish," may be ke
indefinitely.

Dr. Skae admits that as a rule the fish eaten in Orkn
is boiled for twenty minutes—a measure quite adequate
the destruction of bacillary life. Of that which is eat
without boiling, all has been salted somewhat. In thankin
him for his interesting letter, I must admit that he h
shown that the backwardness of Orkney customs
regards the cure of fish still leaves certain classes of tl

opulation exposed to some little risk of leprosy. He has ot, however, done more than this, and, whilst suggesting ıat present customs are probably greatly in advance of hat they were two centuries ago, I may remind him that, a matter of fact, leprosy did linger long in these islands. was an Orcadian plague for two centuries after it had ractically disappeared from England.—I am, etc.,

ondon, W., April 11th. JONATHAN HUTCHINSON.

THYL CHLORIDE AS A GENERAL ANAESTHETIC.

Sir,—Dr. Kingsford in his letter in the British Medical urnal of April 14th, p. 893, conveys a wrong impression garding my views of ethyl chloride in dental work. I not believe in administering it to a patient when in e upright position, and I always give it with the patient ing on his back. That does not, in my opinion, lessen usefulness in dental practice, and risk is thereby re- ced to a minimum.—I am, etc.,

righton, April 14th. J. ALLAN.

Sir,—I am glad that my paper, published on March 17th, s aroused so much interest, and with your permission I ould like to say, in answer to Dr. Barton's question, that my figures of the number of administrations and alities in this district I did not include cases in which yl chloride was given before ether or chloroform; yl chloride was the only drug administered. I tried to int out the indications for and against the use for yl chloride, which in its place is a most valuable aesthetic. I also wished to call attention to the nparatively large and increasing number of deaths der its influence, for I have found that many medical n were quite unaware that any fatalities had been orded.

Mr. Bellamy Gardner rightly points out that ethyl oride after very transiently raising soon depresses the od pressure. He also emphasizes the need for every e during administration, and I heartily concur. With ard to the preparation of the patient for dental opera- ns, it is not advisable, I think, to subject him to serious paration for ethyl chloride if less severe measures fice before the inhalation of a milder and safer anaes- tic by which a very light and continuous anaesthesia, ing exactly as long as is needed, may be obtained. Of rse, if nitrous oxide be insufficient I quite agree with Allan as to the advantage of ethyl chloride, though I er from him as to his estimation of its after-effects.— m, etc.,

rmingham, April 9th. W. J. McCARDIE.

E EARLY DIAGNOSIS OF PULMONARY TUBERCULOSIS BY THE ROENTGEN RAYS.

ir,—Since my last letter on December 23rd, 1905, I e examined, in conjunction with Dr. Hugh Walsham, a e number of cases in which pulmonary tuberculosis suspected, or in which it was known to exist, and have e to the following conclusions:

That there is no doubt that there are cases in which nonary tuberculosis can be detected earlier by the ys than by the ordinary physical signs. In one case I nined in December, 1904, in which tuberculosis was suspected, there was very marked limitation of move- t of the diaphragm on the right side. This case was under observation and examined by several phy- ıns, but it was not until October, 1905, that definite sical signs could be detected at the right apex.

That in cases diagnosed simultaneously by x rays and sical signs the disease is, as a rule, shown to be more nsive on x-ray examination than the physical signs ld lead one to suppose.

I still maintain that Dr. Theodore Williams's class (3) small one; out of the number of cases examined onjunction with Dr. Walsham we found one only in h there were physical signs, and in which the x-ray nination was negative. This case, which was admitted spital, has since proved not to be one of tuberculosis, haemoptysis, etc., having all cleared up after an ation on the throat.

That the small vertical heart, upon which stress has laid by Professor Bouchard and Dr. Balthazard of , is a very marked feature in many cases.

hink there can be little doubt that all doubtful cases should now be submitted to a thorough x-ray examination, as, even if class (3) be a large one, the existence of class (1) is admitted by most, if not all, who have made a special study of this subject.—I am, etc.,

London, W., April 9th. G. HARRISON ORTON.

MIDWIFERY OF THE PRESENT DAY.

Sir,—If the method of midwifery described by Dr. Horrocks is "antediluvian," according to Dr. Mears (British Medical Journal, March 31st, 1906), his own method, termed "advanced," is surely pre-historic.

Had this correspondence served no other purpose than reveal to the profession the existence amongst them of even one so oblivious to the safety of his patients and the dictates of common sense as to finish off every labour case with forceps in from fifteen to forty minutes and remove by the hand every placenta not expelled by *vis a tergo* within five minutes it would have justly deserved a leading space in your columns.

One fancies a voice from the buried past echoing, "Antiseptics worse than useless." Has the glory of Lister departed? Have lying-in hospitals by antiseptics reduced the mortality from puerperal septicaemia to zero in vain?

"Always use thick rubber gloves when doing *post-mortem* examination." "Never touch a case of infectious or contagious disease if possible." These are the golden rules of the apostle of delivery in a hurry. Beneficent Nature has no place in the armamentarium of this feverish obstetrician.

On whom does he perform his *post-mortem* examination? Does it not sound a sarcasm for one in general practice rightly so fastidious as not to touch an infectious case if possible, but reckless enough to perform *post-mortem* examinations with or without thick gloves. One can hardly credit that even a layman at the opening of the twentieth century should be found to say that the status of micro-organisms is not yet proved. Sir, the British Medical Journal exists for the instruction of its readers as well as the advancement of their professional interests. I implore you, then, in the language of theology, to shed some light on the path of this our erring brother, and rescue him from the error of his ways.—I am, etc.,

March 31st. J. M. M.

Sir,—On Wednesday, April 4th, I was called to a woman in labour of fourth child. Pains slight, presentation occipito-posterior; called at 10 p.m. os size of a five shilling piece. I had read Dr. Geddes's article in the British Medical Journal, on page 549, and followed his advice, went home, continued not to interfere, and at 8.30 p.m. on April 9th gave choloroform and delivered, the patient having made no progress in the meantime. I have never had the good fortune to find such a presentation terminate itself during my absence.

Some days ago I was called to the first confinement of a young lady aged 23. I followed Dr. Horrocks's advice—left everything to Nature. I had the mortification to see the perineum tear badly, requiring four stitches, and causing me two journeys each day to draw off the urine. Had I given chloroform and used the short forceps, which is my usual custom, I would have saved all the bother, and the patient would have had a more pleasant recovery.

With regard to painless labour: I may say that my wife and self sat down to dinner at 7.30 one evening; before dinner was over my wife got up, went upstairs, and was delivered of her third baby on the floor of the bedroom. The only warning was the rupture of the membranes and feeling the child descend—not the slightest pain.—I am, etc.,

April 10th. COLLIERY SURGEON.

Sir,—As a country practitioner of some considerable experience, I must protest against Dr. Horrocks's views, more especially as I am one of those he stigmatizes as little short of criminal.

When I came into the country ten years ago, there were numerous so-called midwives; parturition was regarded as a natural process to be left severely alone. It surprised me to find a large number of cases in which women were suffering from septic troubles, and a large infant mortality.

Since I have been in practice it has been my view that all the troubles of midwifery arise from fatigue due to delayed birth, and the exhaustion of the uterine muscles. My practice is always to deliver with the forceps as soon as the head ceases to advance. I have had no septic conditions, no *post-partum* haemorrhage, and no stillbirths, whilst infant mortality is almost unknown.

One of the things which struck me when I first entered this practice was that a pot of lard or cold cream was always ready; this is a practice which I supposed was entirely given up. No one would now in this district dare to show me such a thing. I use soap and hot water to my hands with a stiff nail brush, and cover them with lather before making an examination; soap is absolutely aseptic, and is entirely washed away by the liquor amnii and uterine discharges. Grease remains, and gives a septic nidus.

I am sure that the idea "that Nature is the best physician" is absurd. Both wild and domestic animals frequently die as the result of parturition. I continually meet with women who tell me that in previous confinements they have been left three days in labour with a result not to be desired. Soon after I came here I was known as the doctor who is always washing his hands. I had some difficulty at first in getting patients to submit to a forceps delivery. Now all this is altered, and women are only too ready to ask for it. I use Tarnier axis traction forceps, and am convinced that it is as safe to use them as to put a silver spoon into the mouth. Of course it is necessary to have the proper skill and knowledge. The os must be fully dilated, the membranes ruptured, and the genital canal ready for the birth. It is asserted that the uterus may be pulled down. Of course it will be if the operation is prematurely performed. The pelvic brim and the pelvic outlet are the only parts which delay the passage of the head when the labour is sufficiently advanced for just and proper interference.

Rupture of the perineum is one of the rarest accidents, and need not be feared if the head is well pressed forward. I am not an advocate of what Dr. F. C. Mears calls antediluvian midwifery. I was taught it and practised it in my youth but shall certainly not return to it.—I am, etc.,

Crondall, Hants, April 12th. B. T. LOWNE, M.D., F.R.C.S.

FOLIE À DEUX ET FOLIE CIRCULAIRE.

SIR,—Although the atmosphere around Dr. Mercier's cases[1] was electrically alive with insane currents and eccentric discharges, there seemed lacking a distinct "electric potential" to a point of reference. In true *folie à deux* there is a transfer of insanity from one to another person, who first rejects then accepts, then fosters a common delusion. But, broadly, may not the term carry a state when a relative, already insane, suspects of and seriously charges another with insanity; or influences, convinces, and then mentally infects another by open or occult means? I report a suggestive case.

Mrs. Z., aged 48, a comely brunette, the mother of a goodly family, came under my note a few years ago. Her manner was gentle, quiet, and reserved, her activity normal. As a club member she played a part, and "over the teacups" was cheerful and herself, but I often noted a dazed sullen look, a dilated pupil, "an absence" and a glance of melancholy, but of her private life I knew nothing. For a time she disappeared. I then met her at a railway station wearing tinted glasses. Without ado she told me that "she was a great sufferer from floodings, that she was persecuted and cruelly treated by her husband, who from fear often hid himself, and that she wished me to call at once and see, and sign him up as a lunatic." She then invited me to go with her to London and consult with her specialist as to bodily trouble; I questioned her wishes, but in vain! I did not go to London, but I went to her home that evening. Delay occurred at a locked and chained door; a muffled noise of whispering and creeping ran through the hall, coupled with the rustle of drapery; converse was more audible, and now a man's figure emerged from a portico. Still all was mystery, till a message ran: "What does he want? Wait a minute!" Someone was under espionage! In the drawing-room I was met by a scared youth, who said, "If she comes in, take no notice!" An now Mr. Z. appeared, a well-disposed gentleman, sa "with the outward shadow of an inward grief," intelligent curious, but courteous. I told him the story, the mornin scene with his wife; apologized for the situation; an then, interpreting my impressions and my inference, told him that "I had no doubt of his wife's mental stat that she was *non compos mentis*." He said: "Would yo commit that to paper?" and I remarked, "Yes; to-day evidence is enough!" and he replied, "Why, you are th man we've been wanting for three months! My life ha been a misery through my wife's suspicions. She ofte stays out all night, walks and talks with strange me and, under an idea of great wealth, orders costly robes an furniture; she has invited a German band to serenade a and to stay to supper in my absence from home; at othe times she is silent and moody, but more herself." Th following day I examined Mrs. Z., who had mornin depression, dyspepsia, and insomnia. She confirme the points of the railway scene, her delusions as to he husband, as to her home, and as to her larger need Moreover, her thoughts were "combinations of disjointed things," for at one time her answers wer straight and coherent: then "forms impalpable and unperceived by others' sight familiar were to hers." Sh had groundless fears and flashes of light; the case resembled the *folie circulaire* of Ballarger, and not *folie à deu* proper, for phases of elation, depression, and sanity alte nated with delusions of persecution, in which the patie was convinced of her husband's insanity from his sile mood of distress and surveillance. Her mental energie ran riot before slackening at the meridian of life, and th agrees with the dictum of Spencer: "Undulations of vit force take years to complete themselves, and so we hea of moods which recur at intervals." Mrs. Z. was dul cared for.

HERBERT A. SMITH, M.D.Durh.

Bromley, Kent, April 7th.

THE SENSATION OF DEATH.

SIR,—After reading the experience of the Bishop London in your last issue, I thought, perhaps, those of humble general practitioner might be of some interest. recently underwent an operation which could hardly called "slight." By the way, may not the slightness the operation and the lightness of the anaesthesia help explain the behaviour of his lordship's "mind or spirit"

The operation I underwent necessitated my being und the influence of chloroform for fully an hour and a ha I lay down with my mind occupied with the idea getting under as quickly and quietly as possible breathing deeply, as experience both as house-surgeon an practitioner has taught me that faulty breathing lengthe the process, and, I think, helps to increase the exciteme I talked to the anaesthetist as long as I could, my la remark being, "Now I am going," after which I ceased be, so far as consciousness of any thought or feeling w concerned. I afterwards questioned the anaesthetist, wh told me that I said nothing after the last remark quote and that I went under very quickly; to me the ti seemed to be about two minutes.

My spirit or mind was certainly not "perfectly activ nor did I feel it being swept under the stars nor in a other direction. If anaesthesia resembles death, th death must be rather pleasant than otherwise, and by means "fearsome." If, on the other hand, the pain at t seat of operation be a foretaste of what comes after those who get swept in the wrong direction, they w certainly long for the world, the flesh—and chloroform.

Is it not the experience of many that "the dark vall of the shadow of death" is more or less of a bogey, if o can at all judge from watching the death of a fell creature? In my comparatively short experience of t years—at home and abroad, in hospital and in gene practice—I can only recall one instance (a tuberculo man who had been often in prison for various offences) which there was any fear, and then it was "the fear Hell, the hangman's whip." Even that fear yielded t few minutes' sympathetic reasoning, and he died in pea

From personal experience I should say anaesthesia more helps one to realize what death is than does ordina sleep.—I am, etc.,

April 10th. F.R.C.S.EDIN

---

[1] BRITISH MEDICAL JOURNAL, March 31st, 1906

RURAL INSANITATION.

SIR,—Referring to Mr. C. Cochrane's strictures on my etter, I thought it was obvious that I did not commend mere hovels," but that they did not prevent a hardy race f bone and muscle, as exemplified in the islands on the Vest Coast of Scotland.—I am, etc.,

April 6th. LIMITATION II.

THE POOR-LAW COMMISSION AND CONTRACT PRACTICE.

SIR,—My remarks on the above appear to have "touched p 'Anti-Club' on the raw," but whilst smarting therefrom e would have strengthened his case by dealing with the cts as I stated them, instead of which he has missed his oints and weakened his case for private work as against ntract by simply abusing my statements.

Such airy nonsense as "the stamp of insincerity," "enrely fictitious production," "knows nothing about neral practice," "perchance kept a sixpenny surgery mself," I read with an amused smile, as I assure "Antilub" I am not at all that style of man.

I observe "Anti-Club" uses the expression "I can quite nagine" more than once in his letter; it appears reasonole to suppose that a great deal more of what he wrote nanated from the too imaginative cells of "Anti-Club's" rebral cortex. Again, he was careless in his reading of y letter. I stated that I was an assistant at the time I as worried by the incessant calls of private practice; no ubt my principal did charge the half-crowns which Anti-Club" suggests, though whether he was ever paid y of them is another point, and strengthens my gument for contract work, where the money comes in nctually.

Also, "Anti-Club" says: "In my experience there are ry few patients who in a prolonged illness can pay for ch visit, or who, if they could, care to adopt such a stem." I would ask "Anti-Club," Does not a general actitioner when attending a private patient book each sit he makes, and charge for it when he renders his count, having counted up the total he has made? Of urse, credit is allowed; no one ever questioned that int.

As "Anti-Club's" "kindly interest" goes so far as to say at I was "never originally fitted for a doctor's life," rmit me, Sir, to inform him that I am fairly successful life, despite his dictum, and that I have little opinion his literary ability (judging from the way he handled points of my letter), and finally, that what I wrote was true, free from exaggeration, and capable of proof.—I , etc.,

pril 15th. FOR CONTRACT WORK.

THE FOOD FACTOR IN DISEASE.

SIR,—Will you permit me to make a few remarks anent review of my book *The Food Factor in Disease*, which peared in the BRITISH MEDICAL JOURNAL of April 7th? er dwelling upon the weak points in the argument, your iewer concludes:

> e cannot regard the theory of hyperpyraemia as possess- any sound basis, nor can the author expect it to be sidered seriously until he has given a clearer definition what he means by excess of fuel substances in the od, and has produced some direct evidence of their sence.

have myself pointed out the absence of direct chemical lence of the existence of hyperpyraemia. Such cannot produced until physiologists have supplied a full and urate account of the substances which constitute the ulating fuel of the organism, and of the changes, ntitative and qualitative, which these undergo under ying conditions. But in medicine, as in law, it is open us, in the absence of direct evidence, to consider the umstantial evidence. This occupies at least three ts of the whole work in question, but is practically ored in the review.

he position may be briefly put as follows: Hyperaemia, a hypothetical condition implying an accumuon of unoxidized or imperfectly oxidized carbonaceous erial in the blood, stands accused of being *a factor* in nerous morbid affections—it is not accused of being *cause* of any. On the one hand, there is no direct mical evidence of the existence of hyperpyraemia: on other, none of its non-existence. But there is a mass of indirect or circumstantial evidence, vouched for by independent, disinterested, and not rarely hostile, witnesses, the whole of which points in one direction, that is, to the existence of hyperpyraemia, and to its complicity in many diseases. Is it seriously contended that such evidence is inadmissible? If so, the majority of our present pathological conceptions do not rest upon "any sound basis."

I was far too conversant with the difficulties of the reviewer's work to look in the first place for a favourable reception of new and unorthodox views promulgated by an unknown writer. I therefore took the unusual course of putting my work into private circulation for some time before publication. As a result, I am in possession of a series of valuable written opinions. I will refer to one only. Professor Russell H. Chittenden with great kindness has allowed me to publish, separate from its context, the following sentence occurring in one of his letters to me:

> I have no doubt that the main part of your thesis relating to the blood state, or blood states, under the term of "hyperpyraemia" is correct.

With all due deference, therefore, I submit that the theory of hyperpyraemia, even as it at present stands, does merit the serious consideration of the medical profession. —I am, etc.,

Upper Norwood, S.E., April 10th. FRANCIS HARE.

PROPOSED GENERAL HOSPITAL AT PUTNEY.

SIR,—We regret it is necessary to trouble you any further with regard to Dr. Dickinson's letters on this subject; however, as far as we are concerned, this letter will be final.

If Dr. Dickinson said that it was only a question for Putney, Wandsworth, and Barnes, no one could have objected to his expressing his own opinion; when, however, he writes to you, and states that he also said that medical men had been *imported* from distant places to vote for the resolutions, we must again say we did not hear the observation, or any one else who was present whom we have been able to see.

His assertion is certainly equivalent to a charge that the meeting was packed with imported medical men prepared to vote for the resolutions before any debate had taken place.

We think this is, to say the least of it, a gross injustice to the Committee, who have ungrudgingly devoted time and labour in the interests of the profession, and is insulting to the intelligence of those present at the meeting.

Section 3 of the report did not fix as the whole of the area affected by the hospital any arbitrary radius of 2½ miles. It only stated certain districts lay within that radius, and would be affected.

It does not at all follow that because senior practitioners reside outside the radius of two and a half miles from a certain spot that they consequently have no patients living within that distance. Dr. Dickinson should know that in London a general practice of long standing extends far beyond that distance.

The three Divisions of the Association who authorized the Conjoint Committee to investigate and report had members living so far apart as Chelsea, Surbiton, and Tooting. Each one of these members was legally entitled to attend and discuss their Committee's report, and vote as they thought best.—We are, etc.,

HUGH R. KER,
Chairman, Wandsworth Division.
W. A. BONNEY, M.D.,
Chairman, Chelsea Division.
R. W. WILSON,
Chairman, Richmond Division.

London, S.W., April 14th.

UNDER the will of the late Mr. Frederick J. Horniman, which has now been proved, the following institutions each benefit to the extent of £1,000:—The London Hospital, the Sussex County Hospital, the Croydon General Hospital, St Mary's Hospital, Paddington; the Lower Sydenham Convalescent Home and Hospital, the Truro General Hospital, the South Devon and East Cornwall Hospital, and the Surgical Aid Society. Sums of £500 each are also left to the Royal Cornwall Infirmary, and the Cornwall Convalescent Home for Men at Perranporth.

MEDICO-LEGAL AND MEDICO-ETHICAL.

AN ACTION FOR FEES.

AN action for fees for medical attendance was tried in Wolverhampton County Court on April 9th, in which the defendant refused payment on the ground that part of the bill covered attendance on a child of his whose death he alleged was the result of negligence on the part of the plaintiff, such allegation not being made until the bill was sent in some four months after the child's death. The evidence as reported in the *Express and Star* showed that the child had scarlet fever in October, and when convalescent at the beginning of November was allowed to go out for half an hour on the tower of her father's hotel; it adjoined her bedroom and was considered a more suitable airing-place than elsewhere. A few days later she developed rheumatism and cardiac trouble, and died in about two months. Under cross-examination by the defendant, the plaintiff stated that possibly he had said he was sorry he let the child out so soon, but not that he was sorry he let it go on the tower. The complications did not arise from its being allowed out in the fresh air; that was desirable for it. A medical man called in consultation and the plaintiff's partner also gave evidence that they could see no negligence or lack of skill in the treatment of the patient; rheumatic and other complications were a recognized frequent sequence of scarlet fever. The case terminated in a judgement for the full amount claimed, the judge stating that he was satisfied that all reasonable skill and care had been exercised.

A CURE FOR FRECKLES.

A CORRESPONDENT sends us a copy of the *Birmingham Daily Mail* of April 5th, which contains an account of an inquest at the Stafford Infirmary on a girl who, after taking some pills as a cure for freckles, vomited blood, and subsequently died in the infirmary from haemorrhage, due, as proved by *post-mortem* examination, to an ulcer "near the stomach." The report of the inquest is followed by an account of an interview with a gentleman described as "the well-known skin specialist in Birmingham," who in the course of conversation expressed his opinion upon the medical evidence, and gave an assurance of the general safety of advertised pills, because if it were not so "their circulation would be very soon curtailed." He also imparted his views on the treatment of freckles, and recommended an ointment containing "citric acid." Our correspondent appears to be of opinion that the conduct of this specialist calls for comment, and we may repeat what we have said in this column over and over again—that medical men ought not to discuss questions of the treatment of disease in lay newspapers.

PAYING PATIENTS IN PUBLIC HOSPITALS.

J. T. A. writes: If a medical man's brother is taken ill and removed to a private ward in hospital, where he pays a small weekly charge and is in a dying state, do you think it is proper for them to inform the relatives; and if any forlorn operation is contemplated, is it professional for a surgeon to do the operation, and for the institution to permit it, without first writing to the relatives?

⁂ It is usual to send word to the relatives when a patient is thought to be worse; if the patient be of adult age and can give consent, it is not usual to refer to relatives, especially if the operation is urgent, unless the patient wishes them consulted.

MEDICAL MEN AS INSURANCE AGENTS.

W. S. writes to complain that he has been asked by a life assurance company in which he has a policy to introduce persons for assurance, and has been offered a commission of 20 per cent. off the first premium and 2½ per cent. off each succeeding year. He considers that this offer is a secret commission, and expresses his indignation at the receipt of it.

⁂ While there is a certain incompatibility in the position of a medical man acting as agent for an assurance company, we do not think the receipt of a commission on his introductions could be regarded as dishonest, or would be included amongst the corrupt practices forbidden if the Bill now before Parliament becomes law.

MEDICAL DIRECTORS OF HYDROPATHIC ESTABLISHMENTS.

X RAYS asks whether there is any objection to a medical man occupying the position of director to a hydropathic institution in quite another part of the country from that in which he practises.

⁂ There is no objection; on the contrary, we think there should be medical men on the direction of such establishments. Our correspondent must, however, remember that he will be responsible to the medical profession for the prevention of those practices to which exception has been so often taken in this JOURNAL.

DICHOTOMY.

CONSULTING PHYSICIAN writes: On three occasions lately have been asked to allow that the consultation fee as state to the patient or his friends should be somewhat larger tha that which I myself proposed to charge, in order that th balance might be forthwith received by the general pract tioner as his fee for taking part in the consultation. I hav in each case refused to allow this to be done. In the la case I offered when stating my own fee to mention that preferred that my colleague should also receive a cash fee a the same time; to this the general practitioner demurre and the matter dropped. These three occurrences led m to wonder whether any custom of this sort is growing u whether it is a desirable custom; if not, whether it desirable in some way to secure that the general practitione shall be immediately and adequately paid for his share in consultation, and if so, what other way is in accordance wit professional ethics?

⁂ We regret to receive this assurance that in th Metropolitan area there are indications of the existence the deplorable system known in France as dichotomy, th evils of which were so effectively exposed by "Gyp" in he tale *Le Docteur tant pour cent.* The system prevails the to such an extent that, although it has been condemne by the votes of medical societies, it is followed almo universally; the public knows it, but possibly is n aware of its extent. In order to get rid of the practic it has been suggested that the patient's medical attenda should receive a fee bearing a fixed proportion to th received by the consultant, but nothing has, we believ been done. It is by no means uncommon in England f practitioners to charge a special fee for attendance at a co sultation, to which in the case of well-to-do persons the can be no objection; but for the consultant to give a sha of his fees to the general practitioner savours of corruptio and is of sufficient gravity to deserve the attention of t General Medical Council.

GREAT NAMES IN TRADE ADVERTISEMENTS.

PROFESSOR VON BEHRING'S name stands amongst the highe of the world's scientific workers in pathology, and especially i the department concerned with the investigation of those b products of disease which promise to give important ther peutic results, therefore when we received a pamphlet head "Prof. Dr. v. Behring's new Remedy for Tuberculosis and t Tuberculo Albumin" we were not prepared to find that it is, i fact, an advertisement of a preparation made by Dr. me Alfred Thamm of Berlin, who claims that he has a reme which, according to his own, perhaps favourable, estimate, "the acme of what has been achieved in the way of medici in the struggle with that dreaded foe, pulmonary consumption and than which "it is absolutely impossible to devise an thing more efficacious." We do not know anything of Tham who may be, for ought we know to the contrary, a great ma but the greater he is the more willing he should be to sa under his own colours instead of putting Professor vo Behring's name on his pamphlet in such a position as mislead the unwary into believing that he has something do with Thamm's remedy, the value of which may be est mated from the fact that the author claims that it will f pulmonary "cavities with new lung tissue"!

MEDICAL ADVERTISING.

DEVONIA asks for an expression of opinion on the followi notice posted on an empty house which is over a quarter o mile away from the present residence of the new tenan "Dr. Galileo Push, of 19, —— Road, will shortly be removi into this house."

⁂ Such a notice is common enough with shopkeeper but is unworthy of a member of a liberal profession.

CORRUPT PRACTICES IN CLUB ELECTIONS.

DUNDALK writes: A., B., and C. are invited to apply or tend for a club by letter. The three of them send in their applic tions as requested, with the exception that C. meets t secretary of the club previous to the applications bei opened, and offers him (the secretary) £1 for himself a £1 towards a supper if he got the appointment. At a mee ing of medical practitioners held a few evenings ago in t district to which C. belongs this charge was brought forwa against C., and he not only admitted it, but also in the pr sence of all the medical men present (about fifteen) made statement to the effect that he "would buy any one if could." As all this has taken place since the notice respec ing canvassing has appeared in the BRITISH MEDIC JOURNAL, and as it is likely to occur again if an opportuni arrives, I should be obliged if you would kindly advise as to whether this is a typical case for the Ethical Co mittee, as, if this is not canvassing, what is? It is o consolation to know that C. did not get the appointment.

⁂ To offer a bribe in order to secure a club appointme is corrupt, and, if the case were proved to the satisfaction any ethical committee, would receive appropriate censure, but it hardly comes under the terms of the warning issued by the General Medical Council last December. If the Prevention of Corruption Bill now before Parliament becomes law, such an act will expose the giver of the bribe to fine or imprisonment. In our opinion the present case should be reported to the licensing authority from which the offender holds his diploma, as the body most able to make him see the error of his ways.

SENILE DECAY OR DISEASE?

ELTA.—A member of a friendly society is not usually entitled to sick pay for disablement from old age only. In most cases he manages to get it by being certified as suffering from some ailment which is the outcome of old age. A certificate to the effect that he is suffering from senile decay would not entitle him to sickness pay.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

A Diploma in Anthropology.

HE University has instituted a Diploma in Anthropology to granted to all persons, whether members of the University not, who, after pursuing an approved course of study, tisfy examiners appointed by the University as to their proiency in anthropology. Every candidate before admission the examination must have been engaged in the study of thropology for at least one academic year. The subjects of amination will be: (1) The Elements of Physical Anthropology; (2) The Elements of Cultural Anthropology. Courses instruction have been arranged; the first annual examinan will be held in Trinity Term, 1906. The precise date of e examination will be notified each year in the *Oxford iversity Gazette*, and copies of the list of lectures and of e syllabus of subjects to be offered in the examination, gether with such other information as a candidate may quire, may be obtained on application to the Secretary to the mmittee for Anthropology, John L. Myers, M.A., Christ urch, Oxford.

UNIVERSITY OF LONDON.

MEETING OF THE SENATE.

MEETING of the Senate was held on March 28th.

Recognition of Teachers.

he following were recognized as teachers of the University:

niversity College.—Dr. Charles Bolton (medicine).

ing's College.—Dr. Arthur Whitfield (dermatology), Dr. H. A. Wilson (physics).

ondon Hospital Medical College.—Dr. Otto Grünbaum (clinical medicine), Mr. W. T. Lister (ophthalmology).

. Thomas's Hospital Medical School.—Mr. L. S. Dudgeon (pathology and bacteriology), Mr. J. S. Fairbairn (midwifery and diseases of women), Mr. Harold Low (anaesthetics), Mr. P. W. G. Sargent (surgery), Dr. R. Percy Smith (mental diseases), Mr. E. Stainer (dermatology).

. George's Hospital Medical School.—Mr. L. Jones (surgery), Dr. H. R. D. Spitta (hygiene).

yal London Ophthalmic Hospital.—Dr. J. H. Parsons (ophthalmology).

ster Institute.—Dr. Allan Macfadyean and Mr. George Dean (bacteriology), Dr. A. Harden (chemical pathology), Dr. C. J. Martin and Dr. Sven Gustaf Hedin (pathology).

st London College.—Dr. C. H. Lees (physics).

he following were provisionally recognized:

iddlesex Hospital Medical School.—Dr. William Wright (anatomy).

. Mary's Hospital Medical School.—Mr. H. B. Fantham (biology).

Panel of Lecturers in Physiology.

he following names were added to the list panel of univer- lecturers in advanced physiology:

ng's College.—Dr. T. G. Brodie, F.R.S., Dr. C. J. Martin, F.R.S., and Dr. O. Rosenheim.

Entry to the M.S. Examination.

was resolved:

at candidates being already Bachelors of Medicine who shall have qualified for the B.S. degree by passing the surgery portion of the M.B., B.S. Examination, and who shall have obtained honours, be permitted to enter for the M.S. Examination after an interval of one year only from the time of obtaining such honours, provided that they comply in other respects with current regulations.

Donation to the Institute of Medical Sciences.

resolution was adopted conveying the thanks of the Senate e Worshipful Company of Goldsmiths for their munificent tion of £10,000 to the fund now being raised for the blishment of an Institute of Medical Sciences.

Chair of Protozoology.

e Senate have appointed Mr. E. A. Minchin to the rely-founded chair of protozoology established by means of ndowment of £750 a year for five years made by the Secre- of State for the Colonies from funds contributed for the ose partly by the Rhodes trustees and partly by the Royal ety Tropical Diseases Research Fund originally established r the Colonial Office.

Appointments.

Dr. A. D. Waller, F.R.S., was appointed the representative of the University at the quatercentenary celebration of the University of Aberdeen and a governor of Hartley University College, Southampton.

Lectures in the Physiological Laboratory.

A course of eight lectures on the physiology of nerve will be given by Dr. N. H. Alcock on Tuesdays at 5 p.m., beginning on May 8th.

KING'S COLLEGE.

Dr. C. S. Myers, Lecturer on Experimental Psychology at King's College, will give a course of eight lectures during the summer session on Fridays, at 4 p.m., the first taking place on May 11th. The lectures are free to students of King's College, to students of other medical schools in London, and to medical practitioners on presentation of their cards.

UNIVERSITY OF GLASGOW.

THE following candidates have been approved in one or other of the subjects included in the examinations indicated.

First M.B. (Botany, Zoology, Physics, Chemistry, Therapeutics):

A. J. Archibald, C. Auld, R. B. Bain, A. M. Bayne, E. A. C. Beard, C. S. Black, J. Broadfoot, J. S. Brown, J. Buchanan, C. J. B. Buchheim, J. A. S. Burges, T. S. Campbell, W. G. Clark, J. Cook, J. H. Coulter, R. H. Deans, J. T. Dick, D. Downie, P. Drummond, R. Drummond, A. Dunlop, J. Dunlop, M.A., W. D. Dunlop, P. Figdor, A. S. Findlay, J. Findlay, A. Fraser, T. L. Fraser, R. Gale, N. Gebbie, W. E. Gemmell, R. Gilchrist, E. G. Glover, J. Gray, A. W. Gregorson, A. B. Hamilton, J. Hendry, W. H. Howat, W. Howie, J. Jack, N. A. MacD. Johnson, T. J. Kirk, C. Lundie, D. C. Macdonald, M. A. Macdonald, W. Macewen, A. Macintyre, D. M'Intyre, B. M'Kean, T. J. Mackie, T. Mackinlay, M. M'Kinnon, A. B. Maclean, C. Macmillan, J. P. Mathie, D. Meek, A. Millar, J. Mitchell, J. M'I. Morgan, A. R. Muir, F. Murchie, F. L. Napier, C. M. Nicol, R. R. K. Paton, A. S. Richmond, J. Robertson, A. F. Ross, J. H. N. F. Savy, J. M'A. Scott, J. L. Scott, J. M'N. Scott, M.A., J. D. S. Sinclair, J. S. Somerville, M. Sommerville, G. R. Spence, J. Stewart, T. L. G. Stewart, G. I. Strachan, C. L. Sutherland, W. Taylor, J. J. Townley, C. F. Troup, C. H. Wagner, J. D. Walker, J. C. Walker, H. E. Whittingham, H. M. Williamson, G. J. Wilson, J. Y. Wood. Women: M. A. A. Beard, L. E. Dodge, F. A. Gallagher, A. M. M'Michael, M. Muir, E. B. Orr, M. A. Pilliet, F. E. Sexton, J. Wallace.

Second M.B. (Anatomy, Physiology, Materia Medica and Therapeutics):

J. A. Aitken, D. Anderson, W. Anderson, T. Archibald, W. H. S. Armstrong, J. Atkinson, W. Barr, J. Blakeley, R. R. Row, J. L. Boyd, W. B. Brownlie, H. M'K. Calder, J. Cameron, J. Carrick, D. Clark, D. J. Clark, A. B. Cluckie, J. H. J. V. Coats, J. Cook (Partick), J. Cruickshank, N. Davie, W. Dawson, J. C. Dick, A. D. Downes, M.A., T. L. Fleming, T. S. Forrest, W. L. Forsyth, R. D. B. Frew, D. Gibson, W. Gilmour, A. T. A. Gourlay, E. O'D. Graham, J. V. Grant, J. D. Gray, D. Hamilton, J. S. Harbinson, M. Harkin, T. Harkin, J. M. Henderson, J. M'L. Hendry, B. Hutchison, A. M. Kennedy, C. L. Kerr, J. Lang, W. Leitch, F. C. Macaulay, R. M'Carlie, J. G. M'Cutcheon, N. MacInnes, M.A., J. B. Mackay, W. M'Kendrick, T. C. Mackenzie, F. W. Mackichan, W. C. Mackie, J. W. M'Leod, J. M'M. Millan, P. R. M'Naught, D. I. M'Naughton, W. Matheson, K. C. Middlemiss, R. M'K. Morison, M.A.; J. Mowat, W. A. Muir, A. C. Munro, C. S. M'K. Murison, A. R. Paterson, A. Patrick, M.A.; R. M. F. Picken, B.Sc., D. Purdie, M. Purvis, R. Rae, H. N. Rankin, N. M'N. Rankin, H. G. Robertson, T. D. C. Ross, N. C. Scott, J. B. Sim, A. H. Sinclair, J. J. Sinclair, J. A. Stenhouse, W. Stevenson, D. Stewart, E. E. Stewart, J. Stewart, M.A., H. C. Storrie, D. Taylor, W. Telfer, J. A. Thomson, J. S. Thomson, R. M. Walker, T. C. D. Watt, J. Weir, D. M'G. Wilson, J. A. Wilson, H. Young. Women—M. B. S. Darroch, M. Foley, M. G. Forrest, E. S. Hill, M.A.; J. A. Macvea, J. D. Rankin, W. M. Ross, J. C. Russell, J. H. Stewart.

Third M.B. (Pathology Medical Jurisprudence, and Public Health):

W. W. Adamson, A. Anderson, A. H. Arnott, D. Arthur, B.Sc., H. Bertram, R. I. Binning, W. Brown, M.A., B.Sc., J. Cairncross, T. H. Campbell, A. J. Couper, J. R. Craig, J. C. Crawford, C. A. Crichlow, J. A. Doctor, R. J. Driscoll, J. Dunbar, D. Duncan, A. Dunsmuir, L. J. Dunstone, A. W. Eadie, W. M. Elliott, A. Fairley, T. Forsyth, S. N. Galbraith, B. Gale, R. Govan, H. M. Granger, T. P. Grant, W. C. Gunn, A. Hogg, A. J. Hutton, P. J. Kelly, G. Ligertwood, E. B. Macaulay, A. T. I. Macdonald, J. R. M'Gilvray, R. M'Inroy, J. H. M'Kay, W. A. M'Kellar, A. D. M'Lachlan, D. C. MacLachlan, A. N. R. M'Neill, J. M'Vittie, I. C. Marshall, J. H. Martin, H. Matthews, W. S. Melville, J. W. Miller, T. Miller, J. R. Mitchell, H. Morton, R. C. Muir, P. O'Brien, I. Papiermeister, D. Renton, M. M. Rodger, R. C. J. Schlomka, A. Scott, G. W. Scott, J. M. Smith, J. Steedman, C. K. Stevenson, M. J. Stewart, L. Storey, J. A. Struthers, J. M. Taylor, R. S. Taylor, H. J. Thomson, R. Todd, J. M. Walker, W. B. Watson, F. R. Wilson, H. M. Wilson, S. Wilson, M.A., T. Winning, M.A., G. Y. Yardumian. Women: M. M. Buchan, K. R. M. Lucas, J. I. Robertson, M.A., M. B. Taylor.

The following candidates passed with distinction in one or other subject:

First Examination.—H. M. Williamson, J. T. Dick, E. G. Glover, J. Hendry, T. J. Mackie, H. E. Whittingham, A. M. Bayne, C. J. B. Buchheim, Agnes Mary M'Michael, Ellen Brown Orr, Florence Elizabeth Sexton, J. Y. Wood, J. Dunlop, M.A., A. B. Hamilton, M. A. Macdonald, C. L. Sutherland

Second Examination.—J. Cruikshank, R. M. Walker, N. C. Scott, J. Stewart, M.A., Mabel Foley, B. Hutchison, J. W. M'Leod, W. A. Muir, A. R. Paterson, N. M'N. Rankin, Jessie Capie Russell, H. C. Storrie, J. S. Thomson, R. R. Bow, A. D. Downes, M.A., F. C. Macaulay, A. Patrick, M.A.

Third Examination.—L. Storey, T. H. Campbell, R. Govan, T. Millar, M. J. Stewart, A. Scott.

CONJOINT BOARD IN ENGLAND.

THE following candidates have been approved in the subjects indicated:

FIRST EXAMINATION.

Part I (Chemistry) and Part II (Physics).—H. G. Alexander, G. S. Ashby, J. A. A. Boddy, T. R. Bowen, G. N. Brandon, A. B. H. Bridges, J. W. Elliott, J. S. Ellis, H. A. Evans, N. E. Farr, H. L. S. Griffiths, E. W. Hall, W. H. Hooton, W. B. Lawrence, D. C. Lloyd, V. C. Martyn, C. Noon, C. P. Oswald, A. C. Paterson, J. Powell, C. E. Reckitt, C. E. Rice, *H. Rimington, W. R. Sadler, J. M. Smith, H. G. Spain, H. Stott, C. J. V. Swahnberg, H. J. A. Tootal, W. P. Vicary, C. G. Waddington, J. E. P. Watts, H. Wetherbee, G. E. Williams.

Part III (Elementary Biology).—H. G. Alexander, S. V. Appleyard, T. E. Ashley, G. A. Batchelor, H. J. Beresford-Heelas, I. B. Bernstein, F. S. D. Berry, H. G. B. Blackman, T. C. Brentnall, A. B. H. Bridges, R. T. Brotchie, J. J. Brown, L. C. W. Cane, W. E. Carter, H. E. Cockcroft, W. H. Cornelius, J. Cowan, G. L. Curnock, A. C. L. D'Arifat, W. T. Dobson, H. W. Doll, H. A. Evans, S. Falkner, C. E. Freeman, A. S. Gillett, F. N. Grant, H. L. S. Griffiths, E. W. Hall, N. H. Harrison, D. Havard, A. A. Henderson, A. M. Henry, H. H. Hiley, A. S. Hoole, W. H. Hooton, C. N. Hutt, A. Jones, G. L. Jones, J. E. T. Jones, R. L. Jones, G. A. E. Kelman, C. V. Laing, C. de C. W. Langdon, W. M. Langdon, W. B. Lawrence, E. C. Linton, R. K. MacGregor, D. A. Macpherson, D. McRae, H. L. Mann, S. Marle, G. K. Maurice, G. M. May, A. E. Moore, W. C. Murray, G. Nelson, F. C. Nichols, H. L. C. Noel, C. Noon, H. L. Paddon, G. N. Palmaer, G. E. H. H. Phillips, A. Pimm, W. Piper. G. FitzP. Rigden, H. O. Salt, L. L. Satow, A. L. Saul, H. E. Scargill. S. H. Smith, H. L. H. Steele, H. Stobie, M. C. Wall, A. F. Waterhouse, L. C. Watkins-Baker, J. E. P. Watts, H. White, R. F. Wilkinson, A. T. Williams, J. W. Williams.

Part IV (Practical Pharmacy).—A. M. Barlow, G. W. Beresford, J. H. Bulcock, W. W. Cook, L. K. Cooper, P. A. Creux, W. F. Denning, G. Eager, L. Edwards, C. A. Ellis, F. C. Endean, G. J. French, H. W. Gabe, E. W. Gandy, F. J. Gordon, T. S. Harrison, J. L. Houlton, C. H. T. Ilott, R. W. Ironside, C. M. Kennedy, T. H. V. King, M. Leckie, R. L. Ley, H. B. Maxwell, E. Morgan, R. J. Mould, H. H. Moyle, E. Nuttall, F. W. O'Connor, F. E. L. Phillips, J. H. Roberts, R. P. Rowlands, W. F. Skinner, H. Smith, H. McL. Staley, E. L. Sturdee, H. D. Thomas, H. E. H. Tracy, F. T. Turner, I. Valerio, E. B. C. White, R. Willan, H. M. Williams, F. H. P. Wills, V. J. A. Wilson.

SECOND EXAMINATION.

Anatomy and Physiology.—R. B. Abraham, S. D. Adam, M. M. Adams, H. R. Bastard, R. C. Brewster, A. J. Brown, S. H. Browning, E. F. W. Buckell, J. A. Byrne, H. D. Clapham, W. V. Corbett, F. J. Craddock, B. Dale, A. Dewar, M. J. D'Lemos, J. R. B. Dobson, R. S. Doran, D. C. Druitt, A. K. Glen, G. C. Gray, J. R. Gyllencreutz, G. F. S. Harvey, P. K. Hill, V. P. Hutchinson, **C. W. Huyssen, †W. B. Johnson, C. F. V. Kebbell, J. A. A. Kernahan, P. J. Kolaporewalla, M. D. A. Kureishi, E. MacEwan, P. A. MacKay, S. P. Mort, H. R. Mullins, C. E. H. Paley, A. B. Pettigrew, A. P. Phillips, C. J. M. Phillips, C. C. Pickles, A. H. Platt, L. O. S. Poidevin, M. A. Rahman, A. Rhodes, J. F. Richardson, R. G. Riches, L. Russell, H. I. Shahin, T. Sheehan, W. D. Southern, D. M. Stone, T. W. R. Strode, W. M. Swan, A. D. Vernon-Taylor, H. E. MacM. Wall, G. R. Ward, L. F. K. Way, A. L. Weakley, L. M. Webber, E. W. Witney, K. Wolferstan, C. A. Wood, S. S. M. Wood, J. F. W. Wyer.

* Exempt from Physics.

** Passed under old R.C.S. Regulations.

† Awarded the Begley Studentship in Anatomy.

CONJOINT BOARD IN SCOTLAND.

THE following candidates have been approved at the examination in Edinburgh:

First Examination (Four Years' Course).—R. B. Sephton, T. A. R. Aiyar. *(Five Years' Course).*—H. Ellison, R. Dorset, W. Crosse, H. C. Bankole-Bright, R. Parry, B. Singh, J. W. Hitchcock (with distinction), H. G. Chouler, R. C. Fuller, H. C. de Souza, E. J. Vaillant, D. R. Das Gupta, G. N. Groves, H. E. K. Fretz, G. Beveridge, D. Morrison, C. G. Timms, A. L. Salmon, and M. B. Irani; and 4 passed in Physics, 3 in Biology, and 1 in Chemistry.

Second Examination (Four Years' Course).—A. V. Bam. *(Five Years' Course).*—L. N. Robertson, S. M. Ware, D. Murphy, I. C. Pratt (with distinction), F. R. Watson, E. P. Maitland, T. J. George, and J. P. Synnott; and 3 passed in Anatomy and 1 in Physiology.

Third Examination (Five Years' Course).—J. H. Johnston (with distinction), A. J. Brown, G. H. Urquhart, O. T. Jones, W. Taylor, P. T. Rutherford (with distinction), O. Carlyle (with distinction), J. H. Bennett, W. R. Ellis, G. W. Knipe, C. L. Stewart, J. A. H. Muller, J. H. Morris-Jones (with distinction), Jane H. Filshill, W. F. G. Scott, A. P. O'Connell, K. S. Kanga (with distinction), M. J. Hayes, C. Berry, Dora Robbins, S. Piarroux, C. Jones, P. Stewart, M. B. Irani, J. N. Rai, and V. S. Sanzgiri, and 1 passed in Materia Medica.

Final Examination.—Sibyl Caridwen Bevan, S. Nix, J. S. Macdonald, H. T. Simpson, G. W. Knipe, J. E. Syme, G. J. Congdon, F. Yates, F. V. Woodbury, A. W. Thomas, J. C. Grant, Gertrude Ellen Austin, Maude Conway, A. S. Campbell, W. B. Clarke, and J. S. Bruggman.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

ELECTION OF EXAMINERS.

CANDIDATES for the office of Examiner are requested to lodge their applications in writing with the Registrar not later than Tuesday morning, April 24th Graduates of any university recognized by the College are eligible. The election will take place on May 1st.

The principal prizes for the winter session have been awarded to the following students: G. C. Sneyd, W. A. Swan, H. D. Gasteen, H. J. Hedley (Practical Anatomy), H. W. White (Medicine), H. W. White (Surgery), H. C. Carden, H. J. Hedley (Physiology), J. J. Lyons. H. W. Kay, R. White. Each prize consists of a medal and £2. Second prizes were also allotted. The summer session began on April 2nd.

SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have been approved in the subject indicated:

Biology.—M. C. Dence, W. H. Hooton, D. L. Schwabe.

Chemistry.—A. E. Hempleman, W. H. Hooton, E. M. Johnstone, A. J. V. Mathews, D. L. Schwabe.

Materia Medica and Pharmacy.—C. J. M. Lawrence, G. W. Simpson.

Anatomy.—S. H. Andrews, E. C. Banks, H. R. Ibbotson, M. A. Kenny I. Pulteney, J. B. Tackaberry, A. D. Vernon-Taylor, G. F Wilson.

Physiology.—S. H. Andrews, S. S. Brook, D. M. Hunt, H. R. Ibbotson, W. K. Kershaw, H. E. Middlebrooke, I. Pulteney, J. B Tackaberry, A. D. Vernon-Taylor, G. F. Wilson.

OBITUARY.

SURGEON-GENERAL JAMES PATTISON WALKE M.D.,

INDIAN MEDICAL SERVICE.

THE character and career of this able and distinguishe officer, whose death was mentioned in a recent issue, a deserving of prominent and detailed notice. He was man of talent and energy, lived and served in stirring an critical times and circumstances, which brought h attainments and capacities into active exercise, and h acquitted himself in a great variety of offices with marke ability and success.

Dr. Walker was appointed on April 5th, 1845, at the ag of 25, an Assistant Surgeon in the Bengal Medical Depar ment, and arrived in India on August 11th of the sam year. During the first two and a-half years of his servi he was in military employ, mostly in medical charge native regiments in several stations of Bengal, the North Western Provinces, and the Punjab. He devoted himse to the study of native languages, and was the first medic officer to pass in Hindustani in the higher standard.

In February, 1848, he obtained civil employ and wa appointed Civil Surgeon of Humeerpore in the N.W Provinces. He was removed thence in October to tak part in the Punjab campaign. For his services h obtained the Punjab medal and Goojerat clasp. I April, 1849, he resumed his appointment at Humee pore, and in March, 1850, was transferred in a simil capacity to Mynpoori.

The charge of the district gaol was then, as now, a important part of the work of a civil surgeon. His ze and administrative ability in managing prisoners an prisons attracted attention, and in August, 1851, he wa appointed Superintendent of the Agra gaol, and November of that year of the Central Prison at th station. This was the first institution of the ki established in India, and was intended for the detenti of "life" and long-term prisoners and criminals of desperate and degraded type. The scheme was expe mental, but under the capable and energetic efforts Dr. Walker it proved a great success, and many oth central prisons were subsequently organized througho India after this model.

Order, discipline, sanitation, industry, and educati received his personal and unremitting attention, an both authorities and visitors bore warm testimony the excellence and success of his methods. The educ tion of convicts, commenced in the Mynpoori distri gaol, was a novel feature of his administration, an contributed to quietude and order as well as to inte lectual occupation and improvement as well as to mor reformation. Female prisoners were instructed as w as male.

He was met with suspicion and obstruction, and pl were laid against his life; but his personal enthusias honest earnestness, and marvellous influence overcame obstacles, and in prison, and no doubt beyond pris great good was accomplished. He also threw hims with vigour into the promotion of education througho the provinces by composing, printing, and distributi books, maps, and diagrams, and preparing sch apparatus.

While on leave in England in 1855-6 he inspected a studied a large number of penal institutions with a vi to bringing the knowledge thus acquired to bear on h work in the Agra Central Prison. The mutiny of 18 found him at his old post in executive and medical char of some 3,400 prisoners, including the worst criminals Upper India, among them some 100 murderers. T prison guard, about 500 strong, was deeply tainted wi the prevailing disaffection; a Sepoy guard detailed strengthen it was mutinous, and the population of the City of Agra in a state of rebellion. Agra was the seat of the Government of the North-Western Provinces, and the officials of the day were timorous, weak and shifty, and the garrison of European troops very limited. On Dr. Walker alone rested the duty of keeping the dangerous prison population, intent on outbreak and plunder, from escape. He succeeded in doing so until July 5th, 1857, when the indecisive fight with mutineers at Shahgunge compelled a retreat of all officials and loyalists into the fort. Learning in April, 1857, of a projected attack on the prison by the Meenahs, an independent tribe of Central ndia, for the purpose of liberating their tribesmen, he had the latter promptly transferred to Bareilly, and so averted that danger. He was obliged on May 9th to depute Sergeant Rawley, commanding the prison guard, to fetch some mutinous native troopers from Meerut. Rawley arrived there too late, and was murdered on his way back. Dr. Walker was therefore compelled, n addition to his other duties, to take personal ommand of the guard. This was an irksome and dangerous duty in view of the temper of the men. He had to make nightly rounds at intervals, and could nly sleep between them, his wife watching him. They were the only Europeans in the place. About the middle f May information reached him that it was proposed that ll the Europeans and loyalists should take refuge in the ort, while he was to remain in charge of the prison. This tep was prompted by panic in apprehension of an attack y mutineers from Delhi. Dr. Walker represented the emoralization and loss of prestige which such a step would cause, and how unprepared the fort was for occupa- on, and how difficult it would be to supply it, with a ictorious soldiery and rebellious population at its gates. he project was therefore abandoned and steps taken meantime to provision and strengthen the fort. About une 21st it became evident that the prison guard was n the eve of overt mutiny. Two companies were outside nd three inside the prison. Only 30 European soldiers nd two guns could be spared as a personal guard. Their rrival frustrated an attack on the Superintendent by he two outside companies, which straightway started for elhi with their arms, accoutrements, and ammunition. r. Walker, taking his life in his hands, promptly entered he gaol, mustered the remaining 300 men, ordered them pile arms, and dispersed them. Most of the muskets ere found loaded. He then organized a guard of warders nd kept the prisoners under control, though many attempts ere made—one by setting fire to the building—to break ut of the place. The final escape of the prisoners ccurred on July 5th. Breaches were made in the walls, nd the mass surged towards the fort, where the fight with e mutineers was in progress. Dr. Walker had previously cured the loyalty and fidelity of his Sikh prisoners, and w gathered some eighty of them, armed them with mboos, and placed them on a bridge, which he held ntil a gathering in rear compelled retreat. The crowd of isoners had meantime dispersed for plunder, and, with s Sikhs, he made good his retreat, and was able to render eful aid to the wounded returning from the Shahgunge ht. During the occupation of the fort, which contained me 6,000 troops and refugees, Dr. Walker acted as nitary Officer until February, 1858, and rendered in- luable service, not only as a health officer and surgeon, t also in obtaining supplies and intelligence from thout. Early in 1858 the disposal of an accumulation convicts, mostly mutineers, was found embarrassing, d it was resolved to deport them. Port Blair, in the daman Islands, in the centre of the Bay of Bengal, was ected for that purpose, and Dr. Walker was appointed Superintendent of the settlement and invested with full wers. The place was a primeval forest inhabited by ked savages, and no preparations had been made for its upation.

With characteristic intrepidity Dr. Walker made what angements were possible and undertook to receive 000 convicts annually. Fortunately the subsidence the mutiny, the amnesty, and the Queen's proclamation ndered this unnecessary. His task was one of singular ficulty and all his powers of organization and adminis- tion were put to a severe test. He resolutely set to rk, and the nature of his troubles and manner of his aling with them are indicated by the following extract m a letter dispatched from the East India House, London, in October, 1858. "Within a few weeks of their arrival no less than 228 of the convicts, or nearly one-third of the entire number transported, had made their escape. Of these 88 had returned, and the rest were supposed to have perished by disease or the hands of the aborigines. Of the 88 returned convicts one was pardoned, one was in hospital, and 86 executed, 81 of them in one day." This and other episodes of a similar but less drastic kind excited horror and gave rise to censure which led to Dr. Walker's resignation in 1859. He has been strongly blamed for these transactions; but the circumstances of time and place, his previous experiences, and the material he had to deal with go far to exonerate him. His disposition was naturally kindly, and his apparent truculence was the outcome of a conviction of the necessity of strong measures.

After being deputed to Moulmein to report on the gaol at that station, he was appointed medical storekeeper at Allahabad, and in October, 1860, was given the important office of Superintendent of the Government Press and Curator of Government Books, North-West Provinces. This was congenial work, and he executed it with great advantage and credit. On return from two years' furlough in 1864, he was appointed member of the Indian Gaol Commission, and did excellent service in drawing up rules and forms for gaol management. He then became Secretary to the Sanitary Commissioners and Professor of Hygiene in the Calcutta Medical College, offices which he held till March, 1866. He served on two important committees during this time to frame cantonment regulations and report on measures for the prevention of venereal disease. From 1866 till 1872 he held medical charge of the Bengal Sappers and Miners, and in the latter year was promoted to the rank of Deputy Inspector-General of Hospitals, and posted to the Allahabad Circle, where he continued to serve with efficiency and approbation till June, 1877, when he retired with the rank of Surgeon-General. During the whole of his service in India, and until his death, which took place recently at the age of 86, he devoted himself to literary work. He was an omniverous reader, and amassed a large and valuable library. He kept voluminous notes on various subjects, which were arranged and indexed with remarkable care. He never engaged in any original research, but was an indefatigable compiler. His mind was rather fitted for assimilation and orderly elaboration than discovery.

From the foregoing necessarily cursory sketch of his career it is evident that he was a man of uncommon power, industry, courage, and decision of character. Whatever he did was done conscientiously, laboriously, elaborately, and efficiently. Many of his acts have been pronounced indiscreet, or even unjustifiably rash, and beyond the requirements of the circumstances; but his censors have not always placed themselves in his position, or fully realized the gravity of the emergency which occasioned the measures which he adopted. He was in real earnest in all that he did, and his acts were founded on deep conviction of their necessity. In private life he was a kindly and very upright man.

JOHN BRUCE MACCALLUM, B.A., M.D.,

Associate Professor of Physiology in the University of California.

THERE will be widespread regret in scientific circles in the United States and Canada at the death of this talented young investigator, which took place suddenly at Berkely, California. Dr. MacCallum was the second son of the Medical Superintendent of the Asylum for the Insane, London, Ontario, formerly of Dunnville, and brother of Dr. W. G. MacCallum, Professor Welch's associate in the Pathological Laboratory of the Johns Hopkins Hospital. After completing his scientific studies at the Toronto University, young MacCallum entered the Johns Hopkins Medical School, from which he graduated in 1900. While still an undergraduate, he began researches with Professor Mall, and made an exhaustive study of the arrangement of the muscle fibres of the heart, worked out from the embryological standpoint.[1] Then followed a very careful investigation on the microscopic structure of the heart fibres, particularly with reference to fragmentation. Appointed an Assistant in the Anatomical Laboratory, he devoted much time to histology and embryology, and published an elaborate paper on the development of the intestines.

---

[1] *Johns Hopkins Reports*, vol. ix.

At Leipzig, where he had gone to study, a tuberculous pleurisy interrupted his work; but after six months' rest, he rallied and appeared quite well. Thinking that the Pacific coast would be better for his health, he accepted a position with Professor Jacques Loeb at the University of California. For eighteen months he was able to teach, and to follow out and to publish a most interesting series of investigations on the action of saline purgatives and on the influence of calcium and barium salts on the activity of the kidneys. In the winter of 1904-5 the tuberculous pleurisy again became active and the lung was attacked. He improved in Muskoka during the summer, and felt well enough to return to California in the autumn. The progressive sclerosis of the lung had, however, been followed by changes in the heart, and the end came in an attack of acute dilatation.

Dr. MacCallum had in rare degree the genius for investigation and for stimulating research in others. He was a true disciple of Ludwig, whose attitude towards problems in anatomy and physiology he had inherited from his teacher, Mall. Widely read in literature, with a sane outlook on all the problems of life, he had the mental and moral equipment necessary for a great teacher, and this intensifies the tragedy of his untimely death.

WILLIAM WOOD, M.B., C.M., F.R.C.P.EDIN.

WE regret to report the death of Dr. William Wood, of Edinburgh, lecturer on Materia Medica and Therapeutics and Practical Materia Medica in the School of Medicine of the Royal Colleges, Edinburgh. He had suffered for some months from cardiac weakness, and had gone to Bridge of Allan for rest. During the first few days he seemed to gain ground, but the improvement was only temporary, and he died on April 7th, only some ten days after leaving home. He was the eldest son of Mr. Frankland Wood, of Sleights, Yorkshire, and was only 41 years of age. He received his medical education at the University and School of Medicine, Edinburgh, graduating M.B., C.M. in 1890; and becoming F.R.C.P.Edin. in 1904. He had a considerable practice in the southern suburbs of Edinburgh, and was also a successful lecturer, his classes being always well attended. He was the author of *Elements of Practical Materia Medica and Pharmacy*, *Tables of Organic Materia Medica for Medical Students*, and *Tables of Inorganic Materia Medica for Medical Students*. Dr. Wood was a man of a quiet, retiring, unassuming nature, but he will be much missed by a wide circle of patients, friends, and students. He leaves a widow and three young children to mourn his loss.

SURGEON-GENERAL DAVID REID MCKINNON, A.M.D., died at Redhill on April 5th. He was born in May, 1821, and took the diploma of L.R.C.S.Edin. in 1842, and the degree of M.B.Aberdeen in 1843, being the first student of his year. He entered the Medical Service of the army, obtaining a high place and a prize in the competition. In 1844 he went to India as Assistant Surgeon to the 78th Highlanders at Hyderabad during a prevalence of severe sickness and mortality. He served ten years in India, and was transferred to the 21st Royal North British Fusiliers on promotion as Surgeon in 1854. He was present during the whole of the Crimean war, took part in the battles of Alma, Balaclava, Inkerman, and the capture of Sebastopol, receiving a special recommendation from Lord West, the commanding officer of the regiment. He received the Crimean medals with four clasps, the Order of the Legion of Honour, and the Turkish Order of the Mejedie. After serving in the Mediterranean, West Indies, Canada, and Ireland, he was again sent to the East Indies for five years. In 1861 he was transferred to the Medical Staff, becoming Surgeon-Major in 1863. On his return home he was sent on duty to Manchester and York, and afterwards to Aldershot, and was afterwards P.M.O. to Netley Hospital.

MAJOR DAVID SIMPSON, of the Indian Medical Service (Madras Establishment), Superintendent of the Government Maternity Hospital, and Professor of Midwifery at the Medical College, died at Madras on March 19th, at the age of 46, of abscess of the liver. He entered the servic as Surgeon on March 31st, 1887, and attained the rank o Major on March 31st, 1899. He took part in the Chi Lushai Expedition, 1889-90 (medal with clasp), and in tha to Manipur in 1891 (clasp).

THE death took place on April 7th of Dr. **THOMA PAYTON**, a well-known practitioner in the neighbourhoo of Smethwick, Staffordshire. Dr. Payton received hi medical education partly at Queen's College, Birmingham and partly in Dublin, where in 1880 he became L.R.C.P.I Dr. Payton, who was a member of the West Bromwic Division of the British Medical Association, had long bee established at Smethwick, where, especially in Nonconformist circles, he was well known for his assiduou attention to the interests of his patients, and highl respected. Though quite able to attend to his dutie he had not been in very good health for several year past, and his final illness, which lasted some three weeks resulted from blood poisoning following a cut. Dr. Payto was married and leaves a wife and daughter, and wa followed to his grave at Uplands Cemetery on April 11t by a large number of representative people.

WE regret to announce the death of Dr. **J. G. BURNE**, o Dublin. He died very suddenly on April 16th, in hi sixty-third year. Dr. Burne was surgeon to the Kilmainham Prison and to the South Dublin Union Hospital. H was very much respected by a large number of friends He leaves a widow and two sons.

ROYAL NAVY AND ARMY MEDICAL SERVICES

HEALTH OF THE FRENCH ARMY—1903.[1]

WE have on several previous occasions remarked upon th bulky and exhaustive character of the French annual Arm Medical Reports, and have ventured the opinion that, if mor elaborate than those of the British army, they are probabl not of greater practical value.

The first British Army Medical Blue Book appeared in 1860 but the French Reports date (at least) back to a law of 1851 when Louis Napoleon was President of the Republic. Sinc then they have been amended and extended by decrees o many successive War Ministers.

We naturally endeavour to compare these French vita statistics with those of our own army; but that is neithe easy nor wholly satisfactory, because of the very differen conditions of service and the diversity in the statistical unit and methods of computation.

The chief diversity (as before pointed out) is as follows:

Malades à la Chambre.

In our service, an old and wholesome canon, alike for discipline and the soldier himself, affirms that he must either b well at duty, or sick in hospital; he can, indeed, be detaine in hospital for a day, but may not be treated in barracks therefore, all the sick are accounted for and appear in th hospital ratios of admissions, etc. In France it is otherwise for, while barrack treatment of sick with us has always prove very unsatisfactory, they find it convenient to treat all sligh cases of illness in quarters; and account for them in a retur (Malades à la Chambre), which, however, are not included i the ratios of hospital admissions.

Such cases in 1903 amounted to 1,123 per 1,000 of strength and must be taken into account in making any fair compariso with our hospital statistics.

In France itself (called in the Report "Intérieur," in contra distinction to "Algerie-Tunisie," there are no returns fro Cochin or Madagascar) these slight barrack cases varied widel in number, both in the composite units and in the differen arms; thus, the X Corps d'Armée (Rennes) had a ratio per 1,00 of 829; and the III Corps (Rouen) 1,362; the Legion de l garde republicaine, 502; the Compagnies d'ouvriers d'artilleri et artificiers, 1,515; the high ratio in the last-mentione regimental unit is explained as due to the constant hig standard of efficiency demanded in workmen and artificers, th slightest illnesses being at once referred to the medical office

Hospital Statistics.

French admissions to hospitals are classified under two headings—namely, "Malades à l'Infirmerie," and "Malades l'Hopital," the distinction apparently merely applying to case treated in civil infirmaries as against those treated in militar hospitals.

The statistics of these admissions are given in separat returns, but it is obvious that they must be combined for com

---

[1] *Statistique Médicale de l'Armée pendant l'Année 1903.* Paris: In primerie Nationale. 1905.

ison with our hospital statistics, and, if so handled, yield
following results :
f a total of 428,493 officers and men present in the Intérieur,
ratio of admission in 1903 was 640 per 1,000 of effective
ength, against a British home decennial average (1891-1900)
89.7 ; and of a total of 65,090 officers and men present in
erie-Tunisie, 758, against a decennial average in our
diterranean garrisons of 765.
hese ratios seem somewhat against us, but we are warranted
nferring that they would be distinctly in our favour were
Malades à la Chambre included.
he ratio varied widely in different corps and arms. Thus
as 518 in the I Corps (Lille), 750 in the III Corps (Rouen),
in the Algerie-Tunisie Division d'Oran, 745 in the Division
lger ; in different arms it varied from 378 in the Legion
ublicaine, to 788 in the Regiments de Zouaves and 933 in
Algerine Chasseurs d'Afrique.
ilitary inefficiency, however, cannot be fully measured by
pital admissions alone ; the average duration of cases must
be reckoned up. This test showed a marked rise in the
y in France from 16.7 days in 1902 to 21.4 days à l'hôpital
903, against our decennial home average of 20.91 days, and
lgerie-Tunisie 25.8 days, against a decennial average of
1 days in our Mediterranean stations—Malta and
raltar.

General Mortality.

e principal causes of death in the French Army of the
rieur are, first, tuberculosis ; secondly, typhoid fever. In
rie-Tunisie, the deaths from typhoid almost equal those
all other causes.
e ratio of deaths usually slightly exceed ours ; in the
rieur, in 1903, it was 3.78, against our home decennial
age 4.51. Our excess probably arises from the presence in
home ranks of a considerable number of men who had
red from tropical diseases during service abroad. In
rie-Tunisie the ratio in 1903 was 9.53, against a decennial
age of 6.31 in our Mediterranean stations.
e mortality ratios closely follows the admission ratios in
rent corps and arms ; thus, the ratio in the I Corps
e) was only 2.35, against 5.75—largely from typhoid—in the
rtunate III Corps (Rouen) ; in the Engineers it was 2.44,
rose to 5.95 in the Sections d'infirmiers militaires ; in
rie-Tunisie the Regiments étrangers suffered a mortality
.86.

Groups of Diseases.

e incidence of groups of diseases, as well as of specific
dies, varies very remarkably throughout France, and
ts to the influence of somewhat recondite climatic and
causes. By the aid of coloured and shaded maps in the
ne such incidence can be seen at a glance, and we would
like to see similar maps introduced into the British
ts, say, for the Home area, India, and South Africa.
is instructive to note that such diseases as influenza,
les, chest affections, including pulmonary tubercle, and
ses of the ear, chiefly fall in the same areas in the
and west ; while typhoid prevails in the south.
luenza, apart apparently from any general epidemic pre-
ce, continues to cause much inefficiency in the Army of
ntérieur ; in 1903 there were no less than 12,274 admis-
with 121 deaths, and, in the cases treated à l'hopital,
erage duration in case of 18.6 days. The chief areas of
isease are Normandy, Brittany, and the Atlantic pro-
s ; but in 1903 it spread inland as far as Paris. It is
led in many protean forms. It occurs, but is much less
nt, in Algerie-Tunisie.
hoid Fever.—Fifty pages of the report are devoted to
isease, which is a measure of its importance, both as
e of great inefficiency and high mortality. While year
r it has varied little in prevalence in Algerie-Tunisie, it
n the whole steadily declined in France since 1888,
gh occasionally showing periods of recrudescence, as in
hen it rose to 4,358 cases, compared with 3,244 cases in
The average duration of cases is thirty-five days, but
f course, cannot include the usual long period of con-
ence after an attack. Great attention has been paid to
cteriology and modes of spread of the disease ; many
ry reforms have been carried out, but it must be ad-
l that, as in India, the disease often succeeds in baffling
ry science. Typhoid steadily prevails during the
n, chiefly in the southern provinces of France, but in
here it fell heavily on the III Corps at Rouen in the
Oran is its great centre in Algeria. The cavalry,
ly, suffer more than the infantry.
iola.—In 1903 there were 87 cases and 2 deaths from
ox in the French army, which compares well with the
f things decades ago ; the disease has practically been
d out by energetic vaccination and revaccination.
sles.—In the Intérieur in 1903 there were 5,197 admis-
nd 47 deaths from measles, and 143 cases with no deaths
rie-Tunisie. The disease is far more prevalent than in
ny, and prevails largely among the conscripts.
latina.—Scarlet fever in 1903 caused 2,026 admissions
deaths in the Intérieur, and in Algerie-Tunisie 36 cases
deaths.
rculous Disease was the greatest cause of mortality
efficiency in the French army. In the Intérieur, in
ere were 3,627 admissions, 2,603 being for tubercle of
the lung, pleura, or larynx ; the deaths were 370, and the discharges (*retraites et réformes*) no less than 3,439. In Algerie-Tunisie there were 423 cases and 57 deaths. Tuberculous diseases are more evenly distributed between corps and arms than other diseases.

Heart Diseases are not very common in the French army, and the admissions are more for functional than organic lesions.

Venereal Diseases do not vary much in incidence from year to year, and are far less prevalent than in our army.

We must express our admiration of this French report, which bears evidence of the great care, immense labour, and no little expense devoted to its production.

HOSPITAL AND DISPENSARY MANAGEMENT.

ESSEX AND COLCHESTER GENERAL HOSPITAL.

UNLIKE the majority of their fellows, the Governors of the Essex and Colchester Hospital in their report for 1905 are able to announce an increase of income under nearly every heading, as well as increase of work. The latter is due to normal progress and the former to special efforts which have been made to make better known in the neighbourhood the value, needs, and claims of the institution. A deficit on the previous year has been swept off, and over £300 appear to be in hand for 1906. The average number of in-patients was 69, and the total number admitted 874 against 659 in 1903. On an average each patient remained twenty-nine days and cost £4 5s.

STOCKPORT INFIRMARY.

FROM the report of this institution for 1905 it appears that 952 patients were treated in its 87 beds, the daily average in the wards being 71, and the average stay of each patient 27.38 days. Some 1,838 accidents received attention, and 390 operations were performed. The number of persons treated in their own homes by the visiting surgeon of the institution is stated to be decreasing and the out-patient attendance growing ; a new out-patient department is hence thought desirable. Of the total ordinary income about one-fifth seems to have been derived from workpeople's collections.

INGHAM INFIRMARY.

AT the annual meeting on February 28th of the supporters of the Ingham Infirmary and South Shields and Westoe Dispensary, the first to take place since the opening of the new ophthalmic department, it was shown that the average number of beds daily occupied had risen from 37 in 1904 to 52 in 1905. Of the 725 patients admitted during the year the great majority were surgical cases, the medical cases only numbering 82, and the eye cases 60. The average stay of each patient was 26.2 days, while the average yearly cost of each bed occupied had fallen from £95 13s. 9d. to £74 13s. 3d.

ROYAL DENTAL HOSPITAL.

THE accounts of this institution for 1905, as presented at the annual meeting on March 15th, closed with a debit balance of about £1,000 on the year's work, no legacies having been received. On the other hand, some £900, or about one-fourth of the total ordinary income, was contributed by the King Edward's Hospital and other Funds. Close on 28,000 patients were treated during the year and some 98,000 dental operations performed ; of these, about two-thirds were extractions effected for the most part under anaesthesia. Attention was also drawn by the chairman of the meeting to the useful steps which are now being taken by the hospital to disseminate, through its patients, information on the care of the teeth and its importance, especially in young children.

THE NEW HOSPITAL FOR WOMEN, LONDON.

THE thirty-fourth annual meeting of the supporters of this hospital was held on March 17th. The report submitted recorded the completion of certain alterations which provide eight new beds by the conversion of quarters for servants into a ward, a new dining-room for nurses, and an enlargement of the Nurses' Home so as to accommodate more nurses and the whole of the servants. The total cost was £4,968, and as the special appeal only brought in £1,156, the balance had to be met by sale of investments. The work of the hospital was reported as having materially increased during the year.

THE HAMPSTEAD GENERAL HOSPITAL.

AT the annual meeting on March 17th, the first since the opening of the new buildings, the Committee was able to announce that, thanks to an anonymous donation of £20,000 made through Sir H. Harben, the whole building debt has been extinguished, and provision furnished for all the extensions anticipated. On the other hand, a deficit on maintenance of £1,300 had accumulated during the two previous years. Call had been quickly made on the new accommodation, and all the beds, 58 in number, were occupied. Dr. Heath Strange, who was mainly instrumental in founding the hospital, was unanimously elected consulting surgeon, his term of office on the active staff having come to an end.

THE CANCER HOSPITAL.

THE report presented to the annual general meeting of the Cancer Hospital, Brompton, showed that the structural alterations and improvements effected in the year 1904, had placed 9 additional beds at the disposal of the staff during the expired year, the total number available thus being 114. Of these an average of 88 had been in daily occupation, the total number of new in-patients having been 713. In addition 1,693 new out-patients had been admitted to treatment, the total attendance in the extern department numbering 18,405. At the same meeting Mr. F. Bowreman Jessett, Chairman of the Medical Committee, reported that 442 microscopical investigations had been carried out in the laboratory during the year and 100 new specimens of interest added to the museum. In the electrical department 55 cases had been treated, some of the patients experiencing considerable relief from pain and acquiring greater ability to sleep. On the invitation of Dr. Doyen, members of the surgical and pathological staff had visited Paris to examine his method of treating cancer. They reported that in no single case had any appreciable good been done by the serum which Dr. Doyen used, and some cases had been actually harmed.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

PHTHISIS MORTALITY.

IN his annual report for the Borough of Doncaster, Dr. Lechmere Anderson draws attention to the alteration in actual phthisis mortality and its ratio to deaths from all causes which has taken place in the borough during the past twenty-five years. In the first ten years the average rate was 1.6 per 1,000 living, the ratio to deaths from all causes being 1 to 11.9. In the second ten years the average rate was 1.35 per 1,000 living, the ratio to general mortality being 1 to 13.7. In the last four years the same movement is shown, the ratio having fallen to 1.1 per 1,000 of population, and the ratio to 1 death from phthisis to 14.3 deaths from all other diseases. The rate of decrease has been fairly steady throughout, but has been particularly marked in the last period reviewed. This improvement Dr. Anderson seems justly to ascribe to increased attention to sanitation, and especially to the active steps taken, doubtless on his judicious advice, in the last few years in endeavouring to spread a sound knowledge of the etiology of phthisis, educating the profession in its avoidance, and introducing voluntary notification. Improvement of the same character is shown in the report from the neighbouring urban district of Baldy-with-Hexthorpe, of which Dr. Anderson is likewise medical officer of health, and where voluntary notification was instituted in 1903.

SANITARY AUTHORITIES AND GENERAL HOSPITALS.

THE accounts of the Bedford Hospital for the year 1905 contain an item of expenditure amounting to over £114 incurred owing to outbreaks of scarlet fever which occurred in the children's ward, but most or all of it represents not extra work performed at the hospital itself, but payment made by it to the authorities of the isolation hospitals. The County Hospital of course has due provision for the temporary segregation of any patient found to be suffering from infectious disease, but does not purport to keep such patients under its care until recovered. When, therefore, cases of scarlet fever are discovered among the children they must either be returned to their own homes or transferred to the hospitals maintained by the sanitary authority for the special purpose of dealing with cases of infectious disease within its area. This authority does not refuse to take in a case in so many words, but declines to admit it unless the hospital authorities sign an undertaking to pay all expenses incurred. The hospital authorities are therefore faced by the necessity of either returning the patient to his own home, an act which *primâ facie* would be against the public interest, or of spending the funds entrusted to them for a purpose for which they were never intended. Under the Infectious Hospitals Act of 1893, a sanitary authority is entitled to recover the cost of maintenance of an infectious patient from the guardians of his union, if a pauper, or from the patient himself, if able to pay. The power to refuse to admit a patient apparently rests upon a passage in Section 124 of the Public Health Act, 1875, which makes the consent of the authority necessary before a justice can order the removal of a patient to an infectious hospital. This passage was left untouched when the Infectious Hospitals Act, 1893, made it incumbent upon all authorities which adopted it to provide isolation hospitals and open their doors to every person whatever their means, and at the same time gave the authority power to recover expenses so limited that it is doubtful whether in the case of non-pauper patients payment for any but exceptional accommodation can rightly be demanded at all. Obviously the Legislature never intended to enable a sanitary authority to put a charitable institution into such a dilemma as that in which the Governors of the Bedford County Hospital are placed. This voluntary medical charity, like others of its class, must undoubtedly be already saving the rates to small extent, and in taking advantage of a loophole in the l the sanitary authorities of Bedford appear not only to behaving ungratefully, but to be evading a definite pub duty in anything but creditable fashion.

PURE FOOD AND DRUGS.

THE Pure Food Bill, we learn from the *New York Medi Record*, passed the United States Senate on February 21 The measure makes it unlawful for any person or corporati to manufacture, sell, offer for sale, or deliver for shipment, cause to be delivered, shipped, or transported from any pla within the jurisdiction of the United States, any article food, drugs, medicines, or liquors which is adulterated or m branded, or which contains any poisonous or deleterious su stances. The penalty provided is 500 dollars (£100) fine or o year's imprisonment for a first offence, and 1,000 dollars (£2 fine or imprisonment for each subsequent offence. Drugs s under a name recognized in the United States *Pharmacopo* or National Formulary are required to be of the same stand of strength, quality, and purity as determined in the lat test, unless the standard of strength, quality, or purity stated on the label. In the matter of food products, the I forbids the mixing therewith of any substance which redu the quality or is a substitute for it, or if any valuable c stituent of the article has been abstracted, it is then decla to be adulterated and contraband. The Bill forbids the sale a food article under the name of another article, the mixi colouring, powdering, or staining of a food product to conc its defects, or the labelling of it to deceive the producer.

MEDICAL MORTALITY IN AMERICA.

DURING 1905 the deaths of 2,045 medical practitioners in United States and Canada were announced in the *Journal the American Medical Association*. On an estimated to number of medical practitioners of 125,000, the death-rate the year is therefore 16.36 per 1,000, a proportion which d not materially differ from that in previous years, the cor sponding rate for 1904 having been 17.14 ; for 1903, 13.73 ; a for 1902, 14.74. The age at death varied from 23 to 104 yea the average being 61. There were 62 deaths under 30, a 103 over 70, 239 over 80, 23 over 90, and 2 over 100. T extreme limits of years of practice varied between the y of graduation and 75 years, the average being a little o 31 years. Eleven died in their year of graduation : 6 h been in practice more than 70 years, 65 more than 60 yea 303 more than 50 years ; and 629 more than 40 yea Our contemporary complains of the incompleteness of obtainable data regarding deaths ; in 706 cases, or 34.52 cent. of the total for 1905, no explicit cause of death stated. Of those in which the cause of death was stat "heart disease," as in previous years, heads the list. To t are attributed 202 deaths, 15 of which were from angina p toris, 4 from endocarditis, and 2 from myocarditis. Cereb haemorrhage, which includes most of the deaths ascribe "paralysis" and "apoplexy," caused 153 deaths, pneumo 141, tuberculosis 102, nephritis (including Bright's disease dropsy) 100, senile debility 80. Typhoid fever claimed victims ; malignant disease, 34 ; septicaemia, 28 ; appendici 27 ; paralysis, 25 ; influenza, 24 ; uraemia, 122 ; meningitis, liver diseases, 15 ; diabetes, 13 ; gastritis, 10 ; peritoni paresis, and gall-bladder disease, each 8 ; locomotor ataxia haemorrhage of the lungs, each 7 ; malaria, intestinal dise and insanity, each 6 ; yellow fever, neurasthenia, erysipe brain disease, and alcoholism, each 5 ; pernicious anaemia and haematemesis, scarlet fever, small-pox, exposure, and di theria, each 3. Accidents were responsible for 72 deaths which 19 were due to poisoning, the agent in 11 of these be morphine ; 10 to drowning, 9 to railway injuries, 7 to fa 5 to fractures of the hip in the aged, 4 each to gunshot wou and street railway casualties, and 3 each to burns, carb acid poisoning, and runaways. In 53 cases death follo surgical operation. Under the head of suicide are 46 ca Of these cases, death was caused by shooting in 26, by m phine in 7, by carbolic acid in 4, by exsanguination in 4, by strangulation in 3. Twenty practitioners met with vio deaths : of these 13 were shot (of whom 1 was killed w resisting an officer), 4 were killed in duels, and 1 med officer was killed in battle in the Philippines.

VOLUNTARY NOTIFICATION OF PHTHISIS.

M. T. R.—Schemes for the voluntary notification of case phthisis are in force in a large number of districts in I land and Wales, including Manchester, Liverpool, Blackb Cardiff, Accrington, Southport, Brighton, Blackpool, B Bromyard, Bridgnorth, Drayton, Chirbury, Ashton-un Lyne, Atherton, Birkdale, Eccles, Leigh, Levenshulme, L Hulton, Little Lever, Mulh Woolton, Newton-in-Makerfi Stretford, Ulverston, Waterloo and Seaforth, Garst Bocklow, Jarrow, Hebburn, the rural districts of Heref Dore, Bromyard, Leominster, Weobley, and Ledbury. success attending the adoption of the scheme has varied considerably. In Manchester and Liverpool it appears t satisfactory, while in Jarrow and Hebburn, in the count Durham, it is said to be not altogether a success.

LETTERS, NOTES AND ANSWERS TO CORRESPONDENTS.

Queries, answers, and communications relating to bjects to which special departments of the British edical Journal *are devoted will be found under their pective headings.*

QUERIES.

F. B. asks for advice on the treatment of a patient, about 0, active and in good health, but of nervous disposition, ho on the slightest exertion, such as walking a short dis-ance, breaks out into a perspiration over an area as large as he open hand on the front and back of the chest, the rest of he surface of the body being quite dry.

Electric Cars in Medical Practice.

ectric writes: Seeing so much is being written regarding otors for medical men it would be instructive if any embers possessing *electric* cars would give their experiences, s I am informed that for town practice, where the radients are not too steep, they are much more convenient an petrol cars. I hope some of my medical brethren will ive the desired information.

Calcareous Concretions in the Tonsils.

dico asks for advice in the treatment of hardened secretion the tonsil. The tonsil is flattened, small, and depressed the centre, forming a fold. The hardened secretion is tained in the central crypts in the fold. He has scraped any times and dilated the orifices of the crypts, and intro-ced tincture of iodine and silver nitrate, but it still recurs. emoval of the tonsil would be dangerous and difficult from s small size.

what Age should Enlarged Tonsils be Removed ?

sks whether it is advisable to remove the tonsils in a girl t yet 5 years old ? There are apparently no adenoids, the ght tonsil is much hypertrophied, the left but little. ere is no deafness ; the child breathes through the nose day, at night she inspires through the nose, but expira-n is mostly through mouth. There is no nasal discharge cept when she has a cold, which accentuates the mptoms. Operation is strongly objected to. Is there a ance that the swelling may subside ?

Medical Attendance on Boys' School.

Kent asks what the proper fee for visit (including edicine) to a boys' school would be, situated three-quarters a mile from house, and school tuition fees being £90 per num ?

⁎⁎ The answer to this question would be determined to ne extent by the number of boys in the school, and their —both circumstances influencing the amount of attend-e likely to be required, and the number of boys needing be seen on any one occasion. Parents paying the school s named would probably be in a position to pay 7s. 6d. isit for their boys when at home, and this seems to be air average under such circumstances. A not unusual angement seems to be 7s. 6d. for each patient seen during m-time, and 10s. 6d. if the boy be detained at the school ing holiday time.

ANSWERS.

bury.—There is no law fixing the age at which the y of a premature dead infant must be buried in a church-d or cemetery. Registration of the death, where the ld is born alive, is all that the law requires ; any decent osal of the fetus is lawful. Where the fetus is near term, of any size, it is, we believe, usual to pay a small fee to ndertaker or sexton to dispose of the body.

Fango.

itis probably refers to "fango," a kind of mud obtained n thermal springs or their neighbourhood at several th Italian localities—Acqui, Battaglia, etc. This mud sists of mineral salts (partly derived from the mineral er), of organic matter, and of material derived from the hbouring soil. It is much employed in the form of very local applications in chronic gouty or rheumatic painful tions, and the "fango" of Battaglia has been exported any places in various parts of Europe.

Insurance against Illness.

T. writes: In reply to "R. H." (British Medical rnal, April 14th, p. 900), I am similarly insured to H.'s" patient. In July, 1902, I had an attack of scarlatina wed by scarlatinal arthritis ; the time I was incapacitated n work was ten weeks, three of which I spent at a health rt. My company wrote me that they only paid the nefit" for six weeks in cases of scarlatina. My reply was my policy covered me for the time I was incapacitated from work by the disease, and that I should be glad to hear if they would inform me if they intended to dispute my claim, as, if so, I would refer them to my solicitor. I received a cheque by return. Possibly, the company are objecting to the claim for "rheumatism." If it were pointed out that the complication is a true post-scarlatinal arthritis, they might get over their difficulty.

Angio-neurotic Oedema.

Mr. A. A. Bradburne, F.R.C.S.Ed. (Southport), writes: Mr. Lowman asks for suggestions as to treatment of the two cases which he describes of angio-neurotic oedema. The condition seems due to a low coagulability of the blood, resulting in an exudation under the skin following a preliminary engorgement arising from a dilatation of the capillaries occurring in a neurotic individual. The cases described seem closely allied to those in which an urticarial rash can be produced by mental effort in a patient whose blood coagulability is low. The test for coagulability is simple, and the treatment would be calcium in the form of the chloride or lactate administered for some time, owing to its slow absorbability. It would be of interest to learn if the patients had previous to the attacks ingested any decalcifying agent such as citric acid (acid fruits), alcohol (acid wines), tobacco smoking, rhubarb, certain shellfish, etc., or were sufferers from chilblains, which latter is nearly always due to deficiency of the calcium salts, as Professor Wright has proved.

Dr. John Spurway (London) writes: Curiously enough I have just had quite a run of cases of this kind, of three of which I append notes.

1. A woman aged 21, whom I had previously attended for severe attacks of urticaria, suddenly developed very great swelling of the upper and lower eyelids, nose, and forehead. This was accompanied by considerable pain. It subsided fairly rapidly, but it was a week before the final discoloration had disappeared.

2. A woman aged 33, whom I had just attended for erysipelas of the ear. A considerable swelling suddenly appeared over the right knee and extending above and below it for several inches ; the joint itself was unaffected. The swelling was very painful, and was followed by deep discoloration, which took a considerable time to disappear.

3. A woman aged about 40, who had had several severe attacks of urticaria and one very severe attack of herpes zoster, was being attended by me for a neuropathic keratitis, which lasted some three months, when suddenly one day she felt an acute pain between the shoulders. I found a large oedematous swelling at the base of the neck, over the spine, and extending over each scapula. This also subsided rapidly, but the pain lasted several days.

I have always looked upon the disease as nothing more or less than a greatly exaggerated form of urticaria.

Treatment of Tuberculosis by Lime Salts.

T.M.W.—M. Paul Ferrier, in the book reviewed elsewhere in this issue, gives the following dietary and prescription. He forbids all alcohol, and also salads, vinegar, as well as oranges, lemons, and drinks made from them. He forbids butter and replaces it in cooking by cream or white sauce. The vegetables he allows are potatoes, carrots, dried peas, macaroni.

At 6.15 a.m., a glass of St. Galmier water.

At 7 a.m., two eggs, 50 grams of bread ; one cachet.

At 11.15 a.m., a glass of St. Galmier water.

At noon, déjeûner of lean meat, eggs, fish (not mackerel, herring or salmon), calf's sweetbread, calf's or pig's kidney, liver, lean ham (not smoked) ; total quantity of meat 150 to 250 grams. A little vegetable ; 100 grams of bread ; one cachet.

At 6.15 p.m., a glass of St. Galmier water.

At 7 or 7.30 p.m., dinner of meat, soup or broth, without fat, but with macaroni ; meat or chicken ; eggs. Total quantity of meat 150 to 200 grams. Very little vegetable ; bread, 50 grams ; for dessert, cooked or preserved fruit in small quanity ; one cachet.

Each cachet contains :

Carbonate of lime	0.50 gram.
Tribasic phosphate of lime ...	0.20 ,,
Sodium chloride	0.15 ,,
Calcined magnesia	0.05 ,,

The powder can be mixed with the food if preferred. The St. Galmier water may be replaced by any other water containing lime carbonate.

LETTERS, NOTES, etc.

Calcium Salts in Chilblains.

Dr. F. Rufenacht Walters (Farnham) writes: I am glad to confirm Dr. Stephens's statement as to the value of calcium salts in the treatment of chilblains. I have treated several cases here with 20 gr. doses of the chloride or lactate, continued for three days at a time, with a few days' intermission, and the results have been better than with any other remedy hitherto employed by me. I understand that Professor Wright, of St. Mary's Hospital, has adopted this method of treatment for some time past.

SPRAIN OF THE DIAPHRAGM.

A. J. W. writes: I am not aware whether such an accident as sprain of the diaphragm has ever been recorded, but I have had two cases during the past fortnight and the symptoms in each instance are certainly suggestive of a lesion of the diaphragm. (1) My first patient was a clergyman, and he told me that he had been preaching in a larger church than he was accustomed to, and was making a strong effort to let his voice, which is naturally weak, be heard, and on taking a deep and sudden inspiration he felt a stabbing pain in the epigastric region and a sensation as if something had given way. I was sent for two days later because the pain was not any better; he informed me that he did not feel pain unless he took a deep breath or attempted to laugh; laughing especially caused acute pain in the region of the ensiform cartilage. Deep pressure over this region was slightly painful, but there was no friction to be made out, there was no cough, and the temperature was normal. I advised the application of a mustard poultice and told the patient to avoid laughing, and after a day or two the pain gradually lessened and disappeared entirely about eight days after the onset. (2) My second case was a young housewife who told me that she had been busy polishing the kitchen range in a stooping position. She stopped brushing for a moment, raised her head, and took a deep, sudden inspiration, as she was quite out of breath with the exertion, and immediately she felt a stabbing pain, like a severe stitch, at the pit of the stomach; she was afraid to take a deep breath for some days afterwards because deep breathing aggravated the pain, and, if she attempted to laugh, the pain became very acute, and made her "Laugh with the wrong side of her mouth." The same treatment was prescribed, and in four or five days the pain had disappeared. Both patients were in the best of health previously, and the symptoms were practically the same in each instance—a short stabbing pain at the ensiform cartilage, following a sudden deep inspiration, and a sensation as if something had given way; the pain was worse on deep inspiration, and very severe when attempting to laugh. In the act of laughing there is a series of short and rapid expirations, and this implies a series of short spasmodic contractions of the diaphragm, which would account for the severity of the pain. It is, perhaps, worth noting that the clergyman is in the habit of speaking as loud as he can, and the young woman also. She has been a school teacher until quite recently, and still speaks very loudly from the force of habit.

THE X-RAY TREATMENT OF RINGWORM.

MR. E. S. WORRALL, medical officer in charge of the electro-therapeutic department and the *x*-ray department, University College Hospital, writes to say that the method described by a correspondent in the BRITISH MEDICAL JOURNAL of April 7th, p. 840, is not adopted by himself or his assistant, Mr. R. Higham Cooper, who carry out the *x*-ray treatment at the hospital. Mr. Worrall agrees with Professor Freund, of Vienna, that serious mishaps are liable to occur if reliance be placed on the Sabouraud-Noiré plaques, and that the method of fractional doses is more reliable.

GLOVES AND POST-MORTEM EXAMINATIONS.

AN inquiry was held in the Westminster Coroner's Court on April 3rd into a death from blood poisoning, the deceased being a *post-mortem* clerk at Westminster Hospital. From the evidence given it appears that the deceased became infected at a necropsy which he commenced on his return from a holiday taken because he had been out of health. As he still seemed unwell, the Assistant Pathologist put him off duty again, and completed the *post-mortem* examination himself. The deceased had a number of small abrasions on his hands and did not wear gloves. Questioned on this point, the Assistant Pathologist, according to the *Evening Standard*, stated that at the Westminster Hospital gloves were never worn at necropsies. It was not a regulation, but a principle founded on experience and common sense. The coroner, in summing up, remarked that though at Westminster Hospital it might be regarded as common sense not to wear gloves, it was not easy to say that institutions where gloves were worn were not actuated by common sense, and as a proof of the risks involved, he stated that he himself had held three inquests on the bodies of mortuary keepers.

SARSAPARILLA IN SYPHILITIC CACHEXIA.

MR. C. F. MARSHALL, F.R.C.S. (Birmingham) writes: In the recent correspondence on this subject there is an essential point which has hitherto escaped notice: this is, whether the beneficial effect of decoctions in this condition is not due to the action of the quantity of fluid, rather than to the sarsaparilla or other drugs contained therein. I remember a case at the London Lock Hospital a few years ago, the patient being a woman who had been in hospital for six years with chronic tertiary syphilis, affecting chiefly the skin and subcutaneous tissues. Every conceivable variety of mercurial and iodide treatment had been tried and failed, and two courses of treatment by Zittmann's decoction caused only temporary healing. Finally, Mr. A. H. Ward, acting on the strength of the temporary improvement resulting from the decoctions, suggested the administration of 3 pints of hot water daily, with 5 gr. doses of iodide. The iodide w discontinued after three weeks, but the water continu This treatment resulted in healing of all the ulcers, and nine months the patient was sufficiently recovered to go i domestic service. Mr. Ward considered that the hot wa enabled the organism to eliminate the toxin of syphilis, that this is the true explanation of the beneficial effect the treatment of syphilis by Zittmann's or other decoctio

SCARLET FEVER AND MIDWIFERY PRACTICE.

DR. W. J. YOUNG (Cambridge) writes: In August, 1904, I w summoned from the cricket field to attend a midwifery ca I cycled nine miles in my flannels, adopted the us routine, and the patient had a perfectly normal labour, on the third day developed a violent attack of scarlet fe The house stands on top of a hill, quite a mile from nearest residence; there were no visitors, and neither nurse nor myself had seen a case of scarlet fever for mont nor were there any in the neighbourhood. That diagnosis was correct is, I think, practically certain. Th were no signs of sepsis, the lochia were satisfacto douching was not resorted to, and the patient made excellent recovery, desquamation being complete in ab seven weeks. I was completely baffled to account for attack, but a few days ago on attending the same patient her second confinement her mother told me that they just bought two heifers at the time of the first case, t they were so ill that one died, and she wondered if they affected their cows so as to infect the milk. This is at le suggestive in such a puzzling case.

MIDWIFERY OF THE PRESENT DAY.

DR. W. T. F. FREEMAN (Reading) writes: Nothing is under the sun; but I have not noticed attention drawi the cases where after a long labour the patient is worn and prays for assistance, and yet where a timid practitic may dread the application of forceps without the adminis tion of a full anaesthetic. The trouble is with the appl tion of the upper blade. The late Dr. G. Roper, when he connected with the Waterloo Road Infirmary, origin showed me how easy it was with an ordinarily roomy va to apply this blade, and lateralize after insertion; but th is a still easier method of withdrawing the head in s cases, and that is by quiet turning movements with lower blade only. I have saved hours of pain and wai in many instances by this method, and now emplo invariably when there is delay on the perineum. Wi multipara it is as easy as an operation can be, and wi primipara (one of my last cases was a woman of 39) often only a matter of a little practice and remembering axis of the outlet. I have never used a pair of short forc With a truly rigid perineum the method is, of cour feeble one.

DIAGNOSIS OF DISEASE OF THE GALL BLADDER.

A CORRESPONDENT writes: In reply to "Gamma's" inq on p. 839 of the BRITISH MEDICAL JOURNAL, April 7th, term "Murphy's sign" is explained. May I point out this term is improper and incorrect? The circumstanc which Murphy refers in the quotation made from his ar were pointed out several years before by Naunyn (*On C lithiasis*, p. 79). Naunyn writes: "In such cases it is f that pain is induced when during a deep inspiration pres is made with hand as far upwards as possible beneath right costal border. At the moment when the liver impi upon the tips of the fingers the patient experiences a seated pain," etc. If a name is to be given to this which would be undesirable, it should be Naunyn's, Murphy's.

THE ETERNAL MOTHER-IN-LAW.

JOKES about mothers-in-law are mostly chestnuts of the mouldy character. We do not, however, remember to heard the following which we came across in a recently lished book, *Fifty Years of Failure*, and therefore ve to quote it. A married man telegraphed to a doctor: wife's mother lies at death's door; please come and pu through!"

SCALE OF CHARGES FOR ADVERTISEMENTS IN T

BRITISH MEDICAL JOURNAL.

Eight lines and under	£0 4 0
Each additional line	0 0 6
A whole column	2 13 4
A page...	8 0 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manag the Office, not later than first post on Wednesday mo preceding publication; and if not paid for at the time, shou accompanied by a reference.

Post-Office Orders should be made payable to the British Me Association at the General Post Office, London. Small am may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive lette *Postes Restantes* addressed either in initials or numbers.

A Clinical Lecture
ON
EXTROVERSION OF THE BLADDER.
WITH SPECIAL REFERENCE TO EXTRAPERITONEAL TRANSPLANTATION OF THE URETERS INTO THE RECTUM.

By **ALFRED AUSTIN LENDON**, M.D.Lond.,
CLINICAL LECTURER ON DISEASES OF CHILDREN, UNIVERSITY OF ADELAIDE: SURGEON, ADELAIDE CHILDREN'S HOSPITAL; PRESIDENT, SOUTH AUSTRALIAN BRANCH, BRITISH MEDICAL ASSOCIATION.

The patient whom I am about to show is an instance of comparatively rare, but extremely interesting, deformity. I say comparatively rare, for I can only call to mind having seen some ten cases during almost a third of a century; of these, seven were inmates of the Adelaide Children's Hospital. I am especially interested in these cases, because, quite apart from any teratological interest, there is the satisfaction derived from having witnessed, and indeed participated in, the removal of this distressing condition from the list of irremediable deformities, those genuine reproaches of surgery. I hope that you will share with me this feeling of pride in the success of a new method, which can claim to have been first "made in Australia"; for, after the recent episodes of the "six hatters," and of the blind traveller who was refused permission to land in the Commonwealth, it should be a satisfaction to you to let the Old World know that some good thing can come out of the despised Antipodes besides Australian cricket and New Zealand football.

It is sometimes urged that we are too fond of taking a rare case, such as this, as our text in clinical teaching. To my mind the answer to this charge is, that the student will learn for himself all about ordinary cases either now or when in practice; whereas, unless these rare cases are impressed upon his memory by their occasional exhibition in a clinique, he is apt to be puzzled should he meet with them in after-life, and perhaps he may discover to the discerning layman a want of familiarity with them. In some cases where diagnosis is involved this is a matter of considerable importance, although in the case of ectopia vesicae one cannot imagine any such difficulty arising.

Description of Case.

This young man—for he is now nearly 17, although he looks much younger—has for nearly seven years lived a life of comparative comfort and ease, able to pass the night without being disturbed for the purpose of emptying his "common cloaca," attending school by day and enjoying all boyish sports. He has been under my observation nearly the whole of his life; even when a mere child he was an old "identity" in the Way Building, and for many years he held the palm as the most interesting inmate of the ward, both on account of his charming appearance and amiable disposition; he was nicknamed "Bubbles" after Millais's famous picture. He was 18 months old when first admitted to the hospital, and the extroversion was of the usual character, reaching up to the umbilical scar, and complicated with large inguinal herniae. From 1890 to 1898 he was frequently an inmate of the hospital, where many hours were spent in devising and carrying out plastic operations to cover over the defect. Our records show that he was under an anaesthetic on more than twenty-five occasions; in the course of these attempts it was considered justifiable to perform double castration, with a view to obtaining better results in the operations upon his herniae. The results on the whole were creditable and gratifying, so far as such a piece of surgical patchwork could be, but there remained two serious drawbacks. In the first place, as he grew older his society was rather shunned owing to the abominable odour of decomposing ammoniacal urine which attached to him; and, in the second place, his *amour propre* was often wounded by the sneers of his little companions at the dress which he wore—a sort of compromise between the kilt and a sailor's costume, combined with a baby's napkins. Averse as he was to taking ether, he said that he would willingly submit to anything that would enable him to wear trousers.

So pitiable is the hapless condition of the victims of extroversion that one feels that no amount of risk need deter us from endeavouring to remedy the deformity. One patient, a boy of 16, whose presence could barely be tolerated in any living room, and whose bedroom no one could share, had talked of drowning himself, whilst his mother, who predeceased him, had told a friend that if at any time she knew herself to be dying she would strangle the boy rather than leave him to the tender mercies of a possible stepmother. It is true, I believe, that in rare instances patients have lived even to old age, and that women with this deformity have married and borne children; but the only case I have seen in an adult succumbed to cancer of the bladder, and in two of the cases which had undergone operation with enough success to allow them, when in the recumbent posture, to retain a small amount of water in the newly-formed bladder, I was frequently called upon to remove phosphatic concretions under anaesthesia; whilst in two other children I had been obliged to drain a renal abscess, and in one of them to remove a kidney.

I had reason, therefore, and the patients still greater reason, to be somewhat dissatisfied with the results of plastic operations, and my idea had always been to attempt some form of extraperitoneal transplantation of the ureters; but, with the exception of the case reported by Mr. (now Sir Thomas) Smith,[1] which was distinctly discouraging, I could not find anything recorded in the literature of the subject which was of the slightest assistance to me. Maydl had, indeed, some years before,[2] reported his successes in transperitoneal implantation of the ureters into the large bowel, but although I had met with a reference to his operation I had not read his paper, and I hesitated to run the risk of infecting the peritoneum. The best method, so it appeared to me, would be to detach the ureter from the bladder, and insert it into the rectum, rather than to tackle the ureter in the loin and implant it into the colon, as Sir Thomas Smith had done, for if my operation failed for any reason it would still be possible to attempt some intraperitoneal measure later on.

Operation.

Accordingly on May 12th, 1899, I carried out the following procedure: After as careful disinfection of the bladder surface as circumstances would allow, the work of years was ruthlessly undone by a single incision, it being necessary to completely divide the artificial front wall of the bladder in order to expose the trigone. The orifice of each ureter, buried as it was in the greatly hypertrophied mucous membrane, was with some difficulty made out by observing the intermittent spouts of urine, which were alternating and not synchronous; down each ureter a director was then passed to serve as a guide. A button or rosette of mucous membrane, about the size of a sixpenny-piece, was cut around the ureteral orifice so as to save any valvular or sphincteric action which that opening might possess. By means of the director, the termination of the ureter was easily defined in the thickness of the bladder wall, and as easily followed into the subperitoneal tissue; it could now be stripped up with the same ease as a round ligament in the performance of Alexander-Adams operation. On passing a finger into the rectum, nothing more than its coats was felt to intervene between it and another finger in the subperitoneal tissue; a pair of Lister's forceps was guided along the finger in the bowel, and thrust through its wall; its blades were opened widely enough to seize the end of the ureter, which was then drawn through into the rectum, and kept there in position with an ordinary pair of clip forceps. This manœuvre was repeated on the opposite side, and the operation thus completed, the handles of the forceps dangling outside the anus. Unfortunately, owing to excess of zeal, my assistant removed the forceps attached to the right ureter, and whilst the left ureter remained permanently transplanted, the right worked out of the rectum very soon.

The net result of the operation, however, was a very substantial improvement, for the patient immediately lost his offensive odour, although all the urine passed by the rectum was still pungently ammoniacal. At the time of the operation it was noticed that the left ureter was much thickened, whereas the right was apparently normal. This fact suggests that in this particular case the decomposition of the urine occurred in the left kidney or its ureter and not on the surface of the bladder, for if it had been in the latter situation we should have expected the *Bacillus* *ureae*, which is said to cause this peculiar form of decomposition, to act upon the urine furnished from both kidneys alike. I dwell rather upon this point because in other cases of extroversion I have found that whereas the urine passed straight into a receptacle (after disinfection of the bladder surface) was acid and free from odour, if it were collected in a bedpan it would show all the usual characteristics of ammoniacal urine, thus suggesting that the urea bacillus effected its purpose equally well when it resided on the bladder surface.

In June a second attempt was made to transplant the right ureter into the rectum, but it slipped out again the next day, and later on the structures could not be sufficiently identified to allow of further attempts at replacement. To complete the case it was now necessary to adopt some modification of Maydl's operation, which was accordingly done, with the kind help of Professor Watson, who had assisted me at the first operation. Into the details of this I need not enter now, as you will find it recorded elsewhere[3] in full, together with other cases in which I performed the transperitoneal operation, but without success. In this instance, however, it was a brilliant success, and now this lad is going about with one ureter emptying itself into the lower part of the rectum and the other into the sigmoid flexure. The fears that used to be entertained as to the rectum being able to tolerate the presence of urine are quite unfounded, for this patient will tell you that he can go all night without trouble. You will notice that the usual indications of puberty are absent. The boy has also from time to time pain in the left kidney region, and may possibly, like other cases, in time to come develop pyelitis and renal abscess.

Two Other Cases.

In the next case which I attempted (July, 1901) the right kidney had already been removed,[4] so that only one ureter remained to be dealt with. In this instance the only modification of the technique of the previous operation consisted in first inserting a rubber catheter, with its point removed, into the ureter, and stitching it to the mucous membrane; this facilitated the drawing of the ureter into the rectum, without so much bruising of the orifice. Unfortunately the ureter was kinked, and had to be readjusted next day. The boy died in the following October, and at the autopsy it was found that the ureter had escaped from the rectum, the urine meanwhile having found its way through an ulceration into a loop of small intestine, at a distance of a few inches from the ileo-caecal valve.[5]

By the kindness of my colleague, Dr. Newland, I am enabled to show a case operated upon by this method with complete success about a year ago; the only *contretemps* was an attack of pyelitis. Dr. Newland has been at great pains to preserve intact the sexual organs; this, I confess, I look upon as likely to be more of a misfortune for the child in the future than an advantage.[6]

Evolution of the Radical Operations for the Cure of Extroversion.

The following account was communicated to the Inter-Colonial Medical Congress in 1902:

The history of the operations devised for the relief of extroversion is one of very great interest, although it is quite modern surgical history, being limited to the second half of the nineteenth century. In former days it was usual to recommend the wearing of an apparatus designed to protect the exposed bladder, and at the same time to collect the dribbling urine. With the introduction of anaesthesia, surgeons began to turn their attention to the possibility of rectifying this distressing deformity, and from the very first they set to work upon different lines, and with different objects in view. While most surgeons were contented if they could effect a decent closing-in of the exposed bladder surface by more or less complicated plastic procedures, some of the pioneers in this branch of surgery struck out boldly for themselves to effect what may be termed the radical cure of the deformity by diverting the flow of urine into the bowel. These early and meritorious efforts to effect a radical cure were not so successful as they deserved to be, and they fell somewhat into desuetude, whilst on the other hand plastic operations were evolved and improved which seemed to answer almost every purpose, except—and the exception is one of the greatest importance—that the patients could retain their urine scarcely any better than before operation, and had still to wear a urinal. To show the comparative estimation of the two classes of operations, palliative and radical, Treves, writing in 1891, says the latter require only to be enumerated, and accordingly disposes of them in half a page of his *Manual on Operative Surgery*, whereas he devotes thirteen pages to the consideration of the various and ingenious plastic methods which had been devised during the previous forty years, and which after another ten years may possibly be condemned to the limbo of discarded operations. Again, an American writer's opinion[7] in 1890 was that a complete cure could not be expected, but that a good anterior protection to the bladder might be made, and the urine directed into a pouch with a small orifice of exit, to which a urinal might be applied. At the same time he estimated the mortality from these plastic operations at from 12 to 20 per cent. To Maydl is due the credit of reviving the radical operation by means of uretero-intestinal anastomosis in the years 1892-3, and the many subsequent successes which have been reported leave but little doubt in my mind that in the near future his method, or some modification of it, will supplant the uncertain and highly unsatisfactory palliative operations. I shall therefore confine myself to the consideration of the gradual evolution of the class of radical operation of which Maydl's is the best-known example.

The first step in the evolution of the radical operation was effected by Mr. Simon,[8] who in 1851 succeeded in establishing a fistula between each ureter and the rectum. By means of a guarded needle introduced into the ureter he threaded the two ends of a loop of silk into the rectum. These he gently tightened until the loop came away, leaving a uretero-rectal fistula. Urine passed per rectum, but some still came out on the surface of the bladder, whereupon an unsuccessful attempt was made to close the end of each ureter. A year later the patient succumbed to calculous pyelo-nephritis, but the fistulae were patent, and the feasibility of the operation was established.

The next two operations—by Lloyd[9] and Athol Johnson—were similar in idea to Simon's, but rather different in this respect, that they aimed at establishing a vesico-rectal, not uretero-rectal, fistula. A silk thread was passed through from the rectum into the bladder, and then a skein of silk dragged through after it, but unfortunately in both instances the pouch of Douglas seemed to come down lower than usual into the pelvis (as it frequently seems to do in extroversion), and as a result, it was traversed by the silk skeins, and both cases rapidly succumbed to peritonitis.

Timothy Holmes attempted to conduct the urine by means of a flexible metal tube from the neighbourhood of the ureteral orifices (he was unable to introduce his tubes into the ureters as he had intended) into the rectum as far as possible from the anus. He did not choose the direct route, but a circuitous one along the surface of the bladder, and then subcutaneously in the perineum. The result was a failure. In another case, after plastic closure of the extroversion, Holmes established a recto-vesical fistula by means of a gradually-tightened screw forceps compressing the wall of the rectum and the adjacent floor of the bladder. The urine, however, could only in part be induced to flow into the rectum, and an attempt to close the bladder failed.

Such were the early attempts to divert the course of the urine from the exposed bladder wall. Surgeons were naturally deterred by these failures, and were always, moreover, swayed by the fear that the rectum would never be tolerant of the urine, which it was thought would set up diarrhoea. This fear was strengthened also by the fact that in a much-quoted case in which the ureters had opened into the rectum at birth, the patient had suffered from diarrhoea (Wood).

In 1878 Thomas Smith (now Sir Thomas) launched out in a rather different direction. He admits that he was influenced by Simon's case, and he wished to avoid the danger of wounding the peritoneum, as had happened in Lloyd and Johnson's cases. He decided, therefore, to attempt an extraperitoneal operation in the loin. He first passed a catheter into the ureter as a guide; then he made an incision as if for left colotomy, hooked up the ureter, divided it as low down as possible, detached it, and inserted it into the colon, and sutured it there. There resulted from this operation a urino-faecal fistula; four months later there was only a small fistula, which finally closed up thirteen months after the operation. The procedure was repeated on the right side, but the patient succumbed two days after. At the *post-mortem* examination there was found hydronephrosis of the left kidney, with no communication between the ureter and the colon; the ureter had evidently slipped out again. The right kidney was very large, the pelvis and ureter being much distended, evidently from kinking. The operator was disheartened by his failure, and wrote that he could see no encouragement to further attempts to connect the ureters with the bowel.

Meanwhile plastic operations were steadily gaining ground. The original methods of Pancoast and Ayers in America were improved upon by Wood of King's, Holmes[10] of St. George's, and Greig Smith of Bristol; new methods of technique were introduced by Thiersch, who substituted granulating for raw flaps; and by Trendelenburg, who divided the sacro-iliac synchondroses, so as to approximate the pubic bones, as well as by Sonnenberg, who separated the ureters, stitched them to the penile urethra, and then stripped off the bladder mucous membrane and closed the abdomen.

Out of all the operations done by these various plastic nethods, Hartley[11] of New York is only able to satisfy iimself as to one in which anything like continence of irine resulted. Perhaps the acme of perfection in techiique is reached in such a case as Battle narrates in the linical Society's *Transactions* (vol. xxiv).

In 1894 Maydl reported two cases in which he had uccessfully revived the radical operation by inserting he ureters into the sigmoid flexure of the colon. In rder to retain any sphincteric action which the ureters night possess he transplanted the ureters together nstead of separately, and with them an elliptical piece f the trigone of the bladder. Other surgeons followed uit, but not always with such good results. Still, during he past eight years there have been a good many uccesses reported. Fowler altered the operation of laydl somewhat by inserting the ureters into the ectum instead of into the sigmoid, and by a method f suturing the circular fibres so as to compress the reters when a solid motion was passing over their rifices. Gersuny modified it still more by completely ividing the rectum, inserting the base of the bladder nd the ureters into the lumen of the rectum, and ewing them there, subsequently anastomosing the ivided end of the sigmoid with the anterior surface of ie rectum nearer the anus.

The last development of the operation of transplantation ureters is represented by the case which I have arrated (Case I), where the peritoneal cavity is not pened; and although my next case operated upon in a milar manner failed (Case II), still I am inclined to think iat it will prove to be the method of the future, subject ossibly to some slight modifications. Peters of Toronto[12] as reported a similar successful case operated upon two onths later than my case, which I must further acknow-dge to have been more immediately successful and com-ete than mine, which was one-sided, and required to be mpleted by an intraperitoneal implantation on the pposite side. I expect that better results will be tained when these transplantations are performed before y ascending uretero-pyelitis has set in, but it is not ways obvious to the parents that a dangerous operation desirable before the child's condition has become one of tolerable nuisance to himself as well as to the family account of the ammoniacal decomposition of the ine.

The Varieties and Origin of the Deformity.

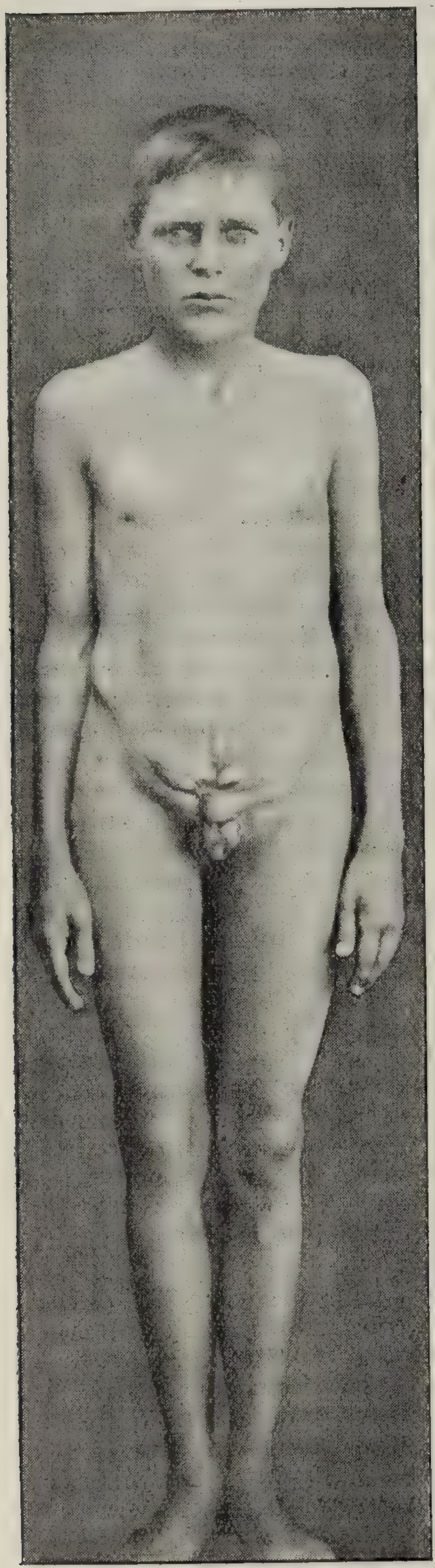
The Anatomy of Extroversion.—In the ordinary variety of troversion we find a convex, reddish tumour, covered readily-bleeding mucous membrane, in the lower part the abdomen in the middle line. This bulging tumour nsists of the posterior wall of the open bladder, pushed the pressure of the intestines behind it through the atus which exists in the muscular and bony structures the hypogastrium and the pelvis. On the patient lying wn, the bulging may diminish in size, and be partially tracted within the abdomen. With the fingers it can be shed back so as to form a cup, at the bottom of which e orifices of the ureters may be seen spouting their ota of urine intermittently and independently of one another. Projecting from the lower end in a boy there will usually be found a stumpy and broad penis, with a groove on its upper surface, and a redundant prepuce on its lower aspect continuous almost immediately with the scrotum. The scrotum may be quite natural, and contain the testes, or these organs may be retained within the abdomen. There are frequently large congenital inguinal herniae. It is usually said that there is no umbilicus, but there can generally be found a flat scar at the top of the extroversion representing it. At the sides a fine scar shows where the mucous membrane of the bladder, the fasciae of the recti muscles, and the skin are united. The hiatus of the abdominal wall thus extends through everything between the umbilicus and the urinary meatus, and its width is greatest at the pubes, where the bones are separated sometimes to the extent of 6 in. in an adult (Wood), but at the same time the deformity has generally an appearance of being rather limited to the pubic region, the site of the navel being much nearer than usual to where the symphysis should be.

So much for the ordinary type of deformity. We read, however, of many variations from this type, some of which may be considered as extreme degrees of the defect, others as minor degrees. To take the extreme cases first, the mucous membrane of the extroverted bladder has been found divided into two separate halves by a median cicatrix, and in one such case, complicated with imperforate anus, the ileum opened by a fistula through this cicatrix. Again, the bladder may be entirely wanting, and the ureters may open directly into the urethra, the vagina, or the bowel. Even in an ordinary case, as Champneys[13] has pointed out, there may be seen indications of this origin of the bladder from two separate halves in the fetus.

The minor degrees of the deformity are highly interesting. For instance, Betham Robinson[14] has reported a case in which there was a separation of the pubic bones, a bifid clitoris, and a linea alba converted into a wide cleft, but no deficiency of the bladder wall. A slightly more marked degree of the deformity is seen in cases where this expanded linea alba is converted into a hernial sac containing the prolapsed, but perfectly-closed, bladder. Such cases were originally termed by Vrolik "ectopia vesicae," the name "extroversion" being thought more suitable for the ordinary variety of the malformation with a cleft bladder. Mayo mentions a case in which a calculus was found in an "ectopia vesicae"; the pubic bones were 5 in. apart. Again, it is said that separation of the pubic bones does not invariably occur. Nor does the deformity always reach as high as the navel; in one of my cases there was a considerable interval between this landmark and the top of the extroversion. Here we may assume that the urachus existed as an obliterated fetal remnant. Then, too, what are termed cases of extreme epispadias are probably minor degrees of extroversion, for the penis is described as stunted, the finger can be introduced along the gutter-like urethra into the bladder (Treves), the sphincter vesicae is inefficient, so that there is incontinence of urine, and the bladder sometimes becomes prolapsed through the opening; whilst separation of the pubes is further mentioned as a complication (Morris). Adams[15] has described the case of a girl of 12 years of age afflicted with congenital incontinence of urine, in whom the pubic bones were firmly united, but a mesial division existed, starting from the mons veneris in front, and passing through the clitoris to the anterior wall of the urethra, the mouth of which was consequently widely dilated, and could not be properly contracted. Both penis in the male and clitoris in the female are said to be often absent (Schneider). This statement I cannot verify, but where the clitoris is present, as it most frequently seems to be, it is usually bifid. On the other hand, we do not read of a separation of the two corpora cavernosa of the penis. It has already been mentioned that in some cases the urachus is presumably closed. We must remember that the opposite condition, namely, patency of the urachus, occurs as a rare event, and that sometimes the fistula communicates freely with the bladder, which is otherwise quite natural.

When children with this deformity are born, an expansion of the structures of the cord in the shape of a thin membrane is said to cover over the defect. This, like the cord itself, separates by granulation at the margin of the hiatus where mucous membrane meets skin.

The theory advocated by Morris that epispadias indicates a state of torsion of the penis can hardly be endorsed by any one who has had an opportunity of dissecting a case of extroversion.



The penis and testicles have been removed.

The Nature of the Deformity.—To understand the nature of this deformity we must recall what is taught us about the development of the bladder and of the external genitals. In diagrams of an early embryo we see a craniovertebral axis curved round the rudimentary alimentary tube, which consists of two blind ends and a middle portion. This middle portion of the primitive intestine communicates by a wide opening with the umbilical vesicle or yolk sac, a structure consisting of a layer of hypoblast surrounded by mesoblast, in which the omphalo-mesenteric vessels spread. At first this sac occupies almost the whole of the ovum, but soon it is eclipsed in size and in functional importance by a new structure—the allantois. The allantois is described as sprouting from between the pedicle of the yolk sac and the caudal end of the embryo as a glove-like tube, composed, like the yolk sac, of hypoblast and mesoblast. Its interior communicates with the hind gut, while round its outer coat the umbilical vessels course. This structure grows towards the chorion, and the spot at which it is ultimately attached to the chorion becomes the placental site. As the allantois develops the umbilical vesicle ceases to grow, and remains represented by a cyst the size of a pea, connected by a long pedicle—the vitello-intestinal duct—with the navel. This pedicle usually becomes obliterated, but in the rare cases in which it remains patent it persists as a fistula communicating with the ileum. The obliterated pedicle of the yolk sac and the pedicle of the allantois with the umbilical vessels twisted round it constitute the umbilical cord. As the fetus develops the layers of the abdominal wall unite in the middle line, except just at the umbilicus. From the umbilicus to the hind gut the allantois may be divided into three sections, of which the middle portion becomes expanded into the future urinary bladder, the caudal section becomes the urogenital sinus before any differentiation of sex has taken place, while the umbilical segment becomes obliterated like the whole of the extra-abdominal portion of the allantois. The urogenital sinus opens at first into a cloaca with the intestine, but subsequently the anus forms and the bowel is shut off from it. Bearing in mind these relationships, we can appreciate the origin of the many varieties of atresia ani which we see from time to time. Now, supposing that there is a failure of the abdominal walls to meet in the middle line, this failure may be partial, so that we have a thin scar in the place of the linea alba, with widely-separated recti muscles and pubic bones, but the bladder is still protected, and its own muscular walls have closed in properly around the allantoic lining. This partial failure of development of the abdominal walls will explain cases of "ectopia," such as are described by Vrolik,[16] Robinson, and Mayo. But, if the failure be complete, the delicate allantois has no backing to it, so that it sloughs and comes away with the umbilical cord. This may apply to all three sections of the intra-abdominal portion of the allantois, and then we have the usual variety of extroversion; or it may apply only to the lower two divisions, in which case the urachus presumably becomes closed, and a navel is seen at some distance from the top of the open bladder. I think, also, that the failure to close the abdomen may affect only the urethral or the urachal ends of the allantois, whilst the intermediate vesical portion becomes properly closed in. In the one case we meet with that complete form of epispadias which I have already described, and in the other case the result is some form of patent urachus. I suppose theoretically we might expect to meet with instances of deformity in which only the bladder was extroverted, whilst the urachus was obliterated, and the urethra fully formed; in such a case there might or might not be separation of the pubes. No such cases are, however, reported. The occasional division of the extroverted bladder into two halves is explained by the bilateral origin of the allantois itself.

REFERENCES.

[1] *St. Bartholomew's Reports*, vol. xv, 1879. [2] *Weiner med. Wochenschrift*, 1894. [3] *Trans. Intercolonial Med. Congress of Australia*, 1902. [4] Lendon, *Australasian Medical Gazette*, December, 1896. [5] *Trans. Intercol. Med. Congress, Australasia*, 1902. [6] *Trans. Aust. Med. Congress*, 1905. [7] Willard, *Keating's Cyclopaedia of Diseases of Children*, 1890. [8] Mr. (afterward Sir John) Simon, *Lancet*, vol. ii, 1852, p. 568. [9] Lloyd, *Lancet*, vol. ii, 1851, p. 370. [10] Timothy Holmes, *Surgical Diseases of Children*, 1869. [11] Hartley (of New York), *Annals of Surgery*, July, 1901. [12] Peters (of Toronto), BRITISH MEDICAL JOURNAL, vol. i, 1901. [13] Champneys, *St. Bartholomew's Hospital Reports*, vols. xiii and xvi, 1877 and 1880. [14] Betham Robinson, *Clinical Society's Trans.*, vol. xxix. [15] Adams, *Glasgow Medical Journal*, November, 1885. [16] Vrolik, *Todd's Cyclopaedia of Anatomy and Physiology*, vol. iv.

EXTROVERSION OF THE BLADDER: ITS TREATMENT BY EXTRAPERITONEAL IMPLANTATION OF THE URETERS INTO THE RECTUM.*

BY

H. SIMPSON NEWLAND, M.B., M.S.ADEL., F.R.C.S.ENG.,
ADELAIDE, SOUTH AUSTRALIA.

AT the last Intercolonial Medical Congress held in Hobart, Dr. Lendon, when introducing his original operation for the treatment of this distressing deformity to the notice of the profession, made the following prophecy: "I am inclined to think that it will prove to be the method of the future, subject possibly to some slight modifications." This prediction was made a comparatively short time ago, and it is too soon to say whether it will prove to be true. Maydl's intraperitoneal operation, or some modification of it, such as that of Borelius, is certainly more commonly performed. That very few cases have so far been treated by the extraperitoneal method is not surprising when the rarity of the deficiency is considered.

With a view to calling the attention of surgeons to the advantages of extraperitoneal implantation of the ureters (uretero-proctostomy), this record of a successful case is published. Cases which have been operated upon by this method are collected in an appendix, which, however, lays no claim to completeness.

The following are the notes of the case which is the subject of this paper:

H. G. W., a boy aged 7, fairly well developed for his age, was brought by his parents in March, 1904, for an opinion as to the advisability of an operation. The deformity of the bladder had been present from birth. At the age of 3 an operation had twice been unsuccessfully performed in the Adelaide Hospital. He had always enjoyed good health apart from his deformity.

The family history revealed nothing of interest.

On examination, a pyriform area of bright red mucous membrane was to be seen in the pubic region. The stalk lay downwards and was formed by the penis, which was in a state of complete epispadias. Above and at the sides the junction of the skin and mucous membrane were well defined. The exposed surface of the bladder ended below in the cleft urethra, in the proximal portion of which the vera montanum could be recognized. A transverse sulcus, due to the folding of the urethral on the vesical mucous membrane, existed. When this was opened out by gently drawing the penis downwards, the vera montanum and ureteral orifices were more distinctly exposed. The latter lay at the summits of two papillae from which urine gushed forth intermittently, but seldom simultaneously. There was no ulceration of the vesical mucous membrane nor irritation of the surrounding skin. The cleft prepuce was very large. The scrotum was well developed. The testicles were incompletely descended; they lay below the external ring, and could be pushed into the scrotum. No hernia existed.

---

*A paper read in the Surgical Section of the Australian Medical Congress, 1905.

The pubic bones were widely separated. The gap could be felt distinctly, and was very obvious in a skiagraph. The pelvis was consequently flatter than normal, and the inner surface of the thighs, instead of meeting at a narrow angle at the perineum, were separated by a wide interval. The gait was therefore rather waddling in character.

The urine collected from the uncleansed surface of the bladder was slightly alkaline (phosphates); that collected from the ureters direct was acid, and free from albumen and pus. The thoracic and abdominal organs were healthy.

Dr. Lendon courteously granted me the use of one of his beds in the Children's Hospital, and kindly assisted me at the operation.

First Operation.

On March 29th, 1904, the following operation was performed after anaesthesia had been induced by the chloroform-ether sequence. The anus was dilated and the rectum washed out with saline solution. The large bowel had previously been emptied by a purge followed by an enema. To better expose the ureteral papillae a silk retraction suture was passed through the glans penis and given to an assistant to hold. The vesical ends of the ureters were then freed according to the method employed by Peters. A No. 3 Jacques catheter was passed into each ureter for about 2 in. and fixed to the ureteral papilla—the one with a fine silk, the other with a ine catgut stitch. A circular incision of as great extent as possible was then made through the mucous membrane around each papilla. This was deepened until the bladder wall was completely cut through. The separation of the ureter from the loose cellular tissue, in which it lay along the wall of the pelvis, was easily effected. Each ureter was exposed for 1½ to in. With the left forefinger in the rectum and the right in he suprapubic wound, the anterior and lateral walls of the ectum were defined. A Lister sinus forceps was passed into he rectum, and its fine point thrust through the lateral wall about 1½ in. above the anus. The small wound was dilated by opening the blades of the forceps. The catheter in each ureter was grasped by the sinus forceps and drawn through the wound in the lateral wall of the rectum on the correponding side. The ureter followed the course of the catheter, he rosette of vesical mucous membrane passing through the wound in the rectum much as a button passes through a uttonhole. With a large rosette of mucous membrane and a mall rectal wound there is no danger of the ureter slipping ut of the rectum, and there is no necessity for a restraining uture. The catheter in the left ureter was forthwith removed. he rosette on the right side was not a large one, and it eemed better to leave the catheter in the ureter. The emainder of the vesical mucous membrane was not interered with. The wound left by the transplantation of the reters was gently packed with iodoform gauze. The free end f the catheter in the ureter was passed into a bottle containing boracic lotion. The operation, though tedious, was well orne, and the patient did not suffer from shock. A mixture ontaining salol and urotropine was ordered to be given every our hours. Urine commenced to flow from the right ureter mmediately after the operation. Seven hours later the atient passed some blood-stained urine by the rectum, and uring the night 1 oz. was drawn off by catheter passed into he rectum. The catheter in the right ureter was removed the ay after the operation, and the rectum washed out with oracic lotion, and this was ordered to be repeated daily. Two ays after the operation he could retain his water from two to hree hours during the day, but was troubled with inconnence at night. He gradually acquired more and more conol over the flow of urine, until at the end of the month he as able to remain dry all day, and only occasionally wet his ed at night.

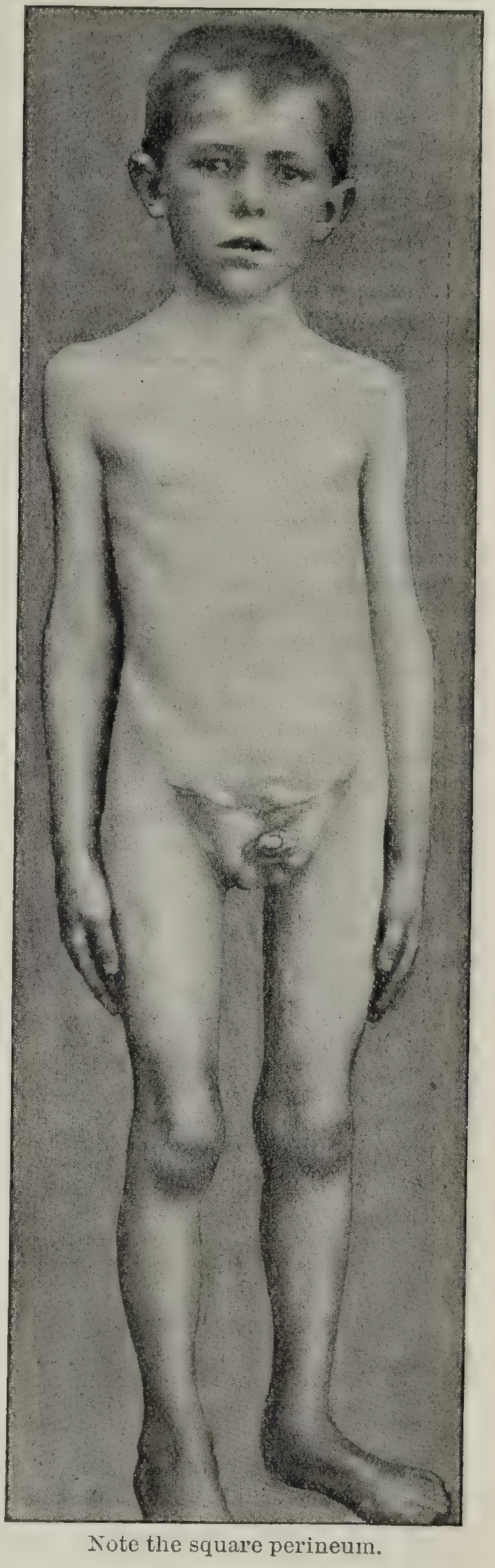
On May 6th he developed a temperature of 102°, and for the ext three weeks his evening temperature ranged between 101° nd 104.8°. The child lost his appetite, he became apathetic, and s weight diminished rapidly. The tongue was red and dry, nd the abdomen full. A swab from the throat and a "Widal" ere negative. The temperature reached normal on May 27th, nd from that day he rapidly gained flesh and strength, and as discharged from the hospital on August 31st. He was ill troubled with occasional nocturnal incontinence. I believe e pyrexia to have been due to an attack of ascending ephritis.

Second Operation.

He was readmitted in September, and on September 30th e remaining mucous membrane of the bladder was dissected ay. The raw surface was diminished in size by the insertion of ansverse Halstead sutures of catgut. The skin was then freed round and extensively undermined. As the skin could still t be sutured across the raw surface without tension, a curved cision, with the convexity upwards and outwards, was made each side from the upper limit of the raw surface left by the ablation of the vesical mucous membrane to the groin. The wound, when closed, presented a triradiate appearance. At the same time an attempt was made to close the proximal portion of the urethra. An incision was made along the junction of skin and mucous membrane. A flap of the latter was dissected up on each side and sutured the one to the other. The skin was undermined and sutured over the urethral mucous membrane. The whole wound healed well, with the exception of the small portion lying over the urethra.

Third Operation.

A month later another attempt was made to establish a urethral canal. On this occasion the penile urethra was treated as well. The mucous membrane was dissected up on each side and sutured. The skin was joined over this. There was considerable tension, and union again failed. I therefore determined to use the redundant prepuce to remedy the condition of epispadias. In the previous operations on the urethra the attempt had been made to form a canal lined by mucous membrane for the possible future escape of prostatic and seminal secretions. This idea was now regretfully abandoned. On December 21st the whole of the urethral mucous membrane was dissected away. An incision was made through the prepuce at its junction with the glans, and it was then stripped from the under surface of the penis. A large flap of skin was thus obtained. It was next button-holed and the glans penis passed through the opening. The flap was then sutured along the dorsum of the penis. On this occasion the wound healed soundly.



Note the square perineum.

I have collected 8cases which have been operated upon by the method of extraperitoneal implantation of the ureters; 2 died, giving a mortality of 25 per cent. Orloff has collected 56 cases of Maydl's operation with 11 deaths, or a death-rate of 20 per cent. These figures, however, only represent the published and not the real mortality of the operation. I know of several unpublished cases of both operations in which death has ensued. Consequently these statistics are of little use in gauging the relative merits of the two operations. We must, therefore, be guided by other considerations. In Maydl's operation and its modifications it must always be an objection that the peritoneal cavity is opened. The ureter is anatomically an extraperitoneal canal. In Orloff's statistics, of the 11 deaths 4 were due to peritonitis, and in the 45 cases which recovered 7 suffered from faecal fistula. Peritoneal infection does not occur in the extraperitoneal operation, and faecal fistula has not been recorded.

A risk common to both operations is that of ascending ureteritis and pyelonephritis. In the 8 cases I record the 2 deaths were both due to this cause—one five days and the other two months after operation. Of the 45 cases of

Cases of Extraperitoneal Implantation of Ureters for Ectopia Vesicae.

No.	Surgeon.	Date of Operation.	Age.	Sex.	Previous Operations.	Complications after Extraperitoneal Implantation.	Results.
1	Lendon, *Transactions Aust. Med. Congress*, 1901	May 12, 1899	10	Male	25 previous operations	Right ureter slipped out of rectum, and was subsequently grafted into the sigmoid flexure	Recovery. In perfect health 6 years later. Perfect control over evacuation of urine.
2	Peters, BRITISH MEDICAL JOURNAL, June 22nd, 1901	July 15th, 1899	5½	Male	—	—	Recovery. Alive 2½ years later, and in perfect health.
3	Lendon, loc. cit.	July 21st, 1901	16	Male	30 plastic operations. Castration and radical cure of hernia on left side. Right nephrotomy, right nephrectomy, and later right ureterectomy	Anuria twenty-three hours. The ureter being kinked it was freed and reinserted into rectum, July 28th. Acute parotitis. Vomiting	Death from pyelonephritis, October 3rd, 1901, two months after operation.
4	Peters, *Canadian Journal of Med. and Surg.*, April, 1902	—	13	Male	—	—	Recovery.
5	Peters, loc. cit.	—	1	Female	—	—	Recovery.
6	Peters, loc. cit.	—	4½	Male	—	—	Death five days after operation from pyelonephritis.
7	Jacobson, *Journal of American Medical Association*, January 3rd, 1903	—	29	Male	Repeated operations	Urine contained blood and pus at operation	Recovery. Alive six months later.
8	Newland, *Australian Medical Gazette*, November, 1905	March 29th, 1904	7	Male	Two operations of uncertain nature	(?) Nephritis after operation	Recovery. In perfect health 17 months later. Can hold his water for six hours.

Maydl's operation that survived more than three weeks, 5 died from pyelonephritis. It is argued that ascending infection in Maydl's operation is rendered less likely because the ureters are transplanted without disturbing their terminations in the bladder. As a matter of fact, in the extraperitoneal operation, if as large a rosette as possible of mucous membrane be isolated around each ureteral orifice, very little injury is done to them. Pyelonephritis is therefore no more likely to occur in the extraperitoneal than in Maydl's operation. Borelius has modified the latter operation by performing a lateral anastomosis of the limbs of the pelvic colon and then grafting the trigone of the bladder and the ureters into the end of the loop. It is considered that the lateral anastomosis will prevent the passage of the intestinal contents over the ureteral orifices, and diminish the liability to kidney infection. This passage, however, will occur unless, as has been suggested, the lumen of the afferent limb of the sigmoid loop be obliterated just distal to the anastomosis. Experience will show whether pyelonephritis will be prevented by this manœuvre, which certainly adds to the severity of the operation.

At best the intraperitoneal operation is a tedious and difficult one, and attended as a rule by shock. The extraperitoneal operation, though at first sight difficult, is in reality not so, and in my case at least was not attended by shock.

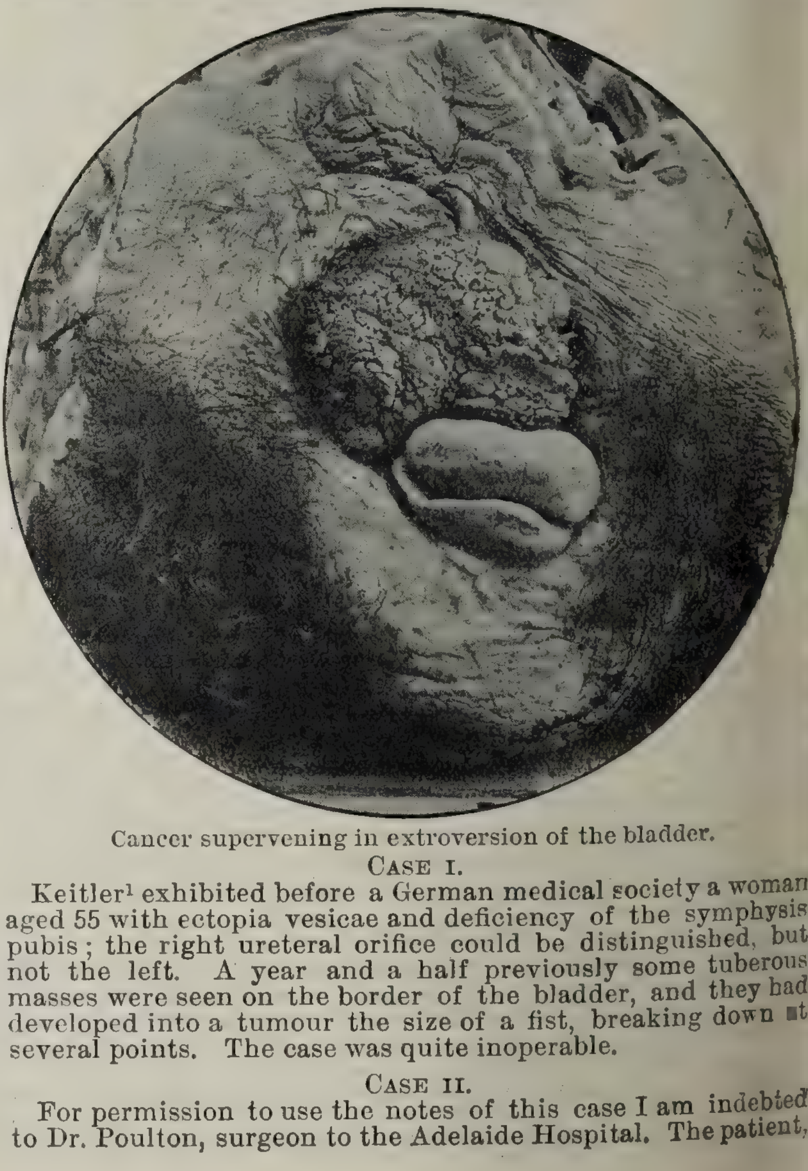
It is surprising how easily the ureters are separated from their surroundings when once the layers of the trigone have been divided around the ureteral papillae.

The ultimate results of the two operations are similar. The majority of cases can hold their water for several hours in the daytime. Some cases of nocturnal incontinence occur. The urine causes no irritation of the bowel. My patient, during his journey down to Adelaide to be shown at the Congress, held his water for six hours. He occasionally has nocturnal incontinence; the urine he passes then is clear and not discoloured by faeces. The sigmoid flexure is said to form a better reservoir than the rectum. It must be remembered, however, that faeces are more constantly present in the sigmoid flexure than in the latter. When the development of the rectum is considered, it would seem to be a more natural reservoir for the urine than the sigmoid flexure. The weight of evidence, therefore, seems to favour the extraperitoneal operation. When either is successful, there can be no question that a comfortable existence replaces what has hitherto been a most distressing one.

From the patient's point of view the most potent arguments in favour of intestinal implantation of the ureters are:

1. Complete control over the evacuation of the urine is afforded.
2. An irritable and tender mucous surface is ablated.
3. The odour of ammoniacal decomposition of urine, so distressing to himself and to others, is abolished.

Intestinal implantation of the ureters also does away with the possibility of cancer supervening on the mucous membrane of an ectopic bladder. True, the gain in this direction may be balanced by a loss in another, for sufficient time has not elapsed to show whether intestinal implantation tends to cause cancer of the bowel. The following cases show that the supervention of cancer on ectopia vesicae is no remote contingency.



Cancer supervening in extroversion of the bladder.

CASE I.

Keitler[1] exhibited before a German medical society a woman aged 55 with ectopia vesicae and deficiency of the symphysis pubis; the right ureteral orifice could be distinguished, but not the left. A year and a half previously some tuberous masses were seen on the border of the bladder, and they had developed into a tumour the size of a fist, breaking down at several points. The case was quite inoperable.

CASE II.

For permission to use the notes of this case I am indebted to Dr. Poulton, surgeon to the Adelaide Hospital. The patient, a man aged 60, it is interesting to note, had always earned his living by cracking stones. He first noticed a lump forming on the extroverted bladder nine weeks prior to admission. For a fortnight it had been very prone to bleed. He complained of considerable pain, especially down the legs. With the exception of the mucous membrane of the epispadiac penis, the whole of the extroverted surface was replaced by a prominent cauliflower-like mass the size of an egg, which bled freely when touched. The openings of the ejaculatory ducts could be distinctly seen, and exuded glutinous fluid. The ureteral orifices were lost in the growths. Both testicles were completely descended. The inguinal and external iliac glands were enlarged and hard. The condition was quite inoperable, and the patient died a month after admission exhausted by pain and haemorrhage. My microscopic sections of the growth and of one of the iliac lymphatic glands proved the tumour to be a carcinoma.

In conclusion, I should like to say that abroad sufficient credit has not been given to Dr. Lendon, of this city, for having devised this new method. It is usually known as Peters's operation. It is, however, only fair to state that Dr. Lendon performed his operation two months before Peters operated upon his first case in Toronto.

REFERENCE.

[1] EPITOME, BRITISH MEDICAL JOURNAL, December 16th, 1905.

BRADYCARDIA, WITH ARRHYTHMIA AND EPILEPTIFORM SEIZURES.*

BY JOHN MAGEE FINNY, M.D.DUB., F.R.C.P.I.,

PHYSICIAN TO SIR PATRICK DUN'S HOSPITAL; KING'S PROFESSOR OF PRACTICE OF MEDICINE, SCHOOL OF PHYSIC, DUBLIN.

BRADYCARDIA—"slowheart," or, as very properly insisted on by Gibson, "infrequent beating of the heart"—has of ate years assumed a prominence in clinical medicine, and has awakened considerable physiological and pathological nterest. The work of Gaskell[1] on the functions of the heart muscle may be considered to have revolutionized he older views of the neurogenic cardiac mechanism, as t transfers the stimulus of the cardiac muscles from the higher nerve centres through the vagi and the sympathetic nerves to the muscle of the heart itself. "The muscular ibres of the heart possess the power of rhythmically reating a stimulus, of being able to receive a stimulus, f responding to a stimulus by contracting, of conveying the timulus from muscle fibre to muscle fibre, and of mainaining a certain ill-defined condition called tone" (Osler).

Many observers since then have detailed clinical cases ased upon this theory—the "myogenic theory"—the more notable being Wenckebach, Jas. Mackenzie, Alfred Webster, George A. Gibson, and John Hay.

The term "heartblock" has been applied to the failure f an impulse, which has originated in the muscles of the uricles, to pass the auriculo-ventricular septum through he auriculo-ventricular bundle of His, and to stimulate a ontraction in the muscles of the ventricle. In other ords, the auricles contract regularly, but the ventricles o not respond oftener than once in two, three, or four of ach auricular contractions.

When the ventricular impulses and systoles are connuously out of rhythm with the auricular contractions he term "bradycardia" is applicable; the rate of the ntricular systoles and the radial pulsations being synhronous, though infrequent—say to 40, 30, or 20 in the inute. Should the ventricular systole be occasionally ill further delayed, so that there may be a cessation of ntricular contractions for 3, 5, 10, or 15 seconds in a inute, the term of "arrhythmia" is applicable.

The following case exhibits bradycardia and arrhythmia, nd, as a result of the latter, epileptiform attacks of varying verity, in one of which sudden death occurred.

CASE.

Mrs. J. M'N., aged 42, married, was admitted to hospital on ne 19th, 1905, under my care, on the recommendation of my lleague, Sir Arthur Macan, who had noticed the remarkable owness or infrequency of her pulse, *circa* 22 in the inute. She has three living children, and had had a fourth, rn on April 27th, 1905, but he died of convulsions at the age 5 weeks. Since her confinement, nine weeks before admison, she has had frequent "weak turns" or fits, and comains of weakness of her heart. She is unaware of her pulse te being unusual. She has never had any other serious ness, and denies any syphilitic disease.

When questioned closely as to the fits the patient states that she never had had any attack before April, 1904—that is, fourteen months before admission—and that she then suddenly fell and became unconscious; that this occurred three months before she became pregnant; that these attacks continued, at varying intervals, during pregnancy; they were not worse during parturition, nor while she was nursing her baby; but that after the death of the child they returned, and they have become much more frequent of late, having had as many as twenty in one day last week.

I instituted inquiries at the maternity where she was confined, but the only note made was that the case was a breech presentation; and no comment of any convulsions, cardiac infrequency, or ventricular arrhythmia. She herself says that her heart was not affected, as at present, until the death of her baby—that is, not until about a month before admission to hospital, and that she never asked advice on the subject, although Dr. Byrne, Medical Officer of Grand Canal Street Dispensary, was in attendance at her house on the baby, during its illness, and up to the day of its death.

On admission the pulse was regular, 20 to 24 in the minute, compressible, and was unaccompanied by cyanosis, dyspnoea, or hurried respiration. There was no complaint made about the heart, except a sensation, when a fit came on, of the heart beating forcibly. Subsequent observation did not confirm this idea, for rather the very opposite happened, as before a "fit" the heart's beat was still less frequent, and sometimes there was an absence of any impulse, or pulse at the wrist, for 5, 8, or 10, or even 15 seconds; and as soon as the "fit" passed, there was no excitement or tumultuous action of the organ.

The heart itself was slightly enlarged; the area of cardiac dullness extended from the left sternal line, at the level of the fourth rib, to the mammary line, and the impulse was under the nipple; a shade of dullness was present at the third left costo-sternal articulation and third space near it. The impulse and radial pulse were synchronous and, as a rule, regular; and when the pulse at the wrist was noted to be absent for five or ten seconds the ventricular systole and impulse were likewise absent. The impulse was abrupt, but never heaving or forcible, and did not give the impression of hypertrophy. A second wavy impulse could at times be seen and felt above the fourth rib, and was probably auricular. The first sound was loud, and could be heard up the whole of the sternum, somewhat prolonged, owing, perhaps, to its slow rate, and was at times droning in character, and with an approach to a murmur. The second sound was sharp, and, like the first, very "deliberate," and did not instantly follow the first; it was pure and fairly loud, the pulmonary element being more pronounced. Careful examination showed the cerebro-spinal, pulmonary, hepatic, digestive, and genito-urinary systems to be free from all organic disease, and menstruation had reappeared a month ago.

Two days after admission the jugular veins, at the root of the right side of the neck, were seen to beat two or three times for each ventricular systole. This phenomenon was present each day during the first two months of her stay in hospital, and could be readily noted and counted, as the rate of the pulse was so infrequent as 20 to 24 in the minute. If these venous pulsations were to be considered as due to auricular contractions, then the auricles were contracting three times the rate of the arterial pulse at the radial; and the ventricular systoles and radial pulsations occurred after intervals of three or four seconds between them and the auricular contractions.

This very interesting question was settled by the application of the *x* rays; and on July 7th Dr. E. J. Watson, our Assistant Physician and *X*-rayist, kindly examined the patient's thorax with the screen. His report was "that the heart is situated very horizontally; the auricles can be seen beating between the ventricular pulsations; two beats of the auricle were counted between the beats of the ventricle. The auricles seem slightly enlarged."

This is, I believe, the first recorded case where a practical ocular demonstration was made of the mechanism of this irregular pulsation in cases of bradycardia.

Professor W. H. Thompson most kindly took transmission tracings of the right radial, the jugular vein, and the respiration on July 21st. The venous pulsations can be readily seen to exceed those of the radial by two or three to one.

On June 28th the patient had a fit, and during it her face became flushed and her hands shook. It was noticed that just before the fit came on the pulse at the wrist had ceased.

The sequence of the fit following the cessation, or arrhythmic contraction of the left ventricle, was not a matter of theory, for though it rarely happened that a fit came on while under examination, with the finger on the radial or the stethoscope over the heart, and though the vast majority of the fits were recorded by the nurses in charge, or the clinical clerks, after their onset and during their occurrence, still it did so happen that, on several occasions during the patient's stay in hospital, I myself verified the cessation of the ventricular systole and the radial pulse, and was able to call the attention of the class of students to an approaching fit when the intervals between the pulses extended to five, seven, or ten seconds. The house-surgeon and clinical clerks confirmed this fact on many occasions. I was further fortunate in securing a sphygmographic tracing on July 21st, which Professor Thompson kindly took just at the very

---

ead before the Section of Medicine in the Royal Academy of Medicine in Ireland, on Friday, March 30th, 1906 moment of the occurrence of a specially long pause, the pulse-rate being about 26 to the minute.

It will be seen that the pause lasted about ten seconds, and at that moment the patient had a slight "fit"—that is, her face flushed, her eyes were turned up to the right, a slight tremor passed over her lips and fingers, and then she came to herself, looking a little frightened, and with a sort of sigh, while her eyes filled with tears.

It is not necessary, and it would be tedious, to give the notes of the daily observations. Each day was like the other as a general rule, and I shall therefore summarize the progress of the case.

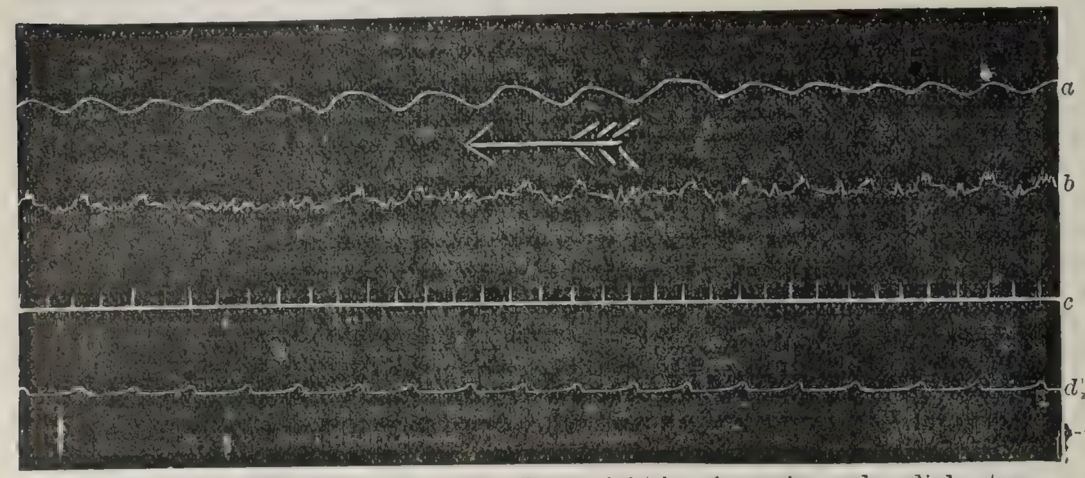


Fig. 1.—Simultaneous tracings from the lung, right jugular vein, and radial artery. *a*. Respiration. *b*. Jugular pulse. *c*. Seconds in minute. *d*. Radial pulse.

From the day of admission, June 19th, to the end of the month the "bradycardia" was generally at the same rate, and varied little between 22 and 28—several observations being made each day—and on the 28th it touched 32 for one counting. In July the same was the record, though it was as low as 18 on the evening of the 1st and the morning of the 5th, and was 16 in the evening of the 17th.

It showed variations sometimes, but very rarely. For example, at my visit, 10 o'clock a.m. on the 23rd, I found the pulse, which was 25 at 7 a.m., beating regularly at 56, and then, in a minute or two, it fell to 22, and that evening it reached 58—the highest since admission. On the 24th it was 25 at 7 a.m., 21 at 9 a.m., 56 at 10 a.m., and 36 at 8 p.m.

The patient, who had been kept recumbent, was allowed to sit up in bed on and after July 28th, and seemingly this was not attended by harm, though the pulse-rate rose to 52 on the 28th, and 54 on the 30th. Fish and eggs were given on the 31st, and on August 3rd she was allowed out of bed to sit in a chair, and to move about the ward. At the same time meat was added to her dietary. This extra dietary and change of posture seemed to have no other effect than to make the heart more regularly infrequent, and its rate for the fortnight following was between 24 and 20—the same whether lying down or sitting—and it fell to 18 on the evenings of the 9th and 11th, and to 16 on the 10th. From August until she left hospital on October 12th, the pulse rate was much the same, while her general health and strength improved, she had had fewer of the slighter "weak turns," but no bad fits.

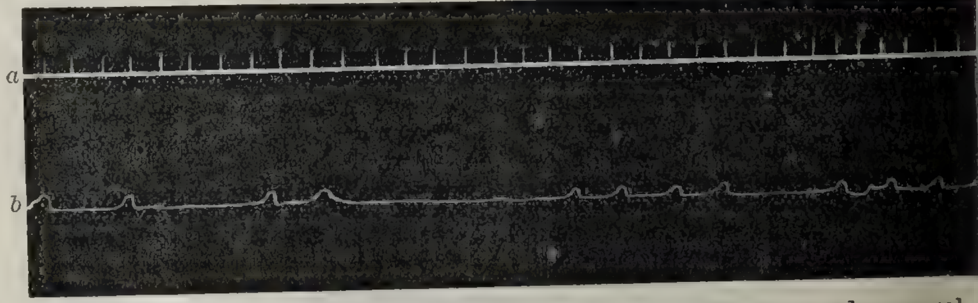


Fig. 2.—Tracings from the radial artery with arrhythmia and syncopal attack. *a*. Seconds in minute. *b*. Radial pulse.

Naturally, an examination of the heart was being constantly and frequently made by myself, the house surgeon, the resident staff and my clinical clerks, and nothing different from what I have described above was noticeable until July 26th. On this day, between the ventricular contractions, which were 22 in the minute, four to six single sounds could be heard in the minute. These sounds were not accompanied by any pulse at the wrist. Their chief situation was over the right ventricle, at the fourth costal space in the left parasternal line, and they were faintly audible above the fourth rib. This observation was not again met with; but on July 29th and 30th the heart was noticed to beat between 52 and 56, regularly, and the pulse at the wrist agreed thereto; the first sound was of a deeper tone and accompanied with almost a murmur.

On August 27th another and a new feature was noted by the house-surgeon. On listening to the heart, one sound was to be heard in addition to and between the regular heart sounds; the patient while under observation had a "weakness," and nine of these intermediary sounds were counted before the heart beat again, then nine sounds and again a heart beat, then six intermediary sounds, and these sounds gradually became fewer until only one was heard between the ordinary heart sounds.

I must now refer more fully to another feature of this case which I have incidentally recorded, and that is, the attacks of the so-called "fits." Of these there were three kinds, and though probably of the same nature, they became spoken of as "weak turns," "slight fits," and "severe fits." The association of these nervous attacks with the marked arrhythmic retardation of the pulse was more than a matter of fancy. As the "weak turns" came on much more frequently than the others, they were the commonest met with. Several occurred during my visits to the bedside, and while the stethoscope was being applied to the precardium and the fingers to the pulse.

A "weak turn" was ushered in and preceded by a delay in the heart's beat and radial pulse. Thus, when a pause lasted seven to ten seconds the patient's face become pale, the eyes had a very pained and frightened look, and some little restlessness of the head and hands ensued; and it ended by a slight flushing of the cheeks, some tears in the eyes, and the patient would give a slight sigh, or little hem or cough, and the weakness would be over. The "slight fit" came on with a soreness or sharp feeling in the stomach and left side of the thorax, which would then extend up the right side of the chest into the head and eyes. The pallor of the face would be more marked, the eyes would turn up to the right side, and the hands would fidget and the fingers catch at the sheets. The patient always came out of this fit in a more frightened and slightly dazed manner, and the eyes had a strained and somewhat blind look for some minutes. The "severe fit" was more distinctly epileptic with sudden onset, the patient falling back if sitting up in bed, great pallor, convulsive movements of hands and arms, and also slightly so of feet, unconsciousness for five to ten seconds, and then great flushing of the face, and the patient came out of it very confused, and she was dull and nervous the whole day following. She never bit her tongue or passed urine in them.

On July 2nd six fits occurred before noon, and at noon, as she was turning round in bed to take her dinner, she had a fit of unusual severity. The pulse stopped for ten seconds, she became dizzy and weak, her head fell down, the face flushed, and the limbs shook. Five minutes later another fit followed of less severity, and three more fits occurred at intervals of a few minutes. The patient had twelve fits in the course of the day. She was quite unconscious in the attacks, but by her subsequent feelings could say if they were mild or severe; the latter being preceded by the gastric aura referred to.

I was never able, during her first sojourn in hospital, to take the pulse at the moment preceding or following one of these "severe fits."

The number of the "fits" of all kinds—for I look upon them as epileptic in nature, though in varying degrees of intensity—varied from day to day—six on July 1st, twelve on July 2nd, three on 13th, several on 6th, six on 15th, and four on 17th. All through July the patient considered herself very much better, as the attacks were o the mildest form—"weak turns." In the second week o August, however, the more severe fits returned, and the patient became more alarmed, as she was afraid to sit up or turn to the left, as she said these positions would induce a fit, and, for the same reason, if sitting up she dreaded lying back. I looked upon this apprehension, however, as probably nervous, inasmuch that when I induced her in my presence to do as I wished her, as to change of posture she had no attack. Probably the cessation of the catamenial period was provocative of their recurrence, and o her increased nervous dread of them, as she had not been unwell since June.

The treatment which suggested itself to me at first was directed to combat the "fits," and I gave her bromide o potassium with iodide of potassium; and, from analogy with the good results derivable from the bromides in tachycardia (as Dr. Travers Smith[2] has shown), I hoped they might also command the bradycardia. But after week's trial I discontinued it, as it tended rather t increase than diminish the heart attacks of bradycardia and arrhythmia, and the character of the pulse became more compressible, and the patient looked more depressed.

After further study of the case, and noting that the heart failure preceded the nervous attacks, and that in all probability the cardiac failure to drive the blood into the cerebral capillaries was the cause of the epileptiform attacks, I gave the following prescription with good results, and this was taken without iuterruption till August 18th: ℞. Tinct. strophanthi, liq. strychninae hydrochl. āā ♏v, acidi hydrochlor. dil. ♏x, syrupi limonis ʒi, aquae ad ℥i; Ft. dosis, mitte ℥x; ℥i t.d.s. After August 28th she took "Easton's syrup" until she left the hospital on October 12th, 1905, and she continued the tonic off and on at home, always attributing good to its use. Subsequently she occasionally attended at the hospital, when she stated she was fit for light domestic work and the care of her children, but was never able to do heavy housework.

Though the "weak turns" were still present, she had had only two severe fits, so far as could be ascertained, between October, 1905, and February, 1906. At the time of her visits the pulse was still infrequent, but regular, and about 24 in the minute. Dr. Watson examined her on February 25th by *x* rays, and demonstrated that the heart beat regularly at 28, and that the remarkable want of agreement between the contraction of the auricles and of the ventricles, which had occurred in July, 1905, no longer existed, and there were as many contractions of the ventricles as there were contractions of the auricles. It was also noticeable that the jugular pulsations were very ndistinct, and could not be well counted.

With the intention of making a series of observations on this point, and for the purpose of having fresh and extended sphygmographic tracings, so as to enable me to speak more accurately as to the nature and the frequency of the epileptiform attacks, I readmitted the woman to hospital on February 28th, 1906, six months after her first admission to hospital. The following notes were made by Mr. William Pearson, clinical clerk, to whom I am indebted for the accuracy of its report and for his graphic description. Owing to the terribly sudden and fatal termination by a syncopal attack on the sixth day after her readmission I give the notes in full:

The pulse, taken at the wrist, on March 1st, at 10 a.m., was egular, full, of good tension, and numbered 26 beats to the minute. It corresponded with the frequency of the heart. The heart's impulse was seen to be widely diffused; its action was slow and deliberate in character, being first apparent over he auricular region to the left of the sternum, and gradually passing downwards, over the ventricles, to the position of the normal apex beat. This slow movement was reminiscent of a wave of peristalsis crossing along the bowel beneath a thin bdominal wall. The ventricular impulse was distinct, and promised to make a good cardiograph tracing, such as Professor Thompson hoped to make in a day or two. Pulsations were to e seen in the root of the neck, apparently three for each ventricular beat. The urine was clear, amber colour, acid in reaction, specific gravity 1020, and it contained a faint trace of albumen, but no sugar. The patient asked for, and was given, permission to get up out of bed.

After her dinner, at 12.30, she was proceeding with a nurse from one ward to another, for the purpose of having her weight registered, when she suddenly—without warning or cry—collapsed on her knees, and fell to the ground in a heap. Her muscles were completely relaxed. The house surgeon, Dr. owell, was instantly summoned, and found her lying deeply yanosed, pulseless at the wrist, and showing no evidence of respiration, except one feeble gasp. He thought she was dead. He immediately injected ♏ vij of liq. strychninae and used artificial respiration, leaving her lying with a pillow under her ead, and having hot bottles placed round her. She did not make any effort to respire for four minutes, and he would have iven her up as dead, except that on auscultation the heart ave a feeble flutter. Oxygen inhalations were tried also. After some time, the artificial respirations being persevered in, the heart began to beat feebly, and respiration, somewhat stertorous in character, was resumed. After seven minutes the pulse at the wrist became palpable, and numbered about) to the minute. She was now carried back to her bed, and When I saw her, forty minutes later, she was still deeply nconscious, with the eyes turned up and the pupils most idely dilated. She then commenced to moan and cry. Her rms were folded across her chest in a tonic spasm, her body rched in opisthotonos, the face in trismus, and urine was assed under her; the tongue was slightly cut, although a gag ad been employed from the moment this tonic spasm set in. hloroform inhalations calmed the convulsions and under its se the pupils became small—to a pinhole size; the heart eached 56 to the minute, while the respirations assumed a modified Cheyne-Stokes respiration ("Biot's respiration"). The respiratory rhythm showed a period of 70 seconds duration in which respirations occurred, followed by a period of 26 seconds of complete apnoea, but the onset and cessation of respiration were quite sudden—the first and last breaths taken being of equal amplitude with the others. The pulse gradually sank to 40. After an hour the knee-jerk and conjunctival reflex were obtainable, though the pupils were again widely dilated. At 2.30 p.m. (that is, one hour and forty minutes from onset) the attack passed off, and the patient fell asleep. She awoke at 4 p.m., and was given 25 gr. brom. pot., and had three attacks of vomiting. Pulse and respirations were then noticed to be synchronous—namely, 28 in the minute.

The following morning (March 2nd) the patient was quite calm, but was totally oblivious of the entire of yesterday's attack, and, when asked, stated she had not got up at all, and was not sick in her stomach. Her pulse was regular, 36 in the wrist, and two tracings were made (Dudgeon's sphygmograph), one in the recumbent, the other in the sitting posture. They are the same in frequency, and exhibit a sharp up-stroke, which is short, followed by a prolonged line of gradual descent, which shows faint vibrations.

March 3rd. A complaint of headache in the right temporo-parietal region. The tongue was a little sore from the effects of the fit of the 1st. The pulse was 22, and in a few minutes later it counted 32. It was weaker than usual, and somewhat irregular. Temperature, which had gone up to 99° on the 1st after the severe fit, had fallen to its usual subnormal standard of 97°. The tonic mixture of iron, quinine, and strychnine, which was resumed on the 2nd, was continued, as the patient felt it did her good; and, though very anxious to be allowed up, it was thought safer to keep her in bed—much to her chagrin.

March 4th. Two rather severe attacks occurred between midnight and 1.10 a.m., then several minor epileptiform attacks occurred this morning, and in the afternoon an almost continuous series of seizures. At noon, during a short attack, the heart beat 140 per minute for some time. At one period, towards the end of a fit, on auscultation, the usual infrequency of 24 beats were first heard, and suddenly it increased to about 150, and maintained this high rate for just 20 seconds, when it again suddenly fell to its usual, 24. In the afternoon a severe seizure came on at 4 p.m., and lasted four and a quarter hours. Cries and shrieks were emitted, convulsive spasms and opisthotonos occurred, while at times strabismus and Cheyne-Stokes or Biot's types of respirations were present; the pupils were widely dilated. Chloroform was freely administered, and at times artificial respiration had to be employed. The whole attack, which fortunately occurred while she lay in bed, closely resembled the bad attack of the 1st instant, and death seemed momentarily imminent. The pulse at 2 p.m. was 24, at 5 p.m. it was 150, at 6 p.m. 22, and after the attack, at 10 p.m., it was 32. The attack might be considered of a somewhat milder type, but it lasted much longer. It was succeeded by other shorter attacks at 9 p.m., 9.30, 10 30, and 11 p.m. Next day, March 5th, was marked for vomiting twice and six mild fits in the evening; the pulse at six observations being 26 to 32. Three fits occurred between 8 and 9.30 a.m. on the morning of the 6th, and in the last of these she died. The pulse at 2 and 6 a.m. being, as usual, about 28.

In the final syncopal attack of 9.30 every effort was made by the resident staff to restore life; and artificial respiration was kept up by the resident pupil, Mr. Gibbon, for fully twenty minutes, but all to no purpose, as she never breathed. No sign of life returned, and she was practically dead the instant of its onset.

This sudden termination of life was not unexpected, as the alarming symptoms and cardiac failure of March 1st prepared us for the possibility of their recurrence and of death under these circumstances. Most unfortunately permission to make an autopsy could not be obtained, and thereby much pathological information has been lost.

REMARKS.

Of the many interesting clinical features presented by the foregoing case the first and most striking is the infrequency of the pulse—so-called "bradycardia." This symptom is in itself not very uncommon, and every physician must occasionally meet with cases where the pulse-rate is slow, either temporarily or permanently. Indeed, during part of the time this patient was in hospital I had under my care two instances of this condition, though due to very diverse causes—one in a boy, aged 6, who was unconscious, suffering from the pressure signs of tuberculous meningitis, and the other in a man, aged 72, presenting atheromatous arteries and fatty heart, in whom the pulse was 30 in the minute, and syncopal attacks not unfrequently occurred. The bulk of the recorded cases of slowly beating hearts belong to this latter group, and it was in such conditions occurring in old men that Dr. Stokes[3] and Dr. Adams published cases of slowly beating hearts with paroxysmal syncopal, or pseudo-apoplectic attacks—a group of symptoms now spoken of as the Stokes-Adams syndrome. It will be in the recollection of the Academy that last December Dr. Parsons[4] submitted a very full communication and recorded the clinical features of a typical example of this condition in a male patient, aged 68 years, who exhibited paroxysms of this symptom, with a pulse-rate of 30 to 40 in a minute, and who was afflicted with general arteriosclerosis.

Thirteen cases of bradycardia are collected and reported by Dr. Alfred Webster,[5] in his valuable article on Cardiac Arrhythmia in relation to Cerebral Anaemia and Epileptiform Crisis. Of these, 7 were over 50 years of age, and all except two were males; and the 3 cases which illustrated Dr. G. A. Gibson's paper[6] on the same subject were in males aged 80, 68, and 50 respectively.

The case of Mrs. M'N., which I have recorded, makes, then, a marked exception, in that the regular infrequency of pulse, at the rate of 22 in the minute, was present in a woman, aged 42, and who was free from all cardiac, valvular, and arterial disease, and whose kidneys and other organs were apparently quite healthy. As her case does not come under the class of cases due to either senility, with myocardial degeneration, or to arteriosclerosis, the cause, therefore, must be sought for elsewhere.

The second important feature of my case was the arrhythmia. The pulse-rate, as a rule, day by day and month by month, was between 21 and 28, and, as can be seen by the sphygmogram [exhibited] taken during 120 seconds, it was perfectly regular. Yet at varying intervals, the pulse became irregular, and a state of pulselessness—lasting 5, 8, 12, or 15 seconds—would occur without any cause or influence that could be explained, and which culminated in the terrible attacks of pulselessness (lasting seven minutes) which occurred a few days before death, and in the last of such cardiac arrests she died suddenly.

During the shorter cessations of the pulse, careful observations of the heart by stethoscope and hand failed to detect any ventricular contraction by sound or impulse, and the solitary sphygmogram Professor Thompson was able to make during one of the attacks of arrhythmia, shows an absence of pulse wave for 4 seconds, and again for 10 seconds (see Fig. 2).

The idea of independent auricular contraction was forced on my mind by the observation that for every ventricular systole the jugular veins at the root of the neck beat three times. I do not wish to imply I made a discovery, but I found a novelty in my clinical experience which I was able to study at my leisure, and under peculiarly advantageous circumstances, for not only was the phenomenon constant day by day, but the rate of the pulse was always so slow or infrequent that it was easy to note these prominent features. This relative want of synchronicity of the jugular pulsation and the heart's beat was not unknown to the great Stokes,[8] and was recorded by him as having come on in the course of one of his cases of fatty degeneration of the heart with pseudo-apoplectic attacks in a man aged 68.

Since his time many observers have recorded the same, although all do not take the same view as to its mechanism.

The tracing of the pulsation at the root of the neck—kindly made for me by Professor Thompson—shows this condition graphically, and it can be readily observed that two or three elevations occur in the jugular tracing during the diastole of the ventricle (see Fig. 1).

In this connexion I would again emphasize the most valuable and, as far as I know, unique confirmation in the fact that the x rays demonstrated a distinct double movement of the auricles for each ventricular movement—that is to say, there were three cardiac movements, in two of which the ventricles took no part. It also showed that both ventricles acted together, and that there was no "hemisystole."

It is not my intention in this clinical record, even if it were in my power—which it certainly is not—to further discuss this most interesting and fascinating physiological and pathological subject, and I would refer to the works of Wenckebach,[10] Alfred Webster,[5] Mackenzie[7] and Gibson,[6] with their series of pulse tracings and other evidences, to prove the reality of this cardiac arrhythmia. I would adopt the words of Dr. John Hay[11]: "Heartblock is no longer a theory; it is a fact, and has been recognized as such ever since Gaskell published his classical research on the contraction of cardiac muscle."

Of the many contributions to the literature of the subject that have lately appeared in the medical journals, one in particular struck me as so very remarkable that I cannot refrain from referring shortly to it. It is a paper by Henry Harford of Nottingham, under the title of Remarks on a Case of Gummata of the Heart.[12] He bases his remarks on a case of a married woman, aged 32, in which death occurred from heartblock after many attacks of long pauses, in each of which death seemed imminent; and a syphilitic gumma was discovered in the anterior wall of the right ventricle, involving the auriculo-ventricular septum. "The prominent symptoms were, on several occasions on many different days, that the heart was observed to beat 84 per minute for a variable time, and then to stop for five to fifteen seconds. During this interval, on auscultation over the right heart and over the pulmonary area, the auricles could be heard to continue beating. There was no second sound, no pulse could be felt at the wrist, and no cardiac impulse at the praecordia. The face became very pale; the patient had a slight convulsion affecting the face, arms, and legs; the eyes were turned upwards and to the left; a few inspirations (four or five) were taken, and the whole heart resumed regular and somewhat violent action." In one of these attacks the patient died.

In my case another and most interesting point in connexion with the arrhythmia is suggested by the occurrence of the small sounds which have been heard in the intervals between the regular systolic ventricular contractions.

During most of these pauses perfect silence of all heart sounds existed, and this was the rule. Yet, as I have recorded on a very few occasions, one, two, or more distant sounds could be heard over the base of the heart; and these sounds were single sounds, not as if the heart sounds were reduplicated.

These feeble distant sounds seemed to occur between the strong ventricular systolic sounds, to be unaccompanied by a pulsation over the ventricle, either the right or left, though sometimes a wavy pulsation could be seen above the fourth rib.

Three questions arise bearing on these sounds:

1. Are the sounds due to a hemisystole of the heart—the right ventricle contracting while the left does not?—a view hard to understand, though propounded by Sir William Broadbent,[13] and supported by J. Seymour Maynard,[14] and accepted, with great reserve, by Wenckebach. On this point I give no opinion; but the theory gains no support, nay, rather is refuted, by the observations made by the aid of the x rays.

2. Are these sounds produced by the rhythmic contractions of the auricles, acting alone, and unaccompanied by ventricular contractions?—a view favoured by Wenckebach, and supported by G. Gibson and Malet's observations.[9]

3. Can they be produced by feeble ventricular contractions which are not strong enough to empty the ventricular contents into the aorta in sufficient volume to cause the closure of the aortic valves and so produce a diastolic second sound?

The last feature of interest presented by my case is the occurrence of paroxysmal unconsciousness and epileptiform attacks. These attacks came on at irregular periods, and in varying degrees of severity, sometimes several in a few hours—six to twelve in a day—and, again, not for some days; and in severity they varied from a sudden pallor, followed by a flushing of the face, to slight convulsive movements of hands and legs, with the eyes turned up and fixed; and again, to a more severe type, which caused a fall and more general convulsion, lasted longer, and out of it the patient came to more slowly and feeling strange and frightened; and the last attacks were signalized by prolonged unconsciousness and coma, with absolute failure of heart, and sudden death.

The question presses—Were these earlier fits examples of epilepsia mitior (*petit mal*) occurring in a woman, in whom were present cardiac infrequency and cardiac arrhythmia, simply as a coincidence? or were the cardiac affection and the fits in direct relation to one another as cause and effect, and, if so, did the fits cause the cardiac phenomena, as claimed by Tripier, or vice versa?

When the patient came under my care I was at first inclined to think she was suffering from epilepsy—and this opinion I based on her history—namely, that fourteen months before she had suddenly fallen in a fit, to which succeeded four others the same day; and that up to the day of admission to hospital she had had recurrence of fits. I accordingly gave her a course of treatment by the bromides, and had her under close observation. In a short time, however, I saw that the more likely connexion between the fits and the slow pulse lay in the direction of the cardiac arrhythmia being the direct cause of the fits. Later on I could foretell by two or three seconds that a fit was imminent, and I was able to observe that the fits were not due to simply the infrequency of the pulse, for they did not occur even while the pulse-rate was as slow as 18 to 20 in the minute, but that they were sure to occur when arrhythmia occurred and when pauses of 8 to 10 to 15 seconds were noticed. It was the more prolonged cessation of circulation, and presumably the cerebral anaemia rather than venous stasis, which caused the syncopal and convulsive attacks.

That cerebral anaemia is a cause of convulsion is well known and daily verified, and the experimental work of Kussmaul and Tenner, by inducing cerebral anaemia and causing epileptic convulsions, is still uncontroverted.

For a full account of this subject in relation to arrhythmia I would again refer to the work of Dr. Alfred Webster. The conclusion he arrived at after analysing the clinical features of 13 cases of slow pulse and epileptiform attacks, and after making many hundreds of observations and pulse tracings on his own case—included in the 13—seems to commend itself as the true explanation. "Our own experience," he writes,[15] "tends to show a slow pulse, 18 to 24 in the minute, with even a moderate degree of irregularity, is not associated with convulsions. For example, a pulse-rate of 20 in the minute, which means an asphyxial state of 3 seconds each, or even a pulse-rate of 12, which equals 5 seconds in each pause, is not enough, so long as it is fairly regular; but when the pulse is irregular, then convulsions will be induced."

Accepting these conclusions—to which many recorded cases of "heart-block" conform—I would say, therefore, the arrhythmia, and not simply the bradycardia, should be looked upon as the causal factor in the production of the convulsions.

When, however, we look for the cause of the arrhythmia we must acknowledge we are not much nearer its discovery, as the only point of agreement between various observers, on the Continent and America as well as in this country, seems to be the absence of any gross lesion by which the symptoms of Stokes-Adams syndrome might be accounted for, if we except arterio-sclerosis of the basilar artery and the circle of Willis, and of the vessels of the medulla. Granting these pathological changes to be the cause, how are they applicable in such a case as that of Mrs. M'N.?

I shall not, therefore, take up more of your time in discussing the many theories propounded to explain it, and in recording my case—devoid, as it unfortunately is, of the results of a *post-mortem* examination—I am sadly conscious I have added little to the etiology, and nothing to the pathology, of the condition. But if I have awakened an interest in the clinical record of a very unusual and rare case, and if the full details of its course to a fatal termination may stimulate others to a clearer conception, and the unravelling of the mysteries attending bradycardia, I shall feel my claim upon your patience and time has not been unwarranted nor misplaced.

REFERENCES.

[1] W. H. Gaskell, On the Innervation of the Heart, *Journal of Physiology*, Camb. and Lond., vol. iv. [2] Dr. R. Travers Smith, *Trans. Roy. Acad. Med. Irel.*, vol. xxiii, p. 48. [3] Stokes, *On Diseases of the Heart and Aorta*, p. 315. [4] *Dubl. Journ. Med. Sc.*, 1906, p. 127. [5] *Glasgow Clin. Reports*, 1900. [6] *Edin. Med. Journ.*, New Series, vol. xviii, p. 9. New Methods of Studying Heart Affections, BRITISH MEDICAL JOURNAL, 1905. [8] Op. cit. [9] Gibson, *Nervous Affections of the Heart*, 1904 [10] *Arrhythmia of the Heart* (Wm. Greene and Son), 1904. [11] BRITISH MEDICAL JOURNAL, December, 1905. [12] BRITISH MEDICAL JOURNAL, 1904, p. 1745. [13] *On the Pulse*. [14] BRITISH MEDICAL JOURNAL, 1905, 847. [15] Op. cit., p. 448.

THE late Mr. Joseph Hinks of Edgbaston, whose will as now been proved, left £100 to the Birmingham General Hospital, and £50 each to the General Dispensary, the Queen's Hospital, the Birmingham and Midland Free Hospital for Sick Children, and the Deaf and Dumb Asylum all at Birmingham.

RICKETS IN RELATION TO THE DURATION OF LACTATION.

By A. DINGWALL-FORDYCE, M.D.EDIN., F.R.C.P.EDIN.,
PHYSICIAN FOR DISEASES OF CHILDREN, NEW TOWN DISPENSARY, EDINBURGH; MEDICAL REGISTRAR, ROYAL INFIRMARY, EDINBURGH.

THE clinical observer of disease in childhood is continually confronted by an immense number of patients exhibiting the immediate or more remote symptoms of rickets, and in a study of the disease he is forced to consider the influence of the various methods of infant feeding on its incidence, maternal nursing being naturally the first condition to come under consideration.

In a former paper I have discussed the occurrence of the return of menstruation during lactation and also the overlapping of pregnancy and lactation, and have shown that whereas the former condition by no means necessitates weaning, the latter undoubtedly does, and owing to its comparatively frequent occurrence and the usual date of its onset, I was led to recommend a lactation of eight months' duration. I have since sought to determine the relation of the incidence of rickets to the varying conditions under which the function of lactation is exercised and to the duration of the exercise of this function.

With this object in view I have examined, irrespective of the cause which led the mother to seek advice, 200 children of different families and aged from 6 months to 3 years. These children I have divided according to their early feeding into the following four categories:

(*a*) "Breast feeding," that is, children reared wholly or mainly on the breast for from 8 to 12 months, and also children aged from 6 to 8 months at the date of examination, who had up to that period been nursed wholly or mainly on the breast.

(*b*) "Hyperlactation," that is, children reared wholly or mainly on the breast for over twelve months.

(*c*) "Mixed feeding," that is, children reared partly on the bottle and partly on the breast for from two to eight months, and also children reared wholly on the breast for from two to eight months.

(*d*) "Bottle-feeding," that is, children reared entirely on the bottle, or where breast nursing lasted less than two months.

This classification was adopted as being the most practical, although by using it one suffers under the obvious disadvantage of being unable to consider the conditions existing where the infants are strictly speaking breast-fed.

Marked physical signs alone were considered as definite evidences of rickets, and as such were taken marked beading of the ribs, enlarged epiphysis, wide fontanelle, and deformities of the thorax, limbs, and spine; while cases with slight beading of the ribs, late teething, marked head sweating, recurrent bronchitis, contracted chest, etc., were considered as slight cases of the disease.

Of these 200 cases rickets was marked in 61
,, ,, rickets was slight in 55
,, ,, there was no rickets in 84

rickets accordingly occurring in 116 cases or 58 per cent.

A classification according to age shows:

Of infants aged—
from 6 to 12 months rickets was present in 55 per cent.
,, 12 to 18 ,, ,, ,, 63 ,,
,, 18 to 24 ,, ,, ,, 65 ,,
,, 24 to 36 ,, ,, ,, 52 ,,

TABLE I.—*Showing the Occurrence of Rickets in the Cases Classified according to the Nature of the Early Feeding.*

—		Rickets.		Total Rickets.	No Rickets.	Total Number of Cases.
		Marked.	Slight.			
(*a*)	"Breast" … ..	18	27	45	45	90
(*b*)	"Hyperlactation"	10	8	18	13	31
(*c*)	"Mixed" … …	5	5	10	5	15
(*d*)	"Bottle" … ..	28	15	43	21	64

From Table I it is seen that the amount of rickets among cases mixed-fed is approximately the same as among those bottle-fed, but differs in this respect, that whereas among the former the percentage number of marked cases of rickets among those suffering from the disease was 50 per cent., in the latter it was 65.1 per cent.

TABLE II.—*Showing the Relation of the Incidence of Rickets to the Position in the Family of the Child.*

Position in Family of Child.	No. of Cases.	(a) Breast. Rickets.	(a) Breast. Nil.	(b) Hyper-lactation. Rickets.	(b) Hyper-lactation. Nil.	(c) Mixed. Rickets.	(c) Mixed. Nil.	(d) Bottle. Rickets.	(d) Bottle. Nil.	Percentage Rickets.
First	39	5	15	1	1	3	1	9	4	46
Second	41	7	10	4	2	2	2	10	4	56
Third	33	11	8	2	6	—	—	5	1	55
After third	87	22	12	11	4	5	2	19	12	66

In Table II the most marked feature appears to me to be the steady increase in the amount of rickets with successive "breast-fed" children in the family. Of first children "breast-fed," 25 per cent. showed rickets; of second children, 41 per cent.; of third, 58 per cent.; and of those later, 65 per cent., this gradual increase being probably in part accounted for by the later children getting a less plentiful supply of maternal milk than the earlier. Of children later than third in the family, however, the percentage of those with rickets among the "breast-fed" not only equals, but even exceeds, that of corresponding children bottle-fed; and, consequently, I was induced to consider the occurrence of rickets among the later children in relation to the previous general reproductive history of the mothers.

From the above figures it seems clear that bottle-feeding *per se* has no greater tendency to produce rickets among later children than among those earlier in the family.

The question accordingly arose: Can it be shown that rickety later children generally are born of mothers with an exceptional previous lactational strain, or do mothers of later "breast-fed" show greater previous strain than mothers of later bottle-fed infants? If the latter be the case, then the occurrence of rickets may be due to some fault in the maternal milk or to congenital weakness of the child.

Of the 161 children later than first in the family, in 146 cases the previous reproductive history of the mother since marriage was carefully investigated:

Of these 146 cases, 40 were cases of second children.
,, ,, 29 ,, ,, third children.
,, ,, 77 ,, ,, children later than third.

The accompanying tables show the early feeding in these cases.

TABLE III.—*Showing the Presence or Absence of Rickets in Children Second-born in connexion with the Early Feeding of these Children and also of those First-born.*

	Rickets. "Breast-fed."	Rickets. Hyper-lactation.	Rickets. Mixed Feeding.	Rickets. Bottle.	Total Rickets.	No Rickets. "Breast-fed."	No Rickets. Hyper-lactation.	No Rickets. Mixed Feeding.	No Rickets. Bottle.	Total no Rickets.	Combined Total.
(a)	1	2	—	2	5	2	1	2	3	8	13
(b)	1	1	—	2	4	1	—	—	—	1	5
(c)	3	—	1	1	5	2	—	—	—	2	7
(d)	2	1	1	4	8	5	1	—	1	7	15
Total	7	4	2	9	22	10	2	2	4	18	40

(a) = First-born child "breast-fed."
(b) = ,, ,, hyperlactation.
(c) = ,, ,, mixed feeding.
(d) = ,, ,, bottle-feeding.

In Table III, the rachitic and non-rachitic second-born children have respectively been subdivided into 4 groups according to their early feeding. In addition, the antecedent lactational history of each case is noted by the position in the row (*a*), (*b*), (*c*), or (*d*).

From this table it is seen that of 18 second-born children where the first-born child was either "breast-fed" or enjoyed hyperlactation—that is, cases in rows (*a*) and (*b*)—9 were rachitic, whereas of 22 where the first-born was either mixed-fed or bottle-fed—that is, cases in rows (*c*) and (*d*)—13 were rachitic, and, consequently, in these cases any previous lactational strain, which necessarily must be slight, has no necessary relation to the occurrence of rickets.

From a corresponding table drawn up for children third in the family, I am also unable to distinguish any marked connexion between lactational strain and the occurrence of rickets, with this notable exception, that of 7 children enjoying hyperlactation, 5 showed evidences of rickets.

TABLE IV.—*Showing Presence or Absence of Rickets in Children later than Third in the Family in Relation to the Early Feeding of these Children and the Previous Occurrence of Maternal Lactational Strain.*

Previous Lactational History.	Rickets. "Breast."	Rickets. Hyper-lactation.	Rickets. Mixed.	Rickets. Bottle.	Total Rickets.	No Rickets. "Breast."	No Rickets. Hyper-lactation.	No Rickets. Mixed.	No Rickets. Bottle.	Total No Rickets.	Combined Total.
(a) All previous children on bottle	—	—	—	5	5	—	—	—	1	1	6
(b) No lactational strain	9	—	3	4	16	4	1	1	6	12	28
(c) Slight lactational strain ...	5	2	1	5	13	4	1	2	2	9	22
(d) Marked lactational strain ...	5	6	2	3	16	2	1	—	2	5	21
Total	19	8	6	17	50	10	3	3	11	27	77

As lactational strain was considered: (1) the overlapping of pregnancy and lactation; (2) hyperlactation; (3) repeated rapidly-succeeding pregnancies and lactations.

In Table IV, as in Table III, the rachitic and non-rachitic children have been divided according to their early feeding, while their position in row (*a*), (*b*), (*c*), or (*d*) marks their relation to previous lactational strain. Consideration of this table discloses the following facts:

(1) Of the mothers of rachitic children previous lactational strain was present in 29 out of 50 cases, or 58 per cent.

Of the mothers of non-rachitic children previous lactational strain was present in 14 out of 27 cases, or 52 per cent., which apparently shows that previous lactational strain does to a slight extent produce a tendency to rickets in the child, a result at variance with that found in the case of second and third children in the family.

(2) Previous lactational strain was present in 16 out of 29 "breast-fed" infants, or 55 per cent., while in infants with hyperlactation it was present in 10 out of 11, or 91 per cent.; these two classes combined showing 65 per cent. of cases in which there was previous strain.

In 12 out of 28 bottle-fed infants, or 43 per cent., this strain was present, and in 5 out of 9, or 56 per cent., mixed-fed infants; these two classes combined showing its presence in 46 per cent. of cases. It is thus apparent that children born of mothers who had undergone previous lactational strain were in a considerable majority of cases nursed on the breast.

(3) Rickets occurred among "breast-fed" infants in 19 out of 29 cases, or 66 per cent.

Rickets occurred among infants with "hyperlactation" in 8 out of 11 cases, or 73 per cent. These two classes combined showing the presence of rickets in 68 per cent. of cases.

Rickets occurred among bottle-fed infants in 17 out of 28 cases, or 61 per cent.

Rickets occurred among mixed-fed infants in 6 out of 9 cases, or 67 per cent. These two classes combined showing the presence of rickets in 62 per cent. of cases.

Rickets accordingly was appreciably more marked among children "breast-fed" for over eight months (including those with hyperlactation) than among other children, and as these "breast-fed" children were, in a large majority of cases, born of mothers who had undergone greater lactational strain, and as this lactational strain does only to a slight extent predispose the infant to rickets, consequently one is forced to a consideration of the composition and fitness of the maternal milk in these cases.

In the literature on the subject of the changes, if any, taking place in maternal milk with advancing age and in successive lactations, systematic series unfortunately are by no means plentiful.

Personally, I am unable to record my results owing to errors having occurred in the duration of the period of rest prior to the withdrawal of the milk. By very many observers it has been clearly shown that great variations exist in the normal composition of milk, not only in the milk of different mothers, but also in that of the same mother at different times. Thus it is found that in the course of one lactation the milk varies in composition according to the period of the lactation, the changes consisting in a fall in the amount of the proteids and salts, and a rise in the sugar and fat (Pfeiffer). Variations in the amount of proteid and fat present are wide, but whereas the fall in the amount of proteid is very distinct, the amount of fat varies but little according to the period of lactation, while the proportion of sugar is throughout very constant (Holt). Variations in the amount of fat occur with each nursing, the later milk being constantly found richer in fat than the earlier, and the proportion sinking again during the period of rest; while it has also been found that fat is more plentiful when the infant is only partially breast-fed than when it is entirely on the breast (Reyher). Holt states that the age of the mother has no constant influence on the composition of her milk, nor has the number of previous pregnancies, except such influence as results from the effect upon her general health. In this latter connexion Sharples and Darling, as the result of 117 analyses of human milk, conclude that "During the first lactation the milk on the average is weaker in fat and proteids, but stronger in sugar than in subsequent lactations. These differences may or may not be due to age."

That the exact changes, if any, produced in the composition of milk by advancing age and successive lactations have not, so far, been determined is clear, observers, however, agreeing that an unsatisfactory condition of maternal milk does exist, that the undue prolongation of lactation and rapidly-succeeding pregnancies conduce to this condition, and that this unsatisfactory condition can lay the foundation of rickets (Henoch, Holt, Thomson.) The mothers of infants in the category I am now considering may be said to fall into this class, and the conclusion is arrived at that their milk was not in every case or in all respects a satisfactory food for the children.

While the disadvantages and insufficiencies of hand-feeding are patent to the least skilled eye, the beneficent effects of maternal nursing are correspondingly striking. Every day we meet with weakly, ill-nourished women suckling a strong healthy infant, and the idea is fostered that from breast-nursing nothing but benefit to both mother and child accrues. Women of the working class who can and do nurse, very frequently nurse for a period of time altogether out of proportion to the needs of the infant. The number of such nursing mothers undoubtedly is distressingly small, but of those who do nurse the number who do so excessively long is distressingly large. No one questions that, where practicable, maternal nursing, within limits, is the one and only procedure for the good of both mother and child; but in order to secure a continuance of this invaluable supply of nourishment it is imperative that it be utilized in moderation, with due consideration and avoidance of the undoubted evils resulting from its undue prolongation or the condition of an overlapping pregnancy, such conditions foreshadowing a diminished value of the milk in future actations, and consequently forming a serious handicap in the natural nutrition of later infants.

BIBLIOGRAPHY.

Fordyce, *Lancet*, January 27th, 1906. Forest, *Arch. f. Kinderheilk.*, Bd. 42, 1905. Graanboom, *Rev. d'Hyg. et de Méd. Infant*, Tom. 2, Nos. 5 and 6, 1903. Henoch, *Kinderkrankheiten*. Holt, *Diseases of Infancy and Childhood*. Neter, *Arch. f. Kinderheilk.*, 36, 1903. Sharples and Darling, *Boston Med. and Surg. Journ.*, 148, 1903. Thomson, *Clinical Examination and Treatment of Sick Children*. Reyher, *Jahrb. f. Kinderheilk.*, 3 F. xi, 4, 1905.

THE late Mr. Hugo Harpur Crewe, of Brockenhurst, whose will has now been proved, bequeathed £100 to the Derbyshire Royal Infirmary, £50 to the Devonshire Hospital, Buxton, and £25 to the Children's Hospital, Derby.

THE MOSQUITO WAR.—A Bill has been introduced into he Senate in the State of New Jersey providing for the ppropriation of £14,000 per annum for five years to be pplied to the extermination of mosquitos in the marshes f the State.

PLEURITIC EFFUSION TREATED WITH ADRENALIN BY THE PRELIMINARY INTRASEROUS INJECTION METHOD.*

BY

WILLIAM EWART, M.D.CANTAB., F.R.C.P., SENIOR PHYSICIAN, ST. GEORGE'S HOSPITAL AND BELGRAVE HOSPITAL.

and

MISS FLORA MURRAY, M.D.DURHAM., LATE SENIOR RESIDENT MEDICAL OFFICER, BELGRAVE HOSPITAL FOR CHILDREN.

THE following case was treated at first by a modification of Sir James Barr's method, which combines the evacuation of fluid with its replacement by air; but in this instance the air was not injected, but allowed to be drawn in by thoracic suction, and the subsequent injection of solution of adrenalin was not practised. The secondary effusion which ensued was treated with "preliminary intraserous injections" of adrenalin with a view to eventual paracentesis, but the latter was not performed as the fluid underwent complete absorption.

A boy, aged 10½, was admitted to the Belgrave Hospital on June 7th, 1905, the eighth day of his illness. He was known to have been suffering from left pleuritic effusion for the last five days, and to have been quite well previously. He had some dyspnoea, and was slightly cyanosed; the temperature was 102°, the respiratory rate 48 per minute, and the pulse accelerated.

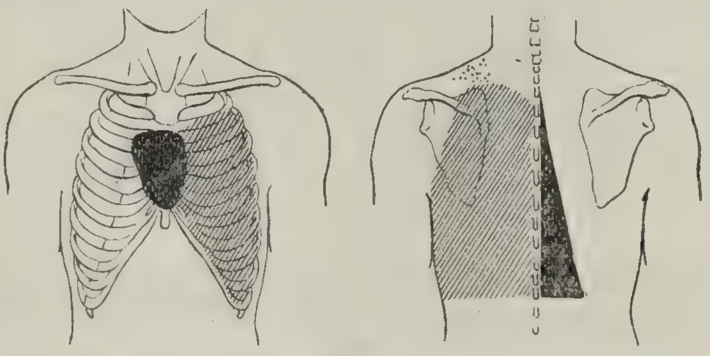


Fig. 1.—Physical signs on June 7th:—Anteriorly: Prominence of the left side of the thorax, with dullness from apex to base, and displacement of the heart. Posteriorly: Dullness except at the extreme apex, which presented a few slight crepitations, and in the right side of the chest Grocco's triangular paravertebral dullness (indicated in black).

Physical Signs.—There was considerable cardiac displacement, and a ventricular beat could be felt in the second right intercostal space, in the nipple line. At the left apex the resonance was diminished and some crepitations were heard. The whole of the rest of the left chest was dull, with absence of breath sounds. The convexity of Damoiseau's line rose to the level of the second dorsal spine, and a "Grocco's triangle" of paravertebral dullness could be mapped out from that level downwards to the right base.

Paracentesis by Siphonage with Admission of Air.—As the patient was orthopnoeic and slightly cyanosed, paracentesis was performed without further delay on June 8th, under a light anaesthesia, by siphonage, with all due precautions. An ordinary trocar and cannula with a draw-off tube attached were introduced at the seventh interspace in the anterior axillary line for the escape of the fluid, whilst a second trocar and cannula introduced at the third interspace permitted the entry of aseptic air. This air was derived from a Wolff's bottle, and was filtered by passing through a glass tube containing cotton-wool, which was included with this object in the india-rubber tubing connecting the bottle and the chest. The Wolff's bottle was connected on the other side with a supply of water to replace by siphonage and without any driving pressure the air which escaped into the chest. The volume of air admitted into the chest was determined by the difference in the levels of the water in the bottle before and after the operation. In this way it was ascertained that there was less air introduced than fluid removed, 54 oz. of fluid having been withdrawn and only 477 c.cm. of air admitted into the pleura.

After the Operation.—Grocco's triangle had disappeared, but the heart had not moved appreciably back from its abnormal position. The patient felt relieved, and breathed more easily after he recovered from the brief anaesthesia. There was no rise in temperature, and the temperature curve, which was already subsiding, soon reached the normal level.

Relapse of the Effusion.—The patient was none the worse for his pneumothorax, and from day to day he made satisfactory progress. But it soon became evident that the fluid was reaccumulating instead of disappearing. Thus four days after the operation splashing could be heard, and Grocco's triangle was again present, its summit being now on a level with the eighth dorsal spine.

---

* Read before the Society for the Study of Disease in Children, on December 15th, 1905.

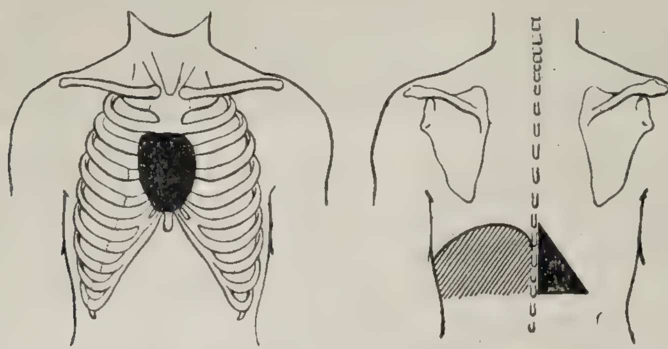


Fig. 2. — Physical signs on June 12th:—Anteriorly: Impaired resonance below the fifth rib; bulging and hyper-resonance above. Posteriorly: Dullness and splashing below the level of the seventh spine; "Grocco's triangle" at the right base. The heart was still displaced.

Intraserous Injections of Adrenalin.—On June 17th, as the level of the fluid continued to rise, Dr. Ewart introduced into the chest an intraserous injection of 10 minims of solution of adrenalin (1 in 1,000). On this date the heart had not returned to its normal position. The impairment of note and splashing were still present, and the convexity of Damoiseau's line and the apex of Grocco's triangle were on a level with the sixth dorsal spine. But the air entry was better, and the vesicular murmur was more distinct.

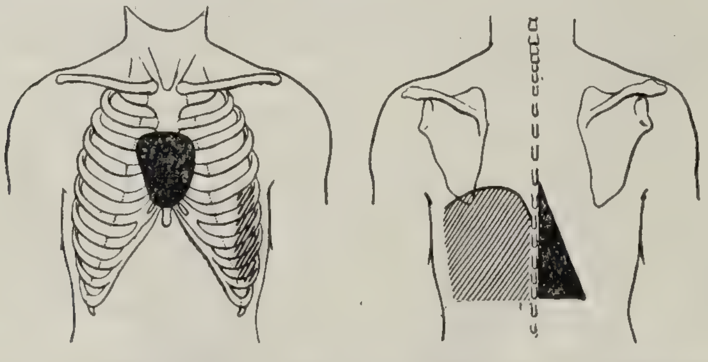


Fig. 3.—Physical signs on June 17th:—Anteriorly: Dullness at the left base. Posteriorly: Dullness, splashing, and "Grocco's triangle" extend upwards to the level of the sixth dorsal spine. The heart still displaced.

On June 20th a second injection was given. The heart had not returned to its normal position, and the fluid had continued to rise.

On June 22nd a third injection was given. The apex of Grocco's triangle and the convexity of Damoiseau's line were as high as the fourth dorsal spine. The heart had partially returned to the left side of the sternum.

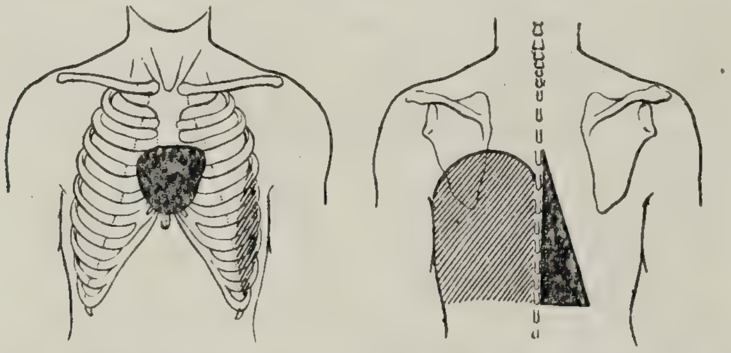


Fig. 4.—Physical signs on June 22nd: The heart had begun to move leftwards. Some dullness at the left base rising posteriorly together with "Grocco's triangle," to the level of the fourth dorsal spine. Some splashing was still audible.

On June 26th a fourth injection was given. Meanwhile his general condition had improved greatly. The heart had returned to its normal position, and the area of dullness did not extend higher than the ninth dorsal spine. There was no splashing to be heard, the last remnant of air having apparently been absorbed. He was gaining flesh rapidly.

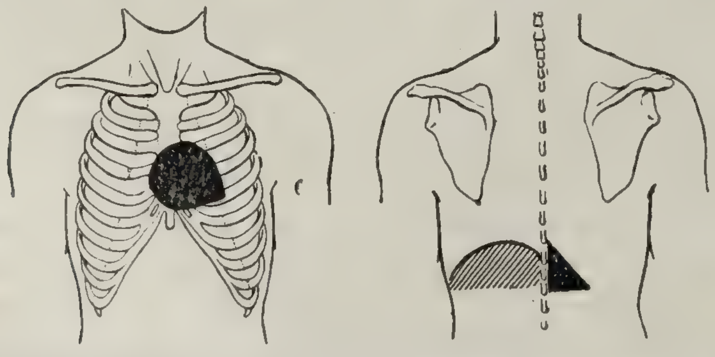


Fig. 5.—Physical signs on June 26th: The heart had returned to its normal position. No splashing could be heard; but dullness and a "Grocco's triangle" were made out below the level of the ninth dorsal spine.

A fifth and final injection was given on June 28th. The child was then convalescent. There was only a slight impairment of the percussion note remaining at the left base, and Grocco's triangle of dullness had disappeared. He made an uninterrupted recovery, and went to a convalescent home on July 8th in a satisfactory state of health; and he has since done well.

Remarks.

The interest of the case lies in the results of the two separate methods of treatment employed. As regards the first method, it should be mentioned that special care was taken to evacuate the fluid completely, by altering the patient's posture during the operation, a result probably not attainable by the airless methods. The chief facts which stand out are (1) that as previously well known, the introduction of filtered air is harmless when this is practised without any pressure; (2) that it is possible for the lung to re-expand perceptibly in these circumstances before the mediastinal displacement undergoes any correction; (3) that therefore, in spite of the persistent cardiac displacement, the substitution of pneumothorax for hydrothorax confers a respiratory advantage and an appreciable measure of comfort; (4) that at a relatively early stage of the effusion (fifth day in this instance) the artificial pneumothorax does not prevent a reaccumulation of fluid, although it is probable that it may delay the secondary effusion.

The results of the "preliminary intraserous method" are equally instructive. (1) It is a harmless way of administering suitable doses of adrenalin; but attention must be drawn to a precaution which is part of this method, namely, that the injection should only be practised when, after inserting the hypodermic syringe (or in the adult the exploring syringe) containing the adrenalin, some of the effusion can be drawn into it by further drawing out the piston. This gives us the assurance that the adrenalin will to a certainty be injected, not directly into the highly-absorbing tissues of the lung or pleura, but into a fluid collection, where it will be further diluted. (2) An injection of 10 minins only, and its repetition did not succeed in immediately stopping the progress of the secondary effusion. (3) It is noteworthy, however, that after the second injection the rise in the level of dullness in the back was a local sign and did not correspond to any proportionate increase in effusion, for the improved breath sounds indicated progressive pulmonary re-expansion in front, and the heart was beginning to return to its normal position. (4) The reabsorption of the fluid proceeded rapidly under a continuance of the same treatment, which was originally undertaken as merely "preparatory" to paracentesis. (5) Assuming—and in the absence of demonstrable evidence we can only assume—that the adrenalin, which was certainly absorbed with the fluid, had any share in promoting its absorption, it would appear that the preliminary injection of adrenalin advocated in this modification of Sir James Barr's method would favour the more complete success of an ordinary paracentesis to be performed a day or two later. (6) That most probably in the more favourable set of cases the same result might be achieved as in this case—namely, by one or two repetitions of a somewhat more liberal "preliminary intraserous injection" the performance of paracentesis might be entirely avoided.

THE TREATMENT OF BRANCHIAL FISTULA.

By MARTIN J. CHEVERS, L.R.C.P. and S.I.,
Withington, Manchester.

On March 16th, 1905, I was consulted by a young lady suffering from branchial fistula. She was barely 22 years of age, and contemplating marriage. The fissure was always discharging, damaging her dress, and debarring her from wearing evening dress. I had to tell her that an operation would probably be necessary, might not be successful, and would in any event leave a scar to a greater or less extent. It however occurred to me to try the constant current, and I named it as a possible way out of the difficulty, but gave her and her parents clearly to understand that I had never heard of a case being cured by it.

The fistula extended from the origin of the sternomastoid into the clavicle, at which point it was discharging, and ended at or about the level of the upper border of the hyoid bone. There was no tumour in connexion with the fistula or anywhere in the neck.

During the treatment I discovered that there was at least one communication with the pharynx. There was no history to be obtained, except the fact that it had been discharging since she was a child, and that the amount of discharge had increased considerably for the past two or three years. An ordinary probe passed without pain through the opening immediately over the origin of the sterno-mastoid upwards for 3½ in., stopping, as it seemed, just above the hyoid bone; on extraction there followed a slight discharge of sero-purulent or sebaceous fluid, but no trace of blood.

Next day I passed a very small gum-elastic urethral catheter, and injected a 1 in 40 phenol solution to wash the track out; some of the solution, the patient said, entered the pharynx and was spat out. She could tell me what the solution was by the taste. The day after I again syringed it out, and passed and left in a silkworm-gut drain; on the third day, after having syringed it out, I twisted together and passed four lengths of No. 2 silkworm gut, having first dipped them in croton oil. I passed them to what I believed to be the upper extremity of the fistula, my object being, of course, to try and destroy the lining mucous membrane; in this it seemed I succeeded to some extent, on account of the copious discharge of pus there was on the dressings the following day. After two more days of antiseptic syringing and draining I passed to he upper extremity of the fistula a silver wire electrode ent on itself, the blunt bent extremity being passed up he fistula, and the two sharp ends of the other extremity itted into a handle which was connected with the cathode vire. I gradually increased the current from zero up to milliampères, and immediately reduced it gradually to ero again. I then made the anode the active electrode n the inside of the fistula, and gradually increased from ero up to 10 milliampères, and reduced slowly to zero gain. I then put on a superficial dressing without drainge. The next day, and every day for a week, I applied a lat, flexible tin electrode to the skin surface immediately ver the track only, bending the electrode on itself longiudinally, and applying the bent convex narrow border to he skin immediately over the fistula. At each application first made the cathode the active electrode, increasing he strength of the current from zero to from 15 to 20 illiampères for a few minutes, and then reducing again to ero, after which I made the anode the active electrode in e same way, but reaching from 30 to 35 milliampères. efore the application of the alternating currents to the exrnal surface of the fistula, there was a discharge from the it on applying pressure over the course of the fistula, but ter four or five days of the external treatment this ischarge could not be produced on any pressure, and about the end of the week's application the watery ternal discharge always produced before, on the application of the cathode as the active electrode, ceased ternally; but on such application, and at intervals ring the day, the patient complained of a bitter fluid scharging into her throat. The applications were connued for another week, up to April 13th, with continued od effect. During the two days previous to April 13th e patient only felt the bitter discharge into the mouth ce, and that very slightly. The applications were therere discontinued on that date.

The cathode, which attracts hydrogen and alkalies, uses, through its irritative and stimulating effect, ngestion, softens and liquefies the tissues, causing watery discharge; on application of the anode, oxygen d acids are attracted, which have a tonic and astringent ect, harden and dry up the tissues, and cause conction of the passage, so that if this electrode is left in long it may be impossible to withdraw it without maging the adjacent parts.

It has been shown[1] that the therapeutic results and emical changes brought about by a single application five minutes with a current strength of from 1 to nilliampères so alters muscle structure that evidences it can be seen for several days after, and so the interlar chemical changes set up have caused the cure of s case, possibly assisted by the use of a silver electrode. o not think that very much therapeutic effect could be ained from the use of a silver electrode, which ionizes h difficulty as compared to metals such as lead, zinc, d copper, although it is, I believe, recognized that on lying the positive pole there is some movement of ver ions into the tissues, causing the liberation of oxygen and chloride and the formation of insoluble silver chloride.

On April 15th I removed the pharyngeal tonsils, which had been chronically enlarged for some time, causing nasal breathing and night snoring. I ceased attendance on April 30th.

On July 29th I received a report from her father that there was not the slightest sign of the old trouble. I saw the patient on September 15th, and again in January, 1906, and with the exception of very slight redness, no bigger than a pin's head, there was absolutely no sign of the trouble.

The "working-in-the-dark" treatment, as applied in this case, carries with it a certain amount of risk, owing to the proximity of important structures, but by exercising a little care the slight risk is, I think, warranted by the result. The most interesting point about such cases is their rarity and the small number of British or any publications concerning the condition or its treatment.[2]

As the patient has now been a year without the slightest return of the old trouble, I think I am justified in claiming a cure.

This treatment in place of excision might also be applicable to a patent thyreoglossal duct and cyst—a somewhat different state; being a cystic enlargement of a lymphatic in the neck brought about by a fistula or duct from the floor of the mouth or tongue muscles leading to it, and which fistula, I also suggest, is due to an embryological faultiness in the closure of one of the clefts, part of which cleft goes towards the formation of the thyroid gland and isthmus, perhaps the first cleft.

The application of an escharotic without the immediate after-application of galvanism I consider worse than useless, owing to the fact that the irregular destruction of lining membrane and irregular adhesions set up would be more than likely the cause of cystic formations.

REFERENCE AND NOTE.

[1] *Electro-Physiologie*, Weiss, p. 127. [2] According to the *Index Medicus*, there were only three publications on this condition in 1903, two in 1904, and two in 1905, and all foreign.

THE INCUBATION PERIOD OF MALTA FEVER.

BY E. H. ROSS, M.R.C.S.ENG., L.R.C.P.LOND.,
PUBLIC HEALTH INSPECTOR, PORT SAID, EGYPTIAN PUBLIC HEALTH DEPARTMENT.

THE following case is of interest, for it tells us, within certain limits, the incubation period of Malta fever. A knowledge of this period is of the utmost importance, for it enables us to determine the actual mode of infection from amongst the many possible modes which have been enunciated.

H.M.S. *Lancaster*, having been recently built and newly commissioned, left Portland on June 20th, 1904, for the Mediterranean. She sailed direct for Malta, where she arrived on July 1st. The day after her arrival one of the ship's stokers, who was on his first voyage abroad, was sent to the naval hospital at Valetta suffering from "chancroid and bubo." He remained in hospital until July 19th, when he returned direct to his ship, cured. The ship left Malta the next day for the Dardanelles, and remained at sea for three weeks. Two days after leaving Malta this man was taken ill with fever.

On the fifth day of his illness he was tested for the serum reaction, which gave a positive result, and the *Micrococcus melitensis* was subsequently separated from his blood. He was invalided home in the following October.

H.M.S. *Lancaster* did not return to Malta until November, 1904, and no other cases of Malta fever occurred on board until January, 1905. It is obvious, therefore, that this man contracted the disease when in the wards of the naval hospital at Malta—that is, between July 2nd and 18th. Supposing that he became infected on the day that he went to hospital, the longest possible period of his incubation is nineteen days, and the shortest two days. The incubation period of Malta fever is somewhere between these two limits, certainly not longer.

Evidence has already been brought forward to show that the incubation period of the disease in human beings, when it has been contracted naturally, is from eight to eleven days.[1] Experimentally, according to the Malta Fever Commission,[2] the incubation periods of the possible modes of infection are as follows:

A. *Infection by Dust Mixed with Cultures of the Micrococcus.*—Monkeys fed daily on the artificially-infected dust. Average number of cultures given, twenty-seven. Incubation periods, forty-two to seventy days. Naturally-infected dust given to monkeys failed to produce the disease. Goat fed daily on dust infected with urine containing the micrococcus for thirty-two days ultimately contracted the disease. This experiment has not yet been confirmed.

B. *Infection by Food.*—Four monkeys fed on cultures for sixty, thirty-eight, thirty-five, thirty-eight days contracted Malta fever. The average number of agar cultures eaten by each of these monkeys was ten. One monkey which only ate seven cultures did not contract the disease. One monkey which ate only two cultures did contract the disease after an incubation period of thirty-two days.

C. *Transmission of Malta Fever by Naturally-infected Goat's Milk.*—Four monkeys were fed, on the average, three times a day for forty-seven days (mean) before their bloods reacted. It seems probable that animals fed on very large quantities of the micrococci will show an agglutination reaction without infection by the disease; thus Horrocks states that the agglutinins, but not the disease, may be transmitted to the fetus *in utero.* Also a goat fed on naturally-infected milk three times a day from June 27th until October 7th, showed the presence of agglutinins on the latter date, but the micrococcus was never separated from its blood or milk. All these animals were given enormous doses of the *Micrococcus melitensis.*

Four men, all non-immunes, drank some goat's milk, last September, which contained the micrococcus, but they have not up to the present contracted Malta fever.[3] From the beginning of July, 1905, all the milk supplied to the troops in Malta, with the exception of one regiment, was boiled, but the Malta fever admissions increased from 67 in July to 77 in September. The regiment which did not boil its milk had the lowest admission-rate.[4]

The milk supplied to the Malta hospitals has recently been carefully sterilized, but the incidence of the disease increased amongst the patients in their wards after the discovery of the micrococcus in the goat's milk.[5]

D. *Infection by Inoculation and Mosquitos.*—Accidental inoculation in man: incubation period in 3 cases, six days. Experimental inoculation in animals: incubation period, average six days. Natural infection in 4 persons by mosquitos: incubation periods, eight to eleven days.[6] Accidental infection of a man by a mosquito which had bitten monkeys with Malta fever (the mosquito was found to have the *Micrococcus melitensis* in its stomach): incubation period, eleven days (Horrocks).[7]

The case of Malta fever which occurred on board H.M.S. *Lancaster* can only, according to its incubation period, be classified under the heading D.

REFERENCES.

[1] Ross and Levick, *R.A.M.C. Journal*, August, 1905. [2] Reports of the Malta Fever Commission, Parts I, II, III, IV. [3] Ross and Levick, *R.A.M.C. Journal* (letter), November, 1905; also *Journal of Tropical Medicine*, January, 16th, 1906. [4] Report of the Malta Fever Commission, Part IV, page 159. [5] *R.A.M.C. Journal* (letter), November, 1905. [6] Ross and Levick, *R.A.M.C. Journal*, August, 1905. [7] Report of the Malta Fever Commission, Part IV, page 76.

MEDITERRANEAN FEVER IN SOUTH AFRICA.

ISOLATION OF THE MICROCOCCUS MELITENSIS.

BY LIEUTENANT-COLONEL C. BIRT, R.A.M.C.,
THE LABORATORY, QUEEN ALEXANDRA HOSPITAL: PATHOLOGIST, QUEEN ALEXANDRA HOSPITAL, MILLBANK.

DR. P. D. STRACHAN[1] recorded in the BRITISH MEDICAL JOURNAL 72 cases of Mediterranean fever which had occurred in his practice in Philippolis, Orange River Colony, and the surrounding districts; 25 reacted with the *M. melitensis* in dilutions of 1 in 10 to 1 in 50.

Unless recently-isolated cultures of this micro-organism are used fallacious results may be obtained. Normal human blood may clump an emulsion of a growth which has had a long saprophytic existence. Konrich[2] and Cornwall[3] have both fallen into error through ignorance of this fact.

Lamb[4] and I examined the serum of fifty healthy people and of 100 individuals suffering from various ailments. We used emulsions of *M. melitensis* obtained from the spleen of a patient who had succumbed a short time previously. In none of these controls did we observe a complete reaction in a dilution of 1 in 10, nor a trace in 1 in 20. We therefore inferred that complete sedimentation in dilutions of 1 in 10 and over implied the existence of Mediterranean fever, past or present. Forty-four cases in the course of the fever answered to this test. The average maximum dilution in which agglutination was noticeable was 1400. In 68 convalescents the average was 350 if the blood was taken six months, and 250 if taken six to eighteen months after the fever. Our results have been confirmed by the Royal Society's Commission on Mediterranean Fever,[5] by Nicolle,[6] and by Lamb.[7] It is therefore obvious that the serum reaction, if effectually controlled, is a valuable method in the diagnosis of Mediterranean fever, and is only surpassed by the isolation of the *M. melitensis* from the blood of the patient.

Dr. Strachan has sent me capsules of blood from the cases which have occurred in his practice since August last, and of convalescents treated by him previously. The blood of 14 treated during the pyrexia has sedimented an emulsion of the *M. melitensis* in an average dilution of 800. The blood of 18 taken from two to eighteen months after the fever, has reacted in an average dilution of 150. The emulsion was tested with twenty to thirty human serums of various origins in 1 to 10 dilution, and no clumping took place.

The existence of the disease in South Africa has thus been shown clinically by Dr. Strachan, and confirmed by the serum test.[8] The last link in the chain of evidence to establish it on an irrefutable basis only was wanting—the isolation of the *M. melitensis* from the blood of one of the sufferers. This has been done. The blood of one of the above inoculated on nutrose-agar has given an abundant growth of the *M. melitensis.* This strain resembles the *M. melitensis* derived from the Mediterranean disease in its microscopical, cultural, and agglutinating characteristics.

The origin of the disease in South Africa is interesting. It seems not improbable that it might have been introduced with goats imported into that country. Dr. Strachan has forwarded samples of blood of fifteen of these animals from farms where Malta fever has been prevalent. Two have agglutinated the *M. melitensis* in 20-fold dilutions and over. This indicates that they have been infected.

REFERENCES.

[1] P. D. Strachan, *South African Medical Record*, August 15th, 1904; BRITISH MEDICAL JOURNAL, July 15th, 1905. [2] Konrich, *Zeitschrift f. Hyg.*, Bd. xlvi, p. 261, 1904. [3] Cornwall, *Indian Medical Gazette*, 1904, p. 236. [4] Lamb and Birt, *Lancet*, September 9th, 1899. [5] Reports of the Commission for the Investigation of Mediterranean Fever under the Supervision of an Advisory Committee of the Royal Society, parts i, ii, iii, iv, 1905, 1906. [6] Nicolle, *Compt. Rend. de la Soc. de Biol.*, T. 59, 1905, p. 240. [7] Lamb, Scientific Memoirs by Officers of Medical and Sanitary Departments of the Government of India, No. 22, 1906. [8] Birt, *Journal of the Royal Army Medical Corps*, January, 1906.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL.

ICHTHYOL IN THE TREATMENT OF ANGIO-NEUROTIC OEDEMA.

THE two cases of angio-neurotic oedema reported by Dr. Lowman (BRITISH MEDICAL JOURNAL, April 14th, 1906) call attention to a disease designated by Schlessinger hydrops hypostrophos. Of its etiology very little is certain, but that heredity is an important factor is shown by a case reported by Apert and Delille (*Bulletins de la Soc. Méd. des Hôp.*, November, 1904), in which the patient, his father, his only brother, and two other paternal uncles were affected. Professor Osler, too, has recorded an instance in which 22 out of 29 cases were distributed in five generations.

The disease is serious, because it may attack mucous membranes as well as skin, and sudden oedema of the larynx may, therefore, occur and prove rapidly fatal, as in a case recorded by Morris (*American Journal of Med. Sciences*, 1904). Tracheotomy was performed on three separate occasions for asphyxia due to oedema, but the patient succumbed one night from a fourth attack before medical assistance could arrive.

Other cases have from time to time been recorded, notably one complicating enteric fever reported in the *Montreal Medical Journal* in 1898 by Drs. Martin and Gillies. The surgical importance of its visceral crises has been demonstrated by Professor Osler (*American Journal of Medical Sciences*, 1904), and instances given in which laparotomy was performed for angio-neurotic oedema of the intestine, the symptoms closely simulating an acute abdominal lesion. As Dr. Lowman invites suggestions as to treatment, I put forward the claims of ichthyol for what they are worth, having only tried it in the following case:

A nervous, unmarried lady, aged 37, sought advice with an ight years' history of evanescent swellings, neither inflamma- ory nor dependent on any injury. They usually occurred at ortnightly intervals on the face, chest, and upper arms, lasting bout two or three days, and then disappearing. They occa- ioned no pain, but only a sensation of tingling and slight oreness. No therapeutic measures tried had either amelior- ted the attacks or lengthened the intervals between them. ordered her ichthyol gr. iij, in pill form, to be taken thrice aily. This she continued for two months, then twice a day r another month, and at present she is taking one each day. he writes that for the past three months she has had no currence.

I am not aware that ichthyol has been tried for this isease, but I was led to prescribe it because of its effi- cy in controlling the "flushings," "vasomotor neuroses," d allied phenomena which are common at the meno- use, when the vasomotor system appears to be the cape valve for pent-up nerve storms.

Though there was no evidence of any climacteric change my patient, ichthyol has proved beneficial, but, of urse, it is too early to say that the trouble is more than mporarily checked. Still I consider it worthy of a con- nued trial. Where angio-neurotic oedema is accom- nied by gastro-intestinal disturbance, ichthalbin (an buminate of ichthyol) may be more easily tolerated.

Frederick C. Forster, M.R.C.S., L.R.C.P.Lond.
est Southbourne, Bournemouth, April 16th.

A CASE OF RUPTURE OF KIDNEY.

D., aged 21, was driving a tradesman's cart on Octo- r 18th when he had to pull well into the near side of road owing to meeting a trap, which gave him very tle room to pass. He was travelling at a good pace, and wheel caught the kerbstone, with the result that he s thrown violently to the ground. The cart was a sed one, and had the driving seat on the top of it; the t had an iron rail running round it, against which the ient must have come in violent contact while falling. was carried home, and I saw him about 8 p.m., half hour after the accident. He was suffering considerably m shock, and complained of severe pain in the right e, between the last rib and the crest of the ilium. His se was 82 and small. The pupils were equal and semi- ted. He had passed water about an hour before the ident, and his bowels had also moved during the day.

was again summoned to see him an hour after my t visit, being told that he was passing "pure blood." und that he had marked haematuria, and great pain ing the act of micturition, which was accounted for the fact that he had passed several large blood clots. agnosed the case as one of rupture of the right kidney. ve him a mixture containing ext. ergotae liq. and acid. h. aromat. in ♏xv doses every four hours. I also gave a hypodermic injection of morphine gr. ¼, and applied icebag locally. He had a fair night, but had a good of pain next day, and passed an enormous amount of e clots by the urethra. In spite of this he had no ression of urine. His temperature was 100° F., e 72. The urine was smoky, specific gravity 1012; ntained blood, and, microscopically, blood casts.

e hypodermic injection of morphine was repeated on second night, and he again had a fair night. On the and fourth days his temperature gradually rose to F., and he developed well-marked general peritonitis, h, however, subsided in a week or ten days. On the day the urine was clear, and microscopically showed lood cells or tube casts. With regard to diet he had nothing but milk and milk whey after the accident. radually improved; the temperature became normal e seventeenth day after the accident; the pulse-rate never higher than 96. On attempting to sit up on the tieth day he felt very giddy, fainted, and the same ing had a return of haematuria for twenty-four hours. as kept in the recumbent position for ten days more, allowed to gradually sit up; a week later he got out d, and, when he had gained sufficient strength, was ed gentle exercise out of doors. From this time rds he made an uninterrupted recovery, and rapidly d in weight.

case to me, at all events, is interesting, in so far as, ding to modern textbooks, rupture of the kidney is a what rare accident. The patient resumed his former ation on January 1st, 1906. He had not been at for more than a fortnight when, in attempting to cross a ford which was in flood, with his employer's horse and cart, the horse was washed off its legs and drowned; the cart, full of groceries, was smashed to pieces, and the patient would have been drowned, as he was unable to swim, had he not been able while being washed down the stream to seize hold of a wooden support of a foot bridge, about 10 yards below the site of attempted crossing, and climb up on to the bridge.

This patient, I think, may be considered to have a somewhat charmed life! He has since this given up his previous occupation and taken to farm work.

Launceston, Cornwall. **H. Dodgson**, M.B., Ch.B.

ENTEROSPASM AND INTESTINAL OBSTRUCTION.

Some years ago I was called upon to see a man, aged 40, who had been suffering for twelve hours from symptoms of severe intestinal colic. The bowels had acted freely, and he had passed wind; there had been no vomiting. There were, therefore, no signs of ileus, nor of any serious abdominal condition. He was not suffering from plumbism. The temperature was not raised nor the pulse-rate increased.

Morphine was given at midnight, and complete relief from all suffering ensued and lasted till 4 a.m. Faecal vomiting then set in and became almost incessant, the vomited matter smelling atrociously; thereafter there was passage neither of faeces nor flatus. The patient rapidly collapsed, and died five hours afterwards. A surgeon could not be obtained at once and arrived too late.

A careful and complete necropsy was performed on the following day. The liver and bile passages, pancreas and its ducts, the whole extent of the alimentary canal, the mesenteric vessels, and, indeed, all the organs were carefully examined, and all that could be found to which any significance might be attached was a reddened condition of the mucosa of part of the jejunum, which contained in that part several small lumps of undigested matter looking like ginger. No twist of bowel or interference with its lumen was present.

The only abnormal condition, then, in this otherwise healthy body was a short portion of small bowel in a condition of hyperaemia and containing lumps of irritating and indigestible food. I imagine that the result of this state of matters would be colic (enterospasm). The final condition was most certainly acute intestinal obstruction, and, to my mind, the probable, though not the only, explanation of this unusual case is that the enterospasm was the cause of the ileus. Enterospasm of various degrees is known to exist, so it is possible that it may exist in such an extreme degree as to cause acute intestinal obstruction.

Wells, Somerset. **Bruce C. Kelly**, M.B., M.R.C.S.

HETEROCHROMIA IRIDIS.

In the British Medical Journal of May 6th, 1905, I recorded a case of heterochromia iridis, and recently another case of this condition has come under my notice in a boy, 8 years of age, who came under treatment for anaemia and debility, the iris of the left eye being of two different colours. The upper and inner quadrant was of a brown colour, and the upper and outer quadrant partly brown and partly blue. The rest of the iris was blue. In my former case the colours were most distinct, as if there had been a line separating the two; in this case the colours seemed to merge into one another at adjacent parts. The brown colour in the upper and outer quadrant was patchy in character, and it gave one the impression that blue was the groundwork. The colour of the right iris was blue.

On examination, there was a brisk response to light and accommodation tests. The pupil was moderately dilated and regular in outline. Under homatropine it dilated quickly and well. The ophthalmoscope revealed nothing abnormal, and vision was emmetropic. The mother's eyes were blue, as were also the father's. The patient had five brothers and three sisters; all had blue eyes except the eldest brother, his eyes were light brown. It is, as a rule, when both parents have the same coloured eyes that their offspring inherit that colour. About 4 per cent. do not, and of these the majority have both eyes the same, probably inheriting from some more remote ancestor; while a very few present the appearance known as heterochromia. In this case no definite information about the colour of the eyes in former generations could be obtained.

So far as I know no theory having a sound scientific basis has been put forward as an explanation of heterochromia. The condition does not appear to give rise to any inconvenience, and so is probably to be looked upon more as a curiosity than as anything else.

JOHN ALLAN, M.B., Ch.B.

Brighton.

OCCIPITO-POSTERIOR PRESENTATIONS.

THE following incident has a bearing on the views advocated by Dr. Geddes in the BRITISH MEDICAL JOURNAL on March 10th, 1906, p. 549:

I had an urgent call to a village four miles distant, and, galloping across country, found that the patient was a woman collapsed from prolonged labour, with a hot, dry vagina. Vaginal examination showed there was an occipito-posterior presentation, and that the infant's nose was firmly fixed against the pubic arch. As the patient was *in extremis* and immediate interference was necessary, I pushed the child steadily backwards and upwards with my right hand, and, placing the left in the rectum, I pressed on the occiput, so as to flex the child's chin upon the sternum; in a moment the child was shot into the bed.

Here, then, was a case of occipito-posterior presentation left practically to Nature, but in which the patient undoubtedly would have succumbed had Nature's treatment been left unmodified by art.

JOHN McMULLEN,
M.B., B.Ch., B.A.O.Dublin.

Capetown.

PNEUMOCOCCIC ARTHRITIS.

THE following case of pneumococcic arthritis in which the symptoms were very much less severe than in those mentioned by Dr. Secretan and Dr. Wrangham, was lately under my care.

On March 18th I was summoned to attend M. B., aged 47, who complained of severe headache and pain in the left side; temperature 104°, pulse 132. I found he had well-marked lobar pneumonia on the left side with pleuritic friction sounds. On the fourth day there was some fluid in the pleura, but the case took the usual course, and the crisis occurred on the seventh day. On the following day he complained of pain in the left hip and down the thigh. The same evening there was severe pain in the left shoulder and wrist, and he was quite unable to move the arm; temperature 100°. Next day the right shoulder, elbow, and wrist were painful and swollen; temperature 101.6°. Afterwards the left knee and ankle became affected and extremely painful, but no distinct evidence of fluid could be made out. The temperature, which never rose above 102°, fell to normal on the eighth day after the joint symptoms first appeared, the swelling and pain rapidly subsiding, and the case going on to complete recovery.

The only treatment adopted was to wrap up the affected joints in wadding, and keep the patient on milk diet.

G. D. TREVOR-ROPER.

King's Lynn.

IMPRESSION OR COINCIDENCE?

ACCORDING to mothers and midwives there is no abnormality, from naevus to anencephalus, in the newly-born child, but can be accounted for by some experience of the mother during pregnancy. The following experience is, however, remarkable and a fact:

A woman, about three months pregnant, was at a working party when she suddenly noticed that her neighbour was blessed with two thumbs on one hand. This, she declares, is a deformity which she had never even heard of before, and made a great impression on her. Her child, born six months later, has a very perfect supernumerary thumb on the right hand!

T. D. MANNING, M.B.

Weymouth.

THE following were among the bequests made by the late Sir Henry Wiggin of Harborne, whose will has now been proved: Birmingham General Hospital and the Queen's Hospital, Birmingham, £500 each; the Birmingham and Midland Free Hospital and the Royal Orthopaedic and Spinal Hospital, also in Birmingham, £250 each; the Hospital for Incurables, Leamington, the Sheffield Infirmary and the North Staffordshire Infirmary £100 each.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN TH HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

YORK COUNTY HOSPITAL.

REMOVAL OF THE RIGHT LOBE OF THE THYROID.

(Under the care of Mr. JALLAND, F.R.C.S., Senior Surge to the Hospital.)

[From Notes by Dr. MACKENZIE, House-Surgeon.]

MAGGIE F., aged 15, a housemaid, first came to the ho pital, because of difficulty of breathing, on October 12t 1905. She was treated as an out-patient for a week, ar was admitted on October 20th.

Previous History.

In December, 1904, after a cold, she noticed that the front the throat was slightly swollen. This gradually increased, ar in January, 1905, she had, on exertion, slight difficulty breathing. This gradually got worse, and two or three mont later she noticed that her breathing was laboured. Abo April, 1905, she began to cough in a peculiar barking manne Since then this has become more frequent, and is now ve marked and very frequent. There was no palpitation at ar time.

Condition on Admission.

Her face was considerably cyanosed. The isthmus and bo lobes of the thyroid, but especially the right, were enlarge but not very markedly. There was no exophthalmos; t pulse was regular, but increased in frequency—about 100 the minute.

On October 28th the larynx was examined with the laryng scope; as the view was obscured by enlarged tonsils, the were removed. On October 29th both vocal cords were fou to be normal in appearance and movement. On October 30 some adenoids were removed from the naso-pharynx.

Operation.

On October 31st, chloroform being administered, a hors shoe-shaped flap was made with the convexity downwar the right wing being larger than the left. This w dissected up and the veins secured as they appeared, t sterno-hyoid and the sterno-thyroid muscles were separat to the right side and the capsule of the gland expos This was gradually raised out of its bed, and first t superior thyroid and then the inferior thyroid arter were divided between two ligatures. The entire lobe w lifted out and dissected off the front of the trachea to t left lateral limit of the isthmus. With this, a well-mark pyramidal lobe from the right side of the isthmus, and similar projection downwards in front of the trachea we dissected out. The whole mass was about the size a shape of an adult spleen.

The infrahyoid muscles were united in the middle li by a continuous catgut suture. The convexity of the sl flap was joined by two silkworm-gut sutures, and a tu inserted there, with two untied sutures. The remaind of the wound was closed by subcuticular silkwo sutures.

After-history.

The wound was dressed on November 1st, tube removed the untied sutures tied. Breathing was much improved.

Temperature fluctuated a little from November 1st to 5 All dressings were removed on November 6th when the wo was found quite healed, except a small area at the convexit the flap where the lips had separated slightly.

The patient sat up on November 9th and was discharged fr the hospital on November 10th, with the wound quite hea and entirely free from all her troublesome symptoms. She been seen several times since and is in perfect health.

REMARKS.

The horse-shoe incision has great advantage over th usually adopted, as by its means all the veins are s before they are wounded, and can be divided between ligatures, and any air thus prevented from getting i them; besides this advantage it makes the operat almost bloodless.

THE late Mr. Richard Samuel Chattock of Clifton formerly of Solihull, left £200 each to the Queen's General Hospitals, both in Birmingham; and the Birmi ham and Midland Hospital for Children; and £100 e to the Solihull Victoria Nurses' Home and the Midl Counties Asylum for the Care and Maintenance of Feeble.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

J. WARRINGTON HAWARD, F.R.C.S., President, in the Chair.

Tuesday, April 24th, 1906.

SERUM TREATMENT OF GONORRHOEAL INFECTIONS AND PURPURA HAEMORRHAGICA.

DR. SOLTAU FENWICK and Dr. PORTER PARKINSON contributed a paper on this subject. The results described were obtained after experimentation with various forms of serum in different diseases. The cases included gonorrhoeal pyaemia, rheumatism, and acute gonorrhoea. In each instance the existence of the complaint was established by bacteriological examination. The polyvalent antistreptococcus serum was invariably administered by rectal injection; reasons were given for the preference of this method to that of subcutaneous injection. In every instance that had come under the authors' care during the last two years the disease was cured within a few days. The same beneficial effects were observed in two cases of haemorrhagic purpura, in one of which the patient was nearly moribund when the treatment was commenced.

Mr. STEPHEN PAGET remarked that it seemed to be of no importance whether the serum was used in an acute or chronic gonorrhoeal infection. Was its value in purpura haemorrhagica ascribed to the same mechanism as in septic infections?

Mr. CAMPBELL WILLIAMS said there were three varieties of so-called gonorrhoeal rheumatism—the cellulitic form, in which probably the serum was more than useful, the arthritic form, and the arthralgic form with neuritis and periostitis, which was probably due to a circulating toxin acting on the fibrous tissues. The paper bore out the idea that a gonorrhoea was a mixed infection. The method seemed to be a valuable one, and worthy of extended trial even in such conditions as gonorrhoeal salpingitis.

Mr. J. P. L. MUMMERY supported the method of giving the serum by rectal injection. The great difficulty in treating gonorrhoea was in its later stages, which did not seem to have been affected by the serum method in the cases recorded.

Dr. PORTER PARKINSON said there was no special preparation of the rectum required beyond its being washed out. Purpura they had considered to be due to toxins or micro-organisms. In two of the cases the gonococcus alone was found both in the urethral discharge and in the pleura. He thought that the serum might be of use in gonorrhoeal ophthalmia.

ROYAL ACADEMY OF MEDICINE IN IRELAND.—At a meeting of the Section of Obstetrics, on Friday, April 6th, Sir ARTHUR MACAN in the chair, Dr. HORNE exhibited a *Myoma of the uterus* showing cystic and calcareous degeneration. The patient, aged 45, and the mother of six children, had menstruated regularly, and there had never been any menorrhagia. The tumour occupied the whole abdominal cavity, resembling an ovarian tumour, as there was considerable feeling of softening about it. A loud tympanitic note could be elicited in front of the abdomen. There was no evidence of malignancy.—Dr. HASTINGS TWEEDY exhibited a specimen of *Cancer of both ovaries*, from a girl aged 21, who had been operated on in a city hospital some weeks previously for an ascitic collection, supposed to be the result of tuberculous peritonitis. She entered the Rotunda Hospital five weeks afterwards, in an apparently dying state, and enormously distended by peritoneal dropsy. On opening the abdomen the intestines were studded with coarsely granular masses, which resembled endothelioma rather than tubercle. The ovaries were both removed, and the abdominal cavity drained with five wicks of iodoform gauze in the hope that they would be the means of causing an adhesive peritonitis, and so obliterating the weeping surfaces. For several days she poured fluid through the drains, but this gradually became less, and she left hospital symptomatically cured, and declaring that she was feeling better than she had done for two years. He himself had examined the patient again that morning. Her abdomen was hard, and the cancer seemed again advancing. Dr ROWLETTE, who had examined the parts removed, regarded the tumour as an endothelioma, originating probably from the endothelium of the peritoneum.—Dr. ARTHUR HOLMES read a paper on a case of *Hernia of the gravid uterus* through an old abdominal scar. The patient had become pregnant shortly after the operation, and had noticed a lump protruding from the lower part of the abdomen. This after the confinement had almost disappeared. She again became pregnant, the lump steadily increasing, and circular ulcers formed where the clothes and thighs had rubbed. After delivery in November, 1903, the tumour remained, though smaller in size. On examination there was found a tumour springing from between the umbilicus and symphisis, which, falling forward, reached more than half-way down the front of the thigh. This proved to be the uterus, and the fetal movements were felt. The skin was very thin, and large circular ulcers were distributed over its surface. Some of these extended to the uterine muscle. The patient stated positively that she was at full term, and that labour pains were beginning. She delivered herself suddenly without any trouble of a live child, which presented all the appearance of being up to full term. Its weight was 3½ lb., and its length 14 in. The placenta was removed manually on account of haemorrhage. Reduction of the uterus was impossible on account of the adhesions.—Dr. J. S. ASHE read a paper on *Uterine suspension and shortening round ligaments*, concluding that the former operation was greatly to be preferred.

LIVERPOOL MEDICAL INSTITUTION.—At a meeting on April 19th, Mr. FRANK T. PAUL, President, in the chair, Dr. F. H. BARENDT read a note on *Scabies*. In cases in which the primary eruption could not be detected, cuniculi not being recognizable but the sites of the secondary eruption due to pruritus were well defined, the patient should be treated for scabies. The nipple area in woman and the genital region in man should always be carefully examined, especially if the eruption between the fingers, in the case of cleanly individuals, was absent. Infection was almost always nocturnal, and the result of prolonged contact with an infected person; that the handling of bed or body clothes or shaking hands with a scabetic could communicate scabies was, to say the least, not proven. In ascertaining the source of infection, the patient should be questioned as to his surroundings during the three weeks previous to the onset of itching. As for treatment, the β-naphthol ointment first introduced by Kaposi—a superfatted soft soap containing about 9 per cent. of β-naphthol—was to be commended. It had the advantage of neither staining nor possessing a disagreeable odour, and, above all, did not aggravate the secondary lesions as sulphur ointment, especially in long-standing scabies, was apt to do. Dr. G. STOPFORD TAYLOR stated that treatment was unsatisfactory unless all underclothes and bed linen were boiled, and those clothes which could not be so treated should be stoved.—Dr. A. BETTS TAPLIN, speaking of *Treatment by hypnotic suggestion*, said that hypnotism was generally acknowledged to be a physiological and not a pathological condition, and to be absolutely free from danger in competent hands. It had been found most useful in cases characterized by pain, spasm, or other nervous phenomena in which no organic cause could be found, and for which no other therapeutic measures seemed to be of any avail. The time for its study and reception by the medical profession was ripe, and, to prevent its possible abuse in ignorant or unscrupulous hands, it was much to be desired that, as soon as possible, its use should be limited by legal enactment to properly-qualified persons under proper control. Dr. K. GROSSMANN thought that no advance had been made in our knowledge of the subject for twenty years. The account he had given before the Medical Institution eighteen years ago was based on a visit to Professor Charcot at the Salpêtrière and a stay at Nancy, where he studied the methods and saw the patients of Dr. Liébault and Professor Bernheim. Professor Charcot's patients were all hysterical, while at Nancy every sort of patient was treated. Three phases were distinguished—lethargy, catalepsy, and somnambulism. The Nancy school recognized nine different degrees of susceptibility, ending with somnambulism, followed by amnesia. All the phenomena were explained by suggestion, and the mode of producing the various stages of hypnosis employed by the Paris school were recognized as suggestions.

The Nancy school considered the hypnotic state as analogous to sleep, with the difference that the subject was *en rapport* with the operator, hearing and understanding him. He himself had no difficulty in hypnotising subjects, but he had never seen any therapeutic results in his cases—paralyses of ocular muscles, restricted fields of vision, etc.—nor had he himself seen the extraordinary trophic phenomena—blisters and burns—so graphically described by Professor Krafft-Ebing. It was always a difficult matter to find out how far the subject was really under the influence of the operator and to what extent he was shamming. Dr. A. E. Davis agreed that subjects often deceived the hypnotiser, but could not accept the statement made by one of the speakers that hypnosis was produced in hysterical neurotic soil. In his experience this was the least fruitful of all. The objection of males to try hypnotism was a great drawback to its practice and study. Though he believed it was not possible to instil viciousness into a subject who had no natural inclination to it, the dangers of being *en rapport* with some women subjects were obvious. He had repeatedly produced trophic changes. Dr. S. Whitaker said that a better description of the treatment desired would be "treatment by suggestion with or without hypnosis." It was usually unnecessary to hypnotise the patient more deeply than the lightest lethargic stage when he would accept suggestions, and the operator could obtain good therapeutic results. During treatment there should be no distracting sounds and sights. He used the method of "monotony" and functional disturbance, including most cases of organic lesion, and, so far as this element existed, it was possible to benefit the patient. He had obtained excellent results in the palpitation of exophthalmic goître, headache, insomnia, and pain generally. Dr. C. T. Street asked whether treatment by suggestion without hypnotism was not preferable. Those who worked among the insane knew what beneficial results could be produced by suggestion. The result from this form of treatment might be slow, but it was certainly more sure and lasting than that produced by hypnotism.

British Gynaecological Society.—At a meeting on April 9th, Mr. F. Bowreman Jessett, President, in the chair, Dr. A. E. Giles showed (1) *Uterine myoma* with suppurating carcinomatous ovarian cyst removed from a single woman, aged 37, suffering from paroxysmal attacks of abdominal pain. These attacks began with a sensation of dragging followed by acute pain in the right side. The patient suffered from constipation which was most pronounced during the attacks. Leucorrhoea was succeeded by xanthorrhoea. Menstruation was regular; the amount moderate without any special symptoms. Since the operation the patient had progressed satisfactorily and showed no evidence of recurrence. (2) Myoma of the cervix from a patient, aged 32, suffering from menorrhagia, but without any disturbance of bladder or bowel. (3) Myoma removed from a patient, aged 36, by an abdominal intrauterine myomectomy. The patient made a good recovery.—Dr. Frederick Edge showed: (1) Myoma of the uterus which became strangulated and simulated cancer of the fundus, removed from a patient aged 58; she was single, and had passed the menopause eight years previously. There was a family history of cancer. The patient had some pelvic pain during last winter. One month previously, after walking, sudden acute pelvic pain came on, with a pulse of 120 and temperature of 104° F. On examination a tumour was found closely adherent to the fundus, causing acute pain on manipulation. The diagnosis lay between an ovarian cyst with axial rotation, carcinoma, or myoma undergoing degeneration. At the operation the uterus was retroverted, with a strangulated myoma behind the right broad ligament. (2) A pregnant uterus of four months, with an almost sessile myoma, removed by supravaginal hysterectomy from a patient aged 45, complaining of severe abdominal pain.—Dr. Smallwood Savage (for Professor Taylor) showed a large uterine myoma removed from a patient suffering from diabetes, aged 46. The patient had one child nine years previously, and one miscarriage eight years ago. She complained of menorrhagia, and had diabetes for over a year. The abdomen had rapidly increased in size for several months. The urine was acid, and contained some albumen and much sugar. The progress so far had been satisfactory.—Dr. Macnaughton-Jones showed an adenocarcinoma of the left ovary removed from a patient aged 56, who complained of severe pain since a fall in December, 1905. On operation two ovarian tumours were found, and a quantity of ascitic fluid escaped.—The President showed a *Spindle-celled sarcoma* of the left ovary removed from a patient aged 50, who was admitted for an abdominal tumour and stabbing pain. The climacteric occurred six months previously. The pain increased during the last month, and the abdominal swelling became more prominent.

Cork Medical and Surgical Society.—At a meeting on March 28th, Dr. R. P. Crosbie, President, in the chair, Dr. P. T. O'Sullivan read notes of two cases of poisoning—one by *Strychnine*, the other by *Phosphorus*. In the first case a diabetic, aged 62, inadvertently drank a wineglassful of a strychnine mixture, of which the right dose was one measured teaspoonful. He thus took $\frac{3}{5}$ gr. of strychnine. An hour later, noting his error, he sent for Dr. O'Sullivan, who found him in a state of great excitement, but showing no symptom of poisoning, except some slight trembling of the leg muscles. He watched him for an hour, and saw him frequently during the evening, but no other signs appeared, and next morning he was all right. Perhaps the strychnine was bad, the full meal prevented the rapid absorption of the drug, or, owing to the advanced diabetic condition, the drug was tolerated in larger doses than in the normal subject. In the *Phosphorus* case, a child swallowed the heads of several matches. There was jaundice, with enlargement and tenderness of the liver; the stools were clayey and smelt of phosphorus, and, in the dark, showed faint phosphorescence. The urine was scanty and bile-stained, and showed small trace of albumin, but no leucin or tyrosin. The patient was restless, and did not sleep at first, but afterwards got stupid and hard to be aroused. There was no trace of bile in the stools for twenty-nine days. The patient made a good recovery, being carefully nursed and treated expectantly. A discussion followed, the general opinion being that the pharmacopoeial dose of strychnine was too small. Referring to the phosphorus case, Dr. Pearson stated that some authorities considered jaundice a sign of fatal import.—Dr. Hobart showed a hatpin removed from the urethra of a man aged 22. He first tried to snare the point with a forceps without success. Fixing the head of the pin he made the point to emerge through the skin until the head alone remained in the passage; he pushed the head forwards, and thus got the pin out.—Dr. Corby read notes of *A case of empyema treated by Estlander's operation*, and showed the patient, a man, aged 26, who had had a localized right-sided empyema. A thoracotomy was first proposed, but the pressure of the drainage tubes induced necrosis of the contiguous ribs. Pieces of four ribs, and the thickened pleura over the cavity, were then removed, and a large quantity of foul-smelling pus evacuated. Later on the following procedure was adopted in order to empty the cavity: the patient with hips raised high, resting on his shoulders, was instructed to cough repeatedly in that position, and the pus flowed out very freely. He was then put in a half-sitting posture, and again repeatedly coughed, with similar result. This was done at each subsequent dressing, and in five days the pus had completely disappeared, there being now only a little serum issuing from the minute sinus left. The patient gained greatly in weight, and had lost his phthisical appearance.

Dermatological Society of London.—At a meeting on April 11th, Mr. H. Willmott Evans in the chair, Dr. Edward Stainer showed an *Acneiform eruption* of the face in a man aged 24, who had had the eruption for four years. It had left a very extensive amount of scarring, and the possibility of its being acne varioliformis was discussed; but there were no lesions in the parts covered with hair, and this diagnosis was therefore dismissed. The general opinion was that it was a case of acne vulgaris with a wholly exceptional degree of scarring.—Mr. Willmott Evans showed a case of linear *Papillary naevus* in a little girl in whom the condition was congenital. The distribution seemed metameric rather than in the course of peripheral nerves. The right shoulder, upper arm, forearm, and back of the hand had a linear streak extending to the cleft of the index and middle fingers. There was a small patch of similar character on the right half of the chin.—Dr. E. Graham Little showed a case of *Lichen planus annulatus* in a man who had had the disease as now present for four months. There was no itching. There were numerous small papules scattered chiefly over the abdomen and not very typical of lichen planus, and there were several ring-shaped lesions on the lower part of the abdomen, the rings being the size of a threepenny-piece, and constituted by small papules which had run together. On the buccal mucous membrane there was a patch of characteristic lichen planus, and a less typical appearance, in the form of a line of raised white epithelium, on the mucous membrane, both of the mouth and of the glans penis; in the latter case the line went entirely round the glans in a festooned wreath. A section of one of the papules from the abdomen showed the typical features of lichen planus.

Association of Registered Medical Women.—At a meeting on April 3rd Miss Aldrich Blake, M.D., M.S., in the chair, Mrs. Savill read a paper on the *Treatment of Ringworm by X-Rays*, showing several cases which had been treated by Sabouraud's method. As a result of experience with a series of nearly 200 exposures, Mrs. Savill stated that when the apparatus was satisfactory, and when all Sabouraud's rules were strictly observed, his pastilles had proved thoroughly reliable in determining the length of a sitting. Only one case of dermatitis had occurred, and was due to the anticathode being nearer than 15 cm. to the scalp. Again, when the treatment was first started, the hairs had not come out; this was due to over-precaution, the sittings having been terminated before the pastilles were sufficiently altered. The same fault had been observed, even when the pastille had altered, when the interruptor worked badly, necessitating a sitting of over an hour.—Miss Ivens read a paper on the *Pharyngeal Tonsil as a Channel of Infection in Tuberculosis*, giving the results of a microscopical investigation of 50 cases of adenoids, two of which were associated with marked tuberculous enlargement of the cervical glands, which in one case were caseating. Great improvement followed the removal of the adenoids. The importance of removing adenoid tissue from the naso-pharynx, n cases of tuberculous cervical glands, where no other ocus of infection could be found, was emphasized. —Mrs. Willey read notes of a series of cases shown in consultation at the Royal Free Hospital. The first series consisted of cases of gall stones and their complications, imulating other conditions such as movable kidney, ppendix abscess, gastric ulcer, and pancreatitis; the econd series, of cases of hypertrophic cirrhosis of liver, arcinoma of duodenum, pancreatic disease both innocent nd malignant, and adhesions, simulating conditions connected with gall stones. In commenting on these cases Mrs. Willey invited discussion on the most useful methods f distinguishing renal from gall-bladder swellings; also s to the value of the evidence afforded (1) by a distended all bladder; (2) by the occurrence of pain before jaundice n distinguishing cases of pancreatic disease from those omplicated by gall stones.

Glasgow Pathological and Clinical Society.—At a meeting on April 9th, Dr. J. Lindsay Steven, Vice-resident, in the chair, Mr. A. E. Maylard described a ase of *Malignant disease of the duodenum* in a man aged 39, dmitted to hospital suffering from jaundice. His illness, ating from four months, began with attacks of shivering nd a sense of prostration; some yellowness of the skin as noted ten days later. On admission there was bstructive jaundice with marked pallor. No pain, nderness, or tumour could be found, but a sense of sistance was elicited. Three weeks after admission an xploratory laparotomy was performed and the distended nse gall bladder opened and drained. In the second part the duodenum a somewhat movable tumour, apparently mplicating the head of the pancreas and common le duct, was found; being considered inoperable, e operation was completed as a cholecystotomy. biliary fistula resulted, but the jaundice became less arked, and the general condition of the patient improved. After a stay at the convalescent home he was re-admitted for treatment of the fistula, but suddenly collapsed and died. At the *post-mortem* examination the second part of the duodenum presented the appearances of a spherical carcinomatous ulcer of 3 in. in diameter, involving the bile papilla. There was no evidence of tumour tissue present in the head of the pancreas itself, but the lymphatic glands around it were enlarged, and evidently the seat of malignant invasion.—Dr. T. K. Monro showed a specimen of *Aneurysm of the splenic artery* from a young man, aged 23, admitted to hospital suffering from breathlessness on exertion, weakness, pain in chest and legs. While in the wards he had arthritis of the knees, irregular pyrexia, and various heart murmurs, and the spleen was made out to be enlarged. *Post mortem*, infarcts were found in the spleen, and the splenic artery at its point of entrance into the organ showed the presence of an aneurysm of the size of a Tangerine orange filled with blood clot.—Dr. A. M. Ramsay and Dr. Hugh Walker reported a case of *Tuberculosis of the uveal tract*. The patient had a bad family history, but himself had been in good health up to six weeks before admission to hospital suffering from "inflammation of the eye." There was a soft yellowish swelling at the corneoscleral junction, the conjunctiva covering it being traversed by large varicose vessels. On enucleation a large-sized intraocular tuberculous tumour was found.—Dr. John Patrick showed two brothers who suffered from malocclusion of the jaws. The only teeth which approximated were the back molars. The teeth of the lower jaw were somewhat larger, and situated external to those of the upper, while in each case the arch of the palate was very high.

Nottingham Medico-Chirurgical Society.—At a meeting on April 18th, Mr. T. J. Dabell, President, in the chair, Dr. F. H. Jacob showed a married woman, aged 36, the subject of paresis of the third cranial nerve. Some improvement had taken place under large doses of potassium iodide.—Mr. W. Morley Willis read notes of a case of mucous colitis treated by *Appendicostomy* in a woman aged 32. She had suffered at least two years from loss of flesh, abdominal pain, and hard and scybalous motions; independently of faecal stools she also passed blood, mucus, or membrane daily, and there was the train of neurotic symptoms usual in such cases. At the operation a month ago the appendix was brought out between the fibres of the external oblique muscle and fixed there, the projecting portion being shaved off three days later. A week after the operation lavage of the colon was begun, 2 to 3 pints of soap and water being introduced through a small catheter; no leakage had ever occurred from the stump of the appendix beyond a little moisture due to glandular secretion. Very great improvement had taken place in all the symptoms during the three weeks in which this measure was carried out daily, the fluid being retained for twenty minutes or longer before a natural evacuation followed. The patient had now developed a healthy appetite and begun to take an intelligent interest in her life again.—Dr. Jacob showed photographs of a patient suffering from *Syphilitic psoriasis* of the palm. Before any history of syphilis was forthcoming she had undergone at least three curettings for intractable metrorrhagia, and the uterus was finally removed, and found to have undergone fibrotic or sclerotic changes.—Dr. W. T. Rowe showed a specimen of *Primary tuberculosis* of the intestine in a breast-fed infant aged 6½ months. The child had had cow's milk for only two days, and death was due to acute haemorrhage from an ulcer. Since then the child's grandmother had come under treatment for phthisis, so that infection had most probably occurred from this source. Dr. Cattle quoted a similar case in an adult, and pointed out that both cases were in strict accordance with Koch's view, as the infection was from human, and not bovine, sources.—Dr. Powell showed two specimens found in the *post-mortem* room of an asylum: (1) *Primary carcinoma* of the liver in a woman the subject of alcoholic dementia. The liver, as a whole, weighed 7½ lb., and the disease was of a latent character until abdominal distension occurred a short time before death. (2) A heart weighing 33¾ oz. Great hypertrophy had occurred as the result of mitral and aortic stenosis, the latter orifice being so far occluded as only to admit a match.

REVIEWS.

TERATOLOGY.

PROFESSOR SCHWALBE'S work on the morphology of malformations in men and animals[1] is to appear in three parts. The first part, now published, deals with general teratology; in the second part twin and multiple formations will be considered, and the third will deal with special malformations. Professor Schwalbe is Professor of General Pathology and Pathological Anatomy in the University of Heidelberg, and his observations on teratology are already well known to those interested in malformations. His lectures on the subject have always been extremely interesting and instructive, and specially remarkable for their broad grasp of the principles of the phenomena underlying the production of teratological formations. The book he is now producing is based upon his lectures, but, as he states in his preface, it covers a much wider field than could possibly be traversed in a course of lectures. It is impossible to pass judgement on the whole till the second and third parts have appeared, but the first may be considered as standing by itself, and it cannot but prove of the greatest interest on account of the clear and comprehensive manner in which it deals with the factors which lead, in certain circumstances, to the formation of malformations. It is a lucid and scholarly exposition and discussion of the known facts, opinions, and ideas which bear upon the genesis of malformations. At the commencement the author defines a malformation as follows:

> A malformation is a congenital change of the morphology of one or more organs, or systems of organs, or of the whole body, which is produced during fetal life and which passes beyond the limits of the variation of the species.

After a short explanation of the reasons for the definition he passes to the consideration of the literature of the subject, which covers a period extending from the time of Aristotle to the present day. Afterwards he deals with the relation of teratology to associated sciences; with the mechanics of development and their connexion with malformations; with the relation of regeneration to malformations; with heredity; with the physiology of malformations; with the time of commencement of abnormalities; with the relation of tumours and misplaced embryonic rudiments to malformations; and with the causes of malformations, their relation to sex, and their classification. Obviously it is a comprehensive survey which demonstrates malformations under the light of the work of morphologists and embryologists. The book fills a long-felt want, for no manual on these extensive lines has hitherto appeared, and it places before the busy professional man the opportunity of acquainting himself, in an easy and interesting manner, with a large amount of the important work which has been done in recent years in experimental embryology and morphology. We shall look forward with pleasure to the appearance of the remaining parts, but can scarcely hope to find them as interesting as the present volume, which discusses the principles of the subject and their applications. The book will be welcomed by those who are ready to consider problems, for it puts forward the evidence for and against various explanations of certain phenomena fairly and impartially, discusses it without attempting to dogmatize, and wherever illustrations are necessary for explanatory purposes they have been introduced.

The embryologist and the scientific obstetrician must always feel grateful to labourers in the wide, interesting, but not lucrative domain of teratology. Thanks to Ballantyne and other living authorities, we are now aware that, not only do monsters help in teaching us the grammar of fetal development, but they also indicate the solution of many pathological problems. More material is yet needed, and Herr KRUEGER deserves thanks for having collected the reports of old and new cases of that deformity where the growth of the extremities is arrested. *Die Phocomelie*,[2] the name of his work, is the German rendering of the usual term applied to the form of monstrosity in question. The author is right in selecting it as a title, for it is comprehensible, being a simile which expresses the appearance of the deformity without misleading those who adopt it. Hands and feet springing more or less directly from the trunk naturally recall the limbs of the seal. In any work on monsters, in general or in particular, classification must always appear very confused, for that which is irregular must of necessity be hard to bring into order. Synonyms and application of the same name to different varieties by different authors are necessary evils in teratology, yet they are none the less great stumbling-blocks to the student. In order to make his terminology as clear as possible, Herr Krueger wisely begins with some tables of classification, according to well-known teratologists. Heading his series of published cases is a note about the usual subdivisions of phocomelia. He prefers Geoffroy St. Hilaire's three divisions: phocomelia proper, where the hand or foot springs from the shoulder or pelvis; hemimelia, where the upper or lower extremity is more or less stump-like, with absence or extreme arrest of development of the digits; and ectromelia, where the entire limb, hand, or foot included is reduced more or less to nullity. Ninety-three reports are included in this essay; eleven are new to medical literature, and are illustrated by good skiagrams prepared under the author's directions. Many useful drawings of older cases are reproduced. The teratologists would do well to study Herr Krueger's pamphlet in a museum, particularly in that of the Royal College of Surgeons of England, which includes a splendid teratological series, well catalogued by Mr. Benjamin Thompson Lowrie.

THE LYMPHATICS OF THE HEAD AND NECK.

DR. MOST'S monograph on the topography and clinical importance of the lymphatic system of the head and neck[3] is the outcome of a series of investigations upon which he has been engaged for a long period. The results of some of his elaborate researches have already been published, in anatomical and clinical periodicals, and have been utilized by the writers of textbooks, but the previously published observations form only a minor part of the present monograph, which contains a detailed account of the lymphatic system of the head and neck, together with references to the clinical importance of the groups of glands and their drainage areas, and to the incisions to be adopted in operations designed for the removal of diseased glands. Dr. Most points out that, speaking generally, it may be said that the lymphatic vessels follow the courses of the blood vessels and more particularly the courses of the veins, and that the lymphatic glands tend to be most accumulated and largest in the angles of union of the larger veins. The general results which Dr. Most has obtained do not differ in any important respect from those which have been demonstrated by other observers, but Dr. Most emphasizes the fact that in the region of the mesial plane lymphatic vessels cross from one side to the other, and, consequently, that an infective focus lying near the middle line may implicate the glands on the opposite side. This is more particularly the case in the regions of the lips, tongue, nose, and palate, and it is important, therefore, that the glands of both sides should be carefully examined and dealt with in any malignant affections of these regions. Dr. Most seems to consider that the mesial retropharyngeal glands are more constant in children than Cunéo and Poirier are inclined to admit, and he points out that retro-pharyngeal abscesses commencing in and limited to the mesial plane of the pharynx have been observed. Under these circumstances it is obvious that the mesial, intercalated, retropharyngeal glands have a distinct clinical importance. On the other hand, Dr. Most has failed to find any connexion between the lymphatic network of the nasal mucous membrane and the intracranial lymph spaces, although Cunéo and Marc André succeeded in injecting a series of lymph channels in the olfactory region from the epicerebral space. One of the most important clinical facts which Dr. Most lays stress upon is the free connexion of the lymphatics of the mucous membrane of the nose and the air sinuses opening into

---

[1] *Die Morphologie der Missbildungen des Menschen und Tiere.* 1.Teil. Allgemeine Missbildungslehre. Von Dr. Ernst Schwalbe. Jena: Gustav Fischer. 1906. (Demy 8vo, pp. 230; 165 figures. M.6.)

[2] *Die Phocomelie und ihre Uebergänge; eine Zusammenstellung sämtlicher bisher veröffentlichten Fälle und Beschreibung einiger neuer Fälle* [Phocomelia and Transitional Forms: A Critical Review of Cases already published, with Descriptions of New Cases]. Von Richard Krueger, Cand. Med. Berlin: A. Hirschwald. 1906. (Demy 8vo, pp. 111, 62 illustrations. M. 3.60.)

[3] *Die Topographie des Lymphgefässapparates des Kopfes und des Halse in ihrer Bedeutung für die Chirurgie.* By Dr. August Most. Berlin: August Hirschwald. 1906. (Demy 8vo, pp. 138. 11 plates. M. 9.)

, including the frontal sinus, with the lateral retroharyngeal glands; and another fact which stands out uite clearly from his researches is the obvious dimiution of lymphatic tissue which takes place with icreasing age. As age advances there is not only a reater difficulty in injecting the lymphatic vessels, but lso a diminution of the number of glands. The monoraph will undoubtedly prove very valuable to those who ave to deal clinically with the lymphatic system of the ead and neck.

GENITO-URINARY AND VENEREAL DISEASES.

'he first edition of White and Martin's *Genito-Urinary nd Venereal Diseases*[4] was favourably reviewed in the ritish Medical Journal in 1897, and while the value f the book was duly recognized its somewhat inconvenient ulk was also referred to. Since that time the book has one through four editions, which we have not seen, and ow the publication of the sixth shows pretty plainly that has found favour with a large number of readers. Our marks both as to the value and the bulk of the first dition apply to the present one. Indeed, the sixth is larger ian the first by 36 pages and the number of illustrations, mong them being a plate of *Spirochaeta pallida*, has been nsiderably increased. The book has also been revised in accordance with the latest teaching and practice of iose most skilled in this branch of surgery." In its resent form it is without doubt one of the best of the big merican works on the subject. It is interesting to note ie change of opinion that has occurred respecting the perative treatment of enlarged prostate. In the first dition castration was described as the safest and most idical curative operation yet proposed. In the sixth r. White states that his present opinion is that castration nd vasectomy are likely to occupy a more and more estricted field in the treatment of prostatic hypertrophy. he uncertainty of the results of these operations, the fact iat they are not free from danger, and so far as castration concerned, the strong sentimental objections to it, comine to render their final status in the treatment of rostatic hypertrophy a matter of doubt. Still, Dr. White inks, such testimony as Harrison's and Rovsing's should ot be ignored, and he believes there may still be a field of sefulness for these procedures, though much more limited ian he at one time thought. It may interest the printer, y the way, to know that in the copy of the book from hich we quote some thirty pages are such a jumble of isarranged text that they would probably be skipped by iy but the most patient of readers.

Dr. Louis E. Schmidt's book on *Genito-Urinary and enereal Diseases*[5] forms one of the volumes of a Medical pitome Series edited by Dr. V. C. Pedersen. The book ntains a good deal of information varying in value and iostly of a scrappy character, which, of course, is not to e wondered at, bearing in mind the wide range of the ibjects dealt with in so limited a space. A considerable ortion of it, too, is taken up by lists of questions placed the end of each section in order to render it "suitable r quizzing." As regards the treatment of an average case syphilis, it may be mentioned that "at least four to five ars' treatment and an interval of three years without any mptoms or treatment whatsoever" is not in accordance ith what is generally taught in this country. An unforinate patient might well wonder if life were worth living such circumstances. The book may be of use to udents preparing for examination or to practitioners ho, as the editor puts it, "wish to refresh or supplement ieir knowledge to date."

ENLARGEMENT OF THE PROSTATE.

r. Deaver is a prolific writer upon surgical topics. He as written at length upon appendicitis, his work on *rgical Anatomy* is destined to become a classic, and this resent work on *Enlargement of the Prostate*[6] is probably the largest monograph that has been written on the subject. In collaboration with him in the production of this volume is Dr. Astley Paston Cooper Ashhurst, but apparently the greater part of the work emanates from Dr. Deaver, for it is written in the first person singular.

The work starts with a review of the history and of the literature of the subject of prostatic enlargement; in many respects this section is admirable alike in completeness and in balance, but less than justice has been done to Eugene Fuller, whose claim to priority (*Annals of Surgery*) deserves the fullest consideration.

Embryology and comparative and descriptive anatomy are dealt with at adequate length and are well illustrated. The very recondite subjects of pathology and etiology are considered together, on account of their intimate connexion. Dr. Deaver recognizes the extreme difficulty of this subject, "a satisfactory exposition of the pathology of the prostate gland is a chapter which is still unwritten," and points out that a collective investigation of large groups of cases, given in comprehensive and minute detail, is necessary to its solution. The varying directions which limited or universal enlargements may take are fully described and well illustrated. It is chiefly for the detailed description of the various methods of treatment that this work will prove acceptable both to the general practitioner and to the surgeon. In recent literature it cannot be gainsaid that there has been a woful lack of perspective. Too much attention has been paid to the more serious operative methods, too little to the details of catheterism, etc. Dr. Deaver writes: "The treatment, other than operative, has been discussed in greater detail than may seem warranted to some; but realizing that this forms by far the largest part of actual practice, it has seemed wise to the author to consider it at length." The methods of suprapubic and of perineal prostatectomy are fully described, and their relative merits discussed. A general preference is rightly given to the suprapubic method. In his description of this operation, there are several points which do not seem to be clearly recognized; the question of leaving or the removing the prostatic urethra is not justly appreciated, nor the enormous advantage of its removal adequately understood. Stricture of the urethra following the operation is not unknown, but the author does not tell us why it occurs. He writes: "I do not regard it as at all impossible for strictures to form as a result of the removal of the prostatic urethra." The conditions represented in Plate 81 (a case of Freyer's in which, as he originally advised, the urethra was left) suggest that stricture is more likely to result from leaving than from removing the urethra. It is not pointed out that haemorrhage of any degree of severity occurs only when the prostate is adherent, and when, therefore, "total" enucleation is not possible. The author's method of arresting haemorrhage (p. 226 and Plate 82) is not likely to commend itself. The operation of perineal prostatectomy is illustrated by the drawings of Proust and Young.

Dr. Deaver, after discussing the choice of operation, writes: "The preferable route for total enucleation of the prostate is the suprapubic," and again, "Indeed Dr. Goodfellow's procedure," of perineal prostatectomy, "appears to be precisely the same as Mr. Freyer's, except that the former removes the prostate through a perineal incision, and is less able to see what he is doing during the operation." A statement on p. 204 cannot be passed without adverse comment. Dr. Deaver insists "upon the propriety of not doing too much at any one operation." "If we open the bladder to drain it for cystitis, let us be satisfied, except in rare instances, if we secure the desired drainage, and let us not attempt to remove the prostate at the same time." Surely the "rare instances" should be those in which the prostate is not removed. But with the statement "If we open the bladder prepared to do a prostatectomy, and find a pedunculated outgrowth acting as a ball-valve against the vesical orifice of the urethra, let us be satisfied to remove it, and leave the remainder of the prostate alone" we are in complete agreement. The illustrations throughout are good, though many of them are unnecessary, being mere repetitions. Dr. Deaver should endeavour, if a further edition is needed, to follow the practice of Syme, and make it smaller. A reduction in the number of the illustrations, and a considerable condensation in the letterpress, would improve the book, and enable it to be offered at a reasonable price. This edition is far too dear.

---

[4] *Genito-Urinary Surgery and Venereal Diseases.* By J. William White, .D., and Edward Martin, M.D. Sixth Edition. Philadelphia and ndon: J. B. Lippincott Company. (Roy. 8vo, pp. xxiv + 1092; 300 ustrations; 14 coloured plates. 21s.)

[5] *Genito-Urinary and Venereal Diseases.* By Louis E. Schmidt, M.Sc., .D., of Chicago. London: Hodder and Stoughton. (Crown 8vo, . 249. 22 illustrations. 4s.)

[6] *Enlargement of the Prostate.* By John B. Deaver, M.D., assisted by stley P. C. Ashhurst, M.D. London: Rebman, Limited. (Demy 8vo, . 266, 108 plates. 30s.)

GYNAECOLOGY.

IT is satisfactory to contemplate how at last competent persons have taken the physiology of so important a subject as menstruation in earnest and set to work to study it after true scientific methods.[7] Dr. R. SCHAEFFER has contributed a good memoir, *Ueber Beginn, Dauer und Erlöschen der Menstruation* in the *Monatsschrift für Geburtshülfe* for February, 1906, and all who undertake hysterectomy should study Mandl and Bürger's recent monograph on the ovary after removal of the uterus.[8] Dr VAN DE VELDE in his *Ovarialfunction, Wellenbewegung und Menstrualblutung* dwells upon the phenomenon known as the "menstrual wave," *Wellenbewegung* having been thus "Englished" by Stephenson. The best English memoir on the subject is Dr. Arthur Giles's Cyclical or Wave Theory of Menstruation, published in the *Transactions of the Obstetrical Society of London* in 1897 (vol. 39). We are pleased to find that Dr. Van de Velde gives full credit to Drs. Giles and Stephenson. Fricke detected variations in temperature in the course of the menstrual cycle seventy years ago; William Squire, in 1867, published some more reliable evidence as to this phenomenon, and three years later Rabuteau wrote on metabolism during the catamenia. Dr. Giles studied and recorded the pulse and temperature before, during, and after menstruation in forty-five patients; he found that the total variation both in temperature and pulse was comparatively limited, and that the cyclical or periodic theory of menstruation was insufficient, as, ordinarily stated, to explain the origin of menstruation. He admitted, however, that the theory gave a connected idea of the meaning of menstruation, which might be regarded as the conclusion of the reproductive phase of an alternation of nutritive and reproductive activity, or in other words, as a repeated preparation for the reception and nutrition of a fertilized ovum. In the absence of such an ovum menstruation occurred, representing a missed pregnancy. Such is the wave-theory which we see led an observer to return to a very old doctrine advanced in prescientific, and probably in prehistoric, ages. Dr. Van de Velde is inclined to go further, on the ground of his own clinical investigations. The next inference beyond that to which we have just alluded is expressed in the saying that menstruation is the periodical discharge of the unimpregnated ovum. The author is not directly concerned with ovulation and the theories about it. He follows those who maintain that the whole menstrual cycle is a metabolic cycle affecting the entire organism beyond the narrow limits of the genito-urinary tract. A substance is regularly eliminated from the ovaries—organs possessing the special power of producing it. Its elimination has a distinct effect on the blood pressure—an effect which becomes less marked when there is a temporary fatigue of the organism (*Ermüdung des Organismus*), and once more grows very manifest as the constitution regains strength. The increase of blood pressure is sufficient to account for the objective symptom of menstruation, haemorrhage. An abnormal fall of vascular tone causing passive congestion of the pelvic viscera appears, in the author's opinion, to account for *Mittelschmerz*, or intermenstrual pain. Physicians and gynaecologists will read with interest Dr. Van de Velde's clinical reports of the effect of ovarian extract. Though a mere pamphlet in form, this work is very full of matter. It demands rigid criticism, but that criticism must be experimental, not literary. A little more certainty about data is demanded. Those who make inferences concerning ovulation have not clearly demonstrated what ovulation really means, whilst the special ovarian substance no doubt exists, but is not as yet clearly defined. More light has been thrown on the functions of the ovary, as a gland secreting something besides ova, by Ludwig Fraenkel in his comparative histological investigations c the occurrence of glandular formation in the ovaria stroma, which were recorded in a recent volume of tl *Archiv für Gynäkologie.* Some of the lower mammals ha a special glandular tissue stowed away in the strom others have not; whilst in our own species lutein ha some significance. Dr. Van de Velde's researches a clearly of much importance, and, together with Man and Bürger's, should be gravely taken into account b gynaecologists. The ovaries physiologically mean a gre deal, and the more certain we feel about their functio the more fit we become to treat diseases of women.

The new edition of *Conservative Gynaecology and Electr Therapeutics*[9] includes several chapters on the treatment cancer by electro-chemical destruction and sterilizatio Dr. Herman Grad, of New York, contributes anoth chapter devoted to a consideration of the Roentgen ray in diagnosis and therapeutics. The book is of high valu as far as the technique and science of electricity applie to therapeutics is concerned, for Dr. BETTON MASSEY explai the use of instruments and argues about their medic value with great clearness. Few gynaecologists, on th other hand, will accept his conclusions unreservedly, fo the clinical department of his treatise is far from co vincing. Dr. Massey is a firm defender of the Aposto treatment of fibroid disease of the uterus, but he unde rates the risks attending the expectant treatment of tha malady almost as much as others have exaggerated then His clinical reports of a series of cases are of interes but there are a great many sources of fallacy impairin any verdict of "cured" or "relieved." He quote Keith in support of Apostoli's treatment, but th words of the great Scotchman which Dr. Masse reprints were written in days when hysterectomy fo fibroid was far more dangerous than it has been for th last ten years. Dr. Massey makes the astonishing stat ment that "successful removal of the tumour necessitate removal of the ovaries also, thus destroying the distin tively feminine characteristics of the individual." Thi assertion is absolutely incorrect. Conservative treatmen of the ovaries has been practised with success by Blan Sutton and numerous other British operators for over te years, and Doran has recently made a close analysis an comparison of series of cases where he removed or save the ovaries. Results strongly favoured the principle c preserving at least one ovary; and though some of th latter author's views and conclusions have been questione the dispute turned rather on the relative value of con servative subtotal hysterectomy and conservative pan hysterectomy than on the question of saving the ovarie about which both sides are agreed. The after-histories i Dr. Massey's tables are much too irregular as to length c time to be of any service. Thus No. 1 was treated at th age of 45, and the "time after cessation of treatment whe results were verified" is given as 16 years, and "recen report of patient says growth has disappeared." No. was operated on at 42. The after-history is given as thre months, when there was "relief and considerable shrink age." Comment is needless. Let it be noted that man of the gynaecologists who conducted the electrical treat ment in these seried cases are little if at all know to medical science outside their country; but when w turn to Case 3, we find that it was under Dr. Howar Kelly, of world-wide fame. There was a submucou sessile fibro-cyst, and the electrical treatment ended i "septicaemia during expulsion of tumour, followed b death on the twelfth day." We fail also to be convince by Dr. Massey's advocacy of electricity for ectopic gesta tion. Operative treatment has proved highly satisfactory whilst, where abdominal or vaginal section is not calle for, expectant treatment, in the earlier months at least has given good results. Still, electricity has its uses i gynaecology, so above all things those who believe in i must know how to use it, and they will find Dr. Betto Massey a good instructor. We are perfectly in accor with him about the advantages of conservative gynae cology, and hold that many uterine affections would b the better for expectant and electrical treatment. Ther is an impression gaining ground that the standing disput

---

[7] *Ueber den Zusammenhang zwischen Ovarialfunction, Wellenbewegung und Menstrualblutung und ueber die Entstehung des sogenannten Mittelschmerzes.* [On the Relation between the Ovarian Function, the Menstrual Wave and Menstrual Haemorrhage and on the origin of the so-called "Mittelschmerz" or Intermenstrual Pain.] Von Dr. Th. H. Van de Velde. Haarlem: de Erven F. Bohn; and Jena: Gustav Fischer. 1905. (Demy 8vo, pp. 39 and 17 temperature charts. M. 3.).

[8] *Die biologische Bedeutung der Eierstöcke nach Entfernung der Gebärmutter: experimentelle und klinischen Studien.* Leipzig. 1904.

[9] *Conservative Gynaecology and Electro-Therapeutics: A Practica Treatise on the Diseases of Women and their Treatment by Electricity.* B G. Betton Massey, M.D., Attending Surgeon to the American Oncologi Hospital, Philadelphia, etc. Fourth edition. Philadelphia: F. A Davis Company. 1905. (Demy 8vo, pp. 486; 24 plates; 4 dollars.)

bout vaginal and abdominal uterine fixation and short-
ning of the round ligaments does not imply that any of
iese procedures can be of great permanent benefit, and
ie theories advanced by the supporters of the almost
inumerable varieties of utero-fixation do not prove that
iey thoroughly understand the anatomy of the uterus
id its supports. Dr. Massey at least understands his
ols, and is an expert in his art as far as it is a branch of
atural philosophy.

"GOUTY ALBUMINURIA."

his little book on gouty albuminuria (*L'Albuminurie*
outteuse[10]) Dr. F. de Grandmaison seems to be writing
ore as an exponent of the views of Dr. Glénard than of
s own. Dr. Glénard is known as the propounder of
rtain theories respecting visceral ptoses which have not
en generally accepted by the profession; and now
r. de Grandmaison brings forward under his aegis
rtain other theories which will require better evidence
an that laid before us in this book before they can be
riously discussed. His book is said to be based upon
e study of twenty-five cases of gout, in 92 per cent. of
iich he found albuminuria, but he does not tell us what
ethod of testing was used; as he says that the ordinary
ethods are insufficient, we may presume that the albu-
inuria was not discovered by the usual plan of boiling
d acidulation, which is, after all, that upon which our
iditional knowledge of the condition rests; on the
ntrary, he asks us to accept the urinary analyses with-
t question, "because they are made in the laboratory
Messrs. Gautrelet and Desmoulières, Doctors in
armacy of the University of Paris, whose competence
absolutely beyond question." This is hardly the way
which to address the profession, especially when the
ults are not in accordance with general experience.
e of the discoveries he claims is that lactic acid
present in the urine of 76 per cent. of gouty patients.
is is a revival of an old controversy, for not many years
lactic acid was supposed to be a normal constituent of
urine, and is still said to be so by Landois (see the
t edition of his *Physiology*). One of Glénard's fancies,
ich is supported by Grandmaison, is that each lobe of
liver is an independent organ having a special func-
n, the left lobe receiving food material derived from the
mach, while the right deals with that derived from the
estine; but we should be interested to learn what func-
n is reserved for the other lobes, and what evidence
re is of this appropriation. He quotes and approves
views of Professor Bouchard, who counts gout among
diseases of diminished nutrition (*ralentissement*); he
kes much of the dyspepsia of gout, and describes its
ies as "pale, sallow, and haggard." But this is not at
the view taken in this country of gout, where we are
ustomed to see gouty people with a good colour, who,
ept for their gout, have better than ordinary health and
orous digestions, so that many a gouty man looks upon
attacks as not too great a penalty to be paid for the
ellent general health he enjoys. It might be supposed
t Dr. de Grandmaison is speaking of those cases which
complicated by chronic contracting kidney, but he
ressly denies this, and says that the albuminuria
ch he is discussing is not dependent upon Bright's
ase or on any anatomical lesion of the kidney. His
ry of gouty albuminuria is that it is due to what he
s "hepatism"—that is, the functionally-depressed liver
nits the passage of large quantities of peptone into
circulation, and this dialysable peptone passes
ugh the walls of the glomerular vessels, and in
assage draws after it the molecules of non-dialysable
imen. We entirely agree with Dr. de Grandmaison in
tending that the albuminuria of gout is in a very large
iber of cases not an indication of chronic Bright's
ase or contracting kidneys, and that it may disappear
r some time, or may persist for years without ap-
ntly causing serious damage to the kidneys; but we
er the usual explanation, that it is due to temporary
ation of the kidneys by uric acid. It should not be
otten that in many cases albumen may come from the
lder and be really due to a slight degree of vesical
rrh. The book is padded with elementary anatomy
physiology and quotations from authorities, but in a scrappy manner; for example, the chapter in which the author professes to deal with the lungs and skin in gout extends only to three pages of text. The last part contains a description of the diet in the treatment of gout, which follows the usual lines of restricting animal food. It is rather amusing to see that he classes the eel amongst "reptiles" and the turtle as a "crustacean"! (p. 160); it may be remembered that Charles Keen's railway porter scheduled it as a "hinseck."

MEDICAL ELECTRICITY AND RADIOTHERAPY.

The reputation achieved by Dr. Dawson Turner's *Manual of Practical Medical Electricity*[11] is fully maintained in its fourth edition. The book is arranged, as before, in six parts, dealing respectively with electro-physics, electro-physiology, electro-diagnosis, electro-surgery, electro-therapeutics, and Roentgen rays. Under the last heading a special section is added in this issue on radium, and the various methods of its application for the cure of disease. There is nothing to add to previous criticism on the value of Dr. Turner's volume. It treats fully of electricity from the physical point of view, and describes in detail the various purposes for which it may be requisitioned as an aid to diagnosis, prognosis, and treatment. It may be objected that the author claims too much for electricity as a curative agent, but this is a sin of enthusiasm which may be pardoned when, as here, it is clothed in the garb of modest statement, and not set forth as infallible dogma. We are on the mere fringe of knowledge concerning electrical possibilities, and much of the disrepute which has come to be associated with its use is attributable to the extravagance of the statements of illegitimate exponents of its use. In his preface Dr. Turner expresses a pious hope, which his readers will unanimously endorse,

> That the tide of unqualified electrical practice will at last be stemmed, and that practitioners will awake to the fact that it is both derogatory to themselves and injurious alike to their profession and to their patients to call in instrument makers for radiography and nurses and masseurs for electro-therapeutic treatment.

The book contains an abundance of illustrations; is printed in clear, bold type; possesses a full index by which reference is made simple; and is written in a style which makes its perusal easy and pleasant.

Dr. Belot's work, *Radiotherapy in Skin Disease*,[12] has been translated into English by Mr. W. Deane Butcher from the second French edition. In a preface, Dr. Brocq of the St. Louis Hospital refers in term of the highest praise to the electro-therapeutical work of Dr. Belot in the laboratory attached to Dr. Brocq's clinic. That praise is due to the author is confirmed by a perusal of this treatise on the x rays in connexion with dermatology. Dr. Belot reviews the subject in an interesting and logical manner. The first part consists of an historical review of Roentgen's discovery and the theory of production and measurement of the x rays. This is followed by a survey of their biological effects and a description of the method of application. The work concludes with a thorough account of the diseases which have been treated by the rays. The author confirms the opinion that in hypertrichosis radiotherapy has not fulfilled its promise. The process requires many applications to attain complete destruction of the papillae, and there is a risk of setting up dermatitis, telangiectases, and obstinate ulceration. In ringworm of the scalp good results are being obtained, but in rodent ulcer, mycosis fungoides, and lupus vulgaris, experience proves that recurrences must be looked for, and the cases kept under observation. With regard to Paget's disease, removal of the affected breast is still the best method, as the rays cannot be trusted in so serious a condition; this has been proved in some recent instances. Dr. Belot's book will be found of value not only to those engaged in the same work, but to general medical readers. The translation contains a fair number of typographical errors —Giesen, Brocque, etc. On the whole, however, the book is very readable. But there is one deficiency especially inexcusable in a work of this kind—an index. In this we should not imitate our French friends.

---

[10] *'Albuminurie Goutteuse.* By Dr. F. de Grandmaison. Paris:
aloine. 1906.

[11] *A Manual of Practical Medical Electricity.* By Dawson Turner, B.A., M.D., F.R.C.P.Edin., M.R.C.P.Lond., Lecturer on Experimental Physics, Surgeons' Hall, Edinburgh; Medical Officer in Charge of the Electrical Department of the Royal Infirmary, Edinburgh, etc. Fourth Edition. London: Baillière, Tindall, and Cox. (Demy 8vo, pp. 435; 200 illustrations. 10s. 6d.)

[12] *Radiotherapy in Skin Disease.* By Dr. J. Belot. Translated by W. Deane Butcher, M.R.C.S. London and New York: Rebman Limited. (Royal 8vo, pp. 463; 13 plates, 28 illustrations. 17s.)

NOTES ON BOOKS.

In the third volume of reprints of work done under the patronage of the Rockefeller Institute[1] there is a lengthy article by Dr. E. E. Tyzzer on the etiology and pathology of vaccinia, in which the author develops the view that the vaccine body is an organism which, morphologically and from the manner of its parasitism, must be classed amongst the sporozoa. Dr. Theobald Smith contributes an interesting experimental study of the pathological effects of periodic losses of blood. He finds that in horses which have been repeatedly bled the resistance of the red corpuscles is so changed as to correspond to a rise in osmotic tension of 0.04 to 0.09 per cent. salt solution, but that the osmotic tension of the serum does not adapt itself to the change in the corpuscles. Dr. Opie discusses the relation of cells with eosinophile granulation to bacterial infection, and, amongst other interesting articles, there is an account by Drs. Meltzer and Auer of the retardation of absorption and transudation caused by the injection of suprarenal extract. Vol. iv, more recently issued, also consists entirely of reprints of papers which have already appeared in various periodicals. The system of issuing such reprints is, however, to be commended. It not only shows the scope of the work accomplished in the institute, but may often provide an inquirer with the original text of a paper otherwise not easily to be obtained.

The Bender Hygienic Laboratory of Albany, N.Y., has issued a volume of reprints dealing with the investigations conducted in the laboratory during the year 1904-5. The eight scientific articles which constitute this volume have already appeared in various medical journals, and do not call for detailed discussion. The director of the laboratory, Dr. R. M. Pearce, gives an interesting account of experimental cirrhosis of the liver, and also writes, in conjunction with Dr. E. M. Stanton, upon experimental arterio-sclerosis. Dr. A. T. Laird contributes a study of the uric acid elimination in a case of chronic gout kept on a "purin-free" diet.

Dr. Hale's book on *Anatomy*[2] published in the Medical Epitome Series, is of the type of the *Pocket Gray* to which illustrations have been added, and in this respect it is superior to the *Pocket Gray*, if any superiority can be claimed for a book which, at the best, may be looked upon as a means for the rapid revision of knowledge, gained in other ways, and, at the worst, may be termed a cram book. Its statements are correct so far as they go, and the illustrations, for the most part, have been borrowed from well-known textbooks, but the student might read the book repeatedly and yet have no true knowledge of anatomy, and certainly but little knowledge that he would be able to apply to clinical purposes. The printing is good, the book is well got up, and is of a handy size.

Dr. Squire's little book on *Preservation of Health*[3] lays down rules for the reader without troubling him overmuch with reasons. Those who are able to read books of this elementary character are great believers in authority, and no doubt this book will have weight. The matter has been so condensed that the author's meaning is by no means always clear. For instance, damp boots are merely mentioned in order that they "should be changed at once." It, however, appears to be a question whether they should, and depends on so many things. Most housewives, especially those with large establishments or with slender incomes, will refuse to accept the advice about burning "kitchen refuse" in the fire. The author's ideas upon the maximum quantity of alcohol permissible as a medicine seems open to criticism and hardly in accordance with modern views upon the subject.

Ambulance Illustrated[4] is a collection of sixty excellent photographs showing the mode of application of bandages and appliances for first-aid treatment of injuries,,as w as of the various methods of transporting injured pers by means of stretchers or improvised seats, etc. So first-aid notes by Dr. Cullen at the end of the book clear, concise, and practical.

The *Lectures to Teachers on the Prevention of Infecti Diseases*[5] were given, at the request of the Education Co mittee of the Wigan County Borough Council, by th Medical Officer of Health to the teachers engaged in Council's schools. The importance of the subject to sch teachers is undoubtedly great, and the information c tained in these lectures may be relied upon as bei accurate.

The Annual Charities Register and Digest,[6] issued by Charity Organization Society and edited by Mr. C. S. Lo is a most useful work of reference, and several yea practical daily experience of it leads us to extend warmest welcome to the issue for 1906. It is a classif register of charities in or available for the metropolis, contains a great deal of information of value to pers resident in every part of England and Wales. The gene introduction has been revised and references to rec legislation introduced. The volume is one which we commend to medical men who are often called upon advise as to suitable asylums, refuges, and convalesc homes.

FUNCTIONAL NERVOUS DISEASE.

Mistakes in the diagnosis of functional nervous dise may mean the loss of a large part of the useful life of tr suffering and honest people. Dr. Arthur Whiting printed in pamphlet form an excellent lecture[7] on t subject delivered by him at the North-East London P Graduate College. In it he discusses the nature of fu tional disease, and the signs suggestive of its presence, a gives in detail the points of diagnosis between the orga and functional forms of hemiplegia, paraplegia, a monoplegia.

HOSPITAL REPORTS.

The thirty-third volume of *St. Thomas's Hospital Repor* for 1905 will, of course, be of great interest to St. Thoma men, but it should also be of permanent interest to medi scientists of every school. It contains an unusual amou of well-classified clinical fact. There are the usual ta lated statements of the thousands of cases treated dur the year in the various departments, extensive tables a reports in medicine, surgery, and gynaecology, and limi in obstetrics, ophthalmology, dermatology, throat and work, the work of the clinical laboratory, and in departments of radiography and physical exercises. Th are also obituaries of Sir John Simon (signed J. F. and of Mr. A. O. Mackellar. But the specially valua parts are certain special analyses of clinical records a several special reports. The special analysis of medi cases includes a series of 29 cases of diphtheria, 36 enteric, 12 of infective endocarditis, 3 of Addison's disea and 2 of myasthenia gravis. Of gynaecological cases th is a special analysis of 27 cases of ovarian cyst, 18 salpingitis, 13 of pyosalpinx, 45 of uterine fibromyoma, full abstracts of 5 cases of malignant disease of the ova The special reports include a statistical statement by Percy Sargent of 125 cases of pathological perforation of stomach and duodenum—cases that were in the wa during the interval 1890 to 1904; a report on 1,075 case appendicitis in the hospital during the ten years end December, 1903, by Mr. Cuthbert Wallace and Mr. Sarge and a historical account of the pathology and recor cases of torsion of the omentum by Mr. E. M. Corner Mr. H. J. Pinches. It is greatly to be hoped that s laborious and instructive studies will not be allowed pass into the limbo of the forgotten.

A Japanese Lady Professor of Medicine.— Japanese Government has conferred the honorary t of Professor of Medicine on Miss Tada Urata, who so years ago graduated Doctor of Medicine at Marburg, be the first Japanese lady to obtain that degree in Germa The distinction is one that has hitherto seldom b conferred on a woman.

---

[1] *Studies from the Rockefeller Institute from Medical Research.* Reprints. Vol. iii. 1905. (Demy 8vo; a collection of 30 articles reprinted from various sources.)

[2] The Medical Epitome Series. *Anatomy.* By Henry E. Hale, A.M., M.D. Series edited by V. C. Pedersen, A.M., M.D. London: Hodder and Stoughton. (Crown 8vo, pp. 389; 71 figures. 4s.)

[3] *The Preservation of Health and the Hygiene of the Home.* By J. Edward Squire, C.B., M.D.Lond., D.P.H.Camb., etc. London: George Gill and Sons, Limited. 1906. (Fcap. 8vo, pp. 78. 4d.)

[4] *Ambulance Illustrated.* By W. Cullen, M.D. Glasgow: Gowans and Gray. (Fcap. 8vo, pp. 69. 6d.)

[5] *Lectures to Teachers on the Prevention of Infectious Diseases.* William Berry, F.R.C.S.I., D.P.H. Bristol: John Wright and Co. Fcap. 8vo, pp. 64. 6d.)

[6] London: Longmans, Green, and Co. 5s.

[7] *Lecture on the Diagnosis of Functional Nervous Disease.* By Whiting, M.D. London: Baillière, Tindall, and Cox. 1905. (Fcap. pp. 11.)

[8] *St. Thomas's Hospital Reports.* New Series. Edited by Dr. H Hawkins and Mr. W. H. Battle. Vol. xxxiii. London: J. an Churchill. 1905. (Demy 8vo, pp. 500. 8s. 6d.)

Noba et Vetera.

HN WESLEY ON THE ART OF HEALING.

not known, even to many of his most earnest disciples students of his more important work, that the great Wesley had turned his attention, among many other s, to the practice of medicine, or rather, as he would claimed, to the healing of disease, a distinction he l have been the first to enforce. The fact is that y left the world so much to remember him by that ttle book on *Primitive Physick: or an Easy and Natural d of Curing Most Diseases* is now quite forgotten. such a book from his pen was actually published year 1747, and evidently had no small vogue, since 55, in a preface to a new edition, the author can write it was a great surprise to him "that there was so and large a demand for it; that three impressions called for in four or five years; and that it was not republished by the booksellers of a neighbouring n, but also inserted by parts in their publick papers o propagated through the whole kingdom."

volume before me as I write is a copy of no less the fourteenth n, printed in 1770 istol by William in Narrow Wine t. The price is l as "one and six-, bound in sheep." y's greatness was ved on lines so e from this, and in fact so pre-nt, that no dis-t is shown to his ry by dragging nto the light of wentieth century ittle work, which modern mind is evidence of a s in his faculties, l and inevitable heologian of that nd not unfamiliar in some of the gical intellects of esent.

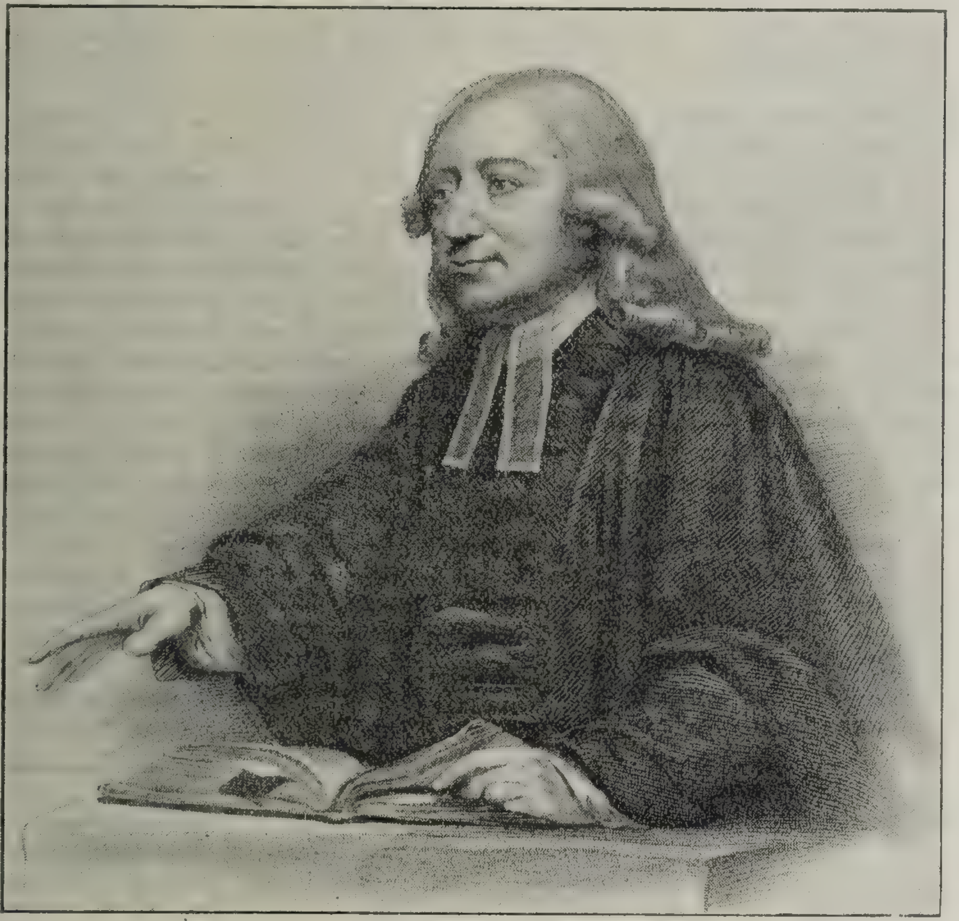
book itself is y a list of some undred and eighty ms for various lers which are d in alphabetical Of these some es are quoted below, but the most interesting part of rk is the preface, which is really a short essay on the al practice of his day, and is far from complimentary profession. It opens with a few paragraphs of dog-theology, in which we are informed that previous to ll "man was clothed in body as well as in soul immortality and in-corruption." He knew no no sickness, weakness, or bodily disorder, and there othing from without to injure the body. Heaven arth and all the hosts of them were mild, benign, iendly to human nature, so that "there was no place ysick or the art of healing." Once man had rebelled, er, not only were "the seeds of weakness and pain, kness and death, lodged in our inmost substance," e are assured that

> avens, the earth, and all things contained therein con-o punish the rebels against their Creator. The sun and shed unwholesome influences from above; the earth poisonous damps from beneath; the beasts of the field, rds of the air, the fishes of the sea are in a state of ty; the air itself that surrounds us on every side is with the shafts of death; yea, the food we eat daily he foundation of the life which cannot be sustained it it.

ever, "one grand preventive of pain and sickness intimated in the very sentence that entails death us—in the sweat of thy face shalt thou eat bread ou return to the ground."

Then follows some sound common sense about the advantages of exercise and temperance, sense which was perhaps less common in Wesley's time than our own, and it is but fair to say that throughout the book Wesley lays stress on some of the commonplaces of modern hygiene which to many of his contemporaries must have seemed dangerous heresies. He is also strong in his commendation of "electricity," evidently statical electricity, which he advises for all sorts of morbid conditions, and describes as "the nearest an universal medicine of any yet known in the world."

The remainder of the preface is devoted to an account of the evolution of the practice of medicine as he conceived it to be in his day, and an appeal for a return to the "traditional" medicine from which it arose, the simple system of having a certain category of diseases and a corresponding category of remedies. He makes the curious claim to modern ears that medicine of this type is founded purely on "experiment," his notion of an experiment being simply the administration of a certain "remedy" in the case of any disease. Failures in this kind of experiment appear to have been practically unknown.



John Wesley.

> 'Tis certain (he says) that this is the method wherein the art of healing is preserved among the Americans [that is, North American Indians] to this day. Their diseases, indeed, are exceeding few; nor do they often occur, by reason of their continual exercise and (till late universal) temperance. But if any is sick, or bit by a serpent, or torn by a wild beast, the fathers immediately tell their children what remedy to apply. And 'tis rare that the patient suffers long, those medicines being quick, as well as generally infallible.

It is a remarkable circumstance that this superstition concerning the virtue of Indian medicines is still profitably exploited in the advertisements of certain quack nostrums.

In process of time, however, he tells us with regret, "men of philosophical turn began to be dissatisfied with this." They began impiously to inquire how to account for these things—to dissect the body and to study the functions of its parts. We may hazard a guess that there were, perhaps, some who even questioned the invariable success of the earlier "experiments." They also explored all mineral and vegetable substances, and studied chemistry. Thus "men of learning began to set experience aside"! Physic then was founded on theories instead of experiments! Truly, this is a strange turning of the tables by an eclectic. But the result of all this was that "simple medicines were forgotten, at least in the politer nations," and the increase of new and complex ones led to the multiplication of medical books, "till at length physic became an abstruse science, quite out of the reach of ordinary men." This was bad enough, but worse remains to tell, since

> physicians now began to be held in admiration as persons who were something more than human. And profit attended their employ as well as honour. So that they had now two weighty reasons for keeping the bulk of mankind at a distance. To this end they increased those difficulties by design which began in a manner by accident. They filled their writings with abundance of technical terms, utterly unintelligible to plain men. They represented the critical knowledge of anatomy and natural philosophy as necessarily previous to the understanding the art of healing. They introduced into practice abundance of compound medicines, consisting of so many ingredients that it was scarce possible for common people to know which it was that wrought the cure. And thus both their honour and gain were secured; a vast majority of

mankind being utterly cut off from helping either themselves or their neighbours, or once daring to attempt it.

Such was the terrible state of affairs which John Wesley set himself to remedy by the publication of his *Primitive Physick*, not unmindful of predecessors, "friends of mankind," who have "endeavoured to reduce physic to its ancient standard; to explode out of it all hypotheses and fine-spun theories, and to make it a plain intelligible thing as it was in the beginning, having no more mystery in it than this—*such a medicine removes such a pain*."

Further, if it be asked: What need is there of such an attempt? he replies:

> Who would not wish to have a physician always in the house, and one that attends without fee or reward? Is it not needful in the highest degree to rescue men from the jaws of destruction? From wasting their fortunes as thousands have done and continue to do daily? From pining away in sickness and pain, either through the ignorance or knavery of physicians?

After reading this we draw a breath of relief on reflecting that the profession is no longer an object of the *odium theologicum*.

His directions for using the remedies enumerated are simplicity itself. "As soon as you know your distemper, which is very easy" (!), the various remedies are to be tried in the order set down until the desired result is obtained. Difficulties of diagnosis are only likely to arise when there is a "complication of disorders," in which case the patient "would do well to apply to a physician that fears God." It is really gratifying to learn that there were any such!

Turning now to the body of the work itself, we find it merely rings the changes in quite a haphazard way on the various potions, pills, and applications still familiar as household medicines and in the armamentarium of the herbalist. Thus, hartshorn, honey, turnips, wormwood, sal ammoniac, agrimony, rhubarb, and so on, are in constant request, though here and there a name crops up that is less familiar. Nearly all these remedies are, as their author claims, quite harmless, though it is quaint to see many of them marked "I," which stands for infallible—for instance, the powder of ripe puff-balls for the "bleeding of a wound." Of the latter we are told that "it will stop the bleeding of an amputated limb without any cautery"!

A great many of these "remedies" and the modes of applying them are dictated by mere superstition. Thus "For an ague" we are directed to

> take a handful of groundsel, shred it small, put it into a paper bag, four inches square, pricking that side which is to be next the skin full of holes. Cover this with a thin linen, and wear it on the pit of the stomach, renewing it two hours before the fit.—Tried.

The last word "tried" is appended to a great many of these prescriptions, although the result of the "experiment" is not given. Again "to cure the cramp" we are told, among other procedures, to "hold a roll of brimstone in your hand. I have frequently done this with success." For the "falling of the fundament, boil eight beetles in oil of mastich and anoint the part, sprinkle thereon powder'd egg-shells."

Among these superstitious remedies we would, perhaps, be justified in including all the external and internal medicines recommended for rupture. Thus of a mixture of agrimony, spleen-wort, Solomon's seal and strawberry roots taken twice daily in the morning we are told "this commonly cures in a fortnight," but he makes the naïve admission that "a good truss meantime is of great use"!

In spite of his strong advocacy of cold water and general cleanliness, Wesley's practice is not quite free from the unpleasantness inherent in quack medicine. Thus, the cow-dung poultice, still unfortunately in use among the least civilized classes in the North of England, is recommended for "a windy rupture." For "white specks in the eye" the sufferer is told, "Going to bed, put a little earwax on the speck; this has cured many." For consumption "in the last stage" the patient should "suck an healthy woman daily; tried by my father." But perhaps the most amazing of his prescriptions is for "theiliac passion," which is described as a "violent kind of cholick" the excrements are thrown up by the mouth in vomiting. The remedy for this is to "hold a live puppy constantly on the belly"! A somewhat heroic remedy for "raging madness" is to "set the patient with his head under a great waterfall, as long as his strength will bear." Lest the reader should feel any diffidence about applying this treatment to a raging madman there is a reassuring note to the effect that "all madmen are cowards."

Some of the lists of diseases cured by a si preparation read strangely like the long categorie the modern advertising nostrum vendor. Thus decoction of great waterdock, which is especially rec mended for scurvy, also cures "relaxation, or wind at stomach, and all disorders proceeding therefrom. It c all diseases of the nerves, as twitchings, contracti tremblings, convulsions, palsies, febrile heats and c headaches, vertigoes, vapours, melancholy." Trul useful list; but even the virtues of the great water pale before those of "fasting spittle." This, applied wardly every morning, "has sometimes relieved and so times cured" blindness, contracted sinews, corns (w mixed with chewed bread), cuts, deafness, red and flamed eyelids, scorbutic tetters, sore legs, warts. Ta inwardly (!) it relieves or cures asthmas, cancers, fal sickness, gout, gravel, king's evil, leprosy, pa rheumatism, scurvy, stone, and swelled liver.

But enough has been quoted to demonstrate the v of the "primitive and traditional physic" to which J Wesley would have tied mankind, for whose sake would have strangled medicine and surgery, and depri humanity of all the boon that these have wrought. T is nothing in the book of any value whatsoever, curiously enough, nothing that might not have b written by a person with the slightest education and meanest intellect. There is even something a li undignified in this preoccupation about bodily ailm and this meddling with their cure on the part of capable of exercising so profound an influence on generation as Wesley. On the other hand, this little b may be regarded as a curious eddy in that flood of rest energy of mind that made Wesley distinguished as sch controversialist, preacher, organizer, and administra The intolerance of the preface is quite characteris even if we admit that some excuse existed for it the pedantry and self-seeking that was unfortunately c mon enough in the medical profession of that day. complete absence of any powers of critical observat the blind acceptance of alleged results on the mere gro of "authority," and the inability to appreciate the ne sity for that combination of the inductive and deduc methods of reasoning by which alone science is advan are alike characteristic and inevitable in the theolog and Oxford Fellow of the mid-eighteenth century. medical profession may justly pride itself on the fact t it has made impossible the utterance of any such bel by any educated man of the present generation.

LITERARY NOTES.

WE are informed that Messrs. Archibald Constable and will very shortly publish *Recent Advances in the Physio of Digestion*, by Dr. E. H. Starling, Jodrell Professor Physiology in University College, London. The boo illustrated with figures and diagrams. In his preface author expresses a hope that the volume may serv interest a large audience of students and medical men the growing importance of these subjects, and that it n give them an idea of the aims and objects of t particular branch of physiological research.

The *Journal of the Ceylon Branch of the British Med Association* (January to June, 1905) contains some teresting notes on the history of ancient Hindu medi literature by Dr. M. Sinnetamby. He says two of best-known and most highly-valued works are *Char Samhita* and *Susruta Samhita*. These were compi by Charaka and Susruta from the teachings writings of Bharadwaja, Punarvasu, and Agniveca, w the addition in each case of new matter derived from compiler's own experience. The *Ayurveda* forms a par the *Atharvana*, one of the four Vedas of the Hindus. *Ayurveda*, which is looked upon as inspired, is said to h been first introduced by Prajapati, son of Brahman, w handed it down to Indra through the Acwins. teachings of the *Ayurveda* were subsequently transmit through a series of sages, chief of whom were Bharadw Punarvasu, and Agniveca, till they were embodied in two works already mentioned. The *Atharvana*, includ the *Ayurveda*, has perished. Sir Henry Blake e mates the age of Susruta as at least 1,400 yea but there is great diversity of opinion on t

t among the learned. If the works of Susruta
Charaka are really compilations from the *Ayur-*
, Dr. Sinnetamby says the doctrines contained in
must be as old as the Vedas, that is nearly 4,000
s. He quotes Professor Wilson as saying that "from
aka and Susruta being mentioned in the *Puranas* the
h or tenth century is the most modern limit of our
cture; while the style of the authors, as well as their
ng become the heroes of fable indicate a long anterior
" According to the same authority the Arabs in the
century practised Hindu medicine before the intro-
on of works on medicine by the Greeks. They had
vorks of Charaka and Susruta translated either from
riginal, or from a Persian version of still earlier date
h was studied in the days of Harun and Mansur in
ighth century.

Philippi, writing from Bad Salzschlirf, corrects an
in a note which appeared in the BRITISH MEDICAL
NAL of February 24th. He says:

> an article on Doctors' Latin, Frederick Barbarossa is
> sented as having considered himself superior to the laws
> mmar. I believe this is doing an injustice to that sturdy
> or. At any rate, we learnt at school that the Emperor
> aund (1410-1437) claimed for himself that exalted position.
> the Council of Constance (1414-1418) was called to settle
> hism which had arisen from the teaching of John Huss,
> nperor as president opened proceedings by hoping that
> *nagna schisma* would soon be happily disposed of; and
> a somewhat foolhardy prelate called out: "O domine,
> a est neutrius generis!" the Emperor replied: "At
> m Imperator Romanus ac supra grammaticam."

mbly apologize to the shade of Barbarossa—or to
lid, though unconscious, substance, if the legend
e that he is not dead but only asleep, biding his
for a victorious return to active life. We ought to
remembered the advice of a practised writer to a
yte: "There is safety in vagueness." We should
lone well, had we but thought of it, to follow the
le of so great a man as Frederick the Great, who,
g to Voltaire, discreetly says, *Caesar est supra*
aticam.

n address on the development of modern medical
ion, delivered at the opening of the one hundred
rtieth session of the Medical Department of the
sity of Pennsylvania, Professor Alfred Stengel gives
eresting account of the beginning of that medical
John Morgan, a Philadelphian physician who had
in London under the two Hunters, and afterwards
burgh and the chief Continental centres of learn-
urned to his native land in 1765, and delivered at
mmencement of the Pennsylvania College a "dis-
upon the institution of medical schools in
a," which led to the immediate establishment of a
l faculty. The orator was chosen to be the first
or of the theory and practice of physic. A few
later William Shippen, who had also been a pupil
Hunters, was appointed Professor of Anatomy and
. The foundation of a medical school in Philadelphia
en been discussed by the friends when they were in
. The teaching staff was completed by the appoint-
Adam Kuhn, a German who had studied under
s, to the chair of Botany and Materia Medica, and of
in Rush, who had studied medicine at Edinburgh
ewhere in Europe, to that of chemistry. All four
ctors of Medicine of the University of Edinburgh,
rgan and Shippen were thoroughly imbued with
ntific spirit of the Hunters. The development of
ool was hindered by the unsettled state of the
, and by the hard conditions of life among the
s, and especially their lack of preparation for the
studies. Philadelphia then had only 25,000
nts, and communication with other places was
and, to us, almost inconceivably slow. The
of Philadelphia were substantial though plain,
l 1760 the streets were unpaved and choked with
d the pavements were only marked off by posts
ers. Till 1751 the city was in total darkness at
The houses were lighted with dipped candles
s or copper candlesticks; marble mantels,
doors, sofas, wall-paper, and even carpets
known, and the citizens were content with
shed walls, white-sanded floors, large tables
h-backed chairs. Pewter plates and dishes
general use, and china was a great rarity. Glass
were scarcely ever seen, and punch, the common beverage, was drunk from one large bowl of silver and china. Food was of the plainest, and every housewife spun her own flax and made her own linen. Amusements were looked upon with some disfavour, but horse-racing and bull-baiting were tolerated. Even so highly respectable a man as Dr. William Shippen, one of the early trustees of the school, and father of the first professor of anatomy and surgery, enjoyed cock-fighting and bred gamecocks. The most cultured members of the community found a few volumes of hymns and sermons, with the *Tatler* and the *Spectator*, the *Vicar of Wakefield*, and perhaps Fielding and Smollett, sufficient provision for their literary cravings. The *Pennsylvania Gazette*, for a time conducted by Franklin, and half a dozen other newspapers, most of which flickered out after a brief life, constituted the periodical literature of the Philadelphians of that day. This was the state of the colony when the medical school of the University of Pennsylvania came into being into 1765.

At the opening meeting of the first National Sanitary Congress held last month in Rome under the auspices of the Italian Medical Parliamentary Group, Professor Baccelli recalled the honour with which professors of the healing art were treated in the days of Imperial Rome. Stern Republicans, like the elder Cato, had indeed foretold that the introduction of Greek medicine would bring Rome to ruin. This prophecy was doubtless inspired by his hatred of the Greeks, but as he himself dabbled in physic (his panacea being cabbage) there may have been something in him of the jealousy of the amateur for the regular practitioner. Professor Baccelli, however, says nothing about Cato, but dwells on the many proofs contained in Cicero's letters of the special regard in which the great orator held physicians. Of the healing art no one has spoken more nobly than Cicero. Caesar granted the privileges of citizenship to the Greek physicians who settled in Rome. Augustus gave Antonius Musa, who cured him of a fever, the gold ring which was the badge of equestrian rank, and which became one of the symbols of the degree of Doctor; the Emperor also erected a statue to his physician in the Temple of Aesculapius. Nero founded a College of Physicians, or *Archiatri;* Vespasian, Adrian, and Antoninus showered honours on doctors. In the reign of Commodus a statue was erected to Galen and a ritual of worship appointed to be paid to him. Succeeding emperors seemed to vie with each other in conferring privileges on the sons of Aesculapius. They could not be brought into court, but had the right to be represented by procurators or counsel; they could take oaths and give evidence at their own houses; they could not be imprisoned for debt; even when under suspicion of a capital offence they were liberated from prison on bail; they were exempt from judicial torture; persons found guilty of offences against them were heavily punished; if a slave abused a doctor, the master was bound under penalty of a heavy fine to punish the culprit, who remained in pledge at the mercy of the plaintiff until the money was paid. Physicians' libraries and furniture could not be distrained upon; they were exempt from military service and from most of the public duties incumbent on all other citizens; they were exempt also from the burden of municipal and other offices; they were accorded preferential treatment in the recovery of debts. All this not unnaturally created a widespread desire to obtain admission to so highly-privileged a body. But here, too, the doctors were specially favoured by the powers that were; their number was strictly regulated, and it was the duty of the decurions of each city to see that it was never exceeded. On the whole it would seem that the lot of the medical practitioner in the early Christian centuries was rather an enviable one. Certainly the rulers of Imperial Rome had a higher conception of the value of the physician's services to the community than any modern Government has shown.

THE late Mrs. Mary Hannah Foster of Sherwood Rise, Nottingham, who died March 11th, left £500 each to the Nottingham General Hospital, the Nottingham Children's Hospital, the Nottingham Blind Institution, and £300 to the Nottingham Dispensary.

UNDER the will of Lady Victoria Alexandrina, Baroness Sandhurst, who died on March 13th, Middlesex Hospital receives the sum of £1,000.

MEDICAL AND SURGICAL APPLIANCES.

Nasal Dilators.

Dr. H. Elliot-Blake (Bognor) writes: The nasal dilators in the forms represented serve the purpose of supporting and widening the resting state of the nasal orifices, and they act better than the obviously interminable fittings of fixed props. If two of these dilators be placed, one in each aperture of the nose, they give a good increased breathing space. They are made of silver, so they claim the advantage of being slightly adjustable by carefully stretching or diminishing their sizes as thought suitable. The sizes depicted are medium sizes, but small and large boundary ones can be added. They can all be applied as ordinary specula, and as specula the small "double blades dilator" and the "saddle dilator" may become readily adaptable to cheap aseptic uses for separate patients. The instruments have been made to my design by Messrs. Mayer and Meltzer, of 71, Great Portland Street, London, W.

The double blades dilator for the nose (Fig. 1) should be lightly stretched to the size wanted, and inserted by entering and engaging the blades in the nasal orifice, of one side, with their free points; then, by pressing the knobs towards and under the point of the nose, they slide into place entirely within the orifice, dilating that side of the nose; one blade rests on the septum and the other on the inner surface of the ala. The knobs may be shaped flat or biconical, and give a hold for the instrument to be extracted by.

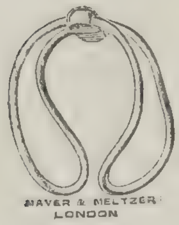


Fig. 1.

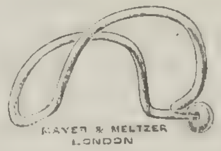


Fig. 2.

The nasal saddle dilator (Fig. 2) was constructed for easier manipulation and somewhat stronger service, but it is not quite so adjustable as the others. To introduce it, the free level end abuts on the lowest part of the septum, and by moving the knob of the handle outwards and upwards, the bow of the saddle glides under and dilates the ala nasi and rima naris of that side. The increased curve, or the shoulder on the outer side of the bow, helps to retain the instrument within the nose.

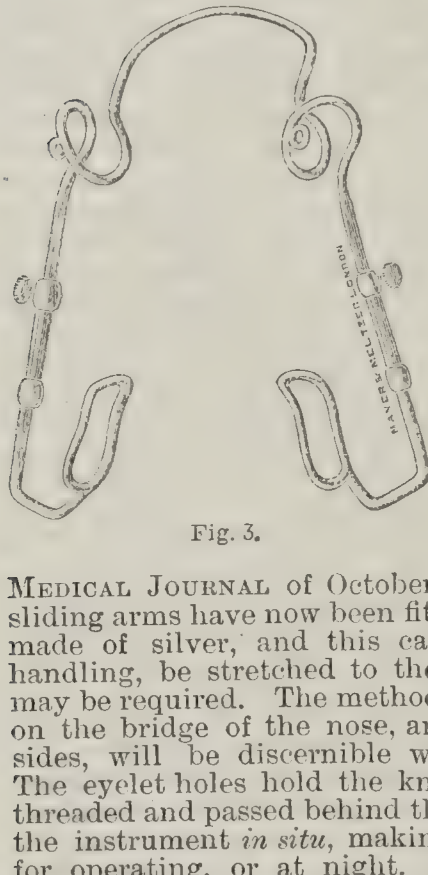


Fig. 3.

The over-nose speculum (Fig. 3) was brought out last year and briefly described in the British Medical Journal of October 7th. But more adjustable sliding arms have now been fitted. The top spring arch is made of silver, and this can therefore, without rough handling, be stretched to the strength of the spring that may be required. The method of insertion, with the arch on the bridge of the nose, and the blades dilating both sides, will be discernible without further explanation. The eyelet holes hold the knots of a round elastic, to be threaded and passed behind the head so as to fix and keep the instrument *in situ*, making it available, when wanted, for operating, or at night. A necessary direction for keeping the blades in for the over-nose speculum is to adjust or twist the lower borders of the blades outwards in the direction of the natural lines of the sides of the nostrils. To help in this the facings of the sliding shafts have both been made to look slightly upwards.

These dilators would appear to me to be of use in general applications, and of aid for the temporary relief of nasal and cardiac asthma in cases with restricted nose space; for nasal breathing difficulties, as in rapid transit, etc.; or on the hard and last fatiguing stretches whilst climbing the highest mountains; or in insomnia, where a little freer nasal breathing efficiently makes for sleep; and also sometimes in pneumonia.

Opium Smoking in French Naval Ports.—For some years past opium smoking dens have multiplied in French naval ports to an extent that has at last alarmed the Government. The Minister of Marine, acting in concert with the Minister of the Interior, has instructed the naval authorities to co-operate with the Administration in taking measures to prevent the sale of opium except for pharmaceutical purposes and to close the dens.

NOTES ON HEALTH RESORTS.

Freshwater Bay, Isle of Wight.

Dr. Alfred Hill, formerly Medical Officer of Heal
the City of Birmingham, has written a letter in prai
the health conditions and climate of Freshwater Ba
the Isle of Wight. The sewage is now disposed of
good system. The water supply is on the constant sys
and has been for some time derived exclusively fr
deep well at the foot of Afton Down. The dilapidatio
the sea wall have been repaired, and the bay afford
mirable bathing. Freshwater Bay, though it looks
south, has a mild and little-varying temperature, owi
the fact that it is open to the prevailing south-wes
winds; while it is well sheltered from cold wind
winter. The rainfall is about 24 in. From the
downs, which rise gradually to a height of nearly 50
views are obtained over the island, the Channel,
across the Solent to the long coastline of Hampshir
Dorsetshire. Dr. Hill considers that for persons in f
health, convalescents, and consumptives "the met
logical and general physical conditions are highly fa
able, and compare advantageously with those of
much-sought but inconvenient resorts of the Euro
continent."

Sidmouth, Devon.

The Medical Officer of Health for Sidmouth (Dr. T.
Pullin), in his recently-issued annual report, draws a
tion to the relative immunity of the resident popul
of Sidmouth from phthisis. This conclusion was jus
in 1905 from the fact that in a population of 4,500 pe
only one resident died from the disease. It would be
satisfactory if in future reports there were stated the
ber of deaths occurring during a series of years;
longer the better. Dr. Pullin points to the equable
perature and the satisfactory meteorological condi
generally prevailing in Sidmouth as the probable ca
this immunity. The autumn, winter, and spring m
are, he contends, the most favourable for those suf
from tubercle to visit Sidmouth. There is evi
throughout the report that the urban district coun
fully alive to its responsibilities, and is administ
the Public Health Acts in a creditable manner.
water supply, obtained from springs on the moorla
abundant, equal to 50 gallons per head daily, and of
quality.

Divonne, Jura.

Divonne, a village in the foothills of the Jura,
elevation of about 1,600 feet, three miles from the L
Geneva and twelve from the city of Geneva, is h
itself out as a suitable climatic station for pa
suffering from neurasthenia and other chronic func
disorders of the nervous system, as well as for ca
chronic enteritis, chronic rheumatism, and ma
cachexia. It possesses four springs, giving a c
supply of non-mineralized water, with a constant ten
ture of 45° F. The bathing establishment include
baths with running water, five general douche room
other rooms for special hydropathic applications. D
and baths are given either hot or cold. The clim
stimulating, being intermediate between that of mo
and plain, and the open-air cure can be followed
seasons of the year, the highest temperature in su
being about 86° F. Provision is made for the isola
patients whose treatment may call for that me
There is a mechano-therapeutic installation and fa
for massage and gymnastics. Dr. Bonnus informs
the diet of patients is strictly regulated under the
rity and control of the physicians practising at Di
The season is from May 1st to November 1st, a
village can be reached from Paris in about eleven
either by the route to Geneva or by that to Lausann

The late Mr. George Hunt Heigham, of High H
who died on March 23rd, bequeathed £1,000 to the H
for Sick Children, Great Ormond Street; £500 e
Middlesex Hospital, Charing Cross Hospital, the
Free Hospital, University College Hospital, Guy
pital, the Great Northern Central Hospital, King's
Hospital, the London Fever Hospital, the Lock H
the Free Cancer Hospital, the Hospital for Consu
and Diseases of the Chest, the London Hospita
Queen Charlotte's Lying-in Hospital; £300 to St.
Hospital, Paddington; and £200 to Bloomsbur
pensary.

The Fifteenth International Medical Congress.

HELD AT LISBON, APRIL 19TH TO 26TH.

First Impressions of Lisbon.

A glimpse at the beautiful capital of Portugal in April suffices to show that the place chosen for the Fifteenth International Congress is more fitted for a week of pleasure than for a week of work; but in spite of the drowsiness inseparable from an almost tropical climate, and in spite of the fact that Lisbon is situated at a considerable distance from most of the great centres of science, our Portuguese brethren have risen to the occasion, and have extended a welcome as warm as could possibly be desired. First impressions are not always to be relied on, and, in spite of expressions of disappointment which I have heard from one or two Englishmen who have just arrived, I do not hesitate to say that the visit of the greater number of Congressists will leave behind it memories of the most pleasant character. Of the place itself a few words must be said. The town, built on seven high hills, faces the broad mouth of the Tagus. The lower parts bordering on the river still retain much of the character of an ancient town, especially in the narrow, ill-paved alleys and the primitive fish market which faces the landing stage. But the scene is rendered all the more impressive by the fish-wife and the work-girl of the lower order; she is of Oriental beauty (marred, it is true, in part by the dirty condition of her naked feet) costumed in bright colours with shawl and head cloth, and carries a surprising burden on her head with graceful ease. She ages early, but before the relentless hand of Time has made his ineffaceable marks she is a picturesque figure. And the children! Little imps of three feet high, with dark sensuous eyes, and knowing looks, dusky with the tan of the sun, they run about cunningly on their bare little feet. The girls, as a rule, wear a long skirt, with gaudy shoulder and head shawls, and look for all the world like tiny dolls of a former century. It was first in Oporto that I was so struck with these fascinating imps, and I found it difficult to keep my eyes open for the old-time architecture of the quaint town, which I had been told to study closely. The living things were more beautiful and more interesting. And why should one go to the galleries and see a fine painting of the Madonna on these lovely days, when one can see her exterior counterpart at every corner? The Town Hall and Post Office next arrest one's attention—the former by its perfect harmony and symmetry, its smooth-lined statuary and its delicate carvings, and the latter by its size. Then the Arch of Triumph on the north side of the Praza do Commercio. How imposing it is! But all this belongs to the guide book rather than to the Congress. The Avenida da Liberdade (Avenue of Liberty) is wonderful. Trees rich in pink and white blossom, huge palm trees, and a variety of other tropical growth produce a soothing and beautiful effect.

Hotels.

A word about the hotels at which the members are staying. The first hotel, the Avenida Palace, is luxurious and modern, with a corresponding tariff, and those who are staying there seem well satisfied. A new hotel, Inglaterra, has advantages and disadvantages. When I called there last Monday it had been opened only for two days. My colleague was at his wits' ends to know how to keep his door shut, for there were no locks, no handles as yet. The appointments are excellent, but small details—as, for example, the placing of the numbers of some rooms inside the room instead of outside—are apt to cause much inconvenience. Of course there was no dinner to be had on Monday. But since then things seem to be settling down, and, as it is now, everybody is rejoicing in the cleanliness of the new pin. The Hotel Braganza seems very comfortable and well conducted, and, in spite of being somewhat antiquated, the Hotel Durand has so far satisfied the members who are staying there. This is important on account of another story that I have to tell. The *Ophir*, which, as our readers may remember, was specially chartered or run for a Congress tour, arrived last evening. I was doubtful from the first whether it would be wise to be quartered all the time on board, but never dreamed of the actual state of affairs. Several of the members told me to-day, when I asked how they had fared: "Never, never again!" The cause of this appears to be that the crowd on board filled the ship, and that the *personnel* was absolutely incapable of dealing with the numbers. Thus the attendance, in spite of the best of goodwill, was appallingly insufficient and bad. Then the accommodation seems to be quite out of proportion to the high charge made. The *cuisine* is stated to be inferior. The cleanliness of the cabins was impugned, but naturally, as a man's temper lies in his stomach, if his food at sea is not according to his palate, he will find cause to complain all round. How far the specific complaints (of which I have heard a great number) are justifiable, I naturally cannot say. I find that I have certainly reason to shake myself by the hand for having chosen the Booth Line boat *Ambrose*, where I received excellent attention, and where everybody on board was as comfortable as could be. But both on the *Ophir* and on the *Ambrose* we were jolly parties, and even the much-maligned terrible Bay of Biscay was on its best behaviour. My German friends who travelled on the *Oceana* are better off. They were very comfortable on board, and found everything to their liking, and they have the advantage over the *Ophir* people that the ship is lying alongside of the quay, and not in the river. This arrangement was a grievous mistake on the part of the English Congress Committee. They were afraid of the drainage, or want of it, on land, while in reality the smell and dirt in the river stream are far worse than the condition around the landing basin.

The New Medical School.

To return to Lisbon, we sit down in an Elevadore, a wire rope inclined tram or lift, and for the sum of 20 reis (about 1d.) we run up the face of the steep hill. The first building which meets our eyes here is the Bacteriological Institute, which I had the pleasure of visiting yesterday, and of which I shall have more to say later. A little further up there is the new building of the Escola Medica, the new medical school. It is a very fine building from without, but when within, one can only sigh that we have nothing approaching such a structure in London, or for that matter in any other town that I have ever seen. A large quadrangle in the centre contains a bust of de Sousa, which was officially unveiled by the King yesterday afternoon. The staircase leads up directly through a broad passage, and all around we find the spacious and numerous rooms in which we are holding our meetings. The Great Hall is a fine department, and is characterized chiefly by a wonderful group of renowned medical men painted high up on the walls. Above the entrance is Aesculapius in the usual position. On the right hand wall are the portraits of men of renown of a few centuries past. The centre figure, clad in his white smock, is Pasteur, true to life; behind him are Behring and Metchnikoff, while facing him are Koch and Roux. Koch's portrait is not nearly so good as those of the others. Next we see Lord Lister, and a magnificent picture of Virchow, seated with a large volume open on his knee, strikes one at once. Among the others are seen Laënnec, Jenner, Simpson, Galvani, Harvey, Vesalius, Ambroise Paré and others. A full-sized portrait of the King by Malthoes fills the top wall, and the left-hand wall represents ancient medicine, with Hippocrates as the centre figure. The furniture here and also in the General Secretary's office, is black wood studded with brass and finely carved. The effect is pleasing but funereal. Off the grand hall there is the King's room, with a very artistic fresco, and the most modern lavatory and hygienic arrangements in the anterooms. All over the building the lavatories are planned on a beautifully hygienic scheme, and indicate the care and attention that our Portuguese brethren give to sanitary matters. Outside the great hall is a spacious passage lined with Portuguese tile work, which at first sight resembles the Delft tile work. The Queen among the poor, and the late Queen among the lepers, are the subjects of the larger pictures, while of the smaller the student's dream is the most striking. The midnight oil is converted into the brilliant illumination of scientific electricity by the hand of an emblematic lady in scanty attire. Noticeably beautiful, both as regards the varied colours, patterns, and textures, and as regards the artistic drapery, are the wall hangings in the reception and chief rooms. Silks of the finest texture, with beautiful embroidery, and interwoven designs, in every imaginable colour and shade, are so arranged that in spite of the most daring combinations the total effect is absolutely harmonious. Lastly, I must mention the side staircase, which forms a fitting exit to this beautiful edifice. The walls are tiled with large slabs of green and dark reddish-brown, and higher up are spaces for the heads of the celebrated Portuguese exponents of each branch of medical science.

Opening of the Congress.

At 2 o'clock on the 19th, the King and Queen opened the Congress in state, in the large and magnificent Museum of the Geographical Society. The platform was decorated with rich red velvet on a basis of red carpeting, with furniture carved in a style in harmony with the surroundings. Flags and drapery, and other adornments converted the once dismal apartment into a gay and festive one. But I regret that praise cannot be unqualified, for a certain amount of want of foresight or of precision led to an inordinate amount of confusion with regard to the seating of the Governmental and other delegates. At first no one knew where to go, and presently chairs had to be fetched out of the body of the hall to accommodate newcomers. But still they came, and the space appeared too small to contain them all. Many—very many—had to stand all the time, and if one pictures a room packed to overflowing with about 3,500 human beings in hot Lisbon on an April day, one can perhaps get some idea of the state of the atmosphere in which we spent some two hours or so. And further, the Press arrangements were miserably bad. The excellent General Secretary, Professor Bombarda, told me, at about a quarter past one, that the Press table would be very full and suggested a seat in the second row of the hall, which I gladly accepted. I was thus able to hear fairly well, but the Press members at the table, placed actually behind the daïs, could not hear a sound, save when the speaker had a powerful voice. The suggestion which we had made for a special table for the foreign Press was promised but not carried into effect. But enough of complaints. The spectacle was most impressive. Every conceivable uniform, with almost every conceivable order and medal, university gown and cap, ministerial (native) shawls, Catholic bishops and dignitaries in their robes, ladies in dainty Paris dresses, with their beautiful faces and graceful bearing, the ordinary man in the evening dress which is *de rigueur* on such occasions, and everybody decorated with the insignia of the Congress —what words can describe the varied scene? Each nation was adequately represented, not only on the platform but also in the mass of those in the body of the hall; and during the time that elapsed before the King and Queen arrived one had time to study the physiognomies of all the races—a study which was extremely interesting. The badge of the Congress is a silvered medal of an artistic shape, bearing the semi-nude figure of a woman on the face and a Lisbon edifice and arms on the reverse. The ordinary members have a narrow blue-and-white ribbon attached, the Governmental delegates have golden braid ribbons, the other delegates (universities, medical schools, and societies) have a silver braid one, and the Executive Committee wear a red ribbon attached to the medal. The guard was represented by the 2nd Cazadores (Horse Guards), and the band of the same regiment played before and at the beginning of the ceremony.

Professor Bombarda, a man of stately presence, undertook the rôle of Master of the Ceremonies, and was very happy in the way he chose the few words for each of the distinguished members who came to his notice. In the galleries there were practically only ladies present, and one was quite pleased to see that not more than two rows were necessary there. The open staircases which traversed each end of the hall also had two rows of people, of course standing, but in the body of the hall no order or arrangement was possible save for those seated. At 2.30 p.m. the National Anthem was played and every one rose to his feet. First a few Court officials passed along the central passage; they were in full civil attire. Then came the King, looking pleased and well, and greeting every one in a friendly yet dignified style. And then the Queen. If I have been somewhat effusive about the Portuguese ladies, I may be taxed justly with a weakness for the opposite sex; but there is no question of weakness or strength when one speaks of the Queen in the highest terms of admiration. Her beautiful face and figure, majestic and graceful, her delightful smile, her kindliness—all sent a thrill through every one present. She was handsomely dressed in grey, with a large black hat with white feathers, and both she and the King wore the Congress badge tied with a large blue and white ribbon. Dr. Bombarda received them and ushered them into their places, while the ladies of the Court sat on the platform in front of the Queen. To the left of the King, the Queen-Mother, Donna Maria Pia, took her place, and the President of the Congress, Costa Alemao, and the Secretary, Dr. Bombarda, took their seats at the right hand and left hand respectively. During the speeches that followed, the Queen bent forward and listened attentively, applauding at the termination of each, but there was something very human in the momentary relaxation of the interested, listening expression into one brimful of fun, and I might almost say amusement, whenever she caught the eye of some of her ladies, or exchanged a brief word with His Majesty. The latter sat comfortably reclining in his chair, with his eyeglass immovably fixed in his left eye, without showing the least sign of boredom. Retaining his seat he opened the ceremony formally with his speech. There was a decorous silence during the delivery, and enthusiastic applause at the termination, but this appeared to have been the limit of restraint which those present could put on themselves. During the speeches which followed, a continuous hum or buzz of conversation was kept up, even immediately in front of the platform, while I was not a little amused to note that it was chiefly those who had paid the least attention to what was said who were the most energetic in their applause. French was the language chosen for the meeting, and the King used this tongue with a vivacity and smoothness which lent an especial charm.

The King's Speech.

His Majesty said: Madame, Ladies and Gentlemen,—In assembling at this Congress, which is so eminently scientific and humane, you are doing a noble and worthy action. Allow me, therefore, first of all, to congratulate you most heartily and to extend to you a frank and cordial welcome in the name of this country, of which I am the supreme Magistrate.

Among other things which have been handed down to us from the past as an inheritance, we find these magnificent festivities recurring in cyclical turn of events, and it is our duty to carry them out now.

These gatherings emphasize the solidarity and intellectual unity of the nations, and the various peoples bring to them the best offerings of their work and endeavours. I once more repeat that this Congress is doing a good and noble work, for there is nothing more noble than a victory in the vast field of science, nothing better than the relieving of pain and suffering.

I am certain that this learned assemblage will add a new and brilliant page to the book of universal science; and medical science will here review the thousand soldiers detached from her powerful army to come here to-day and pitch their tents under the shade of the Portuguese flag.

Each one of you will relate the experiences of his struggles and tell of the glories of his victories—of the fights against disease, which are nobler than all the fights in which the cannons vomit forth, in their firing and booming, suffering and death on the field of battle, fights in the quiet of the laboratory against infinitely small enemies which every day cover the field with a larger number of dead than the greatest battles.

During the six days during which the Congress is meeting here, days full of work, we shall see, as if in a kaleidescope, facts, observations, analyses and investigations, all of which will arrange and group themselves in the most varying ways. They will dazzle our eyes, by the impression made of the actual position and extent of medical science, and will indicate to you and your colleagues the direction in which new conceptions and great victories are to be gained.

The torrent of Science, white and pure as that of the glaciers, which is represented by this assembly, where so many men of great fame have gathered together, will descend, as it were, from the extensive areas of many high summits; and the progress of it, like that of the glacier torrents—albeit slow—is irresistible, and forces pain and death to recede before its overwhelming might.

Your brains are the grains of snow of the great torrent, brilliant and pure, and by the powerful action of your brains you inundate and burst asunder the skies, in which the secrets of Nature are hidden, and reveal them to view, often making human life longer, more tranquil, and stronger.

You find yourselves in a country which knows your work and prizes it, and which, I can assure you, appreciates your actions most highly.

Portugal is at one with you in your endeavours to carry out that which you regard as its international mission. She never forgets that her people are citizens of the world, and, as the citizens of each country have duties towards it, the nations have their duties toward humanity.

Portugal was one of the first pioneers of the civilization of the world. She adheres to her old traditions, and with the help of these she receives you in your civilized mission, the aim of which is the welfare of humanity.

As for myself, I am with you heart and soul, following your sciences with a profound interest. I admire you, I understand you, and I respect you, and I am deeply gratified to be able to assure you that you may depend on me for anything within my power which may assist you.

And Her Majesty the Queen, my well-beloved spouse, has shown you very plainly by her interest in the fight against tuberculosis, which she has followed so closely, how she sympathizes with you with her whole heart.

I do not wish to conclude without expressing my thanks to the Organizing Committee of the Congress for having asked me to preside at this inauguration of your work. I am deeply sensible of the task, and feel proud at finding myself presiding here to-day. Once again I add my heartiest good wishes to this Congress, in which my country is taking the leading part, and to which she is proud to receive you. I trust that the ultimate results of this Congress may be valuable to the cause of humanity.

The Congress is open.

OFFICIAL GREETINGS.

Following the King, the President, Conselheiro Costa Alemao, made a long speech in French. He addressed his thanks to the King, and to the Queen, making graceful allusions to the interest which the former had evinced in Science, and the acts of charity for which Her Majesty is so well known. Next he eulogized the emin- nce of the scientists assembled, and claimed a high place for several of his compatriots. Professor Bombarda made eloquent allusions to the advances made by medicine nd the allied sciences, and expressed a hearty hope hat the labours of the Congress would be crowned with success. He then read the names of those chosen as Presidents of Honour. The list contained the following names, among many others: those of Waldeyer, Obersteiner, Pavy, Coni, Calleja, Dyce Duck- orth, Cornil, Laveran, Bouchard, Hausemann, Verworn, Kraepelin, Landouzy, Thomas Barlow, Lassar, Morel, Veit, errier, Brissard, Boyce, Mayo Robson, and Fergusson.

SPEECHES OF DELEGATES.

The Governmental delegates followed. Waldeyer, speak- g in German, greeted the Portuguese and the assembly, ade fitting allusion to the land of our reunion, and ngratulated the members on the fact that the Queen was sisting in presiding. He claimed that much German ood flowed in the veins of the inhabitants of Portugal. e referred to the progress of civilization among the tions, and, passing on to the competition of the day, id that, as we exchanged our goods with various untries, so we spread our diseases. He expressed the pe that we might be able to further the cause of manity by limiting and studying disease. The last sen- nces of his speech were delivered in French. Following him, Obersteiner spoke for Austria, and Coni for Argentina. Dejace gave the thanks of Belgium to the Portuguese Committee and to all present who were receiving us. He also referred gracefully to the King and Queen, and concluded by alluding to the bond which held us all together—the interests of humanity. Bulgaria, Chili, and Cuba followed, and Cortezo spoke for Spain, making a complimentary reference to the brilliant gathering. The United States delegate spoke American, and was mercifully brief. Cornil followed for France, but his voice did not carry, and it was difficult to catch his words. Sir Dyce Duckworth made an excellent speech in the name of the British Government. Touching with diplomacy on the international relationship of the two countries, he captivated his audience, and gained bounteous applause by concluding with "Viva el Rei! Viva a Reinha!" Other countries were then represented, and the delegate for Italy made a fine speech in Italian, especially paying his attention to His Gracious Majesty. Oishi spoke for Japan, and invited one of the next congresses to Tokio. He alluded to the combined efforts of the various countries in medical affairs. Lastly, Posner spoke as the President of the International Association of the Medical Press. He pointed out the importance of this organization, and told the public that the Association had already concluded its labours. His speech, which was in French, was excellently delivered and was enthusiastically received, since it did not follow the usual beaten track, but reported to the world of medical science that a body of capable men were energetically taking an active interest in the organs of international exchange of thought, and that this Association would foster her charge very jealously. The proceedings terminated with a speech by the Prime Minister, Hintze Bibeiro, who discoursed at some length on the topics of medical science, its aspirations and achievement; on the position of Portugal and the Government toward medicine, and on the bond of union of science. He gave the Congress a cordial welcome.

The meeting then dispersed. It was interesting to note how much the English university gowns attracted the attention of the Portuguese crowds outside the hall.

RECEPTION AT THE MEDICAL SCHOOL.

On the evening of Thursday, April 19th, the Portuguese Committee received the members of the Congress and their ladies at the Escola Medica. The President and Madame Costa Alemao made an attempt to receive the guests personally, but inasmuch as the members sought their way into all the various rooms and no one appears to have directed them properly to the President, the majority of those present were not fortunate enough to obtain the few words from the host and hostess usual at such functions. The members of the *Ophir* party were mostly absent, as the trouble and time, to say nothing of the splashing attendant on the twenty minutes' transit on the tender, frightened them off. Nor were all the German and French members present, probably because they had not yet settled down comfortably after their journey. But notwithstanding this, a goodly muster presented itself, and some of the toilettes were very handsome. The band of the Municipal Guard played a selection in the quadrangle, including the "Marcha Internationale," Berlioz's "Damnation of Faust," "Mignon," "Tannhäuser," etc. The characteristic of the evening was, as usual, the massing together of people according to their scientific rather than social interests. But I was glad to see that the nations mixed freely, and many a heartrending struggle with an almost unknown language was overheard. No want of knowledge of any language, however, seemed to disturb the geniality of reception or friendliness extended, and at most one only detected a transitory puzzled expression cross the face of a listener as some one attempted to express himself in some impossible manner. The bore, however, was not absent, and it is a matter of experience that those who are the most trying in this respect are among the most constant attenders of congresses. By the exercise of a little tact, however, this affliction is usually got rid of. There is another class which is well represented here; this is the scientific bouncer—the man who has framed hypotheses or formulated explanations which do not stand the test of scientific investigation. He may be a humbug and act merely in his own interests, or he may be the victim of an excess of enthusiasm, and thus be honestly mistaken. At the reception this class was only sparsely represented. Of course, every little man in a strange town has grown immensely in importance, and an astounding amount of big talk was flying freely about the various rooms. Of those whose reputation rests on a more solid foundation, fortunately there were a considerable number, and many of us enjoyed the pleasure of a friendly chat with our foreign colleagues during the evening. At a little past eleven the refreshment room was opened and stormed. So great was the crush that one small man received the entire contents of a glass of champagne on his head in the struggle for existence, while the more sturdy were merely carried slowly down the buffet; thus any one who started from the top had his glass filled up by each waiter as he was carried downwards, so before most of us could free ourselves we had fully allayed our thirst. But every one was so good-natured and jolly, that even the cold shower bath did not disturb one's serenity. On our way home we visited the scene of a big fire which had been burning brightly all the evening in one of the inclined pathways, and which had completely gutted a large area of cottages. The Lisbon Fire Brigade is very efficient, so I am told; but the fire engines drawn by four mules, as I have been able to learn from personal observation, travel at a very leisurely pace on their way to the conflagrations.

WORK OF THE SECTIONS.

Having returned at a fairly late hour, it was not surprising to find that the hour of 8.30 in the morning was too early for the mass of the members to begin work. But this gave me an opportunity to ascertain what was to take place during the morning. There are twenty sections, each of which have numerous *rapports* and communications, with, of course, discussions after each. Even if space allowed, it would be extremely difficult to follow all the proceedings, but fortunately for the readers of the BRITISH MEDICAL JOURNAL an attempt to cope with the material in its entirety has not been made. Some of the regulations of the sessions are absolutely impracticable, as, for instance, the requirement of the officials, that each discussion speech should be epitomized by the speaker *at once* on official slips. If this is carried out, the speaker is engaged while others are speaking, and loses the drift of the discussion. Next, there is no order, no programme of proceedings for the day, and it is very difficult to time any given discussion in any given section. Little attempt is made to keep order; at many a table I found the Chairman and Secretaries in lively conversation during the reading of a paper, so that it was a matter of little wonder that the audience also engaged in miscellaneous chat. At one or two Sections no rules of debate were put into force, and the discussions not infrequently resolved themselves into "cross questions and crooked answers" between two or three members. In reply to my inquiry as to what would be taking place during the morning, I was told once or twice that the subjects were not new, that most of the communications had already appeared in print in different forms, and that the discussions would be very meagre, as the members had come to Lisbon to enjoy themselves. In other Sections the discussions did not promise to be of interest, since most of the 12 to 24 members present already knew the views which each one held. In only a few Sections, notably those of Medicine, Surgery, and Public Health, did the attendance assume any reasonable proportions. As there was an excursion to Cintra arranged, with a garden party at the villa of the Duke of Monserrat, the Sections, which had not begun till close on 10, rapidly emptied at about 11.

THE INDIAN PASTEUR INSTITUTE AT KASAULI.

THE Central Committee of the Pasteur Institute of India has issued its fifth annual report for the period from August 9th, 1904, to August 8th, 1905.

Lieutenant-Colonel D. Semple, M.D., R.A.M.C., under whose able management the institute has attained such a flourishing condition, resigned the Directorship in June, 1905, upon his appointment to the corresponding office at the Central Research Institute. His successor, Captain G. Lamb, I.M.S., who was formerly Assistant Director, is already well known for his important work on snake venoms and kindred subjects. It is evident from the list he appends to his report of important papers already published, or about to be issued from the Institute, that as Director he finds even more scope than hitherto for the furtherance of his numerous researches.

HYDROPHOBIA.

The statistics are very satisfactory. The number of patients treated has increased from 612 to 817. The percentage of failures has fallen from 0.81 per cent. to 0.79 per cent. The failures amongst natives, similarly, have decreased from 1.56 per cent. to 1.22 per cent. In previous years it has been pointed out in the BRITISH MEDICAL JOURNAL that, although these figures do not compare well with those of Paris, Vienna, Lyons, or St. Petersburg, yet it must be remembered that amongst the white population there has been not a single failure, whilst there are ample explanations for the comparatively high percentage of failures amongst natives.

Only those cases are recorded as failures which develop the disease more than fourteen days after the completion of treatment. The most interesting feature of the report is the account of those cases which developed the disease *within* the prescribed limit of time. They were five in number, three occurring during treatment and two within a fortnight of completion; all the patients were natives, and all were bitten upon exposed parts, that is, without the intervention of clothing. It is noteworthy that although the three cases developing during treatment came late, beyond the five-day limit, the other two were both treated early, and both were bitten on the hands, not the face. Three of the seven failures commenced treatment within five days, one of them upon the day following the bite. The depth of the bite and the absence of clothing seem to be the fatal factors. Cauterization as carried out seems to be of little avail. It is not stated that "intensive" methods were employed in the late-coming cases.

The remarks as to the uncertainty of seasonal influence which we made in our account of the last report[1] are still further borne out, for though the maximum incidence has jumped back to August, the minimal falls differently from either 1903 or 1904. No meteorological data are given.

ANTITOXIC SERUMS.

The issue of these serums has assumed very considerable proportions, the market value being 18,656 rupees. As a result of Captain Lamb's investigations, the antivenene now issued is one efficacious for both cobra and daboia, but for no other snakes.

RESEARCH WORK.

Numerous investigations of importance have been conducted by the staff. An inquiry was undertaken into the cultivation of *B. leprae*, and the preparation of Captain Rost's leprolin. Captain Lamb and Dr. Kesara Pai have demonstrated the prevalence of Mediterranean fever in India. Captains Foster and Lamb have continued their work on the standardization of vaccines, and other researches have been prosecuted.

GENERAL ADMINISTRATION.

The new Director has thought well to confine himself in his report strictly to statistics. It is perhaps desirable to publish other information in some medium of wider circulation, but there are many points of interest raised by previous issues of the official report for further light upon which one looks in vain. Thus there is no mention of the antirabic serum of which extensive trials were made in 1903-4, and no remark is made upon the results obtained with the stock antivenenes. It is important to know whether better arrangements have been made by the authorities for the speedy forwarding of Government servants who are bitten. It is little less than scandalous that such patients should risk their chances of successful treatment through delays in obtaining official sanction before setting out for Kasauli. It is very satisfactory to note that the finances of the Institute are upon a sound basis.

---

[1] BRITISH MEDICAL JOURNAL, 1905, vol. i, p. 796.

CONTRACT MEDICAL PRACTICE.

Consultants as Decoys.

We have received a letter from a correspondent which raises a point of some interest that has not to our knowledge been placed previously before the profession. He is medical officer to a society managed by a working-class committee which has a consulting physician and a consulting surgeon of good standing and repute, one of the inducements to get Friendly Societies to join this institution being that payment of consultants' fees comes out of subscriptions and does not involve members in any additional expense. This offer of free consultations, one with which private medical clubs or smaller organizations cannot compete, is, however, really more imaginary than real, as during the last year the consulting physician had only three consultations out of a membership of 6,800. The medical officer says that the committee would complain if he called in the consultants too often, and they can only be called in when the medical officers of the association think it necessary, not when the patients may desire it; no doubt this is a reasonable limitation, but it is very real, and perhaps not quite appreciated by the members until the circumstances arise in which they desire further advice. Nevertheless this artifice, in itself, is hardly sufficient to condemn the institution if it be otherwise well managed and does not infringe the rule as to canvassing and advertising for patients. Our correspondent appears to suggest that the society should stop giving free consultations, even under the existing limitations; but this hardly seems to be a reasonable demand. It is for him to say whether he considers that he has a sufficiently free hand in the matter of consultations to do justice to his patients; if he has not it might be his professional duty to resign.

A Changeable Patient.

F. V. E writes that as club surgeon he attended a member at some distance from his residence. While in attendance he received a letter from the patient's wife informing him that the patient was not satisfied and had called in another doctor. Since then he has become dissatisfied with the latter, and wishes the club surgeon again to attend him. F. V. E. asks whether, under the circumstances, he can decline to attend again, on the plea that the member has become the private patient of another doctor.

⁂ No; if the member dismisses the private doctor he can command the services of the club surgeon. Under his contract a club surgeon is bound to attend a member whenever he is called upon, provided that at the time the member is not under the care of another doctor.

MEDICAL NEWS.

Owing to a technical irregularity in the notice, the nnual meeting of the Royal Sanitary Institute has been ostponed until Wednesday next at 4.30 p.m.

The Hon. Whitelaw Reid, the American Ambassador, ill preside at the festival dinner in aid of the Charing ross Hospital Emergency Fund on Wednesday, May 3rd.

The annual general meeting of the Medical Sickness, nnuity, and Life Assurance Society will be held at p.m. on Thursday, May 17th, at 11, Chandos Street, avendish Square, W.

The opening summer lecture at St. John's Hospital for kin Diseases is to be given by Professor Sims Woodhead f Cambridge on May 1st, at 5 p.m., the subject chosen eing the Past and Present Pathology of Skin Diseases.

Dr. Reginald C. Kirton, Principal Medical Officer of e Egyptian Prisons Administration, has received the oyal licence to accept and wear the insignia of the urth class of the Imperial Ottoman Order of the smanieh, conferred upon him by the Khedive of Egypt.

The Orient Steam Navigation Company has published programme of short cruises to Norway during June, ly, and August, by the ss. *Ophir*, the vessel which conyed the Prince and Princess of Wales on their tour und the world. Each cruise occupies thirteen days, and e fares range from 13 guineas upwards.

The annual general meeting of the Medical Defence nion will be held on May 17th at 4 p.m., at the Grand otel, Birmingham. The annual meeting of the London d Counties Medical Protection Society, Limited, will be ld at the offices of the Society, 31, Craven Street, Strand, .C., on May 4th, at 4.30 p.m.

Among the bequests left by the late Miss Lawson of Arkleby Hall, Aspatria, whose will has now been proved, were sums of £1,000 each to the Cumberland Infirmary, Carlisle, and the London Temperance Hospital.

The forty-fifth half-yearly dinner of the Aberdeen University Club, London, will be held at the Trocadero Restaurant, Piccadilly Circus, W., on Wednesday, May 16th, at 7.30 p.m. Professor A. L. Murison, Barrister-at-Law, will be in the chair. Members desiring to be present should communicate with the Honorary Secretary and Treasurer, Dr. R. J. Collie, 25, Porchester Terrace, W., not later than May 12th.

At the meeting of the Zoological Society of London on April 10th, two papers from Dr. F. J. Gemmill of Glasgow were read. In the first he treated of cyclopia in osseous fishes, as observed by him in several advanced trout embryos. A detailed account of the anatomy of the specimens was given, a comparison made with cyclopia in mammals, and the mode of origin of this condition in fishes discussed. The second paper by Dr. Gemmill contained descriptions of cases of supernumerary eyes and local deficiency and reduplication of the notochord in trout embryos.

A quarterly Court of the Directors of the Society for the Relief of Widows and Orphans of Medical Men was held on April 11th, Mr. Alfred Willett, Vice-President, in the chair. Since the last Court three widows annuitants of the charity had died; one had received the sum of £697 in grants, another £372, and the third £651 10s.; their husbands had each paid in subscriptions only £52 10s., being the amount representing twenty-five years' subscription, after paying which no further payments were required. The death of one of the directors was reported. An application for relief was received from the widow of a late member, and a grant at the rate of £50 per annum recommended. Ten letters had been received since the last Court from widows of medical men asking for relief, but this had to be refused owing to the fact that their husbands had not been members of the Society. Three medical men were elected members. The amounts received by the annuitants, compared with the aggregate sum of subscriptions, are striking evidence of the advantages of this Society, which is open to the members of the medical profession resident within twenty miles of Charing Cross. Full particulars will be sent on application to the Secretary. The annual general meeting will be held on Thursday, May 3rd, at 5.30 p.m., at the offices of the Society, 11, Chandos Street, Cavendish Square, W.

University of Paris.—An official report on the University of Paris by M. Tannery, which has recently been issued, shows that the total number of students in the University last year was 14.462, of whom 1,638 were foreigners. Of the whole number, 968 were women, and of these 513 were foreign. The teaching staff comprised 281 professors, *professeurs agrégés*, and lecturers. The number of students in the Medical Faculty was 3,482, being 93 less than in the previous year. The Dean of the Faculty is quoted as stating that "he would rejoice if the diminution were still greater." Of 109 foreign women who were students of the Faculty, 98 were Russians. In the Faculty of law there were 6,086 students, showing an increase of 1,289 as compared with the previous year. Of the law students, 231 were foreigners, mostly Roumanians, Egyptians, and Russians. Of the representatives of the last-named nation, 29 were women.

Yellow Fever in Honduras.—The Republic of Honduras, as we learn from the report of the British Consul, Mr. Campbell, has for long been exempt from epidemics, the last that occurred being an outbreak of yellow fever which appeared in the Puerto Cortes region in 1892. This disease, however, again made its appearance in the same district last year and resulted in a serious epidemic. In the month of May some few scattered cases. the original source of which was unknown, were recorded in Puerto Cortes, and efforts were made to isolate the town. In June, in spite of these precautions, the fever broke out in San Pedro Sula, and thence spread to all the small towns near. The greater part of the inhabitants of San Pedro fled to the higher ground in the neighbourhood, and remained there for several months. No official details are available. but from the calculations given by Mr. Campbell it appears that about 1,850 persons were attacked in the whole region affected during the months from May till October, and of these some 350 died. For a considerable time the whole country was disorganized by the interruption of the foreign mail service. It is rather remarkable that here as well as in Cuba and Panama yellow fever should simultaneously break out after having been thoroughly stamped out for more than one clear season.

British Medical Journal.

SATURDAY, APRIL 28th, 1906.

THE SELECTION OF CANDIDATES FOR THE GENERAL MEDICAL COUNCIL.

At the first Annual Representative Meeting of the British Medical Association, held at Swansea in 1903, a resolution was brought up instructing the Medico-Political Committee to consider and report upon the advisability of running, at the next election of direct representatives on the General Medical Council, a candidate or candidates under the auspices of the British Medical Association. The proposal was approved, and at the second Representative Meeting, held in Oxford in 1904, the Committee presented a report expressing the opinion that it was advisable that candidates should be nominated and supported for election in the manner suggested, and submitting a draft scheme which, after amendment, was agreed to. The scheme provided that the Medico-Political Committee should be empowered to receive down to March 31st, 1906, the names of any person or two persons legally qualified for election, whom any Division of the Association might deem suitable to be nominated on behalf of the Association, and to be supported by it. Attached to the scheme was a declaration, which each candidate has been required to sign, undertaking that if nominated by the Association he would not allow himself to be nominated as a candidate in opposition to any candidate selected by the Association, and undertaking, further, that if elected on the General Medical Council he would endeavour in every way in his power to give effect to the wishes and opinions of the British Medical Association, as lawfully declared for the time being by the bodies constitutionally authorized to declare its wishes and opinions. On the recommendation of the Scottish Committee the scheme was not made applicable to Scotland. In accordance with the instructions of the Representative Meeting the Medical Secretary last October addressed to the Honorary Secretaries of Divisions in England and Wales a letter transmitting a copy of the scheme, and calling attention to the fact that an election of direct representatives for England and Wales would take place in November, 1906. The letter which, together with the scheme in its final form, was published in the British Medical Journal of October 7th, 1905, went on to state that three vacancies altogether would arise, two due to the expiration of the period for which Mr. George Brown and Mr. George Jackson were elected; and the third owing to the resignation of Sir Victor Horsley, who had intimated his intention to retire in order to save the profession the inconvenience, and the Council the expense, of a separate election.

Nominations have been made by Divisions in accordance with this scheme, and a complete list of members so nominated was published in the Supplement of April 7th, page 164. The list, as may be seen, contains fourteen names—nine general practitioners and five consultants. Looking first at the names of the candidates engaged in general practice, and taking them in alphabetical order, we find that Dr. G. H. Broadbent of Manchester is the representative of the North Manchester Division and one of the members of the Central Ethical Committee elected by the Representative Meeting. Dr. Langley Browne, who is engaged in general practice in West Bromwich, has been a representative of the Birmingham Counties Branch on the Central Council for many years past, and was last year elected Chairman of Council. By virtue of this office he is an *ex officio* member also of the Medico-Political Committee, and therefore very well acquainted with the aims of the Association, in whose administration he has long taken an active part. Dr. Alfred Godson of Cheadle is a J.P. for the county of Cheshire, and is at the present time Chairman of the Stockport, Macclesfield, and East Cheshire Division of the Lancashire and Cheshire Branch of the Association. He was at one time one of the representatives of the Lancashire and Cheshire Branch on the Central Council. Mr. George Jackson, who was elected a direct representative in 1902, is a member of the Medico-Political Committee, and President of the South-Western Branch of the British Medical Association. Dr. Latimer is the only candidate who resides in Wales; he is J.P. for the borough of Swansea, where he is engaged in general practice; he is the Representative of the Swansea Division and a member of the Medico-Political Committee. Dr. L. S. McManus, who has been nominated by the Wandsworth and Stratford Division of the Metropolitan Counties Branch, is engaged in general practice in Wandsworth, he is the Representative of that Division, and a member of the Medico-Political Committee. Dr. C. J. Renshaw, who has been nominated by the Altrincham Division, which he represents on the Lancashire and Cheshire Branch Council, and by the Manchester Central and West Divisions, is engaged in general practice at Ashton-on-Mersey, Lancashire. Dr. Milson Rhodes, who is a general practitioner at Didsbury, Manchester, is Chairman of the South Manchester Division, and an Alderman of the Lancashire County Council. He is also a guardian, and has taken an active part in procuring reforms in Poor-law administration, holding the office of Chairman of the Poor-law Committee for England and Wales, and of the Chorlton and Manchester Asylums Committee, as well as of the Northern Workhouse Nursing Association, which is, we understand, about to be dissolved, having attained the objects with which it was formed. Dr. C. R. Straton, who has been nominated by the Winchester and Wandsworth Divisions, is one of the representatives of the Southern Branch on the Central Council, and is engaged in general practice at Salisbury; he is a member of the Medico-Political and Colonial Committees. Of the five consulting practitioners whose names appear on the list, the first in alphabetical order is Mr. J. F. Bullar, formerly engaged in general practice, but now practising as a consulting ophthalmic surgeon at Southampton. He has shown a lively practical interest in the improvement of the conditions of contract practice work in the Division, and is a member of the Council of the Southern Branch. Mr. Andrew Clark, who is senior surgeon to the Middlesex Hospital, is too well known, first as Treasurer and afterwards as Chairman of the Central Council of the Association to need any further description, except that it may be added that he was for many years honorary secretary of the Metropolitan Counties Branch, of which he is at the present time President. Dr. T. A. Helme, who has been nominated by the Manchester Central and West Divisions, is the energetic honorary secretary and treasurer of the Lancashire and Cheshire Branch, and has been for a good many years on the Central Council; he is a member of the Medico-Political Committee. He is honorary surgeon to the Northern Hospital for Women and Children, Manchester. Mr. J. Rutherford Morison, surgeon to the Royal Infirmary, Newcastle-on-Tyne, is well known throughout the North of England, not only as a consulting surgeon, but also for the leading part which he has taken in organizing the profession to meet he encroachments of the miners' medical aid associaions. As Chairman of the Northumberland Committee f the North of England Branch his co-operation has een invaluable to the general practitioners who have een so long engaged in a struggle to place contract ractice in the district on a less unsatisfactory footing. r. Frederick Smith, physician to the London Hospital, nd one of the Honorary Secretaries of the Metropolitan ounties Branch, has done much good work for the ssociation, and has taken an active share in organizing he profession in the east of London, a district where rganization is sorely needed.

This is the list of members nominated, and it will ndeed be strange if the Representative Meeting, when assembles in London in July, fails to choose from mong them candidates to whom all members of the ssociation can give their hearty support when it mes to voting next November. Since the matter was nsidered by the Annual Representative Meeting in 04, the position has been altered by the definite nouncement that Sir Victor Horsley intends to sign, a decision which is, we believe, regretted by all embers of the Association, and not least by those gaged in general practice. Under these circumances, it will be for the Representative Meeting to cide whether it shall proceed to nominate three ndidates or adhere to the original scheme, formulated a date when it was not known that there would be ore than two vacancies.

At the present time the General Medical Council nsists of 34 members, 24 nominated by the universis and corporations, 5 nominated by the Crown, and elected by the profession at large. Leaving out of nsideration for the moment the direct representaes, we have 29 members, of whom 23 are engaged, have until their retirement been engaged, in nsulting practice, 3 are professors of anatomy, practised as a dentist, 1 is an eminent official the public health service, and 1 is a retired cer of the Army Medical Service, who at the sent time holds the office of Governor of the othecaries' Hall, Dublin. Of the direct representaes four, since the election of Dr. Kidd for Ireland, or were until their retirement, engaged in eral practice, and one is a consulting surgeon. statutory title of the Council is "the General ouncil of Medical Education and Registration the United Kingdom." The greater part of Medical Act of 1858 is concerned with the duties he Council in regard to registration, that it shall se the *Medical Register* to be kept accurately, and l purge it of members who offend against the law, or guilty of infamous conduct in any professional ect. Medical men engaged in general practice not have a special interest in the maintenance of the ty of the *Register* and in the enforcement of proons against irregular practice, but they are specially petent to form an opinion upon such questions. Medical Act of 1886 recognized the principle the general body of registered medical practiers in the United Kingdom should be represented on the Council, by enacting that there should be three direct representatives for England, one for Scotland, and one for Ireland. At that time, now twenty years ago, the General Medical Council numbered thirty; since then, owing to the establishment of new universities in England, the number of members has been increased to thirty-four, so that the ratio between the nominated members and the elected representatives established by the Act of 1886 has been disturbed. This has been used as a very forcible argument in favour of increasing the number of direct representatives.

The facts may be used also as an argument in favour of the contention that it is advisable to return general practitioners as direct representatives. The General Medical Council has been asked to take advantage of the clause in the Act which empowers it to represent to the Privy Council that it is expedient to confer on the registered medical practitioners resident in England and Wales the power of returning an additional member to the General Council. This has not been done, and the failure to induce the Council as a whole to take action in this matter is an additional reason for seeking to strengthen the representation of general practitioners by the direct vote of the profession.

COMPULSORY VACCINATION.

MR. LUPTON's motion "that in the opinion of the House "vaccination ought no longer to be obligatory on those "who regard it as useless or dangerous" in the House of Commons on Wednesday evening led to a short debate in a rather thin House. The debate would probably have been longer but that there was some evident impatience to get on to Mr. Keir Hardie's resolution with regard to the enfranchisement of women, and the House might have been fuller but that it had been occupied until nearly half-past seven in an important debate on the Trades Disputes Bill. There can be no doubt, however, that those members who did take the trouble to be present were strongly in favour of the resolution, and that if it had not been withdrawn in response to the appeal of the President of the Local Government Board it would either have been carried without a division or by a very large majority.

The mover occupied the greater part of his speech by a denunciation of the way in which many magistrates had interpreted their responsibilities under the conscientious objector clause. It was alleged not only that the application was sometimes made a most humiliating experience to the applicant, but that the expenses incurred and the loss of wages involved in requiring the father to appear, pressed hardly upon the working classes, and created a practical differentiation in the treatment of the rich and the poor. As was pointed out in these columns last week, not for the first time, magistrates who have refused certificates of exemption to persons definitely objecting to vaccination have acted unwisely. The Royal Commission, in recommending exemption on the ground of conscientious objection, desired to foster and encourage the practice of vaccination by doing away with cheap martyrdoms, and we are therefore glad to learn that the Home Secretary intends to issue another circular calling the attention of magistrates to the opinion expressed by the Lord Chief Justice as to the proper method of administering the conscientious objector clause.

Very little was said about the merits of vaccination as a prophylactic, and Mr. Lupton carefully avoided the statistics upon which his seconder maintained that the question must be decided. If it is so decided there need be no fear of the result, but so far as can be judged by the course of the debate the present House of Commons will be influenced not by argument, statistical or other, as to the value of the Jennerian prophylactic, but by a deeply-rooted objection to any legislation which interferes with the parent's right of private judgement.

The most important outcome of the debate is the announcement by the President of the Local Government Board that he is about to appoint a Committee to report upon certain alleged defects in the administration of the Act, and his implied promise to found legislation either next session or in the session of 1908 upon the results of the inquiries of this Committee. The matters which he proposes to refer to the Committee are, the large increase from £72,000 in 1899 to £270.000 last year in the cost of vaccination to the country; the irregularity in the action of magistrates in dealing with conscientious objectors and the cost to the individual of obtaining a certificate of exemption; the proposal to substitute a simple statutory declaration by either parent for the procedure before the magistrate; and the scheme put forward by the Dean of Gloucester, Dr. Bond and Mrs. Garrett Anderson (see p. 1011), proposing that the age at which the law shall require vaccination may be postponed until the time when the child enters school —that is to say, to the age of 5 or 6 years.

Finally, the Committee will be instructed to consider whether it would not be better to transfer the administration of the Vaccination Acts from the Boards of Guardians to the local public health authorities. As has been pointed out in these columns on many occasions, there is much to be said for this change; at the time when vaccination was entrusted to the guardians the public health administration of the country was very imperfectly organized, and there can be no doubt that the expedient would not have been resorted to under existing conditions.

THE FRIENDLY SOCIETIES' MEDICAL ALLIANCE.

THE twenty-seventh annual conference of the Friendly Societies' Medical Alliance took place at Cambridge on Easter Monday. This is an organization which aims at controlling and co-ordinating the work of all those Friendly Societies and allied bodies which include the provision of medical aid among their other functions. As the object of the annual conference is to discuss the relations of these bodies to the medical profession, it is but natural that their proceedings should afford us an exceptional opportunity of "seeing ours'els as ithers see us."

The proceedings of the conference are very fully reported in the *Cambridge Daily News* of April 17th from which we learn that the 74 delegates who took part in the conference claimed to represent some 300,000 persons. Having regard to the importance of the interests involved it is surprising to find a complete confusion existing in the minds of these organizers as to the status of the profession which they were discussing. Most of the speakers appeared to be under the impression that the General Medical Council was synonymous with the British Medical Association, and one even described the Sheffield Division of the Association as a branch of the "Medical Council." Such ignorance of easily-ascertainable facts seems inexcusable on the part of representatives of considerabl bodies of working people. With a few notable excep tions, moreover, there seemed to be a lamentable ten dency to regard medical men as the natural enemies o the working class. Thus Mr. Hind, of Chesterfield, eve went so far as to suggest that they should demand fron Parliament "a law to protect them against the con "spiracy of the British Medical Association."

Such sentiments are in marked contrast to the atti tude of some of the more enlightened of the presen Labour Party who are preaching the true community o interest of all those who earn their living, whether by trade or a profession. Fortunately, this view was no unheard at the conference. In a paper, entitled "One o Our Difficulties," Mr. Webb of Banbury dealt speciall with the difficulties that exist in many places in con nexion with contract medical practice. He frankl admitted that the causes of this friction "might b "found to rest with the medical associations and thei "management in the past." He further counselled hi hearers that the only way to remove these difficultie was to create such conditions as would be acceptable t the highest representatives of the profession. Unfor tunately, it is impossible to read the report of th conference without feeling that such sentiments we not shared by the majority of those present, and on speaker even suggested that they should bring some their own children up to study medicine, in order th they might in future have a class of medical men o whose complete subservience they might rely.

Passing from the general to the particular we no that the principle of allowing medical officers any of the affiliated societies to engage in priva practice was strongly condemned, as was the princip that contract appointments in any district should open to the whole of the medical men practising that area. It was evidently felt that both these arrang ments made for the comparative independence of t medical officers, and were therefore intolerable. Th is a clear definition of policy which will, unfortunatel counteract the effect of any number of conciliato speeches.

Among disputes that were specifically referred to w that at Rotherham, where legal proceedings against medical officer had involved the local society in an penditure of over £100. After some discussion it w decided to allocate £30 from the central funds to ass the local society in meeting this expense.

A very remarkable case was related in which t medical officer of a society at Chester had been giv three months' notice by his committee. He had th set up in private practice in that city, and the co mittee at once sued him under an agreement which had signed not to engage in private practice. T action was successful, and the medical man had to p £100. This case was regarded as so important tha resolution was passed to the effect that the evide and judgement in the case should be printed. Medi men will concur in this feeling, and it is to be hop that the facts will be made widely known, as a warni to medical men before signing agreements with institution of this sort. We can imagine nothing m unsatisfactory than the position of a medical man w should find himself not only subject to notice fro committee of working men, but actually debarred fr subsequently engaging in practice in the only dist where he had had a chance of making a connexion.

On the whole, this conference emphasizes importance of the work that is being done by Association in trying to improve the conditions contract practice.

IE INTERNATIONAL CONFERENCE OF SOCIETIES OF THE RED CROSS.

IE International Conference of Societies of the Red oss will meet in London in 1907, in the week com- ncing June 10th. The conference, which consists of presentatives of the various National Red Cross cieties, is held every five years. It met in Vienna in 97, when 184 delegates were present, and in St. tersburg in 1902, when 132 delegates were present. th the King and Queen have graciously expressed ir interest in this the first conference to be held in gland. Probably the chief topic to be discussed will the position of Red Cross vessels, a point that has not been defined in the Geneva Conventions. The Royal leges of Surgeons and Physicians have most gener- ly granted the use of the Examination Hall on the bankment for the conference, and arrangements for entertainment of the delegates are already being de.

MALTA FEVER.

OURTH report of the Commission appointed for the estigation of Mediterranean fever[1] carries on and plifies the work published in previous reports, and tains, as usual, some very interesting and useful ervations. The most important part of the contents without doubt, that which deals with goats and other mals as possible propagators of the disease; Staff geon Shaw, Major Horrocks, Captain Kennedy, Dr. Zammit have all written articles on the ject. To sum up the conclusions of those observers fly, it is now demonstrated that cows, mules, and s, as well as goats, suffer naturally from the disease ughout the island of Malta, and further, that nkeys and goats can be infected by feeding them nfected milk drawn from an infected animal. This eriment shows that milk must be considered as one, east, of the channels of infection in man, and strong support is given to this idea by the case, ntly published in the *Royal Army Medical Journal*, e ship which carried a number of goats from Malta Antwerp on the way to America. Unfortunately, ever, for preventive measures, this does not appear the only or even a common means of the spread he disease, as far as the white troops in Malta are erned, for Lieutenant-Colonel Davis, in his able and ustive article on the prevalence of Mediterranean amongst British troops in Malta in 1905, concludes milk infection has not been an important mode of agation, and his facts bear out this contention. It t be concluded, therefore, that, as in enteric fever, infection may be conveyed in different ways; as is one, it should never be partaken of unboiled, aken from infected animals, if this be possible. report deals also with the question of mosquitos and biting insects as carriers and disseminators of the fic germ, but here the conclusions are by no means ite or by any means convincing. The *Micrococcus ensis* was recovered 4 times out of a total of 896 uitos dissected for this purpose; but, even granted this organism may sometimes be found in the in the stomachs of the insects, it does not follow they may retransfer it back to man when they bite. For this to occur it would be necessary for erms to pass to the salivary glands, and so by way e salivary duct into the wound; but of this as yet is no proof. The case of Carlo Mifsud, the dant in the lazaretto, and the case of Monkey 3 reported by Captain Kennedy, though interest- are not sufficient; the former was dealing daily with infected animals and might quite easily have been infected in other ways; the monkey had been used for experiments before, and was constantly living in the endemic area. Numerous other experiments, all of which proved uniformly negative, tend to support the view that insects have nothing to do with the transference of the disease. It would be premature, however, to abandon the idea altogether, especially on the strength of these somewhat limited experiments; more researches carefully conducted on the lines of the recent yellow fever investigations are required, such as rearing insects, feeding them on infected animals, and then at various later dates allowing them to bite suitable non-infected animals, preferably just brought to the island. The work already done has cleared the ground very considerably, and its continuance will probably pave the way to some definite preventive measures, measures which are certainly urgently required. Immunization experiments on animals and the subsequent use of the serum in man might prove useful.

HOSPITAL RESIDENTS AND GENERAL PRACTITIONERS.

It is common enough for hospitals to be censured by coroners' juries, but fortunately it is extremely seldom that there is so much foundation for the censure as in a case in which a woman in imminent peril of her life was refused admission to Guy's Hospital on the ground that there was only one bed available, which was reserved for urgent cases! It is human to err, and usually there is nothing to be gained by picking out an offence for special note. This case, however, contains a lesson which may well be taken to heart by the young hospital residents who, apart from their own interests, hold in their hands the well-being of persons seeking assistance, and the reputation of the hospital which they represent. In this case a house surgeon, although he saw a patient twice in the space of twenty-four hours, overlooked the existence of mastoid suppuration and refused admission to the case, although the symptoms were so serious that when the patient was taken the same day, and almost the same hour as the second visit, to another hospital, an operation of urgency was instantly undertaken, the patient dying during its progress. To overlook a mastoid abscess is a sufficiently grave error in itself, but if that were all there might be nothing more to be said. In this case, however, the patient did not come unintroduced to the hospital. She brought with her a letter from a private practitioner who had seen her, and who stated that she had an abscess behind the ear which required opening. The house-surgeon however, in spite of this opinion, regarded the swelling as merely due to glandular enlargement not requiring operation, and appears to have considered that the patient's symptoms were sufficiently explained by other conditions, including heart disease. It can scarcely, however, be imagined that he would have taken this view had he attached importance to the general practitioner's opinion, and this is where the lesson comes in. Strange as it may seem to the young resident who has successfully passed the ordeal of examinations, the average general practitioner, though he may possibly in some points be lacking in knowledge of the latest up-to-date methods, is a person of vastly greater experience of disease than himself, and one whose opinion, especially when expressed in a letter to a hospital, is not lightly to be set aside by him. Moreover, as a matter of mere professional courtesy, and in the interest of general good feeling between hospitals and general practitioners, it is certain that special and particular consideration should be paid to any patient whom a general practitioner takes the trouble to furnish with a letter of introduction.

---

[1] orts of the Commission appointed by the Admiralty, the War and the Civil Government of Malta, for the investigation of rranean Fever. Under the supervision of an Advisory Com- of the Royal Society. Part IV. London: Harrison and Sons. Demy 8vo, pp. 187. 3s. 6d.)

A NEW 'PATHY.

THE chiropodists and barbers of New York have, we believe, Boards of examiners recognized by the State; osteopathy is, it would seem, on the point of gaining similar recognition. Dermapathy is now clamouring for a Board, with a seal and a president, secretary, and treasurer. The new sect evidently wishes to have, like Dogberry, everything handsome about it; but it may be asked, What is dermapathy? To this conundrum we are glad to be able to supply an answer from the Bill itself. One of its sections is to the following effect: The word or term "dermapathy" in this Act shall be understood to mean and embrace the treatment of the hair and scalp; and facial and other massage, mechanical manipulation, and the external application of hydropathy and electricity, in the treatment of and removal of blemishes from the human skin, and the removal of superfluous hair by electrolysis.

SCHOOL CLOSURE.

IT has been generally recognized that Article 57 (formerly 88) of the Day School Code which provides for the compulsory closing of public elementary schools has been skilfully devised in the interests of all those concerned. It may be likened to a safe with two keys, one held by the sanitary authority, the other by the medical officer of health, neither of which can be used alone; the medical officer of health cannot close a school, he can only advise the sanitary authority (or any two members) to do so, and the latter cannot order closure except upon the advice of the medical officer of health. This Article has worked so well for many years that any attempt to alter its provisions is to be regretted, and it is difficult to understand why such an attempt should have been made by the Glamorganshire Education Committee, a body which has shown itself to be particularly progressive as regards the sanitary surroundings of the schools with which it is concerned. In September last the district councils in the county which are within the area of control of the county education authority received a circular from the County Committee, in which it was stated that no school must be closed on account of epidemic disease except on the authority of the chief education official, who for the purpose of coming to a decision in the matter would confer with the county medical officer of health. The head teachers of the schools also received an intimation that they would be liable to instant dismissal if they closed their schools on the order of any one other than the chief official of the Committee. At the end of November one of the medical officers of health for the Swansea Rural District (Dr. Trafford Mitchell, D.P.H.) advised the closing of a school in his district in consequence of an outbreak of measles. An order was signed by two members of the District Council, and, in spite of the attitude taken up by the Education Committee, the school was closed. Dr. Mitchell sent a lengthy telegram to the chief education official detailing the circumstances, and three days later received a letter in reply to the effect that sanction for closing could not be given until the order of the local sanitary authority had been placed in his (the chief official's) hands. Dr. Mitchell is to be commended for at once laying the whole facts before the Local Government Board. A long correspondence took place between that department and the Board of Education, and the opinion of the Local Government Board was later expressed in these words: "As the "immediate closing of schools may on occasion be "required with a view to prevent the spread of disease "the Board would consider it undesirable from the point "of view of public health that a method of procedure "should be instituted which must of necessity involve "delay in complying with the requirement of the "sanitary authority. Of the necessity for immedia "closure in any case the local sanitary authority a "their medical officer of health are, in the opinion of t "Board, in the best position to form an opinion in t "first instance." The Board of Education wrote th they agreed with this view, and in a letter to t Glamorganshire Education Committee stated that "t "procedure sought to be enforced by which orders of t "sanitary authority are regarded as subject to revisi "by the local education authority is not in accordan "with Article 57 of the Code. Under that Article, eve "such order must be obeyed at once, and any objectio "which the local education authority, after consulti "their advisers, may entertain can only be enforced aft "compliance with the order, and by means of an appe "to the Board of Education." Dr. Mitchell is to be co gratulated upon the success which has met his effo to resist this attempt to interfere with the functions the medical officer of health and of the local sanita authority.

THE HEART OF A PHARAOH.

IN a recent number of the BRITISH MEDICAL JOURNAL was mentioned that Professor Lortet had commu cated to a scientific society at Lyons the results of microscopic examination of the heart of Rameses known to most of us in our school days as the gre Sesostris, who flourished thirty-one centuries ago. a meeting of the Paris Académie des Sciences, held April 2nd, Professor Lortet told the story of h researches in greater detail. Some months ago t authorities of the Louvre museums became the p sessors of four canopic vases said to contain the visce of Rameses. The vases, which are of blue enamel, ha on their sides beautifully-worked cartouches represe ing the names and attributes of the famous king. examining the contents, with the help of Professo Hugounenq, Renaud, and Rigaud, M. Lortet fou that three of the vases were filled with fine stri of linen closely stuck together with natron a aromatic resinous substances, reddish in colour, which probably the stomach, intestine, and liv were wrapped. These viscera, however, were rep sented only by some granular material of indet minable structure, mixed with a large quanti of natron. The fourth vase, the lid of whi was surmounted by a jackal's head, contained t heart. The organ was transformed into an ov shaped plate, about 8 centimetres in length by 4 breadth. The substance of the heart had become horny hardness, and in dividing it the saw had to used; then, with a razor, sections were made of sufficie fineness to allow of examination with the microsco In this way it was found that the horny substance w composed of muscular fibres which were perfect recognizable and were interlaced in bundles, as is t case in the cardiac muscle. As this arrangement not seen in any other part of the body but the tong and the latter organ is visible in the mummy Rameses preserved at Cairo, it was concluded th the material found in the canopic vase was t heart, flattened and transformed into a horny s stance owing to its having been embedded in natr for three thousand one hundred and sixty-fo years. Notwithstanding this, the observers state th the anatomical structure of the organ is still exc lently well preserved. It is only, we suppose, a frivolous mind that any doubt as to the genui ness of the venerable relic could occur. Archaeologis are of course never the dupes of the wily Oriental, w with intent to deceive, manufactures all manner antiquities, from coins to tiaras. We confess, howev that to us it matters little whether the flat horny s stance found in an ancient vase by M. Lortet is t heart of one Pharaoh or another. We are therefo

greatly perturbed to learn that, as was inevitable,
erman Egyptologist, Professor Blumenthal, believes
t the heart is not that of Rameses II, but that of
youngest son by Queen Isinofrit, Khâmoisîth. Of
t prince nothing seems to be known beyond the
that he is said to have stolen sacred books
n the mummy of an enchanter, for which
nce he was haunted by a ghoul. Professor
menthal's argument is that the heart in dis-
e presents signs of disease. On the other hand,
neses died a centenarian, and an examination of the
k granite head of him which is in the Turin
seum, and of his mummy mask, will show that he
of robust health. This seems to be curious
oning, even for an archaeologist. Granting that
heart found in the canopic vase shows signs of
ase—though no mention of this is made by Professor
et—it is surely somewhat rash to conclude that it
not have belonged to Rameses II because his image
in granite does not present the *facies* of cardiac
ase. Corvisart is said to have diagnosed heart
tion from a portrait, but metaphysical aid would be
ed to trace the physiognomical expression of any
ase in a mummy mask. It may be admitted that,
iori, disease of the heart would seem to be more
able in a young man haunted by a ghoul than in a
rful ruler who lived to be a hundred; but till
f to the contrary is forthcoming we prefer to
ve that the heart is indeed that of Sesostris. To
nsoever it may have belonged, a human heart which
for the last time more than three thousand years ago,
which is still anatomically recognizable, is an object
eat interest. To those who are afflicted with the
ical spirit we offer the following story by way of
ort. Some time ago the authorities of the Comédie
aise had presented to them what purported to be
e of Molière. After the first outburst of enthusiasm
subsided, some began to hint doubts as to the
neness of the relic. The situation was becoming
asant, when M. Jules Clarétie came to the rescue
the luminous suggestion that the bone should be
as it might have belonged to Regnard—as who
d say, If it is not Shakespeare's it may be Ben
n's.

ARDIANS AND THEIR MEDICAL OFFICERS.

cident which has recently closed in Staffordshire
iciently instructive to be worth noting by public
ators and by Poor-law medical officers. Some
go the Cheadle guardians adopted the report of a
mmittee, and asked the public vaccinators of the
to accept a reduction of 25 to 33 per cent. in their
To this the five medical men concerned demurred,
ked for an interview. This was refused, and a notice
nination of contract sent by the guardians to each
vaccinator. Thereon the latter made a request
onference on the combined subjects of Poor-law
s and vaccination fees, simultaneously sending to
uardian a printed statement of the work thrown
ublic vaccinators by the Act of 1898, and of some
considerations involved in a reduction of fees. This
t was at once accepted and a date fixed for the pro-
onference. Before it was held, however, the medical
sent a second printed circular to each guardian.
ntained tabular statements of the work done by
the officers as vaccinator and Poor-law medical
respectively. The vaccination return showed
regate fees received by each vaccinator in 1905,
mber of vaccinations he performed, the number
ts paid in respect of such vaccinations, the
e which he travelled to perform them (counting
e on the outward journey only), and the average
ch he received for each visit, including vaccina-
ressings, and mileage. Similarly the return
ing Poor-law work showed the number of visits
paid and of visits in consultation. The number of bottles of medicine supplied was also shown, together with an estimate of the cost of the latter if dispensed by a chemist on contract, and the average fee received for visit and advice. These returns seem to have disabused the guardians' minds of the conception that their medical officers were overpaid either for vaccination or for Poor-law work, and the conference when held ended in the resolution to reduce the vaccination fees being rescinded. It is important to note that the circulars described were succinct, clear documents of a business-like character, obscured by no superfluous statements of facts or opinion, and in neither case covering more than a foolscap sheet of large type. The honorary secretary of the committee into which the medical officers formed themselves was Dr. Ernest Mackenzie of Cheadle, who would perhaps supply copies of the circulars used to any medical men who may find themselves faced by similar circumstances.

HAMPSTEAD GENERAL HOSPITAL.

A CONFERENCE on the management of the Hampstead General Hospital is to be held under the auspices of the Hampstead Division at the Hampstead Conservatoire on May 5th, 1906, at 4.30 p.m. The business of the meeting will be to consider the following resolutions which were passed by the Hampstead Division at an exceptionally large meeting held on April 6th, 1906: (1) That an out-patient department is unnecessary; (2) That the casualty department be kept distinct from any other department, and the casualty patients, if not suitable for admission, be seen once, and thereon be referred to private practitioners, provident dispensaries, or Poor-law authorities. (3) That there be greater facilities for general practitioners of the neighbourhood to attend in-patients. (4) That there should be a service limit, as well as an age limit, to appointments to the medical staff. (5) That the outside medical profession should be adequately represented on the Board. The meeting will also consider the recent circular letter and questions issued by the Council of the hospital to the medical profession in Hampstead, in which, on the suggestion of the Executive Committee of King Edward's Hospital Fund, the question of the appointment of consultants to the acting staff of the hospital is raised; and will decide upon the steps to be taken to carry into effect the objects of the conference. It is pointed out in the circular convening the meeting that the Hampstead Hospital is at present in a transitional state, newly started on its present site, and incomplete; and that the present is therefore a suitable time to make every endeavour to bring about the changes in its management which the profession may consider desirable. The medical profession of Hampstead and its neighbourhood are therefore urgently invited to attend, as it is felt that the opinion of a large and representative meeting of local practitioners cannot fail to carry great weight with the bodies it is desired to influence. Institutions similar to the Hampstead General Hospital are springing up in many London suburbs, and it is thought probable that the action of the Hampstead profession will affect both public opinion and professional action in other places.

SPEED MANIA.

THAT our asylums are rapidly becoming filled with maniac automobilists we learned long ago from the daily papers, but their information has so far not been confirmed by those who are responsible for the conduct of those establishments. Dr. W. Lee Howard, however, writing in the *Quarterly Journal of Inebriety*, now has something to say on the subject; according to him, a desire to drive at high speed frequently attacks automobilists, and, in his own language, is the psychologic result of the high pressure which controls the active participants in the world's material improvements. The feature of the age is, he thinks, an increasing tendency towards explosions of psychic energy, and one objective symptom is speed mania, which he classes with drug and alcoholic mania. He seems to forget that our rude forefathers who raced each other and the coach on the road to Brighton or to York drove as fast as they could. Was this also due to their explosive psychic energy? for if so, the symptom is as old as civilization. However, for Dr. Howard fast driving and a delight in strong drink are, etiologically, one and the same thing. Nevertheless, he by no means condemns the automobile. Its use "is the best method we have of controlling and "satisfying the high psychic pressure of mental unrest." A dangerous dash "into the country on a racing "machine" is "a wholesome vent for the reckless "courage that otherwise would go to disorder and riotous "excess." When, therefore, we narrowly escape destruction in a country lane, at the hands of a thirty-mile automobilist, by falling into a ditch, we must obviously not resent the inconvenience. We must tell ourselves that the apparently grossly inconsiderate "bounder" is really merely a gentleman of high-toned nervous organization trying to calm himself down. That the doctrine is laudably altruistic is the best that can be said of it. An automobile drive in the country is doubtless an excellent recuperative after a hard day's work, but to obtain all possible benefit high speed driving is certainly not necessary, while the conception that automobile driving is especially to be encouraged on the part of persons whose nervous equilibrium is already trembling in the balance, is utterly untenable. On the contrary, such persons, though they may well be sent for automobile drives in order to obtain the sedative effect of exposure to briskly-moving air, should certainly not be allowed to take any part in the control of the machine. As for speed mania, if any such thing really exists, it should be treated, when recognized, as a dangerous form of lunacy; in the meantime, the best prophylactic is a series of heavy fines, endorsement of driving certificates, and expulsion from clubs which have the motor industry at heart.

WARNING NOTICES.

WE are asked by the Honorary Secretary of the Oxford Division of the British Medical Association to warn possible applicants for the post of District Medical Officer to the Chipping-Campden and Mickleton divisions of the Shipston-on-Stour Union, Gloucestershire, that the vacancy has arisen under circumstances which in the opinion of the local profession render it undesirable for any medical man to apply for the appointment until, at any rate, he has made full inquiry. Information will be supplied by Dr. W. Duigan, Honorary Secretary of the Oxford Division, 66, Woodstock Road, Oxford. Meanwhile we may say that we are informed that the two districts were formerly combined and worked from Campden, the salary paid being £120 a year. For some years past they have been worked separately, Dr. Dewhurst, of Campden, holding that district at a salary of £60 a year, and his partner, Dr. B. S. Johnson, the Mickleton district, at a salary of £40 a year. Recently Dr. Johnson, considering that the salary he received was inadequate, tendered his resignation, at the same time expressing his willingness to accept the office at a salary of £50 a year. This proposal was not agreed to by the guardians, who advertised a vacancy. The medical officer of a neighbouring district of the same union accepted the post, but, on representations from his colleagues, resigned it. Failing to obtain applicants for the Mickleton district, the guardians have announced their intention to combine it with Campden, and have offered the combined post to Dr. Dewhurst at a salary of £100—that is to say, £20 a year less than was forme paid. The circumstances, therefore, are of a nat which appear to us to render it highly undesirable for medical man to apply for the post at the reduced sala In the Warning Notice, published at p. 59 of advertisements, 23 districts are enumerated in wh disputes are in existence between the local medi profession and other bodies, and practitioners invited to communicate with the Honorary Secretary the Division or Branch, whose name is given in e instance, or with the Medical Secretary of the Asso tion, 429, Strand, London, W.C., before applying for appointment in the districts mentioned. The list includes Northumberland and Durham, Sheffield, Le (Lancs.) Infirmary, Rusholme Dispensary, Coven Macclesfield, Aberaman, Bridgend and Cardiff Glamorganshire, Abertysswg, Blenavon, and Ebbw in Monmouthshire, Aberystwyth, Bangor, Southamp Bitterne and the neighbourhood, Portsmouth, Low toft, Castle Hedingham or Yeldham (Essex), C Auckland (New Zealand), Orange River Colony Pretoria (South Africa).

INTERNATIONAL CONGRESS OF HYGIENE AN DEMOGRAPHY.

A MEETING was held at the Royal Sanitary Institute April 25th, under the chairmanship of Sir Shirley Murphy, when a committee was constituted to m arrangements for the representation of this cou at the twelfth International Congress of Hygi and Demography to be held in Berlin f September 23rd to 29th, 1907. Sir Shirley Mur was elected Chairman of the British Commit Mr. T. W. Cutler, F.R.I.B.A., Treasurer, and Paul F. Moline, 42, Walton Street, London, S and Dr. G. F. Nuttall, 3, Cranmer Road, Cambri Honorary Secretaries. The Congress will be divi into eight sections: (1) Microbiology and Parasitol (2) Diet and Physiology; (3) Hygiene of Childhood Schools; (4) Industrial Hygiene; (5) The Preventio Infectious Disease and the Care of the Sick; (6) Hygiene of Dwellings, Workshops and Traffic; (7) N Military, and Colonial Hygiene; (8) Demography. Secretary-General of the Congress is Dr. Niet 9, Eichhornstrasse, Berlin, W. A hygienic exhibi to be held during the Congress, will be organize Professor Rubner, 4, Hessischestrasse, Berlin, N.

THE President of the Local Government Board appointed Mr. A. W. J. MacFadden, M.B., C.M., D. late Medical Officer of Health of Edmonton, to the of Assistant Inspector of Foods, etc., in the Me Department of the Board.

THE Welsh medical dinner will take place at Criterion Restaurant, London, on Friday, May 18th, Dr. Frederick T. Roberts will take the chair at 7.30 Sir John Williams presided at the first Welsh di which took place in 1904, and Sir Richard Douglas P at the dinner last year.

THE first public meeting of the reorganized Br Red Cross Society will be held at the Mansion H on May 23rd. Among the speakers will be the Chai of Council (Lord Rothschild), the First Lord o Admiralty, General Sir John French, and Sir Fred Treves (Chairman of the Executive Council of Society).

COURSES of instruction in ophthalmology will be at the Royal Eye Hospital, Southwark, during May, and July. Sir William Collins, M.P., will delive inaugural lecture on Monday next, at 8 p.m. Fu particulars will be found in our advertising columns.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

THE House of Commons reassembled after the Easter ecess on Tuesday. Under the new rules, the Speaker took he chair shortly after a quarter to three. The attendance was not large, and various Bills were advanced a stage, in-luding the Notice of Accidents Bill, which was read a hird time. When the resolutions passed in Committee of upply were reported on the vote of £490,000 for Army Medical Establishments, Mr. Weir asked the Secretary for War to give his attention to the provision of satisfactory nd up-to-date instruments and appliances in the military ospitals of this country. India and Japan were, he said, ar in advance of us in this respect. The vote was agreed o, and the House adjourned at an early hour.

Compulsory Vaccination.—On Wednesday evening Mr. upton (Lincolnshire, Sleaford), in a thin House, called ttention to the subject of vaccination, and moved:

> That in the opinion of this House vaccination ought no longer to be obligatory on those who regard it as useless or dangerous.

obody, he thought, could object to so moderate a pro-osition. After referring to the circumstances under hich compulsory vaccination had been established y the Act of 1853, he said that in 1898, after e Royal Commission had reported, Parliament ad given up the idea of compulsory legislation. The tentions of Parliament had been frustrated by the ay in which magistrates had acted; in many cases condi-ons had been imposed with regard to certificates of emption on the ground of conscientious objection, hich pressed very hardly upon parents of the working ass. The conditions were onerous in two respects: st, owing to the loss of wages and the cost of the rtificate; and, secondly, owing to the browbeating hich applicants had to endure. He related a number of ses to illustrate the first point, among others one in ich an agricultural labourer in his constituency, whose ages were 15s. a week, was put to an expense which he Mr. Lupton) estimated at 11s. The man, and there were any others in a like position, could only meet such an penditure by starving himself and his family. Moreover, ere was the uncertainty whether after this expenditure, the greater part of it, had been incurred, the certificate exemption would, after all, be obtained. Mr. Lupton nt on more briefly to discuss the merits of vac-ation as a prophylactic; he asserted that medical inion was divided, and that there was as weighty autho-y against it as for it. He alleged that medical opinion d changed both with regard to its efficacy and the man-r in which this efficacy was to be estimated, as to the ode in which the operation should be performed, and as the kind of lymph to be used. The Local Government ard required that four large distinct punctures should be ade, and that the scars should be of a certain size. Dr. onckton Copeman, whose authority would be recog-ized by pro-vaccinists, had stated that by the use glycerinated calf lymph sufficient protection might given with hardly any marks at all. Medical views to the best lymph to use had changed: before 98 arm-to-arm vaccination had been required; in at year the change to glycerinated calf lymph was made. ycerine was said to destroy the streptococci and staphylo-ci present in the lymph; but it did not always succeed doing this, and many children were killed and many ople were disfigured by vaccination with this so-called re calf lymph. He related certain cases in the division represented in which he alleged that death or ious illness had been produced. He read out, amidst sympathetic laughter of the House, part of a long list members of Parliament who, he said, were pledged to abolition of compulsion, and expressed the belief that a House of Commons in which liberal principles had so enormous a majority, and to which the liberty of the people was so dear, would not hesitate to abolish compulsion. He appealed to the Government to recognize the desire of the House that there should be complete individual liberty of opinion.

Mr. John M. Robertson (Northumberland, Tyneside) criticized the articles published last week in the BRITISH MEDICAL JOURNAL. He declared with some passion that the intentions of Parliament in the Act of 1898 had been grossly over-ridden by the magistrates. Some people were disposed to think that the administration of the law would be improved if a few magistrates were sent to prison; they acted on the assumption that doctors must be right, and that any one who opposed them showed ignorance or worse. But the question was not strictly a medical question; it was a statistical question, and he claimed to be as competent to judge the meaning of statistics as any doctor or any magistrate. The whole history of vaccination was a history of one error after another tardily acknowledged and glozed over; the Act of 1854 was passed in a moment of panic, but it would not have been passed but for a strong statement put forth by the Epidemiological Society to the effect that vaccination afforded complete protection from small-pox. That assertion was no longer maintained by the medical profession; that profession was from the very nature of things always finding out that it had been in error; and it was a very singular fact that the only medical proposition in regard to which there was serious and angry dispute in this country was the one medical dogma which was financially endowed by the State. They would never have the medical truth on this matter until vaccination was no longer endowed by the State. In this motion, however, they were not asking for that. They were putting forward a claim so just that he could not conceive that His Majesty's Government could set their faces against it. Either vaccination was a prophylactic or it was not. If it was, every man could protect himself and his own family as far as he pleased. If it was a prophylactic, there was on that very ground no reason to insist that other men should use that prophylactic. If it was not a true prophylactic, it was an iniquity. The medical profession could no longer deny that hundreds had been killed by it, while many had been seriously injured by it, and in face of those facts there was no excuse for the maintenance of coercion. Coercion was monstrous, and he asked the House to pass the resolution, trusting that it would elicit from the Government the kind of legislation that was needed. When Mr. Robertson sat down there were some cries of "Agreed."

Mr. Pickersgill (Bethnal Green, S.W.) said that if the pledges given in 1898 had been kept, the House would not have been engaged in that discussion. Sir Robert Finlay declared during the passage of the Act of 1898 that the application to a magistrate for an exemption certificate would be a pure formality. This pledge had not been fulfilled; poor applicants were bullied, insulted, and humiliated, but he noticed that when the Duke of Hamilton applied recently for a certificate of exemption he was treated with the utmost courtesy and consideration; the humblest applicant was entitled to the same courtesy as the premier duke of Scotland. Medical opinion was always changing, and the letter signed by representatives of the Jenner Society was significant. It proposed, in view of the beneficial effects of improved sanitation, that the vaccination of children might be postponed until they were 5 or 6 years of age. This was to concede the whole case of the opponents of vaccination.

At the conclusion of this speech there were many cries of "Agreed." Mr. Burns, however, on being appealed to from the Opposition side below the gangway, rose and made the following speech, during the course of which he quoted largely from numerous documents before him:

He said that the important points raised were receiving the anxious consideration of himself and the department over which he presided. There was a good deal of justification for some of the statements made as to the harshness with which the Act was administered and as to the differentiation that was made between various classes of applicants for certificates of exemption. As one who himself had not been vaccinated, he must, however, point out that the Act of 1898 was not compulsory. Under conditions sometimes, it was true, objectionable, and even humiliating, any conscientious objector could obtain exemption from vaccination for his children. The difficulty was mainly administrative. The injustice was due to lack of uniformity in administration and to the capricious action of magistrates, who occasionally behaved in a manner that was neither creditable to themselves or to the dignity of their office. He had heard of the manner in which a certificate of exemption had been granted to the Duke of Hamilton; it had been granted in the proper manner and in the manner in which it should be granted to every applicant. He quoted from a newspaper report the case in which a wealthy gentleman of Tunbridge Wells was granted a certificate, the magistrate overlooking the fact that the birth certificate of the child was not produced, and that no reason for the application was given. Previously applicants had been closely cross-examined by the Bench. The poor workman, whose conscientious objection might be as well grounded as that of the Duke of Hamilton or of the wealthy gentleman from Tunbridge Wells, was often very nervous in presenting himself at a police-court, and unable to express his objections as well as the man in more comfortable circumstances. It had been proved that in the administration of the Act there was such differentiation as ought not to prevail, and that certain magistrates did little credit to the Bench by the manner in which they hectored and browbeat poor applicants. When the late Government was in office the then Home Secretary had found it necessary to issue a circular to magistrates and had quoted certain remarks made at Birmingham by the Lord Chief Justice, which were in many respects a stronger criticism on the way in which the Act of 1898 had been administered than any that had fallen from members during the debate. The Lord Chief Justice said the magistrate had only to be satisfied that the parent had a conscientious belief that vaccination would be prejudicial to the health of his child; but it was obvious that magistrates had not carried out the injunction of the Lord Chief Justice or the spirit of the Act. The present Home Secretary intended to issue another circular, and, with Mr. Gladstone's permission, he (Mr. Burns) was able to read the draft to the House; it would substantially repeat the view of the law expressed by the Lord Chief Justice, and would go a little further than the previous circular, magistrates being reminded that the grounds of the objector's opinion were not to be made reason for refusing a certificate, and that the trouble and expense to which the applicant had been put should be taken into consideration. He was surprised that neither the mover nor the seconder of the resolution had referred to the great increase in the cost of vaccination to the country; it had risen from £72,000 in 1899, the year after that in which the last Vaccination Act was passed, to £270,000 in the last year, that was to say, the total cost had been trebled in the period. There was a lack of uniformity in the treatment of various classes of applicants and a relative disproportion in the expenditure inflicted upon the poor in obtaining a certificate of exemption. He had not yet had time fully to consider all the defects in administration which the working of the Act had disclosed, and he proposed to institute an inquiry not necessarily by a Committee of the House, an inquiry which should be speedily carried through, with the view of obtaining information as to the directions which new legislation should take; there was no prospect of legislation in the present session, so that no time would be lost. The subjects with regard to which he considered that inquiry was necessary were: firstly, the cost to the country of the vaccination under present conditions; secondly, the cost to the individual of obtaining a certificate of exemption, and the irregularity in the action of magistrates in this respect; thirdly, it would be necessary to consider whether a statutory declaration might not be substituted for the present system, which, owing to the arbitrary and indiscreet action of magistrates, had been made humiliating to applicants, and had provoked resistance to the Act; fourthly, he considered that the suggestion contained in the letter* to which reference had already been made was worthy of more consideration than some members appeared to believe. There was, he thought, something in the proposal to permit the temporary suspension of vaccination from early infancy to an age when the risk of evil consequences would be minimized. Fifthly, it would be desirable to consider whether it would not be advisable to make an alteration in respect to the authority charged with the administration of the Acts. It might be found better to transfer its administration from the guardians to the health authorities. Upon this point there was, he was aware, much difference of opinion, and upon it, and upon the other points enumerated, he considered that inquiry was necessary. He could not accept the resolution, which as moved went further than by his speech Mr. Lupton seemed to desire to go, but he would assure him with all sympathy that the inquiry should be undertaken immediately and in all earnestness. On the grounds he had stated, the impracticability of legislation this year, the fact that the Home Secretary was about to issue a new circular to magistrates, and the necessity which he himself felt for further inquiry upon the points he had stated, he appealed to the hon. member to withdraw his resolution.

Mr. Eugene Wason (Clackmannan and Kinross) expressed the hope that in considering the administration of the Act the President of the Local Government Board would use his influence with his colleagues in the Government to have the reforms extended to Scotland, and the claims of the conscientious objector in that country recognized.

Sir William Collins, after thanking the President of the Local Government Board for his sympathetic speech, said that there was one point upon which the Royal Commission, of which he had been a member, was unanimous, and that was that the honest objector to vaccination should not be subject to any penalty. Experience of the working of the Act of 1898 had shown that it did not carry out either the recommendations of the Royal Commission or the intentions of those who were responsible for the legislation of 1898, for owing to the way in which magistrates had interpreted their duty under the Act, compulsion in a modified form was being carried out through the length and breadth of the country. Having regard to all the circumstances, he was in favour of the total abolition of compulsion.

Mr. Lupton said that the debate had achieved his object, and that in view of the sympathetic speech of the President of the Local Government Board, he would withdraw the motion.

The debate had lasted one hour and a half.

---

* See p. 1011.

Universal Naval and Military Service.—At the last Chapter of the Guild of St. Luke, Dr. W. Culver James read a paper on the *Church and Universal Naval and Military Service*, with practical suggestions. After pointing out that the Church must look with approbation on all that conduces to discipline and self-denial, and in this is in accord with the medical profession, he brought forward arguments to show the necessity and the importance of every man being trained to assist his country in case of war. The scheme which Dr. Culver James proposed retains the present division of the services into regular, militia, and volunteer branches. He would modify to some extent the conditions and term of service in these various branches, into which enlistment would still be voluntary. All able-bodied Britons who did not join the navy or army voluntarily, either as regulars, militia, or volunteers, would, however, be compelled to serve in what he terms the second militia—either naval or military. It is in the establishment of this new branch of the services that Dr. Culver James's scheme differs from previous recommendations. The advisability of instituting what would be practically a penal branch of the navy and army is open to question. The paper is worth reading and deserves consideration.

Canada.

"Patent Medicines."

ie Inland Revenue Department has published the sults of analyses of a number of the best-known "patent dicines" sold in Canada. The particulars are highly eresting, and may lead to legislation which will hibit their sale under the present conditions. It is ite probable that a great number of the preparations taining a large proportion of alcohol will be taxed like y beverage containing a similar percentage of spirit. r example, Mr. McGill reports as follows on "Peruna"; rom the small percentage of total solids contained in s article—less than is found in ordinary Scotch whisky— does not appear to belong to the class of patent dicines. The quantity of alcohol found in it (40 per t. proof spirit) is considerably higher than the ngest port wine, and about two-thirds that of the inary grades of whisky. It becomes a question as to ether it can be legally sold by druggists without liquor licence." In regard to "Ozone," he says: ince this article contains a substance whose perties are opposite of those indicated by the name, sale would appear to be illegal under Section 2 of the lteration Act. . . . ." He reports similarly under tract of sarsaparilla." Further, in regard to "Head- e powders," his report is as follows: "I may say that ntitative estimation of the active drug (acetanilide, ifebrin, phenacetin) has in every case been attempted. ing to the presence of interfering substances of very efinite nature, such as ginger, liquorice, etc., these mations are less exact than could be wished, but they e demonstrated that acetanilide is present to the nt of about 3 gr. in most of the powders containing it, le the amount of phenacetin present in two prepara- s containing it does not exceed 5 gr."

The Prevention of Consumption.

he Canadian Association for the Prevention of erculosis held its sixth annual meeting in the iament Buildings at Ottawa on March 28th.

ie reports showed that the Association is making uraging headway in the educational work it has ertaken, although one dissenting voice to this opinion heard in Dr. Fagan, Health Officer of British umbia, who held that not much had been accom- hed by the members during the past five years. The . W. C. Edwards, the President, took strong exception is assertion, and stated that it should not be forgotten the mission of the Association was purely educa- al. It had not the money for building sanatoriums, the work was in every respect only beginning to exert roper influence.

s Excellency Earl Grey expressed the belief that there still great hope for the enterprise the Association had rtaken. If tuberculosis was a preventable disease, could it not be banished in the same way as leprosy banished from the British Isles by our forefathers?

e annual report read by the Secretary, the Rev. Moore, stated that definite advance had been made in cing the Government to step in and take action in d to the prevention of tuberculosis. A circular had sent to the ministers of education of the several nces suggesting that medical inspection of schools, the special view of preventing the spread of con- tion, should be carried out in every district; and a rable reply had been received from all, showing that est had been thoroughly awakened. For a time at difficulty would be found in enforcing regulations of nature in the country districts, but some of the cities lready taken up the question in a practical way, and ppointed medical examiners for this important duty. ports from the various Branches were also read and g those of great interest was that of Montreal. In the year twenty-two aliens suffering from consumption een deported. Fifty cases had been sent to homes curables, seventy others had received hospital atten- The inspector had made 4,785 visits to the homes ferers, and 799 disinfections had been carried out. hlets had been distributed by the thousand, and a nsary had been started, for consumptives alone, that d good results. The City Council had increased the l grant from 700 dols. to 1,500 dols., in addition to the services of an inspector and a grant of property for the erection of shacks. The Ottawa Branch had an anti-spitting by-law in force and the erection of a sanatorium was in hand. The Hamilton report was equally encouraging. The local association had received subscriptions to the amount of 25,000 dols. in cash and 11,000 dols. is promised for the purpose of erecting a sanatorium.

Sir James Grant, M.D., K.C.M.G., in an address to the meeting, advocated the general adoption of medical inspection in schools. Tuberculosis, he said, was really quite common at school ages, and it was in the school and in the home that efforts to combat the general prevalence of tuberculosis must commence. Success must depend upon the correct appreciation of causes, and those causes could not be better studied than in the circumstances of early life. Apart from this, medical inspection in schools would enable correct therapeutic and sanitary measures to be taken in each individual case, and thus directly tend to lessen mortality. There were at least 8,000 consumptives in the Dominion, each of whom in facultative work alone represented an immense economic loss to the State. At present no adequate organization for their treatment existed, but the Dominion Legislature seemed favourably inclined towards active measures. So far, however, nothing had been done beyond making a small grant towards the expenses of the Association, though the Provincial Government of Ontario was ready to make a grant, not exceeding four million dollars in any one case, or 40 per cent. of the cost of any sanatoriums which municipal bodies might erect. Certain counties had already combined for the erection of such sanatoriums, and others should follow their example. Meantime very simple structures would suffice, the important points being competent medical attendants and nurses. As for child labour in connexion with tuberculosis, this at present was not in Canada a pressing question; nevertheless, it was a matter upon which the Association must keep a watchful eye.

The Royal Sanitary Institute.

The inaugural meeting of the Canadian members of the Royal Sanitary Institute marked an important step in the progress of sanitation in the Dominion. The Institute has for patron His Majesty the King, and it was most fitting for His Excellency the Governor-General to grace the gathering in Montreal, not only as the representative of the King, but also because he is personally interested in the progress of hygiene in Canada. Dr. Starkey, Professor of Hygiene, McGill University, said that the Institute held examinations all over the empire for sanitary inspectors, food and meat inspectors, school teachers, and others who wished to make themselves proficient in sanitary science. Lectures and courses of instruction suitable for candidates for these examinations were arranged for by the Institute. By providing men and women with the necessary training and standing qualifying them to undertake work in a public capacity the Royal Sanitary Institute was doing good service. It would be a shortsighted policy for sanitary authorities not to avail themselves of these trained and qualified servants.

Hospitals for Infectious Disease.

At a meeting of the subscribers to the Alexandra Hospital for Contagious Diseases, Montreal, Dr. Roddick, President of the Board of Governors, reported that the hospital would be ready for occupation early in April. The site at Point St. Charles, which was thought at first to be undesirable, is now considered by all to be almost ideal. Through the generosity of Sir William Macdonald the original area of land has been considerably increased by the addition of a lot of land immediately adjoining the east side, thus making isolation more complete.

The hospital presents many novel features; there are three pavilions for measles, scarlet fever, and diphtheria, communicating with the central kitchen by a system of inclined passages, which afford perfect isolation. The Medical Board is composed of three members of the attending staff of the Montreal General and Royal Victoria hospitals respectively, and two from the Western Hospital. Dr. Fyshe has been appointed resident medical officer, and Miss Montgomery, lady superintendent. Over 151,000 dols. has been subscribed, and all but 12,000 dols. paid up, but as the buildings have cost about 250,000 dols., about

100,000 dols. will be required before the hospital is free of debt.

With the completion of the St. Paul's Hospital for Catholics and the Alexandra Hospital for Protestants, Montreal at last stands in a position to cope with the question of infectious diseases in a competent manner. The city will pay the hospital 15,000 dols. a year for twenty-five years, together with 1 dol. a day for each patient above the number of twenty, and while the hospital will furnish the ambulance, the city will disinfect the house whence the patient has been removed. In order to obtain this income the hospital must construct and maintain three separate pavilions suitable for the accommodation of at least one hundred patients. The St. Paul's Hospital has a similar arrangement with the city.

ASEPTIC TECHNIQUE AT TORONTO.

Rules of technique for the Toronto General Hospital Operating Theatre have been published; they are very complete and thorough, but the only novel feature is the instruction as to the dress of the surgeon, assistants, and nurses. The surgeon may, and the assistants and assisting nurse shall, wear rubber gloves, the sleeves shall be so long that they may be overlapped by the gloves, caps with visors to cover the nose and mouth, and, in the case of the nurse, to cover entirely her hair, shall be worn by operators and assistants.

ANTIVACCINATION.

After a lengthy campaign the antivaccinationists have succeeded in having compulsory vaccination done away with in the public schools of Toronto; there was no serious opposition on the part of those who favour compulsory vaccination, but it would not be fair to take this fact as an indication of the general opinion in the city on the question of vaccination. Many who oppose compulsory vaccination approve of the treatment, but small-pox in Toronto has recently been so mild that the inconvenience resulting from the quarantine has been the worst part of the matter. At a recent meeting of the City Council Dr. Sheard, Medical Health Officer for Toronto, expressed himself very strongly on the question, and pointed out that the outbreak of small-pox in a city like Toronto, after a few years' freedom from compulsory vaccination, would result in a boycott of the city by business men and travellers from which it would take years to recover; in the case of Montreal the immediate loss at the time of an outbreak a few years ago was estimated at 2,000,000 dollars.

SANITATION IN A MINING TOWN.

Cobalt, the new mining town in Northern Ontario, the extraordinary richness of whose silver deposits bids fair to make it one of the great mining camps of the world, is already confronted with the question of sanitation. The town is situated on the shore of a lake about a mile long and 400 yards broad. It derives most of its water supply from this lake and from a spring in the town. Examination has proved that both are contaminated with sewage. The ice of the lake has been cut during the past winter, but the Provincial Board of Health, which has taken the matter in hand, has ordered that the ice be used only for cooling purposes, and that all water be boiled. The difficulty in enforcing such regulations arises from the fact that Cobalt is not yet an organized municipality, and the population which is crowding in from every part of America is not of the class which takes precautions in such matters. As soon as the municipality is organized a new water supply will have to be sought from one of the neighbouring lakes situated on a higher level, while Cobalt Lake will receive the natural drainage of the town.

EPIDEMIC CEREBRO-SPINAL MENINGITIS.

Four fatal cases from this disease in one family are reported in the *Sanitary Journal of the Provincial Board of Health of Ontario* (Parts II and III of the Twenty-fourth Annual Report) from the village of South Indian, County of Russell. Father, brother, sister, and nephew were attacked, and the history shows the virulence of the disease and the directness of the infection. The history of one case is given in abstract:

> P. G., aged 25, farmer, assisted in the nursing of his uncle, who died from the disease. On February 14th he complained of symptoms simulating influenza, with soreness of the legs, and stopped work. The next day stiffness of the neck wa marked as were also the head symptoms, despite the use salol and phenacetin in 5-gr. doses each, and hypodermi injections of morphine. When in the erect position the hea was forcibly extended and there was diplopia. There w pain in the knees, legs, muscles, and bones generall Remedies were applied but without any apparent relief, th greatest benefit being obtained from the use of opium; times the patient was markedly delirious. On the fourth da he became unconscious, his left side was paralysed; dark spo appeared some two or three days on the body and legs befo his death on the tenth day of the disease.

Since 1897 there have been 1,140 deaths from the di ease in the province, the highest number being 214 1899 and the lowest 101 in 1902. These cases do n include the tuberculous form of the malady.

ISOLATION OF MEASLES.

It is an anomaly of hospital service in Canada th while there is accommodation for serious diseases, such scarlatina and small-pox, there is no place where a case measles or chicken-pox will be received. This w illustrated in the case of a family which recently reach Toronto from England, and were found on arrival to suffering from measles. It was only after the greate difficulty that a place could be found where they we looked after, as neither the Isolation Hospital nor t general hospitals would admit them.

ASYLUM FINANCE.

In Ontario the asylums for the insane are almo entirely supported by the Government, but a charge made for maintenance against the friends if they are ab to pay, in other cases against the municipality; in th way, during the last year, there was contributed the su of $148,121.09. The total expenditure on hospitals a charities was $236,592.75.

Singapore.

THE NEW MEDICAL SCHOOL.

WE have been favoured by the Secretary of State for t Colonies with a copy of the rules drawn up for t Government Medical School by the Council and Govern of the Straits and Federated Malay States. This, t youngest foundation of its kind in existence, may be co gratulated on being able literally "to begin where i parents left off." The school was only founded last ye under an ordinance of the Legislative Council, and provides a five years' course with a curriculum practical identical with that now adopted in the best Europe schools. The history of this new school is most intere ing, and shows that it is the outcome of the enterpri and desire for improvement in medical matters of t Chinese and other Asiatic residents in the Colony, and t hearty encouragement and co-operation of the Govern Sir John Anderson, and the rest of the Engli population.

The establishment of the school was first advocated Dr. Simon, C.M.G., late Principal Civil Medical Officer the colony, as a means of remedying the conditions th existed among the poorer parts of the native populatic who were almost debarred from qualified medical atten ance. A Commission appointed to inquire into t education of the colony in 1902, while admitting t benefits that would accrue from the foundation of t school, regretted that the evidence before them of t availability of native material was insufficient to justi them in recommending the scheme.

However, in 1904, a petition was addressed to Sir Jo Anderson which was signed by the leading Chinese a other non-European residents, headed by the Hon. T Jiak Kim. This petition reiterated the necessity for t school, and offered good reasons for believing that t difficulties referred to by the Commissioners in 1902 w not insuperable. To this memorial the Governor repli in the most sympathetic spirit, but pointed out that attract the best students from the native schools it wou be necessary to provide largely in the way of scholarshi For this purpose he estimated that a fund of $60, would have to be provided. The Government, howev had at its disposal a building which could be converted the uses of the school at a cost of $1,000, and the equi ment was estimated to cost $10,000. As the formation he school was so much in the nature of experiment, he Government could not undertake it without some uarantee as to part at least of the expense involved and he continued interest of the Chinese and other non-uropean residents. If the latter would provide the itial sum required, $71,000, the Government would ndertake the payment of the staff and other maintenance harges, provisionally estimated at $13,200 per annum.

This offer was cordially accepted by the Chinese community, and a collection was organized which resulted in e provision of over $87,000. Under these highly favourble auspices the school has been started and is now at ork, but the papers before us do not give the number of udents entered up to the present.

As the school is primarily intended for native boys ho have passed the seventh standard of the local hools, the standard of preliminary education is necesrily somewhat slow, but otherwise, as we have said, e curriculum will bear comparison with any in this untry. Books and apparatus are provided for the idents, and the fees for the entire course, including s for examination and diploma, only amount to $280. e school is under the control of a Principal, Dr. D. Freer, and a council of ten. A very admirable ecedent is formed by the fact that one member of the uncil is the nominee of the Malayan Branch of the itish Medical Association.

There can be no doubt that the establishment of this ool will prove an inestimable benefit to the natives of Colony, and will at the same time provide first-rate ive material for the local Government medical service.

Ceylon.

E Colonial Office Report on Ceylon, published last k, deals with the year 1904. It certainly seems not much to ask, in these days of rapid intercommunica-, that the public should get its information a little cker, but it is stated that "the Report has been ayed owing to the revision of the accounts of the ny." In the section devoted to vital statistics the ulation is estimated at 3,812,931—an increase of 1.9 per t. for the year. The birth-rate was 38 per mille, the th-rate 24.6, and both show decrease, the first of 2 per t., the latter of 1.3 per cent. The general health of island was satisfactory, no epidemics of small-pox or lera occurring—the first time, with the exception of , that such immunity has been recorded. Two dist and serious outbreaks of malarial fever occurred at wal and at Mahara gaol, the curious fact about the er being that the only mosquitos found were of the *arbirostris* species, which is supposed not to carry the site. The continued prevalence of leprosy is notethy, 444 cases receiving treatment at the Hendala um during the year, while 144 cases were reported where. The leprolin serum of Dr. Rost was tried three instances "with very satisfactory results," no more serum could be obtained. The Indian ernment has now undertaken to test its efficacy, and tandardize it before supplying it to the public. new Victoria Eye Hospital, to commemorate the reign ueen Victoria, has been opened, the cost (£15,000) g borne half by public subscription and half by ernment. Ankylostomiasis is increasing. There were admissions to the hospitals, with a case-mortality of per cent. The disease is being constantly reintrod from India with the batches of Malabar coolies. It thought at one time that diphtheria was unknown on island, but a few cases occurred, the diagnosis of h was confirmed by the discovery of the bacillus. s, so common a disease in Ceylon, seems to be fairly onary. There were threatenings of plague, and ayton's disinfecting apparatus was established in mbo harbour, but no case appeared other than those ght by vessels. There was an abnormally high mor- from fever in Jaffna and Mannar, both in the low- northern part of the island, and the estimated lation of these districts decreased by 383 and 188 ctively. January and February were, as usual, the unhealthy months in the year.

e sewage system of Colombo is still mainly by cess- but a scheme of drainage for the city is being gradually carried out. It will take five years to complete, and will cost over Rs. 4,000,000. The general sanitary condition of most of the towns seems to leave a good deal to be desired.

A new scheme of training native midwives has been started, and eleven have already been trained and sent out. In the De Soysa Bacteriological Institute special investigations on the haematozoa of vertebrates were carried out by Drs. Castellani and Willey. A post-graduate course lasting a fortnight was held in Colombo to enable medical officers at out-stations to familiarize themselves with recent advances in bacteriology and surgery. A curious feature of the year was a temperance wave, which spread over the country in a very remarkable manner. Originally started in the Southern Provinces, associations were soon formed all over the island. By the end of the year, however, the movement abated, and the people returned more or less to their ordinary habits.

Scotland.

Post-graduate Work in Edinburgh.

This autumn will see in Edinburgh the initiation of a systematized course of post-graduate study. All the medical authorities in the city, the hospitals, university, and extramural school are working whole-heartedly in the scheme, and an influential and energetic committee has been formed to arrange details. The classes, which in all probability will commence early in September and last for four weeks, will include the greater number of special subjects, and will each be conducted by a well-recognized authority on the subject.

Royal Hospital for Sick Children, Edinburgh Convalescent Home.

Some twenty miles without the city of Edinburgh, in an ideal situation and close to the sea, the Royal Hospital for Sick Children has been fortunate enough to acquire the much-needed convalescent home. A munificent legacy of a large house with ample grounds, in the near neighbourhood of Gullane, has rendered this possible, and within the next few weeks it is expected that the home will be ready for the reception of patients. As a commencement it is proposed that accommodation be provided for twenty children, along with a matron, three nurses, and the household staff, while later further accommodation will doubtless be obtained. The grounds are large and sheltered, and will in part be devoted to vegetable gardening, and at the same time it is to be hoped that the claims and possibilities of a dairy farm will be considered. The upkeep of the home will necessitate considerable additional annual outlay, but looking to the extreme importance and value of its establishment it seems not too much to look forward to the early removal of all financial difficulties.

Spring Graduation Ceremonies at Glasgow.

Gilmorehill has been *en fête* during the past week. The graduation ceremony took place on April 17th. In the evening a *conversazione* was held in the Bute Hall. This is now an annual celebration held on the evening of the spring graduation. It was felt that old graduates got too much out of touch with their Alma Mater, and to obviate this graduates of special years are invited to meet the graduates of more recent date. In the present instance the members of council registered in 1896-7-8-9 were invited along with those who graduated in 1904-5-6. The result of the invitations was a very large attendance of old and recent graduates, and a pleasant evening was spent in renewing old acquaintances and in forming new ones. There is no doubt that the efforts of the Committee which arranges these *conversaziones* are stimulating the interest of old graduates in their Alma Mater.

On the following day the Commemoration Service was held. Commemoration Day is a recent institution which was introduced into the academic life a couple of years ago. It is intended to hold a Commemoration Day every second year. Its object is primarily to stimulate the interest of old graduates in their University, and at the same time commemorate the names of great men who have been associated with the life of the University. The arrangements are made by a joint committee representing the Court, the Senate, and the General Council. On the present occasion the proceedings commenced with a short religious service conducted by Principal Story, with the assistance of the Rev. Professors Reid and Robertson. Thereupon an oration was delivered by Professor Jones on the work and life of Francis Hutchison, who occupied the Chair of Moral Philosophy from 1730 to 1746, and in his day exerted a great influence on the teaching and trend of philosophic thought.

At the close of Professor Jones's address a number of honorary degrees were conferred. The whole ceremony was very successful. There was a large audience representative of the civic and academic life of Glasgow, while the sister universities of St. Andrews and Edinburgh were represented by Principal Stewart and Professor Edgar, Principal Mackay and Professor Lodge. The commemoration proceedings were brought to a close by a banquet in the Bute Hall. An innovation at this banquet was the presence of ladies.

Advantage was taken of Commemoration Day to present the portrait of Principal Story to the University. The portrait is excellent, and a most successful example of the best work of Sir George Reid. The presentation was made on behalf of the subscribers by the Lord Provost, who dwelt on the great services of Principal Story in raising funds for providing new buildings and equipping them, with the view of strengthening the scientific side of the University. The portrait was accepted on behalf of the University by Mr. H. E. Gordon, the assessor of the Lord Rector.

Ireland.

SALARIES OF MEDICAL OFFICERS.

On April 18th and 19th, Sir Atcheson MacCullough, Local Government Board Inspector, held an inquiry in Newry into the salaries of the dispensary medical officers in the union. The inquiry was held at the request of the medical officers, who asked the Local Government Board to fix a graded scale of salaries. Evidence was given as to the extent of the dispensary districts and as to the amounts paid to the officers as registration and vaccination fees. The recommendations of a Committee of the Guardians suggesting a graded scale of salaries, which had been rejected by a majority of the guardians, were also put in. Dr. S. E. Martin, Medical Officer of the Newry Workhouse, and a large number of the dispensary medical officers, gave evidence, and complained that their present salary of £120 per annum was totally inadequate. At the conclusion of the inquiry the Inspector said that there had evidently been some friction between the guardians and the medical officers; in other unions a graded scale of salaries had been adopted, and he did not see what objection there could be to such a course in Newry Union.

TRALEE GUARDIANS AND THE BRITISH PARLIAMENT.

The Tralee Board of Guardians have again discussed the proposal to increase the salaries of dispensary medical officers. Committees were appointed to consider the salaries of the medical officers of the union, the committees to consist of guardians living within each dispensary district; that each salary be considered separately; and that the views of the committees be submitted to the whole Board. One of the guardians, in opposing the resolution, said:

> The doctors were looking to the wrong people for an increase; they were looking to ratepayers who were a great deal poorer than themselves. Why did they not apply to the British Parliament to try and get money from the rich exchequer? But, no; the members of Parliament were no fools. They all knew from experience that doctors almost became millionaires, and it took the Court of Chancery to divide their property when they died. Instead of being handicapped by their being dispensary doctors, they had emoluments of £140 or £150 a year, and the year was only about seven months. If they were so badly treated, why did so many of them apply for the position when there was a vacancy? They laid siege to the guardians and gave them such strong doses that they chloroformed them on the day of election. If they were not satisfied with the present salaries, why did they not resign, and the guardians could get a black doctor from the Far East, who would have nothing running in his heart but humanity for the poor? The speaker hoped that
> guardians would give that idea a knock on the head that d
> that it would never again emerge from the pillow of oblivio

LIMERICK DISPENSARY MEDICAL OFFICERS' SALARIES.

The Local Government Board has refused to reconsi
its decision, sanctioning the increase of salaries to t
Union dispensary medical officers and the two c
apothecaries, voted by the guardians after due notice
motion; subsequently a proposition to rescind the reso
tion granting the increase was rejected by 37 votes to
It was while a fresh notice of motion to rescind t
original resolution was pending that the Local Gove
ment Board wrote sanctioning the action taken by t
guardians, and apparently ignoring the subsequent p
posal to rescind the motion, and the public meeti
of the ratepayers to protest against the meeting
question. In the letter now received, the Local Gove
ment Board reviewed all the proceedings in connexi
with the matter, and said it saw no reason to alter
decision sanctioning the increase to the officers me
tioned.

ROYAL UNIVERSITY.

Last week, at a meeting of Convocation of the Ro
University, Dr. J. Campbell, of Belfast, was elec
a representative on the Senate, in room of his Hon
Judge Shaw, resigned.

Liverpool.

COUNTRY HOSPITAL FOR CHILDREN.

THE foundation stone of the new Liverpool Country H
pital for Children, which is being erected at Heswall,
laid on April 21st by Mr. Andrew Gibson, one of the m
prominent and active members of the movement wh
has brought the hospital into existence.

During the seven years that the institution has occup
temporary quarters at the Convalescent Home, W
Kirby, experience of great importance to the work
treating children suffering from chronic diseases has b
gained. The inestimable value of uninterrupted tr
ment in the fresh air of the country and amidst the n
perfect hygienic conditions has been abundantly dem
strated, and the splendid results which have attended
work at West Kirby, where the scope of their endeavo
has been necessarily restricted by the fact that o
twenty-two beds were available for their use have so
spired the supporters of this excellent cause that th
great enterprise is being undertaken with a boldness
enthusiasm which predict success.

The site for the new hospital, comprising 10 acres, is
the side of Heswall Hill, not far from the Summer H
of the Myrtle Street Girls' Orphanage. When comp
the buildings will have the form of the letter H, the w
wings being connected by the central block. The t
cost of the entire scheme will be £60,000, but at pres
only the central block is being undertaken, in which
be found temporary ward accommodation for 100
until the ward blocks themselves are completed; eventu
200 beds will be provided. The part of the scheme
taken in hand will cost £25,000, but in order to clea
the liabilities in connexion with the building,
furnishing, and general equipment, £15,000 is
required. The hospital is being built by Mr. W. H. Fo
of Birkenhead, the architects are Messrs. H. and A
Fry, of Liverpool, and it is hoped that the building wi
completed at the end of twelve months.

Colonel R. Montgomery, V.D., the Chairman of
hospital, who presided, recounted the history of the m
ment. In 1898, he said, a number of ladies and gentle
filled with compassion for suffering little ones, especi
those afflicted with chronic diseases, recognized that,
all the hospital machinery then at work in Liver
there was something more needed, something that w
prove effectual in the cases of such children, and so
thing that could not be provided in the general hospi
where the time limit was too short to permit anyt
like a cure being made, and where those in authority
obliged to discharge to their homes partially reli
patients, who, with prolonged treatment for months
perhaps even years, would have been cured or pe
nently benefited. This, in general terms, was the pro

ıat confronted them, and it was resolved to bring into
:istence a hospital which would supply this recognized
ant, and endeavour to attempt the cure, instead of being
ıntented with mere temporary relief. In March, 1899,
ıder the presidency of the then Lord Mayor of Liverpool,
lderman Oulton, a meeting was held at the Town Hall.
committee was formed for the purpose of inaugurating
e work of the hospital, and Professor Carter explained
e details of the proposed scheme. This provisional com-
ittee gave way later to a permanent committee. It was
cided to begin at once, as the sooner the scheme took prac-
al form the better would be the chances of monetary sup-
rt. A chairman was appointed, as also were the honorary
dical and surgical officers, Dr. Macalister and Mr.
bert Jones. By arrangement with Sir Thomas Boyden,
ıairman of the Convalescent Home at West Kirby,
enty beds, subsequently increased to twenty-two, were
otted for the use of the new institution, and in
vember, 1899, Sir Edward Russell formally opened a
rd in the temporary quarters. As he had then pointed
t, there was already in Liverpool provision for cripples,
children suffering from infectious diseases, for
urables, and for convalescents, but the new hos-
al was designed to become a charity for quite other
rposes, and was intended to meet needs which no other
pital attempted to supply. Those principles were:
t, the hospital was established in the country, it was
good air, with an absence of smoke, and enjoyed a
ater freedom from damp, dust, and organic surround-
s, than it would if it were built in the city; secondly,
longed active medical and surgical treatment was
lertaken. This essential principle involved the
lition of the time limit. Physicians and surgeons in
at Britain, in the United States, and on the Continent
Europe were constantly receiving evidence that a
rity was needed whereby children suffering from
onic diseases might have uninterrupted treatment
n first to last, and if in the pure air of the country so
h the better. The time limit necessarily interfered
ı this. The third principle was the conjoint super-
on of the patient by both physician and surgeon, an
ngement contrary to the practice in most hospitals;
had found by experience that a surgical case
iiring a long course of treatment required the aid of
physician, and that the purely medical case frequently
led the surgeon's assistance. The combined effort of
branches of the medical profession was thus brought
ear upon each individual case. The arrangement had
e justified its existence as one of the special features
ıe country hospital. The Committee recognized the
otation that might arise, in view of the prolonged
ment which they adopted as a vital principle to a
e abuse, and so they had made it a feature of this
ital that it did not lessen or take over parental re-
sibility. They considered it harmful and opposed to
charity to take away a child for an indefinite period
its parents free from all cost, and therefore a small
ly charge was made, which the parents must pay them-
s or exert themselves in some way to have paid, the
being not to relieve the parents but to save the child.
plan had kept the parents in close touch with the
ren, the small charges had been paid with regularity,
he plan was a pronounced success. At the same time
s recognized that there were very poor people who
l not afford even a small amount. An appeal had
made on their behalf with comparative success, and
some generous donors had provided cots for really
ving cases where the children could be treated abso-
y free of cost. The hospital had been in existence
rds of seven years, and the great experiment which
dward Russell referred to when opening the ward at
Kirby, had proved entirely successful, and had jus-
the Committee proceeding with the work.

. Andrew Gibson, having declared the foundation
well and truly laid, said that the Country Hospital
Children would have when completed a main
lor 279 ft. long and 11 ft. wide. The general
ıe was that the central block should contain
ren's play-room, dining-room, operating theatre,
n, etc. At each end of the main corridor would be
ard wings, four in all, of two wards each. In each of
ght wards there would be twenty-five beds. Attached
e central block by a corridor 75 ft. long and
wide would be the administrative block with
the necessary receiving rooms, committee rooms, and staff accommodation. Next month the administrative buildings would be started, and would probably be finished about the same time as the central block; £1,200 was still required to complete the two buildings. It would be necessary to erect a laundry and power-house to generate electricity for lighting purposes, and one of the ward wings was required to save the extra expense of temporary accommodation. The hospital had maintenance and cot-endowment funds amounting to about £14,000; but, while this was very satisfactory, the money could not be utilized for building purposes. The position, therefore, was this: That in order to occupy the new building in a satisfactory manner a further sum of not less than £15,000 would have to be raised, and he hoped that the appeal now made would meet with a warm response both from Lancashire and Cheshire.

Dr. Carter, in proposing a vote of thanks to Mr. Gibson, whose whole-hearted devotion to the cause was, he said, an inspiration to all, made also grateful reference to Miss Sedgwick and Dr. Macalister, who had been associated, the one as matron and the other as physician, with the Home for Incurables from which the Country Hospital had sprung. Miss Sidgwick and Dr. Macalister had been impressed with the fact that many children who undoubtedly would have been incurable if left in the surroundings from which they were removed were cured after treatment at the home. From this remarkable circumstance originated the proposition for a country hospital for the children, which when put before Mr. Holbrook Gaskell, Miss Gaskell, and Mr. Andrew Gibson and others, was taken up with enthusiasm and quickly turned into a practical scheme.

Mr. William Adamson, in seconding, said that the necessity for the new hospital was apparent to all who had any acquaintance with work of that kind in Liverpool. Quite recently there were in the Southern Hospital as many as forty young sufferers—too large a number for an institution of that sort in a large city where so many adults were brought in daily. The new hospital would relieve the strain which was thus occasioned.

South Wales.

CARDIFF INFIRMARY.

THE appeal of the Board of Management for funds for remodelling of the out-patient department of the Cardiff Infirmary has so far met with a general response. It was made in order to meet the challenge of a "Glamorganshire Owner of Property" that the £7,000 required should be promised by the end of the year, and in answer to Mr. John Cory's suggestion that it should, better still, be subscribed by the summer. This week it has received a further stimulus by the generous promises of Viscount Tredegar and Mrs. A. M. Evans to add £500 each to the funds. Half the amount has therefore been already promised or received, including the following: A Glamorganshire Owner of Property and Mr. John Cory, each £1,000; Viscount Tredegar, Mrs. A. M. Evans (in memory of her husband), "In loving memory of a father and in compliance with his wish," each £500; Major-General H. H. Lee and Mrs. Jno. Davies, each £100; Mr. J. M. Jennings and Dr. D. R. Paterson, each 50 guineas; Mr. E. H. Ebsworth, 25 guineas; Colonel Arthur James, Colonel Bruce Vaughan, Mr. G. C. Shepton, and Anonymous, each £25. The challenge, of which the above is so far the outcome, was made public at the annual meeting of the Governors of the Institution in the following terms:

> The anonymous donor offers the £1,000 on these conditions, namely, that an amount equalling the following sums be promised during the present year, whether at the following rates or otherwise: Two of £1,000, two of £500, four of £250, five of £100, ten of £50, twenty of £25, and the remaining £500 in smaller sums. These amounts need not be paid over until they are required for the work.

The present out-patient buildings are unfitted for the modern treatment of disease, and owing to the limitations of the buildings sick persons are of necessity placed in a crowded and insufficiently ventilated room, and in many cases kept waiting for a considerable period before it is possible for them to see the out-patient medical staff.

SPECIAL CORRESPONDENCE.

PARIS.

Surgery of the Heart.—The Radiumtherapy of Cancer.—Non-contagiosity of Alopecia Areata.

Interview a respectable citizen of any one of the five continents of the world, and you may be sure that he will tell you that medicine has made no progress, but that surgery has advanced with immense strides. And, indeed, the worthy man is not always wrong. What, for instance, can medicine do against a disease of the heart which has reached the stage of asystolism? What, again, can it do against a malformation of that noble viscus? It can only look on helplessly at the struggle and await the end. It is a hundred times better for patients to be struck by the brutal blade of an "Apache" than to suffer the insidious attack of rheumatism. Several cases in which wounds of the heart have been dealt with successfully by surgical treatment are on record. Professor Quénu lately reported another to the Société de Chirurgie. An individual was stabbed with a knife in the region of the heart, and, thanks to a few happy strokes of the surgeon's knife (*similia similibus!*), he was saved from death. M. Quénu opened the thorax, emptied the pericardium of the blood which filled it, and found on the left ventricle a wound, which he stitched. Thirteen days later the patient left the hospital completely cured. Is not this wonderful? For my part I will not again hold medicine in any respect till the day when a young lad, or a fair damsel, smitten to the heart by one of those strokes the wound of which sometimes bleeds so long, will declare themselves healed in a week. But love sorrow, as the French song says, is lifelong, and I fear that for a long time to come we shall witness the bankruptcy of medicine in this department of treatment.

It had been hoped that medicine would be able to take a signal revenge in another field. The radiotherapeutic treatment of cancerous affections at first seemed full of promise. We all know those little epitheliomas which the people, in their figurative language, call "graveyard flowers," because they are generally seen on the faces of those who are nearing the end of life. A characteristic of these little tumours is to resent all familiarities, more particularly those of a surgical nature. More delicate in their action, the *x* rays sometimes favourably influence these growths, and we see some disappear as by miracle after five or six carefully-regulated applications. Alas! evil is always close to good, and now our enthusiasm for the new method must suffer abatement. The treatment is not always free from danger, and at a recent meeting of the Société de Dermatologie various speakers stated that, together with instances of cure, they had seen the lymphatic glands corresponding to the region treated attacked by the disease. What, then, is to be done? If the disease is left to itself the patient dies of cachexia. If not, he dies of the treatment. The only conclusion that seems warranted is that we must do our best to avoid epithelioma!

Faith appears to play a more preponderating part in dermatology than in any other province of medicine. A few years ago all dermatologists had faith, and at that time *pelade* (alopecia areata), which was then held to be contagious, was credited every week with one or two epidemics of the most authentic kind. Unfortunately, a sceptical physician, Dr. Jacquet, having tried to inoculate the disease on himself, and having repeated the experiment on a large number of persons without result, has shaken the faith of his brethren, and now it has come to pass that faith has veered round to the opposite point of the compass. Men have ceased to have faith in the observations which first engendered their faith, and the non-contagiosity of *pelade* has in its turn become an article of scientific faith. Dr. Jacquet offered to go, without fee or reward, to any part where an epidemic of the disease might be reported, but he has always had to unpack his trunk when he was about to start owing to the receipt of a message that, from the time his visit was announced the authenticity of the "facts" leaked away minute by minute. To such a point did this process go that the most convinced partisans of contagiosity became the most determined opponents of that belief. This seems to prove that if there are many who *look* there are very few who *see.*

VIENNA.

State Hospitals of Vienna.—Contusion of the Larynx.—T
Medical Examination of School Children.

The Ministry of the Interior has just issued the report
the State hospitals of Vienna for the year 1902, whi
contains some interesting figures. The number of t
hospitals is only nine, but between them they contain sor
6,000 beds, and they are all managed by the Governme
while the other hospitals are either private or part
private, that is to say, they are partly managed by Sta
officials and private persons. The lunatic asylums a
infirmaries are not included in the report. The numb
of out-patients who applied for treatment in all depa
ments of the nine hospitals was nearly 700,000, whi
means that an enormous proportion of the population
the Austrian capital had recourse to public medical a
without payment. The in-patients numbered 69,000;
these 89 per cent. (53,600) were discharged as cured
much improved; 6 per cent., or 4,600, were reported r
cured, but were discharged by their own request; 6,3
or 9 per cent., died in the wards. It is interesting to n
that the public applies for medical aid only when t
disease is far advanced, for fully 40 per cent. of t
patients who died have met their fate within eight da
after their admission. The mortality of 9 per cent. c
trasts with the mortality of 18 per 1,000 for the populati
of the capital, but hospitals must be measured by differe
standards. It is worth noting that phthisis is declini
partly from the increased vigilance, partly owing to bet
sanitation. Thus only 12 per cent. of all deaths in t
hospitals were due to the tubercle bacillus, whilst t
figures for the corresponding three previous years are
per cent., 15 per cent., and 14.2 per cent. In the gene
population of Vienna the phthisis mortality is 19 to
per cent. During the year 1902 not a single case of sma
pox or hospital gangrene was reported from any of t
hospitals.

A case of forensic interest, which was much comment
upon, was shown by Dr. Kehler at a recent meeting of t
Laryngological Society. A lad of 16, who was knock
down by a comrade, suffered such injury to his lary
that he at once became insensible. He lost his voice
a short time. When brought to the hospital he complai
of pain, inspiratory dyspnoea, and harshness of the voi
Both aryepiglottic folds were oedematous, the cartila
swollen, and the left side of the larynx was immoval
The symptoms soon ceased, but the loss of motility of
left vocal cord remained, and the swelling of the aryten
cartilage was still visible eight weeks after the fall. T
there was contusion of the larynx was undoubted, but
reason of the fixation of the left half of the larynx was o
to question. It was thought to be either a traumatic p
chondritis of the cartilage or a traumatic arthritis. T
absence of crepitation negatived the supposition of fr
ture. The exudation around the joint and the press
from the vertebral column seemed to co-operate in fix
the joint and preventing phonation. The forensic inte
of the case lies in the fact that the injury may pr
a dangerous and lasting one should the point of
cartilages become permanently fixed.

The medical supervision of school children is now
question chiefly discussed by social and medical socie
in the country, as far as they are not occupied by ot
social problems. The Paedological Society, in its *Tran*
tions, insists on the necessity of regular examinat
of the teeth and eyes and ears of all children in pu
schools, as exercised in France and Sweden. Alread
few of the higher schools have instituted a de
examination. The ratio is 1,000 children to 1 doc
but in the country, of course, the ratio could be n
favourable. As an essential condition, it is pointed
that a school doctor must not be allowed to treat
children whom he declares to need medical help. U
such circumstances a very large number of children c
be dealt with by one man, as the routine examina
does not take very much time.

Under the will of the late Mr. William Augu
Frederick Powell, of Clifton, the General Hospital and
Royal Infirmary, Clifton, each receive £500, sums of
each going to the Blind Asylum, the Home for Cripp
Children, and the Eye Hospital in the same city.

CORRESPONDENCE.

THE ADMINISTRATION OF VACCINATION.

ir,—We understand that Mr. Arnold Lupton will open
liscussion upon vaccination in the House of Commons
Wednesday, April 25th, and that he will advocate the
eal of the very moderate amount of compulsion by
ich vaccination is still promoted.

he Vaccination Act, 1898, was avowedly an experiment,
on that account it was enacted for only five years.
s year, unless the Government can find time for legis-
on on the subject, which is hardly probable, it will
e again to be included in the Expiring Laws Con-
ance Act or be allowed to lapse altogether, in which
er case the machinery for public vaccination will come
n end on December 31st next.

he Act of 1898 has to some extent achieved the main
ct with which the late Government introduced it, by
easing materially the amount of infant vaccination;
owing to the absence of systematic and general re-
ination at school age, it has not prevented the occur-
e of a large number of outbreaks of small-pox, chiefly
ng adults who have not been revaccinated. There were,
nstance, recently in eighteen months no fewer than 480
rate outbreaks of small-pox in the United Kingdom,
y one of which occasioned expenditure of public
ey and considerable suffering.

the other hand, the opposition to enforced infant
ination, strange as it may seem in face of the above
, has not decreased.

e venture to suggest that before abandoning the re-
ted amount of compulsion which the Act of 1898
ned on the emphatic recommendation of the Royal
mission on Vaccination, it would be well to carefully
ire into the administration of the Vaccination Act of
with a view of learning whether by any means it can
ade more generally acceptable, and also if the cost of
nation can be reduced.

ere is a growing opinion that in consequence of
d social conditions and improved sanitary adminis-
n it is not absolutely necessary to have infants of a
nonths old vaccinated, except in the presence of
mic small-pox, and that, otherwise, the age at which
w requires vaccination might, under reasonable safe-
s for the exemption of determined objectors, with
be postponed until the time when the child enters
l, say from 5 to 6 years of age, when objection would
bly be considerably diminished.

procedure for the exemption of the "conscientious
or" could certainly be improved. If at the same
revaccination, at about 12 years of age, were pro-
, with the same conditions in regard to objectors as
case of vaccination in early childhood, the total
to the community would almost certainly be a great
ution in epidemics of small-pox, even though some
s might object to revaccination, as they do now to
vaccination.

submit that this desirable object might be assisted
appointment of a small Commission of persons
practical acquaintance with the present adminis-
of the vaccination laws, for the avowed purpose of
ing existing objections to vaccination and of
sing the protection of the community against con-
-recurring epidemics of a disease from which no
d nation ought to suffer.—We are, etc.,

H. D. M. Spence Jones, D.D.,
Dean of Gloucester.
Francis T. Bond, M.D.,
Gloucester.
E. Garrett Anderson, M.D.,
Aldeburgh.

23rd.

EXOPHTHALMIC GOÎTRE.

–In his paper on a Case of Exophthalmic Goître
ied in the British Medical Journal, April 21st,
. 914, Mr. H. T. Dufton revives the old suggestion
e disease is one of the sympathetic. He says:
actual evidence is there that these diseases really
te in the sympathetic ganglia? All the evidence
h I am aware is that found by Dr. Greenfield. He
scribed swellings of the sympathetic ganglia, in-
of their tissue by leucocytes, and degenerative
s of the ganglion cells. If these morbid changes
stant, what more can we want?"

The sympathetic ganglia in cases of exophthalmic goître have been examined by many observers. I published a case myself,[1] and in an article entitled "The Pathology of the Human Sympathetic System of Nerves," in the *Guy's Hospital Reports*, vol. xlvi, I was, after reviewing the evidence, able to write:

> This evidence seems to me conclusively to show the lesion is not in the sympathetic nerves (p. 36).
>
> So many observers have examined the cervical ganglia in this disease that it is quite impossible to refer to them all; and this is the less important, for although many of them have thought the ganglia abnormal, yet many have found them quite normal. The changes found by those who considered them abnormal were chiefly that they thought the size was not what it should be, or there was a granular, pigmented condition of the cells, or there were many leucocytes. Now we have seen that all these conditions are common in people dying from a variety of diseases, so that, probably, in exophthalmic goître they ought not to be considered as having any value (p. 50).

I have examined many hundreds of sections of sympathetic ganglia, both from man and the lower animals. I cannot in the short space of a letter describe them fully; those interested will find the results in the papers mentioned and in the *Journal of Physiology*.[2] Here I need only say that as far as I know there is no evidence that any disease is due to intrinsic morbid changes in the sympathetic ganglia. Human ganglia vary greatly in size and in microscopical appearance. In the papers quoted evidence is given that the reason for this is that the ganglia, like the appendix, are organs which in man have not the functional importance they have in the lower animals.—I am, etc.,

London, April 23rd. W. Hale White.

MEDICINE AND THE MERCANTILE MARINE.

Sir,—The paragraph on this subject in the British Medical Journal of March 10th touches upon a matter which is undoubtedly of great importance to our large seafaring community. I am not aware of the nature of the speech by Sir G. Vyvyan alluded to, so that my letter is based merely on your reference to it. But I thought it might be of interest to your readers to know how this question of elementary instruction for ships' officers is being dealt with in at least one of our seaports.

It is now two years since the able and energetic Principal of Leith Nautical College asked me to draft a syllabus for a course of instruction in ship medicine and surgery, indicating at the same time the general lines and method of arrangement of lectures which he thought would be most suitable for a class of pupils unable, from the nature of their occupation, to attend regularly.

The course of instruction goes much beyond the ordinary "first aid" (ambulance) class work. At sea it frequently may happen that days, or even weeks, may elapse ere an injured man can be seen by a qualified medical man, and thus "ship surgery" is perhaps a more appropriate name for the instruction required by our seafaring community. Thus, not merely the temporary aid required in accidents is taught, but also the more permanent treatment requisite for the common fractures and dislocations is given. In this connexion the enormous benefit, in teaching such a class, of stereoscopic photographs showing the appearance of typical cases of injury should be borne in mind. Thanks to the action of the Governors of the Leith Nautical College in providing an excellent stereoscope and the great kindness of one of my hospital colleagues—a well-known teacher of surgery in Edinburgh, —the lectures are illustrated by a series of photographs of the commoner fractures and dislocations (of jaw, shoulder, etc.), thus affording to "lay" pupils a mental picture of these injuries which no description can give. Further, by permission of the Directors of the Leith Hospital, I am enabled to take the pupils round the wards at the end of the course, and thus show them in actual practice the application of "extension," splints, roller bandages, etc., as well as any other "naked eye" surgical cases bearing on the instruction given.

The medical part of the course, though obviously more difficult to impart, is, I venture to think, of even greater value; for example, the recognition of the vomiting due to strangulated hernia as compared with alcoholic catarrh, and so on. Two lectures are devoted to the common fevers, stress being specially laid on the mode of spread of infection; while as regards the other commoner ailments, it seemed better to group them symptomatically, for example, vomiting, diarrhoea, cough and spit, etc., on which subjects it is possible to give our ships' officers some useful practical guidance, for example, in the recognition of such ailments as haematemesis, pneumonia, dropsy, scurvy, etc. Here, again, the medical ward visit is of great value, for not only are the varieties of sputa, etc., shown, but the patients themselves, exemplifying the types of cough, etc., give an impression of the appearance of a man with, for example, pneumonia or Bright's disease, which lecturing alone cannot afford.

---

[1] British Medical Journal, vol. i, 1889.

[2] Vols. viii and x.

Manifestly treatment is the least satisfactory part of the instruction, but even here some valuable hints can be given as to what *not* to do actively, or what the patient must be prevented from doing. Moreover, with reference to cases of phthisis, venereal diseases, retention of urine, etc., much useful instruction can quite well be given as to the protection of others, the prevention of sepsis, etc. The lectures, fourteen in number, are given twice a week, and are so arranged as to "dovetail"—that is, the course can be completed by attendance at the afternoon lectures alone, or the evening lectures alone, or afternoon and evening lectures together. This is in order to suit, so far as possible, the officers of vessels on short (Continental) voyages, and pupils can complete the course at any time.

While the time available is, of course, hopelessly inadequate to give anything like a satisfactory account of the commoner ailments treated, by judicious compression, and the supplying of "slips" (to the pupils) containing a summary of the lecture for after-use, a considerable amount of useful instruction can be imparted in the seven lectures (of an hour each) on ship medicine.—I am, etc.,

H. GRAHAM LANGWILL, M.D., F.R.C.P.E.,
Lecturer on Ship Medicine, Leith Nautical College.

Leith.

MIDWIFERY OF THE PRESENT DAY.

SIR,—Having read with much interest Dr. Peter Horrocks's address in the BRITISH MEDICAL JOURNAL of March 10th and the subsequent correspondence, I should be glad to make some observations thereon, for it seems to me that some of the criticisms levelled at it are not quite to the point.

Broadly speaking, the gist of Dr. Horrocks's contentions is that in a *normal* case Nature ought to be allowed to do her own work, and that artificial interference by means of chloroform or forceps, or both, is unjustifiable. From my own experience his arguments appear to me to be conclusive.

In your issue of March 17th Dr. Lovell Drage says that "he has known no case of puerperal sepsis unaccompanied by retention of some portion of decidua," and draws attention to "the necessity of examining the uterus in the case of a rise of temperature about the third day after delivery, and the further necessity of removal by finger or forceps of any portion of decidua found." Quite so! But Dr. Horrocks calls attention to the necessity of examining the placenta and membranes to see if they are complete, from which the natural inference is that if not complete, anything left behind should be at once removed. This seems to have been overlooked by Dr. Drage. Are we to assume that no case of puerperal septicaemia ought ever to occur provided placenta and membranes come away in their entirety? Again, he asks, at the end of his letter, this question: "How many London accoucheurs refuse chloroform to wealthy patients, and if wealthy are not so denied, why the less wealthy?" A very pertinent question. But the point at issue raised by Dr. Horrocks is not one of class distinction, but of *right* and *wrong*.

I now pass to Dr. Rees's remarks. This gentleman talks of "an elaborate *asepsis*" (does he mean *antiseptic?*) "ritual drawn out over a period of twenty minutes with not too much regard for innate feelings of modesty on the part of the victim." Does he consider washing in soap and hot water with a little lysol, followed by immersion in mercury perchloride solution for two minutes, so very elaborate a ritual? Is there more regard for modesty in making several vaginal examinations than the one for which Dr. Horrocks contends? Dr. Rees, in discussing the habit of following down the birth of the child with the hand on the abdomen, and the use of binders, asks: "Does experience count for nothing?" I would suggest the question he means to put is: "Does custom count fo nothing?"

Dr. Wynne talks of the "present hopeless and unnecessary attempt at attaining absolute and impractica asepsis." The subject of bacteriology is, all admit, difficult one. But in dealing with forces which ar universally recognized as a source of danger, the magnitude of which cannot be accurately gauged, surely it i better to spend a little time, at personal inconvenience, i order to be on the safe side? Personally I have almos invariably used the methods suggested by Dr. Horrocks which, with slight modifications, appear to me to b identical with those laid down by Jellett in his *Manual* *Midwifery* (1905), p. 148, et seq., where the subject is full and fairly discussed from the point of view of the genera practitioner.

Let us now examine the statements made by Dr. Mear He states that "Nature was innocent of antiseptics, o she would have provided glands for the secretion of ca bolic acid!" Was she so innocent? In the first place she had intended labour to be carried out invariably wit external assistance, she would no doubt have anticipate Dr. Mears's suggestion. In the second place, I think h will find she has provided a method of disinfecting th genital passage at least equally efficient. Has he eve heard of the researches of Doederlein in 1892, of Kroeni in 1894 and 1897, of Whitridge Williams and others, o the subject of the bacteriology of the genital tract? not, I would refer him to Jellett's *Manual*, p. 142 et se Dr. Mears tells us "he uses chloroform and force in every possible case and has done so for man years." Does he mean to say that such procedu must on that account be right? At any rat it is quite open to question whether he would n have succeeded, in normal cases, just as well witho them, though no doubt his method has saved hims much inconvenience. He goes on to say that the procee ing lasts fifteen to forty minutes "according to difficul of case." These words make one suspect that he fails bear in mind that the subject under consideration normal labour and normal labour alone, which I Horrocks clearly indicates in his opening remarks. I Mears further states that "ruptures of the perineu occur more frequently where women deliver themselves If he uses chloroform and forceps "in every possible cas on what experience does he ground his previous stat ment? Then comes an astounding assertion, in the light present-day knowledge: "Antiseptics are worse than us less." Whom are we to believe—Dr. Mears or Lo Lister? Again, after telling us to use rubber glov at a *post-mortem* examination and never to touch case of infectious or contagious disease, etc., goes on to advise us not to "bother" about mic organisms, as their status is not yet proven. What, o may ask, is he "bothering" about when he uses gloves a *post-mortem* examination, and when he refuses to tou an infectious case? Of course, he is not afraid of mic organisms; but granted that their "status is not proven," is that any reason for refusing to adopt a sim method of endeavouring to destroy any that may be one's hands? But I had forgotten—"Antiseptics worse than useless."

One statement of his, I think, all will agree with—"T turning out on the public of young doctors who have ne used the forceps is almost criminal"; and may I say th I join with him in hoping that "midwifery will not behind the times, and I am sure there are hundreds practitioners like myself who can testify to the safety a advantage of the advanced method."—I am, etc.,

FRANCIS J. GEOGHEGAN, M.D

Brewood, Staffs., April 10th.

SIR,—The discussion on Dr. Horrocks's views on conduct of natural cases of labour is most interesting important. There is in the whole range of medical pr tice no work more responsible, or that more dire affects the well-being of families, than the obstetric w done by the family doctor. Labours conducted on principles laid down by Dr. Horrocks are no doubt sa and efficiently conducted, but I heartily agree with y correspondents who express the opinion that in obste work forming part of family practice it is inexpedient, in some cases impossible, to allow full time for the uter ntractions to (if possible) expel the child. I have tended about 800 obstetric cases as a general practiner. I have had one woman die from the late effects of *st-partum* haemorrhage, due to her getting out of bed to icturate an hour and a half after the birth; and I am ankful to say I have had no case of puerperal pticaemia, and no death of the infant due to protracted cond stage of labour.

I desire, therefore, to epitomize the main principles on ich those labours have been conducted, and in doing so vould define natural labour as one in which the mother uld by "pains" expel the infant head first into the rld if unlimited time were allowed her to endure those ains." The main principles I have acted upon are ree, and I believe that the vast majority of successful stetricians act on these principles. They are: Rigid asepsis for the doctor, and as much cleaning up the patient as is possible in each case; (2) timely and ilful aid by forceps, and by "timely" I mean the hesitating use of forceps when the os is dilated or atable and the head is making no appreciable descent the perineum, or, having arrived there, comes no ther; (3) waiting patiently with the left hand on the rus for the placenta, only expressing it when either the centa is in the vagina or haemorrhage sets in from its tial detachment. I am fully convinced that the early l judicious use of the forceps in lingering though mal labour saves, in some cases, the life of the child, l in all cases preserves the strength of the mother, thereby oving one of the common causes of haemorrhage. I further convinced that complete anaesthesia, the oroform being given by a second medical man, during early stage of the delivery, followed by partial esthesia, as the head is very slowly and by intermittent ls drawn through the vulva, is less likely to result in ere tears of the perineum than if the patient is left to el the head by her uterine contractions.

have, at any rate, found that these three principles are and efficient in practice, comforting to the patient, satisfactory to oneself. I was educated as an intern lent of the Rotunda Hospital in the "leave-everything-ature" principles advocated by Dr. Horrocks. I ckly found in working a general practice that it was essary, in order to have any obstetric work to do, to lve the above method of conducting labours, which is, aim, as safe as the methods adopted by Dr. Horrocks, also much more pleasant for the woman in labour.

repeat, then, that the frequent use of the nail-brush soap and hot water, the expediting of a lingering nd stage, and the slowing of the third stage of labour, stitute the three legs of a tripod on which a safe and ntific obstetric practice can rest.

st a word on occipito-posterior positions. They are with, I believe, far more frequently than the textbooks w, and the condition, in my experience, is the comest cause of a lingering second stage in those disointing cases where, though everything else seems urable, the head does not descend. I find that Nature not right the majority of cases of this malposition. eps with anaesthesia are generally required, and it is sable, if during extraction the head rotates either to lateral position or to the occipito-anterior position, ke the forceps off and put them on again before coming the delivery. The lateral position I have referred either occipito-anterior nor posterior, is not uncomly the difficulty to be overcome.—I am, etc.,

g's Norton, April 23rd. **Bert. Jordan.**

R,—I am glad to find that medical men of experience dding their testimony to the safety and humanity of advanced method. May I add a word or two of ment?

Every experienced obstetrician knows that with the of chloroform and the forceps he can with perfect y deliver women in bad high forceps cases where he o pull for all he is worth. Why deny the privilege to r women, and save them hours of pain when no great ruction exists?

To dilate the cervix in a non-pregnant uterus is not a ult nor dangerous matter. Why should there be any ulty or danger in the educated hand stretching an dy dilating os in labour?

looking at my records for the last fifteen months I I have used chloroform and the forceps in 80 per cent. of those cases where I have been present at the birth of the child, and each case has done perfectly well—better, in my opinion, than if Nature had been left to accomplish the task unaided. The usual proportion of these cases have been occipito-posterior, and when the hand has been introduced into the vagina and the os fully dilated, nothing is easier than to slip the hand over the child's head like the blade of the forceps, and with a turn of the wrist correct the position. The forceps then being applied will save hours of pain and difficulty.—I am, etc.,

North Shields, April 22nd. **F. C. Mears.**

ANGINA PECTORIS WITHOUT APPARENT DISEASE OF THE HEART OR BLOOD VESSELS.

Sir,—I am greatly indebted to Professor Clifford Allbutt for his lengthy notice of my communication of April 14th. It is very difficult to produce convincing evidence of the intracardiac origin of angina pectoris, because pain in the heart and in the first portion of the aorta is referred to practically the same area. The following points in support of the intracardiac origin of an attack may be worthy of consideration. I do not think the pathological conditions present in calcareous degeneration of the aorta are favourable to the production of a profound nervous explosion for the following reasons: For the generation of visceral pain, the sensory nerves supplying the part must be subjected to considerable stretching either from within or without the particular organ implicated, and when from any cause the sensory nerve endings are destroyed or protected from strain or movement, referred pain ceases. For example, the pain of appendicitis ceases with perforation of the appendix; acute perforating gastric ulcer is said to be free from pain, except perhaps in its early stage, because the nerve endings are destroyed in the ulcerative process; there is an absence of lung pain in pneumonia because the movement of the diseased portion of the lung is arrested. The aorta is no exception, for a small aneurysm of that vessel which excavates its inner wall may at first be very painful, resembling an anginal attack, and subsequently, owing to the destruction of its sensory nerves, or by throwing them out of action by large fibrinous deposits, pain both local and referred may disappear, or it may retain only a dull local character unless by pressure on surrounding structures. From the analogy between the aorta and other viscera in respect of pain, I think I may infer that an extensive calcareous deposit, converting the aorta into a rigid tube, rather protects the subjacent sensory nerves from undue stretching, and therefore removes the essential conditions for either local or referred pain. These are also the cases in which attacks of angina come on with increasing frequency and intensity, and in which the heart also becomes weak—degenerate from interference with the coronary circulation, either by extension of the morbid deposit along the coronary arteries or by encroaching upon their orifices. Assuming that there was in my case extensive disease of the aorta, the coronary vessels would probably share in the disease, with a corresponding effect on the heart muscle.

I will not enter into the conditions within the heart in cases of aortic valve disease beyond remarking that in aortic regurgitation, and more particularly if accompanied by stenosis, the left ventricle in addition to working at high pressure is being constantly jogged by a backward flow when the muscle is not toned to receive it. It consequently becomes fatigued and liable to pain, both local and referred.

Kernig[1] reports important changes following anginal attacks:

> "There are fever with increased area of cardiac dullness as compared with the heart before the attack." The fever he attributes to "softening or inflammation of the myocardium." "The second group comprises cases in which dilatation of one or other cavity makes its appearance. In the third group are cases in which acute pericarditis develops in sequence to an attack of angina pectoris attributable to invasion of the pericardium by bacteria from areas of myocardial softening or infarction, or abnormal perviousness of the smaller vessels. Mural endocarditis secondary to areas of myomalacia has likewise been reported. Symptoms of functional derangement, such as diminution of urine and oedema, also make their appearance."

Professor Clifford Allbutt, in his Cavendish Lecture, has no doubt handled the subject of angina pectoris with his usual lucidity and thoroughness, and I hope these remarks of mine may at least contribute in some degree to a subject of the greatest interest to pathologists and clinicians.—I am, etc.,

---

[1] Kernig, *Medical Record*, March 14th, 1905.

Bournemouth, April 22nd. E. CURTIN.

"MR. COLERIDGE ON TOUR."

SIR,—I have seen the article in the current number of the BRITISH MEDICAL JOURNAL headed "Mr. Coleridge on Tour." In it you challenge me to repeat "the charges made by me against Dr. Bayliss." I am perfectly prepared to rehearse and repeat what in my opinion cannot be gainsaid after the evidence given at the libel trial. The evidence proved that under the present law a deep incision can be made into the body of a living dog, and it can be deprived, by the tying up of a duct in its inside, of the proper use of one of its internal organs; it can then be sewn up again and put in a cage, and left in that cage from December to February to see what the result of that operation upon it would be. In February it can be taken out of the cage and a fresh incision can be made into its body to see whether what has been done to it produces inflammation or not. The wound can then be closed up with a pair of steel forceps. Then, with the steel forceps closing up this wound, the living dog can be handed over to a second vivisector, Dr. Bayliss, who proceeds to fasten it down tight on to a board, and to open its neck with another deep incision, exposing the glands; he can then fix little pipes on to the ends of its arteries, he can put a tube into its cut windpipe, and attach electrodes to its cut-out nerves. The dog in that condition can be kept tied down on that board for about an hour, and be then handed over by this second vivisector to a third operator, who finally puts an end to the miserable dog's life by plunging a knife into its heart. The anaesthetics during these prolonged and fearful mutilations can be applied by an automatic pump in another room, connected to the dog under the floor by a pipe, which nobody can see. The vivisectors say that this automatic pump is sufficient to maintain the unconsciousness of the dog throughout the whole operation, but inasmuch as the dog cannot tell us whether it is unconscious or not, and as no analogy can be set up with human anaesthesia—because no surgeon in his senses would attempt to anaesthetize a man or a woman with an automatic pump in another room—I say that I may reasonably refuse to accept the opinion of those vivisectors that such means are efficient to maintain total unconsciousness. Further, I still hold the opinion, and am prepared thus publicly to maintain it, that the sufferings of the dog between those vivisections when it was in that cage were very grievous.

I hope that is a plain enough statement, and is not merely a cautious, equivocal insinuation of what are my views and opinions. You may publish it wherever you choose, and I hope you will do so in order that people may know what it is that you support and that I condemn, and may elect which of us to support.

There is one other sentence in your article which needs my attention: you ask, "Is it gentlemanly to suggest as he (meaning me) has done that hospitals supply living human bodies for the study of disease by physiologists?" Whether such a suggestion would be consonant with propriety depends in my opinion upon whether there exists trustworthy evidence to support it. But inasmuch as I have never at any time or place made such a suggestion, your implied assertion that I have done so, seems to be both a violation of the ordinary courtesy of debate and a very gross misrepresentation of fact.—I am, etc.,

London, S.W., April 23rd. STEPHEN COLERIDGE.

*** Mr. Coleridge, as is his wont, evades the point at issue. According to the report of his speech given in the *Torquay Directory and South Devon Journal* of April 11th, he said he had never been convicted of a single misstatement of fact. We ventured to remind him of two or three misadventures of the kind which had befallen him—notably of his having made statements about a physiologist which were proved in open court to be false. In reply to this it is nothing to the purpose for Mr. Coleridge to rehearse and repeat what he chooses to think can be done under the present law. So natural is it to him to misstate the simplest facts that, even in the ca fully dressed-up story of the "martyred" dog—which bi fair to become more famous among sentimental perso than Sterne's donkey—he manages to convey a wrong i pression. When he says that the animal was handed by t second vivisector to a third operator, "who finally puts end to the miserable dog's life," etc., he would lead peo who did not know the facts to suppose that the dog w made the subject of further experiments before was killed. Yet it was distinctly stated in evidence th the animal was handed over to the "third operator" " order that he might kill the dog and remove the pancre for the purpose of microscopic examination." That M Coleridge is aware of this seems to be indicated by l cautious use of the word "operator" instead of "vi sector"; but wilfully or not, he makes a false suggestio Again, Mr. Coleridge affirms that the sufferings of t dog between the vivisections were "very grievou At the trial Professor Starling stated that "t animal showed no signs of suffering from the first expe ment until the last." Mr. Coleridge has implied that does not believe vivisectors even on oath, but what e dence as to the state of the dog between the vivisectio has he to put against that of Professor Starling? As that period he has no witnesses at all. It suits his pu pose to assume that the animal must have been in pa and he calmly asks us to accept this assumption as a fa The value of his opinion about anaesthesia may be es mated from his own admission in the witness-box th he had never attended any vivisection lectures or a surgical operations. This amusingly illustrates t peculiar nature of Mr. Coleridge's psychological process He inflames his imagination by reading about matte which he does not understand, and having created horro for himself, he seeks for confirmation in the statemen of other persons equally biassed and almost equal ignorant. He makes no attempt to test these statemen in any way; on the contrary, he shuts his eyes and l ears to anything that might disturb his comfortab persuasion of the wickedness of vivisectors.

Mr. Coleridge denies that he has ever suggested th hospitals supply living human bodies for the study disease by physiologists. For the successful practice the art of controversy as understood by antivivisectioni it is necessary to have a good memory. This, we have already hinted, Mr. Coleridge does not appe to possess. We therefore take the liberty of minding him of a certain letter in which, after m reading a sinister meaning into the harmless expressi "clinical material" (used in an appeal issued by t London School of Tropical Medicine), he said that membe of the National Antivivisection Society "would natura regard with peculiar abhorrence this scheme for securi an 'adequate supply' of human living bodies for the stu of tropical diseases by the physiologists." When co fronted with this elegant extract, Mr. Coleridge, with pretty blush of innocence, looked the other way. At la like Brutus, he, much enforced, showed a hasty spark of evasion. The particular example of the art of m representation was exposed in the JOURNAL of June 8 15th, and 22nd, 1901, to which we refer Mr. Coleridge.

THE REBUILDING OF 429, STRAND.

SIR,—On thinking over the practical suggestions Dr. McCardie, in the BRITISH MEDICAL JOURNAL March 17th, p. 648, it has occurred to me that inste of making a plunge and keeping open the library un 11 or even 9 p.m., we might feel our way by seeing wh actual demand there was for the use of the library allowing those who had work to do there, or friends meet, to remain, say, for the present up to 8 o'clock, a in exceptional cases later than that, but when no one requiring the room it shall be closed at 7 o'clock.

I simply throw out this as a suggestion, and to av inconvenience for something which might not be mu needed. At the same time I should like to say that something reasonable were done it would be a boon only for those in town, but also for country members.

I do not know what provision is to be made in the pla for the new premises, but I certainly think extra acco modation for members ought to be provided, and I tru now there is a likelihood of something being done in t way of rebuilding, the initial stages will not be und rushed.

hen we come to consider that when the present dings are demolished the site will represent someg like £100,000 of the hard-earned money of the bers, accumulated during many years, every care every means ought to be used to make the best of it very way, not only in bringing in as much revenue as ible, but affording as much convenience to all the bers as we can.

begin with, I have endeavoured to ascertain what is done with the basement. I am quite certain that in a central and prominent site as this, a lofty, welltructed basement, with tastefully-arranged tiled walls, good light underneath both the Strand and Agar t buildings, would bring in at least another £1,000 a . There is also another consideration—namely, the enience of members. It might be let as a first-class and by means of lifts food might be brought to bers on their own premises. The comfort of a club t be worked out easily, but all this ought to be prely thought out and provided for in the plans. Even vate entrance to the café might be arranged from our premises.

m desiring to be brief at this stage, but I find very few members are aware that the rebuilding is arranged for, and some think that they ought to been afforded an opportunity of discussing and fully rstanding what is intended to be done.

his plan were adopted a good deal of confusion and tisfaction subsequently may be avoided. If the cil and Premises and Site Subcommittee take this nsibility on themselves without consultation with the ers in general, they may find themselves eventually awkward position when any shortsightedness comes discussed. It is an important question, and a large f money is at stake. The problem of bringing in a r income for the £100,000, to say nothing of another 0 or £50,000, is not a small one.—I am, etc.,

hester, April 23rd. G. H. BROADBENT.

The site and buildings of 429, Strand, and 2, 3, 4, Agar Street, stand in the balance sheet at £81,380, cost price.

OBITUARY.

DERICK STEPHEN ALFORD, M.R.C.S., L.R.C.P.,

HAMPSTEAD.

niversity College men of the early Seventies the of the death of Mr. F. S. Alford, of Haverstock which took place on Easter Sunday, will come painful shock. He was, in his younger days, a f such abundant vitality that it is difficult for who knew him as a student to realize even now eath has laid his benumbing hand on one whom member so full of healthy life.

erick Stephen Alford, who was 55 years of age, was of the late Mr. Stephen Alford, for many years a own and highly-respected medical practitioner of tead. He received his professional education at sity College, London, and was admitted a Member Royal College of Surgeons of England in 1874 and ntiate of the Royal College of Physicians of London following year. He began his professional life by as medical officer on the telegraph steamers *oo* and *Chiltern*. He had at one time some t of taking up dermatology as a speciality. He skin diseases under Tilbury Fox, whose clinical t he was and for whom he occasionally acted as a ate in hospital work. Circumstances prevented ilment of this intention, and he settled at Haver-Hill in general practice with his father, whom in urse he succeeded. He was for many years in ship with Messrs. F. H. and A. F. Gervis of Hamp- Mr. Alford was Consulting Surgeon to the Child's ispensary, Surgeon to the Haverstock Hill and Road Dispensary, Honorary Surgeon to the for Infirm Journeymen Tailors, Medical to the Orphan Working School, and to the Locomotive Department of the London Railway. He was a man of charming lity who could be all things to all men. His liked him as a man as much as they trusted him dical adviser. His sunny smile shed a ray of hope ny a heart darkened by anxiety. Careless of gain, he was in his dealings with those who sought his professional aid generous almost to a fault.

He was a man of well-knit, sinewy frame, and as a student was a noted athlete. His keen interest in all forms of sport remained with him throughout life, and he was a leading member of the Hampstead Cricket and Golf Clubs.

Mr. Alford was unmarried, but his death is felt as a personal loss by many outside the circle of his kindred. The affectionate regard in which he was held by those among whom he went about doing good was shown by the number of beautiful wreaths which covered his coffin. He was buried in Highgate Cemetery on Monday, April 23rd.

THE death is announced on April 8th, at Eastbourne, of Deputy-Surgeon-General JOHN TULLOCH, M.D., late Medical Staff, at the age of 76. Dr. Tulloch joined the army as Assistant-Surgeon in 1854, and retired after thirty-four years' service in 1888, having reached the rank of Deputy-Surgeon-General in May, 1883. He served with the 10th Regiment in the Indian Mutiny Campaign. He was present at the suppression of the mutiny at Benares, the capture of Atrowleea, and the actions at Chanda, Umeerpore, Sultanpore, and Douraha. He also took part in the siege and capture of Lucknow, the relief of Azimghur, and the operations in the Jugdespore jungles and at Shahabad. He received the medal with clasp.

WE regret to record the death of Mr. J. H. PARRY of Bristol, at the age of 56. He was a student of the Bristol Medical School, and at the General Hospital gained the Clarke Surgical Scholarship. He obtained the diplomas of L.R.C.P. and S.Edin. in 1877, and was for many years a busy and successful medical practitioner, and until recently was also Medical Officer of Health for the Horfield District Council. In 1892 he was President of the Bristol Cambrian Society.

SURGEON-MAJOR FRANCIS HENRY PLUMPTRE, late of the Bombay Army, and J.P. for the County of Devon, died on April 17th at Newton Abbot, in his 79th year. While on the Bombay medical staff he served in the Persian campaign of 1856-57 and in the Abyssinian campaign of 1867-68. He became Surgeon-Major on August 4th, 1867.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Vleminckx, President of the Belgian Royal Academy of Medicine, aged 80; Dr. J. C. Le Grande, founder of the *Alabama Medical Journal*, which he edited for eighteen years, Vice-President of the American Medical Association, and President of the Alabama State Medical Association, aged 52; and Dr. Ludwig Kleinwächter, formerly professor of gynaecology in the Universities of Prague and Innsbruck, and author of numerous writings on subjects within his special province of practice, aged 67.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

DUKE OF CONNAUGHT'S CHALLENGE SHIELD.

THE annual competition for the Duke of Connaught's Challenge Shield for regimental stretcher-bearers took place last week at the R.A.M.C. Dépôt, Aldershot, seven teams, representing as many regiments, competing. Each team comprised four stretcher sections, under the command of a non-comissioned officer. They were drawn from the bands of the regiments, who in war would perform stretcher and ambulance duties. They had to run 200 yards, dress four wounded men, according to a tab attached to each describing the various injuries, and carry them back to a field hospital. Major Thorn, Captain Steele, and Captain Macpherson, R.A.M.C., were the judges, and a keen contest was won by the 1st Dragoon Guards team, the only cavalry regiment which entered the competition, with 160 points, the 1st Yorkshire Regiment being second with 144, and the 1st Royal Welsh Fusiliers third, 138.

THE CONCENTRATION CAMPS AND WAR MEDALS.

J. W. G.—If it can be shown that the concentration camps formed an integral part of the military operations for the subjugation of the Boers, an application for medals for the medical officers of these camps—and for all other officials—might be based on this contention. These camps, however, appear to have been under the Colonial Office and not under the War Office. From the very purpose of these camps they were probably placed as far as possible outside the area of the military operations, and their administration by the Colonial Office was probably intended to remove them from the control of the military authorities. The whole scheme appears to have been so aranged that the non-combatants might feel that they were placed under the protection of the Colonial Office, in order to remove them as far as possible from participation in the war and its immediate consequences. Under these circumstances there seems to be no ground on which a claim on behalf of the officials of these camps for the war medal could succeed. To grant to these officials a war medal would be to stretch very wide the significance of the term "engaged in military operations before the enemy," for which service war medals are bestowed. We believe that a special medal—not the war medal—was granted to officers of the transport ships which conveyed troops to South Africa. These officers were directly engaged in the warlike operations, but as they were not acting within the area of active military operations they were not entitled to the war medal. If the enemy had possessed war ships these officers might have received war medals.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Radcliffe Travelling Fellowship.—J. Sholto C. Douglas, B.M., B.Ch., Christ Church, has been elected to a Radcliffe Travelling Fellowship.

Degree Days.—The degree days appointed for the present term are April 26th, May 17th, June 2nd, 14th, 21st, and July 7th.

Natural Science Scholarships.—Examinations for scholarships in Natural Science will be held at Merton College, New College, and Corpus Christi College on June 24th, and at Brasenose College on June 26th.

Fellowship at Merton College.—There will be an election to a Fellowship at Merton College on Saturday, October 6th, after an examination in the subjects recognized in the Honour School of Chemistry.

Examinations for the Degree of B.M.—The examination for the degree of B.M. B.Ch., will commence on Thursday, June 14th. Names must be sent in to the Secretary to the Boards of Faculties not later than 10.30 a.m. on Tuesday, May 29th.

Examination for the Degree of M.Ch.—The examination for the degree of Master in Surgery will commence on Thursday, June 21st. Names must be sent in to the Secretary to the Boards of Faculties not later than 10.30 a.m. on Friday, June 1st.

UNIVERSITY OF CAMBRIDGE.

Greek.

THE discussion on the Greek question will take place in the Senate House on Friday and Saturday, April 27th and 28th, at 2.15 p.m.

Examiners.

Mr. Stanley Boyd, M.B.Lond., F.R.C.S., has been appointed an Examiner in Surgery in the 3rd M.B., in the place of Mr. Shield, who is unable to examine. Dr. H. Morley Fletcher has been appointed an additional Examiner in Medicine, and Mr. L. A. Dunn, M.B.Lond., F.R.C.S., an additional Examiner in Surgery in 3rd M.B., Part II.

Sanitary Science Examination.

The following candidates have satisfied the Examiners in both parts of the Examination:

K. V. Amin, H. E. Arbuckle, J. C. Bridge, T. Carnwath, J. T. Clarke, C. V. Craster, C. Fraser, A. E. Hodgson (Christ's), E. C. G. Maddock, J. A. Mitchell, J. M. Morris, E. L. Perry, W. Thorp, W. J. Wilson.

UNIVERSITY OF EDINBURGH.

THE following candidates have been approved at the examinations indicated:

First Professional Examination.—R. M. Allan, E. Anderson, F. G. Bell, R. A. Bell, Eveline R. Benjamin, J. G. Boal, C. J. G. Bourill, A. M. Britton, G. S. Brown, H. H. Brown, *J. F. Brown, P. de Bruyn, E. C. Burke, G. D. Cairns, L. D. Callender, A. F. Calwell, W. W. Carlow, M.A., G. J. Carr, B.A., J. A. H. Carter, R. B. Chamberlain, J. P. Charnock, P. Chisholm, F. O. Clarke, W. G. Coltart, E. S. Craig, T. D. Crawford, J. Daueel, W. Darlington, J. Davie, I. D. Dickson, J. Drummond, Isabella G. Emslie, J. Erlank, W. J. Felthem, Annie G. Fergus, E. L. Ferguson, J. B. Ferguson, F. P. Fouche, C. M. Ganapathy, F. P. Gibson, T. J. Gilmore, J. G. Gow, C. Grant, R. W. Greatorex, Annie C. Greenep, W. P. Grieve, E. B. Gunson, H. J. Guthrie, T. E. Guthrie, R. H. Hamilton, *D. S. Harvey, J. B. Haycraft, A. Hood, J. Hunter, A. P. W. Hutton, A. B. Jamieson, A. M. Jones, G. J. Joubert, Agnes E. Keen, T. D. Kennedy, J. C. J. Khambatta, S. G. Kreigler, E. C. Lang, D. T. M. Large, L. Leslie, A. S. Loutit, J. F. H. Lutze, *D. M. Lyon, K. B. MacGlashan, J. M. M'Keand, A. H. G. Mackintosh, D. J. M'Laren, Elizabeth Macleod, Mary Macmillan, R. C. Malhotra, D. B. Maunsell, G. M. Miller, S. P. Moore, M. M. Morrison, W. Morrison, Rhoda M. Murdoch, O. A. J. N. Muriset, K. Nehru, R. M. Nicholson, F. H. Noronha, W. H. Pallett, Dora E. Paterson, P. N. Pedersen, A. Z. Philips, J. A. Pienaar, B.A., C. K. Pole, A. H. Porter, W. D. Reid, D. T. Richardson, W. S. Robertson, Lizzie Rose, W. Russell, C. M. Schaffter, J. W. Senter, Daisy L. Shawyer, B.A., A. Simpson, F. M. Sinclair, D. R. Bedell Sivright, B.A., T. W.
Smart, Gertrude M. Smith, T. C. Smith, R. O. Spencer, G.
Stevenson, J. Stevenson, F. M. Stewart, J. D. G. Stewart,
Stewart, J. R. Stott, G. Tate, L. W. O. Taylor, B. C. Tennen
A. B. Todd, J. J. Tough, C. B. Tudehope, Jane A. Walke, R.
Wallace, A. M. Warwick, G. A. Wyon, R. B. M. Yates.

Second Professional Examination.—G. J. Adams, *R. C. Alexande
H. M. Anderson, W. Bainbridge, Margaret W. Bartholome
*Lydia D. la Trobe Bateman, G. L. Batra, A. R. Bearn, J. Blac
H. Blyth, A. M. Bose, W. Boyd, J. Brander, L. A. P. Burt,
Cansfield, J. A. R. Cargill, J. T. Carson, P. Chalmers, D.
Cooper, B.A., H. S. Cormack, A. C. Court, J. C. Craig, M.A
Emilie C. Creaser, J. Crocket, J. M. Dalrymple, P. Davi
J. M. Deuchars, P. S. Dias, A. L. Dykes, W. G. Evans,
Findlay, T. Gardner, A. I. Girdwood, R. L. Girdwood, J.
Gordon, P. Gorrie, A. G. M. Grant, J. C. B. Gra
J. K. Hamilton, M.A., J. O. Hamilton, R. Hannah, F.
Hay, J. Hewat, S. W. Hogg, J. D. Ingram, K. R.
Iyengar, F. E. Jardine, J. J. Jervis, W. P. S. Johnso
M. J. Johnston, J. V. Karve, H. W. Kerrigan, Catheri
Kirk, M.A., E. W. Kirk, R. A. Krause, F. R. Laing, C.
Laurent, R. D. Laurie, H. R. Lawrence, M. A. Lindsa
A. S. Macbeth, J. Macdiarmid, R. MacDonald, R. F.
Macgregor, W. J. M'Keand, *K. Mackenzie, A. C. M'Kill
D. R. C. Maclagan, I. R. MacLeod, Ada J. Macmillan, W.
Macnab, D. Macnair, E. R. D. Maconochie, S. E. Malher
A. C. Mallace, M.A., J. Marshall, R. C. J. Meyer, A. F. Mill
J. A. Mitchell, Flora Morrison, I. A. van Niekirk, E. F.
Nixey, A. C. Norman, P. G. Palmer, A. B. Pearson, J. H.
Pearson, A. A. W. Petrie, B. B. Phillips, Laura W. Pugh, J. J. v
Rensburg, E. W. Richards, W. G. Riley, A. G. Ritchie, Agat
M. Robinson, D. H. Russell, *J. Scott, J. T. Simson, E.
Smerdon, W. B. Sommers, J. E. Spence, W. Stobie, A. Ta
A. L. Taylor, G. P. Taylor, J. G. Thomson, M.A., *J. J. Thoms
N. G. Thornley, R. W. L. Todd, Mary M. M. Turpie, R. Ver
F. H. de Villiers, A. A. Walbrugh, E. A. Walker, W. O. Walk
H. S. Wallace, L. E. B. Ward, F. K. te Water, W. H. te Wat
F. W. Waterworth, A. P. Watson, M.A., H. B. Watson, M.
H. L. W. Wemyss, A. White, J. L. M. Wood, R. L.
Wuppermann, A. G. Yates, M.A., W. A. Young.

Third Professional Examination.—J. B. Alexander, J. L. Ann
J. C. Ashton, E. Banks, A. C. Barker, C. B. Baxter, *A.
Bennee, J. W. Bingham, J. A. Brand, A. Bremner, T. Buch
T. Burrell, P. D. Cameron, R. J. Chapman, W. G. Cobb, W.
Coghill, C. E. A. Coldicutt, C. H. Corbett, H. C. D. Cross,
Douglas, J. C. Drysdale, G. L. Duncan, A. D. Edington, B.S
R. Edwards, P. A. Erevrard, J. Letitia D. Fairfield, W.
Ferguson, M.A., B.Sc., Mary S. Finlayson, W. S. Forbes,
Fraser, J. B. Gibson, M.A., R. M. Glover, J. M. Grant, D.
Gray, A. R. Gunn, D. J. Guthrie, G. Henderson, W. S. Her
A. F. Hewat, M. Heyns, J. R. Hill, J. K. A. Hofmeyr, St. G. M.
Homan, J. H. Horne, L. Hughes, T. J. Hughes, A. Hunter, H.
Hunter, M.A., S. Jackson, J. A. Jamieson, *R. H. Jamies
Blanche M. L. Johnston, T. A. Johnston, W. D. S. Johnst
D. Johnstone, M.A., *G. G. Jolly, S. W. Joubert, J. G. de Ko
G. F. V. Leary, J. H. Lechler, *D. Lees, M.A., C. R. Lethe
G. L. Little, N. F. Lloyd, C. W. L. Luethgen, G. J. Luyt, T. Ly
R. D. M'Allister, L. G. M'Cune, W. S. M'Cune, A. Macdona
J. F. Mackay, *J. L. Mackay, A. T. Mackenzie, M.A., R.
M'Laren, D. J. M'Rae, Paula Maier, J. A. Manifold, A. H.
Maxwell, F. W. Michael, G. G. Middleton, *Margaret M. Mill
A. P. Mitchell, J. A. Morris, J. Morrison, J. Muckart, Ara
Murchison, W. Murdie, M.A., M. A. D. Naoroji, J. New
J. J. H. Nelson, A. T. Paterson, *C. F. Pattie, J. S. Peebles, G.
Pillai, *W. J. Porteous, O. E. Powell, N. H. Prior, D. H.
B.A., W. R. Ridley, A. N. Robertson, C. Robertson, D. Roberts
W. A. Scobie, F. L. Scott, W. J. Simpson, J. T. Simson, E.
Smith, F. F. S. Smith, R. A. Spence, Dorothy W. Stevens
L. H. F. Thatcher, C. A. Thelander, C. P. Theron, D. Thoms
W. Thomson, W. W. Thomson, V. F. Usher, A. M. V
Helen M. Wakefield, Martha B. Webb, J. C. B. Williams, J.
Wilson.

* With distinction.

UNIVERSITY OF LONDON.

London School of Tropical Medicine.

THE following passed the Examination in Tropical Medi
at the close of the twentieth session, January-April, 1906:

Captain S. Anderson, I.M.S., with distinction; Captain B.
Dutcher, United States army, with distinction; Dr. G. J. P
(Colonial service), with distinction; Dr. H. E. Arbuckle, w
distinction; Dr. A. G. Eldred (Colonial service), Dr. H. Cran
Dr. P. H. MacDonald (Colonial service), Dr. B. Moiser (Colo
service), Dr. A. Reid, Dr. W. Rogers (Colonial service), Dr. W
Ruttledge, Dr. A. L. Wykham.

UNIVERSITY OF BIRMINGHAM.

Lectures.

IT is announced that Professor J. T. J. Morrison, F.R.C.S.,
deliver a course of three lectures on the legal and social
tions of English medicine past and present, in the Me
Lecture Theatre of the University of Birmingham, on Th
days, April 26th, May 3rd, and May 10th. The Ing
Lectures will be delivered on Thursdays, May 17th and 24t
Dr. C. E. Purslow, Obstetric Officer to the Queen's Hosp
Birmingham. The subject of the course will be the man
ment of a case of labour. On Thursdays, June 7th, 14th,
21st, Professor R. Saundby, M.D., will deliver a cours
lectures on medical ethics. The lectures will be deliv
each day at 4 p.m.

UNIVERSITY OF DURHAM.

THE following candidates have satisfied the Examiners in
subjects indicated.

Anatomy, Physiology, and Materia Medica.—*E. C. Braithw
Harriett A. R. Apps, C. E. L. Burman, L. W. Evans, C.
Greene, A. C. Greene, C. P. R. Harvey, E. Hudson, M.R.
L.R.C.P., Annie V. Mack, H. R. McAleenan, S. L. Rando
J. A. Sacco, R. H. Smallwood, M.A., T. W. Stallybrass.

* Second-class honours.

SOCIETY OF APOTHECARIES OF LONDON.

following candidates have been approved in the subjects cated :

rgery.—T. P. Braim, †L. C. W. Brigstocke, †D. L. E. Gay, *J. H. Harrison, *†C. L. Senn, †E. F. Thomas, P. C. W. Laws.
dicine.—*†J. W. Blooker, †H. A. Fenton, †D. L. E. Gay, †O. P. N. Pearn, *†C. L. Senn, *†H. Smith, †E. F. Thomas, *†A. P. Wright.
rensic Medicine.—J. W. Blooker, H. A. Fenton, D. L, E. Gay, C. L. Send, H. Smith, E. F. Thomas.
dwifery.—R. Beesley, D. L. E. Gay, C. L. Senn, E. F. Thomas.

e diploma of the Society was granted to Messrs. T. P. m. J. H. Harrison, P. C. W. Laws, C. L. Senn, and A. P. ght.

* Section II. † Section I.

MEDICO-LEGAL AND MEDICO-ETHICAL.

PRESCRIBING CHEMISTS.

nquest was held in Paddington on April 9th on the body child which had fallen ill after eating some bloaters and een given a mixture by a chemist. Subsequently it became e and died, the cause of death being apparently coma from et fever. To a verdict of death from natural causes the attached a rider stating that in cases of serious illness it nwise for chemists to prescribe without advising medical dance.

SUPERSESSION.

RRESPONDENT writes : C., D., and B. are practitioners in mall colliery town, the first two as partners. D. is called n to attend one of his subscribers at her first confinent, and visits her three times between 9 a.m. and 6 p.m., our proceeding slowly. At 8 p.m. the patient sent for s partner, C., but finding him out called in B., although was disengaged and lived only fifty yards away. B. ended, and wrote to C. and D. next morning that he did ecause the patient stated that she would no longer have s services, and if he, B., did not attend her, would send a practitioner from a neighbouring village. (1) Did B. rightly in taking over the case under the circumstances? What should be his future relation to the patient? Has D. any claim to the fee ?

** (1) There is no rule which would prevent one practitioner erseding another, and the superseding practitioner can dly be expected to go into the reasons which may have uced the patient to decline his predecessor's further ndance, but he must get the patient or, as in this case, patient's husband to write a note at once to inform the erseded practitioner that his services are no longer ired. We may observe parenthetically that we do not te understand what became of D., who under ordinary umstances should have made another call in the course he evening. (2) B. may retain the patient if it is her that he should do so and she refuses to continue the ices of C. or D., but otherwise he should regard himself aving acted as a substitute for C. and D. (3) If B. acted substitute he would be entitled to half the fee ; but if supersession is complete he may charge his fee, while an charge his fee also.

MEDICAL ETIQUETTE.

S. writes: It has fallen to my lot to have to oppose in lic the proposition, "That the tyranny of medical uette is a serious danger to the public." Can some of readers refer me to any literature which, from *the point iew of the public*, justifies or opposes the principles and of medical etiquette ?

* Articles on medical etiquette showing that such rules ld only regulate the relations between medical practiers in the interests of their patients and the public, published in this JOURNAL on January 20th, 1900 ; on uary 11th, 1905, p. 336, and May 20th, 1905, p. 1111.

CONSULTANTS AND CLUB DOCTORS.

S. writes : Dr. A. sent a working-man patient to the ital for my opinion. By mutual arrangement the ut continued to attend the hospital from time to and take medicine both from the hospital and from A. A few months later the patient's club doctor, Dr. B., s to me asking for information about the patient's case, h is a somewhat obscure one, and whether the man is to work or ever likely to be so ? To whom should I send iews on the patient's case—to Dr. A. or Dr. B. ? Dr. A. er whose care the patient has been jointly with myself) not seem to like the idea of my giving the information t to Dr. B.

The consultant would be justified in informing the nt's club doctor of the opinion he has formed of the

THE *JOURNAL* AND *ANSWERS'* SCHEME.

WHILE we were congratulating ourselves upon having disposed effectually of this scheme by the articles published in these columns, we received a letter from a member who is dissatisfied with the attitude taken up by us in the note on page 357 of the present volume, which was written when we were incompletely informed of the nature of the scheme. We ventured to say that if the "voucher" were good for a guinea and the medical practitioner selected by the patient, it might be accepted instead of cash just like a cheque. This is, in our correspondent's opinion, a "change of front," and he wants to know whether we think the butcher or the baker might give medical coupons to his customers ? Our answer would depend upon his solvency, as we do not share our correspondent's apparent objection to a third party paying the medical practitioner. If his extreme view were to be generally accepted it would involve the destruction of all insurance schemes by which the poor provide against the expenses of sickness ; the principle upon which these are based has always had the support of the BRITISH MEDICAL JOURNAL, and we believe of most thoughtful members of the medical profession. We do not suppose our correspondent would object to take a cheque from an employer for attendance upon a servant.

MEDICAL ADVERTISING.

JUDEX.—The use of the letters J.P. does not involve any breach of medical etiquette. The body which might complain of the title being used for trade advertisement is the County Bench.

THE OBLIGATIONS OF AN ANAESTHETIST.

PROSPERO writes : Mrs. X. was attended in her confinement by Dr. A., who called in Dr. B. to administer an anaesthetic. A month or two later Mr. X. consulted Dr. B. professionally. Dr. B. at first declined to attend him, but was informed that he had treated X. more than a year previously. On verifying this statement by his books Dr. B. again treated X., although in the meantime he had been under Dr. A.'s care. Mrs. X. has since come to Dr. B. for treatment. Was Dr. B. justified in treating Mr. X? Will he be justified in treating Mrs. X., whom he had not seen until called in by Dr. A. ?

** If Dr. B.'s sole introduction to Mrs. X. was through administering the anaesthetic under the circumstances described he should not have accepted her as his patient, but it would be going too far to object to his seeing Mr. X., especially as the latter had been previously under his care. It would be impolitic to attach too great penalties to the administration of an anaesthetic, or medical practitioners would be unwilling to render such help to one another.

MEDICAL MEN AS MUNICIPAL CANDIDATES.

COUNCILLOR writes : In reference to the inquiry of "Rusticus" and your reply thereto (p. 896) I should like to say that I have, for the last ten or twelve years, sat on the old Vestry and present Council of the Borough in which I live ; and that in all the elections I have avoided canvassing any but my own patients. I explained each time to my colleagues the difficulty, which they at once appreciated. I paid my share of the election expenses and occupied myself with some other part of the necessary work.

FEES RECEIVED BY *LOCUM TENENS*.

G., acting as *locum tenens* for H., attends the local poorhouse to which a man is brought dying from cerebral haemorrhage. G. is subsequently ordered to make a *post-mortem* examination. Is the fee for such examination and giving evidence thereon to be handed over to H., or is it the property of G. ?

** Where a practitioner is acting as deputy for another it is his duty to hand over to him or his representative all fees he receives for professional work done in that capacity. If G. were to receive a fee for attending one of H.'s patients it is to be presumed he would have no doubt that it was the property of H. There is no real difference between such a fee and one received for making a *post-mortem* examination arising out of H.'s practice—that is, H. is as much entitled to receive one as the other.

HOSPITAL AND DISPENSARY MANAGEMENT.

ROYAL EYE HOSPITAL.

AT the annual meeting of the Royal Eye Hospital, Southwark, on March 28th, it was stated that the total out-patient attendance during 1905 exceeded that in the previous year by some 10,000. With reference to overcrowding in this department, it was reported that no adjoining property could be secured for its enlargement. Mr. A. W. Ormond, Assistant Surgeon, suggested that the difficulty might be met by rearranging the existing accommodation, and a resolution in favour of this course was adopted by the meeting.

THE ITALIAN HOSPITAL.

AT the annual general meeting on March 17th the report put in showed that the average number of beds daily occupied throughout the year was 42, the patients admitted being 843, in addition to 14,732 out-patients; the work for the year in all departments was thus the heaviest hitherto recorded.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

PUBLIC VACCINATORS AND THE SUPERANNUATION ACT.

R. B., to whose previous inquiry our answer was given on April 14th, 1906, page 897, writes again asking for "the authority for the substance of our reply," and whether he can reclaim the amount of the deductions therein referred to.

*** The point in dispute between our correspondent and the clerk to the guardians of his union is now practically settled. When the Superannuation Act was passed it was generally considered that public vaccinators would come within its provisions, but some doubts were soon raised on this point, and a more careful study of the Act led to this becoming a very doubtful question, as public vaccinators are not specially mentioned in the Act, nor are they (in a legal sense) *officers* appointed by the guardians. They are really only contractors who (by the provisions of the Vaccination Acts) undertake by a special contract with the guardians to do certain work on specified terms, which contract can be put an end to *at any time* by either of the parties thereto giving twenty-eight days' notice to the other of the intention to put an end to the same. The legal question whether under such contracts public vaccinators could be regarded as officers of the guardians has been referred for the opinion of counsel, and their decision was given at some length, the following being a summary of such opinion:

"Medical officers of the guardians who are entitled to superannuation under this (the Superannuation) Act are *not* entitled to a further allowance in respect of the office of public vaccinator if they hold such, as Section 19 of the Superannuation Act lays down that only those emoluments are to be included that accrue to the officer *in virtue of the office* for which he claims superannuation.
(Signed) "R. Reid.
"M. Greenwood."

It must be evident that if a public vaccinator cannot claim superannuation under the Superannuation Act there can be no justification for making any deductions from the payments due to him for the work done by him in accordance with the terms of his contract. Our correspondent should at once make a claim for payment of all deductions which have been made in the past from his remuneration for services as public vaccinator.

VACCINATION AWARDS.

A PUBLIC VACCINATOR, whose work was inspected for the Local Government Board last summer, asks whether other public vaccinators inspected about the same time have yet received their grants for successful vaccination.

THE STANDARDIZATION OF DISINFECTANTS.

THE Council of the Royal Sanitary Institute has adopted a report by the Standardization Committee, which is to the following effect: The Committee is of opinion that no one method of testing disinfectants can indicate their relative values under every possible condition. These must be specially determined for the given case required, and where penetration is important the "thread method" is indicated. For general purposes, on account of its simplicity of working, the Committee recommends the "drop method," as described in the *Journal of the Royal Sanitary Institute*, vol. xxiv (1903), page 424. The test should be carried out with pure broth cultures of the typhoid bacillus and sterilized distilled water used as a diluent of the disinfectant, all nutrient broth having a constant reaction of + 15. Where special conditions exist which may interfere with the activity of the disinfectant the consumer should be advised to call for the same conditions to be embodied in the test.

The Committee charged with the work of which this report is the outcome, consisted of Mr. Wynter Blyth, Colonels R. H. Firth and Lane Notter, R.A.M.C., and Drs. C. Childs and S. Rideal (representing the Council of the Institute), and Dr. F. W. Andrewes (St. Bartholomew's Hospital), Professor Sheridan Delépine (Manchester), Mr. Walter Hills (the Pharmaceutical Society), Dr. E. Klein (St. Bartholomew's Hospital), Dr. Allen Macfadyen (Lister Institute of Preventive Medicine), Dr. James Ritchie (Oxford), Professor C. Hunter Stewart (Edinburgh), and Professor G. Sims Woodhead (Cambridge).

LETTERS, NOTES AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting Editorial matters should be addresse to the Editor, 2, Agar Street, Strand, W.C., London; those con cerning business matters, advertisements, non-delivery of th JOURNAL, etc., should be addressed to the Manager, at the Office 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication ar understood to be offered to the* BRITISH MEDICAL JOURNAL *alon unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITIS MEDICAL JOURNAL are requested to communicate with the Manage 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communica tions should authenticate them with their names—of course n necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notice to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNO UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letter on the editorial business of the JOURNAL be addressed to th Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESSS.—The telegraphic address of the EDITOR the BRITISH MEDICAL JOURNAL is *Aitiology, London.* Th telegraphic address of the MANAGER of the BRITISH MEDICA JOURNAL is *Articulate, London.*

TELEPHONE (National):—

EDITOR,	GENERAL SECRETARY AND MANAGE
2631, Gerrard.	2630, Gerrard.

☞ *Queries, answers, and communications relating subjects to which special departments of the* BRITIS MEDICAL JOURNAL *are devoted will be found under the respective headings.*

QUERIES.

X RAYS asks: What is the best means of running an *x*-ray c off alternating 220-V. main? The coil is made for mercur interrupter, and is now run from accumulators. aluminium or iron and carbon rectifier satisfactory?

J. W. W. asks for advice as to the cause and treatment of t following condition: A gentleman, aged 70, who suffers co siderably from gout is greatly troubled by excessive sali tion especially after meals. The saliva is very salt and acr There is no local irritation, the teeth are all sound, and d does not seem to affect the condition. Remedies for go have been extensively tried.

DR. SIDNEY MATHEWS (Crawley, Sussex) asks for suggestio as to the lesion in the following case, which he certified "rupture of the lung." The patient, a male, aged 57, al holic history, not used to motor travelling, went to a pl nine miles away in the morning, passed an abstemious d and returned at 6 p.m. He then had some tea and bread a butter. This was followed at 6.30 by a little vomiting a intense pain in the epigastric region. At 6 45 he was alm pulseless and a morphine injection of ¼ gr. relieved the pa but slightly. At 8.20 the pain was much the same, the fa symmetrically emphysematous and emphysema present o both clavicles and the upper part of chest. A surgical co sultation was held, and in view of a possible gastric ruptu laparotomy performed; this showed that all the abdomi organs were in a sound state. After the operation t emphysema continued to increase and death occur twenty-three hours after the commencement of illness, t eyes by that time being quite closed by emphysema and the upper part of the chest involved. No necropsy could obtained.

INCOME TAX.

TAXES inquires whether, in making his income-tax return, should include salaries from club appointments in general professional income under Schedule D, or whet they should be separately given under Schedule E.

*** Such income should not be included in the gene return, but stated separately on the form relating Schedule E.

"THE SINEW WHICH SHRANK."

DR. E. D. DINGLE (Derby) writes: In last Sunday mornir lesson the following verse occurs (Genesis xxxii, 32): "The fore the children of Israel eat not of the sinew which shra which is upon the hollow of the thigh, unto this day, beca he touched the hollow of Jacob's thigh in the sinew t shrank." It would, I think, be interesting to know w the "sinew that shrank" was, and if it is still true that children of Israel eat not of it. Can any of your readers g information on the point?

*** The "sinew which shrank" is traditionally suppo to be the popliteus muscle, or at least some part of muscles or tendons at the back of the thigh. We informed that strictly observant Jews do not eat this port of the animal, and Jewish butchers, when supplying s ustomers, are accustomed to remove that part of the flesh f a leg of mutton. We believe the process is called purging the leg."

ANSWERS.

T.—The most comprehensive work on the subject is *ypnotism: Its History, Practice, and Theory.* By Milne Bramwell, M.B., C.M. London: Grant Richards. 03. 18s.

orrespondent draws our attention to the fact that in armsworth's *Encyclopaedia* in the paragraph on medical actitioners it is stated that among the qualifications most mmonly held by medical men is that of licentiate of edicine of one of the universities. This is of course an ror. The title of licentiate of medicine does not now pear in the list of registrable qualifications granted by iversities. The statement in the *Encyclopaedia* is no ubt founded upon the wording, now obsolete, of Schedule A the Medical Act, 1858.

Thyroid in the Treatment of Obesity.

Thomas Dutton (London) writes: In answer to "Bulldog" ave never found thyroid the slightest use in the treatment simple obesity (I tried it carefully in twenty-five cases), t it is of great service when obesity is complicated with xoedema—not a very rare occurrence. I answered a ilar query in the British Medical Journal some time .

Calcareous Concretions in the Tonsils.

. Harold Drinkwater (London, S.E.) writes: I should ise "Medico," to perform a *morcellement* of the tonsil question. If, under cocaine anaesthesia, he removes the l described and also the portion of the tonsil containing offending crypts with either Kretschmann's or Tilley's ch forceps there will in all probability be no return of trouble. This little operation gives most gratifying lts in such cases, and if a 10 per cent. solution of cocaine ell rubbed on to the surface of the tonsil it is practically less.

yatt Wingrave (London, W.) writes: "Medico" has lently to deal with a case of keratosis of the tonsil—ost troublesome condition to get rid of. The little hard tle projections consist of cornified papillae, originating chronic desquamative lacunar tonsillitis. They grow the walls of the lacunae, and are with difficulty oved. It is important to diagnose the condition from nary mycosis tonsillaris. I have found the following tment succeed if carried out with thoroughness: Apply ly to each point a saturated solution of salicylic acid in hol by means of a cotton-wool probe once daily. Order uth wash to be used three or four times daily: Salicylic 10 gr., borax 5 gr., water 1 fl. oz. The galvano-cautery seless, but by far the better course is to remove affected tonsil tissue by means of "punch forceps"—*cellement.*

Angio-neurotic Oedema.

arey Coombs (Castle Cary) writes: In reply to Mr. nan's inquiry in the British Medical Journal of April p. 858, the treatment which has always succeeded in my ice has been a grain of grey powder night and morning n to fourteen days, and sulphate of magnesia (drachm) in peppermint water three times a day for two or days. This is followed by 20-drop doses of thyroid made according to Dr. Drummond's formula. The id of a sheep is cut up and macerated for three or four in half an ounce of 1 per cent. solution of carbolic acid ter. The fluid is strained or poured off. The above nent should be helped by open-air exercise—walking, g or riding.

aude A. P. Truman (Reading) writes: Mr. W. H. nan mentions two cases of this disease, and asks for stions as to treatment, which should vary, I am told, ding to whether the cause be neurotic or infective. In recently under my observation I believe the origin to been infective, chiefly on account of the marked effect the complaint of 5 gr. doses of quinine salicylate. The t was an adult healthy male, who was persistently ed at regular intervals for eight or ten weeks, the affected being the eyelids, tongue, fauces, lips, and hagus. Some benefit resulted from painting the parts solution of adrenalin in glycerine, but the quinine late had a marked curative effect, the attacks recurring t upon the drug being dropped, and finally yielding etely to its influence. I may add that the times of periods of duration, and the cycle of events generally rted in a remarkable manner the theory advanced by are in his article upon paroxysmal neurosis, though he ot actually include this disease by name.

aration of Finger Nails from their Matrix.

uxis writes in reply to query of "Nails" in the h Medical Journal of April 7th: As a fellow sufferer ny years from the annoyance and unsightly appear- gladly give him my experience and advice. For nearly twenty years the whole of my finger nails of both hands were similarly affected. After consulting several specialists and following their advice—having dosed myself with arsenic in the form of pil. Asiatica to the point of serious toxicity, coupled with the local application of ointments containing salicylic acid and other agents until my fingers were almost useless to me from the amount of irritation set up by the applications, all to no purpose—I gave the treatment up in despair. That this treatment was useless I am certain, as for fully four years after the cessation the nails remained the same. Having up to this period been of full habit, and having lived freely but not to excess, and feeling satisfied that the abnormal state was due to some constitutional condition, I commenced a rigid system of "dieting" myself, avoiding animal food, malt drinks, etc., and cut down the quantity considerably, with the result that my nails began to improve, and are now, and have been for some years, quite normal in appearance. I believe this condition is entirely a gouty manifestation, and if "Nails" will carefully diet and put himself upon a course of alkalies, along with a dose of "uricedin" in a tumbler of hot water every alternate morning, with as many holidays as he can get, along with open-air exercise—such as mountain climbing—I feel sure he will be gratified by the result.

LETTERS, NOTES, etc.

The *X*-Ray Treatment of Ringworm.

Dr. J. Goodwin Tomkinson (Glasgow) writes: After six months in the service of M. Sabouraud at l'Hôpital Saint Louis, I am fully convinced of the efficacy of his treatment as regulated by his Radiomètre *X* and carried out according to his rules of application. A comparison of his method, as regards rapidity, economy, and safety, with that of other methods in vogue, appears to be all in its favour.

Sabouraud, like many others who have attempted the employment of *x* rays in the treatment of ringworm, has had accidents of permanent alopecia consequent upon radiodermatitis; but since his introduction of the Radiomètre *X* he is enabled to make the following statement in an article (*Annales d'Electrobiologie et de Radiologie*): "Since the invention of the Radiomètre *X* we have not had one case of radiodermity." No greater proof of its safety can be adduced than the fact that the exposures are made, not by a physician but by a nurse conversant with the method, whose guide in the application to the area delimited by the physician is the colour reaction of Sabouraud's pastille of platino-cyanide of barium.

With respect to the rapidity of treatment one exposure only is required, the whole treatment demanding three months as against an average treatment of a little more than two years which obtained before the introduction of the present method, during which time the patient lived in the Ecole Lailler. It is found that the average of cures at the Ecole Lailler previous to 1904 was 110 annually, whereas Sabouraud's cures in that institution for 1904 stand at 374 for resident children and 212 for non-resident children. The large number of children treated without residence, and the correlative diminution in the number of children treated while resident in the school, the diminution in the time of their residence, and the suppression of some of the provincial colonies of Parisian children affected with ringworm, are strong evidences of the success, both as regards rapidity and economy, which attends the method used at the Ecole Lailler. There may be, perhaps, some few failures to obtain the best results in the first trials; but, as Sabouraud says of the method: "It is in truth perfect when applied perfectly."

Idiosyncrasy to Belladonna.

As an illustration of the occasional idiosyncrasy to belladonna which underlay a recent trial, Dr. F. J. Joynes of Dursley writes to recall a case in his practice in which a lady, advanced in years and with an irritable lower bowel, used a belladonna suppository at bedtime. Next morning he found she had unilateral convulsions, a dry throat, dilated pupils, and difficulty in speaking and swallowing. For many years past he has always ordered those who apply belladonna liniments to wash their hands, because some years ago, on visiting a patient for whom belladonna friction had been prescribed by him, he found that the maid who administered it had just gone by train, in a great state of alarm, to consult an ophthalmic surgeon as to the state of her eyes.

Tell-tale Envelopes.

We take the following story about the late Dr. H. Tuckwell, at Oxford, from the *St. James's Gazette.* He was, it is said, once staying with a friend, also a doctor, and during breakfast one morning the host began to discuss the number of letters which each of them received. Just then the postman arrived, and delivered two letters for Dr. Tuckwell and some forty for his host. "There, Tuckwell," said the host, triumphantly, "in spite of your large practice and your popularity, I've beaten you hollow." "Yes," replied Tuckwell, quietly, "but I notice that most of your letters are in black-edged envelopes."

THE FATAL ILLNESS OF OLIVER CROMWELL.

MR. KENNETH CAMPBELL (Wimpole Street, W.) writes: The account you give of the medical history of Mary Tudor is most interesting. As one's actions are so largely determined by the state of one's feelings, the student of history is much concerned in the discussion of such matters. I have often wondered what was the nature of the fatal illness of Oliver Cromwell. Historians (Carlyle and others) ascribe it to tertian ague. He appears to have been ten days ill, and the symptoms seem to me to point to lobar pneumonia. Perhaps some of your readers can say if I am right in this assumption.

A CASE OF DANGER DURING ETHYL CHLORIDE ANAESTHESIA.

DR. W. MONRO ANDERSON (Anaesthetist, Charing Cross Hospital) writes: May I refer briefly to a case of danger during ethyl chloride anaesthesia appearing in the BRITISH MEDICAL JOURNAL of March 24th? Mr. Fairlie-Clarke admits that he sprayed 8 c.cm. straight away into the inhaler. Snow long ago pointed out the danger of presenting too strong a vapour to the patient in the early stages of chloroform anaesthesia. How much more careful, then, one should be when making use of such a lethal drug as ethyl chloride. Moreover, it is most unscientific to present a vapour of 8 c.cm. to a patient rapidly when the administrator is quite unaware at the time whether a dose of only half that quantity would suffice. The gradual addition of 1 c.cm. or more at a time is the only safe and correct method of using ethyl chloride. I draw attention to this fact because the cases of death during ethyl-chloride anaesthesia, of which I am aware, have followed on the method of spraying the full dose into the inhaler at once, in the way in which Mr. Fairlie-Clarke reports.

A MILD CASE OF ENTERIC FEVER.

DR. J. REID (London, E.C.) writes: Mrs. B. consulted me on March 2nd for influenza, with consolidation of the base of the left lung. On March 7th I was called to see her for sleeplessness, worry (family trouble), and stomach symptoms. There had been neither increase of temperature nor pulse. Bismuth, etc., were ordered on March 9th. Quick spasmodic breathing of a highly nervous character, a temperature of 103°, a dry tongue, and an enlarged spleen, with absence of chest symptoms, caused me to suspect enteric fever. I ordered a quinine mixture, and on March 10th obtained a sample of blood for examination. Widal's reaction was positive. The temperature in the morning was 102°. On March 11th the temperature was 98.4°, and the base of the right lung gave evidence of consolidation. There was no subsequent rise of temperature, which was generally subnormal. On March 12th herpes on the soft palate rendered swallowing difficult. On March 30th diarrhoea, with tense abdominal muscles and flatulence, followed a slight nervous shock, but it passed off in twelve hours after 1 gr. of opium. Solid food was taken on March 25th, and the patient was discharged on March 29th. White mixture was used chiefly, and was found to be better than liquor bismuthi. Apart from gurgling in the right iliac fossa, the characteristic stools, and the tendency to diarrhoea when the white mixture was given too freely, symptoms which entirely disappeared after March 23rd, when a healthy countenance replaced the countenance of disease, the conditions would not have been believed to indicate enteric fever, except, perhaps, in an epidemic, before Widal's reaction was employed.

PAINLESS LABOUR.

DR. JOHN SPURWAY (London, N.W.) writes: The recent discussion on this subject reminds me of two cases. The first is that of a woman who had had four children, and her longest labour—the first—lasted half an hour. I attended her at the last only. She scoffs at any difficulty, and cannot understand why women "make a fuss" about having children. No doctor has ever got to her in time. For the last three labours the history has been the same; she felt a little discomfort, walked upstairs, lay down, and the baby was born at once; on one occasion she had not even time to lie down. Of course there must be pains, but she does not feel them. Having a baby is as simple a matter to her as having, say, a drink of water. This, I take it, is how our ancestors in the past produced their children.

The second is a case of anaesthetic labour. The patient, a bright little woman, a primipara, sent for me about 4 a.m. I found her in labour with strong regular pains, which rather amused than distressed her. At every pain she looked at me over her shoulder and laughed. There was very little delay at the perineum, and as the baby was born she looked at me again and laughed, and said, "What a funny sensation!" Her after-history was uneventful.

MIDWIFERY OF THE PRESENT DAY.

DR. JOHN MCMULLEN (Capetown) writes: Dr. Peter Horrocks, in his address on midwifery of the present day (BRITISH MEDICAL JOURNAL, March 10th, 1906, p. 541), states that "it is best not to interfere with the perineum. . . . In primiparae a slight tearing of the posterior fourchette and . . . slight
laceration of the perineum may be looked upon as norm
In my experience, the laceration of the perineum sho
rarely, if ever, take place. During the last few pains I p
my right wrist over the coccyx and press with a glid
motion towards the vulva, using all the force I can, return
my hand rapidly to the coccyx when I have pressed too r
the vulva. In this way I appear to be very rough with
patient, and frequently push her right across the bed to
wall; but I save her perineum.

THE SENSATION OF DEATH.

S. G. L. writes: Surely, is it not more reasonable in endeav
ing to realize the above to compare it with something t
approaches it more closely than the state of anaesthesia
any other condition—namely, an attack of syncope? I
we have a more or less sudden loss of consciousness
then absolute blank, an experience which at some t
comes to most of us. Why should we regard the sensat
of death as differing from this, for given a case of extr
syncope, should not the patient revive he or she is bey
all further sensation, which is purely a physiolog
manifestation.

A WARNING.

DR. ROBT. P. JEFFERSON (Hove) writes: Allow me to warn
fellow members against a man calling himself McDo
Sub-Inspector of the Cape Police. He is a fine, soldie
looking man, of about 37, and has a broken nose of l
standing. He paid my consultation fee with a che
written on a sheet of note-paper, drawn on the "Union B
of Scotland, Limited, Cornhill, E.C," which has b
returned to me marked: "Account closed many years a
Before leaving me he tried to borrow some money, which
being a stranger to me, I refused to lend him.

CALCIUM SALTS IN CHILBLAINS.

DUNMURRY COLONIAL writes: Dr. G. A. Stephens, in
BRITISH MEDICAL JOURNAL of April 7th, p. 797, ment
having found that calcium chloride is a very service
drug in the treatment of chilblains. I remember Profe
Sir W. Whitla more than ten years ago describing in a lec
Professor A. E. Wright's researches on calcium salts,
stating that in chilblains this drug acted like a charm.
subsequent diminution in coagulability, if the drug is
tinued, may cause an apparent failure, but this may ea
be obviated. Formerly the directions were to omit
mixture for a day after taking it for forty-eight hours, bu
has been found that patients who trusted this certain "cu
year after year eventually complain that it does not alw
give relief. In these cases the good result is obtained a
if 15 or 20 gr. are taken every two hours for three doses o
There is probably no object in resuming administra
unless symptoms recur. Squire's *Pocket Companion* m
tions the use of calcium chloride in chilblains, and
"elixir" is a palatable preparation for those who cons
the drug unpleasant when merely compounded with syru
orange.

EUCALYPTUS POISONING.

DR. JOSEPH BENJAMIN, of Ahmedabad, has sent us note
a case of eucalyptus poisoning seen by him in consulta
The patient, a boy aged 8, suffering from remittent feve
given in mistake six drachms of eucalyptus oil at 5 a.m.
vomited in about half an hour, but at 7 a.m. became un
scious. He was caused to vomit several times again,
stimulants were administered without the unconscious
lessening. When Dr. Benjamin saw the child at 11 a.m
was still unconscious and partly collapsed. The pupils
contracted, breathing somewhat laboured, temperature 9
pulse 128. The abdomen was tympanitic and hiccough
quent. No urine had been passed for five hours. U
treatment by cold affusion to the head, mustard leav
the neck, ammonia mixtures, and enemas, the stupor sl
passed off. At 2 p.m. the child passed water, and by 3
was entirely conscious. There was no apparent a
effects.

SCALE OF CHARGES FOR ADVERTISEMENTS IN T
BRITISH MEDICAL JOURNAL.

Eight lines and under	£0 4 0
Each additional line	0 0 6
A whole column	2 13 4
A page...	8 0 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manag
the Office, not later than first post on Wednesday mor
preceding publication; and if not paid for at the time, shoul
accompanied by a reference.

Post-Office Orders should be made payable to the British Me
Association at the General Post Office, London. Small amo
may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive lette
Postes Restantes addressed either in initials or numbers.

A Clinical Lecture
ON
SOME SURGICAL COMPLICATIONS OF TABES DORSALIS.

DELIVERED AT ST. BARTHOLOMEW'S HOSPITAL.

By ANTHONY A. BOWLBY, C.M.G., F.R.C.S.,
LECTURER ON SURGERY, AND SURGEON TO ST. BARTHOLOMEW'S HOSPITAL.

ENTLEMEN,—There is a patient who has come back to e hospital after having been away from it for some ears, and who has a disease which is of some interest. he man himself also possesses an interest of his own, ecause he was the first case in which, in this hospital, ere was recognized a connexion between joint disease d tabes dorsalis, so-called Charcot's disease. This was November, 1884.

HISTORY OF CASE.

This patient was shown by myself at a meeting of the linical Society in 1889, and I have here a brief history of e patient at that time, which I will read to you. He as 37, and he had been shown previously at the Clinical ciety on November 14th, 1884, and had been under my servation since May 17th, 1884. His history was that had syphilis when he was 18 years of age, and had en a heavy drinker. In 1879 he suffered from perforating cers under the left great toe, and had had several fits, parently of an epileptiform nature. In 1881 he had a rforating ulcer under the right great toe, and at about is time, or sooner, he began to notice that the vision in s right eye was not as good as in the left. In 1883 he veloped lightning pains in the lower extremities. Since en the ulcerations under his toes have frequently re-ened and again healed. The patient stated that they ways reopened if he took alcohol in any form, and healed he left off drinking. He has had slight ataxia for the past e years; the reflexes have been absent since he was st seen in 1884. Occasionally he has had attacks of ontinence of urine and faeces, and now he suffers from y atrophy of the right optic nerve, with consider-le impairment of vision. Both pupils contract to commodation, but not to light. The left knee first came troublesome in 1879, which was the time when perforating ulcers first occurred in the left foot, and knee gradually became more stiff and weak until his mission to the hospital in 1884. At that time there was e lateral movement and impaired flexion of the knee, and re were large bosses of bone of irregular shape and e, which could be felt in the synovial membrane. The ella measured 4½ in. across, and 3 in. laterally, so that vas a big patella, and on account of the yielding of the at the patient could not bear any weight upon it, and it s accordingly supported by a leather splint. Since 4 the bosses of bone have steadily increased in size, l at the present time (1889) the shape of the normal icular surface is quite obliterated, and the whole joint sents irregular masses of bone in numerous rounded, sy prominences, most of the new bone being attached arently to the tibia, though some of it is loose in the tissues. Other portions are attached to the femur and ella. On account of these, the movements of the joint almost entirely prevented. But it is worthy of notice t this immobility is beneficial to the patient, and that he can bear his weight on the limb, and can dispense h all splints, the new bone which has been formed ng itself as a sort of splint. The right knee had been nd until in July, 1887, he first noticed swelling, which idly increased until it assumed enormous dimensions. leg and thigh then swelled, and the joint rapidly ame loose and flail-like. At no time had he suffered least pain, either during movement or when the limb at rest. When he was admitted to the Hospital in 7 the right knee-joint, which was the newly affected e, was found to be greatly distended, the synovial ch showing a collection of fluid in the knee which had ually stretched the synovial membrane until it bulged rly one-third the way up the thigh. On account of the ntity of fluid it was impossible at that time to feel the dition of the bones, but the skin was normal and did pit on pressure. The swelling was treated by rest and strapping, and almost all the fluid subsided. There could then be felt on the inner side of the knee a large irregular mass of bone, and smaller bony outgrowths from the femur, tibia, patella. It appeared that the right knee was about to copy its fellow and become fixed by the formation of bony growths.

That is the history of the patient when he was shown in 1889. Since then the right knee has become more fixed, like its fellow, and has gradually become stronger, so that he can dispense with artificial support, the newly-formed masses of bone being very efficient splints. He certainly has had tabes for more than twenty years, and he illustrates very well several of the most characteristic of its surgical complications. As far as his knees are concerned, the first knee only very gradually became bad, and when I showed the man at the Clinical Society in 1884 as a case of Charcot's disease, a great many people who saw it, including the then President, Sir Andrew Clark, did not consider at that time that there was sufficiently definite evidence of tabes to make it at all certain that the condition of the joint depended in any way upon the condition of the spinal cord. Subsequent events, however, have shown that he has been suffering from tabes from the beginning; and I want you to remember that, although the second knee did run a very characteristic course, and although no doubt both joints are examples of the same class of disease, it took several years for the first knee-joint to be so affected as to materially interfere with his walking. The much more characteristic onset of Charcot's disease is illustrated by the second joint, which rapidly became greatly distended with fluid, and was painless, and then afterwards the knee rapidly became very loose, and simultaneously with this there appeared formations of large bosses of new bone in the synovial membrane. Unfortunately, this latter stage, this formation of new bone and the locking of the joint, does not often happen, but it is liable to happen; and you must remember that, if you can manage to keep the joint surfaces from becoming dislocated, it may happen, and the patient may afterwards be able to dispense with apparatus and get about. If this man had been allowed to walk at the time that the joints were loose, it is almost certain he would have suffered from displacement and dislocation, and if afterwards these bony formations had formed they would have formed too late, for by that time the articular surfaces would have been so displaced that he could not have borne the weight of his body on the affected limb. So this illustrates the importance of taking care that these loosened joints, especially those of the lower extremity, are adequately splinted, and that the patient is not allowed to use the limbs at the time when this rapid dystrophy is occurring. This is a transient affection; it does not indefinitely progress and continue; there is a time when the joint is very rapidly disintegrated, and then afterwards that destructive process comes to an end. It is not sufficiently appreciated that it comes to an end, and if you do not appreciate that it does and can come to an end in the same way as can the dystrophy of the bone which causes fracture, you are inclined to say, "What is the use of doing anything for such joints?"

CHARCOT'S DISEASE.

Let me say a word or two more about the so-called "Charcot's disease." This man had tabes for several years before one knee became affected, and it was not until six years later that the other was attacked. That indicates that there is no particular time in the course of tabes in which the joint necessarily becomes involved, and in a few cases one of the first evidences of tabes is an affection of the joints. In other cases the patient may have tabes for twenty years before a joint is involved. I can tell you examples of both.

A man was admitted into this hospital with a dislocation of his hip, which had occurred many months previously from a quite inadequate amount of violence, for he had slipped on the pavement while unloading a van, and, without even falling, his hip-joint was dislocated. Up to that moment he was not known to have had anything the matter at all. When we examined him in the hospital we found no evidence of tabes, and he was discharged from the hospital with a dislocated hip-joint which could not be reduced. He afterwards went into the Hertford Infirmary, and he died of very rapid tabes in eighteen months. In that man the displacement of the hip-joint was the first indication of tabes, and that is an illustration of how early this joint affection may occur.

Here is another case to show how late these affections may supervene. I saw a patient with a typical so-called Charcot's disease of the knee-joint, which had very rapidly come on only a few months before I saw her. On inquiring for a previous history of tabes, she told me that she had been under Sir George Humphry twenty years before for an attack of sudden diplopia and a bad squint. This is one of the ways in which tabes is early indicated, a sudden paresis of some of the ocular muscles. In a great many cases it is transient, and it was transient in her. But that is pretty good evidence that for twenty years she probably had had tabes, and for this twenty years she had nothing the matter with her joints.

So that the disease may come on at any time, early or late, or after the lapse of only a few years. It may come on either in acute tabes or in very chronic tabes. The case I have been describing to you is one of very chronic tabes, for the man is alive twenty-five years after the tabes began, and I think it is certain that for the last ten or twelve years the symptoms have not progressed in the least. The atrophy of his discs and the degree of blindness have not materially altered, so that we are justified in saying that the progress of the disease has been to a great extent arrested.

Such joints as we have been discussing in their early stages are comparatively painless and are very full of fluid, and in the later stages become greatly distorted and liable to be dislocated. Here are illustrations showing first of all an enormous swelling in connexion with the hip in the early stage; and here is another showing dislocation of the hip at a later stage, and in this patient both the hip-joints have become displaced. Here is a knee with very irregular bony enlargement, complete alteration in the shape of the bones, and dislocation. Here is an elbow. You see that all the ordinary outlines characteristic of the elbow-joint are entirely lost. Almost any of the large joints may be affected—the knee, hip, elbow, and after that the shoulder and ankle. It practically does not affect the small joints; hardly ever are the joints of the fingers or of the toes involved. The tarsal joints may be affected, the carpal joints hardly ever. So it is essentially a disease of certain of the large joints, and some of them are much more often affected than are others.

SPONTANEOUS FRACTURE.

Now let me say a word or two in connexion with an allied subject—namely, "spontaneous fracture in tabes." That is another surgical complication which is so closely allied to Charcot's disease that you may say that the same sort of dystrophy of bone occurs in both. In the one case it results in very rapid destruction of the articular surface, which wears away, and in the other case it results in the fracture of the bone which has become degenerated in its shaft. Here are some notes which I took of a woman who was in the hospital about sixteen years ago. She was the first patient in whom spontaneous fractures had ever been noticed in this hospital in connexion with tabes. So she has a sort of interest of her own, like our other patient. She was at that time 47 years of age, and her history went back a long way. In 1875 it was said that she fell and hurt her knee, and in 1877 it was certain she was in the hospital with a large effusion in her joint, which at that time was called hydrops articuli. It was not recognized (at that date, 1877) that this had anything to do with tabes. It very likely was the beginning of a tabetic joint, which, like many of these joint conditions, did not progress from bad to worse. In 1879 she was again in hospital with effusion in her knee, which had become loose and grated. And that, again, I think pretty certainly was a tabetic joint. But it did not progress. And I want you to remember that in not all of these cases do the lesions become progressive, and they often stop at a certain stage. In February, 1881, whilst she was walking, her leg slipped, and she had a compound fracture of the tibia and fibula on the right side. In May, 1881, her left knee suddenly became enlarged by a large quantity of fluid, but it was quite painless. In 1883, whilst she was wringing clothes after washing, she fractured her left humerus. In 1885, when she was standing and reaching to pick up something, the tibia and fibula at the lower part spontaneously fractured. In 1888 the same leg, while she was standing, broke below the knee. So she had spontaneous fracture occurring at five separate times, involving both upper and lower extremities. When we came to inquire into the history of tabes, it was said that she had doubtful pains, which might have been tabetic, since she was 17. For twelve years before she came into the hospital—that is to say, since she was 35—she had been unable to stand with her eyes shut, and occasionally had had difficulty in micturition. Since that time, also, she had had a feeling of constriction as of a band tied round the chest, and complained that her feet felt numb—all indications of the classical alterations in sensation in tabes. In addition, she was liable to have those violent attacks of sickness, coming on without obvious cause, to which the name gastric crises has been given. Her menses ceased when she was 25.

Here is another case. Many years ago a man was admitted to the hospital with a history that while he was taking his boot off he fractured his thigh. It mended soundly, and the only thing which happened at that time indicating that there was anything else wrong was that he had incontinence of urine. Ten years later he developed well-marked tabetic arthropathy of one knee-joint, and when I examined him he had all the well-marked evidences of tabes. Spontaneous fracture is not nearly as common as is tabetic arthropathy, and it is not nearly so common to have bones spontaneously break as to have them spontaneously and rapidly wear away at their articular surfaces. But you must remember that tabes is one of the causes of spontaneous fracture, and that in multiple fractures one must particularly be on the look-out for it, for, as this woman's case shows, tabes may affect several bones at different times. And the other thing to remember is that in this woman, and in many of these patients, curiously enough, these fractures nevertheless heal strongly and well. In this woman, when we examined the bones which had been broken they all seemed strong enough, so, as in the case of joints, there is a transient dystrophy which does not necessarily progress; it is there for a time and at that time the bone may break, or at that time the joints may wear away. But if you remember that this condition is transient you will not think that it is not worth while taking any trouble with these patients.

"PERFORATING ULCER OF THE FOOT."

The man of whom I spoke to you first of all to-day has a very characteristic history, in that he has had syphilis. The more inquiry is made into these cases of tabes the more commonly is a history of syphilis to be obtained, and the proportion of cases of tabes in which there is a definite history of syphilis is probably as high as 75 to 80 per cent.

Therefore it is most probable that almost all cases of tabes are remotely due to syphilis. But the most unfortunate part about this etiology is that even if joint affections are remotely due to syphilis, they are in no way to be remedied by the use of antisyphilitic remedies; and it is one thing to say they are the result of syphilis, and another thing to treat them as if they were syphilitic. As a matter of fact, many patients are often made much worse by being put upon a course of mercury or iodide of potassium in large doses. I can assure you that these drugs do no good at all, although people are anxious in these circumstances to try everything. This patient is a characteristic one in another way. He had perforating ulcers under each of the great toes. Perforating ulcers were first of all recognized as being due to some nerve lesion by Sir William Savory (at that time Mr. Savory) and Mr. Butlin at this hospital, and at the time their paper was published, some thirty years ago the connexion between nerve disorder and perforating ulcers had not been noticed at all. They observed that in these cases there were symptoms which were suggestive that there was an affection of the nerves, for they found that the foot in the neighbourhood of the perforating ulcer was to a great extent anaesthetic, and in many cases the area of anaesthesia sweated very profusely, and it was noticed that if amputation was performed, as it not infrequently was, the ulcer recurred in the corresponding part of the stump which was supplied by the same nerve as supplied the original lesion; and we know now that, although perforating ulcers may occur in connexion with other cord lesions, it is with tabes that the vast majority of these lesions are associated. The commonest e of a perforating ulcer is the one in which it occurred in is man, that is to say, under the ball of the great toe. ordinarily begins as a corn, and this corn or thickening epithelium is ultimately followed by an ulcer which netrates—or bores—deeply, and gives rise to this name perforating ulcer. It does not extend over a large area, t tends to perforate without making any very large open e. It is very liable to quickly penetrate the joint, and not a few cases it results in some destruction of bone, her by caries or by actual necrosis. Our patient here s lost a considerable amount of bone from both feet, so it the toes are very much shrunken and shortened. t yet at present they are perfectly sound. And there in I want you to remember that perforating ulcers are ngs which can get and can remain perfectly well. ere is a tendency to believe that a perforating ulcer essarily cannot get well, that amputation may be uired for it, and even then it is liable to recur in the mp. This man's statement is of some importance. stated that the ulcers always reopened if he took hol in any form, and that they healed readily if he off the alcohol. You know that alcohol is liable to se neuritis; and I am certain that there are a good ny people who have perforating ulcers who do not get l if you allow them to take alcohol. The other thing to nember is that if this ulceration is treated so as to eve the part from pressure and to get it clean and tic, then, so long as there is no actual dead bone aining behind, these sores can heal and can remain ectly well.

Incontinence.

have spoken so far of the surgical complications in limbs; but this man of whom I am speaking said he occasional attacks of incontinence of urine and faeces. se are complications which you must keep in mind, use a patient may come to you complaining of nothing gestive directly of tabes, but on account of some trouble nected with urination. He may come because he has culty in passing his water, complaining that he cannot n; or he may tell you that at times, without any par-ar cause, he has a sudden desire to empty his der, and, whether he will or not, the bladder insists emptying itself, so that he may easily pass his urine his clothes unless within a few moments of being d upon to empty his bladder he can empty it into a ble receptacle. In such cases tabes is often over-ed and the incontinence is put down to all sorts of r conditions; but incontinence, especially spasmodic tinence, is very suggestive of tabes, and, like many of other tabetic lesions I have spoken of, it may be quite ient. This man has had no trouble for some years; s there for a time in the same way as diplopia may ere for a time, and, like that, it may pass away. The is true of the rectum. It is, fortunately, not so non, but here again there is this same sudden call to the motions, and under these circumstances again, her the patient will or not, the rectum insists upon ying itself. But you have this satisfaction, that it m persists even in bad and progressive cases of tabes, radually or suddenly passes away.

Gastric Crises.

a certain number of these cases there are sudden s of violent sickness. This man has not had any troubles, but the woman, whose case I read to you, ho had spontaneous fractures, was liable to these s of sudden vomiting without any feeling of nausea, uite independently of food. And there, again, that most cases, a transient condition.

Eye Symptoms.

other complication in our patient is grey atrophy of ptic disc on one side and loss of a great deal of . The eye may be affected in various ways in tabes. tioned to you first of all that there may be diplopia quint. In the next place, there may be grey atrophy is to say, there may be atrophy of the optic disc, assumes a curiously pearly-grey appearance—not a appearance, such as might occur after acute optic is, or after severance of the optic nerve, but the teristic greyish appearance which gives rise to the Here, again, you must remember that, although nay be rapid atrophy, it may come to an end. This t has never completely lost his vision, but he was losing it in one eye so rapidly that at one time it looked as if he were going to become completely blind on that side. The other eye has not been materially affected.

Prognosis in Tabes.

I want you to keep this man's case in mind in connexion with all these complications which I have mentioned, because they illustrate that tabes may be a very chronic disease; that, after having progressed up to a certain point, it may cease to progress; and that all these various symptoms and complications, even such things as disease of bone, alterations in joints, etc., may all, or any of them, be transitory. Under those circumstances you must not give too bad a prognosis; you must not think that everybody who begins with tabes is necessarily going to continue to get worse. The patient's symptoms may either progress or the disease may be arrested, and the arrest may occur at either an early or a comparatively late stage of the disorder. It is seldom that all the complications come together. You know that they may arise, but you must not forecast them and predict that they will arise, because they do not necessarily do so. And the outcome of this is that, as far as treatment is concerned, you must not look upon these cases as incurable in any way. It is true you cannot do much to alter the progress of tabes. The main thing which you can do is to improve the general nutrition of the patient. Antisyphilitic remedies, as I have said, are of no use. You should treat surgically all these various complications, feeling you are justified in encouraging the patient to believe that most of the complications are transitory. In the case of the man of whom we have been speaking, he is now able to walk about and earn his living, because he was carefully splinted and kept quietly in bed at the time when his joints were rapidly becoming worse and tended to become dislocated. It is because this woman who had fractures was treated like anybody else with fractures that there was a chance of their mending, and therefore I say you must take an encouraging view of the complications of tabes, and not neglect to treat them with every care.

THE BACTERIOLOGY OF A "COMMON COLD."

By CHAS. H. BENHAM, M.D.,
HOVE, SUSSEX.

Though colds are almost universal during the winter months, and their remote effects possibly much graver than is usually supposed, the subject has been very imperfectly investigated. I have endeavoured to throw some light on the question by the bacteriological examination of a series of 27 cases of mild "common cold" occurring in the neighbourhood of Brighton from November, 1905, to January, 1906. The work has been carried out at the Stephen Ralli Memorial of the Sussex County Hospital, under the direction of Dr. Bushnell, whose help and advice have been invaluable, and I should like to acknowledge the kindness of Dr. Gordon Dill, who suggested the research, and other members of the staff of the Hospital, and also several colleagues, who provided some of the clinical material.

The literature bearing directly on the subject is scanty.

In 1873 Hüter[1] described a micrococcus as a cause of coryza.

In 1890 Paulsen[2] mentioned the occurrence of various cocci and bacillary forms in common colds.

In 1894–5 Dr. Edmund Cautley[3] examined 8 cases of common cold, and in 7 of them isolated a bacillus which he named the *Bacillus coryzae segmentosus*.

This bacillus was subsequently found by Dr. Gordon[4] of St. Bartholomew's Hospital in all of 7 cases examined.

In 1906 Dr. Prosser White,[5] of Wigan, examined 21 cases of common cold. His experiments will be published in book form shortly. He finds a bacillus probably identical with that of Cautley in 17 out of 21 cases, that is, in 81 per cent. Inoculation experiments on the noses and genital tracts of guinea-pigs, rabbits, and monkeys, were negative.

The only positive results which I have been able to ascertain were those of Gordon in 1902, who injected 2 guinea-pigs with a pure culture of Cautley's bacillus, and observed that they were evidently ill for a few days, but recovered.

Literature dealing with more severe epidemics simulating influenza is abundant, and a large number of such epidemics are recorded in which Pfeiffer's bacillus was not found.

Hajek,[6] in 1838, described in such an epidemic a *Micrococcus nasalis* and a *Diplococcus coryzae*.

Seifert,[7] in 1889, described cocci 1 μ in diameter in an influenzal epidemic.

R. Pfeiffer,[8] about the same time, described the *Micrococcus catarrhalis* as occurring in an extensive epidemic of mild febrile bronchitis, and considered it to be identical with one or other of the cocci described by Hajek.

Lord,[9] in 1903, compared the *Micrococcus catarrhalis* with the meningococcus of Weichselbaum, and drew attention to the differential diagnosis between the two organisms.

Besançon and De Jong,[10] in 1905, found the *Micrococcus catarrhalis* in an epidemic of influenzal type occurring in Paris.

Dunn and Gordon,[11] in 1905, wrote an extremely able and comprehensive paper on a severe epidemic occurring in Hertfordshire, in which the *Micrococcus catarrhalis* appeared to be the principal organism.

The question of diphtheroid organisms has been much discussed. Since Loeffler[12] in 1887 first described non-virulent bacilli resembling the *B. diphtheriae*, numerous observers have drawn attention to organisms more or less resembling the Klebs-Loeffler bacillus. In 1888 Hofmann[13] described the bacillus which bears his name. Roux and Yersin found that there exist non-virulent forms, which they considered to be attenuated forms of the *B. diphtheriae*. Gordon,[4] in his paper on the *B. diphtheriae* and organisms liable to be confounded therewith, classifies diphtheroid organisms thus:

1. *B. diphtheriae*—virulent to animals.
2. Organisms having all the characters of *B. diphtheriae* except that they are non-virulent to animals.
3. Organisms not having all the characters of *B. diphtheriae*, but somewhat resembling it.

In this latter class he places Hofmann's bacillus, *B. xerosis*, and Cautley's bacillus, and others as yet unclassified.

Ford-Robertson[14] has shown that diphtheroid organisms are present in cases of general paralysis of the insane. Eyre and Flashman[15] do not support this, but find diphtheroid organisms in the throats of insane patients in much the same proportion as in the sane.

A diphtheroid organism, the *Bacterium muris*, has been found by Klein[16] in rats and mice, and another diphtheroid bacillus was described by Foulerton[16] as occurring in the human uterus in cases of puerperal fever.

THE BACTERIOLOGY OF NORMAL NASAL CAVITIES.

Earlier observers, for example Thompson and Hewlett,[1] regarded the nasal cavity in health as sterile. More recent observers consider that it normally contains such organisms as staphylococci, streptococci, and pneumococci, in fairly large numbers and diphtheroid organisms occasionally. Hesslauer[17] (1902) and Lewis and Logan Turner[18] (1905) give statistics of organisms found in healthy nasal cavities.

It is interesting to compare their results with regard to staphylococci, streptococci, and diphtheroid bacilli with those which I have obtained in 21 cases of common cold. Table I gives such a comparison, and it is interesting to note that my figures for staphylococci and streptococci, worked out as percentages, are almost identical with Lewis and Logan's figures, but that the cases of cold show an enormous increase in the number of diphtheroids present.

TABLE I.

	Twenty-one Cases of "Common Cold."	Twenty-six Specimens from Normal Noses (Lewis and Logan Turner).	One hundred and eighty-six Specimens from Normal Noses (Hesslauer).
	Per cent.	Per cent.	Per cent.
Staphylococci ...	48	50	25
Streptococci ...	24	23	17
Diphtheroid bacilli	95	8	13

N.B.—In the above table the figures are expressed as percentages for purposes of comparison.

It will thus be seen that in my cases there was a very marked increase in the number of diphtheroids, whereas staphylococci and streptococci occur in much the same proportion as in normal nasal cavities. The technique which I adopted was very similar to that of Lewis and Logan Turner,[18] but it must be noted that my cases refer to throats as well as noses.

METHOD OF EXAMINATION.

Mild cases of common cold were chosen at random fro patients of all ages and classes of society.

The symptoms were usually sore throat, sneezin malaise, and headache, with more or less nasal discharg Muscular pains in the back and stiff neck were fairl common. Nearly all the patients were well enough to b about and following their usual occupation, and none them could be said to be seriously ill. A rise of temper ture of a degree or two was observed in some of the case but opportunities for clinical observation were necessaril few.

In some cases, especially those with painful sore thro and muscular pains, and very little nasal discharge, a su normal temperature was noted on several occasions, an these patients complained of feeling very depressed. I view of the recent work on the question of diphthero organisms in cases of general paralysis of the insane, th point is of some interest and will require to be more ful worked out.

The observations on these cases were made as early possible, usually on the second or third day, though some cases at a much later period.

Technique.

Sterile swabs were prepared by heating to 175° C. in oven. In taking nasal swabs, a solid-bladed nasal speculu was used which had been sterilized by boiling. The thro swabs were taken as far as possible from the posteri pharnygeal wall.

Film preparations were made from the swabs a stained with carbol-methylene blue, or by Gram's metho The swabs were then inoculated direct on tubes inspissated ox serum labelled N. and T. respective These were incubated at 37° C. for twenty-four to fort eight hours. Subcultures were then made on nasg plates, from which isolated colonies could be picked o and transferred to tubes or plates of nasgar or otl media as required. Nasgar is a medium prepared fr nutrose, ascitic fluid, and ordinary agar (Dunn a Gordon[11]). Invented by Wassermann for the gonococc it is an excellent medium for the growth of delic organisms such as the *Micrococcus catarrhalis*, which liable to be overlooked unless a suitable medium for growth is provided.

In examination of the cultures Gram's method staining was employed, using the short times reco mended by Dr. Gordon[11]—namely, three-quarters of minute each in aniline-gentian violet, and Gram's solut respectively; 1 per cent. aqueous solution of carbol-fuch was used as a counterstain for a few seconds to show the organisms not stained by Gram's method. In case doubt a control was introduced by placing a min quantity of a known organism, such as *Staphylococ pyogenes aureus* or *Bacillus coli*, on one corner of coverslip.

STATISTICS OF CASES.

Of the 27 cases examined, 6 were patients in isolat hospitals suffering from common colds, and it seemed b to exclude these from statistical consideration (Table They are, therefore, appended below in the table, and not included in the figures on which the conclusi arrived at in this paper are based.

Diphtheroid organisms were found to be present in cases out of 21—that is, 95 per cent.—and were isola in 5 of the cases, also in one of the sanatorium cases.

Cocci negative to Gram's stain were seen in 10 out 21 cases—that is, 48 per cent.—and isolated in 2 cases.

Other cocci positive to Gram's stain were seen 14 cases—67 per cent. Some of these were undoubte pneumococci. They were not present in large number any of the cases, nor was it found possible to iso them.

Pfeiffer's bacillus, though carefully looked for, coul found in only 2 cases in small numbers, and was obtained in pure culture. Its microscopic appeara were as follows:—Short rods, smaller than a pneu coccus, negative to Gram's stain, and showing bip staining with carbol-fuchsin. This corresponds with appearance of the influenza bacillus,[19] but in the abs of cultures the diagnosis is, of course, uncertain.

Other organisms were found in small numbers, muc in normal throats and noses.

Table II.—*Statistics of Organisms found in a Series of 21 Cases of Common Colds, with 6 Cases appended of Common Colds occurring in Isolation Hospitals.*

Case No.	Diphtheroids Seen.	Diphtheroids Isolated.	Cocci, Gram — Seen.	Cocci, Gram — Isolated.	Streptococci.	Staphylococci.	Diplococci, Gram +.	Bacilli, Gram —.	Bacilli, Gram + other than Diptheroids.	M. Tetragenus.	Sarcinae.	Torulae.	Streptothrix.	Pfeiffer's Bacillus.	Spirochaete.	Isolated cocci, Gram +.	Very Minute Cocci, Gram —.
1	+	+	+		+	+	+				+		+		+		+
2	+		+			+	+	+			+						+
3	+	+					+		+								
4	+					+	+		+								
5	+						+				+						+
6			+		+		+	+		+							
7	+		+			+	+								+		
8	+					+	+	+									
9	+				+		+										
10	+		+		+	+				+							
12	+				+		+										
13	+					+				+							
14	+					+								+			
15	+	+	+	+		+	+										
16	+		+	+		+	+										
17	+	+	+				+										
18	+		+					+									
19	+																
20	+								+				+				
26	+	+												+			
27	+		+				+		+							+	
21 cases	20	5	10	2	5	10	14	4	4	3	3		2	2	2	1	3
11	+		+			+	+							+			
21	+		+														
22	+				+			+									
23												+				+	
24	+	+	+			+											
25	+																

A Diphtheroid Bacillus.

The main feature of the series is, therefore, the almost constant occurrence of diphtheroid bacilli. Pure cultures were obtained in 5 of the series of 21 cases, and in 1 of the 6 sanatorium cases. The cultural characteristics and microscopical appearances of these were remarkably uniform, and were similar to those of Cautley's bacillus.[3] I therefore conclude that a single organism was present.

Cultural Characteristics.

On *gelatine*, at 22° C., I usually failed to obtain growth, but in one case a faint streak consisting of white circular colonies was obtained.

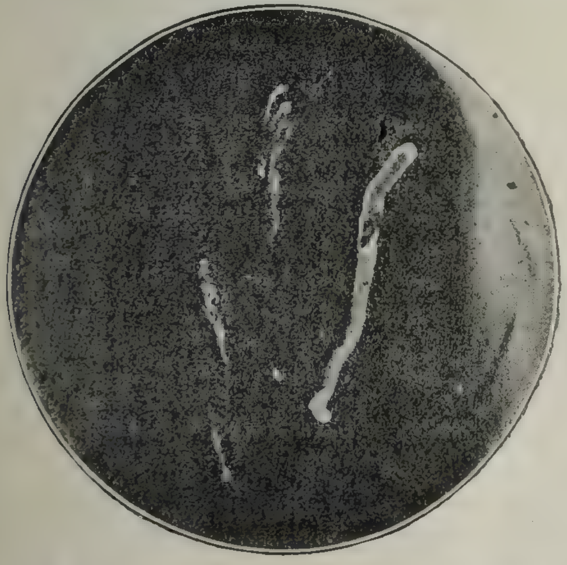


Fig. 1.—Photograph of colonies after twenty-four hours' growth on hydrocele agar at 37° C.

On *ordinary agar*, *ascitic agar*, and *nasgar* a fairly abundant growth appeared within twenty-four hours, consisting of whitish translucent streaks made up of minute circular colonies. On the third day the growth is not quite so vigorous as that of *B. diphtheriae*. The individual colonies are seen to be circular, and confluent where the growth is abundant. Under a low power the colonies are finely granular, rounded, with entire or slightly wavy margins. The edges of the colony are thinner than the central portion. The colour, by transmitted light, is brownish-yellow.

Stab cultures on agar show growth all along the streak, and a fairly vigorous surface growth.

In *peptone bouillon* turbidity appears in twenty-four hours, and a stringy precipitate sinks to the bottom of the test tube. In two or three days the fluid again becomes clear, leaving only the precipitate.

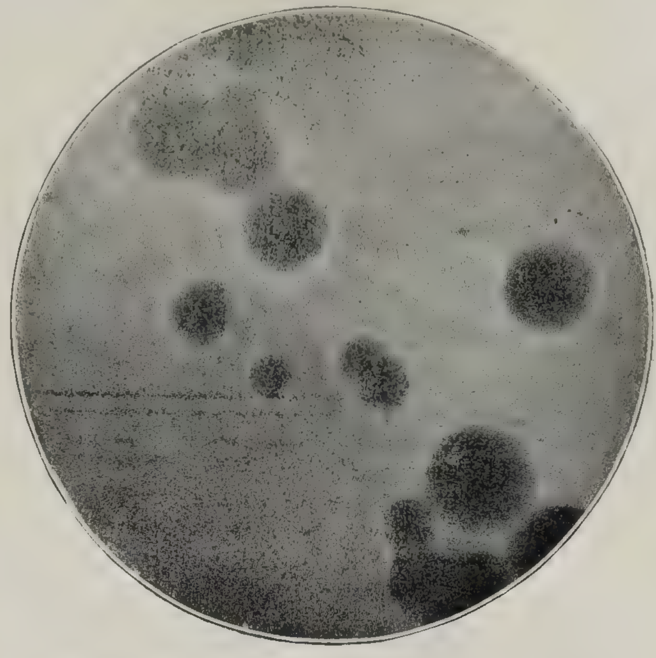


Fig. 2.—The same colonies under ⅔ in. objective.

Biochemical Reactions.

I have endeavoured to ascertain the reactions of the bacillus to various media, according to the method adopted by Dr. Gordon of St. Bartholomew's Hospital in the diagnosis of streptococci and staphylococci.[20]

Method.—Neutral peptone bouillon, to which 1 per cent. of a carbohydrate has been added, is coloured with a little neutral litmus solution, tubed in quantities of 5 c.cm. and sterilized. A broth culture is made from the organism to be examined, and two loopfuls of it are added to a tube of the carbohydrate medium. After incubation at 37° C. the colour of the solution is observed and recorded on the third and seventh days. Glucose, lactose, saccharose, and maltose were the carbohydrates used. Litmus milk and neutral red broth were also used.

The results of these observations are given in Table III, which shows the reactions of the six different strains of bacilli, and also, for comparison, the reactions of the Klebs-Loeffler bacillus, the *B. xerosis*, Hofmann's bacillus, and Cautley's bacillus. In the case of the xerosis and Hofmann bacilli, the results were those which I obtained from laboratory cultures kindly sent by Dr. Eyre of Guy's Hospital. The results given for the Klebs-Loeffler bacillus and Cautley's bacillus are those recorded by Dr. Gordon.[4] The behaviour of the various organisms to Gram's stain and Neisser's stain, and their growth on gelatine are also recorded.

Fig. 3.—The same colonies under a ⅔ in. objective.

Table III.

	Gram.	Neisser.	Gelatine.	Glucose.		Lactose.		Saccharose.		Maltose.		Litmus Milk.		Potato.	Neutral Red.	
				3	7	3	7	3	7	3	7	acid	clot		3	7
Cases I, 3a	+	−	−	+	+	−	−					−	−		−	−
Case III	+	−	+	+	+	o	−					−	−		−	−
,, XV, N1a1	+	−	−	−	+	−	+	+	+	−	+	+	+	−	−	−
,, ,, ,, second observation...				−	+	−	+	o	+	−	o				−	−
,, ,, N1a1xy	+	−	−	+	o	−	+	o	o	o	+	+	+	+	−	−
,, XVII, N2	+	−	−	−	−	−	+	+	+	o	+	+	+	+	−	−
,, XXIV, N2a	+	−	−	−	+	−	o	−	o	−	+	−	−	−	−	−
,, XXVI	+	−	−	−	+	−	+	+	+	o	+	+	−	−	−	−
*Klebs-Loeffler	+	+		+	+							+ −				
Xerosis	+	−		−	−	−	−	−	−	−	−	− −			−	−
Hofmann	+	−		−	−	−	−	−	−	−	−	− −			−	−
*Cautley's bacillus... ...	+	−		+	+							+ −				

+ = acid reaction, − = alkaline reaction, o = neutral reaction in the columns referring to carbohydrate media; in other columns + and − signify "positive" or "negative."

* Results recorded by Dr. Gordon.

It will be noted that there is a tendency to acid formation on all four carbohydrate media. It is not at all marked, and this is, I think, an explanation of the variations seen, depending probably upon the degree of vigour of the broth culture used, and also the fact that a loopful may contain very varying quantities of the growth. In the case of diphtheria a very strongly acid reaction occurs in glucose broth (Gordon[4]), which is very pronounced on the third day. In none of my cases could the reaction on the third day be described as other than feeble, and it often was not observed till some days later. In the case of xerosis and Hofmann bacilli, there was no doubt of the alkaline reaction throughout—although abundant growth took place in the tubes—visible to the naked eye. I hope that these reactions will be of service in the differential diagnosis of the four organisms in question.

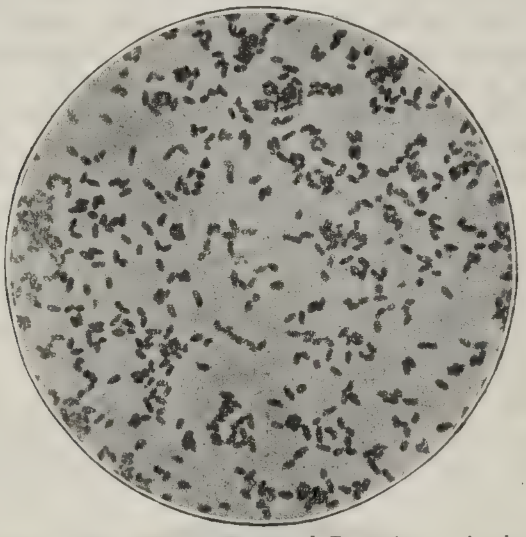


Fig. 4.—Twenty-four hour culture of *B. septus* on hydrocele agar. (From Case III.) × 1,000 diameters.

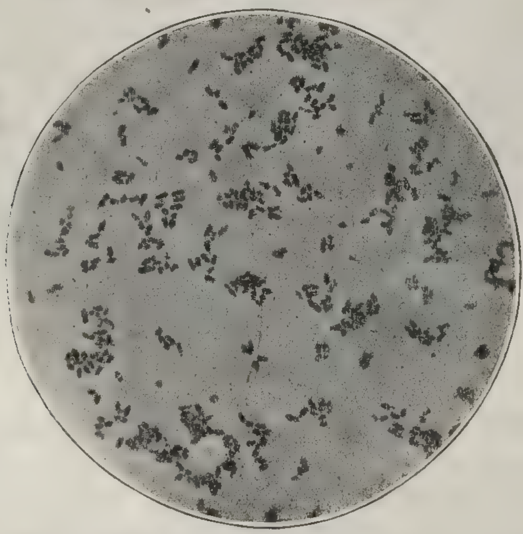


Fig. 5.—Third day culture of *B. septus* on nasgar. (From Case XXIV.) × 1,000 diameters.

Staining Reactions.

The bacillus stains well with all aniline dyes, and by Gram's method. Neisser's stain is negative. No granules were observed in any of the cases. This is an important point in the diagnosis of the organism from *B. diphtheriae.*

Microscopic Appearances.

It is a short bacillus which tapers to rounded ends. In early cultures it is so short as to resemble an oval coccus. The average length in a three-day culture is 1.5 μ and the breadth 0.3 μ to 0.4 μ. By the third day a very characteristic appearance is shown. The protoplasm of the ends of the bacillus is deeply stained, leaving an unstained band or septum across the middle of the bacillus. With a good illumination the outline of the bacillus can be clearly seen, especially in specimens counterstained with carbol-fuchsin. This appearance has, I think, led to the description of the organism as a diplococcus or a diplobacillus by many observers.

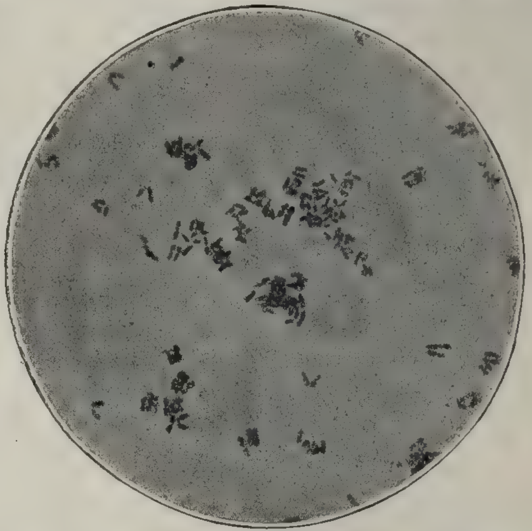


Fig 6.—Fifth day culture of *B. septus* on agar. (From Case XVII.) × 1,000 diameters.

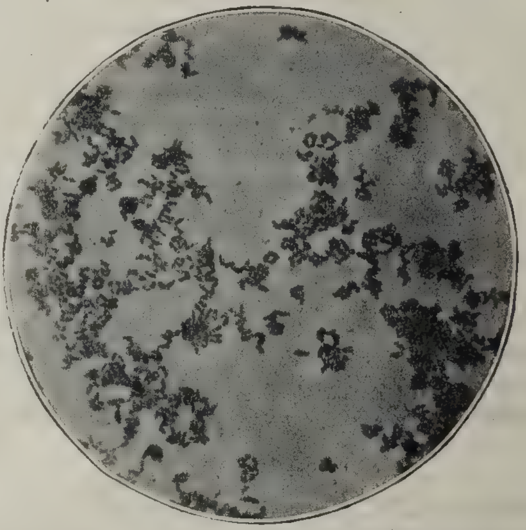


Fig. 7.—Seventh day culture of *B. septus* on agar. (From Case XXIV) × 1,000 diameters.

The appearance of a pure culture is much more uniform than in the case of diphtheria. There is a tendency to the formation of "cuneiform" figures, and in some cases a palisade arrangement. Wedge-shaped forms occur, and in later cultures a few large involution forms, club-shaped or pear-shaped, but I do not think these are so common as in the case of *B. diphtheriae.*

Pathogenicity.

The constant occurrence of the bacillus in this series of cases, and also in the observations of Cautley,[3] Gordon,[4] and Prosser White,[5] suggests the probability that it is a factor in the etiology of common colds, and experiments have been made with a view to observing its effects on animals. Dr. Gordon injected a recent broth culture from one of my cases into a guinea-pig, but did not observe any local or general symptoms. Dr. Prosser White's[5] researches in the same direction are also negative.

In two cases, however, Dr. Gordon noted symptoms of slight illness in guinea-pigs after injection with Cautley's bacillus, but they recovered. It must be remembered that the symptoms of a common cold in the human being are slight. The absence of a licence for inoculation experiments at the Stephen Ralli Memorial unfortunately prevents me from entering upon a full investigation of this point.

Nomenclature.

The pathogenicity of the bacillus has not been clearly established, and the name *B. coryzae segmentosus*[3] seems therefore a little premature. I would suggest the use of the term *B. septus* (Latin *sepio*), which describes its main characteristic, but does not commit us to a theory as to its pathological effects.

THE MICROCOCCUS CATARRHALIS.

Gram negative cocci were observed in ten out of the twenty-one cases—that is, 48 per cent. These had the characteristics of the *Micrococcus catarrhalis* as described by Gordon.[11] In the two cases in which a pure culture was obtained I passed the organism through the carbohydrate media, the results agreeing with those given by Dr. Gordon,[11] and also with the reactions given by a laboratory culture which he kindly sent me; these results are shown in Table IV.

TABLE IV.

	Gram.	Glucose.		Lactose.		Saccharose.		Maltose.		Litmus Milk.		Potato.
		3	7	3	7	3	7	3	7	acid	clot	
Case XV, T_1a_1	±	–	–	–	o	–	o	–	–	–	–	–
,, XVI, N_1a_{11}	–	–	–	–	–	–	–	–	–	–	–	+
Dr. Gordon's specimen	–	–	–	–	o	–	o	–	–	–	–	–

Dr. Gordon states that these reactions are sufficient to ifferentiate the *M. catarrhalis* from all other cocci. It is somewhat large coccus. It grows rather more slowly han the diphtheroid bacilli, and its growth on ordinary nedia is uncertain. On nasgar it gives in two or three lays a vigorous growth consisting of well defined, discrete, ound colonies, yellowish-white in colour. Under a low ower of the microscope the edges of the colonies are seen o be even and well-defined, and not thinned at the eriphery. On gelatine at 22° C. I obtained a fairly good rowth in one case, but in the other and in the laboratory ulture it failed to grow. On ordinary agar at 37° C. it as sometimes possible to obtain a growth, when inoculated from a pure culture, but if mixed with more vigorous rganisms, such as staphylococci or diphtheroids, it is sually overgrown by them. Hence the need for a medium uch as nasgar, which encourages its growth.

Fig. 8 shows the microscopic appearance of a three-day ulture of *M. catarrhalis*.

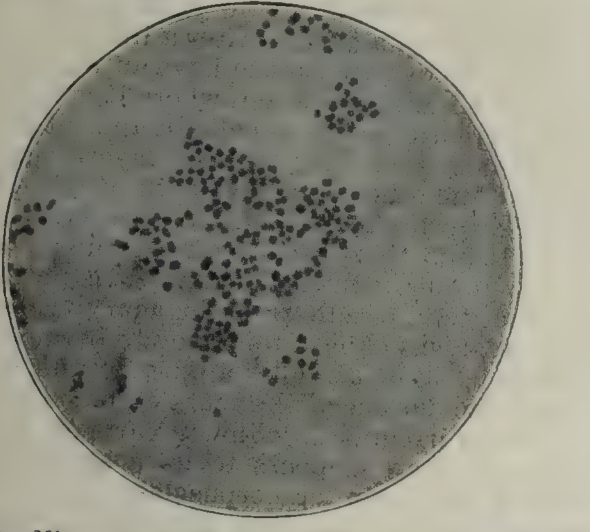


Fig. 8.—*Micrococcus catarrhalis*, stained carbol-fuchsin. × 1,000 diameters.

CONCLUSIONS.

1. Both diphtheroid bacilli and the *Micrococcus catarrhalis* were present in my series of cases, but Pfeiffer's cillus was present only in such small numbers as to be gligible.

2. Other organisms were present in much the same portion as in normal throats and noses.

3. The diphtheroid organism present conformed to the cription given by Cautley[3] of the bacillus discovered him in 7 out of 8 cases of common cold, and confirmed Gordon[4] and Prosser White.[5]

. The diphtheroid bacillus isolated gave reactions in bohydrate media which serve to differentiate it from htheria on the one hand and xerosis and Hofmann on other.

. The question of the exact symptoms, if any, caused the diphtheroid bacillus and the *Micrococcus catarrhalis* pectively cannot be said to be settled. In view of the that nasal discharge was not a prominent feature of series of cases, it seems likely that the diphtheroid anisms are rather a cause of a painful sore throat, with dache, malaise, and muscular pains, irritable cough, and scanty viscid expectoration. Whether they cause coryza—a cold in the head—is at least open to question, especially in view of the presence of *M. catarrhalis* in nearly half my cases.

6. It seems therefore best to give a name such as *Bacillus septus*, which does not assume a knowledge of the pathological significance of the organism, or to refer to it as "Cautley's bacillus."

7. Its occurrence in as many as 95 per cent. of cases nevertheless makes it almost certain that it is of importance in the etiology of a common cold.

I hope to carry out further investigations on this subject, and trust that it will receive both from bacteriologists and clinicians more attention than in the past. In view of the recent work on diphtheroid organisms in general paralysis of the insane, I cannot help feeling that we are on the eve of a great advance in our knowledge of the pathology of some obscure diseases. Possibly even the common cold, neglected and despised, may be found to have a place in the etiology of some serious diseases, hitherto unexplained.

[P.S.—I should like to thank Mr. Edmund Spitta (joint author of Slater and Spitta's *Atlas of Bacteriology*) for his kindness in taking the beautiful high power photomicrographs which illustrate this paper, Figs. 4, 5, 6, 7, and 8.]

REFERENCES.

[1] Quoted in a paper by StClair Thomson and Hewlett, *Transactions of Royal Medical and Chirurgical Society*, vol. lxxviii, p. 239. [2] Paulsen, *Centralbl. f. Bakt.*, 1890, S. 344. [3] Cautley, Report of M.O.H., to Local Government Board, 1894-5. [4] Gordon, On the *B. diphtheriae* and Micro-organisms liable to be confounded therewith. Report of M.O.H. to Local Government Board, 1901-2. [5] Prosser-White, to be published in book form shortly. [6] Hajek, *Berlin. klin. Woch.*, 1885, No. 33. [7] Seifert, *Volkmann's Klin. Vortrāg*, No. 240, 1889. [8] R. Pfeiffer, quoted in article by Neisser in Kolle and Wassermann's *Pathologen Micro-organismen*, vol. ii, 1903, p. 146. [9] Lord, *Centralbl. f. Bakt.*, Band xxxiv, 1903, p. 641. [10] Besançon and de Jong, *Bull. Soc. Méd. Hôp. de Paris*, March 2nd and 16th, 1905. [11] Dunn and Gordon, On an Epidemic simulating Influenza, BRITISH MEDICAL JOURNAL, August 26th, 1905. [12] Loeffler, *Centralbl. f. Bakt.*, ii, 105. [13] V. Hofmann, *Wien. med. Woch.*, 1888, Nos. 3 and 4. [14] Ford-Robertson, the Morison Lectures for 1906, *Review of Neurology and Psychiatry*, February, March, April, 1906. [15] Eyre and Flashman, Diphtheroid Organisms and the Throats of Lunatics, BRITISH MEDICAL JOURNAL, October 26th, 1905. [16] Klein, Foulerton, *Trans. Path. Soc.*, 1903. [17] Hesslauer, *Centralbl. f. Bakt.*, Bd. xxxiii, S. 4,751, 1902. [18] Lewis and Logan Turner, *Edin. Med. Journ.*, November, 1905. [19] Pfeiffer and Kitasato and Canon, *Deut. med. Woch.*, xviii, 28; and BRITISH MEDICAL JOURNAL, 1892, i, p. 128. [20] Gordon, Supplement to Report of Local Government Board, 1903-4.

THE DIFFUSION OF RED BLOOD CORPUSCLES THROUGH SOLID NUTRIENT AGAR.

By SURGEON H. C. ROSS, R.N.

WHEN blood is planted on the surface of some solid agar in a tube a remarkable diffusion of the red corpuscles takes place under certain conditions, appearing as an opaque cloud descending from the drop of blood placed originally in the tube. This diffusion appeared to me so interesting that I was led to investigate it further; to make a series of experiments in the endeavour to elucidate the conditions under which it takes place, and to record some measurements under the different circumstances.

If an ordinary sterile tube of nutrient agar is taken and a drop of blood is placed on the surface of the slope, coagulation will occur in the usual way, and the drop will remain clearly defined, showing bright red against the yellow tinge of the medium. Provided the surface of the agar has not been injured by the platinum loop or other instrument used for inoculating the tube the blood will remain on the surface, and will not soak in at ordinary temperatures, no matter how long the tube is kept. When the blood has coagulated the tube may be inverted or placed in any position without the blood running, as the clot adheres to the smooth surface of the agar.

CONDITIONS UNDER WHICH THE RED CORPUSCLES ARE DIFFUSED.

If a tube containing the sloped agar with a drop of blood implanted on it be incubated at 42° C. a curious change takes place. This begins to make its appearance in about twelve hours. The original drop of blood on the surface looks just the same; but it will appear as if some of the blood was extending downwards from it into the substance of the medium, a red cloud, thick and opaque, spreading in a semicircle from the drop and getting thinner as it extends. This cloud is shown by the microscope to consist of entire red corpuscles, diffusing through the solid medium. The longer the tube is kept in the incubator the greater the depth the cloud attains, until a certain limit is reached, when the diffusion stops.

The phenomenon takes place very slowly at a temperature of 37° C. and rapidly at 60° C. At 35° C. no diffusion occurs, even if the tube be incubated for a fortnight; but from 37° C. upwards to the melting point of the agar a very marked diffusion occurs. Gravity does not affect it. Two tubes were prepared and placed side by side in the incubator, one being inverted; the diffusion occurred with equal rapidity in both.

The time the blood has been removed from the body does not appear to affect the diffusion. A tube was inoculated with blood and kept at the room temperature for six weeks without showing any signs of diffusion. It was then incubated, with the result that the cells diffused in the usual way. The quantity of blood planted on a given area of surface of the agar appears to govern the extent of the diffusion. The median basilic vein of a man's arm was tapped and an agar slope was covered with a thick film of blood. A control tube had a small drop of blood placed on the slope. In the control tube the drop of blood ceased to diffuse in twenty-four hours, whereas in the other tube diffusion did not cease for a week, when the agar looked like a mass of solid blood.

Blood can be raised to a temperature of 50° C., and then planted without preventing the diffusion.

Mixing the blood with water prevents diffusion of the cells owing to their rupture; but the haemoglobin will diffuse, colouring the agar a deep claret colour. This coloration is entirely different from the appearance given by the corpuscles when diffusing unbroken.

A good way to demonstrate the phenomenon is to take a sterile agar tube in which the agar has been sloped, and to plant out a large drop of blood from the pricked finger with a sterile platinum loop. The tube should then be incubated at a temperature of about 42° C. for forty-eight hours. The position of the tube is immaterial. When it is taken out of the incubator the cloud is noticeably spreading into the agar away from the drop on the surface. The tube should then be broken and the solid agar removed if possible without breaking. With a platinum loop a minute portion can be extracted from that part of the agar which is immediately below the original drop of blood. Care must be taken not to let the upper or smooth sloped surface be touched by the wire, or it may be contaminated with cells from the original drop of blood. For the same reason the sloped surface should not be wounded, although the particle to be examined should come from as near it as possible. This particle will be a red colour and opaque, quite different in appearance from the rest of the transparent medium. It can then be placed on a slide, and gently pressed out with a coverslip.

On examining it with a low power, the red cells can usually be made out, provided it has been taken from near the surface; but if it is derived from near the advancing edge of the cloud, nothing but large granules will be seen. The cells, tending to become degenerate, appear separated from one another, and in fact they look as if they had been carefully embedded in the agar one by one. It is rare to find two cells together, they all seem to be an equal distance apart. On examining them with a higher power, using a strong light, they appear rounded and granular, the granules being of different sizes. The further from the original drop of blood the specimen is taken, the fewer cells appear, and their place seems to be taken by large granules which will not stain by any ordinary aniline dye.

A METHOD OF WATCHING THE DIFFUSION MICROSCOPICALLY.

This necessitates a warm stage that will maintain a fairly accurate temperature for many hours at a stretch. I used one of my own design, which roughly consists of a small electric resistance enclosed in ebonite of such a shape that it will rest on top of a microscope slide. The actual wire of the resistance is separated from the slide by mica. There is a square gap in the ebonite box for the specimen and objective of the microscope. This warm stage, or rather slide warmer, is in series with a Nernst lamp, which admits 1 ampère of current to it. The heat generated by this warm stage is great, and will raise the temperature to 60° C. in a room with a temperature of about 65° F. To maintain the temperature of the slide at as near 39° C. as possible, I have designed a special slide fitted with a thermostat. This slide contains along one border a coherer of brass filings embedded in wax, which is a perfect conductor of electricity up to about 40° C., when it decoheres. On cooling to 37° C. the filings again cohere and their conductivity is re-established. The coherer in the slide is connected by wires to two terminals on the warm stage which keep the warm stage in place, and which are in their turn connected with a relay and two cells all in series. The decohesion of the filings causes the relay to short circuit the main current to the warm stage, and the cohesion of the filings opens the current to it. In this way the current to the warm stage is alternately being made and broken by the coherer, maintaining the slide at a temperature varying between 37° and 40° C. These slides are very fairly accurate, and last for many hours.

Procedure.

Some agar is melted, and a drop of it poured on to the centre of a coherer slide so as to form a thin film when it sets. The lateral portions of the film are removed with a knife to accommodate the warm stage. A shallow groove, $\frac{1}{4}$ in. long, is made transversely in the agar, care being taken that it is not deep enough actually to pierce it. The groove is best made with the elbow of a wire bent at an angle of 45 degrees. A similar film is then made on a coverslip, and, when set, the centre portion is removed with a sharp knife so as to leave a ring of agar round the edge.

The smallest possible drop of blood is placed in the groove without letting any cells flow over the edges, and the coverslip is placed in position on top of the groove in such a way that there is no agar actually on top of it, though it exists all round. If by accident the coverslip touches the groove it will be emptied of blood by capillarity. The warm stage is then slipped on and the coherer wires connected to it, and the slide and stage are then carried bodily to the microscope and focussed. Until the agar has settled down a little it is as well not to use a higher power than a $\frac{2}{3}$ in. After a little time $\frac{1}{6}$ in. may be used. The groove appears to have an irregular outline, and that part should be chosen where it is fairly straight and where there are plenty of cells in apposition to it.

The cells look as if they were in layers superimposed one on top of the other, and the depth of these layers can be gauged by careful focussing. A deep layer should be watched. At first there are streams in the blood, and the corpuscles will flow with the current; it is noticeable that the leucocytes tend to adhere to the agar. After an hour or two the cells will show a tendency to become elongated with their long axis at right angles to the edge of the groove, and the border of the mass of blood will become more and more irregular. Slowly parts of the edge are protruded, and there appears to be a steady advance of the whole of the layer of corpuscles. As they advance they separate one from another and become smaller and smaller, becoming all the while more and more degenerate and granular. Ultimately they become so small that they appear as granules. No leucocytes or blood plates can be seen in the advancing edge.

An Endeavour to ascertain the Fate of the Leucocytes and Blood Plates.

As repeated examination of the agar with blood diffusing through it has not revealed any signs of the leucocytes or blood plates, I have endeavoured to find out what becomes of them. The procedure was practically the same as before, except that the agar had been previously mixed when melted with an equal volume of polychrome methylene-blue, and that there was no groove made in the film. A drop of blood was placed on the surface and a ringed coverslip applied. As the coverslip did not touch the drop anywhere it retained its original dimensions. The leucocytes take up the stain from the agar, their granules staining red.* The red corpuscles become a homogeneous mass and slowly appear to go out of focus. The leucocytes, on the other hand, seem to remain in focus and to become greatly enlarged with their granules collected at their edges. Ultimately they rupture and atrophy, the granules separating and giving up their stain.

---

* I am indebted to my brother, Professor R. Ross, for suggesting this method.

This giving up of the stain after about six hours is a curious phenomenon, and I think that some of the non-staining granules found in the diffusing blood are derived from this source.

The blood plates are more difficult to follow owing to the difficulty of using an immersion lens, and to the fact that they will not take up the stain from the agar so well as the leucocytes do. Some of them can be seen remaining for a time on the surface, and from the close resemblance to these bodies of some of the granules seen in the advancing edge of the diffusing blood I am inclined to think that they diffuse with the red cells.

The Effect of Certain Gases on the Diffusion.

Some vapours modify the diffusion to a large extent. In making these experiments the procedure was the same throughout, tubes being used having as nearly as possible the same calibre; they were partially filled with agar, the surface of which was transverse to the tube, not sloped. The same quantity of blood was placed in each, and a control tube was incubated alongside them. The woollen plug was soaked in the volatile fluid to be tested, nd the tube incubated, a rubber cap being previously itted over the mouth of it.

Formic aldehyde caused the haemoglobin to diffuse at rdinary room temperatures, and prevented the corpuscles rom diffusing at any higher temperature. Ammonia had he same effect.

Chloroform and ether caused a diffusion of haemoglobin t any temperature up to 37° C., then after that a very apid and marked diffusion of the corpuscles took place, diffusion which was far more rapid than if the blood ad been exposed only to the air.

Attempts to produce diffusion of the cells in blood rum and gelatin have so far failed.

Measurements.

Since the amount of blood on a given area of agar rface influences the extent of the diffusion, the same ethods were used in all these experiments.

Test tubes were procured possessing as far as possible the me calibre—15 mm., which gives a sectional area o 76 sq. cm. To cover this area completely sufficient blood s drawn into a capillary pipette, which was then marked. this quantity was too small to measure accurately, the pette was filled up to the mark with mercury, which was en weighed, and the volume of blood calculated by means of specific gravity; roughly it is 208 cub. mm. This volume all one unit. The agar was obtained from one source, and ptic precautions were taken to prevent contamination. ur tubes were numbered A, B, C, D; the first two had one it planted in them, the others two units, and all were ubated at 42° C.

n twenty-four hours all showed the same amount of diffun, and in forty-eight hours tubes A and C were broken and extent of the diffusion measured by callipers.

had stopped diffusion and measured 3 mm.

measured about 4 mm.

n seventy-two hours B and D were removed and measured; howed 3 mm. and D 6 mm.

rom this I gather that the extent of the diffusion of s and granules depends on the amount of blood nted on a given area of agar surface at a certain perature.

wo more tubes, one containing one unit and the other , were incubated as before. The first reached its limit forty-eight hours, the second in seventy-two, as in the vious experiment. They were left in the incubator for ther week, the temperature for the last twelve hours g raised to 60° C. The diffusion was then measured found to be the same—that is, 3 mm. and 6 mm. ectively. From this I deduce that the cells will se up to a certain distance from the original drop lood and then stop, and that prolonged incubation, at a higher temperature, will not make them pros beyond this point. I have never seen the mass of sing cells become separated from the surface of the .

asurements.—Two tubes, one containing one unit and ther two, incubated at 37° C., did not show any signs of sion that could be seen by the naked eye until forty-eight had elapsed; in seventy-two hours the diffusion had ed its limit in the one-unit tube, and in about one red hours in the other. This last measurement is only ximate, owing to evaporation. At 60° C. the one-unit tube diffused to its limit of 3 mm. in four hours. The other in about seven hours had reached its limit of 6 mm.

By making measurements in the presence of chloroform and ether I found that the rapidity in the case of these two vapours is about the same. At 37° C. one unit reached its limit of 3 mm. in twenty hours, and at 60° C. in about half an hour.

These vapours, then, cause a great increase in the rapidity of the diffusion, but do not affect its extent.

From the foregoing experiments it appears that the diffusion is a purely mechanical one, and that, with the possible exception of the blood plate, it is only the erythrocyte that will diffuse entire through the agar.

This phenomenon is not confined to human blood, for I have repeated some of the experiments with that of birds; but as far as I can make out it will not take place in other commonly-used culture materials.

NOTE BY PROFESSOR R. ROSS, F.R.S., C.B.,

UNIVERSITY OF LIVERPOOL.

It may be advisable to add that preparations demonstrating this curious phenomenon have been carefully examined by me and shown to a number of friends. The diffused corpuscles lie deep in the solid agar, at a considerable distance from the surface on which they were originally placed, and have an appearance under the microscope suggestive of strawberries in aspic. I can find no signs of tracks along the paths which must have been traversed by the corpuscles in their singular progress through the apparently solid medium. Dr. B. Moore, Professor of Bio-chemistry of this University, thinks that the phenomenon is probably one of colloidal adsorption. So far as I can ascertain it has not been described before, and may have been overlooked owing to the fact that blood streaks on agar are not often incubated at over 42° C.

PERSONAL IDENTIFICATION BY MEANS OF FINGER-PRINT IMPRESSIONS.*

By VAUGHAN BATESON, L.R.C.P., L.R.C.S.Edin.,

BRADFORD.

THE certain identification of individuals is a subject that has always been of practical value and interest to the medical profession.

The famous Tichborne trial and the recent wrongful imprisonment of Mr. Louis Beck distinctly demonstrate the difficulties of definite knowledge in this direction; and show that we have not, until recently, advanced greatly beyond the time when Ulysses, returning home from his twice ten-year wanderings, was greeted by his faithful hound Argus but unrecognized by his wife Penelope, or his son, and only when his old nurse Euryclea was washing his feet did she learn that her foster-son and master had returned, by seeing the scar on his knee left by a wound from a boar's tusk sustained in early manhood; for deep tattoo marks and scars are very reliable evidence of identity.

The remarkable variety of the lines present on the hands and fingers has been recognized for long, especially in the East—the Babus in India call the finger impressions "Tip-sahi"; and some will remember how, in Kipling's book *Kim*, the Indian spy Mahbub seals his authority by "wetting his thumb on a cake of india-ink, and dabbing the impression on a piece of soft native paper. From Balkh to Bombay men knew that rough-ridged print with the diagonal scar running across it."

The employment of finger-prints among the various nations is partly superstitious and partly ceremonial, as Mr. Francis Galton has pointed out. Such customs as the touching of a seal or wafer by the executant of a deed who declares with a finger touching the seal "this to be my act and deed," and a modern witness who when sworn must hold the Bible in the right hand and kiss it, are relics of the superstitious idea that the personal contact between the individual and document has some mysterious efficacy, the ceremonial being a formal act the performance of which can be proved by witnesses.

The practical value of any method of certain identification of individuals is so wide-reaching, that I need only mention a few of its uses. Among an illiterate population or one of mixed races its practical utility is much more evident. In India, for example, where its value was first proved, Sir William Herschel, finding that in the Courts false personation was prevalent, introduced into Bengal, some eight years ago, the use of finger impressions, and insisted on executants of documents affixing their finger impressions in the register of admissions. Pensioners having died, their friends or relatives had personated them, and continued to draw allowances which should have lapsed with the death of the person to whom they were originally granted. All military and civil pensioners are now required to give their finger impressions, and this precaution is effective against fraud. Impersonation in competitive examinations for Government appointments has been almost entirely stopped by this method. In the opium departments, where large money advances are made from Government to cultivators, the possibility of disowning the mark made by an illiterate, or the signature by one who could write, is obviated by registering the finger-prints at the time of the loan. All emigrants under the Emigrants Act are required also to be registered, and all Government servants who are not gazetted are now required to leave their *sign digital* in this manner. Medical certificates are invariably supplemented by a thumb impression, and they have been used for plague prevention.

---

* Read at the Annual Meeting of the Yorkshire Branch, British Medical Association, Harrogate, 1905.

Its value to insurance companies has not yet been adequately realized, especially in countries where, owing to the tropical climate, bodies are buried or burnt almost as soon as death occurs. There is no doubt that the impression of the finger of a dead person taken before decomposition sets in would fix his identity in a most convincing way if at any previous time the deceased had been required to give an impression of the same finger.

Its value as a means of authenticating testamentary dispositions cannot be over-estimated.

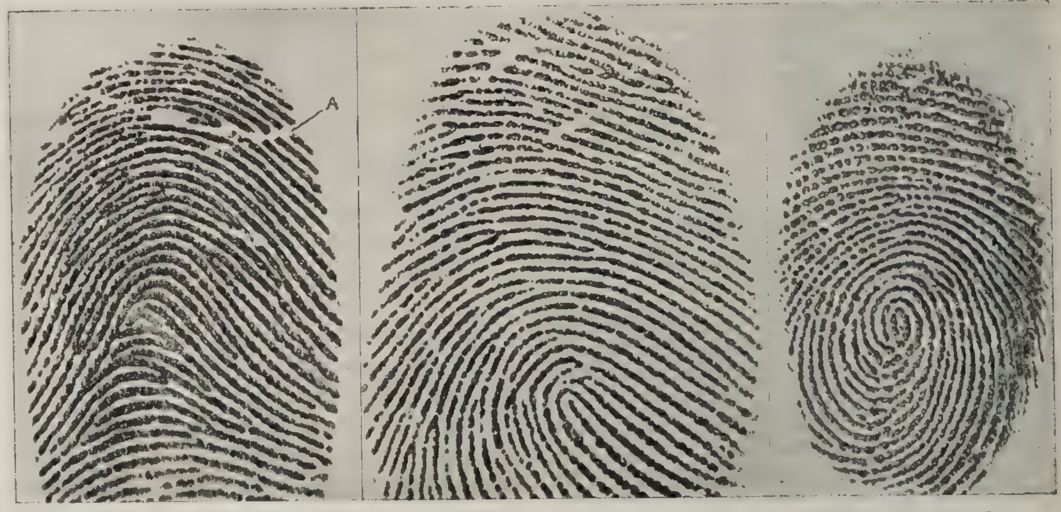


Fig. 1.—An arch (magnified), showing the cicatrix (A) of an old cut.

Fig. 2.—A loop (magnified).

Fig. 3.—A whorl (magnified).

It has been specially useful in India, as no objection can be raised to it on the ground of religion, caste, rank in society, or sex, so there is no prejudice to be overcome in adopting it. In cases of sudden death or accident to a person in a place where he is unknown, the constant and gruesome supply of "unknowns" in all large cities, whether from accident, murder, or suicide, would become much smaller were finger-prints recorded.

To establish claim to money or property (especially when in a foreign country), to authenticate passports (especially in time of war), to detect rogues, to recognize deserters re-enlisting *et hoc genus omne*, the best method of registering individuals up to the present was that introduced by M. Alphonse Bertillon of Paris, who relied on five measurements, namely—the greatest head length, head breadth, foot length, cubit, and length of the middle finger, but like all anthropometrical methods the personal equation of the observer so modified its value that a more certain method was desirable. And the singular merit of finger-prints, in that they are self-signatures, free from all possibilities of error in observation and fault in recording, that they apply throughout life, combined with the simplicity of the methods adopted, gives us a system which answers all requirements and affords an incomparably surer criterion of identity than any other bodily feature.

When we look at the hand of a man there are to be found various lines, ridges, and creases, and these occur at all ages from infancy to senility, the most prominent of which are the flexure creases, which are only of interest to students of palmistry and Bond Street charlatans. The less conspicuous but more numerous lines are the papillary ridges which appear over the whole surface, giving it an appearance that might be likened to the ripples on water or sand. There is no absolute connexion between these two classes of marks, the directions of the creases not determining the course of the ridges. These ridges are studded with microscopic pores—the mouths of the ducts of the sweat glands—and their office is to raise the mouths of the ducts so as to facilitate the discharge of perspiration, and also in some way the sense of touch, as they are found on the prehensile portion on the tails of monkeys. These papillary ridges show in the hands of an infant and in a labourer's whose hands have become hardened by the use of his tools. Injuries do not necessarily obliterate the ridges, but of course a cicatrix will do so, which in an impression shows like a thin white space somewhat similar to a crease (see Fig. 1). During life the ridges persist, and from a large number of observations it is stated that there is no change between birth and death, and there seems to be no more constant feature than these ridges in all the details of anthropometric data. The hand of time, with its growth and decay, can alter the expression, the gestures, the handwriting beyond recognition; even the eye colour may alter in years; the quantity and quality of teeth and hair also fade by degree and become beautifully less; but these hitherto neglected and minute ridges, as far as we know, maintain their characteristics throughout life, and are only destroyed by decomposition. They are found legible on the paws of stuffed monkeys and on Egyptian mummies.

While it has been recognized for centuries that finger tips might have some value as a personal record, it has only been within the last few years that they have been given any real value as a scientific test of individuality. In 1823 Professor Purkinje of Breslau read a thesis on finger impressions, which he divided into nine standard types. Berwick, the reviver of wood engraving in England, appears also to have been struck with the delicacy of the lineations, for he made engravings on wood of a couple of his fingers which he used as designs for his illustrated works. Mr. Francis Galton has, however, done the giant's work in proving the value of these signs and their persistence; he divided them into three main types—arches, loops, and whorls (see Figs. 1, 2, and 3). The almost inconceivable variety of the patterns present, which a slight examination of a number of digits will easily make apparent, has until lately prevented the easy classification of so great a multiformity.

Mr. Henry, an Indian Inspector-General of Police, introduced a system of classification into four varieties—namely, the three of Mr. Galton's suggestions and a fourth class of composite forms—and this method enables them to be indexed for universal application.

The simplicity of the process of recording finger-prints is one of its chief attractions, as it entails neither undressing of the patient nor discomfort beyond the soiling of the digits. The apparatus is very easily obtained, and consists of (1) specially prepared printer's ink; (2) a small roller for spreading the ink; (3) a slab of glass, polished copper or porcelain on which the ink must be rolled ou into as thin a film as possible; (4) the paper or card on which the prints are taken, this not to be too highly glazed; (5) a solution of washing soda to remove the ink from the fingers.

The ink, roller, and slab must be kept scrupulously clean and free from dust, hairs or grit. To take a plain impression as shown in Fig. 4 I press my finger lightly on the inked slab and then on the receiving surface, and imprint the design as from a stamp, which in this cas happens to be a whorl.

Another more useful form is the rolled impression which has the advantage of showing a much greater su face and a larger number of points for comparison. To take a rolled impression, the finger is laid on one side and rolled over to the other, so that the plane of the nail is at right angles to the plane of the slab at the commencement and termination of the inking, and if the finger lay on the ulnar side to begin, the movement ended when it lay on the radial edge. The same rotation of the inked finger imprints the design, which by its greater breadth gives the Brodingnagian impression. I may here show you a very simple method of obtaining a print which may be photographed and thus preserved. If our President (Dr. Gordon Black) will kindly press his finger on this clean card—there is, as you see, no visible result. I now dust over the card a little powdered plumbago, which adheres to the lines of invisible perspiration and enables us to see most clearly the patterns of his papillary folds, and you will observe that the thumb shows an exceedingly complicated design known as a twined loop, which I may tate is rather an uncommon type.

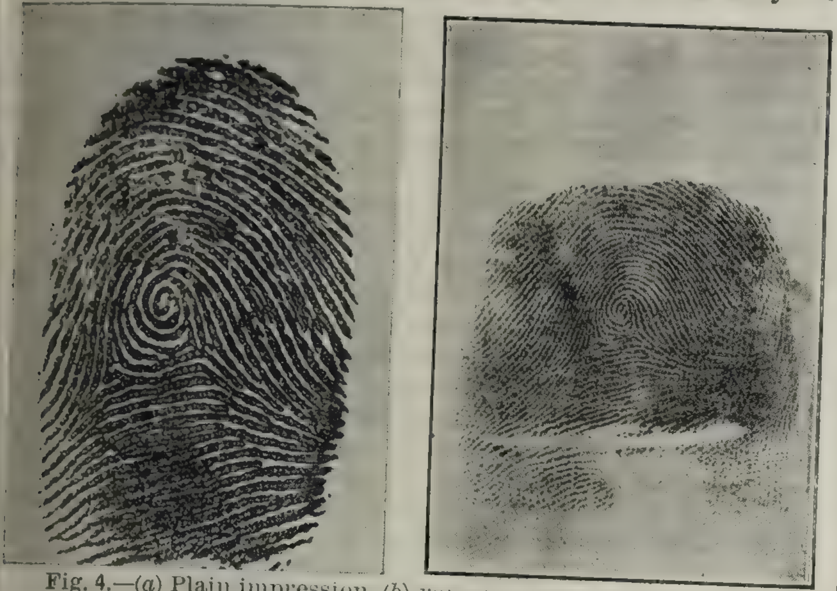


Fig. 4.—(*a*) Plain impression, (*b*) rolled impression (magnified).

All impressions may be arranged under one of four ypes, namely, arches, loops, whorls, and composites. Arches are subdivided into arches and tented arches. Clear definitions demarcate arches from tented arches and oth from loops. Loops may be either ulnar or radial, nd are further differentiated from each other by ridge counting and by their ridge characteristics. Whorls are ingle or double cored. Impressions of this type differ conspicuously from each other owing to the innumerable arieties of pattern they present, but further demarcation provided by ridge tracing. Composites include central pockets, lateral pockets, twinned loops, and accidentals. n impressions there are fixed points known as the inner nd outer terminus, whose correct position is readily und, and they serve many useful purposes, including dge counting, ridge tracing, and orientation of pattern. When finger-prints are required as evidence in a law ourt it is necessary that they be enlarged, and such largement to be admissible must be proved in the anner laid down by the law of evidence, the provisions which should be consulted by medical men concerned conducting cases in which finger-prints are exhibits.

The registration system adopted by the Government nsists of rolled impressions of the digits in their tural order of thumb, index, middle, ring, and little ger, those of the right hand being in line above and mediately below them the impressions of the corresponding digits of the left hand. At the bottom of the slip the ain impressions of the index, middle, and ring fingers both hands are taken. In round numbers, about 5 per nt. of impressions are arches, 60 per cent. loops, and per cent. whorls and composites, the proportion rying in several digits. The possible arrangents give a clue to the method of classification hich is of a numerical nature, each finger impression ving a certain numerical value, the largest of which can al 32; and in this manner the figure value of each pression is registered, and can, by one expert in the be readily compared with any other so classified. The cial description of such an impression would be, for mple:

$$\text{No. } \frac{13\,\text{u}\,(10)}{18\,\text{u}\,(10)}, \text{ or No. } \frac{26}{2}\left(\begin{matrix}\text{O}\\ \text{a K}\end{matrix}\right).$$

s classification takes a litt'e practice to understand. Government report to the Secretary of State spoke very well of its practical value, as it could be used readily and with sufficient accuracy by police officers or prison warders of ordinary intelligence, was of such a nature that in the case of an old offender giving a false name his record might be found with certainty, that when the case had been found among the classified descriptions it was convincing evidence of identity.

The slight cost of apparatus, and the fact that skilled work is transferred to the central or classification bureau, the rapidity of the process, and the certainty of the results, are all strongly in its favour.

It has been suggested that it would be applicable in hospitals and asylums, and will no doubt be found to have uses in almost every branch of human intercourse. I am able to show you here practical result from this locality. Some little time ago a burglar broke into a house and ransacked the premises. On the return of the inhabitants the unwelcome visit was very apparent, but no trace could be found that would lead to the identification of the criminal. One of the Bradford detectives, however, feeling confident that some sign would be left behind, went up and discovered on a small wooden medicine chest the impression of a thumb. This chest, no doubt, had been opened under the delusion that it contained money, and the impression left, as you can see from the photograph (Fig. 5), was close to the head of a small screw used to fix the lid to the sides. By photographing and enlarging this impression it was found to correspond very closely with that of a man well known to the police. On comparing his finger impressions with that found on the box, perfect similarity of the papillary ridges was discovered, and at the present time he is accepting the hospitality of His Majesty in Armley Gaol.

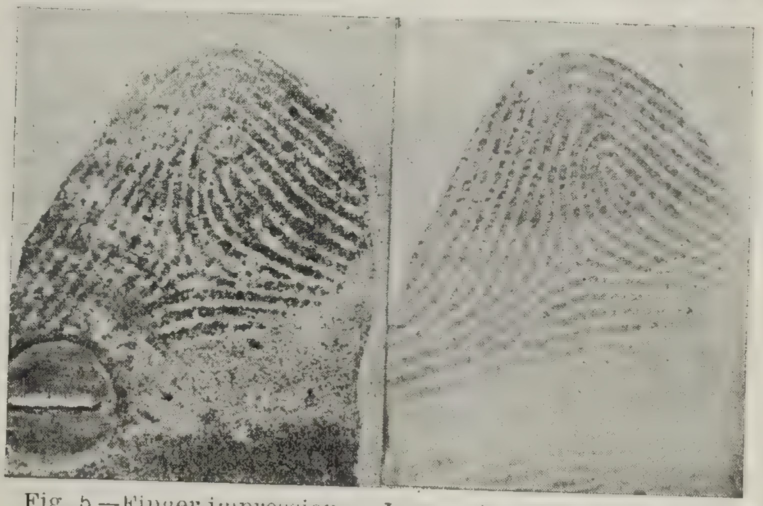


Fig. 5.—Finger impression found on box (magnified).

Impression of prisoner's middle finger, right hand (magnified).

I could, if time would allow, give you many instances in which the police have been enabled to identify criminals and further the ends of justice. In one case the results of indiscriminate thirst served to curtail the liberty of a man who broke into a club in this town; after rifling the cash box, he regaled himself with bottled beer, which he drank out of the neck of the bottle, dispensing with the usual tumbler, and left on the neck and sides of the bottle impressions of his somewhat grimy fingers. In spite of the difficulty of photographing such an impression on glass, a very respectable print was taken which served to weave a net round this thirsty night bird.

In India I was brought in contact with a remarkable case which led to the recognition of the value of this method of personal identification. In 1898, at Jalpaiguri, on the Bhutan frontier, the manager of a tea garden was found lying on his bed with his throat cut, his dispatch box and safe having been rifled and several hundred rupees carried away. The deceased Scotchman had a reputation of being a very severe task master, and suspicion fell upon his cook, upon whose clothes some blood stains were found, also upon the relatives of a woman with whom the murdered man had a liaison, and against a wandering gang of Kabulis of criminal propensities who had encamped recently in that neighbourhood. There was also a suggestion raised that the deceased man had an enemy in the person of an ex-servant whom he had caused to be imprisoned for theft. The inquiries of the police, however, failed to incriminate any of the suspected persons, and it was ascertained that the ex-servant had been released from gaol some weeks before, but no one could say that he had been seen again in the district. The cook's statement that the bloodstains on his clothing were from a pigeon's blood which he had killed for his master's dinner was confirmed by the analyst's report. Fortunately, among the papers found in the dispatch box was a calendar in book form printed in the Bengali characters, with an outside cover of a light blue paper, which is usually found on native-printed books. On this cover were noticed two thin brown smudges, which, under a magnifying-glass, were recognized as impressions of one of the digits of some person's right hand. In the Central Office of the Bengali police the finger impressions of all persons convicted of certain offences are classified and registered, and the impression on the calendar, when compared, was found to correspond exactly to the right thumb impression of Kangali Charan, the ex-servant above referred to. In consequence he was arrested some hundreds of miles away and brought to Calcutta, where his right thumb impression was again taken and corroborative evidence collected. The chemical examiner to the Government certified that the brown marks on the cover of the calendar were mammalian blood, the inference being that the actual murderer or some associate had knocked his blood-stained thumb against the calendar when rummaging amongst the papers in the dispatch box for the key of the safe; and the accused person was committed to stand his trial charged with murder and theft, and finally convicted, but in the absence of direct evidence to the deed being committed, capital sentence was not carried out. Since then, however, a special law has been passed by the Indian Council admitting the evidence of experts on finger-print identification in courts of justice.

SERUMTHERAPY BY THE MOUTH.*

By D. MONTGOMERIE PATON, L.R.C.P. and S.Edin., L.F.P.S.G.,
MELBOURNE, VICTORIA.

For eight years I have been using by the mouth serums, both normal and the product of immunity, with remarkable results. Their action thus used is neither antitoxic nor antibacterial. The theory which best explains their action is that of tissue resistance. That is, that along with antitoxic and antibacterial resistance to infection, or alone when those other elements are absent, there is produced an increased resistance in the tissues to the pathogenic action upon them of the organisms present; that this produces what may be called a sterile soil without harmfully affecting the organisms themselves. This is present in active immunity, and can be transferred to the patient as passive immunity by the oral use of the serum in regular doses.

This tissue tone constitutes initial resistance to infection, and varies in man and animals; in the latter both as species and individuals. It may be defined as the capacity of the tissues to carry on their functions unimpaired in the presence of infection. This is health. Disease occurs when the tissues are impaired in their functions, and recovery when their resistance has been so restored that they are once more capable of carrying on their normal functions even though the organisms are still present. The presence and vitality of the organisms in typhoid and pneumonia when the patients are afebrile and convalescent can be rationally explained on such grounds. The tissue resistance has been raised to such a degree that the organisms are incapable of further affecting them. The organisms themselves having no suitable soil for their action are readily eliminated.

The oral use of normal plasma† of the horse, sheep, and ox in doses of one drachm four times a day in non-microbic cases of function deficient through lack of nutrition produces a restoration of function by removing the lowered nutrition. A favourable class of case for this is lactation deficient in quantity or quality, or both, in a debilitated patient. The restoration of the patient's nutrition by the renewal of her appetite, digestion and assimilation of food leads to a perfectly normal lactation which may be maintained by a continued use of the plasma as required.

The same result is obtained by injections where function is deficient through lack of nutrition due to microbic action on the various tissues involved.

The reaction leading to restored function is obtained in the presence of those infections to which the animal itself is refractory, but in no other infection. Thus the serum of the horse and sheep, of the greatest service in tubercle, are valueless in influenza, the animals themselves being as susceptible to that infection as man. Ox plasma is of the greatest service in influenza, as the animal is extremely resistant to that infection. Thus, only in those infections to which the animal is itself refractory is the reaction obtained. Hence it is concluded that by this method of use the natural resistance of the animal to infection is being transferred to the patient.

The results cannot be due to the albumin in the serum, as no albumin could have any such effect, even if absorbed. In my opinion the results are due to the action of certain elements in the serum elaborated for the energizing of the tissue nerve centres, and these elements being probably of glandular origin, are readily absorbed and produce in the patient the reactions for which they were intended in the animal. Thyroid and suprarenal gland by the mouth have the same easy absorption, and produce their characteristic physiological effects in the patient exactly in the same way.

These are the elements in the serum which will be developed to meet the action of the organisms on the tissues, and on their presence and power will its defence depend.

Antidiphtherial Serum.—In diphtheria there is present a paralytic agent acting mainly on the involuntary muscular system, and to resist that muscle depressant there is developed a muscle recuperative element in the serum available by its oral use. There is also a proteolytic agent causing the production of digestive action and leading to the formation of albumoses and other products of digestion, and to meet this there is produced in the serum an antiproteolytic power also available by oral use of the serum. In diphtheria the concurrent use of the serum by the mouth in doses of 1 drachm with the hypodermic injection materially assists the recuperative powers of the patient, and leads to a rapid and complete recovery when given in time.‡

The recuperative action on the involuntary muscle is obtained in shock from traumata, haemorrhage, etc., where the cause is non-microbic. It is also obtained in the presence of the staphylococcus, streptococcus, and *Bacillus coli communis*. By its action on the voluntary muscle the vasomotor tone is restored to normal, and inflammation is thus very directly treated, and on Nature's own lines.

The proteolytic action of the staphylococcus and the *Bacillus coli communis* is directly combated by the antiproteolytic element in the serum and by the conjoint action of this and the recuperative power of the serum th pathogenic action of these organisms on the tissues i specifically antagonized. That these elements have n antitoxic or antibacterial or other harmful effect on th organisms present is shown by a prompt relapse shoul the treatment be discontinued before the patient ha thoroughly recovered. Where required there is also pro duced a marked leucocytosis, which is probably mor clearly apparent from the restored vasomotor tone causin the reduction of surrounding inflammation, and thu concentrating the phagocytes on the focus of the disease In the stage of inflammation before death of tissue an pus formation, the proper use of antidiphtherial seru should promptly arrest the process. In the stage o loculation its use should maintain the general tissue ton prevent metastasis, and more rapidly mature the locula tion. After evacuation it should rapidly clear up th cavity, promptly reduce the pus formation, and promot the rapid convalescence of the patient.

All of these it has done in an experience of eight years.

---

* Read before the Chelsea Division of the Metropolitan Counties Branch of the British Medical Association.

† Messrs. Allen and Hanburys supply the normal plasma in their Bynin series as byno-plasma, a palatable preparation, without suggestion of blood, and which preserves the plasma sweet while in use. The dose is half an ounce.

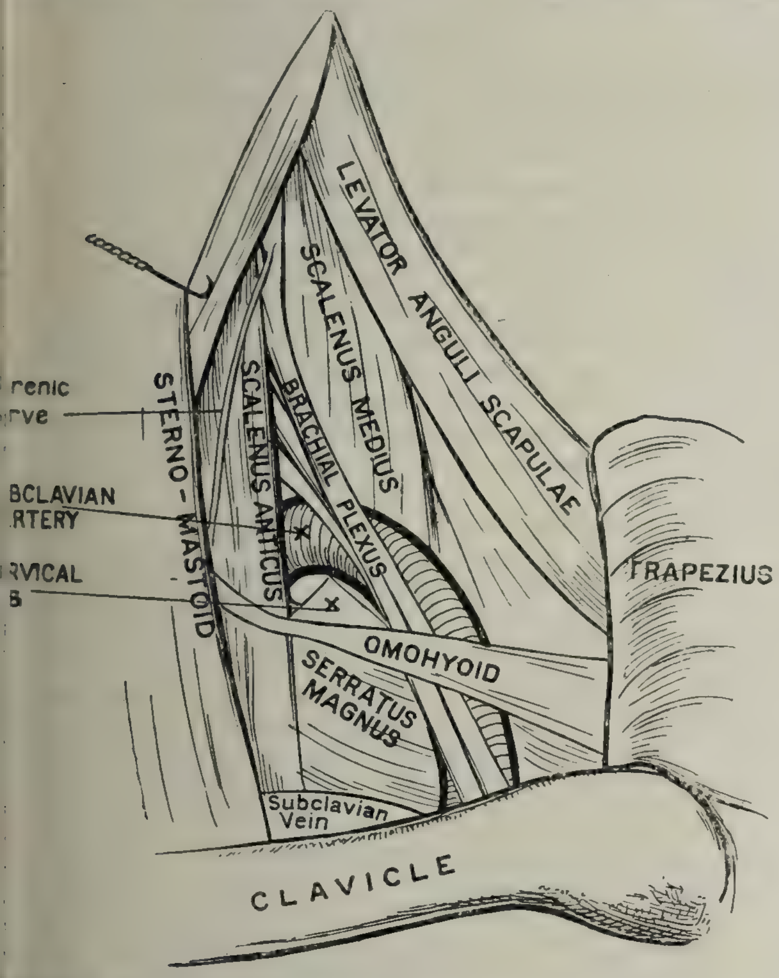
‡ Messrs. Parke, Davis, and Co. have been preparing for me f years a low-potency antidiphtheritic serum specially made for or use. The dose is one drachm, generally four times a day but acute cases twice as frequently.

§ Messrs. Baillière, Tindall and Cox have nearly ready for publis ing a work on this subject, giving 275 cases of its use in the vario conditions in which it has been found serviceable, as well as a full explanation of the principles suggested as explanations of the facts

ERVICAL RIBS AND THEIR EFFECTS ON THE GREAT VESSELS OF THE NECK.

By WALTER BROADBENT, M.A., M.D., M.R.C.P.,
ASSISTANT PHYSICIAN, SUSSEX COUNTY HOSPITAL, BRIGHTON.

FEW days ago a lady consulted me about a throbbing in er neck, which she said was very conspicuous when she as in evening dress and was a frequent subject of mark among her friends. When the neck was exposed, ry marked pulsation was seen just above the sternum, so a pulsating swelling, extending for 2 in. upwards, ove the inner end of the right clavicle, looking at first e an aneurysm of the innominate artery. On examining is swelling, the right carotid and subclavian arteries re found to come off from its upper end, and the clavian was seen coursing downwards along the fron e of the trapezius. to disappear under the clavicle at ut the junction of its outer and middle thirds. On mining the left side of the neck, the left subclavian ry was found to take a similar course; it was seen to e to the surface at a point 2 in. above the clavicle, and un down the front of the trapezius, as on the right . The pulsation above the manubrium was due to sure of the aorta; it extended upwards for 1 in. on right side, and was continuous with the innominate ation, while towards the left it was less and less ked, and was not visibly connected with the pulsation e left subclavian. The subclavian veins could not be d, but they did not accompany their arteries.



er the innominate artery and right subclavian and tid a very loud systolic murmur was audible, followed he second sound. A less loud systolic murmur was d over the exposed aorta, a loud second sound, and a murmur, diastolic in time, rather like the venous of anaemia, but apparently produced in the aorta. e left carotid a faint murmur was heard, but in the subclavian again a loud systolic. The pulses were l and their tracings were not abnormal.

nooth hard bodies, which were evidently cervical ribs, l be felt below the subclavian arteries; they made no rence to the usual contour of the neck, and deep palm was necessary to trace them, so that, if the patient een elderly and fat-necked, a correct diagnosis would been difficult, the pulsation of the innominate being riking, unless the abnormal position of the left suban had been noticed. No pain had been caused in eck or arms, and there was no evidence of any preson the brachial plexus. The systolic murmurs seem caused by the sharp bend which the subclavian es take over the ribs.

Cervical ribs arise from the seventh cervical vertebra, they are prolongations of part of the transverse processes as separate bones, the part in front of the vertebro-arterial foramen; sometimes there is a nearly complete separate rib on one side, and only a small increase in length of the transverse process on the other; sometimes there are the two ribs as in this case. They may be joined by cartilage to the sternum or may end on the first rib at the scalene tubercle.

The only other instance of cervical ribs which has come under my observation was a female subject in the dissecting room eighteen years ago. In sketches made then it is seen that the scalenus anticus and scalenus medius are both inserted partly into the cervical rib, and hold the subclavian artery between them with the seventh cervical nerve just above it and the eighth cervical and first dorsal below. The seventh cervical vertebra and its ribs are considerably above the level of the top of the sternum, and the subclavian arteries are thus raised high in the neck. The ribs slant downwards in their progress forwards and terminate before they reach the sternum in thin cartilage, the subclavian veins being in front of the scalenus anticus are not held up, but only have to cross the thin front end of the ribs close to the sternum, and are thus very little raised above their normal position and remain concealed behind the clavicle, which explains why they are not visible in the present case. In the sketch a portion of the serratus magnus is also inserted into the cervical rib.

Since writing the above my attention has been called to an interesting account of four cases of cervical ribs by Dr. W. Thorburn in the *Proceedings of the Medico-Chirurgical Society* for 1905. In two of these the cervical ribs, by pressure on the first dorsal nerve, had caused pain down the inner side of the arm and atrophy of the thenar and hypothenar muscles; these cases he had successfully relieved by removal of the ribs. In the discussion also a case was mentioned in which a mistaken diagnosis of aneurysm had been made.

A CASE OF ONE CEREBRAL HEMISPHERE SUPPLYING BOTH SIDES OF THE BODY.

By G. H. GRILLS, M.D.,
SENIOR MEDICAL OFFICER, COUNTY ASYLUM, CHESTER.

THE following case is of interest, not only because of its rarity, but also on account of the metaphysical problems suggested by it, and the naked-eye anatomical evidence it affords of some of the relations of cerebrum and cerebellum, etc.

A woman aged 42 years at death, under my care for two years in Chester County Asylum, presented the following clinical picture:

In 1879 she was certified as an imbecile, being then 19 years of age; at that time she was able to answer questions, but in a childish manner. On admission she was described as "epileptic," but the nurse in whose charge she has been for twenty years states that she never knew her to have a fit. During the two years she was under my care I considered her a congenital imbecile with spastic paresis of the right side.

She was able to mix with the other patients and walk about the grounds. She could use both arm and leg of the right side, but they were slightly contracted and stiff; she did not make such skilled movements with them as with the left; they were equally well nourished. Sensibility was normal, so far as one could make out, but she had a great dislike of anything cold. Knee jerks and plantar reflexes showed no appreciable difference on the two sides, and were apparently normal. She was not ataxic in gait. Mentally she was imbecile, slow, and stupid, but understood spoken language, and sometimes spoke even of her old associates before admission, recalling them by their correct names.

Some time before death, she weighed 9 st. 10 lb., being 4 ft. 11 in. in height. About a week before her death she began to walk about in a drunken fashion, rapidly became quite helpless, and died, the cause of her death being certified as "congenital malformation of the brain."

Post-mortem and microscopic examination showed that all the organs were healthy and normal with the exception of the central nervous system, which presented the following features:

The left hemisphere of the cerebrum was quite symmetrical, and as well shaped as the right hemisphere, save only that the gyri were indicated by linear marks, and not by deep sulci, as on the opposite hemisphere. On giving the merest tap to any part of the left hemisphere on a level with the frontal lobes, the percussion waves could be felt at the furthest point of the same hemisphere, showing that the hemisphere was merely a sac filled with fluid. The covering was an oedematous semimembranous material of specific gravity 1030, as compared with 1040, the specific gravity of the grey and white matter of the opposite hemisphere. On an average the membrane was less than ¼ in. thick, and microscopically showed no typical motor cells, which were very abundant and quite typical in the opposite hemisphere. The cells in the membranous covering were almost all of the globose character, and had few and often no processes which could be demonstrated by the freezing method. The cells in the right hemisphere, on the other hand, were very rich in processes, which could be traced for great distances even amongst arborizations, and this especially from the large pyramidal cells, which were very prominent. The contents of the sac was a clear and transparent slightly-alkaline fluid. The temporo-sphenoidal lobe on the left side and the region of the island of Reil were not membranous, and showed very thin layers of grey and white matter. The corpus callosum was represented by an extremely-delicate white membrane which tore on the slightest separation of the hemisphere. The right side of the cerebellum was atrophied and weighed 40 grams, as compared with 63, the weight of the left. The olivary body and anterior pyramid of the left side were about one-third the size of the same bodies of the right side. The basal ganglia were not apparently atrophied, excepting the left caudate nucleus. The left internal capsule was represented by a very thin white band. The right lateral ventricle was about half as large again as it should have been.

The spinal cord on transverse section showed no appreciable difference in size or shape between the right and left halves, and both anterior and posterior cornua were identical in size and shape on the opposite sides, and showed typical ganglionic cells which were about equal in number and size on the opposite sides. There was no degeneration of fibre in the spinal cord, and the only point in which the cord seemed to differ from the normal was that narrow strands of grey matter swept back through the white matter from the anterior cornu of one side across the anterior commissure and into the base of the opposite cornu.

The case presented some problems which would require much space and time to discuss at length, for example:

What is the function and connexions of the optic thalami, seeing that they were not atrophied, although the caudate nucleus and cerebellum, etc., were atrophied?

Can one hemisphere be so pathologically affected and the other intact that a double personality of sanity and insanity is represented by the mental function of the right and left hemispheres?

Did the left cerebellum supply co-ordinating power to both sides of the body?

In addition to these problems there are three or four simple and natural conclusions to be drawn from the above pathological conditions:—(1) The right cerebral hemisphere for the most part supplied both sides of the body with motion and sensation. (2) Broca's convolution was probably on the right side. (3) Her powers of mind, such as they were, had their physical basis in the right cerebral hemisphere. (4) Unequal hemispheres need not necessarily give rise to marked epilepsy, as the patient had not had more than a few fits in her life.

UNDER the will of the late Mrs. Elizabeth Storer, of Borough Green, Kent, the General Hospital, Nottingham, receives £2,000 for the endowment of two beds in memory of "Charles Storer, M.D., and Elizabeth, his wife." Sums of £300 each are allotted to the Free Home for the Dying, Clapham, and the British Home for Incurables, Streatham.

THE estate of the late Dr. Lionel Smith Beale, Emeritus Professor of Medicine at King's College, has been sworn as of the net value of £12,067 15s. 8d. He bequeathed £100 each to King's College and King's College Hospital.

WHAT INFLUENCE HAS THE USE OF *X* RAY HAD UPON TREATMENT OF FRACTURES AND DISLOCATIONS ?*

[WITH SPECIAL PLATE.]

BY J. LYNN THOMAS, C.B., F.R.C.S.,
PRESIDENT OF CARDIFF MEDICAL SOCIETY; SURGEON TO THE CARDI
INFIRMARY, TO THE ROYAL HAMADRYAD HOSPITAL, ETC.

WHEN the civilized world was startled in January, 189 by the announcement of Professor Roentgen's discove of the *x* rays, the medical profession immediately utiliz its strange and uncanny power of photographing the ou lines of living bones, and welcomed it as an importa addition to ordinary methods of diagnosis in cases injuries and diseases of bones and joints. I published the *Medical Annual*, 1896, two skiagraphs which we amongst the first taken in this country, and I ha regularly used it in my practice since that time, when consider that its aid is necessary.

I propose to deal with the subject in a definite ord starting from the hand up the arm to the head, a descending along the spine to the lower extremity, a ending at the foot; but before doing so I desire to refer some of the fundamental surgical principles which ha guided surgeons in the past when forming opinions a exercising their judgement in treating these injuries. also venture to record the following incidents as illust tions of the past and the present influences which gove the attitude of the public and the profession towards ea other.

1664, January.—"Warrant to Lord Chamberlain Manchest to admit Charles Tarland as 'Bone-setter in ordinary to t King.'"

1896, January.—The discovery of *x* rays made many surge think that bone-setters were doomed to early extinction, up to the present time (1906) there is no evidence that it had any tangible influence in bringing about that desira result.

1903, January.—I saw in consultation with Mr. George Ne J.P., of Barry, a young lady who had tuberculous synovitis the hip-joint, and had been progressing favourably towa recovery by ankylosis until a locally well known bone-set was called in and diagnosed "the bone out of joint," a undertook "to put it back in its place." He carried out treatment by forcibly fracturing the neck of the femur; ac inflammation and suppuration supervened, and death resul therefrom. Shame and fear of publicity were the pare reasons for not prosecuting the bone-setter.

1906, January.—I saw with my colleague, Mr. William Mar a patient who had injured his left shoulder; he suffered fr subcoracoid dislocation of the humerus with fracture of surgical neck. The patient refused any treatment, notw standing the fact that he saw for himself the nature of injuries from an *x* rays photograph. His odd conduct towa the acceptance of professional advice was based upon the that his right shoulder had previously been freque dislocated!

The fundamental principles which guide surgeons forming an opinion as to treatment to be carried out particular fractures and dislocations are founded prima upon the existing conditions of the soft tissues. Un the term "soft tissues" I include skin, muscles, bl vessels, nerves, and periosteum. For example, the b of a limb may, in one case, be comminuted into many fr ments, and the direction of the causative force be in s a line that no injury occurred to the main blood and ne supply; such a case usually recovers well, with restorat of function and perhaps with no visible exte deformity, but a skiagraph taken months afterwards wo show an ugly bond of union of the bone. In anot case—say of simple transverse fracture of the humeru femur—the direction of the causative force might h directly injured both the blood and the nerve suppl such an extent that the resulting conditions wo demand immediate amputation; now an *x*-ray ph graph could only show the character of the fract perhaps with little or no displacement of bone, an would not give the faintest information as to the ser and hopeless nature of the injury.

The above examples are sufficient for my purpos illustrate the essential considerations which for gen tions past have been the cardinal guiding principle forming opinions, and to-day they still hold the s

---

* A paper read at the South Wales Branch of the British Me Association.

ominant place in the edifice of scientific surgery. A
kiagraph of the paralysed hand of a hemiplegic patient
oes not indicate its uselessness, neither does this
kiagraph (Fig. 1) of the maimed hand of a lady I
perated upon ten years ago convey any idea of its utility.
he working value of such a hand can only be determined
fter examination of its blood and nerve supply and upon
nvestigation of the integrity of the tendons and of their
reedom from adhesions within their respective sheaths.
n this example the evidence of x rays is as follows: All
he carpal bones and nearly all the metacarpal bones of
he little finger and thumb and about half of the other
etacarpals have been removed; the ends of the excised
dius and metacarpal bones show that the patient lived
r many months after operation, but the working value of
ch a hand can only be ascertained by investigation of
her sources of evidence; the fact that the hand is
seful for sewing, knitting, and other purposes depends
pon the correlation of the anatomical, physiological, and
her physical considerations, and not upon those supplied
skiagraphy.

SHOULDER AND UPPER EXTREMITY.

The Hand.—Cases of so-called severe bruises of the hand
e often accompanied by fractures, oblique or transverse,
rtial or complete, of the metacarpal, phalangeal, or
en of the carpal bones, and the existence of some of
em can only be demonstrated by means of x rays.
eatment remains the same as of old—namely, massage,
linting, and time—but the evidence obtained by skia-
phy is sometimes of great assistance in giving an
inion as to the length of time treatment will take when
recognizable fractures co-exist.

Forearm.—We have obtained fresh evidence and also
covered new facts in the surgical pathology of injuries
the neighbourhood of the wrist, and especially in that
cture of the lower end of the radius known as "Colles's
cture." Fracture of the scaphoid and more rarely of
semilunar bones have been found to exist alone or to
associated with a Colles's fracture, and the frequent
existence of fracture of the ulnar styloid process has
n shown to be the rule. In a paper read before the
ntgen Society in May, 1899, I showed that the styloid
cess of the ulna was fractured in 54 per cent. of 265
ected cases. I also demonstrated by experiment that
graphic evidence of the frequency of this particular
ry must be discounted unless certain precautions are
erved in taking the skiagraphs, and those who are
rested in this subject are referred to my paper in the
hives of the Roentgen Rays, August, 1899. Von Bergmann
es with Carl Beck, who states that this injury exists in
er cent. of his cases, whilst by the method I advocated
kiagraphing, it was found to be as frequent as 61.68 per
.; this disparity in percentage among investigators is,
y opinion, due to want of knowledge or observance of
fact that special precautions must be taken with
rd to the relative positions of the anticathode, the
t spot to be photographed, and the sensitive plate.
e who to my knowledge have taken the precautions I
cated in the paper referred to, agree with my higher
entage of fracture of the ulnar styloid process.

is a notorious fact that correct pathological descrip-
of the commonest of all fractures from a skiagraphic
dpoint is still unwritten in most English textbooks.
explanation of the dilatoriness of authors is, I think,
found in the fact that proper treatment of a Colles's
ure had been attained before the discovery of x rays.
e new pathological conditions are of scientific interest
hould be recorded; but the man in the street might
"What is the use of an excellent skiagraph of an old
s's fracture with stiff joints in forming an opinion as
e wage-earning value of the hand, or as to what
best means to adopt for removal of that stiffness?"
nswer to a layman would be very disappointing.

ordinary simple injuries about the elbow without
effusion we do not usually require the aid of x rays
ming correct diagnoses, but obscure injuries accom-
d by much effusion may prove a source of great
ty if the surgeon cannot get the aid of x rays for
osis. If you happen to be placed in such a position,
nber that under those circumstances one can
y adopt the right line of treatment by placing the
t under anaesthesia, and putting up the elbow-joint
orcibly-flexed position with the wrist bound up to
the neck at the level of the opposite sterno-clavicular joint. Mr. Robert Jones of Liverpool introduced this method of treatment, and so great are its practical advantages that American surgeons have designated it the "Jones position." X rays have likewise demonstrated that fractures of the neck of the radius and of the coronoid process of the ulna are not very rare, and this information is of practical value in giving a prognosis.

Arm and Shoulder.—Fractures of the shaft of the humerus are treated in the same manner as they used to be. In obscure injuries about the shoulder-joint, or in cases where the ordinary physical signs of fractures and dislocations cannot be elicited on account of pain, swelling, or the patient's nervousness, x rays are invaluable in diagnosing the nature of the injuries to bone, joint, or epiphyses.

Many pathological conditions, such as the chipping off of a portion of the glenoid cavity, fracture of the coracoid process, or impacted fracture of the head of the humerus, and isolated injuries to its tuberosities, frequently remain undiagnosed, or must remain problems of provisional diagnosis unless the aid of x rays is called in. Fractures of the surgical and of the anatomical neck of the humerus can generally be diagnosed without the aid of x rays, but the frequency of their occurrence and the varieties of their character have been elaborated and confirmed by skiagraphic evidence.

The following case is worthy of record on account of the peculiar circumstance that the head of the bone got detached during manipulation, and remained outside the capsule after the tuberosities were reduced, and also on account of the good ultimate result of expectant treatment which the patient decided upon to adopt.

Fracture of the Anatomical Neck of the Humerus complicating an extreme Case of Subcoracoid Dislocation of the Shoulder, almost Subclavicular.

A farmer, aged 46, dislocated his right shoulder, and Dr. J. Powell, J.P., Newcastle Emlyn, reduced it by manipulation; on further examination, a piece of bone was found in the axilla, and it caused pain by pressing on the nerves. When I saw him in consultation, five weeks after the accident, he was skiagraphed, and the loose piece of bone was shown to be the head of the humerus, with its articular surface turned towards the chest, and its broken anatomical neck lying internal to and parallel with the upper end of the humerus. I advised that removal of the loose bone would probably cure the neuralgic pains, but the patient feared an operation, and when I saw him about two years afterwards with Dr. Powell, he stated that his pains had disappeared, and that he could work on his farm with comfort, and the only consciousness he had of anything wrong was a weakness of the arm when he attempted sudden forcible abduction of the shoulder, such as is required in nudging horses with the elbow.

The skiagraphs reproduced in Fig. 2, A and B, illustrate the importance of x rays in forming a prognosis with regard to the future growth of a limb when the fracture is supposed to be through the epiphysis. In such cases scientific opinion can be only obtained by skiagraphy, because the ordinary physical signs are the same, whether the fracture is through or half an inch or more below the epiphysial line.

X, aged 9, fell from her pony on the shoulder on grass, and was found by Mr. Albert Jones, Crickhowell, to be suffering from symptoms pointing to diastasis of the upper epiphysis of the humerus. Mr. Valentine Rees, of Brecon, agreed. I saw her in consultation, and put up the fracture in the ordinary way under anaesthesia, and also took skiagraphs before and after setting the fracture. The bones are shown to be in good alignment in the second skiagraph taken (B), and the fracture nearly an inch below the epiphysis, but perfect mechanical end-to-end apposition of the bones could not be obtained, although vigorous attempts were made to obtain it under the guidance of x rays and complete anaesthesia. We were enabled by x rays to give a good prognosis as to the growth of the limb, but treatment and its result were just the same as they would have been without the evidence of x rays. Incidentally I may point out that the skiagraph (B) indicates the fulcrum action of a big pad in the axilla, and bandaging of the elbow to the side upon the capsule of shoulder by the gap between the head of the humerus and glenoid cavity.

I need not detain you about the influence which x rays have exercised upon injuries to the scapula, clavicle, sternum, ribs, bones of the face, skull and spine, as their value is solely confined to the realm of diagnosis of injuries to bone. The question of treatment as regards trephining or performing laminectomy is not affected one jot by the evidence of a skiagraph, as the surgeon forms his decision from evidence gathered from the conditions of the brain, spinal cord, and the soft tissues; in compound fractures the aid of x rays is unnecessary, as they do not indicate their nature, and the ordinary methods of diagnosis are more reliable.

Pelvis and Lower Extremity.

In treatment of fractures and dislocations of the lower extremity, the value of x rays is much the same as in like injuries to the upper limb. One of my cases of fracture of the pelvis deserves recording as an example of the value of x rays in assisting the surgeon to urge the probable value of operation.

Paralysis of the Great Sciatic Nerve due to Fracture and Displacement of a Fragment of the Tuber Ischii: Operation: Recovery.

J. L., aged 40, was admitted to Cardiff Infirmary with fractured pelvis. He had, among other symptoms, complete paralysis of the right great sciatic nerve. A skiagraph which was taken by Mr. Martin, showed detachment of a triangular portion of the ischium into the great sacro-sciatic notch in the region of exit of the nerve from the pelvis. On March 28th, 1905, I removed the offending piece of bone, and the nerve was found flattened out and stretched at an acute angle over it. The patient has now almost completely recovered, and walks with but a slight limp.

The method of treating fractures of the femur, patella, and of the tibia and fibula has not undergone any change since the introduction of x rays. It is true that the open treatment of simple fractures has increased in popularity during the last few years, but that fact is chiefly due to the increased confidence of surgeons in their surgical cleanliness. Notwithstanding the advancement of aseptic surgery, and the very natural desire on the part of the patient and surgeon to have an ugly fracture from the skiagraphic standpoint converted into a pretty one from the purely mechanical point of view, we must not lose sight of the fact that there are many crippled limbs throughout the land which would to-day be quite useful if the ordinary non-operative treatment had been adhered to. The unpublished and sorry list of failures and disasters following such operations has in my opinion, and to my knowledge of few cases, been increased by the misleading and deceptive evidence furnished by x rays.

In Pott's and Dupuytren's fractures near the ankle, x rays are occasionally of use in elucidating the exact nature of the injury to the bones, but we read in one of the latest books on such injuries (Stimson, 1905) that more reliance is placed upon the ordinary symptoms of fracture than upon the testimony of x rays in some cases. Treatment of these serious injuries has not undergone any modification on account of increased and more exact knowledge from skiagraphs of the mechanico pathological condition of the bones. The photograph (Fig. 5) of an old, badly-united Pott's fracture, which was taken on the operation table during the progress of amputation with my forceps-tourniquet applied, is of more value than a skiagraph because it shows the permanent backward displacement of the ankle, which was one of the causes why the foot was worse than useless.

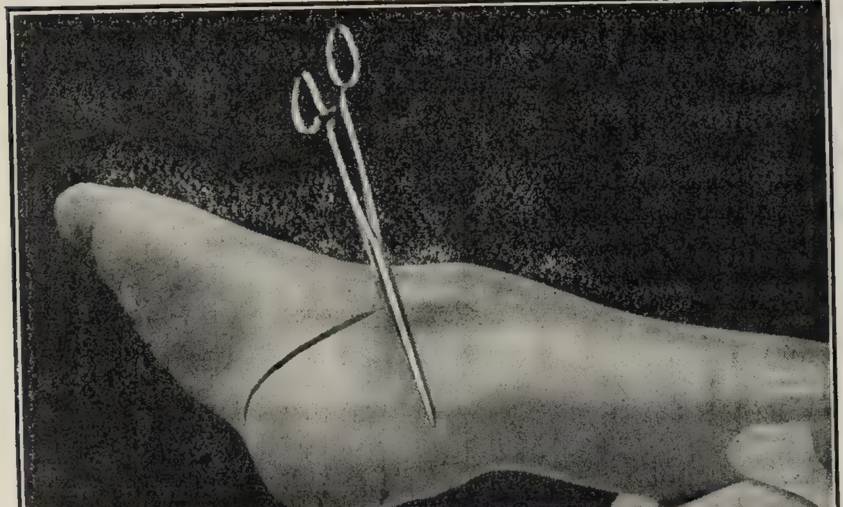


Fig. 5.—Syme's amputation for a useless foot following a severe Pott's fracture.

The Foot.—Cases of so-called severe bruises of the foot, like those of the hand, are not infrequently accompanied by fractures of metatarsal, phalangeal, or even of tarsal bones, and the aid of x rays in forming correct diagnosis in such conditions should always be obtained whenever possible; it makes no difference as to the line of treatment to be adopted, but it impresses upon the patient the importance of time—a great factor in treatment.

In conclusion, I will quote two examples of a rare accident which have been under my care as illustrations in the first place of the value of x rays in forming correct diagnosis, and secondly of their uselessness as evidence in forming opinion as to what line of treatment should be carried out.

1. *Dislocation of the Astragalus Backwards.*—I reported my first case in Walsh's *Roentgen Rays in Medical Work* (2nd edition), and the following extract (p. 152) describes equally well the character of the injury to the bone in my second case: "There is fracture through the neck of the astragalus, while the body is displaced backwards with the trochlear surface in contact with the tendo Achillis; in other words, there is an axial rotation of 90° backwards through the transverse axis 'anticlockwise.' The skiagraph (p. 145) which showed the above conditions was taken *eight* months after the accident and the patient had a useful foot with a stiff ankle."

2. *Dislocation of Astragalus Backwards and Inwards.*—D. T., aged 46, fell on his foot and twisted his ankle and wa immediately taken to the Cardiff Infirmary on the morning o December 19th, 1905. He suffered from dislocation of the astragalus backwards and inwards, and the trochlear surface could be felt under the skin between the inne malleolus and the tendo Achillis. In the afternoon I had to remove the dislocated and fractured astragalus under anaesthesia owing to threatening gangrene of the skin from pressure, attempts at reduction having failed. The specimen showed uninjured articular cartilage of all the articular facets except that for the scaphoid. The head and part of the fractured neck of the astragalus remained *in situ* and in the same manner as they did in my first non-operated case. Stimson in his *Treatise on Fractures and Dislocation* (1905) collected 16 cases of dislocation of the astragalus backwards, 7 of which were *complicated* by fracture of the neck my 2 cases brings this list to the same number as that o dislocation of the astragalus *uncomplicated* by fracture. It i too soon yet to judge of the ultimate usefulness of the limb when last seen progress was satisfactory. Mr. Martin took skiagraph, and it is like the one referred to above.

Interpretation of the skiagraphical evidence obtained i the above two cases does not carry us beyond the fact tha there was a particular kind of injury to the astragalus similar type; it does not help us to decide upon any lin of treatment; it does not tell us whether the injur occurred to-day or months ago; it does not indicat whether the dislocation is simple or compound; an lastly, we gather no information or any knowledge wha ever as to the all-important and vital conditions upo which the very life and future usefulness of the foo depends, namely, those of the blood vessels, nerve tendons, ligaments, and skin.

Experiment to Show the Distortions of Skiagraphs.

In the paper which I read before the Roentgen Societ I proved by experiment that in cases in which transvers fractures of bone had been artificially produced, an x-ra photograph did not give any evidence of their existen unless certain precautions which I indicated were take during the skiagraphic investigation. I also showed th a transverse saw-cut in bone appeared either as a straig line or as V-shaped, with equal or unequal limbs, varyi according to the relative positions in which the focus tub object, and plate, were placed to each other during t process of skiagraphing.

I desire now to describe and illustrate another expe ment, in order to draw particular attention to t unreliable, deceptive, and misleading evidence that t surgeon has to deal with when studying skiagraphs bones. The scientific or true value of such evidence ca only be deduced from knowledge of *all* the conditio under which skiagraphs were taken; pitfalls a numerous, and the greatest caution is necessary to avo them.

X rays emerge from their source of origin in the foc tube in all the planes diverging from that surface of t anode from which the cathode rays are reflected, and the present focus tubes must be brought within such distance of the photographic plate that the rays are st divergent, it follows that skiagraphs are subject to all t natural and well-known distortions in outline of ordina shadows; shadow-figures appear larger or smaller, distin or indistinct, and angles vary according to the positions the light, object, and screen. In addition to the ab distortions in silhouette, skiagraphs of bones have a distortions peculiar to themselves, owing to superpositi

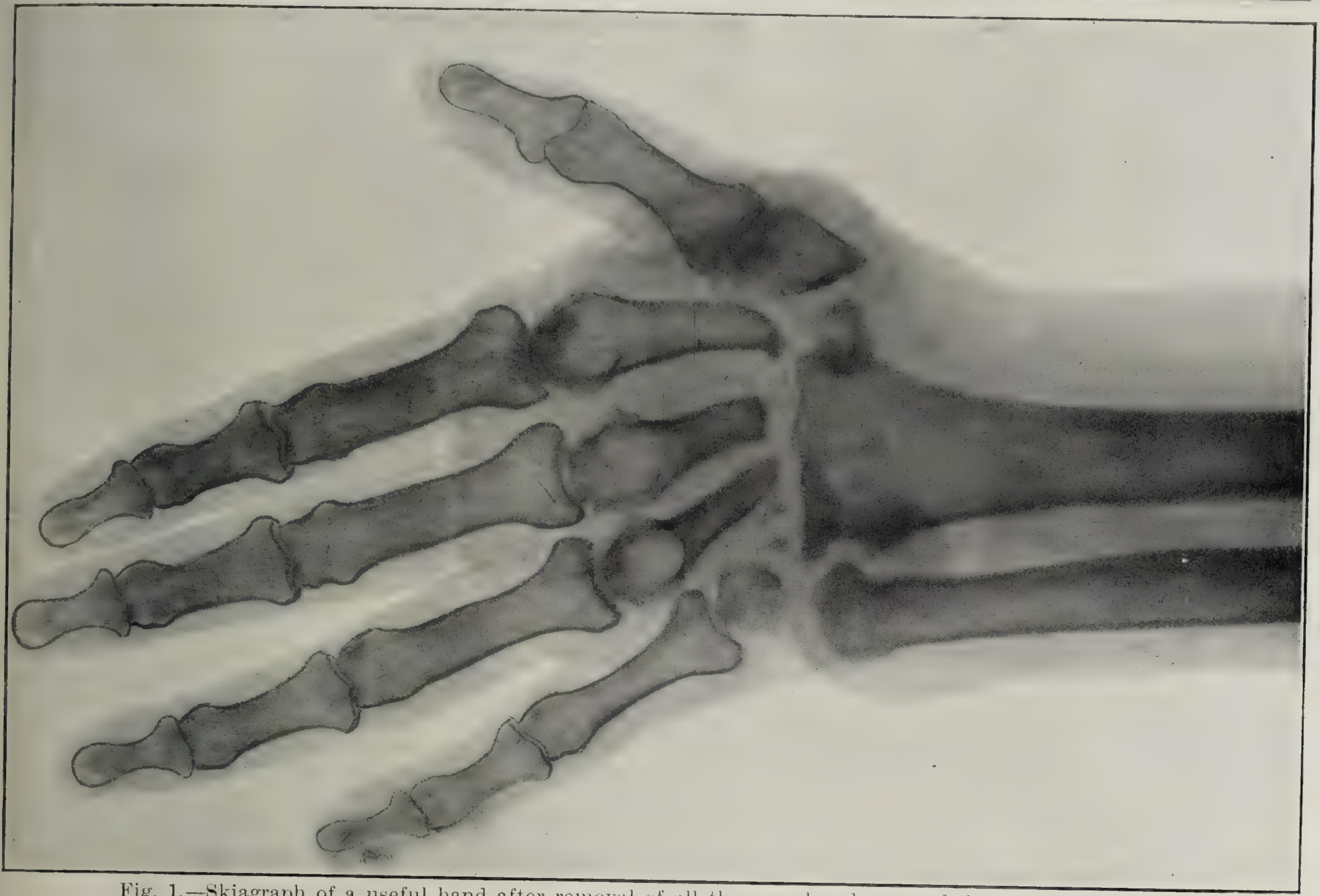
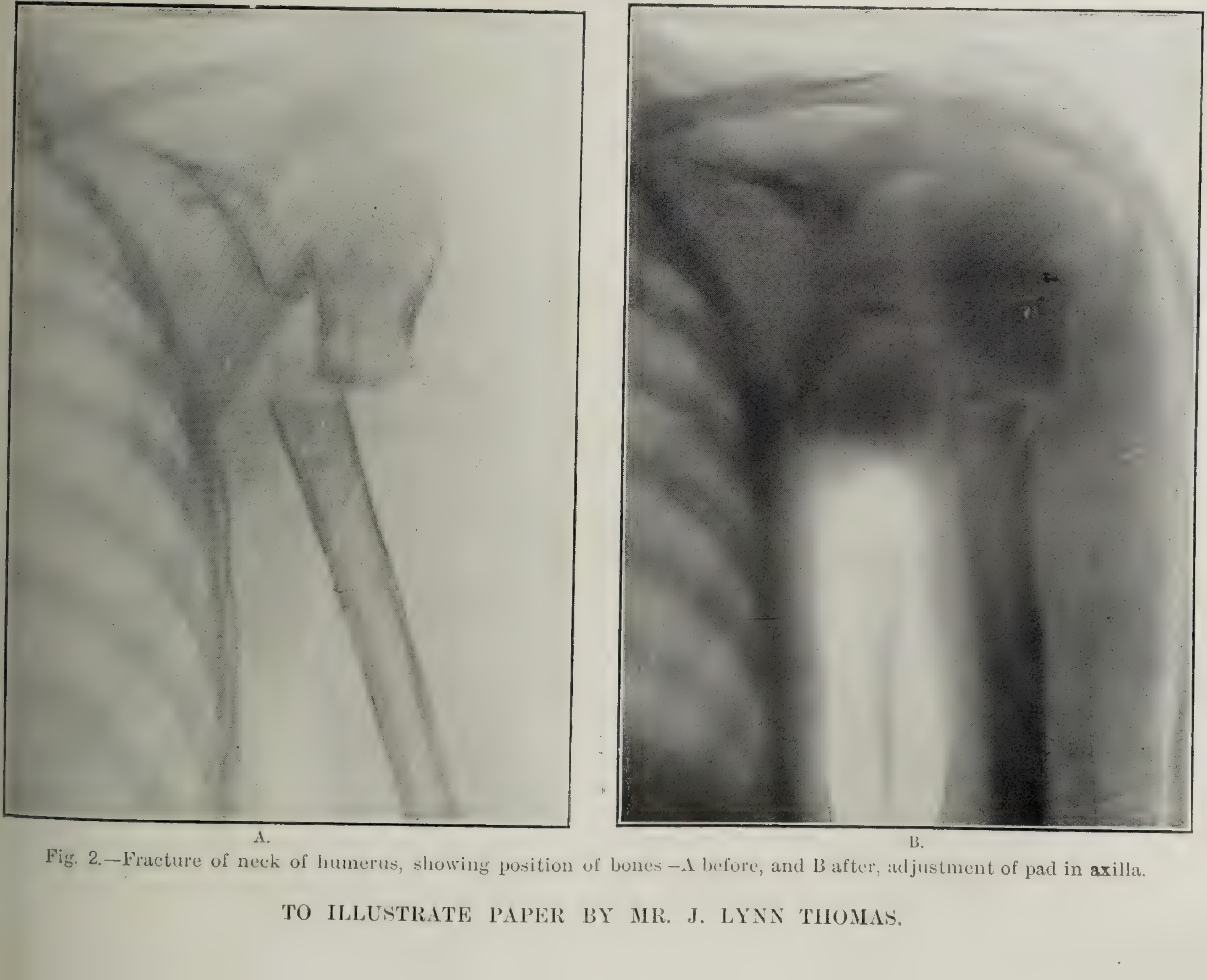


Fig. 1.—Skiagraph of a useful hand after removal of all the carpal and some of the metacarpal bones



A. B.

Fig. 2.—Fracture of neck of humerus, showing position of bones—A before, and B after, adjustment of pad in axilla.

TO ILLUSTRATE PAPER BY MR. J. LYNN THOMAS.

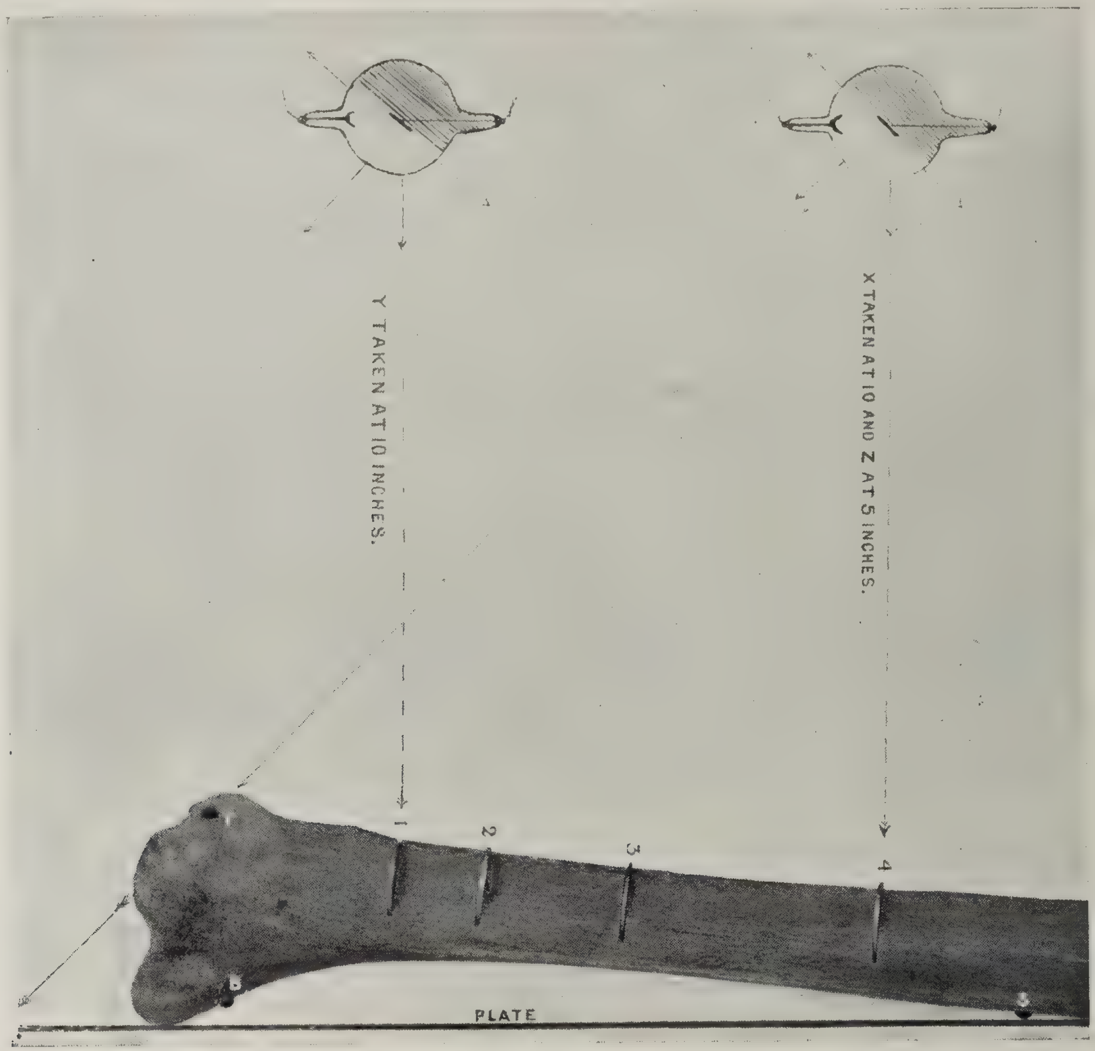

Y TAKEN AT 10 INCHES.
X TAKEN AT 10 AND Z AT 5 INCHES.
1
2
3
4
PLATE

Fig. 3.—Showing the relative position of the focus tube to the tibia and plate when the skiagraphs X, Y, Z, Fig. 4, were taken.

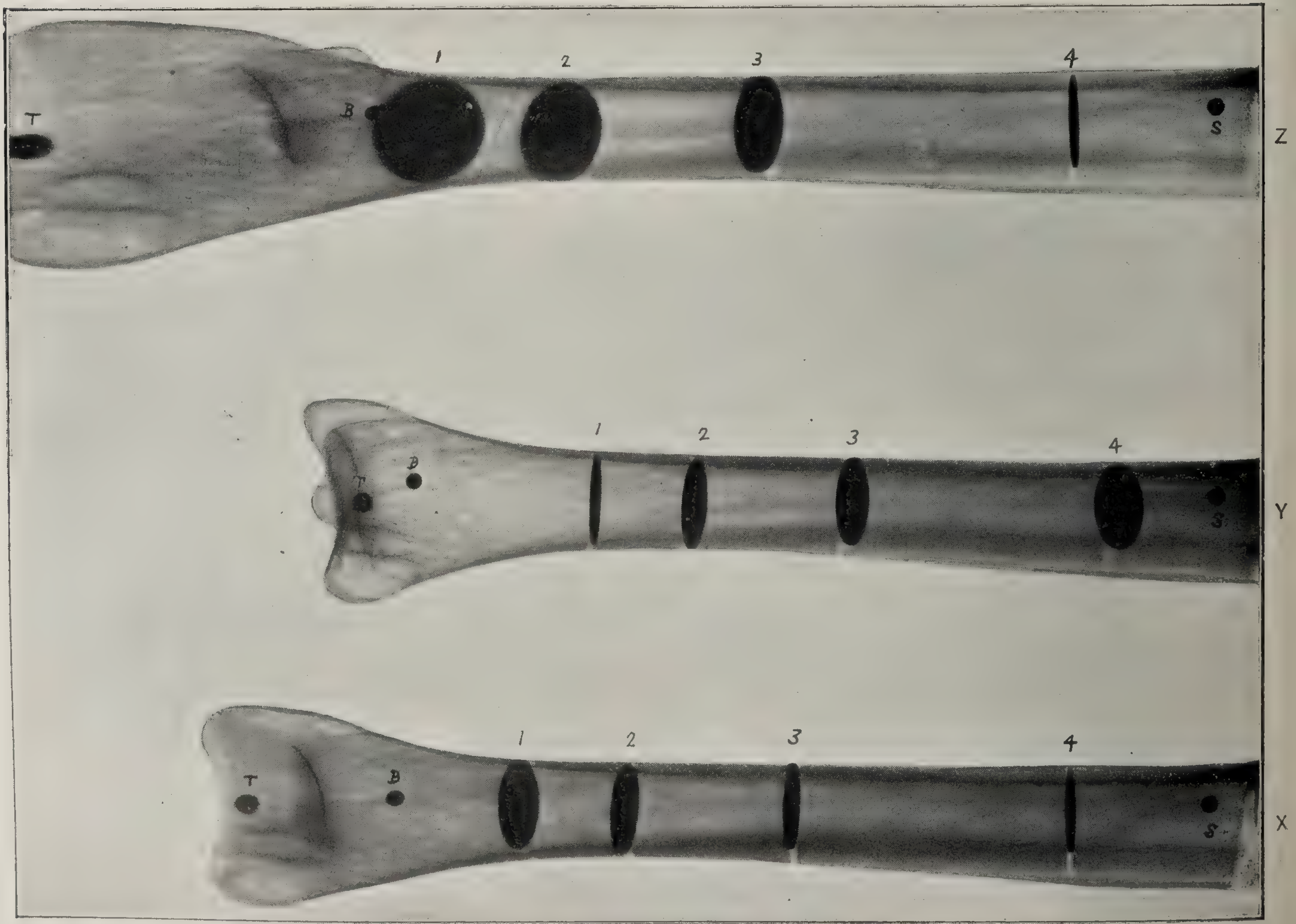

T
B
1
2
3
4
S
Z
T
B
1
2
3
4
S
Y
T
B
1
2
3
4
S
X

Fig. 4.—Skiagraphs of tibia taken as shown in Fig. 3.

TO ILLUSTRATE PAPER BY MR. J. LYNN THOMAS.

›f the shadows from the opposite surfaces of compact ›one.

The following experiment shows graphically the two ypes of distortion:

Four parallel saw cuts were made through the external nargin of a tibia, of sufficient width and depth to take a ixpenny piece in each, and three ordinary No. 5 shot vere fixed in little pits on the surface of the bone at the ›oints S, T, B, as shown in the photograph (Fig. 3).

S I call the sentinel shot, as it serves to localize the elative position of the bone to the photographic plate in ne three skiagraphs, and is not liable to appreciable dis-ortion owing to its proximity to the plate. T, top shot ırthest from the plate. B, bottom shot nearest to the late.

The three skiagraphs marked X, Y, and Z, were taken ›parately on one plate (12 by 10). The relative positions f the bone and plate were the same in X, Y, and Z. The ifferences in appearance between each skiagraph depend ›lely upon the position and the distance of the anti-ıthode from the object.

The anticathode was over the centre of the bone in each ıse, and not to one side; this relationship can best be ›tained by dropping a plumb-line from the focus tube ter the fashion I recommended in my paper to the oentgen Society for investigating the existence of trans-›rse fractures in bone.

In X and Z the anticathode was over No. 4; in X it was in. from the plate, and in Z 5 in. In Y the anticathode ıs over 1 at 10 in. distance.

The photograph 3 shows that the sixpenny pieces are parallel and lie perpendicular or at right angles to the ate.

The letters and figures in the skiagraphs X, Y, and Z ig. 4) correspond to those in the photograph of the ›ia (Fig. 3).

The distortions, which are graphically represented in Y, and Z, show how extraordinarily they become affected simply shifting the position of the anticathode; I need rdly state that these would become grossly and ›tesquely exaggerated by placing the object for exami-tion at a different lateral angle to the plate in each ›e.

For example, I would point out that the shot T can be ıde to travel round the shot B in every direction and nost in any position that one desires by suitable shifting the anticathode; and as these two shots may be taken representing two surfaces of bone—the one (B) being ›t to, and the other (T) being the furthest from, the photo-phic plate—one sees at a glance that overlapping of the faces takes place in every portion of a skiagraph except that particular situation where the vertical rays strike object under investigation; at that spot *alone* there is rect superposition of the compact surfaces opposite h other. Note the half eclipse of B by I in Z.

Conclusions.

'he following are my conclusions as to the influence ch *x* rays have exercised upon treatment of fractures dislocations:

. No new methods of treatment have been introduced ›e or due to the discovery of *x* rays.

The ordinary symptoms of fractures and dislocations sufficient to form a correct diagnosis in the vast ority of cases, and *x* rays are unnecessary.

In injuries to bones or joints which are obscure from cause the aid of *x* rays should always if possible be ıined.

The value of *x* rays *alone* in forming opinion with ırd to treatment is *nil*.

X-ray photographs should be obtained when doubt ts with regard to reduction of a recent dislocation; in dislocations they do not assist us in deciding upon line of treatment.

X rays are of no value in forming opinion as to the ress of the process of repair in recent fractures, and are also useless in forming opinion as to the useful-of a limb; their value is limited to the determina-of the mechanico-pathological conditions of the ments.

The evidence afforded by *x* rays is deceptive, mis-ing, and should only be submitted to and acted upon ıose who understand their value.

4

MEMORANDA:
MEDICAL, SURGICAL, OBSTETRICAL.

THE TREATMENT OF HUMAN TRYPANOSOMIASIS BY ATOXYL.

In Memoir XVI of the Liverpool School of Tropical Medicine Thomas and Breinl published an account of their attempts to treat experimental trypanosomiasis in animals by a meta-arsenic anilin compound—"atoxyl." The results they obtained were far from conclusive, but they were distinctly encouraging. Since it has given better results than any other drug, this compound of aniline and arsenic should certainly have a careful trial in at least early cases of trypanosomiasis.

It is useless to attempt a treatment by "atoxyl" unless one is prepared to continue it carefully and intelligently for a long period. Besides medication, the patient should have plenty of good food, and his general health should be carefully built up.

"Atoxyl" must not be given by the mouth; its composition is altered by the acid of the stomach. In animals the best experimental effects were obtained by intravenous injection, but it would manifestly be impossible to employ this method regularly in men over a long period of time. It is suggested by our experience with this drug in Liverpool that in the routine treatment of human trypanosomiasis it should be administered as follows:

Make a 20 per cent. solution of "atoxyl" in distilled water, or, preferably, normal saline. Inject it subcutaneously in the doses indicated below. The solution should be warmed to almost blood heat just before use. In this way the pain at the site of injection, which occasionally follows the use of the drug, is obviated. Give in this manner for four to six days 0.6 c.cm.; then raise the dose to 0.8 c.cm. for four to six days; then again raise the amount given to 1 c.cm. per day. Continue to give this dose until signs of intoxication commence to appear. When this happens reduce it, as in the ordinary administration of arsenic, until the limit of the patient's tolerance is reached, and keep the dose at that point.

If those who have an opportunity of treating cases of human trypanosomiasis with this drug are careful to note exactly both the doses given and the reaction of the patient and parasites (microscopically and by animal inoculation with large amounts of blood), it should not be many months before at least an idea of its efficiency can be formed.

John L. Todd,
Runcorn Trypanosomiasis Research Laboratories of the Liverpool School of Tropical Medicine.

GOÎTRE IN ENGLAND.

The recent discussion at the Royal Medical and Chirurgical Society has greatly interested me for the reason that some ten years ago I investigated a large number of cases of goître. These occurred in West Hertfordshire and the adjacent parts of Buckinghamshire; they occurred equally on a tableland among the Chiltern hills, at an elevation of some 700 to 800 ft., and in the lovely valley in which Aldbury is situated, which is about 400 ft. lower. Part of the district is on chalk, with a large admixture of flints, and part is on clay. There is no running water. Here I found about sixty cases of goître, and no doubt a closer investigation would have disclosed many more. A patient to whom I was speaking on this subject to-day, and who has a goître herself, tells me of another village in Buckinghamshire where there are twenty or more cases, some very large; this is on clay with a vein of sand.

I found the disease occurring among a people who are very closely intermarried, and among whom there are a good many of low intellect, several of them "village naturals." It seemed to run in families; in one instance an old woman had a hard, fibrous, bilobed goître; her daughter had an enormous one, and at one of her confinements at which I was present, the baby was born with one (the only instance I have seen); each lobe was rather larger than a walnut, round and firm.

As regards the water supply, many of these families drank water from ponds; some from wells in chalk or in clay; but (and here is the interesting point) I came across quite a number of cases where only rain water was and had been used for many years (many generations of the same family often occupy a house). This rain water is collected from the roof and stored in cisterns above ground or bricked-in tanks underground; and I fear its quality is often by no means good. Since I investigated these places many of them have been supplied by the Chiltern Hills Water Company, whose delicious water is procured from the chalk formation.

Here, then, we have undoubted cases of goître occurring in people who have always drunk rain water. The disease is almost entirely confined to the female sex (but the lady mentioned above told me of a boy with a large one). Do the men ever drink water, unless very occasionally in the form of tea? I found that the people afflicted with the disease had little inconvenience from it, except that the gland was apt to swell during menstruation, and especially during pregnancy, and in one or two cases during a "cold" or attack of bronchitis great distress was caused by pressure on the trachea. There were perhaps about five cases of exophthalmic goître among them, one of which was quite cured by thyroid extract.

London, N.W. John Spurway, M.B.

CALCIUM SALTS IN CHILBLAINS AND OTHER SEROUS HAEMORRHAGES.

À propos of Dr. G. Arbour Stephens's interesting communication in the British Medical Journal of April 7th, allow me to note that the nature of chilblains as one of the serous exudations or "serous haemorrhages" has been worked out by Dr. A. E. Wright, to whom we are indebted for so much light on the pathology of the blood. In a series of papers published during the last twelve years, Dr. Wright has shown, amongst much else, that the subjects of chilblains possess blood of deficient coagulability, and that the administration of calcium salts cures the disorder by increasing the coagulating power.[1]

Dr. Wright's discoveries are enabling us to range a series of diverse symptoms in their due relation to diminished coagulability of the blood, and have shown how this hitherto unrecognized cause explains their occurrence. Amongst these are a common type of headache,[2] so-called physiological albuminuria,[3] many cases of chilblains, urticaria and weeping eczema, and forms of oedema. In regard to albuminuria, the diagnosis of the innocent (haematogenous) form and its cure by the administration of calcium lactate is likely, I think, to prove one of the most useful discoveries in modern medicine. I hope to expound this more fully in a paper to be read before the next meeting of the Life Assurance Medical Officers' Association.

London, W. R. Hingston Fox.

Four Malformed Males in one Family.—Dr. Albert Sippel of Frankfort-on-Maine has recently reported a remarkable family history ("Einer Serie missbildeser Knaben von einem Elternpaar." *Zentralbl. für Gynäk.*, No. 15, 1906, p. 425) which must interest all observers who, like Geddes and Thomson, Andrew Wilson, Schenk, and Rumley Dawson, have endeavoured to determine the essential factor in the causation of sex. A healthy and powerful man, who neither smoked nor drank alcohol, married twice. His first wife bore him twelve children—five boys and seven girls, all born healthy, and free from any malformation. The mother died, and the father married her sister, who, like the first wife, was a healthy woman. The husband in this second marriage begat no less than seven children—first a girl, then four boys, lastly two girls. All the three girls were strong and healthy. The four boys were all afflicted; the first soon died of spina bifida, the second had a big thymus and succumbed soon after birth, and the third was stillborn, yet remarkably well developed. No *post-mortem* examination was permitted, but Dr. Sippel seems convinced that there was some internal malformation. The fourth boy was born with congenital myxoedema; this was successfully treated with thyroid extract, but idiocy developed. When 6 years old a bronchocele appeared, and the thyroid gland had to be removed as asphyxia was feared. Dr. Sippel holds that the obscure origin of four (or three?) marked congenital malformations must have lain in the mother, the second wife. He denies altogether that it could be ascribed to the father.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

Bath and Bristol Branch.—At the sixth ordinar meeting of the session, held at Bath on April 25th, Dr. J Michell Clarke (President), in the chair, Dr. T. Wilso Smith and Mr. F. Lace showed a specimen of colloid car cinoma from the sigmoid flexure of a boy aged 16.— Mr. W. M. Beaumont showed three cases of ptosis.—Dr C. J. Whitby read a paper on the doctor as an expert an pioneer, which was discussed by Mr. C. E. S. Flemming Dr. Newman Neild, and Dr. Michell Clarke.—Dr. T Wilson Smith read notes of a case of mediastinal tumou with some unusual features.—Dr. W. P. Kennedy read paper entitled Coprostasis, and remarks were made upo it by Mr. J. R. Benson and the President.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

Clinical Evening.

H. H. Clutton, M.A., M.C., F.R.C.S., President, in the Chair.

Friday, April 27th, 1906.

Von Recklinghausen's Disease.

Dr. G. A. Sutherland showed a Jewish boy, aged 5, wh besides many bony deformities due to rickets, had a firm nodular swelling over the right frontal bone, the right eye lids hypertrophied, and eye proptosed, and patches c brown pigmentation over the frontal swelling, the trunk axillae, and groins, but none on the extremities. Ther was no pain or tenderness, nor evidence of centra nervous disease.

The President suggested a diagnosis of leontiasi ossea, in spite of the age.

Mr. W. G. Spencer considered it a hypertrophy in th distribution of the fifth nerve.

Mr. G. Pernet thought the pigmentation less tha usual. Some of the cases of von Recklinghausen disease eventually developed sarcoma.

Dr. Parkes Weber likened the case to that of th "elephant man," and thought the combination of swellin and pigmentation stamped the diagnosis as correct.

Spontaneous Fracture of Tarsus.

Dr. Parkes Weber exhibited a married woman, age 45, whose right foot a year ago became swollen and pai ful. Six weeks ago a radiograph showed the head of th astragalus broken off. She had Argyll-Robertson pupi on both sides; the knee-jerks were present. No history syphilis could be obtained.

The President thought it a case of commencing tabet arthropathy.

Dr. Weber said there were no signs due to tabes onl The Argyll-Robertson pupil was met with in ma conditions besides tabes.

Ringworm Cured by Exposure to X Rays.

Mr. G. Pernet showed a boy treated for ringworm occup ing the occiput by one sitting of x rays gauged accordi to the Sabouraud-Noiré method (platino-cyanide of bariu pastille). The results had been excellent; the stum and hairs on the parts exposed had fallen out, and grow had followed.

Mr. W. G. Spencer hinted at the chance of overdoi the exposure.

Mr. Pernet further mentioned that the general adopti of this method in Paris had greatly lessened the expen of treating the cases of ringworm.

Lymphangiectodes.

Mr. G. Pernet showed a woman, aged 26, in whom t disease had commenced at the age of 5 months. Nine ten groups of vesicles occupied the right wall of the ch below and in front of the axilla; some haemorrhage h occurred into the lesions. The patient was otherwi healthy.

Mr. Campbell Williams had excised such vesicles lymphatic naevi in young patients.

---

[1] See British Medical Journal, July 14th, 1894; *Lancet*, 1896, vol. i. p. 253, vol. ii, p. 807, and especially 1897, vol. i, p. 303; *Transactions of the Pathological Society*, 1900; and *Transactions of the Royal Medical and Chirurgical Society*, 1903.

[2] Dr. G. W. Ross, *Lancet*, 1906, vol. i, p. 143.

[3] Drs. Wright and Ross, *Lancet*, 1905, vol. ii, p. 1164.

Post-auricular Fistula.

Mr. W. H. **Battle** showed a girl, aged 11, who had a minute opening in the fold behind the right ear, admitting fine probe, from which a clear fluid intermittently listilled, the fluid being saliva, and its flow increased vhen the patient sucked an acid drop.

Four Severe Abdominal Operations.

Mr. W. H. **Battle** exhibited a single woman, aged 30, vho in March, 1903, had her first operation for perforated astric ulcer situated in the anterior aspect of the viscus, ear the pylorus, when the ulcer was sutured. Anterior astro-enterostomy was performed in April, 1904, for yloric stenosis. In May, 1905, she underwent operation or perforation of simple ulcer of the jejunum, which was utured. In May, 1906, a second perforated ulcer of the junum (diagnosed by the patient herself as a "perfora-on") was sutured by Mr. Battle. Recovery had been uite satisfactory, with no weakness of the abdominal wall, lthough it had been incised seven times.

Mr. W. G. **Spencer** considered "peptic" ulcers more ue to continuance of the primary gastric disease than to e manner of doing the gastro-jejunostomy. Both anterior d posterior operations were followed by peptic ulcers, it the complication was more easily dealt with after the terior operation.

Extreme Obesity with Precocious Puberty.

Dr. L. **Guthrie** exhibited a girl, aged 3, weighing $\frac{1}{2}$ lb. The breasts were beginning to develop, and hair d appeared on the pubes. The intelligence was good.

Dr. **Sutherland** said that usually great obesity went th mental weakness and increased growth of the sexual gans. What organ in the body led to this over-velopment?

Dr. **Parkes Weber** thought it was possibly due to a pernephroma of the adrenals.

The **President** remarked that most of the cases were in les.

Dr. **Guthrie** said that in males the general bodily velopment was mostly muscular; in girls, fatty.

Muscular Atrophy.

Dr. A. E. **Garrod** showed a girl, aged 11, with exten- e muscular atrophy, especially of both pectoral muscles l deltoids, the muscles of the left arm and first dorsal erossei of both hands, causing *main en griffe*, and of the scles of the thigh. There was history of a paralytic ack at the age of 1 year.

Dr. **Farquhar Buzzard** thought it a case of myopathy fted on old hemiplegia.

Angio-Neurotic Oedema.

r. **Garrod** showed a woman, aged 20, who for six years had recurrent attacks of acute circumscribed oedema the right cheek, accompanied by polyuria. Three nths ago a severe attack began, and had persisted, g thus unlike previous attacks, which had subsided hree days.

r. **Parkes Weber** thought the condition might have a l origin, which would eventually manifest itself.

r. W. G. **Spencer** suggested that there might be nic streptococcic infection of the nasal mucous nbrane.

Paralysis of Left Sixth and Paresis of Left Seventh Nerves.

L. **Guthrie** showed a girl, aged 3, in whom the e symptoms commenced six weeks ago. There was nal strabismus of the left eye, but no other affection n ocular muscle. The pupils were equal and active. left side of the face was paretic; the child dull and hetic. There had been a tuberculous nodule on the hand for three or four months. The symptoms were nosed as due to tuberculous disease of bone, involving left facial nerve externally and the left sixth nerve nally, but the gait resembled a cerebellar gait.

F. **Buzzard** thought the most probable diagnosis a tuberculous mass in the left ponto-cerebellar n.

Extensive Ulceration of Mouth.

Battle showed a man, aged 38, with deep ulcera- of both alveolar borders, involving destruction of due to tubercle, or possibly epithelioma. The ion was eighteen months.

W. G. **Spencer** thought it a tuberculous lesion.

Liverpool Medical Institution.—At a meeting on April 26th, Mr. **Frank T. Paul**, President, in the chair, Mr. **Rushton Parker** related two cases of *Gall Stones.* (1) A woman, aged 45, suffered from pain, vomiting, and dyspeptic symptoms suggestive of gastric ulcer. An exploration, made in the middle line of the epigastrium, revealed adhesions between the pylorus and the liver; when these were freed a stone was felt in the gall bladder. The stone, of the size of a small marble, was removed, and the gall bladder sewn up at once. The woman went home in a few weeks apparently cured. The patient returned three and a half years later, saying that the immunity from symptoms had only lasted two months. In March, therefore, the original scar was opened again, and the wound extended downwards to give easy access to the biliary passages. A stone in the gall-bladder was removed, the cystic duct tied and cut, and the gall bladder removed. Another stone was found impacted in its neck. The patient made a complete recovery in five weeks. (2) A stout and apparently vigorous woman, aged 71, was admitted on December 30th, 1905, with symptoms of intestinal obstruction of three days' duration. Three similar attacks in two years had yielded to copious enemata, which brought away large faecal accumulations. Jaundice was set up in each attack after twenty-four hours. A small, slack, umbilical hernia was apparently not involved in the symptoms. The abdomen, when opened through the hernia by a transverse incision, showed general peritonitis with adhesive yellow lymph and inflammatory thickening of several feet of the small intestine. A hard object felt in the gut one foot above the ileo-caecal valve was found, on removal through an incision, to be a gall stone $1\frac{1}{2}$ in. long and $\frac{3}{4}$ in. thick. The intestinal incision was sewn up and the abdomen closed. The patient died three hours later. At the necropsy, the liver was found enlarged and fatty, the gall bladder exceedingly small, but filled with a second calculus less than half the size of the one that had escaped. A perforation in the gall-bladder led to a space under the liver, and thence into the duodenum. This suppurating space was shut off from the peritoneum, and did not account for the peritonitis. The latter more probably resulted from transudation of septic intestinal contents during the impaction of the larger calculus in various parts of the small intestine. The state of the patient's viscera, her age, and the duration of the disease, together completed the hazard of the situation.—Mr. R. C. **Dunn** read a note on the after-treatment of cases of radical cure of *Hernia in infants and young children.* The chief points in favour of early operation were the certainty of cure and the short duration of treatment. Many children apparently cured by trusses subsequently developed herniae in later life, and these recurrent ruptures were apt to be looked upon as acquired. The strongest evidence existed that the majority of cases of inguinal hernia occurring in adult life were of congenital origin. The supposed difficulty of preventing contamination by the evacuations in children too young to have obtained control had, up to the present, stood in the way of a more universal recourse to early operation. The open method of after-treatment devised and published by Stiles, of Edinburgh, had, after fifteen months' trial, given thoroughly satisfactory results in the author's hands. The simplicity of the method and the certainty with which it prevented soiling of the wound rendered it the best form of after-treatment.—Mr. R. W. **Murray** read a paper on the etiology and treatment of *Oblique inguinal hernia.* He maintained that the main factors in the causation of oblique inguinal hernia at all ages were, first, the presence of a congenital or preformed sac, and secondly, want of strength in the muscles guarding the internal abdominal ring. Evidence derived from a study of comparative surgery, *post-mortem* observations, and clinical experience were adduced in favour of this belief. A cure obtained by means of a truss must always be uncertain. The funicular process probably never became completely obliterated by this method. By operation in infancy a permanent cure could be assured. In operating he usually adopted the same method irrespective of the age of the patient. The essential points of the operation were that the inguinal canal was opened up and the sac excised after applying a ligature to it at the level of the internal abdominal ring. The divided aponeurosis of the external oblique was united by overlapping. The **President** thought the statement that all inguinal herniae were due to the presence of a congenital sac was too sweeping. Mr. **Rushton Parker** thought that the terms "congenital," "infantile," and "acquired" should be abolished. He had advocated the early operation in infants more than eleven years ago. The sac should be obliterated, but there was no need to remove it, and there was no need to close the inguinal canal in children. The length of the mesentery was an important factor in the etiology of hernia. Mr. K. W. **Monsarrat** considered it was necessary to slit the external oblique from the external ring upwards, to a greater or less extent, in all cases. Bassini's operation had given excellent results in the hands of many surgeons, its chief merit being the perfect access it gave to the neck of the sac. It was a mistake to bring the cord through the muscular layer immediately superficial to the internal ring. The recurrences that took place after Bassini's operation did so at this point—a fact which supported the view that the weak point in the several layers of the wound should not be superimposed. Mr. G. P. **Newbolt** considered that, though the majority of cases of oblique inguinal hernia had a congenital origin, yet there were undoubtedly cases in which the condition was acquired. The radical operation in infancy was practically always successful, but the mortality was a factor to be considered; it was higher than in adults. Mr. **Douglas Crawford** agreed that all oblique inguinal herniae were probably due to persistence of a funicular process, this view being supported by four cases of hernia occurring in boys about 17 years old.

Epidemiological Society.—At a meeting on April 20th, Dr. J. **Tatham**, President, in the chair, Dr. **Reginald Farrar** read a paper on the infectivity of cerebro-spinal fever, and Dr. **Mervyn Gordon** gave lantern demonstrations of the micrococci. Dr. Farrar admitted that many authorities in England and America, such as Sir John Burdon-Sanderson and Drs. Osler, Hilton Fagge, and J. S. Bristowe, held that the disease was but feebly, if at all, communicable, yet, since there was no suggestion of its being waterborne, the course of epidemics was explicable only on the assumption of its communication by persons or fomites. Considering the great increase in the mortality here and in America of late years, it behoved the authorities to determine the best means for checking its spread when and wherever it might break out, as it had in every quarter of the globe, though endemic only in Russia and the Polish provinces of Russia. Dr. Farrar then proceeded to adduce evidence of its infectivity in the occurrence of multiple cases in single houses, the implication of contacts, especially of those in attendance on the sick, and its conveyance by persons or fomites to others often in distant villages, as reported by Drs. Gifford of Boston, U.S.A., in 1873; Bolton Corney, in Fiji, in 1888; Friis of Copenhagen in 1891; and more recently from Crowborough, co. Down, Boston, Spilsby, and Easington in Yorkshire. Though on a few occasions garrisons had escaped when the disease was prevalent among the civil population, troops in barracks appeared specially liable to be attacked by it in epidemic form, and it had frequently been carried to other towns by the movement of troops, or previously healthy regiments were attacked after their arrival in infected barracks or camps. Bondin reported numerous instances in French garrison towns between 1841 and 1849, Petersen at Berlin in 1896, and Jaeger at Ulm in 1893 to 1899. Although, like other intracellular microbes, the micrococci of meningitis, Weichselbaum's, were not easily kept alive *in vitro*, they might, when surrounded by an albuminous envelope, as in mucus, retain their vitality for a considerable time in a dry state. Jaeger had obtained cultures from the dust of the floor of barracks at Ulm after 96 and 127 days, while Germano and Max Neisser classed Weichselbaum's among the microbes most resistant to drying. When severe and typical cases only were taken into account the fatality was over 50 per cent., but a very large number of mild cases were erroneously reported or unrecorded, and their inclusion would greatly reduce the percentage of deaths. The extreme virulence of the infective material in some cases might be due to symbiosis of other micrococci, as that of Pfeiffer, the *M. catarrhalis*, and pneumococci. The rapidity with which the virulence was lost, both in the course of epidemics and in the individual, was remarkable. If lumbar puncture were repeated, it was frequently found, that the micrococci were often present in the fluid in undiminished number after all symptoms had subsided. Many deaths reported as due to tuberculous meningitis were really from cerebro-spinal fever, and Dr. Still believed that the simple basic meningitis of infants was of the same nature.

Cork Medical and Surgical Society.—At a meeting held on April 11th, Dr. R. P. **Crosbie**, President, in the chair, Dr. **Cotter** read notes of a case of *Ectopic gestation* in a woman aged 36, married 9 months. Menstruation was regular up to November 20th, when she missed a period then due. A week after this the period came on, heavier than usual, and lasted four or five days. On December 4th she experienced severe pain in the lower part of the abdomen, and felt as if something had given way inside. She got very faint, and vomited. A week after a swelling in the lower abdomen appeared, which gradually increased. When first seen by him she was profoundly anaemic, with raised temperature and pain in the lower abdomen, where there was a fluctuating tumour. *Per vaginam* fluctuation was felt over a swelling in Douglas's pouch, and the uterus was pushed forward. He operated on December 24th, first tapping the tumour through the posterior fornix, and got nothing but pure blood. The abdomen was then opened by mesial incision, and what looked like a large ovarian cyst immediately presented. On opening it a large collection of blood, fluid and clotted, escaped, the clots being ladled out with the hands. At one side of the cyst wall, somewhat in the situation of the outer end of the left Fallopian tube, was what appeared to be a lump of organized lymph. A portion of this was removed, and Dr. Moore reported that it showed chorionic villi and decidual tissue. The cavity was packed with iodoform gauze, and recovery was uninterrupted. The author thought that this was a tubal abortion, as there was no evidence of a rupture of the tube.—Dr. **Cotter** also read notes of a case of *Obscure abdominal symptoms* in a man, aged 20 years. After a few days of *malaise* he got an acute pain in the belly, with vomiting and great collapse. There was tenderness, and some rigidity over the right iliac fossa. Thinking the appendix implicated the author opened the abdomen, and, beyond some serous effusion, found nothing abnormal. He removed the appendix, which was healthy. The patient died the next day. *Post mortem*, the pancreas was found greatly enlarged, and somewhat bile-stained, with a peculiar "marbled" marking of its surface. He was at a loss to know the cause of death. A report by Dr. Moore showed no evidence of inflammation or degeneration, and thus negatived the diagnosis of acute pancreatitis, as also did the absence of fat necrosis. On the other hand, there was cyanosis of the skin of the face and belly, and localized tumescence of the upper half of the abdomen.—Dr. H. R. **Townsend** read notes of a case of *Acute appendicitis* in a girl aged 10. He saw her the day after onset of symptoms. There were severe paroxysms of pain referred at first to the umbilicus, later to McBurney's point. He found a deeply congested appendix, which he removed. Dr. Moore examined it, and found unmistakable evidence of early pus formation. Dr. Townsend said the case illustrated the necessity for instant operation in acute cases. Dr. **Cotter** thought that the only exception to this rule was in cases known to be of the relapsing variety.

Medico-Psychological Association of Great Britain and Ireland.—At a meeting of the Northern and Midland Division, at the Derby Borough Asylum, on April 19th, Dr. **Nathan Raw**, of Liverpool, read a paper on the *Mental disorders of pregnancy* and the puerperal period based on the observation of 102 cases of puerperal insanity, including 6 cases of the insanity of pregnancy. Of this number, 24 patients recovered completely during the short period allowed for detention by Section XXIV, Paragraph 2, of the Lunacy Act, 1890. The other cases were transferred from the Mill Road Infirmary to the county asylums, and although he could not give the exact figures, no doubt a large percentage recovered. Puerperal insanity in its acute phases was of all forms of insanity the most likely to end fatally, and in many instances i exhibited the most acute forms of mental disease. As a general rule it was perhaps the most satisfactory form of insanity to treat, because it gave the best results, but the difficulties of treating an acute case successfully in a private house were great, unless the house could be practically given up for the time being to its treatment. On the other hand, a social stigma attached to a mother who had been certified and detained as a lunatic, and from this she never recovered. Chiefly on that account, and because puerperal nsanity was more an exhibition of temporary mental derangement than of pure organic insanity, he strongly recommended the provision of reception hospitals in every city where such cases could be temporarily treated for a ixed period of six or eight weeks. At the end of that ime, if the case did not recover, the patient should be certified as insane, and sent to an ordinary asylum.—Dr. JOHN RICHARDS, in a paper on the *Histology of some erebral tumours*, gave a brief account of the clinical hisories of three cases of cerebral tumour, and then con-idered their histological features in detail. The first two were cases of rapidly-growing tumours of under twelve months' duration, and scarcely to be distinguished micro-copically from small, round, and spindle-celled sarcomata. The tumour in the third case was probably of several years' growth, and was composed of well-formed lial cells and fibres closely resembling the normal elements f the neuroglia. The author dissented from the view that liomata were derived entirely from epithelial tissue, and eld that neuroglia elements also took part in their forma-on.—Dr. HARDING opened a discussion on the *Training nd registration of the asylum nurse.* After stating what he onsidered ought to be the minimum training of an asylum nurse, he mentioned that a three years' course of raining had been in existence at Berry Wood for sixteen ears, but that only about 16 per cent. of the nurses who ntered the service gained the certificate. He spoke in trong terms of the inadequacy of the system of training nd examination of nurses carried on by the Medico-sychological Association. He pointed out that the only hing in which there was uniformity was the written xamination—the least important method of gauging a urse's efficiency. There was, however, no uniformity in e more essential parts of the examination, while the ndidate might actually have had no practical sick room aining at all. He affirmed that the ignorance of some olders of the certificate proved this fact. The value the certificate was therefore indefinite, and conveyed indication of the knowledge and experience of the older, who might be well equipped for her work, or o might be the reverse. Thus a great injustice was ne both to the able and well-trained women holding the rtificate, and to the public, who had no satisfactory ide to the capacity of the nurse they might employ. was therefore absurd to claim that the restriction of e right to register to the holders of the Medico-ychological certificate was any guarantee of efficiency, t rather the reverse. While recognizing and giving l credit to the Association for their past work with gard to nursing, he urged the unfitness of a self-elected dy of medical men to act as the sole arbiters to decide at the training and examination of a mental nurse ould be. It was absurd that no one, however able and erested, should have anything to say on the question of nursing of the insane unless he or she were a member the Association. Its Education Committee contained representative either of the public, of general nursing, of the mental nurses themselves. He referred to the port of the Select Committee of the House of Commons the Registration of Nurses, and pointed out the erent treatment allotted to hospital nurses as comed with asylum nurses. He advocated the repre tation of asylum matrons and nurses on the central ly, and held that this body should exercise the ne supervision over the training of nurses in iums as under a registration system it will do in pitals. He also argued that it would not tend to pro-ss in nursing if the qualification for registration in sing mental cases were restricted to the Medico-chological certificate. He supported the view that qualification for registration should not be restricted any one certificate, but should be such as might be roved by the central body, thus approximating asylum sing training to that of hospitals.

THERAPEUTICAL SOCIETY.—At a meeting on April 24th, Sir LAUDER BRUNTON in the chair, Dr. JAMES BURNET read a paper on the therapeutic action of the iodides. They were formerly supposed to act by dilating arterioles and diminishing the blood pressure, but they had no effect on the blood pressure or pulse, though they promoted the coagulation of the blood. He found iodopin, iodine with sesame oil, most effectual injected under the skin, as it did not cause any gastric disturbance, and the iodine was slowly set free by oxidation. It relieved arteriosclerosis by diminishing the uric acid dissolved in the blood, and thus relaxing arterioles, and relieved aneurysm, if syphilitic, by removing pathological effusion and counteracting the poison. In angina pectoris it must be given in large doses of 60 gr. daily for months. It was most useful in chronic pulmonary diseases, especially fibrosis and emphysema, relieving dyspnoea and liquefying the bronchial secretion, and was best given in doses of 15 gr. at bedtime. In bronchial asthma doses of 10 gr. every two hours were very useful, either by relieving spasm or freeing the blood from uric acid. In syphilis it was most useful from its antitoxic powers and its eliminative action, particularly in affections of the nervous system and headache. In locomotor ataxy 120 gr. had been given daily with the best results. It had also been used in cases of intermittent fever, puerperal fever, and erysipelas with success. In chronic rheumatism, neuralgia, lumbago, and sciatica, potassium iodide was often useful, probably by diminishing the uric acid dissolved in the blood; it was best combined with salicylic acid, which eliminated this acid. In cases of effusion, especially from interstitial nephritis or cirrhosis, iodides were often of service. In lead or mercurial poisoning they removed the metal from the tissues and caused its excretion. In simple goître they were of great service if used early, but not in exophthalmic goître. The iodide of sodium was less depressing than that of potassium.

LARYNGOLOGICAL SOCIETY OF LONDON.—At a meeting on April 6th, Mr. CHARTERS J. SYMONDS, President, in the chair, Dr. H. J. DAVIS showed (1) for diagnosis a case of sudden *Loss of voice* of fourteen days' duration; the left cord was fixed; opinions expressed were in favour of it either being due to tubercle or syphilis. (2) A man suffering from *Nasal obstruction* following facial paralysis. The condition had improved under electrical treatment.—Dr. STCLAIR THOMSON exhibited a patient, aged 16, with laryngeal stenosis. The case was shown for diagnosis, which rested between functional adductor spasm and bilateral paralysis. He was inclined to view the case as one of functional spasm.—Mr. DE SANTI showed a patient with a large cauliflower growth of malignant nature in the naso-pharynx, and enlarged, deep-seated gland in the neck. The case was regarded as inoperable. It was recommended to put the patient on iodide of potassium.—The PRESIDENT (Mr. Charters Symonds) showed a patient with carcinoma of the naso-pharynx, which he regarded as inoperable.

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.—At a meeting at Manchester on April 27th, Mr. R. FAVELL (Sheffield), President, in the chair, the following were among the cases and specimens:—Dr. J. E. GEMMELL (Liverpool): (1) A *fibroma of the labium majus* as large as an orange, which had considerable diffuse extensions into the buttock and towards the inguinal ring. A large cervical fibroid, whose central portion was undergoing degeneration closely simulating sarcomatous change. It was removed from a patient aged 44, who had had ten pregnancies by the abdominal route. The tumour was enucleated; an opening was then made into the vagina, and the tumour bed was packed with gauze, over which the peritoneum was closed. The gauze was subsequently withdrawn per vaginam. (2) A fibroma of the ovary, weighing 4 lb., removed from a patient aged 47, who had had seven children, and who menstruated regularly. There was some ascitic fluid in the abdomen.—Dr. LLOYD ROBERTS (Manchester), the uterus and appendages, with the bladder, ureters, and kidneys from a patient who died of *Cystitis*, with necrosis of the bladder and rupture of the latter into the utero-vesical pouch. She was admitted to hospital when five months pregnant with a retroverted uterus. There had been dribbling for five days before admission, and 80 oz. of urine were withdrawn. The bladder was kept empty, but the patient died five days later, soon after rupture of the bladder was diagnosed.—Dr. BLAIR BELL (Liverpool), light and useful retractors for pelvic surgery, the blades being of stiff wire and having large fenestrae.—Drs. H. BRIGGS and J. H. WILLETT (Liverpool) described two cases of *Fibromyoma*, in which operation was required for symptoms caused by the spontaneous extrusion of fibroids into the uterine cavity. In each case subsequent examination showed the endometrium to be the seat of adeno-carcinoma.—Dr. A. STOOKES (Liverpool) mentioned a case of *Caesarean section* for contracted pelvis in which the pulse suddenly ran up to 160 at the end of the operation. The same evening the temperature was 103° F. and the pulse 140. No cause for these manifestations could be discovered, and the patient's condition became quite normal during the next six days.—Dr. W. WALTER (Manchester) showed a specimen of *Pyosalpinx* with the adherent appendix vermiformis, which was enlarged by inflammatory changes in its outer wall, the mucosa remaining normal. The origin of the pyosalpinx was probably tuberculous. He thought removal of the appendix was required in some cases of pelvic inflammation on the right side, but would not remove the organ merely on account of slight adhesions which were easily separable. The appendicitis was generally secondary to the pelvic disease in these cases.

PATHOLOGICAL SOCIETY OF LONDON.—A laboratory meeting was held at St. Bartholomew's Hospital on Tuesday, May 1st, Dr. F. W. ANDREWES in the chair. The following communications were made: Professor E. KLEIN, F.R.S., (1) *Bacillus equi*, a new pathogenic organism from the horse; (2) lantern slides illustrating the conveyance of plague by feeding.—Mr. F. A. ROSE, Carcinoma-sarcoma of the larynx.—Dr. F. W. ANDREWES and Dr. T. J. HORDER, Classification of pathogenic streptococci.

REVIEWS.

FRACTURES AND DISLOCATIONS.

THE fourth edition of Dr. LEWIS A. STIMSON'S *Treatise on Fractures and Dislocations*[1] contains much valuable new material, most of which is traceable to the more exact and accurate diagnosis of fractures which the *x* rays have made possible. The previous editions have established the reputation of the work as a complete and thoroughly reliable textbook. Its strong point is the clear and detailed description of the anatomy both of fractures and dislocations, and on this foundation the diagnosis and treatment are constructed in a very practical manner. Especially worthy of notice in this edition is the chapter on the several varieties of fractures of the lower end of the humerus, one of the most important and serious of all fractures, especially in the young. The additions which the *x* rays have made to our knowledge of carpal fractures are also incorporated, in particular the comparative frequency of fractures of the scaphoid, a fact unrecognized before this method of examination was available. The anatomy of congenital dislocation of the hip is well illustrated, but the discussion of its treatment is disappointing, considering the large amount of work that has been done on the subject during the five years which have elapsed since the previous edition was published; the bloodless methods of reduction deserve more than a paragraph of ten lines. New work has enabled Dr. Stimson to enlarge the sections on the operative treatment of old unreduced dislocations, particularly of the shoulder and hip. As a whole, this fourth edition is entirely up to date, and the many new illustrations are in every way excellent.

Dr. SCUDDER'S *Treatment of Fractures*[2] is a useful guide to the practitioner and student in the treatment of fractures, and by its frequent renewal in revised and enlarged editions has proved its claim to a well-recognized, and indeed almost classical, standing among surgical monographs. Its chief merits are due to the success that has attended the efforts of the author to insist, in the first place, on the value of skiagraphy in ensuring greater certainty in diagnosis, and, in the second place, on the necessity of mechanical simplicity in treatment. The book probably owes much of its popularity to the fact that the text is clearly and profusely illustrated. The thoroughly practical teaching, aided by the drawings, to which much attention has evidently been paid in successive reissues of the work, has tended to render this a really useful addition to the list of modern handbooks for the busy surgeon. In the fifth edition of Dr. Scudder's book certain necessary changes have been made in the text, and the value of the illustrations has been maintained by the reproduction of *x*-ray plates, and by the addition here and there of half-tone blocks. Dr. Scudder, whose teaching throughout this work is based on modern views and practice, points out in the preface to his latest edition that the treatment of fractures of the neck of the femur is gradually undergoing a change which may prove to be very radical. What he regards as the "old-time" method of traction and countertraction, and also the later use of the Thomas hip-splint, are, in his opinion, not generally satisfactory; and he suggests that the method of forcible abduction and immobilization without continuous traction, quite recently introduced by Whitman and applied by this surgeon with success to children, might be found useful in cases of fracture of the femoral neck in the adult.

The bulky volume edited by Professor GUERMONPREZ on the treatment of fractures[3] consists of a series of essays by various authors, pupils of the editor. They all deal with the subject from the general standpoint, and give no systematic description of the treatment of particular fractures. The book is in fact an exhaustive exposition of certain special views which Professor Guermonprez holds on the management of fracture cases. The first essay treats of one of the most interesting of these special methods, that is, of the practice of delaying attempts at reduction in many cases of fracture until muscular spasm and effusion have subsided. Sometimes, it is said, reduction is only practicable at the end of a certain number of days, or even weeks, and Professor Guermonprez attaches great importance to such delay in the matter of obtaining accurate reduction and exact coaptation. His practice in this respect appears to have been much assailed by other surgeons, especially those in his own town of Lille, and he expresses his views in a highly controversial and polemic strain. The majority of the essays are devoted to the discussion of the use of massage and movement. The history of the employment of these means is given at great length, and the many controversies which have raged around the questions of the comparative merits of fixation and movement are related in detail. The value of massage before reduction is particularly emphasized. It is recommended that in fractures of the long bones, and the thigh in particular, the limb should be massaged daily until the haematoma has lost its induration, and that reduction be not attempted until then. This practice delays reduction from six to ten days, according to the seat of the fracture, the age of the patient, and other circumstances. Emphasis is laid repeatedly on the necessity for frequent examination after reduction; for most fractures the retention apparatus recommended is plaster, frequently renewed—in fractures of the wrist, for example, every five days, with massage and movement each time it is changed. Several chapters are devoted to the complications of fractures, contractures, arthropathies, myositis, and the like; the use of the various gymnastic methods and mechanical appliances to counteract and overcome these is fully described and illustrated. The literary quality and historical interest of the whole volume is of a high order, and there is evidence of careful research into the evolution of the particular methods of treatment with which it deals. This is the main purpose of the essays, rather than the production of anything in ıe nature of a systematic treatise, and they are therefore istorically interesting rather than scientifically instrucve. Each essay is complete in itself and has no parcular connexion with others, and the result is that the hole ground is covered several times over by the various ›ntributors.

---

[1] *A Practical Treatise on Fractures and Dislocations.* By Lewis A. Stimson, M.D. London: H. Kimpton. 1905. (Demy 8vo, pp. 844; 377 illustrations. 25s.)

[2] *The Treatment of Fractures, with Notes upon a Few Common Dislocations.* By Charles Locke Scudder, M.D., Surgeon to the Massachusetts General Hospital. Fifth Edition. Philadelphia and London: W. B. Saunders and Co. 1905. (Demy 8vo, pp. 563; 739 illustrations. 21s. net.)

[3] *Etudes sur le traitement des fractures des membres* [Studies in the Treatment of Fractures of the Limbs]. Par Drs. Guilloux, Eissendeck, Faidherbe, David, Merveille, and Platel. Edited by Professor Guermonprez. Paris: J. Rousset. 1906. (Demy 8vo, pp. 1,644; 235 illustrations.)

CLIMATIC AND BATH TREATMENT.

R. W. R. HUGGARD divides his *Handbook of Climatic reatment, including Balneology*,[4] into five parts, devoted spectively to meteorology, the physiology of climate, imates and health resorts, baths and mineral waters, and e therapeutic use of climates and balneology. Part II, aling with the effects of temperature and other climatic ctors on the organism, is likely to be studied with inrest by medical men, as the author has concisely ouped together the main results obtained (1) as deictions from general physiological principles, (2) from periments on men and animals, and (3) from observa›ns on men and animals who have lived in climates of fferent character. In this connexion the results of minution of atmospheric pressure, as shown in the ysiological effects of high-altitude climates, are conlered at length. In regard to injurious effects on the culatory system, the author concludes:

> The truth probably is that rarefied air, in so far as it gments the strain thrown on the heart by exercise, does ually tend to develop cardiac disease. In my own observan it has appeared that persons who have come up to the untains with mitral incompetence have generally comined of discomfort from the rarefied air. Persons affected h aortic disease, on the contrary, have but rarely suffered onvenience. A special strain falls on the right ventricle en the blood is insufficiently aërated. . . . Cardiac disnfort is felt by some persons on arriving at Davos and for a days afterwards. Ordinarily the sensation amounts only vague feeling of uneasiness in the cardiac region. . . . untain air acts as a tonic for the weak heart of persons by from illness or lack of exercise who have a good reserve itality. The important point in such cases is to be very ry of exercise till the heart has to some extent adapted lf to its surroundings, otherwise cardiac strain is inable.

Remarks on this subject are specially valuable coming n one who has practised so many years at Davos. In ard to the effects of diminished atmospheric pressure the blood, the opinion is expressed that the facts ertained make it almost certain that an actual and olute increase of red cells takes place with altitude.

art III, in which the various types of climate and the atic health resorts are considered, naturally occupies od deal of room. It includes a short chapter on the n as a health resort.

Part IV a clear distinction is drawn between mineral ers when used externally, such as most of the simple mal and many of the thermal sulphur springs, and e used internally. Those used internally are divided ollows: (1) Abluent (simple thermal waters, sulphur rs); (2) stomachic and diuretic (simple aërated, le alkaline, alkaline salt); (3) mild intestinal stimulant waters with and without carbonic acid, alkaline ient waters); (4) strong aperient (containing magum sulphate); (5) haematogenic (with iron or lime as most important ingredient); (6) alterative and nervine nic or barium chloride as the most important ingret). The last two classes are grouped together as a and reconstituent group, the first four as a depurative p.

rt V consists of several short chapters devoted to the us diseases frequently treated by climates, mineral rs, and health resorts. The author is, we believe, justified in including "plethora" amongst the morbid conditions. We believe that when Cohn's teaching first became widely known "plethora " was practically excluded from lists of possible ic disorders, but nowadays clinical work points in ther direction. In regard to venesection, the author ions a very remarkable experience of his own:

> ew 48 oz. of blood at one sitting from the arm of a young of medium height, who had had at various times copious orrhages from a comparatively small amount of scattered nary tubercle. The patient sat up the whole time without any sign of faintness or sickness, declaring as the stream continued that he felt better and better. Only when the amount mentioned had been taken could I detect any sign of softening in the pulse, whereupon I stopped the flow. . . . The home medical man had said, as I afterwards learnt, that the patient ought to be bled every six months.

In a notice like the present, it is impossible to do justice to the time, care, and thought which have evidently been given to the whole subject and arrangement of the book. This is no hastily put together compilation, but the outcome of much study, consideration, and personal observation on which both the author and his readers are to be congratulated.

SOIL AND WATER.

THE second volume of the encyclopaedic series of manuals on public health subjects,[5] now being issued in France under the editorship of Professor BROUARDEL and Dr. MOSNY, is devoted to a very complete study of the properties of soil and water. It is a substantial volume of 450 pages, with two coloured maps, and a large number of woodcuts. The geological portion, which has been assigned to Professor DE LAUNAY, of the French School of Mines, deals with the various forces governing the changes in the earth's crust, and gives an exhaustive history of the various formations of which it is composed. Geological charts and their uses are described and illustrated, and a full account is given of the nature of subsoils, and the part played by geology in the origin and composition of natural mineral waters. The chemical portion has been undertaken by M. BONJEAN, head of the State Laboratory of Hygiene. Soils are here considered with reference to humidity, to temperature, and to their atmosphere, and the importance which they possess as the fixers of such chemical matters as are given to them in solution or suspension by watercourses. The bacteriology of soils is illustrated by a very full list of microorganisms, and a brief account is given of the diseases produced by such organisms. Notice is also taken of the parasites which have their habitat in the soil. The portion of the volume which deals with water is by far the greater, and is the work of Messrs. Ogier and Bonjean. Under the heads of hydrology, chemistry, and microbiography a very complete account is given of all that the student of hygiene may require to know of this highly important subject. The position of water, whether by itself or in combination with organic and inorganic substances as one of the chief necessities in alimentation, is fully discussed, and its importance as an article of diet set out in detail. The authors then pass to the examination of waters and to the consideration of their purity from every point of view. The care to be observed in collecting samples for analysis, the methods of analysis, and the interpretation of the results are all set out. It is to be noticed that the form of analysis and the importance of certain figures differs somewhat from the usual report of an English analyst. Little heed is taken of the presence or amount of free and albuminoid ammonia, except when combined with large quantities of chlorides; the presence of phosphates is largely regarded as a test of contamination, and undue stress is laid upon the value of permanganate as a test for organic pollution. The bacteriological examination is apparently regarded as of far greater importance from the point of view of disease and potability and the possibility of contamination, and for this purpose the various forms of bacilli are catalogued and described at great length, as well as the other inhabitants of water which are capable of becoming human parasites. Cultures and stains are fully discussed, and this portion of the book is extremely complete. The following pages deal with methods of purification—mechanical, physical, and chemical; with the process of filtration on a large scale; and also with the various forms of household filter. The volume concludes with the chemical methods of purifying water, such as the addition of ozone, etc. In conclusion, we welcome a valuable addition to the textbooks of hygiene, and can assure those of our readers who find no bar in French that in this volume they will meet with a very complete and interesting contribution to a most important subject.

---

[4] *Handbook of Climatic Treatment, including Balneology.* By W. R. rd, M.A., M.D., F.R.C.P. London: Macmillan and Co. 1906. 8vo, pp. 552. 12s. 6d.)

[5] *Traité d'Hygiène.* Publié en Fascicules sous la Direction de MM. P. Brouardel et E. Mosny. II. Le Sol et L'Eau. Par L. de Launay, E. Bonjean, E. A. Martel, et J. Ogier. Paris: J. B. Baillière et Fils. 1906. (Demy 8vo, pp. 464. Fr.10.)

PUBLIC HEALTH HANDBOOKS.

THROUGH the resort to thin paper, a small but clear type, and a limp leather binding, Dr. BROCK has been able to bring his *Manual of the Public Health Law of Scotland and Principles of Public Health*[6] within the compass of a handy pocket volume. In preparing this compendium, Dr. Brock has rendered a distinct service to county and burgh councillors, legal officials, medical officers of health, and others engaged in public health administration in Scotland. Nowhere else will they find so complete a statement of the public health law of Scotland. Nothing appears to be omitted which it is necessary for them to know, and on the other hand there is nothing in the book of the nature of padding. Dr. Brock gives *in extenso* the text of the Public Health (Scotland) Act, as amended, the Food and Drugs (Amendment) Act of 1879, and the Margarine Act, together with admirable abstracts containing all that public health officials require to know of the Burgh Police Acts of 1892 and 1903, the Local Government Acts of 1889 and 1894, the Housing of the Working Classes Act of 1890, the Factory and Workshop Act of 1901, and of all the other Acts and Orders which local authorities in Scotland have to adminster. A useful feature of the book is that each statute has appended to it relative memoranda and circulars by the Local Government Board for Scotland, and is furnished with the necessary elucidatory annotations. In a separate appendix we find a valuable, although somewhat summary, digest of legal decisions under the Public Health and Burgh Police Acts. In another appendix is presented the most condensed and lucid exposition of the methods employed in working out vital statistics which we have yet seen. The book affords very little opening for criticism, but it might reasonably be objected that in a work of its limited scope so full a presentation as it contains of the views of the opponents of hospital isolation in scarlet fever (and that without any indication of what has been said on the other side) is hardly justified. That all other disinfectants than the three specified in the book—one of which is carbolic acid—"should be more correctly termed antiseptics" is a rather cryptic utterance. The redundant use of the conjunction "and" is a smaller blemish. The book is furnished with that admirable thing, a copious index, and altogether is calculated to be of the greatest service to those engaged in public health administration in Scotland.

When the special diplomas in public health were first instituted, they were taken advantage of much more by medical men who had been in general practice for some years than by those who had been on the *Medical Register* a bare twelvemonth. It is not perhaps too much to say that the handy volume on *Hygiene and Public Health*,[7] which Messrs. Cassell added to their series of manuals for students of medicine in 1890, enabled many a practitioner to master the details of the subject in a manner which the exigencies of a busy practice would have rendered almost impossible if larger volumes only had been available. Since 1890 revisions and reprints of the work have appeared with very nearly the regularity of a Christmas annual. The latest edition, which is written jointly by Dr. WHITELEGGE and Dr. GEORGE NEWMAN, has been subjected to a much greater amount of revision than any of its predecessors; and although the general arrangement has been preserved, and there is still the charm of style and conciseness of description which attracted the student of public health in the Nineties, a very considerable amount of new matter has been introduced. Not only have the 518 pages of the first edition been increased to 644, but about another 100 pages have practically been added by the free use of brevier type in place of long primer. The much more intimate connexion which sanitary administration now has with the workers in factories and workshops is well shown by the fact that while in 1890 two pages were considered sufficient to deal with this subject, in the present edition 18 pages, and many of them in the smaller type, are required. The section on milk now demands 22 pages in place of 10, and included in the additional matter is a very clearly-written account of the methods of examining milk. The chapter on specific diseases has been extended; several pages have been added to the section on diphtheria alone. Among the preventive measures advised in connexion with this disease no mention is made of the systematic search for "missed" cases, especially among school children, by the aid of bacteriological examinations. In a work such as this it is extremely difficult to avoid controversial matters; but the authors have succeeded, without being unduly dogmatic, in placing debatable points before their readers in a judicial and impartial manner. Exception may, perhaps, be taken by some to the statement on page 131 that "tuberculosis is not commonly spread by milk," but on page 412 it is pointed out as probable that the terms "tabes mesenterica" and "tuberculous meningitis" are often employed in a loose way in making out certificates, and that it would not do to place much reliance upon the tuberculous nature of the majority of the cases so certified. Upon one other much-debated question—the effect of hospital isolation upon the spread of scarlet fever—the authors write: "Broadly, it may be said that any limitation of the spread of infection by personal contact must reduce the prevalence of the disease, and that therefore, if rightly managed, under proper conditions, hospital isolation is of direct and marked value in the reduction of scarlet fever." The value of cross-references in a text book is almost incalculable; and although there are many such in this volume, they might, in many other instances, replace such phrases as "reference has already been made to" or "for reasons stated elsewhere." The typographical errors are extremely few; there is one on page 16, and two of the twenty-four illustrations are wrongly numbered, giving rise, in one case, to some confusion, Fig. 12 being given as Fig. 10, and Fig. 24 as Fig. 23. We cannot close without expressing our admiration for the triumph of the paper manufacturers, for although this edition contains at least a third more matter, it does not weigh appreciably more than the first edition, which was published sixteen years ago.

In his *Practical Sanitary Science*[8] Dr. SOMMERVILLE has given the candidate for a public health diploma a short outline of the chemical and physical methods of analysis in the practical portion of the examination. The volume is well printed, on good paper, and well illustrated—though without discrimination, for many of the figures represent such pieces of apparatus of everyday use as to suggest that the students for whom the work is intended lack all acquaintance with a chemical laboratory. Water, in its manifold aspects, naturally occupies the premier position, and is responsible for nearly one-third of the entire book. The subject is, in the main, well handled. The chemical methods of examination are well chosen, carefully described and explained, and accurate, although in the chapter "Oxidized Nitrogen" we miss the simple and useful indigo method, and also suggestions as to what temperature and what time limit should be adopted in the estimation of oxygen absorbed. The chapter which closes this section, "Interpretation of Results of Analysis," is particularly well balanced and helpful, although its value is somewhat lessened by the paucity of bacteriological detail in the examples commented upon. In a future edition such words as "nil," "not performed," "excellent," should give place to others capable of more exact interpretation. Although the author on the first page of the book enunciates his faith in the following words:

> In certain cases . . . no chemical analysis, however delicate, can furnish evidence of the pollution. So in other cases the most exact bacteriological examination may wholly fail to discover a dangerous water. The well-informed analyst . . . will welcome all reliable scientific methods that can assist in throwing light on his search—

it is obvious that in his opinion the bacterioscopic analysis of water is of but secondary importance; and Chapter XIII will need to be considerably amplified, and, indeed, brought up to date as regards the detection of *B. coli*, before the information given therein can be considered adequate to the student's requirements. Nor can ie dictum, "no drinking water should contain *B. coli* in 50 c.cm.," be accepted without qualification. Similar omments apply in the case of the other sections dealing ith bacteriological methods, and the author appears to iare the opinion that such can only be taught successilly by practical demonstration in the laboratory. It iay be noted, too, that the bacteriological examination sewage is not even referred to, whilst the Rideal-Walker iethod, despite its imperfections, is the only method of sting disinfectants mentioned. The chemical analysis foods is well described; so, also, the microscopy of xtile fabrics, food stuffs, and parasites; many of the lustrations in this last connexion are well reproduced, id lose none of their value from the regularity with hich they recur in laboratory guides of this class. ie appendix, occupying some fifty pages, forms an tremely valuable summary of the methods of preparing andard solutions and of the leading characters of the rious chemical compounds met with in public-health ork.

---

[6] *Sanitary Laws of Scotland and Principles of Public Health.* By W. J. Brock, D.Sc., M.B., C.M., F.R.S.Ed., F.F.P.S.Glasg. Edinburgh: Oliver and Boyd. 1905. (Cr. 8vo, pp. 480; 7s. 6d.)

[7] *Hygiene and Public Health.* By B. A. Whitelegge, C.B., M.D., B.Sc., F.R.C.P., D.P.H.; and George Newman, M.D., D.P.H., F.R.S.E. New edition. London: Cassell and Co. (Fcap. 8vo, pp. 644. 7s. 6d.)

[8] *Practical Sanitary Science: A Handbook for the Public Health Laboratory.* By D. Sommerville, B.A., M.D.R.U.I., D.P.H.Cantab., Lecturer in Public Health, King's College, London. London: Baillière, Tindall and Cox. 1906. (Demy 8vo, pp. 310; 92 illustrations 10s. 6d. net.)

THE ANIMAL PARASITES OF MAN.

ODERN investigations have extended our view of the rt played by the lower life forms in the production of e diseases of man. The mysteries of disease causation e becoming yearly fewer in the light of increasing know- lge. The extension of our sphere of knowledge demands at the investigator shall invade the realm of the ologist; he must acquire such an acquaintance with rieties of life forms as will enable him to prosecute his idy of the development of human disease by means of study of the causative agent and the vehicle in order it steps may be taken for the protection and servation of the subject—man. In the English edition Braun's *Animal Parasites of Man*,[9] prepared by Dr. mbon and Mr. Theobald, we find such an adaptation of logy to medicine. Textbooks, in the nature of things, ist be a trifle behind the latest expositions set th in journals and proceedings of societies. The rk before us bears date the current year, and the face was written in November, 1905. It should refore embody advances achieved up to 1905 at st. In this respect the book is disappointing. As a e in point, the information regarding trypanosomes is ie three years behind the times. Again, when speak- of the discovery of the entrance of larvae of anky- oma into the human body through the skin, regarding ch the authors "await the proofs," reference to the k of Schaudinn, Calmette and Bréton, Pieri, and Boy- on this point would have furnished sufficient proof of reality of such means of infection. Perhaps we may grateful for the omission of much of the latest work if is the reason for the retention of the old spelling of *ylostoma* in preference to the newer but "abominable" pedantic *agchylostoma*. On the other hand, the ad- able condensation of the natural history of mosquitos other nematocerous flies will be found useful. The strations are specially commendable. It would be an intage if the description of the ticks were made as o-date and as useful from a practical standpoint. The plete satisfaction of this desideratum awaits the nt of a work dealing with the anatomy of the Ixo- e. A commencement in this direction, published in rica, has escaped inclusion in this work. But, even out this, sufficient is known about these arachnoids urnish information adequate to enable medical men tising in warm countries to recognize the different ies. The pathological aspect of tick diseases is not ciently dealt with; for instance, we read with regard *lrgas persicus*: "The virulence of its bite is probably to the tick transmitting fever germs from natives, ably inured, to strangers, who would be susceptible" 372). This is a type of the information provided rding tickborne diseases. The style is not easy; introduction to finish special cerebration is fre- tly called for to elucidate the exact meaning of the us authors, thus causing an expenditure of energy h the reader would rather have been spared. There umerous misprints of the following type: *argus* for (p. 370); *gambiene* for *gambiense* (p. 447). For students nformation given may be relied upon so far as it goes, but the work requires to be simplified in diction; while for medical men engaged in work in the field the book requires revision with a view to bringing its information up to date, say to within six months of publication.

MINERS' ANAEMIA.

After having devoted a year to an inquiry, hygienic and social, into the coal miners of the North of France and the Pas de Calais, Dr. E. François has embodied the outcome of his researches in an essay in which he deals with the anaemia of miners[10] and the parasitic diseases to which this class of workmen is exposed. In dealing with ankylostomiasis attention is drawn to the fact that the adult worm is never met in the free state, for it can only live in the intestinal canal of a host. Since the ova which are passed in the faeces of infected persons require oxygen and a humid atmosphere in order to be hatched, the soil of a coal pit is not always a good medium for their development. Admitting that the ordinary channels through which the larva gains an entrance into the body is by the consumption of contaminated food and drinking water, also through the skin, François raises the question as to whether the ova might not be inhaled along with the dust from the floors in mines. This is a most unlikely event, for the ova of the *Ankylostoma duodenale* only linger in the moist sludge and in the rotten wooden props along the sides of the galleries, and not in the dry dust that is lying about all over a mine. Besides, it is not the ova, but the larvae, that have to be avoided, and these latter are only found where there is moisture. Although eosinophilia is frequently present in ankylostomiasis, François is of the opinion that a diagnosis of the disease cannot be made upon this alone. Ankylostomiasis tends to cure itself, since the worms cannot reproduce themselves in the alimentary canal. The best results in treatment were got from the use of male fern.

The inquiry divided itself into two parts: (1) Dealing with ankylostomiasis and the helminthozoa generally; (2) a consideration of the facts relating to the hygienic conditions of the mines, with special reference to the depth, ventilation, temperature, humidity, etc. François criticizes rather severely the deficient ventilation of some of the French coal mines, in which 90 to 1,600 men were employed. Naked lights were used in 16 of the 37 coal mines examined; in 8 mines the use of naked lights is restricted, while in 13 of the pits only safety lamps are allowed. The lowest temperature in some of the mines was 7° to 10° C. above zero in the heart of winter, and 16° to 18° C. in summer. Nearly 20 per cent. of the miners examined were found to harbour the ankylostoma. Miners' anaemia is in France a much older malady than the outbreak of the disease at the St. Gothard Tunnel would lead us to infer. The mines that are moist and have a fairly high temperature are those in which the disease spreads, whereas in those that contain salt ankylostomiasis cannot flourish. Of 150 men who were known to be suffering from the worm, in 140 there were no symptoms, in 6 there were characteristic and grave symptoms. François is of the opinion that when several ankylostomes are grouped together upon a limited portion of the intestinal mucous membrane, the symptoms are more severe than when a similar number of worms are scattered over the lining membrane of the alimentary canal. The influence of such other parasites as ascaris and trichocephalus must not be lost sight of. The local damage inflicted upon the intestinal mucous membrane may be a possible cause of the feverish attacks from which some of the infected miners suffer. To the production of miners' anaemia ankylostoma, ascaris and trichocephalus all contribute, either through the toxins they form or the injuries inflicted upon the intestinal mucous membrane. As a contributory cause of miners' anaemia, a place must be assigned to anoxhemia—that is, a group of symptoms caused by insufficiency of oxygen in the respired air or air fouled by the admixture of other gases, smoke, dust, CO_2, etc.

The hygiene of the miner is not overlooked by François, nor is the irregular manner in which he gets his food passed over in silence. The subject of anthracosis, women's work at mines, gardens for the miners, and the institution of mutual benefit societies are all considered. To the funds of the benefit societies the miners contribute 2 per cent. of their wages and the mining administration an amount equal to half the total of the men's contributions. On the Committee of Management both employers and employed are represented. Medical attendance and drugs are provided in case of sickness. The medical men are nominated by the Council of the Mining Administration, to which aggrieved miners, who, it is stated, can be very exacting, are not slow to carry their complaints. Medical men attend members of the benefit society and their families at rates varying from half a crown to 5s. a year, and in the case of injury the doctors receive a complimentary fee varying from 10d. to 2s. 6d.

---

[9] e *Animal Parasites of Man.* By Dr. M. Braun. Third edition. l by L. W. Sambon, M.D., and F. V. Theobald, M.A. London: Bale, Sons, and Danielsson. 1905. (Demy 8vo, pp. 453. 21s.)

[10] *Anémie des Mineurs: Etiologie, Séméiologie, Prophylaxie, Organisation Médicale.* Par le Dr. E. François, Délégué à l'Enquête sur l'Ankylostomiase. Paris: A. Maloine. (Demy 8vo, pp. 110. Fr.2.50.)

ZOOLOGICAL TEXTBOOKS.

FEW textbooks of practical zoology have met with such deserved success as the well-known *Junior Course of Practical Zoology*[11] by Messrs. MARSHALL and HURST. It has long been, and still is, the standard textbook in a large number of zoology teaching centres, and is one of the few books which are really satisfactory for the student working at home. The fact that the sixth edition has now appeared, and that, except for having been brought up to date, the book is still practically the same as when first published in 1886, is proof of its excellence. Unfortunately neither of the authors lived to see the fifth edition come out, the work of revising that and the present edition having been in the capable hands of Dr. F. W. GAMBLE. The present edition is only twelve pages larger than the fifth, and the extra pages are for the most part due to the inclusion of three new types. Dr. Gamble has thought it advisable to introduce the student to the sporozoa through the types Monocystis and Coccidium, and has added another coelenterate type in Obelia. But although there are only twelve pages added in this edition, of which seven at least are taken up with the new types, other matter has been squeezed in in various places, the space having been obtained by introducing small type here and there. Dr. Gamble says in the preface that "the dissections of the crayfish and of the rabbit have been simplified by the use of small type," which apparently means that those parts which Dr. Gamble considers of less importance have been put in small type. We would have preferred to see the same type used throughout the book, even though it necessitated the addition of a few more pages. Discrimination between what is of prime and what is of secondary importance is, we submit, unfortunate in such a book as this, more especially when the distinction was not made in the earlier editions. Not that we wish to cast any slur upon Dr. Gamble's judgement; but if some parts of the dissection of the crayfish and rabbit were to be so characterized, why not parts of other types also? However, this by the way; such details do not, of course, detract from the value of the subject matter, which is, as usual, excellent and up to date.

Dr. GAMBLE has also revised for publication the ninth edition of the companion volume upon *The Frog*,[12] by one of the same authors. Dr. Gamble, has taken the same care and used the same wise judgement in both cases. In the present edition the only alterations are a revision of the chapter upon development and the addition of a few figures, and the book has only increased in thickness by a few pages. The chapter on development has not been completely rewritten, but has been improved by interpolation and a few small alterations. The few figures which have been added are taken from the author's *Vertebrate Embryology*, and also enhance the value of the book.

---

[11] *A Junior Course of Practical Zoology.* By the late A. M. Marshall, M.D., D.Sc., M.A., F.R.S., and the late C. H. Hurst, Ph.D. Sixth edition, revised by F. W. Gamble, D.Sc. London: Smith, Elder, and Co. 1905. (Crown 8vo, pp. 524. 10s. 6d.)

[12] *The Frog: an Introduction to Anatomy, Histology, and Embryology.* By the late A. Milnes Marshall, M.A., M.D., D.Sc., F.R.S. Ninth Edition. Edited by F. W. Gamble, D.Sc. London: David Nutt. 1906. (Crown 8vo, pp. 172. 5s.)

THE estate of the late Mr. Frederick Wood, F.R.C.S., of Brighton, has been sworn as of the net value of £46,643.

NOTES ON BOOKS.

The edition for 1906 of *Low's Handbook to the Charitie of London*[1] has now appeared. The fact that it has bee published for seventy-one years in succession is sufficien proof of its utility; it supplies succinct informatio brought well up to date about more than twelve hundre charities. Reference to it is easy because it is alphabeticall arranged, and being published at the low price of 1s. it i within the reach of all philanthropic pockets.

The *Dentists' Register*[2] for 1906, which has now bee issued, contains altogether the names of 4,653 persons—som 81 fewer than its predecessor. Of these 2,468 are holders o a licence in dentistry from one or other of the four college entitled to grant licences. The great majority of th remaining 46 per cent. represent those who were admitte to the *Register* when first instituted some twenty-seve years ago on the strength of the fact that they were i bona fide practice as dentists before the passing of th Dentists Act. Sixteen, however, have ordinary Britis surgical qualifications, three Colonial diplomas, an twenty-one American degrees in dentistry. Of the Licentiates it may be noted that 300 hold higher registrabl dental qualifications or ordinary medical and surgica qualifications. The number of Licensees of the Roya College of Surgeons of England greatly exceed those of al other corporations put together.

The fourth edition of the *Dental Annual and Directory* that for 1906, is a very comprehensive volume. As directory its special point is that practitioners of denta surgery are distributed according to the locality in whic they reside, and as a year book it contains full notes on a recent advances, each compiled by a recognized authorit on the subject under review. Another useful feature is diary of future events likely to be of special interest t dentists. The book is extremely well got up, and its us facilitated by alphabetical arrangement of its subje matter, and by heavy type headings at the corner of eac page.

Dr. GERRARD, of the Federated Malay States Medica Service, deserves the thanks of all practitioners whos work, present or future, lies in Malaysia, for his *Vocabular of Malay Medical Terms.*[4] Nothing can be more puzzlin than the task which confronts the beginner when calle upon to treat a people who, though extraordinarily kee observers, interweave a belief in the spirits of the fore with their medicine, and autopsies being held anathem dispense alike with anatomy and pathology. It is th task which Dr. Gerrard seeks to lighten by his list diseases and terms, a sort of *catalogue raisonné* from whic not a little information concerning local diseases may gleaned. After this list we have a few conversations wit imaginary patients in the ordinary *bahasa dayang* "bazaar Malay." These are of a distinctly useful characte which cannot always be said of similar productions. If had to make any adverse criticism it would be that t little book presupposes a tolerable knowledge of t language, and is thus not so helpful for the beginner as would have been had the literal English of the Mala equivalent of the disease been added in each case. Th "puerperal sepsis" is given as *demam susu*, which t learner would have been more likely to remember had been told that this means milk fever. We note, too, somewhat inconsistent use of contractions. Thus *sekali* generally "*skali*," sometimes "*s'kali*," and sometim correctly *sekali*, while *berapa* is always corrupted "*brapa*." But these are faults of minor importance, a the little volume may be safely recommended to those the profession who are called upon to practise it in Mala lands.

Professor ADAMKIEWICZ, the inventor of the canc "cure" termed "cancroin," has published a pamph under the fanciful title of *Der Krebs und die "Golde Statue*," in which he complains bitterly of the inapprec tion of his critics and the injustice of their attacks up him.

---

[1] London: Eliot Boothroyd.

[2] London: Spottiswoode and Co. (3s. 4d.)

[3] *The Dental Annual and Directory, 1906.* London: Baillière, Tind and Cox. (Crown 8vo, pp. 651. 7s. 6d.)

[4] *A Vocabulary of Malay Medical Terms.* By P. N. Gerrard, M.D.(Du D.T.M.H.(Cantab.), etc. Singapore: Kelly and Walsh. 1905. (Cr. 8 pp. 108, with plate of Snellen's test types in Malay.)

THE GERMAN CONGRESS FOR INTERNAL MEDICINE.

Munich, April 23rd to 26th.

[IMPRESSIONS OF AN OCCASIONAL CORRESPONDENT.]

THE Congress has for its object the advancement of scientific and practical medicine by personal intercourse at a yearly meeting of four days' duration during the Easter vacation. Discussion of subjects arranged by the committee, the reading of original papers, with demonstrations, comprise the work of the Congress. Any physician may become a member, and any physician may attend and take part at a meeting as an associate on payment of the annual fee (15 marks), but he cannot vote. Last year there were 452 members on the roll, and the attendance was 370, not necessarily all members. Every alternate year the meetings are at Wiesbaden, and in the intervening years at Berlin, Munich, Leipzig, and Vienna. The direction of the congress is practically in the hands of the professors of medicine in the German, Swiss, and Austrian universities. On the list of members I count the names of 150 professors, very many of whom are "extra-ordinary" and titular. A very important group of members are the directors of the large general hospitals in the non-university towns, men often of great distinction, chosen not infrequently from the assistants at the large medical cliniques, and who may attain the titular rank of professor, and who, indeed, are not out of the line of promotion, as is shown by the recent call of von Noorden from Frankfurt to be Nothnagel's successor in Vienna. The younger men of the privat-docent class are very active members, and the physicians to the various pas are well represented.

Every one familiar with medical literature is aware of he importance of the Congress für Innere Medizin, at hich the best work of the German cliniques is presented, nd the *Transactions* of which for the past twenty-two ears reflect as does perhaps no other series the remarkble evolution of clinical research. Looking over the olumes, as I did the other day, one is impressed by the nse of responsibility shown by the leaders of the prossion in Germany—men who have made their mark, and t year by year, faithful to their trust, they spend the ree or four days in intellectual commerce with their mpeers, and in social fellowship with the younger orkers and with the more important of the general practioners of the country. The same spirit is shown at this eeting. Nearly all the veteran clinicians are here—a dly-diminished band—Leyden, bearing his years well; ube, as fresh and youthful-looking as ever; Ebstein, changed in the past five years; Erb (the president last ar), a little stouter than when I last saw him, but very tive and full of interest in the proceedings. Naunyn is t present, nor is Quincke; v. Curschmann is at Lisbon. actically all of the directors of the large clinics are esent—Bäumler, Dehio, Ewald, von Jaksch, Neusser, aus, Bauer, Schultze, Müller, Penzoldt, and others.

A younger group of men is coming forward rapidly, ny of them members of the Leipzig school—Krehl, s, Moritz, Gerhardt, and Romberg may be mentioned ong those who have only recently obtained full prosorships. The German-Swiss universities are usually ll represented at the Congress, but Sahli and Eichhorst absent. Talma of Utrecht is here and Faber of penhagen. The attendance is large; in the register the last day I count 509 members and associates.

he general arrangement of the meetings is excellent, t the average attendance very high, particularly at the cussions. The chief difficulty is in the enormous nber of papers and demonstrations—83 on the promme! The morning sessions begin at 9 and end at 12, afternoon sessions from 2 to 5. It was impossible to through the list even by cutting down the time to en minutes and limiting the discussion to five minutes. fessor v. Strümpell made an admirable chairman and t the men well in hand; indeed, he had the courage e to appeal to the meeting when the speaker wandered a the subject. One special difficulty is that men will long papers instead of stating with brevity and dity the main points which they wish to g forward. Indeed, I was surprised to find how many men read from manuscript. I wish we could emulate our French brethren in this matter and learn their art of clear presentation. At the Tuberculosis Congress in Paris last October the contrast in this respect between the French and the English and Americans was positively painful. After hearing a young fellow get up without a note and present, in a few well-chosen words, the main points of a subject, holding all the time the close attention of his audience, to hear (as happened on several occasions) an English or an American —or a German, for that matter—read out a long-drawn story, made a very bad—dare one say a fleeting?—impression on the audience.

The character of the work presented at the meeting was most varied. There were about 12 papers on metabolism, 15 on the circulatory system, 11 on diseases of the nervous system, 9 on diseases of the digestive organs, and 5 on the respiratory system. Only 8 dealt with questions of treatment, and only 3 had any reference to bacteriological problems. Many of the papers were purely chemical or physiological, and showed the strong trend of clinical medicine to the study of problems of metabolism. With the exception of the discussion on the thyroid gland, not very much time of the Congress was occupied with questions of treatment, but the attention of the members was not allowed to flag in this respect, as the pages of the daily journals were replete with advertisements of spas and kurorts, of chemists' firms and new preparations, and the chairs each morning were bountifully spread with pamphlet literature extolling the virtues of the latest products of the laboratory.

To secure the presence only of those interested, the card of membership is demanded at the door. In a brief introductory address the President, v. Strümpell, referred to the loss which the Congress had sustained by the death of Professors Nothnagel and of Riegel, and also of Professor Ziegler, who at the last session had introduced the discussion on heredity. He referred at some length to the need of more careful study of pathological anatomy in clinical medicine, and to the importance of the cultivation of the ordinary methods of investigation of disease, which were supplemented, not replaced, by the laboratory methods now so much in vogue.

How perennial is the interest in the thyroid gland! So typically does it reflect the remarkable activities of the past twenty-five years, that from its history alone the development of half a dozen branches of medicine could be written—internal medicine, physiology, pathology, chemistry, anatomy, surgery, anaesthetics are all represented in the innumerable studies which have appeared since the memorable work of Gull and Ord on myxoedema. The discussion on the morning of the first day, on the Pathology of the Thyroid Gland, was opened by Kraus of Berlin, who reviewed the more recent researches, particularly the relation of the gland to iodine, the influence of its secretion on general metabolism, and on the action on the heart. He referred to an interesting group of cases of ordinary goitre with heart symptoms due apparently to over-secretion, as in Basedow's disease. It was a very strong presentation of the whole question by a man who as former director of the clinique at Graz had exceptional opportunities to study diseases of the gland, and who has in Berlin made careful researches in metabolism in connexion with the thyroid secretion. He was followed by Kocher, the Swiss surgeon, at whose Bern clinic so much work on the thyroid has been done. He discussed the three groups of cases: the first, caused by loss of the function of the gland —myxoedema and cretinism; the second, caused by over-activity of the gland—Basedow's disease; and the third, the acute toxic condition caused by removal of the parathyroid—tetany. The extraordinary experience in all forms of diseases of the thyroid, and the exceeding care with which the cases have been studied from all standpoints, make the records of the Bern clinic of exceptional value. He has had 40 cases of myxoedema following total excision of the gland, and 30 cases following partial thyroidectomy. The most instructive part of his address related to the question of operation in Basedow's disease, in which his figures are as follows: Of 216 cases, 167 were operated upon, with 9 deaths and about 72 per cent. of cures. Professor Kocher tells me that he is to bring the whole question before the London Medical Society on May 21st, when English physicians and surgeons will have an opportunity to hear the most distinguished exponent of this special field of surgery.

In the general discussion, which extended into the afternoon session—twenty-one men participated!—many interesting points were brought out, but the most important question was the treatment of exophthalmic goître. The uselessness of drug treatment was generally acknowledged. Alt showed a series of photographs of cases treated by rest and over-feeding. The improvement in nutrition was remarkable. Ewald raised the question of the time of operation, whether early or late, and expressed doubt whether the entire etiology of the disease rested in the thyroid gland. In reply Kocher said that while the operation should not be too long deferred, other measures should be given a thorough trial, among which he placed rest first, emphasizing it—*ruhe, ruhe nochinal der Ruhe!* Those interested in the pathology of the thyroid gland will find the proceedings of this meeting most suggestive reading as so many of the aspects of the subject were presented.

The subject for discussion at the third session was the irregularities of the heart's action, introduced by Professor Hering of Prague. One of the most pleasing features in his exhaustive address of an hour and ten minutes was the very frequent reference to the work of Mackenzie of Burnley, whose writings have made a deep impression in Germany. A young man, of good address and of very ready tongue, Hering is an admirable combination of the practical physiologist and the clinical physician. He is the son of the Hering so well known in the previous generation. It is impossible to give a full *résumé* of his address, which contained a summary of his studies on the pulsus paradoxus, the pulsus alternans, the pulsus bigeminus, the extra systoles, and on heart block. The special interest centred in the question of auriculo-ventricular dissociation and its connexion with the Stokes-Adams syndrome. Gaskell, who laid the foundation of the myogenic theory of the heart's action, first described the condition which we know as heart block. In the tortoise, after section of all nerves passing from the sinus to the ventricle, a bridge of auricular tissue is left, over which the contractions still pass. By narrowing this bridge an artificial block, complete or partial, may be produced, and every auricular wave is not able to pass, or there may be no transmission, so that the auricle beats independently. In 1893 Stanley Kent, and His (junior), independently of each other, showed that in mammals also there is a muscular connexion between the auricle and ventricle. The work of the former observer has not been sufficiently recognized, and was not even referred to by Hering, but Stanley Kent not only described accurately "a strongly-marked band of muscular tissue between the two chambers,"[1] but by using a clamp he produced the same effects in the mammal as Gaskell had done in the tortoise; and, moreover, in his paper in *St. Thomas's Hospital Reports* he recognized how important these facts are in the clinical pathology of the heart. Hering believed the symptoms of Stokes-Adams disease were best explained as heart block, though the causes were as yet obscure and needed more careful study. His, who opened the discussion, did not think that all of the cases of Stokes-Adams disease could be explained by a local affection of the heart in the region of the auriculo-ventricular bundle, but the possibility of vagus involvment inside or outside of the skull had to be considered, as there were cases with pressure on the nerve with very similar symptoms—slow pulse, syncopal attacks, etc.

At the end of the meeting Dr. Tawara of Japan demonstrated his specimens illustrating the mode of origin, structure, and ramifications of the auriculo-ventricular bundle. A few days before I had gone to Marburg on purpose to visit him, and it was most interesting to see at first hand the preparations which illustrate in such an important way the recent physiological researches. Tawara's monograph has just appeared—*Das Reitleitungssystem des Säugetierherzens* (Gustav Fischer, Jena). Everywhere in his room in Professor Aschoff's laboratory were signs of a long and arduous "*arbeit.*" Rows of jars containing scores of hearts, tables literally heaped with slides of serial sections, drawings, photographs, sketches, loose leaves of the finished plates of the work, all the elaborate modern equipment of microscopes, etc., and in the midst of all a quiet little man through whose impassive features could be discerned the conscious pride in the completion of a really important piece of work. The upshot of the whole study appears to be the demonstration of an elaborate intracardiac system of co-ordinating muscular fibres uniting the various parts of the organ. Just such a system, indeed, as we have formerly pictured to ourselves as the ganglionic, this is made up largely of fibres which, though muscular, differ from those of the heart itself, and which in the ventricle have peculiarities which have long been known to characterize the Purkinje cells or fibres. Above the auriculo-ventricular ring the system forms a complicated network with a sort of nodal point in the septum, from which fibres pass in several directions into the muscular wall of the auricle, with which they ultimately unite. There is a marked histological difference between these fibres and those of the auricle itself. The auriculo-ventricular bundle may be traced from the nodal point in the auricular septum across the fibrous ring, when it divides into two branches, one passing to the right, the other to the left ventricle. It is more particularly in the distribution of these branches that Tawara's work is so valuable. If one looks at the inner surface of the right ventricle particularly of the ox or sheep, there is seen beneath the endocardium of the upper part of the septum fine fibrous bands which pass towards the apex, and run along the columnae corneae, and some of them pass as bands from the wall to the papillary muscles, or, as the moderator band directly across the chamber (false chordae tendineae) This network acts as a sort of insulator for the Purkinje fibres, which may be seen in cross-sections of these trabeculae and beneath the endocardium of the septum and in the middle of the fibrous bands. In the righ ventricle he has traced a most complicated system o branches from the right division of the auriculo-ventricular bundle, the final distribution of which is in the papillary muscles and the wall. The branches of the lef division have a like ending, but they are less completely insulated by connective tissue. The direct continuation of the Purkinje fibres with the ordinary heart muscle he was able to show in several sections. It is probable tha the whole system subserves the important function o co-ordinating the automatic action of the different part of the heart. In the calf nerve fibres may be seen accompanying the auriculo-ventricular bundle. Listening t Professor Hering's elaborate presentation of the subject one could not but be impressed with the feeling that th work of Gaskell and Engelmann, and of Mackenzie an Wenckebach, supplemented by these new anatomica data, has opened a new and important field in the stud of diseases of the heart, though many of us, I fear, will fin it very hard to put this "new wine into the old bottles."

At both the third and fourth sessions several important papers on the circulatory system were read; on th normal size and situation of the heart, by Dietlen o Giessen; on the aortic and carotid pulse in healthy an diseased subjects, by Ortner of Vienna; on the suctio power of the heart, by Gerhardt of Jena; and anothe paper on the same subject by Velden of Marburg experimental and histological contributions to the question of hypertrophy of the heart, by Stadler of Leipzig the pulse in cardiac insufficiency, by Taszkasi of Buda-Pesth. One of the most interesting contributions was b Külbs of Kiel, on the heart muscle and work. Two dog of the same size and breed were placed under identica conditions, save that one had to do a large amount muscular work every day. The working dog weighe 15,200 grams, the control animal 15,000 grams. The heart the former weighed 152 grams, of the latter 99 grams. Th contrast in the appearance of the two organs was remarkabl

The fourth and fifth sessions were devoted largely to th papers on diseases of the nervous system, and to those o metabolism. The sixth session, held in the amphitheatr of the first medical clinic, was taken up with demonstrations, chiefly of apparatus; and on the seventh sessio the morning of fourth day, an attempt was made to finis the long list of papers.

In the rooms adjacent to the meeting hall there wer many interesting exhibits. Professor Rieder, of Munic showed a series of Roentgen-ray pictures of the stomac and large bowel taken after the administration of bismut in very large doses. The outlines of the organs wer shown with extraordinary clearness, and even the smalle sacculations of the colon stood out sharply. Zeis

---

[1] *Journal of Physiology*, vol. xiv.

Reichert, and other makers had full exhibits, and there were many pieces of new physiological apparatus. In one of the rooms upstairs, Dr. Gustav Klein, of Munich, had placed from his private collection a series of works illustrating the history of anatomy, surgery, and obstetrics. An almost complete set of the works of Vesalius was shown. But the works illustrating obstetrics and gynaecology, chiefly of the fifteenth and sixteenth centuries, formed a most remarkable, indeed, one might say a unique, series, as Professor Klein has for years been a well-known collector and authority in this department of bibliography.

The evenings were devote to private entertainments. The annual dinner was attended by about 300 members. There is much to be said in favour of the Continental custom of beginning the dinner early and of having the oasts interspersed between the courses. The speeches are ewer and shorter, and a longer evening is left for con-ersation. A special feature of the dinner was the distribution of one of the now famous comic numbers of the *Münchener medicinische Wochenshrift*. Among the original rticles were On the Protozoa of Benign Growths, a Klinik n Academic Abnormalities of the Skull, and on Dia-nosticin, a New Medical Aid. There are most amusing elections from the Archiv. f. Splenology, the Archiv f. tauungshyperaemie, and the Grenzgebeite der Utopie und onie. On the evening of the 27th Dr. Spatz, the editor *Münchener medicinische Wochenschrift* entertained the ongress at the Residens-Theater with Mozart's "Cosi n Tutte."

The Congress fuer Innere Medicin amply realizes the bject of its foundation—the advancement of scientific nd practical medicine by personal intercourse among its embers. It is impossible to overestimate the advantages such an annual gathering. Alike to young and old an spiration, to its stimulus may be attributed not a tle of the intensity and thoroughness which to-day aracterizes German medicine.

BRITISH MEDICAL BENEVOLENT FUND.

the April meeting of the Committee, thirteen applica-ons were considered and the sum of £100 was voted in ief of those cases of which an abstract is appended. wo cases were passed over, and two were postponed for ther information.

It was announced that the sum of £240, plus interest, d been received from the trustees of the late Dr. John ieve, as the share allocated to the Fund out of the idue bequeathed by him to religious and benevolent ieties. A donation of 50 guineas from the Edinburgh rveian Society was also announced.

Mr. Stonham consented to act as Honorary Local retary at the Westminster Hospital.

Widow, aged 42, of L.R.C.P., L.R.C.S.Edin, who practised Cardiganshire. Quite unprovided for at husband's death, has had to sell practically all her furniture. Only one d able to help. Relieved once, £12. Recommended by R. Jones. Voted £12 in twelve monthly instalments.

Wife, aged 31, of M.R.C.S., L.R.C.P., who practised in ersetshire, but is now confined in an asylum. Two dren, aged 9 and 6. Has a little money in hand from the of the practice, and will receive more during the next years. Recommended by Mr. W. M. Beaumont (honorary l secretary). Voted £5 in one sum.

Widow, aged 59, of L.R.C.P.Edin., M.R.C.S.Eng., who tised in Yorkshire. Supported herself and assisted band for eleven years by acting as housekeeper, but now ers from an incurable complaint. Slight help from dren. Recommended by Mr. C. A. Lee. Voted £12 in ve monthly instalments.

Daughters, aged 82 and 67, of late M.R.C.S., who practised uffolk. Have supported themselves since father's death, ty-four years ago, by keeping a boarding house, but ipts have gradually decreased, and now the furniture has sold to defray the rent. Only income £15 a year. ommended by Mr. T. J. Wayte. Voted £18 in twelve thly instalments.

Widow, aged 59, of L.R.C.P., L.R.C.S.Edin., who practised orthamptonshire. Income £18 a year from money left on ; earns a little by needlework, and receives slight help sionally from a son; health indifferent. Relieved five s, £50. Recommended by Dr. T. J. Walker. Voted £10 o instalments.

M.D.(St. Andrews), M.R.C.S., L.S.A., aged 76. Used to an excellent practice in London, but it gradually dled owing to degeneration of the neighbourhood and etition. Only income a pension of £30 a year. Relieved twice, £24. Recommended by Mr. C. K. Moseley. Voted £12 in twelve monthly instalments.

7. Widow, aged 34, of L.R.C.P.Edin., who practised in Glamorganshire. No income; two children, aged 11 and 2½; endeavours to support herself by nursing, but is unable to obtain constant work. Relieved twice, £10. Recommended by Dr. Joseph Bell, Honorary Local Secretary. Voted £10 in two instalments.

8. Daughter, aged 63, of late M.R.C.S., L.S.A., who practised in Sussex. Income £20 a year from a charity. Health failing and very deaf. Relieved once, £6. Recommended by Dr. Frank Hinds. Voted £6 in twelve monthly instalments.

9. M.R.C.S., L.S.A., aged 66. Used to have an excellent practice in Staffordshire, but has been quite incapacitated by paralysis and heart disease for five or six years, and is now dependent on a superannuation allowance from the guardians and such help as he can get from charities. Children unable to assist. Relieved four times, £60. Voted £15 in twelve instalments.

NOTES ON HEALTH RESORTS.

MARGATE.

ALTHOUGH the town of Margate is already supplied with a sufficient supply of excellent water and a more or less complete system of sewers, the corporation of the borough appears to be fully alive to its responsibilities in other directions, and in one particular has been particularly active during the past year. In his annual report the medical officer of health (Mr. Bertram Thornton) states that special attention has been paid to the milk supply of the town. He considers that, as a whole, this is satisfactory, more especially with regard to the supply obtained from the dairies in the town, though, by taking frequent samples at the railway stations, an effort is also made to ensure the purity of that which is brought from elsewhere. The corporation will be well advised if they seriously consider the recommendation of its medical officer of health to provide a refuse destructor, for at present house refuse seems to be burnt in the open at a dépôt situated about a mile from the town. The reduction of the deaths of young children—equal in 1905 to 137 per 1 000 births—should also receive the consideration of the town council. In this connexion it will no doubt satisfy itself as to whether there is any relation between this high rate and the high house rents, which "make it difficult for the working classes to secure small cottages at a rental which will enable them to live without the tendency to overcrowd by letting apartments in the summer months."

LITERARY NOTES.

To many, booksellers' catalogues are as interesting as dictionaries were to Théophile Gautier. They tell the fortunate persons who have the means of buying what there is, new or old, in the market; to others they give the joy that poor children feel in flattening their noses against the windowpane that separates them from the paradise of the confectioner's shop. Messrs. Williams and Norgate's monthly lists always contain a number of attractive things that might move even the legendary Scot, if peradventure he had been interested in medical lore, to let his "saxpence" go bang without a qualm. Their catalogues are in their way abstracts and brief chronicles of medical progress.

A third edition of Dr. Thomas F. S. Caverhill's admirable lecture entitled *The Crusade against Consumption*, has just been issued by Messrs. Macniven and Wallace. It was delivered in 1899 under the auspices of the Edinburgh Health Society, at the request of the Public Health Committee of the Town Council of that city. It is intended for the education of the people, and it is sold at a price that places it within the reach of the poorest.

The *Paris Medical Journal* is a monthly review of French medicine, the object of which is "to lay before English-speaking physicians, month by month, a summary of the work of the French medical school." It is further stated that "it will contain original contributions by leading members of the profession in France, and other articles of general interest." The first number contains an account by Professor Chantemesse of five years' experience with antityphoid serum, a number of notes of cases from various Paris hospitals, a summary of the work of the Société Medicale des Hôpitaux in 1905, and a sketch with portrait of Professor Debove, the Dean of the Paris

Faculty of Medicine. The editors of the new periodical are Drs. A. A. Warden, Physician to the Hertford British Hospital, and Edmund L. Gros.

With reference to the article on John Wesley's *Primitive Physick* which appeared in the BRITISH MEDICAL JOURNAL of April 28th, Sir Samuel Wilks has sent us an interesting paper by him entitled "The Science and Art of Medicine: a Retrospect and Reflections," reprinted from the *Medical Magazine* for January, 1901, in which an account of the famous preacher's book is given. In a private letter, which we have permission to quote, Sir Samuel Wilks says:

> Wesley was a man of a good many attainments, and when, at the establishment of a Wesley House in the City Road a library was formed, I took my book on medicine by Wesley, and the Librarian was pleased to have it. He showed me Wesley's electrifying machine which he used for his patients. The old-fashioned barrel-shaped jar was covered by a piece of silk and turned by a handle; along it ran the prime conductor, ending in a knob from which the sparks were obtained. These were the first kind used. The little book he wrote on electricity was reprinted, and I have a copy. He conjectured it was the source of life and all unknown movements, and suggested it was the cause of the movements of the leaf in the sensitive plant, which Burdon-Sanderson found to be the case. He seemed to know about Franklin and the scientists of his time.

In the paper of which mention has been made, Sir Samuel Wilks says Wesley without doubt spoke honestly and without any object of gain. The opinion which he expressed on the art of healing has survived to the present day, and has a great hold even on the so-called "educated" public. Sir Samuel relates that not many years ago a member of the House of Commons, who patronized a notorious quack in the North of England, stated openly in Parliament that he would place no restriction on medical practice, as he believed all study at the colleges to be valueless, the treatment of disease being a special gift. Sir Samuel Wilks goes on to point out that, so inherent in the human mind is the belief that for every disease there is a remedy, it has a strong hold on the profession itself. The idea, he adds, prevails much among the clergy, and more especially amongst dissenting ministers, who, with their wives, are found more frequently than others offering advice and medicines to their parishioners. Sir Samuel Wilks sums up as follows:

> These popular ideas of medicine as laid down by John Wesley are more strictly formulated at the present day in a system which boasts of having existed a hundred years; it is destined, from what I know of human nature, to exist for many hundreds more. It takes the cure of disease as its basis, and from it receives its name. It ignores physiology and pathology, and takes note only of symptoms which it pretends to relieve, following Wesley's rule of common sense to give only one medicine at a time, or, in the words of a well-known advertiser, "Home Remedies. A separate cure for each ailment." At the same time, the patients, like the great preacher's followers, can carry a list of their diseases in one waistcoat pocket and the corresponding remedies in the other. It might also be added, as in all the popular systems, if the medicines do no good they do no harm.

Pajot, the famous Paris obstetrician, was noted as a writer of *petits quatrains* which were a delight to his friends and a terror to his enemies. Some of these were published after his death in the *Chronique Médicale*. We may be allowed to quote one or two by way of specimen. For Civiale, one of the pioneers of lithotrity, he proposed the following epitaph:

De Civiale, au cimetière
Où la Mort vient de l'envoyer.
La tombe n'aura point de pierre:
Il sortirait pour la briser.

In most of Pajot's epitaphs, however, there was more wit than charity. Of a certain professor, whose conduct apparently had not always been regulated by the maxim, Honesty is the best policy, he said that

A vingt ans, quand il n'etait rien
Il volait déjà—vers la gloire.

Of the same person he says in another epitaph:

Il eut le titre d' "inspecteur"
Et le mérita sans reproches,
Car, même avant d'etre docteur,
Il inspectait toutes les poches.

The February number of the *University of Pennsylvania Medical Bulletin* contains a sketch of Philip Syng Physick, an early Father of Philadelphian Medicine, by Dr. Richard H. Harte. Born in 1768, he proceeded B.A. in the University of Pennsylvania in 1785. At that seat of learning, too, he began the study of medicine, but at the age of 22 he was sent to London and placed under the care of John Hunter. On his father asking what books his son would require, Hunter took him to a private dissecting room, where, pointing to several bodies, he said, "These are the books which your son will study under my direction; the others are fit for very little." Under Hunter's roof, Physick had, as a fellow pupil, Edward Jenner, and the two young men formed a lifelong friendship. Through Hunter's influence Physick was appointed House-Surgeon at St. George's Hospital. In 1791 he was admitted a member of the College of Surgeons. He then went to Edinburgh where he took the degree of Doctor of Medicine. The subject of his thesis, which was dedicated to Hunter, was "Apoplexy." Hunter wished him to assist him in his professional work, and to establish himself in London, but although Physick's devotion to his master was unbounded, he did not feel at liberty to accept the tempting offer. He returned to America, but it was some time before his fellow-citizens appreciated his merits. In his own words, he walked the streets of Philadelphia not earning sufficient money to put soles on his shoes. He would willingly have sold the fee simple of his profession for a thousand pounds, and retired to a farm in the country. His opportunity came when Benjamin Rush quarrelled with Wistar, whom he was in the habit of calling in to operate. Rush selected Physick as his surgical associate. This made an immediate change in Physick's position. In 1794 he was appointed surgeon to the Pennsylvania Hospital. No surgeon, says Dr. Harte, ever operated more adroitly, or taught the art in its highest perfection more conscientiously, yet his principal aim was to prevent the necessity for operation, and in this his success was pre-eminent. In 1801 he began to lecture privately on surgery, and he won such a reputation as a teacher that in 1805 a Chair of Surgery was created for him in the University. Physick has been called the "Father of American Surgery." He had much mechanical ingenuity, and invented many instruments and methods. His great professional knowledge and the uprightness of his character won for him the highest respect both from the members of his own profession and from the general public. Unfortunately for those who came after him he wrote nothing, and the fruits of his large experience died with him.

Although Charles Dickens in *Bleak House* described a general practitioner of the finest type in Alan Woodhouse and gave a favourable presentment of a physician in *Little Dorrit*, it must be admitted that he was in general rather inclined to satirize the medical profession. If asked about Dickens's doctors, probably Bob Sawyer and Ben Allen would first rise before our mental vision. As we know from Albert Smith's *Physiology of the London Medical Student*, these creations were fairly true to life. But Jobling, Dr. Parker Peps, Sir Tumley Snuffim, and those medico-military fire-eaters Slammer and Payne, are drawn with the lines of the broadest caricature; yet the treatment, rough though it be, is seldom altogether unkindly. "Dickens's Doctors" form the subject of an interesting study by Dr. John Chalmers Da Costa (Philadelphia: The Philobiblon Club, 1905). His conclusion that Dickens's doctors are "fools, drunkards, blackguards, criminals, coarse, common, ignorant men, impostors, solemn ignoramuses, clowns and a few gentlemen," seems to show that he takes the matter too seriously. Dickens was an "impressionist" whose proclivity towards caricature led him constantly in his pictures far to o'erstep the modesty of nature. A caricature is after all only an intentional exaggeration of a real feature or character, and if the artist is to succeed in his object, which is to cause laughter, there must be an element of truth in his most grotesque distortions. In Dickens's least flattering pictures of medical men there is enough to give point to the caricature. And we may comfort ourselves with the reflection that the satirist lets the doctors off lightly in comparison with the lawyers.

THE ninth annual meeting of the Childhood Society for the scientific study of the mental and physical conditions of children will be held at 7, St. James's Square, London S.W., on Tuesday next, at 3 p.m.

The Fifteenth International Medical Congress.

IELD AT LISBON, APRIL 19TH TO 26TH.

GENERAL IMPRESSION OF THE SECTIONS.

spite of the fact that the majority of the foreign iembers have now (Friday, April 20th) had time to settle own, the inclination for work does not appear to be icreasing. True, the hall and quadrangle of the Escola ntains groups of congressists engaged in lively conrsation, scientific and otherwise, during the greater art of the day, but the one object appears to be to hurry rough the Sections as fast as ever. In the Neurological ction, where some extremely interesting and instructive pers are to be read, the work began with the choice of rofessor Raymond as Chairman; then the communicaons were called. The Chairman called the first name, at of Dr. MacDonald of New York—no response. He ied the second, Dr. Hermann von Schrötter of Vienna the same result; and the third, fourth, fifth, and xth—all absent. Dr. Jules Morel was down for 8, and 9, but he excused himself on the ground at he wished to postpone his papers till later. Three ore were absent before Professor Raymond himself left e chair to read an excellent discourse on the dangers of ercury in the treatment of general paralysis. This per and the discussion will be dealt with briefly later , when it is proposed to give some of the actual work of e Sections. In the Therapeutic Section a *précis* of the mmunications was issued, but the audience was exmely small, and more interest was evinced in a photoapher, who took a snapshot of us, just as I was attempt- g to hand an unknown German speaker down to sterity, and thus wrecked the chances of this gentleman least for one day. The discussions in this Section are tremely tame, and the proceedings closed fairly early. the Physiological Section a general disinclination to gin was evidenced, and everybody looked greatly bored. . Heijiro Nakayama looked so lonely that I was tempted speak a few friendly words to him (not in Japanese!); n I discovered that the coagulation of the blood was be discussed first, and that Raehlmann was to give discourse on some new experiments on blood corscles later. Being interested in the latter I determined return at about 11.15, but when I came back I only nd my friend, the Secretary of the Section, and another tleman in one corner talking politics—so I fled. In Surgical Section the moot question of surgical interence in connexion with the sympathetic led to more ly work. Refraction errors were discussed in the hthalmological Section by nearly twenty members, and on through all the rooms. In the Section of Medicine proceedings had already terminated when I paid my it, and I was subjected to a glowing account of some pattern microscopes and microtomes by a local resentative of a Viennese firm in execrable German. e outside, the onus of collecting a large amount of ful and useless literature fell on one's shoulders. This, ever, was not so terrifying an ordeal as usual at gresses for Press members, for we each had a roomy pigeon-hole in which we could stow y anything which we did not wish to convey all r the town. On Saturday, the Sections for Medicine, gery, and Urinary Surgery joined in the large hall of Annexe, to hold a discussion on the diagnosis of ases of the kidney. The room was very well filled, te 200 members being present, and the discussion was resting. The Sections of Hygiene and Colonial Medi- also joined hands, and discussed the reports on ow fever; while Physiology joined Therapeutics to talk honendoscopy and ectotherapy during the afternoon. the Pathological Section, Dr. Bashford was to have a paper on the etiology of cancer. We waited for him 8.30 to 9.45, and then gave him up. Among others, Doyen held forth at considerable length on his *Micro-us neoformans*, and met with a fairly polite audience. after a time, one after another of those who did not an official position, and whom one recognized as men taking a serious scientific view of pathology, got up and went out. M. Doyen appears to be unruffled at such trifles as this, and is apparently convinced that he is converting the whole world to his way of thinking. He is to give a demonstration on the same subject, with lantern slides, at 6 to-night, and has invited a number of pathologists to look over his specimens one day next week. The therapeutists were very little in evidence, and I am told that the Section of Otology had to be given up yesterday, as no members attended. In the Dental Subsection some ten gentlemen discussed alveolar pyorrhoea and facial neuralgia. The Ophthalmological Section was fairly well attended, and Asenfeld's communication on the serumtherapy of eye diseases was much appreciated. The discussion, however, was meagre and brief. At an early hour the rooms began to get empty (save that of Medicine and Surgery).

DEFECTS OF ORGANIZATION.

In each Section the first business consisted in electing the Committee definitely and then the Presidents of Honour. This enabled various eminent men of each branch of medical science to take the chair in alternation. I have had occasion to criticize this method in regard to one or two other congresses, and wish again to point out that a good chairman is a rare individual, and that, when all the nations come together, it is absolutely necessary to govern with a firm, polite hand, keeping strictly to the rules of procedure. Now an excess of politeness does not preserve order, and unless quietude is maintained, unless a limit is enforced in the speeches, unless discussions are invited and stimulated, a session loses greatly in its value. The large majority of the chairmen did not possess, or, if they did, did not exercise, this gift of management. Some not only did not preserve order in the room, but did not even preserve silence themselves; some allowed fluent but ineffective speakers to continue into what appeared to be infinity; some did not even ask if any members wished to discuss the papers. In another respect, too, the value of the meeting was impaired, or even destroyed. This was that, as the attendants did not understand French, German, or English, and the distribution of the Sections is arbitrary as far as position is concerned, many members could not find their proper Sections. An interesting discussion between cytologists on the biology of cancer cells was obstructed, because Dr. Moore was wandering about looking for the room while the Chairman called his name out. Still more unfortunate was the experience in the General Conference in the afternoon, because a very large number of us were extremely anxious to listen or take part in the discussion on yellow fever. The Medical Section was due to meet at one o'clock. When I arrived punctually, a few loungers were wandering aimlessly about. After a short time I found it wise to make a tour of inspection to the other Sections, returning after about three-quarters of an hour. Still no sign of a beginning. The room had by this time filled up, and was in a condition of extreme vivacity as far as sound was concerned. We selected our seats, and this had the result of causing the Committee to make a move. Of course, a suitable chairman was wanting. At two o'clock Dr. Pavy appeared, and then the proceedings started. He was, however, replaced by someone else very shortly after. The proceedings were not exciting. Dr. Berheim of Paris, told us what we all knew and what he had said himself numerous times before, on the subject of the dangers of trains and ships with regard to tuberculosis. Dr. Faure added a few remarks on the dangers of food. Then a lady read a paper on women with abdominal troubles such as eventration, etc., and described a special corset or girth for this condition. She distributed a large number of photographs of women with pendulous bellies both with and without the belt or corset. But she did not produce a specimen of the corset. Dr. Poigey followed with a paper on purpura in its connexion with tuberculosis. The paper was not uninteresting, but it was then five minutes to three, and yellow fever had been announced for 2.30. At this stage I thought that it would be wise to seek Professor Boyce, with a view to getting the discussion opened, and with the assistance of a friend we sought high and low—in vain. At 4 o'clock the Section had rearranged itself and Professor Boyce's name was called out. As a matter of fact, Boyce had gone into the Salles de Projections, because he had some slides to show, and had there gathered a fairly numerous crowd. His communication (a brief summary of which will be given when we come to deal with the more important transactions of the Congress) was well received, but no discussion followed. Professor Brissaud followed with a good paper on infantilism. A notice was posted that Dr. Esquerdo was ill, and therefore could not read his paper on the influence of changes of climate, etc., in the treatment of the insane. Thus a whole afternoon was to a certain extent wasted. I did not attend M. Doyen's demonstration, as most of us had had enough of the *Micrococcus neoformans* for a while, especially as I had heard the same story at intervals ever since 1900. The same gentleman is to give his well-known cinematographic performance on Monday evening.

Monday.

At half-past 8 this (Monday) morning I found the medical school, so to say, empty. Having made my usual early round to get my bearings for the day's work, I selected the Section of Pathology as offering the best discussion. Martini and Laveran were the chief speakers, and dealt with the subject of trypanosomes. Some very fine microscopical slides had been prepared by the former, and besides, he had exhibited some excellent wall pictures of the various tsetse flies and trypanosomes. Schaudinn, the man of the hour, took a brief part in the discussion, and Professor Boyce also said a few words. Then some other speakers followed, but although the speeches were excellent, one had to admit that all that was said had been published before. In the Section of Medicine, Dr. Pavy dealt with diabetes, and Sir Dyce Duckworth with chorea. After this matters became uninteresting. Tuberculosis serums, of which we had such a dose in Paris last September, were dished up again, and gastric ulcer also wearied most of those present. I regretted that I was unable to attend the Physiological Section, and hear Verworn, who, I am told, gave an excellent paper on the physiological processes of the central nervous system. Therapeutics were dull, and included more serums, tuberculous and others. Neurology had a long programme, which was somewhat hurried, and Dermatology contained some interesting material. Surgery, Ophthalmology, Hygiene, etc., passed off quietly enough. At 11 Unna gave a very fine oration on leprosy, with lantern illustrations. These illustrated lectures are always very well attended, and there is never seat accommodation for all present. At the same time the Presidents of Honour and delegates met in conference, to discuss the next Congress, and also some other matters.

Tuesday.

Tuesday was a comparatively quiet day as far as the Sections were concerned, as the conference of the delegates and Presidents of Honour was timed for 11 o'clock. A very sad occurrence disturbed the equilibrium of the whole Congress. In the Ophthalmological Section, Dr. Mascaro, a Spanish ophthalmologist resident in Lisbon, was delivering a communication on the education of the blind, when it was noticed that he began to repeat himself and to become incoherent. Presently he swayed heavily, and was just saved from falling to the ground by Dr. Mayer. Sir Dyce Duckworth was summoned to his aid, and he found that our poor colleague had been attacked by a severe cerebral haemorrhage. He was aphasic and hemiplegic. As soon as possible they carried him off to the hospital of S. José, where he lies in a critical condition. The Section had nearly finished its work, and determined to adjourn at once after the sad incident. According to the latest reports Dr. Mascaro has improved considerably and has regained consciousness.

The interest of the morning was centred in a discussion on epidemic cerebro-spinal meningitis, and one was astonished to hear that this disease was extremely common in Portugal, and further, that the type was essentially one of spastic paralysis. This markedly paralytic feature appears also to be frequently met with in St. Petersburg. In the Surgical Section gastro-intestinal and intestino-intestinal anastomoses formed the chief subjects. Vaillard gave an excellent account of his antidysenteric serum, for which he claims great activity. This observer is so well known for his reliable work that we must separate his utterances from those of the fashionable serumtherapeutists who bring out a new serum every week. Vaillard's work on dysentery calls for control, and even if it be found necessary to form a somewhat less glowing opinion than the Lyons Professor has expressed, the work ought to rank high. Dieudonné reported on the therapeutic uses of the cholera, plague, and typhoid fever serums, and made out a case for each which was much more favourable than we are inclined to accept. No discussion worthy of the name followed. It would be tedious to account for all the Sections, since matters were conducted briskly without any marked element of importance. I may, however, mention that in yesterday's proceedings Pflugk's communication on accommodation is said to be of an epoch-making character.

Demonstrations.

Intermixed in point of time with the work of the Sections are the projection meetings, the demonstrations, and the general conferences. The first named attract very large and enthusiastic audiences, partly, I presume, because the lantern is a pretty plaything. Grossmann, Crocq, and Leucos certainly dealt scientifically with their respective subjects of diseases of the larynx, reflex and muscular tone, and the changes in a hemiplegic with motor aphasia, but no agraphia, etc. In regard to M. Doyen's cinematograph, I can only say that a more undignified and unprofessional exhibition cannot be imagined; and while one acknowledges the undoubted skill of the operator and the excellence of the pictures, one is forced to judge the action severely. M. Doyen has been given the cold shoulder by his French *confrères*, nevertheless he has pushed himself into a large number of Sections here in an irrepressible manner. A very interesting demonstration was given by Sauerbruch. This ingenious surgeon, as our readers may have gleaned from the Epitome of the Journal or elsewhere, has devised a chamber which can be subjected to a negative atmospheric pressure (about 11 mm. Hg), so that an animal or man can be placed within, or his body within and head without. The anaesthetic is administered from without, and the chest may be opened without any risk of collapse of the lung. Sauerbruch did various oesophageal, pulmonary, and cardiac operations on dogs, which demonstrated the advantages for intrapleural or transpleural operations. That the demonstration was carried out under peculiar difficulties can be readily understood, and I think that he is to be congratulated that he had only one failure under the circumstances. I sat in the chamber for a time, and can add my evidence to the experience of others that no discomfort is felt for the diminished air pressure. Von Hansemann delivered an address on the value of domestication for the diseases of animals and mankind, before a numerous audience, and was considerably applauded.

Wednesday.

On Wednesday the actual work of the Congress was concluded in the course of the morning. Perhaps the best-attended, best-conducted, and most appreciative Section was that of Hygiene. After the reports on general and infantile mortality had been read, Mr. Adolphe Smith made an eloquent allusion to the real importance of hygiene in the saving of life and in national economy. He pointed out very forcibly that a high mortality was rather due to want of material means than to legislative shortcomings. He gave some advice as to the direction along which the work of the future should be conducted, and concluded by associating the interests of hygiene with those of humanity. Amidst tumultuous applause, the President rose to thank Mr. Smith, not only in the name of the Section, but in the name of the human race. At 8.30 the School wore an early-morning, desultory appearance, and it was only when the clock showed nearly 9.30 that any attempt was made to get to work. The members of the Sections had themselves to blame for an uninteresting morning. Name after name was called out without any response. Each morning I have regretted that I could not divide myself into a dozen parts. to listen to many Sections simultaneously, but each evening I have had the satisfaction of hearing that I was in at the most interesting papers of most of the Sections after all. Medicine practically did not exist, and Surgery was very sleepy. In Pathology we dealt with some aspects of tuberculosis and rabies, and enough energy was mustered to speak about cysticercus of man. I was the fourth member in Therapeutics, where papers were officially read with but scanty intelligence, and where, in spite of the small number, conversation was freely indulged in. Nor could one really believe that much harm was done. In Neurology, our American colleague, Dr. MacDonald, briefly referred to his report, and wisely refrained from reading it *in extenso*, as he disclaimed any knowledge of the French language, stating that he only spoke English. An excellent paper was read on a rare infection by *Bacillus coli communis*, causing hepatic abscess and ulceration around the ileo-caecal valve, which dealt with these morbid changes from the forensic point of view. Lastly, a few demonstrations, etc., concluded the work.

I cannot conclude the impressions of the congress proper without making especial reference to Professor Bombarda. Whatever the shortcomings of the congress may have been, this excellent *savant* and colleague has played his part with consummate tact. His post of secretary-general entailed a stupendous amount of work, and I shudder to think of the number of interviews which he had to give. But throughout, one always met with a genial, friendly, cordial reception, and with a levelheadedness which is deserving of the fullest admiration.

(To be continued.)

EGYPT AND THE SOUDAN.

ord Cromer's report on the finances, administration, nd condition of Egypt and the Soudan in 1905, presented to Parliament on its reassembling last week, contains a good many references to medical and sanitary matters. The volume is one long story of progress, hile those who remember how Egypt was officered in arlier days will note with interest that, except for rofessional appointments, the civil services of both countries are now practically inaccessible to other uropeans than those who have won University onours.

Egypt.

The population of Egypt is nowhere stated, but some ue to it is given by the number of adult males—384,000. In the prisons, on an average population 12,118, the mortality per 1,000 was 20.2, infectious seases accounting for 3.9 of the deaths. The vast ajority of the prisoners are adult males. For male ild offenders there is a reformatory, which at the ose of the year had 395 occupants, while in Cairo and exandria all juvenile offenders are now tried by a ecial Children's Court.

Alcohol and Hashish.

Alcohol does not appear to play much part in Egypt. the seaports there is a certain amount of drinking nongst natives who are constantly in touch with uropeans, but in the villages the labouring classes arcely drink at all. Licences are very sparingly granted, t, owing to the international Capitulations, the sale of coholic beverages by the bottle and case cannot be prevented. Indulgence in hashish smoking, on the other hand, very prevalent, and is credited with being a common use of insanity. The hashish is smuggled into the untry from Greece. Hashish dens are constantly being covered and closed by the police, but, owing to the pitulations again, effective action is difficult.

Sanitation.

During the early years of the Occupation the financial barrassments of the Government made it impossible to much in the direction of sanitary reform. More ently, however, the water supply of towns, regarded as most urgent and important of all sanitary reforms, been taken vigorously in hand. Alexandria is now l supplied with filtered water, and since last June ch of the water supplied daily to the town of Cairo has n pumped from the artesian well sunk to the north of town. More of these wells are in process of being k, and when these are completed, the whole of Cairo l be supplied with pure water. The water supply of nsourah is also now excellent, and in the course of the rent year it is expected that waterworks at Damietta be completed. Similar artesian well projects are in v for Ezbet-el-Borg, Ras-el-Bar, Zagazig, Menouf, alla-el-Koubra, Zifteh, and Mit Ghamr. Applications constantly being received for the provision of fresh water supplies for different towns, in spite of the fact that a certain amount of prejudice against well water still exists, the native women in particular believing that it causes their hair to fall off.

The new estimates provide a sum for the commencement of the work of filling in the Birkets or pools of stagnant water which are to be found in the vicinity of every Egyptian village. The new drainage of Alexandria is said to be working satisfactorily, and the health statistics of Cairo show marked improvement, the proportion of births to deaths being 118 to 100, instead of 110 to 100 as in the previous year.

Institutions.

The number of in-patients in the Government hospitals was 29,237, as against 27,921 in 1904, while the out-patient departments and dispensaries provided relief to over 125,000 persons. At the Foundling Hospital the mortality was very high, apparently because the majority of the babies are in a very bad condition when admitted, many of them being premature infants.

Several new hospitals are in view, one being for contagious diseases at Alexandria.

The lymph supplied by the Vaccine Institute continues to give satisfactory results, vaccinations being successful in 95 per cent. of all primary cases, and in 81 per cent. of revaccinations. Much valuable bacteriological work is said to be in progress in the Hygienic Institute, but details are not given.

The accommodation for lunatics is recognized to be insufficient, and a new asylum is about to be built. A new lunacy law is also being drafted.

In the School of Medicine there are 116 students, and it now has a complete and excellent staff, while, thanks to the negotiations successfully conducted by Mr. Reginald Harrison, it has been arranged that a delegate from the Royal College of Surgeons of England and the Royal College of Physicians of London shall be present at the annual examinations. Students who are successful will then enjoy the same advantage as if they had passed their examination in England.

Infectious Diseases.

During the year there were only 266 cases of plague, with 181 deaths, as compared with 855 cases, with 501 deaths, in 1904. The fact that the disease appears to persist in Alexandria to a greater extent than in any other town in Egypt is believed to be due to its drains continuing to be infested with rats. Energetic measures are being taken to destroy them, but the difficulties to be encountered are considerable.

Of cases of small-pox there were 3,979, against 4,219 in 1904; of measles, 3,013, against 6,396; of typhus and typhoid, 2,653, as against 1.823; and of diphtheria, 256, against 108. In the latter disease preventive inoculation of contacts is being practised; unfortunately, however, many parents refuse this protection for their children.

Malaria.

The campaign against malaria, which proved so successful in Ismailia, was extended last year to Suez, with results which are deemed highly satisfactory; the number of malarial cases in the hospitals fell considerably, and inquiries in the town indicated that there was much less fever than usual. Nevertheless, an immense amount of work still remains to be done, the marshes near Suez being very extensive.

Ophthalmia.

The two travelling camps for the treatment of ophthalmia provided by the Cassel Trust have proved so successful, that it has been decided to augment their work from Government funds. The policy to be pursued is to continue the camps for the present, and gradually to erect permanent ophthalmic hospitals in the principal town of each district. It is not deemed likely that ophthalmia will ever be extirpated completely, but what has been already achieved by the comparatively slight efforts made shows what can be done with improved appliances and more financial help. Speaking on this subject, Lord Cromer relates that on asking a recent visitor to the country—a lady who forty years ago had peculiar facilities for observing the condition of the people—what change struck her most, he received the reply, "The marked decrease in ophthalmia."

Pharmacy.

A Pharmacy Act has now been in force for a year. It at first met with considerable opposition, but is now working smoothly. The number of licensed chemists' shops is now 258, the inspections made under the Act resulting in the closing of 40 others. Unqualified dispensers can no longer legally be in charge of shops, and practically all pharmacies are now in charge of qualified men. The purity and freshness of drugs has increased, and the substitutions of cheap imitations greatly diminished. The law relating to the sale of poisons has not hitherto been so successful, and as few applications for poison licences have been received it is believed that illicit sales are still frequent. It is a difficult matter to touch, because such sales take place in private houses or shops other than pharmacies.

Rabies.

There has been of late years a constant increase in the number of cases of hydrophobia, and in consequence the Government has resolved to take up the matter seriously. A law concerning dogs is about to be promulgated, and the work connected with the Antirabic Institute at Cairo, founded and hitherto conducted by the Italian Benevolent Society, is to be taken over by Government, new buildings being erected. This institution treated 766 persons last year, as compared with 437 in 1904.

THE SOUDAN.

No census of the Soudan has yet been made, but it is roughly estimated to contain 1,853,000 persons. This estimate is founded on calculations submitted by various local authorities, and includes some 11,000 foreigners; of these latter, a little under 3,000 are Europeans and the rest Abyssinians, Egyptians, and Indians. Lord Cromer remarks that a point in all the calculations is the large proportion of children. Thus, in the province of Dongola, out of an estimated population of 90,000 persons 43,000 are said to be children under 9 years of age. The prison accommodation is stated to be very defective, the rooms being wretched, ill-ventilated, and overcrowded; a new prison is therefore being erected at Khartoum. Similar campaigns to those in Lower Egypt against malaria are being carried on at various places, and vaccination vigorously pushed. At least 50,000 persons were vaccinated last year, as against 12,000 in 1904 and 7,000 in 1903.

Lord Cromer makes the following quotation from the report of Dr. Christopherson, the head of the Civil Medical Department:

> It is possible to strike a cheerful chord this year. The Soudan is not a fever-stricken, small-pox-ravaged country, into which the Egyptian diseases—ophthalmia, bilharzia, and ankylostoma—are rapidly being introduced, while sleeping sickness is advancing, cholera and plague threatening Port Soudan, and leprosy creeping in from the west. What are the facts? There are five provinces at least which are practically free from the malaria infection—fever cannot originate there—namely, Halfa, Dongola, Berber, Khartoum, and Suakin; and, with the introduction of suitable dwellings and energetic mosquito brigades, other provinces will be freed from malaria. Small-pox shows itself occasionally, but if the country can be vaccinated throughout, small-pox will disappear. Great advances have been made towards this end during the last year or two. The carrier of sleeping sickness has been caught in Soudan territory it is true, but, so far, not a single case of sleeping sickness has been imported. Quarantine regulations have been instituted for Port Soudan and for the Soudan generally, and the arrangements at Halfa have been so far successful that plague and cholera have been kept out. Egyptian ophthalmia is decidedly uncommon, and bilharzia and ankylostoma, the two principal Egyptian diseases, have not taken hold of the natives to any extent. Lastly, the natives are amenable to medical treatment, so that there is little difficulty in carrying out measures for the security of the country against epidemics so far as active opposition from the people is concerned. The Bahr-el-Ghazal must be excepted from this general statement, on account of our present want of knowledge of the character of its peoples and that of the people of the Eastern Soudan, who are also still timid and suspicious.

A final point which may be noted is that the invasion of the Soudan by tsetse-fly disease is considered improbable. To investigate this point, Lieutenant-Colonel Griffith and Dr. Balfour were sent up the Nile. They found that in infected animals the disease apparently died out when they were removed from infected areas.

CONTRACT MEDICAL PRACTICE.

WARNING NOTICES.

IN the Warning Notice, published at p. 59 of the advertisements, 21 districts are enumerated in which disputes are in existence between the local medical profession and other bodies, and practitioners are invited to communicate with the Honorary Secretary of the Division or Branch, whose name is given in each instance, or with the Medical Secretary of the Association, 429, Strand, London, W.C., before applying for any appointment in the districts mentioned. The list also includes Northumberland and Durham, Sheffield, Leigh (Lancs.) Infirmary, Rusholme Dispensary, Coventry, Macclesfield Aberaman, Bridgend and Cardiff in Glamorganshire, Abertysswg, Blenavon, and Ebbw Vale in Monmouthshire, Southampton Bitterne and the neighbourhood, Portsmouth, Lowestoft, Castle Hedingham or Yeldham (Essex), Chipping Campden, and Mickleton District, Cork, Auckland (New Zealand), Orange River Colony, and Pretoria (South Africa).

MINERS' ASSOCIATIONS IN THE PENDLEBURY DISTRICT.

The controversy in the Pendlebury district of Lancashire between certain miners' societies and medical men who, under a provident scheme, undertake to give attendance in accidents, seems to have reached an acute stage. It appears that the expenditure of the Clifton and Kearsley Permanent Relief Society, which has a membership of 3,000 workmen, has for some time been increasing out of proportion to the income, and that in consequence last year the weekly contribution of members was increased by 1d. a week, to 4d. for miners and 3d. for surface men.

Casting about to find some method of economizing, the managing committee hit upon the idea of reducing the charge now paid for medical attendance on accidents. Having secured the co-operation of the Pendlebury Miners' Accident Association, an interview was sought with the medical officers, when it was proposed that the uniform charge of 15s. a case for accidents should be reduced to 12s. 6d. The total membership of the two societies is over 4,000, and during last year there were 1,035 accidents, in respect of which about £750 was paid to the medical officers. The miners' representatives contended that the majority of the accidents were of a comparatively slight nature, and that the average period of incapacity of the injured men was short, and also pointed out that at the Bridgewater collieries the fee paid was 12s. 6d. The medical officers declined to agree to the reduction, pointing out that so far from the average attendance being ten days a case, as had been stated, it was more nearly three weeks, and that the injured men attended at the surgery for dressings for several weeks after they had resumed work. They also pointed out that everything required in the nature of medicine, bandages, liniments, etc., was included in the fee at present charged. Another accident society in the district was paying 15s. a case without objection, and the surgeons were prepared to give up the work in connexion with the Bridgewater collieries paid for at the lower rate.

The medical officers also represented that the deficit of which complaint was made was due to the fact that there were two societies with consequently large expenses of administration instead of one, and that it might also be due in part to the fact that the societies did not deal solely with accident cases, but made allowances for natural deaths. The miners' executive did not accept these contentions and issued what has been called an ultimatum to the effect that unless the fee was reduced to 12s. 6d. the services of local practitioners would be dispensed with and that two outside medical men would be engaged exclusively to attend accident cases among members of the societies.

The medical officers represented by the Pendlebury Branch of the Association of Colliery Surgeons replied that they were of the opinion that the resolution of the Executive Committee could not represent the feeling of the majority of the miners, and requested a ballot to be taken. Upon this another interview took place, and a proposal for a ballot having been made, the medical officers pointed out that to ask the miners to vote on the question whether they were in favour of paying 12s. 6d. or 15s. would be useless, the result being a foregone conclusion. They asked that the ballot should be on the clearlylefined question whether the workmen preferred to go n having accident cases attended by their own medical fficers at the present fee, or, dispensing with the local nedical officers, prefer to have the cases attended to y strangers. This very reasonable suggestion was not ccepted by the miners' representatives, and we undertand that it is probable that two ballots will be taken ery shortly, the one by the medical officers and the ther by the Executive Committee.

As has, we believe, been pointed out to the miners' xecutive, no medical man of the requisite standing, xperience, and skill would come into the district and ndertake to do the work required at a rate of payment elow that recognized to be fair remuneration by the edical profession on the spot. The fee of 15s. had een the recognized minimum in the district for many ears, and there can be no doubt that their contention at a lower fee could not be remunerative will be pported by every surgeon in the country who knows hat colliery practice is. It would be unbecoming of to attempt to draw comparisons between medical men gaged in different classes of practice, but it is a commonace of the schools that a medical man who is ready to scharge the duties of a colliery surgeon must have a owledge of surgery and skill in the treatment of cidents which is possessed only by surgeons of exceponal experience and temperament. We are inclined to lieve that if the facts are fully and squarely put before e miners themselves they will realize the force of these ntentions, and that they will recognize by their vote in e ballot that the proposal to economize in respect of rgeons' fees is a short-sighted policy opposed to their n best interests.

Coventry.

The long dispute which has existed in Coventry with ard to the regulations and administration of the provit dispensary appears to be entering upon a new phase, nks to the facilities for communication between the dical men concerned on both sides afforded by the organtion, local and central, of the British Medical Associa. The Division, at a meeting on February 15th, adopted rules recommended in the special report on provident pensaries appended to the report on Contract Practice sented to the Annual Representative Meeting last year h certain modifications. At the meeting reported in Supplement for this week the matter was again conered, and a resolution was adopted to the effect that no nber of the Division should associate himself with any vident dispensary managed on lines fundamentally erent from the principles of the rules adopted by the ision at the previous meeting. The resolution was lified by a rider adopted on the motion of one of the lical officers of the provident dispensary, leaving it to the medical officers of that dispensary to suggest rations. We understand that the medical officers the dispensary have addressed to the Committ of the institution a communication setting the wishes of the Division, including the ical staff of the dispensary, in regard to the ations desired. From a report of the annual meeting e dispensary, published in the *Coventry Herald* of 1 27th, it appears that the communication had not been considered by the Committee, but from the ches of some of the officials it would seem that they not then disposed to consider suggested reforms in impartial manner. It is to be hoped that wiser sels will prevail, and that they will realize that the have been drawn up not in any spirit inimical to the ident principle, but to provide for the more efficient equitable conduct of provident dispensaries.

Bangor.

are glad to learn that the difficulty at Bangor with d to the appointment of a medical officer to the house has terminated in a satisfactory manner. The lians, it will be remembered, failed to obtain candi for the post at the proferred salary of £50 per m, and found it necessary to increase their offer to a year—a sum which, in the opinion of the local ion of the Association, might properly be accepted member of the profession in the locality. seems to have been some talk among the lians of punishing the local members of the profession by bringing in a candidate from outside; we are glad to learn that this petty manœuvre was not carried out, and at the meeting of the guardians on April 27th Dr. Corbett Owen, of Bangor, was elected to the appointment. During the course of the discussion to which the incident has given rise, attention was drawn to defects in the accommodation of the workhouse infirmary; and at the same meeting of the guardians a recommendation received from a Committee to carry out certain improvements to cost £850 was deferred, the matter being referred back to the Committee, with instructions to consult the medical officer.

Aberystwith.

The difficulty created at Aberystwith by the attitude assumed by the Board of Guardians with reference to the terms of the appointment of medical officer to the workhouse has been mentioned on several occasions in this column. Dr. Bonsall considering the remuneration of £30 a year inadequate, and, failing to convince the guardians that the salary ought to be increased, resigned office. The guardians retorted by trying to compel him to resign also the appointment of district medical officer. In this they failed, but a temporary arrangement was made with the house-surgeon of the infirmary to visit the workhouse. As the guardians did not take advantage of this breathing time, the Board of the infirmary instructed the house-surgeon to inform them that the arrangement must cease on April 30th. On that day the guardians held a meeting, at which it was stated that patients were dying in the workhouse. It was agreed that Dr. Bonsall should be invited to return, and that the salary for the workhouse should be increased from £30 previously paid to £45. It was resolved to ask him to act temporarily and to consent to the amalgamation of the posts of district and workhouse medical officer, so as to simplify matters. We understand that Dr. Bonsall has accepted these terms and has resumed attendance at the workhouse.

MIDWIVES ACT.

Payment of Medical Men called in to Assist Midwives.

The Cornwall Committee under the Midwives Act at a recent meeting discussed the scale of fees to medical men called in to assist at maternity cases. The Clerk said that in many cases, no doubt, if a medical man were called in by the midwife the patient would be in a position to pay. The Chairman said in cases where persons could not afford to pay application had to be made to the overseer for an order for the attendance of the district medical officer, who was allowed 10s. under the Poor-law regulations for an ordinary case and £2 for a difficult case. It was agreed to recommend the adoption of the fees set out in the Poor-law regulations. Regarding persons practising as midwives who were not registered, it was asked whose duty it was to take proceedings against those persons; and the Clerk said there was a doubt as to who should prosecute. The medical officers of health did not want to prosecute. Dr. Bonar suggested that the police might be communicated with on the subject.

THE PLAGUE.

Prevalence of the Disease.

India.

During the weeks ended March 24th and 31st, the deaths from plague in India numbered 15,464 and 11,823. The principal figures during the two weeks were: Bombay Presidency, 1,997 and 1,961; Bengal, 5,302 and (no return); United Provinces (Agra and Oudh), 3,978 and 5,080; Punjab, 2,382 and (no return); Central Provinces, 686 and 713; Burmah, 481 and 416.

During the month of March, the deaths from plague in India were distributed as follows:—Bombay city, 2,546; Bombay Districts, 4,842 (3 Europeans); Calcutta, 658; Bengal (excluding Calcutta), 17,618; United Provinces, 13,824; Punjab, 10,063; Rajputana and Ajmer-Merwara, 572; Kashmir, 481; North-West Frontier Province, 39; Central Provinces, 3,529; Central India, 266; Hyderabad State, 318; Mysore State, 314; Madras Presidency, 157; Burmah, 1,804. No plague elsewhere.

Plague in Jamu, Kashmir, has occasioned many deaths amongst the troops stationed there and in the household of the Palace. According to a telegram dated Lahore, April 25th, there were 285 deaths in Jamu during the week ended April 21st.

HONG KONG.

During the weeks ended April 14th and 21st the fresh cases of plague in Hong Kong numbered 21 and 24; and the deaths from the disease amounted to 23 and 37 respectively.

AUSTRALIA.

Brisbane.—A case of plague was reported in the city on March 6th. No cases of plague have occurred in Brisbane since June 14th, 1905. Up to March 24th, no other case of plague has been reported from Brisbane. Plague-infected rats ceased to be found in Brisbane from July 14th, 1905, that is, for one month after plague disappeared in man, to December 1st, 1905. Since December plague-infected rats have been found on February 19th, March 7th and March 8th, 1906. Since plague last occurred in man in Brisbane, namely, June 14th, 1905, no fewer than 8,003 rats have been examined, of which 12 have been shown to be plague infected; of 1,657 mice examined no cases of infection by plague have been found.

Western Australia.—On March 22nd a death from plague was reported, making the seventh fatal case in Western Australia since the outbreak.

PERU.

In the city of Lima plague has gained ground lately.

EGYPT.

During the week ended April 15th 35 cases of plague were recorded in Egypt, chiefly in the Minieh and Keneh provinces. Steps are being taken to prevent the influx of strangers into the country towns, and the religious feast being celebrated at present has been curtailed from seven to one day only.

MEDICAL NEWS.

AT the meeting of the Society of Engineers at the Royal United Service Institution, on Monday next at 7.30 p.m., Dr. David Sommerville will read a paper on the chemistry and bacteriology of potable water.

MR. ERNEST WAGGETT, M.B., B.C.Cantab., has been appointed Surgeon to the newly-constituted Department for Diseases of the Throat, Ear, and Nose at Charing Cross Hospital.

UNDER the will of the late Mrs. Sarah Code, of Marazion, Cornwall, the Penzance Infirmary and Dispensary receives £500, and the Hospital for Sick Children, Great Ormond Street, and the Royal Hospital for Incurables, Putney, £200 each.

THE Orient Company has arranged for the ss. *Ophir*, on her first cruise to Norway this season, to visit Trondhjem in time for the Coronation of King Haakon VII on June 22nd. The vessel leaves London on June 15th, and Grimsby the following day, returning on June 29th.

THE summer course of lectures at the Hospital for Sick Children, Great Ormond Street, will be opened on Thursday next, when Mr. Arbuthnot Lane will lecture on cleft palate. Lectures will be given on every following Thursday during May, June, and July, at 4 p.m. on each day.

DR. COLLINGRIDGE, in his monthly report as Medical Officer of Health to the City of London, states that a bacteriological examination made by Dr. Klein of periwinkles purchased at Billingsgate suspected to have caused a case of enteric fever at Wandsworth gave negative results. The winkles did not show general pollution, nor did they contain the specific microbes searched for.

THE half-yearly dinner of the Glasgow University Club, London, will take place in the Trocadero Restaurant, Piccadilly Circus, W., on Friday, May 25th, when Sir Thomas McCall Anderson, M.D., Regius Professor of Medicine in the University of Glasgow, will take the chair at 7.30 p.m. Applications for dinner tickets to be made to the Honorary Secretaries, 63, Harley Street, W.

AT the annual meeting of the governors of the Evelina Hospital for Sick Children, Southwark, on April 27th, the financial report presented showed that expenditure had exceeded income by over £1,200; nevertheless it has been decided to rebuild the out-patient department at an estimated cost of at least £12,000.

A WELL-ATTENDED drawing room meeting at the house of Dr. McManus was held in Wandsworth on April 26th, the object being to augment public interest in the provision of crèches in working-class districts. One of these has recently opened its doors in Battersea, and a motion, welcoming the inauguration of work of this character, was passed unanimously.

A CONFERENCE of charity organization societies will be held at Tunbridge Wells in the second week of June next. Among the subjects to be discussed will be the feeding of school children. The congress is being arranged by the local charity organization society, and further particulars can be obtained on application to the Honorary Secretary, 32, Dudley Road, Tunbridge Wells.

THE annual meeting of the Invalid Children's Aid Association will be held on Wednesday, May 30th, at 3 p.m., at 17, Bruton Street, W., by kind permission of Lord and Lady Stratheden and Campbell. Sir Frederick Treves will preside, and the Bishop of London and Mrs. Craigie (John Oliver Hobbes) will be among the speakers. Cards of admission can be obtained from the Secretary, 69, Denison House, Vauxhall Bridge Road, S.W.

THE dinner to celebrate the jubilee of the Incorporated Society of Medical Officers of Health will be held at the Hotel Cecil under the Chairmanship of Sir Shirley Murphy, on Friday next, May 11th, when a large attendance is expected, among those who have accepted invitations being the Presidents of the Royal Colleges of Physicians and Surgeons in London, and the Chairmen of the London County Council and of the Metropolitan Water Board. Sir Shirley Murphy will give his presidential address at the Society's rooms, 1, Upper Montague Street, Russell Square, W.C., at 5 p.m. on the same day.

NEXT year the London Bible Women and Nurses' Mission will complete the fiftieth year of its existence. Bible readers it supplied to the sick poor from the beginning; nurses it added ten years later, thus, with the East London Nursing Society which started the same year, initiating district nursing in London. Its total expenditure is some £14,000 a year, and as many of its earlier supporters have now died out a general appeal for that assistance to which its fifty years' work entitles it is now being circulated. It is signed by, amongst others, Sir Thomas Smith, Sir William Broadbent, Professor Clifford Allbutt, and Dr. C. J. Cullingworth. Subscriptions may be sent to the Honorary Secretary, Miss E. M. Andrews, 2, Adelphi Terrace, London, W.C.

AGRICULTURAL HYGIENE.—A Committee of Agricultural Hygiene has been appointed by M. Ruau, French Minister of Agriculture. The President is Professor Brouardel. MM. Chauveau and Bordas are Vice-Presidents. Among the members of the Committee are Dr. Binot, of the Pasteur Institute; Drs. Chassevent, Thoinot, and Guiart, *professeurs-agrégés* of the Paris Faculty of Medicine; Dr. Thierry, General Sanitary Inspector of Paris; Dr. Georges Brouardel, Physician to the Paris hospitals; and Professor Vallée, of the Veterinary School, Alfort. It will be the duty of the Committee to draw up a scheme of clear, simply-expressed rules for the protection of the health of human beings and animals in the country. These rules will be circulated in rural districts under the auspices of the Ministry of Agriculture.

VIEW DAY AT ST. BARTHOLOMEW'S HOSPITAL.—The annual view day at St. Bartholemew's Hospital takes place this year on Wednesday, May 9th. In addition to the customary ceremonies in the wards, the buildings of the new out-patient and special departments block, now in course of erection, will be open for inspection during the afternoon. In the evening, at 8.30, a special entertainment has been organized in the great hall of the hospital for the benefit of the building fund of the projected pathological block. The entertainment consists of ancient dances, presented as exactly as possible in costumes of the period, and with contemporary music of the sixteenth and seventeenth centuries. It is given by Miss Nellie Chaplin, who has already presented it with great success at the Albert Hall, at Oxford and elsewhere. Those who have seen it describe the entertainment as not only charming from the aesthetic and spectacular point of view, but of great historical interest. Seats, price £1 1s., 10s. 6d., and 5s., may be obtained from the Honorary Secretaries, Entertainment Committee, School Offices, St. Bartholomew's Hospital, E.C.

British Medical Journal.

SATURDAY, MAY 5th, 1906.

◆

THE INCOME TAX INQUIRY.

.. Asquith delivered his first Budget speech last
nday evening to a crowded House of Commons,
:king his way, as he happily expressed it, "through a
ıngle of technicalities and a forest of figures" in the
iness-like manner and with the lucidity of exposition
which he has long been noted. The interest of the
ech from the point of view of professional readers
in the pronouncement made in regard to the
me tax. The Chancellor opened the subject with
tatement that he associated himself with the
arations of his predecessors that a shilling income
in time of peace is impossible to justify. He said
it pressed with excessive severity on that
e class of the community with incomes of
ı £600 to £2,000 a year, who paid in addition
r full share of the taxation on articles of consump-
. He was unable to give immediate relief to the
me tax payer, but he proposed to take a step which
ld clear the ground for future operations. There
, the Chancellor stated, two valid objections to the
lence of the tax: the first, that above the limits of
ıption and abatement it was levied at a uniform
; the second, that no distinction was made between
orary and permanent incomes. He would ask the
se to appoint a strong Select Committee at the
est possible moment to make a searching and
oritative inquiry, the reference being simply to
ire into the practicability of differentiation and
ıation. He expressed no opinion as to the result of
quiry, but he was satisfied that it ought to be held,
ıeld without delay.

e attitude of the medical profession towards the
cellor's proposals will be one of sympathetic
est. It will be noticed that, in order to meet the
oints to which Mr. Asquith referred, there will be
distinct subjects for inquiry—namely, the prac-
lity of (*a*) graduation, and (*b*) differentiation. It
not be out of place to state the exact significance
ıese terms. By graduation, as applied to the
ıe tax, is meant the taxation of large incomes at
r rates than small ones, according to a defined,
essive scale; by differentiation is usually under-
the imposition of a higher rate of tax on incomes
d from accumulated capital than on those arising
personal exertion.

the question of the justice or injustice of a gra-
l tax, our readers may be divided to some extent,
ıgh the preponderance of medical opinion would
ıly be decidedly in favour of a scheme of gradua-
gainst the very wealthy section of the community.
reat majority of the more successful members of
ofession fall within the class "with incomes of
£600 to £2,000 a year," and are undoubtedly
y taxed in proportion to their means, although,
to the practice of assessing income at its source,
not possible to form a reliable estimate of the
aggregate amount of income tax paid by them. Mr. Chiozza-Money, in an interesting speech in the course of the debate, basing his calculation on the number of dwelling houses above a certain value, estimated that the number of persons in the whole of the United Kingdom with incomes of £700 and upwards did not exceed 250,000, and that out of a total population of 43 millions, 5 million persons took the whole of the income shown in the returns, amounting to 900 millions sterling. He argued that the middle classes were overweighted by taxation, while the rich people who really controlled the activities of the country, because they controlled its land and its capital, were undertaxed, a statement to which most people will accord a general assent.

It is, however, on the question of differentiation that medical men will be almost all of one way of thinking. The main grievance of the professional classes in regard to the income tax was dealt with at length in the British Medical Journal for January 13th, 1906, when members of the medical profession were urged to use their influence with Parliamentary candidates in order to obtain from them pledges to press for the removal of existing inequalities. Mr. Asquith's admission that the objections to the incidence of the tax already quoted are well founded will be received with general satisfaction, while his action in holding an inquiry before committing himself to legislation will be regarded as only reasonable and proper.

With regard to the question of the *personnel* of the proposed Committee, it is clear from the Chancellor's statement that a Select Committee of the House of Commons is contemplated, and not merely a Departmental Committee like that appointed by Mr. Ritchie in 1904. The complaint then made was that the Committee contained too large an official element, with the result that a somewhat narrow view was taken of the subject dealt with. It is to be remembered, however, that the terms of reference to Mr. Ritchie's Committee precluded any consideration of the questions with which the present Committee is to deal. Mr. Asquith takes it for granted that some degree of differentiation or graduation, or both, is justified by economic principles, and his Committee is to inquire as to the practicability of introducing such a scheme into the complicated fiscal system of this country. The announcement that Sir Charles Dilke is to be the Chairman of the Committee justifies the hope that its inquiry will be thorough, impartial, and businesslike.

It is to be hoped that when the Committee meets adequate expression will be given to the views of the medical profession. Several medical witnesses were called before the Committee of 1861, when a strong case for the differential treatment of professional incomes was established; but legislation in that direction was not recommended in the report, and, with some modification in the direction of extended abatements, the tax has been continued down to the present day at a uniform rate on incomes of all classes. During the period which has elapsed since the Committee of 1861 reported the case for graduation and differentiation has become considerably stronger. Not only has the rate of duty been increased until the tax has become a serious burden on the professional man, but wealth has accumulated in the hands of individuals to a greater extent than at any previous period of our history. Men holding moderate views have little desire for the introduction of measures which can in any sense be said to infringe the rights of property; but there is a very general recognition of the injustice of a system under which temporary and permanent incomes—incomes from personal exertion and incomes from rents and dividends—incomes of moderate amount, and the huge incomes of multi-millionaires—are all taxed at the same rate per cent.

The Exeter Division of the British Medical Association has recently issued a memorandum on the subject of income tax[1] in which a far more drastic reform than that contemplated above is proposed. The suggestion is made that the income tax should be repealed, and a property tax substituted for it. The Medico-Political Committee have recommended the Division to refer the question to the Representative Meeting, where it will come up for consideration in due course. For the present, such a change strikes us as being beyond the range of practical politics, even if economically sound. The principle on which it is based, however, has been questioned by a great authority. John Stuart Mill, in his *Principles of Political Economy*, thus refers to a similar proposal: "The objection to a graduated property tax applies in an aggravated degree to the proposition of an exclusive tax on what is called 'realized property' . . . as land, the public funds, money lent on mortgage, and shares . . . in joint-stock companies. Except the proposal of applying a sponge to the National Debt, no such palpable violation of common honesty has found sufficient support in this country, during the present generation, to be regarded as within the domain of discussion." For the arguments by which Mill supports his position reference must be made to his book. The foregoing extract is only quoted to show that any proposal to substitute an exclusive property tax for the income tax is likely to meet with strong opposition from the economists; and, while the question of principle is open to controversy, there is little probability that Parliament could be induced to legislate. We would rather postpone consideration of the wider proposal for the time being, and welcome the Chancellor's Committee as a step in the right direction, making use of the opportunity offered to place the claims of the professional man fully and fairly before the Court of Inquiry, in the hope that beneficial legislation will follow in the near future.

ETHYL CHLORIDE AS A GENERAL ANAESTHETIC.

THE discussion on ethyl chloride as a general anaesthetic which has taken place recently in our columns has brought out very clearly both the advantages and the dangers of the drug. The statistics collected by Dr. McCardie[2] prove that ethyl chloride is not so innocuous as previous collections appeared to indicate, and his paper, together with the numerous letters, have shown wherein its dangers lie.

Before referring to these it will be well to place on record the main facts as recorded at the inquest before Dr. Waldo of a death under ethyl chloride last month at Guy's Hospital, which brings up the total number of deaths hitherto mentioned as having occurred under its influence to more than thirty. The case was that of a lady's maid, aged 32, who suffered from haematuria, and had already taken chloroform well during an operation for the relief of that condition, which was found to be due to hydronephrosis. The patient had double mitral disease and bronchopneumonia, and was very nervous. In order to open and plug the wound in the kidney, 5 c.cm. of ethyl chloride were sprayed on to a piece of lint placed in the facepiece of a Clover's inhaler. The patient did not struggle. When the corneal reflex had disappeared the inhaler was removed and the pulse quickly failed. The circulation seems to have stopped before respiration, which continued for a few breaths later. *Post mortem* it was found that the right lower lobe was solid from confluent bronchopneumonia. The left ventricle was thickened and hypertrophied, and the mitral valve thickened and shortened. The left kidney was hydronephrotic, and surrounded by blood clot. Death appears to have been due to heart failure. Till recently ethyl chloride has been supposed to be a fairly safe anaesthetic in cases of heart and lung disease, and the chief contraindications suggested by one or two writers have been connected with obstructive lesions of the upper air passages. In this case it would appear that there was no such obstruction.

In a number of the fatalities of which details have been recorded serious heart mischief has been noted, for example, fatty degeneration of the heart, with sclerosis of the coronary arteries, in one case; pericarditis and endocarditis in another; fatty heart in yet another. In one or two cases the heart has been found to be normal. Owing to the non-irritative properties of ethyl chloride there seems to be little objection to its administration in disease of the lungs themselves, although, owing to the tendency to deep respiration and a certain degree of vascular fullness in the earlier stage of anaesthesia, the drug is rightly regarded as contraindicated when the upper air passages are seriously narrowed from within or without, and particularly when there is any laryngitis. In more than one fatal case oedema of the larynx has been found *post mortem*, and this condition rigidly contraindicates ethyl chloride. In close connexion with mechanical obstruction in the air passages must be considered jaw spasm, which is fairly commonly observed, so much so that experience shows that it is advisable before administration to place a mouth-prop or the blades of a gag between the patient's teeth. This jaw spasm, irritative and perhaps protective, may be due apparently to overdosage or to too great deprivation of air. In the case related above there does not appear to have been any degree of spasm. Without doubt, and coincidently with the jaw spasm, glottic spasm may arise and cause such serious obstruction to respiration that it becomes necessary to separate the vocal cords by means of the finger. Respiration commonly appears to fail before circulation, and so long before, indeed, that it is supposed that time will be given the administrator to recover the patient by artificial respiration before heart failure occurs. However, in the Guy's Hospital case circulation seems undoubtedly to have stopped before the respiration. Death may occur with such startling suddenness that it is difficult to determine which function fails first. Cyanosis is not infrequently seen, and is always to be taken as a sign of great danger, since it has been noted in many of the fatal cases. It usually seems to be associated with jaw spasm, although this is not always so, as appeared in a case of danger recorded by Mr. Fairlie-Clarke in the BRITISH MEDICAL JOURNAL of March 24th, p. 679. In this instance general muscular rigidity appeared later, and a quarter of an hour elapsed before the patient recovered consciousness and was out of danger.

The dangers of ethyl chloride seem formidable, but should not blind us to its undeniable advantages. It seems to be generally agreed by experts that it occupies a distinct place in the armamentarium of the anaesthetist and the practitioner in that it allows him to produce quickly a much longer ıd deeper "single-dose" anaesthesia than nitrous kide, that it conveniently and safely leads up to ether ırcosis, and that it may take the place of nitrous oxide hen this is not available, not efficacious, or unsatis- ctory. In many cases it is to be preferred to ether or ıloroform. Most anaesthetists agree, too, that ethyl .loride is less safe than nitrous oxide, and should not, erefore, be used in routine dental work, or in general rgical work where nitrous oxide will suffice. On the her hand, ethyl chloride is an admirable anaesthetic short throat, ear, and eye operations. As to dosage, or 3 c.cm. for a child, 3 or 4 c.cm. for a woman or akly man, and 4 or 5 c.cm. for a man, are enough ually. As knowledge enlarges, it appears that serious art disease, as well as obstruction in the air passages, ıtraindicate its use. Experience is already enabling to define the cases in which ethyl chloride is of vantage. It must be realized that the drug is a verful one, that danger is startling in the speed of onset, and that minimal dosage, and not too great rivation of air when anaesthesia is complete, are the ient's safeguards.

---

[1] BRITISH MEDICAL JOURNAL, April 21st, 1906.
[2] BRITISH MEDICAL JOURNAL, March 17th, 1906, p. 616.

FFICIENCY IN HOSPITAL MANAGEMENT.

NOMY and efficiency in the management of voluntary pitals are matters which possess a wide interest not for those who subscribe to the upkeep of these insti- ons, but also for the sick poor who receive the benefit eatment, and for the members of every branch of the ical profession. Unless the management be judi- s and skilful, efficiency is impossible, and it is the y task of hospital administrators to provide for this iency with such due regard to economy that the st value is extracted from the funds which are ed at their disposal. In all large institutions the lem of efficient economy is a difficult one to solve, use it is admitted that many economies are dear at price in efficiency which they cost, and are, in ty, no economies at all in the proper sense of the . Nevertheless it becomes every year more neces- that fresh expenditure should be checked rather encouraged, and that prudent frugality should be ously considered in connexion with every financial l.

1904 the hospitals in London, having an income of 304, spent £1,102,737, leaving a deficit of £328,433. ies to the value of £198,032 were received during ear, but even after deducting that amount there ned a net deficit of over £135,000. The revenue legacies was nearly £89,000 less than in 1903, and is source of income has been largely depended to balance the accounts, a continued shrinkage prove an extremely serious matter. It was pro- by a knowledge of these circumstances that dgar Speyer was prompted to offer a substantial for competition among those who felt themselves tent to express an opinion on the economic of the situation from the point of view of ad- ration, in the hope that there might emerge a e whereby many of the present leakages and over- gs might be remedied. It is obvious that the regu- which govern the management of a hospital may ient under one set of circumstances and wholly uate under another; while the economy with which gulations are carried out may be true or false ng to the purposes which come within the scope ractice. A hospital, regarded merely as a place ing, fulfils a beneficent and useful purpose, but s and achievements are insignificant in com- with those of a sister institution which, in addition to the care of the sick and the cure of disease, contributes by clinical teaching and laboratory research to the advance of science and the development of the art of medicine. We do not remember the exact terms of Mr. Speyer's reference, nor are we aware of the terms under which he invited competition for his prize of one hundred pounds and a silver cup, but from a perusal of the two essays which have been selected as most meritorious, we conclude that considerable latitude must have been allowed.

This inference is justified by the fact that though the second essay was written in a much broader spirit, and viewed the situation from an entirely different plane from the first, it was none the less awarded a special prize of fifty pounds because the judges came to the decision that its merit was nearly as great as that of its successful rival.

The essay[1] which was awarded first place was written by Mr. Godfrey Heathcote Hamilton, the Secretary of the National Hospital for the Paralysed and Epileptic; and the other, which was declared nearly equal in merit, came from the pen of Mr. Ernest William Morris, the Secretary of the London Hospital. Both essays show that intimate knowledge of hospital management which the public expect hospital secretaries to possess, but Mr. Hamilton's is needlessly diffuse over details, and fails to grasp the "imperial spirit" as applied to hospitals, which so strongly characterizes Mr. Morris's monograph.

Mr. Hamilton apparently approves of payment by patients, and there may be, under proper conditions, something to be said for it; but would the amount collected from this source, assuming that the class of patient were for the most part the needy and poor person deserving of the relief offered by a charitable institution, have any appreciable influence on the present large deficit? Would the admission of such a principle not, indeed, tend to dry up the springs of charity by breaking in upon the eleemosynary foundation which enables our hospitals to say that they are wholly supported by voluntary contributions? Mr. Hamilton says that "in a hospital with an ideal "management no patient will be treated for mere "clinical interest." It is, of course, true that the nature of the institution guarantees to the patient that in the performance of its first and most important duty, it will endeavour to relieve him of his pains and miseries; but to do this, even in the most humble disorders, without awaking clinical interest, would mean placing the work of its visiting staff on a level with the reprehensible practices of prescribing chemists; such an undesirable state of matters would surely be unfortunate even if it fulfilled the most advanced form of a hospital secretary's "ideal management." We cannot agree with Mr. Hamilton that the lay as well as the medical management should control the admission of patients; nothing but disastrous consequences could ensue on the adoption of any such plan of divided authority. It may perhaps be of interest to some to learn that Mr. Hamilton discourages the use of disinfectants for wash-basins, drains, and other sanitary appliances; that he advocates gas stoves for cooking purposes; and that he does not consider it necessary to provide water filters, "except "where sterilized water is wanted for the operation "theatre." We confess that these opinions appear to us trivial; but his recommendation that a lady housekeeper, who "should be a fully-trained nurse, and, if "possible, one who has been a ward sister," should be employed instead of a house steward, and his statement that for hospitals where nurses are trained "a properly-

---

[1] London: George Barber. 1906. (Demy 8vo, pp. 62. 6d.)

"managed nursing institute in connexion will be a "source of profit as well as an attraction," are crude expressions of vicious principles. As regards the future, Mr. Hamilton looks upon the creation of a Central Board of Organization which shall control on co-operative principles the fortunes of all hospitals as the plan by which "incalculable efficiency and economy" may be brought about.

At the outset of his paper Mr. Morris pertinently remarks that, as regards management, what is efficient to-day may be culpably inefficient to-morrow. He might have added that efficiency for one class of hospital would mean inefficiency for another. The hospital which "makes it its aim to receive certain patients who "are sick, to heal them if possible, and finally to "return them to the community, well or relieved," obviously will be efficient at a smaller cost and with less elaborate supervision than that other which not only attempts "to cure the disease from which the "patient is suffering," but endeavours also "to investi-"gate that disease, to trace it to its cause, to discover "what favours it, what destroys it."

In his reference to the help which may be legitimately expected from patients, Mr. Morris contends that though advice should be gratuitous, it may be open to question whether the "more well-to-do out-patients "should not contribute to the cost of their medicines"; but the difficulty of selecting those who are "more well-to-do" is not faced. For the service of a large hospital Mr. Morris believes that it pays to keep a staff of mechanics to do its own repairs, and that it is also profitable to establish a laundry to do its own washing. He advocates a central buying office, whereby one expert chemist and one expert steward might do the work of the twenty or more now so employed, and it is very easy to see many advantages in such a centralization if established solely for purposes of economical purchasing. He deprecates the possibility of State aid except in the form of relief from rates and taxes; favours the abolition of subscribers' letters; and advances convincing arguments against the plea which has been urged from some quarters that the services of the medical and surgical staff ought to be paid in order to bring its members more under the control of the governing Board.

Though Mr. Hamilton succeeded in gaining first place, his views fail to convince us that his grasp of the subject of economy combined with efficiency is either as comprehensive or far-reaching as that of Mr. Morris. Each essay has a certain value as a contribution to one aspect of a complex problem, but the true gist of the question, as it at present stands, is well expressed by Mr. Morris when he says that "the whole "secret of keeping down the expenses of a hospital lies "in nothing else than in never-resting watchfulness on "the part of the secretary, who has a bird's-eye view of "all the departments under him, and on the part of "heads of departments who loyally co-operate in check-"ing the tendency of extravagance." This is the secret of financial success in all large commercial undertakings, and it cannot be less so in charitable institutions.

THE PRESIDENT OF THE ASSOCIATION.

MR. G. COOPER FRANKLIN, F.R.C.S., President of the British Medical Association, was entertained at dinner at the County Assembly Rooms, Leicester, on April 25th, in order that an occasion might be afforded to render honour to him for the great work he has done for the Leicester Infirmary, from the active staff of which he has recently retired owing to the operation of the age limit. The chair was taken by Dr. Frank Pope, and there was a large attendance both of the medical profession and of the leading citizens of Leicester. After the usual loyal toasts, that of "Our Guest" was given by Alderman Wood, who said that in everything Mr. Franklin had done during his professional career of thirty-one years, he had brought into light those traits of his character which those who knew him closest valued most highly. It had been a source of pride and pleasure to every citizen of Leicester that Mr. Franklin had risen to so eminent a position in his honourable profession as that of President of the British Medical Association. Leicester knew the patience, skill, and high character which had built up the reputation he enjoyed, and was delighted that his professional brethren had seen fit to honour him. After recalling the fact that Mr. Franklin had been a member of the town council for six years, Alderman Wood said that he was present more especially to give expression to the feelings of the Board of Governors of the Leicester Infirmary. For twenty years Mr. Franklin had given freely of his best to that institution; some of those present perhaps thought that they had done their duty when they had contributed two guineas a year, but if they knew the time the honorary staff of the institution gave, the ability they showed and the relief they afforded, they would almost wish to pave the path of those gentlemen with gold. Mr. C. J. Bond, F.R.C.S., recalled the fact that it was twenty years since Mr. Franklin and he were appointed assistant surgeons at the infirmary; in the great improvements and enlargements that had taken place in the infirmary during that time Mr. Franklin had played a worthy part. He hoped that Mr. Franklin would re-enter public life, and concluded by saying that any public man might wish to have the consciousness of having done his work as well as Mr. Franklin. Dr. H. B. Donkin, who spoke as a fellow student of Mr. Franklin at St. Thomas's Hospital, recalled the fact that a brilliant career was prophesied for him when a student. Dr. Pope also spoke, and said that he had been called upon to take the chair owing to the fact that he was by a few months the senior member of the staff; he also desired to bear his testimony to the way in which Mr. Franklin had worked for the Infirmary, and to the cordial manner in which he had co-operated with the whole staff. Mr. Franklin, who was very heartily cheered on rising, referred to the great developments which had taken place in Leicester during the thirty years he had practised there. Speaking of the work he had done in connexion with the provident dispensary, he expressed the opinion that the medical treatment of the sick poor at their own homes was to be solved on similar lines. His work at the infirmary had been a constant delight and he felt that a well-equipped infirmary was an important element in the life of any civilized community; it was not only a good thing for the necessitous poor, but of inestimable value indirectly to the rich. The proceedings terminated by a vote of thanks to the Chairman, proposed by the Mayor.

THE JENNER SOCIETY.

PERHAPS the most striking thing about the report of the Executive Committee of the Jenner Society for 1905 is the fact that its total income was little over £90, and its total expenditure under £100. It is a wonderfully small sum on which to carry on such good work as this Society has done in its ten years' existence, and a further noteworthy point in the same connexion is that, of its medical subscribers the great majority are not persons who may be conceived to have any direct interest in the practice of vaccination. On the contrary, they are consultants, among them being Lord Lister, whose subscription, indeed, forms more than a fifth of all the come for the year. It is not unlikely that in the imediate future the efforts of the Society may have to redoubled, so it seems desirable that its financial sources should be increased. The sort of work which is capable of performing—at least, so long as its itiator and Honorary Secretary (Dr. F. T. Bond) mains in charge of its affairs—is shown by this port itself. Nominally merely one of the annual atements to the subscribers which every society ues, it is really so exceedingly clear-sighted and arly-written a review of the present position of vaccation questions as to be worth perusal by any person all interested in the matter. Those in particular ght well read it who have been in any way impressed the assertions of the antivaccinators, that the attile of the medical profession towards vaccination is e of prejudice and partiality.

DANGERS OF THE UTERINE CURETTE.

rforation of the uterus by instruments is a very ious accident, although experience has shown that it eldom fatal and is not rarely followed by very mild nptoms. This is especially the case when the injury question is inflicted by the sound, and since a total ence of any ill-effect seems to be the rule it has been gested that the sound must have catheterized one of Fallopian tubes. Perforation, however, is far more bable in any one instance. The question of perforatwounds of the uterine wall inflicted by the curette of extreme gravity, as it is often associated with rtion and the puerperium; moreover, the accident istressing to the operator and reflects on his skill. ig hole has been made quite inadvertently more n once; indeed, the injury has passed unrecognized some cases until the extraction of an appendix loica from the uterine cavity has revealed the h. Accidents in cases in which the uterus has ntly borne an ovum are easy to understand, as the ine walls, though thick, are very soft, and at the e time their consistence is irregular. In the nonid uterus a remarkable phenomenon has been rved on several occasions during the use of the tte. This is the "paralysis of the uterus" it which much has been written. Eleven s ago Van der Mey discussed at a meeting Dutch Medical Association a series of cases where len relaxation of the uterine walls occurred during employment of the curette. This gave rise to h discussion as to the nature of this relaxation and recise relation to the process of curetting, the roversy being warmly maintained by Kossn and Strassmann in the *Zentralblatt für kologie.* The question is ably reviewed in an le which recently appeared in the same journal,[1] uthoress being Dr. Catherine van Tussenbroek, n in England for her writings on primary ovarian nancy. She reports several cases in her own ice where this sudden relaxation of the walls ng the scraping of its mucosa was very evident. it occurred in a multipara, aged 48, treated for ular haemorrhages, and the uterus did not recover ne until its cavity was irrigated. It was also obd in another case where recent abortion was gly suspected, and here, again, intrauterine inns restored the tone of the muscular walls of the ts. Dr. van Tussenbroek was on her guard in these , because she felt convinced that in another nce perforation actually took place. The patient virgin, aged 27, subject to severe dysmenorrhoea. ation was effected by means of a laminaria tent, ved, when the patient was on the operating table, by metallic dilators. The curette brought away thick pieces of mucous membrane. During the process the uterus converted itself into a flaccid bag. Although great caution was exercised, Dr. van Tussenbroek distinctly felt the point of the curette go through the wall as it was swept across the upper extremity of the uterine cavity between the cornua. No irrigation was employed. No haemorrhage followed, and the only marked symptom was severe lumbar pain on the second day. It is well to bear this phenomenon in mind whatever may be its explanation.

---

[1] er wechselden Tonus der Gebärmuttermuskels mit Bezug auf fahr einer Perforation bei der Curettage. *Zentralbl. f. Gyn.*, 1905, p. 1054.

MOTOR TRAFFIC.

Susceptibility to odours varies greatly in different individuals, and is greatly influenced by habit and use. It is probably the latter fact which accounts for the tolerance of the odour of petroleum shown by those who use motors habitually, while the majority of the rest of the world continues to regard it as extremely unpleasant. Whether it is more than unpleasant or, in other words, in any degree noxious, is a question which must remain unanswered until the general principle underlying the sense of smell is better understood. In any case, however, it is scarcely to be imagined that the odour of petroleum in whatever it consists, adds any beneficial quality to the air. A very much more serious drawback involved by the increasing use of automobiles is, however, dust. The evils of smell may be open to question, but of the harm caused by dust there can be no dispute whatever. Apart from the possibility of any given cloud of dust containing pathogenic organisms, the presence in the air of particulate matter, however fine, is a definite evil and injurious to the lungs and digestions both of man and beast. If they alone suffered who themselves use cars there would be little cause for protest, but this is far from being the case. The actual occupants of a car inhale practically none of the dust which it raises; the persons who suffer are those who find themselves, whether walking, driving, or resting in its track, and especially the inhabitants of houses adjoining motor-frequented roads in suburban and country localities. The latter are especially entitled to sympathy, since for them much of the atmospheric advantage of living away from a large town is destroyed. The matter is one to which too much attention cannot be paid both by the motorist fraternity and by local authorities. The former, it must be admitted, is doing its best to discover a means of obviating the undertow which is the *causa proxima* of dust raising, and doubtless the chassis of the future will present great improvements in this respect. There must, however, always be dust so long as the true *causa causans* is not removed, and this can only be the case when each local authority in its turn resolutely sets to work to render the highways in its area fit to stand modern traffic. Tarmac, in short, or some equivalent must everywhere take the place of macadam if the detrimental effect of motor traffic on the public health which has already begun, and at present promises to increase, is to be prevented.

SYSTEMATIC INSTRUCTION IN OPHTHALMOLOGY.

Sir William Collins, M.P., opened a course of instruction in ophthalmology arranged at the Royal Eye Hospital, Southwark, by a lecture on the relation of the study of ophthalmology to general medicine and surgery. He said that the study and treatment of diseases of the eye were among the earliest to lend themselves to the handling of the specialist. The introduction of the ophthalmoscope and the difficulties encountered by the general practitioner in its employment served to hasten and accentuate the differentiation of ophthalmology from the common stock of medical knowledge. The lecturer emphasized the fact that ophthalmic surgeons should keep the base of their speciality broad, lest they lose something of philosophic insight, of that power of seeing the one in the many, that breadth of view which the history of discovery tells us has ever been the source and inspiration of new truth. It was pointed out that for a fruitful and rational study of ophthalmology it was imperative that, on the one hand, we should always remain in close touch with scientific method as recognized in other departments of knowledge and investigation, and, on the other hand, studiously retain a broad nexus between our ophthalmology and general surgery and medicine. He illustrated by examples the relationship of the diseases of the maxilla and the nasal fossae to those which may follow in the orbit; and he also emphasized the close relationship between the various forms of ophthalmoplegia and such diseases as locomotor ataxia and general paralysis of the insane. Professor McHardy, who was in the chair, moved a vote of thanks, which was seconded by Mr. Vernon Cargill, who explained that Mr. Brooksbank James, Mr. Arthur Ormond, and Dr. Willoughby Lyle would give systematic instruction in eye diseases at the hospital, while the senior surgeons would from time to time deliver special lectures and give clinical demonstrations. He added that more than 23,000 new cases were treated in the out-patient department last year. Particulars of the courses can be obtained from Mr. A. W. Ormond, F.R.C.S.

CAESAREAN SECTION *IN EXTREMIS.*

Two cases of Caesarean section on the moribund have recently been reported in a German contemporary,[1] the main feature of interest being the reporter's opinion on the cause of the death of the safely-delivered fetus in the second case. Professor Lumpe, of Salzburg, operated on January 1st on a woman, aged 34, dying of right hemiplegia about term in her seventh pregnancy. Attacks of headache had set in three months previously with partial loss of power in the right arm. In December, 1905, the speech began to be affected, the right leg became paralysed, and at length the left pupil appeared dilated, and coma with Cheyne-Stokes respiration followed. Dr. Lumpe delivered by Caesarean section a living female child, 7 lb. in weight and 9½ in. in length. It breathed well from the moment of extraction. The mother died six and a half hours after the operation. A coagulum as big as a hen's egg compressed the left cerebral hemisphere. The second case is reported by Dr. Nacke of Berlin. Bursalla, he notes, saved a child last year by Caesarean section, although he purposely waited by the patient's bed until she had breathed her last breath. Dr. Nacke did the same in the case of a patient at the end of the thirty-seventh week. She died of mitral obstruction and insufficiency with oedema of the lungs. Two minutes later Dr. Nacke, who could still define the fetal heart sounds, performed a Caesarean section and delivered a living child. Contrary, it would appear, to his own directions, the milder means for encouraging respiration were not employed, but Schultze's method was immediately practised with great vigour. The child died an hour and a half after delivery. At the necropsy two cutaneous erosions were noted on the integuments of the thorax. The heart and lungs were normal. The peritoneal cavity contained a considerable amount of fluid blood. Under the capsule of the liver was a layer of recent blood, and more blood was found in the right pleural cavity. The lungs were fully expanded, the tissue floating in water. The experiences of Lumpe and Nacke confirm the modern doctrine that in the case of a moribund woman near term it is right to deliver the child by Caesarean section immediately after death if possible. The children were born alive in both the above cases; excess of zeal, according to Dr. Nacke, proved fatal to the second.

A BRITISH OFFICER ATTACKED BY SLEEPING SICKNESS.

It is with deep regret we learn that one of the Commissioners sent out to Uganda by the Royal Society to investigate sleeping sickness has become infected with the parasites which are believed to be the cause of the disease. The Commission consisted of two officers of the Royal Army Medical Corps, Lieutenant Gray and Lieutenant Forbes Tulloch. The former had been carrying on the work of inquiry since January, 1904, while the latter did not go out till November of the same year. About the end of last March an official telegram was received in London intimating that trypanosomes had been found in the blood of Lieutenant Forbes Tulloch. The infection is said to have been contracted at Entebbe, the Government head quarters in Uganda. in dissecting an infected rat. Both officers arrived in England on May 1st. Lieutenant Forbes Tulloch received his professional education at St. Mary's Hospital, London, and was admitted a Member of the Royal College of Surgeons of England and a Licentiate of the Royal College of Physicians of London in 1901. He served as a Civil Surgeon with the South African Field Force in 1902-3. Naturally the case has excited alarm among the white population in Uganda. The sympathy of his professional brethren and of his countrymen in general will go out to the gallant young officer who is suffering in the cause of science, and all will join in the fervent hope that he will recover. Although it is practically certain that *Trypanosoma gambiense* is the cause of sleeping sickness, it by no means follows that every one infected with the parasite necessarily will suffer from sleeping sick- Information in our possession enables us to state that since the discovery of the trypanosomes the parasite has been recognized in at least seven persons of English birth. Of these three have died. Of the four still alive one is quite well. The recurring fever from which she suffered has ceased, the parasite has disappeared, and she states that she feels better than she has been for years. Two have for several months been free from active symptoms; in one of them the parasite can no longer be detected in the blood by the microscope, although injection of a large amount of blood into a monkey communicated the infection. In the other case, although the patient is feeling well and has gained weight, the blood still contains the parasite, though in very small amount. In the last case of which we have heard, the patient is at present suffering from recurring attacks of trypanosome fever with intercurrent malarial paroxysms, but she too is improved. It would therefore seem that, just as in surra in certain animals, a proportion of recoveries is to be looked for in the trypanosome diseases of man, and that the terminal and fatal condition, sleeping sickness, is not inevitable. We are inclined to regard the relationship of trypanosomiasis to sleeping sickness as in many ways comparable to that of syphilis to general paralysis and locomotor ataxia. That is to say, it is a necessary factor in the production of the disease, but not inevitably followed by its development. Much work has still to be done before any one has a right to dogmatize either as to prognosis, pathology, or treatment. We regret, therefore, to see that certain daily papers have published sensational paragraphs on the subject, which, if they should meet the eye of a ypanosome patient or his friends, are not likely conduce to that frame of mind which the ysician desires to see in sufferers from a disease hich, though dangerous, is not hopeless. The read of sleeping sickness in Uganda and the neigh- ouring parts of Africa is a cause of great anxiety the men on the spot, though apparently not the Under Secretary of State for the Colonies, d the discovery of a means of checking its vages is one of the problems of tropical disease hich most urgently press for solution. The isfortune which has befallen Lieutenant Forbes lloch has another moral which we cannot refrain om urging. Scientific investigators are always ady to encounter with serene and cheerful spirit e most serious risks in the search for truth that may nefit humanity. In this very field of tropical patho- gy several explorers have already laid down their es; yet there are persons who seem to feel an enviable joy in making such men and the profession which they belong the objects of cowardly slander, d in deriding—when they do not actively obstruct— eir self-sacrificing efforts to free mankind from ourges which cause an incalculable amount of ffering and death.

---

[1] Lumpe, Ein Fall von Sectio Caesarea in Agone; Nacke, Ueber den Kaiserschnitt an der Toten bei Herzkranken, *Zentralbl. f. Gynäk.* March 10th, 1896.

SUBLIMATE INJECTIONS AND CRIMINAL ABORTION.

REMARKABLE case in which the patient brought about r own death by sublimate poisoning was reported ently in a German contemporary[1] by Dr. Seifert who s called in to a case of abortion in the third nth. The patient was a personal acquaintance, and l, to Seifert's knowledge, always enjoyed good health. ere was some trouble about getting away the placental cs a few hours after extraction of the ovum, and a le chloroform was given, as the patient complained sharp pains in the left side. The pulse and general dition appeared to be good, but the patient tried to nd up and walk shortly after the operation, and ame at once collapsed; she could not be revived for r hours. Next day there was complete suppression urine. The patient's friends would not allow her to be t into a hospital. On the next day the symptoms were se, there was Cheyne-Stokes respiration, cyanotic , and difficulty in deglutition; anuria remained ost complete. She was sent into hospital, where the oscope was used, and the freezing point of the blood found to be —0.57°. On the fourth day herpes labialis eared, and then the patient made a confession. Two limate soloids had been dissolved in about a litre water and injected into the uterus, but how long was done before the abortion occurred is not stated he report. On the fifth day the bowels, which were constipated, were moved by enemata; the stools e bloody. The bladder contained 75 grams of urine cient in urea, the cryoscopic evidence remain un- urable. Four days later the patient died. A opsy, refused by the husband, was ordered by the orities. Nephritis and stomatitis were detected; intestinal mucosa was the seat of haemorrhagic mmation, but nothing more marked was observed. re was some discussion when this case was reported meeting of the Hamburg Obstetrical Society last ember. Dr. Prochownik observed that he had ed obstetricians against intrauterine sublimate tions in 1883 in vain; yet next year Schede rted a case of poisoning after a sublimate injection. er reminded the Society of his fatal case in which n 5,000 sublimate solution had been used for irriga- after repair of a complete laceration of the peri- n. The perils of injections applied by the unskilled or unprincipled were evident, and such was the moral of Dr. Seifert's case where the medical attendant was deceived. He laid much stress, when reading his report, on the value of cryoscopy for prognosis, as in his case the lowering of the freezing point was marked before the clinical symptoms were at their gravest point. Cryoscopy, by which abnormal conditions are estimated by a fall in the freezing point of urine, blood serum, and other organic fluids, has not been found very satisfactory for clinical purposes in this country. Perhaps the simplest manual on the subject is Claude and Balthazard's *La Cryoscopie des Urines: Application à l'Etude des Affections du Coeur et des Reins*, published in Paris in 1901.

AN INTERESTING VISITOR.

As already announced in the BRITISH MEDICAL JOURNAL, Baron Kanehiro Takaki, Surgeon-General (Reserve) of the Imperial Japanese Navy, will deliver three lectures at St. Thomas's Hospital on May 7th, 9th, and 11th, at 5.30. The subject of the lectures will be the preservation of health among the *personnel* of the Japanese Navy and Army. Baron Takaki is an old student of St. Thomas's Hospital. In 1878 he was admitted a Member, and two years later a Fellow, of the Royal College of Surgeons of England. He is also a Licentiate of the Royal College of Physicians of London. During the late war he was Director-General of the Japanese Navy. Baron Takaki has taken a prominent part in organizing the scientific training of medical officers, and the dietetic reforms which he introduced have brought about a great improvement in the health of the Japanese navy; in particular the prevalence of beri-beri, which some years ago was a veritable scourge, has been largely reduced. In recognition of his valuable services, the title of Baron was conferred upon him by the Mikado. There is no man living who can speak with such authority on the subject which he has chosen for his lectures.

THE first conversazione of the Royal Society will be held on Wednesday next at 9 p.m.

THE meeting of the Medico-Political Committee of the British Medical Association summoned for Wednesday next has been postponed until Wednesday, May 16th, as it is found that certain business with which it is desirable that the Committee should be in a position to deal cannot be ready at the earlier date.

MISS SIDNEY J. BROWNE, R.R.C., Matron-in-Chief o Queen Alexandra's Imperial Nursing Service, retired recently on a pension after twenty-three years' work. Miss Browne, who is a sister of the Chairman of the Council of the British Medical Association, received her nursing training at St. Bartholomew's Hospital, and. after entering the army, saw much service in various parts of the world, including the Soudan and South Africa. When the Imperial Military Nursing Service was formed in 1902, Miss Browne was summoned from Pretoria to take up the duties of matron-in-chief. At that time there were 87 nursing sisters, and the success with which the service has been raised to 400, not counting the army nursing reserve, shows that Miss Browne possesses great organizing abilities. By the energy which she threw into her work, and by the kindliness and tact in all the appointments she has held, she endeared herself to the army, and on her retirement from it she has received many expressions of goodwill. In addition to the Royal Red Cross, Miss Browne possesses five medals and clasps.

---

[1] blimatvergiftung Behufs kriminellen Abortes (*Zentralbl. f. Gynäk.*), No. 4, 1906, p. 124.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

The Budget.—The Budget speech on Monday afternoon caused rather less interest than usual, for, in spite of the fact that he had come into possession of a considerable surplus, it was not anticipated that the Chancellor of the Exchequer would propose any substantial reductions in taxation. Expectation on this occasion was not disappointed, though Mr. Asquith received many compliments on the clearness of his statement. He estimated the amount of the surplus at £3,466,000, and attributed its magnitude to the fact that last year was a period of slowly but steadily growing prosperity. There had been a decrease of £1,250,000 in customs, due mainly to the reduction of the tea duty, the receipts from this source having diminished by about two and a half millions, though the consumption had increased by ten million pounds. This decrease was partly counterbalanced by an increase in the receipts from the duty on sugar; in spite of artificial conventions and organized speculation the world's production went up from, in round numbers, nine and a quarter million tons in 1904-5 to more than eleven and three-quarter million tons in 1905-6, with the result that there has been a steady increase in consumption. There had been a progressive diminution in the consumption of alcoholic beverages since 1900, although the population had increased; and last year, as compared with the year before, there was a decline under all heads—wines, spirits, and beer—of £607,000. The decline in wine was even more marked than in spirits and beer, and, while he hoped that the main explanation was the growth of temperance, he thought it unsafe to found any generalization as to a change of habits on the decrease, because it had taken place in years marked by a great war, an enormous increase in the burden of taxation, and the curtailment of the spending power of almost every class. After condemning the ear-marking of imperial taxation for local purposes as fallacious, misleading, and complicated, and expressing the hope that next year he might be able to announce substantial savings on supply services, he gave in detail the estimated yields from various taxes, from the post office, and from other sources of revenue, for next year. He then dealt with the disposal of the surplus, which, after deducting a margin for emergencies, he estimated at £2,700,000. Commenting on the growth in the debt of the country since 1871, and stating that the provision for the reduction of the capital of the debt for this year was twelve and a half millions, he said that he would assign another million to this purpose, half to come out of the estimated surplus and half from the Chinese war indemnity. A grant for necessitous school districts would swallow up £135,000 and improvements in the postal service £105,000, leaving £2,000,000 to apply to the relief of taxation. Passing in review the different classes of taxpayers having special claims for consideration, he made the following remarks with regard to the income tax, which we quote from the *Times* report:

> In regard to the income tax, I do not hesitate to associate myself with the declarations of more than one of my predecessors that an income tax of a uniform rate of one shilling in the pound at a time of peace is impossible to justify. It is a burden on the trade of the country which in the long run affects not only profits but wages. It presses with excessive and peculiar severity on that large class of the community with incomes of from £600 to £2,000 a year, who pay in addition their full share of the taxation on articles of consumption; and from the point of view of the nation it is open to the same objection as the continuance at an abnormal figure of the floating debt, namely, that it tends to destroy, or at any rate to contract, a most readily available reserve on which the State can draw in a sudden and unforeseen emergency. The reduction of the income tax by a penny means in these days a sacrifice of £2,600,000, which is more than this year I can afford. Although I am not able to give any immediate relief to the income-tax payer, I propose to take a step which will at any rate clear the ground for future operations. There are two familiar and, in point of justice and economic principles valid, objections to the incidence of the tax. They are, as every one knows, first, that above the limits of exemption and abatement, it is levied at a uniform rate; and, secondly, that no distinction is made between precarious and permanent incomes. It appears to me that the time has come for a searching and authoritative inquiry, and at the earliest possible moment I shall ask the House to appoint as strong a Select Committee as we can get together to undertake the task. The reference to the Committee will be simply to inquire into the practicability of graduation and differentiation. It is well known, however, that many experts in these matters have grave doubts as to whether it is possible to reconcile graduation with our practice of collecting the tax at its source and as to whether the additional yield of a graduated tax would be sufficient in amount to compensate for the worry, cost, and irritation which it might involve. On the other hand, there is the experience of foreign countries and of our self-governing Colonies, who have made an experiment in that direction and apparently are contented with it. I express no opinion of my own as to the probable results of an inquiry. I am satisfied it ought to be held, and held without delay.

Mr. Asquith said that he did not intend to touch the taxes on beer and spirits, but proposed to reintroduce the legislation attempted last year to facilitate the use of alcohol for industrial purposes, and to bring the growing industry of the manufacture of "basis wines" made in the United Kingdom, and coming more or less into competition with duty-paid foreign wine, under Excise supervision and control. He proposed to reduce the duty on stripped tobacco, and to abolish the export duty on coal, which would mean the loss of a million in the current year. In conclusion, he expressed the hope that in the future more would be done in the direction of reducing expenditure and debt, and readjusting the incidence of taxation.

Mr. Balfour, who followed, after complimenting Mr Asquith on the lucidity of his statement, observed that in 1871, when the population was smaller, the debt was the same as at the present time. Though anxious for economy, he could not believe that any great reduction in expenditure in the near future would be compatible with efficiency. A long and rather desultory discussion followed, during the course of which every member, with one exception, who referred to the subject spoke in favour of the application of the principles of graduation or differentiation, or both, to the income tax. Mr Chiozza-Money gave the results of an elaborate calculation as to the classes of the population by whom income tax is paid. He estimated that in the whole of the United Kingdom the number of persons with an income of £700 a year and upwards was not more than, if as many as, a quarter of a million. The number of persons who either claimed or were entitled to claim abatemen was 700,000, so that there were about 1,000,000 income-tax payers. Taking the average family at five persons, he estimated that out of a total population of 43,000,000, the whole of the income shown in the income-tax returns was received by about 5,000,000, the amount being nearly £900,000,000. He submitted that these facts were an argument for a graduated income tax, and showed tha while the middle classes were overweighted by taxation the upper classes were undertaxed.

Vivisection.—A Bill providing for the total abolition o vivisection, presented by Mr. John Johnson and backed by Mr. Whitwell Wilson, Mr. John Wilson, Colonel Sandys Colonel Lockwood, and Messrs. Cremer, Moss, Bell, Kei Hardie, Snowden, Cameron, Thorne, and Lupton, wa ordered by the House to be printed on April 25th. The main provisions of the Bill are that it shall not be lawfu to perform on any living animal, with or withou anaesthetics, any experiment or demonstration or inoculation of a nature to give pain or suffering, either directly or in its after-effects, for any pathological surgical, physiological, or other scientific purpose, o for the acquirement of manipulative skill. An person performing or taking part in performing any such experiment or demonstration shall, for first offence, be liable to a penalty not exceeding £10 for a second offence, to imprisonment for a period no exceeding three months; and for any subsequent offence to a penalty not exceeding £50, or to be imprisoned for period not exceeding six months. A justice of the peace on information on oath that there is reasonable ground t believe that an experiment or demonstration in contravention of the Act has been, is being, or is intended to be performed in any place, is empowered to issue his warran authorizing any officer or constable of police, either alon or accompanied by some person or persons competent t judge, to enter and take the names and addresses of th persons found therein and search for and take away all subjects, materials, and instruments which have been used, o are intended to be used, in such experiment or demonstration

The Bill further provides for the repeal of the Cruelty to Animals Act, 1876, and for the revocation of all licences and certificates granted thereunder. Another Bill, pre-ented by Mr. George Greenwood, backed by Colonel Lockwood, and Messrs. MacNeill, Channing, Crooks, Tomkinson, Maddison, and Lehmann, is intended to mend the Cruelty to Animals Act. It provides the ollowing restrictions on "the performance upon any iving animal of an experiment calculated to give pain": 1) The experiment must be performed with a view to he advancement by new discovery of physiological nowledge, or of knowledge which will be useful for aving or prolonging life or alleviating suffering; 2) the experiment must be performed by a person olding a licence from the Secretary of State; (3) the nimal must, prior to the commencement and thence-orth during the whole course of the experiment, be nder the influence of a general anaesthetic of the nature f a respirable drug or gas, such as chloroform or ether, r alcohol, chloroform, and ether combined, of sufficient ower to prevent the animal feeling pain; (4) the animal must be killed while it is under the influence of such eneral anaesthetic, and before it recovers sufficiently to el pain; (5) the experiment shall not be performed as an lustration of lectures in any medical or surgical school, ospital, college, or elsewhere; (6) the experiment shall ot be performed for the purpose of attaining manual kill; (7) the substance known as curare shall not be used administered for the purpose of or during the experi-ent; (8) there shall be present during and throughout e whole course of the experiment an inspector appointed see that the provisions of the Bill are fulfilled. In the se of an experiment not calculated to give pain from the t or operation by means of which the experiment is itiated, it is provided that directly the animal begins to el pain it must be placed and thenceforth while it ffers or is likely to suffer must be kept under the influ-ce of a general anaesthetic of the nature of a respirable ug or gas, such as chloroform or ether, or alcohol, loroform and ether combined, of sufficient power to event the animal feeling pain; or, if the animal is not placed and kept under the influence of such anaesthetic aforesaid, it must be forthwith killed. All places where ch an experiment is being performed are to be visited om time to time by an inspector. There is a special ovision that there shall not be applied to the eye of an imal by way of experiment any matter or substance for e purpose of absorption through the conjunctival mem-ane. The second reading of this Bill was down for ril 30th but was not reached; it has been put down ain for next Monday, May 7th.

Irish Poor-law Medical Officers.—Mr. Fetherstonhaugh ked the Chief Secretary to the Lord Lieutenant of eland whether his attention had been called to the solutions of the Irish Medical Association urging the portance of appointing an independent Irish medical an to the Poor Law Commission before it comes to vestigate complaints as to the position and remuneration the Irish Poor-law medical officers; and whether it uld be possible for him to receive a deputation the Association as to the present condition of e Irish Poor-law medical service. Mr. Bryce replied at the resolutions referred to did not appear to ve been forwarded to him, and referred to the reply en by his right honourable friend the First Lord the Treasury to a question on the subject put by the nourable Member for South Down on March 14th. He s not sure whether the reference to the Royal Commis-n extended to the grievances of the Irish Poor-law dical officers, but the Commission would doubtless be pared to receive any statement on the subject which medical officers may choose to forward, either directly through him, as they may prefer. In the meantime, it not appear to be necessary that he should consider question of receiving the proposed deputation.

ural Housing.—The Bill to amend the Housing of the rking Classes Acts and otherwise to facilitate the lding of houses for working classes in rural districts roduced by Mr. Mackarness on February 22nd, and plained in the British Medical Journal of March 3rd, s read a second time on April 27th and referred to a Select Committee. Mr. Mackarness in introducing the Bill stated that it proposed to repeal Part III of the Act of 1890, and to substitute provisions under which the intention of the earlier Bill would be carried out in a more expeditious, simple and cheap manner. It authorized rural district councils to obtain land by agreement, or if necessary by compulsion, for the purpose of erecting houses or cottages for the benefit of workmen in the country; it also authorized the compulsory hiring of land for the erection of cottages in place of purchase, and gave power to four householders in or near the area affected by the dearth of cottages to call the attention of the medical officer to the insufficient housing accommodation, and then to make representations to the rural district council. The Bill received a great deal of support from both sides of the House. Mr. Walter Long, after expressing the opinion that the discussion had brought the question of rural housing somewhat nearer to a solution, criticized the proposal to increase the amount of land to be provided with the cottages to three acres, doubting whether it would be found that the profits from the cultivation of this area would render it easier for labourers to pay rent. He urged that in view of the low rateable value of rural districts the area of the authority should be widened so as to provide it with an adequate income to embark upon the work. The President of the Local Government Board sympathized with the objects of the Bill, and said that the Government had no objection to its second reading though unable to accept the Bill as it stood. If it went to a Select Committee he believed that it would be possible to take this Bill, Lord Hylton's Bill, and probably some Bill next year, and by a combination of the three and codification of the housing laws reduce the housing problem, both urban and rural, to a satisfactory condition.

Sleeping Sickness.—Mr. Rees asked the Under Secretary of State for the Colonies whether special measures were being taken to guard against the spread of the sleeping sickness into British Central Africa Protectorate and North-Eastern Rhodesia by the tsetse fly or by other agencies; and whether the effect of the game preserves at Chiromo had been considered in connexion with this contingency. Mr. Churchill stated that no apprehension had hitherto been expressed by the administration of the British Central Africa Protectorate or that of North-Eastern Rhodesia as to the spread of sleeping sickness into those territories, nor had the Commissioner of the British Central Africa Protectorate recommended the adoption of measures to guard against it. Complaints had been made in one quarter in the Protectorate that the Elephant Marsh game reserve at Chiromo harbours the tsetse fly, but the suggestion was denied by the Commissioner.

East London Water Supply.—Mr. Bottomley asked the President of the Local Government Board whether his attention had been called to the quality of the drinking water supplied to London, and particularly to the fact that the inhabitants of East London were daily drinking, as water, some 2,000,000 gallons of sewage effluent; and what steps he proposed to take in the matter. Mr. Burns said, in reply, that it was desirable that further steps should be taken to safeguard the supply of water from the Lee from the possibility of contamination. The Metropolitan Water Board included in a Bill promoted by them this session proposals with this object, but they had, as he understood, withdrawn this part of the Bill. He was in communication with them on the matter; but he might state that he learned from the water examiner that the water supplied in the East London district during the past winter (consisting mainly of filtered Lee water) was clear and of good quality.

The Antiquackery Congress.—Dr. Ch. Levassort, General Secretary of the Congress for the Suppression of Unqualified Medical Practice, which was to have been held in Paris on April 30th and three following days, announces that owing to the general election, which has been fixed for the same period, it has been found necessary to postpone the Congress for a month. The date of meeting has been fixed for May 28th and the proceedings will be brought to a close on May 31st.

Newcastle-upon-Tyne.

CONVOCATION OF DURHAM UNIVERSITY: DEGREES CONFERRED.

A CONVOCATION of Durham University was held in the College of Medicine, Newcastle-upon-Tyne, on April 28th for the purpose mainly of conferring degrees. Most of the degrees conferred were in the Faculty of Medicine. The Warden of the University (the Very Rev. Dean Kitchin) presided, and was supported by Dr. Robinson (Proctor), the Registrar, Canons Kynaston, Gough, and Lister, and the Principals, Professors, and Lecturers of the Colleges of Medicine and Science. There was a large and influential assemblage, in which the Corporation of Newcastle was represented by the Sheriff. The degree of M.A. was conferred by vote of Convocation upon Dr. James Limont. Six Bachelors of Medicine were promoted to the Doctorate, and seven medical practitioners of fifteen years' standing were after examination presented for the degree of Doctor in Medicine; nineteen students received the M.B. degree, and eighteen that of Bachelor of Surgery. The presentations in medicine were made by the Professor of Medicine, and those in surgery by the Professor of Surgery. Three gentlemen received the degree of B.Hy. One Associate in Science was presented by the Principal of the College of Science for the degree of B.Sc.

The other business included the appointment of examiners in science for June, and the confirmation of certain proposed alterations of University Regulations, whereby science candidates who have studied at other recognized universities are exempted from certain classes and also from the First Examination in Science provided they have passed an examination equivalent thereto.

BARON TAKAKI.

At present there is a large contingent of Japanese sailors on Tyneside, many of them Togo's heroes. The powerful battleship *Kashima*, built at the Elswick works, is almost ready to leave the river. At a joint meeting of the Professors and Lecturers of the College of Medicine and the honorary staff of the Royal Infirmary it was decided to invite Baron Takaki, the medical head of the Imperial Japanese Navy, to deliver a lecture at the College of Medicine, and to attend a banquet in his honour afterwards. This invitation has been accepted. The subject of the lecture, fixed for May 15th, will be "Medical Education in Japan." The medical profession in the North of England is cordially invited to co-operate so as to make the dinner a success, and thus do honour to the distinguished guest. The price of the dinner tickets is 10s. 6d., exclusive of wine, and applications will be received up till May 8th by Dr. R. A. Bolam of the College of Medicine, who has undertaken the duties of honorary secretary. The chair will be taken by Sir George H. Philipson.

COLLEGE OF MEDICINE: NEW WING AND SUMMER CLASSES.

Although almost completed, the new wing of the College of Medicine will not be ready for the classes this summer. The classes of Practical Physiology, Bacteriology, and Pathology will meet as heretofore in the old wing. Mr. Edgar Ramsbottom, B.Sc., a former student of Owens College, has entered upon his duties as Demonstrator of Physiology, and will conduct the Histology Class.

Birmingham.

SCHOOL HYGIENE.

DR. KERR, Medical Officer (Education), London County Council, on April 26th addressed the local branch of the Society of Medical Officers of Health at a meeting held in Birmingham on the subject of the "Future Medical Oversight of Education." It was, he said, as far as he knew, the first meeting of medical men at which this important subject had been discussed. He pointed out the various duties which might be assigned to officers appointed for the purpose of inspecting schools and school children, and, after dealing with the question of the inspection of the school buildings, including drainage, ventilation, etc., he proceeded to question the legality of the compulsory inspection of any child except under the provisions of the Defective and Epileptic Children Act. Putting aside this he went on to discuss what is expected of the efficient medical inspector and to point out that at present the need for medical inspection of schools was recognized by comparatively few authorities, and when recognized at all was underpaid and undervalued. Some went so far as to appoint district nurses and school attendance officers to do the work, but these people were obviously unfitted to carry it out efficiently. The cardinal need, however, was the institution of a central medical authority working with and under the Board of Education with a medical officer to whom the reports of all the district medical officers should be referred. Much controversy had taken place as to the proper sort of medical man to whom should be entrusted the work of school inspection. Dr. Kerr urged that he should at least be free from the trammels of general practice, suggesting that young and well-qualified men who were if possible engaged in some speciality, for example, ophthalmology or otology, or were consulting medical officers to some institution, should be selected, and that it was important that they should be so young and unblunted as not to have lost their enthusiasms and their ideals. He also touched upon the rules of cleanliness, especially with regard to verminous heads in girls, and on the supposed need for free feeding of underfed children. Among the subsequent speakers were Dr. Robertson (Birmingham), Dr. Hill (Warwickshire), Dr. Barwise (Derbyshire), and Drs. Manley (West Bromwich), Snell (Coventry), Howarth (Derby), and others.

INFANTS IN ELEMENTARY SCHOOLS.

In the thirty-second annual report of the health of Mid-Warwickshire, Dr. George Wilson again urges that the admission of children under 5 years of age into schools should be prohibited. Whether such infants are mixed with the older children or not, their admission is a prime factor in spreading infectious diseases, and particularly measles, whooping-cough, diphtheria, and scarlet fever. Dr. Wilson advises the closure of a school immediately there is an outbreak of any of these diseases, if the place be a small, mixed country school. The evil in towns where the schools are divided into departments is generally met by the closure of the infant department alone.

THE BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.

A small pamphlet has just been published giving a short account of the history and work of the Children's Hospital, It contains photographs of the hospital, both of the out-patient department and of the various wards. The hospital was founded in 1861 by Dr. Heslop, Mr. C. E. Mathews, and other friends of children. The first building utilized was Galton House, Steelhouse Lane, which soon became too small for the demands made upon it. In 1869 the present building in Broad Street was taken, and four wards were added in an open space at the back. The hospital has now four large wards in the main building and two large wards behind. Three of those in the main building are for surgical cases, and the other three for medical. The two smaller wards at the back are used, the one for diphtheria and the other for cases requiring isolation. The hospital contains 62 beds. There are two resident medical officers, a matron, and 24 nurses. Besides the hospital in Broad Street there is the out-patient department in Steelhouse Lane. During the past few years the number of patients attending the out-patient department became so great that it was found necessary to limit the number of new cases seen on any one day to 65. This regulation was brought into force in the beginning of 1905, and during that year the number of out-patients treated was 13,092 as compared with 15,133 in 1904. Besides four cots which have been endowed by different individuals, six cots are maintained by the Sunday-School Fund out of the proceeds of annual collections made on behalf of the hospital in Sunday-schools of all denominations in the city and neighbourhood. The Jewish Children's Guild of Kindness has contributed £45, being one year's payment towards the maintenance of a cot. A Public and Private Schools Children's Hospital Cot Fund has been started, and two schools have contributed £45 each towards the maintenance of separate cots four others £30 each towards the support of four cots, and two others £15 each towards the support of one cot. Every cot costs the hospital £45 a year, but the committee is ready to assign a cot to any one school or society contributing not less than £30.

BIRMINGHAM AND MIDLAND HOSPITAL FOR WOMEN.

At the thirty-fifth annual meeting of the Birmingham and Midland Hospital for Women it was shown that 17,656 cases had been treated during the past year. This number is 993 less than during the previous year, and this decrease is due to the closure of the out-patient department for alterations. In September last the hospital was reopened with accommodation of fifty beds, and of these eight are reserved for paying patients. There were 492 in-patients. There is an adverse balance of about £1,500.

STAFFORDSHIRE HOME-NURSING ASSOCIATION.

A county meeting was held last week in the Staffordshire Hall, the Lord Lieutenant in the chair, to consider the deficiency in the number of maternity nurses due to the operations of the new law which necessitates such persons having certificates of proficiency. Infantile mortality is greatly due to the carelessness and ignorance of those in care of infants. It is hoped to reduce the number of deaths by instituting a staff of trained midwives for the county. Miss Wilson, of the Central Midwives Board, addressed the meeting. It was decided to make a special appeal throughout the county for subscriptions to establish the "Staffordshire Home-Nursing Association."

Liverpool.

CITY ISOLATION HOSPITAL.

THE City Hospital, Fazakerley, was formally opened on April 25th by Dr. John Utting, the Chairman of the Port Sanitary and Hospitals Committee, in the presence of a arge gathering of the public representatives and officials of the city and a few visitors from other towns. The hospital, which consists of a central administrative block, nurses' home, and a number of one-story wards and solation pavilions, stands on an area of 35 acres, the surrounding country being open to the exhilarating north-west breezes from the direction of the sea. Planned by Mr. Shelmerdine, the City Architect and Surveyor, with he valuable assistance of Dr. E. W. Hope, M.O.H., the buildings have been erected by Messrs. Morrison and Sons, of Wavertree, at the contract price of £121,475, to which must be added a large sum for equipment and the ost, £39,915, of the 118 acres of land, purchased in 1898. The south section of the institution, which was completed n 1901, provides 160 beds for the treatment of small-pox, nd the additional buildings opened yesterday have ccommodation for 350 beds for other infectious diseases.

The Lord Mayor of Liverpool remarked that the work f the Port Sanitary and Hospitals Committee was of a ery important character, and he hoped that those present would be impressed with the work which the Corporation was carrying on for the prevention of the spread of infecous disease. About 7,000 souls were added to the popuation of Liverpool annually, and it was very necessary to rovide for the isolation of the infectious sick in the city. he prevalence of infectious disease in any part of the world—say Canada or Bombay—might mean the importaon of it into Liverpool, and the port had afforded xamples of the importation of cholera and plague. r. Utting had been Chairman of the Hospitals Committee for some years, and his advice and experience, ogether with the self-sacrificing work of his Committee, ad been invaluable to the city.

Alderman Giles then, on behalf of the members of the ommittee and others, presented to Dr. Utting a beauful key with which to open the door of the main buildng. He also made grateful reference to the zeal and nergy with which Dr. Utting had carried on the work.

Councillor Skelton then, on behalf of the members of he Council and outside friends, presented to Mrs. Utting beautiful diamond ornament, in recognition of the acrifices of her husband and herself in connexion with he building of the hospital.

After the door had been formally opened, Dr. Utting ointed out, in answer to questions why public money should be spent on infectious hospitals, that an ordinary hospital or infirmary was concerned with the individual patient alone, whereas the principal function of an isolation hospital was to be found in the communal benefits arising from it. It was the great weapon in the hands of those whose efforts were directed to the prevention of infectious disease; and in an industrial community it also had the important effect of enabling people in whose midst such disease had occurred to follow their daily avocations. It was exactly twenty years since the Liverpool Corporation commenced to establish permanent hospital accommodation for infectious diseases, and the results had been eminently satisfactory in every way. Taking typhus, he found that in the ten years preceding 1885 the average annual mortality from it was 43 per 100,000, while in the ten years ending 1895 (during which period typhus was fairly completely isolated) the rate was only 7 per 100,000, while in the next period of ten years it was only 3.50—a reduction of nearly 92 per cent. in deaths from that disease alone. Scarlatina in the pre-hospital decade, yielded an average annual death-rate of 76 per 100,000, but in the decade ending 1895 the rate was 49, and in that ending 1905 it was only 27, or a reduction of about 66 per cent. On the other hand, deaths from measles or whooping-cough, which were not subject to isolation or compulsory notification, remained practically unaltered. In pre-hospital days the deaths from typhus and scarlatina were in each instance in excess of the deaths from measles, but now the deaths from measles alone annually outnumbered the combined total of deaths from typhus, typhoid, scarlatina, diphtheria, and small-pox, and yet measles was not more prevalent, nor its death-rate higher than formerly. In the face of such statistics it would be difficult to question the protective influence of the city hospitals.

The policy of the Committee in the erection of that institution had been based on three principal aims: (1) to secure in arrangement and equipment all that could be thought of for the welfare and recovery of the patients; (2) to make provision for the staff that should be adequate, with an administration that should be simplified as much as possible; and (3) to secure the confidence of the general public, and of the medical profession, by the provision of an institution modern in character and thoroughly efficient in equipment. Sir Charles Petrie subsequently proposed a hearty vote of thanks to the Lord Mayor and the Lady Mayoress. Sir James Crichton-Browne, who seconded, said they had in this country a duplex system of sanitation, both unified, and both parts of which were of extreme importance. In Liverpool they had the port sanitary authority presided over by Dr. Utting, which might be called the blue water school of public health officials who were engaged in defending and safeguarding our shores against foreign invasion; they had also the land force, the urban and rural sanitary authorities, who were engaged in dealing with those foreign foes in the form of diseases that had obtained a foothold in our land, and such rebellious diseases as had sprung up amongst us.

South Wales.

RAILWAYMEN'S AMBULANCE SHIELD.

THE annual competition for the railwaymen's shield, provided by public subscription with a view to promoting ambulance work among railwaymen, was held at Cardiff on April 29th. Prizes were also given to the members of the three first teams. Five teams competed, representing the Great Western Railway, the London and North-Western Railway (present holders of the shield), the Taff Vale Railway, the Rhondda Railway, and Cardiff Railway. Drs. Howard and McKelvie acted as judges. The examination consisted of stretcher work, artificial respiration after drowning and after suffocation by gas, and also *vivâ voce* questioning. Mr. Lodge of the London and North-Western Railway presided. Mrs. Govan presented the shield and prizes to the winning teams—the G.W.R. team, 228 marks out of a total of 250; L. and N.W.R. team, 191; Cardiff Railway team, 173.

REPORT OF MEDICAL OFFICER OF HEALTH.

Dr. Alexander's annual report to the Porthcawl Urban District Council for 1905 gives the birth-rate at 18.3 per

1,000 of the population, and the death-rate at 12.9. Half of the total number of deaths was of people over 65 years of age. Infant mortality was 12.8 per 1,000. Only 1 death from phthisis was registered during the year, and there had been only 13 deaths from this disease during the past ten years; out of this number 5 were non-resident, and 2 contracted the disease abroad. The medical officer added that he has been much impressed by the great benefit derived by consumptives staying at Porthcawl. With very great pleasure he was able to announce that a plentiful supply of pure, soft water had been secured for the district. The Council during the summer months were very energetic in coping with the road dust nuisance, and their efforts met with a high degree of success. Westrumite proved satisfactory, but the Council afterwards experimented with coal tar, which with but one application did away with the dust nuisance for the season, not preserving the roads considerably, but unquestionably minimizing disease and infection.

Dr. E. Rice Morgan, M.O.H. to the Llangyfelach Division of the Swansea Rural District, in his annual report for 1905 states that the estimated population of the district was 10,748. During the year there were 332 births, or 31 per 1,000; the total number of deaths being 162 or 15.4 per 1,000; the infantile mortality being 147 per 1,000 registered births. With reference to the birth-rate the M.O.H. observes: "The gradual decline of the birth-rate in my district has been going on for some years, and as this corresponds with the reports of all medical officers of health throughout the kingdom, the question assumes an importance far beyond our own local area." The seven principal zymotic diseases caused 20 deaths, or 1.85 per 1,000, scarlet fever and whooping-cough made up more than half the total of the deaths from zymotic diseases—in fact as many as 15 out of the 20. No case of small-pox occurred during the year. Dr. Morgan has formulated a useful set of "Plain Rules for the Preservation of Teeth of Children," which he suggests should be printed and circulated throughout the schools.

Scotland.

SCOTTISH LUNACY LAW.

Purves v. Carswell and Gilchrist.

WE have received the following letter from the Chairman and Secretary of the Medical and Dental Defence Union of Scotland, Limited:

> Medical and Dental Defence Union of Scotland, Limited.
>
> In sending the annual report of the Union to non-members, a note was enclosed stating that the defence in the above actions was conducted by this Union.
>
> In view of the vital importance of the issue to the medical profession generally, the Council, after due consideration, decided to give the defenders the use of the name and organization of the Union, but, unfortunately, a misconception seems to have arisen as regards the liability of this Union for the costs.
>
> Drs. Carswell and Gilchrist not being members of the Union when the matter occurred out of which the action arose, were therefore excluded from the privileges of membership in respect of that matter, and have to pay the entire costs of the action, amounting to fully £900.
>
> As a misinterpretation of the note accompanying the report is apparently checking the flow of subscriptions to the Carswell and Gilchrist Fund, the Union desires, by publishing this explanation, to second the efforts of the Special Committee in soliciting subscriptions, which should be sent to Dr. W. G. Dun, 15, Royal Crescent, Glasgow, W.
>
> ROBERT W. FORREST, M.D., Chairman.
> WILLIAM YOUNG, Secretary.
>
> 108, West George Street, Glasgow,
> April, 1906.

PUBLIC HEALTH OF EDINBURGH.

The number of deaths recorded in Edinburgh during the month of March was 431, equivalent to an annual mortality of 15.15 per 1,000, as against an average death-rate for the month of March in the five preceding years of 18.08.

At a meeting of the Public Health Committee of the Town Council of Edinburgh, held on April 24th, it was agreed to recommend that the Convener (Councillor Gibson) and the Medical Officer of Health (Sir Henry Littlejohn) should be sent as representatives of the Corporation to the National Conference on Infantile Mortality in London on June 13th and 14th.

Ireland.

THE DARNELL FUND.

THE adjourned combined meeting of the Ulster Medical Society and Ulster Branch of the British Medical Association was held on April 25th in the Medical Institute, Belfast, to consider the proposal of raising a fund to aid Dr. Darnell in defraying the heavy law expenses which he had incurred in the recent action of Tughan *v.* Darnell. The President of the Ulster Medical Society (Dr. Calwell) occupied the chair. After some discussion, various resolutions were proposed and passed to the effect that such a fund be started; that the secretaries of the two Societies, Dr. Cecil Shaw and Dr. Thomas Houston, be asked to act as secretaries; that the Presidents of the two Societies, Dr. Kidd, Enniskillen, and Dr. Calwell, Belfast, be asked to act as honorary treasurers; and that a large general committee be elected.

Subsequently a number of members present gave promises of subscriptions, which in a few minutes exceeded £100. The appeal of the General Committee will be issued in a few days. All cheques should be made payable either to Dr. William Calwell, 1, College Square North, Belfast, or to Dr. Leonard Kidd, Enniskillen, and marked "Darnell Fund." Subscriptions will be acknowledged in the BRITISH MEDICAL JOURNAL.

ROYAL MEDICAL BENEVOLENT FUND.

Annual Meeting of Belfast and Co. Antrim Branch.

Dr. Jos. Nelson, President of the County Antrim Branch of the Royal Medical Benevolent Fund of Ireland, occupied the chair at the annual meeting held in the Medical Institute, Belfast, on April 27th. The Honorary Secretary, Dr. Richard Purdon, read the annual report and statement of accounts, which showed that 127 members of the profession in Belfast, out of a total of 204, subscribed £90 2s. 6d.; and 29 country members, out of a total of 180, £22 2s. 6d. The Ulster Medical Society dinner had yielded £3 14s. 6d., the Ulster Branch of the British Medical Association had subscribed £5 5s., and outside subscriptions amounted to £11 14s., making a total of £133 2s. 6d. The expenses were £10 3s. 10d., and £122 18s. 8d. was transmitted to the Central Treasurer; this is a falling off of £22 1s. 11d. The local Committee recommended grants to widows, orphans, and others to the amount of £145, but consider it a reproach that such a large community should be compelled to accept aid from the rest of Ireland.

The President proposed, and Dr. Calwell seconded, the adoption of the report, which was passed. Dr. Robb proposed, and Dr. Marion Andrews seconded, the election of Professor Lindsay as President. Dr. Richard Purdon was elected honorary treasurer and secretary. A vote of thanks to the President, proposed by Dr. Barnett and seconded by Dr. Kevin, was passed with acclamation.

THE BRITISH MEDICAL TEMPERANCE ASSOCIATION.

North of Ireland Branch.

The annual meeting of this Branch was held on April 27th in the Medical Institute, Belfast. Dr. Kevin, President, occupied the chair.

The reconstructive scheme of the whole Association was considered; it was decided to adopt the recommendations of the Central Council. Professor Byers was electe President; Dr. Norman Barnett, Honorary Secretary; and Dr. Haydn Mulholland, Honorary Treasurer.

West Australia.

THE HEALTH OF FREMANTLE.

THE growth of public health work in Australia is one o the prominent features of colonial development, and we are glad to see that West Australia is not backward.

Fremantle, from a health point of view, is under the care of Dr. J. W. Hope, who possesses the diploma o public health, and who is evidently doing good work in a place where it is much needed. Although it is the second town in West Australia and has a population o

000, or nearly one-eighth of that of the entire colony, s still without any proper public system of sewers, the ole of the attempt made to deal with the sewage being w private septic tanks. Under these circumstances it not surprising to find an average of 107 cases of typhoid er per annum. Diphtheria also shows a sorry record, average number of cases being 135 per annum for the rs recorded.

o provision has as yet been made for hospital isolation nfectious cases, and the town may be accounted fortu- e in not having been the subject of a small-pox tation, especially as it is a seaport with a large ting population.

part from these shortcomings, which are apparently ner those of the municipality than of their medical cer, Dr. Hope may be congratulated upon the good k that has been done in some directions. The careful ervision of the meat supply at the public abattoirs, the ular inspection of cowsheds and of the milch cows, and attention paid to the prevention of infantile mortality among the main points to be noticed in this category.

he value of the report would be much enhanced for poses of reference and comparison if it were presented a more coherent and continuous form, and not broken nto upwards of a hundred detached paragraphs, and may assure Dr. Hope that a record in his own words of own work and his own experiences will be more valu- both to his municipality and to the central health orities than the reiterated quotations of other men have worked under different climates and quite other ditions than those which prevail in Fremantle.

Tasmania.

Public Health Work.

ddress entitled Some Economic and Social Aspects of lic Health Work, read before the Royal Society of nania last July, and since published in a pamphlet, Dr. J. S. C. Elkington, D.P.H., Chief Health Officer for nania, gave a comprehensive literary survey of the orical and practical effects of sanitary progress in nania. Unlike the crowded cities of the Mother ntry, the townships of that Colony appear to have little l of the hundred and one precautions against the le invasions of epidemic disease. Therefore the bitants regard the rise and progress of preventive icine as something partaking more of the nature of a ry than as an integral part of good government and l order. To combat this view the author takes us back e customs of Egypt and the precepts and regulations loses, followed up by the ordinances of the Talmud. Middle Ages, that era of war and international s, represents the neglect of all sanitation, and shows penalty paid in the shape of plague and other otics. To-day we are reminded of the economic value very healthy adult life and of the disproportionate nse of treating disease as compared with the moderate of providing against it. In this modern crusade forces are arrayed against the prevalence of disease— State or central governing body, the local unit of rnment, and the individual. Each has a distinct and defined post assigned to it in the conflict between ce and disease. The hygiene of military camps, the cation of the mosquito, and the State supervision of antine may be cited as examples of the first. To the authority is assigned the duty of a more detailed minute supervision of local enterprise and of local itions. Lastly, to the individual properly trained and ated in the true meaning of sanitation must be given ast word in the building-up of collective hygiene. lkington's address is well worthy of the position h he holds in the Colony, and his style imparts a ry flavour to a subject which some might find dry.

India.

The United Provinces of Agra and Oudh.

report for 1904 submitted by Major J. Chaytor-White, represents the work of Lieutenant-Colonel S. J. son, C.I.E., who held the office of Sanitary Commissioner throughout the year. The meteorological condition of the year was favourable, and with the exception of increased mortality from plague the public health was good. The provincial birth-rate was 46.67, and death-rate 34.70, against rates of 44.35 and 33.50 in the preceding quinquennium. There was an abatement of infantile mortality, which amounted to 226 per 1,000 of registered births against a decennial mean of 229. The reduction is attributed to the paucity of deaths from measles and small-pox. There was a great decrease in the mortality caused by cholera and small-pox, the rates being 0.14 and 0.15 against 0.99 and 0.46 in 1903. On the other hand, there was an increase of plague mortality from 1.77 to 3.75; the disease was most severe in the eastern districts; 3,258 inoculations were performed, but information is not available regarding the results. Fever deaths were less numerous, the rate being 23.92 against 27.65 in the preceding year. The efforts made to combat malaria consist of improved surface drainage, filling up pits and excavations, and an increased sale and distribution of quinine. There was a decline in the mortality caused by bowel complaints. The information recorded by the Sanitary Commissioner and Engineer regarding sanitary work is very satisfactory; the provincial government encourages sanitary effort by sympathy and pecuniary help. All the large towns are pushing forward drainage schemes and improvements in water supply, and municipal and village sanitation is becoming more active and effective. The Sanitary Board held five meetings, and considered projects involving expenditure amounting to over 15 lakhs of rupees.

SPECIAL CORRESPONDENCE.

VIENNA.

Cremation in Austria.—Imperial Organization of Practitioners.—A Case of Infantile Giantism.—Extirpation of New Growths in the Rectum.

At the first sitting of the new parliamentary session a Bill was introduced by Dr. Jäger to make cremation optional in Austria. The two main points against it were religious sentiment and the possible destruction of proofs of poisoning, etc. Dr. Jäger pointed out that nowhere in the Holy Scriptures was cremation forbidden or even mentioned, and that in some Protestant countries (Germany, Sweden) this mode of disposal of the dead had been legalized without offence to the religious feelings of the people. The medico-legal argument could be met by making cremation optional, not obligatory, thus placing it on the same footing as embalming, which also made later examination of the body or contents for forensic purposes futile. The motion was not carried, because the Government representative opposed its adoption on sentimental and religious grounds, and because the proposal was inopportune. The Conservative majority of the Parliament was convinced by the reasons of the Government, and thus the bodies which relatives wish to be cremated—numbering about 316 in 1904—have to be taken to Gotha in Germany.

Prompted by the good results obtained through the "free organization of practitioners in Lower Austria," which, by its good management, was able to carry on the struggle with the local and municipal authorities in the flat country, a preliminary meeting of representatives of all medical associations in Austria was held in the first week of April. Its object was the formation of a union comprising all medical councils and social associations throughout the empire, which should combine in fighting for the interests of the profession. The first meeting ended in a most satisfactory manner, the representatives having been entitled by their respective corporations, unions, etc., to co-operate in furthering the objects of the new "Imperial Organization." A very important factor in the organization of any future strike is the promise of the practitioners of Germany not to accept any post in Austria in such circumstances. The close relations existing between Germany and the German-speaking parts of the Austrian empire would make it possible that "blacklegs" might be sought from outside the frontiers of Austria, but the strict solidarity of the profession in both countries will prevent that.

A rare case of infantile giantism was shown by Professor Redlich at a recent meeting of the Clinical Society. The patient was a man 31 years old, who, since his 14th year, had not grown. His present height was 182 cm. (6 ft. 1 in.). His mental capacity was very low. The arms and hands were very long and slender, the thighs exceedingly long, with plump feet. There was a slight degree of scoliosis in the lower segment of the spine, but no signs of acromegaly. All the epiphyses were not united to the shafts of the bones; the skin was thin, not hairy; the external genital organs quite infantile; there was hardly any hair on the pubes, the voice was high pitched and childish. The latter two characteristics were pathognomonic of infantile giantism (whilst the other giants were either suffering from acromegaly or were absolutely normal). The excessive growth was due in this case to the non-ossification of the cartilage between the epiphysis and diaphysis of the long bones. Mental defects are very often concomitant. Secondary sexual characters (mainly voice, beard, whiskers) are often absent. Sometimes the latter appear in a feminine form (large breasts, subcutaneous fat, long hair). A direct relation between the growths and the hypoplasia of genital organs is observed in eunuchs, who, if castrated in early life, grow very tall, and show disturbances of ossification of the long bones. The explanation of the latter symptoms put forward by many authors is the absence of the inner secretion of the testicles.

The results of extirpation of new growths of the rectum by the sacral method were discussed very fully by Professor Hochenegg at a recent meeting of the Surgical Society. By means of a slight preparatory operation (resection of the os coccygis and part of the sacrum) the rectal canal can be removed very extensively. Hochenegg has operated upon 220 cases in this way since 1887, and 186 cases (until 1903) form the basis of his statistics, in which he applies the term "cured" only to patients who lived at least three years after the operation without recurrence of the disease; 38 patients (20 per cent.) lived in this satisfactory condition, and of these 16 were able to retain their faeces, while the rest had to be satisfied with a pre-natural anus. The results varied greatly in later years, perhaps on account of a lesser degree of malignancy in the new growth. Three patients had to be operated on during or after pregnancy, and the recurrence of the new growth always took place during a renewed pregnancy, to which fact Hochenegg attaches special importance. The restitution of the normal function of the rectum was attained without extirpation of the portio analis, whilst French authors claim that only total removal of the rectum and anus warrants the expectation of permanently good results. Several patients, operated upon as far back as 1887 and 1889, were shown, together with the parts that had been removed. The gain in weight since the operation was in no case less than 36 lb.

CORRESPONDENCE.

PASTEURIZED MILK AND INFANT FEEDING.

Sir,—It may not be known to many of your readers that several of the large dairy companies in London are supplying pasteurized milk to all their customers without any indication that the milk has been so treated. This fact was brought to my knowledge in the following manner: At a children's hospital in London the medical staff decided to use pure fresh milk, unchanged by heat, preservatives, or otherwise, for the in-patients. Extra precautions were taken so as to maintain the purity and freshness of the milk, which was to be supplied in sealed and sterilized bottles, and was to be kept on ice. A large dairy company undertook to supply such milk, and did so for about eighteen months. At the end of that time it was accidentally discovered that the milk for about twelve months had been pasteurized at the dairy. The company, when taxed with this breach of contract, expressed regret, but said that they had acted on high medical authority, and that pasteurized milk was really safer for infants than milk not so treated. Into this question the medical staff did not enter, but proceeded to secure untreated milk from another source.

This action on the part of the dairy companies is one of considerable public importance. In the first place, the pasteurizing of the milk is not undertaken by them for the benefit of the infant population, but for the purpose of protecting themselves from spreading typhoid fever other disease through contaminated milk, with sub sequent legal proceedings and heavy damages. They n or they may not be justified in taking this precaution, their customers are at least entitled to know the fact t the milk has been pasteurized. What is cow's mi This is a difficult question to answer, but it is certai inadvisable to allow the dairy companies to plead in future "the custom of the trade" in selling pasteuri milk when fresh cow's milk is ordered. If pasteuri milk is to continue to be sold it ought to be labelled such, just as condensed and humanized milks are.

Again, the health of the children may be seriou affected by this action of the dairy companies. At prese and largely owing to medical teaching, it is the custom many households to boil the milk on delivery. If milk is first pasteurized by the seller and then boiled the purchaser, it will be a poor, devitalized sort of fo which eventually reaches the infant, and anaemia a scurvy may be expected to follow. These are the resu which one would anticipate on theoretical grounds, a practical evidence is forthcoming as follows: Dr. W. Colman[1] relates that a short time ago there was epidemic of infantile scurvy among children in Ber supplied with pasteurized milk from an institution, but was found to be confined to children whose parents, as additional precaution, boiled the pasteurized milk some time, after it was delivered to the house. Mo recently Dr. J. A. Coutts[2] has recorded 3 cases of scur at the East London Hospital, for which the patients we ordered fresh cow's milk, and were further treated in t usual way with raw meat-juice, scraped potato, and lemo juice. In none of the cases did the usual speedy reso tion of the subperiosteal clot take place. "That consecutive cases of scurvy should take this extraordina course led to an inquiry, and it was discovered that several months the dairy company to the hospital h been supplying pasteurized instead of fresh milk, witho the hospital authorities being adequately informed of t change. On the substitution of fresh for pasteurized mi each infant began to improve." These facts speak themselves, and would seem to justify the anticipati that injury to the health of the children and aggravati of their diseases will result if this action of the dai companies is allowed to continue. More especially w the danger be present if the public and the profession a kept in ignorance of the fact that the milk is bei pasteurized.—I am, etc.,

London, W., April 30th. G. A. **Sutherland.**

ANGINA PECTORIS WITHOUT APPARENT DISEA OF THE HEART OR BLOOD VESSELS.

Sir,—I am glad that Dr. Curtin did not think m somewhat hasty answer to his first communication— answer written during the busy idleness of my East holiday—too curt or contradictious. As to the poin raised in the second letter, it is more difficult to secu the evidence of the necropsy in angina pectoris than other diseases. The death is usually sudden, the occasi fleeting, the household distracted, and the diagnosis su enough to warrant the certificate. Moreover, thou angina minor is far more common than is general understood, in its minor form the disease is u common; in hospital practice, indeed, it is rare, a a fatal attack in the wards very infrequent. And wh a necropsy does come about, that which is often t determining cause, not of the attack but of its fat issue, namely, the intrinsic decay which makes the hea ready to succumb to reflex inhibition by pain, is so co fidently accepted as the explanation of the pain itse that upon the coronary arteries and the heart the atte tion of the pathologist is so exclusively riveted that tells us little or nothing of the state of neighbouri parts of the aortic area. In respect of one part Dr. Curtin's second letter I may explain that I not attribute angina pectoris to disease of the tran verse or descending portions of the thoracic aorta, b to the ascending portion, or root, only. Why in th area, so frequently the seat of disease, angina shou arise in but a small minority of cases is curious, but t same apparent caprice has to be explained by those wh ld the common hypothesis of a cardiac origin of the in. What the cardiac cramp and cardiac distension putants have to explain is the impassiveness, often the lifference, of the heart during a conflict in which they ppose the heart to be the protagonist, and this during a riod—for the most part—of excessive arterial pressure. r until reflex inhibition begins to tell, the heart goes its way as if unconcerned; as I have said before, it is en the one unmoved spectator of the drama. As inhi- ion tells, that is, in a case of increasing severity, the rt slows a little, seems to labour, then to hesitate, and haps to intermit; when the reflex influence rises ond its endurance it stops. Now, if at the outset of attack we could but inject $\frac{1}{60}$ gr. of atropine, we should tect the heart against this reflex arrest; and when acks are frequent enough to make its systematic use eticable I do advise that such patients shall be kept tinuously under the influence of this drug, which eed has some effect as an anodyne, though a far more portant influence as an antagonist to vagus arrest. It igates the pain, it saves the patient from death. Un- unately if used continuously it establishes some rance in the patient, and so its effect for good is ninished. As I have said on previous occasions, arti- al respiration is the chief means to be used in the tant danger of death, and this method Dr. Curtin used h brilliant success.

---

[1] *The Practitioner*, October, 1905, p. 536.

[2] *West Lond. Med. Journ.*, April, 1906, p. 82.

n concluding this letter may I turn for a moment to ther point? During the last few days I have been ling a large number of answers to a question (set by a eague) on the nature of angina pectoris. Nearly all candidates began their answers by stating that angina toris "is not a disease, but a symptom"—a perverse position which seems to be current in medical schools. , with a strange inconsistency, the candidate proceeds describe not "a symptom" only but a series of ptoms—a series, moreover, which recurs with a arkable uniformity, a uniformity which makes it per to attach a name to it. But—*pace* the mediaeval kers who are still solemnly searching for "morbid ties"—what is a "disease" but a series of morbid nts, or symptoms, recurring with sufficient uniformity nake it desirable to label it? Some too adventurous lidates go on to explain, adding that the series called na pectoris "may be due to many different patho- al changes;" that is to say, that similar effects may from dissimilar causes—"which is absurd."— n, etc.,

nbridge, April 30th. T. Clifford Allbutt.

EARLY DIAGNOSIS OF TYPHOID FEVER.

r,—In a leading article which appeared in the ish Medical Journal of February 10th, page 339, ntion was rightly called to the great value of the eriological examination of the blood for the diagnosis phoid fever.

the subject is of practical importance, I venture to g to your notice my experience with the so-called ution method." This method was introduced and ribed by me in 1899,[1] and as far as I know was the procedure found to yield satisfactory results.

ie technique is as follows: The region of the bend of elbow is cleaned with spirit or ether, and then dis- ted with a perchloride lotion. By means of a lizing syringe (an all-glass syringe which can be ughly sterilized is advisable) a few cubic centimetres ood are taken aseptically from a vein of the region. blood is immediately added to several large flasks (at three), each containing 300 c.cm. of faintly-alkaline broth or peptone water. These flasks are then in- ted at blood heat. Generally after twelve to thirty- hours (sometimes forty-eight) the medium becomes ly and shows growth of the germ. The germ, of se, must be further identified in the usual way by is of cultivation on potatoes, milk, glucose, agar, etc., serum reactions.

e puncture of a vein with a sterile needle is harm- and practically does not cause any pain; in fact, I come across several patients who stated that the ture of a vein gave less pain than pricking the r. If, however, the patient or the family object to it, the following technique may be used:—The tip of the ear or finger is thoroughly cleaned with spirit and ether, then disinfected with a sublimate lotion. Ether is again applied, and as soon as it dries the finger or ear is punctured in the usual way with a rather stout needle. Some drops of blood—about 0.5 or 1 c.cm.—are collected by means of a sterile pipette and added at once to a tube of peptone water or broth. From this tube, after shaking and always using sterile pipettes, a few drops—10 to 20 or more—are added to a second tube; from this a few drops to a third, and so on till twelve dilutions have been obtained. All the tubes are kept in the incubator, and any of them showing any turbidity are examined. Personally, I am in favour whenever possible of taking the blood directly from a vein, as in my experience contaminations in this way are extremely rare, while they frequently occur when the blood is taken from the finger, however thorough our efforts to disinfect the skin may have been.

The novelty of the method is the great dilution of the blood. This simple innovation makes all the difference in the results. With the old methods the majority of observers (Chantemesse and Widal, Fraenkel, etc.) failed to detect the typhoid bacillus in the blood. Others (Silvestrini, Tiemrich, etc.) obtained only an extremely low percentage of positive results. With the "dilution method," on the other hand, the germ was found by me in 12 out of 14 cases; and my results were later confirmed by Shottmüller, Atterbach, Widal, Pinat, etc., who have detected the organism in a percentage of cases varying from 70 to 100 per cent.

Perguis and others have recently slightly modified this method, but all have followed its principle—namely, the dilution of the blood.[2]

The satisfactory results of the method are probably due to the fact that, by the blood being greatly diluted, the agglutinins are also diluted, and any bactericidal properties of the blood serum greatly weakened.

The advantage of the method is that it may lead to correct diagnosis in obscure or very early cases when the Widal reaction is negative. It also facilitates the diagnosis of paratyphoid and of multiple infections, as, for instance, typhoid and streptococcus pyogenes, typhoid and staphylococcus pyogenes, etc, which, when the examination of the blood is done systematically, are shown to be much less rare than one would expect.—I am, etc.,

Colombo, Ceylon, April 1st. Aldo Castellani.

FISH-EATING AND LEPROSY IN THE ORKNEYS AND SHETLANDS.

Sir,—In thanking Mr. Jonathan Hutchinson for his courteous reply to my letter of November 18th, 1903, it is necessary to make a few remarks, in order that no misapprehension may arise.

Mr. Hutchinson's first point, that the extinction of leprosy in Orkney and Shetland, etc., where it was formerly prevalent, is conclusively opposed to the contagious theory, as otherwise the disease would have maintained itself, suggests the obvious retort that if the eating of bad fish be the cause, the continuance of this habit might surely be expected to enable the disease to maintain itself. And Mr. Hutchinson, after toning down my letter as much as some misinterpretation permits, still admits that the habit is continued to some, or, as I would say, to a considerable, extent.

I no more imagine that his theory implies leprosy as a necessary consequence of eating bad fish than I imagine that a person who drinks bad water necessarily contracts enteric fever. Taking his own comparison with the occurrence of ptomaine poisoning in connexion with meat pies, I would reply that if, in a considerable population historically susceptible to ptomaine poisoning, meat pies, a large number of which were known to be in a decomposing condition, were habitually eaten without giving rise to a single case of ptomaine poisoning in the course of over a century, it would require strong evidence to make me believe that in past times, or in other countries at the present time, such pies were the common source of ptomaine poisoning.

It is probable that bad fish is not now consumed in such quantity as formerly, but nevertheless large quantities are still eaten.

---

rista Critica Clinica Medica, 1899, No. 3, and *Riforma Medica*, 1900, and 9.

[2] See T. Perguis; Présence du bacille d'Eberth dans le sang des typhiques. *Recherche par le procédé de Castellani modifié.* Paris Michalon Ed.

Mr. Hutchinson thinks my statements have little bearing upon the point at issue, on the ground that I said that the bulk of the fish—not all, as he states—which is not boiled is more or less salted. At the same time, he quotes with approval, as supporting his theory, the remarks of the Rev. Mr. Debes. Accepting the statements of the latter, I do not see upon what grounds Mr. Hutchinson assumes that the fish was eaten uncooked. Mr. Debes does not say so, and in the absence of such a statement I think we are justified in assuming that it was cooked. In the sentence quoted, the words "without any salt" obviously refer to the fresh fish which is eaten in summer. The supply of fresh fish being more frequent and regular in summer, it is evident that it is less likely to be thoroughly salted, or even salted at all, than is fish intended for winter consumption; and this is so to the present day.

Mr. Debes wrote in 1676, and certainly shows that bad fish was then, as now, eaten in large quantities, though he does not gratify Mr. Hutchinson by any statement that it was eaten uncooked. But the decline in leprosy was already considerable, and the introduction of the potato and general agricultural improvements did not occur until it was very marked. In Shetland agriculture had made but little progress at a time when leprosy was already extinct in these islands, and even now is in a very backward state.

In my former letter I distinguished between fish intended for home consumption and that for export. The latter is, in general, sufficiently cured, but this trade is in the hands of a few merchants. My remarks applied to the fish eaten locally, the greater part of which is prepared by the peasantry themselves. A native of the Orkneys who recently died at a very advanced age, and who had been engaged in the fish-curing business practically all his life, referring to the home-consumed fish, assured me that so far from being better the present methods of cure were worse than when he was a young man. They are, at any rate, sufficiently bad.

I would repeat, then, that large quantities of fish which cannot be otherwise described than as decomposing are habitually eaten in Orkney and Shetland. Some is eaten simply dried but raw—for instance, sillocks and sometimes skate; most is boiled. That which is salted is salted in a most unsatisfactory manner, by no means preventing decomposition. It must be remembered, moreover, that all decomposing fish which is cooked is handled in the process.

Mr. Hutchinson largely rejects my present-day medical evidence on the ground that I state most of the fish to be boiled, while accepting seventeenth-century clerical evidence as to the eating of bad fish—and this although he offers no evidence whatever to show that the fish referred to in the latter case was eaten in an uncooked state—and yet he himself appears to regard putrid fish as harmless unless eaten raw.

Mr. Hutchinson, on his own interpretation of my letter, would admit that certain classes of the population are, on his theory, exposed to some little risk of leprosy. My knowledge of the circumstances is personal, and I unhesitatingly state that if Mr. Hutchinson's theory as to the cause of leprosy be correct, a large proportion of a considerable population is exposed to a serious risk of leprosy. The fact that not a single case has occurred in the course of over a century speaks for itself.—I am, etc.,

London, N.W., April 25th. H. TRAILL SKAE.

THE CHOICE OF CANDIDATES FOR THE GENERAL MEDICAL COUNCIL.

SIR,—As this is the first attempt of the Association to influence the election to the General Medical Council in a systematic way, it seems to me most important that our action should be taken with great deliberation, and that the men selected should be capable of upholding, if elected, the responsibility which will attach to them as representatives not only of the profession, but of a new way of eliciting the opinion of the profession. As the Gateshead Division was responsible for the motion which led the Representative Meeting to adopt this new method, we are naturally keenly interested in its success. We think, therefore, that some fuller guidance from the Divisions responsible for nominations is needed before the Representatives can be instructed how to vote in the selection of the Association candidates. The details which you were able to give in the current number of t
BRITISH MEDICAL JOURNAL were necessarily condens
and we feel that with your permission we should like
place more fully before the other Divisions the reas
which guided us in our nominations.

In the first place, as we shall probably hear a good d
during the course of the campaign as to some candida
being general practitioners and others not, it may be
well to state that to us the particular branch of the p
fession practised by the candidates does not seem
matter half as much as their personality and sympathi
There are, I fancy, few men who would not rather ha
Sir Victor Horsley, a consultant among consultants, as
representative than any three general practitioners of
acquaintance. I think Sir Victor's record should ha
given the death-blow to a lot of the talk one has heard
to the unfitness of any one but a general practitioner
represent the general body of practitioners. There are,
course, consultants *and* consultants, and there are a
hide-bound and retrograde general practitioners.
must take a man upon his record, his abilities, and, abo
all, his sympathies, and not upon the narrow ground
consultant or general practitioner.

Of our two nominations, Mr. George Jackson needs lit
introduction. For many years he has been connect
with all the various medical reform movements, and
services to the profession were recognized when at the l
election he was returned to the General Medical Counc
It seemed to the Gateshead Division that his service
that body and his work for the Association give him
great claim on the profession. But there is another f
which must not be forgotten. Mr. Jackson was able
voluntary help to gain election last time, and he mig
well, as a sitting member of the Council, have preferred
trust to that method this time, and have refused to sta
the risk of preliminary selection by the Representati
Meeting. It must not be overlooked that if Mr. Jacks
is not selected by the Representative Meeting he is bou
not to run as a candidate at all. This loyalty to t
Association and confidence that its members will n
forget past service, coupled with his other work, see
to us to give him a claim which should be qui
irresistible.

Our other nomination, Mr. Rutherford Morison, has,
will be noticed, been nominated by practically every oth
Division in this part of the country, and there is a pret
general feeling that we are entitled, other things bei
equal, to a member, as we have never had one from th
district before. Mr. Morison, fortunately for himself a
for us, is not a general practitioner now. As a gener
practitioner he would never have carried the influen
which has enabled him for the last six or seven years to
of such immense use to his colleagues in this part of t
country. For about fifteen years Mr. Morison was in gener
practice, and his actions prove that he has never forgott
the fact. His sympathies are always with the practition
in the difficulties which he understands so well, and
the long struggle we have had with the miners ov
contract work he has been ever ready with time, speec
and money to give us the help that no other man in t
district could have given so effectually. We believe th
his position as a surgeon, his lucidity of expression, a
attention to detail work will give him a standing in t
General Medical Council which would be of great bene
to the body of the profession. Knowing our nominee
we do, and with a grateful recollection of his services
the profession and the Association in this neighbourhoo
we cordially recommend his claims to the other Division
—I am, etc.,

ALFRED COX,
Honorary Secretary North of England Branch and o
Gateshead Division.

Gateshead, May 1st.

THE BUDGET.

SIR,—Another Budget, and yet the professional classe
the most hardly hit of all, are to have no relief. Are w
going to sit quietly down and submit to have our pocke
depleted whilst the wealthy are to have ample relief
Remission of coal duties, but no graduated income ta
nor any decrease in the amount. For years the po
colliery owner—whose coal is worth 12s. per ton on t
pitbank, or delivered overside in London river at abo
14s. 9d. per ton—sells his goods to us for 20s. to 25s. p
ton. Poor fellow! and he is to have his coal du

itted so that he may clear off his comparatively worth- spoil banks, and make them into cash across the for the benefit of himself and his friend the owner.

e professional men, who spend from a sixth to pos- y three-fourths of our income in the education of our dren, giving them the best we can at school or uni- ity, who have no advantage whatever from free ation in the public elementary school, are to go on ng income tax to the full. A shilling in the pound is ie greatest importance to us, but what injustice would one if a five-thousand pounder paid 2s. in the pound, every twenty or twenty-five-thousand pounder paid in the pound income tax? Would his child be de- d of an education enabling him to keep the Com- dments, by leading an honest life in devoting six in the week to honest work, either in the practice of ofession, or in qualifying himself to undertake duties of local or imperial government, on the d of Guardians, the District Council, the County cil, the House of Commons, or in the Council nber of His Majesty's Ministers? A few extra ngs on the income tax would not prevent his learn- to play cricket or "footer" at school, to row at the ity, or to hunt, shoot, fish, or play bridge at home, but ght possibly be the means of enabling him to enter departments of the higher division of His Majesty's Service than simply the Foreign Office, where some- peace and sometimes the other thing is arranged for enefit of the taxpayer with the assistance of the matic Service, but without that of 'Varsity honour the cream of His Majesty's Civil Service, who are the sons of parsons, lawyers, and doctors. The ntile and aristocratic classes know well what ying" is, and they do not forget to practise it, any than do the Labour party; but we, poor, learned quietly submit to financial burdens intolerable to rne, vainly imagining that the Conservative or the l party, as the case may be, does most truly and ully represent our interests. "Up, Guards, and at —I am, etc.,

al, May 1st. R. Musgrave Craven.

MIDWIFERY OF THE PRESENT DAY.

—The address of Dr. Horrocks on the above subject have given older practitioners much food for t, and doubtless many of them pictured, as did I, and circumstances in which it would have been difficult to carry out his dictum of non-inter- e.

ll give just one example. I was called to a house iles away at 1 a.m., to a woman in labour. On my I found the os fully dilated, and an occipito- ior presentation; the woman had "good" pains at ls, but the head made no progress (ascertained by l examination). I may state that I do not resort use of forceps if the uterine contractions are ul and the labour progresses, as happens in the ajority of cases. In this case at 10 a.m., the head t advanced, in spite of powerful pains; the woman xhausted (so was I), the mother and husband ent, and showing decided signs of "want of faith." chloroform and delivered.

n, a few days ago I was sent for to a somewhat case in the early morning; the os was well dilated ins good. On the strength of "Midwifery of the t Day," I waited about half an hour, and, the house lose to mine, told them to send for me again, which id shortly; I made no examination, and again a little while. Pains occurred off and on, but no nce of the child. I again left, saw a few patients, turned. I palpated the abdomen and judged no s had been made. Again, after an interval, I left, in returned later on, when the pains were much nd weaker. This went on until the evening; it against the canons of my teaching, and my mental as one of discomfort. I made a last call before e, and there was only a weak pain now and then; nan was very much exhausted, thirsty, and begin- have dry tongue and parched lips, and fast pulse. veakening in my resolution to leave the case to and this was settled for me by the husband, who I am not satisfied, doctor; would you like to have help? Something must be done, she can't go through the night," etc. I said, "Well, I wanted to give Nature a chance, and let her deliver herself naturally, but I will just decide for good this time." I now made my second vaginal examination, found what was quite evidently a persistent occipito-posterior presentation; I gave chloroform and delivered the woman after a very hard pull.

This is my last attempt at waiting for an accession of Nature; I was taught, and believe it to be right, not to allow the second stage to go on beyond a few hours, and that pressure dangers are real. I intend to keep to my accustomed practice of delivering the woman when the pains are too weak, or have gone altogether, and after giving ergot a chance in inertia, when there is no apparent obstruction.

I am no believer in "meddlesome midwifery," but when uterine inertia sets in and fails to respond to gently kneading and rubbing the uterus, and the use of ergot (unless contraindicated), I am opinion that the right practice is to deliver the woman; all this, of course, after giving Nature full opportunity, but certainly not for hours.

I would be interested to know what kind of recovery "Colliery Surgeon's" case made, after being in labour for five days (the os was the size of a crown on April 4th, and he did not deliver her until April 9th). I do not think even Dr. Horrocks would have waited so long as that; I wonder, too, what he said each time to the relatives, and whether they quite agreed with the "Nature" dictum.

That very many practitioners get into a habit of applying forceps when there is very little delay is certain, but why a woman should be left in fear, trembling, and pain for hours when we can speedily and safely relieve her I fail to see.

As to the placenta. When, according to "Midwifery of the Present Day," are we to consider it retained or adherent? Personally, I would never leave the patient until the placenta was away, and neither would I wait for hours. At the end of half an hour I should express it—sooner, of course, if haemorrhage occurred. If not away in an hour or so, I should extract it manually. I have only had to do this some half a dozen times, and with no untoward results. The medical attendant may make few examinations, but it is, in a way, amusing to see how the old midwife will, whenever she gets the chance, introduce her fingers into the vagina to "help" the woman and do "something" for her money; and there is no doubt that during the doctor's absence from the room she does so repeatedly, in spite of all strict injunctions to the contrary. We are all familiar with the old lady, famous and looked-up-to in her locality, who, after being up all night, sends for her doctor with instructions to bring his instruments, she having examined and decided that it is now opportune to use instruments; and the doctor finds the os just beginning to dilate. Patience ought to be the watchword, but not too much.—I am, etc.,

April 23rd. Patience.

Sir,—I have been much interested in this correspondence, and more particularly in Dr. Leeson's well-written and picturesque letter appearing in the British Medical Journal of April 7th. Theoretically it is ideal, but from a practical standpoint I much doubt if either the British matron or the general practitioner would endorse it.

When chloroform began to be used in maternity practice I rigidly, in my ignorance, set my face against it, regarding it as a dangerous and unnecessary innovation. I then practised in a district where much of the midwifery was done by midwives, some few of them of the Sairey Gamp type (a class now fortunately extinct), and it often fell to my lot to give these ladies a helping hand when they were in difficulties. In 1878 I was called to see a young woman who was said to have been in strong labour for four days. I found her in a very exhausted condition and having violent and almost continuous pains. The os would only just admit the tip of my index finger, and was very hard and unyielding. I at once sent for some chloroform, and on administering a few whiffs the pains ceased and the patient went apparently into a calm, natural sleep. In about half an hour she woke up much refreshed, and, to my astonishment, I found the os almost fully dilated. I was soon able to effect delivery, and the patient did well. Since that day I have never attended a maternity case without having a bottle of chloroform in my bag. It is my almost invariable custom, when the pains become severe, to give a few whiffs with each pain. This takes the rough edge off the pain, and is a great comfort to the patient. In ordinary cases very little chloroform goes a long way, and I have never seen any ill effects even from its prolonged use. It is said to predispose to *post-partum* haemorrhage, but although haemorrhage is sometimes fairly free I have never had a case of flooding following its use.

It is my invariable rule, when the os is well dilated, the pains strong, and the labour is apparently making no progress, to apply forceps immediately. It is no use waiting till the patient is exhausted and then have to apply after all, for in the meantime damage may have been produced to the soft maternal parts by prolonged pressure.

To sum up, I may say that in a somewhat extensive midwifery practice I have never noted any damage to mother or child by the judicious administration of chloroform, or by the use of forceps; but I am certain that by the use of the latter, by controlling somewhat the head, I have been able to save many a perineum which would otherwise have been torn.

Then, as to expression of the placenta. The worst result I have seen is that the membranes are sometimes "trapped," and if they are tender it is difficult to get them away intact; but patience and delicate manipulation will invariably succeed. This, however, is a contingency which may occur even when expression is not resorted to. There is no doubt that we have safe means of giving our sisters relief in their times of pain and bitter anguish, and, I ask, Is it right, is it humane to withhold them and leave everything to Nature?—I am. etc.,

Edgbaston, April 12th. E. VICKERS WHITBY.

"MR. COLERIDGE ON TOUR."

SIR,—You say in your last issue that when I wrote the words describing how the brown dog, vivisected first by Dr. Starling and secondly by Dr. Bayliss, was handed over to a third operator, "who finally puts an end to the miserable dog's life," I make "a false suggestion" that that third operator also experimented upon it before he killed it.

I made no such suggestion, my words convey no such suggestion, and your attempt to force such an interpretation upon them is, in my opinion, sheer prejudice. You tell me that Dr. Starling gave it as his opinion that the dog did not suffer during the interval between his first vivisection of it and his second. The object of the second vivisection was, admittedly, to ascertain whether the effect of the first vivisection had been to set up a condition of inflammation in the internal organs of the dog. The first vivisection must therefore have been undertaken with the intention of inducing a condition of the internal organs likely to be accompanied by inflammation, and I am permitted to hold the opinion that inflammation of the internal organs of a dog causes it suffering, and therefore that this particular dog suffered grievously. Dr. Starling is equally at liberty to endeavour to persuade people, if he can, that it enjoyed its life in its cage after the vivisection it endured whose object it was to induce a condition likely to be accompanied by inflammation of its internal organs. He will probably be successful with his fellow-vivisectors, and I shall probably be successful with the rest of mankind.

I must congratulate you on your courage in printing my summary of what happened to the brown dog, which cannot but be of infinite service to the cause I advocate. If the two vivisectors are equally obliged to you, then you will have the satisfaction of having pleased everybody.

Your last paragraph is really diverting. I once drew attention to a publication issued by the London School of Tropical Medicine, which actually contained the following sentence:

> "To secure an adequate supply of clinical material [thus were the prone bodies of the sick described] for purposes of instruction, it has been determined to enlarge the branch hospital to forty-five beds."

At the time that this cynical announcement was mad
drew attention to it; I now beg leave to point out that t
suggestion "that hospitals supply living human bodies
the study of disease by physiologists" emanated not fr
me, but from the authorities of the School of Tropi
Medicine at the Docks, and that so far from originating t
suggestion, I raised my humble voice in protest agai
those who proposed so to deal with the bodies of t
sick.—I am, etc.,

London, S.W., May 2nd. STEPHEN COLERIDGE

*** We are pleased to learn from Mr. Coleridge that
did not intend to suggest that the third operator expe
mented on the brown dog before he killed it; we can
agree, however, that his words convey no such suggesti

As regards the state of the dog in the interval betwe
Professor Starling's two vivisections, we repeat that M
Coleridge simply asks us to accept his assumption t
the animal must have suffered grievously against t
positive testimony of a witness who had the dog un
constant observation, and who says it showed no signs
suffering from the first experiment until the next. B
this time Mr. Coleridge has a reason for the belief that
in him, though, as usual, it is a reason preconceiv
in his own mind, without reference to facts. He clai
permission to hold the opinion that inflammation
the internal organs of a dog causes it suffering. If he h
but taken the trouble to refresh his memory with t
report of the trial as given in his own organ, the *Zoophil*
he would have found that, as a matter of fact, Profess
Starling's experiment did not produce inflammation. T
only inflammation is in Mr. Coleridge's disorder
imagination.

We have learned by this time that when Mr. Colerid
is "diverted," he is about to execute a particularly clum
shuffle. He tries to throw the responsibility for t
suggestion that "hospitals supply living human bodi
for the study of disease by physiologists" on the autho
ties of the London School of Tropical Medicine. M
Coleridge knows perfectly well that there is nothi
remotely resembling this suggestion in the appeal issu
by that school. The words and the infamously false su
gestion are alike his own. As physiologists do not stu
disease, the insinuation obviously intended to be convey
is that they experiment in hospitals on the "prone bodi
of the sick," and that living human bodies are supplied
them expressly for that purpose. The last time we i
paled Mr. Coleridge on this point, all he could say was th
the circular did not give the names of those who were
use the "adequate supply of clinical material for purpos
of instruction," but he concluded that they would
learned in physiology! Could Sir Toby Belch wish
a more "exquisite reason"? Now, in the face of his o
admission that he wrote the letter from which we quot
he asks us to believe that the suggestion did not eman
from him. Mr. Coleridge has recently declared that
does not care twopence for science. It would be interesti
to know at what figure he estimates his regard for truth

WHOLE-TIME MEDICAL OFFICERS OF HEAL IN RURAL DISTRICTS.

SIR,—Does the improvement in the public health
rural districts depend on the appointment of whole-ti
specially-qualified officials?

It has struck me as very strange that so many medical m
who have done good work as medical officers of health
rural districts during past years should allow themsel
to be criticized so unmercifully in the BRITISH MEDIC
JOURNAL from week to week, and serve as targets for ma
inexperienced persons whose only claim to our notice
that they possess a special qualification in public heal
but if allowed to have their sway in rural districts wou
create a state of revolution, and bring the country int
state of bankruptcy in a very short time.

Their cry is that we want security of tenure for t
medical officer of health and a chuck-out to all those w
are not specially qualified, no consideration being giv
to their past work under very trying conditions.

My experience of fifteen years as medical officer
health for fourteen parishes has been that rural distr
councillors are shrewder in their estimate of medi
opinion than we give them credit for; and it must
allowed that our knowledge of sanitary matters, like t
creeds and dogmas of the parson in spiritual matte

gh stepping-stones to a better understanding of the
of Nature and the prevention of disease, do not always
y us in recommending the authorities to enter upon
pensive scheme of improvements.

present craze for the appointment of whole-time
ls to large rural districts results in the work being
delegated to sanitary inspectors, who, though hold-
ertificates of competency, cannot possibly do the
as efficiently as when the district is traversed fre-
ly by a medical man whose other practice brings
nto close touch with the people, who look up to him
ir guide to health. We should not expect very great
ns in sanitation to occur rapidly, as the people must
ucated to understand the force of legal enactments
e public health, especially that such reforms neces-
the expenditure of hard-earned wages; and it is my
tion that private practitioners are in a better posi-
o educate the masses than whole-time independent
s, who are looked upon as spies and enemies rather
s friends.

el sure that many an M.O.H. will agree with me
state that the greatest part of our work is done by
persuasion, the cases not being reported to the
ls at all, and it ought to be a rare occurrence for
dical officer of health with a fair amount of common
to fail to win the confidence of the majority of
councillors.

not for a moment contend that it is not advisable
making fresh appointments preference should be
o those possessing a diploma in public health, but
der that those without such diploma, at present
such appointments, as a rule know enough to
anitary authorities for many years to come. Their
l would, in many cases, prove detrimental to them-
nd the public, as there are numerous instances in
district which has maintained a medical man for
vould be deprived of his services if he lost his
ment, and he would have to start life afresh after
g the best part of it in a district where he had
of remaining for life, with great loss and incon-
e to himself and the public of that district.

he other hand, a private practitioner visited
ally by an inspector of the Local Government
ould do good work, as his influence over those
whom he practises would materially aid
ring improvement in the sanitary condition
district. We have to consider that with the
of rates from other causes and the depopulation
districts the rural councils must hesitate in ex-
public money upon improvements which if
ut in compliance with the Utopian schemes often
ated would land their districts very shortly in a
bankruptcy.

ulous areas, where the expense is not so keenly
tary improvements more urgently required, and
bitants able to realize the benefits accruing from
pecuniary outlay, a different state of matters
nd the treatment, of course, must be different.—

M.D.

THE REBUILDING OF 429, STRAND.

wish to support the view of Dr. Broadbent in
s BRITISH MEDICAL JOURNAL on the advisability
more accommodation for the members of the
n in the new building.

mend those responsible for the alterations to
plans of the Medical Hall at Belfast, presented
ter Branch by Sir W. Whitla, which is designed
e place of a club for the members of that Branch.
tion to the excellent library, a reading-room
vith all the leading lay papers and periodicals is
If it is possible to do this in Belfast, surely the
n could go as far as to provide an extra reading-
e smoking and conversation would be possible.
d be a great boon to country members when
London; they are the mainstay of the
n, and their interests are not always considered.

d Wells, April 30th. W. R. GORE.

SUMMER DIARRHOEA OF INFANTS.

e very interesting, able, and laborious research
de R. Morgan, Ernest Hart Memorial Scholar, upon the bacteriology of the summer diarrhoea of infants, published in the BRITISH MEDICAL JOURNAL of April 21st, p. 908, I venture to think, corroborates the view I have publicly held that there is no *one* invariable specific micro-organism associated with summer diarrhoea.

In each local outbreak one special form of organism will no doubt account for a preponderance of cases occurring in one particular locality; but in another town or district, an organism differing in one or more cultural particulars may be the principal source of the local outbreak.

I can well believe that culture No. 1 found by Mr. Morgan in 28 out of 58 cases examined was the principal pathogenic causal organism in these cases. It would be interesting to know how many of these 28 cases examined were treated in the Hospital for Sick Children, Great Ormond Street, as compared with the Victoria Hospital for Sick Children, Chelsea.

So, too, with bacillus No. 3, was there any common ground of locality, or contact, in connexion with the cases from which this diarrhoea-causing bacillus was isolated?

The researches of Mr. Morgan further strengthen the views of those who believe in a common ancestral origin for such types as *B. typhosus*, *B. shigae*, *B. enteritidis* (Gaertner), *et hoc omne genus*.—I am, etc.,

April 23rd. J. T. C. NASH, M.D.,
Medical Officer of Health for Southend-on-Sea.

SARSAPARILLA AND SYPHILIS.

SIR,—About twenty-five years ago I used sarsaparilla very largely in the treatment of tertiary syphilis. The results were very satisfactory. I sent a report of the cases to the BRITISH MEDICAL JOURNAL, but they were not inserted (the late Editor no doubt looked upon them as fairy tales). I tell the patient to buy the best sarsaparilla root of Messrs. Corbyn, Stacey, and Co., and I instruct him how to make a fresh infusion daily, of which he was to take a pint to a pint and a half during the day.

It was the late Mr. Henry Lee (with whom I was in consultation over a very chronic case) who advised me to give the treatment. He was very definite on two points—that the root should be obtained from the firm mentioned, and that the patient should make a fresh infusion daily.

I may add, very strict dieting and mercurial fumigations were continued.—I am, etc.,

London, April 21st. THOMAS DUTTON.

PROPOSED ROYAL CHARTER.

SIR,—I am impelled to write to you, as I think from your report of a few remarks of mine at the meeting of some combined Divisions of the Metropolitan Counties Branch, etc., at the Town Hall of Battersea on April 19th that I was not correctly apprehended by your reporter. I did not, in speaking on the election of Council members, refer to the Representative Meeting specifically, but to the election of Council members generally.

As one who served for some years on the Council, and who by change of residence lost his seat and was co-opted after a lapse of a couple of years, I had it brought home to me how difficult it was to keep in touch with the work of the Council and its various committees. Although I brought with me an earnest desire to grasp the details of the Council work, after the hiatus alluded to, it was only after nearly a year's attendance that I was partially successful. Of course this may be personal, but I think that other members of the Council who have had experience similar to mine will bear me out regarding the difficulty I have spoken of. In the interests of the Association I have for some time urged that the election of Council members should be triennial and not annual, it being arranged that a simultaneous election should not occur. I was glad to hear the Medical Secretary in his supplementary address state, though this has been omitted in the report, that the matter had already received the sympathetic attention of the Council members.—I am, etc.,

London, W., April 30th. DANIEL A. O'SULLIVAN.

MR. JOHN WARD of Ladbroke Grove, whose will has now been proved, left £100 each to the London Hospital, St. Mary's Hospital, Charing Cross Hospital, the Middlesex Hospital, Guy's Hospital, University College Hospital, the London Fever Hospital, and the British Lying-in Hospital.

MEDICO-LEGAL AND MEDICO-ETHICAL.

A CHARGE DISMISSED.

A MAGISTERIAL inquiry into a charge of assault on two children brought against one of the medical officers of the London County Council, which has been dragging on for some weeks, was happily concluded on May 1st. The children were two little girls in one of the Special schools whom Dr. A. E. Jones had occasion to examine at one of his official visits. Statements subsequently made by them to one of the mistresses led Dr. Kerr, Principal Medical Officer of the Education Department of the London County Council, to inquire into the matter. He came to the conclusion that it was nothing more than a case of imagination of a kind common in neurotics, and this view has been confirmed by the Court of Justice before which it was thought well the matter should be brought.

SLANDEROUS STATEMENTS.

T. RANDOLPH HUNTER.—We should advise our correspondent to consult a medical defence society if he is a member of one, or failing that, a solicitor, as the circulation of false statements is calculated to be highly injurious to him.

THE PRACTICE OF DENTISTRY BY MEDICAL MEN.

G. P. P. C.—Under Section 3 of the Dentists' Act medical men are expressly exempted from the prohibitory clauses of the Act, but no persons can be registered upon the *Dentists' Register* unless possessed of a licentiateship in dental surgery, or of foreign or colonial dental qualifications recognized for this purpose by the General Medical Council.

PARTNERSHIP DOORPLATES.

NORTH BRITON writes: If A. has recently bought a share of a practice from B., is it not contrary to custom for B. to object to A.'s name appearing with his own outside B.'s residence? Outside A.'s residence both names appear.

⁎⁎ It is customary for the name of the firm to appear outside the residences of all the partners.

FEES FOR LUNACY CERTIFICATES IN SCOTLAND.

T. B. L. (Scotland).—There is no statutory regulation as to the payment for medical certificates in lunacy. It is quite competent for the parochial board to pay a salary by way of remuneration, but the tendency in such cases is to "sweat" the medical officer by making an utterly inadequate addition to his salary. We advise our correspondent to come to an understanding with his colleague to decline to undertake the work by salary, and to insist upon the regular fee of one guinea being paid in each case. If the matter were brought before the local Division of the British Medical Association, it could probably be easily arranged that no other member of the Association would undertake to certify at the instance of the inspector of poor in parochial cases.

SCHOOL CERTIFICATES.

W. W. (Scotland) asks whether a family medical attendant is bound to state on a certificate the name of the disease which prevents a pupil from attending school. His impression is that he should not do so without consent of parent or guardian.

⁎⁎ There is no legal decision ruling the point as to what constitutes a competent medical certificate for exemption from school attendance. But if our correspondent gives a certificate simply stating, on soul and conscience, that a child is unfit to attend school, no sheriff or bench of magistrates would convict the parents if brought before them by the School Board.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

THE VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

THE annual dinner of the staff and members of the Volunteer Ambulance School of Instruction will take place at the Trocadero Restaurant on Thursday, May 17th (Mafeking night), at 7.45 p.m. Surgeon-General A. Keogh, C.B., M.D., Director-General Army Medical Department, will be the guest of the School.

ROYAL ARMY MEDICAL CORPS VOLUNTEERS.

ON April 28th the London companies of the Royal Army Medical Corps Volunteers paraded outside the Finchley Road Station at about 5 p.m., whence they marched to Hampstead Heath, erecting part of a field ambulance camp on a piece of level ground near the Viaduct pond. The weather was very boisterous, and rendered the erection of the hospital marquee a somewhat difficult task. The field ambulance camp, which is a modification of the old field hospital encampment, was mapped out with flags, and bell tents were erected at the corners. The Adjutant, Captain Langford Lloyd, then g an interesting lecture on the construction of the ca Several small boys were requisitioned to act as patients, were brought into the camp from various directions by stretcher bearers, who rendered them first aid. The camp struck about 8 p.m., and the corps marched back to the Al Gate, Regent's Park, where it was dismissed.

UNIVERSITIES AND COLLEGES

UNIVERSITY OF OXFORD.

Diploma in Anthropology.—An examination for Diploma in Anthropology will be held in Trinity Term Tuesday, June 12th and following days.

Examination in Preventive Medicine.—The Board Faculty of Medicine gives notice that certain alteration the regulations for the above examination will come into f in November, 1906. The amended regulations are publis in the *University Gazette* of April 24th.

UNIVERSITY OF CAMBRIDGE.

THE following degrees were conferred on April 26th:

M.D.—J. F. Alexander, Trin.; E. S. Scott, Pemb.; G. W. Gre Down.
D.Sc.—F. W. Keeble, Gon. and Cai.; G. H. F. Nuttall, Christ's.
M.B.—H. F. Wilson, Trin. H.; F. D. Crew, Emm.; E. W. Sh Down.
B.S.—W. P. Morgan, Clare; F. D. Crew, Emm.

UNIVERSITY OF DURHAM.

THE following candidates have been approved at the ex nations indicated:

First M.B. (All Subjects) (Elementary Anatomy and Biology, Chem and Physics)—*J. E. Dainty, *C. Marks, F. E. Chapman, H Fullerton, W. Reynolds, W. R. E. Unthank, C. L. Wigan.
Elementary Anatomy and Biology only.—E. C. Abraham, I. B bridge, J. A. Caulcrick, R. V. Clayton, Helen G. Clark, J. H J. P. Higham, H. T. Hunter, L. H. W. Iredale, G. E. W. La H. V. Leigh, S. Littlewood, G. C. M. M'Gonigle, C. O'Ha E. H. Shaw, H. R. G. Vander Beken, S. Worthington, J Young.
Chemistry and Physics only.—E. W. Blake, A. H. Bower, F. F Hare, J. H. Owen, Elliot J. Ramsbotham, C. E. Reind Madeline R. Shearburn, Olivia N. Walker.
Third M.B. (Pathology, Medical Jurisprudence, and Public Healt—*Gertrude E. O'Brien, *S. D. Metcalfe, C. M. Brown, G. I. C berledge, R. M. Davies, W. H. Edgar, Helen M. Gurney, Shield, J. F. Young

* Second-class Honours.

UNIVERSITY OF WALES.

PROPOSED DEGREES IN MEDICINE.

A SPECIAL Committee, representing the University of W met at the Royal College of Physicans of London on April to prepare a draft of a statute to establish a faculty of medi under the proposed Supplementary Charter of the Univer At present the University of Wales has no power to conf degree in medicine. The first step will be to secure that p and the next to institute such facilities for training as allow the student to qualify for the degree. At present University College at Cardiff possesses Chairs in Anatomy Physiology, and in order to complete the faculty there w be necessary at the least Chairs in Pathology, Surgery, and Practice of Medicine. The chief difficulty seems to be regard to clinical hospital work, and it has been sugge that the practice of Oxford and Cambridge should be follo and medical students required to go to one of the London pitals for clinical work. It must be noted, however, Cardiff possesses a big infirmary, where the necessary trai could be given; and the advantages to be derived wou mutual as far as the College and the infirmary are concer The question also arises, of course, as to whether suffi money could be found for such salaries as would attract best men to Cardiff; but there would be no real difficult this. It may also be noted that it would not be necessa have medical faculties at the three colleges; it would be sible in the meantime only to have such a faculty at Ca where there is already a medical school, and also an infir for the clinical work. The step is an important one, fo lack of the power of conferring a degree in medicine is a se handicap to the Welsh University, and a hardship to student.

ROYAL COLLEGE OF PHYSICIANS OF LONDON

AN ordinary quarterly comitia was held at the Colleg Thursday, April 26th, the President, Sir R. Douglas Po in the chair.

Membership.

The following gentlemen were admitted Members of College: Frederick Samuel Langmead, M.D.Lond., L.R Charles Hewitt Miller, M.A., M.D.Cantab., L.R. Athelstane Iliff Simey, B.A., M.D.Cantab., L.R.C.P.

Licences.

In conjunction with the Royal College of Surgeons, Lic were granted to 101 gentlemen.

Murchison Scholarship.

A report was received from the Examiners for the Murchison Scholarship, and the scholarship was awarded to Henry Francis Bell Walker, a student of Guy's Hospital.

Fellowship.

On the nomination of the Council, the following gentlemen were elected Fellows of the College: Samuel Walton Wheaton, M.D.Lond.; Frederick William Burton-Fanning, M.D.Cantab.; John Hill Abram, M.D.Lond.; George Henkell Drummond Robinson, M.D.Lond.; Richard Tanner Hewlett, M.D.Lond.; Ernest Graham Gordon Little, M.D Lond.; Charles Richard Box, M.D.Lond.; Maurice Craig, M.D.Cantab; James Purves Stewart, M.D.Edin.; Thomas Jeeves Horder, M.D.Lond.; ames Hugh Thursfield, M.D.Oxon; Edward Farquhar Buzzard, M.D.Oxon.

Communications.

The following communications were received:

1. From the Honorary Secretaries of the Second Inter-ational Congress on School Hygiene, to be held in London, August 5th to 10th, 1907, inviting the College to appoint two epresentatives to be members of the General Committee. The invitation was accepted, and it was left to the President o nominate two representatives at a later Comitia.

2. From the University of Aberdeen, inviting the College to end a delegate to represent the College at their quater-entenary commemoration festival in September next, to be the uest of the University and the city. The President agreed to ttend as the delegate of the College.

3 From Messrs. Goupil's Successors, asking permission to hotograph the portraits of Dr. Arbuthnot and Sir Samuel arth, in possession of the College, for illustrating a work ey have in hand. Leave was granted, subject to the usual estrictions.

4. From the Secretary of the Royal College of Surgeons, re-orting proceedings of their Council on April 5th.

5. From Dr. Abercrombie, resigning the office of curator of e Museum. Dr. Abercrombie was thanked for his services, d on the nomination of the President, Dr. Allchin was ected his successor.

Reports.

The quarterly report, dated April 6th, of the College Finance ommittee, and the quarterly report of the examiners for the cence on the January examinations were received.

Library.

Books and other publications presented to the Library during e past quarter were received, and thanks returned to the nors.

CONJOINT BOARD IN SCOTLAND.

HE following candidates have been approved at the examina-ons indicated:

First Examination.—S. R. Waugh, H. Schimper, D. L. Hutton, J. L. Pinto, G. J. du Preez, W. E. P. Briggs.

Second Examination.—J. C. Hawkes, H. P. B. Tait, F. J. de Souza, H. W. Turner, G. W. Mason, D. Welsh, M. E. Kayton, S. Abeyesundere, T. N. Wilthew, G. F. Walker, F. Byrne, W. R. Mackenzie, R. McBlair,

Second Examination (Four Years' Course).—W. C. Newton, P. J. A. Curtin.

Third Examination.—J. F. Jefferies, M. H. Fleming, T. B. Eames, G. Coats, †W. E. Barrett, G. Smith, J. M. Muir, E. A. S. Shaw, A. O'Flaherty, P. Behranji, E. T. Evans, F. G. Allan, J. Sullivan, T. S. Reddy.

Final Examination.—E. A. Smith, J. Logan, C. C. Fitzgerald, D. T. H. Croly, J. H. Fullarton, M.A., D.Sc., A. F. Garrand, N. B. Watch, A. Brown, F. W. Cooper, H. J. Chenoy.

† With distinction.

PUBLIC HEALTH
AND
OOR-LAW MEDICAL SERVICES

VACCINATION UNDER THE ACT OF 1898.

. ARTHUR DRURY, Public Vaccinator for Halifax, last ek addressed the following letter to members of Parlia-nt for Halifax and the neighbourhood, and as the record striking in itself it appears worth while to reproduce it full:

Halifax, April 24th, 1906.

ear Sir,—As the subject of vaccination is down for discus-n in the House of Commons on Wednesday, I am taking liberty to draw your attention to certain facts in connexion h the working of the latest Vaccination Act in Halifax. ne years ago the Union of Halifax had the notoriety of oming about the worst-vaccinated union in the kingdom. anized opposition was in great force. Many demonstra-ns were held against vaccination. The Board of Guardians nifested a most pronounced antivaccination attitude. A eration of parents had sprung up who knew nothing of cination from their own personal observation, but who l been terrorized by the alarming statements and mis-resentations made by leading and active antivaccinators.

most remarkable change has taken place since the new was introduced. During the four completed years immediately preceding the new Act the primary vaccinations in the Halifax Union were as follows:

1894	203
1895	202
1896	158
1897	199
	762

The returns for the past four years show that in the Halifax Union the primary vaccinations were:

1902	1,083
1903	2,198
1904	2,430
1905	2,816
	8,527

This striking result has been attained without precipitating any hostile demonstration, and organized opposition, if it exists, is dormant. A very small percentage of prosecutions have actually taken place. Of the comparatively few conscientious objections which have been applied for, it is a fact that in a number of cases vaccination has since been resorted to, although exemptions had been previously obtained for the same children.

Along with these indications of a great change in the public mind, the changed attitude of the Board of Guardians should be noted. At the last fortnightly meeting of the Halifax Board a resolution calling upon the Local Government Board to take steps to repeal the Vaccination Acts was defeated. The significance of this cannot possibly be understood by one who is not aware of the great antagonism existing as recently as eight or ten years ago on the Board.

In hundreds of families where previously objection had been strong the vaccination of the youngest child has been speedily followed by a voluntary request from the parent for the vaccination of the rest of the children.

These facts indicate that the provisions of the new Act have restored confidence in the public mind, in a manner which could not have been obtained under the old, and less costly, regulations. The experience of Halifax has been repeated in more or less degree throughout the country, but in no case are the results more striking or more convincing.

I am, dear Sir,
Yours faithfully,
ARTHUR DRURY,
Public Vaccinator, Halifax.

MEAT UNFIT FOR HUMAN CONSUMPTION.

M. O. H. asks if an animal killed under the following circumstances would be considered fit for human consumption. A fat bullock, after forty-eight hours' complete retention of urine caused by impacted calculus in the urethra, was slaughtered. When the abdomen was opened a large quantity of straw-coloured fluid (dropsical) gushed out. The veterinary surgeon who had advised the slaughtering considered that this fluid was "urine which had leaked through the thin walls of a distended bladder." That organ was enormously distended with dark, blood-stained urine but no rupture had occurred. Upon being opened the mucous coat displayed a mass of recent haemorrhages. Both kidneys were enlarged and very pale (one weighed 2½ lb.). The pelvis was not dilated in either, but there were a few small, recent haemorrhages in the cortex and in the pyramidal portion. The general appearance was suggestive of a chronic tubal nephritis with occasional haemorrhage. Twelve hours after the animal had been slaughtered the carcass had a normal appearance, but there was some oozing on the surface of the parietal peritoneum surrounding the lower part of the abdominal cavity and part of the pelvic region. The subperitoneal fat and the omental fat were normal.

⁂ Although our correspondent has given a very clear and excellent description of the appearances found after the animal had been slaughtered, it would be unwise to venture a too definite reply to his inquiry in the absence of an opportunity for inspecting the carcass. Most medical officers of health, however, look upon a dropsical condition as serious and a strong reason for condemnation.

THE NOTIFICATION OF PHTHISIS.

NEMO.—Local authorities may expend money in building and maintaining hospitals for infectious diseases (Public Health Act, 1875, and Isolation Hospitals Act, 1903). Such authorities have power to include pulmonary tuberculosis (phthisis) amongst infectious diseases for the purposes of these Acts. Many local authorities, both in London and elsewhere, have already instituted voluntary notification of phthisis, and one at least has obtained permission to make notification of consumption compulsory. Most of these authorities pay the same fee for the notification of phthisis as for the other notifiable diseases. The question as to power to compel the hospital board of the district to make provision for the reception of phthisical patients is a delicate one. In the present state of the question the matter is one for amicable arrangement rather than for compulsion.

THE ABOLITION OF BOARDS OF GUARDIANS.

SURGEON-GENERAL GEORGE J. H. EVATT (London) writes: Some time since I proposed in the BRITISH MEDICAL JOURNAL columns that Boards of Guardians should be abolished, and their functions handed over to district councils and borough councils, and specially pointed out its effects in the "unification" of the Sanitary and Poor-law Medical Services of the United Kingdom. I observe that a pamphlet, dated February, 1906, has been issued by the Fabian Society, 3, Clement's Inn, Strand, London, W.C., at the price of 1d. This pamphlet, in advocating this abolition, deals, amongst other reasons, with the medical and sanitary side of the subject. I recommend the perusal of the booklet to sanitary and Poor-law medical officials.

ROYAL COMMISSION ON THE POOR LAWS.

MEETINGS of the Royal Commission on the Poor Laws were held last week, when evidence was given by Miss M. H. Mason, Senior Inspector of Boarded-out Children under the Local Government Board, as to the system of boarding out pauper children and other Poor-law matters; and by Dr. Fuller, Poor-law Medical Inspector under the Local Government Board, as to the system of Poor-law medical relief, the medical inspection of provincial workhouses, etc.

OBITUARY.

GEORGE BUCHANAN, M.A., M.D., F.F.P.S.G.,

EMERITUS PROFESSOR OF CLINICAL SURGERY IN THE UNIVERSITY OF GLASGOW.

THE news of the death of Dr. George Buchanan will be received with regret by a large circle of friends and hundreds of old students in various parts of the world.

George Buchanan was the son of Dr. Moses Buchanan, who was Professor of Anatomy in Anderson's College, so that from his boyhood he lived in an anatomical and surgical atmosphere which had an abiding influence on him. His father was an excellent teacher, and trained his son with a view to following in his footsteps. After taking the degree of M.A. at Glasgow in 1846 he graduated M.D. of the University of St. Andrews in 1849. He served in the Crimea during the war, and the book he wrote on his return *(Camp Life in the Crimea)* is full of interest.

He succeeded his father as Professor of Anatomy in Anderson's College, and was shortly after appointed Surgeon to the Glasgow Royal Infirmary. He was an able teacher, and secured large classes of students, who will never forget the clear manner in which he explained whatever he undertook to teach. He was keenly alive to every advance in surgery, and it is interesting to know that when chloroform was introduced he volunteered to have the influence of the anaesthetic tested on himself, the test being a small puncture on one of his fingers, made by his father. In 1874 he was appointed Professor of Clinical Surgery in the University of Glasgow, and at the same time became Surgeon to the Western Infirmary. These positions he held until 1900, when he retired on account of failing health.

Dr. Buchanan was an excellent surgeon, being a bold and skilful operator. His students will never forget the admirable manner in which he ligatured the innominate, femoral, and axillary arteries, performed lateral lithotomy, and excised the upper jaw or the tongue. It was he who first pointed out the possibility and safety of removing half the tongue. He also had the credit of being the first to perform ovariotomy successfully in the West of Scotland, and his work in connexion with clubfoot, hernia, tracheotomy, harelip, and cleft palate is well known. His book on anatomy has gone through several editions, the latest one being edited by Mr. Henry Clark, C.M.G., Glasgow. He was not only a great teacher and a great surgeon, but was possessed of a genial personality which endeared him to all his assistants and old students and the numerous patients who came under his care. His especial kindliness to the women and children in the infirmary was a fine example to the young men with whom he was brought in contact. His great interest in his former house-surgeons and students was always a feature of his character, and his help and kindly encouragement to many will never be forgotten.

He lived in Stirling for the last six years, maintaining his interest in the progress of surgery. His only son, Dr. George Burnside Buchanan, is Assistant Surgeon in the Western Infirmary, Glasgow, and his father had the satisfaction of seeing his son's *Handbook of Surgery* published a week before he died. His wife and family have the sympathy of the profession.

HENRY ALEXANDER GOGARTY, M.D.DUBL.,

CONSULTING PHYSICIAN, KENT AND CANTERBURY HOSPITAL.

THE death took place on April 18th of Dr. H. A. Gogarty, for many years as well known and highly respected in Canterbury and Kent as formerly he was in the Rifle Brigade and in India.

Surgeon-Major Gogarty, to give him his military title, was originally a Dublin and Paris student, taking his first medical qualification (L.R.C.S.I.) in 1853. He then joined Trinity College, from which he received an Arts degree in 1855, and, at intervals of about twelve years later, the two degrees in Medicine. Meantime, in August, 1855, he went out to India as an Assistant Surgeon on the Army Medical Staff, being attached for the greater part of his time to the Rifle Brigade, and serving also with the old 52nd Light Infantry. In the army he remained twenty-two years, retiring in 1877 with the rank of Surgeon-Major. His service covered the stormy period of the Mutiny, and he was present at the siege of Delhi (receiving the medal and clasp), and also at the defeat of the Sealkote rebels on the banks of the Raree. On his retirement from the service he settled down at Canterbury, and was very soon in the swing of a new career which proved long and successful. A vacancy on the staff of the Kent and Canterbury Hospital occurred soon after his arrival, and with his election to it began more than twenty-five years of very active professional and administrative work. In spite of his considerable age, his health continued good until some eighteen months ago, when he resolved to give up practice and was elected Consulting Physician to the hospital. A resolution passed by the governors at the time of his retirement bore warm testimony to the value of the work he had done for the institution, and noted that in addition to his professional services he had rendered valuable assistance on the Board of Management. Other institutional work which Dr. Gogarty carried on nearly to the end of his life was the task of giving lectures on practical medicine to the students at St. Augustine's Missionary Training College. Amongst his professional brethren, Gogarty, though a man of somewhat reserved disposition, was as well liked as by his lay friends and patients, the position he occupied being best shown by the fact that on the reorganization of the British Medical Association in 1901 he was chosen as the first Chairman of the Kent and Faversham Division. Similarly he was for long the Honorary Librarian of the Canterbury Medical Society. Dr. Gogarty was married and is survived by his wife, two daughters, and two sons.

MUCH regret is felt at the death of Dr. CORE, Belfast, on April 21st. Dr. Core, who was 59 years of age, was an old student of Queen's College, Belfast, and a graduate in the old Queen's University (1869), and in addition was a Licentiate of the Royal College of Surgeons, Edinburgh. He was in active practice in Belfast for thirty-five years, and was much liked both by his fellow-members in the profession and by the public and his patients. For more than thirty years he was medical officer to the Belfast and Northern Counties Railway Company. Dr. Core was much interested in music, and although not an authority, was well versed in cathedral architecture. His illness was very short; he was on the point of taking a bath on the morning of April 21st, when it was noticed that he could not speak, and was slowly falling to one side. Symptoms of fulminant pontine haemorrhage rapidly supervened, and he died within four hours. In another minute he would have been left alone in the bathroom with the door bolted. Much sympathy is felt with his widow and family.

DR. DOUGLAS MASSEY BURNSIDE died at Clydach Cottage, Brynmawr, on April 29th, at the early age of 30, after an illness of but a few days. He was the son of the late Rev. S. D. Burnside, Presbyterian minister, Belfast. He settled in practice at Brynmawr some four or five years ago, and was Surgeon for Messrs. T. E. Williams's Collieries, Brynmawr. Dr. Burnside had served as a Civil Surgeon throughout the South African war, and held a medal for the campaign.

LETTERS, NOTES AND ANSWERS TO CORRESPONDENTS.

MMUNICATIONS respecting Editorial matters should be addressed o the Editor, 2, Agar Street, Strand, W.C., London; those con-erning business matters, advertisements, non-delivery of the OURNAL, etc., should be addressed to the Manager, at the Office, 29, Strand, W.C., London.

IGINAL ARTICLES and LETTERS *forwarded for publication are nderstood to be offered to the* BRITISH MEDICAL JOURNAL *alone, nless the contrary be stated.*

THORS desiring reprints of their articles published in the BRITISH EDICAL JOURNAL are requested to communicate with the Manager, 29, Strand, W.C., on receipt of proof.

RRESPONDENTS who wish notice to be taken of their communica-ons should authenticate them with their names—of course not ecessarily for publication.

RRESPONDENTS not answered are requested to look at the Notices Correspondents of the following week.

NUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT NDER ANY CIRCUMSTANCES BE RETURNED.

rder to avoid delay, it is particularly requested that ALL letters the editorial business of the JOURNAL be addressed to the ditor at the Office of the JOURNAL, and not at his private house.

EGRAPHIC ADDRESSS.—The telegraphic address of the EDITOR of e BRITISH MEDICAL JOURNAL is *Aitiology, London.* The legraphic address of the MANAGER of the BRITISH MEDICAL URNAL is *Articulate, London.*

EPHONE (National):—

EDITOR, 2631, Gerrard.	GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to ects to which special departments of the* BRITISH ICAL JOURNAL *are devoted will be found under their ective headings.*

QUERIES.

ULCERATION OF THE MOUTH.

ILIS asks for some light on the cause and treatment of the lowing case: A gentleman, aged about 45, suffers from ps of small ulcers situate on the mucous membrane of mouth. This condition has lasted for about two years. e ulcers vary in size from the head of a pin to a split pea, superficial, with the edges occasionally sharply defined. aling takes place slowly. They are not found further k than the anterior half of the tongue. He has suffered m *fistula in ano*, and wears artificial teeth. Tonic and gienic treatment with antiseptic mouth washes has not ved of service.

INCOME TAX.

X writes: I have sold my practice, and retire from all ticipation in the same on May 23rd. I shall then be ng on capital. Will you please advise me as to how I uld fill in my income-tax return, Schedule D and E?

** Our correspondent should make a return of his profits he usual way, adding that he is retiring from practice on 23rd, 1906. He will then be charged with income-tax the period from April 6th to May 23rd only, and the pur-ser of the practice will be called upon to pay the tax from 24th onwards.

writes: In your reply *re* income tax (BRITISH MEDICAL RNAL for April 28th, page 1018) you state that income club appointments should be entered on Form E. ss you have high authority for this statement, I doubt t is usual or expected by the surveyors. A club intment is part of one's private practice, and the club ials make no return to the surveyor as to salaries paid. law, vaccination, or other appointments under trustees charity, would of course come under Schedule E, and urveyor receives a return from the clerk, as well as from officer. I refer to this not in any captious spirit, but as nmissioner myself, holding all the above appointments; y colleagues make similar returns. I should be glad if vould obtain an opinion from Somerset House.

The law is as stated in the answer referred to, but we ve it is not an uncommon practice to include salaries club appointments in the general return. As the result e taxpayer is the same whichever course is adopted, the er is not one of great practical importance, and the g officials frequently adopt the plan referred to by our spondent as being convenient, even if not strictly

---

ANSWERS.

.—If certifiable as imbecile the boy would be eligible he Royal Albert Asylum, Lancaster (apply to Dr. as, Medical Superintendent), where he would have pportunity of learning a trade. If not so certifiable, ation might be made to Miss Dendy, 13, Clarence Withington, Manchester, for his admission to the ebridge Industrial Colony.

SURGICAL EMPHYSEMA.

DR. CHARLES H. D. ROBBS (Grantham) writes, in reply to Dr. Sidney Mathews's query: I am inclined to believe that the lesion was a rupture of the oesophagus, and this belief is much strengthened by a perusal of *Allbutt's System*, vol. iii, p. 380, where, incidentally, the event of surgical emphysema in some cases of this nature is noted. I may add that only a few days ago, whilst attending a confinement, I witnessed the somewhat rare event of the extensive formation of subcutaneous emphysema, due presumably to the rupture of an apparently healthy lung. There was in this case no shock whatever nor pain, and the condition was made manifest at the conclusion of the labour by the patient drawing my attention to the swollen state of her face and neck. The emphysema subsided in three days without any unfavourable symptoms.

BICYCLE SADDLES FOR LADIES.

DR. MARY GORDON (London, W.) writes: In answer to "Lunae Castra" (BRITISH MEDICAL JOURNAL, March 24th, p. 719), although I do not realize from what the patient is suffering, I have a few suggestions to make which, in my experience, have relieved a number of bicycle riders of divers discomfort. I should advise your correspondent to try a small, hard, man's saddle, with a long peak. All women's saddles are made too wide and often too soft; they "spread" the rider uncomfortably. Having inadequate peaks, they do not keep the rider easily on the saddle, and she is forced to grip and squeeze the saddle at the side just where it is already stretching her uncomfortably. A number of the wrong muscles are thus brought unnecessarily into use. To obtain ease she slips forward and tries to ride on the peak. She is probably advised to turn the peak level or downwards, with the result that she slips on it more and more. Indeed, she is often pushed forward by the resistance of the side of the saddle.

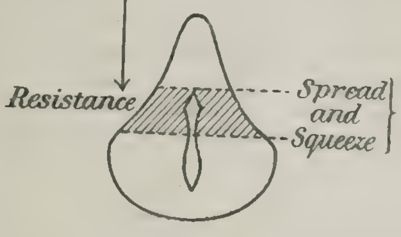


Fig. 1.

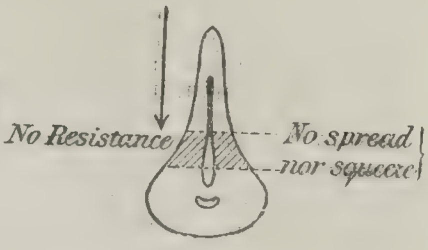


Fig. 2.

Fig. 1 is a diagram of a bad saddle; the sides curve outwards violently. The squeeze and the spread both occur by reason of the shape in the area shaded. The resistance at the posterior lateral part marked by the arrow levers the rider forward towards the peak. The short peak is a danger in itself if the machine goes over a stone. I have seen such an accident.

In a proper small saddle the rider must sit in one place and on the ischial tuberosities. She is not spread out or holding on to the sides of the saddle, nor pressing backwards against the part of the side which looks forward. She holds the sides, which are narrow, easily and comfortably. A slight tilt upwards of the peak is often an advantage, as it obliges the rider to sit on her bones, and, sitting properly, even a slight tilt does not bring the saddle in contact with the soft parts.

Fig. 2 is a diagram of a good saddle. The long peak has its end well out of the way should the machine give a jump; balance is lightly maintained against it in pedalling, and there is no necessity or temptation to slip forward on it. It seems to be comfortable to all kinds of riders. My experience is that the stouter the woman is the less she needs a big soft saddle, and the thinner she is, the less saddle she has the better she likes it.

A woman on a small, narrow saddle is able to ride with her knees slightly apart, which not only gives a greater appearance of elegance than the knock-knee position, but means that she is comfortable and really resting on her bones. All women's machines are made with the saddle too far back; a T-bar, bringing the saddle more over the pedals, is a great additional comfort; so also are a pair of well-curved handles, no wider than the position of the rider's hands when her elbows touch her sides. The disadvantage of such a machine is that it is very difficult to mount by jumping into the saddle, as the space between saddle-peak and handle-bar is small and narrow. But this is a small matter compared with the comfort of having the right saddle in the right place on the machine, and doing sixty miles absolutely unaware of its existence—a state of things which I believe is perfectly obtainable.

I find hard saddles without springs, and keeping the rider rigid with the machine, are the most comfortable to women who will really try them. Most women would also ride more comfortably if they would keep their tires better blown up than they do.

DR. W. E. STEVENS (Renfrew) writes to recommend Henson's anatomical saddle, made by Brown Bros., London. He had one some years ago for his daughter, who found it most comfortable.

LETTERS, NOTES, etc.

AN APPEAL.

CRYPT makes an appeal in favour of an old practitioner who is in indigent circumstances. He is 70 years of age, but in vigorous health, and physically fit for light duty. He was a distinguished student in Glasgow, and took honours in all his classes. His conduct is exemplary. Surely some niche might be found for him, even at his time of life. He is deeply anxious to secure some appointment and so retain his independence.

ABORTIFACIENTS AND THE DECREASING BIRTH-RATE.

DR. H. H. TIDSWELL (Torquay) writes: The reports of outbreaks of plumbism among women, published in the BRITISH MEDICAL JOURNAL of February 24th last, should be seriously considered by all medical men. It is a disgrace to our civilization and our educational system that such evil counsels should prevail, and induce so many women to prefer the evils and dangers of plumbism to the fulfilment of their natural functions as women. The consideration of these reports of Dr. Arthur Hall, of Sheffield, and Dr. W. B. Ransom, of Nottingham, forces home the difficulty of preventing this evil practice. We have to face a serious national peril. Are the girls of the present day properly educated, and trained to be able to fulfil the duties of motherhood? If not, where does the fault lie? The morals of women cannot be higher than the morals of men. If the men of this day put pleasure before duty, and are self-indulgent, and have no higher pleasures than smoking, drinking, and gambling, can we expect the women to have loftier aspirations? They cannot be ministering angels to men of this unmanly type. My remarks do not apply to one class of men alone, but rich and poor. The love of pleasure of a sensual kind is the curse of modern times. Chivalry, truth, patriotism, the dignity of manhood and womanhood, and other Christian virtues, such as contentment, hope, and patience, are not the characteristics of the present day. When a man degenerates morally the body also degenerates. The education of girls should be conducted on different principles to that of boys. There is no need to fill their minds with scraps of all the sciences, but they should be taught the three R's and cooking, nursing, and housework. The women of the East receive no education, and their great desire is to be "fruitful and replenish the earth." I can answer from my own experience that the poor women in Persia are better mothers than the poor women of England. So much for English education and training! As a means of checking the resort to ecbolics, etc., I would recommend the formation of local health societies after the manner of the Manchester and Salford Sanitary Association, reported in the JOURNAL of January 20th.

THE *X*-RAY TREATMENT OF RINGWORM.

MR. GEORGE PERNET (Assistant to the Skin Department, University College Hospital) writes: With reference to the remarks of your correspondent as to the method pursued in the *X*-ray department of University College Hospital, published in the BRITISH MEDICAL JOURNAL of April 21st, p. 960, I should like to state that the conclusions I put forward were based on actual personal experience of the one-exposure method advocated by MM. Sabouraud and Noiré, and did not rest on *a priori* notices and mere authority, however respectable. Since I wrote to you on the subject, I have been informed by a French medical visitor to London that the one-exposure treatment has proved so uniformly reliable that the Ecole Lailler in Paris will soon cease to be required as a teaching centre for ringworm children as heretofore, thus saving a good many expenses to the city of Paris. When it is thoroughly grasped that a vast amount of schooling is lost to the children of this country on account of ringworm, and that prolonged treatment means much loss of time, and in some cases of half-a-day's work to the parents, mostly poor people, who have to bring their children to an out-patient department, the great economical and social importance of the advance made by Sabouraud and Noiré will be readily seen. Everything is relative in this world, and I have already admitted that the one-exposure pastille method is not strictly and scientifically accurate, any more than the multiple exposure or fractional method; yet, although it has its occasional failures, like most things devised by the wit of man, the treatment answers in a general way and its advantages are great. It is to be hoped, therefore, that public bodies in this country contemplating the treatment of ringworm of the scalp from a municipal or Poor-law point of view will give the Sabouraud-Noiré method a fair trial and thus save the ratepayers unnecessary expense. There is another point on which I have insisted at various times, that small-spored ringworm is practically unknown in Germany, whereas in this country *Microsporon audouini* (the small-spored fungus) is responsible for the great bulk of the cases of ringworm of the scalp (somewhere about 90 per cent. in London), and it is the form most rebellious to treatment, taking it all round. So that from the educational standpoint we are here at a disadvantage when compared with our Teutonic friends. As to the fractional *x*-ray treatment insisted on by your correspondent I have not found it answer as well as the on exposure pastille method, nor have the cases treated by tl former method at University College Hospital impressed m The greater the number of exposures necessitated by tl fractional method, the greater the time taken up all rou and the current used, an item worth considering where large number of cases have to be treated.

DR. R. HIGHAM COOPER (London, W.) writes: As n opinion was quoted on this question in the BRITI MEDICAL JOURNAL of April 21st, and several people ha spoken to me about it, I think it well to state exact what my experience, which is varied though not ve extensive, is on the use of Sabouraud's discs. Expe menting with these pastilles last spring, I found that, whi roughly accurate, they were liable to the drawbacks of bei affected by the humidity of the atmosphere, the amount heat-rays given out by the tube (and consequently by t size as well as the state of vacuum of the tube) by exposu to actinic light as well as by a factor which I have not se stated elsewhere—I refer to electro-static conditions in t air. My conclusion is not (as implied in the JOURNAL) th the one-exposure method is inadvisable, but that relian must not be placed solely on Sabouraud's pastilles, and th the utmost care must be employed in using them under t same conditions, and considering them as only one several indications of the dosage. It is necessary re-regulate thoroughly the dose with each set of instr ments employed, and, indeed, with every *x*-ray tul Thus, my time of exposure, using the same ampèra and voltage on the primary of a coil of the sa nominal spark length, with tubes of the same ty regulated to as nearly as possible the same vacuum, sho a difference of several minutes between the set of apparat used in private and that at Tottenham Hospital. At U versity College Hospital, as stated in the JOURNAL, the fr tional method is employed; this certainly gives good resul but is very tedious, requiring exposures of 60 to 190 minu divided up into 6 to 10 sittings, where a single exposure 15 to 20 minutes might suffice. The percentage of failu either from under-dosage or over-dosage in the one-exposu method should be exceedingly small once the exposure fac for the particular set of instruments in use has been work out.

A NEW MEDICAL BENEFIT SCHEME.

OUR contemporary, *The Practitioner*, has recently launch a curious scheme, which it is stated has not been promot with a view to increasing its circulation, or of making a g or profit of any kind, but in order to provide a fund by whi the crusade against consumption and cancer may be carr on continuously to a successful termination. By way raising such a fund it invites the public to contribu alternatively, £1 18s. or 17s. a year. In return for this s it guarantees to all and any of those who subscribe t ordinary benefits of a world-wide accident policy wh covers, in addition, some twelve diseases, chiefly of zymo character. Finally it states that it has made arrangeme by which subscribers when they are disabled by illness accident will receive free medical attendance at the hands any doctor they please. The stipulations made in respect the latter benefit are somewhat complicated, and at t present moment we confess that we do not understa exactly what they mean. Apparently, however, it is p posed to pay to those who subscribe the higher amo mentioned any sum not exceeding £48 for medi fees, in addition to weekly compensation. In the policy note that this advantage is conveyed by an undertaking pay to the assured any sum which he shall have reasona expended upon fees of a registered medical practitio during attendance upon him in consequence of the accid disease, or operation which gave rise to his princi claim.

MIDWIFERY EXTRAORDINARY.

THE *Caledonian Medical Journal* is responsible for the lowing: An Aberdeenshire doctor, who had recently atten a woman in labour, was somewhat staggered on receivin note from her asking him to come and vaccinate "the c you gave birth to last week."

SCALE OF CHARGES FOR ADVERTISEMENTS IN T BRITISH MEDICAL JOURNAL.

Eight lines and under	£0 4 0
Each additional line	0 0 6
A whole column	2 13 4
A page...	8 0 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager the Office, not later than first post on Wednesday morn preceding publication; and if not paid for at the time, should accompanied by a reference.

Post-Office Orders should be made payable to the British Medi Association at the General Post Office, London. Small amou may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letter *Postes Restantes* addressed either in initials or numbers.

The Goulstonian Lectures

ON

AUTO-INTOXICATION: ITS RELATION TO CERTAIN CARDIO-VASCULAR DISORDERS.

ELIVERED BEFORE THE ROYAL COLLEGE OF PHYSICIANS OF LONDON ON MARCH 13TH, 15TH, AND 20TH, 1906.

BY H. BATTY SHAW, M.D.LOND., F.R.C.P.LOND.,

LECTURER IN THERAPEUTICS, UNIVERSITY COLLEGE, LONDON; ASSISTANT PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL AND TO THE HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.

LECTURE I.—[ABSTRACT.]

FTER some introductory remarks the lecturer said :]

It is the object of these lectures to consider the possible fects due to auto-intoxication when from any cause the gans and tissues of the body are made to disintegrate; study the effects of the dissolution of cells of various gans and tissues as shown by the toxic effects of their oducts, restricting myself in the main to the considera- on of the products of proteid and nucleo-proteid degra- tion, including not only the deep degradation products t those more vital agencies a study of which is only ssible when we examine the effects produced by fresh sues; that is, tissues which, though disintegrated by chanical means, may be considered still living tissue in far as the formation of their deep disintegration pro- cts has not yet begun.

BLOOD PRESSURE IN HEALTH AND DISEASE.

Dr. Shaw then described observations on blood pressure patients at different ages and in healthy youths, made h the Riva-Rocci sphygmomanometer, the details of ich are contained in the subjoined tables.]

BLE I.—*Systolic Blood Pressure in Infirmary Patients (Men in Recumbency).*

Age in Years.	Systolic Pressure.	Clinical Association.
49	88 mm.	Tuberculosis; arterio-sclerosis; no albumin.
46	143 ,,	Ulcers of the legs; no arterio-sclerosis; no albumin.
55	138 ,,	Rheumatoid arthritis; slight albumin.
53	163 ,,	Sciatica; arterio-sclerosis; no albumin.
69	158 ,,	Ulcers of the legs; trace of albumin; very slight arterio-sclerosis.
67	170 ,, (left arm)	Right hemiplegia; arterio-sclerosis; some albumin.
65	110 mm.	Arterio-sclerosis; (?) lymphadenoma; no albumin.
60+	160 ,,	Ununited fracture; no albumin.
65	160 ,,	Paralysis agitans; slight arterio-sclerosis; no albumin.
66	123 ,,	Bronchitis; moderate arterio-sclerosis; no albumin.
60+	210 ,, (right arm)	Left hemiplegia: marked arterio-sclerosis; albumin present.
76	180 mm.	Diarrhoea; moderate arterio-sclerosis.
72	194 ,, (left arm)	Partial right hemiplegia; trace of albumin.
78	155 mm.	Debility; arterio-sclerosis.
73	145 ,,	Ulcer of the leg; moderate arterio-sclerosis; albumin.
80+	155 ,,	Eczema; arterio-sclerosis.
82	144 ,,	"Senility"; albumin present; arterio-sclerosis.
88	130 ,,	Marked arterio-sclerosis; diarrhoea; "debility."
81	107 ,,	Marked arterio-sclerosis; (?) cystitis.
80	175 ,,	Debility: arterio-sclerosis; no albumin.
36	190 ,,	Bronchitis; marked arterio-sclerosis; albumin.
83	182 ,,	"Debility"; arterio-sclerosis.
83	160 ,,	Bronchitis; arterio-sclerosis; albumin.

ese observations confirm the view that with increasing there is generally a rise of arterial pressure.

servations on the systolic blood pressure of 42 ap- tly healthy schoolboys were described, and the ving conclusions drawn :]

ere were variations in the systolic blood pressure of ent individuals of the same age, but there was no y advance in pressure in accordance with the age of youths.

ther observations, 68 in number, were made in us forms of disease in the wards at University College Hospital; 48 were found to have systolic pressures within the limits of ordinary health, and these included under a clinical diagnosis: cirrhosis of the liver, 4 cases; valvular disease, 8 cases; diabetes mellitus, 4 cases; bronchitis and emphysema, 4 cases; aneurysm and arterio-sclerosis, 2 cases; tuberculosis of the lungs, 2 cases; and varia, 8 cases. Under the last category are included dyspepsia, ascites following removal of ovarian tumour, meningitis, disseminated sclerosis, neurasthenia, gastric ulcer (2 cases), gall stones (without jaundice), tabes dorsalis (2 cases), alcoholic neuritis, haematuria, acute rheumatism, otitis media, pernicious anaemia, exophthalmic goître, lymphadenoma, trypanosomiasis.

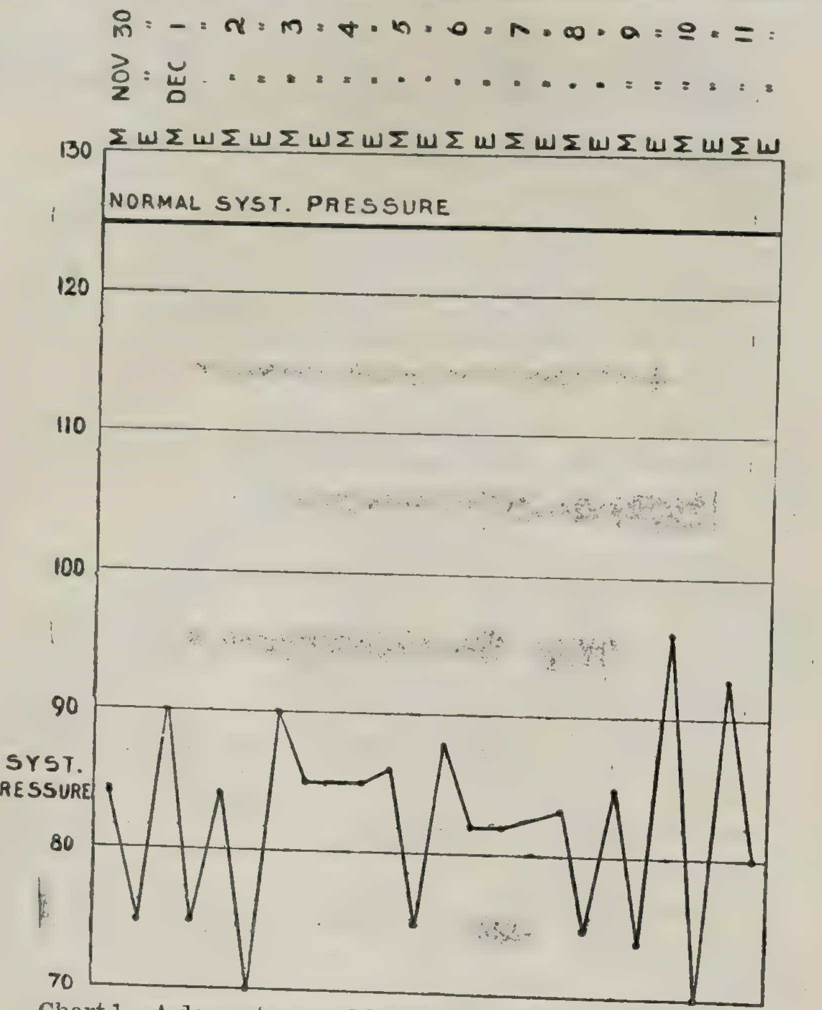


Chart 1.—A decorator, aged 35 years; oedema of the face.

A second group of cases of abnormal blood pressure includes two subdivisions: (1) A number of cases in whom the blood pressure was *lower* than normal. They were 14 in number, and included the following: acute bronchitis (fatal), arterio-sclerosis (? abdominal aneurysm), acute pneumonia, cirrhosis of the liver, advanced carcinoma of the stomach (2 cases), jaundice (2 cases), empyema, malaria, status epilepticus, chronic Bright's disease, aneurysm of the arch of the aorta, and a case

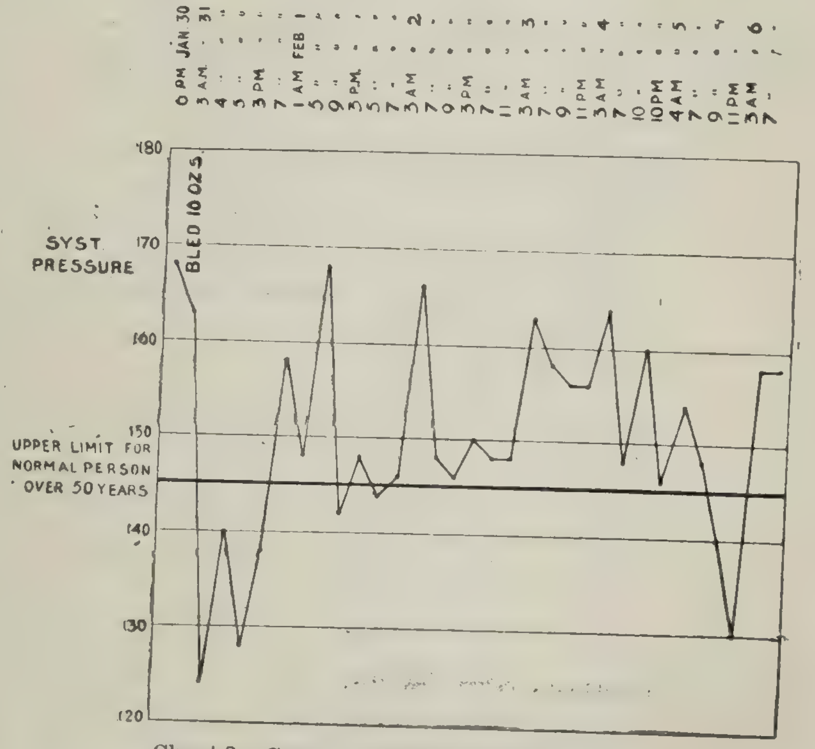


Chart 2.—Case 1, a clerk, aged 80; uraemia.

of unusual character in which the only signs were pain about the root of the nose associated with a hard oedema of the neighbouring skin, independent of suppuration of the frontal sinuses, etc. (See Charts 2 and 3.)

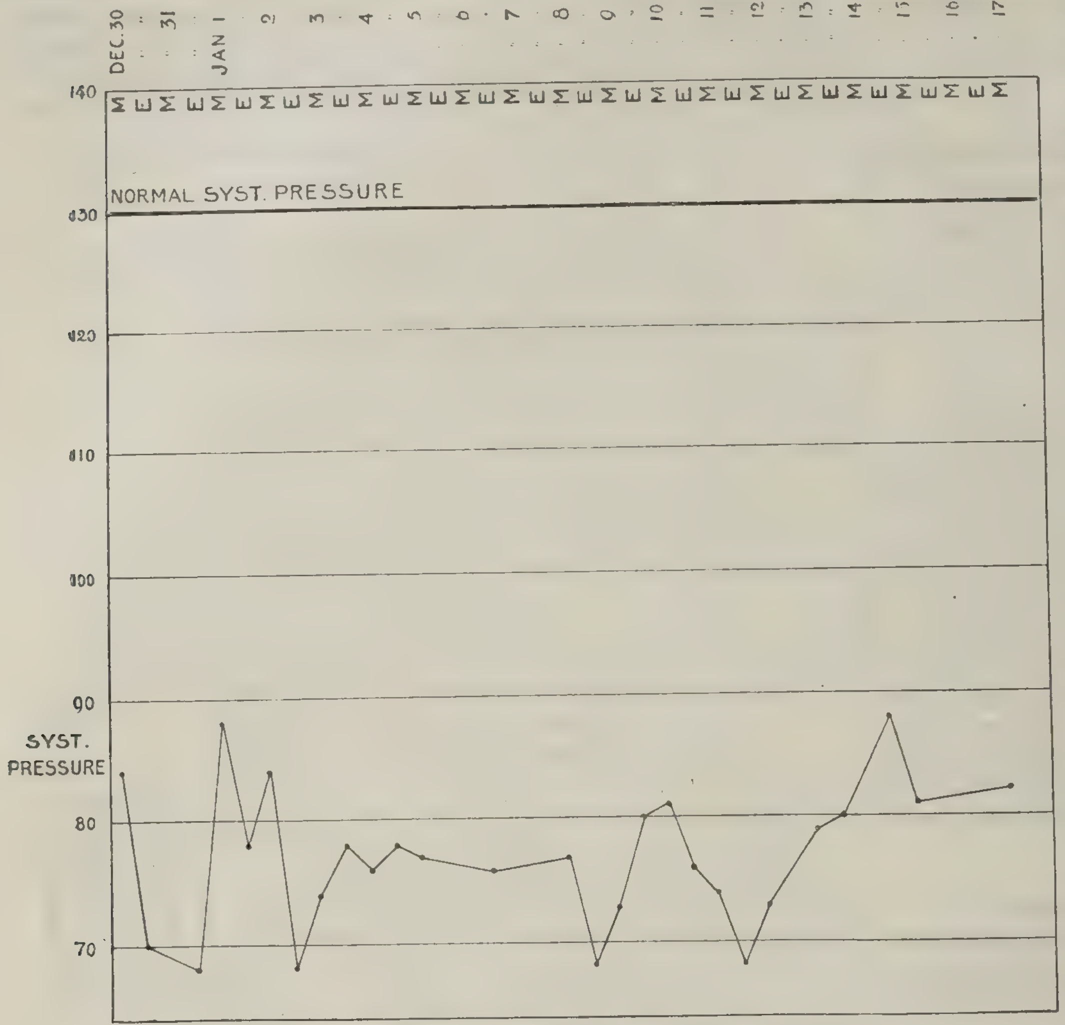


Chart 3.—A billiard-marker, aged 41; carcinoma ventriculi.

(2) Twelve cases in which the blood pressure was *higher* than normal.

In this case the right kidney weighed 4 oz. and the left 4 oz.; the capsules were adherent; the cortex was reduced to $\frac{1}{8}$ in.; the substance was tough, and cysts were present.

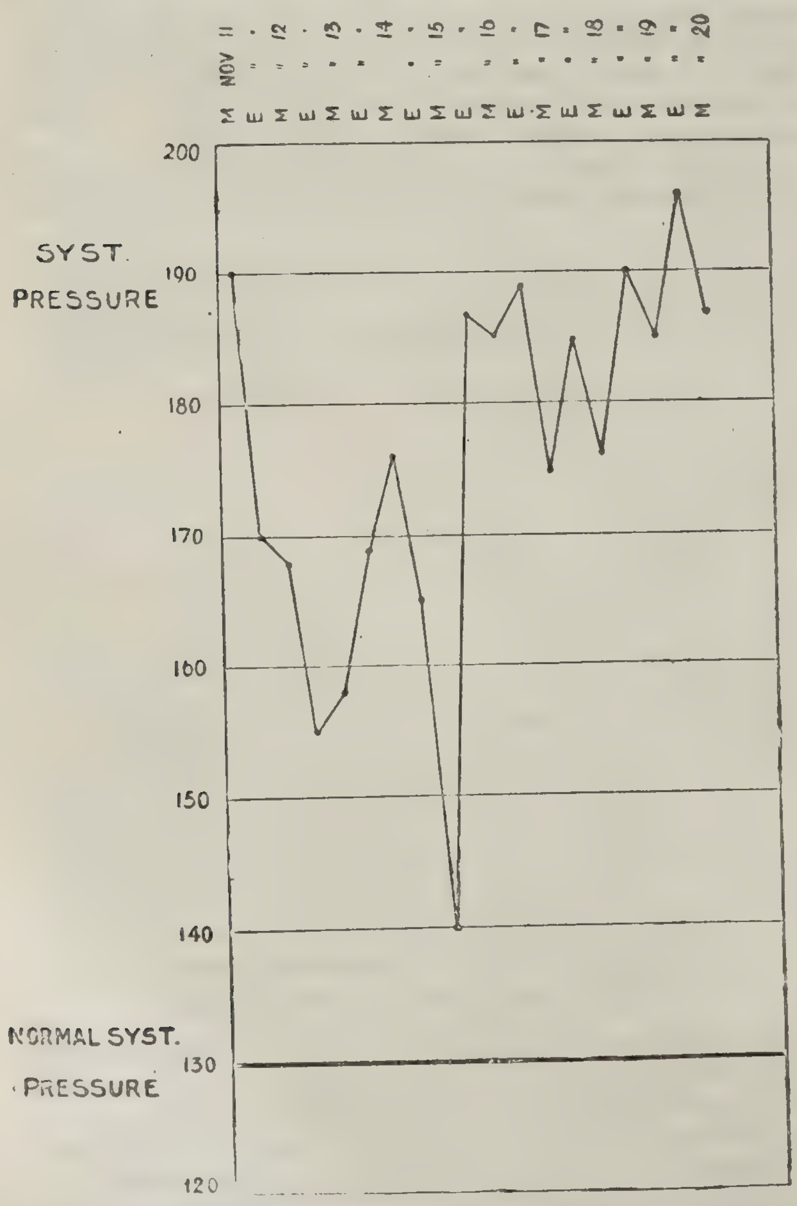


Chart 4.—Case II, a bricklayer, aged 41; acute Bright's disease

This patient was discharged at his own request, the albuminuria being still present; the oedema had disappeared. He was discharged feeling much better and the dropsy had disappeared.

CASE IV.—A man aged 69, with albuminuria; his systolic blood pressure was constantly above 160 mm., and reached 184. He was discharged.

CASE V.—A man, aged 21, with chronic Bright's disease. The blood pressure varied from 125 to 144 mm., and towards the end underwent rapid diminution, becoming before death subnormal. The heart was found to be greatly enlarged and dilated (it weighed 19 oz.), and the kidneys gave evidence of being in the early stage of sclerosis; they weighed 7 oz. each.

CASE VI.—A man, aged 43, with uraemia. Five blood-pressure observations showed 160 mm., 140 mm., 162 mm., 163 mm., and the last, taken an hour and a half before death, was 160 mm. The kidneys weighed 6 grams each; the capsule stripped off readily: the cortex was $\frac{1}{8}$ in. in depth; the renal arteries were thickened and atheromatous.

CASE VII.—A man, aged 32, admitted with uraemic dyspnoea and almost complete suppression of urine—only 4 oz. in two days. Four observations were made on the blood pressure, October 30th, evening, 187 mm.; October 31st, morning, 167 mm.; evening, 162 mm.; and November 1st, at 10 a.m., 88 mm. Death occurred seven hours later. The kidneys were found to be red, granular, and contracted, and contained cysts; the cortex was greatly reduced; each kidney weighed 4 oz.; the renal vessels were narrowed.

CASE VIII.—The symptoms gradually abated and he was discharged. The chart (7) shows the elevation and gradual fall of the blood pressure in acute Bright's disease.

CASE IX.—The blood pressure varied, falling during her stay in the hospital, but rising above normal again prior to her discharge.

CASE X.—The patient developed severe uraemia with convulsions, and was bled and infused. He left the hospital quite free from symptoms.

CASE XI.—The specific gravity of the urine was from 1015 to 1022; a slight trace of albumin was present. The patient was discharged relieved to a certain extent.

CASE XII.—The specific gravity of the urine was from 1012 to 1020, normal in amount, and no albumin was present. The patient was discharged relieved.

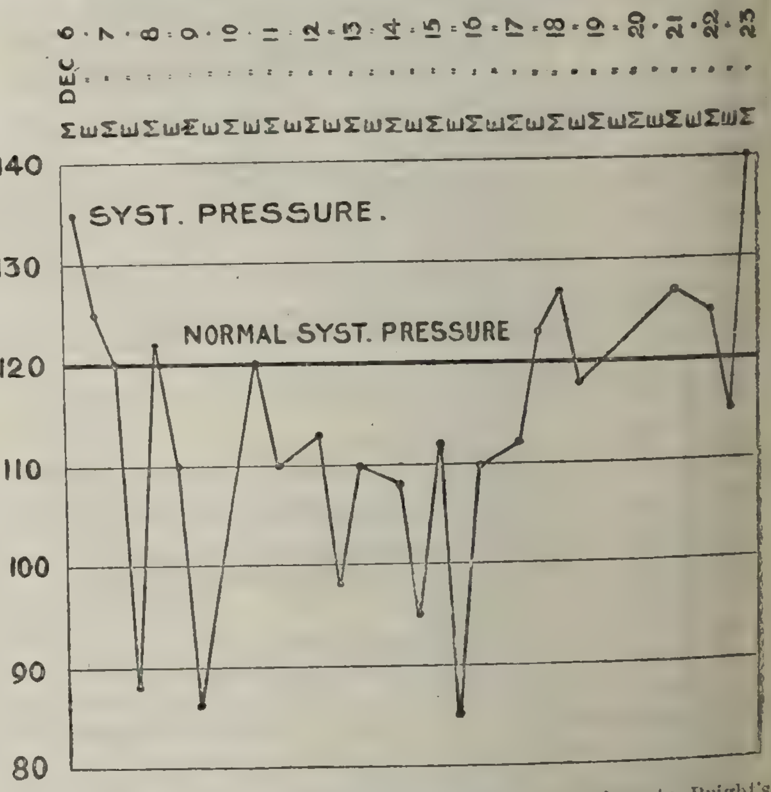


Chart 5.—Case IX, a married woman, aged 42; subacute Bright's disease.

The next case, one of chronic Bright's disease, is described at this stage, though she had at first normal and then subnormal blood pressure.

CASE XIII.—The right kidney weighed $5\frac{1}{2}$ oz., and the left 6 oz. The cortex of the kidneys was reduced; the substance of the organs was tough; the renal vessels showed no sign of thickening.

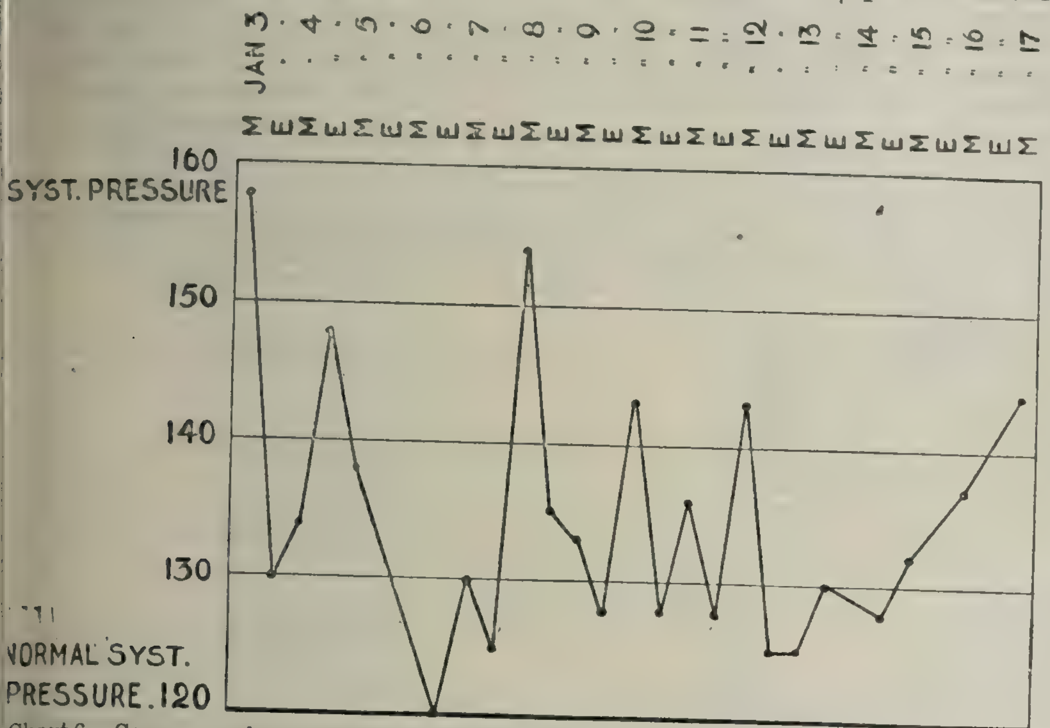
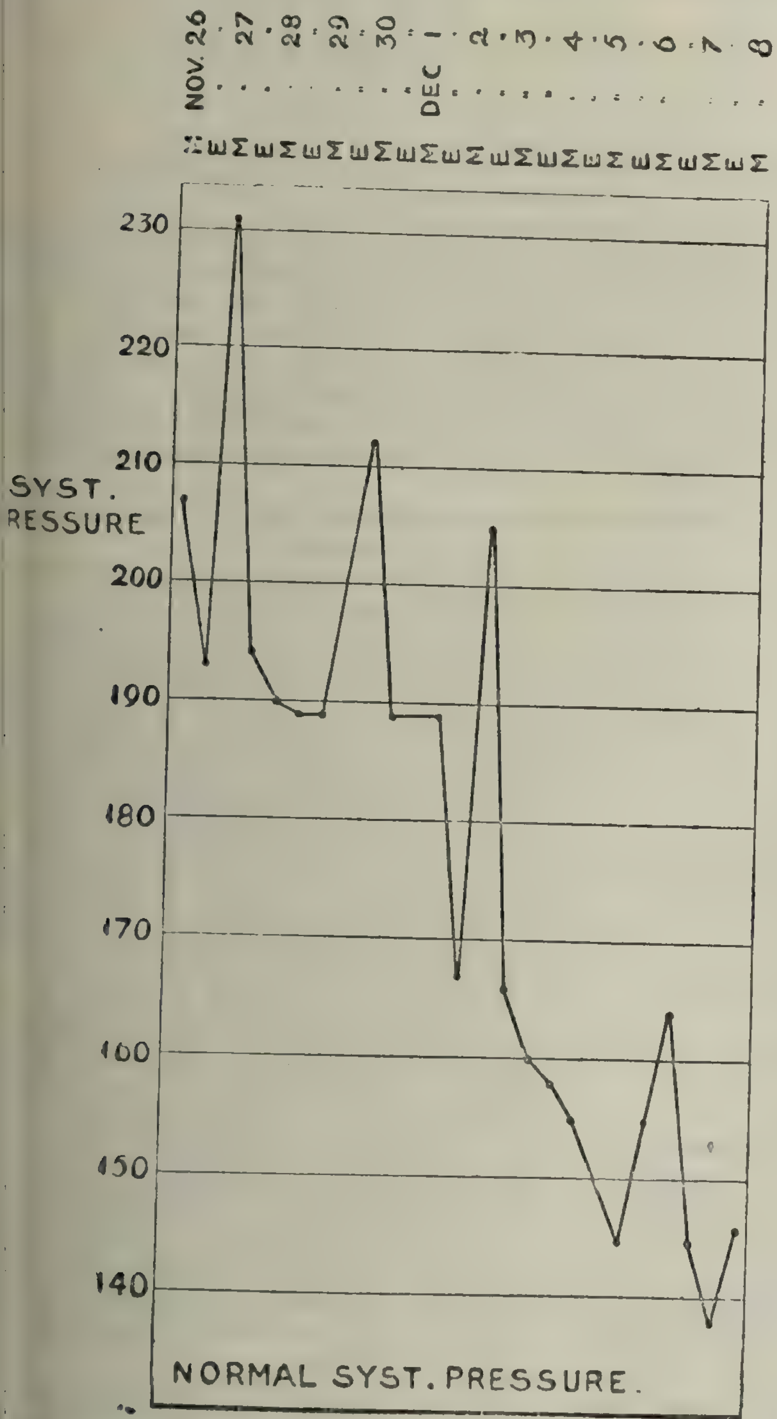


Chart 6.—Case III, a shop attendant, aged 17; chronic Bright's disease; (?) contracted kidney.

Consideration of the above 68 cases leads to the conclusion that in disease of various kinds the blood pressure ows a great variation both in each individual and also mparing one case with another; 42 cases show a blood essure which, so far as our knowledge goes at present, well within the normal limits; 14 cases, however, show essures which are distinctly lower than normal, and there remain 12 cases in which it is higher. It cannot be denied that possibly there are many causes of a quite different nature which may be responsible for the departures from the normal of the latter 26 cases. One feature stands out in great prominence. Of the 12 cases of hypertension all except one were associated with the occurrence of albuminuria.



art 7.— Case VIII, a fishmonger, aged 39; acute Bright's disease.

As shown by *post-mortem* examination, grave renal disease was present in 4 of the cases, and, using purely clinical tests, a similar condition of renal disorder may be conjectured in the case of the remaining 7 or even 8. Remembering the close connexion existing between renal disease and intoxication by lead, it may even be thought highly probable that renal changes were present in Case XII, in whom hypertension was present but was not associated with albuminuria.

The Credited Causes of Hypertension.

The problem, therefore, resolves itself into a solution of the difficult question, How is hypertension, such as is shown by the above 12 cases, to be explained?

The use of the sphygmomanometer shows that it is possible to establish clinically a group of cases in which there is maintained high blood pressure but little or no signs of arterio-sclerosis or of renal disease; cardiac hypertrophy may be present to some extent. This group constitutes those cases of latent angio-sclerosis described by von Basch, or of presclerosis as described by Huchard. Useful as may be this recognition, it cannot be said for certain that renal disease is absent in these cases; the absence of signs of arterial disease of cardiac hypertrophy or of albuminuria is not conclusive evidence that the

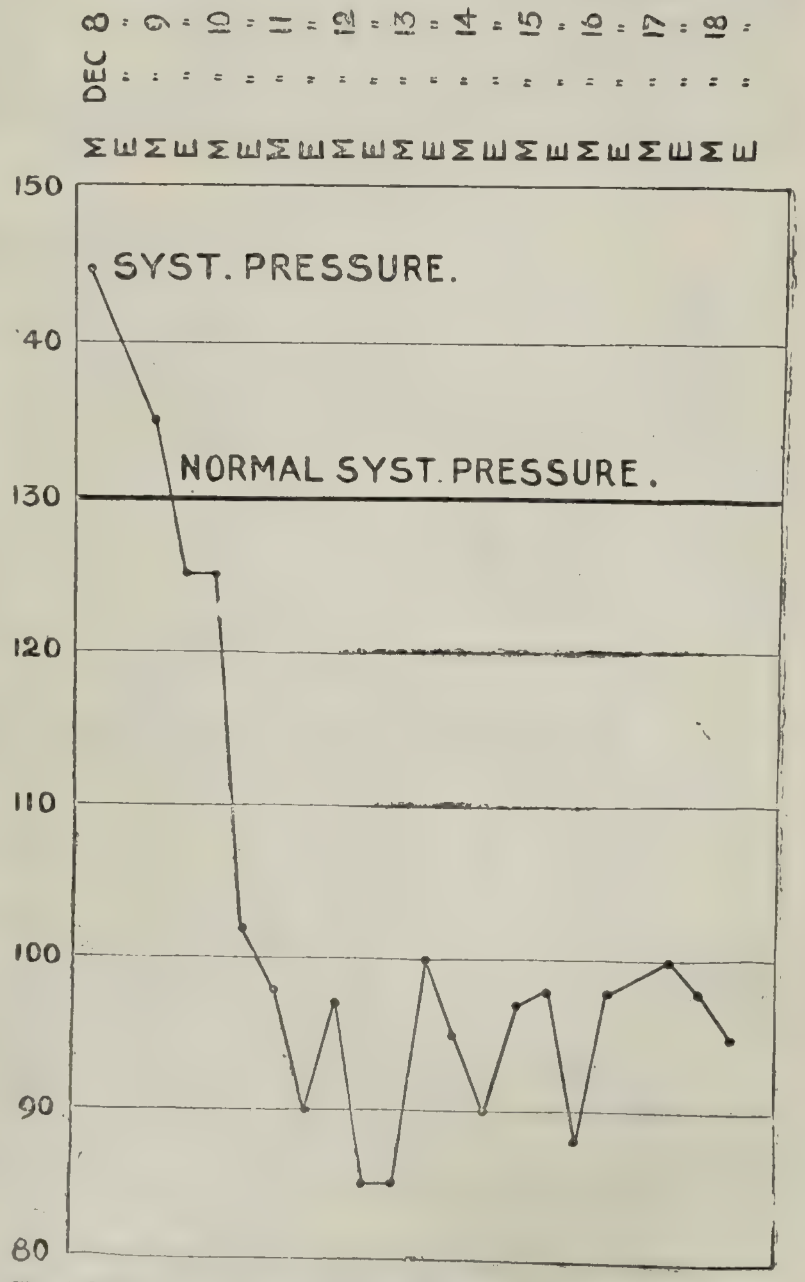


Chart 8.—Case XII, an engineer, aged 36; debility; lead poisoning.

kidneys are healthy. I venture to insist upon this point, for the evidence drawn from the above list of clinical cases of raised arterial pressure tends to show, with one exception, that all the cases of hypertension found by me are associated with renal disease, as shown by albumin, etc. The fact that one case (Case XII, Chart 8) revealed no signs of renal disease, and yet had high pressure, was explained on the ground that he was a labouring man, and that the rest in bed had very shortly been followed by a fall to normal; as already stated, the view that effort is capable of producing maintained arterial tension has been denied, so that this explanation of the case is not assured. Early sclerotic changes in the splanchnic vessels are said to be the cause of these cases of presclerosis, but the fact that this patient with ordinary rest in bed and no special treatment got rid of his high pressure suggests that there is still some other explanation for a rise of pressure which, as in this case, was found to fall, not at once, but by the end of two days to normal.

To sum up, there is a general admission that the explanation of increased arterial tension of cardiac hypertrophy independent of valvular disease and obstruction of the pulmonary circuit is not satisfactory. We do not possess any clear ideas of the nature, origin, and mode of action of the hypothetical irritant substance which has been invoked to explain hypertension and which may have been the operative factor in Case XII above described, as well as in the cases of hypertension associated with albuminuria. During the last few months I have set myself the task of making a direct appeal to biological tests for an answer to the various differences of tension as shown by sphygmomanometer observations at the bedside. The idea was that it was possible for certain substances to be extracted from the organs in different diseases, which acting on the circulation of the patient would be capable of producing those rises or falls of blood pressure which constitute the abnormalities of the above list of 68 cases. Fo this purpose four cases were selected in the wards, in whon there were differences of blood pressure (Table II).

TABLE II.

Case.	Age Injury.	Disease.	Blood Pressure.	Effect on Experimental Intravenous Injection.	
				Before.	After.
1	21	Lymphadenoma	117 mm.	168 mm.	176 mm.
2	78	Empyema	127 mm.	172 mm.	160 mm.
3	80	Uraemic hemiplegia, albuminuria, etc.	165 mm.	164 mm.	160 mm.
4	69	Aphasia without paralysis of arm or legs; albuminuria	175 mm.	160 mm.	156 mm.

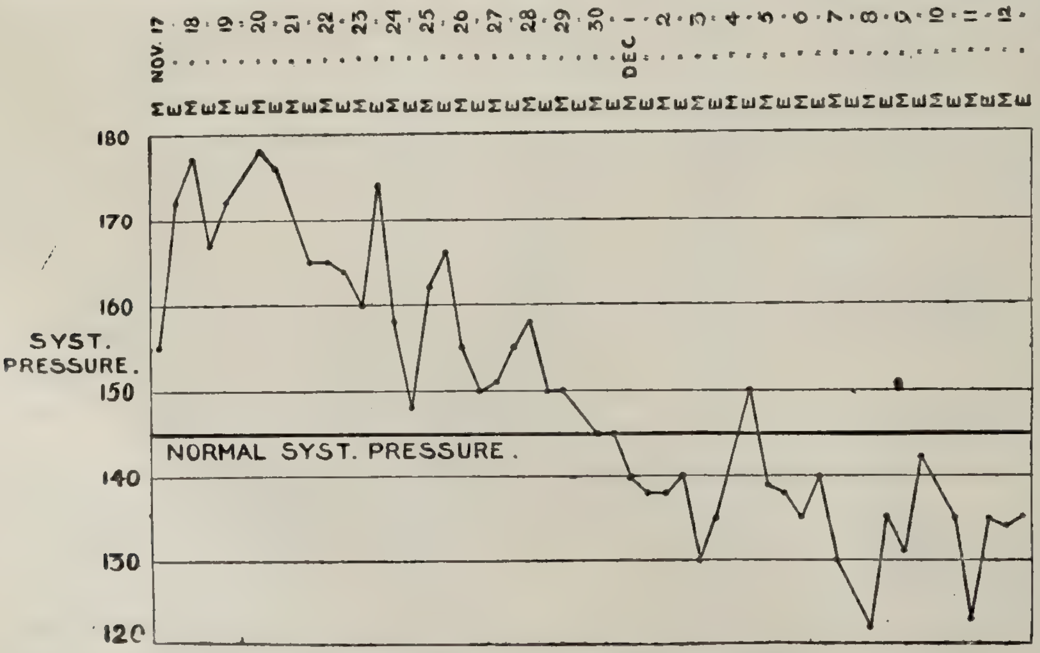


Chart 9.—Case XI, a painter, aged 55; lead palsy.

Twenty c.cm. of blood were removed from a vein of th forearm by puncture with a needle. The blood was at onc placed in ice, and within three hours after preparation b grinding up with sand, when clotting had taken place, an after diluting with 1 in 3 sterilized salt solution (86 per cent.

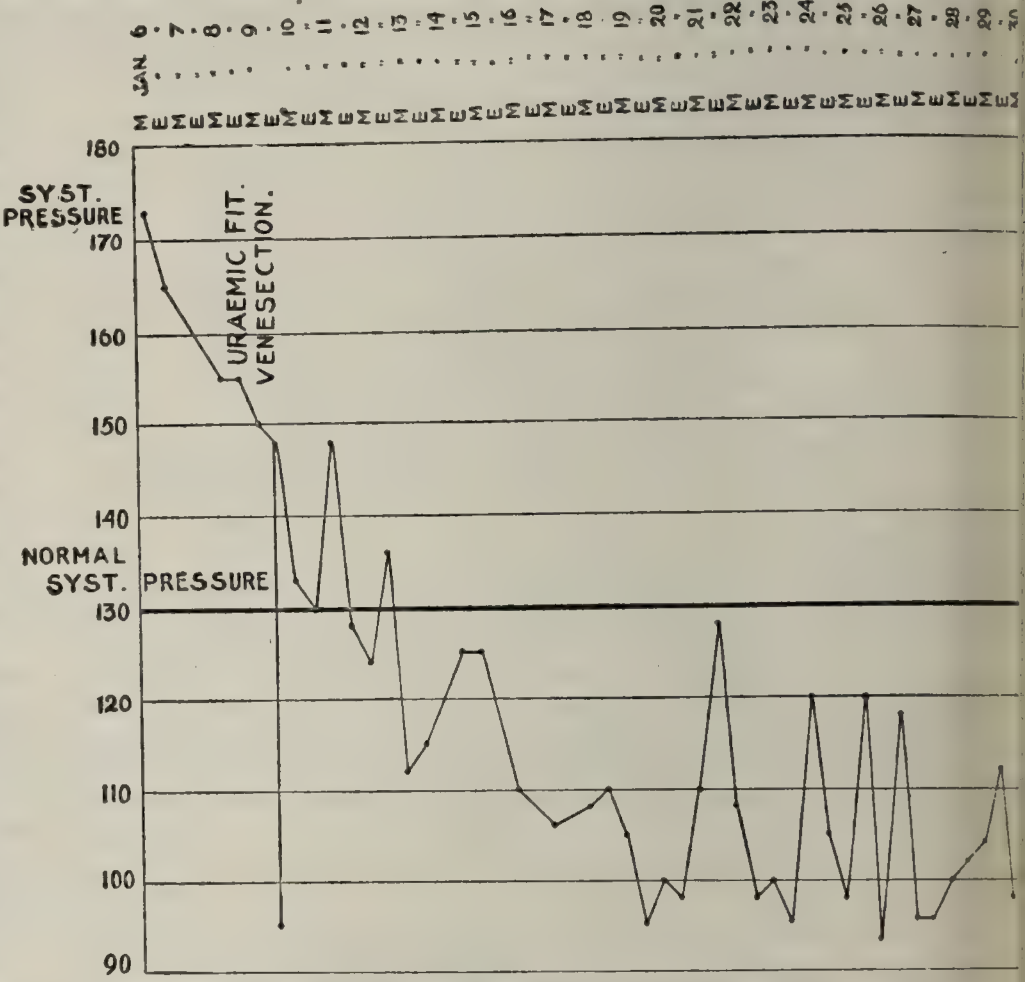


Chart 10.—Case X, a capmaker, aged 43; chronic Bright's disease; (?) exacerbation.

it was injected in 4 c.cm. doses into the femoral vein of a c weighing 3,100 grams. The blood pressure was taken from th carotid artery; anaesthesia was secured by means of ether an the respiration was spontaneous; the vagi were intact.

The changes above recorded were very brief, and, will be seen, do not give any support to the view that i hypertension of the arterial system (Cases III and IV) suc small quantities of blood of patients with high tension co tain a pressor substance capable of exerting its influence c the cat.

TISSUE EXTRACTS AND THEIR PRESSOR OR DEPRESSOR EFFECTS.

[The lecturer gave an historical account of observatio on this subject, and then proceeded as follows:]

The perusal of a paper by Swale Vincent and Sheen[1] (the effect of intramuscular injections of extracts of anim tissues has aroused my interest in connexion with t subject of auto-intoxication, as I have defined it for t purpose of these lectures, because t writers appeared to have procured son evidence which favoured the idea th when once the parenchyma of any pa ticular organ as a result of various path logical processes reached the circulation was to be expected that changes would ta place in the degree of vascular tension.

In the perusal of this paper one is stru by the observation that these workers ha frequently to refer to the fact that t results obtained were not uniform, a notably is this the case with their obse vations on pressor effects, so that they s the pressor effect seems to be less mark and of a more fleeting character, and co sequently more difficult to obtain, than t depressor effect; the pressor effect may easily missed unless the extracts are ma in various ways and a long series of expe ments undertaken.

In connexion with the subject of hyp tension Swale Vincent and Sheen's resu are most important in those particulars in which they are able to state that they have established a pressor effect of tissues when injected into the circulation. My own efforts at attempting to discover variations in the effects following the injection of tissues in various pathological conditions were followed merely by the observation that in practically all cases there was but one effect—namely, a depressor one; occasionally the injection of a preparation would produce a brief rise, much as does the simple injection of saline solution in some cases, though as a rule this latter solution generally causes a slight fall. However, a careful reperusal of Swale Vincent and Sheen's paper impressed me that the organs removed from individuals dying from different diseases were not fresh tissues, although keeping the bodies in an ice chamber had prevented their putrefaction. Moreover, suspicions were aroused that possibly *post-mortem* softening might have so affected the reactions of the fresh tissues that, supposing any pressor substances had been present in the organs of the patients who had died, such active agent would have disappeared. At this time I was very materially helped by Dr. Schryder, who pointed out to me a certain period subsequent to the removal of tissues from animals in which the tissues do not undergo chemical change. An appeal, therefore, was made to the effects of fresh tissues removed from a cat and after preparation injected into another.

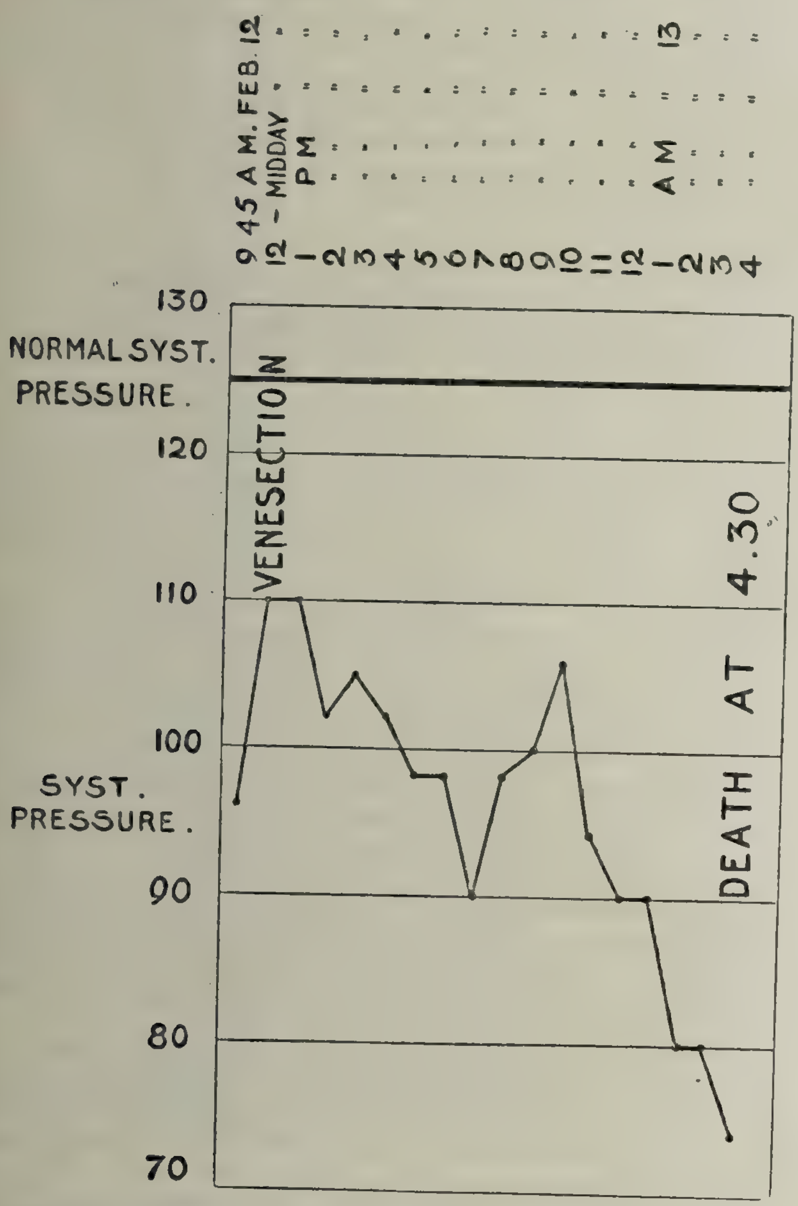


Chart 11.—Case XIII, a widow, aged 49; chronic Bright's disease.

[Dr. Shaw then described the method of his experiment, and gave a summary of his results as follows:]

The first series of experiments carried out in the above way include those animals in which several different tissue extracts were injected into the same animal; it consisted of eight experiments carried out on eight animals. There are six experiments left for consideration [after he had excluded two for accidental reasons]. Injection of spleen gave a rise of pressure on three occasions of 18 mm., 2 mm., 8 mm., lasting respectively 45 seconds, 10 minutes, 30 seconds; a fall occurred in 2 cases of 4 mm., lasting 1 to 2 seconds, and of 6 mm. lasting 4 seconds. Injection of muscle extract was practised twice; in one there was a marked fall of 38 mm. lasting 4 minutes 28 seconds, and in the other a fall of only 4 mm. lasting 1 minute 55 seconds.

[The observations on the kidney, liver, and brain were more numerous, and the lecturer referred to tables which showed that these organs sometimes caused a rise and sometimes a fall. He then proceeded in conclusion as follows:]

It is obvious that though other organs than the kidney occasionally show a rise of pressure on injection, yet this rise is small and of short duration, whereas the kidney effect of a rise, though varying within considerable limits, is a striking feature, and the same may be said of the duration in which such rise takes place; no other organ has been noticed to have such an effect so frequently. The liver and brain show a much greater tendency to cause a fall of blood pressure, and even then such fall is generally of very brief duration. One point to which it is necessary to draw attention is that in none of these experiments was the kidney extract injected first; the injection always succeeded that of some other organ, and it may be objected that it is possible that the rise of pressure following the injection of renal extract is due to some interaction of renal extract with some previous extract. Moreover, it may be thought that the renal extract is of a different physical character, and likely to cause a rise of pressure from some mechanical effort dependent upon the granules contained in the emulsion. As will be seen later, there is no reason to believe that either of these objections holds good. It is to be observed that the animals were simply under the influence of ether; this was so carefully administered that the respiration was maintained regularly. In one experiment with ether anaesthesia and artificial respiration the vagi were cut; an injection of renal extract then produced the exceedingly small rise of only 4 or 1 millimetre, lasting one minute, forty seconds, and twenty-five seconds respectively. So far as this one experiment is concerned, it must be stated that the second injection of an extract has on other occasions shown a less marked reaction than the first one. The slight rise, such as it is, merely suggests that the rise of pressure on injecting renal extract is due to a peripheral effect whereby the arterial pressure is raised.

REFERENCE.

[1] *Journal of Physiology*, 1903, vol. xxix.

EUCALYPTUS POISONING.

BY J. ORR, L.R.C.P. AND S.EDIN.,
Templepatrick, co. Antrim.

HAVING recently noticed a record of a case of poisoning by eucalyptus oil, I forward notes of a similar case which occurred in my practice on April 16th, 1901. An urgent message was sent to me asking me to visit a little boy aged 2 years and 9 months, who had swallowed 2 drachms of eucalyptus oil. As I was suffering from influenza I could not leave the house, and my *locum tenens* was out on duty; I therefore ordered the child to be brought to me as quickly as possible. This was done, and I saw him about fifteen minutes after he had swallowed the poison. He was unconscious, and collapsed, with a quick pulse, stertorous breathing, and pupils contracted almost to a pin-point, just as in opium poisoning. This pupil contraction, indeed, was the most striking feature in the symptoms. The child had vomited immediately after taking the oil, and purging quickly set in. I gave 10 gr. of sulphate of zinc, and, the child having again vomited, I followed this up with a teaspoonful of whisky. The patient still remained in a state of collapse, and as no improvement took place, I thought I would try the effects of strong coffee. A fair amount of this was swallowed by the child, and in a short time the effect was very marked; the pupils began to dilate, and consciousness returned quickly. He was fit to be removed to his home comparatively well an hour after I had first seen him, and made a speedy recovery.

AT the sixty-first anniversary dinner of the German Hospital, Dalston, on May 7th, it was announced by the Chairman, Count Matternich, German Ambassador, that a new convalescent home combined with an open-air sanatorium was about to be presented to the institution by certain of its supporters. The necessary land had been acquired near Hitchin, and some £14,000 contributed for the erection and fitting of the buildings.

THE IMPORTANCE OF ANAESTHESIA BY LUMBAR INJECTION IN OPERATIONS FOR ACUTE ABDOMINAL DISEASES.

By HENRY PERCY DEAN, M.S.LOND., F.R.C.S.ENG.,

SURGEON AND TEACHER OF OPERATIVE SURGERY TO THE LONDON HOSPITAL.

THE harmful effect of the administration of a general anaesthetic, such as chloroform or ether, upon a patient suffering from an acute abdominal disease, especially peritonitis and appendicitis, has led to many attempts on the part of surgeons to do without this very serious hindrance to success.

Many cases have been reported in which cocaine anaesthesia has been used for this purpose in two ways:

1. Locally, being injected under the skin.
2. Intraspinal injection in the lumbar region.

I have myself tried the first method on several occasions, and as a general procedure it is certainly out of the range of practical surgery. The second method, by injecting small doses of cocaine, generally about ¼ gr., into the lumbar spinal canal, has been employed very largely, especially in France. I have seen abdominal operations performed by this method; they were cases in which the anaesthesia required was well below the umbilicus—an inguinal colotomy and a radical cure of hernia. In cases in which there is acute general peritonitis the effect of a dose of cocaine large enough to produce sufficient anaesthesia would be to diminish the already damaged vitality of the patient.

These two methods, therefore, could be applied only in exceptional cases, and could not be looked upon as a regular surgical procedure for obtaining anaesthesia in acute diseases of the abdomen.

The anaesthetic under consideration is the chlorhydrate of one of the amino-alcohols.[1] It has been given the name stovaine. This new body has been examined carefully, and researches made upon it in various directions have already been published.[2] It can be used in all cases where cocaine is employed; for example, Paul Reclus[3] states that he injects stovaine without fear in cases where he used to inject cocaine—that he has been able to perform operations which would not have been possible with cocaine.

Its chief physiological difference from cocaine is that it is a vaso-dilator, not a vaso-constrictor, and, further, it seems to have a tonic effect upon the heart. Hence the vascular system seems to escape all the harmful effects of cocaine.[4]

When the anaesthesia required is situated at a low level, that is, at any place below the groin, the patient's general condition is not likely to make the use of a general anaesthetic a matter of any moment. In such cases, whether stovaine is used or a general anaesthetic is largely a matter for the patient to decide. It is then rather a question of taste, or perhaps I should say, of sentiment.

When, however, we are dealing with acute abdominal disease, especially general peritonitis, the value of stovaine anaesthesia is at once placed upon a different level. It is no longer a matter of sentiment, but a matter of life and death. The harmful influence of a general anaesthetic, such as chloroform or ether, upon acute abdominal diseases is, of course, well known. We all of us are brought face to face with cases of acute peritonitis in which a general anaesthetic would mean death to the patient, either on the operating table or within a short time of returning to bed. Even if the patient escapes from this immediate effect, the subsequent vomiting, etc., often has a large share in exhausting his vitality.

My experience of stovaine anaesthesia by intraspinal injection in acute general peritonitis has impressed me profoundly with the great value of this anaesthetic, and I will now give a short account of some cases in which I have employed this method.

CASE I.

G. K., aged 22, was admitted with acute abdominal pain of four days' duration. On examination, I considered that there was an early stage of general peritonitis, starting from an acute appendicitis. The patient had had four previous attacks. With the help of the sister and nurse, she was gradually put into the sitting posture, and the needle went in without causing her more than a momentary pain. The patient was given 0.6 c.cm. of the solution, and at the end of seven minutes she was unable to move the right leg, and could only move feebly the ankles and toes of the left. The anaesthesia was perfect up to a level just above the umbilicus, the operation being commenced at the end of eight minutes.

I proceeded at once to make the usual incision over the appendix, using the ordinary gridiron method. The case was a very bad one, the peritoneal cavity being full of pus, and the caecum and appendix in one mass. As the patient's condition before the anaesthetic was serious, I decided not to waste further time in endeavouring to dissect out the appendix. I found it advisable to make a cut in the middle line, about 2 in. long, so that I could thoroughly irrigate the lower abdomen. As soon as I commenced to make the incision the patient called out, saying that I was hurting her, and this continued for the minute that was necessary to get right through to the peritoneum. As I manipulated the wound she cried out, especially when the parietal peritoneum was touched. As soon as the manipulation ceased the patient became quiet, and felt nothing while she was being dressed. The anaesthesia disappeared and the weakness of the legs returned within two hours of the injection. If I could have dissected out the appendix in the usual way the patient would have been back to bed, having felt practically nothing of the operation.

CASE II.

E. C. H., a girl, aged 16, was admitted on the fifth day of her illness with general peritonitis and marked distension of the abdomen. There was no liver dullness and the patient felt and looked ill—in fact, her condition was very grave. This was her first attack.

She was given 0.6 c.cm. of the solution, and at the end of six minutes she had perfect anaesthesia up to just below the transverse nipple line, extending upwards rather more on the right side than on the left. Owing to the condition of the patient, the injection was given while she was lying on her right side. To my inquiry she said she felt the needle as it was inserted, but said that the pain was nothing to complain of. The motor paralysis was almost complete in the lower extremities, the patient being unable to move either leg or foot, but the left toes could be moved slightly. At the end of four minutes the patient began to pass flatus and liquid faeces, and this continued copiously for about three minutes, so that at the end of six minutes the abdomen had become quite flaccid.

I made the usual incision for the appendix, and found that there were no adhesions whatever, but diffused over the whole abdomen there was a quantity of typical peritonitis pus, the pelvis being full of it. The appendix was gangrenous and perforated at one spot. This was removed, the peritoneal cavity thoroughly flushed, and the wound sutured and dressed in the usual way. From beginning to end the patient felt absolutely no pain and no discomfort. She breathed quietly and regularly throughout the operation. The pulse did not vary in rapidity until towards the end of the operation, when it became slower and was better in character. There was a marked and definite improvement in the pulse towards the end of the operation, and this improved condition remained. It was certainly not solely caused by the irrigation with hot water.

CASE III.

A. T., aged 43 years, was a dock labourer, and had had a good deal of abdominal pain on and off for eight days. This had become very intense during the preceding thirty-six hours. When he came to the receiving room he was vomiting every few minutes. This continued at frequent intervals while he was in the ward, and later on when in the anaesthetizing-room—in fact, one vomit took place just as the needle was being inserted, before the actual dose was given. Owing to this vomiting the patient did not feel the prick of the needle. He was given the same dose as the other two patients (0.6 c.cm.). During the succeeding six minutes he vomited at least three times. At the end of seven minutes he was perfectly anaesthetic up to the level of the fifth rib, and he could move neither leg, the only voluntary movement left being slight movement of the toes of the left foot. When the stilette in the needle was being withdrawn, only a drop of cerebro-spinal fluid escaped, and when pushing the stilette into the needle again, there was still only a drop or two that escaped. The cerebro-spinal pressure was unusually low, owing probably to the grave condition of the patient.

The diagnosis was general peritonitis, and the cause was thought most likely to be appendicitis. I cut down over the appendix in the usual way, and found that, although there was diffused peritonitis, the appendix was not the cause of the trouble. I found that there was a volvulus of the sigmoid flexure. The latter was small, with a short mesentery, so that when obstructed it did not produce that enormous distension so typical of this condition; still, the abdomen was uniformly distended and tympanitic before the dose was given. There was no passage of flatus or faeces.

After I had made the second incision—that over the sigmoid flexure—I noticed that the skin of the abdomen was dusky, and as I was reducing the volvulus, his pulse became very feeble and the breathing very superficial. I quickly opened the distended colon above the obstruction, tied in the glass tube, and finished the operation in two or three minutes. We then tried artificial respiration, together with oxygen. On carefully observing the respiration, I noticed that the lower intercostal muscles were acting very feebly. After a few minutes we ceased the artificial movements, and I then noticed that the upper intercostals of the extraordinary muscles of respiration were in action. The pulse being still very weak, we resumed the artificial respiration and the administration of oxygen. After about twenty minutes the colour of the skin became much better, but still one could only just feel the pulse at the wrist. We then transfused into the internal saphenous vein three pints of normal solution in the usual way, and to the fourth pint I added an ounce of brandy. By the time half this quantity was injected the pulse began to improve, and finally, in about an hour, the patient was breathing well, with all the intercostal muscles acting and the pulse very much better than it was before the operation. The patient was put to bed and continued in a good condition for several hours. He then began to show signs of cardiac failure, and died some nine hours after the operation.

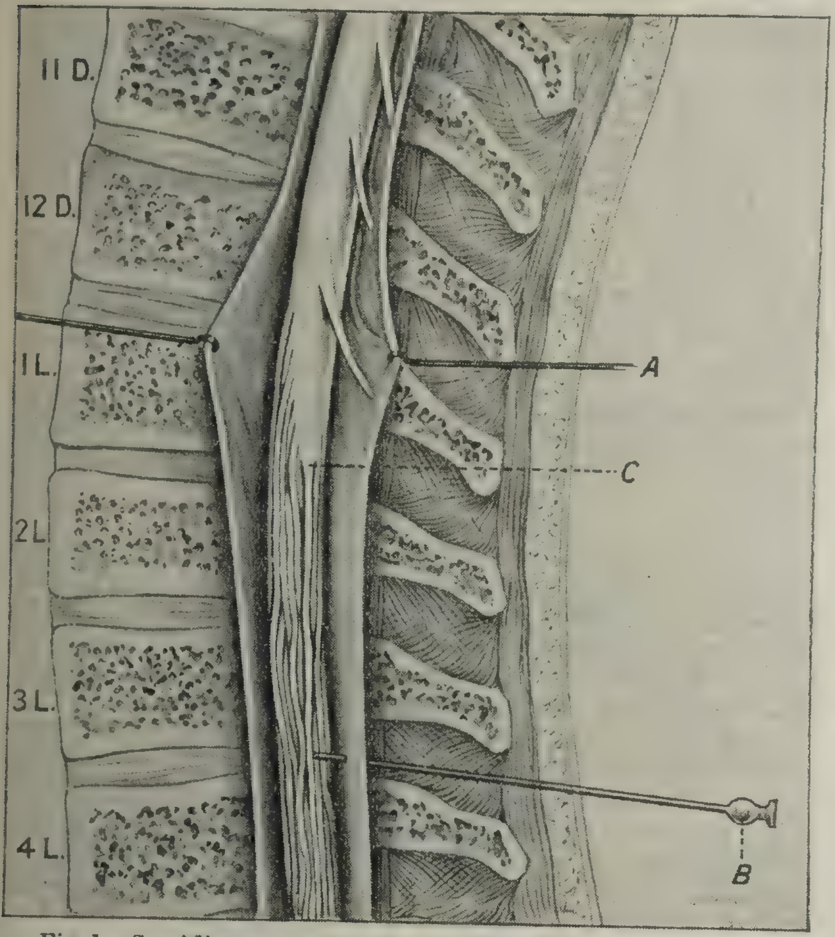


Fig. 1.—Semidiagrammatic section showing termination of the spinal cord at level of upper border of second lumbar vertebra. The theca has been opened and drawn aside (A). Cannula (B). Filum terminale (C).

I am not quite sure how far the stovaine was responsible for the respiratory failure. The bad symptoms did not appear until the patient had been under the anaesthetic for about half an hour, and only became dangerous while I was trying to untwist the volvulus. In order not to minimize the danger of intercostal paralysis, I think we may fairly assume that the lower intercostal muscles were slightly affected, so that when the shock produced by manipulating the volvulus became accentuated, the respiratory difficulty became more pronounced. There was scarcely sufficient peritonitis to affect his diaphragm directly. When the duskiness of the skin was at its worst, I could detect no definite action of the diaphragm, so that we may conclude that the reflex effect of manipulating the volvulus, etc., was largely responsible for the failure of heart and respiration. For the first half-hour after administering the dose the patient's anaesthesia remained steady at the level of the fifth rib, being a little higher on the right side than on the left. In favour of the view that the respiratory failure was only slightly helped by the drug is the fact that quite thirty-five minutes expired before artificial respiration was necessary. I have already mentioned that only a few drops of cerebro-spinal fluid escaped, and I think in this fact lies the explanation of the greater effect of the stovaine in this patient. There was not enough cerebro-spinal fluid in the theca vertebralis at the point punctured to dilute the drug sufficiently, so that we probably got a more intense effect with the same dose than in the two preceding cases.

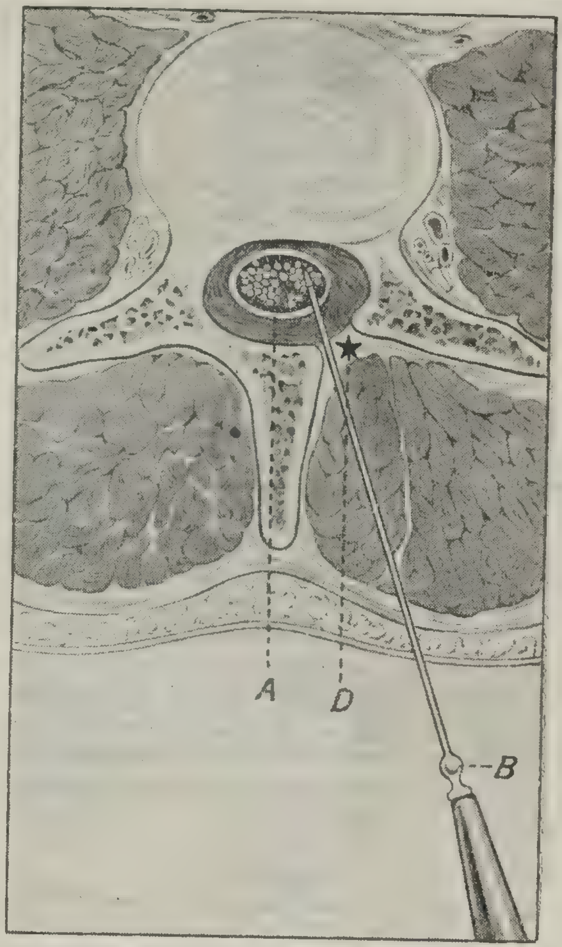


Fig. 2.—Semidiagrammatic section showing disc between third and fourth lumbar vertebrae. (A) The theca, which has been punctured by (B), the trocar and cannula, shown lying among the bundles of the corda equina; (D) points to a star showing the interval between the laminae of the third and fourth lumbar vertebrae.

If I met with the same condition again, where only a drop or two of cerebro-spinal fluid escaped, I should at once dilute the stovaine with an equal part of physiological solution before injecting it, and I should make a point of injecting very slowly.

CASE IV.

S. N., a youth aged 16, was admitted with marked signs of general peritonitis, probably arising from appendicitis. There was considerable distension of the abdomen, the skin of the abdomen showing the typical mottling associated with acute septic peritonitis. The illness commenced seven days previously; it was the patient's first attack.

He was given 0.6 c.cm. as a first dose, but owing to an accident when injecting the solution we were afraid most of it was lost. We waited for seven minutes, and, finding the effects were very slight, I put in a further dose of 0.4 c.cm. At the end of seven minutes the effect of this was that anaesthesia was definite only up to the middle of the thigh. I then put in another 0.4 c.cm. After the first dose the cannula was not withdrawn, so that the subsequent doses were injected without the patient feeling anything whatever. After waiting another five minutes, making nineteen minutes from the commencement, the proper degree of anaesthesia was obtained, sensation being lost up to a line drawn just above the ensiform cartilage. Soon after the third dose was injected the patient commenced to pass flatus and liquid faeces, and at the end of five minutes so large a quantity had been passed that the distended abdomen became quite flaccid.

Although this gradual method was rather tedious, we were more than rewarded by the complete success obtained. The patient felt absolutely nothing during the operation. The appendix was completely gangrenous and there was general peritonitis, the pelvis being full of typical peritoneal pus. Up to the time the wound was stitched, drained, and the dressing applied, the patient felt nothing whatever. He did not even complain of anything being pinched. The pulse gradually improved during the progress of the operation, and at the end all observers agreed that it was distinctly better than at the commencement. I could not detect the least degree of shock, either during the operation, at the end of it, or when the patient had returned to bed.

The following cases, Nos. V and VI, were not acute ones, and were not wholly abdominal. The stovaine anaesthesia produced, however, had some interesting features, so that I am including them in this list.

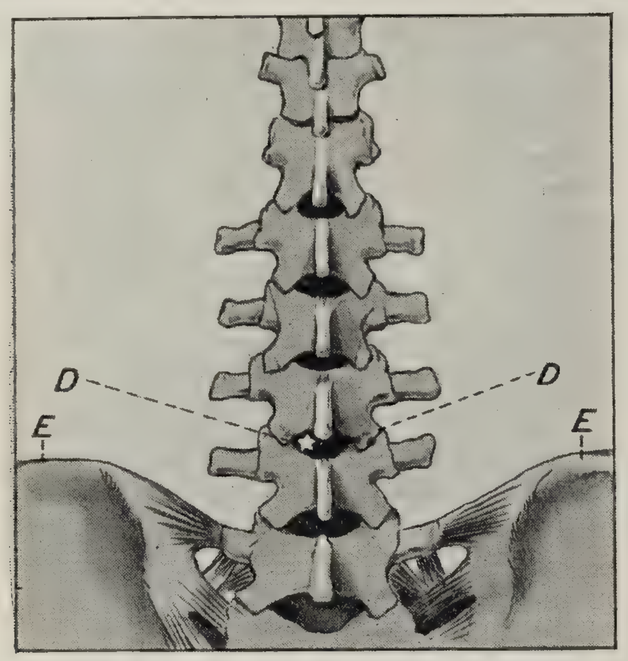


Fig. 3.—Sketch of the lower dorsal and lumbar spinal column, showing the laminae in the dorsal region overlapping, and the intervals between the laminae of the lumbar vertebrae. (E) The highest point of the iliac crest on each side. (D) Points to a star at the place where the puncture is usually made.

CASE V.

A young man, aged 21, had a tumour on the right side of the scrotum, which was thought to be a hydrocele, secondary to some disease of the testicle. This patient was given 0.6 c.cm. The piston of the glass syringe fitted the barrel very loosely, so that when holding it ready filled for use a few drops of the solution were lost, and therefore I do not think we can say he had more than 0.4 c.cm. At the end of three minutes the patient began to pass flatus and liquid faeces. At about the end of seven minutes the skin of the thigh was practically insensible, and a minute or two later there was partial anaesthesia of the scrotum. I decided to commence the operation, and made an incision about 4 in. long over the scrotal tumour. The actual cutting was not felt by the patient, but he complained throughout the remainder of the operation of being pinched or pushed, but never of anything like a prick or a cut. I opened the tunica vaginalis, let out the fluid, cut away a portion of the sac, and then sutured the wound, and dressed it in the usual way. Although the patient complained a good deal of being pulled and squeezed, yet he admitted when it was all over that he had suffered no real pain, and that his complaints were due to the fact that he thought every minute he was going to be "badly punished."

CASE VI.

The next case was also scrotal tumour (about the size of a Jaffa orange), in a man aged 40. The diagnosis was doubtful, so I decided to make an exploratory incision. The patient was injected with first 0.6 c.cm., and this time not a drop of fluid was wasted. At the end of seven minutes the patient's anaesthesia was complete, so that I was able to proceed to operate without his feeling anything.

The exploratory incision showed that it was a case of sarcoma of the testicle. I prolonged the incision upwards and outwards towards the abdominal wall, parallel with the inguinal canal, and terminating just above the external to the internal abdominal ring. In order to get rid of any secondary deposits in the spermatic cord, I slit up the inguinal canal and followed the constituents of the cord well up into the abdomen. I ligatured the vessels without the patient making any sign. I then identified the little artery to the vas deferens and picked it up with the artery forceps. The patient moved a little, saying that he felt a twinge, and that was the only sensation he had during the whole of the operation. I followed the vas some distance and then divided it. In removing the malignant mass I cut away a great deal of the surrounding tissue, together with a large piece of the skin of the scrotum. I then decided to explore the lymphatic glands and vessels in the groin. An incision was made from the upper end of the former one, downward along the line of the femoral vessels for about 4 in. I took away the fat and the lymphatics right down to the fascia lata in the area exposed by this wound. The two wounds were then sutured and dressed in the usual way.

At the end of the operation the two skin incisions measured 17 in., and the superficial area of the wound underneath was very large. The patient talked and was quite comfortable during the whole operation, which lasted about forty-five minutes. He had no idea of the kind of operation that was being performed, thinking we were probably "drawing off some fluid from his purse." The wound in this patient was one of the largest I have ever met with in removing a growth of the testicle, and with general anaesthesia I should have expected a fair amount of shock. In this case, not only was there no sign of shock during the operation, but, if anything, the patient's general condition seemed better than at the commencement. His pulse certainly had more tone in it when the dressing was completed. This excellent condition was maintained after the patient was put to bed, so that we may say that he was in some way or another protected from surgical shock. If this case stood alone one might conclude that the man's constitution was one in which surgical shock was not easily produced, but from my experience of the acute abdominal cases I certainly think we were justified in concluding that stovaine anaesthesia protects the patients from surgical shock more than any form of anaesthetic or of antishock precaution that I have ever employed. Removal of the testicle and spermatic cord, especially when done thoroughly, is, in my experience, usually associated with a considerable amount of shock. This patient did not have any action of the bowels during the administration of the stovaine or afterwards.

Before describing the method I recommend, it will be as well to give the procedure that has hitherto been employed in intraspinal injection of this anaesthetic.

1. *Lumbar Puncture.*

With a rather small trocar and cannula the lumbar spinal canal is entered between two lumbar vertebrae, generally the third and fourth. This point is usually upon a line drawn transversely across the back from one iliac crest to the other. If the patient is in the sitting posture with body well bent forward it is quite easy to get through the interval at this level. If, however, the patient is too ill to sit up it is not quite so easy to enter this spot, because the patient lying on one side cannot so easily flex the spine. Again, if the patient is at all nervous, there is a tendency to move the lumbar spine forward. If this happen just as the trocar is going through the deeper structures one may easily miss the interval.

On one occasion this difficulty occurred to me. In this instance the only trocar available was much larger than I had used on former occasions, and as the patient was very nervous she jerked forward just as the trocar was passing through the tissues. For some reason or another I could not enter the theca vertebralis, and so I removed the trocar, and the patient was given chloroform in the usual way. I am sure that I perforated the ligamentum subflavum, and in all probability the trocar was lying between this ligament and the theca. This is especially likely to occur if the trocar is not a sharp one, and with a large trocar it is not so easy to perforate such a structure as the theca as it would be with a smaller instrument. If a trocar and cannula long enough for the stoutest patient were used for all cases there would be an awkward length of cannula projecting between the syringe and the skin, so that it is best to have trocars of three lengths suitable for men and women respectively; there is considerable disproportion between different individuals in the distance between the skin and the theca vertebralis.

2. *The Dose.*

The minimal dose of stovaine that can be given without fear of respiratory paralysis is half the ordinary capsule, that is, 0.5 c.cm. of the solution (0.05 gr. of the salt). If the anaesthesia is required low down in the leg, quite a small dose, often as little as 0.3 c.cm. of the solution, is sufficient. With even less than the full amount in a capsule, for example, 0.6 c.cm., there is produced very often sufficient intercostal paralysis seriously to hinder respiration.

Sonnenburg[5] reports a number of cases, among which the abdominal operations are: incision for appendix abscess, and an incision for the operation of appendicectomy and gastro-enterostomy; there was no case of general diffuse peritonitis. Sonnenburg gives 0.6 c.cm. as a first dose, and if the patient is not sufficiently anaesthetic in eight minutes, he gives another dose, using the trocar again; he does not say the amount of the second dose. Chaput[6] gives 0.4 as the first dose, and a subsequent dose of 0.3 at the end of ten minutes, if necessary. The patient is again moved on his side for the injection.

3. *Anaesthetizing Period.*

The anaesthesia commences with a numbness of the perineum, feet, and legs in about three minutes from the injection. By the end of five minutes the patient is usually unable to lift either leg, but may move the toes or even ankles. Within seven minutes he is usually anaesthetic up to the groin and in the scrotal and perineal regions; and the maximum effect is nearly always produced, whatever the amount of the dose, in ten minutes. If by this time sufficient anaesthesia has not been obtained, some surgeons have at once resorted to a general anaesthetic rather than insert the trocar again and give another dose. My own experience has led me to modify certain details in the method I have just described.

GRADUATED DOSAGE.

The first point of interest is that the same amount (0.6 c.cm.) was given in one dose to Case I and Case III, the two patients being operated upon within an hour of each other. This divergence of effect is only what one would expect on *a priori* grounds. If the same dose could be relied upon to produce the same effect in all patients, stovaine would differ from all other drugs with which we are acquainted. In these acute cases it is very difficult to estimate the amount that will be required to produce complete anaesthesia, and, owing to the danger zone of intercostal paralysis being near the limit of the anaesthesia required, it is necessary to feel one's way. I consider that it is of paramount importance in cases in which the anaesthesia has to reach the level of the upper abdomen to commence with a minimal dose and to be prepared to gradually increase it if necessary. This means that it is necessary to keep the cannula in until the maximum effect has been produced. Unless we have some means of finding out the amount of the dose beforehand, the method of gradual injection is imperative in acute cases of this kind. I commence with a dose of 0.6 c.cm. as a minimum; and if at the end of seven minutes it is obvious that the dose is too small, an extra 0.3 c.cm. should be given until the extent of the anaesthesia required is obtained. This is the only way at present to avoid the danger zone of intercostal paralysis. The extra time taken to obtain a safe and definite amount of anaesthesia does, of course, demand extra time and effort from every one concerned, but in these grave cases the gain of avoiding the general anaesthetic is very great; in fact, this extension of time has this important advantage—that if the bowels are opened within the first few minutes after the injection of the dose, and this seems to be a very constant result, it gives time for the assistants to clean up the patient ready for the operation. This gradual method is the only safe way of producing sufficient anaesthesia for acute abdominal diseases. In this way alone can we take precautions against being suddenly face to face with temporary paralysis of the intercostal muscles (see Case III). Although the diaphragm is not affected by the stovaine until the cervical cord is reached, yet in cases of acute peritonitis its action is often much interfered with, partly reflexly and partly by direct extension from the inflamed peritoneum.

Doses during Operation.

In Case I we see a complication which, of course, one might expect—namely, that after a certain interval the anaesthesia tends to disappear. Even if we could foretell the exact length of an operation it would be practically impossible to judge beforehand the exact amount of the drug necessary. For about twenty-five minutes the anaesthesia in this patient was perfect, so that if I could have finished the operation after making the first wound she would have felt nothing. As, however, it was necessary to make another incision in the middle line at the time when the patient was beginning to lose the anaesthesia, it would have been convenient to give another dose. To meet this difficulty I have arranged my apparatus so that the cannula can be left in during the whole of the operation, and therefore a small dose could at any moment be injected without hurting or, indeed, scarcely moving the patient.

Doses after Operation.

There is another aspect of this subject, though I have not yet had enough evidence to arrive at any definite conclusion, and that is the value of stovaine anaesthesia during the post-operative treatment of the patient. It is quite possible that any recurrence of pain or abdominal distension might be dealt with by another dose of this anaesthetic.

Surgical Shock.

The next point that naturally requires attention is the relation of stovaine anaesthesia to surgical shock. When chloroform and ether anaesthesia were first employed it was thought that surgical shock would probably be enormously diminished when operating upon a patient who was quite insensitive to the surgeon's knife. Experience, however, showed that this was by no means the case. Surgical shock in the ordinary sense of the word was on the whole not much affected by the administration of chloroform or ether. In the pre-anaesthetic days the sudden shock produced by the first incision sometimes killed the patient at once by reflex cardiac inhibition. When the patient is sufficiently under a general anaesthetic this form of shock practically never occurs.

The remarkable feature of intraspinal stovaine anaesthesia is that surgical shock seems to be avoided. Patients with acute septic peritonitis, having extensive wounds inflicted upon the abdominal wall, with manipulation of inflamed viscera and flushing of the peritoneal cavity seem little if at all affected. All of us who saw these cases were impressed with the extraordinary calmness with which the patients stood the whole operative procedures.

In the literature of stovaine anaesthesia, the absence of shock has been commented upon, but operations upon the lower extremities do not afford a good test of this question, unless the operation is a very serious one, such as amputation through the upper third of the thigh or at the hip-joint. I have not yet come across any records of amputations with stovaine anaesthesia at this level.

Although aware of the fact that stovaine seemed to protect the patient from shock in operations upon the legs, I certainly was not prepared to see patients with acute general peritonitis protected in the same manner. I think, therefore, we may with confidence state that in all the stages of stovaine anaesthesia, from the smallest degree up to the maximum limit, the patient is largely protected from the effects of surgical shock.

From a consideration of this aspect of the question, one can foresee that the benefits of rapid and precise operating will be more apparent in these cases than in those operations performed with a general anaesthetic. In the latter cases it is so difficult to estimate the amount of shock produced because of the confusion brought about by the effect of the ether or the chloroform upon the nervous and vascular systems, so that the extremely rapid operating of the pre-anaesthetic days was gradually dropped for more deliberate and slower methods; indeed, the swing of the pendulum seemed to go to the opposite extreme, and with general anaesthesia the surgeon seemed to think that rapidity of operating meant want of thoroughness. With stovaine anaesthesia the appearance of surgical shock would probably indicate either that the effect of the anaesthetic was wearing off, or that the duration of the operation was in itself becoming a danger. Very often these two conditions might be at work at the same time.

Description of Apparatus Used.

Any form of trocar and cannula or exploring needle of small bore can be used if it is desired to evacuate only a certain amount of the fluid. If, however, we wish to inject something into the spinal canal without wasting a single drop, it is better to use an apparatus that has been designed for that purpose. If a large trocar and cannula of the type used for tapping a hydrocele is used it may cause a good deal of pain when inserted, so that the patient may arch the back forwards and render it difficult to hit the interval between the two vertebrae; further, these large trocars do not penetrate the softer structures so readily as the small ones, and hence may fail to perforate the theca itself; the trocar then lies between the ligamentum subflavum and the theca.

It is quite open to discussion whether trocar and cannula or an exploring needle with its stilette is the better instrument for the purpose. One is often struck with the fact that the softer tissues seem to cling to the cannula, taking a good deal of force to push it into the tissues and to pull it out again. This objection does not seem to be so marked with the exploring needle. In either case it is advisable to lubricate the instrument with a little sterilized glycerine or oil. I lay stress upon these points because some persons when ill feel even a small prick very intensely, and the pain seems to last after the cannula is at rest; and therefore it is most important to employ a method which gives a minimum of pain, although the latter may be only of momentary duration. Freezing the skin of the back has the objection of hardening the skin, so that a great deal of force may be necessary to penetrate it, and this is felt by the patient.

If it is contemplated to inject one dose only, a simple trocar and cannula or exploring needle is all that is required. It would not be difficult to protect the part sticking out from the skin, so that it is not pressed upon during the time the patient is on the operating table. It is the terminal portion inside the spinal canal that might cause damage if there were unusual movement on the part of the patient or any extensive movements like that for artificial respiration should be necessary. To meet this difficulty I have designed a cannula which would be flexible, and its end would be rounded off so that no damage would be done in a sharp edge coming against any nerve or vessel in the theca. I think it will be possible to leave the flexible cannula in position. This, however, is an aspect of the question that further experience alone can decide.

The syringe used has to meet two requirements. It must be, of course, easily sterilized; secondly, it must be of sufficient capacity to hold at least 3 to 4 c.cm. of the solution. It is necessary to have one of this size at least, for the following reason: when the cannula is in position and the fluid escaping the pressure is generally sufficient to force back the piston and so to dilute the stovaine with the cerebro-spinal fluid before the former is injected. As the cerebro-spinal fluid approaches in quantity that of the solution a turbidity appears. The piston is then pushed gently along until all the solution has passed through the cannula into the spinal canal. The graduated syringes with the glass piston have the advantage that the cohesion of the two glass surfaces is slight enough to allow the cerebro-spinal pressure to push back the piston. I do not myself think that this piston needs to be pushed back necessarily by the cerebro-spinal fluid, providing the operator gently pulls the piston back himself, taking care that the cerebro-spinal fluid is not sucked in forcibly. These glass syringes are easily broken and rather expensive. It is unwise to insert the glass nozzle into the cannula direct, because there is a great tendency for it to break. I have had made some small rubber nozzles which at one end are funnel-shaped, so that they can fit on to the glass nozzle of the syringe. The other end is made to fit on to the cannula. In this way the glass syringe is much more easily handled, and the risk of chipping the glass nozzle is avoided. Further, this rubber tube is easily detached from the syringe and then clipped so that the cerebro-spinal fluid is prevented from escaping.

Dangers and Complications.

Sonnenberg[5] reports a case in which the patient died a few days afterwards, and purulent cerebro-spinal meningitis was present. As the patient was suffering from general pyaemia, the relation of the stovaine anaesthesia to the meningitis may not have been direct. In many cases patients have a little headache coming on as soon as the operation is finished, but this generally disappears in a few hours. It would be very surprising if this form of anaesthesia had no drawbacks, and if there were no mortality that could be attributed directly to the method of the administration of the drug, or to the drug itself. It seems, however, definitely proved that whatever the dangers may be, the mortality is by no means so large as with the general anaesthetics.

References.

[1] C. Fourneau, *G. R. Ac. des Sc. de Paris.* [2] F. Billon, *Acad. de Méd.*, February, 1904. [3] P. Reclus, *Ac. de Méd. de Paris*, July 5th, 1904. [4] L. Launoy et F. Billon, *G. R. Ac. des Sc. de Paris*, May 30th, 1904. [5] Sonnenberg, *Deut. med. Monat.*, March 2nd, 1905. [6] Chaput, *Soc. de Chir.*, March, 1905.

ON THE [SPIROCHAETA PALLIDA AND ITS VARIATIONS.

By ALEX. MACLENNAN, M.B., C.M.,

DISPENSARY SURGEON, WESTERN INFIRMARY: EXTRA HONORARY SURGEON, ROYAL HOSPITAL FOR SICK CHILDREN; VISITING SURGEON TO THE TRAINING HOME FOR NURSES, GLASGOW.

In the British Medical Journal of February 3rd of this year there appeared a preliminary note regarding the *Spirochaeta pallida* and the *Cytorrhyctes luis* (Siegel); the views there expressed are stated in full in this paper. Altogether over fifty syphilitics have been examined. In most of them the sore, the secondaries, the glands, and the blood were examined by making from four to ten film preparations. Each set was examined by various methods, stains, etc., but generally it was found that the method of fixation or the stain employed did not make any difference, as where spirochaetes were present they were demonstrable by all the methods. Forty of the series were females, and in them the positive results regarding the *Spirochaeta pallida* were comparatively few (eight positive), while in all the cases examined the smaller bodies about to be described, and similar to those described by Siegel, were found. Two glands were dissected out, and numerous films examined, without finding a single spirochaete, while the smaller bodies were found readily. In one instance the *Spirochaeta pallida*, along with the smaller bodies, was recovered from the urine, being found in the smear from the centrifugalized deposit.

The failure to find the *Spirochaeta pallida* in every case was not due to defective technique, because where the organism was found at all it was found deeply stained enough to be readily seen. In any case the *Spirochaeta pallida* is not found in numbers commensurate to the severity of the lesion. Attention has been drawn to this feature of the matter by various workers, and leads one to infer that it is not present always or equally susceptible to stain. There can be no doubt that this organism stains more readily at one time than another, but even taking this into account, its small representation in the lesion suggests another explanation for the severity of the trouble. In a film populated by every imaginable organism it is hardly reasonable to take the scarcest though one of the most striking organisms present and label it specific. It may be taken for granted that: (1) Syphilis is caused by an organism; (2) the organism, whatever be its nature, exists as such in all the primary and secondary lesions in vast quantity; instances of the subtility and power of the contagion must recur to everyone, whilst the scarcity of the *S. pallida* makes one pause in accepting it as the only or real cause of the disease.

The difficulty in demonstrating an organism may be due to (*a*) its disinclination to take up stain, (*b*) its excessive minuteness; to its presence in the lesions varying (*c*) in numbers or (*d*) in form.

Staining.

There can be no doubt that the *Spirochaeta pallida* is difficult to stain and requires special methods. This having been recognized, there is now no difficulty in getting the organism to take up the requisite amount of dye to render its presence visible. Further, it is probable that the staining capacity of *S. pallida* varies. This may be due, at least in part, to the nature of the medium in which it lies. If the fluid is highly albuminous, the medium becomes fogged before the organism stains.

With other workers gentian violet has given satisfactory results, and in my own preparations I have used it with perfect success. Unfortunately, however, the stain fades. The first stain was a very old saturated solution of gentian violet in methylated spirit with water and glycerine; it was allowed to act for three hours and the resulting staining was perfect. New staining fluid made up in this way tended to precipitate, but if kept warm on the film the precipitation is less prone to occur. I now use with the best results one part of a saturated solution of gentian violet (Grübler) in acetone, added to three parts of water; the stain is filtered before use. The coverglass preparation is placed in the fluid, with or without previous fixation by heat or alcohol, and kept warm in it for three or four hours; without heating, staining may go on overnight. The staining is best carried out in a covered capsule, but if left open a drop of oil on the fluid prevents evaporation. *Spirochaeta pallida* is deeply stained, and can be easily picked out from the other elements; the *S. refringens* is stained almost black. The addition of the acetone has, in my experience, given results superior to either aniline oil or carbolic acid water.

Giemsa's solution (Grübler) used in strength of 1 in 10, or sometimes stronger, and filtered (without filtering the stain is better, but deposits more quickly) with one drop of glycerine added for every ten of the stain, does well to reveal the spirochaetes, but the stain is prone to precipitate. Staining is carried out for one hour, occasionally for three. From time to time the specimen is taken from the stain, and viewed, mounted in water to ascertain if spirochaetes are visible, and if precipitation is occurring. New stain may then be applied for longer than one hour. As a rule the staining is insufficient for high-power photography. Should deposition of stain be observed, the preparation is washed in absolute alcohol, and the film may be restained in Giemsa or be placed in the gentian-violet acetone solution for two or three hours. The staining first with the Giemsa, besides revealing the presence of the spirochaetes, diminishes also the tendency of the gentian violet to stain diffusely, and the very best results are got by this method. In such circumstances *S. pallida* comes out very dark, and can be readily photographed. The actual tint of *S. pallida* and *S. refringens* with Giemsa's stain depends greatly on the degree of concentration and on whether the diluted stain has been filtered or not. (Sometimes *S. refringens* stains pink, sometimes blue or dark purple.)

Fuchsin saturated in glycerine with ½ per cent. acetic acid added, and the acidity reduced by the addition of ammonia drop by drop till the acetic odour has almost gone, acts well if the film is heated. The preparation may be stained for two days, and the staining is very clean; the disadvantage is the length of time required, and the red colour is also not so suitable for the purpose of photography. It is an excellent method for showing the small bodies in the red cells. By these methods very perfectly stained preparations of *Spirochaeta pallida*, etc., can be got, and the technique is of the simplest; but the observer must rest satisfied with few organisms and have a clear field. Any organism more difficult to stain than the *Spirochaeta pallida* may not be rendered visible by such stains, but these, if left to act for longer periods, stain the albuminous medium, so if elusive organisms exist a new stain will require to be invented to render them visible. Besides the *Spirochaeta pallida*, there are numerous other objects seen, and it is among these that the explanation may be looked for to account for syphilitic manifestations without the *Spirochaeta pallida*.

The Minuteness of the Organism.

In a deeply-stained film from a chancre there are crowds of minute particles which might be anything, but occasionally one imagines a resemblance to larger and more definite formations. It is certainly within the bounds of possibility that the organism of syphilis is extremely minute in at least one phase of its life-history. Fig. I shows the minute dots from a ruptured white cell which are not stain, but which might be merely protoplasmic granules from the cell. They are nevertheless not unlike Leishman-Donovan bodies. The difficulty of staining these organisms (if they are such) within the cell is self-evident; when the spirochaetes are visible the cells are usually opaque. The precipitation of Giemsa's stain renders it useless in most cases for the identification of these minute bodies. Against the possibility that the organism is very minute is the fact that coarse filtering removes the contagion from syphilitic juice.

Organism Absent, if Scanty.

The general trend of opinion is that the *pallida* varies in numbers, but is never entirely absent from the lesions, and, when found, it stains readily. Herxheimer[1] has shown that the *Spirochaeta pallida* is most numerous at night. Is this a possible explanation of the nocturnal exacerbations in this disease? The fact that *Spirochaeta pallida* may only appear in one corner of a film and be found in no other part of the field points more to the scarcity than to the invisibility of the organism. The comparative scarcity or entire absence of *Spirochaeta pallida* from obviously syphilitic sores almost necessarily precludes this germ from being the sole infective agent. In every case I have examined with a generalized syphilitic rash the *Spirochaeta pallida* has been absent from innumerable film preparations. I have therefore come to the conclusion that the rash could not be caused by *Spirochaeta pallida*, more especially as the smaller and more numerous forms were invariably present in vast numbers. I have been more successful in finding *Spirochaeta pallida* after mercury had been administered. It may be possible that it is the form the organism takes when a struggle for its existence begins.

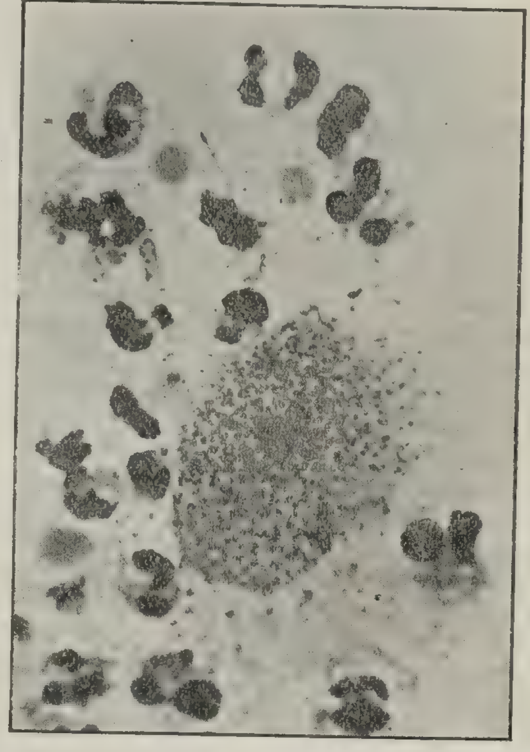


Fig. I.—Photomicrograph (×900) taken by Dr. Leslie Buchanan from preparation from vulvar sore, stained with Giemsa. Distended pus cell ruptured, freeing small bodies.

Variations in Form.

As Rille[2] has pointed out, this spirochaete had been seen years ago, but its significance had not been appreciated. Similarly the other types to be presently referred to have been passed over as being contaminations, artefacts, etc. In the films from chancres, especially in females, the sores are usually so foul that the films are apt to be one continuous layer of pus cells, fungi, and bacteria of all descriptions; when the sores are cleaned and infective serum expressed, no spirochaetes are visible, so where the staining is intense we must be looking at the other type of infective agent without recognizing it. From the first, when going over the slides in detail—and on some many hours have been spent—I tried to account for every particle seen, labelling it as precipitated stain, dust, coccus, bacillus, spirochaete, etc., and in this way I began to perceive some kind of resemblance between the apparently indiscriminate collection seen in preparations from syphilitic sores, etc.

It seems, therefore, to me that among so many visible organisms quite capable of taking up stain one causing syphilis may be looked for, and especially so when it is remembered that filtering removes the infective element from the juice of syphilitic lesions. It has also been shown that material capable of infecting monkeys has been found to be free from spirochaetes.[3] It would therefore appear that there must be another pathogenic agent hitherto not recognized, unless it be the *Cytorrhyctes luis* or bodies similar to it capable of transmitting the disease. The prevalence of other forms found more or less constantly in my slides, and sometimes in countless numbers, has led me to infer that the spirochaetes were merely stages in the development of an organism which in all probability is the cause of syphilis. In some cases the purulent discharge from the uncleaned sore is almost solid with the small bodies about to be described. The most prevalent form which I have found in connexion with syphilis is more like the Leishman-Denovan body than the *Cytorrhytces luis.* Lately it has been shown by Dutton that these bodies in certain circumstances develop tails, and this exactly coincides with one phase of the organism I have found.

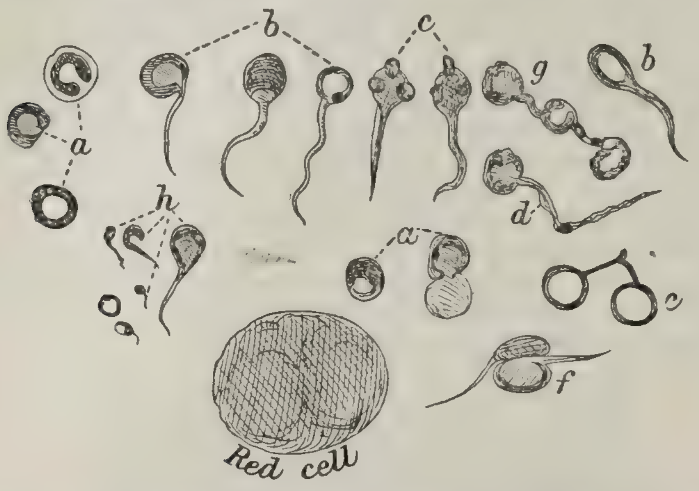


Fig. II.—*a*, Types of the ring and horseshoe bodies; *b*, the same with addition of tails; *c*, type found more or less universally, glands, blood, etc.; *d*, form showing the formation of a daughter body; *e*, unusual form indicating fusion or fission; *f*, commoner configuration indicating fusion of fission (probably the latter); *g*, chain of bodies approaching to spirochaete form, a further development of *d*; *h*, apparent uncurling of horseshoe body with minute examples of same. A red cell is drawn in about the same proportion.

It is to be observed that where syphilis is contracted from a more or less pure infection with trivial primary lesion, while the common micro-organisms, *Spirochaeta refringens*, etc., are absent, the *Spirochaeta pallida* and the smaller bodies are present in larger numbers.

When such a pure infection is found the *Spirochaeta pallida* is always associated with the smaller forms which I affirm are merely developmental stages, and it is just in such cases that the development of the organism can best be discovered. The magnification I have employed has been $\frac{1}{12}$ Leitz immersion objective, with a No. 10 or 12 Watson eyepiece. The development of the *Spirochaeta pallida* from smaller forms seems to me to be as follows:

The smallest representatives of the organism capable of any delineation and of definite character are small spheres of protoplasm containing a horseshoe-shaped more deeply-stained part.

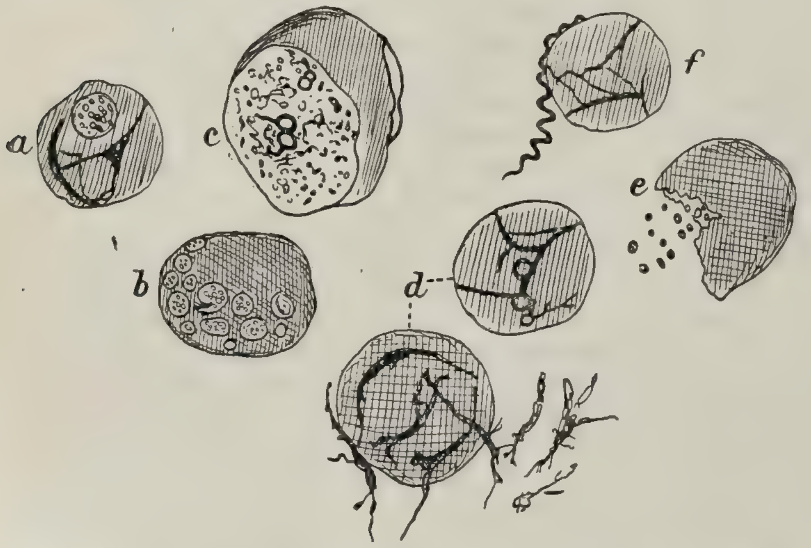


Fig. III, 1.—Diagram of red corpuscles containing small bodies: *a*, cell showing small collection of bodies in one set; *b*, cell with numerous collections; *c*, drawing of cell shown in Fig. III. 2; *d*, cell showing wrinkles (probably) also ditto of albuminous field; in some the appearances indicate bodies like those shown in Fig. II; *e*, burst cell disseminating small bodies; *f*, cell with *Spirochaeta pallida* closely applied.

The deeper stained part may be all that is visible. In every film where the *Spirochaeta pallida* has been observed numerous examples of this type were also present. To photograph such small and faintly-stained bodies has been found almost impossible, so a diagram (Fig. II) will have to suffice. With Giemsa's solution these bodies stain a lighter shade of the same colour as the nuclei. The next stage in the development of the organism shows these little bodies with tails. They are drawn (Fig. II, *b*) from a film made from serum obtained by a hypodermic needle from a groin gland in an early case of syphilis in a female; the films taken from the sores showed bodies similar to the first type. The head in some cases is clear; in others (see Fig. II, *c*) clear with dots at the sides, and in some a dot opposite the tail; in others the whole head is solid or mostly solid, but clearer towards the tail. In some fields the ring-shaped bodies were to be seen as if unfurling to form comma-shaped particles (see Fig. II, *h*). In the largest specimens the tails were very readily made out to have a double twist. Similar bodies to these, but without the tail, have been noted in some red corpuscles, and also in some leucocytes in the films from vulvar sores, or from the primary sore on the penis (see Fig. III, 1 and 2, and Fig. I). Occasionally in the multinuclear leucocytes stained with Giemsa's solution are to be seen spherical blue bodies about the same size as these. These tailed bodies were found invariably in films made from the sores, glands, secondaries, and the blood in four instances. They were also seen motile in the fresh unstained smear from the sores and from the dissected glands. At other times two tailed bodies are to be seen as if fusing, or it may be dividing (see Fig. II, *f*); sometimes it is a hollow sphere with a dark body or two hollow ones which are together. An example of the hollow ring similar to the hollow sphere type is to be seen lying close to the spirochaete shown in Fig. VI; it has doubtless become detached from another spirochaete. As the commonest type, the ring with the peg is the most easily found. The dark dots on the sides of these bodies may develop into separate bodies by acquisition of a tail. Every stage between these tailed bodies and the spirochaetes can be made out. A drawing

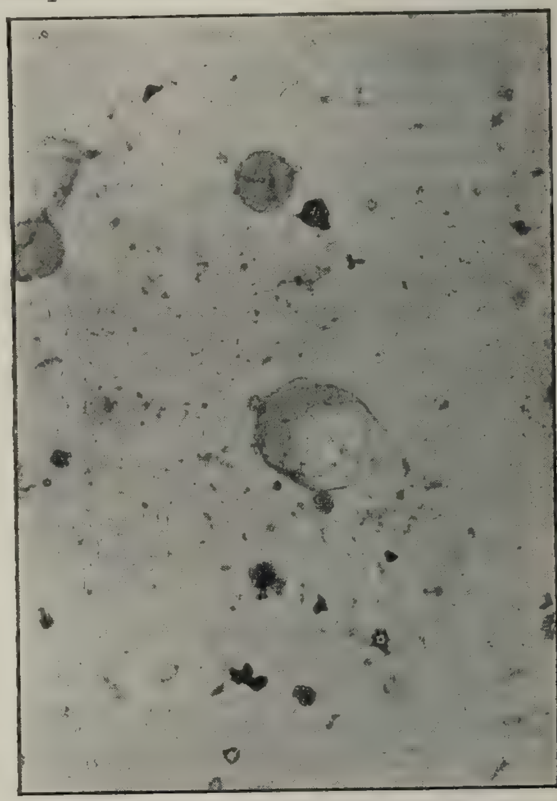


Fig. III, 2.—Photomicrograph, × 900, taken by Dr. Buchanan from smear from small, cleaned, primary sore. Stained with gentian violet. Shows a red corpuscle distended by small bodies, some similar to those shown in Fig. II, *c*. Intermediate stages between normal cell and such a one or one ruptured were visible on the same film. Note also the numerous dots (some tailed) in the same field, identical with those contained in the red cell.

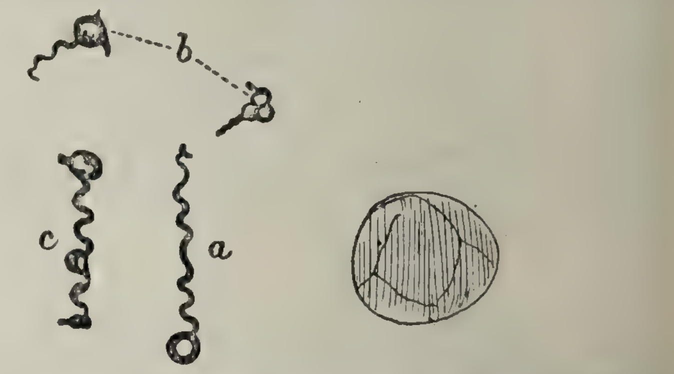


Fig. IV, 1.—Diagram from same film as Fig. III, 2. Shows (*a*) typical *S. pallida* arising abruptly from ring body with peg thicker than *S. pallida*. Above are seen types (*b*) intermediate between it and those shown in Fig. II. Besides it (*c*) another figure of *S. pallida* showing the ring body with the peg, but the spirochaete attached to the dot at the side.

nd two photographs are reproduced to illustrate this point (Fig. IV, 1, 2, 3); *a* shows a typical *Spirochaeta allida* with a well-marked head and a thick peg from vhich the ordinary spirochaete conformation abruptly prings. Other spirochaetes with more solid heads are to e made out also. Below the *Spirochaeta pallida* shown n Fig. IV, 2, is to be found a typical small body with a ail and a dot opposite the tail. It was the heads of ese two organisms, which made me recognize the others s definite when unattached. The head in this spiroaete is not a curl of the filament, but a distinct mation. Numerous illustrations of this type have been blished.

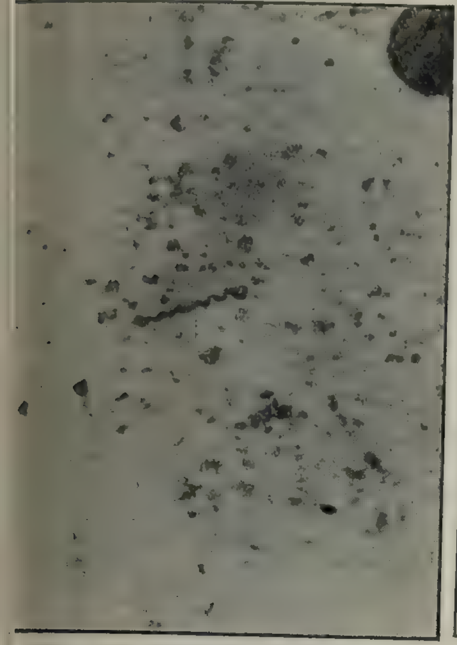


Fig. IV, 2.—Photomicrograph × 1800), taken by Dr. Buchanan, f spirochaete drawn in Fig. IV, , *a*, and smaller bodies, Fig. IV, , *b*.

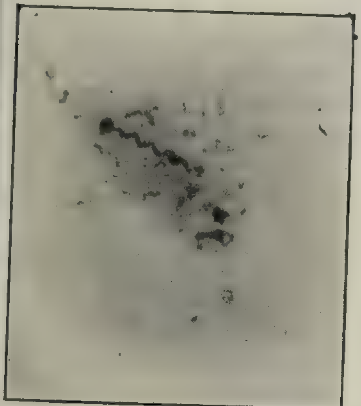
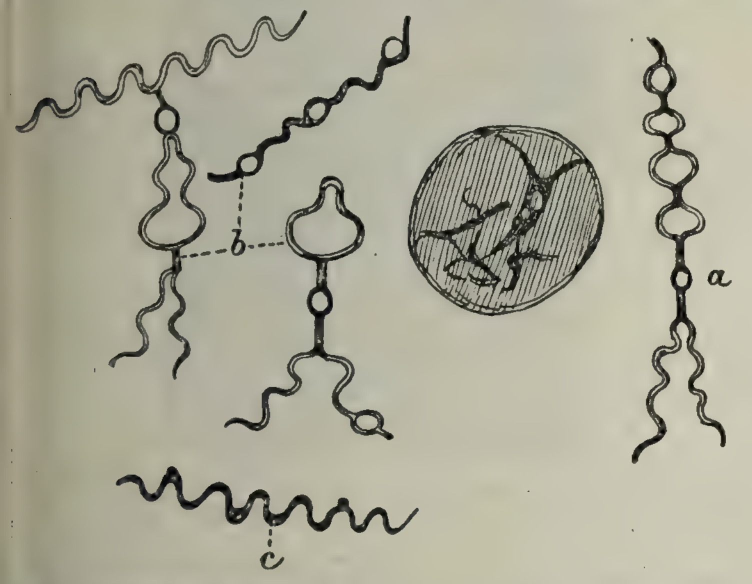


Fig. IV, 3.—Photomicrograph (× 1800), taken by Dr. Buchanan, of spirochaete drawn in Fig. IV, 1, *c*.

he less mature bodies are vastly more numerous than more striking spirochaetes, and it seems to be a hasty premature deduction to label the more conspicuous but rcer spirochaetes as the specific organisms. These aller bodies I have found in the general circulation; one instance in vast numbers; on several occasions re was a well-marked haematogenous jaundice; the nan died in the poorhouse, and no *post-mortem* mination was allowed. Syphilis is occasionally so as to be the cause of death, the cases being ıken for typhus fever. Since the spirochaete has demonstrated certain dark dots have been described n investigators have tended to regard[1] as due to pitated stain; I am certain, however, that this nation is not correct. Where the spirochaetes nost numerous the dotted specimens are frely found, and in my opinion are not preted stain, but excrescences on *Spirochaeta pallida*, part of the process of reproduction. These dots ly rest on the crests of the waves, and there tendency for them to become hollow and to either the first stage in a longitudinal division or, as undoubtedly happens, a new head from which a tail develops. Many specimens of splitting spirochaetes are to be seen, and figures like those shown in Fig. V, *a*, indicate very clearly that the organism splits longitudinally; but this splitting, where it does not occur throughout the whole length of the filament, produces a sphere in the middle or at the end of the spirochaete which itself is the beginning of a new filament (Fig. V, *b*). It would appear as if the formative power were in a greater hurry to produce numbers than to take time to form a complete spirochaete, the reproductive force exhausting itself in quantity rather than quality.



g. V.—Diagram of types of spirochaetes (*a*) indicating longinal division and also (*b*) formation of round bodies (a comd method); (*c*) *Spirochaeta pallida* with dots or thickenings h tend to become hollow. A red cell for comparison in size.

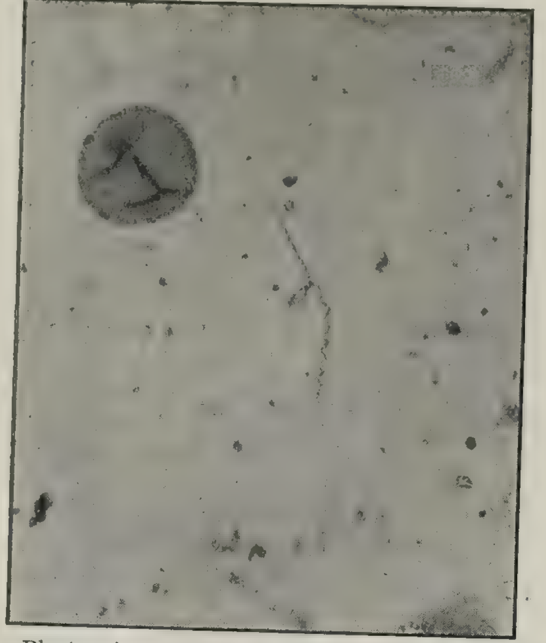


Fig. VI.—Photomicrograph of *Spirochaeta pallida* with head attached, developed (?) from an excrescence. Ring body at side of one end. (× 1800, taken by Dr. Buchanan from same film as Fig. III, 2.)

As further evidence in favour of the view that the sphere formation is not always due to splitting, it has been found not infrequently that the sphere is solid, and from this a fine filament develops as in the earlier stage. Fig. VI shows a type of spirochaete whose form can be explained by the development of a hollow sphere from a dot on the top of the curve, but at the same time it might conceivably result from the divergence of the limbs of a partial split, though the inequality of the limbs does not favour this view; without the excrescence the configuration is that of a typical *S. pallida*. Certain figures are to be seen which are either due to an almost complete split or to two spirochaetes touching at corresponding points. This no doubt occurs or can occur accidentally, but when other configurations show the split to be less complete and the split parts to be attached by a more or less straight solid rod, then the view that the picture is due to a longitudinal fission is much more probable. I have

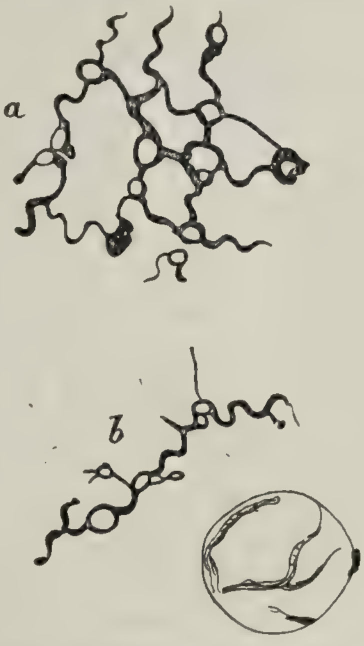


Fig. VII.—Drawing from composite types of spirochaetes seen in smear stained with Giemsa and then with acetone gentian violet. There was a typical primary sore without secondaries. Notwithstanding a full mercurial treatment the secondaries have since developed. *a* Shows three main spirochaetes so attached as to form a colony, and fully establishing the view that the small-tailed bodies and the spirochaetes are the same organism. *b* Is a single spirochaete showing the beginning of the colony formation or breaking up of the spirochaete.

searched for a long time to get proof of the other method of division, and have found very distinct evidence of its prevalence. Such configurations as those shown in Fig. VII, most carefully drawn from actual specimens, show clearly that the sphere formation may not be a fission, but the actual development in the spirochaete of material out of which a new part is to be formed. It indicates that the spirochaete may break up into innumerable small bodies. Here are seen three main spirochaetes (*a*) with branches from the spheres or dots formed on the surface; the parts taken by themselves show very clearly what is the relationship between the *Spirochaeta pallida* and the small-tailed bodies. It is therefore not necessary for the organism to form a typical *Spirochaeta pallida*, but the multiplication may go on indefinitely without the formation of such forms, and when such are developed they may break up into the small bodies, so completing the cycle. These small bodies may remain attached to each other, and an indefinite mass be formed, or they may separate at once. This explains to me the very common experience of all workers who have been unable to find the spirochaetes invariably. There can be no doubt that the *Spirochaeta pallida* is one phase only in the life-cycle of a protozoon, for the somewhat complicated and long filament cannot spring into mature being suddenly, and when other similar types are to be found side by side with it, a presumption exists that they are related to it.

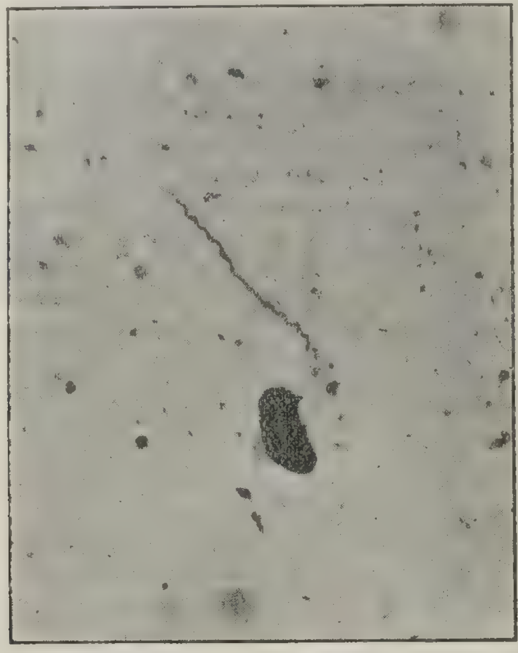


Fig. VIII.—Photomicrograph of typical *Spirochaeta pallida* with straighter part about the middle. Distorted red cell at side, ring and tailed bodies scattered over the field. (× 1800, taken by Dr. Buchanan from same film as Fig. III, 2.)

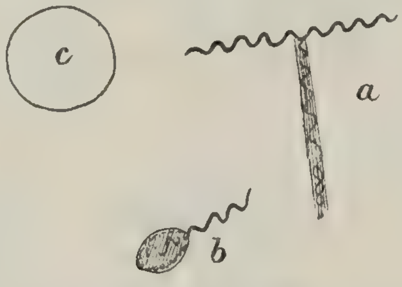


Fig. IX.—Diagram of (*a*) spirochaete with another attached, showing albuminous ribbon: (*b*) spirochaete with albuminous "head" surrounding part, or spirochaete penetrating an albuminous body similar to such as are described by Siegel; (*c*) outline of red cell for comparison.

Figure X, 1, shows what is usually accepted as being a white cell, but I would throw doubt upon this as I have seen the regularity of the form to be more or less constant and have seen it frequently in smears from syphilitic sores and nowhere else. The protoplasm of the nucleus stains much more faintly than that of the white cell. Further, the tail may be noticed to be splitting just as the spirochaete does; there can be no confusion between this and the spirochaete, because the one body is infinitely larger than the other. The latter body can be easily seen with a low power, whereas the spirochaete cannot. Whether this is a necessary part in the life-history of an organism connected or not with syphilis remains to be proved, but its presence with the other protoplasmic organism is to be recorded. In the *Spirochaeta pallida* the head is sometimes so large as to render the resemblance between it and the larger body somewhat striking.

The name *Spirochaeta pallida* only denotes one stage in the history of an organism, while the *Cytorrhyctes luis* probably denotes another. If the contention shortly set forth in the BRITISH MEDICAL JOURNAL in March, and more fully in this paper, is supported by other observations, another name will be required for the protozoon found with, or as the cause of, syphilis. It is also possible—if not, indeed, probable—that there is more than one organism responsible for the series of symptoms included in syphilis. It is a striking fact that the symptoms of syphilis during the roseolar stage are so slight, yet the blood and tissues are more or less contaminated by hordes of micro-organisms. Such symptoms as are present are not likely, therefore, to be due to a toxin elaborated by these germs, but to the germs themselves. Do they fuse with the protoplasm of the cells and thereby cause the chronic deterioration of the whole body, the severity of the disease becoming manifest when the micro-organisms have vanished?

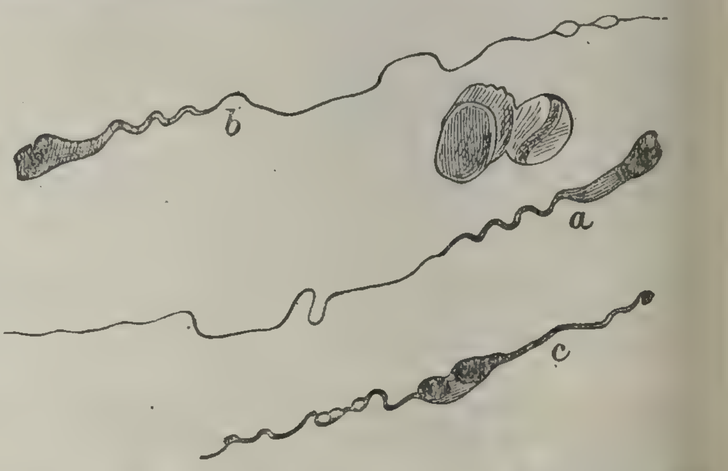


Fig. X, 1.—Diagram of (*a*) long-tailed protoplasmic bodies found frequently in smears from syphilitic discharge. The deeply-stained part of the head may be partite. (*b*) The neck is straight and is continued into a waved (three or four) portion, then into a long fine filament which is quite as delicate as a spirochaete. The filament may show partial longitudinal splitting (*b* and *c*), it may also end in a little mass of protoplasm (*c*). (*c*) Also shows the nucleated part to be central. Three red cells are drawn to scale.

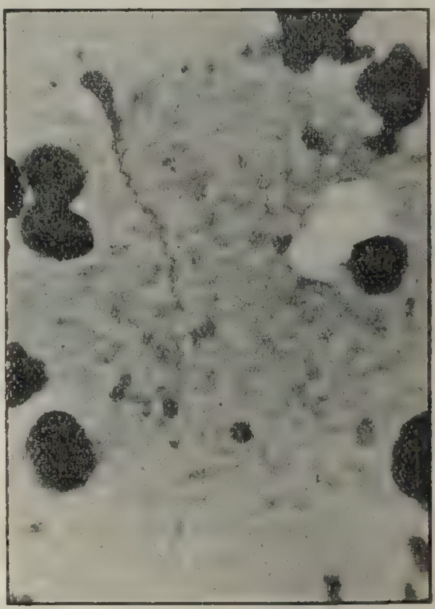


Fig. X, 2.—Photomicrograph of specimen drawn in Fig. X, a (× 900). Film stained with Giemsa, then acetone gentian violet.

Regarding the differences between *Spirochaeta pallid* and *refringens* I have failed to find the *Spirochaeta refringen* with heads or with excrescences upon their curves. have also failed to find the flagella at the ends of eithe organism. *Spirochaeta refringens* divide longitudinall and transversely. The longitudinal method of division have only noticed in the short forms (Fig. XI, *a*); I hav never seen the formations described in this paper fo *Spirochaeta palllida* (as if two filaments had almost, bu not quite, separated) imitated by *Spirochaeta refringen* The method of transverse breaking up occurs i the longer filaments. The appearance seems to b the formation of spores, which result in a chai of dots (Fig. XI, *b*) lying in an almost invisibl filament. Occasionally signs of simple transverse div sion are to be seen—*Spirochaeta refringens* breakin into two or three shorter ones. With practice th differences between the two may be easily enough recognized, and the intermediate forms distinguished. When the spirochaetes are numerous they are likely to be *Spirochaeta refringens.* The variation in the degree and kind of the curves (slightly waved, straight, or spiral existing on one film) proclaims the *Spirochaeta refringens.* When *Spirochaeta pallida* exists side by side or in the same specimen, the divergence of form removes all doubt as to the organism under observation. The fact that *Spirochaeta refringens* has been found in the lymphatic glands at least once should cause one to take note of the presence of this spirochaete more carefully.

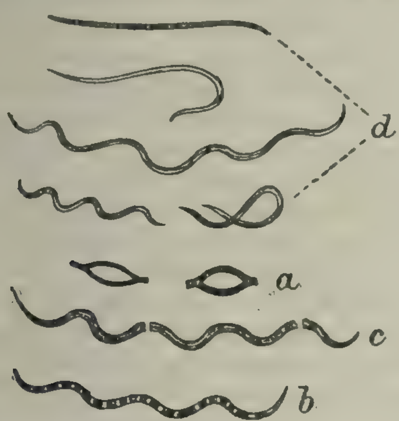


Fig. XI.—Diagram of short *Spirochaeta refringens*, showing: (*a*) longitudinal fission; (*b*) spore formation; (*c*) transverse division by attenuation of part; (*d*) various forms taken by the organism. Drawn from a film stained with acetone gentian violet from a primary commissural chancre. The film also contained the *Spirochaeta pallida* in fewer numbers.

I have to thank Dr. Thomas Kay, the Visiting Surgeon, d the Resident Staff of the Glasgow Female Lock ospital for their assistance in this investigation; and am much indebted to Dr. Leslie Buchanan for the vast nount of time and trouble he has taken in photographing e specimens.

Since writing this paper I have read Siegel's third per,[4] and while I have named the bodies which I think e the progeny or the progenitors of the *Spirochaeta llida* as *Cytorrhyctes luis*, they bear a resemblance only some of those figured by Siegel. With the subject in present stage, it is not advisable to multiply names ven to the organisms found, though already this dency is very apparent. Schutz's paper,[5] published in rch, entirely supports the views set forth in my eliminary communication and in this paper.

REFERENCES.

Herxheimer und Opificius, Weitere Mitteilungen über die *Spiro- eta pallida (Treponema Schaudinnii)*, *Münch. med. Woch.*, 1906, No. 7. ille, Ueber Spirochätenbefunde bei Syphilis, *Münch. med. Woch.*, 5, No. 29. [3] Neisser, Versuche zur Uebertragung der Syphilis auf en., *Deutsche med. Woch.*, 1906, No. 3. [4] Siegel, Weitere Untersuch- en ueber die Aetiologie der Syphilis, *Münch. med. Woch.*, 1906, 2. [5] Schutz, Mitteilungen ueber *Spirochaeta pallida* (Schaudinn) l *Cytorrhyctes* (Siegel), *Münch. med. Woch.*, 1906, No. 12.

A FATAL CASE OF ACUTE CARDIAC BERI-BERI.

BY HAMILTON WRIGHT, M.D.,

ATE BERI-BERI RESEARCH COMMISSIONER, LONDON SCHOOL OF TROPICAL MEDICINE: PATHOLOGIST, WEST LONDON HOSPITAL AND POST-GRADUATE COLLEGE.

case of acute beri-beri here recorded is one of several I have had the opportunity of studying through the rtesy of the Committee of the London School of pical Medicine. It is the only case that proved fatal. result of the *post-mortem* examination of this single , however, largely confirms my previous observations his disease. The bacterial investigation of the case not been finished, but enough has been done to ant pushing the investigation to a conclusion. For purpose I have handed over to Dr. Dudgeon of St. mas's the cultures, not only of a suspicious bacillus d in this case, but of a similar bacillus recovered the stools of other acute beri-berics. Dr. Dudgeon report in due course. In the meantime it seems wise ublish the case itself and my own findings in it.

A., age 37, a seaman, was admitted to the Branch Hos- of the Seaman's Hospital Society (Dr. Duncan's Clinic) ovember 23rd, 1905.

History and Condition on Admission.

Dr. Stanton, House Physician, noted as follows: The patient, a native of Calcutta, made his last voyage from Calcutta on the ss. *Sumatra*, and arrived in London about November 2nd, 1905. The ship went to Antwerp and returned to the Royal Albert Docks on November 22nd. His present illness began on his first arrival in London about November 2nd. There was cough, with pain in the deep epigastric region which he attributed to the cough. He had no appetite and had marked constipation. In a few days his legs felt weak and began to swell. Both the weakness and swelling gradually increased. No history of other illnesses can be obtained. He had not had any venereal disease. He said that ten others occupied the same quarters as himself, and that as far as he knew none of them had contracted his disease. The physical examination was made by Dr. Hamilton Wright and Dr. Stanton. The temperature was 97.4° F., the pulse at rest 112. Respirations 32. The patient was much depressed; brandy had been administered for threatened heart failure. The pulse was small, weak but fairly regular. There was marked dyspnoea. The lips were cyanosed. The apex beat was beneath the sixth rib in the left nipple line. The precardiac beat was somewhat diffuse. The first sound heard at the apex was weak and the diastolic pause decidedly shortened. Occasionally a soft systolic murmur was heard at the apex. The pulmonary and aortic second sounds were frequently reduplicated. The right cardiac dullness extended to the left border of the sternum. There was marked pulsation in the cervical veins. The general character of the cardiac rhythm was embryonic. Large and small moist râles were heard in all parts of the lungs, and there were signs of fluid in the posterior pleurae. The abdomen was distended, and appeared to obtain a considerable amount of fluid. There was marked oedema of the legs, thighs, and sacrum. The patient was slightly dulled mentally from the effects of the brandy administered, and no certain facts could be determined in regard to his sensori-motor condition. The knee-jerks were absent; the superficial reflexes normal. The myotatic irritability of the muscles of the legs and thighs was excessive to direct mechanical stimulation.

The urine for the first twenty-four hours measured 10 oz., specific gravity, 1024; acid, no traces of albumen. The faeces contained some eggs of *A. lumbricoides*, also eggs of *T. dispar*. These disappeared on the exhibition of drugs.

November 24th. A pin can be driven through the skin of the patient's legs without his noticing it if his attention is engaged by conversation. When distraction ceases he correctly locates the pin, and complains of pain. It would seem that dolorific pain is at least delayed. Flexion of the ankles is slow; also extension of the toes. It is difficult to decide whether or not this is due to the massive oedema. The cardiac condition is as first noted. The patient had been given a mixture containing tr. digitalis, spt. ether. nit., and aq. chlorof. every four hours.

On November 27th the patient was as when last noted; 5 gr. of santonin was given.

On November 29th he was still in the same condition as when admitted; sodium sulphate was given.

On December 5th it was noted that many remedies had been exhibited for the dyspnoea and cardiac distress without avail. The oedema had increased, and extended to the trunk. The abdominal wall was markedly oedematous as high as the umbilicus. The scrotum was massive with oedema. The râles in the lungs had cleared up. The sensori-motor condition was not clear; there was certainly no disturbance of either function in the trunk or upper limbs. The legs, however, were apparently dulled to painful and tactile sensations. This might, however, have been due to the oedema. The knee-jerks had been tested nearly every day, and had not been elicited. All other reflexes were normal. Mentally he was clear, but talkative and difficult to keep to the point.

On December 11th, though the lungs were practically clear of all râles, he expectorated a small quantity of blood-stained mucus. The oedema had not subsided. The cardiac condition was as on admission, except that the embryonic character of the rhythm was more pronounced. There was no certain sensori-motor disturbance, except that painful stimulation appeared to be delayed as high as the knees. The reflexes were as on admission. Flexion of the ankles and extension of the legs was certainly slower than the opposite movements, but certain weakness was somewhat doubtful.

On December 18th it was possible to get a certain response to sensory stimulation. Tactile sensation was diminished as high as the knees. There was a slight weakness of the extensors of the legs and of the flexors of the ankles. The cardiac condition was as on admission, except that the irregularity was greater.

On December 24th the condition was unchanged, except that the urine was diminishing in quantity. The patient gradually failed. The oedema did not clear up, and he grew weaker in the legs. It was not possible to determine if the sensory disturbance had extended, as the patient showed considerable irritation and uncertainty on examination. The cardiac sounds and rhythm became more irregular. At 9.30 a.m. on January 1st, 1906, he raised himself in bed, stared round the ward, gasped a few times, and fell back dead.

Dr. Wise made a careful attempt to cultivate organisms from the blood of this case, but failed to do so.

Necropsy.

Necropsy at 3 p.m. Weather cool. Body of a well-developed Indian. There is marked general anasarca. All superficial veins bleed freely on section. Rigor mortis is partial. The eyes are slightly bloodshot. Pupils are equal and regular. There are a few traumatic scars on the shins and knees. The abdominal wall is markedly oedematous. The abdominal muscles are normal-looking. The spleen is rather small, dark chocolate in colour, firm, and cuts with only slight resistance.

The liver is reduced in size. It is firm, and the anterior border is sharp. Just above the gall bladder the edge is indurated. The pulp is congested, and there is a moderate nutmeging. There is a slight grating when the pulp is incised. The walls of the gall bladder are slightly thickened. The ducts are free, and the bile runs freely.

The kidneys are healthy-looking. The capsules peel readily, leaving a smooth reddened surface. The cortices are normal-looking. The cut surfaces retract slightly. There is perhaps a slight cloudy swelling.

The entire mucosa of the stomach is slightly congested. Here and there are patches and rings of deep scarlet congestion, made up of distinct points of injection. These patches and rings are more numerous and closer together in the great curvature and about the pyloric ring. The mucosa has lost its transparent look and is opaque. There are no erosions or ulcerations. The duodenum and upper few inches of the jejunum are as the stomach. The rest of the small gut is slightly congested, and there are some haemorrhagic injections of the valvulae conniventes. The entire large gut is normal. No worms seen.

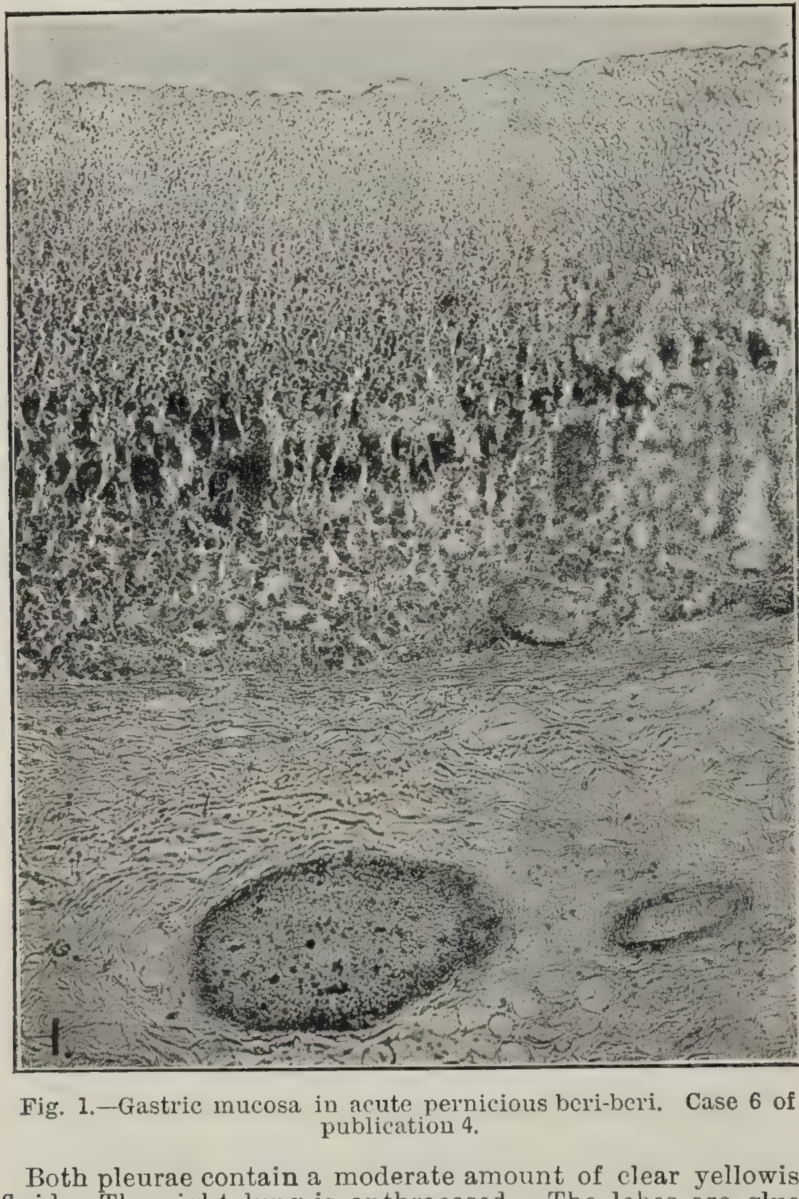


Fig. 1.—Gastric mucosa in acute pernicious beri-beri. Case 6 of publication 4.

Both pleurae contain a moderate amount of clear yellowish fluid. The right lung is anthracosed. The lobes are glued together by slight and recent adhesions. The apex and anterior border are acutely emphysematous. The cut surfaces exude on pressure a slight amount of blood-stained mucus. The left lung is the same as the right.

The pericardium contains a moderate amount of clear yellowish fluid. There is a slight general cloudiness of the visceral pericardium, most marked along the lines of the vessels. There are also in this layer numerous small and large patches of petechiae.

The right heart is enormously dilated, and full of dark semi-fluid *post-mortem* clot. The muscle tissue looks coarse-grained and spongy. It does not look grossly fatty. The right auriculo-ventricular ring is stretched. The left ventricle is slightly dilated. The wall is 13 mm. thick. The cut surfaces are granular, pale, and spongy-looking. No gross fatty change to be made out. The coronary arteries are slightly atheromatous at their origins. The large vessels and all cardiac valves are normal.

The brain exhibits no gross lesion.

The muscles of the lower limbs are moderately oedematous The subcutaneous tissues of the lower limbs, abdomen scrotum, and back are markedly oedematous.

Microscopical Examination.

Several portions of the stomach, duodenum, and othe parts of the small and large gut were microscopically examined. The large intestine was normal. The mucos of all parts of the stomach and duodenum exhibited more or less marked necrosis (see Fig. 1, which shows this necrosis in a case studied in the Malay Peninsula and Fig. 2, which is of the pyloric mucosa of this case) Only the cells of the bodies of the glands were natural looking. A small amount of fibrin was shown by Weigert's method. All the vessels were over-full; and in the congested patches, though there was no actual extravasation the vessels were nevertheless distended to bursting point The necrosis of the mucosa in the congested areas wa not more marked than in the intercongested patches This would seem to indicate that the necrosis of th mucosa was not due to the congestion. All sections showed a certain amount of superficial sloughing o the mucosa. In the duodenum the villi were ofte seen almost detached; in the stomach the sloughing wa unevenly distributed. Most of the sloughs contained bacillus which corresponded with the bacillus alread described by me as having been found in other cases o

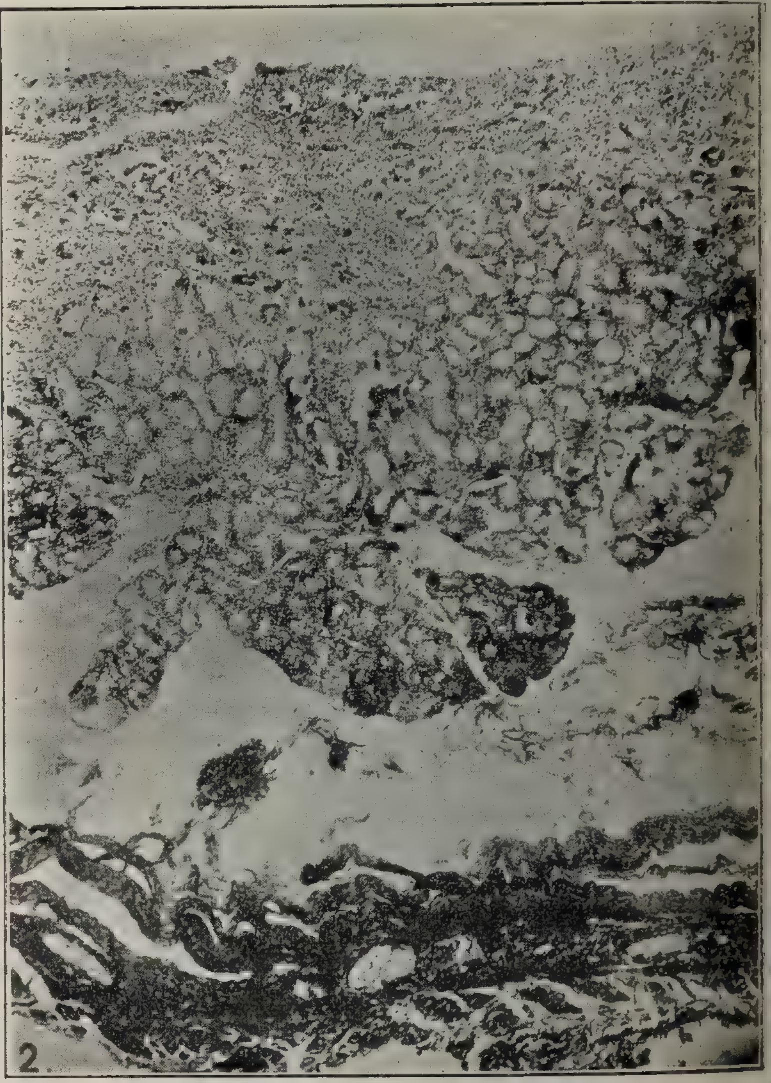


Fig. 2.—Gastric mucosa of this case.

acute beri-beri. Occasionally this bacillus was seen i the deeper layers of the mucosa, but never below th necrotic line. It was not found in any other part of th gut of this case, or in the tissue of the other organ The bacillus measures 4 to $9\,\mu \times 1.05\,\mu$. It is Gram positive, and stains readily by the ordinary basics. (Se Fig. 3, which shows this bacillus in the mucosa of Malayan case; and Fig. 4, which shows the bacillu recovered from the case presented here.) More of th organism later.

The cerebral and cerebellar cortical cells were norma The cells of the sensori-motor cranial nuclei were likewis normal, except those of the vagi. In all levels of th ambiguus nuclei the great majority of the cells showed marked chromatolysis and dislocation of nuclei. In th median levels not a normal cell was to be seen. Th group of cells just anterior to the hypoglossal nuclei we similarly changed. The spinal cord was not removed, s that I cannot state the condition of its motor cells.

Several strands of nerve fibres dissected from the right rdiac auricle exhibited the effects of the beri-beri toxin. a few fibres there were truly Wallerian signs of generation. But the majority of the fibres were in hat I have previously classified as the first and second ages of change—that is, the medulla at the nodes and at ints between the nodes was blackened by osmic acid, it had not broken into globules. The main trunks of e cervical and thoracic cardiac branches of the vagi were althy, so that in this, as in other cases of acute beri-beri ich I have examined, the change in the nerve fibres is rely peripheral.

Both stellate ganglia contained a minority of cells which owed dislocation of nuclei. A few cells were seen which o exhibited some chromatolysis. This would appear to licate that a minority of the post-ganglionic accelerator diac fibres were poisoned by the beri-beric toxin. I did determine the state of the post-ganglionic accelerator res themselves, but the "axonal reaction" in the stellate ls would appear to indicate that they, as well as the ibitory fibres, had been involved by the beri-beric us. On these findings the cardiac irregularity, tension, and final failure are explainable.

nly a few poisoned fibres were found in the twigs to anterior tibial and peroneal muscles. The cutaneous nches of the musculo-cutaneous in the legs also showed w poisoned fibres. There were not enough of them, ever, to warrant a view that there was large disturb- e of the sensori-motor functions of the lower limbs. It be remembered that this was a doubtful point in the ical examination.

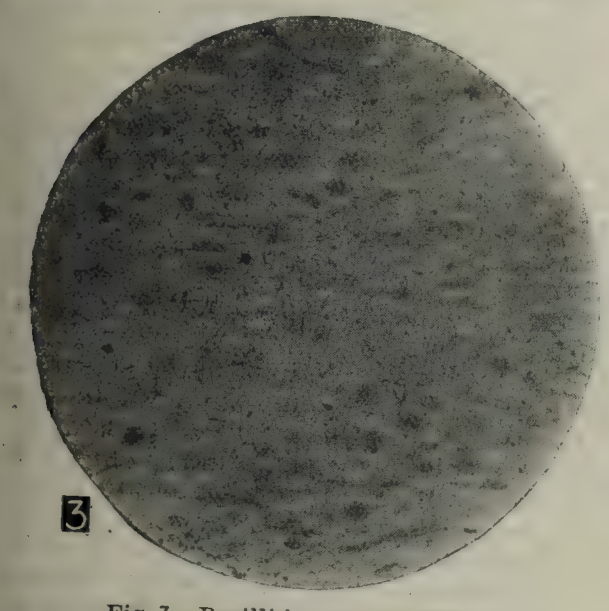


Fig. 3.—Bacilli in mucosa of Fig. 1.

e central cells were stained by Nissl's method; the fibres by Marchi's and Busch's methods.

e cardiac muscle stained by Marchi's method, and Soudan III exhibits a marked fatty degeneration. legeneration was not uniformly distributed, except in apillary muscle. Rather it occurred in small, well- ed patches, separated by a few fibres which showed slight fatty degeneration. The right heart appeared more extensively and more severely involved than ft.

re was a moderate induration of the liver, with some infiltration. The vessels were full, and occasionally extravasations were met with. Thick frozen sec- showed more free blood. But by this method blood dily drawn from the vessels, and so spread as to ble extravasations. The spleen exhibited nothing e. The kidneys were over-full of blood, but other- ormal.

Bacteriology.

h, ordinary agar, and glucose agar, were inoculated the auricular blood, from the liver, and from the ts of the stomach and duodenum; also from gs of the mucosa of the latter parts. The cardiac proved to be sterile, and no growth occurred in the inoculated from the liver.

of the media inoculated from the contents and gs of the stomach and duodenum showed growths end of twenty-four hours. Plates were made from face colonies, but no organism was seen which onded with that found in the mucosa of the h and duodenum.

In the glucose agar stabs, however, there was found in almost pure culture a bacillus which corresponded morphologically and in staining reaction with that found in the gastric and duodenal mucosa. It was recovered in pure culture in Bulloch's apparatus and in Buchner's tubes. By these methods it grew slowly and aberrantly; but when stabbed into glucose agar it extended rapidly, first, in discrete colonies which soon coalesced, and then by diffusion of products clouded the whole column of media.

The bacillus at twenty-four hours ranged from 4 to 8 or 9 μ in length, and was 1.05 μ in breadth. The ends are almost square, and the sides regular but slightly curved. Older cultures were longer, stouter, and tended to become clubbed. By both Weigert-Gram and Loeffler the staining was irregular, many of the organisms resembling the granular forms of the Klebs-Loeffler bacillus.

Inoculation Experiments.

A rat proved to be refractory to 15 c.cm. of a broth emulsion of a ten-day-old culture subcutaneously injected. A monkey subcutaneously injected with two similar doses showed signs of paralysis of the hind limbs; but it developed a small septic abrasion in the thigh, and so had to be excluded. A guinea-pig injected subcutaneously with 15 c.cm. of a broth emulsion on January 25th and with a similar dose on February 1st exhibited first a general weakness and then paresis of the hind limbs on February 12th. On February 16th the paralysis of the hind legs was more pronounced, and on February 17th the animal died. All cultures from blood and tissues proved sterile. There was no lesion at the site of inoculation. No pathological change was found in any of the tissues, except in the nerve twigs to the flexors of the hind ankles, which contained a few changed fibres—about 1 to 4 or 5. Degenerated fibres are not unusual in these animals, so that this observation cannot be regarded as satisfactory.

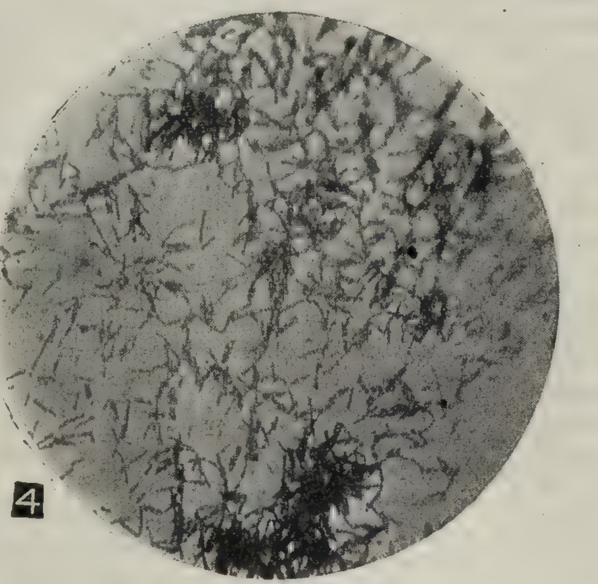


Fig. 4.—Bacilli. Ten-day-old culture from duodenum of present case.

Not being in a position to carry these experiments further Dr. Dudgeon has consented to do so, and all cultures have been handed to him. I am indebted to Dr. G. C. Low and Dr. Wenyon for having inoculated the above animals for me.

Conclusion.

All that need be said in conclusion is that here we had a case of acute beri-beri, dying in the seventh week of the disease from cardiac failure, and exhibiting the lesions which were constantly found during my studies of this disease in the Far East. The train of events during life were an acute onset with complaint of gastro-intestinal symptoms, followed or accompanied by other symptoms that marked the effect of the beri-beric virus on the cardiac and vaso-motor nervous systems; then death from cardiac failure.

Previous Papers by the Author.

[1] Changes in the Neuronal Centres in the Beri-beric Neuritis, British Medical Journal, June 29th, 1901. [2] *The Etiology and Pathology of Beri-beri*, Churchill, London, May, 1902. [3] Beri-beri in Monkeys, *Brain*, vol. xxvi. 1903. [4] *The Pathology and Classification of Beri-beri*, London, 1903. [5] Result of Preventive Measures against Beri-beri, *Journal of Hygiene*, April, 1905. [6] The Pathology of Beri-beri, *Review of Neurology and Psychiatry*, September, 1905. [7] The Cause, Course, and Treatment of Beri-beri, *American Medicine*, October, 1905.

DIONINE IN OPHTHALMIC PRACTICE.

BY JAMES HINSHELWOOD, M.A., M.D.,
SURGEON TO THE GLASGOW EYE INFIRMARY.

IN the BRITISH MEDICAL JOURNAL of April 30th, 1904, I wrote a short note on dionine as an ocular analgesic, and called attention to the remarkable powers of this new agent introduced by Darier,[1] at that date practically unknown in ocular therapeutics in this country. Since then I have made extensive use of it both in hospital and private practice, and my increased experience has not only impressed me still further with its great value, but also has extended its applications in ophthalmic practice. I have therefore thought that a further communication would prove interesting to many, as only the most meagre information about the important uses of this new drug in eye work is to be found in English medical literature.

Dionine, or ethyl-morphine hydrochloride, although used for some time in general medicine as a sedative to replace codeine and morphine, was first used in ophthalmic practice by Darier as an ocular analgesic. It is a white, odourless, crystalline powder, freely soluble in water. As an analgesic I have used it chiefly in 5 per cent. aqueous solution or made up with vaseline as an ointment in similar strength. When there is great lachrymation I prefer to use it as an ointment, because the aqueous solution gets rapidly diluted with the tears and washed away, whilst the ointment introduced into the conjunctival sac adheres until it is gradually melted and absorbed. When this 5 per cent. solution or ointment is introduced into the conjunctival sac it does not change in any way the sensitiveness to touch of the cornea or conjunctiva, and hence is of no use for the removal of foreign bodies or for operations of any kind on the eye. But if the patient is suffering from pain the result of disease or inflammatory processes in the eye, such as is met with in iritis, irido-cyclitis, glaucoma, ulcer, or corneitis, the introduction of the dionine has a markedly soothing effect, and in many cases gives for several hours complete relief from the severe pain which often accompanies these affections. Dionine is therefore not an ocular anaesthetic, but is a powerful ocular analgesic.

The ocular analgesics which are most widely used at present are cocaine and holocaine, which are both anaesthetics and analgesics. At the meeting of the British Medical Association in 1898 at Edinburgh,[2] I made a communication on holocaine, in which I pointed out its great superiority to cocaine as an analgesic in relieving the deep-seated pain of ocular disease. Cocaine is least satisfactory for this purpose, and in such affections as iritis and glaucoma often actually increases the pain, probably by increasing the tension of the eye. I have recorded a case[3] where an attack of acute glaucoma was brought on by the use of cocaine, and hence this drug can be used only with the greatest caution in diseases of the eye. The introduction of holocaine, free from all the dangers of cocaine and with a more powerful analgesic effect, was therefore a distinct advance in ocular therapeutics. Dionine neither dilates the pupil nor elevates the tension of the eye, and hence is free from the dangers of cocaine. It is superior as an analgesic even to holocaine, and therefore holds the first place as the agent for relieving the deep-seated pain in the eye which is met with in such diseases as irido-cyclitis, glaucoma, and corneitis. In the hospital I carried out a careful series of comparative experiments with three solutions—5 per cent. cocaine, 1 per cent. holocaine, and 5 per cent. dionine—in order to determine the degree and duration of the relief afforded to the patient from the pain attendant upon ocular diseases.

Both as regards the degree and the duration of the relief afforded, I found dionine the most powerful agent, next to it holocaine, and a long way inferior to both cocaine. The dionine drops or ointment may be used freely every two, four, six, or eight hours, according to the severity of the pain and the effect produced. It is an agent which can do no harm and hence its great value. There is, however, an occasional effect produced by dionine at its first use regarding which the patient must be carefully warned, otherwise it may alarm him very much and lead him prematurely to abandon the use of the drug. After the first instillation it may cause a feeling of burning and irritation followed by an intense chemosis of the conjunctiva, which may swell up and even overla the cornea. This, however, need not cause the slightes alarm, as the chemosis very rapidly subsides. It is symptom which may even be welcomed, as in these case the analgesic effects of the drug seem to be the greatest It appears only after the first or second instillations, neve after subsequent ones.

As on the first instillation of dionine into the eye ther is often a feeling of burning and irritation, it is advisabl always to begin with a weak solution, not stronger tha 2 per cent., and gradually increase the strength, so that i the course of a few days 5 per cent. may be used. Whe the drug has been used for some time it may even be use in stronger solution than 5 per cent., and I have on severa occasions used the pure dionine powder with great reli to suffering. This can only be done, however, when th eye has become thoroughly accustomed to dionine.

I have of late used dionine with great success in a clas of cases in which it is often very difficult to give th patient any considerable measure of relief, those met wit chiefly in neurotic and neurasthenic patients, in which constant feeling of soreness and discomfort in the eye i complained of even apart from use. No disease abnormality may be discoverable on careful examinatio and yet the patient constantly complains of the feeling soreness. In these cases I have found the use of wea dionine drops (1 or 2 per cent. at most) exceedingl grateful to the patient, and giving considerable relief the symptoms. The drops should be used three or fou times daily. The burning sensation at first experience after instillation will rapidly disappear, and after a fe days no discomfort will be experienced. I have foun dionine also of great service in the ocular pain con plained of as the result of eye strain. We are all famili with cases where the subjective examination of th patient with the test types is almost impracticabl owing to the irritable and painful condition of the ey consequent upon severe strain. In such cases a few day rest and the regular use of weak dionine drops (1 or 2 pe cent.) have a most favourable effect, relieving the patie from his discomforts, and enabling a satisfactory examin tion of the eye to be made. There are many cases whe we cannot use with safety atropine or homatropine, and i these dionine is most valuable to us as an ocular sedativ but for this purpose it need only be used in very wea solutions (1 per cent. as a rule).

The most recent discovery regarding the use of dioni is that it possesses a remarkable power in clearing u opacities of the cornea, and for this purpose alone woul be a most valuable agent. When first I used it in cas of corneitis in order to relieve the pain, I observed th the corneal infiltration disappeared with great rapidit and completeness. This led me to use it in cases corneal opacities which presented themselves after a the inflammatory symptoms had disappeared. Whe the opacities were of recent origin it was invariab found that dionine had quite a remarkable action i clearing them up. During the last two years I hav been habitually using dionine for this purpose, a have made comparative experiments with dionine a the other methods usually employed for this purpos As the result of a large experience I can say that other method employed for the clearing up of corne opacities can be compared with the results obtained the use of dionine. The more recent the opacities t better were the results, but even with old-standi opacities improvement may be derived from the trea ment.

In the treatment of corneitis, when there is mu infiltration, I always combine the atropine with 1 2 per cent. of dionine. This answers the double pu pose of relieving pain and hastening the abortion of t corneal infiltrate. It was found particularly useful cases of interstitial or parenchymatous corneitis, b I employ it in all forms of corneitis. When the infla matory symptoms have subsided the atropine is stoppe but the dionine is continued alone for a considerab time.

For the clearing up of corneal opacities I always empl dionine in the form of an ointment. I begin with a we ointment, 4 gr. to the ounce, and gradually increase t strength up to 12 gr. to the ounce. A little of the oi ment is inserted under the lids and the cornea is gent massaged through the closed lids for a short time, at fi once and subsequently twice daily. If this were to be done at first with a strong ointment considerable irritation might ensue, but by beginning with a weak ointment and gradually increasing the strength, little or no irritation is experienced. The treatment conducted in this way may be continued for a considerable time with little or no discomfort to the patient, and with a very decided effect n clearing up the corneal opacities, more especially if hese are of recent origin.

As an agent for the relief of pain in diseases of the eye, s a soothing application in hypersensitive and irritable yes, and, above all, as the most powerful means at our isposal for the clearing up of corneal opacities, dionine s destined to occupy an important place in ocular herapeutics.

REFERENCES.

[1] Darier, *Leçons de Thérapeutique Oculaire.* [2] BRITISH MEDICAL OURNAL, 1898. [3] *Ophthalmic Review*, 1900.

THE LOCAL ANAESTHETIC ACTION OF STOVAINE.

BY DAN MCKENZIE, M.D.GLASG.,
SISTANT REGISTRAR CENTRAL LONDON THROAT AND EAR HOSPITAL.

URING the last three months I have submitted stovaine a continuous series of trials, both in private and on tients attending the clinics of Dr. Orwin and Mr. ichele Nourse at the Central London Throat Hospital. have to acknowledge my indebtedness to these ntlemen for permission to make the trials and to publish e results obtained.

The cases in which I have used stovaine have all been ses of minor operations on the nose, throat, and ear. ials were made with solutions of the strength of 5 per nt., 10 per cent., 15 per cent., and 20 per cent., but it was on found that a 10 per cent. solution was sufficiently ong for most cases, and that a 5 per cent. solution was weak. Tampons of cotton-wool were soaked in the ution, squeezed fairly dry, and, in nose cases, inserted o the nostril so as to lie in contact with the mucous mbrane of the part to be operated upon; in throat cases throat was swabbed with cotton-wool on a probe ted with the solution; and in the few ear cases, a small g of wool properly moistened was inserted into the ernal auditory meatus.

ANALYSIS OF 57 CASES.

Nose.

Galvano-cautery to the inferior turbinal body...	22 cases.
Removal of polypi by snare...	11 ,,
Ditto, by curette	1 case.
Removal of anterior half of middle turbinal, in the usual way, by forceps and snare	6 cases.
Removal of anterior end of inferior turbinal ...	3 ,,
Removal of posterior end of same...	4 ,,
Removal of septal spur by sawing	1 case.
Stovaine applications for examination and testing	6 cases.

Throat.

alvano-cautery to hypertrophied lingual tonsil	1 case.
vulotomy	1 ,,
iece of naso-pharyngeal growth removed for examination	1 ,,

Ear.

olyp removed by snare	1 case.
urettage of middle ear (granulations)	2 cases.

comparing the anaesthetic action of stovaine with of cocaine, on the whole, the impression formed was in the newer substance we have a local anaesthetic as powerful as the old. In not a single case was any complaint or indication of toxic phenomena.

one case in which a septal spur was removed by ng under nitrous oxide and ether, and in which a on charged with stovaine and adrenalin solution had placed in the nose, the operation lasted longer than been expected, and the patient came round before awing was finished, but the local anaesthesia was so ct that the patient felt no pain at all. It is obvious n cases where a general anaesthetic is to be used in ion to the local anaesthetic, stovaine, which pro- no depressant symptoms, is preferable to cocaine.

curetting granulations in the middle ear stovaine pplied to the surface to be scraped, and a better thesia obtained than with cocaine used in the same As is well known, to ensure complete anaesthesia for this little operation a subcutaneous injection into the so-called "zone of Troeltsch" is necessary.

Several of the patients had had a former experience of cocaine, and all, with one exception, preferred the anaesthesia of stovaine. One of these had suffered from toxic symptoms with cocaine.

Thus far it would seem that stovaine is much to be preferred to cocaine for local anaesthesia, but an accident made me acquainted with an unpleasant result. A female patient had come for the application of the galvano-cautery to the inferior turbinals, and was prepared for operation in the usual way by the insertion of tampons soaked in a 10 per cent. solution of stovaine into the inferior meatus of the nose. Pressure of other work prevented me from attending to her for about forty minutes, and at the moment when, the tampons having been removed, I was about to apply the cautery, the electric current gave out, and the affair had to be postponed. She returned to me four days later, complaining of a free watery discharge from the nose, which had come on half an hour after her previous visit. On examination I found, to my surprise, that there was superficial sloughing of the mucous membrane of the inferior turbinals, and of the corresponding parts of the septum on both sides, just where the tampons had been lying. There was, however, but little reactionary swelling, and with suitable treatment the slight ulceration was healed in about ten days. Inquiry among others of the series of patients elicited the fact that many had suffered from "colds in the head" for some days following the application of the new agent.

In order to test this observation several other trials were made. Applications of a 10 per cent. solution of stovaine were made for varying lengths of time to the nasal cavities, and the nose examined at intervals of every two or three days for some time after the application. It was found that the amount and extent of tissue destruction varies with the length of time of application. In a case where the duration was ten to fifteen minutes nothing happened. In another of twenty minutes' duration very slight superficial sloughing occurred. So that it would seem advisable not to allow a contact of longer than fifteen minutes, a length of time quite sufficient to ensure satisfactory anaesthesia.

Although the strength of the solutions used for injection into the tissues and into the spinal canal (0.5 per cent.) is much less than that employed in the foregoing tests, it would be advisable, in view of my findings, that observers should note whether or not any irritant effects arising from the stovaine occur after the operation is over. In the case of the spinal cord in particular care should be exercised, for, if the drug exerts a destructive or irritant effect on mucous membranes, it stands to reason that a delicate nervous tissue may also suffer from an intimate contact with stovaine, even when it is used in very weak solution.

My results, summed up, are as follows:

1. Stovaine equals cocaine in local anaesthetic action.
2. Stovaine does not induce general toxic symptoms in ordinary anaesthetic doses.
3. Stovaine, like cocaine, induces ischaemia of erectile mucous tissues.
4. Stovaine should not be left in contact with mucous surfaces for longer than fifteen minutes, lest its powerful irritant action be followed by sloughing and ulceration.

It is proper to suppose that the last rule is of less importance when some destructive action is the aim of the surgeon, as in cauterizing, etc.

PROFESSOR KOCHER of Berne will deliver the annua address of the Cardiff Medical Society on Friday, May 25th. The subject chosen is Graves's disease.

THE new operating theatre at the Royal Devon and Exeter Hospital, which was opened on May 4th, by Mrs. Nosworthy, of Dawlish, its munificent donor, has been carefully designed to meet all modern requirements. The theatre can be heated rapidly, and the ventilation, by electricity, is equally sensitive; the inlets for ventilation are packed with cotton-wool. The floors are fireproof and paved with terrazzo. the walls are lined with opal tiles, and there is a domed ceiling of the same construction. The top and side lights are double glazed and there are anaesthetic and sterilizing rooms adjoining. The fittings of the theatre are all nickel-plated. The cost was about £1,500.

MEMORANDA:
MEDICAL, SURGICAL, OBSTETRICAL.

POST-MORTEM CAESAREAN SECTION.

In the annotation at p. 1062 (May 5th) on Caesarean section in the moribund it is stated that it is right to deliver the child immediately after death and not to operate before death.

The following case confirms this opinion and shows that it is safe to wait till life is extinct:

Mrs. L., aged 26, near the end of the eighth month of pregnancy, died in my presence from coma the result of meningitis of about two weeks' duration. The child could be felt moving in the uterus. The friends were unwilling for operative interference as they were not sure she was dead, though both pulse and respiration had ceased, so I endeavoured to deliver per vaginam, thinking that the parts would be so relaxed by death that delivery would be possible, since she was the mother of four children already. I found after a few minutes' trial it was impossible to dilate the cervix sufficiently to introduce my hand. If there had been any life left in the patient the stretching of the cervix (probably like stretching the sphincter ani) would have aroused her. So, finding it impossible to deliver in any reasonable time, I performed Caesarean section with a bistoury (the placenta was in the line of incision, and bled freely), and pulled out the child by the leg. After a few seconds the child gave a gasp, and was quickly restored, so as to give a cry, and was soon breathing regularly. The child is now ten weeks old, and doing well. The only defect is a small umbilical hernia.

Peter Tytler, M.D.,
Honorary Surgeon, Ancoats Hospital, Manchester.

PROGRESSIVE VENOUS THROMBOSIS.

I was called recently to see a man named D. A., aged 56 years, suffering from a mild attack of influenza; it ran a normal course, and he made an uneventful recovery. Arcus senilis was well established in both eyes, and the patient looked older than his age. His arteries were markedly atheromatous. The pulse beat, 60 to the minute, was irregular and intermittent. The left ventricle was slightly enlarged, and there was a soft-blowing V.S. murmur over the mitral area. He had had rheumatic fever when a youth.

A fortnight after recovery from the influenzal attack he complained of a sudden dull, aching pain in his right forearm, which gave rise to a feeling as if "pins and needles were running through the flesh." Next day the hand and forearm began to swell; the swelling was a little tender, did not pit on pressure, and felt elastic to the touch. The skin and nails became blue. The radial pulse was easily felt and showed no change. The median basilic and median cephalic veins were distinctly felt as hard, cord-like, and thrombosed. Seven to ten days later the swelling had extended upwards as far as the shoulder, and the brachial and axillary veins had become thrombosed throughout their whole length. At the same time the right foot and leg began to swell, the swelling being of the same nature as that of the arm, with thrombosis of the internal saphenous vein. The superficial and deep veins of the neck were the next to become thrombosed, accompanied by swelling of the right side of the face. The internal and external jugular veins could be felt, and were hard and thrombosed. The thrombosis passed along the subclavian vein and up to the trachea and larynx, when the patient completely lost his voice and could only articulate huskily. A few days later the patient suddenly became unconscious and died, the cause of death being attributed to thrombosis of the sinuses at the base of the brain. No necropsy was allowed. No change took place on the left side. The temperature remained normal throughout the whole course of the illness except during the first three or four days, when it rose to 101°. There was no history of syphilis or phthisis, and no enlarged glands could be felt. The illness lasted three weeks. Presumably the thrombosis was due to a phlebitis.

Morriston. M. W. Williams, M.B., Ch.B.Glasg.

HETEROCHROMIA IRIDIS.

As renewed interest is being shown in heterochromia, tl following, which came under my notice recently is wor recording:

Mrs. M., aged 48, complains of epiphora affecting t right eye. On examination the right eye is seen to ha an iris grey in its temporal half and hazel-brown in i nasal half, the grey merging somewhat into the haz brown at the lower middle; at the upper middle the li of demarcation is distinct. The left eye has an iris co pletely grey. The pupils are equal and normally dilate they react readily to light and accommodation. T patient is myopic, and vision is reduced in both ey more markedly in the right. The epiphora is of catarrl origin.

Both her maternal grandparents (deceased) had gr eyes, her mother has grey eyes, her father (deceased) h brown eyes. A brother and sister have grey eyes, and o brother has brown. She is married to a man with gr eyes, and has four children; three have grey eyes and o brown. A grandson, aged 2 years, has grey eyes; both l parents are grey-eyed.

In this family history, extending over five generatio no other case of heterochromia iridis has occurred, and is worth noting that amongst the living relations, rep senting four generations, the individual who has tl abnormality is the only one who complains of defecti vision. Her mother, aged 74, fitted with suitable glass reads and writes quite comfortably.

Liverpool. A. Newton Davies

Since seeing the record of Dr. Allan's case in the Briti Medical Journal of May 6th of last year, I ha examined the irides of 5,000 patients for this conditi I did so because I felt certain that heterochromia iri was more unobserved than rare. The fact that eleven ca came under my notice—roughly 1 in 450—bears this o On looking over the notes and diagrams made I find th classified according to characteristics, (1) 3 were in mal 8 in females; (2) in 9 the colours present were grey-blue a brown, in 1 dark-brown and black, in 1 green and amb (3) in 8 the lines of demarcation were distinct and straig in 2 there was shading from one colour into the oth (4) in 6 these lines were radial in direction, in 1 they w parallel, in 1 the line was a tangent to the pupil; (5) 1 case the eyes had irides of two distinct colours, the ri iris being brown, the left grey. None of these 11 patie had any eye symptoms. The condition seems to b curiosity.

The Hospital, Darlington. James A. Ros

NEMATODES AND THE APPENDIX.

The following case is of special interest in view of article on Ascaris and Appendicitis by Surgeon F. Anley, published in the British Medical Journal March 24th. In January, 1905, a Gourka came to see presenting a resistent mass in the region of the caecu His condition was, however, not very urgent, and as had served in China, I thought it well to try a dose yellow santonin before interfering surgically. Thirty- hours later, however, he had passed nothing per rectu and had rapidly developed all the classical signs symptoms of appendicitis. I decided, therefore, to ope without further delay. On the operating table, howe the man refused operation. Persuasion proved use and I returned him to the ward, expecting to find h moribund next morning. Next day, however, he much better, and had passed per anum twenty-four la round worms.

H. L. Whale, M.B., B.C.Camb
Captain, I.M.S.
Mian Mir.

The next examination for the certificate in psy logical medicine granted by the Medico-Psycholog Association of Great Britain and Ireland will be hel the Bethlem Hospital, London; Gartloch Asylum, G gow; and Richmond Asylum, Dublin, on July 12th 10 a.m. The examination for the Gaskell prize wil held at Bethlem Hospital on July 13th. The last day receiving the essays for the bronze medal and prize of Association is June 14th. Further particulars can be tained on application to the Registrar of the Associat Hatton Asylum, near Warwick.

REPORTS
ON
EDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ROYAL ALEXANDRA INFIRMARY, PAISLEY.

CASE OF TRANSPLANTATION OF BONE FROM THE SAME SUBJECT.

(Reported by A. M. DRYDEN, M.B., Ch.B.Edin., House-Surgeon.)

HE patient in this case, a boy aged 5, was admitted to spital on July 1st, 1904, with an acute suppurative teomyelitis of the right tibia. On the day of admission incision was made over the whole length of the bone d a subperiosteal resection of the shaft performed. e cavity left was packed with gauze and allowed to al by granulation. The patient remained in hospital nine months after the operation owing to persistent uses.

He was finally sent home with the wound healed, cept for a small sinus above the ankle.

Readmission.—Five months later he was readmitted. ing to deficient bone formation in the lower half of the ia there was abnormal lateral and antero-posterior movent above the ankle-joint, and the limb was thus useless bearing the weight of the body. There was a choice of o operative measures—namely, amputation through the leg bone grafting. The latter was finally selected.

peration.—On September 20th an incision was made in the e of the original scar in its lower half, and the deeper sues incised and retracted to form a suitable furrow for the eption of the bone graft. Another incision was made over lower third of the fibula of the same leg (right) in the long s of the limb, and the skin and superficial structures arated from the bone and periosteum. A segment of bone, ut 2 in. long, composed of half the thickness of the fibula h its attached periosteum, was split off by means of a sel, and the piece laid in the prepared furrow. The skin superficial structures were approximated over the graft by ans of silkworm-gut sutures. A dry sterilized dressing was lied to the wound, and the limb immobilized in a splint.

rogress.—The limb was left undisturbed for fully a fortht, and when dressed the wound over the tibia was found e suppurating. The dressing was accordingly changed at rvals of two days. Small crumbs of necrosed bone came y on a few occasions, but gradually the wound assumed the racter of a healing ulcer, and became rapidly covered with helium. The splint was removed at the end of November, it was then found that the tibia was rigid in its whole th, and that abnormal movements could no longer be perned. The boy was dismissed on January 4th, 1906, with limb encased in plaster. Skiagraphs were taken on four sions as follows: (1) In August, 1905, previous to operation one grafting, and over one year after resection of tibia. photograph showed great deficiency in bone. (2) This, n some three months after the grafting, showed a conrable amount of bone formation. (3) A third skiagraph, n in February, when the boy returned to have the plaster removed, showed considerable increase in thickness and ity of the lower half of the tibia. (4) The latest, taken n months after the operation, showed further thickening of one. At this time the boy was able to walk quite well, ugh there was some shortening of the affected leg.

EMARKS.—It is believed that no case has hitherto been ished in which bone grafting was performed with taken from the same subject in the manner described. fact that before the grafting the patient was nine ths in hospital without the occurrence of new bone ation, and that the condition revealed by the last graph was established seven months after the operais of interest. The case while in hospital was under are of Dr. H. C. Donald, to whom I am indebted for ission to publish its details.

E EXTERMINATION OF THE MOSQUITO.—The American uito Extermination Society held its third annual ing at New York on April 11th. The Secretary's t stated that a Bill for the suppression of the mosquito er was expected to pass the New York State Legislain the course of the present session. It was also d that the Governor of New Jersey had under conation a Bill appropriating £15,000 for ditching certain marshes known to be breeding grounds for the *h-les.* The indifference of the public was held ntable by several speakers for the lack of energy in ng with the problem shown by administrative and ary authorities.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BORDER COUNTIES BRANCH.

Keswick, May 4th, 1906.

J. W. CRERAR, M.D., in the Chair.

Treatment of Narcomania.—Dr. WILKINS (Glenridding) read a paper on some points in the treatment of narcomania. He referred to a very large number of drugs which were taken by patients who had acquired the habit, and dwelt at length on the proper treatment of such cases. The meeting was much interested in this paper, and he was thanked for the detailed and yet humorous manner in which he had treated his subject.

Cantwell's Operation for Epispadias.—Dr. J. W. CRERAR then read a paper on Cantwell's operation for epispadias, with notes of a case. He had intended showing the patient, but the inclemency of the weather had prevented him from allowing his patient to attend. He showed photographs which indicated the conditions present before operation very clearly, and then, after detailing the steps of the operation, he showed other photographs which illustrated the very greatly improved condition.

Specimens.—Mr. NORMAN MACLAREN then said a few words about some very beautiful specimens which he brought down for the meeting to inspect, and to each of which notes were attached, so the members had already had an opportunity of examining them with understanding. (1) Sketch of a Hydrosalpinx, with Torsion of the Pedicle: The sketch shows an ovary and a Fallopian tube which is dilated into a hydrosalpinx and has undergone torsion. The tube is distended, its lumen increasing in diameter from the uterine attachment to the fimbriated termination. Torsion of the pedicle has occurred near to the uterine attachment; the tube has undergone three complete rotations. The wall of the hydrosalpinx is discoloured with diffused blood. Removed by Dr. Maclaren from an unmarried girl aged 18, who three days previously had suffered from severe abdominal pain, at first localized to the right iliac fossa but later diffused. This was followed by vomiting and abdominal distension. The specimen is in St. Bartholomew's Hospital Museum. (2) Ruptured Left Kidney: The rupture runs from in front upwards and backwards, it completely severs the lower third of the kidney, and it extends into the lower part of the pelvis of the ureter. Removed from a man aged 27, who was a patient of Dr. Evans, Newcastleton. While playing football at 1.30 p.m. on New Year's Day, 1906, he was struck in the left side of the abdomen by the uplifted knee of an opponent; he continued playing for ten minutes, and then gave up, but walked home a quarter of a mile. At 5 p.m. he passed urine which contained blood. The kidney was exposed by the lumbar incision at 11 p.m., and was found to be surrounded by a large quantity of blood lying behind the peritoneum, the lower piece was quite free. The kidney was removed. The patient made an uninterrupted recovery. (3) Cast of a Tuberculous Kidney: The cast shows the lobulated masses of caseating material which have replaced the kidney substance, except in the lower portion. The ureter is also affected by tubercle and its lumen almost completely obliterated. The kidney was removed from a girl, aged 23, who had suffered from tuberculous disease of the apices of both lungs for ten months. From October 18th, 1904, till January 18th, 1905, she was in the Blencathra Sanatorium, where the condition of her lungs improved. She, however, continued to vomit her food and lose flesh and run an evening temperature of 102°. There was no marked feature in her urine to suggest that her kidneys were affected. At the end of January her right kidney became greatly enlarged. On February 7th Dr. Maclaren exposed the right kidney through the peritoneal cavity; it was found to be twice the natural size, but otherwise normal. He then exposed the left kidney and removed it, and from it the cast shown was made. The patient lived twelve days, and died with all the signs of extension of the disease in the left lung and the formation of a pneumothorax. (4) Perforating Ulcer of the Stomach: The specimen shows the pyloric end of the stomach, with an ulcer oblong in shape perforating the anterior wall near the pyloric opening. The pylorus seen at the top of the specimen is contracted in a very marked degree. The wall of the stomach is thickened as though the pyloric obstruction was of old-standing. The small piece of duodenum is attached to the stomach, gastro-jejunostomy having been performed. This specimen was obtained from a man, aged 59, who was a patient of Dr. Hill, Abbeytown. For twenty years he had symptoms of dilated stomach. In September, 1904, he had severe haematemesis. He had two more attacks following this, but not so severe. On May 29th, 1905, he came to Carlisle to a nursing home, for the purpose of having gastro-jejunostomy performed. On his way there he vomited blood. He was put to bed and fed on nutrient enemata. On June 2nd, 1905, at 8.30 a.m., he suddenly complained of severe abdominal pain. He was operated on, and the perforation in the stomach found and sewn up, gastro-jejunostomy being also performed. The patient died shortly after the operation. (5) Cast of a large Retroperitoneal Tumour: The tumour occupied the left side of the abdomen and most of the pelvis. The pedicle was attached to the vagina, and contained a cavity lined by normal vaginal epithelium. On section the tumour proved to be a pure fibroma. This tumour was removed from an unmarried lady who was under the care of Drs. Knight and Burnett, of Keswick. She had suffered for nine months from symptoms of pelvic pressure, constipation, and irritable bladder. The tumour had increased rapidly during the last two months. On examination before operation it was found to occupy the whole of the left side of the abdomen from the pelvis to the margin of the ribs and to extend to the middle line. Bimanually the uterus was displaced upwards, the cervix being level with the symphysis pubis and attached to the tumour, though not incorporated with it. The tumour moved slightly and dipped down below the posterior fornix. Operation, May 15th, 1905: The peritoneum, which lay over the tumour, was incised and the tumour enucleated, except for its pedicle, which had to be teased out and cut through. In doing this the vagina was opened. The left ovary was found to be cystic and was also removed. The patient made a good recovery. (6) (*a*) Diaphysis of Tibia from a Case of Osteomyelitis: The specimen divided longitudinally shows that the septic infection began at the upper end of the diaphysis, just below the epiphysial cartilage; from thence it spread into the medulla (rarefaction of the cancellous tissue), and at the lower end destroyed the lower epiphysis. In two places it has pierced the hard bone and given rise to periostitis and the formation of new bone in nodules on the shaft. (*b*) Specimen removed from the same case seventy-nine days after the shaft had been removed, shows the upper epiphysis with ulceration of the articular cartilage and rarefaction of the bone, also a small piece of the lower epiphysial cartilage. The intervening part is occupied by the thin plate of spongy periosteal bone. These specimens were from a boy aged 8 years. Three weeks before he was admitted to the Cumberland Infirmary under Dr. Ogilvy Ramsay he fell and hurt his left leg. On November 21st, 1905, Dr. Ramsay removed the diaphysis (*a*). Three weeks later the patella had to be scraped away, as it was necrosed. On February 8th, 1906, the leg was amputated, as the knee-joint was disorganized by septic arthritis.

METROPOLITAN COUNTIES BRANCH: HAMPSTEAD DIVISION.—At a meeting held on April 27th, Mr. F. R. HUMPHREYS in the chair, Mr. MOXEY showed: (1) A case of relapsed congenital equino-varus in a boy aged 2½ years. Tenotomized in earliest infancy, but no after-treatment adopted. He had divided subcutaneously the structures of the sole, and forcibly straightened. Subsequently the foot was fixed in the corrected position in plaster-of-paris, and the patient encouraged to stump about in it. This method, known as Julius Wolff's treatment, was peculiarly suited to the exigencies of private practice. (2) Extreme case of cervico-dorsal Pott's disease in a girl aged 14. Seven or eight years' duration. She had been treated as an out-patient at three different metropolitan hospitals. The shocking result showed that treatment had been practically *nil*. He considered the attempt to treat such cases as out-patients almost criminal, and deplored the absence of institutions for surgical tuberculosis in England, such as that of Berck sur-Mer. This patient had had paraplegia, bu curiously enough no abscess had ever occurred The deformity was extreme, *gibbosité de polichinelle*, and the respiration was seriously interfered with. The dwarfing was noteworthy, as it was not due to reduction in length of the spine alone, but was general. (3) Case o cervico-dorsal scoliosis in a young man. It belonged etiologically to the "constitutional" variety. The rotation of the vertebral bodies was extreme. Formerly there had been marked tachycardia. Scoliosis in this situation was difficult to treat. (4) Obscure disease of the hip in a youth. The patient had been treated at two London hospitals, at one of which he had been advised to wear a high boot on the diseased side, a method of treatment which seemed absurd. There were 2 in. of apparent shortening, but no real shortening. No muscular spasm or limitation of movement in any direction save abduction. The adductors were in a state of contracture There was no pain except when the limb was abducted.—In the discussion which followed, Dr. FORD ANDERSON suggested a support with occipital headpiece and chin rest for Case 2. The prone position in bed was also suggested.—Mr. MOXEY thought that the only thing possible was the Lorenz plaster bed. The patient had formerly been treated with a poroplastic jacket without the slightest benefit.—Dr. ANDERSON thought the cardiac condition in Case 3 was dependent on old pericarditis.—Mr HUMPHREYS thought that Case 4 was not tuberculous.—Mr. MOXEY thought Case 4 was either a transient tuberculous coxitis or a simple traumatic epiphysitis. The youth's appearance suggested tubercle. He would be inclined to divide the adductors and fix for a time in over correction. Examination under an anaesthetic and careful radiographic examination might throw light on the case. A hearty vote of thanks was then passed to Mr. Moxey for showing cases of such interest.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: CARDIFF DIVISION.—At a meeting held at the Cardiff Infirmary on April 26th, Dr. D. R. PATERSON in the chair, Mr. WILLIAM SHEEN read a paper on the causes of acute symptoms in the left iliac region. He said that just as the caecum and appendix were structures characteristic to the right, so the sigmoid flexure was characteristic to the left side. Details of its anatomy were given. It was more correctly described as the iliac and pelvic colons, the latter including what was commonly known as the first portion of the rectum. Sigmoiditis, perisigmoiditis, and perisigmoid abscess were described with illustrative cases. The difficulties of diagnosis were great, and one case had passed through the hands of a number of doctors and been seen by five consultants. Another class of case described was where a perisigmoid abscess is associated with malignant disease of the sigmoid. On to the chronic obstructive symptoms were grafted acute symptoms, with pain, high temperature, and other evidences of septic infection. Two cases were described, from one of which the specimen was shown. A number of other causes of acute left iliac pain were reviewed, with cases, particularly as they came under the notice of the surgeon. These included (in connexion with the sigmoid) faecal impaction, volvulus thrombosis and embolism of the sigmoid vessels, impacted gall stones, intussusception, enterospasm, and hernia into the intersigmoid fossa. More general causes were then enumerated, particular reference being made to pelvic appendicitis, a case of which was described where the symptoms were mainly on the left side. A case of perforated gastric ulcer, upon which Mr. Sheen operated successfully, was also mentioned, where the pain was most marked in the left iliac region. In conclusion Strauss's sigmoidoscope was shown and reference made to several cases in which it had been of use. In the discussion which followed Dr. TREASURE mentioned a case of left periureteral abscess, and Mr. BROWNLEE one of pain in the left iliac region due to a tapeworm.—Mr. SHEEN then showed the following specimens: (*a*) Cancer of male breast; (*b*) temporal bone after mastoid operation.—Mr. F. P. S. Cresswell being absent, Mr. RUSSELL THOMAS showed his case of ptosis, associated with a tumour in the malar region. Mr. WILLIAM SHEEN commented on the case, and thought the diagnosis lay between (1) subcutaneous angioma, (2) cystic hygroma, (3) neuroma. Mr. RUSSELL THOMAS thought that the case was one of lexiform neuroma.—A patient of Mr. H. C. Ensor was hown, who exhibited well-marked tuberculous disease of ie iris.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Warrington Haward, F.R.C.S., President, in the Chair.

Tuesday, May 8th, 1906.

Achondroplasia.

r. **Guthrie Rankin** and Dr. **Ernest C. Mackay** read a iper on this subject in which they communicated the inical facts of a typical instance of the condition in a y aged 9 whose parental and personal history presented thing to account for its presence. They gave a historical count of its recognition as a clinical entity, referring to e early confusion with fetal rickets. Its prominent fferential characteristics were given as follows: A ngenital origin, an abnormally large vault to the anium, depression of the root of the nose, prognathus, ested development of the long bones of the extremities, th exaggeration of their normal curves, normal development of the trunk, beaded ribs and enlargement at the ds of the long bones from diaphysial and epiphysial anges; decentralization of the midpoint of the body, ich is invariably and persistently above and not below e umbilicus; characteristic appearance of the hands, scribed by Marie as the *main-en-trident;* excess of adise tissue, protuberant abdomen, lordosis; smooth, pliable n, with abundance of glossy hair in all the ordinary uations; normal mental condition, and a tendency to er congenital malformations, especially to high-arched ate and inguinal hernia. The diagnosis from cretinism l rickets was discussed.—The **President**, Dr. H. H. ɔth, Dr. F. E. **Batten**. and Mr. **Stephen Paget** dissed the case; and Dr. **Rankin** replied.

INBURGH MEDICO-CHIRURGICAL SOCIETY.

Professor Greenfield, M.D., in the Chair.

Wednesday, May 2nd, 1906.

Infants' Milk Dépôts.

W. **Robertson**, in a paper on this subject, described present defects in the milk trade, and said that until public were educated in the qualities of good milk k dépôts would be necessary. In no other way could s pollution, on the one hand, and ignorant methods of ing infants on the other hand, be counteracted. When erly managed, they did a vast amount of good, and important educational factors, and as such deserved y encouragement. It was essential, however, that the dren fed from milk dépôts should be kept continually er observation, regularly weighed, and the parents ructed, as in France. At Leith the health visitors kept e children under observation.

r. **Mackenzie** considered that the whole question of at feeding rested on a wrong basis. It was becoming and more the rule for mothers to rear their infants terilized milk and not on the breast. This should be ouraged in every way possible.

. **Malcolm Campbell** had fed 37 children for four ths on milk supplied from the Leith dépôt. The its belonged to the poorest class. Of the 37, 1 died, t weight; the rest gained weight, and developed into hy children.

Inguinal Hernia in the Female.

. E. S. **Carmichael** read a paper in reference to inal hernia in female children, based on an analysis cases. As regards frequency, the locality in about er cent. of all cases of hernia in the female was nal. The frequency gradually diminished up to adult The most common contents of the sac were the and Fallopian tube; these were found in about er cent. of inguinal hernia. There was a marked ncy for the hernia to be bilateral in infants, and in cases the ovary and Fallopian tube were generally nt, the ovary appearing to be healthy. Hernia of the s was rare. When gut was present in the sac it was commonly the lower part of the ileum or the caecum, but those were not so commonly found as in the male sac. Tuberculosis of the sac was seen in two cases.

Mr. **Stiles** believed that hernia of the ovary arose from the same causes as hernia in the male infant. In his experience of hernia in the male the sac did not communicate with the tunica vaginalis testis in 90 per cent. of the cases. In many cases hernia was partly congenital and partly acquired. In females with inguinal hernia the canal of Nuck was often not present, and hence could not be necessary for the development of a hernia. In the child the ovary and tube lay at or above the pelvic brim; the outer attachment of the infundibulo-pelvic ligament was close to the internal abdominal ring, so a hernia of the ovary and tube was easily produced by intra-abdominal pressure.

Mr. **Miles** had operated on thirty-two cases of inguinal hernia in the female, mostly in the adult. In nearly all cases there was a history of trauma; some, however, followed parturition. As a rule the sac contained nothing, but in one case the ovary was present. He had met with ten cases of strangulated inguinal hernia in the female.

Mr. **Alexis Thomson** had operated on thirty cases, and in only one did he find the ovary present in the sac. He had never met with a case of strangulation in this type of hernia in the female.

OBSTETRICAL SOCIETY OF LONDON.

W. R. Dakin, M.D., F.R.C.P., President, in the Chair.

Wednesday, May 2nd, 1906.

Epithelioma of the Vulva.

Dr. **Lewers** read notes of 3 cases.

Case i.—A multipara, aged 47. had a malignant growth—squamous carcinoma—removed from the right side of the vulva on December 7th, 1896, and the glands in the right groin removed at the same time. A small growth reappeared on the left side of the vulva about two years later and was removed in December, 1898. In January, 1899, the glands in the left groin were removed. A small growth reappeared on the left side of the vulva, and was removed on March 9th, 1901. Since that time the patient had remained quite well. She was examined and found free from recurrence on March 8th, 1906—over nine years since the first operation, and almost exactly five years since the date of her fourth and last operation.

Case ii.—A multipara, aged 52, had a malignant growth—squamous carcinoma of the clitoris—removed on September 1st, 1899. The glands were at the same time removed from both groins. The patient was known to be well and free from recurrence on March 11th, 1906.

Case iii.—A multipara, aged 34, was operated on for a malignant growth—squamous carcinoma of the vulva—on March 31st, 1905. She was eight months pregnant at the time. Labour came on four days later. and she was delivered naturally of a living child. On May 4th the glands in both groins were removed. The disease rapidly recurred in the same place, and the growth was again removed on June 20th. The growth again recurred soon afterwards, and she underwent the *x*-ray treatment from August 11th to September 9th without benefit. She died about three months afterwards.

The fact that local recurrence in cases of epithelioma of the vulva was not necessarily of unfavourable significance was illustrated in the first case. Case iii was remarkable in being an example of epithelioma of the vulva occurring in a patient no more than 34 years of age and in being complicated by pregnancy. Its exceedingly rapid course was perhaps partly due to the pregnancy, and partly to the fact that the patient was only 34. Removal by Paquelin's cautery was a better method than removal by the knife.

Mrs. **Stanley Boyd** preferred removal of the growth by the knife, with suture, to Paquelin's cautery. She had not always removed the inguinal glands unless they were obviously enlarged.

Dr. **Herbert Spencer** advocated removing the whole of the vulva in order to get rid of the leucoplakial skin. He also thought it well to remove the inguinal glands, but thought it was not always possible to remove them completely.

Dr. **Inglis Parsons**, in view of the fact that cancer could be inoculated, considered that removal by the cautery was by far the best method; in his hands it had given much better results than removal by the knife.

Laminaria Tents.

Sir **William Sinclair** gave a demonstration on the use of laminaria tents, showing a large number of specimens of the material from which the tents are made, and illustrating the various stages in their manufacture. The specimens of laminaria exhibited were obtained from islands on the West Coast of Scotland—from Coll and Iona and others. It was superior, he considered, to that hitherto in the market. The use of laminaria tents for dilating the cervix had very much gone out of fashion. This was regrettable, since dilatation by their use was far superior to that obtained by the use of rapid dilators.

Dr. **Heywood Smith** said that larger tents were made by pegging together sections of the material, a process which might cause irregular dilatation, or even lead to breaking up of the tent. He was glad to see, from the specimens shown, that it would be possible to obtain tents as large as could be wanted in a single piece.

Dr. **Amand Routh** had had an opportunity of testing the tents, and had found them quite as good as those sold in London.

Dr. **Boxall** remarked that the main objection offered to the use of tents was the inherent possibility of infection, but by dry heat laminaria tents could be not only sterilized but improved in quality; it was a process which could be accomplished, if necessary, in the domestic oven.

Dr. **Herman** did not think laminaria was as much out of fashion as Sir William Sinclair supposed. It had been used for thirty years or more in the London Hospital. He did not like tents made of several pieces of laminaria glued together, for the glue was very possibly septic. He was surprised to hear any one say that the dilating force of laminaria was weak: Matthews Duncan had shown that laminaria was capable of exerting a force of 640 lb. to the square inch.

Dr. **Inglis Parsons** thought that on the whole dilatation with metal dilators was preferable to dilatation by tents.

Mr. **W. Gandy** said that some years ago he used nothing else but tents to dilate the cervix, and he thought that with ordinary care no harm could befall the patient.

Dr. **Herbert Spencer** was surprised at Sir William Sinclair's statement that laminaria tents had gone out of fashion. They had been used continuously at University College Hospital for the last twenty-five years. He could not imagine that any gynaecologist would dilate a rigid senile cervix in order to explore it with the finger by rapid dilatation.

Dr. **Lewers** said it was important to bear in mind the degree of dilatation of the cervix required in choosing between dilatation by the rapid method and dilatation by laminaria tents. In many cases it was certainly impossible to dilate the cervix sufficiently to allow of the introduction of the finger into the uterus by the rapid method without causing laceration. It had to be borne in mind that when a laceration occurred it could not be limited in any way at the will of the operator. It might be a slight and unimportant laceration, or it might extend right through the uterus into the broad ligament, or peritoneal cavity. As a rule, he used tents the day before he required exploration, and then, if necessary, passed a few sizes of Hegar's bougies under an anaesthetic.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Priestley Smith, F.R.C.S., President, in the Chair.
Thursday, May 3rd, 1906.

Radium in Rodent Ulcer.

Mr. **Mackenzie Davidson**, in a paper on radium in the treatment of rodent ulcer, said that as a rule he found it unnecessary to apply the radium very frequently. In many cases cure had been effected with one or two applications, with several weeks' interval between them. The activity of different specimens of radium varied, but it was possible by means of an electroscope to measure this. He preferred to use radium encased in a sealed glass tube, for the glass shut off some of the rays which would burn the skin and were of no use for destroying the rodent cells. The power of radium was for practical purposes a fixed quantity in any one specimen, so that the dose given was known absolutely; in this way it differed considerably from the power of *x* rays, which was not constant, but depended upon a variety of circumstances.

Implantation Cysts.

Mr. **Ransom Pickard** (Exeter) described a case of implantation cyst containing wood fibres in a girl aged 14. The tumour, which had been noticed for nine years, was 3 mm. in diameter, and situated below the pupil. On moval, its base was found to be composed of granulati tissue containing three wood fibres of coniferous orig The tumour consisted of epithelial cells, and contain several cysts, some of which were formed by degenerati of the cells and others by the formation of fissures. Th was no history of injury to the eye, and the cornea w quite normal, but there was a possibility that it had be perforated ten years ago by a fine splinter, for at that ti she fell and struck her nose against a table.

Cyst of the Orbit.

Messrs. **Treacher Collins** and **Johnson Taylor** (N wich) described a case in which there was a cys swelling occupying the position of the left eye, a apparently mainly formed by a bulging forward of t conjunctiva of the upper lid. It was present at birth, a had steadily increased since. Mr. Johnson Taylor fi saw the child when 3 weeks old. He then tapped the cy with a fine trocar and cannula: it refilled the followi day. When next seen about a year later it had increas considerably in size in all dimensions; it stood out 2½ from the orbital rim, and caused a most unsightly appe ance. Blood and discharge had also been exuding from for two months. Having removed it, Mr. Johns Taylor handed it over to Mr. Treacher Collins for exami tion. The examination showed that the cyst was due an enormous distension of the whole globe, the sclero forming its outer wall. Its formation was apparently d to the imperfect involution of the primary optic vesi which forms the secondary optic vesicle.

Liverpool Medical Institution.—At a meeting May 3rd, Mr. **Frank T. Paul**, President, in the chair, I W. **Blair Bell**, in a note on a new theory of *Female geni activity*, argued that the uterus had a further functi beyond the one usually attributed to it—namely, t secretion of an active agent which he called "uteri Clinical facts, such as the results of complete hyster tomy, of complete oöphorectomy, the condition of t uterus in superinvolution, and the results obtained conservation of endometrium in supravaginal hyster tomy, all supported his contention that the theory ovarian secretion was inconclusive and insufficient, a that the influence of "uterin" as an internal secretion w paramount in genital activity. Menstruation was t result of excretion of an excess of "uterin," and probab ovulation was influenced by "uterin" circulating in t blood. The menopause was produced by atrophy of t uterus and consequent deficiency of "uterin." Profess B. **Moore** having spoken, Dr. H. **Briggs** said that the clinical statements made by Dr. Blair Bell h been well known in gynaecological clinics for ma years. As to the function of the glands of the uteri mucous membrane, there was room for doubt. T great difficulty was to obtain reliable tests; catameni and other haemorrhages occurred under the mo opposite physical conditions of the uterine mucosa. Dr. T. R. **Bradshaw** and Dr. E. E. **Glynn** contributed paper on the significance of the *Opsonic Power of the Blo* and the value of estimations of the opsonic index in t diagnosis and treatment of tuberculous and other infe tions. In the subjects of infections attended wi symptoms of general intoxication there was a tendency produce immunity, which, given a healthy organism a not too severe an infection, led to recovery. In local i fections without constitutional disturbance there was b little such tendency. This was due to the fact that owi to the absence of toxins the immunizing mechanism w not aroused to activity. To cure a local infection, t right method was to imitate Nature by introduci toxins in suitable doses into the system, so as to exci the immunizing processes. In normal persons the tub culo-opsonic index was practically uniform, and in loc tuberculosis it was generally depressed. It was importa to watch the index during treatment; otherwise the was the danger of over-dosing. In nine persons submitt to serum treatment for diphtheria the tuberculo-opson index was below normal. The same was noted in a medic man who had a prophylactic dose of antitetanic seru Dr. G. E. **Loveday** had had very favourable experien with Wright's methods in the treatment of loc tuberculous and other infections. Dr. G. **Stoppfor**

Taylor had had similarly good results with vaccines in cases of coccogenic sycosis and boils. Dr. R. J. M. **Buchanan** said that in early acute pulmonary tuberculosis the result depended largely upon the dosage of bacilli and the opsonic response of the blood. In chronic cases the opsonic content of the blood remained low, and by raising it with tuberculin injections, and judiciously exercising the patient, the prospect of recovery was increased. After inoculation it was desirable that the patient should rest from twenty-four to seventy-two hours to prevent any possible injurious effect, during the negative phase, arising from added auto-inoculation by exercise. People varied very much in their susceptibility to tuberculin. Possibly watching the phagocytic index in the sputum might be used a general guide for inoculation. In acute phthisis phagocytosis in the sputum was common. Tuberculin treatment in selected cases should be practised in conjunction with sanatorium methods. Sir **James Barr** related the case of a young lady who had been under the care of Dr. Blair Bell and himself, when suffering from nfective endocarditis of a very severe type due to streptococcal infection. A vaccine made from the streptococci obtained from the patient's own blood was used and her opsonic power estimated twice daily. Eventually she made an excellent recovery. Dr. W. B. **Warrington** considered he case related by Sir James Barr showed the value of he vaccine treatment as opposed to that of antibacterial erums. The latter had proved of little value in his practice. In reply, Dr. **Bradshaw** said he was inclined to ttribute the remarkable results of the antiserums to a pecific influence imminent in the blood of the horse.

West London Medico-Chirurgical Society.—At a meeting on May 4th, Mr. L. A. **Bidwell**, President, in the chair, a discussion took place on the *Varieties and Sequelae f Influenza.* In opening, Dr. **Seymour Taylor** said that n his view the multifarious forms taken by influenza ere mainly due to the differing soils which the micro-organism found in different patients. He was accustomed o group the cases under the following five types: the eurotic, the pulmonary, the circulatory, the febrile, and he gastro-intestinal. The sequelae were in some cases dependent on a mixed infection, and any constitutionally eak spot in a patient was particularly liable to be the ne affected.—Mr. **Bidwell** thought that particular pidemics seemed to be characterized by special types of he disease. He was especially interested in those cases in hich acute abdominal disorder was sometimes very osely simulated. There were likewise cases in which bone joint disease might follow, probably as a result of condary infection.—Dr. **Arthur Saunders** agreed that rying types occurred in different epidemics. One of the ost serious sequelae in his experience was severe cardiac pression, generally accompanied by a very slow and somenes intermittent pulse. The danger of syncope in such condition was very great.—Dr. **Rufenacht Walters** id that in the sanatorium with which he was connected ey saw little influenza; he attributed this to the open- conditions, for it was a not infrequent trouble in llages in the neighbourhood. No doubt a certain mber of phthisis cases owed their commencement or vival to this disease.—Dr. **Culver James** spoke of rtain cases of infective pneumonia which he had seen tecedent to the time of the recrudescence of influenza in epidemic form in this country; these he now believed be of influenzal origin.—Dr. **Stanley Smith** thought uritis of various kinds was much more prevalent since luenza had become common.—Dr. **Leonard Dobson** o referred to the frequency of neuritis, especially of the usculo-spiral nerve. In his experience this trouble was t met by treatment with high-frequency electrical rents.—Dr. **Furniss Potter** spoke of the severity of ose cases in which the middle ear and then the mastoid ame affected. The amount of bone destruction which ulted was often extreme. This trouble was, however, her a complication than a sequela.

Medico-Psychological Association.—At a meeting of South-Eastern Division at Herts County Asylum on ril 25th a resolution was passed recommending the sociation to take the opinion of the members as to the psychological tables.—Dr. W. H. B. **Stoddart** read aper on *Instincts*, being a psycho-psychical study of evolun and dissolution, in which he compared the mental evolution of the child with the inverse process occurring in the dissolution of dementia.—Dr. D. G. **Thomson** introduced a discussion on the question of the preparation of nurses for the examination for the Medico-Psychological certificate and on the conduct of the examination.

Society for the Study of Disease in Children.—At a meeting on April 20th, Dr. J. **Porter Parkinson** in the chair, Mr. W. **Milner Burgess** showed a case of *Psoriasis guttata* in a healthy-looking boy aged 6½ years; the spots commenced when the child was 5, few in number at first, and were best marked on the chest, abdomen, anterior and inner surfaces of the thighs and back.—Dr. **Cautley** exhibited: (1) A case of *Atelectasis* of both upper lobes in a female child aged 31 days, born at full time. There was no history of cyanosis at birth or of attacks of lividity. She had had a cough for two weeks, and during these sometimes turned rather blue. (2) A case of *Haematemesis* and melaena due to gastric ulcer in a girl 5 years old. She was quite well until March 17th, when she vomited about a pint of dark clotted blood, and shortly afterwards passed a tarry stool. Next day she again vomited blood, about half a pint, brighter in colour, containing clots. Next day she passed a black stool. There was no history of pain after food; she was anaemic, and the spleen and liver a little enlarged. Her recovery was uninterrupted. In the last two weeks she had gained 28 oz. A blood count showed red cells 3,512,000, white cells 28,250, of which 63 per cent. were polymorphonuclear leucocytes. (3) A case of *Sarcoma of the lung* in a male child 10 years of age. Early in January he had an attack of (?) pneumonia of right lower lobe, and had since been ailing. Examination of the chest showed dullness, feeble breath sounds, feeble bronchial breathing, and bronchophony. For about ten days he had had some vomiting, cough, and slight haemoptysis. The heart did not appear much displaced. He had been practically free from fever for seven weeks.—Dr. **Beatty** (Belfast) read notes of a case of *Chloroma* in a young child (for Dr. McCaw). The child, when first seen, seemed well developed and well nourished, but was markedly anaemic and had a peculiar frog-like appearance, due to proptosis and to swelling and ecchymosis of the eyelids, and to swellings about the size of a Tangerine orange in each temporal fossa. The proptosis and swelling were greater on the right side than on the left. The swellings were hard, dark coloured, and gave no evidence of fluid contents. The urine was normal and the bowels were open; the temperature was 99.4° F. The child got gradually worse and died three days later. No *post-mortem* examination could be obtained. Blood examination showed that the red cells varied in size from 5 μ to 11 μ. Two-fifths were over the average size, and some were undoubtedly megalocytes. Many of the normoblasts were in mitotic division.—Mr. **Robert Campbell** (Belfast) read a paper on *Inguinal hernia* in children, giving an analysis of 305 operations for radical cure. He said that it was generally admitted that treatment by trusses was prolonged and irksome to the patient and uncertain in its results; whereas by operation a permanent and complete cure could be obtained within a fortnight. Some 34 per cent. of his cases were operated on under six months; 44 per cent. under one year; and 77 per cent. under three years. He thought that the danger of sepsis in infants had been greatly exaggerated. Only 2 out of 305 cases had suppurated. In not more than 5 per cent. of the cases did the sac communicate with the tunica vaginalis testis. The frequency with which the caecum and vermiform appendix descended in children was remarkable. His usual plan of after-treatment was to remove stitches on the fifth day, and paint the wound with collodion; the patient, if under two years, was sent home on the sixth day; if over two years, he was kept until the ninth day. The operation was practically free from risk, and the mortality should certainly not exceed 0.3 per cent. Radical cure of hernia in children might, therefore, as regards risk, be classified with many so-called minor operations.

Mrs. **Louisa Eliza Butler Waterman**, of Lansdowne Crescent, Bath, who died on March 9th, bequeathed the sum of £1,500 to the Royal United Hospital, Bath, for the endowment of a bed and cot in memory of "General Edmund Frederick Waterman and Louisa Butler Eliza Waterman, his wife."

REVIEWS.

ACUTE INFECTIOUS DISEASES.

During the past few years a number of new works on infectious diseases have been reviewed in these columns. The causes of activity in this particular department of medicine are not far to seek. Two are especially prominent. The one is the growth of bacteriology; the other the progress of sanitary science. A wider experience and an accumulation of new facts have made it necessary to scrutinize again old observations, and recast ideas that have held sway for no short period. Besides these causes it is a fact that in many countries the infectious diseases are being more and more withdrawn from the care of the general practitioner to be treated in hospitals by men whose services are entirely devoted to this work. The general practitioner is, nevertheless, expected to recognize them at just that period and in just those instances where their detection is most difficult—in the earliest stage and in aberrant cases. Accordingly there is ample excuse, if excuse is needed, for the three volumes which have been submitted for our opinion.

The most comprehensive of these works is a volume[1] entitled *Infectious Diseases*, translated from the German under the supervision of Dr. Julius L. Salinger, and edited by Dr. J. C. Wilson of Philadelphia. We learn from the editor's preface that the original was arranged in the form of lectures, and that though this form has been abandoned in the translation, there has been no loss of the individuality of the different lecturers. Several chapters have been added by Professors Wilson and Salinger. We have said that the work is comprehensive. Every communicable disease is included except syphilis and leprosy, which are to be considered in a volume on dermatology. Amongst the thirty-five affections dealt with are some which we in England would hardly consider infectious, even in the widest sense of the term (for example, acute articular rheumatism), and others which are rare in man (for example, foot and mouth disease, actinomycosis). Amongst the authors we find several names which are widely known in the world of medicine—Klemperer, Liebermeister, Löffler, Heubner, Baümler, Eichhorst, Baginsky, v. Leyden, v. Jürgensen, Nicolaier, to mention them in the order in which they occur—so that we expect a high standard of excellence. We may say at once that our expectation is not disappointed. The etiology, clinical history, pathology, diagnosis, prognosis, and treatment of the various diseases are handled in nearly every instance most systematically and completely. We say in nearly every instance, because, curiously enough, in the very first chapter—that on enteric fever—there is no description of the disease except such as occurs in the very full discussion on the diagnosis. It is a pity that this omission has been, inadvertently we suppose, permitted. It avails little to inform the reader that perforative peritonitis requires immediate operation if no account is given of its symptoms. But this is the only serious fault we can find. Most of the chapters are excellent, notably those on paratyphoid fever (a disease at present admitted to be indistinguishable clinically from typhoid), malarial affections, influenza, and the common infectious diseases. Those portions which deal with diagnosis and treatment are particularly well done all through. To tell the truth, we rather expected to find in a book almost entirely written by German authorities that the value of serum therapeutics would be somewhat overrated; but that is not so. Serum treatment, and indeed all therapeutic measures, are put at their true value, and there is no attempt at recommendation merely on theoretic grounds.

The translation appears to be accurate. But there are some misprints—notably a curious one on page 72, where we are told that an epidemic of typhus in Upper Silesia has become celebrated because it was investigated by the youthful Virgil! But such easily-recognizable defects do not impair the value of the book, which will prove extremely useful to the practitioner who desires to have by him a comprehensive and thoroughly modern work on infectious diseases.

The second[2] of the three volumes is the work of two American physicians, whose names are well known in connexion with infectious diseases, Dr. Welch and Professor Schamberg. The book is entitled *Acute Contagious Diseases*, and is devoted to small-pox and vaccination, chicken-pox, scarlet fever, measles, rubella, typhus fever, and diphtheria—diseases with which the authors are intimately conversant through their lengthy connexion with the Municipal Hospital for Infectious Diseases in Philadelphia. With so much space at their disposal, Drs. Welch and Schamberg have been enabled to treat their subject in considerable detail, so that we find such questions discussed as the aërial convection of small-pox (which, it is interesting to note, is believed to have occurred in Philadelphia), the effects of small-pox on the pregnant woman and her child, "return" cases of scarlet fever, and secondary or accidental rashes. The chapters on small-pox are especially good, as are those on vaccinia; they could hardly, indeed, be better. There is a useful chapter on the variolous diseases of animals. In the chapter on diphtheria there is a good description of "pseudo-diphtheria," a term we confess to disliking; for there are other conditions of the fauces which simulate diphtheria, and might therefore with equal propriety be called "pseudo-diphtheria." What the authors describe appears to be the disease often known as "Vincent's angina." For the relief of laryngeal diphtheria they seem to rely almost entirely on intubation. After a careful perusal of their account of this operation we are inclined to believe that they are a little behind the times; they have never used the short tubes, nor do they appear to be acquainted with the method of extubation known as "expression" or "enucleation." We cannot help thinking that they would see fewer cases of that serious complication of intubation—ulceration of the larynx—if they resorted at an earlier date to tracheotomy. As to antitoxin their experience leads them to advocate moderate and repeated doses rather than single and large ones, a point in which they agree with Professor Baginsky. Neither in this work nor in the one we have already dealt with is the separate entity of the "fourth disease" definitely recognized. A feature of the book is the illustrations, which are half-tone reproductions of photographs. Most of them are exceedingly good, especially those of small-pox and varicella and the eruptions which simulate them. The book is worth buying for the chapters dealing with these subjects alone. But we doubt whether the rashes of scarlet fever, rubella, and typhus fever can be adequately represented by ordinary photographs. Lastly, the book affords pleasant and easy reading; short accounts of cases break up the monotony of a bare description of types. The writers have shown throughout an excellent judgement in presenting their facts and opinions. As an instance of this attitude of mind we would refer to their observations on the liability of error in determining the value of various forms of treatment in small-pox (p. 303). Their remarks may be read with advantage by the observer who is proposing to demonstrate the value of a particular remedy in one of the acute infectious diseases from a study of a limited number of cases. Altogether this is a most excellent volume; we recommend it most thoroughly.

The third book,[3] on *Epidemics and Contagious Diseases in the Twentieth Century* differs widely from the two with which we have dealt. The preface informs us that it is the outcome of a course of lectures delivered by the author, Dr. Jules Félix, during the years 1903 and 1904 before a lay audience in the social science faculty of the institute for advanced studies in the New University o Brussels. If the author had confined himself to giving a short account, free from technicalities, of the common infectious diseases, and to pointing out how the evil they have done in the past to the individual and the race might be averted or minimized in the future, we should probably have had no occasion for disagreeing with his opinion and advice. But unfortunately, as we think, he has seized the opportunity of these lectures to put forward somewhat extreme materialistic and socialistic views. Whatever opinion may be held concerning these views, we believe the manner in which they are dragged into these lectures to be altogether wrong, and to conduce to the advancement neither of hygiene on the one hand nor (if it be desired) of materialism and socialism on the other. We should have thought that the study of epidemics would have been neutral ground for the most devout pietist and the most sceptical materialist; but Dr. Jules Félix evidently thinks otherwise. If we are to get rid of one set of ideas because we believe them to be false, and are ntending to replace them by another set, it is incumbent upon us to take care that the latter shall be free from all the errors of the former. But what are we to say of a writer who actually asserts that "science consists in an bility to read the book of Nature, every page of which teaches us truth, morality, and justice," and extols the discovery of pathogenic organisms and the measures employed against hem as "a greater miracle than any that have been attriuted to the Almighty or the saints"? Perhaps this latter tatement may be claimed as a mere figure of speech; ut it seems to us that the materialist would do better to void the use of the word "miracle"; and we give the assage as an example of the tags with which most of the hapters are decorated. Dr. Félix's statements as to the acteriology and prophylaxis of yellow fever are quite t variance with the latest opinions of those most miliar with these subjects, and he actually informs his aders that typhus fever is due to Obermeier's spirillum. this book comes to a second edition it will be necessary omit or alter some of the "facts," let alone some of the pinions, enunciated therein; in its present form it is ot one we care to recommend.

---

[1] *Modern Clinical Medicine. Infectious Diseases.* Edited by J. C. Wilson, A.M., M.D., Professor of Medicine in the Jefferson Medical College, etc. An authorized translation from *Die Deutsche Klinik*, under the general editorial supervision of Julius L. Salinger, M.D. New York and London: D. Appleton and Co. 1905. (Demy 8vo, pp. 925; two coloured plates; 60 illustrations; 25s.)

[2] *Acute Contagious Diseases.* By William M. Welch, M.D., Physician to the Bureau of Health, Philadelphia, etc., and Jay F. Schamberg, A.B., M.D., Professor of Dermatology and of Infectious Eruptive Diseases, Philadelphia Polyclinic, etc. London: Henry Kimpton. 1905. (Demy 8vo, pp. 781, 109 engravings, 61 plates. 25s. net.)

[3] *Les Epidémies et les Maladies Contagieuses au XXe Siècle, Conférences données à l'Institut des hautes études de l'Université Nouvelle de Bruxelles.* Par le Dr. Jules Félix. Gand: Société Co-opérative "Volksdrukkerij." Paris: Vigot Frères. 1905. (Crown 8vo, pp. 303. Fr. 3.50.)

ETTENKOFER'S THEORY OF THE ETIOLOGY OF TYPHOID FEVER.

their very lengthy and laborious, not to say laboured, atise on the origin of the typhoid epidemic at Gelsenrchen in 1901,[4] Drs. Emmerich and Wolter adopt method of special pleading which is not likely to gain the confidence of the reader who wishes to approach the subject with an impartial mind. They frankly state at the outset that their book is written in support of Pettenfer's "localistic theory," and is intended as a counterlast to the "water-infection theory" of typhoid dissemination. On page after page the merits of the former an the inadequacy of the latter "theory" are forced on the reader's attention with endless reiteration, until at length he becomes absolutely nauseated with them. Drs. Emmerich and Wolter appear to have forgotten that in a scientific treatise there ought to be a clear distinction between facts and deductions from facts; in their eagerness to enforce a particular theory this distinction is overlooked, and consequently it becomes very difficult for the critic to sift the evidence and form an unprejudiced opinion as to its value. The authors' main contention appears to be that the condition of the surface soil was solely responsible for the typhoid outbreak at Gelsenkirchen with which they deal. They have shown that this soil when in a pure and virgin condition is inimical to the typhoid bacillus. When it is inoculated with these bacilli, they daily diminish in number, and, within a period varying from four to ten days, completely disappear. When, however, the soil is extensively contaminated with human and animal excreta, the typhoid bacillus can not only retain its vitality within this medium for many months, but under favourable conditions may undergo active multiplication. In 1901 the soil of Gelsenkirchen was polluted to an exceptionally high degree, and from its configuration and the distribution of the ground water, was a particularly favourable medium for the propagation of typhoid epidemic. On the other hand, they have failed to find any etiological relationship between the condition of the water supply in this district and the origin and extension of the epidemic. It is much to be regretted that Drs. Emmerich and Wolter are so intensely animated by the zeal of controversy. They have made a careful study of the conditions affecting the vitality and dissemination of the typhoid bacillus when external to the human body, and if only they could be induced to attach more importance to statements of fact than to argumentations about some particular "Lehre," their results would be well worth reading.

SIR HARRY VANE.

In his latest book[5] the well-known author of *The Blot upon the Brain* has adopted the plan of writing the life of a man in conjunction with a history of the times in which he lived, and we cannot honestly say the result is entirely satisfactory. It would hardly be fair, however, to lay the blame for this on Dr. Ireland, for he himself says of his hero that "having devoted his life to the good of his country, and to the cause of liberty, his personality seems lost in the great events of his time"; and the truth of this statement is amply proved in the book. Of Sir Henry Vane as a man we get no very clear idea; we have no hint of his temper, his tastes, and his habits; no glimpses of him in his home, of his relations with his family or his friends. The consequence is that he excites neither affection nor interest, but remains a dim, far-off figure, whom we more than suspect of being a bit of a prig. Doubtless, Dr. Ireland has idealized his hero, for as far as we can discover Vane had not a single fault; indeed, the author says of him: "Throughout his whole career, nowhere have we found thought or action which needed to be excused, or stated in a guarded form." This is a pity, for not even Dr. Ireland's fervent admiration can bring this monster of impossible perfection close to us, and make us feel as though we knew him as a man of flesh and blood; he has only succeeded in giving us a shadowy outline of one who was, without doubt, not only one of the greatest but one of the best and purest politicians of his day. Dr. Ireland has entered more fully into Vane's political life; but after his return from America, even in his public capacity, he becomes more or less merged in the general history of the time. Thenceforth he appears only at intervals, organizing the navy under the Commonwealth, opposing Cromwell's usurpations, and rigidly upholding the "good old cause" for which he finally laid down his life on the scaffold. The author, at the end of the book, says: "The very purity of this man's life may detract from the interest of his life." Certainly Dr. Ireland has not been so successful in the "Life" as in his "History." In the latter he has accomplished a difficult task with admirable completeness and skill. The history is compiled with the utmost care from original sources; the causes, events, and results of the struggle between the King and the Parliament are lucidly set forth in all their complex relations. Both sides are treated quite impartially, and the reader gets a clear general idea of this most confusing portion of our history. Dr. Ireland is to be congratulated on having added so admirable a volume to the many that have already been written on the Civil Wars. The interest of the book is enhanced by the fact that it is illustrated by some original portraits of the Vane family that have never before been published.

NOTES ON BOOKS.

The first impression of *A Glossary of Botanic Terms*,[6] which was published in 1900, was completely exhausted some time ago, and the author has at last found time to produce a second edition which is described as being revised and enlarged. For the moment we were misled by this statement, as it appears that the alphabet of the first edition of the book is reproduced in the second edition word for word. The author explains in the preface that "the additions of the edition of 1900 are now combined with the terms recently published, in one alphabet, for the earlier sheets being stereotyped prevented their incorporation." The result of this is that, tacked on to the end of the first edition alphabet, we find a "supplement" of some sixty odd pages, and added to that, again, is a second supplement consisting only of one page containing "additions during printing." This arrangement cannot be regarded as satisfactory, not only because there are thus three alphabets to be looked through when searching for a word, but also because many words defined in the first list are to be found with additional definitions in the second, such as haustorium, ovarium, petal, pileola, sheath, etc. In the new part of the book, as in the old, the author has included many words which would seem unnecessary were it not that, as a rule, he justifies their inclusion by naming his authority. There are words, however, such as "cathion," "electrotonous," "open," "overlying," etc., which, as defined in the supplement, show no connexion whatever with botany. The inclusion of such expressions as "back cavity," "front cavity," "exit," "fore leaf," "forerunner point," "midbody," "pointer cell," etc., as literal translations of German botanical terms, is justifiable, although these English translations will probably be seldom, if ever, found in English botanical works. There can be no question of the value of the book in spite of its defects.

---

[4] Die *Entstehungsursachen der Gelsenkirchener Typhus Epidemie von* 1901. Von Dr. Rudolf Emmerich und Dr. Friedreich Wolter. Jubiläumsschrift zum 50 jährigen Gedenken der Begründung der localistischen Lehre Max von Pettenkofer. Bd. I. Munich: J. F. Lehmann. 1906. (Demy 4to, pp. 255, with a map and numerous illustrations. M. 20.)

[5] *The Life of Henry Vane the Younger: With a History of the Events o His Time.* By William W. Ireland. London: Eveleigh Nash; Edinburgh: Oliver and Boyd. (Demy 8vo, pp. 498. 12s. 6d. net.)

[6] *A Glossary of Botanic Terms, with their Derivation and Accent.* By B. D. Jackson. Second Edition. London: Duckworth and Co. 1905. (Demy 8vo, pp. 383. 7s. 6d.)

The object of Mr. Thomas's book on *Ventilation, Heating, and Lighting of Dwellings*,[7] as stated by the author, is "to provide a treatise of reasonable compass, which the architect, builder, and tenant might consult for practical purposes." It is so commonly the custom to arrange the ventilation of buildings independently of the heating and lighting that any practical treatise in which these processes are considered together is welcome. The effects produced by constant exposure to a close atmosphere and chilling draughts (especially the cold-air current close to the floor) which prevail in nearly all dwelling-houses, undoubtedly give rise to a depression of the general health, predisposition to disease, and occasionally to acute illness. For the prevention and correction of these untoward conditions, that is to say, imperfect circulation of air, draughts, and cold floor currents in inhabited rooms, the author advocates the use of the breast chimney ventilator on Arnott's principle, of grates in which the up-draught can be controlled and regulated, and of multiple and properly-disposed air inlets. Suggestions are made with regard to the utilization of the direct heat of the sun for the ventilation of various parts of the dwelling. The influence of winds by aspiration upon the air currents in chimneys and other parts of the house is fully considered; and many useful details are to be found in the chapters on hot-water pipes and radiators.

In the second edition of his useful work on *Diseases of the Anus, Rectum, and Pelvic Colon*,[8] Dr. Tuttle has found it unnecessary to effect much revision or to add much new matter. Although no decided changes have taken place in his views on the practical details of this branch of surgical work, he has endeavoured in this fresh issue to keep the book abreast with the times. Errors found in the first edition have been corrected, numerous practical points gained from experience have been introduced into the text, and the sections on anaesthesia in the surgical treatment of rectal diseases and on dysenteric proctitis have been entirely rewritten.

Two Pamphlets on Diet.

Miss Alice Braithwaite's pamphlets on *Plain Dinners, a Help to a Uric Acid Free Diet* and *The Starchy Foods in Health and Sickness*[9] contain a number of menus for meals, and practical recipes which will be found of considerable value to housekeepers, even those who are not committed to a vegetarian diet; but when the author leaves cookery and comes to physiology she is less convincing. She tells us that her theories are based on the writings of Dr. Haig, and on an "old sick cookery book," for which it is claimed that it is founded "on traditions of generations of wise old grandmothers." It is impossible to take the theoretical portions of these booklets seriously, but, as we have said, the recipes given are practical and good, and might often be useful to medical men in prescribing diets for various morbid conditions.

LITERARY NOTES.

The June number of the *Journal of Obstetrics and Gynaecology of the British Empire* will be specially devoted to ectopic gestation. In addition to original papers on the subject there will be a critical review of the literature of the last four years relating to the anatomy and etiology of tubal gestation, and to the causes of tubal rupture and tubal abortion.

Messrs. W. H. Smith and Son have sent us the first number of a monthly periodical which they propose to issue as "a guide to all that is best in current literature" to readers and book buyers, especially to those who depend on the circulating library for their mental nourishment. The *Guide* is likely to be very useful to many readers.

It is well known to students of French literature that Pierre de Ronsard, the sixteenth-century writer who was called by his generation the "Prince of Poets," suffered from deafness. This affliction cut short what seemed to be a promising diplomatic career, but it had the indirect advantage that it turned his ambition in the direction of literary fame. His own account is that, being at the age of 16 or 17 in Germany in the suite of a French envoy, a disease sealed up his hearing, which he never fully recovered. The case has recently formed the subject of a study by Dr. Menier of Figeac, published in the *Archives Internationales de Laryngologie*. Ronsard, being a favourite at the Court of Charles IX, was regarded with suspicion and dislike by the Huguenots. With the good feeling and refined taste characteristic of the militant theologians of that day, they attributed his deafness to syphilis; this pathological opinion found expression in such macaronic verses as the following:

> Plus dicunt quod Ronsardus
> Certo sit factus surdus
> A lue Hispanica,
> Et quamvis sudaverit
> Non tamen recuperit
> Auditum et reliqua.

The epithet "Spanish" here applied to the disease expresses the belief, which was universal at the time, that syphilis had been imported into the Old World from the New by Columbus and his followers. The "sweating" treatment alluded to doubtless consisted in the use of guaiacum and mercurial fumigations. Ronsard indignantly denied the implied charge. In his *Réponse à quelque Ministre* he says:

> Tu m'accuses, cafard, d'avoir eu la vérole:
> Un chaste prédicant de fait et de parole
> Ne devrait jamais dire un propos si vilain.
> Mais que sort il du sac? Ce dont il est plein.

Dr. Menier thinks it likely that the poet's deafness was due to chronic catarrhal otitis consecutive to acute otitis media. Such affections of the ear are, he says, common in rheumatic subjects, as Ronsard is known to have been; before deafness becomes complete there are alternating periods of improvement and aggravation. Ronsard himself says he was only *sourdaut* (deafish) and "half-deaf"; and his references to the sound of running waters, the lowing of herds, and the howling of storms suffice to show that he had during a considerable part of his life a keen ear for the polyphonic music of Nature.

In an address delivered before the Liverpool Medical Institution on the occasion of the jubilee of his membership of that body, and reprinted from the *Liverpool Medico-Chirurgical Journal*, Dr. A. T. H. Waters discourses pleasantly on his memories of the medical profession during the past half century. His entrance to the profession as a student dates from a period shortly after the introduction of anaesthesia into surgical practice. Although the London hospitals were officered by men of great ability, clinical teaching, both medical and surgical, was for the most part sadly defective. In acquiring knowledge the student was thus largely thrown on his own resources. Dr. Waters first made acquaintance with Liverpool in 1853, when he was appointed resident to the Royal Infirmary. Referring to the great advances that have been made in surgery, he pays a striking tribute to one of the surgeons under whom he worked, John Prince Halton, who insisted in his operations and on the dressing of wounds on a strict and uncompromising cleanliness in all details. He lived before the days of Pasteur and Lister, and he had the usual fate of pioneers, being looked upon by his contemporaries as a faddist. Dr. Waters dwells on the improvement that has taken place in nursing. Liverpool, he says, was one of the first towns to take steps to that end. Speaking of the evolution of the higher education in Liverpool, he says that however much they were indebted for that material aid without which no great educational institution can be started to the liberality of the wealthy classes of the city, the initial movement, and the primary action which resulted in the formation of the college, were due to the medical profession, and in particular to the medical school. When Dr. Waters joined the school in 1855, the number of students was thirty to thirty-five, the yearly entry being ten to twelve. In that year, too, Dr. Waters became a member of the British Medical Association. When the Association held its Annual Meeting in Liverpool in 1859 its membership was about 2,300, and Dr. Waters was told by the Secretary, Dr. Williams of Worcester, that he thought it had reached its full developnent, and that it could scarcely be expected that it would ver be a much larger society! In connexion with the levelopment of medicine Dr. Waters relates an anecdote of Sharpey which is new to us. The question was put to him fifty years ago, "What is the use of physiology?" Sharpey answered with the counter-query, "What is the use of a baby?" "Oh," said the questioner, "it may become a man." Whereupon Sharpey retorted, "And so physiology, which is now in its infancy, may grow to manhood."

---

[7] *The Ventilation, Heating, and Lighting of Dwellings.* By J. W. Thomas, F.I.C., F.C.S. London: Longmans, Green and Co. 1906. (Crown 8vo, pp. 284. 6s.)

[8] *A Treatise on Diseases of the Anus, Rectum, and Pelvic Colon.* By James P. Tuttle, A.M., M.D., Professor of Rectal Surgery in the New York Polyclinic Medical School. Second edition. London: Sidney Appleton. 1906. (Demy 8vo, pp. 963, 346 illustrations.)

[9] *Plain Dinners, a Help to a Uric Acid Free Diet; The Starchy Foods in Health and Sickness.* By Alice Braithwaite. London: R. J. James. (Crown 8vo, I, pp. 46, 6d.; II, pp. 21, 3d.)

That in the eighteenth century even surgeons of high epute were not above advertising in a manner that at the resent day would bring the offender into dire disgrace s shown by the revelations about Daviel, the ophthalmic urgeon, published not long ago in the *Annales d'Ocu- stique* by M. Pansier of Avignon. Daviel began to ractise ophthalmology at Marseilles in 1744, removing to aris in 1746. While he was at Marseilles he sys- ematically advertised in the newspapers, not only his ours of consultation, but reports of the wonderful cures e had wrought. These announcements appeared among e ordinary commercial advertisements. Thus, in the *ourrier d'Avignon*, which was at that time the news eet for the whole of Provence, under date May 18th, '36, there appears an intimation that the Sieur Daviel, aster Surgeon, anatomist and oculist at Marseilles, ntinues to treat diseases of the eye with great ccess. In the month of January the King honoured him th the post of surgeon to the convicts on the galleys. en cases are related with names and addresses of e patients in which a fleshy excrescence as large as hazel-nut had been removed from the cornea, in which *tta serena* of six months' standing had been cured by single application of Daviel's ophthalmic waters, in ich an abscess that had nearly destroyed the left eye d been cured in the same way, only a spot no larger n the head of the smallest pin being left at the lower rt of the pupil, etc. On July 31st, 1736, it is announced t the Sieur Daviel had gone to Portugal, and on the y had performed many fine operations before famous ysicians and well-known surgeons at Aix, Arles, Nimes, l Toulouse. The dates of his arrival at various other ces and the length of his stay in each are announced that patients may have the opportunity of consulting n. Notwithstanding these businesslike methods Daviel d a poor man, and it is melancholy to read that his ow continued to advertise his remedies. The excuse offered that Daviel had to struggle against the com- ition of quacks like the Chevalier Taylor, who practised Marseilles at the same time. Moreover, as there was y one medical periodical in existence, the *Journal Médecine, Chirurgie, et Pharmacie*, practitioners had means of making their work known even to their thren except through the newspapers.

adame Curie writes to the *Aurore* to correct the state- t which has appeared in several French newspapers t her illustrious husband had refused the decoration of Legion of Honour because it had not been offered to wife or to his father. She says that M. Curie refused decoration because, like Herbert Spencer, he cared ing for such distinctions, which he thought did far e harm than good. Madame Curie shares his opinion this subject. It may be mentioned that M. Curie's er is a medical practitioner of the homoeopathic persuasion; he lived, we believe, several years in this country as assistant to the late Dr. Garth Wilkinson.

The *Journal of the Ceylon Branch of the British Medical Association* (January to June, 1905) contains a short communication made to the Branch by the Governor, Sir Henry A. Blake, on April 15th, 1905. In it His Excellency states that in the course of inquiries into the causation of an epidemic of malarial fever in Mutwal, a division of the town of Colombo, in 1904, he received a report from fifteen members of the Cingalese Medical Association in which it was mentioned incidentally that according to ancient authorities on Ayurvedic medicine the chief causes of the disease are impure air and water and the existence of mosquitos. Sir Henry Blake asked for more precise information showing that mosquitos were associated with the causation of malarial fever, and in reply he received extracts from ancient Indian works, among them an extract from Susruta, a Sanskrit work said to have been compiled from one of the lost Vedas. The age of the work is unknown, but as it was referred to in the works of a contemporary of Kalidasa, the great Sanskrit poet who flourished in the sixth century of the Christian Era, it is at least 1,400 years old. The Governor cites the passages from the Sanskrit edition published in 1873, of which the following translation is given on the authority of five native Sanskrit scholars of acknowledged authority. The first is to the following effect: "Life-destroying terrific twelve kinds: Tunginása, Vichilaka, Tálaka, Wáhaka, Koshtagára, Krimikara, Mandalapuchchhaka, Tunganàbha, Sarshapika, Avalguli, Sambuka, Agnikíta. Their bite is as painful as that of serpents, and causes diseases resulting from the three humours joined together. The bite, as if burnt with caustic or fire, is red, yellow, white and pink colour, accompanied by fever, pain of limbs, hair standing on end, pain, vomiting, diarrhoea, thirst, heat, giddiness, yawning, shivering, hiccup, burning sensation, intense cold, vesicles or pustules increasing, swelling, knots under the skin, circles, etc." The second runs as follows: "Masakáh (mosquitos) are of five kinds—Sámudra, Parimandala, Hastimasaka, Krishna, Párwatiya. Their bite causes swelling on the part bitten, itching. As for the Parwatiya, it has similar qualities to life-taking insects." Dr. Sinnetamby states that Susruta says that a bite from the mosquito "Parwatiya" is followed by local and general symptoms. These are fever, pain in the limbs, goose-skin, vomiting, shivering, and an intense feeling of cold. Dr. Sinnetamby points out that the ancient Hindu physicians distinguished at least five kinds of mosquitos, and recognized the fact that only one kind, the "Parwatiya," produced fever. He thinks it probable, therefore, that "Parwatiya" is the *Anopheles* of modern science.

THE HAMPSTEAD GENERAL HOSPITAL.

A LARGELY-ATTENDED meeting of the profession was held at the Hampstead Conservatoire on May 5th, at the invitation of the Hampstead Division of the British Medical Association, to discuss the management of the Hampstead General Hospital, and to consider certain resolutions passed by the Division on April 6th.

Mr. F. R. **HUMPHREYS**, the Chairman, in opening the proceedings, gave a brief sketch of the circumstances. Hampstead, he said, was an exceptionally healthy place, its death-rate being 9.3 per 1,000, as against 15.1 for the County of London. The institutions for sick and infirm within the borough numbered 8, outside the borough, receiving sick and infirm from it, 40. One-third of the deaths in Hampstead were of persons from outside, indicating the extent to which philanthropic persons import the sick. There were, he thought, no persons in Hampstead, above paupers, who could not pay provident fees, 11d. a month being the maximum required for a whole family. In addition to provident institutions there were clubs, friendly societies, and also a nursing institution. The Hampstead Hospital was stated in its articles of association to be primarily designed for the benefit of persons residing in Hampstead. It was started in 1882 as a home hospital and nursing institution, with no free beds. In 1893 the name was changed to Hampstead Hospital, and free beds were added. In 1896 the out-patient department was opened, and in December, 1905, came the removal to a new building, which had 64 beds, intended to be increased to 100, as against 30 in the old. The hospital now contained about 13 pay-beds, the rest being free. The out-patients in 1905 numbered 2,393, of whom 75 per cent. came from Kentish Town. On being opened on Haverstock Hill the hospital was presented with £20,000, and it had also at different times received grants from the Hospital Sunday, Saturday, and King Edward's Funds. The authorities of the latter Fund had intimated their intention to recommend a further grant of £5,000, and had suggested the appointment of a consulting staff. It would be seen that the question to be discussed was a large one, and he wished specially to emphasize the fact that nothing which had been said or done reflected in any way on the hospital staff.

Mr. ARMIT, in proposing the first resolution,

> That an out-patient department in Hampstead is unnecessary,

said he and others desired to safeguard the interests of the general practitioner, and therefore thought it wiser not to confine the resolution to the Hampstead Hospital, but to say that an out-patient department was not required in Hampstead at all. It was only where a medical school was attached to a hospital that there was an excuse for out-patients, and there was no medical school in Hampstead. Out-patients might be classed under three heads: (1) Those who could afford to pay ordinary fees; plenty of such cases had come under his observation at one of the London general hospitals. (2) Those who were less well able to pay—for them there were provident dispensaries, clubs, and other provisions; general practitioners were also always ready to meet them half way. (3) Those who could not afford to pay, and were proper subjects for the Poor Law, which was well administered in Hampstead.

Dr. PIDCOCK seconded. He had given one or two instances of abuse at the Hampstead Hospital from personal knowledge at the last meeting, and thought he need not repeat them.

Dr. COLLINGWOOD ANDREWS said he had been requested by his colleagues on the hospital staff to place before the meeting their views on the out-patient question. If he or they were convinced that the out-patient department could not be carried on without abuse they would be in favour of its abolition. He thought there was not sufficient evidence to prove the conclusion stated in the resolution. He was not prepared to accept the contention that there were no people suitable for out-patient treatment in Hampstead, or that they should be referred to the Poor Law, and so rendered liable to the disabilities of paupers. Let them have the cases referred to by Dr. Pidcock in black and white to place before their Hospital Board. He repeated that if it were proved that the out-patient department could not be carried on without injury to outside practitioners, he would be against its continuance.

Dr. FORD ANDERSON said that out-patient departments were unnecessary everywhere. If there were any excuse for them at all it was only at teaching hospitals, but even there they should be done away with. They were unfair to the poor, unfair to the supporters of hospitals, and especially unfair to the profession. They were demoralizing to the recipients, and the treatment was most casual, not deserving the name of medical treatment. Hampstead he had known for a good many years, and it had got on very well without an out-patient department. The provident dispensaries provided for the class of cases who went there, and he had known patients go from the one to the other.

Dr. MYER DUTCH said he doubted if any medical man could or would give the names of those who had wrongly gone to the out-patient department for submission to the Hospital Board. Allusion had been made to the relief of the unemployed as out-patients. He doubted whether they were proper cases for such relief.

Dr. WALTER SMITH wished to ask if any steps were taken to prevent abuse at the Hampstead Hospital. He reminded Dr. Andrews that the receipt of medical relief did not disfranchise people. He thought out-patient departments were not required anywhere.

Mr. PARSONS moved that the resolution be postponed until adequate reasons be given to the medical staff, which they could report to the Hospital Board, and thus cause the closing of the out-patient department.

Dr. COODE ADAMS seconded. The lay public would have something to say on the matter, and the resolution would have no weight unless it could be shown to be carried, not from selfish motives, but on public grounds.

Mr. SCRASE, in supporting the amendment, said that at the hospital every patient had to bring a subscriber's letter. Every case was investigated by an almoner, and if not suitable was sent elsewhere. The legal mind would require more proof of abuse, and he asked if provident dispensaries were not sometimes abused.

After some further discussion, the amendment was put to the vote and lost, 16 voting for and 34 against it. The resolution was then put and carried by 40 to 7.

It was agreed that Resolutions 2, 3, 4, and 5 should be taken together, and they were then moved by Dr OPPENHEIMER as follows:

> 2. That the casualty department be kept distinct from any other department, and that casualty patients, if not suitable for admission, be seen once, and thereon be referred to private practitioners, provident dispensaries, or Poor-law authorities.
> 3. That there be greater facilities for general practitioners o the neighbourhood to attend in-patients.
> 4. That there should be a service limit, as well as an age limit, to appointments to the medical staff.
> 5. That the outside medical profession be adequately represented on the Board.

Dr. L. GLOVER explained what was being done at the hospital. He said if they were to give outside practitioners representation on the Board other bodies might also ask for it. In reply to the CHAIRMAN, he said the Ladies' Association was represented, but was an integra part of the hospital.

Dr. FORD ANDERSON thought the resolutions hardly went far enough as regards casualties. He found tha servants of some of his patients were sent to hospital for very trivial affections. He thought it would be better to have no regular hospital staff, but to have emergency doctors, as well as representatives of the profession on the Hospital Board.

Dr. DOUGALL understood that no outside practitioner could attend patients in the hospital unless a private room was paid for. He thought every outside medica man should be allowed to attend his own patients in the hospital.

The resolutions were then carried *nem. con.*

The next item on the agenda was to consider the recen circular letter and questions issued by the Council of the Hospital to the medical profession in Hampstead, in which, on the suggestion of the Executive Committee o King Edward's Hospital Fund, the question of the appointment of consultants to the acting staff of the hospital i raised. On this Dr. OPPENHEIMER moved:

> That it is desirable, both in the interest of the district and of the hospital itself, that the Hampstead Hospital be carried on as a purely local institution, and not as a larg general hospital, and therefore that an acting staff o consultants is not in accordance with the spirit of it constitution.

Dr. ANDREWS said the staff was not responsible in any way for the issue of the Council's letter, which was in opposition to the views of the staff.

Dr. FORD ANDERSON referred to the rules of the proposed general hospital at Putney, where it had been arranged that there should be a staff for serious operations. H thought that there should be a list of consultants wh would come if needed.

Dr. L. GLOVER hoped the resolution would be carried They already had one consulting physician and one consulting surgeon at the hospital. General practitioners in the present day were quite capable, if they had the opportunity, of doing both major and minor operations. In reply to the CHAIRMAN, he said there was no limit laid down as to the operations they might do, and generally consultation was previously held.

The resolution was then carried *nem. con.*

On the motion of Dr. OPPENHEIMER, it was resolved tha three or four members of the present meeting be appointe to co-operate with the Committee of the Division i taking all steps deemed advisable in the matter.—Mr. Parsons, Dr. Walter Smith, Dr. Whait, and Dr. Claud Taylor were chosen for this purpose.

A hearty vote of thanks was passed to the Chairman fo presiding.

DR. THOMSON, Public Vaccinator, Maidenhead, has bee duly awarded the grant for efficient vaccination in hi district after the last inspection.

The Fifteenth International Medical Congress.

HELD AT LISBON, APRIL 19TH TO 26TH.

[Continued from p. 1053.]

THE HOSPITAL OF S. JOSÉ.

ON Friday I had the opportunity of running through he Hospital of S. José. First of all let me explain that ll the larger institutes of Lisbon are straggling, rambling ort of places, even the new Bacteriological Institute orming a sort of maze. The Hospital of S. José is an old tructure, or, rather series of structures, which has in the ast been renovated and which strikes one as being very ifferent from the majority of European institutions of the ind. First of all, I landed in the store rooms adjoining e kitchens, and there I found everything extremely ean, old-fashioned, roomy and solid. The various grocery ores are kept in fine old store cases distinctly labelled. s far as I could judge from a cursory glance the material emed to be good. The meat store is large and clean but arsely filled. Dried fish, however, was present in large asses. Passing on, I came to a corridor, and there I und myself in the paying patients' wards. Each of the e patients has a comfortable, clean and well arranged om; the hygienic accommodation is good, but I was rprised to find that hot water was not laid on. The arges are not low. Then I visited the operating theatre, ich again makes a peculiar impression. The old struc-re has been redecorated and walled to convert it into a dern aseptic series of chambers, and the tables, irrigators, rilizers, and basins are of a modern type. The surgical rds are very large, and contain thirty-six beds, and the lividual bed space is far greater than one usually meets th. The wards are bare and not very pleasing, t appear fairly clean. The floors are wood covered th a composite cement, which is continued smoothly ne inches up the walls; the walls are plastered l oil painted, and the flat rafter ceilings of wood painted white. The patients seem comfortable, one could not regard the great chunks of bread l battered old pots of water as being appetising, ecially as the tables on which they were placed also held tles, shaped like drinking-water bottles, for urine. A e case of osteomalacia and another of sarcoma of the it were of considerable interest. In order to get to the male side it was necessary to ring for the door to be ocked. On asking the reason, I was told that it was sidered wise to keep the male side and students tightly uded from the female side and nurses. In the male ds only male nurses are employed. In the female gical ward I arrived as a breast case was being dressed. dressings and appurtenances, the dresser's white n and gloves, all bespoke of complete asepsis, but the that the gloves, once sterile, did not avoid touching clothes, etc., and that the sterile dressings were taken by the nurses' hands to be given to the dressers, oke an adherence to the less modern doctrines. One d was reserved for gynaecological cases, and had an fashioned theatre attached. The general arrangements excellent here, as also in the obstetric ward, with its eds and its labour ward with 3 or 4 beds. The latter ars to be the only lying-in ward in Lisbon. From a tary point of view the hospital appears to be well ted and conducted, in spite of the fact that the waste-r pipes run to the drain untrapped. The nursing ngements do not strike one as being so good. The le nurses look intelligent, but there is a want of pline and a general laxness which does not compare with the hospitals of England, Germany, or France. sisters are merely distinguished from the nurses and ationers by wearing two small stars on their coarse nd gowns. The notes of the cases are recorded y in a book which is kept by the surgeon, and partly e admission and treatment card kept in the ward, not always on the patient's bed. The photothera- c department and the histological and chemical rtments are modern and excellent. All the apparatus the best pattern and make, including a good installation of Finsen light treatment where I saw the five leprosy patients on whom they are experimenting with the Finsen method. One sees a fair amount of leprosy in Lisbon and Oporto, in the streets and elsewhere.

THE BACTERIOLOGICAL INSTITUTE.

The other day my esteemed friend, Professor Annibal Bettencourt, showed me round his institute, and took infinite pains to show me everything. Of the laboratories, one need only say that they are spacious, well arranged and equipped. The actual work of these laboratories appears to have been temporarily interrupted on account of the large numbers of daily visitors, so that I was unable to form an opinion about the working space of the department. The apparatus is of new pattern and excellent in every way. I was especially struck by a modern microtome, which certainly worked more perfectly than any other instrument I have yet seen or handled. The hot room is sufficient, and the sterilizers, centrifuges, rockers, and steamers are of well-known kinds. A large room is set aside for demonstrations, and provided with a fine Zeiss microphotographic and projection apparatus. Upstairs the photographic department is also first-class. The animal houses were interesting. Asses, which are very cheap in Portugal, and can be bought for 12s. each, are used instead of horses for the production of diphtheria and tetanus antiserums. Porcupines, and various birds, as well as mice, guinea-pigs, small rabbits, and dogs, are present. The monkeys are tame and good specimens. A large *post-mortem* room for the asses is well adapted to its purpose. Next we visited the antirabic department, which is conducted on very similar lines to those of the Pasteur Institute in Paris. But the chief gain of the Lisbon Institute, both as regards hydrophobia and also as regards diphtheria, is that adjoining, still within the same grounds, are isolation wards for the two diseases. With regard to the former, I was told that a case of developed hydrophobia in man had been treated a week or two ago. The majority of the patients naturally are undergoing the prophylactic treatment. The advantages of having the diphtheria and rabies wards next to the institute where the curative or preventive means are prepared is obvious.

ATTENDANCE AT THE CONGRESS.

According to a list published on April 8th only 1,800 members had registered, but I have reason to believe that the number attending now exceeds 2,400. The chief English members are Sir Dyce Duckworth, Sir Thomas Barlow, Dr. Pavy, Dr. Ferrier, Dr. Radcliffe Crocker, Professor J. Moore (Liverpool Cancer Research), Mr. D'Arcy Power, and Mr. C. Riviere. Among the Germans, I have met Professor Waldeyer, Professor Curschmann, Professor Quincke, Dr. Schaudinn, Professor Posner, Professor Unger, Professor Loeffler, and Professor Verworn. From France we have, among others, Professors Cornil and Bouchard and Drs. Blondel, Vaillard, and Josias. Major Charles Richards, of the United States Army, and, from Spain, Ramon y Cájal and Cortezo may be mentioned. Dr. Pijnappel is among the Dutch delegates, and Obersteiner from Austria. Naturally, many other celebrated men are present, but I have mentioned only those I have come across.

THE BULL FIGHT.

I have just returned from the Villa Franca de Xira, where a special bull fight—or, as a German colleague and friend of mine expressed it, "an affray of oxen"—was held. At half-past 12 we gathered together on the quay to embark in the boats placed at our disposal. The journey up the river to Villa Franca takes about two and a half hours, and is extremely interesting and picturesque. On the right-hand side of the river the country is as flat as Holland, and no towns or villages are visible; but, inasmuch as the river is very wide, one only sees a thin line marking off water from sky. On the left the hills are moderately high, and are very pretty. High up, when one nears the Villa Franca, windmills of a peculiarly fragile-looking type cap some of the hills. Half way we halted to get the whole fleet of eight boats together. Three of these were smallish launches, and the rest were like glorified L.C.C. Thames paddle boats, only bigger. A ninth boat had preceded the fleet. Each member was presented with a cardboard box containing half a bottle of excellent white wine, a couple of croquets of sorts, two rolls with ham, and some pastries. Drawing near the village, lines of peasants in their picturesque garb, mounted on horseback, line the bank, cheering and waving as we passed. Then volleys of rockets were sent up into the air, until the noise became deafening, but one only saw the smoke, travelling in lines and then diffusing. The arena was next seen, gaily decked in multitudinous colours, with the royal flag of red with a yellow crown flying on high. A band played as we passed. At the landing stage hundreds and hundreds of the people had gathered to greet us, and the variegated picture was rendered more charming by the presence of sailing boats, decked with flags, which sailed by us as we waited our turn to get in, saluting by lowering the flags. These boats took some of the members ashore. At last we steamed up, and the kindly Portuguese greeted us heartily as we passed between the two throngs, so that one had to bow an acknowledgement at every few paces. Flags, draperies from the balconies, garlands and bright dresses filled the scene with colour. As we walked along dark-eyed girls and matrons, comely to look at, pelted us with rose-leaves and every now and again threw roses to one of us. The Southern sentiment was so infectious that I could not resist throwing a kiss to some of the gentle creatures, and was rewarded by a bombardment of roses, so that I had to secure them inside my hat lest they should get lost in the carrying. The sight was so dramatic, so intensely characteristic, so unaccustomed, that we felt as if we were some powerful princes of the middle ages and the villagers our subjects. Here, as in Lisbon and Oporto, a large number of cripples and a few lepers were to be seen, and although the poorest had come out to meet us there was very little begging. Then we found our places in the amphitheatre. Throngs flocked in from all sides, and tier upon tier filled up, till, at about half-past four, the house was quite full. About 5,000 persons were present. The royal box opened, and the King, Queen, and Queen Mother, with the two Princes and two gentlemen-in-waiting, took their places. A very noisy band had disturbed my peace of mind during the interval of waiting, and then the military band set up in a special compartment. The distances were much too great to see the audience in detail, but the massed impression one gained was splendid. The sun screens had been erected without a thought of the wind, and the light blue and white fabric was wafted high up into the air, leaving us exposed to the scorching sun. The galleries were hung with blue cloth, on which large red, white, and yellow artificial flowers were sewn. The royal box was worked in red, blue, and gold. The programme consisted of fancy riding by distinguished amateurs, mostly titled men, dressed in the peculiar garb of the bull-ring; sparring with long sticks by men on foot, a sport which does not appear to have a definite aim or end; and the bull fights. The Portugese bull fight is a tame affair. Men, horses, and beasts are all well trained, and the only criticism one can make is that it is a shame to worry the bull. The bandarilheiros were very picturesque and skilful, and graceful withal. One of the six bulls was very fresh on starting and followed one of the men over the arena boundary, sending all the attendants, police, and others flying in all directions. I am told that the little wounds are treated and healed, and that the bulls serve again and again for the purpose, although the supposed regulations are that the bull is slaughtered after and the meat given to the poor. The game of the rose was very pretty. Three horsemen appeared, and a rose was stuck into the coat of one of them, which the other two attempted and succeeded in snatching it away. All the horses were splendid Arab steeds, and pranced and danced very prettily. Each performer received a large bouquet after his performance. Then we left. The walk to the station was dusty and thirst-giving, and one felt that the show had been too long. Three-quarters of an hour in over-filled trains brought us back to Lisbon ready for dinner, and satisfied with the experiences of the past seven and a half hours. The villagers distributed a pretty little poem to us as we passed, in which they greeted us, frankly and warmly, as the protectors of humanity; the mothers bless us, and the people call us their benefactors.

GARDEN PARTY AT THE PALACE.

A more picturesque, impressive, or splendid sight than that which presented itself in the grounds of th Pago das Necessidades on the afternoon of April 24th ca seldom be met with. The grounds themselves ar exquisite with tropical growth, beautiful beds of flowers and magnificent trees. Add to this the picturesqu uniform of countless servants of the household, and a sor of civil guard, and the picture gained in brilliance. Stil further imagine a crowd of some 4,000 guests, amon which were soldiers in the uniform of every countr stately *savants* in civil, and good-looking women in th daintiest of fashionable attire, and the impressio becomes yet more striking. But the crowning point o all was the beautiful, fascinating, gracious and gracefu Queen herself, who, with the King, Queen Mother, tw Princes and Prince Alfonso, greeted her guests in supremely charming manner. Every one was loud i praise of Her Majesty, and, however extravagant tha praise may have sounded, it was certainly not exaggerated With a never-failing memory, she shook hands wit hundreds of her guests, always saying appropriate word which fitted exactly to the guests, and always smilin sympathetically and regally. One can only say that sh is every inch a Queen. Your humble correspondent wa honoured by being allowed to kiss her hand, and it di him good. Three bands refreshed the air with tunefu harmonies, and the inner man (and woman) was mor substantially refreshed at the lavish buffets, whic provided a feast unusually solid for an afternoon, and ye dainty. I am told that the dinner given by the Kin and Queen to the Governmental delegates was formal an stiff, and somewhat too protracted.

RECEPTION AT THE GEOGRAPHICAL SOCIETY.

The reception of the Congress to its members at th Geographical Society on the evening of the 23rd wa peculiar. The large museum where the opening ceremon was held was packed to overflowing by some 6,000 persons It became hot and insufferable, and as some of the guest were seated and others were wedged in, there was n that chance of fraternizing which we value so much a International Congresses. The programme consisted music by the municipal band, some very indifferen lantern projections of Portuguese Colonies, and som native dances. The latter were rendered tedious by th very unmusical voices of the girls, and the constan repetition of the tune (such as it was). The costume and girls were pretty, and the movements on the whol graceful, but I must admit that I was rather disappointe on the whole with the performance. I am informed tha the Ophthalmological Section were invited to a mos pleasurable garden party by Dr. Pinto, of Esteril. Th whole Congress also visited the beautiful grounds an house of the Vicomte de Monserat at Cintra.

DEATH OF DR. MASCARO.

It is with great regret that I have to record the death Dr. Mascaro, whose sudden attack of cerebral haemorrhag took place in the Ophthalmological Section. The regre is widespread in Lisbon, where he was well known an well loved, and where his skill and good qualities we widely recognized.

THE NEXT MEETING OF THE CONGRESS.

The final work of the Congress took place on Wednesda and Thursday, in a somewhat spasmodic manner. Th events of chief importance were the assemblage of th Governmental delegates and the Presidents of Honou and the Séance de Clôture. The first-named was time for half-past nine in the Great Hall. Much excited spec lation was indulged in as to the place of the next Congres and those who viewed the matter from a practical lig sought votes for Buda-Pesth. The President and Professo Bombarda then took their seats, and the proceedings open with a somewhat turbulent scene by an objection bei made to allow absent members to vote by proxy. One memb attempted to address the meeting but was repressed, an it took quite a time, including many repetitions of simple sentence to get those present to realize eve approximately that the question would be decided vote. The Ayes had it, but, to my great amusement, hal a-dozen gentlemen asked me afterwards what they ha voted for. The next step was the determination of th place of meeting for the next Congress. Guiteras made formal speech inviting the Congress to New York, a promising the members a warm welcome. Bombar en stated that we had had four proposals, but that two ight fall away. Dejace had brought with him an invita- on from Brussels, but had been instructed not to press if any other country had a prior right, and the Japanese vitation might be taken for a future occasion. The oice, therefore, lay between Buda-Pesth and New York, d he reminded those present that the Executive Com- ittee had practically committed itself to accepting e former. This invitation was supported by Müller. e method of voting was that each name was called out d each member called out in reply the name of the place preferred. The total vote was in favour of Buda-Pesth by ajority of 11. Following the announcement, Müller made raceful little speech expressing gratitude for the accept- ce of the invitation.

Future Congresses.

Professor Quincke then said that there was a proposal foot to postpone the recurrence of these Congresses to ry fifth year, but, inasmuch as the Hungarian invita- n was for 1909, we could not alter matters yet. He ught that the best plan would be to wait till the next ngress, but to advise all countries that, in sending itations for the following meeting, the actual year st be left to the decision of the Congress. This was lauded. A dental member replied to an announce- nt of the working Committee by offering opposition, by claiming the rights of the dentists. Bombarda ed that actually a medical congress was only for lical men. The vote was then taken as to whether tists should be admitted or not in future, and it was ermined to exclude them. I may mention that the ing on this point was very decided and strong. The lutions passed by each Section were then read. se will be referred to later.

Prizes.

inally, an announcement was made that the Moscow e had been awarded to Laveran, and the Paris Prize to lich.

Closing Meeting.

the tone in the morning had been serious and nesslike it certainly had worn itself out, and when ongregated at 2 o'clock to bring matters to a final lusion everybody was in the lightest vein of humour temper. An orchestra had played selections in eighbouring saloon, and the hall rapidly became filled. The babel of many tongues, the loud hter, and rustle of people moving hither and er was brought to an abrupt but not complete by the strains of the spirited Royal March, and next President, Professor C. Müller, and Professor barda, took their seats, decorated with their new r for literary and scientific merit, and then they ed. Infected by the enthusiasm around me, lled out "Bombarda," and in an instant the resounded with a perfect yell of delight. arda acknowledged the appreciation on all sides, it was several minutes before the noise abated iently for the proceedings to begin. Müller led ith a reference to the able work of the Executive nittee and of the Portuguese and other *confrères* who ssisted in making the Congress a success, and espe- named Bombarda, when we all went mad again. nded his speech with a pious "*Au revoir*" in Buda- . The band thereupon struck up a Hungarian ly of a somewhat hymnal type, but characteristic in ntle harmonies. Then F. Caro, the Secretary-General e last Congress in Madrid, made a capital speech. y-looking, with a kindly face, wearing a white beard oustachios, he formed an excellent picture at the of the platform. He referred to the advantages of resent Congress, to the assistance rendered by the ce of His Majesty the King; he spoke of the tages of international reunion to the cause of e, and believed that the work of the past would make an important page in the book dical literature. We were leaving the shores of gal now, but would carry away memories of the most nt kind, and the frank hospitality of the Portuguese not be easily forgotten. This Congress would take ce in medical history, and would be fruitful in ring the work of scientific medicine. *Au revoir!* ollowed the re-reading of the resolutions, a perform- hich Bombarda most skilfully got through, often skipping over a page or two of what appeared to be tautological. The formal announcements of the choice of the next place of meeting and of the two prizes were also made. Finally, Müller said a few words of hope and future welcome in the name of his country. The whole proceedings had not taken more than three-quarters of an hour, and one was relieved to find that the usual long and somewhat platitudinous speeches of each delegate had been dispensed with.

Before the members dispersed they were photographed in large groups and small ones, on tables, chairs, and steps, sitting and standing on tiptoe, for at least the thirtieth time. The photographic fiend was very active during the Congress days.

Reception by the Municipal Council.

On the evening of Wednesday, April 25th, the municipality of Lisbon entertained the Congress in their beautiful Town Hall. The rooms are large and finely decorated, and the passages and staircases massive and handsome. Hung with great garlands of countless roses, and adorned with gigantic pots of azaleas and other flowering plants, the stately building looked its best. In spite of a very large crowd, it was apparent early that many of the congressists had either left or were too tired to come out. But, nevertheless, one met with interesting people and saw interesting sights. The band was very good, and not aggressive, as it has been on other occasions, and the refreshments were plentiful and dainty. A novel method of serving viands is followed on such occasions here. Plates of sandwiches, fowl, and other things were stuck all over with wooden toothpicks, so that one can merely touch the wood and not soil one's gloves. The manners at such feasts vary within wide limits, and it will be a long time before I forget a picture at the King's garden party of an elderly female, of race unknown, gnawing at a chicken bone in a way which was certainly more efficacious than genteel. At 10.30 the Fire Brigade gave a display of a sham fire in the square, and excited much admiration. By way of criticism, I cannot refrain from saying that it looked curious to see four firemen driving up in a cab as leisurely as if they were going to dine instead of saving life; but once on the spot they were active and nimble. The evening was fine, and a large and enthusiastic crowd had collected outside to catch a glimpse of the guests and firemen, although they were closely packed up behind a cordon of police.

Other Festivities.

Each Section, too, had its little or big feast, and one felt as the days passed by that the Lisbonians were doing us too well. One longed for rest and peace. The steep streets, roughly paved, the unaccustomed heat for April, the mixture of languages, and the constant strain not to miss anything important, all tended to make the week a fatiguing one; but, for all that, we have to acknowledge our indebtedness to our Portuguese colleagues for the very hearty and friendly receptions and for the pains they took to make us feel at home.

Mention should be made of a very kind invitation extended to several members of various nationalities by our German colleagues on board the *Oceana*. A more pleasant afternoon I have rarely spent. The ship is all that is desirable, and the passengers, among whom are many illustrious men, were most charming hosts; nor were their wives and daughters less agreeable as hostesses. I felt extremely sorry that the English boat had not stirred a finger to show a cordial feeling by inviting friends to an afternoon *réunion* too.

The English Committee, however, addressed a nicely-worded complimentary letter to Professor Bombarda before leaving, expressing their appreciation for his work, and for the assistance and friendliness extended by him to the English members, and announced that a more formal vote of thanks would be passed after their return to England. The recipient of this letter told me himself how highly he appreciated it, and how much he valued the good esteem of my countrymen.

(*To be continued.*)

Dr. Robert L. Bowles who, on his retirement from practice, has gone to live at Lydney in Gloucestershire, has been placed by the Lord Lieutenant on the Commission of the Peace of that county.

THE CONFERENCE OF THE INTERNATIONAL ASSOCIATION OF THE MEDICAL PRESS.

ON April 17th and 18th, before the commencement of the International Medical Congress at Lisbon, the International Association of the Medical Press held its general meeting and special Committee meetings. The sessions took place in the new Escola Medica.

Under the protection of Señor Andrade, the Minister of Public Instruction and Professor of Law at Coimbra, the first meeting took place in the great hall. Much delay had taken place before all the official members had collected together, and it almost required forcible persuasion to induce the gentlemen concerned to settle down to serious work. The President's table was occupied by the outgoing President (Dr. Carlos Cortezo), the Minister (Señor Conselheiro Andrade), the Secretary (Dr. Blondel), and the Portuguese Secretary (Professor Bombarda). Among the others present, the number of whom was twenty-one, were representatives of the medical periodical press in Germany, France, Great Britain, Belgium, Holland, Spain, Portugal, and Italy.

Professor Bombarda opened the proceedings by a warm welcome and he was followed by Cortezo, Blondel, and Andrade. The last-named gave an historical summary of the Association, and all indulged in the polite expressions so much appreciated on such occasions.

The general meeting then broke up, and the Committee would have commenced its work, but for the fact that many of the members disappeared at once. At 2.30, on reassembling, Dr. Blondel read the minutes, and gave a fairly full account of the proceedings of the last meeting held at Berne last year. It was then announced that copies of the minutes and transactions of the Association were being printed and would be distributed, and that any one desirous of purchasing a copy could do so by remitting 1 fr. to the Secretary of the National Association of his country.

Apologies were offered for the non-attendance of the treasurer, who is seriously ill. It was announced that the Portuguese Association now embraced some eight journals, and possessed twenty members, and the Secretary considered that they should have a double representation on the Committee. Mr. Adolphe Smith then moved in the name of the British Association, that Article V, chapter ii, which provided that the head quarters of the Association should be in Brussels and the treasurer reside in Belgium, be deleted. He explained that circumstances rendered it extremely difficult to continue that arrangement. Dr. Dejace, of Brussels, made a personal objection, although he did not feel justified in officially opposing the resolution. Others supported the motion and it was carried, whereupon Mr. Smith addressed himself directly to Dr. Dejace, and spoke in high praise of the services which Belgium had rendered. The next business was the election of the executive; Dr. Posner was elected president; MM. Bombarda, Dejace and Ascoli, vice-presidents; Dr. Dawson Williams, treasurer; while Dr. Blondel was re-elected secretary. An invitation from the British Medical Press Association for a meeting of Committee next year in London on the days preceding the Congress of School Hygiene was brought forward by Mr. Adolphe Smith. This was gladly accepted.

The next business consisted in the discussion of several points in the conduct of medical journals. Gratuitous journals which advertised nostrums and remedies were first dealt with.

Professor Cornil pointed out that the only way to suppress the nuisance was to forbid the reproduction of scientific articles, which these journals freely used. A motion to the effect that reproductions of scientific articles should only be permitted to journals belonging to the International Press met with approval. The subject was freely discussed. The next subject was the advertisements which are wrapped up in scientific language and inserted into the body of journals. The subject was dealt with from all points of view, and in the end it was decided to allow the matter to stand over till next year, when some definite method of action might be agreed on. This terminated the first day's work. During the latter part the other members of the Association were admitted, and many took part.

On April 18th the work of the Conference was continued at 10 a.m. The first subject was brought forward by Dr. Blondel; it had reference to the desirability of each journal publishing an extract of all original articles at th end of the full article. Against the advantages, it wa pointed out that certain disadvantages might ensue especially to journalists; but after an explanation th scheme was generally approved of. Cortezo spoke of th evil arising from men, not belonging to the medica profession, publishing articles and signing them wit some medical title. It was suggested that in order t deal with such writers each National Association shoul endeavour to obtain legal means for instituting a prosecution. The organs of the Association should of course refuse to publish such articles. Dr. Chabas next read a pape on the best means of dealing with advertisements, an proposed that laws restricting the sale of proprietar articles be rigorously enforced, and that certain rules b followed by editors of journals to cleanse the journal from undesirable advertisements. A slight amendmen was necessary, and then the proposals were accepted.

Professor Cornil was then elected Honorary Presiden amidst general cheers. The Conference terminated afte the usual complimentary speeches had been delivered.

It may here be mentioned that a more active life of th International Association of the Medical Press is probabl under the new régime. The President, Professor Posne made a public announcement in his speech at the openin ceremony of the Medical Congress, in which he spok hopefully of the work of the Association in the futur It may do extremely useful work in protecting the reader of medical journals from the abuses which creep into certain journals, and in favouring an improvement in th journals belonging to the Association. It also may b useful in easing the work of the press on the occasions c congresses and other meetings.

SOCIETY FOR RELIEF OF WIDOWS AN ORPHANS OF MEDICAL MEN.

THE annual general meeting of this Society was held o May 3rd at 11, Chandos Street, Cavendish Squar Twenty-five members were present. Mr. WILLETT, Vice-President, who was in the chair, referred to the great los the Society had sustained by the death of the late President, Mr. Christopher Heath, F.R.C.S., who had alway taken the greatest interest in the Society's welfare and ha been a most regular attendant at its meetings. A forma resolution of condolence was passed from the Chair.

A cordial vote of thanks to the editors of the medica journals was moved for their unfailing courtesy in inserting from time to time the reports of the Society. Th was carried unanimously.

It was reported that during the year six new membe had been elected, five had died, and two resigned. At th end of the year there were 148 life members and 149 subscribers. Four widows had been elected and two had die and there were 54 in receipt of pensions at the end of th year. Three orphans were elected, making a total of 19 i receipt of pensions. The income derived from the invested funds of the Society was £3,098 19s. 2d., during th year the additional amounts received had been from subscriptions £300 6s. 2d., from donations £23 1s., from li subscriptions £134 8s., and a legacy of £250; £3,241 ha been distributed among the annuitants of the charit The working expenses of the Society for the year amounte to £248 16s. 7d.

Dr. George Fielding Blandford was unanimously electe President, and Dr. F. de Havilland Hall one of th Treasurers. Six directors were elected in place of the si seniors who retired according to the by-laws.

The Society was founded in 1788, being the thi of its kind to be founded in England, and is now o of the richest, if not the richest, in the countr the invested funds amounting to £98,810. Any pers duly registered under the Medical Act, and reside within a radius of twenty miles from Charing Cross, qualified to be proposed for election as a member of th Society; and the whole of any township or parish which the twenty-mile radius may reach is considered entirely within the radius. The annual subscription 2 guineas, payable either in one sum or in two hal yearly amounts of 1 guinea each. After paying f twenty-five years members become life members, a are exempted from further contributions. A membe whose age at the time of his election does not excee

0 years, may become a life member upon payment f the sum of 20 guineas; if his age shall exceed 30 and hall not exceed 40 years, upon payment of the sum of 5 guineas; and if his age shall exceed 40 years, upon ayment of the sum of 30 guineas; provided that such ayment be made within three months from the date of is election. Relief is granted only to the widows and phans of deceased members. The advantages of the ociety cannot be too strongly or constantly urged upon e members of the medical profession, for at each iarterly Court of Directors relief has to be refused to any applicants, simply owing to the fact that their isbands had not been members of the Society. Some markable instances may be quoted showing the advanges derived by the widows and orphans of deceased embers.

One widow, whose husband had paid £18 18s. in subscripons, received in grants for herself and family the sum of ,272; another received £1,654; three widows, whose deaths re reported at the last quarterly court, received an average £700 each. At the present time a widow is in receipt of a int of £125 per annum for herself and five children.

Full particulars of the Society and proposal forms for mbership can be obtained on application to the cretary at the offices of the Society, 11, Chandos Street, vendish Square, W.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY.

E annual general meeting of the London and Counties dical Protection Society was held at 31, Craven Street, and, on May 4th, when the chair was taken by G. A. HERON.

he annual report of the Council for 1905 contained an resting account of the work of the Society. Several es were related at length, among others one from which moral was drawn that a medical man should never, out the consent of the person examined (such consent g in writing, or capable of legal proof), give his opinion he nature of a patient's ailment to any one but the on examined. In the case of a medical officer to a ndly Society, the medical practitioner should fill in certificate in plain language, and give it to the patient onally, leaving the patient to send it to his club or as he chose, and on his own responsibility. In a iderable number of cases in which negligence or ilfulness was alleged as a reason for not paying ical fees, the members concerned commenced proings in the county court, by the Society's advice, but vered the amounts due to them without the help of Society, inasmuch as the defendants dropped the ges they had made against their medical attendants. e could be little doubt that, in many of these cases, harges would have been persisted in had it not been he knowledge that such persistence would have led ociety to intervene on behalf of its members. During ear 1905, 446 new members were elected, 34 died, and signed their membership of the Society because of ment from practice, etc. The total membership at nd of the year was 3,552; 226 members ceased to be nefit owing to their subscriptions being in arrear. ng the year 1905 the Society's total income amounted ,069 18s., as compared with £1,669 2s. 11d. during The total expenditure for the year amounted to 6 3s. 8d., leaving a surplus of income over expendiamounting to £283 14s. 4d. At the end of the year mount standing to the credit of the general account 349 6s. 3d., and outstanding liabilities amounted to 0s. 9d. The reserve fund account stood at 18s. 9d., and the total cash assets of the Society at £2,467 4s. 3d.

CHAIRMAN, in moving the adoption of the annual and balance sheet, drew attention in the course of his ks to a class of case which came before the Council nd then which he thought should be less frequent. ferred to cases in which medical men are asked by yers to examine a servant, the employer paying the medical man without thinking much of the matter s to the employer on the patient. As a rule all went but the patient might turn round and say, What as a medical man to report to the employer? then octor awoke to the fact that he had forgotten ught to be the leading principle in the conduct of every medical man, namely, that he is not at liberty to divulge anything whatever to any one under any sort of circumstances without obtaining the consent of the patient, if possible in writing. The Chairman concluded by drawing attention to the importance of building up the reserve fund, and expressed the hope that the members of the Society who might read the account of the annual general meeting would remember that every man who could afford it should send with his subscription a donation of, say 10s., towards the reserve fund, because the subscription to the Society, considering the responsibility undertaken for the members, was very small.

Dr. R. BOXALL, in seconding the motion, pointed out the advantages obtained by joining the Society.

The annual report and balance sheet were then adopted by the unanimous vote of the meeting.

The meeting terminated with the transaction of formal business and the passing of the usual votes of thanks to the officers of the Society.

UNIVERSITY OF EDINBURGH.

GENERAL COUNCIL.

THE statutory half-yearly meeting of the General Council of the University of Edinburgh was held in the Examination Hall on May 2nd, Mr. J. Hope Finlay, W.S., presiding, in the absence of the Vice-Chancellor.

Report of Business Committee.

The report of the Business Committee stated that it had unanimously appointed Mr. David D. Buchan, M.A., LL.B., S.S.C., to be Convener, vice Dr. Traill resigned. In accordance with a resolution of the General Council passed on April 15th, 1890, copies of notices and reports are posted to all members resident in Scotland. They at present numbered just over 4,200, while the total constituency was 9,735. The fact that an alumnus of the university resided in England or abroad might make it difficult for him to attend the meetings of General Council, but that appeared to furnish the greater reason for his being kept in touch with the progress and needs of the university. The Committee therefore recommended the General Council to direct that the distribution by post be extended to all members of Council having a known address. This was agreed to. The questions of bursary reform, modern language teaching, the reform of the arts curriculum, and the training of teachers were next dealt with, and the recommendation of the Committee agreed to.

Medical Curriculum.

The next item on the agenda was the Draft Ordinance by the University Court for alteration of the Commissioners' Ordinance—Edinburgh, No. 1—Regulations for Degrees in Medicine. The proposed changes were of the highest importance for the improvement of the medical course, and the Business Committee very cordially recommended the Draft Ordinance for the approval of the General Council, along with the suggestions after-mentioned. Four years ago the General Council requested the University Court to inquire into the feasibility of reorganizing the Medical Curriculum on the lines suggested by the Pathological Club of Edinburgh. Following upon this request, small committees representing the University Court and the General Council met in conference, under the chairmanship of Dr. Joseph Bell, and drew up an elaborate memorandum explanatory of the matters complained of, and of the suggested mode of redress. Since then the subject had received a very large amount of attention on the part of the Court, the Senatus, and the Faculty of Medicine. The Draft Ordinance embodied the result of the whole deliberations, in so far as it was necessary to have a fresh Ordinance to carry out the same. Other changes were in the immediate power of the Court and Senatus, so that the Draft Ordinance did not represent the whole reforms proposed to be attained, but only such as required legislative authority. For example, through the courtesy of the Principal and of the Dean of the Faculty of Medicine, the Business Committee had had before it a detailed curriculum and scheme of class hours proposed to be brought into effect in the event of the Draft Ordinance becoming law. The report adopted by the General Council in May, 1902, summarized the desired reforms thus:

> The scheme makes the following proposals: The academic year shall be divided into three terms of ten or eleven weeks each, all the alteration made on the existing periods being that all the classes, and not Anatomy only, would meet on October 1st. All examinations shall be held thrice a year, and, unless under strict regulations, no student who has failed to pass an examination shall be allowed to attend the succeeding classes of the course. The order in which students may take out their classes is to be prescribed, so that they may proceed logically with their studies, and the subjects may be grouped in a rational sequence. The time table shall be so adjusted as to get the lectures and hospital teaching over by lunch time and leave the afternoon free for dissecting and other practical work.

The examinations prescribed by the Commissioners' Ordinance were these:—

First. Botany, Zoology, Physics, and Chemistry.

Second. Anatomy, Physiology, and Materia Medica and Therapeutics.

Third. Pathology and Medical Jurisprudence and Public Health.

Fourth. Surgery and Clinical Surgery, Practice of Medicine and Clinical Medicine and Midwifery.

The First Examination may be split, and a candidate who has attended two classes may go up in the subjects of these. Candidates who have passed the whole of the First Examination may be admitted at the end of the third winter session to the Second Examination or to the Anatomy and Physiology portions of it. In like manner candidates may be admitted to the Third Examination at the close of the fourth winter session, and they may not go up for the Final until the fifth year of study has been completed.

In connexion with the foundation of the Bruce and John Usher Chair of Public Health, the Commissioners issued their last Ordinance, No. 169, dated 24th June, 1897, and the University Court made its first Ordinance, dated 13th November, 1899, for the separation of the teaching of Medical Jurisprudence and Public Health in the Edinburgh University. This latter Ordinance by Sec. 1 provides, *inter alia*, that the Senatus, with the approval of the University Court, shall regulate the period or periods of examination and the divisions of the Professional Examination to which the student may be admitted in Forensic Medicine and Public Health. Under this power these subjects have been taken out of the Third Professional Examination and have been put into the Final, leaving Pathology the only subject in the Third Examination.

The new Draft Ordinance by Clause I proposes to leave the subjects of the *First* Examination as at present, to transfer Materia Medica and Therapeutics from the *Second* to the *Third* Examination, and to leave the subjects of the Final Examination as now. But the general idea of the scheme is that students should be allowed more freely than hitherto to pass these examinations by instalments, so that when they have received their instructions in a particular subject they may be forthwith examined in it, and be thus enabled to concentrate attention upon the subjects in which they are immediately undergoing tuition without being distracted by examination requirements in subjects previously studied. While the change will lighten the load upon the students, it will also make for greater thoroughness all round.

By Clause II it is intended that students may come up at once for examination in any one or more subjects of the *First* division, the class or classes in which they have attended. There is, however, an ambiguity, and the Business Committee suggest that the Clause should read: "Candidates who profess themselves ready to submit to an examination in *any of* the subjects," etc.

Clause III provides for Physiology being passed whenever the qualifying course therein has been taken. The examination in Anatomy, it is proposed, may be taken at any time after the end of the first half-session of the third winter. This recognition of a half-session in winter, which probably is the outcome of a compromise of views, would seem also to concede by implication another of the demands supported by the General Council for a system of three examinations a year.

Under Clause IV students who have begun Medicine in May are to be examinable in Pathology at the end of the fourth summer session, and the Materia Medica Examination for all students is to come at the end of the fourth winter. A very important *proviso* is, however, introduced to enable candidates to be examined in Practical Pharmacy, and also in the physical, chemical, and botanical characters of medicinal substances at any time after attendance on the qualifying course therein. This would indicate that the drugshop and other elementary parts of the subject are to be relegated to an earlier stage in the curriculum, while Therapeutics is to be reserved until the students have some acquaintance with clinical work. The Business Committee presume that it is not intended that Practical Pharmacy should be taken before the *Second* Examination is completed. As the wording of the *proviso* is, however, somewhat indefinite, they suggest that it should read: "Provided always that *such* candidates may be admitted to examination in Practical Pharmacy, etc. (that is, those who have passed the First and Second Examinations).

By Clause V the subjects of the *Fourth* or Final Examination may be taken, after the previous examinations have been passed, as follows: Forensic Medicine and Public Health at any time, Midwifery after the first half-session of the fifth winter (a further recognition of the division of the academical year into three parts), Medicine and Surgery at the end of fifth winter, and Clinical Medicine and Surgery and Gynaecology at the end of the fifth year.

A medical student who entered on his career in summer might, therefore, under the new scheme, pass his examinations in the following order and at the end of the following periods thus:

First Division.	First Summer.—Botany and Zoology (or Physics).
	First Christmas.—Physics (or Zoology).
	First Winter.—Chemistry.
Second Division.	Second Winter.—Physiology.
	Third Christmas.—Anatomy.
Third Division.	Third Winter.—Practical Pharmacy.
	Fourth Summer.—Pathology.
	Fourth Winter.—Therapeutics.
Fourth or Final Division.	Fifth Summer.—Forensic Medicine and Public Health.
	Fifth Christmas.—Midwifery.
	Fifth Winter.—Medicine and Surgery.
	Sixth Summer.—Clinical Medicine and Surgery, and Gynaecology.

It seemed to the Business Committee that to accomplish this satisfactorily a considerable increase of teaching staff and facilities would be required in the practical departments.

The Draft Ordinance did not in terms prescribe the sequence in which the various classes were to be attended, but the Business Committee thought that its provisions would afford a great stimulus to students to follow out the logical order.

Two matters not dealt with in the draft ordinance the Business Committee had considered. Both were on general grounds desirable in themselves, and in line with opinions formerly expressed by the General Council. Owing to the relaxations now proposed they had become of very special moment. When examinations might be taken in single subjects immediately upon the conclusion of a course of instruction therein, the record of work done by the candidate in the class which he has attended, whether in the University or elsewhere, ought to form a factor in determining whether he is qualified. [From this view Dr. William Craig dissented.]

Section XVI of the present main ordinance provides that a candidate who has failed in an examination shall not again sit, "unless he has pursued his medical studies for such time and subject to such conditions as the Faculty of Medicine may prescribe." Under this power the Faculty may send a student back over a qualifying course in the subject in which he has failed, or may direct him to attend an extra non-qualifying course of instruction therein. The Business Committee feel that, as concentration is the leading feature of the new Draft Ordinance, the time has come when, in kindliness to the student himself, and for the sake of his ultimate efficiency as a practitioner, the Senatus should be entrusted with a slight extension of power to restrain him when desirable from entering upon new subjects of study before he has cleared the examinations in the prior subjects. To enact an absolute bar to such further study might be unwise, but to confer on the Senatus a full discretion would be eminently useful. The Business Committee therefore suggest that a new clause should be added to the Draft Ordinance to the following effect: "Candidates shall as far as possible attend the courses of instruction in the order in which the subjects of these are grouped in the several divisions of the examination; and unless, with the approval of the Senatus and upon cause shown, the attendance of a candidate, who has not passed the previous division or divisions of the examination upon a course of instruction in a subject comprised within a subsequent division, shall not be deemed a qualifying course."

On the whole matter the Business Committee welcome the Draft Ordinance as a large and large-hearted measure of reform, and trust not only that it will have the approval of the General Council, which has had a share in its promotion, but also that it may speedily become law.

Professor Cunningham (Dean of the Faculty of Medicine) did not think that the proposed new scheme would in any way render the burden of the staff greater. He was not satisfied that the new clause which the Committee wished to add to the Draft Ordinance would constitute a working arrangement, and he suggested a modification, which, however, was not pressed.

The meeting, after some discussion, unanimously expressed approval of the Draft Ordinance and of the suggestions in the Business Committee's report.

The Carnegie Trust.

Reference was made to the new regulations of the Carnegi Trust, tightening to some extent the purse strings; and to the slow, cumbrous, and far from encouraging method of legislation by ordinance. It was suggested that a large measure of autonomy should be conferred on the Scottish Universities severally.

Finance.

The Report of the Finance Committee was next considered and, finally, the relations of the Universities with the technica colleges.

Number of Students.

During the session 1904-5 there were 1,481 matriculated students of medicine, as against 1,487 in 1903-4, and 1,427 in 1902-3.

Baron Takaki, F.R.C.S., Surgeon to the Tokio Hospital and late Director-General of the Medical Department o the Imperial Japanese Navy, delivered a series of lecture on the preservation of health among the *personnel* of th Japanese Army and Navy at St. Thomas's Hospital o May 7th, 9th, and 11th. Baron Takaki entered tha hospital in 1874, and greatly distinguished himself a a student. Every year in the course of his studen career he succeeded in carrying off college prizes, an finally was awarded the Cheselden Medal for Surger and the Treasurer's Gold Medal. Before leaving St Thomas's Hospital he filled the posts of House-Surgeon Resident Accoucheur, and Assistant House-Physician. I is not surprising, therefore, that the Governors' Hall i the building of St. Thomas's Hospital was crammed t overflowing, not only by the members of the staff of th hospital, but by many medical men and others intereste in the prevention of disease among soldiers an sailors. Amongst the audience assembled to hea Baron Takaki were Sir William Church, Sir W. H. Broa bent, Sir Dyce Duckworth, Sir Patrick Manson, Lor Methuen, Professor Osler, Sir Felix Semon, Directo General H. M. Ellis, R.N., and Surgeon-General Keogh C.B. Mr. J. G. Wainwright, the Treasurer of the Hospita introduced Baron Takaki, who modestly observed that h had chosen the sanitation of the Japanese navy and army a the subject of his lecture because on that subject he migh claim some practical experience and knowledge on accour of his long service in the navy. The lecturer described hi researches into the etiology of beri-beri and the dieteti methods instituted by him for the prevention of th disease. He attributed the success of the new diet i maintaining the health of the sailors to the support afforde by the late Count Jungi Kawamura, who was the Ministe of the Navy when the Baron was made the Chief Directo of the Medical Bureau. We hope to publish a full account of these lectures in a subsequent issue.

MEDICAL NEWS.

SIR HENRY D. LITTLEJOHN, M.D., LL.D., will preside t the next dinner of the Edinburgh University Club of ondon, which takes place on Wednesday, May 16th, at he Criterion Restaurant.

THE annual dinner of the British Balneological and limatological Society is to take place next Wednesday at ie Imperial Restaurant, Dr. G. W. Hamilton Cumming, f Torquay, President, in the chair. A smoking concert ill follow.

AN extraordinary general meeting of the National eague for Physical Education and Improvement will be ld at Denison House, Vauxhall Bridge Road, S.W., on ednesday, May 16th, when the Bishop of Ripon will take e chair at 4 p.m. All members of the XXth Century ague have been invited.

THE annual meeting of the National Health Society will held at Grosvenor House on Monday, May 21st, at p.m. The chair will be taken by the Earl of Derby, d the diplomas, medals, and certificates of the Society ll be presented to successful candidates by Princess ristian.

SOON after the inception of the King's College Hospital noval scheme the Drapers' Company promised to give a n of £5,000 provided a certain amount was raised during year from other sources. At a subsequent date it ıbled its offer and extended the time limit. It has now ided to remove all conditions and to make a free gift of),000.

HE annual banquet of the Association of British Postal dical Officers will be held in the Whitehall Rooms, tel Métropole, on Wednesday, July 11th, at 7.30 p.m., en the chair will be taken by Dr. E. Leonard Adeney, of ıbridge Wells, the President of the Association. The tmaster-General has accepted an invitation to be sent.

T a General Court of the Governors of Guy's Hospital May 4th Mr. Clement Lucas was appointed Consulting geon and Mr. Charles Higgins Consulting Ophthalmic geon. At the same meeting Mr. Louis Albert Dunn made Surgeon, Mr. Robert Pugh Rowlands an Assistant geon, Dr. Herbert Stanley French an Assistant Physician, Messrs. Herbert Lightfoot Eason and Arthur William ıond, Ophthalmic Surgeons.

R. W. W. JAMES, 21, Wimpole Street, Honorary etary of the Committee appointed to organize a eum in connexion with the annual meeting of the ish Dental Association on May 17th, 18th, and 19th, res to obtain the loan of specimens, microscopical ons, photographs or skiagrams, for exhibition at the nination Hall of the Royal Colleges on the ankment.

entertainment of a somewhat novel character was n on Wednesday evening in the Great Hall of St. holomew's Hospital in aid of the pathological block . It consisted of a series of dances illustrating the lopment of the action and music of the dance in pe from the sixteenth to the eighteenth century. musical arrangements were made by Miss Nellie lin, and the dancers, who included several ren, had been trained by Signor Carlo Coppi. Among ances, which were very admirably rendered, were the rd, the chacone, the rigaudon, the allemande, the et, and the gavotte. Before each dance Mr. F. ingham Woods gave a short account of the history of ance, and of the relation of its music to the forms ed by Bach, Handel, and other composers usually ed among the classics. The entertainment brought er a hundred guineas to the fund for the new pathol building. It is anticipated that this will soon be enced, the new out-patient block being well under

third annual meeting of the Rural Midwives' Asson was held at 3, Grosvenor Place, S.W., on May 3rd, the Chairmanship of Sir Michael Foster. The l report stated that 280 applications for training had received, as against 187 in the previous year. The ations for midwives had only been twenty-nine, but ese were genuine, whereas the great majority ing for training did not stand the severe test of the ation's requirements, so that in the end the supply mand were about on a par. The number of women ly sent for training had been 36, making altogether he three years, and of these 68 were now at work in s counties. The Chairman congratulated the Com on the progress made during the year, and moved option of the report, which was seconded by Dr. Boxall and carried. Subsequently Mrs. Heywood Johnstone read a paper on the training, inspection of midwives, and registration of nurses.

THE ninth annual dinner of the Chelsea Clinical Society was held on May 3rd, at the Criterion Restaurant, London, under the genial chairmanship of Dr. J. B. Ball. The dinner was well attended and its growing popularity is attributed by the Council of the Chelsea Clinical Society to the fact that the toast list is strictly limited and the speakers are required to deliver their orations in the shortest time possible. After the loyal toasts had been duly honoured the Chairman, in proposing "The Chelsea Clinical Society," said that the origin of the Society was due to the natural tendency for men in various districts to form themselves into medical societies for the purpose of bringing practitioners together, thus giving them opportunities of knowing one another and of promoting good fellowship. He congratulated the Society on the increase in the number of members and on the excellent premises in which they held their meetings; for that accommodation the thanks of the Society were due to the Committee of the Chelsea Dispensary. Dr. A. F. Penny, in responding, was much applauded for the conciseness of his speech; he simply said, "Gentlemen, on behalf of the Chelsea Clinical Society I beg to thank you." Dr. Vincent Dickinson submitted the toast of "The Visitors and Kindred Societies," which was acknowledged by Mr. C. B. Keetley and the Mayor of Chelsea. The toast of "The President and Officers of the Society" was proposed by Dr. Collie, who observed that the Chelsea Clinical Society showed medical men in other districts what could and should be done. The Chairman, in his reply, spoke of the loyal help he had received from all the officers of the Society, especially the Honorary Treasurer, Dr. Austin Cooper, the Honorary Secretary, Dr. A. A. Cooper, and the Editorial Secretary, Dr. J. F. Palmer. The enjoyment of the evening was much enhanced by talented artistes, who kept the guests amused till a late hour.

MEDICAL SICKNESS AND ACCIDENT SOCIETY.—The usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, London, W.C., on April 27th, Dr. de Havilland Hall in the chair. The claims for the current year have been less numerous and of shorter duration than is usual in the early months of the year. The funds of the Society now amount to over £200,000, and the income has grown to more than £25,000. The report to be presented to the annual general meeting, at the rooms of the Medical Society of London, on Thursday next, at 5 p.m., states that business last year was very successful; notwithstanding that a considerable sum was paid to the members as cash bonus, and that all stock investments of the Society which had been purchased at a premium were written down to par, the funds were increased by nearly £10,000. The number of new entrants was greater than in any previous year of the Society's working. Prospectuses and all particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

THE EXTENSION OF BOLINGBROKE HOSPITAL.—On Saturday, May 5th, H.R.H. the Princess Royal, who was accompanied by the Duke of Fife, laid the foundation stone of a new block of buildings, in which will eventually be housed the administrative offices of the Bolingbroke Hospital, Wandsworth Common. It will contain also the residential quarters for the medical, nursing, and domestic staffs. One of the three blocks of wards, which, with the administrative block, will complete the new hospital, is at present in course of erection. The estimated cost of the whole will be about £30,000; of this nearly £8,000 has been already subscribed. The hospital was founded in 1880, but so great has been the development of the district in which it is situate, that in spite of an extension in 1901 the accommodation has long been inadequate, and the work of the institution has accordingly been considerably handicapped. In reply to an address read by Canon Erskine Clarke, the Duke of Fife said that both the Princess and himself were thoroughly alive to the importance and the necessity for providing hospital accommodation in the district owing to the fact that the population had greatly grown. If only the thousands of people who lived within hail of the hospital would combine to assist and maintain it according to their means, some with their pence, others with their shillings, and others with their pounds—for it was only by combination that they could keep up such an institution—there would be no difficulty. Her Royal Highness then performed the ceremony of laying the foundation stone, and subsequently received purses on behalf of the building fund.

British Medical Journal.

SATURDAY, MAY 12TH, 1906.

THE SPREAD OF TRYPANOSOMIASIS.

Since the discovery of trypanosomiasis in man, a discovery only made a few years ago, an enormous amount of scientific research has been expended on this subject by investigators of different nationalities in different countries, the most important of all these researches being, of course, the part the parasite plays in the etiology of sleeping sickness. But although all this has been accomplished, what, we may ask, has been done or attempted either to stamp out the disease or to prevent its further spread? Before this question can be answered a certain knowledge of the disease and the manner in which it spreads is necessary. As far as is known the protozoon is conveyed from man to man by the bites of insects, and the insects mainly if not alone responsible are a species of tsetse fly, the *Glossina palpalis*,. Such being the case, it is manifest that for its further diffusion two factors are required, individuals with trypanosomes in their blood, and flies of this particular species. Here the difficulty of the subject at once becomes evident, because we do not accurately know the geographical distribution of this fly, nor is it easy to determine whether or not a man has a few trypanosomes circulating in his peripheral blood.

The possibility of the further extension of the disease in Africa is a matter of the greatest economic importance, and every area or territory known to be inhabited by the *Glossina palpalis* must be looked upon as a potentially dangerous zone—a zone which may sooner or later develop an epidemic of the disease, provided an infected individual is permitted to enter and live therein. All parts of equatorial Africa and the areas adjoining must be viewed with suspicion; the recent rapid spread of sleeping sickness in Uganda and the Congo proves this only too clearly. Dr. J. L. Todd, in a paper[1] read before the Chamber of Commerce in Liverpool on the danger of the spread of sleeping sickness throughout Africa and the necessary measures for its prevention, has shown how the disease has recently extended to the Congo, and quotes Captain Grant, R.A.M.C., as stating that it is not uncommon in Freetown, Sierra Leone—a place where it was commonly supposed not to exist. Such information is startling, and renders it impossible to view with equanimity the recent statement of the Under Secretary of State for the Colonies that no apprehension has been expressed by the Administration of the British Central Africa Protectorate or that of North Eastern Rhodesia as to the spread of sleeping sickness into those territories. It should at once be determined by experts whether the *Glossina palpalis* is found in those territories, and if it is, immediate steps should be taken to guard against the introduction of natives from Uganda, the Congo, and other infected areas. If the local administration does not take steps, the Colonial Office at home should immediately set the inquiry in motion.

There is little doubt that, with the increased and improved means of transit which now exist in equatorial and other parts of Africa, sleeping sickness is a menace to those districts, and neither labour nor expense should be spared in order to guard against so serious a danger. It is true that it will not be quite easy to devise effective methods, owing chiefly to the difficulty of saying who is or who is not infected. A developed case of sleeping sickness offers no difficulties in detection and can be isolated with comparative ease, but a patient in an early stage of trypanosomiasis, who may eventually develop sleeping sickness, may present practically no symptoms, and have so few parasites circulating in his blood that only an expert, after a prolonged search, could determine the point. This is the dangerous class, and the one that will be specially difficult to deal with. But even granting such difficulties, Dr. Todd's scheme, outlined in the address already mentioned, could be applied fairly easily, and would certainly check such obvious dangers as taking or allowing natives to go from Uganda to British Central Africa or East Africa. The Germans are watching their Uganda border with great care at present, and a recent paper by Dr. Feldman shows that they are at least attempting to do something to avert the danger. Something will certainly have to be done, as there is little evidence to show that the present epidemics are abating; all the evidence, on the contrary, is that they are spreading and infecting new localities. It behoves the British Government, with its great interests in Africa, to lead the van, and as it is impossible to destroy the tsetse flies, the only other alternative is to control as far as possible the movement of natives out of infected districts. The unfortunate characteristic of sleeping sickness is its deadly mortality; probably no fully-developed case ever recovers; it has already led to the depopulation of certain districts in which it has occurred. It is probable that 40,000 or 50,000 natives at least have died in Uganda, and Dr. Todd estimates that in the past ten years as many as 400,000 to 600,000 have perished on the Congo. These are truly terrifying figures, especially as we also know that Europeans may acquire and die of the disease, their apparent immunity having been shown to depend on the relatively small number present in the areas, and on the fact that, being protected by clothes, they are less liable to be bitten by the tsetse flies.

It is becoming a question whether Europeans should be employed in zones heavily infected with sleeping sickness, a chance bite on the neck by an infected tsetse fly being sufficient for the introduction of the virus, and the subsequent prolonged and long-drawn-out chain of symptoms which follow. Recently attempts have been made with drugs in animals in the hope of killing the trypanosomes while circulating in the blood, but, though some success has attended these experiments, similar procedures in man have been of little avail.

Enough has been said to show that the ravages of this disease are a curse to many parts of Africa, and all that remains now is to hope that the different nations interested will combine in some definite scheme to prevent its further spread, and that some one may eventually discover a means of curing those afflicted.

The annual oration before the Medical Society o London will be delivered by Professor Kocher o Berlin, on Monday, May 21st, at 9 p.m. Professo Kocher will speak on some contributions to th pathology of the thyroid gland. Subsequently conversazione will be held.

---

[1] British Medical Journal, April 21st, 1906, p. 943.

MR. ARNOLD LUPTON'S DEFENCE.

E publish to-day a letter from Mr. Arnold Lupton, I.P., in defence of his calculation that "100,000 people are killed every year in our country alone by vaccination." The letter is not only an interesting revelation the condition of Mr. Lupton's mind on the subject, it will afford to those of our readers who are not in e habit of studying antivaccinist publications some ea of the statements which pass for facts and arguments ith the opponents of the Jennerian prophylaxis.

Referring to the Parliamentary Return of 1877 con- ining the Registrar-General's statistics of fifteen seases selected by Mr. Hopwood, who then represented tivaccination in Parliament, Mr. Lupton wrote in the *rning Leader* that "vaccination was made compulsory n 1853, and in the twenty-two succeeding years there vas a steady increase in deaths from these fifteen liseases." But it is a simple matter of fact that only of the fifteen had increased. This, however, does t in the least disturb Mr. Lupton, because if vaccina- ion "is properly done it causes an illness," and ny baby or adult person who is made ill by vaccina- on may die of bronchitis, diarrhoea, or almost any ther ailment in the Registrar-General's vocabulary, d the death may really be due to vaccination.' ides, "it may result in some weakened condition of e nerves, or in some predisposition of other parts of e body which may make it less able to resist, even middle or old age, such a disease as cancer." Mr. ton's contention thus includes the view that, whether sease be increasing or decreasing, the deaths which do r from it may be due to vaccination provided only the vidual has been vaccinated. This proposition has great merit of being comprehensible, however far from having any basis in reality. But it does not he least explain or justify Mr. Lupton's assertion "there was a steady increase of deaths from these een diseases." With regard to nine of the fifteen assertion is simply untrue. In the return of the strar-General is set down in plain figures the rage annual percentage deaths . . . . at all ages population" in the three desired periods, namely, 53, 1854-67, and 1868-75 inclusive. Cholera is the extreme example of the untruth of Mr. Lupton's ment. In the first of the three periods its rate was 3, in the second period 0.0158, and in the third d 0.0038. No matter though every death registered cholera were really due to vaccination, yet the niable fact is that the registration of deaths from cause was not steadily increasing, but, on the ary, was steadily and rapidly decreasing, the rate in the last period less than one-thirteenth of it was in the first period. The only way in which n can honourably and honestly get out of such ition as that in which Mr. Lupton has placed elf is by withdrawing and apologizing.

Mr. Lupton's exposition of his views makes his attitude to the Hopwood returns very surprising. ever be the registered cause of death of a vacci- individual, and at whatever age he die, the real may have been vaccination in infancy. In short, ccinated person has ever died at any age whose may not have been due to vaccination. Mr. n is modest enough to limit these possibilities by rd "almost," yet we do not know whether even from such causes as judicial hanging or suicidal ing or accidental burning should be excluded is generalization, because the crimes of which g is the punishment may have been instigated by diseased by "a horrible and dangerous thing" put into the murderer's blood in infancy, and the same explanation may apply to the insanity which results in drowning, and to the incapacity for self-protection which ends in falling into the fire. All this being so, why should Mr. Lupton confine himself to Mr. Hopwood's fifteen diseases? There are far more than fifteen causes of deaths in the registers, and it matters not whether they be increasing or diminishing, for if they occur in the vaccinated the deaths may be due to vaccination. Why also should Mr. Lupton, by now dragging in Scotland and Ireland, as a manifest afterthought since his letter in the *Morning Leader*, attempt to reduce his estimate of vaccinal deaths from one-fifth of all deaths to one-seventh? Why should he be ashamed of the fifth? Assuming that nine-tenths of the population have been vaccinated, it would, on his lines, be no whit less reasonable, but, on the contrary, distinctly more reasonable and also more consistent, to attribute nine-tenths of all deaths to vaccination, instead of retreating from such a contemptible fraction as a fifth in order to take up his stand on a still more contemptible seventh.

In the leaflet issued to the Sleaford electors, the 100,000 figure was prefixed by the impersonal statement, "It is calculated," as if the reference were to some kind of more or less recognized authority. It is worth knowing now that the estimate was really Mr. Lupton's own, and that he himself was the authority, whatever any of the electors may have supposed. He was, in fact, supporting his own political campaign against vaccination by saying in his leaflet "it is calculated" instead of, as in the *Morning Leader*, after the election was over, writing of the calculation as "my estimate.' Also, the only reason why the calculation should not have been a million, or ten millions instead of 100,000, seems to be that neither a million nor ten million vaccinated persons die annually in this country.

In presence of the views expressed in Mr. Lupton's letter, it is needless to go into any detail with him. It is needless, for instance, to point out that the heading of the Hopwood return was an attempt to summarize the subjects referred to by Mr. Hopwood in asking for it, and that, even so, it was not "Vaccination Mortality," as stated by Mr. Lupton in our own columns to-day, and in the *Pall Mall Gazette* a few days ago (so that the printer's error theory is not available), but "Vaccination, Mortality," the intervening comma making all the difference. Again the fact, for example, that increase of syphilis under 1 year of age has been proved to belong not to the nine months following what was the obligatory vaccination age, but to the three months preceding that age, cannot in the least matter to Mr. Lupton in presence of the poet's statement that "coming events cast their shadows "before." As Mr. Lupton would say, if that statement is wrong, the fault is the poet's, not his. Neither can it matter to him that the use of calf lymph only was not made compulsory by the Act of 1898 and is not compulsory now, and that medical men had not the slightest hesitation in vaccinating with humanized lymph either themselves or those whose lives they valued more than their own, though they gladly accepted the opportunity of diminishing even the infinitesimal risk that attached to the practice.

Nor is it worth while objecting once more to Mr. Lupton picking out the figures for a single year in spite of Mr. Hopwood himself asking and obtaining them for three successive periods of 7, 14, and 8 years respectively, the mean annual increase, allowing for growth of population, being neither 70,000, nor 80,000, nor 100,000, but less than 22,000. As to this balance of increase, it was of course simply on a group of diseases selected not by the Registrar-General, but by the antivaccination advocate of that time, whose mantle has now fallen on the shoulders of Mr. Lupton himself. A generation hence some new authority of similar weight may refer to some list of diseases whose statistics Mr. Lupton may now obtain from the Registrar-General, and may in turn describe them as "authoritative Government "figures."

The truth is that medical men, owing to their whole life's training, and to their daily experience of death and disease, have some capacity for measuring comparative degrees of risk; they have knowledge not merely of the almost absolute safety of vaccination, but of the awful dangers of epidemic small-pox. Hence they desire, by teaching and by example, to protect little children from paying the vicarious penalty of parental folly, and to protect the parents from being misled to their own and their children's undoing, by men who, under the control of a diseased imagination fed and inflamed by a constant diet of fiction and fallacy, are (like Mr. Lupton as revealed by himself in the *Pall Mall Gazette*) victims to the hallucination that the vaccinal operation consists in the "inoculation of pus"; men who are capable of issuing leaflets containing the shameful falsehood that the Royal Commission of Vaccination said that "3,953 revaccinated soldiers in the British "Army suffered from small-pox, of whom 391 died of "the disease," and the monstrous calculation that "100,000 people are killed every year in our country "alone by vaccination."

THE POLLUTION OF UNDERGROUND WATERS.

DR. S. MONCKTON COPEMAN's report to the Local Government Board on an outbreak of enteric fever at Fulbourn Asylum near Cambridge, with special reference to risk of pollution of underground water supplies by the sewage of the asylum,* is one of no ordinary interest. It is an important contribution to our knowledge of the movements of underground water through fissured rocks, and of the extent to which contaminating materials may be diffused throughout wide expanses of such water.

In the early part of last year several cases of enteric occurred in the Cambridge County Asylum at Fulbourn. Before the end of July, 68 cases of the disease had been recognized, and 16 died. The epidemic was investigated by Dr. Anningson (M.O.H. for Cambridge) and Professor Sims Woodhead, who reported that they entirely exonerated the water supply as a possible source of the infection. Dr. Copeman was instructed to inquire into the circumstances of the outbreak, and more particularly the circumstances of the drainage and sewerage of the institution and the possibility of pollution of the asylum well, and of the wells from which the town of Cambridge derives its supply, as a result of sewage disposal on the asylum grounds.

The asylum is situated on a natural hillock, which slopes northwards towards the fens, and forms part of a widespread bed of the lower chalk. Previous to the epidemic it had been shown that the drainage of the asylum was defective and leaking in many places. The main drain on the male side (close to the asylum well) allowed water to escape into the soil as rapidly as it was pumped in. The sewage on the male side is conveyed by gravitation and disposed by broad irrigation over grass land situated to the north and west of the asylum. The sewage from the female department (up to March, 1905) had been distributed in the same way over 2½ acres of grass land on the east side. On both sides the sewage filters away very rapidly. The soil over this area consists of about 1 ft. of surface loam, beneath which is a layer, roughly 5 ft. in thickness, of somewhat impervious chalk marl, "below which the "chalk commences to exhibit definite fissures." The western border of the sewage farm is about 6 furlongs from one source of the Cambridge water supply at Cherry Hinton; the eastern border was about 4½ furlongs from the other source at Fulbourn village. The report contains abundant evidence to show that the supplies of the asylum and the Cambridge Waterworks wells, though nearly a mile apart, are directly connected with one another, and are derived from a "continuous mass of underground water," held up by more or less impervious rock in the vast basin of chalk underlying the district. There can be no doubt that contamination of the water at one point may become a source of danger to the consumers of water obtained from other situations in this area.

The most important point for Dr. Copeman's decision was the question whether, under the conditions mentioned above, there was definite risk of contamination of the Cambridge waterworks and of other wells by the sewage from the drains and sewage farms of the asylum. In order to obtain precise information with regard to the spread of contaminating material in this subterranean water when introduced at a given point, a pit was sunk on the eastern border of the eastern sewage farm to a depth of about 6½ ft. Dr. Copeman had previously ascertained that the soil and subsoil of this district were extremely pervious to water. Water was run into the pit until it was about half full; a solution of 500 grams each of fluorescin and sodium hydrate was then poured in, and afterwards large volumes o water were run from hydrants into the pit for more than an hour, the water disappearing with great rapidity. Fluorescin is an aniline compound which in alkaline solution imparts to water a brilliant green colour, perceptible even in a dilution of 1 in 100,000,000 After this solution had been run into the pit the subsoil water was tested at frequent intervals for the presence of this colour at selected stations including the asylum well, the Cambridge waterworks well, and various pits and ditches, etc. chiefly between or to the north of these wells.

On the following day the fluorescin colour was distinctly perceptible at a pit a little east of the trial hole and in a ditch at "Station 5," to the north-west, and nearly as far off as the waterworks well. In a subsequent series of investigations 5 lb. of fluorescin were used, with the result that the fluorescin was detected a nearly all the stations; for example, in four hours at hole about 70 yards north of the trial pit; in four and a half days at the asylum well; and in nine days both at Station No. 5 (already mentioned) and in a branch from the rising main of the Cambridge waterworks well at Fulbourn. These results plainly indicate that substances in solution could be conveyed from the sewage farm in various directions to a considerable distance and could reach the Cambridge waterworks well, more than half a mile away. It does not follow, a Dr. Copeman points out, that bacteria, harmless o otherwise, would be conveyed to such a distance. In fact, Professor Woodhead's report of 131 bacteriological analyses of the Cambridge water during the first half year of 1905 distinctly shows the absence of any indication of contamination with sewage bacteria. What i more extraordinary is the apparent absence of an evidence of pollution of the asylum well water at the time of the epidemic, although the well reached down to the fissured chalk, and was close to a number of leaking drains.

---

* Dr. S. Monckton Copeman's Report to the Local Government Board on an Outbreak of Enteric Fever at Fulbourn Asylum near Cambridge, with Special Reference to Risk of Pollution of Underground Water Supplies by the Sewage of the Asylum. February, 1906.

The fluorescin experiments, however, leave no doubt that liquid sewage can be conveyed from the sewage farm through the chalk fissures in various directions, and to distances of at least half a mile. In the first series of experiments, it should be noted, the fluorescin was detectable only at two stations—one of which was No. 5, in a direction towards the north-east and nearly as far off as the Cambridge waterworks. In the second series the fluorescin reached this station only after nine days, and at the same time reached the Cambridge waterworks well. These facts point to the existence of currents in the underground water, modified as to direction and rapidity by circumstances at present undetermined. They indicate that under some conditions the transmission of contamination from the sewage farm through the subsoil water to a given place may vary greatly in rate and degree. It is much to be desired that experiments similar to the above should be repeated and extended, with a view to gaining further information on these important questions.

Meanwhile it is a matter for serious consideration, both for the authorities of the Cambridge waterworks and for those who have control of the asylum sewage-works, whether they will put the water supply beyond the risk of contamination, or await the development of a waterborne epidemic in the city of Cambridge to prove that contamination with sewage through subsoil water to a dangerous degree is possible under the conditions which obtain at Fulbourn.

◆

ANNUAL MEETING, TORONTO.

E are enabled this week to publish a more extended ogramme of the arrangements for the seventy-fourth nual meeting of the British Medical Association at ronto from August 21st to 25th than has hitherto en possible. We are permitted to say that the subject Sir James Barr's Address in Medicine will be the culation viewed from the periphery, while Sir Victor orsley's Address in Surgery will be devoted to the nsideration of the technique of operations on the ntral nervous system (brain and spinal cord). the SUPPLEMENT for this week it has also been ssible to give information as to the discussions ich it has been arranged to hold in most of the ctions, and we shall hope, with the co-operation of officers of the other Sections, to publish similar ails with regard to them at an early date. The ction of Medicine will hold a joint meeting with the ction of Therapeutics for the discussion of the subject of heart block. The Section of Physiology will d two joint discussions, the one with the Section of hology on the part played by the nucleus in nutrition, and the other with the Section of Medicine on ler-nutrition and over-nutrition, with special relation to proteid metabolism in health and disease. This cussion will be opened by Professor Chittenden, whose ent work on the value of proteid diet has attracted much attention.[1] It will be observed that in the tion of Pathology it is proposed to devote the fourth to the reading and discussion of papers upon pathoic protozoa, and we understand that it is the desire of officers in Toronto that the whole of the meeting this day should be given up to the consideration of jects relating to tropical medicine. We also learn it is proposed by the Committee of Arrangements in Toronto that special clinical meetings should be held each morning from 8.30 to 9.30 in rooms adjacent to the various Sections, where such subjects as goître, myxoedema, heart lesions, aneurysms, etc., might be demonstrated. There seems now good reason to believe that the attendance at the meeting, both from this country and from Canada, will be large, and we understand that the invitation extended to the constituent members of the special societies of the Congress of American Physicians and Surgeons has been cordially appreciated, and that a representative attendance of the leaders of the medical profession in the United States is anticipated.

SCOTTISH POOR-LAW MEDICAL SERVICE.

THE Secretary for Scotland (Right Hon. J. Sinclair, M.P.) received on Tuesday a deputation organized by the Scottish Poor-law Medical Officers' Association, and consisting of Members of Parliament for Scottish constituencies and representatives of the medical profession, who attended to urge the necessity of legislation for the improvement of the conditions of the Scottish Poor-law medical service. The Secretary for Scotland was accompanied by his private secretary (Mr. Erskine, M.P.), and the deputation, which was introduced by Mr. Cathcart Wason, M.P. for the Orkney and Shetland Isles, included Mr. Ainsworth, Mr. Annan Bryce, Mr. Alexander Cross, Mr. Gulland, Mr. R. Leicester Harmsworth, and Mr. Galloway Weir, Members of Parliament; Dr. Campbell (Chairman) and Dr. W. M. Muir (Honorary Secretary), representing the Scottish Poor-law Medical Officers' Association; and Mr. C. H. Watts Parkinson (Chairman of the Public Health Committee) and Mr. J. Smith Whitaker (Medical Secretary), representing the British Medical Association. A report of the proceedings will be published in a subsequent issue of the JOURNAL.

CLINICAL THERAPEUTICS.

INSTRUCTION in the Faculty of Medicine at the University of Paris has recently been enriched by the foundation of a new Chair of Clinical Therapeutics due to the munificence of the Duke de Loubat. Professor Albert Robin has been appointed as the first occupant, and a copy of his inaugural lecture is now before us. From it we gather that he hopes to raise the teaching of therapeutics to a higher plane than it has occupied of recent years, when, as he tells us, it has been formally excluded from the "Concours" or competitive examinations which lead to the highest official positions in the medical profession in France. He deplores the cold indifference exhibited by some teachers to questions of treatment in which they either follow a commonplace routine or relegate the duty of prescribing to a house-physician. He considers such sceptics to be out of place in the practice of their profession, and wishes they would confine themselves to laboratory investigation. In clinical therapeutics a clean sweep should be made of all general doctrines, and, while recognizing the validity of the rule that in treating the disease we should seek to remove the cause, he asks, How seldom do we know what the cause is, and how often, in claiming to do so, are we merely following some transient medical fashion whose basis crumbles away after a few short years? But he would except certain instances in which science has solved the problem, as in the treatment of diphtheria and rabies by curative immunization. He holds that we are at the present time in a period of transition, during which the practitioner must make the best use of the means to hand, which include, first, traditional remedies handed down from a long past and sufficiently tested by experience; secondly, those etiological remedies which recent science has discovered; thirdly, functional remedies which are directed to relieve organic lesions and the disorders of function which are their consequences; and, finally, remedies for those vices of nutrition which pathological chemistry is teaching us how to employ. Therapeutic tactics are the art of making the best use of these remedies, and this he hopes to teach. It is the duty of the medical practitioner not only to sustain the patient's supreme consolation of hope, but to cultivate it in himself, so that his patients shall not be able to reproach him by saying "You have not cured "me, you have not relieved me, you have not comforted "me." However mortal the disease, we should preserve this latent hope, and use every means that ingenuity can suggest when science fails; such energy and tenacity, he said, meet with occasional unexpected rewards, and he reminds us that the Roman Senate and people granted triumphal honours to those beaten soldiers who had not despaired of victory. We hesitate to spoil the effect of these eloquent words by any kind of criticism, but we may express a doubt whether it is possible to make such a subject as clinical therapeutics anything beyond the dogmatic expression of the experience of the occupant of the chair for the time being.

---

[1] BRITISH MEDICAL JOURNAL, Februry 17th, 1906, p. 399.

AMERICAN RESEARCH ON YELLOW FEVER.

MESSRS. ROSENAU AND GOLDBERGER have issued a report[1] on their attempts to grow the yellow fever parasite, and describe their investigation of the possible hereditary transmission of the organism in the mosquito. As culture media they used blood-agar tubes, both normal human blood and rabbit's blood being employed. Both fresh, unaltered blood and defibrinated blood were tried. The blood was added to liquefied agar at 42° C., in the proportion of 2 parts of blood to 1 of agar. The tubes were then slanted, and allowed to set, and the water of condensation was inoculated with a drop or two of blood from yellow fever patients. Other cultures were prepared with much larger quantities of yellow fever blood, the blood of the patient being employed instead of normal blood as a constituent of the medium. The results of all these attempts at cultivation proved negative. The authors have not been able to corroborate the observations of Marchoux and Simond, who found that the female mosquito, *Stegomyia fasciata*, was capable, after having bitten yellow-fever patients, of transmitting to its offspring the power of infecting other human subjects with the disease. The American investigators have endeavoured to repeat the experiments of the French workers, and have caused mosquitos hatched from infected females to bite 13 non-immune human subjects. Their results were uniformly negative, no reaction of any kind being observed in any of the subjects whom they had endeavoured to inoculate.

UNDUE INFLUENCE.

SEEING that "testamentary capacity" is a condition of mind with which the practitioner is bound to make himself familiar from time to time, decisions of the courts with reference to undue influence are of some interest to the profession. The latest case on this subject, which came before the Privy Council on appeal from the Supreme Court of Jersey reads more like a novel than the report of a decision by the Judicial Committee. It appeared that a maiden lady, who died in 1901, made a will in 1895, by which she left the bulk of her estate, valued at £90,000, to certain charitable objects. The will was impeached on the ground that the testatrix had been under the undue influence of a housekeeper—"a rough, coarse, vulgar, domineering "woman, fond of boasting, and wholly devoid of education." It was also alleged that the housekeeper's brother had undue influence over the testatrix, and that the executors had contrived so to keep these persons in attendance on the testatrix that she was bound to be influenced by them. The suit had been launched by a brother of the testatrix. By the laws of Jersey the parties and relations of the parties who are interested in a suit are disqualified from giving evidence. (Readers of *Pickwick* may have often wondered why Mr. Pickwick was not called as a witness for the defence in "Bardell *v.* Pickwick." This was because at the time of which Dickens wrote this rule was in force in England.) In the result, the decision of the case in the Privy Council largely turned upon the evidence of three medical men, each of whom had attended her. Inasmuch as two of them were summarily dismissed while in attendance on the testatrix they were obviously not biassed in her favour, but said that she was of good testamentary capacity. They could give no evidence of any coercion or intimidation, and in consequence the Privy Council refused to set the will aside. It is only when a person who becomes a testator is coerced into doing that which he or she does not desire to do that undue influence is recognized to exist. Moreover, it is not sufficient to establish that a person has the power unduly to overbear the will of the testator. It is necessary to prove also that in the particular case that power was exercised, and that it was by means of the exercise of that power that the will was produced. Influence may be degrading and pernicious, and yet not undue influence in the eyes of the law. "Where a young man," said Lord Cranworth, in a famous case, "is caught in the toils of a designing "woman, or led astray by a profligate companion, with "the result that under the influence by which he is "surrounded he persuades himself to leave his property "to his mistress or the man who has been his evil "genius, this is not undue influence. To be undue "influence in the eye of the law there must be—to sum "it up in one word—coercion."

THE COST OF SMALL-POX.

UPON several occasions during the past few years an attempt has been made to persuade a majority of the members of the Somerset County Council that it would be desirable to appoint a county medical officer o health. Last year it appeared almost certain that a successful conclusion in this direction had been arrived at. An advertisement asking for applications for the position was actually issued, and several gentlemen who applied were invited to appear before the Council when the opponents of the proposal succeeded in carrying a resolution to the effect that such an appointment was unnecessary. One argument used was to the effect that the sanitary condition of the county was altogether satisfactory. We trust that those members of the Council who still hold this opinion will take an early opportunity of perusing the recently issued report o Dr. S. Monckton Copeman, one of the Medical Inspectors of the Local Government Board, upon the sanitary circumstances of the Langport rural district. This report sets out in some detail the results of an investigation made by Dr. Copeman in consequence of the inaction of the Langport Rural District Council with reference to the drainage and water supply of the town o Langport, and as to the provision of an isolation hospital for the district generally. The investigation was not undertaken too soon, for while it was in progress an epidemic of small-pox broke out among the navvies employed in the construction of a new line of railway between Langport and Castle Cary. The outbreak lasted between three and four months, from May to August of last year, and involved 62 cases, all the patienis recovering with the exception of two. The disease was not confined to the railway navvies, but spread through the agency of a tramp to the union workhouse. No isolation accommo- lation being at once available, a temporary hospital amp was constituted and 28 tents were erected; with he necessary furniture they cost over £700. The total ost of the outbreak is said to be about £3,000, a sum early equal to a rate of 1s. in the £ upon the rateable alue of the district. The district council has now othing to show for this large expenditure but the ents and a portable steam disinfecting apparatus. he one redeeming feature in this story of the inepti- ude of the district council is the reference to the part layed by the medical officer of health, Dr. A. R. icholls, who, writes Dr. Copeman, "is exceedingly energetic, and has a good knowledge of his district, to the sanitary defects of which he has repeatedly directed the attention of the district council, although unfortunately his suggestions for their amelioration have for the most part received somewhat scant attention at the hands of his authority."

---

[1] *Yellow Fever Institute Bulletin No. 15.* Washington: Government Printing Office. 1906.

LONDON PORT SANITARY AUTHORITY.

any person has any doubt as to the invaluable rvices rendered to the whole country by the various rt sanitary authorities, that doubt should be speedily ssipated by a perusal of the annual report which the edical Officer of Health (Dr. Herbert Williams) has st presented to the Port of London Sanitary Com- ittee. It is a record of the manner in which the troduction of infectious disease from foreign countries s prevented in 1905, and it also narrates the efforts at are being made to improve the sanitary conditions crews' quarters on board vessels entering the port. r is this all, for several pages of the report are voted to an account of the steps that were taken ring the year to prevent the landing of unsound food. the 10,311 vessels which arrived during 1905 at avesend and Sheerness, 3,105 were medically inspected. these vessels 211 cases, or suspected cases, of infec- us disease were reported. Three suspected cases of gue were landed at the Port Sanitary Hospital, but terioscopic examinations made by Professor Klein e negative results. In this connexion it is of interest ecord the destruction during the year of 60,000 rats. out one-third of this number were got rid of on sels in dock, the same number in dock warehouses, the remainder on vessels at sea. The prevalence of lera in Southern and Central Russia, and in many, rendered it necessary to take special pre- tions during the autumn months for the prevention he introduction of the disease from the Baltic ports. etailed medical inspection of all persons on board sels arriving from ports on the Rivers Vistula and r, and from those on the Russian and German ral, was carefully carried out, and the names and resses in this country of all these persons were n and forwarded to the medical officers of health of districts to which they were proceeding. Dr. liams points out that many alien immigrants arrive his country without any definite address to which intend to go—nearly 30 per cent. of the addresses n being found on inquiry to be incorrect. He found cessary, therefore, to detain all the alien steerage engers from the ports mentioned above until he was fied that they would go to the addresses which they ished. We have reason to believe that this irable system of notifying to the local medical er of health the names and addresses of persons ing from infected vessels requires amendment in her direction. A person may give to the port tary medical officer of health a perfectly correct postal address, but that address may not give any clue to the sanitary district in which it is situated, so that it may be some days before the notification to the medical officer of health reaches its destination, if, indeed, it arrives there at all. For example, "Broadway, Worcestershire," is a sufficient postal address, but a letter directed to the "Medical Officer of Health, Broadway, Worcestershire," would probably be delayed several posts before it reached the medical officer of health for the rural district in which Broadway is situated. To ensure speedy delivery it would appear to be desirable, except in the case of towns and well-known districts, to send these communications from the port sanitary medical officers of health in the first instance to the county medical officer of health, or where there is not such an official, to a medical officer of health in the county specially appointed for the purpose.

THE MEDICAL DEFENCE UNION.

The Medical Defence Union attains its majority this year, having been incorporated in 1885. To celebrate this anniversary the annual general meeting, which is to be held on Thursday next, has been called in Birmingham, where the Union was fostered in its early days by the late Mr. Lawson Tait, then its President, and Dr. Leslie Phillips, then one of the Secretaries. The report which will be presented to the members states that to these gentlemen the Union owes a deep debt of gratitude; had they not with heart and soul occupied themselves in maintaining the life, then slowly ebbing, of the Union, and reconstructed it, it would not have been in existence at the present time. They were supported by others whose names fortunately are still on the list of members and on the Executive of the Union; by dint of hard work fresh life was instilled into it, and its progress was never again imperilled. Mr. Lawson Tait was succeeded in the office of President by Sir Victor Horsley, whose strength of will and strong personality made the Union widely known, and his successors, Dr. Walter Griffith, Dr. Messiter, and Dr. Elliston, have each well and worthily maintained the honour and dignity of the office. Appended to the report of the Council is, as usual, the report of the solicitor, Mr. Hempson, who has written an account of the legal work of the Union. During the past ten years, he states, 1,564 cases were referred to him—567 from London, 822 from the provinces, 85 from Wales, 47 from Scotland, and 43 from Ireland. There were 448 cases of libel and slander, and 267 charges of malpraxis; in 148 cases unqualified persons were prosecuted, and in the remaining 701 cases the matters at issue were arranged by arbitration or personal negotiations. The total legal expenses for the ten years amounted in round numbers to £12,500, £4,295 being out-of-pocket expenses. During the ten years 62 cases prosecuted or defended on behalf of members were conducted at an average cost to the Union of £109 12s. 3d. In commenting upon the flimsy nature of some of the cases, which nevertheless involved considerable expenditure, and on the unsubstantial pecuniary position of many prosecutors, Mr. Hempson expresses his surprise that such persons succeed in getting their cases taken up by legal advisers prepared to take the proceedings on the footing of "no cure no pay." Mr. Hempson suggests that as there is always a degree of uncertainty when a case comes before a jury, the litigant and those advising him possibly flatter themselves that the vagaries of this tribunal may give them the victory. He adds that it is from the impecunious litigant that most is to be feared; a small payment down, and even the possibility of getting something on account as the litigation proceeds, is sufficient to procure him legal assistance, and his position is secure in the knowledge that whatever the issue is he will not be called upon to pay because he has nothing to pay withal.

VOLUNTEER MEDICAL ORGANIZATION.

THE Volunteer Medical Service Committee appointed by the Council of the British Medical Association held its first meeting on May 4th, when all the nominated members, with two exceptions, were present. After a full and prolonged discussion it was resolved to appoint a subcommittee of twelve to prepare a scheme for the reorganization of the Volunteer Medical Service. The subcommittee was instructed that the scheme should combine the departmental and regimental systems, with one commission and one uniform, and that it should favourably consider the organization of the Volunteer Medical Service for service in the field on the lines of the R.A.M.C. (Volunteer) Field Ambulance instead of the existing bearer companies and field hospitals. The subcommittee was also instructed to prepare a scheme for a volunteer medical reserve at home, and to provide that "those volunteer medical officers who desire to "join the new reserve should, if they fulfil the "requirements, have preference over medical men "not holding a commission in the volunteer forces, "and that they shall be supernumerary in their corps "while holding the appointment, that is, that any "officer may be commissioned in his place, the "question of capitation being considered." The Committee further recommended that the present system of providing two men per company as regimental stretcher bearers should be abolished, and that each unit should be allowed to enrol specially for ambulance work a similar number of men including a sergeant. It was also agreed that the question of the payment of volunteer medical officers for the examination of recruits and the attendance of sick in camp should be discussed. It will be seen (p. 1128) that during his visit to Edinburgh last week the Director-General stated publicly that a complete reorganization of the Volunteer Medical Service was an urgent necessity, and expressed the opinion that if the Volunteer Medical Service was to be of real use in the event of mobilization, it was absolutely essential that it should stand in the same relation to the volunteers as the Royal Army Medical Corps to the regulars.

GOAT'S MILK.

ALTHOUGH those who keep goats have always been ready to protest that the goat is a profitable animal and its milk a palatable article of human diet, goat's milk has never gained much favour in this country, or indeed, in most parts of Europe and America. It is largely used in the Alps, both on the Swiss and on the Italian side, and goat keepers assert that the peculiar taste, which is so objectionable to many people, can be prevented by proper care in herding. Dr. Finley Bell of New Jersey recently read before the New York Academy of Medicine a paper in which he gave reasons for recommending the more extensive use of goat's milk in the feeding of infants.[1] Having been struck by the fact that the fat of goat's milk remained fluid after cooling, while that of cow's milk became solid, he made a more detailed examination and found that the melting point of goat's milk was 2° to 3° C., or more, below that of cow's milk, and very nearly the same, or a little lower than that of human milk. These results were confirmed by Dr. Beebe of the Loomis Laboratory. Further chemical investigations are in progress, but it is believed that the fat of goat's milk and human milk contains much less stearin than the fat of cow's milk, probably owing to a larger proportion of olein. Pawlow and his assistants have shown that fat diminishes the amount of gastric juice secreted after a meal and lowers its digestive power, and they have suggested that this may be due either to the fat covering the mucous membrane of the stomach, and so preventing the excitation of the nerve endings, or that it acts in a reflex way, stimulating the inhibitory nerves. On the other hand, the ingestion of fats increases the secretion of pancreatic juice, and probably the proportion of steapsin in it. Dr. Bell reports two cases of wasting infants in whom improvement began as soon as they were put upon a mixture of goat's milk and water in place of cow's milk modified in various ways, and suggests that the fat of goat's milk being fluid at a point below the normal temperature of the body may interfere less with gastric secretion, while it is not less digestible by the pancreatic juice. Other advantages which he claims for the goat are, to quote his own words: "She "is more docile, less excitable, not subject to tuberculosis or other disease in this climate. Being "browsers rather than grazers, they will thrive when "cows would not, and, above all, she is cleanly. Her "excrement is solid and her tail short, consequently "she is not covered with manure as is the cow. It is "safe to assert that the production of cow's milk free "from manure bacteria is commercially impossible. "Not so with the goat; she can be easily washed "(tubbed if necessary) and aproned for milking. I "believe an assured non-contaminated goat's milk "supply is not only commercially possible but profit-"able." In ordering goat's milk for a delicate infant, it must be remembered that it probably contains rather more fat than cow's milk, and that in it, as in cow's milk, the proportion of proteid constituents is three times as great as in human milk.

DR. DOYEN.

OUR contemporary, the *Daily Mail*, contained last week a letter from Dr. Doyen alluding to his "discoveries." In this he invites the readers of that lay paper to believe that the principal reason why those who tried his cancer "cure" found it ineffective is that they did not know the dose and the proper intervals between the injections. From this statement it would appear that Dr. Doyen has already forgotten that little more than a year ago the claims made for his serum were fully investigated by the Société de Chirurgie of Paris. This body appointed a special commission which watched the progress of twenty-six cases of malignant disease under treatment by Dr. Doyen's serum. The cases which the commission thus watched were not selected by the commission, but by Dr. Doyen himself. Similarly the patients were not treated by the commission, but by Dr. Doyen. They were, indeed, patients in Dr. Doyen's own clinic. All of them received from six to eighteen injections, and some as many as forty-four, and their progress was watched during five months. At the end of this time the Commission drew up a report stating that "during the five months in which we have "examined all the cases which M. Doyen has wished to "show us we have not seen a single amelioration. Fur-"ther, it seems to us that M. Doyen has been the victim "of illusions which so easily carry away inventors who "confound their hopes with reality." Since that time many other competent persons, notably a deputation of its medical staff sent to Paris by St. George's Hospital, have watched the effect of Dr. Doyen's cancer treatment as carried out by himself, and have reached the conclusion that it is totally valueless. To suggest, therefore, as does Dr. Doyen, that the treatment has only failed when carried out by others than himself, is something more than misleading. Dr. Doyen in his letter also alludes to a further discovery, which he states he detailed at the Lisbon Medical Congress. "This is a "soluble extract of the yeast of beer which I have

---

[1] *Archives of Pediatrics*, vol. xxiii, p. 194.

" named 'staphylase,' for internal uses; also a 'vegetable "serum antistaphylococcus,' for hypodermic injections. 'These products combat the infections of staphylococci, 'and are particularly good as a cure for coryza, furuncles, 'quinsy, bronchitis, and the beginning of osteo- 'myelitis." We know that for several years past anti- taphylococcic serums have been used with more or less uccess by medical men as a body, but strangely enough ur representative at Lisbon has hitherto failed to put s in possession of the facts concerning the particular ntistaphylococcic serum thus described in terms trongly reminiscent of a quack advertisement. It is, owever, an omission which we do not particularly regret, or unfortunately, Dr. Doyen's work of late years has d us, in common with many others, to conclude that o scientific importance whatever can be attached to is sanguine assertions.

THE POPE AND THE EMANCIPATION OF WOMEN.

N enterprising lady journalist, Fraülein C. Thiemer, ho is described as a leader of the "feminist" movement in Austria, has achieved the feat of interviewing e Pope on the subiect. To a direct question whether e approved of the movement, Pius X replied that he d, "as far as it is not in contradiction with Christian orals." His Holiness had nothing to say against omen giving themselves to serious study; why should ey not? But he was careful to point out that eology must remain a preserve for the masculine tellect. He graciously leaves the law and medicine en to them. The medical profession seems to the pe especially suitable for women. They have a large ld of activity in ministering to their own sex and to ildren. In the nursing of the sick and in the training the young they are in their natural sphere. But his oliness denounced political women with an uncompomising vigour that might almost suggest that he had en reading an account of a recent, happily unprecented, scene in the House of Commons. *Elettrici, utatesse! O No!* he exclaimed. Women in Parliant, what next? Men by themselves already make a l enough mess of things; we have no use for female iticians.

REDUCTION OF INFANTILE MORTALITY AT CREUSOT.

HE cry of the children" has never been disregarded this country since Elizabeth Barrett Browning iculated the wrongs of infancy, as Carlyle would say, he poem bearing that title. It must, therefore, be asing for us to learn how infancy and its first tector, maternity, are cared for in Creusot, a manuuring city in the middle of France, where 25,000 out he 30,000 inhabitants are labourers in the ironworks. fessor Pinard writes triumphantly of the good ults following certain reforms instituted about lve years ago by the Messrs. Schneider of Creusot.[1] medical officers of that town have registered 8,054 hs in the decade 1893 to 1902. The number of ths of infants under one year of age amounted to 891, total mortality of the citizens of Creusot being 5,375. s the infantile mortality amounts to a little over er cent., whilst the average infantile mortality in nce, rural as well as urban districts included, was ng the same decade 16 per cent., and in certain ufacturing and industrial centres it was far higher. Pinard proudly observes that infants are better off in great city of ironworks than in the sunny, smiling ton of Vaud, where the Swiss authorities recently d the infantile mortality at 15.5 per cent. The srs. Schneider have consistently encouraged: First, rovements in the hygiene of the town, especially the workmen's quarters; secondly, judicious raising of the salaries of the workwomen, so as to allow of their fulfilling the duties of maternity in comfort; and thirdly, the establishment of a system of efficient medical assistance. The local doctors and sanitary authorities unanimously declare that it is the second of these reforms which accounts for the fall in infantile mortality. Puericulture before birth is enforced. For years past no women and girls have been suffered to work in the mines, excepting fourteen married women employed as clerks in the workshops, and now for over ten years women have been forbidden to work at all after the fifth month of pregnancy, and must not return to work after convalescence without a medical certificate stating that they are fit to work without danger to themselves or to their offspring. The consequent fall in the number of premature labours from overwork has been marked. Over 80 per cent. of the mothers now suckle their infants. The proportion of births to population has fallen since the beginning of the sanitary reforms, in part, no doubt, owing to fewer improvident marriages and to improvement in the moral tone of the working population. M. Pinard, when reading his paper on the fall of infantile mortality at Creusot before the Académie de Médecine, ended by declaring that that city might boast not only of its triumphs in manufacture, but still more of its success as an establishment for puericulture.

THE next session of the General Medical Council will begin on Tuesday, May 22nd, when the President, Dr. Donald MacAlister, will take the chair at 2 p.m.

A VERY excellent and most characteristic portrait of Dr. Langley Browne, Chairman of the Council of the British Medical Association, has been added to the "At Home" series published by Messrs. Elliott and Fry, photographers, 55, Baker Street, London, W.

THE Wightman Lecture before the Society for the Study of Disease in Children will be delivered on Friday next, March 18th, by Dr. A. Broca, at the rooms of the Medical Society of London, 11, Chandos Street, W., at 5.30 p.m. Dr. Broca, who is President of the French Pediatric Society and Surgeon to the Hôpital des Enfants Malades, Paris, has chosen for his subject appendicitis in children. Any medical man who desires to be present will be welcomed. M. Broca will be entertained at dinner at the Imperial Restaurant, Regent Street, at 7.45 on the same day.

Medical Notes in Parliament.

[From Our Lobby Correspondent.]

Notification of Phthisis in Scotland.—Mr. Weir (Ross and Cromarty) asked the Secretary for Scotland, with reference to the circular on the administrative control of pulmonary phthisis recently issued by the Local Government Board for Scotland, whether an arrangement could be made for the notification of the disease in each of the six crofting counties. Mr. Sinclair replied that the question whether the Infectious Disease (Notification) Act should be extended to include consumption was one for the decision of the local authorities concerned. The procedure required to be carried through was set forth in Section 7 of the aforesaid Act. He had also to refer the hon. member to Part 4 of the Local Government Board's circular of March 19th last, to which he had alluded.

Infantile Mortality.—Mr. Godfrey Baring asked the First Lord of the Treasury whether his attention had been called to that passage in the report of the Registrar-

---

[1] otes sur les Causes de la Faible Mortalité Infantile dans la Ville strielle du Creusot, *Annales de Gyn. et d'Obstét.*, September, 1905.

General dealing with the high death-rate amongst infants; and whether he had considered the desirability of appointing a Royal Commission to inquire into infantile mortality and its causes. Sir H. Campbell-Bannerman replied that the subject of infant mortality and its causes was receiving the careful consideration of the Government, but they did not see their way at present to appoint a Royal Commission to inquire into this important subject. In reply to a similar question by Mr. Alden on Wednesday, Sir Henry Campbell-Bannerman stated that the Local Government Board were taking active steps to ascertain the causes of excessive infantile mortality with a view to the adoption of remedial measures. A conference, to be presided over by the President of the Local Government Board, was shortly to be held to consider the whole question, and it would be attended by a large number of representatives of municipalities. Under these circumstances, he did not think it necessary to appoint a Departmental Committee.

Vaccination of Teachers.—In reply to Mr. R. Macdonald (Leicester), Mr. Birrell said he was proposing to insert in the Board's Regulations a provision under which vaccination would not, so far as the Board were concerned, be required of any intending teacher who may state to the Board when applying for recognition that he had conscientious objections to being vaccinated. It would rest with the local authority to decide in each case whether they should employ such a teacher. The Board would keep a record of any teachers who had not been vaccinated. Mr. Adkins (Lancashire, Middleton) asked whether the same discretion would be given to local authorities in respect to pupil teachers entering training colleges within the area of such authorities. Mr. Birrell said he thought that was the intention. In reply to Mr. Arnold-Forster (Croydon), Mr. Birrell said he did not know of any other country where a similar discretion existed.

Antivaccination.—In reply to Mr. Wilkie (Dundee), who asked the Secretary for Scotland whether he was aware that respectable citizens had recently been prosecuted and imprisoned in Scotland because of their conscientious objections to having their children vaccinated, Mr. Sinclair said that parish councils in Scotland had no power to make exemptions in the case of conscientious objectors. Prosecutions could not be suspended without altering the law, but the Local Government Board for Scotland had from time to time advised parish councils that they might exercise a reasonable discretion in the matter of enforcing the statutory penalties both in the case of a prosecution for failure to vaccinate a second child and in the case of a second prosecution for the same child. In giving that advice the Board had pointed out that as default generally arose from negligence rather than from conscientious objection on the part of parents it would be the duty of parish councils to use the most careful discretion where they relaxed the strict letter of the law in any case.

Vaccination Exemption.—In reply to Mr. Summerbell, who asked the President of the Local Government Board whether his attention had been called to the difficulty of obtaining certificates of exemption from vaccination in the Oxford City Court, and whether he intended to issue an instruction in regard to the same, the Home Secretary, who replied, stated that his attention had not been called to any such cases at Oxford, and he had no authority to give instructions to the justices. A circular was, however, about to be issued setting out what was the intention of the law respecting the grant of certificates of exemption.

Antityphoid Inoculation.—Mr. Haldane, in reply to Mr. Wason, stated that the final report of the Antityphoid Inoculation Committee was not yet in his hands. An interim report had, however, been received, and the recommendation contained therein, that the practice of voluntary inoculation against enteric fever should be resumed, had been approved by the Army Council. The voluntary inoculation of men proceeding abroad was now being carried out, and arrangements were being made for those now serving in India. The report would be laid on the table.

London Water.—In reply to a question by Mr. Stra (Tower Hamlets) as to legislation compelling the applic tion to London water supplies of the process now i existence capable of destroying all pathogenic bacter remaining in the supply after sand filtration, the Preside of the Local Government Board said that he did not kno what particular process was referred to. The Metropolita Water Board recognized the necessity for research determine whether the present system of purification the London water could not be still further improve and every practicable means of obtaining the best resul would no doubt be thoroughly investigated. The matt did not appear to him to be one for compulsory action b legislation or otherwise at the present time.

Vaccination Prosecutions.—Mr. Pickersgill (Bethn Green S.W.) presented on May 4th a Bill to provide th no prosecution under the Vaccination Acts should commenced without the authority of the guardians. was read a first time.

Darenth Asylum and the London Water Supply.—M Pike Pease asked the President of the Local Governme Board whether his attention had been called to the successive outbreaks of enteric fever during the past tw years at the Metropolitan Imbecile Asylum at Darent Kent, traceable to broken drains and to the fact that th drains of this asylum were used to irrigate portions of th enclosure, and that the contents finally disappear into th chalk upon which the asylum stands; and, seeing tha this enclosure was within five furlongs from the Darent pumping station of the Metropolitan Water Board, and a a higher level, would he state what steps he proposed t take? Mr. John Burns replied that he was aware tha there had been occurrences of enteric fever at the asylu during the past two years, and that the first of them wa supposed to have been due to a defect in the drainag The drainage of the asylum was disposed of by irrigatio on the asylum farm, but he understood that the land wa at a considerable distance from the Darenth well, and tha the local conditions were such that there would appear t be no risk of the well becoming polluted from anythin that might happen at the asylum. He would, howeve communicate further with the Metropolitan Water Boar on the subject.

Fatal Accidents in Scotland.—The Lord Advocate introduced on May 8th a Bill to amend the Fatal Accident Inquiry (Scotland) Act, 1895, and to make further provisions for inquiry into sudden and suspicious deaths i Scotland. It was read a first time, the second readin being fixed for Monday next.

Rural Housing.—In accordance with a promise give by the President of the Local Government Board, a Selec Committee has been appointed on the Housing of th Working Classes Acts Amendment Bill. It will consist Sir John Dickson-Poynder (L., Chippenham), Major E. M Dunne (C., Walsall), Mr. F. C. Mackarness (L., Newbury Mr. P. Morrell (L., Henley), Mr. J. Rowlands (L, Dartford Mr. H. Vivian (L., Birkenhead), Mr. T. R. Bethell, L Maldon), Mr. G. R. C. Lane-Fox (C., Barkston Ash Colonel Lockwood (C., Epping), Mr. Abel Smith (C Hertford), and Mr. L. Ginnell (N., Westmeath N.). O the motion for the appointment of the Committee, whic was made by the Government Whip, it was opposed b Mr. Keir Hardie on the ground that the section of th Labour Party with which he was associated was not represented. A somewhat heated discussion ensued, and th debate was adjourned from Monday to Tuesday, when th Government proposal was carried by 320 to 43.

Two small new wards are to be added this summer to th Royal Hospital, Richmond; they are to be devoted to ey cases and to be known as the "Swan Ophthalmic Wing. They are intended to serve as a memorial to the late Mr Benjamin Bousfield Swan, and will be erected at th expense of his widow, who is also adding £2,000 to th general endowment of the hospital. The institution wa founded in 1869, and then had twelve beds; it now ha sixty, and with the new ophthalmic wing will hav seventy-two in all. The ophthalmic department wa opened in 1904. Like other hospitals elsewhere the institution is asking for further support than it at presen receives.

Leeds.

POST-GRADUATE COURSE AT THE PUBLIC DISPENSARY.

OR some time the honorary staff of the Leeds Public ispensary has had under consideration the provision of me facilities for post-graduate study in connexion with s large out-patient department. It is now some twenty ears since, in two successive summers, a post-graduate urse was provided at the General Infirmary, and though ese courses were well attended and their resumption as been more than once considered, no definite scheme of st-graduate instruction has been developed in connexion ith the chief teaching medical institution of the city. e Faculty of the Public Dispensary therefore, feeling at there was, as there ought to be, a demand for facilities this kind, has decided to hold a post-graduate course clinical demonstrations during the months of May and ne. The meetings are to be held on Tuesdays and idays at 4.30. Mr. Littlewood and Mr. Moynihan have cepted the invitation of the Faculty to deliver lectures connexion with the course, the former having selected pendicitis as his subject and the latter the treatment of larged prostate. Dr. Wardrop Griffith will demonstrate ses of valvular disease of the heart and on its morbid atomy; Dr. Trevelyan will deal with selected cases of thisis and with infantile palsy; Mr. Seaton will give monstrations on surgical cases; Mr. Michael Teale has osen the methodical examination of the eye, with monstration of cases. Dr. Telling's demonstration will on cases of skin disease and on chronic lung affections children, and Dr. Gruner, who is honorary pathologist the institution, will show the methods for the clinical amination of the blood. A large number of medical n accepted the invitation of the Faculty to attend the ning meeting of the course on April 30th, when Mr. athan Hutchinson delivered an informal but most eresting address on post-graduate work. Mr. Hutchin-n's remarks, which were based on his long experience of t-graduate work, were keenly appreciated by all sent; while giving full credit for the advances in the entific and highly specialized laboratory methods for investigation of disease, they expressed an eloquent l encouraging appreciation of the unparalleled value of eful and conscientious clinical observation. A vote of nks which was proposed to Mr. Hutchinson by Mr. ve was warmly supported by Mr. Pridgin Teale and by Eddison.

South Wales.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Llantrisant and Llantwit Fardre.

W. N. DAVIES, Medical Officer of Health, in his annual ort for 1905, recently presented to the Llantrisant and ntwit Fardre District Council, states that the birth- was 42 0 on an estimated population of 12,097 and the h-rate 17.6 per 1,000 of the population. The phthisis h-rate was 0.99, measles 1.55, cancer 0.24, whooping- h 0.49, whilst the infant mortality-rate was 135 per births registered, the natural increase of popula- being 295. Ninety-four cases of infectious diseases reported during the year. This number, although 16 than in 1904, compares favourably with the number rted in 1903. when there were 124 cases; in 1902, 183 s, and in 1901 there were 385 cases. These diseases not occur in serious epidemics, the cases being spread y generally over the district and throughout the year. he infectious diseases not included as notifiable, there a very large number of cases with a considerable a-roll, 15 deaths having occurred from measles, 6 from ping-cough, and 12 from phthisis. The M.O.H., as st years, is in favour of including measles among the iable diseases, and in this respect writes:

> v people think measles of much importance, and ine that their children must sooner or later "take it," hat being so, the sooner the better, to get it over! In a many instances, when the child is attacked with a com- t, so little is thought of it by the parents that the little nt is allowed to run about, to the imminent danger of and others, and it is only when they find that it is sly ill with pneumonia or bronchitis, or some such com- tion, that they begin to realize the necessity of calling in medical assistance. In the meanwhile the child affected has, besides getting a serious complication, been mixing up with others and spreading the disease broadcast. If it were included under the Infectious Disease Notification Act, and the first case or cases reported, then means could be taken to check what must otherwise almost certainly become a dangerous epidemic. These remarks apply equally to whooping-cough.

A new Isolation Hospital provided at Rhiwfelan will be ready in a few weeks for the reception of patients. The infant mortality is slightly in excess of that for 1904, but as the number of births was 43 in excess of any previous year, the actual infant mortality-rate compares favourably with the average. Many of these deaths were from respiratory diseases the result of exposure, ignorance, or neglect. A large number too were the result of "marasmus" due to either improper feeding or to an unwholesome milk supply. The slaughterhouses in the district are said to be, with a few exceptions, perfectly unfit for the purpose. With regard to milk and its supply, the Medical Officer of Health observes:

> I must again call your attention to the extremely unsatisfactory manner in which cows and cowsheds are kept, not only in this district but throughout the country. The method by which milk is conveyed from the cow to the consumer, and the "opportunities" it is given of "acquiring" dust, filth, etc., is something appalling. When one considers that infant life depends for its very existence upon a pure supply of milk, and that a vast number of lives are lost through the want of it, it is astonishing to me why a definite cleanly system of conveying milk from the cow to the consumer is not insisted upon. As things are at present the cowsheds are, for the most part, deficient in light, air, and water, and scarcely ever thoroughly cleansed. The cows are practically never groomed or cleaned, and are, in 999 cases out of 1,000, plastered with manure, which readily finds its way into the milk pail. In addition to this, persons who do the milking are oftentimes exceedingly dirty and filthily clad; their hands are scarcely ever specially washed before milking, and sometimes have various kinds of rash and sores on them; the cows' udders are practically never washed, except with the milk from the pail. What wonder, then, that milk as supplied is the cause of so many evils.

Merthyr Tydfil.

The Medical Officer of Health for the borough of Merthyr Tydfil in his annual report for 1905, states that the estimated population of the borough at mid-year was 73,848. The number of births registered was 2,810, or 38 per 1,000, and the deaths numbered 1,627, or 22 per 1,000; 175 deaths occurred in public institutions. The number of deaths from zymotic diseases was 337, equal to a death-rate of 4.6 per 1,000; 130 deaths were attributed to measles, and the epidemic it caused is dealt with very clearly and fully by Dr. D. J. Thomas, the late Medical Officer of Health, who left the district for Acton in September, 1905. He advocates school notification, and adds:

> That if the co-operation of the teachers can be obtained this method ought to be a valuable aid in the control of the disease. But the information should be systematic and notification carefully made during inter-epidemic periods as well as when epidemics of measles prevail. . . . In connexion with which the appointment of a female health visitor is advocated, although such appointment is not absolutely necessary for the success of school notification, as the attention paid by any sanitary official to households invaded by measles would tend to secure more precaution on the part of parents to prevent the disease. . . . The visits paid and the instructions issued would tend to engender a saner view amongst the public as to the seriousness of the disease.

The deaths of 576 children under 1 year were registered, amounting to nearly one-third of the total deaths, and equal to a rate of 204 per 1,000 registered births. For the prevention of diarrhoeal diseases, the Council has re-issued a leaflet giving instructions as to the feeding of infants, for distribution by the registrars, medical men, midwives, and others.

Scotland.

GLASGOW OPHTHALMIC INSTITUTION.

THE report on the work of the Glasgow Ophthalmic Institution during 1905, which has now been published, shows that the average number resident in the wards was 32.1, the average period of residence being 13.2 days. Of the total in-patients, 971 in number, 760 were discharged cured. In the out-patient department the new cases were only a few short of 10,000. This hospital was opened in

1892, and a table in the report shows that the growth of its work has been very rapid; it is suggested that the time has come when an effort should be made to increase its accommodation. An additional £700 a year in subscriptions is required to carry on the work as it at present stands.

SCOTTISH VOLUNTEERS AMBULANCE TROPHY.

The competition for the Scottish Volunteers Ambulance Trophy took place in Edinburgh on Saturday, May 5th. The work of preparation for the occasion had largely fallen on the shoulders of Brigade-Surgeon-Lieutenant-Colonel A. D. Webster, M.D., S.M.O. of the 1st Lothian Brigade, President of the Scottish Volunteer Medical Officers' Association; Captain C. B. Ker, 1st Lothian Bearer Company, Secretary of the Association; and Captain A. Macdonald, commanding 1st Lothian Bearer Company; and the success of the meeting was in no small degree due to their untiring efforts.

Surgeon-General A. Keogh, M.D., C.B., Director-General Army Medical Service, and Honorary President of the Scottish Volunteer Medical Officers' Association, was present, and eighteen teams entered for the competition, seven being from Edinburgh, four from Glasgow, two from Dundee, and one each from Inverness, St. Andrews, Helensburgh, Hamilton, and Haddington. At the conclusion of the examinations it was found that the trophy had been won by the 1st Lothian Bearer Company, B Team; and Lady Cranston, on the invitation of the Chairman, presented it to the winners.

In the evening Surgeon-General Keogh was entertained at dinner by the Edinburgh Committee of the Scottish Volunteer Medical Officers' Association, and there were also present Lieutenant-General Leitch, V.C., General Commanding in Scotland, the Lord Provost (Sir Robert Cranston, C.V.O.), Commanding 1st Lothian Volunteer Brigade, Colonel T. M. Corker, M.D., R.A.M.C., P.M.O. Scottish Command, Professor Annandale, and others. Lieutenant-Colonel Webster, M.D., occupied the chair, and the croupiers were Lieutenant-Colonel Ronaldson, M.D., Haddington, and Captain Halliday, M.D., Glasgow. Surgeon-General Keogh, in the course of a powerful and eloquent speech, spoke very strongly on the urgent necessity of an entire reorganization of the Volunteer Medical Service. He declared that in every direction it would conduce to greater efficiency were the service to stand in the same relation to the Volunteers as the R.A.M.C. to the regular troops, and he contended that this was absolutely essential if the Volunteer Medical Service was to be of real use in the event of mobilization.

As regards Edinburgh more particularly, this district forms a splendid field for ambulance recruiting, and it is hoped that in the immediate future the 1st Lothian Bearer Company will form the nucleus of a field ambulance which could readily be officered by junior practitioners in the various branches of medicine and surgery.

ABERDEEN MEDICO-CHIRURGICAL SOCIETY.

This Society met in the Society's hall, King Street, Aberdeen, on the evening of May 3rd. Professor Ogston occupied the chair. The meeting was the last for the session, and was devoted to the exhibition and demonstration of pathological specimens, skiagraphs, etc. Mr. Gray showed the following specimens: Hypertrophied prostate, neuroma from amputation stump, series of appendices, epithelioma of skin, tuberculous epididymis, cancer of splenic flexure of colon, large fibrous nasal polypus, chronic perforating ulcer of stomach, fat necrosis of omentum, tuberculous kidney, perforating ulcer of foot, chondroma of phalanx, sarcoma of phalanges, adenoma of thyroid, cancer of cervix uteri with pregnancy. Mr. Marnoch showed a series of calculi removed from kidney, ureter, and bladder. Dr. Duncan showed multiple lymphomata of spleen from a collie bitch, acute suppurative hepatitis, cyanotic atrophy of liver, a number of microscopic sections of endotheliomata, spirillum of relapsing fever, etc. Dr. Ashley Mackintosh, microscopic section of spinal cord from a case of spinal fracture with almost complete section of cord. Dr. Rose, specimens showing extensive bone disease, osteomyelitis, diaphysitis, etc. Dr. Levack showed some excellent slides on the screen of various skiagrams taken in the infirmary recently. Among others were intrathoracic tumour, sarcoma of humerus, coin in gullet halfway down, osteomyelitic focus in lower end of right femur, sarcoma of thigh with spontaneous fractur ankylosis of hip, congenital dislocation of hip, variou fractures, gouty deposits in fingers, megalodactyly, ca culus in bladder, calculus in ureter, cases of kidne calculi, etc. Dr. Low, a number of stereoscopic photo graphs illustrating congenital malformations, etc.

Ireland.

DR. DARNELL'S EXPENSES IN TUGHAN v. DARNELL.

A MEETING of the Committee appointed at the combine meeting of the Ulster Branch and Ulster Medical Societ was held in the Medical Institute, Belfast. Dr. Calwel President of the Ulster Medical Society, was in the chai There was a large attendance. The following circular wa drawn up and directed to be sent to the Secretaries of th Branches of the British Medical Association, to th medical Press, and to every medical man in Ulster.

Belfast, May, 1906.

Dear Sir,

At a joint meeting of the Ulster Branch of the Britis Medical Association and the Ulster Medical Society, held o April 25th, it was resolved to start a fund to assist Dr. Darnel in the payment of his expenses in the recent action o Tughan *v.* Darnell, and the following Committee was appointe to carry this out:

J. W. Browne, M.D.
Professor J. W. Byers, M.D.
Alex. Burns, M.B.
Wm. Calwell, M.D.
Robt. Campbell, F.R.C.S.
John Campbell, M.D.
J. T. Creery, M.D.
J. R. Davison, M.D.
J. Singleton Darling, M.D.
Dr. John Gorman.
Thos. Houston, M.D.
Wm. Brown Hunter, M.D.
Leonard Kidd, M.D.
T. S. Kirk, M.B.
Professor J. A. Lindsay, M.D.
J. E. M'Ilwaine, M.D.
W. B. M'Quitty, M.D.
H. L. M'Kisack, M.D.
A. B. Mitchell, F.R.C.S.
J. B. Moore, M.B.
J. S. Morrow, M.D.
S. E. Martin, M.D.
J. C. Rankin, M.D.
J. Gardner Robb, M.B.
C. E. Shaw, M.D.
Professor Thos. Sinclair, M.D
Howard Stevenson, F.R.C.S.
Henry O'Neill, M.D.
T. M. Tate, M.D.
Prof. Sir Wm. Whitla, M.D.

The details of the case have appeared in the medica journals* and are known to most medical men, and we al feel sincere sympathy for Dr. Darnell in the most trying ordeal through which he has passed, as well as regret at the adverse decision in which it ended. We feel, too, that he has been fighting the battle of the profession generally in contesting the case (involving no less than five trials), and refusing to settle it out of court, and for these reasons we wish to assist in the payment of his expenses. After the Medical Defence Union has paid all which it can legally pay, Dr. Darnell wil have about £800 more to pay.

A list of subscriptions already promised is appended, and should you be willing to subscribe you may send or hand your subscription to any of the undersigned.

J. WALTON BROWNE, M.D., College Square North, Belfast, Chairman.

LEONARD KIDD, M.D., Enniskillen (President of the Ulster Branch, B.M.A), WM. CALWELL, College Square, Belfast (President of the Ulster Medical Society) } Honorary Treasurers.

CECIL E. SHAW, M.D., College Square, Belfast, THOS. HOUSTON, M.D., Great Victoria Street, Belfast, } Honorary Secretaries.

First List of Subscriptions.

	£	s.	d.		£	s.	d.
Professor Lindsay ...	10	10	0	Dr. J. E. M'Ilwaine	3	3	0
Dr. John Campbell...	10	10	0	Dr. J. C. Rankin ...	3	3	0
Professor Sir Wm. Whitla	10	10	0	Dr. Howard Stevenson	3	3	0
Dr. H. L. M'Kisack	10	10	0	Dr. Thos. Houston...	3	3	0
Dr. J. St. C. Boyd ...	10	10	0	Dr. A. Gardner Robb	3	3	0
*Professor Thomas Sinclair (Belfast)...	10	10	0	Dr. James Colville...	2	2	0
Dr. J. S. Morrow ...	10	10	0	Dr. John R. Davison	2	2	0
Dr. Robert Campbell	10	10	0	Dr. J. B. Moore ...	2	2	0
Dr. J. A. Craig ...	10	10	0	Dr. Logan	1	1	0
Dr. T. S. Kirk ...	10	10	0	Dr. J. T. Creery ...	1	1	0
Dr. A. B. Mitchell...	10	10	0	*Dr. A. Burns (Belfast)...	1	1	0
Professor J. W. Byers	5	5	0	*Dr. J. Tate Creery (Coleraine)... ...	1	1	0
Dr. J. Walton Browne	5	5	0	*Dr. D. Magowan (Glenarm)	1	1	0
Dr. H. O'Neill, J.P.	5	5	0	*Dr. D. A. McCardy (Londonderry) ...	0	10	6
Dr. Cecil E. Shaw ...	3	3	0				

* Subscriptions received.

Cheques may be made payable either to Dr. Leonard Kidd, Enniskillen, or Dr. Wm. Calwell, 1, College Square North, Belfast.

---

* A report of the case will be found in the BRITISH MEDICAL JOURNAL for April 7th, 1906, pp. 815 and 833.

EATH-RATE FROM CONSUMPTION IN BELFAST.

interesting and important correspondence between Kerr, Chairman of the Health Committee, and r Byers, M.D., on the high death-rate from con- n in Belfast, which has appeared lately in the al press, has been followed very closely by both and the professional public. To put it briefly, s maintains that the death-rate from consumption ically double what it is in most English towns, it is not falling. Dr. King Kerr says that every- s been done that could have been done, and that ling. It would be invidious to attempt to decide such opponents. Although fault may be found proposals of the Health Committee, every one s their efforts and the immense amount of time gy spent in the work.

ll private conference was called by Mr. Browne, y Secretary of the Local Branch of the Society for on of Consumption, to consult as to the general f the city. This conference asked the Belfast Association to call a larger and more representa- erence. This has been done, and a meeting of) members, drawn from all classes and organiza- s held on the evening of May 8th to discuss the alth of Belfast and the constitution of the health nt.

NORTH CHARITABLE INFIRMARY AND COUNTY HOSPITAL.

nual meeting of the above was held on May 7th, report of the working of the hospital for the was read and discussed. While much good been done in the way of alleviating suffering ovements made in the building itself, notably by on of a new operation theatre, the generous gift onan, yet it had to be reported that despite the care of the Committee to keep down expenses, ad been steadily increasing from £524 18s. 5d. d of 1900 to £1,351 8s. 5d. on December 31st,

ring the number of patients treated, the sum of e expenditure for the year) did not seem large. ber of intern patients treated during the year ; the number of extern patients, 18,580; while er of accidents attended to was 6,277. The f surgical cases admitted during the year was a mortality of 19; this included 300 major , such as hysterectomy, ovariotomy, strangulated rforated gastric ulcer, and nephrectomy. The of the magnificent new operation theatre is perfect of its kind, and admirably adapted for erative surgical work. The trustees of the wished publicly to thank Lieutenant-Colonel l for his handsome gift of £1,000 invested in a bed in the hospital to be called the ll Bed," also Miss Honan for her equally ift defraying all the expenses of new operating d annexes.

CORK DISTRICT HOSPITAL.

k Board of Guardians in appointing recently hysicians to the Cork District Hospital has ew departure in giving one of the posts to a Miss Alice Barry, L.R.C.P. and S.I., had the being unanimously elected. Considering the ber of female patients in the hospital this seems and already in Ireland several unions have lady doctors.

India.

THE PUNJAB.

1904 was meteorologically normal, the crops nd the prices of food moderate. The public luding plague, was good. The mortality caused and small-pox was low, and by fevers and plaints less than usual. The birth-rate was ille and the death-rate 49.06. There was a in infant mortality. The principal feature of as the great prevalence of plague, which pre- out of the 29 districts of the province. The plague deaths registered was 396,357, or about f the total mortality, giving a rate of 19.7 per 1,000 of population. Rural areas suffered more than urban, and females died in large proportion to numbers living than men. Infants were comparatively immune. Some 3½ lakhs of rupees were spent on plague establishments and preventive measures. The mortality was nearly twice as large as in the preceding year. The people were apathetic, if not obstructive, and the success of efforts to carry out evacuation, isolation, and disinfection were unsatisfactory. The destruction of rats was resorted to on a large scale in the Delhi district. Very little inoculation was done. Exclusive of plague the provincial mortality was 29.36, which is a moderate figure. Little or no effort was made in the direction of malaria prevention.

The Sanitary Board held four meetings. Drainage and water-supply schemes are being pushed and cleansing operations systematically pursued. The report, which is able and exhaustive, is submitted by Lieutenant-Colonel C. J. Bamber, sanitary commissioner, whose services and those of Mr. C. E. V. Goument, the sanitary engineer, are applauded by the Local Government, which reviews the sanitary history of the year in a sympathetic and intelligent manner.

BOMBAY.

The health of the western presidency has during recent years, owing to plague, cholera, and famine, been very bad. The record of the year 1904 indicates some improvement, but the statistics are still serious. The report of the Sanitary Commissioner, Lieutenant-Colonel O. H. Channer, shows separately the figures relating to Europeans, Eurasians, and natives. The European population numbers 18,804; their birth-rate was 16.27, and death-rate 14.41. The corresponding figures relating to mixed races were 6,557, 26.98 and 26.99; and natives, 18,481,263, 35.09 and 41.39. The birth-rate was 4.31 per 1,000 above the quinquennial mean, and the death-rate 3.89 below. Stillbirths amounted to 6.71 per cent. of total births for the whole presidency, 10.52 for the city of Bombay, and 5.59 for the town of Ramara. Plague, laborious occupations, and malaria are assigned as causes of these high rates. The infantile mortality for the presidency was 201.63, and for the city of Bombay 459.24 per 1,000 of births. Urban mortality was 55.21, and rural 39.51. Cholera prevailed severely, causing 13,156 deaths, or 0.71 per 1,000. The disease is said to have been spread by the large Pandhurpur fair. The death-rate of small-pox was average. There was a considerable reduction in plague mortality from 15.22 in 1903 to 12.12. The total is, however, higher than that of any year except 1903 since the introduction of the disease; 1,169 deaths are reported to have taken place among persons inoculated in 1904. Fever mortality was considerably below the average and deaths from bowel complaints were also fewer. Weather conditions were favourable. "No extensive antimalarial operations were undertaken anywhere," but minor measures such as filling up pools, destruction of mosquito larvae, and distribution of quinine were resorted to by some municipalities. The record of sanitary work is meagre, but water supply and drainage schemes for some of the larger towns are in progress or under consideration. Lieutenant-Colonel J. Crimmin, V.C., health officer of the Port of Bombay, contributes an important appendix showing a large output of work having for its object the prevention of entry of disease into Bombay or its exportation thence to other ports. Special attention was paid to the exclusion of jigger and sleeping sickness; 17 cases of the former were detected in vessels arriving from East Africa.

City of Bombay.

The report for the year 1904, prepared by Dr. J. A. Turner, the health officer, with its appendices, tables, and diagrams, is a very elaborate one, covering 121 folio pages. The diagrams are excellent, but the tables might with advantage be curtailed. The year was a comparatively healthy one. The birth-rate was 25.20, the highest on record; the death-rate was 54.99, the lowest since the advent of plague in 1896. The decrease was due to fewer deaths from plague, small-pox, measles, and dysentery. Among the Jains the rate was 132.29, their birth-rate being also highest, 40.21. This community suffers exceptionally from phthisis, the death-rate being 7.23 against a general rate of 3.82. There was a slight abatement in infant mortality, the rate per 1,000 of births being 459.24 against 532.39 in 1903. About one-third of the total mortality was caused by plague. The rate was

17.44 against 26.78 in 1903. Inoculation and rat destruction are being practised to some extent. The health officer asserts that the vaccine now prepared is sterile, harmless to healthy men, and protective against plague. The incidence among the inoculated, he avers, is 18 per 1,000 against a general incidence of 25, and the case-mortality 23 against 85. There was a good deal of cholera in the city in August and September, imported from the Pandhurpur fair. Measures, apparently successful, were taken to protect the city from this source of infection. The death-rate from small-pox was below that of 1903, but a threatened increase towards the close of the year necessitated active preventive steps. The mortality caused by "fevers" (3.11) was moderate; 55 deaths were attributed to enteric, and 114 to relapsing fever. The mortality from phthisis was a little higher than that of the preceding year, but below the average of the last quinquennium. The ample details regarding sanitary work give evidence of good organization, active administration, and energetic execution. Overcrowding exists to a great extent in the city, and all the sanitary evils which this entails. The remedy of this condition is rightly recognized as a prime element in the sanitary regeneration of Bombay. Laudable efforts are being made to improve the supply, and ensure the purity of milk. The municipal laboratory is doing useful work on a somewhat restricted scale. It includes the analysis of water, food, drugs, and a few bacteriological examinations.

CORRESPONDENCE.

THE INCOME TAX INQUIRY.

SIR,—Permit me to point out a grave error in your leading article on this subject in the BRITISH MEDICAL JOURNAL of May 5th. The passage quoted from John Stuart Mill's *Principles of Political Economy* refers to something absolutely different from what your article discussed. If you re-read the context (Book V, chapter ii, § 3), you will find that what Mill was speaking of was not a "proportional property tax," such as the memorandum of the Exeter Division contemplates, but a tax levied exclusively on certain kinds of property, so that "the major part of the property of the country, that of merchants, manufacturers, farmers, and shopkeepers, should be exempted from its share of taxation." The inference drawn, that Mill was opposed to a property tax, is quite mistaken. Mill did not object to a property tax "in a wealthy country." What he did object to was an income tax, even ideally differentiated, when levied otherwise than "as an extraordinary resource for great national emergencies"! Mill's views, therefore, go to support the proposal made in this memorandum, not to oppose it. So far from being "beyond the range of practical politics," the proposal to abolish the income tax was made by Mr. Gladstone in 1874—when he intended to replace it by enlarging the death duties—and a property tax is so far from novel that it has been adopted years ago by the Netherlands and by some of our own Colonies.

It is a great pity that a misapprehension of Mill's meaning has caused cold water to be thrown (so far as our profession is concerned) on this very reasonable and sound suggestion, just at the moment when it has been brought before the House of Commons and will, in all likelihood, be soon considered by the Select Committee.

The abolition of income tax and substitution of property tax would greatly benefit the professions, whilst differentiation of income tax is likely to benefit them very moderately. When the Representative Meeting of the Association discusses the memorandum of the Exeter Division, their decision, so far as can be seen, will be of academic interest only, because the Select Committee, which is to proceed without loss of time, will almost certainly have reported. I would therefore urge those who are interested in the matter and have satisfied themselves of the soundness of the views embodied in the memorandum, personally to memorialize their members of Parliament on the point. Failure to obtain full justice can in no way prevent the attainment of partial justice, that is, differentiation.

I subjoin some quotations from Mill's *Principles of Political Economy* which support my assertions.

Book V, chapter iii, section 5. Conditions "neces for making income tax "consistent with justice." are, first, that incomes below a certain amount should b gether untaxed. This minimum should not be higher the amount which suffices for the necessaries of a labo family of moderate numbers.

The second condition is that incomes above the limit be taxed only in proportion to the surplus by which th ceed the limit. Thirdly, that life incomes should b heavily taxed than inheritable incomes, in a degree as as possible equivalent to the increased need of economy a from their terminable character. Fourthly, that in which are jointly the result of capital and of personal exe should be taxed intermediately between the rate for in able and for life incomes.

Such a tax had Mill's warm approval on theor grounds, yet because of "the impossibility of ascerta the real incomes of the contributors" he concluded

That direct taxes on income should be reserved as an ordinary resource for great national emergences, in whic necessity of a large additional revenue overrules all objections.

Book V, chapter ii, section 3. Both in England and Continent a graduated property tax has been advocated, avowed ground that the State should use the instrum taxation as a means of mitigating the inequalities of wea

To tax the larger incomes at a higher percentage th smaller is to lay a tax on industry and economy; to i a penalty on people for having worked harder and saved than their neighbours. It is partial taxation, which is form of robbery..

With respect to the large fortune acquired by gift or i tance, the power of bequeathing is as much a part of the of property as the power of using.

But this is one of those privileges of property which subjects for regulation on grounds of general expediency.

I conceive that inheritances and legacies exceeding a c amount are highly proper subjects for taxation.

The principle of graduation . . . is quite unobjectiona applied to legacy and inheritance duties.

Section 7: Another general rule of taxation is some laid down—namely, that it should fall on income and capital. That taxation should not encroach upon the a of the national capital is indeed of the greatest import but this encroachment, when it occurs, is not so much sequence of any particular mode of taxation as of its exc amount.

All taxes are in some sense partly paid out of capital in a poor country it is impossible to impose any tax whic not impede the increase of the national wealth. Bu country where capital abounds, and the spirit of accumu is strong, the effect of taxation is scarcely felt.

To take from capital by taxation what emigration remove, or a commercial crisis destroy, is only to do either of those causes would have done—namely, to m clear space for further saving.

I cannot, therefore, attach any importance, in a we country, to the objection made against taxes on legaci inheritances that they are taxes on capital. It is per true that they are so.

—I am, etc.,

W. GORD

Exeter, May 5th.

*** We understand that by a "proportional pro tax" the Exeter Division means a tax at a fixed ra cent. on incomes derived from property (subject to ment for small incomes), and as it is proposed in memorandum that income tax should be abolished, w still unable to distinguish the proposal from that "exclusive tax on 'realized property,'" to which Mi so strongly opposed. If any other meaning shou attached to the expression than that referred to abov shall be glad if Dr. Gordon will state what it is, f information of our readers. It is true that Mill obj to the income tax on the ground that in practice impossible to levy it equitably, but, whatever the po may have been at the time he wrote, or in 1874, we r any proposal to repeal it at the present time—wh produces over £31,000,000 per annum, and has described by a Chancellor of the Exchequer as the anchor of our national revenue—as altogether outsid range of practical politics.

EGYPT AND TROPICAL MEDICINE.

SIR,—Your account of Lord Cromer's report on Egyp be read with interest by all who have watched the pr that has taken place in its development and relatio our own and other countries. Reference is made t advantages that are likely to follow the recognition

---

[1] BRITISH MEDICAL JOURNAL, May 5th, 1906.

Medical School by the two Royal Colleges of l, and the mark that their conjoint diploma will Egyptian students who are enabled to obtain it amination. To give effect to this "it has been d that a delegate of the British Royal Colleges of ans and Surgeons should be present annually at minations held in Cairo, and that the students s those examinations when the delegate is present njoy the same advantage as if the corresponding ations had been passed in London."

my residence in Egypt for a portion of two recent and the opportunities I had of making myself ed with the facilities for studying medicine and in Cairo, I am strongly of opinion that further at developments should be encouraged. I hope y take the form of a tropical school of medicine in connexion with the medical school, and open tionalities.

the British point of view such an institution ffer many advantages. In the first place, Cairo n a week's journey from England, and, in the is on the great highway to British India, to a, to parts of Africa and other places in which large interests. In addition to educating medical such could be made available for civil, naval, tary medical practitioners desirous of obtaining of post-graduate study. If the Egyptian student count his time spent there for examination pur- ere seems no reason why the latter persons may in the pursuit of further professional knowledge rience. Of the advantages of Cairo as a place for tropical diseases I need hardly say a word. pes of medical and surgical diseases may be seen their most acute and varied forms, and the facili- red by a large hospital with a well-equipped school and museum attached, with English- professors (including hospital physicians and leave nothing to be desired.

volumes of reports recently issued by the Kasr- Hospital will be found much valuable information nal research, made on the spot, relating to isease.

f us who were fortunate enough to be present at Egyptian Medical Congress (1902) will not forget onal encouragement that great cosmopolitan received from H.H. the Khedive, and the scientific attractions and novelties provided

excellent work is being done in the tropical London and Liverpool, this should be added to efforts in places which are themselves liable diseases and their causes.—I am, etc.,

V., May 7th. REGINALD HARRISON.

SUMMER DIARRHOEA OF INFANTS.

is a very interesting question raised by Dr. sh in his letter in your issue of May 5th as to he summer diarrhoea of infants is due to *one* ganism or not.

ay, in answer to his inquiries respecting the ence of bacilli Nos. 1 and 3, mentioned in my he Science Committee in the BRITISH MEDICAL of April 21st, the proportion of cases in which found was very nearly equal in the Hospital for ren, Great Ormond Street, and the Victoria r Sick Children, Chelsea, No. 1 being found in t of 49 at the former and in 3 out of 9 cases at institution. No. 3 was found in 4 cases out he Hospital for Sick Children, Great Ormond in 1 case out of 9 at the Victoria Hospital for dren, Chelsea. The cases at both hospitals tween July 15th and September 30th.

by a further investigation this summer to gain on the subject.—I am, etc.,

H. DE R. MORGAN.

tute of Preventive Medicine,
S.W., May 5th.

URIZED MILK AND INFANT FEEDING.

e letter of Dr. G. A. Sutherland in the BRITISH OURNAL of May 5th, calling attention to a and growing evil, is highly important and As far as the evidence of my cases quoted by him is material, he might have strengthened his position by mentioning the chief feature which was the main point of interest in each. The "extraordinary course" referred to in my paper was not the mere delay in the resolution of a subperiosteal haemorrhage, but the formation of new bone in the detached periosteum in each of these consecutive cases of scurvy inadvertently fed on pasteurized milk. In one case, where the change of milk instituted by the dairy company was not discovered and the infant died, the newly-formed periosteal bone was of remarkable extent, being thicker in places than the femur it surrounded. In the succeeding two, whilst on pasteurized milk, a thin layer of bone formed in the periosteum detached from the femur, a condition that was verified by skiagraphs taken by Dr. G. H. Graham. On a change being made from pasteurized to fresh milk the new-bone formation ceased in each, and in the course of time that already formed was slowly absorbed.

These three cases would seem apt illustrations of the dangers of pasteurized milk pointed out by Dr. Sutherland in his timely letter.—I am, etc.,

London, W., May 7th. J. A. COUTTS.

THE BACTERIOLOGY OF A COMMON COLD.

SIR,—It was with much pleasure that I read Dr. Benham's very able and interesting paper upon the above subject, especially as I have been making researches upon the same subject myself for several months past. I should like to make a few remarks; first, of criticism; secondly, detailing briefly the results I have myself obtained. In the first place, it is no more to be expected that any one single organism is the cause of all cases of a common cold than it is that any single organism is the cause of peritonitis, perinephritic abscess, or pneumonia, for example, and great care must therefore be taken against too strongly urging the claims of any particular organism as "the" cause of the common cold. The lack of pathogenicity of the organism described in inoculation experiments seriously mitigates against its claims to recognition as "the" factor in such cases. I should also like to point out that in a certain class of cold "the second or third day, or at a much later period" may be too late to catch the particular organism at work, as I have often found it to disappear in about twenty-four hours after the first onset.

Among the cases I have examined have been several from three separate severe local epidemics. In the first of these the *Micrococcus catarrhalis* was isolated with ease from each case examined; in the second and third, which were both of a severely infective character, the bacillus of Friedlander was found in every case during the first twenty-four hours, and sometimes later. It was of a very virulent stamp, being pathogenic not only for mice and guinea-pigs, but even for rabbits; it also clotted milk and fermented glycerine broth with ease. A reinfection sometimes occurred, producing either a second acute cold or else a chronic cold lasting for months. The proofs of the direct connexion of this organism with these epidemics are as follows:

1. That the appearance of the bacillus in the nasal passages of the people affected synchronized with the onset of an attack.
2. That the organism and colds disappeared together.
3. That the opsonic index of the patient's blood which was particularly studied to the bacillus of Friedlander was affected by a cold precisely in the way that would be expected in the case of an infection by that organism—that is, it rose steadily to a maximum, remained there for some time, then steadily fell to about unity during a period of perfect freedom from cold. Second and third attacks had precisely similar results.
4. That the appearance in the house of a person whose nasal passages were known to be infected by the bacillus of Friedlander sufficed to start an epidemic of colds on several occasions, and that from the noses of such as were examined, the bacillus of Friedlander was also isolated.

In conclusion, I do not wish to urge too strongly the claims of the bacillus of Friedlander in the causation of the common cold, but I have found it to be a very common cause, much more so than the *Micrococcus catarrhalis*. As for the *Bacillus septus* much stronger proof than any brought forward by Dr. Benham as to its pathogenicity and causal relation to the common cold must be advanced before it can be regarded as the cause rather than an accompaniment.—I am, etc.,

R. W. Allen, M.A., M.B., B.S.,
Gull Student of Pathology, Guy's Hospital.
London, W., May 5th.

MIDWIFERY OF THE PRESENT DAY.

Sir,—Having pursued with the greatest interest the various opinions on the above, which have appeared in the British Medical Journal since the publication of the excellent letter from the master mind of Dr. Horrocks, I am still of opinion that his clear and straightforward discourse on the treatment of normal labour will withstand any present-day criticism.

Dr. Horrocks was dealing with normal labour, and that alone, and its common-sense treatment, therefore, a discussion going beyond the borderland of normal labour is out of place in this particular instance.

As a practitioner who has been extensively engaged in the constant practice of midwifery for over twenty years, and one who has taught midwifery, not in theory in the lecture room, but clinically in practice at the bedside, I can thoroughly endorse all that Dr. Horrocks has to say on the treatment of normal labour.

I neither consider his teaching antediluvian, nor approaching masterly inactivity, but it is the teaching of one who from long experience and correct observation has arrived at the truth, and that is, that normal physiological processes are better not interfered with, but left to Nature. Meddlesomeness in everything is bad.

In conclusion, I may say that I am convinced that those who adopt Dr. Horrocks's treatment in normal labour will have no cause for regret, and the results should be everything that can be desired, but when abnormalities occur, they must be treated, and I for one trust that the day is not far distant when Dr. Horrocks will give we practitioners another intellectual treat, by an article from his able pen, upon the treatment of the minor abnormalities occurring in midwifery practice of the present day.—I am, etc.,

Stantonbury, May 9th. Charles H. Miles.

Sir,—After much midwifery experience, I believe, that if all doctors and midwives could be persuaded to follow Dr. Peter Horrocks's advice in the conduct of natural labours, untold suffering and human life would be saved. Doubtless your correspondents of the "advanced" school have become expert with their instruments; for the safe conduct of a natural labour I should have infinitely more confidence in a midwife, who followed Dr. Horrocks's advice, than in any of them.

In muscular primiparae, where as a rule labour goes slowly, I have found the early application of forceps especially harmful. Through this procedure many lives have been lost, many women permanently maimed. Left to Nature it is surprising how well these patients are immediately after labour, even though the labour may have been protracted. They are cheerful and bright, and, in my opinion, have much more strength and vigour than had they been delivered earlier with chloroform and forceps, and with less risk of atony of the bladder or other complication.

The advice to young medical men to use the "advanced method" places the patients of these young men, if they follow the advice, in a highly critical position. Young medical men used to be, and still are, I believe, turned out on the public possessing theoretical knowledge only; their practical training of little value. They should not be permitted to use forceps at all without further training. Who can blame them if they think the advice of our "advanced" friends is directed towards them, and if they use the forceps with disaster to their patients? Tired and anxious, in the presence of a woman in pain, with nervous friends about, theirs is a hard position.

It will be admitted that a doctor has no right to engage to attend a single case of confinement if he has no time to do so, without hurrying the patient to her hurt. If midwives, imbued with Dr. Horrocks's teaching, could do all midwifery practice, calling in a trained specialist for abnormal labours, ours would be a healthier and happier time. Routine midwifery does not seem a man's work. The making a surgical operation out of a natural process, as Dr. Mears tells us he does in 80 per cent. of his cases, is one indication of this, and there are many "advanced" men beside him. "Advanced" is hardly the adjective to apply to those whose aim is the outdoing of Nature.

Some believe that they will lose practice if the
by natural methods with patience, and avoid unne
examinations, chloroform, ond the forceps; in my
ence the reverse would seem to have been the
I am, etc.,

Henry Monteagle,
Pendleton, Manchester, April 30th.

THE CHOICE OF CANDIDATES FOR THE GE
MEDICAL COUNCIL.

Sir,—Our attention has been drawn to the
article in the *Medical Times and Hospital Gaz*
April 14th, in which it is stated that the three can
for election as direct representatives on the
Medical Council who have been most powerfull
ported by the Divisions of the British Medical A
tion, and each of whom has been nominated
Marylebone Division of the Metropolitan C
Branch, are consulting surgeons.

As one of the candidates so referred to is unmist
Dr. Langley Browne, the nominee of the Centra
mingham) Division, we beg leave to explain the
statement so far as he is concerned.

Dr. Langley Browne is not only well known
district as an absolutely bona-fide general practi
but, in addition to carrying on his private pract
was also for thirty-one years Honorary Surgeon
West Bromwich Hospital, which is placed in a
where there is a large amount of surgical work
accidents, etc. On his retirement from this office
appointed Consulting Surgeon to the Hospital, but
never carried on a consulting practice.

For several years he was Chairman of the Council
Birmingham and District General Medical Practit
Union, and subsequently our President.

We are in a position to state positively that the
of his professional career has been spent in genera
tice, in which he is still engaged so far as his nu
public appointments will permit; and we may ad
his candidature for election on the General
Council has received the cordial and unanimous s
of the Council of our Union, who have every rea
know that he is specially fitted to represent the in
of general practitioners.—We are, etc.,

James Neal,
F. J. Vincent Hall,
E. W. Parsey,
} *Honorary Secret*
Birmingham, May 5th.

THE COUNCIL OF THE LANCASHIRE A
CHESHIRE BRANCH.

Sir,—I regret to find that the list of members
Council of the Lancashire and Cheshire Branch ju
lished is not correct, the names of Dr. J. Brassey B
Dr. G. H. Broadbent, and Dr. F. Cox being o
although these names are correctly notified amon
officers of the several Divisions. In view of the ap
ing election of direct representatives on the
Medical Council, for which Dr. G. H. Broadbent is
the nominated candidates, I shall be glad if you w
publicity to this correction lest there should
misunderstanding.—I am, etc.,

T. Arthur Helme, Honorary Secre
Manchester, May 8th.

PAROCHIAL MEDICAL OFFICERS IN SCOTL

Sir,—Most Scottish Poor-law medical officers
pleased to see their cause again championed by Dr.
of Dingwall. I feel gratified that on two occasions
expressed agreement with suggestions I ventured t
having for their object the improvement of the st
Highland medical officers, and drawing attention
servile conditions under which they are required t
on their duties. I fancy Dr. Bruce is right in sayi
the present Parliament will not grant us any mea
security of tenure. In fact, I have never seen
Bill has been introduced this session.

It seems to me we Highland parochial doctors
gain more respect if we protected ourselves inst
begging for a protection to which we are as jus
legally entitled as inspectors of poor. Neither t
Law Act of 1845 nor any of the subsequent amen
make any distinction whatever between the two o
as regards dismissal from office.

resent attitude of parish councils towards medical is due to a supposition based on "judge-made d the "opinions" of Local Government Board ials. Neither the one nor the other, I respectfully have the right to assume legislation on behalf of ouncils to the disadvantage of the medical officers, rmly believe that if the utmost publicity were three or four more cases similar to Dr. Macara's, vould soon be put to the present very unsatisfac- ition of Highland parish doctors.

osition is as follows: The Local Government as *statutory* power to dismiss a medical officer, says, cannot retain him in office. Parish councils, her hand, have arrogated to themselves the power s the doctor, but they cannot retain him in office. th authorities can dismiss a medical officer, but f them can retain him in office. It seems to me only authority who can retain the doctor in office f if he has the pluck to do so, only he would need s an immaculate record, and powerful legal and support, because he cannot fall back on the rate- ockets to defend himself as Mr. Bumble can. cal Government Board reserves to itself the right e of the appointment of a medical officer. This d to me by an official of the Local Government et, strange to say, that authority some years ago sanction the appointment of a legally-qualified tered medical practitioner. In this case it so that the Board was justified; but still, it proves ation that it has that power over parish councils. pprove of the salary given to the doctors. It s stringent rules for his guidance; and finally, only, possesses *statutory* power to dismiss him. anding this, the Local Government Board says nnot help us, so it seems little use appealing to

risk of appearing revolutionary, I would again Highland parish doctors to join both medical nions, and, if threatened with arbitrary dis- peal formally to the Local Government Board, at the same time that legal proceedings will gainst the parish council if necessary.

Dr. Bruce's advice, if "he is to die, let him die dies in a good cause, namely, an attempt to his professional brethren from Bumbledom.—

ONE OF THEM.

RNOLD LUPTON AND VACCINATION.

the BRITISH MEDICAL JOURNAL of April 21st red me by some references to a calculation t forward to the effect that 100,000 people were lled in this country by vaccination. In reply nments, I may say that I have not pledged do not pledge myself, to the accuracy of that ; but this I do say, that I should have no right such a calculation unless I believed that there oritative basis for the figures. It may be that quiry would show that the actual number of ed every year by vaccination in this country n 100,000. Suppose, for the sake of argument, vaccinating fraternity, analysing the figures in suggested by your article, reduced the number used annually in this country by vaccination eople, still that figure would be sufficiently make ordinary people pause and consider not they desire to pay for such a slaughter of ts.

s to the calculation which I did put forward. e me the Government paper. It was printed he House of Commons and dated August 14th, is headed, "Vaccination Mortality." That put by the Registrar-General, not by me. gives the deaths over a period of 28 years ses, including small-pox. In the 7 years 1853 the average number of deaths from ses per annum was, in England and Wales 138,000.

ccination had become compulsory, and from deaths from these same diseases (or causes) up till, in 1875, the number of deaths was, in ,700. This showed an increase in the deaths causes of nearly 80,000 a year, following on compulsory vaccination, in England and Wales alone. Is it not likely that a similar increase took place in Scotland and Ireland? If it did, then there were more than 20,000 additional deaths in those countries, making the total of 100,000 deaths given in the calculation referred to.

You say 100,000 deaths equal 1 in 5 of all deaths, but the calculation refers to the United Kingdom, and in 1877 the total of deaths was not very far short of 700,000, so that the deaths due to vaccination (according to the calculation) were 1 in 7 of all deaths.

The figure of 100,000 deaths requires, of course, correcting for increase of population, and this reduces the deaths, possibly due to vaccination, to 83,000. But, on the other hand, there ought to have been a decline in the death-rate from these fifteen causes due to sanitation; unfortunately the effects of sanitation were counteracted by vaccination, so these Government figures indicate an increase in deaths of 100,000 a year due to vaccination.

I think I have thus shown very clearly that whatever may be the real number of deaths by vaccination, the calculation which I have put forward is founded upon authoritative Government figures, and is such that any candidate for Parliament or member of Parliament who believes either compulsory vaccination or vaccination in itself to be wrong may justly put forward in support of his case.

You state that some of these deaths from the fifteen diseases could not be due to vaccination, but there I respectfully differ from you. No medical man who has any knowledge at all of the meaning and theory of vaccination will deny that if it is properly done it causes an illness; neither will he, if he is an honest and competent witness of experience, deny that, under certain conditions and in certain children, that illness may be serious. Every competent and honourable man will also admit that if a person is suffering from an illness by which they are weakened they are more liable than a person in health to die from some other ailment which may attack them in their weakened condition; and every competent and honourable medical man will also admit that at the time of death the patient not infrequently suffers from a combination of ailments. That being so, it follows that any baby or adult person who is made ill by vaccination may die of bronchitis, diarrhoea, or almost any other ailment in the Registrar-General's vocabulary, and the death may be really due to vaccination.

With regard to syphilis, it was shown by the eminent Dr. Creighton that there was a great increase in deaths from infantile syphilis following upon compulsory vaccination. It was also shown by that eminent doctor and by others that there is a striking similarity between some of the effects of cow-pox (vaccination) and syphilis, and that the cases of the production of this terrible disease were not so rare as you would suggest.

A study of some of the writings of learned medical advocates of vaccination will show that its effects often endure for many years, and, indeed, I think no competent medical man will deny that the effects of some illness in childhood may endure for the whole of a person's life; it may result in some weakened condition of the nerves, or in some predisposition of other parts of the body which may make it less able to resist, even in middle or old age, such a disease as cancer. There are dentists who say that the growth of teeth in babies is seriously injured by vaccination. I may say that in Germany babies are exempted from compulsory vaccination up to the age of 12 months; and I am happy to think that the President of the Local Government Board, in his speech in the debate on April 25th, suggested the raising of the exemption limit to 5 years.

It was certainly very surprising, if the use of humanized lymph was so harmless as you would suggest, that in the Act of 1898 the use of calf lymph only should be made compulsory, thereby at one stroke upsetting the practice defended by the medical fraternity for a hundred years. I do not know if any one uses the humanized lymph now, but I know medical men who say that on no account would they use it. Surely we cannot now rely on the authority of the medical profession, when its established practice of a hundred years is thus rudely set aside?

I and most other antivaccinators condemned the use of humanized lymph, but I never for one moment suggested —and I do not know that any other antivaccinator has done so—that calf lymph was any better; indeed the evidence of many medical men (including Jenner) who have studied the question during the last hundred and ten years is that calf lymph is much more dangerous than humanized lymph.

The terrible cases that I have seen myself and others that I know of prove this calf lymph to be a horrible and dangerous thing to put into the blood of any human being, and I trust that the time is not far distant when the honourable profession you represent and the great medical literature of this country will discard the use of policemen and police magistrates for the enforcement of an eighteenth-century nostrum and rely upon modern science in their combat with disease.—I am, etc.,

House of Commons, April 30th. ARNOLD LUPTON.

INFLUENCE OF *X* RAYS UPON TREATMENT OF FRACTURES AND DISLOCATIONS.

SIR,—I am much interested—as all medical radiographers must be—in Mr. Lynn Thomas's paper and illustrations in the BRITISH MEDICAL JOURNAL of May 5th, p. 1034.

But are not the appearances he describes simply the perspective appearances which these same objects would present to an eye in the position of the focus tube in each case, supposing the objects pourtrayed were correspondingly visually transparent?

The essential ambiguity of an *x*-ray representation consists in the fact that, owing to the centrifugal nature of the projecting agent, bodies opaque to *x* rays eclipse everything both beyond them and between them and the focus tube, whereas transparent bodies come out on the plate indifferently one through another, without any blurring by refraction. Hence without stereoscopic methods we are restricted to perspective considerations alone in determining the relative distances of the parts depicted.

Yet from perspective principles alone it is possible sometimes to draw definite and reliable conclusions. Thus in Mr. Thomas's figure 2 A and B, from inspection it is almost certain that, at the times the radiographs were taken, in each case the lower fractured outline of the head of the humerus was further from the plate than the upper broken edge of the shaft. Nor is any personal examination of the patient necessary to determine the fact.

If the side (right or left) and the position of the patient in reference to the focus tube and plate be known, further inferences of a practical kind could be safely drawn, not otherwise obtainable than by means of the radiograph to start with.—I am, etc.,

Bristol, May 5th. W. COTTON, M.D.

THE HEAD QUARTERS OF THE ASSOCIATION.

SIR,—As the proposer of the resolution for extending the Library hours which was carried unanimously at a meeting of the City Division, I am indeed sorry to learn that the Library Committee does not see its way to keep open the room till 11 p.m.

I did not propose this resolution until I had taken the opinion of a large number of members, who without exception were in favour of the Library being kept open until a later hour. I would ask, Have the Library Committee considered thoroughly the needs of those who, on account of their work, cannot use the Library during the afternoon? I am afraid not.

I see by the accounts published in the SUPPLEMENT of April 28th that £109 16s. has been spent during 1905 in purchasing books, and that it has cost the Library Committee £123 2s. 2d. to do this.

May I take this occasion to express my thanks to the courteous and painstaking Librarian for the kindly help which he has always given me?

I am pleased to see that Dr. Broadbent has taken up the question of the rebuilding of 429, Strand, and trust that we may hear from him again more fully on this matter.

At the same meeting of the City Division, at which I proposed that the Library be kept open till 11 p.m., I proposed, and this resolution was also carried unanimously:

> That better accommodation be provided at head quarters for the social intercourse of members, and especially provincial members.

I also propounded at that meeting a scheme by it might be carried out economically, which at p would be too lengthy for your paper. I have duri past six months visited a large number of memb order to sound them with regard to my proposals, cannot remember a single instance where they we favourably entertained. I can hardly agree wit Medical Secretary as to the awakening of activity Divisions, for I have found it otherwise. To me the warmness and apathy is disheartening. I believ right in saying that it is often difficult to get a q at the meetings of many of the Divisions. Just late City Division had to reduce the number necessary t a quorum from 12 to 8.

The question has been often asked, What do for our 25s. a year? the answer to which is, the Jou That is all; nothing more. Surely it is time som was done to bring the members more together socia that we may obtain that goodwill and unity so nee our profession—something done to render an Asso such as ours a power, not a laughing-stock, as it wa in the case of Mr. Troutbeck the coroner.—I am, etc

London, N., May 2nd. STUART HALL

FISH-EATING AND LEPROSY IN THE ORK AND IN SHETLAND.

SIR,—Dr. Skae says: "Not a single case [of le has occurred in the course of over a century."

I recollect seeing a case of what was thought tuberculous leprosy in the Edinburgh Infirmary i or 1855. It was in a lad who came, I believe, from Unst or Yell.—I am, etc.,

Bradford-on-Avon, May 5th. JOHN BE

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVI

THE PREVENTION OF CONSUMPTION.

FOLLOWING the receipt of the circular issued a few ago by the National Association for the Prevention sumption, the Borough Council of Rotherham cal a report from the medical officer of health as to the pr available in the borough for combating tuberculosis. report, which was recently considered and adopted Public Health Committee. Dr. Alfred Robinson first ex his entire agreement with the objects and methods Association as set forth in the circular. He then po how the preventive measures there suggested may b applicable to the conditions prevailing in Rotherham one person out of every five between the ages of 15 and of pulmonary consumption. The requirements inclu ventive measures as regards diseased meat, infected m the dissemination of infection by phthisical persons.

Two requirements with regard to meat are insisted meat inspection, with the destruction of diseased fl the abolition of private slaughterhouses in order to inspection more efficient. Dr. Robinson recommends wide powers with respect to the infection by milk w given by the Rotherham Corporation Act (1904) should fully utilized. He is not in favour of the municipal su milk, but considers municipal control to be of far importance.

As regards the dissemination of tuberculosis by ph persons, he urges the enforcement of by-laws against s the fuller utilization of the powers already possesse council for the enforcement of proper ventilation of and workshops; the voluntary notification of phthisis, education of patients by means of visits and leaflets, infection of rooms, the supply of spit bottles and disinf and provision for the isolation and sanatorium treat patients. Dr. Robinson recommends the utilization of ward in the workhouse which has already been in use time, and of vacant wards in the new isolation hospi also suggests that the new small-pox hospital might be accommodate phthisical patients when there is no s in the district.

The prompt and practical consideration by the Ro Borough Council of the circular of the National As for the Prevention of Consumption indicates that the this circular may be productive of a widespread ac preventive efforts throughout the country.

PUBLIC VACCINATION FEES.

A CIRCULAR letter recently issued by the Leigh Guardians has not met with the entire approval of th law authorities to whom it was addressed. The com tion urged that a united effort should be made to bri a diminution in the cost of vaccination by a reductio resent paid to public vaccinators. When the letter g discussed by the Cirencester Board, several members d the opinion that the medical men were not overpaid, Chairman pointed out that a public vaccinator always ake two, and frequently many more than two, visits me of the vaccinated child.

rencester Board is to be commended for looking at stion fairly and impartially, and we cannot help that if the Leigh Board had read the report of the ental Committee appointed to inquire into the sub- ccination expenses, it would not have assumed the ility of asking other authorities to spend time in g a matter which has so recently been considered in earings by a Committee which included among its a very able representative of the Poor-law autho-

VACCINATION AWARDS.

. Mason (Pontypool) writes with reference to the n inserted in the British Medical Journal of April 1018, as to payment of grants for successful vaccina- at his vaccination was inspected last summer. He y just received a communication from the Local nent Board.

rly, "Another Public Vaccinator" writes to say s vaccination was inspected in March, 1905, and ust (May, 1906) been informed by the Local Govern- ard that he has been duly awarded the grant for vaccination. Fourteen months' waiting bears t testimony to the prompt business methods of some ffices.

UESTION OF COMPULSORY VACCINATION.

L. Speirs (Gateshead) writes: "Unwise" is surely inadequate description of the action of magistrates illegally and with gross injustice. It indicates only rly the unhealthy state of mind which has been d in the medical profession by its creation and of dogma. It is time we took warning. It would be the community as well as to the profession if the ecame more prevalent than it is, that there thing in medical training and association that the dulling of logical thinking, and confusion as to right and just. Compulsion in regard to ion is doomed. A money test of conscience, time of day, is an anachronism too palpable nue in a democratically-governed country. As us have pointed out whenever opportunity offered ngth of the case for vaccination as a preventive er is infinitely weakened by resort to compulsion. hen one thinks of it, it is a somewhat impertinent nce for the benefit of one's fellow man which is con- y lacking in matters more material to his comfort. ination is a valuable prophylactic few will deny. as been the sole agency in the diminution of small- uld be absurd to contend. By getting rid of the in- medical dogma on this question a most serious progress in the prevention and treatment of ould be removed. Medical opinion has had many es, so many, indeed, that one would have thought dea of stereotyping it had been finally buried in the e past.

NUATION OF POOR-LAW MEDICAL OFFICER HOLDING OTHER APPOINTMENTS.

is a Poor-law medical officer (with a completed s' service), a public vaccinator, and medical officer for both an urban and a rural district, asks whether, ns his Poor-law appointment and obtains superan- he will be compelled to give up all his other ents, or whether the Local Government Board him to continne to hold them.

our correspondent obtains superannuation on his Poor-law appointment, which he holds under ans, he will not be able to claim superannuation in full if he continues to act as public vaccinator, ation work constitutes employment under the ority as that which grants him superannuation. rohibited by Clause 6 of the Superannuation is as follows:

> person in receipt of a superannuation allowance Act is appointed to any office or employment by ity to whom this Act applies, such allowance shall paid so long as he continues to hold such office or t if the salary or wages and emoluments thereof to or in excess of the amount of such allowance; not, then only so much of such allowance shall long as he holds such office or employment as will e deficiency.

th appointments, which are made not by Boards s, but by the sanitary authorities of their respec- ts, are not subject to this prohibition, and there n to suppose that the Local Government Board would refuse its sanction to our correspondent continuing to hold his health appointments if he should be annually re-elected to them in the usual way.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

TRAVELLING EXPENSES (MEDICAL BOARDS).

It is notified in a Southern Command order that with reference to Paragraph 305, Allowance Regulations, as amended by Army Order 167 of 1904, the "necessary cost of journeys within the United Kingdom" can only be approved as covering the cost of travelling from the place where the officer may happen to be on leave or half-pay to the nearest military station convenient for assembly of a Medical Board. When an officer is required to appear before a Medical Board, the medical authority will give officers commanding units at least seven days' notice. Officers commanding units will notify the medical authority where the officer concerned happens to be, and the medical authority will be held responsible that the Medical Board is assembled at the nearest military station where a Board can be assembled with least expense to the State.

ROYAL ARMY MEDICAL CORPS (VOLS.).

On May 5th the London Companies of the Royal Army Medical Corps (Vols.) paraded in Tooting Bec Road and marched to Tooting Common, where the wagons (four of which had come by road from head quarters) were unloaded, the men being divided into squads of two and four for the purpose of practising the erection of bell tents. Several of these tents were erected on a piece of ground previously measured out to represent a camp, and a zest was given to the performance by the timing of each squad. At dusk the tents were struck, and after having tea the corps marched back to Clapham Road. In the absence of the Colonel, Major Harper took command for the afternoon.

VOLUNTEER MEDICAL ORGANIZATION.

Surgeon-Captain A. C. Hartley (1st Bedfordshire Royal Engineers (Vols.), writes: When such excellent and enthusiastic Volunteer medical officers as Colonel P. B. Giles and Lieutenant-Colonel Marshall advise that the Medical Department of the Volunteers ought, like the R.A.M.C., to be worked on a separate system from regiments, one feels that it is almost necessary to apologize for taking the opposite view—namely, that it is better that regimental doctors remain, as at present, attached to their regiments, as was the case in the regular army long ago. I know that many medical officers take this view, and it is mainly due to this that they remain on with their regiments. When a medical officer is attached to a regiment in his own town he personally knows his brother officers and most of his men, and they know him. He takes an interest in the health and general well-being of the corps, and is proud of all its successes. He goes to camp with the regiment, and the men know they will be looked after by one they know and who takes an interest in them personally. On the other hand, if all medical officers were made members of the R.A.M.C. (Vols.) there would be numerous resignations, as very few doctors would care to go off to examine recruits they might never see again, or go to camp with a handful of ambulance men to look after a corps of officers and men whom they have never seen before and can take no real interest in. This is as unsatisfactory for the medical officer as it is for the corps. In some districts it is difficult enough to get medical men to become officers, and it would be more difficult if a change were made. I know many regimental medical officers who patriotically join a regiment, and then stick to it because they get personally attached to all the members of it, and such would likely resign if they were moved off to units they knew nothing of to look after a corps or brigade they had never seen before. Volunteers have to be treated a little different from regulars, and all that fosters *esprit de corps* and comradeship should be encouraged. There are several improvements that could be made in our medical arrangements, as Colonel Giles points out under the heading "Quid pro Quo," but I need not enter into them at the present time.

OBITUARY.

The death is announced of Deputy-Inspector-General **Thomas Robert Warren**, R.N., who became M.R.C.S. as far back as 1852 and entered the Medical Department of the Royal Navy not long afterwards. He was on the Pacific Station at the outbreak of the war with China in 1856, and, serving throughout it, received the medal and clasp. At a subsequent date, when on the West Indian Station, he was landed, at his own request, for service in Grenada during a severe outbreak of fever which had paralysed local resources, and received in acknowledgement the formal thanks of the Government for the assistance he rendered on that occasion. In 1875 he was with the fleet which accompanied His Majesty (then Prince of Wales) to India, and a little later on received a shore appointment at Malta. After holding this for some years, he was invalided home, and was posted, when again fit for duty, to Plymouth as Principal Medical Officer in charge of the Royal Marine Light Infantry. When, in 1884, the time came for him to retire, he was promoted to the honorary rank of Deputy-Inspector-General and was awarded a Greenwich Hospital pension in addition to ordinary retiring allowance. The evening of his life he passed at Youghal, not far from which his family originally came, and was highly esteemed in the neighbourhood. He left a widow and several sons and daughters.

The death is announced at Ealing, on April 28th, of Surgeon-Colonel **Daniel Frederick Bateman**, late of the Indian Medical Service, in his sixty-sixth year. Surgeon-Colonel Bateman retired in 1899, after thirty-three years' service. He was Assistant Surgeon in March, 1866, Surgeon in 1873, Surgeon-Major in July, 1878, Surgeon-Lieutenant-Colonel in March, 1886, Brigade-Surgeon in April, 1890, and Surgeon-Colonel in July, 1893. He saw active service in Burmah in 1885-6, for which he received the medal with clasp.

HOSPITAL AND DISPENSARY MANAGEMENT.

INVERNESS DISTRICT ASYLUM.

The annual report on this asylum for the year ending, May 15th, 1905, shows that on May 16th, 1904, there were resident in the asylum 643 patients and 24 absent on probation, making a total on the asylum register of 667. The total number under treatment during the year was 807, and there remained on the register on May 15th, 1905, 659, of whom 645 were resident in the asylum and the remaining 14 with relatives or suitable guardians outside. There was thus an actual decrease in numbers on the register as compared with an increase of 29 for the previous year. Those in the asylum, however, had increased by 2. The total decrease is to be attributed to the fact that the number admitted (140) during 1904-5 was less by 38 than that of the previous twelve months, being, in fact, the lowest number of admissions recorded during the past ten years. Of the 140 admissions 60, or 42 per cent., were in indifferent health, 31, or 22 per cent., in bad health, and the remainder in average bodily condition. The Medical Superintendent, Dr. R. B. Campbell, says that it is particularly noticeable that from their Northern District, many cases are admitted in a hopeless condition, having been kept too long at home by their friends. Of the total admissions 72 were considered to be hopeful, 42 unfavourable, and 26 hopeless and incurable cases. As to the probable causes of the insanities in the admissions, hereditary influences were ascertained in 43, or 31 per cent., and 29 had suffered from one or more previous attacks. Alcohol was assigned as cause in only 5, or 4 per cent. Phthisis was noted as cause in 11; periodic causes, adolescence, old age, and the climacteric in 15; syphilis in 2, trauma in 3, "moral causes" in 25, and in 28 no cause could be ascertained. Of the total admissions the attack was a first attack within three months of admission in no less than 107, and a first attack within twelve months of admission in 24. The admissions were classified as to the forms of mental disorder into: Mania of all kinds 61, melancholy of all kinds 59, dementia 4, general paralysis 1, epilepsy 2, and congenital or infantile defect 13.

During the year 79 cases were discharged as recovered, giving the high percentage recovery rate on admissions of 56.4, as compared with the 43.8 per cent. of the previous year or the 33 per cent. for the Royal and District Asylum of Scotland for 1904. There were also discharged as relieved 12, and as not improved 5; of these 17 unrecovered discharges 2 were transferred to other asylums and the remaining 15 to the care of suitable and carefully-selected guardians. Dr. Campbell comments on the occasional inconvenience of transporting these boarded-out cases to distant homes, and seeks to procure suitable guardians in the vicinity of the asylum. During the year there were 52 deaths, giving a death-rate on the average numbers resident of 7.9 per cent.

In 10 cases the deaths were due to cerebro-spinal diseases, in 7 to diseases of the heart and vessels, in 3 to general paralysis, in 1 to tuberculous ulceration of the intestines, in 1 to general tuberculosis with epilepsy, and in 10 to phthisis pulmonalis. The deaths were thus due in 12 cases, or over 23 per cent., to tuberculous disease. Many of these cases were admitted with active phthisis, but Dr. Campbell notes that several contracted the disease in the asylum. Doubtless the overcrowding present in the asylum facilitated the spread of the disease,
there being an average daily population of 654 patient
the year, whilst the asylum is only built for 608. D
bell, morever, draws attention to the fact that the
separate provision for tuberculous cases, and recomm
erection of a small isolation hospital for their treatme
general health was good throughout the year, the
demic being one of measles of mild type, from which
attacked made good recoveries.

ST. ANDREW'S HOSPITAL FOR MENTAL DISE NORTHAMPTON.

The annual report of this hospital for the treatment o
patients of the upper and middle classes for the y
shows that on January 1st, 1905, there were 418 patien
hospital and in the houses belonging to it at Moul
(a branch establishment, two miles from the hospita
Bryn-y-Neuadd, the seaside house in North Wales. D
year 78 patients were admitted, of whom 12 were read

Altogether 496 were under treatment during 1905.
total admissions, the attack was in 23 a first attac
three and in 9 more a first attack within twelve m
admission, in 29 a not-first attack within twelve m
admission, and in the remaining 17 the attack was
than twelve months' duration on admission. The ad
were classified according to the form of mental disor
Mania of all kinds, 43; melancholia, 27; dementia
general paralysis, 2. In 9 cases, or 11.4 per cent., th
disorder was considered due to alcoholic intemperanc
18 to previous attacks; in only 6, or 7.6 per ce
hereditary influences, direct or collateral, asc
venereal disease was assigned in 1; old age in 1; a
diseases or disorders in 7. During the year 46 were di
as recovered, giving the high percentage recovery
admissions of 57.6, the highest so far recorded at this
tion; 12 as relieved; 11 as not improved; and there
deaths. This gives a death-rate on the average numbers
(410) during the year of 6.3 per cent.

This is slightly higher than the average death-ra
institution for the last ten years, which works out a
figure of 5.27 per cent. The deaths were due in 7
cerebro-spinal diseases, in 9 to chest diseases, in 4 t
diseases, in 3 to old age, and in 2 cases to acciden
these latter being due to eating yew leaves, and the o
being run over by a tram whilst endeavouring to esca
one death was caused by tuberculous disease, and
diarrhoea or dysentery, furnishing satisfactory evi
the sanitary condition of the hospital. No less
patients received assistance towards their expense
the year, and the Committee further voted £150
sending poor patients to the seaside. Various impr
have been carried out during the year, and the whol
tion is, from the reports of the Lunacy Commissio
visited it, evidently maintained in excellent order,
possible care and attention given to the patients.
for hospitals of this class has been frequently point
the Commissioners in Lunacy, and the good work d
as attested by the satisfactory figures quoted abov
stimulate the extension and support of similar instit

NATIONAL HOSPITAL FOR THE PARALYSE EPILEPTIC.

At the annual meeting of the Governors of the Natio
pital for the Paralysed and Epileptic, Queen S
March 27th, the accounts submitted showed that th
between ordinary income and expenditure had bee
by the receipts at the festival dinner and from a read
by Sir Squire Bancroft; the financial position,
though still disquieting, was no worse than it
Instead of making a special appeal of its own to t
this year, the Board had adopted the course of issu
cular letter to habitual subscribers begging that th
themselves endeavour to beat up supporters for th
tion. The daily average number of patients in
was 155.

MEDICO-LEGAL AND MEDICO-ETHIC

BRANCH SURGERIES AND THE TITLE OF

Tubercle writes: A medical man has purch
opponent's practice. (1) Is he justified in putting
on a private door in a village five miles from his r
(2) Being M.R.C.S., L.S.A., in the *Directory* of 1
justified in using the prefix Dr.? The plate reads
Being M.D., C.M. myself I think this unfair co
At the request of the clergymen and residents
a surgery in this village to help the poorer peo
a mile and three-quarters from my residence, b
never used a plate.

*** We have frequently pointed out that while
multiple doorplates is open to abuse, in scattere
districts it may be necessary to have branch surg

useful to indicate by a plate the place at which patients are seen and messages can be left. (2) We can add nothing to what has been said before as to the use of the title "Dr."

CANVASSING FOR PRACTICE.

V. Musselwhite writes: A. is the medical attendant of a house painter, whom another medical man, B., employs to decorate his house. Later the painter calls in A., when B. remonstrates with the tradesman and says that since he had given him so much work he should have called him in. How does B.'s action stand in regard to medical ethics?

⁂ Such conduct would be unjustifiable interference with the patient of another practitioner.

THE USE OF NON-REGISTRABLE DEGREES.

ARSITY writes objecting to the use of the M.D.Brux. without indicating the university in the case of the author of a paper in this Journal. He considers that the author is not justified in posing "before the public and his *confrères* of the British Medical Association either as Dr. or M.D., when the M.D. is not a registrable qualification in Britain."

⁂ Foreign and colonial diplomas were not registrable in this country until the special provision of the Medical Act of 1886 allowed practitioners in possession of such degrees at the time of the passing of the Act to register them, while denying the right in future except in cases where equal facilities are afforded by the foreign country or colony. This rule is based not upon the academic value of the degrees, but solely upon the existence or non-existence of reciprocity; thus a French M.D. cannot register his degree, while an Italian M.D. can do so. But, on the other hand, such degrees have always been recognized in courtesy, and if it were permissible to mention names, excellent pre-edents in the present as well as in the past could be given n support of this custom.

THE METHODS OF THE MALTHUSIAN LEAGUE.

CORRESPONDENT writes to us to complain that a "wooden-egged man, wearing a Highland costume and playing an ccordion," begged outside his house, and when his little irl took him out a copper she was handed a leaflet of "The Malthusian League," which is headed:—"President: . R. Drysdale, M.D., M.R.C.P., F.R.C.S.; Honorary Secre-ary and Treasurer: W. H. Reynolds (Publisher), New Cross, ondon, S.W." (*sic*), and similar papers were handed by the nan to other children. Our correspondent asks whether, hatever may be our opinion as to the doctrines which the eague is intended to support, we approve of this method f circulating its publications.

⁂ The leaflet sent to us, after giving an account f the origin of the League, insists on the grave ad growing importance of this question in the resent day, when a large and increasing amount of nemployment, appalling destitution, enormous infantile ortality, and overcrowding exist; it is added that e prudent middle classes should control the numbers eated for them to provide for, in view of the tendency of odern legislation not only to educate the children of the or, but to feed and perhaps clothe them too. In view of s urgency monthly meetings will be held at Armfield's otel, South Place, Finsbury, where on Thursday, April 5th, paper was read on "The State Control of the Birth-Rate," C. V. Drysdale, D.Sc., to which meetings all interested in e question are invited. The amount of the subscription, e principles of the League, and a form of application for embership complete the information supplied. No one n approve of such papers being distributed to children in e street, but we hesitate to believe that this has the sanc-on of the president, who should inquire into the matter, d put a stop to the proceedings of the man with the oden leg.

EXAMINATION OF BODIES.

SCOTLAND) is requested by the police authorities to examine d report on several dead bodies (on four separate occasions thin a few weeks) found on the seashore within a few les of his residence. B., who is in practice in the same wn as A., writes to the police authorities asking why A. ould examine all the bodies, and pointing out as a prior aim his being parochial medical officer for the district in ich the bodies were found. Has A. any right to feel grieved at B.'s action in the matter?

⁂ The police are entitled to call in whomsoever they ase, and the fact of B. being parochial medical officer es not give him a prior claim.

SCHOOL CERTIFICATES.

M.B.—We would refer our correspondent to the answer under this head published last week, p. 1076.

OBLIGATIONS OF A SUBSTITUTE.

East Yorks writes: X. was attending a lady and her maid-servant, and, being ill during the attendance, asked his friend Y. to attend. Eighteen months after the maid consulted Y., who declined to attend until he had interviewed X., who consented to Y. attending, but not to his conditions—namely, that the fees should be shared. X. considers that, as Y. attended the maid at the request of the mistress, she was at liberty to select her own practitioner for any future attendance. Y., on the other hand, maintains that his introduction to the maid was due to his attendance as X.'s deputy, and, as X. did not object to Y. taking over the patient, a fair solution of the difficulty would be the sharing of the fees.

⁂ Y. rightly declines to attend a patient to whom he was introduced as X.'s substitute. If, however, X. considers that Y. is free to attend her, Y. may accept her as his patient, and take the fees, or, if he has scruples about it, he had better decline the case altogether.

MEDICAL ADVICE IN LADIES' NEWSPAPERS.

A correspondent sends us cuttings from *Hearth and Home*, which is a newspaper for ladies, and, like most journals of this class, devotes much space to paragraphs purporting to give advice on matters of health, especially as this affects the personal appearance and the state of the hair and skin. Most of these recommend nostrums to be supplied by firms who doubtless pay for them either directly or by taking a certain amount of space in the advertising columns, but some recommend medical practitioners, as in the marked copy sent to us, where, under the heading "Burmah Girl," the correspondent is advised to apply to that "clever food specialist, Dr. O. E. Horn, of 43, Parkholme Road, Boscombe Park, Bournemouth," who it is said will not only "give you a tonic to add to your food that will make it digest easily," but also make "helpful suggestions which he will give you with pleasure if you say you are a reader of *Hearth and Home*." Dr. O. E. Horn's name does not appear upon the *Medical Register* for 1906, so that he is not a legally-qualified practitioner.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Degree of M.D.—The degree of M.D. has been conferred on Cyril Ogle, M.A., M.B., B.Ch., Trinity College, F.R.C.P.

Sibthorpian Professorship.—The electors will proceed to the election of a Sibthorpian Professor of Rural Economy on Saturday, June 9th, 1906. Candidates are requested to send in their applications, on or before May 19th, to the Registrar of the University, from whom all particulars may be obtained. Among the conditions is the following: "The Sibthorpian Professor of Rural Economy shall lecture and give instruction on the scientific principles of agriculture and forestry, including the pathology of plants."

UNIVERSITY OF CAMBRIDGE.

The following have passed all three sections of the Third M.B., Part II:

J. D. Barris, B.A., Cai.; H. J. Clarke, B.A., Trin.; R. P. Cockin, B.A., Cai.; R. M. Courtauld, M.A., Pemb.; W. I. Cumberlidge, B.A., Christ's; R. Davies-Colley, B.A., Emm.; J. R. Draper, B.A., Joh.; C. F. Fothergill, B.A., Emm.; A. Goulston, M.A., Cla.; W. B. Grandage, B.A., Cla.; M. Grundy, B.A., Joh.; C. R. F. Hall, B.A., Trin.; G. H. Harper-Smith, B.A., Cai.; C. King, B.A., Trin.; S. G. MacDonald, B.A., Joh.; J. McIntyre, B.A., King's; J. T. Macnab, B.A., Christ's; E. H. Mayhew, B.A. Emm; A. W. Moore, B.A., Emm.; W. L. Murphy, M.A., Joh.; A. S. M. Palmer, B.A., Jes.; W. H. Robinson, B.A., Down; C. Stanley-Clarke, B.A., Cai.; F. J. Thornton, B.A., Cai.; J. H. Trench, B.A., Trin.; A. Walker, B.A., Emm.; G. L. Webb, B.A., Cai.; C. J. Wilson, B.A., Christ's; H. W. Wiltshire, M.A., Cla.; F. Worthington, B.A., Joh.

Mr. W. M. Mollison, M.A., of King's College, has been approved for the degree of M.C.

The following have been nominated members of the Board of Managers of the Quick Fund for the Professorship of Proto-Zoology: Professor Sims Woodhead, Mr. Adam Sedgwick Mr. A. E. Shipley, Dr. Langley, Mr. J. J. Lister, and Mr. F. F. Blackman.

Mr. F. G. Hopkins, of Emmanuel College, and Mr. W. M. Fletcher, of Trinity College, have been appointed Examiners for the Gedge Prize.

Mr. A. E. Shipley, of Christ College, has been reappointed Representative of the University on the Council of the Marine Biological Association.

Mr. F. Gayner, M.B., B.C., has been elected to a Research Scholarship in connexion with the Committee for the Study of Special Diseases.

Advanced Classes.

In addition to the ordinary classes in general pathology and pharmacology, the series of shorter courses dealing with more advanced work will be repeated this year. Lectures and demonstrations will be given on pharmacology (bronchial asthma, vaso-constriction, the specific actions of drugs, etc.), and on pathology (inflammation, immunity, antitoxins, and antibodies, food poisoning, etc.). Dr. Nuttall will also repeat this year his course on protozoal diseases. These courses, which are open to medical men and senior students only, will be held if a class of ten can be formed; they will not extend over more than four weeks. Particulars may be obtained on application to Mr. E. E. Stubbings, Pathological Department, New Medical School, Cambridge.

UNIVERSITY OF LONDON.

London Hospital Medical College.

MR. JONATHAN HUTCHINSON, F.R.S., Emeritus Professor of Clinical Surgery to the London Hospital, will begin a course of four lectures on Tuesday, June 12th, at 3 p.m. The lectures will be free to all students of the University and to medical graduates. The dates and subjects are as follows: June 12th, on the transmission of syphilis to the third generation; June 19th, on syphilis and tuberculosis; June 26th, on tuberculosis and diseases of the skin; July 3rd, on diseases of the skin caused by insects.

UNIVERSITY COLLEGE.

Lectures.

A COURSE of eight lectures on the Structure and Functions of the Central Nervous System, with special reference to the brain stem will be given in the Physiology Department by Dr. W. Page May, on Wednesdays, at 5 p.m., commencing on May 16th. The lectures are open to students and qualified medical practitioners on presentation of their cards.

Appointment.

The Council have appointed Mr. G. E. Waugh Senior Demonstrator in the Department of Anatomy from October next, vice Mr. Mower White, resigned.

CONVOCATION.

A general meeting of Convocation had been appointed to be held on May 8th at 5.30 p.m., but as the statutory quorum of fifty members was not present, the Chairman, Sir E. H. Busk, after waiting half an hour, announced that the meeting stood adjourned to Tuesday, June 12th, at 5.30 p.m. He remarked that members of the University of Paris would be the guests of the University of London in the previous week. He also stated that, as no nomination for the office of Deputy Chairman of Convocation had been received, no election to the office could be made at the adjourned meeting in June; as the appointment, when made, held good for twelve months, it might possibly be better to defer it for a year, so that the election might not wander from May to some less convenient month.

UNIVERSITY OF DURHAM.

THE following degrees were conferred at the Convocation on April 28th:

M.D.—C. H. Clarke, Ida E. Fox, H. L. Heslop, H. L. Noel-Cox, T. Y. Simpson, J. B. Waters.

M.D. for Practitioners of Fifteen Years' Standing.—B. H. Andrew, H. Buxton, E. C. Freeman, J. F. Nall, R. R. Sleman, J. P. Walker, A. W. Waller.

M.B.—F. W. Cheese, J. H. Cooke, Hamilton Drummond, Horsley Drummond, W. Fairclough, A. Finlay, J. Galloway, S. G. V. Harris, A. B. Jones, J. C. Pearce, R. B. Reed, W. Seymour, F. T. Simpson, F. J. Strachan, E. Tate, A. J. Turner, R. J. Weidner, R. J. Willan.

B.S.—F. W. Cheese, J. H. Cooke, Hamilton Drummond, Horsley Drummond, W. Fairclough, A. Finlay, J. Galloway, S. G. V. Harris, S. H. Hawley, A. B. Jones, J. C. Pearce, R. B. Reed, W. Seymour, F. J. Strachan, E. Tate, A. J. Turner, R. J. Weidner, R. J. Willan.

B.Hy.—J. W. H. Morrison, H. Renney, H. J. Slade.

The following received the Diploma in Public Health (*D.P.H.*): J. A. Mitchell, J. W. H. Morrison, H. J. Slade.

ROYAL UNIVERSITY OF IRELAND.

Second Examination in Medicine, Spring, 1906.

THE following candidates have been approved at the examinations indicated:

Second Examination (Upper Pass).—*M. Connell, *H. J. Grant, *A. P. O'Connor, B.A., *J. M. O'Connor, *W. Tyrrell.

Pass.—J. B. Aickin, J. A. Brown, B. Byrne, S. Campbell, S. R. Campbell, F. S. Carson, E. M. Condy, V. L. Connolly, J. Counihar, J. B. Crawford, N. Cunningham, G. Douglas, J. H. Harbison, W. F. Hooper, D. J. Jackson, P. J. Geogh, Caroline V. Lowe, H. D. Manderson, P. H. O'Connell, W. M. J. O'Connor, M. G. O'Malley, A. Patton, B.A., A. H. Rentoul, W. H. Sheffield, J. Spence, W. S. R. Steven, R. S. Taggart, P. A. West.

Third Examination.—*J. K. P. Clarke, *E. Dowling, *M. F. Huston, *M. J. Mulligan, *W. D. O'Kelly, *J. J. O'Neill, *M. Woldron.

Pass.—D. Barry, A. R. Boyd, W. Bradbury, T. G. Buchanan, W. A. Burke, J. P. Cahir, A. J. W. Compton, B.A., Caroline J. Crawford, L. J. Curtin, G. Deery, J. Dewar, C. Dickson, E. H. Flanigan, T. Forde, C. H. Harbinson, T. J. Hollins, B.A., J. G. Johnston, R. G. C. M. Kinkead, R. Lavallin, S. Levy, J. E. A. Lynham, B.A., M. McNiff, H. H. MacWilliam, T. J. Magill, H. C. Swertz, G. J. W. Tierney, G. P. White, M. White.

The M.B., B.Ch., B.A.O. Degrees Examination.

Final Examination (Upper Pass).—*J. Finegan, *J. J. Hollywood, *R. Jameson, E. J. Kavanagh, *W. J. Leighton, *R. J. Lytle, D. T. MacCarthy, *W. A. McKee, B.A., *J. W. Murphy, *T. O'Driscoll.

Pass.—*W. J. Hill, G. W. Knipe, J. F. McDermott, J. Magill, T Meagher, E. H. M. Milligan, *M. J. O'Grady, J. J. O'Mahoney B.A., G. V. Ryan, H. S. Sims, W. G. Stewart.

* Qualified to sit for Honours in one or other subject.

UNIVERSITY OF DUBLIN.

THE following degrees have been conferred:

M.D.—A. G. Alexander, G. Nunan, T. L. Sands.

M.B., Ch.B., B.A.O.—A. G. Alexander, B. G. Brooke, A. C. Elliot S. G. S. Haughton, H. J. Knox, R. S. Oldham, J. D. Sands.

Licence in Medicine, Surgery, and Obstetrics.—T. R. King-Edwards.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

A QUARTERLY meeting of the Royal College of Physicians Edinburgh was held on Tuesday, May 1st, Dr. PLAYFAI President, in the chair.

Introduction of Fellow.

John Dixon Comrie, M.A., B.Sc., M.B., Ch.B., w introduced and took his seat as a Fellow of the College.

Admission to the Membership.

On a ballot, the following candidates were admitted to t Membership of the College after examination: Augusti Kinsey-Morgan, M.D., M.R.C.S.Eng., Bournemouth; Edwa Collett Hort, L.S.A., L.R.C.P.I., San Remo; William Augusti McEnery, L.R.C.P.Lond., M.R.C.S.Eng., San Francisc Alfred Nolan Fell, M.B., Ch.B., Edinburgh; Russell Gera William Adams, L.R.C.P. and S.E., Edinburgh; John Willia Keay, M.B., Ch.B., Edinburgh.

Admission to the Licence.

The Registrar reported that since the last quarterly meetir twenty-seven persons had obtained the Licence of the Colle by examination.

Annual Report Regarding the Laboratory.

The Curator submitted his report for the last year regardi the research and reporting work undertaken in the laborato during the year and the expenditure incurred. The repo showed that 36 workers had been engaged in research; th 2,479 specimens had been reported on, being an increase 53 on the number for the previous year; and that the expen ture had amounted to £1,217 15s. ½d. The report was adopt by the College.

Conjoint Committee of Management of Triple Qualification.

Dr. James Andrew was re-elected as Representative of t College on the Conjoint Committee of Management of t Triple Qualification.

Appointment of Morison Lecturer.

It was intimated that Dr. A. R. Urquhart had been appoint Morison Lecturer for the ensuing session.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Election of Examiners.

AT a meeting of the President, Vice-President, and Council May 1st, the following examiners were elected:

Court "A" (for Conjoint Licence, Diploma in Public Healt and Preliminary).—Anatomy: Alexander Fraser, Bertram C. Windle. Surgery: Alexander Blayney, F. Conway-Dwy John Dundon, Richard Lane-Joynt. Pathology and Bacte ology: Arthur Hamilton White. Midwifery and Gynaecolog Frederick W. Kidd. Biology: John J. Burgess. Ophthalm logy: Arthur H. Benson, Herbert C. Mooney. Sanitary L and Vital Statistics: Edward Francis Stephenson. Language L. J. Woodrooffe. Mathematics, Physics, Dictation, a English Essay: J. W. Tristram.

Court "B" (for Fellowship, Licence in Surgery—for reg tered practitioners,—Licence in Midwifery—for register practitioners,—and Licence in Dental Surgery).—Anatom Patrick Joseph Fagan, Alexander Frazer. Surgery: Alexand Blayney, F. Conway-Dwyer, Thomas E. Gordon, Richard La Joynt. Pathology and Bacteriology: Leveson-Gower Gur Arthur Hamilton White. Midwifery and Gynaecolog Frederick W. Kidd. Chemistry and Physics: Edwin Lapp Robert J. Montgomery. Dental Surgery and Patholog George M. P. Murray, William G. Story. Mechanical De tistry: Kevin E. O'Duffy, Daniel L. Rogers.

A MEETING of Fellows will be held on June 9th at 1 p.m. receive the annual report of the Council.

A meeting for the election of a President, Vice-Preside Council, and Honorary Secretary for the ensuing year w take place on Monday, June 11th, at 1 p.m. Fellows desiri to have their names printed in the list of candidates for offi are requested to notify the Registrar at the College by We nesday, May 30th.

UNDER the will of the late Miss Emily Alicia Nottidge Richmond, Surrey, the Royal Hospital, Richmond, Surre receives £200, and the Royal Sea-Bathing Hospital, Ma gate, the Royal Medical Benevolent College, and t Hospital for Women, Soho Square, sums of £100 each.

LETTERS, NOTES AND ANSWERS TO CORRESPONDENTS.

MMUNICATIONS respecting Editorial matters should be addressed the Editor, 2, Agar Street, Strand, W.C., London; those conerning business matters, advertisements, non-delivery of the OURNAL, etc., should be addressed to the Manager, at the Office, 29, Strand, W.C., London.

IGINAL ARTICLES and LETTERS *forwarded for publication are nderstood to be offered to the* BRITISH MEDICAL JOURNAL *alone, nless the contrary be stated.*

THORS desiring reprints of their articles published in the BRITISH EDICAL JOURNAL are requested to communicate with the Manager, 9, Strand, W.C., on receipt of proof.

RESPONDENTS who wish notice to be taken of their communicaons should authenticate them with their names—of course not cessarily for publication.

RESPONDENTS not answered are requested to look at the Notices Correspondents of the following week.

IUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT DER ANY CIRCUMSTANCES BE RETURNED.

rder to avoid delay, it is particularly requested that ALL letters the editorial business of the JOURNAL be addressed to the litor at the Office of the JOURNAL, and not at his private house.

EGRAPHIC ADDRESSS.—The telegraphic address of the EDITOR of e BRITISH MEDICAL JOURNAL is *Aitiology, London.* The egraphic address of the MANAGER of the BRITISH MEDICAL URNAL is *Articulate, London.*

EPHONE (National):—
EDITOR, 2631, Gerrard.
GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to ects to which special departments of the* BRITISH ICAL JOURNAL *are devoted will be found under their ective headings.*

QUERIES.

D. MITCHELL (Dunoran, Camelon) asks for references to literature of congenital elephantiasis.

has a case of acquired talipes calcaneus, in which, owing the jarring on the heel, that part has become so tender it the patient cannot walk. After rest the condition proves temporarily. A. S. asks whether any instrument been devised to take the pressure off the heel, or whether ision of the lower portion of the os calcis would be of benefit.

INCOME TAX.

OR writes: In July last I sold three-fourths of my prac-. That, of course, diminishes my income. Being still partnership, must I take the average of the last three rs of professional income, or can I return it as from July ?

* One return should be made of the whole of the profits he practice, based on the average of the last three years. tax charged should then be divided between our corondent and his partner according to their respective es of the total profits under present arrangements—that "Senior" should bear one-fourth and his partner threeths of the amount assessed.

E TAX PAYER has been appointed district medical officer salary of £50, but states that he has to pay out of this ry £30 for horse hire, and a further £38 for the cost of an tional maid-servant rendered necessary by increased in opening doors, etc. He asks whether, in these cirstances, he should object to an assessment of £20 in ect to the emoluments of his appointment.

* We think our correspondent would be well advised in pting an assessment of £20 net on his salary as medical er. If he feels that by so doing he is not obtaining the allowance for expenses to which he is equitably entitled, ould claim any balance in making his general return r Schedule D. The surveyor would probably consider the extra maid was not employed solely for the purposes e appointment, but had duties to perform in connexion the general practice.

ANSWERS.

SPIROCHAETA PALLIDA.

asks to be given some idea of the size of *Spirochaeta da.* It varies from about 4 μ to 10 μ in length, the ge length being about 7 μ. It is extremely slender, the th being generally much less than $\frac{1}{2}$ μ. The number of s in the organism varies from 3 to 12. A good oil rsion lens is necessary for its identification.

THE CLINICAL HISTORY OF ELEPHANTIASIS.

US.—We are advised that the case described by our spondent is one of elephantiasis with attacks of filarial hangitis. The usual history of many of these cases is here are repeated attacks of lymphangitis, after each ich a little thickening is left. This goes on until the passes insensibly into a condition of elephantiasis.

The lymphangitic attacks generally go on and more and more thickening takes place, the skin, if exposed, becoming very much hypertrophied and the limb or part of the limb attacked attains an enormous size. This condition is a late result of filarial infection; the adult worms have died and blocked the lymphatics, and this, together with inflammation, has caused the elephantiasis. Embryos are absent from the blood in this stage owing to the death of the adults. In examining blood for the embryos of *S. nocturna*, it must be taken between the hours of 8 p.m. and 8 a.m. Owing to their peculiar periodicity they disappear from the blood during the day, and therefore an examination made at this time will be negative.

BICYCLE SADDLES FOR LADIES.

DR. SARAH GRAY, F.R.C.S.I. (Nottingham) writes: The question of the saddle is so largely one of personal taste that my advice to patients is always, "Find the saddle which is thoroughly comfortable to you, and stick to that." But Dr. Mary Gordon's theory of riding seems to me so mistaken, and would have been to me so dangerous, that I am constrained to ask you to allow me to state the theory to which my practice of the bicycle has led me. For more than eight years I have done most of my practice on a bicycle with a Christy saddle. I ride in a busy town where many of the side streets are very roughly paved, where the regulation of traffic is minimal, and where we love liberty so much that every driver, from the motor-man to the coster, "cuts" every corner sharply to his own right, under the very noses of the police, regardless of any stray cyclist old-fashioned enough to keep the rule of the road. I once rode over a small dog which would not be avoided, and neither the dog nor the bicycle came to grief. Once a small boy dashed into my hind wheel, and caused the machine to lurch to what seemed an angle of 45°; when, to my great surprise, the gallant little Humber righted herself and kept on. I tell these things to show that the short saddle cannot be insecure. On the other hand, the short saddle has often saved me from serious accident, because it has been possible to slip off instantaneously, when a long peak on which one might have been impaled would have been deadly. My theory is that one rides a bicycle with one's *feet*, and that one only rides with perfect ease when the saddle is a mere fulcrum. Anything like gripping with thigh or sitting in an arm-chair, as in the Pedersen saddle, seems to me part of a faulty method. Riding is an active exercise, least fatiguing and most enjoyable when every joint and muscle works most freely. As to the Henson saddle, I am delighted to see its name again. It seemed to me the ideal saddle, but I saw it only after I had had my Christy in use some time. When I tried to get one, my dealer told me that the Henson was no longer in the market. The Christy should be tilted, so that even when the weight is on the springs the saddle slopes from behind forward. The peak is entirely useless.

LETTERS, NOTES, etc.

ETHYL CHLORIDE AS A GENERAL ANAESTHETIC.

DR. L. KIRKBY THOMAS (Anaesthetist to the Women's Hospital, Birmingham) writes: Your leading article on ethyl chloride is an excellent summary of the present possibilities and limitations of this anaesthetic. It is impossible for too much stress to be laid on the fact that in it we have a highly dangerous drug, and one which should not be used without the most careful consideration in each individual case, both as regards the general condition of the patient and his preparation for anaesthesia. In the latter connexion the very least that should be insisted on is abstinence from food for some hours previous to operation.

The so-called "safeness" of ethyl chloride lies in the smallness of the dose required to produce its specific effect. But the smallness of dose seems to me to be an element of danger, inasmuch as the range between what may be termed the proper amount and the fatal dose is much shorter than with other anaesthetics with larger doses. Hence death may occur so suddenly that an analysis of symptoms immediately preceding it is impossible.

Assuming that ethyl chloride is clinically analogous to chloroform, it is logical to suppose that the same methods of administration would be available. Owing, however, to the extremely volatile nature of the former we are compelled to use closed inhalers in giving it.

Now, it is well known what an extremely small amount of chloroform is required to produce its effects when administered in this way, and it would seem that the same should apply in the case of ethyl chloride. Acting on this principle, I have for the past twelve months given ethyl chloride in the following manner:

A small slit is made in the bag of a modified Ormsby's inhaler near the neck, and on its right hand side. This slit just admits the nozzle of a D. and F. ethyl chloride container, and closes when the nozzle is withdrawn. The inhaler is carefully applied to the patient's face, and he is instructed to take a couple of deep breaths. The nozzle is then introduced into the slit, the ethyl chloride tube being held vertically, so that the c.cm. index is plainly seen; the valve is then gently pressed upon, and the fluid sprayed very slowly into the bag, till the requisite state of anaesthesia is obtained.

The advantages I claim for this mode of administration are: (*a*) Practically complete control of the amount of anaesthetic taken by the patient. In the ordinary method of throwing a definite amount on to a sponge or into the bag part escapes during the process, some becomes frozen on the sponge owing to its extremely rapid evaporation, while another portion settles at the bottom of the bag, to evaporate in a more or less erratic manner. (*b*) The fluid is delivered in a gaseous state. (*c*) The danger of overdosage is reduced to a minimum.

Having used this method in a large number of cases, I am convinced of its superiority over the haphazard but commonly accepted mode mentioned above, and have been surprised at the very small amount of anaesthetic required in many of the cases.

A WARNING TO PRACTITIONERS.

VICTIM writes: I am reluctant to trespass upon your space, but I shall be very glad if you will permit me to give my brother practitioners a word of warning through your columns; it may save them from being victimized as I have been. There is a certain Eurasian practitioner at present doing locum work, who has caused me annoyance and injury to an extent that is hardly credible. From what I hear, he has treated other medical men in a similar manner. I make no complaint here against either Eurasians or Indians as a class; I only wish to put my fellow practitioners on their guard against a man whom it is dangerous to employ. The person in question can be easily identified by his extraordinary flow of eloquence upon the subjects of his own abilities and experiences. I confess I was not entirely free from suspicion as to his character when I engaged him at rather short notice to do a few weeks' locum work. Neither his appearance nor manner inspired confidence. I believe now that he wished to give me such a bad impression of him that I would be inclined to pay him a sum down to be released from the arrangement. I sincerely wish now that I had made the sacrifice. After I had left home he tried to give my family the impression that he was a dangerous man to cross. He boasted of having made himself so obnoxious to two former employers that they had severally offered him £100 to leave their neighbourhood. This I can readily believe. He also declared it was his habit to revenge himself upon any who had injured him in a manner quite Eastern in its completeness. On my return from the country I found a very unsatisfactory state of affairs, and discharged the man. The man's conduct is hard to understand, except on the hypothesis of mental trouble, for I had done nothing either by word or deed to arouse his hostility. He had no sooner left my house than he began a system of malicious persecution. He went round among my patients, circulating libellous statements concerning me, and in some instances telling those who owed bills that they need not pay them as the fees were not legally recoverable. This in one case necessitated my suing in a county court. As for the charges he made against me, they were so obviously untrue that I am glad to say very few of my patients gave them any credence. Not content with the revenge he had taken, he called upon my dispenser and tried to get his assistance in opposing me, and upon the dispenser's refusal he made use of threats. I discovered that during my absence he had called in a friend of his to pose as a consultant. He obtained a fee of £3 3s. for his friend, and handed over the case to him entirely, of course to my detriment. Possibly the medical friend kindly acts as a reference in return for such favours. All I have stated is capable of legal proof. If any other medical practitioners who have had a similar experience to mine, will kindly communicate with me through the medium of the JOURNAL, it may be possible to bring the matter to the notice of the Council. It may be asked why I have not already taken legal proceedings instead of writing this letter. Well, an appeal to the law is expensive and tedious. I have neither the time nor the money to spare for a prosecution; nor have I written this letter for the gratification of revenge. I shall be content if through my action the medical profession is saved from further discredit, and the public protected from insult and injury.

THE SINEW WHICH SHRANK.

DR. CHARLES E. WINCKWORTH (Shefford, Beds.) writes: In the BRITISH MEDICAL JOURNAL of April 28th Dr. E. D. Dingle asked what was "the sinew that shrank" in Jacob's thigh. Rev. Dr. Kitto averred that the Jews did not know, nor were they aware whether it was on the right or left leg. Consequently they never eat either hind leg themselves. I am at a loss to understand why the popliteus muscle, which lies at the back of the knee, should have been suggested. I have always understood that "the sinew" was the great sciatic nerve, and that the angel's touch contracted or paralysed it. In consequence of paralysis of the muscles supplied by that nerve, Jacob "halted upon his thigh." The nerve supply from the anterior central would enable the muscles in front of the thigh to act, so as to enable Jacob to stumble along with the help of a staff. I may be wrong in the latter surmise, but I cannot think that the word translated "sinew" need signify a muscle or tendon necessarily.

WANTED, ASSURANCE AGAINST PARTIAL DISABLEMENT.

A WOULD-BE INSURED writes: Can any of your readers be good enough to inform me of the name of a first-class sickness and accident insurance company suitable for medical men? I have seen the circulars of one or two societies including the Medical Sickness and Accident Assurance Company, but regret to find that such only insure against full disablement; and if a practitioner sees one or two patients whilst he is lying on his back with, say, a broken leg, his sick pay is at once stopped altogether, and no provision is made for partial disablement. I have spoken to many medical men on the subject, and they think with me there ought to be a clause in such societies' rules to allow of partial disablement pay. Fraud can be prevented by proper certificates—limited amount for a short period. A doctor's work being personal, there is hardly an illness or accident that he might have but that some of his patients would insist on seeing him for a few minutes in his bedroom or study. I trust some of your readers will be able to help me, and that the societies will take a more generous view of their work which I know would be much increased if they provided a partial disablement section.

PSORIASIS.

DR. WILLIAM HARDMAN (Blackpool) has addressed to us a letter commenting on Dr. Abraham's address on psoriasis published in the BRITISH MEDICAL JOURNAL of April 14th 1906, p. 842. Dr. Hardman points out that psoriasis is so common, and the disease or the liability to it lasts so long, that there must be a large amount of practical information within the knowledge of general practitioners. Dr. Hardman agrees with the saying that psoriasis is the skin disease of good health. If the subject of it is affected by any really serious disease, such as enteric fever, pneumonia, or severe anaemia, the psoriasis disappears, and one of the first signs of restoration to normal good health is the reappearance of the spots of psoriasis. He considers that possibly arsenic causes the disappearance of psoriasis in proportion to the injury it inflicts on the general health, since enormous doses have usually to be given, and as soon as the effects of the poisoning are recovered from the disease returns, but this may perhaps be true of thyroid extract. He has observed that the sufferers often have otherwise a very soft, thin, and delicate skin. He does not think that the disease has any connexion with the usually-recognized diatheses. He considers that in the present state of knowledge the disease is absolutely incurable, though it is easy to cause the local lesion to disappear; it often disappears spontaneously for long periods, but the constitutional liability remains. He adds that he has found the vapour bath the nearest approach to a cure, and writes: "Used sufficiently often and effectively, I think this will always cause the outward manifestations of the disease to disappear, and, when once gone, a very occasional use of the bath will suffice to keep the patient clear. A lady who had suffered from the complaint most part of her life was completely cleared by the bath. This lady had also suffered for many years from the complete disappearance of all her hair—hair of the head, eyebrows, eyelashes, etc. The baths not only 'cured' the psoriasis, but, to her—and my—amazement and delight, the hair of her head grew again strongly, so that ultimately she was able to dispense with a wig she had worn very many years. For a knowledge of the curative efficacy of the vapour bath I was indebted to Mr. Milton of the St. John's Hospital for Skin Diseases, Leicester Square. Mr. Milton invented a very convenient portable apparatus, which was of great service to many of my patients."

A CASE OF CENTRAL RUPTURE OF PERINEUM.

DR. SIDNEY THORP (London) writes: A case such as Dr. Arthur E. Dodson reported in the BRITISH MEDICAL JOURNAL of April 14th, p. 859, occurred to me in my practice about twenty-eight years ago and ended most satisfactorily. I have heard that such cases have been reported before, but during a period of forty years I only remember having had this one case myself. I regret that I cannot give particulars, as the case is not in my notebook.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	£0	4	
Each additional line	0	0	6
A whole column	2	13	4
A page...	8		0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

Remarks

ON

UNG COMPLICATIONS AFTER OPERATIONS WITH ANAESTHESIA.

By G. E. ARMSTRONG, M.D.,

SURGEON, MONTREAL GENERAL HOSPITAL.

E incidence of lung complications after operations with esthesia are of interest and importance. They contri- e not a little to increase the rate of mortality. With a w of determining their frequency and the associated ditions under which they most frequently occur I ed Dr. Guy Johnson to look through the records of the gical Department of the Montreal General Hospital for period beginning January, 1902, and ending June, 5. All cases operated upon under anaesthesia and aining in the hospital for at least three days afterwards e been included. They number 2,500. Cases which ether for examination or the reduction of dislocations, remaining in the hospital for three days afterwards, not included. No cases have been taken from the aecological department. Ether was administered in ly all cases by means of the Clover inhaler.

nong the 2,500 cases, 55, or 2.2 per cent., developed some complications; 32, or 1.28 per cent., came to autopsy. information regarding the others we have referred to notes taken from the house-surgeon's report, or to the ial report of one of the visiting physicians called in ultation. The youngest case was 1 year of age and oldest 78. There were 40 males and 15 females, that about the proportion in which the sexes are repre- d in the operations. Out of 55 cases that developed complications, 35 occurred during the cold months of ear, from November to March inclusive. Not one nce of lung complication occurred in the last 500 . The lung complications all developed within forty- hours after the administration of the anaesthetic. Of 5 cases, 37 had some septic focus before the develop- of the lung complications. In 8 cases the presence physema was noted before the administration of the thetic. In one case the patient suffered from chronic hial asthma, and in 9 cases chronic nephritis was nt.

following table shows the variety and frequency of veral lung conditions noted:

omplications.	Number of Cases.	Percentage Occurrence.	Number of Deaths.	Percentage Mortality.	Abdominal Cases.	Age Incidence.	Sepsis.	Aspiration.	Emphysema.
nia	30	1.20	22	0.88	15	—	22	5	1
... ...	14	0.56	9	0.36	7	40-60	10	1	1
ar	16	0.64	13	0.52	8	50-80	12	4	—
ronchitis	19	0.76	10	0.40	11	15-35	11	1	6
... ...	6	0.24	0	0.00	1	18-50	5	1	1
... ...	3	0.12	0	0.00	1	18-50	2	0	1
... ...	1	0.04	0	0.00	0	18.50	1	0	0
nt	2	0.08	0	0.00	0	18.50	2	1	0
otal	55	2.2	32	1.28	27	—	38	7	8

5 cases may again be divided as follows:

nong the 14 cases of lobar pneumonia there were psis of some form. In 8 of these there was peri- 3 being due to typhoid perforation; 3 had chronic is, 1 aspirated vomitus, 1 suffered from fractured d 1 from diabetes.

ere were 16 cases of bronchopneumonia, among ing 12 cases of sepsis of some form, including 6 peritonitis, 1 of which was secondary to typhoid ion; 3 had nephritis, 4 aspirated food or vomitus, rephining cases, and in 6 there was pre-existing ma.

ong the 19 cases of bronchitis there were 5 of ng, in 7 there was peritonitis, in 3 nephritis; in 2 as pre-existing emphysema, 1 with chronic is; in 1 there was typhoid perforation, and another had tracheotomy performed; this one aspirated blood.

4. Of the 3 cases of plastic pleurisy 2 were associated with tuberculous cervical adenitis, and 1 with cancer of the sternum; all these recovered.

5. There was 1 case of pleural effusion occurring in a patient suffering from suppurative mastitis with pleurisy on the same side.

6. There were 2 cases of empyema, 1 following excision of an epithelioma from the lower lip. There was no history of pneumonia preceding the empyema. One followed an operation for appendicitis with abscess and generalized peritonitis.

Among the more commonly recognized causes of post-operative lung complications are the anaesthetic itself, aspiration from the mouth and pharynx, emboli, cooling of the body surface, weak heart action with hypostatic congestion, local and generalized sepsis. This series of cases would not seem to show that the administration of ether *per se* was a very active cause. In nearly all instances other more highly probable etiological factors were present. Aspiration from the mouth and pharynx under certain favourable circumstances was followed in a large percentage of cases by pneumonia or bronchitis. For instance, in 39 cases of trephining lung complications ensued in 8, or 20.50 per cent. These trephining operations were mostly done for compound depressed fractures of the skull. These patients in many instances had a very small amount of ether, the coma being so profound that very little ether was required. Notwithstanding the fact that in all these cases special nurses were detailed to watch these patients night and day, and so far as possible to keep the mouth and pharynx clear of secretion, yet lung complications developed in 20.50 per cent., and in those that came to autopsy there were generally evidences of aspiration of vomitus or food. In these cases, even when no anaesthetic has been given at all, if the patients remain unconscious for two or three days they are very likely to develop lung trouble from aspiration.

The next group of cases showing the largest percentage of lung complications are those of local and generalized septic peritonitis. In the 2,500 cases are 952 of abdominal operations. In these lung complications occurred in 27, or 2.8 per cent. On further examination it is found that 26 of these cases occurred in a group of 371 cases of appendicitis with abscess, or peritonitis secondary to abscess, or infection from the appendix vermiformis, or typhoid perforation, and in operations for hernia. Clearly, then, septic infection within the peritoneal cavity in the lower abdominal region predisposes to the occurrence of lung complications. In the upper abdomen were 37 operations upon the bile passages and 31 upon the stomach and transverse colon. Among all these 68 cases was 1 case of bronchopneumonia, which developed in an old lady the subject of chronic bronchial asthma, from whom gall stones had been removed from the gall bladder and common duct. In this group the infection may have been carried up through the diaphragm. There may have been aspiration of vomitus or infection from the blood or lymph channels. If in these abdominal cases the infection was through the blood vessels, one would expect to find more frequently evidence of infection in the liver. This is rare. So that one looks more to the infection being carried through the diaphragm, or by the lymph vessels, or into the bronchi from the pharynx.

There were 14 cases of lobar pneumonia. Of these, 2 were bilateral, 8 on the right side and 4 on the left. Of the 8 lobar occurring on the right side, 1 was in the apex and 7 in the base. When it is remembered that the right bronchial tree is larger, it would seem reasonable to assume that aspiration was an important etiological factor in these cases, and the infection more easily conveyed to the right than to the left base. Henle reports 1,787 abdominal operations followed by 143 cases of pneumonia, or 8 per cent., with a mortality of 65, or 3.6 per cent. Czerny, 1,302, with 52 cases, or 3.9 per cent., of lung complications. Kummell, 1,754 laparotomies, with 43 cases, or 2.5 per cent. Kausch, from Mikulicz's clinic, 1,881, with 45 cases, or 2.33 per cent. Kelling thinks that the infection is frequently carried up through the diaphragm, and that the occurrence of pneumonia in his abdominal operations has been decidedly less frequent since he adopted the practice of placing a large gauze wrung out of a normal salt solution in the hollow of the diaphragm as soon as the abdomen was opened.

There are other conditions which one would think might naturally contribute to the development of lung diseases after abdominal operations. The operations are occasionally long and tedious, the patient leaving the table sometimes with a weak heart action, and the surface of the body more or less cold, and with blood deteriorated.

Any mucus lying in the bronhcial tubes is with difficulty expectorated for hours afterwards, and these conditions with a weak heart action are certainly factors to be avoided as far as possible. Then, again, the abdominal muscles play an important part in respiration and the post-operation abdominal soreness, and the pain caused by the divided muscles and suture line, whenever an attempt is made to cough or take a long breath, may readily favour the remaining in the bronchial tubes of more or less secretion. Patients the subject of emphysema, as will be seen from the table, seem more likely to suffer from bronchitis than from pneumonia.

The preventive measures which would seem to suggest themselves from a study of these cases relate in the first place to the anaesthetist. He should certainly be a well-trained man of judgement and experience, willing to give his whole attention to the administration of the anaesthetic, instead of watching the operator at his work. The greatest care should be observed in administering the ether slowly and sufficiently diluted not to excite a hyper-secretion of mucus in the air passages. Possibly a previous administration of scopolamine may prove to be a useful preventive measure. Stomach lavage in emergency cases is often useful by removing from the stomach food and liquid which may be vomited and then partly aspirated. All parts of the body not necessarily exposed should be kept thoroughly wrapped in warm blankets.

There are undoubtedly predisposing causes of post-operative lung complications, among which may be mentioned age, sex, alcoholism, cachexia, and sepsis. Just in what way these different causes favour the development of lung complications is not easy in all cases to determine. Probably there are more influences than one, but it would seem from study of this group of cases that one important factor is the predisposition to inspiration of irritating and septic matter from the mouth and pharynx. If the infection comes from the lymphatics and blood vessels it is not clear and is not evident in the autopsy room why there is a predilection for the right side and the base. In fact, I am so much impressed with the importance of preventing inspiration of mucus and vomitus from the pharynx that I have made it a standing rule in my wards that, beginning the evening of the day before the operation these patients shall have nothing but sterilized water to drink, and shall frequently use during that evening and the following morning an antiseptic mouth wash, and that the greatest possible care shall be taken by the anaesthetist during the period of anaesthesia and afterwards by the nurses in the ward to keep the mouth and pharynx clean and so far as possible free from an accumulation of mucus and secretions. Another point which I believe to be of importance is that these patients, after being returned to the ward, shall be so placed that by no possibility can a current of cold air pass over their chest.

I wish here to thank Dr. Johnson for his careful and painstaking work and assistance in preparing this paper.

THE late Miss Eliza Barber, formerly of Dublin, left £5,000 to the Meath Hospital for a new ward, to be called the "Eliza Barber Ward"; £2,000 each to the Mercers' Hospital and the City of Dublin Hospital; £200 each to the Adelaide Hospital and the Mater Misericordiae Hospital, and £100 each to the Convalescent Home, the Incurable Hospital, and the Cripples' Home, Usher's Island.

THE Hon. Charles Arthur Ellis, of 36, Piccadilly and Shottermill, Surrey, who died on March 30th, bequeathed £1,000 each to the Metropolitan Convalescent Institution, the All Saints Convalescent Hospital, Eastbourne, the Victoria Hospital for Children, Chelsea, the Cripples' Home and Industrial School, Marylebone, the Royal Hospital for Incurables, the British Home for Incurables, Earlswood Asylum for Idiots, and the Surgical Aid Society.

POST-ANAESTHETIC ACETONURIA:

THE SIGNIFICANCE OF DELAYED CHLOROFORM POISONIN AND THE ADVANTAGES OF ETHER OVER CHLOROFORM IN ACUTE INFECTIVE CONDITIONS.

By LEWIS BEESLY, F.R.C.S.EDIN.,
RESIDENT SURGEON TO THE ROYAL HOSPITAL FOR SICK CHILDREN
EDINBURGH.

MY attention having been drawn to certain articles o acetonuria, acid intoxication, and delayed chlorofor poisoning, I thought some investigations might wit advantage be carried out with the endeavour to ascerta the significance of the presence of acetone in the urine i surgical cases, and with the object of explaining some o the toxic symptoms following the administration o general anaesthetics. With this in view I have during th past nine months carried out a series of examinations o the urine of patients before and after operation. Thes observations were made on children from 4 to 12 years ol operated on by Mr. Stiles and Mr. E. Scott Carmichael a the Royal Hospital for Sick Children, Edinburgh.

I do not propose to discuss the various theories whic have been advanced as to the origin of acetone or diaceti acid; the most recent information on this subject will b found in the papers by Stiles and Macdonald,[1] Bracket Stone and Low,[2] and Kelly.[3] In this paper I wish t report a series of investigations on the presence an excretion of acetone which are associated with certai clinical phenomena, the significance of which does n appear to have been sufficiently appreciated. I hope t be able to show that some of the unpleasant after-effec and untoward results of the administration of chlorofor may be avoided or combated. The results have all bee obtained from a careful quantitative estimation of th acetone from specimens of the total twenty-four hour excretion of urine, except in those cases in which eith immediate operation or a fatal termination prevented i in these cases specimens were obtained from as much the urine as could be collected. Every specimen w examined in addition by two qualitative tests for aceton a search was also made for diacetic acid, sugar, albume and casts.

Acetone is present in the urine in many different cond tions, and is much more common than is usually su posed. There is so little in healthy urine, that it cann be detected by colour tests, but by a quantitati estimation a trace is generally found. I have found it every case after operation by the colour tests, except one fatal case (see Chart 14).

The clinical similarity of the symptoms described occurring in so-called acid intoxication, acidosis, aceto uria, and delayed chloroform poisoning seems to point a similar metabolic disturbance in the organism, one the ultimate products of which is acetone, and this produ occurs with the greatest regularity after the administ tion of a general anaesthetic. I think I shall be able show that a certain degree of intoxication or poisoni occurs after every surgical operation in which a gene anaesthetic is administered. What determines the exte of the poisoning has yet to be discovered; I shall sho however, that its frequency and degree may be minimiz by a careful choice of the anaesthetic and by suita prophylactic measures.

Besides the cases of delayed chloroform poisoni which prove fatal, we meet with every degree of intoxi tion down to those in which the symptoms are so sli as to be overlooked altogether or misinterpreted, and observations go to support the correctness of the vi expressed by Stiles and Macdonald that these sympto have frequently been erroneously attributed to dela shock or sepsis.

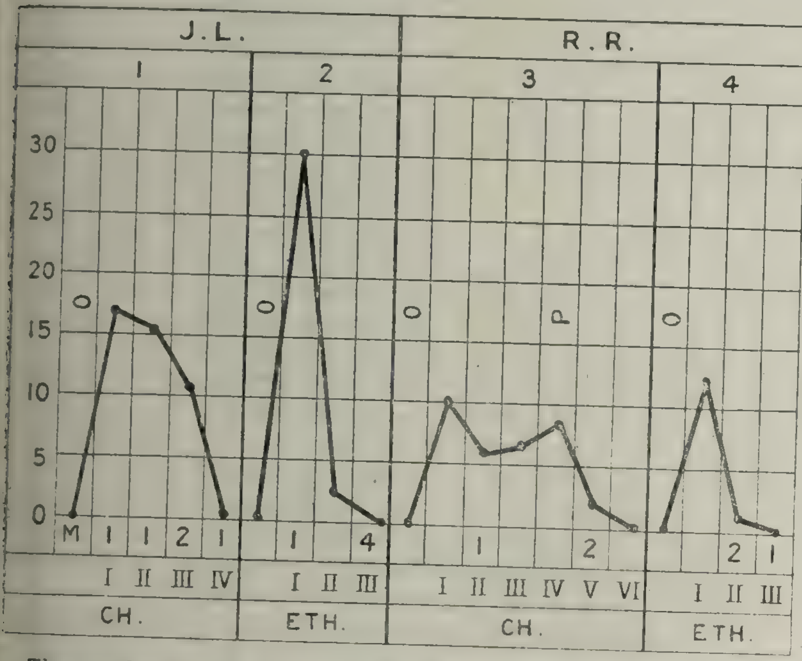
I propose dividing the cases I have examined into t groups:

1.—*Apparently Healthy Children whose Urine before An thesia contained no Acetone or only the Faintest Trace of*

Cases illustrating this group are shown in Charts 1 3, and 4. It will be seen that the acme of acetone ex tion is reached within the first twenty-four hours a operation. In these cases, while there were no clin manifestations of chloroform poisoning, the presence acetone in the urine showed that an abnormal katab process had been determined by the anaesthetic.

curve shows that the acetone is produced rapidly and excreted quickly. The elimination of the acetone may be retarded by constipation. Hence it is probable that a certain amount of acetone is excreted by the bowel, and that constipation throws an extra burden on the kidneys. If a smart purge be given there is at once an acceleration in the excretion of the acetone, as is shown by the more rapid descent of the curve (Chart 3). The curve of descent may also be modified by the occurrence of sepsis. In a case in which the acme of acetone excretion was reached the day after operation and the normal decline appeared on the second day, the onset of sepsis at once caused a rise in the acetone excretion which was slightly maintained while the suppuration was progressing. The duration of the acetonuria may be seen by reference to Charts 1, 2, 3, and 4: it generally lasts three or four days, but may be considerably prolonged by the presence of sepsis.

So far I have only referred to chloroform; when ether was employed a different result was observed. Charts 2 and 4 show that, while the acme of excretion was higher after ether than after chloroform, the rapidity of excretion was greater after the former.



The numbers at the sides of the charts indicate in milligrammes the acetone in every 50 c.cm. of urine passed. The Roman numerals refer to the days after operation. O, Operation; P, purgative.

No. 1.—J. L., 9 years. Osteotomy of femur. Chloroform drachms. Anaesthesia of 15 minutes.

No. 2.—J. L. Osteotomy of the other femur. Ether drachms. Anaesthesia of 11 minutes. Acme higher and escent more rapid than in No. 1.

No. 3.—R. R., 7 years. Osteotomy of femur. Chloroform drachms. Anaesthesia of 25 minutes. Shows the rise of e curve due to constipation and the drop following the tion of the purgative.

No. 4.—R. R. Cuneiform osteotomy of the tibia and wiring. ther 2 oz. Anaesthesia of 43 minutes. Note that the nount of acetone is less here than in Chart 2, although ore ether was administered, a fact which seems to point idiosyncrasy. The acetone in the urine did not give rise any symptoms of poisoning.

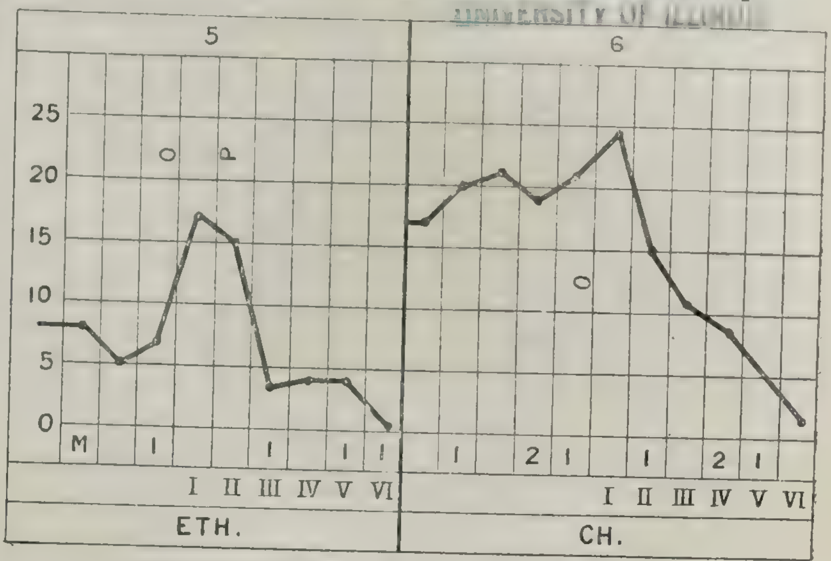
—Children whose Urine before Anaesthesia contained an appreciable quantity of Acetone, and who usually suffered from some Constitutional Condition more or less severe.

The cases in this group are divided into (1) chronic d (2) acute acetonuria.

CHRONIC ACETONURIA.

In chronic acetonuria the production and excretion of etone is constantly proceeding. The quantity of tone passed varies within wide limits. In some cases ly 1.5 mg. are passed with every 50 c.cm. of urine; in ers as much as 20.0 or 25.0 mg. are passed with every c.cm. The less the amount of acetone passed the arer do these cases approach those belonging to the group, and they react similarly to the anaesthetic. e action of the anaesthetic in producing acetone is less rked the greater the degree of pre-existent acetonuria. e degree of acetonuria is variable in the same case day day, sometimes, however, remaining fairly constant, as soon as the cause of the acid intoxication is moved the descent of the acetone curve is rapid. I have found that the duration of the operation or any particular anaesthetic has a more detrimental action on these cases than on those included in the first group.

UNIVERSITY OF ILLINOIS



Chronic acetonuria. O, Operation; P, castor oil.

No. 5. *Chronic Appendicular Abscess of Five Weeks' Duration.*—M. G. Anaesthesia of 16 minutes with ether 2 oz. from a Daniell inhaler. Note the fall of the curve after the castor oil (P).

No. 6. *Chronic Cystitis.*—J. B., 7 years. Eighteen months' duration. Chloroform 5 drachms. Anaesthesia of 25 minutes. Suprapubic cystostomy. Neither of these patients showed any injurious effects after the anaesthetic.

Chronic acetonuria appears as the result of a constant absorption of toxins whose source may or may not be discoverable. It is of course obvious in such cases as are represented in Charts 5 and 6 but is more obscure in infantile paralysis, in which condition I have found an average of 2 mg. to the 50 c.cm. of urine passed.

Brackett, Stone, and Low [2] state that special care should be exercised in operating in cases of infantile paralysis with extensive muscular wasting. Their reason appears to be that poisoning has more often occurred in this condition among their cases than in any other condition. I have not, however, seen any indication that poisoning is more frequent in such conditions. During the last year and a half twenty-five operations have been performed at the Royal Hospital for Sick Children on patients suffering from some deformity or weakness due to infantile paralysis.

The operations have included arthrodesis of the knee and ankle and tendon transplantation. There were no deaths, and no case exhibited symptoms of acid intoxication. In three cases there was very slight vomiting on the evening of the operation. Chloroform, or chloroform and 12 per cent. alcohol, was the anaesthetic employed, except in 4 cases where ether was employed for comparison.

DELAYED ACETONE EXCRETION.

Before discussing acute acetonuria it will, I think, be advisable to enter into some account of the connexion which exists between the period of delayed acetone excretion and the clinical symptoms of poisoning which accompany this period. In the first group of cases I have shown that the normal acme of excretion occurs within twenty-four hours of operation. Cases are met with, however, where this normal elimination is altered. Some children, for no apparent reason, are more susceptible than others to the actions of anaesthetics, the result being a delayed acetone excretion, the acme not being attained for one, two, or three days after operation. Concurrently with this delayed excretion there occur toxic symptoms, which pass away as soon as the acme of excretion is reached.

The following case is a typical example of delayed acetone excretion.

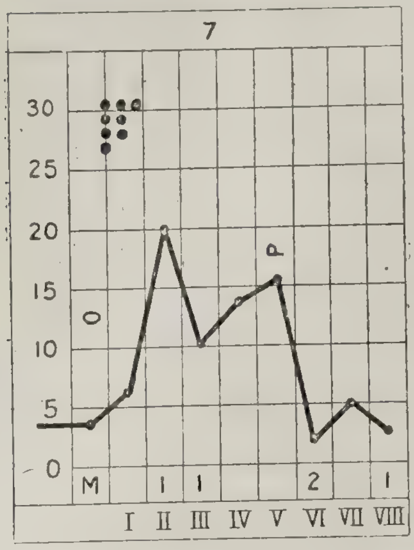
7. *Tuberculous Cervical Adenitis.*—A. R., 5½ years, admitted October 18th, 1905.

History.—Always a healthy boy. About eleven months ago a swelling appeared in the neck; steady increase ever since; two months ago a sudden enlargement was noticed; never any pain. A sister had a similar condition of the neck, and an uncle died of phthisis.

State on Admission.—A pale, ill-nourished boy, with a large cold abscess behind and below the angle of the jaw. Enlarged tonsillar and deep carotid glands, with periadenitis. Some isolated glands in the posterior triangle.

Operation.—October 19th. Excision of the abscess wall and all the glands by means of a large inverted J-shaped flap.

Anaesthesia of 44 minutes, with mixture of chloroform and 12 per cent. absolute alcohol.



Delayed excretion. O, Operation; P, castor oil; dots, vomiting.

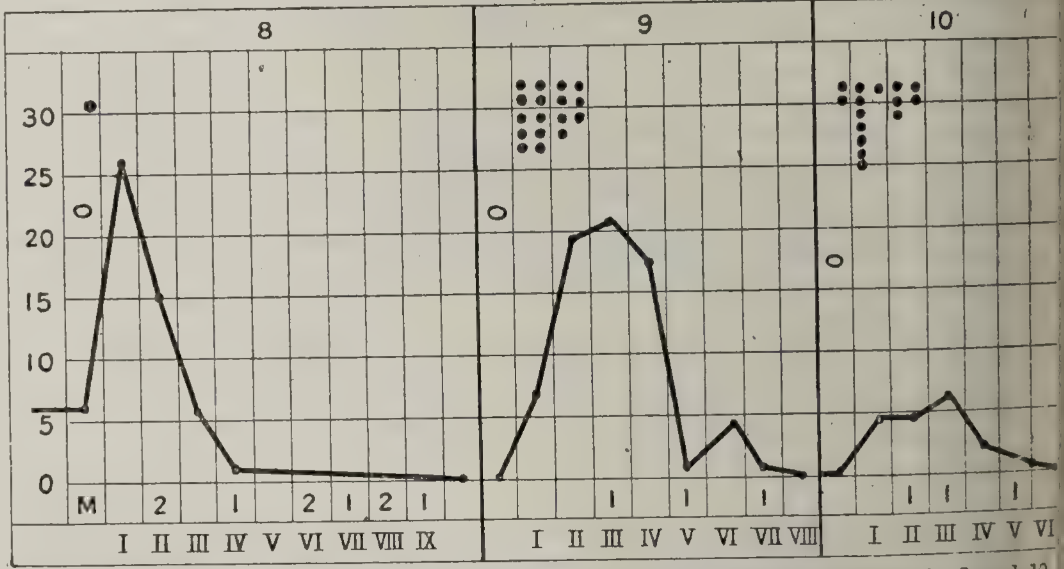
Condition after Operation.—Some slight vomiting on recovering consciousness. Slept quietly for some hours. By 7.30 p.m. marked smell of acetone in the breath and repeated vomiting; restless, excited, and very thirsty. By 1 a.m., October 20th, the vomit had become slightly coffee-ground, pupils widely dilated; very restless, and calling out. Gradually became sleepy, but wakened at intervals with vomiting, no longer haemorrhagic. Odour of acetone very strong in the breath; this became less towards evening. The vomiting ceased, and a general improvement in the boy's condition set in. The remainder of the convalescence was uneventful. The chart (No. 7) shows that the acme of excretion was not reached until the second day after operation, when the symptoms of poisoning had passed off. The second rise in the chart points to constipation relieved by castor oil. Note the black dots which represent the vomiting.

A graver form of delayed acetone excretion may occur after operation, and is shown by a sudden fall in the acetone curve instead of the gradual ascent. The symptoms accompanying this form resemble those of the former condition, but are more exaggerated. The prognosis in these cases is far more serious, and the two I have met with following chloroform narcosis ended fatally a few hours after operation. I shall refer to these cases later when describing acute acetonuria.

That less acetone is passed after operation than is expected suggests that either less is being produced or that some condition has arisen which prevents it being excreted. The first suggestion can, I think, be dismissed, for the odour of it in the breath affords undoubted proof of the presence of acetone.

That some condition has arisen which hinders or prevents the excretion of the acetone is shown on the one hand by the decrease of the acetone in the urine, and on the other by the appearance of the acetone in the breath associated with other toxic symptoms. Concurrently with the disappearance of the toxic symptoms and the odour from the breath there is an increase of acetone in the urine.

The frequency of this condition after chloroform as compared with ether at once suggests the possibility that there is some additional factor present in chloroform narcosis which, besides producing acetonuria, acts on other organs, rendering them incapable of reacting to the strain of the acetone excretion. The examination of the liver and kidneys of animals experimentally anaesthetized, some with chloroform and some with ether, has demonstrated that the action of chloroform is much more detrimental than ether.



Showing normal curve of acetone excretion in 8, and signs of poisoning in 9 and 10. O, Operation; dots, vomiting.

These experimental results are fully corroborated by the practical evidence of the cases of acute appendicitis described below.

It is impossible to predict before operation whether any particular child will suffer from delayed excretion; experience shows that the condition is more frequent after certain operations than after others, but no definite rule can be laid down, except that if acute acetonuria (the condition next to be described) is present and chloroform be the anaesthetic employed, death will probably result.

There is no relation between delayed acetone excretion, duration of operation, or amount of anaesthetic administered, therefore I agree with the suggestion of Stiles and Macdonald that idiosyncrasy plays an important part in the reaction of the patient to chloroform. It is a well-recognized fact that certain individuals are more susceptible to poisons than others, and I consider that death following delayed chloroform poisoning is the result of the special reaction of the individual to the drug. Guthrie would have us believe that there is a particular pre-existent condition of the liver which is accountable for the post-anaesthetic poisoning of the patient, but if this be so the livers in all children suffering from delayed acetone excretion, which occurs as an antecedent stage in delayed chloroform poisoning, must be in a more or less fatty condition. I cannot understand his difficulty in accepting the theory of idiosyncrasy, especially when the pathological changes following the administration of chloroform have been so clearly shown by experimental work. Brackett, Stone, and Low[2] state that

> The comparatively small amount of acetone excreted in one of our cases shows that the quantitative estimation of the acetone excretion does not give a true index of the severity of the condition, and that the presence of any considerable amount of acetone in the urine should be considered as a probable sign of a more or less serious acid intoxication.

This is rather a sweeping statement to make on the strength of their single calculation. The experience of over 200 quantitative estimations has convinced me that a daily quantitative test of the acetone in the urine clearly indicates the course the case is taking. The important point is not so much the amount of acetone as whether the acme of excretion is or is not delayed. It is, I think, impossible to tell by any of the rough colour tests the difference between a urine containing one day 3 mg. of acetone per 50 c.cm., and the next day 6 mg. of acetone per 50 c.cm.; and on a difference as small as this symptoms of poisoning may depend. Misconceptions are likely to arise through an irregular and imperfect examination of the urine. In many of the cases described by previous observers no examination of the urine was made either before the operation or in the interval between the operation and the onset of the delayed poisoning which first drew attention to the presence of the acetone. Had the examination been made, two points of interest might have been disclosed: (1) That acute acetonuria was present before operation; or (2) that the anaesthetic at the operation had set up acute acetonuria combined with some degree of delayed excretion.

Acetonuria of varying degree follows the administratio of every general anaesthetic, but symptoms of intoxicatio only occur when the kidneys are failing to excrete th acetone, and when death follows it is due to the inabilit of the kidneys to do "overtime," so to speak.

Two out of the three following cases exhibit signs (poisoning. The third case is inserted for compariso and is quite normal.

No. 8. *Tuberculous Cervical Adenitis.*—H. H., $5\frac{1}{2}$ year Chloroform 4 drachms and 12 per cent. absolute alcohol. Anae thesia of 36 minutes. Excision. No symptoms of poisonin Note the chronic acetonuria present before the operation. Th glands had been present for eighteen months. The acme excretion is shown on the day after operation, and th descent is also normal though slightly protracted. This cha is inserted here for comparison with the two following, whic exhibit symptoms of chloroform poisoning.

No. 9. *Tuberculous Osteomyelitis of Inferior Maxilla.* W. M., $10\frac{3}{4}$ years. Subperiosteal resection of part of the bod and ascending ramus. Chloroform 10 drachms and 12 per cen solute alcohol. Anaesthesia of 40 minutes. The odour of etone was perceptible the same evening, and was more rked throughout the next day. He suffered from extreme stlessness and thirst. The vomiting was most profuse but ver reached the haemorrhagic stage. The symptoms passed gradually on the third day after the operation, and had ite disappeared by the evening. Note that the acme of tone excretion was not reached until the third day after ration.

o. 10. *Tuberculous Cervical Adenitis.*—A. P., 5¾ years. cision. Chloroform 6 drachms. Anaesthesia of 36 minutes. pale, weakly boy, with a tendency to constipation. The nds had been present for nine months. Operation at mid- ; by 7 p.m. odour of acetone in the breath. Uncontrollable niting began one hour later; by 2 a.m. it had become htly baemorrhagic; sod. bicarb. (30 gr.) were given four- rly. He was extremely restless, excited, and cried out at es. The pupils were widely dilated. His thirst was essive, and every few minutes he called for a drink. He ame drowsy, and vomited less during the following day, that evening the persistent vomiting returned, though er becoming haemorrhagic. On the morning of the third improvement began; the vomiting was less, and the smell cetone, which had been present up to the night before, disappeared. He was much more comfortable, and could in his milk. Convalescence after this was uninterrupted. sod. bicarb. was reduced in quantity, the urine having me alkaline. An enema was given, with slight result, on norning of the second day, and calomel (2 gr.) that night. chart shows that the acme of acetone excretion was not ied until the third day after the operation. Normal ent. In Charts 9 and 10 the acetone curve of the three following seems to show, when compared with the dura- of the symptoms, that the kidneys were struggling to nmodate themselves to the amount of acetone requiring tion. For the first two days they could not accomplish work, with the result that symptoms of poisoning red. These symptoms of poisoning did not pass away the kidneys had accommodated themselves to what was red of them. This was shown by the rise of the acetone to its acme on the third day. Just before or at the ent when the acme of excretion was reached the toms of poisoning disappeared. The decline of the curve ed the course of a normal case, and there were no further toms of poisoning.

Acute Acetonuria.

te acetonuria is developed during the onset of infective conditions, and the quantity of acetone ted is usually great. A large amount of acetone is d. The liver and kidneys attempt to eliminate it, ng at their highest pressure, and though unaccus- l to excreting acetone, they cope with the condition nt, and no signs of poisoning appear. Should oform be administered at this stage, the extra nt of acetone formed from the action of the drug, ned with its special irritative qualities on the cells liver and kidneys, produces a sudden fall in the ity of acetone excreted; this may in some cases nt to a total stoppage of elimination. Symptoms of ing ensue with great rapidity, and are more exag- d than those described under delayed acetone ion.

difference in the action of chloroform in cases of c or acute acetonuria depends on whether or not lneys are accustomed to the excretion of acetone. ammation of detrimental influences, namely, the acetonuria due to the infective condition, the acetonuria and pathological changes due to the of the chloroform, cause a breakdown in the ation.

chloroform hinders the excretion of acetone to a extent than ether is seen by Charts 1, 2, 3, and 4, e following results substantiate this, showing that orm is a most dangerous anaesthetic in children g from acute acetonuria. Up to a year ago all the acute appendicitis operated on at the Royal Hos- r Sick Children, Edinburgh, were anaesthetized loroform. The results show how disastrous this death followed in a large proportion of the cases, ter whether the infection was limited or general, the nature of the infection was proved to be by opic or cultural examinations. The following described in full, as it is a typical example of the n I am attempting to describe.

A Case in Point.

8½ years. was in perfect health until October 20th, that evening she complained of some discomfort tomach, but slept well. The next day, October 21st, was indefinite and much the same, not constant in . She was kept in bed. On October 22nd the pain became worse over the lower part of the abdomen, and now and then shot towards the right side. Sleep was much disturbed. On October 23rd the pain was rather less, but came on in spasms suddenly on the right side of the lower part of the abdomen. The bowels had acted daily, and there had been no vomiting or pain on micturition.

State on Admission.

Rather flushed. In no way distressed; laughs and talks, and says her stomach is a "wee bit sair." Respiration easy and causing no pain even when deep. Tongue moist and clean. Abdomen moving freely and no swelling visible anywhere. No pain on light palpation over the abdomen, but some resistance on deeper pressure over the lower part on the right side. No mass to be felt and no dullness on percussion; nothing to be felt by the rectum, which was not ballooned. Temperature 100.6°, pulse 114; leucocytes 28,000; glycogen reaction positive.

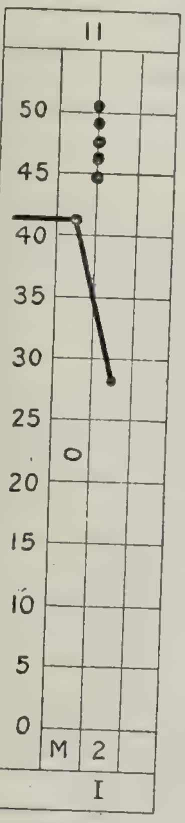
October 24th. Abdomen distinctly harder. Temperature 101.4°, pulse 124.

Operation.

1 p.m.: Incision 2½ in. long in the right linea semilunaris. Peritoneum opened. No adhesions or peritonitis visible. Caecum bound down by a mass at the brim of the true pelvis immediately below the ileo-caecal valve. General peritoneal cavity protected with gauze and the mass explored. Evil-smelling pus at once appeared, and was carefully swabbed away. It was thought advisable not to search for the appendix. A large drainage tube was passed down to the pelvis, and iodoform gauze packed around it to protect the rest of the abdomen. The incision was then partially closed, and the child sent back to bed apparently none the worse for the operation. The anaesthetic was chloroform and 12 per cent. absolute alcohol. Three drachms were used, and the total anaesthesia lasted 18 minutes.

Condition after Operation.

3 p.m.: There has been a little blood-stained vomit and the pupils are widely dilated. She seems comfortable, and says she is in no pain. Pulse 108. 4 p.m.: She is not looking so well, and has vomited a quantity of "coffee-ground" matter, and is constantly asking for drinks. Temperature 100°, pulse 118. 5 p.m.: Has again vomited "coffee-ground" matter, and is getting restless, and inclined to throw her arms about. Pulse not so strong. Saline and adrenalin given subcutaneously. Stomach washed out with saline and sodium bicarbonate, some of the latter left within. She is lying with her pupils widely dilated and her eyes half shut. There is a strong smell of acetone in her breath. Stimulants given. 6 p.m.: Is more restless, and has some "air hunger"; pulse hardly so good. Will answer when spoken to. Has vomited everything left in stomach; blood-stained. 8 p.m.: Is much worse. Calling out and screaming, with intervals of rest. Pulse, 145 to 150; "air hunger" more pronounced. Strong smell of acetone. Very thirsty. Has not vomited since last note. 10 p.m.: Increasing difficulty in swallowing; harder to rouse; breathing laboured; strong smell of acetone; has not vomited. 11.30 p.m.: Has again vomited "coffee-ground" material; some twitching of the face and fingers; unconsciousness coming on; the respirations are much slower; she takes a few shallow breaths, pauses, and then with an effort takes a deep inspiration; no pulse to be felt. 12.20: Death; temperature 106°. Microscopic and cultural examinations of the pus showed a streptococcal infection.



Acute acetonuria.

Post-mortem examination: A gangrenous appendix fixed to the edge of the pelvis. The right ovary formed the right wall of the abscess, left wall formed by the pelvic colon. No concretion and no general peritonitis. The liver, heart, kidneys, and spleen showed very extensive fatty degeneration; there were some haemorrhages in the spleen.

Notice in the chart (No. 11) the sudden descent of the acetone curve denoting the diminished excretion of acetone; the black dots represent the vomiting; the high degree of acetonuria before operation.

On looking back over the cases of acute appendicitis operated on at the Royal Hospital for Sick Children, Edinburgh, from January, 1904, the same symptoms may be traced after chloroform anaesthesia—the excitement, delirium, coma, the persistent uncontrollable vomiting becoming haemorrhagic or "coffee-ground," and ending generally in death. Sometimes the poisoning came on at once, sometimes it was delayed for a day or two.

As the deaths described as due to delayed chloroform poisoning so closely resembled the deaths occurring after operations with chloroform on children suffering from an acute infective condition combined with acetonuria, Mr. Stiles suggested using ether as the anaesthetic instead

Cases of Acute Perforating Appendicitis Operated on in the Royal Hospital for Sick Children, Edinburgh.

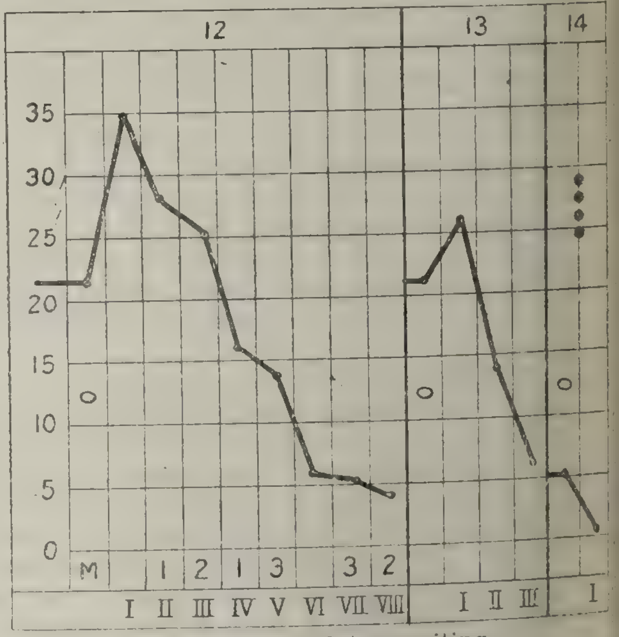
No.	Days.	Organism.	Infection.	Condition after Operation.	Result.	Autopsy.
				CHLOROFORM.		
2835	28	*B. coli*	Local	Uneventful	Recovery	—
2879	30	—	Local	Uneventful	Recovery	—
2881	7	—	Local	Symptoms of poisoning, delayed	Death	—
2891	2	—	Local	Uneventful	Recovery	—
2943	4	—	General	Symptoms of poisoning	Death	Marked fatty denenera
2980	4	*B. coli*	General	Symptoms of poisoning	Death	—
2992	2	—	Local	Symptoms of poisoning	Death	Marked fatty degenera
2997	9	*B. coli*	Local	Symptoms of poisoning, delayed	Death	Marked fatty degenera
3000	3	—	General	Symptoms of poisoning	Death	Marked fatty degenera
3017	9	*B. coli*	Local	Symptoms of poisoning	Death	Marked fatty degenera
3018	5	*B. coli*	Local	Uneventful	Recovery	—
3025	18	—	Local	Uneventful	Recovery	—
3058	5	*B. coli*	General	Symptoms of poisoning	Death	Marked fatty degenera
3061	13	*B. coli*	Local	Symptoms of poisoning	Death	Marked fatty degenera
3100	11	*B. coli*	Local	Symptoms of poisoning	Death	Marked fatty degenera
3120	2	—	General	Symptoms of poisoning	Death	Marked fatty degenera
3237	6	—	Local	Symptoms of poisoning	Death	—
3747	5	Streptococcal	Local	Symptoms of poisoning	Death	Marked fatty degenera
4024	3½	Streptococcal	Local	Symptoms of poisoning	Death	Marked fatty degenera
				CHLOROFORM AND ETHER.		
3230	2	—	Local	Symptoms of poisoning	Death	—
3372	1	—	Local	Uneventful	Recovery	—
3563	2½	Staphylococci and *B. coli*	Local	Uneventful	Recovery	—
				ETHER.		
2791	2	—	General	Uneventful	Recovery	—
3414	2	—	General	Uneventful	Recovery	—
3601	2	—	Local	Slight poisoning	Recovery	—
3661	5	—	Local	Uneventful	Recovery	—
3673	10	*B. coli*	Local	Uneventful	Recovery	—
3692	2	—	Local	Secondary abscess formation	Recovery	—
3704	8	Staphylococci	Local	Uneventful	Recovery	—
3719	3	*B. coli*	Local	Uneventful	Recovery	—
3720	17	*B. coli*	Local	Uneventful	Recovery	—
3723	4	*B. coli*	General	Uneventful	Recovery	—
3877	15	—	Local	Uneventful	Recovery	—
3905	6	—	Local	Uneventful	Recovery	—
3906	4½	—	General	Uneventful	Recovery	—
4022	2	—	Local	Uneventful	Recovery	—
4028	2	*B. coli*	General	No signs of poisoning	Death	Hardly any fatty degen
4075	4	*B. coli*	General	Slight poisoning	Recovery	—
4092	35	*B. coli*	Local	Faecal fistula	Recovery	—
4096	2½	*B. coli*	Local	Uneventful	Recovery	—
4112	2½	Streptococcal	Local	Uneventful	Recovery	—
4150	5	Streptococcal	Local	Uneventful	Recovery	—
4157	5	Streptococcal	Local	Slight poisoning. Secondary haemorrhage 19 days after operation	Death	Very slight fatty degen ulcers, and perforat caecum.
4200	5	*B. coli*	General	Severe poisoning	Recovery	—
4277	4	*B. coli*	General	Uneventful	Recovery	—
4283	6	*B. coli*	Local	Slight poisoning	Recovery	—

of chloroform. The results of this change prove beyond doubt which is the best anaesthetic to use in such cases. In the above table will be found a list of the cases treated in this manner. There is no reason to suppose that the cases this year were milder, or that the diagnosis was made earlier, and that the cases were sent in sooner to the hospital. The microscopic examination of the pus and the cultures from it show that just the same conditions were present as before.

The results of the foregoing statistics may be summarized as follows: Out of 19 cases of acute appendicitis operated on under chloroform, 14 died. All of these exhibited symptoms of acid intoxication or acetone poisoning; 11 autopsies were granted, and in all of these well-marked fatty degeneration of the liver, kidneys, and heart was present. Of the recoveries, 3 were operated on eighteen, twenty-seven, and thirty days after the onset of symptoms. It is probable that in these cases chronic and not acute acetonuria was present, and that the danger of the anaesthetic was thus lessened.

Out of 3 cases operated on under a mixture of chloroform 1 part and ether 2 parts, 1 died with symptoms of acetone poisoning. Out of 24 cases operated on under ether, only 2 died, and that not as the result of acid intoxication. In one case the necropsy showed hardly any fatty degeneration, in spite of general peritonitis having been present for four days. There were no symptoms of acetone poisoning in this case (Chart 13). The second death was from secondary haemorrhage nineteen days after the operation; 5 of the patients exhibited mild symptoms of acid intoxication, but only in 1 were they at all alarming. No. 4,092, with an appendicular abscess of thirty-five days' duration, suffered from chronic and not acute acetonuria.

These results show, as clearly as the experiments on animals, that the action of ether is far less harmful than chloroform. The acetone curve following ether administration in acute acetonuria is shown in Chart 12 curve shows the acute acetonuria, the rise after the thetic, and the gradual decline, more prolonged th normal ether cases, because of the suppuration pres



o, Operation; dots, vomiting.

No. 12. *Acute Perforating Appendicitis.*—B. M., 5 Anaesthesia of 40 minutes with 6 oz. ether. A k abscess and gangrenous appendix of three days' d Microscopic and cultural examinations showed strept infection. Appendicectomy and drainage. An une recovery, with no symptoms of poisoning. Wound he thirty-one days. There was no diacetic acid before or a operation.

The next case is of particular interest, as al death occurred it was not due to an acid intoxicatio

No. 13. *Acute Perforating Appendicitis and General Peritonitis*—D. G., 11¾ years. Two days' duration. Anaesthesia of 45 minutes with 6 oz. ether. Appendicectomy and multiple drainage. Microscopic and cultural examinations showed *B. coli*.

The boy recovered well from the operation, and remained very comfortable for forty-four hours. At the end of that time he became very cold, and the pulse-rate increased, but he appeared quite cheerful, and said he was free from pain. Stimulants, warm blankets, and hot bottles were applied, and shortly afterwards he fell asleep. About four hours later he awoke and asked for a drink. Within ten minutes his breathing became difficult and his pulse imperceptible, and he died suddenly.

The chart shows the acute acetonuria before the operation, the rise due to the anaesthetic and the decline with the excretion of the acetone.

There were never any symptoms of poisoning; no odour of acetone; no restlessness; no excitement; no coma. He vomited twice on the second day, once immediately after being given some hot milk and once just after a dose of castor oil. His progress was excellent as regards the excretion of urine and acetone. There was no diacetic acid before or after operation.

The following case is inserted for comparison with cases 12 and 13, and shows the disastrous result of chloroform in an acute infective condition, acute acetonuria being present.

No. 14. *Acute Infective Osteomyelitis of Tibia.*—A. M., a boy, aged 8 years, gave a history of a slight injury to his heel about eight days before.

On admission the leg was red, painful, and oedematous. There were large bullae scattered over the ankle and a sloughy sore over the heel. The part was hot, and fluctuation was detected in the lower third of the leg. The operation was performed under chloroform and 12 per cent. absolute alcohol. Seven drachms were used, and the anaesthesia lasted for 52 minutes. The diaphysis of the tibia was removed subperiosteally, the bone having been first trephined to determine its condition.

The patient was rather collapsed after the operation, but improved considerably after being subcutaneously infused with 15 oz. of saline and adrenalin, and thoroughly warmed and stimulated.

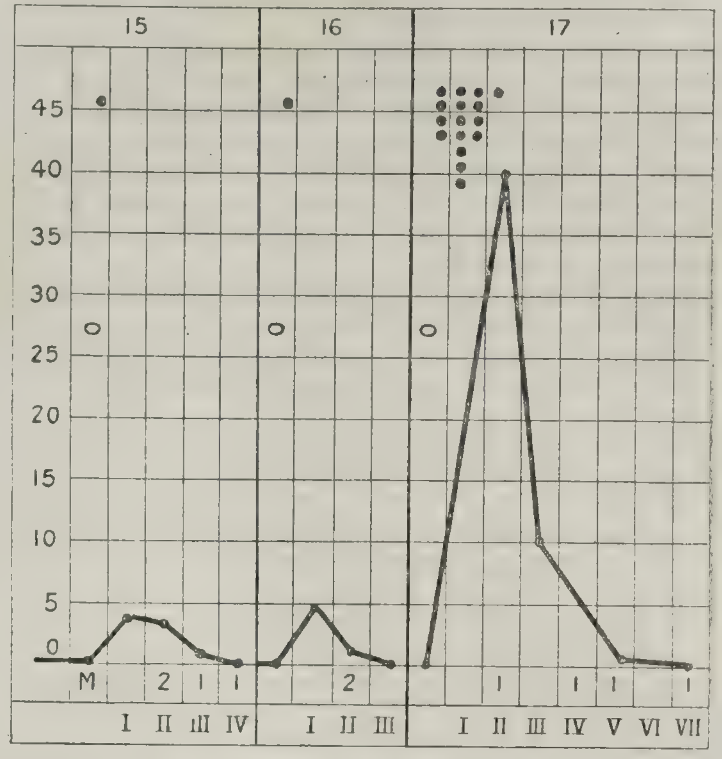
About three hours after the operation he became very noisy, screaming and tearing at his bandages. There was a strong smell of acetone in the breath, and the pupils became widely dilated; soon after, without the slightest effort, he brought up a large quantity of "coffee-ground" material. The restlessness became more marked, and it became impossible to leave him for a moment. The haemorrhagic vomiting continued, and he complained of great thirst, continually shouting for drink. The pulse was 150 to 160, and small, but fairly regular. Nine hours after the operation he began to struggle for air, and shortly afterwards became comatose, dying within eleven hours of the operation.

The chart shows the sudden fall in the acetone excretion after the operation. The case also shows that the acute acetonuria need not necessarily be of great degree to aid the chloroform in producing symptoms of acetone poisoning.

Kelly[3] has shown the frequency of acetone in acute appendicitis before operation, and his account of the convalescence of the patients agrees with my own observations, though had he estimated the acetone by the quantitative method his results would probably have tallied still more closely. Ether was the anaesthetic used throughout in the cases he reports, and of these only two died—a case of acute appendicitis with the symptoms usually associated with chloroform poisoning, and a case of acute osteomyelitis after repeated operations. Brackett, Stone, and Low[2] give a list of conditions in which acetone has been found, but fail—and this I think important—to discriminate between acetonuria of sudden occurrence and of long standing. More information regarding its presence in other conditions is needed before its true significance can be fully determined, and it would be of advantage to the surgeon particularly to know whether or not he was dealing with a case of acute acetonuria.

TREATMENT.

Acetonuria should be treated by accelerating and stimulating the excretions, and by the administration of sodium bicarbonate pushed in such doses that the urine becomes alkaline. Morse,[4] in his paper on the acid intoxication of infancy, states that attacks of indigestion can often be aborted by giving sodium bicarbonate. This suggested to me that the onset of chloroform poisoning might perhaps be prevented or mitigated by giving that drug beforehand. Two cases of extensive tuberculous cervical adenitis were selected, and placed on sodium bicarbonate (gr. 15 t.i.d.) for eight days before the operation. The results were excellent, the patients vomited very slightly on recovering consciousness, but at no time did they exhibit any symptoms of poisoning. They took and retained food the same evening, and merely suffered inconvenience from the pain attending the wound. The ward sister said that they appeared to be hardly affected at all, and did not require the constant attention usually called for by gland cases. All children admitted to the Royal Hospital for Sick Children, Edinburgh, suffering from glands in the neck are now placed on this treatment before operation, and the results justify the procedure.



o, Operation; dots, vomiting.

Charts 15, 16, 17 indicate the difference between two cases of glands with preparatory treatment and a case without that treatment. In the former it will be seen that there was either very little metabolic disturbance, or that the results of the metabolism were rendered harmless by the presence of the alkali. The curve shows the quantity of acetone reduced, and that the acme occurred within the first twenty-four hours.

No. 15. *Tuberculous Cervical Adenitis.*—G. McO., 6¾ years. Excision; anaesthesia of 47 minutes with chloroform (7 drachms). Preparatory course of treatment with sodium bicarbonate. No symptoms of poisoning.

No. 16. *Tuberculous Cervical Adenitis.*—R. W., 6 years. Excision; anaesthesia of 29 minutes with chloroform (3 drachms). Preparatory course of treatment with sodium bicarbonate for 8 days before operation. No symptoms of poisoning.

No. 17. *Tuberculous Cervical Adenitis.*—K. M., 6¼ years. Excision; anaesthesia of 62 minutes under a mixture of chloroform and ether. The chart shows the uncontrollable vomiting which during the morning after the operation became haemorrhagic, and the delayed acme of excretion. There was a marked odour of acetone in the breath, and the pupils were widely dilated. Great excitement and thirst were also present. These symptoms passed off the second day after operation, and convalescence was uninterrupted.

The treatment of cases showing symptoms of poisoning must be directed to removal of the acid intoxication, by stimulating the excretions. In the milder cases it is sufficient to administer sodium bicarbonate. Should there be any suspicion of serious acid intoxication every means must immediately be employed to counteract it; if there be hesitation or waiting, no treatment will prove of value. The patient's skin must be made to act freely either by vapour baths or blankets and hot bottles. Sodium bicarbonate must be introduced in various ways into the stomach after thorough lavage, by rectal injections, or subcutaneously in combination with saline infusions. At the first sign of collapse free stimulation of the patient must be commenced, and I agree with Kelly that subcutaneous saline infusions combined with adrenalin improve the pulse and general condition of the patient.

Although the average number of patients in the surgical wards of the Royal Hospital for Sick Children, Edinburgh, is about 730 a year, I have not during the last year seen a single case comparable to the series described by Brackett, Stone, and Low,[2] of acid intoxication prior to operation or coming on during convalescence. Hubbard's[5] statement as to acetone—that "its presence without symptoms has no effect on operative treatment or prognosis"—seems to me to require considerable qualification. I think I have shown conclusively that where acute acetonuria is present it requires very careful consideration, and that it renders the prognosis distinctly less favourable, especially when chloroform is the anaesthetic employed. If Hubbard refers merely to chronic acetonuria I agree with him.

Conclusions.

1. That two separate conditions should be recognized—acute and chronic acetonuria.
2. That ether and chloroform invariably induce a temporary acute acetonuria which may be very detrimental even to an apparently healthy organism.
3. That this acute anaesthetic acetonuria is accompanied by symptoms of acid intoxication, sometimes ending in death, when the kidneys are unable to cope with the increased formation of acetone by a corresponding capability of excretion.
4. That although ether may produce a greater acetonuria, this is less harmful than that produced by chloroform, because ether is less injurious to the cells of the liver and kidneys, and thus does not hinder their power of elimination.
5. That the more plentifully and rapidly excretion is carried on the less serious is the poisoning.
6. That the effects of the poisoning are mitigated by the administration of alkalies, which may also be given with advantage before operation if poisoning be anticipated.
7. That the usual risks of anaesthesia are not increased by pre-existent chronic acetonuria.
8. That anaesthesia is dangerous with pre-existent acute acetonuria, especially if the anaesthetic is chloroform.
9. That a guarded prognosis must always be given when acute acetonuria is present with symptoms of poisoning.
10. That death following the administration of chloroform with symptoms of poisoning may be due to the idiosyncrasy of the patient.

I am indebted to Dr. McAllum, Anaesthetist to the Hospital, for the anaesthetic notes, and my sincere thanks are due to the Sister of the Wards for her kindly co-operation, as without her assistance I could not have carried out a great part of the work.

Test for the Quantitative Estimation of Acetone in the Urine.

In examining urines, I have used the method described in Hoppe-Seyler's *Physiological Chemistry;* this takes on the average four hours to complete. The twenty-four hours' collection having been obtained 50 c.cm. is taken, and if it is not acid a drop or two of a 50 per cent. solution of acetic acid is added. This is distilled very slowly, and generally occupies two hours. When the distillate amounts to 45 c.cm. it should be mixed with a little calcium carbonate and about 25 or 30 c.cm. of cold water and then redistilled. This will occupy about half an hour. The distillate is then acidified with a little of a 1 to 7 solution of strong sulphuric acid and then redistilled. The final distillate is then ready for testing. A known amount of a decinormal iodine solution is run from a burette into the distillate, and a sufficient amount of nitric-free caustic potash is added to at once discharge the brown colour. The mixture is then shaken for half a minute and then allowed to stand for five minutes. Strong hydrochloric acid is now added until the mixture becomes acid, when it should at once become brown again if there is a superfluous amount of iodine present. Finally, a decinormal solution of sodium thiosulphate is run in from a burette until the colour of the iodine is neutralized. This is best estimated by adding a starch solution before all the iodine is neutralized. The amount of thiosulphate used will correspond to the amount of superfluous iodine which has not united with the acetone to form iodoform; from this it is easy to estimate how much iodine has united with the acetone. It has been chemically determined that 1 c.cm. of a decinormal iodine solution = 0.967 mg. of acetone.

Other tests for acetone employed:

To a specimen of the urine add a drop or two of a freshly-prepared solution of sodium nitro-prussiate, two or three drops of caustic soda, and a little acetic acid. Shake, and if acetone is present the foam will be of a purple colour, the depth of the colour depending on the amount of acetone present.

To a specimen of the urine add a few drops of a freshly-prepared solution of sodium nitro-prussiate and some 10 per cent. caustic potash solution. A red colour is produced, which if left to stand becomes canary yellow, the red colour returns on adding a drop or two of acetic acid and shaking.

The object of this paper has been to show that certain symptoms after operation sometimes followed by death, which are either unaccounted for or attributed to wrong causes, are really due to an acid intoxication of sudden occurrence and variable intensity, originated by the anaesthetic and indicated by the degree of acetone excretion in the urine. Although other circumstances may sometimes have contributed to the fatal result, the intoxication is by itself capable of producing death.

References.

[1] Stiles and Macdonald, Delayed Chloroform Poisoning, *Scottish Medical and Surgical Journal*, August, 1904. [2] Brackett, Stone, and Low, Acetonuria Associated with Death after Anaesthesia, *Boston Medical and Surgical Journal*, July, 1904. [3] Kelly, Acid Intoxication, *Annals of Surgery*, February, 1905. [4] Morse, Acid Autointoxication in Infancy and Childhood, *Archives of Pediatrics*, August, 1905. [5] Hubbard, Acetonuria in Non-diabetic Surgical Cases, *Boston Medical and Surgical Journal*, June, 1905.

SUBPHRENIC ABSCESS COMPLICATING EMPYEMA: RESECTION OF RIBS: CURE.

By EDWARD W. ARCHIBALD, M.D.,

ASSISTANT SURGEON, ROYAL VICTORIA HOSPITAL; ASSOCIATE SURGEON, CHILDREN'S MEMORIAL HOSPITAL, MONTREAL.

It was Maydl's well-known monograph in 1894, with its analysis of all the cases of subphrenic abscess published before that year, that stimulated scientific interest in this subject. The decade since 1894 has seen two further articles of a collective character, which have brought our knowledge of the question well up to date. Grueneisen[1] reports upon 60 cases from Koerte's clinic alone; while Perutz[2] gives a most excellent summary of 208 cases from the literature of the last ten years.

An examination of these sources reveals the clinical fact, possibly not thoroughly realized hitherto, that subphrenic abscess as a complication of an intrathoracic infection, is a decidedly rare event. Of the 447 cases reviewed in the three articles mentioned, only 21 are given as owing their origin to intrathoracic disease. Of these 21 cases we may probably exclude 4 as lacking proof, 2 of Maydl's cases (Nos. 4 and 8 in Paget's review[3]), and 2 of Grueneisen's (Cases LVI and LVII loc. cit.). Adding to the 17 remaining the case here reported, we get a total of 18 cases. The analysis of this material reveals certain facts of interest. Thus, as to the primary lesion, we find that it was in 6 cases an empyema following pneumonia, in 7 empyema following an undetermined source of infection (influenza ? pleurisy ?), in 1 an abscess of the lung, in 1 gangrenous bronchitis with pleurisy, in 2 gangrene of the lung, and finally, in 1 tuberculosis of the lung, the focus being in the right lower lobe. Although the cause of the empyema in our own case is set down as "probably grippe," the finding later of pneumococci in the pus renders the diagnosis of pneumonia a more likely one.

In the reports collected by Maydl, antedating 1894, all but one of which represented *post-mortem* findings, the diaphragm was found perforated; while in later cases, almost all treated by operation, no perforation could be discovered—from which we may deduce that the abscess under the diaphragm originates as a metastatic lesion, by way of the lymphatics joining one cavity with the other, but that later, as the result of prolonged contact with pus, the diaphragm is gradually destroyed at one or more spots.

The mortality figures offer, as usual, a strong argument in favour of operation on modern lines. Of Maydl's 7 cases before 1894 only one came to operation. This patient recovered; the other six died. Of the 11 cases since 1894, 2 were accidental autopsy findings; while of the remaining 9 patients, who were all operated upon, 7 recovered, 1 dying as the result of a second undiscovered subphrenic abscess.

The difficulty of recognizing the subphrenic abscess before operation in cases in which it complicates a pleural effusion, and in which gas is not present, is well illustrated by the simple fact that, so far as I can ascertain, the condition has been uniformly missed. The abscess is discovered only during operation for a supposedly simple empyema. Frequently, as in the present case, the diaphragm is pushed upwards (*not* the liver downwards), the two layers of the pleura over the lowermost area of the thorax become adherent, and thus the exploring needle, inserted in the seventh or eighth interspace, passes directly into the subphrenic region without invading the pleural cavity. If, now, the subphrenic abscess be small, the needle may easily miss it; and I believe this to be the reason why in so many of the reported cases one finds mention of one or more negative punctures. Finally, the needle happens to strike the pus; or, going higher in the chest, finds the empyema. In the case here reported the diaphragm was pushed so far upwards that resection of the fifth rib in the posterior axillary line was just sufficient to permit easy palpation of its upper surface for a considerable area.

In a few cases the subphrenic abscess has developed days or weeks after the draining of the empyema. Here the diagnosis is comparatively easy, from the recurrence of septic symptoms, combined with tenderness and bulging over the hypochondrium.

REPORT OF CASE.

The following notes are taken from the history of the case, written by Dr. English, Resident House-Surgeon:

History.

J. B., aged 17, was admitted to the Royal Victoria Hospital, Montreal, April 11th, 1904, complaining of cough. About two months previously he had been taken with what was called "the grippe," characterized by cough, expectoration, some dyspnoea, and slight fever. Pain in the right side soon became marked, and the other symptoms grew worse. While the pain ceased quickly, the other symptoms continued up to his entrance into hospital. About three weeks before admission he coughed up a slight amount of blood. He had frequent chilly feelings all through the illness, and had free perspiration, especially in the mornings. The dyspnoea grew decidedly worse; pallor increased; fever was constant; he lost weight, and upon admission he looked a very sick patient. About a week before the onset of the pulmonary symptoms he had acquired a gonorrhoea, and, at admission, he still had a slight urethral discharge.

His previous history was that of a strong and healthy boy. He could remember no serious illness, nor had he ever had any chronic cough or expectoration. His family history was good, save for the fact that at the time of his admission he had a brother in the surgical ward suffering from an empyema of the left side, tuberculous in origin—which, by the way, ended fatally some months later. There was also some tuberculosis on his mother's side.

Condition on Admission.

Upon examination in the ward the following condition was oted: Young man, apparently of the age stated; complexion uddy and sallow; mucous membranes pale.

Respiratory System.—He has cough with expectoration and ome shortness of breath. Inspection reveals some lessening f expansion on the right side and slight bulging of the right ower thorax. On palpation one finds increased vocal fremitus ver the right apex, diminished in the right axilla posteriorly. ercussion gives anteriorly a dull note which extends along a ne between the second and third ribs inwards to the edge of e sternum, then downwards, merging into the heart dull- ess. The note below this line on the right side is everywhere ll, and towards the axilla becomes absolutely flat. In the illary line it is flat as high as the apex. Posteriorly, the dull te begins about the level of the spine of the scapula, and tends, soon becoming flat, quite to the lower limit of the eura. The only resonant area left occupies the apex teriorly, the suprascapular region, and the space between e inner border of the scapula and the spinal column. This ter, however, narrows as it goes down, until, at the level of e inferior angle of the scapula, it practically ceases, the area flat note taking its place down to the free rib border. scultation shows in a general way absence of breath sounds er the area of flat note, and diminished sounds over the dull as. Anteriorly, over the apex one gets an exaggeration of e normal vesicular sounds and over the resonant area of the ht side generally one can get a few moist râles. The left e appears clear.

irculatory System.—Pulse regular, a little fast, of fair sion. The heart is pushed a little to the left side, the apex t being in the fifth space ½ in. outside the nipple line. The nds are normal; no accentuation of the pulmonary second. other organs, with the exception of the urethra, in the dis- rge from which gonococci can be demonstrated, are normal. articular the liver is not displaced downward, or, at any , not sufficiently so to be observable by palpation. The e is normal save for the presence of pus cells from the hritis. During the eight days he was in the ward er observation before operation his temperature ranged n 97.4° F. to 100.3° F., being mainly of a remittent y. His pulse varied from 80 to 100, but was more uently over 90 than below. Although the case seemed, he face of it, to be a plain empyema, the two first exploratory punctures failed to find pus. In the light of subsequent findings, it is probable that they went through the two layers of adherent pleura at the base, through the diaphragm and into the liver, missing the subphrenic abscess. At a third puncture, on March 15th, made immediately below the angle of the scapula, pus was struck and the diagnosis of empyema confirmed.

Operation.

On March 18th, under ether, a needle was inserted in the eighth space, just external to the angle of the scapula, without success. On going in, however, in the seventh space, pus was found, and thereupon an inch or more of the eighth rib was resected in the posterior axillary line. Upon incising the pleura the membrane was found to be much thicker than is usual in empyema. A small amount of bloody pus was evacuated, but on inserting the finger only a limited abscess cavity was discovered extending mainly backwards towards the spine, and but a very short way forwards. It seemed to be bounded anteriorly by vascular adhesions, which were partly broken down, and above and below by stiff tissue. As from the clinical signs the firm tissue above could hardly be the lung, it was assumed to be the diaphragm; and it was only at this point that the likelihood of subphrenic abscess was realized. It was thought possible, however, that we had come upon an encapsulated minor abscess in the thorax, cut off from the main empyemic collection.

The aspirating needle was now inserted above the fifth rib in the posterior axillary line, and clear serous fluid, followed by pus, was withdrawn. The fifth rib was resected at this spot and a large amount of pus evacuated. With the finger one could feel the lung posteriorly compressed against the spinal column, but the boundaries of the abscess in other directions could not be reached, save below, where one came upon a firm, dense membrane, the diaphragm. This was made especially clear by palpating with a finger in each of the openings; the flat membranous structure between the two could only be the diaphragm. A careful search was made, as far as one could reach with the finger, for a perforation, but none could be found. Rubber drainage tubes were placed in each cavity.

After-history.

This was uneventful. He remained in hospital twenty-four days, during which the fever gradually subsided to normal. Twelve days after the operation the tube draining the subphrenic abscess was removed, and a week later that from the empyema. Twenty-four days after operation he was allowed to go home, at his own demand, both sinuses still discharging, and drained by iodoform gauze. His physician, Dr. John West, of Magog, Que., has kindly written me to the effect that the sinuses, after discharging for six months, healed completely, and that the boy's general health was excellent.

The bacteriological examination of the pus (by Dr. Keenan) showed the presence of pneumococci alone, in both the empyema and the subphrenic abscess.

This case offers several interesting points. For instance, the difficulty of diagnosis. It is probable that it will always be impossible to diagnose before operation the presence of a subphrenic abscess complicating an empyema. A displacement of the liver downwards is of no certain value, for that may occur with an uncomplicated empyema. The signs of the one merge into, and are explainable by, those of the other. On the other hand, as here, the abscess may displace the diaphragm upwards. In either case, who can tell just where, in this area of continuous dullness, the diaphragm is situated? As a matter of fact, in the reported cases, the abscess has been always an accidental finding during an operation for empyema, or at an autopsy. The importance of not missing it can be imagined. In one of Beck's cases, quoted by Perutz, death occurred because, though an empyema and also one subphrenic abscess were drained, a second abscess under the diaphragm was overlooked. And we can easily believe that many a patient has been relieved of his empyema only to die of his subphrenic abscess. The main thing, as Perutz says, is to keep the possibility of the thing in mind; then it will not be missed.

It might be objected that the unsuccessful exploratory punctures, antedating the operation by a few days, might, in this and in other cases, be of themselves the cause of the subphrenic abscess by carrying infection from the pleura through the diaphragm into the subphrenic space. The natural answer lies in the fact that in such an event the puncture would not have been negative; to carry pus through would have been impossible without also aspirating it back.

An interesting problem concerns the transport of the infection from the pleural to the subphrenic space. In all probability we find the explanation in Kuettner's[4] work on the lymph stream of this region. This author, by a series of careful injection experiments, established these facts: that the lymph paths of the parietal, peritoneal, and pleural serosae are in continuous communication with those of the diaphragmatic serosae; that there exist in the diaphragm numerous perforating lymph vessels, and that these pass through the diaphragm not only in the direction from peritoneum to pleura, but also, contrariwise, from pleura to peritoneum. The anatomical disposition is thus given for a spread of infection in the direction illustrated by the present case. On the other hand, the assumption of Burkhardt that the bacteria pass through the membranes and muscle by a process of active growth, and not by passive transportation, cannot be disproven. Probably the metastasis occurs in both ways.

REFERENCES.

[1] Gruencisen, Ueber die subphrenischen Abscesse mit Bericht ueber 60 operierte Faelle, *Arch. f. klin. Chir.*, 1903, Band lxx, Heft 1. [2] Perutz, Der subphrenische Abscess, *Centralbl. f. d. Greuzgebiete d. Med. u. Chir.*, 1905, Nos. 4 to 9. [3] Stephen Paget, *The Surgery of the Chest.* [4] Kuettner, Die perforierenden Lymphgefaesse des Zwerchfells und ihre pathologische Bedeutung, *Beitr. z. klin. Chir.*, 1903, Band xl, Heft 1.

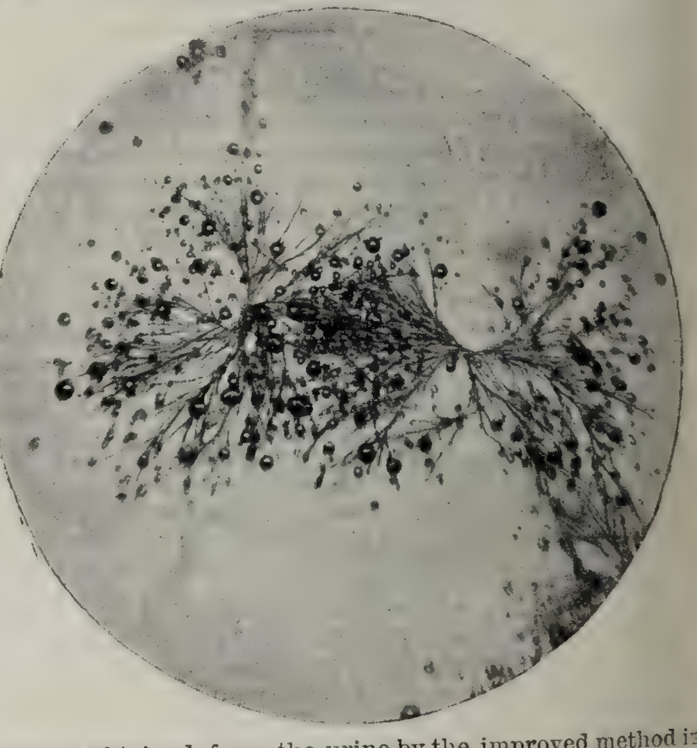
AN IMPROVED METHOD OF PERFORMING THE "PANCREATIC" REACTION IN THE URINE.

BY P. J. CAMMIDGE, M.B.LOND., D.P.H.CAMB.

IN March, 1904, I described a new method of examining the urine in suspected cases of pancreatic disease, the results of which, when considered in conjunction with the clinical symptoms, had been found by Mr. Mayo Robson and myself to be of considerable assistance in diagnosis.[1] Since then numerous experiments have been made with a view to freeing the test of disturbing factors which, either from errors in manipulation or from inherent defects in the method, were liable to obscure the issue or render its interpretation at times a matter of difficulty, especially in inexperienced hands. Before describing the improved method, I should like to correct an erroneous impression which some appear to have received from my original paper. It was not my intention to suggest that the presence of glycerine in the urine had been proved in pancreatic disease, nor did I wish it to be thought that the methods of examination I described were tests for that substance; the glycerine theory was merely mentioned to make clear the genesis of the reaction finally described.

Examination of the phenylhydrazin precipitate derived from the urine in cases of pancreatic inflammation, after treatment with hydrochloric acid, showed that it consisted of a phenylhydrazin compound of glycuronic acid and the osazone of a sugar. Investigation of the precipitate obtained from the urine after treatment with mercuric chloride indicated that it consisted entirely, or almost entirely, of a glycuronic acid compound of phenylhydrazin, so that the difference noticed between the original *a* and *b* reactions in characteristic cases of pancreatic disease was probably dependent on some substance other than glycuronic acid. If, therefore, the glycuronic acid could be removed previous to employing the phenylhydrazin test, the result might be expected to be more definite and the necessity for two comparative tests be done away with. This was found to be possible by taking advantage of the fact that glycuronic acid is precipitated by basic lead acetate from acid solutions, while the sugars are only thrown out when the reaction of the fluid is alkaline. The details of the improved method based upon this fact are as follow:

A specimen of the twenty-four hours' urine, or of the mixed morning and evening secretions, is filtered several times through the same filter paper and examined for albumen, sugar, bile, urobilin, and indican. A quantitative estimation of the chlorides, phosphates, and urea is also made and the centrifugalized deposit from the urine examined microscopically for calcium oxalate crystals. If the urine is found to be free from sugar and albumen, and of an acid reaction, 1 c.cm. of strong hydrochloric acid (specific gravity 1.16) is mixed with 20 c.cm. of the clear filtrate, and the mixture gently boiled on the sand-bath in a small flask, having a long-stemmed funnel in the neck to act as a condenser. After ten minutes' boiling the flask is well cooled in a stream of water, and the contents made up to 20 c.cm. with cold distilled water. The excess of acid present is neutralized by slowly adding 4 grams of lead carbonate. After standing for a few minutes to allow of the completion of the reaction, the flask is again cooled in running water and the contents filtered through a well-moistened, close-grained filter-paper until a perfectly clear filtrate is secured. The filtrate is then well shaken with four grams of powdered tribasic lead acetate and the resulting precipitate removed by filtration, an absolutely clear filtrate being obtained by repeating the filtration several times if necessary. Since the large amount of lead now in solution would interfere with the subsequent steps of the experiment, it is removed either by treatment with a stream of sulphuretted hydrogen or, what I have found to be equally satisfactory and less disagreeable, by precipitating the lead as a sulphate. For this purpose the clear filtrate is well shaken with 2 grams of finely-powdered sodium sulphate, the mixture heated to the boiling point, then cooled to as low a temperature as possible in a stream of cold water, and the white precipitate removed by careful filtration; 10 c.cm. of the perfectly clear transparent filtrate is made up to 18 c.cm. with distilled water and added to 0.8 gram of phenylhydrazin hydrochlorate, 2 grams of powdered sodium acetate, and 1 c.cm. of 50 per cent. acetic acid contained in a small flask fitted with a funnel condenser. The mixture is boiled on a sand-bath for ten minutes, and then filtered hot through a filter paper moistened with hot water into a test tube provided with a 15 c.cm. mark. Should the filtrate fail to reach the mark, it is made up to 15 c.cm. with hot distilled water. In well-marked cases of pancreatic inflammation a light-yellow, flocculent precipitate should form in a few hours, but it may be necessary to leave the preparation to stand overnight before a deposit occurs. Under the microscope the precipitate is seen to consist of long, light-yellow, flexible, hair-like crystals arranged in sheaves which, when irrigated with 33 per cent. sulphuric acid, melt away and disappe in ten to fifteen seconds after the acid first touches the The precipitate should always be examined microscop ally, as it may be difficult to determine the characters a small deposit with the naked eye, and so cases givi only a slight reaction may be overlooked. To exclu- traces of sugar, undetected by the preliminary reduci tests, a control experiment is carried out by treati 20 c.cm. of the urine in the same way as in the test scribed excepting for the addition of the hydrochloric ac



Crystals obtained from the urine by the improved method in a case of pancreatitis in which there was a gall stone in the pan creatic portion of the common duct.

The urine employed for the experiment should be fre and not have undergone fermentative changes. If al line in reaction it should be made acid with hydrochlo acid before the test is commenced; any glucose that m be present should be removed by fermentation *after* urine has been boiled with the acid, and the exce neutralized. The administration of calcium chloride h been found to interfere with the success of the reaction

I have arranged the cases examined by this improv method in seven groups, corresponding to the clini

iosis and the condition found at operation. For
information I am indebted to those who kindly
lied me with particulars of the cases I have
ined for them in my laboratory, and particularly to
Mayo Robson, who has operated on many of the
included in Groups 1, 2, and 4. The urines here
with form a consecutive series of 100 specimens,
ed from 94 persons. All have been examined under
ame conditions by the method I have described.
29 specimens a more or less abundant deposit of
als was obtained, but in 71 no crystalline deposit
be found even with the aid of the microscope. In
ses (forming Group 1) a stone was found in the
eatic portion of the common duct at operation, and
ancreas was said to show evidence of disease. In 19
ıp 2), although no stone was found at the time of
ıtion, there was said to be enlargement and
ning of the head of the pancreas. I found a gall
in a specimen of faeces sent to me from one of these
, and in another case included in this group I am
ned that biliary calculi had been discovered in the
s shortly before I was asked to examine the urine.
eaction was obtained in 4 cases diagnosed as
r of the pancreas (Group 3). One case in which the
al symptoms and after-history of the case pointed to
nant disease of the pancreas yielded an abundant
it. A preparation made from the urine of this case
e original *a* method showed a mixture of fine crystals
ving in 33 per cent. sulphuric acid in fifteen to
y seconds, and many coarse, broad crystals that took
six minutes to disappear. The urine was also found
ıtain a very large amount of bile and urobilin, and the
ion of chlorides was much diminished, while the urea
hosphates were approximately normal. In addition,
ıeces when examined by the method I have recently
bed[2] were found to be acid in reaction, to contain a
amount of undigested muscle fibre, and to yield not
e of stercobilin. An estimation of the fats showed a
of 64.7 per cent., of which 56.3 per cent. was "neutral
ınd only 8.4 "fatty acid." So that the laboratory
s, taken as a whole, confirmed the clinical diagnosis
ointed to cancer of the head of the pancreas, with
ete obstruction of the common duct and a consider-
egree of secondary inflammation. Of the remaining
cimens which gave no reaction, 9 were from cases
ndice in which a calculus was found at operation in
ıll bladder or in the common duct above the pan-
portion (Group 4). In all these cases the pancreas
aid to be normal in appearance and consistency.
wo were examined as controls. Of these, 30 were
atients suffering from diseases in which there was
ason to expect that the pancreas was involved
5). They included cases of cancer of the stomach,
rectum, or liver, gastric ulcer, duodenal ulcer,
is, colitis, appendicitis, tuberculosis of the intestine,
nal obstruction, cirrhosis of the liver, hepatic
s, nephritis, floating kidney, tuberculosis of the
, cystitis, and Addison's disease. Twenty-two
rom healthy individuals (Group 6). I have placed
ses in Group 7 which were under the care of
ayo Robson, and in which I had the opportunity
nining the urine one to two weeks after a chole-
terostomy had been done for the relief of pan-
is. All had given a well-marked reaction when the
was examined shortly before the operation, and are
ed in Groups 1 and 2, but when the second exami-
was made no reaction could be obtained.

not at present prepared to contend that at all
and under all conditions the results given by this
ed method of examining the urine are indicative
presence or absence of pancreatic inflammation, as
perience of it is not as yet sufficiently great, but I
hat the evidence available suggests that it may be
iderable assistance in diagnosis, and that by means
and other methods of investigation I have de-
, the 50 per cent. of cases of pancreatic disease now
be only recognized *post mortem* might be reduced
ıch more creditable figure.*

xperience suggests that it is always advisable to control the urine examination by an investigation of the faeces, for if the results agree, the chance of a mistaken opinion is considerably reduced and is probably small. The examination of the faeces is particularly useful in cancer cases, as the instance quoted in a former part of the paper clearly shows. It is of the utmost importance that malignant and inflammatory conditions of the pancreas should be clearly differentiated. Clinically it is often a matter of great difficulty; but if the results of the examination of the urine and faeces, carefully and conscientiously performed, are considered in conjunction with the history and symptoms, the chance of an erroneous diagnosis is materially reduced. I should, however, like to emphasize the fact that the laboratory investigations require a considerable amount of care, and that it is necessary to weigh all the evidence obtainable in forming a conclusion. The "pancreatic" reaction is only one factor that has to be taken into account in making a diagnosis in suspected cases of pancreatic disease or of jaundice in which it is sought to determine whether there is a gross obstruction to the free flow of bile into the intestine, and whether this obstruction when present is of a simple or malignant nature.

---

writing this paper I have examined 93 specimens of urine,
which were sent to me for the diagnosis of pancreatic disease,
ıethod, and in 54, where the after-history has been obtainable,
lusions, based upon the examination of the excreta, have
ıfirmed. In the remaining 29 no reply has been received, or
is too recent to allow of a definite opinion being formed.

REFERENCES.

[1] *Lancet*, March 19th, 1904. [2] BRITISH MEDICAL JOURNAL, October 28th, 1905.

EXTROVERSION OF THE BLADDER:

ITS TREATMENT BY EXTRAPERITONEAL IMPLANTATION OF THE URETERS INTO THE RECTUM.

BY C. J. BOND, F.R.C.S.,
SURGEON TO THE LEICESTER INFIRMARY.

I WISH to add another (hitherto unpublished) case of extraperitoneal rectal implantation of ureters for ectopia vesicae to the eight cases recorded by Dr. H. Simpson Newland in his interesting paper in the BRITISH MEDICAL JOURNAL of April 28th.

As Dr. Lendon says in his description of his original operation in an article in the same issue of the JOURNAL, it seems probable that extraperitoneal implantation of the ureters into the rectum will eventually become the method of the future in dealing with these distressing cases. And, indeed, any one who is familiar with the repeated operations, the imperfect immediate results, and the very unsatisfactory ultimate state of the patients when treated by the older plastic methods, will certainly endorse this opinion.

Having tried Maydl's intraperitoneal method unsuccessfully in a child of 8 weeks, in January, 1903, I operated on May 1st, 1903, on a healthy lad, aged 17, the subject of well-marked ectopia vesicae. After isolating each ureter with a small button of vesical mucous membrane, surrounding its orifice, as in Dr. Lendon's method, I separated the lower attachment of the vesical wall and inserted the mucous flaps containing the ureter endings into the wall of the rectum extraperitoneally by two separate incisions, one on either side of the gut. The lad is now, three years later, a fairly healthy young man of 20. He has practically no difficulty with the urine, which is voided from the bowel four or five times in the 24 hours. Although his condition is so far satisfactory, there is no doubt that he passed, shortly after the operation, through a serious attack of pyelitis, first of one kidney and then of the other, and even now has occasional attacks of pain in the left kidney, with purulent urine.

It appears probable that every patient whose ureters are made to open into the colon or rectum undergoes some degree of ascending infection of those canals, and bearing in mind the presence of ascending currents in the ureters among other mucous canals, under certain conditions, as described in my Address on Surgery at the Leicester meeting of the Association last July,[1] it is difficult to see how things could be otherwise. While under these new conditions the ureters must open into a septic cavity, yet the preservation of the normal valvular opening at the ureteral papillae, and hence the avoidance of any cicatrization of the outlet must be our chief safeguard in preventing stagnation of the contents of the ureter, the most potent contributory factor in the production of ascending infection. It will be interesting to learn whether the transplantation of the bladder wall and ureters intact, as described by Mr. Moynihan in the *Annals of Surgery* for last month, proves to be a further help in this direction.

There are other physiological points of much interest about these cases. It is well to realize the fact that a patient whose ureters have been implanted into the rectum is practically receiving a rectal enema of two to three pints of urine daily, and it apparently takes some time for the bowel to become acclimatized to the new conditions, and to learn to expel, without absorption, the fluid poured into it. Our knowledge of the physiological effect of the absorption of urinary constituents through the intestinal mucous membrane is very scanty, but the peculiar attacks of *malaise* which my patient suffered from at times suggested the absorption of urine of a higher toxic character on such occasions.

There is also another point of interest concerning this function of urinary reservoir action acquired by the rectum. For the most part the urine is passed at lengthy intervals, 10 oz. to a pint at a time, clear and free from admixture with faeces, and this act is followed in a morning by the further evacuation, a little later, of a normal firm motion without urine, while sometimes, in the early morning passage of urine, the first portion is more or less mixed with faeces. This phenomenon strongly confirms the suggestion that the rectum is habitually empty except shortly before the passage of a normal motion, and thus the urine collects in the rectal ampulla free from faeces, is voided when the rectum becomes sufficiently distended, and that this act is followed, when necessity arises, by the descent into the rectum and the later evacuation of solid faeces. This habitual emptiness of the rectum further suggests this portion of the intestinal tube as a more suitable site for implantation than the colon higher up, which habitually contains faeces.

Finally, one word about the peculiarities of the vesical mucous membrane so extroverted. No attempt was made in my case to remove or cover in the exposed vesical mucous membrane, and yet, owing to the change in environment, the exposed surface gradually changed its character and became a non-secreting skin surface, having all the appearance of cicatricial skin; this occurred all over, except at the angle formed by the abdominal wall and the epispadic penis, where a certain amount of moisture and mucus still collected, and here the epithelium preserved its mucoid type. In the language of heredity, the vesical, and probably the genito-urinary mucous membrane, possesses the inborn capacity of developing along two lines—the mucous membrane and the skin—while the environment determines the course development shall take in any case at any given time, the practical point being that it is not necessary to remove such portions of exposed membrane when the normal secretion bathing the surface has been arrested.

REFERENCE.

[1] BRITISH MEDICAL JOURNAL, 1905, vol. ii, p. 232.

TONSILLITIS IN CONVALESCENCE FROM DIPHTHERIA.

BY J. D. ROLLESTON, M.A., M.D.OXON.,
ASSISTANT MEDICAL OFFICER AT THE GROVE FEVER HOSPITAL OF THE METROPOLITAN ASYLUMS BOARD.

THE occurrence of a non-specific inflammation of the tonsils in convalescence from diphtheria is not uncommon, and is of no little interest and importance. The concurrent symptoms suggest often in such cases the possibility of scarlet fever. On the other hand, a relapse of the disease may be suspected, and the advisability of serum treatment will at once have to be discussed. The following observations are based on observations made on 900 consecutive cases of diphtheria under my care during three years.

Apart from cases of inflammation of the tonsils which proved at the time or subsequently to be scarlatinal in origin, the tonsillitis occurred in 64 cases (7.1 per cent.) either within and usually towards the end of the first three weeks of the disease, or at a much later period. In the first class the tonsillitis found in 30 cases (3.3 per cent.) was invariably associated with late manifestations of serum, which consist in a rash generally of the type of a circinate erythema, and usually associated with pyrexia, less frequently with pains in the joints or muscles, a adenitis of the submaxillary and cervical glands. Tl faucial affection, described by the French under the nar of pseudo-relapse, or *angine de retour*,[1] may be convenient designated angina redux. It occurs, as a rule, withir fortnight from the first injection of antitoxin, the avera time in these 30 cases being 14.1 days after the fi injection. Similar figures are given by Sevestre a Aubertin,[2] who mention the reappearance of angina a croup in the period of late serum phenomena on the ten to the fifteenth day after injection.

The appearances presented by the throat in this co dition vary from an injection of the fauces with follicular deposit on the tonsils to large semi-conflue patches resembling the early stage of diphtheria. Unli diphtheria, however, they are not adherent, and disappe often without any local treatment whatsoever as t other serum phenomena subside, leaving no ulceratic In only one of my cases was there any loss of tissue the subjacent mucosa.

Bacteriological examination reveals rich growths staphylococci and streptococci, which accords with t theory that the late manifestations of serum are due the action of these micro-organisms.[3] As a rule tl patients do not complain of sore throat. Albuminu may develop at this time, or pre-existing albumen in tl urine may increase in amount. Pyrexia may persist f several days, and the constitutional disturbance, espe ally in older patients, be considerable. The avera duration of the pyrexia was 5.2 days. In 2 cases tl temperature reached 104°; in 5 it exceeded 103°.

Submaxillary and cervical adenitis is relatively so cor mon at this period[4] without any striking correspondi inflammation of the throat, that an inspection of tl fauces in such cases is often omitted. The absence of more general recognition of angina redux is thus e plained. This condition, though by no means common, more frequent than relapses of diphtheria, the existence which is not disputed. Relapses occurred twelve times —that is, 1.3 per cent,—in my 900 cases.

The statistics[5] of the Metropolitan Asylums Board ho pitals during the last six years give similar figures—1. to 2.11 per cent., or an average of 1.61. The occurrence laryngeal symptoms at this period has been recorded Sevestre and Aubertin,[4] in some cases sufficiently seve to necessitate intubation. Such phenomena, which ha been attributed to laryngeal oedema produced by tl serum, I have never witnessed myself.

Secondary angina in convalescence from diphtheri apart from serum manifestations, is not uncommon. occurred in 34 of my cases (3.7 per cent.), the average tin being the fortieth day. It is thus seen to be of mo common occurrence than relapses, nor is the reason of th far to seek. Whereas the faucial tissues have gained certain degree of immunity against the specific infectio their power of resistance against other forms of inflamm tion has been lowered.

A precisely similar event occurs in convalescence fro scarlet fever where tonsillitis is a well-recognized sequel occurring in 1.73 to 3.32 per cent., or an average of 2. per cent. for the last six years in the Asylums Boar hospitals, as compared with the frequency of relapses which varied from 1.09 to 2.01 per cent. during the san period.[5]

Like tonsillitis in convalescence from scarlet feve the late tonsillitis of diphtheria occurs more frequent in adults and older children, in females and in tl damp months of the year. Thus, in 34 cases were above 7 years of age, 16 were males, 18 we females. Seven of the cases occurred in Januar 3 in each of the months of February, March, and Apri 2 in each of the months of August, September, an October; and 12 in November alone. The accumulation acute cases in the same ward was not found to have an influence in the causation of this late tonsillitis, as it said to have in the case of late scarlatinal tonsillitis. is possible, however, that the condition may be mo common in hospital than in private practice.

The symptoms were slight, as a rule. In two case vomiting first drew attention to the condition. The co stitutional disturbance was not so great, nor the temper ture so high, as in angina redux. The average duratio

---

[*] It is more than probable that a large percentage of so-called relaps of scarlet fever are in reality primary attacks.

of the pyrexia was 4.0 days; 103.6° F. was the highest temperature recorded. In most of the cases the thermometer did not rise above 101°. The pulse was quick, but examination of the heart revealed nothing beyond hurried action, nor was there any other sign or symptom found to suggest a rheumatic origin for the condition of the throat. In a few cases patches of transient non-punctate erythema capriciously distributed over the trunk and limbs were observed. In one case a thick crop of herpes developed on the chin. Though albuminuria might have been present at an earlier stage of the disease it did not recur at this period. The faucial exudation was almost always discrete, disappearing in a few days with or without syringing of the throat. In only one case was antitoxin injected, as the patches showed a tendency to coalesce. Three successive negative cultures proved that the angina was not diphtherial.

Owing to the aggravated form which serum manifestations assume when antitoxin has been administered afresh, after an interval of a few weeks, faucial deposit occurring late in convalescence from diphtheria as distinct from that designated angina redux, which usually requires no treatment, should be dealt with first by local measures. As will be seen from the above figures, the chances in favour of the tonsillitis being non-specific in origin decidedly outweigh those of its being due to a fresh attack of diphtheria.

REFERENCES.

[1] Deguy et Weill, *Traitement de la diphtérie*, 1902, p. 54. [2] Sevestre et Aubertin, *La pédiatrie pratique*, 1903, No. 2; cf. Rualt in Charcot, Bouchard. and Brissaud, *Traité de Médecine*, art. Diphtérie; and J. D. Rolleston, *Practitioner*, May, 1905. [3] Sevestre et Martin in Comby's *Traité des maladies de l'enfance*, art. Diphtérie, 1904. [4] Loc. cit; cf. *Archiv für Kinderheilkunde*, Band xl, iv bis. Heft vi, Ss. 460-462. [5] Metropolitan Asylums Board Reports, 1899-1904; cf. Gérard, *Les récidives de la diphtérie*. 1904, and Narcisse Henry, Rechutes dans la Scarlatine, *Thèse de Paris*, 1904. [6] Caiger, in *Allbutt's System of Medicine*, vol. ii, p. 158.

The Goulstonian Lectures

ON

AUTO-INTOXICATION: ITS RELATION TO CERTAIN CARDIO-VASCULAR DISORDERS.

DELIVERED BEFORE THE ROYAL COLLEGE OF PHYSICIANS OF LONDON ON MARCH 13TH, 15TH, AND 20TH, 1906.

BY H. BATTY SHAW, M.D.LOND., F.R.C.P.LOND.,
LECTURER IN THERAPEUTICS, UNIVERSITY COLLEGE, LONDON;
ASSISTANT PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL
AND TO THE HOSPITAL FOR CONSUMPTION AND
DISEASES OF THE CHEST, BROMPTON.

LECTURE II.—[ABSTRACT.]

[AFTER recapitulating his first lecture as follows:

(1) That in 12 out of 68 clinical cases hypertension was bserved, and that there was with one exception proof that the idneys were affected in these cases; (2) that the explanation f hypertension in renal disease was unsatisfactory—a toxic ause had been invoked, but not demonstrated; and (3) that xperimentally he had shown that a rise of blood pressure ccurred eighteen times out of nineteen, in which kidney xtract was used, and that such frequency of a pressor effect as not noticed after the injection of extracts of other organs -moreover, the pressor effect produced by kidney extract was prolonged one—

r. Shaw gave an account of work carried out by Tigerstedt nd Bergman ten years ago.]

They had set themselves the task of elucidating the lationship between kidney and heart, being influenced the teaching of Brown-Séquard on "internal secren," and by the association existing between certain nal and cardiac diseases. Their first experiment was warded by a successful result.

Freshly-excised rabbit's kidney was rubbed up with glass wder and physiological salt solution. The fluid obtained s then filtered, and a few cubic centimetres were injected travenously into rabbits. In a short time a well-marked and parently protracted increase of arterial pressure was obved. In the first experiment, within 80 seconds of the ection of 5 c.cm. of the extract, the maximal pressure had en from 70 to 66 millimetres before injection to 102 millitres—that is, an increase of pressure of about 50 per cent. ensued; in a second experiment the increase after the ection of 4 c.cm. was 25 per cent. within 100 seconds; in the third experiment there was an increase of 18 per cent. in 60 seconds.

The investigation was further elaborated. They found that extracts which were prepared by boiling the fresh kidney with water or extracts prepared from the boiled kidney by means of cold water were inactive. Alcohol, either absolute or of 50 per cent. strength, was quite unable to extract from the preparation any active material. They were also able occasionally, but not always, to demonstrate that diluted glycerine extract had a definite pressor effect.

One of the objections to the use of the extract which has been injected into the series of cats already referred to is that the material injected was a coarse emulsion, and that until this emulsion could be made to yield a soluble substance capable of exerting a pressor effect the results obtained could not be quite convincing. Tigerstedt and Bergman have, however, succeeded in obtaining a solution of the active material which can be quite freed from any granular contents.

The kidney is rubbed up with absolute alcohol and filtered; the precipitate is dried in the air at room temperature and is then extracted with salt solution; 1 to 2 c.cm. of this extract exert as great a pressor effect as the fresh preparation; the active substance is not destroyed by alcohol. They speak of this extract as "Extract A." If it is boiled or heated in a water bath this extract loses its properties, but exposure to a temperature of from 54° to 58° C. does not apparently disturb the pressor effect.

The pressure substance to which these workers give the name of "renin" is not *dialysable*. From these various reactions it may be concluded that renin is a substance *sui generis*, and that the effects produced on the blood pressure are not due to any of the crystallizable substances which are excreted in the urine. Further, "renin" was present only in extracts made from the *cortex of the kidney*, and not at all, or only to a slight extent, in extracts of the *medulla*. Other experiments suggested that renin actually passes from the kidneys into the blood; that in the kidneys a substance is formed which under normal conditions may pass from the kidney into the blood by a process of internal secretion, and may exert a pressor effect. A preparation of fresh extract made by rubbing up fresh kidney substance with fresh defibrinated blood was also found to be active. The result of the analysis of the effects produced by injection of "Extract A" was to show that fresh renal extracts produce rises of pressure by acting on the peripheral nerve centres as well as possibly on the spinal cord.

Finally, Tigerstedt and Bergman considered the question of the fate of renin when it enters the circulation normally, and concluded that renin is partly got rid of from the body by the kidneys, but that it is also partially destroyed by the body or is possibly got rid of by the bowel.

[After criticizing these experiments Dr. Shaw proceeded:]

It seemed well to endeavour to secure results under the most exacting physiological conditions possible, and so a limited number of further experiments were carried out, using renal extract for injection purposes prior to the injection of any other preparation.

The analysis of these results shows that on three occasions when the experiment was carried out, as in my first series, under the influence of ether only with spontaneous respiration a fall succeeded the injection of renal extract.

When anaesthesia was procured by the administration of ether and morphine, respiration being carried out artificially, a rise of pressure followed the injection of renal extract on 4 occasions. No rise, and even a fall, occurred in 3 experiments. Another condition was to administer ether and morphine or curare, to carry out artificial respiration, and to cut the vagi. A rise of pressure followed the injection of renal extract in 3 cases, and a fall occurred in 2 cases.

These results are obviously unsatisfactory, for although the majority give some support to the view that there is a pressor substance extractable from the kidney, a good proportion of cases show the reverse.

Pressor substances have been demonstrated in the suprarenal medulla and in the posterior lobe of the pituitary body, and there has been abundant confirmation of the results.

[Dr. Shaw then alluded to the experiments of Oliver[1] on the action of animal extracts on peripheral vessels.]

Oliver found no *invariable* change given by the use of extracts of liver, pancreas, kidney, or brain; a moderate constrictive effect, however, was obtained so far as the experiments had been carried out with extracts of spleen, testis, and pituitary gland. Suprarenal extract was found to produce a marked constriction which persisted for from thirty to sixty minutes.

[He then mentioned experiments by Lewandowsky, whose results were as follows:]

The injection of renal blood gave an effect differing in no way from that of the blood derived from the body—as, for example, out of the jugular vein. In three cases, however, there was a rise of pressure which was not inconsiderable, but Lewandowsky concludes it was not a specific rise, for the controls injected with jugular blood also showed a rise. He considers that in part this rise was due to the rapidity of injection, but admits that similar masses of saline solution injected under similar conditions were quite incapable of causing such a rise, and concludes that in defibrinated blood substances are present which, under certain conditions, can cause a rise of blood pressure. Whatever may be the verdict as to the value of Tigerstedt and Bergman's experiments in showing that there is an internal secretion in health, no one can doubt that the significance of their experiments with the renal cortex for pathology is very great.

The question that presents itself is, Can we derive from the observations of Tigerstedt and Bergman any explanation of the pathological departures which we have already noted as occurring in blood pressures at the bedside? The answer must be that there is good reason to think that they have added a great deal to our knowledge, because so far no one has been able to associate the alterations met with in the blood pressure in renal disease with any definite cause. If the renal cortex contains a pressor substance capable of causing rise of pressure, then when it enters the circulation, which it is reasonable to believe occurs in certain pathological conditions, blood pressure rises.

We know that in the contracted kidney one of the best-established changes is the shrinkage of the cortex, which has been shown to contain more renin or pressor substance than the medulla.

It is acknowledged that high arterial tension is not so constant a feature of chronic parenchymatous nephritis as of the interstitial variety, but still it does occur. It is, however, very common in cases of renal sclerosis. Possibly hypertension is an expression of a kidney condition in which renal parenchyma, little altered or not at all, is passing into the circulation either from changes, as in contracted kidney, associated with obliterative arterial disease or from toxic agents which are more common causes of parenchymatous changes. In cases of severe acute nephritis observations have been made with the sphygmomanometer which show that hypertension also occurs, and even may do so within twenty-four hours from the onset of the kidney lesion. It therefore seems probable that maintained hypertension may mean disintegration of kidney substance and its entrance into the circulation.

It is quite conceivable that some of the cases which are now being recognized as cases of increased arterial tension, largely owing to the help of the sphygmomanometer, without any signs of renal disease or of disease of the superficial arteries, are really cases similar to those just mentioned: a certain amount of renal sclerosis may be present and only show itself clinically by the production of increased pressure, by signs which are so slight as to be disregarded or so equivocal as to defy interpretation. Hypertension may be shown to exist in other cases when other organs than the kidney are undergoing disintegration; so far there is no evidence to show that clinically hypertension maintained for a considerable time exists, except in cases in which the kidney is affected.

The idea has been advanced that in uraemia a poison is developed which provokes arterio-spasm (Traube), and as a result of this condition such cases frequently present symptoms of monoplegia or hemiplegia, and yet *post mortem* no lesion can be found to account for such signs. Such a view would, however, require evidence that kidney extract can act directly upon the musculature of arteries, and so far this has not been shown.

That the blood pressure does not remain high in all cases of uraemia till death occurs does not militate against this toxic view of uraemia, because with the suppression of urine which so often occurs there is a retention of material which is able to act as a cause of lowered arterial pressure; and, moreover, as will be seen subsequently, one of the results of deep disintegration of tissues in general is to produce substances which cause constantly a fall of pressure.

There is reason to believe that the renal cortex when once it enters the circulation causes spasm of the arteries, acting as a toxic agent such as has been invoked by Traube, to complete his hypothesis that arterial cramp is responsible for some at least of the features of uraemia. If we invoke the teachings of treatment we find that this view is supported, for we know that renal asthma so-called, which is so often met with in sclerosis of the kidney, is able to be greatly remedied by the use of drugs which dilate the arteries. It may be that some of the signs of uraemia are dependent upon a sort of "intermittent claudication," or rather "paroxysmal claudication," of certain vascular areas, and that renin may be the immediate cause and local vascular disease a predisposing one; given the absence of either of these factors uraemia may not result, but it is possible to believe that the arterial spasm produced by renal pressor substance may in some cases be sufficient in itself to cause some of the phenomena of uraemia; that this is possible is to some extent shown by the fact that uraemia is not always fatal, recurring several times, and occlusive vascular disease may not be demonstrable in all cases.

Hypotension.—A consideration of the list of 68 clinical cases not only showed the existence of a group of patients in whom high arterial tension was a feature, but also a number in whom low pressure was present. The problem occurs, Is it at all likely that different effects are produced upon the arterial tension according to the degree of altered nutrition which exists in various organs in different diseases or in different stages of such diseases?

[Dr. Shaw then considered the phenomenon first seriously studied by Salkowski, auto-digestion—that is, a process in which the cell contents undergo liquefaction owing to their removal from the body, and so from their natural sources of food supply and from those means by which the products of their solution are able to be removed. Hoppe-Seyler in 1871 made the following statement: "All organs dying within the interior of the organism undergo, in the absence of oxygen or even in its presence, liquefaction; during the progress of softening leucin and tyrosin are formed from proteid and free acids or soaps from fats. The phenomenon is accompanied by no development of offensive odours and may be compared with the processes which are associated with the action of digestive ferments."]

Although these observations were made so long ago that the exclusion of bacterial effects could not have been considered, more modern work has proved the correctness of the view that tissues are able on their own account to liquefy. Hüfner, in 1872, made a discovery which brought the explanation of the process much nearer solution. He found that, after extracting the salivary glands of the pig and the lungs of calves by means of glycerine, it was possible by precipitation with alcohol to obtain a substance which differed very much from proteids, and was able to digest proteid. Thus digestive ferments appeared to be widespread in the system. It was, however, objected that such processes were entirely *post-mortem* changes, and that they had no representation in the living body—a somewhat singular attitude to adopt, for it is hardly to be expected, as Salkowski says, that when life ceased in the individual such a vital phenomenon as digestion of tissues should only then be initiated; it is much more likely that the processes operating after death are also active during life. Differences exist, of course, in the two conditions, for in life the primary dissociation products are removed, but in the dead body such products remain *in situ*.

Salkowski concluded that proteolytic ferments occurred not only in the digestive tract, but also were present throughout the body, and though weak agencies were necessary to the organism, for they were found in the lowest forms of life.

Analysis of the two preparations made by Salkowski showed that as a result of antiseptic autolysis there is a considerable increase of soluble organic substances, and this is notably the case in regard to the nitrogenous bodies. The increase of soluble nitrogenous substances is due to the formation of primary dissociation products derived from proteids and nucleo-proteids.

It is well-known that the animal cell contains proteids in the cell body which also to some extent prevail in the nucleus, and that the nuclei contain various nucleo-proteids. Recent investigation in chemical physiology has been directed largely towards an elucidation of the cleavage of proteids and nucleo-proteids. These former bodies may be split by various agencies, such as heat, acid, alkalies, and bacteria, and then give rise to what are known as "primary dissociation products." But the same dissociation, which is a process of hydrolysis, being associated with the breaking up of water and the incorporation of the liberated hydrogen and oxygen, occurs in digestion of proteids and derivatives by the ferments pepsin, trypsin, erepsin, and arginase. The first two, especially trypsin, are instrumental in simplifying the proteids by producing albumoses and peptones, but also are able, though at a much slower rate of velocity of action, especially in the case of pepsin, to exert those deep disintegrations of proteid derivatives which are special duties of the erepsin and arginase ferments which are present, not only in the intestinal mucosa, but also in the tissues of the body, erepsin being almost universally distributed, and arginase being found especially in the liver.

[The lecturer then discussed the products of proteid dissociation, and especially the nucleo-proteids, and concluded his lecture as follows:]

By studying the effects on blood pressure of some of these derivatives, it is possible to draw some conclusions as to the possible causes of those interesting cases or occasions of depression of blood pressure which were noted in the list of clinical cases already referred to; the importance of such study is well shown by the observation that life is impossible when the blood pressure falls below a certain minimum.

Reference.

[1] *Proceedings of the Physiological Society*, 1897, vol. xxii, p. 22.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL.

ACUTE YELLOW ATROPHY OF THE LIVER FOLLOWING INFLUENZA.

Acute yellow atrophy of the liver as a sequela of influenza is such an extremely rare event that we think the facts of the case are worth publication.

The patient, H. J., aged 31, first came under our care on March 3rd. His previous medical history was fairly good. He had indulged excessively in alcohol a few years back but not for a very long period. There was a history of gonorrhoea but not definitely of syphilis. He had suffered frequently from colic and spasms when a child, and had catarrhal jaundice in August, 1903, when he was ill for about six weeks. When first seen his temperature was 102° and pulse 112. He complained of pains in the head, back, and limbs, with a little cough. The tongue was furred and the mouth and pharynx dry. Influenza was diagnosed.

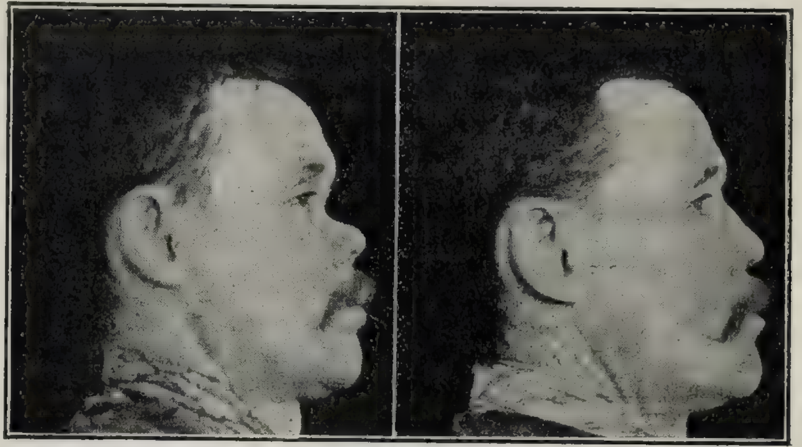
On Monday, March 5th, there was considerable bronchitis, moist sounds being heard all over the chest. The pyrexia gradually subsided until March 7th. On that day was first noticed a slight jaundice, and on the following day this was much more marked. The bowels were constipated; the urine contained no bile pigments, neither was albumen present. On March 9th, about 3.30 p.m., he had a convulsion. We did not see this, but from the description given were of opinion that a fit had occurred. About 10.30 p.m., when we saw him together, he had another definite convulsion—tonic followed by clonic spasms lapsing into a state of semi-consciousness. During the night there was considerable low muttering delirium. This state gradually developed into that usually known as "typhoid," with loss of control of the bladder, and semi-coma with short lucid intervals. The highest evening temperature at this stage was 99.2°. The jaundice became very intense on March 11th and 12th, the skin being quite bronze in colour. On March 14th he was seen by Dr. Frank Nicholson of Hull, and the diagnosis confirmed. The liver dullness, which had been gradually getting narrower, was on this day absolute only for a width of 2 in. in the nipple line. The urine contained neither albumen nor bile pigments, but leucin and tyrosin crystals were found in abundance. The patient died on March 16th.

We regret that we were unable to obtain consent to a *post-mortem* examination, but the symptoms were so typical of the disease that we have no doubt that our diagnosis was correct, though one is always afraid to diagnose so rare a complaint.

Oscar M. Booth, M.R.C.S.Eng., L.R.C.P.Lond.,
Jos. Williamson, M.B., Ch.B.Vict., M.R.C.S.Eng.,
New Cleethorpes. L.R.C.P.Lond.

NASAL DEFORMITIES AND PARAFFIN INJECTIONS.

The following case is a good example of the results which may be obtained by the use of paraffin injections in the redressments of disfigurements:



The patient, some years previous to coming under treatment, was kicked, whilst playing football, on the nose. A compound fracture of the nasal bones resulted, and necrosis of portions of the nasal bones taking place, the deformity shown in the first photograph followed. It was treated by subcutaneous injection of paraffin, performed in the usual way by Dr. H. C. Donald. The second photograph, taken a week after the operation, shows the result.

A. M. Dryden, M.B., Ch.B.,
Royal Alexandra Infirmary, Paisley. House-Surgeon.

PATENCY OF OESOPHAGUS RE-ESTABLISHED AFTER GASTROSTOMY.

Four months ago my colleague, Dr. Martin, and I examined a very cachetic man of 64 for oesophageal obstruction and increasing difficulty in swallowing; he could only swallow liquids with difficulty. Bougies were arrested 12 in. from the teeth. The larynx was unaffected. I performed a Ssabanejw-Frank operation without experiencing any difficulty, and for a month the patient was content to be fed by the fistula thus formed and made marked progress. He then suggested that he could be fed by the mouth with solid food. To appease his craving he was tried with liquid and then with fine minced meat. He then tried bread and potatoes obtained from other patients surreptitiously, and now can swallow and enjoy ordinary meals, though still weak and cachetic-looking.

Though highly satisfactory to the patient, this result is not easy to explain, except that by fastening the cone of stomach to the costal margin, the lower end of the oesophagus was pulled away from some growth behind it that was protruding upon it.

A. V. Leche, L.R.C.P., M.R.C.S.
Union Hospital, Axbridge, Somerset.

TOBACCO POISONING IN A CHILD.

On Good Friday last I was called in to see a boy, aged 2 years, whom I found to be in a dying condition from tobacco poisoning.

I knew the child well. He was a strong, sturdy little fellow, but it appears that recently his mother had come to the conclusion that "he had worms," and she was on her way to my surgery accompanied by the boy when a bona-fide midwife met her and assured her that she could cure him.

With the mother's consent this woman cut up half an ounce of thick twist tobacco and poured on boiling water. After allowing it to cool she gave the boy an injection of about half a gill of this decoction, this being about half of what she had prepared. The child in a short time became comatose, and when I saw him he was in an advanced stage of narcosis. I was unable to discern any pulse, and the breathing had almost ceased. The pupils were widely dilated and insensitive.

I proceeded at once with artificial respiration, and kept it up for about an hour, during which time I had instructed the friends to administer a soap-and-water enema, and afterwards brandy per rectum. For the first twenty minutes there was little effect, and whenever I ceased artificial respiration the breathing stopped. Gradually, however, I noticed a change for the better, and at the end of about forty minutes the child vomited. After this the improvement continued, and I was able to cease my efforts at the end of an hour.

Three hours later the patient had completely recovered from the effects of the poison, except that he complained of feeling tired.

Robert Bleasdale, M.B., Ch.B.(Vict.).
Ashton-under-Lyne.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BIRMINGHAM BRANCH.

Pathological and Clinical Section.

Birmingham, April 26th, 1906.

Professor J. W. **Taylor**, M.Sc., F.R.C.S., in the Chair.

Election of Chairman.—Dr. Thomas Nelson was elected Chairman for the ensuing session. Mr. Albert Lucas and Dr. Smallwood Savage were elected Honorary Librarians.

Spasmus Nutans.—Dr. **Emanuel** showed two infants exhibiting (1) head-nodding without nystagmus, and (2) head-nodding with nystagmus. In both cases the nodding movements were lateral, as if expressing negation. They were not constant, and were best seen when the children were left to gaze about at their own pleasure; attempts at fixing the children's attention tended, if anything, to do away with the movements. Both were boys. In (1) the child was perfectly healthy, 16 months of age, and the attention of the mother had been drawn to the movements for four or five months. In (2) the child was 13 months of age, and the movements had been noted for three or four months. This child showed evidence of a slight degree of rickets. There was a very fine and lateral nystagmus in both eyes, but this was not constantly present. In neither case was there a history of heredity, but in both instances the mothers volunteered a history of traumatism—a fall on to the head—to account for the movements.

Waxy Degeneration of Thyroid.—Dr. **Miller** showed an enlarged thyroid gland, the seat of waxy degeneration. It was from a case where there had been a discharging sinus in connexion with an empyema cavity for six and a half years. There was, in addition, amyloid disease of liver, spleen, kidneys, intestine, lymph glands, and lung. The waxy change in the thyroid was in the capillaries round the gland acini and in the vessels of the fibrous tissue, which was markedly increased in amount. The disease in the lung involved basement membrane of bronchi and of bronchial glands, vessel walls, and capillaries of alveoli. There was no evidence of tuberculous disease in any of the organs examined.

Case.—Mr. **Lucas** showed a girl, aged 14, with a tumour of the groin which he believed to be an endothelioma originating in the inguinal glands.

Specimen.—Mr. **Lucas** also showed a specimen of actinomycosis of the spleen.

ULSTER BRANCH.

Derry, Saturday, May 5th, 1906.

Leonard Kidd, M.D., President, in the Chair.

Specimens, etc.—Mr. A. B. **Mitchell** (Belfast) showed a series of prostates removed by him, and gave details of some of the cases.—Mr. **Fullerton** (Belfast) showed (*a*) an electric cystoscope for catheterizing the male and female ureters, and described a few cases in which he had used it; (*b*) skiagrams of two cases of disjunction of the lower epiphyses of the radius presenting unusual features. Dr. **Cooke** (Derry) made some observations on the first exhibit.

Hysterectomy.—Dr. J. G. **Cooke** (Derry) read brief notes of two cases of hysterectomy performed by him: (1) One was done for fibromyoma of the uterus in a woman aged 45; the features were very rapid growth. The symptoms which indicated operation were pain and retention of urine. The tumour was firmly impacted in the pelvis. A subtotal hysterectomy was performed and recovery was uneventful. (2) The second case was for cancer of the uterus. The uterus was freely movable, and the tumour seemed very favourable for operation. A total abdominal hysterectomy was attempted, but it was found impossible to separate the uterus from the bladder at its neck. The patient made a good recovery, but as part of the growth had to be left the benefit could only be temporary. Early diagnosis of such cases was urged. The growth was an adeno-carcinoma.

Cholecystostomy.—Dr. **Cooke** also read notes of two cases of cholecystostomy: (1) In one there had been no symptoms of gall stones till six weeks before operation. The gall bladder was found adherent in its whole length to the under surface of the liver by which it was completely covered. In it were twenty large gall stones, one of which was impacted in the cystic duct, giving rise to the symptoms. Recovery was complete. (2) The other case was one of obscure *malaise* with sudden onset of jaundice. The gall bladder contained several ounces of bile, no stone was found, but an induration of the pancreas about the common duct. The jaundice cleared up and health became good after operation, the stools being bile stained. An occasional flow of bile from the fistula was observed two months after.

Acute Pancreatitis.—Dr. **Cooke** also related a case of acute pancreatitis. The patient, who was aged 20, was operated on seventy-two hours after the onset of an attack of what was apparently acute peritonitis with obstruction of bowels. The abdomen was full of blood-stained fluid. Omental adhesions constricting bowel were broken down. Fat necrosis was present. Hiccough lasted for seven days after operation, and almost exhausted the patient. Stools were very offensive, and fat was present in the urine on one occasion. The patient recovered.

Malignant Stricture of Colon.—Dr. **Cooke** also related a case of malignant stricture of colon in a woman aged 40. The remarkable feature of the case was the sudden onset of symptoms. She had been in her usual health up to ten days before admission to hospital, when she was seized with what was apparently an acute inflammatory attack in the left iliac fossa. The temperature rose to 102°, and the case ran a course similar to an acute inflammatory attack of the bowel. When the abdomen was opened a considerable tumour was situated in the iliac fossa, and was found to consist of the colon. About 5 inches were resected, and an artificial anus made. The bowel was so constricted that a quill could just be passed through. She lived for 2½ months, and died with secondary growths in the liver. The tumour was columnar-celled carcinoma.

Emphysematous Gangrene of Leg.—Dr. **Cooke** also read notes of a case of emphysematous gangrene of the leg, following on a wound caused by an explosion of a piece of iron pipe filled with gunpowder. The missile passed through the leg at the upper third. The foot became cold thirty-four hours after injury, and in four hours after the limb up to the popliteal space was emphysematous and putrid. Amputation through the thigh was performed. The stump healed well, but the patient had for some time a febrile temperature. Recovery was complete.

Dry Iodine Catgut.—Dr. **Cooke** also read a note on the use of dry iodine catgut prepared by Claudin's method, as described by Moschcowitz. The admirable results obtained were emphasized, and the advantages as regards cheapness and ease of preparation, both for the surgeon and general practitioner, were pointed out.

Five Hundred Operations for Adenoids.—Dr. **Cecil Shaw** (Belfast) read notes on five hundred operations for adenoids. He dealt chiefly with the questions of anaesthetics and after treatment and recurrence. Only about 2 per cent. of his cases were operated on without an naesthetic, the use of which he strongly advocated, pecially in children. The position recommended was flat n the back with the head hanging down over the end of he table. When tonsils had to be removed also, this hould be done after the adenoids. Forceps were used rst to remove tough masses of adenoids, and then urettes, a straight and a curved, to clear off smaller ieces remaining. No medicinal after-treatment was used nless a slough appeared on the tonsil wound and the mperature rose, in which case an antiseptic was painted 1 it. The patient should be kept in bed for two days, nd the parents instructed afterwards to watch the eathing and encourage the child to keep its mouth osed. Gymnastic exercises with the mouth closed were od. As regards recurrence, it was rather difficult to be ecise, owing to the tendency of hospital cases to wander m one place to another. But Dr. Shaw did not think e proportion of cases in which adenoids recurred after mplete removal was greater than 2 per cent. Remarks re made and questions asked by Dr. Hunter (Derry), . Cooke, and the President, and Dr. Shaw replied.

Early Infant Management.—Dr. Bernard (Derry) read a te on early infant management. It was proposed to ask Medical Council to recommend the State to ratify es on the first principles of primary education during ly childhood. Dr. Cecil Shaw proposed, and Mr. A. B. tchell seconded, that when Dr. Bernard had drawn a set of rules as outlined in his communication, they uld be considered by the Council of the Branch, and, er revision if necessary, forwarded to the General dical Council. This was agreed to.

ong-standing Ascites.—Dr. Thos. Duncan (Fintona) d notes of a case of long-standing ascites. The patient, oman, was under his care for twenty-five years, and tapped again and again. When she died Dr. Duncan ped the abdomen, which was 11 ft. in circumference, removed 47½ gals. of fluid, carefully measured. He not known of any case where such a quantity of fluid accumulated. He was not able to obtain permission an autopsy, but believed the case to be one of ovarian .

odent Ulcer.—Dr. W. B. Hunter (Derry) showed a ent from whose face he had removed a rodent ulcer er local anaesthesia.

REPORTS OF SOCIETIES.

TOLOGICAL SOCIETY OF THE UNITED KINGDOM.

E. Cumberbatch, F.R.C.S., President, in the Chair.

Monday, May 7th, 1906.

Fixation of the Stapes.

Urban Pritchard, in introducing a discussion on subject, divided the forms of fixation or ankylosis of stapes into two kinds—fibrous and osseous. The us, he said, might again be subdivided into two s: (*a*) Where the fixation is due to fibrous bands hed across the pit in which the stapes is situated, ands binding the stapes more or less firmly in its ion. These fibrous structures are the result of former uppurative otitis media, and have been demonstrated litzer and other observers. (*b*) Where the fixation is o a solid mass or cushion of new tissue, the result of er organization of granulation tissue, which has been om previous suppurative otitis media. Osseous fixa- he said, might also be subdivided in two forms: ssification of the annular ligament of the stapes, is apt to occur in the course of otosclerosis, from sion of the osseous change in the bony cap- surrounding the internal ear. (*b*) A rare form ation due to ossification of a solid mass of new , being, in fact, merely a further development e second form of fibrous fixation, and therefore, primarily caused by former suppurative disease. rban Pritchard then dealt with the differential sis of these several varieties. With reference to st there is, he said, sometimes considerable difficulty gnizing this form of fixation by fibrous bands, and ally in diagnosing between fixation of the stapes at of the other ossicles. There is marked deafness; erable immobility of the ossicles; usually retrac- nd some thickening of the membrana tympani. Inflation is followed either by no improvement in the hearing or only temporary improvement. There is increased bone conduction; marked paracusis; high notes are heard better than low ones, and there are the other signs of chronic middle-ear catarrh. When the fixation is due to a solid mass or cushion of new tissue there is nearly always considerable loss of the membrana tympani, and signs of former severe suppurative otitis media. Sometimes the remnants of the membrane are glued by the new tissue to the inner wall of the tympanic cavity. The tests point to middle-ear defect as in the first form of fibrous fixation. In those cases of ossification of the annular ligament of the stapes there are all signs and history of advanced otosclerosis. The membrana tympani is practically normal, unless there are catarrhal complications; there is marked deafness, and lessened mobility of the ossicles. Through the advanced condition of the otosclerosis the tuning-fork tests usually show reduced or normal conduction, that is, internal as well as middle-ear defect. Paracusis is usually present, though not so when the internal ear is very much affected. Tinnitus is often a very distressing symptom. Hyperaesthesia of the auditory nerve is frequently very marked, especially in very advanced cases, where the internal ear is much involved. But in spite of these signs and symptoms it may be very difficult to make an absolute diagnosis of the ankylosis itself. Dr. Urban Pritchard expressed himself as being very sceptical of the value of the various tests that have been brought forward from time to time by various authorities, and he was anxious to learn the opinion of members of the Society of the value of the Gellé test. Fixation by ossification of new tissue, he said, was very rare, but its diagnosis presented but little difficulty, for besides the signs of former severe suppurative damage, the probe would readily reveal the bony nature of the mass. Speaking of the prognosis and treatment, he said that fixation of the stapes in any form was fatal to the return of good hearing. In the osseous forms there was no known treatment of any avail, and practically the same might be said of fixation by a mass or cushion of fibrous tissue, although he was aware that Politzer had thought that there might be a future for operative treatment in some of these cases. The prognosis and treatment in fixation from fibrous bands, though not very encouraging, was not quite so hopeless. They had all come across cases in which considerable improvement in the hearing had resulted from a fresh attack of acute otitis, which had broken down old adhesions, and thus left the parts less fixed. However, they would hardly be justified in inducing such an inflammation, with its septic risks, on the off-chance of thus improving the hearing power. In a way this might be imitated. The internal administration of iodides had been employed with occasional good results, so as to produce slight coryza, and with it some softening of the parts within the tympanic cavity, followed by somewhat forcible inflation. The introduction into the tympanic cavity of pepsine or still better of papaine, might soften more thoroughly the adhesions, and allow forcible inflation to break them down. Direct mobilization of the stapes by opening the membrane and then loosening the stapes had been tried, but without any success. Direct mobilization by means of some modification of Lucae's instrument might prove of some service in the future. For some time past they had all been trying indirect mobilization by means of rapid pneumatic massage; up to the present their success had not been great, but this mode of treatment was still on its trial. In conclusion, the speaker mentioned, purely as a vague idea, the possibility of making a new fenestra when the fenestra ovalis was rendered useless.

Dr. Thomas Barr in an introductory paper discussed the Differential Diagnosis of Fixation of the Stapes. In regard to a condition which they had regretfully to admit yielded but little to treatment, either surgical or medical, it was an important point gained if they could isolate the affection and differentiate it from other conditions. Human hearing might be said to depend pre-eminently upon the integrity of the tympano-vestibular connexion. Obstruction to the propagation of sound at this point of the hearing pathway was of course fatal to functional efficiency. Stiffening processes effectually checked those indescribably fine oscillations of the footpiece of the stapes and shut out the patient from the world of sound. Fixation of the stapes might be considered as follows: (1) As the main feature of so-called otosclerosis, in which bony fixation of the foot-piece is often associated with osseous changes in the labyrinthine capsule. (2) As found in the non-suppurative catarrh of the middle ear, when the stapes may be fixed by inspissated secretion, or organized catarrhal products in the pelvis ovalis; by induration of, or calcareous deposit in, the annular ligament, or by prolonged tension, or perhaps fixation of the whole chain of bones due to an indrawn membrane. (3) As a result of acute and chronic purulent processes in the latter of which the stapes may be seen through a perforation, firmly imbedded in inspissated secretion or new connective-tissue formation. Knowledge of stapes ankylosis, the speaker thought, suffered from the fact that few opportunities presented of procuring anatomico-pathological confirmation of conclusions drawn from clinical observations. Dr. Alfred Denker of Erlangen had gathered together records of 27 cases in his monograph, *Die Otosklerose*, in each of which anatomico-pathological examinations supplemented careful clinical observations during life. This valuable method of investigation had been hitherto very much monopolized by Continental workers, and it was unfortunately noteworthy that in Dr. Denker's work British contributions were conspicuous by their absence. Denker's cases yielded important information, based upon *post-mortem* changes both macroscopic and microscopic, in regard to the value and significance of the tests of Rinne, Weber, Schwalbach and Gellé, as well as the significance of abnormal perception of high and low tone. With the methods of examination now at their disposal, it might be said that they were able, almost with an approach to certainty, to differentiate simple, uncomplicated fixation of the stapes during life from other conditions. They found a person suffering from deafness, more to speech than to the watch, beginning imperceptibly and advancing gradually, without marked fluctuation and without any history of catarrhal or inflammatory attacks; they observed a normal condition of the tympanic membrane, with or without a pink-coloured reflection; they found a permeable state of the Eustachian tube shown during politzerization or catheterization, not only by the character of the auscultatory sounds, but by the distinct movement of the membrane outwards, observed by inspection; and, lastly, they found no improvement in hearing resulting from such an effective inflation. So far the condition might be one of labyrinthine or nerve mischief, and until recently there is no doubt that fixation of the stapes had been often diagnosed as nerve deafness. If, however, they found that bone conduction was well maintained, that it was indubitably in excess of air conduction, as shown by each of the tests of Weber, Rinne, and Schwalbach (the so-called Bezold's trio of symptoms), the diagnosis admitted of little doubt. If they proceeded still further and were able to demonstrate that there was a raising of the lower tone limit—that is, impairment of the low notes while the upper tone limit was normal, as defined by a series of tuning-forks and Galton's whistle—assurance would be rendered doubly sure, and the conclusion would be almost as certain as anything in medical diagnosis that the impediment to hearing was of the nature of fixation of the stapes, and definite labyrinthine disease would be excluded. The diagnostic value of Bezold's trio of symptoms rested upon the best of all foundations—namely, clinical observation during life, along with microscopic and macroscopic examination after death. They were therefore justified in concluding that when this trio of symptoms existed, with an unchanged tympanic membrane, a patent Eustachian tube, and a negative result from inflation, the case was one of simple fixation of the stapes. The value of the tuning-fork tests in determining the state of the tone perception had an equally scientific basis, since it had been established by experiment that, in fixation of the stapes, the lower tone limit was raised, and that in pure cases of fixation a marked lowering of the upper tone limit had never been observed. At times cases were not always simple and uncomplicated. The tests, especially as applied to bone and air conduction, did not agree; in fact, the one test might seem to contradict the other. When the results of these tests were not in harmony, neither pointing to simple fixation, nor to labyrinthine disease, they were then very much aided by testing the hearing duration with a series of tuning-forks embracing a considerable extent of the tone scale. For this method they were much indebted to Arthur Hartmann, whose experiments with tuning-forks extended to nine octaves. He found that in fixation the hearing power by air conduction gradually increased both in intensity and in duration as he ascended the tone scale from below upwards. In nerve deafness, on the other hand, the hearing duration gradually decreased as he passed from the lower to the higher tones; hence, if, with a series of tuning-forks, they found a raising of the lower tone limit with no change in the higher tone limit, they had probably fixation of the stapes, while with impaired hearing of the lower tone and at the same time impaired hearing of the higher tone they were likely to have fixation of the stapes *plus* labyrinthine disturbance. The impaired hearing of the lower tones would point to fixation of the stapes, while the impaired hearing of the higher tones would indicate labyrinthine mischief. As an aid to the differential diagnosis, they had, in his opinion, a test of some value, though not always reliable, in Gellé's experiment; if the sounding tuning-fork by air conduction, or placed on the vortex of the head, remained unaltered in loudness when the column of air in the meatus was compressed (negative result), the diagnosis of a fixed stapes might be regarded as strengthened. When the sound was, on the other hand diminished during the compression, there is probably a movable stapes. The test seemed to be of most value when the deafness was very marked. One sometimes observed giddiness during the compression of the air in the meatus This he looked upon as indicating labyrinthine mischief. Other points to be considered in excluding labyrinthine diseases were paracusis Willisii, causation heredity, vertigo, mode of onset. Paracusis would furnish confirmatory evidence of fixation. Weight would be also attached to the gradual occurrence of the deafness a compared with a sudden onset, the latter pointing more t labyrinthine disease. Hereditary element usually favoure the idea of fixation, while such causes as syphilis influenza, exposure to loud sounds, nerve shock would point more to labyrinthine mischief. Giddiness an noises in the ear, no doubt, occurred in both, but the were more frequently met with and more pronounced i labyrinthine affections. In conclusion, the speake pleaded for more anatomico-pathological examination i connexion with careful clinical observation, and he feare that this country had not contributed a fair share of th work required to advance the knowledge and treatment this serious and hitherto almost intractable impedimen to hearing.

Mr. **Richard Lake** divided the cases of fixation und the headings of "false" and "true." *False* as represente by (1) fixation of the malleus; (2) fixation of the malleu with changes in the vestibule and the oval window; (changes due to sclerosis of the mucous membrane in th vestibule, as part of a general sclerosis of the air passage and as the result of post-inflammatory trouble in th region. *True* fixation: (1) the result of chronic suppur tion; (2) the result of rarefying osteitis of the labyrinthi capsule. Illustrative cases were quoted.

Dr. **Albert A. Gray**, in his introductory communic tion, dealt with the etiology and pathological anatomy fixation of the stapes. The discovery of the condition, said, was by no means recent; it was known to Morgagn to Valsalva, and to Meckel, and was by them associat with deafness. Toynbee's investigations were the ne great step in the elucidation of the question, and, thoug they lose a great deal of value from the fact that in t majority of cases there was no clinical history associat with the preparations themselves, the central fa remained that Toynbee first showed the great importan of the subject. Since that time pathological knowled has increased, with the result that the anatomical chang which are to be associated with fixation of the stapes the oval window are fairly well known. On the oth hand, it must be admitted that the pathogenesis of t disease was still very obscure. He wished to conf himself to the pathology of fixation of the stapes, it was found in cases of so-called osteoporosis the temporal bones. So far as was known it not occur as a direct result of inflammat changes in the tympanum apart from injury and s puration. The term "fixation of stapes" did describe, properly speaking, a pathological entity. It was really a result of pathological changes which were widely different from one another. Thus it might be the result of injury to the stapedio-vestibular articulation, of suppuration spreading into the joint from the tympanum, or of bony changes in the capsule of the labyrinth. He would refer only to the last-mentioned condition. Stated briefly the sequence of events was as follows: At certain foci the compact bone of the labyrinth is absorbed, and new-formed spongy bone is laid down in its place. The line of demarcation between the new spongy bone and the old normal bone is very sharp. The new bone tends to encroach upon the cartilage of the fenestra ovalis and on the annular ligament, and thus causes ankylosis of the stapes. The new spongy bone in the course of time becomes more lense. The several views as to the origin of the disease were briefly: (1) The changes in the bone are secondary to he changes in the mucous membrane and periosteum of he tympanum; (2) the change is in the bone throughout he whole course of the disease; (3) the process takes its origin in the cartilaginous cells which are found, o a certain extent, in the layers of bone immediately outside the labyrinth. The view which he now suggested vas that the process was really an absorption of dead out non-infected bone, followed by the deposit of new oone, which was at first spongy but subsequently tended o become compact. The reason of the liability of the one to death was explained by the peculiarities of its irculation.

Mr. L. A. **Lawrence**, in discussing the diagnosis, hought that paracusis showed mobility rather than xation. As regards increased bone conduction, he did ot think anyone had yet brought forward adequate rounds for explaining the phenomenon or for showing ny connexion between it and fixation of the stapes.

Dr. **Dundas Grant** referred to otosclerosis in young irls as a very definite fact. He believed it to be assoiated with an enfeeblement of the circulation, and the atients were usually those to whom one applied the erm "chlorotic." In many of them there had been some f the signs of osteo-arthritis, sometimes well marked in e individual, sometimes in the female progenitor. He as of the opinion that the prognosis was materially orse in cases in which Gellé's test was negative.

Mr. **Macleod Yearsley** desired to emphasize the nportance of more careful and accurate work with gard to tuning-fork tests amongst otologists. Very ten one heard notes read of cases in which the tuningrk tests given were most meagre.

Dr. **Thomas Barr** (on behalf of Dr. Milligan) mentioned at Dr. Milligan had twice perforated the inner wall of e tympanum with a view of forming a new fenestra, but e results had been practically *nil*.

Mr. C. E. **West** cited a case in which he had performed omplete mastoid operation and opened the promontory the hope that it would improve the hearing. There s never suppuration, and it all healed, but at the end e condition was the same as before.

The **President** (Mr. A. E. Cumberbatch), in thanking e authors for their valuable papers, considered that ere was not much known on the subject that had not en laid before the meeting. With regard to Gellé's test, considered it extremely unreliable—whether due to e inaccuracy of the patient tested or the inaccuracy of e test itself he could not say. He had obtained most ntradictory results by its use, and he had ceased to have y faith in it.

CLINICAL SOCIETY OF LONDON.

. H. Clutton, M.A., M.C., F.R.C.S., President, in the Chair.

Friday, May 11th, 1906.

Cystic Tumour of Spermatic Cord.

. **Cuthbert Wallace** described the case of a man, d 41, in St. Thomas's Hospital, who appeared to have ducible inguinal hernia and gave a history of abninal pain and vomiting. Operation showed that the nour consisted of two main cysts with numerous aller ones lying under the cremaster muscle in the d. At the internal ring the tumour could be felt to m a considerable mass in the pelvis. The inguinal tion was excised. This case belonged to those described by the elder writers as "diffuse hydrocele of the cord." Percival Pott, in 1773, first described the condition, and was of opinion that it was an oedema—the view still put forward in English books which mentioned the subject. Mr. Wallace believed that this explanation could not be accepted. The so-called cystic adenomata of the testis and kidney supposed to arise in remains of the Wolffian body were in their construction similar to the tumour under discussion; and it was probable that these multilocular cystic tumours of the spermatic cord had a similar origin.

Mr. E. **Percy Paton** had seen a similar case in a woman. The swelling consisted of several independent cysts, lined by endothelium, and had been diagnosed as a hernia.

Mr. **Kellock** pointed out the resemblance between the case and that of cystic hygroma of the neck. What was the nature of the fluid contents of the cyst?

The **President** described a case under his own care. The resemblance of the condition to cystic hygroma of the neck was only superficial. The walls of the cord tumours were very thin and their structure was quite different from that of a hygroma.

Mr. **Wallace**, in reply, said the fluid in the cysts was albuminous and contained no spermatozoa.

Carcinoma of Thyroid Gland.

Mr. A. C. **Hudson** described eight cases of tumour exhibiting the characters of malignant invasion, and six cases in which, although the ordinary clinical features of malignant disease were absent, the tumours showed the histological structure of carcinoma. Two tumours discovered at necropsy were also described. The cases under review pointed to the disease being somewhat commoner and more amenable to surgical treatment than was generally believed; they also emphasized the difficulty likely to be experienced in correctly estimating the degree of malignancy of epithelial thyroid tumours solely from the type and arrangement of the epithelial cells. Evidence of metastasis and invasion of surrounding tissues were most important.

The **President** described cases that had been under his care. The prognosis as regarded life was, in his opinion, better than was usually thought. A case operated upon by him in 1897 was still well. These carcinomatous tumours were frequently overlooked, being mistaken for simple adenomata. He thought that thyroid metastases were rare—the cases without metastases, at any rate, outnumbering those in which metastases occurred.

Mr. C. W. **Wirgman** said that several such metastases were, however, recorded; they were usually in the flat bones of the skull or pelvis.

Mr. W. G. **Spencer** remarked that in thyroid tumours a gradation from ordinary thyroid tissue to malignant carcinoma could be traced. It was noteworthy that if, after total extirpation of the gland for carcinoma and the subsequent development of the cachexia strumipriva, secondary growths developed elsewhere in the body, the cachexial symptoms lessened.

Mr. **Hudson**, in reply, said that malignancy in the metastases might depend on the capacity of resistance of the tissues; and that emboli from an apparently benign growth might develop into a malignant tumour if the patient was in poor health.

Perforated Gastric Ulcer Treated by Evisceration and Irrigation: Recovery.

Mr. E. W. **Roughton** narrated this case. A woman, aged 26, had indigestion for three weeks, followed by symptoms of perforation. The abdomen was opened five and a half hours later and the perforation closed by sutures. As the stomach contents had escaped freely, soiling all parts of the peritoneum, the small intestines were turned out and the abdominal cavity thoroughly irrigated. The irrigation was commenced in Douglas's pouch, so that the lotion might flow in the opposite direction to the extravasated stomach contents, thus minimizing the risk of spreading the infection. The operation caused little shock, and a good recovery ensued.

Mr. W. G. **Spencer** remarked that evisceration increased tympanites, so that it was difficult to return the intestine to the abdomen, and strain on the sutures was increased.

Mr. **Roughton** replied that this difficulty might be overcome by placing the patient in the Trendelenburg position, and pushing the anaesthetic to relax the muscles.

COMPLETE REMOVAL OF MULTILOCULAR CYST OF PANCREAS.

Mr. **JOHN D. MALCOLM** narrated the case of a woman aged 50. A malignant growth of the left kidney was diagnosed, but a multilocular cyst of the tail of the pancreas was found and removed. Healing caused no trouble, but symptoms of partial obstruction of the intestine developed, and the abdomen was reopened on the sixteenth day after operation. The difficulty was at the splenic flexure, and was removed by forming an anastomosis between the transverse and descending colons. There were no further urgent symptoms. The tumour was a multilocular cystoma with little solid structure between the cysts. The fluid was not examined. The solid growth, described by Mr. Shattock, showed in parts adenomatous, in parts carcinomatous structure. Reference was made to recorded cases; but the rarity of these tumours was noted. The author's first case contained fluid strongly amylolytic, and the structure of his second case was suggestive of that of the pancreas. The difficulty of diagnosis was mentioned, most cases being regarded as renal or ovarian before operation. Complete removal was the only rational treatment when it was possible, as drainage of a multilocular cystoma, especially if malignant, was futile.

The **PRESIDENT** related a similar case on which he had operated. To remove the cyst he had to excise the tail of the pancreas, causing a troublesome fistula.

Mr. **MALCOLM**, in reply, said that in both his cases he had to cut through pancreatic tissue, and that the pancreas held the sutures very well.

MEDICAL SOCIETY OF LONDON.

Sir **LAUDER BRUNTON**, M.D., F.R.C.P., F.R.S., President in the Chair.

Monday, May 14th, 1906.

ELECTION OF OFFICERS.

THE list of officers and Council proposed by the retiring Council was adopted, the new officers being: Mr. Charles A. Ballance, M.S., F.R.C.S., President; Mr. John Tweedy and Sir Edgcombe Venning, Vice-Presidents; Dr. Frederick J. Poynton, Honorary Secretary; and Mr. H. J. Waring, M.S., Honorary Secretary for Foreign Correspondence.

METHOD OF OPERATION FOR THE RADICAL CURE OF FEMORAL HERNIA.

Mr. **W. H. BATTLE** read this paper, describing an operation devised by him in 1899. It had then occurred to him that it was necessary to have a barrier at the upper end, and not the lower end, of the femoral canal. The sac was isolated, opened, its contents examined, and emptied. The neck was ligatured as high as possible. The external ring of the inguinal canal was then defined, and an incision made up the canal parallel with its long axis, two flaps being formed, the upper of which was slid behind the lower. The neck of the sac was placed within the abdomen, and the aponeurosis forming the upper inguinal flap was pulled down and sutured, so that a shutter was interposed in front of the upper end of the femoral canal. By this method 64 cases had been operated on; of these, 30 were reducible, 30 irreducible, and 4 strangulated. In only 4 cases did suppuration occur. There were no deaths. There was only one partial recurrence up to the present, and in that no sac could be found. In no case was the application of a truss necessary after the operation.

Mr. **CUTHBERT WALLACE** alluded to the difficulty in closing the inner opening of the femoral canal. It was doubtful whether a femoral canal could be really said to be closed when the femoral artery and vein were left intact. An important point in the operation was that the series of retaining sutures were put in without tension. A merit of the operation was its comparative simplicity.

Mr. **BATTLE** replied.

CASE.

Mr. **H. J. CURTIS** (Bulawayo) communicated a paper on a case of appendicitic abscess, complicated with multiple liver abscesses which contained amoebae, and had been preceded by dysentery. The appendix was removed, and the abscesses opened and drained; the patient recovered.

The case was discussed by the **PRESIDENT**, Mr. **BATTLE**, and Mr. **CUTHBERT WALLACE**.

PATHOLOGICAL SOCIETY OF LONDON.

Dr. **PYE-SMITH**, F.R.S., Vice-President, in the Chair.

Tuesday, May 15th, 1906.

CHORION-EPITHELIOMA OF CONGENITAL ORIGIN.

DR. **VICTOR BONNEY**, after briefly referring to the observations and views established by Schlagenhaufer and Marchand, recounted a case under his own investigation, the organ concerned being the testicle. The structure of the new growth resembled that of the well-known deciduoma of the uterus. The author regarded the congenital forms as due to the inclusion of blastomeres. The paper was illustrated by lantern slides.

Dr. **TEACHER** (Glasgow) gave a lantern demonstration of the structure of this form of tumour taken from various examples.

Mr. **HICKS**, Dr. **J. BERNSTEIN**, and Dr. **SPILSBURY** added further examples.

Dr. **HANDLEY** pointed out the intimate relation of the syncytium in such tumours to the vessels, and thought the access of the blood in some way determined the formation of such cells.

Mr. **S. G. SHATTOCK** thought that the association of chorion-epithelioma with teratoma pointed to the impregnation of an ovum, and for such congenital aberrations the theory of impregnation of primordial ova in the embryo, to which he had ventured to give the name of epigenesis, was adapted.

SPECIMENS.

Specimens of diphtheria of the oesophagus and bronchi were exhibited by Dr. **J. FAWCETT**, and of deciduoma of the testicle by Mr. **T. W. P. LAWRENCE**.

HARVEIAN SOCIETY.—At a clinical meeting held on May 10th, at the Paddington Infirmary, the following were among the cases shown:—Dr. **MAURICE SQUIRE**: (1) A woman, aged 57, who fell down on getting out of bed and remembered nothing more till the next day. On admission to the infirmary there was complete paralysis of muscles supplied by right third nerve, paresis of left face, arm, and leg, with deviation of tongue to the left. Her condition improved so that she could partially open the right eye, but now movements of the left eye were impaired so that she could not move it beyond the middle line in either direction. The discs were normal and the case regarded as one of haemorrhage into the right crus. (2) A man, aged 30, with sprue, who had been a soldier. He was eight years in India, and there he had "continued fever." His present illness started six months after his return home in 1904 with vomiting and diarrhoea, which had persisted on and off since. On admission in April, 1905 he was emaciated, and had a tongue denuded of epithelium, and copious offensive light-coloured stools. The case was discussed by Dr. **WILLCOX**, who had found a milk diet beneficial in a similar case. (3) A patient, aged 45 with myopathic dystrophy. He first noticed weakness of muscles of upper arms in 1905, and it had steadily increased. There was no history of any similar affection in other members of the family. On admission (March 1906) he had marked wasting of sterno-mastoid, trapezius latissimus dorsi, pectoralis major, deltoid, biceps and triceps, and some wasting of scapular muscles and thumb muscles in both arms. There was no anaesthesia or fibrillary tremors. The muscles reacted to faradism and galvanism. The patient had improved considerably under treatment, and gained power in many of the affected muscles, which have increased in size. He had gained 18 lb. in weight. (4) Dislocation of the sternal end of left clavicle in a man aged 70, who was knocked down by a van, the wheel passing over his chest, and fracturing the second and third ribs on the left side as well.—Dr. **WILLCOX**: (1) A case of rheumatoid arthritis in a boy aged 10. Two years ago he complained of pain in the hands and feet, and gradual thickening of joints took place. There was now marked thickening on interphalangeal joints in both hands, with limitation of movement, and also thickening of interphalangeal joints of toes. His hands and feet were always cold, and turned blue in cold weather. He suffered frequently from chilblains. (2) A man aged 31, with ataxic gait, marked nystagmus and total deafness. Two years ago he had syphilis. One ear ago he became ataxic and hearing failed, being comletely lost in six weeks. His knee-jerks were lively, lantar reflexes, flexor response, no sphincter troubles; no cial or ocular palsy; discs normal; no tremors; no naesthesia. He had suffered from headache, but no omiting. The deafness was attributed to intralabyrinthine yphilis and the other symptoms to pachymeningitis round e cerebellum.

British Gynaecological Society.—At a meeting on ay 10th, Mr. Bowreman Jessett, the President, in the air, Mrs. Scharlieb, M.D., M.S., in a paper on the adntage of the abdominal route in operations for cancer of e uterus, drew the following conclusions: Operation rough the abdomen secures (1) a more fully-exposed d convenient field of operation; (2) a better opportunity r breaking down adhesions without injury to the adder or intestines; (3) more adequate examination and moval of pelvic glands, especially those lying along the urse of the iliac vessels and about the bifurcation of the rta; (4) less danger to the ureters, which may be amined and preserved uninjured while the cellular ssue is dissected away and the uterine vessels are tied their outer side; (5) more reliable haemostasis; the ssels, being easily ligatured, are always liable to bruise e tissues, and have been known to cause necrosis and condary haemorrhage; (6) the bladder and rectum are re easily separated, and are less likely to be inred; (7) the vagina can be divided lower down—a eat gain in cases in which the disease has spread the walls of this tube; (8) in bad cases less ne is consumed in operating by the abdominal te; and certainly cases inoperable by the vaginal te may be successfully completed by the abminal. Especially is this the case where the vagina long, narrow, and rigid, as in elderly virgins and lliparae. She gave a list of 21 consecutive cases: had made an immediate recovery, but none had yet ched the five years limit. Mr. Mayo Robson said that an early stage the supravaginal operation would yield d results, but as soon as the disease had extended to body it was better to operate by the abdominal route is necessary to educate the public, and tell them that they would seek advice early, they could be cured of ditions which would otherwise prove fatal. Mrs. nley Boyd said that if operators saw a case as soon as y could any good operation would succeed. Dr. Manl Moullin said the treatment of cases of cancer must gely depend upon two factors: the nature of the case the bias of the operator. Dr. Purcell advocated the inal route when the disease was in the cervix, but en it had extended to the body panhysterectomy was operation of selection. Miss Aldrich Blake, M.D., ., preferred the abdominal method in all cases. Heywood Smith advocated a longer incision through abdominal wall, and favoured the issue of a pamphlet nedical men and the public, indicating the necessity of king advice on the appearance of certain symptoms. Charles Ryall considered the abdominal route the e scientific method, but admitted it required more e. There was some danger of infection of the abdoal wound. Dr. R. T. Smith said the advantage of the ominal route was that adhesions were more readily lt with. The President considered the situation of growth ought to be taken into account in determining nature of the operation. In disease of the body he erred the vaginal method.

lasgow Medico-Chirurgical Society.—At a meeting April 20th, Dr. J. Lindsay Steven, President, in the r, Mr. J. Hogarth Pringle showed (1): Several cases which bones more or less completely removed for ous causes had subsequently completely remodelled nselves; (2) a case of "black tongue," due to hyperhy of the papillae with pigmentation; attempts to an organism failed; (3) a "Grawitz" tumour of the ey; after three months' haematuria the kidney had removed; sections of the tumour shown resembled cortical part of the suprarenal bodies; Grawitz eved such tumours to arise from suprarenal inclu.—Mr. Archibald Young showed (with Mr. Makins's ission) 2 cases of *arterio-venous aneurysm* following hot wounds, in which spontaneous cure was taking e. The first patient was wounded at Modder River. At first there were symptoms of aneurysmal varix of the right innominate vessels. There was a pulsating swelling with thrill and a typical "machinery murmur." In a year there was great improvement. The man was at work, but had dyspnoea on exertion. The right pupil was dilated. There was now practically no pulsation, thrill, or murmur. The man was now quite able to work, and distension of superficial veins had almost disappeared. The second patient, wounded at Magersfontein, presented symptoms of arterio-venous aneurysm at the root of the right carotid. There was an extensive pulsating swelling, with walls thin and yielding. Purring thrill and "machinery murmur" were marked. There was evidence of injury to the ulnar nerve also. The swelling was now much smaller. Pulsation was less, and thrill and murmur practically gone. Dyspnoea was much less, and the man could now drive a van. There was evidence of secondary involvement of all the elements of the brachial plexus on the right side, and muscular weakness, etc.—Dr. A. N. MacGregor gave the clinical history of a case of *sarcoma of the femur* treated by amputation through the hip in a man aged 30 years. The tumour had been growing for nine months, and always quite free from pain. There was no history of injury, and the family history was unimportant. The tumour occupied the popliteal space, and bulged on the inner aspect of the thigh. Its bulk interfered with locomotion, but otherwise caused no trouble. Amputation through the hip joint was performed, and he made an uninterrupted recovery. Section through the bone antero-posteriorly in the transverse plane showed that the medulla had been invaded by the tumour. There was no expansion of the bone. Sections from the tumour mass outside the bone showed spindle cells and no giant cells. In some sections, however, of the tumcur where it had invaded the bone a few giant cells were seen.

Glasgow Obstetrical and Gynaecological Society.—At a meeting on April 25th, Dr. J. K. Kelly, President, in the chair, Dr. J. Lindsay and Dr. G. N. Turner read notes of a case of *Fetal malformation.* The right knee presented, there being a club foot on this limb, the other limb being dwarfed and widely separated from its fellow; there was also a ventral hernia and malformation of the urino-genital organs. Diagnosis of the position was unusually difficult, but the delivery easy. The malformations found *post mortem* were: split pelvis, ventral hernia, extroversion of the bladder, split penis and scrotum (the testicles being within the abdomen), persistent cloaca with largely-developed Müllerian ducts (cornua uteri masculini), absence of greater part of colon and sacral meningocele. The dwarfed limb was destitute of muscles, tendons, and nerves, there being only fat between the bones and skin.—Dr. John Baird read notes on a case of parturition in a patient with *Double uterus, cervix, and vagina.* A septum about $\frac{1}{8}$ in. in thickness extended from immediately above the meatus to the centre of the perineum upwards to the cervix and completely separated the vagina into two compartments. Two os uteri were felt, the presenting part being in the left. As labour advanced the septum became detached from the upper part of the vagina, its edge obstructing the advancing head. Dr. Munro Kerr, in consultation, ligatured and divided the septum and delivered a stillborn child with forceps. Two distinct uteri were made out.—Dr. William A. Caskie read notes on some cases of *Puerperal eclampsia.* All the cases with one exception were primipara, the urine was albuminous in all but one, death occurred in three cases, and the forceps were applied in five. Headache, vomiting, and oedema were the chief features of the cases. In one convulsions occurred at the seventh month of pregnancy; the usual remedies being useless, labour was induced, but the patient died before delivery was completed. In two cases death occurred after delivery. He also related a case of inversion of the uterus. The patient was seen twelve hours after delivery by a midwife; the uterus was completely inverted, and was replaced by means of compression and rotation. Ergot was given as a later treatment. Dr. Jardine thought the use of ergot dangerous in these cases, as it might cause a return of the conditon; inversion was seldom caused by pulling on the cord, as the cord would break if much traction were used. He related two cases of eclampsia. In one the patient had a perfectly normal labour; forty-eight hours after she began to have fits, and had over 200. Saline transfusion, packs, cupping, and morphine were used; a spinal puncture was made and $\frac{1}{2}$ oz. of fluid removed; afterwards $\frac{1}{5}$ gr. of cocaine was introduced into the spinal cord, but with no effect. Finally the fits ceased spontaneously, and she made a good recovery. In the second case, all other remedies failing, the kidneys were incised, but the patient died. At the *post-mortem* examination infarctions were found in both kidneys, but not in the liver.

Medico-Legal Society.—At a meeting on May 8th, the President, Mr. Justice Walton, in the chair, Dr. T. Claye Shaw, opening a discussion on *Insanity and Murder*, said that most murders were committed in moments of strong mental emotion; from the medical standpoint, the prisoner's sanity or insanity was the most important element in the incident. In 1904, 45 per cent. of the patients at Broadmoor Criminal Lunatic Asylum had been charged with murder; in that year 40 per cent. of the persons tried for murder were found to be insane at some period after arrest; in 1903 the percentage was 25.6. The present method of procedure in such cases was illogical, undignified, and incongruous. In practice it might be assumed that where insanity was proved to be present irresponsibility coexisted. The responsibility of patients, which was apparently recognized in asylums, was both specious and at times expensive. It would be well to consider the practice in Jersey, where all insane persons were notifiable to the authorities. At present with prisoners on remand, whose sanity was in doubt, it was the rule for the medical officer to report his suspicion to the Treasury, who at once sent down a mental consultant; at the subsequent trial a jury was sworn with the sole object of trying the issue of insanity; if this was proved the prisoner was returned "insane on arraignment," and his trial was postponed. Prisoners might object to have "insanity" pleaded from fear either of being sent to Broadmoor or of losing the chance of an acquittal; the questions of agency and collusion must also thus be stifled. Before the trial commenced sworn evidence should be taken, the speaker thought, as to the sanity of the prisoner; the prison surgeon could testify in obvious cases, otherwise two official mental experts nominated by the Treasury would appear. Such evidence should be final, but at the discretion of the judge an inquiry as to who did the deed and how it was done might ensue. In this way much unseemly medical dispute later in the trial would be saved.—Dr. Henry Maudsley did not agree that the present procedure was at fault, nor was it unfavourable to the prisoner; all medical reports were placed unreservedly in the hands of the defence. The proposed procedure would deprive the accused man of the right to adduce evidence in defence of his sanity; this, however, occasionally happened at present even in minor criminal allegations, and was in great contrast with the formalities necessary prior to the seclusion of a lunatic. No practical injustice was done; the jury leaned towards the prisoner's favour, and at times even declined to believe medical evidence of sanity. Forty years ago medical evidence of insanity was apt to be received with suspicion and distrust both by judge and jury.—Dr. T. S. Clouston agreed in substance with Dr. Claye Shaw's proposals. The experts appointed by the Crown should have access not only to the prisoner but to all the available circumstances of the crime and the persons connected with him and it. The judge should be allowed to call a medical assessor to his aid during the trial. It was anomalous that the Home Secretary acted upon unsworn testimony as to the patient's mental condition after a formal trial and conviction. The proposed Criminal Appeal Court might review convictions where mental disease had probably influenced the prisoner.—Dr. Charles Mercier did not believe that insanity and irresponsibility were convertible terms—both were matters of degree, and many "irresponsible" persons deserved to be punished, such as those whose bad conduct was not influenced by their madness. The onus of deciding sanity would be removed from the judge and jury, and placed upon the two experts, who might themselves disagree. The prisoner might be barred a verdict of acquittal. Trial by experts would never be allowed to replace trial by jury in this country. There was no grievance now; if the judge thought that further evidence of insanity should be adduced, he could tell the prison authorities his opinions privately.—Dr. James Scott deemed the present procedure to be better than the proposed alteration. In some cases the crime itself was the only symptom of insanity. Mental experts examining the prisoner after trial were not fettered by the rules which allowed him to refuse to offer evidence which would incriminate himself. Some patients at Broadmoor objected that they had not been proved guilty of a crime, and should be set free at once. It was not logical to restrict the proposed innovation to murderers only.—Dr. John Baker said prisoners were discharged from Broadmoor at the discretion of the Home Secretary after petition by the prisoner or his friends and a report by the medical officers; there were no rules as to the period of detention, not even with puerperal offenders. He had noted that many of those who entered Broadmoor, when asked about the alleged criminal act, pleaded amnesia; this state was often assumed, but it was also true that it required a tremendous mental effort to reconstitute the details of the terrible act. Convicts were kept separate from the other patients.—Dr. Robert Jones preferred the present procedure. Insanity was often a matter of opinion, and could not be proved even by *post-mortem* methods; the brief sittings usually possible made a definite conclusion impossible in many criminal cases.—Dr. T. B. Hyslop held that while the medical faculty had to determine questions of sanity, responsibility was beyond their scope. Trained lawyers excelled medical men in sifting details. He did not believe that the jury always favoured the prisoner, and quoted the case of the murderer of Mr. Terriss.—Dr. F. S. Toogood urged that many cases would have to be investigated immediately after the commission of the crime, as in delirium tremens. He received at the Lewisham Infirmary many persons discharged as "cured" from the London County asylums.—The learned President (Sir Joseph Walton) did not favour the suggested interference with the Royal prerogative as administered by the Home Secretary, who was able to secure and review all the evidence available, including such facts as were not admitted at the trial by legal technicalities; further, he believed that juries, though at times illogical, very seldom went really wrong. At present a man might be tried both as to his fitness to plead and as to his guilt. If it was found that there and then he did not understand what was going on in court, his trial was postponed. Dr. Claye Shaw proposed that he should be "tried" on the evidence of "certificates on oath" of experts who might possibly disagree; this would not be trial, for no evidence would be laid before persons competent to decide the facts in issue. He feared that juries were sometimes biassed by hearing the horrid details of a crime, so that they determined that some one must be punished, usually the prisoner before them; on the other hand, it was not always merciful to find insanity, with the resulting prolonged seclusion at Broadmoor, instead of alternatively an acquittal or a sharp short sentence; with some habitual inebriates such detention after criminal acts was the best possible treatment of the disease.—In his reply, Dr. Claye Shaw said it surprised him to hear that his suggested procedure would be unpopular with the public.

Leeds and West-Riding Medico-Chirurgical Society.—At a meeting held May 4th, Mr. E. Ward in the chair, Dr. Bronner, in a paper on *The Modern Mastoid Operation*, said no surgeon should undertake such operations who was not well up in the anatomy of the parts, and who had not practised the operation on the dead body. The size and position of the mastoid cells, of the lateral sinus varied very much in every case, and it was impossible to know how far the disease had spread before the parts were exposed. Every case was therefore different, and should be treated on its own merits. In most chronic cases it was necessary to perform the complete mastoid operation: opening up all the mastoid cells, the attic and antrum, and removing the posterior wall of the osseous meatus. A large smooth-walled cavity should be formed consisting of the middle ear, attic, mastoid antrum and cells. The chisel should be used as little as possible, as there was danger of splitting the bone and damaging important parts, and the concussion produced was dangerous to the brain, especially as there was always the possibility of an undiagnosed brain abscess. In treatment of the soft parts the danger of stricture of the cutaneous meatus was to be remembered. The author generally adopted Stacke's or Ballance's method of making a flap from the posterior wall of the meatus. In cases where much bone had been removed skin grafting was most useful. In ordinary cases complete healing could be induced without grafting in five to eight weeks. He never closed the posterior wound directly after the operation, but left it open for a few days, and at first dressed the wound daily. He used iodoform powder for a few days, and then xeroform, and plugged with aluminium gauze. Iodoform, if used for any length of time, caused excessive growth of granulation tissue. The application of peroxide of hydrogen was most useful during the operation, and also in the after-treatment.—Mr. H. Upcott detailed the results of a study of *Epithelial tumours of the prostate*, based on the examination of 33 specimens removed by operation. In 27 the enlargement was due to adenomatous or fibro-adenomatous growth; in 5 specimens carcinoma was revealed by the microscope, and in only 1 was the change purely fibrous. Overgrowth of glandular tissue might give rise to one or more ocalized enucleable tumours, or, when arising from numerous foci, cause a fairly symmetrical enlargement, affecting mainly the lower poles of the lateral lobes, ts growth occurring chiefly in a forward direction. The enlarged prostate of the latter type was pyramidal, with the apex upwards, its antero-posterior diameter equalling the transverse. Under the microscope there was a relative increase of the glandular tissue; epithelial cell proliferation was frequently seen; at times cysts were ormed by dilated glands or by coalescence of neighbouring acini, often filled with desquamated cells. Of the ancerous prostates, two had been removed in fragments, wo were but slightly enlarged and were shelled out whole, while the fifth was markedly enlarged. Malignant isease of the prostate could not be diagnosed in the majority of cases except by microscopical examination; o the naked eye the scirrhus cancer resembled the simple brous prostate, while a prostate affected with a more ellular growth might be indistinguishable from an denomatous prostate. Some of the carcinomatous rostates showed more or less encapsuled areas irregularly-branching columns of cells, with carcely any of the fibro-muscular stroma of the and remaining; these probably represented an early age in the carcinomatous transformations.—Dr. Churton showed a case of tumour of the brain in child in which there were present both intention tremor nd abnormal ocular movements.—Mr. J. F. Dobson: brain from a case of hydrocephalus in which a drain as placed between the lateral ventricle and the subdural ace; the operation was only survived a few hours.—r. H. Littlewood: An extreme example of multiple chondromata of the hands and feet.—Dr. Maxwell lling: A case of nodular lupus erythematosus of elve years' duration.—Mr. Grünbaum (with Mr. O. C. runer): A specimen of parotid epithelioma invading e spinal canal.

Pathological Society of Manchester.—A laboratory eting was held on May 9th in the Morbid Histology boratory, Owens College. The evening was given up to monstrations of specimens and methods, some twenty number. Included were a demonstration by Dr. Dixon ann of various urinary pigments with their spectroscopic ctions, and of a disputed faecal pigment named ilicyanin."

---

he American Medical Association will hold its fifty-enth annual session at Boston on June 5th and two owing days, under the presidency of Dr. L. S. Murtry.

uccessful Vaccination.—Dr. A. G. B. Lory, Public cinator of the Chudleigh District of the Newton Abbot ion, has been awarded by the Local Government Board special grant for successful vaccination for the third e in succession.

he late Miss Harriet Lucretia Onwhyn, of Broadstairs, £300 to the Royal Seamen's Infirmary and Hospital at nsgate, and £600 each to the Royal Sea-Bathing rmary at Margate, the Charing Cross Hospital, the don Hospital, the Royal Hospital for Incurables, ney, and the Dental Hospital, Leicester Square.

REVIEWS.

THE KING'S CORONER.

The second volume of the *King's Coroner*[1] has just appeared. In Volume I, published last year, Dr. Henslowe Wellington gave a concise summary of the history of the ancient office of coroner, and very clearly showed that there are points in favour of the existence of the office some two hundred years before 1194, which is the date of the Articles of Eyre, said by Stubbs, Palgrave, and other great historians to be the date of the origin. The various duties of the coroner as carried out in early times are described in a manner almost too concise; a more elaborate history, founded on the amount of material collected from such painstaking research would have been welcome, for the sections upon sanctuary, deodands, royal fish, contain many facts of no little historical interest. The rest of the volume is occupied by a complete collection of all the statutes relating to England and Wales containing the word "Coroner"; and although the large majority of them are of no practical use, yet they are of historical interest as showing how the office has evolved from its ancient to its present position. To the Act of 1887, that upon which the present law and practice are founded, many useful footnotes are added, which might have been rendered still more useful had the author made comments upon them, instead of leaving his readers to hunt up the reports, which is well-nigh impossible in remote country districts away from legal libraries. The frontispiece, which is a reproduction of the seal of the Coroner of the King's Household of the fourteenth century, is an artistic addition to the book.

A glance at Volume II at once shows the practical utility of this half of the work. It is divided into four parts. Part I deals with the jurisdiction and qualifications of the coroner, together with his duties in the office before going to the court, which is the period of greatest responsibility. We are glad to see that the author, in treating of stillborn children, does not countenance the idea that we are all presumed to have been born dead until proved otherwise (p. 5), as has been stated in several recent publications. We think, however, that he is not quite up to date in quoting the older legal authorities as to the discretion of a coroner in holding an inquest, for the office has become more important since the date of the passing of the Employers' Liability and Workmen's Compensation Acts, and must create a tendency towards more careful inquiries; probably, also, the number of inquests is increased.

Part II relates to the court and its procedure, and, indeed, the whole of the book very carefully sets out the practice and transactions of the coroner in chronological order. In this part especially the various forms of oaths, etc., are inserted in their order instead of in Part IV, which is made up of the forms and documents required at other times and places. The rules of evidence will be a useful guide to those who have not had a legal training, for although the strict rules are not always enforced in the coroner's court, yet a clear idea of them cannot fail to be of service to all concerned in the practice of this court. Several pages are devoted to the procedure necessary when a coroner wishes to resign his office, to which he is appointed for life. This is an important addition to coroners' literature, for, since the passing of the Local Government Act, 1888, difficulties have arisen in the matter which are here solved.

Part III deals fully with the duties of the coroner after the inquest is completed, respecting the registration of the death, and various forms of certificates and returns that have to be issued. The index in each volume is full, and adds considerably to the usefulness of the book.

Dr. Henslowe Wellington is certainly to be congratulated upon the result of his painstaking researches, which show care, method, and labour; and we commend the two volumes to all who are interested in the history and duties of the coroner, or are about to undertake the duties of the office.

---

[1] *The King's Coroner.* By R. Henslowe Wellington, L.R.C.P.Lond., M.R.C.S.Eng., Deputy Coroner for the City and Liberty of Westminster and the South-Western Divisions of London, Lecturer on Medical Jurisprudence at the Westminster Hospital Medical School. In two volumes. London: Baillière, Tindall, and Cox. (Demy 8vo, vol. i, pp. 292. 8s. 6d. Vol. ii, pp. 166. 7s. 6d.)

SURGERY OF DIGESTIVE DISORDERS.

THE book on the *Surgical Aspects of Digestive Disorders*,[2] written by Dr. MUMFORD, in collaboration with Dr. STONE, is curiously unequal, for there is evidence of a considerable amount of clinical work, which has apparently been put together without sufficient thought and care. On p. 8 of the preface, which the authors choose to call the "Argument," they write:

> For some years we who write this have been in the habit of impressing upon our students the fact that the duodenum is the central chamber of the digestive apparatus (Fig. 1),

but on turning to Fig. 1, which looks like a kidney adherent to the caecum, and is lettered "Fig. 1 Supplement, showing occasional relation of vermiform appendix with right kidney, colon cut away; retrocaecal appendix," we are unable to perceive the relation it bears to the above quoted aphorism. On the following page the dignified style of the "Argument" is dropped, in order that the authors may address the reader directly; thus:

> You must constantly in your practice be bearing in mind the great frequency of stomach dilatation, cicatrices, and adhesions associated with disturbances of digestion; if you will examine carefully all your cases of dyspepsia you will be surprised to find how frequently the stomach tympany extends below the umbilicus, and you will do well in all such cases to remember that surgery may be your resort, not tardily and rarely, but promptly and frequently; early operations on these stomachs are safe, easy, and effective; late operations may be dangerous, difficult, and futile. . . . The rather frail neurasthenic young girl or the tired mother of many children, the sufferer from dysmenorrhoea, or the elderly widow with heartburn, may be affected with displacements of the stomach, the kidneys, and the uterus.

This is hardly helpful, even if we admit that, obviously, she may! These passages are scarcely worthy of instructors in medicine and surgery in a university; if they stood alone they would suffice to condemn the book, but when the authors are giving serious consideration to their subject the level rises somewhat.

The book proper commences with a chapter on ancient conceptions of the digestive organs, a superficial and unnecessary account of the past history of the treatment of diseases of the stomach, ending with the researches of Beaumont and Claude Bernard. The second chapter gives an almost equally perfunctory account of modern methods of stomach examination, in which the only original suggestion is to demonstrate dilatation of the stomach by "blowing down a tube through a clean glass mouthpiece"!

On page 54 the objection made to the tuberculin test for latent pulmonary tubercle that "some autopsy statistics put the percentage of tuberculosis lesions as high as 98 per cent." is not a good one; if it were, the test would truly be useless; but when tuberculin was extensively employed, ten or fifteen years ago, sufficient experience was obtained to show that it could be relied upon; nor do we think the stethoscope has been superseded by the x rays.

The authors speak in a patronizing way of the methods adopted for the treatment of digestive disorders in the days preceding gastric surgery, and single out Niemeyer's textbook for their illustration of the therapeutic futility of thirty years ago; after summarizing his treatment they say, "He concludes that the results from this treatment are the most brilliant that are ever attained in medicine." Now Niemeyer was the embodiment of therapeutic scepticism and common sense, and was not the man to magnify his achievements, but the words quoted refer to the results of treatment of stomach diseases at Karlsbad! On page 66 they quote Ewald in four different places as speaking of "gastrictasia," where Ewald writes "gastrectasie"; as they are quoting from the American translation, it is possible that the peculiar spelling is due to that work, but, if so, it is a pity to perpetuate a printer's error. We have never before met with the word "hyperchlorosis," used to mean not aggravated chlorotic anaemia, as some might expect, but excess of hydrochloric acid in the gastric juice! The authors use the word "restriction" for constriction; thus, they speak on p. 154 of "hourglass restriction."

The various operations are described in detail, and the descriptions are illustrated by a number of excellent plates, most of which are borrowed from the writings of Scudder or Mayo, but which nevertheless serve their purpose. Dr. Mumford appears to be a supporter of Finney's operation of pyloroplasty, advocated by Mr. Rutherford Morison. An appendix gives the results in 37 cases of the examinations of the stomach, the clinical diagnosis and the pathological diagnosis made either at an operation or on *post-mortem* examinations. Though not a large series, this affords sufficient confirmation of the rules which are getting to be generally accepted for the diagnosis of pyloric obstruction. The principal diagnostic point is stasis. In every one of the cases in which this condition was found there was obstruction either at or near the pylorus; and as this is the condition for which surgical aid is plainly required, its importance cannot be emphasized too much; but these writers seem rather to encourage the treatment of cases "with well-marked mechanical stasis" by medical means, although relapse is inevitable and valuable time is lost.

They advocate "more frequent and earlier exploratory operations"; but while admitting that there is a proper field for these, we must insist that all other means of diagnosis must be exhausted, and, above all, there must be a clear appreciation of the conditions which justify even an exploration, for there is such a large number of gastric conditions causing chronic dyspepsia not remediable by surgical means, that unrestricted exploratory operations will bring gastric surgery into disrepute and hinder its progress.

In the chapter on the surgery of the bile passages, we notice that "Dobbs, Sims, and Kocher" are credited with being the pioneers in this departure of surgery; but Lawson Tait, who was at least one of the first to show that the operation of draining the gall bladder could be performed with practically no risk to life, is not even named. The authors speak of Cammidge's reaction but do not appear to have tried it, or to have read the criticisms upon it which have been published in this country.

APPENDICITIS.

A CONSIDERABLE number of changes have been made in the third edition of Dr. J. B. DEAVER's well-known work on *Appendicitis*.[3] There are several new chapters. The first, on the function of the caecum and appendix, is for the most part a reproduction of Professor Macewen's writings on the subject. A second is devoted to appendicitis in children; here the rarity of the disease under the age of 2 years is remarked, and in the author's opinion is partly due to the relatively large lumen of the appendix and partly to the fluid nature of the diet. In his experience the process of shutting-off the inflammatory area by adhesions is especially active in children, and general peritoneal infection, except by rupture of abscess, correspondingly rare. He records a remarkable series of 77 cases in children treated during 1904, 2 being moribund and dying without operation, the remainder all recovering. The disease is certainly not so fatal in children as in adults, partly owing to the excellence of the recuperative powers at this age and partly to the marked tendency to localization. Chronic appendicitis is also the subject of a new chapter. Dr. Deaver writes of the difficulties of diagnosis in this form of the disease, and relates cases to show that obscure abdominal pain is often ascribed to chronic appendicitis without sufficient cause. He has on occasions removed appendices which were thought to be the cause of abdominal symptoms, and which microscopical examination showed to be actually diseased, without giving the patient the least relief, and he considers that where no definite acute attack has preceded the chronic symptoms, the surgeon will do well to decline to operate unless the physical examination shows very positively that the appendix is diseased. It is to be hoped that this opinion from a surgeon of Dr. Deaver's experience will contribute towards the discouraging of what we agree with him is a too great readiness to ascribe vague abdominal pain to chronic appendicitis, and to operate with no better grounds than a suspicion. On the subject of appendicitis in typhoid fever the author's views are also of much interest. Of 26 collected cases of operation in this condition, 10 operated on during the first week all recovered, while of 16 operated n later 7 died. Dr. Deaver would not operate during the eight of the fever when an appendicitis arises as an ntercurrent affection, unless there is good evidence of erforation or pus formation. The pathological lesions of cute appendicitis are described under four headings—atarrhal, interstitial, ulcerative, and gangrenous. The ccurrence of the catarrhal type is maintained in opposiion to the views of Talamon and others, but of 239 cases perated on and investigated by the author, 9 alone elonged to it. Dr. Deaver is well known to have been n advocate of early operation in acute appendicitis some me before the general trend of surgical opinion inclined this view; he again states his opinion in the following rms: "In every case of appendicitis seen early, operaon is indicated regardless of the mildness of the attack d regardless of the severity of the attack." He holds no treme view on the necessity for removing the appendix every case, but considers that the organ should be moved at the primary operation in all but exceptional ses. On these two points—the necessity for immediate eration in all cases and the necessity for removing the pendix under all circumstances—he appears to be less gmatic now than formerly. Worthy of special attention e the remarks on the contraindications to operation in ses of diffuse peritonitis; and in such cases Dr. Deaver es not now irrigate the general peritoneal cavity, but is ntent with removal of the appendix and drainage, and s had many more recoveries than when he employed igation.

---

[2] *Surgical Aspects of Digestive Disorders.* By James G. Mumford, M.D., Visiting Surgeon to the Massachusetts General Hospital, in association with Arthur K. Stone, M.D., Physician to Out-Patients, Massachusetts General Hospital. London and New York: Macmillan Co. 1905. (Demy 8vo, pp. 395. 10s. 6d.)

[3] *Appendicitis.* By John B. Deaver, M.D. Third Edition. London: Rebman, Limited. 1905. (Demy 8vo, pp. 492; 64 plates. 30s.)

The illustrations throughout the volume are very good, d in this edition there are forty-two new plates, prinally in the chapters on anatomy and on the technique operation. Probably no surgeon has had a greater tual experience of appendicitis than Dr. Deaver, and his ok is second in importance to none that has yet been itten on the subject.

GUMMATA OF THE HEART.

. Stockmann, of Helsingfors, has brought together what known of gummata of the myocardium in adults.[4] owledge of syphilis of the heart, though noted by some the earlier writers, such as Astruc and Morgagni, dates ctically from the time of Ricord, who recorded the first e (1845). Corvisart had previously (1804) surmised that tain vegetations of the valves were of syphilitic origin, iew which was opposed by Laënnec and others. Hunter the end of the eighteenth century had thrown bt on the existence of cardiac lues (1786), and his great hority had been prejudicial to progress. The author iews 76 recorded cases of heart syphilis, to which he added 4 fresh cases, which were under the care of fessor Benda. The latter are exhaustively and carey dealt with. In addition to these, he refers to some btful cases and also to 7 other likely ones, which he been unable to refer to either in the original or in tract. Here it may be stated that cases recorded by sian observers, such as Sacharjin, have apparently n overlooked; at any rate, they do not appear the bibliographical references. In his survey he whole matter the author has, however, dealt only those cases (52) in which there were circumscribed mata of the myocardium. These lesions are usually tiple, but, when one tumour only is present, it is ally found to be made up of a congeries of small guma. The left ventricle was the part mainly affected in ases; the right being involved in 20. As to the ology, the growth is preceded by changes in the els. In his own cases Stockmann found the miliary mata arranged round small veins. The differential ological diagnosis is dealt with in a special section. parison is made with abscesses, infarcts, sarcomata, and rculosis. The last-named presents the greatest diffiies in this direction, and various contributions on this ial point are dealt with; the etiology is well handled. s have been published in which the heart became ted in the first year of the disease, and at the other of the scale fifty-five years after the first symptoms econdary syphilis. As factors favouring the developt of gummata in the heart, the usual diseases of els and kidneys, hard bodily work and exertion, and, above all, alcohol, the faithful ally of syphilis, are mentioned. The frequency, as compared with syphilis of other viscera, and also as regards syphilis as a whole, is dealt with. The symptoms may be absent, as in the case of small gummata, but when these are large, angina pectoris, tachycardia, epileptiform attacks, and so forth, may occur. Sudden or unexpected death, sometimes without previous indications of anything being wrong, is frequent. Dr. Stockmann is to be congratulated on his industry in bringing together his facts, both clinical and histological. His monograph can be recommended, especially to those working at syphilis and life assurance.

TEXTBOOKS OF MEDICINE.

The third edition of Dr. James Tyson's *Practice of Medicine*[5] is without doubt a very good book. It is strong in such practical points as clinical methods and instructions for nursing and medical treatment, although it may be said that the plan of including fully written out prescriptions, besides being extravagant of space, is unnecessary, as indeed are prescriptions in any form. What value, for example, can there be in a prescription for cholera merely including laudanum and five carminatives such as ginger and peppermint? Still the memoriter student may think differently. The additions and minor changes in this issue have been so numerous that the entire book has been reset. The greatest amount of modification and enlargement has been in the section devoted to infectious diseases. It is at least no exaggeration to say that this edition fairly represents the present state of modern medicine.

Professor Lemoine has done work of recognized value in therapeutics, but his present work on pathology[6] makes no claim to originality, and is calculated to add to his literary rather than to his scientific reputation. The book, however, will no doubt prove useful to students and others requiring a readable and concise account of almost all the diseases likely to come under the notice of the physician, although its usefulness is greatly impaired by the absence of an index to its two thousand and odd pages. Although described as a treatise on pathology it is really a textbook of systematic medicine, and deals with disease under the usual headings of history, etiology, symptomatology, diagnosis, prognosis, and treatment. The paragraphs dealing with treatment are, however, so very brief and general as to be quite worthless. They would have been better omitted. On the other hand, the prominence given to the history of each disease is an excellent feature, though even here there are curious omissions. Thus the long controversy as to the differentiation of typhus and typhoid fever is thus summed up: "Thanks to the researches of Lombard, of Maillot, of Laveran, of Kelsch, and of Kiener, typhoid fever was finally proved to be in itself a morbid entity, with a definite place in the category of diseases." Not a word of Jenner, of Murchison, or of any of the American school! Again, while the researches that led to the discovery of the parasite of malaria are pretty fully described, it is only under the heading of "prophylaxis" that we hear anything of the rôle of the mosquito, and even then there is no mention of Ross. Professor Lemoine's classification of diseases also leaves much to be desired. Thus tuberculosis and syphilis are not included among infective processes, and are only dealt with as they arise in connexion with the diseases of various organs, and scurvy is omitted from the list of diseases of nutrition, and included among diseases of the blood. There is no reference to infantile scurvy and its connexion with rickets. The section on diseases of the nervous system is particularly full and well illustrated, although we notice that the diagram and description of the patellar reflex is distinctly misleading. There is nothing to suggest that this differs at all from a simple cutaneous reflex, and the increased reaction time is not even mentioned. The author seems to be somewhat unduly impressed with the importance of exact delimitation of the doubtful phenomena of the distribution of anaesthetic and thermo-anaesthetic areas in functional neurosis, and the diagrams dealing with this subject are

---

eber *Gummiknoten im Herzfleische bei Erwachsenen* [Gummata of the ardium in Adults]. Von Wilh. Stockmann. Wiesbaden: J. F. nann; and Glasgow: F. Bauermeister. 904. (Demy 8vo, 04: 7 plates. 4s. 9d.)

[5] *The Practice of Medicine.* By James Tyson, M.D. Third edition. London: Rebman Limited. 1905. (Demy 8vo, pp. 124; 134 illustrations; 24s.)

[6] *Traité de Pathologie Interne.* Par G. Lemoine. Tomes I et II. Paris: Vigot Frères. 1905. (Cr. 8vo, pp. 2026. Fr.16.)

unnecessarily numerous. With the exceptions mentioned, the book appears to be accurate within its limitations, though not always perfectly up-to-date, and throughout it is written in a clear and graceful style that must rob the study of medicine of half its terrors for the student.

NOTES ON BOOKS.

PROFESSOR FIEDLER and Mr. SANDBACH have embarked on an excellent scheme. They propose to provide for the English student of science a course of simple and practical instruction in the German language, which will enable him to read German scientific literature. Their first issue, entitled *A First German Course for Science Students*,[1] deals with elementary German grammar, and contains a short reader which illustrates the grammatical rules by means of easy passages of connected prose, descriptive of simple experimental demonstrations performed in chemical and physical laboratories. This will be followed by a second course, containing graduated passages from modern scientific literature with annotations and explanations of further grammatical points. If the authors find that their work is favourably received they promise to continue the series by the addition of volumes specially designed to meet the requirements of students of botany, zoology, physiology, medicine, and other sciences. We are confident that the English student of science will not fail to appreciate this admirable plan. A knowledge of German is indispensable to any one who wishes to keep pace with scientific research, but the difficulty of mastering the technical terms often proves a stumbling block to those who have not had the opportunity of taking a course in a German university. Professor Fiedler and Mr. Sandbach are adopting a thoroughly sensible and practical way of overcoming this difficulty, and we hope they will continue to apply their methods to other departments of science.

In a small volume entitled *The Needs of Man*,[2] Dr. WINSLOW HALL endeavours to group together the various essentials which he considers necessary to the complete development of mankind. According to Dr. Hall there are eight bodily needs—food, cleanliness, covering, land, work, rest, pain, and death; two moral needs—sin and love; and one spiritual need, God. The book is evidently written with a commendable desire to promote the bettterment of the race, but the author's views are Utopian and we fear the realization of his dreams can scarcely be hoped for this side the Millennium. Despite his opinion that food requirements "are all met by a diet consisting of milk products and certain vegetable products," men will still go on eating fish, flesh, and fowl even in face of his ominous warning that "they are unnecessary, they are expensive, they cause needless labour, they are ethically objectionable, and they are slow poisons"; despite his diatribe against the "folly and crime" of sartorial fashion women will continue to follow its dictates; despite his indignant protests against landowners, the mass of civilized men live contentedly and will be surprised to learn that "they are so besotted by their servile environment that they have quite forgotten their inalienable right to the land"; and despite his contention that "the manufacturer should live among his mill hands, the landowner among his ploughmen, the merchant among his clerk or shopmen," present distinctions of class seem likely to be maintained. From beginning to end the book is a fanciful plea for a condition of Society which is impossible and for a species of human paradise which the most iconoclastic sociological reformer in his wildest dreams has not imagined. The last chapter, in which Dr. Hall deals with the spiritual need of man, is the best in his book and is interesting as an idealistic study. Otherwise little can be said for a volume, which though evidently written with a serious purpose, is fantastical and unpractical.

As in the case of several of its predecessors, the twenty-first volume of the *Transactions of the American Climatological Association*[3] contains a good many papers of general interest. Among them is one on the sea-air treatment of osseous and glandular tuberculosis, another on blood pressure and the pulse in relation to altitude, and two others on impalpable sputum, and the various ill-recognized factors in the prevalence of tuberculosis. Several of the papers are well illustrated. A general index of all the twenty-one volumes of transactions which have at present appeared is appended.

The Society of Medical Officer of Health.

JUBILEE CELEBRATION.

THE celebration of the Jubilee of the Incorporated Societ
of Medical Officers of Health serves to remind us ho
closely the Society has been bound up with the publi
health administration of the past half-century. The firs
medical officer of health to be appointed in this countr
was Dr. William Henry Duncan, who was elected fc
Liverpool in 1847. In 1848, Mr. (afterwards Sir John
Simon was appointed to the city of London, and about th
same time Mr. T. J. Dyke became medical officer of healt
for Merthyr Tydvil. The sanitary authorities in Londo
were not obliged to appoint these officials until the yea
1856, and in the rest of England and Wales not until 187
It is not surprising to find, therefore, that membership
the Society of Medical Officers of Health, which wa
founded in May, 1856, was confined in the first instance t
those who held office in the metropolis. Ten years late
medical officers outside London were admitted as honorar
members, and in 1873 they were admitted to ordinar
membership. Other associations of health officers wer
formed in the north-western counties, in Yorkshire an
in Birmingham, and these were ultimately amalgamate
with the original society. Since 1888 there has been bu
one association, which has now ten branches in variou
parts of the country.

During the first five years of its existence the Pres
dential Chair was occupied by Mr. John Simon, an
Dr. Robert Hillier was the first Secretary, among th
other members being: Drs. F. W. Pavy, Edward Ballar
William Odling, Robert Barnes, J. Burdon-Sanderso
J. S. Bristowe, Edwin Lankester, Henry Leheby, Barnar
Holt, Septimus Gibbon, and Conway Evans. Th
importance of the Society was early recognized, a roo
at the offices of the General Board of Health being place
at the disposal of the members for their meetings. At th
first of these, committees were formed to consid
nuisances arising in trade, their action on health, and th
means of obviating them; adulterations and deterioratio
of food and drugs, their extent and frequency, their actic
on health, and their detection; the causes of disease
epidemic, endemic, and contagious; meteorology; th
state of vaults under churches and their influence o
health; and the condition of slaughter-houses. Th
Society has from the first endeavoured to obtain som
uniformity of records, and the tables issued by the Loc
Government Board for inclusion in the annual reports
medical officers of health were drawn up by a Committe
of the Society.

PRESIDENT'S ADDRESS.

The Presidential address of Sir SHIRLEY MURPHY at th
jubilee meeting of the Society held on May 11th, thoug
purporting to give an account of the work carried out b
medical officers of health during the past fifty years, wa
really an account of the work of the Society, for, as he r
marked, from the beginning the two have been inseparabl
The Society was the inevitable outcome of the impositic
of a new and difficult task upon a body of men who migl
well turn to each other for consultation and guidance. Th
need for the employment of officers specially appointe
to improve the sanitary circumstances of the populatic
was emphasized by the result of inquiries made into th
social conditions of the people in the early years
Queen Victoria's reign, which inquiries demonstrate
as similar inquiries always have demonstrated, th
great truth that air and light are essential conditio
for healthy existence, and that excremental pollutic
of the water, air, and soil are inevitably attende
by disease and mortality. He dealt in some deta
with the work carried on by scientific observe
in this country and abroad in connexion wi
immunization against disease, and discussed th
various theories which are held to account for th
power of resistance to the invasion of pathogenic micr
organisms. Upon the vexed question of hospital prov
sion for infectious diseases, he expressed the opinion th
its value must largely be governed by the efficiency
administration in other directions. There must be take
into consideration the proportion of cases isolated, th
steps taken to seek for inconspicuous cases, the stage

---

[1] *A First German Course for Science Students*. By H. G. Fiedler and F. E. Sandbach. London: Alexander Moring, Ltd. 1906. (Demy 8vo, pp. 99. 2s. 6d.)

[2] *The Needs of Man*. By W. Winslow Hall, M.D. London: Swan Sonnenschein and Co., Limited. 1905. (Crown 8vo, pp. 220. 3s. 6d.)

[3] Detroit: Published by the Association. 1905. (Demy 8vo, pp. 310.)

e illness at which the diagnosis is made and the period removal, the completeness of measures of disinfection, id the care observed in preventing infectious persons om being discharged from hospital. The natural haviour of infectious disease must also be borne in ind in any attempt to estimate the value of preventive easures which are, or can be, only partially applied. ie mortality from whooping-cough has, notwithstanding casional periods of exceptional prevalence, diminished the last thirty years by about one-third without the plication to it of any particular measures of prevention, iile measles has in the same period maintained the rate of e earlier years. When considering the evil effects of ercrowding and of insanitary surroundings, he hinted at e possibility of an advantageous co-operation between e medical officer of health and the charitably disposed. he said, there could be focussed upon particular cases—ch, for instance, as impoverished families in which thisis was manifesting itself—the attention of those who w give largely to the relief of distress, how much more eedily would be developed that resistance to disease iich is now possessed by persons better circumstanced.

JUBILEE DINNER.

In the evening the jubilee dinner of the Society was ld at the Hotel Cecil. Sir SHIRLEY MURPHY presided er a large gathering, which included Dr. Pavy, the esident of the Royal College of Physicians (Sir R. uglas Powell), the President of the Royal College of rgeons (Mr. Tweedy), Baron Takaki, Sir William Broadnt, Sir Michael Foster, K.C.B., Sir Lauder Brunton, James Crichton-Browne, Sir Patrick Manson, Sir John Fadyean, Sir H. Seymour King, M.P., Sir Melville achcroft, M. Henri Monod, and Mr. Evan Spicer.

Mr. TWEEDY, in proposing the toast of "The Houses of rliament," expressed satisfaction at the presence of so ny Labour members in the present House of Commons, they had a very intelligent appreciation of the portance of the work of public health officers.

Sir SEYMOUR KING, M.P., in responding, said that he ıld well believe it would not be a bad thing for the sident of the Local Government Board to be elected the Society of Medical Officers of Health.

Sir MICHAEL FOSTER, in proposing "Local Government," pressed the hope that the present Government would the interests of public health make readjustments of itary areas, and see that those areas were properly uipped and the powers necessary for the safeguarding the public health properly exercised.

Mr. EVAN SPICER, who responded, spoke in high terms the appreciation of the members of the London County incil for the work of Sir Shirley Murphy.

ir JAMES CRICHTON-BROWNE, in proposing "The Society its Jubilee," said that during the past fifty years the iety had been identified with every advance in the ence of preventive medicine, and he hoped before long oyal Charter and the patronage of the King would be orded to it. He described medical officers of health as rough-going protectionists, safeguarding the commonl by prohibiting the free import of disease and exclud- undesirable aliens.

ir SHIRLEY MURPHY, who responded, said that the iety increased the efficiency of its members. As their uence was growing they must take care that they did disappoint expectation.

r. PAVY also responded, and said it was gratifying that had to do not only with disease, but with the pretion of disease, for prevention was often more essful than cure.

he toast of "The Visitors" was proposed by Dr. A. VSHOLME, and responded to by Sir DOUGLAS POWELL Baron TAKAKI, who gave an interesting account of Society of Hygiene, which was formed in Japan in , and now has branches in every province, educating people in the principles of hygiene by means of ures, the distribution of literature, and in other ways.

ROFESSOR BIER of Bonn has declined a call to the Chair urgery in the University of Heidelberg in succession to essor Czerny, who, as already announced, will vacate October.

HARLES WIGAN, M.D., of Portishead, Somerset, has elected Chairman of the Urban District Council for sixth year in succession, and is entitled to sit as a istrate of the county.

CRIPPLED, EPILEPTIC, AND MENTALLY DEFICIENT CHILDREN.

DR. ASHBY's third annual report (for 1905) to the Manchester Education Committee on the Manchester special schools deals with day schools for the mentally defective, the resident school for cripples, with the epileptics at the David Lewis Colony at Sandlebridge, and with the Sandlebridge residential school for mentally defectives.

DAY SCHOOLS FOR THE MENTALLY DEFECTIVE.

The special day schools in Manchester for the mentally defective can accommodate 218 children.

Attending at the end of 1904	215
Admitted during 1905	48
Total	263
Left during 1905	42
Attending at the end of 1905	221
Total	263

Dr. Ashby says:

"It is pleasing to be able to report that the school work has been conducted with great enthusiasm and interest by the teachers, and that a marked improvement in attainments and conduct has taken place as regards the children. There have been very few instances of parents refusing to allow their children to attend, or of withdrawing them from school. In some instances parents have voluntarily brought their children for examination and admission, as they were conscious that they were slow in learning, and were anxious to obtain for them the advantages of a special school. It is gratifying to find, as time goes on, parents, instead of looking upon attendance at these schools as a stigma, are recognizing the useful place they fill in the education system."

The 42 children who ceased to attend the day schools were thus accounted for: 7 were transferred to the Sandlebridge boarding schools; 7, who had more or less severe fits, to the David Lewis Epileptic Colony; 7, admitted on probation, were discharged as being too feebleminded to benefit in a day school; 8 left the district; and 13 (6 boys and 7 girls) on attaining 14 years of age were, at the wish of the parents, allowed to leave to obtain work. Of the 6 boys who left 3 are working and doing well, one of them earning 10s. a week, with good prospects before him; the other two earning 5s. or 6s. a week. They have failed as yet to get permanent places; they worked well at school, and would no doubt do useful work elsewhere if under careful supervision. It is to be feared that boys of this class, if left to their own initiative, will be failures, especially when the home influences are bad. They appear to do little else than idle about in the streets. Yet work can for the most part be obtained for boys of this age who are willing and will stick to it. Of the 7 girls, 4 are working and doing well, 2 cannot be traced, and 1 has left the district. Of those working, 1 is cap making, 1 doing needlework, and 2 are doing household work at home.

Dr. Ashby thinks it probable that during 1906 from 20 to 30 children will be leaving school by the wish of their parents in order to go to work, and expresses the opinion that it is of the greatest importance to the Education Committee to try and trace their careers. On this point he says:

> It would give many of our scholars a better chance in life if it were possible to specialize more than is done at present at the age of 13 or 14 years of age. Already a good deal is done in the way of teaching basket making, caning chairs, making simple toys, mat making, and cooking; but what is wanted is a "trades school," where the simpler handicraft trades are taught by practical traders. In this way a start might be made towards earning a living. Clog making, joinery, perhaps shoe making and household work for girls. Many of those who are little use at book learning yet can be taught enough to keep simple accounts, and are capable of becoming skilled workers.

Dr. Ashby lays great stress upon the futility of admitting to the schools the lower class of defectives or borderland imbeciles. In his opinion they benefit to some extent by the training and good example, and it is better for them to be at school than idling at home; but from school books they learn hardly anything, as their powers of mental retention are too feeble, and no permanent results are achieved. For them the day school is practically useless; results follow in no sort of proportion to the effort. They are in want of care not only during childhood, but for life.

With regard to the causation of feeble-mindedness, Dr. Ashby considers that the evidence obtained makes it clear that in the majority of cases it tends to run in families. That feeble-mindedness is at times not inborn but acquired as the result of disease or injury to the growing brain, is certain; but he has found no reliable evidence that bad feeding or bad hygiene plays any part in its causation. Bad hygiene no doubt produces rickets, and such children are apt to be stunted in growth and slow of intellect, but they are not feeble-minded in the ordinary sense of the term. Neither has he obtained any evidence to be relied on that alcoholism in parents, or tuberculosis or nervous shocks during pregnancy *per se* produce imbeciles or mentally-defective children.

Resident School for Cripples.

With regard to resident schools for cripples we quote the following passages from the report:

> Since the opening of Swinton House last summer 34 children have been admitted, and 5 have left for various reasons. All the children admitted were suffering from some chronic disease, paralysis, or deformity, which prevented them from attending a day school, and yet did not interfere with their ability for receiving profit by teaching. For the most part they were quite of average mental powers, but were very backward on account of their having had but little, in some instances no, schooling. Of the 34 children, 14 had spinal deformity due to long-standing disease, 10 deformity from disease of the hip, 5 had severe deformities due to rickets, 3 were affected with paralysis, and 2 had old disease of the knee.
>
> Six were transferred temporarily to the Children's Hospital (with consent of parents) for operation, with the object of setting straight bent limbs or removal of diseased bone, returning when they had sufficiently recovered to be able to resume their school work.
>
> Many of the children are for the most part confined to bed on account of their helplessness; others are able to get up and be about for part of the day with the help of crutches. With small exception they have improved notably in health, and are progressing favourably in school work.

It is added that but for the residential school, the present inmates of the Children's Hospital would be receiving no education at all. There is a good prospect that the majority will be much improved in health and limb, and will have at least the elements of education when the time comes for them to leave school.

Epileptics.

The first children were sent to the David Lewis Colony in February, 1905; 71 epileptic children were examined for admission, of these 45 were admitted, 38 were in residence at the end of the year 1905, 6 were discharged or removed by friends, and 1 died. In some instances admission was refused on account of the children being too imbecile or troublesome.

Dr. Ashby says: "I do not doubt that a residential colony school is the best place for these unfortunate children. Many of them get no education at all when at home, being excused school on account of fits, under the mistaken idea that school work predisposes to epileptic seizures. Speaking generally, school work and school training is of the greatest advantage to children suffering from epilepsy in medium and minor degrees. The worst thing for them is idling and loafing about. The ordinary school is, however, not the place for them, on account of the disturbance caused by their fits. A residential school in the country, with outdoor work and games as well as ordinary school work, affords the best chance of amelioration or cure, and secures the prospect of their wage earning in the future."

Residential School for Mentally Defectives.

During 1905 7 children were sent to the Sandlebridge Residential Schools of the Incorporated Lancashire and Cheshire Society for the Permanent Care of the Feeble-minded, and 30 belonging to Manchester were resident there at the end of the year.

It is, Dr. Ashby observes, a great advantage to be able to send mentally defective town children to a residential school in the country, especially when the home conditions are bad, or the children are orphans. They have, in addition to an education suited to their mental powers, a training in useful work and country pursuits. They take great interest in gardening, the care of poultry and stock; and the girls have a good opportunity of learning household and laundry work. When, as is intended, they pass on to Colony life, they are already fairly well trained in pursuits whereby they will be able, under supervision, to contribute materially to their support. They are contented and happy and, with small exception, improved in health and physique.

Dr. Ashby says, in concluding his report: "I am very anxious that the work we have undertaken with regard to the mentally defective, epileptics, and cripples should be extended as opportunity occurs, believing that in the case of these unfortunates, as in more fortunately circumstanced children, an education which is real and earnest is worth its price."

THE PHARMACEUTICAL SOCIETY.

The Use of Statutory Titles by Companies.

The annual dinner of the members of the Pharmaceutical Society and their friends was held on May 15th at the Hotel Metropole, London. The President of the Society, Alderman R. A. **Robinson**, was in the chair and in proposing "The Houses of Parliament" referred to the amendment carried in the House of Lords against the Government in the debate on May 11th on the Poisons and Pharmacy Bill to regulate the sale of certain poisonous substances and to amend the Pharmacy Acts. He said that an amendment carried by 38 to 32 could not be exactly considered decisive, and observed that the full import of that decision could not have been recognized by the noble lords. Lord Crewe held the opinion that the title "chemist" should be used only by and given to those who had passed the statutory examination; but by a small majority in the House of Lords it was carried that an unqualified company might use the title chemist provided it employed a person holding a chemist's qualification. If the amendment was not thrown out in the House of Commons, then in future any company of unqualified persons need not make up prescriptions according to the *Pharmacopoeia*, nor keep strong poisons in accordance with the regulations observed by chemists. The import of the amendment was to put the companies outside all the regulations which tended to the safety of the public. The Chairman also referred to the noble lord who in the debate said tha companies of unqualified persons had been accustomed to use the title of chemist "from time immemorial. Another noble lord observed that these unqualified companies established their businesses in order to provide cheap drugs for the poor. It was a lamentable thing that chemists should be ruined by unqualified persons and unqualifiable companies using the name of chemist without having anything to do with chemists. The Pharmaceutical Society was not seeking for any unfair privilege, but objected to the view of the thirty-eight noble lords, one which if it prevailed would mean privilege for the unfit.

Mr. R. **Winfrey**, M.P., in responding to the toast, said tha the case for the pharmacists had not been fairly put in the House of Lords. The noble lord who moved the amendment which was carried seemed to think that the title of chemist was a mere trade distinction not to be distinguished from any other trade name. It was no understood that there was a distinction between the righ to carry on a business and the right to use a title One speaker in the debate had actually said that the Pharmaceutical Society had been endeavouring to secure by legislation a trade monopoly in order that it migh raise the price of drugs. The Marquis of Ripon was right in declaring that it was for the security of the public that the title "chemist" should be reserved to persons qualified by examination. It was not fair to put these one-man companies into competition with men who had passed their examinations.

The toast of "The Medical Profession" was proposed by the **Chairman**, and, in the absence of Sir Richard Powell President of the Royal College of Physicians, was acknowledged by Mr. J. **Tweedy**, President of the Roya College of Surgeons, who urged the importance of pharmacy being properly taught to medical students, especially hose who were to work in remote country districts far rom any chemist.

Dr. Donald MacAlister, President of the General Iedical Council, in proposing the toast of "The Pharma- eutical Society of Great Britain," said that, like the ieneral Medical Council, that Society was charged with double duty—that of pharmaceutical education, and hat of pharmaceutical registration. Registration and its rivileges were a reward offered by the Legislature to hose who by long and careful education had quali- ed themselves, and after strict examination had roved themselves worthy to receive it. Registration as a personal recognition of personal fitness; the -called privileges of registration were merely the knowledgement by the State that skilled work should be trusted only to skilled hands and heads. It therefore ncerned primarily the interest of the public at large. was for the good of the people that those privileges ere conferred so long as they were open to any citizen ho was found to be qualified for their exercise. It was a ave terminological inexactitude to speak of them as a onopoly. It was worse than inexact. It was unjust and was dangerous to the public when the State allowed an intentional and unforeseen defect of the law to ustrate its purpose. It intended, by holding out ducements towards personal qualification and by posing limitations on the baneful activity of the un- alified, to secure that there never should be wanting a pply of persons able and willing to serve the public as armacists, as dentists, and as medical practitioners. e ingenious application, however, of the law of com- nies, originally enacted for financial purposes only, had ne far to nullify these inducements and to break down se wholesome limitations. As President of the General dical Council, it had fallen to him to study the mis- evous effects of that failure of the law which, as he had ted, made a breach in the Medical and Dentists Acts, less than in the Pharmacy Acts. The General Medical uncil had for years sought to persuade the Legislature stop those breaches and to restore to the public the eguards that were meant for its protection. The armaceutical Society had, thanks to the vigour of its cutive, gained a step in advance of the medical pro- sion. The Pharmaceutical Society had Bills actually re both Houses of Parliament dealing with the ques- of unqualified and unqualifiable companies. The lical profession applauded such public spirit, and hed victory to the Society. It seemed too much to e at the present time for victory all along the , because private interest was vigilant, resourceful concentrated. The public interest, on the other d, was easy-going, diffused and hard to rouse its own defence. The Pharmaceutical Society had east brought the question to an issue and stimulated ple to say that something ought to be done and Society was in process of educating their lords masters the Houses of Parliament. The medical ession watched the process closely and without cism hoped to profit by the experience of the Society by its success. Parliament must sooner or later be ced to see that the evil deprecated by medical , dentists, and chemists, had arisen, not from inherent weakness in the medical, dental, and macy acts, but from the fact that unqualified ons could by incorporation exempt themselves in eater or less degree from the provisions of these . It was incumbent on Parliament, therefore, nd a remedy. In other circumstances the law pro- l that what was legal for one person to do might me illegal when done by three or more in conspiracy. eir case what was illegal for one person became legal seven men joined together to do it as a company. n that way, Dr. MacAlister concluded that the plea change in the law was unanswerable.

is toast having been acknowledged by the Chairman, se again and submitted the toast of "The Pharma- cal Society of Ireland," which was responded to by . A. Walsh, President of that Society.

e Chairman proposed, and Mr. J. P. Gilmour gow) acknowledged, the toast of "The Pharmaceu- Associations of Great Britain."

e evening concluded with the Chairman submitting oast of "Our Guests," which was replied to by ssor Percy Frankland.

THE INCOME TAX INQUIRY.

Dr. W. Gordon (Exeter) forwards us the following memorandum, and in his covering letter says: Mill objected, not to a general property tax, but to a *partial* property tax—that is, one falling only on certain sorts of property, and, in the particular instance referred to, one which was obviously most unfair and oppressive in its incidence. The context makes this quite clear.

MEMORANDUM ON INCOME TAX.

The soundest course for the profession seems to be:

A. To insist, at least—

- i. That a reduction shall be made in the tax on earned incomes.
- ii. That this reduction shall be adequate.
- iii. That graduation shall not apply to earned incomes.
- iv. That if any limit is fixed, above which earned incomes will be less favourably treated, this limit shall not be under £4,000 a year.

B. But at the same time to point out that the only satisfactory course is to abolish income tax and replace it by some form of property tax. This claim, if it fails, will at least strengthen the claims under A.

C. If anything is to be done it must be done now.

Reasons.

A. i. It is admittedly inequitable to tax earned incomes on the same scale as unearned, and the fact that this has been ignored for such a long time makes evident the self-interest which has guided the property owners who have controlled legislation; it also shows their want of foresight, because the penalizing of intellectual work must eventually injure the State.

It is not too much to say that the professional classes are oppressively taxed. They pay their full share of indirect taxes, including rates, as well as their income tax, yet, as a rule, they possess little property that is not earned, and by laborious responsible labour they must maintain appearances for financial reasons, educate their children, and make a provision for old age, as well as for their wives and families in case of death or disablement. The abatements made to them are quite inadequate.

On the other hand, the classes below them pay, for the most part, no income tax, and have their children educated by the State, whilst the classes financially above them have capital at their back, an advantage which property owners take care to make light of, but which is simply immense.

It is very curious that the professional classes have so long tolerated such a state of things.

A. ii. It may possibly be attempted, by those who do not belong to the classes interested in differentiation of income tax, to make it more or less a pretence. Any reduction to earners of less than 50 per cent. will be insufficient. The professional man must be allowed to save. He is quite as necessary, at least, as the artisan, and it is a matter of national importance that the brain worker, as well as the manual worker, should be permitted to breed and to bring up his children as cultured at least as himself. In these days of growing national idleness and decay of real culture it is of vast importance to encourage intellectual work, not to discourage it, as at present.

A. iii. Graduation of income tax on earned incomes is a direct penalty on ability and industry. It is as foolish as it is indefensible. It is, of course, natural, in a rather ignorant community, that short-sighted jealousy should be allowed to drag down excellence and establish general mediocrity, but in a country like ours the intelligence of the nation must be looked to to step in and protect brains and work from the natural hostility of stupidity and laziness. If first-rate work is to be turned out there must be security for the fruits of intelligence and effort. The "rights of property" are not one whit more sacred than the "rights of industry."

A. iv. To limit favourable treatment of earned incomes to those below £2,000 a year, as has been recently proposed, will be extremely unfair and unwise. In medical practice, at all events, the necessary expenses of the most distinguished men living in London and other great centres may amount to over £3,000 a year. Beyond this a margin ought to be allowed for saving. Why should a man of exceptional brilliancy and usefulness be made a scapegoat? Why should he, with his huge expenses and relatively small power of saving, be penalized any more than the stupid student who becomes the cheap doctor? A man has a right to enjoy the fruits of his own labour in proportion to his brains and industry. Moreover, the nation needs him, and profits by him. It is a poor return to thieve from him.

B. Seeing how discreditably the owners of property have dealt with the matter of income tax, it is idle to look to them for its reform. Reform can only be gained by all those interested putting their shoulders to the wheel. As they form the bulk of the brains of the country, the task should not prove impossible. Let them once clearly grasp the fact that the principle on which income tax rests is wrong, and we shall be in sight of a satisfactory solution of the question.

The principle on which income tax rests is that of payment to the State for protection. Adam Smith laid this down thus (*Wealth of Nations*, Book V, Chap. II.): "The subjects of every State ought to contribute to the support of the Government, as nearly as possible, in proportion to their respective abilities: that is, in proportion to the revenue which they respectively enjoy under the protection of the State."

But does the State protect income? It protects person and property. Does it protect anything else? The question at once arises, "What do we mean when we speak of a man's 'income'?" We may mean either of two things:

1. In ordinary parlance, when we speak of any one's "income," we—like Adam Smith—mentally draw no distinction between earned and unearned; we speak of the "income" as a continuous thing, and so the word implies a forecast as well as a retrospect. So regarded—and I submit it has been so regarded for taxing purposes—a tax on "income" is a speculative tax on future earnings, and as the State does not insure the earner against death and disablement, such a tax is absolutely indefensible.

2. If the word, however, is not to be understood in this way, it must mean the annual gain in property, as estimated from the average of three successive years. As property it may fairly be taxed, because the State protects property. Thus a bad debt can sometimes be recovered at law, as property. It is not recovered as "income," for it can equally be recovered after the earner's death, when "income" has permanently ceased. But if a medical "income" is to be taxed as property, it must be taxed at its selling value, which, if any, is nearly always that of two years' income. But at present it is taxed at more than the value of twenty years' income. Therefore, on this hypothesis, more than nine-tenths of the present income tax on medical incomes is robbery, compared to which the methods of poor Charles I were innocent.

Thus, regarded in either way, the present system is glaringly unjust. Income tax, in fact, appears to be an ingenious device by which the owners of property have successfully shifted a large part of their own just indebtedness to the State to the shoulders of the professional classes. The only satisfactory way of dealing with it is to abolish it and replace it by some form of property tax. It is curious and interesting to see how a confused sense of justice has struggled through the fog of a wrong principle. On the strict theory of State protection of income, it is difficult to excuse the immunity of the artisan and poorer classes generally. Yet they are immune, and rightly so, because they do not possess much, if any, property. Again, it is difficult to see the justification for steep graduation of the income tax as now proposed, yet it derives justification from the generally greater possessions of the wealthier classes.

A property tax would not touch the poorer classes, would not press unduly on the professional classes, and would fall most heavily on those who can best bear it, and to whom, in virtue of State protection, it properly belongs, the owners of considerable property. A system of obviously reasonable abatements and exemptions would prevent industry being fettered or hardship inflicted.

In this connexion there is another principle needing enunciation. The State owes a debt to its workers which it does not owe to its idlers. For example, the State owes a debt to its farmers and agricultural labourers for two services, namely, the maintainence of a food supply within the kingdom and the production of healthy country-bred children. This debt the State has overlooked with grave danger to itself. Similarly the State owes a debt, which i likewise overlooks, to the medical profession for its grea service of maintaining the health of the people. Similarly to the other professions.

On the other hand, the State owes nothing to the loafe who, by inheritance or by stock-gambling, has acquire wealth, for which he has never done an honest day's work or land, which he holds up at an exorbitant price, whe it is needed by a great city to relieve its overcrowding.

To sum up, in imposing the present income tax th State commits an act of oppression, discourages intellectual work, places a premium on idleness and it attendant virtues, and shuts its eyes to those whos labours contribute much to its safety and prestige. I does so on the absurd plea that it protects "income."

C. is obvious.

Additional Notes.

1. It may be suggested that as the State directl protects "person" and "property" it may be fairly sai to indirectly protect "income." That is no justificatio for income tax. For it may equally be said to indirectl protect the acquisition of children, the attainment o academic distinctions, and the maintenance of moderat life insurance, yet no one in his senses would sugges the taxation of these.

2. It may be suggested that the professional man is i a better position to pay for protection of "person" tha the artisan, and that, as Adam Smith said, they shoul contribute "as nearly as possible in proportion to thei several abilities." In many cases the artisan is better abl to contribute than the professional man, certainly th skilled artisan often is. The waste of money amongst th labouring class is certainly very often far greater tha amongst the professional classes. Payment for protectio of "person" is really made by indirect taxation and *rates* which are really in large part State taxation nowadays The professional man has a heavy poor-rate and educatio rate to pay for the artisan classes.

3. It may be urged that the professional classes, if the have to "keep up appearances," at least have the satisfaction of doing so, and should pay for this. To this it ma be replied that what is necessary for the maintenance o refinement is a national gain. It cannot be pretende that they live in luxury unless they have property, i which case they should pay the property tax suggested.

May 13th.

LANCASTRIAN writes: I find myself entirely out of agreemen with your statement (v. BRITISH MEDICAL JOURNAL, p. 1130 that the proposal to repeal the income tax is entirely outsid the range of practical politics, even though it does provid the Exchequer with the badly-earned increment of £31,000,000 On the contrary, I consider it very much within the range o practical politics. It is an inquisitorial, unjust, and offensiv tax, and the fact that it produces so much is really only s much evidence against it. Of late years evidently order have gone forth to press this tax by all possible means, wit the result that it is more offensively, inquisitorially, an unjustly levied than ever. The tax was originally a war tax and only resorted to as a temporary measure, and only th most supreme national emergency could justify the imposition of such an utterly abominable tax as this. The way th tax is worked now, and the insolence with which investigations as to income are carried on—at least in the borough i which I have the misfortune to reside—are enough to justif any one in leaving this country and seeking another in whic he will any way escape this unspeakably offensive imposition A change in our utterly out-of-date fiscal system woul immediately provide the means to abolish the income ta and to raise the money in such a way that no one woul know he paid it.

BY the will of the late Mr. Josiah Timmins Smith, o Stratford-on-Avon, a sum of £100 is directed to be paid t the Stratford-on-Avon Hospital and £50 to the Genera Hospital, Birmingham.

THE estate of the late Dr. George Frederick Wales o Holywood, co. Down, who died last year, has been swor at the net value of £64,653. Dr. Wales was formerly i practice at Belfast, but retired several years ago. He wa at one time President of the Ulster Medical Society.

THE Roads Improvement Association has received a answer to its application for assistance in its work on the part of the Local Government Board. It is to the effect that the President does not see his way to moving in the matter at present or any utility in causing sections o roads, which have been experimentally relaid with a view to a solution of the dust problem, to be officially inspected.

The Fifteenth International Medical Congress.

IELD AT LISBON, APRIL 19TH TO 26TH.

[*Continued from p. 1113.*]

Sanitary State of Lisbon.

HE city of Lisbon is said to have some 376,500 in- abitants, and the register shows that there is a birth- ite of 26.1 and a death-rate of 25.8 per 1,000. In 381 the birth-rate as 24.1 and the eath-rate 26.8 per 000. The increase population is ierefore of very cent development, id is still small, aile the high death- te is not too pro- ising; but matters e on the mend, and uch is being done, slowly, to improve e hygiene of the ace and to make e town a healthy e. The first of the tors contributing this is the excel- it water supply, ich was laid down its present form 1885. The drain- was formerly remely unsatis- tory, but, thanks to the energy of the Department of blic Health, which manages the sanitary affairs of the n, matters have improved vastly in this direction ing the past ten years. The regulations for private ises and public institutions appear, however, still to somewhat lax in up-to-date conditions, as is instanced he partial absence traps or siphons ventilators in waste pipes of itories and water- ets, and in the ntion of a public er source, where sees bare-footed and girls wash- their feet and ds next to ven- of cool drinks, wash their ses in the same r, and close to re the drinking r can be drawn In some quarters the town the rs are not too ury, but this is ably more due to winding narrow- of the steep alleys and plentiful nooks where rubbish refuse is deposited than to the actual drainage. wider, more frequented streets are freely flushed and y brushed, and are quite sweet. Many of the smaller lings and shops are very disagreeable, and the lers in these are certainly not renowned for cleanli-

The town is well supplied with light—at all events, e better parts—but electric light is very dear. The s are mostly electric, save for a few very antiquated- ng vehicles drawn by two mules, which are generally ied down considerably behind, and which look ex- ly uncomfortable when they have to leave the tram for the rough cobbles to allow an electric ca to pass. The onward movement in regard to public and individual safety appears to be going on smoothly, but it will take a long time before much of the squalor of the poorer quarters can be removed. The financial question is the stumbling block, and a want of funds limits many of the institutions from carrying out work more completely.

Hospital for Infectious Diseases (General View).

Dining Verandah of Tuberculous Ward, with Balcony.

Syphilis is rampant in Lisbon, and is probably more spread by clandestine prostitution than by the inspectes class. An Association for the Reclamation of Prostituted is doing good work. Turning to small-pox, we find that since 1899 vaccination has been rendered compulsory. Revaccination is frequent, being required for all soldiers and many other public services, while most schools require a certificate of two vaccinations from the scholars. Isolation of small-pox either in hospital or at home is also carried out. I have already referred to the arrangements for dealing with rabies and diphtheria in my brief description of the Bacteriological Institute.

Hospital for Infectious Diseases.

At the north extremity of the town, there is a new and very excellent fever hospital (Hospital de Doenças Infecto-Contagiosas), built and administered in an exceptionally satisfactory way. The system is that of pavilions, and a considerable part is allotted to the modern treatment of tuberculosis. The infirmaries of this hospital are roomy and clean, but as everywhere else in Lisbon, very bare. The kitchens, theatres, and sanitary arrangements are good.

The Hospital, which is quite new, covers a large area, and fulfils the functions of a sanatorium and of an isolation hospital. On entering we were conducted to a well-adapted office, where we put on our white coats and left our hats and umbrellas. The kitchens are large and lofty. In circular arrangement one finds large iron cauldrons, not lined with any galvanized or japanned material, but I was told that no appreciable solution of the metal takes place. The cooking is performed by steam under pressure which is applied to each cauldron separately by means of taps. The midday meals were being prepared whilst I was visiting the department. The atmosphere of the kitchen was laden with water vapour, and I was tempted to ask why there were no ventilating lids hung up over the cauldrons to conduct the steam to the outside. The disinfection rooms contained excellent modern plant, and the electric lighting and other plant was also much to be admired. Everywhere was scrupulous cleanliness, even if excessive tidiness was not apparent. The coal, food, and other stores were also in good order.

We then entered the building set apart for tuberculous patients. Clean and well planned, the wards were less bare than those of the other hospitals of Lisbon; still, even here, no attempt was made to decorate. The nurses, both male and female, were of the usual type, but, on the whole, seem to have been chosen with greater care here than elsewhere. This does not imply any attempt at a training as we understand it in England. At the end of each ward are the balconies, and here meals are served, and outside the consumptives lie out on their chairs. The nurses' dining-rooms are situated at the inner end of the wards, and are fairly comfortable. One extremely dangerous defect struck me as we went upstairs to the upper wards. The lifts, which work very smoothly, leave an unprotected space between the floor of the lift and that of the building of at least 5 in., and one could easily put one's foot into the opening in entering or leaving the lift.

The diet for each patient appears to be plentiful, and, as far as my scanty knowledge of Portuguese would allow me to judge from the diet charts, fairly varied. Pleasing looks and bright behaviour spoke of a satisfaction with the surroundings.

Passing out into the grounds again, we crossed over to the fever pavilions. These were solid structures, all of exactly the same pattern. Small-pox is the most prevalent disease admitted, and several wards were set aside for the treatment and isolation of this disease. I was not at all satisfied with the arrangements for the isolation for cases in which the diagnosis was doubtful. The usual method of procedure is to place all doubtful cases for 24 hours into a special pavilion in groups or singly, as far as accommodation will allow, but at the end of this period the patients are referred to a ward, according to the most probable diagnosis. The importance for any special arrangement in this does not appear to have impressed itself on the minds of the staff of the hospital. The chapel is very decorative, and is sufficiently large for all the persons in the building. The mortuary is also spacious and efficient. The operating rooms and the neighbouring examining rooms satisfy all reasonable demands. On the whole, highly favourable judgement may be passed on this hospital.

Sanitary Inspection of Cattle and Food.

Police regulations and administration in Lisbon is a little lax, but, on the whole, fairly satisfactory, taking the nature of the town and its inhabitants into consideration. Of the manifold duties imposed on this department, I must say a few words on the inspection of beasts, meat, viands, dwellings, and industries. With regard to the first-named point, many of the regulations affecting diseases transmissible from animal to man are so stringent that it has been found impossible, so far, to put them into actual practice. The law affecting tuberculous cattle is very definite. Any suspected animal may be slaughtered or isolated by police instruction, and the owner, being responsible, only receives compensation if the *post-mortem* examination demonstrates that a mistake has been made. Milch cows are kept, for the most part, in the dairies (open to view from the shops) or are brought round in pairs together with a calf with its mouth tied up, to the houses, where they are milked as required. These animals are liable to be inspected from time to time, and when it is possible or advisable they are "tuberculinized." Certificated cows are marked with a metal badge on the ear. Unsound meat exposed for sale is seized, and a sharp supervision is kept on the slaughterhouse. Meat costs about 1s. 6d. per lb. on the average, and it is said that the inhabitants consume only about 31.7 kilos (about 63½ lb.) of meat yearly per head. Goat's milk is freely sold at a high price (about 5d. per pint). Fish is good, and is hawked round by picturesque women from the northern provinces. The shops where groceries, etc., are sold might not satisfy the fastidious fancy of an English lady, but the materials are good and wholesome.

Water Supply.

As I have already stated, the water supply of Lisbon is plentiful and pure. It is scarcely necessary in this place to give the amount of the supply or the results of some careful chemical and bacteriological analyses. The Health Department has the duty of looking after the water supply and the drainage, and this duty is efficiently carried out.

Drainage.

With regard to drainage, some new sewers have recently been laid down on the Tagus, and these either open ou into deep water or are carried some distance down the stream before they emerge. The absence of traps in houses and the ill-supplied poorhouses are matters fo future administration. One must always bear in mind the cost and labour of introducing improvements into an old town like Lisbon, with its poor population.

Inspection of Industries.

Regulations exist which limit the employment o women and children. These have to be of sound bodily physique, and the work may not be unduly laborious, and must not exceed six hours per diem. No child under 1 may take part in a public acrobatic performance. Al industrial establishments are subjected to visitation by an inspector, whose duty it is to look after the sanitary arrangements and to control the method of carrying ou the work, etc. As a rule no limitation of number of hours is imposed, and night work is freely indulged in. Shops are open for the most part on Sundays, and do not close on week days till a very late hour.

Prisons.

One word should be reserved for the subject of crimina law and penal arrangements. There is no capital punishment in Portugal, but crimes are punished either by solitary confinement or transportation to the colonial penal settlements for serious offences, or by imprisonment in prison or house of correction, temporary suspension o political rights, including the right of franchise, police supervision, etc., for less serious offences. There are only three penal prisons in Portugal, one in Lisbon, one in Coimbre, and one in Santarem. The latter is exclusively used for military criminals. Hard labour is prescribed in these prisons as well as solitary confinement. At the end of 1902 there were some 1,427 criminals in the two colonia penal settlements in Mozambique and Loanda. Besides these establishments there are the smaller civil prisons and the police stations in connexion with these have a considerable likeness to those of our and other countries Anthropometric records are kept in these places. As far as I was able to ascertain the accused are afforded every fair advantage during trial, including counsel for paupers and various societies exist for the help of certain classes by means of which protection against miscarriage of justice is assisted. A house of correction for young girls has been established and has excellent regulations.

Criminal Lunatics.

The law affecting the criminal insane has been in existence since 1896 in its present form, and corresponds more or less to that of other countries. When the offence is a minor one the friends may keep the patient in the ordinary asylum or privately, or else the local authorities place him under restraint like an ordinary lunatic. When the crime is serious the patient is incarcerated in the criminal department of the provincial asylum. This brings me to give a brief account of the asylum which I visited and where I was shown everything by the kindness of Dr. Neves and Professor Bombarda.

The Lisbon Asylum.

The Hospital de Rilhafolles is the name of the Lisbon asylum, and here some 800 patients are provided for. The asylum is superintended by Professor Bombarda for the male side and Dr. Caetano Beirao for the female side, while Dr. Alfredo Schultz is the surgeon in charge. From an administrative point of view, therefore, difficulties arise from the fact that these superintendents each have an equal say, and all innovations must be agreed to by all before they can be placed before the governing board.

An attempt to admit a maximum amount of freedom has been made, but several circumstances render this attempt, for the time being at all events, somewhat incomplete. The funds available are very limited, and the old structure is so ill-adapted for modern arrangements that all reforms must take place very slowly. The wards and recreation rooms and courts are of a solid, bare, and desolate type. The warders and nurses are of the ordinary untrained kind, and are numerically insufficient. The first ward I visited presented a highly untidy appearance and the usual crowd of loafing patients, collected in small groups, did not differ much from those of other old-fashioned asylums. One rather dangerous patient attempted to make a close acquaintance with us.

it was repressed without difficulty. The food was the same kind as that seen at the other hospitals Lisbon, but the patients on the whole looked ell fed. The baths are of massive stone, and e present in considerable variety. From a truly gienic point of view, the closed-in pipes and solid nmovable baths are not good, but the general arrangement of the department evidences a desire to introduce lneotherapy into the treatment of the asylum, in cordance with modern principles. A new kitchen is ing built, and when completed will certainly be cellent. The next wards which we entered were for ileptics, and here one found many beds with wooden ames, which serve partly to keep the patients from lling out, and partly to allow of forcible restraint, by ing down with sheets. I was told that it had not been and practicable up to the present to do without restraint, account of the limited number of attendants and also account of the faulty structural arrangements. I have t little doubt that things will improve in this direction re after the lapse of a few years. The bedding is suitable d not badly kept. In the general paralytic wards restraint s fairly freely used, and the noise and complaints of the tients thus bound was considerable. Cigarettes were rown to some of the patients, who were longing to oke, and had the desired effect of appeasing them for minute or two. I may mention in this place that arette smoking is indulged in to excess everywhere, in spitals and elsewhere, and is unheeded. Epidemics of sentery occur fairly frequently in the asylum, and ount for a considerable number of deaths. Bedsores urally occur in those cases which are kept bound in l, but I was told that every precaution was taken to it the time during which the patients were kept tied vn. In the central part of the building there is a huge ular building isolated from the rest of the asylum, ere the criminal lunatics are incarcerated. We roached them from the upper end, and as we stood front of the great iron gates the most hideous human ns imaginable came leaping, yelling, running, and ncing to get at us. Hands were thrust through the s to seize us, while several sought to beg money or arettes from us. The warders are powerful men, but m told that accidents are not infrequent in this artment. When difficulties arise the warder seizes mattress from a bed and tries to drive the obstreperous ient into one of the cells, where he is closed in until has calmed down again. The chief impression which ceived from this part of the asylum was the absence of attempt at rational treatment, but I must admit that material did not promise well for successful treatment.

the paying wards the first-class patients have coms corresponding to the rest of the asylum, and it was e a relief to get into a nicer place again. The charges not high, as compared with the asylums of other ntries. Occupations for the patients exist, and include lening, carpentering, shoemaking, etc. But the space these, and especially for the first-named, is very ted, and no instruction is given. If a patient has ned a trade before admission, he is, when possible, employed. The authorities recognize the disadvan- in thus limiting occupation, but are powerless to rove matters at present.

the female side, which is older than the male side. I struck by the fact that more untidiness and less clean- s existed than in the latter side. Strait-jackets worn by some patients, and the same forcible aint in bed was seen. The types of patients do not r from the ordinary type, but their surroundings er the appearance more striking. In the female ng wards, too, matters were considerably better, and shows that, to a great extent, the shortcomings of the m are due primarily to a want of funds. A lady, claimed to be my *fiancée*, attempted to make a closer aintance with me in the first-class ward, but the dants were keeping a good look-out and proved they were capable of dealing efficiently with sudden ements.

e mortuary and *post-mortem* rooms are quite well ned and equipped. Some dysentery patients were dead, awaiting the autopsy, when we visited the rtment.

e church is small but decorative, and close to it is a theatre where rare performances are given. I do not think that the audience can exceed fifty at most. We then climbed up a further staircase, and passing through a window, were able to mount up a ladder on the roof, where one of the most beautiful views in Lisbon can be seen.

The administrative quarters are well adapted for their purposes, and it was here that I was able to gather much of the past improvements and future hopes. I have but little doubt but that a visit to the asylum in a few years' time will reveal the steady onward march of reform and that the asylum is destined later on to rank among the better institutes of its kind.

THE LEPER HOSPITAL.

The Leper Hospital de S. Lazaro is quite a small place, housing only 18 female and 27 male patients. The patients can stay in as long as they like, and I was surprised to learn that the hospital authorities had not more difficulty in administration, seeing that the number of lepers in Lisbon and the immediate vicinity is estimated to be about 1,500. The hospital is gratuitous, and one or two cases had remained in for over 40 years. I presume that the available funds in Lisbon are insufficient to organize and maintain a large colony, which would be much more efficacious than this limited little place. The wards are bare and uncomfortable. Corticite composition floors and plastered walls keep up some pretence to aseptic cleanliness here as elsewhere, but with this all attempts at modern arrangements are exhausted. The mattresses are of straw, and the bed linen is very coarse, and not too clean. The nurses are somewhat elderly, and not in the least bit smart. Most of the patients are in an advanced stage of disease, and present typical but terrible pictures of this horrible disease. The baths here also are heavy stone affairs, stained and scratched, and not efficiently trapped. A small yard, bearing some resemblance to a garden, but filled with all sorts of refuse and ashes, was supposed to serve as a recreation ground.

Dr. Neves, my special guide and kind colleague, showed me a series of 4 leper patients on whom he is trying the Finsen light treatment by way of experiment in his laboratories in S. José.

A TUBERCULOSIS DISPENSARY.

Time did not allow me to visit the Sanatorium for Tuberculosis at Guarda. I am told by several who did that the arrangements are modern and satisfactory, and that the results obtained in it are good. In the neighbourhood of the quay there is a new Tuberculosis Dispensary, which is shortly to be opened. The building is a fine one, square and roomy, planned on a very modern good method. Entering from the northern end, one passes to the left of the hall into the offices, and thence into the consulting rooms, where all the paraphernalia for diagnosis was supplied. The aseptic furniture, the nicely-trimmed instrument cases, the tables, chairs, and couches, all were well adapted to their purposes. A small operation room is also to be found here, and the first question which we asked, naturally, was, Where are the wards or beds in which you are going to place the patients after operation? But we were told that although pleurae were to be aspirated and other surgical interferences in connexion with pulmonary and other tuberculous disease were to be undertaken, within the limits of minor surgery, that the patients would all be expected to return to their own homes during the same day. More excellent rooms completed the left side of the building, and then we entered the magnificent board room, where chairs covered in rich red leather, tables made of sound wood and artistically carved, walls picturesquely decorated, gave the impression of considerable luxury. Opposite are the rooms set aside for dispensary, chemical, and bacteriological examination and Roentgen and other light treatment and diagnosis. Next came large out-patient rooms, where the rows of chairs and benches suggested that the organizer of the dispensary anticipated that the attendance will be considerable. The object of the dispensary is to keep a control and continue the treatment, as well as to select suitable cases for treatment in sanatoriums. The partly-cured patient will have to present himself or herself at given intervals for examination, and the improvement once begun will be materially assisted by the out-patient system of the organization. Upstairs more administration rooms and offices complete the equipment. The arrangements are excellent, but there is a wanton waste of space and a disregard of advantages which might be extended. There is ample room for a couple of excellent small wards, where cases might be kept for a day or two after minor operations, where more elaborate diagnostic investigations might be carried out, and where the purely scientific side of the question might be well worked at. But it seems as if one has been satisfied in carrying the improvements a certain distance and then the matter must rest. The old establishment which this place is to substitute is, I believe, far from adequate.

Hospital for Women and Children.

The Hospital Estephania deals with gynaecological cases, and also with diseases of children. This hospital is well organized and well managed, while of its structural peculiarities it is only necessary to say that a curious method of ventilation is adopted. The buildings themselves are raised over the ground, and a free entrance of air is provided below the structure. The floor boards are arranged to lie widely separate, so that a considerable air current issues through the flooring. In spring and summer time this is doubtless very desirable, but I should question the comfort during cold or chilly weather.

Other Hospitals.

Lastly, I must just briefly mention that establishments for the blind, for deaf-mutes, orphan asylums, poor kitchens, etc., exist in plenty in Lisbon. A good little French hospital also has its rôle to play, and does it extremely well.

There is also a small hospital for the English mercantile marine.

The Morgue.

The morgue is situated in connexion with the Hospital of S. José. The *post-mortem* rooms are arranged for demonstration purposes as well as for forensic investigations. The exhibition of unrecognized corpses is not so public as in Paris, but sufficient for the needs of the town. The lighting is good, and cleanliness and brightness prevent the whole impression from being too depressing. The preservation of bodies is managed on a small scale with ice, while stores for keeping clothes for identification purposes largely take the place of more extensive cold rooms. In a town like Lisbon a very elaborate morgue would undoubtedly be unnecessary.

Doctors' Signs.

From the point of view of the wanderer, the sight of large signs, advertising the name of the practitioner, his speciality, and stating if he is attached to a hospital, seems to have offended the ethical susceptibilities of some of the English doctors; but, in reality, there is nothing unprofessional about it. Every practitioner displays the same sort of sign, just as every one of us here at home displays a brass plate. As long as the method is generally adopted, it does not matter whether the sign is as big as a house. I was pleased to find comparatively little openly-confessed professional jealousy and a large amount of undoubted good-fellowship.

BRITISH UNION FOR THE ABOLITION OF VIVISECTION.

The British Union for the Abolition of Vivisection held its eighth annual meeting on May 10th at the Holborn Restaurant.

The principal speaker, Mr. Bernard Shaw, said he wished to bear testimony against vivisection. He had no lack of sympathy with the scientific movements of the day; he hoped the twentieth century would be a scientific one, for the nineteenth was a time of the worst retrogression in science when compared with almost any century with which he had any acquaintance, historical or otherwise. Doctors were always telling people that if they did not do what the doctors said they would die. He himself had been told that he would die unless he entirely altered his diet, which was of such a nature that it dispensed with the necessity of vivisection being carried on in the butcher's shop. His reply was that he would not change his diet, and there he was on that platform still alive. It had been very easy during the last century, owing to the spread of the newspaper and the facilities for writing to the press, for doctors to take a vigorous part in all controversies concerning vivisection or vaccination. Supposing a man posed as a very strong scientific man and also as an ardent vivisector, he could always write to the *Times*, indignantly stating that the persons who opposed vivisection were unaware of the great advantages arising out of that practice for the human race; and, further, the writer would always mention in his letter that through vivisection the terrible horrors of some diseases, such as epilepsy or angina pectoris, had been done away with by certain treatment, and then, of course, at the end of the letter came the name of the doctor. The result was that many people would consult that doctor, each paying a fee of two or three guineas in order to benefit from the great cure ventilated in the letter in the *Times*. Of late years the speaker and those with him had pressed for an answer to the question, How was it that, according to the statistics of the Registrar-General, as many people were dying from certain diseases as died before the time when the vivisectionists claimed that these diseases were being done away with? So far, one or two misguided medical men had replied by saying that he and his friends did not understand that though the mortality might be as great, yet the case-mortality had decreased. To that he replied that if the case-mortality was diminished while the absolute mortality remained the same, then it meant that the medical men had spread the disease. The figures proved that as many died as before, and, in addition, there had been many more cases, and though the medical men had cured them, yet they had created the cases they had cured. Vivisection would not be justified even if it had led to one of these alleged discoveries. He thought that the way in which medical men were remunerated was undesirable; the Chinese plan was better—that of stopping payment when not in good health. The question of honesty in surgical operations did not arise in the practice of doctors who dispensed medicine for sixpence with advice and a large bottle thrown in, but when it was a question of earning sums of from sixty to three hundred guineas in one afternoon, it was a strong temptation to a medical man to believe that an operation was necessary when it really was not necessary. He believed that a great many people were operated on unnecessarily every year. He would not say that the surgeons performed those operations knowing they were unnecessary, but he knew that in the long run a man believed what he wished to believe. Why was it that operations came into fashion and went out of fashion like collars? The whole thing seemed to him extremely suspicious. It was this strange medical and surgical profession which went about saying and doing these things, and it was on the authority of these people that vivisection was supported. As a matter of fact, these so-called scientific authorities were absolutely the most unscientific people in the world. As a student a doctor witnessed a number of particularly useless vivisections, and numerous frogs were snipped up for the purpose of affording object lessons in physiology. This system of instruction spared students the use of their minds so much that it had resulted to some extent in depriving students of any minds at all. It should be a point of honour with medical men never to inflict any suffering, and to make every one feel that the doctor was the friend of everything living and sentient. The doctors said that antivivisectionists who pressed forward the views they held were only faddists, and the consequence was that medical men were making the whole human race dread them so, that the doctor was much more dreaded than the lawyer, infinitely more than the soldier, and almost more than the clergyman who came at the last moment of life to try and set people right for the next world. A member of Mr. Shaw's family was informed by her medical man that she was suffering from a disease connected with the tubercle bacillus. The doctor added that the patient must be treated so that the tubercle bacillus might be destroyed. The doctor did not propose to use Koch's tuberculin on that occasion. The treatment proposed was to inject formalin into the circulation. There was one other person who was being treated in that manner, and it was reported that he was doing well. The doctor who invented it secured a great deal of credit by experimenting on himself. But he had first experimented on two paupers in an infirmary. The doctor, however, could not wait to see what the effect of ıe formalin was on the paupers, and he therefore tried it ı rabbits, with the result that the rabbits died instantly convulsions. The paupers had a very rough time all ight but they survived. Then the doctor began experi- enting on himself, and finally he completed the treat- ent. The treatment was tried once on Mr. Shaw's lative, and she declared that she would rather die than ıve it tried again. The other patient, who went on with e treatment, was now dead. The whole story was quite ankly told in scientific papers that ordinary people never ad. If any one wanted to experiment, it appeared to m that the logical course was in human diseases to st the question on human beings, because it was liculous to do so on animals. There could be a rtain number of experiments to which some people uld voluntarily submit. If people encouraged vivisec- n on the selfish ground that some cure might result their benefit, they overlooked the fact that instead animals it was possible they might be the persons isected. If they said that the pursuit of knowledge s so important that it was outside the moral law, that p ied that any steps might be taken for the purpose. r instance, every railway accident might teach an e ligent surgeon or physiologist something. If the line argument of the vivisectors was adopted it would be tifiable, if the normal supply of railway accidents was all off, to arrange for the production of railway accidents purpose. Vivisectionists always assumed that the y way to make advances in medicine was by vivi- tion. If, continued the orator, he thought that he ıld prohibit all discovery by prohibiting vivisection, he ıld not press forward his views, but there were nty of other ways of making discoveries. For instance, ll the energy wasted on those abominable experiments been directed into moral paths, how much sooner the ys would probably have been discovered! He posed that vivisection should be made a crime.

Ir. Arnold Lupton, M.P., made some remarks, and Dr. owen pointed out that Mr. Bernard Shaw had placed whole question on the highest ground, and declared the vivisector had not a leg to stand upon. The eedings closed with a few words from Miss B. E. D.

E PRESERVATION OF HEALTH IN THE JAPANESE NAVY AND ARMY.

ERIES of lectures was delivered on the preservation of th amongst the *personnel* of the Japanese navy and y, at St. Thomas's Hospital, London, on May 7th, 9th, 11th, by Baron Takaki, F.R.C.S., Surgeon to the Tokyo pital and late Director-General of the Medical Depart- t of the Imperial Japanese Navy.

Naval Hygiene.

ron Takaki described how he entered the Japanese in 1872. As soon as he began to treat the sick and ıded his notice was at once attracted by the large ber of beri-beri patients and the numerous deaths ting from that disease. As beri-beri played havoc the health of the men in the navy of Japan, and many—to such an extent as to greatly reduce the ıng strength of the navy—Baron Takaki turned all his tion towards finding the cause and proper treatment eri-beri. As a first step towards ascertaining its and cure he began to note the incidence of the se in regard to localities and seasons and to ine sailors in ships, barracks, etc. He obtained ollowing facts: Beri-beri occurred mostly at the end ring and in summer, but it was not limited to arm season, sometimes occurring during the severe of winter. The occurrence of the disease varied in ent ships, barracks, etc. Even in the same ship it red in some stations, not in the others, and was certain. It occurred from time to time without to the state of quarters or clothing. Although ng, food, living, etc., were not quite the same in ations, yet they were almost similar. These facts ot make the cause clear; but further investigation d that sailors, soldiers, policemen, students, shop- etc., were those who suffered most. The upper rarely became affected. People living in the same suffered unequally—that is, some suffered and did not. Although it occurred mostly in large cities, like Tokyo, Osaka, and Kyoto, yet it sometimes appeared in smaller towns. In 1883 he received permission from the Minister of the Navy to examine the hygienic conditions of ships, barracks, schools, etc., belonging to the navy. He found that, although working hours, clothing, dwelling houses, etc., were similar everywhere, yet in food there was a great deal of difference. He then asked the head of each naval department to send in reports describing the details of food taken three times daily for a week. From that he discovered the following facts: Nitrogenous substances contained in the food were not sufficient to make up for the amount of nitrogenous substances discharged from the body. On the contrary, the food contained too much carbohydrates. The recognized comparative amounts of nitrogen and carbon discharged daily by a fair-sized adult were—carbon 310 grams and nitrogen 20 grams—that is, nitrogen was to carbon as 1 is to 15.5. The food taken by the sailor showed N 1 to C 17 to 32. The greater the difference in those proportions the more beri-berri occurred, and the lesser the difference the less. After obtaining these important facts he concluded that beri-beri was caused by the disproportion of nitrogenous and non-nitrogenous elements in food, that the amount of the nitrogenous elements was insufficient, and that of non-nitrogenous excessive. The symptoms of beri-beri patients were really due to those causes, and the good results obtained by purgatives were due to their powers of getting rid of the abundant carbohydrates. The pathological changes occurring in nerves, muscles, etc., were the result of inability of the tissues to repair the waste owing to the insufficiency of nitrogenous substances in the food, and the changes were aggravated by the presence of the large quantity of carbohydrates in the food. In October, 1882, he submitted a proposal to the Minister of the Navy, the late Count Kawamura, the chief object of which was to change the old dietary system. When that proposal was put forward there was a good deal of opposition, but in spite of difficulties thus caused his opinion finally prevailed, and the new system was adopted.

On November 29th, 1883, Baron Takaki had the honour of being presented to the Emperor of Japan at Akasaka Palace, and on that occasion explained his views with regard to the cause and prevention of beri-beri. As the true cause of beri-beri could not be discovered by examination of symptoms, or by pathology, it was necessary to use other means. On examining the food taken by those suffering from beri-beri, it was found that the proportion of the nutritive elements was not correct. The cause of the disease was the loss of equilibrium in the proportion of nutritive elements, and also the deficiency of a certain element; that was to say, the composition of food was not correct. That the occurrence of beri-beri was due to the deficiency of a certain element, that was proteids, was shown during the long voyage of the *Ryujo*. The disease did not occur if the food was well supplied; it did not occur, for example, among men having a sufficient supply of food or among officers, and in voyages with long stoppages at ports and short sailings. From 1882 to 1883, when the *Ryujo* went for long voyages, the disease disappeared completely as soon as she arrived at Hawaii and was supplied with fresh articles of food. On considering the question, both from theoretical and practical points, it seemed quite reasonable, therefore, to suppose that the true cause of beri-beri lay in a wrong method of diet.

In December, 1883, he compiled a new set of instructions, consisting of 77 articles and 22 blank forms, and it was used throughout the navy, with the approval of the Minister of the Navy. Those instructions, since several times revised, were still in use. On January 15th, 1884, Junga Kawamura, the Minister of the Navy, issued the following notification:

> It is hereby ordered that the following regulations in regard to the supply of food to the petty officers and men in ships and barracks shall be observed from February 1st, 1884:
>
> *Article I.*—The food of petty officers and men in ships and barracks shall be under the control of the principal officer under whom they are serving, and the articles of food shall be bought with the money allotted for the purpose and supplied to them.
>
> *Article II.*—The articles of food shall be as follows: Rice, bread, beef (fresh or preserved), salted beef, salted pork, fowls or eggs, fish, Miso (a kind of sauce made of beans, barley, and salt), Shoyu (sauce), vegetables (potatoes, carrots, radishes, cabbages, and onions), beans, wheat, flour, tea, fats, and oils

(suet or lard, butter, olive oil, oil of the *Sesamum orientalis*), sugar (and starch), milk, vinegar, spices, alcoholic liquors, salt, pickles.

Article III.—The articles of food shall be bought by the paymaster by order of the officer in command, and they shall be given out after being examined by the surgeon.

Article IV.—A record of the articles of food shall be kept by the paymaster, which record shall frequently be examined by the officer in command.

Article V.—If the preserved articles of food are found to be in bad condition the matter shall be reported by the paymaster to the officer in command, who in turn shall order the surgeon or other officer to examine them, and shall report the matter to the Minister of the Navy Department through the chief of different departments.

In 1883, after Baron Takaki's proposal to reform the diet system on November 26th, he made a great effort to have the ship *Tsukuba* go over the same route as the *Ryujo*. The food supply was ordered according to the new system. The vessel sailed on February 2nd, 1884, and returned on November 16th. The result was the good report "no beri-beri." On February 13th, 1885, he made a new proposal for using barley and rice in equal proportion instead of rice alone. Although the number of cases of beri-beri in the navy decreased considerably (to almost half the number in the year before), and the deaths had become almost unprecedentedly few, owing to the new food regulations of February, 1884, yet the disease had not disappeared completely, and further efforts had to be made to exterminate it. Then he thought of the plan of using barley instead of bread alone, as the men could eat the former better than the bread. From that he expected better results. The Minister of the Navy ordered the addition of "barley" to the articles of food, and the order was applied throughout the whole navy. It was found that most of the men disliked meat as well as bread, but it was felt that if the matter were left to the men's own choice, a great many cases of beri-beri would certainly continue to occur. There was nothing better than barley food for preventing beri-beri. As, however, barley was coarse in appearance, it was feared that some of the men who did not understand the object of the change in the scale of diet would feel dissatisfied. Baron Takaki therefore persuaded the naval officers to interest themselves in the matter.

On March 19th, 1885, he obtained the honour of an interview with His Majesty the Emperor, and presented the report of the beri-beri investigation on board the *Ryujo*. He showed the Emperor statistics proving the decrease of beri-beri after the gradual improvement of diet dating from January 15th, 1884, and pointed out the great probability of exterminating the disease from the navy in a few years.

On August 24th, 1885, Baron Takaki made a proposal, owing to the great difficulties in cooking during rough weather, even in time of peace, to issue bread and biscuit for equal proportions of barley and rice, which had been supplied since March of that year.

On October 16th, 1890, he for the third time had the honour of an audience with His Majesty the Emperor, and said that, as foretold on the occasion of his presentation to His Majesty in 1885, beri-beri had been completely exterminated from the Imperial navy.

MILITARY HYGIENE.

The health of the Japanese army had been gradually improving in late years, but beri-beri was not yet eradicated as it was in the navy; and he regretted to state that, although the cases were few in time of peace at home, the disease was apt to break out in time of war. In former years beri-beri prevailed largely in the army as it did in the navy, but it now occurred less frequently. Unfortunately during the Chino-Japanese and the beginning of the Russo-Japanese war, owing to circumstances, rice only was given to the men as their principal food, and as a consequence cases of beri-beri increased greatly. But in the later period of the Russo-Japanese war, when they began to give the men barley with rice, and increased the quantity of meat, the cases of beri-beri decreased rapidly.

Comparing the result of the Chino-Japanese war with that of the recent war against Russia, the following facts appeared: Cholera had practically disappeared; typhoid fever cases decreased from 37.14 to 9.26 per 1,000 men; the death-rate therefrom was almost halved; dysentery cases decreased from 108.96 per 1,000 of men to 10.52, and the death-rate was brought down from 15.72 per 1,000 of men to 2.68; malaria cases decreased from 102.58 per 1,000 of men to 1.96, and the death-rate was practically nil. Those remarkably good results were chiefly the results of the progress made in the medical organization with regard to food, drink, clothing, camping ground, etc. special pains were taken to exterminate flies and to prevent them from coming in contact with the articles of daily use and into the dwelling-houses. Nets were used at windows and doors of the houses in order to prevent flies from coming in, and also to protect the exposed part of the body, such as the face, when flies were in abundance The extensive use of muslin nets against flies and at the same time against mosquitos might possibly be responsible, besides the improved sanitary organization, for the remarkable decrease in the number of typhoid, dysentery and malaria cases. Another prophylactic not previously employed was the use of creosote pills. Each man in health was supposed to take one pill daily throughout the campaign, and that may have had some influence in producing the improved health conditions. During the recent war the strictest precautions were taken to keep their men free from any epidemic disease by carrying out various plans arranged at the beginning of the war For instance, as to the supply of water, water carts and water-boiler carts were provided and boiled-water stations were established. A small mess tin was carried by each soldier, so that he could have boiled water by boiling it in his own mess tin when the necessity for doing so arose At the boiling-water station during the march the soldiers had to fill their own water-bottle with boiled water During the march, when they had exhausted their own water-bottle, they had to get water from the water-boiler cart, which always accompanied the troops when possible and necessary—the water carts, in fact, were almost always with them. When water had to be taken from a stream or river, the men were ordered to get the drinking water from the centre of the stream, so as to avoid the impurities coming from the bank of the rivers; even then the water had to be boiled before being taken. Experience proved that there was some difficulty in knowing whether water obtained during the night was pure or dirty. It was necessary, therefore, to take great care during night marches.

Almost all foods were sent from Japan to the front under strict superintendence of officials who ranked as officers, but, of course, whenever possible, fresh food was obtained locally.

On going into camp a camping party, consisting of army and medical officers, was sent out to select a place safe both from a strategical and from a sanitary point of view medical officers were required to inspect the source of water supply, the condition of the houses and the people living therein. Besides washing clothing as often as opportunities occurred, disinfecting apparatus was supplied by which the clothing, etc., belonging to each soldier was disinfected or sterilized whenever it was thought necessary to do so. Before the troops were sent into the field they were strictly inspected by medical officers to see whether there was suspicion of any form of epidemic disease amongst them. All the troops returning to Japan were disinfected at quarantine stations before being alllowed to land.

As to the treatment of wounds, the army surgeons were in favour of conservative surgery; all were treated aseptically as much as possible. In a great many cases healing took place under the first dressing within a week or ten days.

CONTRACT MEDICAL PRACTICE.

A PUBLIC MEDICAL SERVICE.

IN Coventry a public medical service has been in existence for fourteen years, and reports presented to the recent annual meeting show evidence of steady and continuous growth. They contain also particulars of certain reforms which have been carried out.

The service was originally started with the object of consolidating all contract work as far as possible into one system, but, so far, this ideal has not been attained, as all the medical men engaged in such work have not ye agreed to co-operate. Medical clubs under the control of individual practitioners therefore continue to exist.

Attempts have now been made to make the public lical service of Coventry conform to all the suggestions he British Medical Association, and thus transform it, ossible, into an ideal service. A gentleman who has nterest in contract work has been appointed chairman he committee of management, which consists of the re medical staff. Two other practitioners, not engaged ontract work, are on the committee. This has been e with a view of conforming to the principle that se not engaged in such work should have some voice he management. Collectors have been appointed at a d salary, thus obviating as far as possible the danger of vassing; no clear case of the existence of such a tice has been brought to the notice of the committee, the collectors have been warned that any charge of kind, if sustained, will be followed by instant dissal. The abolition of the collector does not appear to committee to be practicable in dealing with a wageing class, the members of which often live from hand outh. There is, moreover, much less danger of caning taking place in connexion with an organization aged by a number of medical men who carefully tinize the working of the system. It is sincerely to oped that all the medical men engaged in contract in Coventry will before long see their way to join s with this medical service, which is, we believe, not one of the earliest but one of the most successful in ountry.

LITERARY NOTES.

rs. P. S. King and Son, Westminster, will publish ly, under the title of *Glimpses into the Abyss*, an nt of personal explorations undertaken by Mrs. Higgs, of Oldham, who, disguised as a tramp, days and nights in tramp-wards, lodging-houses, shelters. The volume will, it is stated, throw much on the darkest features of our social life, and will before the public the pitfalls, snares, and difficulties beset the destitute outcast.

ssrs. P. S. King and Son will also shortly issue k by Sir Edward Brabrook, C.B., author of *Institufor Thrift*, etc., late Registrar of Friendly Societies, aims at developing the social value of building ies, and advocating their extension on right iples.

egard to the story told by Dr. A. T. H. Waters about ey, which was referred to in this column in our of May 12th, Sir Samuel Wilks writes to say that the to what Dr. Johnson would have called the *cui bono* "What is the good of a baby?" has long been known to nd he has always attributed it to Benjamin Franklin. ay of compensation, perhaps, for the doubt thrown arpey's claim to the authorship of the jest, Sir l Wilks relates the following story, which is ly a far better example of the famous physiologist's wit:

> fifty years or more that I was at an "At Home" where I arpey. He asked me what I was doing, and I replied was a student at Guy's Hospital, and dresser to Mr. Key. I added that Mr. Hewitt Key was my master at sity College, and how his half-brother, Mr. Aston Key, master at Guy's; so I had been connected with the thers, having been under both of them. "Then," said y, "I suppose you look upon yourself as a kind of ian ligament."

May 11th the *Times* published an account of Dr. nikoff's recent researches on the prevention of tic infection. On May 12th our contemporary ed a letter from Professor Ray Lankester announc- interesting fact that "my friend Professor Elie nikoff is coming to London." Four times in the of a letter of two dozen lines is the name of istinguished Russian investigator misspelt in ne way, and the *Times*, which is usually accurate h matters, has apparently allowed itself to be ized by its eminent correspondent to such a that in the heading of his letter the superfluous t also appears. The point is perhaps infinitesimal, these days when, unlike Shakespeare, most men ade up their minds about the spelling of their it is courteous as well as customary that their own owever wrong it may appear to superior knowledge, be followed. Moreover, we expect consistency he *Times* in spelling if not in other things. ce is also made by Professor Lankester to the *Spirochaete pallida*. Ehrenberg, who founded the genus, called it *Spirochaeta*, and so it is given by C. W. Stiles, in the *International Code of Zoological Nomenclature*, in which the principle is laid down that "the valid name of a genus or species can only be that name under which it was first designated, on the condition: (*a*) That this name was published and accompanied by an indication or a definition or a description; and (*b*) that the author has applied the principles of binary nomenclature." The code referred to was adopted at the Fifth International Zoological Congress held in Berlin in 1901. Probably the wrong form which appears in the *Times* is to be attributed to the "printer's devil."

Spelling, though a humble thing in itself, is, for some reason we do not pretend to fathom, apt to arouse anger in heavenly minds. It might be thought that distinguished men of science would be content to leave such matters to harmless drudges like dictionary makers, on the old Roman principle *De minimis non curat praetor*. But many hold very decided views on spelling, and seem to think that they have a right to lay down orthographic laws for the terminology of their speciality. For instance, "paramecium" is sometimes spelt, in defiance of etymology, "paramoecium," and the error has been defended from the standpoint of "protobiology"! Protobiology has no *locus standi* in the domain of orthography; if every 'ology is to claim to regulate its own spelling, scientific language will soon become even more barbarous and confused than it is now. In regard to the particular mis-spelling "paramoecium," the offence of deliberately flying in the face of derivation is made worse by the gratuitous addition of an erroneous diphthong to the long list of such superfluities that still survive.

Dr. Mata, who was Professor of Forensic Medicine in the University of Madrid, and during the brief reign of King Amadeo was Governor of the Spanish capital, had an unfortunate name for a medical practitioner, for the word "mata" means "kill." This obviously placed a weapon in the hands of satirists which they were not slow to use. We quote one of their productions as a specimen:

> Vive en esta vecindad
> Cierto medico poeta
> Que al final de la receta
> Pone: Mata; y es verdad.

The sting in the tail of the epigram may be gathered from the following very lame adaptation to a hypothetical English physician unfortunate enough to be named Kill—a real name, by the way:

> Not far from here a poet lives
> Who ministers to human ill:
> When physic to the sick he gives
> He signs prescriptions aptly, Kill.

The author of the epigram was a dramatist named Ventura de la Vega, one of whose plays had been adversely criticized by Professor Mata from the expert point of view.

The Lisbon National Library, which was founded in 1796, contains some 400,000 printed books, 16,000 manuscript volumes, and 39,000 coins and medals. Medical science is well represented, many rare old books figuring in the list. Among those more especially suggestive of the *genius loci* we note the works of Antonius Ludovicus printed at Oporto in 1540, Alonso Chirino's *Menor damno de Medicina* (Seville, 1538); Gometius Pereira's *Novae veraeque medicinae experimentis et evidentibus rationibus comprobatae* (Methymnae Duelli, 1558); Garcia Dorta's *Coloquios dos simples e drogas he cousas medicinais da India* (Goa, 1563); Nicoloso Monardes *Dos Libros, cosas que traen de nuestras Indias Occidentales e piedra bazaar y escuerçonera* (Seville, 1569); Juan Fragoso, *Discursos de las Medicinas Simples que se traen de la India Oriental* (Madrid, 1572); and Christoval Acosta, *Tratado de las drogas de las Indias Orientales* (Burgos, 1578). Among the treasures of the library are five large volumes dealing with medical and anatomical subjects written in fifteenth century script on parchment with illuminated capitals and tail pieces.

The great sea-serpent has made his appearance much earlier this year than usual. This time he comes before us under the highly-respectable auspices of Dr. Raphael Blanchard, Professor in the Medical Faculty of the University of Paris, and member of the Académie de Médecine. In an article published in the *Bulletin de l'Asie Française* he not only describes the monster but gives a portrait of him. He has a head and body like a seal, but with an immensely long tail and a very long and flexible neck. He is also ornamented with a fine moustache, and he is believed to have a mane, though this does not appear to be quite certain. Blanchard holds that the existence of the great serpent is beyond all doubt. He has been seen several times in the Bay of Aloing. In 1904 he was seen by Lieutenant Lagrésille, of the French Navy, commanding the *Avalanche*, and again by Lieutenant L'Eost, commanding the gunboat *Décidée*. The latter officer's account is remarkable for the precision of its details. The length of the serpent which he saw was at least 20 metres; it had a large dorsal fin and a head like a seal, but much shorter. Its skin was so tough that shells burst on its surface apparently without more effect than tickling the dome of St. Paul's would have on the Dean and Chapter. Unlike all other known Cetacea and Pinnipeds, it swims by a vertical undulating movement, though it can also roll over sideways. Blanchard sums up that from whatever side the question is considered, the problem is a highly interesting one. Who shall solve it? He thinks it desirable that the riddle should find an Oedipus in a French naturalist, since it is on the coast of Tonquin that the serpent seems chiefly to show itself. He calls on the Cochin China Government to organize an expedition to capture the monster. It is a curious fact, if it be a fact, that in a village on the coast of the bay of Aloing a stuffed serpent is kept by the natives, who have built a temple for its reception and pay it divine honours. Evidently the expedition should make that village its first objective. Blanchard proposes to name the beast *Megophas*, an name suggested by Oudemont in 1819.

Nova et Vetera.

THE PHYSICIANS OF THE WESTERN ISLANDS.

THE revival of interest in Celtic literature has led to much poring over old Gaelic manuscripts, with results, perhaps, not always commensurate with the labour of the search. From our point of view one of the most interesting discoveries made in the course of these literary excavations is that of a great family of healers or simplers in the Western Islands, who for centuries ministered to the bodily ailments of the people among whom their lot was cast. An excellent account of them is given in the February number of *Blackwood's Magazine* by a writer who has pieced together the references to them scattered about in old Gaelic manuscripts.

The earliest mention of the family is in a list of twenty-four "sons of clans" who came over from Ireland in the suite of O'Cathan's daughter when she married Angus Og, Lord of the Isles in the days of Bruce. Beath, or Beid, descended from Neil of the Nine Hostages, King in Ireland, was appointed by the McDonalds to be Chief Physician of the Isles, a hereditary post like that of Chief Bard. Beath and his sons after him held the office till well on in the seventeenth century, first under the McDonalds, then under the Campbells of Cawdor, and finally for a short time under the King himself. According to the Islay Charter, the Chief Physicians in 1609 held very considerable lands under the lordship of the McDonalds "from beyond memory of man"; and the possession of these lands, together with the fees and perquisites of his office, must have made the Chief Physician a man of wealth and importance.

As the family of healers spread throughout the islands, their name suffered perplexing variations. From Beath or Bead it became McVeagh or McBeth as the Gaelic type, becoming transformed in later years into Beaton or Beatoun, Latinized into Betonus. The confusion thus caused is made worse by the fact that there was in Skye a family practising the same hereditary profession, and claiming connexion with the Islay and Mull Beatons, but calling themselves Bethune. This family claimed descent from Dr. Peter Bethune, an Edinburgh physician of the sixteenth century, whose father was uncle to Cardinal Bethune. He is said to have accepted an invitation from the McDonald and the McLeod to settle in the Isle of Skye. His office was to be hereditary, and he was to ha as much land as he cared to possess rent free, thou neither he nor his successors were to be allowed to p chase outright. Peter married into the family of t McDonalds; and from that marriage were descended t Bethunes of Skye, who practised the art of healing in t Isles till the beginning of the eighteenth century. Ho ever this may be, it seems to be certain that from t fourteenth to the end of the seventeenth century clan, or family, of the name of McBeth, Beaton, Bethune, practised medicine over practically the wh of the Western Isles from Islay to the Outer Hebrid The names of the family are found in the lists of t Universities of Edinburgh and Glasgow. Among th heirlooms they had many valuable manuscripts, most them transcribed in the Irish character. There is now the Library of the Society of Antiquarians of Scotland Edinburgh a copy of Gordon's *Lilium Medicinae*, in whi there is a note dated 1798 stating that the manuscript h five generations previously, been the property of "Ferch Beaton of Husibost" in Skye. Ferchar held this ma script so precious "that when he trusted himself to a b in passing an arm of the sea to attend any patient Dunvegan, the seat of McLeod, he sent his servant by la for the greater security of the *Lilium Medicinae*." The c of making a copy of the manuscript was, it appea 60 milch cows. Martin, author of a *Description of* *Western Isles*, published in 1703, says that in 1700 Jam and Ferchar Beaton in North Uist possessed "the follo ing ancient Irish MSS. in the Irish character—to w Avicenna, Averroes, Joannes de Vigo, Bernardus Gordon and several volumes of Hippocrates." The drugs us were doubtless prepared by the physicians themselves.

Of Neil Bethune, a well-known practitioner in Skye the end of the seventeenth century, we are told that " pretended to judge of the various properties of plants roots by their different tastes. He nicely observed t colours of their flowers from whence he learned th astringent or loosening qualities. He extracted the ju of plants and roots after a chymical way peculiar to hi self." Traces of the medicinal plants grown by t Beatons in Mull and Skye are said still to be met wi There is pointed out in Skye the traditional sp where Ferchar Beaton secretly prepared his medicin and he is said to have been exceedingly angry if any o came near him while he was so engaged.

Of the older Beatons or McBeths—those who origina came from Ireland—the stories are more mythical. Th is a legend that Farquhar hearing of the King's illn went to Stirling to cure him. He announced his arri by crying out under the royal windows, "The black bee to the white bone!" On being brought to the King repeated his cryptic utterance. Its meaning, howev became apparant when it was found that "the doctors, keep the King ill and get his money, put at whiles a bla beetle to the wound in his knee, and the beast was eati the bone." Farquhar, of course, cured the King, w promised to give him whatever he desired. Farquh who seems to have had an adequate sense of professio dignity, asked for the hand of the King's daughter and f "all the isles that the sea runs round from Storr Stromness." There appears to be some element of tru in this legend, for in 1379 Prince Alexander Stuart, t Wolf of Badenoch, granted unto "Ferchard Medicus Regi certain lands in Sutherland, and in 1386 King Robert gave the same "Ferchard Leche" a number of islands the north-west coast of Scotland from "Storr in Assyn to Armadale Head in Farr. These lands were resigned one of his descendants in 1511.

The tradition of other physicians of the family st lingers in the isles. Professor Mackinnon says the nam of the "Mull Doctor" and the "Islay Doctor" are st household words in the South Hebrides, and traces their teaching and influence are recognizable in tho parts to this day. To which of the two families hereditary leeches they belonged, and who exactly th were, seems to be doubtful, for the coexistence a repetition of the same names make it difficult disentangle the ravelled skein of their history.

UNDER the will of the late Mr. William Alexand Matheson, of Blundellsands, the Bootle Borough Hospit and the Liverpool Hospital for Consumption each recei a sum of £500.

MEDICAL NEWS.

E Lord Chancellor has placed Dr. Frank Shufflebotham he Commission of the Peace for the borough of astle-under-Lyme.

FREDERICK TREVES, Bart., G.C.V.O., F.R.C.S., has elected honorary consulting surgeon to the Italian ital, London, and Dr. Purves Stewart assistant ician.

E late Mr. George Vye, of Ramsgate, bequeathed 0 to the Seamen's Infirmary and General Hospital, gate, and £250 to the Ramsgate Dispensary.

Male Nurses' Association has been formed in con- n with the National Hospital for the Paralysed and ptic, Queen Square, London, W.C. The membership fined to male nurses who have been fully trained at ospital. Masseurs are also sent out by the associa- and no member is under any circumstances allowed rse or apply treatment except under the direction of lical man.

SABOURAUD of Paris is to deliver an address at the l meeting of the Dermatological Society of Great n and Ireland on Wednesday next. The subject is adio-therapeutics of ringworm in the municipal tories of the City of Paris at the Hospital of uis. The proceedings will commence at 4.30 p.m., Chandos Street, W., an invitation to attend them extended to all medical men.

METCHNIKOFF, of the Pasteur Institute, Paris, will r the Harben Lectures of the Royal Institute of Health on May 25th, 28th, and 30th. The first will deal with the hygiene of the inner tissues of ganism, the second with the hygiene of the intestinal and the third with syphilis. The lectures will be at the home of the Institute, 37, Russell Square, at on each day.

he thirty-fifth aniversary meeting of the Chelsea tal for Women on May 15th, the affairs of the insti- were shown to be in a very flourishing condition. lenesk, the Chairman, said they were working on nciple of not living from hand to mouth, and hence continually worrying their friends with tales of r and distress; they were solvent, had no debts, and etting support since the public saw that contribu- ere not devoted merely to paying off old debts, but relief of those now suffering. During the year there en 787 patients in the wards, and although 360 of equired major operations the mortality had been per cent.

project for an open-air sanatorium for Middlesex, as ed at a drawing-room meeting in Park Lane on 5th, comprises the acquirement of the necessary or near Middlesex and the erection of buildings of plest and least expensive character possible. It is ted that the hundred beds in view will provide for ients yearly and that the total initial outlay will be re than £30,000. The meeting having been addressed William Bennett, Dr. Perkins, Honorary Secretary National Association for the Prevention of Con- on, Dr. Kenwood, Professor of Public Health, Uni- College, and Dr. Brackenbury, Mayor of Hornsey, tion was passed favouring the appointment of a mittee in each of the seven Parliamentary Divisions lesex in order to further the aims of the movement riginally started some two years ago.

NATION. — The Local Government Board have Dr. Walter P. Cockle the award under Section 5, tion Act, 1867.

IGARETTE LEGISLATION. — The anticigarette law by the late Legislature of the State of Indiana has clared valid by the Supreme Court. According to ision, it is unlawful to sell or to keep for sale s, but it is not illegal to bring them into the State, the law forbid the smoking of them.

POOL SCHOOL OF TROPICAL MEDICINE.—Sir Alfred President of the Liverpool School of Tropical e, has received a letter from the Secretary-General ongo Free State, in which he states that the ment of the Congo Free State has resolved the expense occasioned by the visit of mbers of the school during their sojourn on go. These expenses, which include in a general maintenance of the expedition, the salaries of ndants, and transport expenses, amount to The Government of the Congo Free State desires in this way to show its sympathy with the philanthropic work undertaken by the school and with the spirit in which its members acquitted themselves in their mission to the Congo. It is further announced that the King of the Belgians has sent a very complimentary letter, contributing £2,600, in addition to the large sum he has already given to the funds of the school.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST. —The annual festival dinner of the City of London Hospital for Diseases of the Chest was held on May 11th, at the Trocadero Restaurant, under the chairmanship of Mr. Alderman and Sheriff H. George Smallman. The loyal toasts having been duly honoured, Mr. F. Hyland proposed the toast of "The Medical Staff," and in the course of his speech declared that there was no business or profession in which such an amount of gratuitous service was cheerfully rendered as in the medical profession. It did not cost people much to thank members of the medical staff, and he thought the staff ought to be thanked most heartily. Dr. Heron, in responding, said that Parliament should not give so much time and attention to a war of sects concerning education, but should give doctors money and authority to fight against the ravages of consumption. The Chairman then proposed "Prosperity to the City of London Hospital for Diseases of the Chest," and described how the hospital was originally founded more in the form of a dispensary in Liverpool Street in the year 1848, and had for its main object the provision of accommodation for persons suffering from chest disease who, though in rank above the very poor, were yet poor enough to be received in a charitable institution. The out-patient department was one of the largest in London, more than 69,000 attendances being recorded last year. Mr. H. D. Ryder, the Secretary, announced that subscriptions had been received amounting to £2,483. An interesting feature of this dinner was the attendance of representatives of the various working men's societies from the districts round the hospital in the East End.

THE ROYAL SANITARY INSTITUTE.—The Royal Sanitary Institute held its annual dinner on May 9th at the Langham Hotel, London, with the President of the Institute, the Duke of Northumberland, in the chair. In proposing the toast of "The King," the Chairman said that the Royal Sanitary Institute was making preparations for the second International Congress on School Hygiene, and it was a matter for sincere congratulation that the King had consented to be patron of that Congress. Sir Lauder Brunton proposed "The Navy, Army, and Auxiliary Forces," but his remarks were met with a chorus of dissatisfaction, especially when he recounted how in Berlin he was told how in a sudden war with Britain her navy would be destroyed and an enormous indemnity would have to be paid. In order to help in preparing for war the Sanitary Institute should help in raising the standard of physique so that it would be possible to enrol acceptable recruits. The Director-General, A.M.S., in responding, declared that the first duty of the Army Medical Service was the prevention of disease, and its second duty, the care of the sick and wounded, which was purely humanitarian work. He did not think that they were now more efficient in the prevention of disease than they were in 1899. At the present moment they were endeavouring to translate scientific knowledge into army administration, but he considered that sanitary recommendations should not be made to the responsible authorities unless there was reasonable chance of the recommendations working out in practice. Certain recommendations had been made in the past which might be described really as scientific experiments on which money had been spent without obtaining the results promised. The scientific sanitation of to-day appeared not to be so scientific as a large number of people believed, for the translation of scientific sanitary knowledge into administration did not always show that opinions rested on true scientific foundations. In regard to the water question in war, he thought that the problem would be solved by means of Slack and Brownlow filters attached to, or rather inserted in, the ordinary field water-cart. He urged that the Sanitary Institute should form an organization in civil life to help the Army Medical Service in the prevention of disease in war. The Chairman, in proposing "The Royal Sanitary Institute," referred to the cold water douche received in the matter of vaccination. He had taken great interest in the revaccination of the population, which he believed to be necessary. Colonel J. Lane Notter, R.A.M.C., responded to the toast, and thanked all the municipal authorities who had assisted the Institute. Sir Alexander Binnie, in proposing the toast of "The Visitors," mentioned the name of John Hunter as a sanitary authority.

British Medical Journal.

SATURDAY, MAY 19TH, 1906.

GERM-FREE OPERATIONS.

DR. DÖDERLEIN, who is Professor of Obstetrics and Gynaecology at Tübingen, has recently expressed his dissatisfaction[1] with the methods of antisepsis usually observed in the operating theatre. They are not, he maintains, sufficiently thorough to secure a complete exclusion of extraneous micro-organisms throughout the entire course of an operation—the ideal every surgeon endeavours to realize.

The only reliable test of perfectly successful asepsis is, Professor Döderlein maintains, that of investigation by bacteriological culture, and this method he has adopted in 100 abdominal operations. He has used some 5,000 agar plates as test media, and the details of his procedure are as follows. He has at his side a large number of small, sterilized pledgets of cotton-wool which are stored in test tubes, and from time to time during the course of the operation one of these swabs is passed over the exposed surface of the wound or the peritoneal cavity. From fifty to sixty swabs are used during the course of the operation, and, in addition to the region of the wound, tests are made of the articles used during the operation and of the sterilized salt solution with which the operator cleanses his hands. Each swab is immediately transferred to liquefied agar, which, along with the swab, is then poured into a Petri dish. The dishes are incubated for twenty-four hours at body temperature, in order to determine the presence or absence of bacteriological growth. As the result of these investigations, Professor Döderlein found that even in an abdominal operation of short duration, with the employment of all modern precautions against sepsis, including the use of rubber gloves and a mask for the face, both the abdominal cavity and the wound yielded in every case a rich bacterial content. He determined to trace the source of these contaminations, and after much patient investigation found that, when adequate precautions were taken, all external infective agents could be eliminated with the exception of bacteria derived from the skin. These were the organisms to which all his contaminations were attributable. Nor was it enough to protect the hands and arms of the operator by sterilized rubber covering: contaminations with skin organisms would still arise unless the skin of the patient at the region of operation was treated by a special method.

Professor Döderlein found that painting the patient's skin with a solution of celluloid in acetone did not answer his purpose, because the stiff, inelastic film of celluloid which was formed peeled off at the edges when the margins of the incision were drawn apart, and so allowed the escape of skin bacteria. It was necessary to coat the skin with a material which would be sufficiently elastic and yielding to withstand the operative manipulations without tearing. By the use of a special sterile rubber solutio however, he has obtained completely satisfact results. He first paints the skin with pure tinct of iodine in order to induce a temporary tanning p cess; the iodine dries in one or two minutes, and t rubber solution is then applied; the benzine and eth which hold the preparation in solution quickly eva rate, and a thin, tenacious membrane is readily form Following this procedure, he finds that he can cond a long abdominal operation from beginning to end un conditions which, as shown by the application of his v rigorous bacteriological test, are shown to be those perfect asepsis. This, he considers, is a triumph in a septic surgery, and he also maintains that in the adopt of these very elaborate precautions there is a clini advantage which is manifested in the impro condition of the patient during the first few days af the operation. The patient bears the operation bet because his organism is relieved from the task defending itself against bacterial invasion.

If Professor Döderlein gets better results by the of these extra safeguards against bacterial invasion, is to be congratulated on their employment. Nowad we are accustomed to the success of abdominal ope tions. After the patient's skin and his own hands arms have been well cleansed with disinfectants, surgeon usually considers that he has done enough put the microbe out of court. He does not see necessity of having fifty bacteriological cultures ma during the course of one operation in order to ass himself that his asepsis is complete. His patients ma good recoveries, which, after all, is the main po to consider. Perhaps the results of Profes Döderlein's bacteriological investigations are quite so alarming as might at first sight app It is reassuring to remember that a great many of commonest micro-organisms are not pathogenic. I fessor Döderlein gives us no information as to nature of the bacteria which grew upon his agar pla nor does he appear to have tested their virulence inoculating them into animals. It would be desira to know how many of them were harmless saprophy and how many or how few were organisms capable setting up a morbid process in man. Without th data it is impossible to decide whether the employm of these special precautions, when a long ab- minal operation is contemplated, ought to be garded as a matter of much practical importance. Ma surgeons will consider that Professor Döderlein rega the danger of microbial infection with a somew exaggerated degree of apprehension; but, though takes the view of an extremist, we must not forget t he is laying down a sound principle of modern surg when he insists that the efficacy of our methods sho not be taken for granted, but ought to be tested fr time to time by careful bacteriological investigations

THE PROGRESS OF OTOLOGY.

UNDER the somewhat technical, but at the same ti comprehensive, title of "Fixation of the Stapes," Otological Society of the United Kingdom has recen discussed some of the most intractable forms of d ness. An outstanding feature of the group is sclerosis. The British Medical Association has been unmindful of the importance of the subject. recently as 1904, when the Association met at Oxf the subject selected for discussion in the Section

---

[1] *Deutsch. med. Woch.*, April 12th, 1906.

[2] This preparation, which contains a mixture of formalin-ben and formalin-ether, is sold, under the name of "gaudanin," by firm of Zieger and Wiegand of Leipzig.

›logy was the treatment of the dry non-suppurative ms of middle-ear deafness, which included fixation he stapes. At that time the hope was expressed that ps would be taken to stimulate scientific investiga 1 of the causation of these forms of deafness. thing could be more helpful than that the matter uld be taken up by the Otological Society.

he introductory papers read to the Society—a sum ry of which is published in this issue—form a lucid sentment of the present knowledge of the subject; fact, we agree with the remark made by the Presi t, Mr. Cumberbatch, who, in thanking the openers he debate for their valuable papers, said that vir lly everything that is known on the subject was laid ore the meeting. Dr. Urban Pritchard opened the ate with a paper which concisely classified the ous pathological processes resulting in fixation of stapes, and their diagnosis, and concluded with a rence to the methods of treatment which had been most service. Dr. Thomas Barr followed with paper which discussed the differential diagnosis fixation of the stapes, and showed how it was sible with the methods of examination now at disposal to differentiate simple uncomplicated tion of the stapes from other conditions causing ness.

is true that the papers dealt mainly with the ous pathological changes and their clinical recogni and had little to say about treatment; but it is mportant point gained, as Dr. Barr remarked, in rd to a condition which yields but little to treat t, either surgical or medical, to be able to isolate affection and differentiate it from other conditions. none the less regrettable that so far practically no entive or remedial measures are known. The tiplicity of remedies which from time to time have suggested is itself evidence that little is known it the etiology and pathogenesis. Dr. Albert Gray hed this fundamental question in a paper which ussed the pathology of the subject. After doing our to the memory and the work of Toynbee, he ly reviewed the several theories about the origin of changes in the ear; and in conclusion submitted eory the outcome of his own investigations.

the endeavours to elucidate the causation of the se it would seem that attention has been riveted much upon the stapes itself, with the result that relationship of the aural condition to constitutional ges and general diatheses has not received sufficient deration. In the subsequent discussion Dr. Dundas t referred to otosclerosis in young girls as a very ite fact; he believed it to be associated with an blement of the circulation, and that the patients usually those to whom the term chlorotic was ed. In many cases of otosclerosis there has been nce of osteo-arthritis, and the relationship of forms of deafness to menstruation, to preg y, and to parturition is in itself a field for tigation.

order that such an investigation may be carried sefully and with scientific accuracy, co-operation well-defined and organized plan with workers in departments of medicine will be necessary. In way progress might be made in arriving at a true ption of the cause and treatment of these in ible impediments to hearing. So wide is the field search that if some of the younger members of the ty having aspirations and the facilities afforded by general hospitals and infirmaries would throw bread upon the waters of Cotunnius, we feel sure would not have to wait "many days."

MR. BERNARD SHAW ON DOCTORS.

Molière was a writer of plays; so is Mr. Bernard Shaw. There are, of course, as the French judge unkindly reminded Dumas, degrees in playwriting; and Mr. Shaw is still a considerable distance below Molière even as *malleus medicorum.* Molière had the advantage of being coached by a member of the Paris Faculty who thoroughly knew the weak points in the medicine of his day; every blow, therefore, went home on some real absurdity or abuse. Mr. Shaw wields his shillelagh in the style of Donnibrook Fair, and like his countryman who, whenever he saw a head, hit at it, strikes with random fury at everything directly or indirectly connected with medical science. Some account of the extraordinary outpouring of the spirit with which, at the annual meeting of the British Union for the Abolition of Vivisection the other day, he moved an audience of women to hysterical sobs, is given at p. 1174. Mr. Shaw lately described himself as, among other things, "a fanatic, a humorist, a fluent liar." As to his fanaticism there can be no doubt, though a difference of opinion may be permitted as to the quality of his humour. As for his fluency in lying, it is not for us to contradict one who has made so close and loving a study of himself, and who communicates the results of that study so complacently to the public.

It would be difficult to say whether fanaticism or what may euphemistically be called "fluency" was the predominant note in his speech; of humour there was no trace. It would be foolish to treat such a deliverance seriously. Mr. Shaw simply swore at large, shrieking that science in the nineteenth century reverted to witchcraft; that doctors threatened people with death for the sake of lucre; that they removed internal organs of the female economy, kidneys, tonsils, uvulas, and appendices in a wholesale fashion, which in Mr. Shaw's charitable mind excited grievous suspicions; that it was on the authority of "this strange medical "and surgical profession" that vivisection was supported; that these so-called scientific authorities were absolutely the most unscientific people in the world; that medical men were making the whole human race dread them so that the doctor was much more feared than the lawyer, infinitely more than the soldier, and almost more than the clergyman; that vivisection was a stupid way of study, and why it was so popular with scientific men was because any fool could practise it; that if all the energy wasted on those abominable experiments had been directed into moral paths the x rays would probably have been discovered much sooner! This sort of thing needs no comment; even his credulous and prejudiced audience must have known in their hearts that a man who speaks of the discovery of the x rays being made by moral paths, and of the nineteenth century having been a time of the worst retrogression in science when compared with almost any other century, is talking nonsense.

Does Mr. Shaw know that he is talking nonsense? We take leave to doubt it. He expressed the opinion that the stupidity of the doctors could not endure for ever; may we, in a like friendly spirit, utter a like hope in regard to him? If he is ever able to shake himself free of the fanaticism and "fluency" with which he is now possessed, he may be able to give us full particulars, with exact references, of the case of tuberculous ulcer of the arm, in which he said that Koch's tuberculin had been tried in London with such effect that "the "arm rotted off at once." We should also be glad to know something more definite of the cases in which formalin was injected into the veins "to deal at first "hand with the tubercle bacillus." Mr. Shaw here makes a grave charge which the profession should have the opportunity of investigating. We have said that there is no humour in Mr. Shaw's utterance; there is, however, one passage in which he is unconsciously amusing. He complains that scientific men write to the *Times* to expose the fallacies and misstatements of antivivisectionists; evidently he would apply to them the famous description:

> Cet animal est très méchant,
> Si on l'attaque, il se défend !

Mr. Shaw amiably suggests that they do this for the sake of advertisement, a thing which of course his lofty spirit loathes. We have thought it well to give a report of Mr. Shaw's speech, not because we think it of any importance, but in order to show what manner of man he is, and what weight can be attached to his statements. He is not a Timon, but a very inferior Thersites, whose railings pass by us like the idle wind.

In conclusion, we venture to give him a hint. He boasts of his defiance of medical authority in regard to his diet, which, as he with characteristic elegance describes it, is of such a nature that it dispenses with the necessity of vivisection being carried on in the butcher's shop. It is permissible to conjecture that a change in Mr. Shaw's diet might engender a virility of mind in which he is somewhat lacking, and give him a saner outlook on the work of men who gladly sacrifice their chances of gaining wealth in the practice of their profession that they may give their lives to the discovery of truths which shall benefit mankind. Herbert Spencer, who dissembled his love for the medical profession almost as successfully as Mr. Shaw, gave vegetarian diet a trial—and burnt all that he had written under that uninspiring regimen.

◆

SPECIAL SCHOOLS IN MANCHESTER.

IN his report on the Manchester Special Schools Dr. Henry Ashby gives much valuable information (p. 1167). The most interesting portion of the report is, perhaps, that which deals with the Resident School for Cripples, Swinton House being, we believe, the only residential school for cripples in the country maintained by an Education Committee. The hospital and the school work together, the matron and the nurses having been taken from the hospital to look after the children in the school. Thus, as Dr. Ashby remarks, two important matters are going on side by side—school work and a gradual cure or amelioration of the chronic ailments from which the children suffer. Time is required for perfect cure or even for real improvement in the condition of children suffering from spinal or hip disease, and, as a rule, that time is wasted because the children cannot undertake the exertion of going to a day school without retarding their recovery. The special school supplies a great want. Moreover, children whose minds are employed, and who are thus prevented from brooding over their malady and the enforced quiet, have a better chance of recovery, and a good many of those who in the residential school have partly or wholly regained their health will be able to get work on leaving, instead of drifting into the workhouse, owing to being completely uneducated, as is usually the case. Since the passing of the Defective and Epileptic Children Act (1899) most education authorities in the larger centres have come to recognize the obligation to provide special classes for feeble-minded children, and the number of classes is increasing annually. Indeed, herein lies a danger to be guarded against, that of admitting to the special schools for the mentally-defective the borderland imbecile; the result must be disappointment with the result of his education. It the upper layer who benefit most and who alone worth the expense. In some recent reports there been far too much of the make-believe of turni imbeciles into normal children by the help of spec schools. Every child in the special school costs ratepayer three or four times the amount of a child an ordinary school, and in the case, therefore, children whose mental condition seems hopeless does not improve, sentiment should not be allowed interfere with clear judgement. The problem is a v difficult one, for, as Mrs. Watt Smyth has pointed in her recent work,[1] even in healthy children the rate mental development varies to a certain extent. In norr children the difficulty can be met by varying the age which they are passed from a lower to a higher standa There is, however, a certain proportion of child who cannot be dealt with in this way, and wh condition necessitates a special system of teachi In London at least 10 per cent. of the schol are, for reasons either of a permanent or te porary nature, unfit for elementary school class There are the lowest grade of imbeciles, feeble-minded, epileptics, defective and backw children, and those suffering from blindness, deafn and nervous disorders. After the list of nervous disord and diseases causing unfitness is exhausted there s remains, she continues, a considerable number children who cannot derive full benefit from sch teaching, owing to general debility, languor, and wan physical and mental energy. This debility may be to a delicate constitution little able to resist fatigue may be due to insufficient food or clothing, or both bad surroundings in the home, insufficient fresh sunshine, and exercise, or to slow convalescence fr scarlet fever, measles, whooping-cough, or diphthe Debilitated children can be helped to a healthier t of mind by the kindness and indulgence of an exp enced teacher. The cause, again, may be want of f and it may be possible to obtain assistance for the cl through some benevolent agency. This sifting of unfit from the fit must go on in order that for nor scholars the highest possible standard should be attai but the greatest judgement and discrimination wil required, and as experienced teachers are necessa fewer than inexperienced, the teacher should in matter be helped as much as possible by the med officer.

THE USE OF STATUTORY TITLES BY COMPANIES.

THE amendment to Clause 4 of the Poisons Pharmacy Bill, which was carried in the Hous Lords on May 11th by 38 votes to 32, raises q tions of principle which are of much importa although at first sight Lord Ebury's motion not seem to have much vice in it. The cl as it originally stood in the Bill, as introduced the Lord President (the Earl of Crewe), would h prohibited limited companies from carrying on business of pharmaceutical chemists, or of chem and druggists, unless at each place of business employed a registered qualified person whose name conspicuously exhibited there; so far the clause st unaltered. But the latter part of the original cl laid down that, with this exception, companies wer be subject to the prohibitions and penalties prescri in the sections of the Pharmacy Acts, just as the they were individuals. In effect this would have vented a company from using the titles which in qualification. As it was proposed to give them se years of grace in which to set their houses in or to use up their stock of bottles and labels, the superscription of their shop fronts where ssary, it might have been thought that no one d have been found to support an objection. But, in the House of Lords, where better things might been expected, the old worn-out cries of monopoly, ection, and the like were raised and listened to, the result that an amendment was carried which rms expressly authorizes corporate bodies, so long ey conform to the requirements as to a qualified ager, etc., to use as the style of the company words h have heretofore signified that the user is a person fied by curriculum and examination, and indeed no other meaning. No doubt the opposition to riginal clause is the outcome of an agitation by companies concerned; indeed, Lord St. Aldwyn's h indicates this, for it contained the exaggeration l on such occasions. It is, for example, hardly ble to believe that it would cost from £30,000 to 00 to alter even 320 shop signs. But the serious t of the matter is that a body like the House of s should have failed to see that the extension to person or body which does not possess them of right to the use of titles implying qualification es at the root of that protection to which the public titled. The point is very well put in the speech of resident of the General Medical Council, reported ge 1169. Poor as are the provisions of our Acts it is events expressly laid down that the public shall be to know who is qualified and who is not, and the lest relaxation in the rules which govern the use of is a very grave matter. Yet even the Lord Presi- failed to see this aspect of the question, for in ding the Bill he said that the matter was not one h concerned the public, but was of the greatest est to the trade.

---

[1] *Textbook of Hygiene, Based on Physiology.* London: Sim Marshall, and Co.

THE PROPHYLAXIS OF SYPHILIS.

Metchnikoff and Roux communicated to the meeting of the Académie de Médecine the ts of recent experiments made to show that the lation of man with the virus of syphilis is harm- if certain preliminary precautions are taken. riments on the monkey showed that rubbing in nel ointment at the seat of inoculation of the virus nted the development of syphilis if the inunction ne a few hours after the inoculation. Thirteen iments on monkeys having always given a positive t, MM. Metchnikoff and Roux considered an iment on the human subject was permissible. A cal student, free from any syphilitic taint, either litary or acquired, offered himself for the experi- . On February 1st he was inoculated with litic virus from two hard chancres, one of eight to ays' duration, the other a month old; the inocula- was made by scarification at the junction of the and prepuce. At the same time they inoculated the same virus four macaques and one chimpanzee. chimpanzee died in a few days of broncho- monia. One hour after the inoculation the cal student and one of the macaques were given an tion for eight minutes with calomel ointment— ; a second macaque received the same treatment an interval of twenty hours; the two remaining ques were kept to control the experiment did not receive any treatment. The two als developed the primary sore seventeen after the inoculation. The macaque treated y hours after the inoculation developed a re on the thirty-second day. No symptoms ap- d in the medical student, either on the skin or us surfaces, and no change took place in the hatic glands or viscera. The same result was ob- d in the macaque treated with calomel ointment the same conditions. Three months having now d since the beginning of the experiment, MM. Metchnikoff and Roux consider it conclusive, establishing the fact that calomel ointment can in the future be used as a preventive treatment of syphilis. M. Hallopeau said that he had discussed the experiment with M. Neisser, who had repeated it on the monkey, and confirmed the observation, though his own results were not always constant. He asked M. Metchnikoff if such a concentrated ointment did not give rise to irritation phenomena. M. Metchnikoff, replying, said that a confirmation, even partial, by M. Neisser of the facts brought forward by M. Roux and himself was very important, as he had in the first instance strongly opposed the idea of the transmissibility of syphilis to the monkey. The experiment on man was evidently incomplete, since the complement of a subsequent positive inoculation was wanting. It was, however, of great interest, as it absolutely confirmed results obtained by experiment on animals. The calomel ointment did not give rise to any phenomena of irritation.

THE NATIONAL LEAGUE FOR PHYSICAL EDUCATION.

A public meeting to promote the objects of the National League for Physical Education and Improvement was held at Denison House, S.W., on Wednesday afternoon. The Bishop of Ripon, who was in the chair, said that the object of the League was to give assistance to every organization in the country which sought to improve the health and physical condition of the people; it aimed at being a confederating association, although it also sought to arouse interest in districts in which no organization existed. In recent years public attention had been drawn to certain aspects of national life previously neglected, amongst these were the physical condition of the people, the need of medical inspection of children in elementary schools, and the desirability of increasing the opportunities of gymnastic exercises, and of forming cadet corps. The question of domestic hygiene, too, was one of increasing importance in the eyes of those who realized the wastage of life and health in the poorer classes. Already some local organizations had applied to be affiliated with the League, and meetings would be held in various parts of the provinces during the autumn. With regard to London he was glad to be able to say that an amalgamation had been brought about with the Twentieth Century League, which would become the London Council or branch of the National League. In this way the work of the Twentieth Century League would be continued and expanded, and brought into relation with local organizations in other parts of the country. The Bishop then drew attention to two provisions in the Education Bill now before Parliament. The clause which gave additional power for providing vacation schools or classes was one which the League could thoroughly approve and support; but the provisions empowering local authorities to take means for improving the health and physical condition of the children were felt by the League to be inadequate; the powers given should be more fully defined and more clearly expressed; the League believed also that the enormous importance of medical inspection to protect children from illnesses and permanent injury which might easily be avoided was not recognized in the Bill. Mr. Birrell had told them that there was a fear that medical inspection would not be popular with parents, but the Bishop thought that this fear was unfounded, and believed that it would not only be tolerated, but would prove popular. Sir Lauder Brunton, who moved the adoption of an interim report on the work of the League, said that its object was not to supersede or rival existing societies but to confederate them; it also sought to gather information which would be of use to all those engaged in working for the amelioration of the people, and to the legislature. The League, for instance, was collecting information with regard to the milk supply and to the provision of crèches; it was also gathering information with regard to the feeding of children, and as to physical training, duties which the Legislature was about to impose upon local authorities. Every commission had reported in favour of medical inspection of schools, and one duty of the League would be to educate public opinion to support the Minister for Education in moving in the desired direction. Mr. Douglas Eyre, Chairman of the Executive Committee of the Twentieth Century League, said that he fully realized the waste of energy due to isolated effort and the risk of overlapping; he was therefore glad that the Twentieth Century League, started to advance the physical and moral welfare of lads and girls in London, had seen its way to become fused with the National League. Already a great deal had been done in the way of local organization in London, and he looked forward to the time when in every district there would be a council of public welfare, comprising voluntary workers and members of local municipal bodies. Mr. J. Compton Rickett, M.P., moved the adoption of the financial statement, and made an appeal for further support. The motion was seconded by Major-General Sir F. Maurice, K.C.B., and adopted. A vote of thanks to the Chairman, proposed by Mrs. Scharlieb, M.D., brought the proceedings to an end.

THE VALUE OF ALCOHOL.

THE general subject of alcoholism was dealt with at two public meetings by Sir Victor Horsley last week. Speaking at Exeter Hall he said that the work which the Band of Hope Union at present does in the way of causing lectures on the value of temperance to be delivered in schools should be done by Government itself, itinerant specialists being engaged. Physical science, nature study and biology lay at the bottom of all our lives and their study should be much less casual than at present. At Caxton Hall he said alcohol was not a food in the popular sense of the term and even in small quantities diminished cerebral and muscular activity. Its apparent bracing up and warming effect were deceptive; nor from the social standpoint could he accept the view that its use was essential to gaiety. His total abstaining acquaintances seemed to him more cheerful individuals than those who took alcohol. As for the domestic use of alcohol in cases of faintness it was superfluous and undesirable, for even in small doses it weakened the heart muscle; hot water was a most efficacious remedy in such cases. Medical men had changed their views as to the value of alcohol as a drug and had given up its use. The more one saw of life during disease the more one recognized that alcohol was not an advantage but the reverse.

THE PROPERTIES OF OZONE.

OZONE is well known to have a toxic action, both on bacteria and upon higher organisms, and it has been shown by Sigmund that it is destructive to a number of unorganized ferments, such as invertase, pepsin, and emulsion. Dr. J. H. Kastle has recently published some experiments[1] in which he tested the action of ozone upon lipase, and compared its properties with those of other oxidizing and toxic substances. He chose lipase for his experiments because this ferment is not readily acted upon by most toxic substances. Ozone, however, was found to have a highly destructive influence. An amount of lipase capable of hydrolyzing 0.06 gram of ethyl butyrate in six hours was destroyed in 40 minutes when exposed to the action of 1 mg. of ozone. This result led Dr. Kastle to compare vario other oxidizing agents and antiseptics with ozone testing their action upon lipase. Experimenting wi sixteen substances, he found that he could group the into three classes as regards the presence or absence toxicity towards this ferment. The following substanc were found to be practically non-toxic—silver nitrat iodic acid, formic aldehyde, the cresols, hydrocyan acid, potassium nitrite, and succinic acid. Then can a group which were moderately toxic, comprisi mercuric chloride, chromic acid, copper sulphate, ar perosmic acid. The third class contained the substanc which were powerfully destructive towards lipase, ar included, in addition to ozone, many other well know oxidizing agents, such as chlorine, bromine, ar potassium permanganate.

MEDICINE IN JERUSALEM.

ON May 1st a dinner, followed by a meeting of Englis medical men practising in Palestine, was held in th Grand New Hotel, Jerusalem. After dinner, microscop slides were exhibited by Messrs. Butter and Cropp illustrating the bacteriology of ophthalmia and corne ulcer, and certain points in malaria, particularly th multiple infection (by five parasites), of the red cell i tertian malaria. Dr. Butter afterwards read a pape giving facts as to the relative frequency of the Koc Weeks bacillus, the pneumococcus, the Morax bacillu and the gonococcus in ophthalmia. The main conclusion drawn were: (1) In simple cases of trachoma the smea is usually "sterile"; (2) in the worst cases c ophthalmia with corneal ulcer a large number (50 pe cent.) showed the gonococcus to be present—a fact c special interest in view of the comparative rarity o absence of any other manifestation of gonorrhoea i the usual sites; it accounted, also, for at least one cas recently observed of gonorrhoeal arthritis in th hand of a nurse. Dr. W. E. Cant, of the Britis Ophthalmic Hospital, read a short but valuabl paper deprecating the use of caustic solution of excessive strength in the treatment of ophthalmi the results being often disastrous. The employment a a routine method of solutions of more than 2 per cen of silver nitrate was, he considered, to be avoided. D Cropper gave an account of his investigation of Syria fever, which he found could be easily marked o from malaria by the fact that leucocytosis of 15,00 leucocytes per c.mm. was found, the average i malaria during apyrexia being 7,000. The existenc of intracorpuscular motile forms was amply atteste and their importance appeared from the fact that of 9 cases in which they were found, 59 were seriously il 5 at least had died, 19 were noted as cachectic, 10 wer only slightly ill, and 24 were not fully recorded. D Masterman read notes of another case of wanderin oedema to be added to the three he had published som time ago in the BRITISH MEDICAL JOURNAL. Dr. Gaskoi Wright gave details of a case of intussusception following appendicectomy; sloughs were passed from the bowe for several weeks, but recovery eventually ensued Dr. Stirling related two cases of guinea-worm in soldier from Yemen in Arabia, and Dr. Johnson a case in al respects resembling ainhum from Perak. After a most enjoyable evening a vote of thanks to Dr. Cant fo presiding was passed, and it was unanimously resolve to hold a similar meeting yearly in Jerusalem.

RECIPROCITY WITH NOVA SCOTIA.

ON May 11th the King in Council made an Orde declaring that the Province of Nova Scotia shall b deemed a separate British possession, and applyin the second part of the Medical Act, 1886, to Nova Scotia, it being His Majesty's opinion that it affords to the registered practitioners of the United ingdom such privileges of practising in Nova cotia as to His Majesty seem just. Consequently any rson holding a diploma or diplomas granted to him Nova Scotia at a time when he was not domiciled in e United Kingdom, or in the course of a period of not ss than five years during the whole of which he sided out of the United Kingdom, will be entitled be registered as a colonial practitioner in the lonial list of the *Medical Register*, provided that e diploma is recognized, and that he is by v entitled to practise medicine, surgery, and mid-fery in Nova Scotia. A "recognized diploma" is one ognized by the General Medical Council as furnish- a sufficient guarantee of the possession of the uisite knowledge and skill for the efficient practice medicine, surgery, and midwifery. This is, we ieve, the first occasion on which the Medical Act endment Act of 1905 has been put into force. The ct of that Act is to enable a part of a British Posses-n which possesses a local as well as a central legis-ure to apply for admission to the privileges of dical reciprocity with the United Kingdom. As was orted in the SUPPLEMENT to the BRITISH MEDICAL RNAL of March 10th, the fact that the Government Nova Scotia had, through the Governor-General Canada, applied for the issue of an Order Council under the terms of the Act of 1905 was municated by the Privy Council to the General lical Council, and the Executive Committee at its ting on February 26th directed a reply to be ressed to the Lord President informing him that ad heard of the application with satisfaction, and in the opinion of the Committee the provisions of Revised Statutes of Nova Scotia, 1900, with rd to the recognition of British qualifications satisfactory, and afford a just basis for medical procity. The Committee further stated that it ld, when the Order in Council had been issued, take necessary steps to ascertain what qualifications ted in Nova Scotia should be recognized. The ish Medical Association has long possessed a ishing Branch in Nova Scotia, which, according to ist published the other day, comprises ninety-seven bers, and returns a representative to the Central cil.

---

[1] *Hygienic Laboratory, Bulletin No. 26.* Washington: Government Printing Office. 1906.

THE GENERAL MEDICAL COUNCIL.

General Council of Medical Education and stration of the United Kingdom will meet for the tch of business on Tuesday next, when the dent (Dr. Donald MacAlister) will take the chair .m. It is stated that Professor Bennett of Trinity ge, Dublin, whose term as representative of the ersity of Dublin is about to expire, will be suc-d by Sir Charles Ball. The latter vacated his seat presentative of the Royal College of Surgeons a ago. Much regret is expressed at the close of Bennett's service on the Council, where he has s enjoyed the warm regard of his colleagues. Sir Williams, whose term of office as one of the representatives expires on May 23rd, has been ointed for a further period.

NTRALIGAMENTARY BLADDER IN WOMEN.

roʼad ligament of the uterus is perhaps the most ating of all the folds of the peritoneum. It has livided and subdivided into all sorts of secondary and subdivisions—mesosalpinx, mesometrium, of the round ligament, and so on. It lodges all of interesting relics—tubules and what not—al structures about which the young gynaeco-l pathologist can decide to his own satisfaction whether they be of Wolffian or Müllerian origin, cision being usually reversed by a still younger rival within a few years. Uterine and ovarian tumours sometimes show an extreme partiality for the folds of the broad ligament, thereby entailing on the operator difficulties which he feels proud to surmount. When the intraligamentary tumour is enucleated, it is not absolutely settled how the flaccid capsule should be managed, so here again the broad ligament becomes the ground of much debate. Turning to ectopic gestation, the broad ligament plays a very prominent part in that phenomenon. Lastly, we must remember that as long ago as 1887 Ziegenspeck showed that the bladder itself sometimes lay in part between the folds of the broad ligament; but little attention was paid to the subject till further notice was turned to it by many who studied the fine drawings of a case of this anomaly in Tandler and Halban's Atlas (*Topographie des weiblichen Ureters*). Last November, however, Natanson and Zinner published a valuable report of several more instances of intraligamentary bladder.[1] They make note of Wolff's case, which, occurring in a fetal monstrosity, is not of direct clinical interest. There was congenital absence of the urethra and two very large sacs projected from the bladder into the folds of the broad ligaments. Natanson and Zinner dwell on this case, believing the burrowing of the bladder detected in adults to be essentially a congenital condition, but considering at the same time that it was a primary malformation in Wolff's case, the arrested development of the urethra aggravating, not causing, the condition. For they do not admit that any amount of pressure can force a part of the bladder into the folds of the broad ligament, and they conducted some experiments on a young subject which seemed in their opinion to prove that at least after birth the forcing open of the folds by sudden, gradual, or permanent distension of the bladder is practically impossible. It follows that the anomaly as observed in adults is not caused by habitual distension of the bladder due either to habit or to disease. If it arise from habit, this encapsulation would no doubt be more frequent, and as to disease no affection of the genito-urinary tract existed to account for it in the dissected subjects. When we bear in mind this rare anomaly we must not forget that in two out of the six authentic and well-dissected cases where the subject was an adult the dissection was made by Professor Tandler, in one instance in association with Dr. Halban, whilst three out of the remaining four were also undertaken under the same professor's auspices by Natanson and Zinner. There can be no doubt that these four anatomists interpreted the relations of the bladder correctly. Hence we may reasonably infer that intraligamentary bladder is not so rare as has been supposed, and that more cases will be detected now that these four Viennese anatomists have shown us how to look for them. A second consideration respecting the anomaly must not be overlooked; the four reported specimens afforded no evidence that the subjects, when living women, were any the worse for the unusual relations of their bladders. For details we must refer the reader to Natanson and Zinner's interesting article in the *Monatsschrift*, illustrated by six drawings. In two cases, both dissected by these writers, both broad ligaments were opened up; in the remaining four, including Ziegenspeck's, the earliest reported instance of intraligamentary bladder, the anomaly was unilateral. The broad ligament is usually opened up as high as its limits at the Fallopian tube, so that tube and ovary lie on its upper surface, over which the round ligament of the uterus runs forward, just as is the case in the common forms of intraligamentary tumours. One anatomical relation is of great importance; the bladder, however distended, is purely a pelvic organ in these cases, and there is even, when it is full, a big pouch of peritoneum between its anterior surface and the pubes. The parietal peritoneum descends well down behind the symphysis. Suprapubic lithotomy without opening of the peritoneal cavity would be impossible in these cases. The position of the ureters and uterine arteries is greatly modified —a fact of serious import should a patient with intraligamentary bladder require an operation for any pelvic tumour.

---

[1] Zur Anatomie der intraligamentären Harnblase, *Monatsschr. f. Geburtsh. u. Gyn.*, November, 1905, p. 615.

FIFESHIRE MEDICAL ASSOCIATION.

THE spring meeting of this Association took place within the Duncan Institute, Cupar, Fife, on May 4th, Dr. Norman Walker, President, in the chair. The report of the Council anent the proposal to arrange for the examination of pathological material was considered, and the President moved its adoption, which was unanimously carried. It was agreed to request the Fife County Council to receive a deputation from the Association. After the transaction of some other business, Dr. Dawson Williams delivered an address on Medicine in some Mediaeval Universities. He showed that instead of medical schools arising from the universities, the medical school frequently existed first, and the university grew up from it as the parent stem. He instanced the Universities of Salerno, of Montpellier, of Bologna, and of Paris, in which this had been the course of development. On the motion of the President, seconded by Dr. Dow, a most hearty vote of thanks was accorded to Dr. Dawson Williams for his very informing address. After the meeting the members dined together at the Tontine Hotel, Dr. Norman Walker occupying the chair. After the toast of "The King" had been duly honoured, Dr. Nasmyth proposed "The health of Dr. Dow." After nearly fifty years of active practice Dr. Dow proposed to retire, and they would all wish for him that he might long enjoy his well-earned repose. They were there to congratulate him also upon the honour which had recently been conferred upon him by his Alma Mater, an honour won by faithful service in the interests of the ancient University of St. Andrews. Dr. Dow, after thanking the members for their kind response to the toast, said he was one of the original members, of whom only few were now present. The Fifeshire Medical Association was bound to do good in the county, and it was of great importance to have addresses from time to time from guests like Dr. Dawson Williams, to whose address they had all listened with such pleasure. The Chairman then asked the meeting to drink to the health of Dr. Dawson Williams, whose work as the Editor of the BRITISH MEDICAL JOURNAL, was one the importance and difficulty of which could scarcely be over-estimated. Dr. Walker, as a member of the Journal Committee, could testify to the quality of that work. Dr. Williams, in reply, paid a graceful tribute to the culture and standing of the Scottish medical graduates, who had reached a point in education superior to the great mass of men in other parts.

A FRENCH SLEEPING SICKNESS EXPEDITION.

THE French Society of Geography is organizing a scientific expedition to Africa for the investigation of the nature of sleeping sickness, and to search for means of prevention. The expedition will consist of three bacteriologists, two of whom will proceed to the Congo, while the third will remain at the Pasteur Institute in Paris ready to replace one of his colleagues in case of need. A laboratory will be established at Bruzzaville, to which will be annexed a special hospital for the treatment of patients, both natives and whites, several of whom have already been attacked by the disease. A sum of £8,000 has been allocated for the purposes of the expedition which will thus be enabled to carry on its wor for eighteen months. The official head quarters of th expedition will be at the Pasteur Institute, from whic the reports of its work will be issued. The Committe to which the organization of the expedition has bee entrusted consists of M. le Myre de Vilers, President c the Geographical Society, Dr. Kermorgant, head of th French Colonial Medical Service, M. Périer, Director c the Museum, and Drs. Brumpt (of the Bourg de Boza expedition) and Hamy.

THE KING'S SANATORIUM.

THE King, who laid the foundation stone of the Kin Edward VII Sanatorium in November, 1903, ha announced his intention of opening the complete building about the middle of next month. The sana torium is designed to receive 100 patients, 88 poo persons and 12 of the well-to-do classes; it consists three blocks connected by corridors. After visitin many possible sites, the Committee selected one 151 acres on Easebourne Hill, about three miles fro Midhurst, Sussex. The buildings are finished, and th work of furnishing is being rapidly proceeded with; w have already given some description of the speci furniture which is being supplied.

THE Corporation of McGill University, Montrea unanimously resolved to confer the honorary degr of Doctor of Laws on Dr. Donald MacAlister, Pre dent of the General Medical Council.

THE honorary degree of Doctor of Civil Law has be conferred at a special convocation of Durham Universi on Baron Takaki. The Baron, who met with a mo enthusiastic reception, was drawn in a carriage from t railway station to the Castle Hall by a number students who wore Japanese colours.

THE Patent Medicine Bill recently introduced in the New York State Legislature, which provides for t proper labelling of medicinal preparations containi alcohol or narcotic or other potent drugs, and for th inspection, analysis, and regulation of manufactu passed the Senate on April 27th by a vote of thirty fifteen.

AMONG the six members returned to the Russi Imperial Duma by St. Petersburg one is a medi practitioner, Dr. Michael Petrunkewitsch, who has be a member of the Municipal Council for many years a President of the Municipal Hospitals Commission. Petrunkewitsch belongs to the Constitutional Der cratic party. Dr. Dolschenkoff, District Medical Offi for Kursk, has been returned for that constituency.

Medical Notes in Parliament

[FROM OUR LOBBY CORRESPONDENT.]

The Use of Statutory Titles by Companies.—The rep stage of the Poisons and Pharmacy Bill was taken the House of Lords on May 11th, when Lord Eb moved an amendment to enable corporate bodies w qualified managers carrying on the business of a chem to use the description of "chemist." Companies, said, had been able to undersell individual retai who were now desirous of putting a spoke in their riv wheel. The Bill as it stood was protection in its most jurious form. The Earl of Lichfield seconded the ame ment on the ground that as it stood it would be a vexati restriction on trade. The Lord President of the Cou (the Earl of Crewe) said that the clause as it stooc stricted the titles reserved under the Pharmacy Acts qualified chemists carrying on a chemist's business. placed no difficulty in the way of companies adverti employed qualified chemists. He considered companies had been of distinct service to the creating a healthy competition and reducing the ugs, but the argument of the chemists was that of 1868 conferred upon them a distinct title er examination ; they held that the title apper- the individual, and the Lord President said that rived at the conclusion that the titles were and ought not to be attached to any names se of the men who had earned them. All titles of vere given for the protection of the public. The would no doubt suffer some pecuniary loss he necessity for changing their shop fronts and ls, and he had consequently proposed seven race. Viscount St. Aldwyn said that there was any which had 320 shops, employing 4,000 ith a capital of £1,300,000. That company esti- it the loss in the alteration of shop fronts would n £30,000 and £40,000 ; that was a serious fine upon a body doing admirable and useful work nefit of the public. The Bill proposed that a arrying on a trade lawfully, and with advantage blic, should not be allowed to call itself by the rd applicable to that trade. The Pharma- Society was endeavouring to procure by a trade monopoly to raise their own d to injure the public by raising the price ods. The Marquis of Ripon said that it would ise of terms to allow companies consisting of ies of shareholders to use the words "chemist gist." He thought the loss entailed on the had been very much exaggerated, and that the met by allowing seven years of grace. It was that the name "chemist and druggist," in which had confidence, should be safeguarded. After ner discussion the Earl of Crewe said that it was led to allow an executor to carry on the business nist, and use the title of chemist, unless a hemist actually existed. The amendment was 38 votes to 32. The House then considered on of the application of the Bill to Ireland, and agreed that it should apply with certain ons.

nents on Animals.—Sir Philip Magnus asked the of State for the Home Department whether he red to make any statement as to the appointment Commission to consider the working of the Act ich experiments on animals were permitted for ses of medical research. Mr. Gladstone, in l: In view of the fact that no inquiry into the s been held for thirty years, it is the intention vernment to recommend the appointment of a nmission, to examine the working of the Cruelty als Act in the light of present scientific e.

n Scientists.—Mr. Lonsdale asked the Secretary r the Home Department whether his attention called to the practices of certain persons styling s Christian Scientists; and whether, with the eventing danger to the lives of credulous persons practitioners, he would take measures, by or otherwise, to prevent them from carrying on tices. The Home Secretary, in reply, said that ith regard to these practices would probably be ucidated by the proceedings in the case of the Scientist who had recently been charged with hter in respect of the late Major Whyte. Until ceedings were concluded he could express no n the subject.

College of Surgeons.—Sir William Collins asked Lord of the Treasury whether he would be pre- consider a petition having for its object a reform stitution of the College of Surgeons, with a view me voice in the management of the College and rty to members of the College. Sir Henry -Bannerman, in his reply, stated that he would consider any petition which might be sent him; hange in the constitution of the Royal College of could be carried out only by legislation, unless ge had the support of the governing body of the

Sleeping Sickness.—In reply to Mr. Rees, who asked whether the Under Secretary for the Colonies was aware that sleeping sickness was reported to have reached Lake Mweru in Northern Rhodesia, Mr. Churchill stated that he had heard of some of the reports referred to, but he could not tell from information in the Colonial Office whether they may not have been exaggerated. That any connexion existed between the appearances of lions, of the tsetse fly, and the sleeping sickness, on the one hand, and the maintenance of the game reserve, on the other, was not at present established. The Secretary of State was addressing the Commissioner upon the subject, and if it could be shown that the removal or contraction of the reserve would increase the health and security of Chiromo and its environs, instructions would be given accordingly.

Bovine Tuberculosis.—Mr. Field asked the President of the Local Government Board whether he would state what was the cause of the delay in issuing the interim report of the Royal Commission on Bovine Tuberculosis ; and whether he could state when it was likely to be issued; and whether a definite result and recommendation to meat inspectors and medical officers of health might be expected from the experiments now being carried on at Stanstead. Mr. John Burns replied that, as he had stated on a previous occasion, the Royal Commission had a report in preparation, together with an appendix containing the details of a large amount of experimental work. He understood that they did not think it desirable to publish the report until the appendix, which was of a voluminous character, was complete. He was informed that they could not state definitely when it would be issued, but that they were anxious that it should be published as soon as possible. As regards the last part of the question, he hoped that a definite result might be obtained from the experiments at Stanstead, but could not at present make any statement on the subject.

Workmen's Compensation Bill.—On Tuesday the House went into Committee, and agreed to a resolution proposed by the Home Secretary, declaring that it was expedient to authorize the payment, out of moneys provided by Parliament, of the expenses of the Secretary of State, and of the remuneration and expenses of medical referees and arbitrators incurred under any Act of the present session to consolidate and amend the law with respect to compensation to workmen for injuries suffered in the course of their employment, and of compensation to workmen employed by or under the Crown in pursuance of such Act. Mr. Gladstone stated that he could not at the present stage estimate the expenses likely to be incurred, as a good deal would depend upon what Parliament decided as to the proposals in the Bill; in proposing the resolution, which was absolutely necessary, the Government was following the ordinary course.

Chemical and Medical Supplies and Irish Boards of Guardians.—Mr. Field asked the Chief Secretary to the Lord Lieutenant of Ireland whether he would arrange that the Local Government Board of Ireland should give to Irish Boards of Guardians the same discretionary power regarding tenders for chemical and medical supplies as was exercised by English Boards of Guardians. Mr. Bryce said that in Ireland one-half of the cost of medicines and appliances was borne by the local taxation account, and a statutory duty was imposed upon the Local Government Board of seeing that no undue charge was placed on this account. It was the opinion of the Local Government Board that they could not, consistently with their duty, allow Boards of Guardians to accept without good reason a tender other than the lowest for the supply of these medicines and appliances. It was understood that in England medical officers had generally to provide the drugs under the terms of their appointment.

Bulford Camp.—Captain Faber asked the Secretary of State for War whether the huts at Bulford Camp on Salisbury Plain had been found to be insanitary ; and, if so, whether there was any intention of abandoning the camp. Mr. Secretary Haldane stated that the reply to both parts of the question was in the negative

Ireland.

Irish Medical Association.

The annual meeting of the Irish Medical Association will be held in the Royal College of Surgeons, Dublin, on June 5th at noon. Mr. J. S. McArdle, the new president, will give an "At Home" at Ballytiegue, co. Wicklow, on June 6th; and on June 7th there will be an excursion to the Boyne Valley.

A deputation from the Association has been appointed to wait on the Chief Secretary in reference to the grievances of the Poor-law medical officers; it will consist of the President, the Chairman of Council, the Honorary Secretary, Sir W. Smyly, P.R.C.P., Sir Arthur Chance, P.R.C.S., Professor Kinkead, Sir W. Whitla, Professor Corby, Dr. Kidd, and Dr. Greene.

National Fund for Irish Nurses.

The annual general meeting of King Edward's Coronation National Fund for Nurses was held in the Royal College of Surgeons, Dublin, on May 14th, when Her Excellency the Countess of Aberdeen presided. The report stated the Council held £4,602 15s. 11d. Midland Debenture Stock, at a cost of £3,668 5s. 9d. The cash in hand was £81 3s. 4d. The nurse members numbered 177, and 17 had joined since last year. Interesting speeches were delivered by Lady Aberdeen, Sir Arthur Chance, Sir W. Smyly, Sir A. Macan, Sir Andrew Reed, Mr. Marcus Moses, Mr. R. Dowse, Sir W. Thomson, Colonel Hall, Miss Maconachie, and others. The general drift of the observations was to urge the general body of nurses to join the Society. The subscription was only 5s. a year, and the object of the Society was the assistance of nurses in times of sickness or distress. Lady Aberdeen, in a very sympathetic speech, pointed out the purposes and advantages of the fund, and urged the nurses present to induce their sisters to join the Society.

An Interesting Technicality.

In the King's Bench Division, Dublin, on Monday, Mr. Henry, K.C., applied on behalf of Dr. O'Neill, of Athy, the prosecutor, to make absolute a conditional order for *certiorari*, to quash a conviction obtained at Athy Petty Sessions, by which Dr. O'Neill was fined 6d. for having, while being concerned in a contract with the Athy Urban Council, of which he was a member, voted and taken part in the proceedings.

In August last Dr. O'Neill consented to act as deputy dispensary doctor for Dr. Kilbride, the permanent officer for the district of Athy, but clearly stipulated that he would not accept any of the duties of medical officer of health, and it appeared that subsequently when a health nuisance was reported at a meeting of the Urban Council he refused to act on the report of the acting sub-sanitary officer, and the matter was attended to by Dr. Kilbride when he returned. Dr. O'Neill received ratification of his appointment from the Board of Guardians and not from the Urban Council, who were only formally notified from the Local Government Board when they approved of the action of the guardians. The latter, however, when making out the order of payment to Dr. O'Neill, ear-marked four guineas of the sum of sixteen guineas as due to him in respect of duty as medical officer of health. Thereupon the above complaint was brought against Dr. O'Neill, and resulted in his being fined 6d., which disqualified him for seven years as an urban councillor. Counsel submitted that Dr. O'Neill was appointed solely by the Board of Guardians and not by the Urban Council; that his arrangement with Dr. Kilbride was not "a bargain or contract," which words as they appeared in the Act should only be read in a commercial sense; and that the Local Government Board had disapproved of the action of the guardians in ear-marking any portion of the sixteen guineas in respect of services as medical officer of health, none of which, in fact, Dr. O'Neill ever performed.

The Court made the order absolute, with costs.

The Medical Health Officer of Belfast.

Dr. Henry Whitaker, Medical Superintendent Officer of Health, Belfast, has tendered his resignation owing to advancing years and failing health. The Public Health Committee at its meeting on May 10th, after some discussion, finally agreed to accept the resignation and to recommend the Council to grant a pension of £300 per annum, which is three-fifths of the full salary, and the highest possible under the circumstances. Dr. Whitaker obtained the diploma of L.A.H.Dublin in 1856, and became M.D. of the old Queen's University in 1859. He was appointed Superintendent Medical Officer of Hea in Belfast in 1891, and the duties have been by no mea light; from time to time waves of criticism arose owi to the high death-rate and the general constitution of Health Office. All through it was felt that Dr. Whitake hands were tied by old laws and by-laws, vested interes and, too often, public apathy and ignorance. It w evident that the Council sacrificed this department others. Dr. Whitaker has rectified many errors, and prepared the way for his successor. During his wh tenure of office he retained the goodwill of the professi and was always courtesy itself to younger men seeking aid and advice. He claims that during his office t death-rate has fallen from 26.5 in 1892 to 20.0 in 190 The profession joins heartily with the public in wishi him many long years to enjoy his well-earned rest.

Public Conference on the Health of Belfast.

A public conference of representatives from vario bodies throughout the city, convened by the Belfa Citizens' Association, was held on the evening of May 8 in the Central Hall. Mr. Woods, President of the Ass ciation, occupied the chair, and there was an attendan of about 150, including many medical men.

Dr. William Calwell, President of the Ulster Medic Society, proposed the first resolution:

> That the alarmingly high death-rate of Belfast, especial from tuberculosis in its various forms, demands vigila attention from the citizens and vigorous action by the r sponsible authorities, and shows the urgency and impe tive necessity that the City Council should secure t highest specialized professional skill and lengthened e perience available in the United Kingdom for the oversig of our public health.

He had prepared a sheet of statistics, which showed th for the last four years Belfast occupied the unenviab position of being seventy-sixth or seventy-seventh in list of eighty large towns in the British Isles; and th the death-rate from consumption was 50 to 100 per cen higher than in the large English towns during the sam period. The notoriety of the town for typhoid fever wa also substantiated by figures. As regards infant mortalit and zymotic disease generally the comparison was favou able. Dr. Calwell then drew attention to several d ficiences in the annual report which he had criticized f some years, and pointed out that it did not meet the r quirements of a proper report on the health of the Cit He urged the necessity of appointing a highly qualifie medical officer of health, pointing out that public healt was now one of the well-differentiated specialities of th profession, full of difficult problems demanding scientif skill and lengthened experience.

Mr. Crawford, Chairman of the Royal Victoria Hospita seconded the resolution, and said that the sanitary wor to be overtaken in Belfast was sufficiently great an diversified to task the powers of a man such as was recom mended by the resolution.

After a discussion the resolution was passed unan mously.

Mr. John Murphy (Secretary of the Trades Counci moved the second resolution:

> That the impending resignation of the Medical Superin tendent Officer of Health presents a unique opportunit to the City Council for the appointment of an experience Medical Officer possessed of the highest scientific know ledge and training in public health matters, and for suc changes in the constitution of the Health Department a may be required for carrying out necessary reforms, an this Conference is of opinion that the City Council shoul take action accordingly.

This was seconded by Dr. Clarke Robinson, and passe unanimously.

Some of the important points advanced in its suppor were that the medical officer of health should have fu control of and be fully responsible for the port sanitar arrangements, as in Liverpool, Bristol, Cardiff, Hull, an Glasgow; for the health duties of the district medica officers, for schools and lodgings, for milk supply, and fo disinfection; he should also have power to obtain al necessary statistics.

An influential Committee was appointed to take charg of these resolutions.

Belfast Municipal Loans.

Mr. P. C. Cowan, M.Inst.C.E., Inspector of the Loca Government Board, held an inquiry in Belfast o

May 11th with regard to a proposal to borrow £38,100 for (1) completing and furnishing the Infectious Diseases Hospital at Purdysburn, (2) for constructing cooling-room and providing machinery in connexion with the abattoir, and (3) for the electric light extension. The total estimate for the Infectious Diseases Hospital was £75,000—£50,000 for erection and £25,000 for furnishing. Dr. King-Kerr, Chairman of the Public Health Committee, said he was not satisfied that this would be the final cost. Owing to the objection raised against bringing the sewage down Balmoral Avenue to the city sewers, the Committee had agreed to sterilize the sewage by means of steam. Several memorialists appeared objecting to the loan till a smell which they had frequently complained of was remedied. Dr. A. G. Robb, Visiting Physician to the hospital, described the working of the proposed sterilizing apparatus, and said that it had been very successful at Leeds; it was proposed only to deal with the typhoid blocks. Dr. Henry O'Neill, J.P., Chairman of the Market Committee, explained the necessities for a cooling house, for the provision of machinery, and for certain reconstructions in the public abattoir. If these improvements were carried out it would obviate the necessity of a new abattoir for some years.

DR. DARNELL'S EXPENSES IN TUGHAN V. DARNELL.

The following subscriptions have been received up to May 12th:

	£	s.	d.
Sums already acknowledged...	14	3	6
Dr. Robert Campbell, F.R.C.S.Eng. ...	10	10	0
Dr. Henry O'Neill, J.P.	5	5	0
Dr. Brice Smyth ...	5	5	0
Dr. Cecil Shaw ...	3	3	0
Dr. William Calwell...	3	3	0
Dr. John Killen (Larne)	3	3	0
Dr. Andrew M'Connell	3	0	0
Dr. Victor G. L. Fielden	2	2	0
Dr. S. Brice Smyth ...	2	2	0
Dr. R. Watt	2	2	0
Dr. Taylor (Tandragee)	2	2	0
Dr. Howard Sinclair (Rostrevor)	1	1	0
Dr. St. George (Lisburn)	1	1	0
Dr. Robert Watson (Bloomfield)... ...	1	1	0
Dr. J. Morrison ...	1	1	0
Dr. Ross Thomson (Ballymoney) ...	1	1	0
Dr. Robert Gray (Armagh)...	1	1	0
Dr. W. B. Hunter (Derry)	1	1	0
Dr. Jos. Martin ...	1	1	0
Dr. Jos. Elliott (Rathfriland)	1	1	0
Dr. Bernard (Derry) ...	1	1	0
Dr. M'Ivor (Moneymore)	0	10	6
	67	1	0

The name of Dr. Robert Allen, F.R.C.S., was inadvertently mitted from the Committee; and from the list of promised ubscriptions of £10 10s. published on May 12th, p. 1128.

Cheques may be made payable either to Dr. Leonard Kidd, nniskillen, or Dr. Wm. Calwell, 1, College Square North, elfast.

WILLIAM CALWELL, M.D., Hon. Treasurer,

May 12th.

Scotland.

PROFESSOR MCKENDRICK OF GLASGOW.

ENERAL regret is expressed at the rumour that it is the tention of Professor McKendrick to retire at the end of e present session from the Chair of Physiology. His signation will be a distinct loss to the teaching strength the medical faculty. Dr. McKendrick's lectures have er been models of clearness, and his skill as an experienter is such that none of his class experiments was er known to fail. Successive generations of students e much to Dr. McKendrick's teaching. In his lecture always remembered that the bulk of his audience were stined to be practitioners, and not physiologists. His n has been to teach the broad essentials requisite for roper knowledge of medicine, and avoid the tendency wander into the seductive by-paths of pure physiology. is understood that Dr. McKendrick's decision to retire the present time is due largely to the fact that he ognizes that it is only fair that the next holder of the air should be allowed to arrange the internal fittings of new physiology department.

DISCIPLINE IN THE EDINBURGH ROYAL INFIRMARY.

The medical profession and the public of Edinburgh re not a little surprised and shocked to read in their rning newspaper of May 11th that, "as the result of a vate conference," the managers of the Royal Infirmary l caused a notice to be posted at the east gate setting th that the hospital tickets of five young graduates, ose names were given, "are suspended for six months from this date (May 7th), and the holders are prohibited from entering the hospital on any pretext whatever during that period." It was naturally asked of what atrocious crime these young men had been guilty to call for or justify such Spartan punishment. On inquiry it was discovered that one of their number was about to sail for India; that the five had met at the infirmary residency on April 30th, that they had been amusing themselves in a somewhat vivacious manner, had forgotten the passage of time, and had prolonged their stay beyond the official hour. No injury had been done to any one, no patient in the hospital had been disturbed, but one or more of the complicated system of rules, under which the Royal Infirmary now struggles and groans, had been broken. These rules too often remind one of the police regulations for visitors in some Continental towns. One thinks of how Charles Lamb or Matthew Arnold would have dealt with the little incident. One can imagine the latter saying, "Amusing, good heavens! We shall none of us be amusing much longer. The managers of the Edinburgh Royal Infirmary would perhaps be more indulgent to the vivacity of these five young men if they considered this. It is but the last sparkle of flame before we are all in the dark; the last glimpse of colour before we all go into drab." The incident, in reality, did not call for more than this; but unhappily there is more to follow. The offending notice was removed—doubtless by some sympathizer. Here, then, one might have supposed, was the opportunity to let the matter drop. But this was not the view of the managers; they met again "in private conference" on May 14th, decided to replace the notice with an explanatory addition to the effect that Rule 5 of the Special Rules for Residents and Rule 3 had been transgressed. No one has the slightest interest in these rules. Already a kindly rain has partly obliterated the new notice. So far as we have been able to discover, there is a widely-prevailing feeling of indignation, if not contempt, at this action, both in the profession and among the public. It is felt that the incident did not call for such drastic treatment; that the managers may have asserted their petty and passing authority but have not added to the respect in which they are held; that the notice at the east gate and the action it connotes are out of place and unseemly in a great charitable institution; and that grave damage has been done to the traditional prestige of the infirmary without any counterbalancing advantage.

INFANTILE MORTALITY.

In his annual report, Dr. Oliver, Medical Officer of Health for Roxburghshire, directs attention to the high rate of infantile mortality throughout the county. The mortality rate is 80 per 1,000 births, as compared with 81 in the preceding year. The Hawick district heads the list with 127 deaths per 1,000 births, and Jedburgh is lowest with 61. As compared with towns, this rate of infantile mortality is low, but the comparison is not so favourable with similar districts in Scotland. For the mainland rural districts in 1903 the rate was 87.6, and these include large areas more urban in character than Roxburgh, and so might be expected to have a higher rate.

South Wales.

CARDIFF INFIRMARY.

AT the last meeting of the Board of Management of the Cardiff Infirmary the Finance Committee reported that there was an overdraft of £8,587 14s. 1d. on the current account, as against £5,606 15s. 9d. at the corresponding date of last year. Dr. Owen L. Rhys was appointed clinical assistant to the electrical department. It was reported that during April 120 patients had been admitted into the infirmary, the number of patients in the house was 162, and there were 461 awaiting admission. The following notice of motion stood on the agenda:

> Having regard to the best interests of the Cardiff Infirmary, it is the wish of this Board that Dr. Cyril Lewis be asked to resign the post of anaesthetist now that he has been appointed Assistant Honorary Physician, and on receipt of his resignation that the post be advertised.

The Medical Board had, however, discussed the matter and reported: (1) That it was undesirable that a member of the senior honorary medical staff should hold more than one appointment. (2) That it was desirable in the full interests of the institution that members of the junior honorary medical staff should be eligible to hold dual appointments. Mr. Henry Williams, in proposing the resolutions, said that Dr. Cyril Lewis had promised that if appointed honorary physician he would resign the post of anaesthetist, and it was on this understanding that he was elected. This was seconded. The Chairman said that Dr. Cyril Lewis had promised to resign if the Committee expressed a wish to that effect, and so far the Committee had expressed no wish in the matter. Dr. Rhys Griffiths said that Dr. Cyril Lewis had sent that letter under the impulse of the moment, but the Medical Board felt strongly that to lose his services as an anaesthetist would be a calamity to the institution, and he appealed to the meeting to allow him to continue. Mr. Lynn Thomas, C.B., urged the Board of Management in all earnestness to consider the recommendations of the Medical Board, and Dr. Paterson, in supporting this view, pointed out that Dr. Cyril Lewis enjoyed the confidence of the whole staff. Eventually the recommendations of the Medical Board were adopted unanimously. So also was the resolution of Mr. Henry Williams, it being understood that Dr. Cyril Lewis would be elegible for the vacant appointment should he be an applicant. Mr. Rea, the secretary, reported the receipt of £54 from the Mardy Conservative Working Men's Club, the proceeds of a concert, and £23 from Mr. A. T. Evans, Pontypridd, being the proceeds of a football match between the Albion Colliery and the Maritime and Penrhiw United. Colonel Bruce-Vaughan also reported having received the following contributions towards the rebuilding of the out-patients department: Lord Tredegar, £500; Mrs. Evan Evans, Northlands, £500; Mrs. Jenner, £50; M. G. T., £25; and Mr. E. H. Ebsworth, £26 5s.; making a total of £1,101 5s. A hearty vote of thanks to the donors was passed on the motion of the Chairman.

WHOOPING-COUGH AT SWANSEA.

Dr. Eben. Davies, Medical Officer of Health to the Borough of Swansea, has directed the attention of the Health Committee to the likelihood of whooping-cough appearing in the neighbourhood in a severe form, and has suggested that a request be made to the teachers of all the schools to keep all children away who manifest the characteristic signs of the cough. In consequence of insufficient care more deaths occurred from whooping-cough or measles than from either scarlet fever or diphtheria.

MEAT INSPECTION AT CARDIFF.

A joint meeting of the Cardiff Health and Property Committees has been held to consider the falling off in the number of cattle slaughtered at the municipal abattoirs. It had been alleged that this falling off was due to the strict supervision exercised by the Corporation officials to prevent unsound meat being sold, cattle being slaughtered outside and being brought into the city to be sold. Some suggestions were made for ensuring the efficient inspection of the meat brought in from outside. Already the Health Committee has appointed a practical butcher to inspect meat on sale. The medical officer believes in the establishment of a meat inspection station at which all sound meat would be stamped. To sell unstamped meat would then be an offence. As a result of the meeting a conference will take place with neighbouring district councils who have authority over slaughtering outside the city.

India.

MADRAS.

THE report for the year 1904 includes a short statement by the Secretary of the work done by the Sanitary Board, a very able and interesting discussion on the sanitary events of the year, with the usual appended tables by the Sanitary Commissioner, Lieutenant-Colonel W. G. King, and a full account by the sanitary engineer of schemes and works proposed and executed during the year. Sanitary administration in the Madras Presidency is, as compared with the rest of India, in a very advanced state, and the Commissioner's report is concerned more with sanitary questions affecting public health than with figures collected by an unskilled agency, and of very doubtful value, though signs of increasing accuracy are not wanting. The year was characterized by a deficient south-western monsoon rainfall, and a still scantier north-eastern. Prices of grain were low, but tended to rise towards the close of the year owing to the shortage of rain. The birth-rate was 30.7, 2.4 above the decennial average. The scattering of population in consequence of plague is considered to explain the slight decline on the preceding year. The death-rate was 22.5—a slight advance on that of 1903. There was a decline in cholera, small-pox, and fevers, and an increase in plague and chest diseases. The infantile death-rate, reckoned on births, was in rural areas 183 and in towns 239, both ratios being higher than in 1903. Dr. King comments strongly on the need of improved management of infants and increased care in ensuring the purity of milk and treatment of the umbilical cord, trismus being very common. The death-rate from cholera was 0.6, the lowest since 1895. In six towns into which a supply of pure water had been introduced cholera mortality had fallen from 4.1 to 1.2, and in 1904 the rates in these places was 0.5 as against 1.3 in other towns without public water supplies. Fever rates have similarly declined in the former from 8.9 to 4.1. There was a substantial decrease in small-pox mortality, coincident with a general abatement in India. Plague deaths amounted to 20,125 against 13,291 in 1903. Inspection and detention of sick and suspect are diligently practised. Rat destruction is carried out to some extent. Only 1,544 inoculations were performed during the year. The diminution of fevers is attributed to the short rainfall. Some encouraging results have been obtained from preventive measures. The details given regarding sanitary work shows commendable energy. The Government warmly encourages local bodies in such undertakings, and assists them with funds when necessary. Dr. King continues the training of sanitary employés with great advantage. The King Institute has done excellent work under the able superintendence of Lieutenant Christophers, I.M.S.

BURMA.

The statistics of Lower and Upper Burma are shown separately. In the former about five and a half millions are under registration, and in the latter about three millions. Registration is still defective in both areas. The control of this work has been transferred from deputy commissioners to civil surgeons, but the agency employed—village and ward headmen—is neither educated nor trustworthy, and results must remain unreliable. The year 1904 was a healthy one. The birth-rate in Lower Burma was 32.71 and in Upper Burma 35.05. The death-rates were respectively 22.86 and 18.69. Both birth and death rates were below the average. The death-rates of women at child-bearing ages and of infants is very high. This is attributed to bad midwifery, and efforts are being made to introduce improvements in this respect. There was a considerable diminution in the prevalence of cholera, and the small-pox mortality was moderate. "Fevers" claim nearly half of the total fatalities registered. Bowel complaints were below the average. Plague has gained in 1905 a footing in Rangoon and been conveyed thence to other towns, but only 3 fatal cases imported from India were registered in 1904. The Sanitary Board only met once during the year and represented that "existing orders with regard to the duties and functions of the Board were impracticable and unworkable." The rules for the constitution and proceedings of the Board have accordingly been revised by the Government. The report of the sanitary engineer shows a good list of water supply and drainage works, completed or in progress, and of others in contemplation. The septic tank system is on trial, and, under favourable conditions, promises well. The sanitary report is submitted by Colonel R. Macrae, but Colonel Little held the office of Sanitary Commissioner during most of the year.

ASSAM.

The year 1904 was a healthy one and food was abundant and cheap. The birth-rate was 35.55 and death-rate 25.85, both figures comparing favourably with those of previous years. The mortality of infants reckoned on births was 197.05. Registration is still very defective in Assam, and efforts are being made to improve it. The province has in past years been conspicuous in respect of cholera mor-lity; in 1904 the abatement which 1903 presented was ore than sustained. The death-rate from this cause was)6 against a quinquennial rate of 3.34. In tea gardens d among immigrant coolies cholera mortality was precedentedly low. There was a slight increase in the iall-pox death-rate, but it was only half of the decennial ean. No case of plague occurred during the year. iere was an abatement in fever mortality. Deaths from la-azar were fewer; the disease is said now to present ther a sporadic than an epidemic aspect. Special quiries by Major Hall and Captain James revealed its istence in South Sylhet, the fact being certified by the scovery of the Leishman body in blood obtained from e spleen by puncture. The disease is evidently extenely prevalent in both the Brahmaputra and Surma lleys; but it is difficult to distinguish it from chronic alaria. Bowel complaints are very fatal in Assam; in a gardens deaths from dysentery and diarrhoea are out three times as numerous as in the general population. The only important sanitary work undertaken ring the year was for the supply of water to the town of uhati, but a considerable amount of money was spent municipal and district boards on tanks, wells, draining, d cleaning. The report is submitted by Colonel David ilkie, Sanitary Commissioner.

SPECIAL CORRESPONDENCE.

PARIS.

e Strikes and the Medical Societies.—Succussion in Pyopneumothorax.

IE Easter holidays have interrupted the work of our ientific societies. In any case, it would have been eless for them to go on with their papers and dis- ssions at a time when a general strike was threatening. nong the strikers have been the printers, and their ike still continues, the result being that at least one lf of our medical periodicals have had to suspend blication. The bulletins of the Academy, of the ciété Médicale des Hôpitaux, and of the Society of rgery—the *élite* of our medical reviews—have all been able to appear. This is a pity, inasmuch as recent times ve been fertile in new and unforeseen revelations in the main of general pathology. We were already acquainted th the troublesome June fever—that hay-fever so eaded by its victims. Now we have a still earlier morbid tity—the May fever—the manifestations of which are tremely curious. Distributed equally throughout the pulation, it affects all classes of society, but produces ferent reactions in the exploited and the exploiters spectively—that is to say, the workmen and the nployers of labour. The latter are apt to fall into a matose state, of which a picture was exhibited on iesday, May 1st, that will never be forgotten. Paris, iich at springtide is usually so full of life, might for enty hours have passed for dead. Happily it was ly a lethargy, and on the following day the citizens, careful palpation of each other, gradually came to ognize that they were still alive. Nevertheless, their es, pale and haggard, showed a greenish tint such as ay be seen after pernicious attacks. Among the ploited, on the other hand, the reaction was altogether ferent. Excited and seized with an active delirium ring a whole day of eight hours, the feverish patients of ay 1st had in the early morning a red aspect, which epened in hue towards the evening, to such an extent at, after consultation with competent authorities, it s judged that a slight bleeding would be useful. This eration was carried out under the direction of M. Lépine nself, not without a certain measure of success. Regard truth compels me to say—and this should be generally own—that on that day the doctors went about their rk in the ordinary manner, with a simple courage which d in it a touch of nobleness. The Académie de Médecine ld its meeting as usual, and the attendance was up to the ual standard.

At a recent meeting of the Société Médicale des)pitaux Dr. Chauffard spoke of a new sign of pyoeumothorax. When the fluid is present in too great proportion to the quantity of air, Hippocratic succussion negative when tried in the ordinary way, but Dr. Chauffard found that though succussion was negative with the patient sitting or standing, he was able to obtain a positive result with the patient lying down, or with the patient on his feet and the trunk bent far forward. In many cases of purulent pleurisy, pneumothorax apparently developed after thoracocentesis; the explanation was that the drawing off of the fluid had changed the quantitative relation of the fluid to the air, and succussion was heard for the first time, although in reality the pneumothorax existed before the thoracocentesis. To obtain succussion the ideal condition was to have very little fluid and a large amount of air; but if the amount of air was too small, the resounding chamber was not large enough to allow the waves of liquid due to the shaking to develop, the characteristic sound was not produced. In the horizontal position, however, the upper wall of the recipient, the pleural cavity, changes its relationship to the two layers, the surface of the air chamber became extended, and succussion was obtainable. Dr. Chauffard demonstrated this fact by the aid of two bottles, one half filled with water, the other filled to half way up the neck; with the first succussion was obtained in both the vertical and the horizontal position; with the other it was only obtained in the horizontal position. MM. Béclère, Vaquez, and Achard said that they had seen cases of pyopneumothorax with large amount of fluid and small amount of air in which auscultation gave negative results, but the succussion was visible on the radioscopic screen.

CORRESPONDENCE.

THE FINANCES OF THE ASSOCIATION.

SIR,—The adoption by a meeting of the Lancashire and Cheshire Branch of the series of resolutions recently presented by the Branch Council to the Council of the Association affords an opportunity of bringing before the members of the Association at large some points which I have recently urged upon the members of the Branches which I represent the necessity of considering.

The first part of the leading resolution is that the (Branch) Council "views with alarm the serious decrease in the surplus funds of the Association during the past year." Before becoming alarmed it will be advisable for the members of the Association to examine this decrease somewhat clearly.

The face of the balance sheet for 1905 shows a surplus of less than £900 as against £5,000 in 1904.

(*a*) Of this deterioration, £1,081 is apparent only being due to change in the mode of keeping the account, the £300 grant for the Superannuation Fund being this year for the first time taken from revenue, and £781 being written off by, for the first time, entering the investments of the Association at the selling price as at December 31st instead of the price paid when the stock was bought. If the members fear for the security of the Bank of England, the latter will prove a disquieting item.

(*b*) £1,600 of the decrease is due to transient causes, £1,000 being diminished *income* from advertisements, due to the state of trade, and the rest being due to exceptional legal charges and to repairs.

(*c*) We are thus left with £1,800 for increase of expenditure, which is possibly not due to temporary conditions. Of this £200 has gone to the JOURNAL, and is due to the regular publication of the SUPPLEMENT; £500 was due to the *Year Book* and the inclusion in it of the list of members of the Association; £700 was due to the work of the Council and Committees. The Council, owing to pressure of business, had to adjourn its meetings, and each extra meeting of the Council costs about £100. Several of the Committees—notably, the Medico-Political—had a large number of meetings, those of the Medico-Political Committee being in part at least due to the preparation of the Report on Contract Practice. Increase of salaries accounts for £450, of which £200 is due to the appointment of an Assistant Medical Secretary.

The next part of the resolution urges the absolute necessity of curtailing the expenditure. For the consideration of this it is necessary to deal in detail with each of the four categories under which the £1,800 of increased expenditure which seems to be due to more or less permanent conditions falls. The questions of the SUPPLEMENT and the *Year Book* may be left to the judgement of the members and the instructions of the Representative Meeting which ordered them. The work of the Council and of the Committees depends upon two factors; the first is the amount of work with which they are charged by the members, and especially by the instructions of the Representative Meeting, and the other is the organization of the work. The Council is so large a body that economy in its work can only be effected when each subject dealt with has been carefully prepared and reported on by a Committee and when each member shows that he has made himself familiar with the Minutes of Committees and realizes that he has been sent to the Council to give effect to the wishes of the Association. Time and again hours have been wasted owing to the fact that members had not read the papers that had been supplied or that independent motions were brought forward which before the Council was concerned with them ought to have been threshed out in some locality so that we might know that some body of members was in sympathy with them. Economy in the work of Committees may be effected by a proper organization of the system so that special Committees shall not be appointed for work that can be done at a meeting of any of the Standing Committees, and by such organization of the Standing Committees that they are able to report to Council on any routine question that may occur. It is of interest to note that twelve committees have disappeared from the list given in the annual accounts. Four, with an expenditure of £70, were for temporary purposes; four more, also with an expenditure of £70, have now been organized out of existence. Four, with an expenditure of £110, were, in my opinion, absolutely needless, being appointed for duties that should have been merely routine had the Standing Committees been properly organized and had they had the full confidence of the members.

Apart from better organization, the only way to curtail the expenditure is to reduce the amount of work. For this it is surely the duty of each member of Council and each member of the Association who thinks that we are spending too much to specify such work as he thinks we can afford to abandon, and it is necessary to persuade the Representative Meeting to abandon it. This is the least which the members of the Association have a right to ask of the Lancashire and Cheshire Branch if it is in reality alarmed by the state of the finances of the Association.

Consideration of the increase in salaries raises a matter of principle which it is necessary for the members of the Association to consider. How should a medical practitioner be remunerated in comparison with a business man who is doing analogous work? A representative of the Lancashire and Cheshire Branch has made himself the spokesman of the view that the members disapprove of the appointment of highly-paid medical officials, and other members of Council have urged that the Business Secretary of the Association must of necessity be superior.

These two contentions seem to be an indirect way of saying that the medical official should be paid on a lower scale than the business man. Is not such an answer a denial of the first principles which the Association was established to support? So at least it seems to me, and the resolution of the Representative Meeting asking for a status for the Medical Secretary equal to that of the Editor and the General Secretary, seems to indicate that so it will appear to that body.

The resolution of the Lancashire and Cheshire Branch specially urges curtailment of expense in the department of the Medical Secretary, and with this department the third and fourth resolutions specially deal. In resisting the appointment of the assistant to the Medical Secretary, in attempting to restrict the number of clerks appointed to his work (on which the fourth resolution reads like irony), and in opposing increase of his salary, the meeting of the Lancashire and Cheshire Branch may be assured that it has been faithfully represented in the Council, but during the time of my own service on the Council I cannot recall a single improvement in the organization of the work which has resulted from the criticism of its Representatives, and I have reluctantly come to the conclusion—which perhaps involves as great a misunderstanding of their mental attitude as they have shown themselves capable of holding regarding their opponents—that they represent opinion out of sympathy with recent developments of the Association.

The last point which it seems necessary for the memb of the Association to consider is how far a large ann surplus is a proper test of the working of an Associat such as ours. Were we a co-operative store or a busin a big dividend would undoubtedly bear some relation the achievement of our objects, but as a Society practitioners subscribing each for the maintenance the honour and interests of our profession, sur the full application of our subscription is a bet test of efficiency. There are many operations bef us for which it is advisable to accumulate a serve even greater than £102,000, but the rate at wh we can afford to do so depends on the number of imme ately-pressing objects to which we can devote effect effort. The only useful economist is really he who sho not alarm at our spending so much, but that some of expenditure is not effective. This is a control which present is partly exercised by the Chairmen of the vario Committees, and it seems reasonable to hope that in th they will in future be assisted by an effectively-organiz Finance Committee.—I am, etc.,

Dundee, May 15th. R. C. BUIST.

THE HEAD QUARTERS OF THE ASSOCIATION

SIR,—At the meeting of the Winchester Division t other day the Executive Committee in three hours ve carefully considered a large number of matters referred Divisions. Among these was the question as to keepi the library open till 11 p.m. One member, supported myself, thought an extension would be beneficial to son members. Our chairman performed his duties so sati factorily that he left no stone unturned in considering th question among the many others put down as notices motion.

With regard to the social intercourse of members head quarters, I cannot see that this is especially necessar since there are so many other opportunities. For instanc in my own provincial Branch—the Southern—it is member's own fault if there is a lack of social intercours Ever since I have lived in Hampshire I have alway availed myself of the facilities of attending both Branc and Divisional meetings, and have made many profession friends.

Again, it has occurred to me in the last few years tha there has been great activity in the British Medical Ass ciation all round. This has been to the best interests the Association and the whole profession. True, there ar some members of the Association more energetic tha others, but this is probably the force of circumstances. I my own Branch I am always improving myself not onl professionally but ethically speaking.

My ambition is to see the Royal Charter formulated an its subsequent effect upon the whole profession. I loo forward to startling events should it see the light of day I therefore stimulate all loyal members and well wisher of the British Medical Association to push it ahead.

Well, Sir, I think we get a good deal for our 25s. a year the BRITISH MEDICAL JOURNAL itself is worth it. And i we would only be patient and use forbearance with thos at the central office there is more to come. I am given t understand that at the British Medical Association office a great deal of laborious work is done which never see print, otherwise I presume the JOURNAL would be double in bulk.

In conclusion, it becomes us as an Association to discourage dissent among ourselves, when, as we know, the day is not far off that the British Medical Association will govern everything connected with the British medical profession.—I am, etc.,

Alton, May 14th. J. F. BRISCOE.

SIR,—Allow me to protest against the suggestion as indicated in the BRITISH MEDICAL JOURNAL of the 12th inst. (p. 1134), of converting the Association into a glorified club.

No doubt the idea of possessing club comforts at 25s. a year is captivating, yet there are more serious expenditures to be undertaken than those hinted at in providing "better accommodation for the social intercourse of members." If the Association can discharge but half of programme to which it is committed I for one will be satisfied.

ith reference to the library of the Association let me t out that it is not a library of recreation but a ry of reference, and, as such, it amply—having regard s recent creation—justifies its annual expenditure. ased lengthening of its hours must mean duplicature s staff, for even the health of the most courteous of ians must break down should his day end at 11 p.m.

Stuart Hallows makes cryptic reference to the iation having appeared as a "laughing-stock" in the tbeck case." I may be stupid, but as one who care- ll followed the line taken up by the British Medical iation in the matter, I believe, not only is the t referred to unjustifiable, but I consider that our ization ably performed what was expected of it. It the source of error to its base, and when the appro- occasion arrives it will institute proceedings for the lment of the Coroners Act.

profession may have the reputation of performing es, but it cannot cause the dismissal of a Lord ellor, or move the dissolution of Parliament till this e.—I am, etc.,

n, N.W., May 12th. S. WESLEY WILSON.

THE HAMPSTEAD GENERAL HOSPITAL.

–Since the conference of the local profession of h on this subject (reported in the BRITISH MEDICAL L of May 12th) I have received from the Honorary ry of the King's Hospital Fund a letter explaining: without attaching any condition (as to the staff of the ead General Hospital) to the grant of £5,000 which e recommended in order to enable the hospital to take ge of the offer made through Sir Henry Harben of they remain of opinion that it is desirable that all ospitals in London should be staffed by consultants in l way.

ecessary to point out that this letter (dated May ugh written after the conference of the local pro- had been held, was written in ignorance of the expressed at that conference.

xecutive Committee of the King's Hospital Fund wever, informed on April 9th of the views of the ad Division of the British Medical Association, also informed that medical men not members Association would express their opinion at the on May 5th, and it seems unfortunate that ion of this kind should have been arrived at e views of the local profession had been ascer- . These views include the unanimous opinion arge general hospital staffed by consultants tted to the needs of the locality, but rather a pital staffed by the practitioners of the neigh-

ss the authorities of the hospital will now fall e views of the local profession. It will then be natter for the Executive of the King's Fund to the recommendation associated with the offer of am, etc.,

REGINALD A. YELD, M.D.,
Honorary Secretary of the Hampstead Division of
.W., May 15th. the British Medical Association.

BACTERIOLOGY OF A COMMON COLD.

e results of Dr. Benham's investigation of the y of coryza, as given in the BRITISH MEDICAL f May 5th, page 1023, are of great interest, and t he will be able to continue and to extend the h he has begun so well. The prominent of bacilli of the diphtheria group with many ryza is a fact with which I have long been d I congratulate Dr. Benham on the care with as studied the attributes of these organisms, too often only examined in respect of their cal and staining characters and their virulence and then curtly dismissed as of no importance use they are not identical with the bacillus of

nowledge of the bacteriology of enteritis has hat the typhoid bacillus is merely one of a teria which, though closely alike in morpho- staining characters, are, nevertheless, utterly biochemical attributes. Gaertner's bacillus, the dysentery bacillus, and the paratyphoid bacillus have each their own particular clinical field, and though of the same family as the typhoid bacillus and imbued with a similar predilection for the mucous membrane of the intestine, each of these micro-organisms possesses an individuality of its own, so that in regard to enteritis it may be said that bacteriology is demonstrating that similarity of effects is here paralleled by similarity of bacterial causes.

It is of much interest, therefore, to see that Dr. Benham has found, as Cautley and others have done, that inflammation of the upper respiratory tract may be associated with the presence of bacilli of the diphtheria *group;* and I am especially interested to see that his *Bacillus septus* decomposes both glucose and saccharose with an acid reaction. The positive reaction in glucose of course differentiates the bacillus from Hoffmann's bacillus. What, however, is not so generally known is that the positive reaction in saccharose differentiates it as completely from the diphtheria bacillus.

The criticism of Dr. Benham's bacillus advanced by Dr. Allen in your last issue is, in my opinion, somewhat beside the point. The malady under investigation is coryza in the human being, not septicaemia of a rodent. Negative results in inoculation experiments on rodents as regards local swelling or death certainly do not disqualify this bacillus from bearing an etiological relationship to coryza in the human subject. Dr. Allen's observation of Friedlaender's bacillus in two outbreaks of coryza is of interest; but though this bacillus is far from uncommon in cultures from the throat, I have hitherto failed to find it in coryza, and I therefore doubt if it is at all a common cause. *Micrococcus catarrhalis*, however, has been fairly active in London this spring.—I am, etc.,

Blackheath, May 14th. M. H. GORDON.

SIR,—I should like to thank Dr. R. W. Allen for his cordial letter in your issue of May 12th. The work he is engaged in appears to be most important, especially with regard to Friedlander's bacillus. I think that if this bacillus had been present in any numbers in my cases it could hardly have escaped my notice. In case No. 22 a pure culture of Friedlander's bacillus was very readily obtained by Dr. Bushnell, but this case was from the Worthing Isolation Hospital, whereas most of mine were from Brighton and Hove.

The theory that various organisms take part in the causation of colds is extremely probable, in view of the great variety of the clinical phenomena.

Dr. Allen's criticism is, I think, mainly directed against the title of my paper, which might be taken to imply that I claim to have settled the question. If so, I must apologize to your readers, and ask them to judge my work by the paper itself. In it there is no suggestion that the *Bacillus septus* is the sole cause of any variety of common cold, and I have ventured to rename the organism entirely on account of the uncertainty with regard to its pathogenic action. I have no doubt whatever that it is identical with the *Bacillus coryzae segmentosus* of Cautley, the existence of which has been confirmed by Gordon, Prosser White, and others.

It is quite possible that if Dr. Allen continues his researches he may come across an epidemic in which the prevalence of diphtheroid organisms may be as striking as in those examined by the above observers and myself.—I am, etc.,

CHAS. H. BENHAM.
Stephen Ralli Memorial, Sussex County
Hospital, May 13th.

THE ALLEGED EPIDEMICITY OF APPENDICITIS.

SIR,—Writing on this subject in the BRITISH MEDICAL JOURNAL of April 21st, p. 947, Dr. Chalmers Watson says: "The most notable change in diet is the increase in the consumption of animal proteid food." He and other writers seem to have overlooked in this connexion a change in dietetic habits, very far-reaching in its effects, which has been adopted by a gradually-increasing proportion of the population during the last half century—namely, the substitution of cow's milk and other artificial foods for the natural food of infants during the first few months of life, a period in which the foundations of a strong or weak digestive system are undoubtedly laid.

Careless dieting during the next two or three years, which, among the poor at any rate, is an almost inevitable sequence to "bottle" feeding, tends to perpetuate the evils resulting from the original mistake or misfortune, and careless habits during school life may destroy the last chance of the development of a sound digestive system. If, as most will allow, weak digestions predispose to appendicular troubles, this change of food habits in early infancy must have an indirect influence on the prevalence of appendicitis.

It seems to me, however, quite conceivable that improper feeding during the early months may affect the appendix in a very direct manner as well. What is the pathology of the attacks of stomach-ache, colic, or "wind" from which bottle-fed babies suffer to a much greater degree than breast-fed infants? Sometimes the trouble is obviously gastric and relieved at once by vomiting, but in many cases it is certainly intestinal. What would be the effect and symptoms of a piece of hard, undigested curd (really a foreign body) passing into a baby's appendix? Probably attempts to expel it with colic, and sudden relief with its expulsion into the colon. If these "foreign bodies" pass pretty frequently in and out of the appendix, sometimes remaining and decomposing in it for a considerable time, may they not conceivably initiate catarrh, dilatation, hypertrophy, ulceration, annular constriction, and all the other morbid conditions which in so many cases precede and predispose to acute appendicitis? No doubt appendices injured in this way during the first year may recover and become practically normal, if the irritation is not kept up by further dietetic mismanagement, but mismanagement in the first year is only too likely to be continued as the child becomes more independent.

The parallelism between the prevalence of bottle-feeding and of appendicitis, not only in point of time but in regard to the classes of the community affected by the two disorders, is remarkable. The peculiar family liability to appendicular troubles is readily explained by the fact that members of one family are dieted on pretty much the same lines during early childhood; and even the changes in the age incidence of appendicitis can be explained by reference to the prevalence of artificial feeding at different epochs. Is it all mere coincidence?

If this view of the etiology of appendicitis is correct, we should find that:

1. Artificially-fed infants suffer much more frequently in after-years from appendicitis than breast-fed children. My small experience leads me to think that such is the case, but copious statistics could soon be available if operators and pathologists cared to investigate the point.

2. Primitive races and the Jews suffer less from their appendices than civilized races and Christians. Is this the case? Those who practise among aborigines and Jews could very soon settle the point.

3. At the same age the appendices of bottle-fed and breast-fed children differ in size, patency, and in other ways when examined *post mortem*. Pathologists to children's hospitals could definitely decide this point if they turned their attention to it for a while.

Accidents—in the shape of pins, bristles, etc.—may happen to the best-regulated appendices, and I do not suggest that all cases of appendicitis are led up to by the series of dietetic errors mentioned above; but the proposition "that the increased prevalence of artificial feeding of infants during the last fifty years is responsible for the increased prevalence of appendicitis during the last thirty years" seems to me worthy of consideration and of some serious attempts at proof or disproof by statistical and other methods of investigation.—I am, etc.,

J. Price Williams.

Swinton, Manchester.

THE DIFFUSION OF RED BLOOD CORPUSCLES THROUGH SOLID NUTRIENT AGAR.

Sir,—The phenomenon observed by Surgeon H. C. Ross, R.N., and so carefully described in the British Medical Journal of May 5th, page 1027, is of such interest, as bearing upon known cases of inclusion of erythrocytes, and, indeed, of other cells, bacteria, etc., within the colloid material of cell bodies, that I beg leave to ask his consideration of a possible explanation.

Assuming, as seems most likely, that the salts in the dried blood are either different, or in a different concentration, from those in the agar-agar jelly, then, whenever the conditions of the jelly surface are such that these new salts can enter into solution, they will diffuse into
mass of the jelly. In doing so they will give rise to
differences in electrical potential between different lay
and to a potential gradient along lines entering the j
as from a centre, the position of the blood clot.

Granted such a set of conditions, nothing that is kn
of the constitution of the jelly mass stands in the wa
our deeming it feasible that the erythrocytes shoul
electrically-charged particles, be bodily transferred
the jelly mass, irrespective of the action of gravity.

As the erythrocytes are transferred along one of t
lines they will pass through regions of gradually var
salt content and should therefore be expected to und
the granular changes described. The degree of movem
and therefore the final distribution, of the erythro
would in such a case vary in the same direction as the
of diffusion, and also as the physical state of the co
material in the agar-agar jelly, and it is of interest, th
fore, that the expedients chosen to modify the proces
all capable of affecting either one or other or bot
these two conditions.

This possible explanation may have occurred to Sur
Ross, and it is possible that he has examined i
modifications in the salt content of the blood and
jelly, and by exact measurement of the rate of progre
the granules under conditions varied in this way. I
however, it would be most interesting soon to hear
from him as to the nature of a phenomenon with pos
analogies of so much importance. To have observe
well is to create a demand for further service in the
field, and this demand I hope I may be excuse
expressing.—I am, etc.,

J. S. MacDonald,
Professor of Physiology,
Late Research Scholar, British Medical Associat

The University, Sheffield, May 6th.

THE NEW MALARIA RETURN.

Sir,—In the House of Commons on May 4th
Seely, D.S.O., asked the Colonial Office for the
lication of an annual return showing the progress of
malarial measures in the various Colonies, their cos
the effect of them on the public health; and
Winston Churchill, in reply, promised to endeavo
meet his wishes on the point. The matter do
appear to have been reported in the lay
but should, I think, be brought to the attenti
the profession. The Colonial Office and Major See
to be warmly congratulated on their action. The
should enable us to compare, not only the local inc
of malaria (a necessity for many business men), bu
the activity of various local sanitary department
should thus provide a stimulus as well as a much-
source of information. At present official referen
the subject of the prevention of malaria are sca
through numerous Colonial returns, and are general
slight to be of much, or often of any use. The new
ture may quite possibly inaugurate a more vi
national policy against this important disease. It i
hoped that the War Office and India Office will
suit. Indeed, I see on page 9 of the Annual Report
Sanitary Commissioner with the Government of In
1904 that such a return has already been made
country. May we hope that it will be published *in*
for the information and guidance of others? The co
and marked success of the campaigns conducted f
years in such different climates as these of Ismai
the Federated Malay States leaves no excuse for d
more general action.—I am, etc.,

R.

Johnston Tropical Laboratory, University of Liverpool,
May 16th.

ANAESTHESIA BY LUMBAR INJECTION IN O TIONS FOR ACUTE ABDOMINAL DISEAS

Sir,—I have read Mr. Dean's paper on rachi-sto
tion in acute abdominal cases with great interest,
seems to be a very distinct gain that the surgeon
provided with a means of inducing anaesthesia b
means than chloroform or ether in this individu
of operation. A little time back a well-known
told me that he had now practically abandoned chl
in acute suppurating appendicitis, as he found
cases the results after ether were infinitely bett
found that secondary death from chloroform was

common in such cases, the patients passing into a condition of acetonaemia and dying on the second or third day. When, later in his paper, Mr. Dean makes the following statement, namely, "It seems, however, definitely proved that whatever the dangers may be, the mortality (under rachi-stovainization understood) is by no means as large as with general anaesthetics"—as an anaesthetist I cannot help feeling that general anaesthesia gets considerable less than justice.

Possibly Mr. Dean has by accident not qualified this statement by adding "in acute abdominal cases," but at any rate there is nothing in the cases which he has recorded or in those recorded up to the present by Continental enthusiasts in spinal anaesthesia, to show that this method is one whit safer, or even nearly as safe as anaesthesia by inhalation as a routine practice.

It is noteworthy that in the same issue of the British Medical Journal (May 12th) Dr. Dan McKenzie writes on stovaine in throat surgery, and records several cases of sloughing of the nasal mucous membrane as a result of the application for about forty minutes of tampons soaked in 10 per cent. stovaine (the same strength as is used for spinal injection). I think the nasal mucous membrane is usually regarded by rhinologists and others as a fairly tolerant region as regards the application of astringent, anaesthetic, or other medicated solutions. If, however, in this region we get such results, what is to be expected when the delicate endothelial surface of the spinal meninges is exposed to the action of stovaine? Are we to expect that this will come off scathless in 100 per cent. of cases? Sinclair, of New York, has recorded several cases of gangrene of the skin following the application of stovaine (by injection) in genito-urinary surgery, and I myself have known of several such cases, which occurred in a hospital in this city.

I have yet to meet the surgeon who is ready to admit that he would under any conditions undergo rachi-stovainization in preference to inhaling a general anaesthetic. Possibly, with his mental vision obscured and judgement weakened by the absorption of toxins from a suppurating appendix, such an one may yet be found.—I am, etc.,

Edinburgh, May 15th. Thomas D. Luke.

MEDICAL MISSIONARIES.

Sir,—In the British Medical Journal of February 24th I notice that the Guild of St. Luke had opened a college for the reception of medical students intending to become medical missionaries. It is stated that "the demand for men has been vastly in excess of the supply."

As a medical missionary of ten years' standing, and having been connected with the two largest missionary societies in the world, this statement comes to me as a surprise. I understood it was otherwise, and that men had difficulty in being appointed, and had to wait sometimes long enough till an opening occurred for them.

If it is so—that men are not offering in the numbers required—then there must be good reasons for this. One of the chief is that, instead of doing medical work for which they have qualified themselves, medical missionaries have to relieve clergymen, and do their work while on furlough, and find little or no time to do their own. I refer to Africa and India. I cannot speak of other places, but perhaps the same holds good elsewhere too. Another reason is that medical missionaries are not always supplied with a hospital, and so cannot perform operations or treat medical cases with much hope of success. Then, again, the financial support of the hospital and dispensary is not always free from worry. Lastly, medical missionaries do not receive the respect shown to other medical men.

Medical students get to know these things, and, while willing to give up much for the cause, think the conditions unsuitable, and settle down at home under the idea that they can do as much good at home as abroad.

Medical students could inquire about these matters, and missionary societies might consider their medical men a little more, and perhaps some arrangement be made which would entice suitable men to offer to go to the mission field.—I am, etc.,

April 2nd. Medical Missionary.

MEDICO-LEGAL AND MEDICO-ETHICAL.

CHRISTIAN SCIENTISTS.

The Coroner for South-West London held on May 4th and subsequent dates an inquest as to the death of Major J. N. Whyte, aged 41, who, for some time before his death had been under treatment by Christian Scientists. In February, 1903, the deceased had a fall in the hunting field, injuring his spine. Up to September, 1904, he was under the care of regular practitioners, including at different times Sir Victor Horsley, Dr. Huxley of Leinster Gardens, Mr. Bond of Leicester, and Dr. Hoffmeister of the Isle of Wight. In September he left the Convalescent Home for Officers at Osborne and went to live in South Kensington in the house of Mr. William Stephen Montgomery Smith, a Christian Scientist, but formerly a regular medical practitioner. While there he was under the care of Captain Douglas D. Baynes, an ex-captain in the Indian army and Christian Science healer, on whose recommendation it was that the deceased left the convalescent home at Osborne. At this house the deceased remained until January, 1906, when he went to stay in a Christian Science boarding house at Southsea. While there he was under the "Absent Treatment," care of a Mrs. Esther Maria Grant, of Knightsbridge, another Christian Scientist healer, who was for some time in attendance on him while still at Mr. Smith's house. There he remained for three weeks, but growing much worse went to a house in London. While there he was attended both by Mrs. Grant and by Dr. Adcock, a Christian Scientist, who agreed to treat the case as an ordinary medical man. On April 29th the deceased died, Sir Victor Horsley having been called in again on that day, and Dr. Huxley a few days earlier. Miss Robson, at whose nursing home the deceased had resided before becoming a Christian Scientist, was likewise summoned to his bedside a day or two before the end. The deceased gave up the Roman Catholic religion when he adopted Christian Science, but reverted to it before he died. Sir Victor Horsley stated in evidence that the case was originally one of fractured spine, a small fragment of bone had divided the left half of the spinal cord. He operated, and saw the patient again in London three months later when he was at Miss Robson's Home under Dr. Huxley. He saw him again just before his removal to Osborne. It was a straightforward case and he should have completely recovered with the exception of the use of the left leg. He could therefore quite believe the evidence that eventually deceased was able to walk 200 yards with some support. When he was summoned again the day the patient died it was the most horrible case he had ever seen. The stench in the room was dreadful; the whole of the skin of the lower part of the back had sloughed away, and further down the skin was undermined, and infection had spread downwards. The *post-mortem* examination showed that the hip had been dislocated by an enormous gangrenous abscess. The cause of death was blood poisoning; the original bedsore had healed over and then been neglected. In cases of fracture of the spine the lives of the patients depended on attention to the bedsores. The powder prescribed by Dr. Adcock was simply zinc oxide—merely a dusting powder, not treatment. Deceased would certainly have been alive if he had been medically treated. Dr. Hoffmeister said that when the deceased left the convalescent home at Osborne his general condition was much the same as when he arrived, but a bedsore which he had when he came was much better. When he left he had a very good chance of life. Dr. Huxley gave evidence to a similar effect, and added that he had received a letter from Dr. Adcock in which he stated that he had opened an abscess and washed it out twice daily. Of such opening he had been unable to find any evidence whatever. Dr. Freyberger described the *post-mortem* findings, expressing a belief that death had been accelerated by want of proper medical care.

Of the numerous witnesses heard and reported in the daily press, a valet who was apparently with the deceased all the time he was under Christian Science treatment, and who had been a hospital orderly in India, said he used to wash the wounds with warm water and bandage them; no objection was raisen to his doing so. He did not know what Captain Baynes's treatment was as he was not allowed to be present. That of Mrs. Grant was prayer. She would not allow him to use disinfectants. Dr. Adcock told him to keep the sores clean and to use a powder he prescribed.

Captain Baynes said he knew nothing about medicine; he could cure by prayer any disease at any distance; it was even possible to set an arm by the same means. He treated infectious disease and was prepared to treat small-pox, as it was no more real than anything else. Sometimes he had as many as ten patients a day. His fee was a guinea a week, but sometimes patients did not pay.

Mr. William Stephen Montgomery Smith said he was formerly a medical practitioner, but was now a Science healer. A bedsore required no treatment except prayer, but generally a fracture did. Mrs. Eddy's wisdom was far above any one else's and they were obliged to accept without question anything she said. The deceased paid him 3½ guineas a week as a paying guest; the servant slept out. Success or failure in Christian Science practice depended on the degree of one's understanding of the omnipotence of God. He passed a catheter for the deceased daily but only to relieve his mind.

Mrs. Esther Maria Grant said her treatment was prayer with spiritual understanding of the teaching of Jesus. She was paid for it. She could cure a case by telegram, and had so cured a case of plague in India. The deceased was under her absent treatment while at Southsea, and he came back worse, perhaps because the treatment she applied was for fever.

Mr. George Robert Adcock said he was formerly a medical practitioner at Framlingham, holding Poor-law and other appointments; he had now given up medicine, but had not taken steps to have his name removed from the *Medical Register*. He was not a Christian Science healer, only a student. He attended the deceased only as a nurse, the practitioner was Mrs. Grant. He should have used the word "nursing," not "attending," when writing to Dr. Huxley about the case. As a Christian Scientist he thought the deceased would recover, though as a medical man he knew it was impossible. The deceased might still have been alive if Christian Science treatment had been continued.

The Coroner, in the course of his summing-up, drew a comparison between the Peculiar People and Christian Scientists. The doctrines of the two sects seemed, he said, to be essentially the same, but in their practice there was a difference, and a very disagreeable difference. The Peculiar People seemed to be simple, ignorant, uneducated folk, and questions of finance did not apparently weigh with them. In Christian Science, on the other hand, money played a prominent part, and every one of those who had appeared in court admitted that what he or she had done had been done for hard cash. As for the reasoning on which they acted, it could not be called reasoning, and yet those who put it forward before them were presumably educated, at any rate sufficiently to pass into the army. As a religion it seemed to him preposterous; in the course of human history such sects often arose, and included in their number rogues, fanatics, ignoramuses and dupes. Whether all these classes were not well represented among Christian Scientists he left the jury itself to judge.

The jury brought in a verdict of manslaughter against Mr. Adcock, and passed the "strongest censure possible" on Captain Baynes, Mrs. Grant, Mr. Smith, and Nurse Jones.

Subsequently Mr. Adcock was charged at Westminster Police Court with feloniously causing the death of Major John Nicholas Whyte by wilful neglect between January 26th and April 29th. Evidence was given by a police inspector that on searching the accused he found several small glass tubes containing tablets of morphine sulphate and a compound of strychnine, and also a hypodermic syringe; one tube was empty. The accused told him they were for indigestion. The prisoner was remanded for a week without bail.

THE PECULIAR PEOPLE.

An inquest was held in Lambeth on May 7th on the body of a female child, aged 7, which had not been attended during illness by any medical man. Evidence as to the cause of death was given by Dr. Freyberger, who stated that death was due to failure of the heart in a poorly-nourished child, ill about five days, and suffering from purulent bronchitis and bronchopneumonia. Death had been materially accelerated by want of proper medical care; given that care, the child's life might have been saved.

The father having been warned, elected to give evidence, and was examined by the Coroner. He knew the law said that medical attendance must be provided for a sick child, but he belonged to the Peculiar People. Their belief was that if any one was afflicted they must call in, not a doctor, but an Elder. The child was first taken ill about a fortnight before it died; it had measles, and never seemed to rally. The Elder laid hands on the child in the name of the Lord, and anointed it with oil, and they held two prayer meetings over her. They also kept the child in bed in a room with a fire at an even temperature, giving it mutton broth, beef-tea, jellies, and other nourishment. and keeping a steam kettle in use. The mother gave corresponding evidence; their whole trust was in God, and as far as they could they did everything which He told them. They used a kettle to keep the air pure and moist, and a fire because it would be unnatural not to provide one for a sick child. The Elder mentioned, a packer by trade, described what he had done in in the way of lying-on of hands. He visited the child several times afterwards, and considered the parents would do everything in the way of caring for the chtld. Another member of the sect said that everything in the way of prayers had been done for the child.

Summing up, the Coroner, after stating the law, said it was repugnant to treat persons with such beliefs as criminals; one would rather treat them as subjects for a lunatic asylum for treatment and advice.

The jury returned a verdict of death from want of medical attention, and held the father reponsible for its occurrence. Later the same day, the father, James Cook, a horsekeeper, was charged with manslaughter at Westminster Police Court and remanded on bail.

TOUTING.

England.—It is not for us to presume to say what the General Medical Council would call infamous conduct; so far as any published decisions of the Council go, there is no case known to us in which conduct such as described has been adjudged infamous. It is, however, undoubtedly very improper, and might be made the subject of a complaint to the Ethical Committee of the local Division of the Association.

SIGHT-TESTING OPTICIANS.

W. M. H.—Similar applications for assistance from sight-testing opticians to medical practitioners by instilling atropine to enable them to carry on their practice have previously been sent to us and commented upon in the Journal. The view taken has been that medical practitioners should not render assistance to advertising opticians.

PARTNERSHIP AGREEMENTS.

Partner asks whether it is not usual to have a clause in a deed of partnership debarring an outgoing partner from practising on his own account in the town or district in which the partnership exists.

*** Such a clause is nearly always inserted in partnership agreements for an unlimited period. If the arrangement be temporary—as, for instance, for five years—the usual agreement is for the partners at the expiry of the time to practise severally on their own account.

CERTIFICATES FOR INSURANCE COMPANY.

A Correspondent writes that an inspector of an insurance company called on him, and desired him to fill up a form stating the cause of death of a patient he had recently attended, and offered him a fee of 1s. He refused this, and wishes to know what fee he ought to charge.

*** Half a guinea would be a reasonable fee, but the insurance company might refuse to pay the policy till the friends of the deceased procured the certificate, thus making it necessary for the medical man to charge the latter. It is true that the executors of the deceased could legally enforce payment on production of a certified copy of the death registration, but they usually prefer to forego their rights, and to satisfy the conditions of the company.

OBITUARY.

Dr. Joseph Bird, who died last month in his sixty-third year at Thrapstone, in Northamptonshire, had been so long associated with the district that his loss will be widely and keenly felt. He had not been in good health for some time, but on his return from a holiday some three months ago he seemed so much better that it was anticipated that he would be able entirely to resume his old place. He did actually recommence work, but on April 18th, in the evening, was suddenly taken ill, and died so quickly that only his eldest son was present. Dr. Bird was originally a Glasgow student, receiving the diploma of the Faculty of Physicians and Surgeons of Glasgow in 1874, and becoming a Fellow of the same body in 1884. For a short time he practised at Woodford, and then settled down at Thrapstone, where he was Medical Officer and Public Vaccinator of one of the districts of the Union and surgeon to a number of Friendly Societies and manufacturing companies. Some of these bodies were officially represented at his funeral, the large attendance at which testified to the esteem and affection which Dr. Bird's kindly disposition and genial character had gained for him. He belonged to the British Medical Association, being a member of the Northamptonshire Division of the South Midland Branch. He leaves a widow and several sons and daughters. Two of his sons are medical men, and one of them had been associated with Dr. Bird in his practice at Brook House, Thrapstone, for some time past.

We regret to announce the death of Surgeon-General **Charles Sibthorpe**, C.B., late of the Indian Medical Service, and hope to publish an obituary notice in a subsequent issue.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. L. H. Hecht, Emeritus Professor in the Medical Faculty of the University of Nancy, aged 75; Dr. Karl Fuerstner, Professor of Psychiatry in the University of Strassburg; and Dr. Edouard Cruveilhier, Honorary Professor in the Medical Faculty of the University of Paris, son of the famous anatomist, whose works he edited.

YAL NAVY AND ARMY MEDICAL SERVICES.

ARMY MEDICAL SERVICE.

examination of candidates for not fewer than forty com- sions in the Royal Army Medical Corps will be held on 26th next and following days. Applications to compete ild be made to the Secretary, War Office, 68, Victoria et. S.W., not later than July 16th, on which date the list be closed.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

Saturday, May 12th, the London companies of the Royal y Medical Corps (Volunteers) paraded at Southfields ion, Wimbledon, at 5 p.m., and marched to the common. ing arrived at the windmill, the Tent Section erected s to form a receiving station. The Bearer Section had nwhile proceeded in the direction of the line of fire, and, unloading the wagons, erected a dressing station con- ng of tents, operating and others. The men forming cher squads spread themselves over the supposed late lefield and carried the wounded to wagons in wait- which conveyed them to the dressing station. n all the wounded had been safely brought in ir various injuries had been attended to where they found), a message was sent in to the receiving station, he supposition that the enemy were advancing rapidly, e effect that the position was becoming untenable, and fficer in charge considered it advisable to vacate at once fall back on the Tent Section. This was accordingly done out delay, the patients were once more placed in the ns, the tents were struck, and the Bearer Section marched , retiring on the Tent Section; the whole routine of erect- perating tent, flagstaff to mark site of camp (as dusk was oaching two lamps horizontally slung took the place of Red Cross flag) was once more gone through, and in an st incredibly short space of time the tents were all up and amp complete. As usual on these occasions the Adjutant, ain Langford Lloyd, gave a most instructive summary of work done during the afternoon. After tea, which had prepared in camp, the corps marched back to Putney ge Station and dismissed. Colonel Valentine Matthews n command.

THE AMBULANCE CHALLENGE SHIELD.

annual competition for the challenge shield of the nteer Medical Association will take place at the Welling- Barracks, London, at 3 p.m., on Saturday, June 16th. particulars can be obtained on application to the Honor- Secretary, Captain E. C. Montgomery-Smith, R.A.M.C. .), 36, Abbey Road, London, N.W.

ROYAL ARMY MEDICAL CORPS.

AMINATION FOR PROMOTION TO LIEUTENANT-COLONEL.

INEE.—(1) There is no limit to the number of times a major y present himself at the examination for promotion to tenant-colonel, except that of twenty years' service. (See a. 1197, King's Regulations, and Army Order 98 of May, 5.) If he has not passed on reaching twenty years' vice, he will be gazetted out. To this there may be an eption (Articles 18, 19, and 354 of the Royal Warrant) if an cer has under very special circumstances been prevented m qualifying for promotion. (2) Our correspondent uld consult the list of books in Appendix VIIIB, King's gulations, and footnote.

HE HEAD QUARTERS OF THE ARMY MEDICAL SERVICE.

EON-GENERAL EVATT, C B., writes: In the monthly *Army t* the officers who form the head quarters staff of the ny Medical Service are all classed as director-generals of ious kinds, but no information is given as to their special ctions, such as in charge of personnel, sanitary, medical, ruiting, transport, invaliding, or other sections of the ce. At a time when War Office economy is in the air it ld be useful to give a clearer classification of the special ies they perform, and it would also be educative to the y if such classification were shown, as evidencing the ny sides of army medical duties. This small reform ld cost nothing and would tend to efficiency and uracy.

⁑ The information given in the monthly *Army List* with ard to the office of the Director-General Army Medical vice is, as Surgeon-General Evatt says, meagre. It seems us that from many points of view the additions he gests would be expedient.

VOLUNTEER MEDICAL ORGANIZATION.

EON-COLONEL P. B. GILES, S.M.O., V.A.S.I., etc. etchley) writes: I am obliged to Surgeon-Captain A. C. tley for his remarks in the BRITISH MEDICAL JOURNAL of y 12th, 1906, p. 1135. For the information of those who e not grasped my ideas, I am not desirous of doing away h the unit medical officer. As a regimental medical officer of thirty-three years' experience, few know the happy club association better than I do. In our own county unit at the present time, I, my brother, son, and a nephew hold commissions, and another brother formerly did so. My scheme is that on every medical officer joining a unit—that is, regiment, battery, bearer company, R.A.M.C.(Vols.), etc.—he should *ipso facto* be gazetted into a medical service corps, the R.A.M.C.(Vols.). By this plan:

1. A medical officer may possible remain in his unit all his volunteer career.
2. This absorption into the R.A.M.C.(Vols.) will give each medical officer a common title, varying, as in the R.A.M.C.(Vols.) with his rank.
3. All medical officers will have regular promotion, and be equally eligible for all posts.
4. Any leaving the locality of their unit can be transferred to another unit.
5. In those cases in which any medical officer cannot attend camp, a substitute can be detailed from elsewhere, which at the present is not provided for.
6. One uniform. Naturally those who have their uniforms will not be compelled to get fresh until the old is expended unless the Government supply a grant.
7. There would in a service be organization, and therefore a voice. Until we get that united and representative voice it is vain to expect the *quid pro quo*.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

W. J. SELL, M.A., Christ's College, has been approved for the degree of D.Sc.

A benefaction of £5,000 has been received from the Goldsmiths' Company in answer to an appeal on behalf of the University Library.

F. T. Brooks, B.A., Emmanuel College, has been appointed Junior Demonstrator in Botany.

The Plaistow and Dagenham Hospitals have been added to the list of recognized fever hospitals.

The following degrees were conferred on May 10th:

M.D.—G. H. Orton, Trinity, and E. A. Ross, Trinity.
M.B. and B.C.—L. G. Davies, Trinity, and E. H. Mayhew, Emm.
M.B.—N. C. Fletcher, Queen's.
B.C.—C. King, Trinity; J. R. Draper, Joh.; and F. Worthington, Joh.

ROYAL UNIVERSITY OF IRELAND.

AT a meeting of the Senate on May 4th, the Right Rev. Mgr. Molloy, D.D., D.Sc., Vice-Chancellor, in the chair, the following resolution was adopted unanimously:

> That, having regard to the official pronouncements made in the House of Commons on March 15th by the Chief Secretary that His Majesty's Government had been advised "that the Senate of the Royal University of Ireland had the power to maintain order, and to take all steps necessary to that end," the Senate hereby direct the Standing Committee to prepare a draft of such statutes and regulations as shall provide the necessary means to enforce academic discipline and to punish academic misconduct.

In reference to the disorder last October, it was directed that the minutes of the Senate meetings, etc., relating thereto, be supplied to the Government.

The election by Convocation of Dr. John Campbell, M.A., was reported, and he was elected a member of the Medical Committee.

A meeting of the University was held afterwards, at which the following awards were announced:

Second Examination in Medicine.—First-class honours and a First-class exhibition of £25, J. M. O'Connor, Catholic University School of Medicine.

Third Examination in Medicine.—First-class honours and a First-class exhibition of £30, W. D. O'Kelly, Catholic University School of Medicine; Second-class honours and a Second-class exhibition of £20, M. F. Huston, Queen's College, Belfast.

M.B., B.Ch., B.A.O. Degrees Examination.—First-class honours in Medicine, Second-class honours in Surgery and Midwifery, and a First-class exhibition of £40, R. Jamison, Queen's College, Belfast; Second-class honours in Medicine and Midwifery, and a Second-class exhibition of £25, W. J. Leighton, Queen's College, Belfast. First-class honours in Medicine, and Second-class honours in Surgery, W. A. McKee, B.A., Queen's College, Belfast.

A number of degrees were also conferred on candidates who had been successful at recent examinations.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN extraordinary Comitia was held at the College on Thursday, May 10th, the President, Sir R. Douglas Powell, in the chair.

International Congress on School Hygiene.

The President announced that he had nominated Sir William Church and Dr. Heron to be the representatives of the College on the General Committee of the International Congress on School Hygiene, to be held in London, August 5th to 10th, 1907.

Fellowship.

The following gentlemen, who were elected at the last Comitia, were admitted Fellows of the College: Samuel Walton Wheaton, M.D.Lond.; Frederick William Burton-Fanning, M.D.Cantab.; John Hill Abram, M.D.Lond.; George

Henkell Drummond Robinson, M.D.Lond.; Richard Tanner Hewlett, M.D.Lond.; Ernest Graham Gordon Little, M.D.Lond.; Charles Richard Box, M.D.Lond.; Maurice Craig, M.D.Cantab.; James Purves Stewart, M.D.Edin.; Thomas Jeeves Horder, M.D.Lond.; James Hugh Thursfield, M.D.Oxon.; Edward Farquhar Buzzard, M.D.Oxon.

General Medical Council.

Dr. Norman Moore's term of office as representative of the College on the General Medical Council expiring on May 14th, he was re-elected by an overwhelming majority.

Communications.

The following communications were received:

1. From Mr. Reginald Blunt asking permission to photograph the portrait of Dr. Messenger Monsey, in the possession of the College, to serve as an illustration in his forthcoming work on Chelsea. Leave was given, subject to the usual restrictions.
2. From Dr. F. T. Roberts, giving an account of the meeting of the Council of Governors of the University of Sheffield, which he had attended as the representative of the College.

Reports.

The following reports were received:

1. From the adjudicators of the Weber-Parkes Prize, stating that no award had been made.
2. From the Committee appointed to prepare a revised edition of the College By-laws. The report, dated February 12th, was considered for the second time, and the contained additions and alterations finally enacted.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN Ordinary Council was held on May 10th, Mr. John Tweedy, President, in the chair.

Introductions.

Surgeon-General Arthur Mudge Branfoot, C.I.E., President of the Medical Board, India Office, and Inspector-General Herbert Mackay Ellis, Director-General R.N., were introduced and admitted Fellows of the College; Mr. Reginald Cheyne Elmslie was introduced and received the Jacksonian Prize for the year 1905; Mr. Walter Burford Johnson was introduced and signed the Roll of Begley Students.

Diploma of Membership.

Diplomas were issued to 102 candidates found qualified at the recent examination.

Central Midwives Board.

Mr. Ward Cousins received the thanks of the Council for his services as representative of the College on the above Board. In his report occur the following statements:

"The necessity of requiring evidence of the elementary education of all pupil-midwives is now engaging the attention of the Board. By one of the existing regulations, any candidate, who during the examination shows a want of acquaintance with the ordinary subjects of education, may be rejected on this ground alone. Now this rule has already been found to be very unsatisfactory in practice, unfair to the candidate, and embarrassing to the examiners. Surely some proof of general knowledge ought to be required at the commencement of the training, instead of at the time of examination. Some of the women, who have endeavoured to prepare themselves by attending lectures and diligent study, have at the last moment been found to possess too little elementary education for passing successfully the oral and written examination of the Board. The rule as it now stands clearly requires revision, and is contrary to the well-recognized principle which regulates all examinations—that a standard of general education should be required before a candidate can be admitted to any kind of special professional training."

"In conclusion, I regret to state that Liverpool and Cardiff are the only centres where the Councils have made any arrangement for the payment of medical men summoned to assist midwives in cases of difficulty and danger. By the Act the profession is practically responsible for the safety of the poor parturient women of the country, and yet it contains no provision to secure payment for professional services."

Fellows' Subscription Dinner.

This will be held in the College on Thursday, July 5th, the day of the Council election; and Clause 4, Section xxiii, of the regulations of the Council relating to meetings of Fellows was suspended in view of the dinner.

The Walker Prize.

The President reported that he had communicated with the Hon. Sir Alan Johnstone, K.C.V.O., British Minister at Copenhagen, and that His Excellency had kindly undertaken to present the Walker Prize to Professor Jensen on behalf of the Council, Professor Jensen finding it impossible to visit England to receive the prize in person.

The following candidates have been approved at the half-yearly First Professional Examination for the Fellowship:

F. J. F. Barrington; M. Bates, B.A.Oxon.; M. Birks, B.S.Adelaide; D. Brown, M.B., Ch.B.Edin.; G. F. Buchan, M.B., Ch.B., D.P.H.Camb.; J. P. Buckley, B.A.Cantab.; H. Chapple, B.A., B.Sc.Camb.; L. Colledge, B.A.Cantab.;
E. N. Cook, J. S. Cooper, M.A., M.B., B.C.Camb., M.
L.R.C.P.Lond.; D. Davies, A. H. Crook, B.A.Cantab.;
Davies, M.A., B.C.Cantab., M.R.C.S., L.R.C.P.; W. R. Do
M.B., Ch.B.Vict., B.Sc.Manch.; K. McK. Duncan, M.B.,
Glasg.; R. B. Etherington-Smith, M.A., M.B., B.C.Ca
E. R. Faulkner, B.A., M.D.Dalhousie, M.R.C.S., L.
L. O. Fuller, M.R.C.S., L.R.C.P.; A. Gough, M.B.,
Leeds; J. Graham, B.Sc., M.B., Ch.B.Glasg.; W. H.
M.B., Ch.B.Vict., M.R.C.S., L.R.C.P.; B. Hughes, B.A.Ca
B.Sc.Lond.; H. I. Janmahomed, A. N. Leeming, C.
Leipoldt, C. E. W. Lyth, M.B.Lond., M.R.C.S., L.
T. McPherson, B.A., M.D., C.M.McGill, M.R.C.S., L.R.C.P.
Martin, C. A. Moore, M.B., B.S.Lond., M.R.C.S., L.R.C.P.;
Moore, M.B., Ch.B.New Zealand, M.R.C.S., L.R.C.P.; J. Mo
M.B., Ch.B.Glasg.; R. H. Paramore, M.D.Lond., M.
L.R.C.P.; J. E. Payne, M.A., M.B., B.C.Cantab.; H. H. R
M.B., Ch.B.Vict.; J. L. Ritchie, C. L. D. Roberts, H. H. San
W. D. Sturrock, B.A., M.B., B.Ch.Oxon., M.R.C.S., L.R.C.
Townrow, C. H. S. Webb, G. E. O. Williams, M.D., B.S.
M.R.C.S., L.R.C.P.

CONJOINT BOARD IN ENGLAND.

THE following gentlemen having completed the Final Exa
tion in Medicine, Surgery, and Midwifery, and having
plied with the by-laws of both Colleges, the Licence
Royal College of Physicians was conferred upon the
April 26th, and the diploma of Member of the Royal Coll
Surgeons on May 10th:

C. B. M. Aldridge, G. D. Alexander, G. H.-H. Almond, J. S. A
A. S. B. Bankart, G. N. Bartlett, S. J. A. Beale, E. Beato
Beck, C. J. E. Bennett, F. C. H. Bennett, C. M. Bernays,
Binns, R. A. Bowling, S. J. Boyd, J. H. R. Brodrecht,
Brown, R. Brown, O. Bruce, A. S. Burgess, P. Butle
Charles, W. W. D. Chilcott, J. Clarke, W. J. Cowan, D. Dav
E. T. H. Davies, R. Davies-Colley, E. M. Dolan, J. J. W.
H. W. Farebrother, R. V. Favell, S. Field, C. Fletcher,
Foster, C. F. Fothergill, E. T. Glenny, H. Gooch, C. W. G
R. A. Greeves, *A. H. Hardcastle, R. S. Harper, P. B. Har
*A. Hawkins, G. M. W. Hodges, C. J. R. Hoffmeister, R. H
E. T. C. Hughes, C. H. T. Ilott, H. M. Inman, W. A. James
Jones, T. J. Latham, T. St. L. Leyshon, A. R. Litteljoh
McAsh, *C. M. MacLean, I. C. Maclean, E. A. Mascare
G. P. Mills, A. Mülberger, H. C. Mulkern, J. O. M
A. H. Norris, J. J. Paterson, P. H. H. Pereira,
Phelps, H. G. Phippen, P. A. Reckless, J. E. H. Ro
F. S. Rood, A. M. Roome, S. J. Rowntree, D. W. Roy, A. Sa
D. R. C. Shepherd, J. Smalley, H. Smith, J. E. Smith, L.
Smith, H. S. Souttar, J. H. Spencer, C. Stanley-Clarke, W.
Stuttaford, G. W. Sudlow, A. K. B. R. W. Taylor, A.
Thompson, G. S. Thompson, H. L. Tidy, J. F. Trewby, T. Tu
H. F. Vandermin, G. T. Verry, H. S. Vivian, G. Wacher,
Wadia, H. R. S. Walford, J. Wallace, H. F. Warner, E. W
E. J. Wyler.

* Under Regulations dated October 1st, 1884.
† Under old Regulations before October 1st, 1884.

CONJOINT BOARD IN SCOTLAND.

THE following candidates have been approved at the exa
tions for the Diploma in Public Health:

First Examination.—J. Hunter, A. Edington, F. E. Stokes,
Serle, E. P. Calder.

Second Examination.—D. R. Dobie, M. Macdonald, A. Edin
G. B. Serle, F. E. Stokes, W. H. Simpson, J. A. Kennedy.

CONJOINT BOARD IN IRELAND.

THE following candidates have been approved at the F
(or Final) Professional Examination:

J. J. Hogan,* C. J. D. Bergin, J. Corbey, R. C. Galgey, D. Ham
H. M. Harrison, M. K. J. Hayes, T. Leonard, L. Lucas,
McCaughey, R. McElroy, P. J. Rooney, W. D. Sammo
Sheppard, S. W. Talbot, G. F. Wright, W. G. Wright.

The following candidates have been approved af
examination for the Diploma of Public Health:

T. B. Costello,* T. J. Potter,* R.A.M.C., C. A. Cusack, S. B. G
J. D. Macdonogh.

* With Honours.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVIC

ISOLATION HOSPITALS.

NEMO.—(*a*) Patients can be received into an isolation ho
from districts other than those for which the hospi
specially provided.

(*b*) The Infectious Disease (Notification) Act 18
administered by sanitary authorities, who may (wit
consent of the Local Government Board) add to the
diseases which are compulsorily notifiable under the
Up to the present time the Board has always withhe
consent to the addition of phthisis to the list. In
districts (see BRITISH MEDICAL JOURNAL, April 21st, p
a fee is paid by the sanitary authority to medical p
tioners for notifying to the medical officer of health
ticulars of cases of phthisis; but this is a purely volu
arrangement. It is not objected to by the Local Govern
Board.

(*c*) Joint hospital Boards are formed under Section
the Public Health Act 1875, and under Section 10 o
Isolation Hospitals Act 1893.

LETTERS, NOTES AND ANSWERS TO CORRESPONDENTS.

MUNICATIONS respecting Editorial matters should be addressed
the Editor, 2, Agar Street, Strand, W.C., London; those con-
rning business matters, advertisements, non-delivery of the
URNAL, etc., should be addressed to the Manager, at the Office,
9, Strand, W.C., London.

GINAL ARTICLES and LETTERS *forwarded for publication are*
derstood to be offered to the BRITISH MEDICAL JOURNAL *alone,*
less the contrary be stated.

HORS desiring reprints of their articles published in the BRITISH
EDICAL JOURNAL are requested to communicate with the Manager,
9, Strand, W.C., on receipt of proof.

RESPONDENTS who wish notice to be taken of their communica-
ons should authenticate them with their names—of course not
cessarily for publication.

RESPONDENTS not answered are requested to look at the Notices
Correspondents of the following week.

USCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT
DER ANY CIRCUMSTANCES BE RETURNED.

rder to avoid delay, it is particularly requested that ALL letters
the editorial business of the JOURNAL be addressed to the
litor at the Office of the JOURNAL, and not at his private house.

EGRAPHIC ADDRESSS.—The telegraphic address of the EDITOR of
e BRITISH MEDICAL JOURNAL is *Aitiology, London.* The
egraphic address of the MANAGER of the BRITISH MEDICAL
URNAL is *Articulate, London.*

EPHONE (National):—
EDITOR, 2631, Gerrard.
GENERAL SECRETARY AND MANAGER, 2630, Gerrard.

☞ *Queries, answers, and communications relating to*
ects to which special departments of the BRITISH
DICAL JOURNAL *are devoted will be found under their*
ective headings.

QUERIES.

T (Bath) asks whether pyrosis is always due to butyric
id fermentation. He has under his care a lady, aged 40,
o has undergone the open-air cure for left apical phthisis
ring two or three years with apparently complete success,
t she is troubled with uneasiness and acid burning eructa-
ons coming on at varying periods after meals. Various
tiseptics and other remedies have been tried without
ccess; sodium bicarbonate acts as a palliative.

ASPIRIN AND QUININE IN RHEUMATISM.

D J. W. MALIM (Harrogate) writes: Might I ask if any of
ur readers have tried prolonged administration of a mix-
re of aspirin and quinine for subacute and chronic rheu-
atism of the joints? I find that cachets of these two drugs
en three times a day in small doses, say 5 gr. of aspirin
th 2 gr. of quinine, for a period of four or five months,
rtainly relieve pain and improve the general and local
trition. They seem to be especially useful after hydro-
thic treatment, when pain and swelling begin to return.

ANSWERS.

V. H.—Parabolic fluid, prescribed in the *Pharmacopoeia*
the Evelina Hospital, is, we are informed, a preparation
nilar to lysol. It is prepared by saponification of cresol.
was made and introduced by Messrs. Calvert and Co., and
supplied by them. Parabolic fluid is in use in other
ndon and provincial institutions.

MITTO VIRES.—The chief papers on kala-azar and its
ation to the Leishman-Donovan bodies have appeared in
e BRITISH MEDICAL JOURNAL, the *Journal of the Royal*
my Medical Corps, and in the *Scientific Memoirs* pub-
hed by the Government of India. A reference to any of
ese periodicals for the last three years will ensure that no
portant paper on the subject is passed over.

ALFRED NEALE (Sydney) writes, in reply to "Puzzled,"
o, in the BRITISH MEDICAL JOURNAL of March 3rd, asked
hints in the treatment of a case in which the hair falls
t when about 6 in. long: My notes on some twenty such
ses show malnutrition in every instance, not necessarily of
e system, but always of the scalp. There is usually slight
anny desquamation in addition. The best results have
lowed cod-liver oil or arsenic along with frequent applica-
ns of faradic brush and a dressing daily of almond oil and
olin with 3 per cent. resorcin.

RO.—(1) A practice which produced £73 for the first year
d £121 the second, and where there is not much scope, if
cable at all, would fetch only a nominal price. (2) A con-
nient book dealing with sale of practices is *Medical*
rtnerships, Transfers, and Assistants, by Messrs.
ocker and Barnard. (London: Stevens and Sons, Ltd.
6d.) (3) There is no ethical objection to a medical man
inting his name on the top of his business notepaper as in
e specimen sent. (4) Disorders of the scalp are dealt with
any standard book on dermatology—for example, Norman
alker's *Introduction to Dermatology* (Bristol: John Wright and Co. 1904. 9s. 6d.), or Malcolm Morris's *Diseases of the Skin* (London: Cassell and Co. 10s. 6d.). (5) Millet seed is smaller than hemp seed and differs from it in shape and colour, being spherical and yellow.

BICYCLE SADDLES FOR LADIES.

M.R.C.S., L.R.C.P. writes with reference to the recommendation of a man's saddle for lady cyclists: Having tried a few varieties I can very strongly recommend for both sexes a Lycett pneumatic saddle. If only moderately blown up as directed, it yields always to the thrusting leg on that side and becomes more raised on the other side, and absolutely no pressure seems to be felt anywhere; it should be just the thing for ladies. It has a short peak and broad body like the ordinary ladies' saddle.

ASSURANCE AGAINST PARTIAL DISABLEMENT.

DR. WISHART (Dudley R.S.O., Northumberland) writes: "A Would-be Insured" could not do better, I believe, than insure himself against accidents and sickness with the London and Lancashire Fire Insurance Company. They not only pay for partial disablement, but on two occasions they have dealt most liberally with me. If "A Would-be Insured" wishes the address of the above company, I shall be pleased to forward it upon hearing from him.

CALCIUM CHLORIDE IN HAEMORRHAGE.

A. E. S.—Very many cases are now on record in which the administration—and even the local application—of solutions of calcium chloride has appeared to be instrumental in arresting or preventing haemorrhage from the nose, gums, lungs, alimentary tract, uterus, etc. It has seemed to be of value in haemophilia. Many surgeons give it for a few days before operations in which profuse haemorrhage is anticipated. It is held to increase the coagulability of the blood, but whether by increasing the number of blood plates, as has been suggested, or otherwise is uncertain. Dr. A. E. Wright has maintained that if given in too large doses, or for longer than three or four days at a time, it may diminish the coagulability of the blood. It has the advantage over some other haemostatics, such as ergot and adrenalin, that it does not raise the blood pressure.

LETTERS, NOTES, etc.

MIDWIFERY OF THE PRESENT DAY.

DR. T. LONGMORE ASHFORTH (Crook, Durham) writes: I have read with the greatest interest all the articles on midwifery printed in the BRITISH MEDICAL JOURNAL. It seems to me to be a controversy by which little will be obtained in any way. We all, as qualified practitioners, more or less hold our own views on the various items, such as asepsis, antisepsis, chloroform, forceps, support of perineum, turning in occipito-posterior, etc. Personally, I use forceps and chloroform when I think necessary, following no teacher's principles absolutely, but allowing the patients what I consider a reasonable time, and I treat every case on its own merits. In a normal case—one where forceps will not be required—personally I consider antiseptics an insult to Nature, and I content myself with clean water (boiled) and soap. As other complications may arise in a case of labour, I treat them as aforesaid according to the finding, having no routine for any case or cases. I was not altogether surprised at the amount of criticism for which Dr. Horrocks's paper was responsible, for I admit surprise at some of the dogmas set forth in it. Now, I am certain that if such an amount of energy was expended on an attempt to put down quackery, such as bonesetters, prescribing chemists, etc., it would be of greater service to the profession. I hope all the gentlemen who have written articles in the above discussion have also read the Home Secretary's statement about educating of the people. I think the General Medical Council ought to assist the Home Secretary in his attempt to educate the people, if not by reason, then by force. It is a crying shame and disgrace that one has to sign notes, etc., for people who go to bonesetters and who don't hesitate to tell you he is the right man, as doctors don't know anything about bones. Fancy doing twelve months' anatomy, and being told that! I do hope for a day of reckoning.

M.D. writes: The question appears, like most others in the medical world, to rest upon the opinions taught in different schools of medicine; and, as seen in some of the professional examinations, if a man under examination for midwifery in London answers as he has been taught in Edinburgh on some points—that is, eclampsia—the result is failure; also, if the opposite occurs, and the London man is under examination in Edinburgh, the same result is arrived at. Hence, when doctors differ, who is to settle the point? Each midwifery case must be decided upon its own special difficulties, and cannot be expected to follow out one definite line as laid down by some writers. After forty years' experience in midwifery, I can only state that for the patient to wait is excellent in theory but very difficult in practice, as the patient's feelings, and also the relatives' ideas have to be considered, and, failing to satisfy these, you are liable to find some one else being called in to do what you would not do. I notice that many writers state that the midwives have not made much difference in their districts. In this particular district I formerly attended with help of assistant about 300 cases per annum; this has been gradually changing since the midwives were registered, and the only cases which now fall into the hands of self and others in this town of 66,000 population are those where the midwives fail to deliver. Last year I had 6 cases of eclampsia, 5 craniotomies, 12 long forceps, 8 version. The modern assistant—or, rather, the recently qualified man in these cases—is not of much help, hence I prefer to be without, as it invariably followed that if a difficult case arose with an assistant who is only newly qualified the principal had to do the work. I have always held that no man should receive his final qualification until he had seen and helped at midwifery cases for a period of not less than six months at a large lying-in institution where he could have an opportunity of seeing operative cases as well as simple cases. It is not fair to the newly-qualified man otherwise, neither is it right to the public at large to allow a man to practise until he has proved himself practically able to do operative midwifery.

AN APPEAL.

WE have received the following communication from the Committee mentioned therein:

In your issue of May 5th you commented sympathetically upon the conclusion of the hearing of the charge against Dr. A. E. Jones of assault upon certain mentally-defective children during his official examination of them at the London County Council day school which they attend.

Completely successful as was the result of the case, it was, of course, not accomplished without considerable expense, which falls entirely upon Dr. Jones. Baseless charges of this kind are unfortunately only too well known to the profession, which has always readily shown practical sympathy with the victims of an injustice to which all its members are equally exposed. This case, moreover, displays special features which call for more than usually energetic protest if the status of the profession is not to be seriously jeopardized. All are familiar with the class of persons by whom such false charges are usually brought, but this is the first time that an important public body has supported an accusation of this type, which originated with mentally defective children—an accusation, moreover, which the magistrate dismissed without listening to the defence!

It is felt that a subscription to defray Dr. Jones's legal expenses, which amount to £180, would be the most satisfactory way of expressing the sympathy of the profession and of its intention to meet such attacks as a united body.

A small committee, consisting of Messrs. S. H. Brown, Charles Bolton, P. Maynard Heath, and C. Wynn Wirgman, has been organized for this purpose, and Sir Victor Horsley has consented to act as treasurer. Bearer cheques may be made payable to, and crossed "Barclay and Co.," and sent to Messrs. Barclay and Co., 54, Lombard Street, E.C., or to Sir Victor Horsley, 25, Cavendish Square, W.

Subscriptions Promised.

	£	s.	d.		£	s.	d.
Sir Victor Horsley ...	5	5	0	Dr. J. Rose Bradford	5	5	0
Mr. Arthur E. J. Barker	5	5	0	Dr. G. F. Blacker ...	3	3	0
Mr. Bilton Pollard ...	5	5	0	Mr. Rupert Bucknall	2	2	0
Dr. Herbert Spencer...	5	5	0	Mr. Raymond Johnson	2	2	0
Dr. Dudley Buxton ...	5	5	0	Dr. Eden	1	10	0
Dr. Sidney Martin ...	5	5	0	Mr. E. S. Weymouth	1	1	0

BRADYCARDIA WITH ARRHYTHMIA AND EPILEPTIFORM SEIZURES.

DR. JOHN J. CURRAN (Killeagh, co. Cork) writes: On reading the very interesting case of "Bradycardia with Epileptiform Seizures," reported by Dr. J. Magee Finny in the BRITISH MEDICAL JOURNAL of April 28th, p. 967, it occurs to me that perhaps the epilepsy that Napoleon Buonaparte is stated to have suffered from may have been due to cerebral anaemia caused by his slow pulse-rate—only 40—which is referred to under the heading of "Bradycardia" in Osler's *Practice of Medicine.* As the diseases from which great personages suffered are at present exciting the attention of the profession, perhaps some of your numerous readers may throw some light on the matter.

IMPRESSION OR COINCIDENCE.

DR. C. A. ENSOR (Tisbury) writes: Dr. T. D. Manning's note in the issue of the BRITISH MEDICAL JOURNAL for April 28th, p. 978, reminds me of a similar curious happening which occurred in my practice. On October 3rd, 1904, I attended a lady at her first confinement, and during the early stages of labour she expressed great anxiety as to whether the child would be born without any disfigurement. She said she feared that it would not be perfect, explaining that when she was between two and three months pregnant, whilst walking in the street, she was struck in the back by one of the shafts of a donkey cart just above the sacrum. The child was born with a large spina bifida.

A WARNING TO PRACTITIONERS.

MESSRS. D. S. RAMA CHANDRA RAO, M.A., M.B., Ch.B.Ed and R. N. COORLAWALA, L.R.C.P.E., D.P.H.Cantab. (10, Cor Street, W.C.), write: The letter of complaint by "Victim' the BRITISH MEDICAL JOURNAL of May 12th, p. 1140, is v misleading to the British medical public as regards association of the Indians with the Eurasians. In the f place, it is a mortal offence to the Eurasian to be in any v classed with the Indian. The term "Eurasian" (thou there are many exceptions) is generally understood India as the progeny of the Europeans with the low classes of India. So, fortunately or not, the Indians of better classes have nothing in common with the Eurasians a class. There are plenty of Indians as medical practition and assistants in Britain, and they have been a great succ here. It would be a great pity if their interests should suf for the reckless conduct of a "Eurasian." Again, we m confess we do not understand what "Victim" means wh he says, "To revenge himself upon any . . . in a mann quite Eastern in its completeness." In his great distr the poor "Victim" forgets that it was the Eastern proph who first taught the world to do good for evil, but not ta delight in revenge. We trust, very sincerely, that the fa of the "Victim" will be proved, and the occupation of t particular "Eurasian" will be gone. But there are go men and bad men all the world over, even in Britain as w as in India, and the medical profession, calling itself t noblest profession in the world, must learn to discrimin —in the twentieth century at least.

AN APPEAL TO INSTRUMENT MAKERS.

MR. BASIL W. HOUSMAN, F.R.C.S. (Stockport), writes: venture to make an appeal to the purveyors of the Mich Suture Apparatus. For some time I have been using th excellent appliance for the closure of superficial skin woun or of the skin over deep wounds. I am convinced of t general excellence of the appliance, but have, in my expe ence, found a tendency to the causation of pressure necros This I attribute to the fact that the "clips" are sent o straight, and the pressure necessary to close them on t everted skin edges causes them to close with a "bang," that it is impossible to regulate in any way the pressure the skin edges, and hence, in some cases, the necrosis mention. If the "clips" were sent out bent to about or third of the circumference of a circle, a slight pressure wi the forceps would enable them to be closed sufficiently secure approximation of the skin edges without causing su pressure as to induce the necrosis and consequent scarri near the suture line. I think this point might be not by the makers.

TRYPANOSOMIASIS.

CAPTAIN H. W. GRATTAN, R.A.M.C., writes to point out th the name Captain Grant, mentioned in the JOURNAL April 21st, p. 943, and May 12th, p. 1118, is an error. T name should read "Captain Grattan, R.A.M.C.," and take this opportunity of correcting the mistake.

PARADOXICAL TEMPERATURE.

DR. W. B. RUSSELL (Colwyn Bay) writes: A girl of 10 can under my care for varicella on April 15th. During her co valescence she complained of vague pains in the legs, and several occasions the temperature was found to be a degr or two above normal. On the morning of May 2nd sh looked fairly well but rather pale; her pulse was normal frequency and the skin felt cool and the tongue clean. found, to my surprise, on taking her temperature in th right axilla that the thermometer marked 105° F.; anoth thermometer in the left axilla marked 101° F. A fe minutes afterwards the first thermometer in the right axil marked 102° F. I then took the temperature in the mout and found it normal. I should be glad to know if any or has had a similar experience. It is to be noted that this gi had suffered from some functional paralysis of the arm som time ago, and is now decidedly neurotic. Is it possible th the muscles in the axilla may have been thrown into tetan spasm, and so raised the temperature locally? or was the rapid muscular fibrillar action causing friction and heat o pressure on the bulb of thermometer?

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	£0 4 0
Each additional line	0 0 6
A whole column	2 13 4
A page...	8 0 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters a *Postes Restantes* addressed either in initials or numbers.

Illustrations
OF
VERY EARLY CONDITIONS
OF
CANCER OF THE TONGUE

[WITH COLOURED PLATE.]

BY HENRY T. BUTLIN, F.R.C.S., D.C.L.,

CONSULTING SURGEON TO ST. BARTHOLOMEW'S HOSPITAL.

EDICAL men are frequently urged to operate or to recom- iend operations for malignant disease when the disease is an early stage. The advice is good, and at the present me appeals to the bulk of our profession, with the sult that operations for malignant disease of many rts of the body are performed much earlier than they sed to be. Tumours of the breast are frequently sub- cted to operation within a week or two of their dis- very; and if the nature of the disease is uncertain, vertheless operation is advised, with the object of clear- g up the doubt, and, if the examination should prove at the tumour is malignant, of removing it without lay.

There are other parts of the body in which operation is sorted to, although there is no perceptible tumour, with e intention of discovering malignant disease and moving it while it is yet within the reach of removal. nd there are still other parts of the body in which it is ssible to follow the development of malignant disease most from its commencement, and in which early eration is of the highest importance. Yet because the rly stages of the disease are not appreciated, or because ey are half concealed by some previous and often long- anding disease, they are overlooked, with the result at operations which would be so useful, if they were actised early, are deferred for weeks or months after ey ought to have been performed.

The object of this communication is to draw the atten- n of medical men to the diagnosis of very early malig- nt disease of the tongue, so early and apparently so significant that I have only learned within the last two ars to recognize it myself.

For many years past I have been in the habit of appor- ning three stages to the development of the large jority of cases of cancer of the tongue:

1. *Predisposing conditions*, such as leucoplakia, ichthyosis, ronic superficial glossitis, which may exist for many ars without the occurrence of cancer; but which un- ubtedly render the individual much more liable to ncer than are individuals in whom the tongue is althy.

2. *Precancerous conditions*, such as warty growths, thick ques, sore places, which are not actually cancerous, but ich inevitably proceed to cancer unless they are com- tely removed or destroyed. I have described and ured such conditions, and have demonstrated them ring the last ten years or more, and I had no doubt of ir existence or of their serious importance.

3. *Actual cancer*, in one of its various forms, when it is vious to an educated surgeon, and ought to excite spicion in the minds of persons who are not experts.

have frequently been greatly distressed at the long e during which actual cancer of the tongue has been der observation before either the medical man or the ient has become aware of the gravity of the disease. t I never knew until two years ago that I was myself lty of failure to recognize cancer of the tongue in its lier, if not its earliest, stages. And I might have re- ined in the same condition of ignorance had it not n for the Imperial Cancer Research and the assistance Dr. Bashford and his colleague, Dr. Murray, who have n associated with me throughout the investigation on ich this paper is based, and to whom I am more in- ted than I can tell.

bout two years ago Dr. Bashford asked me whether uld furnish him with very early conditions of cancer he tongue for the Imperial Cancer Research. I replied t I would certainly do so, and that if I could I would more than this, for I would furnish him with specimens of precancerous conditions of the tongue, so that he might study the transition into actual cancer.

CASE 0.

Within a fortnight of our conversation a lady was brought to me who for years had suffered from soreness of the tongue, and in whom quite recently a little plaque had formed in the midst of the sore surface. She had chronic superficial glossitis of a great part of the fore part of the dorsum of the tongue, with areas of thin leucoplakia. To the left side of the middle line was a very small plaque, smooth, red, glossy, and firm. It did not feel thicker than a threepenny piece, was only slightly raised above the surrounding surface, and looked and felt more like a hard sore than any other disease. I formed the opinion that it was not yet malignant, but that it was one of my precancerous conditions, and would certainly become cancerous if it were not removed or completely destroyed. I therefore urged its removal. The operation did not take place for three weeks, and in the meantime the patient consulted a distinguished surgeon, one of my colleagues on the Council of the College of Surgeons. He also took the view that the disease was not yet cancer, but was not at all hopeful of curing it by any treatment short of removal or destruction. But he thought it would be safe to treat it for six weeks before resorting to operation. However, the patient determined in favour of operation, and I removed the whole of the diseased surface of the tongue, cutting deeply into the muscular substance beneath the plaque. The material was prepared according to Dr. Bashford's directions, and four days later I received from him a letter in which he said: "The tumour appears to me to be a very young epithelioma . . . and likely to be of value to us." I examined the slides and agreed with Dr. Bashford. The structure was typical of a small flat epithelioma. It was not a precancerous condition, but an actual cancer, and it had not been recognized by two surgeons who may fairly be regarded as experts. Unfortunately, Miss Mabel Green was not drawing for me at that time, and no picture was made of the disease. On the other hand, fortunately, the condition of the tongue in Case II was so exactly similar to that of this lady's tongue, that the picture of Case II might almost have been drawn from Case 0.

CASE I.

Towards the end of September, 1904, a gentleman, 68 years old, was sent to me by Dr. Roxburgh, of Weston-super-Mare, with a small white warty lump on the right border of the tongue. It felt firm, and I took it to be either precancerous or actual cancer, but was not quite sure which. There were old areas of leucoplakia on both borders of the tongue, and he had suffered pain in the right border since January, 1904, when he bit it by accident. Dr. Roxburgh told me he had examined him carefully in the beginning of July, and had only with difficulty discovered a tiny fissure, and this appears to have continued for more than a month. From early in August to September 17th, Dr. Roxburgh did not see him; and, when he did, he found, to his surprise, that a little white lump, with slight induration about its base, had taken the place of the fissure. He at once sent him to London for my opinion. I removed the right border of the tongue, and the disease was proved by microscopical examination to be epithelioma. Ten days later the contents of the anterior triangle of the neck were removed. The glands were enlarged, but did not exhibit the appearances of epithelioma, either to the naked eye or to the microscope. Here, again, a condition which I had always regarded as precancerous proved to be actual cancer.

CASE II.

In November, 1904, a gentleman, 47 years of age, whom I had seen first in 1896, and again in 1899, for superficial ulceration and leucoplakia of the tongue, consulted me for the third time under the following circumstances. Within the last few days he had noticed a change at one point on the dorsum of the tongue. He did not attach much importance to it, believing it was only another such ulcer as he had frequently been cured of. But as his medical man was attending in the house he asked him to look at it, and was advised to show it to me without delay. The conditions were precisely like those of Case 0. With the experience of that case fresh in my mind, I believed the disease to be early epithelioma, and I urged him to have it removed. He at once consulted a well-known surgeon, also one of my colleagues on the Council of the College of Surgeons, who expressed the view which I should certainly have held a few months earlier—that the disease was not yet cancer, but that he had better have it removed lest it should become so. Even then the patient was not content, but went to Germany to consult an eminent surgeon in Bonn. He was advised to have the disease removed, and, if it proved to be epithelioma, also to have the glands removed, as I had already counselled him to do. Dr. Bashford examined the plaque and reported thus: "The tissue you were so good as to fix up for us from tongue is typically epithelioma. . . . Perhaps I may add that the tumour is already a fully-developed epithelioma, if still small." Eight days after the operation on the tongue the contents of the anterior triangle were removed. Many of the glands were much enlarged and firm almost to hardness, but no cancer was discovered in them.

In this case it will be seen that my colleague had not recognized actual cancer when he saw it, and I should have held a similar opinion had it not been for the experience gained in Case o. I showed him the sections which had been prepared by Dr. Bashford—for he is a skilled microscopist—and he at once agreed that there could be no doubt of the cancerous nature of the disease.

Case III.

In the following month, December, 1904, Sir Felix Semon sent round to me a gentleman, aged 56, who had consulted him twelve years previously on account of white areas on the tongue. Some time in 1903 a provincial surgeon of repute had removed a small wart from the left side of the dorsum of the tongue; and now, more than a year after the removal of the wart, there was a tiny hard plaque perceptible rather to touch than sight, in the midst of a wide area of leucoplakia, which was generally disposed to be warty on the left half of the dorsum. Sir Felix thought that a more radical operation than mere removal of the one spot should be practised, and with this opinion I quite agreed, particularly because I had a suspicion, founded on the previous cases, that the tiny spot might already be epithelioma.

COLOURED PLATE.

(*Compare with Microscopical Drawings in Black and White*).

Case III.—Old leucoplakia of the tongue, of many years' duration, with the very earliest condition of epithelioma to the left of the middle line, in the form of a very small area of leucoplakia, a little more raised and a little firmer than the rest of the areas of leucoplakia. The recognition depended as much on the slight hardening as on the appearance of the area, and can scarcely be suggested in a sketch.

Case V.—Small cancer under the fore part of the tongue. Shows the well-defined margin and red areola, but does not show well the prominence of the ulcer.

Case II.—Old leucoplakia of the tongue, of many years' duration. Quite recent development of epithelioma, in the form of a very slightly raised, smooth red plaque, feeling about as thick as a sixpenny-piece. Between this plaque and the middle line is a tiny nodule, looking almost like a little pimple.

Case I.—Area of thin leucoplakia of the right border of the tongue, with a small epithelioma, which developed in the site of a bite which occurred several months previously.

Case IV.—Old leucoplakia of the tongue, of many years' duration, with a recent epithelioma of the left side, in the form of a red, raised, flat, smooth, area, with a very slightly overhanging outer border. Submental gland epitheliomatous.

Case VI.—Elongated, flat, warty cancer lying across the frenum linguae. Shows the manner in which the surrounding mucous membrane is drawn towards it.

Three days later the whole of the diseased surface of the tongue was removed deep into the muscle, and the tongue was remoulded. The material was submitted to Dr. Bashford, who reported on it towards the end of the month: "I am afraid that I forgot to let you know that the specimen from Case III's tongue is a young epithelioma somewhat earlier than that from Case II." The glands were not removed in this case.

I may say at once that I should not have had an idea that the disease was already epithelioma had it not been for Cases o and II.

Case IV.

On January 2nd, 1905, a gentleman, 54 years old, whom I had first seen twelve years previously for superficial glossitis and white areas on the tongue, came to me with a flat, very smooth, red plaque on the left half of the dorsum of the tongue. It was very little indurated and slightly raised, especially on the left border, which just overlapped the surface of the tongue, so that it could be raised from off it. He was sure this had formed quite within the last two or three weeks, and thought he must have burned the tongue at that point. I was quite certain it was an epithelioma, and judged it to be a further development of such a condition as is exhibited in Case II of the coloured plate. Four days later I removed all th affected portion of the tongue, including its entire thickness for some distance around and behind the plaque. Dr Bashford pronounced the disease to be epithelioma. Eigh days later the contents of the left anterior triangle wer removed, and, with them, the glands under the jaw for little distance on the right side. The gland immediatel behind the symphysis of the jaw was the size of a larg pea, very hard and commencing to be fixed to the surrounding tissues. It looked to the naked eye certainl cancerous, but Dr. Bashford, although he thought th microscopical appearances very suggestive of cancer would not undertake to say that the disease could b demonstrated in it. From this and other cases I hav come to the conclusion that microscopic examination wil not yet enable us to discover cancer in glands whe the disease is in an early stage, probably because the cell of the new growth are still so much overlaid by the confused structure of the gland that they cannot b properly distinguished.

In January of this year I removed a little flat epithelioma from the stump of the tongue, where it had bee frequently rubbed by an isolated tooth. It was not recurrence in the accepted use of the term, but a fresh occurrence of epithelioma due to a definite perceptibl cause. The condition of the remainder of the tongu and of the glands left nothing to be desired.

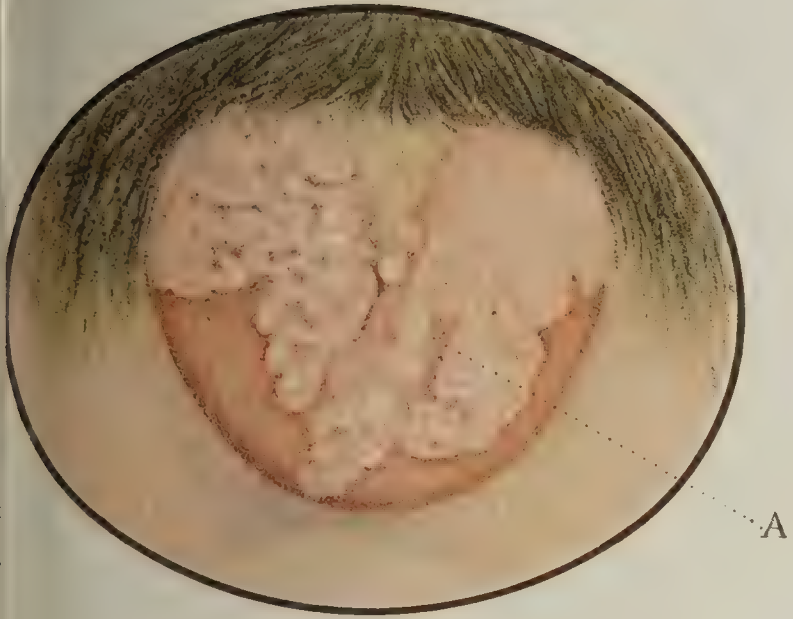
Case V.

On April 27th, 1905, I was consulted by a gentleman 47 years of age, for a small, flat, but slightly raised an indurated ulcer of th under aspect of the righ side of the tip of th tongue. The surface was glazed and red, like the surface of the plaques in Cases o and II. For several months he had suffered from pain at the place where the ulcer was. On March 10th his doctor saw him for the first time and told me, in a letter that he only found a small ulcer "which seemed in every way a trivial condition." He did not see it again till April 10th, when he was "surprised to find the ulcer had not healed, that it was, in fact, much larger, with a considerable degree of surrounding induration." There were no perceptible glands in the floor of the mouth or neck. On April 29th I removed the disease very widely, when the ulcer was found to be epithelioma. The glands were removed by a large operation on May 5th.

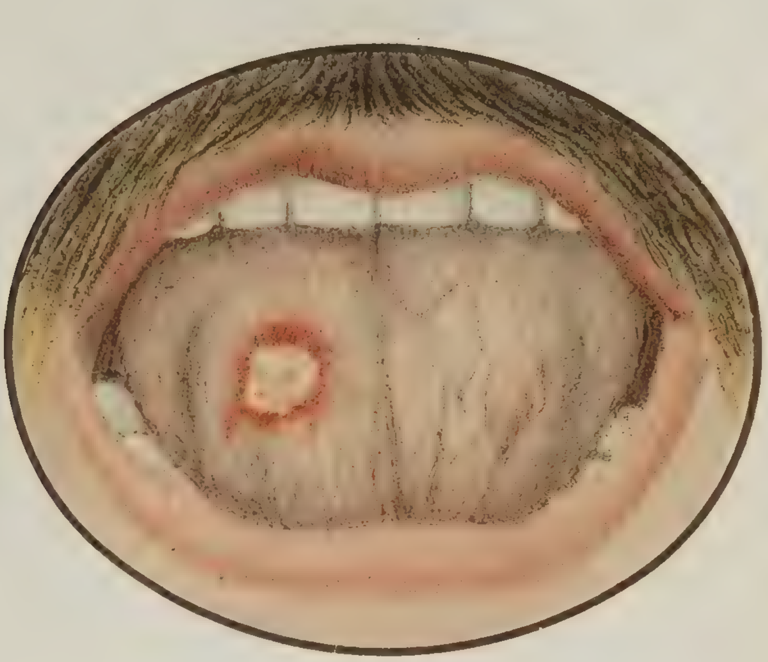
In this case the diagnosis was not nearly so difficult on account of the elevation of the ulcer and the induration of its base. Still, it is an example of a very early condition of epithelioma, and well worthy of study.

Case VI.

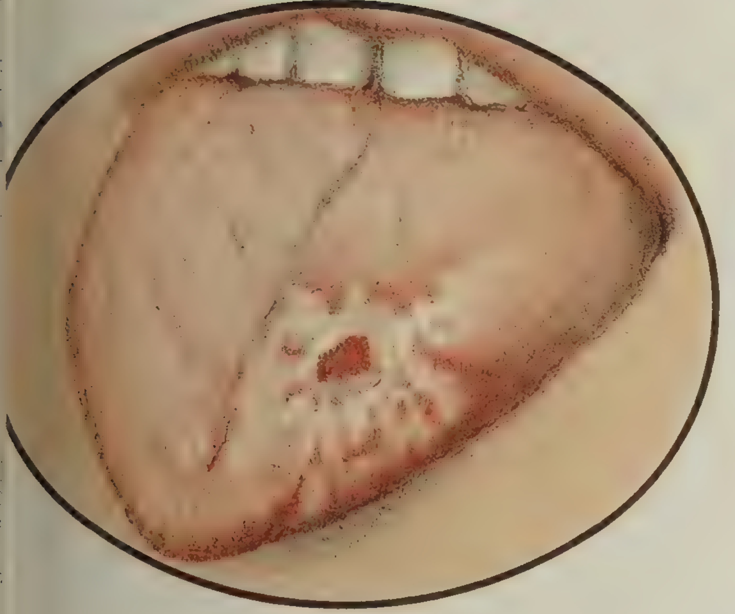
On May 16th of the same year a gentleman, 54 years old, was sent to me by his medical man for an opinion on a small, nodular, hard red plaque, beginning to ulcerate, which had only been observed three weeks previously. A year previously he had had a small sore at the same place, but it was quickly cured, and nothing had been seen or felt afterwards until the present disease had been discovered owing to a little feeling of stiffness. The plaque lay across the frenum linguae, and it is noticeable that it drew the tissues of the under aspect of the tongue towards itself, after the manner of many cancers of the breast. There was one small hard gland in the middle line in front of the hyoid bone. The disease was very freely removed, and nine days later all the tissues beneath the floor of the mouth, including the submaxillary salivary gland on both sides, down to and including the tissues below the bifurcation of the carotid on both sides



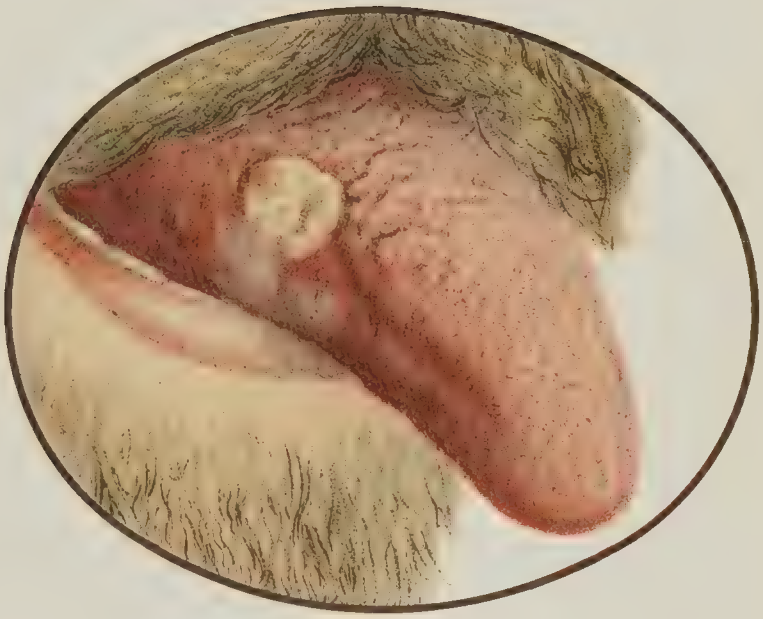
CASE III.



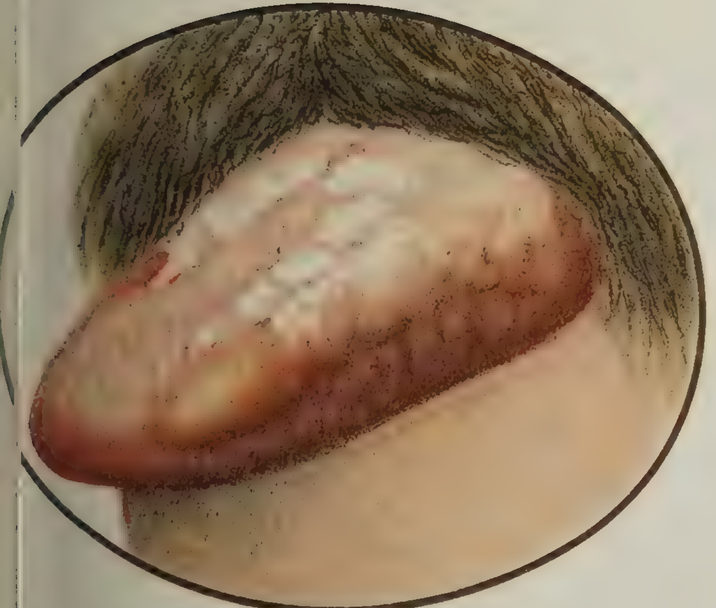
CASE V.



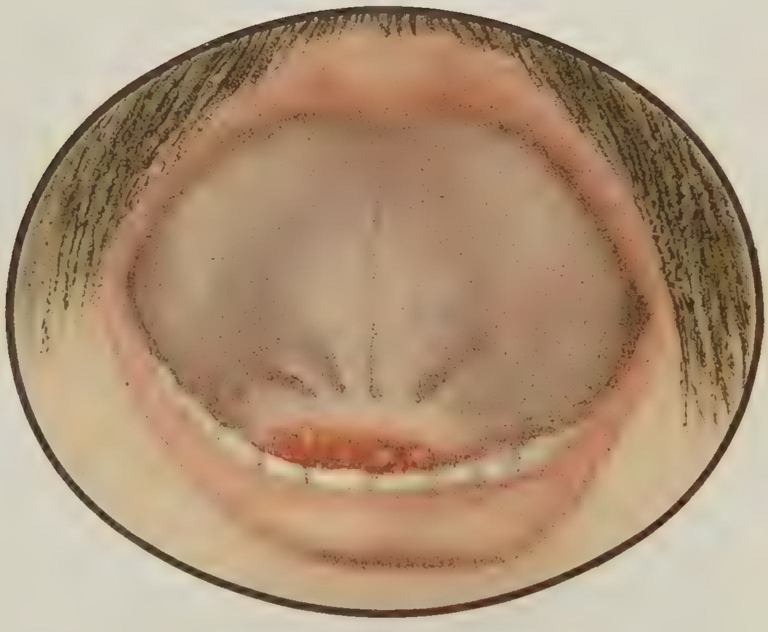
CASE II.



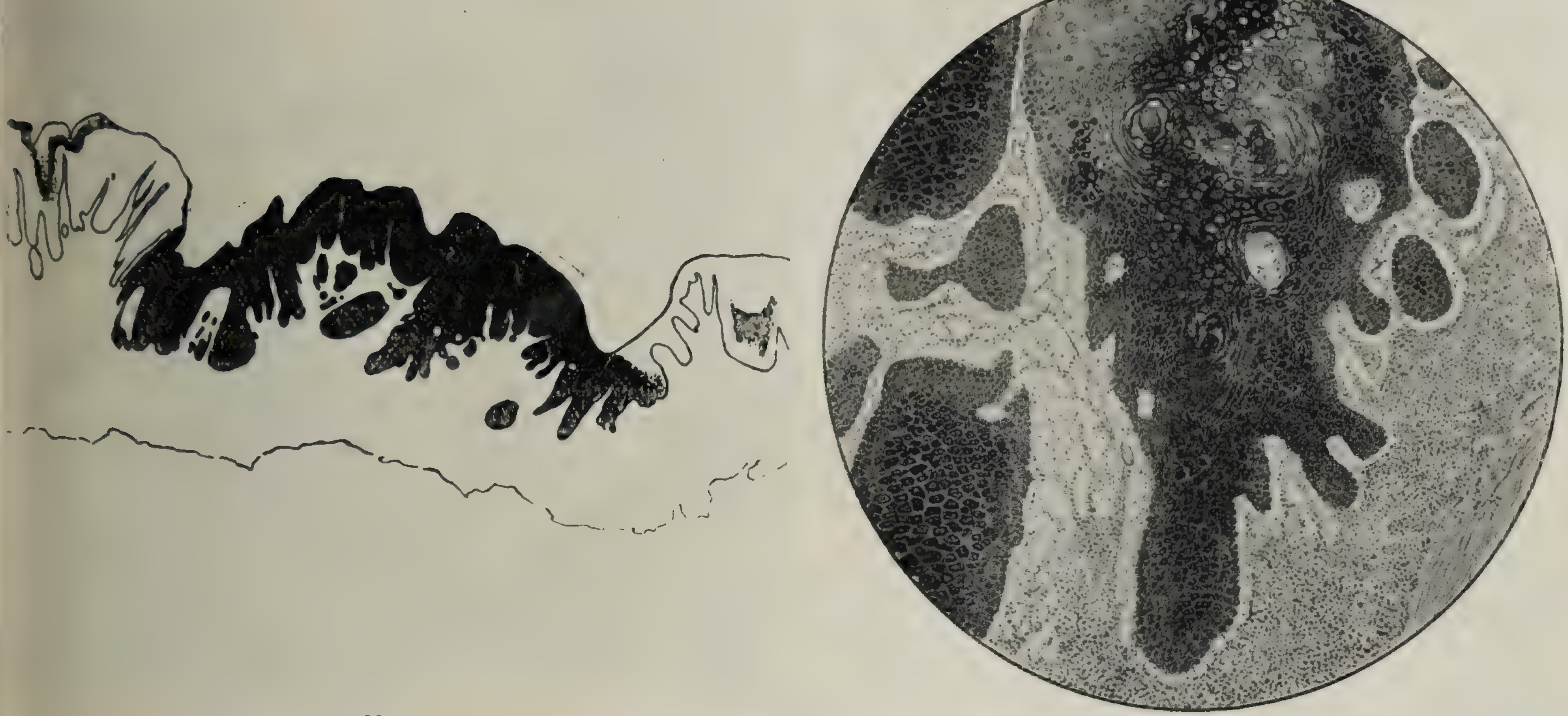
CASE I.



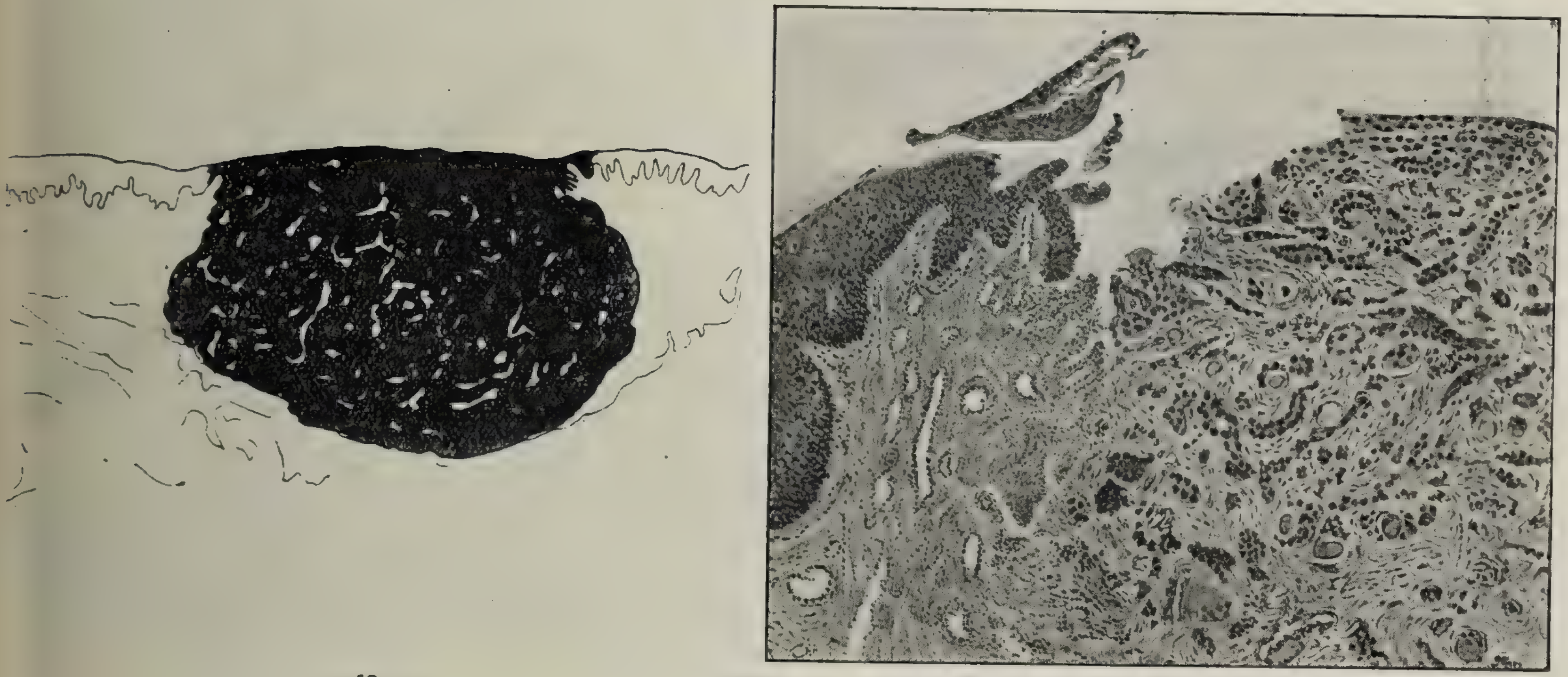
CASE IV.



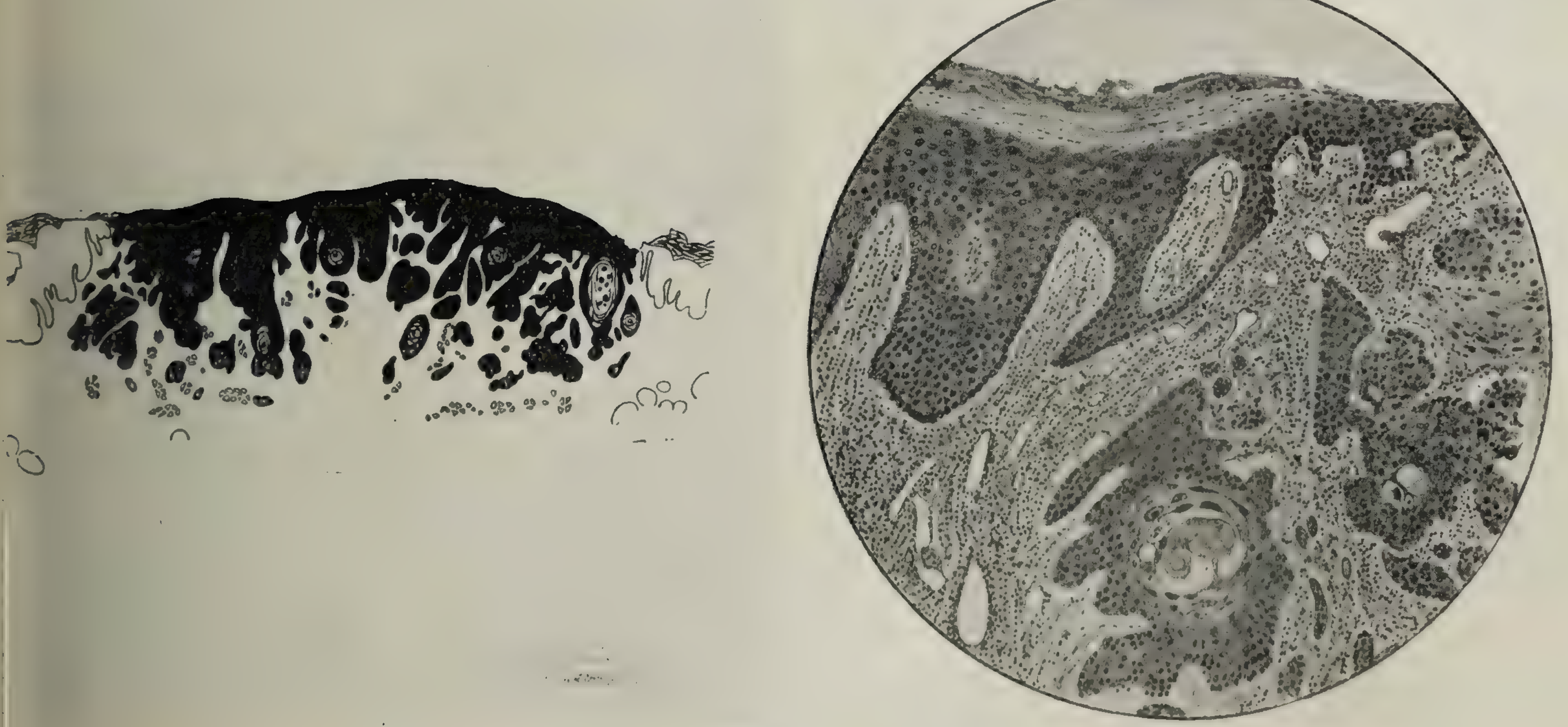
CASE VI.



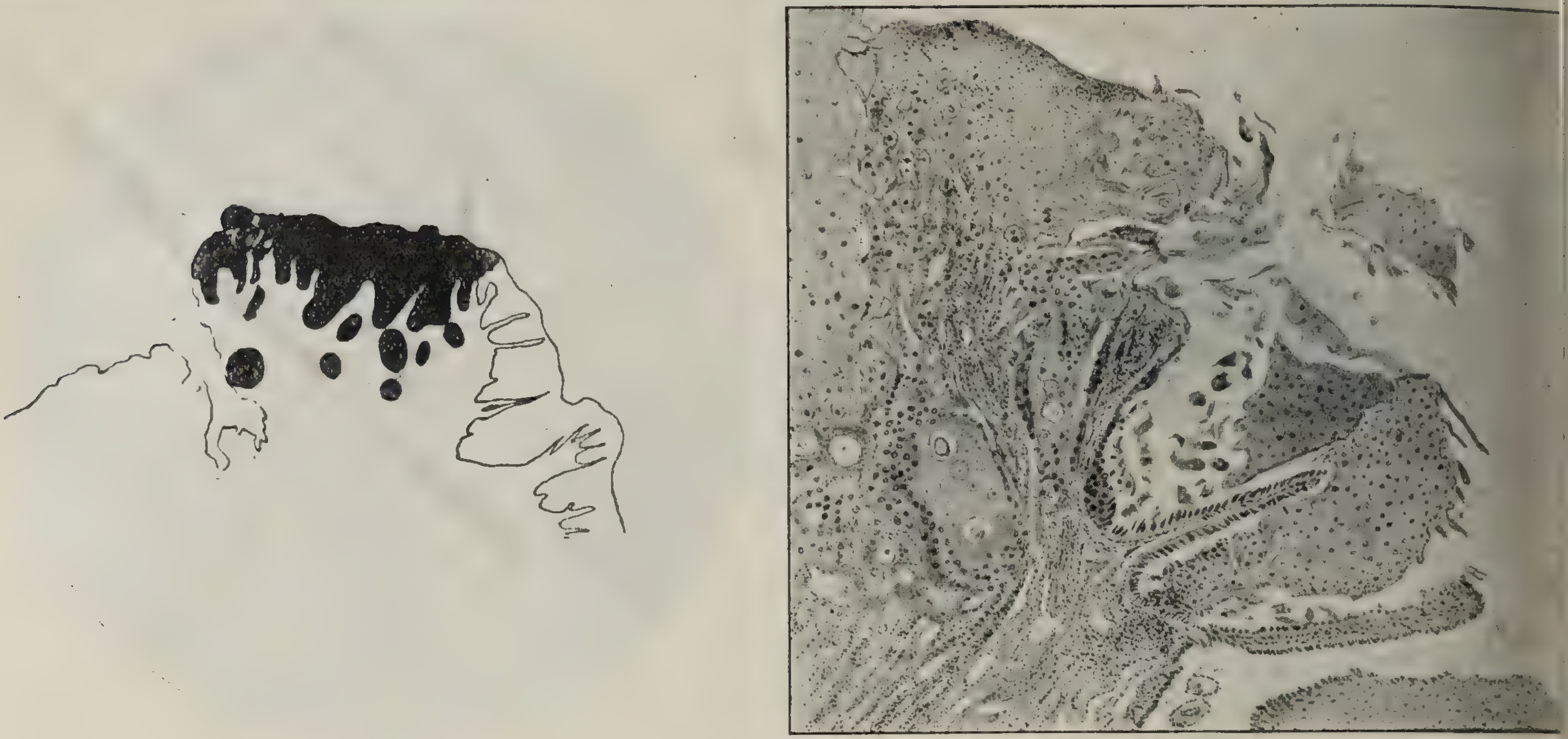
× 12 Case III. × 100



× 12 Case V. × 70



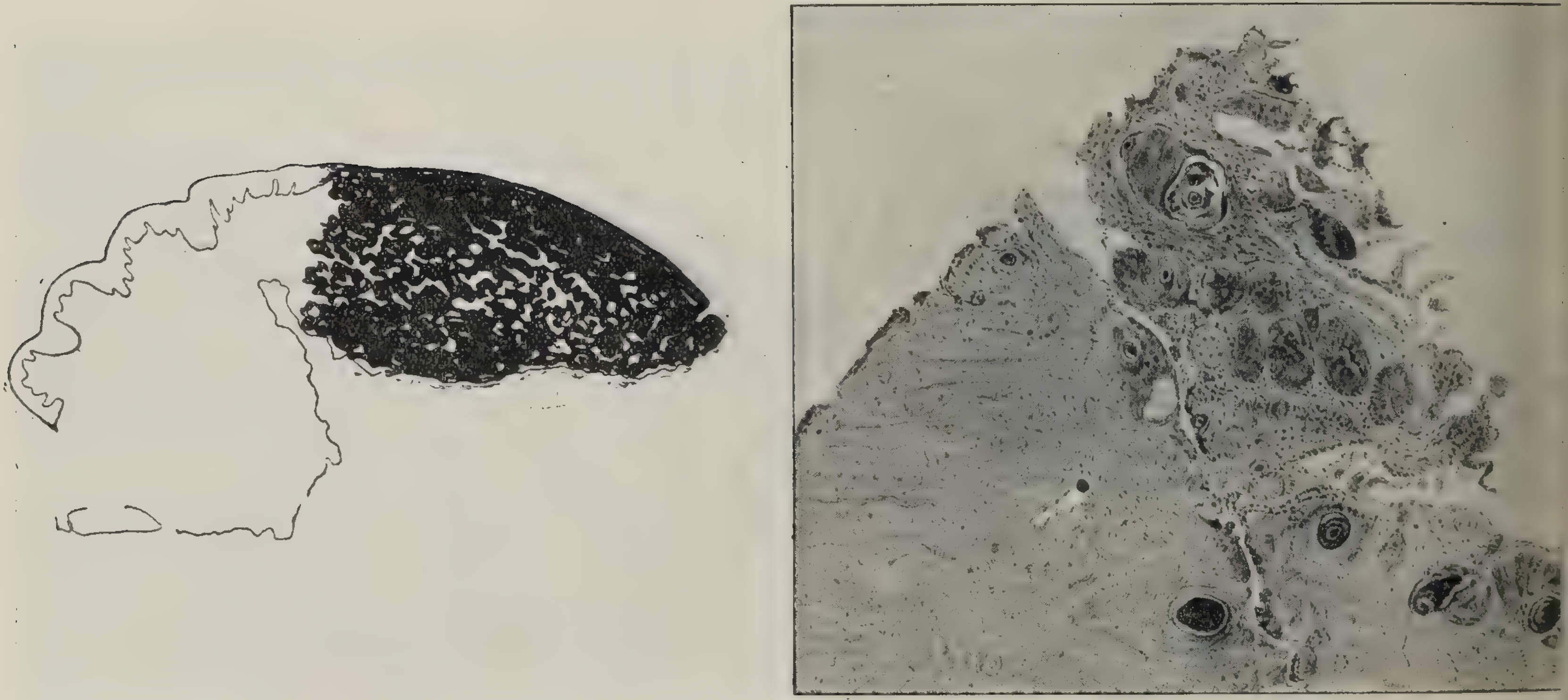
× 12 Case II. × 100



× 12

Case I.

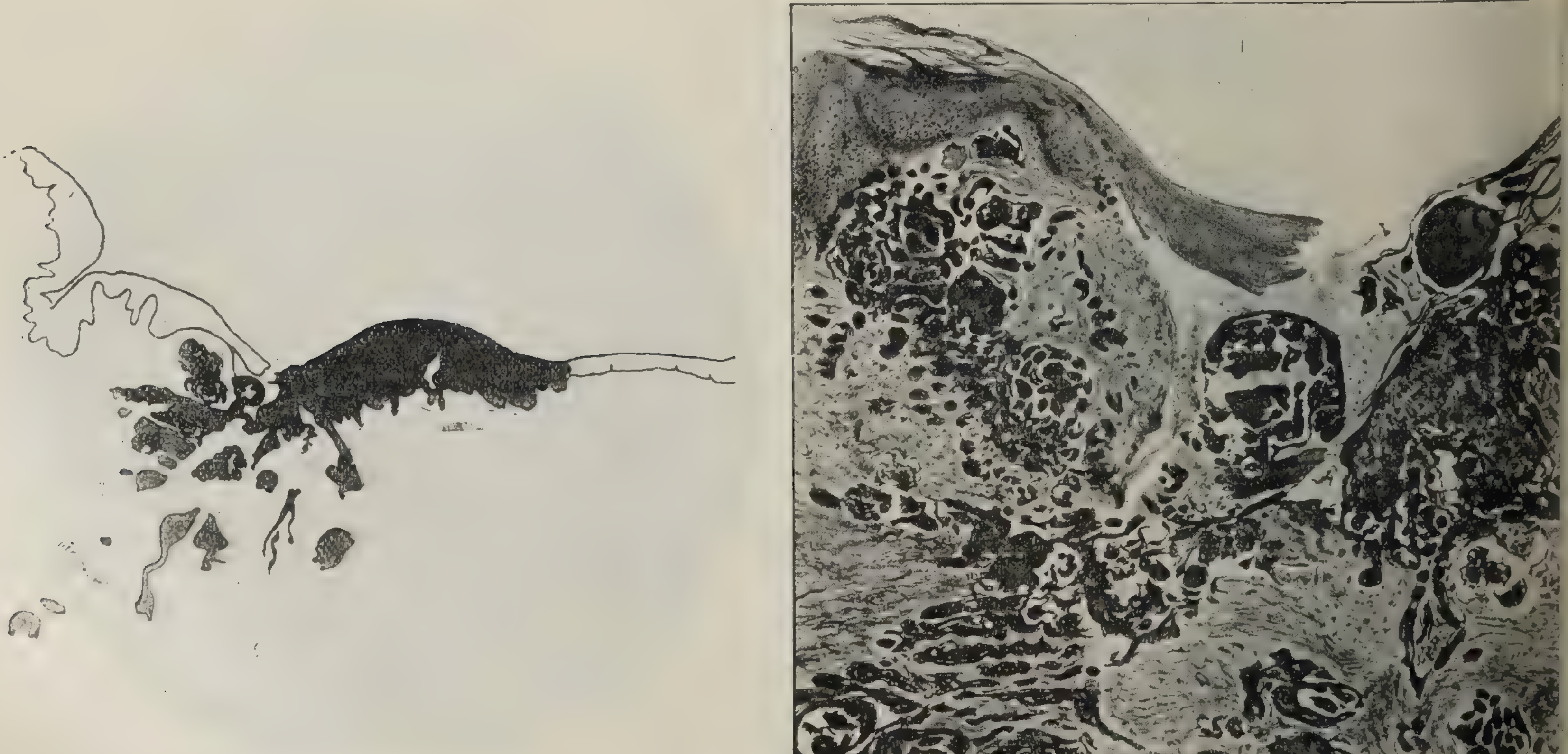
× 70



× 12

Case IV.

× 7



× 12

Case VI.

× 7

were removed. The glands were enlarged, but did not exhibit the characters of cancer, either to the naked eye or to the microscope.

Thus far, with the exception of Case iv, from whom I removed a second epithelioma on the stump of the tongue, all the patients remain well and free from recurrence of the disease—a striking testimony to the advantage of very early operation for the removal of epithelioma of the tongue. The glands were removed in 5 of the 7 cases, the exceptions being Case o and Case iii. I should like to have removed them in every instance, for I have lost a patient within the last few months from secondary affection of the glands, which did not make its appearance for more than three years after the successful removal of one of the smallest cancers of the border of the tongue that I have ever seen.

Let me recapitulate the forms under which the disease commenced in these 7 cases. They are four in number:

1. A flat, very slightly raised, smooth, red glazed plaque, feeling like a thin piece of gristle in the surface of the tongue, not thicker than a threepenny or sixpenny piece, and looking and feeling just like a primary hard sore. (Cases o and ii, to which may be added Case iv as a probable further stage of the same condition.)
2. A white, warty growth, not ulcerated, and scarcely indurated at its base. (Case i.)
3. A slight thickening and hardening of an old leucoplakic area, rather distinguishable to feel than sight, very likely an earlier stage of No. 1. (Case iii.)
4. A nodular plaque, red, and commencing to ulcerate, with drawing-in of the surrounding tisses. (Case vi.)

Two years ago, before my eyes were opened by the work of the Imperial Cancer Research, I should have regarded five out of the seven as precancerous conditions, and I am now wondering whether there are really any conditions perceptible to human sight and feel which are precancerous in the sense in which I have been accustomed to employ the term.

Many persons will wonder why I have been so slow to discover the true nature of these conditions. I can only answer that I am humiliated at my ignorance, and can only plead, in excuse for it, that I could scarcely ever, a few years ago, persuade patients to submit to operation for these conditions. And, if I had removed them, it is quite possible that their real nature might have been overlooked unless they had been examined in continuous sections after the manner which is now commonly practised in the investigation of cancerous and doubtful growths.

Clinical Remarks

ON THE

EARLY RECOGNITION OF CANCER OF THE BREAST.

By G. LENTHAL CHEATLE, C.B., F.R.C.S.,

SURGEON TO KING'S COLLEGE HOSPITAL, ITALIAN HOSPITAL, AND THE HOSPITAL FOR EPILEPSY AND PARALYSIS, MAIDA VALE.

There are cases of cancer of the breast in which the tumours are so small that a positive diagnosis of cancer is rendered doubtful by unaided clinical signs. The management of these cases requires earnest reconsideration. The importance of the matter is increased by the knowledge that a small cancer need not necessarily be an early one; and if one considers upon what the clinical signs of cancer of the breast depend, one must at once realize that the definite and classical clinical signs—even the earliest of them—owe their existence to a degree of spread of the disease which must reach certain stages before the signs for which we so anxiously search are recognizable.

In hospital and private practice the majority of the breast cancer cases come for consultation and operation after they have been watched for periods that vary from about two to twelve months, and often much longer. It is needless to point out how invaluable is the time lost in these months, for during the watching period cases must frequently pass from the curable into the incurable stages, and in the early treatment of cancer the saving of time means the saving of life.

Therefore, the ideal management of a case in which the clinical signs of cancer are not clear is not to wait until the cancer has spread sufficiently to render them so, but to settle the matter at once by a complete macroscopical and, if necessary, microscopical examination, the essential details of which I shall allude to later. To illustrate the point of view which needs expulsion from our methods I will relate the following type of case: A woman at the age of 27 years consulted a surgeon (with her medical man) three years ago with regard to a small tumour in her breast; the surgeon told her it might or might not be cancer, and for the present he "would give her the benefit of the doubt" and would watch her case. A year after, when the clinical signs of cancer had become undoubted, the breast and its lymphatic vascular system were as thoroughly removed as possible, but two years after the operation she died with cancer in the lungs, liver, and a rib; there was no evidence of disease in the area of the operation. Now, it is quite obvious that by adopting the waiting and watching policy the surgeon responsible for the management of this case did not give his patient "the benefit of the doubt." "The benefit of the doubt" would have been given her by clearing it up, which at that time could have been done only by a more complete examination. The diagnosis of cancer would have been made. The complete operation would then have been performed. One year of the cancer's spread would have been stopped, and possibly her life would have been saved.

It must be understood that on the conclusion arrived at from the evidence obtained by the first examination will depend the future management and probably the future safety of the case.

In this article I propose to demonstrate:

1. How to examine a breast case clinically, and at the same time point out how the examination must lead to the certainty of malignant disease in some cases and to uncertainty of it in others, especially those in which the cancer is too small to give rise to the typical signs of its presence—that is, the very cases which it is so essential to diagnose and treat early.
2. The management of a case in which the clinical examination leaves the positive diagnosis of a small cancer uncertain.

The Examination.

The best position for the patient is flat on the back and on a fairly high table. I regard the recumbent posture as a great aid in the diagnosis of all diseases of the breast. Both breasts must be well exposed for the comparison of the abnormal with the normal side.

A.—*Palpation of the Breast.*

The breast tissue must not be picked up, but must be palpated by the soft pads on the palmar surfaces at the top of the fingers, by which both breasts should be gently rolled over the underlying thorax. Any swelling, nodule, or irregularity which is discoverable clinically will be at once felt. The object of this examination is to discover:

1. Whether both breasts contain nodules, swellings, or irregularities.
2. Whether the breast complained of be the only one affected, and if so, whether there is one or more than one lesion in it.

The observations have the following value in building up a diagnosis for or against cancer.

Should multiple nodules or swellings or irregularities be found in both breasts the diagnosis is probably one of chronic mastitis or cystic changes, or combined cystic changes and chronic mastitis.

Should multiple nodules or swellings or irregularities be found in one breast only, the diagnosis is, with some exceptions to which I shall refer later, in favour of chronic mastitis or cystic changes, and not cancer. But should only one nodule or swelling or irregularity, or even a swelling surrounded by a small area of irregularity, be found in one breast, it is probably a tumour, and hence may or may not be cancer.

The same conclusion applies to one nodule, swelling or irregularity in each breast; both breasts being affected is a sign *per se*, which is rather more in favour of chronic mastitis than cancer. But although cancer in both breasts is rare, one of the breasts may contain cancer, hence too much mental bias must not be allowed in any direction when one lesion exists in each breast.

B.—*Retraction of the Skin.*

Having discovered swellings or irregularities in both breasts or only in one breast, or having discovered one swelling, nodule, or irregularity in one breast only, the next point to be decided is: Can the skin covering the abnormal part or parts be demonstrated to retract? The sign is best elicited by gradually and gently pushing the breast towards that part of the skin to be tested. The test is most delicate when the tumour is not itself pushed, but when it is pushed indirectly by the fingers applied to a part of the breast well away from the seat of the suspected area. If present, the slightest retraction of the skin covering the suspected swelling can be noted and must be caused by the pull on it of the underlying tumour, since the wrinkle of the skin at that spot could not be caused by direct pressure of the fingers, because they would be too far away to induce it.

Retraction of the skin over a tumour, induced with these precautions, is one of the earliest and most constant of the classical clinical signs of cancer. The same rule applies when the covering skin retracts over multiple nodules swellings, or irregularities which have been discovered in one breast only. In the latter case it is probably an advanced case of diffused cancer of the breast, in which the enlarged glands, if present, cannot be felt. Fig. I is from a case in which cancer was diffused throughout the gland. Only one breast was affected with multiple nodules and irregularities; no enlarged lymphatic glands could be felt, and the correct diagnosis of cancer was made solely on the retracted skin and flattening of the normal curves of the breast.

As yet I have never seen multiple nodules, swellings, or irregularities in both breasts accompanied by retraction of the covering skin. I have seen two cases in which one tumour occurred in each breast, in both of which the covering skin was adherent and both tumours were cancer, but the condition is rare. Retraction of the skin is caused in three ways: First, by the invasion by the cancer of the fibrous bands (ligamenta suspensoria of Sir Astley Cooper), which pass from the breast capsule to the skin (see Fig. I); secondly and later, by the adherence of the tumour itself to the skin (see Fig. II); thirdly, it may also be caused by the attachment of the tumour to the underlying pectoral fascia, in which case any attempt made to move the breast or pectoralis major will induce retraction of the skin by the pull on it of the normal fibrous connexions between it and the capsule of the breast.

DESCRIPTION OF FIGS. I TO IX.

Fig. I.—Microscopical section of whole breast (natural size). **A.** Skin. **B.** Subcutaneous fat in which are seen cancer-bearing fibrous bands, one of which can be seen attached to the skin at **E.** **C.** Diffuse cancer of the breast in which very little breast tissue remains to be seen under a higher power. **D.** Pectoralis major. **E.** Flattening of the curve.

Fig. II.—Microscopical section of cancer of the breast (natural size). **A.** Cancer. **B.** Skin. **C.** Flattening of the curve.

Fig. III.—Microscopical section of whole breast (natural size). **A.** Fibro-adenoma. **B.** Normal breast tissue. **C.** In the situation of **A** in Fig. XIV.

Fig. IV.—Microscopical section of the whole tumour in cancer of the breast (natural size). **A.** Cancer. **B.** Breast tissue.

Fig. V.—Microscopical section of the whole tumour in cancer of the breast (natural size). **A.** Cancer. **B.** Breast tissue.

Fig. VI.—Microscopical section of the whole breast tissue removed (natural size). **A.** Cancer at periphery of breast. **B.** Breast tissue. **C.** Subcutaneous fat. **D.** Fat over the fascia covering pectoralis major.

Fig. VII.—Microscopical section of the whole breast tissue removed (natural size). **A.** Cancer at periphery of breast. **B.** Subcutaneous fat. **C.** Breast tissue. **D.** Fat over fascia covering pectoralis major.

Fig. VIII.—Microscopical section of the whole breast tissue removed (natural size). **A.** Subcutaneous fat. **B.** Cancer. **C.** Breast tissue. **D.** Fat over fascia covering pectoralis major.

Fig. IX.—Microscopical section of a microscopical cystic change in a breast ($\frac{1}{8}$ objective). **A.** Alveoli filled with cells, some of which can be seen undergoing mitosis, which Professor Farmer stated was somatic in type. **B.** Normal breast.

The first is the most commonly seen, and the third the rarest.

C.—*Flattening of Part or the Whole of a Normal Curve of the Breast.*

This sign, which is partly a variation of the test just described, is due mainly to the same causes, and when present it is also a very delicate and trustworthy test of cancer. I have never seen it alluded to. The flattening of a curve can be seen best when the particular curve is viewed from any position which is on a level with it, hence the surgeon must lower his head to bring his eyes to a level with the breast, and upon so doing the slightest loss in the curve is then seen with marked accuracy. (See Figs. I and II.)

It may here be stated that when these three signs are associated the case ought to be regarded as one of cancer, even in the absence of all other signs. The facts are so important it may be well to repeat them:

1. A single tumour in one breast only (the opposite breast normal).
2. Retraction of skin over the tumour.
3. Flattening of part or whole of the curve over the tumour.

It must not, however, be assumed that difficulties in diagnosis never occur. In somewhat rare cases tuberculosis, syphilis, actinomycosis, slowly-acting micro-organisms of suppuration, especially when they attack a thick-walled galactocele, all may occasionally simulate the clinical signs of cancer. In my experience the one or two cases of suppurating galactoceles which resembled cancer occurred close up to the nipples.

D.—*Examination of Lymphatic Glands in the Axillary and Supraclavicular Region.*

I take it that, however short the duration of the cancer, as soon as the axilla (or supraclavicular) glands are felt enlarged, hard, and discrete, the disease is in an advanced state and the clinical diagnosis a matter of ease and the prognosis a matter of extreme doubt. The method of diagnosis in advanced cancer of the breast is not the object of this article, therefore I leave the sign with a hint to examine both axillae always, for if BOTH sides contain enlarged lymphatic glands it would be a point against the diagnosis of a "beginning" cancer.

E.—*Retraction of the Nipple and Haemorrhage from the Nipple.*

Retraction of the nipple as a sign of cancer of the breast is too much sought for, too long waited for, and when found its value is overestimated. It occurs in cancer early when the disease begins under or near the nipple, otherwise it is a comparatively late sign, and its absence does not materially affect a diagnosis. The value of a retracted nipple, when present, in a case for diagnosis is lessened by the knowledge that it may always have been so in one or both breasts; and although the history of the case may prove a nipple has been retracted only recently (and as such is of some value), it must be remembered that chronic mastitis, cysts, and other tumours near the nipple can cause its retraction. The fibro-adenoma in Fig. III caused a rapidly-increasing retraction of the npiple.

Haemorrhage from the nipple when it is gently squeezed must be regarded as a serious sign when no inflammatory nor obvious cause is present to account for it, and in these circumstances the cause should be at once determined. I cannot say that I recognize what the so-called "duct cancer" is, but I am perfectly familiar with the tumour structure to which some observers are inclined to limit the term, and I should have expected this tumour to induce haemorrhage from the nipple, at least occasionally. But I have seen these tumours structurally pure and also mixed with the so-called alveolar or scirrhus variety, and as yet I have never seen one cause haemorrhage from the nipple. I have, indeed, seen a case of cancer of the breast in which there was haemorrhage from the nipple; but the cancer was of the pure alveolar or scirrhus type, which was complicating Paget's disease of the nipple in the same breast. Clinically it is not possible to diagnose the so-called "duct cancer" tumour from the alveolar or scirrhus types or from a tumour composed of a mixture of the two types. At one time I began to think one could, but now I am quite sure it is impossible. Some observers say that "duct cancer" is less malignant than the other type; but Fig. I, which is a pure so-called "duct cancer," was a highly malignant tumour, and another case which contained a mixture of the two types, was one of the most fulminating malignant tumours of the breast I have ever seen or heard of. Again, looked at as naked-eye preparations, Figs. IV and V look like tumours composed structurally of the same tissue; but

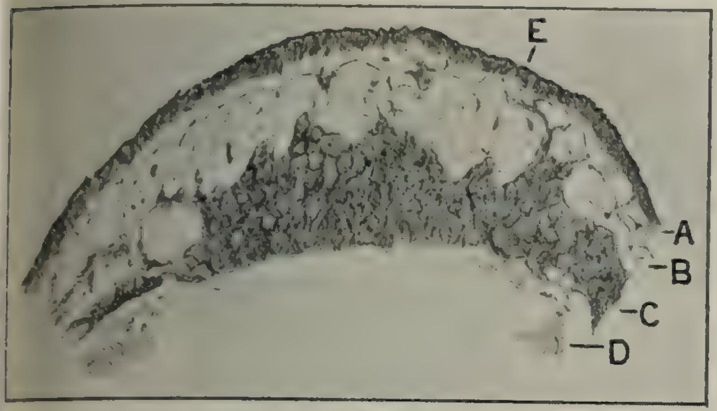


Fig. I.

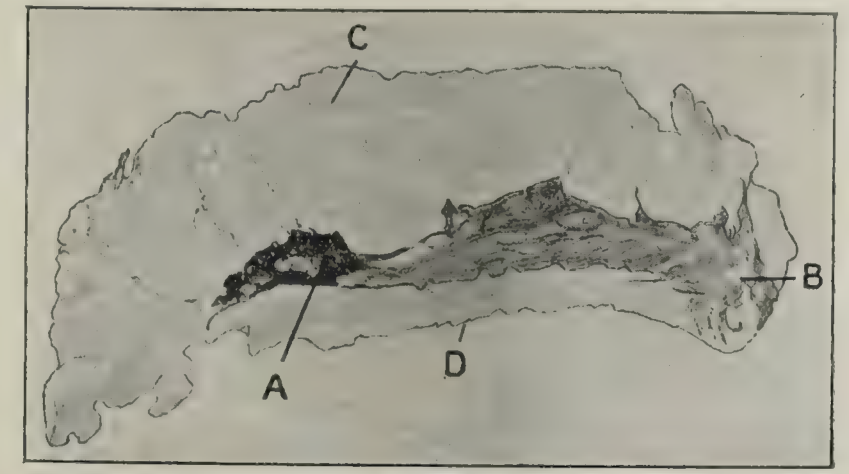


Fig. VI.

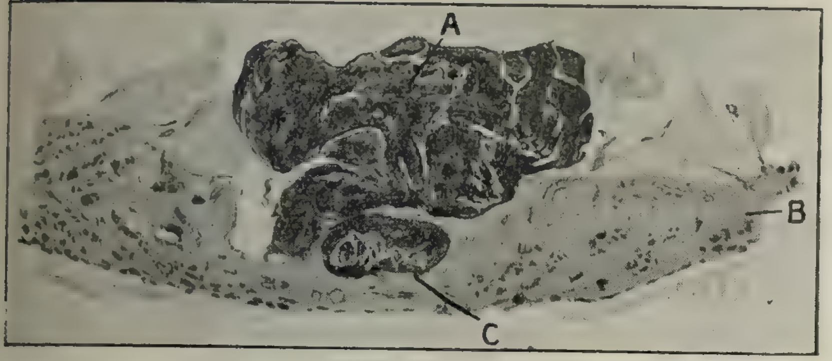


Fig. III.

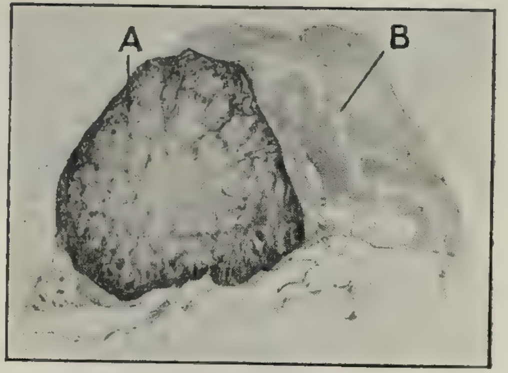


Fig. IV.

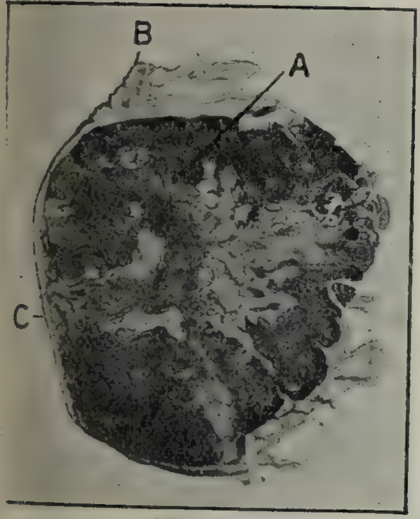


Fig. II.

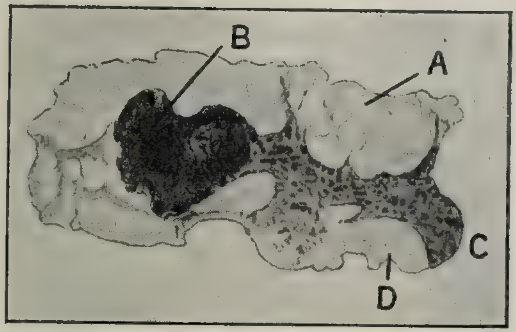


Fig. VIII.

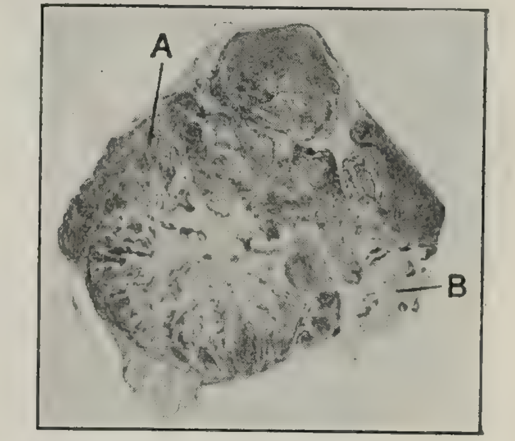


Fig. V.

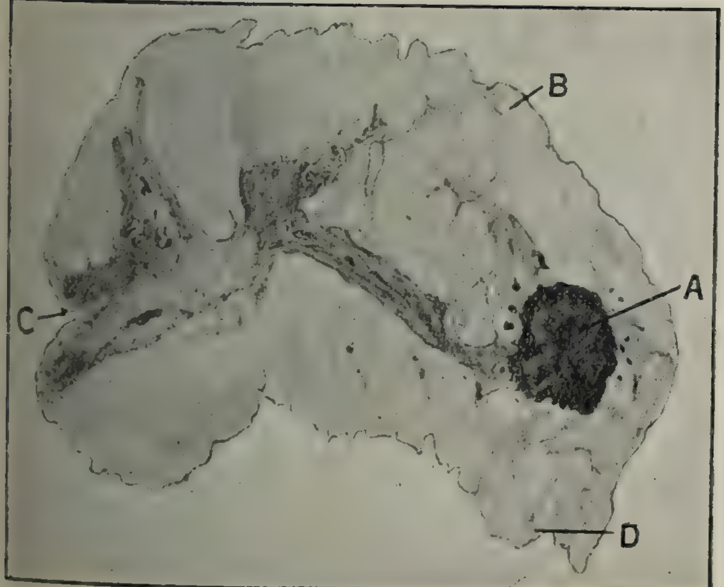


Fig. VII.

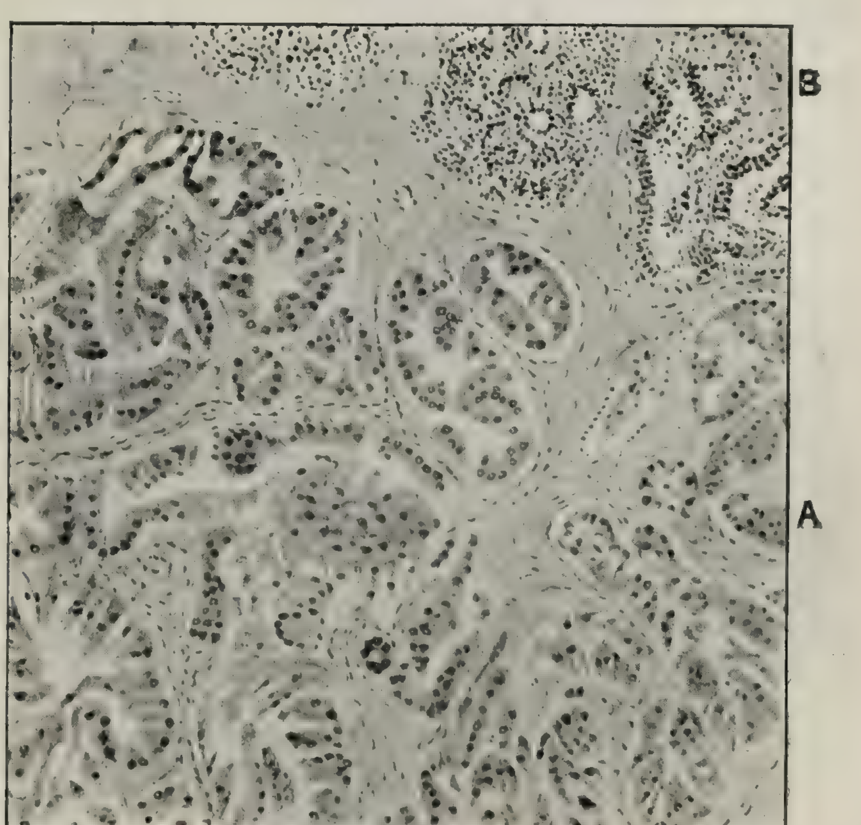


Fig. IX.

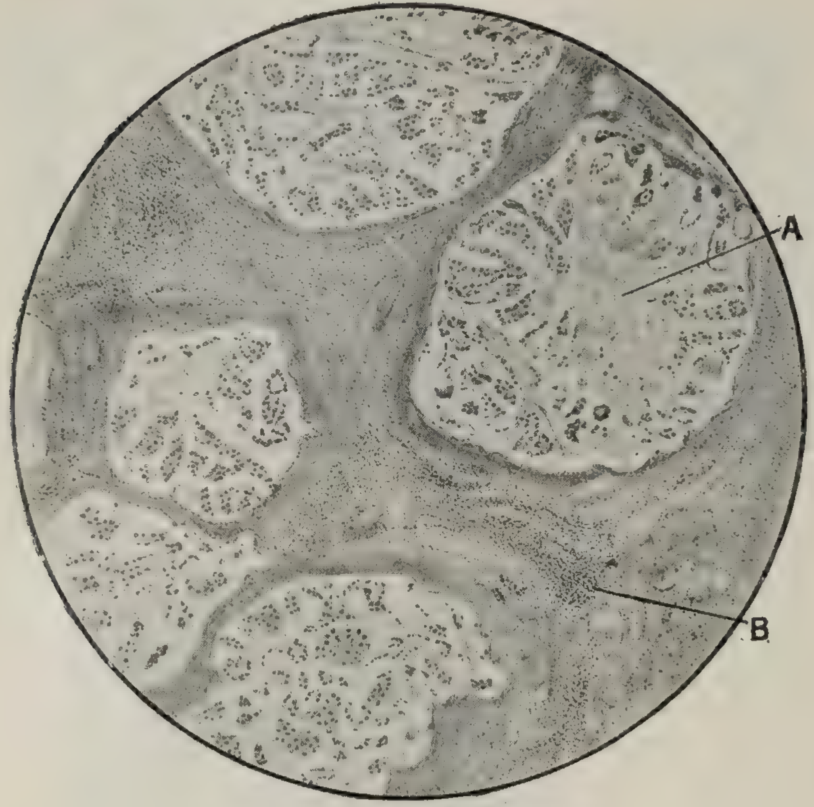


Fig. X.

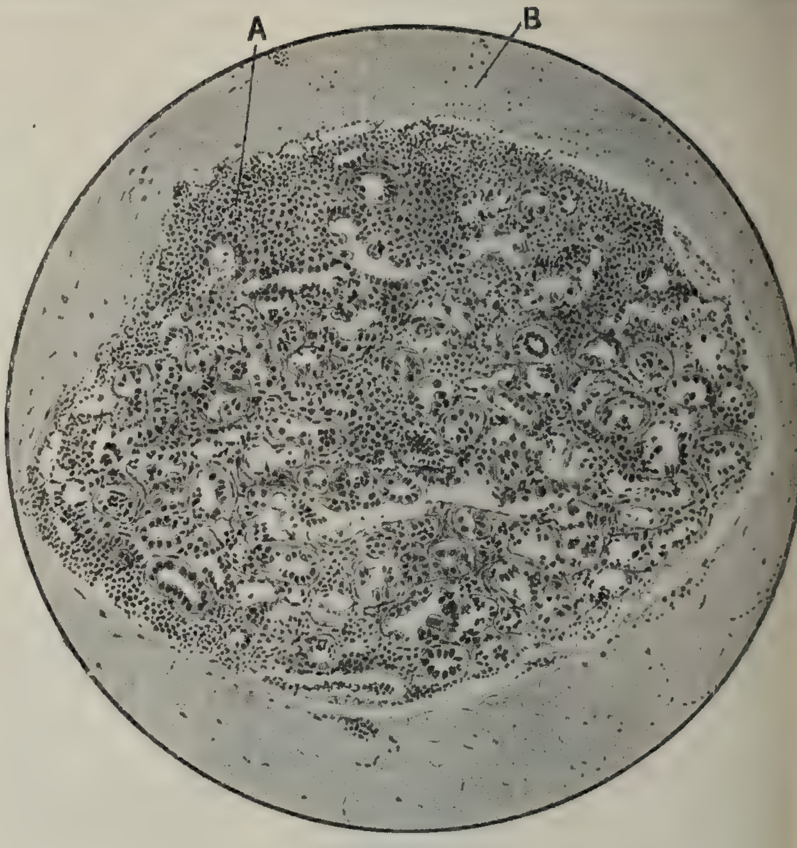


Fig. XIII.

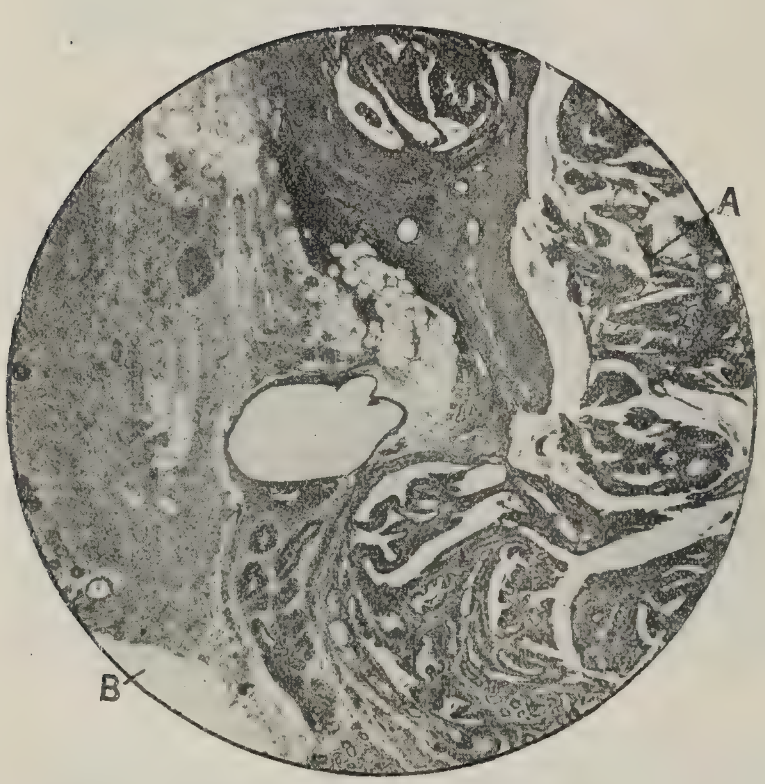


Fig XI.

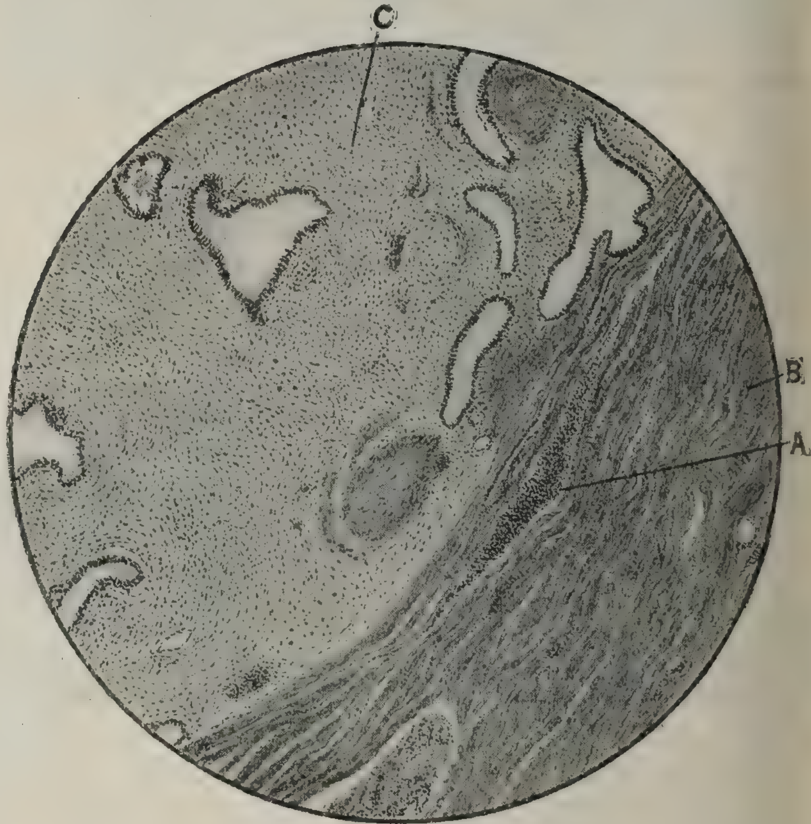


Fig. XIV.

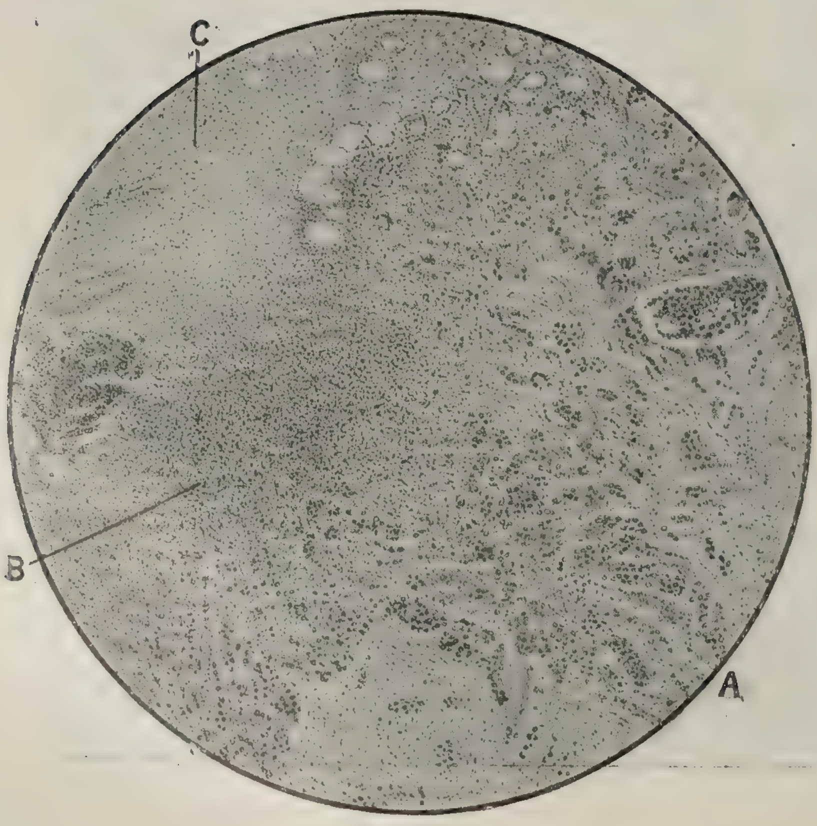


Fig. XII.

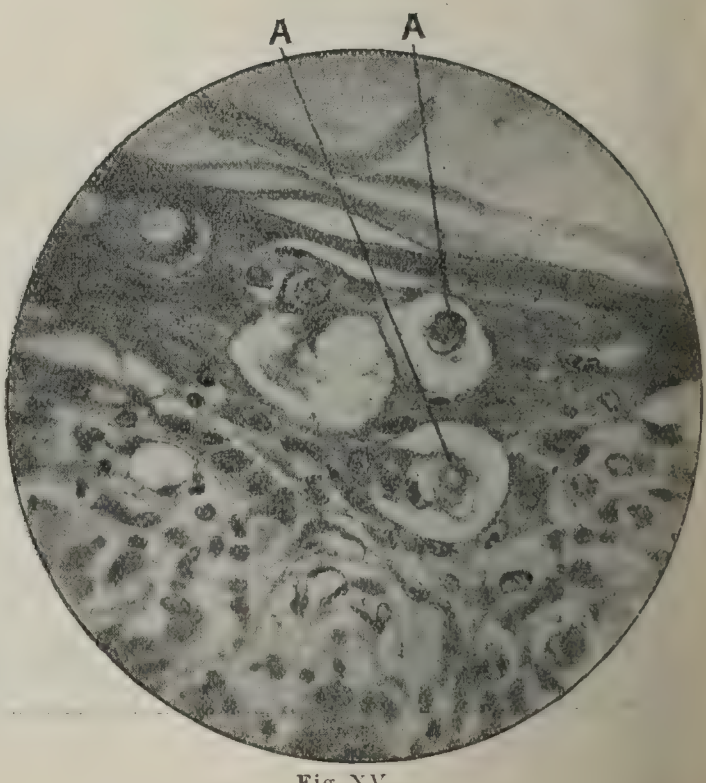


Fig. XV.

Fig. IV is an alveolar or scirrhus type and Fig. V is the so-called "duct cancer" type. They were in the wards at the same time; clinically they almost exactly resembled one another, and until I had the two growths under the microscope I thought they were probably identical in structure.

The question of duct cancer will be again referred to; but now, having discussed the comparative values of the main guides to the early recognition of cancer of the breast in which the classical clinical signs are as nearly conclusive as any clinical signs can be, I propose to demonstrate what are the signs that ought to make one doubt as to whether the case is or is not one of cancer.

The main and important points clinically observable in such a case are these: There is a small, possibly tender, swelling, and its immediate neighbourhood may be surrounded by some irregularity in one breast only, or there may exist in only one breast one possibly painful or tender area of irregularity. There is no retraction of the skin covering the suspicious area, nor is there discernible any flattened interruption of the curve over it, and the rest of the same breast and the opposite breast are normal on palpation, and all other clinical signs are absent. No matter what is the duration of these signs this is the clinical picture of the doubtful case. All one can say about it clinically is that being so isolated it probably is a tumour, but whether it is malignant or not there are not sufficient data to say: nor can one be quite sure it is not, after all, merely an inflammatory affair, and all that can be said on that point is, it may be inflammatory, but being so isolated a lesion one does not think so. It may, however, be said that recent trauma may cause the actual signs I have indicated; but were it so there would be a bruise on the skin; and the imagined or real history of injury is so common in cases of cancer of the breast that it cannot be trusted to negative the diagnosis of cancer unless supported by other clear and detectable signs.

With regard to the management of a doubtful case I quietly and gently put the matter before the patient and advise that I should be allowed to clear up the issue by further examining the swelling or irregularity, as the case may be. My advice has always been taken, and I must say that in my experience the early-detected cases of cancer are more numerous than he cases that turned out to be merely of a non-malignant nature—the cases of cancer decidedly benefited by giving the true "benefit of the doubt." And the cases n which the disease was found to be not malignant were at once relieved of a terrible mental anxiety.

Now by a further examination I mean the removal of he suspected tissue for direct macroscopical and, if ecessary, microscopical evidence. If the positive iagnosis of cancer can be made upon the macroscopical appearances, and in many cases of cancer this can be one, the operation of total removal of the breast can be erformed at once. But the difficulty of the macroscopical evidence sometimes lies in the inability to say om it that the lesion is not a cancer, hence, under these rcumstances a complete microscopical examination must be made before any further operation is attempted.

The method of removal of the tissue in doubt is one of reat importance, and unless done with due precautions gainst disseminating the growth by transplantation it hould not be done at all. It must be remembered that he condition may be cancer, and by cutting into the welling and excising a piece of it, or by cutting the welling out by an incision carried immediately around , one will be courting disaster. A limited operation of his kind, conducted under local anaesthesia or gas, or en as a preliminary measure to the complete operation r the removal of the breast, is a dangerous proceeding.

DESCRIPTION OF FIGS. X TO XV.

Fig. X.—Microscopical section of a part of the cancer in Fig. I. **A.** Alveoli filled with fibrous processes more or less degenerated, which are covered with one or more layers of epithelial cells. (The lymphatic glands contained the same type of tissue, although they were not detectable clinically.) **B.** Fibrous tissue, in which can be seen a collection of lymphocyte ($\frac{2}{3}$ objective).

Fig. XI.—Microscopical section of a microscopical lesion ($\frac{2}{3}$ objective). **A.** Papillomatous change in ducts. **B.** Normal breast tissue.

Fig, XII.—Microscopical section made at the edge of the cancer seen in Fig. VII ($\frac{2}{3}$ objective). **A.** Cancer. **B.** Cancer and lymphocytes, a large collection of which is seen at the extreme edge of the growth. **C.** Fibrous tissue of the breast.

Fig. XIII.—Microscopical section of chronic mastitis ($\frac{2}{3}$ objective). **A.** Masses of lymphocytes around alveoli, lined with normal epithelial cells. **B.** Surrounding dense fibrous tissue.

Fig. XIV.—Microscopical appearance seen at **C** in Fig. III ($\frac{2}{3}$ objective). **A.** Collection of lymphocytes. **B.** Breast tissue. **C.** Fibro-adenoma.

Fig. XV.—Vertical section through the epidermis in a case of Paget's disease of the nipple, showing the characteristic bodies, **A**, lying in cavities.

My method is this: As a rule an elliptical-shaped piece of skin is mapped out, measuring 3 in. at its widest point, which is placed immediately over the suspected area. This elliptical-shaped piece of skin is left untouched, but the skin around it is undercut in all directions, and that half of the breast which contains the suspected area is excised, together with the underlying part of the fascia covering the pectoralis major, and the elliptical piece of skin comes away undisturbed, with the parts thus removed. The resulting cavity is then soaked with a 1 in 500 watery solution of perchloride of mercury, the wound is sewn up and temporarily covered over with a layer of gauze during the macroscopical examination of the suspected area, and if cancer is evident I change my gloves and instruments, and proceed at once to remove the breast.

The intention of these methods is easy to understand. It is this: The suspected area may contain cancer, and, if so, the disease will be spreading towards the skin above and the fascia beneath and in the breast around; therefore, to avoid the possibility of disseminating the growth by transplantation, the piece to be examined is thus comparatively extensively removed with the parts containing it. The final soaking of the tissues with the perchloride solution is done with the object of killing any cells of cancer that may have been liberated.

I need not trouble the reader with the technique of preparation should a microscopical examination prove necessary, but the tissues are carefully embedded in paraffin, and whole sections of them are cut and a most methodical and deliberate examination is carried out. I am a disbeliever in the microscopical examination on the "while-you-wait" system at the time of the operation as advised and practised by some surgeons. As the operation for removal of the doubtful area is undertaken for the sake of accuracy, there is every reason to avoid a hurried examination of an inefficiently stained section from which important cells may have fallen during its hasty preparation.

Figs. VI, VII, VIII are cancer-containing sections of parts removed from three breasts which clinically gave the doubtful indications to which I have above referred in detail, and curiously enough the cancer in all three cases is situated at the breast's margin. The case from which Fig. VI was taken had, as the only clinical signs, a slightly tender irregularity, and there were no changes in the skin or curves of the breast over it, and no other abnormal condition could be felt in the same breast or in the opposite breast, and was one of those cases in which macroscopically the diagnosis could not be made. In the cases from which Figs. VII and VIII were taken, a single tender swelling could be felt, but no change could be seen in the skin and curve over them, but after their removal as above described the macroscopical evidence was enough to definitely prove cancer. The cancer seen in Fig. VIII was lying under the edge of the pectoralis major almost in the axilla, a most difficult and obscure place to detect early cancer in a fat subject.

I propose now to point out several pathological conditions which one discovers in the parts removed for microscopical diagnosis, and from them it will be seen that it is not always easy to make at once a dogmatic statement upon a section, even if it has not been prepared hurriedly, and that more than one section and more than one stain may be necessary for the purpose.

1. A common lesion is seen in Fig. IX. It is, I believe, an early cystic change, which, at this stage, is marked by much epithelial activity; in some of the small alveoli, which are crammed with epithelial cells—such an alveolus is seen in Fig. IX—there are cells undergoing a

somatic mitosis. Although in parts the appearance suggests an early stage of cancer, I am sure it is not; but I believe this benign pathological change in the alveoli, which may become filled with papillomata, may form one of the sources of origin of the so-called "duct cancer." Fig. X (from Fig. I) is a tumour which showed the same type of tissue, but in its malignant form. However, the benign early cystic change which I am now describing is quite a common lesion which exists most typically as the only pathological change in the breast; but it can also be seen in the breast immediately surrounding some fibro-adenomata, and such a condition exists at one part of the margin around the fibro-adenoma in Fig. III. I have also discovered it in breasts removed *post mortem* from women whose ages ranged from 30 to 50, and who before death never, so far as known, complained of any breast trouble. If anybody seriously advocates removal of all breasts in which this lesion exists, on the ground that it contains epithelial cells in a state of marked activity, and because, as I believe, it may become one of the sources of origin of the so-called "duct cancer," then all women from 30 years onwards ought to subject themselves to this treatment, for in most cases, except from microscopical examination, the lesion would not be discoverable. The idea is thus rendered preposterous.

2. Another common pathological change seen in the suspected areas of breasts removed from patients aged from about 30 to 50 years is that seen in Fig. XI. It is generally a microscopic lesion, but in one of my cases it was as big as half a split pea, and caused a sufficient irregularity to be detected clinically, and was the seat of slight tenderness. I have seen the same condition in breasts removed *post mortem*, in chronic mastitis, and in some of the breasts just described in the paragraph above, and also in parts of the breast tissue immediately around some fibro-adenomata.

I regard this condition as a simple and benign condition, due to a papillomatous change in the ducts of the breast, which can be accurately traced in various stages of development. Although it is not malignant, I can quite understand that the so-called "duct cancer" can and probably does originate from this structure, as well as in the papillomatous cystic change which begins in the alveoli which I have just described. However, upon being asked whether this lesion can be called a "precancerous condition" with the object of insisting upon early and preventive treatment, I should again say it is absolutely impracticable, for the following reasons: In the great majority of cases in which I have seen it the lesions have been microscopical and found by accident, and so small and harmless that they were clinically undiscoverable, and as such one occasionally comes across them in *post-mortem* breasts of women who complained of no mammary trouble.

Lastly, when the breast tissue of those cases which contain cancer is carefully examined, it is very common to find in it no trace of this lesion or that described in paragraph 1. On the other hand, I must admit in some cases the cancerous breast does contain the lesions described in paragraphs 1 and 2, but it is by no means the rule. The most practicable method of dealing with them is to remember that directly they attain sufficient size to be recognized as a swelling or an irregularity, upon a clinical examination, they will give rise to doubt as to whether they are or are not obscure cases of cancer and the doubt can be at once cleared, and the lesion appropriately dealt with by a further examination conducted on the lines I have definitely indicated.

3. The presence of lymphocytes and plasma cells around the margin of the part removed for microscopical diagnosis is of value in favour of the part being cancer only when they are seen in overwhelming numbers and crowding into and among the cells of the lesion. (Fig. XII.) A small collection of lymphocytes and a few plasma cells lead to no diagnostic inference, for they are common in chronic mastitis (see Fig. XIII), and even occur in the area of the breast around a fibro-adenoma. (See Fig. XIV from Fig. III.)

4. In some cases care must be taken not to miss cancer by mistaking epithelial cells of cancer which have been so altered by inflammatory and toxic changes that they resemble connective tissue, or inflammatory cells. The only method of determining the precise nature of such a growth is to cut a whole section of the tumour, hoping that in one or two outlying parts the true structure may have escaped the disguising change. However, this precaution is more necessary in uterine, intestinal, buccal, lingual, labial, and skin cancers than in breast cancer, where ulceration and sepsis is less early.

5. I have 2 cases in which an unusual change occurred in the staining properties and size of the fibrous tissue cells removed from these suspicious areas in breasts. One Dr. Emery recently showed me, and I was able to show him the exact change I had noticed in a case I operated on six years ago. The pictorial reproductions of the type of affairs are not clear enough to show in this article, but it requires a good deal of careful examination to decide that it is a fibrous tissue change which causes this rare appearance.

6. Lastly, there is the early condition of cancer itself. Its microscopical appearance fortunately, as a general rule, is unmistakable, the epithelial cells invade the breast and the fat in its immediate vicinity, although their invasion is not advanced enough to produce retraction of the skin or to flatten the normal curve.

I have condensed an instructive little paper kindly given me by Dr. Whitfield, upon the method he usually employs in the diagnosis of Paget's disease of the nipple in its early stages.

The disease always begins either on the nipple itself or on the areola, and is unilateral. In the earliest stage of all there may be only a red and scaling surface with very little moisture present, but even in this stage careful examination reveals a card-like infiltration, which is absent in the simple eczematous eruptions. In syphilitic eruptions the induration is much thicker, giving to the finger the sensation of a small lump. The prominence of the nipple is lost extremely early in the disease, and it has already disappeared by the time that the patch is as large as a florin. The following microscopic examination is always sufficient to establish the diagnosis even in an an early case. Some scales from the dry stage or scrapings obtained with the edge of a microscopic slide in the erosive stage are mounted in 40 per cent. potash solution, and examined immediately with $\frac{1}{6}$ in. objective. There will be seen embedded in the scale or floating in the serous discharge bodies with a well-defined double outline, usually showing two concentric rings and a central nucleus (see Fig. XV). The bodies are slightly smaller than the ordinary squamous epithelial cell, and they vary in size.

Finally, the necessity for the early treatment of cancer is well known by all. In my earliest surgical days it was practised by Lord Lister, Mr. Godlee, Mr. Watson Cheyne, and latterly it has been advocated by Mr. Butlin and Mr. Mayo Robson. With a view to that end I humbly venture to point out the necessity for an earlier recognition of cancer when it affects the breast.

THE City of London Lying-in Hospital is one of our oldest lying-in institutions. It was founded in 1750, and during the last century and a half has done excellent work. By the terms of its foundation it can only assist married women, and, in addition to the indoor, it has an out-patient department, where patients are attended at their own homes by a midwife, who, if necessity arises, calls in one of the district surgeons of the institution. Any poor married woman is eligible as an in-patient, but out-patients are limited to those residing within a certain distance of the hospital. During the last year the in-patient and out-patients together amounted to 3,211, the highest number yet reached, with only 3 deaths. The institution is also a school for midwives and monthly nurses, and during the past year 48 of the former and 107 of the latter were duly trained. Founded on its present site, it has stood the wear and tear of many generations; but, owing to increase of sanitary knowledge and the necessity of adapting it to present needs, it has become necessary practically to rebuild the hospital. The governors are to be congratulated on the success they have achieved in carrying on the work for some time past on temporary premises. It is hoped that by the end of the year the hospital may once more be established in its old quarters, with all the improvements of modern science, and able to continue in the future the work so successfully accomplished in the past. The institution can be confidently recommended to the support of the charitable. The rebuilding has necessarily involved great expense, and practical benevolence cannot be better directed than in supporting so useful a work.

Illustrations
OF
PROPAGATED CANCER.

By E. F. BASHFORD, M.D.,

GENERAL SUPERINTENDENT, AND DIRECTOR OF THE LABORATORY OF THE IMPERIAL CANCER RESEARCH FUND.

The experimental investigation of cancer, long the dream of the pathologist, has emerged from the domain of probabilities into the realm of accomplished fact. Following on those of Jensen and Borrel the investigations of the Imperial Cancer Research Fund have shown that the attributes of cancer can be studied in experimental growths whose origin is not problematical but definitely known. The essential condition of possessing controls to attempts to modify cancerous proliferation has thus been fulfilled, and a new era initiated in the investigation of malignant new growths. The extent of the revolution which has thus een effected is perhaps not yet sufficiently appreciated by ıe medical profession as a whole, because the quality and nount of the results already achieved are unknown to all ut a few workers in laboratories who have opportunities ›r direct individual study. In the present paper I propose › illustrate the identity of the sporadic malignant new :owths of the mouse in all their anatomical features with ıose of man, and the reproduction of the gross morbid ıatomy of malignant disease as met with in the human ıbject, in the artificially-propagated cancer of the ouse.

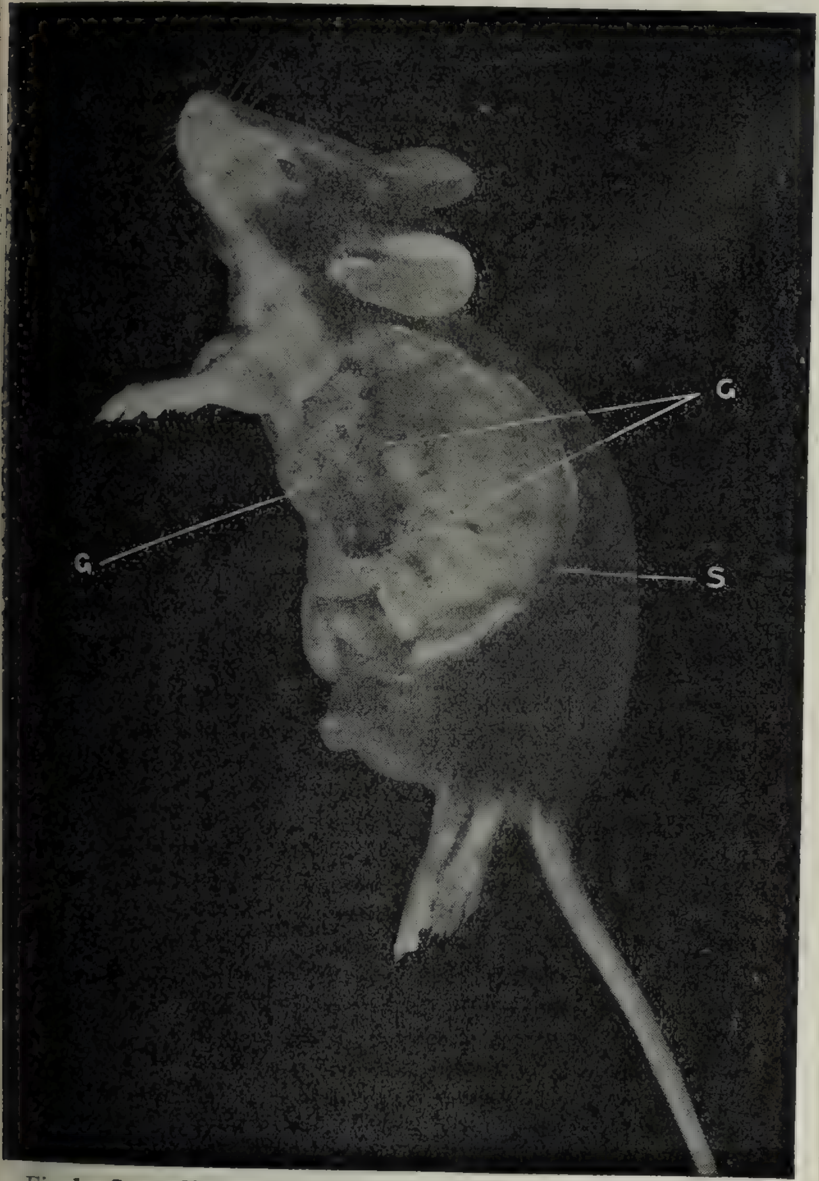


Fig. 1.—Sporadic mammary carcinoma of mouse. Large haemorrhagic growth (G, G) invading the muscles of the chest wall and extending into the axilla; (S) margin of reflected skin.

In the first instance it is necessary to point out the eat inherent difficulties of these investigations. lthough malignant new growths are far from rare in the ouse, it is the exception to obtain a growth which can propagated with certainty in a large number of animals r long periods. Thus, although we have attempted the perimental transmission of 28 sporadic malignant w growths discovered in a total of 50,000 mice, none of ese tumours has approached in rapidity and amount of growth that which we have obtained in English mice with Jensen's tumour.

In our hands this tumour grows with a rapidity and infiltrates and forms large metastases to a degree unsurpassed by any growth yet propagated. The general impression that this tumour cannot be got to yield a higher ratio of success than 30 or rarely 40 per cent. of the animals inoculated, supported by Ehrlich in his latest paper, is erroneous. We have repeatedly obtained success in 90 per cent. of the animals used, and tumours of 1.5 grams weight in the course of ten days after inoculation of a piece of tissue not more than 0.02 gram in weight—that is, about as big as the head of a pin.

Tumours occur naturally in the mammary region of the mouse from the axilla to the groin. The accompanying photograph (Fig. 1) shows such a tumour *in situ*. Its highly malignant character is evidenced by the fact that it recurred three times after operation, had invaded the muscles of the chest wall, and as is shown in Fig. 2, had produced extensive metastases in the lungs.

Such tumours constitute the majority of those we have encountered in the mouse. Growths also occur in other situations. Fig. 3 represents a transverse section of the two rami of the mandible of a mouse, in the left one a squamous cell carcinoma has produced great deformity by invading and completely disintegrating the bone, and presenting an ulcerated surface towards the buccal cavity. We owe the preparation from which this figure is made to the generosity of Professor Borrel of Paris; it has already been described by him, and the metastases in the lymphatic glands of the neck were figured in his memoir in the *Annales de l'Institut Pasteur*. The lesions at the primary site and in the lymphatic glands permit no doubt as to the complete identity of the disease in this case with epithelioma of the jaw as met with in man.

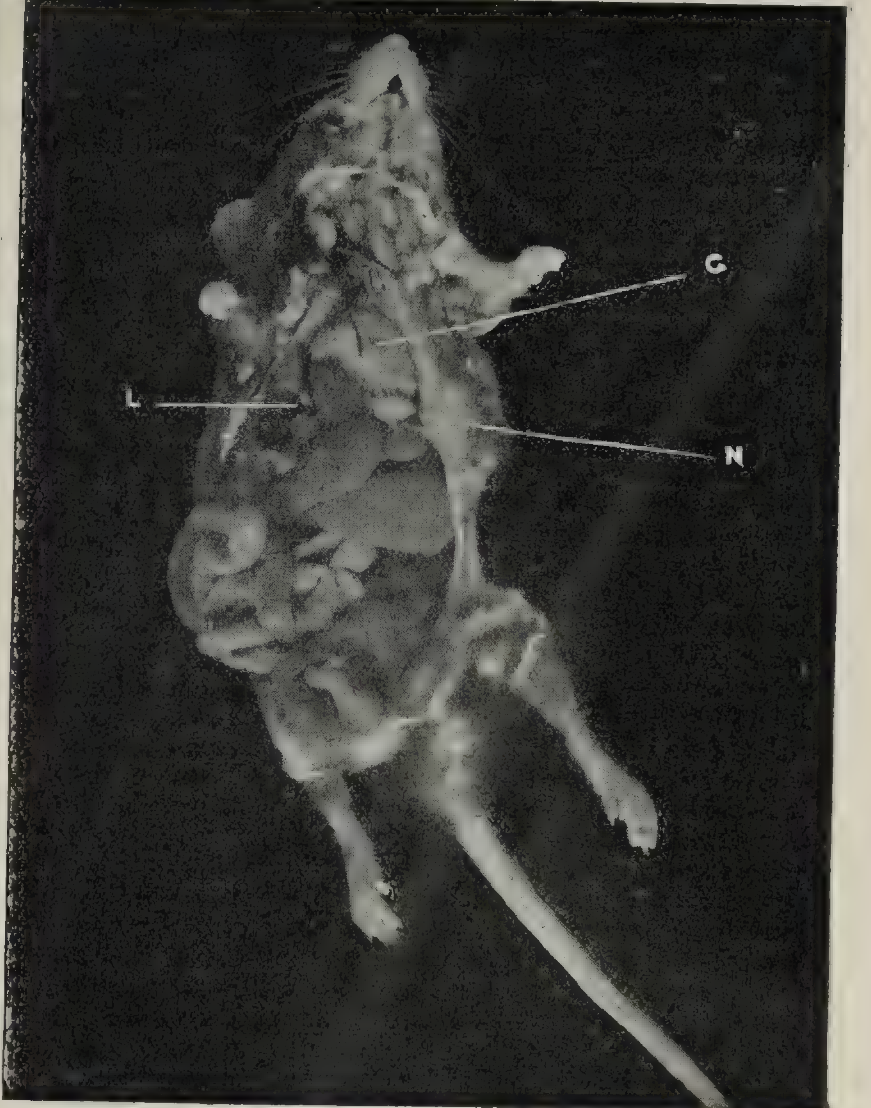


Fig. 2.—Front view of same case as Fig. 1. Note nodule in pectoral muscles (N), left side of chest filled by new growth (G), and small nodule in upper lobe of right lung (L); lower lobe of right lung removed for microscopical examination. Note absence of cachexia as indicated by outline of tail. Compare Figs. 9 and 10.

A general view of an adeno-carcinoma of the small intestine of the mouse is given in Fig. 4. Although not more than 3 mm. in greatest extension, it has already nearly encircled the gut, is deeply ulcerated, and has penetrated both the muscular coats, forming large nodular masses on the peritoneal surface. Apart from the small compass within which the whole process is displayed, the anatomical features are identical with those of human carcinoma in the same situation.

The number and the variety of the malignant new growths met with in the mouse is increasing as attention is more closely directed to them, and the multifarious histological types which have been recognized as a result of the long-continued studies of human pathologists bid fair to appear in the mouse also.

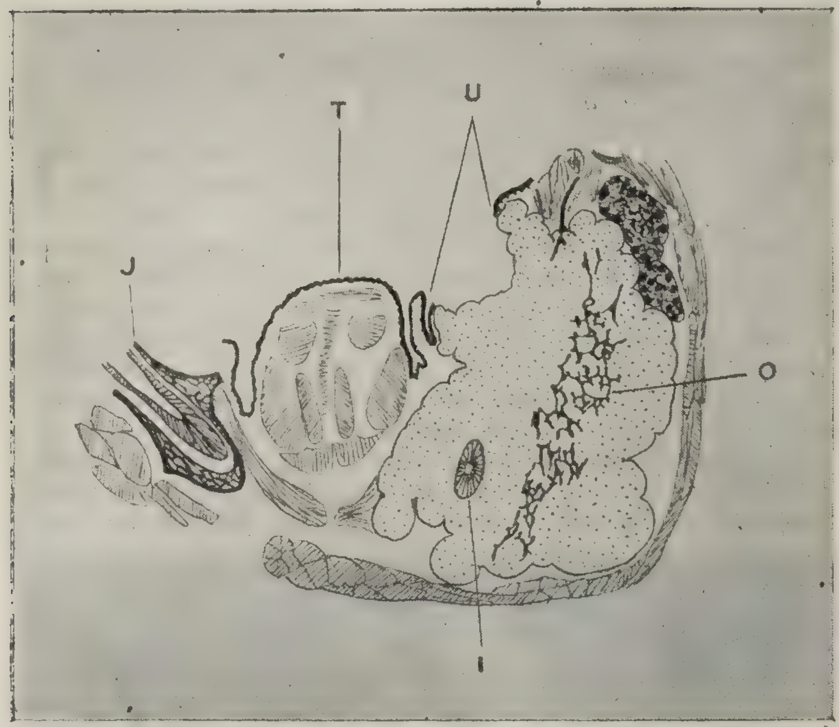


Fig. 3.—Borrel's case of squamous-celled carcinoma of jaw of mouse. Left side of jaw healthy. On the right side a carcinomatous ulcer (U) of the mucous membrane. The growth has invaded and disintegrated the bone; the incisor tooth (I) is seen in transverse section at the lower and inner part, the spicules of osseous tissue (O) to the right representing the compact but less bulky bone on the healthy side; (J) healthy jaw with incisor; (T) transverse section of tongue.

The tumours which result from the subcutaneous implantation of cellular grafts in mice are usually of an irregular rounded form and show little tendency to infiltrate deeply into the subjacent tissues. How fallacious it would be to regard this expansive mode of growth as an indication of a low degree of malignancy is shown by the accompanying photograph of such an inoculated tumour. In this case (Fig. 6) a slight injury to the muscles of the back at the time of transplantation sufficed to open the way for an infiltrative extension of the resulting tumour, through the parietes, into the abdominal cavity. The kidney (K) and ovary are pushed forwards by the new growth. A much more infiltrative mode of growth, presenting a perfect parallel to the sporadic growth of Fig. 4, is shown in Fig. 7, which represents a minute growth in the intestinal wall following intraperitoneal inoculation. Growth has commenced as a small nodule (N) on the peritoneal surface of the intestine, has extended through the longitudinal and transverse muscular coats by the lymphatic channels (L), and has expanded in the submucous tissue to a spherical mass (G), which, had it been allowed to grow, would inevitably have stretched the mucous membrane and led to an ulceration indistinguishable from that of the sporadic growth already referred to (Fig. 4).

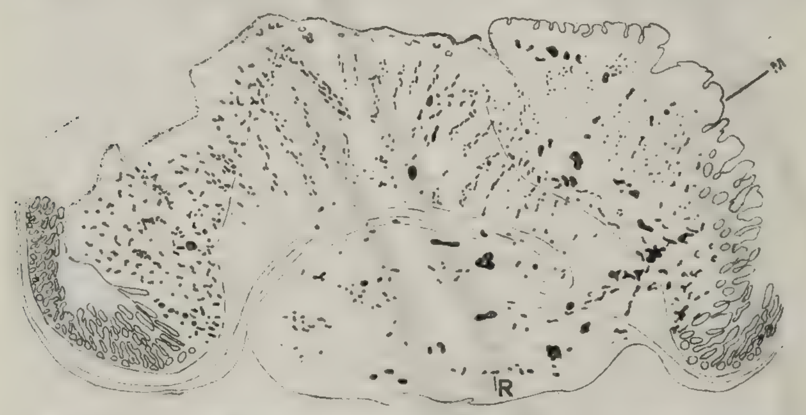


Fig. 4.—Adeno-carcinoma of small intestine of mouse. Shows greatest lateral extension in mucous membrane (M), and arrangement of cancer in columns where it traverses the circular muscle; expansion into rounded masses (R) under peritoneum. Carcinoma black, ulcerated surface dotted. Compare Fig. 7.

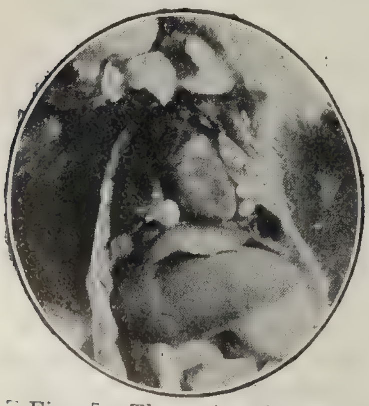


Fig. 5.—Thoracic viscera of a mouse after subcutaneous inoculation of carcinoma: both lungs show numerous secondary nodules.

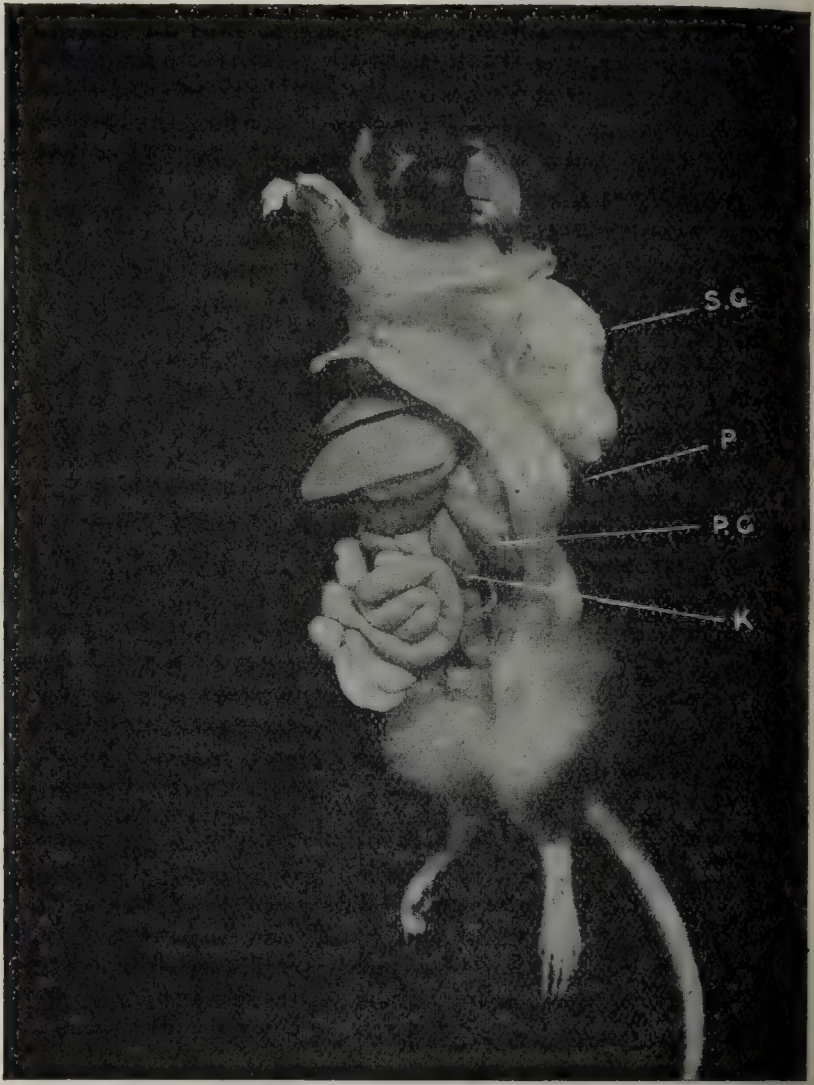


Fig. 6.—Transplanted carcinoma of mouse. Infiltrative growth of tumour through abdominal parietes, pressing upon and displacing the left kidney and ovary. (S G) Subcutaneous growth; (P G) peritoneal growth; (P) point of penetration of abdominal wall; (K) kidney.

Metastasis formation follows the development of experimental tumours in the subcutaneous tissue, peritoneum, and elsewhere. Fig. 5 shows extensive secondary growths in the lungs following a subcutaneous growth, and Fig. 8 shows the microscopical appearances of the lower lobe of the right lung in another similar case.

Microscopical emboli of cancer cells are very frequent in animals whose lungs appear free from secondary deposits to the naked eye, but enormous metastases replacing almost entirely the whole respiratory area are not infrequent when animals are allowed to live for longer

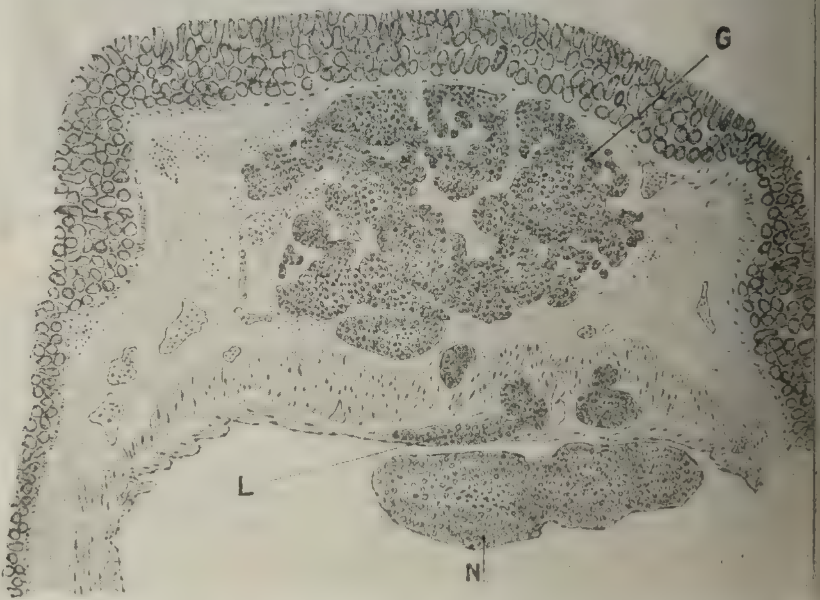


Fig. 7.—Transplanted carcinoma invading wall of small intestine. Narrow columns of cells in the lymphatic channels (L) of the muscular coats: expansive growth (G) in submucous tissue; (N) nodule on peritoneal surface. Compare Fig. 4, showing the same mode of extension, but in the opposite direction, of a sporadic tumour.

periods. (See Fig. 8 and also Fig. 2 of a sporadic case.) Direct extension of the growth along venous channels nto the chambers of the right heart has been described by Haaland, recalling the mode of extension within the nferior vena cava more familiar in the human subject. These few instances, selected from our very extensive ollection, must suffice to show that sporadic and trans-lanted cancer in the mouse reproduce closely all the natomical lesions met with in the disease in man.

The experiments have given conclusive evidence that a

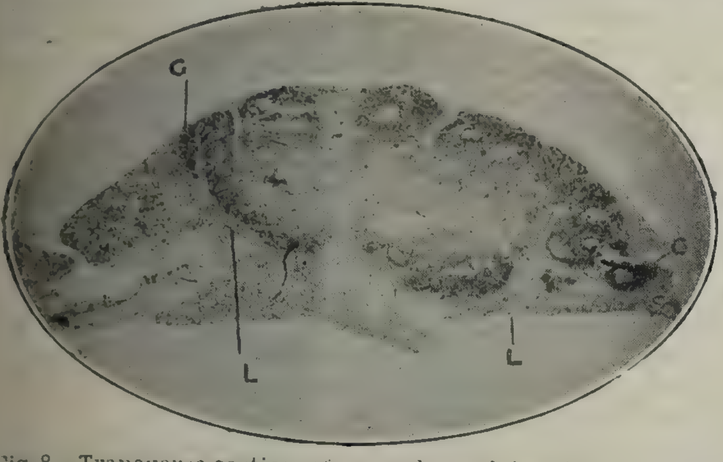
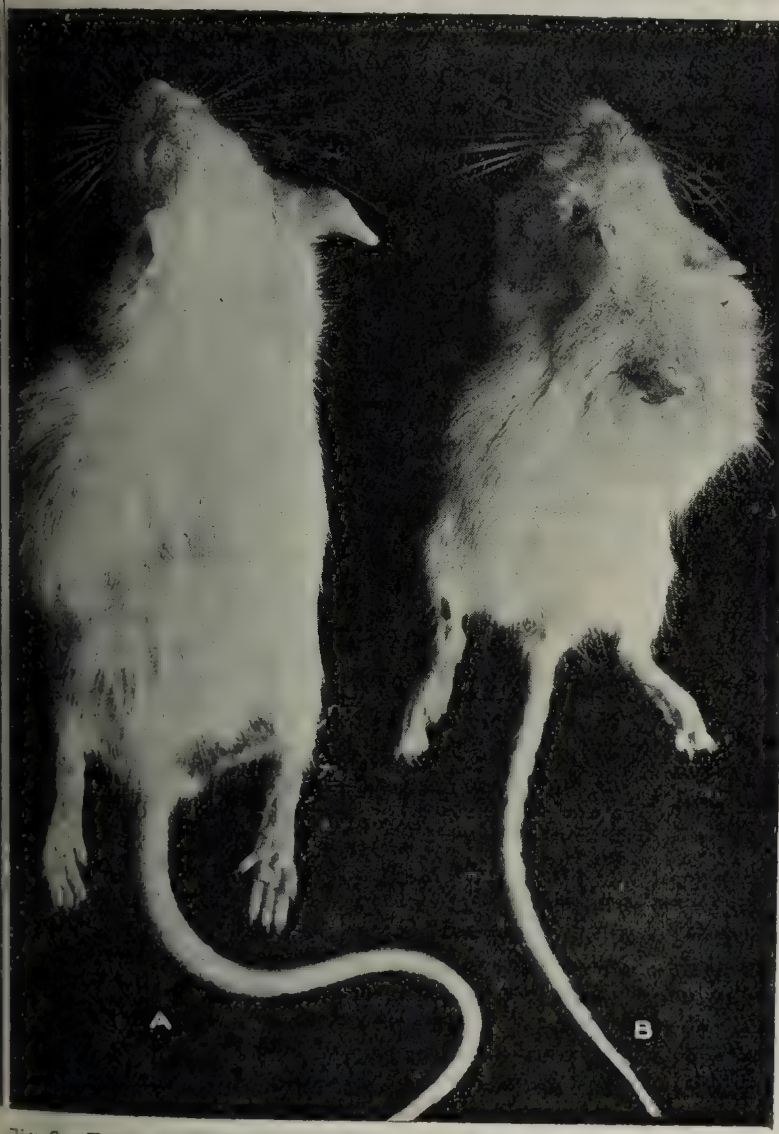


Fig. 8.—Transverse section of entire lower lobe of lung showing extent of secondary growths (G G) and destruction of lung tissue (L). (Microphotograph.)

ecific cachexia or a symptomatology of cancer do not xist in mice. The experimental tumours when situated the subcutaneous tissue of the back may attain a large ze without invading the deeper tissues, or causing pture of the skin. Malnutrition in the mouse shows self at first by a shrinking of the soft parts in the tail, that the vertebrae become prominent. This constantly curs when mice suffer from any acute or chronic infec-ous disease. Mice with enormous tumours more than lf the weight of the animal may not show the slightest



ig. 9.—Two mice with large subcutaneous transplanted carcino-ta of three weeks' growth. In A skin intact, no signs of aciation in the tail. In B ulceration present for three days, dal vertebrae prominent (artificial production of cachexia).

ciation of the tail so long as the integument covering tumours remains intact. (See Fig. 9.) A small ulce- d surface on a much smaller tumour suffices, as shown ig. 10, to cause well-marked emaciation in two or three s. The absence of emaciation even with extensive lung metastasis is shown (in Figs. 1 and 2) in a case of sporadic mammary carcinoma with extensive metastases, and the other mice figured are likewise free from it. The frequency of pain as a symptom of cancer in man is now generally recognized as belonging to a late stage of the disease. So far as it is possible to judge by free manipulation which mice quickly resent if performed on an abscess or other inflammatory swelling, the experimental carcinomata are painless. The only evidence of their presence is a lump at the site of inoculation; specific symptoms such as are generally comprised in the term cachexia cannot be recognized. When inoculations are made into the peritoneal cavity growths may attain a large size before their presence is detected (Fig. 10). If such intraperitoneal growths invade or interfere with the alimentary tract, malnutrition and wasting speedily supervene.

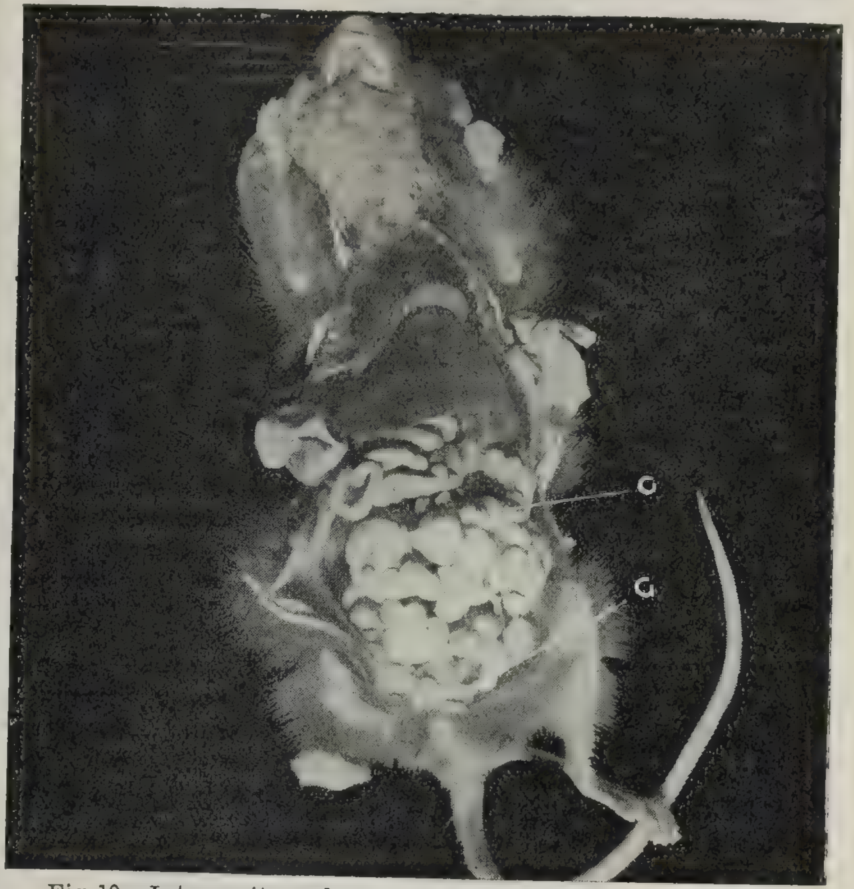


Fig. 10.—Intraperitoneal transplantation of carcinoma. Extensive multilobular growth (G) attached to the mesentery. Thoracic viscera removed; very large metastases were present in both lungs.

These facts—only a very few of those which have direct clinical bearings—are of the greatest practical importance. As is well known, a malignant new growth in the human subject may be present for a long time and attain considerable dimensions without attracting attention. In how many cases is the presence of malignant disease discovered accidentally, as it were, at a stage when all hope of operative treatment has passed!

It is certain that the early diagnosis of cancer and its successful treatment depend, not on insistence on the search for supposed early symptoms of the disease, but on the recognition by the practitioner of the absence of symptoms apart from an anatomical lesion of minute dimensions.

I need only illustrate this contention by a brief reference to the remaining figures which represent three small malignant new growths from the human tongue. These were diagnosed as precancerous or very early cancers. The figures show that in one (Fig. 11) deep

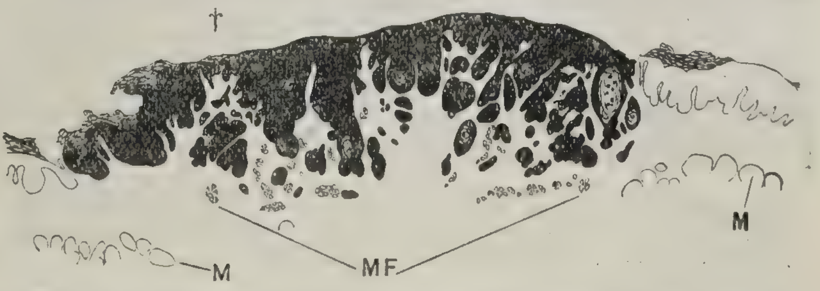


Fig. 11.—Squamous-celled carcinoma of tongue in man. Shows two distinct carcinomata adjoining at †, completely independent of normal epithelium. Note the extent to which the muscular fibres (M F) of the tongue lie between the columns and masses of epithelioma and have been drawn up above the level of the muscles (M M) outside the limits of the growth. Extreme dimensions of growth, 5 mm. (Removed by Mr. H. T. Butlin.)

infiltration of the muscles had already occurred, and the growth was sharply marked off from the adjacent mucous membrane. In the second (Fig. 12), muscular infiltration has begun, although it is not so far advanced, and the new growth is still in cellular continuity with the adjacent epithelium, while in Fig. 13, what was clinically a small elevated vascular swelling, 3 mm. in its greatest diameter, is seen to be in reality an endothelioma or angio-sarcoma which had stretched the covering endothelium and had extended some way among the muscles. In these cases the histological lesion, as revealed by the microscopical examination of many consecutive series of sections, is the only criterion by which they have been distinguished from other morbid conditions occurring in the tongue.

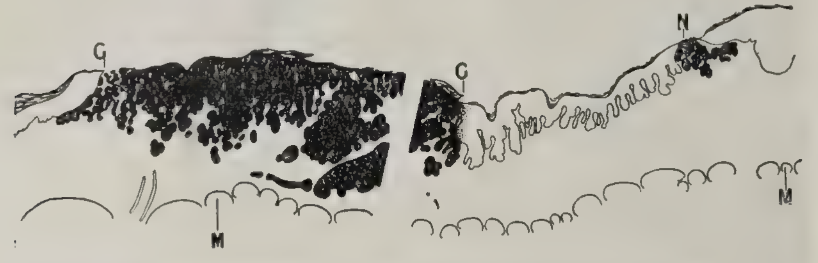


Fig. 12.—Squamous-celled carcinoma of tongue in man. The growth (G G) is not sharply marked off from the adjacent epithelium, and the normal level of the muscles (M) is undisturbed. The small nodule of growth (N) to the right is completely separated from the larger growth by apparently non-cancerous epithelium. Extreme dimensions of growth, 5 mm. Thin slice removed from growth (G G) for microscopical examination of the margins of growth in the diameter at right angles to that of this figure. (Removed by Mr. H. T. Butlin.)

A small piece of a mouse cancer transplanted into the subcutaneous tissue, if it grow, ultimately gives rise to a mass of new growth nearly as great as the mouse itself. It produces metastases in the lungs, and leads to the death of the animal. If the tumour be removed by operation when it has reached the size of an almond, these results do not follow. The mouse remains well indefinitely, although the tumour transplanted into other mice continues to grow. In the same way, in the human subject, carcinoma and sarcoma are at first local processes taking place in circumscribed areas; their complete removal prevents the further extension of the disease. In this early state, however, the anatomical (and histological) lesion constitutes the most reliable criterion of the presence of cancer: symptoms are absent, and the removal of a piece of tissue, which cannot be shown to be cancerous, or ultimately proves to be non-cancerous, is to be preferred to delay until the naked-eye appearances have raised suspicion to probability. Are not the consequences of the growth of a small piece of mouse cancer no bigger than the head of a pin sufficient to convince the most sceptical of the justice of this attitude?

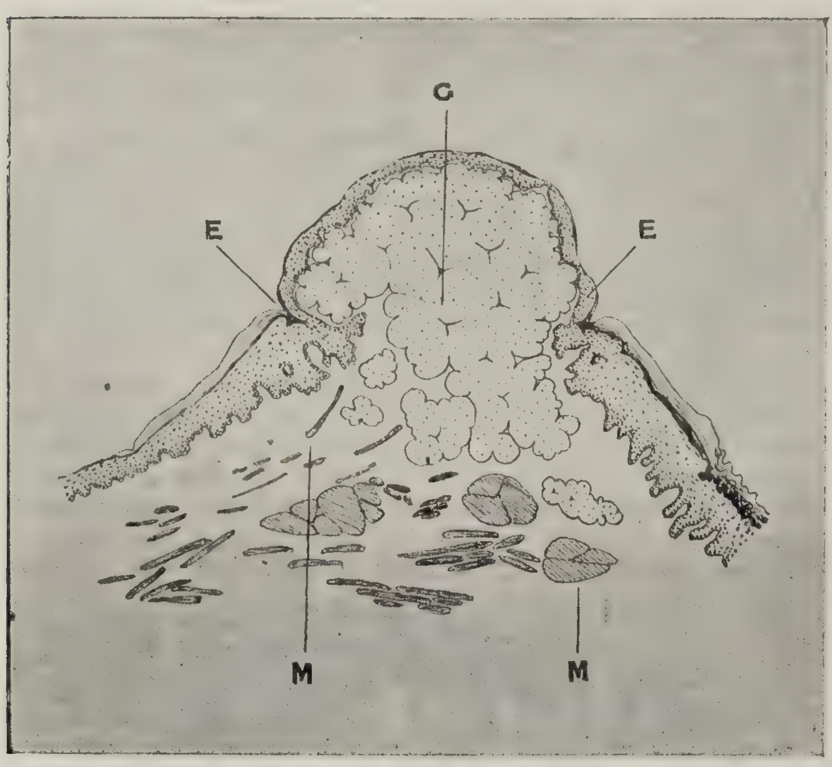


Fig. 13.—Endothelioma or angio-sarcoma of tongue in man. Note stretching of epithelium over the growth (G) and extension on the deep surface into the muscles. Extreme dimensions of growth, 3 mm. (Removed by Mr. W. H. Parker.)

THE RADICAL OPERATION FOR CANCER OF THE LOWER LIP.

By J. HUTCHINSON, Jun., F.R.C.S.Eng.,

SURGEON TO THE LONDON HOSPITAL.

In every case of epithelioma of the lip the submaxillary triangles and the submental space should be cleared of their contents at the time the primary growth is removed.

This is putting into precise words what has been elsewhere suggested in more or less vague terms. In the excellent *Manual of Surgery* by Messrs. Alexis Thomson and Miles (1904, vol. ii, p. 130) it is stated that:

> It is advisable in all cases of cancer of the lip to remove the lymphatic glands below the jaw, whether they are palpably enlarged or not.

No details are given as to how this should be done. The rare cases in which the upper lip is involved may be included under the general term "cancer of the lip," for the same indication for radical treatment would apply. The disease is remarkably frequent in Ireland, and Sir Thornley Stoker's opinion from an experience of 350 cases is of special value. He writes:[1]

> The removal of a portion of the lip for a small epithelioma is a simple matter, and is not much complicated by a moderate engagement of the submental lymph glands. Whatever incisions may be considered necessary should be carried at least ½ in. to ¾ in. free of the disease, and should be extended sufficiently to remove any infected glands.

He further remarks that sometimes special incisions may be required to expose doubtful glands, and that it is often possible only to find enlarged lymph glands in the submaxillary space after this has been opened up. This comes far short of advocating what may be fairly termed the radical operation for all cases of cancer of the lip. A brief description of it may, I trust, be allowed here. The case is supposed to be a typical epithelioma at or near the middle line of the lower lip, probably of at least six months' duration.

It is impossible to say on which side glandular infection has taken place or whether the submental glands will be first involved; the only safe plan is to clear the space from one angle of the jaw to the other. A curved incision is made through skin, platysma, and fascia, which starts at one angle, extends down to the hyoid bone, and finishes at the symphysis. (See Fig. 1.) The facial vein which emerges from the submaxillary gland at its lower and posterior angle is isolated and ligatured. The facial artery entering the gland higher up from beneath the digastric muscle is then sought for, secured between two ligatures, and divided. The salivary gland is then lifted up and separated with the numerous lymphatic glands at its upper border from the lower jaw, the facial artery and vein being again ligatured as they cross the latter. The gustatory nerve is carefully isolated and its branches to the gland divided. Wharton's duct is then ligatured and cut across. Thus the whole glandular contents of the submaxillary triangle can be drawn forwards towards the middle line, leaving both bellies of the digastric, the mylohyoid, and part of the hyoglossus bared by the dissection. The patient's head being now turned over, a second incision is made continuous with the first, curving down to the hyoid and back to the opposite angle. By reflecting the skin at the middle line the space between the two anterior bellies of the digastric can be completely cleared from the symphysis down to the hyoid bone. In this way the glands from one angle of the jaw to the other can be removed in one piece. (See Fig. 2.) Care should be taken that the lymphatic glands situated just under the angles of the jaw are removed, and it is well that those over the carotid bifurcation should be dissected out at the same time. The lip cancer is now freely excised by two independent incisions in the usual way, the procedure being made simpler by the previous ligature of both facial arteries. A small drainage tube should be inserted at each side of the submaxillary wound, which is then sewn up and well supported by a copious dressing of moist sterile gauze.

The operation cannot be done satisfactorily under an hour, and therefore is a contrast to the time-honoured method of V excision, which was almost dramatic in its rapidity and was frequently performed without an anaesthetic. But in no other region of the body is it o easy to remove all the lymphatic glands, in which ecurrence of cancer is likely to take place, at the same ime as the primary growth. The alternative policy of perating on the lip alone and waiting to see if the ymphatic glands become infected is not safe, as the ollowing case illustrates:

A man, aged 35, had an epithelioma of the lower lip xcised by a surgeon in the country. At that time no nlarged glands could be felt, so nothing was done to the eck. Eleven months later he came to me with free recurence in both submaxillary regions, the scar of the lip being erfect. I did an extensive operation on both sides; but ecurrence followed shortly afterwards in the anterior triangle, hich proved to be inoperable. Had the radical operation een performed at first his life would certainly have been aved.

Nor is it wise, when one or two glands can be felt nlarged, to excise these rough small incisions with- ut clearing the submaxillary aces. Rapid recurrence is most certain.

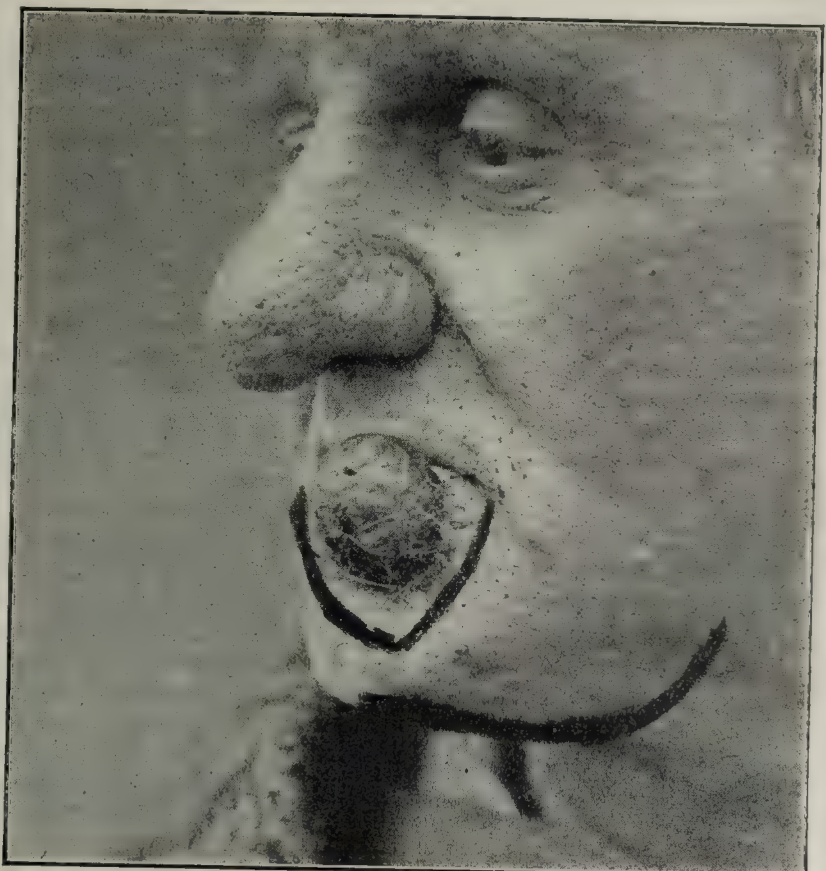


Fig. 1.—Epithelioma of the lip with the incisions employed. The lower one extends from the angle of the jaw to the symphysis, and is continuous with a similar one on the other side.

In one such case the surgeon ad removed the epithelioma eely with one or two glands low the left jaw; the patient me within six months to me ith a large mass of cancer the submaxillary triangle hich adhered to the jaw and as infiltrating the surround- g muscles.

In another case, an old man, epithelioma of the mid gion of the lower lip had used two submental glands enlarge, though nothing ab- rmal could be felt laterally. emoved the primary growth, gether with the submental nds. A year later he re- rned; the lip was healthy, t a large mass of cancer ex- ded from the symphysis to posterior border of the rno-mastoid. There was alysis of the right vocal d from pressure on the re- rent laryngeal nerve, and, might be expected, further ration proved unsuccessful. had been led on the first asion to perform what ved to be an inadequate ration by the fact that he was 73 years old, and was the ject of advanced emphysema of the lungs.

n a similar case, however, a man aged 68, who had not only physema, but also mitral and aortic disease, an excellent very followed removal of an epithelioma at the angle of mouth, and complete clearance of the submaxillary region that side.

t may be contended that epithelioma of the lip is of malignancy, and dly justifies so ere an operation that described. risk of the pro- ure is, however, ht, provided that e points are care- y observed. In first place, the ided vessels, cially the facial ries and veins, t be thoroughly ured by ligatures; ndly, drainage he wounds must mployed for a few days; finally, the dressings must be ected by a waterproof covering from the chance of ction by the saliva, etc. This contamination is kely to occur from inside the mouth, as Wharton's s have both been tied during the operation. The loss oth submaxillary glands causes little or no incon- ence. I have noted this in cases followed up for e years after operation on either lip or tongue with ance of the submaxillary spaces. There is practically eformity, and if desired the scars are easily hidden e growth of a beard. I can refer to three cases of cancer of the tongue in which the complete operation was performed six, eight, and ten years ago respectively. Only one of these patients complains of occasionally dry feeling in the mouth; in all three both submaxillary glands were removed.

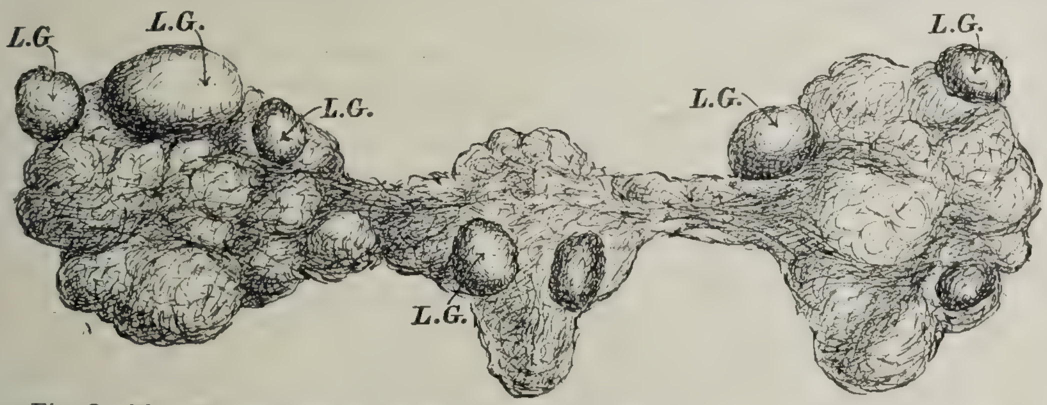


Fig. 2.—The submaxillary salivary glands are shown on either side with lymphatic glands (L.G.) embedded in them. In the centre are the submental glands. The figures show that it is easy to remove the entire chain of glands in one piece.

The idea that cancer of the lip gives very favourable results to simple excision without dealing with the glands, is certainly erroneous. Sir Thornley Stoker in the article referred to admits that he had been unable to follow up many of his cases. Mr. Pollock, writing in Holmes's *System of Surgery*,[2] quoted in detail a case of survival five years after operation as being quite exceptional, and speaks of excision as being "at best but a choice of evils which must not be held out as of radical benefit." It is a striking illustration of the change the last twenty years have produced in the surgical position towards cancer of the lip and tongue that Mr. Pollock made no allusion to any form of operation on the lymphatic glands of the neck, which we now regard as all-important.

Even if it be granted that cancer of the lip is slower to infect the glands than cancer of the tongue, and therefore less malignant, yet it is responsible for a great many deaths at the present time. Sir T. Stoker, quoting from the Registrar-General's returns in Ireland for 1901, mentions that there were 1,300 deaths from cancer in all; 75 of these, nearly 6 per cent., were due to cancer of the lip. It is safe to say that in every one of these the lymphatic glands were responsible for the fatal issue. Cancer of the lip hardly ever kills by itself.

It is remarkable with what rapidity the submaxillary deposits break down when once the lymphatics are infected, producing cystic cavities with epitheliomatous walls which replace the salivary glands. I have operated for this condition on both sides in one patient, but at such a stage the prognosis is hopeless.

Several observers have collected statistics with regard to epithelioma of the lip which are of special interest from the point of view of those who urge a more radical operation than has been generally practised in the past.

1. In at least 50 per cent. of the cases, when they first come under the surgeon's care, some enlarged lymphatic glands can already be felt (Sir J. Paget, Lortet, Desgranges).
2. In the cases operated on, death from recurrence within five years occurs in no less than 64 per cent. (Koch, Winiwarter, Kocher, Wörner).

This is surely too high a mortality from such a local form of cancer as epithelioma of the lip.

It may be added that the x rays and radium are quite powerless over glandular deposits of squamous epithelioma. This is an additional argument in favour of a radical operation, severe though it may seem, at the time the patient first submits to treatment. With regard to cancer of the tongue, it is admitted that a careful removal of the submaxillary and lymphatic glands in the anterior triangle should form an essential part of the operation in every case, though it is probable that the rule is frequently broken. The surgeon is most tempted to do so when the epithelioma is small and of short history. In one such case, a small growth at the side of the tongue which had been noticed only a few weeks, I thought free local excision would suffice. The patient returned in a few months with glandular recurrence over the carotid artery.

In conclusion, the radical operation should include both submaxillary regions whenever the primary epithelioma is at or near the middle line of the lip. If the growth is placed close to one angle of the mouth the neck operation may be safely limited to that side, including the submental glands and those over the upper end of the carotid artery and jugular vein; but it is better to do too much than too little in dealing with cancer.

References.
[1] *The Practitioner*, May, 1903. [2] Third edition, 1882, vol. ii, p. 521.

A Clinical Lecture

ON

SECONDARY (METASTATIC) CARCINOMA OF THE OVARIES.

Delivered at the Middlesex Hospital.

By J. BLAND-SUTTON, F.R.C.S.,
SURGEON TO THE HOSPITAL.

Primary cancer of paired organs in adults is almost invariably unilateral. The fact that cancer of the ovary in women is often bilateral raised a suspicion in my mind twenty years ago that many solid tumours of the ovary described as primary carcinomata might really be secondary to some unsuspected focus of malignant disease in an organ such as the breast and stomach. I deliberately fixed my suspicions on these two organs because observations in the dead-house had taught me that massive secondary deposits are frequently found in one or both ovaries as a sequel of mammary and gastric carcinoma in a proportion of 10 per cent. It is also important to bear in mind that it is not uncommon to find in the *post-mortem* inspection of a patient who has died from cancer of the breast or of the stomach that the only gross evidence of metastatic deposits has been found in the ovaries.

In 1902 I reported a case to the Medical Society of London, which illustrated the large size a metastatic deposit of cancer may attain in the ovary; for in that instance the tumour was as big as a large cocoanut, and clinically resembled a uterine fibroid, except that it had caused an abundant hydroperitoneum. This ovary was removed from a patient 42 years of age, whose breast had been excised for cancer seven years previously. Microscopically, the structure of the ovarian tumour was a copy of the primary tumour in the breast. The left ovary, which appeared hard but not enlarged, was also removed; this had become infiltrated with carcinoma. These ovaries are preserved in the museum of the Royal College of Surgeons.

When I exhibited these specimens at the Medical Society I briefly stated my suspicions concerning the probable secondary character of ovarian carcinoma, but said that I had never been able to confirm them. Since then some interesting work has been accomplished in relation to metastatic deposits of carcinoma in the abdomen, which will enable me to show you that many large solid cancerous tumours of the ovaries are metastatic, and I hope to indicate the way in which they probably arise, and that in my previous observations I had stumbled on account of my intellectual blindness.

One of the most striking clinical facts regarding cancerous tumours of the ovaries is the feeble—often extremely feeble—condition of the patients; even in those who survive operation, life is rarely prolonged beyond a few months. The primary mortality of the operation is high, and I have noticed, not only in those patients under my own care, but those operated upon by my colleagues, the frequency with which these tumours implicate the rectum or sigmoid flexure of the colon, and occasionally an extremely looped (or omega-shaped) transverse colon.

In regard to the frequency and rapidity of local recurrence after bilateral ovariotomy for cancer, I was at a los to find an explanation until Dr. Cuthbert Lockyer in 190 made an admirable contribution to the Obstetrical Society of London concerning a specimen of cancer of both ovarie removed from a woman 47 years of age. These tumours were of some size, for they had an average diameter o about 12 cm. The Fallopian tubes and adjacent parts appeared normal, but on microscopic examination Lockye found the apparently normal tissues of the mesosalpinx and tube infected with cancer through their lymphatics On this ground, he argues, especially as he subsequently proved that the infection extended to the uterus, that in dealing with bilateral cancer of the ovaries, the prope treatment of such cases would be the thorough removal o both ovaries with the Fallopian tubes and the uterus. The subject of these important observations died from recurrence within a few months, and at the necropsy a focus of cancer, probably the primary seat of the disease, in my judgement, was found in the small intestine. In his firs account of the specimen Lockyer's statement in regard to the extensive cancerous condition of the Fallopian tubes although they appeared normal to the eyes and fingers seemed to me to offer such an extremely satisfactory explanation of the rapid recurrence met with in these cases, that I determined in the next case of this kind that came under my care to remove the whole of the interna genital organs.

In 1905 a woman, 28 years of age, came under my care with bilateral solid tumours of both ovaries, each as large as a cricket ball. I removed the ovaries, Fallopian tubes and uterus. Microscopic examination proved them to be cancerous and of the structure of a colon carcinoma, but I had made no careful examination of the bowels. The patient recovered quickly and well. Some months later signs of intestinal obstruction supervened, and she died seven months after the removal of the tumours.

About the same time another woman, desperately ill with bilateral ovarian tumours accompanied by vomiting, came under my care. At the operation, though the tumours were found to be solid and free from adhesions they seemed so suspicious that I removed the uterus with them. On arranging the intestines and omentum I found a hard constricting ring of carcinoma in the large bowe at the beginning of the rectum. I excised this and performed a circular enterorrhaphy. The patient died a week later from faecal impaction in the large gut. The picture in this case was complete—primary cancer of the rectum secondary infection of the ovaries, intestinal obstruction and death.

In a third patient operation has been of some benefit. A young married woman with signs of a rapidly-growing right ovarian tumour came under my care. The tumour was removed with difficulty on account of adhesions, and a smaller tumour, the size of a tennis ball, was found in the left ovary; before operation the friends demurred to removal of both ovaries, so this ovary was allowed to remain. In three months the patient returned with an obvious tumour in the pelvis and difficulty with the bowels. At the second operation I found the left ovary, now as big as my fist, adherent to a cancer in the sigmoid flexure of the colon near its junction with the rectum. The tumour was removed and the cancer of the bowel was excised and circular enterorrhaphy successfully performed. This woman was alive and in good health seven months after the second operation.

Schlagenhaufer collected and analysed 79 cases of malignant disease of the ovaries associated with primary cancer of the abdominal viscera; of these, in 61 instances the primary focus grew in the stomach, 10 in the bowels 7 in connexion with the gall bladder and ducts, and in the adrenal gland. The majority of the patients had been submitted to operation, and the ovarian tumours were removed under the impression that they were the primary disease, the cancer in connexion with the gastro-intestinal tract being in most instances overlooked until after the fatal termination of the case.

As a result of his inquiries Schlagenhaufer comes to the conclusion, and with good reason, that the majority of bilateral solid ovarian tumours are carcinomata and metastatic. The histologic features of the ovarian tumours vary with the nature and situation of the primary tumour. The practical outcome of these observations is very important—namely, that in cases of bilateral solid tumours of the ovary, especially if accomanied with vomiting and ascites, the surgeon should ake a very careful and accurate examination of the dominal organs, especially the stomach.

The fact that so many of the patients in Schlagen- ufer's list had been submitted to ovariotomy and the stric cancer overlooked in spite of the presence of pical signs, such as persistent vomiting and progressive aciation, illustrates what may be called occupation bias, the gynaecologist would allow the existence of a finite tumour in the pelvis to fill up the foreground of e clinical picture. Ten years ago I saw two cases in ich bilateral solid tumours of the ovaries as big as coanuts were removed from women under the impres- n that they were primary; the patients suffered from rsistent vomiting, and died in a few days. At the cropsy carcinoma of the pylorus was found. These ses were used to illustrate the coexistence of two imary malignant neoplasms, an erroneous opinion in ese patients at least. Dust has been thrown in the server's eyes, so to speak, by the unusual size which ese metastatic deposits attain in the ovaries.

Even in cases in which widespread dissemination of disease has existed in the peritoneum, accompanied moderately-enlarged ovaries secondary to gastric ncer, the ovaries have been erroneously regarded as primary source of the disease. It is also significant at whenever surgeons have made inquiries into the note results of ovariotomy they have been astonished find that many of the patients have perished from urrence in the abdomen or from intestinal obstruction. ese new facts offer an explanation of some of these happy sequences.

will now endeavour to show that the pathological e of this question is as interesting as its clinical ect, and that those cases of cancer of the ovaries ondary to primary cancer of an abdominal viscus, ich are not due to direct implication as a result of pinquity, may be due to permeation. Handley has wn in his admirable investigations that cancer of the ast spreads by permeating the deep fascia, and slowly eps along the lymphatics of the fascial plexus till it ches the epigastrium immediately below the ensiform ilage; at this point the cancer-filled lymphatics of the ial plexus are, in the middle line, separated from the peritoneal fat only by a thin layer of fibrous tissue. ough this weak defence the cancer cells slowly find ir way into the general peritoneal cavity and engraft nselves on to the omentum and other suitable visceral s whereon they thrive and grow into metastatic ules or lumps. It is conceivable and probable that y of these infecting cells find their way into the pelvis lodge on the ovaries, pelvic peritoneum, and uterus. fluid normally present in the general peritoneal cavity es as an admirable vehicle for the transport of such into the recesses of the pelvis and there relatively isturbed they grow into tumours.

we extend Handley's observations on the spread of st cancer and apply them to a primary cancer in an ominal organ, especially in the stomach, colon, or um, which often grows very slowly, we may read its se in this way: Arising in the mucous membrane the er cells slowly permeate it and implicate the sub- ous and muscular coats, finally infiltrating the peri- al covering. The cancer cells escaping into the great us cavity are distributed by the fluid, aided by the move- ts of the bowels and gradually fall into the pelvis ng other recesses of the belly. In the pelvis the t obvious organs for them to fall upon would be the ies, as they so often rest on the floor and are fairly imate. In this way the ovaries may be fairly red in the mind receiving a light covering of falling er cells, as evergreen shrubs are clothed by snowflakes inter. This is not a fanciful picture. The escape of er cells into the general peritoneal cavity can be onstrated; for example, in cancer of the gall bladder I seen a small bud-like process standing out on the oneal surface shedding its surface cells, which me distributed throughout the belly by the movement e intestines and giving rise to hundreds of minute les of cancer. I have also seen the same thing in exion with cancer of the body of the uterus. There- if the dispersal of cancer cells can be demonstrated ch a gross way, it is undeniable that they may be tly and insidiously shed from the surface of the infected peritoneum covering a carcinomatous focus in the stomach or the intestine.

When the nature of solid malignant tumours of the ovaries comes to be more thoroughly appreciated by those who devote their attention to the surgery of the pelvis, it may enable them to contemplate the clinical aspect of the case with a wider knowledge of its surroundings, and perhaps save themselves and their patients much acute disappointment.

THE SURGERY OF SARCOMA IN KASHMIR.

By ARTHUR NEVE, F.R.C.S.E.,
SURGEON TO THE CHURCH MISSION HOSPITAL, KASHMIR.

THERE has been a concentration of interest upon cancer of recent years which has relegated sarcoma almost to the shade of oblivion. In the textbooks of the last generation the group cancer included many of the sarcomata. Were the distinction one of malignancy and not one of pathology some of the sarcomata might contend for the first place. There is something terrible in their growth which impresses the imagination—the early age at which they may appear, the swiftness with which they grow and infiltrate surrounding tissues, their proneness to disseminate themselves in other parts of the body, not restrained by any lymph channels, but swept here and there by the blood current—all of us must have seen cases which were tragic. Fortunately all sarcomas are not of this type; many grow very slowly, do not disseminate, and can be quite eradicated.

In this hospital on an average 21 sarcomata are removed every year, and I have the detailed records of 184 cases which were operated upon by Dr. E. F. Neve or myself. A considerable number are quite inoperable when first seen. In Kashmir epitheliomata are far more common, chiefly owing to the use of the "kangri" or fire basket. On an average 80 are removed every year, and of non-malignant tumours 160 per annum.

Sex.—Only 20 per cent. were females, as compared with 36 per cent. of females in the epithelial group.

Age.—The age incidence is as follows, per cent.:

Under 5	10	15	20	30	40	50	60	70
6	7	10	7	18	20	21	8	3

So that the mean age is under 40 years instead of over 50, which is the mean for epithelioma.

Duration.—Thirty-six per cent. were of less than one year's growth, 15 per cent. under two years, 30 per cent. from two to three years, and 10 per cent. over ten years' duration.

Varieties.—In Kashmir we recognize the same species of sarcoma as in Europe: (1) round-celled, (2) lymphosarcoma, (3) spindle-celled, (4) myeloid, (5) alveolar, (6) melanotic. In any of these there may be myxomatous degeneration. The amount of stroma varies; usually in the small, round-celled variety there is very little and the tumour is encephaloid in substance; other round and oval-celled tumours are moderately firm, resembling fish hard roe—a common type in the parotid region. Of the tumours recorded, 1 was a lipo-sarcoma, 3 cystic round-celled, 5 myxomatous, 7 lympho-sarcoma—many of this species were seen but not operated on—7 myeloid, 8 melanotic, 5 pure spindle-celled, 12 round-celled, and the rest of mixed oval and spindle cells.

Locality.—The following list shows how wide is the distribution:

Scalp, 2; eye and orbit, 14; ear, 1; nose and pharynx, 3; upper jaw and malar bone, 13; lower jaw, 7; other parts of face, 5; cranial bones, 3; parotid and neck, 26; tongue and submaxillary, 3; larynx, 2; total in head and neck, 79. Upper extremity—clavicle, 2; scapula, 2; axilla, 1; arm, 5; forearm, 7; hand, 7; total, 24. Trunk—chest, 3; mamma, 1; shoulder, 1; side, 7; dorsal, 3; lumbar, 5; abdominal wall, 12; pelvic bones, 2; mesentery, 2; kidney, 2; liver, 1, uterus, 2; vagina, 1; testicle, 3; total, 45; in several of these removal was not effected, the operation being only exploratory. Lower extremity—thigh and groin, 16; leg, 16; foot, 4; total, 36. Grand total, 184.

Operation.—With this diversity in structure and in locality there can be no routine operation for sarcoma. The surgeon's problem is to remove each individual tumour as completely as possible. Every case has to be taken on its own merits, and in the case of many the diagnosis cannot be fully made without an incision, or, indeed, as to its precise type, without the aid of the microscope. Whatever the microscopic character may be, the clinical characters must always be taken into full consideration. If of slow growth, whatever its cells may be, there is not infrequently a fairly well-marked capsule, perhaps more often in India than in England. Then the growth may have been towards the surface of the body so as to have but a narrow base. In such cases an absolute cure may be expected.

Even when there is a capsule the tumour should never be shelled out from inside it, but should be removed with the capsule, and, if practicable, some of the surrounding tissue, and this needs to be scrutinized with the keenest suspicion, lest at some point it may have become infiltrated. If the growth is in the substance of a muscle there can be no assurance of safety unless the muscle be removed far beyond the apparent limits of the tumour, and it is good practice to extirpate the muscle in its entire length. In a limb it often becomes a critical question whether an amputation should be performed or not. In two cases we amputated the arm, and in three the leg or thigh, on account of the extent to which the bones were affected. In several other patients we should have amputated at the hip-joint had it been possible to get their consent; some came too late, with secondary tumours in the pelvis or elsewhere.

In a country which is so isolated, and where the people are so ignorant, it is little surprising that many allow the tumours to attain a size inconvenient by their bulk before applying to us for their removal. Of those excised from the parotid region, some were as large as a cocoanut. Such required an incision from the temporal region to near the sternum, the facial nerve has always to be sacrificed, and often the common carotid, or perhaps also the jugular vein, ligatured. For many years past we have deliberately ligatured the common or the external carotid as a preliminary to excision of any malignant tumours of the parotid or upper jaw, not merely for the sake of facilitating the operation and diminishing the bleeding, but also with the view of cutting off the blood supply, and so tending to cause degeneration or atrophy of any portion of the tumour which may have escaped removal. The known recurrence in these cases was only about 20 per cent., and in at least two patients, in whom the removal was incomplete, the growth was quite arrested, and the patients were in good health years after.

In extensive operations about the face it is impossible to avoid a certain amount of sepsis, and it may be that in some of these incomplete removals the benefit that undoubtedly followed was due, not to the interference with the blood supply, but to the action of a mixed sepsis with its toxins on the embryonic cells, in the same way as Coley's fluid acts. I consider that it is worth while to give a patient the chance, even when the extent of the disease precludes any hope of making a clean sweep of the disease with the knife. In many cases one may hope to alleviate the pain of pressure and the distress of bulk, and in others to prune off foul and fungating portions which are a dangerous source of haemorrhage, and render the patient a trial to his friends.

In two cases the whole scapula was excised. In one, a young woman, the sarcoma had not infiltrated the surrounding tissues widely, and cure was complete; in the other I assisted Dr. Gaster to remove a widely-diffused tumour. All visible disease was excised, including all muscles down to the ribs, and from the spine to the upper part of the humerus; but six weeks later I had to excise a growth in the arm, and then there was further recurrence in the back of the neck.

Many of the tumours from the flank, abdominal wall, or lumbar region were very extensive, and of these few appeared to have recurred; perhaps we may have dealt with fewer of the really inoperable cases in this region. In one man I was drawn into an operation which cleared away all tissue from the tenth rib to the iliac crest back to the spine and down to the peritoneum, and in one place the pleura, which was buttonholed. I put in large skin grafts, and for a time all went well, but there was inoperable recurrence originating from the pelvis.

It is well to make a careful exploration before committing oneself to an excision, deciding by a microscopic examination of a scraping, and by the relations of the tumour to vital structures, whether to push the matter to a final issue. Thus, in one case, Dr. E. F. Neve found that the phrenic nerve was involved, and hiccough was set up when exploring the lower roots of a neck tumour, so he closed the wound. So, too, in several of the abdominal cases the operation was merely exploratory.

Altogether, 11 exploratory operations were done, in 12 others the removal was incomplete, in 16 there was recurrence, and in 10 others it was doubtful whether extirpation was complete. Three cases died in hospital or soon after leaving, the remaining 132 are regarded as probably cured, which gives a percentage of about 70 of success.

THE COLOUR OF THE HAIR IN OVARIAN DERMOIDS.

BY S. G. SHATTOCK, F.R.C.S.,
PATHOLOGICAL CURATOR, ROYAL COLLEGE OF SURGEONS, LONDON.

IN a philosophical letter upon the colour of the hair in ovarian dermoids (February 10th, 1906), Mr. C. J. Bond puts a series of questions on which he asks for information, and in the course of these makes the interesting statement that in one case of bilateral ovarian dermoid he had found the hair in one cyst dark and in the other light.

In the BRITISH MEDICAL JOURNAL, November 5th, 1904 (Report of a meeting of the Pathological Society), I have pointed out that the ovarian dermoid does not bear classifying in the same group as that of the face or trunk. As long as the dermoid of the ovary was not differentiated from such, it was thought sufficient to point to the epiblastic origin of the Wolffian duct as the explanation of it. At the most, such a view can hold only for a simple parovarian dermoid or a simple dermoid of the hilum of the ovary and is quite inadequate to explain the common complex ovarian cyst with its bone and teeth, or (as in the specimen I then described) with a distinct acephalous monster provided with rudimentary limbs and a coil of intestine projecting into the cavity of the cyst.

The theory I there advanced, and for which I ventured to revive the term (in a new sense) of epigenesis, was that the teratomatous or so-called dermoid cyst of the ovary resulted from the fertilization of the primordial ova in the embryo, so that the embryo furnished a second imperfect individual, the origin of which was not, therefore, synchronous with, but later than, itself. The actual impregnation I supposed to take place from surplus spermatozoa which perforated the investing membrane of the original ovum at its impregnation, and afterwards lay between the cells of the blastoderm ready to fertilize the primordial ova of the resulting embryo. This theory, like that of parthenogenesis, would involve a histological "maturation" of the ovum. The phenomenon of parthenogenesis is limited to forms so low in the animal series, however, that it is difficult to think it obtains with such great frequency in the human subject as the common occurrence of ovarian teratomata would necessitate.

The difference in the colour of the hair in bilateral ovarian cysts, noticed by Mr. Bond, would on this theory of epigenesis be an example only of the difference in colour so frequently witnessed in children born of the same parents, or still more closely, in heterologous twins, whose hair may be of different colours. In the case of homologous twins, which arise from a single ovum, are formed on a single blastodermic vesicle and enclosed within a single amniotic sac, the hair is of the same colour and the sexes alike, although the same concurrences are not, of course, excluded in the case where twins arise from two ova, whether discharged from the same or opposite ovaries. In double monsters the sex is always the same, the view generally held being that such monsters result from the misdevelopment of homologous twins. The colour of the hair in such is, I find, invariably alike.

Since reading Mr. Bond's letter, I have inquired into the colour of the hair of the patient (a single woman, 33 years of age) from whom the teratomatous cyst already referred to was removed.

Mr. Bell, the obstetric registrar at St. Thomas's Hospital, was good enough to trace the patient and obtain a sample of her hair. I placed this in the spirit in which the teratoma is preserved in order to institute a just comparison between the two. That of the teratoma consists of a tuft growing from the pubes, the parasite being ephalous, and there being no teeth or bone in connexion ith the cyst representative of a head; the hair is of the lest flaxen; the hair of the patient (? the mother of the rasite) is of a well-pronounced or medium brown. A mple of the hair of the father (aged 57) of the patient the father, too, of the ovarian parasite) is classifiable in thropological terminology as darkest brown—that is, e division of black higher than jet. Both the patient's ir and that of her father have (as is so regularly the se) become darker since infancy. The hair of the tient's mother resembles her own.

MEMORANDA:
MEDICAL, SURGICAL, OBSTETRICAL.

A CASE OF NECROSIS OF THE TESTICLE.

athletic youth, aged 17, noticed one day that the right le of the scrotum had suddenly become swollen and inful without obvious cause. There was no history of uma or infection.

saw him on the third day when his temperature was ° and there was pain on movement. The scrotum was nsiderably enlarged and a mass the size of a small nge could be felt in the position of the right testicle, individual parts not being distinguishable.

)n the fourth day an exploratory incision was made in nt. A collection of fresh blood was found in the tunica ginalis; the body and epididymis were seen to be deeply gorged and the epididymis swollen to twice the normal e. There was no malposition of the testicle to be made . The incision was left open.

n the ninth day as the testicle was evidently necrotic vas removed. The Clinical Research Association reted as follows:

On section the body of the testis is in a state of rosis with much blood extravasated into its stroma. clinical history suggests that the condition is due to te torsion of the testis owing to an imperfect development of the mesorchium. The vessels of the cord thus ome engorged and blood-stained effusion occurs into tunica vaginalis."

lcup, Kent. R. R. Law, M.D.Cantab.

HETEROCHROMIA IRIDIS.

AVE read Dr. Allan's cases of heterochromia with h interest, as I have seen well-marked cases of a and a brown eye in a male adult of 40 and a girl d of about 5 years of age, between whom there was lood relationship. In these two cases the whole of iris was of one colour, whilst in Dr. Allan's portions e iris were of different colouring.

hink the explanation is not difficult. The substantia ria, which is the ground substance of the iris, has y connective-tissue corpuscles found in it, many of h contain, except in albinos and blue eyes, yellowishn pigment granules. The colour of the iris varies rding to the number of these pigmented connective e cells and to the amount of the pigment granules ent in them. The posterior layer of the substantia ria is made up of polyhedral cells filled with dark ent granules, except in albinos, where there are no ent granules. Now, in blue eyes this posterior is the only pigmented part of the iris, and this is the case in all newborn children; hence we are all with blue eyes. Such iris appears blue because its tissue is viewed on dark ground—that is, on the ented epithelium of the posterior surface. It ars, therefore, that if no pigment is in the eye at hen the child is born an albino; if the pigment is ed to the posterior layer of the epithelium, as it is e birth of us all, it gives the blue eye; and finally, if ent is ultimately deposited in the anterior layer, it ges the eye from a blue one to the various shades we om day to day, depending upon the amount of pigment sited here as in other parts of the body. In heteronia iridis there is a local deposit of pigment instead iformity throughout the iris.

don, E.C. R. Henslowe Wellington.

following nine cases of heterochromia came under notice last summer whilst I was assisting in the medical out-patient department of the West Ham Hospital, Stratford, E. The patients, as will be seen, were of various ages and sexes, and none of them had any complaint of vision:

1. Woman, aged 34; on the right eye was a brown radiating sector upwards and inwards. The rest of the right iris, and all the left one, grey. Edges of the sector were slightly wavy.
2. Girl, aged 8; narrow brown area upwards and outwards on the left eye, its edges being parallel; the rest of the iris and the other iris were brownish-yellow.
3. Girl, aged 12; with a narrow, wavy-edged sector of yellowish-brown directly outwards in her left eye, edges parallel; the rest of the iris and the other eye, grey.
4. Lad, aged 19; with a narrow, yellowish-brown parallel-sided segment downwards and inwards in the right eye; the rest of iris and other eye, greyish-brown.
5. Man, aged 55; large, wavy-edged sector of yellow-brown, involving one-fourth of the left iris, in and pointing upwards and inwards on left; the rest of the iris and the right eye, grey.
6. Man, aged 47; medium-sized, straight-sided, sector of yellowish-brown pointing upwards and outwards; the rest of the iris and left eye, grey.
7. Boy, aged 7½; with a curious double condition. More than half the right iris was pale brown, and the remaining tangential portion greyish-yellow. The left iris, on the other hand, was greyish-brown, with a narrow parallel side segment of pure pale brown.
8. Man, aged 26; the left iris showed a large area of dark brown involving the whole of its lower half, the upper limit being wavy. The rest was greyish-brown, and the right eye the same colour.
9. Woman, aged 27; in the left eye was a narrow parallel-sided segment of yellow-brown, leading upwards and outwards. The rest of the iris and the other eye, grey.

All the above were well-marked cases. Since coming here about nine months ago I have seen but one case of this condition in our ophthalmic out-patient department, which is a large one.

Wm. Clark Souter,
Eye Department, Aberdeen Royal Infirmary.

RICKETS IN RELATION TO THE DURATION OF LACTATION.

Dr. A. Dingwall-Fordyce's paper, which appeared in the British Medical Journal of April 28th, p. 971, seems to suggest that in this, like most other diseases, there may be an idiosyncrasy on the part of the patient. To those who come much in contact with children this must be at once apparent, when it is considered that one child if suckled for a few months longer than it should be may develop the most severe rickets, while another may be suckled for two years or more and not develop rickets at all. The following case, which first came under observation about three months ago and is still being carefully watched, is of great interest, as lactation was maintained for an unusually long time, and the child was suckled with far less detriment to his general health than one would have expected.

The mother brought the child, a boy 2 years and 4 months of age, with the complaint that for a few weeks he had been wasting and had lost flesh, and that he had no energy. Nothing very definite could be made out. He appeared to be a fairly well-developed child, but his muscles were soft and flabby. He could not walk, but the mother stated that he had been able to run about until a few weeks previously. He lacked energy and did not take much notice of what was going on. The mother stated that he appeared to have some pain in the left thigh and he certainly resented pressure on the left femur. There was no beading of the ribs, thickening of the epiphyses, bossing of the skull, or any of the other signs generally associated with rickets. It was ascertained that he was still having the breast, and that his nourishment consisted of nothing else, as he refused to take milk foods, bread, etc. His previous history was unimportant. He had always been a healthy child. Dentition began at 9 months, and was quite regular. He was the youngest of four, and two of these had died during childhood. The eldest, a girl of 11, was very delicate. The mother had suckled her first and third children for about two years. The second child was breast-fed for six weeks only, as milk ceased to be secreted then. Six weeks after the birth of this last child menstruation had returned and recurred regularly. Under treatment, which consisted of weaning the child, and ordering a diet more suited to his age, he improved greatly, and the symptoms gradually disappeared. He was also given cod-liver oil emulsion and iron wine. At present he is in fairly good health, but his reserve force is still below par, and in the event of his contracting some acute disease, as pneumonia, the prognosis would have to be most guarded.

As opposed to the above, I have also under treatment a boy, aged 3½ years, who was breast-fed for thirteen months. He has all the typical signs of rickets in an aggravated form, and is the severest case of that disease I have yet seen. The most striking symptom is great muscular weakness, especially of the lower extremities, amounting to almost complete paralysis.

Brighton. **John Allan, M.B., Ch.B.**

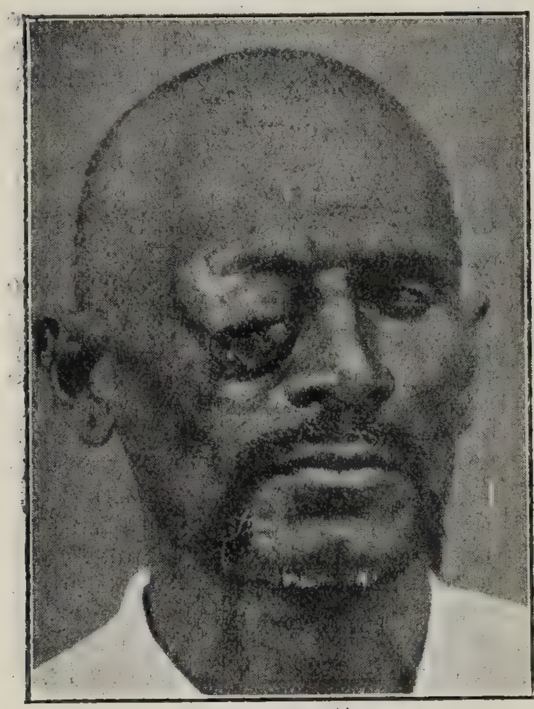
REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

COWASJEE JEHANGIR CIVIL HOSPITAL, SURAT.

A CASE OF SARCOMA OF THE LACHRYMAL GLAND.

(Reported by E. F. Gordon Tucker, Capt. I.M.S., Acting Professor of Pathology, Grant Medical College, Bombay.)

Owing to the rarity of the condition, the following case is of considerable interest. The patient, a Hindu aged 35, stated that five months before admission he noticed a feeling of fullness in the upper portion of the eye, and later could feel a fleshy mass beneath the upper lid. This gradually increased in size and displaced the eyeball. Shortly before admission pain of a shooting character, within the orbit and about the right side of the head, had become intense and continuous, and prevented him from obtaining sleep.

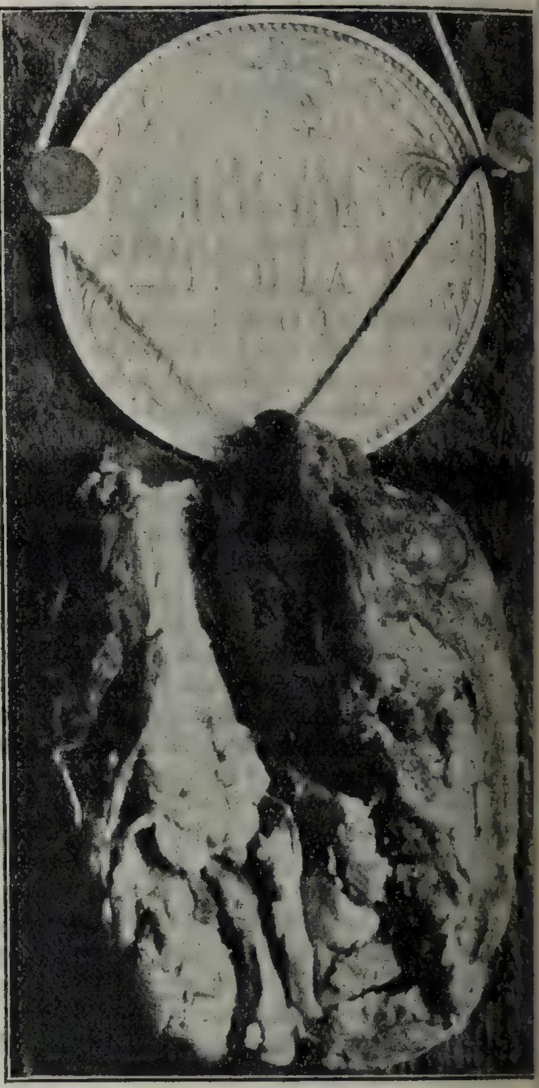

Before operation.

State on Admission.—There was a tumour within the right orbit at its upper and outer part; the globe was resting on the everted palpebral conjunctiva, which was oedematous. The cornea was hazy like the eye of a dead fish. The veins converging to the orbit from the forehead were distended. There was perception of light in the diseased eye. The levator palpebrae seemed functionless. On everting the upper lid a tense elastic mass could be seen and felt bulging out the orbital conjunctiva. It was slightly movable. The mass was lost on approaching the inner canthus. Pain was excessive, and he required morphine. There was no glandular enlargement either about the ear or in the neck.

Progress.—The operation was undertaken the second day after admission. As the tumour filled up so much of the orbit, and evidently had deep connexions, it was first necessary to enucleate the globe. This having been done, Tenon's capsule was incised from below, and the front surface of the enlarged lachrymal gland was exposed from below. The capsule of the gland was considerably thickened, and the substance of the growth itself was on section firm and white. The growth capsule was firmly adherent on its outer surface to the orbital periosteum, but the two could be separated without much difficulty by scissors. There was most difficulty in separating the ligament of the lachrymal gland, and sharp haemorrhage came from the much enlarged branches of the lachrymal artery. The growth went backwards to the outer side of the sphenoidal fissure. The cavity was plugged wit strips of iodoform gauze.

Result.—The patient made a perfect recovery, and le the hospital well on January 11th. Three months afte the removal the man was stated to be in good health.

Remarks.—Examination of sections of the tumou showed that it was composed of large spindle cells lying in a well-marked fibrillary matrix. Its capsule was intact in every part, and no evidence of infiltration was found. The eye muscles were shrunk to mere rudiments. Lawson[1] describes sarcoma of the lachrymal gland as a very rare disease, and remarks that ptosis is apt to follow operation owing to the difficulty of removing the growth without damage to the levator palpebrae, the expansion of which in part passes between the two portions of the gland. Ptosis was present in this case before remova but inasmuch as the globe had to be removed in order t reach the posterior connexions of the tumour, the ptos following the operation could hardly be considered matter of importance. The accompanying photograp show the condition of the orbit before operation, and tl size of the tumour as compared with a rupee, the diamet of which is 3 cm., or much the same as a florin.


Showing the growth removed.

THE ROYAL INFIRMARY, WINDSOR.

CASE OF EXOMPHALOS: OPERATION: RECOVERY.

(By W. F. Lloyd, Assistant Surgeon.)

The child in this case was delivered by forceps 3 o'clock on the morning of September 16th, 1903.

Condition on Admission.

It was a healthy female child, except for a globular swelli at the origin of the umbilical cord, about 2½ in. in diamete Coils of intestine could be felt in the swelling, and they cou only be partially returned into the abdominal cavity.

Operation.

The cord had been tied just beyond the swelling at birt and at 3 o'clock in the afternoon at the Royal Infirmary tl following operation was performed. The sac was opened a an attempt made to reduce the protruding bowel; Mecke diverticulum was found adherent to the sac and was remove but the bowel could not be reduced. A large opening w then made in the abdominal wall with a hernia knife and t bowel reduced, but still not without some difficulty, as part it was adherent to the sac, and this portion of the sac was le The skin round the umbilicus was then dissected up and t raw edges brought together and sutured.

Result.

The child was sent back to its own home, and made a go recovery; it is now a healthy child of 2½ years.

Remarks.—This case is worth recording, because cas of complete recovery after fairly pronounced exomphal are rare.

---

[1] *Diseases and Injuries to the Eye*, 6th edition, 1903.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

J. WARRINGTON HAWARD, F.R.C.S., President, in the Chair.

Tuesday, May 22nd, 1906.

REPORT ON 282 OPERATIONS FOR NON-MALIGNANT DISEASES OF THE STOMACH.

ι. B. G. A. **MOYNIHAN** gave a detailed analysis of these
ses arranged in four groups: Perforating ulcer of the
mach and duodenum, 24 cases, with 9 deaths; cases
h persistent haemorrhage, 27 cases, with 3 deaths;
onic ulcer in its various forms and dilatation of the
mach, 209 cases, with 2 deaths; and hourglass
mach, 22 cases, with 3 deaths.

Mr. H. J. **PATERSON** thought a most valuable point was
steadily diminishing mortality after gastro-jejun-
omy, this being in these cases so low as a little over
er cent. The after-history of gastric operations was
en difficult to ascertain. In 116 consecutive cases of
ration for perforation that he had collected, in 92 per
t. there was a definite history of ulceration, and in
y a small proportion was there any history of haema-
esis. The proportion of perforations on the posterior
l was 12 per cent. It was desirable to give a thorough
l of gastro-jejunostomy after suture of a perforated
tric ulcer, to be done at the same time. This would
bably diminish the mortality of the operation for
foration.

r. W. **HALE WHITE** referred especially to the cases
h copious haematemesis, noting that in 2 of Mr.
ynihan's 27 cases no ulcer was found at operation,
that one of these died. He had himself
ected 27 cases of haematemesis in which no ulcer
found either at operation or death. In 10,000
-mortem examinations there were only 2 deaths from
matemesis without any ulcer being found. It was
ce very desirable to recognize that haematemesis
ht be due merely to oozing, so that operation be dis-
sed with. In the great majority of cases it was pro-
y better that no operation should be performed while
haematemesis was occurring, but, after it had ceased,
astro-jejunostomy should be done if it had been
re. The mortality from simple haematemesis was
low indeed.

r. F. S. **EVE** thought the question of diagnosis was of
first importance. Many cases, apparently typical in-
ces of gastric ulceration, showed no ulcer at the
ation. On what symptoms should chronic ulcer of
stomach be diagnosed? On what signs should one
for recognizing the presence of ulcer when the abdo-
was opened? Palpation of its exterior was often
fficient and an opening on the posterior surface of the
ach was required for exploration.

. F. H. **HAWKINS** alluded to the rarity of death from
the severest haematemesis.

r. **MOYNIHAN**, in reply, said that the mortality from
orrhage in chronic gastric or duodenal ulcer was
ably much greater than was usually computed. It
the constant recurrence of haemorrhage that made
ation necessary, with symptoms of gastric or
enal ulcer and haemorrhage at decreasing intervals
in increasing quantities. No single haemorrhage,
ever its quantity, justified operative treatment, and
ation should in no case be undertaken during the
orrhage.

EDINBURGH OBSTETRICAL SOCIETY.

Dr. J. W. BALLANTYNE, President, in the Chair.

Wednesday, May 9th, 1906.

HERNIA OF THE ADNEXA.

E. **SCOTT CARMICHAEL** recorded seven cases of inclu-
of the uterine adnexa in twenty-three radical cures
nguinal hernia in female children. The condition
usually a partial or complete hernia of the ovary and
Fallopian tube. The younger the subject the more
nonly were the adnexa present in the inguinal sac.
nfundibulo-pelvic and the base of the broad ligament, as a rule, attached the tube and ovary to the posterior wall of the sac, and it was generally necessary to divide the former in order to reduce the contents. Removal of the ovary was not indicated in most cases. The presence of the ovary and Fallopian tube in femoral hernia was extremely uncommon as compared with the inguinal variety.

CASES OF ECLAMPSIA.

Professor **JARDINE** narrated the following cases:

CASE I.—Seven-para, aged 36 years, admitted to Glasgow Maternity Hospital suffering from fits, eight of which occurred before admission. She was then unconscious and very restless. The urine contained a large amount of albumen and became almost solid on boiling; 12 oz. of blood were drawn off and 2 pints of saline solution were transfused; large doses of salts were administered and hot packs applied. Three fits occurred within four hours after her admission to hospital. The patient was delivered on the second day, and had one fit twenty-four hours after delivery. She had passed 35 oz. of urine twelve hours before labour began; the albumen was then equal to 10 parts per 1,000, and urea to 1½ per cent. Suppression of urine developed after delivery; this was treated by cupping, pilocarpine infusions, hot packs, and finally incision of the capsule of one kidney. The patient died five and a half days after suppression of urine without any uraemia signs or symptoms. Examination of the kidneys showed that their cortex had almost disappeared, together with thrombosis of practically all the cortical vessels.

CASE II.—The patient, 4-para, aged 30 years, was admitted to Glasgow Maternity Hospital suffering from fits. All previous labours had been normal. She had eight fits before admission, and one slight one while being bathed in the institution. Examination of the urine showed a cloud of albumen present in it. Two pints of saline solution were transfused under the breasts, the stomach was washed out, and a large dose of salts administered. Hot packs were also employed. She was well for two and a half days, when a healthy child was born. In the interval she passed large quantities of urine, which contained little albumen. Two days after delivery the fits recommenced, and continued until 199 had occurred. She was treated by bleeding and transfusion twice. Morphine, chloroform, chloral, and potassium bromide were used. Lumbar puncture and injection of cocaine failed to ameliorate her condition. Ultimately the fits ceased, leaving the patient in a stupor. Strychnine, digitaline, and brandy were then administered at frequent intervals. The patient rapidly recovered. When she left the hospital her urine still contained a trace of albumen.

TWISTED PEDICLE.

Dr. **BARBOUR** read notes of a case in which haemorrhage occurred on the proximal side of the twisted pedicle of a cyst of the broad ligament, apparently from rupture of a vein; the extravasation spread upwards along the infundibulo-pelvic ligament.

FATTY INVERTED UTERUS.

Dr. **BARBOUR** read a case in which some two months after a difficult labour abdominal section was performed to reduce an inverted uterus. This having been effected it was noted that the uterine wall was the seat of marked fatty degeneration; the organ was therefore removed. Subsequent microscopic examination showed that the fatty degeneration had especially affected the outer third of the muscular wall. The author thought this difficult to explain, because though compression might cause such a change in the neighbourhood of the inversion ring, it did not operate at the fundus or at the bottom of the inverted cup.

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.—At a meeting at Leeds on May 18th Mr. R. **FAVELL** (Sheffield), President, in the Chair, the following were among the cases and specimens discussed:—Dr. J. B. **HELLIER** (Leeds): The uterus, placenta, and membranes of a woman who died, undelivered, of haemorrhage occurring exclusively from varicose veins in the vulva; also two specimens of blighted ova retained *in utero* until near term, one of them together with a living twin.—Dr. W. K. **WALLS** (Manchester): A case of very early cancer of the cervix, in which on vaginal hysterectomy a mass of cancerous growth quite distinct from the cervix was found attaching the posterior wall of the uterus to the anterior wall of the rectum.—The **PRESIDENT**: A case in which after miscarriage at the sixth month a young patient continued to bleed profusely, and was found to have a fibroid in the posterior uterine wall, and cystic disease of both ovaries. The organs were removed by the abdominal route six weeks after the miscarriage, when the fibroid was shown to be a typical example of red degeneration.—Dr. W. Walter (Manchester): A fibromyoma removed from a patient 60 years of age on account of haemorrhage beginning ten years after the menopause. Microscopic examination showed angiomatous changes in the fibroid.—Dr. Lloyd Roberts (Manchester): The bladder, uterus, and kidneys of a woman whose main symptom was pelvic pain. A quantity of pus had been found in the left kidney, which was finally removed. Ten days later the patient died with suppression of urine, and the right kidney was then found to contain a mass of calculi, which had destroyed its function.—Sir W. J. Sinclair (Manchester): Specimens of sea-tangle (laminaria) from Iona, with tents manufactured by the crofters of the island, and impregnated before desiccation with mercuric perchloride. There were small tents for dilating the unimpregnated uterus, and large ones for use during gestation. Rods of laminaria, it was suggested, could be advantageously used for the induction of premature labour instead of the usual bougie. The speaker advocated the use of tents on account of their superiority to rapid mechanical dilators, pointing out that their evil reputation as sources of infection was acquired in the days before antiseptics were known, and when a tent was often used twice on economical grounds.

Glasgow Pathological and Clinical Society.—At a meeting on May 14th, Professor Muir, President, in the chair. Dr. Dalziel showed the pelvic organs of a case of *Extroversion of the bladder* in which he had transplanted the uterus into the rectum. The operation was performed by opening the peritoneum, and at the same time some enlarged glands were removed. The child did well for some time, and a condition of prolapse which existed disappeared after the operation. The fatal issue—altogether unexpected—was due to intestinal obstruction, probably produced by a band of adhesions arising subsequent to the removal of the enlarged glands.—Dr. Renton showed specimens from two cases of *Malignant disease of the arm* which necessitated amputation of the arms and scapulae. In the first case an epitheliomatous ulcer of the arm had been excised some time previously, and the subsequent recurrence was more cellular in type, with appearances in its periphery resembling a sarcomatous growth. The later recurrence, for which the arm and scapula was amputated, showed the tumour growth to be a well-marked epithelioma. The second case was an extensive tumour of the upper arm, and had the characters of a mixed-celled sarcoma.—Dr. G. A. Allan and Dr. J. S. Dunn read notes of a case of *Cerebro-spinal meningitis* in a patient aged 11. There had been vague headaches for about a month, but it was only on the day of admission to hospital definite illness occurred, the patient becoming unconscious and subject to frequent convulsions. There was no initial sickness, and Kernig's sign was not marked, but the other symptoms of a cerebro-spinal meningitis were obtained. Diagnosis was confirmed by lumbar puncture. The child died about thirty-four hours from the onset of the illness; *post mortem*, cerebro-spinal meningitis, early lobar pneumonia, and enlarged abdominal glands were found.—Dr. Inglis Pollock showed microscopical preparations from a case of sarcoma of the choroid. Extensive necrosis had ensued.

Glasgow Medico-Chirurgical Society.—At a meeting on May 4th, Dr. J. Lindsay Steven, President, in the Chair, Dr. J. Walker Downie showed a preparation from a *Sarcoma of the temporal dura mater* which simulated suppurative mastoiditis. The tumour had eroded the bone, and was found to have grown from the dura mater. Stereoscopic photographs were shown.—Dr. Alexander Napier read notes of a case of *Renal enteric fever* in which the symptoms were mainly those of acute nephritis. The illness commenced a with cold and measly eruption on the arms and face. Haematuria was developed and continued about two days and recurred a fortnight after. The patient then sought medical advice. The symptoms were then those of acute nephritis, but there was no anasarca, and the temperature was 105° F. There was no diarrhoea, no rose spots, no enlargement of the spleen. The urine was scanty and muddy, with copious coffee-ground sediment, abundant albumen and blood reaction many casts, and containing, in great abundance, a large bacillus, which proved to be an involution form o the *Bacillus typhosus.* The diagnosis of enteric fever was corroborated by the fact that two of his attendants caught the disease, which, in their case, ran a normal course. The bacilli were detected in the urine four months from the onset of illness. The case was probably a catarrhal nephritis in which the enteric element was grafted.—Dr John Brownlee (for Dr. E. S. Chapman) gave an account of 6 cases of *Enteric fever* in which pyelitis developed after the febrile period. The alteration in the colour of the urine was the first symptom, and in a few days pus appeared.—Dr. Joseph N. Glaister read the clinical history of 2 cases of epidemic cerebro-spinal meningitis. The disease set in with symptoms which suggested poisoning, and this opinion seemed to be strengthened by the second case becoming ill just one day after the first. The illness commenced with great restlessness, vomiting, and collapse. The temperature rose gradually from about 100° F. to 103° F. The pulse was weak and rapid. Tongue dry and furred. Respirations superficial, and at times of Cheyne-Stokes character. Retraction of the head was a prominent symptom, and in the second case there was a tetanic contraction of the masseter muscles, which prevented real feeding. The decubitus was lateral, with the thighs flexed on the abdomen. On the third day a raised red purpuric petechial rash appeared. In the first case there were three spots on the upper part of the abdomen, and one on the right ankle; in the second, twelve on the chest and neck, and a few on the inner aspect of the thighs and on the ankles. Later on, coma alternated with great restlessness. The pupils were dilated. The first case died on the eighteenth, the second on the sixth, day of illness.

Dermatological Society.—At an ordinary meeting on May 9th, Dr. J. J. Pringle in the chair, the following were among the exhibits:—Dr. Pearman: A case of unilateral partial oedema in a child aged 2½ years. There was an oedematous condition of the left thigh and leg, which was double the size of the right limb. There was also slight oedema of the left cheek and a fullness of the bridge of the nose. Dr. Parkes Weber considered it a case of *Congenital lymphatic oedema*, which sometimes occurred in segments of the body, sometimes symmetrically. The general prognosis was not bad. Meige had written on it in the Salpêtrière magazine, and references were given in the *Presse Médicale* of the past year.—Dr. J. M. H. Macleod: A boy aged 8 years, the subject of *Adenoma sebaceum* of a very characteristic type. The face was covered with small, very red papules, with numerous telangiectases scattered over the surface. There were further characteristic naevoid fibromata upon the back and forehead. The child had had fits in early life, and was now quite idiotic. There was a history of fits in the mother also, but this was the only child out of four that had adenoma sebaceum.—Dr. S. E. Dore: Another case of the same disease in a man, aged 26, in whom it did not appear until he was 21. The eruption was much less marked than in the previous case, and consisted only of pinpoint-sized pale papules, with a few very red larger papules upon the alae of the nostrils. His mental condition seemed normal. He had a small naevoid fibroma on the back and loins.—Dr. Arthur Whitfield: A case of *Linear lichen planus* upon the right thigh and buttock of a girl, aged 7½ years, the disease having commenced four months previously. There were no lesions upon any other part of the body.—Dr. J. J. Pringle: For diagnosis, a man covered with a superficial very red, in places yellow, eruption; it was slightly scaly, and not at all infiltrated. It had persisted for four years but there had not been any severe itching. The general health had not suffered. The blood had been examined and showed a slight degree of leucocytosis but no leucocythaemia.—Dr. Radcliffe Crocker considered the case a typical example of the disease he had named *Xantho-erythrodermia perstans.*

British Laryngological, Rhinological and Otological Association.—At a meeting on May 11th, Dr. Woods, President, in the chair, Mr. Stuart-Low showed a case of adenoids in which, although there was extensive *Defect of the palate*, the articulation was comparatively good, hanks to the coexistence of adenoids. When the palate ras deficient, any adenoids should be left untouched. Dr. undas Grant considered that as a pad of adenoids elped to diminish the space between the spine and the ard palate, and thereby improved the speech, they should ertainly be left until after the palate operation and probably altogether. Mr. Mayo Collier agreed that the denoids should not be touched until the palate de-ct has been removed and speech improved.—Dr. ndrew Wylie showed a case of *Lymphangitis of the pper lip* in a woman aged 22. According to her statement, ie lip had been more or less swollen for the last five ears; sometimes it was large enough to touch the nose. hree years ago interstitial keratitis gradually appeared both eyes.—Dr. Kelson: A case of laryngeal disease curring in a school mistress, aged 37. She had suffered om *Loss of voice* for four months; the ventricular bands ere swollen, the vocal cords thickened, and there was me interarytenoid swelling. Dr. Dundas Grant thought e swelling of the ventricular band more apparent than al, and that there was a vicarious action of the ntricular bands, which disappeared when the patient oduced a vocal sound by means of inspiration instead of piration. Mr. H. Barwell considered the case one of ronic laryngitis caused by nasal obstruction and straing of the voice in the dusty atmosphere of a school. ie President considered that the convexity of the terarytenoid fold, as well as the general thickening of e vocal cords, were in favour of a tuberculous origin.

---

ssociation of Registered Medical Women.—At a eting on May 1st, Miss Aldrich-Blake in the chair, ss Chambers read a paper on the therapeutic inocula-n of bacterial vaccines, and Wright's method of imating the opsonic index. The opsonic index tested a considerable number of patients with chronic tuber-ous lesions varied from 0.6 to 0.8; in cases with healing lmonary tuberculosis the index was usually about 1.5. aggravation of the symptoms had ever followed on in-tions of T.R. in doses of from $\frac{1}{1500}$ to $\frac{1}{400}$ mgr., and two es of tuberculous cystitis treated in this way showed provement. It was possible that opsonins were a duct of phagocytic activity in accordance with tchnikoff's view that all protective substances are duced by the phagocytes, and either diffuse readily the blood, or escape into the body fluids, only as a ılt of the disintegration of these cells. The vaccine tment in this case acted by altering the conditions of of the phagocytes, which adapted themselves to new roundings, and produced protective materials as a part heir reactive adaptation. According to Löhlein, after phagocytes had been deprived of serum containing nins, phagocytosis apparently still continued to a ain extent. Hence he inferred that phagocytosis was uenced by the virulence of the organisms, and might be completely controlled by the properties of the d fluids.—Mrs. Scharlieb, M.D., M.S., read brief notes idwifery cases sent by Miss Benson from the Cama pital, Bombay. In one case of difficult version, where pelvis was contracted and the uterus bilobed, the fetal ax presented, both hands were down in the vagina, the l being in one lobe of the uterns and the breech and enta in the other.

---

ciety for the Study of Disease in Children.— a meeting on May 4th, devoted to pathological bits, Mr. G. Pernet in the chair, the following were ng the demonstrations:—Dr. Cautley: A larynx congenital laryngeal stenosis from a child aged nths, the epiglottis being folded on itself longitudin- so that the superior aperture was much narrowed.— Sutherland: A skull with congenital syphilis and ocephalus; it showed well-marked craniotabes, and results of intracranial drainage for hydrocephalus. d contracted until the bones were over-riding.—Dr. A. them: (1) A stomach showing ulceration round the rus covered with diphtheritic membrane; (2) a section embrane from the pylorus showing diphtheria bacilli.— J. G. Emanuel (Birmingham): Three specimens of enital deformity of the heart. In the first, the aorta pulmonary artery arose from a single ventricle, pro-y the right. All the valves were normal. In the second, the aorta arose from the right ventricle and the pulmonary artery from the left, and the foramen ovale was widely open; this specimen was from a boy aged 11. In the third, the membranous part of the intraventricular septum was absent, and the aorta arose as much from the right as from the left ventricle.—Dr. F. Langmead: (1) A primary sarcoma of lung removed from a girl aged 5. The signs during life were those of pleural effusion. (2) A brain showing meningeal haemorrhages due to whooping-cough; the coughing had not been especially severe before the onset of the nervous symptoms. (3) A skull and lower jaw from a child who died of meningitis. The skull showed several areas of tuberculous osteitis; the bone with the exception of the inner table was replaced by caseous material; a similar condition was found in the lower jaw and malar bones. (4) A microscopical section from a girl aged 8 months, showing many tubercle bacilli from the base of a gastric ulcer; a second specimen, from a boy aged 1 year and 11 months, also showing tubercle bacilli.—Mr. George Pernet: Microscopical sections of naevi cystepitheliomatosi disseminati (lymphangioma tuberosum multiplex). This was a very rare disease, consisting of numerous small tumours situated about the upper part of the front of the chest mainly, but also on the back and face. The specimen was from a woman aged 25, in whom the growths were said to have appeared at 16. The histological appearances were small cysts with colloid contents and strands and aggregations of cells, considered to be of epithelial origin.—Mr. H. S. Clogg: A sac from a right inguinal hernia studded on its inner surface with miliary tubercles.

Pathological Society of London.

Dr. Victor Bonney writes: Reading the report of the meeting of the Pathological Society in your last issue, I notice that in the epitome of my paper entitled Chorion-Epithelioma of Congenital Origin, your reporter has made three important errors. Will you kindly allow me space to correct them?

1. The case on which I based my paper was a chorion-epitheliomatous tumour primary in the great omentum of a man, and *not* in the testicle.

2. Your epitome says, "the structure of the new growth resembled that on the well-known *deciduoma* of the uterus." As I am in entire agreement with the view that attributes the origin of these tumours to the trophic ectoderm, no such statement occurred in my paper.

3. Your epitome says, "the author regarded the congenital forms as due to the inclusion of blastomeres." This is a partial statement only of the views I expressed. I stated that I believed these tumours to arise from cell seclusions formed *normally* or *abnormally* during embryonic life.

The *normal seclusion* I suggested was represented by the cells of, and derived from, the germinal epithelium—that is, that they are cells which have preserved intact those primitive potentialities to which their unbroken embryological descent from the blastomere would entitle them.

The *abnormal seclusion* may represent (*a*) a blastomere; (*b*) an element of one of the layers of the blastocyst (ectoderm); or (*c*) an element of one of the differentiated derivatives of one of the layers of the blastocyst (trophoblast).

A chorion-epithelioma may arise theoretically from any of these sources, more commonly, of course, in the areas of *normal* seclusion (testis, ovary).

The British Red Cross Society.—A public meeting to make known the objects of the British Red Cross Society was held on May 23rd at the Mansion House. Lord Rothschild, who was in the chair, sketched the origin and objects of the Society, which have been already fully stated in our columns. Lord Tweedmouth, who moved a resolution approving of the objects of the Society, said that it had been felt that there ought to be some central organization which should organize in time of peace assistance for the medical service of the Navy and Army in war, and offer such additional comforts and general help as might be considered to be beyond the reasonable scope of the official provision made. The motion was seconded by General Lord Methuen. Sir Frederick Treves, in moving a vote of thanks to the Lord Mayor, read a letter from the Prince of Wales, who wished success to the Society, and said that it was one whose welfare the Queen had much at heart. The Prince added that much general aid had been forthcoming from the Colonies, and expressed the hope that in time a branch of the British Red Cross Society would be formed in every part of the empire.

REVIEWS.

HANDBOOKS FOR THE OPERATING SURGEON.

Mr. C. Yelverton Pearson's *Modern Surgical Technique*[1] is a well-written and useful handbook, and, on the whole, one which is representative of present-day surgical opinion. The author wisely starts with definitions, and sets out clearly the proper use of the terms "aseptic" and "antiseptic." Against the word "aseptible," which he coins in one paragraph, we protest strongly. A good general survey of the subjects of surgical bacteriology and infection is followed by a chapter on disinfection and sterilization; the comparative reliability of the means which have been employed to produce sterility is clearly stated. A valuable chapter is devoted to the consideration of the numerous chemical substances which have been employed as antiseptics, and here particular attention is directed to the value and uses of the preparations of iodine. The old remedy—friar's balsam—is also highly spoken of for the packing of cavities after operations on the mouth. The subject of hand disinfection is rightly accorded a lengthy consideration. Mr. Pearson is one of the increasing number of surgeons who rely on the use of spirit and a spirituous solution of mercury biniodide for skin cleansing. He quotes Mr. Leedham Green's researches on the comparative merits of various methods of hand disinfection; but he fails to quote this writer's conclusion that as no method of skin disinfection is quite satisfactory, the logical practice is to wear rubber gloves. He leaves us, in fact, without a definite statement of his views and practice on this matter, but quotes with apparent approval Senn's view that "it is easy to foresee that the practice will never become general." Some interesting researches are given on the results as to sterility obtained by the author's method of preparing his hands. To be of clinical importance such tests ought to be made ten minutes at least after the preparation is over, and when the hands have been in use for at least this period; also when experiments are made as to the sterility of the patient's skin the axilla and the groin should be chosen. What the surgeon desires to know is whether there is any method which will ensure a practical sterility of his hands during the course of a half-hour's operation. No one has yet provided a satisfactory answer to this, and under the circumstances it is difficult to escape the alternative of gloves. The preparation of instruments, sponge materials, ligatures, and dressings is described with full detail and in a thoroughly accurate and reliable manner. The author looks upon the filter as an unsatisfactory means of obtaining a sufficient supply of sterilized water for hospital use, and recommends a special water sterilizing apparatus. The efficiency of the filter really depends upon the hot-water supply of the hospital, with a good supply it is quite satisfactory. In the latter half of the book wound technique and operative technique are discussed, and a large amount of ground is covered. The chapters are full of valuable practical suggestions, many of them based on the author's own experience, and they also exhibit a large acquaintance with the practice of others. To practitioners and students the book may be recommended as a well-arranged and accurate guide.

There can be no doubt that *Post-operative Treatment*[2] forms a handsome and, what is far better, a handy volume after the type of the best current transatlantic medical works. Dr. Morse rightly insists that operating is taught too much and post-operative treatment too little. The average graduate in surgery, he asserts, knows little concerning the proper management of surgical cases after operation. Most of his time in college is engrossed with what appears to be the more important matter of surgical technique, pathology, and bacteriology. As it is in Iowa, so it is in many medical schools elsewhere. Dr. Morse i also in accord with cosmopolitan surgical opinion when he asserts that the graduate only realizes the great importance of minor details when in actual practice he i thrown upon his own resources, and the skill which he may then acquire is obtained through personal experiences with suffering patients. Thus, thi work has been prepared on the soundest principles. The reader will be prepared to find thi treatise much as he might expect it to be judging from other New World publications. It is written well up t date and is full of detail, therefore it is admirably adapted for reference. Thus, every student has not the opportunity of assisting at an excision of the Gasserian ganglion. Hence, it is advisable that when qualified h should be aware that steps must be taken after operation to avoid a collection of blood between the dura mater and the flap. The management of amputations, where after-treatment is all-important, is discussed as fully as i deserves. It is refreshing to find that laparotomy is no made to overshadow the entire work, whilst, of course Dr. Morse has not solved the unsolvable theme of drawing up a series of directions with which all or even any tw experienced operators would agree. Nevertheless, it i not surprising to find that his own directions ar eminently suited to their object. The formulae for food and prescriptions are very useful for their purpose. Thi treatise is not of a kind suitable for study from title-page to "finis," being essentially devised for reference. W find that it is not altogether free from defects seldom absent from modern educational works for "post graduate" students. The learner is still a student although he may hold a qualification; hence, the teache had best confine himself to doling out his own instructions based on personal experience. Dr. Morse is experienced, and it would have been better if h had written less about what others recommend Qualifications of details based on the practice of tw or more different authorities are highly confusing to the student. Dr. Morse, however, shows that he can relate variations of method in a really instructive and intelligible manner, in those pages devoted to the preparation of the field of operation by different surgeons. Dr Joseph Price's pungent satire on unintelligent drainage and incisions (page 17) is, we all must allow, well worth perusal. Still, what the reader wants is Dr. Morse' opinion, for it is worth having, and more than sufficien for those practical ends for which his book was designed.

Mr. L. A. Bidwell leaves us in some doubt, in hi *Handbook of Intestinal Surgery*,[3] as to the standard b which he would desire the book to be judged. The preface prepares the reader for an elementary book of instruction in the technique of intestinal work, but the chapters cove a much wider field than this, including as they do th consideration of the operative treatment of practically al the affections of stomach and intestine which call fo surgical interference. It seems, therefore, that it is as guide to the surgical treatment of gastric and intestina affections that the book must be discussed. The firs chapter is devoted to intestinal suture; a description i given of the anatomy of the coats of the bowel, of th materials required for an anastomosis, and of the differen varieties of suture, the Halstead interrupted stitch being that which the author particularly favours. The method of closing bowel wounds, and of performing a latera anastomosis occupy the second chapter; in the paragraph on lateral anastomosis by continuous sutures the illustrations fail to illustrate the text in some important details End to end anastomosis by suture alone is first described Maunsell's method is said to be the only satisfactory method by a single row of sutures; if any method by single row is worth mentioning to-day we would hav said that the Connell stitch should have been given the preference over the Maunsell. The interrupted double row method is clearly described and illustrated one of the most easily-grasped descriptions of which w are aware, and useful to the beginner. The double continuous suture is said to be difficult to perform without producing constriction, an objection which we do no think can be sustained from actual experience. From th bject of anastomosis the author proceeds to the descrip- on of special operations, those on the stomach coming st. The condensed manner in which many of these ecial operations are described detracts from the useful- ss of the book as an actual guide. Posterior gastro- terostomy, for example, cannot be described in 25 lines such a way that a surgeon can set about performing it the first time even on the cadaver without further struction. Mr. Bidwell recommends anterior in pre- ence to posterior gastro-enterostomy for those whose perience is small; he sets out the advantages and sadvantages of the one and the other, but from some of e stated disadvantages of the posterior operation many rgeons we think would dissent. Gastro-duodenostomy not described, neither Kocher's nor Finney's, the thor holding that the operation is not to be recom- nded. On the other hand, pyloroplasty is described, t the objections to the operation are stated. Among the testinal operations prominence is given to ileo- lostomy, and its great advantages over the ordinary lostomy are pointed out, in connexion with several the conditions for which the latter was until ently always performed. The advantages of ileo- ostomy for the closing of an artificial anus of the large estine are emphasized, and later the author makes the eresting statement that he has performed this opera- n ten times for acute obstruction in cancer of the colon th eight recoveries and two deaths. Operations on the pendix complete the list of special procedures described. e last two chapters deal with the preparations before treatment after abdominal operations. Under the st heading the preparation of all the various materials ed is considered, and also the preparation of the patient. e author's method of skin preparation is as follows. e abdomen is scrubbed with soap and water and a flesh- ish, turpentine is then rubbed in, and 1 in 20 carbolic d applied with a brush, and the part covered th a towel soaked in 1 in 40 carbolic solution. Before operation the skin is again scrubbed with soap and ter, then with 1 in 20 carbolic acid, and lastly with ne 1 in 1,000 mercury perchloride. The hands of the geon he advises to be treated by brush and soap for minutes, and then soaked for three or five (*sic*) minutes 1 in 1,000 solution of mercury perchloride. With regard these two methods, it must be remarked that experi- nts have shown that, on the one hand, neither render hands approximately sterile, and, on the other, that re are several methods greatly superior. The author uses ves only for septic cases; he says, "several surgeons have ommended and used gloves during operations," and t these are of "rubber, cotton, or fine silk." Both tements convey a somewhat wrong impression; it ıld have been more correct to state that most surgeons this and other countries wear gloves during all opera- ns, and that rubber gloves alone are now used. The y point calling for remark in the observations on the atment after operation is the free use of alcohol ised. In most cases, it is said, stimulants will be uired from the first day, a rapid pulse indicating the essity for pushing alcohol.

---

[1] *Modern Surgical Technique in its Relation to Operations and Wound Treatment.* By C. Yelverton Pearson, M.D., M.Ch., F.R.C.S. London: John Bale, Sons, and Danielsson. 1906. (Demy 8vo, pp. 392; 115 illustrations. 10s. 6d.)

[2] *Post-operative Treatment:* An Epitome of the General Management of Post-operative Care and Treatment of Surgical Cases as practised by prominent American and European surgeons. Together with suggestions concerning the technique of certain operations with a view to securing better post-operative results. By Nathan Clark Morse, A.B., M.D., Surgeon-in-Chief to "Emergency Hospital," Eldora, Iowa, etc. London: Rebman, Limited. 1905. (Demy 8vo, pp. 468, 160 illustrations. 17s. 6d.)

[3] *A Handbook of Intestinal Surgery.* By Leonard A. Bidwell, F.R.C.S London: Baillière, Tindall, and Cox. 1905. (Demy 8vo, pp. 157 91 illustrations. 6s.)

PATHOGENIC MICRO-ORGANISMS.

PARK's work on *Pathogenic Micro-organisms*[4] is well ve the average of the ordinary student's textbook. ugh intended for the student and physician rather than the original investigator, it is really interesting; it is the usual weary reproduction of the reiterated lecture- es, designed as a milk-and-water pabulum for the mination candidate who is supposed to be in danger of ıtal overstrain; it attacks the important problems of pathogenic bacteria and protozoa with the vigour of uine enthusiasm, and brings into evidence the results ecent research without any nervous apprehension that student may become weary or confused by the discus- ı of questions which are not yet completely elucidated. book is obviously intended for readers who desire to elop an interest in pathology, not for those who are tent with a smattering. The complicated question of relation of the diphtheria bacillus to the so-called "pseudo" varieties is very fully analysed, and there is a good account of theories concerning the action of tetanus toxin. The chapters on the pathogenic protozoa are brought well up to date, and we notice that they include references to Dutton's work on tick fever, Schaudinn's discovery of the *Spirochaeta pallida*, the Negri bodies in rabies, and Rogers's observations on the Leishman-Donovan bodies. The method of exposition is lucid, and can be followed without any previous knowledge of bacteriology by a reader who is seriously interested in the subject.

Each succeeding edition of ABBOTT's well-known *Principles of Bacteriology*[5] is marked by increase in bulk and various minor changes in the arrangement and scope of the contents, necessitated by the constant advances in this science. The edition now before us, the seventh, differs from its predecessors in appearance only by the colour of the binding; but in the text, which has been completely revised and brought up to date, the author has made a striking innovation by the adoption of the classification and nomenclature elaborated by Migula in his *System der Bakterien*. While expressing no opinion on the relative merits of the rival systems of classification recently put forward, we cannot refrain from questioning the utility of introducing Migula's classification—a system which hides Fraenkel's pneumococcus under the confusing title of *Bacterium pneumoniae* and the bacillus of blue pus under the cognomen *pseudomonas aeruginosa*—into a manual written, as this avowedly is, for the medical man and student. Many authorities now prefer to consider spirochaetes as protozoa, but they are here included under the Spirallaceae; we note, too, that none of the members of this group are described or again referred to. Apart from our difference of opinion with the author on the point of nomenclature, we have nothing but praise for this little book. It is evenly balanced, combining theory and practice in just proportions, and whilst chief prominence is rightly given to the association of the generally-accepted pathogenic bacteria with disease conditions, the commoner saprophytic bacteria, and particularly those which resemble disease-producing organisms, are by no means neglected. The technical details, which occupy more than half the book, are well chosen, accurate, reliable, and modern, so also are the methods advocated in clinical diagnosis. Of the new matter the most prominent sections are those dealing with "paratyphoid" bacilli and the dysentery bacilli; the chapter on infection and immunity has been rearranged and expanded, and now forms a most interesting summary of recent researches in these subjects.

FIRST AID ORGANIZATION IN GERMANY.

PROFESSOR MEYER's book on the condition of first aid and invalid transport in the German Empire[6] will specially appeal to those interested in statistics, as the subject of which it treats is illustrated by numerous statistical tables, charts, and maps.

In December, 1901, a Central Committee for directing first aid was founded by several of the most distinguished medical and sanitary authorities in Prussia. The author of this book was a member of this Committee, and the various German medical societies, workmen's insurance societies, Red Cross and ambulance associations were represented on it. A series of questions were drawn up by the Committee, and forwarded to the authorities of every town and district in the Empire. The fact that nearly 12,000 answers were received shows the completeness of the inquiry, which embraced the subjects of the rendering of first aid in cases of sudden illness and accident, and of invalid transport, in all their bearings.

Dr. Meyer minutely analyses these various answers, and from the mass of statistics he furnishes we extract a few which seem to be of special interest.

He tells us that there is one medical man to every 1,879 inhabitants in the German Empire; one first aid station to every 5,909 persons, one hospital to every 8,950,

---

athogenic Micro-organisms, including Bacteria and Protozoa. By iam Hallock Park, M.D., assisted by Anna W. Williams, M.D. nd edition. London: Henry Kimpton. 1906. (Demy 8vo, pp. 556. llustrations, 4 plates. 18s.)

[5] *The Principles of Bacteriology.* A Practical Manual for Students and Physicians. By A. C. Abbott, M.D., Professor of Hygiene and Bacteriology and Director of the Laboratory of Hygiene, University of Pennsylvania. Seventh Edition. London: H. K. Lewis. 1906. (Demy 8vo, pp. 689, 100 illustrations, 24 coloured. 12s. 6d.)

[6] *Das Rettungs und Krankenbeförderungswesen in Deutsche Reiche.* (The Condition of First Aid and Invalid Transport in the German Empire.) By Professor Dr. George Meyer. Berlin. Third Supplement to the Clinical Year Book. With 10 charts and 4 maps. 287 pp., 8vo. Jena: Gustav Fischer. 1906. (Demy 8vo, pp. 287. M. 14.)

one hospital bed to every 153 persons, and one invalid transport ambulance to every 20,730 inhabitants. There are also about 15,000 stations connected with the post offices for notifying sickness or accident cases by telegraph or telephone; these are usually in communication with a central station in each town, and are in many cases in direct communication with medical men. In Berlin and some other towns the number of beds vacant in the hospitals is daily notified to these stations.

In comparison with these figures it is interesting to note that in the United Kingdom there was in 1904 one medical man to every 1,377 inhabitants, and in 1905 one hospital bed to every 971 persons in England and Wales, from which it appears that the medical profession is even more overstocked in this country than in Germany, and also that our Continental neighbours are better provided than we are, both with hospital accommodation and with means for rendering first aid.

The municipal authorities in most of the large German cities undertake the duty of invalid transport, though in Berlin and some other towns part of the cost is borne by private individuals. On the whole, the cost of invalid transport compares favourably with the charges in London. One would have expected to find that infectious cases were removed to hospital at the expense of the municipalities, as is the rule in this country; yet we are told that in Dresden only are infectious cases removed free of cost to the patients; in most of the other cities the cost of transport is higher for infectious cases than for cases of ordinary illness or accident.

Dr. Meyer considers that the invalid transport arrangements in London are of a model kind. He states that Brunswick is the only city in Germany where male or female attendants, according to the sex of the invalid, accompany the ambulance, and recommends that female nurses should always be employed in this duty. He appears to think, however, that a female nurse accompanies every invalid removed in London (p. 174), whereas it is only in cases of infectious disease that trained nurses, supplied by the Metropolitan Asylums Board, invariably accompany the patients; nurses not being supplied by the Invalid Transport Corps of the St. John Ambulance Association, though of course patients' own nurses very often assist in their transport.

The fact that ambulance lectures in Germany are not, as in England, practically under the control of one society—the St. John Ambulance Association—probably accounts for the want of uniformity as to ambulance instruction which exists in that country. Although the great majority (1,520) of ambulance lecturers in Germany are medical men, yet there are as many as 59 non-medical lecturers, while in 109 instances instruction is given jointly by medical and non-medical lecturers. The lectures are as a rule free, but in some towns pupils pay from 1 to 10 marks for the course. In Berlin and many other cities the lecturers give their services free, but in some places they are paid from 50 to 150 marks for the course, or 240 to 300 marks per annum. As in this country, a very large number of policemen, firemen, and railway officials are thoroughly trained in ambulance work. There is a great deal of very interesting information in this volume, and evidently a large amount of labour has been expended on its preparation. It would be more useful, however, as a work of reference if it were more systematically arranged, and divided into chapters or definite sections. Moreover there is no index; its provision in a future edition would very much enhance the value of the book.

ELECTRO-THERAPEUTICS.

DR. ALBERT-WEIL has compressed a great deal of information into the second edition of his *Manual of Electrotherapy and Electro-diagnosis.*[7] In the first of four parts he deals with the elements of electro-physics, with the instruments employed, and the methods of application of the different forms of electrical energy. His descriptions and directions are succinct and clear, his figures and diagrams plain. The second part is devoted to the physiological effects of electricity, and the third to the applications of electricity to diagnosis. The remarks on the interpretation of responses, normal and abnormal, if too brief, are still pregnant. It is, however, to the fourth and largest part that the majority of medical readers will turn with most interest. At the first glance it would seem that the author, like almost every writer on the subject, finds in his particular medium a panacea for all the ills of the flesh. The headlines include the titles of almost every type and class of disease save the exanthemata. Upon closer examination, however, we are glad to acknowledge that Dr. Albert-Weil has preserved the balance of his judgement in some sort of equipoise. If, for example, we turn to the paragraph "tuberculous osteitis," it is only to find that M. Billinkin has had "some complete successes" by using high-frequency applications. No comment is offered upon the bare statement. When he speaks of epithelioma of the tongue and radiotherapy, it is merely to remark that Bisserié has communicated results which warrant us in hoping for the amelioration of inoperable cases, but no more. Dealing with cicatricial stricture of the oesophagus, he wisely condemns linear electrolysis as too dangerous, but finds a safer method in the use of olive-headed bougies just too big to pass. These, if attached to the negative pole with a current of 4 or 5 milliampères and merely left in contact with the face of the stricture, will find their way through unaided by pressure; at successive sittings with eight-day or ten-day intervals larger and larger electrodes are used. The author advocates a somewhat similar procedure for stricture of the urethra, but from the description given it would seem to offer few advantages over the use of unencumbered bougies. Under the heading of intestinal occlusion, Dr. Albert Weil states his opinion that, drugs failing, "electrical" treatment should be attempted before the surgeon is called in. He expressly excludes strangulated hernias, it is true; but he is thinking of something more than severe constipation, for he specifically mentions bands and adhesions. His method is to pass a long rectal tube, inject saline solution, and through the fluid to pass a continuous or sharply-interrupted current at a maximum of 30 to 40 milliampères. The stimulus sometimes produces an evacuation of the bowels when drugs have failed! So will an unelectrified enema; and what of the band? It is admitted that high-frequency treatment of pulmonary tuberculosis, of which a successful case was reported in the first edition, has not fulfilled its promise, and can do nothing that rest and open air cannot accomplish unaided. The details are given of an interesting case of lymphosarcoma which has apparently been "cured" by radiotherapy. The diagnosis was based on a biopsy, and a fair margin of time has elapsed. Dr. Albert-Weil does not claim to accomplish miracles; often he is content to describe his treatment—as, for instance, in tabes dorsalis—without vouchsafing any definite information as to results. The book is worth attention.

NOTES ON BOOKS.

SOUND AND RHYTHM.

THE author of the little school-book, *Sound and Rhythm*,[8] feels that there is a tendency to make children's education too literary and to neglect the inculcation of habits of thought and observation. He will find many to agree with him, but it is doubtful if he will convince either the public or the pedagogue that the study of the phenomena of sound affords a good basis for reform. Tyndall long ago demonstrated that abstruse subjects such as light, heat, and sound might be made intelligible and of entrancing interest to the young, but it is one thing for Tyndall to lecture and to perform beautiful experiments, quite another for any man to compress within a hundred pages the means for master or mistress to train the young idea in class. And the author is not quite another Tyndall; some of his chapters are lucid; some of his pictures would do no discredit to a "story book," but, on the other hand, his chapters on scales and on organ pipes are not very easy reading. The anatomy of the ear is very well illustrated by models of the bony parts, which are the most successful part of the scheme, but the physiology of hearing is, as might be expected, something of a stumbling block. The use of magnified phonograph records for the illustration of sound waves is a happy idea. The price of the models, supplied separately, is a guinea.

---

[7] *Manuel d'Electrothérapie et d'Electrodiagnostic.* Par Dr. E. Albert-Weil. Deuxième édition. Paris: F. Alcan. 1906. (Crown 8vo, pp. 352. Eighty-eight illustrations. Frs. 4.)

[8] *Sound and Rhythm.* By W. Edmunds. London: Baillière, Tindall and Cox. 1906. (Crown 8vo, pp. 108; 50 illustrations 2s. 6d.; models, 21s.)

ORGANIZATION OF CANCER RESEARCH.

GREAT BRITAIN.

As the complexity of the problem of cancer has forced itself more and more on the attention of pathologists, the need of organized research has made itself felt. There are now in this country and abroad several laboratories which have been established for the investigation of the disease from every point of view. A brief account of the principal of these is here given.

Middlesex Hospital Cancer Charity.

The oldest institution which concerns itself specially with cancer research in this country is the Middlesex Hospital Cancer Charity. On June 19th, 1792, in accordance with resolutions passed at a special Court of Governors in the previous January, a ward was opened in the Middlesex Hospital for patients suffering from cancer. One of the resolutions provided that such patients should remain in the hospital "until either relieved by art or released by death." The initiator of the scheme was Mr. John Howard, surgeon, of Argyll Street, who inspired a wealthy friend to provide funds for such a foundation. On October 12th, 1791, Mr. Howard addressed a letter to the medical staff of the Middlesex Hospital, in which he said he had been requested to put down in writing what he conceived to be the best means of affording relief in a public institution to persons suffering from cancer. He indicated two objects to be aimed at: The relief of actual sufferers and the investigation of the disease. By an institution comprehending these two objects he said he had a hope, "not only that the diseased, but that practitioners in general may be benefited, that much useful knowledge may be disseminated, and that we may in no great length of time be furnished with documents on the disease and cure much more authentic than any we are at this time in possession of." The name of the unknown benefactor was not revealed till after his death in 1796, when it transpired that it was Mr. Samuel Whitbread, who was an intimate friend of another John Howard, the famous philanthropist. The original oundation was intended for women, and with the help of urther donations from later benefactors the accommodation was gradually increased, and at the beginning of 1900 a new cancer wing for female patients was opened. Male patients were not received till about 1815. In an historical ntroduction by Dr. Sidney Coupland, prefixed to the report of the Cancer Charity for the year 1903, from which this brief account is compiled, it is stated that the charity onsists of 49 beds which are kept exclusively for cases of malignant disease, in which no further relief by surgical peration is possible. That the original founder had esearch, as well as the relief of sufferers, in mind is pparent from the passage from Mr. Howard's letter which has been quoted. He holds up to inquirers the example of Sydenham, who says: "I have often thought that if I new accurately the history of any disease I should never e at a loss for a proper method of treating it." He also cites Lord Bacon, who observed that medical men should make themselves proficient in physic by studying one disease at a time, a counsel which, he adds, was adopted by Pott, and by him recommended to all students of surgery. The importance of research was also in the mind of a great benefactress, Dame Alithea Maria tafford, whose bequest was inspired by the twofold object of "curing persons afflicted with cancer, and of investigating and promoting our general knowledge of treating that dreadful disorder."

From the first all methods of treatment that gave any real promise of usefulness have been fairly tried in the cancer wards of the Middlesex Hospital; but systematic scientific research into the nature of the disease was scarcely possible till a few years ago. The opening of the new cancer wing afforded an opportunity of establishing laboratories for the purpose. A first step was the constitution of a Cancer Investigation Committee, consisting of the senior physician, the three surgeons, and the lecturers on medicine and general pathology. A Director was appointed to control the Research Laboratories established in the new building, together with a pathological assistant and a resident registrar, to whom was entrusted the duty of taking charge of the wards under the surgeons and keeping the clinical records. The Laboratories were opened on March 1st, 1900. In the report for 1903 it is stated that the material at the disposal of the department in each year is furnished by about 250 cases of malignant disease, not including cases of recurrence. In connexion with the special cancer wards, from seventy to eighty *post-mortem* examinations are made every year by the staff of the research laboratories. In addition, the general wards of the hospital contribute about 20 *post-mortem* examinations of cases of internal malignant disease and material from about 150 cases operated on in the surgical wards. Reports, each as far as possible dealing with a series of malignant disease completely examined, are issued at intervals from the Cancer Research Laboratories. The reports also contain a series of papers embodying all original work bearing on the pathology of malignant disease carried out by the staff or by voluntary workers in the laboratories.

New methods of treatment, as by the *x* rays, radium, etc., are tried in suitable cases in the cancer department. Cancer "cures" are also tested. Under the first director of research, Mr. A. G. R. Foulerton, much valuable work was done, and under the present holder of that post, Dr. Lazarus-Barlow, the work and facilities for work have been greatly extended. In 1900 the Director had three assistants; now he has eight, including four trained men as paid assistants, two holders of research scholarships, themselves advanced men experienced in laboratory methods and in scientific work, and two voluntary workers who are in a certain sense in training for advanced research, but who unquestionably add to the working power of the place. Each researcher has a separate laboratory, and there is yet room for other workers. In addition to the laboratories, which are conveniently-sized rooms fitted up with all the more recent apparatus for histological, bacteriological, and bio-chemical work, there is a workroom where apparatus is constructed, altered, or repaired; a preparation room where the tissues, organs, etc., are hardened, embedded, and cut for the researchers; a library containing not only the most recent and valuable monographs on malignant disease, but current periodical literature on the subject; cold storage rooms in the basement, which are used for specimens; and the director's offices. The specimens and material in all its forms are so carefully classified and catalogued, that any case from 1747 onwards may be reinvestigated at short notice for purposes of comparative study. Every member of the department undertakes at least two pieces of work at one time—one statistical, based on this accumulation of years, and the other a piece of research. The value of the statistical work, being chiefly concerned with verified cases of malignant disease, is very great. The value of the research work depends equally on the positive and negative results, and both are published in the reports issued from the department. These annual reports comprise not only the description of such researches, but also the detailed pathological findings in some 300 fresh cases of malignant disease, and the features of the disease as it affects various parts of the body are studied in relation to all the statistics.

Imperial Cancer Research Fund.

The Imperial Cancer Research Fund originated in Oct., 1901, in a conversation between a private gentleman and Mr. Henry Morris, the present distinguished Honorary Treasurer of the Fund. The gentleman, who was penetrated with a sense of the immense importance of the cancer question, confidently anticipated that through his influence in the City of London and elsewhere he would be able to obtain within a short period a sum of £100,000 to £150,000 as the capital of such a fund. The Royal Colleges of Physicians and Surgeons were invited to take the control of the investigation. This they consented to do on certain conditions, and they appointed a General Committee to formulate a scheme of research. In 1902 the gentleman who had undertaken to raise the money required died before he was able to fulfil his promise. The scheme was not allowed to drop, however, and large donations were obtained from the Goldsmiths' Company, Mr. Bischoffsheim, and Messrs. Wernher, Beit, and Co., and an appeal to the public made by influential persons brought numerous promises of support. In July, 1902, a start was made towards carrying the scheme into effect by the appointment of a committee and executive officers. The Prince of Wales accepted the position of President of the Fund, to which, also, His Majesty the King accorded his patronage. Dr. Ernest F. Bashford was appointed Director and Dr. James A. Murray Assistant. Laboratories in the buildings of the Examination Hall of the Conjoint Board for England were placed at the disposal of the Fund by the Royal Colleges. The scope of the research comprises an investigation of cancer not merely from the standpoint of a disease in man, but as a part of a general biological investigation. With this view the cooperation of the veterinary profession, of the Board of Agriculture, and of zoologists has been sought from the beginning and fully utilized. Other main lines of inquiry are the collection of trustworthy statistics as to the prevalence of cancer in its various forms among different races and in different parts of the world. The therapeutic side of the question is by no means neglected. Methods of treatment that appear to rest on a scientific basis are carefully tested. Dr. Bashford has from the first endeavoured to get into close touch with other bodies engaged in the investigation of cancer with the object of co-ordinating the work as far as possible and preventing needless overlapping. Since the establishment of the Cancer Research Fund, readers of the BRITISH MEDICAL JOURNAL have been kept well informed as to its doings. A full account of the work and the various directions in which it is pursued was given in the JOURNAL on December 12th, 1903. Since then summaries of the annual reports have been given in our columns year by year, and we have had the privilege of publishing several papers by Dr. Bashford and Dr. Murray. One by Dr. Bashford, on a subject of considerable interest, appears in this week's issue.

It should be stated that in addition to the carrying on of researches in its own laboratories, the directors of the Fund encourage researches anywhere within the limits of the British Empire, and assist in the development of cancer research in various hospitals and institutions approved by the Executive Committee.

LIVERPOOL CANCER RESEARCH.

At the beginning of 1903 it was announced that the sum of £10,000 had been vested in trustees by Mr. T. Sutton Timmis, J.P., in furtherance of systematic investigations into the origin and cure of cancer, to be carried out in the new laboratories of experimental medicine of what is now the University of Liverpool and the Liverpool Royal Infirmary. The Infirmary assigned a room to serve as a ward laboratory for the purposes of the research, and the Council of the University of Liverpool granted the use of five large rooms in its laboratories. Dr. A. S. Grünbaum was appointed Director. His scheme of inquiry included therapeutic investigation and experimental work.

In 1905 Professor John Edward Moore, F.L.S., was appointed Director, with Mr. Charles E. Walker as assistant. The names of Professor Moore and Mr. Walker are well known in association with that of Professor Farmer by their joint researches on the cytology of cancer.

CANCER HOSPITAL, FULHAM.

In 1902 a research department was constituted. Dr. H. G. Plimmer is the Director. The research work has been continuously carried on from the beginning. It has included the microscopic and bacteriological examination of a large number of malignant tumours, and therapeutic trials of radium, *x* ray, and high-frequency currents.

GERMANY.

The Deutsche Comité für Kresbsforchung, of which Professor von Leyden is the President, was founded in 1900. The Committee, which comprises not only representatives of pathology, bacteriology, and practical medicine, but veterinarian and other experts, receives an annual subvention from the Imperial Treasury. It has no laboratories of its own, but collects statistical and other information, and allots grants in aid of researches.

Last year a Committee with a like object was formed at Karlsruhe under the auspices of the Government of the Grand Duchy of Baden. Among the members are Professors Czerny, Erb, Hegar, Baümler, and other leading representatives of medical science.

Mainly owing to the efforts of Professor Czerny, a special institution for the study of cancer is now in course of erection at Heidelberg. It consists of two parts, a hospital and a research department. Professor Czerny has undertaken to discharge the duties of Director for five years.

OTHER EUROPEAN COUNTRIES.

Organizations for the collection of information about the disease exist in Austria, France, Belgium, Holland and Spain. At present, as far as we know, these bodies do not directly promote experimental research, but limit themselves to a collective investigation as to causes, prevalence, etc.

THE UNITED STATES.

BUFFALO.

The Buffalo Cancer Laboratory really owes its inception to the energy of Dr. Roswell Park, who in the spring of 1895 induced the Legislature of the State of New York to appropriate $10,000 for the purpose of organizing a State Laboratory for the Study of Cancer. The appropriation was, however, vetoed by Governor Black, and the work thus hindered for a year. In 1898 another appropriation was made through his efforts, and this time the Governor signed it, thus enabling the sum of $10,000 to be appropriated for the purpose of "equipping and maintaining a laboratory to be devoted to studying the causes, mortality-rate, and treatment of cancer." Since that time annual appropriations have been made, the amounts being increased to $15,000 yearly.

The work was incorporated and carried on under the auspices of the Medical Department of the University of Buffalo, and for four years the laboratories were located in its building. But in time the work grew to such an extent that much more room became necessary, and generous friends of the University gave the land upon which was erected, through the generosity of the Gratwick family, a beautiful research laboratory known as the Gratwick Laboratory. This building was completed in the spring of 1902, and the work has since that time been conducted very much more satisfactorily and to better advantage, thanks to the increased accommodation. It stands on High Street, directly opposite the Buffalo General Hospital, whence comes a large proportion of the material utilized in study. This building has ample accommodation for all kinds of research work in connexion with the study to which it is dedicated and almost exclusively confined.

The organization is such that three principal departments are conducted in a way independently, and yet in amicable conjunction with each other. These are the pathological, the chemical, and the biological, each department having its own head, and the working staff meeting at frequent intervals to discuss the work and confer with the Advisory Committee of the Medical Faculty.

The work actually done under State aid is under the final supervision of the Commissioner of Health of the State of New York, whose head quarters are in Albany. The annual reports of the Laboratory are published by his department. For the first year or two Dr. Roswell Park was the actual Director of the Laboratory. As the work increased and was subdivided, Dr. H. R. Gaylord became, and still remains, Director. The department of bacteriology was placed first in charge of Dr. H. D. Pease, and later of Dr. H. G. Matzinger. Within the past year or two it has become so apparent that the problems attacked were not to be solved along ordinary bacteriological lines, that the purely bacteriological aspect has been made subordinate to the biological and the experimental lines of study, and at present there is no separate bacteriologist in the Laboratory staff. Dr. H. G. A. Clowes has from the beginning had charge of the chemical and biochemical department, and within the past two years the department of biological study has been under the direction of Professor Gary Calkins, of Columbia College, New York. These now constitute the active working staff, having in all ten assistants and helpers. The general work of the Laboratory is under the supervision of the Advisory Committee of the University of Buffalo, consisting of Dr. Roswell Park and Dr. Charles Cary.

For the last two years the work done in the Gratwick Laboratory has been mainly along the lines of animal experimentation, original material for which was secured from Professor Jensen, of Copenhagen. For instance, there are at present in the animal rooms, under constant observation, some 2,000 white mice and about 300 white rats. Each animal inoculated is made the subject of a careful clinical history, and is followed from the day of noculation to the day of its death, careful notes being made of its life-history as well as of the autopsy. In all, at least 3,000 white mice have been inoculated, in more han one thousand instances successfully, with cancer. The subject is being studied from every possible standpoint, he material is worked up pathologically and chemically, while constant experimentation is made concerning the questions of virulence and immunity, and extremely nteresting observations have been made relating to the nfectious nature of the disease. Numerous papers have been published by the working staff in various journals of the United States, especially in the *Journal of Experimental Medicine* and the *American Journal of Medical Sciences.* Most of these papers are collected at the end of the year n the annual report of the Laboratory.

Studies have been made of different cancer districts in he State of New York, and some most interesting results ave been obtained. Dr. Lyon, at one time connected ith the Laboratory, also made an extremely important tudy of the City of Buffalo, pointing out and indicating pon a map every house in which death from cancer had aken place; it appeared that in many instances in ertain houses several deaths, not necessarily in the same mily, had occurred. Were the State of New York more beral in its appropriations more work of this kind ould be done. It has, however, always been difficult to et the average legislator to appreciate the difficulties and elays incident to such work or the reasons why intricate roblems cannot be solved at once.

The investigation of cancer at the Harvard Medical hool is made possible by the Caroline Brewer Croft und, a sum of $100,000, the income of which is available r research along lines relating to cancer. The work is nder the general direction of a Cancer Commission, nsisting of Drs. Henry P. Walcott and Arthur T. Cabot, presenting the Corporation of Harvard College, and Drs. enry K. Oliver and J. Collins Warren, representing the roline Brewer Croft Fund. Dr. Collins Warren is airman, and Mr. Robert B. Greenough Secretary.

The research was formerly carried on with Dr. E. H. chols acting as director, and with a number of investitors, each working upon a special problem. The results this work are incorporated in the three reports of the ncer Commission appearing in Vols. v, vii, and xi of e *Journal of Medical Research.*

The policy of allotting special problems to a number of vestigators has since been abandoned, and the research now conducted by the present Director, Dr. E. E. Tyzzer. the income of the fund, about $2,500 is set aside nually for the salary of the Director, the salary of his istant, and for current expenses. Additional funds are ilable when lines of work involving considerable outlay undertaken.

During the past year the study of the inoculable tumours mice has been taken up. Mice inoculated with tumours ve been received from Professor Ehrlich, Borrel, Dr. shford, and from the New York State Cancer Laboratory. e Jensen tumour and the Ehrlich tumour, "Stamme II," ve been successfully propagated. Metastases have urred in the lungs of mice inoculated subcutaneously h these two tumours in a small number of cases. ere also occurred a metastasis of the liver in a mouse culated in the same manner with the Ehrlich tamme II" tumour.

n carrying on these inoculations purchased mice have n used to a small extent, but home-raised mice are efly relied upon. The latter are considered preferable several reasons. In the first place, it is impossible to ulate successfully certain strains of mice with the ours which are being propagated, so that the results of inoculation of purchased mice are usually uncertain. other objection to the use of purchased mice is the ger of introducing infections which may become lemic and destroy mice already under observation. On other hand, by careful selection in breeding mice, it is ible to increase very notably the susceptibility to ulation with tumours. The mice which produce eptible offspring may be selected, or rapidly-growing tumours may be removed by operation and the cured mice then used for breeding purposes. For certain lines of work more valuable data are obtained by the use of mice of a fairly constant susceptibility than if mice of variable or uncertain susceptibility are used.

Two non-related primary growths, a tumour of the lung and a tumour of the kidney, were found in an old breeding mouse. As this case presents certain features of interest it will soon be published.

Under an endowment provided by the Collis P. Huntington Fund for Cancer Research, the Loomis Laboratory of Cornell University has been engaged on experimental investigations into cancer since October, 1903. The research is under the direction of Dr. S. P. Beebe, who is assisted by Drs. P. A. Shaffer and Martha Tracy. Attention has been devoted especially to chemical investigations, in the hope that some clue may be obtained as to the conditions under which cancer may arise. Accounts of the researches carried out have been published in various American scientific journals, and have been collected into a first volume of reports which has recently been issued.[1]

The investigations deal with the organic and inorganic chemistry of malignant tissues, the part played by nucleo-histon in the constitution of tumours, the presence of pentose, and the identification of enzymes. These investigations are certainly on the right lines, though it cannot be said that, in their present stage, they have brought to light any very important results.

Discussing the value of *x*-ray treatment in malignant disease, Dr. W. B. Coley expresses the opinion that there is good reason to believe that the rays exert a powerful influence upon cancer cells of all varieties, and that their influence is particularly marked in cases of cutaneous cancer. In some instances, chiefly in superficial epithelioma, the entire tumour may disappear, probably by reason of the fatty degeneration of the tumour cells and their subsequent absorption. In a much smaller number of cases where the disease has been more deeply seated, as in cancer of the breast and glandular sarcoma, tumours have disappeared under prolonged *x*-ray treatment, but he finds that in nearly every one of these cases which has been carefully followed up there was either a local or a general return of the disease within a period varying from a few months to two years after the alleged cure had been effected.

LITERARY NOTES.

THE Oxford Historical Society, as we learn from the *Periodical* kindly sent us by Mr. Henry Frowde, has recently issued a further instalment of Hearne's *Collections* (May 9th, 1719, to September 22nd, 1722). Under date March 31st (Fri.), 1721, occurs the following entry:

> This day Sennight was hang'd at Oxford (being the onely person condemn'd there this last Assizes) a young Man of about 22 Years of Age, for divers crimes. His Father and Mother, who live somewhere about Thame, were present at the Execution, and had a Coffin to bury him, but the Scholars, having combin'd to have him dissected, took the Body away by force, abused the Father and Mother in such a degree that the Woman miscarried, and is since dead, and carried the Body off naked, upon their Shoulders, to Exeter College, where one Dr. Furneux of that College dissected it. Dr. Lasher had sent a Warrant (as he is Deputy Professor of Physick) to the Undersheriff, Mr. Trollop, but Trollop took no notice of it, and therefore the Scholars took the Body away violently.

Such quarrels over the bodies of executed criminals were not uncommon in the good old days. In Paris the barbers and the surgeons were always trying to get the better of each other in gathering the unlovely fruits of what was then the tree of anatomical knowledge—the gallows.

The *Book Monthly* not long ago expressed surprise that schoolmasters should so rarely possess a literary style. It may be remarked, incidentally, that the fashion of our contemporary's own literary garments disguises whatever style it may be fortunate enough to possess. Nor has it the excuse which it puts forward on behalf of the schoolmaster, that "when he comes to write, the personality seems to disappear, and it is the pedagogue who goes down on paper." "Is this," asks the *Book Monthly*, "a penalty which a schoolmaster has to pay to his profession? If so, it is very hard." Our contemporary goes on to surmise that perhaps a similar sacrifice has to be made by doctors. "How few doctors have a literary style? or even literary tastes?" In the matter of literary style, doctors, we imagine, are not worse than other professional men who are concerned more directly with things than with the artistic presentment of them in words. Yet we can claim some masters who could touch the living lyre of speech as skilfully as any. Philemon Holland's translations of Pliny, Suetonius, and other classics are wells of noble English; Sir Thomas Browne is one of the glories of our national literature; Smollett wrote a racy and vigorous, if not a finically "literary," style; Percival Pott and John Bell could handle the language with effect; Thomas Watson and James Paget had a fine sense of literary form. Huxley will live by his style—for style is the great antiseptic—when the controversies in which he played so strenuous a part have become as obsolete as the disputations of the Schoolmen. Of him may be said what the great French critic, Brunetière, says of Claude Bernard, that his style is beautiful simply because it makes intelligible to all the new ideas which it expresses, "and that is the true function of literature."

---

[1] *Reports of the Collis P. Huntington Fund for Cancer Research*, vol. i. New York City. 1905.

Of course, dainty graces of literary style would be out of place in purely technical writings; but even here it is not necessary that medical papers and treatises should be horribly stuffed with monstrosities misbegotten by ignorance of Greek on the body of a lexicon. As a French writer, Champfleury, quoted by Dr. Brisard in the *Chronique Médicale*, says: "In presence of so singular a language, I don't know why Professor Piorry, who calls pregnancy a 'hyperendometrotrophy,' should not be admitted to the Academy as a member who might give special help in the compilation of the dictionary." We find opportunely in *The Periodical* a passage from Professor A. J. Ewart's preface to his translation of the third and concluding volume of Pfeffer's *Physiology of Plants*—just issued from the Clarendon Press—which bears on this subject, and may be quoted here with the less fear of offence to sensitive authors as it refers to writers who are not of the household of medicine:

> In regard to terminology, it has been the aim throughout to avoid the introduction of any new terms into the text of the English edition, unless the weightiest reasons existed for their adoption. The present tendency to a redundant and overlapping phraseology in plant physiology, if unchecked, will ultimately lead to confusion similar to that existing in taxonomy before the compilation of the *Kew Index*. The fact that a worker of the eminence, profundity, and breadth of Charles Darwin added only two or three terms to botanical terminology which could not be understood by reference to a standard English dictionary should make modern workers hesitate to encumber a developing science with more or less temporary pseudo-classical terms of doubtful utility or of none at all. "Physieclexis" and "epitedeioperileipsis" would have been poor substitutes for "natural selection" and the "survival of the fittest," and the use of such terms would probably have considerably retarded popular acceptance of the Darwinian theory.

Medical writers might take a hint on this as well as on some other points from Charles Darwin.

Dr. A. T. Brand (Driffield) writes:

> In your "Literary Notes" on p. 1177 of the BRITISH MEDICAL JOURNAL for May 19th, you deliver a homily on spelling in which you do not spare the "usually accurate" *Times*, and then you proceed to denounce the spelling of paramoecium. This you declare to be a misspelling, and a "deliberate flying in the face of derivation." The *Twentieth Century Dictionary* gives paramecium as the correct spelling and παραμηκης as the derivation; but the *Lexicon* of the New Sydenham Society, while printing the word paramecium, refers one to paramoecium, and gives as the derivation παρα and μοιχος, according to which the diphthong œ is correct. It is an interesting coincidence that on p. 1200 of the same issue of the BRITISH MEDICAL JOURNAL, in which the *Times* is taken to task for misspelling an uncouth and uncommon foreign name, another case of "deliberate flying in the face of derivation" occurs—namely, arrhythmia—in the title of a paragraph. This is also a misspelling, and should be spelled arhythmia, being derived from ἀ (privative) and ῥυθμος. After ἀ privative the consonant is *never* doubled—at least, it ought not to be. It would make one shudder to see aseptic, for example, spelt asseptic, and yet if *arr*hythmia is correct so is *ass*eptic.

We are as much gratified that our few lines on a point of orthography should be termed a "homily" as Thackeray was to find his Christmas story described as an "opuscule." We do not quite know whether or not Dr. Brand throws the shield of his erudition over "paramoecium," as he quotes conflicting authorities. We have reason to believe that the word would be spelt without the diphthong in a new edition of the New Sydenham Society's *Lexicon*, but we may point out to our correspondent that if he accepts the curious derivation from μοιχός, the form "paramoecium" is still not in accord with etymology which demands "paramoec*h*ium." We believe we are right in saying that the original describer wrote the word "paramecium" and it seems to us hardly fair to him to alter his spelling of a word which suggests its true derivation to another which suggests a meaningless one. In defence of "arrhythmia" we refer Dr. Brand to Plato, a highly respectable authority, who wrote ἀρρυθμία; information as to the doubling of ρ may be got from any Greek grammar. Possibly, as Dr. Brand says, it ought not to be doubled. But the Greeks, who, as may be gathered from their taste in jokes, were a simple folk, felt differently about the matter. We confess we have always had a sneaking sympathy with the party in the Strassburg Faculty which adopted this line of argument in the famous disputation about the stranger's nose, as related in *Tristram Shandy*:

> "He dies of a plethora," said they; "or must spit blood, and in a fortnight or three weeks go off in a consumption."
> "It happens otherwise," replied the opponents.
> "*It ought not*," said they.

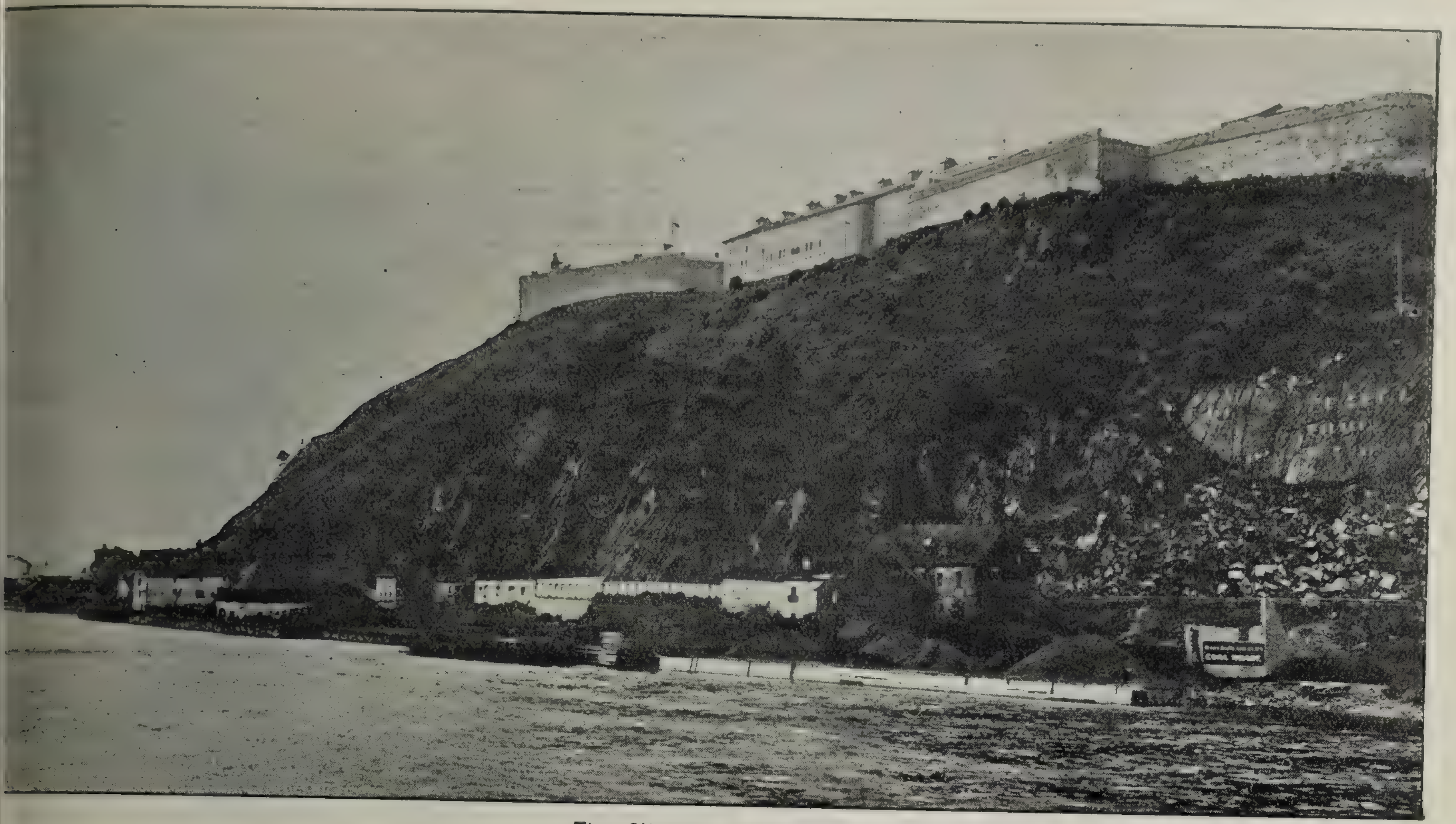
As a last word in this momentous discussion we may mention—and we note the fact with pleasure—that the *Times* has gone back to the right spelling of Professor Metchnikoff's name.

Progress for April contains some interesting papers. Mr. J. M. Hodge treats of farming in Denmark; Sir Horace Plunkett is illuminating on agricultural co-operation in Ireland; and Mr. A. Holden Byles gives an account of German labour bureaux. The periodical, of which this is the second number, fills a distinct place in the journalism of the day, and fills it well.

The International Congress of Criminal Anthropology recently held at Turin was made the occasion of a demonstration in honour of Professor Lombroso's scientific jubilee. A more touching homage is an article by his daughter Paola which appears in the *Nuova Antologia* of May 1st. She describes her father in his daily life. At the age of 70 he is still remarkably youthful in his outlook on life. He is pleased with the simplest things, and shows an almost childlike inexperience of the world, which, beautiful as it may be in itself, must at times be very trying to those about him. His family evidently treat him as one who needs to be looked after. He is extremely careless about money, carrying cheques and banknotes loose in his pockets, with the result that in pulling out his handkerchief or his gloves the precious slips of paper are scattered to the winds of heaven, or to the seeker for unconsidered trifles in the street. He buys every newspaper that is offered to him, and gives to every beggar who asks him. Naturally in his travels he has at different times found himself in distant places without money. The following sentence seems to give the key to the light and airy way with which he deals with "facts":

> He throws himself on the couch, sleeps, snores, wakes up, all in less than ten minutes; he dictates to his typist, corrects proofs, rushes from his house to his printer, from the printer's to the library, from the library to his laboratories, in a frenzy of movement, of action and of expansion.

At night he goes to two or three theatres, hurrying from one after the first act, from the other after a single scene. He always goes to the pit, not so much from democratic feeling as from a sort of avarice in regard to small matters of which his daughter gives some curious examples. Like the Athenians of old, he is always eager to hear of some new thing. He still, we gather, practises medicine, and, considering his extraordinarily loose notions of evidence, it is scarcely surprising to hear that he is a disciple of Hahnemann. He is greatly interested in hypnotism and spiritism, the phenomena of which he was among the first to study. On the whole, we get the impression of a man of lovable character, easily imposed upon, of somewhat volatile temper, restless and somewhat superficial in mind, and impatient in rushing to conclusions. This is just the picture we should have fashioned for ourselves out of his works, in which, interesting and suggestive as they are, the scientific spirit seems to us to be almost entirely wanting.



The Citadel, Quebec.

BRITISH MEDICAL ASSOCIATION.

Annual Meeting at Toronto.

August 21st—25th, 1906.

CANADIAN SCENERY.

[From a Canadian Correspondent.]

the members of the British Medical Association travelling from the United Kingdom to attend the nto meeting of the Association, the St. Lawrence route, at least for the outward trip, is strongly to be nmended. Then, if so desired, members may return via New York or Boston, as each of the Canadian lines urrangements with some American line for the issue of return tickets.

QUEBEC.

er about three days' sail up the magnificent awrence, with land in sight, the steamer reaches ec. As there are so many points of interest in and id this old French settlement, we would strongly visitors to leave the steamer here. There is first-class amodation at the Chateau Frontenac, and good ers at the Victoria or the St. Louis hotels.

see the town, secure a cab driven by an Irishman or léche," and take a drive about the city. The Falls of morency and Kent House are nine miles away by and a few miles further on is the shrine of Ste. Anne aupre, where thousands go annually to be healed. ve through "Lower Town," observing "Old France" "New World," is interesting and instructive.

other day may be spent in taking the Quebec and St. John Railway to Roberval, on Lake St. John, excellent fishing is to be found, travelling thence llowing day to Chicoutimi, where excellent quarters e found in the Chateau Saguenay at reasonable rates. Chicoutimi the steamer of the Richelieu and Ontario Navigation Company runs down the beautiful nay River in daylight, passing Capes Trinity and ity, past Tadousac and Murray Bay and back to Quebec. Thence the journey to Montreal may be completed by steamer, leaving Quebec at 5 p.m., reaching Montreal about 7 a.m., or by train in five or six hours.

MONTREAL.

A day or two may be profitably spent in Montreal, a city of 268,000 people, beautifully situated on an island in the St. Lawrence River. At the head of ocean navigation, Montreal has become Canada's greatest commercial centre. Steamers of the Allan, Canadian Pacific, Hansa, Donaldson, Furness, Dominion, and Head lines call regularly from ports in Great Britain during the summer season of navigation, and the numerous railway lines, the Intercolonial, Grand Trunk, and Canadian Pacific, make Montreal a centre for a vast and constantly growing traffic. With its commercial greatness, the city has the additional charm of historic attractions, and there are many places of interest which link the present with an eventful past. With imposing public buildings, magnificent churches, fine business blocks, substantial manufacturing establishments, capacious grain elevators, warehouses, and masonry docks and wharves, with splendid hotels and handsome residences, the city possesses all that is calculated to make a city attractive, and evidences of prosperity and

Niagara: Queenston Heights and Brock Monument.

wealth are everywhere. Some of the chief points of interest are: the Chateau Ramzay, Notre Dame Cathedral, St. James's Methodist Church, McGill University with its splendid pile of buildings, the Royal Victoria and General Hospital, and of course, the mountain, from which a magnificent view of the city and the surrounding country may be seen. Montreal is well supplied with hotels: the Place Viger, the Windsor, the Queen's, the St. Lawrence Hall, the Turkish Bath Hotel, etc.

MONTREAL TO TORONTO.

The journey to Toronto may be made by the Canadian Pacific Railway from the Windsor Street Station or by the Grand Trunk Railway from the Bonaventure Station; the fare will be $5 (£1) upon presenting credentials of membership in the British Medical Association and securing a certificate, to be issued by the Eastern Canadian Passenger Association, from the ticket seller. Luggage should be checked through to Toronto. If travelling by day we would advise the expenditure of $1 (4s.) more to secure accommodation in the café-parlour car. The Grand Trunk passes through one of the best agricultural parts of Ontario, affording glimpses from time to time of the River St. Lawrence and of Lake Ontario. If travelling by night a sleeper will cost $2 (8s.) extra; the lower berth is the more comfortable. After a trip of seven and a half hours by day or nine hours by night the traveller reaches Toronto, and will find the profession, and the citizens generally, waiting with open arms to make him like the city, the people, and the country.

The journey can also be made by the steamers of the Richelieu and Ontario Company, but if the traveller can choose it will probably be better to return from Toronto to Montreal by boat rather than go up by boat. Messrs. Stockwell and Co., 8 and 10, Beak Street, London, W., will supply full information on application.

AT TORONTO.

During Association week there will be many and varied festivities, including the annual golf match, bowling, luncheons, and various other entertainments.

Some preliminary particulars are printed elsewhere (SUPPLEMENT, page 280), together with information as to the accommodation which will be available in Toronto. There can be no doubt that this will be ample, for, apart from the numerous hotels and boarding houses, it has been arranged to place rooms in some of the residential colleges at the disposal of members.

EXCURSIONS FROM TORONTO.

On the Saturday (August 26th) two special excursions will be run; the one through the courtesy of Sir Henry Pellatt, from Toronto to the Niagara Power Co.'s plant and to the Falls, the other to Muskoka (125 miles), one of the most picturesque pieces of scenery in the world. The main shores and the islands studded with summer residences increase the natural beauty. During this trip an opportunity will be given members to visit the Muskoka Cottage Sanatorium for Tuberculosis.

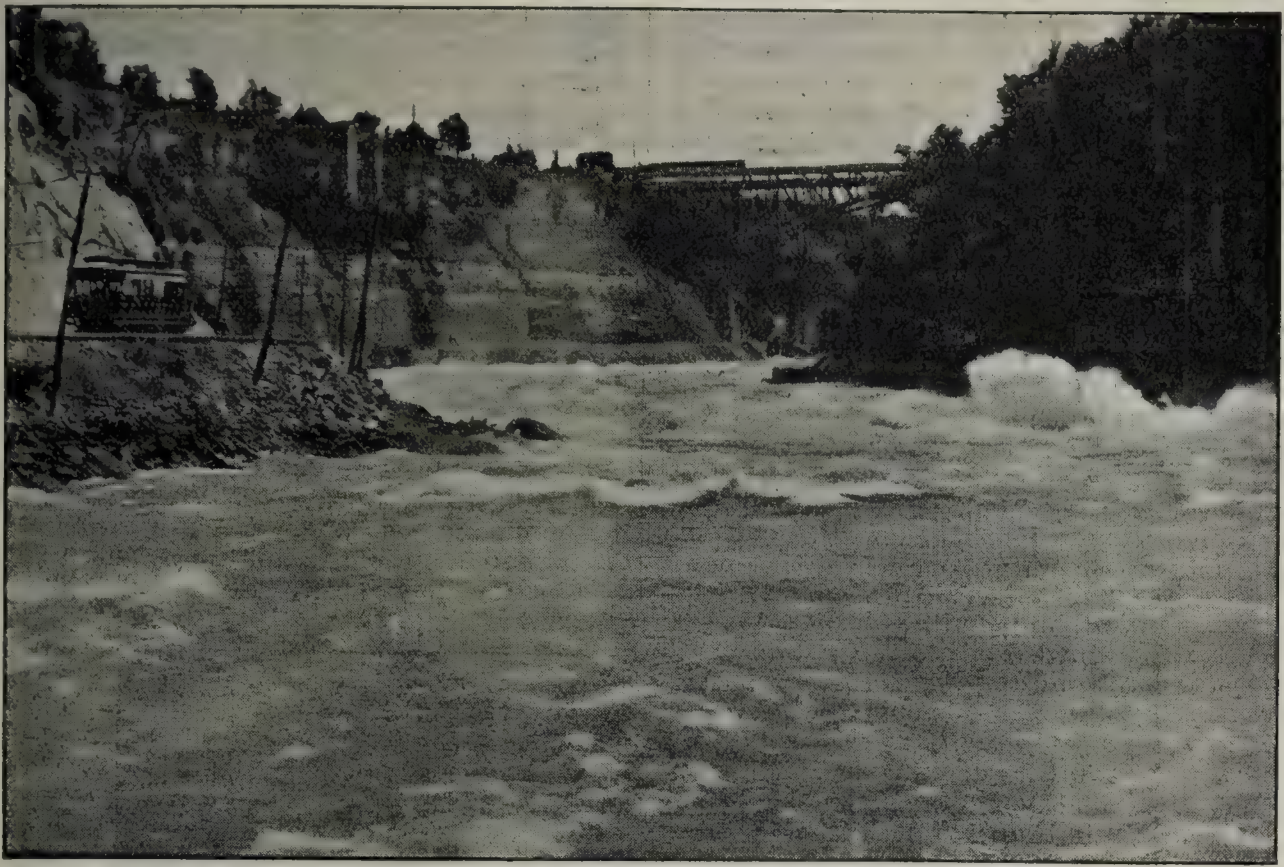
On the Monday following (August 27th) the Toron Industrial Exposition will be in full swing, and the interested in the development of a new country will well to spend a day or two and gain an idea of the p gress in stock raising, agriculture, horticulture, man facturing, etc., for this Exhibition, though it is an annu affair, has some features which are distinctive, and attended by over 500,000 people.

For those who go on the Niagara excursion we wou strongly recommend the Muskoka trip at their o expense. This could be accomplished upon the retu from Niagara by going on board a sleeping car at Toron at 11.30 p.m. (from Toronto to Muskoka Wharf $1. sleeper $1.50 extra). The train leaves at 3 a.m., a arrives at Muskoka Wharf (Gravenhurst) at 7 a.m., wh a steamer goes up the lakes (fare for round trip abo lakes $2.50). If time is an object it is possible to retu to Gravenhurst the same night and reach Toronto Monday at 7 a.m. Another delightful trip would be Toronto to Muskoka Wharf, thence to Port Cockburn steamer, stage (12 miles) to Parry Sound, steamer Penetanguishene (the bay of the rolling sands), train Toronto. The regular fare for the round trip is $9. (£1 17s. 10d.).

NIAGARA.

For those who take the Muskoka excursion it is und stood that they must see Niagara Falls, for who England would ever believe one had been to Canada if returned without seeing "The Falls"? This may be do by going to Gravenhurst on Sunday night, reachi Toronto at 7 a.m. This will give a breathing space of t hours before taking the Niagara boat at 9 a.m. and saili across Lake Ontario. (Beginning at 7 a.m., boats leave 9 and 11 a.m., 2 and 5 p.m., returning as late as 10 p.n The Association rate, Toronto to the Falls, is $1. (4s. 7½d.).

The splendidly-equipped steamers of the Niagara Na gation Company make six round trips daily (exce Sunday) between Toronto and Lewiston, New York, v Lake Ontario and the Niagara River, calling at Niaga on-the-Lake, Ontario, and Queenston, Ontario. Fro Queenston and Lewiston electric railways run along t brink of the Gorge, following the curves of the Niaga River to the famous Falls. Here the electric cars r close to the cataract within the cloud of the drifti spray. The suspension bridge between the Canadian a American towns of Niagara marks the commencement the Whirlpool Rapids and forms the beginning of t weird and dreadful Whirlpool seen half a mile belo The rapids are in constant view, and platforms a erected at intervals for the benefit of tourists who m wish to get off and continue by subsequent cars. Bo banks of the Niagara River constitute historic groun On the Canadian side the traveller will be interested the story of Sir Isaac Brock, who fills an importa place in Canadian history. Surmounting Queenst Heights is the superb obelisk to his memory, rivalli the Nelson Column in London in height a ility. Underneath, in a massive sarcophagus, rests dust of Brock and his aide-de-camp, McDonell, h of whom were slain in the battle of Queenston ights on October 13th, 1812, the first real conflict he war of 1812-14. On a clear day Brock's Monument y be seen by the naked eye from Toronto, 40 miles ant. At the base of the Heights stands the cairn, eiled by King Edward (then Prince of Wales) in 1860, ch marks the spot where Brock fell mortally wounded. quaint village Queens- nestling er the ghts, is ut 7 es from mouth lower agara er and same stance m the s. Nira-on-Lake is of the st towns Canada, was formly the ital of Pro- e. It is miles n the s and 33 s from nto, and ne of the most delightful summer resorts in Canada, tary life being a feature, as it is the camping ground e Canadian soldiers. The Niagara district is justly d the "Fruit Garden of America," but a brief sketch, as this must necessarily be, can give no adequate of the delights of a trip to Niagara.



Niagara: The Gorge below the Falls.

THE MUSKOKA LAKES.

om Toronto 112 miles. Cost for round trip (Associa- rate), $3.40 — 7½d.

e words "All rd for Mus- !" is a call h sends a thrill lightful anticion through sands who, ng perfected plans, are y to depart for greatest of all ada's playnds.

e word "Mus- " is derived the name of reat chief of the ons, "Musa- o" signifying r sky," and the ict well merits ame.

uated 1,000 ft. sea level, its de modifies the gth of the sun, the climatic conditions are most enjoyable. It is d with hundreds of pretty lakes of all sizes and s, the greatest and most beautiful of which is the called the Muskoka Lakes—namely, Lakes Muskoka, au, and Joseph.

e entire district is traversed by the Northern division e Grand Trunk Railway system from Toronto to North Bay, situated on Lake Nipissing. The railway company, fully alive to the importance of the Muskoka Lakes as a pleasure resort, offers during the tourist season a most complete double service of solid widevestibule trains each way daily from Toronto and Buffalo, N.Y., as well as Pullman cars on all night trains direct to Muskoka Wharf, the gateway to the lakes, at the town of Gravenhurst, 112 miles north of Toronto. The intending tourist will find himself on board the magnificent Muskoka Express, leaving Buffalo or Toronto at a convenient hour in the morning.

The trip from Toronto is a most interesting one, taking the traveller through a continuous scene of hill and dale, diversified with beautiful lakes and rivers, and until the more rugged portion of the country is reached the prosperous farmer is much in evidence, judging by the well-tilled fields and substantial buildings on every side. Many pretty and flourishing towns are passed on the way up, including Allandale, a divisional point on the Grand Trunk system. Here ample time is given to refresh the inner man until the steamer is reached at Muskoka Wharf, where a substantial dinner is served.

Next we come to the crescent town of Barrie, charmingly situated on the shores of Kempenfelt Bay, an arm of the large inland Lake Simcoe. Orillia, a thriving town of 6,000, which is next passed, boasts of many beautiful residences, thrifty stores, and manufacturing establishments. It is beautifully situated on the shores of Lake Couchiching, which is connected with Lake Simcoe. Twenty-six miles farther north we reach Gravenhurst, a town of considerable importance, lying at the foot of Lake Muskoka, the southernmost of the three Muskoka Lakes. Gravenhurst possesses several large lumbering plants, busy stores, etc. On account of its healthful surroundings it has been selected as the site of two large sanatoriums for consumptives, the only institutions of the kind in Canada. A large percentage of the cases received at these institutions are discharged cured, and many others, more advanced probably, are so benefited that their lives are indefinitely prolonged, to the comfort and enjoyment of

Muskoka: Lake Joseph.

themselves and friends. This speaks volumes for the healthfulness of this region, which is characteristic of the entire Muskoka District.

Pausing for a moment at the station of Gravenhurst, the train proceeds to Muskoko Wharf, one mile distant, where are found moored alongside the splendid steamers of the Muskoka Navigation Company, with steam up. The company maintains on the lakes a fleet of ten modern and up-to-date steamers, ranging from the natty, swift running steam-yacht *Charlie M.* to the stately *Medora*, capable of carrying hundreds of passengers. These steamers are well kept, comfortably furnished, and have large observation dining saloons. Three steamers make close connexions with the Grand Trunk trains, and on their way up the lakes are met by others of the fleet at junction points, which relieve the boats from the trains of part of their loads, and are so run by diverging routes that all parts of the lakes can be reached twice daily in either direction. Then there are steamers which take up excursion routes, dodging in and out among the islands, threading their way through narrow and intricate channels, revealing to the visitor rare scenic beauties unseen from the decks of the regular liners. In fact, both the railway and the navigation companies put forth their best efforts to make the visitors' trip to Muskoka and their stay there the most enjoyable possible.

From Muskoka Wharf, the starting-point, to Port Carling, the junction of Lakes Muskoka and Rosseau, the distance is twenty-one miles; from the same starting-point to Rosseau, at the head of the lake of this name, it is thirty-three miles, while the farthest point on the three lakes, Port Cockburn at the head of Lake Joseph, is forty-five miles from Muskoka Wharf; the width of the lakes varying from channels a few hundred yards across to open stretches of water about six miles wide.

Georgian Bay: Rose Point, Parry Sound.

The lakes are fed by several rivers and streams, chief among them being the Muskoka River, entering Muskoka Lake about midway between Muskoka Wharf and Beaumaris, on the eastern shore of the lake, and the starting-point of the Muskoka Navigation Company's steamers to Bracebridge, a pretty town sixteen miles north from Gravenhurst. The Dee River, connecting Three-Mile Lake with Lake Rosseau, near Windermere, Skeleton River, from Skeleton Lake to Lake Rosseau, and Rosseau River, with the pretty Rosseau Falls, all feed this, the second largest of the three lakes, on its eastern boundary, while Shadow River, with its deceptive shadows and reflections, will alone repay the tourist for the entire journey up the lakes. Two other notable streams, dear to the heart of the sportsman and the intrepid canoeist, are the Moon and Muskosh Rivers, the outlets of the Muskoka Lakes at Bala flowing into the Georgian Bay to the west.

The Muskoka Lakes contain between four hundred and five hundred islands of every shape and size, ranging from one of over eleven hundred acres, in Lake Rosseau, to those containing but a single tree, or a rock rising sheer from the water's edge. The most numerous, however, are densely covered with pine, balsam, cedar, birch, maple, oak, and other varieties of tree life.

Many of the islands, on which have been erected handsome dwellings, are the property of wealthy Americans and Canadians; but there are hundreds of choice little spots on which any party is at liberty to take up their abode for the season.

GEORGIAN BAY.

Fare for round trip (Association rate) $5.20—£1 1s. 8d

One of the grandest trips that Ontario affords through the islands of the Georgian Bay. It is estimat that there are more than thirty thousand islands in th great arm of Lake Huron. In general character th resemble those of the St. Lawrence River, but of cour are infinitely more numerous, and still retain the original wild picturesqueness.

By leaving Toronto at 11.30 a.m. Penetanguishene reached at 2 p.m., where the steamer for Parry Sound taken. The distance is about seventy miles, and duri many parts of the trip it is almost possible to stand the paddle-boxes of the steamer and drop pebbles on so of the islands, so narrow are the passages and so deep tl water. One of the first picturesque spots passed is tl Summer Hotel, three miles from Penetanguishene. Twel miles further on is Minnicoganashene, where, if the travell has time, a few days' sojourn may be recommended. Eig miles further on is Go-Home Bay, the summer home many of the teaching staff and graduates of the Universi of Toronto, where there is also a biological station. Then the route lies through Indian Harbour, Big David's Bay a the Gooseberry Channel, past Moose Point and the Jubil Islands to Copper Head and Sans Souci; at each of the points is to be found excellent hotel accommodatio Further on, at Rose Point, there is also excellent hot accommodation; and at Parry Sound the beautif Belvidere affords rest for the weary and a boon to tl victim of hay fever. From Parry Sound a steam trip may be ma on the broad e panse of Georgi Bay. After th steamer gets o of Parry Soun Red Rock, th Westerns, tl Watchers, Giant Tomb, Hope, Bec with, and the Chri tian Islands con into view. Th steamer the crosses the sout ern end of tl bay, known as tl Nottasaga, an reaches Collin wood, from when the tourist may r turn by train four hours t Toronto, or m start on the trip Mackinac, which might well be called the "mainline" of tl Georgian Bay service.

Mackinac.

The trip is one of the most popular on the America continent, the service being performed by three splend vessels—the *Germanic*, *City of Midland*, and *City Collingwood*. They leave Collingwood on arrival of Gra Trunk Railway trains at 1.30 p.m. Tuesdays, Thursday and Saturdays, and Owen Sound on the same evening 11 on arrival of Canadian Pacific Railway trains; procee via Killarney through the narrow channel north of tl Great Manitoulin Island to Sault Ste. Marie and Mackin Island. Connexion is made at Killarney with tl steamers of the North Shore Division, which turn connect at Parry Sound with the steamers of th division, and at Sault Ste. Marie—commonly called "Soo —with the steamers of the Lake Superior Division, f Port Arthur, Fort William, and Duluth. At Fort Willia the traveller can join the Transcontinental train of tl Canadian Pacific Railway, as will be shown when in subsequent issue the trip across the prairies, throug the Rocky and Selkirk Mountains, and the Fraser Riv Cañon is described.

Arriving at Sault Ste. Marie, the steamers, after di charging passengers and freight—a process which allow time for a visit to the immense canal locks, vario industries, and scenic features of this interesting point proceed through the St. Mary's River to the world-famo Mackinac Island. On the return journey the island t at 11 p.m. on Sundays, Tuesdays, and Fridays for Owen und and Collingwood, via the same delightful route, d are so timed that channels passed in the night one y are traversed during the daylight on the return trip.

The round trip, combining both the Georgian Bay and uskoka Lakes, can be made in two directions, either by dland or Penetang to Parry Sound, and thence by rail Maple Lake, and stage eight miles to Port Cockburn, twelve miles to Rosseau, and from there by steamer ough the Muskoka Lakes to Gravenhurst, where connexion is made with trains of the Grand Trunk ilway; or, taking the steamer at Muskoka Wharf, the urist can go in the opposite direction, and proceed by amer from Parry Sound, connecting with train at dland or Penetang, and thence south to Toronto.

Lake Superior.

The service on this division is performed by the amers *Monarch*, *Saronic*, and *Huronic* from Sarnia, Ont., ee times weekly on arrival of Grand Trunk trains from east, and river steamers from Detroit, for the head of ke Superior. They pass through the entire length of ke Huron, through St. Mary's River to the "Soo," con- ting there with their sister ships of the Georgian Bay ision, thence through the great locks, the largest in the ld, which the United States and Canadian Govern- nts have built on their respective sides of the river, enter Lake Superior. This great inland sea is the gest body of fresh water in the world, 412 es long and 167 wide; it has an area of 00 square miles; its greatest depth is 1.386 ft., its tude being 602 ft.; its bottom is therefore 700 ft. below level of the an. As one es swiftly over surface on the ndid steam- s of the Nor- n Navigation pany it does require a t stretch of gination to k oneself at except that the is dryer, the bluer, and atmosphere er. A banner moke athwart sky denotes passage of some r steamer, the e canvas of a sailing craft or two flecks on horizon, but land is nowhere in sight. By we see the rocky outline of Passage Island; on he left looms up the shore of Isle Royale, fast ng into favour as a summer resort, and further to the right stands boldly outlined against the Thunder Cape, rising to the height of 1,400 ft., ding the entrance of the magnificent harbour hunder Bay, on whose shores are situated the ing and rival towns of Port Arthur and Fort am. The first is the lake terminal of the Cana- Northern Railway, and the second, at the mouth e Kaministiquia River, is the transfer point for lake ness on the Canadian Pacific Railway. Here pas- rs for Winnipeg, the Canadian North-West, and ic Coast are transferred, and start on their long ey on the splendid trains furnished by the Canadian ic or Canadian Northern Railways.

r those continuing the voyage ample time will be l for going ashore while freight is being discharged. things to interest passengers will be found, not the of which are the grain elevators. At Port Arthur is rgest grain elevator in the world, belonging to the dian Northern Railway, having a capacity of over 000 bushels; while at Fort William are situated al more, whose combined capacity will exceed that.

bably the best stream fishing to be found anywhere the rivers emptying into Lake Superior. At Nepigon speckled trout weighing from 3 to 4 lb. are caught, other gamey fish in abundance. Most pleasant sur- s are in store for fishermen who seek them.

Algonquin: Cache Lake and the virgin forest.

From these places the steamer skirts the north shore to Duluth, 190 miles distant, a picturesque city of 70,000 inhabitants, and the gateway of the immense corn and wheat fields of North-Western States. From Duluth eight different lines of railway diverge, giving the tourist a choice of routes to the South and Pacific Coast. From this point the return voyage is begun, and when the steamers reach Sarnia over 1,500 miles have been traversed.

No more exhilarating or restful trip can be found. With good meals and the excellent appointments of the vessels nothing better can be desired. The cost will be found to be within the reach of all.

Algonquin National Park.

From Toronto 205 miles. Cost for round trip (Association rate), $5.65—£1 2s. 7½d.

Camping is probably the most healthful way to enjoy an outing in the woods, and where one has good fishing, beautiful camping spots, clear and pellucid water for drinking and bathing, magnificent scenery, interesting canoeing routes, and all the pleasures of outdoor life at an altitude of 1,500 to 2,000 ft. above the sea level, a week, two weeks, a month, or the entire summer can be spent with the utmost profit. Such a region is the territory known as the "Algonquin National Park," situated on the Ottawa Division of the Grand Trunk Railway System, about two hundred miles north of the city of Toronto, and one hundred and seventy miles west of the capital of the Dominion—Ottawa.

Canada possesses many stretches of fine scenery, and the many districts in the Province of Ontario are fast becoming known to the thousands of summer tourists who each year spend their summers away from home. There is a variety of landscape such as is found in no other country, and when it is remembered that 45 per cent. of the entire area of the Province of Ontario, exclusive of the Great Lakes, is made up of stretches of rivers and lakes, the scenic grandeur can be imagined. There are the wild, rugged shores of the Georgian Bay, the quiet stillness and charms of the Maganetawan River, the symmetrical beauty and picturesqueness of the Muskoka Lakes, and the wild, natural beauty of Temagami.

While many are familiar with several of these districts, the "Algonquin Park," a new and attractive region, little known to the lover of rod and gun and the tourist, lies within easy reach, where all the summer attractions that appeal to the denizen of the city are found. While thousands are familiar with the better-known resorts in Canada which have been developed into such popularity within the last few years, it is known to comparative few that there exists close at hand a preserve, as it were, set aside by the Provincial Government of Ontario solely for the delectation of mankind, where true sportsmen are welcomed and where the fishing is not in name only, but where the gamest of black bass, speckled trout and salmon trout are found in goodly numbers; where the lakes and rivers possess a beauty of their own, where the fauna and flora are found in luxuriant profusion; where the forests are heavily timbered and the shores of the lakes beautifully clothed with a raiment of pine and balsam, and where every breath of the pure air gives new life.

The Algonquin National Park is a region that has already won favour with a large number of travellers who are looking for new fields to explore, and for a place where civilization has not yet encroached upon Nature's domain.

The park covers an area of 1,800,000 acres of forest and water, there being no less than 1,200 lakes and river within its boundaries. This vast extent of virgin wilderness has aptly been named "Lakeland," and the Ottawa Division of the Grand Trunk Railway System penetrates it for many miles, giving exceptional facilities for reaching the starting points of the many canoe routes and navigable lakes and streams which radiate from the railway north and south, and making the region easy of access. Unlike many of the other lake districts in Ontario, the waterways throughout the whole area of the park are a continuity of lake and stream, many of them navigable for canoes from one to the other, while others are connected by short and easy portages with good trails blazed through the forest. The country is very rugged; the lakes are encircled with high shores, beautifully clothed with verdure from the water's edge to the summit of the highest bluffs.

Fishing.

The waters of the lakes are deep and translucent, filled with the gamest of the game species of fish; black bass, three and four pounders, and salmon trout tipping the scales at 10 and 12 lb., are plentiful in the waters south of the railway line; north of the railway bass are not found. The rivulets and streams are alive with speckled trout, the cool waters giving them fighting tendencies which delight the heart of the most ardent angler. Salmon trout are found in the waters north of the railway in the lakes, and excellent fishing is assured in any of these waters. During the months of May and June the trout fishing is at its best, the speckled beauties rise to the fly, and are most voracious for the "Parmachene belle," "red ibis," and "Montreal." During the month of June and the first ten days of July, black flies are troublesome, and anglers should provide themselves with any of the many preventives against this pest. After sunset the flies do not bother, but during the daytime they are active and annoying. The excellent fishing, however, that awaits the keen sportsman offsets any discomforts of this nature. In the midsummer successful still-fishing in these cool waters is assured, the salmon and speckled trout being freely taken in 20 ft. to 30 ft. of water and the black bass in their customary haunts. In the months of July and August, when the majority of people take their holidays, the fishing is good in these waters, but other bait than the fly must be used for the bass and salmon trout, though the speckled trout rise to the fly in the streams and shallow brooks. Copper-wire lines, a couple of hundred feet long, with live minnow bait, and a good heavy reel on a steel bass rod, seems to be the most effectual tackle for killing salmon trout, and no difficulty is experienced in landing the number allowed each fisherman under the Government regulations. The best fishing months in this region are May, August, September, and October. Bait is plentiful, and can be procured readily in almost all of the lakes with dip net or small hooks.

The Altitude.

There is no other part of the Province of Ontario situated at as great an altitude as this territory. Recent observations taken give the height above sea level as 1,600 ft., while there are many points on the summit of the shores of the lakes reaching over 2,000 ft. The atmosphere is pure and exhilarating.

For the Canoeist and Camper.

The best point for the canoeist and camper who wishes to do the Park is to go in at Canoe Lake Station, where the route through the chain of lakes running north and south properly begins. There is no accommodation here, and parties must come prepared to go into camp the first night, and must bring all their supplies, provisions, camping outfit, cooking utensils, and other paraphernalia necessary for the time they will spend in the region. Another point of ingress is Algonquin Park Station, where is situated the "park head quarters," and the residence of the superintendent and the park rangers. This locality is an ideal spot on the shores of Cache Lake, one of the prettiest sheets of water in the reservation; a limited amount of accommodation can be secured during the summer months.

Cache Lake is a very charming and beautiful stretch of water, with high, heavily wooded shores, and dotted with picturesque islands. East of the head quarters, about two miles across the lake, is Lookout Point, a high bluff rising sheer from the water's edge for 300 ft.; the climb to the top is by an easy trail, and the scene that greets the e at the top well repays the slight exertion necessary. I the distance is seen the head quarters, and the view giv a conception of the forest wealth that covers the count in all directions.

Guides.

The guides in this territory are reliable, thorough knowing the territory and the best haunts for fish. Th can be secured by writing to Mr. G. W. Bartlett, Superi tendent Algonquin National Park, Algonquin Par Ontario. Their charges are $2.50 a day, which includ canoe; two guides and one canoe, $4.50 a day. Guid provide their own tents and blankets. The park regul tions allow fishing with rod and line, which privilege mu be obtained in person or by mail from the Superintende A nominal charge of $1.00 for Canadians and $2.00 for no residents of Canada is made for license to fish in th waters of Algonquin Park. Maps of the Algonqu National Park may also be obtained from th Superintendent at 50 cents each.

Baggage Arrangements.

Sportsmen.—For sportsmen and campers, singly or parties, hunting or fishing expeditions, 200 lb. of bagga will be checked free of charge on each full ticket, a 100 lb. on each half ticket, provided it consists of weari apparel, sportsmen's and campers' outfits, such as ten small bundles of bedding, folding cots, camp chairs, can utensils, and provisions in small quantities. Furnitu barrels, bags of flour, or like bulky articles of that natu will not be checked as baggage, but must be sent express or freight. On the return journey, a game or fi catch of 50 lb. weight, not in conflict with existing law may be included in the 200 lb. allowance.

THE LAKE OF BAYS.

From Toronto 146 miles. Cost of round trip (Associati rate), $5.45—£1 1s. 10d.

One hundred and forty-six miles north of Toronto, the line of the Grand Trunk Railway, is Huntsville, pretty little town nearly in the centre of what is known the Huntsville and Lake of Bays District. The region replete with natural beauty, and comprises some of t most beautiful water-stretches and picturesque landscap for which that vast portion of Northern Ontario is beco ing so famous with the ever-increasing and fastidio army of tourists, who each year are looking for fresh fiel to explore.

Here are lakes and winding rivers and islands innume able; water absolutely soft and without any admixture minerals, as it percolates through the rocks and soil.

The grandeur of the Scotch lochs, the quiet beauty England's "Lake District," the solemn loneliness of t Swiss and Italian water stretches, the beauties Killarney, and the poetic splendour of Lomond or Katri are all to be found in the Huntsville and Lake of Ba District. A well-known traveller, writing of this distri said: "Irish lakes are good in their way, but their who region is but a trifle; English lakes are placid a poetical, but we are not all poets; Scotch lochs are w enough, but soon got through with; Swiss lakes a charming, as well as Italian lakes, but they are a long w off, and I fail to see any beauty in any of them (and I done them all) exceeding those here."

The navigable water system, of which Huntsville is t starting point, includes Lakes Vernon, Mary, Peninsul Fairy, Lake of Bays, Hollow, and Kimball, and the nor branch of the Muskoka River. Vernon Lake has ma high and bold promontories, and deep corresponding ba and several beautifully-wooded islands, the largest which—Hood's Island—contains 600 acres. At the he of this lake the waters of Lakes Round, Buck, and F flow through a gorge, down rapids with a fall of so forty odd feet, the landscape being grandly picturesq From Huntsville to Mary Lake is a delightful sail, whi can be made in a few hours. Muskoka River deep and winding, its cool, placid surface formi a mirror for Nature's primeval beauty. Mary La is one of the gems of the Highlands of Ontar Its surface is studded with many islands, whi afford delightful places for picnics and camping parti At the foot of the lake lies Port Sydney, a pretty villa in most beautiful surroundings. The outlet at P Sydney flows over falls of about 30 ft. Here the Musko iver again takes up the thread of travel. The sail to ie east of Huntsville, through Fairy Lake, past Scotch- ian's Bonnet—the first island of the many that are attered over the bosom of this pretty sheet of water—id through Peninsular Canal and Lake, is most enjoy- ple. The shores of Fairy Lake are rocky and precipitous, terspersed with bathing beaches, while the shores of eninsular Lake are more rolling and have many excel- nt beaches. Between Fairy and Peninsular Lakes a arrow opening—formerly a creek, but now transformed to a canal of sufficient depth to allow of steamboat avigation—connects the two bodies of water.

Crossing Peninsular Lake to the eastern end, a distance about three miles, the portage is reached, where a ansfer is effected on the Huntsville and Lake of Bays ailway, one of the shortest railway lines in the world. ie distance from Peninsular Lake to Lake of Bays is ort, though the trip is most picturesque. Two fine eamers of the Huntsville and Lake of Bays Navigation oute ply on these waters. Lake of Bays is the largest in e district, being 18 miles long, with a coast line of 365 iles, and it already possesses a Continental reputation for andeur of scenery. The waters abound in speckled and lmon trout, and the adjoining forests in deer and other me. To make the round trip of Fairy, Peninsular, and ike of Bays takes an entire day's sailing. Nowhere in e world can the urist feast his es on such splen- d landscapes. and such a trifling st. People are king up to the eat possibilities the future of this intry as a health d pleasure resort. The ease with ich any point ng the system ay be reached, and e facility with ich from the itude of primeval ests, deep glades, untain dells, bab- ng brooks, and en- anting lakes—the haunts of fish and game—the tourist y find a base of supplies, together with the scenery, among the causes rendering these lakes such favourite nping resorts. Fish abound. Speckled salmon trout l bass are plentiful, while whitefish, salmon trout, ckled trout, and ling are found in great quantities the waters of the surrounding lakes. As a field the geologist and mineralogist the district is in- esting.

Lake of Bays District.

Beautiful as is the whole Lake of Bays district, there is finer place than Wahawin. This beautiful resort con- ts of 140 acres fronting on the Lake of Bays. Beginning a fine shelving beach, it rises in natural terraces 70 or feet to a plateau above, and is wooded on the slopes h the choicest hardwood trees. The location commands finest view on the lake.

n these terraces have been built a number of tages of very substantial construction, with wide andahs and stone fireplaces, ensuring the dwellers nfort on the coolest as well as the warmest s.

mall fruits and berries of every description abound, l are to be had for the gathering throughout the whole nmer season. Pure, cold water is supplied from a ing close to the cottages. The bathing at Wahawin is olutely safe for children as well as adults. A cove or t, especially well adapted for the purpose and ltered from the prevailing winds, furnishes an l bathing place with a bottom as level as loor, of fine hard sand, gradually sloping from ew inches in depth to about 3½ ft. to 4 ft. at a ance of 100 ft. from shore. There is an excellent golf ks consisting of thirty-eight acres adjoining the perty, kept in perfect condition and naturally very suit- e. Not the least of the charms at Wahawin lies in the y woodland walks radiating in every direction ftom the ages. A daily mail service by steamer is being arranged, as also telephone connexion with the Bell long-distance system.

Fishing and Shooting.

Like most of the other districts in Northern Ontario, the Huntsville and Lake of Bays region is particularly favoured in its fishing and hunting confines. The principal lakes of this chain are bountifully stocked with speckled salmon trout and bass, while in the more distant stretches of water ling is found in plenty. The amateur fisherman may leave the steamer at some calling place on any of the lakes on the route, and drop a quiet fly, until the return trip of the boat in the evening. Brook trout are also numerous in the smaller streams which flow into the different lakes, and by the zealous angler capital sport may be had. Sometimes the trout will rise to the fly, and again at times they are so shy that nothing but a minnow, or perchance a grasshopper, will tempt their appetites. Partridges are plentiful (open season September 15th to December 15th), but a dog is a necessity to success. Guides may be procured who have hunting dogs. Ducks are fairly numerous (open season September 1st to December 15th).

Principal Points.

Deerhurst, where is situated a large and roomy hotel on a high bluff overlooking Peninsular Lake. Good boating and fishing, and a charming place to spend the summer. Steamers call daily. P.O. address: Huntsville.

Ronville Summer Resort.—Ten Mile Creek and Ten Mile Bay, about one mile from this point, have excellent salmon trout fishing. The trolling in Ten Mile Bay in the shadow of the high and rocky bluff that lines the shore is unexcelled. This is one of the best fishing grounds in the district. There is a first-class hotel. P.O. address: Dwight, Ont.

Grunwald Resort, on Mary Lake, beautifully situated and forest-locked, is well equipped and modern in its appointments. It is reached to and from Huntsville twice daily during the season. P.O. address: until June 15th, Huntsville, Ont.; after that date, Grunwald, Muskoka, Ont.

PROVIDENT DISPENSARIES AND THE PROFESSION IN MANCHESTER.

An important meeting of the medical men residing in Moss Side, Manchester, and adjacent districts was held in the St. James School on May 18th. A large proportion of the local members of the profession was present. The meeting was called at the instance of the Chairman and Secretary of the Manchester West Division of the British Medical Association, who had received information that the Committee of the Hulme Provident Dispensary was trying to enlarge its sphere of influence in the direction of Moss Side and Rusholme. A full discussion of the methods adopted by the Provident Dispensaries Association in seeking to extend their connexion took place; and the recent action of the medical men of the Rusholme district in resisting the establishment of a branch dispensary in their midst was quoted with approval. The following resolutions were unanimously agreed to:

1. That we, medical practitioners residing in Moss Side and neighbourhood, and present at this meeting, having learnt that the Committee of the Hulme Provident Dispensary is endeavouring to obtain the services on its staff of a resident practitioner from Moss Side, hereby pledge ourselves to have no connexion whatever with the movement, and call upon all medical men loyally to support us in our action.
2. That this meeting resolves that a copy of the foregoing resolution shall be sent to every medical practitioner in the district and to the Honorary Secretaries of the Manchester and Salford Divisions of the British Medical Association; also, that a report of the meeting shall be forwarded for publication in the British Medical Journal and the *Lancet*.

A small committee was selected to canvass the members of the profession who were not present at the meeting; and, if needful, to interview the clergy and other influential residents in the neighbourhood.

THE COMPOSITION OF SOME CANCER "REMEDIES."

A VERY slight acquaintance with the advertisements of quack medicines which are so abundant in newspapers and periodicals is enough to show that a knowledge of the causes of the diseases for which a cure is promised is in no wise necessary for the composition of either the medicine or the advertisement; in fact, it is impossible to believe that the extravagant claims and absurd statements made could be put forward by persons having a knowledge of the subject. It is no matter for surprise, therefore, that in the case of the least understood and least successfully combated of diseases many proprietary "remedies" are put forward. A considerable number of these articles have been received and the alleged claims tested at the laboratories of the Imperial Cancer Research Fund; a few of those received have been sent to us by Dr. Bashford, the Director of the laboratories, and some notes on the composition of these, as revealed by analysis, cannot fail to be of interest to members of the profession, who will probably from time to time have to treat sufferers from cancer who have been induced to buy one or other of these preparations.

As was to be expected, the articles examined have little or nothing in common. In the case of diseases for which the ordinary treatment involves the use of certain specific drugs, proprietary medicines are usually merely varying compounds of those drugs; thus, of the advertised cures for epilepsy, analyses of which we published not long ago, all but one consist essentially of bromides. But in the case of cancer, the would-be maker of a proprietary "cure" has no such accepted treatment to guide him, or restrict the free range of his fancy in selection of ingredients; it is probable that some of the "remedies" here described were inspired by improvement having apparently followed their fortuitous use in some cases, *post hoc* having been regarded as *propter hoc;* the first to be described, however, can hardly rest even on this basis.

It is a colourless liquid, containing a trace of sediment; the odour is that of alcohol, though very slightly vinous. Fractional distillation showed the presence of about 40 per cent. of alcohol; on complete evaporation, a trace (0.02 per cent.) of dry residue was left. This residue was free from any alkaloid, and its behaviour with reagents gave no indication of any other active principle; it agreed in character with the "extractive" found in spirit that has been kept in a wine-cask. After removing the alcohol, the liquid was perfectly tasteless. This "remedy" is thus very simple in nature, consisting merely of diluted and slightly impure alcohol. Its composition brings to mind the analysis published some years ago of a so-called electric fluid, or "electricity," for the cure of cancer, which was taken up by a certain well-known journalist and boomed by him in the pages of the review which he edited; many marvellous cures were ascribed to it, but examination showed that it consisted of plain water, sold at several shillings per fluid ounce. Notwithstanding the exposure, the article is at present quoted in wholesale lists, and is therefore presumably still in demand. The cost of the "medicine" we are now dealing with is of course considerably greater than the cost of plain water, but this fact will be but small consolation to the victim who derives as little benefit from the one as the other.

The next of the articles analysed was a blue fluid containing a considerable blue sediment, and smelling fairly strongly of terebene. The chief ingredient here was found to be a blue dye-stuff of the oxazine or thiazine group, much resembling methylene blue (which is the only member of these groups ordinarily used in medicine), but differing from it in solubility and in its behaviour with certain reagents. This constituted the greater part of the sediment, and a portion of the dye was also in solution. The liquid further contained a dissolved gum and a trace of terebene; these, with a little magnesium carbonate, were all the ingredients present. No trace of any alkaloid was found, and the solvent was water. The gum showed no difference from ordinary acacia gum, and was probably added to suspend the undissolved dye stuff. Wat dissolves very little terebene, and no more of the latt was present than could be dissolved by the water: it w probably employed to give an aromatic taste and sme and the magnesia was doubtless used to subdivide t terebene in the manner commonly followed when d solving essential oils in water. It thus appears that th essential ingredient of this medicine is the blue dye-stu it is possible that this has been used as methylene blu since the articles sent out under the same name by differe dye manufacturers often differ in composition; but, already stated, it is not identical with the methylene bl usually met with. The total solids in the mixture, aft shaking up the sediment, amounted to 13.2 per cent., which the dye-stuff constituted something like one-half.

The third preparation was a brown liquid of syru consistence, found to consist of wood tar. It was a muc purer product than ordinary Stockholm tar, and i peculiar odour indicated that it was derived, at least great part, from the birch; no other ingredient could b found. This article came from Sphakia, Crete; the lab bore no directions for its use, leaving it uncertain wheth it is intended for internal or external use, but the latt appears the more probable.

The remaining articles are clearly intended for extern application; the first of these consisted of a plaster mas in the half-pound sticks in which such masses are usuall supplied. Analysis showed the principal ingredient to b lead oleate, with a little stearate, and small quantities resin and soap. These are the ingredients of the offici plasters emplastrum resinae and emplastrum saponis: th proportion of soap present showed the specimen unde examination to be emplastrum resinae.

The next preparation was an ointment of Dutch origi It contained large quantities of ammonium alum and zin sulphate, with a little sodium sulphate, made up int a stiff ointment with a basis consisting of beeswax, sof paraffin, oil, and resin. The quantities of the salts wer approximately:

Alum	27 per cent.
Zinc sulphate	37 ,,
Sodium sulphate	8 ,,

The presence of this large proportion of mineral salts, course, leaves very little tenacity in the ointment; par ticles of the white salts were easily visible to the eye, an the effect of applying the preparation must be practicall the same as if the dry salts were rubbed on the skin except that the basis would, of course, act as a lubrican in the rubbing.

The last of these preparations was another ointment the mineral ingredients in this case, however, were i organic combination. This ointment contained coppe oleate and aluminium oleate with a basis of lard an a little resin. The proportions of the active ingredient were approximately:

Copper oleate	15 per cent.
Aluminium oleate	35 ,,

No alkaloid or other active principle was found.

In addition to the above specimens received fron Dr. Bashford, a bottle of lotion for cancer and other affec tions, obtained in the ordinary way through a dealer, wa examined. The label commences with the statement tha the lotion "cures cancerous or malignant sores"; ther follows a list of other diseases, with the addition, "eve cases that have been under the treatment of doctors an at infirmaries for years." Analysis showed the compositio of the lotion to be substantially as follows:

Zinc sulphate	92 gr.
Carbolic acid (pure phenol)	1.2 oz.
Glycerine	1.8 fl. oz.
Cochineal solution sufficient to give a deep red colour	
Water to 3.3 fl. oz.	

This quantity is contained in a bottle costing 4s. 6d. the directions are to add the whole contents to 1½ pints o water, and applied to the diseased parts for about fiv minutes two or three times a day.

THE late Mr. Richard Twining, of Devereux Court Strand, left £400 to King's College Hospital, £100 each t the Dispensary in Clare Market and King's College Con valescent Home, Hemel Hempstead, and £50 each to th Brompton Cancer Hospital and the Dental Hospital Leicester Square.

EPSOM COLLEGE.

have received the following letter for publication :

26, Gloucester Place, W.,
May 14th, 1906.

the Governors of Epsom College.
ear Sir or Madam,

It is with great regret I find myself compelled to resign
office of Treasurer which I have held for nineteen years.
t my age I am no longer equal to the responsibilities of
office without serious strain. I must ask to be relieved
m duty at the ensuing Annual General Meeting in June.
would desire to express my profound appreciation of the
fidence so generously shown me for so many years.

I am,
Your faithful Servant,
C. HOLMAN, M.D.

is letter will, we venture to say, be read with grief by
friends of Epsom College, and with something akin to
may by those who know all that Sir Constantine
lman has done for the prosperity of an institution
ich appeals with peculiar force to the sympathies of the
dical profession. The name of Sir Constantine Holman
been so long and so closely associated with Epsom Col-
that it is difficult to realize the fact that his official
nexion with it is now severed. A considerable part of
fe which has been largely devoted to the service of the
fession has been given to the building up of Mr.
pert's great foundation on a secure basis and to its
elopment in directions but dimly conceived by the
nder. Sir Constantine Holman had been a Member of
Council of the College for some years when in 1887
Hird, the Treasurer, resigned. Pressure was brought
ear on Dr. Holman, as he then was, to become the
essor of that gentleman, and it was with reluctance
he consented, for he was Treasurer of the British
lical Association at the time, and he felt that
burden of the two offices was too great a
in for one man. The fortunes of the institution were
at their lowest ebb. The financial position was
esented by a deficit of about £7,000. The state of the
ol was in the highest degree unsatisfactory. Free
rgation was necessary, and the head master resigned.
an fit to cope with the situation was found in the
Mr. Wood, who soon restored discipline. Under him
whole tone of the school was raised, but, unfortunately,
vertaxed his strength and died of blood-poisoning.
work was continued by the present head master ;
school has been brought to a high state of efficiency,
has taken its place among the best public schools in
and. Thanks mainly to the wise administration of
onstantine Holman, the finances of the institution
been placed on a sound footing, notwithstanding
us depletion caused in recent years by the
ssity of a complete reconstruction of the
age system of the College. In the initiation
direction of the movement of reform which has had
happy results, Sir Constantine Holman has played a
picuous part, and it is not too much to say that
m College, in its present state of prosperity, is a
ment to the ability, zeal and singleness of purpose
which he has watched over its interests. By his
een years of work at Epsom he has made the institu-
and those for whose benefit it exists his debtors, but
st not be forgotten that this, after all, is only a part
at he has done for the promotion of the interests of
edical profession. He can look back on a record of
than fifty years of disinterested labour in connexion
the British Medical Association, the Surrey Medical
volent Society, and the British Medical Benevolent
. His services to the Association were recognized
ear by the award of its Gold Medal for Distinguished
. Sir Constantine Holman has borne far more than
are of public work, and it is not surprising that he
d now seek repose after his long and strenuous toil.
ill, we are sure, be followed into his retirement by the
ul appreciation of his professional brethren and all
ave worked with him, and by their heartfelt wishes
e may long enjoy the rest he has so thoroughly well
d.

ITISH MEDICAL BENEVOLENT FUND.

monthly meeting of the Committee, held on May
seventeen cases were considered, and sums amount-
£131 voted in relief to fourteen of the applicants.
stract of the cases assisted is appended.

The report of the Annuity Subcommittee was received and adopted, six candidates being elected to annuities of £20.

Mr. Parker Young, the Chairman, referred in sympathetic terms to the recent death of Dr. Baines, one of the oldest friends of the Fund, and a vote of condolence with the family was passed.

1. Widow, aged 59, of L.R.C.P., L.R.C.S.Edin., who practised in South Wales. Income a pension of £20 a year. Two sons, but only able to give very slight help. Husband died a few months ago after a long illness, during which the practice so dwindled away that nothing could be obtained for it. Recommended by the Rev. W. Whiteley. Voted £6 in 2 instalments.

2. Widow, aged 41, of L.R.C.P., L.R.C.S.Edin., who practised in Kent. No income. No children. Is given a temporary home by a relation with very limited means. Husband, recently deceased, had a long illness which quite exhausted his savings. Recommended by Dr. Baines. Voted £10 in 2 instalments.

3. Daughter, aged 59, of late M.D Lond., F.R.C.S.Eng., who practised in Derbyshire. Since father's death, twenty years ago, has received the rents of some cottages ; income is now reduced, by increasing rates, necessary repairs, and loss of tenants, to a few shillings a week. Recommended by Mrs. Alice Jackson. Voted £10 in 2 instalments.

4. Daughter, aged 37, of late M.R.C.S., L.S.A., who practised in Sussex. Until a few years ago supported herself as a governess, but is completely broken down in health, and can now only occasionally do a little needlework. Recommended by Dr. Heywood Smith. Voted £10 in 2 instalments.

5. L.R.C.P., L.R.C.S.Edin., aged 73. Used to have a good practice in London, but has gradually lost it, and is now practically destitute after some months' illness. Slight help from children. Recommended by Dr. J. Dodd Swallow, Honorary Local Secretary. Voted £12 in 12 instalments.

6. Daughter, aged 50, of late M.R.C.S., L.S.A., who practised in Suffolk. No income ; has supported herself for many years as a companion or governess, but now finds it impossible to obtain a fresh post. Recommended by Professor Howard Marsh. Voted £10 in 10 instalments.

7. Daughter, aged 59, of late M.R.C.S., L.S.A., who practised in South Wales. No income ; physical afflictions make earning a livelihood impossible. Recommended by Mrs. G. M. Hill. Voted £12 in 12 instalments.

8. Daughter, aged 58, of late L.R.C.S.Glas., who was a surgeon in the Royal Navy. Only income two small pensions amounting to £29. Unable to undertake any permanent employment on account of bad health. Relieved 7 times, £55. Recommended by Dr. George Eastes. Voted £5 in one sum.

9. Daughter, aged 61, of late M.D.Aberd., F.R.C.S.Edin., who practised in Trinidad. Maintained herself for many years as a governess, and exhausted small savings by helping an invalid brother and an aged aunt. Ill-health now prevents applicant earning a living, and she is dependent on a sister who is a housekeeper. Relieved 5 times, £60. Recommended by Mr. A. Phillips Hill, Honorary Local Secretary. Voted £12 in 12 instalments.

10. Widow, aged 61, of L.S.A., who practised in Derbyshire. No income. Bad health. Slight help from a son earning 35s. a week as a clerk. Relieved 5 times, £54. Recommended by Dr. J. M. Hobson. Voted £12 in 12 instalments.

11. Widow, aged 43, of L.R.C.P., L.R.C.S.Edin., who practised in Staffordshire. Practically unprovided for at husband's death three years ago. Two children, aged 15 and 11. Receives help from friends. Relieved once, £10. Recommended by Professor Annandale. Voted £10 in 2 instalments.

12. M.R.C.S., L.S.A., aged 78, who is bedridden with hemiplegia and senile gangrene. Is an annuitant of this fund and of Epsom College. Voted £5 as a special grant.

13. Daughter, aged 61, of late M.R.C.S., who practised in Sunderland. Only income a pension of £20. Indifferent health and sight failing. Relieved 11 times, £94. Recommended by Mr. G. B. Morgan. Voted £5 in one sum.

14. Daughter, aged 59, of late M.R.C.S., who practised in London. No income ; tries to support herself by needlework, but has injured her right arm. Relieved 14 times, £104. Recommended by Mr. T. J. Verrall, late Honorary Local Secretary. Voted £12 in 12 instalments.

MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE FRIENDLY SOCIETY.

ANNUAL MEETING.

THE twenty-third annual general meeting of this Society was held at 11, Chandos Street, on May 17th, under the presidency of Dr. DE HAVILLAND HALL, Chairman of the Executive Committee.

The CHAIRMAN, in moving the adoption of the report and audited accounts for 1905, congratulated the Society on the fact that the year had been the most successful for new business in the Society's history. There had been 183 new proposals, which, though not quite up to his own expectations, was encouraging, inasmuch as it showed increased vitality; the net gain, after allowing for deaths and withdrawals, was ninety-three. The total number of members of the Society at the end of the year was 2,429; in addition to this, 56 members had increased their benefits mostly up to the limit of 6 guineas a week. During the year the funds had increased by £9,625 18s. 1d., notwithstanding the fact that £646 10s. was paid away in cash bonuses to those members who at the last quinquennial distribution of bonuses had not received a bonus as they had not completed their five years of membership, and to those who during 1905 attained the limited age of 65 years; it was thought equitable that they should have their share of the bonus. In addition to the bonuses paid, the Committee had written off £2,637 13s. 6d. from the stocks purchased at a premium. It had been thought that the time had come when the stocks held by the Society ought to be written down to their nominal value, and not entered at the value at which they were purchased; if these sums were allowed for, the increase of funds was the largest in any one year. The sickness experience was satisfactory, there being a small margin to the good. The Society deserved congratulation on the fact that the sickness funds had been distributed among its members; they did not want their charges for members put so high as to leave a large margin, and he thought it showed the accuracy with which the tables were originally framed, that after twenty years they were still within, though only just within, the sickness margin. He regarded the provision made for chronic cases as one of the most important features of the Society. On January 1st, 1906, there were 35 members who had been receiving sick pay for six months and upwards; some of these cases were likely to be on the sick list till the end of their lives or until they attained the age of 65. One member who was on the permanent sick list had drawn 100 guineas for upwards of ten years, and in three other cases where insanity was the illness, the payments the Society was able to make certainly simplified matters for the friends of those members. In 1905 the sum of £2,805 5s. had been expended in these chronic cases, and he thought it was a point which might be rubbed into their professional friends as an inducement to join, since by so doing they made permanent provision for chronic illness. The fluctuation reserve fund, consisting of interest earned in excess of 2½ per cent., was about £1,000 less than last year owing to £2,638 having been written off the stocks, but that was only an apparent loss. He again tendered on behalf of the Society their warmest thanks to the BRITISH MEDICAL JOURNAL and the *Medical Press and Circular* for the great assistance rendered to the Society during the past year. Dr. Hall then referred to the harmonious manner in which the members of the Committee worked together, and the able way in which their Secretary had carried out the work of the Society. He concluded by moving the adoption of the report.

After a few remarks on the advantages obtained by the members from the donations and subscriptions of the Society to Epsom College, the motion for the adoption of the report was put to the meeting and carried.

On the motion of Dr. W. A. DINGLE, seconded by Dr. G. A. CLARKSON, the officers were re-elected.

On the motion of Dr. ST. C. B. SHADWELL, seconded by Dr. BRINDLEY JAMES, a vote of thanks to the Chairman was carried by acclamation.

The CHAIRMAN having thanked the members the meeting closed.

MEDICAL NEWS.

THE newly-elected French Chamber of Deputies has among its members forty-six representatives of the medical profession.

THE Council of King's College (University of London) have elected Dr. T. Crawford Hayes, F.R.C.P., Professor Emeritus in the College, and Consulting Physician to the Hospital.

WE are asked to state that, owing to the number of applications for admission, Professor Metchnikoff will deliver the Harben lectures in the large Lecture Theatre of King's College; the first lecture is given this day, May 25th, at 5 p.m.

THE dinner in aid of the funds of the Middlesex Hospit which was to have been held on June 12th, has be indefinitely postponed owing to the inability of the Du of Connaught to preside.

AT the Elizabethan Bazaar held in Lincoln's Inn, in a of the King's College Hospital Removal Fund, the Gua of Honour was provided on Wednesday, on which occasi the Bazaar was opened by the Princess Christian, by detachment of the London Companies of the Royal Arm Medical Corps Volunteers, Lieutenant Hubert C. Philli being in command.

IT is hoped that the foundation stone of the first block the buildings to be erected by the Committee for t Establishment of Sanatoriums for Workers suffering fro Tuberculosis will be laid in July. The site acquired 250 acres in extent, and as funds come in accommodati will be provided for 300 patients. To complete the schem however, £50,000 is still required, and only a block f thirty beds is at present in view.

SIR FREDERICK TREVES will preside at the annu meeting of the Invalid Children's Aid Association, whi will be held by permission of Lord and Lady Strathed and Campbell at 17, Bruton Street, London, W., Wednesday next, May 30th, at 3 p.m. Among tho announced to speak in support of this excellent organiz tion are the Bishop of London and Mrs. Craigie (Jo Oliver Hobbes).

THE Commemoration Day proceedings at Livingsto College will take place on Wednesday next in the groun of the College at Leyton. The institution devotes its to providing missionaries with such knowledge of pra tical medicine and hygiene as will enable them to saf guard their own health and that of those around when f removed from ordinary medical skill. If fine the meeti will be held in the open air, addresses being delivered Mr. James Cantlie and Dr. Charles Harford.

THE Lancashire and Cheshire Society for the Permane Care of the Feeble-minded announces that it is prepar to receive at Warford Hall, Cheshire, a limited number boys of weak intellect whose parents can pay a modera sum for their maintenance and tuition. The class children in view are those whose parents can afford pay £50 or £60 a year, and the institution will be und the Board of Education so as to secure regular inspectio idiots or imbeciles will not be eligible. The Hall h extensive grounds, and will be in every respect proper equipped and staffed. It is hoped in the future establish a similar school for girls. The Honorary Secr taries of the Society are Dr. J. J. Cox, 38, Deansgat Manchester, and Miss Dendy, 13, Clarence Road, Withi ton, Manchester.

THE question of whether a remedy for obesity should regarded as a medicine, and hence pay stamp duty, w argued in a London Police Court last week, and held turn upon whether fatness is a disorder or otherwis It was argued that it could not be considered a form illness, because while some fat men desired to be thi some thin men desired to be fat. It was also suggest that though fatness might in some cases depend upon morbid process, the remedy sold was not aimed at th pathogenic cause but at the harmless though objectionab consequence. The magistrate held that excessive obesit not being an orderly state of the body, must be regard as a disorder within the meaning of the Act, so that an drug purporting to reduce it must be regarded as medicine and pay duty.

A HOSPITAL "AT HOME."—An "at home" at the Roy Albert Dock Branch of the Seamen's Hospital Society o Saturday, May 19th, was attended by about 200 executi officers of all the London and many provincial hospital The occasion was the completion, by Mr. P. Michel Secretary of the Seamen's Hospital Society, of his year office as President of the Hospital Officers' Associatio Among those present were: Sir Francis Lovell, C.M.G. Sir Frederick Young, Captain Tunnard, Mr. Keith Young, the Society's Architect; Dr. Harford, of Living stone College; Dr. C. C. Choyce, Medical Superintende of the Dreadnought Hospital; and Mr. Walter Alve Honorary Secretary Hospital Officers' Association. Th hospital and the London School of Tropical Medicine co nected therewith were open to inspection, and the detail of the building were described by Mr. K. D. Young A lantern demonstration was given in the theatre of th school, and Dr. Stanton demonstrated microscopic spe mens of the parasites of malaria, sleeping sickness, etc., i the laboratories. Speeches were delivered by Sir Frederi Young and others, and opportunities were afforded fo visiting vessels of the P. and O. and Ocean lines.

British Medical Journal.

SATURDAY, MAY 26TH, 1906.

ARLY DIAGNOSIS AND EARLY OPERATION IN CANCER.

IE doctrine that it is essential to operate at the earliest ssible moment in cancer is no new one, but the owth of knowledge as to the pathology of cancer and experience in its surgical treatment only serves to ake the duty of early operation, and, consequently, of rly diagnosis, more and more insistent. What at one ne would have been looked upon as an early operation now seen in many cases to be a too-late operation, just the routine operation of ten years ago is to-day recog- ed as inadequate in extent. Early operation, of urse, involves early diagnosis, and the light which the croscope can shed on this aspect of the problem is ikingly illustrated by the facts recorded by Mr. tlin in this issue of the BRITISH MEDICAL JOURNAL.

'recancerous" is a term which has long been in use to scribe certain pathological conditions which have en regarded as leading up to carcinoma, but as not ually carcinomatous. Mr. Butlin's observations ve that in regard to cancer of the tongue, at any e, the term has been to a considerable extent oneously employed, in that some of these so-called cancerous lesions are in reality actual malignant wths. The whole story of each case he records is l to the eye with the utmost clearness, the conditions ng admirably illustrated by a set of coloured plates wing the naked-eye appearances of the very earliest ge of cancer of the tongue, and by black and white wings of the microscopical appearances under two gnifications.

he significance of Mr. Butlin's researches will be ious to every practitioner. Here we have conditions ch a surgeon, whose experience of them has been usually large, has looked upon for many years as cancerous, but which the microscope reveals to be nitely of this nature. Such a service rendered by microscope to clinical surgery is not small, and, as atter of fact, if the advances in the surgical treat- nt of cancer during recent years are considered as a le, it is strikingly apparent that microscopic stigation has been the real motive power in all. ical experience suggested the direction of many, but emained for microscopic research to give a definite t to them and to convince surgeons of the necessity putting them into universal practice. The investiga- of such early lesions, combined with their accurate orial representation, is work worth energetic suit.

nother example of the truth of the same doctrine is rded by the history of the growth of opinion with rd to cancer of the breast and its treatment. textbook descriptions are those of a growth which passed the stage favourable for operation; adhesion ie skin and to the pectoral fascia, retraction of the le, and metastasis in the glands, are signs of a th which has already made extensive advances, one which a surgeon will undertake to remove with iderable misgivings as to the result of his operation; yet how often have these signs been waited and watched for before a positive diagnosis of breast cancer has been made!

The microscope has confirmed and enlarged upon the experience of the operating surgeon. Some highly interesting observations were recently given by Mr. C. B. Lockwood[1] of the already extensive spread of mammary cancer to axillary glands in the case of what would generally be looked upon as quite early growths. Such a demonstration explains the still too common experience of an apparently early growth, a wide removal, a good prognosis, and yet early recurrence.

The impressions of the sense of touch on which we chiefly have to rely for the diagnosis of these growths are less definite and less easily conveyed than the impressions of the eye. Much work remains to be done in this direction on the lines of the paper which Mr. G. L. Cheatle contributes to this number of the JOURNAL. The microscope has here, too, given its surprises, and many a surgeon has received a report on a breast tumour from the laboratory for which his clinical examination had not prepared him. The rule which has at present to be followed is always to suspect cancer when a swelling in the breast is not obviously of some other nature, and to go to the microscope for a decision. It is well to have it clearly recognized that the textbook signs of cancer of the breast are all severally useless for the diagnosis of an early malignant growth. Mr. Cheatle makes the important point that a swelling that may be cancerous is not a condition to be watched, but one which calls for immediate investigation and immediate treatment according to the verdict of the microscope. This microscopic examination is carried out in different ways by different surgeons. The method of choice is certainly that which provides for an adequate microscopic examination and at the same time relieves the patient from the necessity of submitting to the administration of a general anaesthetic on two occasions. If, however, in any case it is necessary to give an anaesthetic twice before a certain opinion can be formed, no surgeon will hesitate to recommend it.

A question of importance is—How much reliance can be placed on the naked-eye appearance of sections of suspected tissue? The careful description and representation of the naked-eye appearance of such sections and the correction of opinions based on these by microscopic examination would be a piece of work well worth doing. At present there is not sufficient evidence to show how much reliance is to be placed on them, but the value of the naked-eye appearance of a quite early growth is, generally speaking, very doubtful. We are not aware that any surgeon has actually put this matter to the test through a series of early and doubtful carcinomata.

The importance of the possession of exact knowledge as to the nature of a growth is two-fold: on the one hand it ensures an adequate operation if the disease prove to be cancer, while in the other alternative the patient is saved from what is necessarily in almost all cancers an extensive operation. To the estimation of what constitutes an adequate operation the microscope again has largely contributed. The paper by Mr. J. Hutchinson, jun., deals with the question, as regards carcinoma of the lip, on the lines of what the microscope and clinical experience have generally indicated as to lymphatic extension. These two sources of information have led to the construction of what may be called a law governing all cancer operations—that in all cases of cancer the area of primary lymphatic extension (at the least) must be removed along with the growth itself. The anatomical problems to which this law gives rise have been worked out by surgeons in regard to growths of the breast, tongue, uterus, and stomach, and Mr. Hutchinson's paper represents the elaboration of the same procedure in regard to the lip. There are other similar problems which remain to be definitely settled in relation to the disease in other sites.

---

[1] BRITISH MEDICAL JOURNAL, January 27th, 1906.

Metastasis is a complicated subject, as witness the interesting observations recorded in Mr. Bland-Sutton's clinical lecture on secondary ovarian cancer, but we know, at any rate, a considerable amount about lymphatic extension, and an operation which does not cover this knowledge is condemned as inadequate and unjustifiable.

To return to the subject of diagnosis. Cutaneous and subcutaneous swellings which may be cancerous can all be investigated under local anaesthesia. The clinical investigation of "swellings" which are not thus accessible has been facilitated considerably during the last few years. The researches of Moore and Roaf, for example, have shown that the free hydrochloric acid test has a significance beyond the diagnosis of stomach cancer. Wherever the "swelling" may be, it is obviously the duty of the medical man who meets with it to set out forthwith definitely to settle whether or not it be cancer, and, if its nature cannot be settled without operation, to recommend the latter without delay. To wait and watch until the further course of the affection clears up the diagnosis must mean in many instances the sacrificing of the patient's chances of recovery.

THE PROBLEMS OF CANCER RESEARCH.

Unless cancer is diagnosed in an early stage and then promptly excised, it is a disease which is inevitably fatal. So much we know only too well; but there our substantial knowledge ends. About the nature of cancer, its causation, the biological conditions on which its propagation as a morbid process depends, we have statements and theories innumerable, but we possess absolutely none which can be accepted as a clear and adequate explanation of the essential problem. Let us first recognize, clearly and unmistakably, that cancer research has not yet grasped the key to its problem; then we can understand better and appreciate more highly the real value of the work which is actually being done.

The difficulty of the investigation is twofold. Not only is the causation of cancer unknown, but the science of all vital processes, both normal and abnormal, is still in its infancy; we are just beginning to realize the enormous complexity of the conditions which determine cellular life and the infinite subtlety of their physical and chemical reactions. Attacking the cancer problem is like fighting a mysterious and evasive enemy in an unknown country. We have not learnt the secret of his strength, and our attempts to pursue him are hampered at every turn by our imperfect knowledge of the ground over which we have to travel. Confronted by these difficulties we have no choice of methods; the plan of campaign is determined for us by the cogency of necessity; we are compelled to adopt a wide encircling movement, bringing into operation all the available forces of scientific knowledge, and then gradually and very laboriously converging upon our still imperfectly located objective.

Over this wide field of operations so many forces are now being engaged that it is only possible here to briefly mention a few. There is the search for a specific infective organism. Cancer parasites innumerable, including bacteria, yeasts, protozoa, and man "organisms" too peculiar to be classed with an known species, have from time to time been "di covered." None of these discoveries have been su stantiated. The search is still in progress, an necessarily must be continued, because our presen knowledge of the pathogenic parasites is far too fra mentary to justify the assumption that a parasit origin of cancer is impossible. Then we have th investigations of the histologists. By careful micr scopic examination much has been learnt sin Virchow's time about the structure of malignan growths in their various phases. The wide distributio of cancer in the animal kingdom has been establishe and the study of the histological process has bee further facilitated by the discovery that certain carc nomata found in mice may be propagated by tran plantation from one mouse to another. It is thu possible, by inoculating a large series of mice and killin the animals at short intervals, to follow very closely th sequence of development of the transplanted tissue These minute histological studies of tumour structur and the relationship of the surrounding tissues may b compared to the work of an intelligence department i warfare. They inform us about the movements of th enemy and his methods of attack, and the more accurat and more minute our information becomes, the mor likely are we to discover the mechanism on which thes manifestations of destructive energy depend.

A cancer cell differs from a normal cell in its power o unlimited multiplication, and therefore, with the objec of learning more about the nature of this power, specia attention is being devoted to the study of nuclea changes in cancer cells and the phenomena o mitotic division. Particular interest has been arouse by observations on the reduction in the number o chromosomes in cancer nuclei, and many resemblance have been shown to exist between cancer mitoses an the mitotic phenomena which are typical of the norma reproductive sexual cell. These inquiries have a bearin on the relationship between cancerous tissue an embryonic tissue; they lead up to experiments on tissu of embryonic type which have for their object the per version of this tissue from its normal mode of de velopment without inhibiting its capacity for continue reproduction. If by these means a closer parallel ca be obtained between cancer growth and the growth o embryonic tissue perverted by the experimental intro duction of some known agent, a clue may be establishe to the nature of the stimulus which sets up malignan disease.

In another field of inquiry the chemistry of malignan neoplasms is being studied. This subject is bein attacked in a variety of ways. Chemists are makin direct analyses of the inorganic and organic constituent of tumours; the data obtained may, on comparison with the constituents of normal tissue, reveal some quantita tive or qualitative difference; and these results in tur —as, for example, the observation that many tumours are rich in glycogen—are leading to investigations int the chemical agents by means of which the tissue has effected these particular changes. Pursuit of this clu leads into that very extensive and still very imperfectl known territory to which the problems of internal secretions and intracellular ferments belong. Do th primary tumour and its metastases owe their peculia capacities of invasion and proliferation to the acquirement of some special enzyme which enables them t acquire nutrition by a parasitic action upon the healthy tissues which they invade? Or is the general metabolism of the body primarily at fault? We know, fo tance, that there is a diminution in the gastric lrochloric acid, even when the cancer is situated in ie part of the body far remote from the stomach, there is evidence that this is due to a change the distribution of the salts in the blood plasma an increase of its alkalinity. Does the cancer se these changes, or are the changes features a morbid diathesis, originally precancerous, followed, as the result of disturbed tissue meta- ism, by the development of a neoplasm? Here, in, we see that a labyrinth of inquiry is gradually ng opened up. Lastly, we may mention a branch of arch which has only been instituted during the last years, but has already made considerable progress. refer to the discoveries of specific cytotoxic serums, erums which, if not absolutely specific, have at least iarked selective action. These investigations have to a hope that eventually a serum may be discovered sessing a specifically destructive action upon the s of malignant tissue. It has not yet been realized has by no means been abandoned.

his is very far from being a complete review of the es co-operating in that wide encircling movement ch is steadily converging upon the cancer problem. we have said enough to show that, taken col- ively, they constitute an army which is actually at k and is steadily pursuing a concerted plan of paign. The plan calls for no criticism, because it is ated not by choice but by necessity. There is no l road to success, but the discovery must and will nade; and the campaign will inevitably continue l it has attained its object.

criticizing the details of work done in any par- lar department of cancer research we ought to bear iind this general point of view, and not limit our ation to the standpoint of the individual worker. author very probably has a "theory"; he believes ie parasitic origin of cancer, or in the "disturbed ie-tension" hypothesis, or in a modification of the ryonic or some other explanation. All his data are ght forward as evidence in support of his favourite rine, and his surplus energy of criticism is nded in attacks upon his rivals. Now, if allow these theoretical and controversial cts of the question to overshadow the inde- ent value of the material data, we acquire little ghtenment but much confusion, and we are apt to into the pessimistic belief that no substantial ress is really being made. But we may escape this sirable conclusion if we remember that a theory is, ight to be, a logical and adequate explanation of c.

ere are no true theories about cancer; there nly working hypotheses; and the value of these sts not in the opinions which they formulate, but eir efficacy as incentives to sound scientific work. real value of a piece of cancer research consists addition to the store of accumulated facts which or may have, a bearing on the influences which mine normal or morbid cellular activity. The tion of these facts involves the investigation of an mely difficult and obscure subject, and therefore is sarily a very slow process; but results are accumu- g. In all experimental work in a new field of rch, results are of two kinds, positive and negative; he latter always vastly outnumber the former, not ncer alone, but in subjects of far less complexity. ust not overlook the importance of these negative ts. A negative result, in accurate scientific work, not mean failure; it plays a necessary part in the ss of induction by exclusion and elimination, and so fulfils one of the requirements of experimental work on which the validity of positive construction depends.

THE BRITISH MEDICAL ASSOCIATION.

The British Medical Association continues steadily to increase and its Branches are multiplied over the face of the Empire. It comprises considerably more than half of the whole British profession, and of those who are still outside the fold, a large proportion consists of recently qualified men who have not yet settled down in practice. To them the privileges of membership of the Association may not be fully known, and many of them will doubtless be glad to have their attention directed to the advantages which it offers. The objects of the Association are the promotion of medical science and other departments of knowledge thereunto allied, and the maintenance of the honour and interests of the profession. From the earliest days of its existence it has striven for the attainment of these objects, and as it has grown in numbers it has adapted its constitution to the larger fields of activity which its increasing importance has opened up. For many years past it has given large sums, averaging £1,250 a year, in aid of scientific research, and it offers valuable scholarships for the encouragement of workers in spheres of investigation in which little material reward is to be looked for. It publishes a weekly Journal, which, in the opinion of competent and impartial judges, is second to no medical periodical issued in any country of the world. Its annual meetings and the meetings of its Branches and Divisions offer abundant opportunities for scientific discussion, for the ventilation of matters concerning the interests and welfare of the profession, and for the concerting of combined action thereon. They also tend to the promotion of professional brotherhood by bringing members together in social intercourse and by helping to bring about the friendly settlement of differences which must from time to time arise among men on whom the struggle for existence often presses hard. Its new constitution, which is at once more representative and more elastic than the old, has already enabled the Association to secure less oppressive conditions of professional life for its members in several places where the conditions of contract practice weighed heavily on medical practitioners, and to exercise influence in several directions in which formerly it did not make itself felt. Efforts are now being made to obtain a Royal Charter which, it is hoped, will free the Association from the hampering conditions which as a limited liability company are imposed upon it by law. Already the Association is virtually the mouthpiece of the medical profession, and it is generally accepted as such both by administrators and by publicists. But it could speak yet louder, and with greater authority, if it included the entire profession in its membership. That this would be for the good of every individual practitioner there can be no manner of doubt, for the Association offers the only means of uniting into one organic whole a profession which otherwise can be nothing but a collection of loosely-joined units. In union is strength, and to make that union stronger we invite all who stand outside to come in and join us. The conditions of membership and a form of application will be found on a page in the middle of the present issue of the Journal.

THE ANNUAL MEETING AT TORONTO.

In the Supplement for this week the programme of the work of the Annual Meeting of the British Medical Association in Toronto from August 21st to 25th is republished with some additions, and we would call the attention of members who may be still hesitating whether to attend the meeting or not to the paragraphs on page 281 giving particulars as to the accommodation which will be available in Toronto. We have been told that some members are disposed to make up their minds not to go owing to a fear that the accommodation may prove inadequate. This we are assured on the best authority is a mistake, and we think that the information given this week may very well set any such fears at rest, for it will be seen that in addition to the hotels, rooms will be provided in residential colleges or at the new nurses' residence of the Hospital for Sick Children, Toronto, for over two hundred. Probably most members who visit Canada will wish to see something more of the country than the stretch which lies between Quebec and Toronto, and for their information we have commenced this week the publication of illustrated articles on Canadian scenery. Niagara can easily be managed from Toronto, and the man in a hurry may be satisfied that he can see the whole of this wonder of the world in a day, or even less. Of longer excursions there is an embarrassment of choice between the Muskoka lakes, Georgian Bay, the Algonquin National Park, and the Lake of Bays district, to mention only those parts of the country described this week. Of course any visitor who can spare a fortnight, or better three weeks, after the meeting should go from Toronto or Montreal by the transcontinental route of the Canadian Pacific Railway through the corn district of Manitoba, across the prairies, over the Rocky and Selkirk Mountains, through the strange dry Kamloops district, and down the magnificent cañon of the Fraser River to Vancouver. He may come back through Canadian territory, varying his route; or he may strike south into the United States and come eastward by the Yellowstone Park, eventually returning home from New York or Boston. It is a trip well worth making, and we shall hope to do something to prove the truth of this opinion by publishing, probably in our next issue, an account of the extraordinarily varied scenery through which the Canadian Pacific Railway passes from Montreal westward to the coast.

WARNING NOTICES.

WE are glad to be able to state that in certain districts difficulties which have arisen with regard to contract practice appear to be in process of adjustment, and that there is good reason to hope that within a short time we may be able to report that they have been entirely removed. In other districts the controversy, as will be seen by reference to the notice in the advertisement columns, continues; and we would invite medical men who may be approached with a view to accepting appointments in these districts, to communicate with the Honorary Secretary of the local Division of the Association whose name and address are given in the notice. We may also invite members of the Association in any district where a controversy appears to be impending to place a full statement of the facts in the hands of the Honorary Secretary of the Division for transmission to the Medical Secretary of the British Medical Association. Already a considerable amount of information has accumulated in the Central Office as to the best means of dealing with these difficulties which, as a rule, present features having a strong family likeness. It has been clearly established that it is very important that no step which experience has proved to be false should be taken in the early stage. The Medical Secretary has not only at his disposal a large amount of information, and the experience gained from previous controversies in other districts, but is also in a position to consult with those who have special knowledge of the subject, and to give advice
which must undoubtedly in all cases be well wor
of consideration. The advertisement containing
warning notices at present being issued will be foun
page 111 of the advertisement columns.

VOLUNTEER MEDICAL ORGANIZATION.

THE Subcommittee of the Volunteer Medical Ser
Committee of the British Medical Association,
appointment of which was mentioned in the BRIT
MEDICAL JOURNAL of May 12th, p. 1124, held its f
meeting on May 15th. After full discussion the S
committee resolved to recommend that after a date
be fixed all commissions to medical men in the Vol
teers should be to the R.A.M.C.(Vol.), promotion be
granted as now after fixed periods of service, and on
necessary qualification being obtained. It was furt
recommended that all officers thus appointed sho
wear the uniform of the R.A.M.C.(Vol.) however e
ployed, and that the names of all officers of this co
should be shown in one seniority roll in the mont
Army List, as is now the case with the R.A.M.C.
was then proposed that all existing regimental medi
officers should have the option of remaining as they
or of being transferred to the R.A.M.C.(Vol.), retaini
their present seniority. This led to a good deal
discussion, some members of the Subcommittee holdi
the opinion that the option should be given only fo
period of five years, after which all regimental offic
should be transferred to the R.A.M.C.(Vol.), retaini
their seniority. Eventually the original proposal w
carried, as was also a recommendation that if re-
mental officers transfer they should adopt the R.A.M
(Vol.) uniform and simple military titles, but that
they did not they should retain their regimental u-
form and compound titles. The Subcommittee reco-
mended that all medical men accepting medical co-
missions in the R.A.M.C.(Vol.) after the date fix
should have the option of being attached to an in-
vidual regiment, or corps or medical unit, provid
there was a vacancy, taking their promotion acco
ingly, and being transferred subject to the approval
the officer commanding and the G.O.C. Further, th
all officers of the R.A.M.C.(Vol.) should be eligible
duty in any capacity if they so desired and if vacanc
existed. The Subcommittee then considered the qu-
tion of stretcher bearers, and recommended that
ambulance detachment be specially enrolled for ea
unit, of a strength to consist of one sergeant, o
corporal, and men equivalent to 2 per cent. of t
establishment, the detachment to be in addition to t
establishment of the regiment or corps, to gain th
capitation grant solely for ambulance duties, and
wear the uniform of the regiment and the Geneva Cr
as a distinguishing badge. Finally, it was recommend
that those volunteer medical officers who desired
join the new reserve should, if they fulfilled t
requirements, have preference over medical men
holding a commission in the volunteer forces, a
should be supernumerary in their corps while holdi
the appointment, being still entitled to earn capitati
grants for their corps, commissions being given to ot
medical men to complete the establishment. The Su
committee met again on May 23rd, and among oth
subjects considered was the organization of the Volu
teer Medical Service for service in the field; it w
resolved to recommend that the organization should
on the lines of the R.A.M.C.(Vol.) field ambulance, a
that the establishment of each company of the R.A.M.
(Vol.) should be the same as that of a "skeleton" fie
ambulance, that is to say, it should consist of 102 men
which might be added 90 "specially enrolled" men wh
required, and that in consequence the establishment
existing bearer companies should be augmented to 1
for this purpose. It was also pointed out that t

cessity of training the men of the R.A.M.C.(Vol.) as spital nurses as well as bearers could be met by aining them in civil hospitals, the cost being met by a ecial capitation grant. The Committee then pro- eded to the consideration of a volunteer medical serve, and resolved to recommend that in place the present Army Medical Reserve a new serve should be formed consisting of two sses, the one containing the officers willing serve abroad, and the other those prepared to ve at home but not abroad, that officers willing to ve abroad should be supernumerary in their corps, t should earn capitation grants, and that both classes ould have preference for employment in peace. It s pointed out that in the case of the rank and file eginning had already been made in this direction. was further resolved to recommend that a Volunteer dical officer resigning his commission should, if he desired, be recorded in a special list of reserve of cers with a view to his employment at home in ime of emergency.

POST-GRADUATE COURSES.

is very satisfactory to find that some of the univer- es are showing increasing interest in post-graduate truction, a matter which comes well within the pe of their duties. Some announcements on the ject will be found elsewhere in our columns this k, and it is a special subject for congratulation that the University of Oxford post-graduate courses in thalmology given in previous years have been so l appreciated that another, and if our recollection of vious courses is correct, a somewhat fuller course is e given next July. The Reader in Ophthalmology, R. W. Doyne, has arranged a very busy fortnight, as among the 500 cases to be gathered together for nonstration some will be of unusual interest, he is posing to extend the course for two days in order t past-masters in the art of ophthalmology may have opportunity of visiting Oxford, seeing these unusual s, hearing an address by Mr. Nettleship on family ases of the eye, and witnessing some demonstra- of the very latest applications of the methods of nology to clinical work. In Edinburgh an execu- committee representing not only the University, also the extramural lecturers, has made arrange- nts for post-graduate courses during the last weeks of September and the first week of October, at Trinity College, Dublin, the third annual course begin early next month. At Oxford, Edinburgh, and lin members of the class will be able to reside ollege at a very reasonable expense for board and ing. In Glasgow, as will be seen, a post-graduate se began on April 30th; it includes demonstra- s in neuro-pathology, laryngology and rhinology, cal medicine and surgery, bacteriology, and opera- surgery. At Leeds the medical staff of the public ensary are holding a post-graduate course of clinical onstrations during this month and June; they have o-operation of members of the medical faculty of university.

BANTU FOLK LORE.

MATTHEW L. HEWAT has laid both medical men and lorists under an obligation by collecting into a me his notes of the folk lore of the Bantu. His [1] is even more medical than its title imports, for it s hardly at all from what has a direct medical ng. Kaffir psychology and demonology have been d deal studied by Callaway, Dugmore, and others; ttempts have been made to probe and follow the ings of minds which believe intensely in spirits, hardly in a God; which believe in a hell, but have me for it. A few points of interest in this connexion are adverted to. For example, there is an interesting description of a Kaffir sacrifice, which reminds one of the days and doings of Hophni and Phinehas. The number and variety of "doctors" among the Kaffirs is extraordinary; "there is a "gradual evolution among them from the priest "pure and simple to the medicine-man" (or leech) "proper, who leaves the supernatural out of his "method of treatment, and depends on nature's pro- "ducts for the cure of disease." The most curious thing is that all the different stages in the process seem to be existing at the present day among the Bantu. The faith-healer especially seems to be rampant; and the witch-doctor would be so, were he (or she) not happily restrained in a great degree by the terrors of European law. The native shrewdness, and the cultivated powers of memory, possessed by some of these clerico-medical practitioners, enable them to exercise great and terribly mischievous power. But, after all, the most interesting parts of Dr. Hewat's little book are those devoted to the description of the more legitimate practice of the surgeons and "herb-doctors," which is often much better and more skilful than might be expected. Thus, the native surgeon puts his cases in newly-built and clean huts, usually on the top of a hill, and seems to understand the antiseptic properties of carbon (ashes). He practises both general and local venesection. A case of spreading gangrene of the hand is mentioned as having been treated successfully by a native practitioner, who kept the arm immersed in a pit full of warm dung taken from a newly-slain ox, the patient being well fed on beef, broth, and beer. Cow-dung plays a large part in the materia medica; so do emetics, often of a very severe kind; but as the author remarks, "in a country and nation where "at times great overfeeding and gorging are practised "such a treatment is a valuable asset." They use the aloe ferox, and have other powerful cathartics. But the practices used for the prevention or cure of snakebite are of greater interest. "A native never "wastes a snake. One seen is pursued till killed; then "its gall bladder is emptied, and the gall mixed with "the venom from its poison sacs, and all this with clay, "into a bolus, which is swallowed usually in two doses, "with a day's interval. The immediate effect is one of "pleasant somnolence; the ultimate effect aimed at is "more or less complete immunity from the dangers of "snakebite for the future." "Some natives as a result "of this practice acquire immunity, and will handle "poisonous snakes with a freedom only accounted for "by a conviction of safety." The local treatment of the bite is judicious—ligature, incision, cupping, a native form of diaphoretic bath, infusions of leontis, sebaea teucrium, and other plants, mostly, it would seem, powerful tonics. Of several Kaffir drugs thought valuable by Dr. Hewat, one at least, the monsonia ovata, is now used in the form of tincture by colonial physicians, and considered beneficial in diarrhoea, dysentery, and typhoid fever; the natives also use it externally in anthrax; it is astringent and sedative.

THE ACTION OF GLYCOLYTIC FERMENT ON MALIGNANT GROWTHS.

IN a paper recently read before the Académie des Sciences, M. Odier of Geneva called attention to the parallelism which exists between the richness of a tumour in glycogen and the activity of its cellular multiplication. He is convinced that both the diathesis which predisposes to new growths and also the arthritic diathesis are characterized by an increase in the activity of lipase ferment, and a concomitant diminution in the glycolytic ferment of the blood. It has been established that excess of lipase tends to diminish the glycolytic power of the blood,

---

ntu Folk Lore (*Medical and General*). By Matthew L. Hewat, Capetown: T. Maskew Miller; and London: J. and A. hill. (Cr. 8vo, pp. 112, 7s. 6d.)

owing to the production of excess of glycerine, and the author corroborates the investigations of M. Ramsom, which show that glycerine, when it exceeds the physiological limit, renders the hepatic cell unable to play its part in the transformation of glycogen. It is possible to bring about experimentally a disappearance of glycogen both from healthy tissues and from tumours by the injection of a mixture of extract from the pancreas, liver, and muscle. In healthy tissues the effects of the injection of this mixture are particularly striking in newly-born or young animals; when repeated at suitable times, the result is rapidly to arrest growth, no matter how much nutriment the animals absorb. In animals which are affected with new growths injection of the same material acts directly on the neoplasm and attacks the glycogen which is accumulated within it. The consequence is that cellular multiplication is soon arrested, and the tumour appears to be reduced to the condition of an inactive foreign body. Histological examinations of sarcomata, carcinomata, and adenomata, which had been subjected to this treatment, have shown that the tumours have been deprived of their glycogen. M. Odier has tried the effect of transplantations of pancreas and liver, followed by the injection of muscle extract. The transplanted tissues do not survive permanently, but the operation is constantly followed by an increase in the glycolytic activity of the blood. Hitherto, his observations have been confined to animals, but his results lead him to believe that the method is capable of application to man in cases both of new growths and of diabetes mellitus. In conclusion, the author emphasizes the clinical importance of investigating the glycolytic power of the blood; the diminution and, in particular, the disappearance of this ferment must be regarded as a danger signal, indicating that the organism has become a suitable soil for the development of a neoplasm.

THE UNIVERSITY AND THE PROFESSION IN WALES.

On May 18th, Dr. F. T. Roberts presided over an assembly of some sixty or seventy Welsh members of the medical profession who dined together at the Criterion Restaurant, London. This is the third occasion on which a Welsh medical dinner has been held. At the first dinner in 1904 Sir John Williams presided, and at the second in 1905, Sir R. Douglas Powell. On the present occasion, after the usual royal toasts, Sir John H. Puleston proposed the toast of "The Medical Profession," and in the course of his remarks mentioned that he had begun his career as house-surgeon to Guthrie at the Westminster Ophthalmic Hospital. The toast was acknowledged by Mr. Robert Jones, F.R.C.S., of Liverpool, and the Chairman then gave the toast of "The Guests," which was acknowledged by Professor Hubert Herkomer, R.A., and Mr. Samuel Evans, K.C., M.P. Mr. Evans, Mr. Robert Jones, and the Chairman all referred to the application of the University of Wales for a supplementary charter creating a faculty of medicine, and giving to the university the right to grant degrees in the faculty. From the general applause with which these references were greeted there can be no doubt that the proposal is most popular with the medical profession in Wales. As will be seen on reference to the full text of his address published elsewhere, the President of the General Medical Council called attention to this matter; he stated that the Executive Committee were of opinion that no objections should be raised by the Council to the draft Charter, but pointed out that the degrees would not become registrable qualifications until an Act had been passed to amend the Medical Acts in this sense. The dinner on Friday, which was attended by many medical men practising in Wales, was appropriately brought an end by the proposal of the Chairman's health. Th was given in felicitous terms by his old fellow-studer Dr. T. Druslyn Griffiths, Ex-President of the Briti Medical Association, and suitably scknowledged Dr. Roberts. The songs rendered during the evenin some in English and some in Welsh, afforded furth proof, if such were needed, that the Principality we deserves to be called the Land of Song.

THE NATIONAL ANTIVIVISECTION SOCIETY.

The National Antivivisection Society had the wir taken out of its sails by the British Union for th Abolition of Vivisection, an account of whose annu meeting was given last week. Hence the proceedin at the annual meeting of the National Society whic was held on May 17th were tame to the point of dullnes The Hon. Stephen Coleridge, who was in the chair, d not attempt to hide his dissatisfaction at the intentio expressed by the Government to appoint a Commissio to inquire into the Vivisection Act. The Home Secr tary, in reply to a question by Sir Philip Magnus, had sai that "in view of the fact that no inquiry has been hel "for thirty years, it is the intention of the Governmen "to recommend the appointment of a Royal Commi "sion to examine into the working of the Cruelty t "Animals Act in the light of present scientific know "ledge." In that reply, Mr. Coleridge, like the famou Sir Courtenay Boyle, smells a rat which he would lik to nip in the bud. He is not interested in scienc and doubtless for good and sufficient reasons, ha no wish to have vivisection inquired into from th scientific point of view. Mr. Coleridge will hear nothing but an inquiry from the moral standpoin "If," he said, "the inquiry is to be directed simply an "solely into the question as to whether science i "advanced by this detestable practice or not, I wi "have nothing to do with the inquiry, and it wi "be perfectly abortive so far as our movement i "concerned." Mr. Coleridge in fact will have hi own way or nothing. His attitude towards th Government appears to be that which he ha more than once taken up in regard to the magistrate before whom he has been charged with exceeding th legal speed in motor driving—that they ought not t convict him because he is a moral man who would no injure any one. He threatened Mr. Gladstone wit various Members of Parliament, much as, according t the papers, he tried to overawe a policeman who stoppe him by saying he was sorry he had not the Lor Chief Justice with him then as he had the day befor The Parliamentary lions, however, roared an t'wer any sucking doves. Mr. J. M. Robertson move "That this mass meeting of the citizens of Londo "calls upon Parliament to pass the Bill promoted b "the National Antivivisection Society." He wa all for persuasion rather than legal force, and h expressed the conviction that the final triumph i abolishing vivisection would be brought about by "th "large number of medical men who have declared them "selves antivivisectionists." Mr. Robertson is not i general of a credulous turn of mind, but if he can believ that the medical men whose names are paraded as anti vivisectionists will achieve such a triumph he wil believe anything. Mr. George Greenwood made pathetic plea for unity of action, pointing out that it wa of the highest importance that antivivisectionists shoul consolidate their forces and work harmoniously togethe and Archbishop Bagshawe appealed to the forces of anti vivisection not to be disunited. "Disunited" is a mil term to apply to rabid fanatics and competing societie who curse and anathematize each other with ultra theological fervour. The only thing indeed that relieve the tedium of reading the antivivisectionist periodicals

the wealth and variety of vituperation which the
val sects apply to each other. The fact that an in-
dinate love of animals should breed such uncharit-
leness among men and women suggests that an
quiry might with advantage be made into the moral
pects of antivivisectionism.

ROFESSOR KOCHER AT THE MEDICAL SOCIETY OF LONDON.

IE annual conversazione of the Medical Society of
ndon was held at the Society's rooms in Chandos
reet, W., on the evening of May 21st. The Fellows
d guests were received by the President of the Society
ir Lauder Brunton, F.R.S.) and at once proceeded to
e Lecture Hall, the sitting accommodation of which
on became quite inadequate. After some introductory
marks from the President, Professor Kocher gave the
nual oration, taking as his subject some contribu-
ns to the pathology of the thyroid gland. He pointed
t how much of the earlier knowledge of the subject
d emanated from that Society. The phenomena
ociated with deficiency of the thyroid secretion
re now well known, but the same could not be
d of the character of the group of cases
ally classed with exophthalmic goître. Of all
classic symptoms of exophthalmic goître,
phthalmos was the least constant. He there-
e thought that the name should be dropped
l a more general name, such as Graves's disease
Basedow's disease, used instead. He gave an
ount both of the well known and of the less recog-
ed clinical facts of Graves's disease. He discussed
value of operation, whether by ligature of arteries or
ision of part of the gland. Of 176 cases of varying
rees of severity operated upon 9 had died, but all the
ers had been benefited and some had been cures. A
e might be promised in Graves's disease when the
ration was done in due time. If taken early no case
is had been lost, but the operation should be pre-
ed by weeks of medical treatment—small doses of
assium iodide or, perhaps better, of phosphoric acid
absolute mental bodily rest—and the operation itself
uld be done in stages. By this combination of oper-
n with medical help perfect recovery might be
ed for. A vote of thanks to the orator, whose
ion we shall hope to publish in full in an early
e, was proposed by Sir Victor Horsley, F.R.S.,
nded by Sir Felix Semon, and carried with great
amation.

EDUCATION BILL AND PHYSICAL TRAINING.

Education Bill introduced by Mr. Birrell contains
ause (35) giving to the local authority "power to
ke such arrangements as may be sanctioned by the
ard of Education for attending to the health and
ysical condition of the children educated in public
mentary schools." The weakness of this pro-
l will be apparent when it is observed that
aves each local authority free to make or not
make such arrangements. Mr. H. J. Tennant
given notice of an amendment which would
ve this defect. He would have the clause read:
shall be the duty of every local education authority
make arrangements, in accordance with a scheme
be made by the Board of Education, for attending
the health and physical condition of the
ldren educated in public elementary schools."
would make it compulsory for every autho-
at once to take steps to safeguard the health
to promote the physical development of the
ren for whose education it is responsible. The
sted amendment would cast upon the Board of
ation the important duty of drafting a scheme
le of being applied to the whole country, but sufficiently elastic to be adaptable to the varying conditions and needs of town and country. We believe that it will at once become apparent that an essential part of any such plan must be the institution of a practical scheme for the systematic medical inspection of the children attending public elementary schools with the view not only of picking out the physically or mentally defective, but also of preventing the attendance of children suffering from some infectious disease.

THE NATIONAL HEALTH SOCIETY.

PRINCESS CHRISTIAN presented the successful candidates at the examinations of the National Health Society with certificates, on May 21st, at Grosvenor House. The ceremony was presided over by Lord Derby, who in some introductory remarks described how the Society spread throughout the country those principles relating to the maintenance of health which were so sadly unknown to the masses. He congratulated the Society on the fact that Sir Frederick Treves had accepted the post of Chairman of the Committee of Management of the Society. Sir Michael Foster, in proposing a resolution approving the aims and methods of the Society, said that much of the ill-health and distress of humanity was caused from people doing wrong because they knew no better. There was much wrong thinking and wrong doing about the working of the human body, and unfortunately the women of the poor had very decided views about this matter. The duty of the Society was to bring real knowledge to the homes of these women. Archdeacon Sinclair, in seconding the resolution, warmly advocated the claims of the Society, and hoped that it would sweep away the insidious teaching of quacks and all persons imperfectly educated who obstructed the advance of national health among the poor. Sir Frederick Treves, in moving a vote of thanks to Princess Christian, referred to her model farm at Windsor, which was an example of what a sanitary home ought to be. The Princess had suggested that the Society should deal with the unhygienic methods employed in dealing with meat before it reached the table. The way in which meat was thrown about and exposed to dust, dirt, and infection must be altered. Another matter that had to be remedied was the manner in which milk was supplied. It was curious that from a legal point of view the only noxious thing which could not be added to milk was water. It was impossible to attack the evil by legislative means alone; it must be cured by rousing up the opinion of the public. Sir Thomas Smith seconded the vote of thanks, which was carried with acclamation. The meeting terminated with a vote of thanks to the Duke and Duchess of Westminster for allowing the Society to meet at Grosvenor House, proposed by Sir William Broadbent, seconded by Sir H. W. Lawrence, and passed with acclamation.

COMPANY PRACTICE.

A RECENT money-lending case elicited some remarks from one of the judges which have a bearing upon the formation of companies to evade the provisions of Acts of Parliament, and although the parallel with medical legislation is not exact, still the observations of Mr. Justice Darling are applicable. The Money Lenders Act requires the money lender to register himself, and he may only do so under one name; in the case decided the other day the defendant had formed several one-man companies, under cover of which he conducted businesses at several places, and under several names. The case was heard before the Lord Chief Justice, Mr. Justice Channell, and Mr. Justice Darling, and a heavy fine was imposed, but we are only concerned with the company aspect of the matter. Mr. Justice Darling remarked of it: "In my mind it is a fraud, and nothing

' short of it. . . . . I hope that this means of avoiding "the Money Lenders Act by the creation of these "companies, which are called separate entities, but are "only so in theory, will be dealt with by the legislature." In a case heard before the General Medical Council this week, a similar point arose. It is alleged that two registered dentists conducted private practices at their own addresses, where they were not partners; but they had also formed a company, in which they held practically the whole interest, and under this, which bore a name not belonging to either of them, they conducted practice by means of unqualified assistants at other places.

CONFERENCE ON INFANTILE MORTALITY.

THE National Conference on Infantile Mortality, of which Mr. John Burns is President, will be held at the Caxton Hall, Westminster, on June 13th and 14th. At the opening session at 10 a.m. on the first day the President of the Local Government Board will deliver an inaugural address, and afterwards Dr. Niven, Medical Officer of Health, Manchester, will introduce the subject of the teaching of elementary hygiene in schools in reference to the rearing of infants. Subsequently Dr. Spottiswoode Cameron, Medical Officer of Health, Leeds, will discuss the advisability of appointing qualified women to deal with the hygiene and feeding of infants; Dr. M'Cleary, Medical Officer of Health, Hampstead, will read a paper on the supply of pure or specially modified milk for the feeding of infants; and Dr. Chalmers, of Glasgow, will raise the subject of the powers of local authorities in regard to milk supplies. Other subjects to be discussed will be the influence of alcoholism on infant mortality, the relation of it to premature births, the earlier registration of births, the employment of women before and after confinement, and the operation of the Midwives Act in England with a view to its extension to Scotland and Ireland.

THE Prince of Wales has been pleased to appoint Sir Richard Havelock Charles, K.C.V.O., M.D., I.M.S., to be a Physician in Ordinary to his Royal Highness.

WE are informed that Mr. Charters Symonds, of Guy's Hospital, will be a candidate at the forthcoming election for the Council of the Royal College of Surgeons of England.

SIR WILLIAM MACEWEN, Regius Professor of Surgery in Glasgow, will deliver the Cavendish Lecture of the West London Medico-Chirurgical Society, at the Town Hall, Kensington, on Friday, June 8th, at 8.30 p.m. The subject of the lecture is Some Points in the Surgery of the Lung. After its delivery a conversazione will be held.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

The Course of Business.—The Government has given the first three days of this week to the committee stage of the Education Bill and Thursday to naval supply. Next week the Education Bill will occupy Monday and Tuesday, unless part of one of the days is taken for the introduction of the Irish Labourers Bill. The Whitsuntide holidays will begin on the rising of the House on Wednesday, May 30th, and end on Thursday, June 7th, when the business of Parliament will be resumed.

The Education of Afflicted Children (Ireland) Bill is a Government measure introduced last week by the Irish Secretary, and was read a second time on Monday last. The Bill deals in the first clause with blind and deaf children, and provides that the local authority shall enable such children to be educated in an elementar school, and, if necessary, be boarded out conveniently nea to the school. Children who are idiots or imbeciles, o children resident in a workhouse or boarded out by th guardians, will not come under this clause. Defectiv and epileptic children are similarly provided for i the second and third clauses. Guides and conveyances can be provided by the local authority t enable the afflicted children to attend school. Othe clauses deal with the liability of parents for expenses c children, saving the rights of parents, the contributions o guardians to the cost incurred, and the extension of th age of compulsory education to 16 years. The Bill ha been favourably received, and is likely to become law.

Deaths Attributed to Vaccination.—Mr. Lupton aske the President of the Local Government Board last wee if his attention had been called to the inquest held o May 14th, in the Tooting Vestry Hall, on the body o Blanche Mabel Reed, killed by vaccination, and to th statement of Dr. Samuel Edmund Bligh, of High Street Tooting, that the vaccination was abnormal, and now an then one got a case, and that the lymph he used wa supplied from the National Vaccine Establishment; an if, considering the frequency of such cases leading t serious illness or death, he would stop the issue of matte from the National Vaccine Establishment until som harmless mixture had been discovered. Mr. Burns replie that he had seen a newspaper report of the inquest, an had caused some inquiry to be made as to the matter. H did not understand that there was any evidence to show that the death was caused by vaccination. The *post mortem* examination proved that the child died from bronchopneumonia. He also understood that Dr. Bligh in the statements referred to in the question, meant tha he regarded the case as abnormal in so far as there was delay in the healing of the arm, and that now and then a case arose where there was delay of the kind owing to accidental causes. Mr. Burns said that he was not aware that it was the fact that cases of serious illness o death frequently resulted from vaccination from the lymph supplied from the National Vaccine Establishment and he could not take any such action as that suggested On Tuesday Mr. Lupton asked the President of the Local Government Board, with reference to the 28 deaths recorded in the Registrar-General's sixty-seventh report for 1904, as due to cow-pox or other effects of vaccination, whether any compensation had been given to the survivors by the State; whether provision could be made in the Estimates for such compensation to be paid in future cases of deaths from this cause; and, if not, whether he would consider the desirability of inserting a clause providing for such compensation in his promised Vaccination Bill. Mr. John Burns replied that no compensation had been given in the cases referred to. He could not give any promise that provision for compensation in any such cases would be proposed either in the Estimates or by a Bill. He might add that the 28 deaths alluded to included not only those stated by medical practitioners or by coroners' juries to be due to vaccination, but also those in which vaccination appeared from the medical certificates to be in any way connected with the cause of death.

Vaccination in the Army.—Mr. Lupton asked the Secretary of State for War last week if the average annual strength of the British armies in Egypt and India during the twenty years 1881 to 1900 was approximately 69,751; if the total number of cases of small-pox amongst these men was 1,149, and the number of deaths from small-pox was 113; and if, seeing that during the same period the town of Leicester had an average annual population of 165,415, and that the total number of cases of small-pox in Leicester during that period was 447 and the total number of deaths from small-pox was 31, that the soldiers were all vaccinated and the population of Leicester largely unvaccinated, and the death-rate from small-pox in the army per 100,000 was eight times the death-rate in Leicester, he would consider the advisability of relaxing the regulation for compulsory vaccination in the army. Mr. Secretary Haldane replied that it was not clear what value could be obtained from a comparison between the statistics of Leicester and those of the British army in India and Egypt; but if the statistics for the years 1901 to 1904 were sidered it would be found that, while the troops in lia and Egypt had 163 admissions to hospital for small- and 21 deaths, Leicester had 740 admissions to hos- l for small-pox and 30 deaths. There would not ear to be any sound grounds for relaxing the regula- s for vaccination in the army.

---

he Post Office and Vaccination.—Mr. T. F. Richards ed the Postmaster-General on Monday whether he would sider the advisability of allowing the employés of his artment who had a conscientious objection to vaccina- to claim exemption from such. Mr. Buxton replied , as the matter would affect the whole Civil Service, did not see his way to interfering in the question of wing the employés of his department who had a con- ntious objection to vaccination to claim exemption 1 it.

---

omotion in R.A.M.C.—Last week Mr. Arthur Lee asked Secretary of State for War whether his attention had drawn to the block in promotion now existing in certain s of the Royal Army Medical Corps, as a result of h no promotions of warrant officers to the rank of termaster had been made since 1902, although fourteen ncies had occurred during that period (all such vacan- having been absorbed); and whether, with a view to gating the resulting hardship to senior warrant officers e corps, he would consider the advisability of absorb- n future alternate vacancies only until the ordinary of promotion was restored. Mr. Haldane replied the block of promotion in the senior ranks of the , which arose from the number of promotions made g the war, was very thoroughly considered in the part of last year. The remedy proposed in the ques- was one of the many suggestions which were put rd, but it was found that inequalities of treatment of idual cases would arise therefrom, and on this account s advisedly rejected.

General Medical Council.

e full report of the Proceedings of the Council will be hed in the Supplement *of June 2nd.*]

NOTES.

eighty-third session of the General Council of al Education and Registration opened on Tuesday, 2nd. Dr. Leonard Kidd was introduced, and took at as Direct Representative for Ireland.

President's Address.—Some of the points touched in the President's address related to the business would come before the Council, and will be referred in. The following remarks are confined to subjects will not become the subject of discussion. Dr. ister paid a graceful tribute to the qualities which ed Sir William Thomson so valuable a member of uncil; after mentioning that Nova Scotia is the the Canadian provinces to seek reciprocity in the ition of medical qualifications, and that the ite order in Council had, as we stated last week, made, he pointed out that, as the information upon the General Council will have to decide which, if qualifications granted in Nova Scotia shall be ed to the *Register* had not been received, no further uld be taken during this session; the matter will ess be helped on by the visit to Canada which the nt will make in the summer; he made mention of ernational comity arising from, or at all events d by, the establishment of reciprocity with Italy, stence of which he had the opportunity of observ- the occasion of his visit to Rome to attend ening of the Policlinico as the accredited ntative both of the Privy Council and of the l Medical Council. Allusion was made to the necessity for legislative regulation of companies practising medicine or dentistry, a necessity which becomes the more obvious as their methods become more and more illustrated by cases which disclose their methods. Mention was made also of the application of the University of Wales for a supplementary Charter conferring upon it the right to grant medical degrees to members who are already graduates in arts or science. The Executive Committee had considered the draft at its meeting in February, and had seen no reason to object to any of its provisions; and the President threw out the suggestion that the economy of the time of the Council which has been effected during the last sessions may be continued by confining, so far as may be, the discussions in the whole Council to broad matters of principle, leaving matters of detail to be dealt with by its Committees. We venture to congratulate the President upon an address which was brief, business-like, and pregnant with matters of interest.

Examinations for Admission to the Services.—The returns as to the results of the competitions in the medical staff of the Royal Navy, the Royal Army Medical Corps, and the Indian Medical Service were, according to standing instruction, referred to the Examination Committee for report. Hitherto, however, no report has been offered upon the indications afforded by the results of these postgraduate examinations. In the case of the Indian Medical Service we notice that out of the 23 who obtained commissions, no less than 17 were possessed of degrees granted by universities, whilst of the remaining 16 who qualified but did not secure vacancies as many as 13 held university qualifications. It would seem, then, as has happened before, that the universities secure the vast majority of these highly-prized appointments. In the case of the Army Medical Service, 58 qualified and 40 obtained commissions; of the 40, 18 were university candidates.

Penal Cases Committee.—On the motion of Dr. Finlay it was resolved that the numbers of this Committee be reduced from eight to four, the President remaining a member *ex officio*. The functions of this Committee are analogous to those of a grand jury; it decides whether there is a prima facie case to go before the Council. From time to time some exception has been taken to this system; it has, for example, been argued that the members of this Committee, having a prior partial knowledge of the evidence, could not, when the case was heard before the Council, approach it with the same open mind as the other members of the Council, and that the larger the Committee was the more force would this objection have; it has even been proposed to abolish it, leaving to the President the whole responsibility. But the President, doubtless better acquainted than some of the more recently elected members of the Council with the circumstances under which it was originally found desirable to institute the Committee as an advisory body to help the President, by no means endorsed this view, and, while expressing his willingness to accept all due responsibility, showed that he greatly valued the support afforded to him by the deliberations of the Committee.

Disciplinary Cases.—John Bate Bawden, M.D.Edin., was charged with having associated himself with the Blaenavon Tradespeople's Doctors' Fund, a body which systematically canvassed for patients. No counsel appeared, but both complainants and the defendant conducted their own cases. The charge was found to have been proved and the Registrar was directed to remove the name from the *Medical Register*.

Degree in Public Health.—The University of Glasgow having now made an additional regulation requiring a period of twelve months to have elapsed between the attainment of a registrable medical qualification and the granting of a degree in public health, thus bringing its degrees into line with similar diplomas granted by other bodies, its diploma was accepted for registration and the Registrar instructed accordingly.

Sydney.

ANNUAL MEETING OF THE NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

THE annual meeting of the New South Wales Branch of the British Medical Association was held on March 30th. The retiring President, Dr. J. L. Beeston (Newcastle) gave an interesting address on various matters of interest, dealing especially with the military medical service. The report of the Council and the Treasurer's statement were both highly satisfactory, and showed a large amount of good work accomplished during the year. The membership of the Branch is now over 500, and there is a substantial credit balance in hand, which it is intended, sooner or later, to devote towards the purchase of a site and erection of a building for a hall, library, and offices. The ballot for the election of officers resulted as follows:—*President*, Dr. Antill Pockley; *Vice-President*, Dr. B. Newmarch; *Council*, Drs. Hankins, Crago, Rennie, Abbott, Brady, MacCormick, Worrall, Hinder, Maitland, Dick, Beeston, Clarence Read; *Representatives on the Parent Council*, Dr. C. J. Martin, F.R.S., and Mr. G. Twynam (London).

Sir Philip Sydney Jones.

At the conclusion of the meeting the portrait in oils of Sir Philip Sydney Jones, painted by Mr. Percy Spence to the order of the Branch, was presented to Sir Philip. The President, Dr. Antill Pockley, in making the presentation, referred to the high esteem in which Sir Philip was held by the profession at large, and the pleasure which the honour of knighthood conferred upon him had given to his fellow practitioners. He stated that the Senate of the University and Sir Philip had consented to the portrait being hung in the great hall of that institution. In reply, Sir Philip spoke with much feeling. He said he had never even dreamed that he should ever be honoured by his Sovereign with a knighthood, much less that he should be so honoured by his fellow practitioners as they had honoured him on that occasion. He felt proud to think that the portrait would hang amidst those of many distinguished men, who had done so much towards upbuilding the University, and who stood for all that was best in University life. He referred to the great changes which had come over medical and surgical practice since his student days at University College, London, now nearly half a century ago, and also to the great advances made in science, literature, and art since those days. In conclusion, he thanked them from the bottom of his heart for their great kindness to him. The painting represents Sir Philip in his robes as Vice-Chancellor of the University of Sydney, and is a striking portrait, as well as an excellent work of art.

Proposed Formation of Divisions.

It has long been felt that the country members of the New South Wales Branch of the British Medical Association were not brought sufficiently into touch with the central body of members in the metropolis, and that many at the present time take comparatively little interest in the work of the Branch. This is shown by the fact that at the last election of council only one-half the members of the Branch took the trouble to return their ballot papers. With the view to remedy this state of things to some extent, at any rate, Dr. Hankins, the Honorary Secretary of the Branch, has drawn up a scheme for the reorganization of the Branch on the lines of the parent Association, and has mapped out the State into Divisions, suggesting that the medical men residing in those districts should unite and form a local Division of the New South Wales Branch of the British Medical Association. So far the replies received to the circular expounding the scheme have been highly satisfactory, but it is, of course, recognized that in the sparsely-populated districts, where medical men are separated from one another by long distances, the attempt to group them together in such a way as to facilitate their meeting in a convenient centre is extremely difficult. Still, this can be overcome to some extent, particularly in the immediate neighbourhood of some of the larger country towns, in which there are several medical men living near to one another. If this scheme can once be fairly launched, there is every hope of a great advance being made in the progress and status of the British Medical Association in New South Wales.

SYDNEY UNIVERSITY COMMEMORATION.

At the annual commemoration of the Sydney Un versity the students as usual signalized their presence by some hilarious proceedings. At the conclusion o the ceremony, on the invitation of the professor and the registrar, an adjournment was made to th Mayor's room to say farewell to the Honorable Si Normand MacLaurin, M.D., LL.D., the Chancellor, who i about to leave for a short trip to America and Europe The Chancellor's health was proposed by Sir Harr Rawson, the State Governor, and the toast was supporte by Sir Arthur Renwick, Vice-Chancellor, and Professo David, F.R.S., the chairman of the professorial Board Sir Normand briefly responded, thanking the company fo their good wishes. At the recent meetings of the Senate Sir Normand was unanimously re-elected Chancellor fo a further period of three years, Sir Arthur Renwick, M.D has been elected Vice-Chancellor for the fifth time.

Scotland.

POST-GRADUATE TEACHING.

Edinburgh.

THE extension of post-graduate teaching in the United Kingdom has during the past ten years become so marked that the announcement made in this column a month ago that the Medical School of Edinburgh is entering the list will have occasioned no surprise. The University and th Royal Colleges have co-operated; the Royal Infirmary and the Royal Hospital for Sick Children have agreed to afford all facilities; arrangements have been made for the accommodation of the post-graduates attending the course in the University Halls; and an attractive programme ha been arranged for the last two weeks of September and the first week of October. The Executive Committee consists of Professors Cunningham, Chiene, and Harvey Littlejohn, representing the University; and Drs. G. A Gibson, J. W. Ballantyne, Logan Turner, and Harry Rainy representing the Extramural Lecturers. Dr. Edwin Bramwell is the Honorary Secretary, and Mr. John Stirton (University New Buildings) is the Secretary. The subjects of study will be evenly distributed over the three weeks during which the teaching will be in progress, and arrangements are being made to prevent all overlapping.

Glasgow Royal Infirmary.

On May 17th, Dr. James W. Allan, one of the physicians to the Glasgow Royal Infirmary, gave a clinical demonstration to graduates. The first case shown was that o a woman suffering from Addison's disease. There wa well-marked pigmentation of the skin, and a history o great weakness, vomiting, and breathlessness. The patien had improved under the administration of extract o suprarenal capsules. The next case shown was one o acromegaly with pronounced glycosuria in a woman. Th characteristic enlargement of the hands, feet, and face wa very striking. Some remarks were made on the pathology and treatment of the disease. The patient had experienced some benefit from the administration of pituitary gland It was explained that, in a case like this, there was no much to be hoped for beyond arrest of the disease, whil it was to be admitted that the malady sometimes wa checked spontaneously. A case of rheumatoid arthritis and another bearing the stigmata of congenital syphilis were brought under notice. A blood specimen exhibiting the *Plasmodium malariae* was submitted. The patient from whom it was taken had been sent in as a case of pneumonia, but his history showed that he had suffered from malaria in India. The particularly interesting point wa that the man had left India ten years ago! An adjournment was then made to the electrical department, where Dr. Riddell gave a demonstration of the orthodiagraph Orthodiagraphy—a term not discoverable as such in any recent dictionary—implies the correct diagraphic representation of the shadows of organs as cast by Roentgen rays. A good deal of work has already been done in this direction by Professor Moritz of Giessen, but only in respect of cardiac shadows. Dr. Karl Francke, who has recently written a book on the subject,[1] claims that by ns of the orthodiagraph it is possible to measure with racy the size of internal organs during life, but it does ppear that he has as yet applied his method with any ess to the abdominal organs. The method consists tially of a contrivance whereby the tube producing ays is connected with a frame carrying a pencil or rating point, by means of which marks can be made racing paper stretched over the fluorescent screen. patient to be examined lies on a specially-devised or bed-frame with sail-cloth cover, the tube aced beneath him in the usual way, and the shadows vn by the stationary tube are first noted. The tube en moved, and with it the frame carrying the pencil, ch a way that the outlines of the shadows can be d by the pencil while the centre of the tube lies ly beneath the part traced. The apparent enlarge- produced by the divergent rays is thus counteracted. sought to obtain accuracy of measurement by means graduated quadrant on the frame of the carrier and s precautions are adopted to prevent injury to the nt or the orthodiagrapher by the use of leaden screens. rancke in his book has recorded a very large number servations, which he presents in tables and diagrams, g evidence of a vast amount of painstaking labour. esults as yet are not altogether reliable, but the work s the efforts of thirty years ago to bring the sphygmo- into practical use as a means of precision. Time will show whether these labours will reap a similar d.

---

[1] *Die Orthodiagraphie.* Von Dr. Karl Francke of Munich. Seventy five illustrations and three tables. Munich: J. F. Lehmann. 1906 (Demy 8vo, pp. 100. M.4).

ROYAL COLLEGE OF SURGEONS, EDINBURGH.

he past year all medical institutions in Edinburgh l with the Royal College of Surgeons in celebrating uatercentenary, and since that date the official *nel* of the College has undergone somewhat ally extensive changes. Sir Patrick Heron Watson's of occupancy of the presidential chair of the e having expired, he has been succeeded in that by Dr. MacGillivray, and several changes have ed among the Council of the College. Quite ly, owing to the resignation of Dr. Cadell, Dr. nzie Johnston has been appointed Secretary and rer of the College, and in succession to Sir Heron Watson Mr. J. W. B. Hodsdon has been l Representative of the College in the General l Council.

EDINBURGH HARVEIAN FESTIVAL.

one hundred and twenty-fourth Harveian Festival ld in the Hall of the Royal College of Physicians nburgh on May 18th, when the President, Sir John y Croom, delivered the Harveian Oration on Times of Harvey." The President of the Royal of Physicians (Dr. John Playfair) proposed a vote nks to the Orator, which was seconded by Dr. Bell. The annual dinner followed. The loyal were given from the Chair. The Vice-President w), who becomes next year's President, gave "The l Forces," which was replied to by Major Marshall, retired). Dr. Laing gave "The Church," and the Rev. Law replied. "The Immortal Memory of Harvey" en from the Chair, and duly honoured. Dr. Edwin ell gave the toast of "The Guests," and Dr. Chase n, U.S.A., replied. "Floreat Res Medica" brought yable evening to a close.

IPLINE IN THE EDINBURGH ROYAL INFIRMARY.

ave received a communication giving some details gard to the motives which induced the managers Edinburgh Royal Infirmary to post the notices h reference was made last week (p. 1189). It that the managers had been given to understand some previous occasions complaints had been , from persons passing the Infirmary late at night, fect that somewhat noisy celebrations occasionally ce in the residency, and that the rules framed government of the establishment had been It appears that such infractions have been are; but finding that remonstrance did duce the desired effect, the managers thought to revert to a measure which had already in force in 1899. We are further informed that ve of the managers in posting the second notice g the rules which had been broken was to stop rumours disadvantageous to the gentlemen affected which had been put in circulation. We understand also that the managers on May 21st had before them letters of apology from four of the gentlemen affected, the fifth being on his way to India, requesting some mitigation of the order for exclusion, and that the managers thereupon agreed to remit the suspension from that date. We are glad, therefore, that this rather disagreeable incident is at an end, and hope that it may shortly be forgotten.

SCOTTISH LUNACY LAW.

Purves v. Carswell and Gilchrist.

We are asked to state that the Carswell-Gilchrist fund will be closed on June 12th, and that intending subscribers are requested to send their subscriptions before that date to Dr. W. G. Dun, 15, Royal Crescent, Glasgow, W. The circumstances under which Drs. Carswell and Gilchrist were put to great expense in defending an action brought against them by a person whom they had certified for admission to a lunatic asylum were fully reported in the BRITISH MEDICAL JOURNAL, and the facts were summarised in the BRITISH MEDICAL JOURNAL of March 24th, 1906, page 704, and May 5th, 1906, page 1060.

Ireland.

POST-GRADUATE CLASSES IN DUBLIN.

THE third annual course of post-graduate classes in connexion with the School of Physic in Trinity College, Dublin, will begin on June 11th and terminate on June 30th. The subjects comprised in the course of instruction are medicine, surgery, gynaecology, diseases of eye, diseases of throat, nose, and ear; diseases of skin; pathology, anatomy, x-ray work, and cystoscopy. Arrangements have been made, with the approval of the Board of Trinity College, by which a limited number of members of the class can reside in college rooms and dine on commons at a very moderate cost. Several applications for rooms have already been received, and in order to prevent disappointment it is desirable that qualified practitioners who propose joining the class, and wish to reside in college, should communicate with the Honorary Secretary, 27, Lower Fitzwilliam Street, Dublin, as soon as possible.

IRISH MEDICAL ASSOCIATION.

A meeting of the North Down Branch of the Irish Medical Association was held in the Medical Institute, Belfast, on May 16th, the President, Sir William Whitla, J.P., in the chair. Resolutions were discussed by Dr. Heron, J.P.; Dr. Scott, the President and Secretary, and passed unanimously, protesting against the retention of Section 6 in the Local Government Amendment Act, as being subversive of the whole spirit and practice of every previous Medical Charities Act, which recognized the principle that half such expenses should be paid from Imperial funds and half from local rates; recommending members to refuse the appointment of postal medical attendant in country districts until the scale of fees is considerably increased; stating that the time has come for the Local Government Board to deal with the question of a general progressive scale of salaries in the Poor-law service, and to treat its medical department as a whole and not in the piecemeal and anomalous manner in which it had been dealt with hitherto; that they were surprised at the alteration in Form H of the Dispensary Regulations, wherein the payment for vaccination had been restricted to those "vaccinated at dispensaries or vaccination stations," instead of as in the old Form H, "within the dispensary district"; that the Government should add to the Commission about to inquire into Poor-law matters in Ireland a non-official member of the medical profession in whom the profession as a whole would have confidence, and suggesting the name of Sir William Thomson, C.B., of Dublin, as being a non-Poor-law man, and yet in thorough touch with every section of the profession; and expressing the opinion that the elementary truths and principles of hygiene and temperance should be taught in all State-aided elementary schools.

Dr. Olpherts was appointed as Representative of the Branch at the general meeting of the Association to be held in the Royal College of Surgeons, Dublin, in June, and the meeting concluded with a vote of thanks to the Chairman.

THE MEDICAL OFFICERSHIP OF BELFAST.

At a meeting of the Ulster Medical Society on May 17th, when the President, Dr. William Calwell, was in the chair, the following resolution was, on the recommendation of the Council, proposed by Professor J. A. Lindsay and seconded by Dr. J. S. Morrow:

> That we, the Fellows and Members of the Ulster Medical Society, are strongly of opinion that, in the interests of the citizens of Belfast, and with the object of ensuring the confidence of the medical profession, and of bringing the health department of the city into line with what is being done in other cities of similar size and importance, it is absolutely essential:
>
> 1. That the new medical officer of health should be possessed of high skill, scientific knowledge, and thorough practical training and experience in public health—a subject which has now become a pure speciality.
> 2. That the present remuneration, which is quite inadequate to attract suitable candidates, should be increased.
> 3. That in any rearrangement of duties the new medical officer of health should be sole head of a department in charge of the health of the city in all its branches, and should alone be responsible to the Health Committee and City Council for the proper administration of all matters pertaining to the health of the city.

After some debate, and after an amendment had been proposed and withdrawn, the resolution was passed unanimously. It was then proposed that copies of the resolution should be sent to the medical and lay press, the Lord Mayor of Belfast, the City Clerk, the Aldermen and Councillors, and to the Local Government Board. This was passed without a vote being taken, two members saying "No." It was then proposed that deputations wait upon the Health Committee and City Council to bring these resolutions before them. On a vote being taken this was passed by 19 to 11, several members not voting. A small deputation was then appointed to wait upon the Health Committee, and the entire Society was to be summoned to attend the deputation to the City Council. The other business of the meeting was adjourned.

DR. DARNELL'S EXPENSES IN TUGHAN V. DARNELL.

The following subscriptions have been received up to May 19th:

	£	s.	d.		£	s.	d.
Sums already acknowledged	67	1	0	Dr. Malcolm Brice Smyth	1	1	0
Dr. J. St. Clair Boyd	10	10	0	Dr. S. E. Martin (Newry)	1	1	0
Dr. W. Killen ...	4	4	0	Dr. W. G. Hadden (Portadown) ...	1	1	0
Dr. Thos. Houston ...	3	3	0	Dr. Kidd (Enniskillen)	1	1	0
Dr. J. MacCormac ...	2	2	0	Dr. Warnock (co. Donegal)	1	1	0
Dr. L. Atthill (Monkstown, co. Dublin)...	2	2	0	Dr. David Jamison (Newtownards) ...	1	1	0
Dr. Tate (Downpatrick)	2	2	0	Dr. Martin (Portrush)	1	1	0
Dr. Richard Purdon	1	1	0	Dr. O'Donnell (Dunkineely, co. Donegal)	1	0	0
Dr. Gilmore (Malin, co. Donegal) ...	1	1	0	Dr. John Brown (Bacup, England)...	0	10	6
Dr. Mussen (Glenavy)	1	1	0	Dr. A. G. Heron (Dromara)	0	10	6
Dr. Edw. Domville (Exeter)	1	1	0	Dr. Alex. Jamison ...	0	10	6
Dr. Gawin Orr (Ballylesson)	1	1	0	Dr. Dawson (Newtownhamilton)	0	10	0
Dr. M'Ilroy (Newtownards)	1	1	0				
Dr. A. M'Comisky (Killough)	1	1	0		111	1	6
Dr. Johnston (Gilford)	1	1	0				
Dr. Greenfield (Holywood)	1	1	0				

Cheques may be made payable to the Hon. Treasurers, Dr. Leonard Kidd, Enniskillen, or Dr. Wm. Calwell, 1, College Square North, Belfast.

Wales.

UNIVERSITY OF WALES.

THE Court of the University of Wales met at Bala on May 17th, and was accorded a ceremonial welcome by the chairman and members of the Urban District Council. A message to the Chancellor, H.R.H. The Prince of Wales expressing satisfaction that he had returned home sa from India, which Sir Isambard Owen, the Senior Depu Chancellor, had sent on behalf of the Court, was form approved, and the Prince's reply was read. As to election of officers, Sir T. Marchant Williams advoca the appointment of a resident in Wales as Senior Depu Chancellor, and recommended Lord Kenyon. Sir Isa bard Owen was, however, re-elected; Lord Kenyon unanimously re-elected Junior Deputy-Chancellor. proposed conferment of degrees *honoris causâ* was discuss and it is understood that the honorary degrees rec mended by the Senate were approved unanimou namely, that Dr. Fairbairn receive the D.D. degree, Lewis Morris the degree of doctor in literature, and Rev. H. Elvet Lewis the degree of M.A. There were s gestions that a more extended list would have been de able, but no names were mentioned. The Court appro of a draft charter for the establishment of a faculty medicine at the University, and it was decided that ca dates for degrees in medicine or surgery should first of graduate in arts or science.

THE ROENTGEN RAYS IN SURGERY.

At the invitation of Dr. W. Jones Greer, President of Newport Medical Society, Sir Thomas Myles, ex-Presid of the Royal College of Surgeons, Dublin, gave a m interesting address on the Value of the *X* Rays to General Practitioner at the Newport (Mon.) Infirmary May 17th. Dr. Greer presided, and was supported leading medical men from Cardiff, Newport, Bris Monmouthshire, and Glamorgan. Sir Thomas Myles, w was accompanied by Dr. Lane Joynt, who has had a la experience in the use of *x* rays, discoursed at length the value of *x* rays to the general practitioner, and ur the importance of the method in the diagnosis of inju and disease. The lecture was illustrated by a series lantern slides of broken limbs and dislocations, lent Mr. George Thompson, County Analyst, Monmouthsh Dr. Garrod Thomas, Dr. Hamilton (Newport), Mr. J. Ly Thomas, C.B., Dr. De Vere Hunt, and Dr. Fitzger (Cardiff) spoke in praise of the lecture. A most cord vote of thanks was accorded to Sir Thomas Myles.

SWANSEA HOSPITAL.

At a meeting of the Board of Management of Swan Hospital held on May 16th, Dr. McDonnell presiding, was agreed to grant the Corporation accommodation arranging lectures in connexion with the proposed m- wives' centre. Dr. Marshall, of Aberavon, was elec house-surgeon.

Newcastle-upon-Tyne.

VISIT OF THE KING AND QUEEN IN JULY.

IT is now officially announced that the King and Que will visit Newcastle-on-Tyne on Wednesday, July 11 Their Majesties are to be the guests of the Duke a Duchess of Northumberland, at Alnwick Castle. The ne has given great satisfaction, for the King and Queen w open the new wing of the Armstrong College and t Royal Victoria Infirmary, and will unveil the bust of t late Queen presented to the Infirmary by Sir Riley Lo but for whose zeal and enthusiasm the new Infirma would not have been the imposing building it is to-da The King and Queen will be entertained at a banquet the Old Assembly Rooms, after which their Majesties w probably return to the South. The King will bring h own carriages and guard of honour. The people in t North of England will not only take great interest in t proceedings, but are sure to extend to their Majesties right royal welcome.

VISIT OF BARON TAKAKI.

Following up his recent lecture in London, Bar Takaki, Surgeon-General of the Imperial Japanese Na gave an address to the Medical Profession of the North England in the University of Durham College of Medici on May 16th, the subject being "Medical Education Japan." The President of the College of Medicine, George Hare Philipson, occupied the chair, and int duced the lecturer. The Surgeon-General spoke of t new school of medical thought and practice which h ng up in Japan, supplanting the various theories and hing of the older systems of medicine dating back to ninth and tenth centuries and which had reached n through Korea. Seventy years ago Western medi- entered Japan through Dutch sources. From the h the Japanese not only learned the art and practice edicine, but the building of ships and their naval and tary organization. In the war of 1868 an English eon named Whillis showed how human limbs could mputated and lives saved. Japan has been largely r the influence of German medical education, but ugh many of the students of the thirteen medical ols go to Germany and are obliged to learn the age, Baron Takaki is a strong advocate and admirer e English system. The Surgeon-General has estab- d a medical school which is attended by 470 students. he motion of the Chairman, seconded by Dr. H. E. strong, a hearty vote of thanks was awarded to Baron ki for his address.

the evening Baron Takaki was entertained to dinner, t sixty gentlemen meeting to do him honour under residency of Sir George Hare Philipson.

the following day the University of Durham at a al Convocation conferred the degree of D.C.L. *honoris* upon the Surgeon-General of the Japanese Navy. resenting Baron Takaki, the Professor of Medicine of the mutual friendship that existed between in and Japan, and of how the people of both islands nade for themselves a reputation for prowess in arms nd and by sea. In selecting Baron Takaki for this ction the University was recognizing an illustrious on, a man of literary culture and of scientific attain- s, and a pioneer of medical education in Japan. The en of the University (Dr. Kitchin) having shaken with him, the Baron Takaki, the youngest graduate, mid cheers conducted to his seat in Convocation.

THE INFIRMARY AND COLLEGE.

is now officially announced that the New Infirmary e opened for patients before the Winter Session, and he new wing of the College of Medicine will also be for the classes in October.

HEALTH OF GATESHEAD.

he excellent annual report of the Medical Officer of h for Gateshead, Dr. T. M. Clayton draws attention birth-rate of 32.6 per 1,000 of the population and the -rate of 15.6. The birth-rate is 1.7 below that of the us year and 3.2 below the average of the preceding ears. This fact affords material for reflection, for ntly Gateshead, which is almost entirely a working- population, is sharing in the general decline of the rate throughout the country.

North Staffordshire.

LEAD POISONING.

abour Gazette reports eight cases of lead poisoning china and earthenware industry in April. Thirty- ases were reported in the first four months of the he same number as last year. Down to the end of no death was reported this year. The suggestion of from lead poisoning was made at a recent inquest, rther inquiry showed that three and a half years apsed since the deceased left his work, the supposed of the lead. A verdict of death from epilepsy was ally returned.

HELP FOR THE CRIPPLES' GUILD.

Duchess of Sutherland has once again given ce of her practical sympathy with the afflicted, and fact that her presidency of the Potteries Cripples' is no sinecure. In response to her invitation the ess of Lathom and a distinguished company of ur actors on May 9th and 10th presented *Diplomacy* nley on behalf of the funds of the Guild with cuous success. The Duchess of Sutherland pro- ed it to be one great wish of her life to establish ork for the children of the Potteries on a firm

SUBSIDENCE AT A HOSPITAL.

recent meeting of the Board of the Bucknall on Hospital the architect reported that a subsidence was taking place under the boiler house, due to a seam of shaly coal running under the end of the building being on fire in a smouldering condition. Later it proved necessary to remove all the coal within the area of the boilers, and fill up the resulting hole with a solid body of non-combustible material. This involved excavation to a depth of 16 ft., rebuilding the walls, and carrying the foundations to the bottom. Instead of filling up with solid clay, as first intended, blue brickwork was used, and storage tanks for rainwater of 5,000 gallons capacity provided. This storage will be valuable for boiler purposes, and forms a security from risk of the coal strata again taking fire.

SPECIAL CORRESPONDENCE.

VIENNA.

Damages for X-ray Burns.—Centenary of Feuchtersleben.—Housing the Poor.—Connexion between the Nasal and the Uterine Mucosa.

A CASE was heard recently at the assizes in which the defendents were two of the best known medical men in Vienna, from whom large damages were claimed by a patient. In 1902 a man suffering from psoriasis gyrata et nummiformis, but otherwise healthy, consulted Professor Lang, director of a clinic for diseases of the skin. After trying various other remedies, which proved useless, Dr. Lang recommended the application of the x rays, and recommended the patient, an official in the service of the municipality of Vienna, to Docent Holzknecht, director of the x-ray department of the Vienna General Hospital. The patient was extensively burnt on the back and on some parts of the leg as a consequence of the x rays, and painful, badly healing sores developed, which kept him away from his office for many months, leaving bad scars and cicatricial contractions after completely healing. During the trial it was elicited from witnesses that in 1902 the technique of the administration of x rays was not so well known as now, and although burns had been noticed as an after-effect of such application, it was quite an unexpected complication. The patient alleged that both medical men had failed to warn him beforehand of the risk he was incurring by submitting to the new treatment, and that it was an inadequate way of dealing with his complaint, because there were other remedies which could have been employed without any risk whatever. He claimed £4,200 (100,000 kronen) and £200 for medical fees and other expenses. After several adjournments, rendered necessary by the summoning of x-ray authorities (from Berlin and Heidelberg) to give evidence, the jury found verdict for the plaintiff, and awarded him £1,250 damages and £200 costs. The judge remarked that it ought to have been pointed out by Dr. Holzknecht that the possibility of burns and scalds was not excluded, and as the patient had been laid up for months and suffered both in body and in mind, adequate compensation was only just. This is the second case of x-ray injuries heard before a court. Some time ago another dermatologist, who was treating a patient for favus, was called away very urgently, and left the patient in charge of a private assistant nurse, who continued the administration of the x rays. By some mishap the patient received such an amount of rays that bad burns developed on the forehead and left cheek. The medical man in question had to pay £150 damages.

The centenary of Feuchtersleben's birthday was celebrated with great solemnity by all medical corporations, especially by the College of Physicians and Surgeons in Vienna, on April 29th. The famous poet, statesman, physician, and investigator, combining the knowledge of the best of his time, died at the early age of 43, but his achievements and his genius were sufficient to throw open new ways to the scholastic medicine of those days, and to induce many students to take up the research of psychophysical facts. His *Seelenheilkunde*, written in 1839, was a turning point in medical education. He was the first to show that mental diseases are subject to the same laws that govern the other changes of the body. The abolition of the antiquated custom of lecturing in Latin was the first reform he made when he was appointed Minister of Public Instruction. The so-called "dissertation," by which the candidates for the degree of M.D. had also to prove their qualification in Latin language, mostly compiled for them by some one else, was also done away with after having existed for 280 years. Amongst the other works of the "poeta medicus," as he was called, his *Diätetik der Seele*, or diet of the soul, in which he declared himself optimistic as regards the future of medicine, has had the greatest effect in counterbalancing the deleterious effect of medical nihilism propagated by Skoda and Rokitansky.

Measures for bettering the condition of the dwellings of the poor, by the provision of cheap and healthy lodgings at a low cost, have long been contemplated by the Government. In certain districts of the city the slums are to be pulled down, and the Municipality and Government have consented to levy no tax at all within the next twenty years on the buildings to be erected on these sites, if they are built so as to provide accommodation for small families at a cost of not more than about 1s. per room per week. As ground is rather cheap in this district, and the possibility of a large number of inhabitants is very considerable, several landowners have already taken advantage of the good chance offered to them. For a later period a taxation is warranted for these houses, which will be calculated in such a way as to leave a net income of at least 4½ per cent. on the capital invested in the buildings. The opening of playgrounds for children, of gardens, and baths for the use of the population of the districts at a very low cost, has been left in the hands of the local authorities.

The old method of influencing the contraction of the uterine muscles by cocainizing the nasal mucosa—introduced, or rather revived, by Fliess—was the subject of a series of experiments in the clinic of Professor Chrobak which were conducted by two of his junior surgeons. They found that there is apparently a connexion between these two organs, and that pains of genital type can be relieved or stopped by the application of cocaine (5 to 10 per cent., a few drops on cotton) to the septum or the lower turbinated bone. Labour was made less painful and once even quite painless. Menstrual molimina were in several cases fully relieved, and dysmenorrhoeal colics suppressed in three girls—not permanently, but at the time desired. Suggestion, however, was not absolutely avoided, and thus the results—as the paper says which was read recently at the Clinical Society—must be accepted with a certain reserve.

CORRESPONDENCE.

THE BACTERIOLOGY OF A COMMON COLD.

SIR,—May I venture to remind Dr. Gordon that Dr. Benham was most careful in his paper to point out that "whether the *Bacillus septus* caused coryza—a cold in the head—is at least open to question," and that accordingly the malady under investigation is hardly more coryza than it is septicaemia in the rabbit? May I also ask him, if he regards negative inoculation experiments in rodents and the consequent non-establishment even of pathogenicity in the organism in question—*B. septus*—as of so little importance, why he even went to the trouble of performing such inoculation experiments when investigating the relation of the *Micrococcus catarrhalis* to an epidemic simulating influenza?

That Dr. Gordon failed to find the bacillus of Friedlaender in any cases of coryza was probably entirely due to cultivations not having been taken sufficiently early in the attack; for, as I pointed out in my letter of May 12th, it often cannot be detected twenty-four hours after the incidence of the first symptoms although prior to that present in very great numbers.

Dr. Benham is quite correct in thinking that my criticism was largely directed against the title of his paper. By far the commonest cold, I take it, is the one characterized by shivering, general depression, and malaise, acute running from the nose and eyes, and perhaps headache, but by little, if any, sore throat, cough, or expectoration; and I would suggest that in this, the common cold, the organisms, amongst others, at work are the bacillus of Friedlaender and the *Micrococcus catarrhalis*. I am quite prepared to believe that for the class characterized by sore throat, irritable cough, and scanty, viscid expectoration, the *Bacillus septus*, and other diphtheroid organisms, are largely responsible.

The true influenzal cold is, in my experience, quite ra this year.—I am, etc.,

London, W., May 21st. R. W. ALLEN.

SIR,—I can testify to the value of Dr. Benham's co tribution to the bacteriology of a common cold fro personal observation of the very thorough conscientio technique that was employed.

In discussing the significance of the prevalence diphtheroid bacilli in the flora of the throat and nose this series of "colds" we saw, of course, that the nas pharyngeal tissues and the body fluids of the patie played an important part. We admitted that "chill," t result of variations of temperature applied in manifo ways, might, under certain conditions of the patient, be precipitant of a "cold."

The pneumococcus is found very generally in app rently healthy throats in the United States, whe pneumonia is prevalent, and the inference was drawn th the onset of the infection may be determined by certa variations in the conditions of the host, as well as var tions in pneumococcal virulence. Numerous examples this feature in catarrhal and other affections were kno to us, as well as the illustrations of "variations" micro-organisms and disease adduced by Hamer a Nash lately.

We attached, however, considerable importance to t fact that *B. coli communis* might be a normal inhabitant the human bowel in most persons, and yet the cause of ascending fatal infection of the urinary tract or of acute peritonitis in exceptional instances. From this, analogy, diphtheroid bacilli could be accredited w similar varying potentialities in this series of colds. considered this view strengthened by the relations of the colon group of bacilli—colon, paracolon, Gaertn dysentery, paratyphoid, and typhoid—to various clini manifestations, as well as by certain relationships in t micrococci found in catarrh, meningitis, etc. Symbio as a factor was not illustrated in Dr. Benham's series "colds."

In short, Dr. Benham directed his attention to t detection of the prevalence of one or more bacte occurring in colds, and his publication shows th diphtheroid bacilli are implicated. The study of favourable conditions of soil necessary in the host is yet complete.

There is a most practical application of Dr. Benha work at this stage in the importance that must be attac to oral and nasal hygiene in the prevention and treatm of local disease in children and adults. This was rec nized at a meeting of the Brighton and Sussex Medi Chirurgical Society in March, 1906.

M. Metchnikoff is dealing with the hygiene of the in tissues and intestinal tract in the Harben lectures on 25th and 28th instant, and this should increase evidence that exists for the medical supervision of edu tion and the value of public health measures and perso hygiene.

This research shows, too, that local treatment is no negligible quantity in "colds."—I am, etc.,

F. G. BUSHNELL,
Brighton, May 22nd. Pathologist, Stephen Ralli Memoria

THE ALLEGED EPIDEMICITY OF APPENDICIT

SIR,—I am glad to find myself in agreement w Dr. Price Williams (1) in attaching importance to alt tions in diet as an important factor in the etiology appendicitis, and (2) in his estimate of the prejudi results that may arise from rearing infants by me other than their mother's milk. I am also in per accord with him in thinking that the proposition, "t the increased prevalence of artificial feeding of infa during the last fifty years is responsible for the increa prevalence of appendicitis during the last thirty year is worthy of consideration and of some serious atte at proof or disproof by special methods of investigat I find myself, however, at variance with Dr. P Williams on one point: He apparently believes in attaching special importance to "bottle feeding" factor in the etiology of appendicitis he is enuncia a view of the etiology of that disease which is an alte tive one to that expressed in my letter of April 21st

---

[1] BRITISH MEDICAL JOURNAL, May 19th, p. 1193.

I laid stress on the excessive consumption of d food. Such is not the case. His views are in complementary to and in no sense antagonistic se expressed in my letter. His remarks bore ally on nutrition in children; mine were to a great concerned with nutrition of the mothers. A few will, I hope, make my position clear.

re is ample evidence (vide report of the Interdepart- l Committee on Physical Deterioration) that the to nurse at the present day depends in great re on a physical inability on the part of the mothers. are many children who are reared artificially simply e their mothers *cannot* nurse them. This inability se must depend on some structural or functional in the mammary glands. I venture to think that the ause of this structural or functional change in these may be the increase in the consumption of animal o which I have drawn special attention. I have tested the correctness of this view by experimental igation. In the course of the investigation on diet d to in my letter, definite facts have been obtained show that the administration of an excessive meat animals is followed by structural and functional s in the mammary glands of pregnant animals, these s finding expression in an inability of the animals their young.

bject in writing this letter has been to point out he views expressed by Dr. Price Williams in his tive letter are in no sense antagonistic to, but are complementary to, those expressed in my com- ation.—I am, etc.,

urgh, May 19th. CHALMERS WATSON.

HEAD QUARTERS OF THE ASSOCIATION.

–May I tender through your columns my thanks to mbers who have written to me privately concerning rary hours and social intercourse questions? I impossible to answer each one individually. I am at the Executive Committee of the Winchester n thought that an extension of the hours would be ial to some members. Mr. Wesley Wilson, when s that the library is not one of recreation but of ce, bears out my opinion that there should be some rovided where members can converse.

ne for a moment expects our present librarian (and not have a better one) to work till 11 p.m., but an assistant could be found without incurring any xpense. If I mistake not, he is the only head of a nent that has no assistant, and yet the library is y room open to members. When I suggested that ccommodation be provided for social intercourse I intention of converting the premises into a "glorified" or otherwise. Surely Mr. Wesley s native acumen will show him that a marked ce exists between a room or two being set apart for ational and meeting purposes and a "club" of any en in the widest sense of the word. I wish that rence to the "Troutbeck case" had been "cryptic," fact of the British Medical Association having ade a laughing stock of is entirely too palpable and neans of an enigmatical nature, as Mr. Wilson suggest. The fact of an Association like ours nored as a body of medical men by the Govern- nd only allowed a hearing by the Auditor of the County Council as merely ratepayers is sufficient at, as a representative body, we were in this case little importance. It would be much better, if the whole business had been "cryptic"; as it is, at runs may read." Mr. Briscoe's suggestion that ying to cause dissent among our members is con- d by the resolution that I moved; it was entirely ur of improved social intercourse, and, conse- , greater unity and friendship amongst ourselves.— c.,

, N., May 22nd. STUART HALLOWS.

MIDWIFERY OF THE PRESENT DAY.

-The question raised by Dr. Horrocks is one of such nce to women and to their attendant practitioners ould ask your indulgence while I state some ex- s which bear somewhat upon the matter.

e been looking over the statistics of my last 1,000 general practice; I have noted the number of "normal" labour. In these I have included all which did not require interference, such as premature births, an epileptic who had a fit after labour was completed, the cases of puerperal fever, etc.; these come to 689. I had to apply the forceps in 247 cases, being nearly 1 in 4 of the series. Besides these, there were 72 abnormal cases—face presentations 3, pelvic 15, transverse 3, twins 11 pairs, placenta praevia 11, accidental haemorrhage 2, retained placenta 11, *post-partum* haemorrhage 6, eclampsia 5, prolapse of cord 2, monstrosities 3; in all of these cases interference was required.

In the series there were 3 deaths, 1 from mania, 1 from eclampsia, and 1 from puerperal fever. The case of mania had had forceps applied. If any one of the Dr. Horrocks school feels inclined to argue that therefore the application of the forceps tends to produce puerperal mania, well and good. The eclampsia was treated *secundam artem* by an assistant. The case of puerperal fever is of interest. A strong multipara, with a perfectly normal labour. I examined once, found all well, and no more. She had just come to a wretched hovel which had been condemned as unfit for human habitation. Her infant simultaneously developed erysipelas neonatorum, and died before her. It will be said that the surroundings have nothing to do with puerperal fever, according to the present-day teaching. Very well, take the only other case of puerperal fever in the series. A tramp woman was prematurely delivered in a common lodging-house, on a shake-down on the dirty floor. No one examined her at all, yet on the third day she had a rise of temperature, rigor, suppressed lochia, diarrhoea, and the rest of it. Being a tramp wife, she had a constitution of iron, and so got through. Now, the point I wish to put to Dr. Horrocks is this: if the danger of interference be so great, why did my cases of puerperal fever occur, one where his routine had been strictly carried out, the other where his desideratum of no interference at all had obtained? And further, why is it that of the 319 cases where everything that could be done in the way of useful interference was done not one resulted badly? I wish to emphasize this point. Not a single one of the 247 forceps cases had a single bit of trouble. Why, then, should others not have the same benefit? There appears to be not the slightest risk. Boil your forceps, *wait till the os is well dilated*, dilating under chloroform, with the fingers if necessary; give chloroform in all instrumental cases and if your antiseptics are right there is no fear. Scrub with Johnston's fluid soap five minutes, lysol solution five minutes, scrub the vulva with biniodide of mercury (McClintock's soap), and avoid the bed-clothes.

We are bound to do what we can for our patients. It is a cruel business at best. I discussed it this morning with a primipara, a magnificent specimen of womanhood. It had been a sharp tussle for her for six hours, a battle like to that of the warrior of Scripture, "of confused noise and shouting, and of garments rolled in blood." When it was over, we could see from the farmhouse window her poultry peacefully tending their chicks; and we agreed that the oviparous mothers had the better method.—I am, etc.,

Cupar, Fife, May 16th. C. E. DOUGLAS, M.D.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

A POST-GRADUATE COURSE IN OPHTHALMOLOGY.

THE third annual course on ophthalmology will begin on Monday, July 9th, and continue until Saturday, July 21st. The first week will be mainly devoted to demonstrating the practical examination of eye patients, the use of the ophthalmoscope, and the methods of estimating refraction errors. During the second week the work will be more specialized, dealing with particular regions of the eye and their diseases. Professor Osler will give a series of clinical lectures at the Radcliffe Infirmary, including one on the medical aspect of ophthalmology. Practical instruction will be given at the Oxford Eye Hospital by the hospital staff, and among the ophthalmologists who will take part in the special lectures and demonstrations in the second week are Mr. Adams Frost, Mr. Lawford, Mr. S. Stephenson, Mr. Richardson Cross, Mr. Priestley Smith, Mr. Treacher Collins, and Mr. Parsons. The concluding lecture will be given by Mr. Nettleship, on family diseases of the eye. The fee for the course is 5 guineas, and members will be provided with board and residence at Keble College at the rate of 7s. 6d. a day. Full particulars can be obtained from Mr. R. W. Doyne, Margaret Ogilvie's Reader in Ophthalmology in the University of Oxford, 34, Weymouth Street, London, W.

During the course, in addition to routine cases, a large selection of cases of unusual interest will be shown for the benefit of those more experienced in eye work, and as it is believed that some ophthalmic surgeons may like to see some of the more interesting cases they will be reserved for the Monday and Tuesday following the course, if an adequate number of surgeons should send in their names to Mr. Doyne. Should the response be sufficient, Mr. Nettleship's lecture will be given on Monday, July 23rd, in the afternoon Mr. George Coats will read an illustrated paper on intraocular vascular disease, and on Tuesday morning, July 24th, special demonstrations will be arranged on the pathology and bacteriology of the eye, the coagulability of the blood, opsonic index, and other more recent methods of investigation and treatment.

UNIVERSITY OF LONDON.

St. George's Hospital Medical School.

The Young Lectures.

Dr. Osler, Regius Professor of Medicine in the University of Oxford, will deliver the Thomas Young Lectures in Medicine during June. The lectures are free to members of the medical profession and medical students. The following is the syllabus:

I. June 6th, 5 p.m.—(1) Life and Work of Thomas Young; (2) Brief Anatomical Considerations.
II. June 7th, 5 p.m.—Methods of examining the abdomen.
III. June 8th, 5 p.m.—(1) General Considerations: Patterns of Abdominal Tumidity; (2) Distensions due to Conditions of the Abdominal Wall.
IV. June 9th, 5 p.m.—Patterns of Abdominal Tumidity: The Dilated Stomach.
V. June 11th, 5 p.m.—Patterns of Abdominal Tumidity caused by Dilatation of the Intestines.
VI. June 12th, 5 p.m.—Patterns of Abdominal Tumidity: (1) Dilatations of the Uterus and Bladder; (2) Miscellaneous.

UNIVERSITY OF LIVERPOOL.

Department of Experimental Medicine.

The lectures on cytology at the University will be continued in the Physiological Lecture Theatre on Tuesday, May 29th, and on the following Tuesdays until further notice, at 3 p.m. These lectures are free.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

At a meeting of the College on May 16th, the following gentlemen having passed the requisite examinations were admitted Ordinary Fellows:

H. N. Anklesaria, C. M. Begg, R. Bryson, Captain I.M.S., J. Burdon-Cooper, R. S. Cocke, J. M. Kirkness, S. B. Mehta, V. E. Sorapure.

Dr. Robert McKenzie Johnston, 2, Drumsheugh Gardens, Edinburgh, was appointed Secretary and Treasurer, and Dr. James William Beeman Hodsdon, 6, Chester Street, Edinburgh, was appointed Representative of the College in the General Medical Council for five years from June 21st next.

The medal and set of books presented to the College by Colonel William Lorimer Bathgate, in memory of his late father, William McPhune Bathgate, F.R.C.S.E., Lecturer on Materia Medica in the Extra Academical School, was awarded, after the usual competitive written examination in Materia Medica, etc., to Mr. James Hay Johnston, 18, Plewland's Terrace, Edinburgh.

SOCIETY OF APOTHECARIES OF LONDON.

The following candidates have been approved in the subjects indicated:

Surgery.—*†J. W. Blooker, *†H. S. Chate, *†F. J. Macphail.
Medicine.—*†H. S. Chate, †H. A. Fenton.
Forensic Medicine.—H. S. Chate, W. J. G. Gayton, R. J. W. McKane, O. C. H. L. Moll, A. F. Palmer.
Midwifery.—J. W. Blooker, A. E. Blythman, H. S. Chate, E. V. Connellan, F. G. Edholm.

* Section I. † Section II.

The diploma of the Society has been granted to Messrs. J. W. Blooker, H. S. Chate, and F. J. Macphail.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

THE OPERATIONS IN THE BAHR-EL-GHAZAL PROVINCE.

The *London Gazette* of May 18th contains a report from Major-General Sir R. Wingate of the operations in the Southern Bahr-el-Ghazal in 1905. The circumstances which gave rise to the expedition are briefly summarized. It is noted that Captain Haymes, R.A.M.C., died of wounds received in action in February, 1904. Among the officers selected for special mention by Sir R. Wingate is the name of Major H. A. Bray, R.A.M.C., Principal Medical Officer of the Force.

The annual dinner of the officers of the Indian Medical Service will take place at the new Gaiety Restaurant, London, on Thursday, June 14th, at 7.45 p.m. Further particulars can be obtained from Mr. P. J. Freyer, M.D., M.Ch., 27, Harley Street, W.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE PECULIAR PEOPLE.

James Cook, whose committal on a charge of manslaugh was recorded last week (British Medical Journal, May 1 page 1197), has since been committed for trial on a sim charge in respect of the death of another of his children. facts disclosed at the inquest were in all essential resp identical with those at the earlier inquiry. The med evidence was to the effect that the child died from h failure due to bronchopneumonia, and that death materially accelerated by lack of medical care. Such care not provided, because both father and mother belonged to Peculiar People. The father admitted that doctors w God's creatures, but would not take advantage of their kn ledge, "because it was got from colleges." The "Eld involved in this case was "Bishop" Paul Spicer, a ma gardener of Thundersleigh, Essex.

AN ACTION FOR NEGLIGENCE.

An action was tried on May 13th, before Mr. Justice Ph more and a special jury, in which Mrs. A. J. Hall, the wi Mr. R. J. Hall of Wandsworth, claimed damages from W. H. Fenton, Senior Physician at the Chelsea Hospita Women, and Dr. S. J. Cameron (formerly house-surgeon th for alleged negligence. Mr. A. H. Spokes appeared for plaintiff, and Mr. Clavell Salter, K.C., and Mr. Hugh Fr for the defendants, who were defended by the Medical Def Union.

On June 11th, 1903, an operation was performed on plaintiff at the Chelsea Hospital by the defendants for pai menstruation, a stem pessary being inserted in the ute she left the hospital on June 18th, and, without retur married on August 22nd of the same year. On March 2 1905, she had a miscarriage, and a stem pessary was covered in the uterus, and removed on that date by Kernohan of Earlsfield.

The plaintiff's case was that the instrument was inse while she was under anaesthetics, and that she was never it was there; the defendants maintained that she was instru to return in two months for the purpose of having it remo and that the hospital routine made it impossible that directions could have been omitted. The case turned ent upon this point, and the jury found for the defendants, ad a rider to the effect that they thought it desirable that instructions to the patients should be in writing.

The judge, in giving judgement for the defendants, sa was a wise suggestion, and might prevent such actions a present one from being brought.

TELEPHONES AND BRANCH SURGERIES.

Exchange.—We have repeatedly stated that in scat country districts it is permissible for medical practiti to put up brass plates at houses not occupied by them w messages can be left. We see no reason against a telep being installed, but to announce the existence of the phone on the plate seems to savour of advertise Surely the fact that messages can be transmitted will be made known to all whom it legitimately concerns.

NOTIFICATION OF BIRTHS.

Honorary Secretary writes: My society is anxious to your opinion on the following matter:—The registr births and deaths here, wishing to have as complete a r of births, as possible, writes to the society, asking i members will furnish him with particulars of every attended by them. His suggestion is that he sends t medical man stamped addressed post-cards with spac the following information—Date of birth; sex of c name and address of father; the post-card to be unsi Is a medical man justified in giving such information his patients either on a post-card or in a sealed letter?

⁂ The information could be given only with the co of the parents, and we see no reason why medical p tioners should take upon themselves a duty of this kin imposed upon them by the law.

SCHOOL CERTIFICATES.

W. W. (Scotland).—A certificate of exemption from attendance in the form suggested—namely, "I hereby c that I am at present attending ———, and that he is time unable to attend school through illness"—wou valid.

A PARTNERSHIP COMPLICATION.

Winster.—Owing to ill-health a practitioner is compel times to leave his practice in charge of a *locum tenens* has arranged with the last *locum tenens* to stay with h twelve months as a nominal partner, offering to give h the end of that time a partnership. What ought the *tenens* to pay for a share under these circumstances?

⁂ It is to be presumed that the practitioner do expect the *locum tenens* to pay the ordinary market va the share, as he is giving him his services for a yea ary less than he would receive as a partner. This is in ect part of the price to be paid by him for the partnership. is not possible to say from the data what proportion of e purchase money this year's service should fairly repre- nt. It is really a matter for agreement between the rties, and should have been settled before any arrange- nt had been made.

MEDICAL ETIQUETTE.

., L.S.A., complains that having certified a case as one of rlet fever and ordered its removal to the infectious hos- al, the child was three days later certified by two other ctors, A. and B., as not suffering from that disease, and mission given for it to run about and for the father to urn to work; three weeks later two other members of the nily developed scarlet fever. She asks: (1) From an ical standpoint did doctors A. and B. act towards me as y should? (2) What, in your opinion, would be the ue of the certificate of Drs. A. and B. in any action which ght have been brought against me by the father for loss ime? (3) Did these doctors fulfil their duty to the public en they gave permission to the parents to allow the child ified as suffering from scarlet fever to mix freely with er children?

*** As we understand the case, the father was dissatisfied l doubted the correctness of our correspondent's diagnosis. called in A. and B., whom we assume honestly but mis- enly to have come to the conclusion expressed in their tificate. The conclusion was the result of a consultation ween A. and B., so that it cannot be censured, unless it is meworthy to express dissent from an opinion expressed another practitioner. (2) The value of the certificate in ourt of law would be *nil*, unless backed up by the signa- es being called as witnesses, who would then have to mit to cross-examination. (3) The answer to this is the e as that given to question (1)—namely, that as the con- sion was arrived at deliberately and honestly it was ifiable to act upon it.

PUBLIC HEALTH
AND
OR-LAW MEDICAL SERVICES.

ERYSIPELAS AS A NOTIFIABLE DISEASE.

Public Health Committee of Stepney Borough Council ed on Monday that the Medical Officer of Health had ned it that erysipelas is not now regarded by the al profession as a disease liable to be spread by personal gion. Disinfection was, however, carried out in the gh after a case of this disease had been notified. Ery- s is included in the list of notifiable infectious diseases oned in Section 55 of the Public Health (London) Act, The Committee was advised that practically no good s followed from the disease being notified, while, on the hand, if notification were discontinued there would be a of the notification fees and other expenses. The Com- was therefore of opinion that steps should be taken to e erysipelas from the list of notifiable diseases, and ingly had decided (subject to the usual sanction) to ask ocal Government Board to promote legislation in this on. The whole of the other local governing authorities be urged to support this action.

RTIFICATION OF VACCINATION BY OTHER PRACTITIONERS.

LAY writes: A. and B. are neighbouring practitioners, ing the public vaccinator. A. vaccinates successfully ild, aged 10 days, of one of his own patients. As the was not registered, A. left instructions that when the nt did so he was to bring the vaccination form to him have it filled in. The parent omitted to do this, con- ently at the end of four and a half months B. calls to inate the child, but finding it already done asks for the ination form, which he calmly takes away, telling the nts that he will oblige A. by signing it for him. Is B. ly justified in signing vaccination form, the vaccination ng been performed by A.?

The Vaccination Act, 1871, Clause 12, runs: ere it appears to the public vaccinator of any district personal examination of any child resident in such ict who has not been successfully vaccinated by him, such child has been successfully vaccinated, the public nator may, on the request of the parent, grant a cer- te to that effect as if it were a certificate of successful nation by the public vaccinator who gave the ficate." The public vaccinator gets no fee for this.

OBITUARY.

SURGEON-GENERAL CHARLES SIBTHORPE, C.B.,
F.R.C.P.I.,
LATE INDIAN MEDICAL SERVICE.

THE news of the death of Surgeon-General Charles Sibthorpe, C.B., will be received with profound sorrow and regret by his many friends both in this country and in India.

Born and educated in Dublin, where his father and family have long been known and respected, he elected to enter the Indian Medical Service, and obtained his commission as an Assistant Surgeon in the Madras Army on April 1st, 1870, when he was just 23 years of age. After a few years spent in officiating work in the military and civil departments, he was appointed Civil Surgeon and Superintendent of the Gaol at Banda, in the Central Provinces. His ability and the thoroughness of his work soon attracted the notice of the heads of the service, and caused him to be brought down to Madras in 1875 as Resident Surgeon of the General Hospital, and Professor of Pathology in the Madras Medical College. From that time up to 1890 he remained attached to the Medical College, Madras, and the Presidency Hospitals, serving successively as Professor of Ophthalmology, Professor of Anatomy, and Professor of Surgery.

In 1878, at the commencement of the Afghan war, he volunteered for active service; he did good work with the Peshawar Valley Field Force during the campaign, and received the medal. In 1885 he was again temporarily transferred to military duty for service in Burma, and was appointed Staff Surgeon to Sir H. Prendergast, K.C.B., V.C., the general officer commanding the expedition which resulted in the British occupation of Upper Burma. In the following year he again visited Burma, with Sir Herbert Macpherson, in medical charge of the Head Quarters Staff of the Madras army. For his services in Burma he was honourably mentioned in dispatches, received the medal and clasp, and was also promoted to the rank of Brigade-Surgeon, which at once put him over the heads of a number of his seniors on the list. In 1890, when only twenty years' service and 43 years of age, he was promoted to administrative rank as Principal Medical Officer in the Rangoon District, and subsequently he was transferred to the Secunderabad District in the same capacity. In May, 1894, at the early age of 47 years, he was appointed to be Surgeon-General with the Government of Madras, a post which he held until shortly before his retirement in August, 1900. In June, 1897, while holding the last-mentioned appointment, he was created a C.B.

Such is a brief review of the services of one of the most energetic, hard-working and conscientious officers the Indian Medical Service has possessed. When he went down to Madras in 1875 important reorganization changes in the General Hospital and medical school were commencing. He took up the work with much enthusiasm and benefit to those institutions, and up to the time of his retirement he continued to take a keen interest in them. Although he went over to Burma only as a Staff Officer, there can be no doubt that any measure of success obtained in the medical arrangements in Burma for the conduct of the war was largely due to his untiring work in the equipment and organization of field hospitals and other matters, and he thoroughly deserved commendation and high reward for his services. His promotion, however, over the heads of so many officers, some of whom were distinguished men, was an undoubted hardship to those who were superseded, and caused a good deal of sore feeling then and for some time afterwards. Although Sibthorpe could not be regarded as a professional man of great brilliance his attainments were considerable, and he was extremely well informed in professional as well as other subjects.

He also possessed excellent business capacity and organizing power—qualities which no doubt made more for use in the office than the wards, but, nevertheless, of great value to the State. His hard work as Surgeon-General, though attended by many valuable improvements in civil medical institutions and in growth of medical work in the Presidency of which he was in charge, was not crowned by the success it deserved, or which it was thought by his friends it would attain. But it must not be forgotten that heads of departments do not always find the sympathy which should be accorded, and that it is often impossible for a Government to afford that liberal pecuniary aid which is necessary to carry out reorganizing and progressive schemes.

He took a deep interest in the British Medical Association, and it was mainly due to his efforts that the Branches of the Association were founded in South India and in Burma. At the meeting of the Council of the British Medical Association held on January 14th, 1891, the following resolution was carried:

> That the Council of the British Medical Association records with much pleasure their recognition of a Branch of Burma, and approval of by-laws, and they desire to express the pleasure with which they acknowledge the zeal and successful energy with which Deputy-Surgeon-General Sibthorpe has again assisted in the formation of a new Branch, and their warm thanks to him and others for their efficient help in the formation of the Branch, and trust it will prove a mutual benefit.

In private life Sibthorpe was known as a sincere friend and a man of very kindly and generous nature. He was never married, and occupied himself much in doing good in unostentatious ways. He took much interest in Freemasonry and held a high position in the craft. For some three or four years his health had caused anxiety to his friends, though his own cheery nature would not allow him to become depressed about himself. He had been in the habit of wintering abroad for several years, and only returned from Egypt a few days before his death. On his arrival in England early in May his friends recognized that he was gravely ill, but he was himself sanguine that in his home and with those he loved there he would soon improve. This, however, was unfortunately not to be; evil conditions had gone too far, and he grew rapidly worse. Cheerful to the morning of his death, he passed away quietly in his sleep only two days after reaching his home in Dublin.

JAMES WELSH, M.D.St. And.,

KINGHORN.

Dr. James Welsh, of Kinghorn, Fife, died on May 11th, after not far short of half a century of professional work, of which two-thirds were devoted to the inhabitants of Kinghorn and its neighbourhood. Dr. Welsh, who was M.D.St. Andrews, 1861, and F.R.C.S.Edin., 1878, was an Edinburgh student, and at the beginning of his career served the old East India Company for some time with the rank of Assistant Surgeon. Subsequently he went a few voyages as Surgeon on an Atlantic liner, and then entered private practice at Crewe. After a time he removed to Lochcarron, and finally, some thirty-seven years ago, established himself at Kinghorn, where he soon came to occupy a very prominent position both in the professional and general life of the locality and held many appointments. At the time of his death he was Justice of the Peace both for Fifeshire and Ross-shire, Parochial Medical Officer of Kinghorn, Surgeon to the Kirkcaldy Combination Poorhouse, Surgeon to the Shipyard, Public Vaccinator, Certifying Factory Surgeon and Medical Officer for the Burgh. The latter appointment he held for some thirty years, and during his tenure of office had to deal with two considerable outbreaks of small-pox and an epidemic of enteric fever. Of the latter and of one of the small-pox invasions he gave some account in the *Lancet* in the years 1874 and 1872 respectively.

He was a Surgeon-Captain in the local corps of volunteers and had served with it sufficiently long to hold the volunteer decoration. He held for some years a seat on the Town Council, and for a very long period was Chairman of the School Board. His interest in the promotion of education was very deep, and he himself conducted some of the technical classes for working men and acted for the University of St. Andrews as one of its assessors. As a medical adviser he enjoyed widespread confidence both among the poorer and the wealthier classes, so that until comparatively recently Dr. Welsh in his gig was—whether in foul weather or fair—a familiar sight on the road from Kinghorn to Kirkcaldy, where he had many patients. Though he took a keen interest in modern methods and discoveries and was well versed in their application, Dr. Welsh was a typical general practitioner of the old school, and to the end adhered to the white tie and silk hat of a former date as well as to all its best traditions. He continued in full work until about the end of last year; a fall sustained in Nove ber when out walking seemed to shake him a good d and led to his giving up work in Kirkcaldy and confini himself to Kinghorn. For some weeks before his death had had symptoms of heart failure, so that his end was entirely unexpected. Nevertheless as a keen, shre judge of men and affairs, with a kindly heart and a che manner, he will inevitably be missed both in and out the profession.

MEDICAL DEFENCE UNION.

Twenty-first Anniversary.

The annual general meeting of the Medical Defen Union was held at the Grand Hotel, Birmingham, May 17th, at 4 p.m. A large number of members of t Union, including many members of the Coun assembled. The chair was taken by Dr. Elliston, J. President.

The General Secretary having read the notice meeting, the minutes of the last annual meeting w read, approved, and signed by the President.

Dr. Elliston gave an address on the past history of t Union, and congratulated the members upon havi reached the twenty-first birthday of the society. contrasted the past with the present position of the Uni and mentioned the names of those who had by th strength of purpose and powerful advocacy practica made the Union the success which it is. He eulogiz the services of the late Mr. Lawson Tait, witho whose special work, accomplished under great di culties, the Union would not have been in existen at the present day. The President then comment upon the report presented to the meeting, a remarked on the diversity in the nature of the ca brought before the Council, proving that the work d embraced almost every legal and ethical difficulty w which a medical man, whether a consultant or gene practitioner, was brought face to face in daily practi He referred briefly to the romantic, but not the less tr legal report of the solicitor, Mr. Hempson, and t wonderful history of victories in the law courts which detailed. He advised all members of the profession join the Union, and not to hesitate to apply for adv whenever trouble threatened. It was most important, added, that at the very onset of threatened litigation t member should be guided by skilled hands, as very oft the Council had to regret unwise action taken by a mem previous to his seeking the advice of the Union. concluded by proposing the adoption of the report.

The resolution was seconded by Mr. Messiter, J. Vice-President, and carried unanimously.

The balance sheets and accounts were passed by reso tion, and Mr. Hardy, F.C.A., again elected auditor of t company.

An election of three members of the elected Coun took place, and Dr. W. Elliston, J.P., and Dr. M. Ha wright were re-elected. Dr. Mackeith, of Southampt was elected to fill the vacancy caused by the retirement Dr. M. Beverley, J.P., of Norwich.

After some formal resolutions had been passed una mously the meeting terminated with a vote of thanks the Chairman.

Later on the same day a dinner of the members w held in the Grand Hotel. Mr. Messiter was in the cha and about seventy members attended, amongst wh were Dr. Elliston, Mr. Gilbert Barling, Dr. Christop Martin, Dr. Milligan, Dr. Herbert Manley, Dr. Gor Nicholls, Dr. John Robertson, M.O.H., Dr. S. Evans, J. Dr. Hallwright, Dr. Kirby, Dr. Glegg, Dr. Rigden, Roche Lynch, Dr. Parker, Dr. Felce, Dr. Douglas Dr Mr. Hempson and the General Secretary. The arran ments, which were excellent, were carried out by a lo Committee to which Dr. Norman Glegg acted as honor secretary. The music was provided by the Mos Quartette.

The circular read out by Mr. Burns during the deb on vaccination reported in the British Medical Jour of April 28th, p. 1004, has now been issued by the Ho Secretary. It points out that the question for magistra is not whether the belief of an applicant for exempt under the conscientious objector's clause is well found but solely whether he conscientiously believes t vaccination will be prejudicial to the health of the child.

LETTERS, NOTES AND ANSWERS TO CORRESPONDENTS.

☞ *Queries, answers, and communications relating to jects to which special departments of the* British dical Journal *are devoted will be found under their pective headings.*

QUERIES.

"Fever in the Feet."

I.H. writes: A lady patient residing at the seaside on the uth-east coast after walking for half an hour experiences tense burning and soreness in the feet—"fever in the et." The feet are not red, but a little swelled, and burning t to the touch. There is no fault in the fit of the boots, ough she suffers from corns, which are readily cured by the proved methods. The general health is good. Glycerine d tannin gives only partial and temporary relief. The ter supply of the district is hard.

*** The symptoms described are the outcome of a general ndition which must be elucidated. The urine should be amined carefully (specific gravity, reaction, and so forth). e bowels and digestion require attention. Inquiry should made as to the garters, corsets, and so forth. A saline erient of magnesium sulphate would do good. The diet st also be inquired into; alcohol (beer, wine, etc.) should stopped. The condition is met with in patients with aemias (auto-intoxications, etc.), and faulty elimination. retics (potassium acetate, etc.) may be called for. It is a question of local treatment, but of general over-lling.

ANSWERS.

Surgeon.—There is no single textbook on biology ch deals with the work required in tropical medicine. omology is the principal subject, and this, along with er matters, is sufficiently dealt with in the *Practical dy of Malaria* of Stephen and Christophers. (London: liams and Norgate. 1904. 12s. 6d.)

LETTERS, NOTES, etc.

Midwifery of the Present Day.

ert Jordan (King's Norton) writes: The advocates, uding myself, of the "advanced method" do not, I am , accept as accurate the practical interpretation fastened o that method by, among others, your latest correspons, Drs. Miles and Monteagle. It is simply the expression very ordinary platitude when Dr. Miles tells us that ddlesomeness in everything is bad," and the inference the "advanced method" is "meddlesomeness" is a itous assumption. To aid and to imitate Nature by mitting pulling of the child's head with aseptic forceps s—which are, after all, nothing more than a pair of ed and lubricated metal hands—when the aforesaid is making no material progress through the parturient is no more "meddlesome" than it is meddlesome to t, by judicious smacking, the asphyxiated infant to e its lungs. If labour be normal so long as the woman's rate and temperature are not materially raised by an initely lengthy second stage terminating in natural ery, then it can only be said that normal labour is often a exhausting process, leading to *post-partum* haemorrhage the death of the infant. I once heard of a mother e baby was born after a two-days' labour. The child ust a "kick in it" but could not be further revived. ase was as straightforward and normal as Dr. Horrocks is allies could desire. The mother made an excellent ery, but lost her baby. She was comforted for that loss ing told that it would have been wrong to endanger her ects in any way by that "meddlesomeness" which I nd would in all probability, and with no risk to her, saved the life of her infant.

not for one moment cast the slightest reflection on Dr. cks when I deliberately say that his great faith in e degenerates, in some of his followers, from a masterly vity to an impotent passivity, the result of a great of faith in themselves. An overweening faith in e is too often a respectable cover for want of pluck and ge. The old saying that "one plucks the flower y' by grasping the nettle 'danger'" is never more true in its bearing on obstetric art. An encyclopaedic edge of obstetric science is of little avail if there be ty in its application to a hard, though normal, case of .

her Dr. Monteagle nor Dr. Miles makes any reference letter in your issue of April 28th. Were the three rinciples of the "advanced method" then enunciated hands, timely aid of a lingering second stage, and ce during the third stage—too paltry to be noticed, they unable to reply to that letter? I take my stand on those three principles, and it is no real attack on the "advanced method" to ignore that which underlies the method, and to represent it as involving a "meddlesomeness" with which the method has nothing whatever to do. Dr. Monteagle's letter is practically a string of assumptions and unsupported assertions. We have the interesting, but quite romantic, assertion that many muscular primiparae have lost their lives, and many more have been maimed, by the "early" application of forceps. In a general assertion of this kind I want to know what "early" means, and what actual conditions existed when the "early" application of forceps killed the mothers and delivered the children. It is necessary to know this before estimating the actual value of this terrible indictment.

It is precisely the muscular primipara whose labour we are often compelled to shorten by forceps, though that labour may be quite normal. We are compelled to assist, not being midwives only with a medical qualification, unless we wish to meet with comparatively frequent *post-partum* haemorrhage and still-born infants. The muscular primiparae who are assisted by forceps when it is evident that a lingering second stage is succeeding to a lingering first stage, are neither dead nor maimed. I meet them on tennis courts and hear of them at golf grounds. I meet their infants in "prams," and I have no vain regrets for the child that was lost because it was left to linger through the birth canal of the muscular primipara as a result of my masterly inactivity.

Dr. Monteagle gives a dreadful warning on the influence of the "advanced method" on the practice of incompetent and inexperienced young doctors. This warning is nothing more nor less than a bogey of his own imagination. The only argument that could possibly be deduced from this warning is that a lingering normal labour is not to be skilfully assisted because some young medical men—are all the old men skilful?—are incompetent and inexperienced. This reasoning would reduce us all to the lowest common measure of our united obstetric capacity. If a doctor, young or old, is incapable of assisting, or shrinks from assisting, a woman in hard, though normal, labour when nothing forbids that assistance, his place is clearly outside the lying-in room.

I am compelled, also, to traverse the view of Dr. Monteagle that routine midwifery should be left to midwives. The admitted danger and responsibility of midwifery work lies in the fact that there is no routine midwifery, in that the vital issues and risks of no one case can be foreseen. The delivery of the viable infant is, no doubt, the central occurrence, but the delivery of the child in the vast majority of routine cases does not affect so gravely the life of the mother as do the features and events of the third stage, the expulsion of the placenta. The successful management of the third stage of labour is the crowning application of the obstetric art. A great authority has said in so many words: "A man may measure his obstetric capacity by his power of preventing or controlling *post-partum* haemorrhage." In my own case my mind becomes most alert and alive to the dangers of midwifery practice from the moment that the child is expelled or assisted into the world. This mental tension is not relaxed until the placenta is expelled entire, and the uterus is firmly contracted. Dr. Horrocks, in his observations on the conduct of the third stage of labour, condemns active kneading of the uterus directly after the birth of the child. If I have not misunderstood him—and I hope I have not—he implies also that it is not necessary to keep up with the left hand a gentle grasping of the fundus from the time of the birth to the expulsion of the placenta. I can only say that to do so is my usual practice; and I have a painful recollection that some years ago, when, in order to reach something that I wanted, I took my hand off for a moment only, the patient, during that moment, had a severe though not dangerous flooding. Since that day I have always kept my left hand on the uterus, watching it, so to speak, with my hand, from the birth of the child until at least four or five minutes after the expulsion of the placenta.

Bicycle Saddles for Ladies.

Dr. Mary Gordon (London, W.) writes: In her letter (British Medical Journal, May 12th, p. 1137) Miss Gray characterizes my "theory" of a comfortable saddle as "mistaken" and "dangerous." Our experiences seem to have been very different, and whereas Miss Gray tells her patients to find their own saddles, I undertake to find a comfortable saddle for mine after they have failed to find their own.

Miss Gray is much impressed with the danger of the saddle that I recommended apparently on the grounds that it renders the machine difficult to dismount. It is as easy as any other machine to dismount, and (the rider being more over her work than on an ordinary machine) is easier to steer in a tight place. It is not quite easy to mount, for some riders, involving a very upright spring.

Miss Gray says nothing to convince me that a greater degree of safety lies with the short peak. I have heard of accidents from this cause, and of many small occurrences that were "nearly" accidents. I have never heard of any complaints whatever from riders of long-peak machines, and I have been with at least a dozen such riders at home and abroad over roads compared with which the side streets of Nottingham are as a billiard table for smoothness. I am not prepared to maintain that with any saddle accidents are impossible. I do not understand what Miss Gray means by a saddle being a "mere fulcrum." Personally I regard a saddle as really and truly a sitting place, having a real relation to the rider's anatomical parts, important to the work that she has to do, and capable of making her miserable if it is wrong. Of course one rides with one's feet, but, however light one's seat, one no more stands on one's pedals all day than one does in one's stirrup on horseback.

Eight or nine years ago, when it was fashionable for every one to ride, one used to see a remarkable collection of saddles of the "dinner-table" type, as well as some very miserable-looking riders. If one looks over the batches of machines to be seen in dozens during the summer holidays in Northern and Scotch railway stations and hotels, one hardly ever sees a fancy saddle, and not often a very short peak. Such saddles and their riders have been eliminated from places where riding is for pleasure, and only long-distance riders, who care more about stopping-on than about getting-off facilities, take their machines to rough and mountainous roads. But—peak or roads notwithstanding—I am sure that I should come off my machine anywhere if I rode over a dog!

There are still in the market saddles of the pronounced ladies' type having the practical objections to which I have referred. There are strong insensitive riders who can do sixty miles upon them. But I doubt if there are many who would prefer them if they once gave a fair trial to the machine I advocate. I find no especial difficulty or risk (and I am not a plucky rider) in ambling about London on this machine. But I do not think that town riding puts the comfort and staying power of the rider to any particular test, and I am only concerned in advocating a saddle in which one can take a long ride—if necessary for long hours—and return home happy.

AN APPEAL.

Mr. W. E. Sargant (Honorary Secretary, British Medical Benevolent Fund, St. Bartholomew's Hospital, E.C.) writes: The daughter of a medical man, who many years ago bequeathed a large sum to the British Medical Benevolent Fund, is anxious, through an unforeseen diminution of income, to let her well-furnished house or to receive as paying guests those who may require rest or change. The house is at one of the favourite South Devon seaside places, situated on high ground, sheltered from the north and east winds and with fine views of the surrounding country, which is noted for its beauty. The accommodation is ample and there are good gardens, a paddock, conservatory, etc. If any of your readers would like further particulars, either for themselves or their patients, I shall be glad to communicate the address.

THE DR. A. E. JONES FUND.

The following further subscriptions have been received on behalf of this fund, particulars of which were published in the British Medical Journal of May 19th, 1906, p. 1200:

	£	s.	d.		£	s.	d.
Mr. Rickman J. Godlee	5	5	0	Dr. W. M. Abbot Anderson	1	1	0
Mr. John Tweedy ...	5	5	0				
Dr. H. Morley Fletcher	3	3	0	Mr. Sydney Stephenson	1	1	0
Mr. J. Herbert Parsons	2	2	0				
Mr. A. G. Southcombe	2	2	0	Dr. H. R. Andrews	1	1	0
Mr. Sidney Spokes ...	2	2	0	Dr. S. H. Bown ...	1	1	0
Mr. George Pernet ...	1	1	0	Mr. James B. Byles	1	1	0
Mr. H. M. Rigby ...	1	1	0	Dr. Andrew Duncan	1	1	0
Mr. H. Secker Walker	1	1	0	Mr. J. Breward Neal	0	10	6

The name of Dr. Eder was incorrectly given last week, and the amount of his subscription is £1 1s. and not £1 10s. as printed. Cheques may be sent to Messrs. Barclay and Co., 54, Lombard Street, E.C., or to the Treasurer of the Fund, Sir Victor Horsley, 25, Cavendish Square, W.

STILLBORN CHILDREN.

Dr. Stanley B. Atkinson writes: In your review (p. 1163) of my friend Mr. Wellington's valuable work, *The King's Coroner*, you say: "We are glad to see that the author, in treating of stillborn children, does not countenance the idea that we are all presumed to have been born dead until proved otherwise, as has been stated in several recent publications." May I submit, with all deference, that the learned author and the reviewer have mistaken the exact application of this alleged presumption? Prior to 1803, when the body of a newly-born dead bastard child was found the onus lay upon the mother to prove that it was born dead; in that year Lord Ellenborough's Act changed the rule. To-day an inquest jury cannot say that a newly-born dead child was killed, or died after birth, until it has been established by medical or other evidence that the child was actually born alive; failing this positive proof, upon the principle *presumitur pro negante*, it is presumed that the child was born dead. In most cases the fact of live birth is, of course, speedily established—*res ipsa loquitur!*

THE ADVERTISEMENT AND SALE OF QUACK MEDICINES.

Dr. S. F. Holloway (London, W.) writes: On first reading the letter of Dr. Basan in the British Medical Journal of April 14th, page 899, I was inclined to think his language
rather strong. I have since, however, modified my opini
as I think any one will who troubles to read the nause
rubbish to which he alludes. As far as I can make out,
the great publishing firms are equally culpable, except
religious ones, who stand out head and shoulders above
rest, one "Christian" paper being *facile princeps;* wh
I fear reflects on the intelligence of those who read it.
give an instance of the harm this sort of advertisement d
a poor woman suffering from an incurable disease sent f
free treatment. She received some medicine for a few d
but was told that to be absolutely cured she must s
4 guineas. She therefore went round to people she knew
collect this sum, but fortunately fell in with a lady
pointed out the fraud of the whole thing. Now, for one
is heard of, there must be scores of these poor wretches
are not only robbed, but suffer cruelly from blighted h
and in the meantime neglect surgical treatment, which
in time, will cure and later will palliate their sufferi
Morally those who publish these things, and the State w
allows them to be published, are responsible to the del
victims.

THE CAMPBELL-POPE MEMORIAL FUND.

A committee has been formed among the friends of the
Dr. Campbell-Pope, of Shepherd's Bush, who died on Jan
2nd, to raise a memorial fund to supplement the very lim
resources of his family, and more especially to assist in
pleting the education of his children, one of whom is a se
medical student at St. Mary's Hospital. Dr. Campbell-P
who had practised in Shepherd's Bush for thirty y
devoted no small share of his too busy life to public duti
connexion with his profession, serving for some year
honorary secretary, and afterwards as a vice-president o
Medical Defence Union, as Chairman of the Kensin
Division of the British Medical Association, and as hon
secretary, vice-president, and subsequently president o
West London Medico-Chirurgical Society. Donations,
preferred, subscriptions over a term of years, will be g
fully received by the Hon. Treasurers, Dr. H. A. Cale
Upper Berkeley Street, Portman Square; Mr. C. B. Ke
56, Grosvenor Street, W.; and Mr. J. F. Long, Londo
County Bank, Hammersmith, W.

MYCETOMA IN THE YEMEN.

Dr. J. R. Morris (Keith-Falconer Medical Mission,
writes: In reference to Dr. Clemow's valuable note
mycetoma in Arabia (British Medical Journal, April
p. 918), it may be of interest to point out that the dis
met with in South Arabia, and has been recognize
years past by observers in Aden. One pathological spec
at least, showing the disease has to my knowledge been
to England. Personally I have seen about eight cases
years. It is possible that most of these may have come
Turkish Yemen. One case, however, at present
observation is living in his native village within t
miles of Aden. I am told that he has never travell
from his home.

NEWSPAPER PRESCRIBING.

A correspondent sends us a copy of the *Penny Pic*
Magazine for April 28th, in order to draw our attent
the page headed "Home Physician," in which the
a number of prescriptions given in answers to corr
dents. It abundantly illustrates the great danger t
of such prescribing, although no doubt the chemist
between the recipient and certain death if he took the
ing, which we copy, verbatim:

> "Recipe: Extraci maltae (sic) 3 oz.; tinturae
> vomicae, 2 oz.; sodii sulphatis, 1 oz.; infusi gen
> ad, 8 oz. Mix and dissolve, a tablespoonful in
> three times a day after food."

That is to say, the patient would take a drachm of ti
of nux vomica in one dose!

TREATMENT OF RINGWORM.

Dr. Arthur Roberts (Harrogate) writes: As there is so
written now about ringworm, I thought it would i
your readers to know that recently I have had two c
ringworm which I treated with the glass electrode
high frequency and an ointment of ichthyol and re
and had them both perfectly well in a fortnight.

SCALE OF CHARGES FOR ADVERTISEMENTS IN
BRITISH MEDICAL JOURNAL.

Eight lines and under	£0 4
Each additional line	0 0
A whole column	2 13
A page...	8 0

An average line contains six words.

Advertisements should be delivered, addressed to the Man
the Office, not later than first post on Wednesday m
preceding publication; and if not paid for at the time, sh
accompanied by a reference.

Post-Office Orders should be made payable to the British
Association at the General Post Office, London. Small
may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive l
Postes Restantes addressed either in initials or numbers.

A Contribution

TO

THE PATHOLOGY OF THE THYROID GLAND.

ING AN ORATION DELIVERED BEFORE THE MEDICAL SOCIETY OF LONDON, MONDAY, MAY 21ST.

BY PROFESSOR KOCHER,

BERNE.

PRESIDENT AND GENTLEMEN,—When I was honoured e invitation of your former President to deliver the al oration before this highly reputed Society I was y impressed by the fact that some of the most rtant contributions to the knowledge of diseases cted with the thyroid gland have come out of this ty, and that the Society has been the first to acknow- my own merits on this field of investigation by ng me the Honorary Fellowship. Allow me to to your members my admiration for the first and ncere thanks for the second.

nks to the scientific work done, we are pretty well ned about all affections depending on deficiency of id tissue or thyroid function, including cachexia priva and tetania parathyropriva.

cannot say the same of another category of diseases cted with alterations of the thyroid body—I mean thalmic goître. There exists still such a divergence nion as to the nature of the disease, that it influences actice strongly, and in part in a regrettable way.

y neurologists adhere firmly to the idea that thalmic goître is a neurosis and is to be treated as because they see frequently the first symptoms r after severe mental shock

Victor Horsley first in 1885 brought forward the of the thyrogenous origin of exophthalmic goître, ing that the thyroid body is first affected, and that e symptoms are to be explained by a dysthyrosis. s has taken up this theory, ascribing a greater tance to the simple but excessive hyperactivity of and—that is to say, to hyperthyrosis. Surgeons in l agree with the idea of a combination of hyrosis and dysthyrosis.

re I try to bring before you the facts which seem ler it possible to come to a decision between those es, it is absolutely necessary to explain what we by the expression exophthalmic goître. There will be no doubt about diagnosis in a very severe case worst moments of the disease; but even here we find a good many other symptoms as important nstant as are exophthalmos and goître—nay, more ant than the first-named symptom.

ve never seen a severe case of the disease without ration of the thyroid gland. There is always some g of the gland, and the vascular phenomena, ing of dilatation of the vessels, the arteries lly, with a characteristic bruit (*bruit de souffle*), often ned with thrill on putting the finger slightly on the are to be observed very early.

only in later periods of the disease, and especially treatment, that the vascular symptoms may ear, and then we have only the swelling (much at this period) characterized by the uniform diffuse e of all parts of the gland and by its coarse granular . At this period the gland has become harder than , whilst in the beginning the great development of makes the organ feel softer than usual.

uld not accept the diagnosis of exophthalmic goître absence of characteristic swelling of the gland and cular symptoms at the beginning. I think we may that clinically there exists a specific type of goître presents itself in the beginning in the form of what ascular goître.

annot say the same of the exophthalmos. It is the riking symptom, and in Germany people give the f "*glotzaugen krankheit*" to the disease. There is bt, however, that, especially in the first period of the , except in very acute cases, exophthalmos may be absent and come on only later. It is true that these cases the medical man will be able to make out a series of ocular symptoms well known as Stellwag's, Gräfe's, and Möbius's signs, and especially a sign which I consider one of the earliest symptoms of the disease in many cases, that is, a sudden retraction of the upper lid when the patient is made to look steadily at you or to look upwards suddenly. I think it worth while to take note of this symptom as a help in the early recognition of the disease.

In admitting that exophthalmos is frequently absent at the beginning of the disease and may be absent for a long period, it is impossible to continue the use of the term exophthalmic goître, as there is a risk that the term may cause the medical practitioner to overlook the first symptoms of the disease when treatment would have a most excellent effect.

There are other symptoms which are of greater importance than exophthalmos. In addition to the ocular symptoms already mentioned, tremor may be one of the most constant symptoms, combined with nervous agitation, the impossibility of keeping quiet, congestion of the lips, eyes, and face, perspiration with every effort or every emotional influence, in hot rooms or in society. The eyelids may be red and swollen, yellow-brown pigmentation may be noticed at the lids and round the mouth. The patient may complain of headache, want of sleep, vomiting, diarrhoea, extreme psychical susceptibility or depression, or may have undergone rapid emaciation.

I will not go on enumerating those well-known symptoms which have been described *in extenso* in monographs, and also by Dr. Albert Kocher. But I wish to emphasize the fact that there are a number of symptoms which may enable the medical practitioner to make his diagnosis when the most striking symptom—exophthalmos—is absent, and which for this reason have a greater importance.

But there is one symptom besides the characteristic goître which is never wanting—that is, the heart trouble in the form of tachycardia. The combination of heart trouble with goître is so constant that the name of goître heart (*Kropfherz*) has recently been introduced to collect together all affections of the heart which depend upon the formation of a goître.

Buschan has tried to show in a monograph on Basedow's disease that the good results of operations are to be explained by the fact that the cases really benefited by excision of goître are not true cases of the disease, but that they are examples of those heart troubles in which the heart is affected indirectly by a goître pressing mechanically on the great vessels or the cardiac nerves at the base of the neck or on the windpipe, affecting the heart by producing some degree of suffocation.

It is perfectly true that we may see cases of large goîtres, especially the more or less intrathoracic forms, presenting the symptoms of tachycardia and irregular heart action with obstruction of the venous circulation, so that the eyelids swell and a certain degree of exophthalmos comes on. These are very important cases, inasmuch as by excision of the goître in due time we can certainly obtain a perfect cure.

Buschan proposes the name of pseudo-Basedow for these cases, but it is better to say that they have nothing whatever to do with exophthalmic goître in the proper sense of the word. They are an excellent illustration of the fact that the combination of goître and exophthalmos is not the essential feature of the so-called exophthalmic goître. It is much better, therefore, to give up the term altogether and to use a more indifferent term until we have cleared up the theoretical cause of the disease so far as to enable us to use a rational designation.

I do not wish to enter here on a discussion of the historical question who was the first to describe exophthalmic goître. I am willing to acknowledge that there are as good reasons for giving the name of Graves's disease to true exophthalmic goître as the name of Basedow's disease. If I use the latter name, you will excuse it by the fact that it is the most common designation in medical literature.

What I mean to sum up under the names Graves's or Basedow's disease, includes all the affections in which the symptoms, including the most constant, goître and heart trouble, are dependent directly on the alteration of thyroid tissue and thyroid function. And here I should like to add one word to define at the outset my opinion as to the nature of this influence.

If I exclude from true Basedow's disease all the goître hearts depending merely indirectly on goîtrous changes owing to the mechanical effect of the swelling on the surrounding organs, I shall also exclude for the moment the theory stated in a very able monograph by one of my former pupils, Dr. Minnich, who, basing himself on the experiments of the distinguished Russian physiologist Cyon, has tried to prove that goître heart is a consequence of diminished function of the thyroid gland. On this theory even Basedow's disease, as well as cachexia and tetania thyropriva, would come under the head of hypothyrosis.

I have seen seventy cases of cachexia strumipriva after total or partial excision, and sixty-six cases of spontaneous cachexia thyropriva or myxoedema, but I have never in uncomplicated cases seen any analogous affection to Basedow's disease. On the contrary, the contrast between the two series of symptoms is complete, as I pointed out when I first described the consequences of total excision of the thyroid gland in April, 1883. I should therefore say that we are in no way justified in placing true goître heart and the milder and severe forms of Basedow's disease under the head of hypothyrotic affections.

But what I should like to lay stress on is this, that when we wish to form a clear judgement as to the effect of treatment in Basedow's disease, we must absolutely distinguish the different degrees in which the disease presents itself at the moment of our examination. We may have to examine a patient quite at the beginning, when there is not much more to be seen than a characteristic alteration of the thyroid body, with some heart trouble and slight indications of the other symptoms. We may see the patient when, owing to concomitant alterations of different kinds, the symptoms are mitigated, and some of the most striking features, like exophthalmos, are wanting, or where, on the contrary, by the influence of previous changes in the nervous system, the symptoms are particularly severe. I have therefore classified my material for the statistical reports I wish to bring before you under the following three forms:

I. *Vascular Goître (Struma Vasculosa).*

This variety consists of a very characteristic change in the thyroid body, which swells rather rapidly in the form of a more or less soft tumour with great dilatation of the vessels and systolic bruit and thrill. The tumour is nearly as characteristic as the swelling of the gland in ordinary cases, but the general symptoms are much less pronounced than in a typical case of Basedow's disease. Tachycardia is always present, tremor as a rule, but exophthalmos is often wanting, and only some of the ocular symptoms (Stellwag's or Gräfe's) indicate the beginning of the influence on the general system.

Here the chance of a favourable result from medical treatment by small doses of iodine or, better, with phosphates, is particularly favourable, and the outlook for radical cure by operation is excellent.

I have had 14 of these cases under treatment; 4 have been treated internally, 10 have been operated upon either by ligature or excision on one side, and all have been cured.

II. *Struma Gravesiana Colloides.*

The second variety of the disease, which we have to separate from typical cases, may be placed under the head of what Marie proposed to call (not quite in the same sense as I use it) "goître Basedowifié" = basedowified goître (Struma Basedowificata or Gravesificata). This is a rather frequent form, and its characteristic feature is that an ordinary goître exists before the development of the Basedow changes, which are, so to speak, grafted on the common form of colloid goître. We might give it, therefore, the less barbarous name of Struma basedowiana (gravesiana) colloides.

In these cases I have found the symptoms less severe even when all were present. If all be not present it is especially the exophthalmos which may be wanting. Tachycardia is always present, but even here the dilatation of the heart is less. There can be no doubt that we have to do with real Basedow's disease in a mitigated form, because the other ocular symptoms are frequently present, and so are most of the typical symptoms. Why all the symptoms exist in lesser degrees must be explained by the degenerative changes in the gland; it seems especially, as Dr. Albert Kocher has shown, that the ordinary colloid material is to a certain degree an
antibasedowian agent, when patients are fed on it, or
we produce it artificially in the gland. It may be
that some direct influence on the sympathetic ner
diminished by the presence of colloid material. A
rate, I have seen cases in which the symptoms o
Graves's disease have been greatly ameliorated wh
ordinary colloid goître developed. This seems to
be a rather important feat.

Buschan did not make a clear distinction betwee
form and the mechanical goître heart, but
these forms together under the head of pseudo-Base
disease. This was a mistake, and has been the ca
much confusion in judging of the effect of treatment

I have myself seen 72 cases of this mitigated fo
Basedow's disease, or struma basedowificata. Of
60 have been operated upon without one death. Of 7
there is no news to be had; 2 cases are better, and 51
are cured. The operation consisted in 32 cases in ex
of one side, in 8 cases in excision of one side an
ligature on the other side, in 3 cases in excision
side and partial resection of the other, in 4 cases in
tion of both superior arteries, in 6 cases in ligation
two superior and one inferior thyroid arteries.

III. *Typical Basedow or Graves's Disease.*

The cardinal symptoms already described, deve
frequently very rapidly—even suddenly—after
shock, give rise to such a change of aspect that it
even inexperienced people at once. The exophthalm
in this respect the most striking symptom; but
quite certain that even here in the beginning it m
absent, and the diagnosis has to be made by the
ocular and general symptoms.

Of this form, which may be called struma basedo
where every medical man would recognize clear
disease after a short examination, I have seen 140
and operated on 106 of these. There have been 9 d
5 cases have died later of different affections, partly
out any relation to the disease; 6 have had tetany af
operation without a death; 7 cases are better than
the operation; 9 cases are greatly or even extraordi
improved according to the letters received, 62 cas
cured and in 34 of these the cure is perfect. So w
had, with the exclusion of 10 cases in which the ope
was performed only a short time ago and which are
only ameliorated, and 9 cases in which I have so far
to get any news from the patient, a perfect or very
factory result in 81 per cent., or a good result in
cent. We may say (excepting the nine patients wh
that there has been no patient who has not in realit
benefited a great deal by the operation. I have ha
from a very hysterical person, who thinks herself in
the same condition as before the operation, but
saw her she was cured of her Basedow's disease.

If we take all the cases which can be classed to
under the head of Basedow's disease, the typic
severe cases in later periods as well as the milder
ning forms, we have a total of 175 operations with 9
equal to 5 per cent.; cure or extraordinary ameliora
all milder forms, and in 70 per cent. of severe; in de
26 cases in which the time since the operation d
seem long enough to warrant us in speaking of a
result and in which no records can be secured, the
show in the remaining 149 cases 131 cures and 9
ameliorations.

With such statistical results at hand, and cons
the fact that in taking away the diseased thyroid
we are able to cure even the severest cases of Ba
disease, when the operation is done in due time,
scarcely come to the conclusion that we have to do
neurosis which is cured by such a serious operati
still less may we approve the idea of Buschan
cases of true Basedow's disease the operation acts
way of suggestion. We must, on the contrary, adm
with the thyroid body we take away the source
mischief and the organ in which the disease is lo
This is practically the most important fact, to be
say once and for all—Graves's (Basedow's) disease n
thyrotoxic affection in opposition to cachexia
priva. The question whether the functional d
consists in a perverse activity of the gland in the
dysthyrosis or in a simple exaggeration of the
function (hyperthyrosis) is still open to discussion.

Horsley is the propounder of the first theory, wh

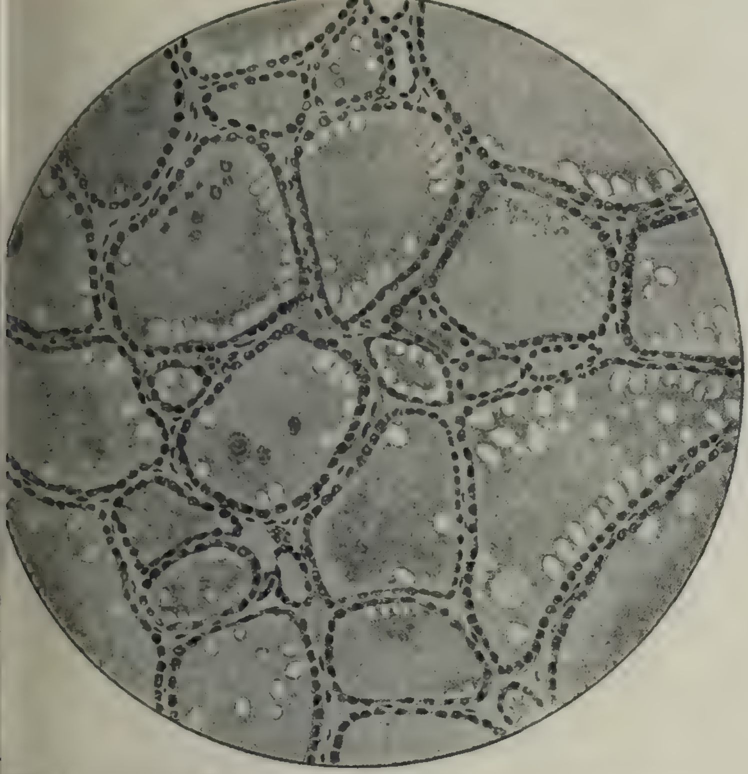


Fig. 1.—Section of normal human thyroid. (Howald and A. Kocher.)

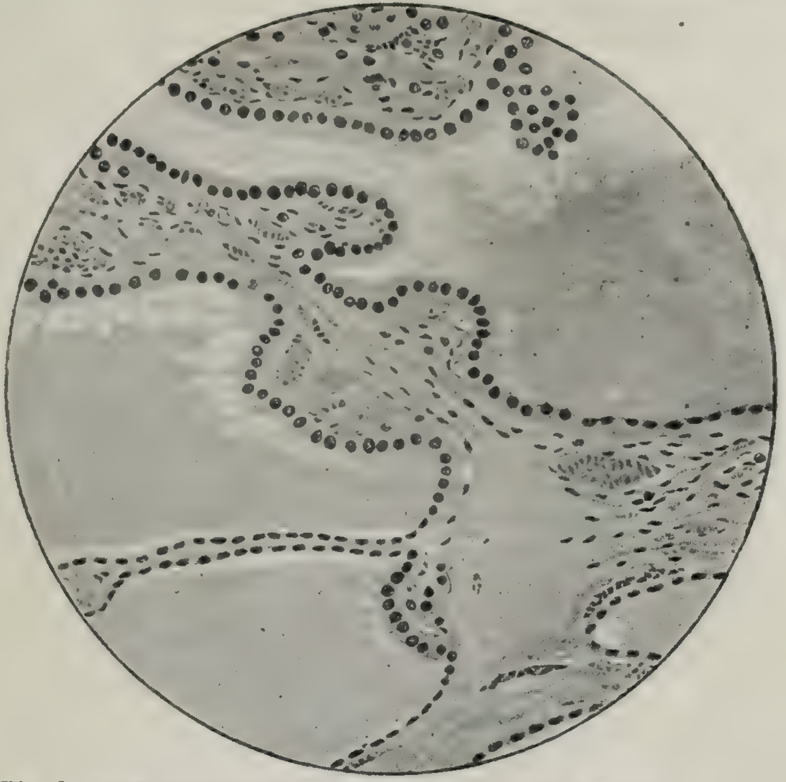
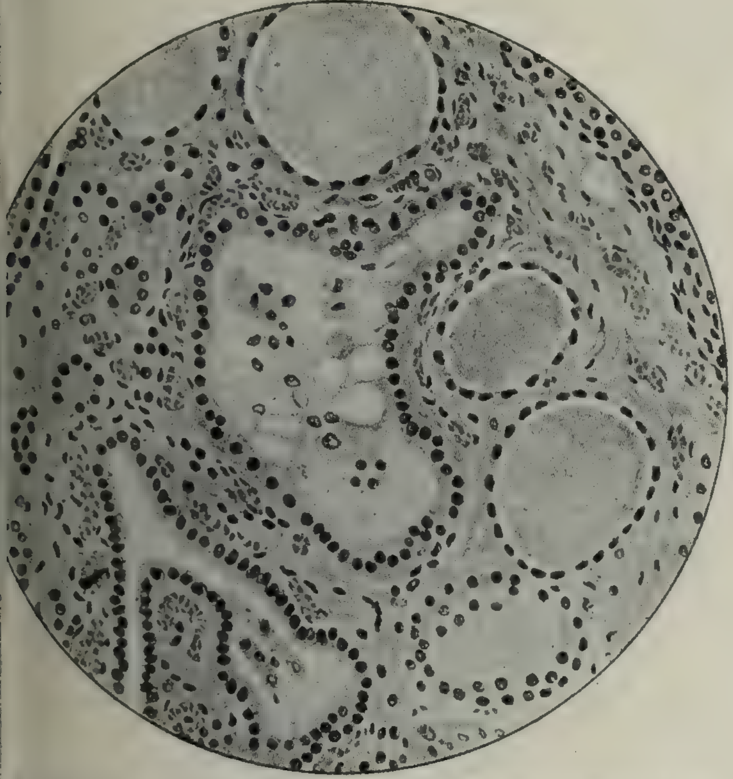


Fig. 2.—Section of colloid goître occurring in Graves's disease. (Howald and A. Kocher.)



3.—Section of colloid goître occurring in struma gravesificata. (Howald and A. Kocher.)

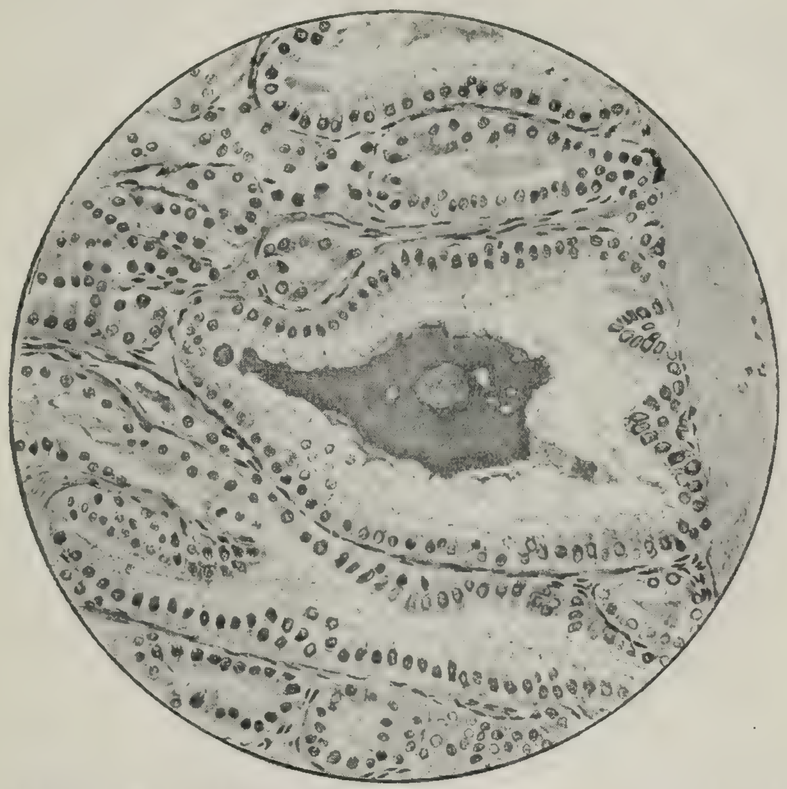
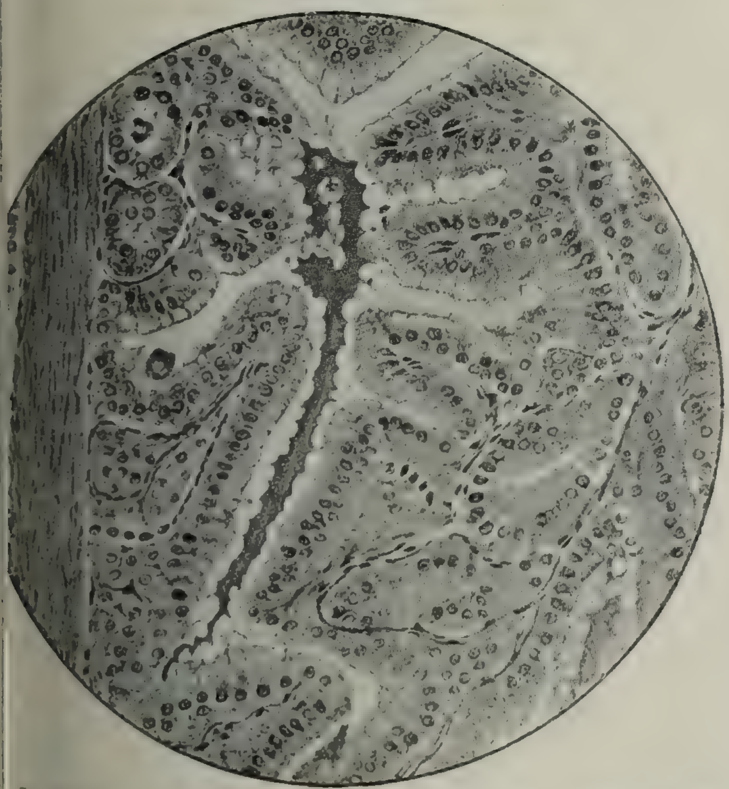


Fig. 4.—Section of thyroid in Graves's disease. (Howald and A. Kocher.)



5.—Section of thyroid in Graves's disease. (Howald and A. Kocher.)

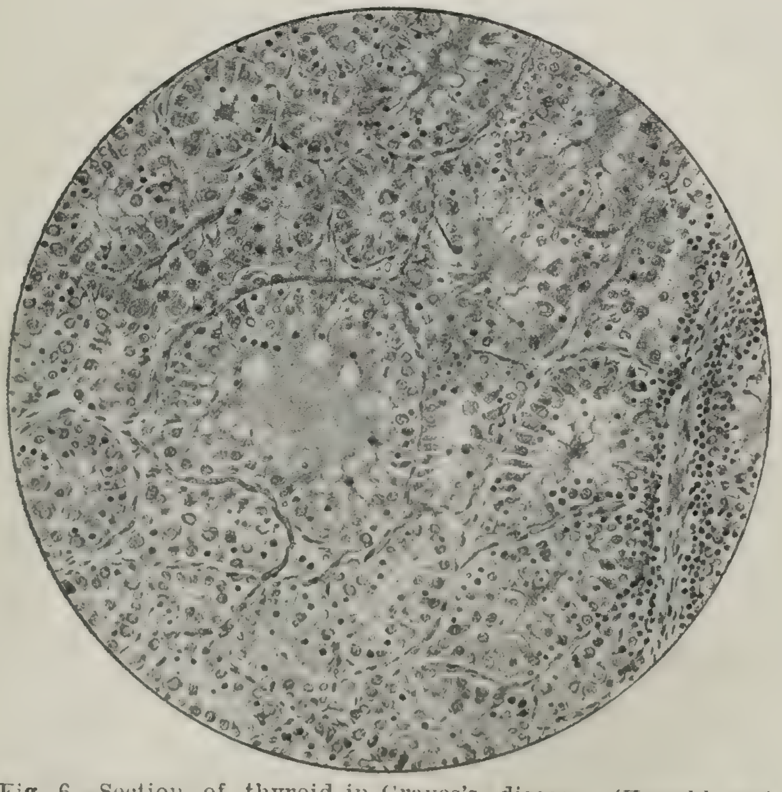


Fig. 6.—Section of thyroid in Graves's disease. (Howald and A. Kocher.)

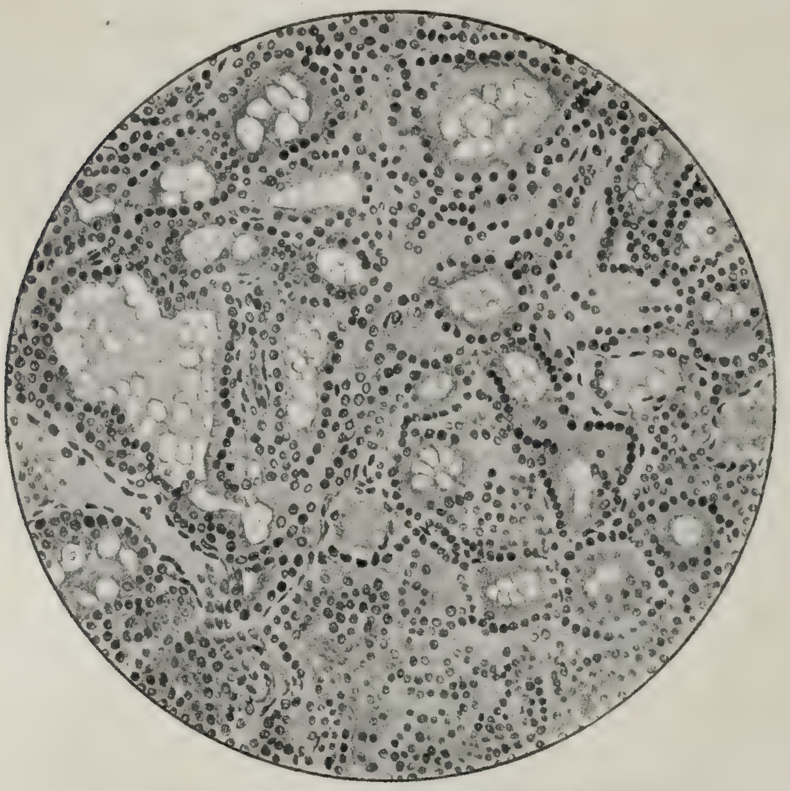


Fig. 7.—Section of thyroid gland of dog 13 weeks old. (De Ligneris.)

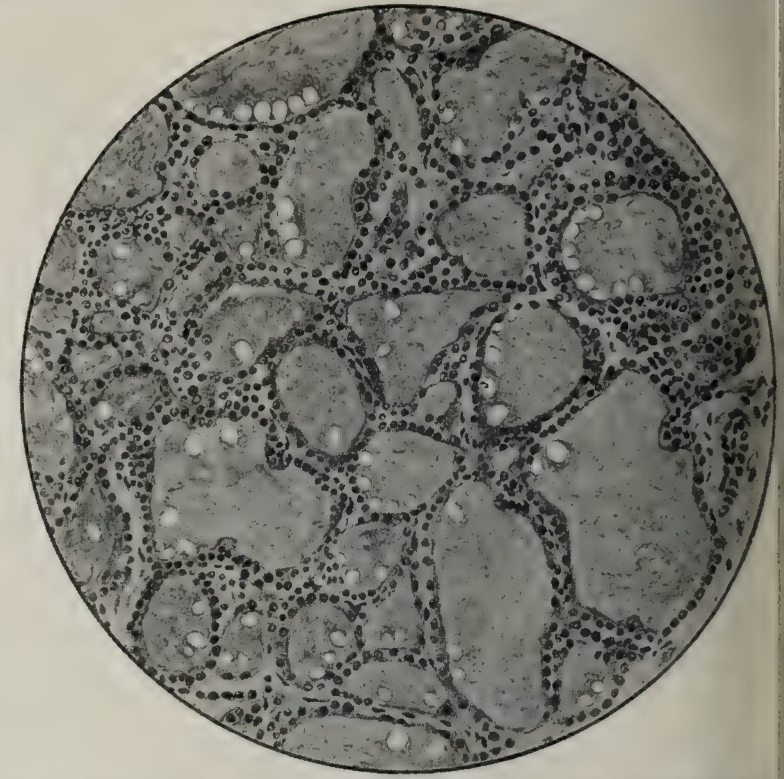


Fig. 8.—Same as Fig. 7, four days after injection of Lugol's solution (De Ligneris.)

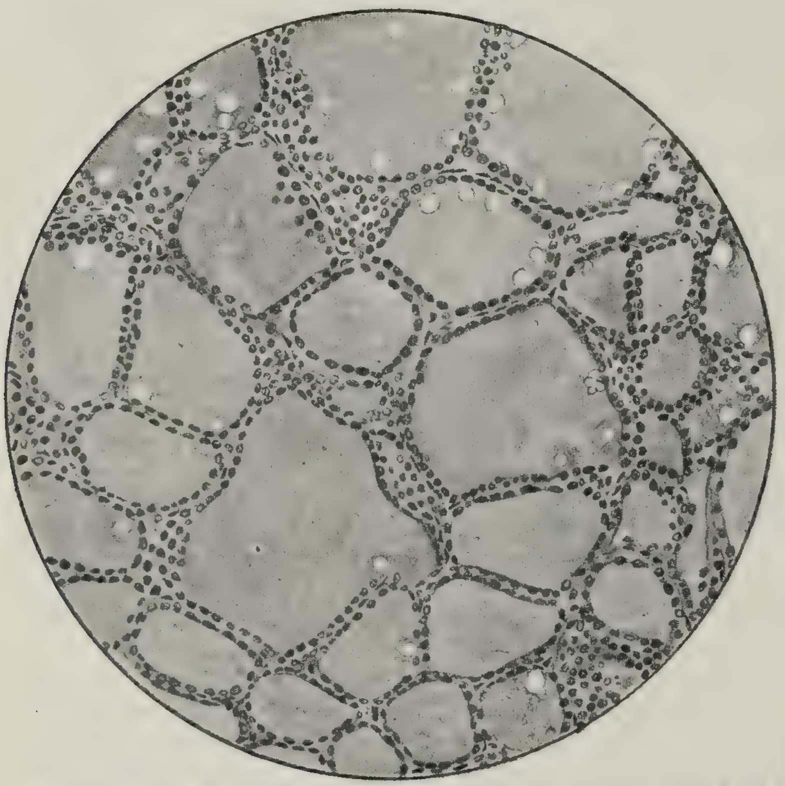


Fig. 9.—Same as Fig. 8, eleven days after a second injection. (De Ligneris.)

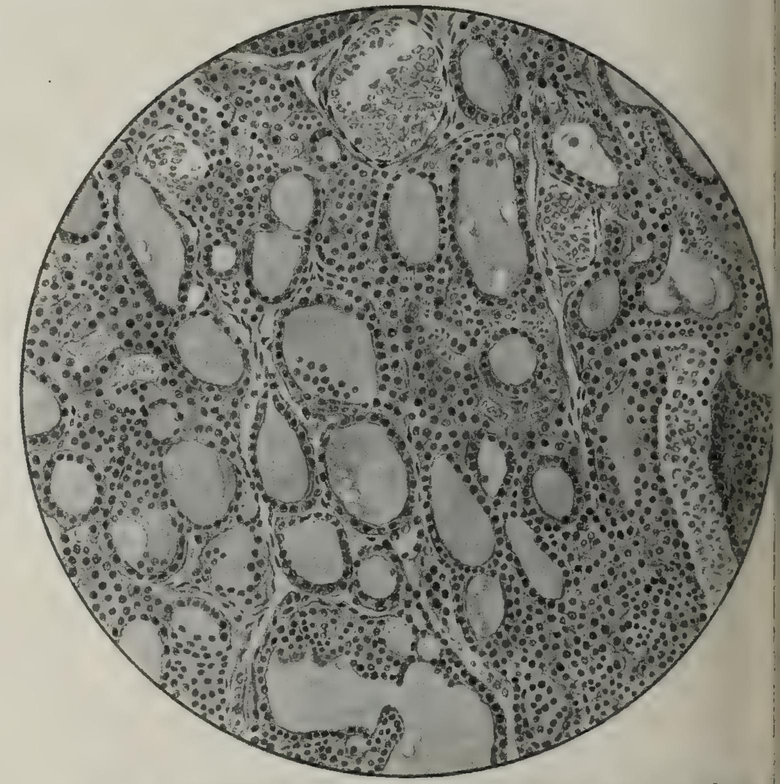


Fig. 10.—Section of thyroid from a dog aged 18 days. (De Ligneris.)

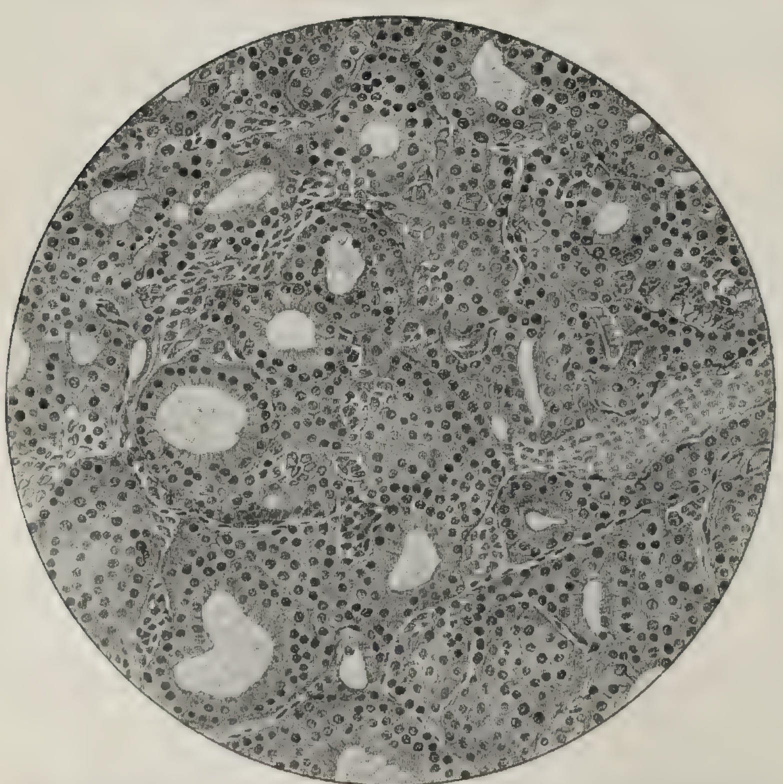


Fig. 11.—Section of thyroid: Hyperplasia of the part of the gland left. (De Ligneris.)

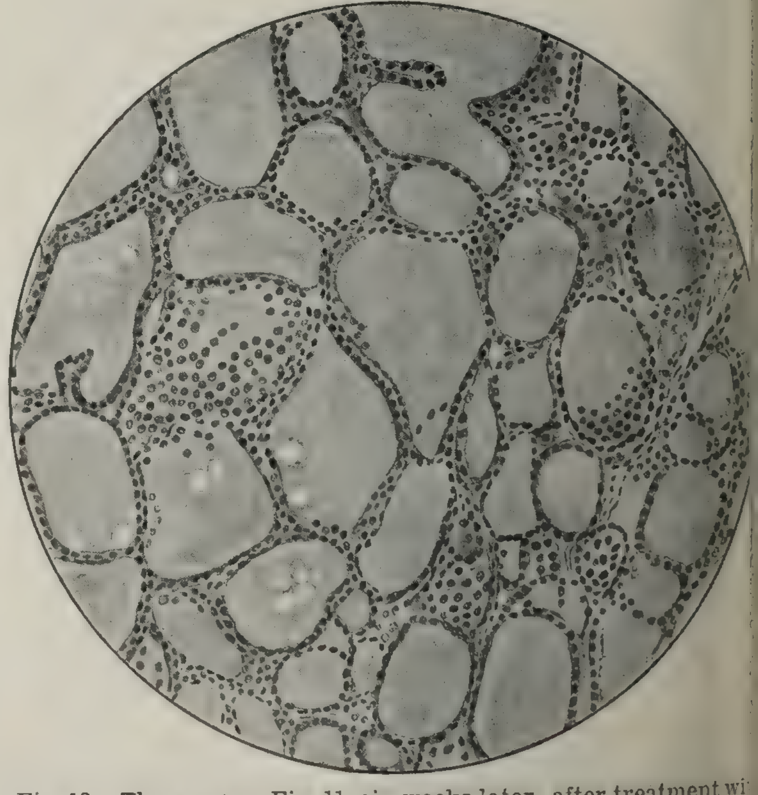


Fig. 12.—The same as Fig. 11, six weeks later, after treatment wi potassium iodide internally. (De Ligneris.)

forward a good while before Moebius combined both in well-known thyrogenous theory of Basedow's disease, hout being able to furnish convincing proofs for the or for the other. Let me try to submit to your judge- nt some more facts, drawn from histological and mical examination of the gland and of the blood.

oes the thyroid gland in Basedow's disease offer tologically such specific changes as justify us in think- of an increased or altered activity of its parenchyma secreting cells?

may call your attention to investigations undertaken Sir Victor Horsley, Friedrich Muller, McCallum, and ny others, and to a paper which is about to be published Professor Howald in collaboration with Dr. Albert her on this difficult question. I show a few histological wings of characteristic forms of true gravesian goître of the colloidal form of it (struma basedowiana vera struma basedowiana colloides).* The extraordinary elopment of the epithelium will be observed (Figs. 4, 5, 6). assumes a high cylindrical form, and has formed illary excrescences in the lumen of the vesicles; the en does not contain the ordinary colloid material, but ns empty because the secretion was liquid. The t vascularity of the gland, and the capillary hyper- ia will also be remarked. A very different picture is when preparations of colloidal form are examined g. 2); the follicles are filled in the ordinary way with oid material, and the epithelium quite flattened. Fig. 3 om a case of a mitigated form of Graves's disease grafted colloid goître, and you can recognize distinctly in some es the transition of the one form into the other by the ation of the epithelium and the formation of low illae.

must not be forgotten that the operation which nishes the pathological specimens is performed at very erent periods and for very different degrees of the ase, and that in consequence the anatomical sub- tum must vary to a great extent.

he second piece of evidence in favour of the increased vity of the gland is the constant swelling of the phatic glands in the neighbourhood of the thyroid y in severe Basedow's disease and the changes we been able to trace in the composition of the blood. great many cases during the operation I have seen lymphatic glands swollen, and pathological examina- has proved this swelling to be merely hyper- tic. Now, according to the theory of Asher, this in- tes always a greater irritation of the glands by the ph of the vasa afferentia as a consequence of greater vity of the organ which furnishes the lymph and with e products of its metabolism.

rther evidence of a greater irritation of the lymphatic ds by the toxic products of increased metabolism in thyroid body is afforded by examination of the d. I have had the blood examined many times by assistants, especially by Dr. Bacilieri, Dr. K. v. Steiger, by the well-known and renowned haematologist, Dr. eli, of Zurich. We have found in many of these s an increase in the lymphocytes even up to 60 per . of the white corpuscles. In one case, examined by Nägeli, even 74 per cent. lymphocytes with mono- ear forms were found; as a rule the proportion is 30 to 40 per cent. This increase does not mean an ease of the leucocytes *in toto*, on the contrary the le quantity is much the same as normal, or even a e less.

hat adds strength to the belief that this lympho- sis† is a consequence of an irritation of the lymphatic em, is the fact that among the lymphocytes there are a many atypical forms, with larger nuclei and greater ntity of protoplasm (large mononuclear forms).

ving to the poisonous effect of the abnormally in- sed secretion of the thyroid body on the bone marrow lulla ossea) Dr. Nägeli has found 2 to 3 per cent. of locytes with diminution of the neutrophiles and a cer- amount of anaemia of the red corpuscles in some . These investigations suggest an interesting analogy een the severe forms of Basedow's disease and what is called "status lymphaticus"; in both diseases any operation is attended by a risk of sudden and unexpected death under certain conditions, especially narcosis.

I may mention another indication of the great activity of the gland which is furnished by chemical analysis. Dr. Oswald, and especially my son, Dr. Albert Kocher, have investigated the iodine content of the thyroid in cases of Basedow's disease. The result is that in the cases in which the follicles are found empty after excision much less iodine may be found in struma basedowiana than in the normal gland or in ordinary goître, sometimes almost none at all. That this is only the consequence of the rapid resorption of the thyroid secretion is proved by those cases in which the follicles are filled with colloid material. Albert Kocher has found an extraordinary quantity of iodine—40 to 50 milligrams—in one lobe of the gland in such cases, though the gland was not much more enlarged than in other cases of Basedow's disease. We may conclude from these investigations that the production of one of the specific constituents in basedowian goître is greatly increased.

From a consideration of the fact that, according to Nägeli, chronic lymphocytosis and eosinophilia are characteristic features of other chronic infections and intoxications, and that we can produce the same by hypodermic injections of iodine, we arrive at the conclusion that there is good evidence of hyperactivity of the thyroid body as the cause of Graves's disease.

Clinically, struma basedowiana presents characteristic features in the vascular symptoms (dilatation of arteries and systolic bruit and thrill), with diffuse and uniform swelling of all parts of the gland which has a coarse granular surface, and is at first softer, but later rather harder than ordinary goître. This is quite in accordance with the fact that by taking away the diseased thyroid body the symptoms may disappear completely. There is only one exception to this rule, when in later periods secondary changes have taken place in the fatty tissue of the orbit, in the cardiac muscle, etc., which hinder the complete re-establishment of normal conditions.

There is one more point which affords still stronger evidence of the theory of hyperthyrosis. If we ask why all cases are not attended by complete success, we may answer: We know quite well which cases we may hope to cure entirely, and which will show only more or less amelioration; the improvement is in exact relation with the amount of hypertrophied tissue we take away or destroy by our operation—that is to say, with the amount of diminution of the function of the gland produced.

If we ligature one artery we will get some, but only a slight, amelioration of the symptoms. If we ligature two arteries the effect will be exactly so much greater as more of the function is inhibited. If we take away one lobe of the gland the effect is still greater. If we put a ligature on three of the four arteries, we may have a very good result, and a still better if we excise one lobe and put a ligature on the superior thyroid artery of the other side; it will be even more complete when we combine unilateral excision with the resection of the upper and lower half of the other lateral lobe.

If we have begun with one or two ligations, and have had an unsatisfactory result, we are sure to complete it by adding a third ligature or by excision of one half of the gland. In short, we may say that by operation it is in our hands to guarantee a more or less complete result.

This absolute parallelism between the degree of diminution of morbid symptoms and the quantity of thyroid tissue removed seems to prove that the abnormally increased activity of the gland throws some poisonous substance into the circulation; but the question still remains open whether it is exclusively the excess of the normal secretion which exerts that poisonous influence on the nervous, and especially the sympathetic, system, or whether it is some abnormality of the secretion plays a certain part. In favour of the theory of pure hyperthyrosis we may add that the administration of extracts of the normal gland or of iodothyrin give rise to the same symptoms as basedowian goître. In a case of myxoedema the administration of thyroidin or of iodothyrin was followed by a rise in the pulse and temperature, the urine became more abundant, more nitrogenous substances being excreted, and there was palpitation of the heart, trembling, emaciation, diarrhoea, and perspiration.

---

e preparations are made by Professor Howald and Dr. Albert er.

cording to Nägeli, Cabot found in 1 case out of 15 pronounced ocytosis (8.5 per cent.). Neusser has made a similar observation. rt (like Neusser) has found in 1 case out of 4 eosinophiles (50 per . Besançon and Labbé have seen leucocytes with special increase nonuclear forms after feeding with thyroid.

If we give to a cretinoid or a myxoedematous individual with atrophy of the thyroid gland the quantity of thyroid extract his body needs, he will become like a normal person; but if we give him much larger doses for a long time, he will go to the other extreme and become a Basedow patient.

So we may state positively that over-activity of the thyroid gland would, for one reason or another, be quite sufficient to explain the appearance of the symptoms of Graves's disease and their disappearance after operation.

Are we, then, bound to propose the operation to every patient affected with symptoms of Basedow's disease, regardless of the stage to which the disease has advanced? In attempting to answer this I must point out that undoubtedly the first change is in the nervous system in many cases; in others the disease dates from an acute infection. Prolonged or sudden nervous exhaustion is frequently the cause of the appearance of the first symptoms, and it is probable that a suddenly increased metabolism in the nervous tissue brings toxic substances through the circulation to the thyroid gland, and gives rise to irritation and reaction, causing increased activity of the parenchyma. This influence must never be forgotten, and has its share in affording indications for treatment. We must in these particular cases do everything to diminish influences tending to exhaust the nervous system, and, above all, keep the patient perfectly quiet in every way for a long time. At the same time we may try to compensate the loss of phosphates accompanying nervous disorders by the administration of phosphates, one of the best treatments for Basedow's disease. In addition, a well-chosen diet and good food are necessary.

On the other hand, it is important not to delay the operation so long that it becomes a danger to life. Whilst in my last 1,000 cases of excision of ordinary goître (excluding malignant diseases) I have only lost 3 patients, I have lost 9 in 175 operations for Basedow's disease. Shall we be able ever to avoid all fatal results after operation? In all the fatal cases, besides the irritation of cardiac nerves, organic changes of the muscle of the heart, with more or less dilatation and irregularity of action existed, and to these alterations of the heart is to be attributed the fact that there have been more deaths than in ordinary cases. It is therefore necessary not to delay the operation until these organic changes have set in.

Table of Cases of Thyreotoxic (Graves-Basedow's) Disease.

Total number of cases seen 225
Total number of cases operated upon ... 176

	Operated Upon.	Mortality of Operation.	No Further News.	Amelioration.	Great Amelioration.	Cured.
1. Struma vasculosa, commencing Basedow's disease; symptoms mainly local	10	0	0	0	0	10
2. Struma basedowificata; milder form developed on a pre-existing ordinary goitre	60	0	0	0	2	49
3. Struma basedowiana; typical Basedow's disease	106	9	9	17*	9	62

Total mortality	5 per cent.
Immediate recovery	95 ,,
No later news	10 ,,
Of the remaining 158 cases:	
Died later...	2 ,,
Improved	10 ,,
Greatly improved	7 ,,
Cured	81 ,,

*In 1 of these only preliminary operations have been performed up to the present time.

In all severe cases of Basedow's disease there is much more reaction after operation than after excision of ordinary or even malignant goître. There is a sudden rise of the temperature, and more sudden increase still of the action of the heart. If the heart has already been weakened by degenerative changes it may suddenly fail and death follow very rapidly, sometimes unexpectedly. As an explanation of this excessive tachycardia and fever, I think we must accept the view that besides the influence of the exaggerated sensibility of the vascular nervous system there is a sudden increase of intoxic tion, because all the other symptoms of Basedow's disea may also be greatly exaggerated, producing great agi tion, congestion with profuse perspiration, tremblir diarrhoea, and excessive weakness. It is probable th owing to the manipulation of the gland during the oper tion, there is a suddenly increased resorption of thyrc secretion. You are aware of what that means in cases excess of iodine shown in Albert Kocher's patients. T reaction is still worse after simple ligature. In my fat cases, in 4 out of 9 I performed simple ligature on one, two, or three arteries; in two of the other five cases lig tion of the other side was combined with unilateral ex sion. When the veins are ligatured there follows— Dr. Verebegy has shown experimentally at my clinic— notable increase of resorption by the lymphatics as t immediate result. The reaction therefore is decided less when we ligature the isolated artery alone than wh the veins are ligatured together with the artery. Tl increase of intoxication only lasts for a few days, and t effect of the operation on the action of the heart some da later is excellent.

Operation in the early stages of Basedow's disease dc not expose the life of the patient to any danger. I ha not lost one case, when the operation could be perform early, even in very bad cases, but I have been very caref to secure judicious medical treatment for these patier for weeks before the operation. A judicious use of ve small doses of iodine for a short time, the continuous u of phosphates* (sodium phosphate from 2 to 10 grams a da and absolute mental and bodily rest are the most importa features of it. Figures 7 to 12 are reproductions of dra ings of microscopical preparations from experiments my assistant, Dr. de Ligneris; they show the effect of t iodine treatment on the increase of colloid material.

I often begin with the ligature of one superior arte perform the second operation ten days or a fortnight lat when the patient shows improvement, and underta excision of one side only when, after some weeks mo the symptoms of the disease show a decided diminutic In this way operative treatment may be made successf even in severe cases, if care be taken to avoid any dang from the general anaesthesia, which is very risky in ca of great dilatation of the heart, due either to overwork to toxic fatty degeneration. The latter may exist at t same time in the liver and kidneys.

I saw a few days ago the husband of a lady affect with severe Graves's disease. The diagnosis had been ma some months after the appearance of the first symptoms an excellent medical practitioner. After having examin the patient with the doctor of the family, the consulta went into another room and told the husband: "Yo wife has a very serious illness, called Basedow's disea and there is absolutely no hope for a cure as we have remedy for it." If I have succeeded in making medic practitioners present at this meeting appreciate t results of my long surgical experience, I hope that th may find themselves justified in telling a poor husba waiting for the verdict of a medical consultation in analogous case: "Sir, your wife has a very serio illness; but if you are willing to have an operati performed we may, with the help of proper medic treatment, expect a perfect recovery."

---

* According to the experiments of Barbera, sodium phosphate an antagonist to iodine in its action on the regulatory system of heart.

THE Pasteur Institute at Tunis has begun to pu lish *Archives*; the first number contains a general accou of the institution and its work. It began in 18 as a viticulture laboratory only, but has grown steadily all directions and now undertakes antirabic inoculatio the supply of vaccine for all Tunisia, and general clinic research work. It also supplies serums of all varieties required. A good deal of original research is being carri on within its walls by M. Nicolle and three assistants, t principal subject of investigation being ferments. Al gether since the work was taken up 1,695 presumed ca of human rabies have been treated, with a death-rate 0.29 per cent.

MEDICINE AND MATRIMONY.—A meeting of the class 1905 of the Faculty of Medicine, University of Toronto, w held recently, at which it was decided to adopt as "cla boy of 1905" the first male child born to a member of t class married subsequently to graduation. This is intend as an encouragement to the young doctors to marry.

A Lecture

ON

IE DYSTROPHY OF TABES AND THE PROBLEM OF TROPHIC NERVES.

ELIVERED AT THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

SIR WILLIAM R. GOWERS, M.D., F.R.S.,
PHYSICIAN TO THE HOSPITAL.

RE are regions of mortality of which the Registrar-eral takes no cognizance; one is that which relates to ntific theories. Their death-rate is high. Some perish y, launched into existence with defective vitality. ers, more robust, come to a sudden end, done to death controversial contest. Others, again, at first seem rous, but afterwards slowly fade, from inanition. wing knowledge ceases to furnish them with support. facts on which they seemed to rest are found to have rent relations, and that which the theory was framed xplain is found to be otherwise intelligible.

ich seems to be the fate of the theory that the ition of the tissues is governed by special trophic es and centres distinct from those which influence r general functions. It has always been a theory; ressive research has afforded no direct evidence of nerves or centres. It was once invoked and held to ain muscular atrophy, but the relation of this to ase of the purely motor nerves and motor cells has so firmly established that the theory has quietly ped out of sight so far as this disease is concerned. it still lingers, and is still reasserted, as an explana- of the affections I propose to consider to-day—the re-able derangement of nutrition which occurs in some s of tabes. This is seen in the cutaneous tissues and appendages, and is especially conspicuous in the s and bones. In these, as you know, it is called etic arthropathy," or "osteo-arthropathy," and it has been termed "Charcot's joint-disease," from its first ough describer. Of late, all these nutritional dis-rs have been included under the convenient desig-n "tabetic dystrophy."

ok at the knee of this tabetic patient. You see how ly it is enlarged. There is some effusion into the , but this is not the chief cause of its increase in size. tissues about the joint are thickened by a peculiarly oedema, especially above, where the condition extends the lower part of the thigh. But the chief cause of nlargement is an increase in size of the ends of the s entering into the joint, especially of the head of the and the external condyle of the femur. Besides a separate small mass of bone has formed in the ule of the joint on the outer side. Some grating can lt on movement, showing erosion of the articular ces. This condition came on gradually a year ago, was thought to be due to a strain.

the other tabetic patient before you, a definite, r severe sprain of the ankle started the morbid pro- in the joint. The end of the tibia is much enlarged, here is also increase in the astragalus. Little effusion e discovered, but the fibrous tissues about the joint ll thickened. In the third patient there is only a t enlargement of the tarsal bones. You may have that in each case manipulation of the joint caused ain or even discomfort. That is the rule in this dy. Yet you know quite well what acute pain would t if the joint were the seat of an ordinary inflamma- whether rheumatic or the result of injury. Such ve movement would be unbearable, though it here s no distress. From this it is evident that sensitive- to pain is lost in the deeper nerves. That it is also n the skin you perceive. In each patient, if I prick kin, no pain is felt. The prick seems like a touch.

hropathy is not frequent in tabes. It has been said ur in 10 per cent., but I think that the proportion is less. Since tabes also is absolutely uncommon, an nce of the joint affection will come under the notice ly a few of you who engage in general practice. e the importance of fixing its features in your mind error take you unawares. If the symptoms of have not been recognized, the joint may not suggest even a search for its symptoms, and is easily ascribed to pure trauma, to rheumatism, or gout—the more readily because the latter are so often thought to be the cause of tabetic pains. Yet the cases are few in which the error is excusable. A spontaneous arthritis in one joint only should always excite suspicion, just as does bronchitis limited to one lung. When not spontaneous, but excited by an injury, its degree is generally in great excess of the cause, and enlargement of the bones should always suggest this disease. These symptoms are not conclusive, but a practitioner who is in the habit of noting all points, and also of comparing them—a habit which can be acquired—cannot fail to be struck by the absence of pain, or its insignificant degree, in a malady in which movement or simple handling usually causes sharp distress.

Note also, as a symptom especially significant in the early, dubious stage, the thickening of the tissues outside the joint, and often, as we see here, beyond it. It looks like oedema, but it is firmer and may develop rapidly. The increase in the ends of the bones occurs more slowly, and yet is often distinct when the patient first complains of his joint, so little pain is there to make him seek advice. The enlargement is generally irregular, and often so great at spots as to give rise to projections—"osteophytes," as they are termed. It is strange that in spite of this surface growth the substance of the bone becomes rarefied, and less opaque to the Roentgen rays, by a process that the Germans call "*Kalkschwund*," for which we have no English equivalent. Inside the joint, villous projections form and may become loose; the cartilage becomes first roughened and then wastes, and the bony substance may ultimately be exposed and its rarefied texture readily worn down. In the thickened capsule, bony nodules may develop, as in the patient here.

The knee and the ankle are the joints most frequently affected, and next the tarsus. The hip suffers more frequently than the shoulder, the elbow rarely, the wrist and fingers still more rarely. The vertebral column has been thought to be the least frequent seat, but I think it is affected more often than the hand. In the hip the effects produced may be perplexing. The head of the femur generally wastes rapidly when the spongy substance of the bone is exposed, and hence, although the ring of the acetabulum may be thickened, dislocation readily occurs, commonly on the dorsum of the ilium; there is sometimes fracture of the neck. No doubt, as the head of the femur is reduced in size, a great strain is thrown on the ligaments, which yield, and fail to keep the diminished head in place. In the shoulder the changes may be similar and dislocation may occur from the same causes. The compact elbow-joint is seldom affected, unless as the sequel to considerable injury, and then the degree sometimes attained may be great.

The condition in the knee I have pointed out from the case before you. Nowhere else is so high a degree of change so frequent, or osteophytes and osteoid nodules so common. Subluxation, the head of the tibia going back, frequently occurs. But it is important not to mistake for special arthropathy the very common retroflexion of the joint which results from simple stretching of the ligaments. The support to the knee largely depends on the tendons of the muscles that pass by it, and especially on the tendon of the rectus, in which the patella is situated. The support thus furnished depends on the steadiness with which the muscular contraction is maintained; its irregularity in tabes, alternately giving way and overacting, throws undue stress on the fixed ligaments and capsule of the joint. These yield in consequence, and become so stretched that the joint bends forwards in increasing degree (the "genu recurvatum") without any true arthropathy. The affection of the ankle-joint is much more frequent than that of the wrist, and the tarsus more often suffers than the carpus. The finger and toe joints are seldom affected. In association with ulceration of the toes there may be atrophy of the terminal bones of the phalanges. A rare seat for tabetic arthropathy is the spine, usually in the lower dorsal or lumbar region. It may produce considerable thickening of the bones, with displacement and deviation of the spine. Often the latter is due to fracture of the bodies, the result of some traumatic influence, and then crepitation may be felt. Unless the occurrence of spinal dystrophy is known, the condition may be puzzling, but in most cases the primary malady has been already discerned.

The impaired nutrition of the bony tissues which causes "rarefaction," may involve the shafts of the bones as well as their ends, and renders their fracture easy. The man before you, with the tarsal arthropathy, who has also optic nerve atrophy and universal analgesia, has a fracture of both bones of the forearm. It is like a "greenstick fracture" of childhood, and was produced by moderate force in a lesson his son was giving him in the Japanese art of "Jiu-jitsu." More than one fracture may occur in tabetics from falls, and even from strenuous muscular effort; it is often difficult to secure union of the bones.

Similar changes in nutrition occur in one other chronic malady, syringomyelia, and in the minor degrees of spina bifida, which alone survive. Arthropathy is rare, but sometimes characteristic. I have elsewhere [1] described a case in which the shoulder-joint suffered. Cutaneous dystrophy is more common. I was lately asked to see a young man, aged 26, to decide whether his left foot should be amputated. Perforating ulcers began on the toes at the age of 11, and first one and then another toe had to come off until all were gone, and he now had similar ulceration of the ball of the foot. The bones of his ankle-joint were distinctly enlarged. Over the whole of this leg sensibility to pain was almost lost, while a touch was felt everywhere. This isolated loss of pain, as you know, is a characteristic of these defects of development of the cord as well as of tabes. On inspecting the patient's back a huge scar was seen, occupying the whole lumbar region, about 8 in. wide, and on its margin were some of the large coarse hairs which, in this region, often accompany "spina bifida occulta." The lumbar spine seemed duly closed, but I learned that at the age of 8 months a hairy mole had been destroyed there. The trophic and sensory changes in the limb made unilateral defect of development in the cord almost certain, and the characteristic congenital abnormality of the surface removed all doubt. Such a condition is really a variety of syringomyelia, and thus the trophic changes were explained.

These tabetic dystrophies are so mysterious, and the arthropathy is often so great in degree, that we cannot wonder if it seems to need an influence of special nature, a derangement of special nerves and centres. But the fact that these have never been discerned, either positively by their presence or negatively by their absence, compels us to ask whether the theory of their existence and influence is really needed, whether some other mechanism may not induce the changes of nutrition in these diseases of the nervous system. If we scrutinize carefully the conditions under which these local dystrophies occur, we find that there is always some impairment of the nerves of ordinary function, the nerves of motion or sensation. In muscular atrophy the motor nerves have suffered. In tabes we usually have clear evidence of an affection of the sensory nerves, in the defective perception of pain in the skin, that the slightness of pain in the affected joints shows always that the deeper nerves have also suffered. Sometimes the affection of the sensory nerves is very great. In a patient in whom all the teeth fell out, the jaw had become absolutely insensitive to touch as well as to pain. This loss of sensation depends on degeneration of the nerves. We can, indeed, only see this with the microscope when the change has reached a high degree, but it is doubtless effective long before it can be thus discerned. This constant concomitant compels us to consider whether the altered nutrition of the common nerves can be the cause of the altered nutrition of the tissues.*

What can we learn from other changes in nutrition dependent on the ordinary nerves? That in the muscles is particularly instructive. If a motor nerve is simply divided, there is degeneration of the fibres down to the muscle. The muscular fibres undergo very slow wastir so slow that months pass before there is much visit change, and voltaic excitability is long preserved; but the nerve is interrupted by causing irritant inflammatic as by passing through it a thread dipped in a solution chromic acid, the degeneration of the nerve below seems share the irritant character of the lesion, and the proce invades the substance of the muscle fibres. They under rapid granular and fatty degeneration, and in a week or t they lose all excitability, even to voltaism. It is lo never to be regained, for the fibres perish. We see t same difference in cases of anterior poliomyelitis. Usua the degeneration of the nerves is not irritant, and t muscles long preserve their voltaic excitability. But some cases the inflammation seems more intense character and the descending change in the nerv partakes of it, and is such as to cause the rapid degene tive destruction of the muscle fibres I have mention Voltaic excitability ceases in a few weeks, and there is recovery. This transfer of nutritional tendency fr nerve to muscle takes place, although the nerve endi has no direct continuity with the muscular protoplas Just as the intervening sheath does not prevent stimulation of the muscle substance by a nerve impul so it does not prevent the muscle substance sharing nutritional state of the nerve fibre. When this is a qu degeneration, the independent vitality of the muscle see to maintain its nutritional integrity, but it is insuffici to resist a change of invasive intensity. Note this indi tion of a double influence—an inherent vitality an relation to the vital state of the nerve fibres.

The same lesson is taught by the cornea. The pecul relations of this structure render its inherent vitality l readily disturbed by an affection of the fifth nerve, which it depends. The vitality of fibres of the fifth ne is dependent, as you know, on the cells of the Gasser ganglion. As in all sensory nerves, a change in nutrit passes from these cells down the nerve, although it c ducts upwards. Disease of the ganglion or of the nerve front of it readily entails keratitis and ulceration. Dise behind the ganglion has not this effect, unless it is tensely irritant in nature. Then it invades the gangl and damages the cells sufficiently to lead to irritant generation of the fibres in front, and inevitable inflam tion of the cornea and eye. The conditions on which k titis depends are significantly shown in the removal of ganglion for neuralgia. Done, as the operation is, w strict antiseptic precautions, the degeneration of the fil is simple, not irritant. Yet, during the first week or t it is extremely difficult to prevent keratitis. The cor has lost sensitiveness, and dust and other particles fall on it do not excite movement of the eyelids to remove th If the eyelids are fixed together, so as to protect the cor inflammation does not occur. But this is not all, becau week or two after the operation the eyelids may be left a with safety. The cornea is still insensitive; particle dust still fall on it, but have no effect. The danger ex only during the period in which the secondary degen tion is taking place. It is the changing state of the n fibres which renders the nutrition of the cornea so stable. When the process is over, although the los sensation continues, the disturbing influence ceases the inherent vitality of the tissue is sufficient to main its integrity.* The facts surely constitute proof that trophic state is influenced by the transmission to tissues of that of the nerve.

The relation of the cornea to the fifth nerve is a of that which obtains in the case of all the tis of the body except the muscles. Their nutritio related to that of the sensory nerves. In a traum lesion of a mixed nerve, or severe neuritis, the herent vitality of the skin is sufficient to maintai intact, but its nutrition is readily disturbed by ca insufficient to have the same effect in health. You k that in neuritis, hot water, quite bearable to a nor hand, will cause troublesome blisters difficult to h When the deranged nutrition of the nerve has bec stationary, slow chronic change in the nutrition of skin may supervene, as in the familiar "glossy" ski often met with.

---

* Sherrington, in Schäfer's *Physiology*, vol. ii, p. 876, says that "There is no proof of nerves having a special trophic influence. The evidence seems to show that every nerve centre that can influence the proper and specific activity of a tissue possesses in so far a trophic influence on that tissue." He finds (p. 878) a difficulty in trophic influence being in a direction contrary to the ordinary function. But the vitality of a nerve is from its ganglion cell, irrespective of the direction of conduction, and if it is conceived (as maintained here) that the influence on tissue nutrition is simply a communicated state, depending on the vital state of the nerve, and not a transmitted energy, the difficulty disappears.

* The fact that division of the inner fibres of the fifth nerve special effect on the nutrition of the eyeball seems to me to a evidence of trophic nerves only to those who are already sure of existence. So with similar observations on division of the post branches of the spinal nerves.

Some forms of myelitis seem specially irritant. When ese involve the posterior columns, either because trans- r se, or because foci of that specially active form, sseminated myelitis, are seated in these columns, loss of nsation in the legs is attended with an intense ten- ncy to trophic disturbance. The inflammation seems have a strong invasive tendency; it spreads down the sterior roots, overcomes the stability of the ganglia, ubtless invading their structure, and passes down the sterior roots to the structures related to their endings. ence bedsores form on the least excitant; slight pres- re causes a bulla. The eruption of herpes zoster, as you ow, seems to depend on a special form of inflammation the ganglia, and its significance accords with the facts I ve mentioned.

I might multiply these examples, but they are sufficient my purpose. Their indication is that the state of trition of the nerves influences that of the structures ated to them. So far as our present knowledge goes, no er conclusion is warranted than that there is an in- rent vitality of the tissues, but that this is also influ- ced by disturbance of nutrition of the nerve fibres. In case of muscle, the influence is exerted by the motor rves, in other tissues by the sensory nerves. Of the ceral organs I do not speak, for I at least know too little such trophic disturbance in them.

It may be urged, How are we to explain the lessened wth of limbs in infantile paralysis, whether due to nal poliomyelitis or to a cerebral lesion? The question ggests another: If trophic nerves and centres are to be oked to explain this effect, how is the theory to be onciled with the facts that the result occurs equally with sion of the anterior grey substance of the spinal cord l of the motor region of the brain? The problem is made re difficult by the fact that the hindered growth occurs structures the nutrition of which we know to be ependent of the anterior nerve roots. The effect is ated in degree to the early age at which the paralysis urs. It is during the first few years of life that the ef deficiency in growth results from paralysis. Do not se facts suggest that the effect may be directly due to e local interference with the process of growth rather n to an impairment of a nervous influence on nutrition? y not this interference be found in the imperfect roximation of the epiphyses to the shafts of the bones sequent on the muscular paralysis? The loss of er, the cessation of movement and of all muscular traction must change the condition under which mal growth occurs. Even partial loss of power must dify them. It must lessen the stimulus to the general ulation in the limb, and especially it must lessen relation of the epiphyses to the shafts of the bones. s mechanical influence is certainly a condition of the mal development of the cartilage into bone, and its loss st surely have a considerable influence on the process by ch the shaft increases in length. It is said that mere ility to move one leg for six weeks, due to untreated ture of the femur, so that the lower leg was hanging ionless, distinctly influenced the growth of the tibia fibula.[2] We may, therefore, conceive that the drance to the growth of the bones in a paralysed limb be independent of any direct nerve influence. Dis- ance of the circulation may play a minor part in lering the supply of nutrient material, but the old that the vasomotor nerves and the state of the els played a dominant part in producing trophic nges has been long relinquished.

ius the only certain element in tabes with which we associate its dystrophy is the altered state of nutrition he sensory nerves. The only mechanism for the erted nutrition we can conceive which harmonizes other known facts is that this determines an altera- in the processes of nutrition, disturbing that which imarily due to the vitality of the tissues themselves. duces a derangement which, once set up, continues increases. In all cases of tabes there is reason believe there are such changes in the deeper es, and, as I have said, it is very rare to meet a case of pronounced arthropathy in which they are evident in the cutaneous nerves. If this influence ld seem insufficient to produce such colossal results e often meet with, and as I show you here, we must mber how often we meet with vast effects from ences that seem in themselves altogether trivial. It may also be urged that these trophic changes are rare events in cases in which the alteration in the nerves seems the same. This difficulty we must recognize, but should remember also that the precise change in the nerve-endings may vary when its manifestations, in its effect on function, seem to us the same. The effect of slight traumatic influences, in affording the opportunity for derangement of nutrition, may also be variable, and the peculiar distribution of the arthropathy is strong evidence of the frequency of such an excitant, even when unnoted. A local cause is suggested by the fact that usually only one joint is affected, and seldom more than two. It is also possible that rarely a true rheumatic affection may be the excitant. An inflammatory process, however excited, may be, as it were, misguided by the influence of the impaired nutrition of the nerves. Once excited and thus perverted, it progresses, in morbid form, growing more and more, to such results as you see here.

The slighter changes in the skin and its appendages, and the obstinate ulceration which is usually set up by the unwise use of a knife to a corn, are open to the same explanation. The normal processes of healing are defective by reason of the deranging influence of the altered nerves, and healing is hindered in proportion; but it is rendered difficult by another cause, the effect of which we seldom adequately recognize—the secondary result of the absence of pain. In consequence the parts are kept under influences which give the tissues no chance.

If better conditions are secured, the independent vitality of the tissue will generally suffice, except in the active stage of nerve disturbance, as in myelitis. If arthropathy has gone far, the changes are such that they cannot retrocede, but a perforating ulcer generally heals if pressure, motion, or mechanical congestion are prevented. Some time ago I was anxious to test the influence of electricity on these ulcers. To test an agent effectively it must be the only new condition introduced into the state of the morbid process to be dealt with. Every case of perforating ulcer was therefore kept at rest, and the ulcer carefully dressed and kept clean, in the expectation that it would soon become stationary, and refuse to heal; then electricity could be tried fairly. But the attempt had to be given up. In every case the ulcer was healed in a fortnight, although it had gone on for months while the patient was walking about, and the ulcer had been continually exposed to mechanical disturbance and mechanical congestion.

In like manner, although not in the same degree, even tabetic arthropathy would, I am sure, often be arrested if wisely dealt with in its early stages. The malady varies so much in character that it is unwise to be dogmatic, but I believe that most cases begin as a slight acute process, whether due to a traumatic influence or not, and much may be done to promote its subsidence by rest and the measures suited to any acute arthritis; but these measures are scarcely ever adopted or thought of. The malady is painless, and scarcely attracts even the patient's notice until enlargement becomes obtrusive. Then, too often tissue changes are established which have a tendency not only to persist but to spread. If considerable effusion is the chief element, it may need aspiration followed by elastic compression, which, even alone, has often a great influence on such cases. How considerable an effect may be obtained by suitable measures was shown by a patient in the first stage of tabes, but with definite analgesia, who presented enlargement of the left knee, ascribed to over-walking. The enlargement was chiefly of the head of the tibia, and made its circumference exceed that of the right by an inch. Although complete rest could not be secured, under relative rest and an elastic bandage the difference was reduced to half an inch, and a year later there was no sign of increase.

The conditions which would not prevent the recovery of a joint with normal nerves may be persistently harmful to one that is inflamed, however slightly, in a subject of tabes. The absence of pain permits the perpetuation of harm, and is to us a grave misfortune. With pain to emphasize our advice we can often secure rest when it is needed; without it, we too often fail. It is seldom recognized how good a friend pain may be to those who suffer it.

REFERENCES.

[1] Syringal Haemorrhage into the Spinal Cord. Lectures, Series II.
[2] Kawka, Aertz Ver. Hamburg. *Neur. Centralbl.* 1902, p. 372.

THREE CASES OF RUPTURED UTERUS TREATED BY ABDOMINAL SECTION AND SUTURE.

BY W. HARRISON CRIPPS, F.R.C.S.,

SENIOR SURGEON TO ST. BARTHOLOMEW'S HOSPITAL AND SURGEON TO THE WOMEN'S WARD.

THE following cases were admitted into the hospital under the care of Dr. Champneys, and transferred to me for operation. For the excellent notes I am indebted to Dr. H. Williamson and Mr. Harold Wilson during their terms of office as Intern Midwifery Assistants at St. Bartholomew's:

CASE I.

A. E. P., aged 44, a multipara, was admitted on the morning of August 14th, 1898.

History of Present Illness.

The child (a vertex presentation) had been born with the membranes intact, a somewhat diffuse placenta being spread out over the fetal head, so that the case was one of placenta praevia. The patient, when first seen, was bleeding freely from the vagina. She was admitted into hospital two hours later.

Condition on Examination.

The general condition was bad; she was much collapsed and sweating freely, but did not complain of any pain. There was marked anaemia. The pulse was 150, and small; the temperature subnormal. A hand introduced into the uterus found intestines and omentum in its cavity, and a large rent in its right lateral aspect. There was movable dullness in both flanks, but no actual external haemorrhage at this time.

Operation.

The abdomen having been opened in the middle line by an incision 5 in. in length, the peritoneal cavity was found to contain a very large quantity of recent blood, which was derived from an extensive tear in the uterine wall. The rent, which was situated on the posterior aspect of the organ, close to its right lateral margin, included the entire length of the cervix, passing upwards for a couple of inches or so into the lower uterine segment and downwards into the upper aspect of the vagina. The raw surfaces were oozing freely. The uterus was brought up into the wound and the rent repaired by three silk sutures passing through the entire thickness of the muscular wall. After the peritoneal edges of the tear had been approximated with fine silk and the pelvis thoroughly sponged out, it was thought advisable at the time to irrigate the general peritoneal cavity with hot sterile water, and the abdomen was then closed as quickly as possible. Unfortunately the patient stood the operation exceedingly badly, and collapsed on the table immediately after the last suture had been inserted.

Necropsy.

Post-mortem examination verified the condition of affairs found at the operation, and in addition many of the organs, especially the liver and heart, were seen to be in a state of "fatty degeneration." On section, the uterine wall showed evidence of considerable fatty infiltration of the muscular fibres.

CASE II.

A. C., aged 34, a multipara, was admitted June 23rd, 1905. She had had six children (twins in 1904) and one miscarriage. All previous labours had been uncomplicated.

History of Present Illness.

Labour began at 8 p.m. June 21st. She was attended by a midwife, who diagnosed a breech presentation. The pains were strong and frequent. At 3 a.m. on June 22nd she was suddenly seized with a severe tearing pain in the right side of the abdomen. She began to bleed a little and felt faint; the pains ceased. At 10 a.m. on June 23rd a medical man was called in. He found a foot presenting and no pains; a leg was brought down, and after a short interval a dead child was delivered easily. The placenta quickly followed, and then a hand introduced found coils of intestine in the vagina.

Examination on Admission.

At 2 p.m. on June 23rd the general condition was good—there were no signs of anaemia or distress; the pulse was 92, full and regular; the temperature 101°; the abdomen was somewhat distended and resistant, and movement below the umbilicus was restricted. On the left of the hypogastrium, reaching almost to the navel, was a rounded body like the contracted uterus; both flanks were resonant. The cervix was widely dilated. A rent 2½ in. long was found running upwards from the os externum, and involving the right vaginal fornix. Coils of intestine were protruding through this, but after irrigation with weak biniodide solution, it was found possible to replace them in the abdominal cavity.

Operation.

The abdomen was opened by median incision. The peritoneal cavity contained a good deal of recent blood and clot, and the uterus was found well contracted, but ruptured on its right postero-lateral wall, between the layers of the broad ligament. The tear, which was about 4 in. in length, affected the whole thickness of the uterine wall, and extended from the vaginal fornix, which was involved, upwards to nearly the site of origin of the Fallopian tube. In a line corresponding roughly in extent to this, the anterior layer of the right broad ligament had also given way. The caecum and several coils of small intestine, which were found prolapsed through the rupture and partially strangulated, were withdrawn into the abdomen; they appeared reddened and injected. The patches of degeneration were seen on the torn surfaces of the uterine muscle, and the wall of one considerable sinus was exposed although no active haemorrhage was going on at that time.

There was a large quantity of blood clot between the two layers of the torn broad ligament, and blood had forced its way beneath the peritoneum covering over the lower uterine segment, marking out clearly the line of firm peritoneal attachment.

The edges of the tear were brought together by strands of No. 2 silk passing through the entire thickness of the uterine muscle, and the interior of the uterus having been drained vaginally by a rubber tube, the sutures were tied. A few fine silk sutures were also inserted, and the torn anterior layer of the right broad ligament was fixed to the peritoneal edge on the right margin of the uterus by several Lembert sutures The peritoneum was sponged out and the abdomen closed.

After-history.

The patient made a perfect and uninterrupted recovery; an examination was made on July 21st. There were no signs of contracted pelvis. The fundus of the uterus was freely movable at the pelvic brim. In the right lateral fornix, stretching outwards and backwards from the cervix, was a scar in the vaginal roof.

CASE III.

C. H., aged 36, a multipara, was admitted on January 31st 1906. She had had seven children and two miscarriages previous labours had been easy.

History of Present Illness.

Labour commenced early on the morning of January 30th She was attended by a midwife in the earlier part of labour At 6 p.m. the pains became more intense; at 9.30 p.m. she experienced a sudden severe pain, and no subsequent pains and became collapsed. At 9.45 p.m., when first seen, the head was on the perineum. Extraction by forceps was easy. The child was dead. (Presentation = vertex (L.O.A.) Intestines were found in the vagina.

Examination on Admission.

She was admitted into hospital at 12.30 a.m. on January 31st The general condition was fairly good; she was pale and restless, the pulse 100, was of fair volume and tension; the temperature 98°.

The abdomen presented a peculiar keel-shaped appearance with a vertical ridge in the linea alba. There was considerable flatulent distension, movements were impaired, and there was general tenderness; the uterus was not palpable. The right flank was dull, but the dullness was not affected by position.

There was no external haemorrhage; the cord was hanging out of the vulva, the external os was rigid, only admitting two fingers.

Chloroform was administered, and the external os was dilated digitally until the hand could be passed into the uterus, which was found well contracted and empty, with a large rent on its right anterior aspect. The cord was then made taut by an assistant, and the hand passed easily through the tear. By following the cord the placenta was localized in the right hypochondrium; it was seized laterally, delivered, and the uterine cavity and rent packed with gauze.

Operation.

Later the abdomen was opened in the middle line. A fair amount of free recent blood was found in the peritoneum, and the uterus was at once seized and partially delivered through the wound. It had a large tear extending from immediately below the fundus to the neighbourhood of the internal os. This rent commenced on the right anterior aspect of the organ passed downwards and outwards to the right uterine margin, and then vertically downwards through the substance of the blood-infiltrated right broad ligament. The uterus was contracted, and the edges of the rupture much everted, so that a good area of mucous membrane was exposed to the abdominal cavity.

The packing from the uterine cavity having been removed the rupture was rapidly repaired by eight No. 2 silk sutures passing through the entire thickness of the muscular wall care being taken to invert the edges as the sutures were tied After a few fine silk sutures had brought the peritoneal aspect into close apposition, all obvious blood was sponged out of the pelvis and the abdomen closed.

After-history.

The patient made a complete and uninterrupted recovery There was no contraction of the pelvis.

Rupture of the uterus is comparatively rare. The hree cases recorded are the only ones admitted into the omen's wards, St. Bartholomew's Hospital, during the ast ten years.

It has been stated that such an accident may be ecovered from without surgical interference. This may e true occasionally; indeed, there is scarcely an accident the human body however severe that may not be urvived.

As regards rupture of the uterus, the point is whether ıe patient has a better chance with or without an operaon. Undoubtedly in Cases I and II the patient would ave had no chance; in both cases a considerable amount intestine had prolapsed into the uterine cavity, and ıen, owing to the contraction of the muscular walls, had ecome hopelessly strangulated.

In Case III at least a fourth of the mucous membrane of ıe uterus was everted through the laceration, and there- re would have prevented the spontaneous closure of the nt. The desirability of operating promptly after the cident has been discovered is shown in the cases corded.

The first case had been left so long that the patient had ıt sufficient vitality left, and died on the table. The o other cases, operated on earlier, did well, giving no ıxiety. The first case was operated on ten years ago, at time when the cleaning out of all débris and blood clot as considered essential; such a "toilette" is not neces- ry, and certainly should not have been undertaken in e patient's collapsed condition. In recent years I hardly er wash out or use a drainage tube, experience owing that blood left in the abdomen does little or no rm.

THREE CASES OF TUBAL PREGNANCY.*

Y C. HAMILTON WHITEFORD, M.R.C.S., L.R.C.P.,

PLYMOUTH.

SES of tubal pregnancy are not very uncommon. In course of fourteen years' attendance on hospital prac- e I have seen 20 examples in addition to the 3 recorded low, and know of at least 6 other cases occurring in the vate practice of my friends.

Pain and haemorrhage are usually the first indication ıt there is anything amiss, consequently it is not the geon but the general practitioner who first arrives on scene, and on whose recognition of the gravity of the e the life of the patient frequently depends.

The following cases markedly contrast with each other, l illustrate three of the recognized conditions which y be produced by rupture of or haemorrhage from a gnant tube:

CASE I.

istory.—A woman, aged 24, was seen in consultation with R. H. Clay. She had been married seven years. There e two children, aged 6 and 5 years, and no miscarriages. nstruation had been regular for five years up to thirty s before the date of the consultation, when the period due ed to appear; eleven days previously she suffered pain the vagina and rectum; eight days previously the pain reased, and a little blood was lost per vaginam; four days viously diarrhoea occurred, with the passage of a few blood s by the vagina; one day previously the diarrhoea was mpanied by pains resembling those of labour.

iagnosis.—When first seen in the morning the abdomen slightly distended and tender, with an indistinct sense of stance above the pubes. It was resonant except in the ks, where dullness, not affected by change of position, was t marked on the left side. On vaginal examination the us, of normal size, was found low down, close behind the es. The cervical canal was closed. In Douglas's pouch a smooth, very tender, mass, resembling an ovary. The of the pelvis felt full and boggy. On rectal examination same boggy mass was felt. The upper rectum was con- ted. The lips were somewhat anaemic. The pulse was and the temperature 101°. A diagnosis was made of ure of a pregnant tube, with coagulation of the effused d.

eration.—When seen later at 9 p.m. abdominal pain was severe, and not relieved by morphine; the lower abdomen much more distended. The temperature was 103°, and the e 134. The face was drawn, and the breath had the sweet ll frequently associated with sepsis. I considered that the d in the abdomen was becoming infected, and that possibly sh haemorrhage was taking place, and therefore decided mmediate operation. At 1 a.m. I opened the abdomen by ıcision 6 in. long through the right rectus. The omentum and small intestines were partly adherent to the pelvic contents. On separating these adhesions handfuls of dark clot and fluid blood appeared. The right ovary and Fallopian tube, which was ruptured at its centre, were removed. At this stage the anaesthetist reported that the radial pulse had disappeared. The omentum had several clots incorporated with it, as had also the rectum and uterus. These clots were so adherent that they were left. Before tying the last suture in the abdominal wall, 5½ pints of warm saline solution were poured into the abdomen through a funnel and tube. This improved the patient slightly, but failed to restore the radial pulse. No superficial vein being visible, the venae comites of the right brachial artery were exposed in the middle of the arm. These veins were so small that it was impossible to introduce a cannula. The incision was then prolonged up to the fold of the axilla, where the veins united, and into this vein 8½ pints of hot saline solution, with 1 oz. of brandy, were injected.

After-history.—The patient had no sickness, slept fairly, and passed 1 pint of urine during the night and 4 pints of urine in the twenty-four hours following operation. Recovery was steady, the pulse rapidly slowed, and on the twenty-fifth day was 78. Recovery may be attributed to the large amount of fluid injected, 1¾ gallons in all, which in the first place relieved shock and afterwards enabled the emunctories, especially the kidneys, to dispose of the poison, and to the very able assistance which enabled me to complete the operation, which was performed in a small cottage, in just over the hour.

CASE II.

History.—The patient, a married woman, aged 23, was seen in consultation with Dr. C. P. A. Mariette. She had two children. She had missed her last period. Thirty-six hours before being seen, shortly after taking a dose of salts, she was seized with abdominal pain, faintness, and convulsions.

Diagnosis.—When seen the patient was found blanched, with a distended abdomen, and a thready pulse. A diagnosis was made of rupture of a pregnant tube, with haemorrhage into the general cavity of the peritoneum.

Death.—Immediate operation being imperative, this was commenced at 10 p.m. A minute quantity of chloroform and ether was given, followed by infusion of saline solution and strychnine into the right brachial veins, preliminary to coeliotomy, but death took place soon after the commencement of the infusion. No abdominal incision was permitted.

CASE III.

History.—This patient, seen in consultation with Dr. J. J. Blagden, was a married woman, aged 34. She had one child 5 years old, and no miscarriage. She had passed through two attacks of rheumatic fever. The patient complained of a painful swelling in the left side of the abdomen. The last period took place five months ago. Eleven weeks ago she was taken suddenly ill with shivering, accompanied by pain in the left iliac region. This was attributed by the patient to a chill. She saw a medical man, who is reported to have told her that the womb was displaced, and that she must lie in bed in one position for three weeks. At this time, having previously been regular, she had missed three periods. After a week or two a tumour was noticed in the left iliac region; the swelling became large and tense, so that extension of the left leg caused pain. Six weeks ago something seemed to burst, and for twenty-four hours there was a large flow of blood from the vagina. The loss of blood then ceased, and the iliac swelling was noticed to have almost disappeared. Her then medical attendant called another medical man in consultation, as the result of which the patient states that she was told that she had a pregnancy outside the womb, but fortunately this pregnancy had been discharged through the womb. The patient had been up on a couch daily, and a week ago had gone out for a drive. During the last fortnight the tumour had again increased in size and was larger than before. The patient, who was becoming weaker, suffered severe pain. At this time she changed her medical attendant and called in Dr. Blagden.

Diagnosis.—The temperature was normal and the pulse 90, of fair volume and tension. Nothing abnormal was discovered in the heart. On the left side, rising from the pelvis to the level of the umbilicus and extending 2 in. to the right of the middle line, was a tense rounded tumour, the size of a cocoanut, tender on palpation, and giving a thrill and dull note on percussion. On vaginal examination the uterus was found to be pressed downwards and to the right by a globular swelling apparently continuous with the mass in the abdomen. A diagnosis was made of rupture of a pregnant tube with continued development of the pregnancy, probably between the layers of the broad ligament.

Operation.—In view of the increasing weakness and continued pain operation was decided on. An incision 6 in. long through the left rectus was made over the most prominent part of the tumour. The divided tissues were extremely vascular. The distended, very tense broad ligament was exposed. In the right side of the pelvis the softened uterus was felt enlarged to twice its normal size. The broad ligament was incised, the placenta being on the surface of the tumour; this incision extended through the placenta. Liquor amnii escaped freely, and a living fetus of 4½ to 5 months' development was extracted, the cord being ligatured and dropped back in the sac, which was then packed with gauze. Haemorrhage from the placenta was free but not excessive. No vessels, except those of the cord, required ligature during the operation. The edges of the sac were fixed to the abdominal parietes with a continuous catgut suture. The upper and lower 1½ in. of the abdominal incision were closed by mass sutures of silkworm gut. At the end of the operation, which lasted an hour and a quarter, the patient was nearly pulseless. No superficial vein being visible the deep brachial veins were exposed in the upper arm, and 4 pints of hot saline with ½ oz. of brandy were injected; hypodermic injections of strychnine were also given.

---

*Being part of a paper read before the South-Western Branch of ritish Medical Association.

Death.—The patient completely recovered consciousness with a slow, steady pulse; but three hours after operation the pulse again failed, and, in spite of stimulation, death occurred five hours after operation.

COMMENTS.

Case I is an example of the common variety, in which, after rupture of the tube, the blood, being slowly and intermittently poured out, is limited to the lower abdomen by adherent omentum and intestines, from which are derived the bacteria which infect the blood clot. Portions of blood clot found to be incorporated with the peritoneum covering the pelvis and viscera should not be disturbed. Their complete removal is impossible, while partial removal only injures the peritoneum, which, if left undisturbed, is quite capable of dealing with these adherent clots. The majority of cases of this class recover after removal of the affected tube and the loose coagula.

Case II exemplifies the fulminating type of haemorrhage following rupture. I have on several occasions noted the fact that some strain or extra exertion—in this case the result of a purgative—has immediately preceded the rupture. In some instances strong purgatives have been taken in order to produce abortion.

Case III illustrates what is probably the most usual condition found after rupture of the tube, not involving the death of the fetus, which continues to develop between the layers of the broad ligament. Operation was performed in this case because pain was continuous and the patient was daily becoming weaker. Death from cardiac failure could only be attributed to the shock of the operation on an already enfeebled patient.

Haemorrhage during the operation was moderate, and quite insufficient of itself to account for the fatal issue. Operation gave the patient her only chance, but should have been performed at least two and a half months earlier.

NOTES OF A CASE OF REPEATED EXTRA-UTERINE GESTATION ON THE SAME SIDE.

By ALEXANDER GOODALL, M.D., F.R.C.P.EDIN.,
MEDICAL CLINICAL TUTOR, ROYAL INFIRMARY, EDINBURGH.

THE following case is of interest not only because extra-uterine gestation occurred twice on the same side, but owing to the comparatively early period at which rupture occurred in both instances (seven weeks and five weeks respectively), and the rapidity with which the tube must have again become pervious after the first rupture.

A woman, aged 33, complained on March 26th, 1905, of pain in the back and hypogastric region, and of a slight haemorrhagic vaginal discharge. She had suffered from a "nervous breakdown" two years previously. Menstruation had occurred regularly every twenty-eight days and lasted four days, and had never given rise to any discomfort. She was married in November, 1904. Menstruation took place about the end of January, 1905, and had not recurred. On March 25th she began to feel indefinite pain in the abdomen, which gradually became more severe, and a vaginal discharge began the following afternoon. On March 27th the discharge was more profuse and some blood clots were passed. Vaginal examination revealed a slightly enlarged uterus, with a patulous cervix almost admitting one finger, and low down in the right inguinal region there was a rounded, non-pulsating tumour about the size of an orange, suggesting the possibility of either an extra-uterine gestation or a fibroid tumour. As the symptoms were indicative of abortion, the cervix was dilated and an attempt was made to empty the uterus, but only pieces of a thickened mucous membrane were brought away. For the next fortnight the patient was treated with hot fomentations and corrosive sublimate douches, and the discharge gradually lessened. Pain in the right inguinal region persisted, and the tumour seemed unchanged. On April 9th Dr. Haultain saw the patient in consultation, and thought that the case was one of extrauterine gestation, although there was a possibility that the tumour might be a fibroid. As pulsation was absent, it was thought safe to co tinue palliative measures, and at Dr. Haultain's suggesti an icebag was applied over the tumour. The benefit followi its use was most striking, as within a few hours of its applic tion all tenderness and pain had disappeared; after this t tumour began to diminish in size. On April 21st Dr. Haulta again saw the patient; it was now found that the tumour cou no longer be palpated externally, and on vaginal examinati all that could be made out was a thickening of part of the rig Fallopian tube near the uterus to an extent not exceeding t diameter of a man's thumb. By May 1st this thickening h diminished considerably, and all symptoms had disappeare There was now practically no doubt that the condition h been one of ruptured extrauterine gestation. Menstruati returned in June, and occurred once a fortnight till Augu when it resumed its normal type.

I was again asked to see the patient on January 12th, 19 Menstruation had occurred in the last four days of Novemb and had been scanty. No period occurred in December. January 9th a slight vaginal discharge took place. Next days had a bad attack of abdominal pain and diarrhoea, and wh seemed to be an ordinary menstrual flow began. On Janua 12th a tumour, closely resembling that found during the fi illness, was discovered in practically the same situatio although it seemed in closer relationship with the uter which was again slightly enlarged. The cervix was soft. icebag was again applied, and hot douches twice daily we ordered. On January 15th a complete cast of the uterus ca away while a douche was being administered. This w examined microscopically in the laboratory of the Ro College of Physicians, and found to be a decidua. Fr February 18th to 23rd a very profuse brown discharge to place, and then completely stopped. The tumour rapi decreased in size, and on March 9th a thickening of the rig Fallopian tube, giving the impression of a swelling about t size of a small walnut, in close relationship to the uterus, w all that could be made out. On March 18th a normal menstr period began.

My impression is that the second ovum had reache point nearer the uterus than the first, and the patient of opinion that the second "lump" was lower down th the first. The question of operative treatment has be considered, but the patient and her husband are averse that course; and, in view of the favourable outcome both occasions, I do not feel justified in strongly insisti upon it. The patient has, of course, been warned ab the urgency of seeking medical advice regarding occurrence of even apparently trivial symptoms. T application of an icebag on both occasions made all difference between acute suffering and comparat comfort.

A CASE OF PUERPERAL SEPTICAEMIA D TO THE DIPLOCOCCUS PNEUMONIAE.

BY
G. BELLINGHAM SMITH, M.B., B.S.LOND., F.R.C.S.ENG., ASSISTANT OBSTETRIC PHYSICIAN, GUY'S HOSPITAL.
and
N. I. SPRIGGS, M.D., B.S.LOND., F.R.C.S.E LATE OBSTETRIC RESIDEN GUY'S HOSPITAL.

OWING to the rarity of recorded cases of puerperal fe in which the presence of the *Diplococcus pneumoniae* been established, we have thought the following c worthy of a detailed report:

Jane B., aged 24, was delivered on June 16th, 1905, in p surroundings, of a male child.

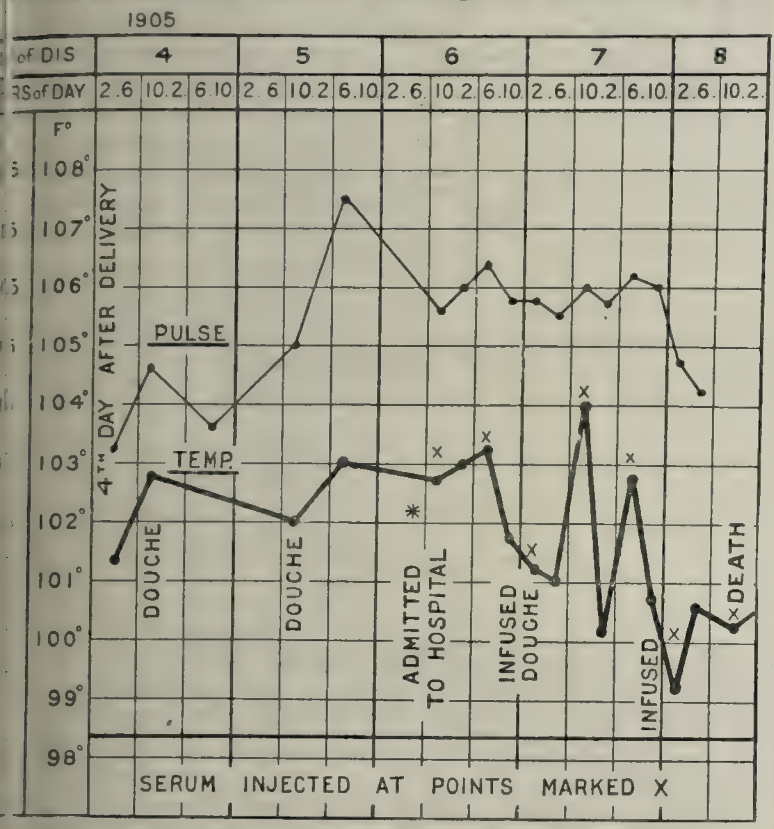
She had had two previous children, healthy, and born full term.

A single examination was made, some hours before lab commenced, the usual precautions being taken. The midwif attendant was not present at the birth of the child, but th seems to have been no difficulty. The child was full t and alive.

The temperature remained normal till the fourth day a delivery (June 20th), when it ran up to 102.8° F. and the pu rate to 130. On vaginal examination the os was patulous, nothing abnormal was felt. The uterus was more than usu tender, the lochia and milk were suppressed, and there constipation. The uterus was washed out with lysol, quinine administered.

On June 21st the temperature was still high, 102° F., and pulse-rate was 135. The abdomen was slightly distended, towards evening vomiting commenced. The patient refu to come into the hospital, so a further douche was given. purge followed by an enema resulted in a free movemen the bowels. On examination of the chest a few fine crep tions were heard at the base of the left lung behind, and question arose as to whether the patient was not suffe from pneumonia rather than puerperal fever.

On the following day (June 22nd) she was admitted to G Hospital. On admission the temperature was 102.8°, e 148, and respirations 48. The abdomen was slightly ended, but not rigid ; it moved on respiration, and there very little tenderness on pressure. There was continual iting of brownish fluid, offensive but not faecal in odour. had diarrhoea with very foul motions. The patient comned of pain down the left side of the trunk, and crepitas were heard at the base of the left lung. The uterus was very slightly tender bimanually, and the os was patulous. e was still neither vaginal discharge nor secretion of milk.



ypodermic needle was inserted into the median cephalic and a sample of blood drawn off for bacteriological ination ; 20 c.cm. of antistreptococcic serum (Burroughs Wellcome's polyvalent) were injected at noon, and the s was washed out with mercury perchloride (1 in 2,000). .m. the condition was practically the same—the serum roduced no effect ; 30 c.cm. of serum (Lister's) were in-l. At midnight the temperature had fallen a degree, to the pulse, however, keeping at 140, and the respirations As the vomiting and diarrhoea still persisted, a pint of was injected into each axilla. A further dose of serum iven (20 c.cm. Burroughs and Wellcome), and strychnine ed champagne ordered.

e 23rd. The temperature, which fell in the night to 101°, ly rose again, and was 104° at 10 a.m. There was very alteration in the pulse-rate, which ranged between 140 48, or in the respirations, which kept steadily at 48. The ing and diarrhoea ceased Crepitations were now heard h bases. During the day 30 c.cm. of Lister's and 20 c.cm. steur's serum were injected.

ards midnight vomiting and diarrhoea again set in, and ulse, though not more rapid, was markedly feebler. A r dose of serum was given (20 c.cm. Lister's), and 2 pints ine were infused into the median cephalic vein (the being directly inserted through the skin). Also three of saline were infused subcutaneously.

e 24th. The patient became delirious and was evidently The temperature had fallen to 99°, but the pulse and ations maintained their previous rate. The diarrhoea miting again ceased, as the result, perhaps, of 20 min. of i given every night. Râles could be heard at both bases , though there was a fair entry of air on each side. er 20 c.cm. of serum was administered at 10 a.m. After he patient became rapidly worse, injections of digitalis, nine, and adrenalin failed to rouse her, and she died at .m.

ediately after death the needle of a hypodermic syringe serted into the chest at the position of the heart apex w off some blood for examination. Some pericardial was first drawn off, but on inserting the needle at a level and nearer the sternum, some heart blood was awn. Both specimens were saved for bacteriological ation.

he autopsy, made June 26th, all the organs were very altered by *post-mortem* changes, the weather being The interior of the uterus was shreddy, but otherwise . There were no placental remains, nor any pus in it. ritoneum showed no evidence of inflammation. There few ounces of fluid in the pericardium. No pleurisy und, but there was some oedema of the bases of the to which the crepitations heard are to be attributed.

eriological examination made by Dr. Eyre, Bacterio-o Guy's Hospital.

e blood drawn off from the vein on June 22nd was ed, and an organism was found which morphologically led the *Diplococcus pneumoniae.* Cultivations made he blood were typical of this organism. On June 27th a loopful of the growth on blood agar was inoculated into the peritoneal cavity of a rabbit. The animal died forty-eight hours later, and an examination showed that this was due to acute pneumococcic septicaemia.

2. Cultivations were made from the pericardial fluid and heart blood drawn off immediately after death on the 24th. From both these pure cultures of the *Diplococcus pneumoniae* were obtained. A rabbit inoculated on June 28th died on June 30th from acute pneumococcic septicaemia.

This case is open to criticism at one point, and that is the absence of any bacteriological examination of the interior of the uterus. The local signs were certainly never strongly marked, and at first the question of pneumonia was raised. However, beyond the crepitations due to oedema at the bases of the lungs, no further pulmonary signs or symptoms developed, and the autopsy failed to disclose any point of entrance for organisms other than the endometrium. The whole course of the illness, with its suppression of lochia and milk, dirty tongue, vomiting, diarrhoea, etc., was typical of puerperal septicaemia.

In 1903 Mr. Foulerton and Dr. Bonney[1] first drew attention in this country to primary infection of the puerperal uterus by the *Diplococcus pneumoniae.* In that year they brought before the Obstetrical Society the case a patient who died of pneumococcal septicaemia. The organism was cultivated from the material obtained from the interior of the uterus, no examination being made of the body fluids either before or after death. Abroad, Weichselbaum in 1888, Bar and Tessier in 1896, and Colin in 1899 had demonstrated the presence of this organism in puerperal cases.

Since their first case, Mr. Foulerton and Dr. Bonney,[2] in the course of a systematic examination of cases of fever after miscarriage and labour, have found this organism in three more cases; whilst from two other cases they have isolated an organism which they have little doubt is the *Diplococcus pneumoniae.* Experiments on animals in these two cases failed, and so they do not regard the organism as being absolutely identified. It is worthy of note that, in one of the latter cases, the patient was attended by the same practitioner who had been in attendance on one of the cases in which the identity of the organism was absolutely proved.

These 6 cases were met with in an examination of 54 cases of fever following miscarriage or labour at full term, in 39 of which bacteria, of one kind or another, were found. From this one would draw the conclusion that pneumococcal infection of the puerperal uterus is not a very rare event, were it not for the fact that many other observers have failed to record a single case. Neither Kronig in 179 cases, Whitridge Williams in 151, nor Vogel in 24 cases met with an instance of this infection; but doubtless in many cases of mixed infections the *Diplococcus pneumoniae* has not been identified, unless specially sought for.

In none of the cases above alluded to was the organism cultivated from the blood during life or immediately after death, so far as we are aware.

It is worthy of note that Doyen found the *Diplococcus pneumoniae* in the healthy vagina in one case; and Mr. Foulerton and Dr. Bonney, in an examination of the discharge from the cervix of thirty non-pregnant women, found an organism which, in every particular except pathogenicity to the lower animals, resembled the *Diplococcus pneumoniae.*

On the other hand, Whitridge Williams[3] has examined a series of ninety-two pregnant women, with an elaborate technique to avoid accidental contamination, and has only found non-pathogenic organisms, and hence concludes that "auto-infection" does not occur.

Certainly in this case no claim can be made to auto-infection, as an examination was made within a few hours of the birth of the child, but the possibility of such infection was brought to the notice of one of us recently in the case of two patients who died from puerperal septicaemia. In both of these the child was born before the arrival of the attendant, and it was stated definitely that in neither case was any vaginal examination made, nor had any difficulty been experienced in the expression of the placenta.

So far as clinical symptoms are concerned, this illness ran a severe and rapid course; the temperature rose on the fourth day after delivery, and the patient died on the eighth day. We find no particular features, either in this case or in the others recorded, which would indicate infection by the *Diplococcus pneumoniae* rather than by other forms of organism.

As might be expected, the treatment by antistreptococcic serum was without any appreciable result on the course of the illness. Though the temperature fell slightly after the injections, the pulse and respirations were not affected. The identification of the *Diplococcus pneumoniae* was only completed by the result of the inoculation experiments, and so came too late to modify the vigorous antistreptococcic treatment pursued.

REFERENCES.
[1] *Obstet. Trans.*, vol. xlv, 1903, p. 128. [2] Ibid., vol. xlvii, 1905, p. 11. [3] *Trans. Amer. Gyn. Soc.*, 1898, p. 141.

A NOTE ON THE ETIOLOGY OF GRANULOMA PUDENDI.

BY K. S. WISE, M.B.,
BACTERIOLOGIST TO THE COLONY OF BRITISH GUIANA.

THOUGH granuloma pudendi is extremely prevalent in British Guiana, the first adequate clinical description of it, by Conyers and Daniels,[1] only appeared in 1896. Later this was added to by Daniels,[2] Ozzard,[3] and Fowler,[4] and the disease has now acquired a position in manuals on tropical diseases, Galloway,[5] in 1897, describing the pathological characters of the lesion. Though a better knowledge of the disease has shown it to occur in the New Hebrides, Solomon Islands, New Guinea, India, and North Australia, a particular causative factor has not been discovered.

During the past few weeks in British Guiana I have had an opportunity of examining cases of granuloma pudendi, and in three successively have demonstrated spirochaetes.

CASE I.—An extensive granuloma in the height of its activity, spreading up into the groin. Excised by operation. Smears made from the growth, just superficial to its fibrous base, but yet well below the surface, showed many spirochaetes when stained by Leishman's method. These were short and much resembled the *S. refringens*. On staining by Giemsa's method, others were visible; some of these presented a different character, having closer-wound spirals and being straighter and more rigid than the above. They were more like the *S. pallida*, yet, so far as I could remember from specimens seen recently in England, not exactly similar.

CASE II was almost exactly similar in the number of spirochaetes, their distribution, and reaction to stains.

CASE III is more interesting, in that extremely few spirochaetes were found when staining by Leishman's method, though always of the *refringens* type. Giemsa's method, on the contrary, demonstrated not a few of the closely-twisted spirilla which I have mentioned above.

All three cases were in black women, natives of British Guiana.

The readily-stained spirochaete, I have little doubt, is *S. refringens*. The second spirochaete gives cause for hesitation. If it be the *S. pallida*, this fact strongly supports the view of the minority that this granuloma is a manifestation of syphilis. However, in the present state of knowledge it is useless to speculate on the identity of spirochaetes.

I hope to pursue the subject later and forward a further report indicating its distribution, with the result of inoculation and cultivation experiments.

REFERENCES.
[1] Conyers and Daniels, *Brit. Guian. med. Ann.*, 1896. [2] Daniels, ibid., 1898. [3] Ozzard, ibid., 1898. [4] Fowler, ibid., 1899. [5] Galloway, *Brit. Journ. of Dermat.*, 1897.

A NOTE ON SYPHILIS AND CANCER, ETC., AND ON SOME PROTOZOA.

BY J. JACKSON CLARKE, M.B.LOND., F.R.C.S.,
SURGEON TO THE NORTH-WEST LONDON HOSPITAL, ETC.

Syphilis and Spirochaetes.

THE recent discovery of mobile spirochaetes in the primary and secondary, cutaneous and glandular lesions, and in some tertiary lesions of acquired syphilis, and in the skin and viscera of congenital syphilis, is of the highest interest in pathology. Dr. Schaudinn's[1] description of the *Spirochaeta pallida* of syphilis needs no confirmation, coming as it does from one of the ablest of modern protozoologists; but if confirmation were needed, it has had it amply. The organism (Fig. I, 4 and 5) is characterized the numerous (10 to 26) spiral turns and by their p manence, as well as by its physical properties, whi include a l power of fracting lig whence t name "pallid The commo spirochaet such as t *Spirochaeta* *fringens* (Fig 3), possess t spiral form o when in mo ment.

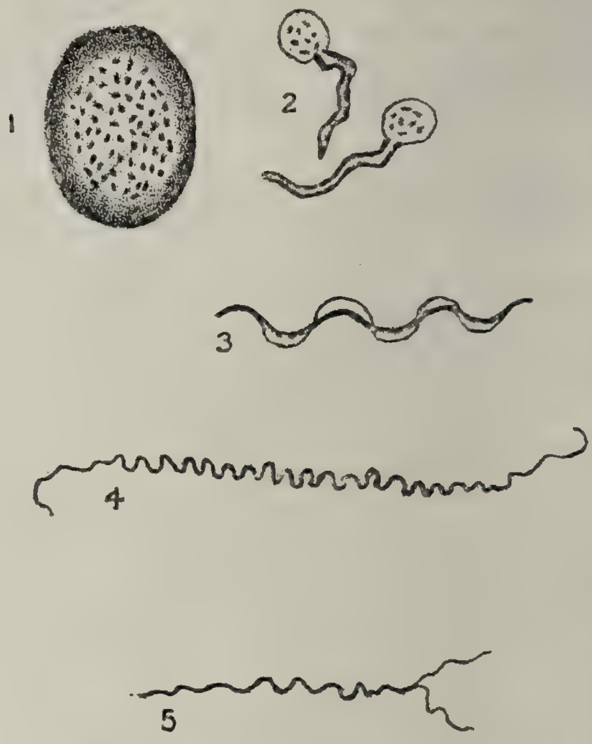


Fig. I.—1. Molluscum body with oscillating particles: 2. Flagellate bodies derived from same: 3. *Spirochaeta refringens*, a common spirochaete. 4. *Spirochaeta pallida* of syphilis. 5. *Spirochaeta pallida* of syphilis (?) dividing (3, 4, 5 are after Schaudinn from *Deut. med. Woch.*, October 19th, 1905).

Before t appearance Schaudin prelimina note[2] another spi chaete (*ziemanni*) whi during part its life-cy infests t white blo cells of bir and during t remainder its life-cy different pa of the body of the common gnat, bacteriology had claim spirochaetes, confusing them with the spiral bacteria spirilla. N we know that th are protozoa of m complicated li history, includi various forms, so of which, compa to the spirochaet are giant cells.

It will be structive, in pa ing, to glance some of the sta of *Spirochae* *ziemanni* depict by Schaudinn as found it in t bowel of the gn where, as with t malaria parasit the fertilized m bile ovum (oökinet) underg development (F II, 1). The origi description (tra lated) reads:

> The giant oöki rounds itself off a produces in the of the gnat an e mous number trypanosome-l offspring whi change into t spirochaetes. spirochaetes are t not bacteria, flagellates.

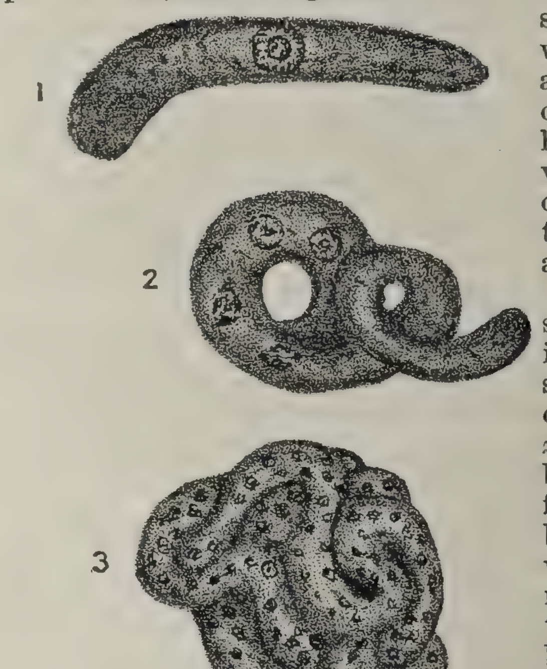


Fig. II.—*Spirochaetaziemanni*, after Schaudinn. Stages in the intestine of the common gnat: 1. Oökinet, or adult mobile fertilized parasite. 2. The same, later stage elongated and coiled, and with several nuclei. 3. The same, still later stage, much convoluted, with multiple nuclei. 4. The same, rounded off, and giving rise to a multitude of small trypanosomes which change to spirochaetes.

Now syphilis i disease in which we know, the pa sites' life-cycle completed wit the human host that if the *pallida* has to do with causing the disease, the ot larger forms must be found in the tissues. Th

ı be none other than the forms that I described in 1894,
l reproduce in Fig. III, which is copied from the
ginal article with some slight corrections. The descrip-
n of the figure gives my interpretation of the appear-
es seen at the margin of this secondary* syphilitic
er. Since 1894 I have observed them in fresh living
ls of scrapings of tertiary ulcers, and they confirm my
w of the appearances shown in Fig. III. I have not the
htest doubt that they are protozoa, and, if I am right,
bodies that I have described as protozoa in cystic
teritis, cancers, sarcomas, etc., are really such—a point
vhich I will revert.

ıs bearing on the structure of spirochaetes in general,
tudy of *Trypanosoma balbianii*, a primitive form which
urs in the alimentary tract of the oyster, is of interest.
S. Perrin[3] describes the life-history and the strange
lear changes of these parasites. The encystment of
asexual forms is especially interesting :

> otion ceases and the periplast bursts, protoplasm and
> lear elements flowing out to form an irregular mass, which
> denses to form a spherical cyst. The chromosomes undergo
> ndary fusion into irregular masses, and later become
> stinct.
>
> ı the encysted female form also the nuclear matter
> omes indistinct,
> ssibly being diffused
> ugh the cyst proto-
> m, giving rise to a
> midial condition."

se forms, apparently
ıout nuclei, are of
t importance in
of the occurrence
similar bodies in
l-pox, syphilis, can-
sarcoma, etc.

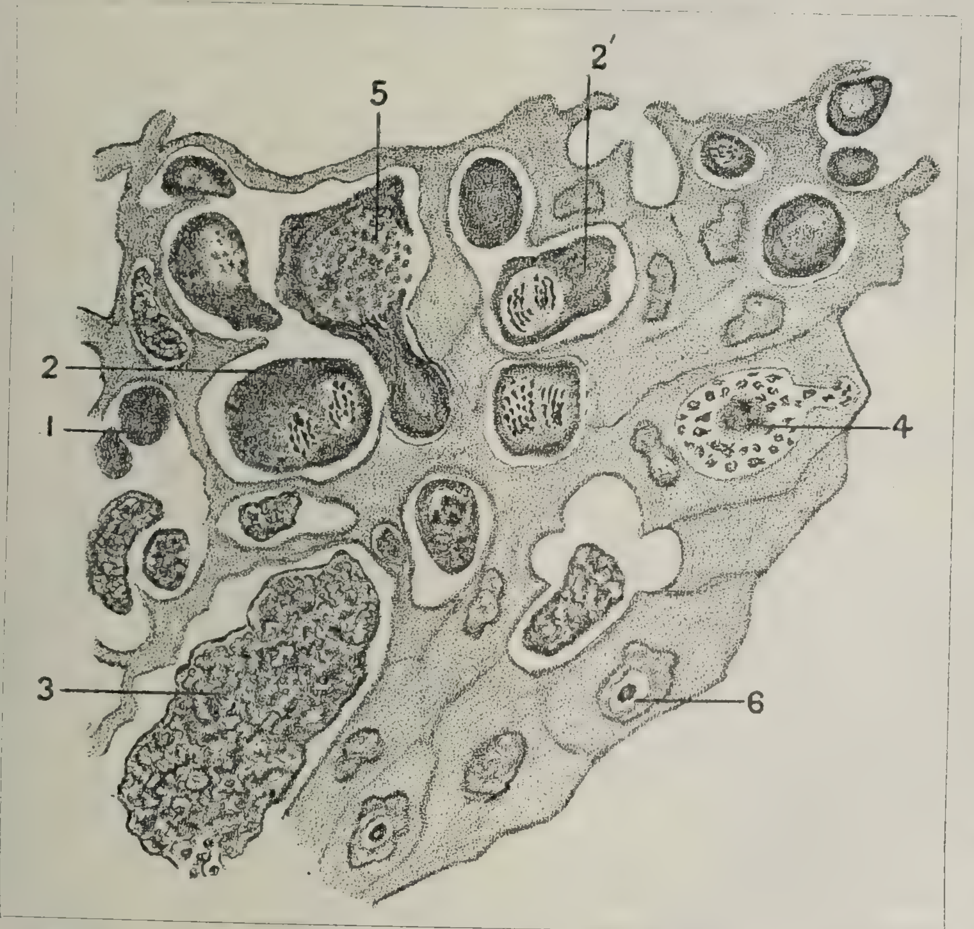


Fig. III.—A group of epidermal cells near the margin of a secondary syphilitic ulcer. 1. Dense parasites devoid of nucleus: the nuclear matter distributed throughout the cell. 2, 2′. Parasites with nuclear chains of chromatin. 3. Large reticular parasitic mass. 4. Formation of spirochaetes. 5. Large club-shaped parasite. 6. (?) Intranuclear parasite (*Path. Soc. Trans.*, 1895).

uscum Contagiosum.

ıe superficial resem-
ce of molluscum
es to protozoa has
been recognized;
irst scientific claim
eir being protozoa
made on histo-
al grounds by A.
er.[4] The only pub-
d account of evi-
of vital activity
olluscum bodies is
given by myself.[5]
description (trans-
) runs as follows :

> most remarkable
> rance consists in
> resence of a great
> er of actively-mov-
> flagellate bodies.
> have a roundish
> of the size of a red
> corpuscle, and a
> powerful flagellum,
> under a $\frac{1}{12}$ immersion lens were easily seen and
> takable; many passed across the microscopic field
> hen escaped from sight. Many of the molluscum
> were unchanged; of others, but a thin bacterium-
> shell remained; still others had apparently under-
> liquefaction in their central part, and in this area
> ons highly-refracting fragments in oscillating move-
> Fig. I, 1), such as one not only sees when unorganized
> es are suspended in liquids, but also in many living
> oa.

ay add that in what I called the heads of the moving
(see Fig. I, 2) there were oscillating particles
r to those in the molluscum bodies. The circum-
s under which the observation was made only
d me time to make the drawing here reproduced,
an accident the whole of the material was thrown
I did not imagine that there would be any diffi-
n repeating the observations, but I have twice tried
ithout result, and this has led me to recall carefully the conditions under which the first experiment was made. In my original description, I gave only the day temperature of the room. It was a small room facing North, and the preparations were placed on the chimney-piece. At night the temperature would be not much above freezing, and by day quite up to blood heat. I am now repeating the attempt, reproducing these conditions. These negative results do not, however, affect the one positive result. What I saw could be the result of nothing but life, and life in the molluscum bodies as well as in the flagellate bodies. I thought the latter were most likely the swarm spores of a mycetozoon, but in view of Schaudinn's work I now think they were more probably the microgametes of the encysted flagellate that we term a molluscum body, the "head" would then be a portion of the mother cell still adhering to the young flagellate.

Sarcoma and Cancer.

Among the lines of investigation that have recently been pursued in the study of malignant disease, none is more interesting than that resulting in the finding of "gametoid" cells in cancer. The importance of exact cytological knowledge in pathology is very great, and we have all learned much from the papers of Farmer, Moore, and Walker. Coming fresh to pathology, however, these investigators seem to have suffered from a want of familiarity with previous work on similar lines. Twelve years ago[6] a paper of mine on the cell forms in a sarcoma was published; incidentally it dealt with the work of Klebs and Hansemann. Unfortunately, no illustrations were published with this paper, but, having kept them, I reproduce three in this place (Fig. IV). Such cells may be "gametoid," but there is no gradation of forms leading up to them from the tissue cells of the tumour, and many of them are devoid of nucleus—that is, are in the chromidial state common in protozoa.

Fig. IV, 2, is more like a budding suctorian * than any human cell. It is only when cancer or sarcoma tissue is studied broadly from the point of view of the origin of the tissue elements, and by patient training of the eye by previous study of recognized parasitic diseases in human tissues that such cell forms as those depicted in Fig. IV can be recognized as parasitic. It is now over thirteen years[7] since I first described my view of a cancer of the nasal fossa, being led to it by a case of cystic ureteritis, in which, after careful study, I came to the conclusion that the disease was caused by protozoa. By further study I extended the view to other cancers and sarcomas, and to syphilis, etc. Every time during these past years that I have re-examined my specimens—even when I have tried to take the opposite view—I have been confirmed in my view, which is to the effect that the common forms of cancer and sarcoma are caused by more or less local infections by protozoa, and differ from the infective granulomata only in the more intimate character of the parasitism and the more complicated life-history of the parasites.

---

nentioned in my original article (*Trans. Path. Soc.*, 1895) and
Cent. für Bakt., 1895, I found structures similar to those in
in primary, secondary, and tertiary lesions. The preparation
ich Fig. III was taken was included amongst those from
sores, and is described as such in the two places mentioned
ut a subsequent careful comparison of the series of prepara-
s led me to class this as a secondary lesion.

* It must not be inferred from this that I deem them to belong to the Suctoria. On the contrary, I think, we must be prepared to learn that the forms assumed by parasitic protozoa are more protean than has hitherto been thought possible. It should be remembered that spirochaetes have recently been found in cancers, and I am prepared to find different kinds of protozoa in different cancers.

The general interest in the protozoa has greatly increased in recent years, and many new facts have already been established, and others will be forthcoming. I hope very shortly to produce the second volume of my work on *Protozoa and Disease*, and I believe that, with recent additions to biological science, I shall be able to convince biologists and pathologists alike that in every essential, what I have advanced concerning cancer, sarcoma, syphilis, small-pox, etc., since the year 1892 is true.

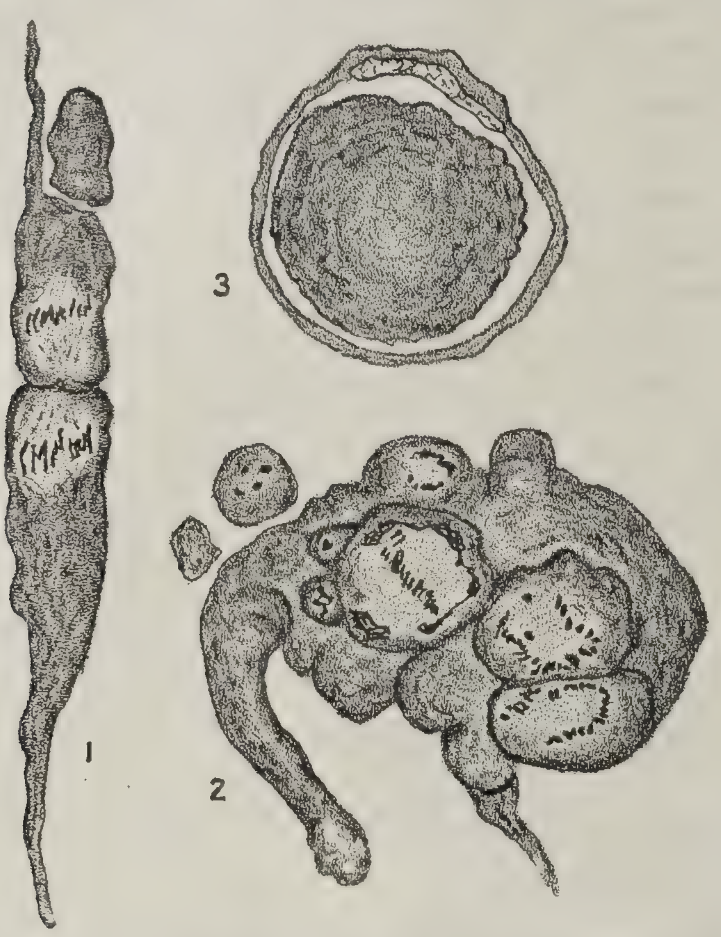


Fig. IV.—Three cells from a myxo-sarcoma of the uterus (× 100 diameters). These cells, according to the author, are protozoa. 1. Large cell undergoing mitotic binary fission. 2. Large cell with multiple budding and irregular mitosis. 3. Large non-nucleated cell within a capillary blood vessel.

REFERENCES.

[1] Schaudinn and Hoffmann, *Deut. med. Woch.*, April 23rd, 1905. [2] *Arbeit. a. d. kaiserlich. Gesund.*, Band XX, Heft 3, 1904. [3] *Proc. Roy. Soc.*, August 3rd, 1905. [4] *Verhandlung. der IV Dermatol. Congress.* [5] *Centralbl. für Bakt.*, 1895, vol. i, p. 245. [6] *Trans. Path. Soc.*, 1894, p. 249. [7] BRITISH MEDICAL JOURNAL, December 24th, 1892.

SEVERE PUNCTURED WOUND OF LOWER JAW.

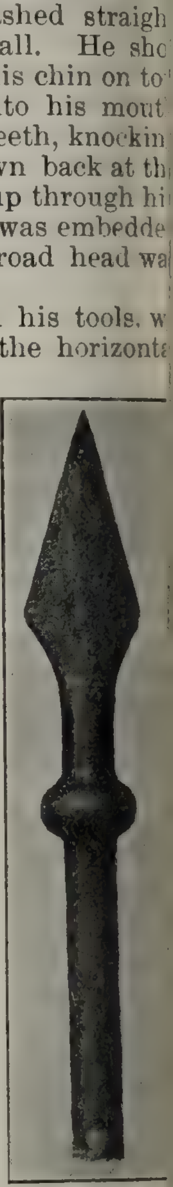
By E. G. WALES, M.A., M.B.CANTAB.,
DOWNHAM MARKET, NORFOLK.

THE following case may be of interest not only on account of the unusual and severe nature of the accident, but as an example of the difficulties the general practitioner may be called upon to meet.

On May 22nd, 1905, at 11 p.m. I was summoned in haste to a man who was said to be "hung up" on some park palings about three miles away, as the result of a cycle accident, the messenger could not say whether the man was much hurt, the difficulty was "they could not get him down." I found A. B., a young man of 26, standing supported by a policeman against some iron palings mounted on a low stone wall, which separated a private park from the road; it was a lonely spot situated in some woods, and the night was dark with cold showers of hail. By the light of a lantern I was somewhat startled to see one of the cruel-looking iron spikes with a broad-arrow head protruding from the man's mouth, his chin rested on the cross-bar, his feet just touched the ground and he was able partly to support himself with his arms. He had been impaled in this position for about an hour; he was pale, cold, with a feeble pulse, and evidently suffering much pain and shock. Unsuccessful efforts had been made to lift him off, resulting only in increased pain; he could articulate indistinctly and implored not to be touched. From the shape of the spike, a photo of which is given one-third natural size, it was obvious that an attempt of this kind would be futile.

The history of the accident was this: He was cyclin home with two friends, one on each side, when, runnin downhill, the road divided right and left; one companio went to the right, the other to the left, both calling out "This way!" The man in the middle hesitated whic way to turn, with the result that he dashed straigh forward, his front wheel striking the low wall. He sho over his handle-bar and came down with his chin on to of the iron spear-head; this penetrated into his mout and out just in front of his upper incisor teeth, knockin out several. No doubt his head was thrown back at th time, otherwise the spike must have gone up through hi palate. The ball seen under the spike-head was embedde in the lower part of the wound; the flat broad head wa pressed against his upper lip and nose.

Sending for the nearest blacksmith and his tools, w filed through the shaft a few inches below the horizonta cross-bar through which the vertical bars passed. There was no room to file between the man's chin and the cross-bar, and this method would have left no handle for subsequent extraction. While this was being done a room was prepared in a neighbouring cottage, with hot blankets, etc. The patient was then held well up while the now detached spike was hammered up from below through the cross-bar in which it was tightly fitted. This must have been a very painful process, but it was impossible to give an anaesthetic. The proceedings were rendered more unpleasant by the presence of a beehive fixed on the far side of the railings just at the poor man's feet, and the light from the lanterns caused these creatures to buzz around in a threatening manner.



One-third natural size.

The patient was then carried indoors, and, having wrapped him in hot blankets and applied hot bottles to his feet, I gave chloroform, and was able, with a great amount of traction, to withdraw the spike by the way it had entered; it would have been impossible to pull it right through his mouth, as not only was there not enough of it to grasp, but so tightly was it jammed between the bones of the lower ja that there was great risk of fracture. Very litt haemorrhage followed the extraction, the track bei immediately almost closed by muscular contractio I syringed the wound and packed it with gauze. soon as the patient recovered from the anaesthet from being pale, cold, and almost pulseless, he was war of good colour, with a full pulse, and, what much su prised me, could talk almost distinctly and without mu pain. He was then moved to Lynn Hospital, where t house-surgeon, the late Mr. Hand, told me next morni that he could only with difficulty pass a probe throu the wound in the floor of the mouth. Subsequently good deal of suppuration took place (the spike was rus and the paint flaked off into the wound), and small p tions of the lower jaw necrosed with formation abscesses; but now, after nearly twelve months, the man in good health, with practically no alteration in spee and very little disfigurement. When I visited him hospital the day after the accident his chief complai was of stiffness and soreness in the muscles at the back the neck, which he attributed to his frantic effo to wrench himself free when he first found hims impaled.

LATIN-AMERICAN MEDICAL CONGRESS.—The third Lat American Congress will be held at Montevideo fr January 13th to 20th, 1907, under the patronage of t President of the Republic of Uruguay, Don José Battl Ordoñez, the Minister of Education and Public Wor Don Juan A. Capurro, and the Minister of Foreign Affai Dr. José Romeu. An Exposition of Hygiene will be h in connexion with the Congress. The Government allocated a sum of 20,000 pesos for the purposes of t Congress. The previous meetings of the Congress w held at Santiago de Chile and Buenos Aires.

The Goulstonian Lectures

ON

UTO-INTOXICATION: ITS RELATION TO CERTAIN CARDIO-VASCULAR DISORDERS.

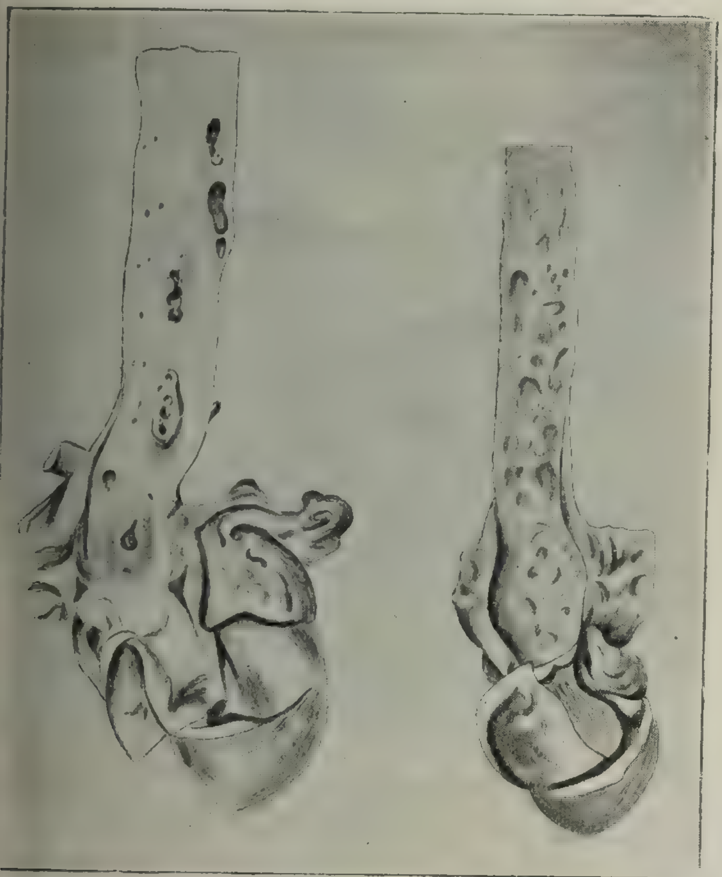
LIVERED BEFORE THE ROYAL COLLEGE OF PHYSICIANS OF LONDON ON MARCH 13TH, 15TH, AND 20TH, 1906.

Y H. BATTY SHAW, M.D.LOND., F.R.C.P.LOND.,
LECTURER IN THERAPEUTICS, UNIVERSITY COLLEGE, LONDON;
ASSISTANT PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL
AND TO THE HOSPITAL FOR CONSUMPTION AND
DISEASES OF THE CHEST, BROMPTON.

LECTURE III.—[ABSTRACT.]

r the beginning of the third lecture Dr. Batty Shaw itinued the discussion of the subject of intracellular ments, and especially hydrolytic ferments, quoting the ults of earlier and later investigations by others. He ceeded as follows:]

'rom these observations it is obvious that we have to l with numerous ferments acting in the various organs he body, and we can accept it as a fact that these fernts are not simply escaped digestive ferments but are nents peculiar to various organs.



ig. 1.—Experimental atheroma produced in the aorta of abbits by intravenous injection of adrenalin. (After Külbs.)

ie of the most common experiences is to find that an n, the artery to which has become occluded, undergoes ohy. We are forced to believe that intracellular ferts have been the agents by which such disappearance ssue has been brought about. The products of such lysis will be absorbed into the system: if not simplirapidly or excreted it is reasonable to suspect that will exert disturbances in the rest of the economy.

he lecturer then described experiments he had made est the effect on the blood pressure of extracts of lyzed organs, with the following results:]

e autolyzed liver produced a much greater fall of l pressure than an equal amount of fresh liver sube. A change had taken place which resulted in the uction of a more powerful depressor substance or ances.

rning to the effect of autolysis upon kidney substance ind the almost immediate pressor effect of fresh y extract replaced by an immediate depressor effect tolyzed kidney substance or the immediate depressor occasionally met with in fresh extract is made more nged.

. Shaw then detailed the more important evidence to show that the depressor effect of substances derived from the disintegration of proteid and nucleo-proteid was due to proteoses, but not peptones, histones, etc.; also the effect of injecting fresh extracts of organs in producing intravascular clotting, an effect not produced by the extracts of autolyzed organs; after which he described the results obtained by Josué in producing aortic atheroma, calcification, and even aneurysms by injecting suprarenal extract into rabbits. He proceeded:]

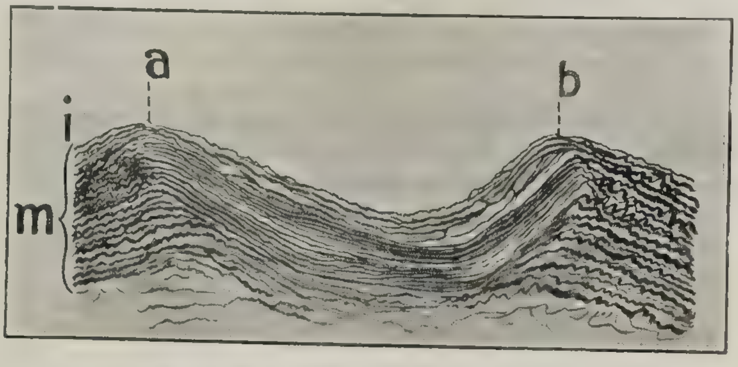


Fig. 2.—Experimental adrenalin atheroma. Section of part of vessel involved in the change, showing disappearance of muscular tissue between elastic fibres, loss of waviness of the latter as well as disintegration between *a* and *b*, which marks the site of one of the slight diverticula produced; *i*, Inner coat. *m*, Middle coat. Specimen specially stained to show elastic fibre. (After Erb.)

Much as one is impressed with the close similarity of this experimental arterial disease with that met with in man, more close than the effects produced in any other experiments dealing with this subject, I do not bring forward these observations as proof of auto-intoxication for the very simple reason that I cannot correlate experimental adrenalin atheroma with any clinical condition in which it can be shown that arterial disease is due to disturbed function of the suprarenal gland. If adrenalin is injected with an amount of amyl nitrite which is just capable of neutralizing its pressor effects, arterial disease identical with that produced by adrenalin alone is manifested—in other words, adrenalin produces its effects, not because of its pressor tendency, but from some other much more subtle influence.

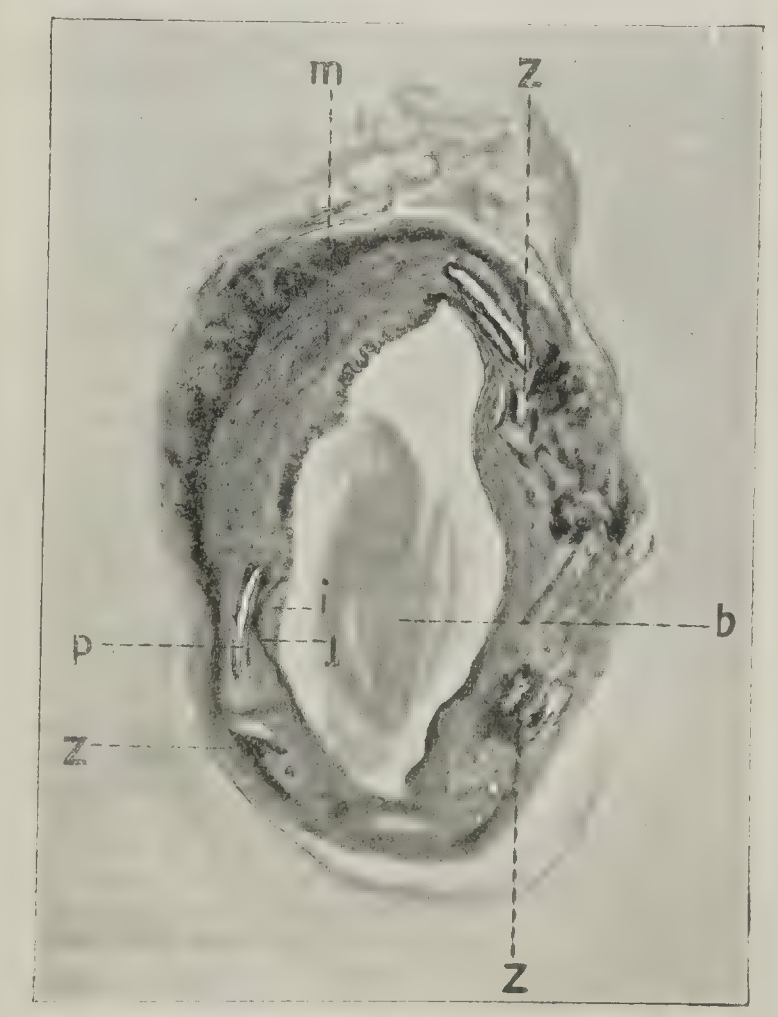


Fig. 3.—Experimental adrenalin atheroma. Section of an artery. *m*, Middle coat. *l*, Weakened and dilated elastic lamina. *i*, Proliferative change in inner coat. *p*, Calcareous deposit in middle coat. *z*, Areas of round-celled infiltration. *b*, Blood clot. (After Erb.)

We have no experimental grounds for believing that persistence of any stimulus should at length lead to degeneration instead of hypertrophy of the middle coat.

Auto-intoxication by the tissues of various organs, or by derivatives of these tissues, is very probable. We know clinically a group of cases in which the kidney has undergone reduction in size. This reduction of size affects mainly the cortex. In a large proportion of these cases we know that the blood pressure has been raised and certain signs and symptoms spoken of as uraemia were present. We have been quite ignorant of the agency which was responsible for both the raised blood pressure and the uraemia. The discovery has been made by Tigerstedt and Bergman that the kidney substance, especially the cortex, when fresh, is capable of causing experimentally a rise of blood pressure. The actual substance responsible for this effect has not been isolated. It is not a crystalline body, but is of a colloid nature, or is so closely associated with colloid substances that it cannot be dialysed. It is very labile and appears to be destroyed when the kidney tissue has lost its freshness. Clinical and experimental observations therefore support the view that maintained hypertension may be due to the entrance of kidney substance into the circulation.

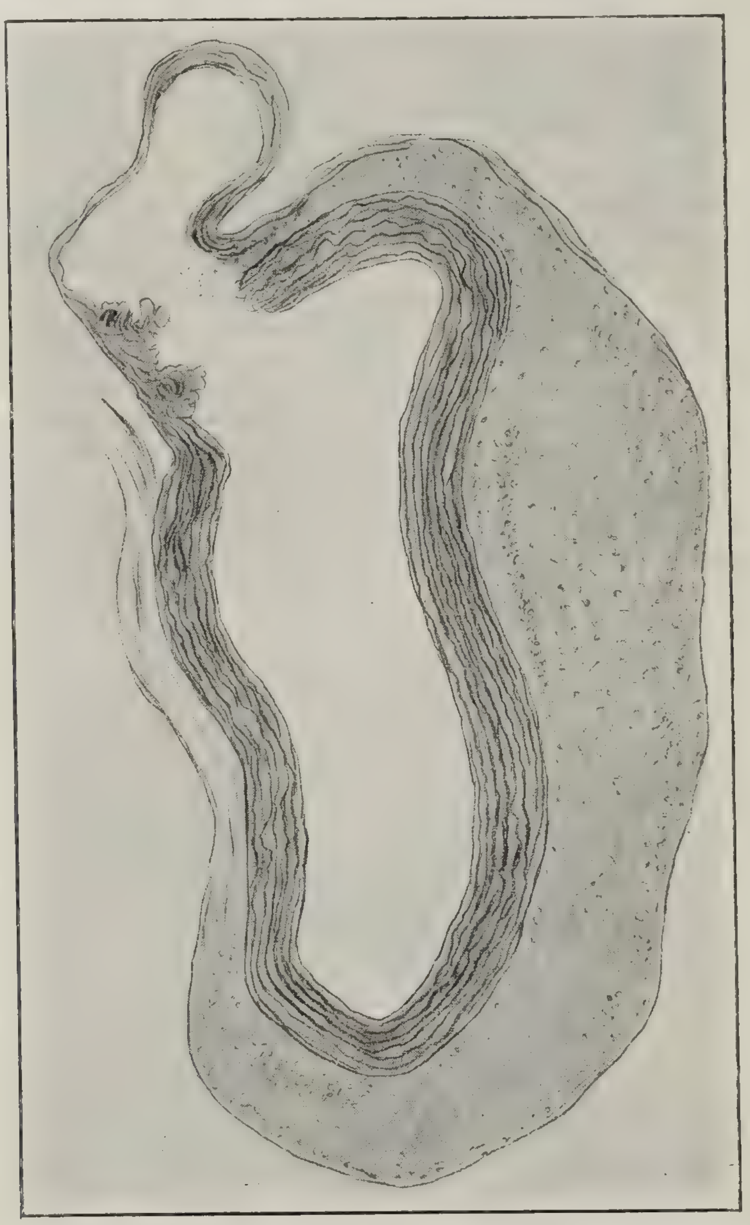


Fig. 4.—Experimental adrenalin atheroma. Section of vessel affected, stained to show elastic tissue. Rupture has taken place in the internal and middle coats, leading to the formation of an aneurysmal dilatation. (After Külbs.)

Seeing that raised blood pressure occurs so often in uraemia, it is reasonable to think that the latter also may be due, in part at least, to the entrance into the system of toxic material derived from the same source—namely, the kidney. That the cerebral manifestations of uraemia are due to arterial spasm in conformity with Traube's theory may be accepted in view of the fact that the toxic substance derived from the kidney acts upon the peripheral centres of the vasomotor nerves, and we know that the cerebral arteries, although formerly alleged to be devoid of vasomotor nerves, possess a nervous supply. The pressor effect of the kidney substance may be lost when the organ has undergone autolysis. Seeing that autolysis is an accepted physiological agency by which the chemical changes of the body are carried on, it is reasonable to believe that autolysis has a new significance for pathology. It is known that when tissues are cut off from the circulation experimentally autolysis after a certain period of time takes place. If, then, the blood-supply to variou organs is cut off by arterial disease there is reason t believe also that after a certain period of time the orga undergo atrophy by a process of autolysis. Autolysis is process allied to digestion, and is due to the existence intracellular proteolytic enzymes. No derivative of aut lysis is known which is capable of causing a rise of bloo pressure. Therefore kidney substance can alone be th cause of the rise of blood pressure met with in ren disease; it must enter the circulation before autolysis h occurred during the period of maintained vitality whic Miss Lane-Claypon and Dr. Schryver have shown to exi before autolytic degradation takes place.

All organs which have undergone the initial process autolysis may yield such substances as proteoses, histone nucleinic acids, and choline. In this stage they can yiel to the circulation material which is capable of exerting fall in the blood pressure. If autolysis of organs has pr ceeded further the derivatives are, so far as the bloo pressure is concerned, quite without effect. Although t existence of proteosis in the circulation is a physiologic impossibility it is probable enough in pathology. Proteo uria is well recognized and is probably not dependent on on the presence of digestive ferments in the urine, b more probably depends in part upon autolysis of kidne substance, or even of the tissues of other organs. It known that in certain cases of granular kidney prot proteose and heteroproteose may occur. Moreover, uraemia with suppression of urine it is well known th proteosuria is apt to occur. The fall of blood pressu which is a feature of some cases of renal disease or whi may supervene after a period of high blood pressure, m be adequately explained by the entrance into the syste of derivatives of kidney tissue which have undergone t early stages of autolysis. The experimental observati that kidney substance can produce different effe according as to whether it has or has not undergo autolysis is not only of importance in the consideration various clinical problems connected with the elevation depression of blood pressure, but has other importa bearings. The extracts made from fresh highly-cellul organs when injected into the circulation experimental are capable of producing widespread coagulation. The has, however, been one insuperable difficulty in accepti such an explanation—namely, that it was difficult believe that the cells of any organ could liberate th contents in such a fresh and unaltered condition into t circulation as to produce in disease the effects produc experimentally. The view that fresh kidney substan can enter the circulation and produce results quite t reverse of those produced when the kidney substance h undergone autolytic degradation gives us much m reason for adopting Wooldridge's explanation of certa cases of *ante-mortem* thrombosis, and to accept the vi that certain conditions is due to the entrance into t

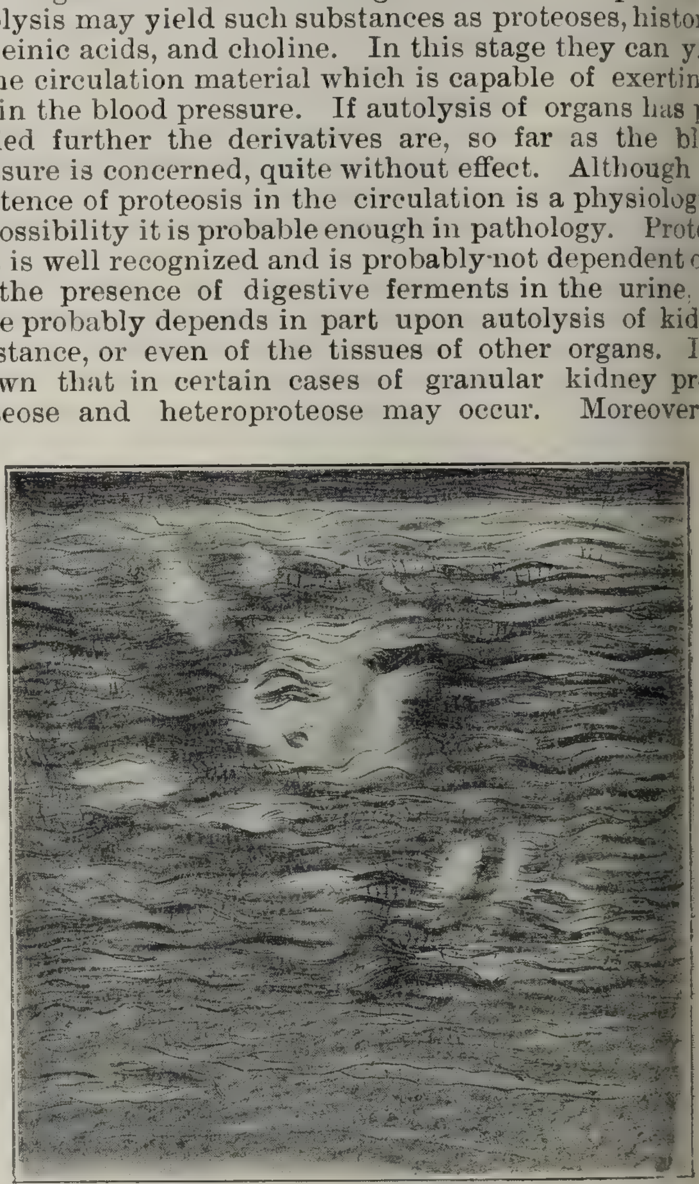


Fig. 5.—Section of the aorta in the neighbourhood of a ruptur which occurred in a child aged 9 years; showing cloud degenerated areas in the media. (After Oppenheimer.)

ulation of nucleo-proteids derived from various ans.

ossibly the occurrence of various cerebral palsies in emia independent of haemorrhage is due not to vasir cramp effected by the entrance of renal substance the circulation but is due to the coagulating proies of this fresh tissue or of some other organ involved the disease. The action of kidney substance when it has reached the circulation and produced a rise in ssure provides us with an explanation of the common irrence of hypertrophy of the middle coat of the ries and of the heart. There is no experimental ience which would lead us to believe that mere elevaof blood pressure can cause degenerative change in blood-vessels. Adrenalin, however, can cause widead degeneration of the middle coat, development of roma, and even aneurysm. Though it is not possible ecognize any clinical correlative to the experimental luction of atheroma in the blood-vessels by means of injection of adrenalin or other suprarenal products, the fact that a substance derived from an organ like suprarenal body can produce a disease so much like roma and so much like the earliest changes met with ie media in human pathology cannot fail to arouse our rest and stimulate further research on problems which remained unsolved for so many years.

MEMORANDA:

EDICAL, SURGICAL, OBSTETRICAL.

TREATMENT OF COLIC.[1]

Iay, 1905, I attended a Mussulman, aged 33, during atter part of an attack of renal colic on the right side. sted, from beginning to end, seven days, and ended ie passage per urethram of two small, smooth, uric calculi. An interval of two months passed, during h he was quite well, and then a second attack began; urred to me, when I was called seven hours later, that uration might be shortened by manipulation of the men. Accordingly, having anaesthetized the patient y with chloroform, I put one hand behind and the in front of the right kidney, and went through ments as if I were trying to roll it between my s. This procedure was followed by the passage of alculus and cessation of all pain within twentyhours. Two months later again he had a third k, this time on the left side. I saw him within ten of its onset, and went through the already described dure. When I called the next day he was still in so I again manipulated, and less than five hours later, vithin forty-eight hours of pain commencing, the was passed. Since then he has been taking lithones, and up to the date of writing, some ten weeks vards, he has remained quite well. I have never seen pulation advocated in this condition, and it seems n of treatment worthy of more extended trial. For l be noted that whereas during the first attack the i took seven days in passing from the kidney to the er and urethra, the second and third attacks—those ich manipulation was used—lasted respectively only nd two days. I do not think we need fear damage to nal tissues of the ureter, because (1) the stones are lly small; (2) they are invariably smooth or finely ulated, (3) several structures intervene between the n's hands and the calculus and thus disseminate the re applied by the hands without materially ishing the rolling movement which is exercised tended to dislodge the calculus from the sinus of dney.

rapid passage of a calculus under manipulation can ly be ascribed partly to the rolling movements ing it from recesses and partly to the chloroform racting spasm of the ureter.

DENHAM C. WOODS, L.R.C.P., L.R.C.S.Ed.,
ur, India. Senior Plague Medical Officer, Raichur.

---

[1] Condensed.

ESSFUL VACCINATION.—Dr. Henry J. F. Badcock, Vaccinator for the Gillingham District of the y Union, has received the Government grant for sful vaccination.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

DUNDEE DISTRICT ASYLUM.

(By HENRY C. MARTIN, M.B., Resident Medical Officer.)

As an example of abnormally small viscera in the adult, I send you a few particulars of a case which recently came under my notice.

A woman, J. W., aged 28 years, died in this institution from exhaustion following acute mania on May 22nd. She was well developed, 5 ft. 3 in. in height, with no external deformity or malformation, and, although emaciated at the time of her death, was well nourished when admitted. She had enjoyed good health previously.

At the *post-mortem* examination the following facts were ascertained: The lungs, which were normal as regards the number of lobes, etc., were in size those of a child, the left weighing 7 oz. and the right 6 oz. The heart weighed 7 oz.; the lumen of the aorta was small, scarcely admitting the little finger.

The liver weighed 39 oz.; it showed no pathological change except some venous congestion. The spleen weighed 2 oz.; it was very distinctly divided into an upper and lower lobe; the small weight may partly have been due to the exhaustion. Each kidney weighed 3½ oz.—slightly below normal. The lumen of the small intestine was very small—not larger than the index finger.

The brain weighed 44 oz., thus being about the normal for the female.

According to *Gray's Anatomy*, the average weights of these viscera are:

Lung (right), 22 oz.; (left), 20 oz.
Heart (female), 8 to 10 oz.
Brain (female), 44 oz.
Liver, 50 to 60 oz.
Spleen, 7 oz.
Kidney (right), 4 to 5½ oz.; (left), 4 to 5½ oz.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

NORTH OF ENGLAND BRANCH.

Stockton-on-Tees, April 25th, 1906.

Dr. FULTON in the Chair.

The Treatment of Heart Disease.—Dr. GEORGE MURRAY (Newcastle-on-Tyne) read a paper on some points in the treatment of acute and chronic heart disease. He emphasized the importance of (1) administering salicylate of sodium in acute rheumatism—10 gr. every hour until the urgent symptoms subsided—and the continuance of administration for six weeks; (2) the careful examination for pericarditis and endocarditis; and (3) for nodules. He drew attention to the frequent absence of joint lesions in children. For endocarditis he recommended the administration of iodide of sodium for four to six weeks and the application of a series of small blisters. In mitral stenosis digitalis not only did no good, but often did harm; experiments on dogs showed that digitalis dilated the left auricle; sodium nitrite sometimes did good. He related the case of a man who had mitral regurgitation at 20 years of age and lived until he was 90 years old, his condition being greatly relieved, when his heart became embarrassed, by taking blue pills. In order of merit for the treatment of rheumatic heart affections he would place, first, digitalis—fresh infusion, combination of tincture (♏v) with fresh infusion (ʒij) or liquid extract (Parke, Davis), persevered with for a week, as the full effect is very often not produced until that time has elapsed; secondly, apocynum cannabinum 5 to 10 minims of the tincture (cannot be given for long periods as it produces vomiting); and, thirdly, tinct. strophanthus, 10 minim doses. Tincture of convallaria is more especially useful in the heart troubles of exophthalmic goître; nux vomica and iodide of potassium in old syphilitic cardiac lesions; nitroglycerine tabloids ♏ $\frac{1}{100}$ up to twenty-four in the day, and morphine in angina pectoris. For sleeplessness, light meals often repeated, and a draught of chloralamide (15 gr.), with hydrobromic acid at bedtime.—In the discussion which followed Dr. HOWELL instanced a case of cardiac dyspnoea brought to hospital as a case of drunkenness.—Dr. HUGHES said he had come across cases in which there was great intolerance of the stomach to salicylate of sodium.—Dr. MURRAY replied that where that occurred he gave aspirin.—Dr. FULTON emphasized the value of blue pills in cardiac cases.

Cases.—The following cases were shown:—Dr. HUGHES (Stockton): Multiple osteo-chondroma. Dr. DENSHAM (Stockton): Pyloric stenosis. Dr. VICTOR MILLER (Stockton): Sarcoma of nose and upper jaw, with specimens. Dr. H. D. LEVICK (Middlesbrough): (*a*) Case of extra-uterine pregnancy, with no irregular haemorrhage except for larger loss at menstrual periods; (*b*) cases of resection and anastomosis of intestines.

Specimens.—Dr. A. E. MORISON (West Hartlepool) showed specimens illustrating some forms of the "Emergency Surgery of the Abdomen": (*a*) Tait-Porro Caesarean section; (*b*) rupture of uterus; (*c*) ectopic gestation; (*d*) intestinal obstruction. Dr. B. MAYHEW BONE (Marske): Specimens of kidneys and appendix (from child 3 days old) containing the same micro-organisms.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

H. H. CLUTTON, M.A., M.C., F.R.C.S., President, in the Chair.

Friday, May 25th, 1906.

THROMBOSIS OF ABDOMINAL AORTA.

DR. FRANCIS HAWKINS (Reading) described the case of a woman, aged 56, who in youth had had rheumatic and typhoid fevers. In January, 1904, she had sudden pain in the right, subsequently in the left, leg. She rested for a month, then resumed her duties. The weakness of the legs increased, and numbness supervened until she was unable to walk without assistance. Pressure on the calf of each leg caused great pain. Knee-jerks were present. No cardiac murmur was heard. On June 4th, 1904, the legs suddenly became numb, cold, of death-like pallor, and no femoral pulse could be felt. An hour later severe abdominal pain, vomiting and distension ensued, and the patient died. Mitral stenosis was found, the femoral and iliac arteries were occluded with blood clot, which was largest at the bifurcation of the aorta, and extended above the superior mesenteric artery. Infarcts were in both kidneys; the intestinal arteries were occluded, the intestines greatly distended, and in some areas almost black. It was thought the clot had gradually formed.

Dr. J. FAWCETT exhibited specimens from Guy's Hospital Museum, in which death had been due at an early stage to collapse, or later on to gangrene. Two of these specimens also had a contracted mitral orifice. In another case the thrombus was calcified, and the collateral circulation thoroughly developed.

Mr. WARRINGTON HAWARD commented on the rarity of thrombosis of the aorta, and gave reasons for considering the condition of the blood itself a chief cause of thrombosis in that situation.

Mr. A. E. J. BARKER referred to a case published by him in the *Clinical Journal* (May 9th, 1906), in which he had amputated through the thigh for gangrene of the limb caused by embolism of the iliac arteries with no abdominal pain.

Mr. W. HAWARD suggested that the absence of such pain was because the thrombus was low down; abdominal pain arose when the clot extended to the mesenteric arteries.

Dr. A. E. GARROD related a case of thrombosis of the lower 1½ in. of the abdominal aorta and both femorals, unaccompanied by abdominal pain.

PULMONARY EMBOLISM.

Dr. C. R. BOX communicated a series of cases of pulmonary embolism due to displacement of pulmonary thrombus. In each instance apparently thrombosis had first occurred in the main trunk of the pulmonary artery, and been later followed by displacement of the clot int its distal portions. The series included cases of celluliti of the leg, severe burns, typhoid fever, diabetes mellitus malignant disease of abdomen, and operations for radica cure of hernia. The premonitory signs of the conditio were the development of a murmur at the base of th heart, acceleration of pulse, and moderate cyanosis wit dyspnoea. Death might be practically instantaneous, wit pallor, or delayed, with cyanosis and asphyxia. Infarctio of lung was exceptional. The prophylaxis and treatmen of the condition were briefly summarized, and the pos sible danger of artificial respiration in further dislodgin the clot was mentioned.

Mr. W. G. SPENCER did not consider that the absence o clot from peripheral veins proved that the thrombus ha formed in the pulmonary artery. He thought tha embolism after operations for radical cure of herni indicated that the patient had sat up too soon.

Mr. EASTES said that the situation of the disease i many of the cases suggested the origin of the clots in th femoral or iliac veins. He mentioned a case of sudde death in which a thrombus plugging the pulmonary arter fitted some clot still lying in the femoral vein, and had o its surface impressions of the valves of that vein. If clot were carried away in its entirety into the pulmonar artery, the site of its origin might remain undetected a the inspection.

Dr. H. H. TOOTH mentioned cases in which a coiled-u clot, measuring several inches in length when unravelle had been found. In one case it appeared to be a cast the inferior vena cava.

Dr. LONGHURST said that no adhesion of the clots to th walls of the vessels was mentioned. He thought ammoni a good drug to employ in these cases.

Dr. A. E. RUSSELL described a case which terminate successfully after a long illness, and in which the agon was treated with morphine, and inhalations of oxygen wer given.

The PRESIDENT said that he had seen a successful cas which was treated with hypodermic injections strychnine.

Dr. BOX, in reply, said he had excluded cases with an evidence that the clot did not form in the pulmonar artery. On one clot a mould of valves of the pulmonar artery was found. The citrates lessened the tendency t clot.

ACUTE GASTRIC DILATATION AND PNEUMONIA.

Dr. PARKES WEBER described the case of a woma aged 21, admitted to hospital with pleuropneumoni Since an illness (diphtheria?) six weeks previously sh had developed a tendency to bring up wind. Just befo admission she had been able to eat nothing; after ac mission she took a good deal of food and lost the power bringing up wind; this probably marked the commenc ment of gastro-intestinal muscular atony, and acute di tension followed. Great relief resulted from lavage of t stomach, though the meteorism did not immediatel subside. Afterwards there was pericardial friction, b the progress of the case was ultimately satisfactory. T author alluded to the analogy between "acute dilatatio of the stomach," "ballooning of the rectum," "paralysis the non-gravid uterus," and "acute atony of the urina bladder during operations," all of these conditions bein temporary states of atony in hollow muscular viscer Exact studies on innervation had already elucidated som of them.

Dr. FAWCETT preferred "paralytic" to "atonic" as a ter for this condition.

Dr. C. R. BOX suggested that acute dilatation mig possibly be due to obstruction, say in the duodenu Usually it was difficult to determine whether dilatati was of the stomach or colon.

Dr. N. DALTON considered dilatation a toxic rather tha a reflex process, and mentioned a case of influenza, wit dilatation of stomach, followed in three days' time by similar condition of bowels.

Dr. WEBER replied.

ROYAL ACADEMY OF MEDICINE IN IRELAND.—At a mee ing of the Section of Pathology on May 4th, Profess A. H. WHITE, President, in the chair, the exhibits includ a liver showing an *Unusual form of degeneration.* The cas as narrated by Professor O'SULLIVAN, was that of a midd ed man who had had two attacks of jaundice. An eration being performed, no evidence of obstruction is anywhere found. The liver had a smooth capsule, ighed 4 lb. 5 oz., and on section showed greenish-llow areas separated by lines of red material. ıder the microscope the centre of each lobule was en to be degenerated, and surrounded by a zone comparatively healthy cells. The nuclei of the ntre cells were shrunken and deformed, and the cells nost entirely void of protoplasm. There was nowhere y increase of connective tissue or sign of inflammation. ıe cells had lost their columnar arrangement; many of em were filled with bile pigment and the capillaries with spissated bile.—Dr. H. C. MOONEY showed a specimen of *pergillus fumigatus* from the eye of a labourer on whose rnea an oat husk had stuck. The cautery was applied d the case was cured. Only some sixteen or seventeen nilar cases had been recorded, two of them being in e United Kingdom.—Professor MCWEENEY showed a mber of specimens connected with a case of *Compound acture of the humerus* in a youth who fell while out nting. Within four hours of the accident the temperare ran up to 108° F., evidently from shock to the edulla. In spite of careful treatment the arm came glazed and swollen in twenty-four hours, and ıphysema occurred round the shoulder-joint, the ck, and the side. Amputation was impossible, and ough the cellular tissue was freely opened the patient d in four days. Aërobic cultures made from the case lded three organisms, a streptococcus, one resembling *coli* in some ways, and *B. aërogenes capsulatus*. A rabbit ected with the latter, then killed and kept warm over-ght, showed enormous distension of its solid viscera h gas (foaming organs). The streptococcus was non-hogenic for rabbits by itself, but killed them when in-ted along with some of the culture from the colon-like illus.

PATHOLOGICAL SOCIETY OF LONDON.

P. H. PYE-SMITH, F.R.S., Vice-President, in the Chair.

Tuesday, May 29th, 1906.

DOURINE OR MAL DE COÏT OF THE HORSE.

. F. W. MOTT gave a demonstration of the lesions found this disease, which in certain respects resembled hilis. The affection was due to a specific form of try-ıosome and was transmitted by coitus. Besides an ex-nal angioneurotic oedema, the nerves and central nervous tem were found diseased, the parasite extending from genitals by way of the nerves and nerve roots he spinal cord. In the latter a sclerosis followed, the ential lesion being a degeneration of the proper nervous ments. Spontaneous fracture and dislocation might ue later. In the actual case to which the speaker rred, a stallion died twenty-seven months after infec-ı. In answer to Mr. C. G. Seligmann, Dr. Mott said t the parasite was also found in the vagina. He gave ıntern demonstration of other forms of trypanosomiasis, h human (sleeping sickness) and animal.

SYMMETRICAL ADENOMATA OF THE ADRENALS AND EXTREME SCLEROSIS OF THE AORTA.

r. F. PARKES WEBER recounted this case. The patient a man, aged 59 years, who died suddenly soon after ıission from pulmonary emphysema and oedema of the remities. Very little past history was known. The ropsy showed moderate hypertrophy and much dilata-ı of the heart, extreme sclerotic changes in both nary arteries, and degenerative changes in the cardium, with some *ante-mortem* thrombus at the x of one ventricle. The aorta (especially the abdominal ion) showed excessive sclerotic changes with deposi-ı of calcareous plates. The suprarenal glands weighed ther about 19 grams, and each of them showed oval nodular outgrowth of the cortical substance, ut the size and shape of a muscat grape, measuring × 15 × 15 mm. Microscopic examination showed one of e nodules to be a typical suprarenal adenoma or hyper-hic growth of the cortical substance, with the cus-ary fatty degeneration of its cells. Microscopical mination of relatively little affected portions of the a showed that the calcareous change was by no means ined to the inner coat. The middle (muscular) coat extensively involved in the degenerative process, and both in the middle and outer coats there were likewise scattered spots of round-cell infiltration. The condition was perhaps comparable to Chiari's "mesaortitis productiva" and to Josué's "experimental atheroma" produced in rabbits by repeated intravenous injection of adrenalin. Josué had likewise drawn attention to the association of aortic atheroma in man with the presence of suprarenal hypertrophy. The literature of the subject was discussed.

Mr. S. G. SHATTOCK pointed out the uncritical aspect of much of the work referred to, in that no proper care had been taken to determine whether the medulla or the cortex was the agent in producing such results. As the disease of the vessels involved so particularly the media, the medulla was indicated, even if the sclerosis were not due to increased arterial tension; but in Dr. Weber's case the lesion was regarded as cortical. It was to be regretted that the histological study of the adrenal had not been made from the chromaflinic aspect, since by this means the medulla could have been readily differentiated from the cortex.

SPECIMENS OF DISEASE OF THE TESTIS IN THE HORSE.

Professor HOBDAY, F.R.C.V.S., exhibited the above, some of which were the hypoplastic organs in the undescended state, some teratomata, and one a lipoma in the substance of an undescended testicle.

The following papers were received: Dr. B. LINDSAY, a nose with supernumerary nostrils. Mr. S. G. SHATTOCK and Mr. L. S. DUDGEON, fatty degeneration of the blood in various forms of anaemia and toxaemia.

LARYNGOLOGICAL SOCIETY OF LONDON.—At a meeting on May 4th, Mr. CHARTERS SYMONDS, President, in the chair, Dr. H. J. DAVIS exhibited three patients, members of one family, who were all the subjects of *Syphilis*, communicated by oral infection from one to the other. The first to develop syphilis was a child, aged 11. There was no evidence of genital infection, and it was first seen on account of a dusky, macular eruption on the arms, the legs, and the body; tonsillitis and severe adenitis, with enlarged glands in neck and groin. There was no appearance of a primary sore. The child's grandmother, aged 60, a widow for fourteen years, nursed and slept with the child during her illness. She became ill with tonsillitis, adenitis, and a typical rash and early iritis. There was no evidence in her case of any primary sore. The third member of the family was the child's aunt, who was inhabiting the same flat as the child and her grandmother, and developed a chancre inside the right nostril. When exhibited the patient presented mucous patches on the tonsils, early roseola, and the primary sore could be seen at the junction of the skin and mucous membrane of the right nostril.—Dr. D. R. PATERSON exhibited (1) a fish-hook removed from the oesophagus, and also a toothplate which had been swallowed during sleep and had become lodged opposite the suprasternal notch. (2) A skiagraph of the neck in a case where a piece of meat was impacted in a *Stricture of the gullet*. The cases illustrated how such foreign bodies could be removed with instruments of precision, and also the necessity for discouraging the indiscriminate use of coin-catchers and probangs. (3) A case of left recurrent paralysis and paralysis of the soft palate, associated with middle-ear disease and facial palsy on the same side.—Dr. H. PEGLER exhibited a patient with bilateral ulceration of the posterior segments of the vocal cords. The opinions expressed were in favour of it being a case of pachydermia laryngis.

EPIDEMIOLOGICAL SOCIETY.—At a meeting held on May 18th, Dr. J. TATHAM in the Chair, Professor RUBERT BOYCE gave an account of the yellow fever operations in New Orleans in 1905. The procedure followed was that adopted in 1900 in Cuba with such success that the disease was stamped out in ninety days. The results in New Orleans in 1905 were scarcely less decisive. The *Stegomyia fasciata*, the bearer of the disease, was, unlike the *Anopheles*, as domestic as the ordinary bug or flea, breeding in house cisterns, yard puddles, and even in open drains. A mosquito survey of New Orleans and Belize showed the *Anopheles* in the lowlands along the lagoons, and the *Stegomyia* in the densely peopled and poorer quarters of the town, the distribution of the fevers corresponding. In these towns, as elsewhere in Central and Tropical America, the domestic water supply was obtained by the storage of rain water in cylindrical cisterns, one above another from the ground to the roofs, affording breeding places for the mosquitos in close proximity to the dwelling-rooms, and swarming with the larvae. In the poorer districts, where pails, tubs, and even conch shells were used as receptacles and the low-lying sites were filled up with broken crocks and cans, matters were far worse than where some supervision was exercised. A struggle with an outbreak of yellow fever was facilitated both by the domesticity of the *Stegomyia* and by the short, definite period for which a patient remained infective to them. A man who had been bitten by an infected mosquito did not himself become infective to mosquitos until the invasion of the disease after an incubation period of five days. He remained so for four or three days only. The mosquitos which had become infected by his blood were in their turn infective not until after ten or twelve days later. The actual organism had not as yet been demonstrated in the blood or serum of either man or mosquito. It was so small as to pass through a Pasteur filter in one stage of its existence; there was ample evidence of its being particulate; it was, in fact, a protozoon analogous in every way to those of malaria. The next problem to be solved was whether, as in the case of some ticks, the parasites could pass into the ova and produce a generation of congenitally-infective mosquitos.

REVIEWS.

PSYCHIATRY.

A DISTINCTIVE feature of all modern textbooks of insanity, and that which augurs most hopefully for future treatment, is the point of view of their authors, who regard the insanities entirely as bodily disorders. The term "mental diseases," with many others having a metaphysical implication, is now happily falling into desuetude, and a modern science is being built up on a foundation of physiological, pathological, and clinical information, the result of steady, painstaking observation of fact with a resolute avoidance of theory and speculation. Truly this science is only beginning, but an enormous mass of evidence has been accumulated which from time to time requires collating, sifting, and classifying. Dr. STEWART PATON's exceedingly able book on *Psychiatry*[1] takes its place in the front rank of textbooks of this class. The first three chapters contain a survey of modern psychiatric methods, the nature of alienation, and a careful study of the various elementary disorders met with in the insanities, disorders of sensation and higher cortical function, anomalies of volition, emotion, and conduct, and so on. Throughout the book, but particularly in these chapters, constant reference is made to the works of great numbers of authorities in every country, making it, as a comprehensive study of modern psychiatry, of great value to other workers in this field. The advice given in the chapter devoted to the examination of patients is very complete, and we may note here that Dr. Paton stigmatizes the taking of records on specially-constructed charts, on which a list of symptoms is printed, as a most pernicious practice, generally indicating that the observer has not been sufficiently drilled in methodical examination. In the following chapters general treatment and the urgent need for the establishment of pyschiatric hospitals and university clinics in the United States and England are considered, the causes of insanity discussed, and the principles according to which a provisional clinical grouping of the insanities should be made are laid down. A classification founded on purely symptomatological study is dismissed as insufficient, and a pathological basis as at present impossible, the only comprehensive and rational plan being to take all possible facts bearing on the case into consideration. The defect psychoses are therefore first examined; then the acute, subacute, confusional and delirious states, including febrile delirium, acute collapse delirium, amentia (Meynert's), and Korsakow's syndrome. The author's account of thi latter symptom-complex and the autotoxic insanities i most admirable. Under the manic-depressive group Dr. Paton traces the development of this classification, and shows how a new epoch in the mode o regarding mental diseases began when Baillarger an Falret, in 1854, independently affirmed that the so called circular insanity was a disease entity. Until the too much emphasis had been laid on individual an isolated symptoms, and too little on the whole course prognosis, and termination of this and other insanities Imbued with this idea, Kraepelin formulated the manic depressive group. We have already mentioned the firs distinctive feature of modern psychiatry, and it is probably not too much to say that the second importan distinguishing feature lies in this mode of regard b which the whole course of the disease is taken into consideration, resulting in the inclusion within one categor of forms which on account of the differing symptomatology would at one time have been placed in widely separated classes. In harmony with this point of view Dr. Paton, after a lucid account of manic-depressiv insanity, considers dementia praecox with its variou forms. These chapters and those on dementia paralytica of which a very full account is given, on the epileps group, on hysteria, on neurasthenic and psychastheni states, are elucidated by clinical notes, charts, an excellent photomicrographs. The book is most carefully indexed and is in consequence easy of reference it is clearly expressed, and the various types of disorder are explained by well-chosen examples; it will b found most useful by the practising physician desirou of obtaining a comprehensive knowledge of moder psychiatry, and, further, on account of its wealth o reference, should find its way into the library of ever alienist.

Of all the countries which have contributed to th notable advances made in neuro-pathology and psychiatr in recent years, none has played a more distinguishe part than Italy. For long Germany has appeared to b *facile princeps*, but by common consent she must no share the honours with Italy. The mere enumeration of the solid additions to current information i neurology, in psychiatry, and in criminology whic have emanated from hundreds of brilliant Italia writers would fill a volume, and prominently amongs them must be placed Professor BIANCHI, the excellen translation of whose *Trattato di Psichiatria*[2] lie before us. Professor Bianchi hesitated long, he says i his preface, before deciding to publish this work, and wa only led to do so through the pressing need for an Italia work reflecting the actual state of the science. Furthe Professor Bianchi deemed it advisable to preface th description of the psychopathic forms by an account the architectural, anatomical, and physiological plan the human brain, particularly in relation to ment phenomena, and a summary of the fundamental laws the evolution of mind in relation to that of th nervous system in a first part; and in a secon part by the examination of the semeiology the mental affections—that is, a description of th elementary symptoms of the disordered mind in relatio to the facts of normal psychology. The whole is thu a complete textbook of cerebral anatomy, physiolog semeiology, and pathology, such as may be taken up by th modern student and also by the physician of many yea standing whose training in medicine may have been obtained before the era of modern psychiatry, and who i consequence is somewhat handicapped in the study of th usual textbooks of insanity. This plan, whilst makin the work bulky, has obvious advantages to the studen Concerning Parts I and II, which take up the first 41 pages, we need only say that they form a most admirabl introduction to the whole subject, and will be foun thorough in treatment and lucidly didactic in expressio Turning to Part III, which forms the bulk of the boo and comprises the whole clinical teaching of the forms insanity, we note that Professor Bianchi, like most mode nists, is opposed to over-nice classifications. An ogical classification is dismissed as neither scientific, nal, nor useful, as it is that "great factor 'the vidual' which turns the wheel of the nosological eties." An anatomico-pathological basis, he admits all others, is as yet out of the question, but inds much to be said in favour of a combination etiological and symptomatological criteria. As, ever, some form of categorization is imperative ough that associative power intrinsic in things, as in the products of our thought," he con- s mental affections under three great heads—the comprising disorders represented essentially by an tionary psycho-cerebral defect; the second including al affections of infective, autotoxic, or toxic origin oping in individuals regularly evolved; and a third rising all those affections having an organic sub- um, localized or diffuse, in the central organ of mind. ssarily, in this, as in all other forms of classification, roups overlap, for each of them is distinguished by a cteristic which is not comparable with that which adistinguishes the other two; but it, nevertheless, shes a simple and, on the whole, adequate form of fication. In describing a voluminous work like this difficult to avoid falling between the two stools of ciative criticism and bald recital of the subjects d. Fortunately our task is simplified by the fact riticism is rarely called for. Under Group 1 the r considers phrenasthenias or forms of defective tion, paraphrenias, delinquency, epileptic and rical insanity, paranoia, fixed ideas and obsession, sthenia, and the sexual psychopathies. If we may out chapters of especial interest, we should draw ion to the very admirable accounts of delinquency pileptic insanity. Owing to the character of Italian hereby criminals of doubtful sanity are sent to pro- l asylums for observation, Professor Bianchi is in a on to speak with authority from wide experience of nal cases, and for this reason these chapters are par- ly instructive. The second group includes not only psychoses usually regarded as of toxic and auto- origin, but also mania, melancholia, manic-depres- nsanity, acute and late paranoia, neurasthenic ty, and "sensory insanity." Within this latter "sensory insanity," the author includes

---

[1] *Psychiatry*. A Textbook for Students and Physicians. By Stewart Paton, M.D., Associate in Psychiatry, Johns Hopkins University; Director of the Laboratory, Sheppard and Enoch Pratt Hospital, Maryland. Philadelphia and London: J. B. Lippincott Company. 1905. (Demy 8vo, pp. 618. 18s. net.)

[2] *Textbook of Psychiatry*. By Leonardo Bianchi, M.D., Professor Clinical Psychiatry and Neuro-Pathology in the Royal University Naples; Minister of Public Instruction in Italy, etc. Authoriz translation from the Italian by James H. MacDonald, M.B., Ch.B.Gla London: Baillière, Tindall, and Cox. 1906. (Demy 8vo, pp. 904. 1 illustrations. 21s.)

> e psychopathic states which begin with hallucinations sions, no matter whether these disturbances dominate ne during the whole course of the disease or disappear eginning of it, leaving syndromes which it would be a to consider as particular forms of disease, since, in f fact, they form with the sensory disturbances one hole, clinically and psychologically inseparable.

nder sensory insanity, Professor Bianchi considers a, acute dementia, dementia praecox, katatonia, and mental confusion. His reason for embracing e forms within one category lies in his conviction ey are all initiated, almost constantly, by an natory explosion. The presence of hallucinations siders of prime importance, in opposition to lin, Clouston, Morcelli, Chaslin, and others, who em to be secondary and not essential features of iseases. Professor Bianchi's views on this point tle difficult to understand, for he appears to attach ucinations not merely a symptomatic but a ve significance. Thus, he says, "kinaesthetic, auditory, and visual hallucinations have a great grating power over the personality," and again, "in insanity . . . they (hallucinations) are the and substantial phenomena, and consequently ovoke abnormal intellectual and affective states." sequence, Professor Bianchi is opposed to the n of dementia praecox to the position of a clinical and finds no justification for that denomination, n so far as it indicates a form of sensory insanity , already included in the conception of hebe- The author's descriptions of alcoholic, mor- nd cocainic insanity are rather scanty, particularly In Part III dementia paralytica, luetic, aphasic, plectic, senile, and traumatic dementia are ly considered. In discussing paralytic dementia, able space is given to the question of its etiology. to the general mass of opinion the author cannot at syphilis is the specific pathogenic factor, but that it may be provoked by a large number of causes, prominently amongst which he places alcohol, heredity, and sexual excesses. To sum up, the book is a monument of careful labour, an admirable exposition of the whole domain of psychiatry, and is of enhanced value to English students from the fact that it contains a wealth of reference to Italian works not otherwise easily accessible. The translation into English of so large a treatise as this *Textbook of Psychiatry* must have involved an immense amount of labour to its translator, Dr. MacDonald, who is to be congratulated on having so faithfully interpreted the original work in easy, flowing, and lucid English. He will, we trust, be rewarded in finding for the book a recognition equal to its worth.

The first English edition of Professor **Kraepelin's** *Lectures on Clinical Psychiatry*[3] was published in 1904, and was reviewed in our columns shortly afterwards. Its deserved popularity is attested by the issuing of a reprint of the first edition in September, 1904, and, following hard upon its heels, the publication of the second edition which we have before us. The alterations in this edition consist mainly in the addition of two new lectures on Congenital States of Disease, and Morbid Criminals and Vagabonds, and the substitution of more appropriate examples for some of those used in the first edition. In the chapter on Congenital States of Disease, some of the clinical forms of what is frequently called "degeneration" are discussed and illustrated by examples. This chapter runs into that of morbid personalities, the distinction between the two classes being made, for convenience sake, according as to whether the disturbances are apparently the expression of the morbid condition of past generations or seem to be purely personal abnormalities. The chapter on Morbid Criminals and Vagabonds is a distinct gain. Naturally, the author does not consider exhaustively, or even attempt to classify, this great group of abnormal individuals, who are, in the majority of cases, feeble-minded people to be found much more often in prisons than asylums. Their scientific investigation is as yet only in its initial stage, their diagnosis beset with difficulty, and their certification as insane and irresponsible in the majority of cases impossible. Professor Kraepelin describes some cases whose counterparts will be known to every alienist and magistrate, and draws attention to a restless love of wandering and an aversion for any settled employment or form of social restraint, which is characteristic of vagabonds all the world over, and may have an ethnological rather than a pathological significance. This translation of Professor Kraepelin's lectures cannot be too widely read.

The publishers of the series of which *Nervous and Mental Diseases*[4] is a volume required that each author should cover his respective subject in all essentials, and that the maximum amount of information, in letterpress and engravings, should be given for a minimum price. Brevity, clearness, and comprehensiveness are, as Dr. **Pedersen** says, essential for this task, and these essentials the author has evidently kept in mind. The book contains a large amount of information culled from more important works, there being hardly a single author or lecturer, Dr. **Nagel** asserts, whose teachings have not been incorporated in a condensed form into the pages of this volume. The information is arranged according to the usual classifications, is easy of access, and is illustrated by excellent diagrams and photographs. The book may thus be of some service for purposes of reference to the man in a hurry, or to persons anxious to acquire a superficial knowledge of nervous and mental diseases in the minimum time, but is of no value to the serious student. It might be made of more value in future editions by removing the sprinkling of obvious clerical errors present in it, and by stating in a bibliographical index the authors laid under contribution; and, further, by explaining in the text the diagrams and lettered charts which are in this edition neither referred to nor described.

---

[3] *Lectures on Clinical Psychiatry.* By Professor Emil Kraepelin of the University of Munich. Being the authorized translation from the second German edition. Revised and edited by Thomas Johnstone, M.D.Edin., M.R.C.P.Lond. Second English edition. London: Baillière, Tindall and Cox. 1906. (Demy 8vo, pp. 352. 10s. 6d.)

[4] *Nervous and Mental Diseases.* The Medical Epitome Series. By J. D. Nagel, M.D., Consulting Physician to the French Hospital, New York. Series edited by V. C. Pedersen, A.M., M.D. London: Hodder and Stoughton. (Cr. 8vo, pp. 276; 46 illustrations. 4s.)

GENERAL SURGERY.

IF the atlas of general surgery[5] by Professor GEORG MARWEDEL is not altogether a success this is due chiefly to the fact that the author set himself an impossible task. Some subjects are suitable for presentation in the form of a "hand-atlas," others are not, and general surgery belongs to the latter class. The volume contains about four hundred pages and two hundred illustrations, how could the subject be adequately dealt with within these limits? Under the circumstances no complaint could have been made if the first two chapters had been omitted. The first is on Antisepsis and Asepsis, the second on Anaesthesia; both are full of descriptions of technique, the one of the methods of sterilization, the other of the administration of anaesthetics general and local, and while excellent in themselves their subject-matter is to be found in all textbooks of elementary practical surgery. Chapter III is on Injuries; its fullest section is that on fractures of bones, which is admirable, and the subject of burns is also well treated. This is followed by a long chapter on surgical infective diseases, in which the action of bacterial infections in general is first considered and subsequently the various special infections. Here again the osseous system is the most adequately illustrated, the section on the pyogenic infections of bone being particularly good. Acute specific infections are, on the other hand, very poorly illustrated; except for some drawings of organisms, the whole section contains but one picture, that of a case of noma, and the description "atlas" is here a misnomer; illustrations of malignant pustule and other such infections might legitimately have been expected. Among the chronic infections tuberculosis is an exception to an otherwise similar poverty of illustration; in the case of syphilis there are pictures of three cases of late tertiary lesions, but none of either the primary or the secondary stages of the disease. The sixth chapter deals with new growths, and here the series of photographs from original sources is good. The author's classification is clinical, into the groups "simple" and "malignant," but to these he adds a third, that of "mixed growths," a histological not a clinical group like the other two. The volume ends with a chapter on diseases of blood vessels, in which the three conditions—aneurysm, phlebectasis, and gangrene—are described. The introduction of this special chapter was necessary, because the author does not systematically describe the surgical diseases along with the injuries of special tissues. No doubt this plan is responsible for certain omissions of importance; for example, there is no mention of such affections of the osseus system as rickets and osteomalacia, and the diseases of bursae are altogether omitted. The photographs throughout the book are excellent, and the same may be said of the twenty-eight coloured plates with a few exceptions; the drawing of the arm on plate 13 is faulty, and plates 16 and 18, illustrating osteomyelitis, are crude in colouring and wanting in detail.

Mr. J. CRAWFORD RENTON has collected into a small volume entitled, *Contributions to General Surgery*,[6] a series of papers and records of surgical cases which he has contributed to various medical journals since 1878. The collection consists in part of short papers descriptive of single cases and groups of cases, and in part of paragraphs giving simple expressions of opinion on different subjects pronounced, we gather, in the course of discussions before societies. Among the earlier contributions of most interest is the record of a case of gastro-enterostomy performed in 1892 for a pyloric tumour, which was judged to be malignant, but which subsequently disappeared, and a series of three successful abdominal sections for intussusception at a time when such successes were not so common as they are to-day. Of value also are the histories of 8 cases of sciatica, supplemented by a later note to a total of 23, treated by resection of adhesions with satisfactory results, a series which gives strong support to this rational method of treatment. Among the later papers are the records of 3 cases of remov the Gasserian ganglion by the Hartley-Krause r Appendicitis is the subject of a paper read in 1904 b the Glasgow Medico-Chirurgical Society. Mr. Rent in favour of operation in the early stages of the a whenever possible. As a discussion of the indicatio operation and the investigation of the disease by m methods the paper is somewhat disappointing. Thr out the book the cases recorded reach a high lev interest, and surgeons will be grateful to the autho collecting and publishing them in an attractive readable form.

RECENT WORKS ON PROTEID CHEMISTR

THE interest which physiologists have always taken i proteids is amply justified by the importance of the ject. At the present day this interest is accentuat account of the promise that we are on the eve of u standing their chemical constitution, as was explain a recent article in the BRITISH MEDICAL JOURNAL o bearings of the work which Emil Fischer and his colle are diligently pursuing. It is, therefore, not surpr that at this time a number of books should be issu scientific readers in order that they may be made aw how we stand in relation to a problem of such overwhel importance. Of these, two are at present before us, one the pen of Dr. S. B. SCHRYVER,[7] the other from that GUSTAV MANN.[8] In Dr. Schryver's book, which is th come of a course of lectures he recently delivered at versity College, London, the subject is presented fro standpoint of the organic chemist. Dr. Mann's wo according to the title-page, based on Professor Otto heim's treatise, but beyond that there is little to in its German origin. The book is twice the size of Cohnh and in no place is it a mere translation. The subject i sidered partly from the point of view of the physiol histologist and partly from that of the physical ch The two books necessarily overlap to a considerable e but at the same time each forms a complement t other. Those interested in the subject should read books. Both are interesting, both give the latest inf tion, both abound in references to original memoirs which still deeper information can be obtained. Schr is the more matter of fact of the two. Mann indul speculations, and we fear some readers will be bewi by the multiplicity of references to the work of ph chemists. Physical chemistry is a branch of scienc in its infancy, and exhibits that phase, so generall in young sciences, of being rich in hypotheses, u mutually destructive. The mere fact that the subj capable of mathematical treatment is apt to misle unwary. If a theory can be reduced to a m matical formula, one is apt to suppose that it therefore be final. A word of warning is here nece Many physiological readers are rusty in their m matics; they need not be alarmed at the mathem expression of theories which could equally well been expressed in ordinary language; if they had expressed in ordinary language it would have been possible to see how very theoretical many of the The progress of organic chemistry in general, a physiological chemistry in particular, will no doubt future travel very largely on physical lines, but th timate goal each will reach is shrouded in obscu present.

The importance of proteid chemistry to the bio physiologist, and medical man is seen in its a tion to the solving of the problems of nutritio metabolism. This aspect of the subject is trea quite different ways in the two books we are consi but in both it appears to be subsidiary; at any r space devoted to it is small. No doubt both the a have felt that the time is hardly ripe yet for drawi conclusions. When our knowledge of proteid const is complete, then it will be time to study from t rock of fact the more complex questions of the ma which albuminous material is utilized in the econ the body.

---

[5] *Grundriss und Atlas der Allgemeinen Chirurgie* [Outlines and Atlas of General Surgery]. Von Professor Dr. Georg Marwedel. Munich: J. F. Lehmann. 1905. (Crown 8vo, pp. 414; 171 illustrations and 28 coloured plates. M. 12.)

[6] *Contributions to Clinical Surgery.* By James Crawford Renton, M.D., F.F.P.S.G. London: Rebman, Limited. (Demy 8vo, pp. 192, 22 Illustrations. 5s.)

[7] *Chemistry of the Albumens.* By S. B. Schryver, D.Sc., Ph.D., I on Physiological Chemistry, University College, London. P under the auspices of the University of London. Londo Murray. 1906. (Demy 8vo, pp. 192. 7s. 6d.)

[8] *Chemistry of the Proteids.* By Gustav Mann, M.D., B.Sc., Un Demonstrator of Physiology, Oxford. Based on Profess Cohnheim's *Chemie der Eiweisskörper.* London: Macmillan 1906. (Demy 8vo, pp. 606. 15s.)

DERMATOLOGY.

DUNCAN BULKLEY, of New York, has published in k form four lectures delivered by him at the New k Skin and Cancer Hospital. The subjects dealt with e under the heading of *The Relation of Diseases of the to Internal Disorders.*[9] The author's *Leit-motiv* is the ortance of dealing with skin diseases on general ical principles; in a word, of treating the patient and the label attached to the morbid cutaneous manifesta- s. That this is good sense all will agree, but like y another truism, it can bear repeating and empha- ig, for it must be admitted that skin disease is but often looked upon as a thing apart. Dr. Bulkley es over many fields in the course of his lectures, hing on the functions of the body and such litions as anaemia, malaria, and syphilis. He con- es with many practical remarks on diet, hygiene, general therapeutics in connexion with the diseases r consideration. He has much to say on the in relation to the cutaneous disorders and very ly points out that much information can be derived its examination, an element not infrequently over- d in practice. His remarks on the testing of the l acidity of the urine are also to the point, for there e no doubt that present current methods are inade- . Observers will agree with him, too, that when na occurs in skin patients, both the asthma and the disorder may depend on the same internal cause, not nravelled—a fact noticed by others. Altogether the can be read with profit. The author's method of nistering milk will commend itself for trial to those find difficulty in making that food acceptable. There everal printer's errors, which should be corrected in ubsequent edition.

E fourth edition of Professor STELWAGON'S *Treatise on ses of the Skin*[10] has followed very closely on the third. ext has again been thoroughly revised. Some changes been made, and with advantage, as in the substitu- or plates, from Mracek's Atlas, of coloured representa- of the author's own cases. An increased amount ention has been paid to recent developments in the f the application of electricity to the treatment of ed conditions of the skin. The paragraphs on the , high-frequency currents, and the Finsen light have brought up to date. On the other hand, some dant matter has been thrown overboard in order to the volume within bounds. Nevertheless, the book ger now by seventeen pages. The excellence of Pro- Stelwagon's presentation of the subject has been d out in previous reviews of his book. One or two points might be modified in a future edition, such statement, based on Sabouraud's dictum, that the pecies of trichophyton fungus found in the nails is nown as ectothrix, the other varieties of fungus not ing these structures. Pernet has demonstrated the rix fungus in a case under his care.

NOTES ON BOOKS.

niversity of Perugia publishes the fourth fasciculus iv of the *Annali della Facoltà di Medicina*, the pre- fasciculi of this volume having, it seems, appeared . Both apparently deal with papers of this latter nd are largely devoted to comparative physiology nbryology, but Signor Meoni contributes an inter- paper on anomalies of the inferior thyroid artery, Dr. Horsa writes on ankylostomiasis in Umbria and rious methods of cure. After having tried many nt medicines, he is inclined to regard male fern as st anthelmintic to employ.

e imposing volume[11] which contains the transactions *Société de Médecine et de Chirurgie de Bordeaux* for 1905 s entombed ample evidence of much good work and of several discussions of marked interest. The word "entombed" is not out of place, for, though there is a brief general index, there is no table of contents, and thus search for papers on specific subjects is unduly difficult. Added to the volume and separately paged is an essay by Dr. Jean Pery which should not be overlooked. It deals with the conditions under which it is legitimate and desirable to put an end to pregnancy, and was awarded by the Society the Jean Dubreuilh Prize.

The *Elementary First Aid Handbook*[12] is a synopsis of the fuller textbook on first aid by Dr. GEORGE T. BEATSON, which is the official textbook of the St. Andrew's Ambulance Association. In reviewing the larger book we expressed appreciation of the synopsis. It makes a handy book, which should prove most useful not only to those who have not time or ability to master the more detailed textbook, but to all who wish for a ready means of refreshing their memories on the broad outlines of first aid treatment. A few more illustrations from the larger book might with advantage have been bound up with the synopsis.

As implied by the title, Drs. WIGHTMAN and COLLIE'S *Questions and Answers on First Aid*[13] is a series of questions covering the greater part of the subject of first aid, with short answers to each. It is presumably intended to serve as a companion book to the textbook on first aid by the same authors, to which reference is made for fuller information on the subjects of the various questions. It will probably be found useful by candidates for examination who have had no previous experience in writing answers to questions.

NOTES ON HEALTH RESORTS.

LEAMINGTON.

THE Town Council of Leamington has issued for the use of medical men a book of forms to facilitate the prescription of Leamington mineral waters for patients visiting Leamington, and the electrical and mechanical methods of treatment there provided. Leamington Spa water belongs to the class of muriated salines and contains a large proportion of sodium chloride; it contains some sodium sulphate, a similar proportion of calcium sulphate, and a little magnesium sulphate. There is beside a considerable quantity of calcium chloride with a smaller quantity of magnesium chloride. Calcium chloride is recovering some of the reputation it enjoyed in the past as a remedy of much power in glandular affections. The water is used both internally and for baths; it is recommended in gout, chronic and subacute rheumatism, and diseases arising from plethoric condition of the abdominal organs; it is also found of use in irritative disorders of the skin, in conditions of increased vascular tension, and chronic interstitial nephritis. The bathing arrangements include douches of various sorts, a Turkish bath, and a vapour bath; electrical treatment of various kinds, including high frequency, is also installed as well as radiant heat baths. There are good gardens, and Leamington is within easy reach of the most picturesque parts of Warwickshire. The Town Council has also issued a small handbook which will be convenient for patients, giving particulars with regard to charges at the Pump Room, opportunities for amusement, and a list of the principal hotels and boarding-houses. Sir A. B. Garrod, at the reopening of the Pump Rooms in 1887, said that the composition of the Leamington waters clasely resembled that of many Continental waters which have attained considerable reputation, such as those of Kissengen and especially Homburg. In his opinion there was no reason why the Leamington springs should not prove equally efficacious.

A NEW MEDICAL FACULTY IN TURKEY.—A scheme for the establishment of a Turkish medical faculty at Salonica is in contemplation. At present there is a Turkish civil faculty of medicine and a school of military medicine in Constantinople. In addition to these there is an American medical school and the well-known French school at Beyrout. Within the past few years a new faculty has been established at Damascus. The new school at Salonica is to be on the lines of that at Damascus.

---

[9] *he Relation of Diseases of the Skin to Internal Disorders.* By L. Bulkley, A.M., M.D., New York. London and New York: Limited. (Demy 8vo, pp. 175. 6s. 6d.)

[10] *tise on Diseases of the Skin*, for the use of advanced students and ners. By Henry W. Stelwagon, M.D., Ph.D. Fourth edition. lphia and London: W. B. Saunders and Co. 1905. (Demy 8vo, : 258 illustrations and 32 plates. 25s.)

[11] *etins et Mémoires de la Société de Médecine et de Chirurgie de x* Année 1905. Paris: Masson et Cie., et Bordeaux: Feret et 06. (Demy 8vo, pp. 820.)

[12] *Elementary First Aid Handbook and Syllabus of Lectures*, being a synopsis of Beatson's *Ambulance Handbook on the Principles of First Aid to the Injured.* Glasgow: St. Andrew's Ambulance Association. 1905. (Fcap. 8vo, pp. 67.)

[13] *Questions and Answers on First Aid.* By C. F. Wightman, F.R.C.S. Revised by R. J. Collie, M.D. London: G. Gill and Sons. (Fcap. 8vo, pp. 32. 2d.)

The Fifteenth International Medical Congress.

HELD AT LISBON, APRIL 19TH TO 26TH.

[*Continued from p. 1174.*]

The Sections.

The Congress was divided into 17 Sections, and of these No. 12 was subdivided into three parts and No. 6 into two parts, so that in all there were virtually 20 different Sections. On several occasions two or three Sections combined for a specific purpose. Each Section published a volume of reports, and a booklet containing summaries of some of the communications, but inasmuch as a considerable number of the reporters and authors were absent, a very large proportion of the printed addresses were not read. I propose to deal only with some of the more important papers which actually were read and discussed, as however good the other communications may be they did not form part of the work of the Congress. I may mention that some of the most popular subjects failed on account of the absence of the authors; for instance, in the cancer debate the majority of the speakers announced failed to answer to their names. Drs. Bashford and Gaylord were not in Lisbon, while Professor Moore could not find the proper room. Professor von Hansemann thus had matters all his own way.

Anatomy.

In this Section the most noteworthy communications were in the nature of demonstrations by Ramon y Cajal on nerve cells, and a report by Benda on histological nomenclature. Professor Waldeyer described an anatomical predisposition to hernia. It would be useless to attempt to give an abstract of these papers, especially as their chief merit lay in the minuter details, and not in general or broad lines.

Physiology.

This Section was better attended than the one just mentioned, but as far as real discussion is concerned left much to be desired. The first paper of importance was the report of Max Verworn, who dealt with the processes in the nervous system. After briefly referring to the neuron theory, he raised two questions: (1) Do the ganglion cells and axis cylinders form a single cellular unit, or do the axis cylinders arise from their own cells? and (2) Do the specific nervous processes occur in the ganglion cells, and do the fibres only serve to conduct, or are the nerve fibres themselves the seats of all nervous processes, and do the ganglion cells only possess trophic functions? Regarding the first question as a purely histological one, he comes to the conclusion that the neuron theory depends on the answer. So much is still uncertain that he refuses to decide one way or another as yet, but states that if Schultz's work on the development of nerve fibres from the neuroblast, forming the peripheral nerves from Schwann's cells, can be confirmed, the neuron theory must be rejected. The second question is more important for the physiologist. First, he cannot reconcile himself to the idea of a trophic function of the ganglion cells. The processes in which the value of the cells has been greatly underrated, and that of the fibres greatly overrated are next dealt with. He speaks of fatigue, and regards the ganglion cell as the integral part of the reflex arc. From these considerations he concludes that the cells are the sites of specific nervous processes. Turning to the metabolic processes of the nerves and fibres, he finds definite data from which he can draw conclusions. The value of oxygen for the cell is clearly demonstrated by numerous experiments, while the relation of the cell metabolism to CO_2 and to lactic acid has only been made out as a probable process. His remarks on the fatigue, suffocation, refractory stage, and recuperation of the ganglion cells are all of great interest and also of considerable importance. Dealing with paralysing effects, he opens up the whole subject of narcotics, and shows that in narcosis the chemistry of the cell is so altered that it is no longer capable taking up oxygen, even when the supply of this plentiful. Lastly, he deals with the inhibitory pher mena, and finds that the process is always the same; t nervous impulse is blocked in the ganglion cell, where is already in the state of excitement, or before it h become excited. But we do not know what takes pla in the nervous inhibitory processes in the inhibit ganglion cell. Turning to the nerve itself, he speaks its special metabolism, and finds after consideration thermic and chemical conditions that the specific phys logical function of nerve fibres is the conduction of t action of stimulation. This conduction is not a simp physical process, but is dependent, in part at least, the metabolism of the nerve, and especially on its d similatory capacity for oxygen. Much has still to made out in this subject, but a great deal of work recent date has thrown light on problems which w dark before. Birch-Hirschfeld spoke of the action radium. Starting from Mme. Curie's classical descripti of the effect of radium on the skin, he reviewed the wh of the literature, laying stress on points which appear to him to be of importance. First, he states that we mu accept a direct action on epithelial cells. The cell ch matin suffers directly, but does not lead to the death the cell. The growth is retarded and deformity of t cell follows. Comparing the bactericidal action of radiu with its action on cells γ (especially epithelial cells), finds that the γ rays which exercise this action scarc penetrate into the deeper tissues in the living organis He briefly reviews the effect on various organs and tiss cells, and touches on the degenerative changes met wi in lymphatic structures. Radium acts on all cells, b the degree of susceptibility of the various cells is extreme varying. The cells of a superficial cancer are much m deeply affected than are the cells in the surroundi tissue. He distinguishes an inflammation-producing a a degeneration-producing action of radio-active substanc After briefly dealing with the different action of a, β an rays, he concludes by referring to the mistaken views London, who wished to show that radium caused a lig reflex in persons who are absolutely blind (nerve blir ness). Madsen read a very interesting paper on t physical chemistry of enzymes and haemolysins. Th paper will be available in another place for those who interested in the subject, which is highly technical, but academic importance. Tangl, in dealing with digesti processes, did not elaborate any actually new views.

Pathology and Bacteriology.

The first day's work in this Section was comparativ dull, the most important contribution being one by Cor on necrosis of adipose tissue. Dominicis dealt with t general effects of the destruction of the liver on t organism. The programmes for the 21st and 23rd, h ever, were very promising. On the former of these da cancer was down for discussion. Von Hansema answered to his name, and spoke of the functions cancer cells. He described his views on the subje which he believed had been misconceived. Cancer ce were endowed with the power of secretion, movement, a phagocytosis. With regard to the first, he instanced t secretive function of cancer cells of the breast, which p duced milk in response to electrical stimuli. T secretive activity persisted as the cells increased number, and the author supported his argument by co paring the maternal cell with the tumour cells, includi the cells of metastases. He next described the mo ments of cancer cells, but did not lay much stress on t function. With regard to the phagocytic function, said cell inclusions were very common, and passed on discuss the leucocytic action with regard to new growt The phagocytic action of cancer cells was not o directed toward bacteria, but also toward normal ce and even to small cancer cells. With regard cachexia, he considered that this was not necessary factor in cancer, but occurred only wh complex ulceration, leading to secondary infection, v present. He then spoke of the digestive disturban produced by the growth directly, and concluded tha large number of persons presented advanced metasta growths without exhibiting any symptoms, and diagnosis was possible only by careful examination. called attention to the fact that in cancer, anaplasia mi xist with hyperplasia. With regard to the type of nicious anaemia met with in stomach growths, he ibuted this to the internal secretion which existed in cer cells. In support of this view, he quoted some of own experiments with the pancreas. In making a ical survey, he pointed out that the recent work of lich could at present be accepted only for mice, and t we were not justified in deducing from them for n. The greater part of the remaining time was taken by M. Doyen, who spoke to a steadily decreasing ience.

n Monday, 23rd, trypanosomes were chosen for the eral topic, and Martini, in opening the discussion, re- ked that since Schaudinn described the *Spirochaeta* in ociation with syphilis, there was a tendency to regard e micro-organisms as belonging to the trypanosomes. It still uncertain how far we were to go in summing up trypanosome diseases, and he hoped that Koch would le the question whether relapsing fever spirochaetes st be included. All trypanosomes caused one common ptom, that of more or less well-marked anaemia. er was also a regular symptom, while many of them luced rashes and oedema. Under ordinary conditions, diseases were chronic or subacute infections. The pathological change common to all the trypano- es was an enlargement of the spleen. After de- bing the characters of the species and of the ous classes, he passed on to generalities. Rat anosomes which were pathogenic only for white and harmless to grey rats were distinguishable those producing diseases. The *Trypanosoma evansi*, urra; *T. brucei*, of nagana; *T. rougeti*, of dourine; *lmassiani*, of mal de Caderas, and the human trypano- es were morphologically alike. The trypanosome of ioktis was like *T. lewisi* but from two to three times er. *T. lewisi*, *brucei*, and *elmassiani* had been icially cultured, but the Uganda trypanosome could ept alive only for thirty days on ox and horse-blood by Martini. It was quite possible that the trypano- es of nagana and surra, and the corresponding human ase trypanosomes were the same species, their varying lence and pathogenicity depending on the natural ages through different hosts, from the tsetse flies *ssina morsitans*). The diseases of man caused by anosomes were classified as: (1) Trypanosome fever; leeping sickness; and (3) kala-azar. He did not feel fied at present in including tick fever, relapsing fever, among trypanosomatous diseases. He spoke of the two as African trypanosome diseases. These were ntially diseases of poor starving negro races; famine war spread the infection. White people were eptible to sleeping sickness, but the remissions the late occurrence of brain symptoms were marked in them than in blacks. The sym- ns, course, diagnosis, and pathology of the sses were next dealt with. With regard to etiology, Bruce was the first to prove that the e fly was the intermediary of the illness. Beside the *ina morsitans*, the *Glossina palpalis*, or perhaps *ina pallidipes* had to be reckoned with. Prophy- cally, the experiments of Koch and Schilling had n that immunizing was impossible, since the im- ity conferred on donkeys was found to be associated trypanosomes in the blood in large quantities after s; therefore all efforts must be turned to the tsetse Protection and other means of ridding areas of the must be employed. All treatment against sleeping ness had hitherto been useless. Turning to kala-azar ile tropical splenomegaly), or black fever, he related ndependent discovery by Donovan and Leishman of asite which was found in the large majority of black- cases. Similar bodies had been found in Delhi . Against the view that the Donovan-Leishman s were pyroplasms, he advanced arguments to show they were really trypanosomes. Rogers's work, and of Chatterjee, made this view highly probable. The mediary insect of black fever was not yet certainly n. Martini next described the characters of the s and the clinical and pathological characters of the ss. His paper was excellently illustrated by wall res of the trypanosomes, tsetse flies, etc., and by fine microscopical specimens. In conclusion, he ed out the directions in which fresh investigations d be guided to throw valuable light and to introduce useful assistance in this series of diseases. In the discussion M. Laveran strongly maintained that the Donovan-Leishman bodies were piroplasms, and said he could not yet accept any of the proofs which tended to place them among the trypanosomes. Schaudinn thought that these bodies were inseparable from the trypanosomes. Kopke next related his personal experiences and reviewed the results of his observations, without throwing much light on the problem. There was no discussion. França followed with two papers—one on the histology of the changes met with in sleeping sickness and the other on trypanosomes of birds. In the latter communication he raised the question of treatment, and claimed good results from the use of atoxyl. Martini stated that he had observed seeming cures in two cases of trypanosome infection, but he warned against regarding these as lasting cures until a considerable time had elapsed, since, in some cases, death took place extremely late. He advised careful investigation in these cases, including the inoculation of monkeys (macacus and others) with large quantities of the blood of the patient.

M. Laveran next presented his report on the prophylactic inoculations against protozoal diseases. He dealt first with paludism. While there was no general agreement as to whether an immunity could be acquired, the great majority of observers denied it, although all animals possessed a natural immunity. He detailed the methods followed in attempting to produce immunity against malaria, but added that all the attempts carried out had failed up to the present time. Next he turned to the piroplasmoses. These included Texas fever and East Coast fever. Cattle might acquire an immunity against one, which did not protect against the other. The immunity was produced slowly. When infected by piroplasm, cattle seemed to recover long before the infective material had been got rid of, and any other infection occurring during the latent period might cause a fresh outburst of symptoms. The serum of cattle which had recovered from piroplasmic infections did not produce immunity in other animals, when injected even in very large quantities. There was no other method of immunizing cattle than injecting the living virus, but much might be done to prevent the illness becoming severe or fatal. Laveran described the various means employed and suggested by various observers. Passing on to ovine and canine piroplasmic infections, and then to equine disease, he said that in the case of sheep the results were very variable, while dogs were more freely immunizable, and their serum might offer a slight protective action to other animals. Dealing next with trypanosomes, he said *T. lewisi* produced an almost complete immunity in rats, and as the illness from this trypanosome was rarely fatal, it was easy to immunize rats artificially. The same kind of immunity was producible in regard to surra, nagana, and mal de Caderas, but as these diseases were usually fatal in most animals, immunization could be gained only in certain more resistant animals, such as cattle, sheep, and goats. No immunity was attainable with the trypanosome of sleeping sickness, and after recovery an animal could readily be reinfected. Attempts to utilize the serum of rats immune to *T. lewisi* produced a passive immunity, but this was much less powerful than the active immunity. Less favourable were the results with the trypanosome of nagana. Summing up, Laveran found that in malaria and trypanosomiasis serumtherapy had failed completely, and only in some piroplasmic affections had any advance been made. In the discussion Martini raised the question of immunity in infancy in trypanosomiasis. The results which he mentioned were unfavourable. Boyce said malaria did not confer any immunity against yellow fever, as had been stated. He agreed that the serum of trypanosome-infected animals conferred exceedingly little immunity. The spirilla of tick fever exercised a stronger action.

On the 24th, the most important papers in this Section were those of A. Dieudonné and Vaillard. The former dealt with the prophylactic action of infective diseases, and described the following methods of immunizing actively: (1) With living, fully-virulent virus; (2) with living attenuated virus; (3) with dead bacteria; and (4) with bacterial extract. He found that the protective power of killed cultures in cholera, typhoid fever, and plague was very distinct, but not absolute. Those cultures when injected not only reduced mortality, but affected the morbidity by reducing the number affected, and by rendering the infection less severe when it occurred. The duration of the immunity was many months or even years at least. The best method was by employing Pfeiffer-Kollé's agar cultures. At first, after a successful inoculation, there was an increased susceptibility towards infection, and it was therefore necessary in this period to guard against bacterial infection. He held that protective inoculations could not be employed in the place of hygienic means, but they were of importance under given conditions as a prophylactic method. Vaillard next presented a communication on dysentery serum. He said the mortality of dysentery was very high in certain districts. He therefore thought it necessary to seek for an efficient therapeutic serum, which would have a preventive as well as a curative action. The results of his investigations were the introduction of such a serum. With its aid he reduced the mortality from 11 per cent. to 8 per cent., but the actual value of the serum could be demonstrated better by regarding the clinical course and by following the animal experiment. The serum possessed antibacterial and antitoxic properties, and proved most efficacious in rabbits. In one series of 80 patients there was only 1 death, and in every case the number of stools was immediately diminished. In some cases the number before the treatment was as high as 210, and afterwards dropped to 76. The effect of the serum in man was summed up as follows: The abdominal pain and tenesmus are diminished or removed, the number of stools is greatly diminished, and within the course of twenty-four to forty-eight hours returns to the normal. The symptoms of intoxications also disappear. Vaillard obtained good results in some cases of summer diarrhoea which was not due to dysentery. He claimed that his serum was the most active with which he had dealt. The only discussion was limited to the question of the duration of the immunity. Vaillard answered this in a careful tone. On the 25th very little of importance was brought forward.

THERAPEUTICS.

The standard of the communications was not high, nor was there anything particularly novel in this or important. Some interesting papers, however, were read. Ishizaka dealt with the venom of the Habu snake which is found in the south-west district of Japan. The poison, which is very potent, contains haemorrhagin, and also haemolysin, agglutinin and minute traces of neurotoxin. The toxic effects of the poison are extensive haemorrhages at the site of inoculation, paralysis of motor centres in warm-blooded animals, and also of the heart in cold-blooded animals, paralysis of the respiratory centres; when injected directly into the central nervous system, it causes haemorrhages in the spinal cord and brain. If the venom is heated for fifteen minutes to 73° C., the haemorrhagic action is destroyed; not so the haemolytic action. The latter requires thirty minutes at 90° C., to be destroyed. The haemorrhagin can be entirely removed from the solution by shaking with chloroform, and the remaining watery solution still contains the haemolysin and neurotoxin. All the toxic constituents can be removed by acetone, while petrol, ether, or carbon disulphide removes all the inactive parts and is therefore employed in purifying the venom. Hasebroeck dealt with the effect of Zander gymnastics in arterio-sclerosis. He said the beneficial effects were due to the fact that the peripheral circulation was thereby, as it were, brought to exercise a proportionate suction and thus to adapt itself to the abnormal conditions. By its means the patient was capable of taking healthy exercise without running any risk of the blood pressure rising. Kaczynski challenged some of the speaker's statements on the ground that physical exercise in arterio-sclerosis mostly did harm. Curci delivered a very excellent address on the molecular constitution of organic compounds and their physiological and therapeutic action. He dealt in turn with the hydrocarbons, the alcohols, phenols, aldehydes, and cetones; the amines, amides and imides, oximes, acids, pyrines, and nitriles. In speaking of each group, he analysed the chemical constitution, and followed up the therapeutic considerations from the molecular arrangement. For example, in dealing with some of the compounds in the phenol group, he pointed out that mon-atomic phenols possessed, besides their fundamental paralysing action on the central nervous system, a transitory exciting action on the heart and v sels, caused by the action on the medullary centres, wh the polyatomic phenols showed an action, in proportion the number of hydroxyl groups added, of steadi decreasing paralytic effects and increasing excitati phenomena. Following out this reasoning in spec cases, he said that the three di-hydroxyl-benzols—pi catechin, resorcin, and hydroquinone—had a similar acti to phenol but were less paralytic and more convulsiv they depressed the temperature, stopped hypersecreti and exercised local anaesthetic action; they were l toxic than phenol. So with phloroglucin, Curci held th his theoretical conceptions were realized, and that therapeutic doses it had an action like digitalis of to effect on the heart, and had also an antipyre action, while it might be regarded as safe. Again, dealing with the aldehydes, he showed how the great action was antiseptic, this being due to the fact that th compounds were eastly oxidizable into their respecti acids, and were then hydrolized into the alcohols. T action of glyoxal was curious, since it produced a co paratively safe narcosis; but the later effect was ve dangerous, since oxalic acid was formed, and acted tox ally. Speaking broadly, he found that the carbon w responsible chiefly for paralytic effects, and the hydrog for excitation effects. Naturally, many variations a modifications occurred according to the peculiar arran ment and chemical behaviour. He formulated some bro rules, many of which were capable of further extensi Chabas spoke of his hypodermic application of oxyg for which he claimed excellent results. The oxygen w said to be rapidly absorbed, and the effects were suppos to be partly mechanical and partly chemical. Vario results were mentioned. He injected from a few hundr cubic centimetres to 4 litres. Bernheim spoke highly the results which he had obtained with tuberculin, but strongly recommended Jacob's tuberculin, which did n produce a reaction. Cuguillère spoke of the action *x* rays on osteo-sarcoma, in a single case, ending recovery.

The very long programme of the 25th dwindled do considerably, but still contained much of intere Balthazard spoke of the radiations of Crookes's tubes a of radio-active substances, and of the emanations of t latter. He found that radium exercised a similar acti on normal and pathological tissues as *x* rays, the eff being less powerful than the latter. He stated that t radiations of radium were comparable to those of a ve soft Roentgen tube. The therapeutic action of radiu rays was therefore limited to very superficial lesions—f example, cancroid, lupus nodules, angiomata, etc.—a also to morbid conditions of the nose, ear, and digesti channels, where *x* rays could not be applied. Radiu emanation possessed cytolytic and bactericidal acti similar to that of radium radiation. It localized itself the internal glands, especially in the suprarenals, and w excreted in from five to six hours by the lungs and ski and slightly by the kidneys. There was no danger radium dermatitis if reasonable precautions were take and the quantity of emanation which could be introduc into the organism was incapable of causing any dama Tunnicliffe read a paper on the behaviour of certa organic and inorganic phosphorus compounds. He sa that in children organic phosphorus compounds led an increase in the amount of phosphorus assimilated a retained in the body, and also increased the amount nitrogen absorbed from the food. Sodium glyce phosphate of casein contained phosphorus, which w practically completely absorbed by the organism. Liv spoke of the results obtained by bacillosine—a new an tuberculous serum. He claimed a cure in 80 per cent. the patients. He added, that bacillosine was qui harmless.

AT an inquest in Cornwall last week the coroner stat that the inquiry was being held because the certificate respect of the death could not be accepted. It was sign by a lady medical practitioner who held only an Americ diploma, which did not entitle her to admission to t *Register* or to sign certificates. The previous coron might have accepted certificates from this lady, but could not do so. He did not wish to throw doubt on h professional qualifications, but hoped that in future registered medical practitioner would be called in, and t relatives thus spared the unnecessary pain of an inquest.

A REPORT ON GUERNSEY LUNACY ADMINISTRATION.

(BY OUR SPECIAL COMMISSIONER.)

attention has recently been drawn to an extremely esting but somewhat anomalous state of affairs in Bailiwick of Guernsey with regard to its lunacy nistration through the annual report for the year of the Medical Officer to the Town Asylum of eter Port. This report, which is essentially a lengthy ation of the defective state of Guernsey lunacy law l contains, further, numerous complaints of obstruc- offered to the medical officer in the discharge of his s and also to his attempts to remedy a state of affairs is, from the medical point of view, indubitably —opens up the whole question of Lunacy and Poor- administration in the islands (Guernsey, Alderney, ark) comprised within the Bailiwick.

complaints made include such important points as, great and legalized looseness in the certification of ns alleged to be insane, there being nothing in the o forbid partners or near relatives filling in the nedical certificates required in respect of the same n, nor to prevent the medical officers of the Town ital certifying patients for the Town Asylum, which is, in fact, merely an annexe of the former institu- under the same administration; secondly, faulty and quate provision for the care and medical treatment of mates of the asylum, there being no trained mental dical nurse of the whole asylum staff, the attendants merely "excellent scrubbers and cleaners; but, as ursing the simplest case, or for proper mental, al, or surgical nursing, every one as ignorant as an n babe"; thirdly, the insanitary condition of the ngs, and especially of the cells, this being borne out eport from the Lister Institute on the condition of ell padding, in which it is stated that the samples for their examination "are, bacteriologically ing, very dirty," containing large numbers of ria, *B. coli communis* being found abundantly in both es, and *Staphylococcus pyogenes aureus* in one; ly, the action of the Committee in keeping these in constant use up to date, notwithstanding the oition of the medical officer, and in many other ways ying the position of this official, culminating in a st for his resignation, to which request he has atically declined to accede.

se are only a few of the many grave complaints by the medical officer, but they suffice to indicate ce the somewhat strained relations between this al officer and his Board, and the rather peculiar of the existing lunacy regulations in Guernsey.

LUNACY LAW IN GUERNSEY.

order to appreciate the circumstances in which these ions have arisen and the pressing need for reform ed which has been recognized in Guernsey for some —it is necessary to glance briefly at the present legal ion for the care of the insane in Guernsey.

all who have any acquaintance with the Channel ls are aware, they comprise two distinct and te commonwealths, not incorporated with the d Kingdom, though enjoying the protection of the , retaining their ancient constitutions and privi- and each having its own laws and Parliament or . For this reason the bailiwicks of Jersey and sey have each their own lunacy laws, which are ly different both from English lunacy law and from ther, and there can be no question that, notwithstand- certain spirit of emulation between the two islands, sey has lagged far behind her sister in the matter vision for the insane. Jersey lunacy laws appear in way comparable with our own, whereas those of sey, as will appear, are in many directions inade- to present-day requirements. The laws in force to- re those of 1895[1] and 1901,[2] the former regulating node of admission to the only two asylums in sey, both parochial institutions (St. Peter Port Asylum and that of the country parishes at Câtel), e latter providing additional regulations for these nstitutions and also regulating the detention of s of unsound mind kept under restraint in private . The law of 1895 runs as follows:

Ordinance Regulating the Mode of Admission to a Lunatic Asylum of Persons Mentally Afflicted.

(Passed at the Chief Pleas after Michaelmas, held on the 30th September, 1895.)

The Court, in renewing the Provisional Ordinance regulating the mode of admission of persons mentally afflicted to an asylum for the insane, passed at the Chief Pleas after Michaelmas, held on the 30th September, 1889, and renewed up to this day by the Provisional Ordinance passed at the Chief Pleas after Michaelmas, held on the 1st October, 1894, having heard the conclusions of Her Majesty's Procureur-Delegate, ordered as follows, that—

1.—No person shall henceforth be admitted to an asylum for the insane, without the previous production to the authorities of the Asylum of two certificates, each signed by a medical man, practising in this island, and stating, according to the form annexed, that they have visited the Patient, that he is mentally afflicted, and that there is reason to place him in a Lunatic Asylum. These professional visits of the medical men must take place independently one of the other, and with an interval of at least twenty-four hours between them, except in such cases as may be certified as urgent by the medical men. The said certificates, moreover, must, when produced, bear the signature of the natural guardian, the husband, or legal guardian of the Patient.

2.—In urgent cases the Medical Certificates may be countersigned by the Crown Officer before they have been signed by a Guardian; well understood that under these circumstance the patient shall only be provisionally admitted into the Asylum, and the person applying shall be bound to take the necessary steps to cause a Guardian to the Patient to be sworn at the next meeting of the Court, under a penalty, at the discretion of the Court, which shall not be less than Two Pounds Sterling, nor more than Five Pounds Sterling. Immediately after the swearing of the Guardian, the Medical Certificates must be signed by him, under a like penalty to the above, in order that the patient may be definitely admitted into the said Asylum.

3.—Whosoever shall admit or cause to be admitted, or shall detain a person in an Asylum without the above formalities having been observed, shall be punished by a fine, at the discretion of the Court, of not less than Ten Pounds Sterling, nor more than Thirty Pounds Sterling.

4.—The said fines shall go, one half to Her Majesty, and one half to the informer.

Ordinance Regulating the Mode of Discharge of Persons Confined in a Lunatic Asylum.

The Court, in renewing the Provisional Ordinance regulating the Mode of Discharge of Persons confined in a Lunatic Asylum, passed the 2nd November, 1889, and renewed up to this day by the Provisional Ordinance passed at the Chief Pleas after Michaelmas, held on the 1st October, 1894, having heard the conclusions of Her Majesty's Procureur-Delegate, ordered as follows:

1.—Persons confined in a Lunatic Asylum can only be discharged upon a Certificate, signed by the Medical Officer of the Asylum, stating that the Patient is no longer insane, and declaring the day and hour that he signed the Certificate.

2.—After the signature of the said Certificate the Patient shall not be discharged until twenty-four hours have elapsed, and in the meanwhile notice in writing shall be given by the Authorities of the Asylum, as soon as possible, to the person at whose request the Patient had been definitely admitted to the Asylum, stating the hour when he will be discharged.

3.—Whoever shall liberate or aid in liberating a person confined in a Lunatic Asylum, without the afore-named formalities having been observed, shall be liable to a fine, at the discretion of the Court, which shall not be less than £10 sterling, nor more than £30 sterling.

4.—The said fines shall go, one-half to Her Majesty, and one-half to the informer.

The law of 1901 contains seven clauses:

Clause 1 ordains that a yearly report shall be submitted to the Royal Court of Guernsey on the regulations of the asylums, the classification of the personnel, diet, disciplinary measures employed, etc.

Clause 2 prohibits the detention *under restraint* of an insane person for more than 48 hours without notice to the Bailiff and Crown Officers, and requiring every person who would keep any insane person under restraint to conform to the regulations as to medical certification laid down by the law of 1895 with regard to the asylums, and forbidding any one to detain any insane person so placed under certificate for more than seven days without either provisional permission from the *Cour Ordinance* pending the decision of the Royal Court, or of the Royal Court itself. Application for permission must be made through the Crown Officers, and the terms and conditions of such permission must be at the discretion of the Court.

Clauses 3 and 4 provide for the quarterly visitation by two of the Jurats, accompanied by a physician or surgeon, of the asylums and of the domiciles of any insane persons so detained in private dwellings, and details the manner of their visit of inquiry.

Clause 5 stipulates that every patient treated in a private house shall be visited once a quarter by a physician or surgeon licensed to practise in the Island.

Clause 6 orders the keeping of a "Medical Visitation Book," in which the visiting physician shall inscribe at each visit the number, sex, and state of health of all the patients, the names of those subjected to restraint or solitary confinement, or under treatment for bodily illness, cases of death from wounds, or of casualties, as well as the means of mechanical restraint which may have been employed, and the cause for such restraint

Clause 7 prohibits the use of mechanical means of restraint, except where it may be necessary for medical or surgical operation or where the patient might otherwise injure himself or others.

Infraction of any of these laws to render the offender liable to heavy fines.

The prescribed forms of medical certificates referred to in the ordinance of September 30th, 1895, quoted above, run as follows:

I, the undersigned A. B., now practising as physician or surgeon in this island, hereby certify that on the day of , 190 , at o'clock, at [residence, etc.], in this island, I examined personally C. D., and this without the presence or assistance of any other physician or surgeon. That the said C. D. is a person mentally afflicted, and that there is reason to place h in an asylum for the insane.

Indicate: (1) Facts showing the mental unsoundness as observed by himself.

(2) Other facts (if there are any) showing the mental unsoundness which have been communicated to him by others.

(Signed)

I, the undersigned [husband, natural guardian, legal guardian, etc., of C. D.], request that the said C. D. be admitted to the lunatic asylum belonging to the hospital of

(Signed)

Countersigned by me, this day of 19 ,

(His Majesty's Procureur or Comptroller.)

It is evident from the above, which comprise the whole of the lunacy laws of Guernsey, that, according to the strict letter of the law, they are defective in many directions.

I. With regard to the persons who may sign medical certificates of lunacy: These must be each "un médecin exercant sa profession en cette ile." Now, strangely enough there does not appear to be anything in the law of Guernsey to prevent any native of the island practising medicine, whether qualified by any recognized licensing body or not, and, by implication, signing certificates in lunacy. The only law on this point is the old law of 1777,[3] which has never been rescinded or amended. This law runs as follows:

Médecins et Chirurgiens, Etrangers, Comédiens, et Charlatans.

Sur la représentation de Monsieur le Baillif qu'il s'est souvent arrivé que des Charlatans ont répandu leurs drogues dans le public, et ont entrepris de guérir diverses maladies nonobstant leur ignorance totale dans la Médecine et dans la Chirurgie, au grand danger de la Santé et même de la Vie des habitants de cette Ile, et que d'autres personnes y ont fait diverses Exhibitions sans être autorisées de ce faire; et que par un Ordre de sa Majesté en Conseil, en date du 11e Décembre dernier, il appartient à la Cour Royale de permettre ou réprimer ces choses. La Cour, prenant la dite représentation en considération, ouie la conclusion des Officiers du Roi, a défendu et défend à tous Etrangers d'exercer, sous aucun prétexte que ce soit, la Médecine ou Chirurgie, ou distribuer ou administrer aucune Drogue ou Médecine, et à tous Comédiens, Charlatans, et autres, de faire aucunes Exhibition ou Exhibitions, sans avoir obtenu la permission de la Cour Royale, sur la peine de cent livres tournois d'amende, applicable un quart au Roi, un quart aux pauvres, et moitié au délateur.

It thus happens that according to the letter of the law only strangers must apply to the Royal Court for permission to practise medicine in Guernsey. In practice, however, all medical men in Guernsey, whether native to the island or not, apply for this permission, and it is certain that if a medical certificate were submitted to the Procureur which had been filled in by some one not a properly qualified medical man, his counter signature would be withheld. It is a fact, however, that medical certificates in lunacy have been accepted and put in force which were signed by medical men not licensed by the Royal Court. This is certainly a matter which might very opportunely be regularized at the present moment, when the lunacy laws of the island are under revision.

II. There is nothing in the law to prevent interested persons signing medical certificates, or to prevent patients being received under certificates by interested persons, nor to forbid the signing of a certificate by a regular medical attendant in the institution in which the pati is received.

III. The certificate itself is manifestly incomplete, authority being required for the facts indicating insar communicated by others.

IV. No protective clause exists safeguarding those v have signed certificates in good faith from repeated acti at law.

The signing of a medical certificate in lunacy Guernsey is thus not unattended by serious risk to medical man, a risk so great that, we are informed, sc decline absolutely to put their hand to so dangerous instrument. This hazard, and also the archaic fo perpetuated in Guernsey law are well exemplified b memorial presented to the Queen in Council in 1890 b gentleman of high social and official standing in island, who had on two occasions been put in asylu under certificates, and his estates under legal guardi ship. The memorial stated that on the first occasion, of the medical certificates was filled up and signed by medical officer of the asylum to which the memoria was committed, and countersigned by the Procureur Attorney-General, who was not only a brother of medical officer but executor under the wills of both memorialist's father and mother. On the second occas the medical certificates were signed by two independ medical men, but countersigned by the Procureur, as duty bound, who was both trustee and executor. It is interest to note here, as throwing a sidelight on the p petuation in Guernsey of obsolete forms of procedure, t on the second occasion, in the year 1890, the le guardian of the memorialist, in order to stay the sale effects, which sale was detrimental to his (memorialist's) interests as heir-at-law, had to ha recourse to the *Clameur-de-Haro*. This form of app abolished in Normandy in A.D. 1583, still survives in Channel Islands, and is tantamount to an injunction stay any proceedings which, in the opinion of appellant, injure his estate or infringe his rights. T injured person kneels down on the ground in the prese of two witnesses and cries aloud:

Haro! Haro! Haro! a l'aide mon Prince! on me fait tort

and then repeats the Lord's Prayer in French. Proce ings being stayed in this manner, the case must be tr in court, when the party who is found to be in the wro is condemned to a fine and a *Regard de Chateau*, wh formerly meant a night's imprisonment.

Happily the whole of the lunacy laws of Guernsey are present under revision, their inadequacy to mode requirements being frankly admitted, and we venture hope that in the revised laws the importance of inserti protecting clauses will be as freely recognized.

LUNACY ADMINISTRATION.

Turning from the legal situation to the actual admin-tration of the law and the provision made for the insa we find that here again Guernsey affords an illustration the perpetuation in modern times of antiquated forr In all countries the earliest measures taken with rega to the insane, after it had become recognized that t maintenance of the indigent insane devolved up the State or the community, were disciplinary, and t treatment accorded to these unfortunates little if better than that meted out to common malefactors. F lowing this came the second stage, when the barbaro usages which obtained in madhouses gave place to simp detention, with no eye to curative treatment and no co plete separation of the insane from the vagrant, idle, vicious poor. Lastly came the modern asylum und expert guidance, under a separate administration, a with as adjuncts, in many countries, special mental ho pitals for curable and acute cases, and for the chro inoffensive cases, the family colonies.

As will appear, Guernsey, whose administration happily undergoing revolution, is as yet in the seco stage. The earliest legislation we have been able to tra is the provisional ordinance of 1889, already given in fu Prior to this time there must have been some provisi made for the insane poor under Poor-law Boards and f private cases under the regulations governing leg guardianship, but we have been unable to discover doc mentary evidence of any such cases in the volumes of t *Recueil d'Ordonnances*, which date back as far as 1533. W have heard it stated that in times past mad people we nfined in small towers with bricked-up doors in the rish of Torteval, and had their food thrown in through ıall, high windows, but have been unable to obtain any nfirmation of this. Possibly the old building called lombier, near the church of S. Pierre-du-Bois, whose igin and purpose still puzzle archaeologists, may have en used for this purpose, or even Victor Hugo's ıaunted house" at Pleinmont. Probably, also, many of e seventy-eight wretched people burnt for witch- ıft and heresy during the reigns of Elizabeth, mes I, and Charles I were only the victims of sane delusions. However that may be, the fact remains ıt the earliest provision made for the relief of the cessitous or sick poor was the establishment in 1751 the Country Hospital at Câtel for the country parishes l in 1742 of the Town Hospital for St. Peter Port and that this day the two Poor-law Boards, those of the country l the town parishes, have under their care in the same titutions, the ordinary sick, the vagrant, vicious, and stitute classes and the insane both pauper and private. ese two institutions, the Country Hospital and the wn Hospital with its annexe, the Town Asylum, are the y establishments for the reception of lunatics, either ıper or private, in the island. They were not erected the result of State legislation, but were established untarily by the parishes concerned; they have re- ined, not only with regard to the ordinary and sick r, but also as regards both rate-paid and private insane, ler the same management. Naturally such an arrange- nt, with its confusion of Poor-law and lunacy adminis- ion, could not give satisfactory results.

eforms have been carried, as one of the speakers of the tes said "at the point of the bayonet," and so far as the ıne are concerned remedial effort has been, and still is, spicuous by its absence. The Poor-law Board of St. er Port consists of a president, a vice-president, the or of the parish, the two constables, the church- den of the parish, and the procureur of the poor with e other members, and ten overseers. The superin- lance of the hospital and asylum is in the hands of a ıse Board composed of six members of the Poor-law rd and the vice-president as chairman and treasurer of House Board. At the Country Hospital, in the same , the relief of the poor and the sick, and the care of per and private insane, is carried on by a Board of ctors composed of various parochial and Crown ials, and popularly-elected representatives of the shes. The medical officers to the hospitals and to the n Asylum are visiting medical men, and in no sense ical superintendents, the superintendence being, as above, vested in the House Board. They thus corre- ıd in the main to the visiting medical officers of our houses in England and Wales, but, in respect to the ne, have no possibility of appeal beyond their respec- Poor-law Boards, there being no Commissioner in ıcy in Guernsey. This fact, that the whole superin- ence of the asylum is in the hands of the House d, is one chief cause of the dispute which has arisen ıe case of the Town Asylum; but, faulty as this ıgement may be, it is clearly laid down in the regula- of the asylum, and was the condition under which medical officer accepted office.

as unfortunately refused permission to visit the Town um, but through the courtesy of Dr. Gibson, the ical Officer of the Country Hospital, I was able to make rough inspection of this institution. It consists of a building of simple but pleasing design, with side s prolonged some distance in front and behind, the e being roughly the form of the letter H. The main ing is of three stories, the ground floor being ı up to administrative offices, refectories and ooms for male and female inmates, kitchens, etc. first floor, forming the hospital for the poor of the ry parishes, is divided into male and female sides, under the charge of a head nurse with a staff of ant nurses; it is comfortable, scrupulously clean neat, and from the medical point of view well pro- . The second floor is for able-bodied paupers, and h clean is strikingly bare and uncomfortable, with y inadequate provision for ventilation and warming; moreover decidedly crowded. The lunatic wing, the ront limb of the letter H, is a small long one-story ing, divided into male and female halves by a median running from end to end of the building, which is fenced off from the rest of the hospital by iron railings, enclosing a very small exercise yard or airing-court for each half. There is on each side one small day-room, rudely furnished, for both pauper and private cases, and the sleeping accommodation consists of cells which resemble, but are very much inferior to, the cells of our large convict prisons. They are, of course, except in cases of illness, merely sleeping cells, but are practically devoid of daylight, and are only warmed by means of a row of hot-water pipes separated from them by the width of the corridor. There is no bathroom on either side, but merely a dark cell, containing movable hand basins and a portable metal bath. The accommodation for all classes of patients is alike, and there appear to be no facilities for the amusement or recreation of the inmates. Notwithstanding the obvious structural defects, the whole place, asylum, workhouse, and hospital wards, was exceedingly neat and clean, the patients in good physical condition, comfortably clothed and apparently contented, reflecting great credit on its energetic master, Mr. Ferbrach, who obligingly conducted us over the establishment, and on Mrs. Ferbrach the matron.

The orphan and destitute children are cared for in a separate building, at one time an isolation hospital, removed by the width of the extensive farm belonging to the hospital from the main building.

As we have said, we were denied entrance to the Town Asylum, but, from what we have heard, this differs in no essential particular from the Country Hospital in its provision for the insane, and we think that enough has been said to support the strictures of the medical officer to the Town Asylum on Guernsey lunacy administration.

PROPOSED REFORMS.

Fortunately, action is being taken. The whole matter of lunacy and Poor-law administration has been engaging the attention of the States since it was raised in the beginning of 1904. At a meeting of the States, at which the Bailiff said that "he would be a bold man who would stand up in the House that day and say that their sick, infirm, poor, and needy were efficiently looked after," and that scenes were to be witnessed which were "quite sufficient to cause sleepless nights"; a Committee was appointed to inquire into the matter and formulate a better scheme than that now in force. The report, or rather the reports—for the Committee were divided, and there is both a majority report and a minority report—were presented to the States in June, 1905. Both the majority and the minority were agreed that there should be established one central asylum, *under a separate administration*, for the whole Island in place of the existing institution, but were divided as to the wisdom of establishing a single central Poor-law authority. On the point, however, which immediately concerns us the States have accepted in principle the responsibility of establishing one central Lunatic Asylum for the whole Island, and we see from a recent *billet-d'état* that a site for the new asylum has already been selected at Montville, which visitors to Guernsey will remember as beyond and not far distant from Hautville House, the old residence of Victor Hugo.

Some points which to us the committee revising the lunacy laws will be well advised to take into consideration have already been indicated, and the further opinion might be expressed that the interests of Guernsey will be best served in this matter by the appointment of a resident Medical Superintendent to the new asylum with powers similar to those of the Medical Superintendent of asylums elsewhere. A wholesale revolution of lunacy administration in a small self-governing Commonwealth like this offers a favourable opportunity of putting into effect reforms, such, for instance, as the treatment of incipient insanity and the family-care system, which can only be effected after prolonged deliberation in larger states where millions instead of thousands would be affected.

In conclusion, I wish to tender grateful thanks to Mr. E. C. Ozanne, the Attorney-General for Guernsey, and to Mr. J. Linwood Pitts, the Librarian to the Guilles-Allès Library, for much assistance in making this inquiry.

NOTE.—Since writing the above we see from reports of the subsequent deliberations of the States that the purchase of Montville has been abandoned, and the acquirement of a more suitable site at Oberland is under consideration.

REFERENCES.

[1] *Recueil d'Ordonnances de la Cour Royale de l'Ile de Guernsey*, Compagnie d'Imprimerie de Bichard, Guernsey [2] *Ordonnance de la Cour Royale*. December 21st, 1901. [3] *Ordonnances de la Cour Royale*, vol. i (1533 to 1800).

LITERARY NOTES.

A SOCIETY for the study of the history of the sciences and of medicine has recently been founded in Berlin. The President is Imperial Privy Councillor von Buchka, the Vice-President Professor Pagel.

We note with regret that we were premature in congratulating the *Times* on having found salvation in regard to the orthography of the name of the distinguished Russian investigator to whom science owes the theory of phagocytosis. In two subsequent issues the name has appeared as Metschnikoff; this is all the more noteworthy since in a review of the Professor's work on Immunity which appeared in last week's Literary Supplement, his name is correctly spelled. Are contrary forces striving for mastery in the reading room of Printing House Square? Or is our contemporary, in what may seem a doubtful position, playing for safety by alternating the spellings on different days?

Mr. Andrew Lang has said that he never detects any error in his writings till they are stereotyped. It would be better for authors on whom a kindly Providence has not bestowed that impenetrable conceit that never owns a mistake not to look at their work when, with all its imperfections on its head, it stands in the fierce light of print. Sometimes the recollection of one of those blunders

> quas aut incuria fudit
> Aut humana parum cavit Natura

flashes on the mind as soon as it is hopelessly beyond recall. Such an unpleasant experience was ours last week. In a paragraph entitled "The National Antivivisection Society" we alluded to "the famous Sir Courtenay Boyle" as having smelt a rat which he would like to nip in the bud. The perpetrator of this nice derangement of epitaphs was of course not the late Permanent Secretary to the Board of Trade, but Sir Boyle Roche, a member of the old Irish Parliament, less distinguished but much more widely known to fame. We apologize to the shade of Sir Courtenay Boyle, who was a model of official precision, for the affront we have unwittingly done his memory by confusing him with one whose name has become proverbial for verbal entanglement. In the East Sir Boyle Roche would doubtless have been called the Father of Bulls. Whether he was the father of all the "bulls" laid at his door may be doubted; but *on ne prête qu'aux riches*. It would be impossible in our sober pages to recount even a small fraction of the "bulls" imputed to him. Two may be given as specimens. It was he who pleaded that he was not a bird and therefore could not be expected to be in two places at once. In advocating the Union he declared his love for England and Ireland to be so great that "he would like to see the two sisters embrace like one brother."

Samuel Johnson's description of the lexicographer as a harmless drudge might well be applied to the poor scullion of literature whose business it is to wash the dishes on which the feast of reason is served to readers of this or any other journal. But for his obscure toil the banquet would often be neither appetising nor digestible. The minds of authors, especially perhaps scientific writers, are frequently too full of more important matters to have much thought to spare for the trivial details of the preparation of their compositions for the press. Consequently many of these valuable productions require a good deal of labour—for the most part unnoticed and when noticed occasionally resented—to fit them for publication. To say nothing of mere clumsiness and inelegance, there may be repetitions and contradictions, obscurity and needless truculence of expression. Frequently, too, they swarm with misspellings of names, wrongly-numbered illustrations, spaces for dates and figures left blank, sentences hanging the air like Mahomet's coffin, having no copula or without predicate, and words and phrases which convey the exact opposite of the author's meaning. Often the writing is illegible, or by additions and excisions the MS. has become an inextricable
jungle. This chaos the editorial labourer has to reduc
to some kind of cosmos, and he may think himself luck
if he escapes the wrath of some superior person who ha
views of his own about punctuation and spelling. Bu
even the worm will turn, and we note with sympatheti
interest that the *Deutsche medizinische Wochenschrift* has i
a recent number issued a manifesto, in which the atter
tion of authors is called to the fact that contribution
particularly those that are typewritten, are with ir
creasing frequency submitted in a state that causes grea
and needless trouble in printing. Our contemporar
goes on to say that the editorial staff cannot be ex
pected to undertake the irksome work of putting such pr
ductions in order, nor is the publisher willing to bear th
cost of the corrections required. Wherefore in future suc
MSS. will be returned to the authors for emendation, c
the costs of correction will be charged to them on a highe
scale than usual. This will also apply to extensive alter
tions of the text made on the proofs by authors. We ou
selves have had bitter experience of authors who treate
the proofs of their writings as Balzac did his, that is
say, as rough drafts to be brought to their final state b
repeated recasting. It would save much loss of time an
needless expense to the Association, and vexation of spir
to all concerned, if authors who confer upon us th
privilege of publishing their writings, would in the fir
instance send them clothed and in their right mind.

In a thesis for the degree of doctor of medicine recent
presented to the University of Toulouse, Dr. Duliscou
gives some interesting particulars as to leprosy in Fran
in the Middle Ages. The scourge began to underg
abatement in the sixteenth century. This result cann
however, be credited to the treatment employed. Th
sovereign remedy seems to have been thought to be
snake with a black back. The reptile's head was tied
his tail, and in that position he received a prolonge
beating with rods; afterwards the head and tail were c
off at one stroke and all the blood was allowed to dra
out of the body. Patients were given this blood to drinl
if frothy salivation with swelling of the body was pr
duced, that was held to be of good augury. Ambroi
Paré accepted the teaching of Valesianus of Tarentu
that lepers should be castrated not only as a means
preventing the propagation of the disease, but as a ther
peutic procedure, the loss of the testes causing "a co
and moist complexion which is antagonistic to the he
and dryness of leprosy, whereby the liver is cooled ar
consequently does not burn the humours that are th
primary cause of leprosy." Paré, however, admits th
there is no specific for leprosy, neither the eating
snakes, nor the drinking of their blood, nor bleedir
cupping nor baths, nor anything else curing the diseas
Gordon, in addition to viper's flesh, prescribed laxati
enemata, blisters over the "commissures" of the sku
scarification and cupping, and inunctions with camomi
and other emollient plants. We may laugh at the
methods of our rude forefathers, but do we deal mu
more successfully with leprosy at the present day?

The *University Review* for April contains an importa
article by Sir William Ramsay on patriotism in t
universities. He says that as a nation we do not und
take the duty of preparing for our defence against attac
we pay others to take our whippings when they come, a
they sometimes come deservedly. It is not so, we are to
in any other European country; it used not to be so
England in the old days, and as a nation we have lost t
will, our consciences have become seared. It is hopele
Sir William thinks, to expect compulsory military servi
in Britain. Nevertheless, it is recognized to be the du
of every able-bodied man to be prepared to serve l
country. How, he asks, can University men contribute
this end? "By becoming volunteers, it may be answer
True; but could not some arrangement be made where
service could be made compatible with academic work
Young men at the Universities play games because th
like them, and play becomes a habit. Could we not, ur
Sir William, form a habit of devoting one of our Univers
years to shooting and drill? Would it not be possible
create the feeling that not to have learned to defend on
country is "bad form." There is every reason to belie
he adds, that if a movement in this direction were start
in the Universities, the present Minister of War wou
meet it more than half way.

IVIL HOSPITAL TRAINING FOR MEN OF THE R.A.M.C.(VOL.): A SUGGESTION.

order that the men of the volunteer branch of the oyal Army Medical Corps may perform their duties ficiently, it is necessary that they receive training as ck nurses as well as in bearer company work. The only portunity which at present they have for the former aining is the annual camp of a week's duration. The ises are few and slight in character, and the time is quite sufficient. A systematic endeavour should be made by ficers of R.A.M.C. (Vol.) units throughout the country to tain training for their men as sick nurses in civil hos- tals. At a time when a special Committee of the ritish Medical Association is meeting to consider pos- ble improvements in the medical service of the volunteer rces, the making of this suggestion seems appropriate. though the majority of volunteer medical units are at esent organized as bearer companies, the usual experi- ice is that such units are trained as far as possible in ld hospital work, and do that work in camp. It is asonable to expect them soon to have their constitution tered, so as to assimilate it to the regular R.A.M.C., each coming a "field ambulance"—that is, a conjoint field spital and bearer company unit.

Inquiries amongst the men of my own bearer company ve shown that a number are willing to give the time hospital training. The training should be carried on the winter, out of the drill season. There may be ficulty in obtaining the necessary permission from the spital authorities, objections being raised which may be us classified: (1) Interference with the training of idents and nurses; (2) difficulties of supervision of the ations between the men and the nurses; (3) that it uld not be right to entrust any part of the care of the tients to the men; (4) expense entailed to the hospital; establishing a dangerous precedent: the hospital may called upon to train railway men and other ambulance dies.

Such objections are met by enrolling men of good racter and intellectual attainments and by giving them means of lectures and demonstrations and by practice the ordinary ambulance class character a thorough pre- inary training before their hospital work. The work the men amongst the patients should be entirely in the le wards and in the male outpatient and casualty de- tments. Their presence, like that of medical students, uld be of benefit to the patients by stimulating those cerned in the treatment of the patients to great roughness and correctness in their work. The question expense is a very proper one for the hospital authorities raise, and it might be arranged to pay a small fee to hospital for each man trained, such fee to be met by extra capitation grant earned by each man who is certi- as having undergone a satisfactory training. The ning would establish no precedent, for it is on quite a erent footing to the training of other ambulance men. educating the men of the volunteer branch of the Royal ny Medical Corps a hospital renders a great national vice in helping to fit the men efficiently to perform ir duties if they volunteer for service abroad or if they required in such a great national emergency as an my on our own shores.

urther indications as to how objections by the hospital horities may be met are given in the following rules, ch I have drawn up. Modifications and alterations be required to meet various local circumstances.

posed Regulations for Hospital Training of Men of the R.A.M.C.(Vol.).

Applications for the training of men shall be made by the nmanding Officer of the R.A.M.C.(Vol.) to the Secretary of Hospital.

No men shall be sent to the hospital for training until have been instructed as far as possible in hospital work he medical men who are officers of the R.A.M.C.(Vol.).

Not more than five men shall attend the hospital at one

The usual period of training shall be a fortnight, and the rs 9 a.m. to 5 p.m., with an interval from 1 to 2 p.m. Men attend for a shorter course and for shorter daily hours; example, in the morning or in the afternoon.

For the first week of training the men shall work in the alty department, and for the second week in the male ds. There shall not be more than three men working in the ds at one time.

In the casualty department the men shall be under the control of the resident medical officer on duty there, and in the wards under the control of the ward sister and resident medical officers.

7. Under the above control, each man shall be taught and shall carry out first aid and the simpler duties of a nurse.

8. Application may be made for a man to have an extension of this period of training, or to have a further period of training at some other time.

9. Arrangements may be made for a man to be trained as a dispenser of medicines.

10. Each man before commencing his duties shall sign a paper promising good conduct, and recognizing that for any breach of these regulations or of hospital discipline he shall be summarily dismissed.

11. Each man while on duty shall wear a white jacket with the Geneva Cross on the right arm.

12. At the conclusion of his course of training, if the man has performed his duties competently and attended regularly, he shall receive from the hospital authorities a certificate to that effect.

Let me urge upon medical officers of volunteers to endeavour to obtain, and upon hospital authorities to recognize the reasonableness of accepting, some such scheme of training as the above. Apart from the national service rendered, the presence of a few quiet, intelligent young men partly trained, anxious to learn and willing to help, cannot fail to be of benefit to the hospital and the patients in its charge.

WILLIAM SHEEN,
Captain, R.A.M.C. (Vol.), Officer Commanding the Welsh Bearer Company, R.A.M.C. (Vol.).

THE PLAGUE.

PREVALENCE OF THE DISEASE.

PERSIA.

THE last two reports of the Conseil Sanitaire de Perse give further information concerning the progress of the plague in Sistan. Dr. Zaplotinsky, Physician to the Russian Consulate in Sistan, states that up to March about 26 per cent. of the cases had been pneumonic and 74 bubonic. Of the former, none of the cases observed by him recovered. The general mortality was 94 per cent. The Sanitary Commission regard the famine which has for some time been prevailing as in large measure responsible for the outbreak, and record it as their opinion that the best way of suppressing the latter is to distribute food. It is said that corn exists in sufficient abundance, but that shameful speculation has put up its price to one toman the fifteen kilos (about 15s. the bushel), and that the poorer classes are so hard pressed for food as to be obliged to eat the root called *bedjend* in order to support life. The President of the Commission demands that Government should take action, and seize and distribute the wheat thus held. Later accounts describe the epidemic as not increasing. Surgeon-Captain Kelly, of the Indian Medical Service, arrived on March 14th at Nosretabad. Plenty of serum was available, and injections were at once commenced, but it seems that a Persian doctor has been undoing much of the good done by the staff of European workers, advising the sick not to allow themselves to be taken to the hospital, making the priests hide the cases from the Europeans, and vigorously denouncing the use of serum. This, not unnaturally, had the effect of starting riots. The Inspector of Customs was maltreated, the British Consul and an English doctor stoned, and the hospital, with all its medicines and material, burnt to the ground, while the situation was rendered still more unpromising from the fact that the Governor, thinking that the town offered too much risk of infection, had retired into the country. Since the riots the number of cases of plague is stated to have increased considerably.

AUSTRALIA.

Brisbane.—No fresh case of plague reported between March 8th and March 31st. No rats or mice have been found infected by plague during that period. During the week ended April 7th, 1 case of plague discovered. Dead rats were reported on the premises where the patient lived previous to the attack, but of the two rats found neither were found infected. Up to April 12th no further cases discovered in human beings, and but 1 rat found infected.

Rockhampton.—During the week ended April 7th, 4 fresh cases of plague were reported, all from one warehouse. One patient died. The patients were treated with Yersin's serum.

HONG KONG.

During the weeks ended April 28th, May 5th, and May 12th fresh cases numbered 58, 61, and 96, and the deaths from disease amounted to 51, 58, and 89.

SOUTH AFRICA.

During the week ended May 6, 1906, five rats and sixteen mice were found dead of plague in a grain store in East London, Cape Colony.

Mount Stephen, Selkirk Mountains.

BRITISH MEDICAL ASSOCIATION.

ANNUAL MEETING AT TORONTO.

AUGUST 21st–25th, 1906.

CANADIAN SCENERY.

[From a Canadian Correspondent.]

Continued from p. 1237.

WINNIPEG AND VANCOUVER.

THE following table gives the single fares from Toronto to Vancouver, and from Toronto to Winnipeg, either all the way by rail, or by boat to Fort William and thence by rail. Members of the British Medical Association who fulfil the conditions prescribed by the Eastern Canadian Passenger Association (SUPPLEMENT, May 26th, p. 280) pay half the fare going and half returning, and need not return to the place of departure.

	Association Rate.	Sleeper.
Toronto to Vancouver	$67.75=£13 11s.	$18.00=£3 12s.
Toronto to Winnipeg (all rail) ..	$32.80=£6 11s. 2d.	$8.00=£1 12s.
Toronto to Winnipeg (Upper Lake) ...	$32.00=£6 8s. (including meals and berth, Owen Sound to Fort William)	$3.00=12s.*

* Fort William to Winnipeg.

If the traveller desires to return by the Lake route well as to go that way, a charge of $8.50 (£1 14s.) is ma for meals and berth on the steamer.

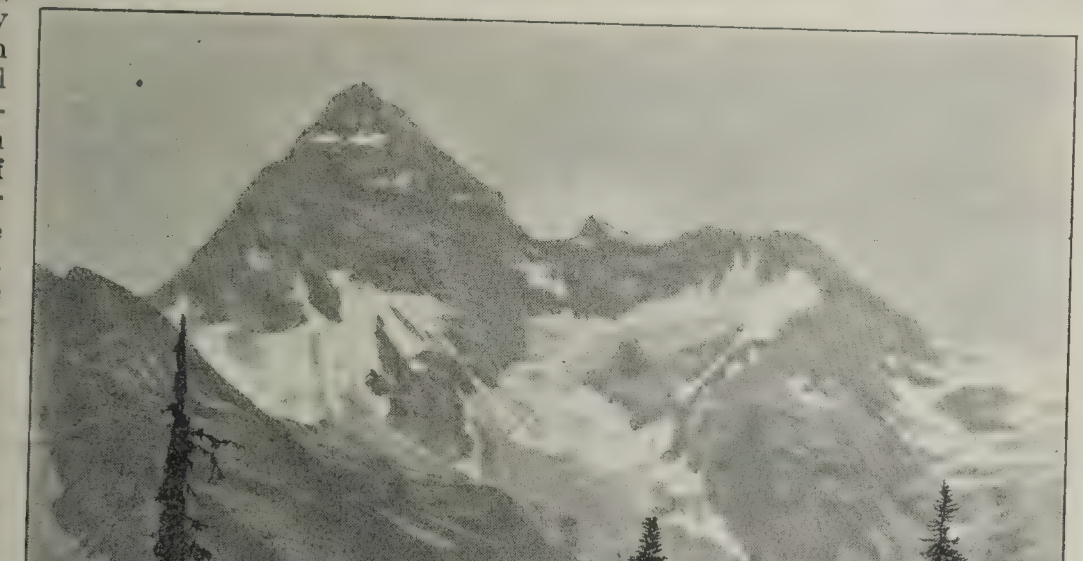
Travelling by rail all through, the passenger may lea Toronto at 1.45 p.m. or 11.30 p m., reaching Winnipeg the start is made on Saturday at 1.45 p.m.) on Monday 9.15 a.m.; if the start is made on Saturday at 11.30 p.m Winnipeg is reached on Monday night at 8.45 p.m. A d may profitably be spent here to see the beautifully pav streets of Winnipeg, the magnificent buildings, and observe the progress of a city a little more than a quart of a century old. A visit to old Fort Garry, the o Hudson Bay trading-post, will prove of interest, and the are many other places to which the local profession w be glad to direct the traveller.

Instead of the all-rail route to the West we wou strongly recommend the "upper lake" trip. The stea boat express leaves Toronto for Owen Sound at 8.25 a. on Tuesday, Thursday and Saturday, and reaches Ow Sound, after passing through the Caledon Mountain, 1.30 p.m., connecting with the Palace Steamers of t

.P.R. Sault Ste. Marie is reached the following morning, fter a beautiful sail across the Georgian Bay and Lake Iuron, where the boat at times is entirely out of sight of nd; the steamer then passes through the Soo Canal, rough which a greater annual tonnage passes than rough the Suez Canal. It comes out upon Lake uperior (area, 13,420 sq. miles) reaching Fort William on e morning of Thursday, Saturday or Monday, according the day of departure. Several hours may be spent rofitably between Fort William and Port Arthur, for ere is much beautiful natural scenery including Mount cKay. At seven the same evening the train for Winni- g will leave and will reach Winnipeg on the following orning.

No longer a youngster, Canada has donned the toga of virile young manhood, the girdle of which is the nadian Pacific Railway, stretching its 3,700 miles across e continent, with Winnipeg as its frontal knot.

From Toronto to Fort William, touching at that widely- own centre as shipping point for grain; through the land mixed farming, oken by many kes and rivers, rich game and well oded; on to Win- peg, with its push d semblance of estern ways; over e prairies to the ckies, 600 miles. e Grande Prairie ntry, along the ice River to the th of Edmonton, ntains 20,000 are miles, and , until recently, n regarded as a rict for trappers, rtsmen, and In- s only. In his ry, *Conjuror's se*, Stewart Ed- d White gives an rancing descrip- of the Old Free st:


Mount Sir Donald, Selkirk Mountains.

> ague on league remoteness ched the stern hern wilderness, odden, save by trappers, the In- s, and the beasts. The snow fell; river and bay ; bitter iron cold led the north- the abode of de- ion. Armies of ou drifted by, ly under the ra; moose, lordly scornful, stalked stically along the ; wolves howled ble, or trotted ke, in organized along the river . Day and night e artillery thundered, while the people of desolation hed beneath the tyranny of winter. Then the upheaval of , with the ice-jams and terrors, the moose roaring by un- le, the torrents rising, strange spirits abroad at night howl- rieking, cracking, and groaning in voices of ice and flood. t the sudden subsidence of the waters; the splendid, blossoming of the land with new leaves, lush grasses, an on of sweet briar and hepatica. The air blew soft, a nd singing birds sprang from the soil, the wild goose n triumph. Overhead shone the hot sun of the northern er. . . . For a brief season, transient as the flash of a wing on the shadow of a lake, the trading post was . . . . Like the wild roses around the edge of the gs, this brief flowering of the year passed.

stward, beyond the Prairie City, the girdling rail- winds through the vast plains, which scarcely a tion ago were known only to Indians, trappers, and naries. those rolling land billows which now are ned with a network of "branch lines," and dotted with progressive towns, neat settlements, and either magnificent farms arustle with grain, or hugh ranches abrowse with myriads of horses and cattle. Here is Portage la Prairie and Brandon, down there Souris City, to the north Minnedosa and Birtle, and straight ahead Qu'Appelle, Regina, Medicine Hat, where is crossed the mighty Saskatchewan River, and where may be visited a perfectly-equipped, beautiful little stone hospital, the first ever built in the Central West, reared fifteen years ago to the memory of a noble woman. At Medicine Hat those who take the Crow's Nest route change cars—otherwise on ahead again, through the coal tract and past the gas well aflame now for twenty years, and beyond, nestling there in a crook of the Bow, is Calgary. The trip is not tedious or tiresome—not an hour of it, not a minute!—only eyes may become aweary with the ever-shifting panorama of surprises. Only when he has traversed these plains and witnessed this spectacle does a son of Canada know the magnificence of his heritage, only then become an out-and-out Canadian! Look! yon gleam as of silver flashing in the sunlight! The glint of a distant river, is it, or only a tantalizing mirage? Nay, the snow-line, the first all-wondrous glimpse of the Rockies! and ahead are yet miles and miles before the panting locomotive crosses the Bow, and at the base of the foot-hills whistles for Calgary, the gem of the west. Calgary is the home of the horseman. Here is the centre of the ranching district, and cowboys are seen in every direction on the streets. Says a traveller:

> The great stretch of level country, the immense distances fading away in the purple horizon, the seeming eternity of plain ceases, and the rolling, grassy foot-hills of the Rockies succeed, glorious in their spaciousness and exhilarating air, and rising tier behind tier to the base of the great range, of which they are the mere outposts.
>
> As the train mounts the ascent the mountains seem to bar the way unexpectedly and invincibly. The beautiful Kananaskis Falls, close to where the Kananaskis River joins the Bow River, are passed, and the roar of the great rush of water is distinctly heard from the track.
>
> But the Rockies are still to be entered, and there seems no means of doing so. The mighty range rises right in front of the train, and snow-capped peak and rugged crag, clothed with spruce on the lower slopes but stern and bare higher up, seem to deny absolutely all further progress. However, the track takes a sharp turn to the left, and the train enters "The Gap," a narrow passage between two vertical walls of rock. In this startling fashion does the railway begin to traverse one of the most beautiful mountain districts of the world. For 500 miles from east to west for hundreds of miles from north to south the peaks extend, and Mr. Whymper, the veteran mountaineer, has declared the Canadian Rockies to be "like fifty or sixty Switzerlands rolled into one."

At Calgary the prairies end, and the heart is athrill at the prospect of the mountains. At Canmore, where anthracite coal is to be obtained, a magnificent view is obtained of the first peaks of the Rockies, the "Three Sisters." They stand in line, boldly rising from the valley, the snow glistening white in their fissures and crevices. Beyond, hidden in woods on the heights above the Kicking Horse River, are the far-famed medicinal springs of Banff, where many tourists stay at the comfortable hotel that the Canadian Pacific Railway has established there. The way seems blocked by the Cascade Mountain.

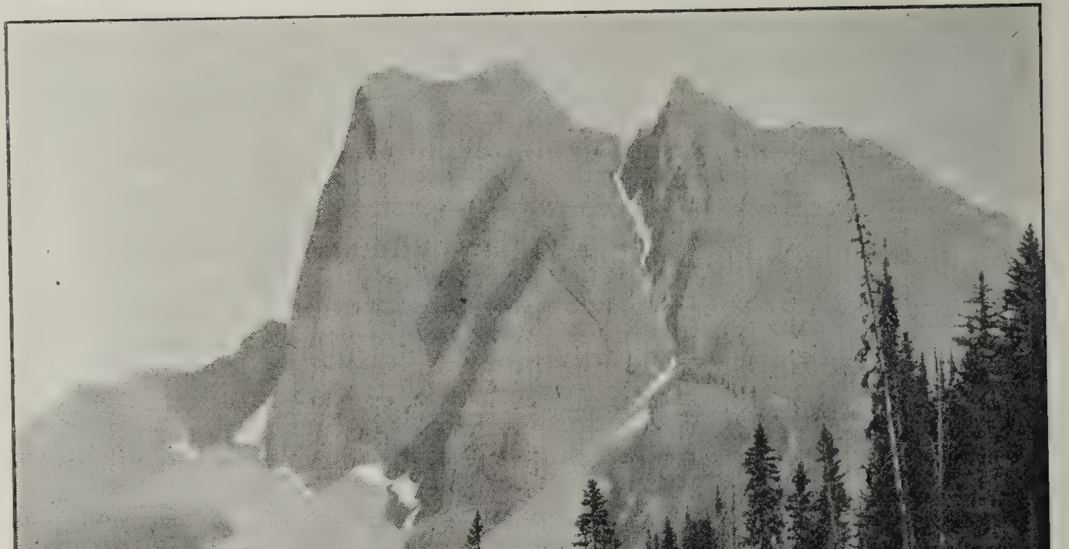
Really it is miles away, but as the line turns toward it its huge bulk seems in the clear air quite close, and the passenger sees it approaching nearer and nearer to him with a marvellous effect. It has obtained its name from a cascade down its most prominent side.

At Banff, wise travellers will pause for a time. A delightful spot, in the very heart of the mountains, the Canadian Pacific Railroad has built an excellent hotel for the use of visitors. It nestles at the foot of Mount Rundle, a great giant, the two peaks of which tower nearly 10,000 ft. high, and is at the junction of the Rivers Bow and Spray. On Sulphur Mountain are natural hot springs of medicinal value, and the views are far more extensive than is common in a mountain region.

Close by the hotel verandah the river Bow foams and boils over its falls, and looking up stream between its banks, the snow-capped Cascade Mountain closes the vista in the distance. A few yards lower down the actual junction of the rivers Spray and Bow takes place peacefully and picturesquely.

In the National Park the Canadian Government has taken steps to preserve some of the typical animals of the Dominion from extinction. In a corral of 800 acres is a herd of buffalo, a mere remnant of the thousands that once covered the plains, and even stopped trains by their numbers. Now indiscriminate slaughter has killed them off, and the only survivors of the race are the herd at Banff. They seem increasing and thriving, and now number thirty, so that the breed may yet be saved from destruction. In the same corral are a pair of moose, the noblest of the deer family. Happily there is not the same necessity for the preservation of these animals in the National Park, as they are not decreasing in numbers. The strictness of the provincial game-laws has done much to protect the wild animals, and it is likely to be many years yet before the advance of civilization threatens these noble animals with extinction. The Canadian Pacific Railway has taken great pains to make all the natural beauties of Banff accessible to tourists. It is, of course, except for the railway, virgin country, where twenty years ago man never penetrated; so roads had to be cut and trails discovered for the sake of visitors alone. One of the most charming of these is the Corkscrew Drive, winding round and round through the trees in order to reach the summit of Tunnel Mountain, just across the valley from the hotel.

Guides from Switzerland, who have been climbing mountains all their lives, have been stationed at Banff and other special spots along the line for the express purpose of ministering to the wants of travellers. Sometimes they will take them for trips in which there is little fatigue; sometimes they will accompany hardy mountaineers who are attacking monarchs of the range that have never yet been ascended, and are encountering difficulties that only hardy Alpinists know and love. In this latter class of ascents may be placed that of Mount Edith, that rears a sharp tooth of rock to Heaven, gaunt and bare.



Emerald Lake, near Field, British Columbia.

The "ribbon of steel" winds upward, past Castle Mountain, and sentinelled by Mounts Hector and Stephen, until the summit is reached, where, fed by the melting snows from loftier peaks, nestles a lagoon, out of one end of which flows the Saskatchewan and from the other the Columbia.

Leaving Banff and pressing on, a stop is usual at Laggan, the station for the famous Lakes in the Clouds. The station is 4,390 ft. above the sea level, and another 650 ft. in two and a half miles is made before the first, Lake Louise, is reached; while the other two, Lake Mirror and Lake Agnes, are 1,000 ft. and 1,300 ft. higher respectively. They are like jewels resting against the face of the mountain, and their calm, placid surfaces, amid all the wildness of their surroundings, seem to breathe of peace and quiet far removed from the cares and bustle of the world below.

Nine miles past Laggan the Great Divide of the Rockies is crossed. It is here 5,296 ft. above the sea level, and gives rise to a curious phenomenon. A stream parts and sends its waters down either slope under one or other of the arches. It is a mere chance whether a bubble finds its way from this point to Hudson's Bay or down the quicker route to the Pacific Ocean.

Now down the far slope of the Rockies, and into the Selkirks, the Sierra Nevadas, and the Gold Mountains, the scenery wilder, more majestic, more awe-inspiring.

Just after crossing the Divide of the Selkirks by Roger's Pass, at an altitude of 4,300 ft., Glacier House is reached. Right behind the hotel is the Great Glacier of the Selkirks; within easy distance is the Asulkan Glacier. The mountain scenery round Glacier is superb. The hotel itself is under the shadow of Mount Sir Donald, that rises 10,600 ft., a naked, abrupt pyramid, its sides scarred by glaciers, to a height a mile and a half above the railway.

Below Glacier, the famous "Loops," letting the train down the mountain side three railway tracks visible beneath you At Albert Canyon is seen a narrow abys sheer down its thousands of feet. A Williams River th railway, 600 ft. abov its tumbling waters clings to the edge o a cliff towering th same distance abov it.

Every season of th year has its ow charms, and the mountains are always beautiful, but the fall o the year, perhaps, makes the most vivid impression on th memory. Then the trees put on their autumn foliage, and, a they extend but part of the way up the mountain sides, thei glorious tints seem like an ornament assumed by the slope for a purpose. So the golden hue of Lyall's larch flames like great belt of gold along the mountain side, and he who ha seen it remembers for all time the gorgeous spectacle.

But, hastening out of the Selkirks, the Columbia River onc more is crossed. Many points of interest are passed. Reve stoke, that gives access to the Kootenay district, famed for it mines; Sicamous, that could give as good sport or as fertile farm as a man could desire; Kamloops, a spot the dry climat of which has restored many invalids to health and strength.

The Fraser River, with its terrific canyons, widens out a last, a wonderful picture, with the magnificent stream keepin its course to the ocean with majestic calm, between mountain clothed now to their summits with firs.

At North Bend, the exit down the wild gorge of th

aser appears, and on the further side may be seen the old
ge-coach road from Cariboo leading into the alluvial
lands that stretch to the sea.

The mountains remain in sight, beautiful still, until
ncouver itself is reached, then retire a little from our
th, and begin to give way in interest to the great
lustries of British Columbia.

o the right now are already flashing the waters of
rrard Inlet, and while the excursionists are yet under
pleasing thrall and excitement of a trip unequalled
magnificence of scenery on any continent, the locomotive
is whistling for the terminus, a city of artistic
nes, its waters brought from the Capitans, a stream of
untain purity, and with a system of water supply and
erage the finest in the world, the Liverpool of the
ific.

ancouver is the centre of a number of important
erests, and has a population of 27,000. Its harbour is
gnificent, and from it sail the well-known Canadian
ific Railway Empress steamships to Japan and China;
Canadian Pacific Railway coasting fleet to Skagway,
ska, and Seattle, and the Canadian-Australian line
is building up a flourishing commerce between the
ninion, Australia, and New Zealand.

part altogether from its commercial importance,
couver is a very beautiful place, with the dis-
view of Mount Baker in the south and the Coast
ge northward. It has possibly the most beauti-
natural park in the world, the peninsula of
ley Park, and here we can get some idea of one
the principal glories of the province, both from
picturesque and the business point of view.
timber of the province is immense, and seems to have
designed on the same scale as the mountains on
h it grows. Valuable as it is from the scenic point
iew, its commercial qualities are even greater. A
. Toothpick," as the squared timber is called, is often
t. long by 24 in. square, or 70 ft. long with a side of
. The trees themselves stand 150 and 200 ft. high,
one of them would supply enough timber to build two
es 30 ft. square by 15 ft. high. Naturally, with such
er as this to be got, the industry is highly organized
employs a large number of men.

other very important occupation is that of salmon
ng and canning, the headquarters of which are at
ston, near Vancouver. The salmon are, of course,
t wholesale, and after canning are sent to every
of the civilized world. The unloading of the catch
very beautiful spectacle. The fish lie in the boats in
less numbers, shining and silvery. As they are
lled on to the wharves the sun catches their wet
, and they pour on to the ground like a stream of
n silver.

hotel accommodation along the entire route of the
dian Pacific Railway, extending from St. Andrews-
e-Sea (a fashionable Atlantic seaside resort) to
ouver on the Pacific, including the large Banff
gs Hotel, situated at Banff in the Canadian National
and complete chain of mountain resort hotels all
gh the Canadian Rockies, is most satisfactory. Some
Canadian Pacific Railway hotels are the Algonquin
at St. Andrews, N.B.; the McAdam Hotel at
am, N.B.; Chateau Fontenac, at Quebec; Place
at Montreal; Kaministiquia, at Fort William,
io; Banff Springs Hotel, at Banff, N.W.T.; Mount
en House, at Field, B.C.; Glacier House, at
r, B.C.; Hotel Sicamous, at Sicamous, B.C.;
jaw Hotel, at Moosejaw, N.W.T.; Lake Louise
, at Laggan, N.W.T.; Hotel Revelstoke, at Revel-
B.C.; Fraser Canyon House, at North Bend, B.C.;
otel Vancouver, at Vancouver, B.C.

ead of going all the way by Canadian Pacific Rail-
om Fort William, the Canadian Northern may be
to Edmonton, thence Canadian Pacific Railway to
y and on to the coast; returning all the way by
ian Pacific Railway, or vice versa.

---

foundation stone of the buildings which are to house
hool of Advanced Medical Studies, the Nurses' Home,
residence for maternity students in connexion with
rsity College Hospital, is to be laid on June 11th.
appropriately the ceremony will be performed by
nald Currie, through whose munificent gift of over
00 this splendid addition to the medical school and
al has been made possible.

Noba et Vetera.

NAPOLEON AND COMPULSORY VACCINATION.

Napoleon, it is well known, was a firm believer in vaccination and an ardent admirer of Edward Jenner. One of the most beautiful of the Napoleon series of medals was struck in honour of his great discovery. Jenner was asked to use his influence with the Emperor to procure the release of Dr. Wickham, a travelling Fellow of Oxford, and Mr. W. T. Williams, who were prevented from returning to England. In a letter dated February, 1805, Jenner pleads for the liberation of these "men of science and literature," and with success. Barron says it was on this or some similar occasion that Napoleon being about to refuse to receive the petition of the involuntary exiles, Josephine mentioned the name of Jenner. The Emperor paused for a moment; then he said, "Jenner: ah! we can refuse nothing to that man." In a communication made not long ago to the Paris Académie de Médecine a plausible plea is put forward that Napoleon should be regarded as the first who made vaccination compulsory. As the matter is of some historical interest, we venture to give a somewhat full statement of the case.

At a meeting held on January 23rd M. Kelsch presented a report on a work by Dr. Goldschmidt of Strassburg on small-pox and vaccination in the Lower Rhine Department in the first third of the nineteenth century. In looking through the archives of the Society of Science, Agriculture, and Fine Arts of Lower Alsace, Dr. Goldschmidt came upon two unpublished documents relating to the prevalence of small-pox at Strassburg, where it raged with occasional remissions and recrudescences from 1798 to 1805, with a death-rate of 5 to 9 per 1,000 inhabitants. This state of things quickly changed with the coming on the scene of a new Prefect—M. Lezay-Marnesia. He organized a system of cantonal medical aid, and, under the impulse given by him, vaccination, which had been practised very irregularly in the Department since 1798, became general and efficient. Vaccinators were appointed for each canton, whose duty it was to visit the communes once or twice a year and vaccinate all children gratuitously, and make the benefits of the practice known as generally as possible among the people. In consequence of these wise enactments, small-pox became so rare that in 1825 Professor Fodéré stated that for ten years he had not seen a case in his clinic, and in instructing students he had to describe the disease from memory. By a curious coincidence, in that very year the monster again began to raise its head. The enlightened prefect died in 1814, and with him had passed away much of the zeal for vaccination which he had inspired. The medical profession then believed, like Jenner, that a single vaccination was sufficient to produce life-long immunity, and the inevitable false prophets found among the ignorant a congenial soil for the sowing of their pernicious doctrines. The result of this unhappy combination of evil influences was that small-pox again ravaged the land. In Lower Alsace alone there were 3,281 cases, with 264 deaths. This moved the Society of Science, Agriculture, and Fine Arts in 1828 to address a petition to the Government asking that vaccination and the notification of cases of small-pox should be made compulsory. The following draft of a law was submitted:

(1) Every individual more than 1 year old who has not had small-pox or has not been vaccinated must be vaccinated at latest within the year following the promulgation of the present law. (2) Every child shall henceforth be vaccinated within the year following his birth. In special cases a certificate granted by a doctor of medicine or surgery will suffice to obtain a postponement of the operation. (3) Parents, guardians, or other persons entrusted with the bringing up of a child, shall, as soon as the vaccine has done its work, be obliged to notify the fact to an officer of the civil power, to whom a certificate of successful vaccination must be shown. A certificate stating that a person has been vaccinated five times without result shall be held equivalent to a certificate of successful vaccination. (4) In each commune there shall be kept a register whereon the notifications shall be recorded. (5) The vaccination must be performed by doctors of medicine and surgery. They alone are empowered to give the certificate. (6) Doctors, on their own responsibility, may get *officiers de santé*, or midwives whose competence has been proved by their having passed a special examination on vaccine, to assist or act as substitutes for them. (7) Vaccinating doctors, whose

duty it shall be to perform the operation gratuitously, shall be appointed. They must visit twice a year each commune within the area of their district. (8) Whosoever shall fail to comply with the obligations imposed by the foregoing clauses shall be liable to a fine increasing progressively from year to year up to the tenth year, at which time the maximum fine shall be imposed until the law has been complied with. (9) Chiefs of public or private establishments are enjoined to admit no functionary, master, pupil, workman, or servant, without a certificate stating that he has been properly vaccinated or that he has had small-pox.

The proposal was approved by the medical profession in Alsace with Professors Lauth, Fodéré, and Goupil at their head. The scheme is so good that, as M. Kelsa points out, it might with very little alteration have been embodied in the Law of 1902. But nothing seems to have come of it.

In the course of the discussion of this draft by the Society already referred to, Professor Lauth produced a document showing that compulsory vaccination was not an administrative novelty. This was an edict of the Prince of Piombino and Lucca, dated September 25th, 1806. Dr. Goldschmidt recently found a copy of this forgotten document in the archives of the Society. It is worthy of reproduction here.

> Three days after the issue of these presents every father of a family, under pain of a fine of fr. 100, shall make a declaration if any one in his house is suffering from small-pox. A person who shall give information as to a case of small-pox that has been concealed shall receive a reward of fr. 50. A military cordon shall be established round each house in which there is small-pox. All communication with the inmates shall be cut off; those who may seek to escape from the house shall be shut up for forty days. Three days after the promulgation of this edict all who have not had small-pox shall be vaccinated. In future new-born children must be vaccinated within the two months following their birth. Parents and guardians are held responsible for the execution of these presents. Any violation of this ordinance will be punished with a fine of fr. 100 or imprisonment for fourteen days. Vaccination shall be performed gratuitously by medical practitioners appointed for the purpose. To practitioners who shall distinguish themselves in the discharge of this duty will be awarded a large gold medal. Any one who having been duly vaccinated by the medical practitioners to whom that office is entrusted shall succeed in proving that he has subsequently suffered from small-pox, shall receive the sum of fr. 100.

There is a Napoleonic ring about this ordinance which of itself would seem to indicate its origin. It is generally believed, however, that Bavaria can claim the honour of being the first country in which vaccination was made compulsory. The date of the Bavarian decree is August, 26th, 1807, but, as has been seen, the edict of the Prince of Piombino and Lucca was issued eight months earlier. The *de facto* ruler of that principality in 1806 was Elisa Bonaparte, sister of Napoleon. The Emperor was a strong adherent of vaccination, and he was a man who did not like half measures. This statement is made on the authority of Peiper[1] and Parola.[2] Dr. Goldschmidt says that in 1809 or 1810 he made vaccinations compulsory in France. M. Kelsch, however, has been unable to find confirmation of the statement; but it is certain that Napoleon had his son, the King of Rome, vaccinated in 1811. What is more to the purpose is the fact that as far back as 1805, that is to say, a year before the promulgation of the edict of Piombino and Lucca, and two years before the Bavarian Ordinance, he had ordered that all soldiers who had not had small-pox should be vaccinated. It is not, therefore, an unreasonable supposition that the edict of Piombino was issued by the Prince on the suggestion of the Princess Elisa, and that she, again, was influenced by the example of her brother. Dr. Goldschmidt holds this opinion. He even goes so far as to assign a like origin to the Bavarian Ordinance of 1807. His argument is that Eugène de Beauharnais, Viceroy of Italy, had at that time married a daughter of Maximilian Joseph, King of Bavaria, the forced ally of Napoleon; and it may fairly be inferred that the Count Monthelas, the Bavarian Prime Minister, who must have been in unbroken communication with the Italian Courts, was aware of the prophylactic measure taken against small-pox in the Principality of Piombino and Lucca, grasped its importance, and introduced it into his own country with certain modifications. Such action is rendered probable by the fact that the Minister, who was a man of progressive views and practical sense, was the author of numerous useful administrative innova
tions.

The argument is certainly plausible. *A priori* it is ver
likely that Napoleon was in favour of compulsory vaccina
tion, and anything that he was in favour of would doubt
less have been enforced. In sanitary administration th
benevolent despot—if he can be got—is far more efficien
than departments which by the law of their being ar
opposed to drastic measures, and Governments whic
have to move in response to the beat of the great heart
the people.

CONGRESS FOR THE SUPPRESSION OF ILLEGA PRACTICE OF MEDICINE.

[From our Correspondents.]

The forces of quackery are well organized in France. The
have even their own organ in the press, and the fir
experience of members of the Congress for the Suppressio
of Quackery which began in Paris on Monday was to hav
a yellow tract thrust into their hands on entering the ga
of the Ancienne Académie de Médecine by one of tw
tall-hatted gentlemen who had occupied this stron
strategic position. This tract is addressed in large ty
"Aux Congressistes," and it was at first naturally tak
for an addition to the official literature of the Congres
It proved, however, to be a manifesto issued by the *Journ*
de la Santé in favour of the "liberty of medicine," a can
paign of which it claims that "all serious medical men, a
even some entire medical associations are in favour." T
editor further states that his journal has proved, and w
continue to demonstrate, that the agitation against t
illegal practice of medicine is an affair merely of certa
doctors without patients who take these means to reme
the results of their own incompetence, to the great detrime
of the public, and calls attention to its own previous stat
ment that the medical profession concerns itself only wi
those irregular practitioners who really benefit th
clients! The journal announces its intention of co
tinuing "the campaign against those humbugs whom
present we have as professors, and of compelling t
nomination of the latter to be placed in the hands
practitioners and students, who also should have t
right to be on the staffs of the hospitals, since at pres
it is impossible for the great majority of medical men e
to become professors." The journal evidently forgets t
the exponent of the "liberty of medicine" can, a
generally does, style himself "professor." Profess
Brouardel is then singled out for especial attack, p
sumably as President of the Congress. He is described
"the greatest liar among the experts." He is credit
with having prevented two exhibitions of the art
medicine which the *Journal de la Santé* had endeavoured
promote at Madrid and Lisbon.

Finally, we are told that he did not dare to show
face at Lisbon owing to the attacks of the *Journal de la Sa*
and that these attacks will never cease until he is
prived of all his official functions! There is a tr
magnificent audacity about the idea of handing to me
bers of the Congress a pamphlet containing such st
ments and winding up with a description of the *Jour*
itself, and an invitation to all who have "a speciality
the art of healing" to make use of its unequalled mean
advertising the same. We are informed that it is the o
journal "open to medical opinion of all shades," that i
read not only by doctors but by the public, and
articles are reproduced by more than 500 provin
organs. It deals with both medical and veterin
matters, and alone among newspapers it has had
courage to brave the hypocrisy of society by publishin
public supplement devoted to venereal disease! The
tunate possessor of any "medical speciality" n
not even be at the pains of drafting his
advertisement, as there is a large editorial s
who are masters of the art of medical literat
and of placing novelties on the market; in fact, we
told, "it will be readily understood that it is to
interest that our advertisers should make as much mo
as possible." There are several pages of such stuff,
enough has been quoted to show what are the objects
methods of this journal, which, by the way, I have no
far been able to discover at any of the kiosques. I h

---

[1] *Die Schutzpockenimpfung*, 1901, p. 29.

[2] *De la Vaccination*, Turin, 1877, p. 174.

ly referred to it at such length because nothing could tter illustrate some of the conditions which the Congress s been called to ameliorate if possible.

Opening of the Congress.

The Ancienne Académie de Médecine, where the ngress meets, is an unpretentious building, pleasantly tuated in the quiet Rue des Saints Pères, at the corner the Boulevard St. Germain. The spacious vestibule d staircase leading to the large hall are at present a ritable exhibition of quack advertisements collected m all papers of the country, and of these I shall have mething to say later. The hall was well filled when e Congress began its labours at 9 a.m. on May 28th. most every province was represented, and a pleasant ture was the attendance of several members of the r, some of whom are contributing to the proceedings. ite a number of ladies were present, some being the ves or relatives of members of the Congress, who are mitted as Associates, and some of whom no doubt have d bitter cause to realize the meaning of unqualified mpetition. Others are qualified midwives, who also ve a direct interest in the proceedings, since the law of 92, which regulates medical practice in France, applies ually to dentists and midwives. Professor Brouardel, norary Dean of the Faculty of Medicine and member of Institute, took the chair. His presence there was ficient evidence of his strong sympathy with the objects he Congress, as he has just been compelled by ill-health relinquish the arduous duties of his chair. He was able to deliver his inaugural address, which was read him by Dr. Gairal, President of the Union of Medical ociations of France. Professor Brouardel in his dress, took occasion to thank the President of the amber of Deputies, the numerous Ministers of te, and others, who form the Committee of Patronage of Congress, for their co-operation and support. He rred also to the sympathy that had been shown by the tor of the *Soleil* and other members of the press. He fly outlined the objects of the Congress and the condi- ns with which it had to deal, and wished the members success. After the Secretary, Dr. Levassort, had pre- ted his report, Professor Brouardel left the meeting, the chair was taken by Dr. Gairal.

Bonesetters, Magicians, and Somnambulists.

he morning session was devoted to the considera- of the illegal practice of medicine by bonesetters, uch-healers," magicians, fortune-tellers, somnam- sts, magnetizers, etc. Unfortunately the programme rranged was so inordinately long that the readers of ers could only give, as it were, an abstract of their munications, and discussion was necessarily cur- d. Dr. Pouliot, of Poitiers, whose paper as printed rs a somewhat wide field, confined himself principally the practice of bone-setters, "touch-healers," and r quacks among the ignorant peasantry. He some interesting particulars as to how a person es to take to these ways of getting a living. uch-healers" are supposed to be born with rtain mysterious power. Such are, in some dis- s a seventh son, born without the interposition of ghters. In others the possession of this power is ted to persons bearing certain marks on their body, rally a fleur-de-lys. Dr. Pouliot remarked that, in of the profitable nature of the gift, a certain laxity he interpretation of moles and naevi by parents is ral and inevitable, and afterwards auto-suggestion s its part in the development of the charlatan. ng the peasants who form the *clientèle* of such le, superstition is as rife as it was in the Middle ; and, while an individual might deny that he ved in sorcery, his belief in the power of the evil eye solute, and he is always ready to have recourse to rnatural remedies for diseases that seem to him mys- us. In the case of bonesetters the gift, as in Great in, is generally supposed to be hereditary, but there xceptions, as in the case of a Breton who accounted is supposed powers by explaining that once when ng his spade had shattered an old image of Christ h had been buried, and it was through putting the s together that he became invested with miraculous in dealing with human bones and joints. While not ing that in certain simple cases, with a natural tendency to recovery, the bonesetter might occasionally do good, Dr. Pouliot gave numerous instances of the lamentable results of their mistakes, cases of a kind familiar to all practitioners in England. He did not, however, refer to the breaking down of old lesions, the great triumph of the bone-setter, on which Sir James Paget laid such stress in his well-known lecture on Cases that Bonesetters Cure.

Among the resolutions already adopted are the folowing:

That the syndicates, in agreement between themselves, draw up a work showing all the dangers of the manœuvres of bone-setters, healers, sorcerers, layers-on of hands, etc., and demand of the Minister of Public Instruction that this work be included in the programme in the normal schools for teachers and in the primary schools.

That no person shall be able freely to practise medical massage and kinesitherapy unless he has obtained in France the diploma of Doctor in Medicine.

An official course of kinesitherapy shall be organized in the Faculty of Medicine, in order to teach medical students and doctors massage and medical gymnastics, their indications and technique; consequently this course shall be both theoretical and practical.

No person shall be able to open a school nor teach massage and kinesitherapy unless he shall have obtained in France the diploma of Doctor in Medicine.

All treatment by massage and kinesitherapy instituted outside the conditions above laid down shall be considered as an illegal practice of medicine and prosecuted as such.

There are grounds for prosecuting hairdressers and scent-sellers who sell their products with a therapeutic object—lotions to prevent scurf, etc.—for in so doing they carry on an illegal practice of medicine and pharmacy.

There are grounds for regulating the sale of different products used in the toilet—dyes, pencils for the lips, salves, and paints—which are not in the domain of the doctor, but which may cause accidents. The Congress passes the resolution that the Committee of Hygiene be instructed to draw up the necessary regulations.

Herbalists not answering the object for which they were instituted, the Congress passes the resolution that no more be created in the future.

As a bandage can only be applied with utility after a precise diagnosis by a doctor, and as a precipitate application may have serious consequences, the Congress demands that Bandagistes be forbidden to deliver bandages as medicine without the prescription of a doctor.

In the interest of the public health it appears necessary to include in the reforms of the law of 1892 a scheme to regulate products connected with medical optics, an important branch of therapeutics.

It is desirable that, in the modifications of the above law, opticians shall be placed in a similar position to chemists. They shall be forbidden, under penalty of practising illegally, to sell without a doctor's prescription either simple or compound (*composés*) glasses.

Every person who, not possessing the diploma of Doctor in Medicine, shall choose (select) glasses—convex, concave, or cylindrical or sphero-cylindrical—by any one of the methods used for the examination of refraction shall be considered as illegally practising medicine.

Doctors shall direct their patients requiring the application of *x* rays or of electricity for treatment or for diagnosis to doctors only, and shall absolutely dissuade them from going to persons not possessing the diploma of Doctor in Medicine.

The Dalrymple Home for Inebriates.—The report of the Homes for Inebriates Association for 1905-6, together with the twenty-second annual report of the Dalrymple House at Rickmansworth is of special interest. The Committee express themselves strongly in favour of further legislation in order to bring under the Inebriates Acts those cases to which at present no law applies, and who practically cannot be prevented from drinking themselves to death. The report of Dr. Hogg, Medical Superintendent of Dalrymple House, shows that 59 per cent. of the cases treated are doing well, about 20 per cent. have improved, and about 21 per cent. have not improved. Dr. Hogg also comments on the necessity of amending the Inebriates Acts, so as to bring inebriates who have not broken the law under control, as they are already, under certain conditions, in America, France, Germany, and Switzerland. Dr. Hogg speaks strongly upon the question of the drug treatment of inebriety, both by quacks and by medical men. He calls particular attention to the dangers associated with a very old treatment which has lately been revived—the strychnine and atropine treatment. In the Dalrymple Home, as in the majority of the best retreats, the gradual reduction of alcohol is not found beneficial, and is not practised. Delirium tremens and epileptiform convulsions are regarded as entirely avoidable complications. Nearly 800 cases have passed through the home, and Dr. Hogg's words, based on sound experience, should have every weight.

General Medical Council.

NOTES.

The Medical Curriculum.—A brief report from the Education Committee presented by its chairman, Dr. Mackay, raised two points of importance already frequently discussed by the Council. One was a proposal to place chemistry, physics, and biology among the subjects which must be taken before the medical curriculum is commenced, and the other, really arising out of it, was the question whether, if this change were made, it would be advisable that the medical curriculum should still extend over five years. The Committee did not recommend that any action should be taken at present, on the ground that the first proposal raised questions as to the standard of secondary schools, some doubt being felt whether it generally reached that set up in the very definite syllabuses recently drawn up for the first year of the curriculum, syllabuses now under the consideration of the licensing bodies. In consequence the discussion which took place on the fifth year were not very informing; a motion was, however, carried instructing the Education Committee to consider how far the recommendation of the Council, that the fifth year should be devoted to clinical work, is really carried into effect, and to suggest means to secure this object if it be found not at present to be carried out, as was asserted by Dr. Bruce, who said that the fifth year was not devoted to clinical work to the degree or in the sense desired by the Council.

Education of Medical Students in Midwifery.—The Special Committee appointed to inquire into the operation of the existing rules as to the education of medical students in midwifery, presented an important report with voluminous appendices. The report itself is published in full in the SUPPLEMENT. The chief points in the recommendations are that the number of cases conducted by the student should be not less than twenty, and that certificates of attendances shall be accepted only from members of the staff of a lying-in hospital, or of the maternity department of a general hospital. What is perhaps a still more important recommendation relates to the period in the medical curriculum at which the student shall be allowed to attend midwifery practice. The Committee recommended that he must have already held the office of clinical clerk and of dresser, and that he shall have attended courses of lectures on medicine, surgery, and midwifery; he shall then give one month's undivided attendance at a lying-in hospital or the lying-in wards of a general hospital, and shall attend cases of labour under the direct supervision of a medical officer of the hospital. Finally, the Committee recommended that the student, before attending these cases, shall produce a certificate from the hospital authorities that he is competent to undertake the conduct of ordinary cases. Much diversity of practice had been shown to exist as to the period of attendance; in some schools the student is allowed to take his midwifery cases at any time after passing the examinations in anatomy and physiology—at a period, in fact, when he may have received no instruction in and know nothing of medicine and surgery. Nevertheless, the amount of supervision and instruction during the attendance of the required number of cases may come to very little indeed. The Committee reported that in practice the rules laid down by the Council as to supervision are not carried out in a large number of schools, but Sir John Williams, the Chairman, did not ask the Council to adopt the recommendations of the Committee, preferring that the report should first be circulated to the various schools and licensing bodies for their information, and that comment should be invited upon it before the Council formally endorsed it.

Inspection and Visitation of Examinations.—The Executive Committee brought up certain new Standing Orders designed to bring the system of inspection and visitation into closer accord with the wording of the Acts. Visitation by members of the Council or persons deputed by them was provided by the Act of 1858; inspection was introduced by the Act of 1886, which, however, did not repeal the provisions of the earlier Act. Dr. McVail objected to the proposed form of the new Standing Orders, and brought forward a series of amendments, some of which were passed and others rejected. The most important change adopted was the abolition of the cycle of inspections as hitherto practised, and the substitution of more or less continuous inspection, the Examination Committee being instructed to advise as to which examinations should be subjected to inspection; but it was also resolved to deal with inspection and visitation under distinct rules. Hitherto the inspector and visitor have worked together, and have presented what has been, to a considerable extent at all events, a joint report; this it is now considered is not quite in accord with the terms of the Acts; the new rules, framed under legal opinion to meet this objection, which in the opinion of Dr. McVail were not adequate, are to be more stringent. A proposal that there should be separate inspectors in medicine, surgery, and midwifery, made by Dr. Finlay, was also carried. On the other hand, Dr. McVail's proposal that the reports of inspectors were confidential and should not be made public was negatived, on the ground that the functions of the Council were essentially public; and a further resolution that the term "qualifying examination" should be interpreted as including not only final examinations but also intermediate examinations met with opposition, on the ground that the question was a pure matter of legal interpretation of the Acts, and that nothing the Council could say or do altered the legal position one whit. The proposition, with its rider that intermediate examinations should be subject to inspection, was therefore dropped. A report was presented by the Examination Committee, consisting of a summary of the results of the whole cycle of examinations now completed; all the qualifying examinations have, either on a first or a second inspection, been declared to be "sufficient." The report drew attention to various points, and in some instances made recommendations. The chief issues raised were that though two examiners in all cases of rejection always acted together, it was by no means the case that in the awarding of pass marks the two did, in fact, always work together. The Committee advised that this recommendation of the Council should be more exactly followed. The chief interest of the discussion turned upon two points. The first was whether it was desirable that there should be special examiners in medical jurisprudence and hygiene, as the Examination Committee had recommended, some members of the Council holding that such knowledge of jurisprudence and hygiene as could reasonably be expected in qualifying examinations lay within the ken of every examiner, and that it was therefore a mistake to require special examiners; it was urged also that the association of these two subjects was unnatural and artificial. Ultimately the recommendation as it stood was carried by 20 votes to 12; the other issue was somewhat similar. The inspectors had called attention to the fact that some Examining Boards required evidence of knowledge of ophthalmology, and an attempt was made to add a recommendation that examination in other special subjects, such as otology and laryngology, be required. This suggestion was negatived, it being urged that questions on these subjects were, in fact, frequently set, and that it had better be left to the discretion of the examiners, without laying down, or attempting to lay down, hard and fast rules. The Committee referred with approval to the plan adopted by one Board of allowing an interval of time between the theoretical and the clinical examination in medicine and surgery, but Sir Victor Horsley urged that it was undesirable that the student should be led to suppose that these aspects of the subjects were in any sense separable from one another, and the expression of approval was struck out.

Direct Representatives and the British Medical Association.—Mr. George Brown called attention to the conditions imposed upon those members of the British Medical Association who have been nominated for selection as candidates of the Association at the forthcoming electing in November. As this was a question addressed to the Chair, no discussion could take place; but the President, who had had notice of the question, stated in his reply that persons elected under such conditions could not with propriety take part in the hearing of matters brought before the Council at the instance of the ssociation. The same question came up again in rela-ion to a motion by Mr. Brown that the Council should ake the steps defined by the Act for asking the Privy ouncil to increase the number of direct represen-atives. In the course of the discussion on this notion, Sir John Tuke, speaking both as a member f the Council and of the Association, strongly leprecated the course taken, and gave it as a eason for voting against Mr. Brown's motion. He eld that the conditions imposed reduced those who night be elected to the position of delegates of the ssociation pledged to courses which they might not in-ividually approve. This, in his opinion, would be an mproper attitude for members of the Council, and some ther speakers took the same view. Dr. Saundby proposed o limit the resolution to an application for the addition of single direct representative for England, on the ground hat, proportionately, Scotland and Ireland were ade-uately represented already. Both amendment and reso-ution were lost, and on the names and numbers of those oting being taken it was found that an unusually large umber of those present had refrained from voting upon ither motion or amendment. We do not know what in-erpretation to place upon this abstention. Several ossible explanations might be offered. It may be that embers of the Council recognized that a good deal was be said for the proposal while at the same time feeling nwilling to add to the already excessive numbers of the ouncil, a condition of things well recognized, though no ember proposes that the corporate body he represents hould not have a separate representative. It may be hat the conditions imposed upon candidates to be sup-orted by the Association were disapproved, and thus the otes of those who did not disagree with the principle ut only with the probable results of its application were st. Whatever may have underlain the abstention, the ct remains that it is very unusual for so large a umber of the Council to refrain from recording their otes.

Voting for Direct Representatives.—Sir Victor Horsley oved that the Executive Committee should approach the rivy Council with a view to getting some form of ballot bstituted for the present method by signed voting apers, the mode of procedure adopted by the English ollege of Surgeons in elections to the Council being sug-sted as a practicable course. Some members, while dmitting the logical force of the suggestion, seemed to ink that there was no need for the secrecy of the ballot an election of the sort, but some of the Irish members aving stated that in Ireland at all events feeling ran so gh that secrecy was desirable, it was left to the Executive ommittee to see what could be done in this direction.

Procedure in Disciplinary Cases.—During the session e economy of the time of the Council in dealing with sciplinary cases affecting the *Dental Register*, owing to e difference of procedure under the Dentists Act and at under the Medical Acts, was very marked. Under e Dentists Act, the statutory Dental Committee investi-tes the facts and determines whether or not they have en proved; its decision as to the facts is final. The neral Council then only has to deliberate upon the avity of the facts—to decide, that is to say, whether they or do not amount to infamous or disgraceful conduct in rofessional respect. It is the practice of the Council, der the Dentists Act, to hear the complainants and the cused, either personally or by counsel, as to the gravity the facts. In cases under the Medical Acts, on the her hand, the whole Council has to hear the evidence as facts, and to determine, in the first instance, whether e facts have been proved, and then to go on to consider eir gravity.

The American Dental Institute.—The charges against ur dentists named Clifford, who were concerned in ming and were the principal shareholders and ectors of a limited company named the American ntal Institute, Limited, raised points of some general portance. The company was incorporated under the mpanies Acts for the purpose *inter alia* of pro-ting the adoption of advanced American and other scientific methods of dental surgery. It was formed in 1887, and had many places of business in London, Manchester, Liverpool, Leeds, Brighton, and Kingston. The charges brought related to London and Liverpool only. The four persons charged were registered as in practice before 1878 when the Dentists' Act came into force, but one, Mr. Isidore Clifford, had, in 1887 obtained the diploma of L.D.S. granted by the Royal College of Surgeons of England; he and Mr. Ruby Clifford, another of the persons charged, are stated to have possessed practically the whole interest in the company, no other shareholder having more than one share. The offences charged were the issue of advertisements and pamphlets of an objectionable character containing claims of superiority over other practitioners and depreciating them; the endorsement of an article in the *Review of Reviews* which professed to recite an interview with one of the directors of the company and contained scandalous imputations against English dentists and dentistry, false claims of priority in certain methods of practice, and the employment of unregistered assistants. The accused practitioners, through their counsel, offered at the hearing before the statutory Dental Committee, to dissolve the company, to discontinue all advertisements of every kind, and not to employ persons contrary to the resolution of the Council of November 24th, 1892 (which has reference to the employment of unregistered persons), and they applied for an adjournment, presumably to carry these proposals into effect. The duties of the Dental Committee are defined by statute and are confined to finding whether the facts alleged have been proved; the Committee, therefore, could not entertain the offer, refused the request for adjournment, and found the facts to have been proved. In a letter from the accused persons' solicitors it had been alleged that they employed at each place of business a duly registered practitioner, but no serious attempt was made to prove this. The finding of the Dental Committee being, under the Dentists Act, final as to the facts, the only defence which could be raised before the whole Council was as to the gravity of the facts found. It was pleaded that the advertisements were not so objectionable as the complainants wished to make out, and stress was laid upon the offer to discontinue all the practices complained of, and to dissolve the company at once. Apparently the Council did not attach much weight to this offer made under the stress of circumstances, and found that the accused persons had been guilty of infamous or disgraceful conduct in a professional respect, and directed that their names should be erased from the *Dentists' Register*.

A Dental Company.—Mr. W. Macgregor Veitch, L.D.S., R.C.S.Eng., and Mr. T. Wafer Byrne, L.D.S., R.C.S.Eng., and L.D.S., F.P.S.Glasg., were charged with carrying on a company practice by means of unregistered assistants. The case presented some novel features. The two dentists named each conducted at their own home addresses private practices, in which they were not partners, and no complaint was made as to the conduct of these practices. But they had formed a "two-man" company, which carried on practice at two other addresses, and was entitled "Entwisle Brothers." The company practices were of lower class, objectionable advertisements were issued, and patients unable to pay the fees asked at the private addresses were referred to Entwisle Brothers. Unregistered assistants were employed at the places of business of Entwisle Brothers. The defence offered was that the company was formed in self-defence, to meet the competition of the unregistered advertising dentists who were said to abound in Liverpool and its neighbourhood; that the two did in fact attend frequently at the place of business of Entwisle Brothers, whither they were called by telephone, and that only mechanical work was left to the assistants. It was admitted by one of the assistants that he did far more than this, even to the administration of anaesthetics, and operating under them, but it was not proved that he had the sanction of his principals in so doing. The Council (the Dental Committee having previously found the facts to have been proved) directed that the names should be expunged from the *Dentists' Register*.

Sale of a Practice.—The case of a medical practitioner who had sold to another a practice which it was alleged was not a genuine practice, but had been got up for the purpose of sale, excessive fees being charged and unnecessary visits paid, presented several peculiarities. There had been a civil action in which the verdict had been against the accused practitioner; this verdict was not a conviction for fraud, inasmuch as it was a civil and not a criminal action; on the other hand, the verdict, which had not been appealed against, did indirectly establish that the transaction had been fraudulent. The accused subsequently made an assignment, and only a very small part of the damages and costs awarded had been paid. The Medical Defence Union, represented by Dr. Bateman, were the complainants, and the accused was represented by his solicitor, Mr. Hill. Inasmuch as the Council could not go behind the verdict of the jury, it was agreed that the case should be limited, and should start from and end with the verdict of the jury, the judge's remarks in summing-up the case being, however, included. The defence, which was conducted with much ability, frankly admitted that the verdict of the jury must be taken as involving the existence of fraud, and little or no attempt was made to justify the course taken by the accused practitioner in the original transaction. But it was argued that as there had been no criminal procedure and no verdict of fraud, the accused had not been convicted of a felony or a misdemeanour, and so did not fall within the jurisdiction of the Council under that portion of the section in the Act, but could only be found guilty of actions which were infamous or disgraceful in a professional respect. It was argued that the actions in question could not be held to have been done in his professional capacity, and though possibly reprehensible, were not such as could be held to be infamous. Attention was called to the subsequent procedures in bankruptcy, which, it was claimed, indicated that no very severe view of his actions was taken by those who adjudged the case in bankruptcy, and in a subsequent appeal to the High Court on the bankruptcy. This line of defence involved the complete abandonment of the documents, affidavits, etc., originally put in by the accused in his defence, which were largely directed to the justification or extenuation of the original transaction. It was, however, successful, and the Council found that the facts alleged against the accused in the notice of inquiry had not been proved to the satisfaction of the Council.

The Use of Professional Titles by Companies.—On the motion of Mr. Tomes, seconded by Sir John Moore, a resolution was passed the general purport of which was that the President be requested to call the attention of the Lord President of the Privy Council to the effect which recent amendments introduced in the House of Lords to the Pharmacy and Poisons Acts Bill would have in weakening the protection afforded to the public by the limitation of the use of titles implying qualification to those who properly possess them. An amended form of words was suggested by Mr. Lushington, the standing counsel to the Council, and was accepted on the spur of the moment by the mover and seconder, and carried. But we think that the original form of the resolution was very greatly to be preferred, for the altered form does not express nearly so well what we may suppose to have been the attitude of the Council as the guardian of the *Registers*. That this was the view of the mover and seconder of the resolution we gather from a question addressed to the President by the mover of the resolution, in which he inquired as to the nature of the covering letter sent with the resolution, and asked whether in it the sense of the resolution as it originally stood had been conveyed. The objection to the resolution in its altered form, which was perhaps not seen at the moment, is that it might be interpreted as offering a suggestion as to a manner in which the Pharmacy Bill might be amended, which is not the business of the Council. And, indeed, if the Pharmacy Bill is to be amended, we do not think that the direction indicated is a desirable one. It seems very possible that the members of the Council, not having the words before them in print, may have supposed that the altered resolution differed only verbally from that which was before them in print, whereas in reality it had become something quite different. The text both of the original resolution and its altered form will be found at p. 302 of this week's Supplement.

The Sight-Testing Opticians Bill.—It would appea that two bodies, acting in some degree in antagonism to one another, are seeking to obtain legislative recognition, the one in the form of a charter of incorporation and the other in the form of a Bill before Parliament in each case an attempt was made in general terms to differentiate between the mere sale of spectacles and the sale of spectacles preceded by an examination for optica defects. The Executive Committee recommended tha the Lord President, by whom the matter had been referred to the Council, should be informed that the Council consider the proposed measures to be fraught with public danger. A memorandum had been prepared, and, with certain additions suggested by Sir Victor Horsley and Dr. Saundby, was adopted by the Council as setting forth the grounds of their objection.

Finance.—The report of the Finance Committee wa presented by the senior treasurer, Dr. Pye-Smith, wh congratulated the Council upon the fact that there was fo the first time in ten years a surplus of over £900, and pointed out that this was largely due to the greate expedition with which the business of the meetings had been carried out. In seconding the adoption of the report the junior treasurer, Mr. Tomes, added a word of warning lest members should be tempted to embark on measures involving increased expenditure; no surplus, he stated could be expected on this year's working, as the cost o enlarging the Council room, necessitated by the increas in the number of members of the Council, and the longer sitting on the present occasion, would more than swallow up any surplus there might otherwise have been.

Midwives Board.—The new rules of the Central Midwives Board came before the English Branch Council fo comment, and were generally approved. A motion in favour of requiring midwives to notify all births within forty-eight hours was not carried; against the proposal i was urged that the ordinary registration of births wa sufficient, especially in view of the fact that midwives wer already required to notify stillbirths. A recommendatio that provision should be made by law providing for th payment of medical practitioners called in by midwive was adopted, and will be communicated to the Lor President. Requests from the Rotunda Hospital tha examinations of midwives should take place in Dubli three times a year, backed up by similar application from the Irish Matrons' Association and from th National Maternity Hospital, were transmitted to th Privy Council; there seems to be nothing in th Midwives Act or in the rules of the Midwive Board to prevent examinations being held in Dublin The new rules contain provisions for the removal from th *Register* of midwives for misconduct, based on the procedure of the General Medical Council.

The British Pharmacopoeia.—The Pharmacopoeia Committee reported that the recommendations of the Brussel Conference as to potent drugs and preparations had bee adopted in the new pharmacopoeia of the Netherlands an of the Austrian Empire, and that the British Governmen had subscribed to an international agreement on the subject. The committee has received reports from Victori and New Zealand, and has appointed various subcommittee for the investigation of several subjects, so that materia for the next edition of the *British Pharmacopoeia* i gradually being collected, but there is no intention o issuing a new edition at present.

At a drawing-room meeting in aid of the Infant Hospital, Hampstead, on May 18th, Mr. Benjamin Broadbent gave an account of the progress of his scheme a Huddersfield for the reduction of infant mortality. Hi offer of a guinea reward in respect of every child born i one ward which survived twelve months had been won b 97 out of 102 children. The only thing that could yet b said of the second year of the experiment, now i progress, was that there were indications that the tota number of children born in the area would be much greate Dr. C. W. Saleeby, who also spoke, said that the presen heavy infant mortality was due to improper feeding aide by lack of light and air; unfavourable heredity counte for very little.

MEDICAL NEWS.

RAÜLEIN LINDEN, M.D., has been appointed Second sistant in the Anatomical Institute of Bonn.

R. FRANCIS ALBERT SAW, Major, R.A.M.C. (retired), been appointed Secretary of the Royal Institute of blic Health.

NDER the will of the late Mr. Charles Edwin Trimmer, arnham, the Trimmer Cottage Hospital receives £3,000 the Surrey County Hospital at Guildford £300.

T the meeting of the London County Council on May 1, Dr. R. M. Beaton, Dr. A. Salter and Sir Shirley rphy were selected as the Council's Representatives at National Conference on Infantile Mortality to be held he Caxton Hall, Westminster, on June 13th and 14th, ler the presidency of the President of the Local Govern- nt Board.

HE estate of the late Dr. Thomas Corbett, of Severn ise, Droitwich, who died on April 22nd, has been sworn he value of £388,729. Of this sum, some £61,000 is ueathed to various hospitals and various charities in don and elsewhere. The balance of his estate, subject few general legacies, he left to his executors to spend n such charitable objects and schemes as they may k fit. Among certain objects which the will states he ld like them to consider are the building and endow- nt of a cottage hospital at Droitwich, of a convalescent ne at Malvern, and of a sanatorium for the open-air tment of consumption for the county of Warwick at sley. Dr. Corbett became M.R.C.S. in 1860 and L.S.A. 361. He joined the British Medical Association early is career, and though he gave up practice some years continued to belong to it to the time of his death. He a brother of the late Mr. John Corbett, who was ciated with the salt industry.

IE play *Raffles* at the Comedy Theatre is an excellent amusing piece from the ordinary playgoer's point of ; it is full of movement and surprises, and the spec- never has a dull moment. But though it is a comedy ing on farce, it presents to people accustomed to look uch things a very interesting psychological study. We ve that it has been seen before in America, and we do now how it was played there, but in the hands of Mr. ld du Maurier the part of the eponymous hero is a remarkable performance. It is not quite certain that ctor realizes how very good and true his presentment particular type of aberration is. He gives a picture innate insane impulse cropping up in a character wise strong and even noble, which is enough to lish his position as one of the most brilliant of rn actors. The short scene in which he lets the ie impulse have full swing, describing his delight s crime as a kind of sport, is either an extraordinary ple of intuition or a very consummate work of art. is art and not accident, then no limit can be put to u Maurier's future achievements as an interpreter of cter.

a distribution of prizes to female pupils at the rsea Polytechnic Gymnasium on May 19th, Sir rick Treves delivered an address on physical culture, course of which he expressed the opinion that the ok in respect of physical degeneration was not as ny as was sometimes represented, any signs of it ved attention, and gymnasia and physical training steps in the right direction. Good physical develop- was as important for women as for men, and the value ysical culture for both sexes could not be exaggerated. ad the strenuous life of modern times demanded ent health, and there was scarcely any really suc- l man who was not physically strong. Sir Frederick s was followed by the President of the Local Govern- Board, who also took the view that the cry of physical eration was exaggerated. There were plenty of who lacked robust health, but this in many cases ue to bad cooking and the injudicious selection of not to its insufficiency. As for gymnasia for girls, he to see young women graceful and active, but he liked etter that they should be able to wash, iron, and and be fit to occupy the exalted position of mothers ilies and to nurse a baby as well as swing dumb-

half-yearly dinner of the Glasgow University Club ndon took place at the Trocadero Restaurant on 25th, and was very well attended. The Chairman, homas McCall Anderson, Regius Professor of ine, in proposing the toast of the evening, ed briefly the past and present position of the rsity. In respect of the number of students, facilities for learning, and of income and expenditure, the progress, he showed, had been very great. Some forty years ago there were 1,242 students, 34 professors and teachers, and an income of £13,348. There were now, including 417 women, 2,272 undergraduates, 111 teachers, and an income which, when students' fees were included, overtopped £67,000. Moreover, during the last ten years £178,000 had been spent on improving and adding to the University buildings. To maintain, however, the existing degree of success further financial support was required in the way either of private generosity or of Government aid. The latter was equally difficult to obtain whatever party was in power, and at the present moment in particular it looked as if, after another million pounds had been given to primary schools, free meals arranged for the rising generation of scholars, pensions provided for their parents, the Chinese coolies repatriated, and salaries, free travelling, and postage furnished to Members of Parliament, there would not in any case be much left for higher education. Nevertheless, they must live in hope that Glasgow would obtain a portion of the sum due to Scotland in connexion with the Equivalent grant, and in the meantime bring the claims of the University to the notice of any generous and wealthy person they might happen to know. The toast of "The Guests," proposed by Sir William White, was coupled with the names of the Right. Hon. J. Parker Smith and Professor James Little, of Dublin, both of whom responded. The formal proceedings ended when the toast "The Chairman," proposed by Sir William Taylor, K.C.B., late Director of the Army Medical Department, had been duly honoured.

A PSYCHOLOGICAL INSTITUTE IN PARIS.—A General Institute of Psychology specially intended for the study of the phenomena of subconsciousness, the investigation of the causes of criminality, and the discovery of means of curing social evils will, it is announced, shortly be formally constituted in Paris. Among those to whom the initiation of the scheme is mainly due are Professors Brouardel, d'Arsonval, and Gariel, and MM. Boutroux, Giard, and A. Picard. In January last M. Dubief authorized a lottery of four millions of francs, the product of which will be applied to the purchase of a site for the proposed institute and the erection of a building containing a series of fully-equipped laboratories, a library, and a museum.

A MEDICO-HISTORICAL EXHIBITION IN LONDON.—Mr. Henry S. Wellcome is organizing an exhibition in connexion with the history of medicine, chemistry, pharmacy, and the allied sciences. It is his aim to bring together a collection of historical objects illustrating the development of the art and science of healing throughout the ages. The exhibition, which will be strictly professional and scientific in character, will not be open to the general public. For many years Mr. Wellcome has been engaged in researches respecting the early methods employed in the healing art, both among civilized and uncivilized peoples. In particular it has been his object to trace the origin of the use of remedial agents. There is a considerable amount of information scattered throughout the world in folk-lore, in early manuscripts, and in printed books, but the difficulties of tracing out and sifting the evidence are great. Mr. Wellcome will greatly value any information sent him in regard to medical lore, early traditions or references to ancient medical treatment in manuscripts, printed works, etc., and he undertakes that the greatest care shall be taken of any objects of historical medical interest lent for the exhibition.

CREMATION IN ENGLAND.—The report of the Council of the Cremation Society of England for 1905 states that during that year the number of cremations carried out at Woking was 95, as compared with 138 in the previous year. The falling off is said to be due in some measure to the increased number of crematories now in operation throughout the country and the increasing activity of that at Golder's Green. The Council intends to take more energetic steps to make the advantages of cremation more widely known by advertising in various ways. The total number of cremations performed at Woking to the end of 1905 is 2,748. Among the well-known persons whose remains have been disposed of in this way during 1905 were Lady Diana Huddleston, Dr. George MacDonald, Dr. Barnardo, Sir Francis Drummond-Hay, and Sir Clinton Edward Dawkins. A memorial to the late Sir Henry Thompson, who took so active a part in the initiation and development of cremation in this country, has been erected in the chapel at Golder's Green. It is in statuary marble, and incorporates a marble bust of the late distinguished surgeon presented to the Society by his family.

British Medical Journal.

SATURDAY, JUNE 2nd, 1906.

CANVASSING.

The action taken by the General Medical Council in the case of Dr. J. B. Bawden on May 23rd, fully reported in the Supplement this week, page 297, is one of very considerable importance, for it is the first occasion on which the Council has proceeded forthwith to remove from the *Medical Register* a medical practitioner convicted before it of the offence of canvassing. No one, however, who has followed the previous decisions of the Council in cases of this character and the warning notices which it has on two occasions issued to the profession, can be surprised that the limits of patience have been reached. It is rather a matter for wonder that the plea of ignorance of the nature of the offence should so often have been accepted and the offenders allowed a period of grace in which to consider their position and purge their offence.

Those, however, who in the past may have been disposed to criticize what they have regarded as the excessive forbearance and leniency of the Council in such cases, should bear in mind the difficulties which arise from the peculiarity of its disciplinary powers. Under Section 29 of the Medical Act, from which these powers are derived, the Council is simply authorized to remove from the *Medical Register* the name of any practitioner who, after due inquiry, shall have been found guilty of conduct infamous in a professional respect. The question as to what is infamous is for the Council to decide, but its procedure must be strictly judicial, and its decision must be arrived at purely with respect to the facts of the case before it. Strictly speaking, therefore, any medical practitioner who may have a lingering doubt as to the view which would be taken by the Council of his action in certain respects must have regard primarily to the cases which have actually been decided, and it has thus been possible for a new offender to allege with some plausibility that he had not realized that his action fell within the same category; considerations of this kind have presumably weighed with the Council in allowing an opportunity for amendment. The Council has therefore thought it advisable from time to time to issue notices indicating the view which it has taken and will be likely to take in future of cases of a certain type. Such notices have been issued with respect to the employment of unqualified assistants, and to acting for associations which systematically practise canvassing for the purpose of procuring patients. On Friday, December 1st, 1905, the Council, having considered representations made to it by the British Medical Association as to the difficulties arising through the professed ignorance of some practitioners regarding the objections to canvassing and advertising for the purpose of procuring patients, and the importance in the public interest of the prevention of such practices, reinforced its earlier warning by giving notice "that any registered "medical practitioner resorting to such practices "thereby renders himself liable to be charged under "the 29th section of the Medical Act, 1858, with 'in-"famous conduct in a professional respect'; and "after due inquiry he is judged by the Council to ha "been guilty of such conduct, the Council may, if th "see fit, direct his name to be erased from the *Medic* "*Register*."

The history of the previous decisions of the Council cases of alleged canvassing, and of the two notices whi it has issued on the subject, will be seen to be of imp tance in reference to the case of Dr. Bawden, for it w be observed that in his defence he put forward the usu plea of ignorance and want of sufficient warning mitigation of his offence. It must be inferred from t decision of the Council that this plea did not appear them to be justified, and we have little doubt that t narrative which we have given will lead all fair-mind persons to concur in this view.

Both in Dr. Bawden's defence before the Coun and in speeches which are reported to have been ma by him and others at meetings held at Blaenavon May 25th, there would appear to be a curious confusi of the British Medical Association with the Gene Medical Council. In alleging a want of suffici warning, Dr. Bawden pointed out that he did not the British Medical Journal, and that he had received until February 13th a reminder of the dan of his position, which in his own interest was then s to him by the Honorary Secretary of the Monmou shire Division of the Association. He appears to h been entirely oblivious of the warnings which h been issued by the Council itself.

The case further illustrates that very serious misapp hension of the principles underlying the decision of Council which was exemplified in the debate in the Ho of Commons on the case of the Birmingham Consu tive Institution, and in criticisms on the decision the Council in the case of the National Medical Society at Great Yarmouth and the Rusholme Provid Dispensary. In each of these cases it has been re sented that the action of the Council was direc against underselling by medical practitioners, or aga association with contract practice organizations as su This is, of course, not the case. These decisions of Council related solely to canvassing and advertis and rested on the principle that either is equally offence, whether carried on directly by a medical p titioner for himself or by lay persons who employ h and whose canvassing is intended to procure pati for him.

Lastly, it seems advisable to advert once a to the fact frequently emphasized before, that objections to canvassing and advertising by med practitioners rest upon public grounds. It is re nized, not only by members of the medical profess but also by thoughtful members of the general c munity, that grave public evils would result f systematic canvassing and advertising by me practitioners. If these practices are inimical to public interest they must be prohibited in indivi cases, and if they are to be prohibited as regards p titioners practising on their own account, they n equally be prohibited in the case of practitio entering the employment of lay organizations but r the less competing with their fellow-practitioners.

RECIPROCITY WITH JAPAN.

It may be remembered that at the session of General Medical Council last December an applica was received from the Japanese Minister asking recognition should be accorded to Japanese me aduates, who found that, owing to recent legislation, ey would be excluded from practising in some British own Colonies in the Far East, though there might be considerable Japanese population. The brilliant ccess attained by the Japanese in the organization their medical service during the recent war, and the tent to which they succeeded in impressing even on the rank and file the observance of measures of giene which rendered their army unprecedentedly e from the diseases which are the usual scourge of nies in the field, had made it obvious that their dical education must be efficient. As British istrable qualifications are recognized in Japan, the quisite Order in Council to apply Part 2 of the dical Act, 1886, was made, and it only remained for General Medical Council to investigate the nature the medical qualifications granted in Japan, and to ide which, if any, of these should be admitted to *Register*. The necessary information as to the two perial universities was supplied by the Japanese gation in London, and the Council has now decided grant recognition to the degrees of these universities. facts available as to the other qualifications are present insufficient, and the question of their recog- on has therefore been postponed. Every one will pleased that the wishes of our gallant allies have been tified with so little delay, and it is to be presumed t when fuller information reaches us other degrees be included.

is interesting to find that the Japanese system of cation and examination, whilst thorough and gthy, is not quite upon the lines of ours, and the eral Medical Council acted wisely in not insisting n too close an identity with our own methods; ed, it is possible that we may have something to n from them. The preliminary training of those desire to enter the Imperial universities of Japan nds over fourteen years, though we are not told at t age the school course begins. The student, re entering the university, must have passed through courses at a grammar school, a middle school, and preparatory course for the university.

is particularly interesting to note, in view of the ttled state of opinion on the matter in this country, the student takes up the subjects of chemistry, ics, and elementary biology during this preparatory se, so that when he enters the university he is at free to devote his whole time to the more strictly ical subjects. This consideration was probably not out influence in making the General Medical cil willing to accept a four years' course of medical as the equivalent of our own.

medical chemistry, however, a separate chair is ted, and it figures among the subjects of the two years of medical study. The student's time is rently very exactly mapped out, and the number of s to be devoted to each subject are set out in detail. cine and surgery are not touched during the first clinical teaching in these subjects is commenced e third year.

examination system adopted strikes us at first as rather curious. The passing or rejection of the nt is determined by an average mark; that is to he total marks obtained are added and divided by ed denominator, an average of 60 per cent. being red. Thus proficiency is one subject may cover deficiency in another. The examination is in subjects oral and in others written. A number of ions are set, but the candidate is only required to er one or sometimes two in each subject, and the ion to be answered is determined by lot on the day of examination. It would appear that this introduces a considerable element of luck, but probably a very thorough answer of the selected question or questions is expected.

Something of the kind is not unknown amongst our own examinations, but it has never been carried so far. At the University of Cambridge in the Natural Science Tripos it is, or used to be, the practice to set more questions than the candidate was allowed to answer, and he was permitted to make his own selection, and in many of the qualifying examinations the candidate is not required to answer all the questions, though in some cases he may do so.

The final examination of the Imperial University is divided into two parts. At the first, medicine and surgery, pathological anatomy, obstetrics and gynaecology, and ophthalmology are required of all candidates; there are thorough clinical examinations, and in medicine and surgery the value in marks attached to the practical work is twice that given to the theoretical; in obstetrics and in gynaecology the student is examined upon actual cases and sometimes also upon the phantom.

At the second part of the examination, which follows after an interval of at least two and a half months, what may be termed special subjects are taken: they are divided into two groups—namely, (1) hygiene, forensic medicine, and psychiatry; and (2) paediatrics, dermatology and syphilis, and otology, rhinology, and laryngology. Each student is examined upon one subject only out of each group, the last three named being treated as one; the subject selected is determined by lot about the time of the first examination, so that the candidate has from two to three months in which to get up the special subject which has fallen to him.

During the course of study class examinations are held, and the student is not allowed to pass from one set of subjects until he has satisfied his teachers that he is fit to proceed. Arrangements are made under which graduates of the universities may take post-graduate courses for two years free of all expense, and in special cases the two years may be extended; there is also a course in State medicine open to graduates.

So far as we have opportunity of judging of the finished product, the results of the system appear to be very satisfactory, and the special characteristics of the Japanese system will certainly afford food for thought to those who are not fully satisfied with the results of our own methods.

◆

SIR SAMUEL WILKS ON OLD AGE.

No man now living is better fitted to write a modern "imitation" of Cicero's *De Senectute* than Sir Samuel Wilks, who in his own person affords so admirable an example of an old age in which the mental faculties show no trace of senile decay, the interest in the movement of human thought and activity is ever fresh, and the outlook on life is genial though disillusioned. In a paper contributed some time ago to the *Lancet*, and since reprinted, he discourses on the changes and infirmities of mind and body which old age brings with it, with a sympathetic appreciation of all that is so sadly symbolized by "the sear and yellow leaf," but with a delightfully humorous sense of the amusing ways in which these changes often manifest themselves. Sir Samuel, knowing that most men have no consciousness that cruel age is gradually clawing them in its clutch, determined to be on his guard against this painful self-deception. With the example of many victims of senile vanity before him, he determined to act in accordance with his years instead of asking himself what capabilities of work were still in him. He agrees with Professor Osler's famous pronouncement, "if taken in its true signification," which he explains as being that "all the activities of our "nature which characterize every man's life cease at a "comparatively early age, meaning middle age, and "therefore regarding these alone we might be blotted "out." Discussing the influence of age in ordinary life as illustrated in the three learned professions, Sir Samuel says that although a parson often continues to discharge the routine duties of his cure in advanced age, such work entails little more mental labour than is required to set the automatic machine going. Similarly, an aged judge can sum up a case and deliver judgement, but could probably not lay down the law in a novel or difficult case in a manner that would make his decision a guiding precedent. Naturally Sir Samuel Wilks's most telling examples are taken from his own profession, and he takes occasion to point out the absurdity of appointing a physician or surgeon who retires from hospital work to the office of consultant, considering that in a year's time he is much less fitted to give an opinion and make a diagnosis than he was when he left the wards. But is not the consulting physician or surgeon so called on the *lucus a non lucendo* principle, because he is never consulted? From the failure of memory for recent events while things belonging to the remote past are remembered, which is one of the characters of age, Sir Samuel Wilks draws a somewhat melancholy moral. The memories formed in early life become, he says, highly coloured in age. When a man's early work has won commendation, the pleasurable impression is not easily effaced from the mind; therefore when he is getting old he hugs the firstfruits of his invention fondly to him, and thinks that nothing like them has been produced since. "It has," says Sir Samuel, "been to me a "lamentable spectacle to see men venerated in our "profession republishing their works of a past "generation in order to show that nothing has "since surpassed them. Their republication has "been an expensive luxury to the author, but "an exhibition of failing weakness to his friends." Coming to practical teaching, Sir Samuel Wilks agrees, with other authorities, that we must continue to use our brains if we wish to keep them in good working order. Use brings blood to the brain, and so its nutrition is kept up and its healthy state is retained. Hence occupation may be considered as one of the necessary conditions of long life. In regard to diet, he thinks it a great mistake to enforce the eating of the customary variety of food or to recommend wine as a remedy for the infirmities of age. Sir Samuel Wilks has often seen this done by medical practitioners with a feeling of wonder at their want of wisdom and ordinary sagacity. To be sure, Cornaro took wine; but, then, ordinary Italian wine is almost guiltless of alcohol. As to sleep, Sir Samuel Wilks is inclined to agree with Sir Hermann Weber, who holds that too much of it is harmful. But what is too much? Or how much is needed? Before the question can be answered, we must have some means of determining exactly what amount of sleep the average man requires. It would be well, too, to know more than we do about the real nature of sleep; but if we are to believe Sir Samuel Wilks, our ignorance on this point is not without a compensating convenience. "So obscure," says he, "is the meaning of the word 'sleep,' that the "kind of night which the patient has passed does "admirable duty for all bulletins the object of which is "to keep the public in ignorance of the nature of "the patient's complaint."

A SIDELIGHT ON MEDICAL EDUCATION.

In the Supplement to this issue, page 294, will be fou
an analysis of the Service examination returns p
sented to the General Medical Council, such as we ha
been accustomed to publish for the past few years.
the main it does not differ materially from its p
decessors, but there are some points worth noting.
the one hand, the number of candidates was rath
larger than usual; and, on the other, there were rath
more Scottish and considerably more Irish candida
than of late years. In fact, the number of the latter,
only fell short of that of the English candidates by
As usual, the greater number of the English candida
held only the conjoint diploma of the Royal Colle
of Physicians and Surgeons. All of these passed
qualifying standard, and 78.8 per cent. of the
won commissions. Of candidates from Irish a
Scottish Universities the numbers were approximat
equal, 36 and 34 respectively. Of the former, 5.8
cent., and of the latter, 8.3 per cent., failed
pass the qualifying standard, the proportion of co
missions won by them being Irish 67.6 per cent. a
Scottish 66.6 per cent. A much greater difference
apparent in the performance of the representatives
the Irish and Scottish colleges. Of the latter 63.6
cent. failed to pass the standard, and of the former
per cent. As by some the examination for the Ind
Medical Service is regarded as of special interest,
figures in respect of this competition may be gi
separately: 6 of the 44 competitors for 23 comn
sions held the English Conjoint diploma alo
they all passed the qualifying standard, and 4,
66 per cent. of them, won commissions. The Scott
Universities in their turn sent up 16 candidates,
whom, or 56 per cent., proved winners. Only 7 rep
sentatives of Irish Universities appeared, of whom 4
57 per cent., gained commissions. The English dip
mates, therefore, were considerably more successful th
the Irish graduates, and the Irish graduates a little
advance of their Scottish fellows. Among the rema
ing candidates there were 2 holding both an Engl
degree and the English Conjoint diploma, and 4 hold
English degrees alone. Both the former won comn
sions and 2 of the latter. The Scottish Colleges s
6 candidates, of whom 1 earned a commission and 4 fai
to pass the standard. The Irish Colleges only s
1 candidate; he won a commission.

PLATFORM "CURES."

Some time ago we had occasion to describe the nat
of the "platform fact," a species of lie much in fav
with antivivisectionists, whom we have to thank for
name, if not for the invention. Now comes the platfo
"cure." What the Scholastics would have called
"quiddity" of this was explained the other day at
Clerkenwell Sessions. A prisoner, described as havi
crippled leg and a withered arm, was charged w
theft. When confronted with the fact of a previ
conviction, he pleaded that before that sentence
since he had worked for Dr. Bodie. A detective th
upon informed the judge, who expressed a wish to kn
something about Dr. Bodie, that he goes about
music-hall stages and pretends to cure crippled peo
The detective added that the witness used to go on
hop about and make out that he had been cu
But as one man in his time plays many parts, the n
night he would be carried on again. He ha
sense of art, for he got worse every night.
prisoner evidently thought that the fact of
having "worked" for a quack would have b
taken to be in his favour; and it must
admitted that the sympathy shown by certain ma
trates for irregular practitioners may well have seen
to him to afford some warrant for the presumpt

His ingenious plea, however, did not avail him. Platform cures" are of course as old as quackery, and that is s old as man himself. Something akin to them, we re sorry to say, is not altogether unknown in the ranks f the legitimate profession. We have ourselves known ases in which persons of plausible address were regu- arly engaged to sing the praises of the doctor and extol is skill to the genuine sufferers awaiting their turn to e admitted to the shrine of healing. Not long ago an ction was brought against a Paris physician by a man ho claimed to have been hired to play the part of *alade guéri.*

CHICAGO DELICACIES.

RESIDENT ROOSEVELT, who shares with the German mperor the honours of our morning paper, is causing huge sensation in America by threatening to publish e report of certain Commissioners on the meat trade Chicago, if the Beef Trust any longer obstructs the eat Inspection Bill, in which he has developed a eat interest. Meanwhile the public impatience with gard to the revelations which the President is eping in his portfolio, may be partly alleviated by ading Mr. Upton Sinclair's book *The Jungle,*[1] which, relating the experiences of a Lithuanian family the Chicago stockyards, relates also the story of how rned beef, or potted game, or devilled ham, or ned chicken, are manufactured out of beef, or veal, pork—or, rather, out of the refuse of beef, veal, and rk—and the blood of ox, and calf, and pig, and the ept-up or washed-down refuse from the killing pens. is a very unpleasant story, but it is powerfully told, d if this stuff is really sent over to Europe and sold British grocers' shops it is as well that we knew, and at our public health committees and medical officers health knew. The only consolation for us to be nd in the book is the statement that the decayed sages which the effete civilization of Europe rejects sent back to Chicago, and there, after disinfection, at least deodorization ground up again for home con- mption. No wonder an American physician has ented a mechanical brush, working like a chimney- eep's brush but smaller, for cleaning out the erican stomach. We do not recommend any one to d the book as a pastime unless he have a strong mach, and have dined on the roast beef of old gland, or Welsh mutton, or a Surrey fowl, or some er dish equally incapable of sophistication. Excep- n must be made for members of public health com- ttees, and the secretaries of hospitals and other lic institutions, and the President of the Local vernment Board. It is not a book to keep: there is an our of garbage about it, and we will gladly pass on copy to Mr. Burns, and would invite him to insti- e inquiries. But chiefly we would invite President osevelt to let us know the worst, to publish the orts he has, and not to traffic with fraud, not to ke compacts with the evil thing. By telling all the ts he will not ruin a great industry; he will only ce it on a firmer basis. The truth is that for years cago and its food products have been under sus- on—its potted meats, its invalid soups, its meat acts, and the rest. It is quite certain that these accusations will greatly affect the trade; nour, indeed, asserts that this has already ne about; the decline will only be checked en it is made clear that the United States Govern- nt is determined to enforce a reasonable standard of ency and honesty. Meanwhile let us go to the fish- nger, and the poulterer, and the butcher who deals home-killed meat, if there be such, or train ourselves vegetables and eggs, omitting milk, until such time he President of the Local Government Board finds ure to reform the defective administration of the law with regard to the home milk supply. If Mr. Upton Sinclair would only come over and help us about the home milk supply!

VOLUNTEER MEDICAL ORGANIZATION.

THE annual dinner of the Volunteer Ambulance School of Instruction was held at the Trocadero Restaurant on May 17th, Surgeon-Colonel P. B. Giles, V.D., in the chair. The loyal toasts having been honoured, Mr. Mayo Robson proposed "The Royal Army Medical Corps" in an excellent speech, in which he referred to the invaluable scientific work of such officers of the corps as Colonel David Bruce, and emphasized the arduous work done by its officers, not only in the field, but also in camps, in barracks, and on the march. He also spoke in highest terms of the *Royal Army Medical Corps Journal,* and referred to the necessity of having a reserve of medical officers trained for military work, pointing out how unfitted for such work a man was who had only had the training of a medical man and not that of a military medical man, and how impossible it was for the Government to maintain in times of peace a sufficiently large Army Medical Department to meet all requirements in time of war. Colonel Sloggett, C.M.G., P.M.O. London District, replied in a short speech, in which he returned thanks on behalf of the corps. The toast of the evening, that of "The Volunteer Ambulance School of Instruction," was proposed by the Director-General A.M.S. (Surgeon-General Keogh, C.B.), who, in the course of an interesting speech, said that during his period of service in the army he had seen many and great changes. From the first he had been one of those who had held very strongly that certain changes ought to be made, and, in those days, it seemed so impossible that his ideals could be realized that he was laughed at. But those ideals had almost all been realized! There was doubtless much that was good in the old regimental system, but the old was not to be compared with the present system. In days gone by all the organization was for the succour of the sick and wounded. He had always held that organization should go much further, and should be for sanitation far more than for ambulance. Every endeavour should be made to prevent the occurrence of disease, not to wait until it had appeared and then try to fight it. This ideal was rapidly being made a reality, but it was only possible to bring it about by making the medical officer an officer in a special medical corps animated by its own *esprit de corps*—the *esprit de corps* of the medical profession. The Volunteer Ambulance School of Instruction had done and was doing good work, but he would have it go further and do better work. Its very name "Ambulance School" pointed to its connexion with the older ideals and he would like to see it reach a higher level and be a school of sanitation. In the same way he would like to see the Volunteer Medical Services organized on the same plan as those of the regular army. He would like to see a large volunteer medical corps with its Surgeon-General, its Colonels, Lieutenant-Colonels, and regimentel medical officers, so that an officer joining such a corps might pass from one grade to another and learn all the details of his work, professional and administrative. In that way volunteer medical services would be really affiliated to the Royal Army Medical Corps and the latter could always look to the former for real and adequate assistance and reinforcement in time of need. General Keogh concluded his speech by proposing "The Health of the Volunteer Ambulance School of Instruction." Surgeon-Colonel Giles, in replying to the toast, gave an account of the work done during the past year, and pointed out that lectures upon camp sanitation had been introduced into the curriculum of the school. Whilst returning thanks on behalf of the school for the way in which the toast had been both proposed and received, he also cordially thanked those commanding officers who had so generously granted to the school the use of their head quarters buildings for the holding of the various classes and courses of instruction. Major Maclure, President of the School, proposed "The Guests" in a short speech, responded to by Surgeon-Colonel Cantlie in a speech full of humour and anecdote. During the evening the string band of the 1st Cadet Battalion the Royal Fusiliers performed a selection of music by permission of Lieutenant-Colonel Sheffield commanding.

---

[1] Published by Heinemann at 6s., but a 6d. edition is wanted.

INSPECTORS OF MIDWIVES.

DR. PERCY ROSE, the Representative of the Stratford Division of the British Medical Association, has sent to us a letter (page 1318) calling attention to the terms upon which the London County Council proposes shortly to appoint an inspector in the Public Health Department under the Midwives Act, 1902. The inspector is to be a woman, but it appears to be a matter of indifference to the London County Council whether the incumbent be a registered medical practitioner or a certified midwife. There are, however, as Dr. Rose points out, cogent reasons why the inspection of midwives should be entrusted to a medical practitioner; the two chief are the matter of knowledge and the matter of status. The more cogent of the two is the former, but the latter ought not to be ignored. The Council of the Metropolitan Counties Branch at its meeting on Wednesday resolved to ask the Midwives Committee of the London County Council to receive a deputation which would represent that the office ought to be held by a medical woman, and that the salary offered, which after seven years' service would only amount to £250 a year, is inadequate. We would strongly urge the reconsideration of the terms of the proposed appointment on other grounds, also mentioned by Dr. Rose. "It will," to quote the terms of the advertisement, "be the duty of the "person appointed to visit midwives who are practising "in the County of London, with a view to the rules "laid down by the Central Midwives Board being "properly carried out, and generally to assist the "Council's medical officer of health in giving effect "to the provisions of the Act." Is it reasonable to suppose that any person, man or woman, however industrious and capable, could discharge the duties efficiently over so wide an area with so huge a population? The inspector ought to know personally every midwife and form an opinion as to her knowledge and character. The kind of supervision contemplated by the Act and by the Central Midwives Board would be far better ensured by appointing a number of district inspectors, and we have no hesitation in saying that the most suitable person would be a medical man or woman engaged in general practice in the district. Why should not one such appointment be made in each metropolitan borough, or perhaps in the larger boroughs more than one? The tendency to multiply whole-time appointments, thus creating large classes of officials who must drift out of touch with ordinary practice, cannot be viewed without apprehension. We question very much whether such a policy is in the public interest.

A STUDY OF OCHRONOSIS.

THE name "ochronosis" was given by Virchow to a rare form of pigmentation chiefly affecting the cartilages which he was the first to describe. Since Virchow's original observations were recorded very few additional cases have come to light. The literature on the subject has recently been collected and discussed by
Dr. L. Pick,[1] who supplements it with a case of his ow
Virchow found this affection in the body of a ma
67 years old. All the cartilaginous parts of the thor
were pigmented, the rib cartilages, the cartilaginous pa
of the sternum, and the intervertebral discs; the pigme
was also present in the joints of the extremities, th
pelvic synchondroses, and in the cartilages of th
larynx, the air passages, the nose, and the ear. I
the ribs, pelvis, and intervertebral discs the pigme
in many places seemed of inky blackness; in the join
it looked grey, and in the trachea brown or yello
When microscopic sections were made of the cartilag
the colour appeared brown or yellow. In addition
this wide distribution in the cartilages a deposit of th
pigment was also present in the tendons, ligament
periosteum, and the intima of the aorta. All th
tissues affected are described as being in an "irrit
tive" condition. Since this case of Virchow's, Dr. Pi
finds that only seven have been recorded in the liter
ture, the most recent being that published by Pop
All these cases corroborate in almost every detail th
observations first recorded by Virchow, and in some
them certain additional points of interest have bee
noted. The pigment is not always diffuse, as Vircho
described it, but sometimes assumes a granular for
and it is found not to be confined to tissues which sho
other evidence of pathological change, but may al
occur where there is no sign of a tissue reaction due
an irritative or other pathological stimulus. The pi
ment may have a still wider distribution over the bo
than in Virchow's case. It may be found in the hea
the cerebral and spinal dura mater, and the lymphat
glands; and in the author's own case, which, he fin
bears in many respects a remarkably close resemblan
to Pope's, the distribution of the pigment was exce
tionally wide. It occurred not only in the usual situ
tions but also in the connective tissue of the skin
the face and hands, in the adventitial connecting tiss
of the carotids and aorta, and in the muscles of th
heart, small intestine, and diaphragm; in the kidne
it was particularly abundant. Chemical analysis sho
that the pigment is a melanin. With the older vie
that it arose from the disintegration products of r
blood corpuscles Dr. Pick does not agree, one objecti
on which he lays stress being that the results of ma
recent researches are against the view that the melani
are derived from haemoglobin. The theory which he
inclined to support is that the melanin of achrono
arises from the action of the ferment tyrosinase up
aromatic compounds (tyrosin and phenylalanin) whi
are derivatives of albumen.

TEA SHOPS.

IN the handling of meat, as Sir Frederick Treves point
out recently, there is doubtless much room for impro
ment on the part alike of butchers, butcher-boys, a
housewives. It may be objected of course that t
question is not a pressing one, inasmuch as meat
invariably cooked before consumption; but althou
this is true, it does not make some attention to t
subject less desirable. At the same time there a
other forms of food contamination and improper tre
ment which call for adverse comment. One of these
the practice, common in the smaller refreshment sho
of leaving milk exposed in a dubious atmosphere, wh
a very prevalent and still more dangerous custom is o
which can be seen in progress any day in the popu
tea shops. Close to the entrance door are piles of past
on the counter left totally uncovered and exposed,
anything like dry weather, to the access of street du
from the swinging doors. Still worse, with a charmi
air of hospitality, any one who asks for pastry has

---

[1] *Berl. klin. Woch.*, Nos. 16, 17, 18, and 19, 1906.
[2] *Lancet*, January 6th, 1906.

hful set before him from which he is at liberty to oose for himself. He can do so at his leisure, with the ult that such pastry is frequently left on a narrow le, at which three or four persons are seated, for f an hour at a time. If they happen to be engaged conversation or if any one of them has a cough or a d, not to speak of phthisis, it is positively unpleasant think of the extent to which those cakes must be taminated, attractive as they continue to appear. suggest that the average person does not splutter ile talking, and that the majority of persons who e luncheon or tea in these closely-thronged resorts e not got colds or coughs is no answer. One knows well the freedom and force with which droplets of isture and secretion are projected from the human gs and buccal cavities, even during quiet conversa- n or the emission of such few words as every visitor hese places necessarily addresses to the attendant. conception therefore that the pastry and cakes ch people consume in these tea shops are commonly taminated by human pulmonary and pharyngeal reta is in no wise fanciful. Undoubtedly the public uld insist that all pastry on counters be kept ered, and that plates of dainties be not left standing ut on tables subject to contamination by those who or may not eat them.

ANOINTING THE SICK.

the course of its May proceedings, the London cesan Conference dealt with the subject of Christian nce, resolving finally that "this Conference, while phasizing the power of faith in healing, views the ain outline and the attitude of Christian Science as tagonistic both to Christianity and to science." discussion of the subject was introduced by deacon Sinclair, who, after showing by extracts Mrs. Eddy's books that certain of the tenets hristian Science were definitely blasphemous, made e attempt to account for the number of its adherents. ern Christianity, he thought, had not laid enough s on the importance of faith, and thus had left n for erratic vagaries. There could not, he con- red, be the slightest doubt that faith had much to ith recovery from sickness. Confidence in the love od, belief in the skill of the medical attendant, earnest prayer for the best issue, all combined promote conditions favourable to victory over sical ill-being. He was careful to add, however, "we must at all times make use of the linary means that God has provided. Faith ne will not cook our food, cleanse our ins, purify our rooms, or build sanitary houses. ith without works is dead, being alone. The works t are necessary to faith in illness or accident are the umulated skill and experience of surgeon, physician, d nurse." In the course of his address he related ry of an acquaintance who, when ill, was asked ubmit to Christian Science treatment, and was red that pain was non-existent. She never ved the treatment, however, for she coupled with acceptance a condition that the would-be healer ld first allow her to place some cayenne pepper is eye. A similar story was related by Lord fax: a friend of his was present at a meeting at h a Christian Science lecturer was emphatic in his tion that there was no such thing as pain. Lord fax's friend thereon quietly inserted a pin into the rer's person. This had the usual effect, and the ing broke up in confusion. Lord Halifax, it is to oted, urged at the conference that the Church ld reintroduce the practice of anointing the Commenting on this suggestion, the Bishop ondon said that the matter was already ving consideration by the Bishops. Extreme unction as practised by the Roman Catholic Church departed in its doctrine materially from the teaching of the English Church, and whether anointing and laying of hands could properly be practised by themselves was a matter for careful consideration chiefly from the point of view of historical investigation. Undoubtedly the influence of mind over matter was great, and they must admit the sacredness of the healing art; in modern times it was much left out of consideration. Faithful physicians were sent by Jesus just as much as they themselves were sent to minister to men's souls.

A CAMBRIDGE CELEBRATION.

THE governing body of Emmanuel College, Cambridge, has decided that the College commemoration for the current year should be of a special character, and has issued invitations for that function on June 20th to all old members of the College whom they know to have qualified as medical practitioners. Such a step is a notable incident in the history of medicine at the older universities. It is the first time that the medical profession has been honoured in any such way by any college at Oxford or Cambridge. As the College of Dr. Thomas Young, one of the greatest men of science that ever graced the ranks of medicine in this or any other country, it is peculiarly appropriate that Emmanuel should be the first College to do honour in this way to his profession. The list of Emmanuel practitioners is somewhat lengthy; and it is significant of the progress of the Cambridge Medical School that, whilst those graduates before the year 1880 could be counted on the fingers of one hand, the numbers since that date have increased with almost every year. Emmanuel is far from unworthily represented in the medical world, and it is to be hoped that each one invited will do his best to attend, even at personal inconvenience, to show his appreciation of the honour paid to himself and his profession by the Master and Fellows of his old College.

THE QUESTION OF GREEK AT CAMBRIDGE.

THE question whether Greek should be eliminated from the list of subjects required of all candidates for a degree at the University of Cambridge was again put to the vòte last week. The proposal was again defeated—this time by 747 non-placets against 241 placets. On the last occasion the voting was: Non-placets, 1,557; placets, 1,055. The Syndicate of Studies, however, has suggested a compromise by which Greek would still be compulsory at the Little Go examination, but with the omission of the grammar paper. They suggest that the examination should be literary rather than linguistic. The Syndicate hopes that it may be possible to frame a scheme which would remove the General Examination from the path of the student who, after passing a previous examination, would be able at once to proceed to the studies of the department of knowledge in which he wishes to take a degree. In the meantime Greek still stands as a lion in the path, deterring not a few students from seeking a medical degree at Cambridge.

COMPULSORY REVACCINATION.

IN the May issue of the *Practitioner* Sir John Moore puts in a well-timed plea for the enactment of obligatory revaccination in this country. He deals with the subject in an eminently practical fashion. Smallpox hospitals are, he urges, subject to grave suspicion as to their influence on surrounding populations; and though the law courts have not held that the risk is so certain as to prohibit the erection of such hospitals, yet the risk in its own degree is undeniable, whatever be its explanation. Then he points out that in Germany, where primary vaccination and revaccination are both systematically practised under the law, these difficulties with regard to small-pox hospitals are non-existent. In Berlin, with its population of two millions, the accommodation set apart for small-pox consists of twelve beds in a general hospital within the city, and wherever in other towns any definite hospital provision is made for the disease it usually consists of a pavilion in connexion with a general hospital, and that pavilion is usually found either empty or devoted to some other disease. At the same time, the mortality from small-pox in Germany is the merest fraction of what it is in this country, there having been in the twelve years 1891-1902 only 607 small-pox deaths in Germany, with its population of 56 millions, as compared with 6,761 deaths in England and Wales, with their population of 32 millions. German authorities themselves freely acknowledge that this is due to their imperial vaccination and revaccination, and that in the absence of this prophylaxis they would require, as in England, to establish large hospitals well removed from centres of population. All this being so, the conclusion is so obvious that it almost states itself. Small-pox in this country can be reduced to the German level by the use of the German measures. It lies with Parliament to determine whether the occurrence of thousands of deaths from variola in Britain as experienced during the past dozen years, is worth preventing in the future. If, yielding to hysterical clamour, Parliament decides that it would prefer the deaths rather than the prophylaxis, the situation must simply be faced, and the pledges which many members of Parliament appear to have given to local antivaccination societies in the course of the last General Election certainly make it difficult to expect much from the present legislature. All the same, we venture to think that neither Government nor Parliament will deliberately accept the risk which the legislative fulfilment of many of these pledges would involve. It is all very well to fish for a few votes which may turn the scale in an election, but it is a very different thing in cold blood to clear away the barriers which have hitherto set some limit to epidemic small-pox in Britain. Sir John Moore has done well to state in plain language the facts of the case, and to leave our rulers to act or not on the facts as they deem best. Theirs is the power and theirs also the responsibility.

DOCTORS' NAMES IN ADVERTISEMENTS.

MOST of our readers are familiar with the wiles of the advertiser, and some of them have had painful experience of the unscrupulousness with which he makes free with the names of doctors as decoys for the foolish birds for which he lays his snare. Naturally the greater the name the greater its value as an advertisement. If the manœuvre is carried out in an artistic fashion, by merely suggesting some association with the scientific luminary without any definite statement to that effect, the victim will find it difficult, if not impossible, to obtain redress. And there are always charitable brethren who will believe that he is in some way a consenting party. Occasionally the vaulting ambition of the advertiser o'erleaps itself. Quite recently Professor Metchnikoff brought an action against the manufacturer of an elixir which was said to contain the ferments recommended by Dr. Metchnikoff, of the Pasteur Institute, for keeping off old age by abolishing disease. The Professor, though not a member of the medical profession, considered it due to the public not less than to himself to make the fact known that he had nothing to do with the preparation so vaunted, and he asked for an injunction against the manufacturer. In accordance with previous rulings of the Cour de Paris and the Cour de Cassation, that, although a pharmacist may manufacture any remedy of which he has the formula, he must sell it under his own name and must not use the name of another person in any way whatever to recommend his preparation, the Court gave judgement in Professor Metchnikoff's favour. Professor Koch has likewise suffered much from many advertisers. "Koch Lung Cure" establishments were started in various parts of the United States, and for a long time escaped the toils of the law. The Professor repeatedly repudiated all connexion with these concerns in letters to representative men in America. The New York Charity Organization Society undertook the exposure of the frauds, and Professor Koch wrote from South Africa to a member of the committee on the prevention of tuberculosis of the New York Charity Organization Society, expressing great satisfaction that at last some one had arisen to interfere with the swindlers who had been trading upon his name and reputation. He says: "For my part, whenever opportunity offered "itself, I have never neglected to declare that I had "nothing to do with the Koch Lung Cure, and that these "concerns used my name for fraudulent purposes. "I would long since have brought suit against "these swindlers, but friends familiar with the "conditions in America advised against it, saying "that according to the law in the United States these "impostors could not be prosecuted. I, too, begin to "believe that the only rational way to deal with them "is the one taken by your committee on the prevention of tuberculosis. The public should be informed "through the press of the outrageous manner in which "these unscrupulous people cheat and fleece the "unfortunate tuberculous."

ANAESTHESIA BEFORE THE LAW.

IN the BRITISH MEDICAL JOURNAL of February 3rd reference was made to a case in which a French country doctor was mulcted in heavy damages because the administration of an anaesthetic for the examination of an injured shoulder was followed by the death of the patient. The learned judge, while acquitting the doctor of negligence in administering the anaesthetic, condemned him on the ground that anaesthesia was not necessary, inasmuch as the man's life was not in danger, and, moreover, should not have been given because he was a drunkard. We are glad to be able to state that an appeal was made against this extraordinary decision, and that judgement has been given by the higher court in the doctor's favour.

THE ANTIMALARIA CAMPAIGN IN CORSICA.

AT a recent meeting of the Académie de Médecine, M. Laveran presented a report of the fourth campaign of the Corsican League against Malaria by Dr. Battesti of Bastia. During 1905 the morbidity from paludism in the most unwholesome regions of the east coast of Corsica, where the dwellings were systematically protected, fell from 50 to 11.5 per cent., and in most of the cases were recurrent attacks. Quinine is widely used for prophylactic purposes in Corsica, and in some places the *Anopheles* larvae have been destroyed. The League has succeeded in organizing a system of antimalarial prophylaxis in all the public services of the island—customs, bridges and highways, post and telegraph, railways, etc. It has organized the teaching of the new doctrine in all primary schools, and has diffused knowledge among the general population by leaflets, exhibitions, and other methods of propaganda. In many unhealthy places it has gratuitously fitted the houses with metal screens. It has offered advice to the public authorities as to the best means of effecting sanitary improvements in the malarial districts of Corsica. Much of the credit for what has been done must be given to Dr. Battesti, who founded the League and has directed its work with indefatigable zeal during the four years of its existence.

RETIREMENT OF PROFESSOR BROUARDEL.

ROFESSOR BROUARDEL, who was Dean of the Paris edical Faculty from 1880 to 1902, has resigned the air of Forensic Medicine, which he has held since 79. Professor Brouardel, who is 69 years of age, ight, as a member of the Institute of France, have tained the chair till he reached the age of 75. He s, however, felt it necessary to retire on the ground of -health. It is said that the conditions under which had to make medico-legal examinations at the orgue have proved so harmful to him that he did not re to expose himself to them any longer. At a eting held on May 18th, the Association of Medical rists of Paris decided, in conjunction with the ofessors of the Institute of Forensic Medicine and ychiatry, to open a subscription for a memorial to be sented to the "Master of French Legal Medicine" in ognition of the great services he has rendered to the nch of science which he has cultivated with such cess. All, both French and foreign, who are erested in medical jurisprudence are invited to tribute. The memorial is to take the form of a dal, with the professor's effigy, and an album conning the names of the subscribers. Contributions uld be sent before June 30th to the Secretary of the nd, Dr. Logez-Duc, 81, Rue de Maubeuge, Paris, Arrt.

HE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

are informed by the Secretary of the College that eeting of Fellows will be held at the College on rsday, July 5th, for the election of three Fellows the Council of the College. The members of ncil who, being elected in 1898, now retire, are Langton, Mr. Henry Morris, and Mr. Richardson ss. Mr. Langton has decided not to offer himfor re-election; the intentions of Mr. Morris Mr. Cross are not yet definitely known. Fortely there are no death vacancies. Blank forms of requisite notice from a candidate of his nomination be obtained on application to the Secretary, and same may be received by him, duly filled up, not than Monday, June 11th. A voting paper will be by post to each Fellow whose address in the United gdom is registered at the College, on Friday, 22nd, and Fellows will not be required to apply oting papers. The Secretary requests that Fellows areful to furnish him with their correct addresses. usual analysis of the composition of the Council be found at p. 1320.

. W. H. R. RIVERS will deliver the Croonian Lecbefore the Royal College of Physicians of London une 12th, 14th, 19th, and 21st, at 5 o'clock, the ect selected being the action of drugs on fatigue.

ledical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

Vivisection Commission.—Mr. Smeaton asked the tary of State for the Home Department, on Monday, her in appointing the members of the Royal Comon on Vivisection he would make sure that both sides question were fairly and, as far as possible, equally sented, and that if any pronounced vivisectionist of nedical profession, who had practised vivisection, ppointed, an equally pronounced antivivisectionist ber of the profession should also be appointed, in that the evidence to be laid before the Commission t be fairly sifted. Mr. Gladstone replied that he only say that in his recommendation to His Majesty ould endeavour so to constitute the Royal Commiss to secure the fair and unprejudiced consideration whole question.

Irish Dispensary Doctors' Salaries.—Last week Mr. Edward Barry asked the Chief Secretary to the Lord Lieutenant of Ireland whether several Boards of Guardians in Ireland had expressed themselves strongly in favour of an increase of the salaries given to dispensary and union doctors, but had been deterred by the decision of the Local Government Board that all increases must be met wholly out of the local rates without any grant in aid from the local taxation account; whether, seeing that the work performed by dispensary doctors amongst the very poor in Ireland was a national service, that they got little other remuneration, more especially in the poorer districts of Ireland, that their services to the poor involved work night and day and the upkeep of a horse or horses, that the Irish ratepayers were already heavily taxed, any steps would be taken, where the Local Government Board approved of the salaries fixed, and a grant in aid given towards paying the increase, as was already done towards the payment of their present fixed salaries. Mr. Bryce replied that he was informed that some Boards of Guardians had expressed themselves in favour of increasing the salaries of their medical officers, and many of them had, at the instance of the Local Government Board, given such increases in the shape of graded scales of salaries. The Local Government Board had been obliged to point out to Boards of Guardians the existence and effect of Section VI of the Local Government (Ireland) Act, 1902, which became law with the object of securing to rich and poor unions alike an equitable participation in the local taxation grant. He had already stated that, as at present advised, the Government did not intend to take any steps for the repeal of that section.

The Richmond District Lunatic Asylum.—Last week Mr. Cogan questioned the Chief Secretary with reference to expenditure on buildings of the asylum for the accommodation of private patients, which had not been sanctioned by the Lord Lieutenant, and the grounds for the refusal to sanction the use of the buildings for the purpose proposed. Mr. Bryce said that he was informed that the plans and specifications referred to were prepared in 1900, not by the Board of Control, but by the Joint Committee of Management of the Richmond Asylum. The proposed works were for the purpose of providing further accommodation for the lunatic poor, and not for private patients, and Government approval was given to the scheme as for the first-named purpose. Upon the completion of the works the Committee drew up regulations for the reception and treatment of private patients in the new portion of the asylum. The Lord Lieutenant's sanction was withheld upon the ground that it would be indefensible to permit asylum space to be appropriated for the benefit of the wealthier class of insane whose relatives could pay for their maintenance in private asylums, while there were such large numbers of lunatic poor in workhouses of the district who ought to be provided for in asylums. He was informed that there were at present about 600 persons of unsound mind in workhouses in the Richmond Asylum District who stood urgently in need of asylum treatment. The reply to the request to allow the buildings to be used for private patients was in the negative. The report of the Irish Poor-law Reform Commission might be expected shortly, but he was not aware that it would have any direct bearing on the question.

High Death-rate in Belfast.—Mr. Sloan asked the Chief Secretary to the Lord Lieutenant of Ireland whether the Local Government Board's attention had been called to the correspondence that had taken place over the high death-rate of Belfast; whether houses had been built upon insanitary sites without let or hindrance; and, if so, who was responsible; and if he would consider the advisability of ordering an inquiry into the matter. Mr. Bryce replied that the correspondence on this subject in the local press had come under the notice of the Local Government Board, but no local representations had yet been received by the Board asking for their interference in the matter. The general suitability of building sites was a matter for the decision of the corporation. The Local

Government Board had no functions except in cases in which sites were acquired by the corporation for housing of the working classes; in all such cases a local inquiry was held before a loan was sanctioned. The death-rate from all causes in Belfast was high, but the Board's medical inspector was in communication with the Public Health Committee in reference to the necessity of certain sanitary reforms. An inquiry did not appear to be necessary.

The Sailor and his Rum.—In the discussion on the Naval Estimates on Thursday in last week, there was a good deal said as to the bad working of the canteen system, and the high charges made for food. Later on Mr. Leif Jones suggested that the issue of rum should be gradually abolished. New recruits might be offered instead either the money value of the rum, or tea, cocoa, or sugar in substitution. The example of the United States Navy was instanced as showing the satisfactory results likely to follow. Mr. E. Robertson admitted the justice of much of the criticism of the canteen system, and promised an inquiry into it, and the issue of the spirit rations. The Naval Medical Vote for £275,000 was agreed to without debate.

The Vaccination of Recruits.—In answer to an inquiry by Mr. T. F. Richards as to what statutory authority there was for imposing the vaccinal test on conscientious objectors seeking enlistment in the army, or employment in the Arsenal, Mr. Haldane said that a man seeking enlistment in the army or applying for employment in the Arsenal was asked whether he was willing to be vaccinated or revaccinated; if he declined he was not enlisted or taken on. No statutory authority was required for such a condition.

Deaths of Vaccinated Persons from Small-pox. — Mr. Lupton asked the President of the Local Government Board whether the clerks to health authorities in England and Wales carry out the duty imposed on them by Section 8 of the Vaccination Act, 1898, and register the condition as to vaccination of all small-pox patients treated in hospitals maintained by such authorities; and, if so, whether the omissions of medical men to enter in the death certificates relating to such deaths the vaccinal status of 308 out of 507 deaths from small-pox, as recorded in the Sixty-seventh Report of the Registrar-General for 1904, can be rectified by reference to the aforesaid registers so as to show accurately how many of the deaths recorded by the Registrar-General were deaths of vaccinated persons. Mr. John Burns replied that so far as he was aware the records required by the section are usually kept, but a reference to them would not show the vaccinal status of all the persons mentioned in the Registrar-General's Report as having died from small-pox. The section only relates to small-pox hospitals maintained by sanitary authorities, and it is known that in a considerable number of cases the deaths did not occur in these hospitals.

The Increased Cost of Vaccination.—On Monday Mr. Soames asked the President of the Local Government Board if his attention had been called to the increase which had taken place in the cost of vaccination since 1898, amounting in some unions to 500 per cent., and whether he could take any steps to reduce it. Mr. John Burns said, in reply, that his attention had been called to the subject, and that he was going carefully into the question of whether a reduction in the cost could not be effected. Mr. John Johnson also asked the President of the Local Government Board whether he had power of himself to reduce the fees paid to public vaccinators, without having to appeal to Parliament or any other authority; and, if so, would he arrange for such reduction. Mr. John Burns answered that the Local Government Board were empowered in their own discretion to make rules and regulations with respect to the remuneration of public vaccinators; he was giving consideration to the regulations on this subject.

The Indo-Chinese Opium Trade.—There was an interesting debate on Wednesday night, before the House of Commons separated for the holidays, on a motion of Mr. Theodore Taylor's condemning the Indian trade in opium with china. In his speech the mover sketched the history of the Chinese opium question and how it had arisen from the old system of smuggling Indian opium into Canton and the adjacent littoral, and was, finally, forced on the Chinese people by war. He contended that our position as a nation in keeping up a trade so hurtful to the Chinese was immoral, and quoted the vigorous methods adopted by the Japanese to stop the use of opium, and the strong action of America as regards her possessions in the Far East. Dr. Rutherford seconded the motion, and after a short and effective description of the effects of opium on the human system and the evils produced by the opium habit, he quoted the opinion of Sir Benjamin Brodie, and also the protest against the supply of opium to China signed some years back by leading members of the medical profession. He called on the Secretary for India to face the matter bravely and boldly, and remove a stain in our relations with the Chinese people. Mr. Morley, in reply, while expressing sympathy with the moral indictment of the system, and saying that if China demanded a cessation of the importation of opium he would not resist the demand, explained the difficulty as regards revenue and also with regard to the opium produced in the native and protected States of India. The speech was not clear and conclusive, and Sir Henry Cotton pointed this out. Then a strange thing happened. The Speaker put the motion. A loud approval came from the Liberal benches and there was no challenge, so, as their last work before the Whitsun holidays, the Commons voted *nemine contradicente:*

> That this House reaffirms its conviction that the Indo-Chinese opium trade is morally indefensible, and requests His Majesty's Government to take such steps as may be necessary for bringing it to a speedy close.

Juvenile Smoking.—Dr. Macnamara asked the Secretary of State for the Home Department whether his attention had been called to the unanimous recommendation of the Physical Deterioration (1904) Committee to the effect that legislation should be introduced for the purpose of dealing with the evils of juvenile smoking; and whether he would suggest to the Prime Minister the desirableness of appointing a Select Committee to consider how best effect might be given to the recommendation. Mr. Gladstone said that Bills on the subject had been introduced both in that House and in another place. If either Bill were read a second time there would be no objection on the part of the Government to its being referred to a Select Committee. Dr. Macnamara's Bill has been put down for second reading on June 12th. Meanwhile the Lords have been busy with their Bill, which was read a second time on Tuesday on the motion of Lord Reay and referred to a Select Committee. The curious point of the supply from penny-in-the-slot machines was raised by the Bishop of Salisbury, and Lord Lansdowne remarked that he could not conceive any ingenuity that would restrict the use of such a machine to a certain age.

The Public Health Officers Bill, which was introduced on Monday last by Sir Francis Powell and supported by Sir Walter Foster and Sir John Tuke, is the Bill which the British Medical Association has drawn with the object of ensuring that none but those properly qualified shall be appointed as medical officers of health or sanitary inspectors, and to give all such officers and inspectors similar security in their tenure of office to that enjoyed by Poor-law medical officers and metropolitan medical officers of health. It also extends to all urban districts the powers possessed by London to appoint more than one sanitary inspector to a sanitary area. The second reading has been put down for June 13th.

Business after Whitsuntide.—When the House of Commons reassembles on June 7th, Army Estimates will be taken, and the votes for transport, remounts, ordnance, armaments, and works and buildings, will be moved. Other votes may be discussed, and the salary of the Minister for War will be put down in order, if time permits, to discuss the Volunteer vote. On Friday, June 8th, Civil Service estimates will be taken, and the Colonial Office vote is likely to occupy all the time in connexion with the Transvaal.

Scotland.

DEATH OF MR. THOMAS GILBERT.

ADUATES of medicine of the University of Edinburgh the world over will hear with deep regret of the death Ir. Thomas Gilbert, who for the greater part of forty rs was Clerk and Registrar to that University. No n knew more, few so much, of the intricate details and ılations of the University, to whose interests he was levoted and faithful a servant. When on behalf of this RNAL he was applied to for explanations his services e always freely and fully given. He grudged no time spared no pains to render the help we required. side his official duties he was a bowler, golfer, violinist, most genial friend. He was a member of the Edingh Reel and Strathspey Society, of the Pen and Pencil b, and of the Morayshire Club. Latterly he was a tyr to rheumatism. His death is a great loss to the versity and to a wide circle of friends.

JUNIOR POSTS IN EDINBURGH HOSPITALS.

ecent advances in medicine and surgery have been t, and owing to the extension, variation, and multiplion of the various branches specialism has been uraged—has, indeed, become a necessity. In every ital of to-day in which scientific medicine or surgery ractised, the routine work entailed in the thorough nination of each separate individual patient is vastly ter than in past years; various methods of extreme acy and requiring a considerable degree of technical are in constant requisition, and, as a necessary conence, a subdivision of labour has become essential. In Royal Infirmary of Edinburgh this is evident no than elsewhere. Within the past few years the agers of this institution, alive to the best interests e patients, have thought it wise not only to increase number of resident physicians and surgeons, but also point in connexion with the wards of each physician rgeon a non-resident clinical assistant, whose work is lementary to that of his respective resident. By this ıs only is it possible to overtake the daily routine of the wards; but owing to the increase in the numof young graduates resident in the hospital further nmodation has had to be provided. In the provision has been made it may be questioned if the best ble solution of the problem has been obtained. ble accommodation for young physicians and ons in hospital is a difficulty in more one institution in Edinburgh, but in none the numbers to be provided for in any comparable with those in the Royal Infir-. Here there are ten physicians and nine ons resident in the institution. They are men who but recently passed successfully through severe tests to graduation, and, further, are specially recomed from among the large number of their fellows by hysicians and surgeons of the hospital as the men ualified and suited for the honourable and honorary they hold. The work is unquestionably hard and ous, frequently both by night and day, and the ısibilities incurred are very considerable. The very of the patients depend frequently on a clear head steady hand, and in order to retain the *mens sana in e sano* of the resident physician or surgeon it is absoessential that he be relieved at intervals as etely as possible from the stress and strain of rk. Unfortunately the climate of Edinburgh is not, many months of the year, very suitable for ır exercise, and, even if it were, the periods of tion are frequently all too brief to permit of absence he immediate neighbourhood of the hospital. Such the case, it seems not too much to look forward to ne when the existence of a detached "residency"—ning, it may be, some suitable attraction for leisure es—will afford one more mark that the Edinburgh Infirmary holds a foremost position in hospital modation, and will at the same time by granting to ung residents greater autonomy and greater powers cretion, serve to obtain from them the maximum of nce and assiduous work.

rther question is bound to arise in the near future nexion with appointments in Edinburgh hospitals. aching hospital such as the Royal Infirmary, it has been found necessary for some considerable time to appoint clinical tutors in connexion with the wards; these appointments are for terms of five years, the chief work pertaining to them being the teaching to junior students of the various clinical procedures and methods. The work of such a post is extremely valuable to a young practitioner, and this value is greatly enhanced by the opportunities the work affords him of observing and examining cases in the wards with which he is connected. In many hospitals, more especially on the Continent, posts somewhat comparable to these, but differing from them in many very important respects, are what one may term the "internal assistant," posts which, as the name implies, necessitate living in the building. The holder of such a post is a graduate of some years' standing, a man who has mapped out his special course of study for life, and a man whose duties, apart from teaching, include none of the routine work of the ward. He is recommended by one of the surgeons or physicians of the hospital, and he devotes himself to study in the wards under his care, and thus qualifies himself in the course of time for the position of consultant or specialist in the line to which he has devoted himself.

The transition from a "clinical tutor" to an "internal assistant" is no inconsiderable one, but, the gulf once bridged, access is gained to a field of the most thorough and accurate training and development of junior practitioners. At present the best men eagerly accept a clinical tutorship, and there can be no reasonable doubt that were the "internal assistant" system to be adopted, the men best fitted to derive the fullest benefit from the experience would certainly apply.

Not in the Royal Infirmary alone might such a system with advantage be instituted, but in the Royal Hospital for Sick Children, and in the other hospitals, it is also desirable.

Edinburgh is preparing to throw open more freely her doors to graduates and to institute the long-talked-of course of post-graduate study; and it seems only just that she should at the same time give the fullest possible opportunities of training and experience to the younger graduates within her walls and thereby ensure in future years the maintenance of her medical celebrity.

CONSUMPTIVE SANATORIUM AT GALASHIELS.

A project has recently been mooted for obtaining a suitable building as a sanatorium for the outdoor treatment of consumption cases occurring within the burgh of Galashiels. A joint committee of the Parish Council's Relief and Finance Committee and the Public Health Committee of the Town Council has been appointed, and it seems possible that the unoccupied new small-pox hospital may be utilized for this purpose.

EDINBURGH CHILDREN'S HOLIDAY FUND.

The value of the work being done by the Holiday Fund Society may be judged from the facts that during the past year no fewer than 2,620 children had been sent to the country, and since November, 1904, 600 children had been sent to the Children's Village at Humbie. The work is consequently of the greatest importance, whether viewed as an adjunct of preventive medicine or as a means of procuring complete restoration to health of convalescent children. The Children's Village is being enlarged and extended, and it is to be hoped that the necessary funds will be speedily forthcoming which will permit of the completion of the work.

THE ROYAL INFIRMARY, GLASGOW.

The annual report for 1905 of the Royal Infirmary, Glasgow, issued recently, shows an increase in the number of patients admitted and treated compared with the previous year. The daily average of patients was 567.5 as against 555.4 in 1904. The rate of mortality was very slightly higher (10.6 in 1905 as against 10.18 in 1904). The income was greater by £731, while the contributions received from employés reached the highest total recorded except on one previous occasion. The deficiency on the ordinary income amounted to £8,271, but as £14,000 was received in legacies and endowments the directors were able to add some £6,000 to the stock account. The cost of each fully-occupied bed was somewhat smaller than in the previous year, and worked out at £65 11s. 11d. Numerous changes have taken place in the senior staff. This year two physicians and two surgeons are demitting office, and one assistant physician and two assistant surgeons have resigned. An innovation during the past year was the appointment of an anaesthetist.

Ireland.

MEDICAL OFFICER OF HEALTH OF BELFAST.

THE health of Belfast, and the vacancy in the post of medical superintendent officer of health caused by the resignation of Dr. Whitaker, are causing the liveliest local interest. After the public conference on May 8th[1] a deputation from the Citizens' Health Committee waited on the Public Health Committee and expressed their views as to the necessity of obtaining a highly-skilled medical officer of health with experience for the post. On May 24th a deputation from the Ulster Medical Society, consisting of Dr. Calwell (President), Professors Lindsay and Byers, Dr. Dempsey, Dr. Morrow, Dr. Storey, and Dr. Houston (Honorary Secretary), waited on the same committee. Dr. Calwell explained the object of the deputation and read the resolution which had been passed by the Society. Professor Lindsay disclaimed any spirit of hostility to the health department and bore witness to the respect and esteem in which Dr. Whitaker was held by the profession, to the energy and ability of Mr. Conway Scott, Executive Sanitary Officer, to the progress that had been made, and to the difficulties the Committee had inherited from the past. At the same time, he drew attention to the high death-rate, to the numerous difficult and intricate problems they were called upon to face—such as the housing and food of the people, the sanitary condition of schools, the milk supply, the drainage and sewage system, and numerous others in addition to what had already been so frequently mentioned—namely, the consumption and typhoid questions. The Committee required the highest possible skill and ability to aid them in the solution of these problems. Professor Byers pointed out that public health had now become a speciality. When he was a student there were no classes, no examination, no degrees in public health; now it was a well-defined speciality known as "State Medicine," which in the British Medical Association had a Section of its own; and this year at Toronto they were actually to debate the very matters that were at the very moment being considered in the daily press of the city. The deputation came as representing the Ulster Medical Society, as medical men who by their training and experience were qualified to give an opinion as to the necessity that existed, and as ratepayers. There was absolutely nothing personal or hostile, nor had they individually nor collectively any one's claims to forward. They asked that a suitable salary should be given, and that the vacancy should be well advertised, so that every chance should be given to enable them to get the best candidate.

An interchange of views as to the interpretation of the third portion of the resolution—namely, that portion emphasizing the necessity of the new officer of health being supreme in his department—took place. The Chairman (Dr. King-Kerr) pointed out that they were acting under the Local Government Board and had really no option. Dr. Lindsay and others explained that as a matter of administration it was absolutely necessary to have one responsible authority all over the city, and that in no other city except Dublin did the present arrangements exist. If it was necessary, even an Act of Parliament should be obtained; and if any vested interests were injured, compensation should be given.

Dr. Calwell thanked the Chairman and Committee for receiving the deputation and for their courtesy.

A RECENT LAW SUIT.

A few weeks ago an unpleasant law suit in Dublin occupied very much public attention. Dr. J. B. Coleman, C.M.G., F.R.C.P., was the defendant, and his wife the plaintiff. Certain allegations were made which had they been accepted by the jury must have done irreparable damage to the defendant, but the jury disbelieved them, and declared that Dr. Coleman had passed through an ordeal "without blemish on his character or honour." The Presidents of the two Colleges, Sir William Smyl and Sir A. Chance, have summoned a meeting of the pr fession to be held in the College of Physicians on Wed nesday next, June 6th, at 5 p.m., when a resolution wi be submitied congratulating Dr. Coleman on the result the trial, and expressing sympathy with him. A copy the resolution with the names of those approving of it, wi be publicly presented to Dr. Coleman later on. There ca be no doubt of the view which the profession hold regar ing the law proceedings, or of the high esteem in whic the defendant is held.

DR. DARNELL'S EXPENSES IN TUGHAN V. DARNELL.

The following subscriptions have been received up
May 26th:

	£	s.	d.		£	s.
Sums already acknowledged	111	1	6	Dr. John Rusk ...	1	1
Dr. J. S. Morrow ...	10	10	0	Dr. S. Moore (Leeds)	1	1
Dr. R. W. Leslie (Strandtown) ...	3	3	0	Dr. Thos. S. Hogg ...	1	1
Dr. E. Markham Skerritt (Clifton, Bristol)	2	2	0	Dr. James Wallace (Knockabollet) ...	1	1
Dr. Andrew Fullerton, F.R.C.S.I.	2	2	0	Dr. Chas. R. Straton, F.R.C.S. (Salisbury)	1	1
Dr. Robert McDowell	2	2	0	Dr. A. King Stevenson (Ballyclare) ...	1	1
Dr. E. Wales	2	2	0	Dr. J. Galway Crooke (Derry)	1	0
Dr. John Acheson (Armagh)	2	2	0	Dr. H. Gault	1	0
Dr. Hugh R. Irvine (Belmont)	1	1	0	Dr. George Browne (Ballynahinch) ...	1	0
Dr. T. MacLaughlin (Derry)	1	1	0	Dr. Herbert H. B. Cunningham ...	0	10
Dr. Jas. G. Jefferson (Lisburn)	1	1	0	Dr. C. V. H. Nesbitt (Randalstown) ...	0	10
Dr. Wm. C. Steen (Margate)	1	1	0	Dr. John Milroy ...	0	10
					150	5

Cheques may be made payable to the Hon. Treasurers D Leonard Kidd, Enniskillen, or Dr. Wm. Calwell, 1, Colle Square North, Belfast.

ROYAL COLLEGE OF SURGEONS, IRELAND.

At the annual meeting of the Fellows of the Roy College of Surgeons, Ireland, to be held next week, M H. R. Swanzy will become President and Mr. Joh Lentaigne Vice-President. For the Council there will several new candidates. We hear that Sir Willia Thomson will not present himself for re-election, so th there will be one vacancy. The names of candidates me tioned are: Dr. Maxwell (Eye and Ear Hospital), D Oulton, Mr. Kennedy (Jervis Street Hospital), Mr. Lou Byrne (Jervis Street Hospital), Mr. William I. de Cour Wheeler (Mercer's Hospital), and Mr. R. J. Harve (Richmond Hospital).

IRISH MEDICAL ASSOCIATION.

The annual meeting of the Irish Medical Associati will be held in the College of Surgeons, Dublin, Tuesday next, June 5th, at noon. Among questions to discussed will be amendment of the vaccination rules ar the post-office medical service fees. Dr. Kidd will mo the erasion of the names of members whose subscriptio for 1905 are in arrear at the date of meeting; also

> That a committee be appointed to draft amended Articles Association, and submit same to a Special General Meeti of the members, which meeting shall have power to propo amendments, by way of adding to or taking from the dra Articles; and to transfer certain Articles to the By-law and finally to pass such Articles as may be agreed on, the form of a "Special Resolution."

Dr. J. F. Keenan will propose that an Irish medic directory be published.

CORK BOARD OF GUARDIANS AND POST-MORTEM EXAMINATIONS.

A few weeks ago a man recently discharged from t artillery was admitted to the Cork District Hospital in unconscious condition and after several days' illness died without symptoms pointing definitely to the cause the illness and with no history to account for his cond tion. With the consent of the relatives of the decease Dr. Cummins desired to make a *post-mortem* examinati to ascertain the cause of death, and called to his assistan the services of Dr. Moore, Pathologist at Queen's Colleg who attended without any charge to the Board. Howeve some members of the Board of Guardians, objecting *post-mortem* examinations, made some insulting remar ut the doctors not being able to diagnose cases, and lly drew up a resolution and sent it to the members of medical staff:

---

[1] BRITISH MEDICAL JOURNAL, May 19th, 1906, p. 1188.

> hat if the medical staff are in any doubt as to the disease any patient is suffering from we request them to call in any medical officer in our employment for the purpose of consultation and that the medical officer be requested to pay the consultation fee.

aturally the medical staff of the Cork District Hospital nt this, and have written to the Board asking it to ndraw the resolution, which implies either a want of idence in the medical staff or is intended as a direct lt. Dr. Cummins is Professor of Medicine at Queen's ege, Cork, and it was only natural that he should, er the circumstances, have wished the skilled assist- of a pathologist for the *post-mortem* examination.

South Wales.

MERTHYR TYDFIL.

ING last year Dr. Spencer Low visited the Merthyr il district, on instructions from the Local Government d, for the purpose of inquiring into the "sanitary mstances and administration" of the locality. In report he states that the Merthyr Council had to the housing question, and when this was done there d follow, in due course, a reduction in the general n-rate, a lower infantile mortality-rate, a reduced ence and death-rate from infectious diseases, and an ase of comfort and of enjoyment of life to a large on of the Merthyr population. Emphasis is laid on ifficulty of acquiring land in congested areas of the ry districts for building purposes, and his remarks y demonstrate the absolute necessity for an amend- of the land laws, and in particular the leasehold n, if the problem of the proper housing of the masses e satisfactorily dealt with. After giving a clear but description of the Merthyr district, Dr. Spencer Low eds at once to deal with the great evil from which nyr is suffering. He says:

> here are large areas in Merthyr and Dowlais which n buildings unfit for human habitation, by reason ir structural condition, their disposition in regard er dwellings—as, for example, in crowded courts— ause of their darkness, dampness, or other defects. s are to be seen (*a*) back to back, (*b*) back to earth, hout back doors or windows—in all these types h ventilation is entirely absent—and (*d*) 'under- ver' houses—that is, cellar dwellings with other ngs over them. Indeed, in the older portions of yr and Dowlais well nigh every conceivable fault sing is abundantly represented. In a number of ces houses unfit for human habitation have, at the e of the sanitary authority, been remodelled. For e, back-to-back houses have been converted into gh' houses by combining the front and back house, under-and-over' house has been furnished with an l staircase giving access from the upper or 'over' to the cellar, the intention being that the latter be no longer separately occupied. However, sub- of the cellars or of the back rooms of houses y back to back has resulted in the practical re- shment of the previously existing unwholesome ons."

nces are given of overcrowding in houses con- of only three rooms, one of the latter being under- . Even in such houses the occupier endeavours to nodate lodgers. Dr. Low's main conclusion is that f want of Merthyr is more abundant and better ccommodation for the working-class population, and ks it possible that some of the difficulties might be d private enterprise at the same time encouraged, own Council were to agree to take steps to secure ing of houses in certain definable unhealthy areas in fixed rates, thus affording stimulus to provision nd of dwellings for the working classes to those to be closed by the Council as unfit for habitation. Similarly, Dr. Low says, it is worthy ideration whether encouragement might not be the erection or provision of lodging-houses of a newhat superior to that of the average common houses, to relieve the congestion of young single-men lodgers in the houses of the working classes. Dr. Low's recommendations are as follows:—Houses unfit for human habitation should be closed; insanitary areas should be dealt with; overcrowding should be abated; the Council should consider the question of providing suitable dwellings; nuisances, notably those caused by house refuse, should receive immediate attention, and refuse destructors obtained; and a public abattoir should be provided.

Manchester.

PORT INSPECTION OF FOOD-STUFFS.

GREAT Britain depends so much upon foreign countries for its food supply that it would appear obvious that the first and most useful line of defence should be efficient inspection at the port of entry. That this has not hitherto been acted upon to any appreciable extent is due to the fact that all the important ports are each situated within the areas of jurisdiction of more than one local authority. All these authorities have the power to inspect food, but what is everybody's business is generally nobody's business. Although so many important powers under the Public Health Acts have been delegated to Port Sanitary Authorities, it has not hitherto been the practice to assign to these bodies the right of inspection and condemnation of unsound food. The one notable exception is in the case of the Port of London, where most excellent work is now being done in this direction under the supervision of Dr. Williams. It is therefore with pleasure that we note a forward move on the part of the Port of Manchester. An application has been made, an inquiry held, and a provisional order granted for food inspection. When it is realized that this modern port forms a distributing centre for a population of 10,000,000 of people, that over 500,000 tons of food-stuffs are being landed within its precincts every year, that it is thirty-six miles in length, and impinges on the administrative area of about twenty-five local authorities, the importance of this power being handed over to one joint representative body can perhaps be realized. Though now ranking as the fourth in the kingdom, the port is peculiar in being practically in its entirety a canal owned by a trading company, and anything likely to affect the financial interests of the undertaking is perhaps naturally, to a certain extent, looked upon with suspicion by the management. We have, therefore, to regret that in this instance a discordant note appears to have been struck by the Ship Canal Company. It is thought that extra restrictions will have a tendency to interfere with the volume of trade, and as a consequence the directors are doing their best to prevent the Order being confirmed by Parliament. If the food imported is good there is no reason to fear inspection, and the only trade which can be interfered with is the trade in unsound articles of diet. In any case a guarantee for the purity of the food of the people is of more concern to the country than a slight diminution in the receipts from the Ship Canal Company's tolls.

THE CHILDREN'S HOSPITAL, PENDLEBURY.

From the seventy-seventh annual report it is evident that the work of this institution is maintained at its customary high standard. During the year 1905, 1,910 patients were treated in the hospital, 23,899 out-patients at the dispensary, and 859 treated at their own homes. In addition, 283 children were passed through the Convalescent Home at St. Anne's-on-the-Sea. The medical reports on both the in-patients and out-patients are full and elaborate, and should prove of value for statistical purposes. Owing possibly to the system of treating patients at their own homes, the run of cases differs somewhat from that in other children's hospitals. Thus, out of the 1,910 in-patients, there were only 28 cases of croupous pneumonia without a single death, 9 cases of rheumatism, and 3 cases of syphilis. On the other hand, whilst there were only 15 cases of general tuberculosis, with 5 deaths, there were no less than 41 cases of phthisis. This unusually large number of cases of phthisis is doubtless due to the accommodation afforded in two wards for "open-air treatment." It would be interesting to know from how wide an area the patients were collected. We are glad to note that the finances of the hospital are in a comparatively satisfactory condition, and that it has been resolved to start a milk dépôt in connexion with the institution in the near future.

North Staffordshire.

Local Mining Accidents in 1905.

The report of H.M. Inspector of Mines for the Stafford district for the year 1905 has just been issued. The inspection district comprises Staffordshire, Shropshire, Worcestershire, Herefordshire, Norfolk, Suffolk, and Essex. The total number of persons employed under the Coal Mines Regulations Acts was 54,845, of which 23,833 were in North Staffordshire. The quantity of mineral raised in North Staffordshire was 6½ million tons. Of this, 5½ million tons was coal, the rest consisting of fire-clay, ironstone, and oil shale. The quantity of mineral raised per person employed below ground was 340 tons. Fifteen coal-getting machines at work in North Stafford raised 206,000 tons.

During 1905 there were 63 fatal and 257 non-fatal accidents reported, resulting in the deaths of 68 persons, and serious injuries to 272. Of the fatalities, 27 occurred in North Stafford, and 92 of the non-fatal accidents. The death-rate for 1905 works out to 1.239 per 1,000 persons employed; 1.5 per 1,000 below ground, and 0.389 per 1,000 above ground. Seven accidents by explosions of fire-damp or coal dust were reported, resulting in 2 deaths and injuries to 11 persons, all but one being caused by naked lights. One occurred in North Staffordshire, 2 in South Staffordshire, and 2 in Worcestershire. There were reported 152 accidents due to falls of roof, causing 36 deaths and injuries to 122 persons. The Inspector indicates that neither in this district nor in the country as a whole are effectual measures being taken to reduce the great number of accidents from this cause. North Staffordshire is comparatively free from accidents due to irruptions of water from the surface, to which some parts of the South Staffordshire coalfield are liable, and which caused 5 deaths in 1905. Underground haulage was responsible for 76 accidents, of which 10 were fatal. No accident due to electricity was reported. A large proportion of the safety lamps are still secured by screw locks, but these are gradually being replaced by a safer pattern.

The report under the Metalliferous Mines Regulations Acts shows that 311 persons employed in Staffordshire raised 80,129 tons of gypsum, limestone, and sand, with 2 fatal and 10 non-fatal accidents.

SPECIAL CORRESPONDENCE

BERLIN.

The Law as to Professional Secrecy.—A Co-operative Hospital.—The Institute for Hydrophobia.

An interesting and important verdict, bearing on the vexed question of professional secrecy, has just been pronounced by the German Supreme Court of Appeal (the Reichsgericht in Leipzig). Shortly, the facts of the case were as follows: A Berlin practitioner, Dr. X., attended a Miss Y. and her sister-in-law, Mrs. Y., with her family of children. Miss Y. contracted syphilis, and Dr. X., her medical attendant, knowing that her little nieces were free of her room, and even were taken into her bed sometimes, informed Mrs. Y. of her sister-in-law's condition, and the danger of infection to her children. Thereupon Miss Y. brought an action against Dr. X. for violation of professional secrecy, and won her case. But Dr. X. appealed to the Supreme Court at Leipzig, and by it the first verdict was annulled. In its commentary on this over-ruling the Court of Appeal explains that no doubt the defendant had disclosed to Mrs. Y. a private secret of which he had cognizance in his professional capacity, but that the question of his culpability turned solely on the point whether his communication was warrantable or not. In this special case Dr. X. *was* entitled to disclose the nature of the disease, since his refraining from doing so, if infection had been carried to the children, might have made him liable to prosecution for culpable negligence in the exercise of his profession. The German law, continues the commentary, speaks "unwarranted disclosure," thus recognizing that th are cases when disclosure may be warranted, and th professional secrecy is not always and absolutely bindi on medical men.

At Munich a large number of working women and wi of workmen have decided to establish a co-operat lying-in and gynaecological hospital, where they are to taken charge of and nursed during and after confineme and where gynaecological operations are to be perform The official report says that membership is to be obta able by payment of 20 pfennig (2¼d.) a month. Of cou this tiny contribution could not suffice to build, furni and work a good-sized modern hospital (the report spe of 100 to 160 beds), and consequently the munici authorities and several distinguished Munich citiz have been elected members of the Committee, and appeal has been made for voluntary contributions o large scale. One million marks (£50,000) will be requ for the building fund, and the committee hopes to obt not only this sum, but also a good annual contributio the working expenses by voluntary subscription.

The Institute for Hydrophobia, which forms a dep ment of the German Imperial Board of Health, published its annual report, from which it appears t 440 individuals were treated in the institute during year 1905. Of these 5 died. In 311 of these 4 that is 71.3 per cent., artificial transplantation of disease to rabbits gave proof that the attacking ani was suffering from rabies. In 68 cases (14.6 per ce veterinary examination alone proved rabies to h existed, whilst in the remaining 61 cases (14.1 per ce no proof, but only suspicion, of rabies existed; 391 of cases (88.8 per cent.) had been bitten by dogs, 21 (4.8 cent.) by cats, 23 (5.2 per cent.) by cows, 2 (0.5 per ce by pigs, and 3 (0.7 per cent.) had taken the infection fr human beings. Two medical men and thirteen veterin surgeons were amongst the patients.

CORRESPONDENCE.

FINANCES OF THE ASSOCIATION,

Sir,—I do not think that any one has suggested that finances of the Association are in a serious condition certainly do not think so; and yet I see plenty of evide that they might become so if our expenditure is allo to go on increasing at its present rate. I therefore re to see the letter from Dr. Buist, published on May 1 p. 1191, as it seems to attempt to excuse, and wit light heart to encourage increased expenditure regard of the present extent of our commitments. It wo take up too much of your space to deal with that lette detail. No doubt your readers are quite able to do so themselves, and I trust that many of them will agree me in thinking that the right note has been struck by Lancashire and Cheshire Branch, in their resolutions, that they have exhibited some of that business cau which is supposed to be such a strong feature in th residing north of the Tweed.

I would be glad if those who have read Dr. Buist's le would keep in mind some figures which are not to found in his letter:

The total expenses for the year	1902	were	£40,525	3s.
,, ,,	1903	,,	£43,236	2s.
,, ,,	1904	,,	£46,014	18s.
,, ,,	1905	,,	£49,245	10s.

Such a very large and steady increase is surely suffic to cause us to ask, Are we getting satisfactory valu this increased expenditure; and, if this rate of incr continues, where will it lead us? The ever-increa demands by the Representative Meeting, by Bran and by individuals do not give much hope of a cu ment of expenses, unless it is recognized by the Cou and by the members of the Association that the is being forced too much. The healthiest and lasting reforms come slowly and gradually after ma consideration.

With regard to our future financial commitm members are aware that a big scheme is being carrie to provide suitable offices in place of the cramped and healthy rooms at present occupied by our officers and s but has it been realized how this will affect our fun the next year or two? It will be necesary to borrow about £30,000, and some part of the interest on this sum will require to be met out of income until such time as we are fortunate enough to find good tenants for the part of the building which we hope to let. Besides this, for at least ighteen months it will be necessary to provide temporary ccommodation at a cost of about £3,000, which sum will lso require to be met out of revenue.

In addition, when the building is completed, we shall ave a much larger building and shall have much more ccommodation, and it should not be forgotten that the nnual charges for taxes, heating, lighting, cleaning, etc., ill permanently increase, probably to the extent of, say, 500 per annum.

Sufficient has surely been said to show that those who re advocating increased, or new, expenditure would do ell at the present time to consider the matter very careully, and to recognize the importance of true economy, nd the necessity for proceeding with caution and with due eliberation.

Lastly, let me say I regret the tone of the reference to he Medical Secretary's department in Dr. Buist's letter. t seems an unwise act to throw the apple of discord etween our excellent officials, or between our officials nd certain Branches of the Association. It is quite ossible to appreciate the work done by the Medical ecretary and his assistants, and yet to think that is recently-formed department should be allowed develop a little more gradually. This seems all the ore necessary in view of our financial commitments for e next year or two. If those who would rush this epartment into attempting to reform everything at once ould recognize how futile this must be, it would tend, I el sure, to the greater efficiency and permanent success this department.—I am, etc.,

Edinburgh, May 23rd. R. McKenzie Johnston.

Sir,—The revelations of Dr. Buist, published on pages 91 and 1192 of the British Medical Journal of May th, help to explain the way our Association is managed those who are "in sympathy with the recent developents of the Association."

We are not "a co-operative store" I admit, and Dr. uist admits we are not "a business." That is exactly hat we in Lancashire and Cheshire complain of. Our ssociation is carried on without business methods.

When an income of £50,000 a year is spent and property rth £100,000 is managed admittedly without business, is time protests were made.

True it were well to apply our subscriptions for the aintenance of our honour and interests, and were we nvinced that they were used in a business-like way for at purpose we would not object. Any one can spend ney, but it requires business methods to spend it well d efficiently. It is not business to let your expenses ceed your income, as the Association is doing, but, of urse, if we disdain to be thought a business we must e no excuse to be considered such.

We who have no objection to the adoption of business thods in the management of the affairs of the Associan wish simply to drive home to our fellow members t we are speedily going to the bad financially; that at end of 1904 we were £4,775 better off than at the end 1903; at the end of 1905 were only £962 better off than the end of 1904; and that if we continue in 1906 to do as did in 1905, and as we are said to have done in the first arter of 1906, we shall at the end of the year be ween £1,000 and £2,000 to the bad; that, in fact, we beginning to live on our capital—on our savings—withstanding that the Council is contemplating a ital expenditure of £40,000 on building.

t is well to note how these gentlemen who disdain iness, and manage our affairs accordingly, agree with another. Dr. Buist attributes all the loss of income increase of expenditure, except £1,800, to temporary ses. Perhaps he is right; let us hope so. But his leagues do not think he is, for they expect still further es and still greater expenses this year. He says that £1,000 drop in the receipts for advertisements is ansient"; yet so transient do his fellow members of ncil consider it that they expect a still further drop of ther £1,000 this year. Moreover, on every single item xpenditure, except that for the printing of the Journal, y expect a substantial increase.

But, "before becoming alarmed," we must "examine somewhat clearly." What the mental process of *examining somewhat clearly* is we will leave to Dr. Buist. We have to be content to examine with the greatest care such accounts of the expenditure of the Association as the Council deems fit to give us.

"The face of the balance-sheet" (how we would like to see some of the details which we suppose must be on the back) shows certain things, and we congratulate the Association on having improved in its book-keeping. The £300 for the superannuation fund at last appears in its right place. It is satisfactory, too, to find our securities entered at their actual market value and not at the price they were at some other date. These are businesslike acts of which we approve.

But, after all, matters of book-keeping do not affect the actual position. What Dr. Buist really means is that the balance of income over expenditure has been wrongly stated for some years, and is wrongly stated on p. 102 of our costly *Year Book*. It is satisfactory to get these admissions from the other side. Yet, not even British Medical Association book-keeping, nor scorn of business methods, can alter the fact that for years we had a four-figure credit balance, which was converted in 1905 into a three-figure balance, and which is likely in 1906 to become a three or four figure debit balance.

Still there is some hope. Business methods are, after all, going to be some day introduced, and Dr. Buist and his fellow-chairmen are to be "assisted" by an "effectively-organized Finance Committee."

Oh! what a delightful cross-examinee Dr. Buist would make for an opposing barrister! How he would give the case away! It is to be regretted his letter did not appear before our Branch meeting. One of our great arguments was the want of proper control. We might have invited him to come and help us.

So the present Journal and Finance Committee is, at any rate as far as finances are concerned, useless, and there is in the Association no "effectively organized" Finance Committee. There is no special arrangement to see that our expenditure is "effective." The only control it seems, up to the present, has been that exercised by the Chairman of Committees, and Dr. Buist candidly tells us they have only "partly" exercised it. No wonder our representatives on the Council are found to be out of sympathy with the recent developments of the Association!

While mentioning our representatives, let me call attention to another of Dr. Buist's confessions. He "cannot recall a single improvement in the organization of the work [of the Council] which has resulted from the criticisms of its [the Lancashire and Cheshire Branch] representatives." This is exactly what our representatives say, and not only do they say that, but also that the fact that they have over and over again tried to check the steadily increasing current of extravagance has been carefully edited out of all the published proceedings. Be it noted that the verb to edit is now euphemistically used to signify the acts of a censorship which rigorously suppresses all inconvenient arguments, acts, and facts.

The fact is it is high time to get rid of a great deal of cant and nonsense. Hypocrisy in these matters of business is a bane of our profession, and throws us often defenceless into the hands of the lay public. The sooner we become a combined *business* body the better. We must virtually become a trades union, with a policy towards the public. Not until then will the public respect us.

To commence with, let us manage our Association in a business-like manner. To do so we must first manage to live within our income, and in the second place we must get full value for our money. Out of this second comes the question of medical secretaries and clerks, and their remuneration. Dr. Buist does not tackle this problem. He simply indulges in some quibbles on professional status.

If the Association were run on business lines there would be one head. In the management of a business there is no room for a trinity, especially if not combined with unity. It does not matter whether the head is a medical man or not provided he is a capable administrator. I would, perhaps, naturally prefer a medical man, but certainly would not replace a good officer because he was not a medical man. It is not very likely that we shall find a medical man suitable for such a post. It is certain that a medical man's training is not calculated to qualify him for such work.

It is foolish to think that because a layman is our highest officer any medical man in our employ is thereby lowered. Baron Larry is none the less respected as a surgeon because Napoleon directed the campaigns.

Our business is to get the best men for the work we require them to do. If a man is to do clerical work simply, let him be a clerk at clerk's salary. If he is to do medical work let him be a medical man and pay him accordingly. Do not waste the time of a professional man doing mere secretarial work. It is costly and insulting.—I am, etc.,

Liverpool, May 23rd. F. CHARLES LARKIN.

INSPECTORS OF MIDWIVES.

SIR.—The advertisement of the London County Council for a woman inspector of midwives for their area, which appeared in the BRITISH MEDICAL JOURNAL of May 26th, shows the continued difficulty of getting a lay body to understand properly how to carry out its responsibilities as supervisor of midwifery practice among the poorer classes.

The advertisement reads: "*Candidates . . . must be either medical practitioners or properly qualified midwives.*" That the Midwives Act would create an independent order of midwifery attendants, that their practice would be free from direct medical supervision, and that they could thus hold themselves as equal in status to medical practitioners was our warning in the past. Our fears are shown to be justified by this advertisement; for here we now see doctors and midwives placed on the same level, the same duties expected to be performed by them, and the same remuneration offered to both.

The salary offered is £150, rising to £250, a year, and the post is a whole-time appointment. The doctor with five years' training, £1,000 spent, and the M.D.London degree, is to be treated just the same as the midwife with perhaps six months' training, £50 spent, and a certificate from the Central Midwives Board. To the London County Council both are equal.

The duties of inspectors of midwives have been dealt with in the BRITISH MEDICAL JOURNAL of October 28th, 1905, and April 7th, 1906. Briefly, they should have a personal knowledge of all their midwives; they must be prepared to advise midwives on the Roll as to their duties under the rules of the Central Midwives Board, to assist them in keeping their books properly, and to instruct them as to the scientific value and application of various antiseptics. A further and serious responsibility will probably be the primary investigation of charges of misconduct.

These duties can only be efficiently and safely performed by a registered medical practitioner who has had years of experience in midwifery work, who has frequently come across midwives and their work, and who is in the position to appreciate, possibly through bitter experience, the difficulties and pitfalls of midwifery practice.

A maximum of £250 for a whole-time appointment will not attract that class of practitioner. A novice may apply for the post, but lack of experience in general practice would tend to make the work of such an inspector arbitrary, officious, and valueless.

To appoint a midwife to such a post would be asking impossibilities from her. From Hampstead to Woolwich, from Wandsworth to Bow, this midwife would be expected to have a personal acquaintance with every midwife in London, and to be prepared to assist, advise, or instruct the lot. Whether the midwives would relish this form of assistance from a sister midwife is another question. The efficient performance of this task, however, would be more than could be expected from the skill, knowledge, training, and education of a midwife for further reasons, given at length in the BRITISH MEDICAL JOURNAL for April 7th.

The London County Council should re-advertise the post, throwing it open only to registered medical practitioners. They would find it difficult to secure the whole-time services of an experienced practitioner without offering a much larger salary.

Better still, instead of one inspector they should appoint ten or twelve district inspectors at a proportionate salary from the ranks of general practitioners of experience. Such practitioners understand midwifery work, and can keep in close touch with the midwives in their districts Only in this way can efficient inspection of midwives b carried out, and good hopes entertained of increase benefit to the health and lives of thousands of mothers.—I am, etc.,

PERCY ROSF,
Representative, Stratford Division, British Medical Association.
London, E., May 26th.

THE BACTERIOLOGY OF A COMMON COLD.

SIR,—In reply to Dr. Allen I may say that I have n intention of decrying the importance of positive results i inoculation experiments on rodents, for from practica experience I am well aware of their great value. But I d not attribute nearly so much importance to *negative* result in these experiments as Dr. Allen in his criticism of D Benham's bacillus showed himself inclined to do, and repeat that my reluctance to force conclusions from suc negative results is particularly marked in regard to micr organisms of the diphtheria group, for we know that th Klebs-Loeffler bacillus itself varies considerably i virulence, and occasionally, even if rarely, gives a entirely negative result when injected into a guinea-pi I hold, therefore, that the failure of Dr. Benham's bacillu to produce a lesion when subcutaneously administered t a rodent does not disqualify it from bearing an etiologic relationship to coryza in the human subject.

In this connexion it is of interest to inquire if any or has ever seen a rodent suffering from coryza. I have bee informed that monkeys in captivity in this country a apt to acquire colds from their visitors. It seems to m that this might be worth examining into further, for, monkeys prove susceptible to the common cold, it is po sible that the etiological significance of the various micr organisms about which we are disputing can be readi put to the touch. For that matter, there is no reason wh we should not test our various "favourites" upon ou selves. About three weeks since, when endeavouring test the agglutination reaction of *M. catarrhalis*, I acc dentally got some of this micro-organism into my mout and after an interval of twenty-four hours a cold bega which subjectively was not of the toxic and ferv intensity of the common cold (which in my experience a three days' affair—short, sharp, and miserable), but w an easy-going catarrh, lasting for ten days, and gradual extending down the trachea, so that for three or four da there was an annoying cough and some hoarsene I had no difficulty in recovering *M. catarrhalis* from t nasal discharge at the onset. If Dr. Allen would repe this experiment with his bacillus, and Dr. Benham wi his, the results might perhaps be interesting.

In some cases of coryza the infection seems to be mix from the start. Thus, in one nasal discharge examin within twenty-four hours of onset I found Pfeiffe bacillus in the majority; but both *M. catarrhalis* and t pneumococcus were also present in large numbers. Th reminds me of an old lady who, speaking of her ailmen remarked with great pride, "in me three diseases ha met."—I am, etc.,

Blackheath, May 27th. M. H. GORDON.

THE DIFFUSION OF RED BLOOD CORPUSCLES THROUGH SOLID NUTRIENT AGAR.

SIR,—In the BRITISH MEDICAL JOURNAL of May 19t p. 1194, Professor J. S. MacDonald advanced a mo interesting explanation of the diffusion of the red ce through agar-agar—namely, that the salts in the dri blood cause differences in electrical potential betwe the different layers of the agar. Some time ago I w making some prolonged microscopic examinations blood by a modification of Deetjen's method, usi agar mixed with physiological salt solution on without adding the metaphosphate and bipotassi phosphate solutions, which were unobtainable. At temperature of about 45° C. I noticed the same recession the erythrocytes from the objective; and, on repeati the experiment macroscopically, I found there was lit difference in the rapidity of the diffusion between ag mixed with an equal volume of salt solution, ag saturated with sodium chloride, and a control of ordina nutrient agar.

On the other hand, it may be of interest to note that the blood is previously mixed with an equal volume of per cent. solution of citrate of soda in normal saline, ereby preventing coagulation, diffusion is generally elayed for a long time and frequently inhibited. So far have been unable to find out to which factor this inhibion is due, and it is possible that serum and its salts play important part in the phenomenon in accordance with rofessor MacDonald's theory.—I am, etc.,

H. C. ROSS.

H.M.S. *Commonwealth*, Atlantic Fleet, May 30th.

POST OFFICE MEDICAL OFFICERS.

SIR,—I have to-day a circular letter from the Association British Postal Medical Officers stating that "at the esent time a large body of postal employés are urging on the Select Committee on Post Office Wages, now ting, that the department should cease to grant free edical attendance," and asking that I should support a tition in favour of its continuance.

Now, as a matter of fact, I think this question should be ked at from both sides. I can see the matter from the stal employés' side and am sure it works out badly for em, but the matter has another side in the medical n's interest.

Here is how it affects me; and for long I refused the pointment. I get 8s. 6d. a year for each man. I have ven men on the list. I must go three miles from the st office to which the official is attached, and as two st offices are six miles away I may have nine miles to to make each visit. That is to say I get less for the ur than I would get for a single visit were the official a vate patient.

ow, as many men in country practices must be as lly off as I am, I really think all this bother about niting to successfully resist this menace to their cial existence" is wrong. At any rate I would like to w the opinion of others on this matter.

or this 8s. 6d. we have to report on the sanitary con- ons of the different buildings occupied as post offices l to send in a report annually. I really think an istence" such as this cannot be too soon ended.—I am,

ington, Lanarkshire, May 26th. T. DUNCAN NEWBIGGING.

OBITUARY.

CHARLES NELSON GWYNNE, M.D.,

SURGEON, CHILDREN'S HOSPITAL, SHEFFIELD.

regret to record the death of Dr. Charles Nelson nne, which occurred on May 23rd inst. He was the of the Rev. Canon Gwynne, Rector of Lisgoold, and born at Wallstown, co. Cork, in 1848. He was ated at the Tipperary Grammar School, proceeding wards to Trinity College, Dublin, where he took the ee of B.A. with first-class honours. Later, in 1873, he the M.B. and M.Ch. degrees, proceeding M.D. in . He was a Prizeman at the Richmond and other itals.

. Gwynne commenced practice in Sheffield in 1875. vas successful in building up a large connexion, and for many years a well-known and highly-respected titioner in the city. In 1879 he was appointed ical Officer to the Children's Hospital, a position he pied up to the time of his death. He was much ested in children's diseases, to which he devoted iderable attention and from time to time wrote tles dealing with their illnesses. He was a member he Society for the Study of Diseases of Children, and ded over the provincial meeting which was held in ield in June, 1905. He had been for many years an e member of the Sheffield Medico-Chirurgical Society, filled the office of President in 1889. He was a ber also of the North of England Obstetrical and ecological Society. Also many years ago he was for a Lecturer on Practical Physiology at the old Medical ol.

took an interest in volunteering, and in 1883 was inted Surgeon to the Sheffield Artillery Volunteers, ng this position for fifteen years, and retiring in 1898 the honorary rank of Surgeon-Major.

Gwynne had been in very indifferent health for months, and the end had been anticipated for some by his friends. He was buried at the Ecclesall tery on May 26th. A large number of his professional brethren attended the funeral, testifying unmistakably to the high regard in which he had been held by the medical profession. His patients and the public were also largely represented.

Dr. Gwynne married in 1883 Grace Maunsell, eldest daughter of Mr. Samuel Hanna, of co. Wicklow, and he has left two sons and three daughters.

JOHN HENRY BRYANT, M.D.LOND., F.R.C.P.,

ASSISTANT PHYSICIAN TO GUY'S HOSPITAL.

BY the untimely death of Dr. J. H. Bryant at Walmer, Kent, on May 21st, at the early age of 38, Guy's Hospital loses one of its most able young physicians, and London a man who, in the opinion of those who knew him well, would have been a great consultant. His signal ability and powers of discrimination had already won him a much larger share of consulting work than usually falls to the lot of the young physician. It was known that his health had been failing for the past six months, necessitating complete rest from work; but, when intelligence of his death arrived, the shock was greater because the latest news of him had been that there was some improvement. It is not too much to say that his death will be most sincerely regretted and deplored by Guy's men and others throughout the world.

John Henry Bryant was born at Ilminster, Somerset, in 1867, and was the eldest son of the late William Mead Bryant and Mrs. Bryant of Ilminster.

He was educated at the local Grammar School and at Sherborne School, Dorset, where his name is inscribed in the roll of honour.

He entered Guy's in 1886, and had a most distinguished career as a student, taking many prizes, among which were the Treasurer's gold medals in medicine and in surgery, in the year 1891. He graduated M.B., B.S.Lond., in 1890, taking first-class honours and the gold medal in medicine, and first-class honours in forensic medicine; he became M.D. in 1891, M.R.C.P. in 1895, and F.R.C.P. in 1901.

He was House-Physician to Dr. Goodhart and Resident Obstetric Assistant; and immediately afterwards, in 1892, was elected Medical Registrar, which post he held for seven years, until, in 1898, he was appointed Assistant Physician to the hospital. He became Demonstrator of Morbid Anatomy in 1899 and Lecturer on Materia Medica and Therapeutics in 1903. He was also for some years coeditor of the *Guy's Hospital Reports*.

Professionally, he was first and foremost a teacher of the highest order. He had the gift of systematizing work, which is so essential to students of medicine; and his great popularity and success as Medical Registrar were in great measure due to this power. During the seven years he held that post he did an enormous amount of work both in the wards, in class work, and in private coaching. Everything he did then and at other times was characterized by extreme care and painstaking labour. Every lecture he gave was written out beforehand, and so prepared that no point, however small, escaped him; thus nothing was left to the imagination of the student. This was the secret of much of his great success as a teacher, combined with the happy gift, not bestowed upon all, of ability to impart his knowledge to others.

As a physician the same conscientious care and thoroughness characterized his work in all departments. In the investigation of cases his systematic method enabled him often to come to definite conclusions where haphazard work would have signally failed. His knowledge of the world, too, was not the least of his assets as a consultant, enabling him at all times to take a human interest in his patients quite apart from their professional aspect. It was no doubt this trait in his character which endeared him to patients, for, although a man of few words, he had a large fund of sympathy, which showed itself in many small, unostentatious ways.

Apart from his profession, he had a nature that all who knew him loved. Always strenuously opposing deceit in any form, he said freely what he thought, perhaps sometimes to his own detriment, and he always pursued the course which he considered right. It would be hard to find a man of more upright character, who ran straight at all times, and thus endeared himself to every one who really knew him. He accordingly made and retained a very large circle of real friends.

John Bryant was essentially a sportsman in all he undertook, and in the world of practical sport was well known as a fine Rugby half-back, playing for Guy's, Surrey County, and Richmond. Rugby football was the game he loved and at which he excelled. He was, in addition, no mean sprinter in his day, and always took the keenest interest in, and officiated as judge at, the hospital sports.

He was Fellow or Member of the chief London medical societies; and the author of several important papers, amongst which was one on "Electro-therapeutics" in Hale White's textbook of *Therapeutics*, and one on "Diseases of the Abdominal Blood Vessels," in *Allchin's System of Medicine.* To *Guy's Hospital Reports* he contributed "Hyperpyrexia," "Suppurative Pylephlebitis," "Functional Pulmonary Regurgitation," etc., and other papers to the *Clinical Journal* and the BRITISH MEDICAL JOURNAL.

Dr. Bryant married in 1900 Miss Stella Beatrice Fry, the sixth daughter of Mr. R. H. Fry, of Norwood; and very keen sympathy is felt for that lady and their three young children in their sad bereavement.

The deceased was buried at Ilminster on May 26th, in the presence of his family, a few old friends, and members of the staff of Guy's Hospital.

WE regret to announce the death of Dr. TARNOWSKY, the distinguished Professor of Dermatology and Syphilography at the Medical Academy, St. Petersburg, which took place on May 18th at Paris, where he had been staying for a few days. Professor Tarnowsky was 78 years of age. His remains were taken to Yalta in the Crimea for burial.

BRIGADE-SURGEON-LIEUTENANT-COLONEL GEO. MASSY, I.M.S. (retired), died at Bath on May 14th at the age of 64. The deceased, who obtained the diplomas of M.R.C.S.Eng. in 1864 and L.R.C.P.I. in 1865, entered the service as an Assistant-Surgeon in October, 1865; he became Brigade-Surgeon-Lieutenant-Colonel in March, 1890, and retired some years later.

WE regret to record the death of Staff Surgeon O'REGAN, R.N., from pneumonia, at his residence, Essa Villa, Saltash. Staff Surgeon O'Regan was educated at Queen's College, Cork, and at Edinburgh, and entered the Navy in 1890. He served in the naval hospitals at Hong Kong and Bermuda, and for three years was in medical charge of the Naval Reserve drill ship at St. John's, Newfoundland. At the time of his death he was serving in H.M.S. *Trafalgar* at Devonport. He leaves a wife and three children to mourn his loss.

MAJOR HARRY WILLIAM ELPHICK, M.B., Indian Medical Service, died at Rugby, May 20th, aged 40 years. He joined the Bengal Medical Department as Surgeon-Captain, September 30th, 1889; and became Major, September 30th, 1901. He was placed on half-pay, March 6th, 1905. He took part in the Manipur Expedition in 1891, receiving a medal with clasp.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. S. Schreiber, formerly professor of anthropology in the University of Bucharest, and afterwards a leading neurologist of Budapest, aged 71; Surgeon-General A. von Kristopenko, Inspector of Russian Benevolent Institutions; and Dr. Hermann Obst, Extraordinary Professor of Ethnology and Anthropology in the University of Leipzig, and author of an atlas of anatomy which has gone through two editions, aged 69.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

YEOMANRY MEDICAL CERTIFICATES OF UNFITNESS.

VOLUNTEER.—The Yeomanry are distinct from the Volunteers and more nearly allied to the Militia. The commanding officer of a Yeomanry regiment can order the arrest of any Yeoman who does not report himself at the commencement of the annual training. In the case of unfitness from sickness the commanding officer relies upon his regimental medical officer, on whose certificate alone exemption is granted. In some Yeomanry regiments any men who claim exemption from training (camp) on the ground of ill-health can be seen by the regimental medical officer at the he quarters of the regiment on some specified day before cam In the particular case under consideration the best procedu would probably be for the medical practitioner to commu cate directly with the medical officer of the regiment, stati his reasons for considering that attendance in camp (ev for a day or two) might be detrimental, and asking that t Yeoman might be examined before the commencement the camp.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

Appointment of Examiners.—At a Convocation held Tuesday, May 22nd, the following appointments were c firmed: James Ritchie, M.A., B.Sc.. Fellow of New Colle Professor of Pathology, to serve as Examiner in Preventi Medicine for the 1906, 1907, and 1908 examinations; Henry Miers, M.A., D.Sc., Fellow of Magdalen College, Waynfl Professor of Mineralogy; and Gilbert C. Bourne, M.A., D.S Fellow of New College, Lecturer in Comparative Anatomy, act as Examiners for the Burdett-Coutts Scholarship Michaelmas Term, 1906.

Degree in Science.—The degree of B.Sc. has been confer on Herbert Henry Thomas, B.A., Balliol College.

Public Lectures.—The Romanes Lecture has been postpo until Michaelmas Term, owing to the illness of the lectu The Herbert Spencer Lecture will be delivered on Thursd June 7th, by the Hon. Auberon E. W. M. Herbert, D.C. St. John's College.

UNIVERSITY OF CAMBRIDGE.

AT the congregation on May 24th the recommendations of General Board of Studies was confirmed to institute a Read ship in Hygiene, and that Dr. H. F. Nuttall, M.A., of Ch College, be appointed at an annual stipend of £250.

The following degrees were conferred:

M.B., B.C.: S. A. Henry, Trin.
B.C.: G. L. Webb, Gonv. and Cai.

At the voting on Friday and Saturday, May 25th and 2 the recommendations of the Studies and Examinati Syndicates, the Placets numbered 241, and the Non-Pla 746.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE following candidates have been approved at the exam tions undernoted:

First Fellowship.—H. Greene, R. V. Khedkar, J. W. Killen. O. St Gogarty, J. P. Grainger, C. Greer, W. E. Hopkins, S. W. Huds H. B. Sherlock, C. J. W. Tierney, P. J. Timoney.

Final Fellowship.—C. M. Benson, P. J. Byrne, A. N. Crawf P. L. Crosbie, W. L. Murphy, W. J. Niblock (Captain I.M. G. Sheppard, R. A. Stoney.

Messrs. D. J. Coffey and E. L. Ledwich have been appoi Examiners in Physiology and Histology.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE COMING COUNCIL ELECTION.

THE Council is at present constituted as follows:

President.

Mr. J. Tweedy; C, (1) 1892, (2) 1900 (substitute for Davies-Colley till 1904, but retains his seat, being Presiden

Vice-Presidents.

Mr. H. T. Butlin; C, (1) 1895, (2) 1903.
Mr. Edmund Owen; C, (1) 1897, (2) 1905.

Other Members of Council.

Mr. J. Langton; C, (1) 1890, (2) 1898.
Mr. F. Howard Marsh: C, (1) 1892 (substitute), (2) (3) 1902.
Mr. H. Morris; C, (1) 1893 (substitute), (2) 1898.
Mr. A. W. Mayo Robson; C, (1) 1893, (2) 1901.
Mr. R. J. Godlee; C, (1) 1897, (2) 1905.
Mr. W. Watson Cheyne, C.B.; C, (1) 1897 (substitute) 1901.
Mr. F. Richardson Cross; C, 1898.
Mr. Herbert W. Page; C, 1899.
Mr. A. Pearce Gould; C, 1900.
Mr. J. Ward Cousins; C, (1) 1895 (substitute), (2) (substitute), (3) 1900.
Mr. R. Clement Lucas; C, 1901.
Mr. J. H. Morgan, C.V.O.; C, 1902.
Mr. H. H. Clutton; C, 1902.
Mr. C. W. Mansell Moullin; C, 1902.
Mr. Clinton T. Dent; C, 1903.
Mr. G. H. Makins, C.B.; C, 1903.
Mr. F. S. Eve; C, 1904 (substitute for Mr. T. R. Jessop 1907).
Mr. A. A. Bowlby, C.M.G.; C, 1904.
Mr. Gilbert Barling; C, 1904.
Mr. C. H. Golding-Bird; C, 1905.
Mr. W. Harrison Cripps; C, 1905 (substitute for Sir A Cooper until 1908).

Thus Mr. Langton, Mr. H. Morris, and Mr. Richardson retire, having held their seats for eight years since electi re-election in 1898.

he following list shows the proportional representation of ropolitan medical schools and of the provinces :

St. Bartholomew's	4
Charing Cross	1
Guy's	2
King's College	1
London	2
Middlesex	2
St. George's	1
St. Mary's	2
St. Thomas's	2
University College	2
Total number attached to London Schools	19
London member unattached to any hospital	1
Provincial members (Birmingham, Bristol, Cambridge, and Southsea)	4
Total	24

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE CHRISTIAN SCIENCE CASE.

he British Medical Journal of May 19th it was ioned that Mr. George Robert Adcock had been charged at minster Police Court with feloniously causing the death ajor J. N. Whyte, D.S.O., by wilful neglect between ary 26th and April 29th. The hearing was resumed on 19th. Mr. Bodkin, who, with Mr. Williamson, prosecuted half of the Treasury, said that defendant was a properly fied medical man, and for his attendance on Major Whyte eceiving payment at the rate of a guinea a week. The dant gave instructions from time to time, but no remedial s were used for deceased's terrible bedsores, and the t was a shocking condition of septic poisoning. The gence of defendant was a conscious omission to take the and ordinary precautions and adopt ordinary remedies the accepted knowledge of the day required from those ing to be skilled in the treatment of the sick.

Freyberger gave evidence as to the results of the *post-m* examination, which left no doubt that death was due eral blood poisoning. The accused was further remanded stody, and the hearing was resumed on May 27th.

Victor Horsley, who took the Scotch oath, deposed that Major Whyte at Hinckley in February, 1903, suffering a fractured spine through a hunting accident. There omplete paralysis of the lower part of the body. An tion was performed to relieve the pressure of bones into the spinal cord. Three months later Major Whyte rought to London and taken to a nursing home stbourne Gardens. Mr. Huxley was also in atten-. Deceased's condition had by this time im-. Major Whyte remained at the home six or eight s, his improvement being maintained. Miss Robson, home, did a great deal for him. While in the home he bedsore ; it was a very serious one, and it healed very . The sore was properly treated. In May, 1904, the ed proceeded to Osborne, and he saw him no more until in on April 29th this year. The Major was then dying on Terrace. Deceased was suffering from an enormous e and abscess which must have existed for months. here been a continuance of the antiseptic treatment deceased had had at the nursing home, the wound not have been in the terrible condition witness found it. probability it would have healed, and Major Whyte's ould have been saved. The ordinary and recognized professional methods were not adopted to save the ed from blood poisoning. An ordinary zinc oxide r dusted over purulent wounds—said to be defendant's eatment—would have no antiseptic effect.

Kingsbury (for the prisoner) asked the witness whether ld say with absolute precision that the classical treat-f the sores would have resulted in his recovery? Sir Horsley : I am quite prepared to say that I think the ould have healed up. Under treatment for a long there had been no set-back. Mr. Kingsbury : The rd of adequate treatment varies with medical men. s no fixed standard ? The Witness : I cannot say that. is a standard of disinfection which we all perfectly tand. In further cross-examination, the witness said ger from bedsores, particularly in cases of fractures of ne, was sepsis. Notwithstanding the strictest anti-precautions, there was always a great risk. Of course, new a great deal more of antiseptic precautions now ey did ten years ago. Mr. Kingsbury : Am I right in that there was much divergence of opinion as to the of antiseptics in early days ?—Yes. And that some rgeons never adopted the antiseptic treatment ?—Yes. ll obtained very good results ?—I cannot accept that at om the time I was a student I have seen both lines of e, and the result of not using antiseptics was disastrous. se, everybody carries out the antiseptic treatment now. ing other questions, the witness said that when he saw Major Whyte on the day of his death the extent of septic poisoning was such that a fatal issue dated from many weeks—possibly six or eight, even twelve, perhaps.

Mrs. Whyte (mother of Major Whyte) said that in March last she had an interview with the defendant which turned on the point whether he would treat her son as a medical man ; he said he would, and at subsequent interviews expressed his willingness to meet any other doctors in consultation. From first to last the prisoner had done nothing and said nothing to indicate he was treating her son otherwise than as an ordinary medical man. In cross-examination she said that her son wished to try Christian Science, as the doctors could do little more for him. After being under Christian Science treatment for some time he said that he was better and had lost his pain : her son had told her that Adcock had abandoned his practice to become a Christian Scientist.

The accused was again remanded.

AN ACQUITTAL.

At the May Liverpool Assizes Dr. Charles John Holtom, formerly of Stretford, was tried on three charges. The first was one of murder in respect of the death of a girl who a few days after entering his service as a servant was delivered by him of a child ; the second was one of performing an illegal operation in connexion with the same patient, and the third of performing a similarly illegal operation at an anterior date on another woman. He was acquitted on all three charges.

PROFESSIONAL SECRECY.

Perplexed writes : I am in attendance upon one of the parties in a divorce case now pending (my patient being the defendant). I am subpoenaed to give evidence by the petitioner against my wish, as the evidence I should be called upon to give would be distinctly damaging to my patient's character and reputation. Am I compelled to give this evidence if put into the witness-box, or can I decline to do so without the previous consent of my patient? If I refuse to do so what is the penalty ?

⁂ If summoned as a witness, our correspondent must attend and answer such questions as the judge may direct ; he may decline to answer each question subject to that direction. If he refused to answer when directed to do so by the judge he would commit a contempt of court, the punishment for which is at the discretion of the judge. English professional opinion accepts the position that the practitioner is absolved from the obligation of professional secrecy regarding those matters which he is expressly directed by the judge to disclose in the witness-box.

VALUE OF A PRACTICE.

Festina Lente asks on what basis the value of a "mixed practice in a nice seaside place" ought to be calculated ; and whether during the last two years the receipts in most practices have fallen off.

⁂ The value of such a practice should probably be calculated in the same way as other practices—that is to say, by taking the average receipts for the last three years. It would further be desirable to note whether the receipts tended to rise or fall and the amount of the necessary expenses in carrying on the practice. It is impossible to say whether during the last two years the receipts in most practices have fallen off.

THE USE OF NON-REGISTRABLE DEGREES.

M.D.Brux. writes to say that he fears "Varsity" has not gone into the facts. He claims to be the oldest Doctor of Medicine of the University of Brussels in England, and he assures "Varsity" that the examination was "much more thorough, practical, and stiff than the M.R.C.S., L.S.A., and L.R.C.P. put together," and that he believes at the present time it is "stiffer than the M.D.Durh. or M.D.Glasg. or the M.D.St. And." He thinks the whole system is wrong, but until that happy time comes when all the various examining boards will be unified he regrets that this matter should be made a perennial source of petty jealousies and heart-burnings, which he thinks constitute a great obstacle to the fraternal union of our noble profession.

Varsity writes to complain that our answer to him under this heading is "very unsatisfactory," but we do not profess to sympathize with the opinions he expresses. He desires to set up a new rule which is opposed to courtesy and custom.

THE CORONER'S COURT.

"Nunquam" is the medical officer to a workhouse, and admitted a sick child, who died there ; he certified the death as arising from natural causes. He accidentally discovered that the body had been removed by order of the coroner to the public mortuary, and that an inquest was going to be held. He was present at the autopsy, which was made by another medical man, the cause of death being as certified by himself. At the inquest the cause of death was confirmed as certified, and a rider added that the parents should be prosecuted for neglect of the child. Our correspondent is desirous of ascertaining first whether, having attended the child, he ought not, as a matter of courtesy and custom, to have been informed that a *post-mortem* examination and inquest were to be held, and, secondly, whether it was necessary to remove the body to the mortuary of the municipal authority, causing inconvenience to the workhouse officials, seeing that reasonable facilities are provided at the workhouse for an autopsy.

⁂ The coroner issues a summons, in the first instance, to such witnesses, medical and otherwise, as he may consider necessary, and most probably "the neglect" (as to the nature of which we have no information) occurred before the child was admitted to the workhouse; therefore the doctor who previously attended the deceased was summoned to give evidence and to make the *post-mortem* examination. There is no law or general custom which would have required notice to be sent to our correspondent. With regard to the removal of the body to the municipal public mortuary, this is now the usual practice, wherever one exists, as tending more to the general convenience of the jury and all concerned.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE VACCINATION ACT.

THE CONSCIENTIOUS OBJECTOR.

THE following is the text of the circular to magistrates issued by the Home Secretary:

HOME OFFICE,
WHITEHALL,
18*th May*, 1906.

Sir,

I am directed by the Secretary of State to acquaint you, for the information of your Bench, that he receives frequent complaints of the refusal of Certificates of Exemption under Section 2 of the Vaccination Act, 1898; and while he has no doubt that this provision is usually administered in accordance with the terms and spirit of the Statute as expressed by the Lord Chief Justice in 1904, it seems clear that there is a misunderstanding on the part of some Magistrates of the principles which should guide them in dealing with applications.

In the Circular issued by the Secretary of State on the 1st September, 1904, attention was called to the remarks of the Lord Chief Justice in his address to the Grand Jury at Birmingham on the 27th July, 1904. On that occasion his Lordship spoke as follows:

> "Some Magistrates appeared to think that they ought to be satisfied that vaccination would be harmful to the child, others seemed to think that they were entitled to have medical evidence before them that such vaccination would be prejudicial. He desired to point out that this was not the question which Magistrates had to decide, and it was from this point of view that he was desirous of assisting the authorities to secure uniform administration of the law. The section, as he read it, laid down two conditions—one, that the person who applied 'conscientiously believed,' and the other, that he 'believed that vaccination would be prejudicial to the health of the child.' The only question which the Magistrates had to entertain was: Did the applicant conscientiously believe that vaccination would be prejudicial to the health of the child? With regard to the conscientious belief, of course, there were many occasions upon which there could be no doubt about it, but it was not sufficient that a man believed generally that vaccination was an improper thing, or that he had been led to form that belief without considering the particular case of the child in point. It must be an honest conscientious belief on the part of the applicant that vaccination would be prejudicial to the child in question. It was no good to have a sort of general idea that vaccination was not good. Applicants must not hold a general objection to it, either on the ground of interference with the rights of the subject or the question of parental control. It must be the conscientious belief that vaccination would be prejudicial to the health of the child."

The question for Magistrates is not whether the applicant's belief is well-founded or ill-founded, but solely whether they are satisfied that he conscientiously believes that vaccination would be prejudicial to the health of the child in question: the Act does not require that the belief should be reasonably founded. It is not necessary to the proof of a conscientious objection that a certificate should be produced, or even that evidence should be given, of any particular state of health of the child.

In order to satisfy themselves that the applicant's belief is conscientious, the Justices may think it desirable to ask him the origin and grounds of his opinion, but if that belief i genuinely entertained, any ignorance on medical or sanitar or statistical questions which he may display is no ground f the refusal of a certificate.

Applicants frequently state to the Home Office that the have made long journeys to the Court and have lost a day wage by so doing, but yet have not succeeded in satisfying th Bench; and they urge that the trouble they have taken an the loss they have undergone ought to be regarded as practical testimony to the conscientious nature of the objection.

Mr. Gladstone would not attempt to define the grounds o which he thinks Magistrates ought to be satisfied that a applicant's belief is sincere, though it seems to him that suc considerations as the above might properly be taken into accoun but he has reason to believe that misapprehension in som cases of the meaning and intention of the Act has actuall caused the friction which the provisions for exemption wer designed to remove, and he fears that if this state of thing continues the general operation of the Act will be prejudice

I am,
Sir,
Your obedient Servant,
M. D. CHALMERS.

The Clerk to the Justices
of the Borough of ——

HEALTH AND SAFETY OF MINERS.

THE following are the members of the Royal Commissio appointed to inquire and report on certain questions relati to the health and safety of miners and the administration the Mines Acts: Lord Monkswell (Chairman), Mr. Willia Abraham, M.P. (Rhondda), Mr. Henry Hardinge Cunyngham C.B. (of the Home Office), Mr. Frederick L. Davis (Chairma of the South Wales Conciliation Board), Mr. Enoch Edward M.P., Mr. T. Ratcliffe Ellis (Secretary to the Mini Association of Great Britain), Mr. John Scott Haldan M.D., F.R.S., Mr. Robert Smillie (President of t Lanarkshire Miners' Union), Sir Lindsay Wood, Bar Among the questions referred to the Commission are: (Whether it is desirable to make compulsory the watering the roads in dry or dusty mines; (2) What steps could taken for the better prevention of accidents; whether a special provision should be made to facilitate the work rescue in the event of an accident; and whether any improv ments can be made in the present system of investigation a inquiry into accidents; (3) Whether any steps should be tak to lay down a standard of ventilation in mines; (4) What ste should be taken to guard against ankylostomiasis.

VACCINATION STATISTICS.

REGARDING small-pox and vaccination in the army, Dr. Edwa Haughton has sent us a letter stating that others besid Mr. Arnold Lupton quote the statistics referred to in precise the same manner. We are sorry, though not surprised, th this should be so, but it is quite impossible to devote t JOURNAL to exposing the numberless misstatements that a made by the opponents of vaccination. Dr. Haughton al mentions that we do not inform the reader what we consid to have been the correct quotation. But there really is correct quotation. The Royal Commission never said an thing the very least like what is attributed to it by M Lupton. The subject of small-pox and vaccination in the arm and navy is dealt with in the Commission's Final Repo Sections 330 to 339 inclusive, and what Surgeon Nash said is be read along with the last paragraph in Section 335. Wh Dr. Gayton said will be found verbatim in the Minutes Evidence published by the Commission. The Royal Comm sion makes observations on the so-called Leicester System Sections 480 to 486 inclusive, and on the alleged risks of va cination at Section 378 *et seq.* The whole Final Report cos only 1s. 10d.

INSANITARY CONDITIONS IN A VILLAGE.

SANITAS.—If the overflow from cesspools is such as to cause nuisance the attention of the medical officer of health shou be drawn to the matter. If he considers there is a nuisan he should report the circumstances to the district counc who can call upon the person responsible to abate t nuisance. If the medical officer of health and the distri council take no action after formal and definite complai has been made to them, a communication might be address to the Secretary of the Local Government Board, Whiteha London, S.W. It is desirable before taking this step to quite certain that the conditions are what they are rep sented to be.

DURHAM UNIVERSITY MEDICAL GRADUATES' ASSOCIATIO —An informal social dinner of the Southern Division this Association was held at the Café Imperial, Rege Street, on May 28th; Mr. Herbert T. Herring, President the Association, occupied the chair, and nearly seven members and guests were present. The toast list was co mendably brief; but excellent music was provided und the direction of Mr. Arthur Godfrey.

LETTERS, NOTES AND ANSWERS TO CORRESPONDENTS.

QUERIES.

LEX is about to attend in her fourth confinement a patient who, on three previous occasions, has suffered much pain in the axilla owing to the fact that there is extension of the mammary gland into that region; already there is a distinct swelling in the axilla. He wishes to know whether there is any satisfactory means by which milk can be prevented from coming in the axillary portion of the breast; the expected baby is to be breast-fed.

Income Tax.

., who has just received £87 4s. Government grant for successful vaccination, asks whether it should be entered in his cash book as income derived from practice, or whether it is of the nature of a gift. If entered as income he assumes that it would have to be included in his income tax return next year: he wishes advice on the point.

⁎ The grant is not in the nature of a gift, but is assessable to income tax. If there is a separate assessment on our correspondent in respect to his appointment of public vaccinator the amount of the grant should be included in his return under that head; if there is no separate assessment it will fall into the receipts of the general practice, and should be included in the general return under Schedule D for the current year, 1906-7.

T. inquires what part of his rent and rates he can deduct from his profits in making his income-tax return. He uses two rooms solely for professional purposes.

⁎ Our correspondent is entitled to deduct such a proportion (not exceeding two-thirds) of the total rent as the value of the rooms occupied for professional purposes bears to the value of the whole house.

Superannuation Deductions and Income Tax.

NEX writes as follows:

1. I returned from South Africa after a ten years' sojourn here on December 16th, 1905, and on January 1st following I was appointed district medical officer at a salary of £15, and public vaccinator (worth about £10). The clerk to the guardians has deducted the usual amount for superannuaion from the salary, not from the vaccination fees; as I am 0 years of age, it appears to be impossible for me to obtain superannuation. Have I any redress?

2. I recently certified a pauper lunatic and had 5d. deducted from the guinea fee for the same purpose. Is this orrect?

3. I have had since 1866 about eight years' service in diferent Unions in England. Will this count for superannuaion?

4. I also served under the Irish Poor Law. Does this ount?

5. I have been asked to pay income tax on the same ncome as my predecessor, though my total income from all rofessional sources from January 1st last to April 5th has een 8 guineas. I maintain that I am not liable for income ax. What should my course be?

⁎ (1) Our correspondent must submit to the deductions n the salary, and if in the future he does not obtain supernnuation he may fairly claim a return of the amount of ontributions paid to the common fund of the union. 2) This deduction was not correct. (3) Yes, if the appointents were sanctioned and confirmed by the Local Government Board, but not otherwise. (4) Service in Ireland could ot be reckoned. (5) If our correspondent's appointments nly date from January 1st, 1906, he should pay income tax or the period ending April 5th, 1906, on one-fourth of the otal annual salary. With regard to the general practice, e is liable to be taxed according to the average profits as own by his predecessor's accounts, unless he can prove at such profits have fallen off from some specific cause nce he acquired the practice. As the basis of income-tax ssessment is income earned and not merely income received cash, it is clear that the cash receipts (£8 8s.) do not form proper measure of the liability. Our correspondent's best urse is to consult the local surveyor of taxes, whose ldress may be obtained from the assessor.

Practice in Australia.

TUS asks for information as to the conditions (professional d living expenses, etc.) of practice in Australia generally, d more especially in New South Wales (Sydney).

⁎ We are informed that in a general way the profession crowded in Australia, especially so in the towns, but if a an is willing to go to the country, where the cost of living d working expenses are not heavy, remunerative work might be obtained. A medical man going to either Melbourne or Sydney should join one of the medical societies, usually a Branch of the British Medical Association, and also put himself in the hands of a medical agent: in Melbourne, Aitchison or Ramsay; in Sydney, Bruck or Ramsay are the best known. If a man keeps steady and is willing to work hard, there is little fear of failure in the Australian Commonwealth, but many think they have only to put up a brass plate and practice will come. Regarding hospital practice, unless a man is exceptionally well qualified, there is little chance of getting on to the staff of any city hospital, for Australian graduates are now eager for these positions and wait for vacancies to occur. But country hospital appointments, often with the right of private practice, are to be obtained. A man can also make a little money to help him and see the country by doing travelling insurance work, although it is a life not to be recommended as it has many temptations. Exact information as to the cost of living is not available, but probably it need not exceed 2½ to 3 guineas a week.

Vegetable Growth in Swimming Bath.

L R L. asks for information as to the value of solutions of copper sulphate in destroying or inhibiting the lower forms of vegetable life in a large open-air swimming bath 73 yards long, 15 yards broad; the bath holds about 254,000 gals. and there is practically no flow.

⁎ Does L R.L. wish to destroy algae or bacteria? Copper salts were first shown to be of use for preventing the development of both by Moore and Kellerman, U.S. Dept. Agri. Bureau Plant Industry, *Bulletin* No. 64, 1904. The following remarks refer only to bacteria in this connexion, as we have not been able to see Moore and Kellerman's paper, or to find any data as to destruction of algae by copper:

Information as to the bactericidal action of copper and copper sulphate will be found in the *Journal of Infectious Diseases*, Chicago, Supplement 2, February, 1906. In a paper published in this number pp. 175 to 204, by Clark and Gage, the following conclusions are reached (p. 204):

Metallic Copper.—"The removal of bacteria, *B. coli* and *B. typhosus*, by allowing a water to stand in copper vessels for short periods, while occasionally effective, is not sure, and the time necessary to accomplish complete sterilization is so long that the method would be of no practical value to the ordinary user. Furthermore, metallic copper seems to have little more germicidal power than iron, tin, zinc, or aluminium."

Copper Sulphate.—"Although the removal of *B. coli* and *B. typhosus* is occasionally accomplished by dilute solutions of copper sulphate, these organisms may both live for many weeks in water containing copper sulphate in greater dilutions than 1 in 100,000; and in order to be safe, dilutions of 1 in 1,000 must be used, in which case the water becomes repugnant to the user because of its strongly astringent taste. . . . In some instances very dilute solutions of copper sulphate or colloidal copper absorbed from contact with clean metallic copper appear to have a decidedly invigorating effect on bacterial activity, causing rapid multiplication, when the reverse would have been true had the water been allowed to stand the same length of time without any treatment."

Instead of copper sulphate, therefore, it might be advisable to employ chloros (a commercial preparation of hypochlorite of soda) for the purpose of disinfecting the bath. In the report (1906) by Dr. Reece to the Local Government Board on the epidemic of typhoid at Lincoln (London: Wyman and Sons, 2s. 3d.) on pp. 30 and 31 will be found full particulars of this method employed there by Drs. Houston and McGowan. The strength in which they used chloros at the waterworks was from 1 in 10,000 to 1 in 100,000. The water containing this proportion of chloros was supplied to the town. There were some grumbles, for example, of skin irritation.

ANSWERS.

Pruritus Ani.

F. F. M.—The report of the discussion on pruritus ani in the Section of Dermatology at the annual meeting of the British Medical Association at Oxford in 1904 was published in the British Medical Journal of October 15th, 1904, p. 980 et seq.

Congenital Elephantiasis.

Mr. George Pernet (London) has forwarded the following references in reply to Dr. Mitchell's inquiry, published on May 12th, p. 1139: Meige in *Nouvelle Iconographie de la*

Salpêtrière, No. 6, 1899, p. 453 (at the College of Surgeons' Library, London). Also full abstract by Pernet, in *Brit. Journ. of Dermatology*, vol. xii, 1900, p. 372, with other references. See also Moncorvo, of Rio Janeiro, in *Annales der Dermatologie*, vols. iv, v, and vi.

LETTERS, NOTES, etc.

BROKEN GLASS IN BOTTLES.

A CORRESPONDENT has sent us two 6 oz. bottles, samples from three gross which he ordered washed and cleaned, but finds that many of the bottles contain loose pieces of glass, and thinks that the attention of the profession ought to be drawn to the risk. Our correspondent addressed a complaint to the firm of bottle manufacturers, who replied expressing their regret, and offering to change the bottles, but this he does not consider satisfactory. We may hope, however, that the attention now drawn to the matter may lead to greater care being exercised in the future.

THE INTERNATIONAL CONGRESS AT LISBON.

ONE of the passengers on the *Ophir* has sent us a long letter expressing the opinion that the criticisms with regard to the arrangements on the *Ophir* sent to us by our correspondent at the International Medical Congress at Lisbon were undeserved. He considers that the charge of from 15 to 35 guineas for the cruise of eighteen days was not high, and he did not find the accommodation or the food inferior; he thinks that criticism of the company, which did all in its power to study the comfort of passengers, is unfair, and adds that he knows several passengers who were pleased enough with the recent trip to arrange to rejoin the boat on her projected voyage to Norway.

*** No doubt there is room for much difference of opinion as to cooking and comforts, but the criticisms of our special correspondent reflected the views of passengers whose opinions appear worthy of credence.

THE DR. A. E. JONES FUND.

THE following further subscriptions have been received on behalf of this fund, particulars of which were published in the BRITISH MEDICAL JOURNAL of May 19th, 1906, p. 1200:

	£	s.	d.		£	s.	d.
Anonymous	5	0	0	Dr. James Taylor ...	1	1	0
Dr. W. H. Allchin ...	2	2	0	J. Jenkins, Esq. ...	1	1	0
R. Marcus Gunn, Esq.	3	3	0	Leslie Paton, Esq. ...	1	1	0
E. Nettleship, Esq. ...	2	2	0	Dr. P. T. Stedman ...	1	1	0
Percy Flemming, Esq.	2	2	0	C. B. Fairbank, Esq.	1	1	0
Dr. F. T. Roberts ...	2	2	0	Dr. Charles Bolton ...	1	1	0
Dr. H. Batty Shaw ...	2	2	0	Wilfred Trotter, Esq.	1	1	0

Cheques may be sent to Messrs. Barclay and Co., 54, Lombard Street, E.C., or to the Treasurer of the Fund, Sir Victor Horsley, F.R.S., 25, Cavendish Square, W.

CANCER HOSPITAL, FULHAM.

MR. FRED W. HOWELL (Secretary of the Cancer Hospital, Fulham), writes: With regard to the short account of the research work carried out at this hospital, contained in your article on the organization of cancer research in your last issue, may I point out that a research department has been in existence for many years at this hospital? Mr. Plimmer was appointed pathologist in 1893. In 1902 the department was re-organized and enlarged, Mr. Plimmer being then styled director and Dr. Morgan appointed as pathologist. In 1904, owing to pressure of other work Mr. Plimmer unfortunately found it necessary to resign, and Dr. Paine was appointed co-pathologist with Dr. Morgan.

MIDWIFERY OF THE PRESENT DAY.

DR. JOHN F. ELLIOTT (Indian Medical Officer, Verulam, Natal) writes: I will back hot water, good yellow soap, and a nail-brush against all the modern methods of disinfection and sterilization in midwifery, coupled with thorough cleansing of the external genitals of the patient; and as proof I will cite the case of an Indian woman to whom I was summoned hurriedly from a house where I was dining close by one night. Sitting bolt upright on the dirty floor of a coolie hut, with her back to the wall, I found my patient, with legs outstretched and her entire uterus inverted and prolapsed, lying in the mud and blood of a recent confinement. I procured a lump of soap and some boiling water, and, having put a sheet of newspaper under the womb to lift it off the ground, scraped the dirt from its exposed entire interior surface, washed it with good yellow soap and hot water, lubricated my hand with soapsuds, and replaced the organ. She required no further care, and in ten days was at work in the cane fields.

THE TREATMENT OF OTORRHOEA.

MR. F. FAULDER WHITE, F.R.C.S. (Coventry) writes: The account of Dionicio's treatment of middle-ear suppuration by radiation, in the BRITISH MEDICAL JOURNAL of May 5th, is very interesting. The details of the sample case given show, however, that this treatment is very troublesome. If 180 sittings of two hours' duration are usually required for the cure of one case, this is not a treatment that can be generally useful. My experience of the instrumental operation that I term otectomy entitles me to say that it is most satisfactory in its results, and that few cases of otorrhoea will not yield to otectomy if performed before serious complications have occurred. I adopted this treatment with some hesitation and in the face of some opposition; experience has shown that the operation is practically free from danger, gives rise to very little disturbance, and almost always effects a cure.

TWO UNUSUAL CASES OF TRACHEOTOMY.

DR. ARTHUR G. WILKINS (Glenridding-on-Ullswater, Penrith) writes: I think the following cases present sufficient points of social and scientific interest to deserve brief record: The first case was that of a fat female baby, father 78, mother 28; weight about 9 lb., but it was considered unlucky to weigh the child before the first year of life was safely over. On visiting the child twenty-four hours after birth (she lived seven miles from my house, on the other side of a deer forest 1,623 feet high), I found her choking, cyanosed, and apparently moribund. On inquiry, I found she had been fed on the Cumberland confection known as "rum butter," and that a few morsels of this choice delicacy had apparently "gone down the wrong way." Placing the child on the dressing table in the usual position, I asked the "handy woman" to hold the child firmly, felt for the thyroid cartilage, and made an incision about 1 in. long immediately below that prominence with the small blade of a penknife. The goodwife then managed to drop the child head first on the stone floor.

Having resumed the operation, I made a single stab in an upward direction through what I took to be the trachea, and probably the cricoid, towards my forefinger, which was of course on the lower edge of the thyroid. The points of a borrowed hairpin were then slid along the penknife and opened as widely as possible. A few squeezes of the child's chest were sufficient to start the respiration again. A small drainage tube was stitched in with sewing cotton. On the second day the child was able to take the breast strongly. The drainage tube was removed and the wound plugged with isoform paste on alternate days. Healing occurred in three weeks without any bad symptoms, perhaps owing to the antiseptic action of rum butter.

The second case was that of a cretin with a piece of meat in the larynx, in whom respiration had stopped. The neck was represented chiefly by two supraclavicular pads of fat. A successful tracheotomy was performed with penknife and surgical scissors in the same way.

I would submit that it is neither necessary nor safe to attempt the ordinary dissection tracheotomy in the surroundings of a G.P. It is therefore not advisable to form the habit of doing so while a hospital resident.

A TEMPERANCE BEVERAGE.

DR. T. D. LUKE writes: In a publication known as the *British Women's Cookery Book*, published under the auspices of the British Women's Temperance Association, I note the following:

"*Substitute for Brandy or Whisky.*—Equal parts of chloric ether, tincture of ginger, and sal volatile. Keep in a druggist's bottle well corked. A teaspoonful in a wineglassful of water is a never-failing remedy in every case where alcohol is deemed necessary, even for heart failure."

While the "moderate drinker" is entitled to regard this as an excellent testimonial to the virtues of alcohol used with discretion, one cannot help feeling that the British temperance woman is disposed to "strain at a gnat and swallow a camel." She evidently has not mastered the intricacies of the pot and patent still question, at any rate.

PATENCY OF OESOPHAGUS RE-ESTABLISHED AFTER GASTROSTOMY.

MR. EGBERT C. MORLAND, M.B., B.Sc.Lond. (Berne), writes: With reference to Mr. A. V. Leche's observation in the BRITISH MEDICAL JOURNAL, May 19th, p. 1155, it may be of interest to note that Kocher teaches that the patency of a malignant stricture of the oesophagus is often re-established after gastrostomy; so much so, that more than once a patient has complained that the operation had been altogether unnecessary! Kocher explains the occurrence by assuming that the dilatation above the stricture gives rise to pressure on, or kinking of, the lumen, and that a few days' rest allows the oesophagus to resume a more normal condition, when feeding by the mouth can be recommenced.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	£0 4 0
Each additional line	0 0 6
A whole column	2 13 4
A page...	8 0 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

A Paper

ON

DEMIC SPORADIC DYSENTERY (WITH SHIGA'S BACILLUS) IN ENGLAND.

AD AT THE OPENING MEETING OF THE BIRMINGHAM BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

Y **ROBERT SAUNDBY, M.D., M.Sc., LL.D., F.R.C.P.,**

PROFESSOR OF MEDICINE, UNIVERSITY OF BIRMINGHAM.

intention in bringing this subject before the Branch is ouse interest in a question which has, I think, for the generation been overlooked—namely, the occurrence oradic cases of dysentery in England.

sentery was formerly a common disease in this try, but, owing to improved sanitation, it is now comtively rarely met with, although it has not so letely disappeared as has been supposed. Dr. Hilton e, in his *Principles and Practice of Medicine*, published 86, says (vol. ii, p. 184):

> ave seen at least two well-marked instances of fatal dic dysentery occurring in London, in each of which was very extensive diffused ulceration of the large intesthe presence of which had been entirely unsuspected g life.

again:

> t least three cases of acute dysentery that have proved in Guy's Hospital the disease was supposed during life to teric fever; the characteristic symptoms were either t or passed under the name of diarrhoea.

my student days I do not remember having my tion directed to a single case of dysentery, and I ss that up to a few years ago I overlooked its ional occurrence. We are all subject to mental ness; we go about wearing the blinkers of preived opinions, which hide from us facts that should vious enough.

not remember what lead me to take an interest in cases, except that for the last ten years I have ed a good deal of attention to all diseases of the ive system. In 1896 I had the following case under re in the General Hospital:

CASE I.

, aged 42, tube drawer, was admitted on July 13th, omplaining of pain in the right side of the abdomen. weeks before admission his illness began with crampin in the abdomen and left side; this was not affected d; the bowels were rather loose; he had a little cough mited occasionally, the vomited matter being greenish ith a very sour taste. The attacks of pain "doubled p," but were relieved by pressure. Five days before ion the diarrhoea came on more violently; he said "he ways at stool," that the motions were very fluid, like but did not contain blood, and the action of the bowels companied by pain. His previous health had been he had always lived in Birmingham, and could remember ess since childhood. He worked in copper and brass, ere was plenty of metallic dust about, but he did not ntimony was used in his work. His father had died of ption at the age of 65; his mother of apoplexy at 67; rothers were alive and well; one had died of dropsy, other from some unknown cause. He had always had of good food, but he ate his breakfast and dinner in the here he worked; he usually drank about a pint of ale a he patient was a fairly developed but sparely nourished He was bronzed, but there was no cyanosis, jaundice, ema; the skin was dry, temperature 98.4° F.; his was covered with thick dirty-brown fur, which was off in places. He complained of pain after taking and vomited occasionally, the vomited matter conof bile-stained mucus. His bowels acted seventeen n the twenty-four hours after admission. The abdomen nder on palpation and painful on pressure; its vere not distended, no tumour could be felt; neither r spleen was enlarged; the heart's action was irregular, eat feeble and $\frac{3}{4}$ in. inside the V.N.L.; there was a murmur heard best in the mitral area, but the systolic was conducted into the vessels of the neck, and a faint c murmur could be heard down the sternum. The as 85, very irregular, soft, small, and collapsing. The vere normal. Urine scanty, 1014; acid, with a faint f albumen and a deposit of uric acid. He was milk and lime water with a teaspoonful of every hour, and a mixture containing carbonate of bismuth and bicarbonate of soda. The number of stools diminished to six or seven a day for the next two days, but he vomited on July 16th and 17th, and almost every day afterwards, and on July 18th he had fourteen stools. Various remedies were tried, including iced-water enemata, starch and opium enemata, sulphuric acid and pil. plumbi c. opio, without effect. On July 22nd it was noted that he had passed about 15 oz. of blood in his stools during the night; in the morning he was almost pulseless and blanched, lying quite quietly, taking no notice of anything. The following night he complained of severe pain in the abdomen; after some time this seemed to get easier, when he lay back and died, apparently of exhaustion.

At the *post-mortem* examination, which was made on July 24th, there was slight rigor mortis; the heart weighed 11 oz. and showed some hypertrophy of the left ventricle; the mitral valve was slightly thickened and the aortic cusps were very calcareous; the right side of the heart was healthy. The stomach was somewhat dilated; its walls thin but not ulcerated; it contained some grumous fluid; the small intestine was catarrhal but not ulcerated; the large intestine showed extreme ulceration extending from the caecum to the rectum; between the ulcers, which were irregular and ragged, the mucous membrane was in a state of superficial slough; the liver showed slight fatty degeneration. The kidneys were healthy, except that their capsules did not separate as freely as normal.

This case was called at the time "ulcerative colitis."

Ulcerative colitis is a term which originated at Guy's Hospital and was first put into definite shape by Hale White. Sir Samuel Wilks, as long ago as 1859, in his published lectures on pathology, expressed the opinion that the word "dysentery" did not cover all forms of ulceration of the colon, and in subsequent editions (published with Dr. Moxon's collaboration) he hazarded the view that there is a non-specific ulceration which stands in the same relation to dysentery as croup to diphtheria—an unlucky comparison.

In a paper published in *Guy's Hospital Reports* for 1888, Hale White adopted Wilks's suggestion and claimed that there is a disease which is not dysentery, although anatomically indistinguishable from it. His argument is, however, mainly directed to show that the type of ulceration is quite different from ordinary follicular or catarrhal ulceration. Hale White has since laid his views before the profession in articles upon diseases of the colon in *Allbutt's System of Medicine* and in the *Encyclopaedia Medica*. In the former (p. 950, vol. iii) he says ulcerative colitis has "its characteristic symptoms and characteristic morbid anatomy," but confusion between it and dysentery is uncommon because "both diseases are rare in England" (ibid., p. 954.) In distinguishing them he lays stress on the absence of violent tenesmus, pain at the anus, constant desire to go to stool, and scanty meat-washing evacuations which "are characteristic of dysentery" (loc. cit.), while there is no history of residence abroad or of dysentery contracted there, so that he thinks it more difficult in practice to distinguish between ulcerative colitis and malignant disease than between ulcerative colitis and dysentery. In the *Encyclopaedia Medica* he expresses himself somewhat less confidently. He says (op. cit., vol. ii, p. 326):

> I think there is little doubt but that ulcerative colitis is a distinct disease from dysentery, but the matter cannot be absolutely settled while our bacteriological knowledge of the two diseases is so imperfect.

In the differential diagnosis he lays stress upon the facts that ulcerative colitis does not attack all ages, that the bowels are never open "fifty to a hundred times a day," that there is no severe tenesmus, that the motions are not "dysenteric" (whatever this may mean), that vomiting is common and Bright's disease often present.

In spite of this dubious origin, "ulcerative colitis" has crept into some of our textbooks and has been accepted uncritically by Osler, who merely refers his readers to Hale White's articles.

H. P. Hawkins, in Gibson's *Textbook of Medicine*, published in 1901 (vol. i, page 716), under the heading ulcerative colitis, says:

> This name is given to ulceration of the colon which occurs in temperate climates. No specific cause is known; the appearance of the colon after death is much the same as in dysentery.

Although the clinical features are said to "present some points of difference from dysentery," these are not pointed out, while the treatment is allowed to be "much the same as is suggested for chronic dysentery." Sidney Martin, writing on Diseases of the Alimentary System in Bain's

Textbook of Medical Practice (1905), expresses himself as follows:

> Ulcerative colitis is an infective disease of the colon, the cause of which is at present unknown. . . . The morbid anatomy is the same as that of dysentery and its symptoms are those of an infective diarrhoea, namely, vomiting, abdominal pain and the profuse passage of offensive motions not infrequently containing blood. There is wasting and an irregular temperature with not infrequently some pyrexia. The disease is not infrequently fatal, and the treatment is that of dysentery.

That is to say, the disease is one which has the morbid anatomy, symptoms, and treatment of dysentery, but is nevertheless described under a distinct heading.

H. D. Rolleston, the English editor of the volume of Diseases of the Intestine and Peritoneum in *Nothnagel's Encyclopaedia*, under the heading Ulcerative Colitis, after giving a brief abstract of recent work on the subject, says: "It is unnecessary to give a separate description of the disease, since it may be regarded as dysentery." This is the view taken generally by recent writers in America as well as in Germany. There is no reference to ulcerative colitis as a distinct disease in Hare's *Textbook of the Practice of Medicine*, in Klemperer's *Lehrbuch der Inneren Medizin*, in Leube's *Medical Diagnosis*, or in the works by P. Cohnheim and Carl Wegele on the treatment of diseases of the stomach and intestines, all published in 1905.

In his admirable monograph on asylum dysentery (1898) Gemmel, of the Lancaster County Asylum, speaks of the diagnosis of the disease as being "tolerably easy if ulcerative colitis is not to be considered as a separate disease, as the distinction between the two seems impossible." F. W. Mott in his report on *Colitis, or Asylum Dysentery*, and in a paper read before the Epidemiological Society, says: "The proper name is dysentery, as clinically and pathologically it agrees with that disease, while in the most severe and acute cases death may occur before ulceration has taken place."

After reading the reports of Gemmel and Mott I cannot doubt that the disease there described is identical with that which has been called "ulcerative colitis," and that this is the disease that was formerly called dysentery.

The question remains how far this dysentery or ulcerative colitis differs from the dysentery of tropical climates.

The opinion that dysentery is only a disease of the tropics is not justified by anything in the history of medicine, and has only been suggested by the believers in "ulcerative colitis."

An attempt has been made to describe a separate tropical form of amoebic dysentery, but Dr. Lafleur admits in his article in *Allbutt's System of Medicine*, that amoebic dysentery is not confined to tropical regions, and that dysentery of the tropics is not invariably of amoebic origin.

There seems to be some uncertainty whether amoebic dysentery deserves to be considered as an independent disease. Sir Patrick Manson takes the view that the amoeba, although undoubtedly present, is not constant in the type of dysentery to which it is said to belong, whereas an amoeba indistinguishable from the amoeba of dysentery has been seen (Schuberg, Cunningham) in the stools of perfectly healthy individuals.

It must therefore be allowed that no hard-and-fast line can be drawn between tropical dysentery and that of temperate climates from the presence or absence of the amoeba.

There is, however, another organism which is held to play a more important part in the pathology of dysentery, namely, the bacillus discovered by Shiga in 1897. This bacillus, which is slightly motile, with rounded ends, and is decolorized by Gram's method, agglutinates like a typhoid bacillus when brought into contact with the blood serum of patients suffering from dysentery. It has been found by Flexner in the dysentery of the Philippines, by Kruse in dysentery in Germany, and by Vedder and Duval in the endemic dysentery of the United States. Up to the present no one has announced the discovery of the Shiga bacillus in the dysentery of this country.

CASE II.

J. R., 48, tinsmith, was admitted into the General Hospital on August 19th, 1905, complaining of diarrhoea and vomiting. For the past week he had had nine or ten stools daily, which were accompanied by severe pain across the abdomen, but there was no tenesmus. He said he had had a similar attack year ago. He had never been out of England.

When seen he looked pale and exhausted. Temperatur 102° ; pulse, 108 ; respirations, 25. Tongue dry and slight furred, abdomen flat, not tender ; liver and spleen norma The stools were alkaline, liquid, containing shreds of blooc mucus. Portions of three stools were sent to Dr. Hewetson.

The treatment followed was that recommended by Gemmel his diet was milk thickened with flour, and he was ordered—

℞ Quin. sulph. ʒj.
Ac. sulph. dil. ʒij.
Aq. ad ℥xij.
Sig. Two tablespoonfuls every four hours.

Under this treatment the diarrhoea stopped and castor was needed to get the bowels to act.

September 1st. Diet—milk, bread and butter, tea, pudding

September 4th. House diet with the meat (mutton) minc on account of his defective teeth.

September 11th. Discharged cured.

BACTERIOLOGICAL REPORT BY DR. HEWETSON.

Stools.

Films stained by thionin, Gram's method, and Jenne blood stain show crowds of bacilli, short and long, slender a thick, non-sporulating, and not retaining Gram's stain. R blood corpuscles in moderate quantities. White blo corpuscles, mononucleated and polynucleated in scan numbers. Catarrhal cells, large and mononuclear, in modera quantities. Large quantity of granular débris.

Cultivations showed that two organisms were present in t stools: (1) a bacillus—a very profuse growth ; (2) a diplococcu in very occasional colonies.

The bacillus has the following morphological character It is a slender rod, about the size of *Bacillus coli*, discre slightly motile, not staining by Gram's method, non-sporul ing. In anaërobic cultures it is fatter and longer, and scarce if at all, motile. It is not clumped by typhoid serum.

Cultural Characters: Agar Stroke.—In twenty-four hou a delicate semitransparent film appears on the medium, rath denser than that of the *Bacillus typhosus*, which tends spread in the course of forty-eight hours at the margins.

Gelatine Stab.—In about forty-eight hours a whitish-yell growth appears which in the course of a few days shows sh lateral projections. There is no liquefaction.

Broth.—A diffuse haze appears in twelve to twenty-fo hours ; no indol reaction occurs.

Litmus-agar.—There is no acid formation.

Milk is not coagulated until the third day, when a ve delicate curd appears.

Glucose-agar.—Deep stab, grows as a yellowish growth, fr ing slightly at the margins ; there is no gas formation and t culture has no characteristic smell.

Inoculation Results.—Injected in pure broth cultures in the rectum of a rat and also of a guinea-pig, the rectum bei previously lightly curetted. Result: Nil. Injected subc taneously into a guinea-pig. Result: The animal was made look ill for two days, but quite recovered. Injected intrape toneally into a rat. Result: Death in thirty-six hours fr general peritonitis. There were several patches of redness the mucous coat of the ileum, but no ulceration anywhere, t colon being quite normal.

The diplococcus which occurred in one or two small colon was a micrococcus and was non-pathogenic.

Dr. Hewetson adds: "The bacillus, which was almost pu is identical with (that of) Shiga."

Dr. Hewetson has accompanied his report by pho graphs of the cells and micro-organisms found in t stools.

Fig. I shows that the type of cell most commonly se is the mononuclear plasma cell, while polynuclear ce and lymphocytes are relatively rare.

The origin of these cells can be traced by looking the microphotographs of sections through the intestin wall from another case. Fig. II shows the change in t mucous coat of the intestine prior to ulceration, part which is shown under higher magnifying powers in Fig. I where the enormous infiltration of round cells sup ficial to and within and below the muscularis mucos can be very well seen. Fig. IV is a section through t granulation tissue at the base of an ulcer where the muco coat has been destroyed and the granulations rest direc on the muscular coat. Fig. V is a section through t wall of the intestine where ulceration has taken place, which the whole of the granular structure has be destroyed, and the wall consists of the muscular co lined by a layer of granulation tissue. Fig. VI shows t under higher magnifying powers; the granulation tiss is seen to be composed of delicate connective tiss fibrin, round cells, and embryonic blood vessels, t whole being clearly marked off from the muscular co In Fig. VII the structure of the granulation tissue better seen under still higher magnifying powers. The

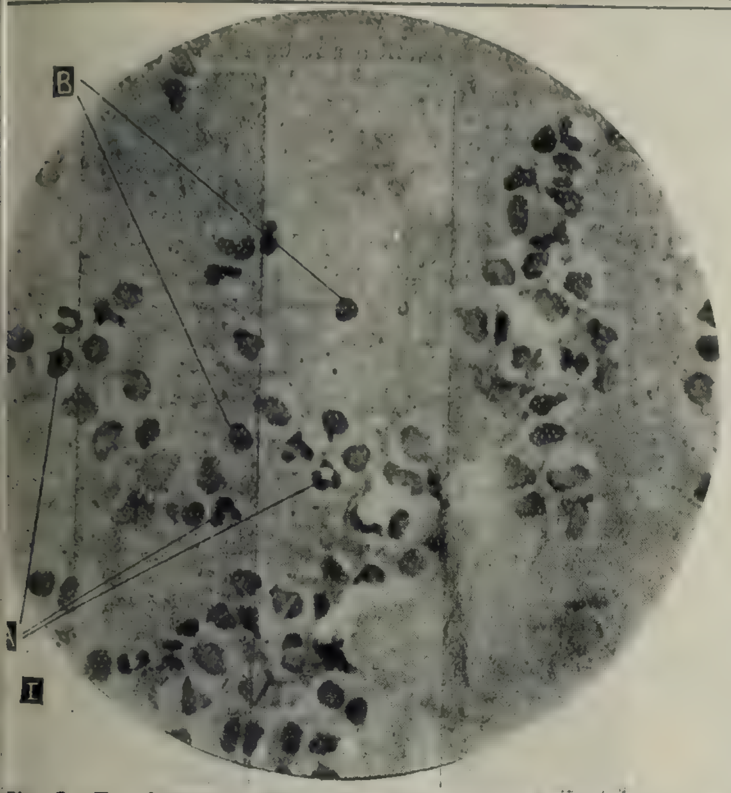
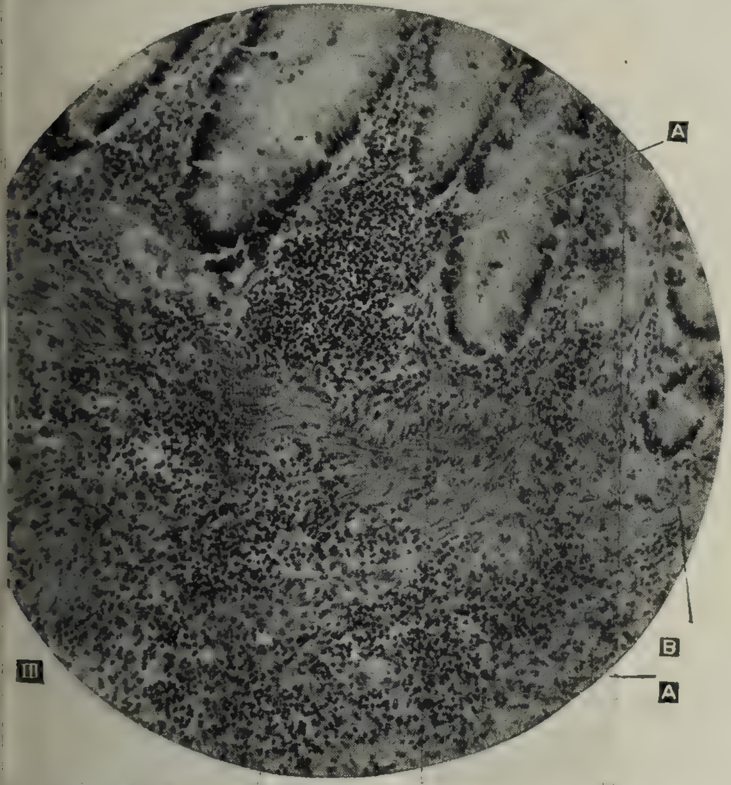
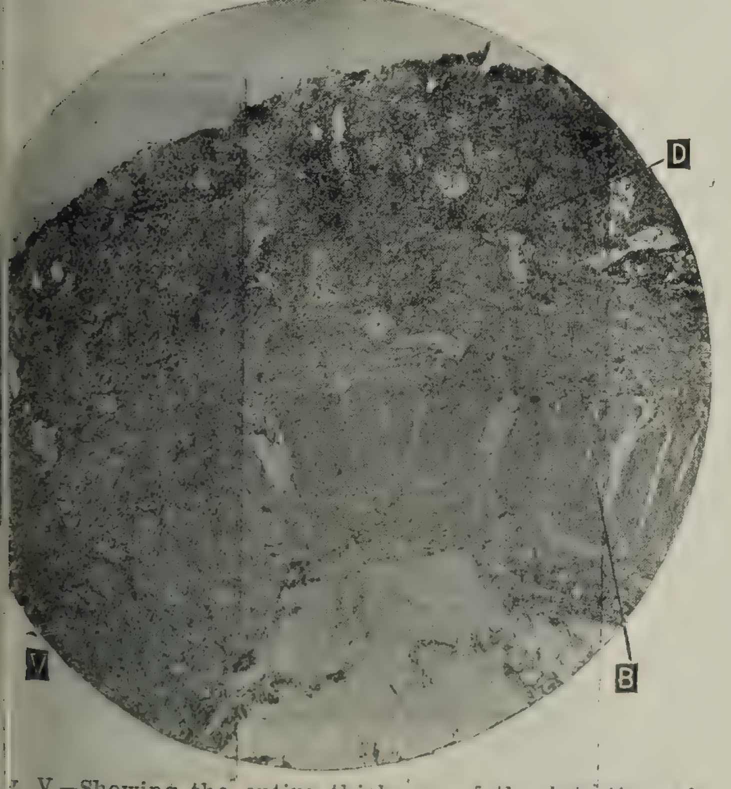


Fig. I.—To show the type of cell commonest in stools. The mmon cell is the mononuclear plasma cell; less common (A) lynuclear leucocytes and (B) mononuclear lymphocytes.



g. III.—A higher magnification, showing the enormous round-ed infiltration (A) both superficial to and below the muscularis cosae (B), prior to ulceration.



g. V.—Showing the entire thickness of the intestine after ration has taken place. The tissue lying upon the muscular (B) is entirely devoid of gland acini, and consists of granula-tissue (D).

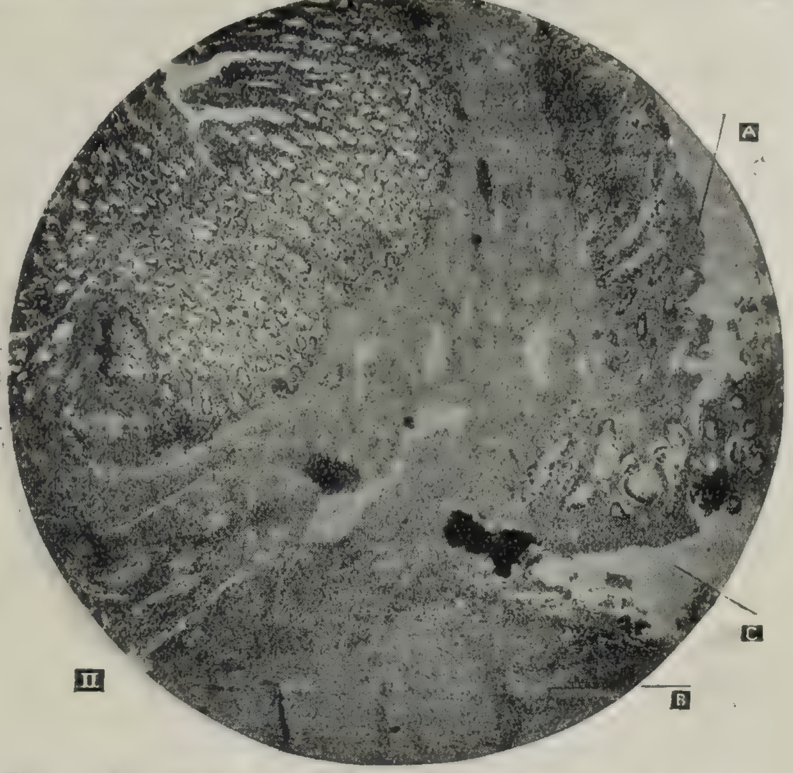


Fig. II.—Showing the changes in the mucous coat (A) of the intestine prior to ulceration. The cleft (C) shows the line of cleavage of mucous from muscular coat (B).

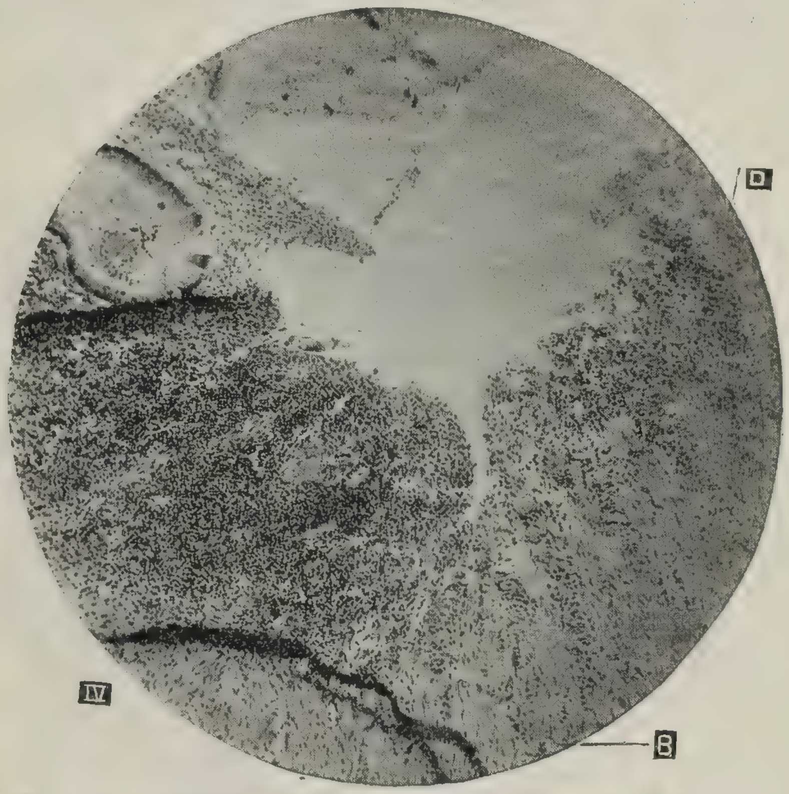


Fig. IV.—Showing the layer of granulation tissue (D) at the base of the ulcer, and just external to the muscular coat (B) after the mucous coat has been stripped.

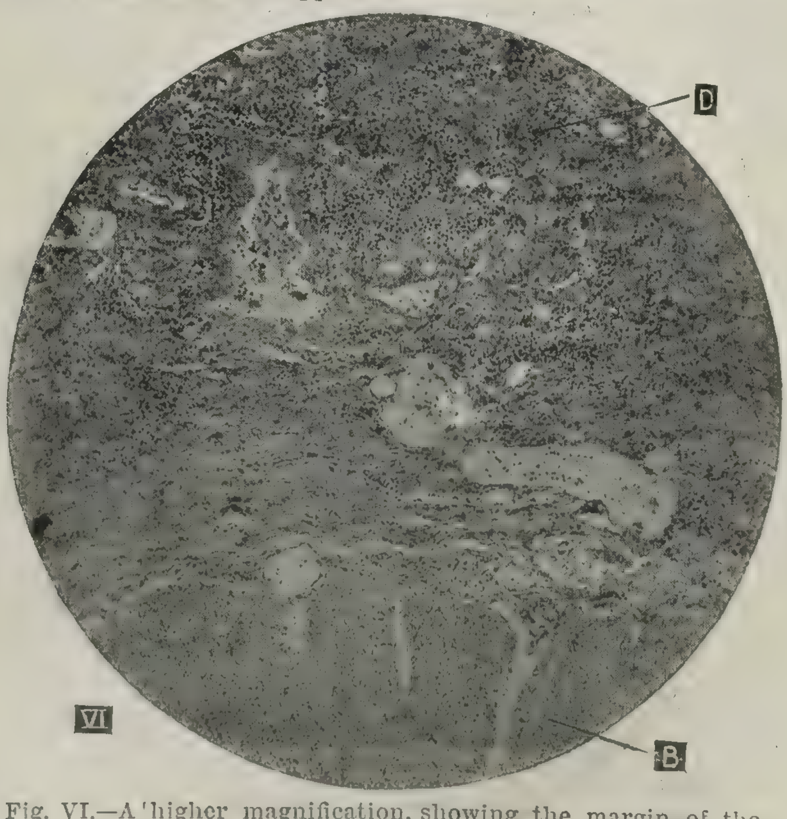


Fig. VI.—A higher magnification, showing the margin of the muscular coat (B) upon which is the granulation tissue layer (D), composed of fibrin, round cells, and embryonic blood vessels, indicative of early vascularization.

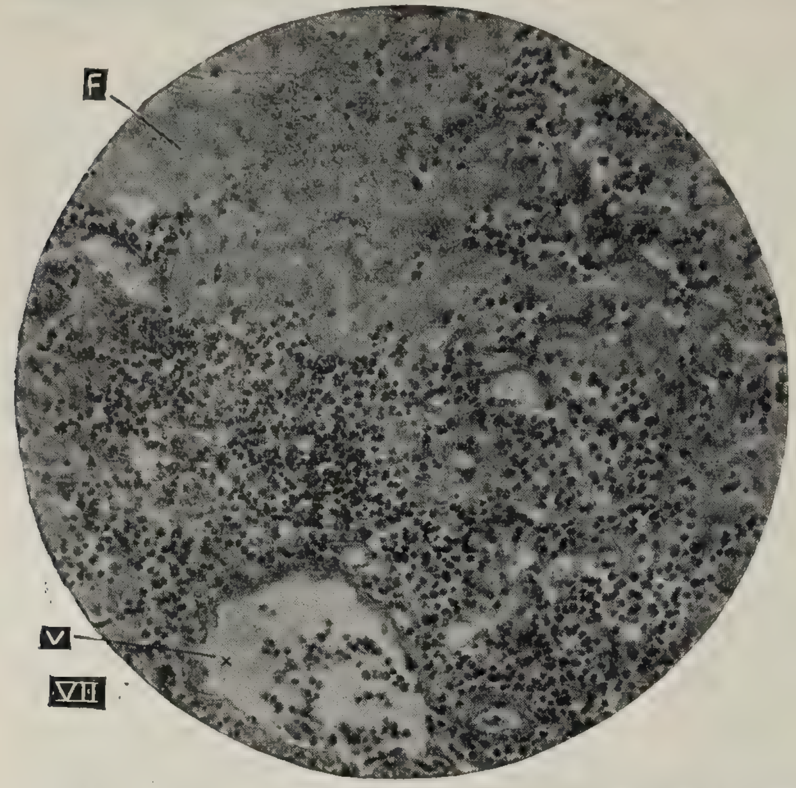


Fig. VII.—A higher magnification still of the granulation tissue in the base of the ulcer, showing blood channels, round-celled infiltration, and fibrin (F) which is rapidly being organized. V, Vessel.

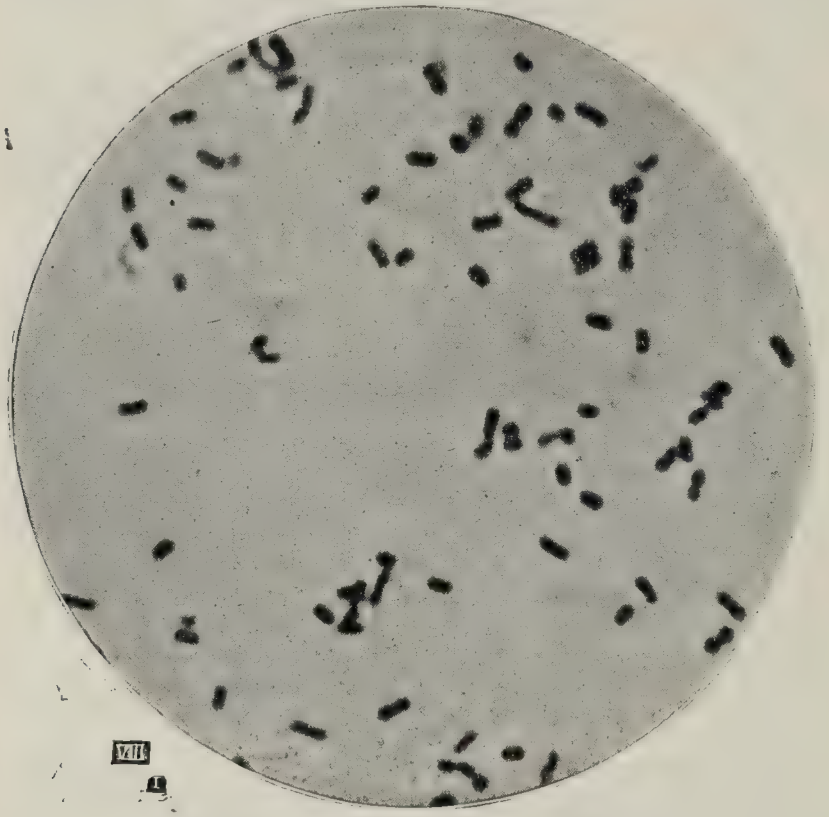


Fig. VIII, 1.—Bacilli from J. R. (Case II)

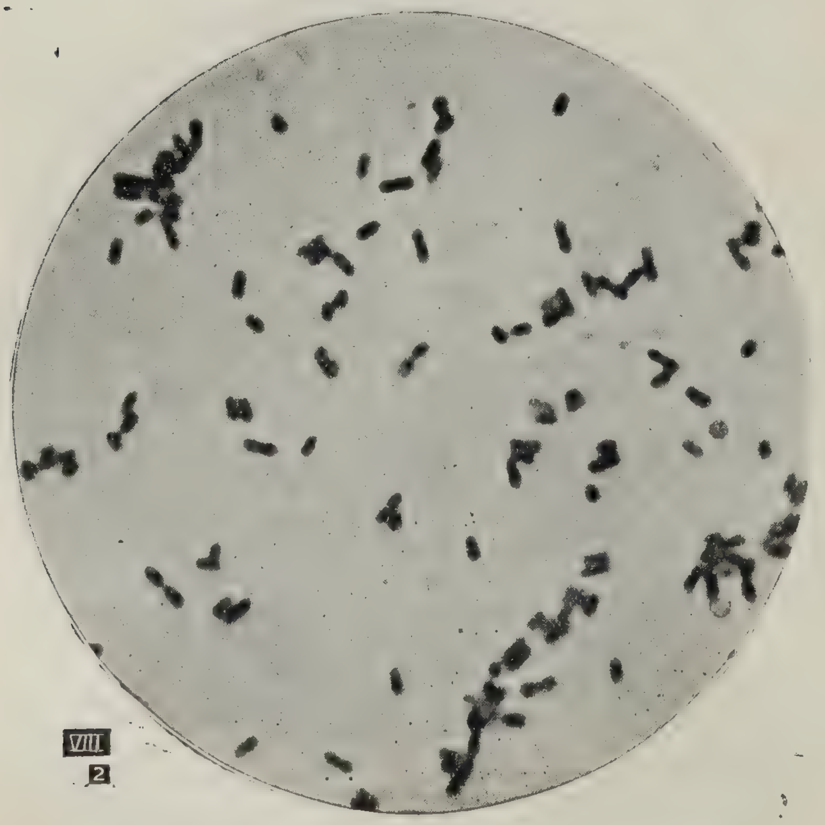
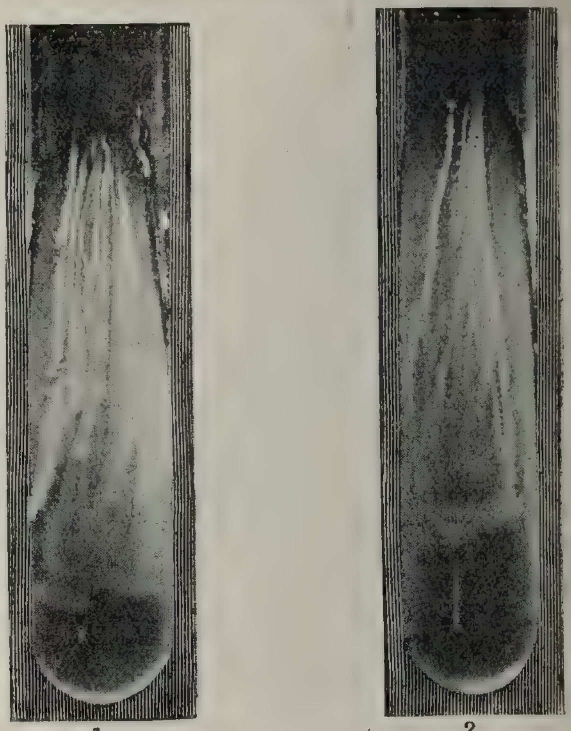
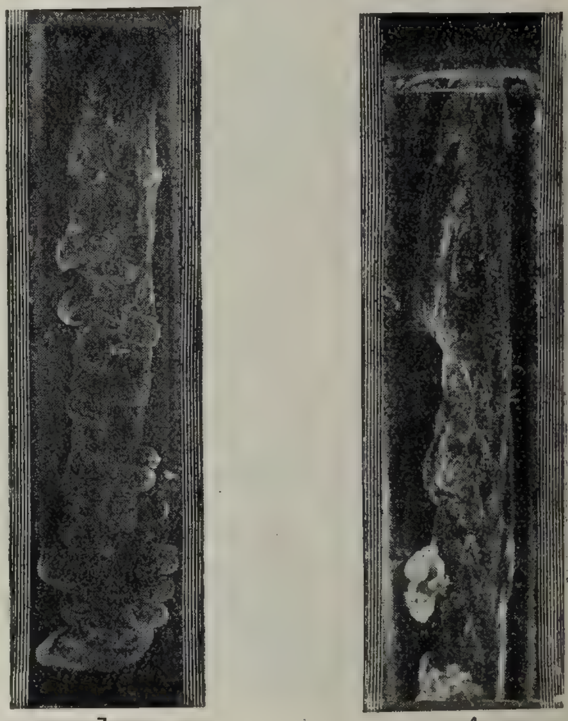


Fig VIII, 2.—*Bacilli shiga* (Vienna) for comparison.

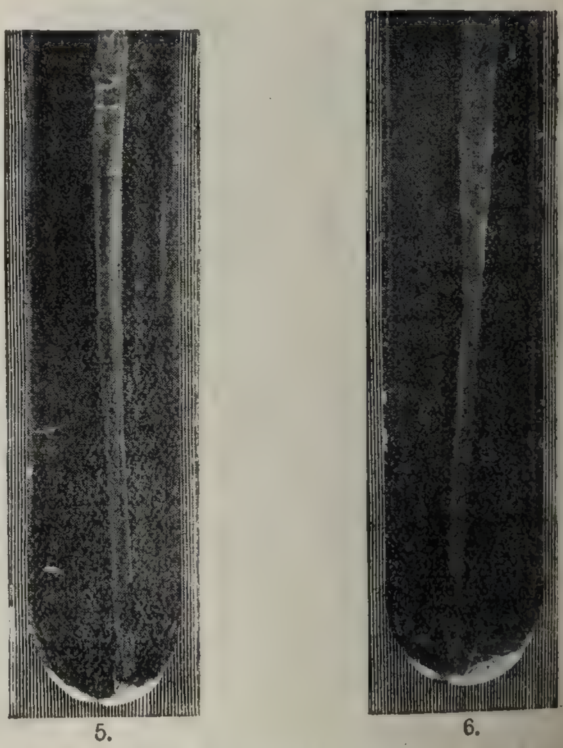
Fig. IX.—Shiga's bacillus and bacillus from J. R.



1. Agar slope culture of Shiga's bacillus. 2. Agar slope culture c bacillus of J. R.



3. Gelatine slope culture of Shiga's bacillus. 4. Gelatine slop culture of bacillus of J. R.



5. Glucose gelatine stab of Shiga's bacillus. 6. Glucose gelatin stab of bacillus of J. R.

figures illustrate very well the process by which the mucous coat is destroyed, and show that although healing may take place, the bowel undergoes such profound changes that its functions must be permanently disordered.

Fig. VIII shows the bacillus obtained by cultivation from the stools of J. R. (Case II), placed for comparison over a photograph of the *Bacillus shiga* obtained from Vienna. So far as morphological appearances go the two seem identical. This conclusion is supported by the comparison of the cultural characters of the bacillus from Case II and the admitted *Bacillus shiga*.

Fig. IX, 1, 2, shows to the left an agar slope culture of Shiga's bacillus; to the right the same culture of the bacillus from J. R.

Fig. IX, 3, 4, shows to the left a gelatine slope culture of Shiga's bacillus; to the right the bacillus of J. R.

Fig. IX, 5, 6, shows to the left a glucose gelatine stab culture of Shiga's bacillus; to the right the same of the bacillus of J. R. No one can refuse to admit the remarkable resemblance of these photographs, which, taken together with the descriptions given in the report, justify the conclusion that the organism present was the *Bacillus shiga*.

As the bacteriological investigations took up a considerable amount of time, the patient had been lost sight of before they were known, otherwise it would have been interesting to have tested the agglutinating power of his blood serum on the *Bacillus shiga* and upon the bacillus found in his stools. If it is true, as Flexner holds, that agglutination takes place as readily in the case of dysenteric as in typhoid blood, we have a ready means of diagnosing these cases and of proving their specific nature, for I need hardly say that the bacteriological inquiry such as Dr. Hewetson undertook is far too long and difficult for practical clinical purposes. This case is the first of something like half a dozen in which Dr. Hewetson has been able to find a specific organism; it may be remembered that Durham, working with Mott in the investigation of asylum dysentery for the London County Council, came to no positive conclusion, although he must have had the opportunity of examining a large number of cases.

It is therefore much to be desired that those who have cases of dysentery or ulcerative colitis under their care will try the agglutination test or send a drop of blood to me or to Dr. Hewetson for examination.

DIAGNOSIS.

The recognition of these cases is not difficult when our attention has been directed to them. It is not uncommon to find that the patient gives a history of several previous attacks of severe diarrhoea. The stools are very frequently as many as twelve, seventeen, or even thirty in a day; this is so marked as to be characteristic of the disease, but there are evidently exceptions, as in a fatal case seen by Dr. Stanley which had only two or three movements of the bowels daily. They are always liquid, and contain blood and mucus or pus. Under the microscope they may look as if composed entirely of pus. These cells in the cases examined by Dr. Hewetson were chiefly mononucleated mucous cells and not true leucocytes; but Mott found that "the slime contained in the stools consisted almost entirely of polynuclear leucocytes and not of mucus," so that evidently there is sometimes pus present and at others only mucus. The amount of blood varies, but may be at times quite considerable, evidently from the erosion of a blood vessel. The reaction of the stools is often alkaline, but observations on this point are not sufficiently numerous to justify the conclusion that this is the rule.

Pain is not constantly present and is of varying character. It may be cramp-like or colicky, or a general painfulness over the whole abdomen, or may occur only during or after defaecation, or there may be tenesmus; it generally bears no relation to taking food. In one case pain made its first appearance when the disease had been lready in existence for six months, and only about four weeks before the patient died. Too much importance has been attached to the presence of tenesmus, which is by ome regarded as essential to the diagnosis of dysentery; his is unfortunate, as it leads to cases being overlooked r treated with less attention than they deserve during he stage in which they can be cured. Tenderness is common, especially in the latter stages, and may point to peritonitis.

Vomiting may be frequent or occasional or altogether absent. The vomited matter may be the contents of the stomach or bile.

The Tongue.—In my cases the tongue is generally described as dry and covered with a more or less thick brown fur. Gemmel writes of it as dry, red, and glazed in acute cases, but in asthenic and fatal cases as furred or covered with sticky mucus and dirty brown crusts; no doubt most of my cases would come under the latter description.

Temperature.—The temperature, taken in the axilla, is, in acute cases, generally above normal—from 100° to 102°, but may be as high as 105° (Gemmel). Persistent high temperature is regarded by Gemmel as unfavourable. In chronic cases or where there is collapse, or where death from exhaustion is approaching, the temperature may be normal or subnormal.

The Pulse.—The pulse is usually over 100, but seldom reaches 120.

Termination.—Perforation of the wall of the bowel by an ulcer has been the cause of death in most of the cases that have come under my notice. In others death has been due to exhaustion from persistent haemorrhage and diarrhoea. Recovery certainly takes place, but it is to be feared that in many instances it is incomplete.

Duration.—In one case the patient gave a history of continuous diarrhoea for six months, and in another for eleven weeks, but one that terminated fatally from perforation, with extensive ulceration of the colon, had only lasted three weeks.

Relapse.—In two of my cases there is a history of one or more previous attacks.

Prognosis must be very guarded, and should be made to depend upon the influence of treatment.

TREATMENT.

The treatment I have used is that recommended by Gemmel, whose practice in this disease has been extensive, and it has been successful in several cases since I adopted it, although unfortunately in many of these cases the anatomical condition of the bowel precludes hope of cure. It is important to send these cases to bed and to keep them there until they are so far recovered that they can take ordinary food without any recurrence of the diarrhoea.

He considers quinine the most valuable drug, given in one large dose of 15 to 20 gr., followed by smaller doses of 5 to 10 gr. He also gives calomel in a large dose of 15 to 20 gr., and irrigates the bowel with warm water or warm Condy's fluid. For diet he gives milk thickened with flour, beef-tea, and mutton broth.

Fingland, in a short article on the treatment of dysentery, has referred to the value of a drug called hysteronica, the botanical source of which is *Haplopappus baylahuen*. The plant is indigenous to South America and is used in Chili and the provinces of the West coast of South America as a specific for dysentery. A fluid extract has been made for him by Parke, Davis and Co., of which the dose is 20 minims to be taken in milk or almond emulsion three times a day. He gives 3 cases of chronic sporadic dysentery in which it had been used with good results, but I have had no experience of it.

My best thanks are due to Dr. Hewetson, without whose skilful collaboration it would have been impossible for me to have proved the identity of these cases with dysentery. Moreover, his work in this successful instance represents only a small portion of what he has done in looking for organisms in a series of cases I have had under my care during the past few years.

THE late Mr. John Goddard, of Crawley, Sussex, left £500 each to the Sussex County Hospital, the Crawley Cottage Hospital, the Earlswood Asylum for Idiots, the North London Hospital, the Brompton Consumption Hospital, Guy's Hospital, St. Thomas's Hospital, and the London Hospital.

THE late Mrs. Isabella Harriet Irby of Boyland Hall, Norfolk, bequeathed £100 each to the Norfolk and Norwich Hospital, the Hospital for Incurables, Clapham, and the Royal Medical Society, Epsom, and £50 each to the Convalescent Home at Lowestoft, the Cancer Hospital, Brompton, the Consumption Hospital, Brompton, and the Victoria Hospital for Children, Chelsea.

SOME CLINICAL FEATURES OF THE SEVERAL TYPES OF COLITIS.*

By H. A. CALEY, M.D., F.R.C.P.,
PHYSICIAN TO OUT-PATIENTS, AND LECTURER ON PHARMACOLOGY AND THERAPEUTICS, ST. MARY'S HOSPITAL.

There can be no question that colitis, in one or other of its several types, is far more common than is at present recognized, notwithstanding the increased attention which has been devoted to the subject of recent years, and that, in proportion as anomalous abdominal and neurasthenic cases are carefully investigated, is the evidence of its comparative frequency forthcoming. The term "colitis," though discarded by some authors in favour of "mucous colic," is intentionally retained as being the most comprehensive term to cover the wide range of morbid conditions characterized by disorder of the mucous membrane, or of the mucous secretion of the colon, and ranging from simple catarrhal inflammation at one extreme to grave ulcerative colitis at the other, with the large and varied group of cases classed as muco-membranous colitis occupying an intermediate position. Moreover, the designation "colitis" appears to me preferable to other synonyms, for the very reason that it emphasizes the fact that, however important other factors—for example, the neuropathic—may be, especially in relation to the membranous type, we have in all such cases to deal with a definite disorder of the colon, only to be effectively managed by improving the local conditions of the bowel itself. Further, whilst it is true that in the majority of the cases included under the designation of muco-membranous colitis the changes which occur are such as could be explained as the outcome of simple catarrh of the mucous membrane, or even as a mere disorder of the mucous secretion—a myxo-neurosis—it is possible in exceptional cases to trace a gradual transition from this superficial affection to a condition in which all the coats of the bowel become involved, leading to a more or less severe pericolitis, with local peritoneal inflammation, and possibly suppuration.

Classification of the Several Types.

Careful differentiation is the first essential to an accurate appreciation of the groups of affections under consideration, but at the outset of any attempt at classification we are confronted by the inadequacy of the pathological data available, and the consequent necessity of falling back, at least provisionally, upon an approximately accurate division into clinical types. The following is adopted with the proviso that the distinguishing features between the several groups are often merely relative, and that in individual cases the types may shade off into one another.

I. Catarrhal, or simple mucous, colitis.
    (1) Acute:
        (a) Primary (that is, primary infective inflammation of the colon).
        (b) Secondary (that is, secondary to other morbid states—for example, specific fevers, toxaemias, Bright's disease).
    (2) Chronic:
        (a) Irritative type.
        (b) Atonic and spastic types.
II. Membranous, or muco-membranous, colitis.
III. Parietal colitis and pericolitis
    (including "sigmoiditis," pericolitis sinistra, and perityphlitis).
IV. Ulcerative colitis.
    (1) Endemic (tropical dysentery).
    (2) Epidemic (for example, "asylum dysentery").
    (3) Sporadic:
        (a) Primary, "simple," or "idiopathic."
        (b) Secondary (that is, secondary to general diseases or to local affections of the lower bowel—for example, stricture).

The essential points in the foregoing classification are the differentiation of simple catarrhal or mucous colitis from the typical membranous or muco-membranous form, the subdivision of the catarrhal cases of Group I into the acute and chronic forms, with the two subgroups of the latter, into cases associated with diarrhoea (the irritative type) and those associated with constipation (atonic and spastic types); and the recognition as a distinct class of cases included under Type III—that is, severe forms of colitis, in which not only the mucous, but the muscular and serous, coats become involved. That the differentiation of membranous colitis from the simple mucous type is of practical importance is illustrated in relation to the different treatment of the two types; the coarse laxative diet so strongly advocated by von Noorden and others, whilst most useful in some cases of membranous colitis associated with constipation and intestinal spasm, is not well borne, and is, I believe, fundamentally unsound in cases of the irritative type of mucous colitis; in the latter, a light nutritious diet such as will leave but a minimal faecal residue agrees best; in other words, whilst "dietetic exercise" is of importance in the one type, in the other "protection" of the irritable mucous membrane of the bowel is the keynote of successful treatment.

Characteristics of the Several Types.

Simple Catarrhal Colitis.

The acute form is characterized by diarrhoea with excess of mucus, and not uncommonly blood in the stools, colicky pains, in some cases tenesmus, and almost invariably more or less tenderness, particularly in the regions of the caecum and ascending colon, and of the sigmoid flexure. There is also usually some fever; it may be slight and transient, whilst in other cases the temperature may range high for days and be accompanied by other evidences of severe general toxaemia. Acute catarrhal colitis may be part of a general entero-colitis, in which case the distinctive colitis symptoms may be of comparatively late development, as in some cases of so-called "inflammatory diarrhoea" in children, or from the outset the colon may be conspicuously affected. Some cases accompanied by high fever and severe local signs may subside very rapidly with efficient treatment, irrigation enemata of normal saline solution being particularly useful.

Chronic Catarrhal Colitis.

This is frequently a sequela of an acute attack, and if careful inquiry is made the chronic colitis is often found to have followed on an acute attack of diarrhoea, of which, perhaps, at the time but little notice was taken; on the other hand, and more usually, this form develops insidiously as a result of constipation and chronic indigestion, especially in persons of neuropathic or "arthritic" tendencies. This group comprises two principal forms:

(*a*) Those characterized by loose mucous or watery evacuations, periodical diarrhoea, or more or less chronic diarrhoea; "morning diarrhoea," lasting for months or years, is not infrequently of this origin. Associated with these disordered evacuations there may be irregular colicky pains, and local tenderness in the affected regions.

(*b*) The atonic type is characterized by constipation, with excess of mucus in the stools, usually in the form of viscid masses, or ropy strings, the faeces being frequently lumpy and ill-formed. At other times scybala ensheathed in a mucous envelope may be passed. On examination of the abdomen the colon may be found to be dilated, and not uncommonly faecal lumps may be detected in the region of the sigmoid. In other cases—those of the spastic type—spasm rather than atony is conspicuous, pain is usually more marked, and the sigmoid may be felt contracted instead of distended. It cannot be too much emphasized that whilst the acute forms of colitis, whether catarrhal or ulcerative, have diarrhoea as a prominent symptom, in the large majority of chronic cases, catarrhal or membranous, constipation is the rule, and frequently most intractable, so much so that cases of "chronic constipation" are not uncommonly found, on careful investigation, to be examples of chronic colitis, with constipation as the dominant symptom. It will be understood that cases of chronic catarrhal or mucous colitis may merge insensibly into the membranous type; indeed, the condition may in some cases be regarded as an early stage of the membranous form, but it is none the less important to make the broad distinction between the two groups, since in many instances the affection never assumes the typical membranous, and more intractable, form if appropriately treated.

Relation of Chronic Colitis to other Affections.

Catarrhal colitis, especially in its atonic form, is of importance in relation to other intestinal disorders, notably:

---

* A paper communicated to the Medical Society of London, March 12th, 1906.

(*a*) Atonic dilatation of the colon; (*b*) appendicitis; (*c*) enterospasm.

Atonic Dilatation of the Colon.

In some of the worst cases of dilatation of the colon which I have seen in young children, it has been possible to trace a clear history of chronic colitis—the passage of mucus, often in large masses, attacks of pain coinciding with fresh discharge of mucus, and persistent constipation, with not uncommonly the occasional passage of large faecal or muco-faecal masses which had accumulated in the sacculated colon. It may be contended that the irritation of the mucous membrane is secondary to accumulation of faecal débris, in consequence of the enfeebled muscular action; this no doubt is the case to some extent, but a careful survey supports the view that at least in many of these cases the mucous membrane lesion is primary, and the muscular atony secondary, as in the analogous instance of atonic dilatation of the stomach following long-standing chronic gastritis. Personally I am of opinion that not uncommonly the so-called idiopathic dilatation of the colon is the outcome of unrecognized chronic colitis, with gradual atony and yielding of the muscular coats of the bowel. The following is an illustrative case:

N. J., a boy aged 7 years, came under treatment for "chronic constipation" of long standing, with history of occasional passage of large motions. On examination the colon was found to be greatly distended, and on inquiry it was ascertained that mucus had often been passed in large amounts, and was present in excess. Under treatment by laxative diet, aperients, and massage, gradual improvement took place, though the symptoms persisted in mild degree, and at times scybala encased in mucus were passed. Two years later he passed a considerable amount of intestinal sand.

In adults as well as in children it is possible not infrequently to trace chronic colitis in cases of atonic dilatation of the colon and in elderly persons the combination of the two conditions may simulate malignant disease of the large bowel.

RELATION OF CHRONIC COLITIS TO APPENDICITIS.

Colitis is important in three ways: (1) As a cause of appendicitis; (2) as a complication of appendicitis; (3) as a simulator of appendicitis.

1. *Colitis as a Cause of Appendicitis.*

If the antecedent clinical history of cases of appendicitis is carefully inquired into, it is not uncommon to find, especially in the chronic and relapsing cases, that, prior to the first attack of appendicitis, and it may be subsequently in the intervals between successive attacks, there had been symptoms of colitis—local pain or discomfort along the course of the colon, transient attacks of diarrhoea, with mucous or watery evacuations; and, more commonly still in my experience, symptoms of the atonic form—constipation, lumpy stools coated with mucus, occasional pain in the right lumbar or left iliac regions, besides in the immediate vicinity of the appendix. This association naturally suggests the inference that under certain conditions chronic colitis is a pathological antecedent of appendicitis, an inference which is in accord with the pathological anatomy of appendicitis, particularly in its chronic forms, the swelling and thickening of the mucous membrane leading to partial or complete stenosis of its lumen, being evidently the outcome of chronic inflammation of the mucous lining. Chronic colitis is, I believe, an important antecedent of appendicitis, particularly of the milder and more chronic forms, and it may be that the formation of concretions which are so largely responsible for the graver forms of appendicitis, which, as is well known, frequently come on without any antecedent bowel symptoms, is also connected with disordered secretion of the mucous membrane of the caecum and appendix, paving the way for the depredations of the *Bacillus coli* and its congeners. In referring to colitis as a cause of appendicitis, the converse must not be overlooked—that is, instead of being the cause, the colitis may be the consequence of the appendicitis to the extent that removal of the appendix cures the colitis, as has been been pointed out by Mr. Lockwood.[1] It is, however, probable, even in such cases, that in the first instance the initial lesion is more widespread, though the affection of the appendix subsequently becomes dominant. Colitis of the atonic type has a further bearing on the etiology of appendicitis: it is a potent cause of the dilatation of the caecum and ascending colon leading to faecal accumulation, which is now recognized to be a most important predisposing cause of appendicitis, and it may also be the precursor of that condition of partial obstruction of the caecum and ascending colon to which Arbuthnot Lane has directed attention as simulating appendicitis.[2] In considering the connexion between appendicitis and catarrhal colitis, it is of interest that appendicitis is only a rare complication of the membranous form; thus De Langenhagen[3] found in 1,200 cases of muco-membranous colitis only 16 cases of appendicitis, and of these 16, 14 were still troubled with colitis symptoms after excision of the appendix. Dr. Bottentuit of Plombières tells me that in the last six years he has had under his care 22 cases of muco-membranous colitis in which the appendix had been previously removed without materially relieving the symptoms.

2. *As a Complication and as a Simulator.*

Colitis may at times complicate appendicitis, thus rendering the diagnosis less easy, or it may complicate the treatment, as in the following case:

A boy, aged 12, was operated upon for appendicitis, having had several slight attacks. The appendix, which contained two small concretions and was superficially ulcerated, had been removed, and for the next seven days the patient appeared to make good progress, but on the eighth day the temperature rose to 102° F., and he had severe pain in the right iliac and lumbar regions, and passed motions consisting of flaky masses of mucus mixed with blood and some faecal matter. The caecum and ascending colon were exquisitely tender, and there was marked muscular rigidity, evidently due to an acute colitis most intense in the region of the ascending colon. The temperature subsequently rose to 103° F., and the boy became more ill. With large irrigation enemata of normal saline solution, strict dieting, and a combination of bismuth, salol, and salicin he soon improved, and in a week all the symptoms of colitis had subsided, and convalescence was henceforth uninterrupted.

Not infrequently the association of colitis with cases diagnosed as appendicitis is not recognized until excision of the appendix has failed to remove the symptoms; indeed, unless the precise condition of the appendix at the time of the operation was accurately noted, it may be difficult to say whether the colitis should be regarded as a complication of, or as a simulator of, appendicitis, as in the following cases, in which the appendix had been removed without appreciably relieving the symptoms, improvement subsequently occurring when the colitis was taken in hand.

H. R. M., aged 38, seen in consultation September, 1903. For twenty years he had suffered from bowel trouble, chiefly pain and constipation, and for several years he had noticed membranous masses in the stools; the symptoms became more acute; he had three attacks of appendicitis, and the appendix was removed in 1895—without apparent benefit. On inquiry, it was ascertained that the pains had been chiefly in the right iliac and lumbar regions, and on examination there was marked tenderness with muscular rigidity from the caecum to the hepatic flexure, and there was evident distension of the caecum and ascending colon. With careful dieting, large irrigation enemata which brought away masses of mucus, and full doses of bismuth, he has steadily improved, and is now in fair health.

B. C., aged 38 Subject to attacks of abdominal pain for fifteen years; appendix removed in 1903; he was better for some months, but the attacks subsequently returned as badly as ever. On examination, there was considerable tenderness over the caecum and ascending colon, and a diagnosis of chronic colitis was made. He was treated with strict diet, bismuth, and alkalies; all the symptoms have steadily improved, and there has been no return of the acute attacks.

Much more might be said in this connexion did time permit, but from the foregoing it is at least clear that affections of the caecum and ascending colon no less than appendicitis should receive careful consideration in all anomalous cases presenting symptoms of right-sided abdominal mischief.

CHRONIC COLITIS IN RELATION TO ENTEROSPASM.

The importance of acute enteralgia apart from appendicitis, obstruction, and gross inflammatory lesions of the intestine, has of late attracted considerable attention; and Dr. H. P. Hawkins, in a recent valuable communication,[4] has emphasized the reality of enterospasm and its simulation of appendicitis. However important the nervous factor may be in the production of these attacks —and it is certain that the worst cases are met with in neurotic persons—there are strong reasons to think that the painful spasm is frequently an exaggerated reflex phenomena, started by local irritation in the bowel. Certain it is that acute paroxysms of pain such as are met with in chronic colitis, membranous or mucous, may be indistinguishable from attacks of enterospasm occurring apart from any demonstrable lesion; and, further, that whether nervous exhaustion or excitement on the one hand, or constipation on the other, is the exciting cause, the most effective treatment is that which combines thorough evacuation of the bowels with antispasmodics, just as castor-oil and opium give better results in lead colic than a pure antispasmodic such as morphine and atropine. The inference is that the starting point of enterospasm is not uncommonly to be found in some local focus of irritation in the large bowel; and it is evident that the plugs, masses, or casts of mucus, such as are present in mucous or membranous colitis, or the hard faecal pellets which are often associated with the mucous exudation, are very likely to set up irregular peristalsis, which may develop into an acute attack of enterospasm. Two other considerations may be adduced in support of this view: (1) Examination of the colon during attacks of pain in colitis may at times demonstrate the existence of actual spasm of the bowel, the descending colon, sigmoid flexure, or transverse colon being contracted and cord-like, or the sigmoid flexure may be felt distended and its muscular coats contracting above a faecal mass lower down; (2) improvement in all symptoms may date from the evacuation of hard masses of mucus and faeces, as in the following case:

A lady, aged 44, seen in consultation November, 1905. After a period of protracted nervous strain she was seized with an acute illness, the prominent symptoms being intense paroxysms of abdominal pain, chiefly on the right side, with retching, vomiting, and marked collapse. The temperature was normal, and there were no signs of appendicitis or pelvic peritonitis. The pain was such that morphine injections alone afforded relief. The pain became so severe, the vomiting continuing, and the pulse frequency rising to 120, that laparotomy was seriously discussed; examination under an anaesthetic was, however, negative, and it was decided to wait. Morphine was stopped and heroin substituted, and as a result of enemata, and cascara by the mouth, the bowels were induced to act. Large, round pebble-like masses of faeces mixed with mucus were passed, which had the appearance of having been churned about, like stones in a glacier mill. From that time convalescence was uninterrupted, and though the constipation was troublesome for some weeks, with the continuance of slight mucous exudation, the symptoms gradually subsided, and the patient is now well.

Whilst not detracting from the essential importance of the nervous factor in the production of attacks of enterospasm, it appears to me highly probable that in most of these cases there is some local focus of irritation which engenders the enterospasm as an exaggerated reflex phenomenon. This being so, it follows that to search for any such local lesion is of the first importance in relation to treatment, whether surgical or medical.

MEMBRANOUS COLITIS.

By most writers muco-membranous colitis is employed as a general designation to cover all cases of chronic colitis other than those of the ulcerative type; but, as already indicated in connexion with chronic catarrhal colitis of the mucous type, it is preferable to restrict the term "membranous colitis" to the form of chronic colitis characterized by:

1. The presence of membranous or muco-membranous exudation as distinct from simple mucous secretion in the dejecta, usually in the form of membranous masses, tubular casts, or pellicular shreds; these in water tend to unfold into membrane-like masses which first gave the affection its name.
2. Irregularity of the intestinal functions, with constipation, often intractable, as its most conspicuous feature.
3. Pain, which is broadly of two kinds—constant or variable dull aching pain or discomfort in some part of the colon, most usually the caecum, ascending colon, or sigmoid flexure; and paroxysmal pain—ranging from slight attacks of colicky pain to intense enterospasm. This group does not, therefore, include the milder cases which have already been described under chronic catarrhal colitis, nor does it include the more severe cases of chronic colitis in which all the coats of the bowel—submucous, muscular, and serous—are involved as well as the mucous membrane. These are grouped as a separate class, designated parietal colitis and pericolitis, Type III. With these limitations, membranous colitis is a fairly well-defined group, with certain etiological and clinical associations, and is usually characterized by a chronic and not uncommonly intractable course. Whilst it may occur in childhood or early life, membranous colitis is usually met with in middle life—25 to 45, and is more common in women than in men, being not infrequently associated with uterine disorder. In its clinical evolution certain phases can usually be traced—a period of chronic constipation, then a mucous discharge is noticed, at first of a glairy or stringy nature, and later more membranous in character; sooner or later more or less pain or discomfort will be experienced, the results of intestinal irritation and irregular peristalsis. Finally, if the condition persists, the muscular coats of the intestine become further weakened, and atonic dilatation of the colon supervenes, or spasmodic symptoms may predominate, and not uncommonly there is associated dilatation of the stomach, tympanites, enteroptosis, and nephroptosis, the last being especially common. The earlier phases of membranous colitis obviously closely correspond with the symptoms of the catarrhal type; indeed, although this is opposed to the view of those who regard "mucous colic" as essentially neurotic in origin, it is probable that many, and it may be the majority, of the cases of membranous colitis originate in this way, a point which in my judgement is of primary importance in relation to treatment, since to be effective it should be essentially preventive.

ETIOLOGICAL FACTORS.

Whilst there is still much difference of opinion as to the precise pathology of membranous colitis, whether it is primarily a form of chronic inflammation, or a secretory neurosis, the investigations of recent years have brought out certain cardinal facts as to its clinical etiology, especially in relation to chronic constipation (coprostasis), "arthritism," and neuropathic states.

Constipation in relation to Membranous Colitis.

Careful inquiry shows that of all clinical antecedents constipation is the most constant. A history of chronic constipation before the characteristic symptoms of colitis developed is rarely absent, though not uncommonly its importance has been overlooked by the patient, which means neglected as well as chronic constipation.

"Arthritism" in relation to Membranous Colitis.

It has been said that "the arthritic diathesis is found at the origin of every muco-membranous enteritis" (De Langenhagen). This statement at first sight appears too absolute, but from critical inquiry into the cases which have come under my own observation, I believe it to be substantially true as to the frequency of the association of the two conditions. In the large majority of cases in which an accurate history can be obtained, a gouty or rheumatic element, inherited or acquired, can be traced, usually in one of the following ways:

1. A definite family history of gout, rheumatism, articular or muscular, or rheumatoid arthritis.
2. The occurrence of gouty or rheumatic symptoms antecedently to the colitis, and in some cases an apparent alternation between the intestinal and the rheumatic symptoms.
3. The development of rheumatic symptoms as a sequela of chronic colitis; and in this connexion it is worthy of remark that the kinship appears to be rather with the chronic and fibrous forms of articular and muscular rheumatism (fibrositis) than with acute rheumatism. It is of interest in this same connexion that chill, excessive consumption of animal food, and certain wines, which will at one time induce arthritic or myalgic symptoms, may at another aggravate or even induce colitis symptoms; and, further, that eliminants, alkalies, salicin, and the salicylates may be of service in colitis as in rheumatic arthritis or myositis—considerations which have an important bearing on treatment, both dietetic and medicinal.

The Neuropathic Factor in Membranous Colitis.

The association of neurasthenic symptoms with membranous colitis is now so generally recognized as to be adduced as an argument in favour of the colitis being primarily neuropathic—a secretory neurosis; analysed further, in a well-developed case the association is seen to be twofold: the neurasthenic symptoms may fluctuate with the bowel symptoms, and, on the other hand, aggravation of the bowel symptoms may directly follow nervous disturbance induced by anxiety or overstrain. Some differences of opinion have been expressed as to the sequence of the two—whether the neurasthenia precedes the colitis, or the colitis the neurasthenia. Whilst nervous strain appears to be a definite predisposing cause of colitis, it is certain that profound nervous disturbances are usually met with in long-standing cases of the disease; thus De Langenhagen, who investigated this point, found that, out of a series of 304 cases, in only 16 had the neurasthenia preceded the intestinal disorder, leaving 288 in which it developed subsequently. It seems as if we can hardly evade the vicious circle, neurasthenia predisposes to colitis, and colitis induces or aggravates neurasthenia; practically the important point is that constipation *plus* a "neuro-arthritic" tendency may result in membranous colitis, and that, given that condition, treatment to be effectual must aim at improving the local conditions, while associated neurasthenic, rheumatic, or gouty factors are simultaneously combated.

Influenza and Colitis.

Another factor in the etiology of colitis is influenza, though numerically of much less importance than those previously referred to. This association may be traced in the following ways:

1. Influenza of the gastro-intestinal type may present symptoms of acute or subacute colitis, though a general enteritis is more common; the colitis may rapidly subside or it may pass into a chronic phase.
2. Chronic colitis, catarrhal or membranous, may be much aggravated by an attack of influenza; indeed, the latter is a fruitful cause of relapse in cases of colitis otherwise doing well.
3. Colitis may apparently originate in an attack of influenza, the bowel symptoms dating from that time, and in such cases it is highly probable that the lowered nervous tone, so conspicuous an after-effect of influenza, plays an important part.

SOME CLINICAL ASSOCIATIONS OF MEMBRANOUS COLITIS.—Whilst the diagnosis is usually indicated by the symptoms and the characters of the dejecta, physical examination of the abdomen is most important for confirming the diagnosis and revealing unsuspected complications. In severe cases the abdominal walls are lax; enteroptosis is not uncommon; still more frequent is nephroptosis, being present in 290—272 on the right side and 18 on the left side—out of 1,200 cases in De Langenhagen's series.

Physical Examination of the Colon.

The conditions present vary according as atonic dilatation, spasm, or inflammatory changes are in the ascendant. The caecum is frequently distended and tender, and the distension may be so marked, especially over the ileocaecal valve, as to resemble appendicitis. In long-standing cases the walls of the caecum and colon may be palpably thickened, similar signs may be present over the ascending colon as high as the hepatic flexure, and both over the caecum and ascending colon the presence of gas nd liquid faecal matter may produce a gurgling or uelching sensation—"*sensation de l'intestin chiffon*" of French writers. Another very characteristic sign if present, though more commonly met with in the trans-erse and descending portions, is a cord-like contraction f the bowel, the result of spasm, which may at times be emonstrated in cases of acute enteralgia. The transverse colon may be distended, so much so as to resemble a ilated stomach, although this is perhaps more frequent in chronic catarrhal colitis than in the membranous form; in the latter, more characteristic is the spasmodic contraction of the transverse colon producing the so-called colic cord" extending across the abdomen. This is sually a transient condition, due to spasm, but rarely it may be permanent, and due to progressive thickening of he walls of the gut with stenosis of its lumen. The descending colon and sigmoid flexure frequently exhibit ome abnormal signs; of these tenderness in the left iliac ssa with distension, and frequently the presence of ybala, are the most frequent, but in this region also a cord-like contraction due to spasm may be very marked. At times, especially if the abdomen is examined during an attack of painful spasm, the walls of the sigmoid flexure may be felt contracting under the hand, as if due to exaggerated peristalsis above obstruction lower down from faecal accumulation or spasm, and in such a case the contraction and distension will completely subside after thorough evacuation, as from an olive oil enema. This reference to symptoms from spasmodic stenosis brings to mind two rare cases of chronic colitis in which there was actual mechanical obstruction. In one there was chronic stenosis of the whole length of the transverse colon, which on *post-mortem* examination was found reduced to a tough cord with a chink-like lumen communicating with small sacculi containing faecal pellets, death resulting from acute appendicitis and intestinal obstruction combined. In the other, the obstruction, which was evidenced by visible peristalsis as well as by severe pain, was due to the impaction of large masses of dense mucus. In this last case all the obstructive symptoms disappeared as the masses of mucus were gradually got rid of.

PARIETAL COLITIS AND PERICOLITIS.

More serious than the foregoing varieties of colitis is the type of case characterised by deeper and more diffuse inflammatory changes, involving the submucous, muscular, and serous coats. The implication of the serous coat, if sufficiently marked, produces definite local peritonitis and in some cases cellulitis, the condition known as pericolitis—if in the region of the sigmoid flexure pericolitis sinistra, if in the vicinity of the caecum perityphlitis, employing the old term in the strict sense of pericaecal inflammation distinct from inflammatory lesions the outcome of appendicitis. To avoid the possibility of confusion, the term "pericolitis dextra" would be perhaps preferable, and have the additional advantage of including also cases in which the pericolitis starts from the ascending colon. The distinctive pathological feature of pericolitis is the spread of infection through the submucous and muscular coats so as to involve the serous membrane, and the clinical correlative is local peritonitis, with pain, tenderness, muscular rigidity, dullness on percussion, and frequently induration about the distended and inflamed bowel. Pericolitis exceptionally may come on acutely as a local complication of ulcerative colitis, but as a rule it comes on insidiously after long-standing chronic constipation. This involvement of the serous coat usually presupposes the existence of a lesion of the subjacent mucous membrane, which may be part of a general colitis, or of more localized inflammation as in the condition known as "sigmoiditis." Now systematic examination of cases of chronic colitis and of "chronic constipation" occasionally reveals the existence of general thickening of the walls of the colon without evidence of actual pericolitis—it is to these cases that I have applied the term "parietal colitis"—a condition which is certainly present in not a few cases usually classed as chronic colitis, and which may be of serious importance as paving the way for pericolitis, with its grave dangers of spreading peritonitis and cellulitis. Experience shows that severe pericolitis is fortunately a rare affection, but pericolitis of a milder and usually more chronic type associated with catarrhal or membranous colitis is not, I believe, by any means so rare, and has an important bearing on the production of faecal impaction with partial obstruction, and also in relation to chronic appendicitis. The following is a good illustration of chronic parietal colitis and pericolitis:

Case of P. B., aged 46. Marked family history of gout; had suffered severely from chronic gouty arthritis, uric-acid gravel, and myositis for years, with an occasional attack of acute gout. Beyond some indefinite pain in the right hypochondrium, no abdominal trouble was noticed until early in 1904, when he was suddenly seized with acute pain in the left half of the abdomen—so severe as to resemble a perforative lesion. On examination there was local tenderness and marked muscular rigidity in the left iliac fossa, with slight rise of temperature (100° F.). This was the beginning of a typical attack of pericolitis sinistra, and it is noteworthy that on two or three occasions fresh blood was passed in the stools, which contained a considerable amount of mucus. He gradually recovered from these local symptoms, but the colon remained much dilated, and its walls were thickened, particularly in the region of the caecum and ascending colon. In the following year, after a neglected gouty attack, he developed pain and tenderness over the caecum and ascending colon, which were much distended. In the caecal region there was intense tenderness, some muscular rigidity, and dullness on percussion; but on deep palpation the outline of the distended and thickened caecum could be distinctly felt. With this attack there was no haemorrhage and little mucus in the stools, but there was at one time aphthous stomatitis, an occasional concomitant of colitis. There were no signs of appendicitis, and it was evident that the condition was one of pericolitis dextra; this slowly improved under treatment, though the walls of the caecum and ascending colon are still abnormally thick, and the whole colon is dilated.

Apart from its direct importance, pericolitis has a significant bearing on the differential diagnosis of obscure abdominal lesions; if on the right side it may produce symptoms and local signs difficult to distinguish from periappendicular lesions in the more acute cases, or from malignant disease of the caecum in its more chronic form; if on the left side, the pericolitis may be overlooked, the case being regarded as one of "chronic constipation" until some more formidable complication develops, or if there is much distension of the bowel with inflammatory induration malignant disease of the sigmoid may be erroneously diagnosed.

ULCERATIVE COLITIS.

In its most severe and characteristic form, tropical dysentery, the symptomatology of ulcerative colitis is well known, and of recent years much attention has been given to cases coming under Subgroups 2 and 3—that is, to epidemic outbreaks of "asylum dysentery" such as that so ably described by Gemmel,[5] and to more limited outbreaks, such as that described by Dr. Carver in his communication on acute infective colitis to the Medical Society of London last session. Of the sporadic forms, "simple" or "idiopathic" ulcerative colitis has obtained general recognition since Dr. Hale White published his series of cases in *Guy's Hospital Reports* for 1888. Recent pathological and bacteriological investigations have tended to bridge over the differences between the several forms of ulcerative colitis and to approximate them to dysentery proper.

As to the clinical characteristics of ulcerative colitis, all that can be said here is that in typical cases the diagnosis is clear owing to the coexistence of: (1) Symptoms of intensely acute colitis with pain, diarrhoea, tenesmus, characteristic brownish-red stools of viscid mucus and blood; (2) severe constitutional symptoms, usually high fever, and always marked prostration and wasting; (3) a third characteristic feature is the frequency of serious local complications—perforation, peritonitis, local or general, severe haemorrhage, and uncontrollable diarrhoea. The diagnosis is, however, not always so easy, the characteristic complex of symptoms may not be present until quite late in the disease, the onset may be insidious and misleading; indeed, chronic diarrhoea without the characteristic stools may be the only definite symptom. In this, as in the other and less severe types of colitis, great variations will be found, and in atypical cases the true nature of the disease may only be discoverable by critical scrutiny of the symptoms, systematic investigation of the dejecta, and careful physical examination of the colon.

REFERENCES.

[1] BRITISH MEDICAL JOURNAL, 1905, i, p. 466. [2] Arbuthnot Lane, *Lancet*, 1903, i, p. 152. [3] M. de Langenhagen, Muco-membranous Entero-colitis. [4] BRITISH MEDICAL JOURNAL, January 13th, 1906. [5] 1898.

TWO CASES OF RUPTURED DUODENAL ULCER.

WITH A NOTE ON THE EFFECT OF POSTURE ON THE LOSS OF LIVER DULLNESS.

BY JOHN CLAY, M.B., F.R.C.S.,
ASSISTANT SURGEON, ROYAL INFIRMARY, NEWCASTLE.

THE two following cases are good examples of perforation of the duodenum without either vomiting or abdominal distension.

CASE I.

E. S., aged 32, a painter, was admitted on October 9th, 1905, at 8.30 p.m., suffering from an acute attack of pain in the abdomen.

History.

He gave the following history: For the past nine years he had suffered from severe pain in the epigastric region, coming on sometimes immediately and sometimes an hour and a half after food. The pain was accompanied by abdominal distension and palpitation of the heart.

At 4 p.m. on the day before admission, the pain was more severe than usual, but he continued to work.

At 11.30 a.m. on the next day, while working, the pain came on so severely he was obliged to go home. He attempted to walk, but was obliged to lie down by the roadside. There was no vomiting, the bowels did not act, and no flatus was passed. At 2.30 p.m. ½ gr. morphine was given previously to sending him to hospital.

Condition on Admission.

He was quite warm and not collapsed. The pulse was 120 and the temperature 101° F., with the tongue moist and only slightly coated. The abdomen was uniformly painful, retracted, and very rigid. It was extremely tender, but no mass or dull area could be made out. The liver dullness was present.

Operation.

At 9 p.m. a median incision was made from ensiform cartilage to umbilicus. On dividing the peritoneum gas escaped at once. The ulcer was found in the duodenum 1 in. from the pylorus. The ulcer was closed by one suture of thick catgut through all the coats of the bowel. This was buried with Lembert sutures of fine catgut. The peritoneal cavity was washed out with hot saline solution, and drained from both flanks and from above the pubes. Rubber tubes only were used. The incision in the epigastric region was completely closed.

The drainage tubes were removed twelve hours after the operation, and recovery was uneventful.

CASE II.

P. P., aged 58, a cartman, was admitted on January 27th, 1906, at 3.30 a.m., suffering from acute pain in the abdomen.

History.

At 10 a.m. on January 26th he felt sudden severe pain at the lower part of the abdomen. The pain increased in severity, and two hours later he was found lying on the ground doubled up with pain. At this time the pain, it was stated, shot into the right testicle. Since the commencement of the attack the bowels had not acted and no flatus had been passed, yet he had never vomited. A week previously he had consulted a chemist for what he called a "kidney attack."

Condition on Admission.

He looked very ill, and was collapsed. The pulse was irregular and small, 135; the temperature 99° F. The abdomen was retracted, immovable, and extremely rigid. It was tender all over. The left flank was dull, but the right was resonant. The liver dullness was absent in the nipple line and in the mid-axillary line. The urine contained albumen, but no pus or blood.

Operation.

The operation was similar to that in the first case, the ulcer being similarly situated. The peritoneal cavity contained a large quantity of bile-stained fluid. It was washed out and drained from both flanks and above the pubes. His condition never improved, and he died twenty-four hours after operation.

Necropsy.

A *post-mortem* examination was made. There were two ulcers close together in the duodenum. One of them had perforated, the aortic valves were very calcareous; two of the cusps appeared to have fused together.

It will be observed that the liver dullness was absent in one of the cases. I have noticed in connexion with this loss of liver dullness that the dullness can be made to return by getting the patient to roll on to his right side; but that when the patient is turned on to the left side the dullness is not at once again lost, but only after some jerky movements, such as coughing or retching, have been made.

The explanation appears to be that, when these cases are turned on to the right side, the liver returns to its accustomed place, and there sticks until some sudden movement of the diaphragm shakes it off. It is, therefore, of value to bear in mind how this diagnostic sign of pneumocoelom is altered by change of position.

MR. JAMES CANTLIE, speaking at the Commemoration Day proceedings at Livingstone College last week, said that in tropical countries disease struck down its victims with terrible suddenness, and it was necessary that ordinary missionaries should know how to deal with the more common diseases. People said that a little knowledge was a dangerous thing, but the course at Livingstone College gave to missionaries exactly the teaching they required. He regretted that the chief missionary societies had not dealt with the matter adequately by sending missionaries to uncivilized lands without proper equipment in the way of medical knowledge. They were juggling with men's lives.

A Lecture
ON
MIND AND MATTER.

Delivered at the Medical Graduates' College and Polyclinic.

By T. CLAYE SHAW, M.D., F.R.C P.,

LECTURER ON PYSCHOLOGICAL MEDICINE, ST. BARTHOLOMEW'S HOSPITAL.

Of late years much has been written on this subject with the object of elucidating the connexion between mind and matter from the point of view of the most recent facts and deductions of experimental physics, so that it behoves us as practical men to consider modern theories with the object of finding out the possibility of advance in the treatment of psychical disorders, whether there are grounds for the establishment of a *mental* pharmacopoeia, a new order of remedies different in kind from the material foundation of the present prescription.

Do the new ideas of the nature of matter and of mind give us any ground for saying, "It is clearly useless to pursue the condition of the medium of mental and nervous phenomena (the brain and nervous system), the case is clearly one where the psychical order of manifestations is out of joint, we must attack the change in the emotions, we must strive to alter the will or guiding power"? If, with Professor Häckel, we are monists—that is, upholders of the "law of substance" as the universal cosmic law, including in its essence the two laws of permuability of matter and conservation of energy; that God and the world are one and the same thing, that there s no dualistic combination of God and the world—then it eems unnecessary to trouble ourselves with any other iew than that mind is an epiphenomenon, that it disappears when the body dies, and has no existence apart from t, and that, in fact, we need not occupy ourselves with he so-called spiritual manifestations. This doctrine has, t any rate, the advantage of simplicity and conciseness; bnormalities of consciousness (including all the range of mind) must be taken as synonymous with defects of a material structure, and we need look no further than to he latter for our curative basis. Monistic dogmas do not ttempt to explain how it is that such a material as, say, rain shall, in its functioning, conserve its energy in the articular form of what we call consciousness, will, etc., ut that apparently is of no consequence; all we have to ursue is the "true, the good, and the beautiful." By the majority this is what is followed out; the plan is to try nd determine how far, in what way, the nervous system is fected, either directly in itself or indirectly, or influenced y other organs of the body or by conditions of the nvironment which act unfavourably upon it.

The latest exponent of the other school, the dualists, is rofessor Oliver Lodge, and this is his opinion of rofessor Häckel:

> If monism signifies a limitation of mind to the potentialities matter as at present known . . . . that without the cerebral emispheres, consciousness, intelligence, emotion, love, etc., nd all the higher attributes towards which humanity is slowly dvancing would cease to be, that the term "soul" signifies sum of plasma and movements in the ganglion cells, and that e term "God" is limited to the operation of a known olutionary process and is the sum of all atomic forces and all her vibrations, then such philosophers must be content with audience of uneducated persons, and must hold themselves able to be opposed by men of science, who take a wider view existence, and perceive possibilities to which these narrow hilosophers are blind.

One would think after this that Sir Oliver Lodge was re of his ground, that he had obtained, as a scientific an, sufficient basis for saying that whereas life or mind n neither generate energy nor (directly) force, yet it can use matter to exert force on matter, and so can exercise uidance and control, can so prepare any sum of activity arranging the position of existing material as to produce sults concordant with an idea or scheme or intention.

Before receiving the conclusions of these physicists pon the subject of mind and matter, it will be well to ave a clear idea of what they mean by the terms they e, how they record what is generally called "life," and hat are their views as to its origin. We shall see that they are extremely hypothetical or that they are very dogmatic.

Häckel's view is that life has risen from inorganic matter without antecedent life. The experimental facts of biogenesis (that is, the doctrine holding that the genesis of living beings from living beings is the only one of which we have any knowledge) he discards in favour of an undiscovered kind of spontaneous generation. He assumes that the chemico-physical properties of carbon confer so peculiar a power on its albuminoid compounds that they develop into living protoplasm. He says that

> First simple monera are formed by spontaneous generation, and from these arise unicellular protists forming subsequently tissue-forming plants and animals. The cellular theory has given us the true interpretation of the physical, chemical, and psychological processes of life. Consciousness is a physiological problem, and must be reduced to the phenomena of physics and chemistry. The soul is a natural phenomenon, and we have no different methods of research for psychology than for other sciences.

What does Sir Oliver Lodge say?

> Though the brain is truly the organ of mind and consciousness, no one is at liberty to assert, on the strength of that fact, that the realities underlying our use of these terms—namely, mind and consciousness—have no existence apart from terrestrial brains. Nor can we say with any security that brain-stuff (to use Clifford's term) is the only conceivable machinery which they are able to utilize, though it is true that we know of no other. I maintain that life is *not* a form of energy; that it is *not* included in our present physical categories; that its explanation is still to seek. . . . . It appears to me to belong to a separate order of existence, which interacts with the material frame of things, exerting guidance and control on the energy which already here exists. I perceive as a fact that life is itself a guiding principle—that is, that a live animal does guide or influence the elements of inorganic nature.

Sir O. Lodge views life as being neither matter nor energy but something belonging to a different category; that, though able to interact with the material world, it can also exist independently, though then it is not apprehensible by our senses. It depends on matter for its manifestations to us now, but it is otherwise independent, and it is subject to a law of evolution, either in its phenomenal or its occult state. The essential property of energy is that it can transform itself into other forms, remaining constant in quantity, whereas life does not add to the stock of any known form of energy, nor does death affect the sum of energy in any known way.

It seems to me that neither side proves its premisses, but merely makes dogmatic statements of what it imagines is the truth. If we allow that mind, consciousness, emotion, will, etc., do exist, but in a form of whose laws and nature we are ignorant, what is the use of denying that these agencies may interact in a way akin to *x* rays, or the unseen waves of wireless telegraphy—why deny telepathy or the statements of different observers as to "revelations" that have been made known to them?

If we once acknowledge a form of life as to which we recognize only that it has power of guidance over the material around us, we must allow that it may have possibilities and powers beyond anything that we can conceive, at the same time owning that, since we can only speculate about it and have nothing tangible, it is useless to try to harness it, because we cannot generate it; nor do our so-called "laws of thought" teach us much about it. We talk about the laws of similarity and of contiguity, and of the law that every mental impression has its idea (Hume); again, we have the laws of logic, or the process of arguing correctly; and the laws of ethology (Mill), or of character; but after all these are only deductions or abstractions from the mode in which we observe the action of a hypothetical force, or energy, or phenomenon (call it what we will), of the real nature of which we know no more than we do if asked what is an electric charge, what is the difference between positive and negative electricity, what is the internal structure and constitution of an electron?

Before we can understand the most recent speculations as to the nature of mind and matter we must have a clear idea of the meanings of the terms used in the discussion, and of the way in which radio-activity is supposed to occur. I am afraid that we shall find ourselves little better off when we are told that an atom of hydrogen consists of 350 positive and 350 negative electrons, and that these electrons constitute the fundamental substratum of which all matter is composed. The simplest conception of the material universe is that there is one universal substance—ether—perfectly homogeneous and continuous, and simple in structure, extending to the furthest limits of space, existing equally everywhere, some portions either at rest or in simple irrotational motion, transmitting the undulations which we call light; other portions in rotational motion, that is to say, in vortices or whirls, and differentiated permanently from the rest of the medium by reason of this motion. These whirling motions are called matter; their motion gives them rigidity—like the chain of a bicycle in motion—and of them our bodies and all other material bodies are built up.

The most characteristic property of matter is mass or inertia, and the definition of "inertia" is that property of matter by virtue of which it retains its state of rest or of uniform rectilinear motion as long as no foreign source changes that state. An electric charge has mass or inertia, and the electric theory of matter is nowadays the only way in which matter is viewed. The whole of the atom may be supposed to be built up of interleaved + and − electrons and of nothing else. The oppositely-charged electrons are thought to be flying about inside the atom, occupying the otherwise empty region of space which we call the "atom."

An electron is the most definite and fundamental unit in Nature; it is the smallest known unit of electric charge. Every atom of matter can have associated with it a certain definite quantity of electricity called the ionic charge. Some atoms can have more, but none can have a fraction of this quantity which is an ultimate unit. Now suppose the charge of electricity usually associated with a single monad of matter were concentrated into a spherical nucleus $\frac{1}{100000}$ of the diameter of the atom its mass (that is, the mass of the charge of electricity) would be the $\frac{1}{1000}$ of that of the hydrogen atom, the lightest atom known. This hypothetical concentrated atom is an electron, so that if an electron were a sphere 1 in. in diameter, the diameter of an atom of matter would be one and a half miles.

An atom of matter possessing a negative electron in excess is called a negative ion; an atom of matter with one electron in defect is a positive ion. These ions—that is, these atoms of matter possessing electrons in excess or in defect—can travel, and each kind of matter has an intrinsic ionic velocity. The electrons can exist separately, and when released from the atom they fly away; coming from the negative pole, they are termed cathode rays. When stopped suddenly by a massive obstacle they give rise to x-ray radiation. An atom of hydrogen is composed of 350 + 350 electrons; an atom of radium of 160,000 of these electrons. It is confessed that the chief defect in the electrical theory of matter is that the + electron has never been isolated from the rest of a matter-atom.

According to Rutherford radio-activity is the flinging away with great violence of actual atoms of matter, full-sized atoms, which are charged positively, ionizing the air which they bombard and generating heat wherever they strike—they are one hundred times faster than the fastest flying star, and are the fastest moving matter known. This seems to have been actually and experimentally determined.

Rutherford also found that it was *not* the radio-active substance itself which was evaporating. The atomic weight of radium or of thorium is high (200), that of this thrown-off substance is low (1 or 2), and it is most likely hydrogen or helium. The substance left behind in the radio-active substance is volatile—it slowly diffuses away, and behaves like a gas. It can be stored in gas-holders, it condenses, and is itself radio-active. Its radio-activity consists in throwing away particles of itself, leaving yet other residues, one of which ultimately pitches away electrons simply. The physicists hold that this shows that probably the barriers between one species of matter and the next are not infrangible and absolute, but that temporary transitional forms occur. The hypothesis of radio-activity, then, is that an infinitesimal proportion of the atoms is constantly breaking up, throwing themselves very violently at about one-tenth the speed of light; the remainder constitute a slightly different substance very unstable, and therefore radio-active, going through its stages more actively than radium itself, and giving rise to fresh products of its own decay. A radium atom is not hot, but it has a great store of potential heat, and the collapsing of the electrical constituents of a radium atom by so little as 1 per cent. of their distance apart can supply the whole energy of the observed radiation for 30,000 years. These changes in the more stable elemental atoms required millions of millions of centuries. In such a time as this, at the rate of 100 atoms a second thrown off, a kilogramme—2 lb. of matter—would have drifted away! Existing matter takes its rise thus: Electrons of opposite signs fall together, at first into a manifestly unstable form; these forms then pass from one to another, giving a process of involution of thousands of years.

I have placed before you the modern views of mind and matter, which seem flights of imagination; they are based on some pure facts which appear to be proved, but for the chief part purely speculative and unproved.

In my book, *Ex Cathedrâ*, I have dwelt upon the possibility of the existence as realities of phenomena which have been up to now scouted as imaginary or hysterical suggestions at the best, if not downright lies of the narrators, and I have given instances of alleged manifestations by trustworthy witnesses, which admitted of no other interpretation than that they had for the time been the recipients of impressions which transcended their receptabilities under ordinary conditions and of the general experience. I do not profess to understand them, and I am not helped by the modern theories which have been stated. As a teacher, I have for many years felt the necessity of emphasizing the explanation of psychical processes by variations in the physical structure, in the absence of any attempt to extend the doctrines of physical science to the realms of psychical or spiritual phenomena—feeling all the time that one's position was precarious, that it was in all probability a temporary expedient, and that in the course of evolution we should be introduced to a chain of processes proving that the spiritual and the corporeal are really subject to the same laws and that there is no longer any more mystery in the incarnation of the Psyche than in any other histological activity. Is there any reason for thinking differently now? Must there still be a doctor for the body and a theologian for the mind? It seems as if the barrier had been seriously attacked and was in process of slow but sure demolition. Have we not been working on different sides of a wall placed on the sand without any solid foundation, and does not the modern tendency to show that with the blasting of the obscuring partition the two sides will be proved to be linked together in one harmonious progression, incomplete perhaps in detail but indicative of a fusion of hitherto contradictory processes—or at least of processes with no common denominator, and therefore impossible of comparison?

The physicist must go forward, the psychist must go back to meet him, and the junction of the two will be effected when the former has made it clear that he can by experiment produce a sensation, an emotion, an idea, or an act of will or guidance, any mental atom that you like to name, out of corporeal elements. There are two bridges to be crossed, one between the inorganic world and the organic, the other between the corporal and the spiritual body.

The recently-discovered phenomena of radio-activity, of x rays and cathode rays, and the fact that all bodies exhibit radio-activity have, however, had the effect of making it apparent that forces are at work of a hitherto unsuspected power, and have set up a belief in the actual reality of phenomena and processes which are, though still inexplicable, yet deemed worthy of acceptance as real.

The brain is different from most of the other organs in that there is no apparent connexion between the organ itself and the result of its working. There is no chemical substance elaborated—nothing to show us, indeed, that it is acting at all except that we can by direct stimulation get some movements in the muscles, or some action on glands and other viscera; and it is almost easier to conceive that the brain is a mere means of the interpretation of the processes which we call mind than it is to understand how mind, as we know it, is the result of action of the brain.

Of what use is the brain and nervous system if not for the production of quick motor reactions and adaptations, some of them reflex and others requiring idance? It has not been proved that there is a neces-ry chemical correlation between the brain and other gans of the body so that the production by the former a certain chemical product is necessary to the proper nctioning of the latter—in the sense of chemical correlation of the functions of the body as illustrated by rofessor Starling in his recent Croonian Lectures—but it certain that brain is necessary for the manifestation of ind, and there is no more difficulty in conceiving that ind is something apart which acts through brain than ere is in conceiving electricity as something quite stinct from the substance through which it acts. We know no more of the actual nature of one than we of the other, but just as the manifestations in different odes and degrees of the force of electricity have of late en made more apparent to us by using modifications of atter, so it is fairly reasonable to affirm that we have rough modern research a right to say that there are ounds for the belief that mind is now demonstrable in rms hitherto denied, and that these forms may be ex-ained to be of the nature of radio-activity. It is, then, asonable to believe in telepathy, or the influence of one ind upon another at a distance, the influence being termined by the particular nature of what we may term ind-ionization, just as in wireless telegraphy the proper nd of transmitter and receiver are necessary for demon-ating the unseen influence which has been working on e attenuated matter between them.

If radio-activity is a fact for all substances—and the ysicists say that it is—there must be conditions in ich it can assert itself, which are dependent upon the ture of the material for transmission, and of the eivers and transmitters, and though we may not agree th the possibility of prediction or prophesying, we may t accept as facts the reported incidents of many called mind manifestations, the truths of which have en obscured, and perverted in too many instances by pudent quacks.

But if even so much be allowed we are not practically ich further than we were. If mind is simply a modifica-ns of electrons in whorling vortices, how are we to treat at are called the diseases of mind? What we call ind" is an artificial term for the manifestations of ne substance of which we confessedly know nothing. speak of diseased or disordered memory, imagination, l, etc., as perverted material entities can mean nothing the absence of a definite knowledge of what memory, l, etc., are; we cannot speak of disordered electricity. we notice anything wrong with the manifestations the latter, we look for rectification to the medium these manifestations, the wire or other of the technical ompaniments, and if we notice anything wrong with manifestations of mind we must look to the body. have still to deal with the agent and not with the ncipal. Is there anything in hypnotism, personality, ught-reading, etc., to make us conclude that certain ple have peculiar powers denied to others? Nothing ll. People are apt to forget (many of them do not w) that in the condition known as hypnotism it is the ject himself who gives himself away; it is not that the notizer passes over any influence to the subject, but it he latter who brings himself into a condition of fatigue of mono-ideism. Again, in what is called the sonality or individual force of certain persons, it is the nbers of the company who give themselves up to what y have elsewhere seen or heard. The individual does pass on any influence; we know, for instance, t thought-reading is merely an acute interpretation of h impressions. As practical men we must confess to ing seen instances of what is called strong will power ndividuals. Over and over again we see strong bodily ven ideal temptations or feelings overcome by persons se motives enable them to fight and eventually to come sensual promptings, though the process may be ious and painful. But even here the will or guiding er may be shown to be the result of previous percep-s of a pleasant or painful character.

hat conclusions can be drawn from these new data as ny influence on our practice in the treatment of mental ase? If we are convinced (as I think we must be) at present we know nothing of mind except through litions of the body, that it seems to depend for its er or improper manifestations on conditions of the y, and that we have no evidence that it is a tractable substance or even that it exists apart from the body, we must continue to treat those organs of manifestation about which we do know something—the nervous and the other parts of the bodily system—confessing that we are no nearer the true conception of the spiritual than we ever have been, though we may believe that there is a direct continuity between them which may possibly some day be elucidated.

In his article on Attention, Professor Sully alludes to the possibility of the recurrent outward projection of objects which have previously been perceived by the sensory organs; thus he would allow that a person who has once perceived an object—for example, another individual, or a landscape—may by intense concentration so excite the perceptive centres that a representation is made in the absence of the primary representation. Thus a subject under strenuous conditions might resee in all vividness and accuracy some object which, however, he would not be able to confirm by the evidence of other senses. I can imagine the possibility of such a central excitation, and I think that I have seen this intense representation in the apparent reality of some of the hallucinations and delusions of the insane. In dreaming the reality of the images seems overwhelming, though the non-reality is shown directly we are awake, but it must be noted that even here such images as appear are confined to previous actual appearances, no one ever dreamt anything of which he had no previous experience, and therefore the so-called phenomena of spiritualistic *séances* must (if they are true) be merely reproductions of the individual, and of his *past* experiences too—they cannot reveal anything which he did not know already, and if prognostics are made they must be merely guesses or reasoned probabilities on the part of the medium. The future is hidden from us, and this must be so because we seem to have evidence that mind without the body is undemonstrable, and body and mind, as we know, can only make a limited forecast, since we do not possess the materials on which alone true judgements can be based.

Mind is not the same thing as life; we can have the latter where there is no sign of a nervous system, and, as far as we know, there is no manifestation of mind without the presence of a nervous system. If mind is something separate from the body, can it show itself in any other way than through the body? I mean, is there any other material structure than the brain and nervous system which can be made to be the medium of manifestation of a mind or spiritual essence? As far as we know there is not. Can we conceive that the material of the brain and nervous system necessarily implies "mind"? That is, can it act in any other way than by showing what we call mental processes? Is it sufficient for a nervous system to arise to postulate the necessary rise of "mental" phenomena? If so, then mind is a necessary accompaniment of living nerve matter; the two arise together, and are inseparable. Mind becomes, not secondary to, but an essential part of, material, and cannot exist without it, and when the material dies the mind must cease too. A disordered brain is practically a partially dead brain, and therefore cannot show any true mind. What we see in diseases of the brain are manifestations of what is left of the sound tissue; therefore the ravings and incoherences of the lunatic are not diseased manifestations, but are what we may call the unbalanced remnants of runaway tissue, true in themselves but dangerous to the individual and to society, because the harness is broken and the guiding power inert.

In conclusion, I would say that though there is more evidence of things unseen than there was, there is yet the feeling that the transition from the inorganic to the organic, from the corporeal to the spiritual, has still to be proved; in short, the real nature of life is as far from our comprehension as ever, and in our endeavours to keep the life in a man we are still confined to regarding the errors of mechanism.*

---

* In printing this lecture some passages have been omitted.

DISINFECTION OF CONFESSIONALS.—On the advice of the Council of Hygiene the Mexican Government has ordered that the confessionals in all the churches of the city of Mexico must be regularly disinfected, with the object of preventing the transmission of infectious or contagious disease. They are used by crowds of persons of both sexes and might easily become contaminated. Priests disobeying this order or showing negligence in carrying it out are liable to imprisonment.

GENERAL CONVULSIONS IN EARLY INFANCY INDUCED BY THE TAKING OF FOOD,

AND THEIR BEARING UPON PYLORIC OBSTRUCTION IN THE INFANT.

BY EUSTACE SMITH, M.D., F.R.C.P.,
SENIOR PHYSICIAN TO THE EAST LONDON HOSPITAL FOR CHILDREN.

IT is a familiar fact that in early life convulsions of reflex origin and often of little moment may arise from trifling irritation acting upon the periphery of nerves in various parts of the body. In infants the alimentary canal is the most common seat of this irritation, and a general convulsive seizure induced by the pain and irritation of teething or by a meal of indigestible food is a matter of common experience with every one. It has happened to me to meet at rare intervals with a case in which a healthy infant has been thrown into violent fits a few minutes after taking a meal of some simple food which an ordinary child, even the youngest, would digest with ease, and this without the seizure being preceded by vomiting, crying, or the slightest sign that the food did not completely agree.

The first instance of the kind which came under my notice, and made a strong impression upon me, was in a baby of a few weeks old, the child of a hard-working and experienced practitioner, who was naturally much alarmed and perplexed by the singularity of the case. Since its birth the infant, although fed with judgement, had fallen into strong convulsions a few minutes after taking his bottle, and the fits had been repeated with the utmost regularity after each meal. At the father's request I went to his house to see the child. I found a seemingly healthy and well-nourished infant, who looked comfortable and placid, and appeared to be in every way in a normal state. The child was being fed upon Swiss milk and water. He was given in my presence about an ounce of this mixture, which he sucked from his bottle with apparent enjoyment. He finished his meal, and the bottle was replaced upon the table. The child then closed his eyes and appeared to be sinking into a quiet sleep, when in about two minutes he began all at once to twitch in the face; then to jerk his limbs in violent convulsions; his chest became fixed; he ceased to breathe; his complexion turned darker and darker; then he stretched himself out with a slate-blue face, and lay quite still. We did what we could to re-establish respiration, but without any success; the child was dead. The whole attack did not last longer than thirty seconds, if it lasted so long. This distressing experience occurred many years ago. Since then I have seen some four or five other cases of the same kind, although without the same tragic ending, and found that with ordinary treatment and some help to the digestion the attacks could be brought quickly to a close. All the cases have been in hand-fed babies, and have presented exactly the same characters. The patients have all been healthy-looking infants, well-nourished and apparently strong, not peevish or fretful, or sufferers from abdominal discomfort or other sign of indigestion, but who after each meal of the simplest food were thrown without any warning whatever into strong convulsive fits. The peculiarity of the cases is, of course, the complete absence of any sign of uneasiness between the end of the meal and the beginning of the seizure. If I had not seen with my own eyes that this could be so I do not know that I should be able to believe it; but having seen it I am sure of the fact.

I have brought these cases forward, not for their own sake, although their interest is not to be denied, but because they seem to me to throw a strong light upon the mechanism of pyloric obstruction in the newborn infant. There are some who hold that this contraction is a congenital lesion, that the infant comes into the world with a thickened and narrowed pylorus. Others, with whom I agree, look upon the contraction as due in the beginning to a reflex spasm of the pyloric wall induced by the taking of food, and believe that the continued repetition of the contraction determines a hypertrophy of the muscular layers which encircle the opening. That the signs of obstruction are often absent at birth, and may not appear until an interval of some weeks has elapsed is a strong argument in support of this view.

I submit that the cases I have just brought forwar furnish a practically conclusive argument in favour of th spasmodic theory. If such mild irritation as is caused b the mere presence of food in the stomach can induc general convulsions in an impressionable child, wh should it not be able to set up a local spasm of th pylorus? It has happened that the local spasm has bee actually conjoined with general convulsions, as appear in a case published by Dr. Walter J. Harper,[1] a ver characteristic case which ended in recovery. If thes nervous manifestations can occur together, surely the may also occur independently of one another.

The tendency to local spasm in infants is a fact univer sally recognized. A common example of it is laryngismu stridulus. This laryngismus may occur alone, or it ma be complicated with general convulsions, or even alter nate with them. It may be said that if pyloric obstruc tion were due to local spasm induced by gastric irritation the cases of general convulsions I have instanced abov should all of them have been complicated by spasm o the pylorus; but this does not necessarily follow. T take laryngismus again. This local spasm is commonl the consequence of post-nasal irritation, and can be put stop to by treating the post-nasal catarrh. General con vulsions may also be induced by post-nasal irritation, a I have seen again and again; but either may occur withou the other, although the irritant capable of exciting then is the same. So I see nothing unreasonable in believin that gastric irritation may set up general convulsion without pyloric spasm, or pyloric spasm without genera convulsions, or both together.

REFERENCE.

---

[1] *Lancet*, August 19th, 1905.

THE INFECTIVITY OF ENTERIC FEVER.

BY
WILLIAM WRIGHT, M.D., D.P.H.CANTAB., SENIOR ASSISTANT M.O.H., GLASGOW.
and
WM. ARCHIBALD, M.B., CH.B., D.P.H.CANTAB., JUNIOR ASSISTANT M.O.H., GLASGOW.

SPORADIC cases of enteric fever are of almost daily occu rence in all large cities, the source of infection in eac instance seldom, if ever, being ascertained. Occasionall outbreaks of enteric fever occur, due in most instance to a contaminated water or milk supply. The followin seven cases, however, are of interest, and worth recordin in illustration of the extent to which personal infectio plays a part in the dissemination of this disease.

Name.	Age.	Residence.	Situation.	Date of Sickness.	Date of Removal.
L. R.	7½	All same address	3 up, 1st R.	Feb. 3, 1906	Mar. 2, 1906
M. C.	9		1 up, 2nd R.	Feb. 16, 1906	" "
D. C.	4		" "	Feb. 23, 1906	" "
N. A.	9		1 up, 1st L.	Feb. 25, 1906	Mar. 4, 1906
S. S.	8		2 up, 1st L.	Mar. 4, 1906	Mar. 9, 1906
B. C.	1½		1 up, 2nd R.	Mar. 9, 1906	Mar. 12, 190
T. H.	3½	Next close	2 up, 2nd R.	Mar. 5, 1906	Mar. 8, 1906

It will be seen that L. R. suffered from an indefinit illness for thirty days before removal. She was not so il as to compel her to take to bed throughout, occasionall being up, when she associated at play with the other above mentioned. In point of fact, the day before he removal to the Infectious Diseases Hospital her mothe not being satisfied with the child's condition, had take her to one of the dispensaries in the city. The matte was reported by the dispensary to the Health Depart ment, which thus put us on the track of the others.

The dates of sickening of the other six support th view that all were infected from L. R. They all attende the same school, but occupied, with the exception of M. and N. A., different class-rooms, and, no other cases enteric fever having occurred in connexion with thi school, it is not to be considered a factor in the propag tion of the disease. The milk supply, likewise, in a instances, was from a different source.

All the cases occurred in the same tenement—six in th one close and one in the other. The block is of four flat composed of dwellings of two apartments—four on eac flat—one w.c. serving for all four families. All th tients were under 10 years of age, and were playmates, eir playground being the lobbies and stairs. The view at the waterclosets may have served as a source of in- tion is negatived by the fact that none of the adults wenty-eight in number) resident in those three flats re attacked, and it is not thought that the situation of e houses in respect of their water supply, some being aced on different sides of the stair, was a factor in the usation. The evidence points strongly to personal in- tion during play, and, this method of spread of enteric ver being comparatively rare, it was deemed worthy to ace these cases on record.

UCCESSFUL AMPUTATION OF THE LEG AT 94 YEARS, WITH AN ACCOUNT OF A NEW OPERATION.

By C. W. BRANCH, M.B., C.M.Edin.,
MEDICAL OFFICER, COLONIAL HOSPITAL, ST. VINCENT, B.W.I.

is not often that a simple amputation of the leg esents features which call for a special report, but the e of my patient and the excellent result are sufficiently teresting, I believe, to justify a publication of this se.

I shall take this opportunity, also, to describe an eration which seems to have elements of utility. I ways perform it where great rapidity is desirable, and e leg is spare enough to permit of it.

The left hand seizes the outer side of the leg at the int of section of bone, thumb to the front. The skin er the tibial surface is drawn forcibly outwards, the int of the knife is made to enter at the edge of the tibia, aze the fibula, and emerge as far inwards as possible on e back of the leg, and a flap is then cut downwards.

On releasing the leg the front of the incision flies wards, so that it is now possible to enter the knife and ar the tibia to reach the point of exit behind, and cut e internal flap, which should equal the external.

With the catlin a semilunar periosteal flap is cut from e front of the tibia, and quickly stripped upwards, the nes cleared, and the saw entered first obliquely, then aight, in the usual way, so as to take off the front rner of the tibia. This point of bone is in the anterior gle of the wound, but being covered by the periosteal p never becomes adherent.

Two acupressure pins (devised by Dr. W. J. Branch and alogued by Arnold and Sons) are inserted between the nes crosswise, so that the anterior and posterior tibial eries lie in the opposite angles. A stout silk is now und by figures-of-8 so as to close the pins together and mpress the arteries. The pins are slightly withdrawn m their cannulae, so that the points are hidden, and the urniquet removed. Two sural vessels in the heads of gastrocnemius usually require ligature, and nothing mains but to suture, leaving the heads of the pins and end of their silk protruding from the anterior angle the wound. The pins are removed about three or four ys after, and the silk, then loose, easily comes away.

In this way I have removed a leg in twenty-one minutes, luding chloroform and bandaging. The actual amputa- n takes two minutes.

In all amputations at the seat of election I cut equal eral flaps, usually by a racquet-shaped incision. Lately modified this by making the incision from a shallow rve upwards on the back of the leg, so as to give a unded stump when the flaps are brought together, stead of the prominent nose formed by the simple quet incision. I always make the periosteal flap. My tients can only obtain common peg legs, and the posi- n of the scar on the face of the stump is of no account. t the resulting stump is usually so good that I believe would suit any form of artificial leg. I have amputated the seat of election fifty-one times in the last four ars.

Case.

. L., a negro, aged 94 years. The age of a West Indian gro is often a doubtful quantity, but in the present instance was fixed by the fact that she was born one month before volcanic eruption of 1812.

he patient is quite deaf and nearly blind, but physically ong and active. She used to live alone and do all her own pping and cooking. On February 1st, 1906, she was knocked vn by a cart and sustained a compound fracture of the lower third of the leg. I was informed of this by telephone, and by the time the patient arrived all preparations were complete. She was at once placed on the chloroform table, and the skin prepared with lysol soap and ether and packed with sublamin.

The leg was removed by double transfixion as detailed above. Pins were not used. There was great tendency to ooze, though there was no atheroma of vessels, and no less than seven ligatures were used (sterilized silk). Dry sterile swabs were used and the wound flushed with sterile normal saline. The wound was closed accurately with silk and dressed with plain sterile gauze. Chloroform was begun at 1.02 p.m. and the operation at 1.11 p.m.; amputation was completed at 1 14 p.m., and bandaging at 1 32 p.m. The whole operation therefore took thirty minutes, and the patient was in bed an hour after the accident.

Owing to continued oozing the stump was reopened the same night under chloroform. Clots were cleared out, but no bleeding point was found.

There was no shock. The wound healed aseptically. A small spot of gangrene appeared on the skin of the knee over the inner side of the tibia. This formed an ulcer as big as a shilling, which, however, did not affect the progress of the recovery.

The patient was discharged well on March 6th, 1906, thirty-four days after her accident.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL.

THE BEHAVIOUR OF ETHYL CHLORIDE.

The following case may help to throw a little more light on the behaviour of ethyl chloride as a general anaesthetic. The patient was a male, aged 38 years, heavily built and well developed, 42 in. round the chest in the nipple line, and weighing 14 st. There was a small tidal wave, but otherwise he was healthy.

In February, 1905, he had a large perirectal abscess evacuated under ethyl chloride and chloroform. The ethyl chloride was given in a single dose of 3 c.cm. in a Swan's inhaler without admission of air. No difficulty was experienced, the whole time taken being twenty minutes.

In the following April the resulting fistula was to be operated on. The patient was prepared in the usual way. Ethyl chloride was given as before, but without getting the patient under its influence, whereupon 3 c.cm. more was sprayed into the bag, making 6 c.cm. in all.

The patient was coughing, but not struggling. When the conjunctival reflex was absent the inhaler was removed and a Skinner's mask applied. The patient suddenly stopped breathing (about half a drachm of chloroform had been dropped on the mask). His tongue was pulled out, and his larynx examined with a finger. There was no jaw spasm or cyanosis and the pulse at the most was 80 per minute and full. The chest was fixed, and the pupils, at first widely dilated, settled down to midway dilatation. At first there was no discolorment, but afterwards he became cyanosed. There was remarkable rigidity of the body and limbs, so much so that Sylvester's method of artificial respiration was impossible, the abdominal wall was as rigid as a board. The method employed was to put the patient on the floor, and fall on his thorax with outstretched hands, together with rhythmical tongue traction. For ten minutes this was practised, his pulse remaining remarkably good. He then began to breathe automatically. During the actual performance of the artificial respiration, very little air, if any, could be forced into the lungs owing to the rigidity of the chest wall.

On returning him to the table he again stopped breathing. The previous treatment was again commenced. He was now becoming cyanosed. There was no twitching nor movement of the eyes. Liq. strychninae hydrochlor. ℳxx was then given in two doses at five-minute intervals, and in fifteen minutes the patient began to make spasmodic efforts to breathe. He was very deeply cyanosed, almost black in colour; his pulse was still to be counted at the wrist, being about 140. A capsule of amyl nitrite was inhaled as soon as natural breathing began.

He was left lying on the floor wrapped in hot blankets, and in twenty minutes he expressed himself rather sore about the ribs and tongue, but otherwise well. The only other after-effect was severe headache, which the large dose of strychnine would account for. The operation was subsequently performed under gas and ether without trouble.

I hope this account may prove of some interest, showing in this case definite symptoms of overdose, although the amount given was not a large one.

F. HERBERT WALLACE, M.R.C.S.Eng., L.R.C.P.Lond.,
Anaesthetist to the Tottenham General Hospital.

INFLAMMATION OF THE APPENDIX CAUSED BY A FOREIGN BODY.

AUTHENTIC instances of foreign bodies causing an acute attack of inflammation of the appendix are so rare that the following seems to me to be worth recording:

The patient was a lad, 16 years of age, under the care of Dr. J. F. Johns of Cheltenham. On April 27th he was perfectly well. Late that night he complained of "stomach-ache." The pain growing worse he was given a dose of castor oil, which made him sick. Characteristic signs of acute inflammation of the appendix developed rapidly, the only point worthy of note being the fact that the pain almost from the first was localized in the right iliac fossa. The period of general abdominal discomfort which usually precedes the local symptoms was very short, if present at all. The operation was performed on April 30th. A small quantity of offensive pus was found around the appendix, which was perforated near its tip. The proximal end of the appendix was contracted. Its surface was slightly reddened, but in other respects it appeared to be very little changed. The distal end was thin-walled, much distended, and intensely inflamed. On slitting it up the mucous membrane was gangrenous, and near the end was an irregular, ragged opening extending through all the coats. The line of junction of the two portions of the appendix was sharply marked, and just at this spot the cavity was blocked by a small sultana raisin, softened and swollen so that it was considerably larger than the part of the appendix through which it must have passed. There had not been any previous attack, and there were no adhesions. The meso-appendix was short, but the appendix itself was not twisted or kinked in any way.

On inquiry it was found that the patient had eaten some cabinet puddings containing sultanas, hot on April 26th and cold on April 27th. Previous to that he had not eaten anything containing sultanas for some days, long enough to make certain that they would have been digested before the 30th. The initial pain, therefore, on the night of April 27th was in all probability an attack of appendicular colic caused by the entry of the raisin into the appendix in which it swelled up; in this instance it seems impossible to avoid the conclusion that the foreign body, by getting into the appendix and blocking it, furnished the starting point. The septic organisms which were present in the space beyond did the rest.

In the many hundred cases in which I have operated, I have once found a grape stone, once a shot, and once four shot, but in none of them was there any evidence that the presence of the foreign body had anything to do with the attack. It was a mere coincidence. The present instance is peculiar not only from the fact that the foreign body was the cause, but that the actual time at which it entered the appendix could be fixed with a reasonable degree of accuracy.

C. MANSELL MOULLIN,
Senior Surgeon and Lecturer on Surgery
at the London Hospital.

DIABETES IN INFANTS.

WITHIN the past twelve months two cases of diabetes mellitus in very young infants have come under my observation. The disease is stated to be relatively uncommon in childhood and rare in infancy, but whether it is so rare as is usually supposed may be open to doubt. Until within the past few years little trouble has been taken in collecting statistics in this country. C. Stern obtained evidence of 117 cases in children under 15 years of age; in only 10 were the children under 2 years old. Heredity played an important part in causation in the series, and gastric catarrh was prominent. Wegeli, who studied 108 cases in children, notes that few occurred under 5 years of age, the proportion over that age rapidly increasing. As causes he mentions traumatism, dentition, chill, rapid growth, insufficiency of and badly selected food, and emotion. Grosz states that in his cases aggravated gastro-enteritis and dyspepsia were probabl the causes. Saundby says it may occur at any perio of life and notes that in the report of the Registra General for 1886 out of 1,634 deaths from diabetes only seven were classified as under 2 year of age. All agree that in young children it is exceedingl fatal. My cases were male infants, each 2 years of ag and the leading symptom was rapid emaciation, with dry, parchment-like skin. Polydypsia and polyuria wer not conspicuous, and the skin was nowhere excoriate None of the parents were diabetic, nor had any of th infants received injury to the head. Their food was tha which children usually get—namely, good milk with sufficiency of starchy matter. One could not say th latter had been given in excess. On first seeing thes children I had little hesitation in concluding they wer tuberculous, so very close was the resemblance, but o more careful inspection doubt arose. There had been n temperature, cough, vomiting, diarrhoea, or constipation The abdomen, though large and prominent, was always soft and pressure elicited no sign of pain or uneasiness In one of the cases I observed that on being brought int the room the child gazed about until the eye was arreste by a cup or any other vessel, and then kept it steadily there. On inquiry the mother told me it always did s and on the strength of this I examined the urine. Th specific gravity was 1050, and contained 8 per cent. o sugar. In any case of emaciation or malnutrition in child of any age it is clearly one's duty to investigate fo diabetes. Most of us can surely recall cases of infantil "marasmus," the causes of which were not satisfactoril apparent to us. May not some of them have been diabete mellitus?

Berwick-on-Tweed. C. L. FRASER, F.R.C.P., F.R.C.S.Edin.

EXTROVERSION OF THE BLADDER.

WHILE reflecting over the cases of operation for extroversion of the bladder lately published by Drs. Newland Lendon, and Bond in the BRITISH MEDICAL JOURNAL, i occurred to me that there is a comparatively simple wa by which the infection of the ureters from the rectum could be avoided. Briefly it is this:

1. Perform a left inguinal colotomy, the gut being wel pulled down to avoid prolapse, and being brought t the surface in a manner somewhat similar to Franks' gastrostomy.

2. Subsequently close completely the upper end of th rectum, or sigmoid flexure, and simultaneously or later—

3. Implant the ureters in the rectal wall.

I am aware of the nuisance of an inguinal anus, bu surely what is merely a nuisance is preferable to what i a danger.

Upham, Hants. JAMES C. HOYLE, B.S., M.R.C.S.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN TH HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

WEST LONDON HOSPITAL.

CASE OF TETANUS: RECOVERY.

(Reported by A. SCOTT WILLIAMS, House-Surgeon.)

THE patient in this case was a schoolboy, aged 11 admitted under the care of Mr. Aslett Baldwin at 10 p.m on November 3rd, 1905. The account given was that on October 21st the patient, when playing football, fell and grazed his right elbow in two places. Ten days later he had a "stiff neck," which his parents considered to be rheumatism. During the following day the "stiff neck" grew worse; thereon he was taken to Dr. Egmont Kirby of Chiswick, who sent him to hospital as a case of tetanus.

Condition on Admission.—The boy was quite conscious and able to talk, though his utterance was indistinct owing to stiffness of jaw muscles. He could only open his mouth to an extent sufficient to admit a thumb. The head was slightly retracted, the neck muscles very tense, and the back muscles of the spine so rigid that he could not sit up, nor, his parents said, could he stand. The abdomen was board-like, the legs could be moved by the patient, but only stiffly, and with con-ted muscles. The arms could be freely rotated by the ent, and the chest moved, but badly. The intercostal cles were hard, and respiration chiefly diaphragmatic. was sweating profusely. On the right elbow were two med places, the size of a shilling. No fluctuation was ined. There were inflamed lymphatics leading to enlarged ds in axilla.

eration.—This case was under Mr. Baldwin, and as soon as ad seen it he ordered the boy to be taken to the theatre at , and at 10.30 p.m. he was anaesthetized with chloroform. fronto-parietal regions were shaved and made aseptic. ncture was then made down to the bone of sufficient size dmit a bradawl, and the skull trephined. Through this ing a large hypodermic needle was passed, and a 5 c.cm. streptococcic serum (Allen and Hanbury) injected slowly ty minutes), and a like injection was made simultaneously he opposite side. Meanwhile the wounds on the right w were incised crucially, and scraped with a Volkmann's n, the raw surfaces being dabbed with pure carbolic acid. olic acid, 1 in 20, was injected round the wounds and g the inflamed lymphatics. The enlarged glands in the a were removed. The patient being then rolled on to his side, Mr. Baldwin injected eucaine gr. $\frac{1}{6}$ into the spinal l through a lumbar puncture, some spinal fluid having been withdrawn.

ogress.—He was removed to bed at 12.5 a.m. on mber 4th, and at 5 a.m. the injection of antitetanic n, 10 c.cm., was begun hypodermically, while also he was pot. brom. gr. xx and syrup of chloral ʒj by the mouth, reatment being repeated every four hours, and injection rbolic acid (1 in 20) ♏ v being made at the same intervals. ad had five attacks of spasm between 12.30 a.m. and 4 a.m., ain being referred to the abdomen. The attack at 2 a.m. the severest; its duration was about four minutes. At . he was sponged, and had another attack of spasm, also .m. when he took his medicine, and at 5 p.m. when serum njected. In the evening a lumbar injection of eucaine was made. After recovering from the anaesthetic he spasms at 8.20 p.m. and 8.50 p.m. At 9 p.m. he had hotonos for about two minutes. An injection of morgr. $\frac{1}{4}$ was then made, and he slept till 11 p.m., having as on waking.

ring the next twenty-four hours one injection was missed idday, but otherwise the treatment was continued as e. He had attacks of pain but no severe spasms except at . In the evening he complained of pain in his chest and He takes his milk, but unwillingly; morphine gr. $\frac{1}{4}$ was in the evening.

vember 6th. On this day the carbolic acid injections were ed in volume. The bowels, confined since admission, opened by oil and soap and water enema. The amount loral in his mixture was doubled. As at midnight the tended to be intermittent, he was given tr. digitalis four hours. He had two spasms during the day, but bdominal and intercostal muscles were generally less At 12.15 a.m., 7th, given morphine gr. $\frac{1}{2}$.

ember 7th. He was crying in the afternoon, and there tendency to pleurosthotonos to-day. He took all drinks him, and at night the morphine was reduced to $\frac{1}{8}$ gr.; rbolic acid and serum injections mixed began to be given.

ember 8th. He slept fairly well but in the evening had attacks of pain, during which he rolled on his left side ead and neck retracted, and cried out.

ember 9th. An antitoxin rash appeared on the thighs, he injections were stopped. Discharge from the axilla l had almost ceased. Bowels opened by enema. The ine injection was dropped.

ember 10th. Though he had a restless night, he had fewer s of pain, and the abdomen and neck were both less

next three days the improvement continued, and on the the digitalis was dropped, and minced meat allowed, as ld eat solids.

ing the next week the stiffness about the jaws and neck ued to diminish, and on November 21st he was given a , while the chloral bromide mixture was gradually ed.

ult.—He continued to improve, the antitoxin rash dising, and by the end of the month he could sit up when d, and lift his head, though but stiffly. A week later he walk about, and he was discharged on December 10th. he was seen in the out-patient department; he could almost with natural ease and quickness.

ARKS (by Mr. Baldwin).—This case shows what a quantity of antitoxin can be given with safety. The d 10 c.cm. every four hours from November 4th to ber 9th. The amount of carbolic acid could no have been considerably increased; it is best given with the antitoxin. Eucaine by lumbar puncture inctly useful for the relief of pain and spasms in the nd lower limbs, but the opisthotonos present renders ral anaesthetic necessary for its introduction.

best thanks are due to Mr. Scott Williams, and the and nurses of Rothschild ward for the great care and ce they bestowed on this case.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

STAFFORDSHIRE BRANCH.

Wolverhampton, Thursday, May 10th, 1906.

G. S. HATTON, M.D., President, in the Chair.

Complete Removal of Outer Wall of Frontal Sinus for Chronic Empyema.—Mr. E. DEANESLY showed two cases. In one, an elderly woman, the operation was unilateral, in the other the operation was performed on both sides. The visible depression in the first was considerable, but in the second hardly noticeable. A median vertical incision in the centre of the forehead with a transverse incision over the bridge of the nose gave good access to both sinuses, and if the skin was sutured by the subcuticular method a practically invisible scar was secured.

Wry-neck.—Mr. DEANESLY showed two cases:

1. A man of 52, with spasmodic wry-neck, affecting the rotator muscles on both sides, but more on the right. Division of the right sterno-mastoid proved useless; division and avulsion of the central end of the spinal accessory cured the right side, but spasm was not efficiently checked until division of the posterior divisions of the second, third, and fourth cervical nerves had been carried out, a difficult operation involving a large and deep wound. A slight spasm remained even now, but the condition was practically cured.

2. A case of severe congenital wry-neck, with much-shortened sterno-mastoid and marked facial asymmetry. In addition to the usual operation of dividing the affected muscle and fascial bands, the spinal accessory nerve in this case was also resected in order to permanently weaken the elevators of the shoulder. By this means the wry-neck was easily and permanently cured, and after-treatment by apparatus rendered unnecessary. The patient was now 9 years old and the operation had been done four years ago. The deformity was now hardly noticeable.

Radical Operation for Necrosis of the Lower End of the Femur.—Mr. DEANESLY showed a man, aged 45, in illustration of a method devised by him twelve years ago and found very successful in many otherwise intractable cases. The chief cause of failure to cure cases of this kind was that the usual incision on the outer side of the thigh gave very insufficient access to the diseased bone. If to a long incision on the outside an equally long incision (generally 8 or 10 inches) were added on the inner side, planned so as to avoid the main vessels, the whole of the soft parts behind the two incisions could be detached from the femur, which was thus thoroughly exposed on its posterior (popliteal) surface. It was then an easy matter to chisel away the whole of the enclosing shell of new bone, together with the sequestra, leaving only the anterior compact layer. By this means any part of the lower half of the femur could be reached and inspected from behind without opening or endangering the knee-joint.

Fractured Patella.—Mr. E. DEANESLY showed cases of fractured patella treated by open suture without splints after the first day. They were ordinary cases of transverse fracture. Two sutures were used, passing through the whole breadth of the fragments, and consisting each of four stout threads of silkworm gut. The aponeurosis was also sutured with silkworm gut. A back splint was applied for twenty-four hours only. The patient was then encouraged to attempt active movements of the knee from the first. One patient got up and walked about the ward with a stick on the ninth or tenth day. Nothing conduced to quick recovery so much as active voluntary use of muscles from the first. An ounce of voluntary exercise was worth a ton of massage.

Severe Abdominal Injury.—Mr. DEANESLY read notes of the following cases, and showed the patients:

(1) Rupture of small intestine: A boy of 6 run over by a cart. Abdomen opened nine hours after accident; large rent in upper part of intestine sutured, and extravasated contents washed out of belly. Recovery was uneventful. (2) Ruptured liver or spleen, violent haemorrhage: Young man struck by piece of iron in centre of belly. Median incision above navel, and profuse haemorrhage controlled by plug. (3) Rupture of left kidney in a young man who fell from a tree on his back. Kidney torn in two pieces and bleeding; was removed twenty-four hours later, when death from haemorrhage seemed imminent. (4) Rupture of liver and kidney in a young man run over by a coal cart. Immediate laparotomy and evacuation of blood from abdomen. Rent found in liver. Afterwards

urine found loaded with blood; bladder known to be uninjured. Recovery uneventful.

Treatment of Tuberculous Ulcers of Intestine.—Mr. DEANESLY read notes of a case in which tuberculous ulcers of ileum and caecum were treated by division of small intestine and implantation of central end into sigmoid flexure.

The patient, who was shown, was a married woman, aged 22; she was much emaciated, and complained of constant pain in the bowels, which showed distension and visible peristalsis. The lower 3 ft. of the ileum was thickly set with ulcers, the upper ones partly or completely cicatrized, the lower ones so much thickened as to resemble new growths in the bowel. The caecum was similarly affected, and there were large masses of caseous glands in the mesentery. The peritoneum contained no fluid, and, except over the ulcers, showed no miliary tubercles. The appearances strongly suggested bovine tuberculosis. Excision of the affected parts being out of the question, the small intestine was divided above the unhealed ulcers and implanted into the sigmoid. The distal end was sutured and dropped in. Patient immediately began to improve, and was now about 2 st. heavier than before the operation, which was performed on December 4th, 1905.

Fractured Pelvis with Ruptured Urethra.—Mr. DEANESLY read notes of a case of fractured pelvis with complete rupture of urethra at the apex of the prostate, and showed the patient.

A miner, aged 30, was crushed in a coal pit. Through a perineal incision the ends of the torn urethra were found and sutured together over a rubber catheter. The bladder was drained continuously by Cathcart's apparatus for three weeks; normal micturition was then resumed, and no stricture had formed since. Although the pelvic fracture was severe, and involved both sides, he was discharged, walking well, two months after his admission.

Excision of Rectum and Prostate for Cancer. — Mr. DEANESLY read notes of a case of excision of the rectum and prostate for cancer by the trans-sacral route, which he showed.

A man, aged 48 A large hard mass extended from the second sacral vertebra to within 2 in. of the anus. Declared inoperable at another Midland hospital. The vesiculae seminales were enlarged, distended with fluid to four times their natural size. and infiltrated with growth. So also was the prostate. Both were removed with the rectum, and the urethra sutured over a rubber catheter through which the bladder was drained by Cathcart's apparatus. The whole rectum was removed, the anal muscles preserved, and the sigmoid fixed to the denuded anus. Recovery was now complete, and only a perineorrhaphy was required to restore sphincter action.

Removal of Lower Jaw, Tongue, and Floor of Mouth.—Mr. DEANESLY related a case of removal of both rami of lower jaw, together with greater part of tongue, floor of mouth and contents of anterior triangles of neck on both sides for cancer. The patient, who was shown, was a man, aged 48. Parts involved in growth and glands in left side of neck removed at one operation. Glands on right side of neck cleared out three weeks later. Stress was laid on completing the mucous lining to the mouth and shutting it off from the neck wound by suturing the remains of the tongue accurately to the mucous lining of the lips and cheek. On this and on feeding exclusively by stomach tube success chiefly depended. An interesting point in the history of this case was that a slit made in the internal jugular vein was sutured by fine silk in order to avoid obliterating the vein by a ligature. A few hours after the operation profuse haemorrhage occurred, and it was feared the suture in the jugular had given way. It was, however, quite sound, and the haemorrhage proceeded from a slipped ligature elsewhere.—Dr. Deanesly also showed a case of removal of tongue, floor of mouth, and cervical glands for epithelioma in a man of 48. This case resembled the preceding except that it was less extensive, and the lower jaw was merely divided and reunited without removing any part of it.

Radical Cure of Enormous Hernia by Kocher's Method.—Mr. DEANESLY showed a man of 50, who had had for many years a left scrotal hernia as large as his head, and reaching to the knee. The skin at the lower end had sloughed from pressure and laid open the tunica vaginalis. After many weeks' rest in bed the contents of the hernia were reducible, and the ulcer was clean but had not healed. Then radical cure was effected by Kocher's method eighteen months ago. He had never worn any kind of support since, and was engaged in laborious work. There was no return of the hernia.

Cerebral Tumour.—Dr. J. A. CODD showed a case of cerebral tumour which had involved the right third nerve. There had been paralysis of all the right ocula muscles except the external rectus, complete ptosis and dilatation of the pupil, also iritis and blepharospasm No optic neuritis or vomiting. Under heavy doses o potassium iodide he has completely recovered all excep the up and down movements of the eye.

Specimens.—Mr. DEANESLY showed specimens from the following operations: Three cases of *Urethrectomy.* Two of these were of traumatic origin, the other doubtful. The first operation was performed five years ago, and patien was now quite free from any subsequent contraction, and had never required instrumentation. The others were performed recently. Five cases of *Perineal prostatectomy* Three of these were completely enucleated, the other cut away *morcellement.* All recovered. Case of *Nephrolithotomy.* In this case a differential examination of the urines by Luys's separator showed microscopic blood on the affected side only. The stone was small, and would probably have escaped detection but for this observation. Case of *Nephrectomy for chronic hydronephrosis* In this case Luys's separator showed complete blockage of one ureter, which was confirmed at the operation Excision of *Chronic gastric ulcer.* In this case, a woman aged 25, posterior gastro-enterostomy had been performed with relief of all symptoms and great gain of weight fo eight months. Symptoms, including haemorrhage, then returned and the ulcer, including portion of stomach wal 2 in. in diameter, was excised. The ulcer which was on the posterior wall near the small curve had perforated the stomach and was adherent to the pancreas. Patient had regained her weight and haemorrhage had not recurred but pain was still complained of. Three cases of *Cholecystectomy* for gall stones complicated by inflammatory thickening and suppurative cholecystitis. All had made uncomplicated recoveries. *Impaction of large gall stone in ileum.* The intestine was incised and the stone removed Patient, an elderly woman, recovered. *Amputation a hip-joint* for recurrent spindle celled sarcoma of flexo muscles of thigh. The patient, a woman of 55, made an easy recovery. Haemorrhage was controlled by Wyeth's pins and there was no serious shock *Amputation of arm and scapula* for sarcoma springing from scapular muscles. Patient, a man of 50, was in an exhausted condition and did not recover from the shock of the operation. *Syme's amputation for enormous uric acid deposits in foot.* One of the deposits was as large as a man's fist, and had suppurated and burst through the skin. The circulation was unimpaired by any arteria degeneration, and primary union was obtained. *Solid ovarian tumour, with strangulation from twisted pedicle,* from child of 8.

Uric Acid Calculi.—Dr. COOKSON showed uric acid calculi, weighing together 4¾ oz., removed on May 1s from the right kidney of a woman aged 39. There were eight calculi, one much branched broke into three piece during removal. Two of the calculi weighed 1 oz. each and two were faceted. There was a history of pain fo twenty years, and of a lump in the side for four year since last confinement. The pain was not severe till the last few months, during which she had noticed a deposi "like whitewash" in the urine. The kidney was much enlarged, but there was no obstruction to the ureter; the catheter passed easily into the bladder. The kidney wa not removed, and the patient was doing well. She had never noticed blood in the urine, and none was found microscopically.

Pyonephrosis.—Mr. W. F. CHOLMELEY showed a kidney in an advanced state of pyonephrosis, containing a smal calculus impacted in the commencement of the ureter It was removed from a woman aged 39, who had had a tumour in the right side five years, but with no urinar symptoms. She had had an attack of renal colic when aged about 15. The kidney contained 7 pints of purulen fluid. The patient made an excellent recovery.

Tubal Mole.—Mr. CHOLMELEY showed a tubal mole and encapsulated haematocele. The latter was situated in the right iliac fossa. It was removed, together with the whole Fallopian tube, from a woman, aged 21, with the following history: Her last confinement occurred six months previously. Menstruation began two month after confinement, and had been normal since. She had a good deal of pain on the right side during pregnancy but the pain was worse six weeks after confinement. She eed the tumour in the right iliac fossa almost ediately after confinement. The patient made an terrupted recovery.

berculous Disease of Femur.—Mr. CHOLMELEY showed a r exhibiting excessive thinning of compact bone (in es being as thin as notepaper) and a fracture just e the condyles. It was removed by amputation ugh the hip-joint from a lad aged 16. The history of ase was that the patient had been treated for tuber- us disease of hip for eight months by means of rest in and a Thomas hip splint, and apparently with a good t. The disease suddenly became acute, and excision e hip was decided on. The thigh was too tender to of preparation before operation. On the operating a fracture of the thigh just above the condyles was d. The hip-joint was found to be extensively sed, the upper third of the femur so soft that it l be crushed between the finger and thumb. The r end at the seat of fracture was even worse. In the femur in its entire length could be crushed with reatest ease between the finger and thumb. As the oint was so excessively diseased, also the femur to the trochanters, and so softened in its entire length, s obvious that amputation through the hip-joint was nly treatment. This had been done with a very ssful result.

pendical Concretion in an Infant.—Mr. CHOLMELEY ed an appendix with a concretion removed from a t-fed infant aged 6 months. It was found during a *nortem* examination on the infant. Death was due to pneumonia. The appendix appeared healthy.

fuse Carcinoma of Stomach.—Dr. CODD showed a men of diffuse carcinoma of the stomach, or "leather- stomach."

patient was a woman, aged 34, who was sent to him by isson of St. George's, Salop. She had vomiting for five ns, with severe pain in the back; swelling of abdomen e month, with lancinating pains in the groin, shooting into the thighs; also in left lumbar region, worse on deep ation. On admission, the abdomen was distended and shifting dullness in left flank. A viscus, thought to be ver, occupied the epigastrium extending down to 2 in. the umbilicus. It was hard, and along its lower margin series of hard, nodular, and freely-movable masses, in an t continuous horizontal line. Chest: Dullness, absent sounds in left base behind. On the fifth day chest aspi- 12 oz. dark-red fluid drawn off. On the ninth day en tapped, 52 oz. fluid drawn off. The patient had con- s, unremitting pain, which heavy doses of narcotics to effectually subdue; she had progressive wasting and f strength, and suddenly collapsed and died on the nth day. The diagnosis he made was carcinoma of the nd left pleura. The series of nodules was thought to be ant glands in the omentum, but it was not easy to stand how they could be situated immediately beneath pposed hepatic margin. There was no fat in the stools, urine showed the presence of the pancreatic reaction, volvement of the pancreas was strongly suspected. is and frequent enemata were given to exclude the lity of the presence of scybala in the transverse colon. sy: The hard viscus occupying the epigastrium und to be the stomach, the whole of the walls of which filtrated with dense, hard growth. Its capacity was erably reduced. It was pushed upwards by the mass of d gland. The nodular masses noted were a chain of ant glands along the lower border of the organ. Behind mach was a huge mass of glands, omental and mesen- urrounding the pancreas on all sides, but to the naked invasion of the pancreas was noted. The liver, lungs, er organs were normal. There were no deposits in the ura. Microscopically the stomach wall and glands were ted with diffuse carcinomatous growth. The pancreas isolated alveoli of growth in the fibrous septa between nd lobules. The primary mischief was evidently in the h.

enital Macrodactyly.—Dr. CODD showed a case of ital macrodactyly, with illustrative stereograms diographs.

hragm Compressor and Tube Holder.—Dr. CODD l a diaphragm compressor and tube holder. He said number of forms of apparatus had recently been ed for the purpose of cutting off the x rays that ied from points other than the focus of the target. ms usually employed might be classified as plate agms (including the iris) and cylinder diaphragms. e diagram allowed the penumbra to form around e umbra produced from the cone of rays proceeding e focus. This penumbra was cut off largely when le in the plate was produced to form a cylinder. This cylinder form, however, reduced the area of plate exposed, as compared with the same sized plate. If, however, a cone was used, the field of exposure was not curtailed while the maximum of adventitious rays were cut off. The same effect as a cone was produced by making an imaginary cone and cutting it by two planes at right angles to the axis, and inserting in the path of the ray two diaphragms equal in area to the sections so produced and at the same distance from the apex. This was done in this apparatus, which was provided with a series of upper and another series of lower diaphragms. The upper diaphragm was shown in the first figure, and could slide up and down and to right and left. It was graduated in centimetres, so that its centre could be placed either in the axis of the compressor tube, or to any distance from the axis, such distance being marked on the scale by an index line shown on the flat plate of the compressor. The lower diaphragm was shown in the second figure, and was mounted on a wooden ring which acted as an insulator to the body in case the compressor should become charged. The tube of the diaphragm was made up of two parts, and when the lower part was removed by its bayonet joint, the wooden ring could be attached to the proximal part, and the length of the tube became reduced by one-half. The compressor was supported by an arm carrying three powerful joints. Compression was effected by using the vertical slide movement as a coarse adjustment, and the joint nearest the compressor plate for fine adjustment. A simple but effective tube-holder was added, consisting of three square rods running in three clamps, by which the three movements in space were obtained. All three were graduated. The vertical one gave the height of the focus above the compressor plate; the two horizontal ones enabled the tube to be moved in two dimensions of space on either side of the axial line, so that stereoscopic effects could be obtained in either of the two directions. The terms "vertical" and "horizontal" referred to their positions when the arm of the compressor was straight and horizontal. An attachment was added to carry cord-spreaders. The apparatus was also very useful for x-ray treatment and fluoroscopy. A movable weight could be affixed to the free ends of the foot when very considerable compression was required. Mr. Ll. B. Codd, Standard Works, Nottingham, was the maker.

REPORTS OF SOCIETIES.

HUNTERIAN SOCIETY.

JOHN POLAND, Esq., F.R.C.S., in the Chair.

Wednesday, April 11th, 1906.

DISCUSSION ON SYPHILIS.

MR. JONATHAN HUTCHINSON, F.R.S., opened the discussion with a reference to the mortality from syphilis. This reached a maximum of 2,140 in 1875, against 1,834 in 1904, although, allowing for increase of population, the figure should be 3,000. Not only was the disease on the decline, but it was generally considered to be milder in type, as a result of more effectual treatment. Judd and his followers (1835-8) obtained excellent results without mercury, using iodide of potassium, but the use of this drug securely established the mercurial treatment, and led to a better knowledge of the precise uses of both of them. A century since all venereal sores were treated by mercury. When the non-syphilitic nature of many such sores was recognized, mercury was withheld until secondary symptoms were manifested, and this period of withholding mercury coincided with the increased mortality. Lastly, when the small dose plan was introduced, mercury was robbed of its terrors, and was employed at the earliest moment with a view to the suppression of the secondary stage. Ptyalism was objectionable and injurious. As much mercury as could be borne should be introduced into the blood. Everything that mercury could do could be conveniently effected by the 1 gr. grey powder pill with Dover's powder, taken from three to seven times daily. On this point he advanced the following propositions:

1. It is now almost universally acknowledged that mercury ought invariably to be given in the primary and secondary stages of syphilis.

2. The earlier it is begun the better, provided the diagnosis be certain.
3. It is possible to entirely prevent and anticipate the secondary symptoms—an opinion he had advocated for 25 years.
4. The suppression of the secondary stage to a large extent prevents tertiary symptoms, which are developed in the actual site of the secondary manifestations.
5. Many chancres are sufficiently characterized to justify immediate treatment.
6. As much mercury should be given as the patient can bear, avoiding diarrhoea and ptyalism.
7. Continuous treatment is much preferable, and should extend over at least twelve months.
8. At this stage the object is to kill the parasite. In the tertiary stage the destruction of the parasite is no longer the object of treatment. Tertiary changes are often single, very rarely indeed general, often restricted to one organ or one tissue, and there is no reason to regard them as of blood origin, whether toxic or otherwise. The parasite is in fact no longer existent.
9. Tertiary symptoms are commonest where early treatment has been delayed or inadequate.
10. There is good reason to believe that syphilis is becoming less prevalent and less severe in Britain, and that this is largely due to the widespread adoption of the long-continued small dose method of treatment.
11. The inunction and calomel vapour bath methods are both efficacious, but inconvenient and expensive, and apt to be prematurely discontinued.
12. Intramuscular injections are very dangerous, excepting in the hands of the expert, and should be wholly reserved for special conditions, chiefly in the army. If salivation commences it cannot be stopped, except by the excision of the portion of muscle containing the mercury.
13. Tertiary symptoms are: (*a*) Inflammatory, (*b*) degenerative, or (*c*) gummatous. The iodide of potassium internally, and iodoform, iodol, chinosol externally are specifics, and often produce permanent cure of gummatous growths. Degenerative changes, such as tabes, are, on the other hand, rarely arrested by specifics. All conditions attended by inflammatory changes, such as general paralysis of the insane, should be treated by small doses of mercury continued permanently. In his belief, if treatment of general paralysis be commenced in the very early stage, a cure may be obtained, but small doses of mercury must be permanently continued.
14. Tuberculosis sometimes complicates tertiary syphilis. Syphilitic lupus is a combination of the two, and some "relapsed chancres" are tuberculous.
15. With reference to marriage, if the treatment has been continued for two years from the date of the chancre, a man may safely marry, but a much longer period is necessary for a woman.
16. As regards inheritance, a man with tertiary symptoms may have quite healthy children. Syphilis cannot be transmitted to the third generation. The fact that younger children in syphilitic families are free from the syphilitic taint, but are well grown and robust, is opposed to the belief that the disease, when incapable of transmitting its characteristic symptoms, may yet cause arrest of development. Nor is syphilis an appreciable cause of degeneracy of the race. The Fijians, who have had syphilitic frambesia from time immemorial, are not a degenerate race.

Mr. Hutchinson concluded by asking a question for which he knew no reply: Why is syphilitic infantile iritis, and, to a less degree, keratitis, more common in female infants than in males? We knew little of differences in the character of the disease as affected by sex, and by inheritance from the father as compared with the mother.

Syphilis and Mental Disease.

Dr. G. H. Savage, discussing the relationship between syphilis and mental disorder, mentioned first the occasional occurrence of acute mania in syphilitic fever, as in alcoholism and influenza. With reference to the effects of syphilis on neurotic and non-neurotic persons, statistics showed that the former were liable to tabes, whilst the general paretics were, as a rule, non-neurotic. He agreed with Mr. Hutchinson that treatment had altered the character of syphilis. Gummata had become comparatively rare in *post-mortem* experience. On the other hand, there were a certain number of cases of acute mental disorder, associated with cranial nerve symptoms, hemiplegia or epilepsy, which followed acute syphilis, and which might possibly depend upon a gumma. More chronic mental disorders, with similar local manifestations, might also result from syphilis. Some went on to general paralysis of the insane, which under Mr. Hutchinson's continuous treatment might not occur. Many cases of general paralysis showed an early history of temporary aphasia or monoplegia which were forgotten after, perhaps, brief treatment by iodides. Early syphilitic changes might affect any part of the nervous syst
There was also a more general and diffuse disorder of
cortex associated with syphilis. For example, cases
marked hysteria in a middle-aged man who had
syphilis in former years, although they might tempora
recover, generally ended in general paralysis. A la
number of general paralytics with syphilitic history c
menced as ataxics, the ataxy preceding the paralysis
some years. Progressive mental degeneration might
associated with syphilitic endarteritis. The nutritio
any part of the brain might be interfered with, w
alteration in the balance of mind, ending invaria
in dementia. The memory was not markedly affec
in these cases; sometimes, as in advanced sta
of general paralysis, there was a quite remarka
retention of memory, whilst in other forms of
gressive mental decay, associated with alcoholism
senility, the loss of memory was the chief characteris
It had been pointed out that among certain races—
Arabs and perhaps the Japanese—syphilis might
prevalent and general paralysis very rare. It was
said to be unknown amongst negroes and amongst
Irish. In his opinion, syphilis required something m
in order to produce this disease—alcoholism, worry,
the stress of life, and perhaps large meat-eating. Fe
women than men were affected. It rarely came on wit
ten or twelve years, more frequently between fifteen
twenty years, after primary infection. Mental sympto
insane interpretations, might also be associated w
syphilitic locomotor ataxy. As for the syphilophobia
adolescents and the more dangerous syphilitic hy
chondriasis of middle and old age, in the later condit
the patient might have some "stigmata" of old syph
giving rise to various beliefs and delusions. One clas
patients believed themselves shunned or insulted. Th
were often suicidal. Others believed themselves cen
of contagion, and were intensely suicidal or homicidal.

Dr. Purves Stewart said that syphilis of the cen
nervous system was often, so to speak, accidental,
affected the non-nervous tissues and only secondarily
nerve elements. Thromboses, aneurysms and gummata,
not spring from nerve tissue, although the symptoms w
nervous. This class of disease was not at all confine
the tertiary period, but might occur at any stage, e
when the chancre was still present. In another clas
syphilitic nerve disease the nerve elements underw
primary dystrophy with production of sclerosis
secondary change. Syphilitic spastic paraplegia,
which the bladder symptoms were prominent, mi
belong to this class. This often developed within a y
of infection. Tabes and general paralysis might
regarded as two varieties of one disease—a syphi
affection of nerve elements. Under the microsc
normal cerebro-spinal fluid contained perhaps one or
endothelial cells and as many leucocytes. In functi
nervous diseases, in epilepsy, paralysis agitans,
disseminated sclerosis the cerebro-spinal fluid was
apparently normal. With organic diseases of the nerv
system, acute microbic meningeal affections, and supp
tive diseases of brain or membranes, the fluid contai
polynuclear leucocytes. In the case of chronic nerv
affections—tuberculous and syphilitic—there was alw
great excess of lymphocytes, usually monomorphic.
syphilis without nervous affection there was no exc
In gummatous affections of the nerve centres the ex
was marked, but in tabes and general paralysis the leu
cytosis was constant and extremely well marked,
average being 130 to the field. The presence of leu
cytosis was of great diagnostic importance, for example
between tabes and peripheral neuritis, and betw
general paralysis and epilepsy. In order to excl
syphilis of the nervous centres it was not necessary
to suspend judgement pending the use of iodide
mercury.

Visceral Syphilis.

Dr. Hale White said that our knowledge of visc
syphilis dated from the paper of Sir Samuel Wilks
1863. It was an interesting fact that with the poss
exception of the heart, syphilitic endarteritis in
viscera was not of any clinical importance,
was in fact not met with, which was in strik
contrast to its great importance in the ne
centres. Another syphilitic affection of the viscer
lardaceous disease—was now much less frequently

, as a result of improved surgery and also no doubt the ining severity of syphilis. Congenital syphilis occa- ally produced marked lardaceous disease. In syphilitic ngitis specific treatment was often useless unless the were rested by tracheotomy. Abductor paralysis at be the earliest indication of tabes. Syphilitic ulcera- or stenosis of the trachea might be met with apart laryngeal affection, and usually occurred near its rcation, with impaired entry of air in one lung. hilis of the lung was excessively rare, and the nosis not justified. The frequency of congenital ilis of the lungs had been enormously exaggerated. museum in London contained a specimen of it, and it to be doubted if such a condition existed. The isition of syphilis usually greatly accelerated a isis, whilst it was also true that a syphilitic patient more liable to phthisis than others. In the heart mata were rare, and the diagnosis a bold one. Dr. e had shown that a large proportion of the cases of id disease of the heart were syphilitic, and that there a peculiar liability to sudden death in this affection. Dr. Fagge's paper in 1874, eleven cases of sudden due to this disease had been recorded at Guy's, of h five were syphilitic. The fibrosis should be looked in the interventricular septum. As for valvular se, the aortic valves were rarely affected alone in matism. Therefore, cases of aortic without mitral se might be attributed to atheroma, or strain, or ilis; and in women, as strain was rare, aortic disease strong evidence of syphilis. The same applied to rysm. Dysphagia was sometimes due to syphilitic ation of the pharynx or oesophagus. Gummata were st unknown in the stomach and intestines, but ilitic ulceration and stricture occasionally occurred e rectum in women, with symptoms of chronic uction. In the liver syphilis occurred as gummata, rous bands, but was far less common than formerly. s never accompanied by jaundice, and the liver was m so large, so uneven, or increased so rapidly as in gnant disease. Congenital syphilis produced a similar tion. He agreed with Mr. Hutchinson that the st gummata of the liver were curable. This was the only form of visceral syphilis in which a osis was commonly made, because the other con- ns were so rare.

Beddoes said that the essential factor in the Zittman nent appeared to be heat, the patient being kept in a room at 80° F. He connected this fact with the incidence of tabes and general paralysis in hot ries. He doubted whether alcohol had much part in usation of the latter diseases, as there seemed to be ference in their occurrence in Turkey, where many population were teetotalers, and in Brazil, where was much alcoholic excess. Both Brazil and Turkey uch syphilis, and in both countries tabes and general sis were extremely rare.

discussion was continued on April 25th, Dr. F. J. in the chair, beginning with a lantern slide nstration by Dr. Theodore Shennan of the *haeta pallida* and other spirochaetes. He also d microscopic specimens with the parasite *in situ* in itic tissues and blood.

Congenital Syphilis.

G. F. Still alluded to the occasional occurrence of ed syphilis in children, which was generally regarded ghly contagious. Contrary to the opinion of some writers, he held that the risk of contagion from the ted disease was very small. In a large number of he had never known one case of infection, although had been reported, and the spirochaete had been in the bullae of syphilitic pemphigus of the new- In addition to the very considerable mortality from rth and miscarriage, there was incapacity in the ors from keratitis, iritis, and nerve affections. As as 10 per cent. of the children showed some nervous on. A large proportion of idiots were, in his n, syphilitic, and some children with inherited is, at first bright and intelligent, showed mental ration in the second period of life; between 6 and rs of age they became dull, and perhaps epileptic emented—sometimes greatly emaciated, and dying xhaustion. In these cases, chronic meningitis and ive sclerosis of the cortex were found. A proportion of congenital hydrocephalus, of paraplegias and diplegias, were also due to congenital syphilis, and the same cause accounted for many cases of fatal convulsions, and perhaps epilepsy. In certain families the nervous tissues, viscera, or bones would appear to be especially liable, whether to tuberculosis or to syphilis. The undesirable term "parasyphilitic" was founded on the very doubtful theory that a non-transmitted syphilis had influenced development, and implied a specific origin which did not exist. The effect of syphilis on the bones appeared to be to hasten rather than retard ossification, and craniotabes was not therefore commonly a syphilitic disease. He was not aware of any means of distinguishing the bosses of the skull due to rickets from those due to syphilis. An acute interstitial nephritis sometimes occurred in early infancy as the result of inherited syphilis, and such cases might result in the chronic granular kidney met with now and then in the third and fourth year of life—a condition hitherto unexplained. Congenital syphilis produced two forms of joint affection—most commonly multiple synovitis associated with eye changes, also a rare condition of chronic multiple osteo-arthritis, with changes resembling Heberden's nodes, and occurring from 6 years of age to puberty. It responded little to mercury or iodides. Eye affections were very common in congenital syphilis, and the fundus often showed choroiditis. As regards general treatment, grey powder ($\frac{1}{2}$ to $\frac{3}{4}$ gr. thrice daily) gave the best results, and did not affect the teeth even when taken continually for two years. Inunction might be used when it was necessary to get the child quickly under the influence of mercury, and the liquor hydrarg. perchlor., in doses of 4 to 10 minims, where powders could not be given. The treatment should be given for two years after all symptoms had disappeared.

Dr. Morgan Dockrell showed a series of drawings of syphilitic skin affections. In sections from a large number of cases he often found syphilis or tuberculosis unexpectedly present. Sometimes eruptions disappeared from the body, but lingered in some locality where a predisposing cause or some complicating condition was active—for example, a seborrhoea or an acne. Lingering acne sometimes required mercurial treatment.

Dr. Ettles, speaking on "general treatment," held that it was best to delay the use of mercury until any doubt in the diagnosis was removed. The absorption of mercury given by the mouth was about 5 per cent., but when given by inunction only about one-tenth as much, and it had been shown that intramuscular injections of $\frac{1}{12}$ to $\frac{1}{6}$ gr. per diem controlled the disease. He attributed the success of the Aix inunctions more to general hygienic measures and the increase of metabolism promoted by sulphur waters than to the inunctions themselves. He agreed with Mr. Hutchinson that intramuscular injections should be practised in exceptional cases, if at all. They were particularly dangerous in patients with damaged kidneys, when the mercury was stored. He had, however, seen excellent results from the injection of calomel in parolein in fulminating syphilis and sloughing pharynx. He had found Zittman's decoction, which contained an appreciable amount of mercury, of value in syphilitic choroiditis and retinitis.

Dr. Fortescue Fox communicated from Dr. Francon (Aix-les-Bains) a summary of the treatment of syphilis in France and at the French spas. Dr. Fournier relied upon pills of the green iodide of mercury, but like other French physicians used injections for severe cases. Treatment was commenced early and continued with breaks to the fourth year, and Fournier had lately suggested that in order to prevent the development of general paralysis a late treatment should be given in the seventh year, the third year being omitted. Dr. Francon quoted recent experiments in Paris showing the active rôle of sulphur waters in aiding the elimination of mercury and promoting the mercurial cure. Excellent results were obtained at Aix, combining inunction with the use of sulphur waters and the douche-massage, but it was necessary to watch the condition of the kidneys.

The President, in closing the discussion, referred to the analogy between syphilis and malaria. A patient years after his malaria met with some disease which at once took on a malarial type. In the same manner, years after syphilis had been cured some accidental ulcer became angry, and must be regarded as syphilitic. Was it possible that the spirochaetes had a spore or resting stage?

Royal Academy of Medicine in Ireland.—At a meeting of the Section of Surgery on May 11th, Sir Arthur Chance, P.R.C.S.I., President, in the chair, Sir William Thomson read a paper on a series of cases of *Enucleation of the Prostate*, describing the more important of 18 cases, and discussing various points of interest which had been noticed. One of the specimens shown weighed 6$\frac{1}{4}$ oz., and one 10 oz. less a few grains. In one successful case, enucleation had been undertaken for severe haemorrhage. He believed this was the first time that the operation had been reported, as undertaken for haemorrhage only, and he maintained that it was the proper treatment where all other means failed. Sir Thornley Stoker doubted the accuracy of statistics concerning the mortality resulting from operation for prostatic enlargement. The time required for prostatic enucleation, in his experience, varied. He had enucleated a large prostatic growth in two minutes, but in another case in which the growth was small the enucleation took half an hour. He recommended benzoate of sodium as a useful drug for promoting acidity of the urine. He considered the Trendelenburg position was attended by danger in the case of aged patients. Sir Arthur Chance favoured operative measures directed towards the relief of patients suffering from the effects of senile prostatic enlargement. He had found large prostates easy to deal with, and he had frequently noticed that small prostates gave the most trouble. In fatal cases the cause of death was usually intrathoracic complications. He regarded the Trendelenburg position as of great assistance, and had not found it attended by any obvious risk. Sir William Thomson, in reply, stated that there was no direct relationship between the degree of prostatic enlargement and the intensity of the symptoms. He alluded to cases of death following suddenly after operation, and which were due evidently to embolism. With regard to washing out the bladder, he usually did so through the urethra forty-eight hours after the enucleation.

Section of Medicine.

At a meeting of the Section of Medicine on May 18th, Dr. James Craig, in the chair, Dr. Travers Smith read notes of the case of a male child, aged 2$\frac{1}{2}$ years, who, upon January 1st, 1906, whilst in apparently perfect health, suddenly lost voluntary power in the right arm and leg. A fortnight later great rigidity appeared in the affected arm and leg. The right leg and, to a less extent, the left one were drawn up in the intrauterine position. On March 1st the child showed signs of *Tuberculous meningitis*, and died on March 6th. *Post-mortem*, tuberculous meningitis was found, and a large tuberculous tumour, the size of a hen's egg, was found to occupy the region of the corpus striatum and internal capsule. No haemorrhage was visible in or around the tumour. The large size of the tumour, its position, and its power to produce sudden hemiplegia in a child apparently healthy, were mentioned as specially interesting.—Mr. Robert Woods read a paper in which he compared the relative advantages of *Sylvester's method* with the older one of direct insufflation. He showed that by direct insufflation more air was introduced, and therefore the stimulating effect on the vascular and respiratory mechanisms, as well as the rapidity of elimination of a drug such as chloroform, was greater, while the impurity of the air insufflated (the original reason for abandoning the method) was negligible. Professor Thompson agreed that these ideas were an improvement on the methods at present used, his only objection being the repugnance of placing mouth to mouth.—Dr. A. Ainslie Hudson read a paper on *Nauheim treatment*, and described the composition of the effervescing baths. The immediate effect of the application of the water, rich in salines, was to produce a powerful stimulation of the muscular coats of the superficial blood vessels, an effect greatly enhanced by the presence of the CO$_2$. The Chairman and Dr. Finny discussed the treatment, which they agreed was often beneficial.

Glasgow Medico-Chirurgical Society.—At a meeting on May 11th, Dr. J. Walker Downie, Vice-President, in the chair, Dr. A. A. Young showed (*a*) a man on whom he had operated for acute intestinal obstruction. The end of the vermiform appendix was found to be a large bulbous mass adhering to a loop of small bowel. A loop of bowel
had become constricted by the band and caused obstr
tion. The appendix was very movable, having lit
mesentery. The patient had had acute appendicitis f
years ago. (*b*) Two specimens of sarcoma from the poplit
space. The tumour in the first case had involved
nerve, which was found degenerated. The vessels w
constricted, but not occluded. The tumour was adher
to but was not growing from the bone. It was spind
celled in type. Amputation was performed. The pati
died of hemiplegia (metastasis). In the second c
the tumour was encapsuled and could be shel
out. In its deeper parts it was mainly mucoid
structure. In this case the symptoms were atta
of pain in the calf and heel, swelling of the feet, a
disorder of sensation.—Dr. T. K. Munro showed a lu
from a case of acute lobar pneumonic phthisis. T
case was diagnosed at first as a typical pneumonia of
left upper lobe, but the fever continued for two montl
there was no leucocytosis, and, later on, tubercle bac
were found in the sputum. The case was complicated
thrombosis of the left femoral vein and acute nephri
from which he died.—Dr. R. M. Buchanan read a pa
on *Paratyphoid fever*. The same character of the sy
ptoms at the onset—the frequency of sore throat, the pro
sion of rose spots—all helped to differentiate the condit
from ordinary typhoid fever; 1 per cent. to 3 per cent
the cases were fatal. The pathological lesions found w
lung complications, abscess and enlargement of the sple
He described and differentiated the organisms. T
toxin of the paratyphoid bacillus was much more pow
ful than that of the typhoid bacillus, $\frac{1}{200}$ of a loop
of culture being sufficient to kill a guinea-pig
Dr. James Scott (for Dr. J. Lindsay Steven) show
specimens of *Cystic degeneration* of the kidneys. T
cysts were of all sizes up to 3 in. in diameter, and w
filled with colloid matter. Sections of the kidneys sho
extreme intestinal inflammation, and the cystic format
was regarded as due to the chronic nephritis rather than
being of congenital origin. There was little cardiac hyp
trophy and the arteries were healthy. There were sy
ptoms of kidney trouble of many years' duration, and
patient died of uraemia.

Glasgow Obstetrical and Gynaecological Soci
—At a meeting on May 23rd, Dr. J. K. Kelly, Presid
in the chair, the President and Dr. A. Louise McIl
gave notes with lantern and microscopic demonstratio
a case of *Pregnancy in a Graafian follicle*. The pati
aged 33, had been married twelve years. She had
five children, the last confinement being two and a h
years before. On her admission to the Royal Infirmary
January, she said she had had an attack of severe p
in both iliac regions at the beginning of December a
a period of six weeks' amenorrhoea; this pain was
lowed by a haemorrhagic discharge from the uterus wh
lasted three days and then returned in four days, last
that length of time. This discharge returned in a fortni
and was present on admission. The left iliac region
tender, but no tumour could be felt. The cervix was
the ordinary situation, the uterus normal in position
somewhat enlarged, while the left appendages forme
considerable mass and were tender to pressure. Ex
uterine pregnancy was diagnosed, but as there was
haematocele operation was delayed for some days. As
discharge still continued, the abdomen was opened
February 6th, and a small blood cyst was found in
left ovary; this was removed with the tube. The rig
sided adnexa were normal. No blood was found in
peritoneal cavity. Recovery was uninterrupted.
specimen was the size of a Victoria plum. In the up
part was the normal ovarian tissue, pale in colour,
lower part was rough and deeply stained with haem
rhage. The tube and mesosalpinx were normal, subsequ
microscopical examination of the tube showing norm
ciliated epithelium. The blood mass in the ovary
divided into two, and one portion was cut into secti
and examined under the microscope. No embryo
found. The ovum was found to be embedded insid
Graafian follicle, the walls of which were found to c
tain lutein tissue. The walls of the ovisac were m
thinned out in the lower portion of the specimen wh
rupture would have taken place later. Strands of amn
and chorion were found in the blood mass with degenera
chorionic villi. In some places masses of trophobl

ere seen in contact with the layer of canalized fibrin. asses of syncytial cells were also seen in the blood clot. ie ovum had been embedded on a layer of connective ssue inside the lutein cell layer; nowhere were decidual lls found. The whole ovum was completely surrounded ovarian tissue, which contained follicles in its substance in the upper portion. Two corpora lutea were und in the ovarian tissue.

OLDHAM MEDICAL SOCIETY.—At a meeting on April 24th, r. E. W. MARTLAND, President, in the chair, Dr. R. G. ENDERSON showed a case of locomotor ataxia with a iarcot's joint, the one affected being the second metarpo-phalangeal joint of the right hand; the conditions me on suddenly, with great swelling and redness, but pain.—Dr. MARTLAND read notes on 919 consecutive *idwifery cases* of which he had complete records. He id used the forceps 275 times, or in 30 per cent. of e cases. Two of these forceps cases died, one from pticaemia and the other from *ante-partum* haemorrhage. e considered that the forceps saved the suffering of the other and lessened the infantile mortality. He strongly commended the lithotomy position in difficult cases. In any cases he thought the patients were infected by their vn excreta, the medical attendant's fingers becoming uled with them, and subsequently being passed into the igina. Where forceps were applied there was perhaps ss risk of such fouling. It should be a routine practice empty the rectum before delivery. The total ortality of the 919 cases was 1.4 per cent.

REVIEWS.

ALCHEMY AND CHEMISTRY.

he Story of Alchemy[1] by Mr. M. M. PATTISON MUIR, M.A., a most interesting and instructing little book dealing ith the development of alchemy into modern chemistry. r. Muir shows that, as far back as two thousand years o, some of the Greek philosophers maintained a theory to the composition of matter very similar to the odern atomic theory of chemistry. It was only a very igue idea, it is true, but nevertheless there it was. He iotes some very striking passages from Lucretius showg that he, too, had arrived at conclusions of a like iture. The ancients could not get further than a ry general statement, since no minute inquiries into iemical changes had yet been made, but "it was the eat glory of the Greek thinkers about natural events iat their observations were accurate on the whole and as r as they went, and the theory they formed was ised on no trivial or accidental features of the cts, but on phenomena they sought to bring into ie point of view." The alchemists imagined that ature was constructed on one simple plan; that cks and stones had a life like that of the animal and getable kingdoms; that metals had "an essence," and ere always striving to arrive at perfection—that is to say, become gold; that in the natural course of events they ould in time acquire this state of perfection, but that they uld be "forced" to attain this ideal state by the employent of suitable processes in a much shorter time ian that occupied by Nature. But, whereas "the reeks likened their imaginings of Nature to the natural cts observed, the alchemists created an imaginary world ter their own likeness," and likened their observaons to their own fond imaginings. Mr. Muir gives sketch of the alchemists' theory regarding the comsition of matter, and explains their notions regardg the elements and the principles of their art. He ves some exceedingly interesting examples showg how the alchemist reconciled his theories with e result of his experiments, thereby rendering them ausible. In the search for the philosopher's stone iey professed the most lofty motives; they disaimed all sordid thoughts of worldly wealth for iemselves, only seeking to make gold an article so mmon that the popular desire to possess it should cease exist. For all that, the followers of the sacred art do ot appear to have been the objects of unbounded love and lmiration on the part of their unscientific brethren. The author quotes Chaucer to show that the alchemists of the fourteenth century were far from being popular, and he narrates the life of Cagliostro to prove that all alchemists were not prompted by lofty desires to improve the welfare of mankind. A chapter is devoted to the language of alchemy, from which we learn that much use was made of allegories, and it appears also that directions for the performance of experiments were frequently couched in language which conveyed no meaning whatsoever to the uninitiated. Thus Mr. Muir carries us on to the end of the seventeenth century and to the beginning of the eighteenth. Robert Boyle, who is described on his tombstone as "The father of modern Chemistry and brother of the Earl of Cork," died just at this time, and though he was somewhat trammelled by the old alchemical superstitions, he did much to establish the study of natural science on a surer footing than before. It was Lavoisier, however, who really founded modern chemistry, for he based investigation on experiment and drew deductions from the facts thus collected. He proved the alchemical theory of combination to be wrong and established the true principles of chemical reaction. Though the alchemists of old wasted so much time in seeking after the impossible, nevertheless they made many important discoveries. They laid the foundations of the applied chemistry of the arts and commerce. They handed down to us much practical instruction in the methods of distillation, calcination, and other processes so frequently practised by them, and the vessels in which these processes were to be carried out.

The subject Mr. Muir has treated is a most fascinating one, and he has made the most of it. The book is written in a clear, easy style, and we are sure that it will be found interesting alike by the scientific and the unscientific.

URIC ACID AND THE PURIN BODIES.

ENGLISH and Continental authors who read the preface of MCCRUDDEN'S book on *Uric Acid*[2] will appreciate the forceful humour of an author who blandly states that it seemed advisable to issue the publication because "there is no complete and reliable account of the metabolism of uric acid to be found in one place." Having set such a standard of perfection, it is invidious to cavil at errors in chronology and omissions of references. He concludes from his compilation that rheumatic diseases and uric acid metabolism are not closely related, founding his views upon a review of the entire gamut of work carried out upon the subject. For purposes of reference, therefore, the book is very valuable, and a thorough index adds to its utility. The sum total of the discussion upon the metabolism in gout appears to be that none of the theories are sufficiently well supported by facts, and all are probably inadequate to explain its causation. The book covers so much of the ground that has been frequently traversed by English writers that it is an open question whether this mass of literature will appeal to the practitioner whose lack of leisure demands selected and digested work on the subject. At the same time it may be pointed out that this compilation is wide and fairly exhaustive, and provides evidence upon obscure points which may not be easily available elsewhere.

NOTES ON BOOKS.

NOTWITHSTANDING what we are led to expect from the title and the preface, we find in Dr. PAUL'S little book on *Nursing in the Acute Infectious Fevers*[3] too little about nursing and too much about medicine. Space is wasted in the discussion of prognosis, diagnosis, and treatment, matters entirely for the medical attendant, which might more profitably have been devoted to what it is essential a nurse should know and be expected to perform. But, with the exception of disinfection, the special points in the nursing of the acute infectious diseases are inadequately put before the reader; so that the book is disappointing.

---

[1] *The Story of Alchemy and the Beginnings of Chemistry.* By M. M. ttison Muir, M.A. (London: George Newnes, Limited, pp. 185.)

[2] *Uric Acid.* The Chemistry, Physiology, and Pathology of Uric Acid and the Physiologically Important Purin Bodies, with a Discussion of the Metabolism in Gout By Francis H. McCrudden. New York: Paul B. Hoeber. (Demy 8vo, pp. 318. Dols 2.50.)

[3] *Nursing in the Acute Infectious Fevers.* By George P. Paul, M.D. Assistant Visiting Physician and Assistant Radiographer to the Samaritan Hospital at Troy. New York, Philadelphia, and London: W. B. Saunders and Co. 1906. (Demy 8vo, pp. 200. 4s.)

MEDICAL CHARLATANISM IN GERMANY.

By Otto Neustätter, M.D.,

Munich.

Germany passes for the land of laws, the country of police control. We have laws which forbid jumping off a tram-car in motion; laws which do not permit of any one being a chimney-sweeper at will; laws which lay strict requirements on those who secure places for domestic servants, or who hold auctions. We inflict severe punishments on people who add water to milk, or who allow waste waters to run into a river. The driver, the professor of gymnastics, the teacher of swimming, even the dancing-master and the vendor of old clothes must possess certain qualifications without which he may be forbidden to follow his trade. But the mortal who makes it his business to treat sick people, and in whose hands life and health are laid, may be little better than a scamp. Of him is demanded no general education, nor even ability to read or write, and he may understand as little of the medical art as a newborn babe. The person who considers himself fit to doctor his fellow-mortals is fit to do it and justified in doing it, and that is the sum total of the matter.

Some Historical Notes.

These statements may be a surprise to many. Yet they are facts. But, it will be objected, there exists certain protection after all! This is true. The legal protection in Germany, however, is extended only to the title of "Arzt." In order to practise it is unnecessary either to possess a certificate of any kind, or to have any moral or technical qualification. In a word, the calling of a doctor is free to any one to profess, as long as the title of "Arzt" is not used.

Outside of Germany the same state of affairs is to be met with in England and America, but it must always be remembered that in these countries totally different conditions of individual freedom prevail. Life, as a whole, is carried on with far less interference from the State, and the population is, in consequence, more accustomed to independence. It is, however, interesting to note that, America, the land where the greatest freedom prevails, has lately been coming more and more to the conclusion that without legal measures, it is impossible to fight against this encroaching evil—the defrauding and robbing of the public.

In Germany things were not always as they are now. Until the year 1869, a law against quacks existed in Bavaria, similar to that still prevailing in Austria. Any one who undertook to cure internal or external diseases, or to do obstetric work, without being duly qualified, was liable to be fined to the extent of 200 thalers or to be imprisoned for five months. Other laws of a like kind existed in the different German states. The most extraordinary thing about the repeal of this law against charlatans was that the impulse sprang quite unexpectedly from the doctors themselves. So incomprehensible was this attitude on their part that, when the amendment was brought in, the president of the Bundeskanzleramt was entirely taken aback and declined to give an opinion on the matter till the second reading of the Bill; the Government of the federated states was not prepared for such an unexpected proposition.

To understand why the doctors took up this position it is necessary to realize, on the one hand, the influence that Free Trade principles had up to that time exerted over the minds of the Liberals, and, on the other, the condition of the medical profession. Doctors were then little better than subordinate officials, who were forced to obey State physicians and to take up practice wherever they were ordered. A penal code imposed a fine of 20 to 150 thalers in the event of a medical man refusing his help in a case of danger, or without sufficient excuse. In order to get this paragraph cancelled, the Medical Society of Berlin saw no other course open than to make the practice of medicine free to every one and thus to do away with all restrictions, even those relating to quacks.

What induced it to choose this line of action it is impossible to understand, for neither the Government nor any other legislative body thought of asking so great a concession from the doctors. In the official statement brought forward in support of the Bill of 1868 it was said that the authorization of medical practitioners could not be abolished. For even if now and again, in argument, the assertion was made tl in order to practise medicine a certificate could dispensed with, it had to be remembered that pub feeling would be strongly opposed to such a law, directly contrary to the justifiable belief that the St will act in the interests of the life and health of citizens. Nor was there any truth in the statement tl the majority of doctors backed up the opinion of t Berlin Medical Society; in reality it was support only by four or five medical societies in different parts Prussia, as well as by several homoeopathic clubs and o "Bademeister," who proposed that everyone who w pronounced fit by a person in his position—that is, t director of a hydropathic establishment—should be c sidered qualified to practise medicine! The doctors w sympathized with the standpoint of the Berlin Medi Society insisted that the best means of protecting t public would be for everyone to keep his eyes ope the title of "Arzt" would suffice to show him whether not he was dealing with a qualified medical practition The laws against quacks had proved insufficient and w superfluous; the medical profession did not desire t kind of privilege. Lastly, such a law was an insult to t German nation, which did not require leading strin If quacks were no longer punished, and thus no m martyrs were made, charlatans would soon decrease number; their glory would disappear as soon as they w no longer forced to hide in holes and corners—a mode proceeding which gave them an air of mystery in the ey of the public.

It was really a satire on these ideas when, on G Sohms-Laubach expressing his fears lest the fight agai the cattle plague should be endangered by veterina practice being thrown open to all comers, one of t advocates of these views should have answered that, the event of a cattle plague, every owner who did employ a qualified veterinary surgeon would be h responsible and heavily fined. He forgot, however, describe the consequences for human beings who act similarly for themselves or their families in regard quacks.

Two ministers of State, von Mühler and von Delbrü tried in vain to oppose these views. The prohibition quacks was not designed to protect the doctors, but protect the public. It had not hitherto been custom in Germany to allow any one who began to practise make experiments on human beings as he liked. T man who was prepared to devote himself to the life a health of his fellow citizens had been obliged to acqu all the knowledge, and be acquainted with all the id accumulated for generations beforehand. The scienti deputation of the Board of Health in Prussia had vot against the repeal of the law declaring quacke illegal. "If the proposals were accepted it would b case of giving something good and solid away in excha for a problematic advantage, and a crime involvi life and health." In vain did the Freetrader Minis v. Delbrück himself insist especially on the great danger charlatanism in the fight against infectious diseases. T proposals were accepted on May 25th, 1869, and Section of the Statuary Laws of Trades was passed in its prese form, protecting only the title of "Arzt," and transferr to the new German constitution in 1871. The tra regulations of the North-German Federation were th extended to all the German States, even to those wh had hitherto retained their laws against quacks. All t was done in order to abrogate a paragraph of the pe code which in time would certainly have disappeared itself.

Never did a prediction prove falser than that assura that charlartanism would lose its hold on the public, t moment it was allowed to exist openly and without straint. Very soon complaints were heard about t increase in number, and in the insolence of the quac A large body, in fact one may say the greater number medical men, had always thought otherwise than th who advocated complete freedom for all who liked practise medicine. The new condition of affairs w regarded as damaging to the public health and the docto standing.

Pamphlets and resolutions against the liberty of quac soon appeared. For example, as early as 1873 a pamph by Rigler, prophesying the most serious results from t law, appeared. In the same year another was publish

Rosenfeld, who feared that the social position of ctors would also be injured by the freedom of unensed practitioners; he advocated the most energetic position to a law which allowed every stray vagabond treat patients. In the same year, too, the International edical Congress in Vienna carried a resolution to the fect that only those who could produce a certificate ould be allowed to practise. This regulation, it was said, uld be in the interest and for the welfare of the public.

In 1874 the Deutsche Aerztetag in Eisenach passed a solution to the effect that more rigorous punishment ould be applied in cases where any person, by the use the title of "Arzt," or its equivalent, attempted to tract patients, and that punishment should also be flicted on those who concealed the fact that they held diploma; that the title of "Doctor" should not be nferred before qualification; that a quack not possessing fficient medical knowledge should be just as liable to nishment as a qualified doctor who proved himself nting in knowledge and foresight. (This would in ality have been a protection of quackery in another form.)

Arguments, however, similar to those of the Berlin Medil Society were once more brought forward by an official edical body, when the representative assembly of doctors the Rheinprovinz in Düsseldorf accepted, on May 4th, 75, a motion of Oberstabsarzt Dr. Josephsohn against e re-establishment of the law against quacks, on the ound that such a law would have no interest either for e public or for the medical profession.

For the first few years following the repeal of the law great increase in the numbers of quacks was perhaps served. But the more widely the fact of their freedom came known the more numerous and the more daring e charlatans became. The feeling that something must done therefore grew more and more general amongst e doctors, and found its outcome in the following resotions adopted by the 23rd Medical Congress (Aerztetag) Eisenach in 1897, in consequence of a brilliant report Lent of Cologne:

1. That the permission to unlicensed practitioners to practise without let or hindrance has proved detrimental to the public welfare, as well as to the honour and advantage of the medical profession.
2. That the supposition that the public would be able to distinguish between a qualified practitioner and a quack has proved erroneous, and that as a result charlatanism has greatly increased.
3. That therefore the practice of medicine must be removed from the law of trades, and must be arranged by a special medical order (Aerzteordnung).

Similar proposals had been made previous to this, and ve been made repeatedly since. In 1898, for example, e Saxon Landes-Medicinal-Kollegium petitioned the inister for internal affairs to induce the Bundesrat to ing in a Bill in the Reichstag altering Section 29 of e law with reference to trades. The answer to this was e same as the Government had repeatedly given before, mely, that such an alteration and the suppression of acks, or, to speak more correctly, making the permission practise dependent on the possession of a diploma, uld certainly be desirable, but at the present juncture a oposal of this kind would not be successful.

The doctors receiving always this same answer, though ey did not alter their standpoint, came after a time to e conclusion that it would be wiser to make smaller mands. There was of course some fear "that by oosing this method they might spoil the prospect of timately obtaining a law against quacks, as the legislae bodies might regard this attitude as an encourageent to fight the abuse by small measures. If the doctors emselves proposed such half measures it would be held t to be necessary to enact more radical laws." The eat majority, however, had come to the conclusion that accepting this plan of action it would not be necessary fold one's hands and wait on into eternity. In the eantime a law rendering unlicensed practice illegal ight never have a chance of being passed. Therefore, in 02, the 28th Aerztetag accepted the advice of its Antiack Committee, which had been elected in 1899, at the resden meeting, to inquire into the frauds and dangers unlicensed practice. This committee of the Aerztereinsbund, whose mandate was extended after the cometion of the inquiry, is now a standing body, subordinate but working independently of, the Business Committee. is commission proposed the following resolutions:

1. That, without denying the urgent necessity of a law against quacks, the medical associations should be recommended to take up the fight against this evil by endeavouring to enlighten the public by word of mouth, by inserting notices in the press, or by means of special pamphlets, by working in societies for the instruction in public health, or in any other suitable way.
2. That the Business Committee be instructed to lay the following demands before the Bundesrat:
    - *a.* The practice of medicine should be prohibited in every case where the professional untrustworthiness of an unqualified practitioner could be proved. [The Munich Pressauschuss (Press Committee), in a report presented to the meeting, had also recommended that a clause of that kind should be added to Section 35 of the law, whereby are forbidden the teaching of dancing, gymnastics, swimming, the trades in old clothes, the professional management of other people's lawsuits in case of untrustworthiness.]
    - *b.* Any unqualified practitioner taking up medicine as a profession should be compelled to notify the magistrate thereof.
    - *c.* One law should be introduced for the whole empire, forbidding bombastic advertisements of nostrums, medicines, and medical appliances, in accordance with a similar regulation passed on June 12th, 1900, in Hamburg.
    - *d.* The State authorities should periodically warn the public against the methods, cures, personal advertisements, and other practices of quacks.
    - *e.* The dispensing of quacks' prescriptions by apothecaries should be prohibited.

A further motion was passed forbidding treatment by letter.

In 1903 the Committee presented to the Aerztetag in Cologne a revision of the existing laws and by-laws against charlatanism in the individual States, and in 1905 a revision of all the ministerial decrees or State regulations which have appeared since 1902. The author of both these compilations was Becker of Munich.

This is, in brief outline, a sketch of what official representatives of the medical profession have undertaken against charlatanism since the unfortunate change of law in 1869.

[*To be continued.*]

ASSURANCE AGAINST PARTIAL DISABLEMENT.

ON May 12th, at p. 1140, a letter was published from a correspondent who wanted to find a company which would assure against partial disablement from accident or disease. He pointed out, quite justly, that a medical man's work being personal there are many accidents and illnesses which, while they lay a man up, would yet not altogether prevent some of his patients from insisting on seeing him for a few minutes in his bedroom or study.

The publication of this note has brought us several communications, and we have been referred in particular to the Employers' Liability Assurance Corporation and the Law Accident Assurance Society as offering what our correspondent requires and as being companies which deal liberally with their clients. Both these societies appear to meet the point as far as partial disablement from accident is concerned, but that they do so in the case of partial disablement from disease is by no means clear. The prospectus of the Employers' Liability Corporation we have not seen and the inference to be drawn from that of the Law Accident Assurance Society is decidedly against the belief. Thus the term "temporary partial disability," which figures in connexion with accidents, is nowhere used in relation to disease. There the terms are "temporary total disablement" through certain diseases, and "convalescence" from the same. The list of diseases covers fifty different disorders, among them figuring complete alopecia, Asiatic cholera, beri-beri, bubonic plague, catalepsy, glanders, lead palsy, acute hydrocephalus, myxoedema, famine fever, trichiniasis, scurvy, tetanus, and hydrophobia. Doubtless medical men who are at all nervous will be relieved to know that if they get mumps or myxoedema, chickenpox or catalepsy they will be fully compensated, and that "enteric" fever need have no more financial terrors for them than typhoid. Possibly, however, they will be somewhat disconcerted to find that if they get pleurisy it must not be of the tuberculous variety, and that an attack of appendicitis or perityphlitis will only entitle them to pay should they submit to actual operation. We suspect, moreover, that the majority of medical men would be quite content to take all the risks of an attack of famine fever or acute hydrocephalus if they were sure that the company would pay for their *locum tenens* were they laid by the heels owing to an attack of lumbago, gout, or acute bronchitis, diseases of which the society apparently takes no cognisance.

As at present advised, we are certainly disposed to think that the Medical Sickness, Annuity, and Life Assurance Friendly Society offers much more practical terms to its members, since, provided the insured is sick, it does not concern itself with the disease from which he may be suffering. This society, however, like the others, does not at present cover cases in which medical men are unfit to leave the house, but not too ill to give some special patient who visits them the benefit of their advice.

The Fifteenth International Medical Congress.

HELD AT LISBON, APRIL 19TH TO 26TH.

[*Continued from p. 1288.*]

SECTION OF MEDICINE.

THIS Section occupied the largest room in the building, and was certainly the best attended. The following are some of the more important papers. Bernheim spoke on the source of infection of tuberculosis in insanitary dwellings, and on the work done against unhealthy dwellings by the International League which he was able to found in Paris. McKasker (Fort Wayne, U.S.A.) spoke on the diseases of the digestive organs regarded in the light of the pathogenesis of arterial hypertension. He dealt with the chemical substances, which, when introduced into the circulation, cause a hypertension, including among these some of the products of bacterial flora of the intestine. Only a small proportion of hypertension cases depended on digestive disturbances. Kapsammer, who dealt with the functional diagnosis of renal disease, spoke of the various methods of examining the urine, and insisted on the importance of collecting the urine separately from each kidney by ureter catheterization. In the discussion, Pasteau held that one was not justified in operating on a kidney before one had examined the bladder and its orifices and the urine by all available means. He spoke of the value of the methylene blue, phloridzin, cystoscopic, and polyuria tests. Catalin made a great point of cystoscopy. Albarran did not trust methylene blue or phloridzin; cryoscopy, too, left much to be desired. He then proceeded to describe his method of so-called polyuria testing. Kümmell said cryoscopy had yielded him excellent results. In reply, Kapsammer said that a mere macroscopical examination of a kidney was not sufficient; he supported this statement by quoting mistakes made in this way on the *post-mortem* table. Histological examination was the only safe means of determining the exact condition of a kidney. Bernheim then read his report on the international means of combating tuberculosis. He sketched out the dangers of infection in the navy and mercantile marine, and also in railways, and after giving a general survey of the distribution of the disease, suggested the appointment of an international commission to guard over the prophylaxis. Faure laid stress on the dangers of alimentary infection. Bensaude read an excellent paper on the coincidence of purpura and tuberculosis. Pavy read a paper on diabetes mellitus, dealing principally with the pathogenesis. Dyce Duckworth followed with a paper on chorea, in which he maintained that the disease was caused by an infective agency, and the diplococcus or streptococcus of rheumatism was certainly the most frequent if not the only cause. No other microbe than the diplococcus had been discovered in cases of chorea which were supposed to be unconnected with rheumatism. He went on to show that the other varieties of streptococcus, most of which were responsible for pyaemic infections, were like this diplococcus, but were, in fact, distinct from it. Chorea was therefore to be regarded as a form of rheumatism, involving the membranes and cortical structures of the brain, and was, in fact, cerebral rheumatism. The predisposing factor which determined an attack of chorea in a rheumatic subject was the neurotic element. From these considerations he concluded that chorea was a neuro-humoral disorder. Burrows described a new mode of dealing with appendicitis by high rectal injections.
subject of cerebro-spinal meningitis was down
discussion for the morning of the 25th, and elici
much interest. It was regretted that Weichselba
was absent, but França and Cabral read excell
reports. The former first dealt with the signs, sympto
and course of epidemic cerebro-spinal meningitis.
description of the disease as it occurs in Lisbon was v
vivid. In nearly half of his cases herpes had been
served. Ecchymoses of considerable size were also
uncommon. Delirium was noted in over half his ca
and he spoke of convulsions, including general conv
sions, in young children as being extremely comm
True Jacksonian epilepsy preceded death in certain ca
Kernig's sign was noted in nearly all the cases (90
cent.), and in two cases it existed unilaterally. Turn
to the changes in the blood, he found that there
always a leucocytosis dependent on an increase
the number of the polynuclear cells. When
number of white cells exceeded 25,000, one was justi
in assuming that the meningitis is not tubercul
in character. The cerebro-spinal fluid exhibited sc
marked types; the fluid was generally considera
increased in quantity, but exhibited large variations
appearance. The chief interest was centred in
cellular elements. There was a primary polynucl
leucocytosis, while later the polymorphous eleme
receded in favour of lymphocytes and mononuclear leu
cytes. Plasma cells were also frequently met with
considerable quantities. After dealing with the pathol
of the disease, he summed up his clinical and pathologi
experience as follows: (1) There are as many types
cerebro-spinal meningitis as there are microbes which
capable of attacking the meninges. (2) The symptomatol
of the different meningitides does not vary in the differ
forms of these diseases in accordance with their e
logical agents, so that one could make a distinct diagno
for each. (3) Among all these forms of meningitis, o
that one which is caused by the *Diplococcus intrace*
laris meningitidis (Weichselbaum) forms a separ
disease. (4) The examination of the cerebro-spi
fluid from a chemical, cytological, and bacteriologi
point of view is capable of demonstrating
nature of the meningitis. (5) The most ratio
treatment of the various forms of meningitis—
tuberculous form excepted—was by lumbar puncture, a
subsequent injections of antiseptic solutions into
spinal canal. The solutions to which he referred were
oxycyanide of mercury and lysol. Cabral's paper teen
with interesting details. First he dealt with tubercul
meningitis, and then passed on to the discussion of
epidemic variety. He next dealt with the historical poi
in connexion with the disease in Portugal. In speaking
the etiology, he dealt with the meteorological conditi
during the various epidemics, and showed that cold peri
favoured its development. The mode of entrance of
diplococcus was fully discussed, and the author left
question between a respiratory and an intestinal or gast
infection undecided. He distinguished an acute, a s
acute, and a chronic form, and further spoke of a "*for*
fruste" and an abortive type. In turning to Kernig's si
he pointed out that this might be employed in forming
differential diagnosis between the meningitides and oth
diseases. The remarks on the blindness caused by
disease were highly interesting and instructive. T
majority of the visual disturbances were temporary a
were accompanied by organic changes in the eye. Iri
choroiditis, either of a plastic or suppurative variety, w
seen in certain cases, while true optic neuritis and pe
neuritis also occurred in certain types. Each of the co
plicating symptoms was dealt with separately from
pathological point of view. The mortality from
disease was put down at 40 per cent.; while when recov
took place, it took a period up to five weeks as a rule,
at times was not complete till after three or even six mont
With regard to treatment, he agreed with França
praising the injection of antiseptic fluid into the du
sac. Carvalho spoke of the history of the disease
Portugal. Peters pointed out that the disease present
an essentially convulsive type in St. Petersburg, and spo
of the pathology. In the afternoon various subjects
connexion with tuberculosis were brought forward,
there was nothing new or of much importance. Last
Ostwalt's communication on deep injections of al

ic solutions of cocaine for facial neuralgia deserves
ntion.

Paediatrics.

his Section was divided into two parts—Medical and
rgical. The meetings were not well attended, and a
ge number of papers were passed over. Passing over
Medical side, mention must be made of a few of the
ers in the other subdivision. Vulpius discussed the
atment of infantile spinal paralysis. He briefly
cribed the various forms of instrumental assistance
the support of joints and limbs affected by
alysed muscles, and came to the conclusion that
enever it was possible, one should avoid using any
aratus, as even the best of them had great disadvan-
es. His special experience led him to speak of the
rative treatment in highest terms, and especially in
nexion with tendon transplantation. Arthrodesis, or
ng of joints in ankylosed positions, led to good results
certain cases, and the operations might be employed
y in properly-selected cases and with correct technique.
e chief points in the tendon transplantation is to
ain a proper tension of the implanted tendon, and in
lying a sufficient period of support for the limb—in
t, in carrying out a careful after treatment. The
ults which he had obtained by its means were ex-
mely good in a very large majority of his cases.
Sousa said he had found that arthrodesis was
most useful operation in paralytic affections, while
nsplantation of tendons was to be preferred only for the
ds. In spastic conditions he advised tenotomy, elonga-
of tendons, and, at times, transplantation. Redard,
spoke on the same subject, first described the para-
c and spastic deformities, and then dwelt on the vari-
methods of surgical interference. These included
otomy, forced redressment, elongation and shortening
tendons, anastomoses of muscles and tendons, trans-
ntation of tendons on to the periosteum, tendinous
tion (tenodesis), operations on the muscles and
neurosis, operations on the capsule and ligaments,
rations on the bone and on the articulations, and
rations on the nerves and brain. In choosing the
cedure for paralytic deformities, he said, the deformity
st first be corrected. This might be done by forcible
ressment, or by osteoclasia, or tarsoclasia. Resections,
, were rarely necessary. Then the muscular equili-
m and the function must be re-established, which
ht be done by tenotomy, myotomy, and transplanta-
of tendons. The value of the latter depended largely
he technique employed, but in the majority of cases
preferred periosteal transplantation to anastomosis.
nsplantation of antagonists was very valuable at times,
the author cited instances in which this should be
ied out. Anastomosis of healthy to paralysed nerves
ideal, and many perfect results had been obtained by
procedure. Lastly, one had to fix the articulations of
paralysed limbs in a good position in certain cases,
this was done by arthrodesis, tenodesis, etc. Passing
o the spastic conditions, he discussed when and how
should operate and what results were obtainable.
otomy, tenectomy, myotomy, *redressement forcé* were
normal methods, while transplantations of tendons
neurotomy were only exceptionally required. Cere-
operations had not led to a single good result so far.
enz spoke on the treatment of congenital dislocation
he hip. He claimed that the bloody method (Hoffa-
enz) was admissible only in rare cases, when the
dless method failed. In order to obtain good results
the latter it was necessary to master all the details.
described the procedure. He placed the patient's
er extremity in a position of rectangular abduction,
when there was a primary stability, in which case
ht hyperextension or negative abduction is the
ition for fixation. Rotation in rectangular abduction
immaterial to the reduction. Extreme rotation was
necessary save when the neck of the femur was
kedly anteverted. Fixation by flexion or extension
not useless but was so disagreeable to the patient that
did without it. Roentgen rays did not assist the
ction in the least. Natural locomotion (walking)
ing the fixation of the joint was desirable for several
ons. Dealing briefly with the duration of the fixation
after-treatment, he went on to discuss the age limits
e procedure: 7 years might be taken as the latest age
double dislocations, and 9 years for single. The ages of 3, 4, and 5 years were said to be the most favourable. In concluding, he stated that the method had led to a complete realization of his hopes, that it was free from all danger, and that in at least half the number of cases he obtained more or less complete cure, while in the other half a very marked improvement was effected.

Neurology.

Of the thirteen reports printed in the volume of this Section, covering some 333 pages, only four were actually read, and only some thirty-three other speakers turned up to deliver their communications. Among the former, mention should be made of Simon's excellent paper on the nature and evolution of katatonia. Morel spoke of the prophylaxis and treatment of criminal recidivists; he had got together a great amount of valuable information, both in tabular and arranged form, and concluded therefrom that his material proved that it was useless to punish intellectually and morally degenerate criminals, and that punishment should be replaced by prophylactic measures, which could be combined with social hygiene. Machado reported on exophthalmic goître; he considered this affection as a disease and also as a syndrome. The cardinal symptoms of the disease had been reproduced by division of the restiform body, but the pathology of the disease was by no means settled by this experiment. In speaking of the localization of the disturbances he said some difference of opinion existed between various observers. Taking these observations and other facts into consideration, there were three theories to be discussed as to the causation of Graves's disease: (1) That it is a pure neurosis, (2) that it is due to the irrigation of the nervous system by poor or vitiated blood, and (3) that it is a true intoxication. The last-mentioned theory included the theories of the toxin of the thyroid gland secretion (hyperthyroidation), and also the parathyroid theory. He placed side by side the arguments for and against each theory, and in the end was inclined to regard Graves's disease as a neurosis, but admitted that autointoxication might play a part at times in the production of symptoms. He also spoke of certain conditions which formed the syndrome "basedowiforme," which did not tally with classical Graves's disease. An interesting discussion on the value of pushing mercury in the treatment of general paralysis of the insane was started by Raymond, who pointed out that in spite of the mercurial treatment in the majority of the cases, the disease continued its course unchecked. In many cases definite harm could be traced to the drug, and at times the whole course of the affection was changed for the worse and death occurred rapidly, in such a way that there was no doubt that it was actually caused by the treatment. He was of opinion that those cases in which this treatment was said to be effective were not real cases of general paralysis of the insane, but were cases of meningo-encephalitis, resembling the former. Sicard agreed that mercury was not only useless but actually dangerous in general paralysis of the insane, and others spoke more or less in the same strain. Turning to the treatment of tabes, Faure and Lacerda took up the discussion. The former passed over the question of hygiene, régime, and dietary briefly, and then spoke of antisyphilitic remedies. These consisted in choosing the salt of mercury according to the case. Calomel was suited for robust patients, the benzoate and biniodide injected every second day suited most patients, while for susceptible patients, the phenol compound of mercury, enesol, etc., might be preferable. For depressed and anaemic subjects he advised the cacodylate of mercury combined with iodide of sodium. Next he dealt with the treatment of special symptoms, and stated that one should be careful in treating the tabes patient for his pain, since many of them died not of their disease but of the treatment. For localized pain hot or cold compresses were of value, while hydrotherapy answered well for painful crises. X rays also might be used for the pain. Motor symptoms should be treated by exercise. Lacerda advocated an intense mercurial treatment for tabes. The salts he employed were the benzoate and biniodide, and also the phenol compound of mercury. He found that this treatment did harm in the third period of dementia. Crocq, Boissier, and Raymond made remarks on the efficacy of the treatment, the latter expressing himself very cautiously. Moriera read his report on the mental diseases in tropical climates, in which he said that psychiatry did not materially differ from that of other climates.

Dermatology.

Of the reports in this Section only two of the seven read were published in the volume, while three others failed. Metchnikoff's was read by the Secretary. The discourses of Crocker, Hansen, Bas, and Levi Bing were very good. But the chief event of the Section was an admirable address by Unna on leprosy, given in the lantern room. He spoke of the disease from the social standpoint, showing that public opinion necessitated the entire wreck of family life and happiness, unjustifiably if the disease was not cured. His experience extended over twenty-two years, and he had dealt with sixty patients, most of whom were suffering from cutaneous disease. The success of the treatment depended on the auxiliary means. In studying the disease and the effect of the treatment, he had shown that by staining the tissues with victoria blue and safranine, the living bacilli were tinged bluish-black, and the dead bacilli a golden yellow. The obstacles to the treatment were that the majority of remedies did not produce a violent reaction, but that a simple hypertrophy of the connective tissue took place, so that the bacilli were imprisoned in the tissues, and not expelled; secondly, that the bacilli blocked up the lymphatic channels in such a way that the remedies could act only very slowly; and thirdly, that the bacilli themselves produced a solid fat, in which they become less accessible to aqueous liquids. First he stated that heat was the simplest means of removing the solid fat from the bacilli, so that they could be attacked by direct agents. The Japanese method of giving acid baths at a high temperature was of importance, and Unna found that the so-called "ink" baths at 30° C., consisting of sulphide of iron and tannic acid, yielded good results. Considerable pressure applied by means of a hot iron was also an excellent method of applying heat. He also found thermo-cautery of use in certain cases. He said that pressure and massage should not be neglected. Turning to the chemical means of assisting in the treatment, he pointed out that the remedy for liberating the bacilli from their fat *par excellence* was alkali. The caustic paste and ointment, made of caustic alkalies, were well adapted for the purpose. The cauterized skin healed well with zinc sulphate, and later by camphor or oil of gynocardium. Thiosinamine made into a soap was useful not only in keloid and other cicatricial conditions arising from the treated parts, but also for leprosy in general, in attacking the sclerosed portions of the skin. Having spoken of the remedies which laid the bacilli bare for treatment, he turned to the substances which attack the protoplasm of the bacilli themselves. Reducing agents were the most efficacious. Among these were phenol, pyrogallol, resorcin, chrysarobin, sulphur and ichthyol. Pyrogallol was the most active, and he showed that the action was not entirely due to the reducing properties, since he obtained fairly good results with oxidized pyrogallol or pyroloxin. Speaking of the internal treatment, he had found oil of gynocardium, ichthyol, camphor and salicylic acid of service. These internal remedies, however, were only of use when combined with the external means. He mentioned some of the cases which he had been able to cure, and gave details of their histories. Lastly, he presented tables of the treatments, arranged in groups, according to the activity and intensity of the drugs.

Surgery.

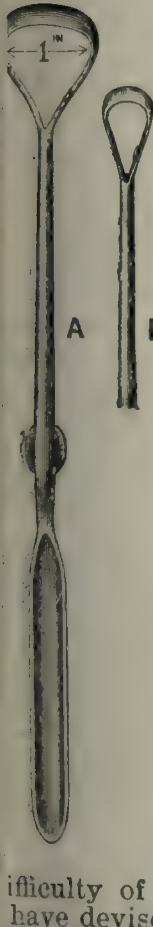
The volume of the reports of this Section contain only two papers, those of D'Arcy Power and Salazar de Sousa; all the others arrived too late for printing. The meetings were fairly well attended, and discussions were moderately active. On the first day the surgery of the sympathetic was chosen for the chief theme, and Joannesco and de Sousa were the *Rapporteurs.* The former based his remarks on some 314 resections of the sympathetic. He spoke of the utility of the procedure, and insisted on the excision of portion of the trunk of the nerve. His results in glaucoma were good, while those for epilepsy and exophthalmos were less favourable. However, in dealing with cases of epilepsy, he was able to obtain some cures. De Sousa emphasized the risk of the operation of resection (simple division of the nerve trunk was only touched on), and stated that total resection of the cervical sympathetic ganglia yielded a mortality of 7.4 per cen With regard to epilepsy, he said that sympathectomy ga good results, that the cured cases were not the milde cases, and that when bromides, etc., failed entirely, o was justified in trying surgical interference. In Graves disease he was of opinion that the operation was indicat when other treatment failed or when the case w advancing rapidly. In facial neuralgia one must alwa bear in mind the gravity of the operation, and only unde take resection of the Gasserian ganglion when the pa was intolerable. For glaucoma, although some cases we not relieved by operation, many were considerab improved, and the surgery of the sympathetic deserved place in the treatment of this affection. He also discuss the surgery of the solar plexus and the lumbar and sacr sympathetic. Ramos advised stovaine instead of cocai for intradural anaesthetic injections, and believed that t anaesthesia obtained by this means was exceptional well adapted for operations on the lower extremities, pe neum, bladder, vagina, rectum, anus, scrotum, and teste the cervix uteri, and the inguino-crural region. Rehn, Frankfort, read an excellent paper on compression of t respiratory passages by the hypertrophied thymus. Whi the pressure exercised by that organ when enlarged w extended to the mediastinum, the large vessels were n often affected. The tracheo-bronchial stenosis due thymus pressure was recognized as a definite conditio and care must be taken to separate it clinically fro spasm of the glottis. The symptoms varied with t degree of the pressure, but they might develop eith acutely or gradually. Lastly, he stated that t termination of the malady might either be in dea or else in recovery. The treatment consisted in t removal of the obstruction, which could be carrie out relatively easily and without much risk. Napalko and Baxes spoke on intestinal surgery. On the 23 D'Arcy Power read a report on arterial an venous surgery. He said that important work ha been carried out by Crile in connexion with shock an collapse. In consequence he had employed adrenalin extreme shock and had obtained some satisfactory resul with it. Turning to the question of ligatures, he said preferred sterile silk to catgut, silkworm gut, etc. Turnin to the treatment of aneurysm he described a new apparat invented by Colt for wiring and subsequently applyi electrolysis. He also said a few words on the surgery varicocele, haemorrhoids, and naevi. In conclusion formulated a few questions as a guide for discussio Garré preferred very fine ligatures, boiled in a soluti of perchloride. Catgut was reliable for sutures in t liver and kidney. He approved of Trendelenburg's meth of treating aneurysm, while with regard to varicocele advised very high ligature and complete removal of t veins. Feijao spoke in somewhat the same strain. Carr and Guthrie read a report on the anastomosis of blo vessels. They described the method of uniting vessels end to end approximation, and insisted on the greate care being exercised with regard to asepsis. The meth they claimed rendered a number of operations possib which could not be performed without its ai Perhaps the best communications of this Section we the reports presented by Schloffer and Vasconcellos gastro-intestinal and intestino-intestinal anastomosi With regard to the former operation, Vasconcell regarded pyloric stenosis and stenosis from other co ditions as the direct indication. The method which followed was that of von Hacker. With regard to inte tino-intestinal anastomosis, he preferred the old classic end-to-end operation, or else the lateral anastomosis. the last day, Mattos spoke on thyroidectomy; an Pavlovsky, who had been through the Russo-Japanes campaign, spoke of the surgery of the battlefield.

Surgery of the Urinary Passages.

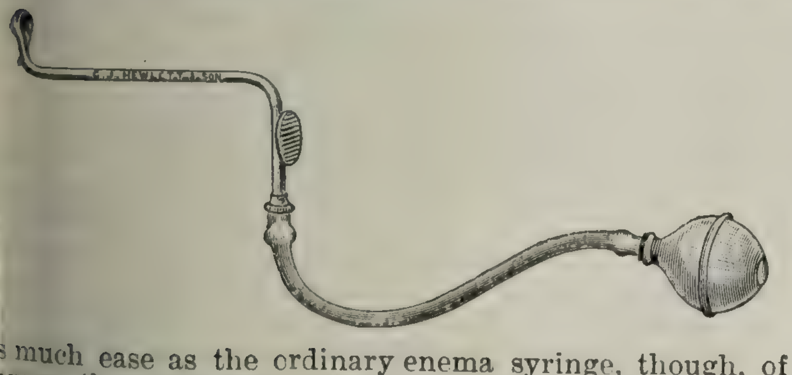
Part of the work of this Section was combined with that the last-mentioned Section. The most interesting commun cation was a report on surgical intervention in nephritis b Pousson, and the subsequent discussion. Pousson spoke total and partial nephrectomy, nephrotomy, and decapsul tion. Nephrotomy was one means of lessening the intr renal tension, while decapsulation reduced pressure on th inflamed kidney. All these operations yielded a mortalit of 15.4 per cent. in acute nephritis, which he consider low. Nephrotomy was the best operation for chroni ephritis, while nephrectomy must be reserved for cases n which the changes were very extensive, and affected nly one kidney. Decapsulation was not much employed n the acute disease and was inferior to cutting into the rgan. Turning to chronic disease he spoke of palliative neans of treatment. Decapsulation was dealt with as n operation for the cure of chronic nephritis, the najority of the cases having derived benefit from the peration. The idea of stripping the kidney of its apsule and suturing a layer of peritoneum over he bared surface with the object of increasing the lood supply was ingenious, but proof was still wanting hat it had practical value. Pousson challenged the statenent that these decapsulation operations could actually ure chronic nephritis. However, it was the only operaion which would allow of a chance of complete recovery. Iarrison gave reasons for assuming that inflammatory ension was a factor in the production of permanent idney disease. He therefore had practised incision of he capsule to relieve tension, especially when there was vidence of progressive renal deterioration, suppression of rine or partial anuria, or when the heart and circulatory rgans showed distress in the course of renal disease. He bjected to decapsulation on the ground that the new apsule would certainly be thick and contractile. Giordano, 'asteau, Albarran, Tedenat, and Kapsammer took part in he discussion, in which very varied opinions as to the alue of decapsulation were expressed.

MEDICAL AND SURGICAL APPLIANCES
AND
MEDICINAL AND DIETETIC PREPARATIONS.

A Curette for the Puerperal Uterus.—Dr. A. Knyvett Gordon (Medical Superintendent, Monsall Hospital, Manchester) writes: Some twelve months ago I had some uterine curettes made for me for use in cases of puerperal septic disease. The handle resembles that of the ordinary Sims's sharp curette, but the shape of the uterine end is different, in that the cutting edge is turned away from, and not towards, the surface of the uterine wall. As will be seen from the illustration, they have a broad, flat end, which is much larger than that of the ordinary curette. I have found that with these instruments the endometrium and any retained decidua can be removed very rapidly, and this is often of importance in puerperal cases where the haemorrhage is severe. Moreover, it would, I think, be quite impossible to perforate even the most friable uterus with them. In the illustration the uterine end of Sims's curette (labelled B) is shown for comcomparison. The instruments have been well made for me by Messrs. James Woolley, Sons and Company, Limited, Manchester.



Post-Nasal Syringe.—Dr. F. H. Burton Brown (London) writes: The advantages of post-nasal syringing over the more usual methods of flushing out the nasal passages are obvious. The only objection thereto consists in the somewhat greater ifficulty of the proceeding. In order to facilitate this have devised a modified post-nasal syringe, which I find n be used by most people on themselves with at least much ease as the ordinary enema syringe, though, of ourse, there are some exceptions. The little instrument made by Messrs. C. J. Hewlett and Son, Charlotte treet, E.C.



A Non-alcoholic Wine.—The Mas-de-la-ville non-alcoholic wine, Chateau Peyron (still) is a pure grape juice which has been submitted to a process of pasteurization; it is sent out in bottles closed by cork-lined capsules held firmly pressed against the mouth by means of a partial vacuum above the liquid. Analysis showed the absence of alcohol, and of salicylic acid, formaldehyde, and other preservatives. It is recommended that the wine should only be opened as required; a sample which was kept exposed showed no change until more than a week had elapsed. This natural grape juice is extremely agreeable in flavour, though perhaps a little acid for some palates; each of the bottles examined (reputed pints) contained about 5 gr. of crystals of potassium bitartrate in addition to what is in solution.

THE PLAGUE.

Prevalence of the Disease.

India.

During the weeks ended April 7th, 14th, 21st, 28th, and May 5th, the fresh cases of plague in India amounted to 23,055, 18,253, 20,478, 17,885, and 15,892, and the deaths from the disease numbered 19,727, 15,582, 17,673, 15,633, and 13,293. The apparent falling off in numbers is due to the fact that two weeks' returns are given for Bengal and Central India for the week ended April 7th; had this not been so the actual number of deaths for the weeks ended April 7th and 14th would have been about the same. The principal mortality figures are: Bombay Presidency, 1,889, 1,766, 1,914, 2,106, and 1,690; Bengal, 8,472, 8,244, 3,518, 2,240, and 1,108; United Provinces, 3,540, 3,934, 3,812, 2,589, and 2,127; the Punjab, 4,285, 5,519, 7,493, 8,162, and 7,921; Kashmir, 101, 285, 226, 195, and 157; Rajputana, 166, 89, 193, 120, and 67; Central Provinces, 597, 304, 159, 73, and 40; Central India, 267, 153, 124, 69, and 33; Burma, 310, 220, 185, 149, and 141.

In the City of Bombay the mortality from plague has increased during April, but although relatively high for this year, it is far below the mortality caused by plague in previous years. The plague statistics in Bombay for the week ended April 19th during 1903, 1904, 1905, and 1906 were respectively, 1,197, 1,746, 1,995, and 961.

The proportion of deaths to cases is at present higher than usual in India, but the actual number of plague cases is lower than for several years. During the week ended April 29th, 1905, 56,732 persons died of plague in India, compared with 15,633 during the corresponding week of 1906.

Hong Kong.

During the weeks ended May 19th and 26th, the fresh cases of plague in Hong Kong numbered 90 and 116, the deaths from the disease amounted to 83 and 116 respectively.

Persia.

According to a telegram dated Simla, May 29th, the plague in Eastern Persia shows no sign of abatement.

Arabia.

According to a telegram dated May 30th, plague has been declared at Jiddah, the port of Mecca, on the Red Sea.

The Conference of Charity Organization Societies to be held at Tunbridge Wells next week will be opened by the Mayor on Tuesday at 10.30 a.m., when the subject for discussion will be constructive charity; in the evening the report of the departmental committee on the Vagrancy Act will be discussed, with special reference to enforced labour colonies. On Wednesday morning the subject selected is the feeding of school children; on Wednesday evening, guilds of help (Elberfeld system); and on Thursday morning, thrift. There will be garden parties on Tuesday and Wednesday afternoons, and on Monday evening the Mayor and Mayoress will hold a reception at the Town Hall.

Under the will of the late Mr. Edward Northway Bull, of St. John's Wood, N.W., the Newbury District Hospital receives £1,500, and the Royal Berkshire Hospital at Reading £1,000.

The *Arbeiten aus dem kaiserlichen Gesundheitsamte* (Bd. xxiii., H. 2, 1906) contains a useful study of ankylostomiasis which has been compiled by Dr. Löbker and Dr. Hayo Bruns. They discuss the history and geographical distribution of the disease, the life-history and habits of the parasite, and the clinical features of the infection. The questions of therapeutics and prophylaxis are also dealt with at length, and the work contains much interesting but no very novel information about the methods adopted to suppress the disease in the German mines which are infected with it.

LITERARY NOTES.

THE American Society of Tropical Medicine, which was founded in 1903, has issued a volume containing an account of its proceedings during the three years of its existence. The papers read at the meetings of the Society are published in full. Altogether it is an interesting record of useful work.

Messrs. J. and A. Churchill are about to publish *Preservatives in Food and Food Examination*, by Dr. John C. Thresh, Lecturer on Public Health at the London Hospital Medical College, and Medical Officer of Health for Essex, and Dr. Arthur E. Porter, Assistant Medical Officer of Health and Chief Sanitary Inspector, City of Leeds. In this work of 500 pages a critical examination is made of the various preservatives used in beverages and foods, while the question of unsound food is fully discussed. The authors maintain that "during recent years it has become notorious that serious and widespread epidemics of illness are attributable to the use of food which has become infected with organisms capable of producing disease." The text is elucidated by plates. The appearance of such a work is opportune in view of the recent revelations as to preserved meat as prepared in Chicago packing houses.

There has been much discussion as to the use of the word "optician," which, according to the terms of Johnson's definition—"one skilled in optics"—is inapplicable to makers or sellers of spectacles. Yet the designation would be rejected by the ophthalmologists, and it affords a convenient means of distinguishing the mechanic who makes the glasses from the professional man who prescribes them. The vaulting ambition of some "sight-testing opticians" has led to the suggestion of "opsiologist," "opthalmician," "optologist," "optist," "opsiometrist," "optometrist," "opthalmometrist," and even "ophthalmiater"! What's in a name? Well, there may be a great deal when it happens to convey a wrong meaning, which is likely to mislead the unwary, and indeed would appear to be intended to enable enterprising tradesmen to sail under false colours. The Romans knew the difference between the *medicus ocularius* and the *faber ocularius*. With us the *faber* encroaches so much on the *medicus* that the latter has had to discard the good old English word "oculist" and call himself an "ophthalmic surgeon" lest equivocation should undo him.

H. K. Lewis, the Mudie of medical literature, has chosen "Publicavit" for his telegraphic address. We venture to suggest that "Publicat" (or "Publicans," but that might give a handle to the irrepressible punster) would be more appropriate, for publication with him is not an act now finished and done with, but one, like *as* in the old Latin grammar, always *in praesenti*. "Circulator" might be better still but for its unhappy connotation, which gave Riolan his only point, though it was but a verbal one after all, against Harvey. Some notion of the activity of H. K. Lewis's circulatory apparatus may be got from an inspection of the list of new books and new editions published during January, February, and March, 1906, which have been added to his rolling stock. The list, which extends to sixteen pages, shows how amply the "circulator" of Gower Street provides for the needs of the practitioner anxious to keep himself abreast of the advance of knowledge.

It was Charles Lamb, we think, who said that no one ever took up a newspaper without expectation or laid it down without disappointment. Yet it is at least as often the reader as the newspaper that is to blame. The complaint so commonly heard—especially from people who peruse them from cover to cover—"There's nothing in the papers," generally means that they have not been read with intelligence. Often they are not read at all. But this does not prevent the "idle irresponsible reviewer" of the armchair from calling them dull, stupid and fossilized. Our own experience, in fact, would lead us to say that it is precisely those who do not do us the honour to read the BRITISH MEDICAL JOURNAL who are most ready to dwell on its shortcomings. We welcome criticism, and it is seldom worth while to complain of misjudgement; we only say to those who feel moved to criticize us, Strike but hear us! The JOURNAL is intended for the greatest good of the greatest number of its readers. Among so many there are wide diversities of taste and intellectual craving; hence it is inevitable th some should want more of the higher bacteriology, sor more of what may be called the medicine of common lif that some should think the grievances of the pub medical services should have more prominence, and th others should think every inch of space wasted that not filled with the domestic politics of Growlborough a Snarleton. In the reminiscences of Sir John Robinso who was for many years the ruling spirit of the *Da News*, is a story which affords an apt illustration of t kind of criticism for which all sorts and conditions editors must be prepared:

> One day, as he was cogitating upon the matter when goi out to snatch a hasty lunch, he met in Fleet Street a ve distinguished astronomer of his acquaintance. "I say, r dear fellow," said the man of science, "when are you going give us some interesting news?" Robinson naturally to this to be a joke, but he found the other man was in earne whereupon he said, "Why, how many wars do you wan Isn't one enough?" "The war!" was the contemptuc reply. "No sensible person cares a brass button about t war. What people want is something good about the sun—t spots on the sun!"

No editor can hope to please every one; he must, wi Hamlet, think himself successful if he 'scape whipping.

Lloyd's News is sending out gratis and post free every one applying for it a free book of 120 pages scribing, with specimen pages, the International Libra of 20 volumes, "comprising the best of the thousand b books ever written," which is now offered at an extrem low price.

In 1671 Madame de Sévigné, with the easy philosop which enables us bear the sufferings of others with for tude, said that when one has deserved gout one shou grin and bear it. As M. P. Lorleau points out, her opini changed five years later, when she was 50 and had hers become the victim of the disease. After seeking adv from a number of counsellors she decided to go to Vic in search of a cure for her hands, her shoulders, and knees, not to mention her "poor nerves," which w "sorely afflicted with rheumatism." She arrived on M 18th, 1676, and after resting a day, began to take t waters on May 20th. Her account of the ritual interesting:

> We go to the spring at six o'clock; every one is there. drink and make villainous faces, for—just think—they boiling and have a disgusting taste of saltpetre. We go ab for a time, hear mass, void our waters, and compare notes to the manner in which this is accomplished; this occupies till midday. Then we dine, and after dinner we visit. At f o'clock we take walks in a delightful country; at seven a li supper, and so to bed at ten. . . . The waters have done good; I have drunk a dozen glasses; they have purged slightly—that is just what is wanted.

On May 28th she begins the douche, which she call tolerably good rehearsal of purgatory:

> You are put quite naked into a little underground pl where there is a pipe of hot water with which a woman pl on whatever part you wish. . . . Picture to yourself a jet water thrown against any part of your poor body, as boil hot as can be imagined. First there is a kind of gene demonstration in force; then the attack is concentrated the joints which are most affected; but when the douch directed on the nape of the neck, it is a kind of fire an shock hardly to be understood; there, however, is the key the position. It must all be endured, and in fact we do su it all without being burnt, and afterwards we get into a wa bed, and this is how the cure is wrought.

On June 1st her knees are much better, and the sweat which weakens most people gives her strength. June 4th she has finished with the douche but still has drink the waters for a week. On the 12th the treatm is complete, and, except that she cannot quite close hands, the patient is in flourishing health. Mada de Sévigné returned to Vichy in the following ye arriving on September 4th, and finding there a larger fashionable throng. This time she could not stand douche, but drinking the waters did wonders. In 1 she went to Bourbon on the advice of a fascinating p sician, who told her the source of her troubles was spleen, for which the waters of that place were spec With them she used the Vichy water which was brou to Bourbon. But soon she pinned her faith on Bourbon waters alone. She said they were admirable nephritic affections and for a thousand other ills. Af the course of treatment at Bourbon she seems to h remained well till she died of small-pox ten years later.

BRITISH MEDICAL ASSOCIATION.

Annual Meeting at Toronto.

AUGUST 21st–25th, 1906.

CANADIAN SCENERY.

[From a Canadian Correspondent.]

Continued from p. 1297.

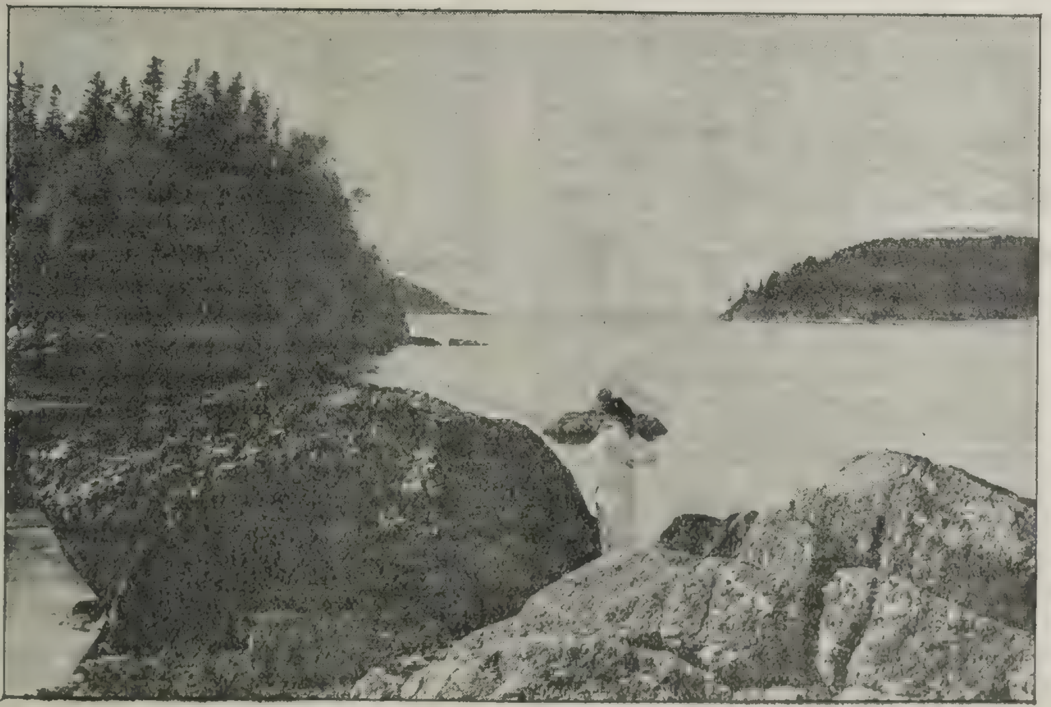
THE MARITIME PROVINCES.

HOSE who can manage to arrive in Canada ten or more lays before the date of the meeting may profitably spend heir time in a trip to the Maritime Provinces by he Intercolonial Railway. The best point of dearture is Quebec, ince from Levis, ust opposite it, rains leave for the ast at midnight and p.m. daily. Even f the visitor goes as ır as Halifax and ncludes Prince Edard's Isle, Sydney, nd St. John, the xpense is comparavely small, though e distances are conderable. However, e trains are comortable and well rranged, and there plenty to see *en ute.*

The meeting of the waters, Restigouche and Metapedia rivers.

For 200 miles east e train runs rough country that purely French-anadian, and inudes the towns of St. Joseph, St. Valier, St. François, d St. Pierre. Then comes the Rivière Ouelle, close Murray Bay. The latter is now a favourite wateringace, but one full of folklore and tradition dating from e days of early dian warfare. Some rty miles further is reached ivière du Loup, a mmer resort close the St. Lawrence, hich here resemes a broad sea; the rrounding scenery charming, and it an excellent centre r forest, river, and hing expeditions. ly a few miles off Cacouna Station, om which a short ive leads to the mous Cacouna ach.

The next spot ached after a fifty-ile run is Bic, a llage on the St. awrence shore cked by high ountains. The line here winds through the mountains, ssing at times through very deep cuttings and at others curing a magnificent panorama of bay, islet, and river, ich is here twenty-five miles broad from bank to bank.



Among the rocks, Bic the beautiful.

Rimouski, the next stopping place, is best known as at at which the ocean steamers receive and land mails d passengers during the summer season. There is good salmon and trout fishing, and the vicinity abounds with game.

Little Metis, some thirty miles further down the line, is another attractive spot at which many wealthy Canadians have summer houses. The scenery is pretty, and there is very good bathing, the river shore being hard and firm for several miles. The Grand Metis Falls are easily reached by carriage.

The line now turns south towards the Matapedia Valley; through this curls the Matapedia River, one with 222 rapids in its thirty-mile course. It is famous for its salmon and trout fishing, and at the station of the name are the head quarters of the wealthy Restigouche Salmon Club.

Near here the Matapedia River joins the River Restigouche. According to an Indian legend, the former originally had an opening of its own into the sea, but one day the Restigouche claimed the smaller river as its bride, and persuaded Micmac, the god of all good things, to strike an opening through the wall of rock which divided the two rivers. Not far from this the train crosses the Restigouche, and a tunnel—the only one on the whole line—leads through the Morrisey Rock into New Brunswick. There are plenty of places worth visiting for the next 150 miles of the road, whether for sight-seeing or sport, but Moncton is the most important. It is a well-built commercial centre, and the head quarters of the International Railway system. An attraction to visitors is the "bore" of thePetitcodiac River. At low tide only a narrow stream runs between sloping banks of soft brown mud. When the advancing tide from the Bay of Fundy reaches the narrow part of the river, it is forced into the channel, and a tidal wave from 3 to 6 ft. high is formed. It rushes, a wall of foaming, roaring water, up the river, quickly overflowing the narrow channel and covering the mud flats. After the first rush of the wave the rise of the tide is more gradual, and soon there is a broad and deep expanse of water. The schooners that were lying high and dry at the wharves float gracefully, and can now proceed down the river to the various parts of the Bay of Fundy or to ports along the Atlantic coast.

The line now runs on through a well-settled country abounding in fine scenery to **St. John**, the city founded by the Loyalists in 1783, and two-thirds of which were destroyed by the great fire some thirty years ago. It was quickly rebuilt, and the new city is well laid out and contains many fine buildings. The harbour is navigable all the year round, so it is St. John which serves as one of the principal ports of entry to Canada during the winter. The St. John River, after a flow of 450 miles, discharges its waters into the harbour through a narrow rocky gorge, and here are the famous Reversing Falls. The place has a delightful climate in summer, and the scenery around it is splendid.

To reach Prince Edward's Isle, or Nova Scotia and Halifax, one must return to Moncton. Those for **Prince Edward's Isle** turn off at Painsec Junction, a few miles east of Moncton, for Point du Chene, and reach the "Garden of the Gulf" by steamer.

The Nova Scotian travellers continue to travel eastwards, and, passing Sackville, a little town containing many educational institutions, and Amherst, a manufacturing centre, next reach Truro. This is a junction, and from it a branch line leads north to Sydney and Cape Breton. The town itself is attractive, a prosperous, thriving place with good hotels and many imposing buildings. Close by are the Joe Howe Falls, so called after a Nova Scotian statesman of the name, and the Stewiacke Mountains. Finally comes Halifax, the capital of Nova Scotia. It is a substantially built city and stands on a peninsula. Its natural harbour is one of the finest and largest in the world and rivals St. John as one of Canada's winter ports. The city and neighbourhood contain much that is of historic and scenic interest, and are most attractive in summer. Outside the United Kingdom it is probably the most British-feeling city existing. It is the naval station for the North American Squadron, and until recently was the garrison.

The touring possibilities of Nova Scotia are still not exhausted, for those so disposed can on the return journey turn north at Truro and make their way to Sydney. On the way there are several places of interest and much fine scenery. Among others there is **New Glasgow**, which is very properly a flourishing manufacturing town with many pretty places in its neighbourhood. **Pictou**, one of the points of departure for Prince Edward's Island, can also be inspected. Near **Tracadie** is an Indian reservation district and Trappist monastery. Further along the line bridges several long, deep gulches, and runs close to the **Bras d'Or** Lakes, a kind of inland sea. Then comes **Grand Narrows**, close to some of the most inviting spots in Cape Breton. The line ends at the two Sydneys—**Sydney** and **North Sydney**—five miles apart by ferry, seventeen by train. Both are towns of recent foundation, and were brought into existence partly by iron works and partly by their situation on a bay which offers shelter to the largest ships, and is frequented by men-of-war of several nations.

THE annual meeting of the American Roentgen Ray Society will be held at Niagara Falls, New York, U.S.A., on August 29th, 30th, and 31st—a few days after the close of the annual meeting of the British Medical Association in Toronto, from which place Niagara Falls is easily reached. The Executive Committee of the American Roentgen-Ray Society hope that all medical men from this country, especially those interested in any branch of x-ray work, who propose going to Toronto will so arrange their visit to Niagara Falls as to enable them to be present at the whole or part of the proceedings. Those doing so will be accorded all the privileges of temporary membership for the meeting, permitting them to participate in the debates and social functions, even though they may not be willing to prepare papers and read them. It will greatly facilitate the work of the Organizing Committee if those who are likely to be present will, as soon as possible, communicate with Dr. R. Morton, 22, Queen Anne Street, Cavendish Square, London, W., who will forward their names to the proper quarter, from which official invitations will be issued.

CONGRESS FOR THE SUPPRESSION O ILLEGAL PRACTICE OF MEDICINE.

[FROM OUR CORRESPONDENTS.]

BONE-SETTERS.

DR. POULIOT produced statistics showing that while bon
setters were actually on the increase in the wealthier an
more educated districts, the "touch-healers" and othe
various exploiters of supernatural medicine were confine
to the most backward and ignorant parts of the countr
He concluded that the proper weapon against the latt
class was better education, especially of the childre
while the bone-setters patronized by the wealthy, and, pr
sumably, educated, should be singled out for prosecutio
in the courts. As neither the courts nor the public woul
take the initiative, the task devolved on the medic
profession. It was a thankless and often difficu
task owing to the local popularity of the bon
setter, the too frequent sympathy of the press, an
the constant difficulty of obtaining sworn evidenc
Dr. Pouliot mentioned the case of a medical man wh
was both a municipal and county councillor, but wa
defeated when he sought re-election, a campaign bein
organized against him by a bone-setter against whom
had obtained a conviction. The only remedy was con
certed action by medical associations, and such actio
should only be taken after a sufficient body of eviden
had been collected to make success quite certain. A resolution to this effect was carried after a short discussio
A further resolution was passed, on the motion of Dr. Pa
ARCHAMBAUD, to the effect that a report be drawn up by th
medical associations showing the dangers arising from th
practice of bone-setters and other unqualified persons, an
that the education Department be requested to inclu
the report in the curriculum of all primary and seconda
schools.

MAGNETIZERS.

Dr. **BARBANNEAU**'s paper, as printed, covered much of th
ground already traversed by Dr. Pouliot, but under th
circumstances he confined himself chiefly to the co
sideration of the exponents of "magnetism." These
described as at once the most powerful and the mo
dangerous of charlatans, for whereas the bone-sette
magicians, and "healers" of various sorts appeal only
ignorance and superstition, these magnetizers bas
their claims to cure disease on a hotch-potch
pseudo-science which might easily appear plausib
to the uninstructed. Moreover, they had almo
always been able to obtain the secret or even t
avowed patronage of certain qualified medical men.
Paris these people had formed societies, the princip
being the "Cercle Magnétique et Spirite de Paris" a
the "Société Magnétique de France," which had gained
certain measure of influence and importance. The pr
cipal result of the activities of the latter body, apart fro
numerous publications spread broadcast through Fran
has been the formation of the "École Pratique de Mass
et de Magnétisme de la rue Saint-Merri." The head a
founder of this institution is one M. Lorenza, w
describes himself as "magnétizeur-masseur," and und
takes the "treatment of all diseases gratuitously a
without medicine." By a curious coincidence, Mada
Lorenza is "the greatest celebrity in France" as
somnambulist, clairvoyante, etc. This position, her
vertisements tell us, she has achieved by profou
study of the works of Desbarolles, Gall, Lenorma
etc. As a result she is now able to "advise in all seri
matters—law, marriage, business, investigations, et
She can also foretell the future and advise as to charact
health, and fortune by means of cards, palmist
phrenology, and the astrological horoscope. What
much more, she can "make people achieve all th
they desire"! All this for a consultative fee of Fr. 2
Fr. 5 by correspondence. Between them this pair a
give *soirées*, public and private, with lectures, demonst
tions, experiments, and musical interludes. This "Sch
of Magnetism and Massage" has actually been registered
the State among the higher educational institutions of
country, and Dr. Barbanneau produced its prospectus
sufficiently amazing document. The school provi
"professors" of no less than twelve subjects, includ
anatomy, physiology, physics of magnetism, and vari
kinds of massage and magnetism and their combinatio

here is a curriculum of two years, followed by an examina- on for the diploma, for which a fee of Fr. 100 is charged. he last paragraph, however, explains that students are ot expected to attend these courses of instruction gularly. They can "study" at home, and need only present for one week preceding the examination, or necessary can absent themselves until the actual day examination! The basis of these "home studies" is textbook compiled by M. Durville, director of the hool, from which Dr. Barbanneau gave copious extracts, hich space unfortunately precludes us from reproducing re. Suffice it to say that the right side of the body is sitive and the left negative, so that if the magnetizer ll fix a glass of water with his right eye for a minute, d then fix another with his left, the "sensitive" will d the former glassful "acidulated, fresh, and agree- le," the latter "alkaline, stale, and flat." Warm breath similarly positive and cold breath negative; the head sitive, the feet negative, etc. Diagnosis can be ade by passing the hand near the patient's head, en increased or diminished heat can be perceived anating from the part of the brain supposed to rrespond to the part of the body affected.

But the serious side to all this nonsense is that these ganizations are endeavouring to legitimatize the actice of masseurs and magnetizers with a training of is kind, and to amend the law of 1892 so as to include em. This agitation has been recently redoubled as the ult of several cases in which students of this so-called ool have been convicted and punished for illegal prac- e, notably the case in which the Cour de Cassation ersed the decision of the Court of Appeal, which had missed the case. As a result of this a numerously- ned petition in favour of these quack magnetizers has eady been presented to both the Senate and the amber of Deputies, and another is being signed. This ond petition is already being advertised by an extra- linary manifesto addressed "To all invalids, all nkers, and all lovers of liberty," signed by H. Durville, author of the textbook already noticed. This long ument sets forth that the power of healing is a natural , inherited by very few persons, and therefore seldom sessed by medical men, who, when once qualified, see the art of healing nothing but a vulgar trade. Invested the State with the sole right of treating the sick, their ients become a chattel, their property—milch kine, as ere—whom it is their object to keep permanently ill. s is followed by a denunciation of the Medical ociations, who persecute the only people who can lly cure disease—diplomates, that is, of the school in ich alone the mystic "gift" can be acquired. After e pages of the same kind of stuff, interspersed with ientific considerations," a passionate appeal is made to public to sign the utterly disinterested petition for creation of a new class of independent practitioners.

n conclusion, Dr. Barbanneau proposed a series of lutions to the effect that there was no real science of gnetism apart from hypnotism; that the latter was ady in the hands of qualified specialists, who alone e competent to study and employ it; and that no ration in Article 16 of the Act of 1892 was to be rated. These resolutions were carried by acclamation r speeches from several members whose experiences firmed all that had been said by Dr. Barbanneau.

Clerical Quackery.

aître **Brunn-Dubron**, Doctor of Law, advocate of the rt of Appeal in Paris, read a paper on illegal practice religious and lay philanthropic societies. He traced history of this kind of practice, showing that gratuitous tment was actually made legal by an Act of 1805. e 1892, however, several ministers of religion have successfully prosecuted for illegal practice. Apart genuine philanthropy, however, religion has been e a cloak for all kinds of illegal practice, usually by le who acted as touts for quacks already in practice. Bruno-Dubron then discussed the legal aspect of such s, and showed how such persons could be made nable to the law. Dr. **Danjoux** gave several amusing ances of medical practice by the clergy in country es. Another speaker warned the Congress against attempt to interfere with the religious and philan- pic bodies, and expressed the opinion that such an mpt would only result in a "complete fiasco."

Nursing Quackery.

Dr. **Julien Noir** read a paper on illegal practice by infirmary attendants, nurses, and others, and gave evidence of the existence of a very large number of unqualified practitioners of a peculiarly mischievous sort, since they possess that little learning which is notoriously dangerous. It would appear that this kind of practice is carried on on a scale and with a degree of organization unknown in the United Kingdom. Dr. Noir, who is a professor in the Municipal School for Infirmary Attendants, expressed the opinion that the best mode of preventing illegal practice by such people was to educate them to know the risk they ran in undertaking responsibilities for which they were not trained, and in limiting their instruction carefully to those subjects which were essential, instead of attempting, as was too often done, to give them a sort of imitation medical education.

Barbers and Hairdressers.

Dr. **Milian** said that only those who were free from the slightest physical imperfection escaped the gratuitous advice of the barbers and hairdressers, whose trade consisted in selling lotions, pomades, etc., always expensive and often dangerous, for various forms of skin disease, pityriasis, baldness, etc. These lotions sometimes contained pilocarpine and corrosive sublimate in highly-poisonous quantities, and he had seen many severe cases of dermatitis caused by their use. Another source of danger was the sale of lotions with a basis of ether; they were highly inflammable, and the public had already been warned about them by the Prefect of Police. Hair dyes were also frequently injurious, especially the black dyes, which generally contained paraphenyl-diamine. This substance produced a very violent dermatitis, in certain predisposed persons, and hairdressers themselves were apt to suffer after applying it to their customers. The eruption was often accompanied by salivation and severe constitutional symptoms. Another serious matter was the adulteration of cosmetics. Rouge, for example, was harmless if it was coloured with carmine, but carmine was expensive, and cheap substitutes were commonly employed, often with disastrous results. Resolutions were passed condemning the illegal practice of barbers and hairdressers, and the sale of poisons by them, and calling the attention of the Department of Public Health to these abuses.

Prescribing Chemists.

Dr. **Dubousquet-Laboderie** read a paper on illegal practice by chemists, which was followed by an animated debate. The speakers were unanimous in condemning the practices of advertising nostrums and counter-prescribing with which we are unfortunately so familiar in England. The problem of medical practice by chemists in France is complicated by the fact that qualified chemists have the title of Doctor of Pharmacy, so that the public are often misled into thinking that a chemist and a doctor are the same thing, and resolutions were passed in favour of the abolition of the title of Doctor of Pharmacy.

Repetition of Prescriptions.

Dr. **Bermondy**, of Nice, condemned the indefinite repetition by chemists of prescriptions without any further authority from a medical man. Apart from the danger to the patient, the practice was injurious to the medical profession, especially to those who practised in watering-places and health resorts, to which people come from all parts of the world armed with prescriptions from their own medical men. He quoted a resolution adopted by the Medical Association of Nice, asking for an amendment of the law so as to make this practice illegal, and this was eventually adopted by the Congress.

Illegal Practice by Opticians, Medical Electricians, Dentists, and Midwives.

The question of opticians was dealt with by Drs. **d'Ayrenx** and **Péchin** of Paris. The nature of this competition is exactly similar in France and in England, save that it is the one instance in which illegal practice is better organized in the latter country, since in France there is nothing analogous to our Spectaclemakers' Company or British Optical Society. Several speakers, however, insisted on the difficulties that exist when the general practitioner declines to prescribe glasses for the correction of errors of refraction, and some of the resolutions proposed were modified as being too drastic. One, which proposed to limit opticians to the direct sale of opera glasses, field glasses, and telescopes, was rejected entirely. Dr. d'Ayrenx called attention to one very glaring abuse—the admission of opticians and their assistants to the cliniques of certain oculists.

MIDWIVES.

The proportion of ladies in the audience was notably increased as the time approached for the consideration of illegal practice by midwives, one of the speakers being Madame BOURGEOIS, of Paris, midwife of the first class, who read a paper on the Actual Status of the Midwife, her Rights and Duties. Dr. DIEUPART's paper, however, made it clear that the use of forceps and other instrumental procedures was quite habitual among the midwives of France, and that almost all of them, either openly or secretly, engaged in the practice of gynaecology. They were also very frequently exponents of massage, electricity, magnetism, etc., and constantly professed to make a speciality of the diseases of children.

A resolution was adopted asserting that the section of the Act of 1892 dealing with midwives should be rigorously enforced, and if necessary amended so as to specify the various ways in which midwives at present engaged in illegal practice.

CONGRESS FOR "LIBERTY OF MEDICINE."

On Wednesday, May 30th, we were greeted outside the doors of the Congress by a gentleman distributing copies of the *Journal de Santé*, to which reference has already been made. The *Journal* has already been sufficiently described, but some idea of the difficulties under which our French colleagues are labouring may be gathered from the fact that among the advertisements appears the following: "Wanted.—Doctor of Medicine to sign advertisements." This is an interesting commentary on part of this afternoon's work—namely, illegal practice of medicine by doctors! The ostensible reason for the distribution of this particular number is that it contains the programme of "the Second Congress for the Liberty of Medicine." This Congress has been organized by M. Durville, the director of the famous School of Magnetism, who was so thoroughly exposed on Monday by Dr. Barbanneau. We can only once more record our wondering admiration for the superb audacity with which this gentleman carries the war literally into the enemy's camp.

PRACTICE OF MEDICINE BY PHARMACISTS.

The first business of the morning was to continue the discussion on the practice of medicine by pharmacists, as several fresh communications had been handed in. A small volume was distributed to members entitled, *Formulaire des pharmaciens français*, and published by the "Association Générale des Pharmaciens de France." This formulary is a kind of compendium of materia medica, with short accounts of the uses of various drugs, posological tables, etc. It is recommended to the medical profession, with the suggestion that in future they limit their prescriptions to this "formulary," and in order to save trouble, they need only quote the name of the mixture desired, adding the letters F.P.F. *(Formulaire des pharmaciens français)!* The suggestion was not well received by the Congress.

ILLEGAL PRACTICE BY FOREIGN DOCTORS.

The rest of the day was occupied by discussions on illegal practice by foreigners, especially those practising on the frontiers and in health resorts, by medical students and by medical men themselves. Considerable annoyance was expressed at the common habit of Swiss doctors of extending their practice into French territory, since no reciprocity exists between the two countries. Dr. DE GRISSAC was of opinion that it was still made too easy for foreigners to practise in France. The present law enacts that no one shall legally practise in France without the State diploma of Doctor of Medicine; but the Minister of Instruction is empowered to grant this diploma to foreign graduates and diplomates without further instruction on examination. While no responsible minister would be likely to be taken in by the bogus American degrees, such as that of the notorious "Philadelphia University"—a piece of parchment which Dr. de Grissac described as "a veritable ass's skin to
cover the nakedness of ignorance"—he, nevertheless, com
plained that among the vast number of applications th
Minister was liable to make mistakes, and instanced th
case of an individual who was licensed on the strength
what was believed to be a Turkish diploma, but which wa
in reality only a class certificate! He proposed that n
foreigner, even though possessing a qualification, shoul
be allowed to practise in France, except after a course
three years in a French hospital and passing the Stat
examination. This, however, was felt to be too stringen
One imagines the feelings of a F.R.C.S., for instance, o
being sent back to school in this way! Eventually th
Congress contented itself with a resolution in mo
general terms advocating the adoption of more stringe
precautions against the admission of improper persons.

ILLEGAL PRACTICE BY MEDICAL MEN.

This discussion was followed by a paper of remarkab
interest from Dr. SENTOURENS, on illegal practice b
medical men. Dr. Sentourens began by quoting the ca
of a medical man who was successfully prosecuted f
"employing" a "somnambuliste" to make the diagnos
in all cases who consulted him. Both doctor and som
nambulist were fined, and the result was a perfect cute
of "tyranny" from almost the whole of the lay press. T
the journalists it seemed that a medical man once qualifie
was entitled to employ any means of dealing with h
patients that he thought good. They failed entirel
to perceive that what we call "covering" is a breach
the French law. This practice of covering exists on
scale undreamed of in England; in fact, Dr. Sentoure
demonstrated that there is hardly any charlatan, howev
outrageous, who cannot command the services of a qualifie
medical man. This is a state of affairs that obvious
complicates every other form of illegal practice hither
discussed. One of the worst forms is treatment by corr
spondence. Some of the actual letters written to patien
which were quoted by Dr. Sentourens were simp
amazing. The majority of these were simply pushing t
specialities of some chemist with whom the doctor was
league, but one, written to a lady with cancer of t
breast, informed her that her only chance of cure w
in magnetism or prayer. The doctor feared th
she was too far off for magnetism, as this wou
involve a visit to X. at least every second da
"For prayers, however," continues this ornament
the profession, "you must communicate with the Ab
Julio, 111, Rue Fontenay, Vincennes. I know several w
have actually *seen* the cases cured by him. You mu
send him a lock of your hair, and a piece of the lin
which you have worn next the diseased breast for at lea
twenty-four hours, also a postal order for Fr. 10."

We were then shown an advertisement taken from t
Petit Marseillais, signed by a medical man who underto
either at his "institute" or by correspondence, "to cu
skin diseases, impotence, and piles in two days. Metrit
and syphilis by a new method in fifteen day
etc." Dr. Sentourens wrote to this gentlema
describing himself as a bad case of haemorrhoi
and advised by his medical man to undergo
operation at a cost of Fr. 500. Dr. L. replied, undertaki
to cure him "without operation or ointment" for a fee
Fr. 100. And this man was a doctor of medicine, a lice
tiate of science, an ex-house-surgeon and a gold medall
of a Paris hospital, who had left a practice in Paris to r
an "Institut vénérien" in the provinces! This was b
one of many similar cases cited, including one of a medi
man who published a journal called *Le Médecin de l'estom*
and had a highly organized system of dealing with h
clients by means of printed forms of questions, prescri
tions, etc. Another publishes a book promising "
new and infallible remedy for tuberculosis. T
only method now recognized by the professio
This book and the cure together only cost Fr. 2
Dr. Sentourens then described in vivid colou
a visit to a certain notorious establishment for t
sale of electric belts. This is the same concern that h
been driven out of London, Berlin, and Brussels
successful prosecutions for fraud, but it still flourishes
Paris, and still finds there a medical man ready to le
his name to its nefarious transactions. One of the
famous belts, which had cost 500 francs, was exhibit
and extracts given from the list of disgusting questio
submitted to those who are "treated by correspondence.

Papers were afterwards read dealing with the rôle of the ress in the matter of advertisements of charlatanry. The istory and legal aspects of this question were thoroughly xpounded by MM. **Breitel** and **Goret**, Doctors of Law, who showed under what conditions it might be possible o bring the printers and publishers of such advertisenents, as well as the advertisers themselves, within the neaning of the Act of 1892 and even of certain clauses of he criminal code. Eventually resolutions were adopted ecommending that all collaboration between medical men nd chemists and all "treatment by correspondence" hould be made illegal.

Social Factors Leading to Quackery.

Dr. **Bardel** read a paper on the Social Factors that led o Illegal Practices. He pointed out that apart from gnorance and the love of the marvellous that could lways be counted upon in the public, and was always eady for exploitation by the public, there was a tendency n modern medical training to insist upon theory rather o the detriment of practice. This was especially true of uch therapeutic measures as massage and electricity. Iedical men went through their training at the niversity and the hospital without learning anyhing, or very little, of the technique of these things, and o too often adopted an attitude of unscientific scepticism ith respect to them. In this way the public were no oubt sometimes encouraged to have recourse to illegal ractitioners. He advocated an alteration in the curriculum which would provide a thorough practical training in he therapeutic aspects of massage and electricity.

The Position and Status of Midwives.

On Thursday morning there was a marked increase in e number of midwives present. These formed a comact group awaiting an adjourned discussion on the posion and status of the midwife. Several of these ladies cended the tribune and spoke with eloquence d vigour in defence of their rights. As one oked at these elegantly-dressed and highly-educated dies, one was struck by the great difference that isted between their status, and no doubt their clientèle, d that of the midwife as we know her in this untry. One would not fail to recognize how strong uld be the tendency for them to develop into a separate der of practitioners, how irresistible the temptation to gage in midwifery in its widest sense, and even gynaeogy. Eventually, after a somewhat heated discussion, ring which the Chairman several times had recourse to e disciplinary bell, the original resolution was passed th only slight modifications, and the principle was reirmed of confining the practice of midwives strictly to rmal cases of labour, and withholding from them the wer of administering poisonous drugs. It is worthy of te, by the way, that in France the midwives are already ally entitled to vaccinate.

Proposed Central Office for Suppression of Quackery.

The rest of the day was spent in a discussion of the ious clauses of the Act of 1892, which was very fully plained by Dr. **Albert Prieur** and his brother, M. on **Prieur**, advocate of the Court of Appeal. The last per to be read was Dr. **Levassort's** report on the proposed mation of a central office for the suppression of illegal ctice. This proposal really only involves an extension l co-ordination of the work at present being done by various medical associations, by which the proposed ce is to be financed. This apparently non-contentious posal was, curiously enough, the occasion of the y "scene" which marked the proceedings. At close of the discussion a very eccentric-king individual at the back of the hall stood up and ounced Dr. Levassort's proposals in excited terms He ruled out of order by Dr. Gairol, but continued aking in spite of cries of "Sit down." It then transd that he was not a member of the Congress, and so no right to speak. He claimed, however, that in a respondence with Dr. Levassort the latter had invited to attend and express his views. Eventually the irman left the chair amid a scene of great disorder, the session was not resumed until the interrupter had n induced to leave the hall.

Votes of Thanks.

This business of the Congress concluded with votes of thanks to Professor Brouardel, Dr. Gairol, Dr. Levassort, and others who had been instrumental in organizing the Congress, and ensuring the success which had been achieved.

General Impressions.

The points most striking to a foreign observer of the Congress were: (1) The power and the high degree of organization attained in France by charlatans of all descriptions. The fact that such an institution as M. Durville's "School of Massage and Magnetism" should have actually obtained State recognition and registration speaks for itself. (2) The complete prostitution of the French press to the propaganda of quackery. (3) The position and intelligence of the midwives of the "first class," which is in itself a source of danger. (4) The deplorable fact that in the absence of any body corresponding to our General Medical Council, or any strong central organization comparable to the British Medical Association, the professional conscience has in many cases sunk so low that medical men are never wanting to lend their support to the rankest charlatanry, and that they can do so with apparent impunity.

It is largely owing to Dr. Duchesne's initiative that the Congress has been successfully organized, and he was publicly congratulated by the Chairman on the success which had been achieved.

MEDICAL SCIENCE AND MILITARY STRENGTH.

Mr. **St. John Brodrick** has addressed to the *Times* a letter under this title, the intrinsic importance of which is increased by the fact that he was himself Secretary of State for War during the greater part of the South African campaign. After observing that of all departments in the army the medical service excites the acutest criticism during a campaign and the most meagre public interest in peace, and pointing out that the temporary expansion authorized for the Egyptian campaigns of 1884-5 was summarily reduced by the Parliamentary Committee of 1888, he states that the reforms introduced in 1901-2 as to pay, terms of service and study leave, and the establishment of the Royal Army Medical College have revolutionized the position of the corps, while the House of Commons has made liberal provision, the money voted having risen since 1898 from £295,000 to £490,000, the medical officers from 832 to 1,002, and the nursing staff from 80 to 411. He states that the popularity of the reformed service is attested by the number of candidates for entry, who in 1898, as in preceding years, numbered only 54 for 79 vacancies; but in 1903, 1904 and 1905 rose to 129, 109 and 129 for 60, 60 and 65 vacancies respectively. He considers that the Royal Army Medical Corps, provided the efficient civilian reserve contemplated by the Secretary of State be duly formed, is now equipped for any reasonable campaign. He then continues as follows:

> But this is only the groundwork, the superstructure has still to be reared. The humanitarian problem of tending the sick and wounded has been faced; why lock the door after the steed is stolen? Our soldier has a better chance of recovery than the sick or wounded man of the Napoleonic wars, but the regulations of the British service as to disease prevention remain substantially what they were one hundred years ago.
>
> The appalling figures which face us can scarcely be made tolerable by comparing a campaign in a healthy climate like South Africa with such notoriously mismanaged expeditions in severe climates as Walcheren or the Crimea At Walcheren in 1809, out of every 1,000 of strength, 347 died of disease, while only 16 per 1,000 were killed by the enemy. In the Crimea, 230 per 1,000 died of disease, while about 150 per 1,000 succumbed to wounds. In South Africa, where the strength was enormously greater, the deaths per 1,000 were 69 from disease and 42 from wounds, but the admissions to hospital were 746 per 1,000 from disease and 34 from wounds. In other words, about 450,000 were passed through the hospitals for disease during the war, and 14,800 deaths occurred, while the admissions for injuries in action were only 22,000. Surely if this immense waste of strength is avoidable, the maintenance of health among soldiers is as important as raising recruits, yet we neglect the one, while the other difficulty is always present to us.
>
> The two great scourges of armies in the field are dysentery and enteric fever. These two diseases alone caused 74,000 admissions to hospitals and 9,200 deaths in South Africa. Yet both are in medical opinion largely preventable by a system

which would provide for the isolation of those affected with communicable disease, by a scientific system of excreta disposal, and a satisfactory water supply. The sterilization of water during field service is being practically carried out at Aldershot, but of what value is a scientific system if we leave it outside the purview of the combatant officer?

The Army medical officer is placed in a profoundly unsatisfactory position. In a campaign he is as heavily worked as any Staff officer. He has all the organization of hospitals and of the machinery of healing under his charge. He is a health officer, but he has no sanitary staff. He is responsible, but he can give no orders. He can only act through a commanding officer, often junior to him, who has no technical knowledge. How can it be expected that in war, where every officer has his allotted task, and the weight of responsibility is very heavy, executive sanitary functions which require constant and unremitting attention will be effectively performed if they are "thrown in" with a number of other duties? We go to war with an establishment of 16 per battalion allotted as stretcher bearers for the relief of the wounded. Many medical officers would dispense with half this humanitarian establishment if they could obtain, in lieu of it, 8 men to be trained as sanitary inspectors, refuse burners, disinfectors, and the like. If this be held to be an extravagant suggestion, be it remembered that for every man wounded 20 sick men are brought to hospital largely from preventable causes. The unopposed crossing of the Modder river lost us from typhoid far more men than the battle of Colenso from wounds.

One remedy is simple. Why should not the admirable body of army medical officers who have made sanitary conditions a study educate combatant officers in the elements of military hygiene? Every cadet at Sandhurst or Woolwich should be examined on passing out in a problem which he should grasp as easily as tactics or strategy, since upon it the fighting strength by which he is to win his battles depends. A captain before promotion to major might be encouraged to get a special certificate which would excuse him from all such training at the Staff College. Can one officer in 100 test water, and decide whether it is drinkable? Would a village builder erect an outhouse with as little sanitary knowledge as the officer possesses who has to lay out a large camp? It is due to the absence of such training that after one of our worst actions in Natal the hospital for wounded was pitched on the lee side of a hill, getting the full benefit in torrid heat of the flies and smells from a slaughter-house on the weather side.

In the Crimea commanding officers still regarded supply services as being, in the language of our allies, "L'Affaire de M. le Commissaire." To-day everything relating to health is still "doctor's duty." Nothing would surprise the Japanese so much, should we ever conduct a campaign together, as our indifference to the health of our men until they actually get ill.

In the Japanese army recruits on first joining receive instruction as to health, and officers learn sanitation as they learn drill. All doubtful water is boiled on a campaign. Pills preservative against fever are placed on a par with the reserve ration. Japanese soldiers, as Sir Ian Hamilton attests in his recent work, are so afraid of missing a battle that they cross-question the hospital attendants as to the water they drink. Sick men are not *bien vu* in the Japanese army. Why is not the instinct of self-preservation given a chance by explaining to our soldiers those rudiments of health which one distinguished Japanese leader said he had taught his division weekly for nine years?

Japanese farsightedness enables them to reduce their "constantly sick" in war to 5 per cent. Our haphazard system forces us still to provide for 10 per cent. We are, therefore, paying for something like double the hospital accommodation, equipment, and *personnel* which is necessary. Even if suffering, death, and military efficiency could be put on one side, how long will the nation acquiesce in this vast waste of money?

I greatly fear that the reforms instituted after the war will not go forward in this and other respects while the medical branch of the army is denied its proper status at head quarters. A large proportion of the questions which come before the Army Council necessarily involve medical opinion. For two years the Director-General had direct access to the Secretary of State and was present at the Army Council with great advantage to the army. The Esher Committee placed him again under the Adjutant-General, who happened to be his junior in rank. How can a man without technical knowledge properly represent a scientific department? What chance is there that an officer with such responsible and multifarious duties as the Adjutant-General will press forward subjects, however important, which are not in his line?

At the risk of further trespassing on your indulgence, I would cite one result of this faulty change. In 1902-3 the whole of the military hospitals at home were reported upon by members of the Army Medical Board. Some hospitals were found insanitary; many were altogether out of date. It was made clear that by concentration of hospitals at some cost, a greatly improved service could be obtained with a future reduction of annual charge. A sum of money was devoted in 1903 to immediate needs, but this urgent question has since slumbered. What hope is there, since Mr. Haldane has felt compelled to reduce the loan expenditure on new barracks and hospitals and to abandon the system of loans for th future, that medical needs will be pressed by the Adjutant General's Department in preference to their own curtaile services?

I believe that public opinion, civil and military, when i realizes the economy of suffering and of money desired by th Army Medical Department and the eminent civilians associ ated with it, will support my appeal. Prevention is bette than cure.

JAPANESE LOSSES IN THE WAR,

IN its issue of June 6th the *Times* publishes an importan communication from its Tokio correspondent on th Japanese casualties and sanitary measures during the wa He says that no official statement has yet been publishe as to the total casualties, the probable reason for the dela being that some 3,000 men are still unaccounted for. A a Medical Congress, recently held at Tokio, Surgeon General Koike read an address which, supplemented b figures obtained from the War Department, makes it possible to form a tolerably accurate idea of the detaile casualties throughout the campaign, so far as the army i concerned. The final figures are these:

Killed in battle	47,387
Died of wounds	11,500
Wounded but recovered	161,925
Total of killed and wounded	220,812
Died of sickness	27,158
Sick but recovered	209,065
Total of sick	236,223
Total of killed, wounded, and sick	457,035
Total of fatal casualties	86,045

These figures do not include cases of sickness among tl troops in Japan, and they may have to be slightly altered whe the time comes for making up the final records of tl hospitals.

Turning to the question of percentages, the followin figures are obtained:

Sick and Wounded Treated in Hospital.

	Recovered completely.	Died.
China-Japan war of 1894-5 ...	50.94 per cent.	14.24 per cent.
Russo-Japanese war of 1904-5 ...	54.81 per cent.	7.65 per cent.

Wounded Treated in Hospital.

	Recovered completely.	Died.
China-Japan war of 1894-5 ...	63.23 per cent.	7.49 per cent.
Russo-Japanese war of 1904-5 ...	71.58 per cent.	6.83 per cent.

* It should be noted that the difference between 100 and each these totals represents men who, though they recovered, were in pacitated for active service.

Including the sick in Japan (97,850) and the si (77,803) among the Russian prisoners, the sick a wounded amounted, on the whole, to 632,688, while t number of military surgeons was 4,517, that of pharm cists 630, and that of assistants (non-commission officers and men) 33,577. These figures are independe of the doctors and nurses furnished by the Red Cro Society and by private effort. Of the surgeons, 18 w killed and 104 wounded, and the casualties among t assistants totalled 340. Comparison of the sick with t wounded and of the numbers of deaths from these caus gives the following table:

	Wounded.	Sick.	Died of Wounds.	Died Disea
China-Japan war (1894-5)	1	6.93	1	12.0
North-China campaign (1900) ...	1	4.37	1	1.9
Russo-Japanese war (1904-5) ...	1	1.15	1	0.3

To obtain a true estimate of the sanitary progre however, Koike says we must extend the comparison ercentages of the total numbers of troops in the field. 'hus:

	Percentage of Sick for all Troops Engaged.	Percentage of Deaths from Sickness for all Troops Engaged.
hina-Japan war (1894-95) ..	59.20	9.29
orth-China campaign (1900) ...	34.88	4.33
usso-Japanese war (1904-5) ...	36.04	2.99

It is remarkable that the sanitary results during the ar were actually better than those obtained in time of eace. Thus taking the year 1902, which had an ceptionally good medical record, the comparison ands:

verage monthly percentage of sickness during the 21 months of the Russo-Japanese war	8.69
verage monthly percentage of sickness during 1902 ...	10.21

Frost and sun are an army's greatest enemies. The ipanese medical staff took special precautions against iese, but they neglected nothing which could make for ie soldier's health. Each man received a copy of a little ok compiled by Surgeon-General Koike entitled *Guide to nitation on Campaign*. It was not taken for granted that e men would read this volume. Every opportunity was ized—especially on board ship when military duties did t claim much of the time of the troops—to acquaint them ith the contents of the book and with the cardinal principles sanitation in general. Further, a small flat tin box of lls, called *Seiro-gwan* (Russian punishers) was served t to each soldier, with instructions to take one before ery meal. These *Seiro-gwan* were invented by Professor tsuka, and had been tested by Surgeon-General ron Hashimoto and other medical experts, who pronunced them an excellent preventive against dysentery, phoid, and cholera. Over two millions had to be mpounded every day. Members of the sanitary corps eceded the troops, testing the wells before the latter ed them, and disinfecting all unwholesome places. As as possible the precaution of boiling was taken— mbers of portable boilers on wheels accompanied each ps; and when the men, being in the fighting line, could t be thus served, a bacillus-destroying strainer was emyed. A pharmacist called Ishizu invented a filter ich served the purpose, and this, having been strongly ommended by the great bacteriologist Kitasato, was ployed, with slight modifications. In addition to ike's *vade mecum*, the Kotsuka pills, the portable waterlers, and the Ishizu filter, the medical staff had the rayama system of disinfection, which they applied, not y to every building, but also to every ship and boat upied by the troops. There were special garments preventing frostbite and special headgear to avert istroke; the provisions supplied to the men varied ording to the nature of the duties imposed on them, precautions were taken against fermentation of rice ions in summer or their freezing in winter. One thing y had not been foreseen, the Manchurian fly. Partly ause of the climate and partly because of the dirty its of the people, Manchuria is infested with flies, the Japanese troops suffered greatly from this sance. It was not until the close of the second nmer that the absolute necessity as well as the feasity of destroying the eggs of the flies was discovered. transport of the wounded offered great difficulties. ke relates that from the outset the medical staff eavoured to avoid lengthy treatment at the front. tchers, land-transport wagons, and Chinese carts were refore requisitioned, and water-carriage was utilized never possible, the Hun, the Fan, the Liao, and the all serving for that purpose. As soon as their condi permitted, the patients were shipped for hospitals in an, where they were tended by 5,470 nurses from the Red ss Society of Tokio, together with 5,131 civilian medical fessors and practitioners who had volunteered, and umber of nurses and assistants from abroad. The Department had caused eighteen steamers to specially fitted up as hospital ships, and e were two similar ships belonging to the Red ss Society, but these had to be supplemented by six transports of over 6,000 tons each. The prevention of *kakke* (beri-beri) alone continued to elude Japanese physicians in war time. The percentage of sufferers from this disease during peace has been reduced to 0.44, but in the China-Japan war it rose to 18 per cent., and in the Russo-Japanese war the figure was 16. The belief is that too much use of pure rice is responsible, but there are independent objections to a mixed diet of barley and rice on campaign. General Koike frankly admits, however, that the Japanese medical faculty do not yet understand *kakke*.

THE FRENCH ACADEMIC VISIT.

A VISIT is being paid this week to England, at the invitation of the University of London, by a number of representatives of higher education in France; they include delegates of the Ministry of Public Instruction, thirty-six delegates from the Faculties of Letters and Science of the University of Paris, representatives of the Collège de France, as well as delegates from the Universities of Bordeaux, Dijon, Lille, Montpellier, Caen, Lyons, Nancy, and Rennes; other visitors are the guests of the Modern Language Association.

On Tuesday the delegates were received at the Foreign Office, and were addressed by Lord Fitzmaurice, Under-Secretary for Foreign Affairs, and Mr. Lough, M.P., Secretary of the Board of Education.

Later in the day the party visited the University of London, where they were entertained at a luncheon, over which the Vice-Chancellor presided. After the French Ambassador had replied to the toast of "The President of the French Republic," the Chairman of the London County Council welcomed the guests to London, and M. Hovelaque, Inspector-General of Instruction in living languages, who spoke admirably in English, returned thanks on behalf of the visitors.

Subsequently a meeting was held in the great hall of the University, where the Vice-Chancellor enumerated the guests present and the bodies which they represented, and said that the occasion was unique, for no foreign university had ever sent a delegation to visit this country. In conclusion, he recalled the great debt that university education in England owed to the University of Paris.

M. Liard, the Vice-Rector of the University of Paris and President of the Academic Council—who, it will be remembered, welcomed the English medical visitors to Paris in May, 1905—then delivered an address in French on higher education in France. He was followed by Sir Arthur Rücker, Principal of the University of London, who described English university education, and by Professor M. E. Sadler, Past President of the Modern Languages Association, who spoke of French influence on English education.

Afterwards the party visited the new physical and chemical laboratories of the Royal College of Science.

In the evening numerous receptions were given, among others one in the Physiological Laboratory of the University to the professors of botany, zoology, geology, and physiology, and the ladies accompanying them, by Dr. Waller, F.R.S., Dean of the Faculty of Science, and Professors Farmer, Halliburton, and Starling. A number of demonstrations were given during the evening by Dr. Waller (on secretion currents), Dr. N. H. Alcock (on skin currents), Dr. T. G. Brodie, F.R.S. (respiration exchange during renal secretion), Mr. J. A. Gardner, M.A., F.I.C. (estimation of chloroform in blood), Professor J. B. Farmer, F.R.S. (apogamy in ferns), Mrs. Reid and Miss Martyn (studies in fatigue), Miss B. Edgell and Mr. W. L. Symes (a method of controlling chronoscope readings), and Professor E. H. Starling, M.D., F.R.S., and Miss Lane-Claypon (mammary secretion). Mr. A. D. Darbishire showed a number of mice bred with the object of studying the validity of the Mendelian law of heredity. An albino mouse without pigment either in the eyes or in the coat (a combination of characters denoted by the letter G), and which did not waltz, was mated with a Japanese waltzing mouse with no pigment in the eyes, but with patches of fawn colour on the shoulders and back (a combination of characters denoted by G′). This union yielded a hybrid which had pigment both in its eyes and in its coat (a combination denoted by GG′), and did not waltz. When these hybrids were mated the offspring was found to fall into three categories, G, GG′, and G′ in the proportion 1 : 2 : 1. Of this generation, rather less than a quarter were found to waltz, and the waltzing habit might be associated with any one of the three categories: albino, white with fawn patches, or brown. Mice of all the categories were shown.

On Wednesday the party was received by the London County Council, and after visiting Westminster Abbey and Westminster School, were conducted over the School of Arts and Crafts and the Oliver Goldsmith School, Camberwell. They were then entertained at luncheon by the Chairman of the County Council at his house at Dulwich, and subsequently visited Dulwich College. In the evening there was a reception at the French Embassy.

MEDICAL NEWS.

THE Italian Red Cross Society proposes this year to extend its antimalaria campaign to the Pontine Marshes.

IT is proposed to establish an international *Kurhaus* at Carlsbad for the reception of members of the medical profession in necessitous circumstances.

THE name of Dr. F. H. Worswick, Chairman of the Manchester (West) Division of the British Medical Association, has been placed upon the Commission of the Peace for the City of Manchester.

THE annual dinner of the Poor-law Medical Officers' Association will be held at the Trocadero, Regent Street, on Tuesday, June 26th. Further particulars can be obtained from the Honorary Secretary, Dr. M. Greenwood, 144, Stoke Newington Road, N.

THE annual dinner of the Post-Graduate College and past and present students of the West London Hospital will be held at the Trocadero Restaurant on Thursday, June 28th, at 7.30 p.m. The Duke of Abercorn will be among the guests. Further information can be obtained from Mr. L. A. Bidwell, 15, Upper Wimpole Street, W.

M. ETIENNE BAZOT, Director of the Excursions Médicales Internationales (184, Rue de Rivoli, Paris), is arranging for a party of medical men to visit Germany this summer. The party will start from Paris on the evening of August 9th, and will visit in succession Aix-la-Chapelle, Cologne, Bonn, Wiesbaden, Frankfort, Marburg, Leipzig, Berlin, Dresden, Heidelberg, and Baden-Baden, reaching Paris again on August 23rd.

A PROVINCIAL sessional meeting of the Royal Sanitary Institute will be held at the County Offices, Derby, on Friday and Saturday, June 29th and 30th. On Friday evening a discussion on the provision of a pure milk supply will be introduced by Dr. Barwise, medical officer of health, and Mr. John White, public analyst for the county of Derby. On Saturday a visit will be paid to the works of Messrs. Nestlé at Tutbury, and to the Derby sewerage works.

THE annual dinner of the Indian Medical Service will be held at the New Gaiety Restaurant, Strand, on Thursday next, June 14th, at 7.45 p.m. Owing to the lamented death of Surgeon-General C. Sibthorpe, C.B., who was to have presided on this occasion, the chair will be taken by Surgeon-General L. D. Spencer, M.D., C.B. Officers intending to be present should communicate without delay with the Honorary Secretary, Lieutenant-Colonel P. J. Freyer, 27, Harley Street, W.

PALERMO, it seems, has strong ideas on the advantages of municipal ownership and trading. Some three or four years ago, dissatisfied with the high price of bread, the city authorities, after a referendum to the population, established municipal bakeries, which were decidedly successful, enabling the loaf to be sold without loss at a considerably lower price than formerly. With a wisdom which might well be imitated in our own country, the slaughter-houses were also taken over, and a referendum shortly to be applied will probably end in the gasworks passing into the management of the corporation. The most novel idea, however, was the municipalization of funerals and cemeteries which it was lately sought to establish. In this the innovators had to fight against vested interests and the competition of the cemetery of S. Orsola, belonging to a religious confraternity; the opposition proved too strong for them, and the civic authorities were defeated after long and expensive litigation. It will be interesting to see what will be the next essay of these pioneers in the field of city trading, and how far their example is likely to be followed in other towns.

MEDICAL MAGISTRATE.—Dr. Percy Austin Roden has been appointed a Justice of the Peace for the borough of Droitwich.

THE ninth annual report of the Council of the Childhoc Society is a record of continued progress. The objects the society—the scientific study of the mental and physic conditions of children—are in every way commendable ar deserving of success. Much good work has been done an unostentatious manner that should bring correspondir results. By co-operation with other associations wit kindred aims a better attendance at meetings has bee obtained in the past year, and the influence of the socie extended in directions likely to prove of service. Tl society has recently published an interesting address *Child Life in Japan*, by Miss S. Miyakawa. In this sl briefly sketches how "Shintoism," the prevalent religi of the country, from being at first a worship of the ance tors of the individual family, by an easy transition pass into that of the ancestors of the clan, and finally into th of those of the community. From this, as Miss Miyakav writes, "It is quite natural that in a society which h the family and not the individual as its unit, the ance tor of the Imperial family should be recognized as t centre of the State religion. National events will reported, national prayers and thanksgiving offered by t Emperor at the shrine of the Imperial ancestor, as if t latter were alive." From this it comes that loyalty to t Emperor and the country and filial piety are consider the most important principles, and a code formed on the is the universal training of Japanese children, both in t home and the school. With our interminable education warfare we may well envy our Eastern allies the possessi of such a code. Under it, at any rate, there is no room the conscientious objector. Miss Miyakawa's lecture well worth perusal.

CREMATION IN FRANCE.—The annual meeting of t Société pour la Propagation de l'Incinération was held Paris on May 19th, Dr. Bourneville, President, in the cha Among those present there were many ladies. The Sec tary, M. George Salomon, stated in his report that bef long there would be five places in France—namely, Par Rouen, Rheims, Marseilles, and Dijon—where cremati could be carried out. At Nice a local society is collecti funds for the erection of a crematorium; at Nîmes t municipal council has passed a resolution in favour cremation, and in many other towns the subject is unc serious consideration. In the French colonies the mo ment is making progress; last year the municipal coun of Hanoi adopted in principle a proposal for the establi ment of a crematory. The President stated that the nu ber of cremations carried out in the Père-Lachaise cemet in Paris during 1905 was 341, making from the opening the crematorium on August 5th, 1889, to December 31, 1905, a grand total of 3,825.

NURSE TRAINING SCHOOLS.—Doubtless the trained nur whether she works in or out of a hospital, is capable improvement, but why her defects should be the subj of such frequent and virulent public attack is not qu clear. The latest onslaught was started by a lady lectu at the Queen Square Club, who brightened her thre bare topic by a number of those pseudo-epigrams wh are so exceedingly easy to concoct in respect of followers of almost any occupation. Possibly this her sole object, as in the way of constructive critic she practically limited her efforts to the suggest that the late Mrs. Gamp should be restored to forfeited office. She was answered in a daily newspa by Miss Smedley, who explained the occasional failure the private nurse to please on this ground, amon others, that the average non-working woman, the aver housewife, positively resents thoroughness in any wom especially when that thoroughness is applied to any bra of work or knowledge which is popularly supposed to the natural heritage of all women alike. Alongside th views may be set those of a thoughtful writer in *Women's Tribune.* Starting from the premiss that a sa factory nurse is to some extent born and not made, i urged that at every hospital probationers should accepted only after they have passed the scrut of a carefully selected Committee which should for its nursing department very much what the C mittee of Mr. Tree's and other dramatic schools doing in respect of aspirants to the stage. The defect in present training school systems is that nu are trained too exclusively from the point of view hospital work, though the majority will have to work the future under conditions far more trying than thos institution life The result is that they are not so us to medical men engaged in private practice as they wo be did they undergo some period of tuition speci designed to fit them to "get on" with the healthy as as the sick members of the households in which, for lo or shorter periods, they will presently be employed.

British Medical Journal.

SATURDAY, JUNE 9TH, 1906.

THE TEACHING OF MIDWIFERY.

OR some years past it has been urged upon the eneral Medical Council by members of the Council, as ell as by persons not members, that the teaching of idwifery in this country is not satisfactory. The eneral Medical Council has at length taken vigorous tion. It has sent out to every medical school a string detailed inquiries as to the teaching of midwifery. It s analysed the answers and drawn conclusions from em.

The first thing that strikes us is that, imperfect as the aching may be, there is a great improvement as comred with the state of things thirty or forty years ago. that time there were medical schools in which a ıdent might attend his midwifery at any period of s curriculum. His fitness to do so was not invarily tested by examination. There were no obstetric tors or registrars. In fact the students were, at least some of the schools, allowed to teach themselves dwifery. But of late years the insistence of the ıchers on the need for more adequate arrangements the teaching of midwifery and the safety of ıternity patients has led the managers of medical ıools to improve matters considerably, although not the extent which the General Medical Council nks necessary.

et us note some of the points in which there has n improvement. There is now only one medical ıool in which the medical student is allowed to end his midwifery cases at any time; in this one is *expected* to attend them in his fifth year; in all rest he cannot do so before his third or fourth year. all of them he must have completed his studies in ıtomy and physiology; in most he must have ended lectures on midwifery, and a few require t he shall have done clerking and dressing or ended lectures on medicine, surgery, or pathology. that there is no longer any possibility of a raw boy h from school being sent to attend a woman in our without any proper preparation for such a duty. most medical schools there are now not only ures on midwifery but also tutorial classes.

ı most schools the student has to attend a small nber of cases, from one to six, under adequate superon before he is allowed to take charge of a case by self. In Scotland, in Ireland, and in the English vincial schools, the students obtain teaching and ical experience at infirmaries, dispensaries, or lyingıospitals not officially connected with any medical ool. In London the student acquires midwifery erience in an outdoor maternity department. The ımittee find that "in lying-in hospitals the student always under the supervision of the matron, resident edical officer, or physician, and is placed in favourle circumstances to receive bedside instruction the progress of labour and of the puerperium"; reas "the instruction given in outdoor maternities ring labour and the puerperium is at the best of a agre character."

The final and most important part of the Committee's report runs: "Full instruction is or may be given "within the walls of a lying-in hospital; but in outdoor "maternities this is not possible, inasmuch as the "student attends the great majority of his cases alone. "Moreover, the fact that the cases are scattered over an "area whose radius is a mile or more makes it impracticable for the resident officer or physician to visit "them so as to give personal instruction upon them to "the student in attendance. Consequently the instruction in this respect given is of a very meagre "character." From this report there follow recommendations, the practical points of which are the following: The student is not to attend midwifery till he has done his clerking and dressing—that is, has gained some practical experience of medicine and surgery; and he is to attend twenty cases under direct supervision in a lying-in hospital or the maternity charity of a general hospital.

Theoretically, this may be excellent; it may be a counsel of perfection, an ideal method of teaching midwifery. But when we come to think out the details of putting this into practice, we find that very extensive changes in our hospital system will have to be made before such instruction in midwifery can be given in the metropolis. There is only one lying-in hospital in London to the practice of which students are admitted—Queen Charlotte's. At this hospital we find that during 1905 twenty-seven students and twenty-four qualified practitioners attended the practice. If the recommendation of the Medical Council's Committee is to be carried into effect, accommodation must be found for somewhere about five hundred students annually. Queen Charlotte's could hardly tolerate such a crowd as this. Can the Council induce the other London lying-in hospitals to use their beds for the training of doctors instead of midwives and monthly nurses? Can it persuade the general hospitals to provide lying-in wards? At two of the hospitals with medical schools there are lying-in wards, but at neither of them have these wards yet been used for the purpose of teaching students. The Council has been told that at one of them it is intended that each student shall be instructed upon two cases of labour in the lying-in ward—a very good thing, but only one-tenth part of what the Council's Committee thinks necessary. There are lying-in wards at the metropolitan workhouses, and it might be possible to use these for teaching midwifery to students; but the medical officers of workhouses and workhouse infirmaries are not selected for their power of teaching midwifery.

Passing from this point, and assuming that somehow and somewhere enough lying-in hospital beds have been found for the instruction of five hundred students annually, each student being instructed upon twenty cases of labour, we must next ask, Who is to give the instruction? The Committee says, "a medical officer "of the hospital." This may mean a member of the visiting staff, or a resident officer. Take the case of one of our smaller medical schools. Suppose there to be an average entry of twenty-five students annually. The "medical officer" must preside over, and give instruction on, five hundred labours annually. It may be said that more than one student may be instructed from one labour. But there are limits to this: not only from the necessary regard to the feelings of the patient, but because teaching a class does not always imply that every member of the class is made to observe, think, and record for himself, and no teaching of midwifery is worth anything that does not secure these things. Even the half of this would be no light task, and it would be absolutely impossible for a person practising as a gynaecological consultant to do it. Indeed, we can hardly conceive it possible for a person engaged in such arduous clinical tutorial work to engage in any kind of private practice. We must, then, suppose that the teaching must be done by a resident officer, giving his whole time to his work. What manner of man is he to be, and what remuneration is he to get? Is he to be a man who has just been qualified and who will accept the appointment, as is the case with the present hospital residents, either without payment or for a small salary, in order to get experience—in other words, to teach himself midwifery; to acquire also the slight prestige that having held a teaching appointment may confer when he starts in practice; possibly, also, attracted by the hope of picking up a few small fees through being called in by medical men outside the hospital. A man accepting such an office under such conditions would obviously not hold it long; and his teaching would differ from that which the students get to-day in quantity only, not in quality. If, on the other hand, the "medical officer" is to be like the other members of the teaching staff, a picked man, chosen on account of his knowledge of the subject, and his ability to teach, and expected to hold office during the greater part of his active professional life, he must be paid a handsome salary; for such an office would not lead to private practice, nor would the duties of the office allow time for private practice if it did. Then, supposing such an officer has been secured, and established in office, with sufficient material for teaching, who is to give the lectures on midwifery? There would be an obvious incongruity in a gynaecologist coming down and talking theoretical obstetrics in a theatre; while another man whose midwifery experience was infinitely greater was teaching elsewhere practically, and possibly refuting some of the theory with which the students had been fed in the lecture room.

If all that is proposed or implied in the recommendations of the Committee of the General Medical Council could be done—lying-in wards provided, instruction given in them by a competent teacher, and each student obliged to profit by that teacher's instruction to the extent of experience of twenty labours—a great revolution would have been effected in the teaching of midwifery. But it would be, as some of the questions we have suggested show, nothing less than a revolution.

THE SANITARY FUNCTION OF THE ARMY MEDICAL SERVICE.

In the *Times* of June 6th there appeared a letter on medical science and military strength from Mr. St. John Brodrick, the greater part of which is reprinted at page 1359. Such a deliverance from a former Secretary of State for War, will, it is to be hoped, mark the dawn of a better day—one in which the vital importance of what Mr. Brodrick most justly calls "a neglected branch of "military economy" will at last be fully appreciated, both by the men in whose hands is placed the control of the army and by the nation which has to pay heavily for its maintenance. To readers of the British Medical Journal there is nothing new in Mr. Brodrick's contentions; the novelty is that views to which he gives such vigorous utterance should have found so authoritative a voice. Mr. Brodrick repeats what we ourselves have said, in season and out of season, for years past, and we cordially welcome so powerful an ally. It is peculiarly gratifying that he should have come forward to plead for further reforms in the Army Medical Service, for of all the *viri consulares* now released from official restraint, he is the one who has the best right to be heard on the subject. It is to him that we owe most of the reforms which have been made in the medical service of the army since the South African war. Fortunately there was no time for Mr. Arnold-Forster's effacing fingers to wipe out what his predecessor had done, and even the ill-inspired Esher Committee was prevented by the good sense of the late Government from doing all the mischief it intended. The nation has cause to be grateful to Mr. Brodrick for the enlightened spirit which he brought to the solution of a problem that had been dealt with so ineffectually before him. On this account, it should be all the more ready to listen to his warnings, and insist on the adoption of his recommendations.

After reviewing with justifiable satisfaction the improvement in the conditions of the service and its consequent increased popularity and efficiency. Mr. Brodrick goes on to indicate two further steps in advance which are needed to place it in a position to meet the exigencies of modern warfare. These are an efficient machinery for the prevention of disease, and the securing of a fair hearing on the needs of the service by giving its head a voice in the deliberations of the Army Council. With regard to the former, Mr. Brodrick says the regulations of the British service remain substantially what they were a century ago. He shows by statistics that there was more preventable sickness in South Africa, notwithstanding the advantages of the climate than in the disastrously mismanaged expeditions of Walcheren and the Crimea, where the rigours of the climate were a terrible addition to other causes of disease. The two great scourges of armies in the field—dysentery and enteric fever—are largely preventable but they cannot be prevented as long as the medica officer is hampered by the existing military organization He is powerless to enforce sanitary measures, for, though responsible, he can give no order. His recommendations have to pass through a commanding officer who has no technical knowledge, and who often regards everything relating to health as "doctor's duty" which is no concern of his, and which indeed he too often look upon with the ignorant contempt of the fighting man Amid the multiplicity of his other duties, the medica officer in the field can find no time to give the requisite attention to the carrying out of the sanitary precaution which are essential if disease is to be prevented. Though almost encumbered with superfluous help in the care o the wounded, he has no sanitary staff. Until it is understood that the prevention of disease is the first and mos important function of the medical officer, and his dutie are organized on that basis, so long, it is to be feared will the disasters of South Africa continue to b repeated in future wars.

But however well equipped the sanitary service of th army may be, it cannot of itself do all that is expected of it. The active co-operation of regimental and staf officers is essential. We are glad to see that Mr Brodrick suggests that these officers should be educated in the elements of military hygiene. This is absolutel necessary if they are to appreciate the importance o the hygienic measures recommended by the medica staff, and the better they appreciate this th more effectively will they help in carrying them out. It has already been stated in the British Medical Journal that a beginning towards th accomplishment of this most desirable reform wa made some years ago. The courses of instruction wer o greatly appreciated by the more intelligent officers hat it was proposed to enlarge the opportunities thus ffered them of learning what is an essential part of heir business. The example of Japan with its sick-rate f 5 per cent. shows what can be done when officers and ien appreciate the importance of sanitation, and are ady to act on the advice of the medical officers.

Mr. Brodrick clearly sees that there is little chance of irther reforms being effected as long as there is no iedical centre in the brain of the army. For two years ie Director-General had direct access to the Secretary of tate and had a seat on the Army Council when questions requiring expert knowledge for their solution were nder discussion, and Mr. Brodrick recognizes that this as of great advantage to the army. The retrograde ep taken by the Esher Committee, in the face of the rongest representations from the British Medical ssociation, has had the result of causing a number of iatters of importance to the well-being of the army to e shelved on one pretext or another. How could it be therwise when the requirements of the medical service ave to be made known through the Adjutant-General, ho may be out of sympathy with demands which he nperfectly understands, and who is so burdened with iultifarious duties in other directions that, with the est will in the world, his attention to matters outside is proper sphere must necessarily be perfunctory?

We earnestly trust Mr. Brodrick's appeal will not fall, ours have so often fallen, on deaf ears, and that his cts and arguments will impress on the public the eat truth that medical science is a vital part of ilitary strength. It is scarcely complimentary to our telligence that a truth so readily grasped by a people whom modern science is an acquisition almost of sterday, should be practically ignored in the country hich is the birthplace of hygiene.

THE PSYCHOLOGY OF THE ANARCHIST.

IE anarchist—is he insane and to be treated as a generate, or is he simply wicked, a pure criminal, and such to be held responsible for his acts, and dealt th according to the utmost severity of the law? The archist proper is by no means of necessity an insane rson; he may be insane, but not as a matter of course, y more than an upholder of the regulated social sysm should be held to be always sane. Social discontent aws around some anarchist of more than ordinary telligence or volubility a coterie of persons many of iom are insane or degenerate, easily influenced and ecially liable to emotional appeals; these are the ople who are most frequently made use of as tools the accomplishment of the designs of the deliberate emies of law and order. There are, then, two types iong anarchists: the misguided enthusiasts distisfied with the scheme of things who plan sensanal crimes, and their perverted followers, the gile fulminating agents in the explosive machinery. e distinction between these classes of subordite and superior is not a psychological subtlety, , whilst we may pity or deal leniently with the one ss, we can have no mercy for the other. Anarchism not then, *per se*, evidence of insanity; it is the local n of a certain tendency fostered by education and portunity, and this tendency is made up of feelings, tives, and actions which, though out of harmony th the environment, are yet not incompatible with ntal faculties of a high order. It is argued at those who hold the doctrines of anarchy must insane because they do not profit by experience do not change after failure, and are irreclaimable; they cannot see, it is argued, that as soon as one breach has been made in the line of continuity the place is at once filled, and that the more this ordered system of things is attacked the stronger will be the determination of the adherents of that order to resist and to assume the offensive against the invaders. Not to see the inevitableness of all this may be obstinacy, but it is quite compatible with judgement, shrewdness, kindness in certain directions, courage, and other constituents of a sound mind. Moreover, it is not altogether true to say that the repeated acts of outrage and murder are unattended by results favourable to the perpetrators. The acts do at times succeed in producing the effect the anarchist desires in that they cause a temporary upheaval of the social system; he hopes that by repeated successes he will establish a system by terror, and therefore he strikes again and again at the representative person, be it emperor or president, king or queen, the highest embodiment of the political tendency of the people. He strikes at the exalted personage not because he has any personal feeling against the individual, but because he wants to destroy the image, the local sign, of the detested majority. He knows himself to be in a minority, but he hopes to convert that minority into a majority, and in this idea he is fortified by the accession to his ranks of men or women whose aims are plunder, personal aggrandizement, or notoriety, or who are merely attracted by the glamour of persecution. The anarchist feeds on the idea that kingdoms, religions, and dynasties founded on force have achieved success through bloodshed and a subversion of the pre-existing order; therefore he argues that he should follow the same lines, and pits himself and his coadjutors against the majority; if he fail on one occasion he runs away and prepares for another.

It may be said that he has reduced himself to a state of mono-ideism, being convinced himself that he is right; but mono-ideism is not insanity, though very often it is a condition dangerous to the integrity of a community as it is dangerous to the mental integrity of the individual; if the community is embarrassed and threatened it has a right to take the best means to protect itself. The ideas of the anarchist are not necessarily delusions; they are the deliberate assumption of views of social life not accepted by the majority, and when they are accompanied by acts of violence or by the incitation of others to commit such acts, then society has a right to protect itself and to deal with the offenders in the way which seems best. The great question is what means are the best. Purely repressive measures often fail, rather confirming these obstinates in their conviction of the harshness and injustice of the social order. The anarchist may be a madman, but more often the moving spirit in anarchical schemes is a man of considerable culture and intellect, ready, however, to use the most extreme and barbarous methods to attain his ends. He is a social weed, alien to the evolution of civilization, and when he does not exterminate himself must be eradicated by settled authority. An anarchist is not to be called a reformer because he sees and feels that the social system is capable of improvement. A true reformer is one who seeks to guide and reinforce the natural course of human evolution towards a higher type of social organization. An anarchist is an enemy to established order, but the profession of anarchist principles does not connote insanity. Therefore, when the community is asked to spare the lives of such persons, it may fairly retort, *Que Messieurs les assassins commencent!*

THE CONGRESS ON QUACKERY.

The Congress on Quackery which met last week in Paris had for its object to discuss the illegal practice of medicine and to repress charlatanism. Of the wide field which the members attempted to cover some idea may be gathered from the reports in our columns, and the mere titles of the papers read or prepared for the Congress are interesting, showing, as they do, the multitudinous ways in which medicine may be practised illegally. Unembellished old-fashioned sorcery still flourishes in France at least, for sorcerers and sorceresses are, even at the present day, to be found practising their mediaeval incantations in the caves and forests of Brittany or the Cevennes, to the undoing of ignorant peasants, while the miracles of the "Anges Gabriel' have provided the select of Paris with a new emotion. The sorcerers and the magnetisers are perhaps innocuous; at least they do not make the disease worse, but leave it to follow out its course unaffected by magnetic passes or the mumbling of traditional incantations. Their motto is *verba non acta;* but the bone-setters who cure sprains and slip little bones into place are dangerous, almost criminal persons, for they add acts to words and fracture a bone in seeking to reduce a dislocation. Then there is the great class of healers who boast themselves the possessors of some hereditary secret, some ointment, or liniment composed of simple, natural, and rational herbs gathered while the moon is in the right quarter, perhaps under the protection of some favourite saint. These people would have the public believe that they are pure philanthropists; they charge nothing whatever for their hereditary wisdom, but something must be paid for the miraculous unguent, as its constituent herbs are dear; moreover, what are a few shillings when they secure for the purchaser a certain cure for incurable ills? "This kind of illegal practice," a Parisian correspondent writes, "has always existed, and it is to be feared that there is nothing to be done to prevent these paramedical frauds; they will last as long as human folly, and, therefore, probably as long as the human race." But there is a form of quackery which must be more common in France than at home. "It is," says the same correspondent, "more interesting, and certainly more dangerous, but perhaps also more directly attackable. It is the quackish practice of medicine by persons who possess a legal qualification, and who make use of their diplomas systematically to exploit the public. We all condemn these dangerous persons, who make our patients suspicious of the use of valuable drugs, who 'cure syphilis without mercury' and 'hernia without trusses or operation.' Very often they are doctors who deck themselves out with a score of accessory titles, thus surrounding themselves with a halo by which the eyes of the 'gogo' are dazzled. We have innumerable professors boasting of diplomas and medals given by schools or academies of Paris or of France which have never existed under any régime. It is difficult to choose the best example, but I may quote one typically audacious advertisement which every Parisian may read: 'Professor M., Professor of Surgery and of Medicine, has been on two occasions the subject of Ministerial decisions.' Now, as a matter of fact, this so-called 'Professor' has twice been condemned by the courts, and has therefore twice received notification of his condemnation from the Ministry of the Interior; anybody but the eminent professor would have put these two notifications in his pocket without saying a word, but this man of genius uses them to increase his glory. What, it will be asked, will be the practical result of the discussions of the Congress? Perhaps we shall have some more resolutions, some more edicts and orders, perhaps even a new law, but the quacks snap their fingers at edicts, and as to the law, they will either violate it or turn it to their advantage. Ought we to bewail this or to laugh at it? I do not know; but at any rate I would advise everybody to procure the volume containing the proceedings of the Congress. It will be found an admirable cure for the spleen sometimes the reader may weep, but more often he will laugh at the evidence of the simplicity of the exploiters, which is surpassed only by the naïveté of the exploited. *Si vult decipi—decipiatur.*"

AN AMBULANCE SERVICE FOR LONDON.

The clauses in the General Powers Bill of the London County Council which would enable the Council to supply, or assist by subsidy in providing, an efficient ambulance service for London, have passed the House of Commons, and now await consideration in the Lords We sincerely trust that this long-needed reform is now within measurable distance of being realized. Before the Committee of the Commons the urgent need o better and more rapid ambulance service for London was borne witness to by Sir William Collins, who conducted the proposal through the County Council, by Sir Shirley Murphy, and Sir Cooper Perry. Some opposition was raised by the City, not indeed to the provision of such service but on the question of the City's contribution to the cost, in view of the intention of the Corporation to run ambulances of its own. There was also, we understand, some demur on the par of the police, who still appear to think tha little more is needed in London for dealing with stree accidents and casualties than is provided by the force under the surveillance of the Home Office. Those who have taken the trouble to institute a comparison between London and large provincial towns—not to mention Continental and American cities—are convinced that London lags far behind in the matter o ambulance provision. They will agree with Sir Coope Perry that it is very painful to watch the arrival o persons suffering from the effects of street accidents a the casualty department of any large hospital unde the present system. The hansom cab or the four-wheeler are the worst possible conveyances for thos with fractured limbs or with serious but undetermined internal injuries. Then again the telephone call system for ambulances in regular work in other large towns i not known in London. We trust that the rumour tha opposition to the County Council's scheme may b encountered before a Committee of the House of Lord is unfounded. We cannot believe that in such a piec of well-conceived and urgently-needed administrativ reform the Upper House will be found opposing th evident wish of the people of London. At the last Count Council election, thanks to the efforts of the Metropolitan Street Ambulance Association, this question wa made a test one, and there can be no doubt tha Londoners are not content that the reproach unde which the capital city lies in this matter of elementar communal concern shall continue any longer to exis We know no politics, but we speak with some knowledg and authority in this matter, and we shall continu unceasingly to press for this boon for the victims o street accidents in the metropolis until a proper ambulance service is established and equipped in our midst.

SIR WILLOUGHBY WADE.

The death of Sir Willoughby Wade of Birmingham which took place in Rome last week, removes a membe who rendered very conspicuous services to the Britis Medical Association during an important stage of it development. He was first elected a member o the Central Council in 1864, and in 1873 becam a member of the Committee of Council. A that time the affairs of the Association were, i theory, administered by a large Council, consis ing of the President, the President-elect, the Vic sidents, the President of the Council, the Treasurer ie Association, and the honorary Secretary of each nch, and additional Branch representatives in the portion of one representative for each twenty nbers. The Council was thus a large body, and held one ordinary meeting annually, which took place ng the annual general meeting of the Association, occasional special meetings. The administra- work of the Association was really carried on by Committee of Council, which consisted of the ers already enumerated, the Vice-Presidents the Association, the Honorary Secretaries of Branches, and twenty members co-opted the Council. This constitution had been ight into force in 1874, when the Association ibered a little over 5,000 members, and was irently intended to remedy inconveniences that arisen owing to the growth of the membership of Association, which under the previous constitution led to a corresponding growth in the number of ibers of the Council. In the earliest extant copy ie laws of the Association the principle of repre- ation of districts was recognized, the eighth by- stating "That the Council consist of a president d —— members, to be selected from the principal ovincial towns." The change outlined above was a e in the direction of systematizing the representa- s of localities, and the constitution then established inued in force until 1883. Sir Willoughby Wade was ng those members of the Committee of Council were dissatisfied with its constitution, and the ge carried out in 1883, when the Association num- l over 9,000 members, was intended to make Council a more directly representative body, isting, beyond the four principal officers, of Vice-Presidents and elected representatives of ches. The chief feature of the reorganization 902, speaking of it only from the constitu- l point of view, was the substitution for the ches of smaller constituencies electing representa- to a general representative meeting. In bringing t the reorganization of 1883, probably a necessary in the development of the representative principle e Association, Dr. Wade, who was then Treasurer, a very considerable part.

MONTAIGNE AND THE DOCTRINE OF SUGGESTION.

AIGNE was no lover of the medical art, and not Molière has spoken more unkindly of doctors. the whirligig of time brings in his revenges, and Montaigne is claimed as the true begetter of the ine of suggestion, which was believed to have had irth in the medical school of Nancy. And it is a er of that school, Dr. Zilgien, who has made the very, which he announces in the *Revue Médicale de* Starting from a declaration made some years ago e prophet of hypnotic suggestion, Professor Bern- that "the word 'hypnotism' might be suppressed replaced simply by the expression 'exalted sug- ibility,'" Dr. Zilgien says that on these terms ust be admitted that Montaigne was the to propound the doctrine now associated the Nancy school. The word "suggestion" did in his day carry the connotation which we now learnt to attach to it; he attributed the omena to "the force of imagination." His chapter e subject in the first book of his Essays opens quotation which is the keynote of his teaching: *is imaginatio generat casum:* A strong imagination tteth chance, say learned clearks" (we use Florio's n in which Shakespeare found inspiration). He n to say of himself, "I am one of those that feele "a very great conflict and power of imagination. All "men are shockt therewith and some overthrowne by it." He was evidently a man of "exalted suggestibility," for he says, "the sight of others anguishes doth sensibly "drive: and my sense hath often usurped the sense of "a third man. If one coughs continuously he provokes "my lungs and throat." He was more unwilling to visit the sick to whom duty bound him than those whom he regarded least, for he apprehended the evil which he studied, and placed it in himself. He deems it not strange that the imagination brings both agues and death to such as give her scope to work her will. He tells how, going by chance to visit a rich old man that dwelt in Toulouse and who was troubled with a cough, he found him discoursing of the means of his recovery with Simon Thomas, who was "a great Physitian in his daies." The doctor told the patient that one of the best remedies would be to fix his eyes upon the liveliness and freshness of Montaigne's face, and setting his thoughts upon the jollity and vigour wherewith the essayist's youthful age did then flourish, and fitting all his senses with his flourishing estate, his habitude might thereby be amended and his health recovered. Montaigne slyly adds that the physician forgot to add that his health might also be impaired and infected. After giving several instances of the power of suggestion, he asks: "Wherefore doe Physitians labour and practise before- "hand the conceit and credence of their patients with "so many false promises of their recoverie and health, "unlesse it be that the effect of imagination may "supple and prepare the imposture of their concoction? "They knew that one of their trades-masters hath left "written how some men have been found in whom the "only sight of a potion hath wrought his due operation: "All which humor or caprice is now come into my mind, "upon the report which an Apothecarie, whilome a "servant in my father's house, was wont to tell me, a "man by knowledge simple and by birth a Switzer; a "nation little vaine-glorious, and not much given to "lying, which was that for a long time he had knowne "a Merchant in Tholose, sickish, and much troubled "with the stone and who often had need of glisters, "who according to the fits and occurrences of his evill, "caused them diversely to be prescribed by Physitians. "Which being brought to him, no accustomed forme to "them belonging was omitted, and would often taste "whether they were too hot and view them well, and "lying along the bed on his bellie and all complements "performed, *only injection excepted,* which ceremony "ended, the Apothecarie gone, and the patient lying in "his bed, even as if he had received a glister indeed, he "found and felt the very same effect which they doe "that have effectually taken them. And if the Physitian "saw it had not wrought sufficiently, he would accord- "ingly give him two or three more in the same manner. "My witnesse protesteth that the sicke mans wife, to save "charges (for he paid for them as if he had received "them), having some times assaid to make them onely "with luke warme water, the effect discovered the "craft, and being found not to worke at all, they were "forced to returne to the former, and use the Apothe- "carie." Dr. Zilgien says that Montaigne here recognizes the effect of *médication à distance;* some may be disposed to see in the story an illustration of the suggestive potency of the fee, and we are not concerned to question that this may be a powerful factor in successful treatment. Montaigne carried his doctrine to a length that the most ardent modern champions of "suggestion" have not yet reached, for he held that the whole art of healing was built on that force, drugs having no curative virtue whatever beyond such as they derive from their effect on the imagination of the patient and those around him, including the doctor.

DECAPSULATION OF THE KIDNEY IN PUERPERAL ECLAMPSIA.

The opinion of so distinguished and experienced an obstetrician as Professor Pinard is always of interest when any advance in obstetrical art or science is claimed by others. Dr. Pinard has published his views on Edebohls's much discussed practice of decapsulating the kidney in a recent report read before the Académie de Médecine.[1] This report is, in fact, a review of a memoir by Messrs. Chambrelent and Pousson on renal decapsulation and on nephrotomy in the treatment of severe forms of eclampsia. The principle which animated his report is summed up at its conclusion by the suggested alteration of the title, which in his opinion should read: "On renal "decapsulation and on nephrotomy in the treatment "of anuria in women suffering from eclamptic attacks." He notes that in Edebohls's own cases and in that of Chambrelent and Pousson, it was decapsulation of kidneys in patients in whom there was suppression of urine as well as eclampsia that proved so successful. The fits ceased, urine flowed, and the patients recovered. He notes Sippel's report of a necropsy on a woman who died in the sixth month of pregnancy of eclampsia with complete anuria. The right kidney was deep purple, and when an incision was made into its capsule the cortical tissues spurted out freely. This "glaucoma of the kidney" is thus very suitable for treatment by decapsulation, and it is easy to agree with those who advocate nephrotomy. Pinard, on the other hand, sees no reason why Edebohls and the French obstetricians should advocate the new procedure in all bad cases of puerperal eclampsia, even when uraemia is only threatened or expected. Every obstetrician of experience knows that many women die of eclampsia without suppression of urine, and yet their kidneys may be more or less diseased. Decapsulation is hardly indicated under such circumstances. Pinard, firm in his opinion about the limitations of decapsulation, observes that he has had to stand by helpless on several occasions when women lay dying for hours, or even days, with anuria complicating eclampsia. In future he intends to decapsulate the kidneys in such cases, but in such cases only.

IS RHEUMATISM AN ATTENUATED PYAEMIA?

One of the principal objections to the recognition of acute rheumatism as a specific infection has been the alternative hypothesis put forward by various writers, notably Singer, of its identity with subvirulent phases of the pyogenic infections. The supporters of this theory claim to find ordinary staphylococci and streptococci in the articular and other lesions of acute rheumatism, though in a few cases at least these conclusions have been rendered invalid by faulty bacteriological technique. Against this theory of attenuated pyaemia must be set an accumulating weight of evidence in support of the claims to specificity of the micrococcus described by Poynton, Paine, and others. Of special importance is the failure to reproduce the lesions of acute rheumatism by inoculating the common pyogenic organisms into animals. Poynton and Shaw read a paper before the Pathological Society of London in 1904, in which they set forth the cultural and other differences between *Staphylococcus aureus* and *Micrococcus rheumaticus*, and described experiments showing how widely the lesions produced by inoculations of these two organisms differed from one another; further, it was stated that experimental mixed infection with both organisms produced metastatic abscesses and other suppurative lesions in place of, or in addition to, the ordinary arthritis and endocarditis of rheumatic infe tion. Paine and Poynton[1] also showed that *Strept coccus pyogenes* living on the same media and under th same conditions as those commonly used for *Micr coccus rheumaticus* produced death from septicaemi either without any local lesions or with scattered fo of suppuration. Further testimony to the same fact is borne by the recently published experiments Beattie,[2] who inoculated rabbits with the micrococcu obtained from a patient who died delirious of rheumati fever without endocarditis, and compared the result with those following injection into rabbits of a pyogeni streptococcus from a case of malignant endocarditi The latter organism generally caused death; the loca lesions, if any, were suppurative, and endocarditis wa rare. After inoculation with the micrococcus, on th other hand, a fatal result was by no means a foregon conclusion; local lesions were the rule, endocarditi being one of the commonest, but suppuration neve occurred. Beattie claims a special importance for hi results, since they present a contrast between th pathogenic effects of a virulent strain of *Micrococcu rheumaticus* and those of a weaker strain of *Streptococcu pyogenes*, effects which, according to the "attenuate pyaemia" theory, should be closely similar. H criticizes the statements made by Cole, who inoculate rabbits with streptococci and produced polyarthriti and endocarditis, a result which he declares to b identical with the lesions of acute rheumatism The fallacies are two: first, the streptococcu obtained from a case of puerperal fever caused purulen arthritis, and the endocarditis, in the rare cases in whic it was produced, was comparatively slight; and, secon the streptococcus which actually caused a non suppurative arthritis together with endocarditis, an thus, practically speaking, produced the ordinar lesions of rheumatic infection, was obtained from case of rheumatic fever, and was therefore, in all pro bability, a streptococcal form of the rheumatic micro coccus, such as has been already described by Lew and Langcope. Beattie's conclusion is that acut rheumatism is not an attenuated streptococcus infe tion, and his work forms part of an increasing mass evidence in favour of the view that the rheumatic is specific infection due to a specific coccus, which pro duces results often similar to but not identical wit those associated with general infection by the ordina pyogenic organisms.

IMMIGRATION AND REGENERATION.

A letter published recently in the *Pall Mall Gazette* con tained some statements of interest in connexion wit the general subject of physical degeneration and alie immigrants. There is in London a Federation of Work ing Boys' Clubs which holds annual interclub compet tions, physical and intellectual. Down to 1899 all th constituent clubs were English, or in other word formed of working boys nominally, at any rate, of Eng lish parentage. Since then five foreign clubs bein formed of boys, who, whether born in England abroad are the children of Jewish alien immigrant have joined the Federation. These five "foreign" club have year by year come into increasing prominence i competitions and have raised the standards so high th the question of handicapping them in future lest th rest get discouraged has been debated. This year the have won the first three places for both senior an junior gymnastic teams; the first four places i physical training; the first five places in Englis recitation; in comic recitations; in freehand drawin and in map drawing; the first four places in readin and the first and second prize in all chess an draughts competitions. The swimming competitions a ɔt decided. For cricket and football the foreign clubs ıve a league of their own; their standard is good, but they do not play on Saturdays they cannot take part the Federation matches; it must be admitted that ese results are striking, and that so far as they go they ford fair ground for the assumption that "the country likely to gain an accession of strength through these mpletely Anglicized and able children of the despised ien." It is to be remembered, however, that the eat majority of the Jewish immigrants are of peasant ood, a source of strength the facultative value of ıich has never been denied. The restrictions which has been urged should be laid on alien immigrants ve been aimed entirely against individuals who are viously the subjects of physical or mental defects or herwise of an undesirable character. It would be teresting, too, to know something more of the genetic mposition of the nominally English clubs. The ıdency downwards of town-bred families of the ɔrking classes of the second generation is admitted d that boys belonging to such families should be aten by others, who are practically fresh from the il, is only to be expected. All foreign immigrants ɔreover, are not Jews.

---

[1] De la Décapsulation Rénale et de la Néphrotomie dans le Traitement des Formes Graves de l'Éclampsie, *Annales de Gynéc. et d'Obstet.* April, 1906, pp. 193.

[1] *Medico-Chirurgical Transactions*, vol. lxxxv.
[2] *Journal of Medical Research*, January, 1906.

IE ATTRACTIONS OF THE MEDICAL PROFESSION.

a recent number of the *Semaine Médicale* some eresting statistics are given showing the gradual but ısiderable decrease in the number of entries of dical students in France during the last eleven ırs. It is attributed to the relatively unfavourable sition now occupied by the profession as a means of elihood, as compared with the greater chances of lustrial and commercial life or the comfort and urity of the public services, the writer even going so as to say that while a workman without great education earns large wages, the majority of medical practiners hardly manage to make ends meet. The figures ɔw that whereas in 1895 the total entries at all the ulties and Schools of Medicine in France numbered 79 native students and 1,137 foreigners, in 1901 they l fallen to 7,197 natives and 881 foreigners, and in 6 to 6,735 natives and 604 foreigners. No doubt the at diminution in the attendance of foreign students, ounting to nearly 50 per cent., is due largely to the v university regulations, which limited the number oreign students permitted to enter for instruction in medical schools of Paris. In view of the great falling in the entries, some relaxation has been made in se regulations, so that foreign students are no longer ısed the liberty of studying where they please, but this cession was doubtless facilitated by the diminution he number of applicants. By the arrangement which mits the universities to give a diploma of Doctor of licine that carries with it no right to practise in nce, foreign students were excused from the gation to produce certificates of education in preinary science before presenting themselves at the r examinations, but this exemption diminishes the lemic value of the M.D.Paris when granted to igners. Amongst the causes to which the diminu of French medical students is attributed is the military law, which no longer dispenses the lical student from one year of service, by which understand the writer to imply that a considerable ıber used to enter for the curriculum, but pursued ɔnly so far as to pass the preliminary scientific nination in order to obtain exemption, without nding to qualify as Doctors of Medicine. These res have an interest for us, as they show that the inution of entries to the medical schools noticed in country exists also in France, and therefore it may oncluded that the causes, at least in part, are the e, namely, the overcrowding of the medical profes which took place during the Nineties, and the consequent intensification of the struggle for life inside our profession. It will take years to work off this excess, and in the interests of the profession it is to be hoped that it will be a long time before the entry of medical students reaches the proportions attained fifteen years ago.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL.

Queen Charlotte's is the largest of the London lying-in hospitals. It is also the only one at which medical students are taught. It has now taken a step which distinguishes it from other lying-in hospitals in a more signal and important way. It has published a clinical report for the year 1905. This is drawn up in a plain business-like fashion. There is no preface, no blowing of anybody's trumpet, no promise for the future. It is signed by the pathologist and registrar, Dr. C. Nepean Longridge, whose name it is but justice to mention, as the report is so full and good. The names of the staff do not appear. The maternal mortality consisted of five cases—two from haemorrhage, one from renal disease, one (infected before admission) from septicaemia, and one from peritonitis after Caesarean section done after the second stage of labour had lasted forty-eight hours, delivery being obstructed by a dermoid cyst. The percentage of morbidity, this being defined as cases having at some time a temperature of over 100° F., was 27.7—30.2 per cent. among primiparae, 19.5 per cent. among multiparae. A chart is given showing how close was the relation between the number of patients in the hospital and the percentage of morbidity. The results of the practice of the hospital are shown in tables. We need not quote them. The fact that a report has been published is the important thing, and we presume and hope that it is intended to publish a report annually, as the Rotunda Hospital in Dublin has done for so many years. It is only by such reports of the results obtained that the practice of midwifery can be improved, and it is the duty of lying-in hospitals to utilize the field for observation they possess, so that the profession may be instructed as to the value of new methods. We congratulate Queen Charlotte's Lying-in Hospital on the good example it has set. May it go on and prosper!

ASYLUM WORKERS' ASSOCIATION.

The annual meeting of this Association—formed in 1895 to improve the status of asylum nurses and attendants—was held on June 1st, at the rooms of the Medical Society of London. Sir James Crichton-Browne took the chair, in the unavoidable absence of the President, Sir John Batty Tuke, M.P., and there was a crowded audience, consisting of medical and other officers of asylums and numerous attendants and nurses. The annual report was presented by the Honorary Secretary, Dr. G. E. Shuttleworth, and its adoption moved in an eloquent speech by the Chairman, who stated that the past year had been one of great activity in promoting the interests of asylum workers, especially in the matters of the registration of mental nurses and of obtaining Parliamentary support for assured pensions; that the finances were in a sound condition, though it was a matter of regret that the number of members had remained almost stationary—3,227, including all ranks. Sir James made a strong appeal to the 20,000 persons estimated to be employed in the care of the insane throughout the United Kingdom to strengthen the Association's power for good by becoming members, stating that apart from other benefits, such as the "Homes of Rest" fund, the *Asylum News*, which often contained valuable and original articles by asylum nurses and attendants, was worth more than the small subscription for membership. Dr. Hyslop seconded the adoption of the report, referring to the arduous character of the asylum nurse's work, so little appreciated by the general public and sometimes misrepresented in so-called nursing journals. The motion was supported by Dr. G. J. Cooper, M.P., and by Mr. Will Crooks, M.P., both of whom testified to the courageous acts witnessed in asylums; though the brave deeds of nurses and attendants were not taken up by the press and extolled by the public like those of firemen, they were equally deserving of commendation; indeed, Mr. Crooks added he had seen evidence of Christian endurance and pluck in asylum service sufficient to earn the Victoria Cross. Two gold and two silver medals were then presented on behalf of the Association to two male and two female asylum nurses for long and meritorious service. The proceedings were brought to a close by the reappointment of Sir John Batty Tuke as President and the election of the Executive Committee and officers, with thanks for past services.

BANANAS.

ONE of the greatest benefits which latter-day facilities of communication have brought to the poor of London is the abundant supply of foreign fruit, and more especially of bananas, nowadays to be seen on every costermonger's barrow. The Canary Islands are the chief source, and though it was thought at one time that the enormous development of the West Indian trade would probably overstock the market, experience has shown that this is far from being the case, and that, large as is the import of this most useful foodstuff into England, the limit of demand shows at present no sign of being in sight. A new system of purchase, it appears from the Foreign Office report on the islands, has, however, just been initiated by the trade buyers which may have some effect upon the supply. Hitherto the size of the bunches has alone influenced the price, but, since May 1st, the quality of the fruit is to be its chief determinant. This, it seems, is not a popular measure with the producer, but it should have the good effect of making the British public acquainted with a better class of banana than is usually to be obtained in this country. Most of the fruit sent is of indifferent quality, and is not regarded with much appreciation by the connoisseur who has lived in the land of bananas. Now we may hope for something better than the flat-sided plantain which our untravelled countrymen have learned to accept. Meanwhile the banana export from the Canaries continues to show a steady increase, in spite of West Indian competition, and last year its value approached the very large total of half a million sterling.

THE POPE ON THE TREATMENT OF GOUT.

PIUS X has lately confided to a sympathetic ear an interesting account of his gout and the manner in which he has cured himself. The information is said by the *Figaro* to come from an Italian prelate. The Pope began to feel the first symptoms about fourteen months ago. He had severe pain in the foot which his physician did not succeed in relieving, and on the third day the knee was affected. Similar attacks have occurred several times since. The Pope evidently shares the dislike of physic that is felt by meaner mortals, but instead of throwing it to the dogs he makes use of it in a manner which gives him the benefit of the medicine without the unpleasantness of swallowing it. To a suggestion that he should try some of the remedies for gout, and particularly certain German pills of which the effect is much vaunted, he replied: "*Caro mio,* doctors and medicines "which are said to be infallible have been recommended "to me on all sides. I am always grateful to those who are "inspired by such good intentions and also to the doctor. "But, after all, what can you expect? Frictions are all "very well, but as to the swallowing of drugs that is a
"different matter. I arrange the bottles and pill-boxe
"before me, and, after looking at them, I say to myself
"'These are the things which I ought to take.' Bu
"the idea of taking them produces such an effect upo
"me that I feel as if I had been cured. Bottles an
"boxes follow each other into the cupboard, which no
"contains a collection of the medicines of all countries.
We do not know whether His Holiness treats Dr. Lapponi
prescriptions in the same way, but as it appears tha
that physician has given much attention to hypnotism
he may have taught his exalted patient the influenc
of autosuggestion. At any rate, the Pope has graspe
the secret of a therapeutic factor of whose potency th
medical profession as yet has scarcely shown a
adequate appreciation. Suggestion supplies the key t
the successful treatment of many diseases due to di
order of the nervous system; it explains most of th
cures wrought by quacks, and, we may add, withou
trenching on sacred ground outside our province,
brings much that might otherwise appear miraculou
within the realm of the natural.

THE FALL IN PRICE IN QUININE.

JUDGING from the Report of the British Consul, M
Fraser, on the trade of Java, the prospects of th
cinchona planter are apparently scarcely more e
couraging than those of the cultivator of indigo
whom the maker of the synthetic product has indee
given a parlous thrust. Whether owing to the successf
war that has been waged with the mosquito or not it
difficult to say, but there has been a marked falling
in the world's consumption of quinine during the ye
1905, the decrease in German and American trade bei
especially noteworthy. At the same time Java export
the largest amount of cinchona bark on record, with th
necessary result that both the raw material and th
manufactured article have declined in price. Th
Bandong quinine factory in Batavia annually sells
very large amount of the prepared sulphate both
auction and privately, and, low as was the price of t
article four years ago, when the 821,000 oz. disposed
only made an average of 11d. per oz., a precisely simil
amount in 1904 only brought $9\frac{4}{5}$d., and last year t
price realized was $9\frac{1}{5}$d. As the Italian Government al
purchased 212,000 oz. at a secret price, it may be p
sumed that an even lower figure was reached, and
seems likely that in the future, with the advance
preventive tropical medicine, we may witness a st
further drop.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

MR. G. A. WRIGHT, Professor of Surgery in t
Victoria University, and Surgeon to the Manchest
Royal Infirmary, will offer himself for election on t
Council in July. Mr. Wright is an able representati
of surgery in Manchester, and is well known as t
author, conjointly with Dr. Henry Ashby, of that ci
of *Diseases of Children, Medical and Surgical.*
studied at Guy's Hospital, and is an M.B. of Oxfo
Of the three retiring candidates, Mr. Langton will
seek re election, but both Mr. Henry Morris and
Richardson Cross have decided to stand again.
Charters Symonds, of Guy's Hospital, will, as alrea
announced, also be a candidate.

THE high distinction of the Ordre pour le Mérite
been conferred on Professor Robert Koch.

THE King, who will be accompanied by the Que
will open the sanatorium for consumption at Midhu
on Wednesday next at 4.30 p.m.

THE Council of Epsom College has unanimou
resolved to recommend to the Governors at the ann
general meeting on June 29th that Mr. Henry Mor
F.R.C.S., be appointed Treasurer of the College, in pl
of Sir Constantine Holman, M.D., resigned.

Ireland.

Irish Medical Association.

Belfast and District Branch.

e annual meeting of the Belfast and District Branch he Irish Medical Association was held on June 4th in Medical Institute, Belfast, Professor Byers, President, the chair. After the reading of the minutes, the sident explained what was being done by the Poor-law ocommittee of the Irish Committee of the British dical Association to collect evidence, so as to be pre- ed when the Poor-law Commission would visit Ireland, present the fullest details on all aspects of the Poor- system, and especially on that portion which cerned the medical profession. Resolutions were then sed objecting to Section 6 of the Local Government endment Act, and also urging the addition of an Irish tor to the names of the Commissioners of the new Poor- Commission. The following officers were elected for ensuing year: President, Professor Byers; Vice- sidents, Professor Lindsay and Dr. D. Gaussen nmurry); Secretary and Treasurer, Dr. J. G. Roff; nbers of Council:—Belfast: Dr. J. C. Ferguson, Dr. D. Osborne, Dr. S. B. Coates, Dr. J. Martin. Country: J. G. Jefferson (Lisburn), Dr. David Wilson (White- ey), Dr. W. R. Davison (Ballymena), Dr. H. C. Manley itehouse), and Dr. Mussen (Glenavy).

The Health of Belfast.

he controversy on the public health continues apace. questions involved are numerous; strong arguments used to rebut statements that were never made; and nswerable statistics and facts are met by proofs of ditions that were never denied. The fact that Belfast pares rather favourably with Merthyr Tydfil is no proof it does not compare unfavourably, say, with Bristol or ds. The lay expression of opinion has been at times derfully clear and penetrating; and at other times it completely missed the mark. There has also been a lency to think little of an extra unit or so in a mor- y, although it has been pointed out again and again ng the controversy that a mortality of 21 instead of a Belfast means an increase of roughly 350 deaths in year, besides, perhaps, some 3,500 more cases of sick- . There has also been a strong tendency to shelter ngruities under Acts of Parliament and Local Govern- t Board orders. Surely these laws and orders were e for the people, and not the people for the laws. This green in the opposition to reform has appeared in e quarters, both in lay and professional circles, with ustomary luxuriousness.

June 1st three deputations appeared before the thly meeting of the City Council, one from the Ulster ical Society, one from the Citizens' Health Committee, one from the Belfast Trades Council. Each advo- d the necessity of obtaining a man of high standing, , and experience for the post of medical officer of th. Dr. Calwell, President of the Ulster Medical ety, introduced the first, and after explaining the lution which the Society had passed, asked Professor lsay and Professor Byers to speak in support. Both e strongly and effectively on the same lines as they already followed before the Health Committee, in ort of the tenor of the resolution that a highly- ed scientific medical officer of health should be ap- ted; that he should receive adequate remuneration, that he should be supreme in his speciality. The mmendations may be summed up in the advice that Council should go ahead as regards its health depart- t, as it has in regard to several other departments, as its technical school and tramway system. The rman of the Health Committee (Dr. King-Kerr) sub- ently, in moving the adoption of the report of the th Committee, practically did not combat the resolu- , but resented the imputation that Belfast was a rd, as had been made out, and ridiculed some of the s expressed by the deputation. When the recognized cal society of a town complains of a general mortality h has never earned it a place better than the seventy- out of the Registrar-General's list of eighty large s during the last four years, which has a consumptive n-rate of over 3 per 1,000, and a typhoid fever prevalence iderably higher than that of Nottingham, although the medical officer of that town characterizes the incidence of his own town as "excessive" and "disproportionately heavy," and is told for its pains that it is fostering a panic, and that Bristol had an enormous number of cases of diphtheria in 1904, it is not hard to understand why most men shirk public duties.

The Public Health Committee proposed that the salary of the new medical officer of health should begin at £800 a year, and also that that portion of the Report of the Interdepartmental Committee on Physical Deterioration in connexion with physical deterioration and alcoholism should be printed in the form of a poster and placarded throughout the city. Both these praiseworthy recommendations were thrown back by amendment; it is hoped, however, only temporarily.

Dr. Darnell's Expenses in Tughan v. Darnell.

The following subscriptions have been received up to June 2nd:

	£	s.	d.		£	s.	d.
Sums already acknowledged	150	5	6	Dr. R. C. McCullagh	1	1	0
Prof. J. A. Lindsay ...	10	10	0	Dr. R. C. Park, Newtownards	1	1	0
Dr. H. L. M'Kisack...	10	10	0	Dr. D. C. Smiley ...	1	1	0
Prof. J. W. Byers ...	5	5	0	Dr. John D. Rice, New Eltham, Kent ...	1	1	0
Dr. Howard Stevenson	3	3	0	Dr. W. Calwell, Duncairn Gardens ...	1	1	0
Prof. T. H. Milroy ...	2	2	0	Dr. Jas. Bowan, Castlewellan	1	1	0
Dr. James Huston, Carrickfergus ...	2	2	0	Dr. J. Singleton Darling, Lurgan ...	1	1	0
Dr. Alex E. Knight, Donaghadee ...	2	2	0	Dr. Martha Adams, Lurgan	0	10	6
Dorset and West Hants Branch, per Dr. C. H. W. Parkinson	1	12	0	Total	196	10	0
Dr. J. C. Mockler, Chorlton-c.-Hardy	1	1	0				

Cheques may be made payable to the Hon. Treasurers, Dr. Leonard Kidd, Enniskillen, or Dr. Wm. Calwell, 1, College Square North, Belfast.

Post-graduate Instruction in Belfast.

The visiting staff of the Belfast Royal Victoria Hospital has decided to hold a series of post-graduate demonstrations on clinical methods and cases in July of this year. All the departments and specialities will be represented, and the whole course will last a fortnight. Interesting cases are being collected, and the arrangements, which have been carried out chiefly by Mr. Fullerton, F.R.C.S.I., are now nearly complete.

Limerick Board of Guardians.

At the meeting of the Limerick Board of Guardians held last week reference was made to the resolution of the guardians asking for an inquiry on oath into the question of increases of salary granted to the dispensary medical officers of the union and the two apothecaries. A letter was read from the Local Government Board declining to alter its decision refusing the inquiry, and pointing out that the matter of increases had been considered by a Committee of the guardians in 1904. The Clerk wanted to know if that meant that he was to pay the increases, but the Chairman said, "No, the Board are taking no action but to mark the letter 'read.'"

Scotland.

Edinburgh and the Treatment of Consumption.

At a meeting of the Public Health Committee of Edinburgh Town Council on June 5th a report from Sir Henry Littlejohn was presented stating that since the opening of the consumption wards in the City Hospital at Colinton Mains in April last, 21 cases had been admitted (9 males and 12 females), and 8 deaths had occurred. The last admission was on May 26th, and since that date there had been only one application. Since the weekly mortality from phthisis in the city is 13 or 14, the small number applying for admission to hospital would seem to imply either a want of knowledge on the part of those for whom the benefit is intended or of indifference to the benefits to be derived from a public health point of view on the part of the medical profession. It was resolved at the meeting to instruct the medical officer of health to write to the secretaries of the various dispensaries in the city pointing out to them the provision made for cases of consumption and the advantages to be gained from treatment in the City Hospital.

Edinburgh Royal Infirmary Residents' Club.

The annual general meeting of members of the club will take place in the Caledonian Station Hotel, Edinburgh, on Friday, June 29th, at 6.30 p.m. The twelfth annual dinner will be held at 7 p.m., when Sir Lauder Brunton, President of the club, will occupy the chair. Members intending to be present are requested to send their names to the Secretary (Dr. Edwin Bramwell, 23, Drumsheugh Gardens, Edinburgh) on or before June 25th.

The Glasgow Cancer Hospital.

A meeting in the interest of the fund for the extension of the Glasgow Cancer Hospital was held in the Municipal Chambers on May 30th. The Lord Provost presided and there was a large attendance. The hospital has now been in existence for ten years and does a large amount of good work, although only thirty-two beds are available. A further drawback is the lack of suitable small side rooms containing only one or two beds for accommodating patients who have reached an advanced stage of the disease. It is hoped that sufficient funds will be collected to extend the present accommodation, and provide suitable small separate rooms. It is calculated that for this purpose some £20,000 will be required; already upwards of £3,850 has been collected, and there is every hope that the remainder will speedily be raised. The cancer hospital appeals in a very special sense to all classes of the public. Almost every family sooner or later is brought into touch with the disease. That this is true is shown by the fact that the subscribers to the hospital number several thousands, and the subscriptions run as low as 3d. Several of the speakers who addressed the meeting dwelt upon the necessity of continuous research into the nature and origin of cancer, and it is hoped that in the proposed extension this aspect of the question will not be overlooked.

Cerebro-spinal Fever.

Several fatal cases of epidemic cerebro-spinal fever have occurred in Glasgow during the past few weeks, and the Health Committee is considering the question of including it among the notifiable diseases. With this view it has circularized the medical profession to obtain details of any cases which have been treated during the past twelve months.

Birmingham.

The General Hospital.

A skin department has been instituted at the General Hospital, and Dr. Douglas Heath has been appointed dermatologist to the hospital. A vacancy for an assistant physician has occurred, and Dr. Stanley Barnes, Pathologist to the Queen's Hospital, Birmingham, has been elected to the post.

The Health of Coventry.

In Dr. Snell's thirty-first annual report on the health of the city of Coventry, he notes that the death-rate is well below the average of the previous years, being only 14.8 as against the average 16.4. There was an epidemic of measles, similar to that of 1903, which resulted in 60 deaths. The marriage-rate is lower than in previous years, being only 16.6, as compared with the average of 18.0 from 1895 to 1904; but this low rate is above that of the average rate of the whole of England. The infantile mortality is satisfactory, for it has been comparatively low, only 104 per 1,000. Inasmuch as the rate of infantile mortality is now recognized as indicating to a great extent the effect of the local conditions on those most susceptible to them, this low rate is most gratifying. A circular as to the best way of feeding infants has been sent to every house from which a birth has been registered. A health visitor has been sent to explain the circular to the mothers, and to give them advice. Before this was done all the medical men in the city received a circular letter inviting suggestions. Epidemic diarrhoea has been below the average, and by this decrease the mortality among children has been correspondingly reduced. No less than 60 deaths have been due to measles; 54 were in children under 5 years of age. Eight infants' departments in the schools were closed to prevent the spread of this disease. There were 104 deaths due to tuberculosis, 75 t phthisis, out of a total of 1,105 deaths. The duration o the illness in those people who died from phthisis was i 23 cases under one year; in 25, from one to two years and in 26, over two years. No information was obtainabl in one case. The average tuberculosis death-rate ha dropped from 2.53 to 1.42 in the last 35 years. Durin the year 52 deaths resulted from different forms o malignant disease; the stomach was the organ which wa most frequently affected.

Medical Benevolent Society.

The eighty-fourth annual report of the directors of th Medical Benevolent Society of Birmingham shows tha the good work of granting relief to those who are i need of the Society's assistance has been accomplishe as usual in a quiet, unostentatious manner. The investe funds now amount to £15,940, making, with a balance o £74 at the bank, a total of £16,014. Twenty-thre annuitants were on the books at the commencement o the year; two died, and one new annuitant was added t the list. The annual value of the grants ranged fro £18 to £36, and the sum expended in this way was £70 The total number of benefit members of the Society i 404, and 13 new members were added during the yea The directors draw attention in their report to the ver large number of practitioners in the district who hav not yet availed themselves of the advantages of membe ship of the Society, and urge all those who are intereste in the welfare of their professional friends who are no members to make an effort to induce them to join.

South Wales.

University of Wales.

The Vice-Chancellor of the University of Wales has bee in correspondence with the Board of Education with re ference to the acceptance after 1906 of the matriculatio examination of the university as qualifying students ente ing colleges to be prepared for degree examination Pending a decision on the point, the Board has expresse its willingness to accept the matriculation examination i the case of students admitted to training colleges in 190 provided that they pass in all the five subjects required a the same examination. This proviso will come into effe concurrently with a recent amendment in the regulatio made by the University tending in the same direction. Th privilege hitherto enjoyed by all candidates who pass th matriculation in four subjects of entering upon degre courses in the colleges prior to completing their matricula tion is to be confined (from September, 1907) within narro limits, and to extend only to those who make good a clai for special recommendation by their colleges. On the oth hand, larger opportunities for matriculating before entranc upon degree courses will be afforded to students by th holding of a second matriculation examination in Septemb in and after 1907, in accordance with a decision of th court at its recent meeting.

Cardiff Medical Society.

At the meeting of the Cardiff Medical Socie held on May 25th, Professor Kocher of Ber delivered a lecture on exophthalmic goître. M Lynn Thomas, C.B., was in the chair. At the close of th meeting Dr. T. Wallace proposed, in felicitous terms, vote of thanks, and thanked also Mr. Lynn Thomas, b whose instrumentality they were privileged to hear Pr fessor Kocher. Dr. A. Sheen, in seconding, endorsed a that Dr. Wallace had said, and the vote was carried wi acclamation. Professor Kocher was made a honora member of the Cardiff Medical Society. In the evening complimentary dinner was given to Professor Kocher, a which there was a large and representative gathering the medical men of Cardiff, Newport, and South Wal generally. Mr. Lynn Thomas, who presided, gave th toast of "Our Guest," which was most heartily received.

Alien Paupers at Cardiff.

Application was made to the Cardiff stipendiary recent by Mr. Pritchard on behalf of the Cardiff Union to adj dicate upon the cases of a number of foreigners now i different asylums and chargeable to the city of Cardi because they had been found insane in the city. Most people were foreign seamen, and each cost 14s. a so long as he was an inmate. It was stated that the ians received nothing from the countries of which people were natives, and the expenses had to be entirely by the ratepayers of Cardiff. The diary stated that the ratepayers of Cardiff were d with £400 a year for the keep of aliens already, his sum would reach about £600 or £700 a year in ture. It illustrated the necessity for more stringent tion to prevent pauper aliens coming to this country.

Overcrowding.

Howard Davies, Medical Officer of Health to the pridd Urban District Council, in his annual report 05, draws attention to the housing problem in the ing words:

> e is still a great demand for workmen's cottages. The of these latter leads to the practice—only too common— or more families sharing the accommodation of one e same dwelling, with consequent overcrowding. From lth and moral standpoint, this practice should be ntenanced.

ouncil has put the Housing of the Working Classes nto operation, and applied for powers to borrow for the erection of twenty-five houses, but this er the medical officer of health fears will not meet eds of the district. On the question of water supply, avies states that he has for years contended that the il should combine with other authorities in pro- g a scheme giving a more abundant water supply. an only be brought about by the construction of vorks beyond the northern limits of the South Wales ld, as the gathering-grounds in the latter are in- ed adversely by coal-getting. The birth-rate for the as 36 per 1,000 of the population and the death-rate Infantile mortality was at the rate of 181 per 1,000 red births, as compared with 128 for the rest of nd and Wales. The mortality was 4.6 less than the e for the previous ten years.

SPECIAL CORRESPONDENCE.

PARIS.

sor Dieulafoy on Diagnostic and Operative Errors in s of Muco-membranous Typhlo-colitis Mistaken for endicitis.

last meeting of the Académie de Médecine, Professor foy called attention to the number of patients ng from muco-membranous typhlo-colitis who are ed on for an appendicitis which they have not got, sor Dieulafoy described thirteen of these cases, the in all being practically the same. The patient ng from violent abdominal pains sends for a doctor; he he has an attack of muco-membranous entero-colitis, has already had several similar attacks. The doctor es the abdomen carefully, finding it sensitive along ion, and on arriving at the right iliac fossa the patient ut, for pressure in this region is more painful than ere. If the doctor believes that appendicitis com- follows an entero-colitis, he mistakes the typhlitis, lls the patient that he has a complication—that is to pendicitis. A surgeon is called, and the operation formed sooner or later, but the appendix is found y. But now a new variety of appendicitis comes in histological, or microscopical, appendicitis, which is to save the diagnosis and the situation. Micro- ally there are found fibrous bands, hypertrophy of sed follicle, and haemorrhagic folliculitis. These copical discoveries have not the importance which ought to give them. M. Letulle in an important n the subject writes that if appendices taken from who have died from any disease are examined it is ely rare not to find zones of sclerosis or a ning of the lymphatic follicles, especially in the segment of the organ. These are usual modifications is high time that the legends were done away with describe these changes as appendicitis following colitis. The follicular apoplexies considered to be of appendicitis are simply caused by the surgeon, he result of traumatism during the operation. tulle has never found haemorrhagic folliculitis in appendices removed by operation. The violent ligature of the organ before its ablation explains perfectly, in his opinion, the suffusion of blood, either circumscribed or diffuse, in the reticulate tissue of the follicles. Clinically it is proved that numbers of patients suffering from entero-colitis should not have been operated upon. The operation does not remedy or in any way modify the disease. In many cases observed by Professor Dieulafoy the painful crises recur at the same spot and with the same intensity in patients who have been operated on. During the last few years Dr. Bottentuit of Plombières has collected the histories of 22 patients who have suffered for a longer or shorter period from muco-membranous typhlo-colitis, or intestinal gravel, and who have been operated on for non-existent appendicitis. All have been to take the waters, seeking a more efficacious cure than operation. The same thing is seen at Châtel-Guyon and at Vichy. The remedy for this evil is good diagnosis. When called to a patient suffering from muco-membranous entero-colitis, it must not be forgotten that there is such a thing as a caecum, and that it may become inflamed (typhlitis). For this reason Professor Dieulafoy has for long proposed to substitute the name "typhlo-colitis" for "entero-colitis."

BERLIN.

The Professional Secret of a Deceased Patient.—Results of Sanatorium Treatment.

Again—within a short space of time—a German court of justice, the Dresden Oberlandesgericht, has had to decide a point bearing upon the principle of professional secrecy; whether a medical man may or may not decline to give evidence when his patient is no longer alive. The case was curious and complicated. An unmarried female, X., brought an action for damages against the heirs of Mr. Y., alleging that Mr. Y. had infected her with syphilis, thus causing her material losses, besides the loss of health. The doctor's evidence, which the plaintiff called for, would probably have decided the case in her favour, but he declined to give it, considering himself bound to secrecy, even after the death of his patient. This view was shared by the judge, who ruled: (1) That money considerations were not entitled to set aside professional discretion; and (2) that the death of a patient, far from absolving from professional secrecy, on the contrary, perpetuates the pledge under which the medical attendant is to respect the confidence placed in him. In the course of the lawsuit a curious medico-legal point was raised by Mr. Y.'s heirs (his brothers). They contended that in their quality as heirs they were entitled to refuse the doctor leave to give evidence; but the judge ruled their contention irrelevant, since the confidence reposed in a doctor by his patient is a purely personal affair, and as such not inheritable, as property or money affairs are.

At the annual meeting of the "German Central Committee for Combating Tuberculosis" (hitherto known as the German Central Committee for the Erection of Lung Sanatoriums) on May 31st, Herr Goebel, President of the Imperial Board of Insurance, gave a summary survey of the range and efficacy of sanatorium treatment in Germany during the year 1905. As year by year new people's sanatoriums are built and opened, so year by year the number of inmates increases. There were 14,000 cases under treatment in 1901; in 1905 the number had risen to 26,621 (in round numbers, 19,000 males and 7,500 females). From 5 million marks (£250,000) in 1901, the cost had risen to 9 million marks (£450,000) in 1905, the total working expenses from the beginning of 1901 to the end of 1905 being entered at 38 million marks (£1,900,000). Of the cases dismissed as "cured" in 1901, about 34 per cent. are at present perfectly able to earn their living. Loud applause greeted Herr Goebel as he concluded by saying that these results show sanatorium treatment to be still the most important weapon in the struggle with tuberculosis. To an outsider the 34 per cent. of the "cured" cases, after a space of only four to five years, may seem lamentable. But it must be borne in mind that sanatorium treatment has an educational as well as a therapeutic purpose. Each patient is instructed in the why and wherefore of his treatment, he is taught the dangers with which dirt and slovenly habits are fraught, to his family as well as to himself; he is trained to proper care in the matter of coughing and spitting; is accustomed to living with open windows, etc. It is hoped that thus the knowledge of these therapeutic precautions will gradually filter through and spread among the poorer and poorest of the population, and that in time parents may learn that tuberculosis is largely a preventable disease, and take proper means to protect their children from it, or obtain medical treatment for them at an early stage of the disease. In this connexion it is satisfactory to learn that children's sanatoriums, both at the seaside and the country, are already doing good work in Germany, though more beds are urgently needed to meet the increasing demand

VIENNA.

Carcinoma of Everted Bladder: Resection of One-half of the Intestine.—An Outbreak of Cerebro-spinal Meningitis.—Pensions for Medical Officers in Bohemia.

Two remarkable cases were demonstrated by the assistants of the Surgical Clinic before the Clinical Society at a recent meeting. The first was a woman aged 54, who had been born with eversion of the bladder, complicated by urethral epispadias. The parents, healthy people, had succeeded in keeping the child free from eczema, and when sufficiently old she was made to wear a recipient for the urine. Thus she led a fairly comfortable life until her 38th year, when the menopause set in and obliged her to seek surgical aid in Billroth's clinic for tumours of the abdomen. She was found to be the subject of ovarian disease, which necessitated the removal of both ovaries. There was no further trouble till 1903, when the mucosa of the everted bladder appeared somewhat thicker and bled easily. A solitary tumour grew slowly and brought the patient again to the clinic. She was well known there, as she was in the habit of coming every other year for control of the eversion. It was found that the mucosa was replaced by a tumour like a cauliflower, which completely hid from view the openings of the ureters. Immediate operation was decided upon, and after total excision of the diseased mucosa, which comprised also the lower part of the ureters, the front wall of the vagina was detached and turned upwards to cover the defect. The ureters were implanted laterally in the pouch thus formed; their openings were made out from amongst the hypertrophied tissues by the administration by the mouth of 2 gr. of methylene blue half an hour before operation. The after-history was uneventful except for a curious blue colouring of some loops of the adjacent gut. The result was very good as regards the function of the ureters, and the urine recipient made an implantation of the ureters into the gut unnecessary. The tumour proved to be a carcinoma. The second patient was a man aged 55, who had for some time been suffering from abdominal trouble. A tumour as large as a child's head was found in the right hypochondriac region, and as it was freely movable it was decided to operate. The tumour proved to be a mass of infiltrated mesenteric glands, which had to be freed from the parietal peritoneum. The case was one of carcinoma of the caecum, which was fixed to the omentum and the parietal membranes, and had also invaded two distant coils of the jejunum and attacked the gut at several points. The mass of gut requiring resection was so enormous that Dr. Lorenz, the surgeon, insisted on measuring it to see whether it was advisable. He found that about 3 yd. 6 in. of small intestine would be left in the abdomen, and it was deemed sufficient to remove the remainder of the jejunum and ileum (3¼ yd.), the caecum, the ascending colon, and the hepatic flexure (1¼ yd.). The two remaining portions of the gut were united and a Mikulicz tampon inserted. The operation lasted two hours, and was well borne by the patient. Very copious haematemesis—a frequent occurrence after extensive abdominal operations—weakened the patient during the next two days. He made an excellent convalescence, and even an attack of erysipelas, which started from a discharging sinus, did not seriously hinder recovery. His motions were very watery and copious during the first week, but with suitable diet and care he has now twice a day fairly consistent motions. He has gained 7 lb. in weight since the erysipelas, and he bears the loss of more than half his intestine remarkably well. The operation is unique in respect of the length of the portion of the alimentary canal removed.

Since the last outbreak of cerebro-spinal meningitis
checked, only sporadic cases have been reported.
however, a slight epidemic has again broken out,
time in the army. At Bruck, where every year at
beginning of summer large masses of troops are gath
and extensive manœuvres carried out, three non-
missioned officers died one after the other at s
intervals, and *post-mortem* examinations proved deat
be due to meningitis cerebro-spinalis epidemica.
Emperor has therefore abandoned his intended vis
the place, and the regiments will shortly be disbar
All precautions, however, have been taken by the mil
and civil authorities to prevent the spread of the dis
and thorough disinfection of the barracks and everyt
belonging to soldiers have been ordered.

As a result of the recent energetic action of the me
profession, the new law regulating the old-age pens
and the maintenance of the widows and orphan
district officers of health and medical officers under
Poor Law has been ratified by the Emperor, after it
been passed by the Bohemian Diet. This will mater
strengthen the position of the profession in the
The Bohemian regulations will serve as a model fo
future Bills of the kind, with appropriate change
different countries according to the standard of life.

CORRESPONDENCE.

FINANCES OF THE ASSOCIATION.

SIR,—Members of the Council will, I am sure, join m
welcoming Dr. McKenzie Johnston's return to the a
of the Association after his recent compulsory abs
which we have all regretted. This absence is prob
the reason for the misunderstanding on which the
paragraph of his letter is based. The paragraph sug
that the responsibility of throwing the apple of dis
lies on me, but that is not so, for if discord be the pr
descriptive term for the condition, it has existed so lo
though not between the officials I am glad to say—an
become so serious, that it had become a public du
acknowledge it openly. That is what I did, and it
surely not pass the wit of the Association to regula
matter which impairs its efficiency and certainly does
add to the smoothness of its running.

With the main lesson contained in the other
of Dr. Johnston's letter I am in full sympathy,
while, as I tried to make clear, largeness or small
of the surplus on the annual accounts is not a
criterion of the success of the Association,
increase of expenditure should, as he points
occasion a careful examination both of the metho
business and of the business undertaken. I am ther
indebted to Dr. Johnston for leading the way to a
extensive review of the affairs of the Association than
germane to my first letter, where I had to deal wit
false criterion which the Lancashire and Cheshire Br
applied to the accounts of the year. As the note st
in the resolutions of the Branch was one of alarm,
such a mental state is not consistent with a sane
sideration of the problem at issue, I all the more gl
congratulate the Association on Dr. Johnston's reassu
sentences, which temper somewhat the approval he g
to the resolutions themselves.

Dr. Johnston thinks that we have gone too fast, an
I know that we are dangerously overworking the
especially in the Medical Secretary's department,
I ask his assistance in regulating the pace by his speci
tion of those matters dealt with during the past t
years which we could have left over?

My other critic, Dr. Larkin, has put me in a ser
dilemma, which, as I do not know him, I am incapab
resolving, and, unless he has entirely failed to unders
anything I said, his methods of discussion are such
can neither envy nor imitate. Either Dr. Larkin
not know how a treasurer constructs his estimates o
has used them in an unproper way, and he either
understood my letter completely or his dialectic met
of constructing from it a series of admissions whic
does not contain is one hardly to be excused in a de
on the question whether Charles I was rightly behea
and quite out of place in a consideration of the inter
involved in the finances of the British Medical Associat

d have expected to search long in the area of
cashire and Cheshire Branch before finding a man
of converting a statement that a large annual
which is the object of a commercial business, is
t of the British Medical Association into one that
inary factors of success in business should not be
ed for the attainment of our proper ends. These
are, it seems to me, three: organization of the work,
criticism of detail, and adaptation to the needs of
ntèle. If for the second of these a properly-con-
l Finance Committee is to be of greater service
he present Journal and Finance Committee, the
ntatives of the Lancashire and Cheshire Branch
ssibly be able to explain to Dr. Larkin why the
Committee remained so long a mere General
es Committee, and if Dr. Larkin objects to the
over details of expenditure being "partly"
ed by the Chairmen of Committees, may I ask
r he would like it wholly left to the clerks and
ent officials?

arkin says that, like myself, the Representatives of
ncashire and Cheshire Branch say that they cannot
single improvement in the organization which has
l from their criticism. Were the Branch to realize
sibilites of the new central organization, for which
ember with gratitude the machinery was ordered in
ester, and to get over its alarm and look for methods
lerating the pace less dangerous than throwing
among the wheels, neither they nor I should any
be able to make such a statement. The Lancashire
eshire Branch and its Representatives have done
d work for the Association in the past, and if they
rankly accept the fact of the Representative Meet-
lend their assistance to co-ordinate and regulate the
ery, they have as fine a prospect still before them
ing the Association an agency both efficient and
ical for the promotion of the honour and interests
medical profession.

should like to do something more useful than
exchange thrusts with my critics, I shall now
of some matters that, in part at least, are respon-
r our difficulties. The first, and possibly the most
ant, is that there is too little co-ordination between
presentative Meeting and the Central Executive.
presentatives know what the profession wishes to
e, but the arrangements for informing them of the
al difficulties, in which I should include the ques-
cost, are imperfect. It was thought that the
ge which members of the Council have of taking
n the meeting would provide for this. The
e has proved insufficient, and some means will
be devised by which more of the Representatives
ve personal experience of executive responsibility.
solution (18) of the North Manchester Division
e Representative Meeting should appoint half the
rs of each Committee seems to me too indiscrimi-
but an extension of the system which is at
in operation in the Medico-Political and Central
Committees to some of the others deserves careful
ration. A proposal on this line was included in a
on the Committees presented to the Council a year
d rejected in block, and it is possible that some
rs saw in this an attempt not to co-ordinate but to
inate the Council. It was the co-ordination that
ed, and still attracts, me to the scheme.

next point, which some may think another aspect
same, is that as the central mechanism is at
fully burdened, the Representative Meeting would
ely in carefully scrutinizing the form of its reso-
so that, where the immediate execution of any
f work is not urgent, a discretion be left to the
ive to report that it has been inexpedient for the
eing to give effect to the proposal. At present no
save the referendum is provided whereby an
tion of the Representative Meeting can be delayed,
t it is quite possible that on some matter where
is no difference of professional principle the
i might deem a proposal temporarily inexpedient.
eferendum is not meant for such a case, and it
be well that on all such matters the choice of
and seasons should be left to the Council.

regard to the detailed criticism of expenditure
seems to me to make for efficiency and to be
al to economy and for the assistance in which I look forward to a properly organized Finance Committee it would be a great service to the Association if Dr. Johnston's method of taking the figures for a series of years were more fully applied. A return analysing in greater detail the expenditure of the Council and Committees into fares, printing, correspondence, legal expenses, and so on, should each year be presented to the Council, and accounts showing for a Committee as far as possible the cost of its various operations should each year be presented to the Committee. As I am dealing with the members of the Association and not with a hostile counsel I do not mind telling them that their methods are not perfect, but I can also assure them that this is not the result of the reconstitution of the Association but a relic of their former system and so far as they value my opinion it may be some comfort to add that improvements have been effected in spite of the fact that they have not resulted from the criticism of the Representatives of the Lancashire and Cheshire Branch.

Ultimately the expenditure must depend on the policy of the Association and the amount of work performed in any one year will govern the balance sheet for that year. It is therefore perfectly just to ask our critics to name those pieces of work which they would have left out. One of the heaviest parts of the work of the Medico-Political Committee has been its work on contract practice. In which of the disputes could we wisely have held our hand? Another very heavy and expensive operation was the work in connexion with the general election, and if some members of the Association do not think the educative result on Parliament has justified it, the matter is one on which we must agree to differ.

The operations of Parliament determine a large amount of expenditure on the part of the Association. During this year we have had to undertake the preparation of the case of the profession on Poor Law, vivisection, and income tax for presentation to the special commissions or committees which have been appointed, and an inquiry on vaccination is in prospect. When a Workmen's Compensation Bill, an Education Bill, or a Spectacle Makers' Bill is introduced, are we to wait to see what may happen or are we to take every measure in our power to make our views effective? Surely these are matters where parsimony would be a stultification of the whole purpose of the Association.

To take another matter which explains the exceptional legal charges of last year: should we have stood by till the Coroner for South West London had established a prescriptive right for his procedures? It has on occasions been held to be good business to try to meet the demands of the customers, and the Association must face the question whether it will undertake any work that may be offered or whether it will turn customers away from its door. One thing certain is that if work is undertaken it must be done effectively, and the staffing must be adequate, so that it cannot be said, as may be only too truly done at present, that we grossly overwork our officials.—I am, etc.,

Dundee, June 4th. R. C. Buist.

Sir,—With reference to the resolutions adopted by a meeting of the Lancashire and Cheshire Branch, and the letter signed "Charles Larkin," there is probably an impression throughout the Association that these resolutions are the outcome of the opinion of the Branch as a whole, which is far from the actual case.

The meeting was a small one, and the chief resolution (No. 1) was passed with over a third of those present voting with the minority; the remaining resolutions were passed in about the same proportion; the value of such a vote with not more than 5 per cent. of the members of the Branch present, I leave to the intelligence of your readers. Previously the resolutions had never been brought before or considered by the Divisions, but since that Branch meeting, two of the most important Divisions—those of Blackburn and Altrincham—have passed resolutions opposing the policy enunciated by the Branch Council, and voiced by its representatives on the Central Council.

Dr. Buist's letter of May 15th is a complete answer to the carping criticism and obstructive tactics which these exponents of economy mistakenly consider to be a policy with which the 1,600 medical men they represent agree.

It is curious that this outburst of economy should occur on the eve of the election to the Central Council, and that a financial report, signed by the Branch Secretary—himself a candidate—should be issued with the voting papers, which are to be returned within a week, thus preventing any answer to the many efforts of the imaginative faculty which this remarkable document contains before the poll closes.

Dr. Buist is right when he says that these gentlemen "represent opinion out of sympathy with the recent developments of the Association." They are certainly out of sympathy with two of the Divisions of the Branch they are supposed to represent.

The result of this policy, so far as the Lancashire and Cheshire Branch is concerned, will be found on page 218 of the Supplement of April 28th, under heading:

1. "Reports of Proceedings," etc., of the year's work, *nil.*
2. Financial Statement: Credit balance, £441 11s. 1d.

Comment is superfluous.—I am, etc.,

Ashton-on-Mersey, June 4th. **Charles J. Renshaw.**

INSPECTORS OF MIDWIVES.

Sir,—Will you allow me to offer a few remarks on the letter of Dr. Percy Rose in the British Medical Journal of June 2nd? The portion of the letter to which I would particularly draw attention is the paragraph referring to the duties of inspectors of midwives. I certainly must take exception to that part of the sentence commencing, "They must be prepared to advise midwives," etc. As far as I can find, there is nothing in the Midwives Act, 1902, nor in the rules framed by the Central Midwives Board, 1903, to justify such action. Rule 20, Section E, is very clear on this subject, and is, I think, worth quoting:

> The supervising authority shall make arrangements to secure a proper *inspection* of every midwife's casebook, bag of appliances, etc., and, when thought necessary, an investigation of her mode of practice.

There is not one word about "assisting them to keep their books properly and to instruct them as to the scientific value and application of various antiseptics," and I certainly am of opinion that a medical inspector of midwives who follows such a course as advocated in Dr. Rose's letter is far exceeding his duty. I fail to see why medical men should be called upon or expected to give such instructions. I should like to be permitted to quote from a letter dated December 4th, 1903, from the Secretary to the Central Midwives Board which I received in answer to one of inquiry from myself as to the appointment of inspector of midwives:

> The M.O.H. of the Local Supervising Authority would naturally appear to be the proper officer to carry out the duties prescribed by Rule 20 under the direction of the Local Supervising Authority; it would be absurd to appoint any one but a medical man for the purpose.

From this it is apparent that the appointment of a midwife to supervise midwives was never contemplated by the Central Midwives Board.

I should like to draw attention to one other point—namely, that the Central Midwives Board calls all registered midwives certified, and allows them so to style themselves. Surely this is an injustice to the midwives who hold a certificate of proficiency in midwifery, as it places them on an equality with those untrained women who have been allowed to register as having been in practice before the passing of the Midwives Act, 1902. It would have been more just to style the latter registered and the former certified and registered midwives. I do not think that the medical members of the Central Midwives Board at all realize the class of women they have been compelled to place on the Midwives Roll without a certificate. It is absolutely impossible for many of them to carry out the "Regulations" owing to their ignorance, lack of training, and more particularly inability to read a clinical thermometer.

Another interesting point has lately arisen in this neighbourhood. It has been held by the Central Midwives Board that they have no control over the midwives as far as canvassing is concerned—the fact of midwives canvassing having been brought to their notice; so that we have this curious anomaly, that medical men can be struck off the *Register* for "touting," whilst registered midwives can canvass with impunity.—I am, etc.,

H. T. Sells, M.O.H. Northfleet,
Inspector of Midwives, Northfleet Urban District.
Northfleet, June 3rd.

CENTRAL MIDWIVES BOARD.

Sir,—In the Supplement to the Journal of Ma
the result of the examination in April of the
Midwives Board is published, and, in my opinion, re
careful consideration by those responsible for th
administration of public affairs.

The first thing that attracts attention is that onl
the 51 recognized training schools have sent cand
for examination; of the successful candidates, 99
from London and 19 from the rest of England; of
only 4 came from the North of England. As the n
of midwives in Lancashire alone is 600, two-thi
whom are over 45 years of age, it is evident th
supply at this rate is not equal to the requirem
the population. It is better that midwives sho
acquainted with the local customs of the peopl
whom they have to deal.

On looking at the last official list of training s
the extraordinary fact appears that there is not
union infirmary licensed in London, and only se
England (except London). I believe that addition
been made to the number since the report was i
both in London and the provinces, but I say w
hesitation that the delay and the trouble to which
of Guardians have been put before obtaining a lice
a disgrace to the Central Midwives Board.

I am quite aware that a considerable portion
opposition to the licensing of first-class union hos
comes from a member who appears to labour und
delusion that union hospitals are to-day as they w
Mr. Bumble's time. It is only charitable to thin
the gentleman does not understand what he is t
about, having little acquaintance with an up-t
hospital, and therefore, as one of your contemp
remarks, looking upon everything connected with
Law as anathema. Of one thing the Board m
assured—that the present condition of affairs wi
be allowed to continue. A question has already bee
in Parliament, and steps are now being taken to
this abuse of power done away with.—I am, etc.,

Didsbury, June 5th. **Jno. Milson Rho**

ORAL SEPSIS IN SCARLET FEVER.

Sir,—Dr. Frederic Thomson, of the Fountain Ho
has recently drawn attention to a clinical lecture of
on the above subject.

He has been good enough to express himself "am
at two statements in that lecture. One of them wa
the condition I have termed "oral sepsis" ha
hitherto "usually" received the attention it des
The second was that in mentioning the mortality i
London Fever Hospital in the particular year from
my cases were drawn and other hospitals respect
I did not stop to discuss the effect of age-inciden
mortality. The suggestion conveyed that by
omission my remark instituted an invidious comp
between the mortality of the London Fever Hospit
other fever hospitals is, I need not say, quite uncalle
and does injustice alike to myself and to the Metrop
Asylums Board hospitals, whose results do not ca
defence on the part of any one. The average mortal
these hospitals is, as every one acquainted with
knows, a very low one. I am glad that my figures, "
3 per cent.," did not overstate it. Dr. Thomson is at
to show that in 11,155 cases admitted in 1904 the
tality was 3.26 per cent.

The purpose of my parenthetic remark was to brin
the fact that if oral sepsis was, as I found, an imp
factor in causing complications in the better cl
patients with which we have to deal in the L
Fever Hospital (hence the low mortality of 0.8 pe
amongst its cases), it was likely to be even much
common and important amongst the class of cases—
larger in number and greater in severity—with whic
general (rate-supported) hospitals have to deal.

The mortality in scarlet fever and the general f
affecting it formed, however, no part of the subject
lecture. I purposely prefaced my lecture with the re
that all the main facts with regard to scarlet fever a
complications could be expressed in figures drawn
tens of thousands of cases, and it was not with such
that I proposed to deal. The particular point I
attention to was the existence of oral sepsis at the
of admission and its relation to the subsequent se

case, especially to the incidence of septic complica-
and it is Dr. Thomson's comment on this subject
ppears to me to call for some notice on my part.
omson is "amazed" at my remark that this source
ic infection appears to have been "usually" over-
. On the contrary, he states, "particular attention
many years been paid to the condition of the gums,
th, and the mouth generally in all cases, whatever
ease, admitted into the Metropolitan Asylum Board
als."

general accuracy of the statement here made—that
lar attention has always been given to the morbid
ions of mouth and throat in scarlet fever—no one
concerned to dispute. The observation and treat-
f the mouth and throat forms the chief part of the
daily task alike of physicians and nurses in charge
s of this fever. But if the suggestion here be, as it
sly is—since he assumes to speak not only for him-
t for his colleagues in charge of fever hospitals—
e condition of "oral sepsis," defined by me in 1900
w firmly established as a potent cause of medical
has for many years been recognized and treated by
l physicians and the profession as an important
of septic infection in scarlet fever, I shall be happy
on what evidence from the history or literature of
ver Dr. Thomson bases this opinion.

he kindly refer your readers and myself to any
or treatises on fevers, even the most recent, where
psis (staphylococcal and streptococcal) associated
lental caries or diseased conditions of gums
al sepsis") is emphasized, or even mentioned, as
portant factor in causing complications in the
; or to any papers or treatises on fevers where the
on of the teeth in this relation is noted at all?

"oral sepsis" I have in view is something
different in frequency and importance from the
titis" or "ulcerative stomatitis" which is the only
on of the mouth noted in fever statistics. This
s noted solely in one relation—namely, *as a com-*
in cases of scarlatina anginosa. In statistics
fore me from the reports of the Asylum Board
ls, it is noted as occurring in 558 cases out of
f 50,258 cases, or in 1.93 per cent. On the other
he "oral sepsis" I have in view of mild, moderate,
re degree was noted in no fewer than 26 per
6 cases) in my last group of 135 cases, drawn,
oted, from a better class of patients more accus-
o take care of their mouths than those admitted
neral fever hospitals. And its significance was
not as a complication of scarlatina anginosa but
sible cause of that and other septic conditions of
and throat, and of none more than "ulcerative
tis."

f these 36 cases, 7 (= 19.3 per cent.) developed
ry angina, and 2 (= 5½ per cent.) developed
mia. On the other hand, out of the remaining 99
thout antecedent oral sepsis, only 5 (= 5 per cent.)
ed secondary angina, and only 1 (= 1 per cent.)
ed septicaemia.

er words, the incidence of these two complications
r to five times more common in those who had
sis at the time of contraction of their fever than
who had none; and this, too, despite the fact that the
sis was so far as possible immediately removed, or
y treated throughout the illness.

hus obvious that what I regard as of importance
nexion with "oral sepsis" is something very
t from what Dr. Thomson states he and many
ave given "particular attention" to for many
I am confirmed in my opinion by the testimony of
who have written expressing their interest in the
In a private letter one of the best known and
perienced medical officers of health in England
hat the observations "come upon me with very
e effect of a revelation. For whilst I in common
ny others have been speculating as to various
sources, *outside the body*, of the streptococcic
phylococcic infusion which is the source of the
infection that characterizes all severe cases of
fever, you show us that we have been overlooking
s been under our very noses!" and he expresses
tion of studying the whole matter afresh on the
gested, with a view to confirming or disproving
racy of the observations.

In view of the special frequency and severity of septic complications in scarlet fever, this appears to be the wiser course to pursue, than to suggest that the whole subject has long had the particular attention of the profession. On that point I should be interested to learn the experience of others.—I am, etc.,

London, W., May 28th. WILLIAM HUNTER.

A SUGGESTION FOR THE FURTHER USE OF CALCIUM CHLORIDE.

SIR,—The use of calcium chloride in various blood disorders has of late attracted a good deal of attention.

Its action on chilblains, a disease occurring markedly in those of tuberculous tendency, seems most suggestive, and it appears to be of use in erythema nodosum, physiological albuminuria, weeping eczema, and oedema.

It seems to me, therefore, to be worthy of trial in all diseases in which the watery element of the blood tends to accumulate in the tissues—for example, pleurisy, pericarditis, synovitis, a common cold, etc.

Experiments by injecting adrenalin into the pleural cavity have lately been made, and in one instance apparently with success, but a drug of the nature of calcium chloride, either taken by the mouth or injected hypodermically, may have a better chance of influencing the morbid collection.

The treatment of effusions seems to me to be notably unsatisfactory. Occasionally one is gratified by the resolution of a pleurisy under treatment by eliminants, but how much of this is due to the prescribed and enforced rest common to such cases, and how much to some unknown action of Nature, it is always difficult to estimate. Bearing in mind the case of oedema of the legs recently published by Dr. J. H. Bryant, where the condition was apparently due to the consumption of an inordinate quantity of common salt, it would seem well at the same time to restrict or altogether abolish the intake of that commodity.

How much absorption normally goes on through the unbroken skin I do not know. The fomenting with Tidman's sea salt of a knee-joint affected with effusion was lately recommended by an eminent consultant, and though in other respects the affected limb improved under the treatment suggested, the effusion itself continued to increase until the sea salt was dispensed with.

From time to time some remedy or other is vaunted, and receives due attention. Iodine has largely fallen into disrepute, and its place is often taken by some of its more modern representatives, but the success attending their use can at best be considered unsatisfactory in the majority of cases, whilst potassium iodide, if one may judge by its action on the mucous membranes most readily observable, seems actually harmful.

In country practice one has but few opportunities of testing the value of any new treatment, and I therefore venture to hope that some of your readers more favourably situated will give calcium chloride a trial in such cases as those suggested.—I am, etc.,

Oxon, May 14th. HERBERT L. EVANS, M.B.

PS.—Since the above lines were written I have had the opportunity of treating one case of pleurisy (J. D., aged 80) The dose of chloride of calcium given was 10 gr. night and morning. The pleurisy is certainly subsiding.

THE COLOUR OF THE HAIR IN OVARIAN DERMOIDS.

SIR,—In reference to the article under the above title by Mr. Shattock in the BRITISH MEDICAL JOURNAL of May 26th, page 1218, and to provide Mr. C. J. Bond with some further information, perhaps you will allow me to give the following details of the last dermoid tumour of the ovary removed in Adelaide Ward, St. Thomas's Hospital:

The operation was on May 3rd, 1906. The patient was a married woman, 35 years of age, who had had four children, and was about three months advanced in her fifth pregnancy. The dermoid removed was the size of a tennis ball, and was filled with thick sebaceous material and hair. On the inner wall was a large patch of epithelium with hair growing from it, and a projection of enlarged sebaceous glands, the so-called dermoid "mamma." There was no cartilage, bone, or teeth.

The hair in the dermoid cyst was flaxen in colour. The patient's hair was dark brown, but had been a lighter shade as a child. The colour of her father's hair (according to Mr. Shattock's theory, the father also of the dermoid) was light brown.—I am, etc.,

R. HAMILTON BELL,
Obstetric Tutor and Registrar, St. Thomas's Hospital.
London, W., May 31st.

THE GENERAL MEDICAL COUNCIL ELECTION.

SIR,—In view of the fact that many Divisions are now instructing their representatives as to the candidates for election to the General Medical Council for whom they wish their votes to be given, the members of the Manchester (West) Division desire it to be known that they have withdrawn their nomination of Dr. C. J. Renshaw.—I am, etc.,

J. SKARDON PROWSE, M.B.,
Honorary Secretary
Moss Side, Manchester, June 5th.

VACCINATION.

SIR,—In a recent issue of the BRITISH MEDICAL JOURNAL I notice a letter on the subject of vaccination from Mr. Arnold Lupton of the House of Commons. It seems to me scarcely credible that there should be in these days any legislator, or certainly any member of the medical profession, who is doubtful as to the good effects of vaccination, and the ridiculous nonsense that is often talked, let alone written, on the subject is extraordinary.

In the early Seventies there were two very bad outbreaks of small-pox in this town. During one the early advent of the militia training caused some discussion as to whether the usual training should take place, as the men were all billeted in houses in the town. It was decided by the commanding officer, the then Marquis of Exeter, and the medical officers, the late Dr. Barr and myself, that the regiment should be vaccinated on joining. I collected the necessary vaccine from infants, got many mothers to bring their children vaccinated the previous week, and vaccinated the whole regiment, then about 1,200 strong, with one exception, on the first day of the training. The one exception was the then adjutant, who could not be persuaded to go through the process. He soon developed small-pox, and was isolated for six weeks. No other man took the disorder.

During this epidemic a wooden hospital was erected for the use of the borough in a field adjoining the militia stores. This was less than a stone's-throw from the married quarters, where the permanent staff, their wives, and families were quartered. All these had been previously vaccinated. The cases of small-pox were brought through the militia stores to the hospital; the children played about as usual, generally had a look at all cases admitted, and were known to get on to the top of the building, but no case ever occurred amongst them. Cases of chicken-pox were often sent to the hospital in error, they were always vaccinated on admission, detained three weeks, and not one ever had small-pox. I trust these few facts may be of a convincing nature.—I am, etc.

H. B. SPURGIN,
Surgeon-Lieutenant-Colonel, Militia Medical Staff.
Northampton, May 17th.

MR. ARNOLD LUPTON AND VACCINATION.

SIR,—I have to thank you for publishing my letter. My attention has been drawn to the article in your issue of May 12th.

I think that in your comment you have hardly correctly represented what I said. The return shows the deaths from fifteen diseases, including small-pox. I do not give the deaths from any one disease, but from the total, and I showed the enormous increase in the total number of deaths through these fifteen diseases that occurred in the twenty-two years following upon the law of 1853 making vaccination compulsory.

You say in your comment that some of these fifteen diseases had declined. That only shows to what an enormous extent some of the other diseases had increased. I simply dealt with totals. If, however, you prefer to go into details, then you are faced with the fact that the deaths from small-pox had increased enormously since vaccination was made compulsory, culminating in the year 1871, when the deaths from small-pox reached a total of 23,000 in England and Wales only, the greater part of these deaths being of vaccinated persons.

You, however, do me no injustice when you intimate
that I suggest that the effects of vaccination m
shown in deaths in almost any form. Any circum
which lessens health and efficiency is sure to ac
cause of death and of insanity. I maintain that t
little babies the illness of "vaccinia" or "cow-pox"
altogether from its effects or non-effects on small-po
serious blunder.

The proper way of dealing with small-pox is sani
To subject every healthy baby to the disease of cow
the very worst possible way of combating diseas
tends to increase disease of every kind.—I am, etc.,

ARNOLD LUP
London, S.W., May 22nd.

*** It is unnecessary to argue with Mr. Lupton
whether publication in full of his letter, and full qu
of his *ipsissima verba*, constitute misrepresentation
position amounts to this: that if he selects one
with a largely and steadily increasing mortality, a
on to it fourteen others with a diminishing mortality
provided only that the one increase outweighs the f
decreases, he is justified in declaring to the publ
"there was a steady increase of deaths from these
diseases." That principle duly applied will enable
announce that any diseases he may select in the
records of mortality are either increasing or decreasi
as he pleases to group them. The value of the prin
an antivaccinist statistician is manifest, and w
gratulate Mr. Lupton on its discovery. It is rea
worth while contradicting his new assertion
enormous increase of small-pox. He neither r
nor apologizes for any of the false statements, new
which he has been convicted of issuing, and if he
his reputation is such as cannot be injured by th
withdrawal of proved untruths, we are not concer
dispute his view.

THE REBUILDING OF 429, STRAND.

SIR,—It is pleasing to see (p. 1192) the benefits D
Briscoe has derived from social intercourse in his
and Division. It will be an easy stage for him to
advantages at head quarters. There is someth
much more breezy and invigorating in it than th
kind that it would astonish him. To meet sp
Welshmen, sturdy Scotchmen, and witty Irishmen,
nothing of the coy and demure Englishmen, all in
the success of the Association and the welfare of t
fession, either in or out of the Committee
enlivens and stimulates one in no small degree.
this expands one's views and sympathies we feel
advantage of the constricted premises. I have ha
interesting interviews with members, even in the
diminutive ante-room, when we have had a fev
minutes before a Committee meeting, and why
not this idea be borne in mind and extended
new building? It is striking to notice
similar are the views contained in the two
of Drs. Briscoe and S. W. Wilson against the
or club element being fostered and developed
quarters. The latter seems to think that we ough
expect it for twenty-five shillings per annum; bu
ture to ask, Will he and Dr. Briscoe accept these f
if they are provided without their subscription
raised? If a large number of members wish f
arrangements, and think they would be beneficial,
and expect they will acquiesce without demur.
and long investigation ought to be made with re
the basements, and what can be done with them, a
rent they will produce. Then comes the question
much money to invest, and, above all, we have to
mind we must bring in as much interest on the
sunk in the site as we can. If we could let one
basements for a first-class restaurant and dinin
surely we should have no trouble in securing
intelligent, and reliable tenant, for he would know
might rely upon the members visiting head quart
fair amount of business, as, having such conveni
close at hand, they would be sure to patronize it, es
if we had an entrance from our own premises han
pointed out before. By judicious arrangement, co
rooms, when not occupied for business, might be p
the disposal of members. It is probable that t
and many other details not accessible to me the Co
is giving full consideration.—I am, etc.,

G. H. BROAD
Manchester, May 20th.

OBITUARY.

SIR WILLOUGHBY WADE, M.D., F.R.C.P.,

ONSULTING PHYSICIAN, GENERAL HOSPITAL, BIRMINGHAM.

eath of Sir Willoughby Wade, which took place at on May 28th, removes the last of the group of Bir- am men who took a prominent part in the manage- of the Association when the central office was still Midlands, and who showed to the end of their lives epest interest in its welfare.

Willoughby was descended from an old Yorkshire , one of whom settled in County Meath, Ireland, an estate granted him by King Charles II. One er of the family was the military engineer Field- al George Wade, famous for having made the High- oads after the rebellion of 1715, whose name is pre- in the doggerel rhyme:

> you had seen these roads before they were made
> u would hold up your hands and bless General Wade.

ther was the Rev. M. A. Wade, for many years Vicar ly Trinity, Derby, is mother was the ter of Mr. Justice of the Irish Bench. homas Wade, Am- lor to Pekin and ards the first Profes- Chinese at Cam- , was his cousin.

loughby Francis was born at Bray, in Wicklow in 1827, ed at Brighton, , and Trinity Col- Dublin, where he ulated in arts as in medicine, taking .B. degree in 1851. the custom in those he was apprenticed Douglas Fox, a well- practitioner in , whose brother was arles Fox, the engi- who designed the l Palace.

after graduating he pointed House-Phy- to the General Hos- t Birmingham where cceeded his friend mer class-mate, Dr. Heslop. On leaving eneral Hospital he Physician to the sary and in 1860 ian to the Queen's al. In 1865 he was ted Physician to the l Hospital; in the l he had become Physician to the Queen's Hospital and Pro- of Medicine at Queen's College; but those tormy times, when under the autocratic govern- of Mr. Sands Cox, the staff of the Queen's al and the professors in Queen's College under- startlingly rapid changes. As the College was ted exclusively with the Queen's Hospital he resign the chair of Medicine and did not uently take any part in systematic teaching. He ed on the staff of the General Hospital until April, r the last seven years being Senior Physician; on irement he was elected Consulting Physician, but ed to be engaged in active practice for six or seven longer. In 1896 he received the honour of knight- some few years before his name had been placed on mmission of the Peace for the County of Warwick; e degree of M.D. *hon. causâ* was conferred upon n 1896 by his old University. He served in local medical offices of distinction, being President, vas one of the founders, of the Medical Institute, of dland Medical Society, of the Medical Benevolent , and the Branch of the British Medical Association.

His health having shown some signs of failure, and Lady Wade's condition at the same time giving him serious cause for anxiety, in 1898 he gave up practice in Birmingham to seek a more genial Southern climate. They settled at Florence, where health returned, but the change may be said to have ended Sir Willoughby Wade's professional career. Last year he sold his villa near Florence and moved to Rome, where he died.

In 1880, Sir Willoughby (then Dr.) Wade married his cousin Augusta, daughter of Sir John Power, Bart., of Kilfane; she survives her husband, but there were no children of the marriage.

His professional career was successful, for although for many years he had not a large practice, after the death of Dr. Heslop in 1885 until his retirement he occupied a leading position as the senior consulting physician in Birmingham.

He wrote comparatively little, and the trend of his mind was rather towards the discussion of problems of general pathology, as illustrated in his recent contribution to these pages on the subject of cancer, than to recording clinical observations, although he first drew attention to the presence of albuminuria in diphtheria, and his rare publications always showed evidences of careful thought.

As has been related, his career as a teacher in the school of medicine ended when he left the Queen's Hospital; but he taught in the wards so long as he remained on the active staff of the General Hospital, and was most popular with the students of those days.

Sir Willoughby Wade's connexion with the British Medical Association was long, intimate, and distinguished. He was elected to the Council in 1865 by the Birmingham Branch, and continued a member until the new constitution deprived him, with other Vice-Presidents, of their *ex-officio* seats. He succeeded Dr. Sibson, the first Chairman of the Scientific Grants Committee, and took great interest in its work. He served as Treasurer of the Association from 1882 to 1885, and on the completion of his term of office was elected a Vice-President. He was Secretary of the Section of Medicine at the Plymouth meeting in 1871, Vice-President of the same Section the following year at Birmingham, and reader of the address in medicine when the Association met in Worcester for its Jubilee in 1882. He was President of the Association at the Birmingham meeting in 1890, where many must remember his fine figure and the dignity and urbanity with which he performed the duties of that office. His presidential address dealt with the pre-technical stages of medical education, and in it he urged that it was necessary to review the regulations with regard to the preliminary sciences, and pointed out that to diminish the number of the subjects did not necessarily mean lowering the standard of education. The address attracted much attention at the time, and in commenting upon it, Professor Huxley wrote: "Dr. Wade has unquestionably laid his finger upon the source of this unfortunate state of things."

In his public career as a hospital officer and as a member of the Council of the Association he gained the goodwill and respect of his colleagues by the uprightness and loyalty of his character, his sound judgement, calm temper, and fairness of mind. Averse from controversy, he sometimes preferred to remain silent when discussion grew hot, but he was not one to run away, and by his vote and influence he aided the side which he believed to be right.

That he gained the general esteem of his fellow-citizens as well as of his professional brethren was proved in the most flattering manner by the splendid banquet to which he was invited on the occasion of his knighthood, when all that was most distinguished in the City of Birmingham gathered to do him honour. He was constitutionally too indolent to work persistently at his profession, nor can it be said that he possessed the quality of mind that makes advances in science; his claim to be remembered rests upon the work he did for the profession within the Council of the Association and the personal regard of his former colleagues, who recognize the sterling qualities he possessed, and deeply regret his death.

Mr. C. G. Wheelhouse, who was President of the Council during part of Sir Willoughby Wade's tenure of the office of Treasurer, writes: To those who remember him only as they knew him in his health and vigour, the announcement of the death, in Rome, of Sir Willoughby Wade will come as a sorrowful remembrance indeed, as of one more added to the long list of bygone old friends and workers in the building up of the British Medical Association. To the bulk of the present members of the Association Sir Willoughby Wade will be little more than a name, but there yet remain some members of former years—years during which the Association was struggling to attain to its present prosperity and political position which were not what they are now—to whom it will be much more. They will recall an old friend of powerful physique, of commanding mental ability, somewhat belligerent in the maintenance of his views, but ever earnest in endeavour to advance the welfare and prosperity of the Association, and ever ready to sacrifice time and strength to the furtherance of that end. As a member of the old Council of Twenty, at a time when the affairs of the Association, very different from what they are to-day, needed watching with most careful scrutiny, Sir Willoughby was always to be relied upon, and ready to come to the fore with suggestions for change, whether of management, change of residence, changes in the method of the conduct of the business of the Association, or any other that seemed to him to advance its prestige and prosperity. For the three years from 1882 to 1885 he acted as Treasurer of the Association, and after filling various other important offices, the year 1890 saw him in the presidential chair at Birmingham. As Treasurer he kept a firm hand on the purse-strings and a shrewd eye on the financial position of the Association, and, acting heartily in concert with our then very able manager, Mr. Fowke, was instrumental in largely advancing its business interests. As President, his forceful conduct of the business of the meeting, and his genial hospitality and courtesy to all guests and members, will not easily be forgotten by those who were fortunate enough to receive them. For several years past, since health compelled him to curtail his personal efforts, Sir Willoughby has resided in Italy, and has been apparently lost to the Association; but from time to time we heard of him, and have been glad to know that he spending the evening of his life in the tranquil enjoy of peace and happiness. Henceforward we shall look on his memory with the kindly feeling of attachmen admiration as of a warm and valued friend "not los gone before."

Dr. Henry Barnes, President of the British Me Association in 1896-7, writes: The news of the dea Sir Willoughby Wade will cause widespread regret a the older members of the Association, and I very will accede to the request that I should give a short app tion of the work he has done in connexion wit central organization. He was elected a member o Council in 1864, and it was during a short vis Birmingham early in 1865 that I first had the pleasu meeting him. In 1868 I became a member of the mittee of Council, and from that time onward I many opportunities of meeting him and of witnessin active interest he always displayed in developin growth and usefulne the Association. D the period of his o connexion with the Co many changes took in the constitution o executive body, n the great change was effected at the pool meeting, whe held the office of surer. He saw the ciation grow from a society numbering members until it re nearly 20,000 mem Apart from his wo Treasurer from 18 1885, and as Preside the Association in probably the most i tant and enduring s which he rendered f Association was as man of the Sci Grants Committee. E to this office in 1880 o death of Mr. Callend continued to hold it i of the heavy strain Treasurership until when he was succeed Lord Lister. Unde Wade's auspices as man many importa vestigations were taken for the Comm among which I m permitted to recall final report of Dr. wood and Mr. Vach the life-history of contagion; Professor Ogston search into the relation between bacteria and su disease; Professor Schäfer's inquiry respecting proteid matters of the blood; as well as valuab vestigations by Dr. Thin, Professor Ferrier, Dr. Yeo, and others. In 1883 Dr. Wade brought fo a proposal that with a view to more effectual and encouragement of scientific medical research the ciation should consider the desirability of cr scholarships of research, of the annual value of £150 The proposal was discussed at the annual meeti Liverpool, and in spite of some opposition it was ca Mr. Watson Cheyne and Mr. John Priestley were e the first Research Scholars. The success of this s for promoting original research, and the valuable done by the research scholars since appointed, credit upon the Committee which had the sagacity forward such an important proposal. Dr. Wade w attractive personality, clear-headed and shrewd, w any pretence to oratory, but with a faculty of exposition which made him a welcome speaker a annual meetings. I believe the Carlisle meeting w t annual meeting he attended, and he took an active t in the work. There are few men who have done more the Association, and none who had its interests more heart. He may truly be described as *integer vitae lerisque purus*, and the world is the poorer for the loss such a man.

)ne who had exceptional opportunities of judging Sir lloughby Wade's work for the Association writes: took an active part with Chadwick and Wheelhouse of eds, Husband of York, and Barnes of Carlisle in bring- about the reform which replaced, as the administra- e body of the Association, the old Committee of Council a Council consisting mainly of elected representa- es of Branches, which was the constitution under which Association worked until the recent reorganization. the old Committee of Council Dr. Wade was one the leading members in favour of medical reform, y seconding the efforts of Dr. Waters of Chester in this ection; these efforts, as every one knows, eventually ulted in the Medical Act of 1886. He was not a very ective speaker, but his colleagues learned to value his nion, because it was soon recognized that he always k an independent view, which he was ready to support, ting aside all personal or temporary considerations; reover, he was singularly broad-minded and fair, as was own by his habit of rehearsing impartially the argu- nts in favour of a proposal to which he was himself osed. Few men have deserved better of the Associa- n than Willoughby Wade.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

e following have been elected Examiners in the Third M.B., t II:—*Medicine:* Dr. Bradbury, Dr. Osler, Dr. West, Rose Bradford. *Surgery:* Mr. Kellock, Mr. Barling, Stanley Boyd, Mr. L. A. Dunn. *Midwifery:* Dr. Rivers lock, Dr. H. R. Spencer.

. Noon, M.A., B.C., Trinity College, has been elected to hn Lucas Walker Studentship.

UNIVERSITY OF LONDON.

e following candidates were approved at the M.B., B.S. mination in May:

. Alcock, F. Alcock, H. R. Allingham, A. Beeley, R. J. Bentley, J. F. Blackett, Margaret L. A. Boileau, A. C. Bryson, W. E. Burrows, B.Sc., T. C. Clare, G. P. C. Claridge, C. Clarke, L. Colebrook, Josephine Coupland, R. J. H. Cox, E. T. H. Davies, G. De la Cour, K. R. Drinkwater, B.Sc., J. E. Dunbar, E. V. Dunkley, H. R. Evans, C. Fletcher, P. G. Foulkes, T. M. Hardy, W. C. F. Harland, P. Hick, F. W. Higgs, B. Higham, Edith B. Hollway, R. Holtby, W. L. Holyoak, Annie W. Hyatt, P. C. P. Ingram, G. F. Jones, A. M. Jukes, C. L. Lakin, G. B. McKean, J. E. Martin, R. V. G. Monckton, Helen I. Moss, A. H. Parkinson, B.Sc., T. C. Pocock, P. J. Probyn, H. E. Quick, B.Sc., M. B. Reichwald, P. M. Roberts, Lilian T. Rowland, Sophia Seekings, Nora F. Smith, C. A. Stidston, B. Tchaykovsky, B.Sc., T. Turner, H. F. Warner, J. B. V. Watts, A. G. Wells, H. B. Whitehouse, Lilian E. Wilson.

oup I Only.—K. M. Gibbins, Dorothea C. Maude, W. E. Ruttledge, H. B. Scargill, F. W. Schofield, E. B. Smith, G. W. Sudlow, J. Unsworth.

oup II Only.—J. S. Avery, A. Ball, A. Barber, Ella Beales, C. J. Galbraith, E. T. Glenny, R. F. Hebbert, G. M. W. Hodges, F. P. Hughes, Edith A. Jones, H. T. Jones, S. H. J. Kilroe, J. J. Paterson, B.Sc., H. T. Samuel, W. O. Sankey, J. E. S. Smith, Grace M. Stagg, A. G. Sworn, Edith E. Tucker, S. W. J. Twigg, S. Upton, F. N. Walsh, Ruth H. Western.

onours were awarded to the following:

G. Cockcroft, University Medal (Guy's), ‡A. T. W. Forrester (St. Bartholomew's), ‡¶P. L. Giuseppi (St. Bartholomew's), *M. L. Hine (Middlesex), §T. B. Layton (Guy's), §G. P. Mills (Birmingham), †§¶C. M. Page (St. Thomas's). ¶J. H. Spencer (Charing Cross), †Violet A. Turkhud (London R.F.H. School of Medicine for Women), *H. F. Vandermin (Guy's), *R. A. Veale (Leeds), †‡J. A. Watt (University College), *§A. S. Woodwark (St. Bartholomew's).

* Distinguished in Medicine. † Distinguished in Pathology.
‡ Distinguished in Forensic Medicine and Hygiene.
istinguished in Surgery. ¶ Distinguished in Midwifery and Diseases of Women.

he following were approved at the B.S. Examination for dents who graduated in medicine in or before May, 1904.

James, C. E. W. Lyth, J. A. Milne, C. M. Roberts, G. W. Russell.

onours were awarded to the following:

G. French, St. Mary's Hospital; R. A. Greeves, Guy's Hospital; H. E. Ridewood, London Hospital.

University College.

r. W. McDougall has been reappointed reader in experi- ntal psychology, Dr. Parsons lecturer in physiological ics, and Dr. Page May lecturer on the physiology of the vous system.

he Atkinson-Morley scholarship has been awarded to Mr. E. Dyson.

he following scholarships and exhibitions are offered for petition in September, 1906, in the Faculty of Medicine:

a. The Bucknill Scholarship, of the value of 135 guineas, entitling the holder to the Intermediate Medical Course (including Part II of the Preliminary Scientific) at University College, and the Final M.B., B.S. Course at the University College Hospital Medical school.

b. Two exhibitions, of the value of 55 guineas each, entitling the holders to the Intermediate Medical Course (including Part II of the Preliminary Scientific) at University College.

Two exhibitions, of 80 guineas each, entitling the holders to the Final M.B., B.S. Course, are offered for competition in September, 1906, tenable at University College Hospital Medical School.

For further particulars apply to the Secretary of University College, London.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

CHICAGO DELICACIES.

The President of the United States sent the report made by the Government Commissioners, Messrs. Reynolds and Neill, on the slaughter-houses and packing-houses of Chicago to Congress on June 4th.

In his message he states that the report, though of a preliminary nature, is sufficient to show that it is urgently necessary for Congress immediately to provide drastic and thorough-going inspection by the Federal Government of all stock-yards, packing houses, and of their products, so far as the latter enter into inter-State or foreign commerce. Though the inspection was short the conditions proved to exist in the Chicago stock-yards are revolting, and must be radically changed in the interests of health and decency. He says that under the existing federal law it is impossible to secure satisfactory results, and that if the inspection of meat and food products at all stages of preparation is not secured by the adoption of the legislation he recommends, he will feel obliged to order that the inspection labels and certificates on canned products shall not be used hereafter.

> The report, the President says, shows that the stock-yards and packing houses are not kept even reasonably clean, and that the method of handling and preparing food products is uncleanly and dangerous to health. Under the existing law, the national Government has no power to enforce the inspection of many forms of prepared meat and food products that are daily going from the packing houses into inter-State commerce, owing to the inadequate funds voted. The Department of Agriculture is not even able to place inspectors in all establishments desiring them. The present law prohibits the shipment of uninspected meat to foreign countries, but there is no provision forbidding the shipment of uninspected meats in inter-State commerce, and thus the avenues of inter-State commerce are left open to traffic in diseased or spoiled meats. If, as has been alleged on seemingly good authority, further evils exist, such as the improper use of chemicals and dyes, the Government lacks power to remedy them. A law is needed which will enable inspectors of the general Government to inspect and supervise from hoof to can the preparation of meat and food products. The evil seems to be much less in the sale of dressed carcasses than in the sale of canned and other prepared products.
>
> I call special attention to the fact that this report is preliminary, and that the investigation is still unfinished. It is not yet possible to report on the alleged abuses in the use of deleterious chemical compounds in connexion with the canning and preserving of meat products, nor on the alleged doctoring in this fashion of tainted meat, and of products returned to the packers as having grown unsaleable or unusable from age or from other reasons. Grave allegations are made in reference to abuses of this nature.

A later Central News telegram states that the President has already given directions for the preparation of a still fuller report, and that it will be published in a few days if the legislation desired is not passed. A Reuter's telegram dated June 5th, states that eight meat-packing establishments in Chicago have issued a joint statement declaring that their products are clean, and their methods of manufacture are sanitary, but they are ready to adopt any practical suggestion for improvement.

We have received from Messrs. Armour and Co., London, E.C., representing the company of the same name of Chicago and other places in America, the following statement:

"All beef, pork, mutton, or other food products, canned or otherwise, shipped from our packing houses, are inspected by United States' Government inspectors, who have full and free access at all times to all parts of our plants in accordance with the Act of Congress, March 3rd, 1891, which provides—

> that the Secretary of Agriculture shall cause to be made careful inspection of all live animals and the meat thereof intended for export, and that no steamer may clear from our ports carrying meat products until the certificates of the Department of Agriculture shall have been obtained and filed with the proper Port Authorities.

Further, all cattle, sheep, and hogs which are the subject of inter-State or foreign commerce are inspected both before and after slaughter. Furthermore, every carcass or part thereof found by the United States Government inspectors to be in any way diseased or unfit for food is condemned by and destroyed under the personal supervision of the United States Government inspectors."

Messrs. Oppenheimer, Son, and Co., Limited, London, E.C., request us to state that all thyroid glands, suprarenal glands, and other parts of animals used in medicine and put up by them, are obtained from the London abattoirs, which are under Government supervision.

Messrs. Parke, Davis, and Co. write to state that it is impossible for any of the medicinal products issued from their laboratory in Detroit to be contaminated with pathogenic germs. All their animal preparations are made in their own laboratories in Detroit, under the immediate supervision of chemists and biologists.

MEDICO-LEGAL AND MEDICO-ETHICAL.

A SPECIALIST IN LOCOMOTOR ATAXY.

On Tuesday, June 5th, at the Marylebone Police-court, an American named Le Grand N. Denslow, was summoned before Mr. Paul Taylor and fined £30 and £10 10s. costs for falsely using the title of Doctor of Medicine, implying that he was registered under the Medical Acts, 1858 and 1886 (21 and 22 Vict., Sec. 40).

Mr. Harold Morris prosecuted on behalf of the Medical Defence Union. The defendant had taken rooms in 38, Harley Street, and when called upon by a clerk from the office of the solicitors for the prosecution (who obtained the address by answering an advertisement as to a cure for locomotor ataxia) he said he was Dr. Denslow, and could cure the disease. His fee, he added, was 500 guineas for those who could afford it, but he said he would soon be charging 1,000, as the cure cost him 150 guineas. He, however, agreed to charge 100 guineas, and to accept only 50 guineas down. On two other occasions he offered to see patients for 2 guineas.

Mr. Freke Palmer, who appeared on his behalf, explained that the defendant was no charlatan, but a fully and highly qualified medical man, and he had supposed he could use the title of "Doctor" as long as he did not hold himself out as a London doctor. He held numerous qualifications, including M.D. of New York, and had been practising in America since 1876.

SUPERSESSION.

G. D. writes: A. is attending a patient who is dissatisfied and calls in B. (1) What should B. do under the circumstances? (2) Is there a standard book on medical ethics?

*** (1) B. should ascertain that A. has been properly informed that his services are no longer required. He is then free to take the patient, provided he has incurred no obligation towards A. in the case—such as meeting him in consultation. (2) *Medical Ethics*, by Robert Saundby, M.D. (London: Simpkin, Marshall, and Co.)

HOSPITAL AND DISPENSARY MANAGEMENT.

SURGICAL CONVALESCENTS.

At a quarterly meeting of the Court of Governors of Middlesex Hospital last week it was announced that the weekly Board, in response to an invitation from the Earl of Lytton, has agreed to co-operate in the scheme for the establishment of a Home of Recovery, a scheme which came into existence in October, 1904. An account of its scope and objects was published in the British Medical Journal of November 5th, 1904, p. 1262, and further reference to it made in an account of a dinner given in connexion with it in February, 1905 (British Medical Journal, February 25th, p. 430). Briefly stated, the idea was to provide at some spot in Surrey an institution within easy reach of London suitable to the needs of patients who have undergone surgical operations and still require, for their recovery, medical attendance and skilled nursing. The sum which the promoters set themselves to collect was £35,000, and with this they proposed to provide a fully-equipped institution of 21 beds. At that time some £5,000 had been subscribed, and as to how far the scheme has since prospered we have no precise information. The general object in view is sufficiently meritorious in itself, inasmuch as, though the number of convalescent homes is great, not very many of them are at present prepared to receive patients requiring much attention. The reform, however, of convalescent homes in this respect, as well as the co-ordination of their work, is one of the primary objects of another body which likewise came into existence last year—the Convalescent Homes Association. Like all other confederations of free units, this society has had difficulties to contend with, but it has made good progress, and there is reason to believe that it will be successful in its objects. In that case the facultative accommodation of the surgical wards of London hospitals will be increased by some hundreds of beds at a relatively small addition to the present expenditure on convalescent homes. On the other hand, the twenty-one beds which the Home of Recovery scheme has in view are a mere drop in the ocean of needs, but a drop which will cost a relatively heavy sum in the immediate future, and form a further drag on the charitable resources of London. It should be added that the Middlesex Hospital already has an excellent convalescent home of its own in which the needs of surgical convalescents of all classes could be met.

LETTERS, NOTES AND ANSWERS TO CORRESPONDENTS.

☞ *Queries, answers, and communications relating*
subjects to which special departments of the Briti
Medical Journal *are devoted will be found under th*
respective headings.

QUERIES.

A Motoring Physician would be glad to learn of any ref
ences to literature concerning, or practical experience
the physiological action and therapeutic uses of motoring.

B. R. will be glad to be referred to some treatment of atony
the bladder. The medical textbooks appear to regard it a
purely surgical complaint, and the surgical works he
been able to consult ignore any therapeutic treatment.

F. J. J. asks: In a case of recently-strangulated hernia,
taxis for a reasonable time fails, would it be safe to try
injection into the hernia of adrenalin or suprarenin—bo
said to act in the same way on blood vessels—in the hope
diminishing the bulk of the hernia and so facilit
reduction?

Antitoxin Treatment of Diphtheria.

Serum asks for advice as to the dose of antitoxin serum
cases of diphtheria. If in a moderately severe case seen
the second day one dose of 4,000 units produces a slig
improvement on the next day, and a marked improveme
on the following day, and the case appears to progress sat
factorily, should any more serum be administered? If t
serum is continued after the acute symptoms have subsid
is it considered that the tendency to such complications
neuritis or heart failure is lessened?

*** In such a case as that described there would be
necessity to give a further dose of antitoxin. It is o
necessary to give more antitoxin if the local exudati
remains stationary or extends. So far as is known,
probability of nerve degeneration or heart failure is
lessened by continuing the administration of antitoxin af
the acute symptoms have subsided.

ANSWERS.

E. D.—Extract of malt is not allowable in diabetes.

B. is referred to the Educational Number of the Briti
Medical Journal, September 2nd, 1905.

A. T. J.—No doubt there are practitioners who would
willing to take a pupil to attend a sufficient number of c
finements to qualify him to sit for the midwifery portion
the Final Conjoint Examination, and the best advice th
can be given to A. T. J. is to advertise in the medical pre
stating his wants.

Perplexed M.D.—Unless it was agreed at the time th
the solicitor, A., was to receive commission, not bein
broker, he is not entitled to charge it. With regard
charges for professional services in attending the sale, it
difficult to see what services were rendered by A. which
solicitor could claim to be professional. B. would do well
he consulted a solicitor on his own account before agree
to pay anything. If A. chose to sue, he would certainly
have the sympathy of the court.

No. 13.—Vin Pesqui Urané is a proprietary article purporti
to contain uranium nitrate, a drug introduced many yea
ago by the homoeopaths for the treatment of diabetes, a
more recently recommended by Dr. Samuel West, althou
he did not claim that it reduced the amount of sugar,
believed it improved the general health. These results ha
not been generally confirmed, and the use of the drug
been occasionally followed by gastric irritation, especia
when given in the large doses (10 gr.) recommended
Dr. West.

The Cause of Grey Hair.

H. A.—The theory to which our correspondent refers is th
which would attribute the loss of pigment in the h
(canities) to minute living organisms (chromophag
but as to prevention that is another story. The
was no mention either of restoring the natural colour to t
hair once it had departed. Something can certainly be d
in some cases to prevent the hair turning grey, but ev
case must be dealt with on its merits. Once the pigment
lost, art must step in to make up for the deficiencies
science.

Removal of Tattoo Marks.

C. J. C.—If tattoo marks be limited (small) and the situati
favourable excision has answered well. A French pri
surgeon recommends the following procedure, which he
had opportunities of employing with success: "First, ap
a concentrated solution of tannin, then needle the pa
tattooed. The needling can be done with the closely-
needles employed by tattooers. In any case the needl
must be close set. In this way some of the tannin finds

ay into the tissues. Solid silver nitrate (ordinary point in older) is then rubbed in firmly. The concentrated solution silver nitrate is allowed to act on the epidermis and derma r a few moments until the needled points stand out as black ots. The caustic solution is then removed by wiping. The attooed parts become blackened by formation of silver annate formed in the superficial parts of the cutis. The pplications can be made very quickly, and are not very ainful. As a result of the cauterization an eschar forms, hich comes away in about two weeks, and leaves a very iperficial scar, which becomes scarcely visible. The iethod might be tried on a small area first, as results pparently sometimes depend on tattoo pigments originally mployed. Glycerole of papoid used in much the same ianner, that is, needled in after making surface of skin septic; layers of gauze soaked in the papoid, and fixed with dhesive plaster. A superficial eschar forms. This method as failed as well as succeeded according to writers.

LETTERS, NOTES, etc.

MIDWIFERY OF THE PRESENT DAY.

HENRY MONTEAGLE (Pendleton, Manchester) writes:

It's my delight
To be out at night,
For I'm an accoucheur,

an untrue picture in rhyme of the average doctor's feelings, ho, after a hard day's work, "plods his weary way" to a nfinement at midnight. He may find a perfectly natural bour in progress; but, say he is an "advanced" man, and n't wait up all night, as he is dead tired for sleep, is not e os dilatable and the woman asking help?

He boils his forceps and clears for action. The woman is young, healthy primipara; and, even with chloroform, uch strength has to be used—more than he had thought. e ruptures the perineum and stitches it; but he is a bold" man, with a good nerve, and gets back to bed and eep.

From past experience he doubts not that all will go well. his time the woman is maimed for life. She has a slow covery—six or eight weeks in bed—the cervix is lacerated, chronic inflammation in some of the ligaments of the omb has been set up, which neither surgical operation nor ibsequent childbirth can cure—a young life blighted!

Is this a fanciful case, or is it typical of a host of others? would like the opinion of our obstetric specialists on the int. Can they not help us in this serious question? We ok to them when disaster has come; we would have their perience now, for guidance to avoid it. Professor Sinclair, Manchester, in a memorable paper, fearlessly denounced e abuse of forceps—another voice crying in the wilderness. arly in my working life, nineteen years ago or more, I had o deaths after forceps delivery. One, at least, was a imipara. They were hard cases; I believe not natural bours—I hope not. Inexperienced, I did my best. A ore experienced man would probably have done better. oth were midwives' cases, but I do not attribute the fatal sues to any delay in sending for help. These cases deeply pressed me.

When "advanced" men advise medical fledgelings to ink lightly of the danger of instrumental delivery, I feel ey do serious wrong. As things are they should direct eir energies to urging our obstetric teachers to give medical udents a thorough practical training in midwifery, and t a pretence, before being allowed to assume such grave sponsibility.

The uniformity of good results furnished by our "ad- nced" brethren in this discussion becomes monotonous. o those who have disasters publish them? I fear not. Are ey not, being human, apt to attribute these disasters to her than the true causes? I find midwives' results com- ire favourably with those of the most modern of our in- rumental operators. One trustworthy midwife gives me r results for the last two years:

Number of midwifery cases, 234.
Number of maternal deaths, none.
Number of cases of *post-partum* haemorrhage, none.
Number of forceps cases, none.
Number of stillborn babies, 14 (which include 6 "putrid" babies, and 4 premature births).

irely a good record. Another worthy midwife has, in 21 ars, four maternal deaths in 4,141 cases—forceps being used 1 or 2 per cent. of these. Her patients "beg and beg not send for a doctor; to wait a little longer." They dread e forceps, and chloroform, and "having to be stitched."

Routine midwifery is not a man's work. A tired-out ctor, or one who has many other urgent cases that must attended to, is not in the frame of mind to judge im- rtially whether forceps should be used or not. He should rtainly not employ them merely to save his own time and ouble, but, is this never done? I know it is. Therein is nger.

Trained midwives could do all routine work, and call in a ecialist for difficulties. In this city and, I suppose, all er the country, they do the vast bulk of the work at esent.

I think most women would prefer to look forward to a tural labour, with all its pains, rather than to a labour artificially rendered unnatural by forceps and chloroform. The unsophisticated woman never dreams of forceps being used, unless they are really required for her safety.

Dr. Bert Jordan is unduly nervous in that he thinks there is no routine midwifery, that the issues and risks cannot be foreseen. Our good midwives have ample reason to disagree with him. His surgical cleanliness is admirable; likewise his management of the third stage, if he does not become unduly anxious of trifling haemorrhage. But hurrying the second stage by forceps in natural labour is, in my opinion, a cardinal error, an error which may well keep any one in the state of "mental tension" he describes, the dread of *post-partum* haemorrhage always present. Midwives who do not pull the cord, and know how to let Nature alone, very, very seldom have *post-partum* haemorrhage. The often-repeated assertion that the use of forceps minimizes the fear of *post partum* haemorrhage in natural labour is ridiculous. Have "advanced" men no sense of the grotesque? A labour is not natural if it is protracted till the woman's strength is exhausted. We are far too ready to assume the existence of this condition.

The "metal hands" of the forceps sometimes bruise, and lacerate and paralyse; and although excellent results follow in the majority of forceps cases, it is in spite of, and not because of, the "help" they have given in natural labours. There is always present, in their use, the artificial element; the chance of accident; the danger that the operator, working in the dark, may do harm; that his skill may be at fault. There must be danger here. Do "advanced" men expect to find failures paraded like successes? There can be few doctors of experience in these days under whose notice has not come serious trouble presumably and really due to labour having been hurried by forceps. In natural labour is it not an error or a shame that needless risk should be added to a woman already so much burdened? Normal labour is natural; we add danger when we render it unnatural. Do not let us believe merely what we wish to believe.

DR. BUCKLEY POGSON (Birmingham) writes: The subject of the general management of midwifery cases has been threshed out in your columns before, and I think has ended in the defeat of the dictum of "one rule for all comers." When a man begins the practice of midwifery it is quite right that he should start imbued with principles of negative activity. It is only after a time that he can form an opinion as to the amount of active interference he is personally justified in applying to his case. The licence given to the use of forceps depends entirely on the dexterity, judgement, and acumen of the hands that guide them. This gift is not the possession of all. After having been "through the mill" for some years, each accoucheur becomes necessarily a "law unto himself," as he has only himself to depend upon. Your correspondents so far belong to two camps—namely (1) those who believe in holding a watching brief, and (2) those who believe in forceps with chloroform. I myself belong to a third party—namely, the use of forceps without anaesthetic. My interpretation of the use of these valuable aids is that they are essentially intended to be *an aid to* and *not a substitute for* the uterine pains. I use them as frequently as possible, and very rarely employ chloroform, and I have no reason to regret their use under these conditions. I don't for a moment suggest this as a rule for all, but simply to illustrate the different experiences that may be met with. In the same way that opium was described as "the gift of God to man," so also I consider forceps, in capable hands, the "gift of God to woman." I think it distinctly wrong to sit calmly by and let a woman "win her spurs," so to speak, or "ruggle through as best she can." There is fair scope for forceps where necessity dictates their help, but there is an infinitely larger field for their use where they may be considered "desirable" rather than "essential." Forceps delivery in this more extended sphere is really not a question of force, but is really a work of art.

LIFE INSURANCE.

DR. T. CARLYLE BEATTY (Clacton-on-Sea) writes: My personal experience of the value of insurance in a mutual life insurance company compared with insurance in a proprietary one will, I think, be useful to any of your readers who are about to effect life insurance, or to those who hold policies in the Mutual Insurance Company of New York. In December, 1873, I obtained a policy for £500 in one of the leading Scotch offices, with the arrangement that the bonuses were to be applied to reducing the amount of the premiums. The local agent of the company recommended this form of insurance, and told me that in course of time, probably in about twenty years, the profits would extinguish the premiums, and I then should have no more payments to make, and my share of the profits would from that time be paid to me each year, or would be added to the sum insured. After some years there was a division of profits, and my premium was reduced from £10 13s. 9d. to £8 11s.; but instead of being further reduced as time went on, which would have been the case in any mutual office, it was raised some years ago to the original amount, at which it remains at the present time after thirty-two years of insurance. That is, I do not receive one farthing of the profits, although the shareholders are receiving 10 per cent. in dividends. Let this result be compared with an insurance I effected for the same amount in 1880 with the National Provident Institution, the premium being £12 10s. 10d. and the bonuses in this case being added to the sum insured. They amount at the present time to £167 14s., the last bonus addition, in 1902, being £41 10s. The next quinquennial division of profits, which takes place next year, will raise the bonus addition to upwards of £200. The total working expenses of this company for 1905 were 10.2 per cent., and all the profits are divided amongst the policyholders; whilst in the Scotch office to which I have referred, the shareholders, until the last few years, were dividing profits paying them not less than 15 per cent., regardless of the interests of unfortunate policy-holders like myself. I have also a policy in the Mutual Life Insurance Company of New York, and notwithstanding recent revelations as to its management, I should be sorry to exchange it for a policy in any proprietary insurance company. The stability of this office is not in question, and the reforms in progress under new directors will no doubt re-establish the company on a satisfactory basis. I think, however, there can be no hesitation at this time in recommending an English Mutual office in preference to any other; and in considering the relative advantages of English and American life insurance companies, it must not be forgotten that an allowance is made in regard to income tax on the premiums of insurance in British offices, but not on those in foreign offices.

"MODERN SURGICAL TECHNIQUE."

PROFESSOR C. YELVERTON PEARSON (Queen's College, Cork) writes: In the review of the above work contained in the BRITISH MEDICAL JOURNAL of May 26th, page 1224, of the general tone of which I have no reason to complain, there are a few criticisms which seem to me to be scarcely justified. Thus: (1) The writer of your review gives me credit for coining the word "aseptible," to which he takes exception. I can assure him the word is not of my creation; I have seen it in print on many occasions. It probably had its birthplace in the United States, and is made use of in Ismay's work on *The Mechanics of Surgery*. I am not prepared to defend the use of the word on literary grounds, but in the sense in which it is suggested to use it—namely, referring to instruments or apparatus which are specially constructed with a view to their being more easily rendered sterile—it seems, in the absence of a better term, to be less objectionable to speak of such articles as being "aseptible" than to term them "aseptic," which is so commonly done. (2) Referring to the use of rubber gloves, it is stated that "he [the author] leaves us, in fact, without a definite statement of his views and practice in this matter." It is very difficult to understand how this sentence could have been written if the writer of your review read the conclusions on page 130, numbered 1 to 5 inclusive, which I think contain a very clear exposition of my views on the subject.

⁂ (1) The word "coin" was used because the reviewer had not met with the term "aseptible" elsewhere; the objection was not so much to the supposed coining but to the use of the word itself. As the author admits, it is utterly indefensible on literary grounds. It is an example of the habit in medical English of the manufacture of words from a classical basis instead of the use of our own language and it is not even a properly manufactured article. Every one knows in what sense the term "clean" is used in surgery, and in speaking of instruments why not use the word "cleansable"? (2) The statement to which exception is taken was made after carefully reading the paragraphs to which Professor Pearson directs attention. They leave the reader without a clear idea as to whether or not Professor Pearson wears gloves as a routine practice in operating and whether in his own experience the plea that their use interferes with delicate manipulation outweighs the consideration of the security which they give against infection. What the reviewer sought and did not find was a clear statement of the author's views at to the comparative importance of the two chief arguments for and against their habitual use. Surgeons who habitually use gloves claim that they interfere with the hands only when their use is first commenced; other surgeons state that it has yet to be shown that hands can be rendered innocuous by any method of preparation. These are the questions the discussion of which by Professor Pearson would have been valued by his readers.

MEDICAL GOLF TOURNAMENT.

THE Medical Golf Tournament for 1906 was held on May 31st at Cassiobury Park, Watford, by the kind permission of the West Herts Golf Club. The competitors numbered 104, and the course was in splendid playing order; the weather was fine, and the picturesque scenery in the park added to the enjoyment of the players. The thanks of the competitors were well earned by Mr. Howard Williams, the Secretary of the West Herts Golf Club, who was indefatigable in attending to the comfort of the visitors. The players were divided into two classes, the first comprising those with handicaps of 12 and under and the second those with handicaps over The competition was for 18 holes match play *v.* bogey unc handicap. In the first class the winner was Dr. A. W. Sop who with 6 strokes was 3 up on bogey. Dr. G. C. Bell, w 5 strokes, was second with 2 up on bogey. A prize given the best last 9 holes was awarded to Dr. Bruce Hamilt who was 3 up on bogey. In the second class the winner v Dr. J. A. West, who with 18 strokes was 10 up on bogey. T second place was won by Dr. J. H. Drysdale, who with strokes was 3 up on bogey. The prize for the best las holes was taken by Dr. G. W. Dawson, who with 14 strok was 3 up on bogey. Dr. Dawson was also second in Class with 6 up on bogey, but elected to take the prize for the b last 9 holes. A foursome sweepstake was played for in t afternoon, which was won by Dr. G. A. Sutherland and Bruce Hamilton, who were 2 up on bogey. For the seco place in the foursome sweepstake Dr. Percy Kidd and Rolf Creasy tied with Dr. H. A. Seagrove and Dr. J. Mecha their scores being all square with bogey.

INCREASE IN THE NUMBER OF DIRECT REPRESENTATIVES

MR. GEORGE BROWN (Direct Representative for England a Wales) writes: In your report of the remarks made by me closing the discussion on the proposal to apply to the Pri Council for an increase in the number of Direct Represen tives (SUPPLEMENT, June 2nd, p. 313), you represent me saying that "not more than five Divisions of the Briti Medical Association had taken any action with regard to t nomination of candidates." What I said was that not mo than a *fifth* of the Divisions of the Association had tak any action in the matter.

THE DR. A. E. JONES FUND.

THE following further subscriptions have been received behalf of this fund, particulars of which were published the BRITISH MEDICAL JOURNAL of May 19th, 1906, p. 1200:

	£	s.	d.		£	s.
Dr. H. Radcliffe Crocker	3	3	0	The Dorset and West Hants Branch (per Dr. C. H. W. Parkinson) ...	1	1
Dr. T. L. Llewellyn	2	2	0	Mr. Arthur H. Evans	1	1
Anonymous	2	2	0	Mr. N. R. Phillips ...	0	10
Capt. J. W. F. Rait..	1	1	0	Mr. S. Forsdike ...	0	10
Dr. H. Scharlieb ...	1	1	0	Mr. D. M. Hughes...	0	10
Mr. S. A. Owen ...	1	1	0			
Dr. H. Lambert Lack	1	1	0			
Dr. A. M. H. Gray...	1	1	0			

Cheques may be sent to Messrs. Barclay and Co., 54, Lo bard Street, E.C., or to the Treasurer of the Fund, Sir Vict Horsley, F.R.S., 25, Cavendish Square, W.

COINCIDENCE OR IMPRESSION?

DR. THOMAS F. HENLY (Gillingham, Dorset) writes: May 5th I was called to attend a young married woman her first confinement; I was informed she had "been ba all night. On examination, about 10.15 a.m., I found her labour, the os being dilated to about the size of a florin, a the head presenting. Leaving the patient, I returned 12.30 p.m., when I found the face presenting, and the pai being strong and regular. I remained until the child w born, about 4 p.m. On the head being delivered I w astonished to find that it was almost severed from the bod which I had difficulty in delivering, as the child was exce tionally well developed, and the head could not be trust as a means of help. The baby—a full-term female—w born dead, and the throat presented the appearance having been cut from ear to ear, just as if it had been do after birth, with the exception that there was no bleedi from the cut surfaces, which seemed to be completely heal over. The cord was not around the neck, nor was there a other visible cause for this most extraordinary state affairs. However, early in the year, a case of suicide occurr in the neighbourhood, when a well-known man cut his thro The news of this quite upset the expectant mother, w comes of a family peculiarly susceptible to nervous impre sions. I may add that the case was shown to the medic man who attended the suicide, and he told me that t child's throat was a facsimile of the cut in the throat of h patient.

SCALE OF CHARGES FOR ADVERTISEMENTS IN TH BRITISH MEDICAL JOURNAL.

Eight lines and under	£0 4 0
Each additional line	0 0 6
A whole column	2 13 4
A page...	8 0 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, the Office, not later than first post on Wednesday mornin preceding publication; and if not paid for at the time, should b accompanied by a reference.

Post-Office Orders should be made payable to the British Medic Association at the General Post Office, London. Small amount may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters *Postes Restantes* addressed either in initials or numbers.

Remarks

ON

CERTAIN INJURIES COMMONLY ASSOCIATED WITH DISPLACEMENT OF THE HEAD OF THE HUMERUS.

LLUSTRATED BY A SERIES OF TWENTY-SIX SKIAGRAPHS.

By **ROBERT JONES**, F.R.C.S.Ed.,
SURGEON, ROYAL SOUTHERN HOSPITAL, LIVERPOOL.

N my experience the most common complication of acture of the upper end of the humerus is dislocation of ie shoulder. I find I have twenty-two radiographs taken my own cases where this complication is depicted, and can recollect in addition at least four cases where the iagnosis was obvious, but the condition of the patient ould not allow of an examination by means of x rays. n three occasions when consulted regarding a fracture irough the surgical neck, I have been told by the ractitioner that the dislocated head had been present id had been reduced. Before Roentgen's discovery, both the exceptionally large practice of H. O. Thomas and my own, I can recall several fractures of the neck omplicated by dislocations of the humerus.

In order of frequency, I would tabulate fractures of the ioulder connected with dislocation as follows:

1. Fracture through the surgical neck (Figs. 3, 6, 8, 10, 11, 12, 13, 14, 17, 20, 23, 25).
2. Separation of the greater tuberosity (Fig. 5).
3. Fracture through the anatomical neck embracing ie tuberosities (Fig. 7).
4. Fracture through the neck of the scapula embracing ie coracoid.
5. Separation of the lesser tuberosity (Figs. 15, 16).
6. Fracture of the glenoid (Fig. 21).
7. Separation of the glenoid, anatomical neck (Fig. 18).
8. Separation of the anatomical neck of the humerus, ot including the tuberosities (Fig. 22).

Out of 200 consecutive cases of complicated dislocations the shoulder radiographed, I found 16 connected with actures of the surgical neck. In all the cases the patients ere over 30 years of age, and most commonly between e ages of 40 and 50.

The occurrence of this complication was well known id described by many of the older surgeons. Indeed, ty years before the Christian era, Pasicrates (quoted by algaigne), in describing the injury, expressed his opinion at he preferred first to reduce the dislocation, and then allow union of the humerus. Aristion, on the contrary, ideavoured so to arrange traction that it would act upon th head and shaft simultaneously, which presumably volved waiting for union before any attempt at reduction. Heliodorus supported the contention of Pasicrates; id so it will be noticed that in olden times, just as nowa-ys, schools existed, the one in favour of immediate duction, and the other in favour of allowing the shaft to iite before proceeding with the displacement of the ad. In the latter half of the fourteenth century Guy de iaulliac laid down precisely the law that, if a fracture the shoulder is complicated by a dislocation, the dis-ation should be first reduced, if possible; if it is not ssible, then the fracture should be allowed to become m, and the dislocation be subsequently reduced.

In recent times the best description of the injury, both its pathological and clinical aspect, is that of Sir Astley oper, who had seen many cases in the living, and took e opportunity of dissecting three of them after death. one, an old merchant who died in 1824, Sir Astley ys: "I attended him in his last illness with Mr. Arnott, d as he had promised me the dissection of his arm, I iimed it of his executors and examined it with all the re of which I was capable." Cooper found the deltoid, res major, and coraco-brachialis unaltered, the supra-inatus and teres minor wasted. The infraspinatus was it upon the stretch. The subscapularis passed over the ad of the bone and adhered to its cartilaginous surface. ie capsular ligament had been torn under the sub-apularis tendon, but every other part was entire. The ad of the os humeri had been broken off, and was found in the axilla behind the coracoid, and it was firmly attached to the inner side of the scapula. The fractured neck of the shaft of the humerus impinged on the glenoid cavity widely separated from the head of the bone, and the shaft formed a good articulation with the glenoid. A capsular ligament had formed, and a ligamentous structure passed from the broken end of the shaft into the inner surface of the glenoid. The tendon of the biceps remained in the bicipital groove. In all three instances, it is curious to note, the upper end of the shaft of the humerus was snugly lodged in the glenoid. Hamilton, writing fifty years ago, refers to the records of many such accidents, and reports a case of fracture of the neck where he was able to reduce the accompanying dislocation on the eighth day. In 1861 Thamhayn collected 68 cases, the accompanying fracture in 14 being through the anatomical and the rest through the surgical neck. Ten years ago McBurney collected 117 cases, including the separate collections of Oger and Poirier and Manclair, the diagnosis in all instances being based solely on clinical evidence, radiographic confirmation not being, of course, available at so early a date. Still more recently Stanley Boyd, in Treves's *System of Surgery*, refers to the complication as the most common in connexion with dislocation, and he adds that it presents symptoms very similar to that of dislocation of the head. Every surgeon of observation and with experience of fractures will recall this combination of injuries, and yet I cannot remember seeing in any recent textbook or monograph, among the many radiographs printed, a single instance of fracture of the humerus high up with dislocation of the head. This omission I make good by publishing several examples gathered from a great number which have come under my observation, together with radiographs of other complications likely to be mistaken for them.

The etiology of the injury is not clear. It is quite possible that on odd occasions the fracture follows the dislocation, but in the great majority of instances it occurs most probably synchronously. This theory is borne out by the fact that in nearly all cases the injury is brought about by a fall on the shoulder. McBurney, in discussing the mechanism of the accident, ascribes it to a sudden abduction of the arm which first dislocates it, continued abduction producing fracture against the edge of the glenoid or the acromion. My cases are quite opposed to this theory, as in nearly all of them fracture occurred in consequence of a direct fall upon the shoulder. As the plates show, the head of the bone may take any position. It may be rotated and even at times so completely reversed that the fractured end of the upper fragment is in apposition with the glenoid (Fig. 23).

In a recent case the symptoms suggest a dislocation of the shoulder or a fracture through the neck of the scapula. Careful examination, however, should always make the distinction clear. The deltoid is flattened, there is considerable haemorrhage in the axilla, the head may be felt there, while the arm is flexed and only slightly abducted. The symptom which should clear the diagnosis is the absence of the head from the socket and its independence of the shaft. In only one instance in a recent case have I found the head of the bone respond to the movements of the shaft. In dislocation accompanied by fracture the axillary haematoma is more marked and the pain more severe, while the mobility at the shoulder is distinctly more pronounced than in a simple dislocation. Fracture of the neck of the scapula may be known by the ease with which it is reduced, the crepitus on reduction, and the immediate return of the deformity when the arm is allowed to hang.

My experience tells me that the shoulder should be reduced at the earliest possible moment. Delay may seriously complicate the result. An unreduced dislocation is often the forerunner of an ununited fracture. In two of Sir Astley Cooper's three dissections he found the humerus attached to one part of the scapula and the head to another, but no union between the broken ends. In the third he found vicious union by means of a small spicule of bone. The combination of unreduced dislocation and fracture is extremely serious. The head of the bone, as some of the radiographs show, is so displaced and the ineffective callus so exuberant that the arm is not merely seriously restricted in movement, but painful pressure symptoms result. One case, a drayman, who for two years had an ununited and unreduced head in the axilla, could neither work nor rest. The condition of his arm began to be suggestive of that grave condition known as Volkmann's ischaemic paralysis. The fingers and wrist were stiffened, bluish, glazed, and emaciated, and I only partially relieved his symptoms by excising the head of the bone. The head was adherent by fibrous tissue to the inner border of the scapula, and had to be carefully dissected from the soft tissues around the vessels. In another case, in which I attempted reduction in the sixth week by Kocher's method, I refractured the humerus, and while I succeeded in materially improving the position of the detached piece, which was never reduced, the joint limitations will ever remain very marked. Twice I had the opportunity of examining patients some weeks after their accident, one case being that of a medical friend, and in each case I found the range of movement sufficiently promising to warrant a decision against operation; and in two instances, when I have suggested excision of the head, the operation has been refused.

Immediate reduction may be very simple, very difficult, or quite impossible. The difficulty may be due to the position or retention of the head, or to the rent in the capsule, and is very much increased when the articular end has turned so that it faces outwards. In some of my cases so complete was the displacement and so divorced was the head from its surroundings that the fractured end articulated with the glenoid. In another case, where the conditions were more favourable reduction, took place while the patient was being prepared for an anaesthetic. In February last it took my friend, Mr. Newbolt, and myself nearly half an hour to reduce a case only two days old. We tried many methods—toes in the axilla, manipulation, rectangular extension—and we finally succeeded when the arm was well pulled directly upwards and the head strongly forced towards the axilla.

RADIOGRAPHS OF MR. ROBERT JONES'S CASES,
BY DR. DAVID MORGAN.

1. Split fracture of shaft of humerus with subcoracoid dislocation.
2. Oblique fracture of upper end of humerus with subcoracoid dislocation and separation of greater tuberosity.
3. Fracture of surgical neck of humerus with impaction,
4. Subglenoid dislocation of humerus with fracture of tuberosity and ossification of muscle.
5. Fracture of greater tuberosity of humerus.
6. Fracture of surgical neck of humerus, showing well the lower fragment driven into the upper.
7. Subglenoid dislocation of humerus with fracture of anatomical neck and separation of greater tuberosity; also oblique fracture through middle of shaft.
8. Fracture of surgical neck of humerus with dislocation of head.
9. Fracture of surgical neck of humerus with dislocation of head.
10. Fracture of surgical neck of humerus with subclavicular dislocation and separation of greater tuberosity, upper end of shaft resting in glenoid cavity.
11. Fracture of surgical neck of humerus, with displacement upwards of head and inwards of shaft.
12. Oblique fracture of humerus extending downwards from surgical neck.
13. Fracture of surgical neck of humerus.
14. Fracture through neck of humerus and scapula, dislocation of head and separation of greater tuberosity; note the impaction of shaft into head.
15. Subglenoid dislocation of humerus, with separation of greater tuberosity to outer side and lesser to inner side.
16. Subcoracoid dislocation of humerus, with fracture of greater tuberosity.
17. Fracture through surgical neck of humerus, with dislocation of head downwards and inwards (outline intensified).
18. Fracture of anatomical neck of scapula.
19. Normal shoulder.
20. Fracture of surgical neck of humerus, with displacement outwards and backwards of shaft.
21. Fracture of the glenoid cavity.
22. Fracture of the anatomical neck of humerus.
23. Fracture of surgical neck of humerus, with displacement outwards of head, upper end of shaft in axilla; also oblique fracture of shaft extending along upper third.
24. Ditto.
25. Oblique fracture of upper end of humerus in a child.
26. Subspinous dislocation of humerus.

It is unscientific to suggest any routine method for the reduction of the loose head, which may have taken any of half a dozen different positions. Sir Astley Cooper, who was very pessimistic with regard to treatment, wrote "If reduction be ever effected it will probably be by an extension with the heel or knee in the axilla. It was the practice of H. O. Thomas, with whose work I was familiar, to place the patient on a chair, fix the scapula, place his knee under the axilla, and get an assistant to extend the arm forcibly in a rectangular direction. This very much resembled in principle the method by the foot in the axilla, and he succeeded in two recent cases with very little effort.

The method which has proved most successful with me is the forcible extension of the arm held vertically, with often very hard pushing upwards of the fragment. We must remember that to succeed in reducing this displacement, even in a recent case, is very creditable, as the difficulties are often insuperable. Of 80 recent cases where manipulation, gentle and forcible, was tried, only thirty-six reductions were accomplished, while forty-four failures occurred.

The surgeon should be urged to try any and every method to reduce the head rather than submit the patient to the very positive risks of operation. Only two oper tions need be discussed: one is excision of the head of th bone, and the other McBurney's ingenious method reduction. Either operation should be postponed unt the absorption of blood clot. Excision of the head shoul only be performed in old cases in which pressure obstructive symptoms demand it. McBurney's operatio should be performed in all cases in which manipulatio has failed and before union of the shaft is advance McBurney's operation consists in making an incision i the soft parts on the outer aspect of the upper fragmen down to the bone; a hole is then drilled in the bon a stout hook inserted, and direct traction made upon th upper fragment in the proper direction. Four successfu cases have been reported.

Having reduced the dislocation, the fracture of th humerus is of comparatively little moment and need n be dwelt upon. If the patient's condition will allow, h should be permitted to sit up from the first, as this is th least harmful method of applying extension to the low fragment. Perfect end-to-end apposition is rarely avai able, and the most perfe appearances, from an arti tic point of view, are ofte those in which the lowe end of the shaft is im pacted into the uppe (Figs. 3 and 6). Fortu nately, perfect appositio is not necessary to obtai a good practical result. have seen very perfe movement in cases in whic the union was not pleasin to look at (Fig. 20), an have experienced disap pointment in cases in whic inspection of the bond union leaves nothing to b desired. The explanatio is not far to seek. Th serious disabilities whic follow fractures and dislo cations at the shoulder ar due, in the great majorit of cases, to injuries inflicte at the moment of acc dent, and bear but littl relationship to the pos tion of fragments. Fo this amongst other reason I would strongly deprecat the wiring of fragments i fractures through the surgical neck. I have see many hundreds of cases o this fracture, and I canno recall an instance in whic I think wiring would hav been of service. As ever practical surgeon knows the operation is one o the most difficult in surgery, involving as it doe exposure of the joint. T my own knowledge, in the hands of good men it ha resulted in disaster, and the so-called successes are n better than the average result obtained by simple and saf procedures. Indeed it is rare to find any worse disabilit following this fracture than a varying degree of limitatio in movement, and this is often due to the formation of adhesions which the surgeon can easily control. To preven this, massage and passive movements should be systematically practised between the fourth and eighth week.

The Journey to Toronto.—We are informed by Messrs Stockwell and Co., 8-10, Beak Street, W., that they hav received official intimation that the Canadian Pacifi Railway Company's steamship *Empress of India* will sai for Quebec and Montreal on Friday, August 10th, instea of August 4th, as previously advertised, and the Alla Line turbine steamers will sail one day later than adver tised, namely, ss. *Virginian* on July 20th, and th *Victorian* on August 3rd.

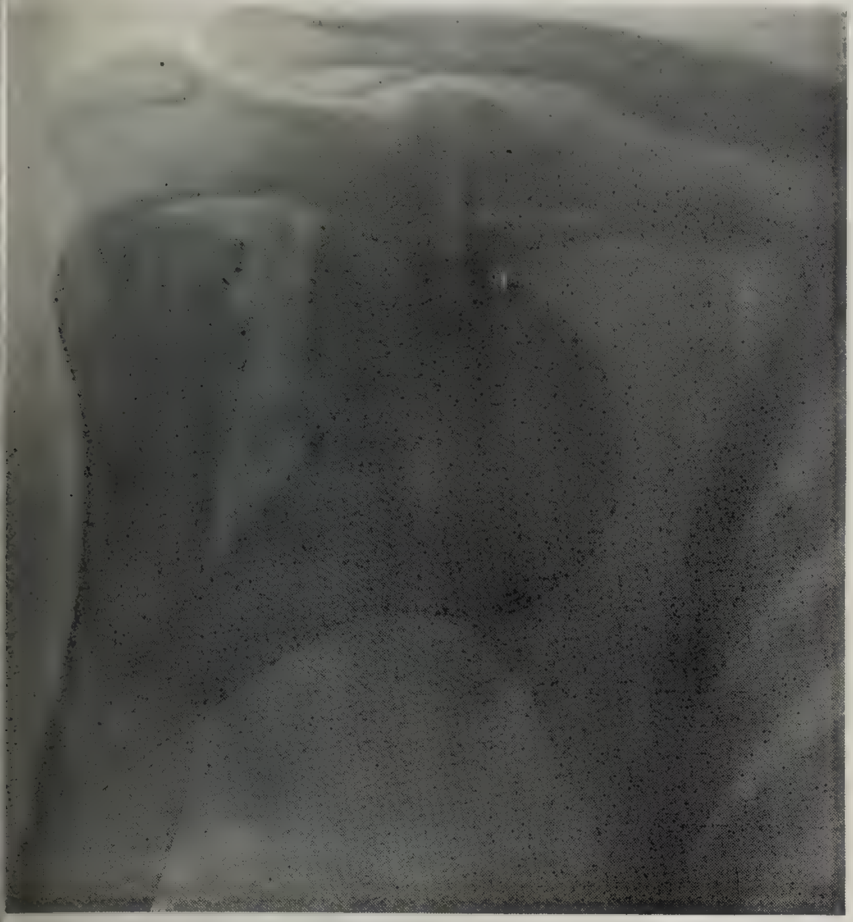


Fig 1.

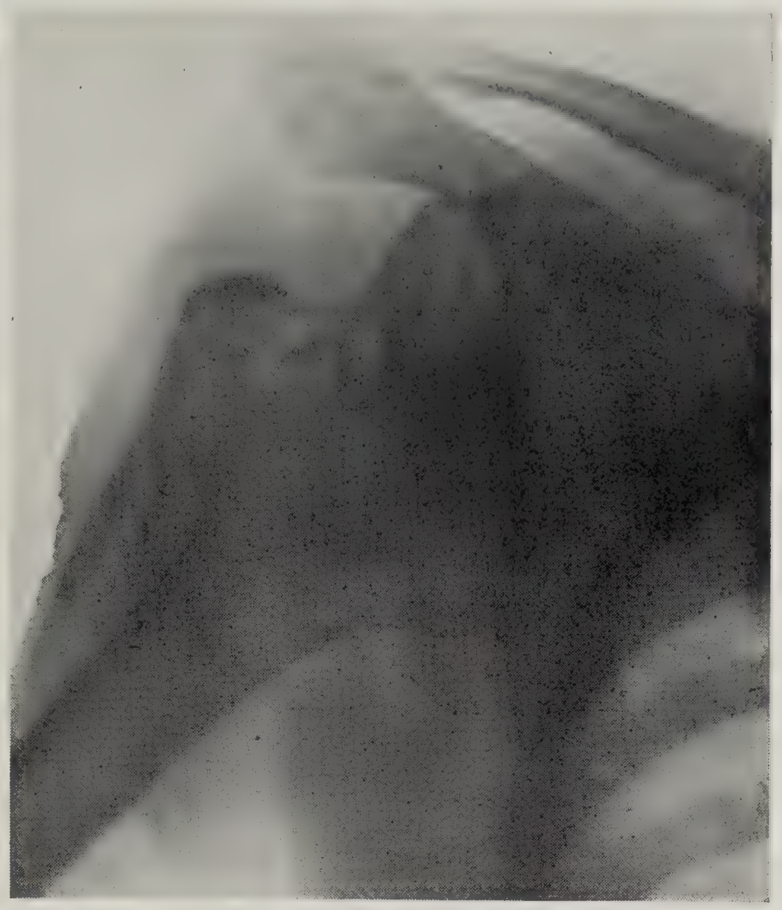


Fig. 4.

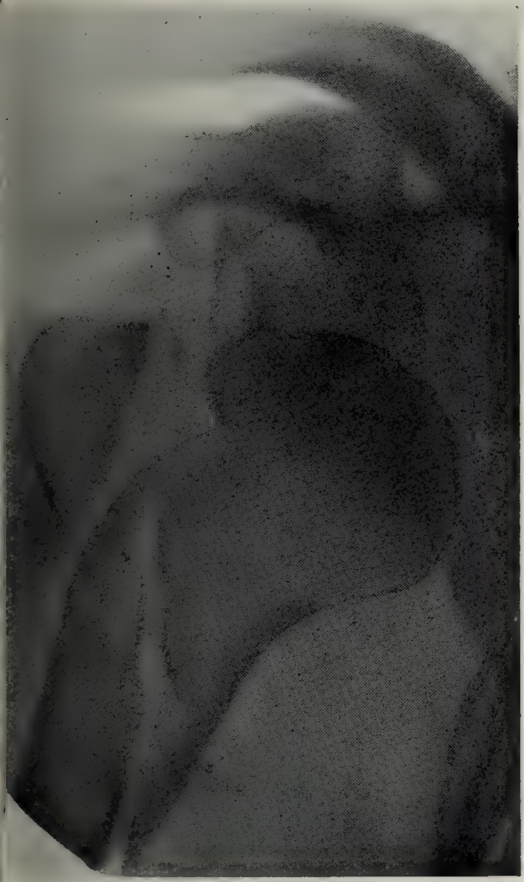


Fig. 2

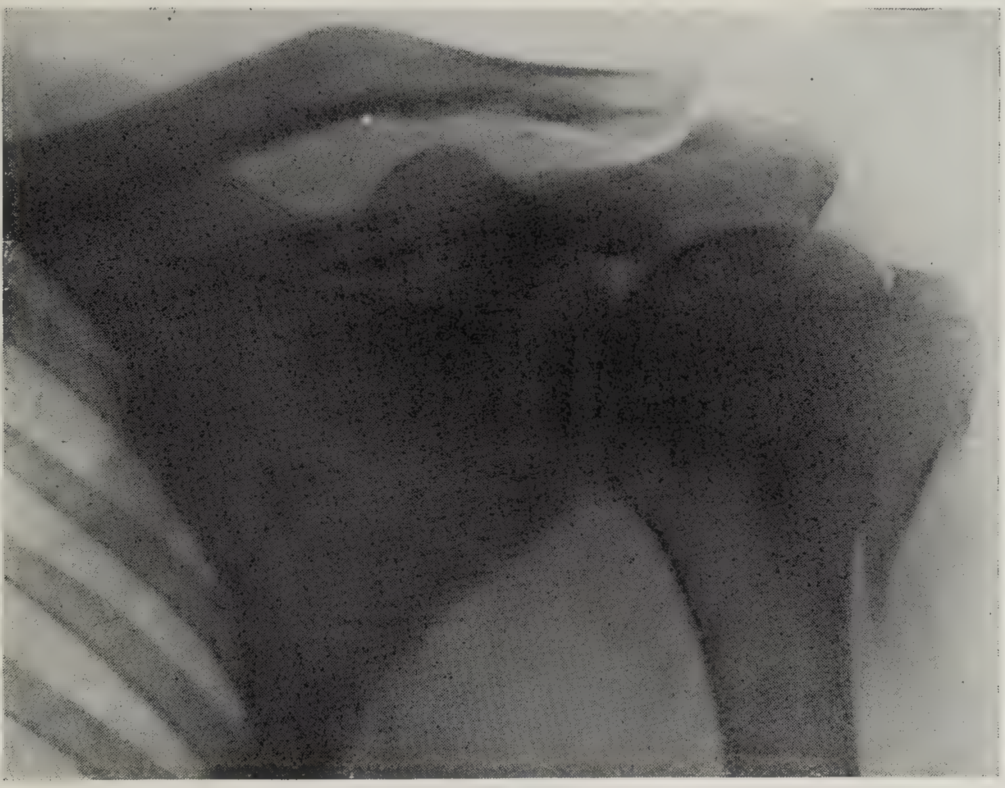


Fig. 5.

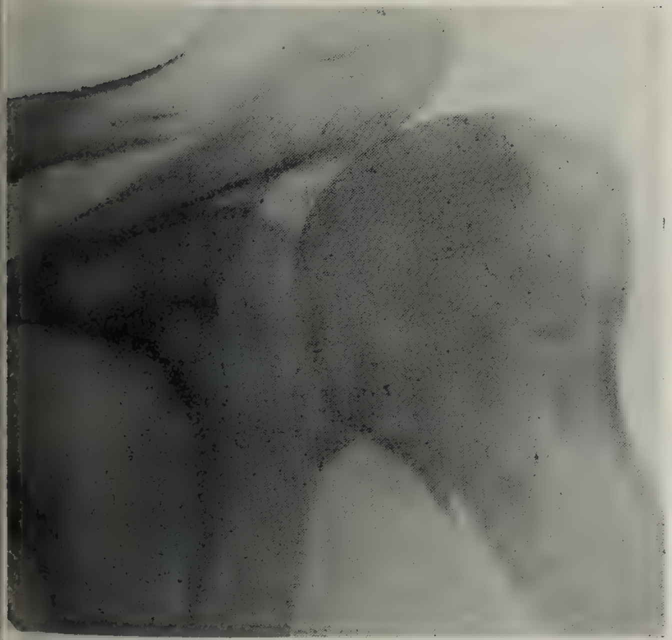


Fig. 3.

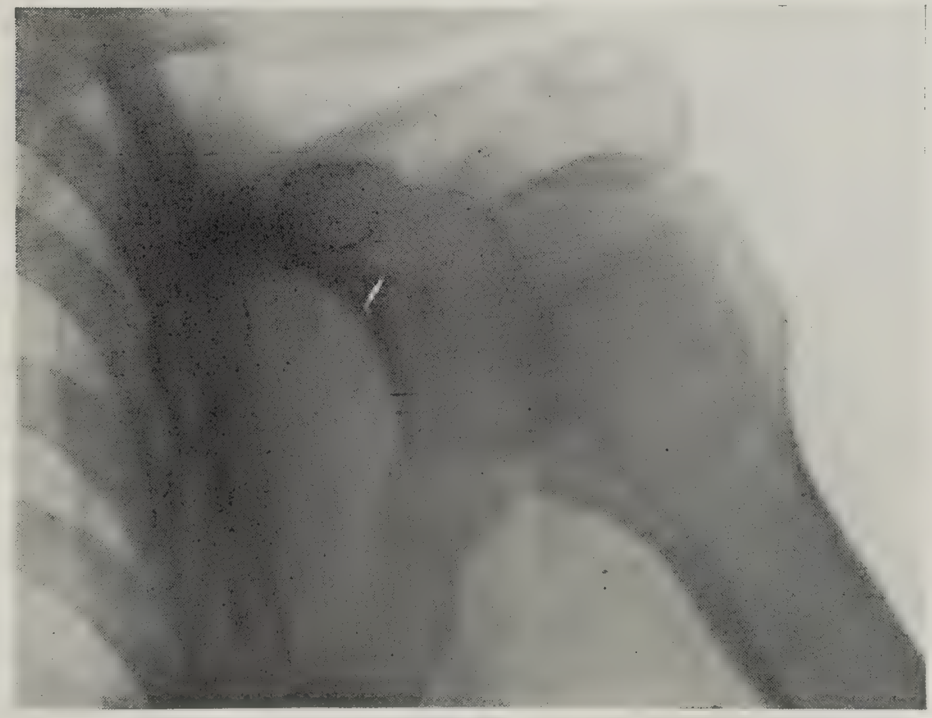


Fig. 6.

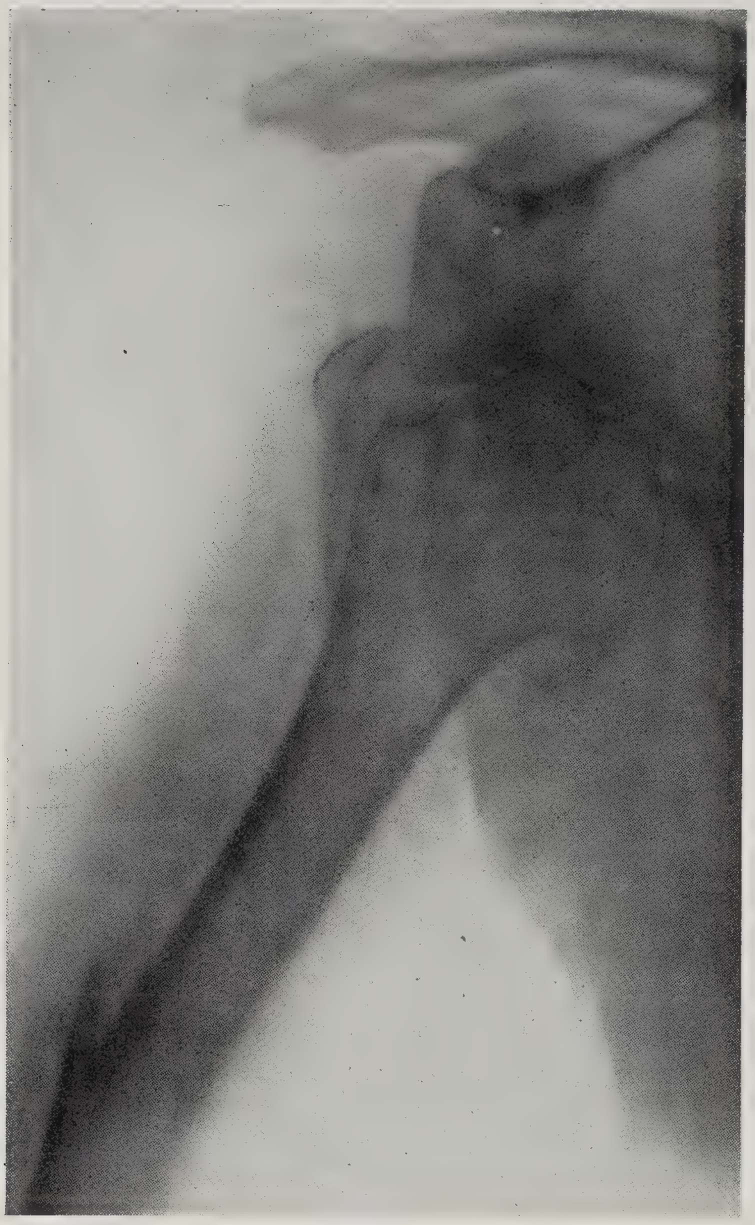


Fig. 7.

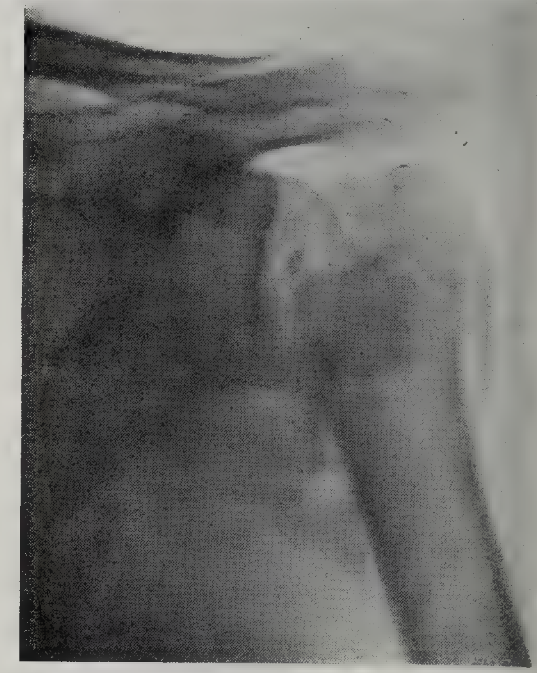


Fig. 10.

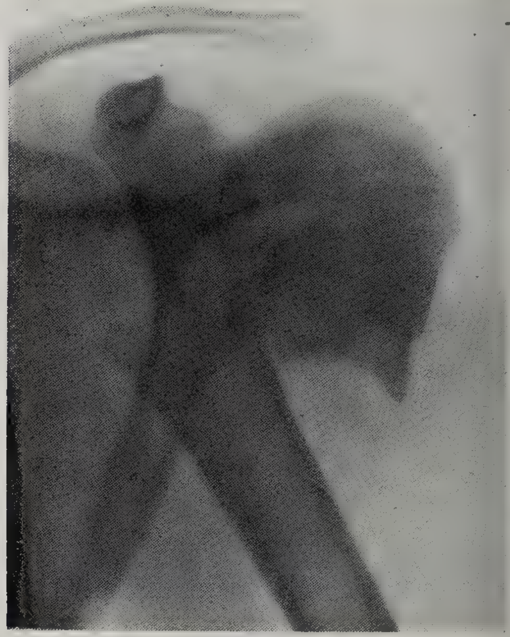


Fig 11.

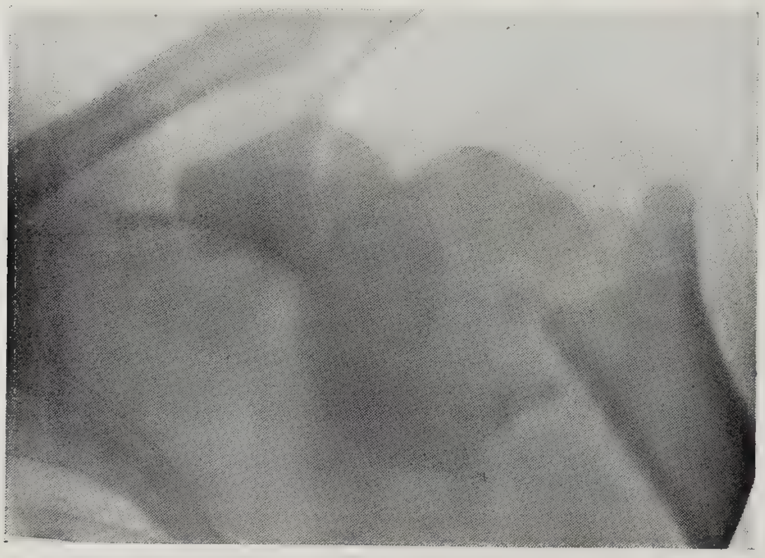


Fig. 8.

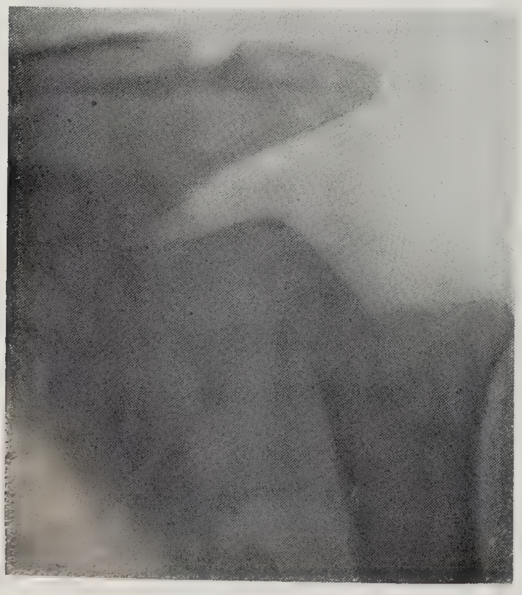


Fig. 9.

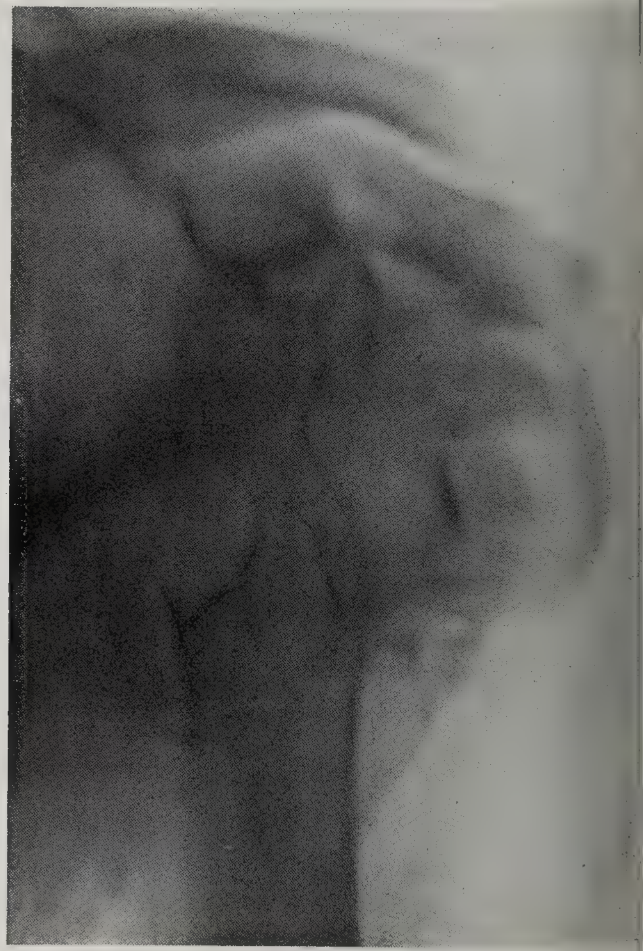


Fig. 12.

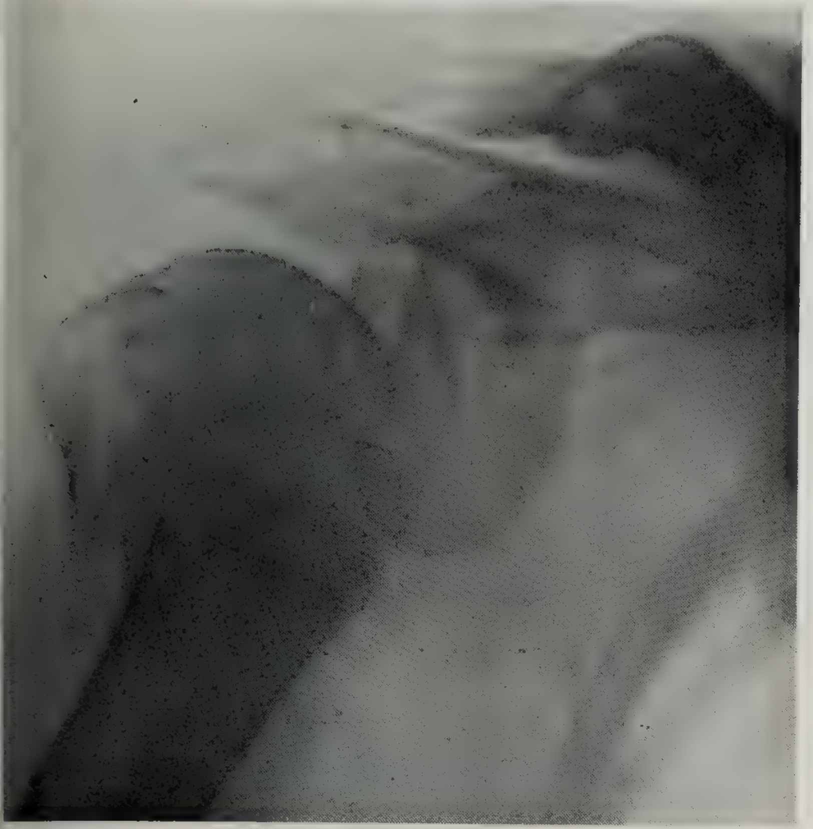


Fig. 13.

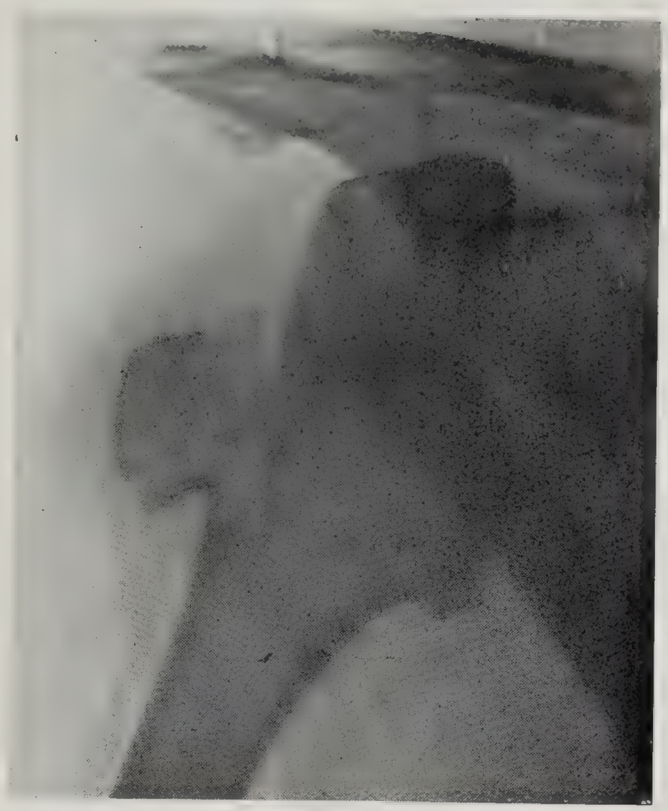


Fig. 16.

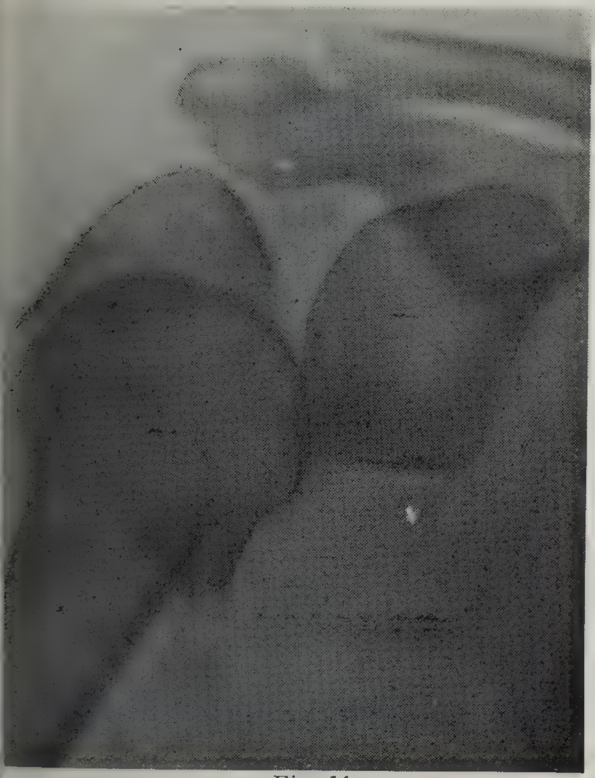


Fig. 14.

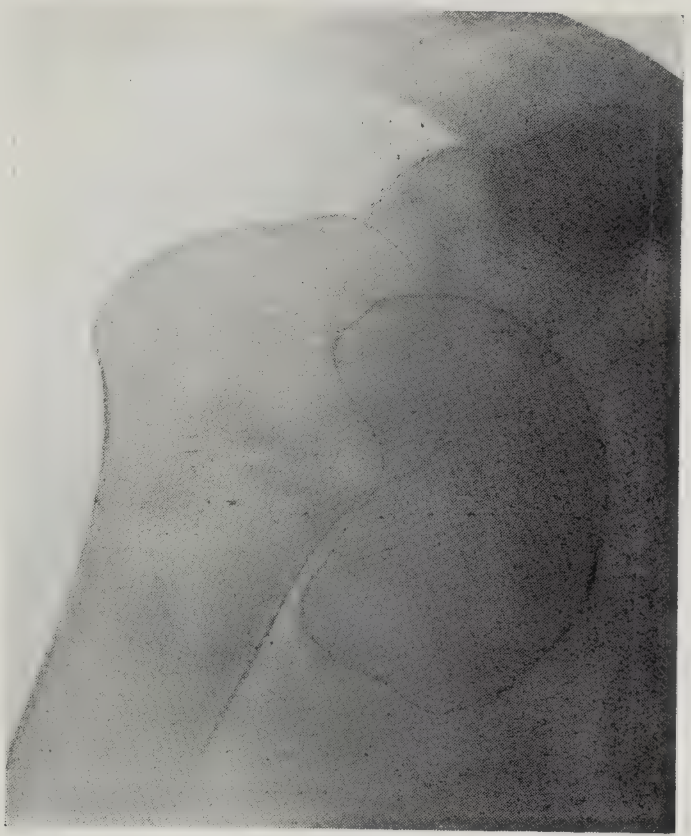


Fig. 17.

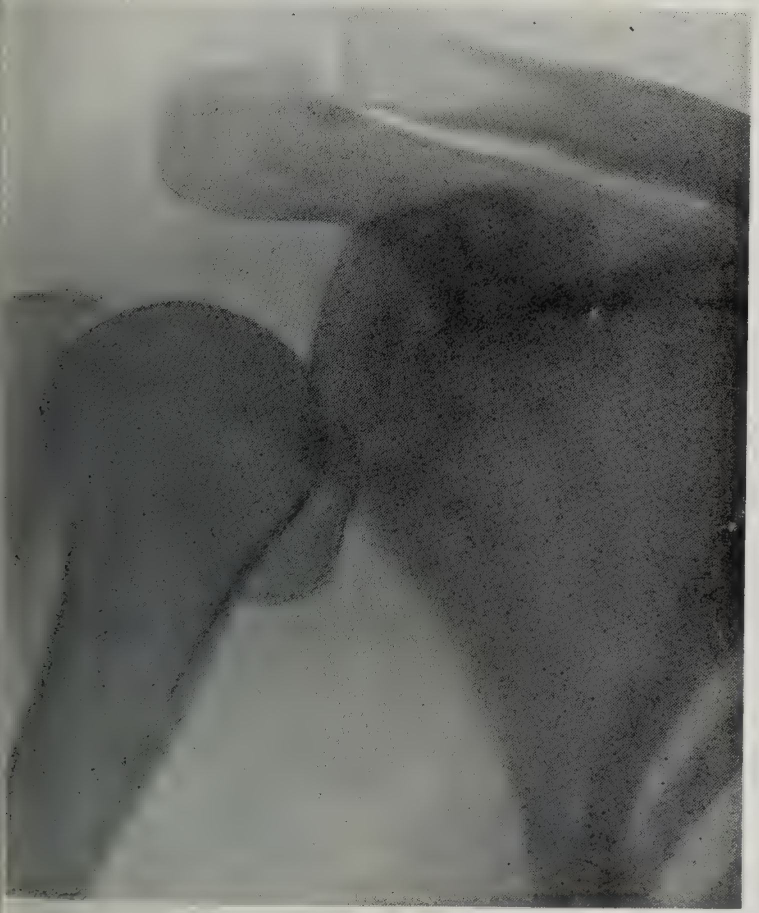


Fig. 15.

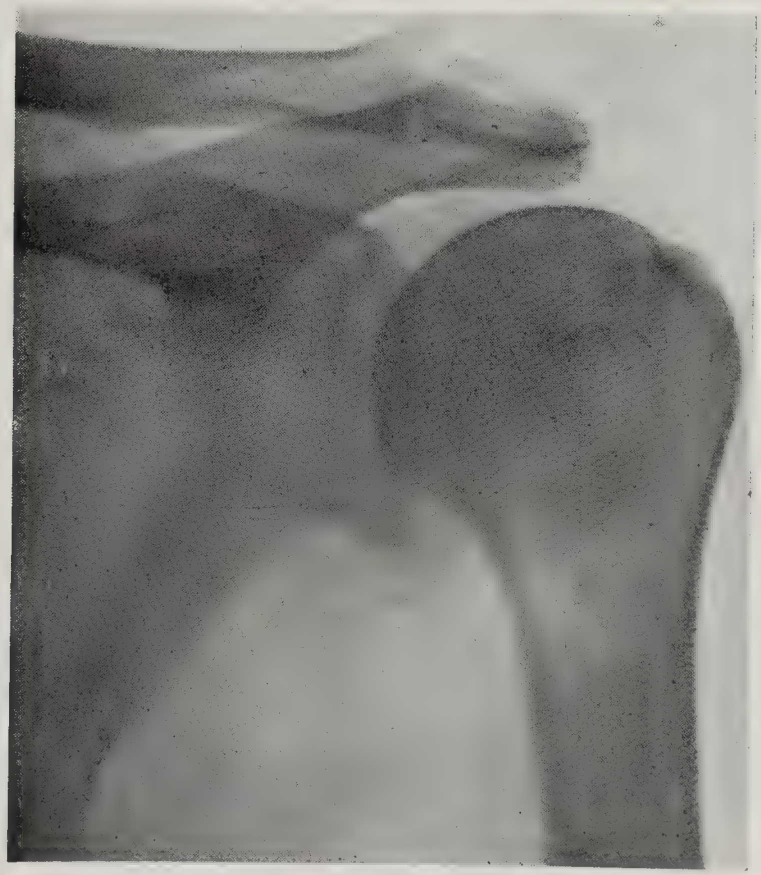


Fig. 18.

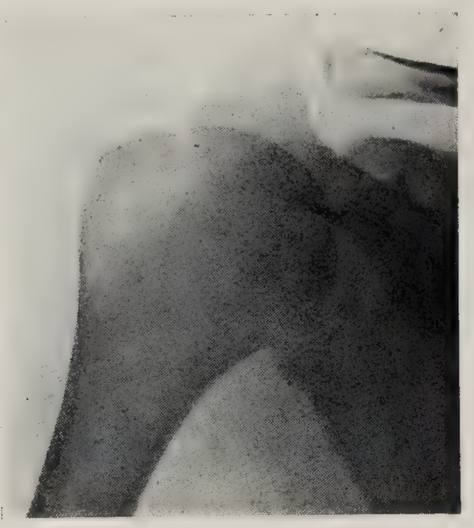


Fig. 19.

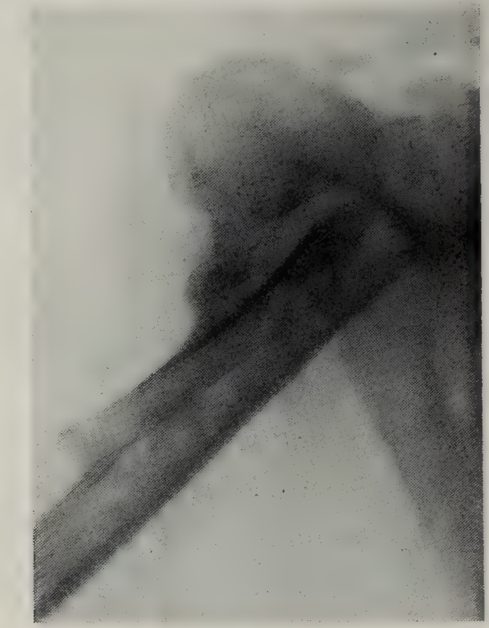


Fig 23.

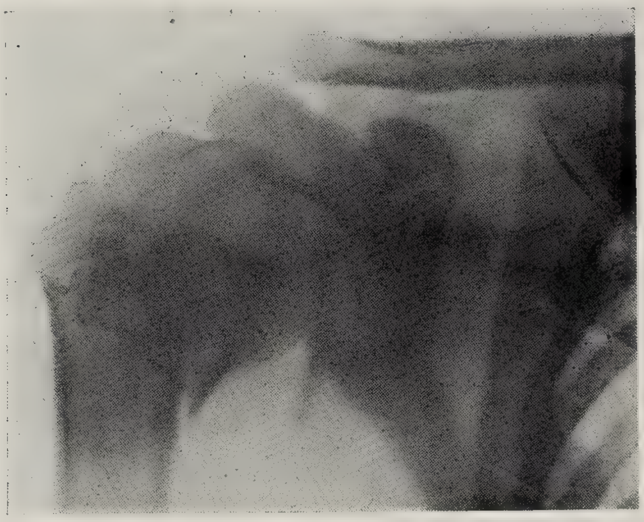


Fig. 20.

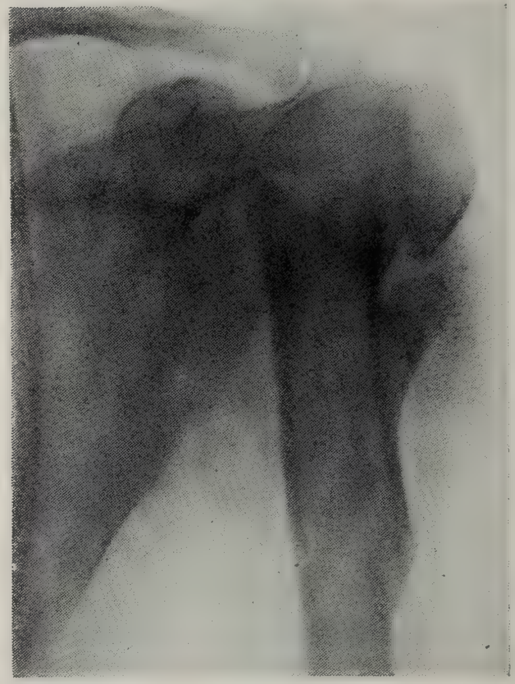


Fig. 24.

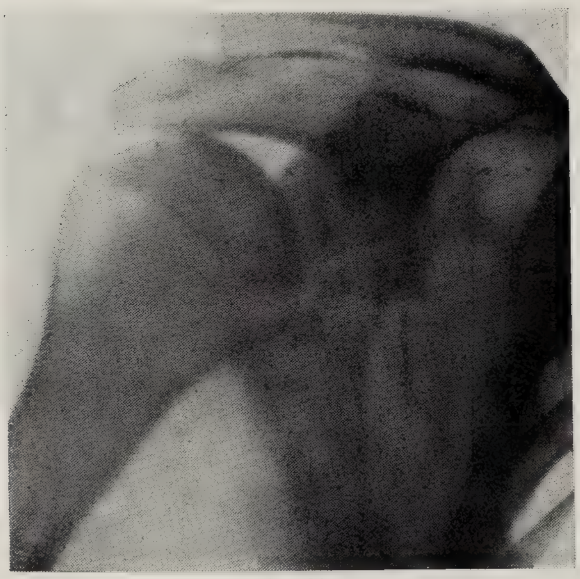


Fig. 21.

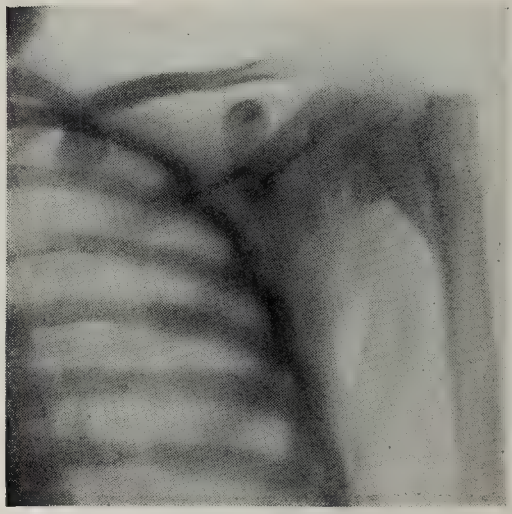


Fig. 25.

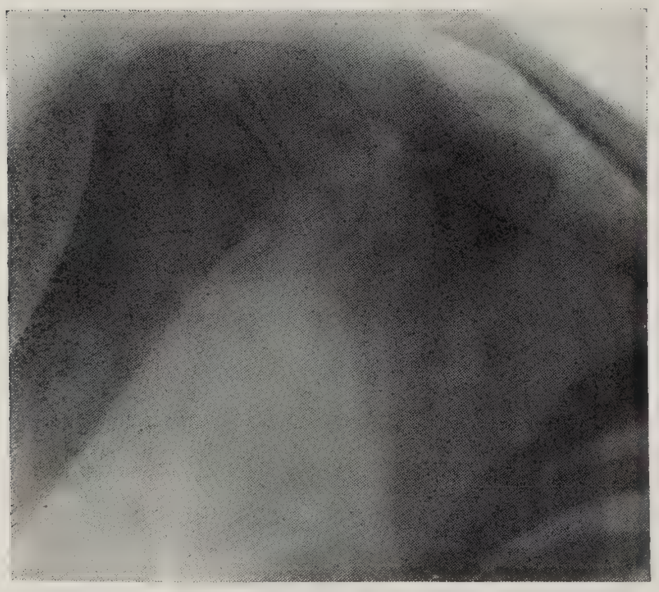


Fig. 22.

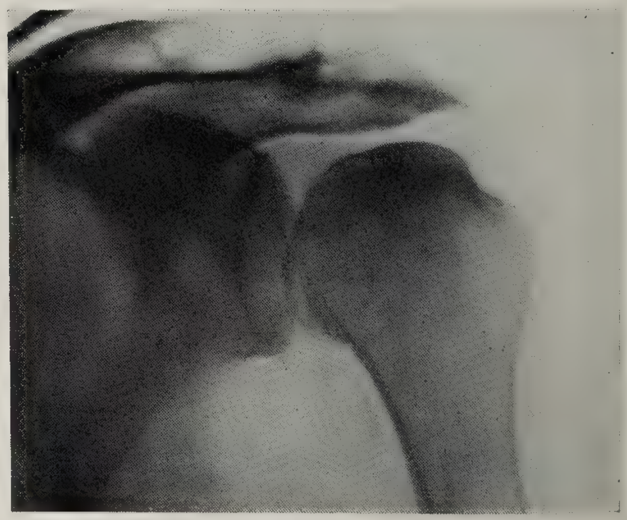


Fig. 26.

A Clinical Lecture

ON

TORTICOLLIS, OR WRY-NECK.

By A. H. TUBBY, M.S.,

SURGEON, WESTMINSTER HOSPITAL, AND CONSULTING SURGEON,
EVELINA HOSPITAL FOR SICK CHILDREN.

GENTLEMEN,—To-day I wish to speak to you on torticollis, or wry-neck. There are several forms of it, and therefore it is well to define what we mean by torticollis. It is deviation of the head due to spasm, which is either tonic or clonic, of certain muscles of the neck.

Varieties of Wry-neck.

There are two chief varieties: (1) The true; (2) the alse. The true form is of two types—the fixed, the wry-neck of childhood, or the congenital form; then there are he reflex, the spasmodic, and the acute forms. By taking he last first we may dispose of it at once. It is nothing but an ordinary stiff neck, which comes on, for instance, after exposure to a draught or cold, and the patient complains of pain in the neck, either very shortly after the exposure or the next morning. Acute wry-neck is an acute rheumatism of the neck, which sets up, possibly, a certain amount of temporary myositis, and is amenable in most cases to medicinal treatment, such as the internal administration of salicylate of soda and the local applica-ion of heat, and afterwards of linimentum belladonnae. In he majority of cases no ill result follows. But in the minority acute stiff neck of this kind is the beginning of hat extremely troublesome form, the spasmodic wry-neck.

Other varieties of true torticollis are the reflex, the ixed, and the spasmodic forms. As to the reflex form, it s undoubtedly due to irritation, which proclaims its effect through the spinal accessory nerve. The usual causes are enlarged glands from carious teeth or other irritation. It disappears so soon as the cause of the spasm is removed.

The fixed form is primarily due to a change in the sterno-mastoid, and then to secondary contraction in the trapezius and other muscles of the neck and deep fascia; and, lastly, there are distinct alterations in the shape of the cervical spine. In the first place, one of the sterno-mastoids s shortened, so that the head assumes the position which t does when the muscle contracts vigorously. As a rule, the affection is on the right side, and the head is inclined to the right shoulder, and the face is rotated to the left. This is the characteristic attitude of congenital torticollis. Etiologically, there is no doubt that it is more frequently seen in males than in females, the converse of the spasmodic form, and it is also common in children who have been born by breech presentation. It seems that, with the after-coming head, the strain or pull upon the sterno-mastoid is productive of the deformity. It is also met with comparative frequently in children who are the subjects of congenital syphilis; and it is well known that congenital syphilis gives rise to indurative changes in two particular muscles—namely, the sterno-mastoid and the biceps. I have seen the whole biceps in the forearm of a child one hard mass, indurated with interstitial syphilitic deposit, and quite incapable of movement. As a rule, there is not that interstitial change in the sterno-mastoid, but you find a gummatous deposit.

This deformity is not very frequent, less than 1 per cent. having been met with in the out-patient department of the Evelina Hospital.

Pathologically it is quite certain that a proportion of these children who suffer from torticollis are born with a distinct lump in the neck, which has a great deal to do with the affection. But it does not follow that every child who is born with what is a haematoma in the sterno-mastoid will necessarily have torticollis. Again, a child may be born without a haematoma or without congenital syphilis, and yet develop torticollis. Thirdly, you will find children who have a large gummatous deposit in the sterno-mastoid and do not develop wry-neck at all, and therefore it is very difficult to say what are the factors at work in the condition. It seems certain that many of the children are cases of breech presentation; cases in which there has been a good deal of traction exercised and there has been some rupture of the sterno-mastoid fibres and haematoma. The following is an illustrative case:

H. H., aged 15 years. The history is as follows: The labour was long and tedious; instruments were used, but no swelling was noticed after birth. There was no history of syphilis. There were deviation of the head and contraction of the sternal part of the right sterno-mastoid. The child was successfully operated upon by the open method.

The next case is one of torticollis with the history of swelling of the sterno-mastoid after birth.

Rhoda B., aged 3 years, came to the Evelina Hospital. The labour was said to have been prolonged, lasting two days, and the child was finally born by the breech. No instruments were used; after birth one hour was occupied in resuscitating the child. Fourteen days afterwards the mother noticed a hard lump in the left sterno-mastoid. The case was unusual because it was the left sterno-mastoid which was affected. The lump disappeared in nine weeks, but it was observed in the second year that the head turned over. And since that time the condition steadily became worse, till he came to show the present condition of deformity. There was no history of syphilis.

The third case is one of gumma of the sterno-mastoid and wry-neck disappearing under treatment.

James W. was seen at the Evelina Hospital in April, 1893. The mother had one miscarriage before becoming pregnant with this child. This child is the third. He was ill-developed, had an earthy complexion, snuffles, and a papular syphilitic rash. On the right side there were distinct localized thickenings of the sterno-mastoid, of the thickness of a halfpenny. The temporary torticollis disappeared with the administration of hyd. cum creta, $\frac{1}{3}$ gr. twice a day for two months, and did not return.

A fourth case had congenital syphilis and contraction of the left sterno-mastoid cured by mercurial inunction.

A fifth case presented three points mentioned, namely, left torticollis, breech presentation, and a syphilitic eruption.

In a sixth case a haematoma was present, but no torticollis followed. So you see from the condition of the cases quoted that there are several factors at work, but no one is constant.

Pathology.

The pathology is very interesting. Unfortunately the *post-mortem* reports of the condition are exceedingly few, but the examinations which have been made show very distinct and definite changes. They are always of a fibroid nature, the muscular fibre being replaced by dense cicatricial tissue. It is possible that this tissue is developed either from the blood which is effused at the time of the birth in the muscle, or arises from the scarring caused by syphilitic deposit. A case which was under the care of the late Professor von Volkmann, of Halle, was very interesting, because it showed from the appearance of the muscle that the anterior and posterior fibres of the sterno-mastoid muscle had suffered, whereas those in the middle of the muscle were perfectly normal. In addition to the cicatricial changes in the sterno-mastoid, there are others—shortening of the trapezius, of the splenius, and the deep neck muscles on the affected side and the fascia; and, what is more important, there are alterations in the spine, and scoliosis starts from the asymmetry of the head and neck. You will then find that there are three curves in the spine due to wry-neck; the first or cervical is called the primary curve; then there is a long compensatory curve in the dorsal region called the secondary, and another compensatory change in the lumbar region. You can easily prove the cervical one to be the primary curve by extending the patient by the head and then you will see the dorsal and lumbar curves diminish much more than the cervical. The most fixed curve on applying extension is always the primary one. If you examine the spine in old cases of scoliosis, the vertebral bodies are found to be distinctly wedge-shaped, with the apex of the wedge pointing towards the contracted side; and the ligaments on the same side are very much thickened and sometimes ossified.

Before I speak of symptoms, it may be asked, Where should this form of torticollis be placed, if one were drawing up a list of deformities, according to the etiology? Torticollis belongs to the asymmetrical deformities. I have not yet had time to collate the facts, but for the last 15 years I have collected a large number of interesting data concerning asymmetry as shown in adults and children, and the details are very interesting. Very few people are symmetrical. If you look at a number of people you will find in some their septum nasi is not straight, nor is the inter-palatine fissure; it is often much deflected. If you look at people's faces you will notice how unsymmetrical they are; I see many before me now. When you come to measure people's legs you obtain very extraordinary results. The greatest departures from the normal appear to be in the Jewish race, but this belongs to another part of the subject.

Torticollis is a very interesting example of asymmetry, and if you examine carefully the face of the patient with wry-neck you will notice a marked asymmetery, which is better seen in the reflection from a mirror. On taking a pair of calipers, and measuring the distance between the external angular process of the frontal bone and the angle of the mouth, you will find that the distance on the affected side is a good deal less than on the unaffected side. Sometimes it is as much as half an inch. The nose is deviated to the affected side, and on examining the head you find an equally curious change. The frontal bone falls in on the affected side, and protrudes at the opposite pole on the unaffected side. There is still another change, which is authenticated, and that is the temperature on the side of the deformity is slightly less than on the other side. It has often been debated why it is that the affected side of the face is smaller than the other side.

I believe there is a certain amount of pressure on the carotid vessels, and less blood goes to the affected side. And that is borne out by the observation made, that if a delicate surface thermometer be used the temperature on the contracted side is found to be less than on the opposite side. At any rate, there is no doubt about the asymmetry of the face; you can prove it by measurement and remove it by treatment, because within two years after you have operated upon a case and restored it to its normal condition, you find the asymmetry has disappeared. I send round the picture of a case in which the face on the side affected has become of the same size as on the other side.

SYMPTOMS.

With regard to the local symptoms, you can readily see which sterno-mastoid is contracted. You will notice in nine cases out of ten that it is the sternal head which is contracted more than the clavicular head, and also you should take the precaution to feel the other muscles, the trapezius and the splenius, and test their movements. If you do that the diagnosis will be easy. I think there is only one other condition for which it might be mistaken, and that arises from the position which the head sometimes assumes in spinal caries. It becomes fixed sometimes to one side in cervical disease, but the distinction is quite clear. It is that in cervical spinal caries it is difficult to move the head in any direction at all. In torticollis there is difficulty in moving the head only when you pull upon the contracted muscles, that is to say, mainly in a sideways direction. In spinal caries, however, the difficulty is noticed in all directions.

TREATMENT.

If the patient brought to you be an infant, and if there be a history of syphilis, it is very important that you should administer the usual antisyphilitic remedies, and also teach the mother to manipulate the head in the opposite direction to that of the contracted sterno-mastoid muscle. Many cases are improved in this way; but if the child be brought to you some time after birth and definite contraction has set in, and if there is also asymmetry of the face, it is useless to attempt to treat it by manipulation or by supports of any kind. There is only one method of treating it efficiently, and that is by operation. It may be done in one of two ways—one which is an unsafe and unwise way, and the other which is perfectly safe. By the unsafe and unwise way is meant subcutaneous tenotomy. Until the advent of aseptic surgery the operation was always done subcutaneously. I wish to draw your attention to the structures in the neighbourhood of the sterno-mastoid which may be wounded or whose presence may cause such indecision to the operator that he may hesitate to divide the muscle thoroughly and transfix it, and so do his operation inefficiently. If you pass a knife deeply at the anterior border of the sterno-mastoid muscle you will probably wound the anterior jugular vein as it turns outwards. If you use the knife carelessly at the outer border you may divide the external jugular vein as it turns down to join the subclavian. It is a well-known anatomical fact that a knife passed in between the sternal and clavicular heads, if passed backwards and inwards, may injure the common carotid artery. If you slant it outwards you may wound the internal jugular or subclavian veins. So to tenotomize the muscle subcutaneously is either dangerous or non-effective. The only reason it has been done formerly was because of the possibilities of suppuration. In two cases where the internal jugular vein was injured, one was fatal and the other recovered. What has happened in the majority of subcutaneous operations is that the muscle has not been thoroughly divided; the knife has been passed in at the anterior border, and for fear of wounding the subclavian vein or the jugular vein it has been passed through the thickness of the muscle itself which therefore has not been completely severed. So the method of open division has been adopted. This is done by one or two incisions. The more common one is made about ½ in. above the clavicle and parallel with it, so as to define the anterior and posterior borders of the muscle and then a director is passed under it and it is divided. Afterwards you find a great gap has been made, which varies from ½ in. to 1 in. But you have not completed your operation, because not only have you to divide the sterno-mastoid, but also the processes of the deep cervical fascia, which are contracted, and I have seen imperfect operations done by surgeons where a band of cervical fascia has been left, which stands out and does not permit the head to be properly extended, and afterwards gives rise to trouble. There is one objection to this incision and that I have noticed commonly. However carefully you make your incision, and no matter how beautiful the place looks for four or five months after the operation, after a time the skin begins to stretch, and a scar ½ in. wide may follow which, especially in the case of a girl, is a serious drawback: particularly in the wearing of evening dress. I have been led to adopt an anterior oblique incision along the anterior border of the sterno-mastoid for about 2 in., and by well retracting there is ample room for thorough division. The scar never stretches but remains linear, and it is concealed in the anterior fold of the sterno-mastoid. The open method is the only rational one; it is free from danger, it is efficient, it is easy to do, and disposes of all anxiety as to the after-result. After the operation comes the question of further treatment. Whichever way of putting up the head you adopt, you must put it up in the over-corrected position and no other. Swing it right over in the direction opposite to the deformity. A simple way of putting up these cases in over-correction is to cut a piece of house flannel to reach from the forehead over the head and down the back to the pelvis. Soak it in plaster of Paris, having previously applied linen bandages round the body and head so that the plaster shall not irritate the patient, and lay the flannel on and bandage it in position. Thus is made a simple and useful splint for these cases. Keep it on for fourteen to twenty-one days, and then remove it and let the patient practise exercises, which consist of movements of the head, so as to stretch the muscles, at the same time carrying a heavy weight in the hand of the affected side. Then for two or three months after the operation the patient should wear a cervical collar, made of either leather or poroplastic, which is useful in keeping the head in good position. The prognosis with this treatment is satisfactory, whereas after subcutaneous tenotomy recurrence is constant.

Now a few words with regard to the spasmodic form which is an entirely different affection to the foregoing. Nobody seems to be clear as to the pathology. But evidence is accumulating to show that it is due to some form of cerebral lesion, probably due to sclerotic changes in the vessels, which have been found at the few *post-mortem* examinations made in these cases. The muscle which is primarily affected is the sterno-mastoid, but unfortunately the spasm spreads quickly to other muscles. A very common combination of muscles to be affected is the sterno-mastoid and the trapezius. But there are a number of other conditions; for instance, the sterno-mastoid on one side and the trapezius on the opposite side, or the sterno-mastoid on one side and the splenius on the opposite side; or the sterno-mastoid and the splenius on the same side. Some-es the splenius and the complexus are affected on the e side; and there is also a definite and distinct form pasm which is known as retrocollic spasm. The follow- case is an example: One day a lady came into my n and sat in an armchair. While speaking her head lenly went back and she became rapidly cyanosed. had not pulled her head vigorously forward she might e died of asphyxia. She explained that she had been langer of losing her life several times, but, fortunately, each occasion some kind friend had been at hand to her. In this case of retrocollic spasm there was a len contraction of the two splenii. You can generally which kind of spasm is present by careful analysis he movements, and by noticing which muscles are ted. And you confirm your examination by feeling hardness of the muscles when the spasm comes on, by electrical tests.

ith regard to the etiology of these cases, it is certain in all these instances there is a distinct mind element ork. Many of them have some history of mental aber- on in the family. Some have had relatives who have mitted suicide, and the patients themselves have ulti- ly done so. In a large number the spasmodic tic, as it lled, has come on after severe shock. In a case of mine lady's brother committed suicide. A few days after came the failure of a bank, which caused her great etary loss, and from that time she developed a istent tic. Such patients go through a large amount eatment, and there are many remedies tried, though t of them are of no avail whatever. Some do well nerve tonics, such as valerianate of zinc, assafoetida, so on. But it is found that after a time the effects of e drugs wear off, and the case gets steadily worse. rs do very well indeed on bromide of potash and um for a space, and some improve on morphine; but one who is convinced as to the nerve element in this tion will not prescribe morphine for it, as such nts are apt to become morphinomaniacs. In cases of asing severity operation is imperative. There are al forms of surgical procedure which have been used, of which give temporary alleviation, and others give anent. So far as I know, you may take it as certain it is no good dividing the affected sterno-mastoid. spasm is not alleviated, and the patient is dis- inted. The spinal accessory nerve has been attacked, either stretched, or ligatured, or part of it has been ved. Until 1888 that was the best form of treatment n. If the spasm is very early, and if it be a sterno- oid which alone is affected, the other muscles being ely involved at all, then ligature or excision of a on of the spinal accessory nerve will in a few cases ome amount of temporary good. But an extended rience has shown that the spasm returns, and in les other than those supplied by the spinal accessory, as the complexus, splenius, and trachelo-mastoid, and fore it became imperative to devise some method of ment which gives better results. The credit of treating cases by a radical method belongs chiefly to the late ardner, Professor of Surgery at Adelaide. And at the time as he conceived the idea Professor Keen of delphia operated in this way, and I believe they shed their accounts of the operation simultaneously but so. But it transpired that Dr. Gardner's case been done a few days before Dr. Keen's, so priority gs to Dr. Gardner. The operation strikes one as severe for this condition, but those of you who have ssed the mental agony, the distress and hopelessness, ervous irritability and sensitiveness of these patients, ealize the terrible condition of some of them if left emselves. The operation consists in cutting down on osterior primary branches of the cervical nerves and ving a portion of them. An incision is carried out- from the occipital protuberance to the mastoid ss, and a second one from the latter point to spinous processes of the sixth cervical vertebra. lap is dissected up and turned to the middle line. ccipital artery is ligatured, and then the muscles are d. The first one seen is the trapezius, which is d and turned out of the way. Next are seen two muscles—the splenius and part of the complexus. cut through the splenius capitus and turn the out of the way and retract the parts. This gives d view of the deeper structures. The complexus w well exposed, and a part of the operation, which is somewhat difficult, is so to divide the complexus as to do it safely and at the same time to hit off the muscular planes. One point which I find of the greatest advantage is to separate the complexus from its vertical attachment, and this may be done with ease if you first define the inner border. Now pass your finger underneath the muscle until you feel the outer border, and separate the deep attachments of the complexus with your finger. The complexus is then easily and safely cut across. In turning the upper end towards the head you will find the branches of the suboccipital nerve which run into it, and the suboccipital triangle is seen. In the floor of it is the vertebral artery and vein and the suboccipital nerve. The vein may be very large. I have seen it as big as an internal jugular. Coming out below the obliquus inferior you see the largest nerve of all—namely, the second cervical nerve, giving off the great occipital. You can sometimes trace up a small branch of communication with the first. This is a guide to the suboccipital nerve as it emerges from beneath the vertebral artery. The posterior primary branches of the third and fourth nerves are now readily defined and their branches to the muscles. The trunks should be traced as far back as possible and ¼ in. to ½ in. exsected close to the vertebral column. An important point is to make sure that the nerve supply to the trachelo-mastoid is destroyed, otherwise recurrence of the spasm will take place.

By this operation you deprive the back part of the head of sensation and also the skin of the neck, and you break the vicious reflex circle which runs through the sensory nerves. At the same time you cut out the motor supply to the posterior cervical muscles and so stop the vicious movements. It is undoubtedly the best form of operation known for this condition.

The false form of torticollis is associated with spinal caries, and follows cicatrices of burns and wounds in the neck. It is evident that the head is displaced by reflexly irritated muscles, bony deformity, or pulled over by scar tissue, and therefore the deformity is termed torticollis, because the neck is twisted in some cases in a way very similar to that seen in true wry-neck.

WOUND OF THORACIC DUCT: LIGATURE: RECOVERY.

By ANDREW FULLERTON, B.CH., F.R.C.S.IREL.,
HONORARY ASSISTANT SURGEON, ROYAL VICTORIA HOSPITAL, BELFAST

SOME years ago a wound of the thoracic duct was looked upon as a very serious accident. Thus, Erichsen[1] states that "the condition may be regarded as inevitably fatal." He quotes six cases recorded by Bradley and one by Krabbel, in all of which death took place. These cases, however, had injuries to other structures which of themselves would have been serious. He also mentions a doubtful case, recorded by Kirchner, of a girl aged 9, who had run violently against a parapet fourteen days before. A litre of chyle was withdrawn by aspiration from the right pleura, and the patient recovered.

When the accident happens, however, during a surgical operation, the following case proves that the prognosis is good if suitable treatment be adopted.

A girl, aged 24, was admitted to the Royal Victoria Hospital on July 22nd, 1905, suffering from a large number of tuberculous glands on both sides of the neck. These occupied both supraclavicular regions and the right submaxillary triangle. Those on the right side were removed on July 27th by an extensive operation, and it was thought wiser to defer the removal of those on the left till the wounds on the right had healed. Accordingly, about twelve days later, a transverse incision was made parallel to, and about an inch and a half above, the left clavicle. A large number of affected glands were found extending down as far as the pleura, to which several were adherent, and forward under the sterno-mastoid muscle. During the removal of these a sudden gush of opalescent fluid was seen to come from beneath the sterno-mastoid. This collected in the depths of the wound, and soon coagulated into a soft greyish clot. On sponging up the fluid it was found to issue from the open mouth of a vessel just in front of the scalenus anticus muscle about an inch above the inner end of the clavicle. An artery clip was applied to the open end of the discharging vessel, and the latter was ligatured with formalin catgut. The duct on the proximal side of the ligature immediately became distended, so as to form a flat, button-shaped swelling, tense and grey, about ½ in. in diameter. This enlargement felt so tense that it seemed ready to burst, and great care was taken to prevent this. The distal end was now sought for, and was seen to be about an inch in length, extremely like a thin-walled vein, and dividing near its termination into three smaller vessels, which opened separately at the junction of the internal jugular with the subclavian vein. No fluid issued from this portion of the duct, but on passing a grooved director through it, and along one of the terminal branches into the innominate vein, blood flowed along the groove. On removing the director this bleeding ceased, thereby showing the action of the valves of the duct. This end of the duct was also ligatured, although at the time of operation no leakage appeared likely to occur. The remaining glands were now removed, the wound was stitched up by a continuous silkworm gut suture, and a glass drainage tube was inserted for forty-eight hours. On account of the risk of the rupture of the proximal end of the ligatured duct, the patient was kept on the lowest possible diet for a few days, and all unnecessary movements were interdicted, so as to diminish as much as possible the pressure and flow in the occluded duct pending the establishment of the collateral circulation. The dressings were inspected at frequent intervals in order to ascertain whether leakage had taken place through the drainage tube, in the event of which I proposed to open up the wound and again deal with the duct. The patient fortunately did not vomit after the operation, and made an uninterrupted recovery without any swelling or sign of leakage. She was weighed on the fourth day and each week for seven weeks. She lost 4 oz. during the first week, gained over 4 lb. the second, 7 lb. the third, nearly 2 lb. the fourth, under 1 lb. the fifth, 2 lb. the sixth, and practically nothing the seventh week, so that now she is nearly 1 st. heavier than when she was operated on. A blood count by Dr. Houston on the eighth day after the operation was as follows: Polymorphonuclear leucocytes, 72 per cent.; small lymphocytes, 23 per cent.; large lymphocytes, 4 per cent.; and eosinophiles, 1 per cent. It will be seen from this that there is very little deviation from the normal as regards the lymphocytes—the constituents of the blood perhaps most likely to be affected by the accident.

The history of this case would appear to show that if leakage from the duct can be prevented and rupture avoided after ligature, the collateral circulation becomes established without any difficulty. The previous operation on the right side of the neck does not seem to have interfered with this, although a good deal of damage must have been done to the lymphatic channels in connexion with the right lymphatic duct.

Cheyne and Burghard[2] have had to do with two cases of accidental wound of the thoracic duct; one occurred during the extirpation of tuberculous glands, and one during the removal of glands invaded by malignant disease. Recovery took place in both cases. They recommend that the skin should be closely stitched up and pressure maintained upon the part by a sponge incorporated with the dressings. The fact, however, that in both these cases, when the pressure was removed ten days after operation, swelling took place under the skin due to the escape of chyle, would seem to indicate that this method may not always be satisfactory. Besides, pressure is difficult to apply to the neck.

Priestley Leech[3] mentions 21 cases collected by Benetau. In 8 the duct was wounded during the extirpation of tuberculous glands; in 3 during the removal of glands invaded by malignant disease; and once while ligaturing the subclavian artery for aneurysm. Deanesly,[4] operating for tuberculous glands, divided the duct, which was then inserted into the internal jugular vein and sutured. There was some leakage, but this soon ceased, and the patient recovered. Bergmann[5] quotes 7 cases under the care of the following surgeons respectively: Wilms, Schönborn, Schwinn, Brohl, Keen, Phelps, and Cheever, only 1 of which died as the result of the injury. In Schönborn's case cyanosis and collapse followed as the result of the entrance of air into the veins. The duct was tied at both ends and divided between the ligatures. Symptoms of air embolism persisted for two days, but the patient recovered. Quite recently Bucknall,[6] of University College Hospital, recorded 2 cases. One occurred during the extirpation of tuberculous glands and one during the removal of glands infected from malignant disease of the breast. He draws attention to the extraordinary loss of strength and energy which occurs when the chyle is allowed to leak away, as happened for a few days in his first case. He found plugging ineffectual, and had to resort to ligature of both ends on the sixth day. Both cases recovered.

From a study of the recorded cases it would appear that the dangers of the accident are: (1) Entrance of air into the veins of the neck (Schönborn's case); (2) ruptu of the distended duct on the proximal side of the lig ture; (3) inanition due to the draining away of the chyl (4) possible dissemination of tubercle due to the entran of organisms into the veins by way of the torn thora duct. Bucknall suggests that the subsequent history his first patient, who died later of general miliary tuber losis, may be so explained. In a similar way it is c ceivable that malignant disease may be disseminated.

With regard to treatment, the first indication is to st the flow from the injured duct. This can be effected m surely, and apparently quite safely, by ligature of b ends. If the wound is small it may be sutured with occluding the vessel, as in Keen's case. Packing is lik to be effective if the wound is small, but if the latter large or the duct completely severed, as in my case, t more satisfactory method is ligature. Packing may fa as in Bucknall's case, which leaked to the extent of two three pints a day in spite of the plugging. Schwin case was treated by clamps, which came off on the thi day, the patient making an excellent recovery. Final the patient ought to be kept quiet and on low diet, so to limit the pressure in the obstructed duct.

The patient referred to in this article was examined June 6th, 1906, ten months after the operation, and fou to be quite well. There was no dissemination of tuber and no recurrence.

References.

[1] *Science and Art of Surgery*, 9th edition, vol. i, p. 873. [2] *Manua Surgical Treatment*, Part II, p. 173. [3] *Medical Annual*, 1904, p. [4] *Lancet*, December 26th, 1903. [5] *System of Practical Surgery*, vol. p. 61. [6] British Medical Journal, September 30th, 1905.

THE ETIOLOGY AND TREATMENT OF OBLIQU INGUINAL HERNIA.

By R. W. MURRAY, F.R.C.S.,

SURGEON, DAVID LEWIS NORTHERN HOSPITAL, LIVERPOOL.

Though the presence of an inguinal hernia must be to some weakness of the structures through which abdominal contents escape, the question yet to answered is, What are the chief factors which constit this weakness and so determine the descent of the bow It is, I believe, generally admitted that in the gr majority of such herniae which occur during infancy local weakness is due to the presence of a preformed s an unobliterated portion of the processus vaginalis test In the ordinary hernia of adult life, however, the lo weakness is not as a rule considered to be due to any su congenital defect, but to be confined to the muscular a aponeurotic structures of the abdominal wall, wh permit the bowel to escape by pushing the parie peritoneum in front of it.

This division of hernia into congenital and acqui has of recent years been severely criticized, more espe ally by Mr. R. Hamilton Russell of Melbourne, and propose to adduce what evidence I can in favour of belief that the presence of a congenital or preformed is the main factor in the causation of inguinal her during all periods of life.

Before offering any theoretical explanations concerni the conditions which predispose to the formation o hernia, I would remind you of certain well-ascertain facts. Hernia may appear for the first time at any a but the greatest number of herniae are developed duri the most active period of life, and age lessens their f quency. In the first year of life a larger proportion persons are ruptured than during any subsequent ye A large increase in the production of hernia occurs males between the ages of 11 and 15, and in fema between the ages of 16 and 20. Inguinal hernia occ nearly six times as often as all other divisions tak together.

The Congenital and the Acquired Sac.

It will be advisable before attempting to distingui between the two forms of sac in the inguinal region, study the formation and structure of a typical congeni and a typical acquired sac in order to compare them a clearly understand in what respect they resemble or di one from the other.

For this purpose we will compare the sac of a her ch we know to have been acquired, with the sac of one ch we know to have been preformed.

the case of a ventral hernia, such as is occasionally after laparotomy, which beyond dispute is an acquired nia, the weakened structures of the abdominal wall esponding to the line of incision gradually yield, a eral bulging takes place, and the parietal peritoneum trudes, stretching the cicatrix over it. The coverings uch a hernia are scanty, consisting of attenuated skin peritoneum. At the point where the bowel has aped through the abdominal wall the muscles and aeurosis are atrophied, the mouth of the sac is wide, as it has no neck strangulation of its contents very om occurs.

hen, on the other hand, the bowel or omentum passes ugh the internal abdominal ring into a sac formed by processus vaginalis testis, such a hernia sac is iously preformed, and of congenital origin. The skin, cutaneous and other structures covering the hernia, e a perfectly normal appearance, forming a marked trast to what pertains in an acquired hernia. The of the sac is long and narrow, which accounts for the uency with which strangulation of the contents rs.

hus, apart from their indifference in origin, the inction between a typical acquired and a typical genital sac is abundantly clear.

an ordinary inguinal hernia, as seen in the adult, the eral conformation of the sac very closely resembles of a congenital hernia, yet curiously enough it is rded by almost all surgeons who have written on this ject as having been acquired.

COMPARATIVE SURGERY.

hen studying the etiology of abnormal or diseased litions in man, it is often of great assistance to study ilar or allied conditions as they occur in the lower nals. If inguinal hernia be considered from this point iew, new light may be thrown upon an old subject and e information obtained which may help us to answer question we are now considering.

the majority of mammals the testes pass out of the omen into the scrotum accompanied by a fold of peri-um, the processus vaginalis testis, which remains nt throughout life. The anatomy of the muscular aponeurotic structures forming the inguinal canal in tal mammalia is practically the same as in man.

ere is apparently some relationship between the ural position of the animal's body, horizontal or ical, and the patency or otherwise of the processus nalis testis. In quadrupeds this process invariably municates with the general peritoneal cavity, and in nts the channel of communication is so free as to the testes to pass periodically from the abdomen the scrotum. In quadrumana, whose bodies are as uently vertical as horizontal, the processus vaginalis is narrow, offering a marked difference to what pertains dents, whilst in the higher apes the testes pass into scrotum two or three days before birth and the essus vaginalis is normally completely obliterated.

would particularly draw attention to the fact that in nts the funicular process must be exceptionally wide ermit of the free passage of the testis, yet these als do not suffer from inguinal hernia, pointing to sphincter-like action of the muscles guarding the inal canal. Doubtless the high position of the inal canal in quadrupeds is the chief reason for the ot entering it, and if rodents habitually adopted the tice of walking on their hind legs, a method of pro-sion which you remember was invariably adopted by White Rabbit in *Alice in Wonderland*, oblique inal hernia would probably become of such frequent rrence as to threaten the extinction of the species.

rnia is by no means uncommonly seen in domes-ed animals such as the horse, the cow, the dog, and ss, but, of all domesticated animals, the horse is the which has received the greatest amount of attention e hands of veterinary surgeons, who are unanimously pinion that the bowel in an ordinary inguinal ia invariably descends into a sac which is of con-al origin. Inguinal hernia in the horse would ably be met with much more frequently than it is, count of the patency of the funicular process, were t that the inguinal canal occupies a position less exposed than is the case in man to the influence of gravity on the abdominal viscera. In this animal the great strength of the abdominal muscles and fascia which guard the inguinal opening also affords additional security in preventing the escape of the abdominal contents. Professor W. O. Williams, in his work on *Veterinary Surgery*, says:

> Inguinal hernia is most frequently met with in stallions and young animals, and essentially consists in the passage of a fold of intestine into the inguinal canal through the internal abdominal ring. It is very frequently seen in India and on the Continent, but is uncommon in this country from the fact that stallions are not often used for working purposes. It is but rarely seen in the gelding, and scarcely ever in the mare, although it is possible that it may occur in both.

The importance of a patent funicular process in determining the occurrence of a hernia is well illustrated in the case of domesticated animals called upon to do work which in a sense is unnatural to them. We have seen that in India and on the Continent stallions are used for working purposes, and they frequently suffer from inguinal hernia. On the other hand, inguinal hernia is rarely seen in the gelding, and yet it is the gelding that as a rule does the hardest work. Further, the operation for radical cure of inguinal hernia in the stallion consists essentially in excision of the sac after applying a ligature to the neck of it. No attempt is made to narrow the inguinal canal by suturing. This operation is attended by most satisfactory results, except when the animal is an old one or the hernia exceptionally large.

I think, then, we may take it as an undoubted fact that in domesticated animals, such as the horse, the dog, and the cat, the sac of an inguinal hernia is of congenital origin and not acquired. The main factors in the causation of such a hernia are the presence of a patent funicular process, together with the want of power in the muscles guarding the internal abdominal ring. In the case of a stallion used for draught purposes the muscles guarding the internal abdominal ring may be at times unduly strained, and thus the bowel is allowed to pass into the scrotum.

In the case of the dog I would suggest that the hernia appears because the muscles are deficient in tone, owing to the unnatural and indolent life many of these animals lead.

CLINICAL EXPERIENCE.

During the last few years I have operated upon a number of infants and older children for the radical cure of inguinal hernia, and the experience thus obtained has greatly shaken my faith in the orthodox surgical belief respecting the etiology of this complaint.

I have found that in the child and even in the infant the sac in the vast majority of cases is entirely separate from the tunica vaginalis, and, apart from its delicacy in structure, exactly resembles that found in the ordinary hernia of the adult.

After some experience in operating for oblique inguinal hernia in infants, older children and adults, I have been greatly struck by the marked resemblance as regards shape, general appearance and relationship of the sac. I have been quite unable to distinguish between the congenital and the so-called acquired inguinal sac, for the very good reason, I believe, that they are one and the same thing.

It is generally agreed that in infants the sac of an inguinal hernia is preformed, and if my observations and those of others are correct, namely, that in adult life exactly the same kind of sac as that seen in the infant is the one usually met with, the inference is obvious: both have a common origin. One of the strongest arguments in favour of a congenital sac being the essential cause of inguinal hernia is the fact that during infancy and early childhood a radical cure can with something approaching certainty be obtained by merely excising the sac after applying a ligature to the neck of it.

In a person born with a perfectly formed abdominal wall I believe it to be impossible for a hernia to occur.

POST-MORTEM OBSERVATIONS.

We have seen that in the lower animals the funicular process is patent, and yet under normal conditions hernia does not occur; and if in man the imperfect obliteration of this process of peritoneum really explains the formation of the sac of an ordinary hernia, then we would expect to find evidence in the *post-mortem* room of the patency of this process in a fair proportion of persons who during life never suffered from hernia.

Owing to the kind interest taken in the matter by my friends Dr. Nathan Raw and the resident medical officers at the Mill Road Infirmary, I have obtained some most interesting and valuable information. In 100 consecutive and in no way selected *post-mortem* examinations made at the Mill Road Infirmary, upon persons in whom during life there was no history or evidence of hernia, a potential hernia sac was discovered in 21 cases. In most of the cases the unobliterated portion of the processus vaginalis testis was about 1 in. in length, and the opening at the internal abdominal ring was so narrow as barely to admit a large probe. In others the opening was sufficiently large to admit the little finger, and in three of the cases the sac contained a small piece of omentum, which was not adherent and was readily withdrawn. In 7 instances more than one sac was found, and in 1 case four potential hernia sacs were present, an inguinal and a femoral sac on either side.

Though the number of cases is far too small to furnish any accurate information respecting the relative frequency with which a potential hernia sac may occur among persons in whom during life there is no evidence of a hernia (the proportion in this series being probably exceptionally high), still these cases certainly go a long way to prove the truth of my contention that in all ordinary inguinal herniae the sac is preformed and of congenital origin.

THE CAUSE OF INGUINAL HERNIA.

Granted the existence of a potential hernia sac, I would suggest that the occurrence or not of hernia largely depends upon two factors—the size of the opening at the internal abdominal ring and the strength of the muscles guarding it.

It is unnecessary for me to enter into anatomical details as to the obliquity of the inguinal canal and the attachment of the internal oblique and transversalis muscles, which, together with Poupart's ligament, form a sphincter-like structure guarding the canal. When the processus vaginalis is unobliterated, provided the opening at the internal abdominal ring is small and the muscles guarding it (which, with some justice, might be called the inguinal sphincter) powerful, then the probabilities of a hernia occurring are slight. If, on the other hand, the opening is large and the inguinal sphincter weak, the probability of a hernia occurring is considerable. The frequent occurrence of inguinal hernia in infants would thus be explained.

The frequency with which hernia first appears about the age of puberty I would account for by the increased amount of exercise usually indulged in at this period, so that the muscles which under ordinary conditions are able to guard the internal opening are suddenly overtaxed and the bowel escapes. This will, of course, largely depend upon the size of the internal opening.

In the case of hernia appearing later in life the same reasoning would hold good. Though the processus vaginalis has been to some extent patent since birth, no hernia has appeared, because the internal opening was never large and the sphincter well able to guard it, but with declining years and weakened muscles the sphincter at some critical moment—it may be at the second or third attempt to get out of a bunker whilst playing golf—fails and the bowel or omentum passes through.

Hernia not infrequently makes its first appearance during convalescence from a long illness, and under these conditions it appears to me more reasonable to explain such an occurrence in the way I suggest than to suppose it to be acquired.

TREATMENT.

We will now see how far this view of the etiology of inguinal hernia should influence our methods of treatment. For this purpose let us consider hernia as it occurs in the infant, the child, the young adult, and in older persons.

The Infant.

The essential object of our treatment should be to bring about the extreme narrowing, or, better still, the complete obliteration of the funicular process. Given a case of inguinal hernia in an infant, provided the protrusion is not large and can be efficiently controlled by a truss, a cure in the ordinary acceptation of the term may be brought about if the truss is worn continuously for, sa about two years. The truss effects a cure by preventin the bowel from entering the inguinal canal, maintainin the patency of the funicular process, and stretching th inguinal sphincter. The funicular process may thus b come so narrowed as to make it extremely difficult for th bowel to again enter it, but I do not believe that funicular process patent at birth ever in this wa becomes completely obliterated.

The evidence obtained from the *post-mortem* roo strongly supports this view, for in the majority of cases i which it was found to be patent the persons had passe middle life, and many of them were considerably olde As the funicular process narrows so the inguinal sphinct contracts, and the contraction of the sphincter will saf guard the person from hernia throughout the rest of h life.

It must be the experience of many medical men wh have been in practice for twenty to thirty years, that cas of inguinal hernia during infancy have been thus cure by means of a truss. At the same time, I know of n means whereby one can with certainty say to what degre security has thus been obtained. Such an individual wi always have that very undesirable possession, a potenti hernial sac, and under some sudden muscular effort, perhaps after a long illness resulting in a loss of muscul tone, the sphincter may be overcome and the bow descend once more. Should such an accident take plac the hernia is likely to become strangulated owing to th long neck of the sac and the narrowness of the apertu through which the gut has suddenly entered. It is thu clear that the security obtained by means of a truss mu always be of a doubtful nature, and if greater security desired an operation will have to be performed. How ever, before recommending operation during infancy o must clearly understand what the immediate risks of th operation are, and what prospect there is of thus obtainin a permanent cure.

The excellent work done in this field of surgery b Russell, Stiles, Carmichael, and others, has now esta lished the fact that in competent hands the operation f the radical cure of hernia during infancy can be performe with no more risk than attends such an operation durin any other period of life.

As regards the permanency of the cure, the recor published by the surgeons I have mentioned prove th results to be in every way highly satisfactory, and th operation when performed during infancy can rightly b considered a radical cure. My own experience of sixt operations for the cure of inguinal hernia upon childre varying in age from 2 months to 5 years entirely suppor this view, and I have every confidence in strongly recom mending an operation being performed during early lif more especially in the case of the children of the labourin class; for, apart from the uncertainty of the cure b means of a truss, the frequent renewal of the instrume is an expense to the parents, and in after-life the bowel more apt to descend again in the case of a labouring ma than in persons who are not engaged in manual labour.

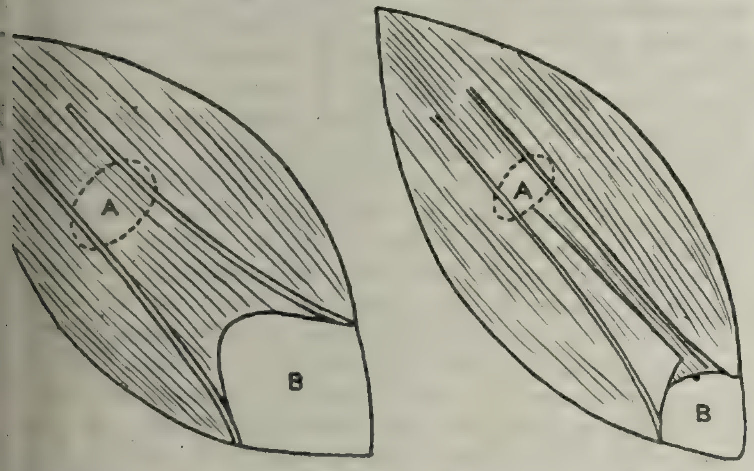
In deciding at what age the operation should b performed, one has to consider the general health of th child, as well as the local trouble from which he is sufferin If the child is bottle-fed, and the other conditions a favourable, I would select to operate about the thi month. If, on the other hand, the child is breast-fed, it as a general rule better not to run the risk of deprivi him of his natural source of nourishment, and to postpo the operation until he is 8 months old, and in the mea time to order a truss to be worn continuously.

The operation I am in the habit of performing consis merely in excision of the sac, after transfixing and tyi the neck of it at the level of the internal abdominal rin The application of the ligature to the neck of the sac the highest possible level is a matter of very great imp tance, and in order to emphasize this point I cannot better than quote from a paper on the radical cure hernia, by our old friend, Wm. Mitchell Banks, which w published in the *Medical Times* of July, 1884:

> The movement of the bowels over the front of the abdomin wall is, so to speak, a liquid movement. It is the searchi sweep of a great wave slowly rushing up the face of a brea water. If the breakwater can only preserve a smooth surfa with every joint well cemented, then it will stand, althou there may be more than one weak place in its backing. B the moment the surface gives way at any point there the wat

stently presses in and in till the stones around are under- d and a breach is made. Clearly, then, however we may gthen our bulwark behind by stitching up the ring and ing a truss, the first thing to do is to keep its water ce—its peritoneal surface—free from any inviting pouch pression.

order to be sure that the ligature is applied at the of the internal abdominal ring I always split up the s of the external oblique for ¼ to ½ in., and have the ulled taut whilst the ligature is being tied. The sac, h in the vast majority of cases is entirely separate the tunica vaginalis, is now cut across close to the ure, and the stump disappears from view. The ed portion of the external oblique is united by over- ng the sides, which are retained in position by one mattress sutures, and the skin incision completely d. The overlapping of the aponeurosis I believe to



1.—A, Internal, and B external, abdominal ring. To demon- e how overlapping, after division of the aponeurosis, narrows lengthens the inguinal canal.

point of considerable importance, for it not only ws and lengthens the inguinal canal, but also restores liquity. In my earlier cases I had occasionally some lty in performing this apparently simple operation, e sac of a hernia in an infant is extremely thin and rts so small that the margin for error is very limited. ver, after some practice the operation presents no ifficulties. As regards the healing of the wound, if ry precautions are taken there is very little danger infection from without. The stitches should be ed on the seventh day, and the infant may be d over to his mother on the tenth day.

ugh it is quite true that, as a rule, an infant is not e least upset by the operation, I must not omit to on two cases in which death took place, possibly as lirect result of the operation.

I.—A child, aged 4 months, upon whom I operated for t inguinal hernia in the summer of 1905, died a week rom choleraic diarrhoea.

II.—I operated for double inguinal hernia on a child months on October 10th, 1905, and he died suddenly two ater. The immediate cause of death we subsequently to be due to a widely patent foramen ovale.

neither instance was there any trouble with the l, and the only satisfaction these cases afforded me at when at the autopsy I examined the peritoneal e of the inguinal region, there was no depression or ing at the level of the internal abdominal ring, the neal surface here being perfectly flush.

perating upon older children I adopt exactly the method, and with equally satisfactory results.

h the exception of one case, an infant 4 months old, had no relapses. In this case the failure was en- due to me, for I performed the operation very badly, ernia reappearing within a month. However, I ed a second time three months later, and as eighteen s have elapsed since this second operation, and is no sign of a hernia, the cure promises to be nent.

The Adult.

perating for the radical cure of inguinal hernia in ult, I believe the same principles hold good as those already described when operating upon the child or

essential things to bear in mind are to remove the completely as to avoid any semblance of a depres- the level of the internal abdominal ring, and at the ime to do nothing to impair the action of the already nd stretched inguinal sphincter.

I do not propose to discuss the far too numerous methods of operating. The fault I have to find with most of them is that they are too meddlesome and too elaborate, devised with the intention of filling a gap rather than endeavouring to restore lost muscular power.

The primary cause of the hernia is the presence of a patent funicular process; the secondary cause is muscular weakness; and it is surely far better to endeavour to restore the weakened structures to their normal shape and functions rather than, by completely ignoring Nature's plan, to try by some elaborate operation to alter the mechanism of the part.

The operation most usually practised is probably that known by the name of Bassini, and it must be admitted that in competent hands most excellent results have been obtained. At the same time I cannot but believe that the chief reason for this success is that the aponeurosis of the external oblique is slit up and the ligature applied to the neck of the sac at the highest possible level. How far the uniting of the internal oblique and the conjoined tendon to Poupart's ligament really assists matters I do not know, but I doubt very much whether these structures remain permanently in the position in which we stitch them.

Clearness of purpose and simplicity of method should be our aim, and I am glad to see that so great a surgeon as Professor Kocher of Berne has for some time past recommended a most simple procedure. It consists essentially in the complete obliteration of sac, which he invaginates and transposes, the pillars of the external abdominal ring being at the same time brought together by several sutures. There is no sewing of the internal oblique or conjoined tendon to Poupart's ligament; the inguinal sphincter is left intact.

During the last few years I have operated upon a number of young and middle-aged men for inguinal hernia, adopting exactly the same method which I have already described when operating upon infants and young children. The results have been highly satisfactory. Many of the patients are policemen and postmen, whose subsequent history is readily ascertained. I have at present in hospital, under my care for another complaint, a powerfully built man, a village blacksmith, upon whom I operated for inguinal hernia two years ago by the simple method I am now considering, and am glad to say his inguinal region is perfectly sound.

I feel sure that it is along these simple lines that the radical cure of inguinal hernia, at all ages, will in the future be performed, though it will probably be many years before the more elaborate operations will cease to have their advocates.

Large Herniae in Older Persons.

There still remains a class of hernia for which it is difficult to perform an operation which will result in a radical cure, in the sense that no mechanical support or truss will subsequently be required. I refer to a large scrotal hernia in an elderly man, a hernia which is either irreducible, or in which the neck of the sac is so wide as to render the efficient application of a truss impossible.

In such a case the inguinal sphincter has for years been so enormously stretched that it is unreasonable to hope it will ever again resume its normal size. If in these cases recurrence after operation is to be prevented, a truss or mechanical support of some kind must be worn.

Recognizing that patients of the labouring class are apt to discontinue wearing a truss owing to the expense and inconvenience, I have lately adopted a plan with which so far I am well pleased. I made a rubber pad of the size and shape shown in the diagram out of the best Para rubber. The rubber is sold in lamellated blocks, and a piece of the necessary thickness is easily peeled off and cut to shape. The large hole is for the transmission of the cord and its vessels, the smaller holes are to permit the soft tissues to grow into them, and so assist in retaining the pad in position.

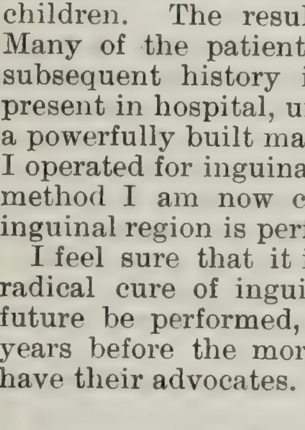


Fig. 2.—To illustrate the rubber pad used in exceptionally large herniae in persons advanced in years.

The operation for the cure of the hernia is conducted in the ordinary manner, and after opening up the inguinal canal by division of the external oblique, the neck of the sac is sewn or ligatured at the highest possible point. The pad is now placed in position. The cord and its vessels are threaded into the large hole by opening the slit extending from the upper part of the hole to the margin of the pad. The edges of the pad are then placed beneath the internal oblique and conjoined tendon on the one side and Poupart's ligament on the other. It only remains to cover the cord and the pad with the cremaster muscle and sew together by overlapping the divided fibres of the external oblique. The pad lies on the transversalis fascia, and is devised to fill a gap and afford additional support at a very weak spot in the abdominal wall. The patient is thus provided with an internal truss, which I hope and believe will afford him a permanent and efficient support, for unless the whole pad is pushed bodily forwards I fail to see how the hernia can again appear. The procedure, however, is still in the experimental stage, for I have adopted it on five occasions only, the first operation being performed on September 5th, 1905.

The patients operated upon were all labouring men, and the herniae of such a size as to render a truss useless; the men were consequently unable to earn a livelihood. In 4 out of the 5 cases the results have so far been highly satisfactory, the men having resumed their former occupations. The rubber pad does not cause any inconvenience, nor should it interfere with the healing of the wound. The last case operated upon was the only one in which there was any bother in this respect. The wound had healed and the stitches had been removed, when on the tenth day some fullness was noticed and a collection of pus had to be let out. A small sinus persisted, and two months later I removed the pad. In this instance a pad of unusual thickness was used, and I now know there was some defect in the preparation of it.

Though, as a general rule, the introduction of foreign bodies into wounds should as far as possible be avoided, still I am satisfied that in the exceptional cases I have mentioned the principles of this providing an "adequate backing" is sound. In such operations as that of Bassini it seems to me the chief value of the deep stitching is that the buried sutures act as scaffolding, around which a firm fibrous mass is formed which serves as an adequate backing, so that after all in inserting a pad of rubber or other material there is really no alteration of principle: it is merely a question of degrees.

In a case of femoral hernia I recently adopted the same plan, but used gauze instead of rubber. After excising the sac I plugged the femoral canal with a piece of gauze which I left there. The case has been too recently operated upon to justify me in drawing any definite conclusion from it. The procedure is, however, extremely simple, and I am satisfied that it is sound in principle, and propose to give it a fair trial. In my next case of inguinal hernia, where the neck of the sac is exceptionally wide, I intend to insert gauze instead of rubber.

CONCLUSION.

I would submit that all the evidence we possess is in favour of the view that the main factor in the causation of oblique inguinal hernia at all periods of life is the presence of a preformed sac, a patent funicular process, and that whether the bowel will or will not enter this funicular process depends primarily upon the size of the opening at the internal abdominal ring, and secondarily upon the strength of the muscles guarding it.

As a general rule the only satisfactory way of treating a hernia is by means of an operation, and, other things being equal, the earlier in life the operation is performed the better.

The essential point in the operation is to so completely obliterate the sac as to render the peritoneal surface at this level free from any dimpling or depression. In order to ensure this the inguinal canal must be opened up and a ligature applied to the sac at the level of the internal abdominal ring. The divided aponeurosis of the external oblique should be subsequently united by overlapping, for the inguinal canal is thus narrowed, lengthened, and its original obliquity restored.

SOME COMPARISON OF PHTHISICAL WI
NON-TUBERCULOUS MALES,

CHIEFLY IN RESPECT OF HEALTHY HEIGHT-WEIGHT RAT
AND OF MOUTH BREATHING.

BY W. C. RIVERS, L.R.C.P.LOND., M.R.C.S.ENG.,
D.P.H.R.C.P.S.I., Lieutenant R.A.M.C. (H.P.).

IN an earlier communication[1] it was noticed that vari
causes of mouth breathing seemed common amongst
sumptives, especially in those few of their number
were physically well built, corroboration[2] on the
point being found and adduced. Further observation
the impression that, although this selective incidence
not as marked as had been thought at first, it yet
good not only as regards mouth breathing but also
antecedent alcoholism. For the heavy, muscular pati
seemed pretty sure to have some considerable n
obstruction—which appeared unusual in view of
fact that mouth breathing is described as lowering
general nutrition—or to have been alcoholic; not i
quently the two conditions coincided. It was tho
possible, then, taking mouth breathing to stand
pulmonary phthisis in much the same relation as a
holism is credited with doing, to collect cases to s
how hardly people who are well-built get consumpt
To these observations, that is, made on about 150 c
of both sexes, and mostly from private sanatoriums, t
was fitted some such hypothesis as this: That defic
physique is an important predisposing cause of pulmo
phthisis, tending on the whole towards an alterna
incidence to some others, chief of which are m
breathing and alcoholism.

To attempt something in the way of verification t
was set on foot this inquiry. At the outset there see
to be two immediate objects, first, to get some knowl
as to the occurrence of mouth breathing amongst the
tuberculous, next in order to calculate what may be c
physique incidence, to have a purely objective class
tion of physical development. The latter requisite
secured in the following way. Any physical measurem
used had, of course, to be free from the possibili
being affected by disease; thus selected, the best se
height, and (as given by the patient) greatest hea
weight. This dependence on lay statements inv
taking only male cases, for women seldom know
weight, of which, too, their clothing forms a very var
proportion. Another reason was that there are avai
more complete anthropometrical data concerning
than concerning women. The ratio between the
measurements just noticed, compared with Rob
standard height-weight ratios,[3] which vary
age and social condition, gave a figure w
had, at all events, some value as a compar
measure of physique. It was for this re
—namely, that any pretence to absolute mensuratio
seen to be out of the question in the case of an inve
tion largely founded on lay statements and on thirty-
old statistics—that less hesitation was felt in ekin
arbitrarily these anthropometrical standards. Ther
a great need for this. For, while a convenient sca
ages was found, there were recorded the measureme
only two social groups—those, namely, of the
classes and of urban artisans. Two intermediate v
were got by the expedient of inserting two arith
means between the figures of corresponding ages.
for each age four standard height-weight ratios were
able, with one or other of which the social condit
each case could be fitted fairly closely.

A fresh series of male phthisical cases was then se
and of each consumptive, as of each case in the
tuberculous "control" series to be mentioned pres
were recorded the following particulars:

1. Age of falling ill (present age in controls).
2. Occupation and social condition.
3. Height.
4. Maximum healthy weight.
5. Presence or absence of conditions causing either ha
or abnormally frequent mouth breathing, or impairment
action of the nasal or naso-pharyngeal mucous membra
inspired air.
6. A "mother-father-brother-sister" history of puln
phthisis.

It was of course impossible, in the absence of cont observation, to form an opinion as to antecedent olism. In some adolescent advanced cases, (3) had corrected by means of anthropometrical data, so as e a value contemporary with (4). From these two ulars were calculated each case's height-weight ratio, was then compared with the standard (taken as) and expressed in decimals. The figures were found y from 0.78 to 1.4. As regards (6), absolute depend- was placed in the phthisical series on the patient's ry, cases professing ignorance being put in the same ry with those who could positively exclude a sical taint. But the first sort were kept out of the l. These normal cases, collected *pari passu* with the sical, were made to conform to them in the following ulars:

Sex. Both sets of cases were males.

Age. Among the consumptives the average age (con- ntly found by the use of the mode) was rather above the oint of the group, 21 years to 29 years; in the controls, rs to 26 years, rather below the mid-point, a small enough nce.

Occupation and social condition. Twenty of the 373 ical cases came from private sanatoriums, the remainder institutions mentioned below. The great majority of rmal series was taken (through the kindness of Mr. J. F.) from the extraction, anaesthetic, and stopping rooms Royal Dental Hospital. These people were well suited purpose; they lay under no charge of abnormality, the ution of dental caries being so universal, and had the ary high percentage of urban indoor workers, giving moreover, a good choice of ages. In both series, then, all the cases came from those social classes that avail elves of medical charity. To be more exact, the pro- n of those following an outdoor calling was in each set cent. to 15 per cent. of the whole number; a still smaller ntage of each were rural dwellers. Rather less than one- came in each instance from physically-selected classes seamen, soldiers, police constables). The two series therefore, fairly comparable in most respects.

results of such a comparison had to do, of course, the interrelations of physique, mouth breathing, amily history, and may be arranged under four ngs.

he Nature, Causes, and Occurrence of Mouth Breathing.

rder to get as reliable a comparison as possible, the 00 cases of each series are not included here.

TABLE I.—*Percentage of Mouth Breathers.*

Mouth-breathing Cases.	Percentages.	
	Phthisical—273 Cases.	Control—204 Cases.
ably chiefly due to septal devia- ns, dislocations, spurs, etc.	34.7	20.5
onsequence of past or present noid vegetations: and of the pro- ion of the upper teeth	11.7	5.8
s in which abnormal conditions of nasal and naso-pharyngeal mucous nbrane were prominent ... ... all of these were mouth breathers.)	5.1	2 cases
re the onset of nasal obstruction definitely dated from trauma ...	2.9	2.4
n other causes:		
An underhung condition ...	2 cases	—
Polypus	1 case	1 case
Habit and uncertain	3 cases	1 case
Totals	56.7	30.8

hat habitual or abnormally frequent mouth breathing d to be nearly twice as common in consumptives as lthy people, though due proportionally to the same . In this connexion there is a very simple fallacy mentioned. In phthisical subjects, of course, oea often leads to panting; this is easily excluded. est of sufficiently large nasal passages is given[4] as ty to sleep at night with the mouth closed." A y of inability was often obtained, as also other cant admissions. Some reliance must be placed on tements when estimating nasal obstruction, for it is nown that considerable anatomical irregularity may t with free air passage; while on a single examina- he patient may be found suffering from some quite rary obstruction. Such are a history of difficulty in nasal respiration on fairly moderate exercise, or of predilection of obstruction for one nostril to the comparative exclusion of the other during an attack of coryza, as also, of course, of inability to breathe through the nose at night or when lying down. Under the headings 1 to 5 are given the causes which seemed to preponderate; often enough they were combined. Some uncertainty existed as to the relative importance and exact relationship of the two conditions given under 2. The history of the following cases may have a bearing on this point:

C. (Victoria Park Hospital), 26 years, fitter, said he had had adenoids removed four years before falling ill with phthisis, with resulting great benefit to nasal respiration. When seen the nasal passages were clear, but the projecting upper teeth kept the lips constantly apart.

W. (National Sanatorium, Bournemouth), 22 years, carpenter, gave an exactly similar history (except for stating that the operation took place in childhood), and was a parallel case.

Two somewhat similar cases were treated by the writer. In one of them a single incisor projected and separated the lips. Dental treatment was secured; it consisted in replacing this back tooth by an artificial one in line with its fellows. To each case were given a cap with elastic chin-band and an old-fashioned respirator, blocked up with sealing wax, to be worn over the mouth, for use at first occasionally during the day (in "rest hours") and finally all night as well. Nasal respiration was a good deal improved.

The traumatic cases mostly dated their injury from early life, and, as might have been expected, a deviated septum was common amongst them. The following case may be worth quoting:

S. (Victoria Park Hospital), private West Yorkshire Regiment, subsequently transferred to R.A.M.C., had dysentery and malaria, and went through two campaigns, but left the service healthy. Not long afterwards he met with an injury to his nose, and nasal respiration became impeded. He developed phthisis later.

Certainly this man took up the trade of a painter after leaving the army, but it is remarkable that neither campaign broke down his health, seeing that these events are generally followed by much invaliding for tubercle. A somewhat parallel case is the following:

E. (National Sanatorium, Bournemouth), 31, formerly an employé in a meat market, where he worked in the open air, noticed obstruction of the left nostril come on suddenly very soon after contracting the habit of taking snuff. This persisted up to present date, although he had left off the habit. A year after the nasal obstruction was noticed, he fell ill with phthisis. During this time he changed his occupation to an indoor one. Rhinoscopic examination showed a deviated septum, the nasal mucous membrane over the protuberance being inflamed.

Here again the change of occupation somewhat invalidates the significance of the case. The instances in which an underhung condition was found are interesting because they contrast with the maxillary protrusion common with adenoids. Taken by themselves, this latter group might favour the suggestion that a tendency to adenoid vegetations is simply a concomitant of a tuberculous diathesis. One of the cases with mandibular protrusion is noticed below in the analysis of family history.

It was observed that, on the whole, the most marked cases of mouth breathing were in the phthisical patients, among the robustly built. This did not seem to be the case in the control series. Finally, as some of these mouth-breathing phthisical cases were secondary to other tuberculous lesions, the question arises as to how often the condition precedes surgical tuberculosis.

B.—*The Physique-incidence of Mouth Breathing.*

The first 100 cases of each set are again excluded.

TABLE II.—*Percentages of Mouth Breathers in Three Groups, Arranged According to Relation to Height-Weight Ratio Standard (1.00).*

Series.	Groups.		
	1.1 and over. "Robust."	0.95 to 1.09. "Indifferent."	Below 0.95. "Weedy."
Phthisical ...	57.7	59.6	50.0
Control ...	29.2	32.0	31.8

Thus among consumptives there were more mouth breathers among the best-built men than among the worst: the reverse being the case in the non-tuberculous.

The tendency of a mouth-breathing condition to be oppositely distributed in the two series is also shown by the finding that the general average of physique (ascertained by taking the mode in relations to height-weight ratio standard) was lowered in the phthisical set of cases after subtraction of the mouth breathers, and conversely raised by the same means in the non-tuberculous group. It may also be significant that among the consumptives the physically-selected classes showed a higher percentage of mouth breathers than did the remainder; this was not the case in the control. Obviously, however, this is a point the settling of which requires anthropometrical examination of a great number of cases.

C.—*The Occurrence of a Defective Height-Weight Ratio.*

The wholes of both series are available here.

Table III.—*A Comparison of the Physique of Phthisical and of Non-Tuberculous Males.*

Series.	Mode in Height-Weight Ratio Standard Relations.
Phthisical...	0.97 — 1.05.
Control ...	1.06 — 1.14.

Table IIIa.—*Percentage Distribution of Phthisical and of Non-Tuberculous Males in Three Groups, arranged according to Relation to Height-Weight Ratio Standard (1.00).*

Series.	Group.		
	1.1 and over. "Robust."	0.95 — 1.09. "Indifferent."	Below 0 95. "Weedy."
Phthisical ...	24.1	57.2	18.6
Control ...	46.9	42.4	10.6

The control series thus show a marked superiority in physique. That the larger proportion of mouth breathers in the phthisical set can account for this is negatived by the observation just mentioned, namely, that the general average of physique among the consumptives was higher in the mouth breathers than in the remainder. There seems a tendency, too, for consumptives of a naturally robust build to fall ill at a later age than others. Thus the mode in ages of those having a relation to height-weight ratio standard (1.00) of 1.1 and over, was four years in excess of that of the remainder. To speak subjectively, there is no doubt whatever that pulmonary phthisis is essentially a physically selective disease.

D.—*An Analysis of Family History.*

As already stated, this is confined to four relatives, parents, brother and sister; and to one clinical kind of tubercle, pulmonary. In the phthisical series only, no exclusion was made of cases unable to give information on this subject, a factor which is a little neutralized by the likelihood of a man who has become consumptive making inquiries on this point at the time of falling ill. In both series the proportion is probably rather under the truth owing to lay reluctance to own to a phthisical family history; this is perhaps more operative in the case of a consumptive. The physically selected classes are excluded in reckoning family history, as it was found that, probably owing to service abroad, they lost touch with their relatives to such an extent as to make their evidence worthless.

In the control (on 200 odd cases) the percentage of those giving a phthisical family history came out at 19.1. Against this cannot be put the gross total for the consumptive cases, as, of course, in any comparison account must be taken of the possibility of infection. In 175 cases something was done to exclude this by making inquiry as to the circumstances of the death of each relative, and in cases where there had been contact, not reckoning a family history in which less than four years elapsed between the death of a relative and the patient himself falling ill. Conversely, in advanced cases care was taken not to include any phthisi relative who might easily have become infected by t patient. Thus, in these 175 cases a family history w given in 49 instances (28 per cent.). Eight cases were e cluded for reasons just mentioned, the percentage the upon dropping to 23.4. The correlation of family hist with mouth breathing (traumatic cases being left out consideration) was then sought for in both series (in t controls the first hundred cases were excluded as befor with the following result:

Table IV.—*Correlation of Mouth Breathing with a Fam History of Pulmonary Phthisis.*

Series.	Percentage Giving Family History.		
	All Cases.	Mouth Breathers.	Remainder
Phthisical ...	22.9	25.7	19.1
Control ...	20.0	27.5	16.4

There are to be noticed, of course, the preponderance the side of the mouth breathers, and particularly the lar number of non-tuberculous mouth breathers giving family history of phthisis. It is suggested that this significant in view of the fact that many causes of mou breathing are described as being hereditary. The followi cases may be quoted:

S. (Northwood Sanatorium), 19, cobbler, had a deviat septum, with some occlusion of the right nostril, and v markedly underhung. He stated that his mother and two her brothers were similarly underhung, and that both these maternal uncles * died of phthisis.

C. (Victoria Park Hospital), 26, fitter (noticed above), stat he had lost a brother from phthisis, who was overhung anc constant mouth breather like himself.

C. (Mount Vernon Hospital), 24, brewery labourer, hac deviated nasal septum, with noticeable external irregular of the nose. He stated that his mother had the sa peculiarity.

D. (Dental Hospital, control case), 23, railway booki clerk, had considerable nasal obstruction from deviat septum, and habitually breathed through the mouth. stated that his father, who died of phthisis, did this too. brother and a sister had also died of phthisis.

R. (control case), 26, brickfield labourer, a mouth breath from the same cause, gave a similar history of a brother.

Generally it was noticed of the mouth breathers tha family history of phthisis was most frequent in those whom the condition was most marked. Further resu were that those cases due to a deviated septum gave family history nearly twice as often as did those probab due to adenoids; that the phthisical cases and the contr hardly differed at all in the proportion of consumpt parents, the excess in family history of the former bei due to a more frequent history of phthisical brethren; al that both series agreed in showing more phthisical fath than mothers. These two last results are, of cour respectively in accord with and in disagreement w some previous ones.

The influence of physique was next taken into accour

Table V.—*The Interrelations of Physique, Mouth Breathing, and Phthisical Family History.*

Relations to Height-Weight Ratio Standard (1.00).		Percentage of Cases giv Family History.	
Group.		Series.	
		Phthisical.	Control
1.1 and over, "robust"	mouth breathers	33.3	30.4
	remainder	10.5	10.4
0.95–1.09, "indifferent"	mouth breathers	25.0	36.3
	remainder	18.4	13.8
Below 0.95, "weedy"	mouth breathers	20.	7.6
	remainder	31.2	33.3

There are, of course, many possible inferences fr these totals: To begin with, a notable consilience two series is seen as regards the association of hisical family history with mouth breathing on one hand, and with deficiency of physique on other. For the latter, some actuarial results[5] y be compared; of two classes of American lives, one included persons of ordinary weight who had at least one parent dying under the age of 70 of disease distinctly stated as consumption, phthisis, or erculosis. This class showed excellent results both ore and after five years from the date of insurance. other consisted only of those of positive light weight ose height-weight ratio was below the lower of two ndard height-weight ratios mentioned in a "Table of ights") who had had at least one parent dying under years of any kind of disease of the lungs. The young rants of this class are described as having been de- edly bad risks. The exact cause of death is not ted, but in view of their age, tuberculosis seems very bable. In accordance with Table V, further, are the ore-mentioned observations that the most marked es of mouth breathing gave a phthisical family history nest, and were found more generally among the robust the case of consumptives, but elsewhere in the -tuberculous. Thus, in the phthisical series, the bust" mouth breathers show a family history rate 3.3 per cent., and the "indifferent" mouth breathers er cent., a proportion which is reversed in the control of cases. Tables II, III, and V may also help to lain, if proleptically, the finding in Table IV that the erence between the number of cases giving a family ory in mouth breathers and in non-mouth breathers ectively is greater in the non-tuberculous series than he phthisical. As has been seen, the controls were h the superior in physique, so that there were a far er number of non-mouth breathers among them to give a hisical family history originating in poverty of physique. mouth breathers, again, were not physically the pick heir number as was to some extent the case with the isical mouth breathers, so that in the control, more n than in the phthisical set, perhaps, the mouth thers could give a phthisical family history which was ciated with bad physique.

---

* This case is, of course, not included statistically as showing family history.

statement has been seen to the effect that tuber- us subjects showing a low opsonic index give a family ory of tubercle disproportionately often. As has just stated, phthisical family history seems to be com- est in cases showing mouth breathing or deficient sique. Recent work[6] shows that the opsonic index of umptives varies so much with the activity and with stage of their disease that in comparatively few cases a figure be fixed upon as characteristic; and no con- ion drawn as to what it was in health. Yet much ht be learnt from the relations in non-tuberculous ects of a family history of phthisis with mouth- thing, deficient physique and an abnormal opsonic x, since all three seem possible as factors by means of h the aggregate of consumptives may be split up into ps etiologically disparate enough for useful com- son.

SUMMARY.

e following reasons are advanced in favour of the that an hereditary causal relation to pulmonary isis may be predicated of mouth breathing and of ient physique:

That both conditions prevailed to a much greater extent g consumptive males, quite independently of their se, than among a comparable series of non-tuberculous

That whereas some causes of mouth breathing, as also ical build, are known to be hereditary, a family history thisis is much more often given by those who are mouth hers or of deficient physique—whether they be healthy thisical—than by others.

That the physique-incidence of mouth breathing in isical subjects probably differs from that in the non- culous.

4 That consumptives of a naturally good height-weight fall ill, on an average, at a later age than do others.

CONCLUSIONS.

me apology is required before setting these down for the admission of deficient physique to the ion of an hereditary predisposing cause of so common ease as pulmonary phthisis involves, of course, a ideration of the scope of the latter as a racial physically-selective agent. Of particular interest is the question whether such selective action has been increased or impaired by the continuous fall in the tuberculous mortality-rate brought about in the last forty years by sanitary reform; and, if the latter, as to the extent to which improved individual culture—particularly puericulture—has counteracted racial physical deterioration. If one turns to the near future, with its probable gift of widely-effective therapy in the shape of a combination of bacteriological with sanatorium treatment—very likely, too, of bacteriologically-produced immunity—there presents itself the problem of possible national physical degeneration resulting from reproduction by recovered consumptives or immunized weaklings. The question, in short, is as to whether on these grounds alone some physical selection for parenthood is or is not required as a complement to that individual hygienic culture which present-day sanitarianism apparently deems a panacea.

As regards mouth breathing and its causes, there would seem to be in their operative rectification an opportunity for widespread prophylaxis and treatment. It is suggested[7] that in the first respect the experience of the physically-selected classes might be useful. A candidate for admission to these can be made to undergo the appropriate measures, and, moreover, could be rejected if they were not successful. Any resultant effect on the rate of invaliding for tuberculosis could be exactly measured. As for treatment, the cardinal principle of removal of the cause dictates that a thorough search should be made for defects of the upper respiratory tract in consumptives, and, what is more important, that all such defects should be energetically treated. It would seem reasonable to suppose that lack of this may often be a contributory cause of patients failing to maintain arrest after leaving open-air sanatoriums. The support that mouth breathing as a predisposing cause of pulmonary phthisis gives to the inhalation theory of infection is, of course, very great.

Cordial thanks are tendered to gentlemen connected with, among others, the following institutions: Royal Victoria Hospital, Netley; Royal Herbert Hospital, Woolwich; Crossley Sanatorium; Liverpool Sanatorium; National Sanatorium, Bournemouth; Northwood Sanatorium; Mount Vernon Hospital; Victoria Park Hospital; City Road Hospital; Dreadnought Hospital; Convalescent Home, Walton; Royal Dental Hospital; Charing Cross Hospital; Miller Hospital.

REFERENCES.

[1] BRITISH MEDICAL JOURNAL, April 29th, 1905. [2] Moeller and Rappoport, *Zeits. f. Tuberk. u. Heilk.*, July, 1903. [3] *Anthropometry*, C. Roberts, 1878. [4] *Diseases of the Nose and Throat*, De Havilland Hall and Tilley, 1901. [5] Report of a Specialized Mortality Investigation Committee, *Transactions of Actuarial Society of America*, 1903. [6] Meakin and Wheeler, BRITISH MEDICAL JOURNAL, November 25th, 1905. [7] Suggestion for Probable Reduction among Physically Selected Classes of Rate of Invaliding for Tuberculosis, *R.A.M.C. Journal*.

TWO CASES OF AMOEBIC ABSCESS OF LIVER

CURED BY ASPIRATION AND INJECTION OF QUININE INTO THE CAVITY WITHOUT DRAINAGE.

BY

LEONARD ROGERS, M.D., F.R.C.P., B.S., F.R.C.S., I.M.S.,
AND
CAPT. ROGER P. WILSON, M.R.C.S., L.R.C.P., I.M.S.

INTRODUCTION BY DR. LEONARD ROGERS.

NEARLY four years ago, in a paper read before the British Medical Association,[1] I showed that living amoebae can be found in the walls of every case of tropical abscess of the liver examined at the time of or shortly after operation, as well as *post mortem*, if they have not been previously drained for some days, and at the meeting of the Association last year[2] I confirmed that statement after much further experience, and also illustrated the great value of the presence of leucocytosis in assisting the early diagnosis of the disease. Moreover, in the first paper I showed that two-thirds of tropical abscesses of the liver seen in Calcutta are free from staphylococci and bacteria when first opened, even in the late stage of the disease so commonly met with in native patients, while as a matter of fact in nearly half of the remaining cases but one or two colonies of cocci were obtained on culture, which were probably accidental contaminations or at least played no part in the causation of the disease, an opinion which is borne out by the fact that in Case I, recorded below, the liver abscess was cured by aspiration and quinine injection in spite of a very small number of colonies of *Staphylococcus albus* being cultivated from the aspirated pus. Moreover, I then also recorded the fact that I had found the active amoebae in the wall of a liver abscess could be killed with great rapidity and certainty by weak solutions of quinine, and that when such solutions are used for washing out liver abscess cavities, which are discharging thick pus swarming with amoebae, these parasites very rapidly disappear, and the discharge becomes much less copious and almost serous in character, as long as it remains free from septic cocci.

Having thus found that amoebic abscess of the liver is in the great majority of the cases free from organisms of a bacterial nature, while the constantly present amoeba is readily killed by weak solutions of quinine, while it is well known that this class of abscess does sometimes encyst and dry up of itself, I suggested in July, 1906, that it would be rational procedure, in cases diagnosed early at any rate, to draw off as much pus as possible by aspiration. and to inject quinine solution into the cavity, and then to withdraw the needle and watch the result. the pus being examined bacteriologically to ascertain if it is free from staphylococci or other bacteria, and I concluded the paper with the remark that "this method is about to be tried in Calcutta, and I hope before long to be able to report on it." As far as I am aware, no cases in which this method has been given a trial have yet been published, possibly owing to my not having hitherto been able to fulfil my promise to record the results of the use of the method, on account of having had no cases under my own treatment, while I have met with unexpected difficulties in persuading surgeons to give this treatment a trial. The usual objection raised is that my method is a violation of the principle that an abscess in any position and of any kind must be opened and drained. The fact that at least two-thirds of amoebic abscesses of the liver are quite free from ordinary pus-forming bacteria, and that even in the case of tuberculous abscesses withdrawing the pus and injecting iodoform is sometimes successful, while the amoeba of liver abscess is much more rapidly killed by quinine than the tubercle bacillus by iodoform, are arguments which usually fail to modify the force of this surgical canon.

Recently, however, an opportunity of trying the method arose, and the result so far exceeded the most sanguine expectations that after a few months a second case was treated in a similar manner by the same surgeon with equally happy effects, so they appear to be worthy of record in the hope that they will lead to a further trial of what may now be considered as at least a promising advance in the treatment of one of the greatest scourges of Europeans resident in many tropical countries. Both these cases were operated on by my friend Captain R. P. Wilson, I.M.S., Resident Surgeon, Presidency General Hospital, Calcutta, whose notes are recorded below, and who has also had a considerable amount of success with the ordinary surgical treatment of the disease. I should also mention that Major F. P. Maynard, I.M.S., tried the method about three years ago in a very large abscess in a native, but on that occasion the pus was found to contain staphylococci, and the abscess had to be opened two days latter and rapidly proved fatal. In another case of a large abscess in a European patient, who was considered to be too ill to stand the shock of having the abscess opened, 20 oz. of pus was aspirated and the quinine solution injected by Captain J. G. P. Murray, I.M.S., but I cultivated both *Staphylococcus aureus* and *B. pyocaneus* from the pus, so the abscess was opened two days later, but death took place the same day, cases of mixed infection being extremely fatal in my experience. These cases illustrate the importance of examining the pus bacteriologically, as such complicated cases must be opened. Where feasible, the best plan will be to stain and examine microscopically a drop of the pus at the time of the operation — which would not take more than five minutes—and if cocci or bacteria are found, to open the abscess at once; but if the result is negative, as will usually be the case, to inject the quinine solution and withdraw the needle without opening and draining it, and in cases diagnosed early, I believe success may be expected to result in the great majority of the cases. In native patients, who usually come to hospital in a late stage of the disease, often with large abscesses bulging superficially, it would appear at first sight that they must be opened and drained, but the results of suc surgical treatment are not at all satisfactory, as Captai Megaw, I.M.S.,[3] recently showed that the mortality at th Medical College Hospital, Calcutta, is at least 60 per cen As a matter of fact, I have repeatedly found that the pu of such cases was sterile when the abscess was firs opened, yet, in cases dying from the exhausting discharg after they had been opened, very numerous staphylococ were found in the pus *post mortem*. owing to the extrem difficulty in keeping the copious discharge sterile in a h damp climate in native patients. Even in large abscess in natives, therefore, the new method appears to be worth of trial in view of the results recorded below, even if th aspiration and injection have to be repeated.

STRENGTH OF THE QUININE SOLUTIONS.

In my former paper I mentioned that I had found bot the neutral bisulphate of quinine and also the ordina sulphate (1 gr. dissolved in 1 minim of dilute miner acid) efficient in killing the amoeba, and I suggested th use of the latter for injection into liver abscesses with th idea that it would be less readily absorbed than th soluble salt, and this form was used in Major Maynard case. On further consideration I have come to the co clusion that the ordinary sulphate of quinine would liable to be precipitated and rendered inert in the alkali serous fluid in the abscess cavity, and in the two case recorded below the soluble bi-hydrochlorate of quini was injected with such perfect success that I now reco mend its exclusive use for this purpose. With regard the strength and quantity to be injected, I usually hav two solutions made up and sterilized before the operatio each containing 30 gr. of the bi-hydrochlorate of quinin but in one this amount is dissolved in 2 oz. of water an in the other in 4 oz., the former being used if the absce contains less than 10 oz. of pus, and the latter if it larger. In this way the dose of quinine is limited 30 gr., but in the case of larger abscesses it is dissolv in more water, so as to bring the drug into contact wi all parts of the cavity. In Case II Captain Wilson i jected 50 gr. of quinine, but the patient suffered fro severe dizziness on coming round from the chlorofor so it appears advisable at present not to use more th 30 gr., which appears to be sufficient in practice.

An objection which might be raised to considering th quinine injection as the cause of the rapid cure of the two cases of liver abscess is the possibility that aspirati alone would have been equally successful, as is ve occasionally the case in tropical abscess of the liv Apart from the extreme unlikelihood of two successive cas being so rapidly cured by aspiration alone, I would poi out that the first case was a very acute one with remitte fever, which it is very difficult to conceive of as likely be immediately cured by a single aspiration. Neverth less, further cases will be necessary to establish th method of treatment and to work out its exact indicatio but as Captain Wilson is going on long leave and so w not be able to treat further cases for some time, it seen to me to be advisable to place these two cases on reco to give him due credit for first successfully trying such novel proceeding as the method I suggested.

CASES BY CAPTAIN R. P. WILSON, I.M.S.

CASE I. *Very Acute Liver Abscess diagnosed early Leucocytosis and X Rays, and treated by Aspiration a Injection of Quinine into the Cavity: Rapid Recovery.* F. E., European, aged 19, admitted to the General Hospit August 12th, 1905, for fever of five days' duration. His p vious health had been good and his habits temperate. H illness began with a rigor lasting an hour and a half, a followed by headache and fever, the latter having continu up to the time of his admission. On August 11th he h pain in the abdomen and in the right side which prevent his sleeping at night. There had been no sickness, while has never had dysentery or diarrhoea and he does not dri alcohol. He had taken quinine before admission, and n has severe pain in the right hypochondrium. No abnorm physical signs in any of the organs on admission; bow irregular.

A blood slide made on admission was examined by I Rogers, who reported the presence of leucocytosis witho any marked increase in the proportion of the polynucle (69.6 per cent.), and suggested liver abscess as the m likely cause of the fever. The pain in the right hypochondri continued.

On August 17th the liver dullness was found to extend fr the sixth rib to 2 in. below the costal margin in the nip

, a marked increase since his admission, while the con-
ctiva now showed slight jaundice.

n August 18th five loose stools containing a little mucus
e passed, and he was unable to lie on his left side, while
epigastrium was tender.

ugust 19th. A blood count by Dr. Rogers now gave the
wing result: Red corpuscles, 4,520,000; white, 18,750;
o of white to red, 1 to 144. Diminished resonance and
w fine crepitations were detected at the base of the right
on this day.

ugust 20th. The liver dullness extends up to the level of the
rib. and there is tenderness of the right side of the
omen. Examination with x rays showed the vault of the
hragm on the right side on a level with the fourth rib, while
id not move at all with respiration. Liver abscess in the
er part of the right lobe was therefore diagnosed.

eration.—On August 21st the liver was aspirated between
eighth and ninth ribs a little externally to the right nipple
, and 10 oz. of thick
olate-coloured pus
drawn off, and 3 oz.
sterile bi-hydro-
rate of quinine of
rength of 30 gr. in
z. was injected
ugh the cannula
means of a glass
ige with a short
e of indiarubber
ng attached to
and the cannula
then withdrawn.
se of 30 gr. of cal-
chloride was given
before and after
operation to check
tendency to oozing
the punctures.

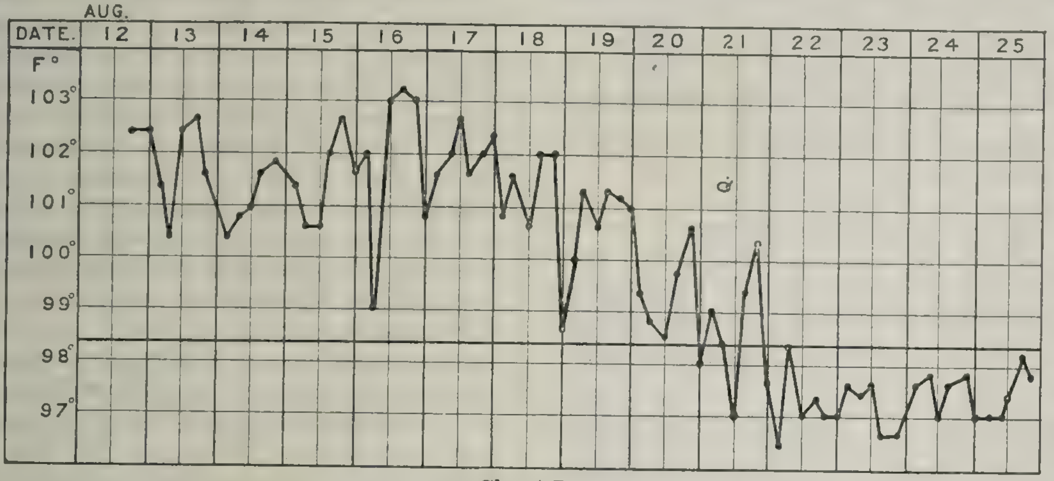


Chart I.

cteriological Examination of the Pus. — Dr. Rogers
ined some of the pus taken in a sterile test tube and
rted that no living amoebae were found microscopically
s very commonly the case in the thick pus of amoebic
ess, although this parasite is swarming in the wall of the
ess) and only two colonies of *Staphylococcus albus* were
n on culture, which were possibly contaminations. No
i could be found by microscopical examination of the pus.

ogress of the Case.—On the evening of the operation the
was much diminished, and he could turn over on to his
ide without trouble.

gust 22nd. The temperature was normal all day for the
time. (See Chart I.) Slept well last night, although he
some pain on the right side at 11 p.m. He has a dull pain
morning, but no acute pain, and he feels much better.

om this time the further progress was uneventful, the
erature never again rising above normal. On the third
fter the operation he was able to sit up in bed, and was
g hungry. On August 27th the liver dullness extended
the sixth rib to
below the costal
in, and Dr. Rogers
ted that the leu-
osis had disap-
d (8,500). On the
one week after
operation, he was
ed to sit up on a
, and on Septem-
9th he was dis-
ged from the
tal completely re-
ed. He has been
recently, just
and a half months
the operation,
is in most robust
h; he cycles re-
ly, and he has had
ouble since he left hospital beyond an occasional slight
ing pain in the hepatic region.

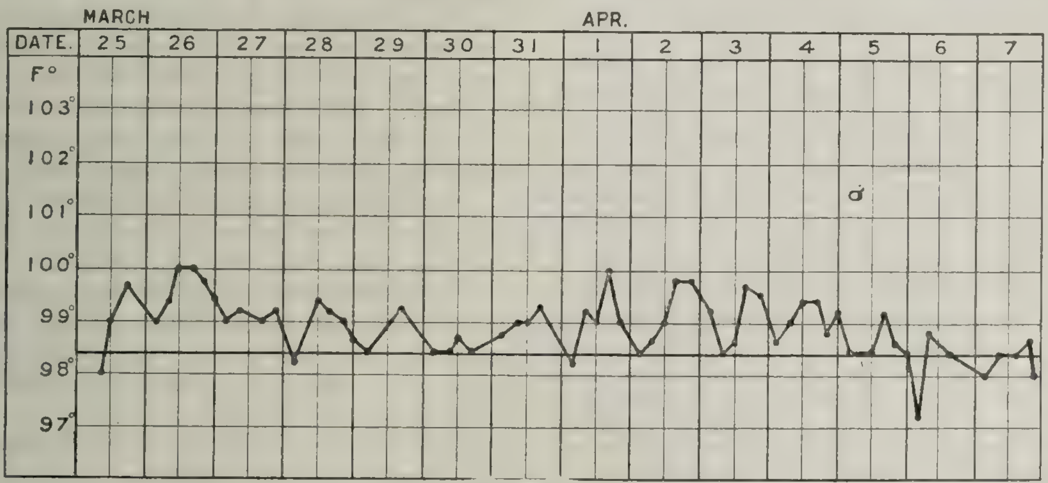


Chart II.

is case was one of exceptional acuteness, only fifteen
having elapsed between the first onset of fever and
peration, at which half a pint of pus was withdrawn
his liver, while his temperature curve on admission
f the remittent type, and there was seen evidence of
nflammatory process spreading towards the base of
ight lung. The presence of an abscess was inferred
the leucocytosis with a comparatively low proportion
lynuclears (which Dr. Rogers has recently pointed
is the type commonly met with in uncomplicated
bic abscess of the liver), and from the loss of move-
of the right arch of the diaphragm as seen with the
s. As at this early stage pleural adhesions would
st certainly be absent, the abscess could not have
incised and drained without opening the pleural

cavity, with consequent collapse of the lung, so I decided to aspirate, and, at Dr. Rogers's suggestion, to try his method of injecting a sterile solution of quinine into the cavity. The result was most striking in the rapidity with which the fever and pain subsided and convalescence progressed, while the patient remains in exceptionally good health seven and a half months after the operation, so there can be no doubt that the cure is a permanent one as far as the abscess operated on is concerned. The simplicity and rapidity of the operation, and the almost entire absence of shock after it, are also important points in favour of the method, while it would be much easier to repeat the aspiration and injection of quinine should signs of the formation of a second abscess appear in any given case than to do a second cutting operation.

CASE II. *Repeated Attacks of Hepatitis culminating in Liver Abscess: Aspiration and Injection of Quinine into the Cavity: Rapid Cure.*—M. D., aged 40, railway *employé*, European, was admitted into the General Hospital, Calcutta, in July, 1905, for an attack of hepatitis with low fever which subsided in a week, and he was discharged recovered after twenty days in hospital. On November 1st he was readmitted for the same complaint, but of a more acute character. There was no history of dysentery, but he had suffered from irregular attacks of watery diarrhoea (which is not an uncommon symptom of amoebic dysentery in our experience). The liver dullness extended from the fourth space to 1½ in. below the costal margin. His blood was examined by Dr. Rogers, with the following result: Red corpuscles, 4,820,000; white, 21,000; with 78 per cent. of polynuclears, a marked leucocytosis being present. At his suggestion large doses of ipecacuanha (15 gr. twice a day) were given on November 7th and 8th, and on the 9th the temperature fell to normal and did not rise again, and on the same day the leucocytes had fallen to 17,500; the patient steadily recovered and left hospital on December 2nd to return to work. He was seen two months later by Dr. Rogers, but complained that he did not feel perfectly well, and on March 25th, 1906, he was readmitted to hospital suffering from a third attack of hepatitis. He now had dull pain in the right shoulder, dullness, and loss of breath sounds at the base of the right lung, while the liver dullness extended from the level of the fourth rib to the costal margin. He had low fever, rising to about 100° F., in the afternoon. On the 28th Dr. Rogers found 18,500 leucocytes, with only 65 per cent. of polynuclears. On April 4th an examination with x rays showed that the diaphragm on the right side reached up to the level of the fourth rib and did not move with respiration, while there was a darker area in the right portion of the liver shadow. Liver abscess in the right lobe was therefore diagnosed.

Operation.—On the morning of April 5th exploratory puncture of the liver was performed under chloroform, and at the fourth trial from 10 to 12 oz. of thick reddish pus was evacuated through the ninth space in the post-axillary line; 50 gr. of the bi-hydrochlorate of quinine, dissolved in 5 oz. of sterile water, was injected into the abscess cavity and the cannula withdrawn. A 30 gr. dose of calcium chloride was given both before and after the operation. The pus was found by Dr. Rogers to contain very numerous inactive amoebae, while cultures on agar proved sterile.

Progress of the Case.—On the afternoon of the injection he could turn over in bed with much less pain than before. On the following day the temperature was normal, and remained so subsequently (see Chart II). On the third day he could sit up in bed and without pain, and was placed on chicken diet, and after a week he was allowed to sit up on a couch. The leucocyte count was carefully watched, and four days after the operation the number had fallen to 9,500; but on April 24th they numbered 11,250, and on May 3rd reached 15,750, although the patient appeared to be perfectly well, and had been placed on large doses of ipecacuanha from April 26th to 30th on the supposition that there might be some latent amoebic dysentery in the upper part of the large bowel. On examining him again with the x rays, the right arch of the diaphragm was rather high, and moving less freely than the right, so on May 7th exploratory puncture was again performed but no pus was found. Except for occasional slight dragging pain on deep respiration, he remains quite well five weeks after the operation and is about to return to his work. The high leucocyte counts during convalescence were probably caused by absorption of the remaining pus in the abscess.

The main point of interest about this case is that it is such a very different type from the first one, being as chronic an abscess as the former was acute, yet the effect of the treatment was equally prompt and satisfactory.

REFERENCES.

[1] BRITISH MEDICAL JOURNAL, September 20th, 1902. [2] BRITISH MEDICAL JOURNAL, November 11th, 1905. [3] *Indian Medical Gazette*, March, 1905.

A CASE OF PNEUMOCOCCIC ARTHRITIS.

By STANLEY RAW, M.D., B.S.DUNELM., F.R.C.S.EDIN.,
SUNDERLAND.

THE following case, which recently occurred in my practice, makes an addition to the interesting series of cases of pneumococcic arthritis compiled by Messrs. Wrangham and Secretan, and published in the BRITISH MEDICAL JOURNAL of April 21st, though unfortunately it was not attended by so happy a result:

A male, aged 40, first came under my notice during the last few days of August, 1905, when I was asked to see him, as he had for some time been complaining of perineal irritation, whilst for a longer period he had suffered from morning retching and vomiting. He was a well-made man, of no occupation, and had been accustomed to free drinking, his average consumption of liquor for at least a dozen years having exceeded four bottles of whisky a week, in addition to which he took beer to his dinner and supper. Up to this date he had been in good health, but on examination I found evidences of commencing peripheral neuritis, and the morning gastric disturbance was of an undoubtedly alcoholic character. With the exception of a small internal pile, and the marks of scratching to relieve pruritus, there was nothing of importance in the perineum, but on examining him again after an interval of three days I found that an acute abscess had developed in the right ischio-rectal fossa. This was opened on September 2nd, and the pus was characteristic of *Bacillus coli communis* infection. He made an excellent recovery, with the addition that, owing to his enforced incapacity and abstinence, he was in much better health at the end of his illness than he had been for years, and he had gained over a stone in weight.

I was again called to see him in March this year, when his landlady informed me that, after his previous illness, he soon lapsed into his former habits, but he had remained well until two days before I was sent for, when he had a shivering. Since that time he had felt generally unwell, and he had that morning complained of an acute pain in his chest. On first sight he was evidently very ill, and I found that his temperature was 104.2° F., pulse-rate 134, and respiratory rate 27. On the next day, April 1st, there were well-marked signs of double basal lobar pneumonia, with an increased pulse rate and respiratory rate, and a temperature ranging between 103° and 104° F. So events progressed until the evening of April 4th, when he was violently delirious, with a small, thready, radial pulse. I was convinced that the delirium was in great part due to his previous alcohol, and, acting on this opinion, I gave him 40 minims of tr. digitalis in a little whisky, and with most beneficial result. Thirty minutes after taking it he was quite calm, and he then slept for six hours, when he was given some nourishment. He again dozed until morning, when he was quite rational, and from that time to the end he was not again delirious.

On April 7th he had a definite crisis. He was extremely weak, but, contrary to my expectation, he had now every appearance of doing well, and he did so until the evening of the 8th, when he complained of acute pain in the right knee, which had commenced that afternoon. The knee was slightly swollen and tender, and, though I suspected a commencing pneumococcic arthritis, there was at that time no occasion for surgical interference, and the joint was fomented and immobilized with great relief to the patient. The condition, however, continued to progress, and on the morning of the 9th the joint was so swollen that the outlines of the synovial pouches were easily discernible, and on drawing off some of the fluid it was seen to consist of creamy "tuberculous" pus. The man was too ill for the administration of a general anaesthetic, so the same day I opened the joint under the local injection of eucaine and adrenalin, and let out 5½ oz. of pus. The joint was irrigated and drained, the operation being quite painless, whilst of course it was done with strict antiseptic precautions. The pneumococcus was obtained from the pus. The pain in the knee was at once relieved, and the patient had a refreshing sleep, but, despite free oral, rectal, and hypodermic stim tion, he rapidly lost ground until the morning of the 1 when his pulse rate was over 180, the pulse itself being sm thready, and easily compressible. As a last resort I de mined to transfuse him, and to this end I opened his med basilic vein and infused 4 pints of sterilized normal saline s tion. There was a marked rallying after this operation, bu was very transitory, and the patient again commenced to s rapidly. He died the same day.

MEMORANDA:
MEDICAL, SURGICAL, OBSTETRICAI

A FAMILY INFECTED WITH SYPHILIS.

IN July, 1904, a girl, who had contracted syphilis years before and had but a few months' treatment, g birth to an illegitimate female child, which develo universal pemphigus a few days after birth, but recove The girl returned to service, leaving the child to the c of her mother, who understood the disease and its c tagiousness. Mercurial treatment was not contin more than about six months. In December, 1905, child had some trouble around the anus and a sore mou but it did not come under treatment till January 1 when condylomata were found around the anus and s stomatitis; there were no cracks around the mouth the tonsils appeared clear. At the end of January grandmother came under treatment for an indurated s on the right side of the lower lip, a sloughing ulcer on right tonsil, a mass of hard glands beneath the jaw, bad stomatitis. The sore on the lip had begun abou fortnight before, and she was certain the sore throat begun at the same time, perhaps before. Within ten d all doubt as to diagnosis was set at rest by the appeara of a universal copper-coloured rash inclined to sc Upon this a daughter, aged 12, was brought up with a s throat, which had continued for three weeks with improvement. On the left tonsil was an extensive ulcer w irregular edges, part of it covered with a wash-leather slough, with a mass of glands beneath the sterno-mast Within a few days she developed a rash in colour extent exactly like her mother's. There was no ot external sore.

When the girl's rash developed, a younger brother, age was sent up with a similar sore throat on the right s In him also a rash developed at the end of February, of much smaller extent, almost entirely confined to chest and back in a few isolated patches. Except tonsil, there was no other sore.

The baby had been lately fed by spoon, and, after customary manner of primitive nurses, the food had f been tasted. This would be done more than once dur a meal. Both the grandmother and girl had fed the c in this way; the boy had not, but there is the possibi that he used the spoon unwashed.

Each of these patients seemed to have primary sores the tonsil—an unusual situation—the grandmother hav also a coexisting one on the lip.

The point especially to be emphasized is the age of child—nearly 18 months—when she infected others, therefore the necessity for lengthened treatment in th children and increased watchfulness for the sak others.

By the end of April all obvious signs of the diseas all three had disappeared.

St. Ives, Huntingdonshire. W. R. GROVE, M.I

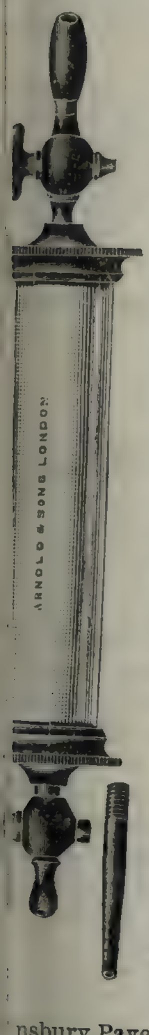
ASEXUAL DEVELOPMENT OF THE *SPIRILLUM OBERMEIERI.*

TOWARDS the end of December, 1905, a series of case relapsing fever occurred in the 109th Infantry at Ahn abad among recruits lately brought in from an out district; from these infection spread till it was stopped quarantine measures being enforced.

Numerous blood smears were taken at the time stained in various ways. The *Spirillum obermeieri* detected in every case, but only in certain of the sli were the following points observed: The spirilla w mostly lying clear of the red cells and outstretch often semicircles, knots, or one or both ends formin small circle were seen, sometimes one end adheren the rim of a red corpuscle for a short distance, and so imes one end, having pierced the rim of a corpuscle, was ying in the latter's substance for a greater or less distance f its length, and, lastly, a whole spirillum lying curled p unevenly and wholly within the body of a haemocyte. 'he stage succeeding this was that the self-imprisoned pirillum broke up into about a dozen sections, and the nal appearance of the specimen—as stained by Romanwsky—was a pale green haemocyte with a dozen deep d dots, the remains of the *Spirillum obermeieri*. The irther stages have not yet been worked out, but from e conditions under which the spread of the infection ok place—reported in the *Indian Medical Gazette* of pril, 1906—it is permissible to assume that at least a ossible channel was through the mosquito which ounded to a certain extent at that time.

Ahmedabad, India. W. H. Cox, Captain, I.M.S.

BLADDER AND URETHRA INJECTIONS.



'HEREVER instruments have to be used in connexion with the lower urinary organs it is always well to fill the urethra or bladder, as the case may be, with some antiseptic solution by way of obviating disagreeable results. There are, of course, various suitable solutions, but the one I prefer is a weak silver salt, while the syringe which I habitually use, and find extremely efficient, is the one here illustrated. As will be seen, it is a simple barrel, with a nozzle and tap at each end. Its strong point is that it has no piston to foul the solution in use or to drive home, and that it can be actuated with sufficient force to fill the bladder, even without a catheter, by applying any elastic ball to one or other of its ends. It can also be filled, if desired, before leaving the house, and, the taps being turned, carried about like a bottle. By the use of another and larger instrument, made to stand, but of the same character, I am enabled to carry out the irrigation treatment of urethritis on scientific principles. This is rendered possible by means of a pressure gauge attached. The gauge shows the force employed in overcoming the resistance of the urethral sphincters. The absence of these desirable aids, and the abruptness of its action, rendered the old means prohibitive in some cases. It is not always justifiable to overcome the compressor muscle, for serious damage may be caused to the spongy urethra. It is well to know how far to go.

nsbury Pavement. James MacMunn.

MYCETOMA (MADURA FOOT) IN THE YEMEN.

AVE read with much interest the article by Dr. Frank Clemow on "Mycetoma in the Yemen" in the British DICAL JOURNAL of April 21st, page 918. When on gue duty at Sheik Othaman, nine miles from Aden, on ruary 2nd, 1905, I assisted my friend Dr. Young at a e's amputation for mycetoma. Dr. Young gave me the cimen, one of the black variety, and it is now in the seum of the Liverpool School of Tropical Medicine. king up my notes on this case, I find the patient came n Hareeb, near Bathan, up the east coast of Arabia, had not been out of the country, coming to Aden for first time. Though I had spent many months in ous parts of the Aden Hinterland, I do not recollect ing seen a single case of the disease.

n talking over the question of the presence of this ase in Arabia, Dr. Young told me that during his en or sixteen years' residence at Sheik, he had seen y cases of both varieties. It was this that prevented from recording this case from Arabia.

e case recorded above, however, shows that the ase exists up the east coast of Arabia.

dras. W. S. Patton, M.B., Captain I.M.S.

TREATMENT OF LOBAR PNEUMONIA.

common occurrence of lobar pneumonia, and the inent position it holds in death statistics, render lutely immoral any neglect to report advance in its treatment, once that advance is seen to be real. My communication concerns medicinal treatment; and that the good results I claim for the combination of drugs I am advocating are due to these agents, and not to local treatment, is proved by the fact that in my last case, in which the disease seemed to shrivel, as it were, and come with rapidity to a tame crisis, the only local application used, for reasons I need not now enter into, was the old-fashioned linseed-meal poultice.

There is nothing new in advocating potassium iodide in the treatment of acute lobar pneumonia, though it is rare, perhaps, to use it except during convalescence. There is, again, nothing very novel in the use of creasote. But when these drugs are combined in about the proportions I am going to name they form a formidable foe to this disease—the creasote attacking it at its source, the iodide supporting the patient and putting the organism generally in the way of helping itself against the invasion already considerably weakened by sufficient doses of creasote.

The following prescription might be given to commence with:

Creasoti	♏xx
Sp. vini rect.	ʒjss
Pot. iod.	ʒj
Ext. glycyrrhizae liq. ...	ʒiij
Aq. ... ... ad	℥vj.

Misce. ℥ss q.q. hs.

But the dose of creasote should be increased to 30 or more minims in the second supply, the sp. vini rect. being also given in slightly increased dose (up to ʒij). Each case must be treated on its merits, and it will nearly always be advisable to add ammonium carbonate to the mixture when signs of cardiac weakness supervene. It may be necessary, too, to add strychnine, and it may be considered advisable even to withhold the iodide after a time. I give no details of cases at present.

Pneumonia is so common that medical men interested may soon find out for themselves the value of this treatment in this very fatal disease. My object is to persuade the profession, especially members practising in hospitals, to try this combination with any local treatment suitable, and then case details may be supplied in profusion.

Wood Green, N., June 2nd. Arthur J. Mathison.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ST. MARYLEBONE INFIRMARY.

CEREBRAL BASAL TUMOUR: DOUBLE WHITE ATROPHY: DEATH AFTER SEVENTEEN YEARS.

(By John R. Lunn, Medical Superintendent.)

The patient in this case was originally a worker in a brass foundry. He was admitted to the Marylebone Infirmary on October 15th, 1887, and remained there until his death seventeen years later. On admission his age was 27. He stated that he had always enjoyed good health, had never had syphilis, gout, or any accident. His eyesight had been failing since Christmas.

State on Admission.—His sight on admission was very bad, having perception of light only in the right eye, the sight failing since Christmas, 1886. He had had severe frontal headaches, but no vomiting, no ocular paralysis or weakness of his body muscles. Both pupils were dilated and acted very slightly to light. The left eye was quite blind, and the optic disc was pale. The optic disc in the right eye was pale and showed well-marked optic neuritis dying away.

Progress.—The patient was treated with large doses of iodide and mercury inunction until he was salivated, but his condition did not improve. Mr. Lang kindly saw the case in May, 1888, and he thought the patient might have effusion in the right optic nerve sheath, so $CHCl_3$ was given, and the external rectus was divided at its insertion and one suture passed through the conjunctiva at the cut insertion to rotate the eye inwards, and another though the muscle. A strabismus hook was then passed round the optic nerve, which could be felt with the fingers, and was found to be apparently the normal size; the sheath was punctured, but no fluid escaped; the divided muscle and conjunctiva were sutured, and the eye dressed with a dry compress. No bad results nor any improvement followed the operation.

On May 24th, 1888, the patient had an unconscious fit. He was found by the nurse lying on his face; the fit lasted fifteen minutes.

In July of the same year he had another fit with rigidity of the left arm, which, however, soon passed off. Dr. Beevor kindly saw the case in the following October, when it was noted that the grip of the left hand was weaker than that of the right, and there was a tendency for the patient to lean slightly to the left. The knee-jerks were increased and were equal on both sides. No ankle clonus was present, no incontinence of urine or faeces after the fits, and he became quite rational and was soon able to get about as usual. It was noted that both optic discs showed well-marked atrophy and the vessels were very small. The patient remained in the same condition for many years, becoming very fat and with a tendency to constipation.

Result.—In July, 1904, he felt giddy and had an unconscious fit and became semi-comatose. In August he was again seen by Dr. Beevor and others, when he was semi-comatose and could not be roused. Both pupils were dilated and unequal, the knee-jerks were increased, and he had well-marked nystagmus; the left arm and leg seemed to be weaker than the right. He passed everything under him, and was fed by enema and an oesophageal tube. The pulse was very small and slow, and the patient gradually developed bedsores and died December 4th, 1904.

REMARKS.—The body was examined after death; rigor mortis was well marked, and all the viscera seemed normal. The skull cap was thickened, the membranes were adherent to the bones in places; the surface of the brain showed signs of chronic inflammation, chiefly over the upper surfaces of the cerebral hemispheres; close to the median fissure the membranes were rather adherent. At the base of the brain a small tumour, the size of a pigeon's egg, was noted projecting from the interpeduncular space, involving the optic chiasma; the optic nerves could be traced into the growth and were seen emerging from it; both lateral ventricles were distended with fluid. Dr. George Coates, Pathologist at Moorfields Eye Hospital, who kindly examined the tumour for me, reported it was not malignant. It was a fibro-cystic tumour with much degeneration. Some of the cysts seemed to be lined with epithelium, and had probably arisen from the glandular remains of the pituitary body. They were filled by débris, cholesterine crystals, and calcareous particles. Some giant cells were also present; there were also some large calcified plaques in the surrounding connective tissue, and some pigment changes.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

J. WARRINGTON HAWARD, F.R.C.S., President, in the Chair.

Tuesday, June 12th, 1906.

MITRAL STENOSIS AND PREGNANCY.

DR. H. FRENCH and Mr. H. T. HICKS read a paper on this subject, in which they analysed the obstetric histories of 300 women over 20 who had mitral stenosis with or without other lesions; the cases were taken consecutively as they came into Guy's Hospital. They concluded that comparatively few were sterile; the majority bore children well; when heart failure developed in relation to pregnancy it was very often not with the first pregnancy, but after several; the treatment should be the same as for non-pregnant cases of mitral stenosis; and that it was not just absolutely to negative marriage in all women with mitral stenosis. Whether the woman married or not, it was likely that she would not reach old age; but if she had survived 20 with good cardiac compensation, the likelihood that pregnancy would accelerate the time of heart failure did not seem to be so great as was stated in recent textbooks.

Sir DYCE DUCKWORTH had, in all the cases that had come under his care, thought it unwise that marriage should be entered on. The probability of cardiac breakdown in mitral stenosis was greater in the case of the poor. Seeing that the advancing plethora of pregnancy threw a great strain on the right side of the heart, he still thought marriage should be discouraged in such subjects.

Dr. G. HERMAN was of opinion that the danger of pregnancy in mitral stenosis had been exaggerated. When there was good compensation the risk was very slight. The danger of failure of compensation was, however, probably greater towards the seventh month.

Dr. GARDNER, speaking from a large midwifery experience, advocated rapid delivery with forceps unde chloroform in such cases.

Dr. E. S. GIBBES thought that pregnancy might ever tend to promote compensation in a few cases of mitra disease.

Dr. F. J. POYNTON said that in 350 cases of childre under 12 suffering from rheumatism 228 were femal children, and the frequency of heart disease was the sam in the two sexes. Of fatal cases 10 were females an 15 males. The rheumatism in the female seemed to b more of the sclerosing type. It was probable tha rheumatism became more virulent during pregnancy an the puerperium, an intensification resulting sometimes i the malignant form.

Dr. VICTOR BONNEY referred to 3 cases in whic malignant endocarditis occurred in puerperal sepsis- a secondary infection on an old endocarditis—and t a fourth in which it occurred in a pregnant woma without any puerperal infection.

Dr. W. S. GRIFFITH thought that, although in sever cases of mitral stenosis delivery might be safely accomplished, yet death not infrequently occurred during th puerperium. The risk was there, but it had been exaggerated. In Queen Charlotte's Hospital, of 4,171 recen deliveries, 28 had marked cardiac lesions; 2 aortic, bot of whom did well; 12 mitral stenosis, and of these onl 1 died in the hospital; and 14 mitral regurgitation, o whom 2 died.

Mr. HICKS and Dr. FRENCH replied.

ROYAL ACADEMY OF MEDICINE IN IRELAN

SECTION OF OBSTETRICS.

Sir A. V. MACAN in the Chair.

Friday, May 25th, 1906.

TUBAL PREGNANCY.

DR. ALFRED SMITH exhibited an unruptured tubal pre nancy removed by operation from a woman, aged 4 mother of six children, the last of whom was born la August. In January, February, and March of this ye her changes were up to time and normal. On examin tion he found a mass in the left broad ligament, which h diagnosed as an ovarian cyst. Advising operation, th patient came to hospital, and after forty-eight hours h performed laparotomy. The tube seemed perfect normal, and a little fetus was found lying in a blood cl in the cavity of the cyst, as shown in the specimen.

Dr. H. TWEEDY thought the haemorrhage in this ca came from the fetus. He advocated the removal tumours at the side of the uterus, amongst other reason because an unruptured tubal pregnancy might easily mistaken for a less actively harmful tumour.

INTUSSUSCEPTION.

Dr. E. HASTINGS TWEEDY showed a specimen of intu susception in an infant born in the Rotunda. On th second day it had haemorrhage from the bowel, and di on the third day. At the *post-mortem* examination intu susception was discovered. He did not think that such condition could have occurred after death. Diagnosis w impossible during the life of the child.

Dr. ROWLETTE considered that the blood clot must ha taken place from the point of the intussusception, and w *ante mortem.*

PUERPERAL MORBIDITY.

Dr. E. HASTINGS TWEEDY, having read "The Report the Rotunda Hospital for 1904-5," Dr. ALFRED SMITH sa he was glad Dr. Tweedy had initiated a movement towar a uniform standard of puerperal morbidity. Witho accepting in full the proposed method he thought it shou be given a fair trial. Considering the general instructi in Dr. Tweedy's report that "we do not take into accou the irregularities of pulse or temperature so frequent observed within twenty-four hours of the period followi delivery," some explanation was necessary as to Table I which included 15 cases of morbidity as occurring on t first day.. He hoped this did not indicate a weak spot their method of standardization.

Sundry members having made observations on differe parts of the report,

r. Hastings Tweedy, replying, said that the very excel-
t reception accorded to this year's maternity report was
y gratifying, and it was all the more gratifying to note
keen manner in which the different portions of the
ort were dealt with and criticized. He found himself
accord with practically all Professor Smith had said.
Henry Jellett had very properly called attention to the
e of one of the six women who had died, and who had
n allowed to deliver herself naturally without inter-
nce, though the vulva was covered with suppurating
es. As a matter of fact the delivery took place shortly
r admission, and before active measures could be
pted. He believed with Dr. Jellett that such cases
uld receive very active disinfection before the birth of
child. His view as to the eclamptic statistics was that
y should, at all events, be made to include the so-
led uraemic convulsions, otherwise it was easy to
suade oneself that some of the fatal cases should be
ribed to this condition rather than to eclampsia. It
s a mistake to think that Continental authorities were
nimous in the basis they adopted for estimating
rbidity. As a matter of fact no such unanimity existed,
l, if the maternity hospitals in the British Empire
ld only be persuaded to adopt the index of morbidity
l down by the British Medical Association, he believed
t the good which would follow could hardly be
ggerated.

INBURGH MEDICO-CHIRURGICAL SOCIETY

Dr. J. O. Affleck, President, in the Chair.

Wednesday, June 6th, 1906.

Diagnosis of Glaucoma.

. A. J. Sinclair read a paper on the Early Diagnosis of
ucoma by the Screen Test—Bjerrum's Method. It
bled very slight relative defects in the central portion
the field of vision to be discovered. The earliest
ptom of glaucoma was of this relative kind, and thus
gnosis was possible long before other evidences of the
ase appeared. The glaucoma symptoms of Bjerrum
ended on the relationship of the area of most fully
served vision and of the area of relatively defective
on to the blind spot of Mariotte. It was a constant
ptom and of much value in early diagnosis.

Tumours of the Bladder.

n a paper on tumours of the bladder, Mr. David
llace pointed out that the operation mortality in
ign tumours amounted to 17 per cent., and in
ignant cases it rose to 27 per cent. Recurrence was
y frequently met with after removal even of benign
wths, and was probably due in great part to the site
he tumours, which in a large percentage of cases lay
the lower zone of the bladder near the orifices of the
ters. It was very difficult to get at and thoroughly
ove them. In the majority of cases of bladder tumour
maturia was the first symptom which arose, and often
e attention was paid to it. In the meantime the
per portions of the tumour were extending widely.
recurrent growth did not differ in character from the
nary tumour. Cystoscopic examination was of great
in diagnosis and prognosis. His conclusions were:
Operation should be delayed, in cases unfavourable
cure, until the symptoms are so severe that the
ent's life is rendered very unpleasant and his health
ecoming undermined; (2) when sepsis is present and
patient is suffering from septic absorption, operation
ndicated; (3) when the haematuria is persistent and
patient is losing ground, operation arrests bleeding
prolongs life; (4) in cases where frequency of micturi-
prevents rest and sleep; in all such cases suprapubic
ostomy is the best operation. An apparatus can be
d to the permanent fistula, so that distress from
age of urine is almost entirely obviated.

he President was of opinion that one reason why
ents suffering from tumours of the bladder were not
earlier by the surgeon was the long intervals which
ht elapse between the attacks of haematuria.

r. Caird believed that the rate of growth of such
ours varied very much. Another difficulty was in
rmining their true character. Cystoscopic examina-
would not always reveal this. He had known of cases
ounced to be malignant and inoperable which yet lived
ld age.

OBSTETRICAL SOCIETY OF LONDON.

W. R. Dakin, M.D., F.R.C.P., President, in the Chair.

Wednesday, June 6th, 1906.

Uterine Contraction without Retraction; Nervous Hyperpyrexia.

Dr. Herman related a case of premature labour in which advance of the child was arrested for more than twenty-four hours, although the uterus was regularly contracting, the passages fully dilated, the child small, and the pelvis of ample size. The cause of arrest, it was believed, was absence of uterine retraction, and the case was regarded as exemplifying the difference between contraction and retraction of the uterus. Delivery was followed by high temperature lasting more than a fortnight, without physical signs of disease, without emaciation or enfeeblement, and therefore it was considered entirely of nervous origin. Some similar cases were quoted.

Dr. Williamson thought there was no proof that retraction was really absent. The definitions of uterine retraction given by Galabin, Dakin, and Pajot were unsatisfactory. Even during the first stage of labour contraction and retraction went hand in hand; this was shown by study of frozen sections made on bodies of women dying in the first stage of labour. Retraction was essential for the dilatation of the cervix. If this view were correct, Dr. Herman was not justified in describing the case as one in which retraction was absent. The mere fact that the cervix was fully dilated was proof that retraction had occurred.

Dr. Lewers did not think that the author had made out his contention that the high temperature was of nervous origin. Here was a puerperal case in which there were repeated rigors and high temperature for a considerable period. The labour had not been uncomplicated, as the placenta had had to be removed by the hand. It had to be remembered that it was not always possible to make the hands absolutely sterile. In his opinion a case presenting the clinical features described was one of uterine phlebitis. He had been taught many years ago to recognize such cases by his old teacher, Sir John Williams, and had seen several such cases in consultation subsequently. The characteristic points were absence of physical signs, continued high temperature, and rigors. In some of these cases the diagnosis was subsequently confirmed by the phlebitis spreading to the main vein and causing swelling of the corresponding leg. Many of the patients were in very good condition between the rigors, not feeling very ill, and with a fairly good appetite. A fair proportion of these cases recovered completely.

Dr. Griffith agreed with Dr. Williamson. He himself had taught for some years that retraction was a function of all living muscles, whereby a long muscle was enabled to adapt itself to its required length after contraction or elongation, and a hollow muscle to its contents by a state of gentle contraction with a minimum of muscle fatigue, ready for further contraction or expansion. The delay in the birth of the child reported by Dr. Herman was rather due to the absence of efficient contraction than to the absence of retraction as suggested by him.

Dr. Horrocks said that in the *Journal of Obstetrics and Gynaecology of the British Empire*, January, 1902, he had gone fully into the question of retraction of the uterus, and had defined it as "contraction followed by relaxation (that is, the passing off of the active contraction), but not by extension." Then and elsewhere he had shown that all muscles in the body had opponents which were themselves mostly, though not always, also muscles. Thus, the biceps had as its opponent the triceps. Moreover, as far as he knew, no muscular fibre in the body, whether voluntary or involuntary, striped or unstriped, was capable, after shortening by contraction, of lengthening itself again to its former state. This had to be done by an opponent. Now, during pregnancy the uterus contracts without the woman being aware of it, as these contractions are painless. During such a contraction the pressure within the amnion was increased, and when the active contraction passed off this increased pressure was brought into play to extend the uterine wall to its former state. It played the rôle of an opponent, and there was no retraction. In labour, however, the membranes began to open up the cervical canal, and each uterine contraction was followed by imperfect extension and so by slight thickening (retraction).

Dr. **Amand Routh** asked whether the caput succedaneum had been present, and whether a retraction (Bandl's) ring had been observed during version. He gave instances of cases where rigors and hyperpyrexia had occurred without obvious cause, some, no doubt, of nervous origin, but others due to uterine phlebitis.

Dr. **Boxall** considered retraction was at least nearly related to tone. He could quite believe it possible that in some circumstances retraction might be absent when contractions were taking place. He had observed that in cases where the uterus was firmly retracted immediately after the completion of labour, twelve or twenty-four hours later the uterus was less firm and more bulky, showing that contraction was not persistent. He had seen several cases of acute septic infection in which the stress of the poison fell mainly on the blood-vascular system without local manifestations in which the patients complained of little or nothing.

Dr. **Herman** replied.

Glycosuria in Pregnancy.

Dr. **W. H. B. Brook** (Lincoln) read a short communication on three cases of glycosuria in pregnancy. In the first case 2½ per cent. of glucose and a small amount of lactose were found in the urine at the fifth month of the second pregnancy. In the other two cases, 10 gr. of sugar to the oz. and 12 gr. of sugar to the oz. were found in the urine respectively at the sixth month. The second case was that of a woman pregnant for the first time, and the third case was that of a woman pregnant for the third time. The patients all went to full term, and the sugar persisted in the urine up to the time of confinement. In all three cases after the puerperium the sugar disappeared from the urine. All these patients were put on an antidiabetic diet, and, as regards medicinal treatment, aspirin, salicylate of soda, codeia, with an occasional dose of pil. hydrarg., were the drugs employed. The author referred to a paper that was read before the Society in 1882 by Dr. Matthews Duncan.

Dr. **Champneys** said that diabetes in pregnancy was different from the slight glycosuria which had been called "resorption diabetes," which was due to reabsorption of sugar of milk from the breasts. Diabetes in pregnancy sometimes ran a perfectly harmless course, and sometimes was rapidly fatal. The difficulty really lay in the prognosis, and he knew of no satisfactory method of formulating one at present.

Dr. **Fairbairn** referred to a case which he had seen lately in a patient six and a half months pregnant. Sugar was proved to be glucose and not lactose by the phenylhydrazine and fermentation tests and by the polarimeter. The amount of the urine was not increased, and the specific gravity was only slightly raised. He quite agreed that this slight glycosuria in pregnant women was something quite distinct from the true diabetes. The small amount of glucose passed, and the absence of the other symptoms of diabetes, put cases of this kind into an entirely different category.

Dr. **Griffith** referred to a case of diabetes which he had had an opportunity of watching for some years. The patient became pregnant two years ago, and passed through her pregnancy and labour without any evidence of danger. He considered this case was intermediate between the cases of temporary glycosuria reported by Dr. Brook and the very serious cases reported by Dr. Matthews Duncan.

Dr. **Brook** replied.

To the eye of the British sanitarian, Fez, with its densely-crowded houses and labyrinths of alleys only a few feet wide, is by no means an ideal city, though the Moroccan sun does much as a germicide and the abundant streams which dash through the sewer-ways are, no doubt, tolerably effectual cleansing agents. It is a curious fact, nevertheless, that, while small-pox and fevers of remittent type are common, the city has hitherto been credited with a comparative, if not entire, freedom from typhoid fever. The British Consul's report just published, however, speaks of this fortunate immunity as no longer existent, a small epidemic having shown itself among the few Europeans, some forty or fifty only in number, who reside in the Moorish capital. In the summer a young Englishman was taken ill and died, and during the last three months of the year six more cases occurred among the Europeans, so that more than one in ten were attacked. With the single exception above mentioned the disease was of a mild type, and the patients all recovered satisfactorily. Its origin could not be traced.

REVIEWS.

THE ORIGINS OF CIVILIZATION.

In his preface to the volume entitled *Glimpses of the Age* which he has recently published, Dr. **Theophilus** **Samuel Scholes** takes exception to the generally-accept statement that the world is growing better as it gro older. He believes that, in its relationship to betterme the movement of the world has hitherto been one of oscil tion, and that at the present period of its history t pendulum is swinging backwards. The primary cause which he attributes this retrograde vibration from a lo period of admitted progressive development is lack truth; and he prophesies that the ultimate consequen of this insincerity and untruthfulness will be a stupendo social upheaval, after which the pendulum will aga swing forward in the direction of renewed sociologi development. This is how Dr. Scholes musters his arg ment to indicate the inevitable dangers of prevaricati when indulged as a national vice:

> As speaking the truth, the whole truth, and nothing but t truth is the corrective of abuse, the prophylactic of wron politics, by imposing upon religion and learning limitations their utterance of truth, induces their passivity, and, induci their passivity, promotes thereby that activity of evil wher injustice, oppression, and armaments are the expression, a whereof war or revolution will be the corrective.

To prove his contentions, he guides us pleasantly a alluringly through all the aeons of time, and gathers us such facts from national, political, religious, and soc logical history as lend strength to his plausible deducti and somewhat iconoclastic theories. He endeavours establish an identity between the animal, vegetable, a mineral kingdoms, and, going a step further than Darw he claims for man an ascent, not through certain lov species of the animal kingdom only, but behind th through the vegetable kingdom, and behind that aga from the inorganic world.

> These elements of inorganic matter which enter into formation of organic life, and of which the earth's crust composed, became under favourable conditions charged w life, and appeared as a mass of bioplasm. This mass th became the source, so to speak, of two divisions of life, which the one widens into the vegetable kingdom; and other, whose constituents are distinguished by the power locomotion and sensation, broadens into the animal kingd

This view would compel the author to infer the doctr of "spontaneous generation" in which he disbelieves, a he is therefore unable to accept the statement "th evolution accounts for, explains and demonstrates plural origin of the races." He disagrees also w Darwin's proposition that high moral attainment a result of high intellectual development, and ca upon history to verify his contradiction. The Rom people became, he says, degraded, extravagant, a immoral when they had achieved the pinnacle of th fame; other nations of antiquity who reached a hi plane of intellectual development also declined in mor and became apathetic in matters of religion; and am all nations, whether ancient or modern, the inculcat of virtue has resulted from the individual efforts of great teachers and prophets produced by them. Hav satisfied himself that the evolution theory is a mista Dr. Scholes proceeds to discuss the coloured and colo less races of mankind, and to investigate their relat capacities for advancement under civilizing influenc In his opinion the colourless races have not been alw progressive, and, when in the barbaric state, presented features to differentiate them from the coloured races general and from the African race in particular. believes that the Egyptians were not of Indian, but African, descent, that in fact they were originally negr An account is given in one chapter of a tribe of peo dwelling in the Western Soudan, known as Manding in order to demonstrate that heathen Africa as kn at the present day is not much different from heat Europe as described by the civilized Romans; t indeed, the advantage, so far as the spirit of progress ness is concerned, is rather with Africa than with Eur Dr. Scholes does not accept the view that racial devel

---

[1] *Glimpses of the Ages, or the "Superior" and "Inferior" R so-called, discussed in the Light of Science and History.* By Theoph E. Samuel Scholes, M.D., etc. London: John Long. 1905. (D 8vo, pp. 426. 12s.)

t is influenced by food, soil, and climate. He regards rited endowments as the primary cause of civilization, ne declares that these inherent national characteristics quickened into the higher forms of activity called ization either spontaneously or by a process of imita- under the impetus of two great primary causes— ssity and emulation Originally, a comparatively l number of communities possessed the inborn power ontaneous response to the promptings of necessity; eas the large majority, being destitute of originative r, were capable only of imitative efforts. The tians and Phoenicians rose to early pre-eminence use they sprang from the former type; the Greeks, Romans, the Teutons, and the Celts belonged to the type, and owed their ultimate greatness to an imita- response called forth by the evidences of superiority hers. According to this view modern civilization is ew creation, but "a continuity with its foundation down in the soil of antiquity." First came Negro- tians, who were the chief pioneers of European zation, then the Greeks, following them the Romans, inally modern Europe.

> ween the coloured and colourless races there is no mental ence to support the arrogation of the term "superior" to ne race and the application of that of "inferior" to the .

ing to the future he predicts for the negro an impor- and leading part in the development of a new and advanced civilization than any the world has yet ned of.

those who are interested in questions of human tion and sociological development, the speculations specious deductions contained in the pages of *ses of the Ages* will be attractive. In all ques- of doctrine or theory, fresh interpretation is entitled respectful hearing, and Dr. Scholes has provided us a hypothesis which, even if it gives rise to scepticism, epay perusal and stimulate thought.

DYNAMICS OF LIVING MATTER.

SSOR LOEB's book on *The Dynamics of Living Matter*[2] expansion of a series of lectures on experimental y which he delivered at Columbia University in The author's own researches in this branch of e are extremely numerous, and he is well entitled iew the whole subject and formulate general opinions e mechanism of vital phenomena. He deals with emical, physical, and electrical conditions which nine vital energy, and describes the experimental ds which have been employed in studying helio- m, galvanotropism, and other tropisms—that is to actions—to chemical and other stimuli. Mendel's igation of the laws of heredity by experimental lization of peas is fully explained, and an account is of the ingenious researches by Morgan and others he laws determining the regeneration of organs. sor Loeb is most interesting when he is describing mental methods and data, but his theories do not carry conviction, and they lose more than they y the controversial manner in which they are often sed. In discussing the Darwinian theory, he says:

> limitation for newly-produced species is not the e for existence, but a faulty construction. The idea utation is working in a definite direction is a mere pomorphism, and, like all anthropomorphisms, is in liction with the facts.

fessor Loeb thinks this is the proper way for tist to criticize Darwin's work, we must confess e cannot take him very seriously. The accusation arwin framed his conception of evolution after the of man appears to us rather as an amusing varia- the popular prejudice, which incriminates Darwin e he fashioned his conception of man after the of a monkey. So long as Professor Loeb keeps to acts" he is interesting, but when he sneers at nthropomorphism" of Darwin, the "mysticism" of r, and the "prejudices" of all and sundry who have n their way to interpret all vital phenomena in the light of chemico-physical principles, he may, unintentionally, create a feeling of amusement, but he ceases to excite scientific interest.

OPHTHALMOLOGY.

MR. M. S. MAYOU has published his Hunterian Lectures at the Royal College of Surgeons for 1905 in a volume entitled *The Changes Produced by Inflammation of the Conjunctiva.*[3] Practically they include the substance of the Jacksonian Prize Essay for 1903. In the first lecture—after giving a general idea of the scope of the course, and describing in detail the method of using Pappenheim's plasma stain, which has been found so useful for demonstrating changes occurring in the cells of the conjunctiva —Mr. Mayou discusses the development of the conjunctiva in man and in certain animals, and the exact origin of certain cells and structures found therein; numerous illustrations in the text assist in making the points clear. The second lecture deals with traumatic conjunctivitis, with special reference to the changes in the cellular elements as the result of wounds. Experimental wounds having been produced in the conjunctiva, the condition found after a variable number of hours or days is described and figured, and the conclusions to be drawn from the experiments are set out. Implantation cysts of the conjunctiva and the method of their development are carefully explained. It is pointed out that at birth no lymphoid tissue is present in the conjunctiva, the cellular elements being absent; they are fully developed by the fourth week, and their importance in the development of trachoma and follicular conjunctivitis is obvious. This lecture finishes with a description of the various forms of conjunctivitis due to micro-organisms. The third lecture deals chiefly with trachoma, which is considered to be a specific infective disease of the subepithelial lymphoid tissue of the conjunctiva. Accompanying the histological description are some excellent plates illustrating the lesion and the points in which it differs from follicular conjunctivitis. A short description of pannus follows, and then the treatment of the disease, both preventive and curative, is discussed. Among the remedies is mentioned the *x* rays, which the author was the first to use for this purpose; he holds that they set up a leucocytosis with the absolute minimum of destruction of the epithelial and other tissues. The method of application of the rays is given in detail, and the author is impressed with the benefit to be derived therefrom. He considers that the high-frequency current does no good, and that radium is not particularly useful in this disease. Phlyctenular conjunctivitis and vernal catarrh form the concluding paragraphs of the volume, which certainly represents much persevering good work. The book is quite up to date, and will be very useful for reference.

Among the larger textbooks on diseases of the eye, that by DE SCHWEINITZ[4] is becoming thoroughly well known and winning a recognized place. It is fourteen years ago since it first appeared, and now the fifth edition has been published. During that time it has to a large extent been rewritten, and each successive edition has become larger than the last, until it now contains nearly 900 pages. The book is so well known that it is needless to describe its arrangement. The chief thing to notice is that much new material has been incorporated in this edition, but to enumerate even the heads of all the additional matter and new things which are described and referred to would be beyond the scope of this review. We can only refer to the description of the various additional uses to which the *x* rays have been applied; to the mention of various new drugs; to the training of the fusion sense with Worth's amblyoscope; and to the localization of foreign bodies in the eye. The book is well illustrated both with ophthalmoscopic drawings and by diagrams. We have nothing but praise for this edition of the textbook, which is an advance on previous issues.

---

mbia University Biological Series, No. 8. *The Dynamics of Matter.* By Jacques Loeb, Professor of Physiology in the ity of California. New York and London: Macmillan and . (Demy 8vo, pp. 233. 12s. 6d.)

[3] *The Changes Produced by Inflammation of the Conjunctiva.* Hunterian Lectures, Royal College of Surgeons, 1905. By M. S. Mayou, F.R.C.S. London: John Bale Sons and Danielsson. 1905. (Demy 8vo, pp. 179. 10s. 6d.)

[4] *Diseases of the Eye.* By G. E. de Schweinitz, M.A., M.D. Fifth edition. Philadelphia and London: W. B. Saunders and Co. 1906. (Demy 8vo, pp. 894; 319 illustrations. 21s.)

Textbooks on diseases of the eye are numerous, but one which has obtained a very good reputation is a handy volume by Dr. CHARLES H. MAY of New York, entitled *Manual of Diseases of the Eye.*[5] It appeared first in 1900, and since then three editions have been published, while the present volume is really a new book founded on the old one. In addition to Dr. May, we have now Mr. CLAUD WORTH appearing as one of the authors. The size of the book is the same as before, but the illustrations are more numerous, and the coloured plates representing the external diseases of the eye are new, while the coloured representations of the various pathological conditions of the fundus are quite good. The treatment of squint is well described, as one would expect, seeing that so eminent an authority on this subject as Mr. Worth is one of the authors. The detailed description of the operation for advancement of a muscle in the way advocated by himself is clear and concise. The book is not intended to be an exhaustive treatise on ophthalmology—its moderate size precludes that—but as a textbook for students and practitioners it is excellent, and the present volume is certainly better than the editions which preceded it, good as they were.

The third edition of HAAB's atlas of diseases of the eye[6] has appeared in the same form as the previous ones in the series of Lehmann's Hand Atlases. Owing to their small size they are particularly convenient to use, and can be carried about and examined in a way impossible with the large atlases which used to be fashionable. In addition to the excellent coloured plates, a description is given of the pathology and treatment of the diseases it illustrates. Its size is precisely the same as the previous editions, but the value of the book is enhanced by several new plates. To anyone who is unable to see a large number of cases this atlas series will render excellent service. In the present edition the text is in German though some of the series have been translated, notably the one illustrating ophthalmoscopic conditions.

Drs. SCRINI and FORTIN, of Paris, have written a practical manual on the selection of spectacles and lenses and the examination of vision.[7] The first chapter is devoted to a description of the varieties of lenses used in ophthalmic work; the second to physical optics; and the third, which comprises the chief part of the book, to the methods of determining degrees of ametropia; the last chapter describes the various forms of spectacle frames in common use.

Volume x, Part III, of the *Transactions of the American Ophthalmological Society*[8] gives an account of the proceedings of the forty-first annual meeting held at Boston in 1905, but prefixed to these is an obituary notice of Dr. Russell Murdoch, one of the founders of the Baltimore Eye, Ear, and Throat Hospital. There are twenty-six papers in the volume, and most of them are very interesting and instructive. They are chiefly of clinical or pathological interest, describing more or less uncommon cases, the discussion on each being appended. Malignant growths figure largely, and most of the papers are illustrated by drawings or photographs. There are several papers on *x* rays and the localization of foreign bodies.

MEDICAL JURISPRUDENCE.

THE second edition of GIFFEN'S *Students' Manual of Medical Jurisprudence and Public Health*[9] has been enlarged so as to admit of the author including in it sufficient information upon public health to allow the average medical student to answer the one or two questions on the subject he n expect in his final examination. The attempt has scarc been successful, for it is obviously impossible to compr a subject so important into the compass of 130 pa The whole question is treated from a general rather tl a particular point of view, and the student is thus le acquire a diffuse but inaccurate idea of the answer should give. For instance, while the necessary cu space and floor area in hospitals is fully discussed, no r is given for the cubic space required in ordinary dw ings. Again, although some details are given of the t for impurities in water, the application of the results meagre in the extreme, and can scarcely be conside correct. Mortality returns receive very full notice, but mention is made of the correcting factor, while a num of very obvious mathematical problems receive un prominence. The chapter on sanitary law is meagre incomplete, and will not help the intending student hygiene. The section relating to infectious diseases perhaps the best part of the book, and is very clear w the exception that no sufficient description of disinfect machines is given. In legal terms there is much c fusion between Scots law and English. No doubt manual supplies a want, but it is a book which can o be regarded as a cram book, and must be used w caution.

THE BRITISH GUIANA MEDICAL ANNUAL.

THE *British Guiana Medical Annual for 1905*[10] contains n different papers by various medical officers of the colo a second part devoted to clinical notes, and a third par an appendix, devoted to the "Transactions of the Brit Guiana Branch of the British Medical Association 1904 and 1905." The Surgeon-General, Dr. Godfr opens the *Annual* with a contribution on ankylostomia it is short, to the point, and gives an account of measures being adopted in the colony for the p vention of this disease. The statement m on p. 2, that the embryos if placed under favourable c ditions of warmth, moisture, etc., will develop i sexually mature adults outside the body is open criticism. Boycott and others hold emphatically tha does not occur, and the belief has probably arisen fr ordinary earth-living nematodes being confused w ankylostomes. From the scientific point of view it wo also have been interesting to know if the *Nec americana* is present in British Guiana as well as the World ankylostome, the *Ankylostoma duodenale.* A very g account of the mosquitos of British Guiana is given by Rev. J. Aiken and E. D. Rowland; most of the desc tions are taken from Theobald, and one mistake in original text is perpetuated on page 17—namely, statement "that Low has never found blood in stomachs of hundreds (of *S. fasciata*) he has examin This should read "in the stomachs of hundreds of ma *S. fasciata*, the female, as is well known, being one of most annoying blood-suckers found in the tropics. paper gives a good idea of the enormous number of m quitos found in British Guiana, and there are some v interesting notes on larvae appended, two very excell photographs showing the breeding haunts of some them. The next paper, on acute anaemia, by C. Kennard, is somewhat disappointing; accurate esti tions of the red blood cells, the haemoglobin, the wl cells, and differential estimations of the latter as are not given; no sections seem to have been m of the organs of those individuals that died, and u those points are attended to nothing definite can decided as to whether this disease is a separate entit not. On p. 83 Dr. Kennard again goes wrong in article on typhoid fever, stating that a relative increas the large mononuclear leucocytes is common to malarial fever and typhoid. In the latter disease it is leucocytes that are relatively increased. Dr. de Fre gives an account of the value of beta naphthol in treatment of ankylostomiasis. The results were fa satisfactory, and the drug did not cause the unpleas symptoms of thymol. The eucalyptus and chlorof treatment recently brought forward might be given a t when Dr. de Freitas has the chance. The best par Dr. Ferguson's article on climate is the description of ical mud flat, on p. 103. The *Annual* as a whole ps up the high standard for which it has always been wn.

---

[5] *A Manual of Diseases of the Eye.* By Charles H. May, M.D., New York, and Claud Worth, F.R.C.S. London: Baillière, Tindall, and Cox. 1906. (Crown 8vo, pp. 408, 335 illustrations. 10s. 6d.)

[6] *Lehmann's Medicin Handatlanten.* Bd. 18. *Atlas der Ausserlich Sichtbaren Erkrankungen des Auges.* [Atlas of External Diseases of the Eye.] By Professor Dr. O. Haab of Zurich. Dritte Auflage. Munchen: J. F. Lehmann. 1906. (Crown 8vo, pp. 247. 86 plates. M. 10.)

[7] *Manuel Pratique pour le choix des Verres de Lunettes et L'Examen de la Vision.* [Practical Manual for the Selection of Spectacle Lenses and the Examination of Vision.] Par le Dr. Scrini et le Dr. Fortin. Paris: Vigot Frères. 1906. (Cr. 8vo, pp. 233. Fr.4.)

[8] *Transactions of the American Ophthalmological Society.* Forty-first Annual Meeting. Volume x, Part III. Hartford: Published by the Society. 1905. (Demy 8vo, pp. 660.)

[9] *Students' Manual of Medical Jurisprudence and Public Health.* By G. H. Giffen, L.R.C.P. and S.Edin., F.R.C.S Irel., D.P.H. Second edition. Edinburgh: William Bryce; and London: Simpkin, Marshall, Hamilton, Kent, and Co. 1906. (Cr. 8vo. pp. 372. 5s.)

[10] *The British Guiana Medical Annual for 1905.* Edited by C Kennard, M.D.Edin., M.R.C.S. Demarara: *The Argosy* Comp Limited. 1906. (Demy 8vo, pp. 141. 5s.)

NOTES ON BOOKS.

IANDBOOKS FOR MIDWIVES AND MIDWIFERY NURSES.

ar as we know, *Simple Introductory Lessons in Midwifery*[1] nique in its kind. Its object is correctly indicated in title. It is not, and makes no pretension to be, a plete treatise even on the limited amount of midwifery a midwife is expected to know. It has been written use the author has become acquainted with "respec e widows who would probably have made excellent ned midwives," but who could not pass their examina because they were "so completely unacquainted with language in which it is usually set forth"; it was to n "an entirely new and strange vocabulary." The ct of this book is to introduce the theoretically rant but practically instructed women to the sources nformation which are couched in technical language— xplain to her the meaning and origin of technical etrical language. This is a useful function, and on the le it has been well performed, notwithstanding that e little slips in detail occur. Thus, the measurement n the pubes to the tip of the coccyx is not 5 in.

iticism of HAULTAIN and FERGUSON'S *Handbook of etric Nursing*[2] is almost silenced by the fact that it has hed its fifth edition. Although the authors tell us that have "intentionally omitted much scientific detail," little fault could have been found had they entitled r book "an elementary handbook of midwifery." The wifery pages are more numerous than those which deal the duties proper to a nurse. We should not have ght it important that a nurse should know the shape he malacosteon pelvis. We are surprised to read the wing statement: "*There is no doubt* that a menstru g nurse, unless she be most cleanly and careful, may source of danger to a lying-in woman, and may be the ns of giving her puerperal fever." (The italics are .) We should have thought that there was very great t about it. There is no doubt that a nurse may give peral fever, but that is because she is not "cleanly careful," not because she is menstruating. If a nurse leanly and careful," we believe it matters nothing to atient whether she is menstruating or not. The pro tion of a superstition of this kind is harmful as ing to divert attention from antisepsis, which is the of supreme importance. We have known pregnant en have longings for strange things but never known at either a brush or a pocket handkerchief (p. 69).

DICINAL AND DIETETIC PREPARATIONS.

ds of Strophanthus Kombe.—The progress which pre tions of strophanthus have made in the favour of the cal profession has been by no means uniform and terrupted, owing principally to variations in the ncy of the drug as ordinarily obtainable. During the twenty years the strophanthus seeds in commerce been derived from some seven or eight other species rieties in addition to *Strophanthus kombe*. The latter e distinguished by the fact that on applying strong uric acid to a freshly-cut surface of the interior of the a green colour is produced, whereas in the case of species the colour is red or brown. One other species, *pidus*, gives the green colour, but the seeds of this in appearance from *S. kombe*. Since, however, the of most of the varieties resemble one another in all respects, and are frequently mixed together, this test not allow of the genuine only being employed for ng galenical preparations. The difficulty in obtaining roper material has been due to its collection by the es of Nyassaland, who ignorantly or intentionally sted in collecting the pods of other species as well, the Europeans under whose direction the drug was ned were not, as a rule, possessed of the botanical ledge necessary to distinguish the pods, or familiar with the chemical test for the true seeds. Persistent attempts from this country to prevent the false seeds being supplied have at length resulted in the collection being carried out under the necessary skilled supervision; the African Lakes Corporation is now supplying seed which is obtained from *S. kombe* only. We have received a sample of the drug from Messrs. Oppenheimer, Son and Co., who have the exclusive handling of it; a considerable number of seeds taken at random from different parts of the package exhibited no variation in their behaviour with sulphuric acid, but were all shown to be the genuine *kombe*.

Pure Pilocarpine.—While opinions may differ considerably as to the relative wisdom of prescribing alkaloidal salts or galenical preparations of the drugs from which the alkaloids are obtained, no one can demur to the statement that when an alkaloid or its salt is ordered it is of the greatest importance that a single chemical substance should be used, and not a mixture of alkaloids containing a variable proportion of the true active principle. Unfortunately it has been only too common a practice to give the name of the chief alkaloid of the drug to the total alkaloidal substance obtained from that drug, with the consequence that not only is disappointment caused to the prescriber when the expected results are not obtained, but also that larger doses are sometimes ordered than can safely be given if the pure substance is employed. The danger involved has been well exemplified in the case of aconitine; the present *Pharmacopoeia* describes this as crystalline and of a definite melting point; but it was formerly described as amorphous, and most of the alkaloid that used to be supplied in accordance with the official description contained only a small proportion of the extremely potent true aconitine. In the case of pilocarpine nitrate the *Pharmacopoeia* requires the use of a crystalline substance, but no melting point is given; recent workers, however, have shown that the other alkaloids of jaborandi are much inferior in physiological activity to pilocarpine, and for medicinal use pure pilocarpine salts only should be used, the best ready test of purity being the melting point; pure pilocarpine nitrate has been shown to melt at 176° C. We have received for examination a specimen of this salt issued by Messrs. Burroughs, Wellcome, and Co. This melted at 176° C.; yielded a bright solution in water, and left no ash on ignition; it is thus shown to be a quite pure substance.

A Boric-Menthol Ester.—"Estoral" is the name given to a compound of boric acid and menthol prepared by Messrs. Zimmer and Co. As an alcohol, menthol is able to form salts, or esters, with acids containing the hydroxyl group, and this substance is such an ester formed by union of menthol with boric acid; its formula is thus $B(OC_{10}H_{19})_3$, boric acid being $B(OH)_3$, and menthol $C_{10}H_{19}OH$. Estoral is a dry white crystalline powder, smelling slightly of menthol, stable when dry, and not melting at the heat of a water bath. On boiling with water the compound is slowly decomposed, and menthol passes over with the steam; it is stated that a similar decomposition occurs when in contact with the mucous membrane, free menthol and boric acid being produced. It is recommended for application in rhinitis sicca, simple atrophic rhinitis, and slight forms of acute nasal catarrh.

MOTOR CARS FOR MEDICAL MEN.

IN response to a request that our readers using motor cars for their work would furnish us with details of their experience, we have received a certain number of answers, but they are hardly numerous enough to furnish the material for a satisfactory analysis. It would be very helpful to those who are contemplating the purchase of cars if a larger number of our readers would send us particulars; and in order to co-ordinate the information given, we suggest that it should be under the following heads:

- The make of car and horse-power.
- Number of cylinders.
- Gear drive or chain drive.
- Tyres used, and if non-skids are used.
- Nature of country, flat or hilly.
- Average mileage per year.
- Expenditure under following heads:
  - Petrol and oil consumption.
  - Tyre renewals.
  - Repairs, and as far as possible their nature.
  - Driver's wages.
  - Total expenses as compared with horses previously kept.

---

nple Introductory Lessons in Midwifery. By M. Loane, author of *es of Routine in District Nursing*, *Simple Sanitation*, etc. London: ientific Press. (Crown 8vo, pp. 60. 1s.)

ndbook of Obstetric Nursing. By Francis W. N. Haultain, F.R.C.P.Edin., Lecturer on Midwifery and Diseases of Women, l of Medicine, Edinburgh, etc.; and James Haig Ferguson, F.R.C.P.Ed., M.R.C.S.Eng., Lecturer on Midwifery and Diseases men, School of Medicine and Jubilee Institute for Nurses, etc. edition. Edinburgh and London: Young J. Pentland. 1906. n 8vo, pp. 267.)

THE FIFTEENTH INTERNATIONAL MEDICAL CONGRESS.

HELD AT LISBON, APRIL 19TH TO 26TH.

[*Concluded from p. 1353.*]

SECTION OF OPHTHALMOLOGY.

IN this Section a small number of workers took matters fairly seriously, and although the sittings were comparatively short, the time employed was well filled. Myopia and its treatment was the subject chosen by Sattler, and this paper called forth an ample discussion. Axenfeld read a good paper on the serumtherapy of infective eye diseases. First he dealt with diphtheria, adducing evidence to show that all cases of infection of a diphtherial nature should be treated at once by subcutaneous serum injections. Next he dealt with pneumococcic infection causing ulcus serpens and wound infections. He said dacryocystitis and pneumococcic conjunctivitis were scarcely conditions calling for a serum treatment, since they were mostly amenable to other forms of treatment. First, he advised prophylactic injections, carried out with dead cultures, but he criticized Roemer's proposal to require the general practitioner to carry out this treatment. He considered that this class of affections was too dangerous to leave in the hands of men who had not made the eye a special study. Turning to the therapeutic injections, he said serumtherapy had a certain beneficial influence on pneumococcic infections of the cornea, but the total results of a series of 185 cases which he had collected left much to be desired. He hoped that the "Aggressin" method, which had scarcely been tested yet, would lead to better results. He also referred to immunizing experiments on the vitreous, which he had carried out in connexion with deep injuries and operations. Lastly, he dealt with streptococcic and staphylococcic infections, saying that positive results were not attainable. Wicherkiewics said that after a considerable experience of serumtherapy in pneumococcic infection of the cornea, he was not satisfied with the results; the patients often complained of the injections. Cabannes and Pflugk also spoke, the latter making a point of the exact bacteriological examination in these cases. Treacher Collins read his paper on tubercle of the eye, and dealt with the diagnostic, etiological, pathological, historical, therapeutic, and prognostic aspects of the various tuberculous affection of the eye. Pflugk read a paper on the accommodation of the eye in pigeons, monkeys, and man. He had studied this subject from a new point of view, and with the assistance of a carbonic acid freezing microtome had succeeded in removing, freezing, cutting, and photographing the eye extremely rapidly. He produced accommodation phenomena by means of eserine, while rest (mydriasis) was produced by atropine, etc. The physiology of normal accommodation depended on changes in the convexity of the sclerotic parts and in the lens: (1) The cornea and its peripheral portions were flattened, and (2) the choroid and with it the whole lens system with its suspensory apparatus was pushed forward. The accommodating lens lost its spherical shape. In the pigeon he distinguished corneal and lens accommodation. The lens was carried bodily forward, thus increasing the distance between the lens and the retina, and in that way the slightly hypermetropic eye of the pigeon was rendered temporarily emmetropic or even myopic. The flattening of the peripheral portion of the sclerotic was produced by the action of Crampton's and Mueller's muscles. Lens accommodation took place by means of the ring muscles, situated at the base of the iris. This exercised a pressure on the zonula and ciliary body. The suspensory ligaments became tense and were pressed toward the middle of the eyeball. The pressure exercised on the vitreous pushed the edge masses of the equator area toward the anterior pole of the lens, and in consequence the nucleus of the lens was protruded, to form a sort of posterior lenticonus. This formation of a posterior lenticonus alters all our conceptions of the accommodation processes. Lastly, he said that the ligamentum pectinatum of birds, which was never relaxed during life, consisted, in contrast to the ligament of mammals, of fine bundles of elastic fibres.

LARYNGOLOGY, OTOLOGY AND STOMATOLOGY.

Section XII was divided into three subdivisions, as h already been reported. The Subsection for Otology w so very feebly attended and the list of absentees was great, that a report of it would be of little value. I told that the Section for Stomatology, or in comm parlance, dentistry, was fairly efficient. In the laryng logical division Mahu read a paper on paraffin injectic in rhinology. He found after an experience of five yea that if certain percautions were taken, and the technique paraffin prothesis was mastered, the method presented serious danger in actual practice. The results were la ing. For external injections paraffin liquefying betwe 45° and 55° C. should be used, while for the treatment atrophic ozaena, he advised cold injection of paraf melting at 45° C. StClair Thomson dealt with 3 cas of suppurative fronto-ethmoidal infection, in which t abscess evacuated itself through the bone and skin in t neighbourhood of the orbit. In one case the patient w only 11 years of age, a very young age for front sinusitis.

OBSTETRICS.

This Section divided its work into two subsections, t one dealing with obstetrics and the second with gynaec logy. The attendance was good, and several interesti papers were read and discussed. Mention may be made Pinho's communication on auto-intoxication of pregnanc da Costa's on Caesarean section, Richelot's on retrodevi tions of the uterus, and Martin's and Tuffier's *Rapports* myomata.

HYGIENE.

This Section began its work auspiciously with a fi paper by the president, R. Jorge, on modern hygien Loeffler spoke of his recent researches on the preventi of foot and mouth disease. The results claimed are qui different from those hitherto accepted. Ennes read paper on public disinfection, in which he elaborat certain rules for this work, urging that disinfection shou always be undertaken by a sanitary official. He spol of the chief gaseous agents for the work, mentionir sulphurous acid and formic aldehyde. A discussion yellow fever followed, in which the members of tl Section of Colonial Medicine joined. Agramonte led o pointing out that the disease could only be spread means of the *Stegomyia fasciata;* the prophylactic measur depended on the recognition of this fact. Chave Jorge, Boyce, Kops, Albarran, Ramos, Magalhaes, ar Kopke took part. Cortezo questioned the proof th the mosquito propagated the disease, but received b little support. Agramonte also spoke on dengu Dalgado presented a paper on Mont Estoril as a heal resort. He spoke highly of the natural advantages that beautiful place, and dealt in detail with the meteor logical conditions. The papers read by Cid on infa mortality and by Jorge on the population of Portugal we interesting statistical productions. The figures cited b both speakers went to show that conditions in Portug were on the mend. The connexion between starvatic wages and high general and infant mortality was we exemplified by the papers.

MILITARY MEDICINE.

This subject had a Section for itself, and, judging fro the jealous way in which the door was guarded, one mu suppose that the entrance of strangers was rather regarde as an intrusion. I ran the gauntlet on a few occasion but was not successful in listening to any importar discussions. The volume of *Rapports*, covering some 20 pages, contains material in nine papers of genera military interest.

FORENSIC MEDICINE.

The members of this Section were modest whe sending in the papers to be read, and in cons quence the volume of *Rapports* contains only 24 page Van der Veer read a paper on criminal abortion, whic presented the subject fairly in an up-to-date forn Viera had two papers down for discussion, but, h being absent, they were read by the Secretary. Th subjects were the signs of virginity and defloratio and the signs of death by drowning. The discussio of the former was postponed, in the hope that th or might turn up on the following day, but this hope not realized. Mention should further be made of nson's paper on criminal and spontaneous abortion. stated that spontaneous abortion indicated some patho- c causation. Criminal abortion implied an artifical ruption of pregnancy. In criminal law one actually deals with unskilled abortions, for when the fetus destroyed without the mother becoming severely ill ying, the matter was rarely brought to light. The an in the earlier months of pregnancy ran a severe after abortion, since she generally did not think it ssary to lie up, and since the uterus did not undergo lution so well as it did after a full-time pregnancy. A an might attempt to produce abortion herself, or she it have it procured by a third person, or a third person it administer an abortifacient drug without her know- e. She could not be convicted of attempted abortion ss she was pregnant, and a question arose out of this : woman pregnant when the fetus is already dead? If kills herself in the attempt, she is *felo de se*.

Colonial and Naval Medicine.

spite of a fair programme of papers only fifteen com- ications were actually read; those concerning naval icine were in the minority. Caro read a good paper berculosis in the navy, in which he said that tubercu- was responsible for the largest number of victims deaths in that service. He attempted to formulate a guard against the admission of tuberculous subjects the navy, and said that a predisposition to this dis- was evidenced by a disproportion between the chest urement and the girth of the belly, and also between girth of the belly and the body weight. He also dealt the necessity of sanatoriums for consumptives ging to the naval service, and gave some words of e on the central organization of such institutions. i spoke on the construction, equipment, and adaptation spital ships, basing his conclusions on the experience e "Kobe Maru," which served in the Russo-Japanese Roque described the prophylaxis of malaria in cal countries. He did not consider that the quality e salt of quinine was a matter of indifference, and d require the Governments of the various countries e municipalities to distribute good quinine gratis to oor and to sell it at a low price to other persons.

General Conferences.

ong the eight subjects announced for general discus- two were marked out as being of special interest. These the discussion on yellow fever introduced by ssor R. Boyce of Liverpool, and that on the im- nce of domestication for diseases in man animals introduced by von Hansemann of Berlin. e said the foundation of an exact yellow fever pro- xis was laid in June, 1900, by Reed, Carroll, Agra- e, and Lazear, in Cuba. Finlay had previously shown mosquitos are agents in the transmission of the se. After describing the *Stegomyia fasciata*, he said yellow fever patient was capable of infecting the *myia* during the first few days of the onset of toms, while the mosquito was not itself infectious about twelve days had transpired. A further lapse out five days was required after an infected *Stegomyia* itten a person before the disease manifested itself. lead bodies of yellow fever patients were not infective, herefore a special burial ground for them was unneces- This modern system of prophylaxis included: (1) Early cation, without concealment of cases; (2) isolation; reening the patients, and (4) fumigating materials, (5) inspection for the discovery of *Stegomyia fasciata*; reening the water supply, especially in the neigh- hood of wharves; (7) mosquito nets and screening of s; and (8) the antimosquito propaganda. Referring e experience gained in the city of New Orleans, where rophylactic measures had proved so successful, he ibed the condition of the city before the outbreak in of 1905, and then detailed the means adopted to the spread. The history of the outbreak demon- d most clearly the efficacy of the measures advised. is communication von Hansemann said that by stication he understood chiefly the subjection of als to man, and the use of them. But he also in- ed domestication among lower animals—for example, e case of ants, who domesticated and made use of certain lice, which in turn they protected. Man, too, was by no means free from the trammels of domestication. The first effect of domestication was to preserve the weakly, who would die out in a state of nature, because they had not the strength of battling with the difficulties of nature. In domestication, the animal, to a great extent, lost the means of battling for itself. For example, the caged bird soon lost its speed in flying. Dogs well exemplified this. Cats were only partly domesticable; hence, when the female brought her young into the world, she returned, more or less, to her free, wild state. She was tamed, but not completely domesticated. The sexual life of the animal changed under domestication; extrauterine gestation only occurred in the human species and in domesticated animals. The connexion between menstruation and fecundation had been almost entirely lost. Venereal disease was obviously only a disease of domesticated beings, while perverted sexual sense was only met with in man and in animals kept in captivity. Domestication, on the other hand, had proved of great value in opposing the majority of infectious diseases. Domestication was responsible for a number of degenerate conditions. As an example Von Hansemann referred to the diminishing capability of women to nurse their babies. He passed on to discuss degenerations of a more organized type, as that met with in the central system of the insane. Dogs, too, showed forms of nervous degeneration, as was exemplified in the occurrence of spurious pregnancy. A dog which had received morphine injections for a painful condition, when the pain had been removed, still pretended to be in pain at the usual hour when he used to get his morphine, and was quite satisfied with an injection of pure water. Habitual constipation was essentially a condition of high domestication. Next he dealt with phthisis, and then with the metabolic diseases, especially gout and rickets. Lastly he turned to the deformities following the wearing of certain articles of clothes, such as the crippling of feet by ordinary boots and the effects of tight lacing. These conditions were typically due to domestication.

Lantern Demonstrations.

Mention has already been made of some of the magic lantern and cinematographic demonstrations. The illustrations shown by Unna in his lecture on leprosy were very clear and well prepared, and added to the interest of the paper. Lemos also showed some very fine slides illustrating the changes in the brain of a man suffering from motor aphasia. Chase employed the cinematograph to show the movements of certain pathological conditions, as epilepsy, chorea, and the gait in certain nervous ailments. The effects were very striking, and a careful study of the various conditions could be made from these pictures.

Garden Party at Monserrate.

Through the kind hospitality of Sir Frederick and Lady Cook, the members of the Congress and some others were entertained at a brilliant garden party at their exquisite country seat in Monserrate, near Cintra, on April 20th. The journey from Lisbon was undertaken by special trains, and the guests drove from Cintra to the grounds, a distance of some two miles or more. The scenery in this neighbourhood is famed for its beauty. Once in the grounds the guests were warmly received by the host and hostess, and then were regaled with an ample and dainty lunch. In the grounds a small but excellent orchestra played selections during the afternoon. Tours were then made round the grounds and over the house. On account of the large number of guests, it was found necessary to admit them into the house in relays. Mr. Herbert Cook and Mr. Jessop assisted Sir Frederick and Lady Cook in showing everything. The house was originally a Moorish building, and had been completely rebuilt and decorated in the most artistic manner by Sir Francis Cook, the father of the present master. The architecture is quaint and beautiful, but is entirely eclipsed by the internal decorations. The more striking features of the latter are old Delhi marble screen balustrades, magnificent tapestries, still more valuable old Portuguese tile work, and a wealth of Indian and Moorish furniture, which is both rare and pleasing. The sitting-rooms, in true Moorish style, have no doors, and the arched entrances are adorned by some wonderful relief carving. In the grounds the visitors had the advantage of seeing a tropical garden, which is famed throughout the whole world.

One would needs be a tropical horticulturist to take in all the various species of plants in flower and in herbage which adorned even one of the valley-shaped nooks of this Garden of Eden. Every one expressed himself and herself delighted with the afternoon, and with the frank hospitality of the amiable hostess and host, and carried away a pleasant recollection of their wonderful residence. I cannot conclude my account of the Lisbon Congress without making a brief reference to the amiable ladies who officiated at the stalls in the Escola, and who were ever ready to be of assistance to the hundreds of Congressists who required help. Always obliging and always on the alert, one recognized that the executive could not have been more happy in their choice of stall keepers, and it was with some pride that I learned that these ladies were daughters of an English resident of Lisbon.

MEDICAL CHARLATANISM IN GERMANY.

By Otto Neustätter, M.D.,
Munich.

(Continued from page 1349.)

Some Statistics.

Before proceeding with further details of their efforts against quacks it seems important to throw light on a question often asked—whether by annulling the necessity for qualification, an increase in the number of quacks has really been brought about?

For the argument that is invariably brought forward is, that charlatanism has always flourished and will always flourish; but that, as we receive our most striking impressions from what we ourselves experience, we naturally consider no time so bad as the present. Among the profession this objection was much resented; but as long as no statistical proofs could be produced it was difficult to refute it.

For this reason several medical bodies decided to draw up statistics. The figures obtained, however, fell far short of reality. Quackery, there was no doubt, had increased considerably under the existing favourable conditions. This fact was apparent to all who had followed quack advertisements, the behaviour of quacks in the courts and in public life. Quacks were no longer ill-famed charlatans, they were respectable tradespeople, or rather ingenious artisans, and the feeling of contempt which had been fostered by the former law, and had entered into the popular moral code, disappeared more and more. Quacks considered themselves on an equal footing, or even on a higher, than qualified practitioners. Instances occurred in the daily papers, or even in the courts, where quacks protested against being put on a level with medical men, whom they termed "poisoners."

But had the numbers really increased? The statistics of the Saxon and the Prussian Aerztekammer, the Aerztetag, and also of the Imperial Board of Health furnished indubitable proofs. In Saxony the number of quacks rose from 503 in 1887 to 900 in 1898, 950 in 1899, and 1,008 in 1902 (numbers of the doctors at the same time 1,995). These figures do not take into account dentists, masseurs, and such people. In three districts there were even more quacks than medical men.

In Württemberg there were 20 quacks in 1872, 222 in 1898. In the whole empire: 1,713 in 1887, 3,059 in 1898, or, according to the more probable statements of the Aerztevereinsbund, 5,224! In Berlin, 28 in 1879, 476 in 1897, 973 in 1902. In Prussia alone, in 1902, according to the yearly report of the medical department of the Cultusministerium, 4,104 quacks were counted; in 1903, 5,148—the best proof how far behind the truth were the figures quoted even by the Aerztevereinsbund. In thirty-five districts the numbers of quacks exceeded the numbers of doctors. In Bavaria regular statistics were formerly kept. From 1874 to 1878 there were about 600 doctors and 1,438 quacks at work; from 1879 to 1883, 1,546; from 1884 to 1888, 1,339. A good illustration of the increased percentage is to be found in the Royal Bavarian Registrar's statistics. From 1876 to 1887 the increase amounted to 750 per cent.; in 1887 to 240 per cent. male and to 134 per cent. female charlatans. In the face of these figures it cannot be doubted that the number of quacks has increased enormously since the law against quacks was cancelled. And this is, indeed, not wonderful, for it is enticing, without the slightest expenditure of time, trouble, or money, to be able to earn as much- even more—than do thousands of medical practitioners Germany.

This raises another interesting point: What is th amount of public money annually wasted on consultatio with quacks, on their humbugs, worthless apparatuses a methods of treatment; on so-called popular medic books; on Nature cures or homoeopathists; on lectures quacks; on clubs, purposely to introduce new cures, et It is naturally very difficult to make an estimate of th expenditure for several reasons. It might be valued the income of the quacks, but the tax lists are ke strictly secret. Several striking instances, however, a well known.

Priessnitz became a millionaire; the shepherd Ast Radebruch, celebrated for his diagnosis made from ha cut from the nape of the neck, cured all and everythi with a tincture composed of rhubarb, lemon, and fenn and with his net proceeds bought a country seat wor £11,500.

In the course of fifteen years the tailor's apprenti Jost, afterwards found guilty of fraud and unnatu prostitution, became a millionaire by means of his ma netic fraud. Goessel, who diagnosed from trouser butto pieces of worn shirt, etc., earned enormous sums wi magnetized parsley. Glünicke, a lawyer discharged libellous incidents, pretended to dissolve the forei elements stored up in the blood by his non-poisono vegetable potions, and to be able to expel such diseases cancer, syphilis, tuberculosis, and abscesses by means the "gases which were generated." This humbug at l pocketed no less than £6,000 a year for his absolut worthless concoctions, made up of almost nothing but o bark.

The carpenter Kuhne in Leipzig, the inventor of t "science of face reading," pretended to be able to diagn all diseases by looking at the head and neck. H "Reibesitzbäder" have become notorious, and can justly described as being systematic onanism. the course of these baths the patients were ma to rub their genital organs, whereby the juices the blood were said to be freed of the impure substanc and these baths, combined with a vegetable diet, w praised as capable of curing all diseases. The rush patients of all classes to him was tremendous. His b (nonsense from beginning to end) was translated into less than thirty-two languages. He bought bigger a bigger houses, and built huge sanatoriums.

In Prussia some quacks have to pay no less th the equivalent of £1,000 sterling in income tax year. These fortunes are amassed partly owing to the gr popularity quacks enjoy, royalties and princes a nobility being among the number of their patients, a partly owing to their tremendous overcharges. A wom in Baden was forced to pay in one year £500 to a qua for douches, baths, and sunbaths. Last year a qua distributed in Hamburg and in the surrounding coun prospectuses promising to cure consumption in three da He arranged a peasant's house as a clinic. For medicaments he charged from 5 to 50 marks. Many peo who took his medicines lost both hearing and taste, a little children were afflicted with terrible cramps, whil bank clerk and his mother were taken seriously ill. T man was an often-punished criminal. Nardenkötter p pared medicines (containing quicksilver, morphine, a other harmful medicaments) in his wife's hip-bath, a entitled them "non-poisonous combined nature-cures." caused tremendous damage, and was condemned to th years' imprisonment, £150 fine, and five years' loss honour. He earned about £8,000 per annum, paying less than £3,000 a year for advertisements alone. After has served his time he can quietly take up his prosper trade again, having laid aside a little nest-egg of £18, for further use.

The sums expended on worthless books on health the so-called enlightenment of the people are incredi Of Bilz's book on *The Nature Cure* over 1,000,000 cop were sold for 13,500,000 marks. This book, which been translated into English, French, Italian, etc., c sists of a collection of plagiarisms, of foolish quotati from ancient medical books, of thanksgivings of patie and their ideas on the Nature cure, of cooking recei of duplicates of newspaper advertisements, and of ports of cases cured, letters of gratitude, etc. Peo o know that Bilz was originally a journeyman aver, then a shopkeeper, a pork-butcher, and a ler in bottled beer, unable to read or write cortly, will hardly be astonished at this. His upil," Platen, who wrote a similar work, sold ,000 copies; Frau Fischer-Dückelmann (a female tor), 100,000 copies; Kneipp's book ran to 25,000; hne's to 32,000; Glünicke's to 29,000; König's to 300; Kant's to 18,000; Storm's to 5,000; Just's to 0; Walser's to 3,000; Gerling-Köhler's to 2,000; ter's to 1,000. Together these books represent an enditure of over 15 million marks. In particular, the first-mentioned are so dangerous, misleading, and of abuse against science and medical men that the istry in Austria forbade their sale as likely to endanger life and health of those following their advice. With 15 million marks expended on these books, the waste ational money is by no means ended; for, besides , each of these authors made immense sums by his actice." The books were at first written entirely for purpose of advertising their authors.

n approximate estimate of the yearly total spent on cks in Germany may be obtained in the following : A doctor earns, on an average, £120 per annum. uming that the quack earns, on an average, only £60 £75 per annum, which is the minimum, we should e a yearly minimum expenditure of no less than 0,000 to £600,000—for nothing, or worse than nothing!

nother side of quackery—the extent of the injury sed to patients—is still more difficult to reduce to res. But of this, too, there exist statistical facts, ch, of course, are very inexact. The evil effects of ckery are rarely made public; the same cases are often d in several statistics; yet the numbers are sure not e too high, and therefore are of great value.

the German Empire, Prussia and Saxony excepted, cases of homicide and over 200 cases of injury to lth have been registered during the last ten years. In ssia, from 1890 to 1897, sentences were passed, unting to a total of 64 years' imprisonment, and fines osed to the value of 8,000 marks on quacks, for cases omicide caused by negligence.

n inquiry in Pommerania brought to light 60 cases of ry to health, in Breslau 98 cases, and in Silesia 164 of ry to health, and 25 cases of death. In the small dis- of Oppeln 15 convictions for both offences were reered. In Berlin in a short space of time 24 deaths ed by charlatanism were noted. In Dietrich's statistics uacks covering 304 Prussian districts, 27 cases of death lting from quackery are recorded. Amongst these may nentioned cases of bleeding to death through the rance of the umbilical cord, blood poisoning by ing, homicide by negligence in cases of venesection, s of the vertebral column, poisoning by belladonna, Kantor has registered 34 cases, among which 16 were . At present the *Aerztevereinsblatt* is busy collecting ictions passed on quacks, irrespective of what the re of their crime is. Another interesting return pred by the "Deutsche Gesellschaft zur Bekämpfung des ofuschertums" has just appeared in the *Hygienische ter* in which no less than 82 convictions are registered ng the last two years; among these were 18 for bodily ies and 2 cases of death. In the statistics collected he Aerztevereinsbund already mentioned, the total ber of cases of damages is 200. In 21 of these cases lamage was indirect, timely recognition and treatment e disease being hindered, especially in cases of cancer, operation rendered impossible. The death is recorded 5 years old child of diphtheria owing to the preven- of the use of serum; another case is that of a man ring from articular rheumatism who was dissuaded taking proper medical advice; a patient whose case liagnosed as internal piles was treated as such for ths, whereas he was suffering from cancer. Twenty- cases of injuries were due to complete ignorance: ilis was treated as eczema with douches and packs, er of the stomach as catarrh of the bowels, strangulated ia as inflammation of the liver, an ovarian cyst as an tinal catarrh, with strict diet and water cures, appenis as pleurisy, typhus as rheumatic pains, a girl suffer- with inflammation of the brain for inflammation of ungs (this poor creature was even beaten for her pidity"). Further, six cases of unrecognized preg- y are noted where, owing to the prompt success of the treatment, there is room for the suspicion that the want of recognition was wilful. One quack may be mentioned as a curiosity. Not being able to diagnose any case, he advised his patients to see a doctor and tell him the diagnosis, whereupon he turned up a book and looked for the treatment. Sixty-nine cases of injury are set down to the account of ignorance in diagnosing the disease—for example, a case of debility caused by vegetarianism, another owing to a starvation cure lasting for five days; again, another of a wound caused by a scythe, grass being sewn into the wound, causing gangrene. Of neglected panaritium ending in amputation no less than 12 cases are cited. An ovarian tumour is treated with massage; a sarcoma during the application of cow's dung perforates the knee-joint; fracture of the humerus is treated with lumps of wax meant to prevent a discharge of matter—as a consequence the arm had to be amputated.

Of direct injury, 39 cases are cited, and of homicide owing to carelessness, 48. Among the first may be mentioned a complicated fracture of the ankle treated by the application of a stinking pig's bladder; the calf of the leg burnt with carbolic acid; a case of hydrocele cauterized by a woman quack until the fluid discharged. The same woman cauterized a lipoma of the forehead till the bone was laid bare. This she wished to cauterize too. In several cases limbs were scalded by hot-water bottles. Scabies was treated with quicksilver till marked signs of poisoning arose. In venous bleeding a ligature applied above the wound caused considerable loss of blood. Necrosis was caused by Baunscheidtismus. In a Christian Science establishment a person suffering from tuberculous fistula was burnt with olive oil and by hot-water bottles. Several deaths occurred owing to totally incorrect treatment; for example, one case of hernia ended in death, owing to violent attempts to reduce it; in another case turpentine oil was given till inflammation of the kidneys arose, etc.

It is very characteristic of the state of affairs, that of the last-named 87 cases of homicide and injuries, only 12 and 8 respectively could be punished. It is extraordinarily difficult, before a court of law, to define precisely the relation of the damage suffered by the patient to the proceedings of the quacks. In most cases the court tends to be very lenient. The few statutes that exist are, therefore, of very little value, though great hopes had been placed on them in 1869. But as these hopes were over and over again disappointed, the doctors were discouraged and gave up prosecution in most cases. They did not wish the public to consider them in the light of spies, nor did they wish to help the quacks indirectly by making them appear martyrs.

A few instances only of the leniency of the judgements will be given. In the case of a little humpback, whom a female quack promised to cure by means of sugar-balls, no conviction was obtained; the jury assumed it to be possible that the woman had believed in the efficiency of the treatment! In the case of a patent-medicine swindle, a Dresden jury showed clemency "because we are living in the times of nostrums." Still another swindler who had brought about death by treating a hernia homoeopathically was acquitted, the jury considering that death is not directly caused by homoeopathy. Kuhne was accused in 118 cases of imposition and acquitted; the High Courts of Law acknowledged that he had acted deceptively, but thought he might have possibly considered the treatment suitable. In another case brought before the High Courts of Law inferior education was accepted as a ground for milder judgement—the treatment of patients in this case not being carried on as a regular business; a very difficult fact to prove indeed! However, on the other hand, in 1896 the High Courts of law decided that carelessness was to be assumed, when the perpetrator had taken upon himself professional duties without the necessary skill.

[*To be continued.*]

SIR WILLIAM MACEWEN delivered the Cavendish Lecture of the West London Medico-Chirurgical Society on Friday last, choosing Some Points in the Surgery of the Chest as his subject. Both the lecture and the conversazione which followed it were well attended.

MEDICAL MAGISTRATE.—Lieutenant-Colonel F. G. Adye-Curran, F.R.C.S., has been appointed a Justice of the Peace for the county of Dublin.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

The quarterly general meeting of the Association was held on Thursday, May 31st, at the Medical Society's Rooms, Chandos Street, London, W., under the presidency of Dr. **Outterson Wood**.

Resolution of Sympathy.

The **President** made a sympathetic reference to the serious illness, following upon deep domestic affliction, of Dr. Oscar T. Woods, Medical Superintendent of the Cork Asylum, and a former President of the Association. He proposed a resolution of sympathy, which was seconded by Dr. **Whitcombe** and carried, and the Honorary Secretary was requested to convey that expression to Dr. Woods.

Lunacy Administration in Ireland.

Dr. **W. R. Dawson** (Finglass, Ireland) called attention to the serious effects upon lunacy administration in Ireland produced by the "Public Bodies Order" of the Local Government Board, one result of which was to place the medical officer in a subsidiary position to that of lay officers, thereby interfering with the proper administration of institutions for the insane. Many of the Irish asylums fell in with the new order of things early, but the Richmond Asylum held out, and in order to meet its opposition the Local Government Board made certain concessions. Dr. Dawson showed that the matter was not a personal one, but affected the position of every resident medical superintendent, and, therefore, the efficient administration of lunacy in Ireland.

The **President**, with Dr. **H. Hayes Newington**, Dr. **Yellowlees**, Dr. **Drapes**, Dr. **Soutar**, Dr. **Bower**, Dr. **Whitcombe**, and Dr. **Shuttleworth**, supported Dr. Dawson's remarks, the last of those gentlemen giving a specific instance in which lay control had worked unsatisfactorily. The following resolutions were unanimously passed:

> The Medico-Psychological Association of Great Britain and Ireland, having learned through reports in the public press of a movement in Ireland tending to lessen the authority of the resident medical officers of asylums, desires to express in the strongest manner its conviction that any such change would certainly result in injury to the patients, and would be in direct opposition to all progressive and enlightened treatment of the insane.
>
> That the resolution be delivered into the hands of the Right Hon. James Bryce, Chief Secretary to Ireland, the manner of such delivery being left to the discretion of the President of the Association.

Epilepsy and Changes in the Blood and Nervous System.

Dr. **John Turner** read a paper entitled The Relation of Epilepsy to Changes in the Blood and Central Nervous System. He stated that epilepsy was the result of a double cause or tendency, the one an inherently-defective nervous system from a hereditarily-vicious organization, and the other some morbid condition of the blood whereby it shows a special tendency to intravascular clotting, and that the immediate cause of the fits is sudden stasis of the blood stream, resulting from the blocking of cerebral vessels by these intravascular clots. The fits he regarded as only a symptom of the general epileptic condition. Further investigations were related as to the coagulability of the blood in epileptics, which was shown to increase at the times of *petit mal*, *grand mal*, and stasis. Forms of changes in the nerve cells were shown, resembling those described as *réaction à distance*, and persistence of large numbers of subcortical nerve cells was shown. The author also referred to experimental work by ligature of the cerebral arteries in the dog, with acute forms of cell changes. The blood was shown to have a large number of blood plates, and specimens were shown of different forms of intravascular clotting, probably in a large measure derived from amalgamation of the blood plates. Small cortical haemorrhages were also described and shown on the screen, which could be traced to rupture of a vessel blocked up by the clots of coagulated blood referred to.

Dr. **Goodall**, in discussing the paper, said he was not clear of the connexion which existed between the obliterations in the vessels and the fits in the case of epileptics. Thrombi occurred in general paralytics and in other toxic states, as well as in epilepsy, and he did not believe there was any definite evidence of the presence of toxins in the blood of epileptics. He had found that leucocytosis wa especially common, where there was either an exogenou or endogenous toxin, such as in acute delirious cond tions and melancholia of the acute type, but not so mu in delusional insanity or hypochondriacal states. H desired to know whether the clots could be associate with the presence of a toxin.

Dr. **Steen** asked whether the change in the corn ammonis was patent to the naked eye, or detectable on under the microscope.

Dr. **Robert Jones** said that the author appeared suggest that the epileptic brain was somewhat analogo to the anaemic brain, which (as shown by Leonard Hill experiments) appeared to be exceedingly irritable, a liable to cause convulsive movements upon very slig stimulation.

Dr. **Fletcher Beach** expressed his pleasure at findi the results of the careful scientific work of Dr. Turn accorded with the conclusions he had himself arrived many years ago in the case of epileptic idiots.

Dr. **Turner**, in reply, said the changes were patent the naked eye. He insisted that there must be a c operation of two factors—the cells must be in a fit co dition, and there must be an exciting cause.

Industrial Alcoholism.

Dr. **W. C. Sullivan** read a paper on "Industrial Alc holism." He divided the various industries into grou and characterized their various tendencies and habits to alcoholic indulgence. He dealt with the differen between convivial drinking and "misery" drinking, t latter being greatly influenced by bad industrial circu stances, and leading directly to fatal chronic intoxicatio In the prosperous mining districts of this country the was considerable drunkenness, but comparatively litt chronic alcoholism. He pointed out that industrial alc holism could be controlled only by raising the standard living, and restraining facilities for obtaining alcoh during working hours, and he suggested that this wou be more powerful for good than educational influences.

Dr. **Hayes Newington** drew particular attention to t recent revelations regarding the manufacture of whisk and particularly to the character of inebriation manifest by monkeys fed with pure alcohol, on the one hand, compared with that of a monkey fed on what was term patent-still whisky. It was most essential that in di cussing alcoholism there should be a full realization what was underneath that term. He hoped there wou be some standard of purity in alcoholic drinks and th people who departed from that standard would be pros cuted.

Dr. **Carswell** (Glasgow) strongly supported the conc sions arrived at by Dr. Sullivan, based upon an experien which was very extensive, and laid especial stress up the baneful effects of the early opening of public-hous which was one of the most striking points in the paper.

Dr. **Robert Jones** remarked that the question of alcoh appeared to be very much that of the *locus minoris resist tiae*, insomuch that the mental effects were seen in asylu and the physical in hospitals—hospital patients presenti marked cirrhosis of glandular structures which was rar seen in asylum patients, the mental results of alco being probably the result of a previous psychopathic tai It was interesting to note that when physical conditio such as peripheral neuritis, occurred in asylums, th mostly occurred in women. Those admitted into Claybu Asylum through alcohol formed directly or indirec almost 30 per cent. of the total admissions.

Dr. **Sullivan** replied, drawing attention to the bri trade carried on by the publicans during the breakf hour in industrial districts.

Dinner.

The members afterwards dined together at the C Monico.

Efficient Vaccination.—Dr. E. Stanley Wood, Pub Vaccinator for Buckfastleigh, S. Devon, has been award the grant for efficient vaccination at the last ann inspection.

Medical Magistrate.—Dr. Stanley B. Atkins honorary secretary of the Medico-Legal Society, h been appointed to the Commission of the Peace for t County of London.

AMERICAN MEDICAL ASSOCIATION.

THE fifty-seventh annual session of the American Medical
Association was held at Boston on June 5th, 6th, 7th, and
8th, under the presidency of Dr. William J. Mayo, of
Rochester, Minnesota. The attendance was very large.

President's Address.

The President took for the subject of his address The
Medical Profession and the Issues which Confront it.*
He said that although in his individual capacity the
medical man had not been found wanting, collectively
he profession had not the influence it might be expected
o have, and without which great movements for the
welfare of humanity could not be carried on. If they were
o gain and maintain the pre-eminent position to which
hey were entitled, they must unite for the common good.
he people must be educated up to a point where they
ould understand the broad humanitarianism of modern
medicine. Society appreciated the saving of a sick
erson's life by the skilled physician, but failed to see the
riceless gifts to the human race made by preventive
medicine and sanitary science. They have failed to
ecure the support of the mass of the people to much-
eeded sanitary reforms, because they had appealed to
hem as one individual to another without the weight of
n authoritative organization. That the people were
gnorant of medical affairs was due to bad education
ather than prejudice. They were more than two decades
ehind advanced medical thought; it was the duty of the
rofession to keep them better informed. The public
und that the large majority of sick persons got well
nder any, all, or no treatment, and, not rightly under-
anding the reason, had never been able to comprehend
hy one method or form of treatment, as long as it appa-
ntly yielded about the same average of results, was not as
ood as another. The germ theory promulgated by Pasteur
ad given surgical significance by Lister, strengthened the
undation of medicine by adding to it the long-sought-for
usation of the majority of diseases, and this, with the aid
experimental research, had led the practice of medicine
t of the wilderness and established it as one of the
act sciences. New and fundamental truths had followed
ch other so rapidly that they had scarcely been able to
gest them; much less could they expect the public to
ve kept pace. The layman accepted with avidity new
gmas and "pathies" based on theories incredibly
olish in the light of modern investigation, and the
ofession had allowed him to become fixed in these
liefs. The public was, however, being educated in
gard to the "great white plague"—tuberculosis—and
tistics were beginning to show the effects of this diffu-
n of knowledge. In Massachusetts and some other
ates a committee had been appointed in each district
promulgate measures for the relief and control of
berculosis. This should be imitated in every State in
Union. They could already see the good which
d resulted from the teaching of the habits of mos-
tos, the short distances they travel led from their
eding places, and especially the necessity for the
arantine of patients afflicted with yellow fever and
laria, not directly to protect mankind but to prevent
ection of the little pests who acted as carriers of the
tagious micro-organisms. Society must be taught
early symptoms of cancer—the greatest foe of
manity—that its manifestations might be recognized
le in the curable period. The typhoid-fever crime
cities having a polluted water supply was not the
t of the many branches of popular education. There
no reason why a man who had become infected with
phoid from a city's neglect should not sue for damages
he would for personal injury sustained from falling
ough a defective sidewalk. The work of education
ld best be continued through the local society. Occa-
al meetings, to which the public should be invited,
ht to be devoted to questions of general interest, and
proceedings published in the local newspapers. The
nty society must become the unit, and the allied profes-
s of pharmacy and dentistry urged to attend and take
in the deliberations. Reference was made to the
ade against poisonous substances and intoxicating beverages, which were sold under the guise of "patent medicines." The success of most "patent medicines" depended on the fact that they contained drugs and stimulants which created a craving and must be repeated. If once the public conscience were awakened there would be a demand that every "patent medicine," before being sold, should have its exact component parts printed on its label, and its claims to cure verified by scientific investigation. After some remarks on public health legislation, the President went on to discuss medical education, State licensure, and reciprocity. He said that what was needed was a higher standard of requirements and more and better supervision of professional schools. At the present time medical education was uncontrolled, and each State had its own standard of requirements. The President next alluded to some abuses from which the physician suffers. It was a matter of professional pride that, in the general condemnation of the life insurance companies, although every other part of the control had been shown to be corrupt, no breath of scandal had touched the medical department, yet the local examiner had the most cause of all to be dissatisfied. The New York Life, some years ago, cut the fee for examination 40 per cent., apparently not as a matter of economy, for at that time the most corrupt practices existed, but rather to enable the agent more easily to pass "new business" at any cost. This action had lately been imitated by the Equitable and some others, and had resulted in forcing the resignation of many of their best examiners. The general officers had taken great credit on themselves for voluntarily reducing their salaries 20 per cent. It was a rank injustice that the one body of men who had emerged clean from the insurance scandals should suffer the most for the crimes of others. Lodge practice was another scheme by which officers of an association drew salaries ostensibly to give medical services at a figure below the possible point at which a professional man could live. The people were badly served, as competent physicians could not be secured to do the work, and the whole scheme was properly condemned by the various medical associations all over the country. Public service corporations abused hospital privileges in a way that was an open scandal. In Pittsburg the steel companies paid 1.00 dol. a day for the care of their injured men at the hospitals, and for the class of patients under discussion this could not be provided for less than 1.60 dols. per day. The companies paid the surgeons at the hospitals absolutely nothing for their services to its injured, amounting in value to thousands of dollars a year. The same conditions existed with many of the large railroad and street car companies and other public corporations. Hospital abuse by patients who were able to pay was prevalent. All hospitals should have competent individuals whose business it was to see that no one secured free treatment who was able to pay. Some great hospitals went further and received any patient rich or poor, allowed him to have a suite of rooms and bath and several nurses if he could pay for them, but would not allow him to pay the surgeon who operated or the medical man who took care of him. It was a misfortune that the large majority of hospitals had no physicians among their directors. Speaking of the practice of medicine as a business, the President said a physician owed it to himself, to his family, to his profession, and especially to the community at large, to manage his finances well; otherwise he could not pursue his studies and give to the sick his best efforts, which they had a right to expect and demand. While professional life broadened the mental horizon and increased sympathy, it could not change man's nature, and men who were unfair in business affairs were to be found in their midst. The one crying evil, which fortunately was not widespread, was the giving of commissions to some specialist who would in return divide the fee. The one secretly took money from the patient without his consent, and the other, in order to complete the bargain, charged more than he should. This was equally harmful to the one who received and to the one who gave. Such matters could not be kept secret, and he had personal knowledge of men of good attainments and remunerative practice who had been ruined through losing the confidence of their communities by this pernicious traffic. The relations with the allied profession of pharmacy were not on as ethical a footing as they were twenty years ago. To-day, in putting up from

---

or advance proofs of the President's address and of the orations
medicine and on surgery by Dr. F. C. Shattuck and Dr. Joseph D.
nt, we are indebted to the courtesy of the Editor of the *Journal*
American Medical Association.

50 to 60 per cent. of the prescriptions sent to him, the educated pharmacist could not use his skill as a chemist; he simply acted as a distributor of copyrighted preparations; those the physician called for a few times only and then took up with something new, leaving the shelves of the druggist filled with the unused remnants. Many physicians compounded their own prescriptions, to the detriment of the pharmacist. The average pharmacist could not live on physicians' prescriptions alone, but he should be treated justly, and both physician and druggist would profit by mutual concessions, to the great benefit of the public. Dealing next with medical progress, the President said that in the practice of medicine the student days were never over. The most important habit a young physician could form was the "daily study habit." Let him put in even one hour a day with the reading of journals and books of reference, and much could be accomplished. He should keep an account of the time, and if something interfered for a day he should charge himself up with it. A two weeks' vacation meant fourteen hours to be made up. The practitioner must take frequent trips away for the purpose of observation. In no other way could he avoid the rut of self-satisfied content, which checked advancement and limited usefulness. No amount of diligence as a student could take the place of personal contact with men in the same line of work. In conclusion, the President said the vital need of the medical profession was a harmonious organization—an organization that would encourage right thinking and good usage among themselves, help to secure needed medical reforms, compel redress of grievances, and promote and encourage the highest interests of its individual members. In this lay the future usefulness of the profession as a whole.

The Oration on Medicine.

The oration on medicine was delivered by Dr. Frederick C. Shattuck of Boston, who discussed the question, "How Progress comes in Medicine." The whole body of scientific workers might be compared to an army determined to enter into and possess the empire of ignorance—a country of vast extent, and presenting every conceivable physical difficulty to advance and occupation. That was one obstacle. Another lay in the fact that the army had not—nor could it have—an organization comparable to that of the ordinary army, with its commander-in-chief, chief of staff, corps and division and brigade commanders, although it had the corps and divisions. Each had its leaders, who owed their position solely to merit. The rise to high position might be very rapid; deposition was occasionally correspondingly so. The freest criticism was permitted — nay, encouraged; government was largely by discussion based on observation and experiment. There were many scouts and skirmishers. There were also, alas! camp followers. As organized to-day six army corps might be distinguished—anatomy, physiology, chemistry, physics, pathology, clinical history. After reviewing the advance along the purely scientific lines of march, the orator gave as an illustrative instance of how progress is made in clinical observation an account of the discovery of myxoedema. The story of myxoedema was one of the most thrilling in medicine. The anatomist found and described the ductless glands. The physiologist was at a loss to explain their function. The endemic enlargement of the thyroid often associated with faulty development alike bodily and mental, was noted, excited interest and speculation, but was a riddle. Gull described "A peculiar cretinoid state supervening in women in adult life." He put forward no theory, but described merely what he saw, a change coming over previously healthy grown women, producing a state similar to that of the cretin, and quite apart from endemic influence. Ord made the first autopsy, and from the mucin reaction in the swollen tissues cut the name down to one word, myxoedema, still mainly descriptive. So also was Charcot's name—cachéxie pachydermique. Clinical surgery now stepped on the scene, and it was seen that the result of the extirpation of the thyroid for goître, as reported by Kocher and Reverdin, was identical with myxoedema. Thus the pathology of the condition was rendered clear, and for the first time a definite idea was got as to the function of the thyroid. Very soon myxoedema became one of the most gratifying diseases to treat, and the remarkable fact appeared that neither cooking nor gastric digestion notably impaired the efficacy of the gland. It was noteworthy that this great advance came purely from clinicians, medical and surgical. The experiments of Schiff and Horsley on monkeys, although interesting and confirmatory, were not essential stones in the structure. The evidence was sufficiently complete without the aid of what was ordinarily termed the laboratory; and here it might be remarked that the tendency of the present day was too much toward the limitation of the term "scientific medicine" to that part of investigation carried on either apart from hospitals or from men not directly dealing with the sick. The work of the clinician might be every whit as scientific as that of his laboratory brother. The purely laboratory man had the advantage that he could inaugurate, systematize, and govern his experiments, most of which must be on animals. The clinician had the advantage that the experiments performed for him by disease were on human beings, and were oftentimes of such a nature as could not possibly be made artificially. On the other hand, the clinician was apt to find his time and strength so drawn on by individuals clamorous for relief that his highest work suffered. Did medicine afford a better illustration of the interdependence of workers in different fields than lay in the story of myxoedema? Great as was the specific discovery of the function of the thyroid, still greater was its direct outgrowth, the broad fact of internal secretion, the sole function of the ductless glands, perhaps also an important function of glandular structures pouring out a secretion through a constant and definite channel. The debt of medicine to all those half-truths which were too indiscriminately classed under the terms quackery or charlatanism was real and should be recognized They believed homoeopathy to rest on assumptions unfounded in fact, untenable to-day. The most bigoted of them, however—for there was a bigotry of science as well as of religion—could not deny that homoeopathy had advanced medicine, leading to a clearer knowledge of the limitation of the therapeutic action of drugs, of their uses and abuses. The power of suggestion, the influence of mind over body, whether exercised through hypnotism, mind cure, faith cure, or Christian Science,threw a flood of light on physiology and pathology, stimulated the study of experimental psychology, illuminated the influence of the nervous system on the circulation and thus on nutrition. An eminent orthopaedist recently classed the natural bone-setters, so called, as forerunners of science, at a time when ignorance as to the action of trauma and disease on joints was profound. They, relying on common sense and observation alone, achieved results which science, timid from knowledge of its ignorance, failed to achieve. There was always a germ of truth in every form of irregular (unscientific) healing—a fact which it behoved them to recognize and be ready to apply.

The Oration on Surgery.

The oration on surgery, which was delivered by Dr. Joseph D. Bryant of New York, was devoted to a consideration of the nature and progress of malignant disease. After referring to the efforts directed to the solution of the mystery of malignancy that had been made during the last few years in England, Germany, and the United States, the orator said that experimentally and practically the transmission of cancer from man to animals or from one animal to another of different species had not yet been successfully witnessed beyond gainsay, notwithstanding the repeated attempts to attain the purpose and the results of long critical observation. On the other hand, the apparent transmission of cancer between animals of like species and its unquestionable extension by metastasis in those already afflicted was of common knowledge. The vegetable kingdom suffered at times and in isolated places from a form of local progressive disease apparently akin in nature to the malignant characteristics of the animal economy. It was no part of the purpose of this address to discuss the various theories relating to the nature of the inherent cell activity characteristic of cancer, or of any other form of malignancy. After a rapid review of the history of theories as to cancer, the orator said it was apparent at an early period of investigation that the study of the nature and activity of this disease could not shed light on the problem of its control, when based only on the few cases falling under the notice of a small number of observers. The logical corollary of this situation laid the foundation for

tatistical inquiry and collective investigation. It was
ot, however, until a comparatively recent date that
tatistical knowledge attained sufficient rank in this
egard to arouse apprehension respecting the presence of
ancer. In fact, it was not until the possibility of its
eing of a parasitic nature and the fact that perhaps it was
ommunicable were again set forth that observers of cancer
ere impressed with the acute sense of a new danger.
eographically, cancer was a heritage of the human race
nearly all, if not in all, parts of the world. While it
as yet unknown in some parts of South Africa (Snow)
nd other obscure places, it was not at all certain but
iat it existed, remaining hidden, however, from civilized
iew, because of the restraining influence of some heathen
onception relating to it; such conceptions had before
ow thus controlled the doings of savage or superstitious
eoples in other matters. Among the chief objections to
ie scientific value of statistical facts relating to cancer
iight be mentioned the inability to secure authentic
mplete diagnosis. Only microscopic reports of morbid
owths should be given the privilege of membership in
ie rank of trustworthy data. He was aware that there
ere not a few distinguished observers who seemed to
ace quite as much confidence in the macroscopic findings
experience—their own experience—as in the conclusions
those with equal experience whose senses were fortified
the mechanism of a more exact knowledge. In any
ent, such reports as these should be classed by them-
lves, unless confirmed by reliable microscopic testimony.
ie undoubted increase in human longevity of recent
me added many to the list of those who fell within the
e limit of cancer attack, and thus apparently increased
spread. On the other hand, the life-saving means now
nployed in defending and rescuing the young from the
neful onset of infectious disease, was increasing the num-
r of the living, and, therefore, neutralizing proportionately
e apparent increase in death from cancer. It was not
possible that the significance of the so-called "cancer
alities" might be reduced to the standard of other
lds of importance when subjected to closer analysis of
cumstances that were no essential part of cancer
velopment or propagation. It was evident that the
ntinuous increase of cancer, regardless of preventive
asures and of human understanding, was controlled by
luences so subtle that they had thus far perplexed beyond
isfactory solution the minds of the most astute observers.
hile it had long been conceded that external influences,
umatic and other, contributed to the frequency of acces-
le cancer in a greater or less degree, it was also self-
dent that other and more potent agencies must be in-
ked to account not only for the occurrence of inaccessible
icer, but also for its great preponderance over those
essibly located at all periods of life, more especially
ove 25 years of age. That the location of cancer at
times of life, and especially in adult life,
uld be of inaccessible rather than of accessible
ure was startling, suggesting the idea that directly
indirectly, subtler influences than external trau-
tism or infecting agents were active in the de-
opment and spread of cancer. Perhaps it might be
isistently said that the traumatisms inflicted on the
tro-intestinal tract by yielding to the temptations and
asures of life—while less emphatic than those directed
he external surface—were none the less potent for evil
ause of the fact that their frequent and prolonged
ion might increase correspondingly an ill-effect. How-
r this might be, it appeared quite reasonable to
ie that cancer organisms coming from without im-
nted themselves in the tissues and developed
re, notwithstanding the inhibitory effect of cook-
, the power of digestion, the opposition of
gocytosis, and the element of chance. There
eared to be no good reason to believe that the
l of a people influenced their relation to malignant
ase in an appreciable degree. The age limit of the
ues of the stomach in health conformed to the nutritive
iirements of the life to which they were all-important;
sequently, this feature of the causation of cancer, which
reely contributed to its total occurrence in the breast
uterus, could play no part in the causation of cancer of
stomach, making it therefore the more apparent
alimentary traumatisms and dietary abuses were
iinant influences in the causation of gastric cancer.
ther factor which seemed to confirm this position was that cancer in the male in the alimentary canal was seven times as common as in the female, notwithstanding the general tendency of females to suffer from cancer of the alimentary canal at an earlier age than males. Surely, if cancer of the stomach were dependent in any appreciable degree on parasitic infection of alimentary substances, this great difference in the relative proportions of infliction of the sexes should not exist. Cancer appeared to be on the increase in civilized countries, while the limit of effective operative therapy had already reached the confines of highest efficiency under the present established lines of action. It naturally occurred to thoughtful members of the profession, therefore, to inquire regarding what could be done, by way of admonition and protective forethought, that would secure the holding of that already in hand while the search for increased power in curative therapy was advanced to a more successful issue. The operative warriors in the conflict against malignancy had striven faithfully and logically, gaining advanced foothold by means of approved technique and prompt aggressiveness. By these means, in the cure of cancer of the breast, of the uterus, and of the stomach, many years of comfort and happiness had been added to the lives of the afflicted. Too often, however, during the consideration of operative interference was heard the utterance of the sad truth, "Too late," on the part of all concerned. The remedy was prompter surgical action; and prompter surgical action required a prompt acknowledgement of the presence of an unwelcome growth or manifestation on the part of the sufferer. It was surely not amiss to repeat that the outcome of operative endeavour in malignant cases had well-nigh reached the highest success possible, until it was aided by increased faith and lessened secretiveness on the part of the sufferers from a malignant infliction. Those who were afflicted with accessible growths were comparatively early aware of the presence of these unwelcome visitors. But since it now appeared that cancer was located most often in the deep internal parts, there was the fact doubly impressed of the necessity of prompt acknowledgement of the presence of morbid manifestations and prompt determination of their nature. In too many instances of cancer the reasonable suspicions of its presence on the part of the patient or friends were quieted by the soothing platitudes of medical advice, until all opportunity of relief was at an end. In emphasizing the pre-eminent importance of early measures of relief, one had only to point to the astonishing results which had attended the operative practice of many distinguished surgeons of this and other countries. Finally, an emphatic warning should be given to all against the seductive influence exercised on the afflicted, by the "perversions of judgement and vain imaginings" which too often allured them from the path of scientific beneficence, trodden by honest, sympathetic aid, into the wilderness of arrant quackery, infested by ghouls of heartless gain. Nor should one hasten unduly to substitute for established method in operative cases, means which were still on trial, even though encouraged to do so by honest, yet unsettled opinion.

A Conference of delegates from the Divisions of the Metropolitan Counties Branch appointed to consider the question of candidates for the Central Council has held two meetings. The object of the Conference was to secure that every district of the Metropolitan Counties Branch should be territorially represented on the Central Council. At the first meeting, May 8th, the Conference recommended that the Divisions should be divided into five groups—North, South, Central, West, and East, and that each group should be asked to secure the nomination of one candidate. At the second meeting, June 7th, the Conference resolved to advise all members of the Branch to vote for Dr. Anderson (Hampstead), Dr. Crookshank (Richmond), Sir Victor Horsley (Marylebone), Dr. Haslip (Westminster), and Dr. Shadwell (Walthamstow). Delegates were present at the Conference from the following Divisions: City, Hampstead, Lambeth, Marylebone, Richmond, St. Pancras, Stratford, Walthamstow, Wandsworth, and Westminster. The following Divisions have also taken part in the working of the scheme: Chelsea, Ealing, and Tottenham.

The late Mr. John Tweddel Dobson, of Newcastle-upon-Tyne, bequeathed £500 to the Royal Infirmary for Sick and Lame Poor, Newcastle, and £100 to the Fleming Memorial Hospital for Sick Children in the same city.

LITERARY NOTES.

ON Wednesday, June 20th, Messrs. Sotheby, Wilkinson, and Hodge will offer for sale a valuable collection of early medical books, the property of the late Sir William Banks. That distinguished surgeon was well known as a student of the history of his profession and its early literature, a circumstance which gives his collection a special value that does not always belong to the treasures of the mere bibliophile, who is often more interested in curious misprints and tall copies than in the contents of his volumes. In the list of Sir William Banks's books we notice a copy of the *De Secretis* of the "reverend Maister Alexis of Piemont," printed at Bale in 1559; C. de Iryngio's *Rare and Wonderful Art of Curing by Sympathy* (1656); E. Rhodion's *De partu hominis,* printed at Venice in 1536; Vigo's *Whole Worke of Chirurgery, whereunto are annexed certain works completed by Thomas Gale,* black letter, 1586; *Galeni Opera Omnia,* Venetiis 1562; *Hippocratis Opera Omnia Graece,* printed at Venice by Aldus in 1526; and many other valuable works.

Some of Dr. John Brown's correspondence with Thackeray, Ruskin, and other eminent persons was given to the world by Dr. Peddie in his sketch of the life of the author of *Rab and his Friends.* Many readers will doubtless learn with pleasure that many more of Dr. Brown's own letters as also of those addressed to him will before long be published by Messrs. A. and C. Black.

A remarkable sign of the times is the appearance of a "medico-critical study" of hypnotism and spiritualism by Dr. Lapponi, the Pope's physician. He is said to have given much attention to the problems of spiritism, and his book contains a large body of facts—instances of levitation, materialization of spirits, etc.—which he says have been seriously related by writers worthy of credit. To us the most interesting feature about Dr. Lapponi's book is the fact that it should have been published, for, having regard to the official position of the author, it is to be presumed that it has the *imprimatur* of the ecclesiastical authorities. Till now the Roman Catholic Church has, we believe, set its face against hypnotism and spiritism on the ground that the phenomena are either impostures or the work of evil spirits abusing men, as Hamlet says, to damn them.

Messrs. William Wood and Co. of New York announce the forthcoming issue of a work entitled *American Practice of Surgery,* by representative surgeons of the United States and Canada. The editors are Drs. Joseph Decatur Bryant and Albert Henry Buck. The work will be in eight royal 8vo volumes, and will be illustrated by chromolithographic and other plates and by line and half-tone engravings. The first volume will be published in June and the succeeding volumes at intervals of about three months. The prospectus states that the "material contained in *American Practice of Surgery* will be entirely original, written for this work alone, and naturally embracing much that has never before been published." It is added that "no foreign writers have been invited to take part in the work, and it will, for this reason, be distincly American in character." Among the contributors are Professors E. W. Andrews, Nicholas Senn, and Dr. J. B. Murphy, of Chicago; Professor Roswell Park, of Buffalo; Professors Rodman, and De Forest Willard, of Philadelphia; Professor F. J. Shepherd, Drs. G. E. Armstrong, J. A. Hutchison, A. J. Nicholls, E. Archibald. J. E. Elder, W. Chipman, A. E. Garroll, and J. Bell, of Montreal; and Professors G. A. Peters and A. Primrose, of Toronto.

In the *World's Anatomists,* a little book of 79 pages (P. Blakiston's Son and Co.), a revised edition of which appeared not long ago, Dr. G. W. H. Kemper, of Muncie, Indiana, gives short biographies of 229 anatomists who have written their names on various parts of the human body. The little book is likely to be useful to students of anatomy to whom Gimbernat and Steno, and so many others, are not human personalities, but ligaments, ducts, and nerves. The facts are in the main accurate, but the revision would seem to have been somewhat carelessly done. Without looking for errors, we find, in turning over the pages, Sir Charles Bell described as an English surgeon, while next him comes his elder brother, John Bell, who is presented to us as a Scotch anatomist. The name of Emile Littré is (p. 57) given as "Littre," while the Christian name of Schwann—"Theodore," is changed into "Thomas" (p. 60). Claude Bernard is said to have been "originally a tragic poet"; surely this is unduly magnifying a youthful indiscretion, and that, as the poor girl pleaded, such a very little one. The spelling is somewhat unconventional. Such forms as "aberans" (p. 25), and "pubis" (p. 53), are not, we believe, sanctioned even by American reformers of orthography; the discoverer of the Eustachian tube was not "Eustacchi"; the old university on the Pregel, where Immanuel Kant taught so long, would not know itself in the disguise of "Konigsburg." A French anatomist appears variously as "Doyere" and "Doyer." These are but slight blemishes, and we mention them only in the hope that Dr. Kemper will remove them in the next edition of his interesting booklet.

The report of the Joint Committee of Physiological and Chemical Societies on Proteid Nomenclature, of which Professor Halliburton was Chairman, has issued certain recommendations the object of which is, as far as possible, to retain existing terms, and to reconcile the way in which they are employed in this country, America, and on the Continent. The Committee does not regard the time as yet ripe for coining strictly chemical names; it recommends the abolition of the words "proteid" and "albuminoid." The word "protein" is recommended as the general name of the whole group. It is at present so used both in America and Germany (*Protein-stoffe*). It admits of the use of the derived words "protease," "proteose," "proteolysis," etc. The subclasses, beginning with the simplest, would be as follows: (1) Protamines; (2) histones; (3) albugins, (*a*) albumins, (*b*) globulins and their derivatives, like fibrin and myosin; (4) proteides (*i* pronounced as in wine); (*a*) (gluco-proteides), (*b*) nucleo-proteides, (*c*) chromo-proteides; (5) phospho-proteins (for example, vitellin, caseinogen and its derivative casein); (6) sclero-proteins. For Class 3, a general term has been considered necessary, especially from the teachers' standpoint, and the Committee has adopted an old word used in adjective form by Sir Thomas Browne in his *Vulgar Errours;* he says: ". . . for eggs, I observe, will freeze in the albuginous part thereof." In Class 4, the new word "proteide" closely approximates the corresponding German term. Class 5 is separated from Class 4, as the prefix "nucleo," frequently used in relation to it, is misleading. The new word "sclero-protein" replaces the word "albuminoid" as employed in this country. The prefix indicates the skeletal and insoluble nature of its members. The products of proteolysis are those which require special attention. The Committee recommend that these be classified as follows: (1) Met-albugins; (2) proteoses; (3) polypeptides. Metalbugin replaces albumin*ate.* The termination *ate* implies a salt, and is therefore objectionable. These first degradation products are obtainable from both albumins and globulins, and, after much consideration, the Committee recommends the prefixing of "met" to the word "albugin," as an indication of comparatively slight chemical alteration. The term "proteose" includes albumose, globulose, gelatose, etc. The subdivision of these into proto-, hetero-, deutero-proteoses, etc., and the various modifications of Kuhne's original classification have been considered by the Committee, which has determined to make no recommendation, as the whole matter is at present too unsettled for any final nomenclature to be proposed. The term "polypeptide" includes the peptones (polypeptides which give the biuret reaction and cannot be salted out from solution), the kyrines, and the synthetical products of E. Fischer. The Committee found some difficulty in accurately placing fibrin in the classification, but ultimately placed it among the derivatives of globulins. Its mother substance, fibrinogen, comes among the globulins. There was no difficulty about caseinogen and casein, and the Committee strongly urges the continued use of these words in the sense now employed in the majority of English textbooks. In the case of the muscle proteids the members of the Committee were equally unanimous that the original terms of Halliburton should be rigidly adhered to. The new words introduced by v. Furth have only produced confusion, especially among students. The terms to be adopted should therefore be "paramyosinogen" and "myosinogen" for the proteids of the muscle-plasma, "soluble myosin" for v. Furth's soluble myogen-fibrin, and "myosin" for the final product.

The Open-air Chapel : South Front (copyright of the *Architectural Review*).

KING EDWARD VII SANATORIUM.

THE Sanatorium for Consumption opened by the King on Wednesday last has been built on the last undulation of the Sussex hills, on a site sloping to the south and west and commanding a wide-extending view over the South Downs. The soil is the lower greensand of the lower raceous series, which not only yields a good founda- but is also dry. Indeed, serious difficulty was untered in obtaining an adequate water supply. ng on the site reached water at a depth of about ft.; but it was not abundant, and so full of fine sand o clog the pumping machinery. The water-bearing tum (Hythe bed) was followed northwards until a outcrop was found on the north of Henley Hill, re a number of springs issued. The water from these ngs has been collected by culverts and conducted to a ereservoir hold- 60,000 gallons; this reservoir vater is pumped two 16-h.p. oil nes to a reser- r containing 00 gallons, sit- ed on the est point of site. It is cal- ted that gene- the supply amount to 0 gallons, and even in very seasons 20,000 ns a day is red.

.C. T. Willaims rts that "The ate of the dis- as shown by orological ob- tions taken in neighbourhood, gely influenced e shelter and imity of the being mild equable; the al rainfall is 30 in., the number of rainy days 160, and nean annual temperature 48° F."

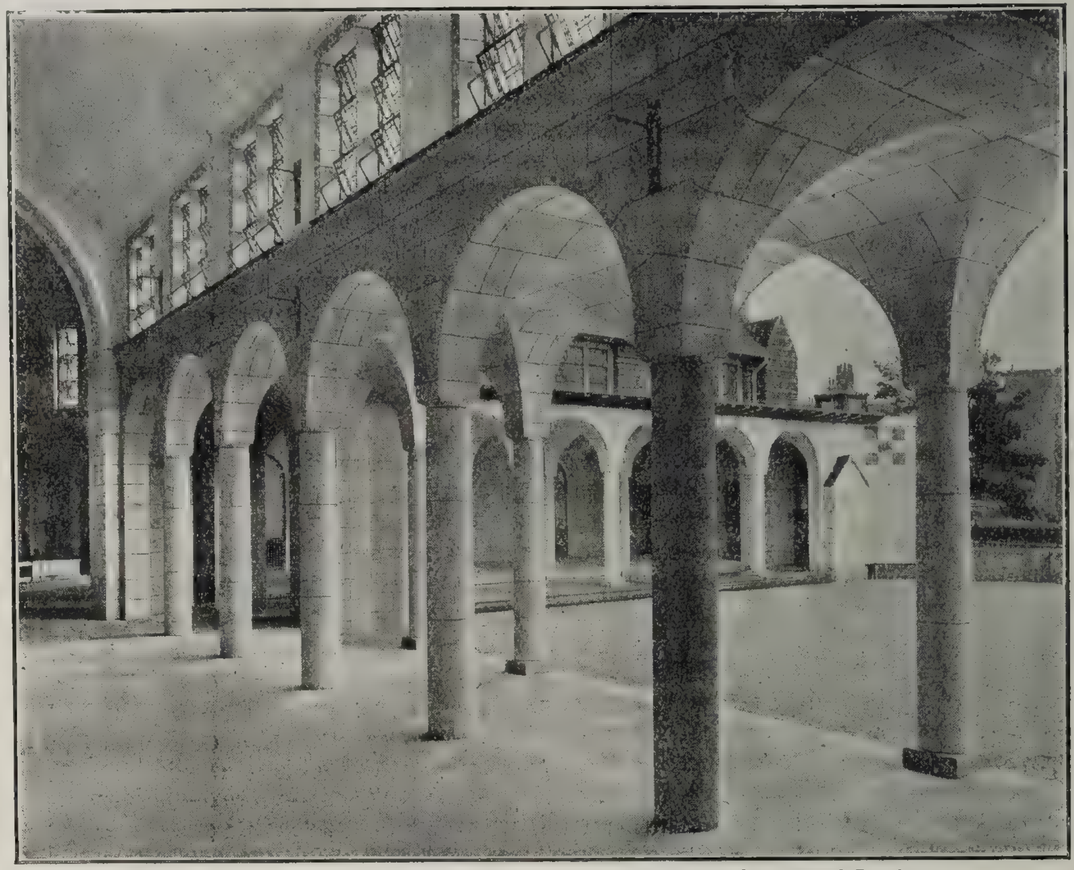
e site consists of about 150 acres of land on Ease- ne Hill, Midhurst, and is bounded on the west and by common land. The buildings have been erected e southerly portion of the site, consisting of park- grounds, on a comparatively level plateau, at an de of 494 ft. above the sea. Behind the sanatorium t is to say, to the north—the ground rises to 630 ft. e the sea. The estate is partly covered with wood- including a grove of fine pine trees; the western slope is heather-covered moorland, ending in a deep ravine. The sanatorium is sheltered on the north and east by rising ground and pine groves, and it is also screened to some extent to the west and south-west.

The ground in front of the building has been laid out in terraces, lawns, and flower borders, and a series of walks will be cut in the moorland and pinewoods and in the ravine.

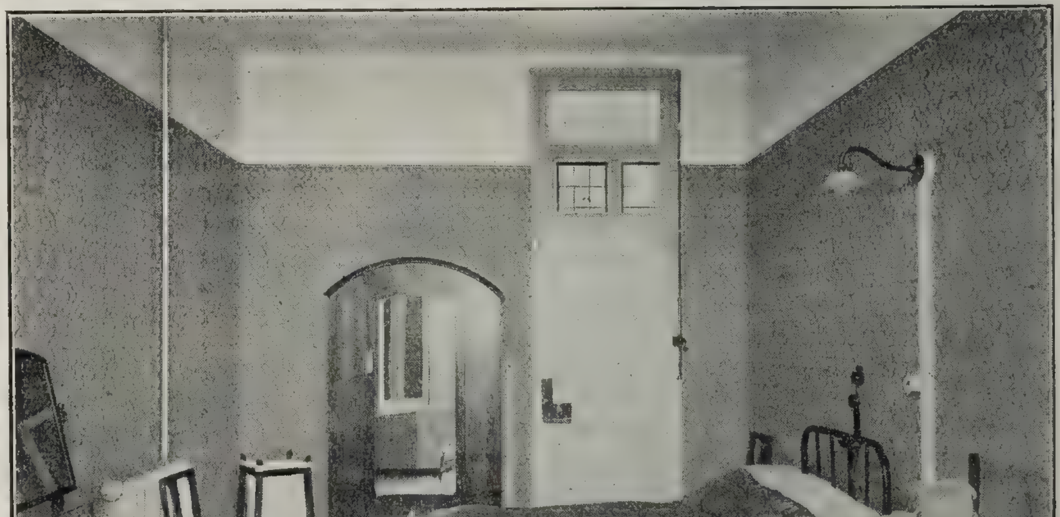
The main building faces almost due south. A general idea of the plan and appearance of the main building will be gathered from the block plan and photograph. It is divided into two parts—the administrative and the patients' buildings—connected by a broad central corridor one story in height. The patients' building consists of a central portion facing almost due south, and the east and west wings set at a very obtuse angle. The patients' building is arranged for two classes—A and B—the latter paying a higher rate, and being rather more luxuriously housed. The three portions of the building are connected by corridors on each floor, and the rooms are so arranged that access to the grounds, dining-hall, medical consulting-rooms, the recreation and cloak rooms and the bathrooms can be obtained by each class of patients and each sex of each class without passing the rooms of any other class or sex.

General View South Front (copyright of the *Architectural Review*).

The ground floor of the centre block contains large recreation rooms with steps leading down from the upper part of the room, and small writing-rooms for the two sexes of Class A. The panelled dado, the steps, and the chimney pieces are of teak without projecting mouldings, but enriched by ebony and hollywood inlays. On the ground floor on both sides are bedrooms for Class A, sixteen in number, each 16 ft. by 11 ft. 6 in. As shown in the photograph, each opens on to a balcony, which is 8 ft. wide, and paved with red tiles; all the rooms look either SSE. or SSW. The first floor of the centre block is reached by a central staircase or by an electric lift; it contains fourteen bedrooms for Class B, seven for each sex; each room measures 14 ft. by 11 ft. 6 in., and as all the bedrooms are 11 ft. high this gives a cubic space of 1,750 cubic feet. Two sitting rooms, one for either sex, are provided on this floor. The bedrooms have a balcony 9 ft. wide; the portion belonging to each room is marked off by a glazed partition. A canvas blind can be brought down so as to cover the whole balcony; electric light is fitted not only in the bedroom but also on the balcony for each patient. The rooms for Class A. in the wings are similar to those of the same class on the ground floor, but not quite so large. There are sixteen rooms in each wing, and all the sets of rooms have separate bathrooms and service rooms. Cases belonging to Class A too ill to leave their bedrooms will be placed on the second floor, this position being chosen because it is considered to be quieter and more accessible to the medical officers' and nurses' rooms. The patients' bedrooms in these wings vary in size from 16 ft. by 11 ft. 6 in. to 13 ft. by 11. ft 6 in. All the floors are of wax-polished teak, and the plastered walls are covered with a paper called "Salubra," which, it is stated, can be washed with soap and water or disinfected; it has been much used in foreign sanatoriums, and has been found satisfactory. The woodwork is rendered in white paint. The windows open from floor to ceiling, the upper part being a hopper or fall-in casement hinged at the bottom, under this are French casements, and the lowest part of the window consists of a wooden door opening down to the floor. The door into the corridor, as will be seen from the photograph, has a window over it, and in this way a direct blow through will be obtained to air the room; both this window and the hopper window have special gear for opening. The outside windows are provided with covered shutters, which can be used to exclude rain or strong sunlight without closing the windows. For walking in wet weather covered ways have been provided on the ground level in the front of each wing.



Cloisters of Open-air Chapel (copyright of the *Architectural Review*).

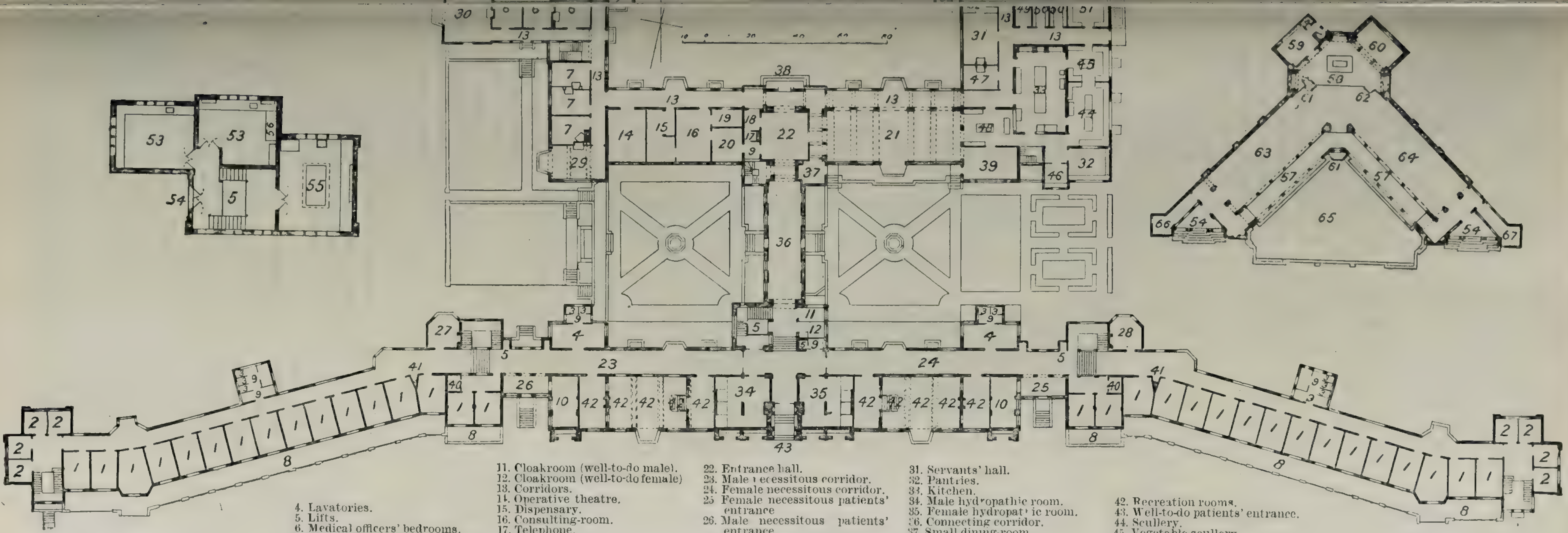


A Patient's Bedroom (copyright of the *Architectural Review*).

The furniture for the bedrooms has been made by Messrs. Heal, and has already been briefly described in these columns. As will be seen from the photograph, it has rounded corners without mouldings; the woodwork is polished inside and out, and left its natural colour. Each bedroom has a hot-water radiator on one wall, opposit the end of the bed. All the corridors are also warmed b radiators, but for the recreation and sitting rooms ope fireplaces have been provided.

The main entrance to the building is on the nortl. Here there is a large entrance hall. The medical room are on the right, while on the left is a large dining-ha lined with Doulton Carrara ware. Th ceilings are plas tered and the floo of York stone, i heated by a moder adaptation of th ancient Roma hypocaust; beneat the stone floor ar channels in whic steam pipes a fixed; the pipe heat the air in th channels and giv off heat to the floo of the buildin Opening off th dining-hall is small dining-roo for patients wit troublesome coug or for any othe reason likely t be objectionable t others. In the larg hall the tables wi be so arranged th every patient look out on to th garden grounds t the north or south. Beyond the dining-hall is a servin room fitted with hot-plates, and beyond that again th kitchen. The nurses' dining-room adjoins the servin room. The whole kitchen department is faced with whit glazed tiles; in the basement underneath is refrigeratin plant capable of making 3 cwt. of ice a day, a mil sterilizer, and extra store rooms. Connected with th kitchen is a large servants' hall, and the servants' be rooms are over th kitchen wing.

We reproduce tw photographs an also a plan of th open-air chapel, th gift of Sir Joh Brickwood of Port mouth. It is, w believe, quit unique in desig Dr. Theodo Williams and som other members the committee su gested that a open-air chap should be designe and in carrying o this idea the arch tect has adopted V-shaped plan, a octagonal dom chancel being the apex; the ang of the V poin north, and its arn form two nave one for men a the other for wome The southern sid of the naves have open arcading, as shown in the phot graph, and, as will be observed, there is a cloister prevent snow and rain from driving in. The floor warmed in the same way as that of the dining-hall. A open-air pulpit has been provided, for it is intended th patients should sit in the cloisters and on the terrace fine weather. In the building is a small mortuary chap



1. Bedrooms.
2. Bathrooms.
3. W.C.s.
4. Lavatories.
5. Lifts.
6. Medical officers' bedrooms.
7. Medical officers' sitting-rooms.
8. Balconies.
9. W.C. Lobbies.
10. Cloakrooms.
11. Cloakroom (well-to-do male).
12. Cloakroom (well-to-do female)
13. Corridors.
14. Operative theatre.
15. Dispensary.
16. Consulting-room.
17. Telephone.
18. Porter.
19. Dark room.
20. Waiting-room.
21. Dining-hall.
22. Entrance hall.
23. Male necessitous corridor.
24. Female necessitous corridor.
25 Female necessitous patients' entrance
26. Male necessitous patients' entrance.
27. Nurses' room.
28. Nurses' sitting-room.
29. Committee-room.
30. Medical library.
31. Servants' hall.
32. Pantries.
33. Kitchen.
34. Male hydropathic room.
35. Female hydropathic room.
36. Connecting corridor.
37. Small dining-room.
38. Principal entrance.
39. Dining-room.
40. Linen.
41. Hydrants.
42. Recreation rooms.
43. Well-to-do patients' entrance.
44. Scullery.
45. Vegetable scullery.
46. Nurses' pantry.
47. Nursekeeper's room.
48. Servery.
49. Cook's room.
50. Larders.
51. Storeroom.
52. Pails and brooms.

Clinical Research Block (53 to 56).

53. Research laboratory.
54. Entrance.
55. Research laboratory (*post-mortem* under).
56. Stink cupboard.

Chapel (57 to 67).

57. Open cloister
58. Altar.
59. Vestry.
60. Organ space.
61. Pulpit.
62. Lectern.
63. Nave for men.
64. Nave for women.
65. Courtyard.
66. Storeroom.
67. Mortuary chapel.

GENERAL PLAN, WITH INSETS SHOWING OPEN-AIR CHAPEL AND PATHOLOGICAL DEPARTMENT.

The medical officers' quarters and pathological building have been carefully designed. On the ground floor near the entrance hall are consulting rooms, a small dispensary, a dark room for x-ray work and photography, and an operating room with large windows of prismatic reflecting glass; beyond this are bedrooms and sitting-rooms for the three assistant medical officers and a large common-room fitted as a library and billiard-room. Over these rooms is the medical superintendent's flat.

The pathological department has been established in a small separate building to the west of the main block. It is quite detached, but can be reached from the main building by a subway. It contains a mortuary and *post-mortem* room and three laboratories for research work. All the rooms are lined with white tiles as are also the sinks. In the basement a room is provided for the destruction of sputum—a special apparatus being fitted, worked by 30 lb. steam pressure to 240° F.

There are separate bedrooms for thirteen nurses, for whom two bathrooms are provided. The nurses have a common sitting-room, and the matron an office, sitting-room, bedroom, and bathroom.

The laundry, engine and boiler-house has been built in a natural hollow to the north-west. Soiled linen can be brought from the main building by a subway, and will follow a regular course from the receiving-room to the wash-house, drying, ironing, airing, and delivering rooms. The wash-house is fitted with large porcelain tanks in which the linen will be placed when it first arrives; beneath the laundry is a disinfecting-room for clothes, bedding, etc., and a boiler-house and engine. Cloakrooms and lavatories are provided for both sexes and each class of patient at convenient points near the doors into the grounds. In addition to the ordinary bathrooms provided close to each set of bedrooms, there is a hydro-therapeutic department, consisting of two large rooms, one on either side of the central doorway into the grounds. The photograph shows the general character of one of these rooms and some of the fittings supplied by Messrs. Doulton. The table in the foreground is provided with mixing valves for regulating the temperature of the water, and stopcocks to command each fitting so that all can be worked from the table. In the basement, under the baths, are rooms for airing towels and linen.

The length of the road from the entrance lodge, in which the head engineer will reside, to the sanatorium is a mile and a quarter. On the north of the site a block of cottages for engineers, gardeners, and workmen, a stable, and a large motor-house have been built.

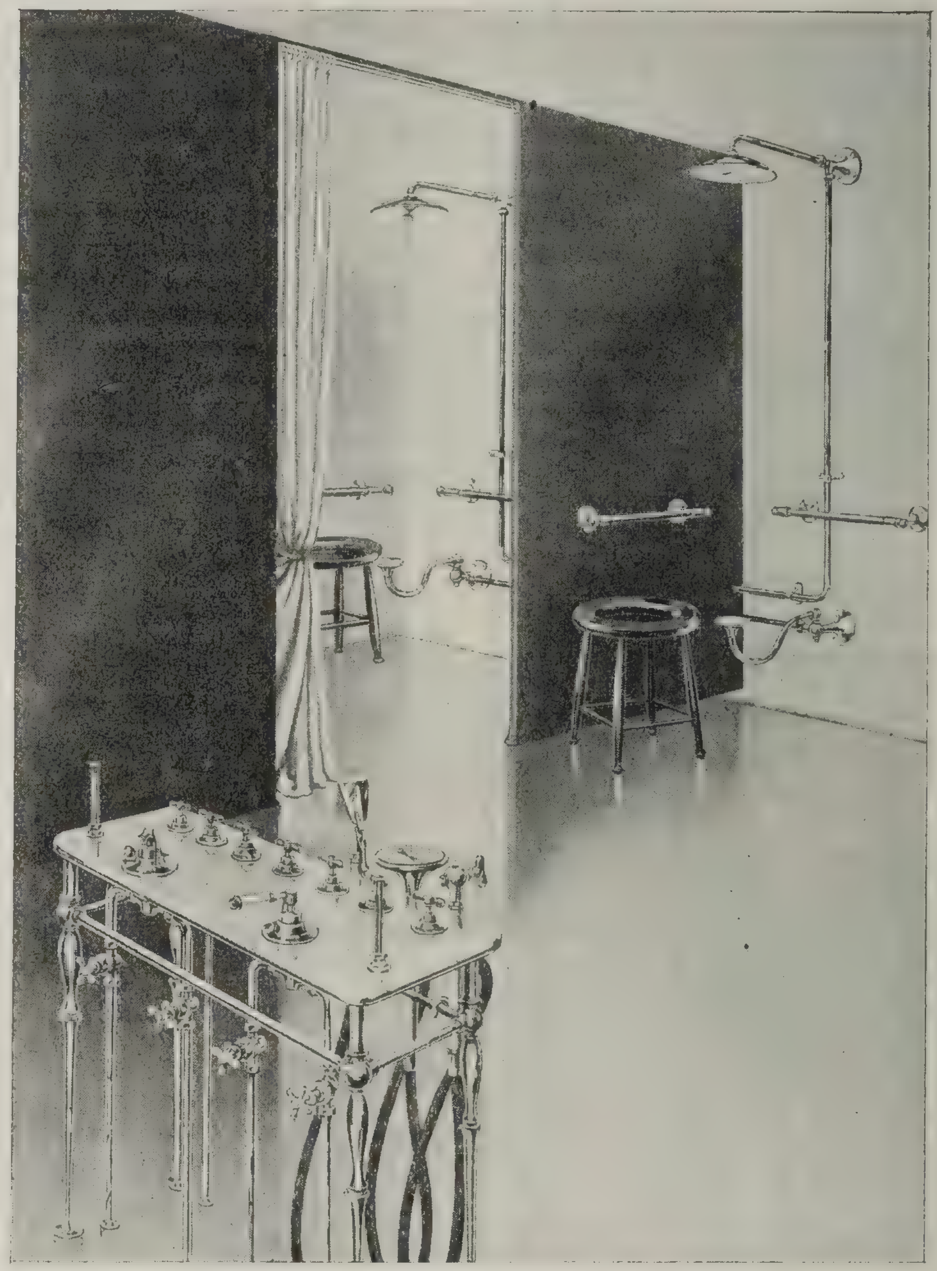
The King, who was accompanied by the Queen, arrived at the sanatorium at 4.30. Their Majesties were received by the following members of the Advisory Committee: Sir William Broadbent (Chairman), Sir Richard Douglas Powell, Sir Felix Semon, Sir Hermann Weber, Dr. C. Theodore Williams, Lieutenant-Colonel Lascelles, Sir Frederick Treves, Mr. Willie James, D.L., and Mr. Roland Bailey, and Drs. P. Horton-Smith Hartley, and John H. Broadbent, M.D. (Secretaries).

The Sanatorium, it may be remembered, had its origin in the wish of the King to establish an institution in England on the lines of that at Falkenstein, which His Majesty had visited and admired. The sum of £200,000 which Sir Ernest Cassel placed at the disposal of the King for any philanthropic purpose His Majesty had in view rendered possible the realization of this wish, and the Committee was then appointed to advise on site, plans, and administration.

The opening ceremony took place in the large dining-hall. After Miss Katherine Broadbent had presented a bouquet of roses to the Queen, Sir William Broadbent read an address in which the steps taken to realize the King's wish were related; it concluded as follows: "The site which the Advisory Committee was so fortunate as to secure is singularly beautiful, and admirably fitted for all the requirements of a sanatorium. Its aspect on the southern slope of a hill, the height above the sea, the protection from the north and east afforded by the pine woods, the sandy soil, the dry air, the proportion of sunshine, the freedom from dust, the facilities for graduated walks on the rising ground, constitute a combination of advantages rarely to be met with. The Committee are confident that the natural advantages of the site with skilled medical treatment in a perfectly-appointed building will result in the restoration to health of many of those suffering from early consumption, and in the hope and belief that in years to come blessings will be invoked on your Majesty's name for the generous thought which prompted the erection of this institution, your Committee now humbly pray that your Majesty will be pleased to declare the sanatorium open."

The King then made the following reply:

"It gives the Queen and myself great pleasure to be here to-day to open this magnificently-situated building. I thank the most generous donor through whose munificence I have been enabled to found this sanatorium which bears my name, and I am well assured that it will be a great pleasure to him to know that the noble gift which he placed at my di posal has been so usefully bestowed, and that will be the means of affording relief to those sufferi from the devastating scourge of tuberculosis. I congrat late the members of the Advisory Committee upon th whole-hearted manner in which they have carried o the trust I reposed in them, and I thank them f the inestimable value of their advice and experien and for the expenditure of time and labour, whic despite the many calls upon them, they have given the work. It is my desire that this institution sha afford accommodation for that large class of persons slender means in professional and other employments f which no provision for sickness of this kind at prese exists. It is also my wish that those persons of larg means who can afford to pay for treatment here should n be entirely excluded from the advantages to be derive from the institution, and I have accordingly decide that a small nur ber of beds sha be reserved for ther It has ever been m endeavour and th of the Queen to all within our pow to mitigate sufferi and to check th ravages of diseas The Queen has show her deep interest the fight agains tuberculosis by b coming the patron the proposed 'Quee Alexandra San torium' at Davos, an by permitting th institution to called by her nam and it is our earne hope that the san torium which is no opened, and its r search laboratorie equipped with eve resource of mode science, may assist advance the physi logical knowledge pulmonary disease and that this instit tion may, by treatin the disease in its ear stages, be the means prolonging the lives those whose career honourable usefulne has been interrupte by this terrible malad I pray that God blessing may rest upo this building, an upon all who wor within it and all wh come to it for aid, an that it may be a means of alleviating suffering and savin life for this and many generations to come."



Bath Department fitted by Messrs. Doulton.

After the Bishop of Chichester had offered up a pray and a hymn had been sung the King declared the San torium open.

Sir William Broadbent then made the following pr sentations: Mr. H. Percy Adams, the architect, wh presented an album of photographs, some of which a here reproduced; Mr. Charles Longley, the builder Miss Jekyll, under whose superintendence the garde are being laid out; Dr. Noel Bardswell, Medic Superintendent; Dr. Basil Adams, Assistant Medic Superintendent, and Miss Blanche Trew, R.R.C., matro The King also sent for Dr. Nathan Raw, British memb of the International Committee on Tuberculosis, an complimented him on his work in the prevention consumption.

The King and Queen made a tour of the institutio attended by Sir William Broadbent and Sir Frederic reves. In the medical library Dr. Arthur Latham and r. Wethered, who won the first and second prizes offered hen the erection of the building was first under nsideration for essays on the construction and working a sanatorium of 100 beds, were presented to His ajesty.

The ceremony was attended by a large number of rsons interested in sanatorium work, who inspected e buildings after their Majesties had left.

CRÈCHES.

FRANCE.

IE first crèche in France was established in Paris by rmin Marbeau on November 14th, 1844, the Société des èches being founded by him in 1846. The society helps the foundation and maintenance of crèches, and makes ants to those which do not receive sufficient local sup-rt. It is concerned chiefly with crèches in Paris, but o extends its assistance to the provinces. During the n years preceding 1902 it distributed 143,150 francs to crèches in Paris and the *banlieue* and 6,900 francs to crèches in the provinces. One of the Society's ief works is to spread information with regard to èches, and it publishes a quarterly *Bulletin*. The others whose children are received in the crèches ake a small contribution, and *les dames patronesses* not ly subscribe but also give their personal services. The ciety also maintains a central library.

At the present time there are 62 crèches in Paris d 33 in suburban communes, providing altogether commodation for 3,381 babies; in the departments ere are 280 crèches in 184 towns.

The Crèche Furtado-Heine, 7, Rue Jacquier, Paris, is e model crèche of the society; it is administered by a uncil of ten members, and is entirely gratuitous. The ilding consists of five large dormitories and a large uponnière, of a waiting room for mothers, isolation oms, a room for the doctor, rooms for the staff, a kitchen, d offices. The dormitories and pouponnière have ndows opening on the one side into the street and on other into a garden. Each dormitory measures about ft. by 20 ft., and is 17 ft. high; there are 20 beds or dles in each. The staff consists of a manageress, perintendent, nurses, cook, 2 laundry maids, and 2 men look after the stoves, etc. The crèche is open from a.m. to 7.30 p.m. The infants received must under the age of 3 years; the first time an ant is brought to the crèche it is examined by the ysician, and if it has been vaccinated and is not ering from any contagious disorder, a bed is assigned to nd a paper containing its name and other particulars ffixed to the wall over the bed; any child which has attended for a period of forty-eight hours is re-mined by the physician. Each day on arriving at the he the infant is undressed, sponged with warm cated water, washed in the lavatory, and dressed in hes provided by the crèche for each infant. Separate bs and brushes are reserved for each child. The nts are fed on sterilized milk; older children are n starchy foods made with sterilized milk, panade le with eggs, soups, and bouillon, and all the children er 1 year of age are weighed every week. During the ending May 31st, 1900, 300 children were received, ng a total of 22,579 days of attendance. The building erected by Madame Furtado-Heine at a cost of 000 francs—£240 a bed; she has also provided an en-ment of 45,000 francs. Each child costs the Society t 2 francs a day.

e Crèche Fourcade was established by Monsieur rcade, Director of the Javel factory, and his wife in . It is administered by the Council of the Société des hes; it has accommodation for 50 children between ages of 15 days and 3 years; during 1899, 163 children received, giving a total of 11,847 days of attendance. mother pays 20 centimes a day for one child, and ntimes for two. The total ordinary expenditure in was 15,235 francs, or about 1 franc 25 cent. a day for child. In 1899 a large annexe with a sanded court, ted with trees, was provided for children between the of 3 and 4 years who are not strong enough to attend *ole maternelle*. In the same year the daily disinfection e children's clothes was introduced.

The Oeuvres des Crèches Parisiennes was founded in 1896 by Madame Cremnitz; it has established four crèches, and has led to the foundation of several others. Each crèche is managed by a local committee, and receives children from the age of 8 days to 3 years; they are dressed, fed, and taken care of gratuitously.

The Crèches de Picpus was established in Paris in 1847, and is managed by a private committee; it has 40 places, and in 1899 received 231 children for 8,258 days, at an expenditure of 7,174 francs, the average cost of each child being 1.06 franc a day. The mothers pay 20 centimes a day for one child, or 15 centimes each for more than one child.

There are other crèches in Paris, some of which receive financial assistance from the municipalities, the total sum voted annually being about 180,000 francs.

The Société des Crèches attaches the greatest importance to the principle of requiring the mother to make some contribution towards the cost of the crèche; the fundamental idea of the institution is to help mothers who are obliged to work, and it is considered natural that the mother should share in the expense. The usual charge is 20 centimes a day, and it is remarked that those crèches which charge a larger sum are more sought after; in one crèche that is always full the usual payment is 50 centimes. Of 62 crèches in Paris, only 8, and of 33 in the *banlieue* only 7, do not require payment from the mother. The objections to crèches are—

1. That infants run a certain risk of cold on the way to and from the crèche during bad weather; to mitigate this the superintendents are allowed to lend shawls and wraps.

2. That instead of favouring breast-feeding they tend to premature weaning. This evil can be avoided by refusing infants suckled by their mothers until they have reached the age of several months, when the risks are less; the crèches should require the mother to attend at the crèche at least twice a day to suckle her child whenever such attendance is compatible with her occupation.

3. The risk of the children contracting contagious diseases may be minimized by establishing small crèches, by separating the infants into groups, by careful examination of each infant by the lady superintendent each morning, by the complete change and disinfection of clothes on arriving each morning, by frequent disinfection of the rooms of the crèche, and by keeping away from the crèche brothers or sisters suffering from a contagious disease. The opinion is expressed that no one crèche should receive more than 50 babies. The object of the crèche being to enable the mother to work while suckling her infant, steps should be taken to prevent the crèche being turned into a place where children between 1 and 2 years of age are merely taken care of.

With regard to feeding at home, it is pointed out that if children when at home are given bad milk they lose all the benefit of the healthy feeding at the crèche, and the question of providing sterilized milk for the nights and Sundays should be considered.

GERMANY.

In Germany the establishment of crèches has not received as much attention as in France, although some 120 crèches are in existence. The Berlin Society of Crèches was founded in 1877, and has established three, the Pestalozzi-Froebel crèche, created in 1899, being the most perfectly organized. The Munich Society maintains six crèches, and at Frankfort, Kiel, Dantzig, Giessen, Posen, and in other places they also exist, and are well attended, while the Association of Ladies at Baden, well known for its important social work, possesses two crèches.

AUSTRIA.

The Society of Childhood's Friends interests itself in every sort of movement connected with childhood, and has established a crèche at Trieste.

RUSSIA.

In St. Petersburg there is an important Society to look after the interests of workshops and workpeople. This Society maintains crèches, and in cases where the people are Mohammedans and object to sending their children to crèches, the Society distributes food.

Portugal.

A Society of Crèches was established in Lisbon in 1875. Queen Maria Pia, who had founded a crèche, transferred it to this society in 1878. Madame Capitolina Silveira Vianna followed the Queen's example. These crèches may be considered as models; they are airy, light, spotlessly clean, the rooms are large, and all the appointments of an up-to-date character, and the food abundant and wholesome. The funds are collected from subscribers and from entertainments. Many other crèches dependent upon this society exist at Lisbon, and there is also a crèche at Oporto managed by the Society of Saint Vincent de Paul.

Roumania.

The two principal societies in Roumania for promoting crèches are the Société Maternelle de Bucarest and the Société du Berceau Sainte-Catherine. The latter association, which is composed of society ladies, is intended to protect infants from the time of their birth until the age of 2 years, in order to lessen infantile mortality, which in Roumania reaches 37 per cent. in some districts. The King and Queen are among the founders. The Society possesses one crèche, where infants whose parents cannot bring them up at home are received, the monthly charge made varying from 10 to 30 francs, according to the means of the parents, one-third of the children being maintained free of charge.

The Society has built a pavilion large enough to contain the staff necessary for the administration of four pavilions, which are to contain 200 children. One of these is completed, and contains day and night accommodation for 50 children, while the infirmary and consulting-room pavilions are also completed.

At present the cost of each child is estimated at 1,000 francs a year, but according as fresh pavilions are built the expenses will diminish.

NATIONAL CONFERENCE OF INFANTILE MORTALITY.

A national conference under the patronage of the King and Queen was opened at Caxton Hall, Westminster, on June 13th, when the chair was taken by Mr. Evan Spicer, Chairman of the London County Council, who at once called upon the President of the Conference, the Right Honourable John Burns, M.P., President of the Local Government Board.

Presidential Address.

Mr. Burns said that both personally and officially he welcomed that useful, necessary, and too-long-delayed conference. On behalf of the Government he offered sympathy for its object, and promised all the practical, kindly, and sensible help his department could give. At the same time he expected more from discussion, education, and enlightenment than from municipal aid or legislative help; he looked for the formation of a healthier public opinion, he looked to the doctors, to the well-informed and independent medical journals which had for so many years given attention to the subject, to the medical officers of health, and to the inspectors, male and female. The grisly fact that so many infants died before their time was made worse by a study of the conditions of death. The sinister fact could not be ignored that what meant health to some meant a lifelong handicap to others. As wealth increased infants decayed, and in round numbers 100,000 infants died annually from neglect, carelessness, thoughtlessness, and ignorance. There were as many deaths in the first year of life as in the succeeding eighteen, and in some districts 30 to 40 per cent. died under 5 years of age. This was not a dispensation of nature nor an ordinance of man, as was shown by many facts—among others by the statistics published by Dr. Orme Dudfield, showing that the infantile death-rate in Kensington was far below that of many other districts in London, but that in one limited district in Kensington the rate was appallingly high. If this happened only in a limited district, then the more easy should it be to prevent it. During the last fifty years the general birth-rate for the whole country had dropped from 34 to 28 per 1,000, and the general death-rate from 22 to 16. If reforms had been able to reduce the death-rate for the child, the youth, the adult, and even for the aged, was it not possible to hope that similar reforms should bring down the infantile death-rate? In the great engineering society of which he was a member, including over 100,000 persons, the age at death of the members had been postponed for ten or twelve years; the wives also had benefited though not to an equal extent, but the mortality among their infants had been stationary, or very slowly declining. Still he was not despondent, for he believed there were signs that the curve of infantile mortality had reached its highest point, and he hoped that similar conferences held annually would in another five years knock down the infantile mortality from 25 to 33 per cent. Why was there this high infantile mortality? Wealth, prosperity and comfort had increased, yet the weakest, the smallest, and the dearest bore unduly the burden of death Did what was called progress hit the child too severely, or was it that the mother was affected, registering through her offspring a decline of race fecundity or maternal fertility or the effect of nervous excitants checking physical transmission? It might be that in equal parts mother, the child, society, and the conditions of industry were jointly responsible. Whatever the chief cause might be the innocent child was not to blame, so that the fault must be with mothers and husbands; society and industry must be at fault. He believed that two out of every four infantile deaths were preventable. The Conference had met to affirm the truth of that, to stop it and to take steps about that beneficent result. The number of illegitimate births was declining rapidly That was good, for the mortality among illegitimate infants was rarely less than twice that among the legitimate. The child suffered from the harsh verdict society passed on the unguarded and unfriended mother, but that her delinquency should be visited on the child was a permanent discredit to the community. Deaths due to certain vicious and sensuous causes also were declining Without minimizing the importance of what he might call the medical causes of high infantile mortality, he attached great importance to the non-medical causes The slight decline in the infantile death-rate which had been observed in recent years synchronized with the increase of sobriety; the nation's drink bill last year was £6 000,000 less than in the preceding year, and it was £22,000,000 less than five years ago; he ventured to prophesy that if in the next ten years the drink bill declined 50 per cent., the infantile mortality rate would decline 70 per cent. It was, perhaps, true tha a disproportionate love of pleasure and inordinate physica exercise did not tend to produce a high birth-rate, but he would not grumble if the children were healthier A man's physique began with his grandmother Napoleon after he had been beaten by soldiers who had not known a comforter nor canned beef had exclaimed, "Oh, those English mothers!" A rise in infantile mortality, apart from epidemic causes, too often corresponded with the drunkenness that accompanied full employment and high wages; this was a fact which could not be ignored. Often when trade fell, as during the cotton famine and during the siege of Paris, mortality diminished. Alcoholism in the mother was a tragedy with which society should concern itself; it produced sterility, abortion, premature birth, stillbirth, and debility in the children who were born alive, and the sad truth was that children of drinking parents were handicapped for life. Deaths from overlying were twice as numerous on a Saturday as on ordinary week days, and they were high on Sunday and Monday, proving that as the means for intoxication existed, so did the abuse. Another fruitfu cause of infantile mortality was married women going t work; in some districts it doubled the rate; if mothers were working for nine, ten, or twelve hours in a factory, i not only contributed to produce a high mortality among their infants, but the effect on the children who survived was seen in gangs of anaemic, saucy, vulgar, ignorant cigarette-smoking hooligans. The absence of the mothe had a bad effect on the preparation of food and on table discipline; there was no influence on youth so great as that of the mother at the head of the table, and the father coming home from his work, the children learn more than at school or polytechnic, or even at Eton o Harrow; a poor home with a mother always there was a very different place to a home when the mother was in th factory all day. When the mother was at home the infan was breast-fed, the children were put early to bed, and they were fed on good wholesome food, and not on tinned kements. When the mother went to work there was a ramble to prepare a meal, and the children were left to e care of proxies and substitutes not less ignorant than e mother herself. His belief was—and he had often pressed the opinion to audiences of working men—that in stricts and in trades where women went to work, the mbined wages of husband and wife were seldom more than ual to the wage earned by the man in districts in which omen were not employed. He held strongly that no married oman should be allowed to go to work three months before d for six months after confinement. In the report of the spector of Factories for 1897-8 were to be found many cts to support this opinion; he would quote one ly: Of 77 married women in one district engaged in industry which exposed them to lead poisoning, 15 re childless, 8 had had 21 stillborn children, 35 had d 90 miscarriages, and there had been 101 children rn alive, of whom 40 died in infancy; it was a funeral ocession from the cradle to a premature grave. There s too much married women's labour and too much ild labour. Married women's labour manufactured afers, who might be seen buttressing a beershop or enchpolishing the outside of a public-house; married men's labour was an individual injury, a social mis-ke, and a commercial blunder. He would like to make unkenness a notifiable disease, poverty a statutory isance, male loafing a misdemeanour, and low wages women an indictable offence. In his judgement, the ints to which the Conference ought to give special ention were: First, to obtain good antenatal conditions, regard especially to food and women's labour; the alth of the mother was the cardinal condition for the alth of the baby. Secondly, to remove the ignorance ich led sometimes to underfeeding, sometimes to the adly and stupid kindness which caused excessive ding or improper feeding; he believed that there was tle or no deliberate cruelty, but the result of ignorance s needless cruelty and preventable death. Thirdly, to press upon mothers the importance of breast-feeding. Dr. Newsholme had shown, it was twice as dangerous feed an infant on condensed milk as on fresh cow's lk, fifty times as dangerous to feed an infant on cow's lk as on breast milk, and a hundred times as dangerous feed it on condensed milk as on breast milk. The rtality of hand-fed infants was ten or fifteen times ater than that of breast-fed infants. The Medical icer of Health for Birmingham, dealing with the tistics of 3,000 babies, found that among the breast-fed mortality was 8 per 1,000, among infants fed partly at breast and partly by the bottle 26 per 1,000, and ong the bottle-fed 252 per 1.000. Large cities were ponsible for much of the high infant mortality. There no place where a woman could live so completely ated, and the expectant mother was thus deprived of sisterly help and neighbourly advice she received in village; it was therefore necessary to provide some ctive substitute. There must be early registration of ths so that the health visitor could help. As showing at could be done he quoted some statistics of Battersea. thirty-five years the population had trebled, but the th-rate had been halved. It was true that the birth- had dropped from 42 to 27 per 1,000, but in ten years infantile mortality had fallen from 176 to 131. He ibuted the improvement in the death-rates to a bination of causes—the fact that Battersea had er public-houses and more parks and open ces than most other districts; to the fact that eral sanitary administration was good, and that borough employed ten sanitary inspectors and one inspector, who visited and advised mothers. He ealed to the Conference to concentrate its energies on mother—to glorify, dignify, and purify motherhood; what the mother is the children will be. It should also to obtain cleaner milk, cleaner homes, and her air, paved back yards, and impervious streets. cially he was willing to introduce a Bill to legalize enditure on municipal milk dépôts, but personally he opposed to crèches on the ground that they would urage women's labour. Finally, he invited the ladies ng his audience to consider whether fashion did not ome directions tend to curtail the responsibility of hers to their children and to the community. In luding a most eloquent speech, Mr. Burns expressed conviction that the foundation of commercial supremacy was the healthy workman, and that health was a maternal legacy.

A vote of thanks to Mr. Burns was moved by the Lord Provost of Glasgow, seconded by Sir Michael Foster, who said that Mr. Burns's attitude towards the problems before the Conference was best expressed by the Italian epithet *simpatico*, which meant something more than sympathetic.

The vote was carried by acclamation, and Mr. Burns, in his acknowledgement, said that he would do his best to translate some of the sympathy he had expressed into action.

The Chairman then welcomed the delegates, and the reading of papers commenced.

Educational Crèches.

Dr. Niven, Medical Officer of Health, Manchester, read a paper on the teaching of elementary hygiene in schools in reference to the rearing of infants. After pointing out that the excess in infantile mortality was a result chiefly of conditions subsequent to birth, producing digestive disorders, lung diseases, and common infectious diseases, and that the most important of these was the first-named, he spoke of the educational influence of hospitals and medical practitioners, and expressed the opinion that much might be effected by training medical students in the public health of infantile disease, and by employing young trained medical men much more freely in connexion with hospitals, especially with the out-patient department of children's hospitals, to visit the homes of the very poor. District nurses were able to give useful help to poor mothers, but their instruction in public health preventive work might be more fully developed. Crèches had not taken root in this country, perhaps because mothers in the large towns still so largely minded their own children, but there was a great need for the crèche-school, which should consist of a number of small rooms, in which infants would be taken charge of for some time, and a central hall in which demonstrations could be given. This establishment would be placed in the centre of the poorest districts, and would be maintained at the public expense. It would be utilized for the training of teachers in the care of infants, and, also under very strict safeguards against infectious disease, for the teaching of young mothers and nurses. It might also be utilized to bring home to poor people how much could be done with infants by proper care. The crèche would be a subordinate element, and teaching would be the *raison d'être* of the institution. If teachers generally were to give a course of instruction in the management of infants and young children, such institutions would be indispensable. A good practical training of the older girls at school was the most important educational influence, and should be supplemented by instruction in continuation schools; this implied that the teachers should be trained. He had lately had the opportunity of seeing how Dr. Ritchie, Medical Officer of the Manchester Education Authority, contrived to get through an extended course by the aid of slides, and Dr. Niven was satisfied that teachers might thus gain a sufficient knowledge of elementary physiology and hygiene to prepare them for the still more arduous work of practical instruction; but admitting so much he was still of opinion that the practical training advocated should be given. The difficulty in the way was not insuperable, the Manchester Education Authority had appointed a trained nurse to give a course of instruction in the care of the infant to the older scholars; the syllabus of this course extended over three years, and was largely practical. It would be a gain if the work of all the bodies engaged in the instruction of mothers could be co-ordinated, if a recognized representative of the Children's Hospital, of the Educational Authority, of the Public Health Department, and of the Midwives Supervising Committee were to be constituted into an Advisory Committee to discuss and co-ordinate any instructions already issued, and generally to bring into line public instruction from the different points of view.

Dr. Caton, Chairman of the Liverpool Education Committee, said that children ought to be taught the value of plain, simple foods; the wretched artificial foods now so largely consumed were sapping the health of the community.

Women Inspectors.

Dr. Spottiswoode Cameron, in a paper on this subject, said that the Leeds Sanitary Committee appointed two women assistant inspectors in 1898; the number had since been increased to six, and during the past year in a district of the town containing a population of 34,000, in which infant mortality was highest, every death of a child under 2 years of age was investigated. During the period the family conditions in 1,221 cases had been inquired into after the death of a young child; it was ascertained that the number born to the same parents had been 5,208, whilst the number alive at the time of the inquiry was 2,582, or less than half. In addition, the same mothers had had 167 stillborn children. The investigations had not revealed a direct connexion between work before confinement and after confinement and high infantile mortality. The conditions which ought to be enforced with regard to women inspectors were, in his opinion, as follow:

1. That their salaries should be at least those given to the men doing corresponding work. Our women inspectors, who rank as ward inspectors, begin with a salary of 33s. a week, rising at the end of two years to 36s., and then to 38s. This is quite little enough. Our head inspector has the salary of one of our divisional inspectors.

2. That none of the women inspectors should devote her whole time to visiting babies. It is better for her own health that there should be some variety in her work. For this purpose these ladies take their share in house-to-house work and in workshops inspection and in both sets of duties, as well as inquiring into cases of infectious disease in schools and factories, and in dealing with nuisances in the latter they gain information useful to them in their work amongst infants and their mothers.

3. That they should have opportunities of comparing notes, and that they should work under a senior inspector of their own sex of some experience.

4. Lastly, that, as women are greedy of work, are self-sacrificing, and often over-estimate their own strength, it is desirable that they should work under medical supervision.

Dr. Robertson, M.O.H. Birmingham, urged that health visitors should be paid and not voluntary workers. He feared that progress must be slow, as tradition had so large an influence in the feeding and rearing of children. Personally he felt that he would be satisfied if after ten years' work a tangible result was seen.

On the motion of Dr. Mackenzie, seconded by Dr. Cameron, a resolution was passed affirming that the appointment of qualified women specially trained in the hygiene of infancy was necessary as an adjunct to public health work. Subsequently the following resolution, moved by the Lord Provost of Glasgow and seconded by Mr. Anderson, was adopted:

> That the Education Department be urged to add to their present scheme for systematically training girls in the senior classes in the practice and principles of personal hygiene, the elements of dietary, with special instruction in respect to the rearing of infants.

EPSOM COLLEGE.

At a meeting of the Council of Epsom College held on May 30th Sir Constantine Holman's letter to the Governors of Epsom College, dated May 14th, intimating his wish to resign the office of Treasurer, was formally presented. The following resolution was thereupon moved by the Chairman (Sir William S. Church, Bart.), seconded by Mr. John A. Bloxam, and passed unanimously:

> That the Council of Epsom College accept with very great reluctance and regret the resignation of the treasurership by their valued colleague, Sir Constantine Holman, M.D., and beg to offer to him their warmest thanks for the untiring care and zeal with which he has watched over the affairs of the institution, and for the time and thought which he has devoted to its interests during the nineteen years of his treasurership. They desire to record upon the minutes that it has been under his guidance that the College and the institution have been placed in a satisfactory position, and to express their earnest hope that he will continue to give them the benefit of his wide experience for many years to come as a member of their body.

It was further resolved unanimously:

> That a copy of the foregoing resolution, written on vellum and signed by all members of the Council, be presented to Sir Constantine Holman.

MEDICAL NEWS.

The Secretary of State for War has consented to distribute the prizes of the London Hospital Medical College on Friday, July 13th.

Professor Chiari, of Prague, has accepted an invitation to succeed Professor von Recklinghausen in the Chair o Pathology in the University of Strassburg.

Dr. R. Murray Leslie of London has, on the recommendation of M. Cambon, the French Ambassador, received the Order of "Officier d'Académie Française."

The parasitological department of the Royal Institute o Public Health, 37, Russell Square, W.C., will be opened on Wednesday afternoon next.

The annual garden party will be held at Guy's Hospital on Wednesday, July 4th, when Sir W. Cameron Gull, Bart. will distribute the medals and prizes to the successfu students.

The annual dinner of the British Electrotherapeuti Society is to take place at the Criterion Restaurant on June 22nd, following the thirty-seventh ordinary meeting at 7 p.m. the same day.

The Institute for the Experimental Investigation o Cancer at Heidelberg is now complete. As already stated Professor Czerny is the Director. Freiherr von Dungern M.D., has been appointed head of the scientfiic department, and Privatdocent von Wasielewski head of th department of parasitological research.

The annual general meeting of the Poor-law Medica Officers' Association of England and Wales will take plac at the Trocadero Restaurant, Regent Street, W., on Tuesday June 26th, at 6.30 p.m. As already announced, the members and their guests will dine together at the same plac at 7.30 p.m., under the chairmanship of Surgeon-Genera Evatt, C.B., President. Members wishing to b present at the dinner are requested to communicate wit the Honorary Secretary, Dr. Major Greenwood, 144, Stok Newington Road, N. All Poor-law medical officers ar invited to be present.

Next Sunday, June 17th, is Metropolitan Hospital Sunday, and on this occasion over 2,000 places of worship i and around London will unite in collecting contribution for the purposes of the Fund, which now includes assistanc to District Nursing Associations employing fully traine nurses as well as aid to hospitals and dispensaries. A supplemental collection is now being made in the City, whic will be paid to the credit of the Fund, and contributions ca also be sent direct to the Mansion House by those unable t attend a place of worship next Sunday. As for many year past, Mr. George Herring has promised to add to th Fund 25 per cent. of the total amount collected up t £100,000.

Dr. Carron de la Carrière, 2, Rue Lincoln, Paris gives notice that the next *voyages d'études médicales* will b to the watering places of Savoie and Dauphiné; the place to be visited are Hauteville (Sanatorium), Evian, Thonon Saint-Gervais, Chamonix, Annecy, Aix, Marlioz, Le Revar Challes, Salins-Moutiers, Brides, Pralognan, Allevar Bouquéron, La Motte, and Uriage. The party, which wi as usual be led by Professor Landouzy, will start fro Lyons on September 1st, separating at Uriage o September 12th; the total cost between these two place will be 300 francs, and the French railway companies wi issue tickets at half price from the frontier to Lyons an from Uriage back to the frontier.

Pan-Hellenic Medical Congress.—The fifth Pa Hellenic Medical Congress was recently held at Athen under the patronage of the King of the Hellenes, an presidency of Dr. Spyr. Manginas, Professor of Clinic Surgery in the University of Athens. It was formall opened on April 23rd by His Excellency M. Stephanopoulo Minister of Public Instruction. Professor Manginas, i his presidential address, said that Greek physicians we in the van of scientific progress, and their scientific wo justified the brightest hopes for the future of medicine i Greece. The work of the Congress was divided among tw sections, pathology and surgery. The General Secretar Dr. J. Cardamatis, reported that 5,000 invitations ha been sent out. The number of practitioners who ha inscribed their names was 353, of whom 145 belonged Athens, 92 to the Greek provinces, while 116 came fro abroad. The attendance included all the leaders of Gre medical science.

British Medical Journal.

SATURDAY, JUNE 16TH, 1906.

CRÈCHES.

o crèches do harm or good? This is a question con- tantly cropping up and about which opinions vary very uch. Mr. John Burns[1] is altogether opposed to them the ground that they tend to encourage married omen's labour, and in particular to render it easy for mother to go to work too soon after confinement; but robably, like most other institutions, well-managed èches are desirable and ill-managed ones are undesir- le. Unfortunately a great many day nurseries exist hich are by no means ideal. They are usually run by aritable and well-meaning people who, in their desire be useful members of society, sometimes do an finite deal of mischief. The danger of crèches that they tend to weaken the mothers' sense duty to their infants. There is at present as en a desire among women of the labouring asses to be independent as there is in the gher classes of society. Women are bored at home; ey like the excitement of going out to work and the tisfaction of making money. The husbands are at rk and the bigger children go to school, and the only which binds these women to their home is their ants. If in the neighbourhood there exist crèches dy to take in infants for nothing, more often than t it is a great temptation to the mothers to get them their hands in that way.

he French, who, as will be seen from the article pub- ed at p. 1421, are the leaders in the movement, con- er that the ideal crèche should be conducted by a vate body and inspected and partly supported by the nicipality. This plan ensures personal interest and per public supervision and control.

nder the Technical Instruction Act the Local thorities in this country could assign funds to make ches serve as technical or practical schools for the ning of mothers.[2] The London County Council at sent supply lecturers. Why should not these deliver ir lectures at the crèches, and give practical demon- tions in washing, dressing, and feeding babies? oretical lectures are generally admitted to be of little to the women of the labouring classes. Batches of elder girls in elementary schools could receive ruction, and girls belonging to girls' clubs urged attend. Not only would the mothers to be thus ive valuable instruction, but a new profession ld be opened up, for those with a vocation that way ld receive a good grounding with a view to becoming dren's nurses.

essure should be brought to bear upon owners and agers of factories not to employ the wives of wage-earning men. Before accepting any child the committee of a crèche should make the strictest inquiries as to whether it is absolutely necessary for the mother of the child to go out to work, and only when she is a widow with a family dependent upon her should the child be admitted, although it might, of course, be advisable to take in temporarily the infants of women obliged to work for a time because their husbands were prevented from earning wages through illness or accident. There is another point. Through philanthropy gone wild some societies take in the infants free of charge. This is a grave mistake, destroying the self-respect and sense of responsibility of the mother. In France, where this mistake has sometimes been made, it is now urged that payment should in every possible case be expected from mothers. Instead of being beggars receiving alms, they are thus made fellow-workers for the good of their offspring. It is found to be a good plan to ask the women themselves to suggest what they consider fair to give, and invariably they offer more than the officials would be likely to ask them, and are found to pay most regularly.

One of the grave drawbacks of the crèche is that it may easily become a centre for infectious diseases. The most careful examination every morning of each child, and the disinfection of clothes, should be rigidly carried out. Parents should be obliged by law to report any case of infectious illness in the house from which the infant is brought. On this account, and also in order to encourage mothers to attend twice a day to suckle their infants, the crèches should be numerous and small rather than large and at great distances; it is, in fact, admitted that large day nurseries cannot be managed so as to give satisfactory results. In some of the crèches children old enough to attend infant schools are admitted. They feed and get a sleep at the day nurseries and attend school. This is an additional reason for extreme care about infectious disorders, so that the crèche should not become a focus of disease.

Yet another point is the question of feeding; no one who undertakes the control of children's lives is justified in feeding them upon milk from an unknown source. The first aim of a Crèche Society should be to urge mothers to suckle their children, and to facilitate this in every possible way, even by distributing food to them. Where it is quite impossible for the mother to suckle the child milk from a scientifically-managed farm, and pasteurized or sterilized where it is considered advisable, should be employed, and the mothers provided with a supply for the night. It is universally admitted that all the precautions for the hygienic management of crèches by day are too often thrown away owing to dirty milk and improper feeding in the homes at night.

Above all, there should be co-ordination in this movement. Isolated societies, each managed on some special plan beloved of the founders, overlapping and often injudiciously and ignorantly administered, do a great deal of harm. The same needs exist all over Great Britain; why not then employ pretty nearly the same methods? In this way, and in this way alone, will good be done instead of harm.

THE STUDENT LIFE.

Professor Osler's farewell address to Canadian and American medical students, entitled The Student Life, has been reprinted by Mr. Horace Hart, of the Oxford University Press, and may be commended not only to students in this country, but to practitioners. The "notes" of the true student are, he says, an absorbing desire to know the truth, an unswerving steadfastness in its pursuit, and an open honest heart, free from suspicion, guile, and jealousy. No human being is constituted to know the truth, the whole truth, and nothing but the truth; even the best of men must be content with fragments, with partial glimpses, never attaining to full fruition. The truth is the best a man can get by his best endeavour, the best that the best men accept; with this he must learn to be satisfied, retaining at the same time a humble, but withal earnest, desire for an ever-larger portion. Only by keeping the mind plastic and receptive can the student escape falling into a condition of mind-blindness, in which he fails to recognize the truth though it stares him in the face. Every truth has to struggle to gain acceptance against honest but mind-blind students. Only steadfastness and humility enable the student to shift his position to meet the new conditions in which new truths are born. An honest heart will keep him in touch with his fellow-students, and give that sense of comradeship without which he travels an arid waste alone. The teacher, too, must be a student among younger students. He is no longer Sir Oracle; the new methods have changed all that. Professor Osler deplores the lack of proper preparation that most students bring to the study of medicine. No one, he says, can have watched successive groups of young men pass through the special schools without profoundly regretting the haphazard, fragmentary character of their preliminary education. For our own part we believe that this is largely due to the early age at which, under the stress of economic conditions, the medical student mostly begins his professional studies. It is not so much, we believe, want of knowledge as immaturity of mind that is the difficulty. Owing to the vast range of the currilum a student is driven to specialize too early. He has to work not to gain knowledge but to get through his appointed ordeal of examinations as quickly as possible. Much as the raising of the general standard of education has done for the mass of the profession, we doubt whether there are among us so many men of truly original mind as there were when the student was not haunted by the ever-beckoning spectre of examination.

---

[1] See p. 1423.

[2] e are glad to see that this opinion was strongly supported by iven in a paper read before the Conference on Infantile Mortality 23).

Passing on to deal with the "student-practitioner," Professor Osler says that at least five years of trial await a man after parting with his teachers; on those years his future depends, and from them his horoscope might be cast with certainty. It has been said of clerics, *Initium sermonum finis studiorum*. The same thing may be said of too many doctors. Apparently, however, Professor Osler does not regard such a farewell to saws of books as coming within the scope of his discourse, for he seems to take it for granted that even the man who is least studious will read a weekly journal and an occasional textbook. Of such a one he predicts that in ten years he will be mentally dead, fit only to do the routine work of an ordinary practice, and more interested in stocks or in horses than in diagnosis or therapeutics. Given, however, the right disposition, the student-practitioner requires three things to maintain his education—a notebook, a library, and a quinquennial brain-dusting. Professor Osler urges every practitioner to make notes of his cases on the spot; they should be grouped in three categories—clear cases, doubtful cases, mistakes. It is a common error, he holds, to think that the more a doctor sees, the greater is his experience and the more he knows. He has an apposite quotation from Cowper on the point, which he says he is never weary of repeating in a medical audience:

> Knowledge and wisdom, far from being one,
> Have oft-times no connexion. Knowledge dwells
> In heads replete with thoughts of other men;
> Wisdom in minds attentive to their own.
> Knowledge is proud that he has learned so much;
> Wisdom is humble that he knows no more.

The practitioner is advised to read with two objects: first, to acquaint himself with the current knowledge on a subject and the steps by which it has been reached; and, secondly, to understand and analyse his cases. More essential than either note-taking or reading is the quinquennial brain-dusting. In London, at any rate, there are now ample opportunities for the post-graduate study which is needful for the "renovation, "rehabilitation, rejuvenation, reintegration, resuscitation" upon which Professor Osler strongly—indeed, vehemently—insists.

THE METHODS OF MODERN SCIENCE.

During the summer of 1905 a course of Extension Lectures was delivered at Oxford on the methods of inquiry which are pursued in various departments of scientific research. A selection of these lectures, each delivered by a well-known authority in his special branch of science, has been made, and has been published in a volume edited by the Dean of Christ Church.[1]

The first two lectures, by Professors Case and Gotch, are general in character and introductory to the whole course. The former deals with the logical principles on which scientific reasoning is based, and emphasizes the close and necessary interrelationship of the inductive and deductive methods. Professor Gotch in his turn illustrates the development of the scientific spirit of inquiry into Nature by examples drawn from the early history of the Royal Society, in the days when its members found it difficult to make headway against the bigotry of their critics who denounced Nature study as impious.

The lectures which follow deal with the special sciences, and generally adopt the plan of describing some particular investigation in detail to illustrate the method of overcoming the special type of difficulties which are characteristic of the science in question. Professor Sherrington took animal heat as his representative physiological problem; Professor Weldon the laws of chance in their relationship to Galton's theories of heredity; and Dr. McDougall, starting from the principles laid down by Fechner, traced the development of modern psycho-physical methods of investigating the perception of light. Perhaps the most interesting lecture in the series is that delivered by Sir Richard C Temple on anthropology, in which he discussed the ideas of exchange and barter prevalent amongst primitive races, and followed out the stages by which the conception of currency has been developed.

The lectures are all of individual interest, and must have admirably fulfilled their purpose, providing the audience with a series of pleasurable discourses on learned subjects. But one cannot take them very seriously as analytical studies of the fundamental principles on which scientific knowledge is constructed. They have little cohesion with each other; they illustrate different kinds of scientific work, but do not constitute a systematic outline of scientific methods. The limited scope of the book ought to have been made clearer by a title which indicated that no more was ntended than a series of popular illustrations of the vays in which certain scientific results had been estab-ished. We should be very glad to see the subject of cientific method dealt with on a much more compre-ensive plan by the eminent men of science who have ontributed these lectures. It is a matter of great impor-ance. not merely owing to its theoretical interest, but as practical problem of education. The great defect of a arge part of the research work which is being turned ut at the present day is its lack of method; it etrays an absence of logical training and shows ittle sign of that critical capacity for estimating he value of evidence which is pre-eminently the ift of the legally-trained mind. This is no matter or surprise when we remember that this side of he science student's education is almost entirely eglected. After acquiring the elements of his subject e proceeds at once to research work; he possesses no raining in the general methods of logic, nor is any ffort made to teach him that the fabric of the science hich he is investigating is an example of applied logic, nd depends for its stability not merely on the accuracy f its facts but on the process of mental construction by hich these are put together.

---

[1] *Lectures on the Methods of Science.* Edited by T. B. Strong, Dean of Christ Church. Oxford: Clarendon Press. 1906. (Demy 8vo pp. 249. 7s. 6d.)

THE DISINFECTION OF SHIPS.

RECENT report by Dr. John Wade to the Local overnment Board on the application of sulphur di-xide for disinfection on shipboard[1] will be of con-derable interest to those engaged in the arduous and sponsible task of defending our shores from infection om without. At present, when a vessel on which ague, cholera, or yellow fever has broken out is sinfected, destruction is required, not only of bacteria, it in the case of plague, of rats and their fleas; in the se of yellow fever destruction of mosquitos is also lled for. Fumigation with a gaseous disinfectant xic alike to bacteria, insects, and rats is necessary; id the efficiency of the process is impeded by the fact at the living entities to be destroyed are generally ntained in a hold loaded with merchandise.

The reasons that have led Drs. Haldane and Wade prefer sulphur dioxide to carbon monoxide and rmaldehyde for the object in view are briefly because rbon monoxide, though it destroys rats, fails to stroy mosquitos and bacteria; and formaldehyde pour, while it destroys bacteria, has the disadvantage sparing the rats and mosquitos. Formaldehyde, more-er, is stated to have no penetrative power practically, d for its subsequent complete removal the disinfected aterial must be chemically treated.

The investigation which Dr. Wade has carried out, erefore, has had for its object the determination of e most effective method of applying sulphur dioxide the purpose of disinfecting a cargo *in situ*, and dealt th the subject from a practical and economic stand-int. A model ship's hold of a capacity of 1,350 cubic t, or roughly 34 tons, was constructed, and filled with cargo representing an ordinary mixed load from an dian port—jute, maize, barley, etc. This cargo was cked with great care, special attention being given to oiding interstitial spaces so as to make the test of uetration as severe as possible. Cages containing rats re placed in the middle and at the top and bottom of cargo, and flexible metal tubes were distributed roughout and connected to a small laboratory erected the outside of one wall of the hold so that samples of air could be drawn off from each part of the interior and analysed. Dr. Wade was thus able to determine the proportion of sulphur dioxide in different parts of the cargo and hold under various circumstances with considerable accuracy, and the thoroughness of the investigation can be gathered from the fact that in the course of the inquiry no less than 1,100 such samples were examined.

Three methods of generating the sulphur dioxide were used, and the degree of penetration was determined by direct analysis of the air in different parts of the hold, by the action of the gas on rats in the cargo, and by its action on a series of non-spore-bearing bacteria placed in a crate in the centre of the cargo. Dr. Wade concludes that rats and insects would be destroyed in less than two hours by the uniform diffusion of at most 0.5 per cent. of sulphur dioxide. He finds that this condition is easily and quickly reached in cabins and empty holds, and in the space around the cargo in a loaded hold; but owing to the extensive absorption of the gas, air containing 3 per cent. of it must be circulated around the cargo for eight to twelve hours to ensure adequate penetration. He also concludes that pathogenic bacteria would be destroyed by the above treatment, and if the hold be closed for a like period afterwards, sufficient penetration will have taken place to ensure the disinfection of all those parts of the interior of the cargo in which such bacteria are likely to be present. Complete penetration can in extreme cases be secured by repeating the fumigation without opening the hatches. We may point out that this last statement is of importance, in view of the fact that the pathogenic bacteria exposed by Dr. Wade to the disinfecting gas were derived from artificial cultures, and therefore more easily destroyed than would probably be the case in practice where the albuminous envelope afforded by the body secretions in which they are expelled would tend to protect the bacteria from the action of the disinfectant.

As regards damage done to cargo, besides the destruction of moist foodstuffs such as fresh meat, fruit, and vegetables, Dr. Wade found that wheat in bags is rendered useless for bread-making by disinfection with sulphur dioxide, but that owing to the slowness of penetration, wheat in bulk is not seriously affected, and barley and maize are practically unaffected. Textile fibres and fabrics, metals and furniture are not affected by the sulphur dioxide, but are liable to injury by the accompanying sulphuric acid when the gas is produced by burning sulphur, unless they are protected by a suitable covering. Jute in bales is not affected in any case. Full particulars are given of different modes of generating the sulphur dioxide and of their relative cost and merit, and the conclusion is reached that the gas may be generated either from sulphur or from the liquefied gas, the former process being on the whole preferable on the ground both of convenience and economy. By combining a small sulphur furnace with a large air-blower, and by providing suitable distributing valves, several holds may be supplied simultaneously with sulphur dioxide in concentration sufficient for disinfection.

◆

THE CORRECTNESS OF THE *MEDICAL REGISTER*.

FOR some years past a plan has been in force under which the Registrar of the General Medical Council issues a circular to one-third of the practitioners on the *Medical Register* residing in the United Kingdom, from whom no communication has been received during the previous twelve months, inquiring whether the address registered in the books of the Council is correct. In

---

[1] Report to the Local Government Board on Further Experiments Sulphur Dioxide, as applied in the Destruction of Rats and in infection on Shipboard. By John Wade, D.Sc. London: Wyman l Sons. 1906. (2s. 6d.)

1903 such circulars were issued to practitioners whose names began with the letters of the alphabet from A to G, in 1904 the names beginning with letters from H to O were dealt with, and last year the alphabet was completed. If the practitioner fails to return an answer to this letter of inquiry it is lawful under Section 14 of the Medical Act, 1858, for the Registrar to erase his name from the *Register*, and we observed that even last year 169 were thus erased. This year no circulars of inquiry have been or will be issued, as the sending out of the voting papers for the approaching election of direct representatives will in itself afford a means of checking the correctness of the *Medical Register*. The voting paper to each registered medical practitioner in England and Wales and Scotland will be posted to the address registered on the *Medical Register;* it is important, therefore, that any practitioner who may have recently changed his address should communicate with the Registrar of the General Medical Council, 299, Oxford Street, London, W., in order to assure himself that the address registered is correct, otherwise, not only will the vote be lost, but the name may be erased from the *Register*.

RURAL HOUSING AND SANITATION.

All who view the depopulation of rural England with the alarm and anxiety which it properly engenders are earnest in seeking for some solution of the housing problem. There can be no doubt that bad homes greatly dispose the peasantry to seek better fortunes in the town districts. The young people who want to get married, and find no possibility of getting a decent cottage in the country, are especially affected. Only the other day we read the complaint of a clergyman on the declining marriage-rate in his parish, due, as he pointed out, to the impossibility of finding homes for young married couples. Migration to the town under these circumstances robs the country of its most promising population. Some would seek a remedy in more drastic legislation for the provision of cottages, but legislation takes time, and meanwhile the rural exodus steadily runs on. The Rural Housing and Sanitation Association, on the other hand, whose appeal for support is before us, seeks to check rural depopulation by improving village homes, by a more energetic administration of existing Acts. The Association points out that dilapidated cottages, too often insanitary and overcrowded, and often without any, or any proper, water supply, tend very strongly to drive away from the countryside people who desire decent homes. To all such people the Association offers a helping hand, and by means of visits and communications seeks to stir up a desire to provide decent housing, and endeavours to instruct country folk in the simple sanitary requirements of a healthy home. There can be no doubt as to the excellence of such work. It lends authority to the humane reformer in every district, and gives the support of public opinion to local councils and local health officers in carrying on the difficult work of rural sanitation. The Society relies largely on the help of medical officers of health, and has more than once pointed out how important it is that sanitary officers should have security of tenure in their appointments if they are to be properly protected in the discharge of difficult duties. The offices of the Association are at 9, Southampton Street, High Holborn, and we would advise all who are anxious to help in the work of bettering the homes of the rural population to obtain the reports and publications of this useful Society, of which the Right Hon. Sir Walter Foster is President.

CRIMINAL ANTHROPOLOGY AND THUG SKULLS.

At the last meeting of the Royal Society of Edinburgh last week, Sir William Turner, K.C.B., submitted Part 3 of his Contributions to the Craniology of the People of the Empire of India. Amongst the skulls, of which he exhibited photographs, were specimens of Thugs, who, Sir William explained, made it their business to frequent the great highways of India and become friendly with travellers, with a view to setting upon them and strangling them. They did this with so much care and forethought that no one ever escaped. Large numbers of people disappeared and no one knew what became of them, as the Thugs buried their victims with such secrecy that the burial places could not be discovered. The attention of the Government was at last directed to the matter and the system was now believed to be at an end. A number of the skulls of these Thugs found their way to Edinburgh, several of which had been presented to him. Altogether he had examined 15. This practice was hereditary in families, and the people who practised it regarded it as a religious duty—that they were offering sacrifices to the particular goddess they worshipped. They read nowadays in medical and other journals of the "criminal" type of skull. The criminal was believed to have marks on his skull which showed him to be a morally degraded person. In these skulls they had a means of investigating this question of criminal type, because here they had people whose families had for generations been devoted to crime, and if such a thing as a criminal type prevailed they would expect to find it in them. Exhibiting a photograph of one of the Thug skulls, Sir William said it was exceedingly well-formed. There was a well-arched forehead, and no want of symmetry. He did not consider that in these skulls of the Thugs there was any evidence whatever to support the view that there was a definite type of criminal skull. Sir William also described two skulls which had been sent him by a former pupil who was with the Thibet expedition. He pointed out that one, that of a Thibetan proper, was Mongolian in type; and the other, that of a Kham warrior, was of the long-headed type. The fighting of the Thibetans was very poor in the early stages of the expedition. They were so afflicted with monastic institutions that there was not much courage in them. The people of Kham, however, were different. They were warriors, and it was found that the fighting was more severe after the Kham warriors joined the Thibetan people. There seemed to be a physical correspondence between the people of the Kham country and the people of Upper Burmah.

THE INFECTIVITY OF INHERITED SYPHILIS.

In another column Dr. W. R. Grove, of St. Ives, gives brief histories of three cases of syphilis, presumably acquired from a baby 18 months old, with the inherited complaint. In each case the site of infection was believed to be the tonsil. The series raises several points of importance. In the first place it may be pointed out that the view that the power of infection in inherited syphilis was much exaggerated by writers in the past is very widely held nowadays and instances in which more than one person had acquired the complaint from a single case are of extreme rarity. The best instance during recent years is afforded by the series of cases recorded by Mr. Hutchinson, in which a number of persons acquired syphilis through the agency of vaccination with lymph taken from infants with the inherited disease. In the light of more recent knowledge many would now consider the evidence put forward by Mr. Hutchinson in proof of the inherited nature of the disease in the infants as insufficient; it is highly probable that they were the subjects of acquired syphilis and not of the inherited variety as he supposed. It is, therefore, worth while to ask whether it was possible that the infant who started the series of cases recorded by Dr. Grove ay have been suffering from syphilis acquired after rth. The mother is stated to have contracted philis two years before the birth of the child, and if e treatment she received was of a satisfactory aracter and continued even for three months only, ere would have been nothing unusual in her giving rth to a healthy infant after the period mentioned. e infant developed universal pemphigus a few days ter birth, but recovered. Syphilitic pemphigus in the wborn is seldom widespread, and recovery from even imited eruption exceptional; pemphigus neonatorum of course, by no means always syphilitic, and covery from a widespread non-specific variety is far m unusual. Dr. Grove states that the mercurial atment of the infant "was not continued for more an about six months." Recent writers differ dely on this point, but some would not advise ourse even so long as this. Eustace Smith recom- nds the discontinuance of the mercury on the sappearance of the symptoms, and with this Donkin rees. Ashby gives half a grain of grey powder, after- rds increased to a grain, twice a day for six weeks or o months. Goodhart and Still say nothing about the ration of treatment, but Coutts advises the adminis- tion of mercury for at least four months after the sappearance of symptoms. Jacobi says that treatment ould be persisted in for many months, and Emmott lt for at least a year. Another writer whose opinion ts mainly on French experience, advises an initial o months' treatment with mercury, and that this ould be continued on alternate months until the age a year and a half. In the face of the discrepancies ween these writers it cannot be held that the six nths' mercurial course in this case was markedly dequate as regards time. After such a fairly pro- ged course, indeed, it is surprising that inherited hilis should retain such virulence as to infect no s than three people when the infant was 18 months . The stomatitis and condylomata which developed the infant about six months after birth are as sistent with recent acquired syphilis in the infant with the inherited complaint. Moreover, household roundings that admit of syphilis and an illegitimate ld in the course of two years are not of such azzling moral purity" that a fresh infection from outside can be adjudged impossible; the infant ght have suffered as well as the other members of family. Exceptions to the so-called "law" of feta are not rare. Again, the infant may have fered from inherited syphilis, and the others have n infected from another source, notwithstanding remarkable site of the primary lesion in each. Grove's cases are of so much interest and impor- ce that we have ventured to state some of the rnative hypotheses, not as probable but merely as sible explanations. If from the facts in his posses- n he is able to throw further light on the series he uld render a service to students of the disease.

CYCLING AND SANITATION.

LOUSE, notable for centuries past as a centre of com- ce and manufacture in the south of France, has been less notable for its entire failure, in one respect, to rch with the times. From the point of view of inistrative hygiene it was until a very short time still wrapped in mediaeval slumber, and yet, in e of this, there has been of late years a falling death- . The circumstance naturally attracted attention, led to an endeavour by one of the professors of the lical Faculty of this university town to discover t fresh factor was influencing the life of the city and ntly producing such a seeming paradox. He has nd it in a change in the habits of the working classes ught about by the comparative cheapness of the modern bicycle. Large numbers of those who formerly helped to overcrowd the poorer quarters and spent their leisure time in the cafés are, thanks to the bicycle, able to live well away from the town, in cottages in which they and their families get plenty of air and sunshine. This explanation of Dr. Basset's is not mere guesswork, but based on an actual census of the number of persons who now go daily to and from their work on bicycles. Apart from this assurance the suggestion itself is of the most credible kind. In the days when bicycle riding was chiefly an amusement of the well-to-do it was recognized to be an exercise of distinctly therapeutic value provided indulgence in it was not excessive, and when the result of its adoption is a change from the conditions of urban life to those of the country for twelve hours out of the twenty-four the advantages are all on one side. In England, too, bicycles are utilized by workers to some extent, and they might be much more used with great advantage. The bicycle brings chiefly into play muscles other than those used in the great majority of trades, so that what a ride of moderate length adds to the gross fatigue of the day is fully discounted by the freshness born of half an hour's exercise in the open air. Where fairly clear roads and reasonable distances make it possible, it should certainly be better to go to work and home on a bicycle than in a train or crowded tramcar, provided that the worker enjoys average health and takes to bicycling while still comparatively young.

A SPECIALIST IN HUMAN NATURE.

Dr. Bernard Hollander is one of that interesting colony of exiles who have left their country for their own good, and who honour us by choosing our little island as the scene for the display of their superior knowledge and the exercise of the sapient arts that can, it would appear, be acquired only at Teutonic seats of learning. The German doctor, indeed, may be said to take the place among us which the *Graeculus esuriens* held in the Rome of Juvenal and the "starving Frenchman" in Johnson's London. He knows all sciences, and can transform himself at will into an expert in inquest pathology or a specialist in human nature, normal and morbid. This remarkable speciality is claimed as his province by Dr. Hollander in *Who's Who*, that modern equivalent to the lantern with which Diogenes looked for a man. We were led to look for Dr. Hollander by the receipt of what appears to be the syllabus of a book on unorthodox methods of treatment of nervous and mental disorders to which his name is attached. This syllabus was sent to a layman, and it is perhaps not altogether rash to infer that he was not the only recipient of the document. A few extracts will give an idea of its character. After reference to the increased tendency to nervous and mental disorders which is said to be the result of the high pressure of modern life, comes the following suggestive passage: "Special knowledge required for the treatment "of mental diseases. Recent researches enable "us to locate the part of brain which is the "seat of disease. Methods of treatment of early "stages. Cases of chronic insanity cured by operation. "Abnormalities in the shape of head of backward "children. Treatment of feeble-mindedness, irrational "conduct, and moral obliquity." Further on it is explained that "why the drug treatment sometimes fails "to cure nervous diseases is that the efficacy of drugs "depends on their absorption." Hence, naturally, "special mode of preparation and combination may be "necessary to assure their entering the system." All disease is said to be "an effort of Nature to throw morbid "matter out of the system," and we gather that this desirable consummation is helped by psycho-therapeutics, electro-therapeutics, etc. The value of "brain foods" is insisted upon. It is an obvious inference that the author of this profound work must be the best interpreter of his own system, and the most successful in applying his own precepts; therefore, lest any pilgrim in search of health should miss the shrine where Nature may be helped to throw morbid matter out of his system, and where he may obtain enlightenment about "brain foods," a convenient little map of the district in which the priest of the shrine dwells accompanies the syllabus. Dr. Hollander may or may not be a great neurologist, but the syllabus and the map which we have been privileged to examine are sufficient to show that he is fully entitled to describe himself as a specialist in human nature.

THE *BRITISH PHARMACOPOEIA* AS STANDARD.

A case under the Sale of Food and Drugs Act, which was decided in the Edinburgh Sheriff Court on June 7th, turned on a much-vexed question, which is of considerable interest to prescribers—the question, namely, of how far the *British Pharmacopoeia* is a legal standard for the sale of drugs and preparations named therein. Briefly, the facts were as follows: The defendants, Messrs. Duncan, Flockhart, and Company, sold to the Leith Sanitary Inspector a quantity of liquid extract of cascara sagrada, which was admitted to be of the same strength as the official preparation, but which contained glycerine, instead of alcohol, as preservative. The essential facts of the case were not disputed on either side. The defence was that the article was not sold as the liquid extract of the *British Pharmacopoeia*, but was clearly labelled "Duncan's," and the attention of the purchaser was drawn to this fact; that the preparation was of the same strength as the official one and superior to it in keeping properties, and had been prepared by the defendant firm in the same way since 1882, at which time there was no official formula for this substance. In giving judgement, the Sheriff considered the essential point to be whether chemists are at liberty to depart from the instructions of the *Pharmacopoeia* in regard to non-essential ingredients of a preparation, such as substances added as preservatives, as in this case. He held that the sale of an article differing only in such respect from the article described in the *British Pharmacopoeia* was not to the prejudice of the purchaser, and he acquitted the defendants of contravention of the Act. This decision may appear at first sight to open the door widely to variations in the preparation of medicines, and to go far to defeat the purpose for which the *Pharmacopoeia* is established. There is no authoritative distinction between the essential and non-essential constituents of a medicine; in the present case both medical and pharmaceutical witnesses stated that they considered alcohol to be an essential ingredient of liquid extract of cascara sagrada, while similar witnesses on the other side were of opinion that it is by no means essential, but that the use of glycerine in its place yields a superior preparation. However this may be, medical men and chemists alike will agree that it is of great importance for a prescriber to have full confidence that a prescription for an official substance will always be dispensed with an identical article at every pharmacy where it is presented; even the small and at present unavoidable differences that occur, owing to natural variations in different batches of a drug, not infrequently lead to some disquietude on the part of the patient, who may notice some difference in appearance or taste, and feel convinced that he has been supplied with wrong or inferior medicine. Nevertheless, it does not appear that any other decision could have been come to than that given by the Sheriff. Nowhere in the Sale of Food and Drugs Act, under which the action was brought, is the *British Pharmacopoeia* defined as a legal
standard for the sale of drugs. It has often been cited
as the authority in cases brought under this Act, but
not infrequently the claim has only been that it constituted *prima facie* evidence as to what the purchaser
desired to receive when asking for the article in question; and in successful prosecutions for selling drugs
not complying with pharmacopoeial requirements, the
offence has consisted in some inferiority in strength or
purity, whereby the purchaser was held to be prejudiced.
The Pharmacy Act of 1868 makes it a penal offence fo
any person to "compound any medicines of the *British*
"*Pharmacopoeia* except according to the formularies o
"the said *Pharmacopoeia*"; and it is possible that if the
charge in the Edinburgh case had been brought unde
this Act, the result might have been different. The
opinion expressed by the Medical Officer of Health fo
Leith that "if the *British Pharmacopoeia* were not take
"as the standard, every chemist would be his ow
"pharmacopoeia," is also perhaps not well founded
Much is done by chemists by means of unofficia
formularies, such as that published by the Britis
Pharmaceutical Conference, to secure uniformity i
preparations that are not official; and the appreciatio
by chemists of the need for uniformity, and the provisions of the Pharmacy Act, will doubtless continue t
ensure as close an adherence to the *Pharmacopoeia* i
the future as in the past.

NURSES' REGISTRATION.

The annual meeting of the Royal British Nurse
Association, held on May 31st, proved very inhar
monious, a small but active minority making clea
its extreme dissatisfaction with the Managing Com
mittee. The main debate, however, centred roun
a point which, it must be admitted, is of importanc
to nurses themselves, and likewise, though in a mino
degree, to all those likely to be in any way affected b
the passage of a Nurses' Registration Bill. The point i
question is what representation the Royal British Nurse
Association should endeavour to secure for nurses o
any Central Nursing Board which in the future may b
established. The Bill originally submitted to Parliamen
by this body proposed a Board of thirty-one, includin
representatives of a great number of different institu
tions and bodies. The Medico-Political Committee
the British Medical Association, in a Memorandum
the Divisions on the subject, expressed the opinion th
the number was far too large, and the Select Committ
of the House of Commons subsequently took t
same view, stating that the Board ought to numb
not more than fifteen. The belief was also express
that those represented should be matrons, nurses, t
medical profession, nurse-training schools, and t
public. In consequence of this report, the Roy
British Nurses' Association has since been endeavouri
to modify its proposed council. What it now sugges
is that the Board shall consist of sixteen persons, seve
of whom shall be nurses, and the rest medical me
and laymen. The minority, however, at this meeti
pressed unsuccessfully for ten nurses, five medical me
and one layman. A medical member of the minori
quoted the British Medical Association as havi
formally stated that there were too many medic
men on the proposed Board, and stated that most of i
local branches had unanimously agreed that doctors h
not time to manage nurses' affairs. Medical m
when successful were too busy, he said, to devote ti
and attention to the nursing profession. Where t
speaker, Dr. Bedford Fenwick, acquired these beliefs
not quite clear. The precise formation of any cent
board which may be established under a Nurs
Registration Bill is not one of the points which has
been definitely considered by the Medico-Politic
Committee, or submitted to the Divisions

ir consideration. It has only been stated that Boards proposed in either of the Bills so far laid ore Parliament appear far too large, and that the dical profession would be adequately represented by ee members, one appointed by the Crown, one by General Medical Council, and one by the British dical Association. Several of those who spoke on alf of the minority made remarks which seem to icate views a little out of focus. Starting with assertion that nurses and doctors are now of same status and that doctors are governed by a ncil of medical men alone it was argued that ses should likewise be left to manage them- ves. The analogy, however, as clearly indicated by James Crichton-Browne, the Chairman of the meet- , is obviously incorrect, for nurses, however well ned, can never be an independent body, but must ays work under doctors with the public for a common ster. As a forecast of the future the most important ement made at the meeting was that Mr. Tennant, Chairman of the Select Committee, had been eavouring to persuade the Royal British Nurses' ociation and the Society for the State Registration Nurses to join hands and work for the passing of the l establishing a central Board composed of six ses, five medical men, and five laymen.

ARMY MEDICAL REFORM.

. BRODRICK's letter on army medical reform, to which rence was made in our last issue, has awakened a erful echo in a letter from Sir Frederick Treves, ch appeared in the *Times* of June 8th. He says with h that, thanks largely to Mr. Brodrick, the Army lical Corps, as regards its *personnel*, its equipment, its internal organization, is second to none the world, but in the field it is, in the most portant part of its duty, almost helpless. After ting the South African statistics of sickness and unds respectively, Sir Frederick Treves says that if medical service had a free hand it could prevent ease. At present, however, there is no co-ordination sanitary effort, and no organization to cope with the ut hygienic problems encountered on field service. o is responsible for failure in sanitation? Apparently one. The Principal Medical Officer cannot be held ountable, for he has no means of doing what is needed no authority to use it if he had. The combatant er is ignorant of hygiene, and the soldier, though he been taught how to seek cover, has received no ruction how to guard against infection. The lical energy of the British army, says Sir Frederick ves, in the field is at the wrong end of the umn. It is in the rear to deal with the sick; it uld be in the van to ward off the onset of ase. By way of remedy he urged that the head the Medical Department should be not, as at sent, the Adjutant-General, but the Director- eral, who should be responsible for its efficiency economical administration, and should have control he money voted for the medical service. The army lical officer should have authority to order, and a *onnel* at his command to carry out the necessary tary arrangements, while the combatant officer and soldier should know enough of hygiene to secure r obedience and intelligent co-operation in the work. s pointed out by Sir Frederick Treves that these re- ns would entail no additional expenditure except for increase in *personnel*, while instead of providing for er cent. of sick as is now the case, it would be possible nter on a campaign with provision for only 7 per ., or in time for even less. Like Mr. Brodrick, Sir lerick Treves advocates the same reforms for which have over and over again pleaded. We have piped, the War Office has not danced. We hope that, now the tune has been taken up by such powerful voices, the public, which has to pay for the tremendous loss of efficiency caused by preventable disease in war, will at last be got to listen. The indifference with which the whole question of army medical reform has hitherto—except in occasional spasms of indignation when a scapegoat was wanted—been regarded both by the military authorities and the nation, can only be explained by the ignorance of the principles of hygiene which still prevails among the people. Till that is removed, the importance of preventive measures will not be understood, and nothing will be done. We heartily join in the hope expressed by Sir Lauder Brunton that a clause making the teaching of hygiene in schools compulsory will be introduced into the Education Bill now before Parliament.

THE PREVENTION OF SYPHILIS.

IN the course of the Harben lectures, recently delivered by him at the Royal Institute of Public Health, Professor Metchnikoff stated that an assistant in the laboratory accidentally infected his lip with the syphilitic virus from a macacus monkey. A suspicious ulcer formed at the site of infection but soon healed. Four weeks later, however, an ulcer similar to the first formed on the lip of this assistant. A Javanese macacus was inoculated with some fluid taken from this ulcer, and two typical primary lesions appeared at the site of inoculation in the course of a month. These lesions were found to be teeming with the micro-organism described by Schaudinn, but the assistant did not suffer from syphilis. The conclusion was drawn that the assistant was infected on the lip with syphilitic virus from a macacus which acted on him like a very attenuated virus, and, to confirm this, an aged woman was inoculated at her own request with virus passed through a macacus. After a period of six months no swelling of the lymphatic glands nor any secondary lesion was observed in this woman, and Metchnikoff therefore believes that the macacus monkey may attenuate the syphilitic virus for man. A definite method of antisyphilitic vaccination is not yet put forward, but the indication has been given. In the opinion of Metchnikoff, even if the existence of a vaccine against syphilis is conclusively proved it could only be employed under exceptional circumstances, because if used on a large scale the attenuated virus might cause distressing complications, for the fact is universally accepted that a certain percentage of patients suffering from general paralysis and from tabes have only shown slight and insignificant syphilitic lesions. Metchnikoff therefore suggests that vaccination for syphilis should be practised only on those persons exposed to the greatest risk of acquiring that disease, and according to him should be selected from among the beginners in prostitution. He urges that as almost all of these persons are condemned to acquire syphilis, vaccination would be an advantage for them as well as for the men. He recognizes, however, that to carry out this plan many difficulties would have to be overcome. Syphilitic infection in prostitutes begins early, about the fourteenth year, and these girls, being minors and ignorant, enjoying full liberty, without the slightest constraint, could not be persuaded to submit to be vaccinated against syphilis. In Russia, however, especially in the rural districts, syphilis is not spread so much by prostitutes but most commonly by little children. Syphilis in Russia, after penetrating into an obscure hamlet miles away from any doctor, establishes itself at every hearth, and the children by their games and caresses disseminate the infection. Metchnikoff urges that children in danger of acquiring syphilis from their relatives and of passing it on to other children might be more easily subjected to vaccination, because they have not the liberty of doing as they like but must obey their parents, who might be brought to understand the advantage of the proposed vaccination.

EYESIGHT-TESTING OPTICIANS.

WE notice a somewhat remarkable advertisement in the *Surrey Comet* by a tradesman who calls himself a "Fellow of the Worshipful Company of Spectacle Makers" and a "specialist for defective eyesight," and claims to give "very careful examination to children "and difficult cases, and employs an improved method "of examination by which the instillation of harmful "drugs and a dark room are avoided." The authorities of the Spectaclemakers' Company through their Master, Sir William Hart Dyke, some years ago pledged themselves to us to maintain the conditions imposed upon their diplomates, one of which reads "that he will "not publish any advertisement unfair to fellow "craftsmen or misleading to the public." We should say this is a crying example of that sort of advertisement. Nothing demonstrates better the undesirability of permitting legislation such as that desired by the Spectaclemakers' Company in the interests of its diplomates. It has been abundantly shown in the memorials sent from the General Medical Council, the Royal College of Surgeons, and the Ophthalmological Society that it would be unfair to the tradesmen who desires to sell spectacles without claiming to correct defects of vision; to the medical profession, which possesses the necessary skill, and to which such work should be restricted; and to the public, which can only be misled and suffer in person and pocket from these unwarranted claims. The advertiser in this case seems to be sending a circular to the medical profession in his neighbourhood offering to "reciprocate"—whatever that may mean; but, as we have repeatedly pointed out, it is the obvious duty of members of the medical profession to refuse to co-operate in any way with advertising opticians of this class.

THE POSITION OF MEDICAL OFFICERS OF HEALTH.

A FEW months ago the Battersea Borough Council, when advertising for a medical officer of health to fill the place vacated by Dr. McCleary, issued certain revised standing orders governing the conditions of the appointment. In these orders it was proposed that the new officer should carry out his duties in "co-operation and conference" with the chief sanitary inspector of the borough, and should "issue all instructions and com-"munications to sanitary inspectors (male and female) "through the chief sanitary inspector." These standing orders would have introduced a system of dual control, and would have prevented the M.O.H. from occupying that position of freedom and independence conferred upon him by statute, and essential to the due discharge of the responsible duties of his office. The standing orders were contrary to the spirit of the Public Health Acts, and contrary to the system of administration established throughout the country under the regulations and orders of the Local Government Board. Better counsels have, we are glad to say, prevailed, and the Battersea Borough Council has decided to omit the clause in the standing orders which would have created dual responsibility. How this result was brought about we are not aware, but we believe that representations were received by the borough council both from the London County Council and the Local Government Board. The fact that the member for Battersea is President of the Local Government Board lent a certain piquancy to the situation, and it would be interesting to know whether in this instance Mr. Burns exerted his personal influence to prevent a serious mistake being made. The relative positions of the medical officer of healt and the sanitary inspector is a matter whic admits of no doubt. It is manifestly impossib that the sanitary administration of any local authori should be under dual control. It is equally absu that the medical officer, who has undergone a lo and arduous course of training and education his profession, should be subordinated to one who sole claim to predominance may be the possession of certificate based upon a thirteen-weeks' course of lecture The offices of the medical officer of health and sanita inspector are so co-ordinated that united action necessary. Where any question arises as to conflicti duties the orders of the Local Government Boa are quite clear, and the medical officer health is invested by statute with all the powe of a sanitary inspector; the converse is not the cas The questions of dealing with infectious disease and i causation, the estimation of death returns, the value water analyses, and all bacteriological questions fa within the purview of the medical officer of healt only, while it is his duty equally to be acquainted wi all questions of drainage, house sanitation, me supplies, etc., in regard to which the inspector is h executive subordinate. A knowledge of the law to administered should be the common property of bo officers. If the medical officer of health does not exc in this question it must be due to lack of interest his work.

THE COST OF ASYLUMS.

The *Halifax Guardian* published not long ago an artic since republished as a leaflet, "Is Insanity on th "Increase? The Stately Homes of England and o "Modern Lunatic Asylums," by "B. Dubius, M.D. purporting to be a railway conversation between th writer and another. Dr. Dubius animadverts upon th enormous cost of these institutions and upon th undoubted fact that, because of their high standard comfort and care, their at times unnecessary sum tuousness, and their "respectability" as contraste with workhouse provision, they are largely take advantage of, at the expense of the ratepayer, by tho who seek to relieve themselves of the burden of age and dependent relatives who are in their dotag Interrogated by his interviewer as to the means remedying this state of affairs, Dr. Dubius made th following among other suggestions: The cessation asylum extension; the rejection by asylums of a insane people over 65 years of age; the reversion to th old system of small institutions in connexion wi union infirmaries; the encouragement of home trea ment of the demented, the senile, and the paralyse and the adoption of the boarding-out system as pra tised in Belgium. Railway conversations are seldo free from interruption, and possibly from this fact, o it may be, from incorrect reporting, there is a sprinkli of errors in the account given of the Gheel colony a in the statistical information as to the growth of cert fied insanity. Also, Scotland is not, as stated, on "now adopting part of the system," for the family-ca system has been applied there with marked success f nearly half a century; and the writer might, furthe have strengthened his argument by outlining the syste which obtains in Saxony, a full description of whi had already been published in our columns. Neverth less, the publication in a lay paper of the views "B. Dubius" cannot but do good by directing attenti to a question which closely concerns both the publ purse and the public welfare, and will aid, with oth publications—such as the series of articles by th Rev. Clement Pike on this subject in the *Inquirer*— creating that important desideratum, an instructed la opinion.

RACTITIONERS AND THE LAW OF NEGLIGENCE.

Why should medical practitioners be liable to actions or negligence? This is a question which has pro- ably suggested itself to the mind of members of he profession who read the answer of the Attorney- eneral to a similar query relating to members f the Bar. Learned counsel may accept a brief; e may absent himself from court for the whole r part of the time during which the case is eard; he may conduct the case with incompetence— et no action may be brought against him. And why? Because," says the Attorney-General (and there is igh and venerable judicial authority for his answer), when counsel is briefed he enters into no legal contract. His position is that of one who undertakes a moral duty, and the fee which he receives is a mere honorarium, for which he cannot bring suit." In other words, he cannot be sued r negligence, nor can he sue for his fees. he fact that counsel cannot sue for his fees was learly recognized in 1630. In a case which was tried that year, "The plaintiff, being a counsellor-at-law, brought his bill for fees due to him from the defendant, being a solicitor, and was to account to him at the end of every term. The defendant demurs. This Court allowed demurrer *nisi causa.* Demurrer affirmed and the bill dismissed." It is not on record at any similar case has ever been successful. s to negligence, it was declared in the reign Henry VI that "*si je retaine luy* (meaning a counsellor-at-law) *d'estre de mon counsel al Guildhal en London al certen jour, sil ne vient al jour per que mon cause perish, action de deceit gist vers luy.*" From this appears that counsel were liable for negligence in rmer days, but the law has been changed by a process evolution. Having said thus much as to the legal posi- on of a barrister, one is at a loss to imagine what there to entitle a member of the Bar to an immunity not joyed by the medical profession. It is notorious at a large number of practitioners never do sue their tients. It is, in effect, part of the statute law that llows of the Royal College of Physicians shall not ing actions to recover their fees. Why, then, should t the medical profession be entitled to claim the munity which is enjoyed by the gentlemen of the ng robe? A solicitor may sue and be sued; so may general practitioner. A barrister may not sue nor may be sued; but a consulting physician, while he cannot cover his fee, is exposed to the risk of an action for gligence at the hands of a patient who cannot be mpelled to pay him anything. It is no answer to is complaint to say that actions against members of e profession are few and far between. Sophistries this nature do not justify a distinction which law custom at present draws between two of the great ofessions.

HOMOEOPATHY IN CHICAGO.

icago, as we learn from the *Chicago Medical Recorder,* s for many years been the chief centre of homoeo- thy not only in the United States, but in the world. re students, perhaps, have graduated in homoeopathy that city than in the rest of the world combined. r contemporary, however, sees signs of a decline in sect. The two principal schools have within the t two years become amalgamated, and the fusion is erally attributed to reduced attendance at both. It uld appear, moreover, that the education given in sectarian institution is markedly inferior to that of regular schools. Owing to the policy adopted by Chicago Medical Society in admitting professed lowers of Hahnemann to membership simply on ir agreeing not to practise any exclusive line of atment, there has already been a large secession from the ranks of homoeopathy. Homoeopathy throve as long as it was persecuted; toleration has reduced its adherents to their proper relation to the general body of the profession. The *Recorder* ends with the expression of a belief that "the days of homoeopathy are probably numbered."

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Monday last was the latest day for the reception of candidates' nomination papers. There are altogether only five applicants, inclusive of Mr. Henry Morris and Mr. Richardson Cross, the two out of the three outgoing members of Council who seek re-election. Mr. G. A. Wright, Professor of Surgery in the Victoria University, is, of the three new candidates, the oldest as regards Fellowship. his diploma dating from 1878; he became a Member in 1877. He is undoubtedly a worthy representative for Manchester, at present unrepresented on the Council. Mr. Bruce Clarke became a Fellow in 1879, a year after he took the diploma of Membership. He represents a great school, and has taken an active share in the development of renal surgery. Mr. Charters Symonds became a Fellow in 1881; as a Member (1875) he is senior to the other new candidates. He represents another great metropolitan school, and no doubt will receive from Guy's men active and well-deserved support.

A special meeting of the Central Council of the British Medical Association will be held at the offices of the Metropolitan Asylums Board on Wednesday next at 2 p.m., to consider the draft of the proposed Charter, together with amendments received from the Divisions.

The General Secretary has received from Armour and Co., and the Morris Packing Company, of Chicago, letters inviting the Association, after the annual meeting of the Association in Toronto, to send delegates to Chicago to examine the stockyards and packing houses of these firms; Messrs. Parke, Davis, and Co. also write to invite members to visit Detroit to see their biological and pharmaceutical laboratory. These invitations will be submitted to the Central Council, whose decision will be made known after its meeting on July 4th.

Medical Notes in Parliament.

[From Our Lobby Correspondent.]

American Meat Imports.—The President of the Local Government Board has had some questions put to him on the character of meat and tinned foods sent from America, and has made the following important statements. A quantity of boneless beef and pork was imported into this country from the United States. He understood that it was composed of beef "chucks," "pork cuttings," "ham trimmings," and the like, and that it was used in the manufacture of sausages, which were presumably sold without any declaration as to the sources from which the ingredients of which they were composed were derived. The law in the United States required all shipments of meat and meat products to Europe to be passed by inspectors of the Department of Agriculture before clearance was given to the vessel by the Customs authorities, and the Department had laid down elaborate regulations relative to the inspection of meat intended for export. Having regard, however, to the recent allegations, he had put himself into communication with the Secretary of State for Foreign Affairs, with a view to its being ascertained to what extent reliance could be placed on the system of meat inspection undertaken by the United States Bureau of Animal Industry. In this country imported lard and boneless and other meats were liable to the same inspection as other articles of food. There were circumstances affecting some of these imported foods which presented serious difficulties in the way of efficient inspection; but he was fully aware of the need for securing that the powers of inspection possessed by local authorities should be exercised as far as possible in these cases, and he had recently caused inquiries to be made and action to be taken for this purpose. On Monday last Mr. John Burns said, in reply to another question, that what could be done in this serious matter by administrative action was being done, and would be persistently continued. If this action and the effective inspection of food stuffs in the country from which the largest supply now came both failed, he would ask the House for further, and if necessary legislative, powers to the Local Government Board, and he had confidence in such indispensable authority being granted.

Tinned Meat for the Army.—Mr. Lea called attention on the vote for supplies to the scandals in connexion with the stockyards at Chicago, and asked the Secretary of State for War to decline to buy for the present from America. He spoke from personal observation of the revolting condition of the stockyards. Mr. Haldane said that he was sorry to say that America was not the only country from which bad tinned meat was sent out. Such incidents had arisen at home. They could not buy their whole supply in the United Kingdom; it was brought from various sources, and they ought to buy it wherever they could get it best and purest. He had selected the best expert officer in these matters, and had sent him out to America to inspect the meat during the process of manufacture and before it was tinned. The Department proposed to apply this process of inspection to all tinned meat for the army. On Tuesday, in answer to a suggestion that a civilian officer of health should be sent out to assist in investigating matters at Chicago, Mr. Haldane said that Lieutenant-Colonel Hobbs was thoroughly qualified and capable of carrying out the inspection necessary, and that it was not proposed to send out a civilian officer of health to assist. Supplementary questions were put, pressing the importance of medical knowledge, by Mr. Lea and Mr. Sloan, but the Minister for War gave no indication of adopting the suggestion, and indicated that he thought the knowledge possessed by an officer of the Army Service Corps was sufficient.

Insanitary Barracks.—When the House of Commons met on Thursday in last week after the Whitsun recess, Army Estimates first came under consideration. Mr. Cobbold raised the question of the increased number of troops quartered in the Colonies, and specially drew attention to the insanitary condition of Malta, which he contended was not a fit place at which to quarter many troops. It was a congested district, and, instead of sending more troops there, it would be wiser to remove some. Mr. Haldane admitted the insanitary condition of Malta, and said the Government was grappling with the problem, and hoped to make some substantial contribution to its solution. Mr. Arnold-Forster asked for information about the Norwich barracks, which he said were so pestilential that it was impossible for the officers and men to live in them. The new barracks which had been commenced were now stopped. As the stoppage of the works could not be discussed on this vote for quarterings, the matter dropped till a later stage, when Mr. Arnold-Forster resumed his criticism of barracks as being in many cases obsolete and insanitary. The sites were unsuitable, and in London the barracks were particularly bad. He specially instanced Wellington Barracks and the recruiting station in St. George's Square as particularly unsuitable and bad. Better barracks would have to be provided, and good housing for the soldier was an important factor for aiding recruiting. Mr. Haldane admitted that an extraordinary and haphazard policy had been followed in building barracks, but the worst faults were due to repeated changes of policy. He promised to deal as carefully as possible with the most crying cases, but in the interests of economy the waste of the past few years must not be imitated. Colonel Hubert advocated good housing as the best means of making the service popular, and complained of the waste of £20,000 a year on a sewage farm which only produced £1,200 a year. Lord Robert Cecil, referring to the costly errors made in building barracks, asked that they should be largely abolished and the soldier allowed to live at home and come to his work. Mr. Haldane said the suggestion was really impracticable; the soldier must of necessity live in barracks for his training and so as to be always kept in hand. Most of the complaints referred to old barracks which had been patched up from time to time. He should prefer barracks built more lightly and cheaply. The vote was finally carried by a majority of 115.

Eyesight Tests in the Navy.—In reply to Mr. Bellairs, Mr. E. Robertson stated last week that, with the exception of officers qualifying as navigating officers in H.M.S. *Dryad*, executive naval officers were not subjected to any regular tests for eyesight after their first entry. The tests, as regards eyesight for engineer cadets entering Keyham, were identical in every respect with those for naval cadets entering the Royal Naval College, Dartmouth.

Prison Diet.—When the vote for the expenses of prisons came on last week, Mr. T. P. O'Connor called attention to our prison system, and especially condemned the dietary as insufficient. He quoted the opinions of the late Mr. Michael Davitt; and although he said much improvement had been effected by that member when the Prisons Bill was before the Grand Committee, yet starvation still existed. He quoted Oscar Wilde as saying: "Can you imagine what it is to have a horrible sense of gnawing at your vitals all hours of the day—the very last sensation when you go to bed, the sensation that disturbs you in the watches of the night, and the sensation with which you begin the day?" In an article by Mr. Jabez Balfour, who did not pretend to have suffered himself, there was the terrible sentence: "I solemnly declare that to a great number of prisoners penal servitude is one long hunger." He also quoted Mr. Lynch in support of the same view, and said that although the diet might be sufficient taking the tests of doctors and chemists to keep body and soul together it was not satisfactory, inasmuch as it caused great suffering to many. He asked for a Committee to inquire into the subject. Mr. Gladstone, in his reply, pointed out that Mr. Davitt's experience was based on the old system of diet. Mr. Oscar Wilde had also been imprisoned under the old system, but he admitted that Mr. Jabez Balfour had served five or six years under the new system. He said from his own knowledge that the language used was exaggerated, and that the changes made in diet in 1901 had greatly improved the position. Now only 30 per cent. of the prisoners lost weight, while 60 per cent. gained weight. Under the old system 73 per cent. lost weight. The changes made in recent years had greatly improved the conditions of prison life; improvements were still being made. The Borstal system was being applied to all the prisons of the country. He appealed to the House to suspend its judgement and not accept the charges made as proven. Progress was then reported, and the matter stood over for further debate.

Sanitation in the Lewis.—On Monday last Mr. Weir asked the Secretary for Scotland if he would state why the Local Government Board for Scotland had failed to require the public health authority for the Island of Lewis to request the proprietor to put in a sanitary condition the houses in the island, inhabited by crofters from whom he received rent. Mr. Sinclair said the Local Government Board had done all they could to have the provisions of the Public Health Act enforced in the Lewis but they had no power or duty to dictate further to the local authority as to the person against whom they were to proceed where there was neglect of any particular requirement of the Act.

The Public Health Officers Bill was down for second reading on Wednesday, but was blocked in the interests of some of the large municipalities which are opposed to any limitation of their control over their own officers. The Bill was put down for Tuesday in next week.

Ireland.

IRISH MEDICAL ASSOCIATION.

Annual Meeting.

THE annual meeting of the Irish Medical Association was held on June 5th in the Royal College of Surgeons, Dublin. The chair was occupied by Dr. L. Kidd, the President, Dr. MacSweeney of Killarney, being unable to attend.

The report stated that there were 846 members. Twenty-four had resigned, and twenty-six defaulters had been removed from the list. While the agitation for improved remuneration of dispensary doctors had not had a satisfactory result, there was some change of feeling in Boards of Guardians which should assist in the removal of some of the grievances. These advantages had been obtained by the combination and unity of purpose of a comparatively small number of those in the Poor-law service; their efforts were not likely to prove completely successful until Clause VI of the Local Government Amendment Act, 1902, had been repealed. At a Local Government Board inquiry, held at Tullamore, on the question of salaries, the evidence showed not only the inadequacy of the initial pay, but also the want of promotion and superannuation. With reference to superannuation, the Poor-law Association considered it necessary—before proceeding to draft a Bill—to obtain actuarial opinion as to the percentage contribution which should be given to make the scheme financially safe, and a sum not exceeding £50 was voted by the Association for this purpose. The most important question the Association had to consider during the past year was that of the reorganization of the Association. The special Committee appointed considered the several schemes suggested, and on May 17th, 1905, the Council recommended for adoption the scheme of provincial representation approved by a majority of the Reorganization Committee in preference to county representation, which a minority of the Reorganization Committee advocated. The Council referred the whole matter back to the Reorganization Committee to frame, if possible, such a constitution as might meet with the general approval of the body of the members. The income received, with the balance in hand at the close of the last account, amounted to £1,017 17s. 8d., and the expenditure, to October 1st, £964 4s. 2d., leaving a balance of £53 13s. 6d. The liabilities due on December 31st amounted to £426 3s. 9d., including a sum of £248 law costs. The guarantee fund, with the balance at the close of last account, amounted to £111 1s. 3d., the expenditure £25 5s., leaving a balance of £85 16s. 3d. The reorganization fund, with the balance at the close of the last account, £38 14s., the expenditure £13 9s. 2d., leaving a balance of £25 4s. 10d. The arrears due at the close of the year amounted to £172 15s., accounted for in the following manner: 28 members owing two years, £58 16s.; 4 members owing one and a half years, £6 6s.; 93 members owing one year, £107 3s.

On the motion of Dr. Donnelly, seconded by Dr. Curran, the report was adopted.

Dr. Shee said the financial affairs of the Association were in a parlous state. Almost the whole of their income of £1,000 a year went to officials. Members were sick and tired of the Association, and some had been on the point of resigning, and would have done so, he knew, but for the recent election to the Presidential chair. He suggested that a subcommittee be appointed to look into the financial affairs of the Association. He could not understand a state of affairs which authorized three-fourths of the income to be spent on two officials.

The Chairman thought it was rather unfair to saddle all this on the officials. There were things, such as the directory, to be considered.

Several members deprecated doing anything which would seem like a personal reflection upon their officials, who worked hard for the Association.

The financial report was adopted, and Dr. Shee then moved:

> That a committee be appointed to inquire into and report on the financial affairs and condition of the Irish Medical Association, and that this committee consist of the following: The President of the Association, Drs. Olpherts, Kinkead, Powell (Dublin), F. W. Kidd, W. W. Murphy, D. J. Shee.

Dr. Maguire seconded. The resolution was carried.

The election of officers resulted as follows:—*President:* Dr. John S. McArdle. *Vice-Presidents*—Ulster: Dr. Leonard Kidd (Enniskillen); Munster, Dr. Cotter (Cork); Leinster, Dr. William Bradley (Drogheda); Connaught, Dr. T. Tenison Collins (Ballinasloe); *Honorary Secretary:* Dr. T. Donnelly (Dublin). *Honorary Treasurer:* Dr. W. J. Thompson (Dublin). *General Councillors:* Drs. Agnew, Lurgan; Arthur H. Benson, Dublin; Moore Betty, Enniskillen; R. Marlay Blake, Dundalk; Boyce, Blackrock, co. Dublin; John Joseph Byrne, Bruree, co. Limerick; F. Carre, Letterkenny; G. P. Cope, Dublin; James Craig, Dublin; R. H. Creighton, Ballyshannon, co. Donegal; J. J. Curran, Killeagh, co. Cork; J. O'C. Delahoyde, Dublin; Knox Denham, Dublin; G. E. J. Greene, Ferns; J. Geraghty, Loughrea; Gray, The Mall, Armagh; Hamilton, Arklow; A. Addison Hargrave, Tralee; Hugh Harris, Stewartstown; Hickey, New Ross; F. W. Kidd, Dublin; King, Castlepollard; T. Laffan, Cashel; Edward Lyons, Dunlavin; H. MacDonnell, Dundalk; MacLaughlin, co. Down; S. E. Martin, Newry; Mangan, Ardvarne, Oughterard; Moorhead, Errigle, Cootehill, co. Cavan; Henry W. Oulton, Dublin; Pierce, Newcastle West, Limerick; Caleb J. Powell, Dublin.

Mr. McArdle, the incoming President, then delivered an address in which he urged united and continuous effort in their work. Although the Association had been working earnestly in the interests of Poor-law officers, there were still great numbers in Ireland outside the ranks of the Association, many of them having benefited by its efforts, but having failed to honestly recognize their indebtedness. The Poor-law medical officer who was not a member of the Irish Medical Association deserved to be left where the Association found him—a wretched derelict. In their endeavour to redress the admitted grievances of the Poor-law medical officers there were many difficulties to be overcome. The forces opposed to them were: want of interest on the part of the profession generally, want of knowledge on the part of the people, ignorance of those recently qualified as to local conditions, a Treasury with the money slot always open on the Irish side, and the cashbox open on the reverse. For instance, if the unfortunate Clause VI be repealed half of all the increases of salary and superannuation allowances would come, as it should, out of the Treasury, and would be spent in the different districts. He suggested that they should encourage the students to become associated in some way with their organization. If that plan was not feasible, then their education should be seen to by the teachers who were in sympathy with them in the different schools. Once enlist the Irish students on their side, and they need have no fear of the future. They now came to the real difficulty, the barrier set up by the Treasury to the reasonable demands of the people. So long as Clause VI disfigured the statutes they would be told that that *refugium peccatorium* of erring ministers, the Treasury, blocked the way. He had before him the Acts of 1898 and 1902. It behoved them to strain every point towards the removal of the disability imposed by those Acts, and they should, in season and out of season, with this object impress upon their parliamentary representatives the necessity for their vigorous interference on their behalf.

A resolution was passed in favour of the amendment of the vaccination regulations, and disapproving of the rate of 8s. 6d. a year paid for attendance upon postmen.

Dinner.

At the dinner, held in the College on the same evening, Mr. McArdle presided, and amongst those present were the Provost of Trinity College; the President, Royal College of Physicians (Sir W. Smyly); the President, Royal College of Surgeons (Sir A. Chance); the President, Royal Academy of Medicine (Sir Thornley Stoker); Mr. Bodkin, K.C.; Dr. L. Kidd, Sir A. Cameron, Dr. M. F. Cox, Dr. Joseph Smyth, L.G.B.I., Dr. McWeeney, M. T. Harrington, M.P., Dr. Donnelly, etc.

The speakers were the President, Sir Thornley Stoker, the Attorney-General, Mr. Bodkin, the Provost of Trinity College, the President of the Royal College of Physicians, the President of the Royal College of Surgeons, Dr. Kidd, Dr. A. Benson, and Mr. P. O'Neill.

IRISH MEDICAL BENEVOLENT FUND SOCIETY.

Mr. R. H. Swanzy, Vice-President R.C.S., occupied the chair at the annual meeting of the Medical Benevolent Fund Society of Ireland on June 5th.

The report stated that the total amount of the grants recommended since last distribution was £1,085. The total number of applicants considered during the year was 81. Of these, 72 were from the widows of medical men, 5 from, or on behalf of, their orphans, and 4 from medical men themselves. Five cases were found on investigation to be ineligible. The amount given in grants this year is even larger than last year, and has strained the resources of the Society to the utmost. Only two hospitals have this year forwarded a list of subscriptions from the students attending them, namely, the Royal City of Dublin Hospital, £3 5s. (per C. M. Benson), and the Meath Hospital, £1 17s. 6d. (per the House-Surgeon, Mr. P. Sullivan). During the past twelve months, in addition to Dr. Laffan, the Society has lost many old and valued subscribers: Dr. Henry S. Purdon, Dr. William Duncan, Dr. James Lynas, and Dr. Core, of Belfast; Dr. J. E. Duffy, of Strokestown; Dr. James Taylor, of Lurgan; Surgeon-General Charles Sibthorpe, C.B., I.M.S., and many others. Their places must be taken by others if the usefulness of the Society is to be maintained, and if our brother practitioners in distress and the widows and orphans of medical men are to be helped in the hour of their need.

Surgeon-General Joynt submitted the Treasurer's statement, from which it appeared that the grants actually paid amounted to £1,122 10s.

Sir Thornley Stoker moved, and Sir L. Ormsby seconded, the adoption of the report, which was carried.

Dr. L. Kidd and Mr. J. McArdle also spoke, and the proceedings closed with a vote of thanks to the Chairman, which was conveyed by Sir Wm. Smyly.

POST-GRADUATE COURSE IN DUBLIN.

A very comprehensive post-graduate course has been established in connexion with the school of the Royal College of Surgeons in Ireland and the majority of the hospitals, general and special, in Dublin. The course began on June 11th and will end on June 30th. A similar course will be given in September and will last three weeks. Professor Fraser, Royal College of Surgeons, is the Secretary.

DR. J. B. COLEMAN.

A very large meeting of members of the profession was held in the Royal College of Physicians, Dublin, on Wednesday, June 6th, in reference to the proposal to express sympathy with Dr. J. B. Coleman, C.M.G., in connexion with the recent trial at law. Sir Wm. Smyly, the President, was in the chair. On the proposal of the President of the Royal College of Surgeons (Sir Arthur Chance), seconded by Sir Arthur Macan, it was unanimously resolved:

> That we, the professional brethren of Dr. James Byrne Coleman, hereby congratulate him on the successful manner in which he has recently refuted the unfounded charges brought against him, and express our sympathy with him in the trouble through which he has passed "without blemish on his character or honour."

It was resolved that a copy of the resolution should be sent to every member of the profession in Ireland for his approval, and that eventually a copy should be publicly presented to Dr. Coleman with the names of those approving it. A Committee, consisting of the Presidents and past-Presidents of both Royal Colleges, was appointed to carry this out.

DR. DARNELL'S EXPENSES IN TUGHAN V. DARNELL.

The following further subscriptions have been received up to June 9th:

	£	s.	d.		£	s.	d.
Sums already acknowledged	196	10	0	Dr. Robert Burgess, Coagh, co. Tyrone	1	1	0
Dr. John R. Davison	2	2	0	Dr. H. J. Boyd, Hillsborough	0	10	6
Dr. J. B. Moore ...	2	2	0	Dr. Jas. A. Thompson, Maguire's Bridge, co. Fermanagh ...	0	10	0
Dr. S. T. Irwin ...	2	2	0				
Dr. Samuel Agnew, Lurgan	1	1	0				
Dr. Norman Barnett	1	1	0				
Dr. R. M. Fraser ...	1	1	0		£208	0	6

Cheques may be made payable to the Hon. Treasurers, Dr. Leonard Kidd, Enniskillen, or Dr. Wm. Calwell, 1, College Square North, Belfast.

Scotland.

THE ROYAL COMMISSION ON THE CARE OF THE FEEBLE-MINDED.

THE Royal Commission dealing with feeble-minded persons who do not at present come under the scope o the lunacy laws sat in Edinburgh on Monday, Tuesday and Wednesday, the 11th, 12th, and 13th of June, for the purpose of hearing the Scottish evidence. The Commission was appointed in the latter part of 1904; it consists of twelve members, with the Earl of Radnor as Chairman The witnesses called represented the Local Government Board, the prison service, the Lunacy Board, inebriate retreats and reformatories, the Education Department the County Councils' Association, and the legal and medical professions.

At the meeting on Monday the Commissioners present were: The Earl of Radnor (Chairman), Mrs. Pinsent Dr. Needham, Commissioner in Lunacy for England; the Rev. H. N. Burden; Dr. J. Craufurd Dunlop, Edinburgh Mr. W. H. Dickinson, M.P.; Mr. C. E. H. Hobhouse, M.P. and Mr. W. P. Byrne, C.B. Mr. Hartley B. N. Mothersole Barrister-at-Law, Secretary of the Commission, was also present.

Dr. W. Leslie Mackenzie, of the Local Government Board for Scotland, was the first witness. Of 600 Edinburgh schoo children examined for the Commission he found 6, marked "defective" by the teachers, and 68 marked "dull." The defectives were thus about 1 per cent. of the whole, which approached to that found in Glasgow schools, and was almos the same as that found in the Dundee schools. Scrutiny by the teacher alone was not sufficient for the proper classification of backward children into feeble minded or defective, and children of undevelope faculties. Systematic examination of all elementary schoo children was imperative to prevent the waste of educationa energy on hopeless material, persistent supervision, and re-examination by a medical expert. Separation of the feeble-minded from ordinary children was necessary to prevent the retardation of normal children, and to facilitate specia teaching of the latter. There must be specially-traine teachers. If there were a fully correlated organization o special school, industrial school, reformatory, poorhouse, and asylum, he thought the poorhouse might be drained of som of its feeble-minded stock.

Mr. R. B. Barclay, General Superintendent of Poorhouses Local Government Board, confined his evidence to the inmate found in the smaller poorhouses.

Sir James A. Russell, Edinburgh, member of the Distric Board of Lunacy, said that the Scottish lunacy laws, notwithstanding the need of some small amendments of a technica character, had worked with great success, and the administration enjoyed the fullest measure of public confidence. An extension of the powers of the General Board of Lunacy foun necessary for the care of those of defective mind would b welcomed by public opinion in Scotland. Any other arrangement would be regarded with suspicion. Unfortunately good many persons of unsound mind who would be better o being certified in their own interests and in that o the public, were in practice excluded from the benefit of the lunacy laws. That arose from (1) a restricte idea of the amount of unsoundness which justifie certification; (2) the natural reluctance of friends t formally admit the stigma of insanity; and (3) the danger o actions at law, which, though successful, were always costly t the defendants. The only treatment of delinquents, who wer mentally so defective and abnormal that they could be classe as unsound in mind, that promised any success in his view was that of seclusion for an indeterminate period unde medical care. He detailed his ideas as to the mode an arrangement of central institutions for treatment.

Mr. John W. Gulland, M.P. for the Dumfries Burghs, fo long a member of the Edinburgh School Board, a member o the Edinburgh Town Council, had been struck by the numbe of mentally defective children, and was impressed with th necessity of providing special training for them. This sessio he had introduced a little Bill—the Education of Defecti Children (Scotland) Bill—which had passed the House o Commons without opposition or amendment, and had even prospect of passing the House of Lords. The Scotch Education Department should encourage the education of defecti or epileptic children by special grants, as was done in Englan In his opinion the special schools should be under th authority of the School Boards.

Dr. N. Gordon Cluckie, Greenock, felt strongly that the ca and control of the feeble-minded should be continued to th Lunacy Board, and not entrusted to what were called popularly-elected Boards. There should be one authority for a classes of mental deficiency.

At the meeting on Tuesday the first witness was Dr. Wm. W Ireland, who said that the number of idiots and imbeciles i Scotland was much greater than appeared from the census.

large proportion were so far educable that their habits could be improved and their intellectual faculties quickened by assiduous teaching; but for such defective children special training was necessary. They were best treated in residential institutions under medical supervision. He calculated that there must be about 4,500 epileptics in Scotland, of whom nearly half were sane, and no class more sorely needed help than they.

Dr. W. Bruce, Dingwall, urged a properly-managed institution, mainly maintained by the State, for defective children. In regard to adults, there were many unreported cases who ought to be under the surveillance of the Board of Lunacy. He strongly approved of the boarding-out of suitable cases.

Dr. Clouston said that he had devoted special attention to the previous history of the feeble-minded who had been sent to the asylum as certified patients, especially the young women. He had come to the conclusion that such persons were subject to overwhelming temptations and pressure towards immorality. He was strongly of opinion that a proper care of feeble-minded girls would appreciably diminish the immorality of our large cities and cut off one of the supplies of future imbeciles and criminals. He referred to an investigation he had carried out in Orkney. He had taken the history of three generations of 83 families, and he had found that one or more cases of idiocy, epilepsy, feeble-mindedness, or insanity had occurred in 41 of them. He attributed the brain defects to too close inbreeding over a thousand years since the Scandinavian invasion of the islands. Similar facts could be obtained in the village of Newhaven, near Edinburgh, where there was an enormous proportion to the population of the insane, epileptics, idiots, and feeble-minded persons. Efforts should be made to instruct parents that the feeble-minded should be notified by all family doctors, Poor-law medical officers, and health officers; that there should be a properly organized and inspected system of boarding-out in the country; that special educative institutions should be more largely used in the early years of life than now; that cases implying special dangers and those whose immoral tendencies are a special risk to the social condition of cities, should be certified and sent to asylums, and that such cases when they fell into the hands of the police should be submitted to expert examination; they were unsuitable for prison life.

Dr. John Thomson, one of the physicians to the Royal Edinburgh Hospital for Sick Children, spoke of the difficulty that the parents of mentally-defective children generally had n getting assistance, and with the great hardships often suffered on this account by both parents and children. It ought to be obligatory on parish authorities to remove suitable cases to an appropriate institution, even when the parents could only pay a small amount.

Dr. A. R. Urquhart, James Murray's Royal Asylum, Perth, said that higher-grade imbeciles, the feeble-minded and defective were not adequately dealt with under existing conditions in Scotland. Habitual drunkards, habitual offenders, ramps and beggars, prodigal and facile persons were not effecively controlled. A revision of methods and a wider concepion of the duties of the State were necessary. The habitual drunkard who kept clear of the police was at present permitted o ruin himself and his family. Habitual drunkards should be reated as feeble-minded persons.

Dr. J. Quin Donald, Invernith Lodge Retreat, Fifeshire, said nebriety and narcomania were mental diseases which were o a certain extent curable and preventable. His experience of advertised cures was that they did more harm than good.

Dr. John Cunningham, Medical Officer to the "Girgenti Home," belonging to the Glasgow Corporation, had no hesitation n saying that mental enfeeblement was the cause of inebriety. He had experimented with "cures" for alcholism, and the esults might be said to have ended in failure.

Birmingham.

CASES OF ANTHRAX.

A CASE of anthrax has occurred near Solihull in a two-year-old heifer. The cause of the infection cannot be raced, as the animal had not partaken of any food except rass and hay. Another case has occurred in a pig near Alcester. In each case the ear of the animal was severed nd forwarded to the Birmingham University, where the pinion that the deaths were due to anthrax was conrmed. The carcasses have been cremated in accordance with the instructions of the Executive Committee of the Warwickshire County Council.

OPEN SPACES IN BIRMINGHAM.

A meeting will shortly be held in the Council House to onsider the desirability of forming a society for providing pen spaces and playgrounds in the congested districts of Birmingham, and preserving open spaces in the now outlying parts. A report has been prepared by Dr. Roberton, M.O.H., showing that there is special need for the provision of open spaces in many districts of the city. When the number of people to each acre of open space is compared in the large manufacturing towns in this country, Birmingham stands at the bottom of the list, even when the new recreation ground of Warley Woods and Park is taken into account. The following is a comparison of some of the largest towns:

	Area of Town.	Persons to Each Acre of Open Space.
	Acres.	
Newcastle	8,453	206
Bradford	22,844	268
Bristol	17,004	529
Manchester	19,893	551
Nottingham	10,935	758
Liverpool	14,909	769
Sheffield	23,662	904
Birmingham	12,639	1,026

The total area of open spaces provided is of great importance, but in order to decide how much open space is required the configuration of a town and the means provided for getting into the surrounding districts must also be considered. A large river running through a town is of great value in bringing fresh air into it, and hills in the centre of a city increase its healthfulness in this respect, whereas in a relatively flat town, such as Birmingham, where these natural advantages do not exist, a specially large amount of open-air space is required. Again Birmingham is at a disadvantage, for to the north, north-west, and south of the city there lie densely-populated areas, from which the air supply cannot be as good as from uninhabited districts. There is probably no large manufacturing town in which there are so few open-air spaces available as in Birmingham, and it is impracticable, on account of the expense, to provide in the central districts of the city large parks, but it is practicable to obtain, as occasion arises, small areas to be devoted to recreation purposes for children, which would also act as breathing spaces for the neighbouring houses. A society to watch for such spaces would be of great benefit to the city, for as it is the duty of no one to keep a look-out for these spaces, the chance is often lost of obtaining an area which would be a suitable recreation ground. In one or two districts of the city such open spaces do exist, and their value to the neighbourhood is immense.

South Wales.

GLAMORGAN COUNTY COUNCIL.

AT the quarterly meeting of the Health Committee of the Glamorgan County Council, held at Cardiff on June 8th, Dr. Williams, County Medical Officer, reported that, in comparison with the previous quarter, there was an increase in the number of cases of enteric, continued, and puerperal fevers, and a decrease as regards diphtheria, erysipelas, and scarlet fever; 301 cases of diphtheria were notified during the quarter, the attack-rates being highest in the following districts: Caerphilly and Gelligaer and Rhigos, Margam and Llandaff and Dinas Powis; 485 cases of scarlet fever were notified, as compared with 650 in the previous quarter, the attack-rates being highest at Barry, Margam, Glyncorwg, Aberdare, Cowbridge Rural, and Neath Rural. It was stated that copies of all the annual reports of the district medical officers had been received. The disinfection of schools had been dealt with at some length. The Afan Valley proposed joint sewerage scheme was again referred to; the districts involved are Glyncorwg, Neath Rural, and Margam, and all these district councils have sought expert advice in the matter. The Glyncorwg Council is anxious to proceed with the scheme. The Neath Rural Council has also given the scheme consideration, and has, together with the Margam Council, engaged an expert engineer; the Margam Council has approached Miss Talbot with a view of getting her consent to allow outfall works on the foreshore belonging to her as lady of the manor, and she has also called in an expert engineer to advise her. His report, however, has not yet been received. The districts named urgently need sewering. The Afan Valley has been greatly developed, especially at Pontrhydyfen, as has also the southern portion of the Glyncorwg district. Extensive building and mine-sinking operations are now in progress there. With regard to Cwmavon, the time has long passed when it should be sewered. Nothing, however, can be done until the float experiments carried out under Miss Talbot's instructions have been reported upon. Several samples of blood, etc., taken from animals supposed to have died from anthrax have been examined during the quarter at the County Laboratory; the result in five of the samples was negative and in three positive, among the latter being one from a mare. Considerable progress has been made as regards the provision of isolation hospitals. It was reported that 561 samples were received and examined at the County Laboratory; these included—specimens 397, waters 108, sewages and effluents 35, trade effluents 21.

The meeting of the Midwives Act Executive Subcommittee was held on the same date. It was reported that the number of certificates granted to midwives in the County was 644. The number on the official roll of the Central Midwives Board for 1905 was 751, so that 107 have not, up to the present, signified their intention to practise. The number of illiterates, as indicated by their inability to sign their names, is 160 or 25 per cent. The number of midwives visited by the Inspector of Midwives during the quarter was 216, as compared with 231 in the previous quarter. Of these 9 were trained midwives, and the remaining 207 were certified on account of their having been in bona fide practice for a year prior to July 31st, 1902. Of these 162 wore washable dresses, 181 used disinfectants, 211 possessed record books, 211 had books of rules, 170 had casebooks and 141 had bags of appliances; 13 cases of puerperal fever were notified during the quarter and all were duly visited. No midwives were suspended except for disinfecting purposes. It was stated that the local supervising authority at Swansea had approved the principle of establishing a training centre for midwives at Swansea. The matter was considered by the Swansea Hospital House Committee, which passed a resolution expressing its willingness to grant facilities for the delivery of a course of lectures at that institution, and suggesting that such a course should be given by members of the hospital staff. For the post of Inspector of Midwives, rendered vacant by the resignation of Nurse S. A. Richards on the occasion of her marriage, forty-three applications were received, and Miss Mary Evans was appointed; she received her training at the Royal Southern Hospital, Liverpool, and holds the L.O.S. certificate, and is on the Roll of the Central Midwives Board.

Sydney.

PULMONARY TUBERCULOSIS.

Compulsory Notification.

SOME twelve months or more ago the Sydney Municipal Council, on the recommendation of its Health Committee, passed some new by-laws providing for the compulsory notification of pulmonary tuberculosis in the city. At the time these by-laws were under discussion a special meeting of the New South Wales Branch of the British Medical Association was held, and it was resolved to support the City Council in its action. There was, however, considerable opposition to this proposal, and it is interesting, in view of the various statements made at that time by the opponents of these by-laws, to learn from Dr. W. G. Armstrong, the City Health Officer, that they have been working extremely well; that no friction has arisen between the attendant medical practitioners and the City Health Department, and that apparently the profession has been working most loyally in assisting in this part of the crusade against tuberculosis in Sydney. In some cases in which patients resident outside the city boundaries and suffering from this disease have attended the public hospitals in the city, notification has been voluntarily agreed to, and the residences of these patients have been visited, and advice given by the City Health Staff. Nothing but good has so far resulted from the operation of this measure of compulsory notification, and, in view of this fact, it is probable that an attempt will soon be made to extend the same principle throughout the State.

Sanatorium Treatment.

The annual report of the Queen Victoria Homes for Consumptives' Fund has just been published. The Committee of this fund controls two institutions in the country for the open-air treatment of pulmonary tuberculosis. The hospital at Thirlmere was that originally founded, and for many years maintained, by Mr. J. H. Goodlet at his own expense. This institution was used for both male and female cases up till the middle of last year, but since then it has been used exclusively for female cases suffering from the disease in the early stages. To this home during the past year there were admitted 27 male and 41 female patients, and there were discharged 45 males and 26 females. Of the 71 discharged 57 had improved and 10 were failing. The average daily residence of the discharged patients was 112 days. Hitherto this hospital has been without a resident medical officer. This has now been remedied, and there is no doubt that under the improved conditions the results obtained will be much better than formerly. The sanatorium at Wentworth Falls on the Blue Mountains has now been in working order for nearly three years, and has been exclusively occupied by male patients in the early stages of the diseases. During the year 1905, 88 cases were admitted and 65 were discharged. The year commenced with 22 in residence and ended with 44, the accommodation having in the meantime been doubled. The average number of patients throughout the year was 33. Of the 63 cases discharged, 36 had the disease arrested, 18 were much improved, 5 were improved, 3 were unimproved, and 1 died. By arrest of the disease Dr. McIntyre Sinclair, the Resident Medical Superintendent, explains that he means complete disappearance of all signs of active disease, registration of normal temperature, weight, pulse, and respiration; disappearance of tubercle bacilli from the sputum, if any, and a capacity for exertion approaching that of an ordinary individual. Of the 54 cases of arrest of the disease, or in which much improvement was effected, 52 were able to return either to full working conditions or to some selected light occupation. The average residence during treatment of all cases was 147 days. The average residence in 36 cases which proceeded to complete arrest was 132 days. Increase of weight occurred in all but 4 cases, and averaged 15 lb. The 36 cases of arrest put on an average increase in weight of 20 lb. each. An interesting fact is that in 23 cases a family history of consumption was elicited, but in 11 of these at least the onset of the disease could be fairly traced to infection rather than to the result of hereditary influences. In 9 of these cases one or other parent was affected; and only one of these 23 cases failed to improve under treatment. A history of probable infection was traced in 16 cases—10 from members of the same family, 5 from shopmates, and 1 from a fellow-lodger. An endeavour is being made to trace the after-history of discharged cases. Recent reports are sufficient to show that the large majority of the cases dismissed with the disease arrested in 1903 (the first year of the working of this sanatorium) are at the present moment alive, in good health, and in regular employment.

India.

AN X-RAY INSTITUTE.

THE Government of India has decided, with the approval of the Secretary of State, to establish an institute in India as a centre for the practical instruction of medical officers and subordinates in the use and management of the *x* rays, and as a dépôt for the storage and repair of the necessary apparatus. The institute, which is to be at Dehra Dun, will be under the superintendence of an officer of the Indian Medical Service, who will receive the pay of his rank and the staff pay sanctioned for a medical storekeeper. He will be provided with the necessary subordinate establishment to assist him in his duties. Classes will be held for the instruction of medical officers and subordinates in civil and military employment, the course of instruction in each case extending over three months. Officers in military employ attending the classes will receive the pay and allowances of their substantive appointments, together with travelling allowance under the rules which govern their case. Officers in civil employ permitted to attend will draw the pay of their substantive appointments, and travelling allowance at the rates permissible under the Civil Service Regulations. The Government of India expresses the hope that local governments will afford all reasonable facilities to medical officers and subordinates serving under their jurisdiction who may be desirous of acquiring a practical knowledge of the *x*-ray apparatus, and in whose case the possession of such knowledge would be an advantage, to enable them to proceed to Dehra Dun for instruction.

Scientific Cremation in India.

In No. XIX of the *Transactions* of the Cremation Society, recently issued, it is stated that the Calcutta Municipal Crematorium, established under the auspices of the Cremation Society of Bengal, is now completed. This is the first crematorium built on modern principles in India.

CORRESPONDENCE.

THE ARTHRITIC DIATHESIS.

Sir,—The frequency with which the above term is used should lead to criticism of its meaning. "Diathesis," or disposition to certain diseases is surely a belated survival of explanations which explained nothing. How can we tell that a man has a rheumatic diathesis, unless from the fact that he often has rheumatism? If that is all we mean, we have no need of a hypothetical diathesis. If the disposition is never carried out how are we to tell its presence? If it is carried out, we have the fact.

But if the *diathèse scrofuleuse* or *dartreuse* have been deservedly exploded, why should an arthritic diathesis survive? If it means that a man has a tendency to gout, either the supposed tendency becomes a fact, or it remains fruitless, and therefore to assume its existence is begging the question.

But, apart from this fallacy, the terms used by many writers on the subject are ambiguous. What is rheumatism? In the popular sense it is any pain or ache which is referred to muscles—myalgia. Pathologically it is a febrile disease probably bacterial in origin and always acute (or subacute) with secondary lesions of the endocardium, pleura and pericardium, with fibrous nodules and multiple synovitis. Osteo-arthritis, another disease, is thrust into a long-exploded relation to rheumatic fever and gout, instead of being recognized as it has been by all serious pathologists in its anatomical and chemical no less than in its clinical aspects. Nay, the remarkable articular affection secondary to blenorrhagia and associated with sclerotitis is included under the same term of arthritism.

Apart from the pathological question of the true relation of these forms of articular disease, which is not yet settled, and to the solution of which all evidence is welcome, we must take care that we do not play into the hands of the charlatans who fill the daily newspapers with descriptions of "arthritism," with directions for self-diagnosis of latent or non-existant "goutiness," and make the name of uric acid scarcely respectable.

It would clear discussion if some particulars were conceded, namely:

1. That, leaving rheumatism or "rheumatics" as a popular term for any ache or pain in the muscles or the joints, the term rheumatism is strictly applicable to rheumatic fever alone, characterized by acute or subacute synovitis, pericarditis, endocarditis, and pleurisy.
2. That when we call a case gout or "gouty" we mean that, if the patient dies, we shall find deposits of uric acid in the joints.
3. That osteo-arthritis, though probably including more than one pathological state—Dr. Still's cases, for example—is anatomically, and by its incidence and course, quite distinct from either gout or rheumatism.
4. That gonorrhoeal synovitis is quite distinct from suppurative inflammation of the joints and conjunctiva from direct infection.
5. That the antiarthritic treatment by mineral waters depends upon the nature and amount of salts and the quantity of water that is taken; and, lastly, that cure of "arthritic" patients who really suffer from lues is due to inunctions of grey ointment.—I am, etc.,

London, W., June 9th. P. H. Pye-Smith.

PAPAIN IN MALIGNANT GROWTHS.

Sir,—The publication of several letters lately in the British Medical Journal on the injection of trypsin into the tissues in the neighbourhood of inoperable cancers encourages the hope that you may be able to find room in your columns for a short notice of another way of dealing with such cases.

About two months ago, Dr. Edmund Branch, by my advice, injected 2 gr. of papain into the centre of a mass of scirrhus as big as a lemon in the cicatrix of an amputated breast. Since then, the same procedure has been adopted with three tumours of similar nature. These injections were followed by a burning feeling of short duration, and then by an occasional gnawing sensation. The tumours softened in a few days, burst, and gave out a copious discharge of grey thick fluid for about a week. When the discharge ceased, the lumps were found to have disappeared or become much smaller. One tumour had to be injected three times before it burst. The temperature rose from two to four degrees, but became normal in two or three days.

Whether the use of papain was suggested by that of trypsin or not is, of course, a question of no importance, but as a matter of fact, Dr. E. Branch's first papain injection was done before he or I had read of Dr. Shaw Mackenzie's experiments with trypsin. The consideration that originated the use of papain as a cancer destroyer was different from that which suggested the employment of trypsin for the same purpose, though both agents derive all or most of their efficacy from their power as digestives. But the juice of all parts of the papaw tree seems to possess a special histolytic property in addition to its power as a digestive. The West Indian cooks soften the toughest meat by wrapping it for half an hour in papaw leaves. If kept longer in the wrapping, the meat goes rapidly to decay. Such effects would not be produced by rubbing flesh with any mere digestive ferments.

The effect produced by the injection of papain is also different from that expected from trypsin; and so too are the ways in which the two drugs are injected.

It seems reasonable to expect that the introduction of papain into the substance of cancers may prove useful in some cases. I hope, therefore, to be allowed to discuss in a future letter to the British Medical Journal the details of the treatment, its possible drawbacks in some instances, its extension to other diseases, and the probability that the juices of various parts of the papaw tree or of insectivorous or flesh-eating plants may be of service in fighting against certain neoplasms which are not amenable to extirpation by the knife.—I am, etc.,

St. Kitts, W.I. W. J. Branch, M.D.

THE BACTERIOLOGY OF A COMMON COLD.

Sir,—I should like to support Dr. M. H. Gordon's contention in the British Medical Journal of June 2nd, p. 1318, from my own somewhat limited experience, that reputed Klebs-Loeffler bacilli do not invariably cause the lesion attributed to them when injected into guinea-pigs. In my recent book on *Catarrhal Fevers* I have mentioned some instances.

All who have worked at the bacteriology of "common cold" have so invariably found the *Bacillus coryzae segmentosum* present at some stage of the illness, that it is difficult to believe these organisms are only casual intruders.

I have been able both to cultivate and recover them from certain mucous surfaces of rabbits and also those of a monkey, but have never observed any symptoms of coryzae as a result, neither does this bacillus cause any reaction when injected into guinea-pigs.—I am, etc.,

Wigan, June 2nd. R. Prosser White.

CENTRAL MIDWIVES BOARD.

Sir,—Your correspondent, Dr. John Milson Rhodes, uses strong language in his indictment of the Central Midwives Board and in his personal attack upon me. I have seldom occasion to defend the Central Midwives Board, so I could almost regret that Dr. Rhodes has not selected a better opportunity, or taken the trouble to make sure of facts which might have made him appear to establish a case proportionate to the force of his language. But he only calls attention to the small number of candidates from the North of England who entered for the examination in April last, and remarks severely thereon; in his hurry to find fault he has not taken the trouble to understand the arrangements. The London examinations are held every two months, and the provincial examinations three times a year. There was no examination at the provincial centres in April. So the superstructure falls to the ground, and the attack becomes ridiculous. Still I am grateful. So thoroughly dissatisfied am I with the unequal arrangements made by the Central Midwives Board for the holding of examinations in London and in the provincial centres, that I regard even a blundering reference to the subject as a public service.

With regard to the personal assault, I may say that I am accustomed to Dr. Rhodes's animadversions when he is making speeches as a member of the Chorlton Board of Guardians in the presence of representatives of the Manchester newspaper press. Considering the language which he condescends to employ it would be idle to talk of courtesy; but I may say that I think it would be only fair if he would frankly mention my name the next time he makes a speech on the well-worn subject.

It would appear that my record as a member of the Central Midwives Board proves that I look upon "everything connected with Poor Law as anathema," and Dr. Rhodes supports this opinion by a reference to "one of your contemporaries," as if feebleness piled upon feebleness could ever give strength to an argument. I can assure Dr. Rhodes that I have a great admiration for our Poor-law institutions when they are efficiently administered in order to effect the objects for which they were brought into existence, and restricted to their proper functions; it is with fecklessness and muddleheadedness and inefficiency in general that I have a permanent quarrel as a member of the Central Midwives Board.

Perhaps you will permit me once for all to explain to your readers, apropos of this attack, the principles on which I have consistently opposed the recognition of workhouses as training schools for midwives.

1. From the social point of view, it seems to me to be a shame to encourage the matrons and medical officers of workhouse hospitals to increase the number of confinements in workhouses, and so to apply to the helpless offspring the indelible brand of workhouse birth, which is a lifelong handicap, especially to male children. No women except the hopelessly submerged and the semi-criminal class should be driven to seek refuge for their confinements in the workhouse.

2. In turning a workhouse into a lying-in hospital the guardians of the poor are exceeding their duties, and in so doing they incur expense and add unjustifiably to the rates. Owing to the vanity of official persons guardians are wheedled into enterprises which they cannot understand, and are not qualified even to control efficiently.

3. The policy of the majority of the Central Midwives Board in offering facilities to workhouse hospitals, with the object of multiplying training schools for the easy and cheap manufacture of midwives, is an encouragement to apathy on the part of the public, and an obstruction to the establishment of properly equipped and officered lying-in hospitals in our large towns.

The public in every large centre of population ought to establish a special hospital or hospitals to which medical practitioners could send abnormal cases, or patients exceptionally situated, to be attended by themselves, not as objects of charity, but for the usual consideration according to some scale to be mutually arranged. A charity block or ward in each institution might be adapted as a school for midwives and monthly nurses already trained in general nursing, and the teacher or teachers to be recognized by the Midwives Board might be nominated by the medical men actually practising in the particular community.

4. Some exceptions must be made during our uneasy transition period, but no workhouse or other semi-private institution situated in or near a city in which a lying-in hospital is already established should receive recognition from the Central Midwives Board.

5. It goes without saying that no workhouse hospital which is structurally or otherwise defective, or where the systematic instruction must be given by a resident and not independent medical officer, should receive recognition by the Central Midwives Board.

6. No workhouse hospital can be considered suitable where the annual number of cases is few, and consequently the classes of pupils must be so small that there can never come into existence the *esprit* of a school and all that "school" implies. No genuinely "private tuition" candidate should ever be permitted to enter for examination.

These are some of the opinions which have guided me throughout as a member of the Central Midwives Board, and not being political "principles" they are not open to revision.

Now let me try to "establish the minor," and define the position occupied by the Chorlton Workhouse Hospital, which is the object of Dr. Rhodes's discourteous advocacy.

The first and second objections apply to it as to all other workhouses.

My objection (3) certainly applies to the Chorlton Workhouse. It would be so easy, on the demand of the medical profession in Manchester, to make arrangements for the foundation or extension of a hospital, and the admission of certain classes of patients paying according to their means, under the care of their own doctors. Anything done by the Central Midwives Board to prevent or discourage such a consummation is contrary to the interests of the public and of the medical profession.

Objection (4) applies with special force to the Chorlton Union Workhouse. Nurses of that hospital could with next to no loss of time, and without appreciable exertion, make the weekly visit to the St. Mary's Hospitals lecture-room and there obtain systematic instruction from the staff. They could, at the same time, be receiving the unsatisfactory clinical instruction afforded by exclusively in-patient cases in their own hospital.

Coming to my objection (5), it will hardly be believed, though it is an incontrovertible fact, that the "delay and trouble" in obtaining recognition of which Dr. Rhodes complains, and which he mildly designates "a disgrace to the Central Midwives Board," arose almost entirely owing to the material and moral defects in the lying-in ward of the Chorlton Union Hospital. That portion was inspected by the Midwives Supervising Committee of the Manchester Corporation, of which Dr. Chapman, a member of the City Council, is Chairman, and Dr. Niven, M.O.H., Executive Officer; and it was utterly condemned in their report as unfit for the purposes to which Dr. Rhodes and his colleagues desired to devote it. The members of the Central Midwives Board, who are the advocates of "cheap and easy," then sent their own inspector, a young woman graduate without public health qualification or experience, and even this stranger reported adversely. There were, if I rightly remember, five points as to structure and management against the Chorlton Workhouse maternity. The "disgrace to the Central Midwives Board" was that they hastened to recognize the Chorlton Workhouse Hospital as a training school on a promise that the grounds of objection would be removed, and before the postulated improvements were even begun. So the experts of the most efficient Midwifery Committee in England were overruled, and importunity triumphed.

Now consider my objection (6): In 1902 the number of confinements in the Chorlton Union Hospital was 146. If no cases were wasted, that number would allow the medical officer to certify that 7 pupils during the year had complied with the regulations. Assuming three courses of lectures of "three months at least" each, that would give the lecturer an average class of two and one-third pupils. Comment would be sheer garrulity.

Dr. Rhodes's controversial amenities about "Mr. Bumble's time" and "does not understand what he is talking about" are, perhaps, hardly worthy of attention. They illustrate the lowest depths of degeneration which argument could reach. Your readers may assume that, before taking my stand on certain principles in the Central Midwives Board, I had learned something about training in midwifery and lying-in hospitals. I had visited and seen the administration of the best lying-in hospitals in Germany, France, and Italy, and in the United States of America and Canada; and I believe myself as well qualified as any of my colleagues on the Central Midwives Board to appreciate the value of a report on a workhouse hospital or any other "institution" seeking recognition as a training school.

Finally, let me add that no one can be more conscious an I am of the defects of the Midwives Act, and of me weaknesses in its administration. Still I am ginning almost to hope that we shall some time see the t amended and more widely applied, and the Central idwives Board reconstituted and made reasonably representative and efficient by the inclusion of some medical omen and one or two medical officers of health. But I nnot say I have much confidence in Dr. Rhodes as a former. He is too truculent; he boasts and he threatens st as he is putting on his armour. It may be conceded at he has already accomplished "a question in Parliaent," and he knows that "steps are now being taken" to ect a revolution or a *coup d'état*, and so to end "abuse power." Well, if we are spared we may all learn some ne that we have made some progress, but forces fferent from personal abuse and incontinence of speech d zeal with success in mare's-nesting, must come to our l before we can achieve any considerable reform.—m, etc.,

anchester, June 11th. **William J. Sinclair.**

CIVIL HOSPITAL TRAINING FOR MEN OF THE R.A.M.C.(VOLS.).

Sir,—It may be of some interest to mention that a p in the direction suggested by Captain Sheen, A.M.C.(Vols.),[1] was taken by the London Companies, A.M.C.(Vols.), in the winter of 1904-5, and repeated last nter.

Through the kindness of the authorities of the Royal ee Hospital, two courses of lectures and demonstrations ve been given to non-commissioned officers and men of se companies by certain of the sisters of the hospital. e men were well reported on by the sisters, the classes ll attended, and the standard reached, as evidenced by terminal examinations, very satisfactory.

This is as far as we have been able to go at present, ing to some of the difficulties mentioned by Captain een, and also on account of the short time the men have their disposal.

One cannot expect too much all at once, but I feel sure t such instruction, even if imperfect, is on the right ck, and I am glad to see that publicity is being given the idea.—I am, etc.,

Valentine Matthews,
Lieutenant-Colonel R.A.M C.(Vols.), Commanding
London Companies.

ondon, W.C., June 11th.

THE POUTER-PIGEON.

Sir,—It needs, perhaps, an apology to refer you to so back a number of the British Medical Journal as t of September 27th, 1884; yet I beg your permission all to mind, as being of interest to-day, your review in t number of the work on the physical breakdown of ruits and young soldiers written by a now retired army dical officer. Your review took the side of the repretations therein made, and you agreed with the author to the inevitable injury that follows from the drillgeant's orders for chest-swelling setting-up drill. Army Medical Department had endorsed the view the writer by publishing in the Army Medical e Book for 1876 (Appendix VI) the closely-reasoned ument by which it was demonstrated unanswerably t heart and lung troubles followed the pernicious tem of interference with natural breathing. The iniding returns for circulatory diseases emphasized the th of the view advanced, as did also the desertion of ruits of less than three months' service, who would e "stuck to their guns" if the chest distension had not de them physically uncomfortable. But—although you l, "Great will be their (the military authorities') ponsibility if they turn a deaf ear to these resentations"—nothing was done. The feeling, I pose, was that chest-swelling was meant to be d for the men; therefore it *must* be good for them. a practical soldier, Colonel Pollock, who judges of a n's physical powers not by looking at him, but by his dition during and after the performance of severe work, es on the scene, and decides *to abandon all interference natural breathing in the training* of his 100 men at unslow, the evidence placed in his hands being sufficient for him; and so it can now be practically shown that the terrible wastage of the army that has been going on for years might have been prevented by the exercise of common sense—by dealing with a military recruit in the matter of his breathing, his chest movements, as one deals with a military horse, with whose chest movements you cannot interfere.

The fact is now recognized, and recognized by His Majesty the King among the first, that the day of the rigid-chested soldier has at length departed. South Africa showed, and is showing, that we need men, not pouter-pigeon machines, spoilt in the wind. In 1884 you called this medical officer's work a "valuable contribution to military medicine." Happily the work he has done has at last borne fruit, as it was bound to do; for the truth is great, and must in the long run prevail.—I am,

June 7th. **Medicus.**

POST OFFICE MEDICAL OFFICERS.

Sir,—My attention has been called to a letter in the British Medical Journal of June 2nd, p. 1319, which quotes a circular from the Association of British Postal Medical Officers. The quotation is to the effect that a large body of postal employés are urging upon the Select Committee the advisability of the cessation of free medical attendance.

I think there must be some misunderstanding on the subject; no postal servants, as far as I am aware, have made any such demand; consequently, the fears of the signatories to the circular are entirely unfounded.

Our complaint is that, owing to circumstances which will probably not interest your readers, free medical attendance is in too many cases a sham, and we object to it being debited to us as one of the great advantages which should keep our wages low.—I am, etc.,

G. H. Stuart,
Secretary, Postmen's Federation.

Parliament Mansions, Victoria Street,
London, S.W., June 11th.

IMMIGRATION AND REGENERATION.

Sir,—In reference to the success of schoolboys of foreign blood in various competitions, mental and physical, it is stated in the British Medical Journal of June 9th, p. 1368, that most of the Russian parents are peasants.

So far as this applies to Russian Jews, I cannot help thinking that you are mistaken. In the first place, the Russian Jew is not allowed to own or rent land for agricultural purposes, the object being to compel him to reside in the towns. Secondly, I find on inquiry amongst them that they have been born in towns to the number of 90 per cent. at least. Of course, my experience is limited.

The excellent physique of the Jewish children is easily accounted for by the extreme care bestowed on them by their parents from birth upwards, care especially shown in giving them good food and warm clothing. To do this the Jewish father has to exercise the virtues of temperance and self-denial from generation to generation, and the result is an uncommonly good citizen.—I am, etc.,

June 12th. **T. C. D.**

FINANCES OF THE ASSOCIATION.

Sir,—The discussion caused by the publication of the resolution passed by the Lancashire and Cheshire Branch *re* the general finances of the Association will in the end do good, though for the moment it is too personal to be pleasant. This is notably the case in Dr. Charles J. Renshaw's letter, who would, if he were to reconsider the matter, regret having made the rather discreditable innuendo against the Secretary of his Branch.

The memorandum issued by this Branch goes as much into detail as is possible from the present method of publishing the accounts, and sums up the financial position thus:

> Living rent-free and having an income from investments of £1,138, and having a total revenue of £50,000 [a year], we are on the verge of insolvency; already our balance is down to £860, and next year it is officially estimated at £200.

These figures must be quite well known to Dr. Buist, but apparently they do not fill him with any sense of alarm. For myself, I confess that they do; because I know that unless great economies can be effected in the management of the Association, an increase in the annual subscription is inevitable. This may not be a matter of much importance to the well-established practitioner, but it would tend to prevent the recently-qualified man from joining the Association in his early days, just at the time when temptations to disregard the established methods of the profession are most difficult to resist.

---

[1] British Medical Journal, June 2nd, 1906.

I make no pretence to special knowledge, but I cannot help thinking that, both in the Medical Secretary's department and in the editorial, economies might be effected without any detriment to efficiency. Take the Journal. If they were asked, nine out of ten members would assure you that the Journal is a source of profit to the Association. But is it? As far as I can make out the Journal costs the Association something between £4,000 and £5,000 a year more than it brings in. The Council states that 4s. 7d. out of each subscription of £1 5s. goes to pay the loss on the Journal. Why should this be so? The case of the *Lancet* is fairly comparable and no one supposes that that journal is carried on for the sake of humanity at a financial loss; nor should this be the case with regard to the Journal of the greatest medical association in the world.—I am, etc.,

Salford, June 11th. R. H. Wolstenholme.

Sir,—Dr. Renshaw's adverse criticism in the British Medical Journal of June 9th of the resolutions adopted at the meeting of the Lancashire and Cheshire Branch involves an obvious fallacy, because the argument based on the comparative smallness of the meeting applies with equal if any force either for or against; and for this reason, that every member received due notice of the meeting and its objects. Therefore, the fact that a large majority did not take the trouble to respond simply manifests their indifference, and cannot logically be reckoned with as either *pro* or *con*.

The fact remains, however, that two-thirds of those who did attend what appeared to me to be about an average meeting voted in favour of the resolutions; while some, like myself, had to leave before a vote was taken.

Personally, I am strongly of opinion that the figures quoted in the reports before me show a *prima facie* case for the appointment of a committee of investigation.

If, however, no other good result from the regrettably acrimonious discussion of the subject, I trust it may prove the means of inducing a much larger proportion of our members to take a more active interest in the consideration and the management of matters which after all pertains not only to our professional and personal interest, but also to the reputation and the influence of our Association.

Here in Manchester it is very disheartening to find that the bulk of the work and the responsibility falls upon a very few. Again, twelve months ago we decided to invite a voluntary subscription of one shilling a member to defray the expenses of our Representative, with the result that a few responded, while some wrote indignant letters, and in the end the balance was made good by those of us who feel it to be ungenerous to ask a *confrère* to give up his time, always at personal loss, to watch our interests without at least recouping his out-of-pocket expenses.

To prevent the repetition of such an episode, a resolution was adopted at our annual meeting recommending that in future such expenses be a charge on the funds of each Branch.—I am, etc.,

C. Stennett Redmond,
Manchester, June 9th. Chairman, Manchester (West) Division.

THE GENERAL MEDICAL COUNCIL ELECTION.

Sir,—Will you permit me to reply to several correspondents who wish to know my views on three points which, being of general interest, may claim the wide publicity of your columns?

1. As to whether I have any suggestions concerning the education of the medical student before registration. My answer is that, as the education of all classes in the country has advanced so rapidly during recent years, and no proportionate demands have been made on students before registering, I am of opinion that we must demand that at the very least they shall possess a degree in Arts or Science. I give this option for the present in order that those who will eventually become members of the profession shall not have been trained in a too fixed and cast-iron groove, and so that both Arts and Science men may be attracted to its ranks. There are openings for both, and it would serve to enrich the *personnel* of its membership and would help to stimulate a friendly rivalry between these two cultured classes. We should have the pure scientist who has taken the Science degree, and he, of course, would be the man to go in more fully for his own department. On the other hand, the Arts graduate would not be debarred, of course, from developing the scientific element, but would be more equipped to maintain the more general erudite element of the profession. By this means we should not only get a better class of men throughout the profession, but it would be a very effectual means of eliminating undesirables from its ranks. Those who have no real taste for learning and culture for its own sake would have to seek occupation elsewhere. The teachers at the schools of medicine would have better material to deal with, and we might expect a more elevated tone throughout. Another advantage would be that there would be fewer students registered each year, but this would be no great drawback. Enough would join for many years to come, until the supply was more on a par with the demand than is the case at present, or has been for many years. Rather than adopting the one-portal system just now, I would endeavour by these means to improve the present one.

2. That, in lieu of the benefits which students derived in former days from the apprenticeship system with respect to etiquette, medical students in each of their last two sessions should be compelled to attend at least three lectures on medical ethics.

3. As a nominated candidate for election to the General Medical Council, an expression of opinion has been asked for as to canvassing for public vaccination cases on the part of either medical officers or other Poor-law officers on their behalf. I hold strongly that it should be regarded by the Council as "infamous conduct in a professional respect," and would advocate as stringent punishment as upon those in humbler spheres of the profession.

Since writing the above, I have been pleased to see that the University of Wales insists on either a degree in Arts or Science from medical students.—I am, etc.,

Manchester, June 9th. G. H. Broadbent.

Sir,—Just a few lines to thank the members of the West Manchester Division for the unsought advertisement that they have given to my candidature. I now find myself notorious, which is the next best thing to being famous; is this fair to the other candidates?

Presumably here we have one of the few instances o virtue meeting its own reward spontaneously.—I am, etc.

Ashton-on-Mersey, June 10th. Charles J. Renshaw.

OBITUARY.

SIR HALLIDAY MACARTNEY, K.C.M.G., M.D.

Sir Halliday Macartney, who was for nearly thirty years British Secretary and Counsellor to the Chinese Legation in London, and who died at Kenbank, Kircudbrightshire, on June 8th, began life as a medical office of the British army. He was born in Galloway in 1833 and studied medicine at the University of Edinburgh where he took the degree of Doctor of Medicine in 1858 While a student he answered a call for volunteers, an saw some service with the medical staff of the Anglo Turkish contingent in the Crimea. After graduation h entered the army, and was attached to the 99th Regimen with which he went to India, and afterwards to China where he found his destiny. After the sack of th Summer Palace and the proclamation of peace, he ob tained permission to enter the Chinese service. He too an active part, with General Gordon, in crushing th Taiping rebellion. Whilst serving with the ever-victoriou army he attracted the notice of Li Hung-Chang, to whos influence he in large measure owed his subsequent promo tion in the Chinese Service. He founded an arsenal a Nanking which was the first established in China, and h was its Governor for ten years. He was afterwards tran ferred to the diplomatic service, and, after the murder a British official, he accompanied the special mission ser by China to tender an apology. Lord Beaconsfield, c receiving the embassy, remarked that his name was good augury in the conduct of such business, as he was descendant of Lord Macartney, who more than a centu before had gone out as the first British ambassador China. Macartney subsequently organized the diplomat representation of China at the various European court He remained in London as Counsellor to the Chine Embassy, and took a leading part in all the negotiatio carried on between the two countries during the la hirty years. He was created a K.C.M.G. in 1885, and eceived many distinctions and marks of signal favour om the Emperor of China.

Sir Halliday Macartney's long official connexion with hina had made him almost a Chinaman in feeling. This as shown by the action he took in the kidnapping of a hinese reformer in London. The man, who was a member f the medical profession, escaped deportation and execution nly by the energetic intervention of Lord Salisbury at the istance of Mr. Cantlie and Sir Patrick Manson, whom the risoner contrived to acquaint with his perilous situation.

Sir Halliday Macartney married a Chinese lady during is residence in the Celestial Empire; in 1884 he married French lady, Mlle. du Sautoy. In 1902 he was left a idower with three sons and one daughter.

Sir Halliday Macartney was a man of remarkable bility. As a diplomatist he could hold his own with the est in Europe, while his retention of the confidence of the ılers of his adopted country for so long a period is of self a striking proof of his capacity. Probably none of ne British officials who have served the Chinese Governıent had more influence that the ex-army doctor who ombined the native shrewdness of the Scot with the equired talent for negotiation of the Chinese.

BY the death of Mr. FRANK SAMUEL GOULDER, M.R.C.S., .R.C.P., which occurred recently, there has passed away ne of the best-known and most-respected practitioners in he town of Dudley. Mr. Goulder received his medical ducation at University College, London, and obtained ne diploma of M.R.C.S.Eng. and L.R.C.P.Lond. in 1877, nd had held the post of House-Surgeon to the Royal Free [ospital, London, before being appointed House-Surgeon) the Guest Hospital. Subsequently he commenced rivate practice in Dudley as a partner of the late Ir. Alfred Jones. He was a most capable and uccessful practitioner, possessing in a marked degree the ower of winning the confidence and affection of those hom he was called upon to attend professionally. Ir. Goulder occupied the position of Honorary Surgeon to ne Guest Hospital for many years, his work there being haracterized by the same extreme carefulness, method, nd conscientiousness that he devoted to his private ractice. As an operating surgeon he was bold, skilful, ell versed in surgical technique, sound in his judgement, nd successful in results. The esteem and love in which e was held by his patients was great; doubtless it was ırgely attributable to his intense power of sympathy, the elf-devotion which he displayed always in his work, the een insight into character which he possessed, and his xtraordinary power of inspiring confidence. Mr. Goulder's xceedingly sympathetic and generous nature will long be membered by those who were privileged to know him ell, and his untimely death at a comparatively early age a loss indeed to the profession locally, and is deeply egretted in the district where he was so well beloved. Ir. Goulder came of an old Norfolk family which has roduced for the profession of surgery some of its bestnown representatives.

WE regret to report the death, at Minto Street, Edinurgh, on May 25th, of Dr. JAMES MOWAT. His is the iird death in the medical profession in the Newington istrict of Edinburgh within the present year. Dr. Iowat graduated M.B., C.M. in the University of dinburgh in 1887. He had acted as non-resident clinical ssistant in various departments of the Edinburgh Royal ıfirmary. He was Surgeon-Captain to the 9th Volunteer rigade (Highland Brigade) Royal Scots, he was a Freeıason, and Surgeon to the High Constables of Edinburgh. e had, by diligent work and close and careful attention, uilt up a considerable practice. His death, from ephritis, at the age of 43, is a grievous loss to his wife ıd three young children, to whom deep sympathy will be iven.

OYAL NAVY AND ARMY MEDICAL SERVICES

THE AFRICA GENERAL SERVICE MEDAL.

HE King has approved of the Africa General Service Medal, ith clasp, inscribed "S. Nigeria, 1904-5," being granted to the ilitary forces under the command of Brevet Major H. M. renchard, Royal Scots Fusiliers, who patrolled through the unsettled portion of the Ibibio and Kwa country between November 15th, 1904, and February 27th, 1905, both dates inclusive.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Appointments.—Dr. Nuttall has been appointed Reader in Hygiene for five years. Dr. Humphry has been reappointed University Lecturer in Medicine for five years. Professor Woodhead has been appointed to represent the University at the dedication of the New Buildings of the Harvard Medical School on September 25th and 26th, 1906.

Degrees.—The following degrees were conferred on June 7th:

M.B.: G. O Lambert, Joh.: J. L. Timmins, Emm.
M.C.: W. M. Mollison. King's.
M.B.: G. H. U. Corbett, King's: J. R. Draper, Joh.; A. B. Howitt, Clare; J. C. L. Roberts. Clare; F. J. Thornton, Gonv. and Cai.; C. J. Wilson, Christ's; W. H. Robinson, Down.
B.C.: G. H. U. Corbett, King's: A. B. Howitt, Clare: E. C. Hughes, Clare: F. J. Thornton, Gonv. and Cai.; C. J. Wilson, Christ's; C. F. Fothergill, Emm.; W. H. Robinson, Down.

UNIVERSITY OF LONDON.

THE report of the Principal for the year 1905-6 made on the presentation day, May 9th. is published in full in the *University Gazette* of June 6th.

Finance.

The total receipts of the University, which had increased from, in round numbers, £30,000 in 1901-2 to £72,000 in 1904-5, further increased last year to £94,000 This was mainly due to receipts on behalf of Goldsmiths' Company, which exceeded the corresponding sum for the previous year by £18,000. The expenditure of the University increased *pari passu*, but there was still a small balance of income over expenditure.

Matriculation.

The number of persons who entered as undergraduates by passing either the matriculation examination or a school examination of the same standard showed a considerable decrease, falling from 3,287 to 2,868. The number of entries, however, was slightly higher, the falling-off in the number entering the University being due to the higher percentage of failures—57.8 per cent., as against 50.7 per cent. The number of candidates excused the matriculation examination rose from 115 in 1904 to 237 in 1905, owing largely to the operation of the scheme agreed upon between the three universities of Oxford, Cambridge, and London for the mutual recognition of entrance examinations and their equivalents. From the year 1899-1900, the last before the reorganization of the University, the number of actual entries into the University increased from 1,854 to 3,105, or by 67 per cent. The number of candidates at the various examinations is shown in the following table; it appears to throw a very ominous light upon the regulations of the University, since only about one candidate out of eight who entered obtained a degree; while of those who passed the preliminary and intermediate examinations only about one in three finally graduated. The report does not call attention to this disquieting feature of the returns, but it does comment on the falling-off in the number of candidates for the higher degrees.

	1899-1900.	1905-6.
Matriculation and registration ...	4,084	7,036
Preliminary and intermediate	2,037	2,609
First degree	863	992
Higher degrees	148	122
Diplomas	7	67
Total	7,139	10,826

Medical Education.

The report refers to the munificent gift of £10,000 to the Institute of Medical Sciences received from the Goldsmiths' Company, and recalls the fact that a General Committee to promote the objects of the fund has been formed, and adds that there is every reason to hope that a site will be provided for the institute at South Kensington so soon as the amount of money received justifies the commencement of the building. Mention is also made of the further step towards the concentration of the teaching of preliminary and intermediate subjects by the arrangement under which students of St. George's Hospital now take these subjects either at University or King's College. Reference is likewise made to the establishment of a university professorship of protozoology, to which Professor E. A. Minchin, F.R.S., of University College, has been appointed. An endowment of £750 a year for five years has been provided at the instance of the Colonial Office partly from funds in the hands of the Rhodes trustees, partly by a grant originally made to the Royal Society for the Tropical Diseases Research Fund and partly by a grant of £200 a year made by the University. The authorities at the Lister Institute have placed at the disposal of the Chair rooms and other facilities estimated to be equivalent to £450 per annum, and the Senate at its meeting on May 23rd duly returned thanks to the Institute.

Dr. George Oliver's gift of £100 for the Physiological Laboratory is noted, and it is added that the work in that laboratory is progressing steadily.

Congress of School Hygiene.

The Senate has nominated Dr. E. C. Seaton and Dr. Sydney Monckton Copeman to be members of the General Organizing Committee of the second International Congress on School Hygiene, to be held in August, 1907.

UNIVERSITY COLLEGE.

School of Advanced Medical Studies.

THE foundation stone of the School of Advanced Medical Studies, Nurses' Home, and Maternity Students' House in connexion with University College Hospital was laid by the donor, Sir Donald Currie, on June 11th. The buildings, which are in course of construction, cover an area of about 18,000 square feet, and front on to Gower Street opposite the University College Hospital. The entire length of frontage in Gower Street is occupied by the library and the museum, above them being the more important laboratories and histological lecture theatre. The basement of the School of Advanced Medical Studies contains rooms for lectures in medicine, surgery, and gynaecology. The ground floor is occupied by various rooms for administration purposes and a special suite of rooms for the use of students; the remaining space is occupied by the library and museum. The first floor is devoted to demonstration theatres and the laboratory. The second floor is occupied by rooms for lectures, research, and bacteriology, and by a chemical laboratory for class work and research. The third, fourth, and fifth floors contain demonstration rooms, private research rooms, and storage apartments. The nurses' home forms the south-western part of the building, and is designed to meet the requirements of the private nursing staff connected with the hospital as well as a certain number of nurses belonging to and engaged in the nursing of the hospital patients. The maternity students' house is entered by a doorway to the right of the main entrance, and provides accommodation for two obstetric assistants and six students carrying on the maternity work of the hospital.

Sir EDWARD BUSK, in the absence of Lord Rosebery, opened the proceedings, and said that the magnificent gift of Sir Donald Currie had launched a new scheme which, but for that gift, might not have been initiated for some years.

Lord FITZMAURICE, representing the Council of University College, London, read a letter from Lord Reay stating that Sir Donald Currie's name would always occupy a prominent place in the history of the University College Hospital.

The Duke of BEDFORD, President of University College Hospital, also acknowledged the gift.

Sir DONALD CURRIE, in replying, suggested that the burden of the maintenance of hospitals, instead of being thrown upon a few people, should be borne by the ratepayers or taxpayers. He hoped that Parliament would pay attention to the matter, and recommended the Labour members of the House of Commons to give the subject their attention.

Before the actual ceremony of laying the foundation stone was performed, Dr. J. S. RISIEN RUSSELL, the Dean of the Faculty of Medicine, read out the following inscription on the stone:

> "This Stone was laid by Sir Donald Currie, G.C.M.G., through whose munificence the School of Advanced Medical Studies, Nurses' Home, and the Maternity Students' House were erected in connection with University College Hospital, Monday, 11th June, 1906."

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Annual Report.

AT the annual meeting of the Fellows of the Royal College of Surgeons on June 9th, the President, Sir A. Chance, occupied the chair. The report showed that the receipts amounted to £4,142 5s. 9d and the expenditure to £3,640 19s. 5d., leaving a balance of £501 6s. 4d. to credit in bank. The investments stand at £9,347 3s. 1d, producing £365 16s. 3d. for the year. Nineteen candidates were admitted to the Fellowship, 64 received the conjoint diploma, 32 the conjoint diploma in public health, 5 the licence in dental surgery, and 62 certificates of having passed the conjoint preliminary examination. There are at present living 13 Honorary Fellows, 459 Ordinary Fellows, 2,881 Licentiates, 6 Honorary Diplomates, and 218 Ordinary Diplomates in public health, and 515 Licentiates in dental surgery. Three Fellows and 41 Licentiates died during the year.

Election of Officers.

At a meeting of the Fellows, held on June 11th, the following were elected for the ensuing year:—*President:* Henry R. Swanzy; *Vice-President:* John Lentaigne; *Honorary Secretary of the College:* Sir Charles A. Cameron, C.B.; *Council:* Edward Hallaran Bennett, William Stoker, Sir Charles Alexander Cameron, C.B., John B. Story, Sir Charles B. Ball, Sir Thomas Myles, Sir Arthur Chance, Richard D. Purefoy, Sir Lambert H. Ormsby, Henry G. Sherlock, R. Bolton M'Causland, John S. M'Ardle, Robert H. Woods, Thomas Donnelly, William Taylor, Edward H. Taylor, G. Jameson Johnston, R. Charles B. Maunsell, William Ireland Wheeler.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL TESTIMONIALS IN TRADE ADVERTISEMENT.

WE have received an advertisement of Stowers's pure lime-juice which we are sorry to see contains the names of eight medical practitioners who attest its value, not only as a pleasant beverage but in one case at least as a remedy in disease. The advertisement is accompanied by a letter addressed to a medical practitioner offering to forward a sample case for his personal consumption. There should be no objection to any citizen receiving a sample of wares which he may possibly desire to purchase, so long as he does not regard the present as a corrupt inducement to recommend the article in question; but it can certainly be said against such gifts that they have the appearance of evil. Their acceptance gives colour to the charges against the profession which were repeated when the question of secret commissions was discussed in Parliament, and the fact that eight medical men have given such testimonials as those to which we have referred indicates that the system of free samples has its evil side.

FALSE REGISTRATION.

AT the Kingston Police Court, on July 11th, two women were charged with an offence under the Births and Deaths Registration Act by registering the birth of an illegitimate child in such way as to make it falsely appear that its father was Dr. Albert Max Sully, of Claygate. The women had some years ago endeavoured to annoy Dr. Sully, and on that occasion had given him a written apology. As regards the present incident, they stated that they had no intention of annoying him, and that the father of the child was another Mr. Sully altogether. They were fined 40s. each, with the alternative of twenty-one days' imprisonment.

THE CORONER'S COURT.

NUNQUAM.—In answer to our correspondent's second letter we can only say that if the coroner selected a pathologist to make the *post-mortem* examination and the jury were satisfied of the cause of death, it is presumable that no further evidence was required, otherwise both the coroner and the jury have power to call for it. The suggestion of "collusion between the coroner and his pathologist to the disadvantage of a possibly rival practitioner" is certainly unjustifiable, unless positive proof is obtainable. Under all circumstances, if "Nunquam" requires any further information on the subject, we would refer him to the coroner himself who held the inquest.

MEDICAL ADVERTISING.

J. W. H. sends us a card, which he says is a form of competition by advertisement which is actively carried on in the Yorkshire district in which he lives. It is headed:

> The Vaccination Acts 1867 to 1898.
>
> PRIVATE VACCINATION NOTICE.
>
> Dr. ——— continues to carefully vaccinate children according to the provisions of the above Acts, with Pure Vaccine Lymph either at their homes or at his, Dr. ———'s, residence ——— House, ———, daily, at the usual charge of 1s.
>
> X. Y. Z.,
> M.D., M.R.C.S., L.S.A.Eng. (registered).

*** This is a matter which might well be brought before the local Division of the British Medical Association, for even if the offender is not a member it may be not impossible to bring to his notice the disapproval with which his professional colleagues regard such practices.

FEES IN ACCIDENT CASES.

SENNACHERIB asks whether he has any means of enforcing a claim against the employer or anybody else in the two following instances of injury which have come under his care: (1) A steady, respectable workman, who has been in the service of a stonemason and contractor twenty-one years, i loading a heavy lorry with scaffold poles, etc., when the horse, a big, excitable animal, takes fright and bolts. In pulling him the man gets run over and is hit on the head by scaffold poles. He is attended by the nearest doctor, who stops with him nearly two hours, and binds up a freely bleeding wound among the muscles near the anterior superio spine of the ilium and plugs the cavity with gauze. He is eventually taken to the hospital, declines admission, is taken home, and in time appears to be making a perfectly satisfactory recovery under the care of our correspondent, wh wishes to know whether he must look to the patient himself for remuneration for this attendance, as the employer ha lready hesitated, it is reported, to pay the 7s. 6d. which the ractitioner first summoned (the accident occurring some aree or four miles from the patient's own home) has stated s his fee, on the ground of its being perhaps excessive.) An elderly man, driving a night mailcart, in the mploy of a contractor under the Post Office, is thrown ut of his cart, suffering from concussion, a badly sprained rist, and general bruising and shock. The conveyance ausing the accident is said to have been recklessly driven y a publican, without lights, on the wrong side of the oad. The contractor resides in another town. A local octor is called who renders assistance, and the injured man n returning to his lodgings next day places himself under ennacherib's care. The patient states that both the police nd the Post Office authorities took down his information ith regard to the accident, but no prosecution has as yet llowed. Our correspondent wishes to know whether he as any means of enforcing a claim against the man's employer, the Post Office, or the offending party, as the injured an appears to be a man of straw. (3) If Sennacherib is ummoned to give evidence at the police-court is he entitled demand a fee before accepting a subpoena or giving vidence? The medical man who saw the man in the first nstance is applying to the police for his fee, as he was sumoned by them.

*** (1) We do not think that either medical man can nforce a claim for fees against the employer. If the injured an is able to recover any compensation under the Workmen's Compensation Acts, the expenses of medical attendnce can then be taken into consideration; but, even so, e doctor can only recover from the patient, and it is for e patient to get the money from the employer if he can.) There is no remedy against any one but the patient, ere, again, it is a matter for the injured party to recover. ther by his own action or through his employers, such amages, including costs of medical attendance, as he may entitled to. If the prosecution is criminal, the fee on bpoena is safe. If civil, the case will probably be heard in e county court, and the doctor had better be sure who is ing to pay the fee before he is sworn. (3) The police pear to be liable for a fee to the doctor who rendered sistance at their request.

NQUESTS ON PATIENTS DYING LONG AFTER AN ACCIDENT.

I. S. asks: If death occurs eighteen months after an accint (from sequelae), must the coroner be notified? In ch a case is it improper to fill up an ordinary certificate entioning the accident as the first cause and giving the condary complications afterwards?

*** It is advisable that all deaths arising, directly or inrectly, from an accidental cause should be reported to the roner as soon as possible after the death. He will then quire into the case and decide as to the holding of an quest. If the medical attendant has satisfied himself as the cause of death, there is no objection to stating it on a rtificate; but if the primary cause is accidental, and so ted on the certificate, it is the custom of registrars of ath to communicate with the coroner before registration, d this sometimes delays the funeral. There is no time nit to the holding of an inquest in a case of accidental ath, as frequently the circumstances in connexion with it volve important issues.

CONTRACTS NOT TO PRACTISE.

.—A prescription given without payment or any other nsideration would not, we think, be "practising" within meaning of the terms of the contract; but it is well to oid even the appearance of evil.

. M.—A. buys a practice from B., and pays a part of the rchase money down, the rest by yearly instalments. B., the agreement, is bound not to practise, unless called in nsultation. He breaks this part of his agreement. What ion should A. take under these circumstances?

*** (1) He might claim a rescission of the contract. (2) He ght sue B. for damages for breach of contract. (3) He ght sue for an injunction against B. to restrain him from ther breaches of contract.

SPITAL AND DISPENSARY MANAGEMENT.

SURREY COUNTY LUNATIC ASYLUM.

t and over again we have read with much interest in the al reports of county asylums all over the country the nstrances of the authorities against the increasing tendency to send unsuitable cases, aged dements, bedridden paralytics of feeble mind, and many others to these establishments, entailing an amount of care and attention on the part of the nursing staff utterly out of proportion to any possible benefit to these patients, occasioning overcrowding, with all its attendant evils and inconveniences, a diversion of the proper aim of these institutions, and a greatly increased expenditure to the ratepayers. We have frequently commented on this fact, and again we have our attention drawn to the way in which county asylums are exploited by those too careless or too selfish to care for their enfeebled relatives by some significant remarks of the Committee of the Surrey County Asylum, Brookwood. "The Committee," they say, "have to deplore the fact that from time to time unsuitable patients are sent to this asylum, and they wish to call the special attention of the unions interested to the injustice which results from cases classable as 'infirmary cases' being sent to this asylum, for not only is the maintenance-rate of the asylum heavier than should be the case in an ordinary infirmary, but these patients preclude the acceptance of other and more legitimate cases. Special attention is called to the case referred to on page 13 of the medical superintendent's report."

The case referred to is that of an epileptic girl, aged 16, who had been much neglected at home, and was admitted to the asylum in an emaciated and exhausted condition, with bedsores on the sacrum and both hips. She gradually sank, and died nine days after admission. A coroner's inquest was held, and the parents were censured by the jury for their neglect. The Committee do not say how far the overcrowding of their asylum—necessitating their providing for 60 patients in other asylums at the time of the report—was due to the accumulation of unsuitable cases of this kind; but we note from the report of the Medical Superintendent, Dr. J. E. Barton, that of the 350 cases admitted during 1905 no less than 116 were of over 50 years of age, and of these 33 were of 70 years and upwards. If the diversion of public moneys from the purpose for which they are ostensibly set apart were the sole evil, the matter would be even then sufficiently grave, but it is in the serious obstacles which the accumulation of unsuitable, unimprovable cases puts in the way of treatment, and even of the admission, of patients offering favourable chances of recovery that, to our mind, the real harm lies. The matter is one of increasing urgency, calling for immediate and energetic steps for its remedy, for there can be no doubt that, so long as this influx of unsuitable cases continues, for just so long will our costly county asylums be hampered in the discharge of their proper function of hospitals for the cure of the mentally afflicted.

Dr. Barton's annual report for 1905 shows that on January 1st, 1905, there were 1,321 patients on the asylum register, an increase of 56 on the numbers of the previous year. On December 31st, 1905, the numbers resident in the asylum had increased to 1,341. During the year 350 were admitted, of whom 310 were first admissions, 36 "not first" admissions, and 4 retransfers. In 179 the attack was a first attack within three months, and in 54 more within twelve months of admission; in 59 the attack was a "not first" attack within twelve months of admission, and the remainder were either of more than twelve months' duration on admission (41) or congenital cases (17). In only 94 of the total 356 was recovery deemed probable, and of these 58 were discharged during the year. The admissions were classified according to the forms of mental disorder into: mania of all kinds, 160; melancholia, 65, dementia, 54; general paralysis, 24; acquired epilepsy, 25; congenital or infantile defect, 21; and not insane, 1. As to the probable causes of the insanities in these admissions, alcoholic intemperance was assigned in 54, or 15.4 per cent.; syphilis, notwithstanding the number (24) of general paralytics, in only 1; hereditary influences in 81, or 23.1 per cent.; previous attacks in 36; periodic causes (puberty, climacteric and old age) in 52; epilepsy in 22; and "moral" causes in 96. During the year 126 were discharged as recovered, giving a percentage recovery-rate on admissions of 38.39; 23 as relieved; 48 as not improved; and there were 133 deaths. This gives a death-rate on the average numbers resident of 9.88 per cent. The deaths were due in 59 cases to cerebro-spinal disease, including 21 deaths from general paralysis; in 35 cases to chest diseases, including 10 deaths from pulmonary consumption; in 18 cases to abdominal diseases; and in 21 to general diseases, including 16 deaths from senile decay. Two inquests were held during the year, in both cases the deceased being epileptic and dying shortly after admission from injury or disease existing prior to admission. Serious casualties were few in number, and there were no cases of zymotic disease beyond influenza and erysipelas, the latter affecting 11 patients, of whom 1 died.

COUNTY BOROUGH ASYLUM, MIDDLESBROUGH.

MIDDLESBROUGH is in the somewhat unusual position of being able to show this year a considerable decrease in the number of admissions to its asylum. Dr. J. W. Geddes, the Medical Superintendent, suggests that "the trade depression from which Middlesbrough has suffered, and which may presumably have been partly responsible for the increase in admissions in last and previous years, now operates as a cause of the decrease in that, having, in the first place, swept into the asylum the weaklings—those most prone to mental degeneration, it has left behind a hardier class—those whose nervous systems are more able to withstand the stress of a strenuous existence· Again, the same factor may have acted by driving from the town an appreciable proportion of the class from which our patients are drawn. It is melancholy to reflect upon the fact that, whereas 'hard times' tend to decrease the incidence of insanity, prosperous times and high wages tend to keep our asylums well filled." The influence of fluctuations in the population on the admission-rates relatively to population has frequently been remarked, and is easily explicable. Great and continued immigration from country districts into industrial centres and distant colonies, mainly composed, as it generally is, of the younger, hardier, and more enterprising elements of the population, must be expected to produce a relatively greater incidence of insanity in the depleted areas, and a proportionately less heavy rate in the towns or colonies into which immigration has taken place. The history of the growth of insanity in New Zealand and the Australian Commonwealth is particularly interesting in this respect, showing a steady increase of insanity *pari passu* with the decline of immigration. The suggestion made in the latter half of Dr. Geddes's remarks, quoted above, appears to be in opposition both to this hypothesis and the views given in the first half of the passage quoted. However this may be, Middlesbrough is to be congratulated on its lessened admission-rate for 1905.

On January 1st, 1905, there were 399 patients in residence, and on the last day of the year there were 401, an increase of 2 patients as compared with the increase of 154 of the previous year. During the year 92 patients were admitted of whom 62 belonged exclusively to the borough, 26 were out-county patients under contract and 3 private patients. Of the total number 46 were the subjects of a first attack within three, and 15 more within twelve, months of admission; 15 were "not first" attacks within twelve months of admission and the remainder either of more than twelve months' duration on admission (13) or congenital cases (2). Only 2 were in good bodily health and condition on admission, 67 were either in fair or moderate bodily state and the remainder in feeble health. They were classified as to the forms of mental disorder into: Mania of all kinds, 56; melancholia, 14; dementia, 10; general paralysis of the insane, 8; and congenital or infantile defect, 4. There were no cases of acquired epilepsy. As to the probable causes of the insanities, alcoholic intemperance was assigned in 21, or over 22 per cent.; hereditary influences were ascertained in 13, or 14.1 per cent.; venereal disease in 2; previous attacks in 15; self-abuse in 9; the puerperal state in 9; "moral" causes in 13; and the remainder are distributed over the usually assigned etiological factors. During the year 26 were discharged as recovered, giving a percentage recovery-rate on admissions (excluding transfers) of 30.95—4 as relieved and 8 as not improved. There were 52 deaths during the year, giving a death-rate on the average numbers resident of 13.06 per cent., which is in excess of the average death-rate for this institution—namely, 11.18 per cent. The deaths were due in 25 cases to cerebro-spinal diseases, including 20 deaths from general paralysis; in 18 to chest diseases, including 9 deaths from pulmonary consumption; in 5 to abdominal diseases, and in 5 more to general diseases. No inquest was necessary during the year, no serious injuries were incurred, and the general health was good. One patient was attacked by scarlet fever, was at once isolated, and made a good recovery.

GOVAN DISTRICT ASYLUM, HAWKSHEAD, PAISLEY.

THE annual report of this asylum for the year ending May 14th, 1905, has recently been published, and shows that on May 15th, 1904, there were 505 patients on the register, rising to 527 on May 14th, 1905. The total cases under care during the year numbered 791, showing a much larger movement in the asylum population than would appear from the mere increase of 22 in the twelve months in question. The steady and considerable increase both in the average numbers resident and in the admissions of late years at this institution show the necessity for increasing its accommodation, and also, as pointed out by both visiting Commissioners, the advisability of encouraging the boarding-out of suitable cases. Govan in this respect is somewhat behind many other districts in Scotland; at present only 15 per cent. of its pauper insane are boarded-out. During the year 286 cases were admitted, of whom 244 were first admissions. This is 26 in excess of the admissions of the previous year. Of the total number, 202 were the subjects of a first attack within three months, and in 17 more within twelve months of admission; in 40 the attack was a "not first" attack within twelve months of admission, and in the remainder was of more than twelve months' duration on admission or of congenital origin. They were classified as to the form of mental disorder into: Mania 90, melancholia 71, dementia 36, delusional insanity 38, alcoholic insanity 23, puerperal insanity 7, general paralysis 9, acquired epilepsy 8, and congenital or infantile defect 4.

Last year, in noticing the annual report of Dr. W. R. Watson, the Medical Superintendent of this asylum, we quoted his opinion that the publication of tables of the causation of the insanities was almost entirely useless. This year Dr. Watson gives in place of the table usually devoted to this purpose (Table X) a brief summary of each case, individually showing the social condition, the form of insanity, facts as to t heredity, and in place of "probable causes," what Dr. Wats has called "associated conditions" existent and pre-existent each case. This seems to be an admirable plan, which mig be adopted elsewhere. These tables take up some eight pag of his report, and might with advantage be summarized an additional table. During the year 125 were discharged recovered, giving the high recovery-rate for a district asylu of 44.7 per cent. on the admissions. Also 33 were discharged relieved, 25 as not improved, and there were 78 deaths. Th latter figure gives the high death-rate on the average numbe resident of 15.0 per cent., the highest percentage, with o exception, in the history of this institution. The deaths we due in 37 cases to cerebro-spinal diseases, including 13 fro general paralysis and 13 from cerebral haemorrhage; in 30 chest diseases, including 13 from heart disease, and in 12 fro phthisis; in 1 to intestinal obstruction; and in 10 to gene diseases. No serious accident occurred during the year, a the Commissioners comment upon the satisfactory state of t asylum in their reports.

DERBY BOROUGH ASYLUM.

FROM the annual report for 1905 of the Medical Superintende of this Asylum, Dr. S. Rutherford Macphail, it appears th there were 320 patients resident on January 1st, 1905, and th there remained 317 on the last day of the year. This sm decrease was due, not to a fall in the numbers of De patients, but to the removal of out-borough cases on the t mination of a contract with Middlesex County Asylum. the 317 remaining at the end of the year, 297 were Derby Un cases and 20 private patients. Writing on March 3rd, 1906, Commissioners in Lunacy point out that, allowing for withdrawal of the Middlesex patients, there has been increase which seriously encroaches on the very small mar of accommodation at the asylum, and again urge the commit to make further provision for borough lunatics.

During 1905, 103 cases were admitted, of whom 90 were f admissions. In 46 the attack was a first attack within th and in 22 within twelve months of admission, in 14 a " first" attack within twelve months of admission, and remainder were either congenital cases (7) or of more th twelve months' duration on admission. The admissions w classified as to the forms of mental disorders into: Mania all kinds, 49; melancholia of all kinds, 30; dementia, general paralysis, 5; acquired epilepsy, 5; and congenita infantile defect, 7.

As to the probable etiological factors, Dr. Macph comments on the small number of cases admitted in wh alcoholic excess could be assigned as cause and the importa of the "neuro-insane constitution." Referring to the act tables, we see that hereditary influences, direct or collate were ascertained in 37, or 35.8 per cent.; alcoholic intempera in 13; previous attacks in 15; "moral" causes in 28; and remainder distributed over the usually cited factors. Du the year 39 were discharged as recovered, giving a percen recovery-rate on admissions, excluding transfers, of 49.3; relieved; 25 as not improved; and there were 33 deaths. Th deaths, giving a death-rate on the average numbers resid of 9.9 per cent., were due in 11 cases to cerebro-spinal disea including 5 deaths from general paralysis; in 10 cases to c diseases; in 1 case to nephritis; and in 11 to general disea including 4 deaths from tuberculosis, pulmonary and gen This low death-rate from tuberculous diseases is satisfact the rate does not appear ever to have been high, the ave tuberculous death-rate since the opening of the asylum b 9.4 per cent. of the total deaths. There were no deaths f accident, this being the third year in which no inquest been held and no serious casualties reported. Notwithstan the overcrowding to which the Commissioners allude in t report, the whole asylum appears to have been in exce condition, and its management is favourably commented by the Commissioners.

HOSPITAL FOR EPILEPSY AND PARALYSIS, LON

AT the annual meeting of the Hospital for Epilepsy Paralysis, Maida Vale, on March 31st, it was reported th appeal the rate assessment had been reduced from £570 to a year. The estimate of £3,000 a year as the probable an cost of the hospital had nearly been reached, while ordi income was still less than £2,000. The average numbe beds daily occupied throughout the year had been 29, an average duration of each patient's stay 75 days. Altog 166 in-patients had been admitted.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVIC

THE VACCINATION ACTS.

CERTIFICATES OF REVACCINATION.

DOUBTFUL MEMBER.—A public vaccinator is obliged by tion 9, Vaccination Act, 1871 (unrepealed), to delive request a certificate of revaccination; he may charge n and there is no statement as to the period of time bet the operation and the issue of the certificate.

LETTERS, NOTES AND ANSWERS TO CORRESPONDENTS.

☞ *Queries, answers, and communications relating to* *bjects to which special departments of the* BRITISH EDICAL JOURNAL *are devoted will be found under their spective headings.*

QUERIES.

W. L. asks for information as to the value of the tuberculo-lbumen advertised by Paul John and Co., 339, City Road, ondon.

DIET IN PREGNANCY.

NIOR writes: I should be much obliged if any of your eaders could give me any information on the subject of uitable diet during pregnancy, with special reference to the ubsequent lactation. I have a patient who has rather a endency to put on fat, and who was unable to nurse her first hild, although her breasts were well developed, and she vishes to be able to nurse her next child. Is massage of the reasts during the latter weeks of any use?

THE REMOTE EFFECTS OF INJURIES.

F. H. sends up the report of an inquest on a boy who died rom acute yellow atrophy following the removal of an eye or injury, and asks if we can give him the name of any vork which shows that disease or injury to the eye will ause disease of the liver (yellow atrophy).

*** In Rolleston's *Diseases of the Liver*, p. 567, is given a eference to Max Ballin, *Annals of Surgery*, March, 1903, . 362, for nine fatal cases of acute yellow atrophy after perations.

ANSWERS.

S. P.—As our correspondent will see, reciprocity with Nova cotia has recently been established owing to the additional acilities afforded by the Medical Act (1886) Amendment Act 905. This Act, together with that of 1886, provides the llest facilities for any colony which thinks well to set the roceedings in motion.

GLO-INDIAN is surely quite mistaken in supposing that here is any prejudice in this country against a man born India. There must be thousands of men in all kinds f positions in this country who were born in India, and ot one person in ten thousand troubles his or her head to now where they were born. Nor do we think there is any rejudice, amongst educated persons at any rate, against urasians merely because they are of mixed European and ndian birth. No doubt the average Britisher is horribly ored by any man of whatever extraction who is always on e look-out for fancied slights.

LETTERS, NOTES, etc.

PRECAUTIONS BEFORE ANAESTHESIA.

CORRESPONDENT writes: Medical men who administer aesthetics to their patients as a matter of daily routine casionally appear to forget that to the laity the experience novel and to the uninformed is often of formidable portance. The statement of Charles Kingsley, that Fear is more pain than is the pain it fears," is substantied in every phase of clinical practice, and in the present rticular many a patient has suffered acutely from unavoidle ignorance as to the exact procedure with and the action the anaesthetic under whose influence he was to be aced. This being the case, it would be not only wise but nd for the anaesthetist personally to assure each patient turn that no pain will be felt during the operation; and, rther, that, subject to the findings of a previous physical amination, the proceedings will not have a fatal issue. ere is also another point which often causes considerable, silent, anxiety to persons about to be operated upon. ey fear intensely that a premature incision may be made fore they are properly "under." In order to obviate this necessary dread, they should be given a verbal guarantee at the surgeon will not touch them until they are certified have lost consciousness; in accordance with this promise, bandage should be loosened or cut and no part of the body ould be touched until sensibility has been abolished, herwise the patient, half-unconscious but fearful, may istake the action and suffer a mental shock which was as intentional as unexpected. It is said that as many deaths der anaesthetic occur from giving too little as from giving much, and probably many of the former fatalities are plained by the shock sustained by the patient under cumstances similar to those referred to above.

MOTOR BICYCLES.

J. THOMSON BELL (Princes Risborough, Bucks) writes: y experiences with a motor bicycle during the past two ars may be interesting and useful to some of your readers o like myself are country practitioners and have many les to cover in performance of their professional duties, and who find they cannot afford the initial cost and upkeep of a car. I have a Rex—3¼ h.p., 1904 model—machine. I have now run it hard for exactly two years, with the exception of parts of the two winters when cycling was out of the question. (I keep a horse as well, occasionally in the winter two.) I must in that time have covered from 10,000 to 15,000 miles at work and pleasure, and I have never been "hung up" from any cause except from such troubles as run-down accumulators, punctures, and belt troubles—ills which all machines are heir to—and even these occasions have been very rare. My engine has never been "taken down," and I have all along used and am still using the same sparking plug which the firm supplied me with when I purchased the machine. I am sorry there is no mark on the plug to indicate what particular make it is, because I should think this is a sparking plug record. From this it can be seen that repairs have not cost me much, and the consumption of petrol is comparatively small (surface carburetter). The great advantage is the saving of time, particularly in the summer. I can frequently finish by 2 o'clock a day's visiting, which by driving would have taken me to 4 or 5 o'clock, and thus leave myself leisure time. If any reader would like further information I should be pleased to give it.

A HYGIENIC BAG-OPENER.

MR. REAY THORNTON (Warwick Road, Margate) has submitted for inspection an apparatus intended for use in shops in connexion with the paper bags in which sweets, cakes, biscuits, etc., are commonly vended. There is a certain degree of difficulty in opening these bags, and the existing practice is for the seller—man, woman, or child—to wet his or her finger with saliva in order to get a grip on the paper and then open the mouth of the bag by blowing into it. Obviously, therefore, the interior of the bag, and subsequently its contents, must always be more or less contaminated by moisture from the mouth, and not rarely such moisture must contain pathogenic organisms. The practice is, therefore, one to be deprecated as adding to the probability of tubercle and other disorders being spread. To obviate the need for this unpleasant custom Mr. Thornton has produced a contrivance, in the shape of a stoneware block, which has on its upper surface a damp-sponge holder, and just in front of the latter a pad of corrugated cork. With this very simple apparatus we find a bag can instantly be opened without trouble. When the bag is laid on the corrugated pad there is sufficient adherence between the paper and the surface for a finger, damped on the sponge and then applied to the paper, to open the bag widely at once. Such a contrivance might certainly be used with advantage to the public health, and as the interior of the block is arranged for use as a string box and the exterior left plain for counter advertisements, this mechanical bag-opener is likely to become a familiar object.

STILLBORN TWIN.

DR. J. REID (London) writes: On April 20th a primipara gave birth to twins about a month before full time. The first child was born after a short labour, the second with the placenta attached followed soon after. There was but one placenta, and the second child, judging from its lividity, had been dead for at least a fortnight. The mother had been suffering from influenza, but made a good recovery. The male living child was deficient in foreskin, and but for ulcerative stomatitis, icterus, and snuffles, did well. The dead child had no evidence of genital organs, but was otherwise completely formed from external examination. The patient two years ago was said to have for the first time had prominent eyeballs, as is seen in exophthalmic goître, but I saw no signs of that disease or syphilis. She had a nervous and rheumatic temperament. It may be stated that the living child's cord was attached to the centre of the placenta. The father was healthy.

HYGIENE AND DIETETICS.

DR. JOHN HADDON (Denholm, Hawick) writes: Paragraph 10, in the report of the Examination Committee of the General Medical Council, especially as regards hygiene, deserves some consideration. In the discussion of that paragraph, Dr. McVail said that there ought to be attached to every Examining Board a person who knew hygiene thoroughly, and Sir Thomas Fraser said it was not fair to a candidate to have an examiner who was not fully acquainted with the subject. Now, hygiene is the science of preserving health, and, so far, has received very little attention at the hands of the teaching bodies, apart from the subjects required to be studied by candidates for a licence in public health. Our medical officers of health concern themselves almost entirely as to sanitary matters, the isolation of infectious diseases, and the provision of good water. By improving the housing of the slum population, and by improved sanitation, much disease is no doubt prevented; but, still, the health of the people is not what it should and might be, if the art of preserving health were known and studied by medical students as it ought to be. Physiologists are beginning to discover that their teaching with regard to food is wrong, and many medical men are of opinion that it is the quantity as well as the quality of the food of the people which is responsible for the bulk of the diseases they are called upon to treat. We must confess that our knowledge of food is sadly deficient, and that there is great need for the study of the subject, that it may be taught, as it ought to be, in every medical school. Dietetics would be a proper subject on which to examine under "Hygiene," or "The Art of Preserving Health"; and where would Dr. McVail, or even Sir Thomas Fraser, find one fully acquainted with the subject? Those who know most of the subject will confess that their knowledge is so far rudimentary, and that much work requires to be done, not only by the physiologist, but by the physician, before the subject of dietetics can be properly taught. Such being the state of matters with regard to perhaps the most important subject which should be examined upon under hygiene, it is time that our Association should use its influence to have dietetics included in the medical curriculum, and every student examined upon it.

THE DR. A. E. JONES FUND.

THE following further subscriptions have been received on behalf of this fund, particulars of which were published in the BRITISH MEDICAL JOURNAL of May 19th, 1906, p. 1200:

	£	s.	d.		£	s.	d.
Sir Thomas Barlow, Bt....	3	3	0	William Jones, Esq.	1	1	0
Per R. Jones, Esq.	3	3	0	Dr. Guthrie Rankin...	1	1	0
Herbert Tilley, Esq.	2	2	0	Dr. David Nabarro ...	1	1	0
Sidney Bree, Esq....	1	1	0	Anonymous	1	1	0

Those gentlemen who have not yet forwarded their subscriptions are asked to do so without delay, as it is proposed to close the list next week. Cheques may be sent to Messrs. Barclay and Co., 54, Lombard Street, E.C., or to the Treasurer of the Fund, Sir Victor Horsley, F.R.S., 25, Cavendish Square, W.

CAUSES OF THE INCREASE OF APPENDICITIS.

DR. J. F. O'MALLEY (London) writes: The theories for the great increase in the prevalence of appendicitis of late years have been many and various. Recently it has been suggested by a Continental authority that possibly some of the metal of the coverings of tinned foods, getting into the alimentary canal, may be responsible. In the light of our present knowledge of these dietetics and the methods of their preservation, to my mind it is far more probable that the foods themselves are to blame, through the production of virulent toxins, which become absorbed from the contents of the ileum when slowly passing through the ileo-caecal valve by the appendix; and this, after the manner of lymphoid tissues, inflames and suppurates. It would be interesting to trace the history of this industry in America and this country, and to ascertain what the statistics of appendicitis in both have been previous to and after the origin of the tinned food business.

*** The theory suggesting that scraps of metal from tinned food or cooking utensils may be one of the causes of appendicitis is certainly not new, and is probably not true; the other suggestion likewise is not new, but may be true.

GEOGRAPHICAL DISTRIBUTION OF TROPICAL AND SUBTROPICAL DISEASES.

DR. J. S. PURDY, F.R.G.S. (Port Said) writes: The reference by Major Ross to the promised report of an annual return by the Colonial Office showing the progress of antimalarial measures in the various Colonies, their cost, and the effect of them on the public health, suggests an even more extensive publication directly bearing on the incidence of diseases other than malaria in the Crown Colonies and the sister States. Many of the latter in their respective yearbooks and the annual reports of the health departments, such as that issued by the Minister of Public Health of New Zealand, give much information to those interested in the geographical distribution of disease. For some time I have been contemplating the making of rough maps to show the present and past topography of diseases such as cholera, yellow fever, plague, sleeping sickness, ankylostomiasis, bilharzia, and other diseases which have so far been confined to certain portions of the world. The difficulties, however, of getting accurate information, and the want of access to official returns has been a bar to securing any reliable data. A general review of the health conditions of all the oversea parts of the British Empire, with statistics, as far as procurable, with graphic representation on the lines so well known in the publications of Mr. Schading, I think, would be of great interest to many members of our profession.

PARADOXICAL TEMPERATURE.

DR. WM. OLIVER BEDDARD (Twickenham) writes: I was interested in Dr. Russell's communication in the BRITISH MEDICAL JOURNAL of May 19th, p. 1200, upon difference of temperature in the two axillae. In February I was attending a young woman suffering from phthisis in whom there was a marked difference of temperature in this respect; the thermometer in the left axilla almost invariably showed a higher temperature than in the right. Sometimes the difference amounted to nearly 2° F. Owing to abnormality the left radial pulse could hardly be detected; the right was easily felt and counted. I did not take the temperature in the mouth owing to dyspnoea. I took precautions to avoid error both as regards patient and thermometers, sometimes
using one thermometer for both axillae, at others
tested thermometers simultaneously. The patient
suddenly from haemoptysis in May whilst apparently o
high road to recovery. On *post-mortem* examination i
found that death resulted from haemorrhage into a
in the left apex.

MIDWIFERY OF THE PRESENT DAY.

L. S. A. writes: I had not intended joining in this discu
as it is evident there are many opinions. We have th
fessor who tells us how it ought to be done, and
evidently does not know the conditions which obta
colliery and working-class practices; then the instru
and chloroform man, etc. But a letter like that i
BRITISH MEDICAL JOURNAL of June 9th, p. 1383 from I
Monteagle I consider a libel upon the medical profe
There is certainly not enough training in midwifery at
of our universities and schools, and some qualified me
ill-qualified to attend midwifery; but to accuse men
fully rupturing the perineum, lacerating the cervix, et
young life blighted," and so on, simply because he is
hurry to get back to bed—and not once, but "it is a t
case of a host of others," is surely a gross exaggeration
Monteagle gives the results of "one *trustworthy* mid
and "another worthy midwife." I don't believe them.
give a few cases where I have been called in by *trustwor*
midwives: (*a*) Mrs. S. Urgent message; collapsed,
pulseless, etc., "had enough pains to bring six chil
Found a rupture of uterus and bladder and the child am
the intestines. (Evidently a shoulder presentation
Another Mrs. S. Case of "twins"; one born, unable
the other. I found an inverted uterus partially protr
from the vulva, which the "trustworthy" midwife had
trying to pull out for two hours. (*c*) Mrs. W. Os d
labia oedematous, membranes ruptured, and no adva
the head; "been like that thirty-six hours," thought i
to send for a doctor. Temperature 105°. I delivered
forceps, but the woman died soon after, and suppos
case would not be included by the "worthy" midwi
death in her practice. (*d*) Retained placenta,
partum haemorrhage. The patient died twenty m
after my arrival. I suppose that would not be in
in her deaths as I arrived before the woman
(*e*) Transverse, funis presentation. The "wo
midwife waited twelve hours before sending. These
few samples of the present registered midwife. It is
common thing to be sent for by some "trustworthy
wife to use forceps to a breech presentation, or told
breech when you require forceps, and, further than tha
rarely you get paid for them. These are the women s
your correspondents seem willing—nay, anxious—to
all midwifery to, and "to call in a specialist for difficu
Ah! but that is the rub. How can you know befo
what is going to be a difficult case, and what is the
being called in when it is too late to save the woman
Because I am sure 98 per cent. of the present registere
wives cannot diagnose a case at all. I wonder if Dr.
eagle has ever found a ruptured perineum when the c
been left to Nature? If he says No, it is because
never looked. Ruptured perineum is fairly common i
wives' practice, and I believe it is possible for forc
save it. Midwifery is like anything else: you must
fair knowledge of your work, and are required to pos
average amount of skill. There are faddists in all
even in midwifery, but the man with a five-guinea p
knows little about the condition of the fifteen-shilli
What is necessary is a training for the midwife, and
extended one for the medical student.

A CASE OF TETANUS.

MR. ASLETT BALDWIN writes to say that the serum wh
injected into the brain in the case of tetanus repor
p. 1341, on June 9th, was antitetanic not antistreptoc

COSTLY CURIOSITY.

IN a little book recently published, entitled *The*
Dictionary, by Mr. Harry A. Thompson, a Philadelp
not unknown to medical circles in New York, we fin
the *New York Medical Journal*, the following defi
"Curiosity. Paying a thousand dollars to se
appendix."

SCALE OF CHARGES FOR ADVERTISEMENTS IN
BRITISH MEDICAL JOURNAL.

Eight lines and under	£0	4
Each additional line	0	0
A whole column	2	13
A page...	8	0

An average line contains six words.

Advertisements should be delivered, addressed to the Man
the Office, not later than first post on Wednesday n
preceding publication; and if not paid for at the time, sh
accompanied by a reference.

Post-Office Orders should be made payable to the British
Association at the General Post Office, London. Small a
may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive
Postes Restantes addressed either in initials or numbers.

Remarks

ON

THE MEANING AND MECHANISM OF VISCERAL PAIN

AS SHOWN BY THE STUDY OF VISCERAL AND OTHER SYMPATHETIC (AUTONOMIC) REFLEXES.

BY **JAMES MACKENZIE, M.D.,**
BURNLEY.

I.—SYMPATHETIC REFLEXES.

IN the following study an attempt is made to demonstrate the principles on which pain and other symptoms of visceral disease are produced.

A great many phenomena of which we are cognisant have never been carefully analysed, but have been heedlessly attributed to some seemingly self-apparent cause. On critical examination it will be found that the phenomena are of a nature totally different from that usually accepted, and involve a complex mechanism hitherto unsuspected. Many of the observations quoted here may seem trivial and unimportant, but as straws show the direction in which the wind blows, so an appreciation of the true nature of these simple reflexes reveals the meaning of many important clinical symptoms at present overlooked or misunderstood.

Ever since 1891, when I found out that definite areas of the skin may become reflexly hyperaesthetic in visceral disease, I have not only used this symptom as an aid to diagnosis, but I have pursued the inquiry into other reflex phenomena. The conclusions arrived at in these papers are not hasty generalizations from a few observations, but are the results of many years' patient study, observation and practical application, and are therefore the natural deductions from a great mass of well authenticated facts. If I seem to pay scant attention to the results of other workers in this field of observation, it is not for lack of appreciation of such writers as Hilton, Ross, and Head, but simply because space prevents me dealing with any matter other than that essential to my argument. A certain parallelism may be found in some of these observations to some of those of Head, but a conclusion is reached different from that he has lately enunciated. From his remarkable researches he has been able to demonstrate that the skin is endowed with two forms of sensibility—an "epicritic" and a "protopathic." By means of the former, we perceive the finer forms of stimulation as touch, accurate localization, refined difference in temperature, and so forth. The "protopathic" sensibility represents a more primitive and blunted form, localization is not so accurate, touch is not perceived, but pain is felt on pricking with a pin, the points of the compass are only recognized as distinct when separated by at least 2 cm., the extremes of temperature only are appreciated. His demonstration of these forms of cutaneous sensibility is convincing; but when he goes on to attribute "protopathic" sensibility to the viscera, his conclusions are not borne out by the evidence he produces. When one contrasts the wealth of material he gives to demonstrate the protopathic sensibility in the skin with the paucity—nay, with the absence—of facts in favour of his assertion that the viscera are endowed with protopathic sensibility, one realizes that some other principle must govern the nerve supply of the viscera. One is driven to this conclusion with the greater force when it is considered that the viscera are totally insensitive to all the forms of stimulation which Head employs to produce the sensation he terms "protopathic." So far as his writings show, Head has not taken into account a great many phenomena that throw a flood of light upon this subject, and which, I think, lead logically to a proper appreciation of the sensations produced by the viscera.

Classification of the Symptoms of Visceral Disease.

The symptoms of visceral disease may be looked upon as threefold: (1) Symptoms due to modification of function; (2) local symptoms due to changes in the organ itself; (3) symptoms which arise through implication of the nervous system. It is with the consideration of the reflex nervous symptoms included in this last division that the following study is concerned.

The Purpose of Visceral Reflexes.

If it be kept in mind that these reflex symptoms are essentially protective in function, a clearer conception of the nature and meaning of the symptoms will be obtained and will guide to a better understanding of the subject. If a pain be felt in the neighbourhood of an organ with which the pain can be associated it is assumed by many that the pain is felt in the organ. A careful consideration of all the facts will lead to a very different conclusion. Thus a patient with a gastric ulcer may feel the pain in the epigastrium. Where the pain is felt, the rectus muscle is found slightly rigid even on gentle palpation. If pressure be exercised the hardness of the muscle at once increases, and at the same time the patient is conscious of great pain arising from the increased pressure on the muscle. In such a case, though the pain and muscular tenderness and contraction be in the epigastrium the ulcer may be situated at the cardiac end of the stomach. It is evident that these sensory muscular phenomena have a protective purpose. Were the stomach itself sensitive, violence would reach and injure the organ before pain was experienced, but by the interposition of sensitive structures which are coupled to a powerful muscular reflex external to the stomach, the diseased organ is effectually guarded against external violence.

The Autonomic Nervous System.

Under this term Langley has included the visceral nerve supply, the nerves supplying the blood vessels, the pilo-motor nerves, etc. The efferent fibres of this system leave the central nervous system at four regions, which are separated from one another by regions from which no autonomic fibres pass. The nerves of the first of these regions arise in the brain ("midbrain autonomic system") and supply the sphincter of the iris and ciliary muscle. The nerves from the second region ("bulbar autonomic system") pass out in the seventh, glosso-pharyngeal, and vagus nerves. The nerves from the third region include the sympathetic, and leave the spinal cord in the white rami from the first thoracic to the second or third lumbar nerves. The nerves from the fourth region ("sacral autonomic system") leave the spinal cord in the second, third, and fourth sacral nerves.

The Sensory Nerve Supply of the Chest and Arm.

Before entering into the facts bearing upon these reflexes I would direct attention to a field for investigation that offers unique facilities for determining many doubtful points. As I have said, the proximity of a diseased organ to the site of pain may mislead the observer as to the exact part in which the pain is felt, but if the pain is felt in a part remote from the organ but where a nervous connexion of the organ with the area in which the pain is felt can be demonstrated, a clearer conception of the mechanism by which the symptoms arise will be obtained. This end is admirably provided in the distribution of the sensory nerves supplying the chest and arm.

Certain portions of the eighth cervical and first, second, and third dorsal spinal nerves are distributed in a peculiar manner. Thus, the eighth cervical is distributed to the ulnar border of the hand, while the ulnar border of the forearm and internal surface of the upper arm is supplied by the first, second, and third dorsal nerves, portions of the second and third dorsal nerves also being distributed to the skin of the chest.

In Fig. 1 the shaded area represents the distribution of the eruption in a case of herpes zoster which affected the eighth cervical, first and second dorsal nerves. It was because of the resemblance of the area of distribution of the eruption in herpes zoster to the anaesthetic areas observed by Ross and Thorburn in affections of the spinal cord, and to the fields mapped out by Sherrington that led me many years ago to suggest that herpes zoster was an affection of the ganglia of the posterior spinal roots—a suggestion I found afterwards had already been put forward on other grounds by von Barensprung. The subsequent researches of Head and Campbell have fully confirmed this view. The reason I employ this field for observation is because many patients suffering from visceral affections—as heart disease—refer their sensations to this area, and we have in such cases a test not only of their reliability—for one can scarcely suppose they would invent such a characteristic distribution of their sensations—but also of the mechanism by which these sensations arise. I shall show that this peculiar area can be affected in a variety of ways—(1) by the appearance of the goose-skin eruption—that is, the pilomotor reflex; (2) by the sensation produced by stimulation of the sympathetic nerves—the autonomic sensation; (3) by the pain and cutaneous hyperalgesia that are present in affections of the heart. Here I shall deal with (1) and (2), reserving the symptoms in heart affections for a somewhat detailed study.

The Pilomotor Reflex.

If certain stimuli be applied to the skin, as by rubbing the skin with a piece of flannel, over the part stimulated the] hair follicles may protrude (goose-skin), due to contraction of the pilar muscles which are attached to the hair follicles. Under favourable circumstances, from this localized eruption a widespread eruption may extend rapidly in very definite directions. Thus, if the skin under the nipple be stimulated, the eruption may spread up the chest as high as the second rib and then down the arm in the area shaded in Fig. 1. The eruption may involve the whole chest, or it may affect only the anterior surface of the chest, extending to the axilla and down the arm. These and other peculiarities I described in an article published in *Brain* in 1893.

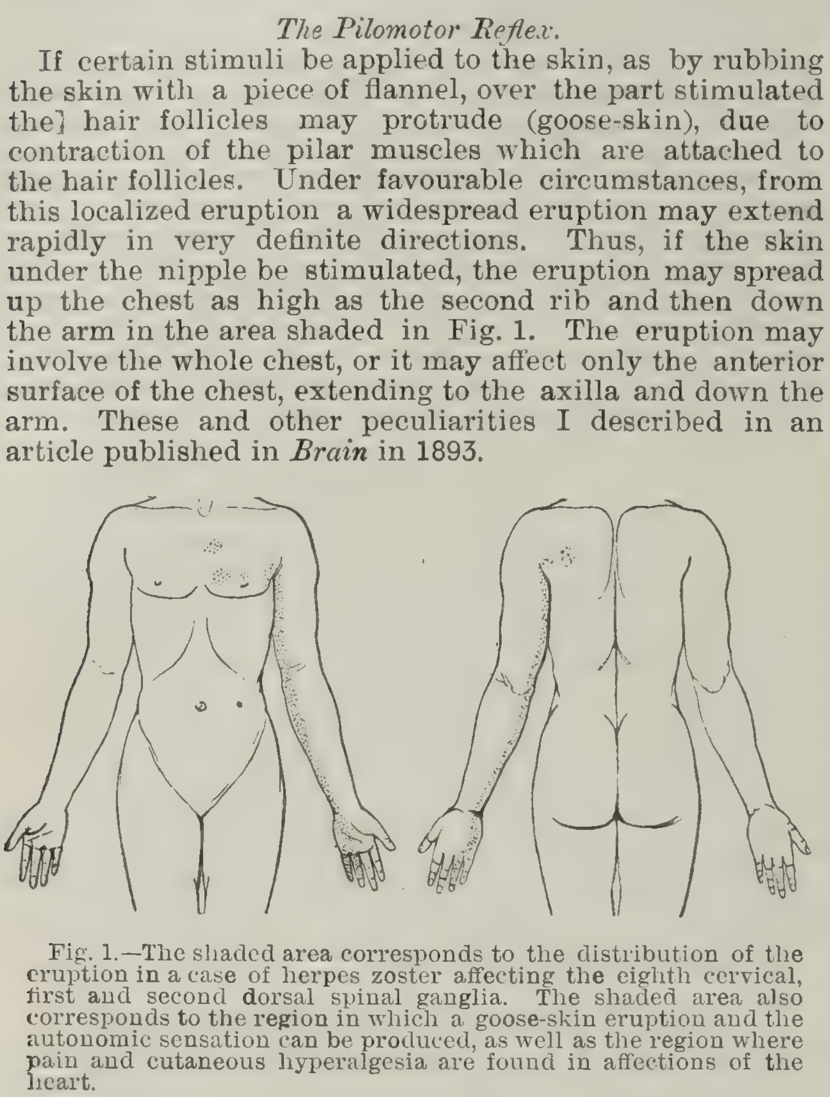


Fig. 1.—The shaded area corresponds to the distribution of the eruption in a case of herpes zoster affecting the eighth cervical, first and second dorsal spinal ganglia. The shaded area also corresponds to the region in which a goose-skin eruption and the autonomic sensation can be produced, as well as the region where pain and cutaneous hyperalgesia are found in affections of the heart.

The Autonomic Sensation.

When the pilomotor reflex appears over a considerable area it is often accompanied by a peculiar shivering sensation, which is generally supposed to be due to the contraction of the pilar muscles, and is invariably referred to as the "goose-skin" sensation. In the paper just referred to I remarked, "This sensation is peculiar to itself, and to what it is entirely due I am not certain. The mere traction and shrinking of the skin does not appear to be its sole cause, because I find it present where there is no evident goose skin produced, and it even extends to areas where the hair follicles do not exist. Again, the goose skin may be present when no such sensation exists." Since I wrote this, thirteen years ago, I have made many other observations, and can verify the fact that the sensation is altogether distinct from the pilomotor reflex, and hence I suggest a distinctive name (*autonomic*) for it, derived from the term applied by Langley to the portion of the nervous system of which the sympathetic is a part. Its probable cause I will discuss in dealing with the sense of cold. Here I may remark that in stimulating the chest, as already described, the sensation may be produced, and it follows the same path as the pilomotor reflex, though there may be no sign of protruding hair follicles. The sensation may often be felt to extend beyond the area of distribution of the hair follicles to the ulnar border of the hand and little finger, over an area corresponding to that mapped out in Fig. 1. This sensation is also felt spreading like a wave over the body, sometimes so intense as to give rise to the sensation of cold, as when patients describe the sensation as that of iced water trickling down the back.

Implication of the Spinal Cord in the Production of these Reflexes.

The mechanism by which these reflexes are produced offers an interesting field for speculation and observation. That it cannot be by local stimulus affecting only th structures in the skin is evident from the fact that th symptoms do not spread in an indefinite manner over contiguous areas of skin (for instance, they never go up th chest above the first rib), but spread in a manner as we defined as the eruption in Fig. 1. That it is due to stimulation of certain portions of the spinal cord is probabl from the following reasons: (1) the cells of the neuron producing the pilar contraction are situated in the spina cord; (2) the stimulus producing these symptoms produces also other phenomena (as dilatation of the pupil which originate in the spinal cord; (3) it is only in th spinal cord that such a definite group of phenomena ca be affected by one and the same stimulus; (4) the are affected by the pilar contraction and autonomic sensatio correspond exactly with the areas in which pain is felt and sensory abnormalities are present in visceral diseas and lesions of the cord.

By what system of nerves the stimulus is conveyed t the cord is not clear. It is not by the ordinary paths, a neither pain nor touch, nor moderate degrees of cold c heat are capable of producing the reaction.

The Autonomic Pupil Reflex.

When I had reasoned that this pilomotor reflex an autonomic sensation must be due to stimulation of th centres in the spinal cord, I reflected that if this were s the stimulus passing up the cord affecting the cells fro which the sympathetic fibres arise would be bound t affect the cells that supply the nerves of the dilato pupillae, which Langley describes as leaving the spina cord by some of the upper dorsal nerves. The firs individual I tested for this purpose showed a well-marke transient dilatation of the pupil, and since then I hav been able to demonstrate this reaction in a considerabl number of people. The method I employ to produce thi reaction is to rub gently but firmly with a piece of flanne under the nipple. If a goose-skin appears spreading u the chest, or if the autonomic sensation is felt spreadin into the arm, then a transient dilatation of the pup occurs. In my own person I can readily demonstrate thi pupil reaction. If I am cold, then neither the pila nor pupil reflex occurs, nor is the autonomic sensatio felt. If the reaction does occur, a few minutes mus elapse before it can be reproduced. When the dilatatio of the pupil takes place on myself the autonomic sensatio is always felt. So marked is this relationship, that thoug the dilatation of the pupil gives rise to no sensation, I ca tell if the pupil has reacted or not by the presence o absence of the autonomic sensation. Another peculia and confirmatory observation I found in one patient. H suffered from angina pectoris, and I was testing him fo the pupil reflex, which I could never get, though occasionally the autonomic sensation was felt in the characteristic area. Nearly every time I tested him he said h felt a chilly sensation passing up his cheek. I repeate the experiment several times on the right side with th same result. These observations were confirmed on severa separate occasions, and, as I did not understand thi result, I merely made a note of it. Afterwards, I foun that Sherrington had described that in stimulating th sympathetic fibres issuing with the third dorsal nerve i the monkey he had produced elevation of the hairs of th cheek.

The Mechanism by which the Sensation of Cold is produced b the Ingestion of Cold Fluids into the Stomach.

In the experiments I have described so far the symp thetic reflexes have been produced by stimulation of th external body wall. The chief nerve supply of many of th viscera is from the sympathetic, and the reflexes obtaine from their stimulation are the essential object of thi study.

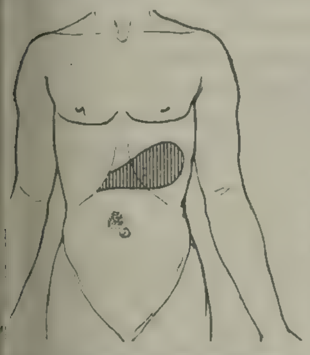
Before dealing with the complicated reflexes produce by diseases of the viscera, a preliminary study of th sensation of cold felt after drinking cold water opens u a new aspect of visceral sensations, and paves the way fo a truer conception of the symptoms present in viscera disease.

After I had been observing for some years the result o visceral stimulation, I had come to the conclusion tha pain was almost the only definite sensation visceral stimulation was capable of producing; and this pain I ha concluded, from reasons to be given later, was not due t

ct stimulation of a viscus, but to stimulation of the
centres in the spinal cord. The very definite sensa-
of cold following the ingestion of cold fluids into the
nach forming such a marked exception, and necessi-
d, therefore, a particular investigation. The sensation
cold after drinking a glass of cold water is not always
for reasons that I shall explain later. But, when it
elt, the first point to be noticed is a distinct delay after
cold fluid has reached the stomach before the sensa-
of cold is felt. The second point is that the sensation
ot felt in the neighbourhood of the cardiac end of the
nach, but in the anterior wall of the abdomen, as low
etimes as the umbilicus. At first I thought, perhaps,
distant localization of the sensation might be an
lence of dilated stomach, but I soon found that the
ote sensation was perceptible in perfectly healthy
ple. The sensation when perceived has a tendency to
iate in a downward direction only, not spreading
rally. The sensation is not a vague, indefinite one,
can be referred with great precision to the area in
ch it is felt. When I reflected on the nature of the
sation on myself I was conscious that it resembled
asionally the sensation I have described as
tonomic." It occurred to me, then, to see if there
e any signs of pilomotor reaction. In this, however, I
not at first successful, though finally I have seen a
cases where a faint reaction could be detected, as the
owing observation testifies:

was examining, with Dr. Grant, of Colne, a man with
ritic effusion. When the patient was stripping I observed
ad an extremely lively pilomotor reaction, the goose-skin
earing on the slightest stimulation. Thinking he would be
od subject to test, I told Dr. Grant to watch for the appear-
e of goose-skin on the front of the abdomen while the
ent drank a glass of cold water. I also watched, and after
rank the water I saw the hair follicles protrude over an
corresponding with that dotted in Fig. 2. Dr. Grant at
same time pointed to this area and remarked, "There it
I then asked the patient if he felt the sensation of cold,
he said "Yes." I said: "Put your finger where you felt the
l," and he immediately passed his finger over the region in
ch we had seen the goose-skin.

find this visible reaction is very rare, and can only be
wn in patients with a very lively pilomotor reflex. In
. 2 the outline of the stomach of a healthy person has been drawn for me by Professor Cunningham, whose investigation into this matter has shown that the usual stereotyped notion of the shape and position of the normal stomach is very inaccurate. It will be noticed from the position of the area in which cold was felt that the sensation cannot have arisen directly from contact of the cold water with the gastric mucous membrane, so that an explanation of its occurrence has to be sought. For the reasons already given I had come to the conclusion that the sensation I have called autonomic is in-
endent of the goose-skin. On reflecting on the
ctions of the sympathetic nerves to the skin I
lled the fact that not only did they contain the
motor nerves, but they also contained the vaso-
strictor nerves. As the sensation of cold is due to
nerve endings being deprived of blood, the question
se, Did not this sense of cold come from the stimula-
of the vaso-constrictor nerves, causing a local
aneous ischaemia and the resultant sensation of cold?
s suggested the following line of investigation, which
e a confirmatory answer. If the individual be cold
chilly at the time, no cold sensation is felt after
king cold water, because already the vaso-constrictors
been stimulated. If in a person who feels the cold
sation after drinking cold water—it is best felt after
arm meal—the skin over the area where the cold
sation is felt be cooled, as by applying the cold
bler to his skin, then the cold sensation is not felt
r drinking cold water, for the reason that the blood
sels are already contracted when the cold water
hes the stomach. If, on the other hand, the dilata-
of the blood vessels be favoured, as by applying a hot cloth over the area where the cold sensation is felt, the cold sensation is no longer felt after drinking a glass of cold water, for the reason that the local heat has caused a dilatation of the blood vessels which the central stimulation was powerless to overcome.



ig. 2 shows the outline
a normal stomach and
e dotted area shows the
gion in which cold was
t and the protrusion
hair follicles was seen
er drinking cold water.

From these facts I deduced the conclusion that the sensation of cold is of the same nature as the autonomic sensation, and that both are due to the stimulation of vaso-constrictor nerve fibres in the spinal cord. We can now understand the remarkable delay that takes place after the cold water reaches the stomach before the cold sensation is appreciated. A stimulus passes to the sympathetic centres in the spinal cord. Then stimulation of the cells of origin of the vaso-constrictor results in the contraction of the blood vessels over a definite skin area. This affects the sensory nerves in the skin that respond to cold, and this sensation is then conveyed to the brain.

This reasoning also supplies the explanation of that paradoxical sensation to cold on the application of heat which has puzzled physiologists. Many people on entering a hot bath experience at first a sensation of cold. As this is invariably accompanied with marked goose-skin eruption, it is evident that the first effect of the heat is to stimulate the sympathetic centres in the cord, producing at first a strong pilomotor and vaso-constrictor action, which in a short time passes off.

II.—VISCERO-MOTOR AND VISCERO-SENSORY REFLEXES.

While physiologists have demonstrated many of the functions of the efferent fibres of the autonomic nerves by experimental stimulation, very little reliable work has been done in regard to the functions of the different fibres that pass from the viscera to the central nervous system. It is more than doubtful if all the deductions drawn by physiologists in this particular are justified. One cannot, for instance, be sure of the conclusion drawn from electrical stimulation whether pain is felt by the animal, and certainly one cannot tell where the pain is felt, so that the statement made by Langley "that the thoracic and abdominal sympathetic chain, the splanchnic, and inferior splanchnic nerves are all markedly sensory" may need very considerable modification.

For the elucidation of the functions of the nerves that pass from the viscera to the central nervous system, that is, the afferent sympathetic or autonomic nerves, careful clinical observations seem to offer the best means. While we may not be able to see the actual process of stimulation nevertheless the results of the stimulation may be readily recognized. By noting on the one hand the series of symptoms that may be present in a case of visceral disease, and by the careful observation of the state of the viscus on operation or on *post-mortem* examination, the nervous mechanism by which the symptoms are produced can be inferred with fair certainty. As the series of symptoms resemble, and are, in fact, due to a focal irritation of the cord, the precise seat in the cord can be inferred, and from these data the position and functions of the afferent sympathetic nerves elucidated.

The Reflex Phenomena in Visceral Disease result from a Focal Irritation of the Spinal Cord.

In the study of focal lesions of the central nervous system it is customary to bring together all the peripheral phenomena. When these are all carefully noted it may be found that some of these are situated in widely-separated parts of the body. When, however, the nervous connexions are studied it is found that in some limited area the nerves of these widely-separated parts are closely related; it is inferred that the lesion is situated in this limited area of the central nervous system. If the same method be applied to the investigation of the reflex symptoms present in visceral disease, the symptoms will be found to resemble focal lesions of the spinal cord. This aspect of the question was forced upon me by the following experience early in my investigations on this subject.

Shortly after I had discovered that visceral disease may produce definite areas of cutaneous hyperaesthesia, I saw in consultation a man with a marked hyperaesthetic band extending round the lower part of the chest to the epigastrium on the left side, with marked tenderness on pressure over the sixth, seventh, and eighth dorsal vertebrae. I could form no definite opinion as to the cause save that the symptoms pointed to some affection of the stomach. The patient consulted an eminent neurologist, who had no hesitation in recognizing a local spinal affection due to vertebral disease, and had the patient encased in a plaster-of-paris jacket. A few months after, the patient died, and at the *post-mortem* examination the vertebrae were found quite healthy, but there was a cancer near the cardiac end of the stomach.

While in the present state of our knowledge it is not possible to recognize the origin of all the reflex phenomena present in every case of visceral disease, yet the method of looking upon these phenomena as focal lesions of the central nervous system sheds a light upon a great number of symptoms hitherto unobserved or misunderstood. Even when recognized and appreciated, it is not always possible to refer the symptoms to the special organ causing them, but the following observations will show that by the careful noting of the symptoms, and by the equally careful examination of the viscera when a surgical operation or a *post-mortem* examination affords the opportunity, a wide field for further clinical research is opened up.

OBSERVATION 1.—*Appendicitis.*

A female, aged 36. For a couple of years the patient had suffered from violent attacks of abdominal pain. I never saw her during an attack, but the following was the condition found after a severe attack. The abdominal wall over the right iliac fossa was hard and rigid, due to the contraction of the muscles. When the skin was lightly pinched there was no increased tenderness, but pressure on the rigid muscle was very painful. When the erector spinae muscles on both sides were lightly grasped in the lumbar region those of the right side were found very painful. The right thigh was slightly bent upon the abdomen, and could be extended only with difficulty, due to a tonic contraction of the psoas muscle. On walking a short distance the patient developed a stoop, due to the increased contraction of this muscle. There were frequent calls to micturition, the quantity passed at each time being small, and containing no abnormal constituents.

This description of the symptoms was confirmed by Mr. Caird, who operated on the patient. The following conditions were found at the operation: When the abdominal cavity was opened nothing abnormal could be detected. The parietal peritoneum was perfectly healthy, and only healthy coils of intestine were exposed to view. On separating these coils the appendix was found red and inflamed and adherent by soft red bands to the caecum, and separated from the bladder by coils of uninflamed intestine. The appendix was removed, and the patient made a good recovery, though it was a couple of months before all the symptoms quite disappeared—the last symptom to go being the slight contraction of the psoas muscle, which became more contracted on walking a short distance.

Grouping the reflex phenomena in this case we recognize: (1) A viscero-motor reflex in the muscular contraction of the transversalis abdominis, the oblique and psoas muscles; (2) a viscero-sensory reflex in the increased sensitiveness of the sensory nerves supplying the muscles over the right iliac fossa and the erector spinae; and (3) a hyperaesthesia of the bladder resulting in frequent micturition.

It is manifest from the condition found at the operation that these very definite symptoms could not have been caused by the implication of the structures in the inflammation which affected the appendix. If, on the other hand, we look into the origin of the nerves, motor and sensory, that supply these muscles and the sympathetic supplying the bladder, we find that they all arise from a limited area in or near the twelfth dorsal and first or second lumbar spinal segments. It becomes, then, a justifiable inference that the stimulus which produced these symptoms arose in the appendix, and that this stimulus was conveyed from the appendix by its sympathetic nerve supply to the spinal cord, and therefore the appendix is supplied by a sympathetic nerve that leaves the cord at the segments mentioned. Further, as the bladder nerve supply leaves the spinal cord at two regions—namely, with the sympathetic nerves from the upper lumbar regions and with the visceral sacral nerves—it follows that the afferent fibres of the bladder reach the spinal cord at the upper lumbar region.

In the following observation a description is given of the effects produced by a stimulation of the cord as definite as any physiological experiment:

OBSERVATION 2.—*Renal Colic.*

A man, aged 30, had suffered for a year from occasional attacks of renal colic, and one attack had been followed by haematuria. Being a very intelligent man, I told him to note every particular during an attack. The following is a summary of his statement—the original statement being illustrated by the patient placing his hand over the regions mentioned: Th pain suddenly seizes him with great severity in the rig lumbar region, then after a few minutes it strikes into th front of the abdomen over the iliac fossa. Then the bel becomes hard and rigid. The pain then strikes down into th internal part of the groin, the testicle is felt to be drawn u and the pain then shoots into the testicle. The facts he described were corroborated by him in a few subsequen attacks, each attack invariably pursuing the same sequenc My notes made after an attack describe an indefinite area cutaneous hyperalgesia over the iliac fossa. Hardness an rigidity of the abdominal muscles over the right iliac foss with great tenderness in pressing over the muscles, and gre tenderness on pressing the testicle and the right erector spina muscles in the lumbar region. Here the symptoms pointed a localized stimulation of the spinal cord at the origin of th sensory nerves supplying the skin over the right iliac regio the testicle, and the abdominal and erector spinae muscle and at the origin of the motor nerves supplying these abd minal muscles and the cremaster muscle. These nerves issu from the spinal cord by the twelfth dorsal and first lumb roots. The area stimulated in the cord, it will be observed, not confined to one segment, but passes along a path whic affects only a limited series of nerve roots in several segmen —a curious feature to which I shall revert in dealing with th radiation of pain.

In regard to the immediate cause of the symptoms, reasoned that there was a calculus lodged somewhere abou the pelvis of the kidney, and that its presence acted like foreign body, sending a wave of strong peristalsis down th ureter, the gradual passage of the peristalsis sending stron stimuli to a descending region of the spinal cord. The fa that the pain always started at the same place indicated tha the stone remained fixed in its position, a view confirmed b the fact that there was never any evidence of the calcul having reached the bladder. The reasons I had for th assumption that the stone remained in the pelvis will b gathered as I develop my argument. An *x*-ray photograp failed to reveal the stone. Such being my opinion, I sent th patient to Mr. Wright, who, agreeing with my diagnosi operated in 1903, and found a small calculus about the si of a pin's head adherent to the wall of a calyx, opposite th junction of the middle and lower third of the kidney. Th was removed and the patient made a good recovery, and he remained quite free from all symptoms.

The inference from this case is that the afferent sym pathetic supply to the pelvis of the kidney and the urete originates in the spinal cord in the twelfth lumbar an first dorsal segments.

It is well known to physiologists that the efferen sympathetic nerve supply to the viscera is not constan that the nerves to a certain area may come from a seg ment higher or lower than the usual supply. The sam variability seems to affect the afferent sympathetic nerve and can be demonstrated clinically, as in the followin observation, and is, no doubt, one of the reasons of th inconstancy of clinical phenomena:

OBSERVATION 3.—*Renal Colic.*

Male, born 1864, consulted me in October, 1900, complainin of severe spasms of pain from which he had been suffering fo five days. He had had similar attacks twelve years befor He refers the pain with great definiteness to the area shade in Fig. 3, this area correspondin to a region of deep cutaneou hyperalgesia—that is, the ski here is very tender if gentl raised and lightly pinched, bu shows no increased sensitivene to light scratching with a pi head. This area of tendernes extended round to the spine. was in doubt as to the cause these attacks of pain. The onse and character of the sensatio corresponded to an attack of rena colic, but I had never seen a cas with the pain and tenderness s high. Under treatment (rest an opium) the attacks subsided. H again consulted me for a simila series of attacks in Octobe 1903. He had had an occasiona attack in the interval, but they were becoming more frequen There was still present the characteristic area of dee cutaneous hyperalgesia as in Fig. 3. During one of thes attacks the pain suddenly passed into the left lumba region, and then round to the front of the abdomen to th groin and into the left testicle. At the same time he wa conscious of the testicle being forcibly drawn up. When examined him there was much tenderness on pressing th lumbar muscles and the left testicle. Under rest an opium the pain subsided, and two days later in voiding urin he passed a small calculus. There was complete freedom fro pain until October, 1905, when he again had a few attacks

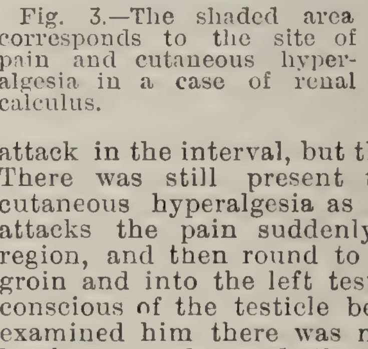


Fig. 3.—The shaded area corresponds to the site of pain and cutaneous hyperalgesia in a case of renal calculus.

pain referred to the area shaded in Fig. 3. This pain passed downwards to the groin and testicle, and again he was conscious of the testicle being firmly drawn up. He rested in bed four hours, and upon micturating he passed another small calculus. He has remained free from any further attack.

I could quote numerous cases illustrating other equally instructive phenomena, but I limit myself to these three cases as they show so strikingly the results of spinal stimulation in the viscero-muscular reflex (not only in the rigidity of the abdominal muscles but in the contraction of the psoas muscle and in the retraction of the testicle by the contraction of the cremaster muscle) and in the sensory disturbances shown by the tender testicle and in the hyperalgesic area shaded in Fig 3, parts remote from the organ originating the stimulus.

Irritable Sensory Foci in the Cord Due to Visceral Disease.

The stimulus that has had so marked an effect upon the spinal cord not only produced these characteristic reflexes but left the area stimulated in a condition of excessive irritability. Thus the hyperalgesia of skin and muscle that was so marked a feature in my examinations is due to the fact that a stimulus, which would normally produce no painful sensation in reaching the spinal cord, excites an abnormally sensitive centre, with the result that the sensation of pain is felt. That this is the explanation is shown by the further fact that a stimulus reaching this excitable area in the cord from other sources also produces pain which is referred to the hyperalgesic tissues (skin or muscle):

Thus in a case of gall-stone colic, where there was jaundice, there was also extreme hyperalgesia of the skin of the upper part of the abdomen, especially marked in the epigastrium. This persisted for some days after the stone had been passed and found in the stool. During the time the hyperalgesia persisted, food taken into the stomach produced severe pain referred to the epigastrium. With the disappearance of the hyperalgesia of the skin the pain on taking food ceased.

Here there seems little doubt that the stimulation set up by the ingestion of food, which passes to the spinal cord normally unperceived, reached that portion of the cord which had been abnormally excited by the gall-stone colic, and had affected the hypersensitive centres of the cutaneous nerves for pain which supply the epigastric region.

I have lately been observing another remarkable manner in which these abnormally sensitive foci in the cord can be stimulated. My attention was directed to this aspect of the question by the following experience:

A lady who suffered from endometritis experienced pain in her back across the top of the sacrum, with tenderness and stiffness of the muscles of the back in the lumbar region. She told me that if she were startled, as by the banging of a door, a pain would suddenly shoot into this tender region of the back.

I have made inquiries of a number of other patients and have found abundant corroboration of this experience—so much so that many people in whom there is a hyperalgesic area (cutaneous, or deeper) experience a sudden pain in that region when startled. Thus, one patient who suffers from a gastric ulcer was frightened, on her way to consult me, by being accosted by a drunken man, and she felt a severe pain in the epigastrium at the same time. In her there was a great tenderness of the skin and muscles of the epigastrium on light pressure. Another patient with a dilated heart and great tenderness of the left side of the chest described how some one unexpectedly laid a hand upon her shoulder, so that she started, and at the same time a severe pain struck into her left breast. (In the section dealing with angina pectoris instances will be quoted where attacks of angina pectoris were induced by peripheral stimuli affecting irritable portions of the cord.)

The explanation I give for the occurrence of these pains is that, when startled, a stimulus passes down certain tracts in the spinal cord, affecting normally the centres of the muscular nerve supply, as evidenced by the sudden contraction of nearly all the muscles of the body. The stimulus is not of sufficient strength to affect the sensory nerves in a healthy cord, but when there are abnormally irritable foci in passing through these, the stimulus affects the excitable sensory nerve centres, and the pain so arising is referred to the peripheral distribution of the nerves stimulated. It may be that the pain is produced by a stronger and painful contraction of the excitable and hyperalgesic muscles.

Irritable Motor Foci in the Cord due to Visceral Disease.

A somewhat similar result follows on extra stimulation of motor nerves whose centres are excited by visceral stimulation. When there is an exalted viscero-muscular reflex, the muscles are in a permanently more contracted condition than that which the normal tonicity maintains, as evidenced in the flat muscles of the abdomen by the greater or less hardness with which we are all familiar. This is due to their being exercised in their functions as part of the protective mechanism. If now they be exercised in their other functions by assisting in the movements of the body, the combined result of these two stimuli is to produce a continuous shortening of the muscle. This was remarked in Observation 1, when the psoas muscle caused the patient to stoop when she walked a short distance. In another patient who suffered from renal colic, after an attack had passed there always persisted for a few days a slight tenderness and rigidity of the lower part of the right rectus muscle. When going about after a few hours the whole of the muscle became so contracted that he could not straighten himself but walked with his body slightly bent. After a short rest the contracted muscle would slightly relax. A similar condition is found in those cases of "lumbago" where the pain and stiffness of the muscles arise from some pelvic trouble—endometritis, haemorrhoids, etc.

Exaggerated Reflexes due to Irritable Foci in the Cord.

In all these hyperalgesic areas due to a focal irritation of the spinal cord the ordinary cutaneous reflex is more easily excited, and the muscular response more vigorous and often more prolonged than normal. It is now many years since Byrom Bramwell noticed the increased activity of the epigastric reflex in gastric ulcer. I need not labour this point, as the fact is so readily demonstrated, and every one is familiar with the hardening of the abdominal wall when any tender part is palpated with even a very gentle force. This springing up of the hardened muscle serves as an efficient protection of the underlying viscera, and the purpose of the cutaneous and muscular hyperalgesia is manifestly to render the reflex muscular contraction rapid and powerful. In severe cases this muscular contraction does not at once relax, but the muscle may remain contracted for long periods and even under deep anaesthesia. I have already pointed out elsewhere that small portions of the flat muscles of the abdomen may remain contracted, while the rest of the muscle presents no evidence of abnormal contraction. This limited contracted portion may simulate an abdominal tumour, and I have on several occasions seen expert surgeons explore the abdominal cavity in search of a tumour which they thought they had felt, but which, as a matter of fact, was but a contracted portion of a flat muscle of the abdominal wall.

Correspondence of Clinical Observation with Experimental Investigation.

I might shortly point out here how this view of the symptoms finds support from the results of physiological research. In a very suggestive paper by Sherrington, the principles of spinal reflexes are dealt with, and he demonstrates how the motor neurone—the final common path—is played upon by various categories of the reflex spinal arc.

He says, "Reflex arcs show, therefore, the general feature that the initial neurone is a private path exclusive for a single receptive point, and that finally the arcs embouch into a path leading to an effector organ, and that this final path is common to all receptive points wheresoever they may lie in the body, so long as they have any connexion at all with the effector organ in question. Before finally converging upon the motor neurone arcs usually converge to some degree by their private paths embouching upon internuncial paths common in various degree to groups of private paths. The terminal path may, to distinguish it from internuncial common paths, be called the final common path. The motor nerve to a muscle is a collection of such final common paths."

In the illustrations I have given I have shown how the muscle may be stimulated to contract (1) voluntarily, as in the movements of the body; (2) reflexly, in consequence of stimulation of the skin, or of the sensory nerves in the muscle itself; (3) reflexly from the viscera (viscero-motor reflex); and (4) in consequence of an involuntary stimulus passing from the brain, as when startled.

(To be continued.)

Remarks
ON
CHOREA CONSIDERED AS CEREBRAL RHEUMATISM.

READ IN THE SECTION OF MEDICINE, FIFTEENTH INTERNATIONAL MEDICAL CONGRESS, LISBON, APRIL, 1906.

BY **SIR DYCE DUCKWORTH, M.D., LL.D., F.R.C.P.,**
CONSULTING PHYSICIAN TO ST. BARTHOLOMEW'S HOSPITAL;
SENIOR PHYSICIAN TO THE SEAMEN'S HOSPITAL,
GREENWICH.

A RELATION between chorea and rheumatism has long been recognized. In recent years the closeness of that relation has more and more been impressed on the minds of some careful clinical observers, so that it is now maintained by them that chorea is itself a variety of rheumatism which more particularly involves the brain.

I urged this opinion in a communication read before the International Medical Congress in Rome in 1894. Since that time I have continued to study the question, and increased clinical experience has tended to confirm my belief. The most recent researches on the pathology of rheumatism have added fresh and important evidence in favour of the rheumatic nature of chorea, but in spite of this many remain unconvinced of the constancy of the connexion. They accept the intimate relation and association of the two conditions, but are still unable to believe that the rheumatic element is the main factor in the pathology of all cases of chorea.

While they regard the question as unsettled, these authorities are as yet unable to point to any other causative factor as explaining the nature of such cases as they believe to be unconnected with rheumatism. They are ready to admit, since the toxic nature of the rheumatic factor has been clearly demonstrated, that the choreic state is possibly dependent on other varieties of toxin not yet detected. They thus deny, in the meantime, what we may term the unity of chorea.

The latest researches have disclosed many facts respecting rheumatism which had been unsuspected, showing that the effects of its toxicity are much more widely spread over the body than on articular or cardiac structures, and that thus the throat, the skin, and the brain may equally be sites for its manifestations. The symptoms of rheumatism in its widest sense are therefore found to vary according to the particular sites on which the toxic elements alight, and the special proneness of such parts to be involved.

The association of rheumatism with chorea is now acknowledged to be closer than was the case some years ago. The fact that several phases of rheumatic infection have been recognized in recent times has enlarged the outlook, so that we now speak of rheumatism of the skin, throat, or brain.

It was at one time supposed to be possible to distinguish choreic endocarditis from rheumatic endocarditis, but no pathologist will now venture to discriminate between them. The researches of Poynton, Paine, Wasserman, Triboulet, Singer, and others have clearly proved that rheumatism is an infective malady, and in proof of this have brought to light the particular micrococci which generate the *materia peccans.* The two former observers have traced these microbes into many textures of the body, including the cerebral membranes and the cerebrospinal fluid. Experiments on certain animals have added confirmation to the results obtained in human morbid anatomy. Further confirmation from the pathological side is, admittedly, difficult to secure, inasmuch as fatal results in cases of chorea are now infrequent, owing, as we may believe, to the improved treatment of rheumatism in modern times.

There is still some difference of opinion amongst bacteriologists as to the exact species of micrococcus which provides the source of rheumatic infection. This is not a clinical question, however. The latest opinion on the matter leads us to believe that the particular organism, termed *micrococcus* by Walker, *diplococcus* by Poynton and Paine, and *Streptococcus aus chorea* by Wasserman, is the actual infective and causal agent of acute rheumatism. This microbe closely resembles the *Streptococcus pyogenes* in its chief characters, and it has been detected in cases of chorea. The bacteriological difficulty may admit of explanation by the suggestion that there are varieties of species of the streptococcus, some more and some less virulent than others.

It is to be noted that no other variety of microbe, apart from accidental or mixed infection, has been detected in cases of rheumatism or chorea.

The infective nature of chorea is now accepted by the best authorities, even if the rheumatic theory does not appear to explain all cases. The older idea of the induction of chorea by mere nervous shock or fright, or its occurrence as one of the family of neuroses, has but few supporters to-day, and should be discarded. We nevertheless require, as I believe, to acknowledge a neurotic factor in a true conception of the pathogeny of chorea. No trustworthy authorities any longer accept the embolic theory as explanatory of the disorder. That the young and the female sex afford the greater number of examples of it is probably due to the fact that in these subjects the rheumatic toxin is more apt to spread widely, and to act with greater intensity than in adults, as we know to be the case from clinical and *post-mortem* observation. The adolescent brain is also more unstable than the fully developed one.

Much evidence in favour of the rheumatic nature of chorea has been adduced from a study of the earlier and later life-history of patients and their families in which the disorder has occurred. Thus, it is distinctly more frequently met with in families prone to rheumatism. It may precede by months or years an onset of rheumatic fever, or may supervene during an attack. It may also occur subsequently to such an attack with or without overt rheumatic complications.

The proclivity to rheumatism, although widely-spread, is not universal. It pertains to certain families and individuals diathetically so disposed. The disease occurs markedly on the nervous and unstable members of a family. My own statistics show a family or personal history of rheumatism in 85 per cent. of cases of chorea, and I believe that a larger percentage could be discovered if it was possible to secure accurate histories of past attacks of the disease. The fact that rheumatic fever is so often undetected in children or forgotten by their parents, especially in the case of poor people, adds to the difficulty of tracing the evidence of the disease in many families.

We have to bear in mind that the occurrence of chorea may be the sole manifestation of an attack of rheumatism in the absence of any concomitants, beyond possibly some degree of cardiac dilatation. It is thus a true cerebral rheumatism. This fact has not failed to inspire observers with doubt and incredulity as to the true rheumatic nature of the disorder. It is surely worthy of note that in first attacks of rheumatism and in first attacks of chorea there is not seldom to be observed a distinct degree of cardiac dilatation sometimes independent of pyrexia, pericarditis, or appreciable endocarditis.[1] This condition appears to be due to rheumatic toxaemia, which induces a measure of myocarditis. In some of these cases the more ordinary rheumatic symptoms may supervene.

That there is something specific in the nature of the rheumatic toxin as introduced by the particular infecting microbe is certain. We do not meet with acute rheumatism or chorea, as clinically recognized, in cases of ordinary streptococcal infection or in strictly pyaemic states, and we must therefore differ from the view so strongly held on this point by Singer of Vienna. Those who still disbelieve in the occurrence of a non-rheumatic chorea have yet to demonstrate the specific infecting agent which is causative.

I have elsewhere published the evidence which has convinced me of the view I hold,[2] and my object now is to urge a further and wider consideration of this question.

It is probable that there are varieties in the quality and degrees of virulence in the provoking toxin of rheumatism. As I have just remarked, we are not justified in accepting the views of Singer to the effect that the disease merely represents an attenuated form of pyaemia due to various pyogenic organisms, staphylococcal and streptococcal.

Perfect conviction on this question may perhaps only be reached after a continued and careful study by bacteriological methods of many fatal cases of chorea. Examination during life of the cerebro-spinal fluid by means of lumbar puncture, made early, may possibly reveal the specific micrococci, since they have already been found in that fluid.

In the meantime many of us must admit that the evidence in favour of the rheumatic nature of chorea is stronger, if possible, from the clinical than from the bacteriological side. Time will not fail, in my belief, to settle the question from both sources of inquiry in the direction just indicated.

REFERENCES.

1 Drs. Lees and Poynton, *Roy. Med. and Chir. Trans.*, London, 1898.
2 *St. Bartholomew's Hospital Reports*, vol. xxxvii, 1902.

An Address
ON
DILATATION AND HYPERTROPHY OF THE HEART AND SOME OTHER POINTS IN CARDIAC PATHOLOGY.

DELIVERED BEFORE THE EASTBOURNE MEDICAL SOCIETY.

By **SAMUEL WEST, M.D., F.R.C.P.,**
PHYSICIAN TO, AND LECTURER ON MEDICINE AT, ST. BARTHOLOMEW'S HOSPITAL.

IN a recent textbook I found a murmur defined as a new sound, replacing, partly or entirely, the heart-sounds. Such a definition is clearly inadequate in respect of the second sound, and it is equally inaccurate in respect of the first.

NORMAL CARDIAC CYCLE.

If the heart's action be represented diagrammatically as a circle, that circle is interrupted by two sounds—one long, the other short—the first marking the commencement of systole and the other that of diastole. These two sounds divide the circle roughly into two parts, the longer, or diastolic, being half as long again as the shorter, or systolic. In order that two sounds should be heard distinctly they must be separated by intervals of silence. If in these intervals of silence in the normal heart's action new noises are heard, they are called murmurs. This is the essential character of a murmur. It thus stands distinguished clearly from the heart sounds, which may be audible, and apparently normal, even when murmurs are present. This is all clear on a diagram.

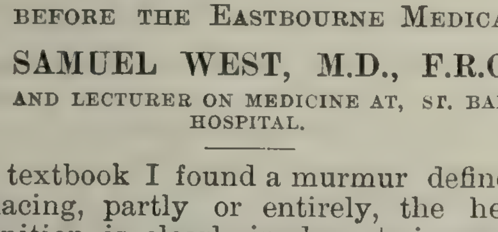


Fig. 1.—A is the diagram for the normal heart; B is the diagram for a heart with simple systolic and diastolic murmurs, the sounds being normal.

The heart sounds may, of course, be altered too, and may even be inaudible, the murmur taking their place more or less.

The diagram I have given of the normal heart differs from that which may be found in many books. I have drawn the first sound as not occupying more than half of the systolic period, whereas it is often made to occupy the whole, fading gradually away until the second is heard. Now, such a diagram does not represent what the ordinary ear hears, or what, in my opinion, any ear can hear. Anyway, there are many cases in which a systolic murmur is heard, and yet the two sounds appear perfectly normal in every respect, while the murmur appears to be as long as the first sound—that is, the two divide the systole equally between them. In this case, at any rate, the first sound cannot be drawn as lasting beyond the middle of the systole. Of course it is impossible for one man to say what another can or cannot hear. Some persons cannot hear the grasshoppers on the Swiss mountains, while to another their noise is almost painful.

As there was for a long time no means of actually measuring it, the length of the first sound remained a matter of opinion. By an ingenious arrangement the following tracings of the heart sounds have been obtained by Einthoven and Geluk,[1] which seem to show that the diagram as I have drawn it is correct:

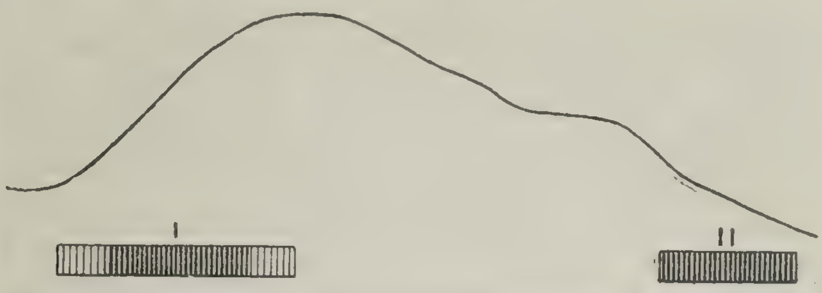


Fig. 2.—Cardiogram of Man: I, II, the first and second heart sounds.

Careful clinical observation could hardly, I think, lead to any other conclusion.

The next question I should like to discuss is the cause of the second sound at the apex. The second sound at the base is produced by the closure of the aortic and pulmonary valves. It is, I believe, commonly taught that the second sound at the apex is the base-sound transmitted to the apex. Clinical observation shows that this explanation is inadequate, and that there is no such simple relation between the second sound at the base and at the apex as that theory would require. The second sound may be loud at the apex when it is faint at the base, or it may be loud at the base and unusually faint at the apex. Lastly, it may be completely absent at the apex when it is loud at the base, and this is what happens in a typical case of mitral stenosis. At the apex the long rumbling presystolic murmur leads up to a long and accentuated first sound, but the second is absent, while at the base the pulmonary second sound is markedly accentuated, and the aortic is distinct and often apparently not less loud than in the normal heart. The pathological lesion suggests an explanation, the mitral orifice is reduced to a narrow slit, the so-called button-hole. With a healthy orifice the blood passes readily through into the ventricle with some force, which when the valve is highly stenosed it cannot do. The impact of the blood, then, in health upon the ventricular wall might be sufficient to cause a sound, but in mitral stenosis the blood cannot rush in, but trickles in, and the impact is inaudible.

I do not know to whom this explanation is due, but it seems to me the only one possible, and if correct we must conclude that the second sound at the apex is not a transmitted sound only, but is in great part produced in the ventricle itself.

It is important in auscultating the heart to distinguish clearly between the heart sounds and the murmurs, and to study each carefully, for it may be stated in general terms that where with murmurs the heart sounds are present, the lesion is less and the prognosis therefore better, than in cases in which the heart sounds are greatly modified or absent.

Even where there are no murmurs the characters of the heart sounds have great clinical importance. At the base an accentuated pulmonary second sound points to increased pressure or tension in the pulmonary vessels. In the aorta it indicates increased arterial tension, and may give a useful hint as to the disease, as in granular kidney or thoracic aneurysm.

The character of the first sound over the ventricle is of greater importance, as it gives an indication of the strength of the cardiac contraction. In fever it is of special significance, as Stokes long ago pointed out, for it may be weak or even almost inaudible in cases of fever which might otherwise appear mild. This indicates the need of stimulants, cardiac or general, and is of even more value in this respect than is the pulse. As an illustration I may refer to a case of typhoid fever, so mild as to cause no anxiety if it had not been for the great enfeeblement, almost absence, of the first heart sound. A severe relapse occurred, in which the patient with difficulty escaped with his life.

In acute pneumonia, again, more can be learnt from the first sound of the heart than from feeling the pulse.

I do not wish to pursue this subject further now, and will pass on to another—namely, that of dilatation of the heart and the murmurs associated with it.

The amount of work which the heart in health is called upon to do varies within very wide limits, but so long as the heart is healthy it remains equal to the work required of it. If P be the power of the heart and W the work it has to do the equation of health would be:

$$P = \text{and} \propto W.$$

Where the increase in work is permanent the heart responds by growth and becomes larger or hypertrophied. If W becomes $\mathbf{W}$, P becomes $\mathbf{P}$, but the equation is still preserved. This is what occurs in training. Similarly, if $\mathbf{W}$ returns to W, $\mathbf{P}$ must return to P—the equation still being preserved. This happens on going out of training.

Hypertrophy or growth takes place at the expense of the cardiac reserves, so that a large heart has diminished reserves, and the greater the hypertrophy the less is reserve. By and by the limit might even be reached and all the reserves be exhausted by growth, and thus is explained the relation which exists between hypertrophy and dilatation. As soon as the work required of the heart is greater than the heart can do, the equation

$$P = W$$

is destroyed. P becomes less than W. The equation, then, for a weak heart is

$$P < W.$$

A weak heart dilates, and therefore this is also the equation for dilatation.

This may serve to render clear what seems to present a difficulty—namely, to understand how it is that hypertrophy so easily passes into dilatation. Hypertrophy is really a condition of disease, because though the heart is large the reserves are small.

A diagram again will make this clear. In any given case the force of a heart and its reserves at any given time may be regarded as fixed. Under ordinary conditions the reserves R are large; but all hypertrophy encroaches on these reserves as the diagrams indicate, until where hypertrophy is excessive the reserves may almost or entirely disappear.

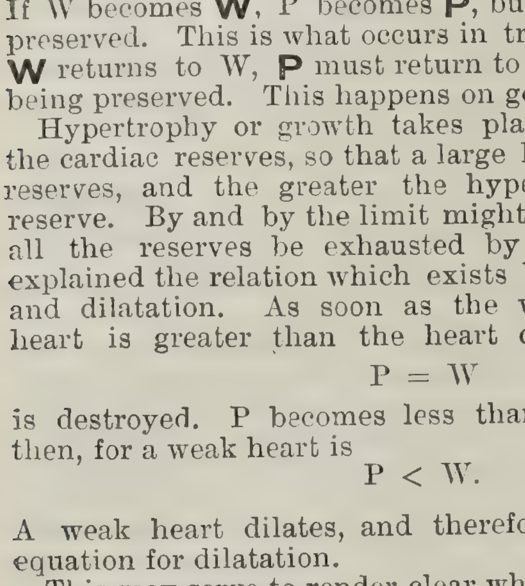


Fig. 3.

For growth time is necessary. Training consists in getting the heart and muscle ready for the supreme effort of the race. To strike the balance between the growth and the reserves constitutes the difficulty of proper training, which has, moreover, to take into calculation the personal peculiarities of each individual. To bring a boat's crew of eight men up to the scratch all in their fittest condition is a task which obviously requires much skill and care. Over-training means unduly diminished reserves. Under-training, diminished growth.

HEART STRAIN.

Sudden and prolonged effort without preparation for it is very likely to prove more than the heart can stand, and explains the cardiac trouble which may follow the running or rowing a race without training at all. This is what is often called *heart sprain* or *heart strain*. The symptoms are those of cardiac weakness—pain, palpitation, and shortness of breath on exertion—and the physical signs are those of dilatation. A heart once severely strained may take a long time to recover. If this is true of an ordinary muscle, how much more likely is it to be the case with the heart, which cannot be rested to the same extent. In disease the best illustration of the relation between hypertrophy and dilatation is found in granular kidney. Here the gradual increase of work leads to hypertrophy, which in time reaches its limit, or cannot be maintained, and then the signs of cardiac failure appear which mark so often the later stages of that disease.

Of course in all diseases of the heart, if the lesion throws extra demands upon any part of it, that part hypertrophies in the same way, and is liable to similar risks of dilatation.

I do not propose to consider further those cases in which the cardiac failure is due to increase of work. I will turn now to the more interesting group where the result is due to failure of the heart's power.

To make the matter simple I will assume that the work is of normal or ordinary amount, so that W is constant and when the equation $P < W$ is arrived at by diminution in the value of P, it matters not what the actual values of P and W are, that is, whether there be previous hypertrophy or morbus cordis or not. In any case as soon as P, becomes less than W dilatation occurs. The evidence of it will be the symptoms of cardiac weakness—namely, pain palpitation and shortness of breath, and the physical signs of which the chief is increase in size of the cardiac dullness.

The first group of cases of this kind I will refer to is that in which the muscular power P has been reduced by previous illness, that in which the dilatation is met with during convalescence. This is especially common in children after some specific fever, notably diphtheria, and that, too, in cases where the heart has not been in any way involved during the acute illness. Symptoms may or may not be present, but the increase of cardiac dullness is manifest. This may be obvious when the child is still in bed, but if not, is easily produced by the child being up for an hour or two, the mere extra effort due to the erect position being sufficient to demonstrate the cardiac weakness which exists.

I have more than once been asked to see a child in consultation, because although there had been no other signs of cardiac disease the increase in cardiac dullness was so marked. The child has been pale and poorly, and disinclined to move about, though it did not complain of any cardiac symptoms. Besides the increased cardiac dullness the heart's action may be excitable and somewhat irregular. As convalescence proceeds and health improves the dullness diminishes, and the heart recovers itself.

This weakness of the heart may often be easily demonstrated in the adult too. I recall two cases of rheumatic fever, in both of which the heart had escaped mischief. The cardiac dullness was marked out in each before they were allowed to get up. The next day both were found with a much increased cardiac area, and the apex displaced outwards, without, however, other definite symptoms.

The one patient was kept in bed; the dilatation immediately disappeared, and when the patient was allowed to get up again, a week later, the dilatation did not recur. The other was allowed to remain up. In this patient, too, the dilatation slowly passed away, but only after several days. These cases are interesting as showing the undesirability of hurrying convalescents up, especially after diseases such as diphtheria, influenza, or rheumatic fever, in which there is special tendency for the heart to be affected.

Another interesting group of cases is that in which morbus cordis has been known to be present for a long time, yet no symptoms have shown themselves, till all of a sudden they appear, and never disappear again. A case I often refer to is that of a gentleman of middle age who was known for years to have aortic regurgitation, and had been warned to be careful, but having no discomfort he disregarded the warning. He was an athlete for his age, played football with his boys, was a great swimmer and walker. One day he saw two boys in the river out of their depth and drowning. He swam out, and brought them both to shore. He arrived greatly exhausted, and had an attack of angina on the bank. From that day he was a cardiac cripple, and died a few months later of gradual cardiac failure.

In other cases the onset of symptoms may date from a nervous shock and emotional disturbance, or from some acute illness such as influenza, pneumonia, or typhoid.

In all these cases the explanation is simple. The previous disease had drawn largely on the reserves which were sufficient for ordinary needs, but not enough for any sudden call, whether muscular effort, or nervous shock, or the strain of illness. The equation was destroyed, P became less than W, and the cardiac failure once started could not be recovered from. Cases of this kind could be easily multiplied.

Dilatation Murmurs.

Where the heart is dilated murmurs are often heard. They are not organic, for they come and go with the dilatation. How are they produced?

It is often stated that the mitral and tricuspid orifices are too large to be completely closed by the valves unless they are narrowed by the contraction of the muscles which surround them. Thus weak muscular contraction would render the valves incompetent. The muscle is weak when the heart is dilated, therefore it follows that the murmurs with dilatation are due to regurgitation. There are grave clinical objections to this explanation, which prevent it from being regarded as satisfactory. *A priori* it is contrary to what we know of other organs, and above all things unlikely in the case of so important an organ as the heart, to believe that the margin between health and disease is so narrow. Half the kidney, half the liver, and half the lungs at least may be useless and yet life be carried on without much distress. Is it likely, when we consider the serious consequences of mitral or tricuspid incompetence, that the heart alone should have such a narrow margin to work on as the theory assumes?

A priori objections are, however, of no great value, and my objections are clinical. The so-called "dilatation murmurs" are systolic in time, are heard at the apex and over the precordium, and but rarely outside its limits. Any way, they are not propagated in the direction they ought to be. An organic mitral regurgitant murmur is heard at the apex, is propagated some distance out into the left axilla, and is audible behind. This, at any rate, is so in the great majority of cases. So, again, a tricuspid regurgitant murmur is audible beneath the lower part of the sternum, and is propagated horizontally across the sternum to the right. We may fairly ask, Why is this so with organic disease and not so with dilatation if the cause of the murmur in each case is the same—namely, incompetency of the valves, sufficient to allow of regurgitation?

I cannot, therefore, believe that this theory is true. It is rash, perhaps, to question statements which rest on the authority of Ludwig, but I must say that the experiments upon which they are based are of a violent and unnatural kind and hardly justify so sweeping a generalization. I therefore believe that dilatation murmurs are not due to regurgitation, but to intraventricular causes—that is, to the dilatation of the ventricle, just as the systolic murmurs are produced over a dilatation or aneurysm of the aorta.

Before leaving this subject I should like to say a word upon the diagnosis of tricuspid regurgitation. The signs of dilatation of the right side of the heart with marked venous pulsation in the neck is often thought sufficient for the diagnosis even in the absence of a murmur, and if a systolic murmur is present as well the diagnosis is regarded as certain. Without a systolic murmur propagated in the right direction I do not consider the diagnosis justified. Tricuspid incompetence the result of organic disease is rare, but it has been my fortune on a few occasions to make the diagnosis during life, and on *post-mortem* examination to find the lesion present. Now I must repeat the question—Why is the murmur propagated in the characteristic way with organic disease of the valves and not so propagated with simple dilatation if in both cases the cause of the murmur be regurgitation?

The three cardinal symptoms of heart affection are palpitation, pain, and shortness of breath.

I wish to conclude with a few remarks on palpitation and pain.

Palpitation.

It is remarkable how extensive the organic lesions of the heart may be and how long they may continue without causing much or any discomfort to the patient. It is with affections of the heart especially that the contrast is striking between the amount of dis-ease or discomfort the patient suffers and his disease in the morbid anatomy sense of the term. Palpitation is, of course, common enough with a weak or failing heart, whether it be organically diseased or not; but where palpitation is complained of as the prominent trouble by the patient the heart is more often than not free from organic disease. Conversely, if with organic disease of the heart palpitation be an unusually pronounced symptom, the question would arise whether there were not some other condition besides the mere heart lesion to account for it—for example, exophthalmic goître or some neurosis.

Exophthalmic goître is often selected as the disease to prove that long-continued palpitation may lead to valvular disease, the condition resulting being usually mitral incompetence. The value of this disease for the purpose is discounted by its frequent association with rheumatic fever. In going through the cases of exophthalmic goître some years ago at St. Bartholomew's Hospital I stumbled quite accidently upon this association, which I found as frequent as 11 per cent., and the frequency with which valvular disease is met with is not greater than this association with rheumatic fever would explain. Severe palpitation may be sometimes associated with organic disease, and if it be present may aggravate it, but I do not think there is any satisfactory evidence to prove that palpitation alone can produce it.

Tachycardia.

Palpitation is usually associated with rapid action of the heart, and these cases are now often described under the heading of tachycardia. Yet so far as the patient is concerned it is not the rapid action but the palpitation which causes distress. Tachycardia is a term which has come to be used so widely and indiscriminately that it has ceased to have any special meaning. Any patient whose pulse beats more rapidly than normal may be said to have tachycardia, but this does not convey much information. The use of a technical term like tachycardia would seem to imply some peculiar clinical condition. There is such a condition, but it is often lost sight of in the crowd of unimportant conditions included under the term. There is a group of cases in which the rapidity of the pulse is extraordinary, 200, 250, or 300 in the minute, and in which this constitutes apparently the whole disease.

Some of the earliest cases were recorded by Bristowe under the name "attacks of recurrent palpitation in the apparently healthy." The objection to this title is that it is not so much the palpitation as the rapidity of the heart beats that is so characteristic, and, further, there is good reason to believe that, however healthy the heart may seem, it is often diseased; at any rate, many of the cases recorded ultimately died as heart cases often do. I suggested some time later, with the view of giving a definite name to the group, "paroxysmal hurry of the heart," but that has now become "paroxysmal tachycardia," a good term if only it had not been so indefinitely extended. The most remarkable case I can recall of this kind was in a robust policeman who came complaining of his heart making such a noise that his neighbour in the dormitory was kept awake by it. He had a loud musical systolic murmur which could be heard at some distance from the chest walls, although I never myself heard it at a greater distance than 18 in. The murmur was occasional, and occurred only during the attacks of tachycardia. Then the heart would beat 250 in the minute, faster, indeed, almost than one could count. The heart's apex would then be a couple of inches outside the nipple, and the cardiac dullness much enlarged, especially to the left. The murmur came and went with the dilatation, and there was no evidence whatever, from shortness of breath or cough, that there was any mitral regurgitation. Indeed, it was extraordinary how little discomfort the attacks produced, and how little attention the patient paid to it. He had many attacks while under observation, but ultimately got quite well and returned to active service.

Cardiac Colic.

The last subject upon which I have a few remarks to offer is cardiac pain. This varies in degree from mere discomfort, the mere sense of having a heart, up to the most severe attacks which are termed angina. The great characteristic of all cardiac pain is the anxiety with which it is associated, the patients seem conscious that the pain, even when slight, is of serious import. The emotional side of heart disease is a subject upon which much might be said. Cardiac pain may be regarded as the outcry of a weak or overtaxed heart. It expresses the struggle of an over-distended heart to empty itself. Consequently dilatation will be the factor common to them all. The struggle will be greatest and the resulting pain most severe in those parts of the heart where the muscles are biggest. The right auricle may be very greatly distended with little more than discomfort. Pain will be more marked where the right ventricle is concerned, but all the most severe attacks of pain are associated with the left heart, and especially with the left ventricle. One other factor must be borne in mind. It is this, that the call upon the heart and the consequent distension must be more or less sudden—gradual distension may occur without pain, and reach even a higher degree; but sudden distension leads to an attack of pain. This, of course, is a matter of daily experience in left ventricle affections. The first attack of angina may follow exertion, as in the case I described above. Afterwards an attack may be produced by very slight effort, even that of walking a short distance fast or uphill.

The nature and cause of angina has been much discussed, but I think all we really know about it may be summed up in the term "cardiac colic." I do not know of anything observed in angina which cannot be seen in other forms of colic. The pallor, faintness or collapse, the small arteries, dilated pupils, and various conditions supposed to stand in some causal relation with angina may all be equally seen in biliary, renal, and intestinal colic.

The pain of a distended urinary bladder or of a pregnant uterus at the commencement of parturition is strictly comparable with the pain of angina. In all cases alike it is the struggle of the muscular organ to get rid of its contents, and the spasmodic contraction of the muscles is attended with the paroxysms of pain. As soon as the organ has emptied itself the pain ceases. If it cannot get rid of its contents, the paroxysms become less and less severe as the muscles become feeble, and finally a condition of paralytic distension develops in which the pains cease. So it is also in the heart, the most violent attacks of angina occur generally when the heart muscle is still fairly strong. As the heart fails the attacks may become less severe, and when extreme dilatation occurs and the other signs of cardiac failure appear, the tendency to severe angina disappears.

The term "cardiac colic" removes angina from the little niche in which it stood all by itself, and places it in the general group of colic about which we know a good deal, though much remains still to be learnt.

REFERENCE.
[1] *Arch. f. Ger. Physiol.*, 1904, lvii, 607.

A Lecture
ON
CONGENITAL HEART DISEASE.

DELIVERED AT THE HOSPITAL FOR SICK CHILDREN,
GREAT ORMOND STREET,

BY F. J. POYNTON, M.D., F.R.C.P.LOND.,
ASSISTANT PHYSICIAN TO THE HOSPITAL AND TO UNIVERSITY COLLEGE HOSPITAL.

LADIES AND GENTLEMEN,—There is much that might be said upon this subject which would interest the pathologist and embryologist, but the time at our disposal compels me to restrict myself to the more purely practical side. We can readily group the morbid changes in congenital heart disease under two headings:

1. Those due to malformation.
2. Those due to intrauterine endocarditis.

The first group can then for convenience sake be classified into three subgroups:

Subgroup I.—Arrest of development in early fetal life: Such results follow as the formation of hearts with two chambers only, a ventricle and an auricle; or possibly there may be two auricles and one ventricle. These conditions are incompatible with life.

Subgroup II.—Arrest later in fetal life: In such cases the auricles and ventricles though developed are imperfect, and the aorta and pulmonary artery may be partially developed or the large vessels displaced.

Subgroup III.—Defects at the end of fetal life; for instance, premature closure of the foramen ovale, or premature obliteration of the ductus arteriosus.

The second group of cases—those resulting from intrauterine inflammation—are of more interest, and in this group are to be found remarkable examples of fetal endocarditis, probably rheumatic in origin, of which the following case from the Museum Catalogue of University College Hospital is a striking instance:

In a child who lived for thirty days there was discovered the day after birth a loud systolic murmur which was heard all over the precordium and at the back. It was a small, quiet, and pale infant, but, except for occasional blueness of the lower eyelids, showed no cyanosis. The mother had suffered twice from rheumatic fever, and was attacked a third time during her pregnancy. Her three other children were healthy. The necropsy showed that the interventricular septum was deficient at the upper and back part, and to the margins of the aperture the cusps of the mitral and one cusp of the tricuspid valve were adherent. Both valves were beaded by vegetations. The foramen ovale was patent, as also the ductus arteriosus. The other valves were natural.

Another striking example which came under my own observation was that of a child born cyanosed and in an almost asphyxiated condition. Death followed on the third day. During pregnancy the mother had suffered from a severe attack of rheumatic fever. The necropsy showed extensive and recent mitral endocarditis.

The diagnosis of this form of heart disease has been made even in intrauterine life, as in those cases reported by Peters and others in which a murmur has been detected in the fetal heart.

In the second group, then, the important lesions are connected with fetal endocarditis and consequent anomalies of the valves and cardiac septa.

The relation of congenital heart disease to a family history of rheumatism is a point of some interest, and I have come upon several examples of this occurrence.

CASE I.—In 1905, a boy, aged 2, was brought here with congenital heart disease, and a history of rheumatic arthritis in pregnancy was given by the mother.

CASE II.—E. D., aged 9 months, suffered from congenital heart disease, the mother from rheumatic arthritis, and the maternal grandmother died from heart disease consequent on rheumatic fever.

CASE III.—An infant of 2 years with congenital heart disease, whose maternal grandmother suffered from severe rheumatic fever, and his uncle also from rheumatic fever.

CASE IV.—H. S., aged 3 years. Congenital morbus cordis. Maternal grandfather died of rheumatic fever with heart disease. The mother of the child had five married sisters, each with a child who was cyanosed on exertion and short of breath.

CASE V.—G. R., aged 2 months. Congenital heart disease. His mother had repeatedly suffered from swollen joints.

These cases, with the two I have alluded to more fully, will serve as a reminder of the importance of the rheumatic infection in intrauterine life. Congenital syphilis is also a cause of congenital cardiac disease, although, as it so happens, I have rarely met with a convincing example of its occurrence.

The most important clinical cases in this group are those in which there is narrowing of the pulmonary artery. This is the form of congenital heart disease in which life is more likely to be prolonged to adult age than in any other.

There is frequently associated with this stenosis a patent interventricular septum. This opening is, as a rule, a small one at the upper part of the ventricular septum, in the membranous undefended space. In addition, the foramen ovale may be patent and the ductus arteriosus incompletely closed.

Stenosis of the aortic or mitral valves are also met with occasionally, and the tricuspid valve may be damaged, but such conditions are far less common than the pulmonary lesion.

The symptoms of congenital heart disease, where they are well marked, are remarkable ones, but in infancy they are sometimes somewhat indefinite. The most frequent of all manifestations, cyanosis, usually attracts attention at birth, but it would be an error to suppose that infants by any means always show the cyanosis. Prominent and important though the symptom is, I think it is a little overrated, and if you rely upon it too much you will certainly be deceived. These infants may be brought because they are listless, small, and puny, and fail to make progress. Unless, then, a routine examination of the chest is made, the true explanation of these symptoms may not be discovered.

Here is a case in point. This female child of 18 months, who is not cyanosed, but looks pale and delicate, was brought to the out-patient department at 9 months for wasting and difficulties with the chest. Examination of the chest discovered a loud systolic murmur with its maximum intensity over the pulmonary artery and audible over the entire precordial area. In this case there is very considerable enlargement of the spleen, but the character of the murmur and condition of the heart are not explicable as a haemic condition.

The cyanosis in congenital heart disease implicates the skin and the mucous membrane, and when it is extreme reaches a mulberry hue. The explanation of its occurrence has not been agreed upon. Some have attached much importance to the mixture of venous and arterial blood, others to deficient aëration of the blood, and of late a good deal of attention has been directed to the increase in the number of the red blood corpuscles. This is not a condition peculiar to this form of heart disease. A cyanotic condition, for example, is met with in some adults who have no morbus cordis, but an enlarged spleen. It is, however, very striking in some of these cardiac cases, and was commented upon originally, I believe, by Toiniessen. Baunholtzer's case gave a count of 9,447,000 per c.mm., a specific gravity of 1071, and a percentage of haemoglobin of 160. There is an increase in the number of red blood corpuscles, also a concentration of the blood itself, which tends to make its passage in the vessels more difficult.

Symptoms of great importance are laboured respiration, paroxysms of disordered breathing, with unconsciousness and epileptiform attacks. These attacks are sometimes prolonged and most dangerous. Their interest too is very great, for it is not at all easy to understand what is happening when you find a child lying, sometimes for hours, unconscious with extreme tachycardia. In rare cases angina pectoris has been recorded. You will find occasionally that the child is brought to you because the mother has been struck by the rapid tumultuous action of the heart.

Clubbing of the fingers, toes, and nose are also important results of congenital heart disease. This is a later symptom, and generally very obvious in those children who are greatly cyanosed. Lastly, cold extremities and a subnormal temperature are frequently observed.

Examination of the chest will generally settle the question of the diagnosis. The heart is usually found to be slightly enlarged, and there may be sometimes bulging of the precordial region. On auscultation a loud systolic murmur is audible over the precordium, with its point of maximum intensity over the pulmonary artery immediately to the left of the sternum. This bruit is harsh, and over it there is frequently a thrill to be felt by the hand. The pulse on slight exertion may become feeble and irregular. This child illustrates a characteristic case of this type:

H. P., aged 5, has never been strong from birth, and at 2 years of age a doctor discovered a malformation of the heart. He is cyanosed, and the fingers and nose are clubbed. The right side of the heart is hypertrophied, and in the second left intercostal space, close to the sternum, there is a loud systolic murmur, which I attribute to the narrowing of the pulmonary artery. Over that murmur there is a definite systolic thrill. There is also behind the sternum, at the level of the fourth intercostal space, a loud superficial systolic murmur, which I believe to be evidence of a patent interventricular septum. This boy has found that when he runs he suffers from pain over the heart, but his most alarming symptoms were fainting attacks, accompanied by severe pain in the head and abdomen. His disposition is very excitable. He is also small, and obviously delicate.

Not all basal congenital bruits are loud; they are sometimes soft and whiffing, and then should the child cry they are easily overlooked. Cases more puzzling still are those in which during the first few weeks there is no audible bruit, although there are the symptoms of congenital heart disease, and which later develop a loud bruit, with a diminution in the urgency of the symptoms.

The bruits of congenital heart disease, again, are not always basal or heard at their loudest over the base of the heart to the left of the sternum. This case illustrates the occurrence of an apical murmur of congenital origin.

L. M., aged 2 years and 4 months, was discovered at birth, by the doctor in attendance, to have a damaged heart. Since then he has been subject to attacks of bronchitis and pneumonia. His aspect is pale rather than cyanotic, but the superficial veins are more obvious than usual, and the nose slightly clubbed. There is a double murmur over the cardiac impulse, in part systolic and in part presystolic. I believe there is a congenital mitral lesion. On the maternal side there is a strong rheumatic history.

In some cases a diastolic murmur is discovered, and again there may be a continuous humming bruit, lasting through the whole cardiac cycle, rising and falling with the systole and diastole. The maximum intensity of this bruit is in the second left intercostal space, and in that position also the pulmonary second sound may be curiously loud and low-pitched.

The interpretation of such a bruit as this is that the ductus arteriosus which, under normal circumstances, closes in the first fortnight of life, has remained patent.

Thus, this boy, aged 6 years, was brought to me in May with physical signs pointing to multiple bronchiectasis at the base of the left lung, and this curious condition of the heart. If the hand is placed over the upper part of the sternum a well-marked systolic thrill is felt, and on listening in the second left intercostal space a loud murmur is audible, occupying the whole cardiac cycle and rising in intensity with each systole of the heart; there is also a loud low-pitched pulmonary second sound. This boy is not cyanosed, but he feels the cold and becomes blue on exposure to cold. The fingers are not clubbed. He is small and undergrown. The condition of the lung has much improved with treatment, but there is of course the evidence of the bronchiectasis still present, and I fancy these are the result of a congenital condition also.

The explanation of the cardiac signs I believe to be this: The long, loud murmur occupying the whole cardiac cycle is the result of a patent ductus arteriosus, and the curiously loud, low-pitched second sound may be due to some dilatations of this patent ductus, the second sound having the character of the aortic second sound in cases of aneurysm of the aorta.

The only other condition in which I have met with a peculiar murmur like this has been in a man who had an aneurysm of the aorta which had ruptured into the pulmonary artery.

In 1904 I had a little girl under my care who had suffered severely from an attack of influenza, which had produced dilatation of the heart with dangerous attacks of syncope. This child, I found, had, in addition to an apical systolic bruit, which I ascribed to the influenzal dilatation, a murmur similar to the one in the case of this boy—namely, a loud murmur, rising and falling with systole, occupying the entire cardiac cycle, and at its maximum in the second left intercostal space. The pulmonary second sound was loud and clanging. There was no clubbing or cyanosis. This child, after a prolonged illness, recovered; the apical murmur disappeared, but the congenital bruit remained unaltered.

The degree of cardiac hypertrophy in congenital heart disease varies very considerably, and if one had to formulate any general rule it would, I think, be that the enlargement is remarkably slight, although in exceptional cases the cardiac dullness may be extraordinarily increased.

Arrest of physical development is a prominent feature in some cases, and two little girls recently under my care illustrated this admirably. One of them in particular resembled a doll in the smallness of her features, bones, and muscles. In other cases, as Dr. A. E. Garrod has pointed out, the malformation of the heart is associated with the Mongolian type of imbecility. This is a very serious matter, for such children are not able to earn a living.

The older children, as well as infants, feel the cold very much, and prefer to sit hugging the fire rather than warm themselves by exertion, which makes them short of breath. One such patient had a weakness for hot beer which his father, a publican, prescribed for him on his own responsibility.

The lives of these children are very precarious. The majority die when under 2 years of age. And sometimes death occurs suddenly, an occurrence so distressing that it should always be borne in mind. Bronchitis may result from slight exposure to cold, and an attack of gastroenteritis or of measles or other infectious disease may prove rapidly fatal. Puberty throws a strain upon the older children, and I think the well-known danger of tuberculosis is more apt to attack these children after puberty than before. It has been my experience to find that between the ages of 2 and 12 years an attack of endocarditis has been more frequent than tuberculosis, and in several cases the type of endocarditis has been malignant.

Tuberculosis of the lung is not always fatal in these children, and the following case is one of singular interest as an illustration:

A boy of 4 years came here in 1901 exceedingly cyanotic and with a troublesome cough. I found every evidence of a classical pulmonary stenosis and recent tuberculosis of the upper lobe of the left lung. The disease slowly progressed until a cavity formed. Then the process arrested, and two years afterwards there were very obvious signs of a quiescent cavity in this lobe. Three months later he was brought again with high fever, dyspnoea, and intense cyanosis. A diagnosis of acute pulmonary tuberculosis was made. After a brief illness the child died, and at the necropsy a small quiescent cavity was discovered in the left lung, and the upper lobe was shrunken, but there was no trace of recent tuberculosis. On the contrary, the cause of death was malignant endocarditis grafted on the pulmonary stenosis.

Here there is proof that tuberculosis of the lung may be recovered from even when it attacks a small child suffering from severe congenital heart disease. Had we treated this child according to the recent method of vaccination, what a good case we should have made for that method of treatment!

The development of endocarditis is a complication which it is not by any means always easy to detect. Yet its occurrence is most serious, for it is liable to be malignant in type. The difficulty of the diagnosis will be readily understood when it is remembered that there is already a loud murmur present due to the malformation. In some cases the endocarditis is evidently the result of acquired rheumatism, for the endocarditis is associated with pericarditis and arthritis, and even nodules. In other cases the illness is more obscure, and the diagnosis may rest upon irregular fever, precordial pain, and a persistently excited action of the heart. Should a bruit develop under observation, this will prove the most reliable direct evidence in favour of acquired endocarditis.

It is not surprising that acute rheumatism is liable to occur in a certain number of children afflicted with congenital heart disease, for it is recognized that a certain number of such cases are the result of intrauterine rheumatic endocarditis, and the tendency to fresh attacks of rheumatism exemplifies the ordinary behaviour of the disease.

Sudden death, pulmonary tuberculosis, acute endocarditis or intercurrent disorders may thus terminate life. Yet another danger to life is gradual failure of compensation comparable to the failure so often seen in acquired heart disease; this is less common than perhaps might have been expected.

A fatal cerebral thrombosis occasionally ends life abruptly, as the next case exemplifies.

An infant of 9 months was brought here with obvious signs and symptoms of congenital heart disease. There was nothing unusual about this case, although it was severe and the condition critical. Three days later, while washing the child, the mother noticed that the right side of the face, the arm, and the leg were paralysed, and when I saw it there was a complete right hemiplegia. The quiet onset, feeble action of the heart, and general weakness of the infant, led me to the diagnosis of a thrombosis. The child lingered for a day or two, and at the necropsy a thrombosis with softening in the cortical area on the left side of the brain was discovered.

I think it may be said that the diagnosis of congenital heart disease is, as a rule, an easy one, and that when difficulties arise they depend either upon the absence of cyanosis or of a reliable history. Occasionally fibrosis of the upper lobe of the left lung causes retraction of the lung from the pulmonary conus and the development of a loud bruit systolic in time, which may be mistaken for a congenital malformation. When both congenital and acquired disease are present the twofold nature of the lesion may be overlooked. Some cretins are remarkably cyanosed, the extremities showing the coloration in particular, and on more than one occasion I have heard considerable doubt expressed as to whether cretinism could really explain this phenomenon. In such cases treatment with thyroid extract has settled the question, and the cyanosis has rapidly disappeared with the improvement in the cretinous symptoms.

Many pulmonary conditions may produce cyanosis, but the diagnosis is generally obvious.

The differential diagnosis of the various forms of malformation is unsatisfactory. Some of the details have been already given, and are sufficient to act as a general guide.

PROGNOSIS.

The general prognosis, since it includes every sort of malformation compatible with live birth, is grave. The first principle is to reckon symptoms as more important than physical signs. A small opening in the foramen ovale or in the septum between the ventricles may give rise to no symptoms at all. On the other hand, such symptoms as paroxysms of dyspnoea or convulsions, or a persistent low temperature, are very ill omened. Another important point in the general prognosis is the social status of the patient. A child who can be given all the advantages of a warm climate and can escape in after-years the not unmixed blessing of having to earn a living, who can be well clothed and be educated by tutors, stands a far better chance than the child who sells matches in the streets, with icy-cold extremities and no proper meals.

The occurrence of an attack of acute rheumatism is an exceedingly serious matter, and liable to end in a malignant endocarditis. Repeated bronchitis, pneumonia, tuberculosis, and all acute maladies, including influenza, may entirely alter the prognosis in a case apparently favourable.

When the condition of the heart itself is taken into account, the prognosis is better in lesions of the ordinary type than when the lesion is an unusual one. It is not indeed possible, even with the ordinary systolic bruit and thrills, to be absolutely certain of the nature of the malformation, but in general it means a pulmonary stenosis, and this, if moderate in degree, is compatible with a life reaching to adult years.

Laurence Humphry points out that the prognosis is better when with pulmonary stenosis there is an opening in the ventricular septum, for this opening eases the pressure in the right ventricle.

A systolic murmur heard at its maximum intensity about the middle of the precordial area, and not giving rise to a thrill or to hypertrophy of the right ventricle, suggests this particular lesion of a patent septum.

The extent of the cardiac dullness to the right of the sternum is also some guide in prognosis, for when the increase is considerable, either the lesion is considerable or the strain on the right side for the extent of lesion is great.

The degree of cyanosis cannot be relied upon in the question of prognosis. The most cyanosed cases that I have met with have been children over 8 years of age. On the other hand, it happens by no means uncommonly that infants with congenital heart disease, and little or no cyanosis, die quite suddenly. The only warning that may be given in such cases is a refusal to take food and a general surface coldness. Again, it does not follow that because there is only a slight degree of cyanosis, which has only been observed when the child began to walk, there may not also be a rapid development of serious symptoms and death.

Cyanosis, in its most marked degrees, is associated with such lesions as pulmonary stenosis and patent septa; and these are recognized as the less severe types of malformation.

The treatment is palliative. These children must be kept warm, and very carefully clothed with this in view. A warm equable climate is much to be desired. If they can digest fat it is advisable to give them an excess, and keep them plump. No overcoat fits so well and acts so effectually as an undercoat of adipose tissue. Whenever possible they should be educated, and a light employment chosen for them. The amount of exercise must be adapted to each particular case, and will always need caution. Of the ordinary cardiac stimulants strychnine is more useful than digitalis. Cod-liver oil, iron, and malt are often well borne.

For the fainting attacks it is well for the parents to eep at hand a rapidly-acting diffusible stimulant, such as s prescribed for patients who live in dread of an attack of ngina pectoris. Sal volatile, ether, and spirits of chloro-orm makes a useful combination. A warm mustard bath s valuable for an infant in this state of collapse, and xygen is also of assistance. When the heart failure is nore gradual and a result of overdistension of the right ide of the heart the application of leeches over the liver rings relief.

AORTIC INSUFFICIENCY.

BY SEYMOUR TAYLOR, M.D., F.R.C.P.,

PHYSICIAN TO THE WEST LONDON HOSPITAL.

R. MITCHELL BRUCE'S clinical lecture, published in the RITISH MEDICAL JOURNAL of January 6th last, will amply epay careful study. There is one point, however, about hich, as he admits, "there is a division of opinion," since t is "maintained by some authorities on diseases of the eart that digitalis should not be given in aortic incompe-ence," but he justifies the use of digitalis, because his atient, who had "failure of the heart in association with ortic incompetence, was beneficially, as well as safely, reated with . . . digitalis."

I am in thorough accord with so distinguished an uthority when he makes his deduction from clinical xperience. The theories which are evolved from aboratory experiment are not always justified or proved y bedside observations. The records of a physiological bservation and the evidence of a sphygmograph or ardiograph may not repeat themselves, as we expect they hould, when we arrive at the bedside.

There would appear to be a tendency in laboratory xperiment to record results with a somewhat biassed ind. A sphygmographic curve intended to show the ffect of this or that drug may mislead, and I think often as done so. I have worked with this instrument for a umber of years, but I cannot satisfy myself as to the linical accuracy of its statements. Hence the more atients I see the more I am convinced that clinical nowledge and experience constitute the most valuable orm of medical observation. I would, therefore, meet r. Mitchell Bruce on the same clinical grounds, by ecording my experience of the use of digitalis in aortic egurgitation.

It is not a little singular that some of the most eminent uthorities on cardiac affections, who advocate the use of igitalis in this grave valvular affection, do so with ualifications and reserve. They, with some notable xceptions, appear to be somewhat lukewarm in its raises, or at least to resort to some saving clause, as hough they feared that their writings and opinions should e falsified by the test of accumulated experience. Dr. liver, when advocating the use of digitalis in this isease, admits that the cases must be carefully selected. r. Barrs says that digitalis may aggravate symptoms, and n some cases, although much temporary relief has been fforded, sudden death had followed its use. But his pinion is decidedly in favour of the drug when there are gns of ventricular failure. Sir William Broadbent, as ecomes a physician with his profound clinical knowledge, cautious when speaking of the use of this drug. He oints out the advantage of digitalis when dropsy super-enes, but shows that if its exhibition be persisted in fter this, it is not uncommon for patients to die suddenly, metimes in bed, more frequently when they have begun get up. He says, "There are grounds for suspicion that igitalis contributes to this. In the absence of mitral ymptoms, it is rarely that digitalis is called for in aortic ncompetence, or is of service, and it may undoubtedly do arm."

Probably the controversy may never be settled in our me. Digitalis will have its advocates and its opponents. any of the former will say that the latter are influenced the teaching of pharmacology; and the latter will tort that the former are imbued with the experiments in ysiology and physics. It may be as well, therefore, if ort records of a few cases which have come under my tice should be published:

1. Kate F., aged 35, sempstress, was under my care as an t-patient for fourteen years. She suffered from aortic regurgitation of rheumatic origin. It is true that the first sound over the aortic area was attended by a slight murmur indicating that there was some obstruction co-existing with incompetence. During the whole of the long period she was under my care she never had digitalis in any form. The treatment consisted of periodic rests in bed, a careful dieting in which animal food was as predominant as her means would allow, and for medicine the tincture of nux vomica at intervals. This line of treatment was resorted to when attacks of dyspnoea and other signs of cardiac failure appeared from time to time; but she was able to earn her living by fairly hard work, though accompanied by anxiety. Then she was transferred to another physician during one of her bad periods, and was given digitalis. After the ninth dose (♏x of the tincture) she suddenly died.

2. Clara G., aged 31, had acute rheumatism when she was 17 years old. A lady of independent means, she could hence rest when necessary, and follow medical advice without anxiety as to her livelihood. She consulted me seventeen years before her death, complaining of dyspnoea on slight exertion. I found that she had aortic regurgitation, pure and simple. I saw her from time to time and from year to year, at intervals of about three months, and never during that long period did she take digitalis in any form whilst she was under my care. Shortly before her death she went to reside in Surrey, where she again suffered from an attack of breathlessness, and requested her local medical adviser to write to me, which he did, giving me an excellent account of her symptoms and his treatment. His remedies contained digitalis in one form or another, and I wrote to him to express my opinion that this drug was harmful in her case. She died suddenly on the fifth day after digitalis was first prescribed.

3. A young practitioner, having charge of a ward in a poorhouse infirmary, came to me in distress, bringing the following story: Three old men were under his care suffering from aortic disease, regurgitation being the principal or dangerous condition. As they were all showing signs of heart failure and had oedema of the lower extremities, my friend ordered each to take a mixture containing digitalis three times a day. One man died on the third day thereafter, another on the fifth, and the other on the seventh day—all somewhat suddenly.

4 A gentleman, aged about 60 years, was desirous of effecting a "short term" (a few months) assurance of his life. I found on examination that he had a blowing diastolic murmur over the aortic area and a refluent pulse. Seeing that I hesitated over his proposal, he volunteered this statement: "I suppose you are frightened at my heart. I know it is wrong, but it is no worse now than it has been for some years, and I have just been to my doctor, who has given me this prescription." It contained digitalis, whereupon his proposal was rejected. Within a few weeks—not more than three—a notice of his death claim was received.

5. Miss N., aged 17, consulted me in 1888 on account of shortness of breath. She had had two attacks of rheumatic fever since she was 14 years old. I found that she had all the signs and symptoms of aortic regurgitation, but the mitral valve was "still holding." I prescribed a diet and regimen similar to that mentioned in the first case, and gave her my opinion as to the inadvisability of her taking digitalis. She has obeyed this injunction to the letter. She married, against my advice, in 1892, being then aged 21 years, and she has now three healthy children. She called to see me in February last in apparent good health but with obvious signs of aortic regurgitation.

6. At a clinical lecture some few years ago I exhibited six patients, all adults. Three were suffering from aortic regurgitant disease accompanied also by mitral insufficiency, whilst the other three had only aortic disease (regurgitation). Owing to some mistake on the part of the hall porter the patients, all six, were allowed to climb a deep staircase to the theatre, although orders had been given that they should be taken up by lift. The three patients who had the most extensive valvular lesions—aortic regurgitation and mitral regurgitation—performed the journey with ease; the other three, who had aortic regurgitation only, were so distressed on their arrival at the demonstration that they could not be examined for quite an hour; and, indeed, I deemed it wise to retain two of them in the wards over night.

These last cases may be somewhat away from the subject I am discussing, but I quote them as illustrating the advantages which will accrue to a patient with aortic insufficiency when he shall also have mitral insufficiency coexisting. I could relate other cases in which sudden death has occurred within short periods of the administration of digitalis in aortic insufficiency pure and simple, but these will suffice.

And herein lies one of the points of my contention. Not only would it appear that a patient suffering from aortic regurgitation has less distress if he also has mitral regurgitation, but he is also capable of greater exertion. There is a safety-valve action through the mitral orifice comparable to the tricuspid safety valve on the right side during prolonged muscular strain. It is true that the one is a pathological condition and the other a physiological one, but none the less they both exist under the differing conditions.

But in pure aortic regurgitation, the mitral valve still holding, the physics of the disease are vastly altered. The left ventricle receives the diastolic shock—sometimes more, sometimes less, according to the amount of completeness of the regurgitation. Two crowds—namely, an oncoming rush and a backward retreat—thus meet and collide in a limited space, with no outlet or retreat. Injury must accrue to something. Either the constituents of the crowd must be injured, or the boundaries of the containing space stretched or broken down.

In the case of the diseased heart it is the ventricular walls which, after bearing the strain, eventually give way. And, as is almost universally admitted, the diastolic pause is lengthened under the influence of digitalis. The period is augmented during which all this extra strain is being borne. Centrifugal pressure is enough to try the strength of the ventricular cavity in ordinary circumstances. But in Dr. Bruce's case the conditions are not the same. It is true that he describes a patient having dropsy and other signs of heart failure, the chief lesion being aortic incompetence. It is true, also, that his patient was relieved by a course of digitalis; but it is equally true that he was suffering from mitral disease, and I contend that, by supporting a failing ventricular compensation by digitalis, there is no actual proof that such treatment is to be pursued in pure aortic regurgitation. I will at once admit that I have seen cases of aortic regurgitation much benefited by the use of digitalis; but they were all of them cases in which mitral regurgitation was also present.

These contentions are obviously difficult of proof. Very little in therapeutics can be actually proved. I am still open to conviction if the weight of evidence is against me, and, as Dr. Clifford Allbutt wisely observes, "it is best that each observer should give the results of his own impressions as simply as possible," but if I may formulate an opinion, which has been forced on my mind by a somewhat extensive experience, I would at once say that although digitalis is the most powerful remedy in mitral disease which we possess, in cases of pure aortic regurgitation digitalis is not only a dangerous drug, but actually a poison.

DEGENERATION OF THE MYOCARDIUM IN HOT CLIMATES.

By W. CARNEGIE BROWN, M.D., M.R.C.P.

A SOMEWHAT unfamiliar result of residence in the tropics, but one which is by no means infrequent, is a peculiar form of degeneration of the cardiac muscle. Clinically and pathologically the condition is of much interest and importance, for the evidences of myocardial change are apt to be misinterpreted, and sudden and unanticipated death occurs not infrequently after an apparently trivial illness.

The patient is usually a man who has been some years in the tropics; he is confident that he is organically sound, and though he confesses he is not well, he is sure that there is little the matter. In answer to leading questions he says he is tired, yet sleepless; he is disinclined for exertion, mentally or bodily; he yawns unaccountably; he has flushings of the face, tingling and itching in the extremities; he perspires more readily and copiously than is his habit; and he has a vague feeling of uneasiness and apprehension. There is no faintness, no dyspnoea, no cough, no pre-cardiac oppression. Palpitation is absent, or it is slight, and felt only after exertion. There is perhaps some indigestion, and he has remarked that the feeling of weariness comes on coincidently with discomfort in the stomach. He is thirsty, and wants more than his usual quantity of stimulant. He is not depressed, but he worries unnecessarily about his affairs, and is kept awake at nights by a stream of thought and indefinite anxiety. The pupils are large, and not actively responsive to volitional or reflex stimuli. The pulse is irregular, but it is full, soft, and deliberate; the vasomotor system is inactive, and there is no hardening of the arteries. The skin is moister and more lax than usual. The temperature is normal; the tongue is clean, and gives no indication of any morbid condition; the urine is scanty, and loaded with urates, though otherwise norm The rhythm of the natural cardiac cycle is unimpair but the heart's action is somewhat hesitating, and occasional flutter or tremor may be detected at the ap the impulse is softer, perhaps more diffuse, than norm but it is not displaced. The clearness of note in t sounds is diminished; they seem a little distant, and t first is somewhat weak. Little further aid is to obtained from the stethoscope; there are no adventitic murmurs, and examination of the pulmonary area a conus arteriosus gives no indication of deficient defective blood.

In the absence of any definite cardiac symptoms, t malaise is apt to be set down as nervous or perha imaginary. The patient is told that there is nothi serious the matter, and he is dismissed with words comfort and caution. In the great majority of instanc he reports in a day or two that he is quite well, but some cases, and not very infrequently, the event different, and the termination is tragic and startli Generally without apparent cause, sometimes during transitory attack of fever or indisposition, the undefi restlessness and weariness return. After an uncomfo able day, the patient goes to bed overtired; possibly takes some sulphonal or veronal and falls asleep. In t middle of the night he starts up with a feeling of in pressible alarm, there is a spasm of angina, and he fa back dead.

Contrasted with the commoner forms of myocard decay the salient features of the disease are the abse of fainting fits, the inconsiderable impairment of t circulation, the vagueness of the physical signs, and t fact that fatal syncope usually supervenes in the abse of unwonted exertion. It is perhaps only a coinciden but one the importance of which will not be overlook that death frequently occurs at night and after t administration of a soporific.

The *post-mortem* appearances are fairly uniform. opening the pericardium (which contains no excess fluid) the heart is found to be somewhat larger th normal. It lacks the resistance of a healthy organ, a is lax and flaccid. Epicardial fat is markedly deficie If the viscus is removed from the thorax and held up the great vessels, it sags and droops; in extreme ca the parietes are so loose that it collapses in mushro shape over the hand that grasps it. Section into t ventricles shows no dilatation and no endocarditis; the contrary, the lining membrane is blanched a bloodless. A similar condition prevails in the musc there are no infarcts, no points of haemorrhage, deposits of pigment, no fat, no reaction to iodine, serous atrophy. The coronary arteries are dilated a soft, and show no atheromatous change. The myocardi is pale, almost to whiteness, soft and friable. Mic scopically, the intermuscular connective tissue is seen to swollen, and apparently increased in quantity, but rou celled infitration and vascular congestion are absent. T condition of the individual fibres suggests clou swelling; the section looks waterlogged, it appears have a general boggy turbidity, the striae are hazy a indistinct, and there is occasional rupture and fragmen tion of the ultimate strands. From other indication is obvious that the general nutrition is profoun impaired, and that the myocardial lesions, as is the c in other retrogressions of tissue, are only promin incidents of a general dyscrasia. The liver is small, a its section is pale and pasty-looking. There is no defin atrophy of the intestines, but their coats are thin and t villi and mucosa are shrunken and deficient in lymph tissue. The body fat is not diminished in quantity; places it seems to be in excess, but it is dull and d coloured, and its distribution is irregular. In t necropsies in which a careful examination of all t organs was made, it was noted that no parasites, syste or intestinal, were found, and that blood and b marrow were normal.

The disorder appears to have no racial preference. is questionable, indeed, if it is "tropical," in the se that it is limited to tropical countries. Under the na of "soft heart" a similar macroscopic condition was l ago described by Louis, Laennec and Stokes, but histo-pathology, which was worked out by v. Reckli hausen, is altogether different. The cloudy swelling the myocardium seen after death from acute fevers h microscopically, closer pathological affinities, but it is widely separated from this condition by its etiology and clinical history. This degeneration occurs in persons who abstain altogether from alcohol, in moderate drinkers, and in those who are chronically overstimulated. It affects smokers and non-smokers alike, but women distinctly less than men. Repeated attacks of malarial and other fevers, and the high body temperatures usually associated with cardiac asthenia and cloudy swelling, do not originate it, while, contrary to the opinion which was formerly held by many physicians, it seems to have no relation to beri-beri.

There is, however, an influence which is clearly causative; it is over-indulgence in hard exercise. The disease is one of the imprudently strenuous life. In the tropics, probably oftener than elsewhere, the distinction between exercise and fatigue is inadequately realized; and it is by no means unusual to find men of middle life and prolonged residence who follow the cult of athletics with the unquestioning zeal of the English schoolboy. From the ranks of these enthusiasts the physician draws his European cases; while, if he sees instances of sudden and fatal syncope in natives, it is found that, in obese and indolent subjects, death is generally the result of fatty overgrowth, in hard-working coolies, of this myocardial degeneration.

Are any means available by which a degeneration such as this may be remedied, or by which, at least, the further progress of destruction may be arrested? The answer is that certainly the latter, and perhaps both results, can be effected by timely treatment. We know that an impaired muscle fibre may in favourable circumstances be absorbed and replaced; and we also know that the muscle cell, when over-stimulated, loses its general, before its special, function. The sequence is—exhaustion, loss of proteolytic and assimilative function, loss of contractility, decay. In this instance it is obvious that the cardiac muscle is starving not for lack of nourishment, but from want of ability to absorb the nutritive material which is around and about it in superfluity. If its metabolic capacity and nutrition can be restored, so, certainly, will its contractility and ability for work. To this end, rest in bed is a first essential, and diet must, in consequence, be limited. General massage is necessary to maintain and restore muscle function and assimilation. Heart stimulants—digitalis, ether, strychnine—are to be avoided; strong cigars, than which there is no more powerful cardiac depressant, must be prohibited. If the patient is a moderate drinker, alcohol should be stopped; if he is a free liver and stimulants appear indispensable, consideration is necessary. But in deciding the point, which is very important, it should be borne in mind—and this is specially true of the tropics—that the sudden withdrawal of alcohol and tobacco from a patient thoroughly habituated to their use may induce such deep dissatisfaction as to seriously prejudice all assimilative processes. As to drugs, opium is of special value. In the tropics, where heat exhaustion is in daily evidence, its efficacy is more generally appreciated than in colder climates. There can be no question of the beneficial action of opium in the extreme fatigue that is induced by continued and severe physical effort in hot climates, and in the dyscrasias that result from over-exertion. In no disorder in the tropics s this more apparent than in degeneration of the myocardium; apart from its sedative effect, opium acts with promptitude and certainty as a restorative of cardiac issue; and in such a condition it may be safely and usefully continued for long periods without other medicine than an occasional laxative. All other hypnotics should be discarded; some of them are dangerous, others may be o. With suitable treatment, the prognosis of this form of myocardial degeneration is by no means bad, and if aken in hand during their earlier stages most cases will do well.

EDINBURGH ROYAL INFIRMARY.—At the weekly meeting of the managers on Monday, June 18th, the following eappointments to the staff were made: Mr. C. W. athcart, Surgeon, for a further period of five years from eptember 15th; Dr. William Russell and Dr. Murdoch Brown, Assistant Physicians, for a further period of ve years from November 9th; and Mr. J. W. Dowden, Assistant Surgeon, for a further period of five years from eptember 15th.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL.

PRIMARY SARCOMA OF THE LIVER.[1]

ON January 8th a dockyard policeman, aged 25, was admitted with a temperature of 101° after a few days' illness unaccompanied by any very definite symptoms.

His temperature after admission ranged from 99.2° F. to 103.4° F., and his symptoms varied from bronchitis with sanguineous sputum to trigeminal neuralgia. His spleen was somewhat enlarged, but no parasites could be found in his blood. On January 31st his symptoms became abdominal, nausea and vomiting were constant, and the abdomen was markedly tympanitic. On February 1st the temperature fell to subnormal; he became rapidly weaker, and died of heart failure on the 24th.

On opening the abdomen *post mortem* the liver was found to be greatly enlarged, and weighed 11 lb. 6½ oz. The whole surface of the organ was closely studded with slightly raised rounded or oval nodules of a whitish colour. On section the liver was found to have been largely transformed into new growth; masses of sarcomatous tissue from ½ in. to 2 in. in diameter replacing the liver tissue throughout the organ, some of which showed signs of breaking down in their centres, whilst into others haemorrhages had taken place, and all were very friable. No secondary deposits could be seen in the lungs or elsewhere. Microscopically, the tumours were found to consist of a general infiltration of the lobules of the liver with small round cells. No focus outside the organ could be discovered, and it was therefore concluded that the lesions were of primary round-celled sarcoma of the liver.

KENNETH H. JONES, M.B., Staff Surgeon, R.N.,
R.N. Hospital, Hong Kong.

ETIOLOGY OF GRANULOMA PUDENDI.

IN his note on the etiology of granuloma pudendi, published in the BRITISH MEDICAL JOURNAL of June 2nd, p. 1274, Mr. Wise states that if the body he had discovered be the *Spirochaeta pallida*, the fact would "strongly support the view held by the minority that this granuloma is a manifestation of syphilis."

As the question is important I should like to point out that even if the organisms discovered in these two cases proved to be undoubted evidences of syphilis, the fact would not prove anything further than that the two diseases were coexistent in these particular instances. As both syphilis and granuloma pudendi are most frequently contracted in a similar manner, it is probable that cases of mixed infection are not at all uncommon. I have met with a considerable number of cases in which soft chancres and suppurating buboes appear to have been contracted simultaneously with this form of granuloma.

On the other hand, the evidence against this disease being merely a manifestation of syphilis is so strong that I fancy there can be few, if any, surgeons who have an extensive acquaintance with the former who have any doubt as to these being quite distinct diseases. Such, at any rate, is the case in Madras, where the disease is common, and where the universal treatment consists in excision of the diseased area, whenever this is feasible. The disease is, in fact, treated on the same principles as malignant disease, and no specific internal medication is ever resorted to. The facts which have established this view of the disease are as follows:

1. In uncomplicated cases granuloma pudendi is a purely local disease, the lesions being confined to the part originally infected, although sometimes transferred to other parts by autoinfection. If the disease be allowed to run its course untreated, or if the patient fall into bad health from any other cause, a cachetic condition may ultimately become established; but even in such cases no local signs, beyond the original lesion, are seen.

2. Antisyphilitic remedies have no effect whatever in checking the spread of the disease. Before the distinct identity of this disease was established, surgeons in Madras were in the habit of treating it on the supposition that it was a manifestation of syphilis, and I have watched the progress of many cases in which both mercury and

---

[1] Forwarded by the Director-General, Medical Department, Royal Navy.

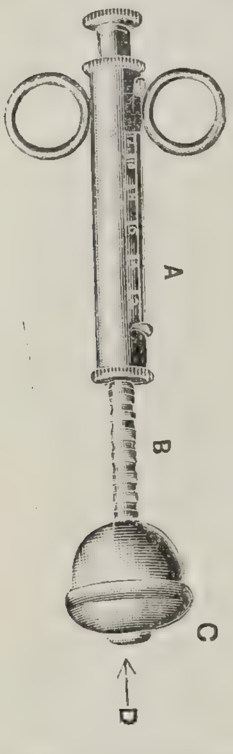
potassium iodide were given continuously for long periods without having any effect upon the disease. This well-established fact in itself is sufficient to stamp the disease as something quite apart from syphilis.

I have throughout this communication spoken of the disease under the name of "granuloma pudendi," as that is the designation used by Mr. Wise in his note. Such a name, however, is misleading, as it seems to imply that the disease is confined to the pudendal regions, whereas it may affect any part of the body. A better name, and one which is used in India, is "infective granuloma," or "cicatrizing granuloma."

J. MAITLAND, M.D., Lieutenant-Colonel I.M.S.

Sidmouth.

ABDOMINAL RESISTANCE.



IN the diagnosis of many abdominal conditions palpation and a precise appreciation of the comparative degrees of resistance in different localities is of the first importance. In many subjects, however, the obese and the very muscular, the estimation is one by no means easy to make with the unaided hands, but becomes quite simple when the instrument here shown is employed. With its aid I have been able to distinguish conditions which were puzzles to greater men than the inventor. It consists of a barrel containing a spiral spring, a blunt tip (lettered D), a bulb (lettered C), and two scales (lettered A and B). In use the blunt tip D is pressed upon the part to be examined, the force used being shown in pounds and half-pounds on the scale A, the bulb C travelling upwards simultaneously on scale B. The pressure shown by A being noted and the height of the bulb on B remembered, the instrument is then pressed to another locality until the A scale reads as before. Any difference in resistance at the two localities is then at once shown by the difference between the heights to which the bulb has travelled on the B scale in the two trials. The instrument is now made by Messrs. Arnold and Sons.

Finsbury Pavement. JAMES MACMUNN.

NEURITIS IN PHTHISIS.

ABOUT six months ago a patient of mine, a young man 20 years of age, 6 ft. 2 in. in height, contracted pulmonary tuberculosis. When I called one day I was surprised to find he had developed a typical wrist drop of the right hand. At first I put it down to pressure, but as it became permanent I came to the conclusion that it was tuberculous in origin. On looking up the medical literature on the subject I find that this is an exceedingly rare complication. The cases reported are said to have occurred in the lower extremities and to have been accompanied by excruciating pain common to some forms of neuritis such as those due to alcoholism. In my case, however, there was no complaint whatever of pain, nor was the affected extremity sensitive to pressure. The patient was in the secondary or advanced stage of phthisis when this complication occurred.

Airdrie. JOSEPH STARK, L.R.C.P.Edin.

COPPER ALGINATE.

A FEW doses of $\frac{1}{4}$ gr. of opium coupled with a similar amount of copper sulphate have been advised for some forms of ulceration of the bowels producing diarrhoea. Doses of the latter, of $\frac{1}{10}$ gr., are useful in skin disorders, when arsenic cannot be taken. Similarly copper arsenite, in doses of $\frac{1}{50}$ gr. twice or thrice daily, acts well in some cases of anaemia. It is noteworthy that copper, as well as lead and manganese and silicon, is normally present in human blood in traces, and it is also a fact that copper takes the place in some animals that iron takes in most—that is to say, it is the essential metallic element of the colouring matter of the coloured corpuscles. As is well known, copper, like mercury, possesses germicidal properties. Mercury is at least partly useful in leprosy as well as in syphilis, but quite possibly this suitable preparation of copper might be more useful still. It is probable that the alginate of copper would be found by others, as well as by us, beneficial in destroying germs of disease, and also, perhaps, by imparting vigour to patients suffering from anaemia and pernicious anaemia. With this belief we had it prepared and have given it to adult males in doses of $\frac{1}{24}$ gr. to $\frac{1}{6}$ gr. made into pills with a suitable excipient. We suggest that it might be tried in cases of leprosy, lupus, inoperable cancer, and chronic anaemia. Personally we have used it for tuberculous ulceration of the bowel in two quiescent cases of men over 30 years of age, also in a case of lupus and in dysentery of long standing. We have had good results hitherto, using of course other therapeutic measures as well.

ALBERT GRESSWELL, M.A., M.D., M.R.C.S.,
GEORGE GRESSWELL, M.A., L.R.C.P. and S.Edin.

Louth, Lincolnshire.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN TH HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

HARROGATE INFIRMARY.

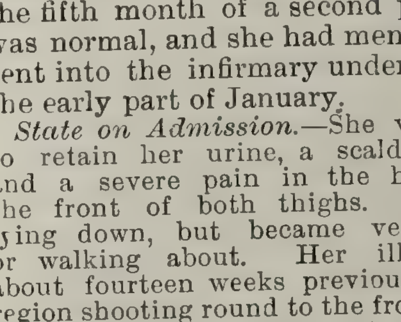
A CASE OF FOREIGN BODY IN THE BLADDER: RECOVERY.

(Reported by M. B. RAY, M.D., C.M.Edin., Surgeon to the Institution.)

THE patient in this case was a young married woman aged 23. She had one child 14 months old, and was i the fifth month of a second pregnancy. Her last labou was normal, and she had menstruated regularly. She wa sent into the infirmary under my care by Dr. Thomas i the early part of January.

State on Admission.—She was complaining of inabilit to retain her urine, a scalding sensation when passed and a severe pain in the hypogastric region and dow the front of both thighs. The pain was lessened b lying down, but became very intense when standin or walking about. Her illness, she said, commenced about fourteen weeks previously with pain in the lumba region shooting round to the front, and the constant desire t micturate, and the frequent passage of hot scalding urine The frequency increased until, ten days before admission, sh had complete incontinence. The urine was alkaline an strongly ammoniacal. After standing, a copious deposit of pu formed nearly half way up the urine glass. *Per vaginam* th os was found to be patulous, admitting easily the tip of th finger. The uterus was enlarged, but any attempt at bimanual examination caused severe pain. Bulging backward from the anterior wall of the vagina was a rounded hard swel ing about an inch or more in length, and very painful to th touch. This nature of the swelling was quickly recognized b the introduction of a sound into the bladder, when it was fe to impinge on a large calculus. The bladder was washed o for a few days, and urotropin given internally, in the hope rendering the urine a little less irritating and of reducing th inflammation.

Operation.—Under an anaesthetic administered by D Garrad, the bladder was washed out repeatedly, and as muc lotion as possible left therei A 3 in. incision was then mad immediately over the pub in the middle line extendi upwards towards the umbi cus. The various structur were divided in the line of t wound, haemorrhage co trolled, and the bladder ide tified and hooked up. A ho sufficiently large to admit finger being then made, t interior was explored. T pin and concretion were once felt, and after enlargi the opening a little they we both extracted. The hairp was 3 in. long, and the incru tation was fully $1\frac{5}{8}$ in. $1\frac{1}{2}$ in., the whole weighi 10 drachms. Copious douc ing of the wound removed large amount of phosphatic deposits from the interior of t bladder. A large rubber tube, secured to the skin incision a stitch, was introduced as far as the bottom of the bladd and the wound left open to heal by granulation.



Progress and Result.—For the following few days she was ery weak and collapsed, requiring on several occasions rectal ajections of saline solution. At the end of a week, however, he was gaining strength satisfactorily. The bladder was rrigated two or three times a day with boric lotion to which as added 5 gr. of silver nitrate to every pint of lotion used. he healing of the wound was considerably retarded by the arge number of phosphatic concretions which formed in conexion with the damaged bladder wall. Some of these, reoved by sinus forceps, were almost as large as a small hazel ut. Eventually the opening gradually contracted, and she as again able to pass urine per urethram. At one time she as threatened with ascending pyelitis. A cystoscopic exmination by my colleague, Mr. Frankling, demonstrated a arked degree of congestion about both ureteric orifices, more articularly the right. The condition of the urine gradually nproved, but a trace of albumen persisted for some time.

Remarks.—Finally she was discharged cured. At the ue date subsequent to her discharge she was safely devered of a child. I could not obtain from the patient ny satisfactory explanation of the presence of the hair-in within the bladder and cannot say how long it was ere before it gave rise to symptoms.

REPORTS OF SOCIETIES.

EDINBURGH OBSTETRICAL SOCIETY.

Professor Sir **Halliday Croom**, Vice-President, in the Chair.

Wednesday, June 13th, 1906.

Ovariotomy after Delivery.

rofessor Kynoch read notes on 3 cases of ovariotomy ter confinement. In one it was found that a multicular cystic tumour of the ovary was full of pus, the fection arising either from the *Bacillus coli communis* or om some organisms which had found an entry through me slight tear which occurred during labour. In nother case the pedicle of the tumour had become risted, partly involving the uterus. During laparotomy was found that the pedicle of the ovarian tumour had come gangrenous. The third case presented no special ints of interest beyond the fact that after labour a large arian tumour was found to be present. All 3 cases ade excellent recoveries. The author pointed out that e symptoms produced by some of those ovarian tumours ight easily be mistaken for puerperal sepsis. He also lled attention to the fact that, owing to the lax contion of the abdominal walls following labour, torsion the pedicle of such tumours might easily occur.

Heteroplastic Ovarian Grafting.

Sir **Halliday Croom** read notes on a case of heteroastic ovarian grafting which had been performed abroad. e patient suffered severely from dysmenorrhoea, and as th her ovaries were found to be cirrhotic they were moved and some ovarian tissue from healthy ovaries s implanted into the broad ligament. Pregnancy curred some months later. The resulting problem the thor put in the form of, Who was the mother of the ild?

Mr. **Scott Carmichael** stated that for some time he d been engaged on experiments on animals by autoastic implantation of ovarian tissue. In most cases the arian tissue degenerated, and in all cases the uterus rophied.

Dr. **Malcolm Campbell** said that Drs. Marshall and lly had failed to obtain any Graafian follicles in cases ere ovarian tissue had been transplanted from one imal into another. They had shown that all such afts underwent fibriotic degeneration.

A number of other members discussed the case, most of em believing that some ovarian tissue had been left hind when the ovariotomy was performed.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Priestley Smith, F.R.C.S., President, in the Chair.

Thursday, June 14th, 1906.

Congenital Cataract.

r. **Nettleship** and Mr. **Monteith Ogilvie** gave an count, with diagrams and drawings, of a family in which enty persons in four generations had a peculiar variety partial congenital stationary cataract in the form of a perfectly circular, well defined, homogeneous or finely granular layer, of no great density, situated between nucleus and posterior pole, about 4 mm. in size. At first sight it might be taken for a small lamellar cataract, but the invariable absence of any trace of a second layer, and the certainty that the opacity lay behind the nucleus negatived that diagnosis, whilst there was equally good evidence that it lay in front of the posterior pole. Some of the cases were first seen by Mr. Doyne at Oxford several years ago. These were re-examined by Mr. Ogilvie, and were found to be unaltered, and he has recently discovered a large number of new cases. The change caused but little loss of visual acuity, and only a slight desire to shade the eyes against bright light; hence the number of cases could only be determined by ophthalmoscopic examination of every accessible member of the family. Mr. Ogilvie examined about 150 persons, whilst one group living at Edinburgh was examined for the writers by Mr. G. Mackay. All the cases occurred in one branch of the family tree.

Non-Magnetic Steel Alloys.

Mr. **Simeon Snell** (Sheffield) in a paper on "Steel Alloys which are not Magnetic," said that during recent years, steel alloys had been used in certain industries, and that these alloys had altogether different magnetic properties to ordinary iron or steel. Manganese steel which contained 12 per cent. of manganese, 87 per cent. of iron, and 1 per cent. of carbon, formed a very hard steel, which was difficult to machine. But the point of interest was that it was non-magnetic. Its toughness made it useful for many purposes. Nickel and iron was another alloy, and this was as susceptible to magnetism as pure iron, but the admixture of a small percentage of manganese and carbon completely altered the magnetic properties. Thus a mixture of carbon 0.4 per cent., nickel 20 per cent., and manganese 0.9 per cent. with iron was absolutely non-magnetic. Another point was that if this same alloy were quenched in liquid air it became magnetic. Another alloy was chromium steel. It was magnetic, but less so than ordinary steel. Specimens of these were exhibited, and their magnetic peculiarities were demonstrated. He remarked that fortunately the vast bulk of all steel splinters penetrating an eyeball came from steel which was magnetic, and therefore the use of the electro-magnet was unaffected. The possibility of steel being non-magnetic should be borne in mind, and inquiries made as to the particular kind of steel from which the fragment injuring the eye became detached. In conclusion the author referred to other alloys which were highly magnetic. He had not, however, yet found that they were more magnetic than the soft iron in use had been.

Miliary Tuberculosis.

Messrs. **L. V. Cargill** and **S. Mayou** described the case of a man, aged 21, who had miliary tuberculosis, and tubercle of the choroid with implication of one optic disc. He was admitted to King's College Hospital in December, 1905. Although previously healthy, he had been feeling unwell for six weeks, and was supposed to be suffering from influenza. He perspired a good deal, was feverish, and was losing weight. There were no physical signs in the lungs, and no tubercle was found in the expectoration or blood. The opsonic index to tubercle was 1. Two weeks later an irregular yellowish-white patch was found in the right eye near the disc; it was only slightly elevated, and there was no pigment. In the left eye there were signs of optic neuritis. The irregular pyrexia continued, and signs developed in the lungs. On February 17th tubercle bacilli were first found in the sputum, and death occurred three days later. The *post-mortem* examination showed that the meninges were studded with tubercle; so also were the lungs and most of the abdominal viscera. The sections of the eye showed a typical tuberculous mass situated at the edge of the choroid on the outer side of the optic nerve; this mass involved the nerve, and spread backwards through the lamina cribrosa. The anterior part of the globe was normal except for a congenital anterior synechia.

British Gynaecological Society.—At a meeting on June 14th, Mr. **F. B. Jessett** in the chair, Dr. **Macnaughton-Jones** showed specimens of (1) multilocular dermoid cyst of the ovary removed from a patient,

aged 47 years, who suffered for twenty years, was very feeble and had attacks of tachycardia and syncope. On operation the tumour filled the abdomen; the upper third consisted of a pseudomucinous cyst containing five pints of fluid. The remaining portion of the tumour was removed entire. The surface of the tumour was smooth, and on section showed degenerating gland tissue with stumps of hairs surrounded by multinucleated giant cells. (2) Pseudomucinous cystic adenoma of the ovary weighing 12 lb. removed from a patient aged 42. About thirty pints of ascitic fluid came away. The tumour was removed without rupture. Convalescence was satisfactory, and the patient increased in weight. The following conclusions were drawn: (1) Early interference is necessary in ovarian cystoma, especially when ascites is present; (2) remove the tumour without rupture when possible; (3) avoid any injury to the peritoneum as much as possible; (4) use saline solution freely if the tumour is ruptured, and mop out the pelvis; (5) to examine the contents and wall microscopically for purpose of prognosis; (6) to remove the second ovary in all doubtful cases and always after the menopause. The President believed that in many cases ascites was associated with malignancy. Dr. Macnaughton-Jones said he had had cases of ovarian cystoma without evidence of malignancy.—Dr. Ranken Lyle read a paper on a series of 50 consecutive abdominal sections. These, performed between October 1st, 1903, and January 18th, 1906, comprised the following: Ovariotomy, 18; supravaginal hysterectomy, 8; salpingectomy, 5; salpingo-oöphorectomy, 4; enucleation of cyst, 4; coeliotomy, 4; myomectomy, 3; ventrifixation, 3; panhysterectomy, 2. One death occurred altogether. The technique was of the simplest description. Antisepsis was carefully carried out, the hands and forearms being washed in hot lysol solution, then in turpentine and methylated spirit, and finally well washed in corrosive sublimate solution 1 in 1,000. The instruments were boiled and placed in 1 in 40 carbolic solution. The gauze sponges were boiled for twenty minutes and wrung out of hot saline. All buried ligatures and sutures were of catgut prepared by ether, methylated spirit, and corrosive sublimate solution. Silkworm gut was used for all superficial sutures. The skin was prepared the previous night by washing with soap and water, then sponged with turpentine and methylated spirit; the application of a pad soaked in sublimate solution and washed with sublimate solution 1 in 1,000 just previously to the operation. No vaginal antisepsis was carried out. The abdominal incision was restricted to the smallest dimensions. All cut surfaces of peritoneum were properly adjusted. The abdominal wound was sewn up in three or four layers. A small strip of plain sterilized gauze wrung out of hot saline, and covered with absorbent wool was used as a dressing, which was kept in position by strapping and flannel bandages. About three hours after the patient was given a drink of hot water with a little sodium bicarbonate in it. Early on the second morning two doses of calomel, of 5 and 3 gr. respectively, at an interval of half an hour were given, followed in half an hour by a hot saline draught. The sutures were removed on the tenth day. Several of the more interesting cases were reported, and the following conclusion was drawn: In order to obtain good results the following points ought to be observed: (1) A correct diagnosis; (2) simplicity in operative technique; (3) simplest antiseptic preparation combined with asepsis; (4) few instruments and appliances; (5) limited abdominal incisions; (6) the correct adjustment of all cut peritoneal surfaces; (7) complete closure of abdomen without drainage; (8) the free use of normal saline solution when pus escapes into the abdomen during operation. Dr. Herman said the best results had been obtained in all cases but one, and in that the patient died from a disease they could neither predict nor prevent. In an abscess cavity one should make provision for the exit of pus. Dr. Eden approved of the emphasis laid on the importance of making a correct diagnosis before operation. He considered there was a certain amount of risk in filling the abdominal cavity with saline fluid owing to the possible conveyance of infection. Dr. Elder considered the results to be unique, and only possible after the work of Spencer Wells, Lawson Tait, and others. Dr. R. L. Dickenson (New York)
was impressed by the simplicity of the methods employe
In America there was a danger of too many assis
tants. Catgut was mostly used. The use of gloves wa
practically universal, and drainage only used when pus wa
present in the cellular tissue.

REVIEWS.

THE PRESERVATION OF FOODS.

The volume on *Preservatives in Food and Food Examination*
by Drs. Thresh and Porter appears opportunely at the pr
sent moment when the question of preserved foods is excitin
so much interest not only in America but in this countr
The information in the volume is more complete an
detailed than that contained in any reference book on th
subject hitherto accessible to the general reade
Questions connected with the preservation of food hav
become very acute to many interests. In most publ
institutions canned goods are used to a great extent, th
ordinary diet of the working population is largel
supplemented by preserved foods, and in every expeditio
whether military or scientific, preserved foods play a co
spicuous part, so that it is not surprising that the tra
represents an immense capital. The authors commen
by a detailed consideration of the various non-chemic
methods employed—heat, cold, pasteurization, smokin
and the exclusion of air. Passing next to preservation b
chemical substances, they deal with the numerous typ
of salt and pickling mixtures, with the various forms
boron compounds, with the special action of formaldehy
and the peculiar toxic effects attributed to it, and wit
the sulphites. Lastly, a number of miscellaneous and le
popular drugs are mentioned including salicylic aci
fluorine compounds, etc. With regard to salicylates the
was at one time a great outcry against their use in lag
beer and in lime juice, but it has been pretty conclusivel
proved that the quantity involved was less likely
disturb the digestive organs than the habitual imbibitio
of the fluid which it was intended to preserve, a fact whic
of course, did not justify their surreptitious introduction

Passing from the consideration of the nature and effec
of the preservatives in their simple state, the autho
proceed to the consideration of the principal articles
diet affected by the use of these means of preservatio
The mind turns naturally to milk before all oth
articles, as in all probability it is the most used, and,
view of the fact that it is the food of those who have
choice in the matter, the most important. The metho
of milk pollution have been too often described in the
columns to render a repetition of ugly facts necessary, b
most people are familiar with the systems of sterilizatio
pasteurization, and refrigeration. The drugs chiefly us
as antiseptics are boric acid and formaldehyde, and the
may be used not only at the source of origin but by t
distributor until the percentage reaches a dangerous lev
As regards the source of supply it must be remember
that there is a "Dairies, Cowsheds, and Milkshops Orde
which if efficiently carried out would do much to reme
the condition of the milk at its source of origin; yet,
was conclusively shown by an inquiry carried out for t
British Medical Journal not long ago, in rural sanita
authorities the provisions of the Order are apt to becom
absolutely a dead letter. That defective and deleterio
milk supplies play a large part in the tragedy of infanti
mortality admits of no doubt, and we hope that Mr. Jo
Burns will turn his mind to the plans which have been su
gested for safeguarding the supplies and making the Ord
a reality. After milk, Drs. Thresh and Porter pass on
consider the pollution and adulteration of cream, butt
and margarine, and the facts set out are not encouragi
to the consumer. It is probable that the tradesman w
recently suggested to Earl Carrington that, while living
Norfolk, his lordship would do better to eat Brittany
Danish butter than the produce of the county knew wh
he was talking about.

The third part of the volume is devoted to the co
sideration of colouring matters and mineral poison
Annatto, although it has been to some extent replaced
an aniline substitute, is still perhaps the most wide

---

[1] *Preservatives in Food and Food Examination.* By J. C. Thres
M.D., D.Sc., F.I.C., etc., and A. E. Porter, M.D., M.A. Crown 8
pp. 484. 8 plates. Published by J. and A. Churchill. 1906. (De
8vo, pp. 484. Price 14s.)

used of all colouring matters in butter and cheese. Fortunately for the consumer it seems to be harmless, but the same cannot be said of other substances used to give colour to foods. The history of the now historical outbreak of poisoning due to arsenic in beer—to which attention was first called in the BRITISH MEDICAL JOURNAL—is given at some length, together with an account of the extent to which arsenic may be present in other articles of food. Attention is also directed to the possible presence of antimony in temperance effervescent drinks from the contamination of the rubber rings inside the mouth of the bottle.

Poisoning by lead and tin is also mentioned, but we notice an absence of any mention of two forms of poisoning —one from the use of leaden vessels in cider making, and the other from the employment of white arsenic by mistake in fining wines. The latter perhaps may never occur again, but the former practice is not wholly extinct.

The fourth part deals with the statutory powers for inspecting foods, and the procedure to be followed in the detection of unsoundness. The medical officer of health will no doubt have been well trained in the detection of unsound meat; and it is encouraging to be told by Mr. Haldane that most of the junior military officers have passed an examination equivalent to that of the municipal meat inspector. We can only hope that some War Office official with a sense of humour is not playing on the credulity of the Secretary of State for War. Tuberculosis, actinomycosis, anthrax, and other animal diseases receive ample notice in this part of the work, and the debateable points as to seizure and the extent of disease necessary to condemnation are set forth. The principal animal parasites are described and illustrated, and the effects of "food poisoning" described, especially with regard to fish and shellfish. The authors confess their inability to judge of caviare, but it is easy to condemn the contents of a "blown" tin.

The bacteriological and chemical examination of foods and the chemical and physiological aspects of disease caused by unsound food are fully gone into, and many quotations are made from the best authorities on the subject. Indeed, the book is valuable not merely for the original work of the authors, which we do not for a moment depreciate, but quite as much for the collection of the experiments and opinions of so many of the eminent authorities who have already done good work on this subject. The report of the Departmental Committee is printed in full in the appendix, and the study of the numerous acts therein adduced may lead the reader to continue his nvestigations into the evidence laid before that Committee. At present it must be confessed that the public does not receive from the Legislature the proection it has a right to expect. The *Law Times* last week expressed the opinion that imported canned goods hould carry an implied warranty, not to be contracted out of; that is one among many excellent provisions badly required.

The need for some standard for preservatives is well hown by the cases quoted. To take one only: the learned tipendiary of Leeds refused to convict in a case where potted shrimps contained no less than 47 gr. of boric acid per lb. Mr. Atkinson, who is a most careful and expert magistrate, arrived at this conclusion because the Departmental Committee had limited their observations to milk, ream, butter, and invalid preparations!

The volume may cordially be commended to those who eed a manual on this important subject, but one of the rst things which the reader will have to do is to construct bibliography of the matters quoted therein that he may e able from time to time to refer at first hand to the umerous classics referred to. A complete index to the legal cases quoted or mentioned would be another addition which would materially increase the practical value of an xcellent compendium.

TREATMENT OF FRACTURES.

N *The Operative Treatment of Fractures*[2] Mr. ARBUTHNOT LANE sets forth his well-known views, and in the preface he writes that he has not attempted "to consider the subject of the operative treatment of fractures in its entirety," but he has confined himself "more or less to dealing with general principles, with a sufficient number of examples to illustrate the views" he has "put forward." According to the text it is thirteen years since Mr. Lane made it his habitual practice to operate on all cases of simple fracture of the long bones in which he is unable to obtain accurate apposition of fragments, when the restoration of the bone to its normal form is of mechanical importance to the individual. Despite the fact that Mr. Lane has taken many opportunities of urging his views on the profession, other surgeons have been slow to recognize the necessity of accepting them. In elucidating questions as to what is or is not of mechanical importance to the patient, the author, in the early part of the volume, discusses at considerable length the changes which the skeleton undergoes from the habitual assumption of attitudes of activity or of rest. We think we have read this before in different guises and in various connexions, for much of it has served to illustrate other of Mr. Lane's works on subjects widely different from fractures. In discussing the treatment of simple fractures the author does not mince matters, and his style sometimes becomes distinctly polemical, as on p. 32, for example: "Though experience has taught me to regard the statements in the anatomical and surgical works with very strong suspicion, I was not prepared to find that the teaching of the causation, pathology, and the treatment of fractures, and the results of such treatment was often absolutely false in every detail." Another example is met with on p. 41: "Instead of quoting the fossilized reproductions in surgical textbooks, I prefer to extract from the recent teaching of surgeons of the highest reputation in England their teaching on this subject"; and Mr. Lane expresses his surprise on p. 45 that "perfect results are obtained by methods which to the ordinary mind are mechanically absolutely antagonistic, both in practice and in principle." He comes to the conclusion that the "teachings contained in the textbooks as to the possibility of restoring the form of broken bones, and the satisfactory results of their treatment were absolutely false." These extracts show the dogmatic character of the volume. Mr. Lane remarks that "he still finds in students' textbooks the same incomprehensible descriptions of the movements of the joints of the foot and of its mechanics which he plodded through hopelessly as a student," but he fails to convince us that inversion and eversion cannot take place in an extended ankle. Early massage for fracture is described on p. 74 as "a miserable and unscientific compromise," and the treatment of fractures by means of manipulation, splints, and massage is alluded to as "barbarous indiscriminate treatment." Finally, we are informed on p. 85 that "the only scientific method of treating fractures, with severe displacement, is by wiring and inserting a screw." We have quoted enough to show the originality of Mr. Lane's views on this interesting subject, but after a careful perusal of the volume, we are still not quite sure that we are in so lamentable a state of misapprehension and false teaching as the writer imagines. There is undoubtedly a measure of truth in what Mr. Lane says, but we cannot feel that we have here all the law and the prophets. The type and illustrations are excellent, and free use has been made of *x*-ray photographs, some of which appeared in the BRITISH MEDICAL JOURNAL of November 18th, 1905.

The value of Dr. HELFERICH's atlas of traumatic fractures,[3] the first edition of which was published in 1894, has been well maintained and indeed enhanced by frequent revision. In the seventh and latest issue we are presented with a larger volume containing much new matter and an increased number of original illustrations. It is, as is well known, an excellent and typical example of Lehmann's series of hand atlases, in which instruction is imparted to a considerable extent by a profusion of very clear and carefully-prepared drawings. Professor Helferich has evidently paid much attention to this means of teaching, and, in the frequent revisions of his work, has supplemented his review of general principles by long and instructive explanations of the excellent drawings, in which are delineated the external signs and the anatomical factors of fractures and dislocations. German readers will in this, as in most other works of the series, find a reliable and useful guide in clinical work.

---

[2] *The Operative Treatment of Fractures.* By W. Arbuthnot Lane, M.S., R.C.S., Surgeon to Guy's Hospital, and Senior Surgeon to the Hosital for Sick Children. London: The Medical Publishing Company. 05. (Pp. 144, 103 illustrations.)

[3] *Atlas und Grundriss der traumatischen Fracturen und Luxationen* (Atlas and Sketch of Traumatic Fractures and Luxations). By Professor Dr. H. Helferich, of Kiel. Seventh edition. Munich: T. F. Lehmann. 1906. (Crown 8vo, pp. 370. 314 illustrations. M. 12.)

THE NEW SYDENHAM SOCIETY'S ATLAS.

FASCICULUS XXV of the *Atlas of Illustrations of Medicine, Surgery, and Pathology,*[4] issued by the New Sydenham Society, deals solely with small-pox, and is double the usual size. It contains 20 plates, all of them very good, and on the whole well selected. The first 6 are illustrative of discrete small-pox, and 5 of them show different stages of the disease in the same patient Very properly these 5 have been taken from an unvaccinated case, and so indicate the character of the disease when it assumes this form independently of the protection afforded by vaccination. Another illustration, Plate G, is that of an unvaccinated boy with an exceptionally mild attack of the disease such as has been not very uncommon in the type of epidemic recently prevalent in some of the midland counties of England, and earlier in America. The next plate, H, is from an unvaccinated girl with confluent small-pox, and the confluence is exhibited on the hands and arms, though in classification of such cases the eruption on the face is itself sometimes taken as the basis even if the disease be less abundant on other parts of the body. Then follows a series of five plates of confluent small-pox in the same patient, the last photograph being taken an hour before death. The appearances are characteristic. Five plates, O to S inclusive, contrast variola with varioloid or small-pox modified by vaccination. The contrast is well brought out. Two of the plates refer to cases infected at the same time and from the same source, the one patient having been vaccinated in infancy and the other not vaccinated. The influence of vaccination during the incubation period of small-pox is shown in three of these five plates, one of the cases being exceptional in respect that vaccination had been done so long as twelve days before the onset of the disease. The lesions are very scanty, and had completely scabbed at the time when they were still in the full pustular stage in an unvaccinated child infected at the same time. One plate is devoted to the exposition of an interesting control experiment insisted on by the father of an infected family. An unvaccinated boy had been removed to hospital with severe confluent small-pox. The father consented to his wife and three children being vaccinated, but refused on his own account in order to test whether there was anything in vaccination. He is depicted as suffering from confluent small-pox, whilst on his knee there is seated one of his children aged 3 years, being the only one of the vaccinated four who developed any degree of small-pox, and the attack in the child is so trivial as to be hardly discernible in the plate. The series concludes with a good illustration of chicken-pox for contrast with small-pox.

Notwithstanding that a double fasciculus is devoted to the disease, room has not been found for any illustration of the prodromal rashes which are sometimes so important for early diagnosis. It might have been better to present such an illustration, even though one of the two plates of the somewhat rare phenomenon of corymbose small-pox had thereby been excluded.

THE INFLAMMATION IDEA IN GENERAL PATHOLOGY.

CHARLES KINGSLEY was once unkind enough to refer to "the true medical language, one half bad Latin, the other half worse Greek, and the rest what might have been English if they had only learnt to write it." The medical profession would be the first to admit the partial justice of his gibe, for all alike suffer from that making of many names to which there is no end.

In a science so virile, so prolific, so fruitful as pathology there is some excuse for the fabrication of new terms, and if the appeal to dead languages be but indifferently successful, the onus of that lies upon educational deficiencies to which doctors are not the only victims. For inability to write English, intelligible if not polished, lucid if not felicitous, there is, however, little excuse. It may generally be taken that a man of science who does not write clearly does not think clearly.

In *The Inflammation Idea in General Pathology,*[5] Dr. RANSOM has essayed a task long since renounced by Thoma as both useless and impossible. He attempts to reconcile that blessed word "inflammation" with the protean ideas of pathologists, biologists, clinicians, and "phyto-pathologists." He attacks the problem in the hair-splitting philosophical manner, drawing distinctions hardly to be appreciated, heaping burdens of adjectives grievous to be borne, taxing the attention and the understanding of the reader almost past bearing.

As page succeeds page memories of King Charles's head grow clearer and yet more clear; surely he cannot keep it out! Chapter after chapter and yet no definition! Alas, on the three hundred and thirty-third page it struggles in and holds full five-and-twenty lines!

To borrow with apologies and a few alterations, a group of adjectives from the author (vide p. 32, line 16, "evolved intrinsic reparative proliferative"), the "Definition" is "involved intricate repetitive prolix." How should it be otherwise? A process long established in *clinical* usage, inflammation has naturally been studied first and foremost in human, or at least in vertebrate, *pathology*, a function still of vascular tissues. Even in this short transit from the clinical field to that of morbid anatomy the term has suffered violence: how, then, shall it be strained to embrace all response to irritation and yet remain definable? Yet, Dr. Ransom, by "general" means "universal" pathology and would frame his definition to include response to injurious irritation in all organisms; he finds that the only phenomenon common to response in every form of life is "proliferation"; he regards only those phenomena of response which are damaging to the organism as "inflammatory, relegating and restricting all other induced responses to the sphere of repair."

The essay is in the first place an apology for plants. The author has used the numerous "galls" almost exclusively for his study of inflammation in vegetable tissues; in this particular type of proliferation he finds evidence of utility to the inducing parasite, and hence a "relation of fitness" between response and irritant. In the second place, therefore, his essay is an apology for parasites, for, arguing from this "relation of fitness" to disease in man he suggests this ingenious explanation of recovery from an infection, namely, the supervention of some phase in the life-cycle of the specific bacterium, having no use for the conditions determined in the host for its own ends during the first phase. He is thus led to say "Neither in animals nor in plants can I recall any single instance in which the responses to an established parasite are so adverse to it as to cancel its action or arrest its development, or even materially to hinder it." Why, then does a sick man ever recover? What of the very elaborate machinery of defence?

A BOER'S PROGRESS.

IN *From Farm to Forum*[6] Dr. WATKINS tells the story of a young Boer's career, from his father's farm to a seat in the Lower House of the Cape Legislative Assembly. It can hardly be called a novel, since there is scarcely any trace of a plot; it is merely an account of the various phases through which Frickje Potgieter passes till he attains the summit of his ambition, and there the book ends. Destined originally for the Church, which, owing to his religious difficulties, he gave up in favour of medicine, Frickje is an interesting specimen of the modern Boer of the rising generation, who, better educated and broader-minded than his parents, cannot rest satisfied with their gloomy creed and almost childishly narrow outlook on life, and yet retains the intense patriotism of his forbears, even while recognizing and striving to rectify their errors. Frickje is undoubtedly well drawn, but one grows a little bit weary of the long discussions between him and his friend, John

---

[4] *Atlas of Illustrations of Clinical Medicine, Surgery, and Pathology.* Compiled for the New Sydenham Society (a continuation of the "Atlas of Pathology"), chiefly from original sources. Fasciculus XXV (Double Number), being XX and XXI of the Clinical Atlas. Small-pox. London: The New Sydenham Society (Agent, H. K. Lewis, 136, Gower Street, W.C.). 1906. (Non-subscribers, 21s.)

[5] *The Inflammation Idea in General Pathology.* By W. H. Ransom, M.D., F.R.S., F.R.C.P. London: Williams and Norgate. 1906. (Demy 8vo, pp. 354.)

[6] *From Farm to Forum; or, Young Africa.* By Arnold H. Watkins. Pp. 350. Published by J. C. Juta and Co., Adderley Street, Capetown.

Baxter, the Englishman, on religion and politics, and their schemes for regenerating the world; and one cannot help regretting that so much space has been sacrificed to them and their doings in Edinburgh and elsewhere, while so little is given to the scenes of Dutch life on the farm and in the Boer towns. Here Dr. Watkins is admirable; and though once away from Africa the book drags a little, one could do with a good deal more of these Dutch scenes. Tant' Koba and Ooen Gert and the other Boers are living people, one feels, whilst the rest are apt to become mere puppets. Undoubtedly the Dutch scenes are the cream of the book; and it is evident that they are written by one who knows and understands the Boer thoroughly, both at home and abroad. They show a rare nsight and sympathy, and at times a quiet humour which renders doubly effective such scenes as Frickje's experiences with the local farmers and their wives when ie first sets up practice in Hopetown. Even the wearisome political discussions show how deeply Dr. Watkins s interested in the future welfare of South Africa, and how well he understands its present situation.

Since Olive Schreiner's *Tale of an African Farm* we have hardly had a novel on Africa to equal this one, and it is to be hoped that Dr. Watkins will soon try his hand at another, in which he will confine himself to portraying the Boers in their native environment.

NOTES ON BOOKS.

Ve have received a copy of a small book in album form, ntitled *Four Welsh Spas*, containing information with egard to Llandrindod, Builth, Llangammarch, and lanwrtyd. It gives particulars with regard to the ccommodation for visitors at each place, together with nalyses of the waters; it is copiously illustrated with iews of the pump-houses, hotels, and the surrounding ountry, which it need hardly be said is extremely beautiul. Copies can, we believe, be obtained from the General Ianager of the London and North-Western Railway.

Sir Hermann Weber has issued a second and enlarged dition of his lecture *On Means for the Prolongation of Life*,[1] elivered before the Royal College of Physicians in December, 1903, and reported in our columns at the time. Iany of those who read the lecture then with interest will e glad to possess the enlarged edition as a separate olume.

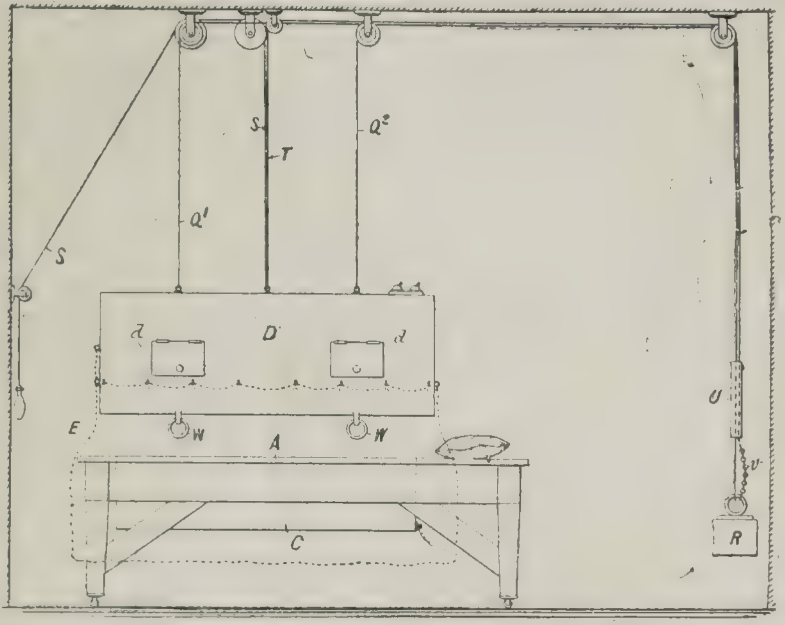
MEDICINAL AND DIETETIC PREPARATIONS.

Emulsion of Cod-liver Oil and Hypophosphites.—We have eceived from Messrs. Burgoyne, Burbidges and Co. a ample of their emulsion of cod-liver oil with hypophosphites. The advantages of administering cod-liver il in a state of fine division have long been recognized; ie assimilability of the oil is very greatly increased, while ie vehicle in which it is suspended may also be made to isguise the unpleasant taste of the oil and to convey other iedicines which it may be desired to exhibit. It is, of ourse, important that an emulsion of oil shall not separate a standing; if this occurs in the bottle, it may be exected to occur to some extent in the stomach. We find iat Messrs. Burgoyne, Burbidges' emulsion shows no paration even on prolonged standing; it has a sweet ste and agreeable flavour, and will no doubt be readily ken by children and others. It is stated to contain per cent. of cod-liver oil; analysis showed this quantity be present, together with small doses of hypophosphites soda, potash, and lime.

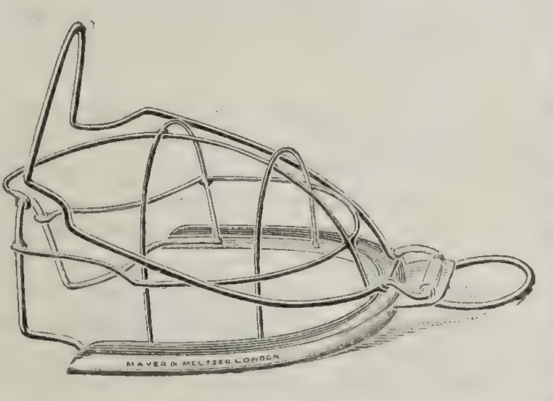
Cod-liver Oil, Malt and Guaiacol.—We have received from essrs. Oppenheimer, Son and Co., a sample of cream of alt with cod-liver oil and guaiacol carbonate. It is an timate admixture, which does not separate on standing, malt extract and cod-liver oil in which guaiacol carbone has been previously dissolved. The administration of d-liver oil in this form is too familiar to need recomendation, and the addition thereto of guaiacol will be und convenient by those who employ that drug in ithisis. The article is palatable and its taste does not ggest the presence of guaiacol, which, however, is at ice shown by chemical tests.

MEDICAL AND SURGICAL APPLIANCES.

Bath for the Application of Heat and Light Energy.—Dr. W. Johnson Smyth (Bournemouth) sends the following description of a bath he has designed: It consists of a couch (A) and a lifting canopy (D). The patient lies horizontally on a wire netting spanning a longitudinally-extending aperture in a couch (15 by 55 in.). The incandescent electric lamps providing heat and light energy are fixed in the canopy and in a semicircular reflecting chamber which is fixed below, and completely encloses the aperture in the couch. These lamps are under multiple switch control, so that few or many may, at the will of the attendant, be in action at any one time. The canopy moves in a vertical line above the couch, and is provided with curtains (E), inspection doors (*d*), and handles (W). It is balanced by a weight (R) attached to cords (Q^1, Q^2), passing over pulleys fixed to ceiling, as shown. A steel emergency cord (T) is attached through a small tubular weight (U) and a slack chain (V) to the weight (R). The canopy is raised by means of a cord (S) attached to its centre of gravity. It will be found that the following advantages are derived from this bath: (1) The most delicate may use it with safety; (2) the bather perspires in from five to fifteen minutes at a temperature not exceeding 110° F.; (3) it is a most useful, and, indeed, a unique, bath for treating the spinal region by heat and light; (4) very little current is needed; (5) the apparatus can easily be set up in any room where the electric current is installed. It can be had from Mr. A. Rose, electrician, 57, Aldermanbury, London, E.C.



Chloroform Mask.—Mr. W. Hotten George, Senior Anaesthetist, Royal National Orthopaedic Hospital and the Central London Throat, Nose, and Ear Hospital, writes: The annexed illustration shows very clearly the shape of a modified mask I have had made for the administration of chloroform or the C.E. mixture by the drop-bottle method, and which I should like to bring to the notice of others, because I think it will be found generally useful. It is so contrived as to leave the eyes of the patient always uncovered during the administration, which the older forms in common use do not. This is so obvious an advantage that it speaks for itself, and it is therefore unnecessary to urge it, but in eye operations or those for the relief of frontal sinusitis this advantage is even more strongly marked. The mask is particularly light, strong, can be perfectly sterilized, and easily fitted with new flannel by means of an attached hinged wire frame fitting tightly in its place, and has been carefully made by Messrs. Mayer and Meltzer of Great Portland Street.



Under the will of the late Mr. Frederic Just Claudet, of Hampstead, the London Fever Hospital and the Great Northern Hospital each receive £100, King Edward's Hospital Fund for London £200, the Mount Vernon Hospital for Consumption £300, and the Hampstead General Hospital, £500.

---

[1] London: John Bale, Sons, and Danielsson, Ltd. 1906. (Demy 8vo, . 104. 2s. 6d.)

MEDICAL CHARLATANISM IN GERMANY.

By OTTO NEUSTÄTTER, M.D.,
Munich.

(*Continued from page 1411.*)

QUACKS' METHODS.

THE examples quoted in the foregoing statistics might give the impression that charlatans with us employ only "coarse, everyday methods," which of course may easily prove injurious. In reality, however, they work with all the craftiness of modern times. They delude, by extensive, elaborate, in some degree clever advertisements, the public, pretending to follow elaborate scientific methods and careful treatment based on exact investigations. In reality they treat all diseases in one and the same way, differing only in name, never in principle. Treatment by letter especially is growing day by day—this, for the quack, being the easiest and least dangerous method. Institutions arise carrying on quackery of this kind on a wholesale scale. As an example, a few English advertisements appearing often in our papers may be quoted:

The Coza Institute against Drunkenness, 62, Chancery Lane, London, promises to cure drunkards for ever with, I think, bicarbonate of soda. The Vixol Syndicate, 304, Brixton Hill, London, promises help to everyone suffering from asthma. John A. Smith, now of 68-69, Shoe Lane, London, E.C., sells two sorts of never-failing pills for gout and rheumatism. Of Electro-Vigor, of the Strand, London, a branch establishment was erected in Berlin, but the owner was forced to beat a hurried retreat. A similar swindle, Sanden's Belt, is still puffed in a disgusting manner. The laboratory of Dr. Ray's Remedies, 54, Holborn Viaduct, London, recommends his nervol as a comfort to invalids and an ever safe remedy for chorea, epilepsy, and ten other diseases. The inquirer is presented with a pamphlet containing "photos from life." In one of these a lady lies in flames, an old gentleman sitting helpless beside her. Returning from a funeral, she has been seized with epilepsy, and in falling has knocked over a lamp and lies enveloped in flames. A strange chance that Dr. Ray was able to take a photograph of this scene! Owing to the different individuality of each case a form of inquiry is first to be exactly filled up; but in every case the same remedy—nervol—is presented. Dr. W. S. Price, 8 and 9, Stonecutter Street, London, E.C., cures all hernias with his unique truss and wonderful lymphol ointment.

Nardenkötter is a good example of this type in Germany. Others of the same kind are Weidhaas, Spiro Spero, Jacobi, Electropoise Oxydonor Victory, Glünicke, Brockhaus, Weidmann, Vitafer, and Novavita. Some of these are public "sanatoriums" where no patients have ever been taken in. For further details the 247 warnings issued by the *Karlsruher-Gesundheitsrat*, containing a lot of interesting details, are to be highly recommended; a collection with an index has just appeared.

In many cases the licensed apothecaries are guilty, too, of systematic quackery either by making and selling nostrums, or by giving their name to cover an illegal trade. The Schützen Apotheke in Munich advertises an eye-salve which, even in cases of inveterate maculae of the cornea, heals quickly and surely. In Berlin the Apotheke, "König Solomon," in the preface to its private price list, amongst other things says: "Owing to the many inferior concoctions it appears to us a duty to recommend our preparations, which are carefully prepared according to the newest principles of science." No less than twenty-five preparations against venereal diseases appear in this list! Nervolin is recommended as the most unique remedy for nervous diseases. Fifteen remedies for asthma are cited; the patient can choose either "the old-established remedy, X," or "the excellent new medicine, Y," or "the well-tried prophylactic, Z," or "the Belgian mixture with the never-failing results." Glandulen, Bacillus-Killing Tea, Tubercle-Death, Albert's Remedy, Weismann's Apoplectic Water, Warner's Safe Cure, and numbers of other old and new humbugs are contained within. They tell us further that they have had the honour to serve Royalties, and members of the highest society. The Einhorn Apotheke in Frankfurt-a-M. follows the same lines. Bioson, a kind of nourishing cocoa advertised as a remedy for a kinds of diseases, is a preparation made by a doctor an sold by a chemist, the shop bearing the proud name "Biosonworks." This assistance from the side of th apothecaries is doubly lamentable, for without their aid number of quacks would not find it possible to delude th public. Section 367 of the Penal Code forbids the mixin putting up for sale, or dispensing of medicines or poison Apothecaries are exempt from this law except in the cas of a few drugs which are only sold on receipt of a doctor prescription. So quacks have been sly enough to estal lish a certain connexion with apothecaries, and thus the manage to creep through the closed door.

The arcanum swindle, however, represents a danger th exists hardly longer than its advertisements. But the exists a still more serious kind of charlatanism whic pretends to represent a well-based scientific method. B this kind people's heads are turned for years. Book lectures, discussions prepare the ground, and print allow this mental poison to work long after its creator has fade away.

The most important of this kind of charlatanism i Germany at present is the Nature-cure, which not onl enjoys a widespread popularity, and an authority whic every make-believe scientific movement easily exercise over the public, but has all the advantages of a cleverl directed organization.

Formerly homoeopathy did its best to impress t public with the idea that it could and would replace t old and rusty school medicine, whilst in reality it was sensation, and, when practised by quacks, nothing but clever evasion of existing laws. The same is now the ca with those who pretend to cure by means of Nature.

Homoeopathy trades on mysticism, and Nature-cure take advantage of an enthusiasm for Nature. The extent which this form of charlatanism has spread is apparent fro the fact that out of 4,104 quacks in 1902, 3,761 were Natur curers and 770 cured by means of water, whilst only 2 employed homoeopathy, 145 worked by means of ma netism, 79 by electricity, 77 by plant cures and drugs, by afflation, 37 by means of herb cures, 24 by ointment 23 by sun baths, 14 by hypnotism, 12 by vegetarianis 6 by Christian Science, 3 by the laying-on of hand 2 drove devils out, 1 spat on his patients, and, lastl 1 cured by blessing, 1 by means of shirts, 1 by magnet water, and 1 by the "oil of life." It may be of interest mention, by the way, that out of these 4,104 quacks, 46 that is to say, more than 11 per cent., had previous been convicted, and 167 of them several times; 16 h done hard labour and 137 suffered imprisonment. The standard of education is characterized by mentioning th out of 1,440 quacks about whom we are informed, 1,1 (79 per cent.) have enjoyed only the lowest type schooling, the Volksschulen; there were registere among others, 201 craftsmen, 35 workmen, 286 peasant and other agricultural labourers.

From the foregoing it will be observed that the Natur cure is the most popular swindle of the present day. The quacks have not only their methods in common, but a all connected by means of a widespread organization, co sisting of some hundreds of clubs for the purpose of pr mulgating Nature-cure. There are 885 clubs, with 125,6 members; they profess to aim at the enlightenment the people with regard to health and Nature-cure. Besid this they carry on a violent agitation against such thin as vaccination, serumtherapy, poisons, operations, and t whole medical science, assisted by a few doctors who ha become tools in the hands of these quacks. They act as striving for the public to choose in what manner they w be treated, and to protect them against the "medical mu derers and poisoners." In reality, of course, they a fighting solely for the privilege of curing without a liabilities and trouble. They "wish to protect the geni against the privileges of the learned fool." In reali they are fighting for the privilege of the unlearned fo By means of clever demagogy they have gained consid able ground, and for this medical men must undoubted take a certain share of blame. Their disgust and indign tion for the vile agitators was justified, but their feeli of security and superiority, which prevented time interference, was no doubt unwise. The monthly org of the united German Nature clubs has a circulation of less than 132,000; besides this, there exist sixty-ni other periodicals of the same tendency. No less th

5,000 petitions were presented to different governments; 329,000 leaflets were distributed for propaganda in their own interests and against the medical profession and science; 1,200 young doctors were presented with pamphlets intended to enlighten them on Nature-cure. After this one can imagine to what extent public opinion s misled and poisoned. Even Cabinet Ministers, it can be said, have been influenced. In their unbounded conceit, hey have even gone so far as to put up a Nature-cure candidate for Parliament and make a programme at the ast State elections. I cannot resist giving some details of this characteristic programme:

> What has Parliament, what has the Government, what has he science of medicine done to fight such degenerating diseases as consumption, etc.? These diseases are rife among our people, enervating and sweeping away the flower of the nation rom the face of the earth. . . . The coming Parliament will have to decide whose right it is to determine matters of health, he patient whose greatest wealth is his health, or the doctor whose wealth is the sickness of his fellow man? Should medical practitioners gain the day, freedom of thought, enightenment of the public, hygienic progress, development of he art of healing, and the right of deciding for oneself, will be suppressed for years to come! It is not the quacks, who have solely arisen from the medical schools, one tries to lestroy; it is only the Nature-curers and their clubs. And hese are the people who really try to open the eyes of the public. They try to hinder the proceedings of the hierarchy, who, like the wolf in goat's skin, proclaims itself to be alone he keeper of public health and welfare, which would mean tarvation of the medical practitioner. . . .

In all this the Nature-cure has a great advantage over homoeopathy; its principles are not pure nonsense. This makes it all the more difficult to fight. For its propagators always make believe that it is water, air, diet, ymnastics, massage, etc., that the doctors oppose. The atter thus are forced to take up the defensive. However, knowledge of details makes it possible to bring forward ny number of proofs that the Nature-curers are anything but true to their principles, and this is the best manner n which to attack them. They rage against poisons in heir mass meetings, but it has been proved that the best nown Nature-cure men use morphine, digitalis, chloral, tc. It has also been shown that fictions of successful reatments have been invented. But this is not all, great uccesses were proclaimed where bad failures have been he case. Bilz had cured "a case of syphilis" entirely without quicksilver, "and the man left his hydropathic ıll of gratitude." In reality after a long treatment he scaped with the greatest difficulty, and arrived a skeleton, alf dying, his whole body covered with 53 ulcers, two ays later in the hospital of Professor Mracek in Vienna, where he could, by means of mercury, just manage to be saved. They sneer at the "school medicine," but have hemselves set up a Nature-cure school. The geniuses who are received therein, without any other qualification than being able to read and write, do not need a course of six years, similar to which the doctors are forced to go through. For them nine months are long nough.

Some day no doubt the public will see how misled they re. This moment has not yet arrived, however. For crazy as they may seem to us, the different Nature-cures will find a number of partisans among all classes, and not he fewest amongst the so-called educated ones. Here are few instances:

Just, a former dealer in clothes, now the owner of the ungborn, carries on his proceedings without regard for person or case, without either investigation or diagnosis. is Nature-cure is of course the one and only true one. y making his patients sleep on the soil, "he brings hem into contact with the healing effluvium of the earth-power"—a so-called earth-cure which was perfected by astor Felke near Dusseldorf. "Just as pigs roll in dirty uddles, people must sit in a hole dug in the earth, in hich they kneaded together with their feet a slimy ass." This mess he applied finger-thick to wounds, and then, if possible, injected it into the wounds. With this ay-cure he united homoeopathy and the art of making agnoses from the iris. At his lectures the police were ten forced to barricade the entrance, and at the conusion storms of applause broke forth. These are only wo instances. It would take up too much space to bring rward details of the proceedings of other well-known ature-curers, such as Kuhne, Schroth, Kneipp, Rickli, anitz, Bilz, Platen, etc. Those I have given show sufficiently that charlatanism in Germany does great damage. Since the above-mentioned statistics were published ever-widening circles slowly begin to realize this fact.

[*To be continued.*]

PROPOSED STATE REGISTRATION OF NURSES.

Deputation Against the Bill.

The Earl of Crewe, Lord President of the Council, received a deputation against the Bill for the registration of nurses, in the Privy Council Office, Whitehall, on June 14th. The deputation was organized by the Central Hospital Council for London, which represents all the London hospitals recognized as training schools with over 100 beds. The representatives of the Council were the Chairman (Mr. H. Harben, L.C.C.), the Honourable Sydney Holland, Dr. Allchin and Dr. Kingston Fowler. Sir Thomas Barlow and Sir Frederick Treves were also present, and among the ladies who attended were the Duchess of Bedford, the Marchioness of Salisbury, the Countess of Pembroke, the Viscountess St. Aldwyn, Lady Rayleigh, Lady Northcliffe, the Hon. Maude Stanley, and several matrons of the London and provincial hospitals.

Mr. Harben, in introducing the deputation, said that the constituent hospitals of the Central Hospital Council had a nursing staff of 2,040, and were capable of turning out some 500 fully-trained nurses annually. The Central Hospital Council tendered evidence before the Select Committee of the House of Commons of 1904, and handed in a Memorandum in which their view in opposition to the proposal of the promoters of State registration for nurses was fully set out. That Committee of the House of Commons reported in favour of a system of registration, though not exactly like that proposed by the Bill which was now before Parliament. The Central Hospital Council considered that it was its duty to make some counter proposals to the Bill of a substantive character. It recognized that there was a legitimate desire on the part of those engaged in nursing for some authentic record of their training and services available to those who wished to employ nurses, but State registration of nurses was understood to imply that a woman whose name was on the Register was a fit and proper person to undertake the duties of a nurse as long as her name continued on that Register, and that as a necessary inference any person whose name was not on the Register was not a fit and proper person to nurse. The Central Hospital Council had prepared a Memorandum, which he handed to Lord Crewe, in which their objections to the State registration of nurses were reiterated. The alternative to State registration suggested by the Central Hospital Council was the institution of an official directory of nurses giving particulars of names, places, dates, periods of training and subsequent hospital and other appointments held by the nurses. It would be conspicuously stated in the directory that the fact that a nurse's name appears therein in no way guaranteed anything more than that the entries of the nurse's training and subsequent appointments had been verified. The proposal would leave each training school to develop its teaching on the lines best suited to its special circumstances. No system of compulsory examination, with its attendant difficulties and evils, would be instituted. The real employer of a nurse, who was the doctor, would be able, from the directory, at once to estimate the value of her training for her special case, while the public could learn that a nurse's statements as to her training were accurate, and would know in most cases where to inquire for further information if desired.

The Hon. Sydney Holland urged that registration of nurses would be misleading, because it could not secure that a nurse was a fit person, and because it could not take any notice of any subsequent falling off in character of a nurse. State registration could not even secure the technical fitness of a nurse, and, moreover, such a scheme would be harmful, because it would constitute a continuing guarantee of a nurse by a body that could not know anything about the person guaranteed. State registration would do harm by teaching a nurse that all that was required was to pass a certain examination. The plan was detrimental, because it would set up a standard of minimum efficiency and it would stereotype mediocrity.

Sir Thomas Barlow said that although he was not a member of the Central Hospital Council he was in sympathy with their views on this question, and glad to be allowed to say a word in support. He believed that if the State registration of nurses were carried out as had been suggested it would be a momentous step, fraught with risk to the proper relationship of nurses, doctors, and the public. If the great mass of medical men were polled as to their experiences with regard to private nursing, the majority of their complaints would be found not to refer to unskilfulness of nursing but to questions of discipline and conscientious discharge of duty. For the most part, doctors found nurses exceedingly obliging and willing, but there were certain nurses who in the doctor's presence had a smooth tongue and pleasant manner, but during the still hours of the night these same nurses acted very differently to the patient, for then it was that the tyranny and neglect of bad nursing came into operation. It was often very difficult to deal with such neglect. He believed that the only way in which it was at all possible to deal with questions of conduct and discipline was to support nursing organizations which were in active relationship with the great hospital training schools or with a very strong executive. Moreover nurses ought to go back from time to time to the hospitals to learn the latest methods of surgical and medical treatment. By such means efficiency could at all events be striven for, and slackness be neutralized. On the other hand the suggested State registration would make for finality, and lessen the laudable ambition for perfection. It would tend to establish the absolute autonomy of the nursing community, and to render nurses independent of that amount of supervision and review which was desirable in the interests of sick people. In fact, the result of State registration would be to make nurses practically independent of doctors, hospital matrons, and nursing superintendents. Many faults would pass unnoticed, for except on the ground of grave delinquency a doctor would be most reluctant to report a nurse to the registration authority and thus seriously imperil the nurse's livelihood. Whilst placing the needs of the public first, Sir Thomas Barlow said that he warmly sympathized with the desire of nurses that their work and training should be properly recognized, and that their service should be adequately paid, and he considered that the proposed voluntary official directory would meet the claims and aspirations of every good nurse and would to a large extent set forth what the nature and amount of her experience had been. On the other hand, he objected to the proposed State registration because the method copied the bad side of trade unionism in reducing all to the same dead level. The education of nurses was passing through a transition period. He believed that it was too academic and that there was too much book work. It was quite certain that there were many first-rate nurses who would be entirely disqualified for State registration by their inability to answer examination papers. He trusted that there would be considerable modification. It was undesirable that the training and examination should be crystallized in their present form, as would be the case if State registration were adopted now. He advised that the subject should be allowed to remain quiet for a little longer so as to give the hospital training schools a chance of working the matter out on the best lines. Considerable variety and freedom in methods of training and testing so far from being a calamity was a positive advantage in the gradual evolution of the best scheme, and in the preparation of different types of nurses suitable for different kinds of work. Turning to the question of inefficient care in private nursing homes, Sir Thomas Barlow affirmed that if the scheme of an official directory of private nurses were adopted it would make for the security of the public. Many nursing homes were excellent and their fees were well earned, but in some there was a mercenary spirit with respect to the quality of night nurses supplied. Untrained probationers were not infrequently employed. If the proposed directory were instituted, then patients going into the nursing homes ought to have the right to see the list of the qualifications and experience of the respective nurses to be set apart for their care.

The Earl of CREWE, in reply, said that among those who urged registration of nurses by the State were some whose opinions certainly could not be ignored. It was impossible, he said, to pass over the conclusions arrived
at by the Committee which sat in 1904 and 1905. H
was bound to say that the report of that Committee mus
have due weight attached to it. He thought it wa
scarcely fair to the advocates of State registration to sa
that they contended that the fact of a nurse's name bein
on the register would be a Government guarantee tha
she was efficient. His recollection was to the effect tha
so broad a proposition as that was not put forward, bu
the hope was expressed that registration might lead t
improved methods of education, and some though
it might enable the public to dispense with pe
sonal inquiries when employing nurses. In his opinio
there was little, if any, analogy between the registratio
of medical men, or even of midwives, and the propose
registration of nurses. He assured the deputatio
that the various objections which had been raised woul
have due weight when the matter was considered, and h
observed that their position was strengthened by reaso
of the alternative proposition for a directory that ha
been put forward. He was obliged to tell them that
was impossible for the Government to take up th
matter during the present session. There was, h
thought, before Parliament a Bill for the registra
tion of nurses, but he did not know if the deputa
tion had any idea of putting forward a Bill embody
ing their views. As their opponents had a Bill befo
Parliament, he thought it might be advantageous fo
the advocates of an official directory to present a Bil
It was open for those who represented the deputation
get a member to introduce a Bill asking the Privy Counc
to start an official directory of nurses. He did not thin
that there was much chance of immediate success in th
House of Commons, but he pointed out that the House
Lords was open to discussions of a somewhat abstra
character, and it was exceedingly desirable that the matt
should be discussed.

Mr. HARBEN thanked the Earl of Crewe on behalf of th
deputation, and remarked that the Central Hospita
Council for London would very carefully consider th
suggestions made in regard to presenting a Bill
Parliament.

THE PATHOLOGY OF LOUPING-ILL AND BRAXY.

THE Board of Agriculture and Fisheries has issued th
Report of the Departmental Committee appointed
December, 1901, to inquire into the diseases of shee
known as "louping-ill" and "braxy." The Committe
consisted of Professor D. J. Hamilton of Aberdeen, wh
acted as Chairman; J. McI. McCall, Esq., Assistant Vet
rinary Officer to the Board of Agriculture; and E.
Wheeler, Esq. For the bacteriological part of the researc
Professor Hamilton is solely responsible. The report
the Committee consists of three parts. Part I gives
general account of the results of the work; Part II co
tains the detailed records of the investigations; an
Part III provides a general summary, intended for the u
of flock-owners and farmers who may not be able to follo
the more technical language of Parts I and II. Qui
apart from its practical importance for sheep-dealers, th
report contains much scientific information which is
general interest as a study in pathology; we therefo
summarize those results of the investigation which
likely to be of particular interest to our readers.

I.—LOUPING-ILL (CHOREA PARALYTICA OVIS).

General Features of the Disease.

Louping-ill appears to be confined to the Britis
islands. It is very prevalent in the West and South
Scotland and the North of England, and is also sa
to be fairly common in parts of the north-west coast
Ireland. Sheep feeding in infected areas are liable
this disease at all ages, but more especially during the
first year, and other animals—such as cattle, pigs, an
even geese—are occasionally attacked. The mortali
amongst sheep may rise as high as 50 per cent., thoug
it does not commonly exceed 20 per cent. There are tw
main types of the disease—the chronic and the acu
In the former the sheep is usually convulsed at fir
and afterwards more or less paralysed, and may
for weeks unable to rise. The appetite may n
fail entirely, and ultimate recovery, though very ra
is possible, but may be accompanied by permane
paralysis of one or more of the limbs. In acute cas

e disease leads to a fatal issue in a few hours with mptoms of blood poisoning. There is also a variety the disease in which the symptoms present a remark- ly close resemblance to those of tetanus.

Discovery of the Causal Agent.

At first the investigators were unable to discover any ecific signs of the disease, though they made a large mber of careful *post-mortem* examinations on the bodies sheep which had been fatally infected. They found at all, or nearly all, the organs were healthy, and, with e exception that in most cases there was some excess of id in the peritoneal cavity, there was nothing to attract tention. The blood was free from any organism, and all oculations made with it failed to convey the disease m one sheep to another. But microscopic examination the peritoneal liquid led to the discovery of a large cillus with a marked tendency to develop spores. This ganism could not always be detected by direct exami- tion of the fluid, but after the liquid had been incubated r twenty-four hours it was invariably present in enormous mbers. Professor Hamilton calls the organism the *acillus choreae paralyticae ovis* (Hamilton), and describes it a "large coarse-looking rod, sometimes elongating to a thread, or, it may be, a chain of rods." The breadth the organism is over 1 μ; its length is very variable, ving to the almost invariable presence of involution rms, and may be given roughly as ranging from 4 μ or ss to 12 μ or more. The ends of the bacillus are rounded, d it possesses a feeble motility, though no cilia have en demonstrated. Spores are very readily formed, the ore being located either at the centre or at one end; d occasionally drumstick forms are produced, indis- nguishable from those of *Bacillus tetani*. The organism a strict anaërobe, and grows on various media, but most aracteristically on alkaline glucose broth and glucose latine covered with oil. The broth becomes turbid ter four or five hours' incubation at 38° C.; if removed m the incubator after four days' growth, the culture ttles down at the bottom of the tube as a fine grey pre- pitate which does not agglomerate in a granular form r become attached to the side of the tube. During the ocess of germination, a gas is evolved which has a trefactive odour.

Inoculation experiments upon healthy sheep have finitely established the fact that this bacillus is the tual cause of louping-ill. Subcutaneous inoculation, ther of peritoneal liquid which has been incubated for enty-four hours, or of a culture grown artificially, usually lls a sheep within a few hours, with much swelling of e limb inoculated.

For a long time it was not clear how the bacilli suc- eded in reaching the peritoneal cavity. Eventually the vestigators had the opportunity of investigating a mb which, when brought to them, presented the typical atures of louping-ill in an acute form. On *post-mortem* amination it was found that, although the tissues and vities of the body were free from the bacillus the intes- e was swarming with it. Following up this clue as to e natural habitat of the organism, it was made out by a ng series of experiments that the bacilli or their spores, ich are highly resistant, are taken up by the mouth en feeding, and thus pass into the alimentary tract. ere they remain and multiply, being evacuated in quan- ies with the dejecta, but not necessarily injuring the imal.

Susceptibility and Immunity.

This apparent anomaly that the bacilli are sometimes ghly pathogenic, but at other times quite innocuous, s cleared up by a very interesting discovery. It was nd that if the blood of a healthy sheep was inoculated th the bacillus in question, and incubated anaërobically body temperature, very different results were obtained at fferent seasons of the year. In the spring, when the uping-ill disease is rife, the organisms as a rule grew ely upon the blood, whilst at other times of the year e blood destroyed the bacillus, this bactericidal action ing particularly well marked during July and August. ence it appears that, owing to the protective action of e blood at certain seasons, the bacillus may live and ultiply within the intestinal tract without causing any jury, since it is unable to retain its vitality within the ing tissues of the intestinal wall. But in the spring is protective influence of the blood is lost, and the bacillus, readily penetrating the intestinal barrier, is able to set up fatal disease in animals which have ingested the bacillus for the first time. If, however, the sheep when grazing pick up the organism during the period when the blood possesses its bactericidal influence, they not only escape infection but acquire immunity, so that when the period of danger subsequently arrives they are still able to successfully resist the attempts of the bacteria to penetrate the intestinal walls.

Properties of the Bacteriolysed Organisms.

Having ascertained that the blood of the sheep is actively solvent to the organism of louping-ill at certain times of the year, the investigators thought that this method of breaking up the bacillus might prove an excellent means of liberating the toxins which are evidently contained in the substance of the organism. Accordingly a broth culture of the bacillus was bacteriolysed by sheep's blood, the material was passed through a Berkefeld filter, and the clear, germ-free serum was used for inoculation into a healthy sheep. The animal remained apparently well for twelve days, but then became very ill, its condition resembling that of animals suffering from the tetanic form of louping-ill. Later on it passed into a condition of complete tetanus, in which it died. The authors think they can exclude the possibility of any chance contamination with the actual bacillus of tetanus, and therefore regard it as probable that the condition produced was due to the action of the liberated toxin which they had obtained from their culture of the louping-ill organism.

II.—BRAXY (MORBUS SUBITARIUS OVIS).

General Features of the Disease.

Braxy is prevalent in many parts of the British Islands, and causes severe losses in Iceland, the Faröes, and the West Coast of Norway. Professor Hamilton points out that wherever the influence of the Gulf Steam is felt braxy may be found. In this country the most important centres of the disease are the West and South of Scotland, where the losses caused by it are extremely severe; the death-rate is often 20 per cent. among the first year's sheep, and may at times amount to almost total annihilation. Sheep under one year are the chief sufferers from it, and those that are in the best condition are generally attacked. The mutton is eaten with impunity by shepherds, their dogs, and other domestic animals. The disease runs a remarkably rapid course; in fact, the first intimation is generally the finding of the dead animal. Putrefaction appears to set in immediately after death. Under natural conditions, therefore, opportunity is seldom afforded for studying its symptoms, but all accounts agree in describing the first symptoms to be a short, quick step, followed by unsteady gait, and a tendency to lie down and get up suddenly.

The Cause of the Disease.

It has been known for several years that the disease is caused by a specific bacillus, which is found after death in the liquids and tissues of the body, and also in the ulcerated patches of the mucous membrane of the fourth stomach. But to the present Committee the credit is due of fully establishing the fact that, as in the case of louping-ill, the intestine is the great breeding ground of the parasite. The peritoneal fluid, in consequence, becomes infected very readily, and at the time of death is permeated with the organism. The usual course followed in natural infection is that the spores of the parasite are ingested with the fodder, they germinate in the stomach and intestine, and, if the animal is in a susceptible condition, pass into the peritoneal cavity, or are absorbed by the blood and distributed to the viscera. The soil becomes contaminated from the manure and carcasses, for both are saturated with the spores of the organism, and the spores are again taken into the alimentary canal of fresh animals in grazing. The organism was first described by Nielsen in 1888, and is a bacillus which is distinguished from the bacilli of louping-ill, malignant oedema, and other diseases of this class by its comparatively small size and delicacy of contour. Its breadth is about 1 μ, and its length varies from about 2.8 μ to 7 μ. It spores very readily. The spore is smaller than that of other organisms which might be confused with it, and is brown in colour, highly refractile, and located towards the end of the rod. It is a strict anaërobe, and grows abundantly at 37° C., with copious evolutions of gas, in alkaline glucose broth and glucose agar. But the most distinctive cultures, though slower in formation, are those obtained in glucose gelatine, incubated at 21° C.

Susceptibility and Immunity.

So far as is known, braxy is a disease which affects no other animal than the sheep. The Committee have seen dogs devouring braxy carcasses, and have seen the offal from these carcasses thrown out to poultry; moreover, braxy carcasses are used as food by the native population. But in no case has it been found that any harm has resulted from the consumption of this material. Like louping-ill, braxy is a seasonal disease, the period of its prevalence being from November to February. During this season the blood of the sheep is an excellent medium on which to grow the organism, but at other seasons—spring to late autumn—sheep's blood is completely bactericidal to it.

III.—PREVENTIVE TREATMENT OF LOUPING-ILL AND BRAXY.

A long series of experiments was undertaken with the object of discovering whether these two diseases could be prevented by subcutaneous inoculation of their bacilli. The results, however, were disappointing. No immunity was conferred, the sheep became enfeebled, and sometimes the experiment caused the death of the animal. It then occurred to the Committee that, as the natural habitat of the bacteria was the intestine, better results might be obtained by "drenching," that is, introducing the organism by the mouth. This method has proved highly satisfactory. It produces no discomfort or loss of condition and appears to be remarkably successful in the establishment of immunity. It must, of course, be borne in mind that the treatment can only be employed at the time of the year when the animal is insusceptible; if the wrong time is chosen, the disease may be communicated and death may ensue. The drench is prepared by incubating the specific bacteria on glucose broth; a small quantity of this is mixed with water and administered to each sheep by the mouth, a second dose being given a week or a fortnight later. The following are two very striking examples of the success of this method. On land which was so highly infective that a death-rate of 20 per cent. would have been considered low under ordinary conditions, 1,340 sheep were allowed to graze, during the dangerous season, after they had been drenched with the louping-ill bacillus. Of these animals only one developed the disease. Again, on equally infective land, 1,545 sheep were pastured after they had been drenched with the braxy virus, the result being that only nine cases of the disease developed, and at least three of these were doubtful.

IV.—CONCLUDING REMARKS.

Whilst the instructions given to the Committee were that they were to investigate two diseases of the sheep,—louping-ill and braxy—their inquiry has led to the discovery that these form only two members of a highly-interesting group of contagious diseases, only imperfectly recognized hitherto, to which the sheep is liable. The investigators include amongst these allied diseases "blackquarter," "struck," "malignant oedema of the sheep," "Disease 'A,'" and "Disease 'B,'" and have observed that a disease which is evidently a member of the same class prevails amongst deer during the spring. Pathologically considered, these diseases form a very interesting group. They are all of intestinal origin, and each is caused by an anaërobic bacillus exhibiting specific poisonous effects, while the various bacilli have evidently a close mutual relationship. The facts brought to light during the course of the inquiry, more particularly the seasonal variations in the bactericidal properties of the blood and the method of effecting immunization through the intestinal tract, are of general scientific interest, and may help to throw new light on the pathology of some of the contagious and infectious diseases, both of man and of the lower animals.

THE third edition of the Belgian *Pharmacopoeia* received the formal approval of the King by a decree dated April 10th, 1906. It comes into force on November 1st.

LITERARY NOTES.

PROFESSOR OSLER is, we understand, preparing a ne
edition of *Æquanimitas* which will contain some ne
papers and addresses.

Professor Halliburton writes, with reference to a para
graph on proteid nomenclature which appeared in thi
column in the BRITISH MEDICAL JOURNAL of June 16th:

> I see that you have printed in your Literary Notes this wee
> a report of the Committee which was appointed by th
> Physiological and Chemical Societies to consider the questio
> of proteid nomenclature. It is rather unfortunate that th
> report should have been published prematurely, for studen
> and others may think that the new terms proposed have bee
> adopted and authoritatively recommended by the two societi
> concerned. The report at present is being considered by thes
> societies, and it is quite possible that the final recommenda
> tions may be different from those you have published.

To the ears of ancient Romans the word *immunitas* co
veyed primarily the idea of exemption from the publ
duties (*munus*) which burdened the private citizen fro
taxes. But as early as the first century of our era th
word had acquired a meaning closely akin to that whic
it has in the language of modern medicine. In th
Pharsalia, Lucan, speaking of Cato's African campaign, ha
occasion to refer to the Psylli, a native tribe, in which h
says immunity against the effects of snake poison wa
hereditary:

> Natura locorum
> Jussit ut immunes mixti serpentibus essent.
> Profuit in mediis sedem posuisse venenis
> Pax illis cum morte data est.

The possession of this immunity was used as a test
purity of descent, for it was not supposed to be tran
mitted by a mother who had been impregnated by
stranger:

> Fiducia tanta est
> Sanguinis: in terras parvus cum decidit infans,
> Ne qua sit externae Veneris mixtura timentes,
> Letifera dubios explorant aspide partus.
> . . . . . . sic pignora gentis
> Psyllus habet si quis tactos non horruit angues,
> Si quis donatis lusit serpentibus infans.

The Psylli had also charms to drive away snakes fro
camping grounds and could cure snake bites in strange
by the application of their saliva, or if this failed, by suc
ing the poison out of the wound. On this subject Plin
in Philemon Holland's version, says:

> And *Varro* testifies that even at this day there be some the
> who warish and cure the stinging of serpents with their spittl
> but there are but few such, as he saith *Agatharcides* writ
> that in Affrick the Psyllians (so-called of King *Psyllus*, fro
> whose race they were descended, and whose sepulchre or tom
> is at this day present to be seene in a part of the great
> Syrites) could do the like. These men had naturally that
> their own bodies which, like a deadly bane and poyson, wou
> kill al serpents: for the very aire and sent that breathed fro
> them was able to stupifie and strike them starke dead. A
> by this means they used to try the chastitie and honestie
> their wives. For so soon as they were delivered of childre
> their manner was to expose and present the silly babes ne
> borne, unto the most fell and cruell serpents they cou
> find: for if they were not right, but gotten in adultery, th
> said serpents would not avoid and fly from them. This natio
> verily in generall hath been defeated and killed up in mann
> all by the Nasamones, who now inhabit those parts where
> they dwelt: howbeit a kind remains still of them, descend
> from those that made shift away and fled, or else were not pr
> sent at the said bloudy battell, but there are very few of the
> at this day left. The Marsians in Italy at this present co
> tinue with the like naturall vertue against serpents: whom bei
> reputed for to have descended from ladie *Circes* son, the peop
> in this regard do highly esteem, and are verily persuaded, th
> they have in them the same facultie by kinde. And what gre
> wonder is this, considering that all men carry about them th
> which is poyson to serpents: for if it be true that is reporte
> they will no better abide the touching with mans spittle, tha
> scalding water cast upon them; but if it happen to lig
> within their chawes or mouth, especially if it come from
> man that is fasting, it is present death.

With the dawn of scientific medicine, these statements
to the immunity of certain African tribes in regard
snake poison were put aside as fables, and it is on
within the past few years that the element of truth
them has come to be recognized.

Benjamin Franklin, though a native of Boston, was
citizen of Philadelphia by adoption, and there, as th
New York Medical Journal reminds us, he made his rep
tation as printer, journalist, diplomatist, statesma

hilosopher, humorist, and man of science. It was tting, therefore, that the American Philosophical Society, hich has its head quarters in the City of Brotherly Love, hould have arranged to celebrate the two-hundredth nniversary of Franklin's birth with appropriate ritual. t a public meeting held on April 17th, the President of he Society, Dr. Edgar F. Smith, delivered an address, fter which the praises of Franklin were sung by delegates f scientific societies and universities in various parts of he world. Professor G. H. Darwin represented the Uniersity of Cambridge; Professor Simon Newcomb, of Yale, poke in the name of the Padua Royal Society of Sciences, etters, and Arts; Mr. Andrew Carnegie, as Lord Rector f St. Andrews, expressed the sentiments of that ancient eat of learning, which conferred the degree of Doctor of aws on Franklin in 1759, and Dr. Alois Brandl presented ddresses from the University of Berlin and the Prussian oyal Academy of Sciences. On the following day, there as a further outpouring of eloquence by President C. W. liot of Harvard, Mr. H. H. Furness, and Mr. J. H. hoate. A portrait of Franklin, which had been removed om his dwelling in Philadelphia during the British ccupation, was magnanimously returned by Earl Grey, nd a gold medal struck in memory of Franklin was preented to the French Republic through its ambassador, . Jules Jusserand, through Mr. Elihu Root, acting on ehalf of the United States Government. Memorial Exercises" at Franklin's tomb, a reception and a banquet the delegates were among the other features of the lebration.

The prize of 100 guineas offered by Dr. J. P. Steele of lorence for the best essay on humanism as illustrated y the life and work of George Buchanan, the quaterentenary of whose birth is to be celebrated this year, has een awarded to Mr. Thomas D. Robb, English master at aisley Grammar School. Dr. Steele is well known both a physician and as a scholar and a graceful writer of atin verse.

The *Journal of the Malaya Branch of the British Medical ssociation* for December, 1905, contains a plea by r. C. W. Daniels for the scientific study of native drugs nd poisons. One of the best known of the active poisons the "tuba root," *Derris elliptica.* The effect of the rushed root used alone or mixed with lime, as is the ative fashion, in stupefying or killing large fish, is menoned by every writer in Malaya. But Dr. Daniels says it not so well known that it is of great value in dealing ith animal pests which are now recognized to be vehicles many human and animal diseases. At Perak, Wright sed the root most successfully for the destruction of bedugs in the gaols; it also destroys ticks on dogs. On rvae and other forms of animal life in water it is most fective. The protozoa, both amoebae and flagelta, are rapidly destroyed. Under the influence the root, rotifera, nematode larvae, and the smaller ematodes become motionless in a few minutes. nsect larvae are destroyed less rapidly but in ost cases within a few hours. A fragment of e crushed fresh root can be used effectively under all rcumstances where kerosene can be used, as in small ools, cesspits, and artificial receptacles, and the results e obtained more conveniently than by that agent and cheaply, and with less prolonged ill-effect on the ater. Pupae are not affected to the same extent. On cteria and fungi there is no permanent effect, though e mobility of many organisms is destroyed or reduced. he active agent is apparently in the milky fluid which n be expressed from the fresh roots. The chemical ture of the substance or substances contained in the ot has not, as far as Dr. Daniels knows, been investiated. Several drugs are used by natives for the cure of ysentery and other intestinal diseases. Such substances, ys Dr. Daniels, are often of little more value than any of the astringents at present adorning the *British harmacopoeia*, but the effect of some—such as the ell of the mangosteen—certainly does not depend on e amount of tannic acid contained. The definite oisons, such as Ipoh and Rugis, may contain sufficiently ntrollable ingredients to be of distinct medical value. r. T. C. Avetoom deals with native ideas as to the causaon and treatment of disease; Major John Ritchie, A.M.C., relates some personal experiences in the outh African war, and Dr. T. Hill Jamieson gives the npressions formed during seven and a half years' eye work in the Straits. Reports of cases are contributed by Lieutenant-Colonel W. Dick, and Drs. M. Watson, S. Lucy, G. D. Freer, S. Sheppard, L. Hoops, A. J. McClosky, and G. A. Finlayson. Altogether the *Journal* is a valuable and interesting record of sound work.

In a thesis for the doctor's degree recently presented to the University of Paris, Dr. A. Lebrun deals with empiricism and popular remedies, not from the standpoint of the superior person who sees nothing in those things but folly and superstition, but that of one who seeks to discover what good may be hidden in them. The country folk, he says, derive their notions of anatomy, like pre-Vesalian professors, from the bodies of swine which they kill, cut up, and cure. There is much interesting matter in the essay concerning the simples in which peasants place reliance. We have no space to give examples, but we cannot refrain from quoting the following remarkable prescription: A Norman peasant who was suffering from various symptoms rather vague in character, consulted a quack who had the reputation of being a sorcerer. He was told to mow the grass of his field over an area of several metres square, to fill a barrow with the grass, then to take a handful of it and make a *tisane* which he was to swallow. Dr. Lebrun thinks the sorcerer may have thought that among the various herbs included in the mowing there might have been one that would prove remedial. After all, the reasoning is the same as that of practitioners whose prescriptions are like charges of small shot fired at the disease in the hope that one of them at least will reach the right place. The "sorcerer" might plead the authority and example of learned physicians of old whose famous "theriaca" at one time contained seventy or more ingredients.

THE GIRGENTI INEBRIATE REFORMATORY.—The report of this institution for 1905 is as unsatisfactory to the medical critic of such institutions as it was last year. The question may still be asked why the results at the Girgenti Home fall so far short of those of English reformatories, seeing that it would be almost impossible for the English material to be worse than it is. The Girgenti Reformatory has provision for the reception of 58 inmates. During the year its quarterly average of patients has never been more than 35. Nevertheless, during the year 14 patients have escaped, the escapes numbering altogether 26, one patient having been allowed to escape five times. The managers ingenuously remark that the number of escapes is no doubt accounted for by the absence of walls and the restlessness of "a few" of the inmates. They do not mention any steps taken to control the persons committed to their charge in a more adequate manner. As regards discharged inmates, two tables of results are given. During 1904, 29 persons were discharged. Of these, 17 have relapsed, 4 are said to be doing well; of the rest, 8, nothing definite is stated. In 1905, 16 patients were discharged, 3 had done well, 2 having left in the last quarter of the year, 6 had relapsed, and in 6 cases nothing is conveyed by the statements in the report, which are merely "married," "mentally weak," "on the down grade," "hopeless." But out of 45 patients who have been under control for three years, we have 7 doing well, 23 relapsed, and of 15 no definite intelligence. The medical officer in his report says: "Several patients have been inmates in the Mental Hospital, Glasgow, and a few were previously discharged from a lunatic asylum." He enumerates his "borderland" cases as "a few." Figures might well have been given on this important point. Nothing whatever is conveyed to the medical mind as to what classes of patients were found the most curable. For instance, there is no report that one inmate who is indicated as "mentally weak" has been in trouble since her discharge through drink, though she has been twice in trouble, but for other offences, and yet another patient has since discharge been convicted not for drink but for other offences. The medical officer has had no more encouraging results with a definite method of treatment which he tried in 1904. After "making an exhaustive inquiry at home and abroad" as to secret drug treatment, he found himself unable to recommend any of these drugs. Last year he was, however, persuaded by a gentleman to try the administration of atropine sulphate on 22 patients. He reports that the patients suffered more or less from the same symptoms under the drug. Three patients afterwards discharged did not relapse, 11 relapsed, 8 are still under detention. On looking at the home account in the financial statement, we find the following item: Special Cures for Inebriety, £40 1s. 8d. From a practical point of view, we should have been interested to hear more details.

Ireland.

PRESENTATION TO DR. C. K. DARNELL, BANGOR.

IT must have been with the keenest pleasure and gratification that Dr. Darnell took his part in the presentation made to him in the Dufferin Memorial Hall, Bangor, on the evening of June 12th; this pleasure was no doubt not a little enhanced by his consciousness that every member of the profession in Ulster thought him worthy of the high honour, and shared deeply in his satisfaction.

The chair was taken by Lord Clanmorris, who explained the object of the meeting and mentioned some of the facts of the recent prolonged lawsuit, and the great trouble and anxiety it had entailed on him. He bore testimony to Dr. Darnell's high qualities not only professionally in private practice and towards the poor in their cottage hospital, but also as a self-sacrificing friend of all who knew him.

At the request of the Chairman, Mr. S. C. Davidson read the address, and Dr. Darnell replied. Mrs. Davidson (Honorary Secretary and Treasurer) then presented the address. The Dowager Marchioness of Dufferin and Ava then said: "Dr. Darnell, I have great pleasure in presenting you with this rose bowl, which the subscribers wish you to accept as a token of the kindness and sympathy with which you are regarded by all your friends and patients."

Lady Clanmorris then presented the purse of 100 guineas, with every wish for future good luck.

Many other speakers expressed the warmest satisfaction in taking part in the proceedings, and all made manifest in an unmistakable manner their deep sympathy with Dr. Darnell.

The illuminated address is on vellum pages, and has all the excellence in design of the best mediaeval and Renaissance MSS.; the binding is of deep fawn-coloured morocco, and the cover is decorated with a Celtic interlacing pattern, a hand in the centre containing the initials C. K. D. The first page contains the title, the second the address itself, then follow 150 autograph signatures, commencing with Harriett Dufferin and Ava. The beautiful silver rose bowl bears the inscription: "Presented to Charles Knapp Darnell, L.R.C.P. and S.E., by his patients in Bangor and neighbourhood as a token of their esteem for him personally and professionally. 12th June, 1906."

The following written reply has been made:

[REPLY.]

Lord Clanmorris, Ladies, and Gentlemen,—I cannot command words adequately to express how sincerely I thank you for the great and thoughtful kindness you have shown me at the present time.

I value this beautiful Address and this costly Presentation for two special reasons.

Firstly, because it is (as you describe it) "a token of your personal regard and esteem," and, secondly, because it means to me a practical reversal of the verdict recently recorded against me.

I feel very thankful to know that an attempt so calculated to injure my professional character has so signally failed, inasmuch as those most interested in the result (namely, my own patients past and present, rich and poor) have "from personal experience and opportunities of judging" now come forward to assure me of their "entire confidence."

I thank you most heartily for your kind reference to my work in connexion with the Cottage Hospital, and for your kind expression of goodwill to Mrs. Darnell and myself, which I can assure you we not only now but always shall deeply appreciate.

I have the honour to remain, sincerely yours,

CHAS. DARNELL.

The following further subscriptions towards the fund to defray Dr. Darnell's expenses in Tughan *v.* Darnell have been received up to June 16th:

	£	s.	d.
Sums already acknowledged	208	0	6
Sir William Whitla, M.D.	10	10	0
Mr. A. B. Mitchell, F.R.C.S.I.	10	10	0
Dr. J. J. Austin ...	3	3	0
Dr. Chas. W. Cathcart, Edinburgh ...	1	1	0
Capt. R. J. Mackeown, M.D., R.N.... ...	1	0	0
	£234	4	6

Cheques may be made payable to the Hon. Treasurers, Dr. Leonard Kidd, Enniskillen, or Dr. Wm. Calwell, 1, College Square North, Belfast.

ULSTER MEDICAL SOCIETY.

The annual meeting of the Ulster Medical Society was held in the Medical Institute, Belfast, on June 14th. Dr. Wm. Calwell, President, occupied the chair. The annual report of Council was submitted by the Honorary Secretary, Dr. Thos. Houston; the annual statement of accounts by the Honorary Treasurer, Dr. Fielden, and the library report by the Honorary Librarian, Dr. Storey. All three having been discussed, were unanimously adopted. The statement of accounts showed a credit balance of £150 9s. 11d. This is about £5 less than that with which the year was begun. There had been, however, several excessive calls for expenditure.

On the suggestion of Sir William Whitla it was agreed that it be a direction to the Council to invest £100 of this balance. There was considerable discussion as to the unsatisfactory working of the library. The Honorary Librarian reported that comparatively few Fellows and Members made use of it, and that many still took out books without entering them in the prescribed manner.

On the recommendation of the Council, the following change in the By-laws was passed: That in lieu of the present rule as to the tenure of office by the President, the following be substituted: "That the President be elected annually."

The following officers were then elected: *President*, Dr. D. P. Gaussen, Dunmurry; *ex-President*, Dr. William Calwell, Belfast; *Vice-Presidents*, Dr. W. B. McQuitty, Belfast, and Dr. Howard Sinclair, Rostrevor; *Honorary Treasurer*, Dr. Victor G. L. Fielden, Belfast; *Honorary Librarian*, Dr. W. L. Storey, Belfast; *Honorary Secretary*, Dr. Howard Stevenson, Belfast; *Editorial Secretary*, Dr. J. C. Rankin; *Members of Council*, Sir William Whitla, Drs. J. R. Davison, Thomas Houston, H. L. McKisack, T. A. Davidson, and Mr. Andrew Fullerton.

At the same meeting Dr. H. H. B. Cunningham, of Belfast, was elected a Fellow, and Drs. W. J. Wilson and A. A. W. Merrick, both of Belfast, Members.

PUBLIC HEALTH CONGRESS AT CORK.

The arrangements in connexion with the Annual Congress of the Royal Institute of Public Health, which will be held in Cork from June 27th to July 3rd, are now practically complete.

For the business proper of the Congress the Queen's College, Cork, has been kindly placed at the disposal of the Reception Committee by the Council of the College. On Wednesday, June 27th, the Lord Mayor, Mayors, and delegates will assemble in their municipal or academic robes, and march in processional order from the Municipal Buildings to Queen's College. On arrival there the inaugural meeting will be at once held in the large Examination Hall, and the President, Professor B. Windle, M.D., D.Sc., will deliver his address. In the evening the City High Sheriff will give a reception to the delegates and others at the New Town Hall. On Thursday, the sections, of which the following is a list, will commence: (*a*) Preventive medicine, (*b*) child study and school hygiene, (*c*) engineering and architecture, (*d*) bacteriology and chemistry, (*e*) veterinary hygiene.

The entertainments include three garden parties at Fota, Windsor, and Blarney, trips down the Lee and round the harbour, a water carnival and Irish concert, and on the Saturday excursions to Killarney, Glengariff, and Lismore, where his Grace the Duke of Devonshire will provide luncheon for one hundred visitors in the great hall of the Castle.

The Committee has made arrangements with the different railway companies whereby easy and cheap access can be had to the principal beauty spots, including Killarney, Glengariff, and Lismore, etc.

Scotland.

BALDOVAN ASYLUM FOR IMBECILE CHILDREN.

THE jubilee report of this asylum, which claims to be the first institution for imbeciles in Scotland, and the second, as regards date of foundation, in the British Empire, contains an interesting narrative, from the pen of the Medical Superintendent, Dr. C. M. Greig, of the rise and progress of the movement for the care and training of mentally-defective children, dating from the middle of the last century. Early in 1853 Sir John and Lady Jane Ogilvie took steps to found "an orphanage or hospital for orphans and imbecile children," with the idea that when the imbecile ildren reached a certain stage of cure, their association in play with the orphans would help to raise them wards the normal development, an idea, however, which bsequent experience proved to be erroneous and imacticable. The two institutions, indeed, continued to ist side by side till 1901, when the orphanage was moved to another site, but in the meantime the imbecile stitution was considerably enlarged, and from 17 pupils the school at the close of 1858 the licence was extended 40 children in 1867, and to 52 in 1870. In 1892 the pils numbered 72, and in 1902 a licence was granted for 0 children. A new building had previously been erected a site at Balneydown Farm, and a legacy of £7,000 portunely becoming available in 1904, the directors creased the accommodation, which at the present time available for as many as 160 children, with staff.

In the fifty years of its existence 676 children have ssed through the institution, and of this number 212 recorded to have been discharged relieved, 58 not improved, while as many as 256 have died. This high ortality, equivalent to about 37 per cent., is in marked ntrast with the death-rate of the English idiot institu-ns, in which a mortality of 5 per cent. would be conlered large; but it must be borne in mind that the rectors of the Baldovan Asylum, unlike those of the glish institutions, have resorted to little, if any, selecn of cases, throwing open their doors widely to all sorts d conditions of defective children, not excluding ileptics. The rates of board are extremely moderate, 7 per annum for first-class patients, £31 for second ss. and £28 for third class, including clothing.

Sir Henry Littlejohn's Annual Report.

General Statistics.—The population of Edinburgh for the ar 1905 was 336,577 (153,331 males and 183,246 females); area of the city was 11,416 acres, thus there were 29.48 rsons to each acre. There were 70,056 inhabited houses d 3,820 unoccupied habitable houses. There were 18 marriages, 7,741 births (giving a birth-rate of 22.99), d 4,799 deaths (a death-rate of 14.25). The infantile rtality showed 966 deaths under one year, or 124 per 00 births. The zymotic death-rate was 0.97 per 1,000. e estimated increase of population was 4,600, but the tural increase—for example, the excess of births over aths—was 2,942.

The Birth-rate has fallen continuously during recent ars, and a special table shows how unfavourably Edinrgh compares with the other large towns of Scotland d England in this respect. In Scotland, Edinburgh nds lowest with 22.9, Perth standing next lowest with 0, while Greenock and Glasgow head the list with 30.5 d 30.0. There is only one large English town reported h a lower birth-rate in 1905 than Edinburgh—namely, adford with 21.0. A graphic chart shows clearly the mentous character of the decline which has taken ce in the birth-rate of the city during the past thirtyee years. In 1890 the birth-rate began to fall below average—namely, 28.8 per 1,000, and ever since then decline has been rapidly progressing.

he Death-rate of 14.25 per 1,000 is the lowest that has r been recorded, being slightly below that of last year. e following death-rates of the last five quinquennia—23, 18.26, 18.17, 17.48, and 15.6—show that this low th-rate is not accidental, but in consonance with a tinuous reduction which has taken place during the t 20 years. The mean annual death-rate for the last 33 rs was 18.3 per 1,000.

auses of Death.—The zymotic death-rate (excluding rrhoea) was 0.97 per 1,000, which is considerably below average rate for the preceding five years, namely, 1.22. phus fever accounted for one death, measles for 103, rlet fever for 15, diphtheria for 61, whooping-cough for , and enteric fever for 20. Of the 210 cases of enteric er which occurred last year, 179 were treated in hosal, and of these 9 died, or 5 per cent., whereas the rtality amongst the remaining cases was 35 per cent. erperal fever caused 9 deaths, epidemic diarrhoea 5, iple "diarrhoea" 36, tuberculous diseases 640, alcoism 36 (23 men and 13 women), and cancer 344 (220 men and 124 men). Diseases of the heart and blood sels caused 850 deaths, diseases of the respiratory ans 707 (bronchitis and pneumonia alone accounted for of these). Developmental diseases were said to have sed 247 deaths, diseases of the nervous system 271, diseases of the digestive system 304, diseases of the urinary organs 156, accident and negligence 129, suicide 38. "Ill-defined and non-specified causes" accounted for 400 deaths—179 per 1,000—as compared with a proportion of 120 deaths of legitimate children per 1,000 legitimate births.

Notification of Infectious Diseases.—Two thousand and twenty-one notifications were received in 1905 as against 2,559 in 1904 and 2,674 in 1903. Typhoid fever is always more prevalent in the old town than in the more modern districts of the new town and southern suburbs. The opposite holds true regarding diphtheria. A graphic table shows how enormously diphtheria had increased during recent years (there were 674 cases in 1905), but the mortality still remained low, being 9 per cent., as compared with 8.3 per cent. in 1904. Only 2 cases of smallpox occurred during the year.

Bacteriological Examinations.—At the John Usher Institute of Public Health 540 specimens were examined for tubercle, 208 for typhoid fever, and 647 for diphtheria, and the results were positive in 173, 77, and 220 cases respectively.

City Hospital.—Two thousand nine hundred and fifty-five patients were treated during 1905 as against 2,817 in 1904; 581 cases were notified as diphtheria, or sent in for "observation." Of these 93 could not be said to be suffering from that infection. The type was less severe than usual. On the other hand, the cases of laryngeal diphtheria appeared to be on the average more severe than is usual in Edinburgh, and a higher percentage of these cases required operation; 42 cases—8.4 per cent. of the whole—developed post-diphtheritic paralysis, a considerably smaller percentage than usual. The enteric death-rate—6.8 per cent.—was very low. Fifty-nine cases of German measles were admitted, and all recovered. Whooping-cough gave a death-rate of 9.3 per cent. out of 172 cases. Scarlet fever gave the remarkably small mortality of 1.7 per cent. Interesting work was done in examining repeated swabs from diphtheria throats. An endeavour was made to secure three consecutive negative cultures before discharging each case.

The report concludes with notes on the inspection of workshops, bakehouses, and dairy cows.

As usual the whole report is full of most interesting and suggestive matter.

The Royal Commission on the Care of the Feeble-minded.

The Royal Commission on the Care and Control of the Feeble-minded held its third and final sitting in Scotland on Wednesday, June 13th, in the Caledonian Railway Hotel, Edinburgh. The Earl of Radnor presided, and the other Commissioners present were: Mrs. Pinsent, Dr. Needham, the Rev. H. N. Burden, Dr. T. Crawford Dunlop, Mr. W. H. Dickinson, M.P., Mr. C. E. H. Hobhouse, M.P., and Mr. W. P. Byrne, M.P.

Sheriff Guthrie (Glasgow) deprecated any multiplication of Government Departments, and could see no reason for removing the care of the feeble-minded from the Lunacy Board. He was very averse to any extension of the powers of town councils, parish councils, or any small local bodies. They were apt to be extravagant in spending public money. Any extension of the powers of lay magistrates in committing persons to long terms of detention was not desirable, and, he believed, would not be popularly approved. An enlargement of the powers of the Sheriff Court to order the detention of confirmed inebriates was most desirable.

Sheriff-Substitute Fyfe urged that in dealing with the feeble-minded they must abandon sentiment and the liberty-of-the-subject bogey, and act in the interest of the community as a whole.

Dr. J. F. Sutherland, Deputy Commissioner in Lunacy for Scotland, was of opinion that the central supervision and control of all feeble-minded persons in imbecile boarding schools, in poor-houses, labour colonies, in inebriate reformatories (whether State or certified), including specially-licensed homes for two, three, or four, should be vested in the General Board of Lunacy. School Boards, with a preference for *ad hoc* bodies for enlarged areas, should have the entire local supervision of feeble-minded children of school age, and in attendance in the elementary schools, whether in special classes or in special schools. The Education Department as the central authority would have the same supervision as they had always had. Feeble-minded children in reformatories, industrial schools, and in training ships should be removed from these institutions to the imbecile boarding schools, or to labour colonies after they ceased to profit either by education or manual instruction, and when that course was inadvisable the pupil should be handed over to the parish authority for care and protection.

Mr. David Crombie, Secretary and Inspector, Prison Commission for Scotland, submitted a statement containing details of the different ways in which mentally defective persons were dealt with by the Prison Commissioners.

Miss Lily Monteagle, Head Teacher of Bridgeton Special School, Glasgow, spoke of the work done in the six schools where mentally-defective children were taught under the Glasgow School Board. There were about 240 children on the united rolls. Boarding schools near some of our large cities for children from rural districts, and where some of the city children who had exceptionally bad homes might be sent, were necessary if the work was to have thorough success.

Dr. McNaughton, medical officer, Perth Prison, gave evidence regarding feeble-minded prisoners.

Mr. Robert S. Allan, Chairman of the School Board of Glasgow, said that the attention of his Board was first called to the question of feeble-minded children at the beginning of 1896, and a return invited for the purposes of this commission showed that there were in the schools 407 children reported to be mentally defective, 22 to be epileptic, and 91 as doubtful. The Board suggested that somewhat wider powers should be given for the care of such children. In many cases it was not desirable that they should go and come from school in the middle of the day, and it would be better, as in the case of physically defective children, that they should be provided with a meal in school. School Boards ought to be given permissive powers to contribute to institutions suited for such children. The Glasgow Association for the After-care of Defective and Feeble-minded Children had recently purchased a home which would accommodate twenty pupils.

This concluded the evidence which the Commission had arranged to hear in Scotland. The remainder of the week was devoted to an inspection of various public institutions in the country.

Liverpool.

THE PREVENTION OF THE IMPORTATION OF DISEASE.

THE annual report of the Medical Officer of Health (Dr. E. W. Hope) to the Port Sanitary Authority of Liverpool gives a summary of the action taken during the year for the prevention of the spread of disease, and furnishes an account of inquiries made as to conditions dangerous or injurious to health, of the proceedings taken under the Public Health Acts in connexion therewith, and of the supervision exercised for sanitary purposes over places and vessels which the Port Sanitary Authority has power to regulate. The total number of vessels paying rates to the Harbour Board during the year ending July 1st, 1904, was 25,000, with a tonnage of 15,600,000. In the year ending July 1st, 1905, there were 25,065 vessels, and almost 16,000,000 tons. The medical officer has power to deal with an infected vessel, so as to prevent the spread in port of such diseases as small-pox, and to deal with the patient, contacts, bedding, etc., before she enters dock. As a rule, however, Liverpool shipmasters and owners, Dr. Hope remarks, are perfectly willing to assist the Port Sanitary Authority in doing all that is necessary to stop infection.

With regard to infectious disease, he observes that plague during the year was practically pandemic, with the exception of Europe. The usual precautions were taken and inquiries made as regards rats. Five cases of sickness with fever or buboes were removed to hospital for further examination, but in no case was the suspicion of plague confirmed. Experienced and reliable rat-catchers are employed at the port to supervise the rat population on board ships from infected ports, noting any sickness or mortality amongst them. These men also trap rats on board such vessels, and these are submitted to bacteriological examination for plague. During the year 6,651 rats were caught and examined. None were found to be infected with plague. Twenty-six cases of enteric fever were during the year landed at the port. This number was much smaller than during 1904, when it was 38, and much smaller than the average for the preceding ten years. Thirteen of these arrived in the port, and those not convalescent were removed to hospital, where they all recovered. During the year five ships brought small-pox into port, but no extension from these imported cases occurred. The infectiousness of phthisis has now been recognised by the majority of ship captains, and where deaths have occurred at sea disinfection has been already done, also beds and bedding thrown overboard before arrival in port. During the year 33 cases of phthisis occurred on board Liverpool-bound ships. Thirty-one cases of beri-beri were reported to the authority. The number of cases of infectious sickness landed from vessels was 73 compared with 99 in 1904, and an average of 86.4 for ten years. The cases reported on Liverpool-bound ships before arrival was 61, against 46 in 1904, and an average of 25 for ten years. Ninety vessels were reported on arrival as having, or having had, zymotic disease on board. Respecting sanitation on vessels, the report states:

> The sanitary conditions under which seamen live on board ship leaves much room for improvement. There has, however, been much improvement during recent years. It is well known that the majority of new vessels and of those built within recent years are well above the minimum standard as regards lighting, ventilation, and other sanitary conditions laid down by the Board of Trade. Many old vessels, like houses, are, however, still to be found, to which, naturally, this standard could not be applied.

The number of emigrants leaving the port has been steadily increasing during the last seven years. The highest figure on record was reached in 1905, when no fewer than 277,536 left, an increase of almost 3,000, as compared with the previous year.

In closing his report, Dr. Hope adds that during the year the port had remained free from forms of sickness leading to quarantine measures in foreign ports.

South Wales.

HEALTH OF CARDIFF.

DR. WALFORD, M.O.H. for Cardiff, has just issued his annual report for 1905. The area of the city is 8,351 acres the estimated population is 175,139. There are, he states 30,197 houses inhabited, 1,316 vacant, and 234 building There is, therefore, no lack of house accommodation. In most of the streets in the centre of the town, however there was overcrowding. The total number of marriages in the city during 1905 was 1,650, compared with 1,563 in the previous year. There was a gradual and progressive decline in the birth-rate in Cardiff. The deaths recorded during the year were 2,443, as compared with 2,740, the average number in the ten years 1895-1904. These deaths were equal to an annual death-rate of 13.5 per 1,000, as compared with 17.2, the average death-rate in the ten years 1895-1904. The death-rate in 1905 was not only considerably below the average, but was the lowest rate recorded since reliable vital statistics were published in 1847. The infant mortality-rate was also the lowest on record—118, as compared with 144 in the year 1904 and with 153 in the ten years 1895-1904. Tuberculosis accounted for 328 deaths. A system of voluntary notification of phthisis had been in operation in the city. Each case was visited, and the consumptives and their families were instructed personally in the precautions necessary for preventing the spread of the infection. Dealing with meat inspection, Dr. Walford says that during 1905 80,558 animals were slaughtered at the Roath and Canton abattoirs, and 84 carcasses weighing 25,859 lb., were seized or surrendered and destroyed as being unfit for food. Most of these animal suffered from tuberculosis, dropsy, jaundice, pleurisy, o swine fever. Other articles of food seized or surrendered included fish, sausages, fruit, corned beef, bacon, tomatoes oranges, pears, and rabbits. Commenting upon this, th medical officer points out that, although the danger o transmitting tuberculosis through the meat may not b very great, and although the inspection met all reasonable requirements in the interests of the consumer, yet at the same time, it afforded an insufficient protection against the introduction of diseased meat from the surrounding districts. Of the 600 samples of milk, butter cheese, coffee, tea, and other articles of food analysed 587 were found to be genuine, the adulterations bein principally in milk. The report deals with municipa dépôts for the supply of milk under hygienic conditions Dr. Walford approves of such dépôts, and adds that i would be worse than useless to establish a dépôt for th sterilization of all sorts of milk from unknown sources All kinds of tinned meat and provisions are subject to inspection, and last year 230 tins of meat were destroyed It was stated at the Health Committee meeting by member that the Cardiff public abattoirs were as well kep as any in the kingdom.

THE OXFORD MEDICAL SCHOOL.

INTRODUCTORY.

ONCE upon a time a fierce controversy arose about the decay of medical studies at Oxford, and it was said that funds left by pious founders specifically for the endowment of the teaching of anatomy and other subjects connected with medicine had been diverted to other uses. On the one hand the voice of mourning went up over the "lost medical school," while on the other scoffers invited the mourners to be comforted, because that which never had been could not well be "lost." It would be unprofitable to revive the memory of these

> Old unhappy far-off things
> And battles long ago.

It may not be amiss, however, to point out that nominally, at any rate, a medical school has existed at Oxford from a very remote period. Degrees in physic were given as early as the thirteenth or fourteenth century. It is true that in mediaeval universities the conferment of degrees did not necessarily imply any previous examination. But at Oxford, at any rate, there was not only an examination, but a regular curriculum.

Medicine in Mediaeval Oxford.

According to Hastings Rashdall,[1] the following may be aken as representing the system in vogue in the fifteenth century: For the degree of Bachelor of Medicine (*Admissio ad legendum librum aphorismorum*) no time was specified. For admission *ad practicandum* in Oxford, Masters of Arts had to study four years and to pass an examination conducted by the Regent Doctors; others were required o study eight years and pass an examination. This right to practise was usually conferred with the M.B. For Licence and Inception, candidates who were Masters of Arts had to study six years. They were required to have ead publicly one book of *Theorica* (that is, the *Liber Tegni* of Galen or *Aphorismi* of Hippocrates) "*pro majori parte*"; o have "read" one book of *Practica* (that is, *Regimenta Acutorum* of Hippocrates, *Liber Febrium* of Isaac, or the *Antidotarium* of Nicholas; to have responded o and opposed in the schools of the Regents for two years. Those who had not the M.A. degree were required o have been admitted to practice under the conditions above stated. Eight years' study in all were required and he candidates must have given the lectures on the works of Hippocrates, Galen, etc., already mentioned. Apparently no further examination was required for admission to the M.D. degree. By a statute of 9, Henry V, Cap. II, the Council was empowered to make regulations for preventing non-graduates practising anywhere in England, but as medical graduates were a mere handful such an ordinance must have been a dead letter.

Among early medical graduates of Oxford may be menioned John of Gaddesden, who was a Fellow of Merton College. It has been suggested by Dr. Norman Moore that he was the original of Chaucer's "Doctour of Physick." Of medical teaching in any real sense there was none either at Oxford or anywhere else in England till long after he "new learning" had led to a revival of the Greek spirit of free inquiry. In the sixteenth century Linacre bequeathed a large sum to the University in urtherance of medical study, but the money was diverted to other uses, though the name of the benefactor survives n the Linacre Professorship of Comparative Anatomy.

The Oxford of Sydenham.

In the middle of the seventeenth century Oxford, according to Dr. Payne,[2] offered but scanty facilities for medical study. There was a Regius Professor of Medicine, whose duty it was to read a lecture twice a week on the text of Hippocrates or Galen. There was no hospital for clinical instruction. There was indeed some regular teaching in anatomy; a readership had been founded by Richard Tomlyn in 1623, and was virtually annexed to the Regius Professorship of Physic. The statutes prescribed one dissection in the course of the year, to be carried out in Lent term, if the execution of a criminal happened opportunely. The students seem to have taken care that they should not be defrauded of their rights, for Hearne relates[3] that in 1721 they took a body by force from the parents who had brought a coffin to bury it, and carried it to Exeter College, where it was dissected. The medical students showed greater desire for anatomical knowledge than the University took any pains to satisfy, and made arrangements for an extra supply of subjects from the gallows at Abingdon and other places in the neighbourhood. How vigorously, indeed, the study of anatomy flourished in Oxford in the seventeenth century is shown by the fact that among those pursuing it are found, within the space of a few years, such names as William Petty, Thomas Willis, Thomas Wharton, Christopher Wren, Richard Lower, Nathaniel Highmore, Scarborough, and Mayow. Perhaps the impulse was given by William Harvey, whom the tide of civil war carried to Oxford; he found anchorage in Merton, of which he was elected Warden in 1645. At Oxford Harvey did much of the research which was embodied in his treatise on the development of animals. The Royal Society to a large extent had its origin in Oxford, and it is noteworthy that some of those most active in furthering the movement were anatomists and physiologists.

In addition to anatomy, botany could be studied at Oxford in the seventeenth century. The Physic Garden, founded by Lord Danby in 1632, was of considerable extent, and contained in 1648 some 600 species of plants, though, according to John Evelyn, there was nothing particularly remarkable among them.[4]

From what has been said, it may be gathered that a student of medicine in the seventeenth century had but scanty opportunities of acquiring professional knowledge at Oxford. He might learn something of the teaching of Hippocrates and Galen from the Regius Professor; a little chemistry, a fair amount of anatomy, and some botany. This may be taken to represent the course of study that Sydenham might have gone through during the short time he was at Oxford, had he cared to avail himself of the opportunities open to him. There is nothing to show that he did so, for he got his M.B. degree by the comfortable process, not uncommon in those days, of "creation." Like all English students of medicine of the time and for long afterwards, he had to seek abroad the professional training which there was no means of getting at home.

Oxford's Medical Benefactor.

Rather less than a generation after Sydenham was created a Bachelor of Medicine, John Radcliffe, after a course of study not much wider, was admitted to the same degree in 1675. His contemporaries said that his medical reading scarcely extended beyond the writings of Willis; that he cared little for book learning is shown by the boast attributed to him that his library consisted only of a few phials, a skeleton, and a herbal. Whatever learning he had he owed entirely to Oxford, for there is no evidence that he studied anywhere else, and no man who ever lived proved his gratitude to his Alma Mater more bounteously, for he left it the greater part of the wealth he had gained by the practice of his art. The name of Radcliffe is writ large in Oxford; it will live as long as the University in the Radcliffe Library, the Radcliffe Observatory, and the

---

[1] *Universities of Europe in the Middle Ages*. vol. ii, Part II, p. 444.

[2] *Thomas Sydenham*, Masters of Medicine Series, 1900. p. 68.

[3] *Collections*, Issued by the Oxford Historical Society.

[4] Payne, op. cit.

University College, Oxford. [From a photograph by J. Soame, Oxford.

Radcliffe Infirmary. To his own College, University, the *Magna Aula Universitatis*, he left large sums for the enlargement of its buildings and for the foundation of two (now three) medical travelling Fellowships. Such of his foundations as are in any sense endowments of medicine will be dealt with under their several headings. We may note in passing, as an interesting coincidence, that John Arbuthnot, the famous wit and the favourite physician of Queen Anne, whom Radcliffe's plain speaking had offended, was for a time a Fellow Commoner of University College. The College can boast of another distinguished medical member in the person of Sir William Selby Church, ex-President of the Royal College of Physicians of London. It may be added that in 1881 Huxley was invited to allow himself to be nominated for the Mastership of the College, but though, as he said, "sorely tempted," he felt bound to decline the proposal. The medical tradition of University College is well maintained at the present day, and the student of medicine will find within its venerable walls a very modern spirit and a most congenial atmosphere.

OTHER BENEFACTORS.

About the middle of the eighteenth century further provision for the teaching of anatomy was made by Dr. Matthew Lee. Under his will, £100 a year, clear of all deduction, was to be paid for the maintenance of a lecturer on anatomy and for the encouragement of that study. The lectureship was not a university office, but was attached to Christ Church, of which Lee had been a student. Only members of Christ Church were eligible; it was not even required that the Reader should be a graduate in medicine, only that he should be a Master of Arts and entered "in the physic line in the University of Oxford" before his election. He was to reside in Oxford for six months every year, and "to take, teach, and instruct no Gentleman Pupil or Pupils in any art or science whatever except Anatomy, Physick, or Botany." He was to give two "regular and compleat courses of anatomy each year, in each of which he was to dissect at least one adult human body and distinctly explain and regularly demonstrate all the bones, viscera, blood vessels, muscles, nerves, and all other parts of the human body with their respective uses." In addition to the stipend, £40 a year was to be paid to meet the expense of making anatomical preparations and of procuring at least two adult human bodies every year. In 1756 a museum and lecture theatre were built within the precincts of Christ Church. In 1803 Dr. George Aldrich left moneys for the endowment of lectureships in subjects connected with medicine. More recent benefactions will be mentioned later.

A DECAYING SCHOOL.

Lord Holland,[1] who entered Christ Church in 1790, tells us something about the Medical School of the Oxford of that day. Dr. Thomas Beddoes lectured on chemistry, but resigned his Readership in 1792, partly owing, it is said, to his declared sympathy with the French Revolution. Christopher Pegge, afterwards Regius Professor of Physic, taught anatomy, but "the protection of the Dean and tutors of Christ Church . . . could never make his anatomical school famous beyond the walls of the University, or popular with the young men within them." He was contrasted, greatly to his disadvantage, with his predecessor, Thompson, who had been expelled the University.

In the first half of the last century science languished more and more in Oxford, and as far as medicine was concerned the University became little more than an institution for conferring the degrees necessary to admit a candidate to the membership of the College of Physicians of London. Even the pretence of teaching anatomy was almost abandoned, and Carus, Physician to the Court of Saxony, who visited Oxford in 1844, scoffed at the Christ Church Museum, the apparatus and the teaching. In 1846, when Sir Henry Acland was appointed Lee's Reader in Anatomy, scientific study of any kind was almost extinct. The University had not a single laboratory for students in any subject. The Regius Professor of Medicine had neither books, drawings, nor pparatus.[1] The professorships of subjects connected ith medicine were so poorly endowed that two or three ad to be combined in the same person to provide a decent alary. Thus the Regius Professor of Medicine as *ex officio* Aldrichian Professor of Anatomy and omlyn's Reader of Anatomy. He had, however, either dissecting room nor museum at his disosal. The edical teachg staff consted of Dr. idd, whose apintments, as ready shown, ight have been scribed as *tria ncta in uno;* r. Ogle, Aldriian Professor the Practice Medicine and linical Prossor of Medine; and Dr. aubeny, Prossor of Cheistry and of otany and ral Economy. e occupants these chairs, l in their veral ways le and earnest n, were made feel that they presented mething eign to the irit and intellectual interests of the University. ience lay under suspicion of heterodoxy, and her taries were few. On resigning the Lee's Readerip, Kidd told Acland that his class then consisted one or two members of Christ Church, and one from other college, with an occasional medical apprentice m the town. me half a zen years er Acland's n class numed twelve to enty, mostly dergraduates, th a few tsiders. So le was the of the microope underod or appreted that it is record that Professor of Practice of dicine on e occasion crewed a rter inch at through object," and another the gius Professor of Medie, after exaing a delipreparation l listening to and's exposin of the details, declared first that he did not believe and secondly, that if it were true, he did not think l meant us to know it!

---

[1] *Further Memoirs of the Whig Party*, 1807-1821.

he attitude of the University towards science was one indifference varied by occasional outbreaks of active truction.

Department of Physiology : Histological Laboratory.

Acland tried to teach histology and embryology by practical demonstrations, but it was soon borne in upon him that the trustees of the Lee's Readership were determined to keep him to the letter of his bond which said he must lecture. Now a "demonstration," though immensely more laborious and valuable, was not a "lecture"; wherefore he must lecture or forfeit his pay.

A REVIVAL.

Against this spirit Acland spent himself in fighting, and it is only bare justice to acknowledge that to him more than to any other man Oxford owes not only its splendid Museum, but to a large extent the breathing-in of a new spirit which has led the University to take its rightful place among the highest centres for the cultivation and teaching of what are called in the Scottish Universities the "Institutes of Medicine." It would be out of place to give a full account of what he did in furtherance of the scientific renascence of Oxford; the story has been well told, though with a touch of the *lues biographica*, by Mr. J. B. Atlay. Acland found the school in a state of suspended animation very nigh unto death. The Professor of Clinical Medicine had only an occasional pupil at the Radcliffe Infirmary. When a student presented himself for examination, the professor must have felt like Swift with his congregation consisting of "dearly beloved Roger"; this event occurred on an average once a year. There were not, says Mr. Atlay, forty men on the books of all the Colleges and halls in Oxford with M.D. or M.B. to their names. It is significant that the candidate for the M.D. degree was allowed such latitude in the choice of the subject of his thesis that it was once said the degree might have been given for a knowledge of volcanoes or for a considerable acquaintance with the atomic theory, or with the botany of Virgil. In short, the Oxford medical graduate of the old type was a gentleman nurtured on the classics, who had picked up a good deal of information about

Department of Physiology : Nerve and Muscle Laboratory.

---

[1] J. B. Atlay: *Sir Henry Wentworth Acland*, p. 134.

things in general; it was fortunate for his patients if to this wide culture he added a little knowledge of medicine.

When Acland was appointed Regius Professor of Medicine in 1857, he found that the Chair carried with it no official status in the Radcliffe Infirmary; this drawback was, however, lessened by the fact that even if it had done so, he would have had no class. Never more than one or two students applied for clinical teaching. The Regius Professor of Medicine, as already said, had no laboratory, no scientific appliances, and no assistants. His duties were undefined; by statute they consisted in reading Hippocrates or Galen twice a week in term time to any one that cared to listen! All the machinery had to be created. In the circumstances Acland could not teach medicine; he set himself, therefore, to the reform of the examinations for medical degrees.

The establishment of the Museum, in 1860, in the teeth of strenuous opposition, was a notable victory for scientific progress. Then there came further signs that Oxford was beginning to be eager to redeem itself from the reproach of being the "home of lost causes." The University recognized that it was its duty to provide proper teaching of anatomy and physiology. In the promotion of this advance, the British Medical Association played a considerable part.[1]

In 1882 the late Sir John Burdon-Sanderson was chosen to fill the newly-established Chair of Physiology. This appointment had far-reaching consequences. Acland was a man of enlightened mind and a strenuous fighter against the academic powers of darkness. Moreover, he was a wise physician and a sound hygienist. But he could scarcely be called a representative of the most advanced medical science. The enemies of progress used every device that petty malice could inspire to hamper the new professor in his work, but they were signally defeated. With the advent of Burdon-Sanderson, Oxford cast away the last shred of mediaevalism, and became a living centre of activity in the domain of medical science. He built the temple. But it was Acland who laid the foundation.

MEDICAL OXFORD TO-DAY.

Enough has been said to show that medical science did not win for itself the place which it now holds in the University without a prolonged and severe struggle. It might have been thought the still academic waters would have been stirred to their depths by the violence of the storm. But the disturbance was after all only on the surface, and as far as the outer world was concerned it was little more than a tempest in a teacup. Hence the misconception that there is no medical school at Oxford worth speaking about is even now too prevalent, not only among the public, but throughout the profession. Indeed, in Oxford itself elderly dons are to be found in whom the mention of the medical school appears to strike no responsive chord, or excites only a faint recollection of the existence of a few more or less distinguished persons who have taken degrees at Oxford. As an illustration of this ignorance may be cited the fact that proctors have been known to become aware of the existence of the medical department for the first time when on coming into office they found it lay within their official purview. On the other hand, among the younger dons, keen interest is manifested in the relations of the University to medicine and to science generally, and not a few of the heads of houses are active in promoting the interests of the medical school.

In view of the great importance to the future of the profession in this country of a close association with the older universities, a representative of the BRITISH MEDICAL JOURNAL recently visited Oxford. He was most courteously received by the professorial body and the members of the teaching staff of the medical school, who explained the scheme of education and showed him the laboratories and workrooms, the infirmary, and the library. They spoke in the frankest manner of the shortcomings that still existed, and gave free expression to their aspirations for the future. His impressions—which, it should be explained, are those of one who is not a university man, but a sympathetic outsider—are given in this article.

The popular notion, as may be gathered from the speeches of "practical" men of all sorts and conditions, is that Oxford is still steeped in mediaevalism. The newspapers, which by the law of their being reflect only the outside of things, would lead the uninformed reader to believe that Matthew Arnold's gibe,

> There are our young barbarians all at play,

has not lost its sting. One hears of a German professor visiting Oxford who, on seeing the gardens of Magdalen, exclaimed, "Now I know why no work is done at Oxford!" The remark shows the lack of insight characteristic of a certain type of Teutonic pedant, who is apt to assume that a man cannot think unless he shuts his eyes to everything but books, and goes through the world, as St. Bernard walked by the side of the Lake of Geneva, looking only into himself. Whatever may be the case in regard to other spheres of intellectual work, it assuredly cannot be said that for the medical student of to-day his residence at Oxford is a time of play. It is, indeed, generally admitted that of all classes of students, he is the hardest worked. This is fully recognized by the men reading for Greats and for honours in other schools. Owing to this the students of medicine have an influence on their environment out of proportion to their numbers. It is not, indeed, too much to say that the existence in the midst of the "young barbarians" of men devoted to the serious study of the fundamental facts of life, whose work brings them on every side in contact with reality, is a leaven that is already stirring the mass to a conception of the purpose and scope of life very different from that which young England had hitherto inherited from the tradition of school and college. Men who have been brought up to consider the classics the be-all and end-all of education, to be used, in the spirit of a famous scholar, for the purpose of elevating themselves above the vulgar herd and securing for themselves positions of considerable emolument, are struck by the living interest of the work in which their medical fellow students are engaged, so different from the dead matter o their own studies. There is nothing of mediaevalism abou the Oxford Medical School. In every department and almost in every detail is felt the vigorous throbbing of the pulse of modern thought, and its teachers are animated by the genuine spirit of science. The old spirit and the new are symbolized by the buildings of Oxford. Huddled together in the ancient city are the colleges, which have often been centres of resistance to modern ideas. In this part of Oxford there are narrow streets flanked on either side by old college buildings, and corners always in deep shadow, where a mediaeval student, were he allowed to revisit the pale glimpses of the moon, would feel himsel quite at home. Outside, to the north, in the full light o day and with ample breathing space all around, stands th noble Museum, the embodiment of the new.

THE OXFORD MEDICAL STUDENT.

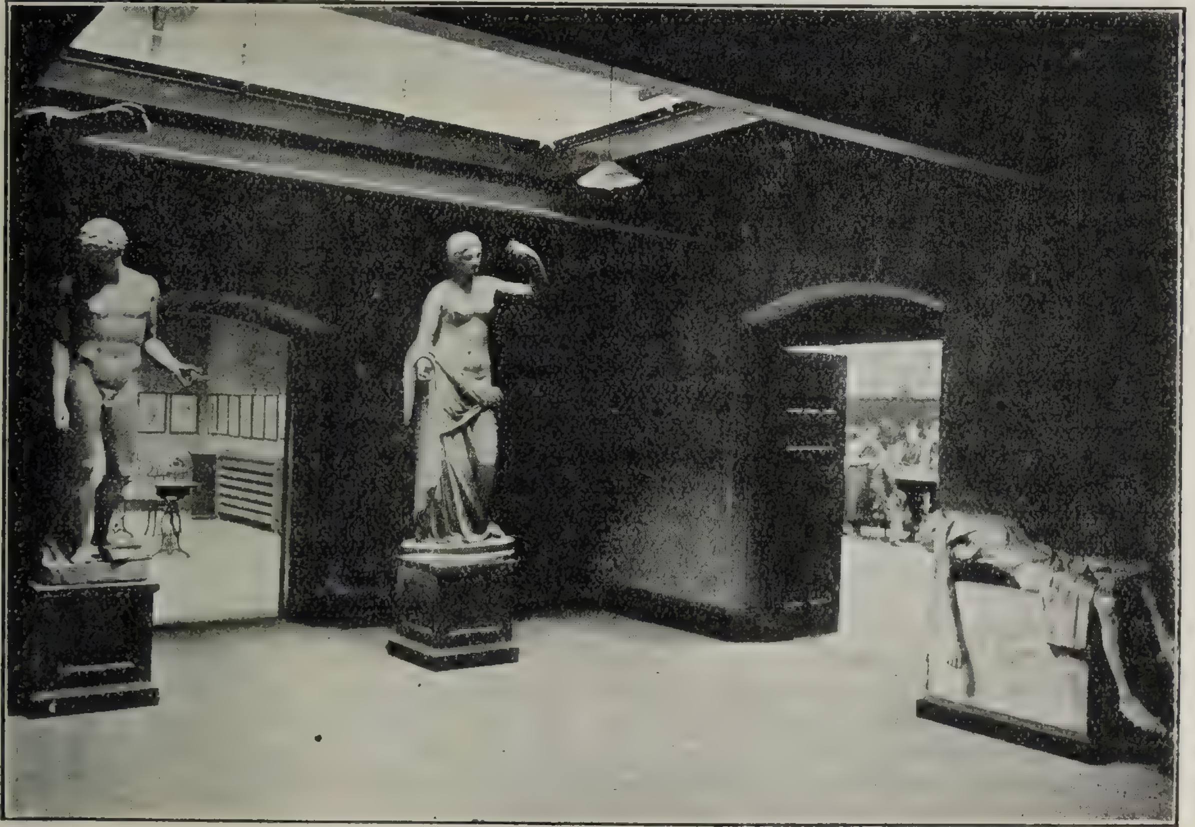
The most marked characteristic of the Oxford medica student is perhaps the absence of any typical characte such as is plainly written, for instance, on his congeners c the London schools. There is little uniformity about hin Men of various ages and of all stages of academic standin are mingled together in the classes. Bachelors of Arts and even graduates in law, may be seen working in th laboratory at the same table with first and second year men. In the lecture rooms men who have taken a "first in Greats sit side by side with unfortunate fellow-creature who have not succeeded in surmounting the no very serious difficulties of the "Divvers" or divinit examination. The Oxford medical student is, as rule, somewhat older than his London analogue, and h has generally a better appreciation of the value c knowledge for its own sake, and a broader outloo on the varied field of human life. This come to him from his environment, and it is perhaps the pr eminent advantage of his university education. Wit the largeness of view produced by the friction of min against mind in a society in which all the better element that make up the nation's life are represented, there stamped on the Oxford student an ineffaceable impressio of the characters which make up the "grand old nam of gentleman." This alone makes him an exceptionall desirable recruit for a profession of whose members th highest standard of feeling and conduct is required, if is to hold its proper place in public estimation. I addition to all this the Oxford student has the bene of a scientific training which need fear comparison wit none to be obtained in this country. The note alike ie education which he receives and of the examinations hich he has to pass is thoroughness. The papers have ot the formidable character which, to those not behind the enes, sometimes gives a misleading impression of the verity of an examination. But the true test of strictess is the standard required in the answers; and in this spect Oxford is recognized to be in the front rank of xamining odies. It may nfidently be id that what Oxford man nows he nows as thooughly as nything can known. A st or second ass in phyology is a roof not erely of nowledge of ie whole nge of ascerined facts, it of a masry of scienfic methods, iat makes im someing more an a medical udent who nows his phyology well. e is fit to ach and do iginal work.

---

[1] See Dr. W. Collier's admirable Presidential address delivered at the annual meeting of the Association held at Oxford in 1904.

Department of Physiology: Chemical Laboratory.

A distinctive feature of the Oxford medical training the wide basis of preliminary scientific knowledge on ich it is built. The examination in physics, chemistry, d biology is very searching, inasmuch as in all the bjects there is, besides the paper work, a practical st and a viva voce examination, so that cramming is duced to a minimum. The thoroughness of the training shown by the number of entrance scholarships in atomy and ysiology at ie London hools which e won by ford men. is number altogether t of proporn to the imerical rength of e school. ie same ing may be d in regard appointnts on the iff of Lonn hospitals. ford men o take an cellent posin in provinl towns, and general actice in the intry. This ıst necesily tend to se the status of the profession. At Oxford one learns recognize the bicycle as an instrument of educan. Everywhere one meets students rushing from lege to museum, to lecture rooms, to the Bodleian, the botanical gardens, often reading as they ride ng. Without this aid to locomotion it would be nost impossible for the Oxford medical student to get through his work, the places where it is done being scattered about the town. The total number of medical students in the University is now 120.



Department of Human Anatomy: Central Hall.

Course of Study and Examinations.

The course of study required to obtain a medical degree at Oxford is exceptionally long. This is owing partly to the fact that every candidate for the degrees of Bachelor of Medicine (B.M.) and Bachelor of Surgery (B.Ch.) must, as a necessary preliminary, have taken the degree of Bachelor of Arts. This can be done in various ways—either by following the beaten track of classics and mathematics, or the side-paths of history, law, and natural science. A man may be content with a pass or may strive for honours. At some colleges no one is admitted unless he undertakes to read for honours. If he is satisfied with a "pass" he becomes a B.A. after an unambitious effort from which he emerges, as Gramont returned from his Catalonian campaign, *médiocrement couvert de lauriers.* If he takes honours, he reaches the goal in a whirlwind of Olympic dust, striking the stars with lofty head if he is a "first." It lies outside the scope of this article to give details as to the examinations which candidates for the B.A. degree have to pass; full information on the subject will be found in the *Examination Statutes*, published by the Clarendon Press, revised editions of which appear at frequent intervals. Some candidates for medical degrees go through the exceptional course of reading for Honours in *Literae Humaniores*, and there are several members of the profession who have achieved the supreme academic honour of a "first" in "Greats." Most, however, prefer the more direct course which lies through the Natural Science School. Either a first or a second class in physiology or in organic chemistry exempts a candidate from the corresponding part of the First M.B. examination.

It is not, perhaps, sufficiently understood that a lad can begin his medical curriculum as soon as he goes to Oxford. "Responsions," or some examination accepted as an equivalent, have been passed at school; an "additional subject" (a stated French or Greek book, at the option of the candidate) and a "further examination in mathematics" (first three books of Euclid) have been disposed of a little later. Before he goes into residence at some colleges he must pass an entrance examination. After this there is no further examination in subjects of general education to be endured, except one in the Greek text and matter of one of the Gospels. By what looks like a refinement of cruelty, this cannot be attempted before the end of the second term of residence, by which time the modicum of Greek the average youth has brought from school has become a vanishing quantity. "Divvers," though not a very serious ordeal in itself, is a stone of stumbling to not a few, partly because it is interposed at an awkward period in the student's other work, but partly also, it is to be feared, because it is not looked upon with proper seriousness by most.

This last obstacle surmounted, the medical student is free to devote his whole energies to his scientific studies. He has preliminary examinations in mechanics and physics, chemistry, zoology, and botany to pass; and it is expected that these shall be taken in successive terms, so that the preliminary subjects shall be cleared out of the way by the end of the first year. Lads who go up to Oxford well grounded in science may, however, pass in most of the preliminary subjects in their first term, and thus gain nearly a year for directly professional studies. But the schools which send up boys so well prepared are still very few, and the average lad is considered to have made satisfactory progress if he works off his "preliminaries," together with the organic chemistry, materia medica, and pharmacy (with practical dispensing) of the First B.M. by the end of his second year. Besides this, he will during the second year have attended lectures and demonstrations in anatomy and physiology, and dissected two or three "parts." By the end of his third year he should complete the First B.M., by passing in human anatomy and physiology. He will then have a full year left to work for a good class in physiology in the final school of Natural Science.

The student is now a B.A., and may either continue his studies for the B.M. for another year at Oxford, or at once proceed to one of the London schools. If he stays at Oxford he can get an excellent grounding in pathology, and he can also learn the elements of clinical surgery and medicine at the Radcliffe Infirmary. He will then in the following year enter a metropolitan hospital fit at once to act as *post-mortem* clerk for the regulation three months, or to take a post as dresser or clinical clerk. In ordinary course he will be ready to present himself for the Final B.M. at the end of his seventh year from matriculation. Before admission to the second B.M. the candidate must produce certificates of instruction in infectious diseases and mental diseases, and of attendance on labours and proficiency in vaccination. The subjects of examination are pathology, public health, and forensic medicine, which may be taken separately; and medicine, surgery, and midwifery, which must be taken together. No candidate is admitted to the examination in medicine, surgery, and midwifery until he has attained the twenty-fourth term from the date of his matriculation. Thus the B.M. degree, which *ipso facto* carries with it that of Bachelor of Surgery, may under favourable circumstances be got in six years from matriculation; but the usual time is from six and a half to seven years. The average annual number of graduates has for the last few years been about 25.

The Oxford course may appear unconscionably long to parents who are naturally anxious that their fledglings should be able to use their wings as soon as possible. But it is in reality not longer than that for the English Conjoint Board. It may be remembered that some time ago the Committee of Management of that Board found, on inquiring into the actual length of the medical curriculum, that during the previous two years 71.5 per cent. of candidates had taken six years or more to obtain the diploma, while 34.5 took over seven. A little over one-fourth (28.5 per cent.) passed the Final Examination in less than six years, while only 8.5 did this in the minimum period of five years. It is not unlikely that under the new regulations which were adopted by the Royal Colleges of Physicians and Surgeons in June, 1904, a year may b added to the total period of study required before the Fina Examination. It is probable, therefore, as was pointed out in the JOURNAL at the time of the issue of the Committee's Report,[1] that if corresponding statistics are drawn up in 1910 the candidate for the diploma of the English Conjoint Board will be found to have spent from six and a half to seven and a half years upon his medical education. It has been said that the Oxford degree can be go in six and a half to seven years, and it will, we think, b admitted that the Oxford student, with his B.A., B.M., an B.Ch., has more to show as the result of his efforts. It i important, too, that it should be generally understoo that this result can be achieved by the man of averag intelligence who brings industry and conscience to hi work. It may be added that he is more likely to work steadily at Oxford, where he is under reasonable disciplin and under the constant personal supervision of his tutor than when he is left to himself amid the distractions an temptations of a great city.

THE TEACHING AND THE TEACHERS.

We have seen that, as far as medicine was concerned Oxford was formerly little more than a place where fro time to time a stray graduate in arts returned to receiv the added glory of a medical degree. It cannot be to strongly impressed on the public mind that a ver different state of things now exists. Oxford is now in th fullest sense a living school of medicine, where men hav every opportunity of learning the scientific part of thei profession. Nowhere in this country, or, indeed, in an other, has the medical student larger opportunities o learning physics, chemistry, biology, anatomy and physiology than at Oxford. Of the personal distinction of th teachers it would be impertinent to speak. The laboratories are for the most part well equipped, and in it practical work the student gets all necessary hel from assistants and demonstrators. Then he ha his tutor, who goes over his work with him, clear up difficulties and keeps him up to the mar generally. The men belonging to certain colleges enjo the special privilege of a medical tutor; these at th present time are University, Pembroke, and Wadham Perhaps the greatest advantage of Oxford as a medica school is the fact that the classes are not so large that th individual student is lost in the crowd and is nothing bu a name, if he is even that, to the professor. The shepher knows his sheep and they know him, and they know to that if they stray they will be brought back to the righ path or invited to seek fresh woods and pastures new.

The personal influence of the teacher, which is ofte more shadow than substance, and which in large school can at best be exerted only on an inner circle o disciples, is at Oxford a real thing of which the force i felt by all. It is not of course felt in equal degre for *quidquid percipitur secundum modum percipient* *percipitur*, but it is a man's own fault if it be no perceived at all. And with what powerful influence the intellectual atmosphere of the Oxford Medical Scho is charged to-day! To be brought daily into intimat contact with master builders of the Temple of Science, t see them at work and to learn their methods, must rous even the idle from ignoble sleep and stir the workers int more strenuous activity. And what a stimulus th student of medicine must find in his environment—tha twentieth-century Oxford of which the Museum is at onc the symbol and the shrine!

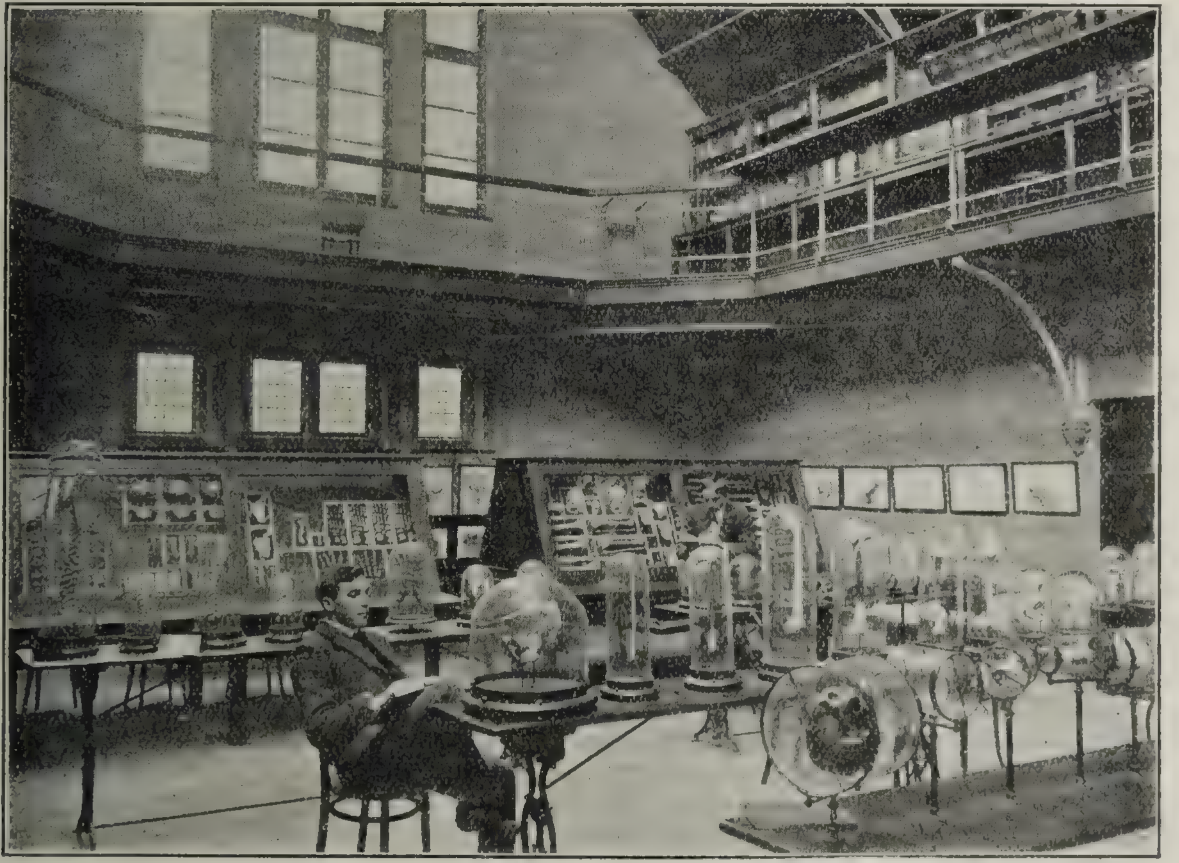
A notion of the work that is done and the men who ar doing it may be got from the lecture list for Easter an Trinity Terms, 1906. Clinical lectures were delivere weekly by the Regius Professor, Dr. Osler, and by th Litchfield Lecturer in Medicine, Dr. W. T. Brooks. Th Professor of Pathology, Dr. James Ritchie, lectured thre times a week on the general pathology of infection, an conducted a class on practical bacteriology, with the assistance of Dr. W. A. P. Waters and Mr. A. G. Gibson, B.M The Litchfield Lecturer on Surgery, Mr. A. P. Parker, B.M F.R.C.S., held a weekly class on splints and the method of applying them. The Professor of Human Anatomy, D Thomson, lectured three times a week on the central an peripheral nervous system, and gave demonstrations o surface anatomy on the intervening days. Mr. Parke ave special demonstrations three days a week and held atorial classes. Practical instruction was given by he professor and his assistants daily from 9 to ,30. In Physiology, the Waynflete Professor, Dr. rancis Gotch, lectured three times a week on the functions f the central nervous system, being Part III of his eneral course of physiology. Dr. Gustav Mann gave nstruction in practical histology twice a week, besides istological demonstrations. n conjunction ith Dr. W. amsden, Dr. Iann also conucted a class f revision ork for the rst B.M. on aree days a eek. Dr. F. A. ixey lectured nce a week on hysiology at Vadham, and r. E. W. Ainley Valker devered a course f lectures on eneral physiogy at Univerty. In addion, Professor otch conucted an adanced course n nervous rocesses; Dr. amsden lecred on the emical processes of muscle; Dr. H. M. Vernon nd Dr. Gustav Mann gave special lectures on e subjects of the Final Honour School in Phyology; Mr. J. G. Burch gave four lectures on ision. An advanced practical course on excitatory henomena of tissues was given by Professor Gotch, r. H. M. Vernon, and Mr. J. G. Burch; one on emical processes, and reision, by Dr. amsden, and e on histolocal methods y Dr. Gustav ann. Practil work in rganic chestry was rried out on ree days in e week under e direction Mr. J. E. arsh, and a urse of lecres on pharacology and ateria medica as delivered three days the week by r. W. J. Smithrome, who so directed e work of his udents in the boratory. Mr. W. Doyne, e Reader in Ophthalmology, delivered a weekly clinical cture on diseases of the eye and gave practical instrucon in ophthalmology.

---

[1] Leading article on the Duration of the Medical Curriculu February 3rd, 1905, p. 278. The Report of the Committee was publishe in the same number, p. 275.

In the preliminary subjects belonging to the Faculty of atural Science—botany, zoology, etc.—the work is ually active, the practical element being everywhere ominent.

Department of Human Anatomy: Dissecting Room.



Department of Human Anatomy: Bone Room and Museum.

THE MUSEUM.

A complete description of the Museum would be out of place here, even if it were possible to give one. But as a matter of fact there is no printed account of this magnificent building, with its vast accumulation of zoological, botanical, mineralogical, geological, chemical, ethnographic and other treasures, and its numerous departments for teaching and research which can serve as a guide to the visitor through the mazes of the building and the manifold collections housed therein. A little book by Acland and Ruskin, entitled *The Oxford Museum*, did, indeed, appear in 1859, and several editions of it have since been published; but, interesting as that work is, from the aesthetic and other points of view, it does not afford the scientific visitor the help which he needs. The preparation of a handbook to serve that purpose has, we believe, been for some time under consideration. We venture to urge on the proper authorities the expediency of proceeding with the execution of the scheme without delay. The original conception of the Museum is well expressed in a resolution, doubtless drafted by Acland, which was adopted at a meeting held in New College in 1849:

> That whereas it would be consistent with a philosophical view of the connexion of the natural sciences that all the materials explanatory of the organic beings placed upon the globe shall be arranged in distinct departments under one roof, together with fit accommodation for preparing, studying, and lecturing on the same, it is much to be desired that a building should be erected within the University in which these several objects should be carried out.

The idea was, in fact, to gather specimens illustrating all the sciences, and the apparatus for teaching them, under one roof, thereby exemplifying the connexion between them and enabling the student to grasp Nature in her manifold forms as a co-ordinated whole.

It was years, however, before the idea found fulfilment in a concrete shape, and it was not till October, 1860, that the building was ready for occupation and use. Since that time expansion has taken place to a degree that has almost doubled its original dimensions. Besides the collections which have been referred to, it contains roomy and well-lighted laboratories of physics, chemistry, geology, physiology, human and comparative anatomy, besides accommodation, which cannot be called adequate, for pharmacology.

The Museum is, in an architectural sense, worthy of Oxford. On this point great stress was laid by Acland, who believed that the condition of the dissecting rooms at the London hospitals, and the wretched accommodation which was deemed fit for medical students in many of those institutions in the metropolis and elsewhere, had been a serious hindrance to the progress of physical science in this country.

In the Museum the medical student pursues all his studies till he is prepared to receive elementary clinical instruction at the Radcliffe Infirmary. In the various laboratories—physical, chemical, zoological, botanical, and physiological—as in the dissecting room, he is made to observe facts for himself. In a public address Huxley complained, from his experience as an examiner, that medical students took their physiology from books to such an extent that he should not be surprised to find in a paper a statement that although Professor Breitkopf said the blood circulated, on the other hand, Professor Langkopf was of the contrary opinion. This was of course before Burdon-Sanderson had introduced practical teaching in physiology into this country.

Department of Physiology.

A physiological laboratory is now a necessary part of the most indifferently-equipped school. Nowhere, however, is physiology more splendidly installed than at Oxford. Burdon-Sanderson had a fierce fight with the children of darkness, but the Physiological Department, in the fullness of its equipment, stands a monument of the completeness of his victory. Physiology may almost be called the speciality of the medical training given at Oxford. The arrangements for teaching the science are of the best and most generous character. Professor Gotch is not only an original investigator, especially in regard to the electrical relations of the nervous system, but he is an inspiring teacher; as a lucid lecturer he has the power of making abstruse matters clear, and he does not, as his famous master and predecessor not infrequently did (it must be remembered that it is an idle apprentice who speaks!) soar into the empyrean of speculation far above the heads of his audience. Dr. John Scott Haldane, who is a Lecturer, is universally recognized as one of the first of living physiologists. His work on vitiated air and respiration, and his reports to the Home Office on the ventilation of factories, the causes of death in colliery explosions and kindred subjects, all admirable examples of the application of physiological principles to the solution of problems of practical sanitation, have led the Government to utilize his knowledge in that way; quite recently the King has appointed him one of the Commissioners to report on certain questions relating to the health and safety of miners, and the administration of the Mines Act. Dr. Gustav Mann, who teaches histology, has earned a wide reputation in the scientific world; he is the author of several books of acknowledged merit, one of which, on the chemistry of the proteids, was favourably reviewed in the JOURNAL three or four weeks ago. In the early part of 1905 we published a paper by him on the thalamus, which embodied the results of elaborate researches throwing a new light on the structure and functions of that body, and at the International Medical Congress recently held at Lisbon he presented a remarkable communication on protoplasm. Dr. Walter Ramsden, who is a University Demonstrator, has made valuable researches on coagulation, urea, etc. Students of University College have the benefit of private instruction from Dr. Ainley Walker and those of Wadham from Dr. Dixey. It was interesting to see several ladies at work in the laboratories of the Physiological Department.

Department of Human Anatomy.

The Department of Human Anatomy, which was opened in 1893, is, in a twofold sense, the creation of Professor Arthur Thomson. The building was, to a large extent, planned by him, and to him it is due that the teaching c human anatomy at Oxford is now on a level with the bes that can be found in any medical school in the countr Professor Thomson has himself described the state c things which he found when he went to Oxford twenty one years ago.[1] There was no place to lecture in, an scarcely any one to lecture to. No provision was the made by the University for the teacher of huma anatomy, and it was owing to the generosity of a fe private persons that what was sarcastically called th anatomical shed was constructed. In this structure work wa pursued under considerable difficulties, but the need of expansion made itself acutely felt when, in 1886, a course university lectures had to be delivered to a class of twelv in a room measuring 15 ft. by 10 ft. Better accommodation was provided, but the department developed to suc an extent that in 1890 still further enlargement becam necessary. At that time Professor Thomson was lecturin to a class of thirty, just ten times the number of his earl hearers. The present buildings are not only filled wit every appurtenance and convenience for the teaching anatomy, but are, in an artistic sense, a handsome addition to the Museum. An account of the department wit illustrations was given in the JOURNAL at the time it wa opened. The dissecting room measures 60 ft. in length b 30 ft. in width. The floor is of polished oak; the lowe part of the wall above the dado is of slate, for demonstration purposes. The six dissecting tables are provide with white marble tops, very slightly "dished" towards th centre where there is a hole for drainage. Two slat tanks are provided for the parts. The roof is i ridges, glazed on the side facing the north, tiled toward the south, and along each ridge outside runs a leaden pip perforated at intervals with holes, through which wate from the automatic flush tank is made to discharge upon th roof at intervals; in this way the room is kept cool in summer. A considerable area of the roof of the central part the building, which is quite screened from observation, leaded and made to serve as a bleaching ground for bone The central hall contains fine casts of the Fightin Gladiator, the Antinous, and the Venus of Milo as type of the human form. There is also a cast of the dea body made by Goodsir. Opening out of this are the dissec ing room, the lecture room, which has accommodation f more than 150 students, and rooms for the professor an prosectors. Connected with the dissecting room is bone room, admirably arranged for the study of osteolog Above this is the museum, a chief feature of whic is a series of specimens showing the development organs, and structural details which most students have take on faith from a textbook. On one of the outside wal of the department is the following inscription date 1891:

> Hic singillatim possunt secreta videri,
> Quid cordis globus aut oculi, quid membra, quid artus.

This, it must be owned, is somewhat commonplace compare with the fine inscription that used to be over the door the dissecting room in the old university of Paris:

> Hic locus est ubi mors gaudet succurrere vitae.

Professor Thomson now has an average of fifty students i the term. Students, as has been said, have every oppo tunity of learning anatomy under conditions that to th men of twenty-five years ago would have seemed palatia They have the further advantage of a most able demo strator in Mr. A. P. Parker, F.R.C.S., and there are sever assistant demonstrators.

One serious drawback, however, is the want of a adequate supply of material. The supply of unclaime bodies in Oxford itself is of the most limited kind, an guardians in surrounding districts do not show any pa ticular readiness to further the cause of anatomical educ tion; in some cases, indeed, they place difficulties in th way. An amendment of the Anatomy Act, taking th disposal of the unclaimed bodies of persons who die i workhouses out of the hands of guardians, seems to b required. The shortness of the Oxford term make another difficulty in the way of the dissector, who get through the amount of work expected of him ha generally to supplement the opportunities offered by h Alma Mater by courses in London or elsewhere.

---

[1] BRITISH MEDICAL JOURNAL, October 21st, 1893, p. 902.

Department of Pathology.

The department of pathology was opened on October 2th, 1901; a description of it appeared in the ritish Medical Journal of October 19th, 1901, . 1195. The building consists of a partially sunk asement and two floors above. In addition to a conenient lecture room there is a museum. The ground loor contains also a special bacteriological room for exerimental athology, nd another itted up as chemical esearch labratory. To he former is ttached an ncubation oom, and to he latter a mall balance oom. In the entral hall s a staircase eading to gallery, hich gives ccess to the nuseum and ecture room, nd also to he rooms on he upper loor. One of hese is a arge room or the teachng of pathoogical histology to which is attached a preparaion room. There is also a class-room for practical acteriology, a photographic room with oxyhydrogen amp, and a demonstrator's room. In the basement of the epartment is a private laboratory, a dark laboratory, a arge preparation room for the pathological and baceriological work of the department, a storeroom, a room or heating pparatus and workshop. n addition to his full proision for ractical intruction, here are bundant acilities for riginal reearch.

Department of Pathology: Bacteriological Class Room.

Department of Pathology: One of the Research Rooms.

By an arangement nade with he authoriies of the adcliffe Inrmary, the athological epartment nakes allecessary athological nvestigaions for the nfirmary. he material hus obtained s ample both or teaching and for research. Towards the cost of erection 5,000 was given by a graduate of Oxford, Mr. Ewan Fraser, ho, in the course of his own studies, had been struck y the need for such an institute. Sir John Burdonanderson left £2,000 towards the endowment for the aboratories of the department, and the University grants a ubvention of £250 a year for the upkeep of the department.

In Professor Ritchie, Oxford has a teacher of pathology who does honour to the University. He is a large-minded man, of culture extending far beyond the bounds of the science he has chosen for his province. The average attendance of students in the term is from 10 to 12.

Department of Pharmacology.

Pharmacology is excellently taught at Oxford, but it is only right to say that the credit for this belongs not to the University, but to the lecturer. Dr. Smith-Jerome, in his teaching capacity, presents the picture, said by the ancients to be pleasing to the gods, of a good man struggling with adversity. He is an enthusiast who devotes himself to teaching as a labour of love. He lectures, prepares solutions, makes the arrangements for experiments and directs the practical work of his students in a sort of outhouse in the Museum ground which is little better than a shed. For nine years he has done all this for a pittance which does not cover the expenses of his department. His only assistant is a boy who does little more than sweep out the rooms. All the mechanical work is done by the lecturer. Great part of the apparatus belongs to himself, and there is no convenient place to lodge it in safety where his lectures are given. It is surely a disgrace that a great university like Oxford should be without a properly-equipped department of pharmacology. Instruction in practical dispensing is given at the Radcliffe Infirmary. The dispenser says that the outpatients have increased by 2,000 a year since he began to work there twenty years ago. The number of prescriptions made up by him is from 200 to 250 a week.

The Botanic Garden.

Only a word can be said about the beautiful botanic garden on the Cherwell, which is said to be the oldest in the country. It dates, as already said, from about the middle of the seventeenth century, when it was founded "with a view especially to the faculty of medicine." It covers an area of five acres, and contains a large number of plants arranged according to their natural order. There

Radcliffe Infirmary: Operating Theatre (outside view).

are good laboratories with a museum and a library. It is enough to make any one in love with botany to have so sweet a place in which to study it.

The Radcliffe Library.

John Radcliffe by his will left £40,000—an immense sum in his day—for the foundation of a library in Oxford, with an endowment of £150 a year as a stipend for a librarian, and £100 a year for the purchase of books. It was not his intention to found a scientific, but a general, library. He doubtless felt his own deficiency in book learning. The author of the *Gold Headed Cane* makes him say:

> "Some day or other the Alma Mater where I was bred shall receive from me substantial proofs of the true concern I feel for the welfare of the cause of learning, for as I have grown older, every year of my life has convinced me more and more of the value of the education of the scholar and the gentleman to the physician. But," added he, "perhaps your friend here (pointing me to a folio edition of Celsus which stood on one of the shelves of the library) expresses my meaning better than I can myself, where he says that this discipline of the mind, '*quamvis non faciat medicum, aptiorem tamen medicinae reddit.*'"

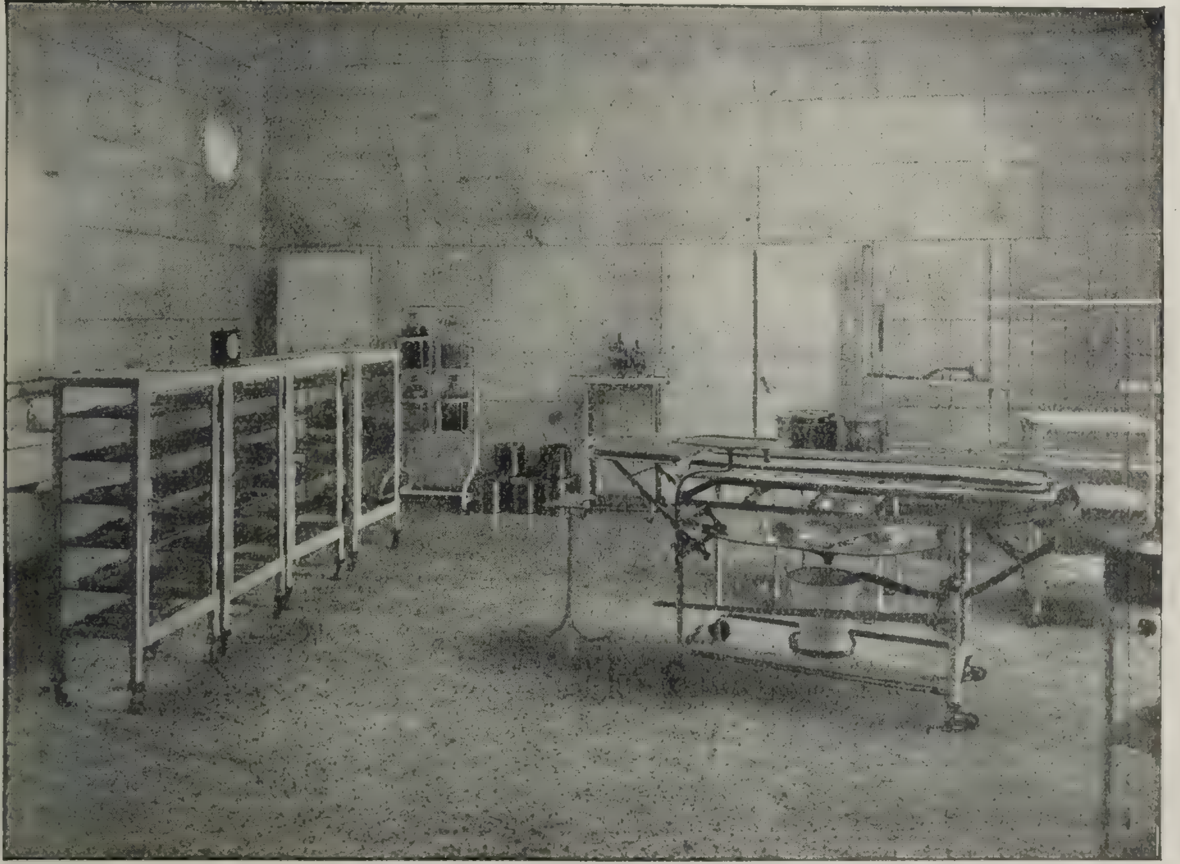
It may be doubted whether Radcliffe's Latin extended even so far as a quotation from Celsus. So notorious was his illiteracy that it was said at the time that his founding a library was as if a eunuch should set up a harem. The library was opened in 1749. It was first lodged in the Camera, which was originally known as the Physic Library. In 1861, mainly at the instigation of Acland, the scientific books were transferred to the Museum in accordance with the idea of having all the apparatus of scientific learning, as it were, under one roof. By the liberality of the Drapers' Company a new wing was built for its accommodation and formally handed over to the University in 1901. It has shelf room for 150,000 volumes, with large reading rooms. The library is admirably arranged for facility of reference, and its convenien proximity to the physiological, pathological, and othe laboratories, largely increases its value to the student.

The Radcliffe Infirmary.

The Radcliffe Infirmary was opened in 1770. It ha been considerably added to from time to time, and no contains about 180 beds. In 1903 the number of in patients was 2,219, the daily average in the house bein 107. The out-patients amounted to 3,828. This numbe does not include 5,171 cases of casual applicants, mino accidents, and dental disease; nor does it include cases o eye disease, which were treated in a special hospita adjoining, but not forming part of the Infirmary.

The Radcliffe Infirmary has no official connexion wit the University. The medical and surgical staff are a members of the University, but the governing body i composed for the most part of tradesmen of the tow The only organic link between the University and th Infirmary consists in the Litchfield Lectureships in Med cine and Surgery. These lectureships are a result of division of the old professorship of Clinical Medicine o Lord Litchfield's foundation which was made in 188 This marked the beginning of systematic teaching of th elements of clinical medicine and surgery at Oxfor The lecturerships are held in rotation by the physician and surgeons to the Infirmary. At the present time th Litchfield Lecturer in Medicine is Dr. W. T. Brooks, whil the corresponding Lectureship in Surgery is held by M A. P. Parker. Classes in elementary diagnosis, auscultatio and percussion, etc., are also held twice a week by Professo Osler, Dr. Collier, and Dr. Mallam; and once a wee a clinical lecture, which is really a series of clinica demonstrations, is given by the Regius Professor Medicine. This lecture, which struck our representativ as the most remarkable thing "in the physic line be seen at Oxford to-day, derives its interest d importance partly from the personality of e teacher and partly from the unique position hich the esteem of his colleagues has accorded him Oxford. For teaching purposes he has the whole aterial of the Infirmary—surgical as well as medical at his disposal. There are plenty of cases, as tients come t only from xfordshire t from the eighbouring unties. In ldition, local ractitioners e encouraged bring cases r an opinion, opportunity which many them are ady to avail emselves. e professor kes the cases they come d works out e diagnosis efore the dience quite ankly, with ne of the refully - pred "snapots" by hich some ninent physians have ught to win the admiration of weaker brethren. All the ints as they are brought out in the course of the examinan are briefly but lucidly stated, and their bearings on e whole clinical problem fully explained. The professor estions the patient in an easy, reassuring manner, scans m carefully with his eye, and feels the various regions th a light but sure touch, noting fine shades of scoloration d alterations contour, d detecting ght thrills d tiny ples of imlse. He sees ings that to y thick sight e invisible, d maps out the surface th a pencil e outline a small eurysm or e area of a nt murmur. l this is ne in a style easy, and so livened with niliar illustions and th happy rases which ck in the arer's memory, that en to a dull udent—if ch an one is to be found at Oxford—the lecture is not a ariness to the flesh but a delight to the spirit. Among e Professor's hearers were several sweet girl graduates—other universities.

Department of Pathology: The Museum.



Radcliffe Infirmary: Operating Theatre.

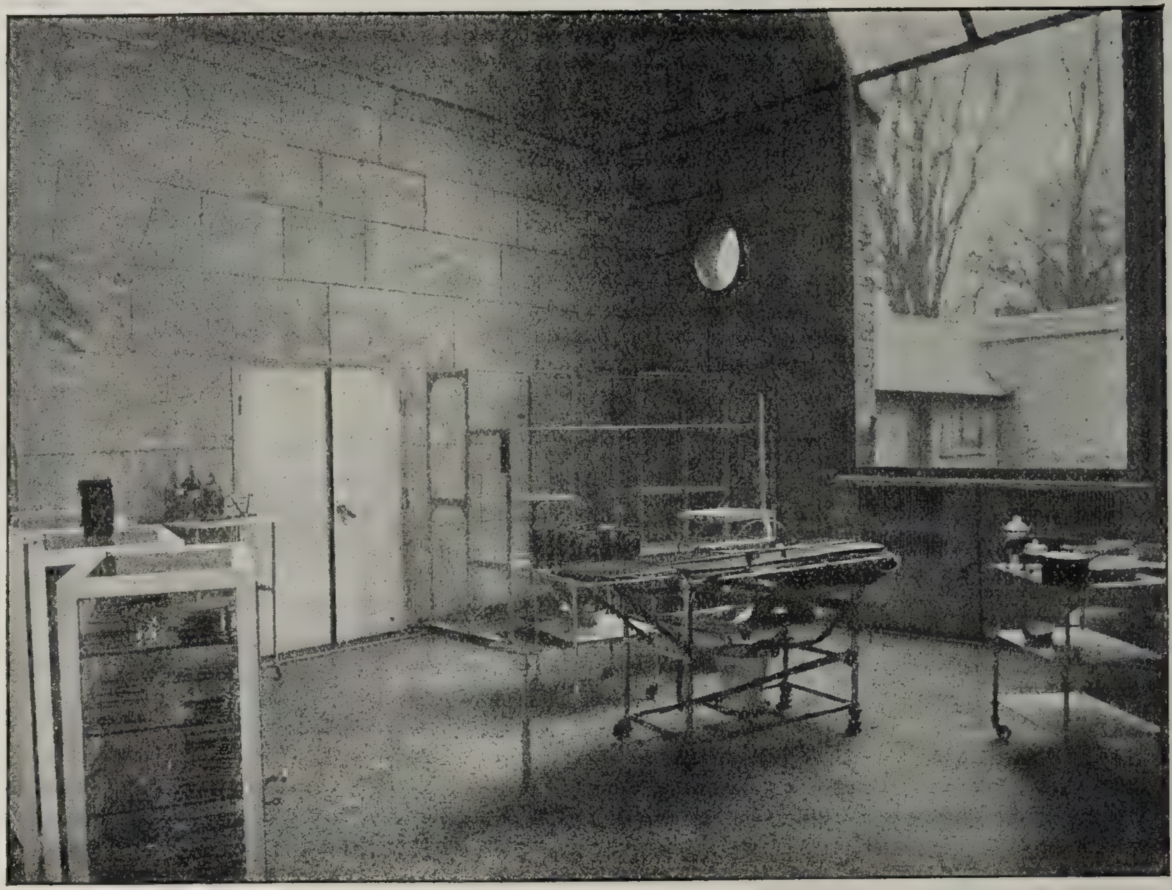
If we have dwelt on Professor Osler's clinical teaching, is because we feel strongly that with his coming a new in the history of the Oxford Medical School has begun.

For the first time in the history of the University the Chair of Regius Professor of Medicine is occupied by a clinician of the first order. Professor Osler has brought with him to Oxford the culture of the older race of physicians and the scientific knowledge and practical spirit which are the characteristics of the new. He brings with him, too, the fruits of an extraordinarily wide study of disease in all the great centres of the world and a vast experience of clinical teaching in various seats of learning, and, what is not least important, an entire freedom from antiquated traditions and prejudices which have in the past hindered the scientific development of Oxford.

We were glad, therefore, to hear from his own lips that he has no intention whatever of leaving Oxford. He has been most kindly received there, and several of the heads of houses have shown great interest in medical matters. He instanced particularly those of University, Magdalen, Brasenose, Christ Church, and New College. He has abundance of clinical material for teaching, and he hopes to find leisure to put the vast body of facts which he has gathered together during many years' close study of disease into shape for publication.

The old infirmary is now used as a residence for the nurses. The hospital is housed in new buildings which stand at the back in fair-sized grounds. The wards are bright and roomy; there are balconies looking south, where tuberculous patients spend their days and nights comfortably in the open air. The Infirmary has one of the finest operating theatres we have ever seen. It was planned by Professor Thomson, and excites the admiration of all surgeons who visit Oxford. It is magnificently lighted, and in every way admirably fitted up, as the illustrations show. The building is detached from the hospital except by passages, along which patients are brought to the theatre and taken back to the wards. The patient to be operated on is taken to a room where he is anaesthetized before he is carried into the theatre; he is afterwards removed to the ward by a different passage. In this way the patient who has yet to undergo the knife never meets the one who has just been taken off the table. It may be said here that there is considerable activity in the surgical department, and students have the opportunity of seeing the most advanced surgery of the day illustrated by Messrs. H. P. Symonds, R. H. A. Whitelocke, and A. P. Parker.

Practical instruction is given and clinical lectures on diseases of the eye are delivered by Mr. R. W. Doyne, who holds the Readership in Ophthalmology This the University owes to the liberality of Mrs. Ogilvie, who in 1902 gave a sum of £7,000 for the purpose. The eye hospital, which Oxford owes to the enlightened energy of Mr. Doyne, offers an excellent field for ophthalmological work, and students have the benefit of the instruction of a teacher who has the power of inspiring his pupils with some portion of his own enthusiasm.

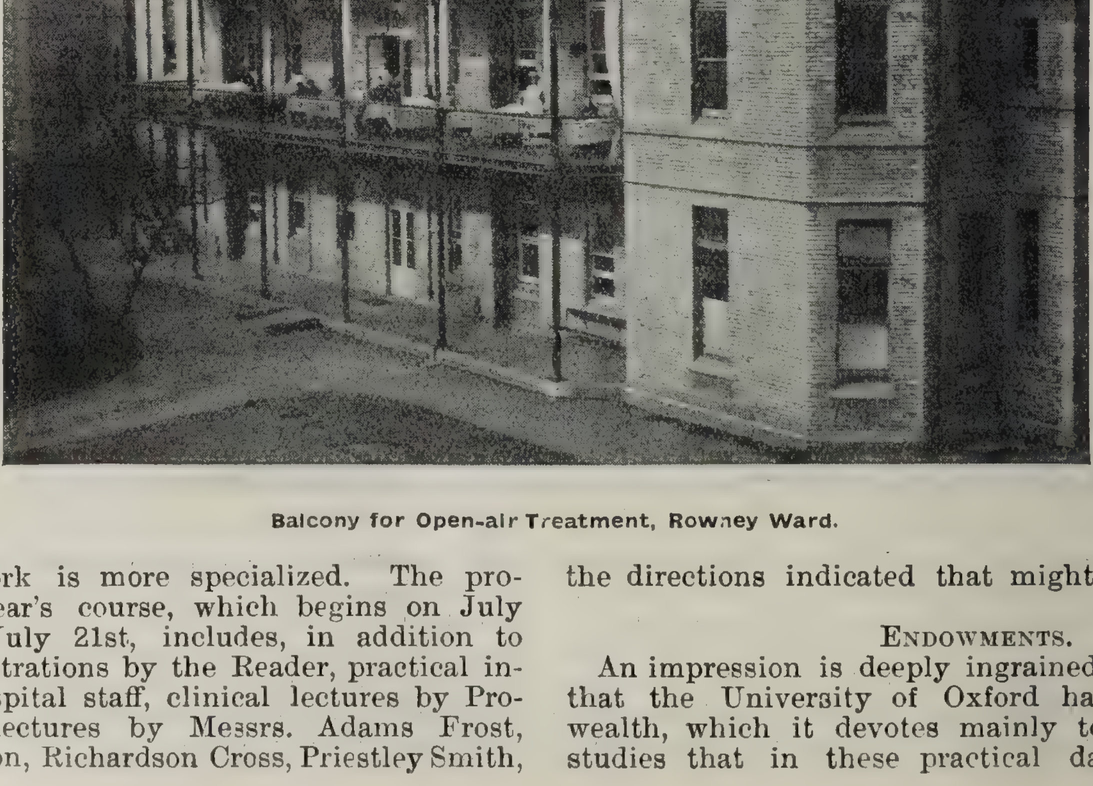


Radcliffe Infirmary: Operating Theatre.

A department for diseases of the throat and ear was recently opened; Mr. Parker is the surgeon in charge.

POST-GRADUATE COURSES.

Mr. Doyne has instituted annual courses on ophthalmology for graduates and practitioners. These have proved very successful. The main idea of the course is to demonstrate—as far as possible on actual patients—the whole range of ophthalmology. This course extends over a fortnight; the first week is chiefly devoted to the demonstration of the methods of examination, the use of the ophthalmoscope, and refraction work. During the second week the work is more specialized. The programme for this year's course, which begins on July 9th and ends on July 21st, includes, in addition to lectures and demonstrations by the Reader, practical instruction by the hospital staff, clinical lectures by Professor Osler, and lectures by Messrs. Adams Frost, Lawford, S. Stephenson, Richardson Cross, Priestley Smith, Treacher Collins, Parsons, and Nettleship. Professor Osl intends to organize a post-graduate course of clinic medicine at the Radcliffe Infirmary. The numbers w be limited to fifteen or twenty, and the method will doub less be that employed with such success at the Joh Hopkins University, Baltimore. Its essential feature that the students are made to instruct each other und the guidance the professo who interven from time time, but on as a senior st dent, helpi to explain dif culties and put doubtful obscure poin in a clear light.



Balcony for Open-air Treatment, Rowney Ward.

SUGGESTION FOR DEVELOPMEN

It has be shown that t provision ma at Oxford f the teachi both of t ancillar sciences, a of those whi form th foundation which ration medicine based, is amp and of the hig est qualit and that the student has sufficient opportunities of lear ing the rudiments of his art, both in its medical and in surgical branches.

There are, however, certain directions in which expansi is called for. These can only be mentioned here. In the fi place a full equipped cli cal laborato for the Regi Professor shou be established the Radcli Infirmary. properly - i stalled and ac quately-equipp department pharmacology a crying ne Lastly, a depa ment of hygie should be creat with a profess at its head. T materials f these instit tions are the and the m Only money needed, and p haps a somewh keener apprec tion on the pa of the Univers authorities the importan of the work the directions indicated that might be done at Oxfo

ENDOWMENTS.

An impression is deeply ingrained in the public mi that the University of Oxford has almost unlimit wealth, which it devotes mainly to the promotion studies that in these practical days are regarded rms of dilettantism. This notion is quite erroneous. lthough the colleges are in general rich—some of them ery rich—the University is poor. The governing body f the University is composed of members of colleges, and it found that the natural tendency of such men is to put the terests of their own college before everything else. Of one mous establishment it is said that, on the eve of an quiry which it was thought might result in a demand for e disgorgement of some of its accumulated wealth, money as deliberately thrown away on needless and unprofitable ork on the college buildings, rather than that it ould be applied for the benefit of the University. here is some hope of a surplus from the estate of Mr. ecil Rhodes being available, under the terms of his will, r the purposes of the medical school. Brasenose College, o, which is coming, or has come, into a large sum, is edited with the intention of allotting £1,000 a year to the hool as soon as the professors have come to an agreeent as to the allocation of the money. The professors e very inadequately remunerated, and the salaries of me of them depend on temporary endowments. Nor es the professoriate hold the position which it ought a great school. How poorly some of the teachers are id may be gathered from the fact that one of them, a an of the highest scientific distinction, receives a salary £250 after eleven years! The pious founder is badly eded at Oxford, and nowhere would his benefactions be ore useful than to the development of the art of healing.

The Oxford Degree as an Asset.

From a purely scientific point of view no medical gree stands higher than that of Oxford. It is an surance that a man has received a thorough scientific aining, and that, as far as any available tests can ove, he is exceptionally fitted for the medical profession. is is altogether apart from the social prestige which taches to graduates of our historical universities, where is undeniable that a broader culture is obtained by sociation with men preparing to follow every intelctual path of human activity, and where a student is at e of the recognized centres of human thought, and can e knowledge in the course of making. It is only right point out that Oxford is not a place for very poor men. atements giving the impression that a man can get the ll benefit of the University for the minimum amount on ich it may be possible for a very economical person to e are simply misleading. At most colleges students quire an allowance of £220, and at others £250 will not found too much. This sum ought to cover the expenses a student who has no extravagant tastes while he is at ford; but it must be remembered that the terms of residnce amount in all only to twenty-four weeks in the year, d there still remains the cost of maintenance for the rest the year to be defrayed by somebody. Of course, the pense of an Oxford education can be considerably ninished in the case of lads who win scholarships; ny of these are offered for proficiency in scientific subts. Moreover, several of the London hospitals offer trance scholarships exclusively to Oxford and Camdge men.

Prizes.

Fellowships are open to students of medicine as to ers, but these prizes are for the elect. There are one two medical Fellowships in certain colleges, and there the Radcliffe Travelling Fellowship, which may be comed for by Bachelors of Medicine who have won a iversity prize or gained a first class in any Final nours School.

John Radcliffe seems to have had the feeling which was pressed later by Samuel Johnson, that an "Athenian ckhead is the worst of blockheads," and he wished that ng Oxford men should see what was being done in eign universities. The Travelling Fellowship is awarded ually; it is of the value of £200 a year, and is tenable three years. A Philip Walker Studentship of £200 a ar is awarded biennially for the encouragement of earch in pathology. A Rolleston Memorial Prize of £70 awarded every two years for research in natural science, luding pathology. A prize for anatomical drawing is o offered to students.

The Oxford Graduate in Practice.

xford has the reputation of turning out better phyians than surgeons. Yet some men in the front rank surgery are Oxford graduates. It is easy to understand, however, that the training, with its accentuation of the preliminary scientific subjects and its especial insistence on physiology, leads men more to physic than to chirurgery which, as a rule, needs an early apprenticeship if one is to become a master of the art. As physicians Oxford men are, as already said, very successful in obtaining hospital appointments, and the breadth of their studies makes them especially capable of dealing with the complex problems of disease in which the mind is a factor as well as the body. It has been truly said that the man who knows only medicine does not even know that. This defect can seldom be seen in Oxford men. A striking testimony to the high value placed on the Oxford training by men most competent to judge is the number of medical students who are sons of prominent London physicians and surgeons.

THE ANNUAL MEETING AT TORONTO.

Alterations in Programme.

We are informed by the Executive Committee in Toronto that it has been necessary to make certain alterations in the programme of arrangements for the first day of the annual meeting at Toronto, Tuesday, August 21st. The addresses of welcome, the introduction of guests, and the President's address will take place at 2.30 p.m.; at 4.30 the President-elect and Mrs. Reeve will hold a reception and garden party in the University quadrangle. The Address in Obstetrics by Dr. W. S. A. Griffith will be delivered at 8.30; afterwards the Lieutenant-Governor will, as previously arranged, hold a reception in the Parliament Buildings.

The Trip to Vancouver.

Those members who wish to avail themselves of the opportunity of crossing the North American continent to the Pacific coast, and thus to see for themselves the vast extent of the Canadian wheat fields and the magnificence of the Rockies, are requested to send their names to the Honorary Local Secretaries of the meeting, Medical Building, The University, Toronto, at an early date.

Owing to the difficulty of transporting several hundred by a special train it is considered advisable that the members should be sent off in groups of from eighteen to twenty-five in special sleeping cars reserved for them. It would be a still greater convenience if the names of certain groups who prefer to travel together could be sent in, or even if groups of ten or twelve could be sent, when the local Committee would endeavour to couple certain of the British, Canadian, and American visitors, in the hope of increasing the mutual interest and enjoyment of the trip. The cost of the round trip from Toronto is £13 11s.

The Booking of Passages.

Messrs. Stockwell inform us that the steamers for Montreal are filling rapidly, and that it is necessary for members of the Association to secure their passages without delay.

THE PLAGUE.

Prevalence of the Disease.

India.

During the weeks ended May 16th, 23rd and 30th, the fresh cases of plague in India numbered 13,207, 13,061, and 8,684, and the deaths from the disease numbered 11,414, 11,783, and 7,660 respectively. The deaths occurred as follows: Bombay Presidency 1,371. 1,002, and 721; Bengal, 228, 422, and 90; United Provinces, 918, 1,271, and 351; Punjab, 7,896, 9,248, and 6,270; Kashmir, 213, 220, and 139; Burmah, 125, 95, and 59. During the three weeks in question there were no cases of plague reported from Eastern Bengal, from the North-West Frontier Province or from Baluchistan. In several other districts plague has rapidly declined during May, so much so that during the last week of May, with the exception of the deaths from plague enumerated for that week, a few scattered cases only were reported. Plague during May was especially severe in the Punjab, and in Lahore City the outbreak is especially serious.

Australia.

Queensland.

Brisbane.—During the weeks ended April 21st and 28th and May 5th and 12th, the fresh cases of plague numbered 2, 0, 1, and 0, and the deaths from the disease during the same periods 1, 0. 1, and 0 respectively. On May 12th there were no cases in the Plague Hospital. No rats or mice were found infected during the four weeks in question.

Rockhampton.—During the weeks ended April 14th, 21st, and 28th, and May 5th and 12th, the fresh cases of plague numbered 4, 4, 0, 1, and 0. The deaths from the disease during the same periods numbered 1, 4, 0, 0, and 0 respectively. Rats have been found plague-infected in Rockhampton. On May 12th 6 patients remained in the Plague Hospital under treatment.

Hong Kong.

During the weeks ended May 19th, 26th, June 2nd and 9th, the fresh cases of plague numbered 90, 116, 73, and 51, and the deaths from the disease 83, 116, 72, and 48 respectively.

MEDICAL NEWS.

OWING to the number of papers in hand, an extra meeting of the Royal Medical and Chirurgical Society will be held on Tuesday next.

THE Shah has been pleased to appoint Dr. the Hon. Lennox Lindley his Chief Physician, and has conferred on him the Order of the "Temsal" (portrait of the late Shah) in brilliants in recognition of his valuable services.

AMONG the promised contributions towards the foundation of a university at Bristol are £10.000 each from Mr. H. O. Wills, Lord Winterstoke, and Mr. J. S. Fry, and £5,000 each from Sir Frederick Wills and Mr. Francis J. Fry.

WE regret to have to report a fatal accident at University College Hospital. On Tuesday last Mr. Dukes, one of the house-physicians, was killed by falling through the well of the lift to the basement. He seems to have stepped into it under the impression that the cage, which had ascended to an upper floor, was still at the floor level. Mr. Dukes, who was a young man of great promise, was, we believe, a son of Dr. Clement Dukes of Rugby.

WITH deep regret we announce the death of Lieutenant Forbes Tulloch, R.A M.C., which occurred in the Queen Alexandra Military Hospital, Millbank, on June 20th. It will be remembered that Lieutenant Tulloch contracted sleeping sickness in Uganda, where he had been sent under the auspices of the Colonial Office as a member of a Commission appointed to investigate the causes of the disease and the means of prevention.

UP to the time of going to press the sums which have reached the Mansion House in respect of the collection last Sunday for the Metropolitan Hospital Sunday Fund total some £15,000. The various moneys always come in very slowly, and usually many weeks pass before the final result can be ascertained. The collection among City men during the few days preceding Hospital Sunday was repeated this year and proved satisfactory, the small donations aggregating to a considerable amount, and some cheques for large sums being sent direct to the Fund. By way of getting at that part of the population which leaves London on Sunday, leaflets were distributed this year in public vehicles and collecting boxes placed at several well-known Sunday resorts in the neighbourhood of London.

ORDER OF ST. JOHN OF JERUSALEM.—The King has been graciously pleased to appoint the undermentioned gentlemen to be Knights of Grace of the Order of the Hospital of St. John of Jerusalem in England:—Andrew Clark, F.R.C.S. (from Honorary Associate); Surgeon-Major John Arnallt Jones, M.D., 2nd Volunteer Battalion the Welsh Regiment (from Honorary Associate); Deputy Inspector-General Theodore Julian Preston, M.D., R.N.; Robert Jones, Esq., M.D. (from Honorary Associate); and Major Thomas M'Culloch, R.A.M.C. Dr. S. Hamilton, chief surgeon of the Newport Ambulance Corps, has been appointed an Honorary Associate of the Order.

MEDICAL PRACTICE IN PERSIA.—In an article entitled Chances of Practice Abroad which appeared in the BRITISH MEDICAL JOURNAL reference was made to Persia. In regard to that country Dr. Joseph Scott, of Teheran, has been good enough to supply some additional information which may perhaps be useful to some readers. Many of the large provincial towns afford good openings, and a young practitioner may easily get an appointment as physician to a local governor. The scale of fees is as follows: Consultation, 5 tomans; visit at patient's home, 2 to 3 tomans; at doctor's own house, 1 toman each visit, paid at the time. The rate of exchange is 5 tomans 4 khrans to £1. The Church Missionary Society has hospitals at Ispahan, Yezd, and Kirman. There is a good opening for an ophthalmic specialist. In estimating the chances of practice in Persia it should be borne in mind that French medical men are at present more in favour than the British. Lately the Sultan has secured the services of three French army medical officers to found a school of medicine, and a new hospital is in course of erection which is to be placed at their disposal for purposes of clinical instruction.

INCORPORATED MEDICAL PRACTITIONERS' ASSOCIATION.—The annual meeting of the members of the Incorporated Medical Practitioners' Association was held at the Trocadero Restaurant on June 14th, when Dr. A. Percy Allan, of Croydon, was elected President for the year. After the meeting the members and friends dined together. Dr. Allan who was in the chair, announced in reply to the toast, "Success to the Association," that the Council had resolved in regard to the forthcoming election of Direct Representatives to the General Medical Council to recommend the members to support the candidature of Mr George Brown, one of the present Representatives, and Mr. Joseph Smith, President of the Association of Members of the Royal College of Surgeons of England, who was a candidate at the last election. In the course of the evening, the retiring President, Dr. Rivers-Willson, presented a testimonial to Mr. G. Brown, consisting of an illuminated address and a cheque in recognition of his services to the Association as Honorary Secretary and Editor of the Official Journal.

ORAL INSTRUCTION OF THE DEAF.—From the report for 1905 of the Association for the Oral Instruction of the Dea and Dumb we learn that in both departments of the work carried on by Mr. Van Praagh and his colleagues a 11, Fitzroy Square, the Training College for Teachers, and the Practising School, which is attended by some fifty dea boys and girls, quiet but continued progress has been made. Dr. Eicholz, H.M.'s Inspector of Schools, reports that the institution obtains "results which are, particularly among the advanced pupils, admirable," and awards the highest grant possible both for general and technica instruction. This official commendation gives point to the appeal which the Committee makes for increased public support to prevent the valuable achievements o the last thirty-six years being imperilled through want o funds, it appearing that there is an annual deficit of no less than £500. Though the education of deaf children has happily been made a duty of the public elementary educational authorities throughout the country, there is yet ample scope for the operations of a society which no only educates deaf children but trains teachers for th deaf on the pure oral system, and it must be remembered that Government does not provide the means of training teachers, though a special grant is given for the instruction of deaf children. The Practising School is open fo inspection at 3 p.m. on Wednesdays, and a visit wil afford the most convincing proof of the utility of th institution.

ROYAL COLLEGE OF VETERINARY SURGEONS.—The annua dinner o' the Royal College of Veterinary Surgeons wa held at the Trocadero Restaurant on June 6th, Mr. Joseph Abson, the President, occupying the chair. The toast o "The Medical Profession" was proposed by Mr. William Hunting, who said that in the future the medical profession was bound to work *pari passu* with veterinarians i the study of general pathology, in view of the transmissibility of the diseases of animals to man. Colone Lane Notter, in responding, emphasized the necessity o combined veterinary and medical inspection in the suppl of meat and milk in the interests of the public. The toas of the evening, "Prosperity to the Royal College o Veterinary Surgeons," was proposed by Sir Nige Kingscote, who stated that since the College received it charter sixty-three years ago the profession had mad great strides in its educational programme, until at presen its examinations were equal to those of the medical profession. He thought it was quite time the veterinar profession, in the interests of public health, shoul insist upon veterinary surgeons alone being appointed inspectors of dairies and meat, many sanitary inspectors a the present time being totally unqualified to fulfil thei duties. In response to the toast of "The Visitors," th President of the Pharmaceutical Society suggested that th veterinary profession should join the medical and th legal professions in making a strong protest to Parliamen against personal qualifications being whittled away in th service of unqualified practitioners. It was not in th interests of the public that a company should be allowe to carry on practice by using the names and qualification of individual practitioners.

British Medical Journal.

SATURDAY, JUNE 23RD, 1906.

DYSENTERY IN TEMPERATE CLIMATES.

of the most frequent and troublesome causes of ill-
s in lunatic asylums and a fairly heavy contributor
he death-rate of those institutions is the condition
nmonly spoken of as asylum dysentery. Thus, in
4, according to the report of the Lunacy Commis-
ners for that year, there were in 88 county and
ough asylums 1,016 cases of dysentery and diarrhoea
der treatment during the year, of whom 254 died. Not-
hstanding almost universal prevalence of the disease
lunatic asylums and the numbers of years during
ich it has been open to investigation the greatest
ergence of opinion is still to be found amongst
lum superintendents as to its cause and proper mode
prevention. Mott and others firmly maintain its in-
tive nature and recommend the prompt isolation of
cases of dysentery and even of diarrhoea. The
nacy Commissioners have laid stress on the close
nexion between its incidence and the existence of
rcrowding in asylums, supporting this view by
gestive statistics, whilst others, like Bevan Lewis,
nitting its probable infectivity when once originated
a community of enfeebled persons, deny the influence
overcrowding, sanitary defects, or dietetic errors in its
isation, and would find the real origin of the trouble
bowel atony and long-continued constipation. There
ms to be very little doubt that asylum dysentery is in
lity the same disease as that which exists in epidemic
m in the tropics and Japan to-day and was once rife
England and Ireland. There is, in fact, a general
eement that it owns a microbic origin, and a great
nber of different organisms which have been found
the stools have been claimed by their discoverers as
hogenic.

)r. W. Bernard Knobel,[1] who made a study of this
ease at Bexley Asylum, assumes that the disease is
this country practically confined to lunatic asylums,
erting truly enough that it is hardly ever recorded
ordinary hospitals, workhouses, or prisons. The
per by Professor Saundby, however, published in the
ITISH MEDICAL JOURNAL of June 9th, p. 1325, throws
ubt on the correctness of this assumption, and rather
gests that cases of dysentery associated with the
sence of Shiga's bacillus are perhaps commoner
ong the general population than is generally sup-
sed. At any rate, his cases raise the question whether
is justifiable to describe under the separate heading
ulcerative colitis cases which present the same
rbid anatomy and symptoms, yield the same micro-
anism, and are amenable to the same treatment as
pical dysentery.

n this connexion, some recent observations of Drs.
I. Mason Knox and Edwin H. Schorer, of Baltimore,[2]
the relationship between different clinical types of
rrhoea found in children and the presence in their
ecta of one or other variety of the so-called dysentery
up of bacilli, are suggestive. In forty-two—or 58.3 per cent.—of seventy-four cases, cultures made from the stools during life or the intestine after death yielded some variety of the dysentery bacillus, without admixture of streptococci. In eleven additional cases streptococci were associated with dysentery bacilli. Including these, dysentery bacilli occurred in 73.1 per cent. of all the cases studied. A small number of the children yielded the streptococcus, and a still smaller number the *Bacillus coli communis* and *Bacillus pyocyaneus* as organisms which possibly were directly concerned with the production of the intestinal lesions and symptoms. In the majority of the cases in which dysentery bacilli were present only one type of this organism was discovered, but in a considerable number a mixture of types was found. Comparing the severity of the disease with the character of the dysentery bacilli present, it was noticed that the most serious lesions and the greatest fatality occurred in the cases in which a mixture of different types of the dysentery micro-organisms was demonstrable. But the authors do not consider that the number of their cases was sufficiently large to justify any general conclusion from this observation.

The characters of the intestinal lesions found after death were extremely variable, and showed no definite relationship to the types of the infective bacilli which were present. In some cases the lesions were invisible to the naked eye; in other cases congestion or a pseudomembrane or ulceration was observable. It seems probable, therefore, that no distinction—except possibly as regards degree of severity—can be drawn between the lesions produced in children by any of the recognized types of the dysentery bacillus. In only two cases was it found that the dysentery bacillus had penetrated as far as the mesenteric glands and the liver.

After allowing full weight to considerations such as those here mentioned, it still appears clear that dysentery is commoner in this country in asylums than out of them, and there is something to be said for Dr. Knobel's contention that one of the most important predisposing factors is the alteration in the normal trophic innervation of the intestine as the result of cortical degeneration. He further holds that not one but many micro-organisms may give rise to the disease, and instances as other conditions favourable to an outbreak disturbance of subsoil in the neighbourhood, and the continued presence of what Maclean called a "privy atmosphere." As to its infectivity, Dr. Knobel gives charts relating to the occurrence of asylum dysentery at Bexley Asylum, and says that "the evidence contained in these charts "points conclusively to the absence of any relation "between the transference of patients, after an attack of "dysentery, from ward to ward, and the occurrence of "fresh cases. Moreover, they show that there is no "relation between the number of patients who "have had dysentery in a ward—that is, the "supposed infectivity of that ward — and the "incidence or increase of dysentery in that ward." The question of its infectivity is of vital importance, and it is interesting to note that whilst Dr. Mott considers his results at Claybury demonstrate the beneficial influence of isolation, Dr. Knobel uses the same figures to show that the infective nature of the disease has been exaggerated and that the preventive influence of isolation is inconsiderable. As a matter of fact, the Claybury figures do show a decided and increasing fall in the number of cases, though perhaps not so great as might have been anticipated if all cases were infective. Dr. Knobel suggests that asylum dysentery is due to many different causes, and for that very reason its possible infectivity in many cases should not be put hastily aside. That a general anergia and loss of intestinal tone should predispose to bacterial infection is only reasonable, but whether this acts, as Dr. Knobel concludes, through "an alteration in the normal con-"trol exercised by the intestine over the growth of "colon bacteria" or by the resulting constipation facilitating the multiplication of bacteria normally present in the large bowel, is open to question. In this relation we may again direct attention to the remarkably good results, published by Dr. Bevan Lewis in his annual report of last year, following energetic treatment based on the lines of the latter possibility.

---

[1] *Journ. of Ment. Science*, April, 1906.
[2] *Journ. of Exper. Med.*, May, 1906.

THE ACTION OF DIGITALIS, SQUILL, AND STROPHANTHUS UPON THE HEART.

ALL clinical observers are agreed that the drugs acting upon the heart produce at times inconstant effects. The introduction of the glucosides produced from these drugs, such as digitalin and strophanthin, seemed at first to hold out hopes of accurate dosage and less variability of action. Although favourable reports appear from time to time, it must be admitted that these substances have not as yet commended themselves to the profession at large; and this is probably due to the fact that the glucosides cannot be extracted from the plants in a really pure condition, without the loss of a great deal of their power. The quality of the active constituents also varies with the time of year, in different plants, and in different parts of the same plant. For these reasons many physicians prefer to use, for instance, the infusion of digitalis, which when freshly prepared contains an active mixture of the effective principles of the plant. Pharmacological researches have also led to the same result, as was the case in those of Kakowski reported in this JOURNAL. The recent investigations of Haynes, carried out in the pharmacological laboratory at Cambridge, and published in the second number of the new *Bio-Chemical Journal*, again point to the desirability of some official standardization of these drugs, such as has been urged many times by physicians and pharmacologists. In the absence as yet of accurate chemical methods, the bio-chemical method, in which the minimum lethal dose of each preparation is ascertained for the frog, is the only one at our disposal. Some such indication of the actual working strength of the preparation used would be of the greatest value. At present much valuable time is frequently lost in tentatively increasing the dose of the drug, owing to ignorance of its real active strength.

An interesting comparison of the action of digitalis, strophanthus, and squill upon the heart is yielded by Haynes's experiments. He found that for the frog strophanthus is ten times as toxic as either of the other two drugs; a similar result was also obtained upon the heart of the cat. This is not in accordance with the usual opinion, for although some observers have pointed out that strophanthus is a dangerous drug, and it is certainly usually given in smaller doses than digitalis, nevertheless the general impression is that it is less active. A case of cardiac disease, as Haynes mentions in his paper, which is not improving under digitalis, may immediately improve when placed upon strophanthus; but we should think that the opposite was a commoner occurrence, for a failing heart, which does not improve under the action of the latter drug, will frequently respond at once to the former. The two medicines are not, of course, strictly comparable their effects, for strophanthus does not constrict t peripheral blood vessels to the same degree as do digitalis, and is therefore specially to be recommend when the blood vessels are diseased.

The author recommends a more extended use squill in heart disease, finding that it acts more quick and effectively upon the heart of the cat and rabbit th digitalis, while it does not cause any more, if as muc gastro-intestinal derangement. In therapeutic doses brings about a more complete and prolonged systo and diastole than digitalis, and slows the heart beat a greater degree. He found, however, that squ produces more vaso-constriction of the coronary arteri than either of the other two drugs. This seems to an extremely important point, and one which is like to invalidate the extended use of squill as a cardi tonic, for any diminution of the blood supply to t heart itself is without doubt extremely undesirable. man, also, the gastro-intestinal irritation referred to usually found to be more marked with squill th with digitalis, and the action upon the heart to be f less permanent. Nevertheless, these experiments sho that it is desirable to give squill a careful trial in tho cases in which it is necessary to produce rapidly stimulating effect upon the cardiac muscle.

HOUSING IN IRELAND.

To the social reformer the most interesting event the work of Parliament last week was the debate the Labourers (Ireland) Bill. This measure propos to extend and amend the Acts passed in 1883 and 18 so as to build at least 25,000 more cottages in which house Irish peasants. Under the old Acts some 20,0 dwellings have been built, which the visitor to Irela observes now and again in the rural districts, pleasing contrasts to the wretched hovels in which t majority of the labourers are forced to dwell. As these, General Gordon once said that he had se squalor and misery in many climes, but that he h come across in his travels nothing worse than t labourers' homes in Ireland.

It is to remedy this pitiable state of things close the centre of the Empire that this new proposal w brought forward last week. Some 4¼ millions of mon are to be lent to local authorities at a rate of interest 3¼ per cent., or more than 1¼ per cent. less than und the old Acts. This sum, it is calculated, will suffice erect 20,000 to 30,000 cottages, which will be let at 1s. 1s. 6d. a week. It is estimated that £170 will be t outside cost of each cottage, while money will also forthcoming for the enlargement and improvement existing dwellings. The procedure under the Acts is simple. The district council can be forc to take steps to improve the housing of the people a representation made to them by any three or mo persons, or the council can formulate a scheme of i own accord. After an inquiry by the Local Gover ment Board, if the scheme be approved, the necessa powers for the acquisition of land and the grant a loan are given. To the cottages so built, land up one acre can be attached; and other clauses in t Bill provide for enabling the occupier, after a time, borrow money to purchase a parcel of land, so as become a small holder. Thus the ladder is built which decent homes may be the first step advancement from the allotment to the farm.

All this is excellent. We cannot help asking why cannot be done for England too? The housing of t labouring classes in this island is also an urge roblem. The people are steadily leaving the country nd crowding into the towns, to the great detriment of griculture and to the necessary deterioration of the ealth and stamina of the race. The evil has been more cute and the misery greater in Ireland than here, and here measures have been consequently more drastic. olitical economy has had to yield in face of distress, nd the danger of subsidising wages by cheap houses as been ignored. Legislation in this direction began n 1883, when the first Labourers Act was passed, and ince then some 20,000 cottages have been built in ural districts. England began in 1890 with the housing f the working classes, and since then less than 0 houses for agricultural labourers have been erected ll over England. The contrast is striking. There is a elect Committee even now sitting to consider the Bill hich was discussed in these columns in the issue of Iarch 3rd last, and we hope its labours will result in ecommendations in favour of some vigorous and imple means similar to those adopted in Ireland. In ngland cumbrous methods of procedure, an excesive and shortsighted dread of increasing the rates, an lmost superstitious fear of interfering with private ights for the public weal, and the economic bogey, ave rendered housing Acts inoperative and worthless. reland has been for many years the pioneer in all uestions of land legislation, and can now show us a ay to solve the housing problem. English legislators hould not hesitate to learn the lesson so far as it is pplicable. We feel confident that public money wisely sed to maintain an industrious peasantry on the land nder healthy conditions of housing, will in both islands epay the Empire a hundredfold, by adding to the productiveness of the soil and increasing the vigour of the ce.

OXFORD AS A MEDICAL SCHOOL.

o those who can look back on the medical profession it was in this country thirty years ago, perhaps no ange is more striking than the vastly increased umbers of practitioners who hold degrees from xford or Cambridge. While in the Seventies men om the old universities were but as drops in the ean of the London hospitals, now Cambridge is the rgest medical school in England, while the aver-ge yearly output of medical graduates from xford has risen from one to twenty-five. While is revolution—for it is nothing less—has been ought about partly by what Matthew Arnold would ve called a natural "stream of tendency," it is mainly e result of the determined and persevering efforts of a ndful of enlightened men, led at Oxford by Sir enry Acland, and at Cambridge by Sir George Murray umphry. There can be no doubt that the closer sociation between the older universities and the edical profession has been beneficial to both. If, on e one hand, it has helped to raise the status of e profession, on the other it has done much to deem Oxford and Cambridge from the reproach of ediaevalism. It is to be hoped that intending students medicine will in still larger numbers seek the special vantages of a university training, for there is nothing this country that puts on a man quite the same amp of broad culture and social fitness. In this issue publish an article on the Oxford Medical School, ich, we fear, is not so well known as it should be the bulk of the profession. That article gives the nest impressions of an observer who is not an Oxford an, and who has tried to give a faithful account of at he saw and heard. It will be gathered from the ticle that the Oxford Medical School of to-day is t quite what Acland hoped to make it. The medical student who goes through the ordinary public school course now has the shackles of classicism knocked off on the very threshold of his academic career. The result of this is that instead of going through a course which extended to nine and even ten years before the degree of Bachelor of Medicine was reached, he can now get a degree in medicine and one in surgery in a space of time that need not be longer than that actually taken by the average London student to obtain the diploma of the Conjoint Board. It is true that if he is to do this, he must lead the strenuous life in a very real sense. In the early part of his career, indeed, examinations come so thick and fast upon him that it is not surprising if here and there a panting student toils after the syllabus in vain. Nevertheless, it is well that it should be known that the medical degrees of Oxford are within the reach of any man of average ability who has received a good preliminary education and who works seriously while he is at the University. The distinctive feature of the training is the wide and solid grounding in the ancillary sciences and in the "institutes of medicine." Beyond that the ambition of the pioneers of reform did not go. But within recent years the range of medical study at Oxford has undergone a most important extension, and students have now the opportunity of learning the elements of clinical medicine and surgery in a very thorough manner at the Radcliffe Infirmary. The advent of Professor Osler, a physician of world-wide reputation, cannot fail to have a powerful influence on clinical teaching, and on medical study generally, at Oxford. The future development of the medical school of the famous old university on the Isis will be watched with high hope by all who are interested in the progress of medical science and the elevation of the profession. In the meantime it may be stated, without fear of challenge, that at the present time there is no school in this country or abroad where a more solid foundation of knowledge and of character—and in the practice of medicine character often counts for more than mere knowledge—than at Oxford.

PROPOSED APPLICATION FOR A CHARTER.

A SPECIAL meeting of the Central Council of the British Medical Association was held on June 20th, when the Draft Charter and Ordinances as published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 24th were considered clause by clause, and certain amendments were carried which will be duly reported to the Representative Meeting. The Council sat from 2 to 6, and it was then arranged that a motion by Dr. Helme, raising the whole question of the policy of applying for a Charter, should be discussed at the ordinary meeting of the Council on July 4th.

ANNUAL REPRESENTATIVE MEETING.

THE Metropolitan Counties Branch is arranging to show some hospitality to the Representatives attending the Annual Representative Meeting in London on July 24th and the following days. A circular letter issued by Dr. F. J. Smith, Honorary Secretary of the Branch Entertainment Committee, points out that it is now eleven years since the metropolitan members of the Association have entertained officially any of the provincial members, though the metropolitan members have in the interval received much hospitality at the hands of provincial and Scottish members. The Council of the Branch therefore believes that many members of the Metropolitan Counties Branch will consider the Annual Representative Meeting a fitting opportunity for returning in some measure the courtesies received from members of other Branches. The arrangements are at present incomplete, but the Metropolitan Branch will give a conversazione at the

Natural History Museum, Cromwell Road, S.W., on Tuesday, July 24th, at 8.30, and some members will show private hospitality to the delegates. We are asked to state that the Irish Medical Schools' and Graduates' Association intend to invite members of the Representative Meeting to an entertainment on Thursday, July 26th.

LOCAL EDUCATION AUTHORITIES AND THE FEEDING OF SCHOOL CHILDREN.

WE understand that the Select Committee which was appointed early in the session to consider the Bill which was introduced in the House of Commons dealing with underfed school children has concluded taking evidence, and is now engaged in considering its report. The subject has excited much discussion, and the Committee will have a delicate task in avoiding on the one hand opening the door to the evasion of parental responsibility, and on the other in finding an adequate remedy for the physically unfit condition in which many children in large towns and in times of distress attend our public schools for elementary education. The experience of foreign countries is very like our own in this matter. States have hesitated to municipalize the family and have generally preferred to avoid the implication that because the Government compels attendance at school and makes public provision for education, it is bound also to see to the feeding and clothing of its scholars. There are those who urge that the very fact that the State has assumed those responsibilities in regard to the minds of the children is a ground for urging on parents the greater obligation there is upon them to administer to the needs of their bodies. It has been truly said that in the anaemic brain of the underfed child the first function to fail is that of concentrating the attention. This failure, by necessitating a greater resort to the wearisome process of repetition, makes teaching dull and laborious alike to the teacher and the pupil. We see no reason why, just as the provision of a good school meal at a reasonable price has become a common practice in many secondary schools, similar facilities should not be provided when deemed expedient in association with public elementary day schools. The State requires that children between 5 and 14 shall be at a certain place for a certain time each school day for the welfare of their minds. It cannot, while retaining this power and enforcing it, rid itself of all responsibility in regard to the welfare of the body of these children of tender years. It already caters for their physical welfare by providing playgrounds, etc.; is it unreasonable to ask that public provision should also be made for cooking and serving the mid-day meal? We have observed the interesting experiment of the London County Council in some fifteen of its schools, where the product of the schools of cookery is utilized for the provision of a substantial meal at cost price. This experiment might form the basis for future administration, and we trust that any legislation that may result will regularize and establish some such arrangements. In the Education Bill now before Parliament there is a clause enabling local authorities "to attend to the health and physical conditions of the children," and we are sure that the voice of the medical profession and that of the children will be in harmony in declaring that among the "physical conditions" of growing boys and girls demanding earnest "attention" not the least important is that which seeks for satisfaction in the dinner hour.

THE ROYAL SOCIETY.

THE second or ladies conversazione of the Royal Society was held at the rooms of the Society on Wednesday evening, June 20th. Judging from what was shown it is perhaps permissible to deduce that no very epoch-making researches are at present in progress bu that much is being done in the way of applying an developing already existing knowledge. In any cas there was a good deal that was attractive in itsel to the general public and still more that was readil comprehensible even in the short space of time durin which it is possible to examine any one exhibit o these occasions. Among the former was a ver pretty series of floral, geometric, and other form produced by the human voice in singing, whe moistened water colour is spread on paper attached t an india-rubber vibrator. There were several sets natural-colour prints, showing to what a remarkabl degree colour-photography has developed in the las year or two. Curiously enough, though doubtles absolutely true to nature, these pictures, esp cially those of common objects such as houses, seeme unnaturally bright in tone and colour contrast Of exhibits having a direct interest for medical me there were very few; from such as there were may picked out some stereoscopic photographs illustratin the comparative anatomy of the membranous labyrint shown by Dr. Albert Gray, and two new development in microscopy. The first of these, shown by Messr Carl Zeiss of Jena, was an application of ultra-viol light to photomicrography. Advantage has been take of the fact that the resolving power of an objecti advances in direct proportion to decrease in the wa length of the light used. By using ultra-violet ra and fused quartz lenses and cover-glasses, with slide either of thin sheets of quartz or of glass permeable ultra-violet light, an objective with a numerical apertu of 1.5 acquires the same resolving power as one wit an aperture of 2 5. The amount of detail shown this apparatus was certainly remarkable. That e hibited by Messrs. R. and G. Beck showed even mo clearly the resolving power of light of different wav lengths. It is so arranged that any portion of t spectrum can be used for illuminating the object an the results compared. Another novel exhibit was that Mr. R. G. Durrant, which showed that ionic separatio occurs when solutions of acids or of salts are allowed diffuse into sensitized jellies or solutions. For instanc when acids diffuse into jellies some hydrogen ions sepa ate and advance, anions being left behind. Intere of another sort attached to the exhibits of the Roy Microscopical Society. These, presented recently to t Society by M. Alfred Nachet of Paris, were micr daguerreotypes of blood, milk, and crystals. They we taken as far back as 1844 by Léon Foucault on silv plates, by Daguerre's method, and probably represe the first photomicrographs ever produced. They looke very much like the illustrations common in textbooks physiology thirty years ago. During the course of t evening there were three lantern demonstrations, all a more than usually popular character, one, by D Tempest Anderson, dealing with the recent eruption Vesuvius; another, by Sir William Crookes, with t diamond industry in South Africa, and some of t properties of these stones; and the third, by Mr. Frederi Enock, illustrating the adaptability of the colour certain insects to their environment as a means gaining protection.

THE ROYAL COMMISSION ON THE POOR LAWS.

THE Irish Committee of the British Medical Associatio which came into being at the annual meeting of Repr sentatives last year, has not been slow to recognize t possibilities offered by the Royal Commission on t Poor Law. It may be long before this Commission ready to begin the consideration of Irish affairs, b even if this interval lasts a year or two it will be by means too long if a really convincing array of eviden is to be prepared, and if the extreme difficulties—mora

al. and financial—to which medical men in the
Poor-law service are subjected are to be brought
clearly to the Commissioners. The Irish Com-
therefore decided to take time by the forelock,
e task of helping to get together evidence which
itself is already in hand. The Irish Committee,
lition to ordinary *ex-officio* officers, is formed of
ecretaries and one elected member of each of
ranches of the British Medical Association in
d, and has Professor Byers, of Belfast,
Chairman, and Professor A. H. White, of
n, as its Honorary Secretary. It is therefore
elf well acquainted with the general subject and
epresentative of the general body of the profession.
ler, however, to concentrate initial labours and
uently secure for the endeavour the co-operation of
every Poor-law interest in Ireland, it appointed
ommittee to deal with the whole question. This
mmittee in its turn put itself into communication
the Irish Medical Association, the Poor-law
s' Association, and the Workhouse Reform Associ-
with very happy results. The net outcome so
that a joint Committee representative of all four
has come into existence and has subdivided
gain into three sections each with its own secre-
and each charged with the performance of a
nt part of the general labour, but all in close
with each other's work through the general secre-
Professor White. Obviously, therefore, the whole
nery for the collection and preparation of evidence
irably arranged and should prove very successful.
mount of well-directed industry, however,
part of this Joint Committee can prove effective
individual medical men in Ireland co-operate
t heartily. Doubtless they will soon be asked to
information and prepare returns in respect of
work, but whatever form the requests may take it
estly to be hoped that in the common interest
vill meet with ready response from all alike.
et every one to whom application is made contri-
ach his brick, and the desired edifice of incon-
ible facts will quickly be erected.

ING IN VOLUNTEER MILITARY HOSPITALS.

volunteer force now reaches some quarter of a
n men, of whom about 97 per cent. are efficient.
olunteer Medical Services are contemplating a re-
zation which shall place them in line with the
zation of the Royal Army Medical Corps, and will
course of time provide the medical units neces-
or the mobile field army. But there is no
zation yet in existence which would guarantee
rovision of hospital accommodation in places
no such institutions exist in this country.
s will not necessarily be fought in the vicinity of
ospitals. It will therefore be necessary to arrange
ertain number of general hospitals to be erected
itions which can only be strategically indicated
nature of the operations which take place. While
mber of volunteer medical officers will probably
ficient to provide surgeons for such units, the
g staffs, male and female, will be deficient unless
be taken to make good the want. There is no
nery for the provision of nurses for such a
. There does not appear to be any reason why
al nurses should not make themselves available
is service. The reason why they have not yet
his is probably to be found in the fact that the
g profession is a comparatively young one, and
t yet grasped its duties to the State. It is to be
that the present stir of reawakened interest in
ixiliary Services may likewise arouse the nurses
rganized effort to make themselves available for
tional schemes of defence.

"BUTCHER'S MEAT."

IN connexion with the disclosures that have been made in America of the unwholesome nature of much of the tinned and preserved foods imported from that country into Great Britain, it is not unnatural that the condition of our own meat supply and the dangers of possible contamination from various sources should come in for a share of the scrutiny. In this regard attention may be drawn to the practice of many, if not of most, butchers of freely exposing the limbs and carcasses of slain animals to the open air of the street, where they are exposed to germ-laden clouds of dust as well as to the unceasing attention of myriads of house-flies. It is not uncommon to see carcasses hanging within a few yards of the public roadway, which is churned into manure-laden dust by horses and vehicles and freely and impartially distributed by high-speed motor-cars. In view of the increasing importance of the dust nuisance it is more than ever important that every article of food should be screened from the public street, and this applies especially to an article so liable to infective and putrefactive processes as raw meat. The part played by flies as the carriers of pathogenic and putrefactive bacteria in relation to the contamination of food has scarcely received sufficient attention and greater care should be taken to prevent their access to food intended for human consumption. In the case of raw meat the micro-organisms are destroyed by the process of cooking, but this does not apply to their toxins, whether intracellular or extracellular; and cases of summer diarrhoea, the origin of which is obscure, may owe their explanation to meat which has thus become tainted, though perhaps not sufficiently as to become noticeable. It should also be remembered that frequently infants and young children and many invalids are fed on raw meat juice, or raw scraped beef, and that raw meat is largely used in the treatment of tuberculosis; and the possibilities of such meat having become infected in the hot weather should not be disregarded. Sanitary authorities should insist upon raw meat being kept in cool, well-ventilated chambers away from the public streets. Such chambers should be tiled and have impermeable floors, so as to be kept absolutely clean, and the ingress of flies should be prevented by the use of perforated zinc or some such contrivance. Butchers' carts should be well covered and provided with chambers which will exclude dust. Only in this way, combined with proper inspection of meat and of slaughter-houses, can we be sure of a pure and wholesome meat supply.

PROPOSED INDUSTRIAL COLONY FOR THE FEEBLE-MINDED.

THE annual meeting of the National Association for Promoting the Welfare of the Feeble-minded, which for ten years past has been doing useful work in promoting the welfare of the feeble-minded class, both children and adults, was held on June 15th at Denison House, the President (Lady Frederick Brudenell-Bruce) in the chair. The meeting was addressed by the President, by Earl Stamford, by Sir William Chance (Chairman of the Executive Committee), by Sir R. Biddulph Martin (Treasurer), and by Dr. G. H. Savage, Mrs. Scharlieb, and Dr. Shuttleworth. The Earl of Stamford, in moving the adoption of the report, mentioned that H.R.H. the Princess Christian had recently become Patroness of the Association, and that Sir William Chance had succeeded Mr. W. H. Dickinson, M.P., as Chairman of the Executive Committee. Mrs. Scharlieb, M.D., in seconding the adoption of the report, spoke of the preventive character of the work of the Association, and pointed out that the feeble-minded, without such help as this Society afforded, tended to swell the pauper and the criminal class, and for the sake of society and the nation at large it was absolutely necessary to stem the stream of evil at its source, the tracing of which was one of the problems the Association had set itself to solve. Sir W. Chance, supporting the motion, gave a succinct account of the work of the Society, pleading earnestly for funds for the establishment of an industrial colony, towards which he himself contributed £50. Dr. Savage said that the feeble-minded formed a large and increasing class which in the past had either been neglected or improperly associated with the insane or the idiotic. In it was found the potential criminal, the future tramp, and the woman easily lured to moral destruction. It was society's duty to save them from harm and thus to safeguard itself. Degenerates were found in all social classes, and where there was original mental defect training could not produce normality, though it might render those who had the benefit of it wage-earners under kindly supervision. Hence the utility of such an industrial colony as the Association was seeking to found, where, working in healthy surroundings and employed in varied avocations, the feeble-minded colonies would have before them a happy and servicable career. At Earlswood most excellent work was being done by employing in useful occupations the higher grades of imbeciles. Up to the present time about £500 has been promised towards the £10,000 needed for the establishment of an industrial colony.

STREET AMBULANCES.

DR. HENRI NACHTEL, who is at present on a visit to London, holds strongly that the London County Council is making a great mistake in proposing to work its two experimental ambulance stations with motor-driven vehicles. He considers that, at least until the administrators and executive officers of the scheme have become thoroughly conversant with the work, it would be very much better to use horse-drawn ambulances. Another serious defect he sees in the scheme is that it makes no provision for the first-aid treatment of all cases of accident by qualified persons, as in other great cities. So far as the first of these criticisms is concerned, it is to be noted that the use of motor-driven vehicles necessarily greatly increases the initial outlay on a service, and it is this initial cost which has hitherto retarded the provision of an ambulance service by the London County Council. Whether such vehicles would prove more efficient than horse-drawn vehicles is another question; the City Corporation, after collecting evidence on the point from various cities, came to the conclusion that horse-drawn vehicles were preferable, motor services in America, the birthplace of street ambulance systems, having proved very unsatisfactory. The Metropolitan Ambulance Association, which consists mainly of medical men in London practice, also reached the same conclusion by a different route; it thought there was nothing to be gained by substituting mechanical for horse traction, since horse ambulances would travel quite as fast as was desirable, and at the same time were steady. Dr. Nachtel's views, therefore, merely confirm those of many other persons, though, as his experience of street ambulance work has been very great, his opinion would carry much weight even if he stood alone. As was pointed out in these columns some twenty years ago, he was the first to take up the question of street ambulances on this side of the Atlantic, and it is not so very long since he gave up his connexion with the successful Paris enterprise. The history of the latter shows how very much alike are municipal and governing bodies all the world over. Dr. Nachtel having noted the possibilities of the New York street ambulance system, then in its infancy, modified it to meet the conditions in Paris, and began to urge its adoption in 1880. Four
years' advocacy led to a whole-hearted a
ance of the scheme by individual members o
city government, but as a body they took no de
step. In despair he turned to private charitable
prise and got together a lay committee with
Simon as president, Henri Monod as vice-presiden
Pasteur, Alexandre Dumas, Leon, Lee, Ernest
and others, as its members. No undertaking back
such lights of the literary and social world
possibly fail, so a couple of years later saw the
street ambulance system actually at work. I
carried on as a private enterprise under Dr. Na
general superintendence for some ten years, an
then taken over by the municipality as a part
ordinary public duties. From this the history of L
only differs in so far as that private enterprise, t
in many respects it has done much, has never suc
in the smallest degree in meeting the needs
situation. The new systems, therefore, wh
instituted, will be complete innovations. That
City may be expected to commence work first,
the machinery has long since been thought out,
needs little more than a word to set it in action.
ever may be the case with the Metropolitan Police
is at any rate no demur on the part of the City
authorities. A very strong report, from which w
frequently quoted, was submitted by the Commis
some two years ago, and it is recognized that a
ambulance system is not only an urgent necessit
that, properly managed, it will facilitate the work
constables commonly have to perform. Cond
outside the City do not materially differ, so that
Metropolitan Police really do not favour the C
Council scheme, the source of objection is proba
be localized in some point of administrati
authority. This should be susceptible of ready a
ment, and in any case should not be allowed to
in the way of a scheme of vital importance to
worker in London.

NURSING IN THE ARMY.

THE *Broad Arrow* of June 16th contains an arti
Queen Alexandra's Imperial Military Nursing S
which, while it displays considerable intimacy
Army Estimates, shows a want of acquaintance
practical nursing and with how to train recruits
male nurses. The article is animated by a des
return to the "good old times" when the n
of patients was carried out by the men
had also to scrub the floors and to do a
dirty work in the hospital. The article prac
proposes the abolition of the new nursing s
of the Royal Army Medical Corps, a section wh
gradually becoming highly proficient in nursing
under the training of skilled women nurses
proposes to return to the Jack-of-all-trades o
instead of continuing to train specialized male n
Who that had experience of military hospitals o
ten years ago, can make any comparison betwe
nursing of that time and the vastly-improved con
of the present? In those days the serious case
nursed by men who had received, from amate
more than a rudimentary training in the duties of
attendant. Now the Royal Army Medical Corps
least a small proportion of its men placed on a f
of equality with the Japanese male sick atten
Curiously enough, the article appears disposed to
reasonable view of the nursing conditions which
be fulfilled in military hospitals in war, and rec
that the medical units for rough-and-tumble
work must be men of the Royal Army Medical
It will be well for the sick that those units now c
what they never had before—male nurses pr
trained in peace time by women nurses. It i
recognized that the hospitals, properly so-called

ursed by women. The sick or wounded soldier will
ry grateful to escape from the field unit to obtain
ed nursing by highly-trained women. The fear of
reat will not affect the nerves of women who have
n up army nursing as a career; neither will the
r at their baggage lower the high estimate placed
generals and other combatant officers on the
strations of women in a sphere peculiarly
own. But it is a serious mistake to sup-
that we can wait for women nurses until war
s out. Those who were in the last war do not
to renew in any future campaign their experiences
hat waiting for nurses means. The exponents of
grade views will, it is to be hoped, never have
ion again to face national indignation such as
aroused five years ago by the imperfect provision
nong other things, skilled nurses. It is true that
are symptoms indicating a wish in some quarters
turn to rejected ideas. But there are watchful
placed higher than retrograde military medical
rs. Under these eyes the soldiers' hospitals are
ing a standard of efficiency which the common
of the nation will not allow to be upset by those
are always looking back, who live on the verge of
asting night. Let such go to join the three old
en who had only one eye between them, and one
n: "Old times were better than the new."

EARLY MEDICAL WORKS.

NG the week the interesting collection of early
al works formed by the late Sir William Banks,
ich reference was made last week, has been sold
essrs. Sotheby, Wilkinson, and Hodge at their
s in Wellington Street, Strand. The collection
atalogued in seventy-eight lots. The prices ob-
l showed on the whole an advance on those
ly given; this may be accounted for partly by
number of rare and curious books in this
tment of literature offered at one time being
ally large, and partly by the trouble that had
bestowed upon their binding and preservation.
less an increasing interest is being taken in the
of the ancients. The total amount realized by
eventy-eight lots was about £200, by no means
satisfactory result, having regard for the fact
the collection contained no work or pamphlet
ceptional rarity. The highest price realized
y one volume was £7 5s., which was given for
i (And.) ad Joachimum Roelanto Epistola, Basileae,
Lot 821), with a large woodcut portrait of the
, and two fine initial letters, bound in limp
n. A copy of Hippocrates's *Opera Omnia Graece,*
F. Asulani, Venetiis, Aldus, 1526 (Lot 810), a first
n, brought £5 5s. The *Grete Herbal, Petrus*
is, 1529 (Lot 809), in black letter, an imperfect
£5. *The noble experyence of the Vertuous*
worke of Surgeri practysed and compyled by
oast experte Mayster Jherome of Bruynswyke
13), published in the earlier part of the sixteenth
y, realized £4 14s., a price which must be com-
to the purchasers of second-hand copies of the
experience of the virtuous handiwork of surgeons
centuries later.

King has been pleased, on the occasion of the
g by His Majesty of the King Edward VII
rium, Midhurst, to appoint Charles Theodore
ms, Esq., M.D., to be a Member of the Fourth
f the Royal Victorian Order, and also to appoint
al Horton-Smith Hartley, Esq., M.D., Honorary
ary of the Executive Committee of the Sana-
, to be a Member of the Fifth Class of the said

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

Physical Health in Elementary Schools.—Mr. Keir Hardie asked the President of the Board of Education whether he contemplated the creation of a special State medical staff to supervise the efforts of local educational authorities for attending to the health and physical condition of the children educated in the public elementary schools. Mr. Birrell replied that the Board of Education were only responsible in respect of England and Wales. They already possessed one medical inspector of schools; the appointment of a second was in contemplation. He did not think it would be wise for the Board to embark upon the establishment of a large staff of such officials, at all events until there had been time to see the extent the development of local authorities' activities under Clause 35 (b) of the Education Bill rendered such a course desirable.

Tinned Meat Contracts.—Mr. Cooper asked the Secretary of State for War whether any of the current army contracts were held by British makers of canned or preserved meats; whether any of these contractors were firms whose articles were condemned during the South African war; whether there was any inspection into the quality and soundness of the materials used during their manufacture; if so, was the inspector a medical man holding a public health diploma, or was he a military man? Mr. Haldane replied that no army contracts for tinned meat were held by British makers at present. Whenever a contract for preserved meat was held by a British firm, surprise visits to the works were paid by army officers, and samples were submitted to a Government analyst. These army officers held certificates from the Birkenhead medical officer of health, and some from the Royal Sanitary Institute, the latter being similar to those held by inspectors employed under the Local Government Board. Mr. Cooper further pressed the question whether the inspector should not be a trained veterinary inspector and expert in meat, or a medical man holding a diploma of public health. Mr. Haldane thought the hon. member did not appreciate the kind of training that these Army Service officers had. They were trained for this very purpose, and there were several certificates which they had to obtain. One was the Birkenhead certificate. Another certificate was that of the Metropolitan Meat Market. Colonel Hobbs, who had gone out to inspect the stockyards, not only held that, but had had practice in judging meat for some years.

Vivisection.—On Monday the Home Secretary, replying to an unstarred question by Mr. Ellis Griffith, stated he was informed that it was certainly not the practice in laboratories in this country to divide the nerves of vocalization of animals before commencing experiments. No experiment involving a serious operation was allowed to be performed unless the animal was under the influence of some anaesthetic of sufficient power to prevent it feeling pain. On Wednesday the Standing Committee on Trade had under consideration a Dogs Bill, the main object of which is to make the owner responsible for compensation for the worrying of cattle; towards the end of the proceedings the Government accepted, with the reservation that it might require verbal alteration, an amendment moved by Mr. Cathcart Wason providing that no stray dog seized by the police should be given or sold for the purposes of vivisection.

The Nurses Registration Bill introduced by Mr. Munro-Ferguson last week has been issued, and consists of thirty clauses. It proposes to create in the first instance a provisional council of eleven persons, and afterwards, when the register is formed, an incorporated council of nineteen persons, of whom ten will be directly-elected representatives of the registered nurses of the United Kingdom. This Council will be responsible for the registration, education, examination, and discipline of all registered nurses. On the provisional council it is proposed to put three registered medical practitioners, and on the incorporated council there are to be five. The Bill, which is backed by Dr. Macnamara, Mr. Rose, Sir John Kennaway, Mr. A. W. Black, Mr. Eve, Mr. Fell, Mr. Crooks, and Mr. McKillop, was down for second reading on Monday last. The chances of its becoming law this session are not favourable.

Infantile Mortality was the subject of questions in the House of Commons on Monday. Mr. Wedgwood asked whether, in view of the national conference on infantile mortality and the speech there delivered by the President of the Local Government Board, in which he attributed infantile mortality and other evils largely to the employment of married women three months before and six months after childbirth, the possibility of dealing at an early date with this subject would be considered. Mr. John Burns said the question was attended with many difficulties, both as regards the enforcement of and the possible results of such prohibition. He was not prepared to deal with it immediately. He was fully aware of the great importance of the subject, which had been under consideration in connexion with the report of the Physical Deterioration Committee, and it would receive attention in connexion with any amending factory legislation. In answer to Mr. Alden, who raised the question of medical relief on loan as a deterrent to parents applying for medical relief for children, Mr. John Burns said that he had no reason to suppose that guardians were unwilling to afford medical relief for infants, nor had he any evidence to show that where it was the practice to give medical relief on loan, persons properly entitled to relief were thereby deterred from applying for it. It was not necessary to issue a circular, but any particular cases of failure to give relief would be considered.

Juvenile Smoking.—The House of Lords has appointed a Select Committee, consisting of Lord Beauchamp, the Bishop of Ripon, Lord Aberdare, Lord Heneage, and Lord Biddulph, to consider the Juvenile Smoking Bill. The Committee has been empowered to consider the question of juvenile smoking generally, and its effect on the physical condition of children, and to report whether any, and if so what, alterations in the law are desirable or practicable with a view to stopping the sale of tobacco and cigarettes to children below a certain age.

Boarding Out.—Mr. Burns informed Mr. Leif Jones that on January 1st last the number of pauper children who were boarded out within and beyond the union were 6,963 and 1,818 respectively, and that there were 284 authorized committees in respect of children boarded within the union, and the number of the children under their care was about 2,000.

The Fatal Accidents and Sudden Deaths Inquiry (Scotland) Bill.—This Bill was read a second time after a division on Friday last week. In the course of the discussion the Lord Advocate pointed out that, under the existing law, the inquiry into accidental deaths was private, and that consequently there sometimes arose anxiety and uneasiness in the public mind as to the causes of death. The verdict now given was a formal one, and it was proposed to make it a full, real, and helpful verdict as to the causes of death and the persons to whose fault or negligence the accident was attributable, and other matters bearing on the matter disclosed in the evidence. With regard to sudden and suspicious deaths, no public inquiry was now necessary in Scotland, but the Bill provided machinery by which all such cases were brought under the cognizance of the Crown, and the Lord Advocate was empowered to order inquiries to satisfy the public mind.

The Salaries of Scottish Medical Officers.—Last week Mr. Watt asked the Secretary for Scotland what were the duties and what was the salary attached to each of the following offices in Scotland—namely, medical superintendent of statistics, Registrar-General's office, inspector under the Inebriates' Act, and assistant to the medical adviser to the Prison Commissioners; and would he say whether each of these offices was a pensionable office, and what time the holder of each devoted to its duties. Mr. Sinclair said that the information was as follows: The superintendent of statistics had to supervise the abstracting of vital statistics and to prepare the statistical reports iss by the Registrar-General. The pay was £450, rising annual increments of £15 to £500 a year. The assist to the medical adviser to the Prison Commissioners ha assist the Prison Commissioners' medical adviser, wh duties were to express opinion on matters referred to by the Commissioners and to medically inspect pris The pay was £100. The Inebriates Acts inspector required to inspect institutions licensed or certified ur the Inebriates Acts, to prepare an annual report, an advise the Secretary for Scotland on matters referred him; the pay was £50. None of these offices was sionable, and he understood that together they occu the officers' full time.

Vaccinal Condition of Small-pox Patients.—Mr. Lu asked the President of the Local Government Board week if he would request the various medical office health throughout the country to ascertain the vac conditions of all small-pox patients, not merely by ve inquiries, or by examination for marks of vaccination, also by examination of the registers to ascertain if patient had been registered as vaccinated. Mr. B replied that such an examination of the vaccina registers as that suggested would involve consider trouble and some expense, and in a great many cas would be impracticable. The majority of small patients were adults whose vaccination, if any, took at remote and uncertain date, and often in another perhaps distant place, many of these patients b persons of vagrant habits. It formed no part of the of the medical officers of health to make the prop examination, and he did not feel that he could ask t to undertake it. In answer to a second question or registration of vaccinations and a request for more com registration of vaccinations and revaccinations, Mr. B said that every public vaccinator was required to ent his vaccinator's register all vaccinations and revaccina performed by him at the public expense. It woul advantageous if private medical practitioners kept si records, but he had no authority to ask them to do Every medical man, however, whether a public vacci or not, was required by the Vaccination Acts to gi certificate of the vaccination of any child success vaccinated by him. The certificate had to be sent t vaccination officer for entry in the register kept by officer.

Vaccination in Ordnance Factories.—Mr. Branch question to the Secretary of State for War respectin protest of the workmen at the Royal Small Arms Fa Enfield, against compulsory vaccination as a conditi employment. Mr. Haldane replied that the questio raised in March last at an interview between the Secret the employés' union and the Chief Superintendent o Ordnance Factories. He was not prepared to depart the decisions of his predecessors not to admit men t various ordnance factories unless they consented t vaccinated. Mr. Branch further asked whether insis on vaccination had not been followed by serious resu individual workers? Mr. Haldane said he did not serious results had followed. Wherever there was a body of men working together the case seemed to be risks might result through not insisting on vaccinati

The Infectious Diseases (Ireland) Bill was intro on Tuesday by Mr. Boyce. It provides that the Infe Disease (Notification) Act, 1889, shall extend to sanitary district in Ireland, whether it has or has not adopted by the sanitary authority.

We have received the thirty-third edition of the logue relating to microscopes and microscopical acces issued by the well-known firm of Carl Zeiss of Jen announces the introduction of several new forms of scope stand, including a quite simple stand for labo use at a comparatively low price. Its pillar, however, jointed, so that the stand cannot be inclined and the between the stage and the mirror is not sufficient to of an Abbe condenser being fitted, although other may be. A corneal microscope with Gullstrand's app for lateral illumination is a new feature and there a portant reductions in the price of many of the achro objectives, Huygenian oculars, nose pieces, and obj changers.

SPECIAL CORRESPONDENCE.

PARIS.

adémie des Sciences: MM. Calmette and Guérin on a New Method of Vaccination against Tuberculosis.—Académie de Médecine: Report of Tuberculosis Commission.—Notification f Whooping-cough.

the last meeting of the Académie des Sciences MM. mette and Guérin made a communication on a new thod of vaccination against tuberculosis, with good ɔes of its ultimate applicability to the human subject. ɔm numerous experiments, conducted with another ect in view, they found that tubercle bacilli killed by ıt or treated by different reagents pass through the estinal wall with the same ease as living bacilli, and found in the mesenteric ganglia, and even in the ıgs. They therefore experimented to see if young mals (calves and kids), given by the mouth, at interval of forty-five days, two doses of 5 and centigrams of bacilli, either dead or modified their vitality and virulence by various methods, ıld with impunity support a meal of 5 centims of fresh bovine tubercle, certainly infece for control animals. They have been able to convince mselves that bovine tubercle bacilli, killed by five nutes' boiling or simply heated for five minutes at C. and ingested in given conditions, protect comtely for four months at least against virulent infection the digestive passages; how long the protection lures is not yet possible to state. Details of the actual ɔeriments will shortly be published, but at the present ıe MM. Calmette and Guérin have proof that young ves can be vaccinated by simple intestinal absorption bacilli modified by heat, and that this method of cination does not present any kind of danger. The ɔeriments must be repeated in a sufficient number of mals to justify the application of the system to the phylaxis of bovine tuberculosis. If the above results confirmed, there does not seem to be any valid objecn to this method being applied to the human subject, ce it appears to be quite innocuous. They of opinion that it will be possible to protect young ldren from infection by making them take by the uth a few days after birth, and a second time some eks later, a very small quantity of tubercle bacilli of man and bovine origin, modified by heat and mixed h a little milk. The only essential precaution which l be necessary, but not always easy to take, will consist keeping the infants thus vaccinated for at least four nths protected from all tuberculous contamination. To fil this indication it will doubtless be necessary to ablish, more particularly for the infants of tuberculous ents, specially-supervised nursing establishments in er to prevent the introduction of any tuberculous germ ıuman or bovine origin capable of infecting the infants til they shall have acquired vaccinal immunity. I. Calmette and Guérin believe that the difficulties in application of such a measure would weigh lightly ıinst the immense social interests to be protected, and advantage humanity would reap by preparing for the ure a race of men refractory to tuberculosis. M. Roux, er this communication, announced that he is conducting experiments in collaboration with M. Vallée of Alfort the same lines as MM. Calmette and Guérin, and that results obtained agree in a remarkable way with those the experiments of MM. Calmette and Guérin.

he special commission appointed by the Académie de decine after the lengthy discussion introduced by ɔfessor Albert Robin has just handed in its report. Netter, the reporter, read the following resolutions, ich were all unanimously passed by the Académie:

a) *Statistics.*—Statistics of the causes of death can only offer guarantees of exactitude if the declaration thereof is made by the medical man in charge of the case. These declarations can only be made obligatory if measures are taken to assure professional secrecy. Statistics should have as their basis the etiology of disease. In order to revise the nomenclature of the causes of death on these lines, it is advisable to await the meeting of the next International Congress in 1910.

b) *Declaration of Transmissible Diseases.*—Notification which is compulsory for the medical men, should be equally so for the head of the family, the lodging-house keeper, and the heads of collectivities and establishments.

(*c*) *The Fight against Tuberculosis.*—The medical man in charge shall indicate to the patient and to his entourage the measures to be taken to prevent contagion. The exercise of the right to declare cases of tuberculosis (decree of February 10th, 1903) gives to the medical men in charge, to families and to heads of collectivities the means of having dwellings inhabited by tuberculous cases disinfected. This disinfection is particularly necessary in cases of death or of change of habitation. The conditions of the development and evolution of tuberculosis are so different to other transmissible diseases, that to fight this disease it is impossible to be limited by the measures prescribed in the law of February 15th, 1902. The special law must take into consideration not only the transmissibility, but also the other etiological factors, especially unhealthy dwellings and alcoholism.

(*d*) *Disinfection.*—The Académie, referring to its resolution of June 15th, 1905, calls the attention of the authorities to the necessity of putting into action the disinfection services provided by the law of February 10th, 1902.

The Académie added whooping-cough to the list of diseases whose notification is compulsory.

CORRESPONDENCE.

THE INFECTIVITY OF INHERITED SYPHILIS.

Sir,—Your criticism of my series of cases of syphilis, presumably infected by an infant with the inherited disease when nearly eighteen months old, seems to call for an answer on two points: (1) Whether it was possible for the child to be infected a second time, or, not having inherited the disease, to have received a primary infection some short time before the infection of the others; and (2) whether the rest of the family could have been infected from another source.

Further inquiry seems to bring out one point, unknown before, which greatly strengthens my contention. The grandmother denies that the child had any sore, rash, or illness between the pemphigus just after birth, and the condylomata around the anus seventeen months afterwards, *except* that some months after discontinuing treatment she brought the child up with *just the same sores around the anus*, and received a box of tabloids, under which recovery took place. On referring to my books I find on March 13th, 1905, the child was seen by my partner, Dr. Bayne, and received some hyd. c. creta tabloids. He tells me he remembers the child had condylomata around the anus.

May I therefore be allowed space for the sake of clearness to restate the case, with slight additions? On July 25th, 1904, I delivered a girl of a female illegitimate child, having second-hand evidence that she had had syphilis some time before. The family are of the respectable artisan class, whom I have attended and known well for the last thirteen years, and my father for fifteen years before. The girl had been in service, but had gone wrong in more ways than one. Four days after birth the child was found to have a universal pemphigus, and was at once put on hyd. c. cret., and recovered. (This treatment must have stopped by November, unless it was given without entry in my books. I regret I took the grandmother's word as to "about six months" in my original notes without first going carefully through my books.) In March, 1905, condylomata appeared around the anus, when mercury was given for a week or so, with recovery. Again, in December, 1905, condylomata in the same situation were present, which I did not see till January 11th, 1906, when there was also some stomatitis. I now regret that my knowledge of the child's history made my examination of the mouth so cursory, for in a fortnight's time, when my suspicions were aroused, nothing obvious could be made out. Early in January the grandmother, who had fed the child by spoon, at the same time tasting the food, felt a sore throat and noticed a sore on her lip. This I did not see till the end of January. Subsequent events proved the sore on the lip to be a chancre, with a probable coexisting one on the tonsil. Her daughter, aged 12, had another chancre on the left tonsil of about a fortnight's later date than her mother's. Following this by about another fortnight a son, aged 7, had also a chancre on the right tonsil. With this history I cannot see that the baby could have had a primary infection; we are therefore thrown back on your second hypothesis.

At that time the household, in addition to those mentioned, consisted of the father and two sons, aged 20 and 17. I have seen these three, and they all deny having had any sore or illness whatever. Granting that there was another source of infection, it must have been one that lasted some time, for though the second child might have been infected by the mother, it is very unlikely that the elder one, whose symptoms began so soon after her mother's, should have been infected by her, and they all must have been infected by something put into the mouth. If there had been any lasting infection of this nature it is curious it should have been undetected or forgotten. On the other hand, we know the method followed in feeding the baby. Syphilis also in a small country town of about 3,000 is not a common disease, and I find that neither of my medical brethren practising here has seen a case of the disease in its early stages during the last year. The suggestive interval between the baby's symptoms and the grandmother's must have some weight. I may also mention that the bridge of the baby's nose is certainly suspicious.

Upon these facts I can see no other possible conclusion than the one I have put forward.

Knowing the importance of this series, I shall be most happy to show these cases, with strong evidence of the truth of my data, to any one who is interested.—I am, etc.,

St. Ives, Huntingdonshire, June 18th. W. REGINALD GROVE.

SIR,—Referring to the communication of Dr. Grove, in the BRITISH MEDICAL JOURNAL of June 16th, p. 1400, I may mention an interesting case I had some years ago.

A child (illegitimate) of two or three months of age was brought home to its paternal grandparents, to be cared for as its mother was of notoriously bad character and neglected the child. I was called to see it, and found it full of syphilitic symptoms. Snuffles, suppurating ears—in fact, a case that the first look at was enough. I cautioned the grandmother to be most careful, as it was in the cradle with an uncle of about its own age, and one feeding bottle only. Its father was 21, the eldest of the family at home; its uncles and aunts, numbering about seven or eight, aged from father 21 years downwards.

I don't think more than two out of the lot escaped syphilis: my warning was too late. The syphilis was mild in type, and tonsillar to begin with, but the grandfather had tertiary leg ulceration a few years later.

I should say that my examination went to show that the mother of the child contracted the syphilis not from the father but during her pregnancy from another source.—I am, etc.,

JOHN BROOM, M.B., C.M.

Kirrie Muir, Forfar, N.B., June 19th.

SIR,—I have read Dr. Grove's letter in last week's BRITISH MEDICAL JOURNAL with much interest. I have also read your comments on it, and, if you will allow me to say so, not without amazement. I had supposed that the contagiousness of inherited syphilis in infants was a fact about which no controversy was possible. It was, as all know, in order to explain cases in which exposure to risk occurred without ill result that Colles formulated the law now known by his name. Neither he nor any other authority that I am acquainted with ever thought of questioning the reality of the risk.

You write respecting the instances of vaccination syphilis recorded by myself that "in the light of more recent knowledge many would now consider the evidence put forward in proof of the inherited nature of the disease in the infants as insufficient," and go on to suggest that they had obtained the disease by post-natal acquisition. In answer to this it may be pointed out that not one only but some four or five infants, used as vaccinifers, were concerned, that they all presented, in mild form, symptoms of inherited disease, and that not in one was there the slightest reason to suspect acquisition. They were in several instances carefully examined by a committee appointed by the Medico-Chirurgical Society, and not the slightest suggestion in this direction was ever made. I am quite in the dark as to what the "more recent knowledge" referred to may be. The only more recent knowledge with which I am acquainted is that which concerns the spirochaete, and this is entirely confirmatory of my conclusions. This parasite has been found repeatedly in the early lesions of inherited syphilis, and as it is now held to be the effici agent in contagion, it is difficult not to consider its sence as proof that this form of the malady may communicable.

I do not, however, understand you to doubt the evide as to contagion in the cases cited, but rather to sugg that the infants who supplied the virus were none of t really examples of the inherited disease. Would it no more logical to take the old ground and deny that syph ever is transmitted by inheritance? We should t know what to answer. For the present I must say th see nothing in Dr. Grove's succinct narrative requi elucidation. It has long been remarked that condylon may appear very late in the roll of secondary sympto and it is highly probable that in the cases which we h been accustomed to consider inherited the period du which contagion is possible is as long as it is in acquired disease—that is, two years or more. Prim infection of the tonsil in connexion with the feedin this class of infants has been witnessed repeatedly. practical purposes it does not make a pin of differe whether or not we regard all that has hitherto been ca inherited as really acquired. The risk of contag remains the same and the same precautions must observed.

Not so very long ago one of our associates had to pa considerable sum to a wet nurse whom he had in vertently permitted to suckle an infant suffering f syphilis which was believed to have been inherited. S cases would be common were it not that the professio well taught and on the alert. Believing, as I do m firmly, that what we are accustomed to call inher syphilis is really inherited, and that, whether so or n is certainly contagious, I must hold that to propo unsupported doubts involves not only a very foo heresy but a very dangerous one. I much regret th should seem to have received in any degree the sup of your editorial pen.—I am, etc.,

London, W., June 18th. JONATHAN HUTCHINSO

*** In our annotation we threw no doubt on the sibility of infection of others from a case of inher syphilis; we only stated that the powers of infecti had been overestimated by writers in the past. Case exposure to infection of inherited syphilis are exceedi common, but instances of contraction of the disease f such a source are now admitted to be rare. In the of arm-to-arm vaccination it was not uncommon to infants with the later signs of inherited syphilis had acted as vaccinifers, but cases of syphilis acqu through the agency of vaccination are almost unkn with the exception of those recorded by Mr. Hutchin in Vol. LV of the *Medico-Chirurgical Transactions.* In face of so many persons contracting the complaint from two infants in the series there recorded, it must have l that there was some unusual feature in their syphili that it was virulent beyond the ordinary. Moreover, t was no proof of syphilis in the parents of one of infants who were seen. In the case of the parent the other children, the only one seen seemed a hea woman with no trace of the disease. The only trace of complaint, too, in the infants was the presence of cond mata on the buttocks; and it is now very generally ceded that the chief features of acquired syphili infants is the scanty and evanescent nature of the and the frequency of condylomata. There is no evid then, that the infants were not the subjects of acq rather than that of the inherited complaint. Mr. Hut son might surely concede this, as he believes that all practical purposes it does not make a pin of differ whether we regard all that has hitherto been ca inherited as really acquired." Most, we believe, w differ from him in believing "the one as dangero the other," whilst agreeing with him that "the precautions must be observed."

FINANCES OF THE ASSOCIATION.

SIR,—Although not wishing to enter into the discus at this time, however enticing, Dr. Wolstenholme's l offers too attractive a bait to allow of keeping ent out of the fray; for what seems to be a fallacy req an explanation from him before we wander any fu away into side-issues.

The apportionment to each member of the profit

1 running the Association in its various depart- is of great interest, the only regret being that so n amount has been put under one heading. It is ioped that the Representative Meeting will ask for h more detailed return in future years. In this e can fix extravagance and decide where to draw in. Wolstenholme, quoting this abstract, says the AL costs each subscriber (that is, member) 4s. 7d. ls this "a financial loss." He seems to wish that URNAL should not only cost nothing out of each iption of 25s., but that it should go further, and n so much per member to the Association.

onally I cannot express an opinion on this very le aspiration. It might be a good subject to refer ompetent committee. Will he move for such a ttee in the next Representative Meeting?

when Dr. Wolstenholme drags in the *Lancet* as a f the possibility of such a scheme, it is only right him for his facts. The *Lancet* subscriber, I believe, s. 6d. a year—and here I would like to emphasize this is for the *Lancet*, the floating of the *Lancet*, nothing more than the *Lancet*.

Dr. Wolstenholme let us hear if it is within his dge that the proprietors of the *Lancet* (1) not only is profit 27s. 11d. (32s. 6d. *minus* 4s. 7d.) of the . received from each subscriber, but also (2) go a rther and annually bank a sum beyond 32s. 6d. per ber; and if so, what is this additional amount per ber? If they do not, then in Dr. Wolstenholme's the *Lancet* must also be "a financial loss."

sir, is this not a myth? And in order that the Dr. Wolstenholme may appear in the same issue, you kindly send him an advanced proof of these ?—I am, etc.,

ields, S.W., June 15th. E. ROWLAND FOTHERGILL.

---

cordance with the request in the concluding para- f Dr. Fothergill's letter, a proof was forwarded to lstenholme, who writes as follows:

-Dr. Fothergill is too nimble for me. My letter d in the JOURNAL on June 16th. I got my copy at k in the morning. Dr. Fothergill's letter is dated 5th. His reply was received by me in type with orial note exactly twenty-four hours after mine d in the JOURNAL at his house.

w nothing about the *Lancet's* affairs, except what it elf—namely, that it has been established eighty- ears, that it has increased its size from 36 small pages until in 1900 it had a weekly average of es. That it has the command of money is evi- by its "commissions." Probably it would be ble to set up an exact comparison between the ers. I have no desire to belittle our own JOURNAL, personally I prefer to the *Lancet*, but I do think it that economies might be effected; and, if a tee of inquiry is proposed, I trust Dr. Fothergill port it.—I am, etc.,

, June 19th. R. H. WOLSTENHOLME, M.R.C.S.Eng.

-Surely Dr. Wolstenholme has fallen into an extra- y error in his letter in the BRITISH MEDICAL L of June 16th, p. 1441. He says: "The Council hat 4s. 7d. out of each £1 5s. goes to pay the loss JOURNAL. Why should this be so? The case of cet is fairly comparable and no one supposes that rnal is carried on for the sake of humanity at a l loss." Does he forget that the subscription to the is not 4s. 7d. or any "comparable" sum, but 6d.—that is, 7s. 6d. more than the *total* subscrip- each member of the Association? and that if the ere the subscription for the JOURNAL alone this ean a profit of about £20,000 a year?—I am, etc.,

ert, June 16th. C. H. GREENWOOD.

E DISCOVERY OF SHIGA'S BACILLUS IN ENGLISH DYSENTERY.

-My attention has been called by Dr. F. W. Mott, o the paper published by Dr. J. W. H. Eyre in the MEDICAL JOURNAL for April 30th, 1904, in which rds that in the examination of material derived rtain cases of asylum dysentery he had isolated a identical with the *Bacillus dysenteriae* of Shiga, l proved that the blood serum of some of these cases of asylum dysentery possesses a specific agglutinating action when tested against strains of the bacillus isolated from cases of dysentery in tropical countries. I regret that I had overlooked this paper, and therefore did not give Dr. Eyre due credit for his discovery.

I also omitted to refer to the bacillus discovered by Professor McWeeney which he showed at a meeting of the Royal Academy of Medicine in Ireland on April 14th, 1905 (BRITISH MEDICAL JOURNAL, April 29th, 1905, p. 943), but, according to the description given, the organism isolated by him had closer affinity to the *Bacillus typhosus*.

I should also like to mention the valuable article on the Etiology of Asylum Dysentery published by Dr. W. Bernard Knobel in the *Journal of Mental Science* for April, 1906, in which there is a careful analysis of the circumstances under which dysentery occurs in institutions for the insane in this country.—I am, etc.,

Birmingham, June 14th. ROBERT SAUNDBY.

TINNED FOODS IN THE TROPICS.

SIR,—In view of the present interest taken in tinned meats, a suggestion in the BRITISH MEDICAL JOURNAL of March 22nd, 1902, by the late Dr. H. E. Mann is worthy of attention. In the letter he wrote:

> I think that some step should be taken to enable purchasers to know the age of tinned food, and this might be done by compelling manufacturers to stamp their tins with the date on which the food is prepared.
>
> I mentioned this to the medical men—representing nearly every part of the Empire—who are now attending this School, and the idea met with such favour that I think some such measure is really needed. It would, I should think, be to the advantage of the makers, as it would prevent the merchants keeping old stock, or selling it to native hucksters to be retailed to Europeans in out-of-the-way places.

The life-history of a tin of meat in the tropics in many cases is as follows: The tin is imported by a reputable firm in the first instance, but every year or so they have a sale of surplus stock which includes many tins of meat which have been kept for some time. These are bought up by up-country storekeepers or small retail dealers. Any tins that are "blown"—that is, in which sufficient decomposition has taken place for the gas formed to cause the end of the tin to bulge—are punctured, reboiled, and the puncture covered with a drop of solder. This process can be repeated.

In some parts of the tropics tinned meats necessarily form a considerable proportion of the diet of Europeans and others, and some method of preventing or restricting these abuses is urgently required. The stamping of the tins could not be readily altered and no one would willingly consume meat that they knew had been kept for years.—I am, etc.,

C. W. DANIELS.

London School of Tropical Medicine, June 17th.

"A SPECIALIST IN HUMAN NATURE."

SIR,—I am aware that I have many enemies, but I am surprised that a leading journal on medical science should lend its columns to any information which may reach the editor and forthwith hold the writer up to ridicule and contemn without even asking for an explanation. A big work, like my book on *The Mental Functions of the Brain*, is dismissed with a paragraph or two, or boycotted altogether; on the other hand, a scrap of paper intended as a private communication to some friend or acquaintance has its odd sentences analysed most minutely. I have no wish to be disrespectful to you, sir, or to the profession to which I have the honour to belong, and if I give expression to my indignation rather strongly, it is because this is only one of several attempts to discredit me with my colleagues.

Even if you could prove me guilty, I question your right to set me in a pillory, and that you should use your attack on me to give expression to your insular prejudice against all foreigners without distinction is of such bad taste as could not be found in any Continental journal devoted to science. Why you should speak of me as a "German" and an "exile," Heaven knows, for I am neither; and I also fail to see why you should make fun of my interest in human nature considering that a physician who treats mental diseases should be acquainted with the variety of manifestations of character, normal as well as morbid. Finally, and most emphatically, I deny that I ad-

addressed any documents whatever *promiscuously*, and consider your accusation, without very ample proof, as nothing more than impertinence. No removal notices were sent to persons other than those whose names appear in my address books, and if by some error of address or in some other manner a wrong person got possession of such and of one of the few printer's proofs of a syllabus, he or his doctor must have had some personal reason to send the piece of paper to you, for any unconcerned stranger would have thrown it in the waste-paper basket. It is my misfortune, not my fault, not to be British-born. All the same, I am not such a fool as to deliberately work into the hands of my antagonists, after they have given me so much evidence, publicly and privately, of how they resent my existence.

Let me assure you, Sir, that notwithstanding your sneering reference to "Teutonic seats of learning," German universities teach their students such a "love of science" that there is no need for a rigorous medical etiquette to prevent "trading" methods, and that although of foreign origin, I am thoroughly acquainted with the history of British medicine, and know that your own countrymen fare no better than seems my lot, if they advocate unpopular doctrines; take the life of John Elliotson as example.

All the efforts to suppress my work have failed, for it has found a resting place in the *Encyclopaedia Britannica*, where it is reviewed to the extent of nearly three columns, showing that there is at least one man of learning above petty jealousy. I have quoted elsewhere the abominable treatment to which I have been subjected since I published that book, and I thank you for your latest contribution of personal animosity, of which I shall not fail to make use at the proper time.—I am, etc.,

London, W., June 16th. BERNARD HOLLANDER.

FEEDING BABIES IN CRÈCHES.

SIR,—Your article on the above reminds me of a letter I received a short time ago from a relative of mine who resides in Alexandria. The following extract from it will, I think, be an interesting contribution to the subject:

> A few days ago I went to the Maternity Home in Alexandria. They have lately started a crèche there for deserted babies and those of utterly destitute mothers. Everthing was spotlessly clean. Six babies, all under 3 months, lay in six little white bassinettes. It was just feeding time. I saw a strange sight. A clean, plump goat was laid on its side on a bed between clean sheets, and the babies went to it in turn and drank away happily. The babies are plump and rosy, need no medicine, rarely cry; just drink and sleep. Next time a different goat would be brought. The matron said it was a much safer system and much less trouble than bottles. Some of the babies were so tiny that they were kept in incubators, taken out only when put to the goat.

—I am, etc.,
J. LIONEL STRETTON,
June 18th. Senior Surgeon, Kidderminster Infirmary and Children's Hospital.

OBITUARY.

THOMAS ERNEST HAYWARD, M.B.LOND., F.R.C.S.ENG.,

MEDICAL OFFICER OF HEALTH, HAYDOCK (LANCS.).

BY those who had the privilege of knowing him, Dr. Hayward was held in the highest esteem, both for his intellectual qualities and for the innate nobility of his character, and it is therefore, so far as our human outlook extends, a source of unmixed sorrow that he should have died when the noonday of his useful life had scarcely been passed.

Dr. Hayward was born in Tewkesbury about 51 years ago. He subsequently entered at St. Bartholomew's Hospital, where he gained an entrance science scholarship. In 1879 he received the M.B.Lond., and in the following year the F.R.C.S.Eng. After holding a number of resident hospital appointments he settled at Haydock in Lancashire, a small colliery town near St. Helens, and it was in that town and from that town as a centre that his life-work was done.

He was Medical Officer of Health for Haydock, and did much by steady advocacy of necessary reforms to improve and elevate its sanitary condition. The present writer was much struck some years ago by the graphic manner in which in one of his reports he succeeded in visualizing the endemic dangers of enteric fever, and this particular contribution was published in *Public Health* as a for other medical officers of health. As Medical Offi Health he brought out two life-tables, summarizi experience of Haydock in 1881-90 and 189 and it was the attempt to construct the of these which subsequently led him to the exe of the chief original work of his life. Alt so small and migratory a community as Haydock is the least easily adapted for such a measure prospects, the first life-table, and still more the s was a model of its kind, sound in method and lu exposition.

Dr. Hayward was a skilful surgeon, and he an Hayward were instrumental in securing the erectio cottage hospital in Haydock, and for many yea they have been mainly responsible for its administ It is a model hospital, and when going over the h in the early part of this year the writer could not observe the esteem and affection in which Dr. Haywa held by all his patients. In this hospital much surgical work was carried out by Dr. Hayward, esp in connexion with the colliery accidents ir neighbouring mines.

Over the whole of that part of Lancashire Dr. H will be long remembered in connexion with the S Ambulance classes which he founded and held, a many more which he examined. For many ye Hayward had acted as examiner for probationer nu the London and Westminster Hospitals and the l Royal Infirmary. Of the conscientious and c manner in which he carried out this work and regard in which he was held by those knowing him capacity there are many testimonies. As one inti associated with him in this work said: "He ne anything stand in the way of doing conscientiousl he thought right and just, and had ever before h highest ideals of what women should be as nurses some years Dr. Hayward examined pupil midwives Midwives' Institute. In the promotion of the M Bill he took an important part, giving evidence bef Select Committee of the House of Commons gathered as it was from actual knowledge of what in the homes of the labouring classes in Lan carried great weight. His views on this subject time were unpopular with some of his colleagues, adhered courageously to them.

It is, however, in connexion with statistics t Hayward did his chief original work. His first in this department, which he undertook in the very leisure of an arduous practice, was, as already indic the construction of a local life-table for 1881-90. nexion with his statistical work three of the most and most admirable features of his character we spicuously shown: (1) He had great power of g mathematical ideas which were new to him, and o them as methods of investigation. It was as tinguished friend of his has put it to the present "as if a man would play a tune on a fiddle the fi it was placed in his hands." (2) He was marv patient in carrying out the most laborious calculat he was, in fact, in everything he undertook. What did he put his best into it, and as the same frie "nothing was so laborious that he would hesitat it, nothing so easy that he would give it less t whole attention; from beginning to end he was ab sincere." (3) He was extremely modest as to h achievements and generous as to those of others. had to complain that he left unacknowledged e smallest help received; it was even too ger mentioned, and no stress whatever laid on the va originality of his own work. The technical aspec statistical work cannot be appropriately detailed h must suffice briefly to refer to a few of his chief c tions, and to say that in the history of the techn life-table construction his name will always h honoured place.

In 1898 he contributed to *Public Health* an exper inquiry on local life-tables by abbreviated method was the foundation of what is possibly his most contribution to the whole subject, a paper appe the *Journal of Hygiene* for January, 1905, on an in method of constructing shortened life-tables for health comparative statistics. Prior to this his pa dealt largely with the relative merits of the gra analytical method of constructing life-tables and with exact descriptions of the analytical method and of modifications of this method which he had introduced in constructing life-tables. The last-named paper undoubtedly showed what, in his own characteristically modest words he stated only tentatively, but which can undoubtedly be claimed more absolutely, that

> Another inference which may perhaps be drawn by some readers is that the results obtainable by the shortened method, which it has been the object of this paper to describe, are sufficiently accurate to render it a reliable instrument of statistical work, and to dispense with the trouble of using any extended method whether analytical or graphic.

He adds, also in a characteristic manner:

> In conclusion, it may be stated that the simplicity and ease of the method have been only arrived at by devious wanderings in the mazes of methods much more complex and difficult.

Dr. Hayward was well aware of the pitfalls involved in the technique of life-table construction and of the dangers which may be associated with the use even of improved methods of construction of these tables, unless these improved methods are also used retrospectively, as shown by his paper in the *Journal of the Royal Statistical Society* (vol. lxiv, Part 4.)

Most medical men would doubtless find a valuable contribution which he made to the *Transactions* of the British Congress on Tuberculosis more interesting than his more technical papers. In this contribution he showed what would be the exact effect on the average prospects of life if pulmonary phthisis were excluded from the death-returns. Without phthisis in 1881-90 the average length of life for each individual born would have been increased by two and a-half years; and those who survived to the age of fifteen would have had their average expectation of ife increased by about three years and a-quarter. In another paper he extended these results to other diseases, showing how the elimination of cancer would increase the expectation of life at birth in males 0.39 and in females 0.83 year, and so on for some other diseases.

If the preceding remarks have fulfilled their intent, they have given the reader an insight into the non-self-regardng life which Dr. Hayward led, into his devotion to duty, his thoroughness, and his conscientiousness in every minute detail of life. One is tempted to add a few words on this more personal aspect of his character. Letters before the writer show the impression which he produced on all who knew him. Thus "he was to my mind one of he most beautiful spirits, one of the tenderest and most upright men. . . . . He was a blameless gentleman; the whole district is the poorer for his going." Another says: I trusted him far more than any other friend I have ever had. . . . . What a fine thing he made of life, and what an amount of good he did." It would be easy to multiply hese examples of testimony to the very exceptional eauty and unselfishness of Dr. Hayward's character. To those who knew him, his example and life will always onstitute one of their happiest memories and most owerful incentives to an altruistic life. His

Dear memory serves to make
Our love of goodness strong.

A. N.

DR. MICHAEL MCWILLIAMS BRADLEY, J.P., of Jarrow-on-yne, died on May 25th at his Irish residence, Tamnaharrie Park, Warrenpoint, in his 63rd year. His remains were embalmed, and interred at Jarrow, amidst many manifestations of sympathy and regret, on May 31st. he son of a farmer, the late Dr. Bradley was born at Killeylough, Maghera, in co. Derry, and when quite a outh went to Glasgow, where for several years he assisted the late Dr. Arthur Connor. Very largely by his own fforts and perseverance he entered Glasgow University, here he greatly distinguished himself. He obtained the egrees of M.B. and C.M. in 1870, and the diploma of L.R.C.P.Edin. in 1874; he graduated M.D.Glasg. in 1876. He settled in Jarrow in 1872, succeeding to the practice of the late Dr. Kelly. He readily established himself in the confidence of the people, and built up a large connexion. His energy was practically unlimited, and his capacity for work was at times the wonder of his friends. He was for several years medical officer for the borough of Jarrow. He was a Fellow of the Obstetrical Society of ondon, and a member of the South Shields Division of the British Medical Association. To the *Obstetrical Journal* he contributed two valuable papers on *post-partum* haemorrhage treated by compression of the abdominal aorta, and on midwifery statistics. At the time of his death he was Police Surgeon at Jarrow, a Medical Officer to the South Shields Union and the Post Office staff. He was an ardent supporter of the Irish Nationalist Party, and his name was more than once mentioned as a likely candidate for a seat in the House of Commons. In local affairs he often took a prominent part, and at one time was a member of the Borough Council. He was a Roman Catholic and a strong temperance advocate. Amongst the poorer classes of Jarrow he will be sadly missed. His health began to cause concern about twelve months ago, and pressure was put upon him by his friends to do less work and take more care of his strength. In response to these suggestions he snatched occasional short holidays, but chafed under inaction and was delighted to get back into harness again. Some four or five weeks before his death he went to Tamnagharrie Park, and at first his condition improved, but he changed for the worse suddenly and the end was somewhat unexpected. He leaves a widow and no family.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

THE following degrees were conferred on June 14th:

M.D.—H. H. Thompson, Christ's.
M.B.—W. P. Lowe, Gonv. and Cai.; J. W. E. Cole, Corp. Chr.
M.B., *B.C.*—M. Grundy, Joh.; G. H. K. Macalister, Joh.; G. A. Ticehurst, Joh.; R. F. V. Hodge, Emm.
B.C.—J. McIntyre, King's; C. R. F. Hall, Trin.; H. C. Cameron, Joh.; G. H. Harper-Smith, Gonv. and Cai.; A. S. Palmer, Jes.

UNIVERSITY OF EDINBURGH.

GENERAL AND EXPERIMENTAL PSYCHOLOGY.

AT a meeting of the Edinburgh University Court on Monday, June 18th, an important extension of university teaching was made by the establishment of the George Combe Lectureship on General and Experimental Psychology, with a salary of £300 a year. The George Combe Trust has agreed to give a contribution of £250 towards the lecturer's salary, besides making a substantial grant for the purchase of the necessary apparatus. It is expected that an appointment to the lectureship may be made in time to allow of the beginning of the work of teaching next winter session. Independent laboratory accommodation will be available as soon as the physics department has been transferred to its new home at the new buildings at the old City Fever Hospital.

UNIVERSITY OF TORONTO.

NEW BUILDINGS.

PLANS have been prepared for a new building for the Department of Physics of the University of Toronto. It is expected that building will begin in the spring; the total cost is estimated at $225,000. The project for the University Men's Residences will take tangible shape during 1906; it is intended to erect four houses, each containing accommodation for fifty, at a cost of $50,000 each. A site has been selected at the corner of Hoskin Avenue and Devonshire Place, and plans are now being prepared. In connexion with the department of Botany it is proposed to erect plant houses, costing approximately $10,000, on the east side of the ravine north of Hoskin Avenue. To provide space for the display of the collections in the departments of Geology and Mineralogy, a wing will probably be added within the year to the new Chemistry and Mining Building on College Street.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary Council was held on June 14th, Mr. John Tweedy, President, in the chair.

Issue of Diplomas.

Diplomas were issued to 16 candidates found qualified at the recent examination for the diploma of Fellow; and 37 to candidates qualified for the Licence in Dental Surgery.

The History of the College.

A summary of the history of the College, prepared by the President and Secretary, had been circulated to members of the Council, and the instructions were given that it be published in the College *Calendar*.

Examiners for the Ensuing Year.

The following appointments were made:

For the Conjoint Examination.—Elementary Biology: Thomas George Stevens, Henry William Marett Tims. *Anatomy:* Christopher Addison, Arthur Keith, James Ernest Lane, Holburt Jacob Waring. *Physiology:* Thomas Gregor Brodie, John Beresford Leathes, William Henry Thompson. *Midwifery:* George Francis Blacker, Arthur Hamilton Nicholson Lewers, William Rivers Pollock, Walter William Hunt Tate.

For the Fellowship.—Anatomy: Christopher Addison, Louis Albert Dunn, William McAdam Eccles, Arthur Keith. *Physiology:* de Burgh Birch, Leonard Erskine Hill, Edward Waymouth Reid, Ernest Henry Starling.

For the Diploma in Public Health.—Part 1, Harold Robert Dacre Spitta: Part II, Herbert Timbrell Bulstrode.

The Admission of Women to the College Examinations.—In November, 1895, the following resolution was adopted by the Council: "That the Council of the Royal College of Surgeons of England, although in favour of granting the petition of the officers and teachers of the London School of Medicine for Women, do not see their way to admit women to the conjoint examinations, in face of the vote of the meeting of Fellows and Members of this College and the expressed opinion of the Royal College of Physicians." At the present meeting of Council a special committee reported to the Council that in their view the time has come for again affording the Fellows and Members an opportunity of expressing an opinion in this matter. The subject was referred back by the Council to this Committee to consider and report as to the time and manner in which the question should be further discussed.

Anthropometrical Survey.—A letter of June 4th from Mr. J. Gray was read, stating that he had been requested by the Council of the Anthropological Institute to organize a deputation to the Prime Minister to urge him to appoint a Committee or Advisory Council, on the lines recommended by the Interdepartmental Committee on Physical Deterioration, to carry out an anthropometric survey of the United Kingdom; and asking whether the College would join such a deputation in the event of the Prime Minister consenting to receive it. Professor Arthur Keith was appointed to represent the College.

Election of Members of Council.—A meeting of Fellows will be held on Thursday, July 5th, for the election of three Fellows into the Council, in the vacancies occasioned by the retirement, in rotation, of Mr. John Langton, Mr. Henry Morris, and Mr. Francis Richardson Cross, of whom Mr. Langton does not propose to offer himself for re-election. The best thanks of the Council were given to Mr. Langton for the long service he had rendered to the College as a member of Council.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

INDIAN MEDICAL SERVICE.

Annual Dinner in London.

The annual dinner in London of the Indian Medical Service was held at the New Gaiety Restaurant on June 14th, when the chair was taken by Surgeon-General L. D. Spencer, C.B. The guests were:

Sir Richard Douglas Powell, Bart., K.C.V.O., President, Royal College of Physicians; Inspector-General H. M. Ellis, Director-General, R.N. Medical Service; Surgeon-General A. Keogh, C.B., Director-General, A.M.D.; Mr. Austin Low (of Messrs. Grindlay); the Editor of the *Lancet;* the Editor of the British Medical Journal.

The officers present were:

Surgeon-Generals.—A. M. Branfoot, C.I.E., W. R. Browne, J. Cleghorn, C.S.I., Sir B. Franklin, K.C.I.E., G. W. R. Hay, P. W. Sutherland.

Colonels.—C. W. Carr-Calthrop, W. E. Cates, D. E. Hughes, G. S. Sutherland.

Lieutenant-Colonels.—C. Adams, E. Bovill, Sir R. H. Charles, K.C.V.O., E. F. Drake-Brockman, P. J. Freyer, W. Gray, Sir A. S. Lethbridge, K.C.S.I., D. P. MacDonald, J. Moorhead, W. Owen, P. D. Pank, T. Pope, C. J. Sarkies, A. Stephens, C. L. Swaine, W. H. Thornhill, J. F. Tuohy, A. C. Younan.

Majors.—W. H. Caldwell, J. T. Calvert, R. W. Castor, L. F. Childe, J. K. Close, F. C. Clarkson, G. F. W. Ewens, T. W. A. Fullerton, C. R. M. Green, S. A. Henderson, C. A. Johnston, A. H. Nott, W. H. Orr, H. W. Pilgrim, H. A. Smith, E. Wilkinson.

Captains.—H. R. Brown, A. W. Cook-Young, H. M. Cruddas, J. D. Graham, R. L. Hagger, W. G. Hamilton, J. H. Hugo, D.S.O., D. C. Kemp, W. H. Kenrick, A. Miller, W. J. Niblock, E. L. Perry, M. B. Pinchard, N. Rainier, J. W. F. Rait, F. A. Smith, L. Stephen, T. H. Symons, R. G. Turner, F. N. White.

There were no set speeches, but the Chairman, in giving the health of the King, referred in sympathetic terms to the death of Surgeon-General Sibthorpe, who was to have taken the chair at the dinner.

Surgeon-General Cleghorn in a felicitous speech proposed a vote of thanks to the Honorary Secretary, Lieutenant-Colonel P. J. Freyer, which was received with great enthusiasm by his brother officers.

THE ALEXANDER MEMORIAL PRIZE.

The prize of £50 and the gold medal of the Alexander Memorial Fund for 1905 has been awarded to Major F. Smith, D.S.O., R.A.M.C., for his essay on Syphilis in the Army, its Causes, Treatment, and Prevention.

The essay sent in by Major H. C. French, R.A.M.C., was considered by the assessors to be worthy of commendation.

The subject for the next competition is Functional and Organic Diseases of the Heart in the Army; their prevalence and influence on efficiency; their causes; suggestions for preventive measures; and their treatment.

The essay should embody the results of personal observation and research. Essays must reach the Secretary of the Prizes Committee, Royal Army Medical College, on or before December 31st, 1908. They must have a brief motto, and be accompanied by a sealed envelope similarly superscribed, containing the name and address of the author. No essays should exceed about 20,000 words, exclusive of tables, which may be added in the form of appendices. The competition is limited to executive officers of the Royal Army Medical Corps on full pay. Professors and Assistant Professors at the Royal Army Medical College are not eligible while so employed.

ROYAL ARMY MEDICAL CORPS (VOLS.) LONDON COMPANIES.

Last Sunday being Hospital Sunday, the London Companies of the Royal Army Medical Corps Volunteers attended Divine service at St. Paul's Cathedral in the morning, having previously paraded on the Embankment near Blackfriars Bridge. This is an annual custom of the corps.

VOLUNTEER MEDICAL ASSOCIATION.

The annual contest for the challenge shield (value £200) which is offered for competition among regimental stretcher-bearers took place on June 16th, at Wellington Barracks, and resulted in a victory for the 1st Cadet Battalion, King's Royal Rifles, which was second last year. Eight teams competed, and all showed a good knowledge of the subjects on which they were examined and were smart in their drill. Surgeon-General Fawcett, C.B., Deputy Director-General, attended the competition, and at its conclusion presented the badges to the winning and second teams; in doing so he congratulated the men on their general efficiency, which he thought highly creditable, seeing that such work must be secondary to their ordinary occupations of civil life. The arrangements were efficiently carried out by Captain E. C. Montgomery-Smith, who commands the 3rd London Volunteer Infantry Brigade Bearer Company and is Honorary Secretary of the Volunteer Medical Association.

SANITARY ORGANIZATION IN THE ARMY.

Surgeon-General Evatt, C.B., writes: I propose as follows:—

1. *Names of Sanitary Officers of Divisions and Commands to be Shown in the Monthly Army List with the Staff of these Bodies.*—A certain number of officers R.A.M.C. have been appointed as sanitary officers of divisions and commands in the past two or three years. They are nowhere shown in the Army List as being so specialized, nor are they gazetted in the *Gazette* to such vitally important posts. No one looking through the Army List would imagine they existed, nor that we had learned a bitter lesson for the want of such officers in the past. I now propose that they be shown in their proper place in the Army List to dignify their appointments and to let the army know that they exist. This suggestion costs nothing to carry out and will be pregnant with advantages.

2. *Volunteer Sanitary Companies for War Services.*—I have verbally suggested over and over again to many people interested in army sanitation the following easy outline for sanitary companies in war time.

We need a corps of 1,000 sanitary fatigue men or scavengers for work in war. I propose to organize them in ten companies of 100 men each. These men I obtain by enrolling, medically inspecting, and passing at once into the army reserve available for war mobilization actual scavengers employed in the various London and provincial cities; thus, in London three companies, in Liverpool one company, Glasgow one company, Manchester one company, Birmingham one company, Bristol one company, Portsmouth one company, Leeds one company. These men will come from scavenging work in peace and go to scavenging work in war *if needed*, and will be proud of the work. A certain number of sanitary inspectors to be enrolled in the same way and attached to each company, say, 8 or 10 per cent. A small retaining fee, such as army reserve pay, to be given to the men in peace, and the corporations to keep up the number of men with as little interference by the War Office as possible. For care of water supplies a section of men employed on corporation filtering beds to be a component part of each company.

The medical officer of health of the city or borough to be invited to take up some titular position in relation to these companies and sections. Men trained in civil disinfection buildings to be eligible for enrolment. The carts and wagons used in municipal scavenging to be paid for by the State, and to be embarked with the units for the field if necessary. A certain number of medical officers, like volunteer medical officers, but holding Public Health certificates, to be enrolled triennially as officers of these units, and to receive a retaining fee. The whole to be affiliated to the R.A.M.C. (Vols.).

MEDICO-LEGAL AND MEDICO-ETHICAL.

ACTION AGAINST A HERBALIST.

At an inquest held in Cefn, South Wales, last February, the jury found that the deceased, a woman, had died from gastric ulcer and peritonitis probably caused by irritating drugs, and severely censured a herbalist shown to have prescribed and sold some of the medicines which had been taken. Against this man the Society of Apothecaries of London brought an action on June 14th claiming that he had acted as an apothey without legal qualification, and had thereby committed offence under the Apothecaries Act of 1815. Evidence ing been given of the defendant's conduct in respect of the eased person mentioned, and of his having prescribed and l medicines to other people also, the Court inflicted the full alty of £20 with costs.

MEDICAL WITNESSES' FEES.

CASSIA" is undoubtedly entitled to a fee for appearing as a rofessional witness in a case concerning an inmate of the orkhouse for which he is the medical officer.

VALUE OF A PRACTICE.

GEON.—If the vendor's mother-in-law was a bona-fide atient, and paid her account like other patients, the nount of the same might be fairly reckoned among the ndor's receipts for that year. In every practice items will found among the receipts for particular years that are ot likely to occur again. It is not clear that the purchaser as any real grievance unless the vendor purposely misled as to his relationship with this patient. The point ight to have been ascertained before the purchase was ncluded.

STARTING IN PRACTICE.

Probably the best and safest way to start in practice is to y a share in a practice already made. If our correspondent nnot do this, he might, if fortunate, get some public pointment, such as medical officer to a union. With such introduction he ought to be able to make his way after a me in most districts. If he cannot get such an appointent there only remains the more difficult course of finding t some locality where his personal shrewdness or the owledge of friends may point out to him an opening for doctor. It would not be in accordance with professional iquette for a *locum tenens* to start in any district where e introduction has been through a principal, without his nsent, or unless outside the usual radius from the incipal's residence.

PUBLIC HEALTH

CHICAGO FOOD PRODUCTS.

ow appears that the United States Congress will a Bill for the inspection of meat satisfactory to the ident. Mr. Roosevelt has had a severe struggle with Committee on Agriculture of the House of Representa-, the majority wishing to introduce amendments h it was believed would render the inspection illusory. believed, however, that the President has now secured plete inspection in the packing houses "from hoof to ' The Bill, as approved by Mr. Roosevelt, has passed House of Representatives without a division, and will be discussed at a conference between the Senate and House.

s not clear whether the Bill will require tins to be dated. he letter on page 1503 from Dr. Daniels, of the London ol of Tropical Medicine, shows that this is a matter of rtance, especially in the tropics. He recalls the fact the late Dr. H. E. Mann made a suggestion on this in our columns four years ago. The nature of the er to be guarded against receives an illustration in the report of Dr. Herbert Williams, Medical Officer of th for the Port of London. One of his inspectors l on board a steamer recently arrived from Singapore ses, each containing 100 tins of sardines, and the t states that

> s obvious that these articles of food were not ordinary imports ingapore, but had been returned for some unusual reason. The nation revealed the fact that the contents of the tins were nd and unfit for human food.

wners having inspected them expressed the opinion the tins were "a little 'slack,' but still perfectly " Dr. Williams then examined the tins in four cases ut finding a single good tin amongst the 400; the consignment was then destroyed.

h regard to boned meat and "renovated butter," Dr. ams reports:

> e case of meat cut up into small pieces, no guarantee can be ed that it has not come from animals the subject of disease in rm or other, and certainly a large loophole exists here for the ation of flesh from diseased animals.
>
> quantities of "renovated" butter continue to be imported: it st certain that this consists of butter which has become rancid, eated chemically to remove the rancidness, and subsequently d up with fresh milk and subsequently exported to this . I had samples taken of one of the first consignments which the Port of London, but the report of the analyst did not my taking any further action.

D. L. Thomas, Medical Officer of Health for Stepney, last report to the Public Health Committee, after g that tins containing decomposed meat are not "blown" or bulging, points to another danger of nned foods; he says:

> g the last few years I have frequently analysed the contents of old tins which were found to contain such large quantities of tin, together with occasionally small quantities of lead, as to be positively dangerous. The tins show no sign of bulging, and when they are opened the contents appear wholesome and taste as well as any fresh cooked meat. It is sometimes very difficult to persuade the owners to surrender such goods, and it is only when I absolutely refuse to allow them to be removed, and I threaten to have them taken to the police court to be condemned by the magistrate, that the owners consent to submit them to their own analyst for examination and ultimately surrender them.
>
> The maximum amount of tin that I have found in canned goods is as follows:

Lobster	2 94	gr. per lb.
Mackerel	0 55	,,
Pine cutting	2.97	,,
Salmon	1.32	,,
Condensed milk	2.37	,,
Apricot	2 92	,,
Raspberry pulp	0 65	,,
Liquid eggs (in tins)	0.55	,,
Ham	0.50	,,
Black current pulp	1.96	,,
Apricot pulp	0.60	,,
Peas	0.88	,,

> The presence of a trace of lead was detected in the tinned salmon only. No trace of it could be discovered in the others.
>
> Food that has been in tins for three years, and more, should be looked at with suspicion, and a few samples should be analysed. They should not be allowed to be placed on the market until the absence of tin and lead has been amply proved.

With regard to the inspection of the finished product as imported into this country, he points out that it cannot be completely relied upon. He writes:

> Diseased meat may have been used in the first instance. If fresh and tinned properly, it will not decompose and cause the tins to bulge. It will not be detected in the usual way, and will thus pass the strictest examination.
>
> Bacteriological examination even, would be valueless as a practical test. It would be quite possible for the whole of the obviously diseased part of the carcass to be put in one tin, though the whole carcass may have been infected. The contents of one or two tins would be no indication of the contents of the others. That is, one tin may possibly contain the only part of the diseased carcass that would give a positive bacteriological result. If this particular tin was not thus examined, the whole consignment would be passed as wholesome, whereas it would be dangerous to the health of persons consuming any portion of it.
>
> Therein, the result of the examination would differ from that of the chemical analysis. In the latter the tinned food would be practically of the same age, and if tin or lead had been dissolved in one, the chances are greatly in favour of their having been dissolved in the others.
>
> Furthermore, the bacteria or bacilli may have been destroyed when the meat was boiled previous to its being canned, but the ptomaines which result from their growth would not be destroyed. The presence of ptomaines can only be discovered by a physiological test, that is, by the effect they produce when administered to mice or guinea-pigs, etc.
>
> The same remark applies to the presence of dirt in the factories. Examination of canned goods will seldom give an indication of the sanitary condition and cleanliness of the factories.
>
> It will therefore be seen that no examination is possible in this country to detect disease in the meat imported in tins. Strict examination of the carcasses immediately the animals are killed, and their rejection, with subsequent destruction if found to be diseased, are the only means of protection from this danger. It may be humiliating to have to confess it, but we are impotent in the matter, and we have to depend absolutely on the knowledge and integrity of the officials supervising the canning of goods abroad.
>
> The meat that is used for canning purposes in our district is bought in the Central Meat Market, where it is thoroughly examined, and is afterwards under our supervision. If diseased meat is used it will be due to the laxity of our own officials, as well as the officers of the City Corporation who are responsible for the supervision of the Central Meat Market.

He sums up his conclusions as follows:

> 1. Decomposed food will, as a rule, in time cause bulging of the tins.
> 2. Experienced men only can detect the presence of putrefaction of the contents when the gas is not sufficient to cause bulging.
> 3. Blown tins are apparent to all, and, when opened, the contents are offensive.
> 4. Tin, and on rare occasions lead, may be present in such quantities as to be injurious to health, though the food itself may appear to be quite wholesome. Their presence can only be detected by chemical examination.
> 5. Diseased meat may have been used. No practical examination will detect the presence of such diseased meat, once it has been tinned, for a bacteriological examination of a few tins out of each consignment would not be a guarantee of the condition of the contents of the remainder.

The President of the Local Government Board has issued general instructions to medical officers of health inviting them to take samples of tinned meat, to submit them to examination, and to communicate the results to him, with a view to the publication of a general report on the subject.

VACCINATION.

Successful Vaccination.

No private practitioner is obliged by law to adhere to the regulations as to quality of vaccination laid down for the observance of public vaccinators. No definition of successful vaccination is laid down for a private practitioner; if he returned a certificate without vaccinating, action would lie against him for fraud; short of that, it lies within his discretion to decide what constitutes efficient vaccination. The regulations for public vaccinators are that they shall produce four separate good-sized vesicles of a total area of not less than half a square inch, and that the arm and instruments be treated in a properly aseptic manner.

LETTERS, NOTES AND ANSWERS TO CORRESPONDENTS.

QUERIES.

STAFFORD asks advice as to the case of a gentleman, aged 65, who has suffered for ten years from singing noise in the region above the ear on each side. The drums are slightly thickened, there is no perforation, and hearing is good. There is no cardiac disease and no atheroma; his occupation, manager of ironworks. The condition started with no apparent cause, and has gradually become more troublesome. Various treatments have had no avail. One consultant recommended perforation of each drum, which he, not unnaturally, refused.

ANSWERS.

THIRTY YEARS A MEMBER.—No.

COUNTRYMAN.—According to Squire's *Pocket Companion*, chlorobrom is a mixture containing 30 gr. each of chloralamide and potassium bromide in an ounce. Chloralamide is a compound of chloral anhydride and formamide; why, therefore, it should cause aching in the throat and stomach and a deposit in the motions is difficult to understand.

INDIAN MEDICAL SERVICE.

F. N. W.—The regulations with regard to physical fitness, including requirements as to eyesight, are contained in the printed regulations for the examination of candidates for admission to His Majesty's Indian Medical Service, which can be obtained on application to the Military Secretary, India Office, London, S.W. The physical requirements are similar to those for the army, and colour-blindness is not in itself a necessary disqualification. Intending candidates who may be doubtful as to whether they are physically fit can on application to the Under Secretary of State, India Office, obtain permission to appear before the Medical Board for a preliminary examination at any time.

DIET IN PREGNANCY.

P. M. writes: "Junior" will do well to steer clear of plethora, that common condition so rarely mentioned to ears polite, but which leads so readily to albuminuria, convulsions, and haemorrhage. Digestion, too, is more easily overtaxed during pregnancy than usual. As growth is inconsiderable, only about three drachms a day, the quantity of food scarcely need be increased. Professor Chittenden has proved that much less proteid than was supposed is really required even in young and athletic men. Meat once a day, not exceeding 4 oz., and of the plainest compatible with variety, a total of 12 to 14 oz. of solid food a day in two or three meals, and no excess of liquids, may be allowed. Milk may be reckoned as 14 per cent. solid. An egg should be rarely given, bot bacon never. If this be Spartan régime it is safe for lactation as well as for other functions.

EMPLOYMENT FOR CONSUMPTIVE GIRLS.

J. E. S.—The question as to what employment without danger to the community can be recommended for consumptive girls obliged to earn their own living is one which is very difficult to answer satisfactorily. The problem is one of great practical importance, but by no means easy to solve. In the first place the occupations open to women are not so varied as those from which men may select their employment, and, as competition is keen, ill-health is almost in itself sufficient to spoil a girl's chance of getting a post. Most occupations for women entail indoor and sedentary work and are, therefore, unsuitable for those with consumption. Domestic service in a good house, where hygienic requirements are attended to in the servants' quarters as well as in the rest of the house, would not be unsuitable for the early consumptive; but a consumptive girl might be a scurce of danger to her fellow-servants, especially if she could not have a bedroom to herself. The nursemaid's place, with the daily walks, would be beneficial to the consumptive girl, but she is debarred from taking such a situation because of the risks to the children. In the country there are outdoor occupations suitable for women, but since no consumptive should have anything to do with handling milk or food, dairy work is not open to consumptive girls. Tending poultry is also not free from objection. A suitable employment would seem to be light gardening, but there is at present little opening in this direction for girls. Lace making, which can be done in the open air, would probably be satisfactory from the health point of view, and profitable to those who had learned the work. Net braiding at seaside places offers suitable occupation, since the nets must be spread out, and therefore large sheds are necessary when the work is not done in the open. The reply to the question appears, unfortunately, to be summed up in the unsatisfactory conclusion that there are no thoroughly suitable occupations for consumptive girls in large towns, and very few such in the country. On the other hand, it is to be remembered that many consumptive girls improve and keep well while following occupations which are theoretically most unsuitable, and in spi of most unfavourable surroundings both at home and at th work.

LETTERS, NOTES, etc.

THE ROYAL COLLEGE OF SURGEONS, IRELAND.

DR. JOHN J. DE ZOUCHE MARSHALL, L.R.C.S.I. (1869) (T dington) writes under date June 20th: I have to-day receiv a circular—in common, doubtless, with all L.R.C.S.I.' from Messrs. Beynon of Cheltenham, announcing the publi tion of a memorial picture of the Royal College of Surgeo Dublin, and giving the names of nineteen Presidents and t others whose portraits are to form part of the picture. these twenty-one names, there are only about twelve kno to me, though I lived a long time in Dublin. I well remem Sir Philip Crampton, Adams, Beatty, Colles, Tufnel, Rob McDonnell, and Sir William Stokes in my own time, where are such names as William and Sir George Port Butcher, Joshua and Sir P. C. Smyly, Ledwich, and H. Croly? Without Sir George Porter the old College will se to me like "*Hamlet* without the Prince," and I hope t by thus early drawing attention to the matter other Lic tiates, etc., will join me in trying to obtain a more inter ing collection of portraits.

MIND AND MATTER.

DR. JOHN HADDON (Hawick), in the course of a note upon Claye Shaw's lecture on Mind and Matter, writes: We kn that the secretions of the glands concerned with digest vary with the kind of food which is eaten. In some, suc the salivary glands, the secretion varies in amount o whereas in others, such as the pancreas, the quality as as the quantity of the particular ferment required for particular food varies. We may call that a mere reflex still, it savours of mind, and may help to explain what hitherto remained inexplicable. Insanity has been loo upon as a disease of the mind, the mind being loo upon as something quite different from the body. I should be proved that mind depends on the healthy actio some nerve centre, just as proper pancreatic secretion depe on the healthy action of the nerve centre that regulates pancreas, insanity will be viewed very differently from w it has been in the past, and, in consequence, may we hope that its treatment will be more successful. Dr. T Shaw's lecture deserves the careful study of all asy medical officers, who alone have the opportunity of pro or disproving any new line of treatment.

THE GEORGE BROWN TESTIMONIAL FUND.

DR. J. POLLOCK SIMPSON (8, Upper Montagu Street, Mon Square, W.), Secretary and Treasurer of this fund, writ acknowledge the following list of subscriptions:

	£	s.	d.		£
Dr. Crawford ...	0	10	6	Dr. E. B. Thomson ...	0
Mr. Geo. Jackson ...	5	0	0	Mr. Swain	0
Mr. Ed. Bartlett ...	0	10	0	Dr. S. Wilson ...	0
Dr. C. H. Miles ...	0	10	6	Dr. Chas. A. Foyl ...	0
Dr. A. Cosgrave ...	0	10	6	Mr. Jos. B. Cook ...	0
Dr. R. Marjoribanks	0	10	0	Mr. A. Rivers-Willson	1
Dr. A. J. Carter ...	0	10	0	Dr. Pollock Simpson	1

THE DR. A. E. JONES FUND.

DR. C. W. WIRGMAN (London, W.) writes: The Committee to thank those gentlemen who have so generously tributed to the fund. A cheque for the total amount be presented to Dr. Jones on July 2nd.

Due notice will be given to all those who have subsc should they wish to be present.

	£	s.	d.		£
Mr. G. B. Mower White	2	2	0	Mr. P. Maynard Heath	1
Dr. W. Morriston Davies	1	1	0	K.	0
Anonymous ...	1	1	0	F. S.	0

JUNIUS writes to advise medical practitioners who ma invited by a travelling agent to buy a fur rug to take e advice before doing so and not, as he did, afterwards.

SCALE OF CHARGES FOR ADVERTISEMENTS IN BRITISH MEDICAL JOURNAL.

Eight lines and under	£0 4 0
Each additional line	0 0 6
A whole column	2 13 4
A page...	8 0 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manag the Office, not later than first post on Wednesday mo preceding publication; and if not paid for at the time, shou accompanied by a reference.

Post-Office Orders should be made payable to the British Me Association at the General Post Office, London. Small am may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive lett *Postes Restantes* addressed either in initials or numbers.

A Lecture

ON

HE PREVENTION OF DIFFICULT LABOUR.

Delivered at the Medical Graduates' College and Polyclinic.

By G. E. HERMAN, M.B.Lond., F.R.C.P.,

CONSULTING OBSTETRIC PHYSICAN, LONDON HOSPITAL.

y subject is the prevention of difficult labour. There s always been loss of life in child-bearing, and it has en the constant effort of the medical profession to luce this.

Mortality of Childbirth.

Before the days of asepsis this mortality was consider- le, but there has not been a rapid improvement in this pect. Still there is some improvement. Dr. Boxall, iting in 1893, and Dr. Cullingworth, in his address President of the Obstetrical Society of London in 97, called attention to the high puerperal septic rtality, in spite of the power of antiseptics in eventing it. There is a little improvement, for I d that the death-rate in ten years from 1892-1902 from tic infection was 4.91 per 1,000, whereas the death-rate m the same class of illness during 1903 was only 4.01 r 1,000. This indicates an improvement of nearly er 1,000. This death-rate is much higher than it ought be.

The improvement which is being noticed in the figures due to the numbers of young men who are turned out m the medical schools with the antiseptic ritual at eir fingers' ends as it were, men who have been tho- ughly taught it and who are accustomed to do almost tomatically what is required to maintain asepsis by tisepsis. But there are still medical men in the untry who, because they have attended so many usands of cases without antiseptics, and have had in eir experience few deaths, think that antiseptics are necessary in childbirth. There are a large number women who do not consult their doctor as to the oice of a nurse to attend them in their confinement. d the doctor may be perfect in his antiseptic pre- utions, and yet the nurse may not be. Then there a number of poor women who are attended by un- ght and dirty midwives. In these three ways we may ount for a large part of the infection which occurs in se cases. It must be confessed, unfortunately, that tic infection is still answerable for the bulk of the erperal deaths. I do not want to go into the details of tisepsis, because the principles are the same as those ich are applicable to surgery in general. I would only sist here that at the present time septic infection is still most common cause of death in the puerperium, and is a cause of death which is capable of absolute evention.

The next class of fatalities are those which arise from sproportion between the dimensions of the child and se of the pelvis. These include cases in which either child is large with a normal-sized pelvis, or in which th a contracted pelvis the child is either normal in e or large. Disproportion is apt to lead to death various ways. Death may occur by mechani- difficulty in delivery, sometimes by occasioning lpresentations. This class of death ought to be pre- nted. There are deaths from haemorrhage, and these th few exceptions ought to be prevented.

There are some causes of death in connexion with gnancy and the puerperium of which we know so little at they cannot at present be prevented. The chief of se is eclampsia, a disease which we cannot predict or vent. There is good reason for believing that it is due a poison, and a good deal has been written about the aemia in eclampsia, but we are absolutely without in- mation as to what that poison is, what its properties , whence it comes, or how it can be avoided. Some ple believe the disease can be prevented by examining urine of women in pregnancy to see if it contains umin. But many women who are pregnant and have umin in the urine have no signs of eclampsia, and the albuminuria passes off in a week after delivery. We naturally suppose that when a patient has one disease of the kidney she is likely to get other morbid conditions of kidney also, but that is rather a supposition based upon general principles than a fact which has been proved by experience of this particular disease. The fact that there is no albumin in the urine of a pregnant woman has been found to be no guarantee against her getting eclampsia. In one case the urine of a pregnant woman was examined three hours before an eclamptic seizure came on, and it was found to be free from albumin, so that it is not safe to say that the absence of albumin in the urine before delivery makes it certain that there will not be eclampsia. Our inability to predict this disease, and our lack of knowledge as to its cause, makes it a disease at present outside our control.

There is another rare class of cases also beyond our control, cases of rupture of the uterus in easy labour. A child has been born in its membranes, and yet the uterus has ruptured, by the exertion of a force which was not sufficient to rupture the membranes. This must be due to some degenerative change in the muscular fibres, but we have not yet discovered what it is, nor can we identify it during life. So here again we must say that rupture of the uterus in easy labour is one of the things which we cannot predict or prevent.

Acute yellow atrophy of the liver is so much more liable to come on during pregnancy than at other times that it may be considered a disease of pregnancy, and this again we cannot predict or prevent. These are some of the conditions in regard to which, therefore, we cannot yet hope to reduce the mortality from childbirth.

To prevent accidents and deaths from mechanical disproportion it is necessary that the patient should be examined during pregnancy. That is the first proposition that I want to submit to you: that when a medical man is engaged to attend a pregnant woman he ought to insist upon examining her not later than the seventh month of pregnancy, because abnormal size of the child and contraction of the pelvis, which are the cause of these accidents, can generally be recognized if examination is made by the end of the seventh month, and can be more easily remedied at that time than later on in the pregnancy. Remember what a natural labour is. A normal labour simply consists of the stretching open of the muscles and fasciae which bound the vagina and vulva. In a natural labour—that is, one in which the pelvis is of an average size and so is the child—there is no hindrance whatever offered to delivery by the pelvic bones. Think of what the pelvic measurements are and you will see that it is so. The biparietal diameter of the child's head generally lies in the oblique diameter of the pelvis. Its average length is 3¾ in. The average oblique diameter of the pelvis is 4½ in., so that there is plenty of room for that. The measurement of the child's head, which lies in the conjugate diameter, is one from in front of one parietal eminence to behind the opposite one, and measures 4 in., while the conjugate measures 4¼ in., so that there is plenty of room for that. The measurement of the child which stretches the pelvic outlet is the suboccipito-frontal. From the nape of the neck to the most distant point of the frontal suture is 3¾ in., and the distance from the pubes to the tip of the sacrum is 4½ in.; so the only way in which the bones are affected is the extension of the coccyx, which is movable.

The whole work of labour consists in stretching open the muscles and fascia which bound the vagina and vulva, and the time required depends on the power of the uterine muscle and the power of the auxiliary muscles. The latter have little to do with it, because they do not act notably until the later stages of delivery—that is, until the parts which are richly supplied by sensitive nerves are pressed upon. In different women the difference in the resistance which these structures offer to being stretched is slight. But there are differences. It has been found that labour lasts a little longer in elderly than in younger primiparae, but the difference is slight, not more than an hour or two. And recollect another thing, that the stretching open of the soft parts will always take place. When the labour is normal and the exit is not obstructed by bony obstruction or by tumours, the child will always be expelled. A condition has been described known as missed labour, in which it is said labour has come on and passed off without the child being expelled. The cases which have led to belief in such a condition are, first of all, as Robert Barnes pointed out, that a dead child may be retained *in utero* for an almost indefinite time without labour coming on. But that is a different matter from a healthy living child remaining there. There have been some cases in which the delivery of the child has been obstructed, and its exit made impossible by tumours: the pains have gone off and the child has been retained. But these are not cases of natural labour. In natural labour, without bony or other obstruction, the uterus will always complete labour, and that without grave injury to the mother. When a labour lasts longer than usual it is either because the pains are weak, or because the child is large, or because the pelvis is small.

NORMAL PREGNANCY AND THE MARGIN OF SAFETY.

The relative sizes of the child and pelvis ought to be found out by the doctor during pregnancy. This examination should be made at the seventh month of pregnancy. If the patient wishes to be examined before the seventh month of pregnancy there is no reason why she should not. But there is no object in insisting upon examination before the seventh month. At that time you can judge whether she has a pelvis so small as not to permit a normal-sized child passing through it. In cases where the pelvis is too small to permit a living child to be born, it is best to let the mother go to full term and then be delivered by Caesarean section. This course may not commend itself to the patient: she may wish to have miscarriage induced earlier. I think that is not good practice. If you wait until the end of the seventh month you can then tell her that the time has gone by at which it would be possible to procure miscarriage, so it does not come into discussion.

Supposing the patient comes for examination at the end of the seventh month of pregnancy, you need to examine her to find out the position of the child, its size, and the size of the pelvis. All these things can be ascertained by abdominal examination. The patient should be lying upon her back, and be propped up by pillows at such an inclination that the long axis of her trunk is at about 45° with the horizon. In that position the long axis of the uterus is nearly vertical and nearly perpendicular to the pelvic brim. Posture makes some difference to the ease with which the child's head gets engaged in the pelvis. When the patient is lying flat on her back and you try to push the head into the pelvic brim you sometimes fail to do so, while if you have the patient at the inclination I have mentioned you can do so easily. If you keep the patient in that position you will often find that the head will spontaneously sink into the pelvic brim. The best position for the doctor is for him to be sitting by the side of the patient and facing her feet. There are plenty of ways, variously denominated, in which the hands may be made to grasp the child and ascertain its position. In my judgement, the best way is to sit by the side of the patient, facing her feet, and put one hand on each side of the abdomen, low down, just over the pelvic inlet. If the child is lying in a natural position, you will be able to feel the head between the tips of your fingers, and by moving the fingers upwards you will be able to feel where the neck is, and higher up you will feel the little movable knobs which indicate the fetal limbs. If the patient is not too fat, and if she does not hold her abdominal muscles rigid, you will be able to ascertain the position of the child. If she makes her muscles rigid, you will have to prolong the examination until she gets confidence and ceases to contract her muscles. When the abdominal walls are very fat, you may fail to make out the position of the child.

Remember that the great majority of children are about the average weight and size. In most pregnant women the girth of the abdomen at the level of the umbilicus at full term is under 36 in., and the length of the uterus measured from the symphysis pubis over the convexity to the top of the uterus is 13 in. If in the patient who is seven months pregnant the measurements are not as great as these, it is clear that the child is not of abnormal size; but if they are as great as this, either the child is of excessive size or the size of the abdomen is increased by some other cause, which has to be found out. The measurements may be increased by dropsy of the amnion. This dropsy will cause fluctuation, and you can move the
child about easily either by vaginal examination or by t
hands externally. Dropsy of the amnion is not, as a ru
difficult to diagnose. The cases in which drop
of the amnion is difficult of diagnosis are those
twins, in which one of the amnions is dropsical a
the other not. Sometimes there is difficulty
distinguishing between twin pregnancy with dropsy
one amnion and pregnancy with ovarian tumour. Drop
of the amnion may lead to considerable increase in t
size of the abdomen, and sometimes comes on rapid
If at seven months you find sufficient amniotic fluid
cause fluctuation, the patient must be watched careful
The measurements may be increased by fat. It is r
difficult to find out that there is excessive fat, becau
you can pinch it up and judge of the quantity. It is n
common for women at the child-bearing age to be ve
fat, but now and then you get a patient who is very f
and it may be difficult to say how much of the great si
of the abdomen is due to fat and how much to the size
the child. The size of the abdomen may be increased
tumours, ovarian, fibroid, or other. These acciden
conditions may make it difficult rightly to in
that because the abdomen is larger than it oug
to be therefore the enlargement is due to
large child. But, although these difficulties prese
themselves in some cases, they do not in all, nor
many; in most cases you can distinguish th
the size of the abdomen is due to the large size of t
child, and not to anything else. If at the end of t
seventh month the child is of natural size, then t
patient should be told to come at the eighth month to
examined, so that you may be able to determine t
child's size then. If the dimensions are not then fou
to be excessive, the woman may be allowed to go to ter
You also want to know not only the size of the child, b
the size of the pelvis: not the absolute measuremen
but the relation of the pelvic measurement to the size
the child, because it does not matter about the patie
having a small pelvis if the child also is small, nor th
the child is large if the pelvis also is large. Ascertaini
the absolute size of the pelvis in pregnancy is a thi
which cannot be done without causing the patient
much suffering that if you try to do it she will be loth
allow you to try again. You can only obtain the diagon
conjugate. This in the ordinary pelvis measures 4¾ i
if you press hard enough you can feel the promontory
the sacrum in most women; but the finger is only abo
3 in. long, and if you get near the promontory, so much pa
is caused by the knuckles pressing up the perineum th
the patient will probably object. What you have to asc
tain being the relative size of the pelvis and the child,
does not help you to ascertain the absolute dimensio
The great point is to find the ease or difficulty with whi
the head will sink into the pelvis or with which it can
pressed into it. If the head easily sinks into the pelvis
can be easily pressed into it, the child will pass, whatev
the absolute size is. If there is malpresentation and t
child is lying transversely or obliquely, or with the vent
surface instead of the dorsal surface in front, or if t
face is presenting, the relative size of the child and t
pelvis should be ascertained with great care.

Most of these matters can be easily rectified, and t
ease of rectification depends very much on two things.
depends first on the amount of liquor amnii, and next
the amount of time which is given to it. When the chi
is lying with the limbs in front and the back behind,
you will take plenty of time it is not difficult
turn the back to the front, and it will save t
patient a great deal of trouble in labour if y
do it. If the child is lying obliquely, so th
the head is in the iliac fossa, it is not difficu
to press the head over the pelvic brim. If the chi
is lying with the breech presenting and the head
the top of the pelvis, it may be difficult, the difficul
depending on the amount of liquor amnii. The power
ascertaining the position of the child and of correcti
anything which is wrong, and ascertaining the relati
size of the head and the pelvis, are sufficient reasons f
advising the patient to be examined at the seventh mon
of pregnancy. I would lay this down as a rule—th
mechanical difficulty in labour implies that the patie
has been advised by incompetent persons, not necessari
by an incompetent medical man. Women do not usual
take the advice of medical men as implicitly as th

t. If the patient comes at the seventh month, causes
fficulty can be observed and can most likely be
died. If she does not come, that means that she has
badly advised by some one.

PREMATURE LABOUR.

ave pointed out that the head, in a natural labour,
s through the pelvis without being hindered by the
bones; and I have asked you to observe that there
irge margin of safety when the child is not more than
verage size and the pelvis is of quite average size.
e seen a child of average weight come through a
with the face presenting and one hand prolapsed,
have seen a child of average size born alive by
aneous evolution. These things show what a large
n of safety there is in natural labour. But although
is a large margin in most cases, sometimes the
n will be overstepped, and in that case there will
ifficult labour. If by examining the patient during
ancy we have found that at the seventh month,
ay be at the eighth month of pregnancy the child
ached more than the full average size, the proper
is to prevent a difficult labour by inducing prema-
abour. Some people will say this is meddlesome
fery, and therefore it is bad. But why is it bad?
not bad for the child, because by the terms of the
ve have supposed that it has reached full average
sions, it weighs at least 7 lb., and makes the mother's
en as large as that of a woman at full term. It is
ly quite as able to take care of itself as an average
but its premature birth is better for it, because it
probably be injured by difficult labour at term if this
llowed to take place. Therefore, so far from being an
le to the well-being of the child, it is a course which
ts benefit. It may be objected that it subjects the
r to additional risk, that the risk is greater than
the labour which comes on at full term. So it is
labour is badly managed. If the nurse or
heur is one who cannot go to the patient without
g her to the risk of septic infection, she is better
ne; but if the labour is conducted with every pre-
n for securing antisepsis, I cannot conceive of any
which the premature labour is more difficult or
ous than labour at full term. In preparatory
at full term the opening up of the cervical canal, so
comes to form part of the uterine cavity, has come
aturally; but if you bring on labour prematurely,
s not taken place, and the labour is long, for both
ernal and the external os have to be opened up, and
ccoucheur does not bear this in mind and is in a
he patient will be exposed to risk to which she
not have been exposed if the pregnancy had
to the full term; but if the labour is properly con-
and the uterus allowed to do its own work, I can
vay in which premature delivery is more dangerous
elivery at term. It is less so in the sort of case
ve are discussing now, in which the child is already
s an average child. Delivery takes longer than at
d therefore we must allow that it may be perhaps
isfactory to the mother and to the doctor. But
that may be set the fact that the date can be pre-
d, which is a convenience both to the doctor and
ient, and I think an effective set-off to the slightly
abour. The best method of bringing on premature
is by introducing a bougie between the membranes
uterine wall, and then leaving the case as much as
to Nature. The bougie does not require to be
but pushed up as far as it will go. In most cases
ains will begin from twelve to twenty-four hours
ds. Sometimes a bougie will fail. There are
tients whose uteri seem to be so little irritable
eems possible to do almost anything to them with-
very following. If the bougie has been left in
venty-four to forty-eight hours without result,
the best plan is to dilate the cervix with
dilators till the cervix is big enough to enable you
uce Champetier de Ribes's bag. I have not known
fail to respond to that bag. All these things must
with the strictest care in regard to antisepsis.
netimes reads of cases of labour in which there
nechanical disproportion and yet the patient was
exhausted. But in natural labour, that is, in a
which the child and the pelvis of the mother are of average size, exhaustion never occurs. A patient may be tired, but not exhausted. By exhaustion I mean a condition which renders the patient in danger of death, as is seen in cases of neglected transverse presentations, or contraction of pelvis, in which if the labour is allowed to go on the patient may die. The uterus may get tired in natural labour, the pains pass off, and the patient may go to sleep. Afterwards the nervous system will be refreshed and the pains will come on again. Not only may the woman get tired, but the doctor and the nurse may get very tired if the pains are weak and the labour is long. When the pains are regular but weak, their defect being in their lack of strength, and nothing else, it is good practice to help those weak labour pains by means of forceps. This is the great use of forceps. These cases are more frequent than any in which there is mechanical disproportion. When a patient is getting exhausted from obstructed labour, the proper treatment is craniotomy, and not Caesarean section. There are schools in which it is taught that craniotomy ought to be eliminated altogether, and that in every case of obstructed labour Caesarean section should be the remedy. There is much to be said in favour of that if the cause of the obstruction is found out early. If you know at the beginning of labour, or before labour has come on, that the pelvis is deformed, or that the child is of excessive size, and Caesarean section can be performed early, then the risk from Caesarean section is not greater than that of most abdominal sections. But Caesarean section on a patient who is exhausted by many hours of obstructed labour is very dangerous, and therefore I think delivery by perforation is the proper course. By ascertaining the size of the child, and the position of the child during pregnancy, and rectifying malpositions and malpresentations, we can save the patient from the dangers of mechanical disproportion, and the difficulties of labour which spring from it.

HAEMORRHAGE.

Puerperal haemorrhages are of three kinds:

I. *Accidental Haemorrhage.*—I know no disease in which it is more difficult to get a correct impression by means of figures than in accidental haemorrhage, because cases of slight accidental haemorrhage are common, whereas cases of great, dangerous accidental haemorrhage are rare. Any enumeration of a large number of slight cases of accidental haemorrhages will give good results. We know not enough about the causes of accidental haemorrhage to be able to predict or to prevent it, and therefore we know nothing of value about it. The test of our knowledge of disease is the power to predict and prevent it. We shall never know enough about it except by the practice of examining women during pregnancy. If that were done it is possible such examination might lead to the discernment of some state of the body which preceded accidental haemorrhage, and then we might be able to predict or prevent it. At present we have not that power, and I do not see how it can be obtained except by the systematic study of patients examined during pregnancy. It may be that cases of severe haemorrhage begin with slight bleeding. If we could foresee a case of great accidental haemorrhage, or even if great accidental haemorrhage has taken place, if the patient be not moribund I think the best treatment is by Caesarean section. This has been successfully performed in such cases, and has the advantage that by Caesarean section the haemorrhage is surely stopped, and the patient can be revived, unless she is already moribund, by pouring saline solution into the peritoneal cavity, or by injecting it into the cellular tissue. But I fear that if Caesarean section were accepted as the proper thing to do in all cases of accidental haemorrhage, the mortality might be greater than the mortality from the disease.

II. *Placenta praevia* is another cause of haemorrhage. Here there has been a great improvement in the results, owing to the teaching of Dr. Braxton Hicks and the discoveries of Lord Lister. When I first began to learn midwifery, the mortality from placenta praevia was about 20 per cent. Then came the application of Dr. Braxton Hicks's treatment and of antiseptics, and the mortality was brought down to 5 per cent. And in a collection of cases treated by Champetier de Ribes's bag, made by Dr. Richard Warren,[1] the mortality was 3.2 per cent. This shows that placenta praevia can be successfully treated. It has been diagnosed by abdominal examination, but its diagnosis in that way is difficult, and is not likely to be often done by the general practitioner. Still, it has been done, and we may hope that the cases in which it can be thus detected may become more numerous, for if we can ascertain the presence of placenta praevia before the haemorrhage has begun we shall be in a better position to treat it successfully. In the treatment of placenta praevia the essential thing is that the treatment should be begun before the patient has become exhausted by excessive haemorrhage. If we can secure pressure upon the bleeding points before the patient has been exhausted we shall be able to get her delivered without haemorrhage of any alarming amount.

III. *Post-partum Haemorrhage.*—The prevention of *post-partum* haemorrhage depends upon two things: (1) Upon the avoiding of extraction when the uterus is not acting, and (2) upon the careful emptying of the uterus. There are some medical practitioners who often get cases of *post-partum* haemorrhage. Why is this? The men who often have cases of *post-partum* haemorrhage are those who apply the forceps and pull continually, whether the uterus is acting or not. I used to come across a stock answer in examination papers, based, I think, on the writings of the late Dr. Playfair. Students would say they would "follow down" the uterus with their hands during the second and third stages of labour. I know not how they could do that and tie the umbilical cord, but I am sure it is absolutely unnecessary, for the uterus will take care of itself. There is no necessity for putting the hand on the abdomen during the birth of the child or during the expulsion of the placenta. The uterus will do its own work if it is allowed to.

The great thing to be avoided when using the forceps is pulling with them while the uterus is inactive. Let the uterus expel the child, and let the efforts with the forceps be confined to helping the uterus; never attempt to replace the action of the uterus. The object of putting the hands on the abdomen after the child is born is not to follow down the uterus. If the accoucheur has been careful only to extract the child while the uterus was contracting, the uterus will follow down the child and contract and retract. The object of putting the hand on the abdomen is partly to stimulate the uterus by friction and so accelerate the third stage of labour, but chiefly to ascertain that the third stage of labour is going on properly. The other great cause of *post-partum* haemorrhage is the imperfect emptying of the uterus. If the uterus is left with a bit of placenta or chorion inside it, it will not contract properly. To prevent that, carefully examine the placenta and the membranes to see that the chorion has everywhere come away with the amnion, and that a piece of the placenta has not been broken off. Put the placenta, uterine surface upward, into a basin of water, and then if there is a bit left behind you can perceive it better. Look at the fetal aspect of the placenta, and see if there are vessels running to the edge and there stopping short. If you see this, suspect that a bit of placenta is retained. A little portion separate from the main mass of placenta may be retained, and you may perceive nothing missing from the placenta until you float it in water. If some of the placenta has been left behind it is probable that part of the chorion also has been left, but if the membranes have been much torn it may be difficult to recognize that.

SUMMARY.

Those are the chief accidents which render labour a dangerous process. Septic infection can be prevented by the systematic and thorough following out of antiseptic principles in every case. Mechanical disproportion can be prevented by the examination of the patient at the seventh month, and by bringing about premature labour if the child is large, or if its size relatively to the pelvis is large. We cannot say at present that inducing labour will prevent haemorrhage, but examination during pregnancy seems to be the only thing which may in the future enable us to prevent this haemorrhage. *Post-partum* haemorrhage is to be prevented by taking care that the child or the placenta is not pulled from the uterus when it is not acting, and that nothing is left behind after the third stage of labour. If patients were regularly examined at the seventh month of their pregnancy much might be done in reducing the mortality of childbirth.

REFERENCE.

[1] *Lancet*, February 3rd, 1906.

The Ingleby Lectures

ON

THE MANAGEMENT OF A CASE
LABOUR.

DELIVERED AT THE UNIVERSITY OF BIRMINGHA

BY C. E. PURSLOW, M.D., M.R.C.P.,
HONORARY OBSTETRIC OFFICER, QUEEN'S HOSPITAL; INGLE
LECTURER FOR THE YEAR.

[ABBREVIATED.]

AFTER thanking the Council of the University fo
honour conferred upon him, the lecturer gave an ac
of the life and work of Dr. Ingleby; the latte
Professor of Midwifery at the Queen's College, Bir
ham, and the author of a treatise on uterine haemor
which had much repute in its day. The Ingleby Le
and Scholarship were founded in his memory, and, i
words of the trust deed, "for promoting the advanc
of obstetric medicine and surgery, including the di
of women and children."

EDUCATION OF MEDICAL STUDENTS IN MIDWIFER

Dr. Ingleby was a strenuous advocate for the bett
cognition of midwifery by the authorities in the m
world, and by the examining boards, and for more tho
teaching of the subject, and after quoting Dr. Ing
views on this subject, the lecturer proceeded as follo

Matters have improved as regards the education
medical student in midwifery since Dr. Ingleby's da
are still very far from satisfactory; attention was
particularly to this by Dr. Dakin in his presid
address at the Obstetrical Society of London last
Dr. Dakin compared the careful instruction in me
and surgery which the student is compelled to un
by the examining boards, at the hands of members
hospital staffs, with the casual way in which he is al
to get his practical knowledge of midwifery; all t
wanted from him in this respect being a certificat
attendance on twenty labours," and this may be sig
"one or more legally qualified practitioners." No ru
laid down as to what should constitute "attendance.

The teaching of midwifery will never be placed u
satisfactory basis until each medical school has i
lying-in hospital or lying-in wards attached to its g
hospital, attendance in which, under the reco
teachers of the subject, must be compulsory; and t
tificates of those teachers alone should be accepted
examining Boards; in this connexion I welcome t
posed re-establishment of a lying-in hospital in th
and trust that it may be made available for the instr
of medical students.

THE MANAGEMENT OF A CASE OF LABOUR.

Early Management of the Mother.

The anxieties and responsibilities of the m
attendant begin as soon as the patient engages h
attend her in her expected confinement; and th
question which arises is, Should he insist on mak
abdominal and vaginal examination of every patien

A few obstetricians refuse to attend cases in whic
are not allowed to make such an examination. M
view is that, though such an examination may b
retically advisable, it is by no means always prac
expedient, and it should only be insisted on whe
primipara there is a history of rickets in childhood,
presence of an actual deformity, as distorted sp
bent legs, or dwarfed stature, suggesting rickety
or kyphosis suggesting kyphotic pelvis, or disease
hip-joint, loss of a leg or lateral curvature sug
some form of oblique pelvis.

In a multipara the history of previous labour
always be taken as a safe guide, and examinatio
insisted on when the occurrence of previous difficu
delivery suggests a contracted pelvis. The patient
be kept under careful observation during her preg
the diet should be regulated, and the urine system
and carefully examined, particular attention sho
paid to the presence of albumen in the urine, and
is found in a catheterized specimen, the patient sh

put under appropriate dietetic and hygienic treatment without delay.

The Doctor and Nurse.

The next question is the engagement of a nurse, and in this matter the medical attendant should certainly be consulted. Harmony between nurse and doctor is most essential, and from the point of view of puerperal infection the nurse is quite as important as the doctor. It is extremely annoying and unjust to an obstetrician that after taking most careful antiseptic precautions he should sometimes have his case infected by a careless and septic nurse.

If a nurse has passed through a course of instruction at a lying-in hospital she will, at all events, have been rendered fully aware of the importance of cleanliness, and as a rule, may be trusted to be safe. If the medical attendant has any doubt he should carefully instruct the nurse before the time of labour on the antiseptic measures he wishes her to use.

The state of health of both doctor and nurse is important, and any purulent discharge in either is decidedly dangerous. Any suppuration about the hands, such as onychia, should be held to be an absolute contraindication to midwifery practice for the time being. Suppurating aural or nasal discharges are also dangerous, and, if not held effectually in check, should unfit any one for midwifery practice.

Dr. Mendes de Leon of Amsterdam, in a paper read before the British Gynaecological Society two years ago, drew attention to the important part played by the expired air of the surgeon and attendants in producing sepsis in abdominal surgery, and although so far as I am aware it has not been proposed to wear gauze veils for obstetric work as is now done in some hospitals for operating, still we should at least be careful that there is no focus of infection in the mouth, such as necrosing and suppurating stumps, and the mouth should be well washed out daily with antiseptic lotion.

It is advisable for an obstetrician, as for an operating surgeon, to avoid long hair, and if a beard is worn at all it should be short and well trimmed.

One may sum up by saying that the most scrupulous attention to personal cleanliness in both doctor and nurse is absolutely essential to obtain successful results in midwifery practice.

The Lying-in Room.

The choice and preparation of a room is the next question, though frequently the doctor is not consulted in this matter.

The best ventilated and quietest room in the house should be chosen, and it should not be near the watercloset. Fixed lavatory appliances, connected with the drains, are, in my opinion, always objectionable in bedrooms, and certainly no room containing them should be chosen for a confinement. It is well to have an open fireplace in the room, and I must confess to a strong preference for open coal fires over any other form of heating for a bedroom.

A single bed, with firm mattress, should, if possible, be used. The mattress should be protected by a mackintosh covered by a clean folded sheet, or the cotton-wool sheet supplied in obstetric outfits for the purpose, and it is a distinct advantage to have the patient in such a position that she can place her feet against the foot of the bed and pull upon a sheet attached thereto, as this aids the expulsive efforts.

The Patient During Labour.

The patient should, when possible, have a bath at the onset of labour, and then put on clean clothing, vest, and nightdress, the latter being tucked up round the waist, a clean skirt, and clean stockings.

After labour has commenced the patient should be strictly enjoined not to make use of the watercloset, but to use clean utensils in the bedroom, and these should be at once removed by the nurse.

If the patient has not been able to have a bath the nurse can, at all events, wash the vulva with soap and water. To any one who considers the matter for a moment it must be obvious that the vulva in many women harbours innumerable germs, and in this connexion we should welcome, as obstetricians, the more rational form of dress which women have largely assumed of late years. It is highly desirable that all women should wear some form of bifurcated and closed garment for the lower extremities, so that contamination of the vulva by the dust and germs of the streets, which may be swept up by the skirts, should be prevented.

Abdominal Examination.

Much has been written of late years about abdominal palpation in labour, and no one can deny its great value. Some have gone so far as to claim that labour may be conducted throughout without vaginal examination; and though this is undoubtedly true as regards lying-in hospitals, it cannot apply to every case in private practice, and for this reason: By abdominal palpation one can diagnose the position and presentation of the child, its adaptability to the pelvis, the presence or absence of liquor amnii, and the character and strength of the pains; but one cannot ascertain the state of the cervix, and it is the latter which is mainly our guide as to the time the labour may be expected to last and the wisdom or otherwise of leaving the patient. Therefore, while advising that vaginal examinations should be as few as possible—and in many cases one will suffice—I cannot endorse the advice of those who would forbid them altogether.

Preparation of the Hands of the Obstetrician.

I should like, in the first place, to lay particular emphasis on the importance of guarding against contamination of the hands as far as possible in our daily work. I feel sure that there is room for improvement in this respect, and that the "aseptic conscience" of each of us should be so developed as to prevent us at any time needlessly infecting our hands with septic matter, and to make us always on our guard against contamination.

For examining and operating upon septic cases of all kinds rubber gloves are strongly to be advised. I never examine cases of puerperal sepsis to which I may be called without first putting them on. I find that all the manipulations required can be quite well performed in them.

In connexion with this question of safeguarding the hands from septic contagion there are two points in everyday gynaecological practice to which I wish to draw attention.

The first is that the free use of grease in making gynaecological examinations is a great preventive of contamination of the skin of the examiner's hand.

The second is that, after the surgeon has made a vaginal examination, the nurse almost invariably hands him a piece of cotton-wool with which he is expected to wipe his finger. It is, in my opinion, a mistake for him to make use of this; it is far better that he should at once plunge his hands into hot water and wash them in the usual way.

There are many different ways of preparing and sterilizing the hands, but practically all agree in commencing with a thorough and prolonged scrubbing in soap and water, using a nailbrush; it is always well for the obstetrician to carry his own nailbrush. After rinsing off the soap the hands should be immersed in some antiseptic solution. Personally, after the preliminary scrubbing with soap and water, I soak my hands in a 1 in 2,000 solution of mercury perchloride, again using the nailbrush.

There is a tendency on the part of some practitioners to make too much of a fetish of the chemical antiseptic, and correspondingly to neglect the soap and water; the latter is, in my opinion, by far the more important agent.

The coat should be removed, the shirt cuffs turned up, and rings, if worn, removed before commencing to prepare the hands.

Vaginal Douches.

As regards the question of an antiseptic vaginal douche before labour, personally I do not advise that one should be used, and I think that there are many strong objections to it, the most important being that by using the douche the natural lubricating secretion, which is thrown out so freely in the early stages of labour, is washed away.

It is well for the nurse in every case to give a rectal enema at the beginning of labour, and, when the bowels act, special care should be taken in cleaning afterwards to ensure that faecal matter does not contaminate the vulva.

Vaginal Examinations.

The question of a lubricant next engages our attention. A lubricant is not absolutely necessary, and can be dispensed with, but, in my opinion, it is preferable to use one, as the introduction of the finger is thereby facilitated and rendered less painful; this applies particularly to primiparae.

Another strong argument in favour of using a lubricant is that the latter undoubtedly protects the skin of the examiner's finger, and renders inoculation of syphilitic or septic poison less probable. The late Mr. Lawson Tait strongly supported the use of grease from this point of view. He said in his book on *Diseases of Women:*

> It must not be forgotten that this is one of the most important objects in the use of grease in vaginal examinations.

Whatever preparation is used, the lubricant should always be carried in collapsible tubes and not in pots or boxes; a little may be squeezed out on to the finger, and the remainder is not contaminated.

Rupture of the Membranes.

If the membranes have not ruptured at the time of the first examination, it is always advisable to make a second examination when this event occurs, as a change in the presentation may sometimes then take place, but more particularly because it is at this stage that the cord occasionally comes down; unless this condition is detected by vaginal examination, the child's life may be lost for want of the appropriate treatment.

The Second Stage.

During the course of the labour the vulva should be cleansed at frequent intervals, and, as the head descends and commences to press out faecal matter, this should be wiped away by pledgets of wool dipped in hot perchloride solution, taking care to wipe in a direction away from the vulva. If the fingers of the obstetrician or nurse become soiled with faeces, the hands should be at once thoroughly washed, and afterwards immersed in the perchloride solution.

As soon as the head reaches the vulvar orifice the parts should be kept clearly in view until the labour is completed.

I believe that much may be done in the way of prevention of rupture of the perineum by preventing the head from making too rapid an exit, and by pushing it forward against the pubic arch and assisting its extension.

The head may be pushed forward and extension favoured by placing the thumb or finger on the stretched-out tissues at the sides of and behind the anus and pressing forward. I do not favour the placing of a finger in the rectum, as, in addition to the disadvantage of fouling the finger, the rectal mucous membrane may be readily damaged by this proceeding. An additional means by which the perineum may be saved is by taking care that the thighs are extended at the moment of greatest stretching; this particularly applies to the right thigh, which is held up by the nurse at this stage, and, unless she is directed otherwise, she will flex it strongly on the abdomen.

My experience of ruptured perineum has been that many of the worst cases have been those in which the child was born without any assistance before the arrival of the accoucheur.

The incision of a tense perineum has never commended itself to me, and is not, I think, much practised in this country; the main objection to it appeared to me to be that one can never tell with certainty that a perineum is going to rupture, and if incisions are practised as a regular procedure a perineum will frequently be incised which, except for the zeal of the obstetrician, would have escaped damage; to what length incision is carried out in Germany may be judged from an article by Fleishman, who recommends

> The use of the median episiotomy incision in place of the lateral incisions which are commonly advised, on the ground that it gives more room, has cleaner edges, and more equal surfaces, and is not so liable to extend deeply; he has considerably extended the indications for its use, and it is often his first procedure in forceps delivery in elderly primiparae. Not infrequently by the use of median perineotomy it has been possible to save the patient from forceps operation.[1]

I think that I may say that the latter would be regarded by us as the lesser evil of the two.

UTERINE INERTIA.

Delay in the first stage with the membranes unruptured may be prolonged over several days without any harm resulting, and I have known the uterus to remain absolutely inactive, with the os open to the size of a crown piece, during six or seven days; some of the most marked examples of this condition have been in the poor patients of the hospital and lying-in charity, and the inertia has been due, I believe, to muscular weakness from insufficient food during the latter part of pregnancy.

If the membranes have ruptured, delay even in the first stage may become serious, and the mother may show dangerous symptoms of exhaustion, and active treatment may be indicated.

The usual treatment, however, of inertia in the first stage is to give the patient nourishment and to endeavour to obtain sleep, administering sedatives if required.

As regards oxytocic drugs, I do not think that the value of quinine is sufficiently appreciated. Five grains, in powder, repeated two or three times will often have a marked effect.

The administration of sugar has been proposed as a remedy for exhaustion of the voluntary and involuntary muscles of labour. I have tried it with, I think, good results; it has at all events the merit of being harmless.

I think that the majority of those who attend midwifery cases will agree with me that a certain, not inconsiderable, percentage seem unable to terminate their labour without assistance, and require forceps to complete the second stage, no matter how persevering the woman or how patient the accoucheur.

Posture in Labour.

I believe that this failure of the natural powers to complete delivery is to be ascribed in part to what may be called the unnatural position assumed by civilized woman at the latter part of the second stage of labour. Dr. Robert W. Felkin, in a paper read before the Edinburgh Obstetrical Society in 1884, entitled Notes on Labour in Central Africa, gives an account of the customs of numerous tribes, with illustrations of the positions adopted during labour, and the latter show that some form of semi-erect or squatting posture is universal.

The question of posture in labour is gone into very thoroughly in a book entitled *Labour Among Primitive Peoples*, by Dr. Engelman.

After describing the attitudes assumed by uncivilized peoples in all parts of the world, he sums up as follows:

> The care with which the parturient women of uncivilized people avoid the dorsal decubitus, the modern obstetric position, at the termination of labour, is sufficient evidence that it is a most undesirable position for ordinary cases of confinement.

The reasons given for its undesirability being that no assistance from gravity is derived in that position, and that the abdominal muscles cannot act to advantage. It is clear that the strict dorsal position as taught on the Continent of Europe and in the United States is the one referred to, as Dr. Engelman says:

> The English method, on the side, with the body bent forward and the thighs drawn up, is much more advantageous, in so far as the abdominal muscles act better.

He says, however, that the proper position for the termination of the second stage is

> the semi-recumbent position in bed, the body at an angle of 45°, the hips resting on a hard mattress, thighs well flexed.

And states:

> This is the easiest, most comfortable, and appears to afford the greatest relief and the greatest freedom from pain, coupled with the greatest effect of the uterine contractions, relaxation of all the parts, and free play of the abdominal muscles.

He points out, moreover, that in this position the perineum has a certain amount of support from the mattress on which the patient is placed.

Whether we agree with the above or not, I think that all obstetricians may, with advantage, follow the advice of Dr. Engelman that in labour the patient should be given greater liberty, and should be permitted to follow her instinct, in regard to her movements, more freely than is now customary.

The attitude assumed by women of the poorer classes in this district approaches somewhat to that described by Dr. Engelman as the most efficient. The bed is rolled up from the mattress, and the patient lies on her left side, with her shoulders raised up to a considerable height by the rolled-up bed; this position is inconvenient for the coucheur, but one cannot doubt that it is advantageous r expulsion.

The worst attitude of all is the usual left lateral on the odern spring bed; the latter invariably sinks down wards the middle, and, if the hips are brought to the lge of the bed, as is usual, they are at a distinctly higher vel than the remainder of the body, and the expulsive wers are consequently working against gravity instead being favoured by it.

The Use of Forceps.

I am firmly convinced that the timely application of the rceps when the head is on or near the perineum and es not advance, in spite of strong pains, is beneficial.

If forceps are used and chloroform is given, very little the latter is required, less than 1 drachm being amply fficient in many cases. It is most important not to give loroform to such an extent as to render the regular ins not easily discernible, and it is essential that action should only be made during a pain.

Opinions differ as to whether the forceps should be ken off when the head is distending the perineum. rsonally I am in favour of keeping them on until bour is completed, as by their means the head can be pt well forward under the pubic arch, and the strain on e perineum considerably relieved; moreover, the speed delivery can be exactly regulated, and I think that ese advantages more than compensate for the small nount of extra room required by the blades of the ceps.

Occipito-Posterior Positions.

A frequent cause of delay in the second stage is a rsistent occipito-posterior position of the vertex, and I ve found that some of these cases can be most successly treated by rotating with the forceps, after other ans of rectifying the position have been tried in vain.

To do this it is absolutely necessary that the diagnosis ould be exact, and that a clear and correct idea of the ection in which the head ought to rotate should be med; when this has been done the forceps may be plied, and as traction is made gentle rotation in the uired direction should be made also; if this is success it will be necessary to take off the forceps and reapply m before delivery is completed, unless short forceps used.

Rupture of Perineum by Shoulders.

t is not uncommon for the perineum to be ruptured by passage of the shoulders after it has stood without nage the passage of the head. This may frequently avoided by preventing the shoulders from emerging ether, and thus distending the perineum to the full ent of the bi-acromial diameter; and in order to do s the anterior shoulder should be extracted first.

Third Stage.

Ve find that there is a general consensus of opinion t the management of this constitutes the most imtant part of the obstetrician's duty. Dr. Ingleby l:

> the skilful management of the placenta is justly deemed a t attainment in the practitioner, it cannot be doubted that of great importance to the patient, whose life indeed may aid to depend immediately upon it.

Ve may with interest and advantage consider the varied vs which have been held in the past as to this part of obstetrician's duty. [After reading extracts from eral old books Dr. Purslow continued:]

ll modern writers of textbooks ignore the reasoning of man, and advise some assistance during the third ge; the usual method recommended is, that the hand uld be placed on the uterus during the latter part of expulsion of the child, and, after that is completed, the uterus should remain more or less continuously er observation by the hand, and that if it becomes cid gentle kneading should be used to induce contrac again: as soon as there is evidence that the placenta left the uterus, as shown by the diminution of its umference, the uterus is firmly grasped and pressed nward in the direction of the axis of the pelvic brim forcing the placenta out of the vagina. In the ds of Galabin:

> this expression the contractile upper segment of the us acts simply as a piston, by means of which the pressure of the external hand is transmitted to the placenta lying in the relaxed lower segment and vagina.

If there is no descent of the placenta at the end of about half an hour it is advised that the uterus be stimulated by pressure and kneading, and, as it becomes hard, that it be squeezed; and, if the placenta can be felt to leave it, that the pressure be continued downward in the direction of the pelvic axis, as above.

In contradistinction to the usual teaching of the present day, Dr. Horrocks[2] takes the extreme line in non-interference, and would not even advise following down the uterus during the expulsion of the child, or placing the hand on it after delivery, to ascertain if it is contracted; he says that if there is no visible haemorrhage and the pulse is good we may safely assume that all is going on well without examining the uterus.

The difficulty so often experienced in the third stage of labour in civilized women as compared with its ease and shortness in the uncivilized is undoubtedly partly attributable to the position assumed by the former. Among the uncivilized some form of external pressure by the woman herself, or her attendants, is almost universal, but, as pointed out by Engelman, the position assumed is invariably the standing or squatting, and thus gravity comes to the aid of the expulsive efforts. In the usual obstetric position the woman is unable in many cases to extrude the placenta from the vagina without artificial assistance; thus von Campe (quoted by Hirst) in 120 observations found that in twenty-four instances the placenta had not been expelled within twenty-four hours.

It is strange that there should be any difference of opinion as to the surface of the placenta which presents at the os uteri and vulva, but on looking up the matter I find that all writers are not agreed on this; the majority state that some point on the amniotic (fetal) surface presents, thus Champneys found, in a careful observation of 70 cases, that only two presented by the maternal surface. Hirst states that

> The placenta is usually expelled like an inverted umbrella, the fetal surface coming first, with the membranes trailing after it; it occasionally, however, escapes edgewise.

Dakin says:

> The placenta never, unless its lower edge was originally close to the internal os, presents by its edge, but by some spot on its fetal surface from ¼in. to 3½in. above its lower edge, in most cases about 2 in.

Playfair alone amongst the authors whom I have consulted describes the maternal surface as presenting; thus he says:

> The uterine surface of the placenta is generally expelled first, the cord being within the membranes.

and he gives a diagram to represent this.

I have paid particular attention to the phenomena of the third stage of labour, and have watched it carefully in each case, and I have come to the conclusion that the placenta normally presents by the amniotic surface, as described by Hirst and Dakin, and that the description of Playfair is absolutely wrong. Moreover, I have formed the opinion that presentation of the maternal surface is almost always brought about by too early or too forcible application of expression to the fundus, and is invariably attended by tearing and retention of more or less of the membranes.

It is well known that attempts to press out the placenta too soon after the birth of the child are very liable to be followed by difficulty with the membranes, and the explanation I venture to give is this:

If pressure is made while the placenta is still partly attached to the uterus, the effect is to drive the blood, which is lying behind the placenta, into the most dependent part of the bag formed by the already detached and inverted portion of placenta and membranes, and if this pressure is forcible and continued, the blood is forced through the membranes at their junction with the placenta, and the maternal aspect of the edge of the placenta is thus allowed to present; when the membranes have once been torn in this way they may easily be completely detached, and I have no doubt that it has been within the experience of some of my audience, as it has been my own, to occasionally see the placenta expelled entirely bereft of its membranes, in cases where there has been much difficulty with the third stage.

This unsatisfactory result will very rarely be seen if ample time is given for the placenta to separate and no attempt is made to squeeze the uterus forcibly, gentle kneading to encourage uterine contractions being all that is required.

I believe violent squeezing of the uterus shortly after the child is born to be a most disastrous proceeding, and one of the reasons for the still extensive prevalence of puerperal fever. Credé himself in his later years considerably modified his method, and in his latest writings directed that, in the absence of any serious haemorrhage, about thirty minutes should elapse before the placenta was expelled.

The same forcing of blood through the membranes, tearing them away from the placenta, may occur as the placenta is being expelled from the vulva; and it is upon three cases in which I saw this happen that I have based the explanation above given. In these cases the amniotic surface of the placenta first appeared in the usual way; then, as pressure was being made from above, the edge of the placenta with the adjoining membranes appeared, and on further pressure the membranes could be seen to give way and the maternal surface appeared, several clots at the same time escaping from the interior of the torn bag of membranes. It is probable that in these cases the outer edge of the membranes had not been completely detached.

The same result might conceivably result from violent bearing-down efforts of the patient without assistance from the accoucheur; but in each case in which I observed it external pressure (Credé method) was applied.

When the placenta is in the vagina there is less likelihood of the accident I have described occurring, if, in addition to pressure on the fundus, gentle traction on the cord is also used to assist the exit of the placenta; less pressure is needed on the uterus, and the placenta and membranes come away intact in a more satisfactory way than when the Credé method alone is used. We may regard the amount of traction on the cord as compensating for the loss of the assistance of gravity which, as we have already seen, is obtained in the more natural position assumed by the uncivilized woman for this stage of labour.

It seems to me that in the reaction against the old, bad, and dangerous method of dragging out the placenta from the uterus by pulling on the cord, some writers have gone too far in laying down the rule that the cord should never be pulled upon, even when the placenta is lying outside the uterus.

Since writing the above I have read a most valuable address by Dr. G. F. Blacker[3] on the Management of the Third Stage of Labour. He says that there are three ways in which the placenta may be expelled: First, the inverted fetal surface leading; secondly, folded upon itself; third, the maternal surface leading; and adds:

> It is more especially when the placenta is expelled in the last-named way—which occurs, according to Varnier, in 9 per cent. of cases—that retention of membranes is liable to occur.

In the Queen's Hospital Maternity some 400 to 500 cases are attended annually, and during the sixteen and three-quarter years in which I have been in charge there has been no death from *post partum* haemorrhage. This good result I attribute partly to the fact that the students attending the cases are not hampered with other work, and consequently are not tempted to unduly hasten the delivery of the placenta.

Conclusion.

To sum up, my own views as to the mechanism and treatment of the third stage are:

That in all but a small percentage of cases the uterus is able to separate and expel the placenta from its cavity without assistance.

That the time required for this varies greatly. In some cases the placenta appears to be separated by the same pain which expels the body of the child, and in a very few minutes will be found in the vagina; in other cases half an hour or more is required. Delay and difficulty is more particularly experienced in cases in which the previous stages of the labour have been tedious, and especially when delivery has been effected by forceps under chloroform, after many hours of ineffectual pains.

That the vigorous squeezing of the uterus, so commonly practised a short time after the child is born, interferes with the mechanism of detachment, and leads to tearing and separation of portions of membrane, or even in some cases of portions of placenta.

That, although squeezing is not advisable, it is well t place the hand at frequent intervals upon the uterus, as otherwise, in some cases, the uterus may distend with blood to a dangerous extent; if this distension is felt to be taking place, gentle kneading movements, to ensure contraction, may be used.

That a considerable proportion of women appear to be unable to expel the placenta from the vagina, and tha this failure is partly due to the lack of the assistance o gravity when the woman is in the recumbent position.

That it is a mistake to rely solely on forcible pushing downward of the uterus in order to procure the expulsion of the placenta from the vagina, and that much better results are obtained when less pressure on the uterus is employed and the exit of the placenta is assisted by gentl traction on the cord.

AFTER-TREATMENT.

When the placenta and membranes have been examined and found to be complete the patient should be cleaned u I think that it is at this stage that remissness is sometime shown, and I am strongly of opinion that the toilet of th vulva should be performed by the medical attendant himself, and not left, as is so often done, to the nurse o among the poor, to the ignorant and dirty neighbour wh is officiating in that capacity. I am convinced that som cases of puerperal fever arise through this rule not bein observed.

In addition to cleansing the vulva with an antisepti lotion, it is well to trim the hair of the labia with scissors if it is at all long, as its removal much facilitates the subsequent task of keeping the genitals clean. When th cleansing is completed, a clean napkin or antiseptic pa should be applied to the vulva.

As regards douching after labour, there is grea divergence of opinion; my own practice is: If I hav found it necessary to pass my hand into the uterus, as f removal of the placenta, I give an intrauterine douch myself, at the conclusion of the labour, of some antisepti as lysol, *not* perchloride, as the latter is readily absorbe from the inner surface of the uterus.

I have tried the various forms of apparatus used f this purpose, including the Higginson's syringe, th reservoir douche, and the Rotunda siphon douche, an have come to the conclusion that there is nothing at once clean, safe, and satisfactory as the apparatus we have use for some years in the Queen's Hospital maternity; thi consists of a glass funnel, about 2½ ft. of rubber tubin and a glass vaginal or uterine tube. The solution is pr pared in a jug and the funnel is given to the woman attendance with directions to keep it full from the ju by this means there is no risk of air getting in, as wi happen with a Higginson's syringe; neither is there a risk of the apparatus being fouled by any backflow, as the case with even the best Higginson's syringe.

The pad on the vulva must be changed at interval particularly after evacuation of the bladder or bowels, a a fresh one substituted. The same pad must on account be replaced.

After evacuation of the bowels the parts must cleansed with antiseptic lotion, great care being take that the vulva is not contaminated with faecal matter.

As regards the repair of lacerations of the perineu the needle to use for this purpose should be one with strong curved stem, and a handle which will give a go grip. Cullingworth's perineum needle is one of the be and is the one I always use. There is no better mater for suture than silkworm gut; this can now be obtain prepared, and with its ends cut off, and the very stoute salmon line gut should be chosen for this purpose; it readily sterilized by boiling.

The most usual fault in repairing the perineum is th too small a needle is used, and the deeper structures, p ticularly the torn muscle, are not secured; the result that the skin may heal, forming a bridge undernea which is a communication between rectum and vagi I have dealt with several cases in which this conditi had resulted, in the gynaecological ward of the Queen Hospital.

After the patient has been placed on her back in bed, is usual to apply a binder to the abdomen, though th hould not be done until at least half-an-hour after the rth of the child, and not then, unless the condition of e uterus and of the pulse is satisfactory.

Some modern authorities state that a binder is not cessary, and has no good effect in preserving the figure, it, even if that be granted, no one can deny that the nder has an immediate good effect in driving the blood om the large veins of the abdomen, and so preventing y tendency to cerebral anaemia, and this is particularly eful if the loss of blood has been at all great. I do not ree with the plan followed by some accoucheurs of tting a hard substance, as a book or pincushion, over e uterus before applying the binder.

There are some points in connexion with the manage-nt of the puerperium to which I desire to call ention.

First, with reference to retention of urine, which not requently follows a prolonged or a forceps delivery, fore having recourse to the catheter, hot fomentations, eferably with antiseptic lotion, may be tried, and some-nes they are efficacious. If the catheter is required the estion arises, Should it be passed by touch or by sight? m strongly in favour of the latter plan, but, before ing my reasons, I should like, with your permission, quote verbatim the directions given in Herman's *First es in Midwifery*, as this is a book extensively read by dents and midwives:

> *o Pass a Catheter.*—Place the patient on her back, with knees drawn up. Cleanse the parts by gently wiping them h wool dipped in 1 in 2,000 sublimate solution. Take the heter in the right hand, and hold it about 2 in. from the (It is a good thing to put about 3 ft. of indiarubber ing over the open end of the catheter; the urine is then veyed out of the bed into a utensil on the floor.) Stand on patient's right side, and pass the right hand holding the heter under the patient's right thigh. Pass the left fore-er over the abdomen between the labia into the vagina. n draw it upwards exactly in the middle line until the p of the forefinger feels the orifice of the urethra. The tus urinarius feels very like one of the small linen-covered tons with which underclothing is often fastened: a little , with a slight depression in its centre. When you feel , draw the finger upwards till it is just above the meatus, then with the right hand pass the point of the catheter w the tip of the left forefinger into the urethra. If you not succeed in thus quickly finding the meatus by the h, it is better to look than to annoy the patient by pro-ged attempts at passing the catheter by the touch alone.

he manœuvre above described is not easy to perform, requires some practice; moreover, I venture to think it is by no means the best way of passing the catheter, that there are several objections to it.

the first place, it increases the risk of cystitis, as it mpossible to be sure that the orifice of the urethra its immediate neighbourhood have been wiped free discharge unless they are clearly seen, and some of may be carried into the bladder on the catheter.

hen, again, the manipulation about the external tals introduces an added risk of septic infection, and, hown in Dr. Knyvett Gordon's paper, septic infection ng the lying-in period is much more common than is lly supposed.

efore passing the catheter a clear view should always btained of the urethral orifice; this can be done with patient lying on her back by separating the labia the fore and middle fingers of the left hand. The hral orifice and its neighbourhood should then be nsed with an antiseptic, and the catheter, which is in the right hand, inserted. It is, in my opinion, r to use a small basin to catch the urine than to h a tube, as the latter makes the catheter more cult to manipulate, and a further disadvantage is it is not so easy to see if the urine is escaping erly.

glass or metal catheter should be used; the latter is aps safer for a nurse's use, as cases have occurred in h a glass catheter has been broken during the move- of a restless patient. The catheter is best rendered ic by boiling.

is a good plan to allow the patient's body to be lifted n bed into the vertical position, after the third or h day, for a few minutes daily, to facilitate the escape e lochia. Care should be taken that the patient does ie too persistently on the back, and she should be raged to lie on either side at intervals. There can tle doubt that many cases of retroflexion arise from the too persistent assumption of the dorsal decubitus during the puerperium.

As regards length of puerperium, I am accustomed to regard a fortnight as the minimum period after a normal confinement; few women realize the importance of sufficient rest after parturition.

My experience in the out-patient room has led me to the conclusion that almost all the cases of bad procidentia, which are so numerous and so unsatisfactory in treatment, are due to women getting up too soon after confinement and, whilst the uterus is heavy and its supports lax, doing hard work.

REFERENCES.

[1] *Journal of Obstetrics*, May, 1905. [2] BRITISH MEDICAL JOURNAL, March 10th, 1906. [3] *Lancet*, April 14th.

A CASE OF BURROWING TUBO-OVARIAN CYST, WITH REMARKS ON ITS PATHOGENESIS.

By W. SAMPSON HANDLEY, M.S., F.R.C.S.,

ASSISTANT SURGEON, THE MIDDLESEX HOSPITAL; LATE SURGEON TO OUT-PATIENTS, SAMARITAN FREE HOSPITAL.

IT is now well known, thanks to Dr. Cullingworth, that a hydrosalpinx may burrow in the broad ligament and may simulate a true broad-ligament cyst, and evidently that was the first event in the present case.

History.

M. T., aged 31, was admitted into the Samaritan Hospital under my care in January, 1903. Though married for some years she has never been pregnant. Menstruation began at the age of 14 and continued regularly every month, the periods lasting three days. For the past two years, however, she has sometimes menstruated at fortnightly intervals, and during the six months preceding operation the courses had lasted longer, once as long as sixteen days, and the menstrual fluid has become paler in colour. The amount of blood lost had not increased. Five years ago she began to suffer from pain in the lower part of the abdomen. She describes it as a dull, mild, aching pain, worse on the left side, and eased by lying down. During menstruation she had shooting pains in the hypogastric region. She has never noticed any increase in the size of the abdomen. Of late she has suffered severely from a feeling of pressure on the rectum. The bowel felt sore inside so that she could not strain properly during defaecation, and the motions have been passed with great pain and difficulty. She had never had retention of urine, but during the past year micturition had been frequent, and she had had to get up four or five times in the night to pass water. There had been a feeling of great weakness, with inability to work and some loss of flesh.

Condition on Admission.

The patient was seen by my colleague, Mr. Corrie Keep, who diagnosed a broad ligament cyst, and advised operation. The abdomen was not markedly prominent. On palpation a median rounded tumour the shape of the pregnant uterus could be felt extending 2 in. above the umbilicus. Dullness extended from the pubes to the umbilicus. The tumour was slightly movable, and gave an indistinct thrill laterally. Vaginal examination showed that the tumour filled up the left fornix, and gave definite fluctuation when pressure was made on it with the abdominal hand. The right adnexa could not be felt from the vagina, but on palpation by the rectum a softish mass was felt in the right fornix far back. It was tender on palpation, and seemed to have the size and shape of a hen's egg. On passing the sound its point could be felt at the right edge of the abdominal tumour just above Poupart's ligament. The case was diagnosed as a left broad ligament cyst, with a smaller cyst on the right side.

Operation.

The abdomen was opened by a median 4 in. incision, and a left-sided cyst was exposed lying in the broad ligament, whose structures ran stretched out over the summit of the cyst. On tapping, about four pints of dark greenish-brown alkaline fluid escaped, of specific gravity 1015, containing only a very small amount of albumin. The ovarian vessels were now secured and cut through at the outer edge of the broad ligament, and a ligature was passed close to the left cornu, including the Fallopian tube and uterine artery. The cyst had burrowed right up to the side of the uterus, and there was difficulty in passing this ligature without transfixing the cyst wall. The tube and uterine artery were cut across on the outer side of the ligature. The round ligament was next ligatured and cut through. Incisions through the peritoneum were now made, joining the three points of section of the ovarian artery, the Fallopian tube, and the round ligament in one complete annular incision surrounding the Fallopian tube and the wound made by the trocar. The cyst was then enucleated from the broad ligament and the pelvic floor.

The edges of the peritoneal capsule being held up by half a dozen pairs of forceps, a purse-string suture of silk was run round the capsule some distance below its free peritoneal edge. The redundant capsule above the purse-string suture was dropped into the interior of the cavity left by the cyst, and the suture was tightened and tied. The bed of the cyst was now only indicated by a puckered depression in the peritoneum. This method can be recommended as a very rapid and effective way of closing the broad ligament after enucleation. It is, however, only possible when the tumour has considerably stretched the broad ligament. If the purse-string suture is passed sufficiently low a certain amount of tension is secured, which will assist in stopping oozing. No raw surface whatever is left which may become a source of adhesions. The redundant peritoneum which is dropped into the interior of the cavity must secure an abundant supply of plastic lymph to accelerate healing.

The small tumour formed by the right adnexa proved to be very adherent. It was after some difficulty brought up, transfixed by a double interlocked ligature in the ordinary way, and removed. The patient's recovery was uneventful. She has since menstruated only once, ten weeks after the operation, and at present, three years after it, is perfectly well.

The large tumour on the left side proved to be a tubo-ovarian cyst. The left tube, after running a course of about 3 in. from the uterus, opened into the cyst by an aperture the size of a threepenny-piece. The cyst itself was obviously not homogeneous in origin. The upper and inner part of its interior was yellowish in colour, and here and there atrophied plicae were visible. The outer portion of it was marked off quite sharply by its smoothness of surface and comparatively pale colour. The ovary was not to be found.

An examination of the right adnexa supplied the key to the pathology of the larger cyst. The outer portion of the right tube was distended into a hydrosalpinx which had burrowed in the broad ligament until it came in contact with the ovary. Within the ovary, lying in close contact with the hydrosalpinx, but separated from it by a thin complete septum, was a single cyst the size of a Tangerine orange, with a smooth lining. Evidently the condition was a stage in the formation of a tubo-ovarian cyst by the fusion of an ovarian cyst with a hydrosalpinx as described by Mr. Doran.

The production on each side of a cyst in the ovary which on the left side subsequently coalesced with the hydrosalpinx by absorption of the intervening septum to form a tubo-ovarian cyst can hardly have been a mere coincidence. The frequency of tubo-ovarian cysts is a strong argument against such a view. It seems to me rather that the ovarian cyst is produced by an interference with the ovarian circulation, due to the pressure of the burrowing hydrosalpinx on the ovarian lymphatic and blood-vessels. Any small previously-existing cyst in the ovary—for example, one of the corpus luteum or a dilated lymphatic—will form a fulcrum on which this increased lymph pressure can act in the formation of a large cyst. If the pressure within a thermometer be increased it is the bulb which will yield first.

The completion of Professor Guido Tizzoni's twenty-fifth year of teaching was made the occasion of a graceful tribute from his colleagues throughout Italy and from his pupils in the University of Bologna. A committee, presided over by Professor Vassale of Modena, presented him with a massive gold medal bearing on the obverse the name of the distinguished pathologist, and on the other the following inscription: "Guido Tizzoni—quod—in Athenaeo Bononiensi—Pathologiam generalem—Annos iam xxv—Summa ingeni laude tradiderit—Scriptis et inventis auxerit—Collegae discipuli—Prid. Kal. Iun. MCMVI." The students presented the Professor with an illuminated address on parchment.

The Consumption of Wine.—In his recent Budget speech the Chancellor of the Exchequer pointed out that within the last six years the consumption of wine in Great Britain has fallen nearly 50 per cent. In further illustration of this point the *Wine Trade Review* has published figures covering nearly the whole period which has elapsed since the term Gladstone claret first came into use, or in other words since the date, some forty-five years ago, when the duty on light wines was reduced much to its present figure. The statistics show that, though imports of Spanish wines had already fallen in 1900 by some 30 per cent., those of French and Portuguese varieties kept fairly steady until that date. Since then the fall of all three varieties has been so very rapid that the total consumption of all wines is now less by several million gallons than it was forty-five years ago, in spite of the increase of population.

ACHONDROPLASIA.

BY

GUTHRIE RANKIN, M.D., M.R.C.P.,
PHYSICIAN, DREADNOUGHT HOSPITAL AND ROYAL WATERLOO HOSPITAL,

AND

ERNEST C. MACKAY M.B., B.S.,
RESIDENT MEDICAL OFFICER, ROYAL WATERLOO HOSPITAL.

Achondroplasia, though a rare disease, is of ancien origin. Dr. George Pernet[1] has recently drawn atter tion to the fact that several Egyptian statues i the British Museum—notably one of the ancien god Pthah—clearly illustrate its characteristic d formities. Charcot and Richer[2] have also show that many of the dwarfs at the Court of Philip IV wh were painted by Velasquez were in all likelihood it victims.

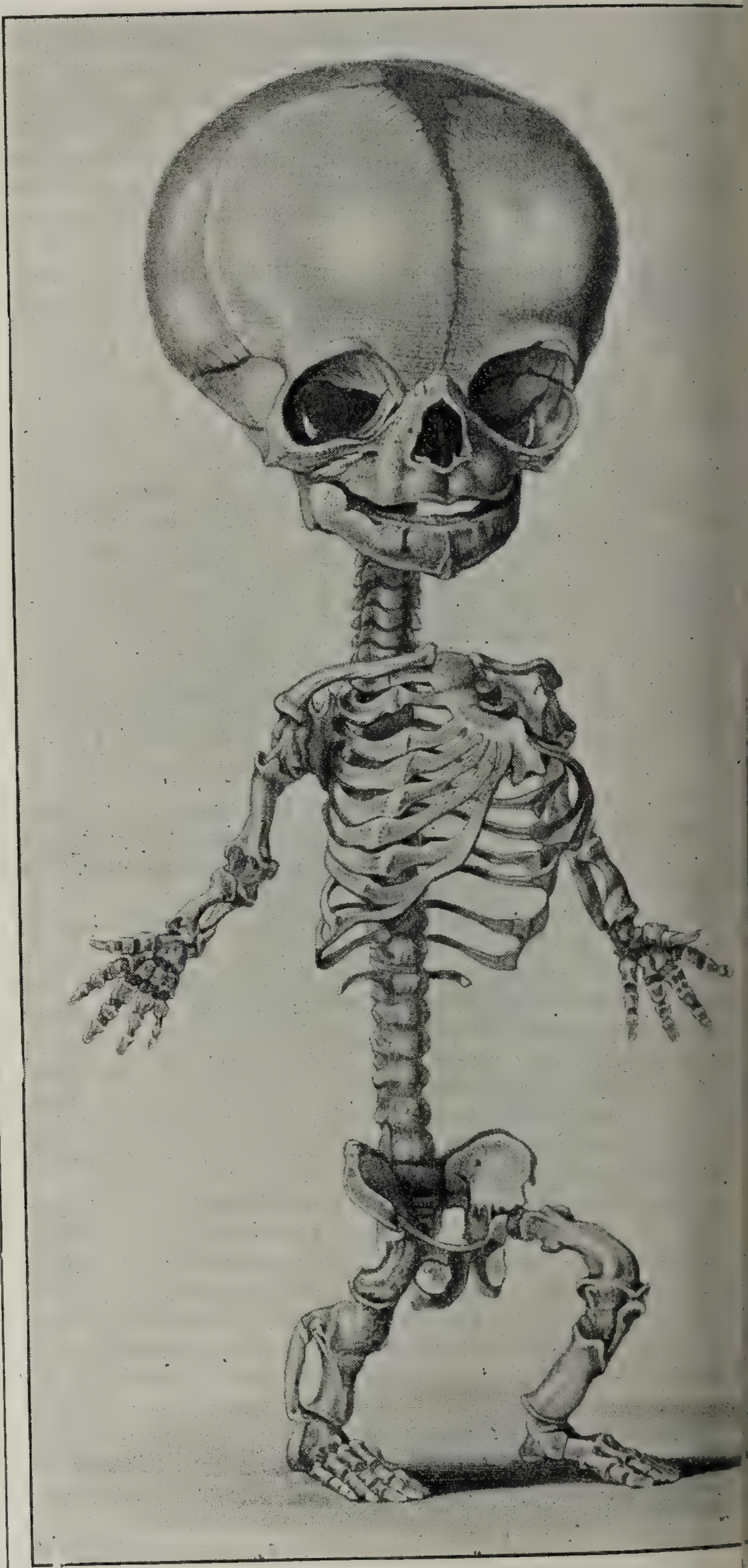


Fig. 1.—Reproduced from Liston's *Elements of Surgery.*

Though apparently uncommon, it probably occurs v considerable frequency, but has failed to attract atten because most cases are either stillborn or survive b for but a short period. Formerly the survivors mostly regarded as examples either of cretinism rickets, and it was not until 1860 that the condition c to be recognized as a definite pathological entity. In year Müller[3] published a series of careful observat which went to show that the disease is one of primor bone cartilage, and that the inhibition of the growth of the long bones, which is one of its most prominent characteristics, is due to a disturbance of the normal arrangement in rows of the proliferating cartilage cells. In 1873 an account was given by Urtel[4] of the macroscopic and microscopic appearances presented by a stillborn child, which in all details corresponded with those recorded by Müller a few years before. Earlier observers had recorded cases which were described under the title of Congenital Rickets, but which, in the light of more recent knowledge, were undoubtedly examples of achondroplasia. The earliest published record dates back to 1791, when Sömmering[5] gave an account of the *post-mortem* appearances in a case of fetal abnormality which he was unable to classify, but the description of which leaves no doubt as to its nature. In 1836 Busch[6] recorded another case of the disease, under the title of Congenital Rachitis.

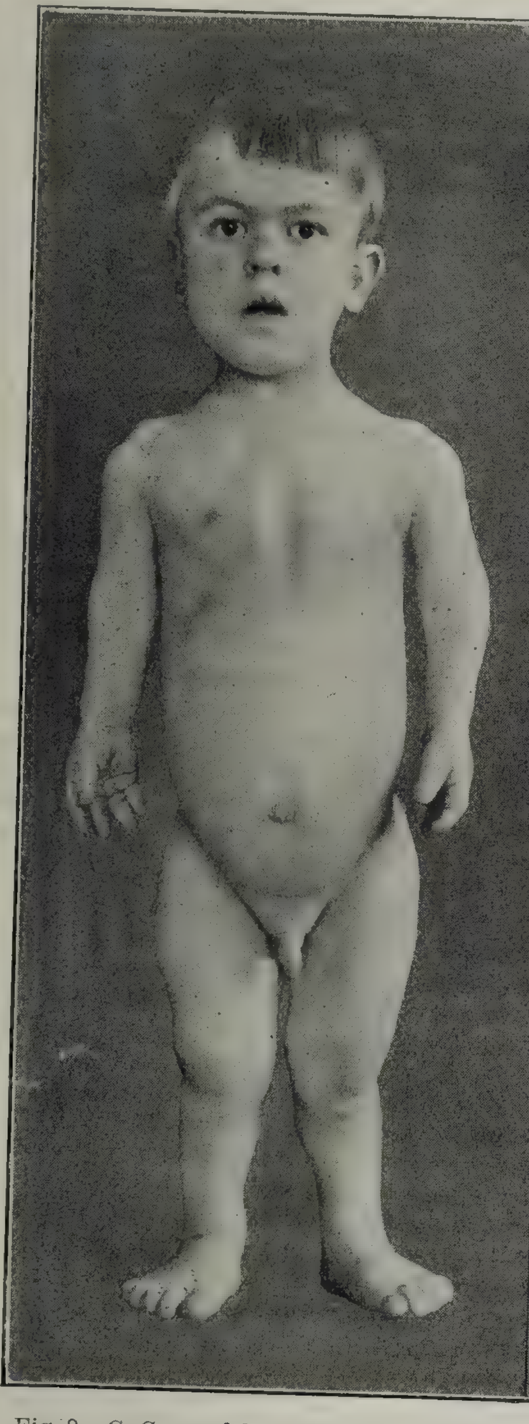


Fig. 2.—G. G., aged 9. Front view, showing characteristic facies.

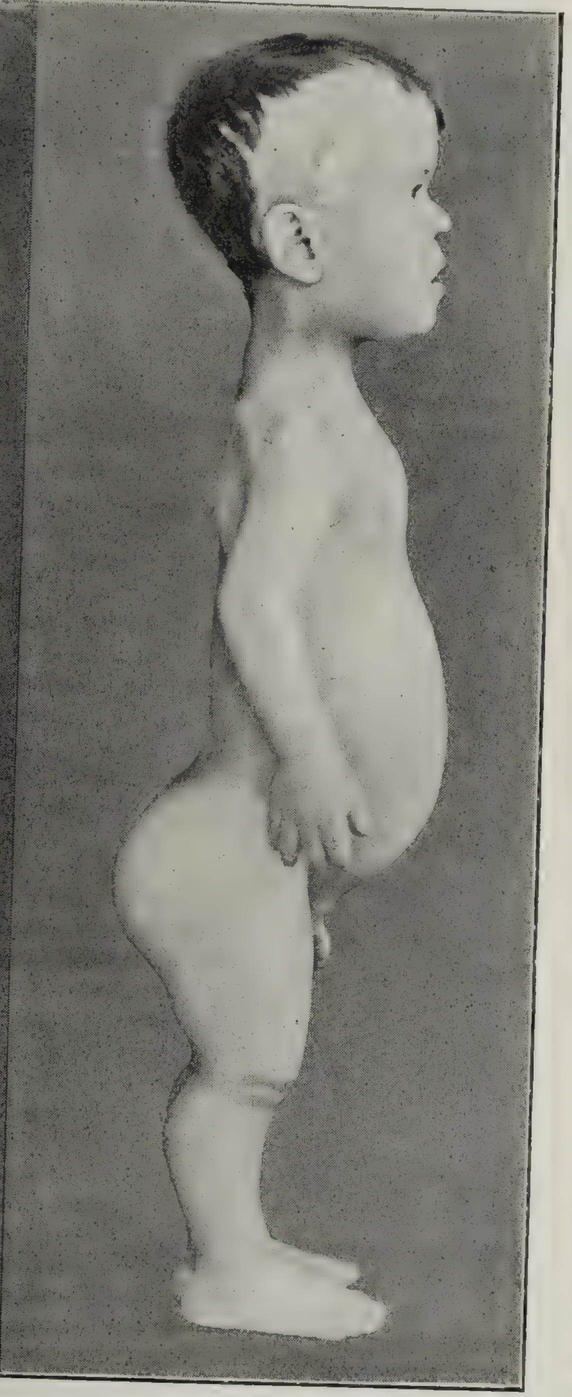


Fig. 3.—G. G., aged 9. Side view, showing lordosis and prominence of abdomen.

Among other vriters who have ontributed to our nowledge of chondroplasia nention may be nade of Schidlowky,[7] Eberth,[8] irchberg and archand,[9] aufmann,[10] arie[11], John homson,[12] rchibald Garod,[13] William urner,[14] P. W. athan,[15] Harold alm and Archiald Reid.[16] The rm "achondroasia," which was st suggested by rrot in 1878, is ed synonymsly with the ore clumsy, but o more accutely descriptive, le, "chondrostrophia fetalis" posed at a later te by Kaufmann. ough it is now ognized that hondroplasia is entirely different disorder m rickets, its se resemblance, many particu- s, to that dis- e led to its ing variously cribed as fetal, auterine, or genital rachitis. s also referred by more than author as fetal inism. In 1881 Samuel G. ttock,[17] in describing the features of a fetal eton which he exhibited at a meeting of the ological Society, said that the condition was riously considered as distinct from and identical that ordinarily known as rickets." Certain imens — the limb-bones, skull, and brain — preed to the Pathological Society in 1884 by Sir mas Barlow,[18] obviously belonged to an achondroic fetus; and while it was admitted by the exhibitor the appearances differ so essentially from those found ue rickets that such cases "ought to be relegated to a of malformations depending on a very early vice of lopment," yet it is contended that, in accordance with views of Virchow,[20] they probably belong to a "very ounced fetal type of cretinism." In the second edition iston's *Elements of Surgery*,[19] published in 1840, there is a striking frontispiece which the author refers to in the text as a curious case of congenital rickets, and which by the kind permission of Messrs. Longmans, Green and Co. we are enabled to reproduce. This skeleton exhibits in the most graphic manner the distinctive landmarks of achondroplasia.

The external characteristics of the disease resemble rickets in so many ways that the two conditions may readily be mistaken the one for the other, especially as in children who suffer from achondroplasia there is a liability to the superimposition of rickets at the usual age for the onset of that disorder. The confusion with cretinism is also not surprising, because the physical features which accompany it are somewhat similar to those met with in achondroplasia, especially in infancy, and the few cases of the latter disorder which survive have only recently attracted sufficient attention to enable the discovery to be made that mental deficiency is not one of its accompanying phenomena. The general appearance of an achondroplasic child is characteristic. It is a dwarf, with a large head, pug-shaped nose, short and often bowed limbs, a prominent abdomen, and marked lordosis. The legs are always so short as to be out of proportion to the size of the trunk of the body, and this stunts the figure in an unsymmetrical way which is quite different to other varieties of dwarfism where the trunk and limbs are shortened in relative degree. The arms also are too short, so that the fingertips never reach to the level of the hips as in the normal individual. The limb bones, besides being short, are usually bent and deformed. The disproportion between the trunk and extremities is readily demonstrated by measurements such as those which are furnished in the table at the end of this report. In the normal infant the umbilicus marks the central point between the crown of the head and the soles of the feet; whereas in the achondroplasic child the central point of the body is above the umbilicus, sometimes as high as the ensiform cartilage, and this relationship continues throughout life. It has been pointed out by Nathan that the dwarfism is only observed on standing; when the child is in the sitting posture its height is not far short of that of an ordinary person of the same age. The abnormal size of the head is confined to the vault of the cranium, which is unduly developed and out of proportion to the face. It may equal or even exceed, in its circumferential measurement, the length of the body, and there is decided prognathus, which is rendered more pronounced by the marked retraction of the bridge of the nose. This recession of the base of the nose is not due, as in congenital syphilis, to bone disease, but is produced, together with the prognathus and disproportionate vault, by premature synostosis of the basilar and sphenoid bones, giving rise to a deficiency in length of the base of the skull. The lips and eyelids are thickened and, from excess of subcutaneous tissues, there is an exaggeration of the natural dermal folds. The tongue is described by some observers as large and protruding, but this is not a constant feature. The hair on the head and other partsof the body is abundant and healthy, while the skin is well nourished and neither harsh nor scaly. The fingers and toes are short and spatulate. The hands are odd in shape; they are foreshortened and fat, with fingers of about equal length which taper to their extremities, and at the level of the middle phalangeal joints separate from one another. This separation, as has been pointed out by Dr. Thomson, is specially marked between the middle and ring fingers. The shortening of the long bones of the limbs is apparent at birth, but it becomes an increasingly notable feature as the child grows. The natural curves of the shortened bones are exaggerated, and they become abnormally thickened transversely. All the epiphyses appear more or less enlarged, and a distinctive rosary is present at the junction of the ribs with their cartilages, but it would seem that in most instances the swelling is caused by changes in the diaphyses, and that the epiphyses are altered in a certain proportion of cases only. In contradistinction to the changes which take place in the cartilage-bones of the base of the skull and of the extremities, the bones that are formed in membrane and those developed from cartilage late in intrauterine life, such as the clavicle, scapula, sternum, spinal vertebrae, etc., remain unaffected. The contrast between the semi-membranous, bossed condition of the flat bones of the skull in rickets and their normally grown, firmly developed state in achondroplasia is very striking. The mental faculties remain intact, and education is little, if at all, less difficult than in normal children. Other congenital defects not infrequently accompany achondroplasia, the most frequent being a highly vaulted palate, inguinal hernia, epicanthus, and, according to Kassowitz,[21] congenital dislocation of the hip. The internal organs are normal, and no pathological changes have, so far, been found in any except bony tissues.

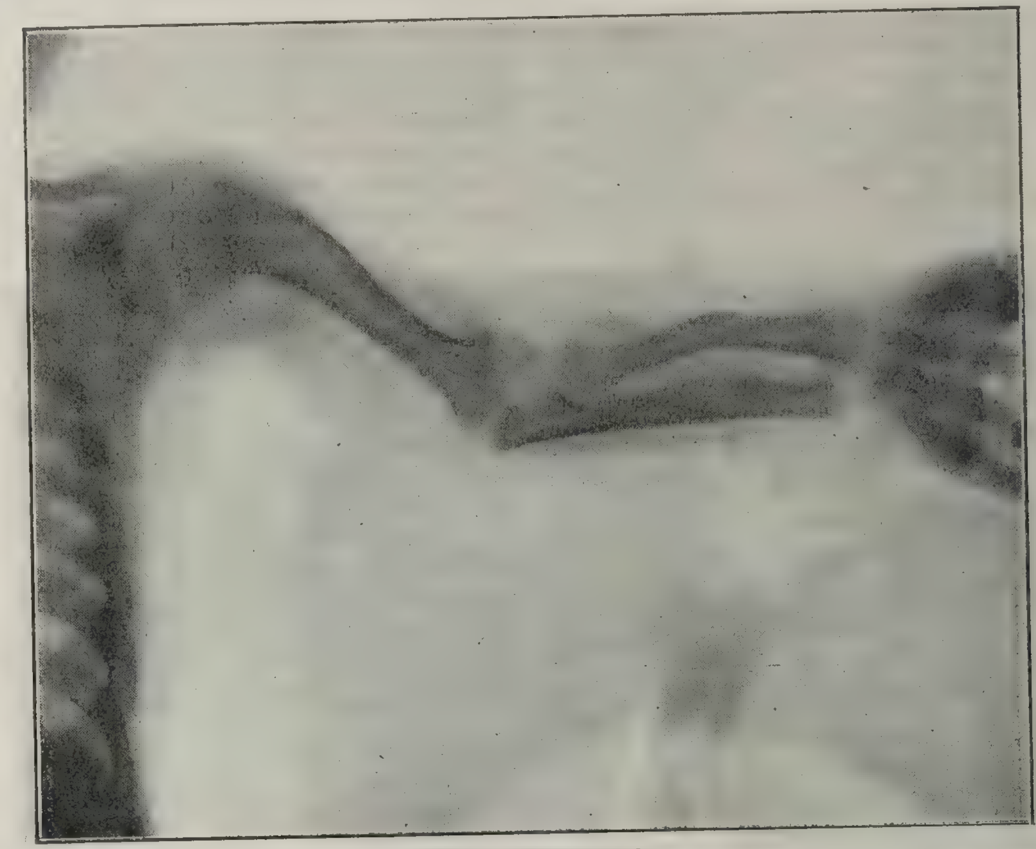


Fig. 4.—Upper limb.

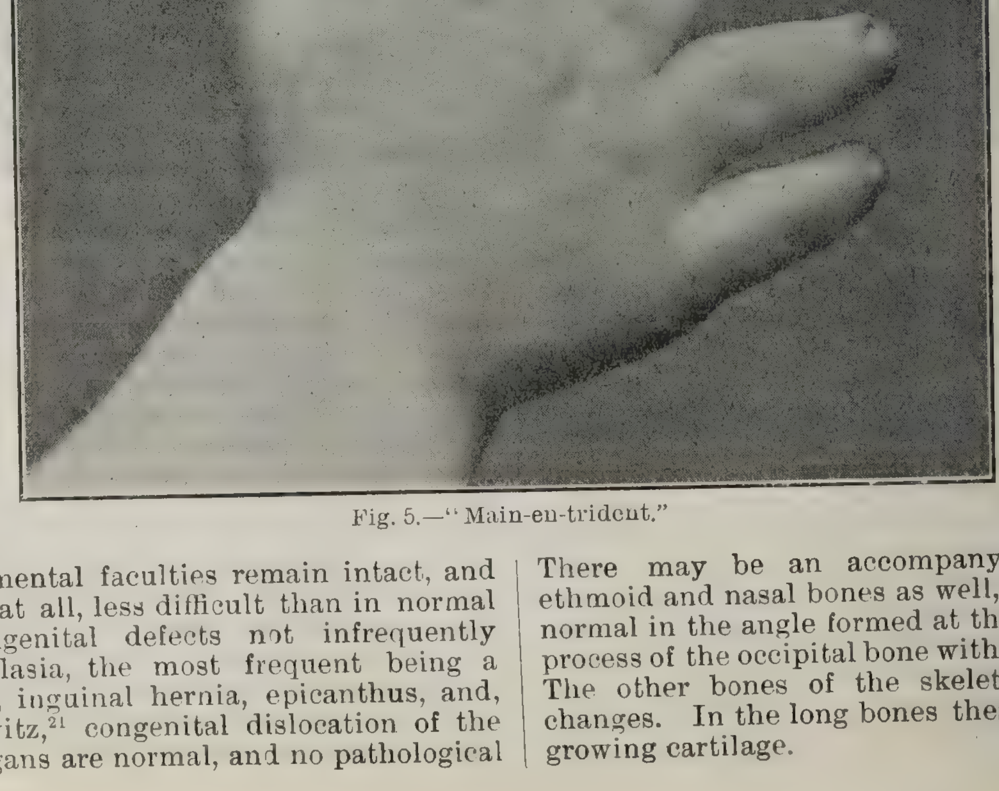


Fig. 5.—"Main-en-trident."

Nothing is known of the etiology of the disease. Syphilis has been held responsible for this as for many other obscure disorders, but there is no trustworthy evidence of any relationship between the two conditions. Hereditary influence has been arraigned, and consanguinity of the parents has also been accused, but the evidence is too slight to condemn either the one or the other. The sexes would seem to be about equally vulnerable, though statistics indicate a slightly increased prevalence among females.

Of the true pathology of achondroplasia little can be said. The old idea that it was closely related to congenital cretinism will not, as has been already stated, bear the light of more recent observation. In Nathan's opinion, "the changes in the skeleton and in the subdermal tissues point very distinctly to a constitutional anomaly, which though not exactl
analagous to that o
congenital cretinism
nevertheless acts upon the fetal organism in a simila
manner—that is, by disturbing the metabolism in som
unknown way." The portion of the base of the skul
which Virchow designated the os tribasilare is compose
of the basilar process of the occipital bone and the tw
portions of the body of the sphenoid. In fetal life thes
three portions are separated by synchondroses, which a
birth are only par
tially ossified. Th
synchondrosis inte
sphenoidalis is oss
fied at birth or soo
after, but the syn
chondrosis sphen
occipitalis remain
patent until abo
the thirteenth yea
and complete syno
tosis does not occ
normally until b
tween the eighteen
and twentieth yea
The growth of t
base of the skull d
pends upon the pe
sistence of the
synchondroses, p
mature synosto
producing abnorm
shortening. Accor
ing to Kaufma
premature synosto
of the os tribasila
is not the only fac
which is responsi
for the pecul
physiognomy
achondroplas
There may be an accompanying shortening of t
ethmoid and nasal bones as well, and also a change fr
normal in the angle formed at the junction of the basi
process of the occipital bone with the body of the spheno
The other bones of the skeleton present a variety
changes. In the long bones these occur primarily in
growing cartilage.

ufmann distinguishes three types :
Chondrodystrophia fetalis hypoplastica, in which
piphysis is normal in size and consistency: there is
ition of row formation and also inhibition of pro-
ation of cartilage cells.
Chondrodystrophia fetalis hyperplastica, in which
piphysis is definitely enlarged and the consistency is
ble; there is inhibition of row formation and
ased prolifera-
of cartilage

Chondrodsytro-
fetalis malica,
hich the carti-
is softened;
is inhibition of
formation and
itercellular sub-
e is gelatinous
ery vascular.
all these varie-
the common
re is a "more
ess complete
ition of the
al row forma-
f the proliferat-
rtilage cells in
reparatory stage
sification." All
types may be
nt in one indi-
l, but one
lly predomi-
Despite this
logical process
he cartilage,
cation proceeds
lly, periosteal
formation is unaltered, and the bones which are
d directly from connective tissue show no abnor-
. Urtel first pointed out that, in most cases, the
ysis and diaphysis become separated by the inter-
n of a layer of connective tissue emanating from
riosteum. The cause of this periosteal inclusion is
early defined, but the most plausible explanation
utes it to an
growth of the
ysis beyond the
eral diaphy-
ine, causing an
ition of the
teum, which
quently pro-
es." This peri-
invasion inter-
vith growth in
ength of the
but only com-
y arrests it
he inclusion is
ive and under-
sification. The
nent differen-
aracteristics of
lroplasia are :
A congenital

n abnormally
vault to the
m.
epression of
t of the nose.
rognathus.
rested develop-
of the long
of the extre-
, with exaggeration of their normal curves.
ormal development of the trunk.
eaded ribs and enlargement at the ends of the long
from diaphyseal and epiphyseal changes.
ecentralization of the mid-point of the body, which
riably and persistently above, and not below, the
cus.

9. Characteristic appearance of the hands, described by Marie as the *main-en-trident*.
10. Excess of adipose tissue.
11. Protuberant abdomen.
12. Lordosis.
13. Smooth, pliable skin, with abundance of glossy hair in all the ordinary situations.
14. Normal mental condition.

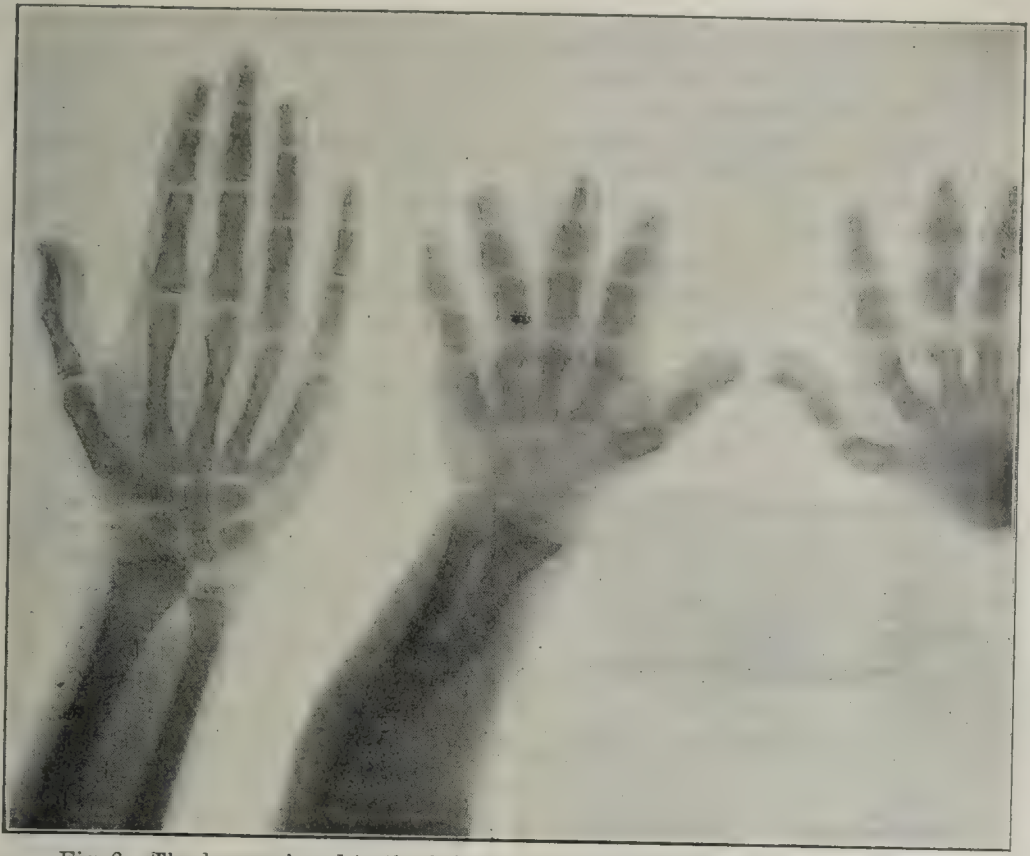


Fig. 6.—The longer hand to the left is that of a normal child of the same age.

15. A tendency to other congenital malformations, especially to high-arched palate and inguinal hernia.

The question of differential diagnosis is not difficult. The only conditions with which achondroplasia is likely to be confounded are rickets and cretinism. Its many points of similarity to rickets has suggested to certain writers doubts as to whether there may not be some degree of relationship between the two disorders. A consideration of a few of the points in which they differ from one another will, however, immediately show that such a relationship, if it exists, must be a distant one. In rickets the child is born healthy, in achondroplasia the characteristic deformities of the disease are present at birth. In rickets there is no premature synostosis of the os tribasilare as in achondroplasia, whereas the hypertrophic bosses and atrophic craniotabes which characterize the rickety skull are absent in achondroplasia. The stunting of the long bones, the shape of the hands, the lordosis, the sunken nose, and the abnormally high situation of the mid-point of the body are leading features of achondroplasia, just as the contracted chest, deformed ribs, curved spine, and bowed legs are unmistakable indications of rickets. Dentition and speech are not delayed in achondroplasia as they are in rickets, and the well-known constitutional phenomena which accompany the latter are absent in the former disease. The diagnosis from cretinism is obvious if the child survives infancy, because though it appears healthy when born, the cretin soon betrays evidence of mental feebleness, while, among other differentiating features, it may be noted that the thyroid gland is absent or rudimentary, the skin and hair is coarse and thick, there are fatty pads in the supra clavicular fossae, the facial expression is vacant, the head hangs forward on the chest, the habits are dirty, and the patient is frequently destructive and vicious.

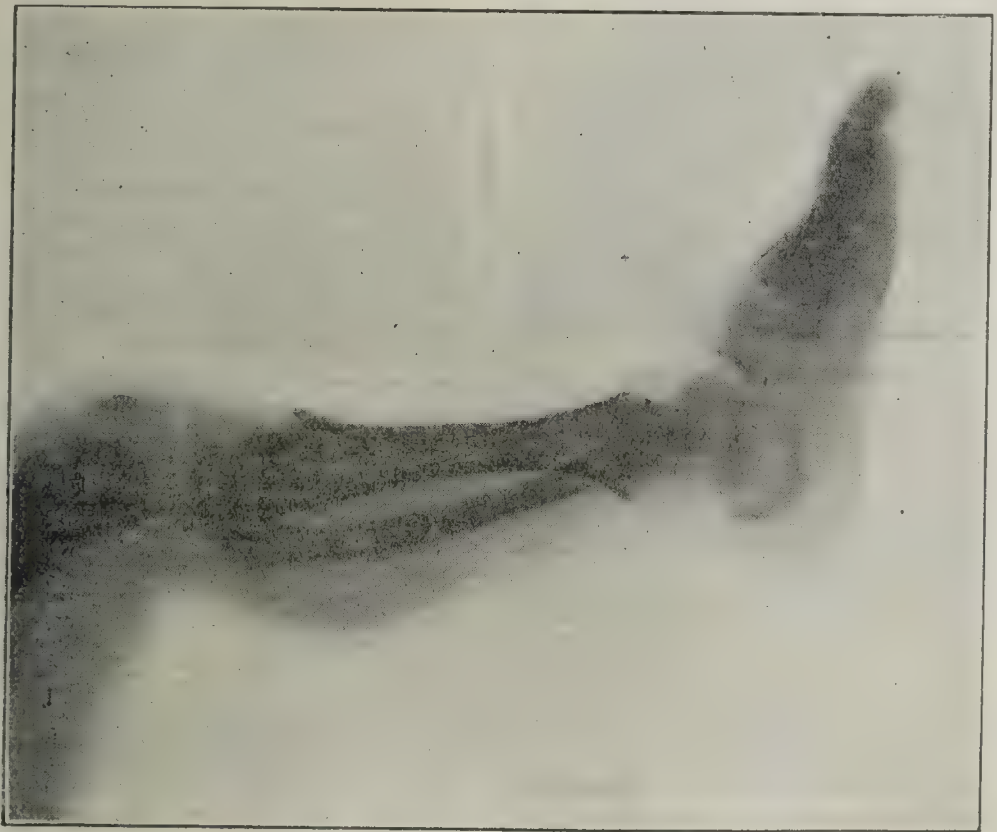


Fig. 7.—Side view of leg and foot.

There is no full description of achondroplasia to be found in the textbooks on medicine, and this account of the disease, which is gathered from the desultory papers of writers to whom reference has been given will be found fully verified by the following report of a case recently admitted to the Royal Waterloo Hospital, under Mr. Pendlebury, for the treatment of an abscess on the right temple, and subsequently transferred to one of the medical beds.

The boy's name is G. G., and he is 9 years of age. There is nothing remarkable in the family history. The mother is a healthy woman and has had a family of three boys, of whom this is the youngest. The eldest is 12 years of age, and is in all respects normal and active. The second child died of "wasting" when 3 years old. This child was born after a normal and unassisted labour, but was misshapen at birth. Apart from his deformities, he appears to have been from the first healthy and vigorous. His mother nursed him for one month, and thereafter he was reared on milk and barley-water. In due course he was sent to school, and he has shown a degree of intelligence so much above the average for a child of his age and class that he has gained two prizes. He is still in the "infants" department and has reached the second standard, but he has been detained in that grade longer than usual from fear of his being annoyed and teased by other boys of his age on account of his diminutive size. He has never suffered from any serious illness, and is now a bright, engaging, and good-tempered child. Most children who are the subjects of achondroplasia are either prematurely or still born, and of those born alive the majority experience precarious health during infancy, though they may subsequently attain normal vigour. In this patient the period of infancy was uneventful. The rickety symptoms which apparently complicate his achondroplasic condition may probably be ascribed to the method of his feeding when a baby. The boy is well nourished, and has a healthy, smooth skin. When the accompanying photographs are looked at, two prominent facts at once arrest attention :

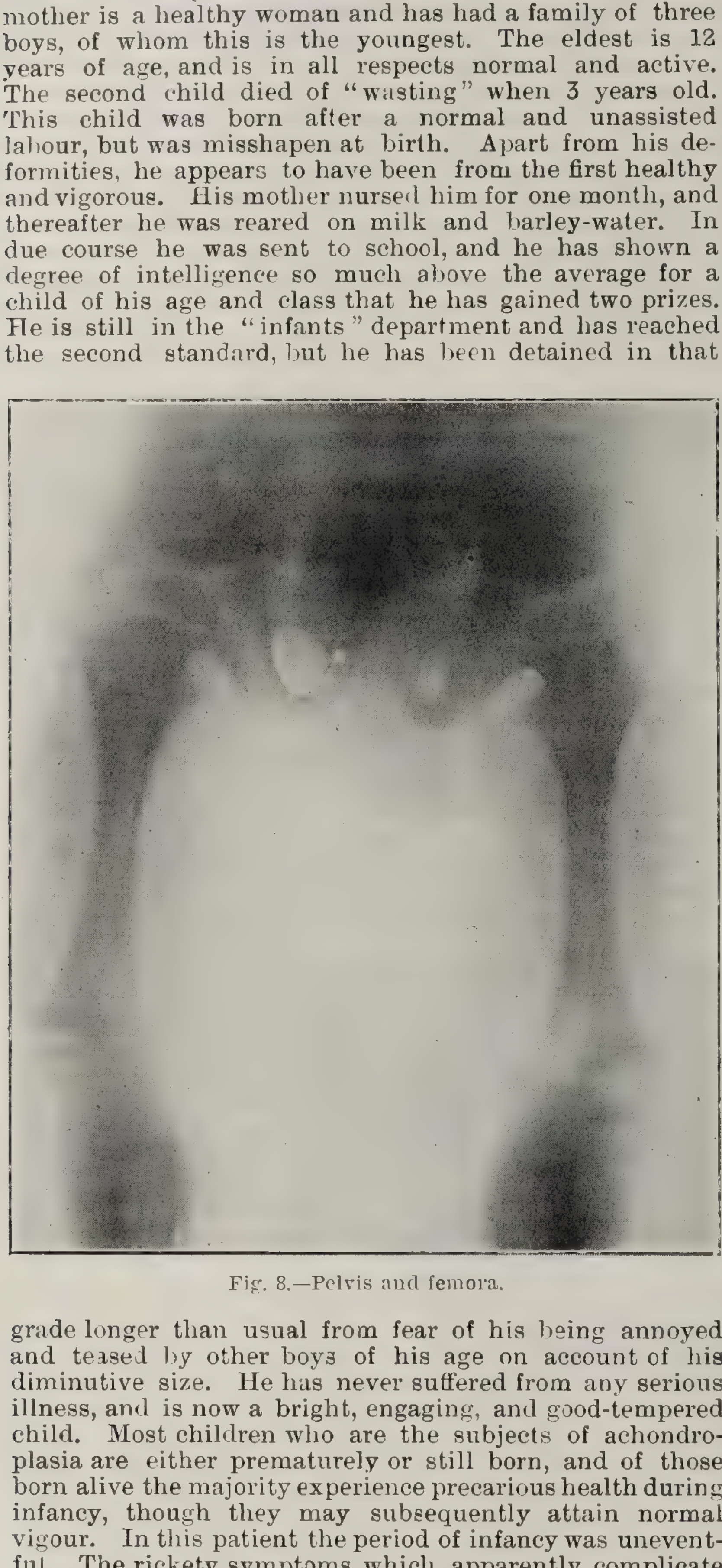


Fig. 8.—Pelvis and femora.

1. The size and configuration of the head.
2. The marked asymmetry between the body and the limbs.

The head is abnormally large and disproportionate to the size of the face. The dome of the cranium is high and the occipital region is unduly prominent. The nose is flattened and there is deep retraction of its bridge. The mouth is partially open, and there is pronounced
prognathus. The tongue seems somewhat thicker
usual, and its tip can just be seen between the open
The teeth are carious. The palate is arched and h
The voice is nasal in quality, but this is probabl
some measure at least, due to the existence of aden
Immediately below the right nostril there is a s
venous naevus, and there is a rudimentary acces
auricle to the left ear. The trunk is of average size
presents the following abnormalities: The sternum
jects forwards, there is a distinct costal rosary,
a well-defined Harrison's sulcus. These features
suggestive of true rickets and indicate either that
have, in this case, to deal with a double conditio
that the two disorders, though clearly defined from
another, are yet, as has been suggested by some authori
closely related. The abdomen is fat and protuberan
prominence being, to a considerable extent, the co
quence of the lordosis of the spine. Owing to the s
ness of the legs the gait is clumsy; it lacks the ro
character of congenital dislocation of the hips which
extreme curvature of the spine at first hints at, but w
is at once negatived by examination of the jo
The umbilicus is near the intercristal line; and
mid-point of the body, when measured in the
position, is immediately below the tip of the ensi
cartilage. There is a general increase of subcutan
fat, and this obesity causes an accentuation of
natural folds of the skin, which is specially notic
round the ankle-joints. The arms are thick and s
and in extreme extension barely reach the tip
the great trochanters. All the joints are promi
The shaft of each humerus is short, being only
longer than the clavicle; the extremities of the bon
large. The bones of the forearm are shortened, and
is a decided increase in the normal curve of the ra

The hands are remarkably foreshortened, and the fi
taper towards the points and deviate from one an
like the spokes of a wheel.

In the legs the features of the arms are reprod
There is general shortening of the bones, increas
the normal curvatures, and enlargement of the extrem
The longitudinal arch of the foot is destroyed, giving
to splayness.

The following table of measurements will be
useful for comparison :

	This Case.	No Bo San
Height	2 ft. 11 in.	3 ft.
Height sitting	2 ft. 1 in.	2 ft.
Weight	2 st. 3¾ lb.	3 st.
Circumference of head	20¾ in.	20¾ i
Tip of mastoid to tip of mastoid	15 in.	14½ i
Clavicle	4 in.	4¼ i
Acromion to external condyle	4⅗ in.	8⅛ i
Radius	3⅝ in.	6 in.
Olecranon to ulnar spine	4¼ in.	6¼ i
Anterior superior spine to internal malleolus	7¼ in.	22¼
Internal condyle of tibia to malleolus ...	5⅕ in.	9 in.
Chest, full expiration	20½ in.	24¾ i

We are indebted to Messrs. Watson and Sons, of
Holborn, for the skiagrams with which they have su
us, and which are reproduced here in reduced size.

References.

[1] The Antiquity of Achondroplasia, *British Journal of Dis*
Children. 1904, vol. i, p. 7. [2] Les Difformes et les Malades dan
Paris. 1889. [3] Ueber die sogenannte fötale Rachitis als eigenthu
Abweichung der Skeletbildung, und über ihre Beziehung
dem Cretinismus bei Thieren, sowie zu der Bildung
Varietäten, *Würzb. med. Zeitschr.*, 1860, i. pp. 221-276.
Rachitis congen. Diss. Halle, 1873 [5] Abbildungen u Be
bungen einiger Misgeburten, Table XI, Mains, 1791. [6] *Zeitsch*
Geburts. und Gynäkologie, 1899 [7] Ueber sogenannte fötale R
Diss. Berlin, 1885. [8] Die fötale Rachitis und ihre Beziehungen
Cretinismus, *Corr.-Bl. f. Schweiz. Aerz*, 1879, ix, pp. 465-467. [9] Ue
sogenannte fötale Rachitis (Mikromelia Chondromalacia),
z. path. Anat. u. zur allg. Pathol., 1883, v, pp. 183, 216
[10] Untersuchungen über die sogenannte fötale Rachitis (Ch
dystrophia Foetalis), Berlin. 1892. [11] L'Achondroplasie dans
lescence et l'Age Adulte, *La Presse Médicale*, 1900. [12] Achondro
Edin. Med. Journ., June, 1893. [13] A Case of Achondroplasia, *Cl*
Trans., xxxi, pp. 294, 295, 1898. [14] On Achondroplasia, *The Pract*
September, 1899. pp 263-276. [15] Chondrodystrophia Foetalis,
Journ. Med. Sci., 1904, vol. ii, pp. 690-701. [16] Notes on Ach
plasia (Chondrodystrophia Foetalis). *The Practitioner.* 1904.
Cases of Osseous Lesion in the Foetus (contribution to
sion on Rickets). *Path. Soc. Trans.*, 1881, xxxii, p. 369. [18] *Pa*
Trans., xxxv, 1884, pp. 459-464. [19] Elements of Surgery, see edi
[20] *Gesammelte Abhandlungen. Berlin z. Wissenschaftl.*, 1852.
ödema mongolismus und Micromélie, Wien, 1902.

Remarks
ON
IE MEANING AND MECHANISM OF VISCERAL PAIN

SHOWN BY THE STUDY OF VISCERAL AND OTHER SYMPATHETIC (AUTONOMIC) REFLEXES.

By JAMES MACKENZIE, M.D.,
BURNLEY.

[*Concluded from p. 1454.*]

II.—THE MECHANISM BY WHICH VISCERAL PAIN IS PRODUCED.

Insensitiveness of the Viscera to ordinary Stimuli.

EN all the facts concerning visceral pain are taken into sideration, it will be found that the usual conception he manner in which pain is conveyed to the mind s to explain the phenomena connected with the recog- on of pain when it is due to affections of the viscera. begin with, the viscera are insensitive to those uli which produce pain when applied to the external y wall. The visceral tissues can be cut, torn, and nt, and the individual remain unconscious of any ation. Nevertheless, we all know that the viscera are ble of giving rise to pain of the most excruciating acter, so that the reason the methods employed to uce pain in stimulating the external body wall fail to uce visceral pain is manifestly that they are inade- e; and from this fact alone we are forced to conclude a satisfactory explanation of how visceral pain arises yet to be found.

Sensitive Tissues of the External Body Wall.

fore dealing with visceral pain it is necessary to rehend more fully the sensibility of the tissues ing the external body wall. How profoundly ant we are of this subject has recently been shown e investigations of Head and his colleagues.

r the purpose of this study I shall briefly refer to a points the misunderstanding of which has so often stray the clinical observer.

we take the abdominal wall we find three great layers wed with exquisite sensibility to pain. The first of , the skin, I need not dwell upon, save to point out its sensibility frequently becomes increased in ral disease, and how this increased sensitiveness is d to an exalted muscular reflex. The second of these tive layers is formed by the flat muscles of the nen and is the most important, and the one most nonly affected in visceral disease, its sensibility being readily increased. Muscular hyperalgesia is such a ng phenomenon, is so frequently present, and plays an important part in the protective mechanism, that stonishing to find it almost universally overlooked. an read elaborate treatises devoted to special organs ich this symptom is the most striking and the most ctive feature, but its presence is nevertheless over- l or misinterpreted. If any one will take an ordinary of stomach ulcer, appendicitis, gall stone or renal or enlarged liver, and note the tenderness of the inal wall and observe how this deep tenderness ls far beyond the site of the organ affected, they egin to appreciate the nature and significance is symptom. With a little care one will be to distinguish these symptoms from cutaneous lgesia and from hyperalgesia of the deeper tissues. ird sensitive layer is one of which anatomists and logists were quite ignorant when I first found it out lly. It is the layer of loose connective tissue lying iately outside the peritoneum. I suspected its ce for a long time as I frequently could get exquisite ness in pushing my fingers between the recti s; for instance, in cases of gastric ulcer, the stomach ing affected by the pressure. Its demonstration d first in a case of operation for the radical cure of by Mr. Caird, who had injected cocaine in the site ncision. The skin and muscles were cut through e patient experienced no pain. When Mr. Caird tore through the loose connective tissue the patient nced most exquisite pain. After the peritoneum posed it was incised and afterwards stitched and the patient felt no pain. This observation I have verified on several occasions. I consulted several anatomists but found they had no knowledge of any nerve distribution in this region. Subsequently Ramström made a careful histological examination of the abdominal wall of the man and other mammals and showed that this region was richly endowed with nerves and nerve endings, the nerves being derived from those which supply the muscles of the belly wall.

This observation may probably afford a clue to the confused statements that exist in regard to the sensitiveness of the peritoneum. I can only say this, that I have on numerous occasions in the course of operations scratched and cut the serous surface of the peritoneum on conscious subjects, and have never known the slightest sensation elicited. One can understand, however, that the inflamed peritoneum would readily affect this remarkable nervous layer. Peritonitis, however, so readily produces muscular hyperalgesia and tonic muscular contractions (viscero-muscular reflex), that the pain and tenderness is demonstrably, in the majority of cases, of spinal origin.

With the recognition of these sensitive structures—frequently rendered exquisitely sensitive to painful stimuli in visceral disease—it will be understood how impossible it is to judge of the sensitiveness of the viscera by external exploration. When, therefore, we find the surgeon or physician demonstrating the sensitiveness of any viscus, it will be realized that he is in reality stimulating, in his examination, those extremely sensitive structures of the external abdominal wall, and referring the pain he elicits to an organ that is totally insensitive to any such stimulation.

Artificial Production of Visceral Pain.

It is a curious fact that although the belief is so universally held that the viscera are endowed with "sensory" nerves, and that physiologists refer to afferent sympathetic nerves as "sensory" in function, not a single authentic observation has been rendered in proof of these assertions. Of course, a great deal depends on what is considered evidence, many people being perfectly satisfied if they elicit pain by pressing over an organ. Physiologists have interpreted certain movements as an expression of pain after electrically stimulating an afferent sympathetic nerve. But this does not prove that pain was evoked, nor does it prove in what situation the pain was felt—for the location of the pain is the key to the problem. It is because of the absence of the specification of the locus of the pain that Lennander's otherwise important observation is rendered of little value in respect to this investigation.

That pain can be produced by visceral stimulation is easily demonstrated if one employs an adequate stimulus. It is now many years since I pointed out that the most violent pains of which we are conscious are associated with hollow muscular organs, and that by producing violent contraction of a hollow viscus pain can be elicited. The easiest way to do this is to give a distending enema of warm water and to retain the enema until painful peristalsis results. That the pain is really due to the contraction of the muscle wall of the bowel is evident from the fact that with the relaxation of the sphincter during the pain the contents of the bowel are expelled with considerable force, and the pain at the same time subsides. Here it is evident that a considerable portion of the descending colon and rectum must have contracted, but the pain is not felt along the position occupied by these structures, but, in the majority of people, it is referred across the middle line immediately above the pubis.

The following observation demonstrates an exactly similar series of facts:

> I had occasion to resect a portion of the small intestine in a conscious subject whose abdominal cavity had been laid open. There were numerous peritoneal adhesions, and while I cut and tore these the patient was unconscious of any sensation. I cut and stitched the serous surfaces of parietal and visceral peritoneum; I tore adhesions from the liver; I cut and sutured the bowel and mesentery, and no sensation was felt. After preparing the upper part of the bowel it was wrapped in a warm cloth and laid on one side. During the subsequent steps the patient frequently moaned. I asked him if he felt pain, and he replied that he did. I asked him where he felt the pain, and he indicated with his hand that it was across the middle line at the level of the umbilicus. I at first felt that it might be due to the part that I was manipulating, but the

pain was intermittent. Chancing to look at the prepared upper part of the bowel that lay on the left side of the abdomen, I observed that every few minutes a peristaltic wave passed over the lower portion of it, and when this occurred the patient moaned in pain. I made certain that the pain was connected with the peristaltic wave, and also made sure the patient had no doubt as to the place in which it was felt, with the result that here before my eyes was the cause of the pain which the patient felt, and yet the patient referred the site of the pain with precision to an area 10 in. or 12 in. away from the contracting bowel.

The Relationship of the Site of Pain to the Site of the Lesion.

For many years I have kept notes of the position in which pain was felt in a great variety of diseases, and in course of time I have been able to identify the exact site of the lesion in cases that come to operation, or to *post-mortem* examination. The conclusion arrived at from the consideration of these cases was that the situation of the pain did not as a rule directly afford any clue to the situation of the lesion, but when the situation of the pain was immediately over the lesion, other evidences showed that the pain was not felt in the organ, but referred to the sensory nerves in the external body wall. I shall quote the proofs for these conclusions presently, but here I will describe the theory which explains the peculiar nature of visceral pain.

The Mechanism by which Pain is produced in Visceral Disease.

When a nerve that terminates in a sense organ is stimulated in any part of its course from the periphery to the brain, a stimulation is given to the brain of a kind similar to what would have happened if the peripheral end-organ had been stimulated. Thus the stimulation of any part of the optic nerve or auditory nerve gives rise to the sensation of light or of sound. In the same manner, if a sensory nerve be stimulated in any part of its course through the brain, spinal cord, or trunk of the nerve, the resultant sensation is referred to the peripheral distribution of the nerve in the external body wall. In the normal processes of life, a stream of energy is continually passing by the afferent nerves to the spinal cord, and continuously playing upon the efferent nerves that run to muscles, blood vessels, and so forth, maintaining what we call "tone" in muscles and blood vessels. These processes are conducted so that they give rise to no appreciable sensation.

If, however, a morbid process in a viscus gives rise to an increased stimulus of the nerves passing from the viscus to the spinal cord, this increased stimulation affects neighbouring centres, and so stimulates sensory, motor, and other nerves that issue from this part of the cord. Such stimulation of a sensory nerve will result in the production of pain referred to the peripheral distribution of the nerve whose spinal centre is stimulated, so that visceral pain is really a viscero-sensory reflex. If the increased stimulus affects a motor centre, then a contraction of the skeletal muscle results, and thus is produced the viscero-motor reflex.

The reasons why the pain is referred to portions of the body so far apart is because in the course of development the tissues that in a low scale of life immediately covered the organ have been displaced. Thus, the pain felt in the testicle in renal colic is due to the fact that in its journey down to the scrotum the coverings of the testicle receive a twig from the first lumbar nerve, and when the root of this nerve is stimulated, as in renal colic, the pain radiates to the testicle. In renal colic one never finds the skin of the scrotum hyperalgesic, but always the deep covering of the testicle, because the scrotum is supplied by the sacral nerves.

Referred Pain.

This view is the one practically adopted by all to account for what is called "referred pain." Ross described visceral pains as of two sorts, "splanchnic" pain in the organ and "somatic" pain referred to some part of the body wall remote from the organ. But when the so-called "splanchnic pains" are critically examined they will be found to be of the same nature as somatic pains. Thus Ross said that the pain in the back in cases of gastric ulcer was referred or somatic, while the localized epigastric pain was local—in the organ itself—splanchnic. So confident was he that he said that if he passed a needle through the site of the latter pain he would penetrate t ulcer. This view is one so commonly held that I sha deal in some detail with the pain of gastric ulcer, but he I may simply point out that in the movements of respir tion and in the movements of the walls of the stomach t ulcer is bound to shift its position, and if the pain were the ulcer the situation of the pain should be constant varying, whereas it remains fixed even on very deep insp ration and expiration.

Radiation of Pain.

Perhaps the best evidence to be found as to the tr nature of visceral pain is to observe the manner in whi pain spreads. No attempt is ever made by writers appreciate the meaning and significance of the spreadi of pain. Thus in an elaborate monograph on gall ston a "hypersensitive" gall bladder and a "tender liver" spoken of, and the pain of an inflamed gall bladder "diffused over a large area along and below the margin the liver." In what tissues was this widely diffused pa felt? If the pain were in the gall bladder, how comes that it was felt in a region more extensive than th occupied by the gall bladder?

The diffusion of pain over a wider area than th occupied by the lesion originating the pain can be prov in many ways to be due to an extension of the irritati affecting the roots of sensory nerves in the spinal co Thus the extension of the painful area is frequen associated with hyperalgesia of the tissues of the exter body wall. The pain is often found to radiate alo peculiar areas, inexplicable unless we recognize t relationship in the spinal cord of the nerves supplyi these areas, as, for instance, when the pain of ang pectoris passes from the front of the chest into the ax and down the arm—that is to say, into areas supplied contiguous nerve roots (third, second, and first dor nerves); or the pain may appear at a distance from affected organ and gradually approach it till the pain felt in the tissues covering the organ, as when in ang pectoris the pain may at first be confined to the a but with increasing severity radiates to the front of chest.

The radiation of pain that occurs in a skin lesion is due to the strong stimulus spreading in the spinal c exactly in the manner I showed in the spreading of autonomic sensation and pilomotor reflex. This is brou out very clearly in the following experience related Sherrington: "By applying a mustard leaf over the fr of the upper part of the sternum I can produce in my the sensation of a patch of hot, unpleasantly tingl character, referred to the inner side of each upper a just above the inner condyle." "In this case associated sensations and the stimulus applied lie shown by delimitations of the cutaneous segme nerve areas, both of them within the same segme area." I have on several occasions been able to proc a goose-skin reflex in a limited area on the front of chest over the second and third costal cartilages stroking the inner and anterior surface of the arm a the elbow, and a limited area of goose-skin in the by stroking the front of the chest in the place mentioned. From such facts as these we are justifie drawing the conclusion that Sherrington's experi demonstrates that the radiation of pain from a cutaneous stimulus is due to an excitation of sen cells in the spinal cord.

The Pain in Gastric Ulcer.

The study of the pain in affections of the stomach bowels affords evidence for demonstrating the natu visceral pain, and at the same time shows the prac importance of this method of observing visceral pains this part of Lancashire gastric ulcer is a disease of e ordinary frequency. For many years it has bee habit to note the situation in which pain was felt severely in the hundreds of cases that have consulte I soon found that the great majority of these pat referred the pain with great precision to some regi the epigastrium. Now the fact that gastric ulcer situated frequently in parts of the stomach at a tance from the epigastrium, raised my suspicion the pain could not be felt in the ulcer. Examining cases more carefully, I found this localized pain frequently associated with great tenderness of the nd of a limited portion of the upper part of the recti nuscles. Watching cases that ultimately came to opera- ion, or that died and on which I had a *post-mortem* xamination, I found that the site of the ulcer bore no elation to the site of the pain, but that when the ulcer vas near the cardiac end of the stomach the localized pain nd cutaneous and muscular hyperalgesia was situated igh in the epigastrium, whereas when the ulcer was near he pylorus the pain, etc., was situated low down in the pigastric region. The following typical instances not nly illustrate this point, but demonstrate the practical tility of this way of examining cases.

I was called into consultation to see a patient twenty hours fter perforation of a gastric ulcer had taken place; she had suffered for many months from pain after food, and located the site of this pain with great precision in the upper part of the epigastrium, over the xiphisternum (area A, Fig. 4).

I reasoned from this that the perforated ulcer would be near the cardiac end of the stomach. The incision opening the abdominal cavity was, therefore, made as far to the left as possible. On opening the abdomen there was found a large quantity of fluid, and a considerable quantity of flaky lymph covered most of the exposed organs. The stomach was carefully searched, and we found it rather firmly adherent at the cardiac end to the posterior wall of the abdomen. We inspected the whole of the stomach except the adherent part, and there can be no doubt that the adhesions surrounded the ulcer. We resolved not to break down these adhesions, as it would have been impossible to drag this portion of the organ sufficiently far out to enable it to be stitched. The abdomen was very effi- ently flushed, the wound stitched up, and the patient ade a good recovery. Approximately the site of the ulcer rresponded to the area A', Fig. 4.

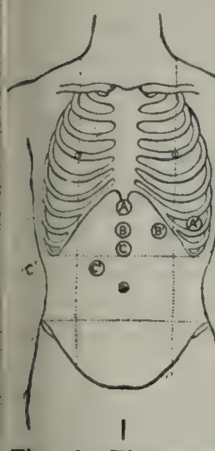


Fig. 4.—The area A iows the site of pain hen the ulcer was at he cardiac end of the omach, A'; B, when ıe ulcer was in the iddle of the lesser ırvature, B'; C, when ıe ulcer was at the lorus, C'.

A girl, aged 14 years, who had had pain after food for many onths, referred the situation of the pain, with great pre- sion, to a spot in the middle of the epigastric region rea B, Fig. 4). She was suddenly seized with collapse and vere pain over the upper part of the abdomen. There could no doubt that it was a case of perforation of the stomach. ithin eight hours we opened the abdomen, and, as I had ted the situation of the pain previous to the rupture, I ggested that the ulcer would probably be found in the iddle of the stomach. The incision was therefore made well the left of the middle line. The perforation was at once et with in the middle of the stomach (area B', Fig. 4), on the sser curvature. It was stitched up, and the patient made an cellent recovery.

In another patient, who had suffered for years from gastric cer (pain and vomiting of blood) the pain was always felt at e lower part of the epigastrium. She died of phthisis. At e *post-mortem* examination there was the mark of a small ister at the lower part of the epigastrium (area C, Fig. 4). ıe was wont to apply a small blister over the place she felt e pain. I asked my colleague to note this area and its rela- on to the ulcer. The ulcer was found in the pylorus corre- onding to the area marked C', Fig. 4.

Another case had been under my care for ten years for peated attacks of epigastric pain. She consulted an eminent rgeon, who wrote to me stating that the patient had an cer in the middle of the stomach and on the posterior wall, d he recommended an operation for her relief. I re- amined the patient, and made the following note: That, asmuch as the pain is situated at the lowest part of the igastric region, and as there is also here a limited area of nderness of the skin, the ulcer should be found at the pyloric ifice. This view was verified at the operation subsequently rformed.

Pain in Peristalsis of the Bowel.

From the observation of a large number of cases of struction of the bowel, I found that if the obstruction re in the small intestine the violent pain was usually ferred across the middle of the abdomen, but never felt low the umbilical region. When, however, the pain scended to the hypogastric region then the obstruction ıs found in some part of the great intestine. This is nply due to the fact that above the seat of obstruction e violent peristalsis produces pain, whereas below the at of obstruction the bowel does not contract. This view corroborated by the observation I have already cited ıere the small intestine was seen to contract in the urse of an operation for resection, and by the results of distending enema. It can also be observed in certain cases of diarrhoea. Thus, in a patient to whom I had given large doses of digitalis pain of great severity was felt in the lower part of the epigastrium, with intervals of relief. This pain gradually descended in the middle line until it was felt immediately above the pubis. Coincident with the pain reaching this situation, an urgent desire for defaecation was experienced, and relief was at once obtained by the evacuation of a large and loose motion. It is to be justifiably inferred from this case that violent peristalsis had been set up in the upper part of the small intestine, that the peristalsis had swept over the small intestine and large intestine, and that although different parts of the bowel must have contracted in different parts of the abdomen, the pain was felt in the central areas of the abdomen, descending as the stimulus, from descending coils of intestine, reached successively lower portions of the spinal cord.

From the foregoing considerations the legitimate conclusion to be drawn is that all pains arising from viscera supplied only from the autonomic nervous system are part of a reflex mechanism (viscero-sensory reflex).

IV.—THE MECHANISM BY WHICH THE SYMPTOMS IN ANGINA PECTORIS ARE PRODUCED.

In seeking an illustration of the application of the principles I have endeavoured to enunciate, I have chosen the subject of angina pectoris, as the symptoms can be referred with certainty to the organ at fault, and because the complex of symptoms that are included in an attack of angina pectoris are capable of being analysed with great precision on account of the peculiar distribution of the sensory nerves, whose centres in the spinal cord and medulla are in close relationship to the centres of the autonomic nerves of the heart. The cases I cite demonstrate that the term "angina pectoris" includes a number of reflexes, and I give in detail the more conspicuous of these, namely, sensory reflexes, when the pain and hyperalgesia affect the chest, arm, head, and neck; motor reflexes, resulting in spasm of the intercostal muscles; secretory reflexes, as shown by profuse secretion of saliva and urine. Some cases show other reflexes, as the respiratory, but the discussion of these would lead me beyond the object I had in writing this series of papers.

Notwithstanding the numerous papers devoted to the consideration of angina pectoris, practically none have dealt with the analysis of the symptoms present during an attack. Angina pectoris is so often surrounded by such tragic circumstances, that it forms a suitable theme for turgid eloquence, and on that account we too often get the lurid description of an impressionist artist instead of the plain, matter-of-fact description of an accurate observer. A careful sifting of all the details brings out the fact that the essential principles underlying the pains associated with affections of the heart, differ in no way from those of any other hollow muscular organ. So terrifying is the attack to the patient that his perception of the details of his suffering are generally confused, so that often no clear account can be obtained from his description; but if he is intelligent and is asked to note particulars in future attacks, he will often be able to throw a very valuable light on the onset and character of the sensations he experiences. The observations of patients made by the physician during an attack also afford great help in this respect.

The Viscero-Sensory Reflex in Dilatation of the Heart and Liver.

Before dealing with the more characteristic attacks of heart pain which go by the name of angina pectoris, I wish first to draw attention to the very distinct sensory evidences that arise from the dilatation of the heart. These sensory symptoms are practically identical with those that arise in cases of distension of any other viscus, as the stomach, bladder, or liver. To illustrate this I select cases where the dilatation of the heart occurs rapidly, and is followed by a rapid distension of the liver such as we find in certain forms of paroxysmal tachycardia. In certain of these cases the rhythm of the heart starts suddenly at the ventricle (or more probably at the fibres joining auricle and ventricle). The heart at once beats with great rapidity, but fails to maintain the circulation, and in consequence we have very rapidly-developed great dilatation of the heart, fullness of the veins, enlargement of the liver, and dropsy. I have seen a number of these cases, and in two particularly I had observed some fifteen to twenty attacks, of which the following is a good example:

Observation 1.—The patient may be in good health and no abnormality be detected save, in some cases, the occurrence of a ventricular extra systole. Suddenly the heart's rate becomes greatly accelerated—to 180 beats and more per minute. In a few hours' time the patient's face becomes dusky, the lips become swollen and livid, and there appear great shortness of breath on exertion, marked increase in the size of the heart, distension and pulsation of the veins of the neck, and enlargement and pulsation of the liver. The jugular and liver pulsation are of the ventricular type. Pain and oppression may be felt over the chest. The skin and deeper tissues of the left chest are extremely tender on pressure in the area shaded in Fig. 5. If the pectoralis major muscle be grasped where it forms the axillary fold it will be found extremely tender. The skin of the left side of the neck may also be tender, and if the left sterno-mastoid muscle and the left trapezius muscle above the middle of the scapula are lightly grasped they may be found exquisitely sensitive. The skin and muscle over the liver will also be found extremely sensitive to pressure, and the parts hyperalgesic extend over a much larger area than the enlarged liver. If the heart's rate revert to the normal the patient at once experiences great relief and in a few hours all signs of the circulatory disturbances disappear.

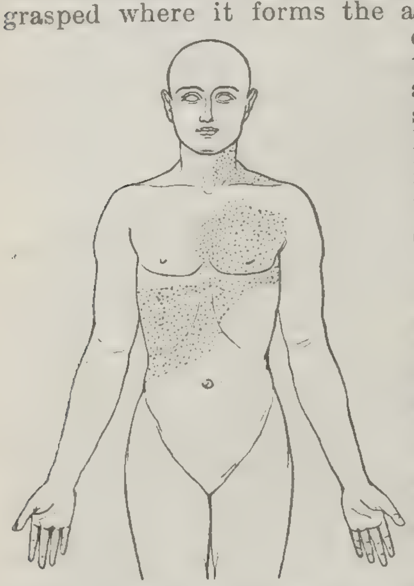


Fig. 5.—The shaded areas show the regions of cutaneous and deeper hyperalgesia in case of acute dilatation of the heart and acute distension of the liver.

The tenderness of the skin and muscles in the regions described above may be found in patients during the early stages of dilatation of the heart or of the liver from any cause and is very common in heart failure secondary to mitral disease. In some, one can tell when improvement is taking place by noting the diminution of this tenderness.

There can be little doubt as to the mechanism by which the hyperalgesia of the tissues in the three regions is brought about. The relationship of the dilatation of the heart and liver with these sensory phenomena was undoubtedly that of cause and effect. The tenderness to pressure of the tissues in the left chest was due to the stimulation of the afferent sympathetic nerves by the dilated heart. These nerves stimulated the sensory centres of the third and fourth dorsal nerves in the spinal cord, so that a stimulus reaching them from their peripheral distribution gave rise to a painful impression. The tenderness of the left sterno-mastoid and trapezius muscle and of the skin of the neck was due to the afferent fibres of the "bulbar autonomic" system—that is, the vagus conveying a stimulus to the sensory roots of the second and third cervical nerves. The hyperalgesia of the tissues covering the liver was due to a stimulation of the sensory centres in the spinal cord by the afferent sympathetic fibres from the engorged liver.

The Manner in which the Distribution of the Upper Dorsal Nerves are Modified in the Course of Development.

In order to appreciate the mechanism of the pain felt in affections of the heart, the manner in which the upper dorsal nerves come to be distributed should be borne in mind. Ross has pointed out that in the primitive vertebrates, before the development of the limbs, each spinal nerve is distributed segmentally round one half of the body. The upper dorsal nerves are therefore entirely distributed over the thorax and to the tissues covering the heart. The upper limbs, as they bud out from the trunk in their development, drag with them away from the chest portions of the upper dorsal nerves, so that parts of the first and second dorsal nerves are distributed to the ulnar border of the forearm and inner surface of the upper arm. Thus, suppose a pain originating in the heart and stimulating the first and second dorsal nerve, it would be felt in the lowly vertebrate over the heart, whereas in man it would be felt in the upper arm or in the forearm.

The Pain of Angina Pectoris is a Viscero-sensory Reflex.

The usual description given of the pain in angina pectoris is that it is felt in the heart and shoots into the arm, or that there are two pains, a local pain in the heart and a referred pain in the arm. If, however, a careful analysis be made of all the symptoms present, facts will be found that practically demonstrate that in angina pectoris there is but one kind of pain, and that its production is in accordance with the law I have attempted to establish in this series of papers, namely, that it is a viscero-sensory reflex. It is not in every case one is able te demonstrate the proofs of this hypothesis, but the facts derived from suitable cases afford legitimate conclusions applicable to all cases. Shortly, these facts are, that the pain in the very gravest cases may be felt in regions distant from the heart, that this pain is identical in character with that felt over the heart, that the pain may originally start in parts distant from the heart and gradually approach and settle over the heart, and lastly, that the tissues of the external body wall over the heart may be found extremely hyperalgesic after the pain has passed away. From this last fact it is inferred that, inasmuch as the seat of pain corresponds to the region of hyperalgesia, therefore the pain was felt by the hyperalgesic nerves. To assume otherwise is to ignore a principle that explains satisfactorily the sensation of pain wherever arising.

The following observations illustrate this point. They are examples taken from a large number of cases that demonstrate the same feature. For the sake of brevity only those points bearing upon this argument are referred to.

Observation 2.—Female, aged 30, suffering from stenosis of the aortic, mitral, and tricuspid valves, was seized with a violent pain referred to the outer part of the chest wall. The pain passed off, but a sense of soreness and smarting remained over the part in which the pain was felt. On examining her I found a portion of the skin of the chest extremely tender to touch, corresponding to the area shaded in Fig. 6.

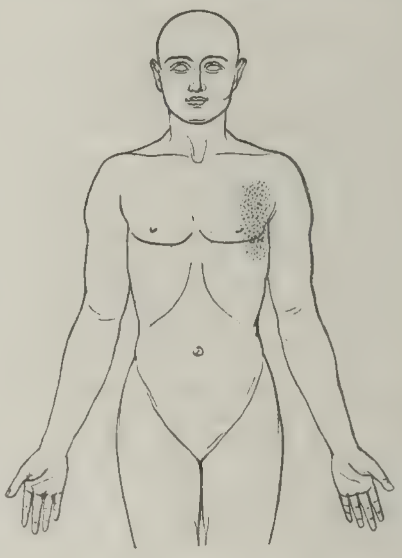


Fig. 6.—The shaded area shows the distribution of the cutaneous hyperalgesia and the site of pain in the earlier attacks of angina pectoris.

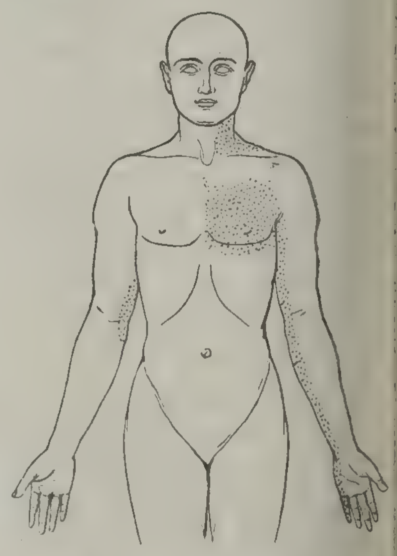


Fig. 7.—The shaded areas show the distribution of the cutaneous hyperalgesia and the regions in which pain was felt in the later and more severe attacks of angina pectoris.

A few days later she began to suffer from attacks of pain in the left breast and down the inside of the left arm, and on examination I found that the hyperalgesia had extended and occupied an area similar to that shaded in Fig. 7.

These attacks of pain became so severe on the slightest exertion that she was obliged to keep to her bed. She partially recovered from these attacks, but they recurred with increased severity. When suffering the most severe attacks the hyperalgesia embraced nearly the whole of the left chest and inside of the left arm and also a portion of the right chest. The left sterno-mastoid muscle and trapezius also became very tender, and the patient would sometimes complain of pain on the inner surface of the right forearm, and here also I found a patch of cutaneous hyperalgesia. Two years and a half after the first attack of pain she was recovering from a series of violent attacks, when, on getting out of bed she fell forward and died immediately.

The fact that in this case the attacks of pain were followed by a hyperalgesia of the skin in the region where the pain was felt, and the further fact that the pain started at a distance from the cardiac region, and was often felt most severely at a distance from the heart oves that the cardiac pain in this case was a viscero-nsory reflex, and that the pain felt over the precardia s presumably of the same nature.

bservation 3.—Female, aged 56, with high blood pressure, fers from pain in the foot (? gout), and has had several ere attacks of true angina pectoris, when the pain is erred over the left chest and through to the shoulder. ter the attack she passes a large quantity of clear urine, and skin and deeper tissues of the left breast and the left rno-mastoid and trapezius muscles become very painful on ssure. In one attack the pain was felt in a limited area r the second left interspace, and next morning I found the n and deeper tissues were extremely tender to the slightest ssure.

n this instance, also, the hyperalgesia of the skin responded to the region where pain was felt, and is presumptive evidence in favour of the view that the n as well as the hyperalgesia is the result of the cero-sensory reflex.

bservation 4.—Male, aged 42. Consulted me on October h, 1905, complaining of pain in the left little finger and ar border of the left hand and forearm, coming on when exerts himself at his work and in going up hill. For some nths he suffered from a dull aching pain at the back of his ulder-blades. I found dilatation of the aorta, slight ompetence of the aortic valves, and slight enlargement of heart (verified by subsequent *post-mortem* examination). blood pressure was 150 mm. Hg. During the following ks the pain in the left arm increased in severity, and dually extended up the arm till it was felt in the axilla, finally it invaded the left chest. At first the pain was t to start at the little finger, and to pass rapidly up the , but latterly it seized him with such severity and suddens that he could not tell where it began. It usually held him h the greatest severity either over the heart or in the inner face of the left arm immediately above the internal con- e. I particularly asked him to note in his frequent attacks here was a difference between the chest pain and the arm n, and his reply was that there was no difference in the racter of the pain, but, if anything, the arm pain was the st. Sometimes the pain was very severe up the left side he neck and behind the left ear. Under treatment he ned to make considerable improvement. During January se attacks again came on. During some of the attacks the pain so agonizing that he felt he was dying, and wished to die. pain was equally severe in chest and arm, and saliva etimes dribbled from his mouth. On February 12th the t exertion was sufficient to induce a severe attack of pain, from 3 p.m. till 7 p.m. he was scarcely free, and ultimately me unconscious. When I saw him next day he was having ther series of attacks. He was keeping his left arm very , and helping himself to food entirely with his right hand. told me he dare not move his left arm, as even the act of ng the left hand to his mouth was sufficient to induce an ck. His pulse was extremely soft and weak. His blood sure had fallen to 95 mm. Hg. During the following night had another series of attacks, became unconscious, and red.

omit many details in this case on purpose to empha- the regions in which the pain was felt in a case of the t severe form of angina pectoris. It seems to me that other explanation save that of the viscero-sensory x can satisfactorily account for the pains in this case, to attempt to distinguish the chest pain as a heart and the pain in the arm as a referred pain would be trary, illogical, and opposed to the evidence. The ation of the pain from the hand to the chest was tically of the same nature as the more common radia- of the pain from the chest to the hand. The in the neck and behind the ear on the same hypo- is would be induced by the stimulus passing from the t by the vagus, a view that would also explain the eased flow of saliva during some of the attacks— ts to which I shall afterwards revert.

ne two following observations of attacks of angina oris which I witnessed, illustrate true heart pains of most severe type at places remote from the heart.

servation 5.—Male, aged 14, suffering from adhesive astinitis, with enormous enlargement of the heart; seen Dr. Agnew. The patient lay propped up in bed. As gently testing the sensibility of the skin outside and r the left nipple the patient was suddenly seized with ttack of severe pain. He gave a great sob and leant ard with his left upper arm across his chest and his hand pressing it gently. He rocked backwards and ards with deep sobs while tears streamed down his ks. His pulse became very soft and his face pale, with s of perspiration on his forehead. In a few minutes the subsided and he lay back exhausted. Afterwards he that, on my touching a certain spot, a pain shot from hest into his arm, and during the whole time the awful pain remained in his arm—and he put his hand over the fleshy part of the upper arm. Dr. Agnew told me he had given up examining him because on a few occasions, on applying the stethoscope, attacks similar to those I witnessed were induced.

Observation 6.—Female, aged 60, complained of pain of agonizing severity limited to the ulnar border of the left forearm. Coming to see me one day she hurried to catch the train, and when she reached my consulting-room she sat down. In a few minutes the pain seized her and she took up her left arm and nursed it across her breast with evidences of great suffering. The pain subsided in a few minutes and she said she felt as if she would have died. The pain was felt nowhere but in the left forearm. Three months afterwards the patient died from heart failure. At the *post-mortem* examination there was found marked atheroma and calcification of the coronary arteries and extensive chronic fibrous myocarditis.

In this last case the pain was doubtless limited to the highest sensory nerve centre (first dorsal) whose fibres are associated with the sympathetic supply of the heart.

Evidences of the Viscero-motor Reflex.

So far I have dealt with the viscero-sensory reflex, and no less striking evidence can be found of the viscero-motor reflex among the group of symptoms included in the term "angina pectoris. Some would limit the term "angina pectoris" to that class of cases where, in addition to the pain, there is a sense of contraction in the chest, amounting to the sensation at times as if the chest were gripped in a vice, or as if the breast bone would break. I am convinced that these sensations arise from spasm of the intercostal muscles, and correspond to the hard contraction of the flat abdominal muscles in affections of the abdominal viscera. If one watch a case of what is called "muscular rheumatism," where the intercostal muscles are affected, and where these muscles are stimulated by the slightest movement to violent cramp-like contractions, one cannot but be struck by the resemblance to the description given by the "gripping" sensation experienced by patients suffering from certain affections of the heart. I have watched the attacks in such cases, and could find no difference between them and those where the sense of contraction was the chief symptom in heart disease.

The viscero-motor reflex may be present alone, or, as is more commonly the case, it may be associated with the pain. The purely viscero-motor reflex is seen best in the elderly, where it may be considered as a symptom of one form of the terminal affections of the heart due to arteriosclerosis or old age. I have found it a precursor of steadily-advancing cardiac weakness, and although for a time considerable relief may be afforded, the changes in the heart are so advanced that in the nature of things only one end can be looked for. The three following observations illustrate this view:

Observation 7.—Male, aged 82, with large tortuous arteries, was seized while walking with a sense of constriction across the chest that compelled him to stand still. These attacks became so frequent and so severe that he could scarcely walk 50 yards before he had to stop and lean against the wall. He described the sensation as one not of pain, but as if somebody gripped the upper part of the chest with a strong hand. With rest and suitable treatment these attacks gradually disappeared. Three months after the heart suddenly became irregular (ventricular rhythm), dropsy set in, and he died after seven weeks of heart failure.

Observation 8.—Male, aged 74, had suffered for several years from attacks of intermittent high blood pressure. Latterly these attacks were accompanied by a feeling of tightness across the chest when he walked. This sense of constriction disappeared after a course of iodide of potassium. During one of these periods he suddenly died while reading his newspaper after breakfast.

Observation 9.—Female, aged 78. Two years before her death she experienced attacks of breathlessness with a sensation of constriction across the chest. This feeling of tightness was so readily set up that she was obliged to stay in bed. The attacks disappeared but recurred again shortly before her death. These latter attacks were accompanied by slight precordial pain. She became gradually weaker and died. At the *post-mortem* examination the coronary arteries were markedly thickened, with calcareous patches in their walls.

The following recent experience illustrates the fact that the viscero-motor reflex is a symptom distinct from the pain.

Observation 10.—Male, aged 48, consulted me on November 25th, 1905, for a pain he felt across the middle of his chest. He had felt a slight pain here for some months on walking up a hill. He is a master builder, and on this day while watching his men at work, feeling cold, he started to help them dig up some earth to make himself warm. He did this for a quarter of an hour with a good deal of energy. He then examined several partially-built houses, running up and down a good many steps. On his way home he became conscious of this pain, and as it continued to increase in severity he called on me. I examined him carefully, and found a slight dilatation of the heart with an impure first sound. The blood pressure was 130 mm. Hg. On his way home the pain increased in severity, and after he reached home it became very violent, and my colleague saw him and prescribed opium, which relieved him. When I saw him next morning he gave a graphic account of his sufferings. He said: "In the tram coming home the pain got worse, and after getting home it became so severe that I felt I was going to die. The pain spread from my chest down my left arm to my little finger. You asked me, when I saw you yesterday, if I felt any gripping sensation, and I did not know what you meant; but, by George, I know now. When the pain was at its worst, I felt my chest suddenly seized as if in a vice, and I rolled on the floor in agony. The pain and the gripping eased off for a time and then came on again. This continued till I got the morphine. This morning I awoke all right, but at 10.30 that gripping sensation came on and held me tight for ten minutes. I dare not move for fear the awful pain should come, and I felt every moment that it was about to come, and I was in such terror of it that the sweat poured off me."

With rest and treatment these attacks got less, till now he only feels a slight pain when he over-exerts himself.

So far the symptoms I have dealt with have been mainly concerned with the reflexes connected with the sympathetic nerve supply. Equally instructive though less frequent symptoms can be shown to arise from stimulation of the vagus. At its centre in the medulla this nerve is in near relationship to the upper cervical nerves, and it would seem more particularly the sensory nerves supplying the sterno-mastoid and trapezius muscles. Not only can these muscles become extremely tender in various heart affections (see Observations 1 and 2), but the pain from heart affection may be felt in the region of distribution of the cervical nerves, as noted in Observation 4. The following observations also show the same thing.

Observation 11.—A man aged 62 years complained of great pain striking into his chest and behind his ears when walking. Thus in going to his work he was wont to allow seven or eight minutes to walk to the station, but now it took him over half an hour, as he had to stop on account of the pain every fifty yards. After accurately noting the pain, he described it as arising in the left breast, extending across to the right breast, seizing him in the neck, and extending up behind the ears, where it held him with great severity. In showing me the situation, he laid the fingers of both hands over the insertion of the sterno-mastoid into the mastoid process. On one occasion the pain extended from the breasts to the armpits and down the side of each arm to the elbow.

This patient dropped dead while at his work, and on *post-mortem* examination I found extreme calcareous degeneration of the coronary arteries.

Other Reflexes occurring during an Attack of Angina Pectoris.

Other very striking phenomena are sometimes met with during an attack of angina pectoris. During or after an attack an abundant flow of saliva and the secretion of large quantities of pale urine may occur; both symptoms I suggest are due to reflex stimulation of the floor of the fourth ventricle (see Observations 3 and 4).

Observation 12.—A man, aged 58 years, of gouty diathesis, complained of pain, induced often by the slightest exertion, which arose in the left breast, passed up the armpit, and extended down the inner surface of the left arm to the little finger. During an attack an abundant flow of saliva took place into the left side of the mouth. These attacks became so frequent that he could only walk a very short distance without inducing an attack. He dropped dead while sitting at his desk, and at the *post-mortem* examination I found that the heart had ruptured and the coronary artery was very atheromatous. Where the rupture had taken place the myocardia had nearly disappeared.

Observation 13.—Male, aged 46, whose work (a tackler) entailed periods of great muscular exertion, complained of pain striking into the chest when walking up a hill. If he stops as soon as he feels the pain coming on it passes off, but if he persists the pain increases to an agonizing severity and radiates into both arms, but worst into the left, as far down as the little finger. At the same time the chest is gripped so that he is forced to straighten himself and to breathe deeply, and at the same time his mouth fills with saliva and an aching pain is felt in the throat. A few minutes after each attack he has to pass urine, which is always abundant and very clear. These details I had from him after he had carefully noted a number of attacks.

Summation of Stimuli as a Cause of Angina Pectoris.

The fundamental functions of the heart muscl correspond to those of other involuntary muscles tha form the walls of hollow organs; these functions bein modified to suit its special work. Like the other viscera the heart is insensitive when stimulated in a manner tha provokes pain when applied to the tissues of the externa body wall. I have pointed out that a prolonged strong contraction of a hollow organ can produce pain, and that this is undoubtedly the cause of the severe pain of renal gal stone and bowel colic. Can the heart give rise to pain i a similar manner? On account of the modification of it functions the heart cannot pass into a prolonged state o contraction. Immediately it contracts the function o contractility is at once abolished, and the muscle passes at once into a state of relaxation, and for this reason th pain cannot be produced by a "spasm of the heart." Bu I suggest that the heart muscle may produce pai when it is confronted with work greater than what i can readily overcome—a cause which produces stron peristalsis and pain in other hollow viscera. But the pai in the heart arises by a slightly different mechanism. skeletal muscle will contract if a stimulus of sufficien strength be applied to its nerve. If the stimulus is to weak no contraction follows, but if this weak stimulus b frequently and rapidly repeated then the muscle contract in accordance with the law of the summation of stimuli I suggest that the heart muscle induces pain on the principle of the summation of stimuli. If we study such case as is recorded in Observation 10 the pain wa manifestly due to the man's unwonted exertion, but i did not attain its maximum severity till a coupl of hours after the strain had been put on the heart I could quote a large number of parallel instances, bu for lack of space must be content here with throwing ou the suggestion. I may say, however, that I submitte this view to Professor Sherrington, who replied that h thought my argument exactly right, and suggested severa other cogent reasons in its support.

Presidential Address

ON

THE PAST, PRESENT, AND FUTURE OF TH BRITISH MEDICAL ASSOCIATION.

DELIVERED AT THE ANNUAL MEETING OF THE
METROPOLITAN COUNTIES BRANCH.

BY **HUGH R. KER**, F.R.C.S.EDIN.,

PRESIDENT OF THE BRANCH.

THE first pleasing duty I have to perform on taking th chair is to thank you most sincerely for the great honou you have conferred upon me by electing me as you President. I can assure you I thoroughly appreciate th distinction; and though I feel how impossible it is for m to hope to compare favourably with my eminent pr decessors, I gladly promise, trusting to your indulgence t overlook my shortcomings, that I will do my best t sustain the credit and high position of this Branch and t promote the interests of the great Association of which forms so important a part.

I found it a most difficult task to select a subje suitable for my address to you, and I must ask you forgiveness if I succeed in bringing before you little th is fresh, and have again to traverse the paths which ha been trod by many of my predecessors. After muc thought and many doubts, I have taken for the title my address, The Past, Present, and Future of the Britis Medical Association.

I did not know this title had ever been taken befor until I was looking up the records of former addresse and found that it was the subject of Sir R. Quain's addre in 1873.

On making this discovery I was at first inclined choose another subject, but on second thoughts it seeme to me it would not be inopportune, considering the va changes which have taken place in the position and co stitution of the Association in the last thirty years, review our position both past and present, and see if w an derive some lessons which may be of use to us in ealing with the future of the Association.

Mr. Clark, our late President, in his excellent address of st year, very ably reviewed the work of the Association relation to its advancement of science, and has left me ttle or nothing to add upon that side of the work of the ssociation.

I shall therefore devote myself almost entirely to e medico-political and business side of the subject.

I am anxious, if possible, to find out how it is that the ssociation has so far failed to attract the bulk of general ractitioners; and that, whilst the consultants are proortionately well represented, the general practitioner is, eaking broadly, "conspicuous by his absence" in nything like proportionate numbers.

Before, however, attempting any solution of this roblem, or suggesting any means of remedying the evil, think it will be convenient to review some of the leading atures in the history of the Association from its formaon to the present time.

As you all know, the Association was founded by Sir harles Hastings at Worcester in 1832 as the "Provincial edical and Surgical Association," and in his first address enumerated the objects of the Association as being:

1. The collection of useful information, whether speculative practical, through original essays or reports of provincial spitals, infirmaries, or of private practice.
2. Increase of knowledge of the medical topography of ngland through statistical, meteorological, geological, and tanical inquiries.
3. Investigation of the modifications of endemic and epidemic seases in different situations and at various periods, so as to ace, as far as the present imperfect state of the art will rmit, their connexions with peculiarities of soil or climate, with the localities, habits, and occupations of the people.
4. Advancement of medico-legal science through succinct ports of whatever cases may occur in provincial courts of dicature.
5. Maintenance of the honour and respectability of the prossion generally in the provinces by promoting friendly interurse and free communication of its members, and by tablishing among them the harmony and good feeling which ght ever to characterize a liberal profession.

For a period of over thirty years Sir Charles Hastings President of the Council had the happiness of witnessg the realization of his hopes in the steadily-increasing mber of its members, and the achievement of many of e objects of the Association.

The Association at its foundation numbered 140 memrs, which increased during Sir Charles Hastings's lifene to between 2,000 and 3,000. Thirty-three years ago, en Sir Richard Quain was President of this Branch, the mber of members had increased to 5,400 and were inasing at the rate of 600 per annum.

In 1883 the number was 10,500.
" 1893 " " 14,703.
" 1903 " " 18,189.
" 1905 " " 19,582.

When the Association came of age in 1853 it was though at its powers and scope should be extended and an ended constitution was adopted. The title was altered "The British Medical Association." The Council was de strictly representative, the members being elected the Branches in the proportion of one member of uncil to every twenty members, together with the norary secretary of every Branch *ex officio*.

Again in 1882 there was a further modification of the nstitution, chiefly for the purpose of making the repretation of the Branches on the executive more direct. 1902 the present constitution was adopted, and appears promise a great increase of strength and power to the sociation.

In multiplying the centres of work by dividing the anches into Divisions the influence of the Association ould be vastly increased, and by bringing its work into eration at the doors of the general practitioners, should luce them to take more interest in its doings.

Of the achievements of the Association in the promotion d advancement of science I think we may well be proud, t your late President, Mr. Andrew Clark, entered so ly and ably into this subject, both past, present, and ure, that it would be only wearying you all to go over s ground again.

Financially, the Association has prospered beyond all pectations. For many years all that was attained was a balancing of accounts; then followed an actual period of deficits from 1870 to 1874, when, thanks mainly to the efforts of the late Secretary, Mr. Francis Fowke, the deficiency was turned into a credit balance of £500. From that period up to the present time we have had a steadily-increasing surplus each year, and the Executive have continued to invest moneys thus saved until the income at the present time from that source alone amounts to over £1,000 a year, and the total income to £51,000 a year. The surplus for the year ending December 31st, 1904, was over £5,000.

In 1879 the British Medical Journal was first printed by the Association, and premises were taken in the Strand; but in 1887 the work of the Association had so much increased that the present premises were bought. The work still goes on increasing, and we have outgrown our present premises. Your Executive have arranged for the pulling down of the now existing buildings and erecting more commodious premises on the present site.

By the appointment of various Committees—namely, the Medico-Political, the Medico-Ethical, Colonial, Hospitals, Royal Naval and Military, Medical Defence, and Scottish Committees—the interests of the whole profession are well looked after. All this work is now admirably organized by Mr. Whitaker, our very able paid Medical Secretary.

It would simply weary you if I reviewed the admirable work done by these various Committees, as all this is well set out in the *Year Book*, which is supplied to each member of the Association. With all these great advantages to the members, less than half the medical men within the area of the Metropolitan Counties Branch are members of the Association. This deficiency appears to be chiefly among the ranks of the general practitioners.

I believe the chief cause of this unwillingness of the general practitioner to join our ranks is due to apathy and a want of appreciation of the benefits which the Association affords to its members. Much may be done for the furtherance of its interests by the various Divisions bringing the Association more in touch with the general practitioners in their respective neighbourhoods. Each Division may very well look after the local interests of the profession, and show how powerful and willing the Association is to help its members and protect their interests where needed.

In confirmation of this, I would remind you of the material aid which has been given of late in getting satisfactory settlements in contract disputes in various parts of the country, and, in times past, in obtaining improvement in medical departments of the Army and Navy Services. As you know, also, much is at present being done in trying to bring about reform in the general hospitals' out-patient departments and the removal of abuses which at present press so hardly upon many practitioners.

Again, Divisions may bring about a more friendly feeling between local practitioners by developing a social side through such means as smoking concerts and occasional dinners, as well as by providing for the reading of interesting papers. In this way much might be done to produce more unity and good-fellowship in the profession, the lack of which is at present one of our weakest points. In this way the general practitioner may be induced to see the great advantage of membership, and then I feel sure it will become the exception to find a medical man who is *not* a member of the Association.

Of the future success of the Association I have no doubt, and whilst I hope it will ever keep its primary objects in view, I trust we shall not stand still or rest content until everything has been done that is possible for the benefit and wellbeing of its members. The Royal Charter, if granted, will enable the Association to undertake much which is impossible under the Company's Act.

One other point, I think, ought to be seriously considered, and that is, how to increase our influence in Parliament. I am sure you will agree with me that as a profession we should be more largely represented in the House of Commons, but whether the Association should give support to a given number of candidates is a matter for the members as a whole to decide. For the present your Representatives have decided against the proposition, but the subject is sure to be considered again in the future. In the meantime much can be done in the

Divisions by supporting candidates who are pledged to vote for approved medical Bills.

The great weakness in the medical profession in the past has been its want of unity. The Association offers the best solution of this difficulty, and if only made use of would materially improve the position of the profession. The Association has to a great extent realized the objects of its founder, but there is no reason why we should stand still and not endeavour to further develop its immense possibilities. There is much yet to be done in completing its organization and co-ordinating its work.

It cannot be too often impressed upon each member that he can by means of his own Division bring forward any subject for discussion which he thinks of interest or for the benefit of the Association; and he may rest assured of careful consideration, and should his suggestion be considered of importance, the Division would refer it to the next meeting of Representatives.

We as a profession are too fond of finding fault with one another instead of uniting for one common good. Of us, too, it might be said:

> In other men we faults can spy,
> And blame the mote that dims their eye;
> Each little speck and blemish find,
> To our own stronger errors blind.

In matters of importance affecting the profession we too frequently fail to present a united front, and the public, not slow in perceiving this, take full advantage of it. Might we not take to heart the old rhyme of our childish days?

> Birds in their little nests agree,
> And 'tis a shameful sight
> When children of one family
> Fall out, and chide, and fight.

If we only complete and consolidate our organization, the Association has a grand future in store for it, both by increasing its scientific work and by improving the social position of its members in particular and the profession in general.

In conclusion, allow me to quote those lines of Longfellow's which, though hackneyed, have yet a lesson for all time:

> The shades of night were falling fast,
> As through an Alpine village passed
> A youth who bore, 'mid snow and ice,
> A banner with the strange device,
> Excelsior!

May we not take this device for our motto, and not rest content with our Association as we find it now, but, in our time push forward and try to hand it down to our successors a more useful and a more powerful organization for the good of the profession and the public.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL.

PULMONARY EMBOLISM.

THE following case is interesting because of the rarity of recovery:

M. A., aged 36, was confined on February 3rd, 1905, of her fourth child. The labour was natural, and there were no complications. Her mother and sister had both suffered from phlegmasia dolens. The patient went on well, but on the ninth day she complained of pain in the left leg, and a diagnosis of phlegmasia dolens was made. Complete rest and a flannel bandage were ordered.

On March 16th pleuritic friction sounds were heard at the base of the right lung, and she was removed to the South Wimbledon Cottage Hospital on a hand ambulance. She bore the journey well, and there were no untoward symptoms till March 20th. The temperature was being taken by the mouth, when the thermometer dropped out, and she fell back on her pillow; she was deeply cyanosed, the radial pulse could not be felt, and the heart was beating 160 to the minute; the pupils were widely dilated, and there was the look of impending death on her face. Liquor strychninae ♏ v was injected and nitrite of amyl given by inhalation, followed by ether and digitalin injections, and oxygen gas. She gradually recovered from the attack, but on March 22nd developed phlegmasia dolens in the right leg, followed, on March 28th, by pleurisy on the left side. She left the hospital on April 21st, and soon afterwards went to the seaside to recruit. On March 20th she was ordered: Tr. strophanthi ʒj, sp. am. arom. ʒiij, liq. cardam. co. ℥j, sol. nitroglycerine ♏vj (1 per cent.)—℥ss every four hours. On March 24th this was changed to the following, with the hope of absorbing the errant clot: Pot. iod. ℈ij, tr. stroph. ʒj, tr. digit. ʒij, sp. chlorof. ʒiij, tr. nucis vom. ʒij, liq. cardam. co. ℥j, aq. ad ℥vj—℥ss ter die; and on April 18th this was changed to pot. iod. ℈ij, inf. gent. co. ℥j, tr. nucis vom. ʒij, tr. digit ʒij, aq. chlorof. ad ℥vj—℥ss ter die. She had full milk diet, with custard puddings.

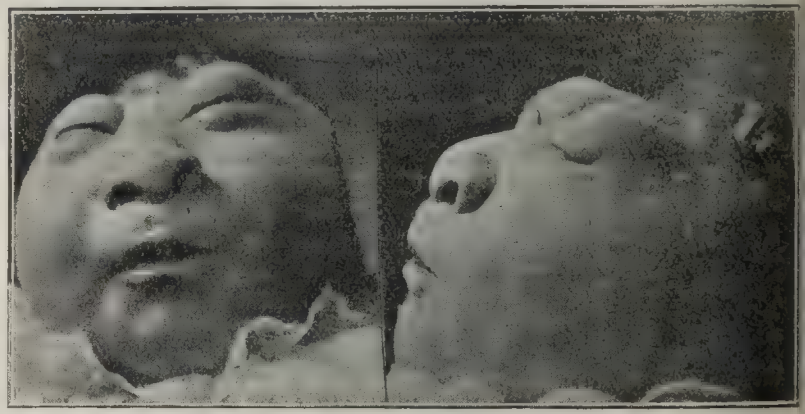
Wimbledon. GEORGE WALKER.

AN ANENCEPHALOUS MONSTER.

THE annexed photographs show an anencephalous infant of which I lately delivered a woman; it survived its birth for forty-eight hours.

The apparent prominence of the eyes, due to absence of the frontal and parietal bones, the shortness of the neck and upward direction of the head—characteristics of this form of monstrosity—can all be seen.

The cranial bones could readily be felt to come to an abrupt termination, at the sides and posteriorly, in the upper margins of the temporal and occipital bones. The vertex was covered in with the hairy scalp except in the middle line, where an irregular mass of brain matter protruded through it. This was red and glistening, and bled readily when touched. Slight pressure on it during life set up regular rhythmical movements of the head, body, and limbs. There was a constant escape in small quantities of cerebro-spinal fluid.



The only other malformation discovered was absence of any urethra. Otherwise the child, a male, was particularly well nourished and developed in body and limbs, weighing 7 lb. and measuring 20 in. in length. It uttered no sound when it cried—a mere detail perhaps, but one which added greatly to its uncanny, rather cat-like appearance. It could swallow milk from a spoon. The mother, a primipara, was an anaemic girl, aged 19, of the working classes. There was no history of maternal impression. Labour was quite natural. The presenting part was not, as in the majority of these cases, the face, but the vertex, and this, with the protruding brain, gave me the impression that I was dealing with a face presentation. Pressure with the finger on the child's brain-protrusion, while in utero, caused violent kicks, which were not less perceptible to the mother than to my hand on the abdomen.

This child appears to have lived longer than the majority of such cases, judging by a list of 17 given in Gould and Pyle's *Anomalies and Curiosities of Medicine*. The longest time there recorded is eight days. Had this child possessed a urethra, there appeared no reason why it should not have survived much longer than two days.

Penzance. E. C. EDWARDS, M.D.

DERMATOLOGICAL CONGRESS.—The German Dermatological Society will hold its ninth Congress at Berne on September 12th and two following days. Professor A. Neisser will deliver an address on the present state of the experimental investigation of syphilis, and Professor E. Hoffmann will give one on the state of our knowledge as to the etiology of the disease.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

J. Warrington Haward, F.R.C.S., President, in the Chair.

Tuesday, June 26th, 1906.

Appendicitis and Gangrene of the Appendix as Separate Diseases.

Mr. J. D. Malcolm communicated this paper, the object of which was to show that in a number of cases of mischief connected with the vermiform appendix the initial esion was the formation of a gangrenous patch in the wall of that part of the intestine; it was a condition which was frequently associated with an appendicitis beginning n the mucous membrane but it might arise independently. Cases were related and statistics quoted showing that in a series of cases in which death was due to acute disease of the vermiform appendix, nearly one-hird had perforations of its wall without any evidence of an attempt to localize the mischief by adhesions. As to treatment, it was fairly safe to watch those cases in which nflammation of the appendix began in its mucous membrane; but it was impossible to operate too early in cases of gangrene, or in those complicated by gangrene.

Mr. Alban Doran referred to the causes of gangrene of he appendix, especially to vascular obstruction in the meso-appendix, quoting a case. In this case collections of at were present in the meso-appendix, which were attributed to defective nutrition and connected with arterial blocking.

Mr. C. B. Lockwood thought that at least 85 per cent. of he cases of appendicitis began in the mucous membrane. As to the assumed variety that began in the peritoneum, trong evidence would be required that no ulcerations were present. It was probable that infective bacteria found their way from the lumen of the appendix through such superficial ulceration, and these might give rise to the gangrene. He could not recognize a spontaneous gangrene. Rising pulse-rate, temperature, and leucocytosis were indicaions of the earlier stages of appendicitis that might be etected.

Mr. A. Baldwin referred to the occurrence of gangrene f both ends of the intestine after an end-to-end anastomosis and compared this with cases of gangrenous ppendix, attributing both to bacteria.

Mr. Malcolm replied.

ubmucous Excision of Deviations and Spurs of the Nasal Septum.

Dr. StClair Thomson read a paper in which he escribed this operation, quoting 30 cases. The design of he operation was to excise all obstructing cartilage and one, with any projecting spurs or ledges, while preserving ntact the mucous membrane on each side. The results, both immediate and remote, were all that could be esired, for the resiliency of the deformity was entirely vercome, the obstructing outgrowth could never reform, he patency secured exceeded that obtainable by any ther proceeding, scabbing or crusting of discharge was voided, and the preservation of the mucosa on each side ecured rapid return to a normal condition.

Dr. Scanes Spicer, Dr. Dundas Grant, and Dr. Leonard Williams discussed the paper, and Dr. StClair Thomson eplied.

Otological Society of the United Kingdom.—The xtra-metropolitan meeting took place on June 23rd in the edical Department of the University of Leeds, under the hairmanship of the President, Mr. Cumberbatch. umerous cases and specimens of interest were shown by essrs. Secker Walker and Whitehead (Leeds), and apers were read by Professor Miall, Messrs. Whitehead, ordon, Cameron, and Milligan.—Dr. Gordon advoated the performance of the radical mastoid operation arly in scarlatinal otitis, and urged the appointment to very fever hospital of a consulting otologist.—By a ntern demonstration of microscopic preparations, Dr. ameron showed that there was a direct anatomical connuity of the auditory sense epithelium with the auditory uclei in the lower vertebrates, and that nuclei curred throughout the course of the auditory nerve.—An important and valuable note was struck by Dr. Milligan in a paper on the influence of pregnancy and parturition upon certain forms of progressive deafness. The effect of childbearing upon women suffering from deafness, especially those who possessed any family history of aural disease, was, he said, frequently disastrous, and the otologist often had to give an opinion as to the advisability of marriage in such cases. In the discussion that followed Mr. Yearsley pointed out that it was rather the period immediately following parturition that was to blame, and suggested a line of investigation into the matter by means of blood counts. The Society was afterwards entertained at a luncheon at the Queen's Hotel by Messrs. Secker Walker, Whitehead, and Michael Teale.

Kidderminster Medical Society.—At a meeting on June 15th, Dr. Evans, President, being in the chair, Mr. Stretton showed a case of appendicostomy. The patient was able to irrigate herself quite comfortably and efficiently, greatly to the relief of her late chronic colitis. —Dr. Bertram Addenbrooke read notes on a case of pseudo-hypertrophic muscular atrophy, and one of idiopathic muscular atrophy, the latter patient being shown.—Dr. Wilson-Smith read notes and showed the liver and spleen of a baby, aged 17 months, which had had symptoms pointing to lymphatic leukaemia; a microscopic report on the case showed, however, that the condition was due to congenital syphilis.

REVIEWS.

THE EXPRESSION OF THE EMOTIONS IN DISEASE.

The preponderating importance of emotion, using the term in its psychological meaning of feeling or affection as contrasted with sensation, and including within it all affective states, in the composition of character and the multitudinous expressions of human personality in conduct, has long been recognized in normal psychology, but the dominating influence of affective states in the clinical pictures presented by the insane is not so generally admitted. Doubtless the confused state of our knowledge and the opposing tenets of many widely-quoted authorities as to the nature of affectivity have helped to obscure the truth, so greatly in fact that, to take only one example, according to the strict letter of the law of England, *knowledge* of the nature and quality of an act is still the sole criterion of responsibility. That there should be this obscurity, however, springs, in the very nature of things, from the recondite quality of the emotions. The sweep of the intelligence, the richness of memorial images and their power of voluntary recall, and the range, intensity, and duration of sensorial impressions, are all more or less within the limits of calculation and, in some directions, of mathematical statement; but affective reactions are so multitudinous, so elusive, so susceptible of concealment, and, as Wundt has shown, so inaccessible to observation, that their scientific investigation and classification from objective data is a matter of the greatest difficulty. In normal psychology the old intellectualistic views by which the feelings were regarded as "confused intelligence" still persist in opposition to the physiological or biological doctrines of James, Lange, Maudsley, Mercier, Ribot, and others. Now, it is precisely on such controversial questions as these that careful observation of the expressions of the emotions in morbid disintegrations or alterations of the personality in the insane, hysterical, and neurasthenic is likely to shed much light. In this field, Janet, Freud, Loewenfeld, and others have done distinguished work, and to these names must be added that of Professor Bleuler of Zurich, whose small book on affectivity, suggestibility, and paranoia[1] has lately appeared.

The book opens with a careful analysis of affectivity, in the course of which the author shows that not only in common parlance but also in psychological works certain centripetal processes, sensations and perceptions (for example, sensations of warmth, etc.), intracentral perceptive processes (feeling of certainty; of probability; of sadness; *sentiment de cécité*), and indefinite or confused intelligence (unklare Erkenntnis), are frequently classed as "feeling," whereas they are in his opinion entirely intellectual in nature, differing *toto coelo* from affectivity. He is, however, careful to state that the separation of emotional from intellectual processes is a purely arbitrary though useful abstraction, every intellectual operation having its emotional complement in greater or less degree. Whilst this is true, affectivity when excited manifests a certain independence or autonomy, may be irradiated over the whole psychic field, and persists much longer than the exciting experience. The connexion between this last observation and the commonly witnessed accumulation to exploding point of a succession of minor emotions is obvious. Attention, regarded by the author as merely one phase of affectivity, and suggestibility, which is described as identical with affectivity both in origin and action, are carefully analysed, and the part played by affective states in the production of clinical types considered. That this is the chief part the author has no doubt whatever. In the same way that with the sane "affectivity generalizes the reaction to isolated sensory impressions over the whole body and mind, pushing opposing tendencies out of the way, and decides the range and force of the reaction," so in the insane it dominates the whole clinical picture. Even in the organic psychoses, he maintains, the emotions are not, as is commonly affirmed, obliterated, but are only latent, their apparent effacement depending entirely on the loss of exciting intellectual elements. Similarly, in epileptics and alcoholics the emotions persist but are extraordinarily labile, resulting in the latter case in what he graphically calls an "emotional incontinence."

---

[1] *Affektivität, Suggestibilität, Paranoia.* Von Professor E. Bleuler, Univ. Zürich. Halle a S.: Carl Marhold. 1906. (Demy 8vo, pp. 144. M.3.)

Turning to the question of the fundamental mechanism in paranoia Professor Bleuler is, on the other hand, opposed to those who refer the various delusions of persecution or of grandeur, the striking egotism or ego-centric character, and the pathognomonic morbid suspicion of paranoiacs to an abnormal affective constitution, but he regards them as intellectually determined, differing from the mistakes of the sane only by reason of their incorrigibility. This incorrigibility, however, is the very *crux criticorum;* and though Professor Bleuler states that the ego-centric character, for example, is due to "the circumstance that in the foreground of his mind there is continually present an affectively-accentuated idea complex," the reason of this is still to seek, at any rate according to Professor Bleuler's theory, and is to be found, we suspect, in most cases in the affective character. We say in most cases because it may very well be that, as Professor Bleuler hints, cases essentially different are at present included within the category of paranoia. Doubtless the various factors which he instances as likely to induce the incorrigible frame of mind, anatomical, chemical, or "functional" conditions, or the fact of a "*Riss im Leben*" play their part; but this is, we believe, because they find in the affective character their point of application. The whole question is encompassed with difficulties, but Professor Bleuler's masterly exposition of an exceedingly intricate subject will commend itself to all readers.

THE BLOOD.

UNDER the title of *The Morphology of Normal and Pathological Blood*,[2] Dr. BUCKMASTER has published in volume form a course of lectures which he delivered at the Physiological Institute of London University. We have a word of fault to find with the title. Dr. Buckmaster by no means restricts himself to considerations of morphology. He also discusses oxygen capacity, the action of haemolysins, the guaiacum and other chemical tests for blood, the biological differentiation of bloods by means of the precipitin test, and a variety of other subjects which we do not expect to find treated in a work described as concerned with morphology. The author gives us an interesting account of an investigation into the question of polycythaemia at high altitudes which he conducted in the Alps in conjunction with Mr. Dent and Dr. Slater. They found that the polycythaemia of high levels is an indisputable fact, and cannot be explained away as being due to erroneous methods of observation. This condition is rapidly established. At a height of 6,000 ft. signs of an increase both of haemoglobin and corpuscles can be detected within twenty-four hours, and with slight fluctuations the increase is progressive for some weeks. The number of corpuscles may reach 7 or 8 million per c.mm. At a height of 14,000 ft. no increased polycythaemia was observed, even after four days' residence at that level, and the authors are inclined to believe that at an altitude of from 6,000 to 8,000 ft. the maximum increase is obtainable. The increase in haemoglobin was found to be proportionate to the increase in corpuscles. Examination of many hundreds of blood films made at high levels showed neither normoblasts nor microcytes nor any other features indicating an excessive activity of bone marrow. Return to a lower level was followed within from twelve to thirty-six hours by a distinct fall both in the haemoglobin percentage and in the number of corpuscles. Dr. Buckmaster has devoted special attention to the vexed question of the origin and nature of blood platelets. From his own researches he concludes that normal living blood contains either no platelets at all or extremely few. These bodies separate from the plasma, partly by contact with foreign bodies and partly on account of a lowering of the temperature after the blood is withdrawn. He obtained his most satisfactory results by examining blood-films on loops of thin platinum wire, care being taken not to allow the loop to touch the skin nor to sweep it violently through the drop of blood. When these films were carefully examined in a moist chamber under a $\frac{1}{6}$ in. objective no platelets were to be found. The addition to blood of so-called fixing and indifferent fluids does not, in Dr. Buckmaster's opinion, preserve platelets normally present, but produces them in enormous quantities. In discussing the clinical pathology of the blood Dr. Buckmaster protests against the excessive importance which is often attached to counts of red corpuscles, to the neglect of more instructive methods of investigation. As an example he quotes the application by Lorrain Smith of the carbon monoxide method of estimating the quantity of the blood in the body in various diseases; thanks to this method of investigation it is now known that in chlorosis the volume of the blood is always augmented in proportion to the severity of the disease, and in other forms of anaemia it has been shown that the blood count alone cannot be regarded as giving reliable information. Both to physiologists and to pathologists Dr. Buckmaster's book may be recommended as a detailed and very careful study of some of the more modern methods of blood investigation.

CUNNINGHAM'S "ANATOMY."

IT is little more than three years since the *Textbook of Anatomy*,[3] edited by Professor CUNNINGHAM, was first published, and those who knew the requirements of medical students prophesied the success of the book from the moment of its appearance. It was obviously written not as a dictionary of anatomy but as a textbook, and written by teachers who were still in sympathy with students, and thoroughly understood their difficulties and necessities. But although the writers kept the requirements of medical students definitely in mind, and did not insert in their articles anything which could be considered as of no practical importance, nevertheless they contrived to produce a thoroughly scientific book, not only adapted to meet all the wants of students so far as normal human anatomy is concerned, but one which, by its constant references to development and morphology, would also broaden its readers' outlook and enable them to understand and to appreciate the significance of the many abnormalities and variations which they must meet in the course of their professional lives. It is not surprising, therefore, that a second edition has so soon been called for, and this, like the first edition, certainly contains much detail, but none which is unessential for the student who would thoroughly understand the nature and possibilities of the organism with which he is going to deal. The book as it now stands is not very appreciably larger than when it first appeared, but it has been brought thoroughly up to date. The section on general embryology, with which the book opens, still remains compact and clear, and the chief alterations we note in it are those necessitated by the advance in owledge of the details of the maturation of the rminal elements and their significance, and slight anges in the account of placental formation due to eters's discovery of a very young human ovum in state of good preservation.

---

[2] *The Morphology of Normal and Pathological Blood*. By George A. Buckmaster, D.M. (Oxon.) London: John Murray. 1905. (Demy 8vo, pp. 244. 10s. 6d.)

[3] *Textbook of Anatomy*. Edited by D. J. Cunningham, F.R.S. Second edition. Edinburgh and London: Young J. Pentland. 1906. (Royal 8vo, pp. 388. 936 illustrations.)

The section on osteology has been improved by the moval of the disfiguring lines, indicating muscular tachments, which marred the excellence of many of the iginal drawings in the first edition, and by the addition reproductions of radiographs showing the ossification the hand and foot bones. Many of the necessary details muscular attachments have been shown in a new series figures introduced in the section on myology, but this portant part of a textbook is still incomplete. Colours ve been used more extensively even than in the first ition, and with especially good results in the sections myology and arthrology. The account of the lymphatic stem has been largely rewritten, and is now based, parently, on the more recent researches of Poirier, ost, and Gerota.

In the majority of the sections new figures have been ded, and the text has been carefully revised. The thorship of the sections remains as in the first edition, cept that, unfortunately, Professor Birmingham died fore he had completed the revision of the digestive stem, and such slight changes as were necessary in that ction have been made by the editor.

Here and there statements are made and figures are own which do not accord with general opinions, but ch statements and figures generally refer to matters on ich differences of opinion must be expected till our owledge is further extended, and, taken as a whole, we not know any textbook of anatomy which is better apted to meet the needs of students and practitioners of dicine and surgery.

THE PURITANS OF NEW ENGLAND.

E modern reader is accustomed to look upon Puritans, re especially the Pilgrim Fathers, as gloomy persons th Biblical names, who spent what time they could are from persecuting those who had the misfortune to fer from them in religion, in quarrelling over abstruse ological difficulties, and abusing each other, in spite their sanctity, very much as mere worldlings might, t with more virulence. Thanks to Hawthorne's *Scarlet* *ter* and some of his shorter stories, a pretty general pression exists that those men, who left home and nds for conscience sake, were no better than sancti- nious humbugs. To some extent, doubtless, this is e; but one is apt to forget that there must necessarily another side to the Puritan. However much he might, d did, cant and persecute, it is only fair to remember t he was, first and foremost, a colonist, and had other s to fight besides the world, the flesh and the devil—to , the Indians. Besides writing scurrilous pamphlets and ary spiritual treatises, that little band of Englishmen naged to drive back the encroaching French and lians, to build towns, to make their own laws, to ablish commerce, and to trade extensively with other ntries—in a word, to found that new England which to be the nucleus of the United States.

r. ANDREW MACPHAIL, in the first two of his most eresting *Essays on Puritanism*,[4] has given us a very fair trait of those early colonists, their work, religion, and tude of mind. Taking John Winthrop and Jonathan wards as the central figures for these sketches, he shows how the infant colony grew and expanded, and how, ilst the ministers wrangled over sanctification and tification, the people went their own way, paying but le heed to the disputes of their pastors. He says:

> he casual reader is in possession of another misconception, t the greater part of the colonial activity was consumed in ological controversy. This current misapprehension of the ual state of affairs which prevailed in that period of expan- arises from the fact that the persons who were mixed up heology, and consequently in dissension, left most pains- ing records of their proceedings, whilst the traders in rum, , cattle, ships, and negroes were content to carry on their erprise in silence.

ence we are apt to lose sight of the actual business t was being done in New England; but that the rgies of the little community were not all wasted on futile discussions is shown by Dr. MacPhail's account of the business in which the people were engaged. Within six weeks in the year 1635, he tells us, fourteen ships arrived with "store of passengers and cattle"; sloops, shallops, and small boats of all kinds were passing from island to island with mares, heifers, goats and sheep; traders were coming to port with beaver skins, corn and hemp, sugar, strong waters, tobacco, and other commodities; whole communities, men, women and children, swine and cattle, were migrating in all directions to find new places in which they might settle. Ships were built to prosecute the whale and herring fishery; trade was opened with neighbouring colonies and with Virginia, the West Indies, and the ports of Spain. In addition to all this the colonists waged war against the Indians, against one or other of the French factions which claimed interest about the Bay of Fundy, and provision was made against attack by the Dutch, the Spaniards, or the Mother Country herself. Adventurous soldiers made expeditions by sea and by land, which were by no means characterized by the traditional temper of religious sectaries. With regard to these, Dr. MacPhail remarks:

> Unless these seventeenth century seamen are sadly belied they engaged in other enterprises of more questionable morality than the slave trade. It would be as reasonable to regard the New England harbours as nests of pirates as of religious fanatics.

Of the five essays which make up the book that on John Winthrop is undoubtedly the most interesting. Not only do we get a clearer and fairer view of what manner of men these Puritans were, and what they did, but Winthrop himself is presented to us in a very attractive guise. Born leader of men as he was, and powerful governor, one feels there must have been something lovable about him. An exquisite description of his wife's death is quoted from his journal, and one learns with pleasure that the other magistrates disapproved of him for his leniency to offenders. He had a somewhat keen sense of humour, as is shown by his treatment of sea sickness. On the voyage from England to America in the *Arabella*, finding many were down with this malady, he had them driven on deck, and they "were made to stand, some at each side of a rope, which they swung up and down till they were merry again." This reminds us of the way in which O'Brien cured Peter Simple.

Dr. MacPhail has treated Margaret Fuller, who forms the subject of the third essay, from a new standpoint; he looks on her as a *woman*, instead of "an imperial being" or "rapt sylph," as her friends considered her. Neurotic, suffering at times from actual hysteria, belonging to an eccentric family, unfortunate alike in her education and surroundings, unfortunate above all in her friends who were "little less hysterical and quite as absurd as herself," it is not surprising that she became the extraordinary being she was. Save for a little published criticism that now seems obvious enough, she did not leave behind her the expression of a single thought worth remembering. But, in spite of all her follies, she was no fool, for Horace Greeley, who knew merit when he saw it, took her on the staff of the *Tribune*; and Carlyle had a real regard for her, finding in her papers "the undeniable utterances . . . of a true heroic mind." Perhaps Carlyle was right, for at the siege of Rome, all her affectations were forgotten, and she spent days and nights in hospitals filled with sick and wounded men.

The remaining essays are on Walt Whitman and John Wesley, the latter being of great interest, though Dr. MacPhail does not strike the reader as being much in sympathy with his subject. It only remains to be said that the book is well written and is everywhere marked by the independence of a man who thinks for himself and tries to see things as they really are. The quiet sense of humour which pervades the whole gives an additional charm. The author is to be congratulated for the new light he has thrown on the subject of Puritanism.

PRESCRIBING AND PRESCRIPTIONS.

THE small volume on the *The Science and Art of Prescribing*,[5] written by Dr. E. H. COLBECK and Dr. ARNOLD

---

[4] *ssays on Puritanism.* By Andrew MacPhail. London: T. Fisher in. Pp. 257.

[5] *The Science and Art of Prescribing.* By E. H. Colbeck, B.A., M.D., F.R.C.P., D.P.H., Physician to Out-patients at the City of London Hospital for Diseases of the Chest, Victoria Park, E., etc., and Arnold Chaplin, B.A., M.D., F.R.C.P., Physician to Out-patients at the City of London Hospital for Diseases of the Chest, Victoria Park, E., etc. Second edition. London: Henry Kimpton. 1906. (Cr. 8vo, pp. 198. 3s. 6d.)

CHAPLIN, has reached a second edition, and is therefore presumably popular. It is admitted that the art of prescribing is badly understood by the majority of the younger members of our profession because it is inadequately taught, and we agree with the authors of this volume when they say:

> It is regrettable that the medical education of the present day offers the student so little opportunity of cultivating the art of prescription writing, inasmuch as it is the mastery of this art that constitutes one of the essential and indispensable acquirements of the accomplished physician.

But books such as this do not go far towards mending matters. Too little attention is given to the inculcation of general principles, and unnecessary space is devoted to the detailed enumeration of formulae. When familiarity with compatibility and elegance is combined with an adequate knowledge of therapeutic utility, the question of formulary may be left to settle itself. Nothing can be more disastrous to scientific methods than the system of setting against this, that, and the other ailment a stereotyped prescription. It needs no university training to acquire such skill, for it can be picked up by any person of average intelligence behind the counter of a druggist's shop. We do not contend that all formulae are to be deprecated, but it is too much the fashion to load books devoted to the subject of drug administration with a bewildering multitude of prescriptions, many of which are necessarily mere repetitions of others, and all of which are, as regards dosage, frequency of administration, and other details objectionably dogmatic. It is unnecessary to say that in a book possessed of many merits, as this one is, the prescriptions which are quoted are excellent; our complaint is that they are superabundant, and give to the book too much the character of a hospital pharmacopoeia. The faultiness and imperfection of such a plan are evidenced by many important omissions. Thus for gastric ulcer no mention is made of the value of nitrate of silver; though blue pill, euonymin, and podophyllin are stated to be useful in hepatic dyspepsia, calomel, iridin, and taraxacum are not referred to; in the treatment of haemorrhage adrenalin is not suggested; antimony is not quoted as helpful in pneumonia; the value of urotropine is omitted in the treatment of cystitis; and piperazin is not among the drugs selected as serviceable for the relief of gout. These medicaments are in everyday use as remedies for the disorders we have quoted; their omission can only be accounted for by the authors' difficulty in compressing the enormous material at their command within the compass of their moderately-sized volume.

MEDICAL AND SURGICAL APPLIANCES.

Counting Bacilli.—Dr. Walter C. Oram, Physician in charge of the Electrical Department of the Liverpool Skin Hospital, writes that he has found an instrument, made for him by Messrs. Alexander and Fowler, of Pembroke Place, Liverpool, very convenient in the operation of counting the bacilli engulfed by the white blood corpuscles when engaged in estimating opsonic indices by Wright's method. As the process is just now receiving very general attention and the operation of counting is very laborious, he thought that the instrument might prove of interest to others. The apparatus consists of two dials—one for recording the bacilli and the other the corpuscles—the dial hand moving through one division of the dial for each depression of the attached pedal. The instrument is intended to be placed upon the floor and worked by the feet, thus leaving both hands free, the one for focussing and the other for the manipulation of the slide. When the corpuscle register reaches 50, which is the usual number to observe, a bell sounds, indicating the completion of the count, and it only remains to take the reading of the other dial, which will give the number of bacilli found. The instrument, he thinks, might also serve for the taking of ordinary blood counts, one dial being used to register the squares of the haemocytometer and the other the corpuscles.

AN International Conference on the cancer question will be held at Heidelberg and Frankfort from September 24th to 27th, on the occasion of the opening of the Institute of Cancer Research at Heidelberg. Addresses will be delivered by Professor Czerny (Heidelberg), Professor Ehrlich (Frankfort), and Professor Leyden (Berlin).

INGESTION, EXCRETION, AND METABOLISM DURING AND AFTER PREGNANCY.

THE problems of the pathology of pregnancy are of suc importance and, when they present themselves in th form of pernicious vomiting, eclampsia, or acute yello atrophy of the liver, of such gravity that the need of thei solution is as urgent as, owing to their frequency, it is eve present. Many solutions have been suggested, and o these a considerable number have taken origin in disturbances of the ordinary physiological processes wit characteristic tendencies supposed to be essentially associated with pregnancy; this is embodied in such phrase as the "kidney of pregnancy" or the "autointoxication o pregnancy." Before, however, such disturbances a admitted in explanation of the pathological problems it i necessary that we should have proof of their existence i pregnancy, and this can only be furnished by systemati examination of the details of the ordinary physiologica processes in cases which remain outside the boundaries o pathology. Within recent years the improvement o the methods of investigation, and especially the chemica methods, has led to a restatement of the general problem of metabolism, and it has become necessary to apply th same methods to a review of the obstetric questions whic could previously be but crudely dealt with by the weighing of patients, and the measurement of urine volume an of urea. A series of monographs has been publishe during the last few years based on the application of thes improved clinical and chemical procedures, and though owing to the exceeding laboriousness of the investigations, some are founded on a relatively small number o cases, the care of the individual workers and the genera agreement of the results in cases where the same poin has been re-examined, afford some ground for thinkin that a review of the whole field which has now been fairl covered may be not only useful but may yield somewha firmer foundation for the reconsideration of the whol pathology of pregnancy. Apart from the employment o better chemical and clinical methods, many of these recen papers have the additional advantage that the observe has sought to establish a norm for comparison, includin in his investigation the examination of non-pregnan women placed on the same regimen as the pregnant cases whereas, in most of the older researches the conclusion were drawn from comparison of the results obtained i pregnant women with those given as normal by th physiologists.

GASTRIC FUNCTIONS.

In his monograph on the relations of the female sexua organs to the alimentary canal, Dr. Erwin Kehrer[1] give in detail the results of a systematic investigation of th individual functions of the stomach. He obtained hi material by the stomach tube one hour after a test breakfast (Ewald-Boas), or three and a half hours after a tes dinner (Kussmaul), and he examined specially the question of acidity, but also the peptic activity, the renne ferment, the starch digestion, the albuminoid bodies, an the gastric motility. The use of the tube in over 65 instances never had any deleterious effect on th pregnancy.

Acidity.

Organic acids were almost never found after the tes breakfast, and after nearly a hundred cases the examination for them was given up, except after the test dinne Quantitative measurement of the HCl was made by th phloroglucin-vanillin test (Günzburg), and by dimethy azobenzol (Töpfer), the total acidity by the latter wit phenolphthalein as indicator, and the alizarin test wa used for the loosely-combined HCl. The titration wa done with a decinormal soda solution, and the scale acidity constructed from the number of cubic centimetr required to neutralize 100 c.cm. of gastric contents. Th main points of the scale are: Hypochlorhydry 15 to 2 normal chlorhydry 35 to 50, normal total acidity 65 to 8 superacidity 95 to 120.

During the first four months of pregnancy 33 observa tions were made, the average results being, free HCl 22.6

otal acidity 53 9. In the last four months 68 observations ere made after test breakfast and 14 after test dinner. he averages were, HCl 23.09, total acidity 60.5. In cases there was achlorhydry, in 6 marked hypochlorydry, in 34 hypochlorhydry, in 26 normal chlorhydry; he others were hyperchlorhydric, the maximum being a ase with HCl 75, total acidity 120.

In pregnancy and the first eleven days of the puererium observations were made on 50 women after test reakfast and 15 after test dinner. The averages for pregancy and the successive days of the puerperium are :

	Pregnancy.	Puerperium.										
		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
ree HCl	21.07	18.7	21.7	24.3	28.3	30.0	31.4	31.6	36.2	32.3	37.5	39.0
otal acid	58.70	47.8	51.7	47.8	57.5	61.3	60.0	61.4	68.7	60.4	70 0	68.5

The general result thus seems sufficiently established iat the secretion of HCl is, during pregnancy, below ormal, and after a still further depression at labour rises radually during the puerperium, reaching the normal vel towards the end of the first week.

As a rule the individual cases follow the course indicated this general result, but there are exceptions which show large amount of free HCl on the first day.

From an examination of 34 women during pregnancy nd in the puerperium, Kehrer attempts to find a relation etween the amount of blood lost at delivery and depreson of the gastric functions. His deductions that "the ysiological blood loss at delivery corresponds to a ysiological depression of the gastric functions in the eginning of the puerperium, and that after much bleedg the secretory activity suffers a further quantitative sturbance in the direction of diminished acid secretion" e not justified by the figures.

Pepsin.

The peptic activity was tested by the time which 10 c.cm. filtered gastric content took to dissolve a plate of bumen 1 mm. thick and 8 mm. diameter at a temperature 38° C. The examination was made in 31 cases during egnancy or the puerperium. In the result it was found at the pepsin and HCl secretion ran parallel. In about cases the biuret reaction was used to determine the ndition of the albuminoid bodies. It gave almost ways positive results, showing the presence of propepne, peptone, and albumose, rarely syntonin. There was, erefore, no evidence of a qualitative disturbance of psin digestion during pregnancy or the puerperium.

Rennin.

The activity of the rennet ferment was tested in nearly e first 100 cases. In all it was found normal, as coaguion occurred within fifteen minutes.

Starch Digestion.

The Lugol test with a solution of iodine and potassium lide was employed. The blue-violet colour due to rch and amidulin was usually found, rarely the redlet, due to erythrodextrin. Thus, in spite of the low l secretion the starch digestion seemed to be retarded.

Gastric Motility.

Kehrer, working with the stomach contents, which he inks give better results than the time of the appearance iodine in the saliva after taking iodipin, found that of women examined during the last three months of egnancy, only 3 showed motor insufficience. Of 34 amined during the puerperium, 21 showed motor insufience. The severity of the bleeding seemed to have no ation to this function. Fossati,[2] working with iodipin, s investigated the same point. His results are rather re definite than those of Kehrer. They deal with 30 servations during late pregnancy, 15 during the puerrium with lactation, and, for control, 7 apart from station, all the women being healthy. They are as lows:

	Non-Pregnant.	7th Month.	8th Month.	9th Month.	Term.	First Five Days.	Second Five Days.
Number of cases ...	7	6	8	10	6	5	10
Average time of appearance of iodine in urine ...	66' 42"	62' 5"	58' 12"	55' 5"	57' 5"	67' 5"	63'

It would seem from these observations of Fossati, which are really strengthened by those of Kehrer, that the gastric motility rises increasingly above normal during the late months of pregnancy that it sinks in the early days of the puerperium and rises again in the second five days. Fossati associates the increase of motility in advancing pregnancy, with compression of the stomach due to the expanding uterus. Multiparae and primiparae behave in a similar manner.

Fat Digestion.

The fat digestion which is, of course, not gastric is estimated from the fat rests found in the faeces. As regards pregnancy and the puerperium, the subject has been investigated by Ferroni,[3] who made twenty-one observations during pregnancy at various stages, eight during the second four days of the puerperium, and for control three in normal non-pregnant women; in 3 cases he had the opportunity of a second observation at a later stage of the pregnancy, and in 4 he was able to observe the same patient in pregnancy and in the puerperium. The stool was in each observation fully analysed, and the amounts of neutral fats, fatty acids, cholesterin, and soaps were exactly determined. The percentages relative to the fresh substance were calculated. The general results he obtained were: (1) The total proportional amount of fat is lower the nearer we get to term; (2) in pregnancy the normal amount may rise in the early months, but in the later is much below the average non-pregnant level. [This result, so far as regards a rise in the early months, is not confirmed if the percentages are calculated to the dry substance instead of to the fresh. In that case the relations in the early months are as in the non-pregnant.] (3) after delivery the percentages rise rapidly to the normal level; (4) the individual substances, neutral fats, fatty acids, soaps, and cholesterin each follow these rules, but the decrease in the amount of fatty acids is much slower, so that in the later months the fatty acids form a higher proportion of the total fat.

The table shows the proportion of free fatty acids and fatty acids of the soaps, the neutral fats being taken as unity:

Period.	5th Month.	6th Month.	7th Month.	8th Month.	9th Month.	Puerperium.
Free fatty acids ...	1.2	1.4	1.6	3.6	2.1	1.1
Soap	0.4	0.5	0.5	0.8	0 9	0.4

The chemical processes exhibited in the digestion of fat are thus, if not more active in pregnancy, certainly not less so, and in other respects they are not notably altered. The results do not indicate any diminution in the lipolytic function either of the liver or of the pancreas during pregnancy in the normal woman, and the absorption of fats is clearly more active in the late months of pregnancy.

With regard to this research, though the number of cases is necessarily limited by the great labour involved in the analysis, and though there are considerable individual variations, the uniformity with which the results of the general means as given above are confirmed by the results in each of the cases where more than one observation was possible seems to give probability to the propositions made. They are also congruent with a research by Capaldi[4] on bitches and guinea-pigs, which gave the results that there is during pregnancy an increase in the amount of fat in the maternal blood, and that the amount in the blood of the fetus at birth is equal to that of the mother. In the puerperium there is no further increase, but a tendency towards the non-pregnant level.

EXCRETION.

The principal organ of excretion is the kidney, which eliminates the end-products of the nitrogenous metabolism. Its secretion has been the object of various researches, but the earlier observations being made more with the object of determining the most suitable diet than of studying the natural history of metabolism and difference of methods, they are of less service than the more recent papers. As to the quantity of urine, estimates are given so various as to show that the differences of individuals must be considerable, and this is evident where the details are given. Zacharjewsky,[5] working with three primiparae and six multiparae, in the two weeks before delivery found a marked difference between the two classes, the average daily amount of urine being 1,000 c.cm. in the primiparae and 1,471 c.cm. in the multiparae. Slemons,[6] working with four women, found in three with living children a daily average of 1,149 c.cm. He also investigated the relation of the urine volume to the quantity of fluid ingested and found that though in the individual the two amounts run more or less parallel from day to day, yet there is great difference from case to case. In two single pregnancies a primipara passed urine 72 per cent. of the ingested fluid, a multipara 53 per cent, while in a case with live twins the urine was only 48 per cent., and in one with dead twins 93 per cent. of the fluid intake. As the amount of fluid excreted by other channels is considerable no stress need be put on such a point. Boni found the amount of urine below normal in primiparae, normal in multiparae, and unless the regimen is specified, this seems a good general description.

Chloride Excretion.

Because of its intimate relation to the quantity of urine, it is advisable to consider here the chloride excretion, although its chief importance is in pathological cases. The estimation of chlorides in the urine of pregnant women has been made by several observers. Boni, whose work is most recent, and who has made a very systematic examination of the several elements of the urine, concludes that the chlorides are diminished in amount and that the diminution continues in the puerperium. Since Widal[7] pointed out that in certain cases, especially of nephritis, the kidney becomes relatively impermeable for chlorides, and is unable to excrete the amount of chloride ingested daily in ordinary diet, and that the resulting chloride retention is associated with the development of oedema and other effusions, the subject has assumed great importance. The first paper on this subject in the field of obstetrics is that of Biancardi,[8] who reports on eight cases. He found that where the chloride excrete is less than the ingest diminution of the amount ingested by the exclusion of added chloride from the diet not only avoids retention, but may increase the absolute amount of excreted chloride. For example, a case of acute nephritis with a daily ingest of 11.75 gram of sodium chloride excreted on two successive days 3 6 and 5.824 grams, but when the ingest was reduced to 4.85 grams the excrete on three successive days amounted to 6.664, 7.489, 8.58 grams. He found that this change was accompanied by disappearance of oedema and of the subjective symptoms. For those interested in the treatment of albuminuria Biancardi's article is of great importance.

Phosphates.

Boni[9] found that the phosphate elimination is low during pregnancy, and though it rises in the puerperium it does not reach the normal level.

Sulphates.

According to Schrader[16] the sulphate and phosphate excretions are parallel to that of the nitrogen, and Harnack's proposition that the oxidized sulphur bears to the total sulphur a proportion similar to that which the urea bears to the total nitrogen is true also during pregnancy.

Nitrogen Excretion.

The greatest interest attaches to the amount of nitrogen excreted in the urine, and to its distribution in the various forms of urea, uric acid, purin bases, and ammonia in which it appears, since from this we can judge the character of the processes of the nitrogenous metabolism, both as affecting the food and the body tissues, the end-products of both being contained in the urine.

Boni states that the total nitrogen in the urine is diminished in pregnancy, and rises somewhat in the puerperium, more in multiparae than in primiparae. The different nitrogenous constituents, however, do not all behave in the same way. Thus the ammonia seems to be increased in proportion while the urea is diminished, and still greater is the proportional diminution of the purin bases. These changes vary relatively at different periods of pregnancy, and are profoundly affected by labour, while in the puerperium there is a tendency more or less rapid towards the non-pregnant levels.

Urea.

Boni found the urea diminished, especially in the seventh month, after which it rose towards term, and in the puerperium the augmentation was distinctly marked. In primiparae the azoturic ratio was low in the sixth and seventh months and then rose; in multiparae it was elevated from the sixth to the ninth month and then diminished towards term. In both it was elevated in the puerperium.

Zacharjewsky, working from three primiparae and six multiparae, found the following averages for the last two weeks of pregnancy:

	Urea.	Uric Acid.	Total Nitrogen.
	Per cent.	Per cent.	Per cent.
Primiparae	2.74	0.06	1.41
Multiparae	2.20	0.04	1.07

Uric Acid and Purin Bases.

The extremely careful investigation of Boni[10] on eight women during the late months of pregnancy and the puerperium gives very useful results, which can be most clearly seen from the following table:

Period.	Cases.	Total Nitrogen.	$\frac{\text{Uric Acid.}}{\text{Total Nitrogen.}}$	$\frac{\text{Purin Bases.}}{\text{Total Nitrogen.}}$	$\frac{\text{Purin Bases.}}{\text{Uric Acid.}}$
			Per 1,000.	Per 1,000.	Per cent.
Seventh month	2	10.1610	26.423	1.8121	6.8758
Eighth month	4	9.8443	28.101	1.6820	5.9884
Ninth month :					
First half	7	9.9520	28.432	1.3376	4 7054
Second half	7	9.2381	27.213	1.3530	4.9721
Puerperium...	7	10.9536	23.800	1.5689	5.3317

The daily diet contained 18.3387 grams of nitrogen.

It would thus seem that while the total nitrogen is diminished the uric acid is in almost normal quantity but diminishes in the later months of pregnancy and also in the puerperium. The purin bases are markedly diminished in proportion, but like the urea and the total nitrogen rise a little in the puerperium.

Ammonia.

Zangemeister,[11] working from the point of view that eclampsia might be due to ammonia retention, has very little that is useful here. He only examined one normal woman during the last month of pregnancy, and the conclusions which he draws, apart from the fact that the ammonia was increased, are hardly justified by the observations.

Slemons[6] gives a careful report on the ammonia excretion in the four women dealt with in his paper. The following table gives the average percentage of nitrogen excreted as ammonia in the last week of pregnancy, the first week of the puerperium, and the amount on the day of delivery in his cases, which were chosen for the variety of conditions they exhibited:

Case.	Pregnancy.	Labour.	Puerperium.
	Per cent.	Per cent.	Per cent.
Dead twins	5.20	8.0	5.10
Primipara...	6.85	8.4	5.50
Multipara	6.80	8.2	5.90
Live twins	9.70	17.3	6.03

From this may be deduced an increase of the proporion of nitrogen excreted as ammonia in late pregnancy, great increase in labour, and a fall towards the nonregnant level in the puerperium. Slemons argues from he progression seen in the table, read downwards, that he increase is related to the vital processes of the fetus.

Digestive Ferments.

The estimation of the amount of the digestive ferments n the urine is of interest for the sidelight it throws on heir secretion and utilization. Costa[12] has investigated he question in its relation to the puerperal state. The nvestigation of the trypsin did not give trustworthy esults, but that of pepsin, by finding how much fibrin vas digested by 150 c.cm. of urine in three hours at 30° C., eemed to be satisfactory. The examination, except uring labour, was made with the morning urine to avoid ny irregularities which might be produced by the resence of active digestion. In ten non-pregnant women he average amount digested was 0.6174 gram, the range eing from 0.4283 to 0.7267. One pregnant woman xamined at the third month gave very erratic results, her ange being from 0.0463 to 1.5510, but the other observaions were more regular. The average of sixteen obervations from the fourth to the seventh month was .6832, and that of twenty in the last two months 0.8163. he ranges show that the rise over the level of the nonregnant cases is a characteristic phenomenon. During bour eighteen observations gave an average of 0.3457. In e puerperium fifteen observations in the first three days ave the average 0.3958, and fourteen from the fourth to e eighth day gave 0.5610.

Summary of the Characters of the Urine.

The quantity of urine is normal, but in primiparae is equently below the average. The specific gravity is often elow the average. The various constituents are usually ss in quantity, but the diminution is not uniform. Urea ears its full proportion to the total nitrogen, the purin ases are relatively less, and the ammonia relatively more. he various mineral salts are slightly diminished, and imentary glycosuria is more easily produced.

METABOLISM, NITROGEN BALANCE.

The facts that the pregnant woman has to provide not ly for her own nutrition but for that of the activelyowing fetus and its dependent structures, and that in ctation the milk has to be furnished, lend great interest the problems of the physiological economy of these contions. Whether the child is nourished from the food of e mother or from her tissues, is a question that has given se to a lengthening series of special observations both the lower animals[17] and on women. The investigaons on animals seem to show that in the early part of egnancy the animal often loses in its nitrogenous lance, but that towards the end this is reversed, and the ss more or less fully compensated. The phenomena of e early part of human pregnancy have not yet been vestigated, but several careful series of observations ring the last month have been published. So far as ey go they give a result analogous to that found in imals at the same period. Zacharjewsky[5] obtained the llowing daily nitrogen averages in the last two weeks of egnancy:

	Cases.	Food,	Faeces.	Absorbed.	Urine.	Balance.
imiparae	3	16.525	0.860	15.665	14.266	+1.399
ltiparae	6	20.660	0.751	19.909	14.787	+5.122

Slemons[6] found in his four patients the following sults during the last weeks of pregnancy:

Cases.	Food.	Faeces.	Urine.	Balance.
mipara	13.80	0.95	12.43	+0.42
ltipara	16.77	0.53	13.26	+2.98
e Twins	15.00	2.00	8.28	+4.72
d Twins	13.97	1.60	10.95	+1.42

In the puerperium Slemons's results were:

	Food.	Faeces.	Urine.	Milk.	Lochia.	Balance.
Primipara	14.16	1.08	14.36	0.08	0.38	−1.64
Multipara	16.10	1.14	16.74	1.42	1.33	−4.50

The last patient in the third week gave: Food, 18.8; Faeces, 1.6; Urine, 13.7; Milk, 1.58; Balance, +2.52.

Hahl[13] gives an elaborate tabular report on two cases in the last month of pregnancy and in the puerperium. Average daily nitrogen balances in successive weeks are given in the following table:

	Pregnancy.				Puerperium.			
	4.	3.	2.	1.	1.	2.	3.	4.
H. primipara	+ 4.11	+ 1.86	+ 1.40	+ 2:63	− 1.62	− 2.51	+ 1.60	
O. multipara		+ 2.19	+ 1.44	+ 0.60	− 2.62	− 0.08	+ 4.14	+ 7.18

SUMMARY.

(*a*) *Nitrogenous Metabolism.*—The processes of nitrogenous digestion as represented by the secretion of pepsin and of hydrochloric acid are as a rule below the average in their intensity, but if we may judge from the increased peptic content of the urine, and from the increased ammonia excrete, they are still fully sufficient for the needs of the maternal organism. The study of the nitrogen balances shows that at least at the end of pregnancy the mother on adequate diet is storing up nitrogen at a rate more than sufficient for the daily nitrogen gain of the fetus (about 1 gram), and the study of the purin bodies affords no ground for the assumption that the nitrogenous supply of the fetus is gained at the expense of the maternal cells. The increase of gastric motility may have a share in all of these phenomena, and the decrease of the urea excrete is of course a reflex of the nitrogen retention. The fairly preserved relations of the various nitrogenous forms in the urine show that there is no marked qualitative disturbance of the whole process of nitrogenous elaboration, and quantitatively the ranges of the various measurements during pregnancy, though lower in some respects than the averages apart from pregnancy, are still within the physiological limits. Experiments made with inadequate diet seem to show that when the demand is made the mother can both in pregnancy and lactation utilize her organized as well as the circulating proteid for the nourishment of her offspring (Jägerroos[17]).

The phenomena of the early puerperal period are associated with the involution of the uterus, and when this factor recedes the physiological equilibrium is re-established, the secretion of milk making no more serious demands on the normal mother than did the nutrition of the fetus *in utero*.

(*b*) *Fat and Carbohydrate Metabolism.*—For the complete examination of these the reinvestigation of the respiratory exchange is needed. The evidence that we at present have shows that fat digestion and absorption are approximately normal, that there is a slight increase of the fat in the blood and that there is a tendency to gradual increase of deposited fat in the liver cells (Miotti)[11]. The starch digestion is slowed, and if the observations of Charrin[15] are to be trusted there is a tendency to an increase of the glycogen in the blood and an increase of the hepatic glycogen with a much more ready production of alimentary glycosuria.

(*c*) *Mineral Exchange.*—There is no evidence at present to show the exact course which ingested salts follow or the exact derivation of those which enter into the composition of the fetus. Charrin found in guinea-pigs a diminution of the iron in the spleen during pregnancy and argues that this is due to the needs of the fetus. The salts pass the kidney in lessened proportion and the permeability of the kidney for sodium chloride in particular is sometimes seriously impaired especially in presence of excess of the salt.

(*d*) The general character which is common to most of the phenomena described is a lessening of activity. The processes both of ingestion and of excretion are screwed down, and, though remaining well within physiological limits, exhibit a tendency to more leisurely or economical performance. Whether, with some French physiologists, we must look upon this as a tendency to defective elimination is a matter for another discussion and for different evidence.

BIBLIOGRAPHY.

[1] Kehrer, *Die physiologischen und pathologischen Beziehungen der weiblichen Sexualorgane zum Tractus intestinalis und besonders zum Magen*, Berlin, 1905. [2] Fossati, Contributo allo studio della motilità gastrica in gravidanza ed in puerperio. *Annali di Ostet. e Gin.*, 1905, 2, p. 89. [3] Ferroni, I grassi neutri, gli acidi grassi, i saponi nelle feci delle gravide e delle puerpere sane. *Annali di Ostet. e Gin.*, 1905, 1, p. 86. [4] Capaldi, Sul contenuto di grasso del sangue nella gravidanza e nel puerperio. Ref. in *Annali di Ostet. e Gin.*, 1905, 1, p. 312. [5] Zacharjewsky, Ueber den Stickstoffwechsel während der letzten Tage der Schwangerschaft und der ersten Tage des Wochenbettes. *Zeits. f. Biologie*, 1894, N.F. 12, p. 368. [6] Slemons, Metabolism during Pregnancy, Labour, and the Puerperium. *Johns Hopkins Hospital Reports*, xii, p. 111, 1904. [7] Widal, La Cure de déchloruration dans le mal de Bright. *Arch. Générales*, 1904, 1, T. 193, p. 1293. [8] Biancardi, Di alcune esperienze sulla cura declorurante nelle nefriti e nelle albuminurie nel campo ostetrico. *Annali di Ostet. e Gin.*, 1905, 2, p. 641. [9] Boni, Alcune ricerche chimiche sulle urine delle donne nello stato puerperale (*Rassegna di Ostet. e Gin.*, 1904). Ref. in *Annali di Ostet. e Gin.*, 1904, 1, p. 623. [10] Boni, I corpi purinici nelle urine delle gravide e delle puerpere. *Annali di Ostet. e Gin.*, 1906, 1, p. 48. [11] Zangemeister, Der Ammoniakgehalt des Urins in Schwangerschaft Geburt und Wochenbett, mit Berücksichtigung der Eklampsie. *Beiträge zur Geburtshülfe und Gynaek.* (Hegar), 1901, v, p. 310. [12] Costa, Ricerche sui fermenti digestivi delle urine nello stato puerperale. *Annali di Ostet. e Gin.*, 1904, 2, p. 476. [13] Hahl, Beitrag zur Kenntniss des Stoffwechsels während der Schwangerschaft. *Archiv f. Gynaek.*, 1905, lxxv, p. 31. [14] Miotti, Contributo allo studio istologico del fegato durante la gravidanza. *Annali di Ostet. e Gin.*, 1900, 2 p. 733. [15] Charrin et Guillemonat, Le glycogène hépatique pendant la grossesse. *Comptes Rendus de l'Acad. des Sciences*, 1900, 130, p. 673. [16] Schrader, Einige abgrenzende Ergebnisse physiologisch-chemischer Untersuchungen über den Stoffwechsel während der Schwangerschaft und im Wochenbett. *Archiv f. Gynaek.*, 1900, lx, p. 534. [17] Jägerroos, Studien über den Eiweiss-, Phosphor-, und Salzumsatz während der Gravidität. *Archiv f. Gynaek.*, 1902, lxvii, p. 517. [18] Winckel, *Handbuch des Geburtshülfe*, 1903, 1, 371.

MEDICAL CHARLATANISM IN GERMANY.

By OTTO NEUSTÄTTER, M.D.,
Munich.

(Concluded from page 1471.)

WHAT HAS BEEN DONE.

MOST interesting of all is perhaps to note what has hitherto been done to oppose quackery.

The efforts of the Aerztevereinsbund have already been mentioned, but, since the manifestations from this side were only indirectly influential, the Aerztevereinsbund being merely a freely-organized association, the legal representatives of medicine in the different federal States—the Aerztekammern—endeavoured to work on the same lines. To the petitions they draw up the Governments are legally bound to answer. According to the shape this answer takes it is always decided what new steps must be taken. Besides petitioning, they tried to operate in other directions; the Berlin Brandenburg Aerztekammer opened a competition for the best book describing the value of scientific medicine and the dangers of quackery. Several excellent works have been the result, the best being Reissig's *Medicinische Wissenschaft und Kurpfuscherei* and Alexander's *Wahre und falsche Heilkunde*. In addition to these, a number of sound pamphlets have appeared. (Those up to 1903 are quoted in Grassmann's report to the Munich meeting of the Deutsche Gesellschaft für öffentliche Gesundheitspflege.) Of later ones may be mentioned clever pamphlets by Magnus, Rubner, and the collection of seven lectures delivered at the first representative meeting of the Deutsche Gesellschaft für Bekämpfung des Kurpfuschertums. Just now two others by Professor Ebstein and Professor Magnus have appeared, showing on historical basis the need of a law against charlatans. Dr. Kantor of Warnsdorf, in Bohemia, has for several years earned great credit by reason of the clever and manly way in which he has attacked quacks, and especially Nature-curers, in his *Gesundheitslehrer*, the first popular medical journal. He has had the courage to bring an accusation of profligacy and infamy against Bilz, the sly and crafty man of business, who, after making violent threats, withdrew his charge against Kantor unconditionally when the latter began to bring forward proofs of the truth. At present the only non-professional periodical in Germany that takes notice of quacks and their doings is the *Hygienische Blätter*, the official monthly of the Deutsche Gesellschaft für Bekämpfung des Kurpfuschertums; while of medical papers the *Sächsische Correspondenz Blatt* pays the most attention to charlatanism. A series of popular medical periodicals try to co-operate indirectly in the good fight by means of sound information on medical and hygienic subjects, thus endeavouring to paralyse the effects of such quack organs as *Naturarzt*, *Gesundheitslehrer*, *Reformblätter*, *Neue Heilkunde*, *Wörishofener Blätter*, *Homoeopathische Monatsschrift*, etc. Several family medical books on the same popular lines have been published, or are about to appear, such as Reissig's *Aerztliches Handbuch*, the *Gesundheits Bibliothek*, by Moritz of Stuttgart, Siebert's *Aerztlicher Ratgeber in Wart und Bild* (Munich: J. F. Lehmann). From this brief outline it will be seen that medical practitioners are endeavouring to fight charlatanism on two lines:

1. By seeking to enlighten the public.
2. By striving to obtain lawful means to suppress the gross misdemeanours of charlatans.

In connexion with this it is worth mentioning that doctors are now trying, by means of the daily press and in non-medical papers, to aid in the enlightenment of the public as much as possible, the Press Committee of the Münchner Aerztliche Bezirksverein having led the way as a pioneer. The committee was founded in order to follow all medical affairs referred to in the press, and at every onset to be at once at hand with enlightening defensive articles. These have appeared not only in Munich but often in many other leading newspapers and have drained the vitals of several doubtful existences, even some medical ones. Also on its own account the daily press has begun to publish articles against quacks, but at the same time continues to insert their advertisements. Only some social-democratic papers and the *Frankfurter Zeitung* on principle refuse to take them. The committee has collected rich material, and, above all, has followed critically in the press all the manœuvres and lectures of the Nature-curers, etc. I myself, as a member of this Press Committee, attended for three years all lectures and meetings that were held by quacks during that time in Munich—not a pleasant task. Having got my bearings I took the platform on several occasions at their public meetings to ward off attacks made against doctors and to expose the ways followed by Nature-curers. In time I was joined by other medical men who assisted in the work. In other towns similar efforts have been made, but the meetings often assumed such a disgraceful form that the medical men present were forced to leave the hall. On this account there are still some practitioners who consider personal interference useless, a view to which I cannot entirely subscribe.

By such means we succeeded in almost entirely subduing the Nature-cure association here, which until then had enjoyed a considerable popularity.

The fight against charlatanism is, however, extremely difficult as long as only doctors take part in it. It was, therefore, most satisfactory when help came from another quarter. First and foremost must be mentioned the Karlsruher Gesundheitsrat, a municipal body which during the last thirty years has done great deeds against charlatanism. All nostrums, etc., advertised in Baden have been examined, inquiries were made about quacks who lauded themselves in newspapers, and the results published. Recently they have appeared in a collected form, and can be recommended as affording an interesting study of the material. Unfortunately this excellent mode of proceeding has been mainly limited to Baden. Only lately the President of Police in Berlin, the sanitary authority in Hamburg, and some other officials have begun to work in the same direction.

From the side of lawyers a few manifestations have also lately appeared—that is, from Reichsgerichtsrat Flügge and Dr. Thiersch, who plead for an alteration of the law Further help has come from the "Gesellschaft für Bekämpfung der Geschlechtskrankheiten" and the Verein für Volkshygiene, the Munich Branch and that of Insterburg deserving special mention. In Insterburg the first public exhibition against charlatanism has been held, and following this example another has been arranged by the German Society against quacks at Breslau at the Naturforscher Congress in 1903, and this year again in Meran. Special mention must be made of the fact that the well-known German Association for Public Health thought it necessary to take the theme up as one of its subjects at an annual meeting in Munich. A resolution was passed setting out the increasing detrimental fluence of the quacks in Germany. Great satisfaction is also felt by the doctors that in the Saxon Diet several titions from the Nature-curers were refuted, though ey enjoy considerable popularity and influence in this untry. The dangers of their misdemeanours were inted out, and such misleading books as that of Bilz re severely criticized.

Above all, however, attention must be called to the nding, in 1903, of the German Society for the ppression of Charlatanism. This association fights acks as a public evil, and consists not only of doctors t also of laymen, its honorary president being the wife a general, Frau. v. I. Four subcommittees have been pointed—one to keep in touch with the magistrates, e second to collect literature and notices concerning acks or produced by them; the third to edit popular edical works and the official organ *Hygienische Volks-tter;* the fourth to collect advertisements of charlatans d to furnish material to the press. An honorary member this association, Fräulein Hermine Ludewig, has been ry active in these matters. No sacrifice has been too eat for her in order to spread hygienic enlightenment in st Prussia—her native province—and fight for medical ence against charlatans. Her two pamphlets, *How to eat One's Doctor* and *The Just Pitieth His Cattle, but Who tieth the Poor Outlawed Sick?* expose the danger and kwardness and incapacity of the Nature-curers and are t only graphically written, but should be an example to ner women to go and do likewise.

But the most important manifestation was the decree ued by the Reichskanzler, on March 16th, 1903. In this was admitted that of late charlatanism had assumed eater and greater proportions, and that the manner in ich charlatans followed their trade, and their unabashed ommendations of themselves in the daily press, made m a public nuisance and the source of considerable l. It was necessary, therefore, to take into considera-n whether the compulsory police registration of char-ans should not be enforced throughout Germany; ether public advertisements of their medicines and atments should not be prohibited, in so far as they tained bombastic promises, or were likely to delude public; further, whether the State attorneys should be required to take more energetic steps against rlatans by reason of the law against unfair competition rade. But—and this is the most important passage in decree—these precautions should not be considered ficient to oppose the most urgent existing evils. In er to protect the public against quacks who had already angered the public, or whose past or personality were h as to make it feared that the public might be fleeced them, it seemed necessary to complete Section 35 of law by adding a clause concerning charlatans, which uld provide the right of interdiction in cases where it possible to prove unreliability.

his was a great triumph for the medical profession, ch itself had proposed this addition, and a shock to charlatans. Unfortunately, however, thus far no ctical results have followed from it.

German Laws concerning Quackery.

fter this competent opinion, it might seem super-us to go into details with regard to the laws against ain aspects of charlatanism. But they have not been rely useless; and, looking at the matter from another , it is even instructive to know what has been tried what has proved unsuccessful.

the first place, we must distinguish between perial laws" and those of the several federal States. former hold good for the whole empire, the latter e to carry weight at the border of the State to which belong. What still further complicates matters is it is possible in such a federal State for the laws of part to be invalid for another; this is the case in ssia, for the Rhine provinces, Hanover, Brandenburg, which each have different codes of State laws.

ly the following laws hold good for the whole of nany.

(a) Imperial Laws.

It is forbidden to use the title of "Arzt" or its valent without holding the necessary diploma. This is nowadays seldom broken. Quacks, as a rule, use such as "Heilkundiger," "Homoeopath," "Magnet-," etc., which are not punishable by law, and still possess as great an attraction for the public as that of "Arzt."

2. A far more important law is that which prohibits those unqualified persons from practising medicine who travel from place to place. Not that quacks find this prohibition a great hindrance to them. Treatment by letter is both more remunerative and a more comfortable mode of procedure, as well as not being forbidden. But, by passing this law in 1883, the Reichstag admitted that the unlimited freedom of treatment was wrong in principle.

3. Another imperial law stipulates that any person undertaking the care of a private hospital or a hydropathic establishment, etc., must receive special permission from the administrative body of magistrates. Permission may be refused if the said person should be unsuitable for the direction or the management of the establishment, or if he should not submit to the magistrate's decrees with regard to certain sanitary requests. This law has little or no value, as is easily seen from the numerous private hospitals run by quacks. In case of necessity a doctor is nominally appointed to cover the deficiency.

4. Traffic in medicines, secret remedies (arcanums), etc., is likewise regulated by imperial law. The penal code forbids the sale and preparation of poisons and medicines, except of those which are given free to trade by imperial decree. It is, of course, inconsequent that these decrees enumerate the prohibited, instead of the free, medicines and preparations. Yet these decrees and those concerning the handling of medicines are of some good. Traffic in drugs and chemicals intended for the treatment of patients may be forbidden if the life and health of mankind is endangered. Poisons, medicines containing dangerous ingredients, arcanums, and likewise hernial trusses are forbidden to be sold by itinerant vendors. The above passage relating to the endangering of life and health reads well, but its value is extremely problematic, as, before it can be brought into force, actual proof of the fact is required—the danger must have been caused.

5. More effective is the imperial decree which excludes the sale of certain chemicals and preparations outside of the recognized apothecaries unless a medical prescription is presented. If the apothecaries would not push the sale of patent medicines as they do, this decree would bar charlatanism to a great extent, most of the arcanums coming under this heading. So they make extensive use of their right to sell such preparations, and nothing can be done to prevent them as long as it is not proved that ingredients such as morphine, arsenic, atropine, etc., are contained. The sale of medicines containing these poisons can be punished by law unless a medical man sanctions the sale with his name, which has also been the case several times.

6. Of all the measures that have been taken the Bundesrat's decision of May 30th, 1903, has proved most efficient in preventing the trade with certain arcanums. Hereby the sale of 95 of the most puffed patent medicines is not entirely forbidden, but at least their advertisements are, and thereby the trade has received a decided check. A few of these nostrums, offered widely for sale also in England, are: Antimellin, Schiffman's Asthma-powder, Thierry's Balsam, Ayer's cathartic pills, Kalosin, Mother Seigel's Pills and Syrup, Pain-killer, Pastor König's Nerve Tonic, etc. Of course, endeavours have been made to evade this law, too, by simply choosing different names for the articles. It is, however, expected that the Bundesrat will put an end to this practice, though in the Reichstag opposition is said to arise against this wholesome decree. Charlatans, it is seen, have many friends.

7. Finally, it is possible to apply the provision made against illegal competition to the misdemeanours of the quacks. Medical practitioners have, however, shunned doing this, being unwilling to have their names mentioned in competition with quacks. Their opposition to the quacks might in this way appear to be due to pecuniary reasons, whereas it is only a matter of professional honour and a desire for the public welfare. This difficulty has now, however, been removed by Ministerial decrees in several States ordering the State attorneys to act as representatives in place of doctors. Hereby it is recognized that, in the illegal competition of quacks, matters of vital importance to the public are concerned.

However, this law has not proved entirely satisfactory either, since it is necessary for evidence to be given that wilfully deceptive statements have been made. In many cases, therefore, the guilty have gone free. If, for instance, an advertisement runs, I "cure" all diseases, prosecution is possible, as it can be proved that nobody can cure all diseases. Should, therefore, in these cases, the guilty escape, it is only because the court considers that he believes what he says. But if a quack advertises, I "treat" all diseases, the man cannot be caught, and the effect he wants to produce on the public is the same. A good example of this state of affairs is the case of the Nature-curer Capel, a decorator by profession, who advertised: "I apply Nature-cure, effective in all diseases, especially such as tabes, growths, cataract, lupus, nerve diseases, stomach troubles, kidney diseases, in fact, every kind of disease, even in hopeless and inveterate cases." The Berlin Aerztekammer went to law with the man, but the courts did not consider that he had made any objectively false statements about his capabilities by saying that Nature-cure was effective in such cases; this, however, could not be proved to be false.

(*b*) *Legislative Measures in Separate Federal States.*

These laws, being of a more specific character, are more effective. This is the case, for example, with the excellent law which was promulgated by the Senate of Hamburg on June 1st, 1900, and served as a model for other States. By this by-law public advertisements of unqualified practitioners were forbidden, in so far as they are apt to deceive the public with regard to advertisers' professional education or contained bombastic promises with regard to his capabilities. On the other hand, it is forbidden to advertise publicly objects, contrivances, remedies, apparatuses, designed to ward off, heal, or alleviate diseases of men or animals if their worth be exaggerated; or, by means of advertisements, to lead the public astray or molest them; or in cases where they are likely to occasion injury to health.

Of these by-laws, it may be said that they hit the nail on the head. They have been introduced into Prussia, Bremen, Schaumburg-Lippe, Waldeck, Oldenburg, Anhalt, Saxony, and quite lately into Darmstadt and Elsass; in a slightly different form also into Baden. Here great difficulties had first to be overcome; the Bill could not appear as a "Ministerial issue," but was forced to pass through the Diet (House of Lords and Commons).

There a strong opposition arose from the side of the friends of Nature-cure and homoeopathy. A flood of petitions, resulting from violent agitation, were presented; an apothecary rose up and protested against the intended abolition of the freedom of healing, etc. The first time the law was actually rejected temporarily; finally, however, it was accepted, and herewith something was attained, which is elsewhere non-existent, namely, the prohibition of offers of treatment from a distance.* A similar law is badly needed in Bavaria, but here too the Government is afraid of opposition. Likewise, it is needed in Würtemberg, though here, as in Baden, certain restrictions exist with regard to nostrums and similar things. In this Würtemberg is ahead of Bavaria, which is now an El Dorado of quacks. We have absolutely no law of any value against them, not even the duty of official notification that exists in Saxony, the other quack's paradise. Theoretically, it might seem as suitable for each individual State to pass its own law instead of having a general law for the empire. But, as seen from these examples, the differences of the several constitutions makes this very difficult.

To sum up: the legislative measure in the single States consists of the following ones:

1. Official notification of the charlatan on opening his praxis or on changing his address, or on giving up his praxis (Saxony, Prussia, Badenia, Oldenburg, Hamburg).
2. Restricting quacks, by means of punishment, from using professional titles illegally (in all States).
3. Prohibition of such bragging advertisements of quacks or their remedies as are likely to lead people astray (Hamburg, etc.).
4. Prohibition of offers of help from a distance (Baden, Darmstadt).
5. Keeping of books is made compulsory (Prussia, Lübeck, Hamburg).
6. Notification in cases of death by violence or wounds to the body, causing severe illness, or of poisoning, or crimes and offences against germinating life, which the quack becomes acquainted with in his practice (Baden), or in cases of inflammation of the throat of diphtheritic character, of puerperal fever, and other feverish diseases, of dysentery, of loss of consciousness, or meningitis and bloody discharges from the bowels (Lübeck).
7. Prohibition of public hypnotic performances (Bavaria, Prussia, Saxony, Hessen, and Mecklenburg-Schwerin).

To this list may still be added the duty of notifying different infectious diseases which will be enforced both on doctors and quacks by the new antiepidemic law.

It would be optimistic, particularly when faced by the confessions of the Reichskanzler, to say that the existing laws against charlatanism are sufficient. But, on the other hand, progress must be admitted when compared with the state of things a few years back. Many of the worst advertisements disappeared from the newspapers after the Hamburg by-laws came into force. Many punishments have been inflicted on the score of unlawfu competition, and the Bundesrat's decision concerning arcanums has borne good fruit. If the addition t Section xxxv of the statutory law should once come int force, so that professional treatment may be prohibited o account of untrustworthiness, then the plague of quack will no doubt be reduced considerably, though, of course it would be premature to assume that the fight agains quackery will then be at an end. There will always b more than enough barricades to overcome. Mos important, in this historical development of the figh against quacks in Germany, seems to me the fact that i is not without success, as it was assumed so often, an that the public and the governing bodies are beginning t side with the doctors, and see that matters cannot go o as they have been doing. From this hope may be drawn even though in many single cases the fight against quacks and therefore a complete alteration of the present state o affairs, appears often hopeless. The doctors must no allow their energies to be damped by constant non-success We know that such diseases as tuberculosis, sexua diseases, or intemperance cannot be vanished, but we d not let ourselves be alarmed by the slow rate of progress In the same way we should not be discouraged in ou struggle against charlatanism.

And another point: The war against disease has becom international, so should the fight against charlatans. Th quack is international; let the fight against him b international too.

Note.—Whilst this article was in the press, th foundation of an international fight was laid at th twenty-fifth anniversary of the Dutch Society agains Quackery. Germany, Austria, and Denmark have joine already the International Committee for the fight agains charlatanism constituted at this occasion.

---

* Just now a similar police regulation has been issued for Darmstadt.

Spectacles for School Children.—An Associatio which has for its object the supplying of spectacles t children in London elementary schools deemed to requi them is asking for public support. The London Count Council recognizes that there are many children in th schools under its control whose eyesight is too defectiv for them to make due progress, or even maintain the health if forced to strain their eyes in educational effor and it is part of the duty of their school officers to pick o such children. If they attend the out-patient department the hospitals in their turn are ready to, and do, examin such children and prescribe the glasses required. Ther however, the matter often ends, for frequently the paren of the children cannot afford to get the spectacles prescribe and the London County Council has been advised b counsel that it is not entitled to supply them at the publ cost. The new Association believes that if it is ready furnish spectacles at cost prices many parents will be ab to get them for their children, while for others the Ass ciation will itself bear part of the expense. No glasses a to be issued except on a medical prescription, and for th present it is only proposed to deal with children that se the Association's aid through a school manager. The objec of the Association have the approval of a large proporti of the hospitals and of the County Council several whose members and two of whose medical officers will ta part in the executive work. Inquiries will be answered b the Honorary Secretary, Miss S. Lawrence, 44, Westbour Terrace, and subscriptions will be received by Miss Adle 6, Craven Hill, the Honorary Treasurer.

CHELTENHAM WATERS.

Inauguration of the Central Spa.

On the invitation of the Corporation of Cheltenham, of the Council of the Chamber of Commerce, and of the Medical Committee, a number of visitors were entertained at Cheltenham on June 20th to celebrate the inauguration of the Central Spa which the Corporation of Cheltenham has recently established at the Town Hall with a view of reviving the use of the Cheltenham waters.

As is well known, Cheltenham was long celebrated for its waters, but of late years their use has not been encouraged by the town. The number of persons, however, drinking the waters has been gradually increasing, and efforts are now being made to provide greater facilities. It is believed that many people who go abroad would spend their money at home if proper facilities were afforded, and it is on that account that Cheltenham has adapted its Town Hall as a central spa, consisting of an elaborate and elegant suite of assembly rooms grouped around a fine central hall tastefully decorated, with a maple wood floor laid in a special way on springs for dancing.

The waters from the different springs in the town have been brought to the central spa and are dispensed from an artistic fountain placed in a well-furnished pump room. The following analyses of the Cheltenham waters were made by Professor Thorpe in 1893:

No. 1. Cheltenham Alkaline Water.

	Grains per Gallon.
Sodium chloride	... 503.520
Sodium bromide ...	... 0.339
Sodium iodide	... 0.155
Sodium sulphate ...	... 96.545
Sodium silicate	... 1.227
Sodium bicarbonate ...	... 28.973
Potassium sulphate ...	... 4.033
Lithium chloride ...	... Traces
Calcium carbonate ...	... 14.038
Calcium phosphate ...	... Traces
Magnesium carbonate ...	... 13.227
Manganous carbonate ...	... Traces
Ferrous carbonate ...	... 0.212
Aluminium phosphate ...	... Traces
Ammonium bicarbonate ...	... 0.085
Organic matter	... Traces

No. 2. Cheltenham Alkaline Water.

	Grains per Gallon.
Sodium chloride ...	... 310.985
Sodium bromide ...	... 0.106
Sodium iodide	... 0.056
Sodium sulphate ...	... 148.435
Sodium silicate	... 1.120
Sodium bicarbonate ...	... 29.498
Potassium sulphate ...	... 2.345
Lithium chloride ...	... Traces
Calcium carbonate ...	... 13.724
Calcium phosphate ...	... Traces
Magnesium carbonate ...	... 12.541
Manganous carbonate ...	... Traces
Ferrous carbonate ...	... 0.134
Aluminium phosphate ...	... Traces
Ammonium bicarbonate ...	... 0.071
Organic matter	... Traces

No. 3. Cheltenham Alkaline Water.

	Grains per Gallon.
Sodium chloride ...	... 466.470
Sodium bromide ...	... 0 388
Sodium iodide	... 0.099
Sodium sulphate ...	... 115.095
Sodium silicate	... 2.961
Sodium bicarbonate ...	... 38.961
Potassium sulphate ...	... 4.520
Lithium chloride ...	... Traces
Calcium carbonate ...	... 4.583
Calcium phosphate ...	... Traces
Magnesium carbonate ...	... 10.866
Manganous carbonate ...	... Traces
Ferrous carbonate ...	... 0.056
Aluminium phosphate ...	... Traces
Ammonium bicarbonate ...	... 0.078
Organic matter	... Traces

No. 4. The Cheltenham Magnesia Water.

	Grains per Gallon.
Sodium chloride	... 27.980
Sodium bromide	... 0.015
Sodium iodide	... 0.037
Sodium sulphate ...	... 60.893
Sodium silicate	... 1.469
Potassium sulphate ...	... 4.779
Lithium chloride ...	... Traces
Calcium carbonate ...	... 36.372
Calcium sulphate ...	... 63.460
Magnesium sulphate ...	... 117.659
Manganous carbonate ...	... 0.023
Ferrous carbonate ...	... 0.038
Aluminium phosphate ...	... 0.011
Ammonium nitrate ...	... 0.018
Organic matter	... Traces

No. 5. The Cheltenham Natural Aperient Water.

This water is No. 4 Cheltenham Magnesia Water strengthened by evaporation to a constant degree of concentration, and to such an extent that a moderate quantity being taken the single draught will act as a decided aperient.

No. 6. The Cheltenham Soda Sulphate Saline.

	Grains per Gallon.
Sodium chloride ...	... 391.710
Sodium bromide ...	... 0.001
Sodium iodide	... 0.021
Sodium sulphate ...	... 155.720
Sodium silicate	... 1.763
Potassium sulphate ...	... 9.990
Lithium chloride ...	... Traces
Calcium carbonate ...	... 27.200
Calcium sulphate ...	... 2.447
Magnesium carbonate ...	... 14.115
Magnesium sulphate ...	... 22.667
Manganous carbonate ...	... Traces
Ferrous carbonate ...	... 0.021
Aluminium phosphate ...	... Traces
Organic matter	... Traces

As many of the visitors to the ceremony of inauguration of the Central Spa were expected at Cheltenham on June 19th, a banquet at the Qûeen's Hotel was arranged for their entertainment by the Medical Committee and the Chamber of Commerce. The chair was taken by Mr. J. T. Agg-Gardner, President of the Chamber of Commerce. After the loyal toasts had been duly honoured, Mr. E. B. Wethered, Local Government Board Inspector of the Midland District, proposed the toast of "The Visitors," and pointed out that if the results of the analysis of the Cheltenham waters made by Professor Thorpe in 1893 were compared with those obtained by Professor Abel and Professor Rowney fifty years previously, it would be found that the composition of the waters had undergone practically no change in the course of the half century. It was simply because of the vagaries of fashion that the wells of Cheltenham were not resorted to to-day as they were in the days when George III was King. Dr. F. J. Wethered, in replying to this toast, said that the Cheltenham waters possessed salts in such proportion as rendered them most valuable for hydro-therapeutic treatment; to enable patients to secure the greatest benefit from the waters a certain regimen must be laid down and strictly adhered to, and that could only be directed and enforced by medical men, and Cheltenham was fortunate in having doctors resident in the town skilled in the knowledge of hydro-therapeutics. Cheltenham possessed cheerful surroundings and beautiful scenery.

Mr. Allum also acknowledged the toast, and he was followed by Dr. Armstrong of Buxton, who, in proposing "Success to the Cheltenham Spa," said that if there were mineral springs of similar constituents in Germany they would be resorted to by thousands of drinkers every year. Cheltenham also had the necessary adjunct for a summer cure in Cleeve Hill, and its Winter Garden was all that was required for a winter cure. The capital golf links would entertain the relatives of the patients, and the beautiful walks and public gardens at Montpelier and Pittville were great attractions. He discussed the application of the various Cheltenham waters, and advised that No. 1 Water should be used as a Plombière douche. This toast was replied to by the Mayor, Mr. W. N. Skillicorne, who hoped that the town would take its proper place among the health resorts of Europe.

Dr. Kirkland also responded to this toast, and quoted the opinion of Sir Hermann Weber that the three best-known muriated sulphate waters were those of St. Brides-les-Bains, Cheltenham and St. Gervais.

Councillor Stroud, the Chairman of the Mineral Waters Committee of the Corporation, who also acknowledged the toast, said that since May 10th, when it was opened, many persons had been taking the waters at the Central Spa. Dr. Cardew, in proposing the toast of "The Chairman," declared that people should not be misled by misconceptions in regard to the humidity of Cheltenham. The Chairman, in the course of his reply, expressed the hope that the visitors to Cheltenham for drinking the waters would include travellers from the Continent.

On the morning of May 20th the visitors were taken on a tour of inspection in and around Cheltenham, returning in time to welcome Dr. J. F. Goodhart on his arrival from London. Dr. G. B. Ferguson then conducted Dr. Goodhart on a visit of inspection to the different places of interest in the town.

In the afternoon a large company assembled at the Town Hall for the ceremony of inaugurating the Central Spa. The proceedings were opened by the Mayor, Mr. W. N. Skillicorne, who declared that with the assistance of the medical men the town might achieve great things.

Dr. E. T. Wilson, in introducing Dr. Goodhart to the audience, said that the Central Spa might be regarded as an earnest of what the town was going to do, and he referred with satisfaction to the enormous population to the north of Cheltenham on which they might draw. He then called upon Dr. Goodhart to deliver his address entitled, How shall we Drink?

Dr. J. F. Goodhart said that he had readily accepted the invitation to say something as to the importance of their new Central Spa, because no one could feel more strongly that they were doing a real service to the sick and ailing. It was not clear how and why the Cheltenham waters fell out of repute. He had several times spoken to residents upon their remissness in allowing such a "talent" as their mineral springs to lie unproductive. There was no need to go into details of the special characters of the Cheltenham waters. They were of great use in various conditions, and they were not like any others in the United Kingdom. They also approached more or less to the waters of Carlsbad and others abroad that had attained world-wide renown. He knew no reason why their waters and their springs should not be equally efficacious if people would but come, and it was clearly to the interest of the town to make them accessible. He supposed most people would admit it to be true that all such waters were more efficacious when taken at their source than when sold in bottle. Probably, in some measure, the composition of the water altered by keeping. He did not know what their able medical officer of health, Dr. Garrett, might have to say about radium, that bit of the sun come down to earth to keep them expectant and attentive to the possibilities of the future, but he fancied that radio-activity and all the new knowledge derived from that source might well have some bearing upon the potency of water taken fresh. But at their source or not, any one of their natural waters there contained, above the two or three chief constituents, some twelve other constituents present in minute quantity, and who should say that one and all in some subtle combination were not potent to influence the habits or tendencies of the several organs, and, in so doing, to arrest the beginnings of disease? He thought that under certain circumstances, particularly as people arrived at and passed middle age, their tissues acquired the habit of producing products of imperfect combustion in excess. Those were they to whom the doctor applied the much-scoffed-at term of gout. It must be admitted that comparatively few had true gout, but most people after 50 arrived at that mildly decadent condition when their organs did not work so automatically towards the right or so naturally made for health as was the case in earlier years, and the blood and juices became charged with impurities, a condition which needed some generally descriptive term, and which those waters in some way seemed to help them to rid themselves of. He could quite conceive that natural waters of suitable kinds might so gently and yet definitely modify, say, the specific gravity of these juices, the activity of their regulatory nerves, the powers of their absorbents, the circulation of the fluids, that the natural habit, that was, health, might be revived. The question of the influence of climate on health was very obscure. How was it, as he often asked, and had never yet been answered, that so many of them were ambulatory barometers or hygrometers? Why, one solitary corn would take off the keenness of the joy of a lifetime. In all natural advantages Cheltenham was strong. To his mind, of all the towns of England that he had visited, it approached nearest of any in its resemblance to a foreign spa, and the Central Spa now added to it promised to do a great deal to attract the sick in much larger numbers than of late. Moreover, Cheltenham had one commanding advantage that few other towns could claim—that it was a good resort at any time of the year. To be open all the year round was a great advertisement for any water, for it was a curious admission to have to make of a valuable remedy that it could only be used from May to September. With regard to diet he did not think it possible to work a watering place nearly up to its proper level of advantage unless the managers of the hotels acted with medical opinion regarding the general principles of food and cooking. It had always been his belief that much of the benefit so often derived from a course at Carlsbad and other foreign spas was due to the fact that the hotels had certain customary rules for guidance in those matters, and that it was not possible to obtain other than a simple diet. He did not think that anything of the sort was to be found in England, but he hoped that in attempting again to rehabilitate their waters, some plan might be agreed upon that would favour that end. Garden cities were being started. Cheltenham called itself "The Garden Town of England." But why not be also a city of plain diet, where tired brains, satiated stomachs, congested livers, fatty hearts, might find their cure in plain living, water drinking, and high thinking? In former times Cheltenham prided herself on having such a fine system of baths that no two persons need wash in the same water, and it was now necessary for their reputation to show how much progress had been made, more particularly because a complete system of baths was of great value, not only in itself but also as an adjunct to a course of mineral waters. They had already a fine swimming bath, and brine baths for the individual, than which none could be better or more comfortable, but it was much to be wished that the system might be made still more complete by adding thereto the various douches and electric baths that were included in every up-to-date installation. But water cures had another inestimable advantage, often missed by man and medicine; they gave the doctor a chance of thinking about and watching human nature in some of its many faulty moods without worry and distraction. The present-day mood of most people was: a pain here, it must be assuaged at once; and the remedy in some shape or other must be found in the chemist's shop round the corner. A lump there, and the knife was at hand for immediate excision; there was no thought of bearing and suffering on the part of the patient, no chance of waiting and watching on the part of the doctor. And the consequence was that they became bewildered with the latest inventions, were always testing the new ones, and forgetting those that were behind. There were many good drugs that were simply forgotten, buried by the multiplicity of those that had come after them. Men ran about for this cure and that, as they put it, to get this or that disease out of them. And it was for that they visited the various watering places; but it was not his view of the value of drinking waters. The value of waters was that they there put themselves under conditions that made for health, and they ought to co-operate with a trained eye that could watch the process and steer them. When he (Dr. Goodhart) went to a cure so-called, he took no medicine save the water that he had gone to drink, and the doctor had thus presented to him what was practically experiment after experiment, each carried out as nearly as possible under similar conditions, and the only things which came in to mar the accuracy of comparison were the bias of the observer and the individuality of the subject. Those, he admitted, were important qualifications, but it was no small advantage to obtain even that degree of precision. The skilled observer at a watering place who kept himself alert had a magnificent opportunity of adding to medical knowledge and benefiting mankind, for he was as it were a scout, who was planted on the borderland between health and disease, to watch the ebb and flow of the tide of life. And yet although that was true, he was not aware that much real addition to physiology or medicine had as yet come from any one frequented watering-place. They had one English worker in Dr. Oliver of Harrogate, but for the rest—and he spoke ar more of abroad than at home, because they had so ew frequented places—few, if any, additions to the know-edge had come to them. But the reasons for that were ot far to seek. In the first place, the public resorted to ater cures with but a half-serious purpose in many ases. Many never saw a doctor while at the spa, and ew came under careful observation. Next, the monotony f conditions, again and again repeated, tended, as they ould readily imagine, to envelop in every one a mere outine; and, lastly, there was the inherent difficulty of ne subject. They had to study deranged function and ow it passed into disease. For example, if he educated is brain in wrong methods and thought—if impulsive, nd he encouraged its impulsiveness, or restless, and layed upon its restlessness, whether in thought or uscular command; or lethargic, and he let it give way an excessive dormancy—many thus slept too much—he assed into a gradually-increasing bad habit, an un-ealthy condition, in that it gradually passed on and on ntil it was entirely beyond his control, and then it had ecome a disease. Function in excess had become disease. the case of the brain they called that insanity; but as it otherwise with the other organs and tissues? Of ourse not. The same law prevailed everywhere. What an sowed that should he reap; but they were so much ore familiar with the changes worked by disease in ose other parts, that they even sometimes permitted emselves to argue from thence that there could be no ror of function that was not preceded by structural ange. But no physiologist could question that in ereotyped aberrancy of function lay the beginning of ch structural changes, and that in its very earliest age structural change was either non-existent or so perceptible and infinitesimal in degree that it could be ghted in a moment. It was at the outposts of health at the doctor at a mineral spring planted himself, and ey could all see how difficult, almost impossibly diffi-lt, was his position. He doubted very much that ineral waters washed out this and purged away at, or that their chemical action, if chemical in any nse, was of any such clumsy sort. Rather would think of them as full of a nascent activity, ling here, persuading in another quarter, stimu-ing there, in accord with the apparently boundless ssibilities, as they knew, of even inanimate influences yet only on the threshold of being recognized, but ich, boundless as they seemed to be, were yet in all bability far below the infinite possibilities wrapped up the energy of all animate existences. If in what he d said it should seem that he had told them little to l them in utilizing their springs, he would venture to ad that the doctor must ever be mostly one who led ers to help themselves, and who too often having done t, must trust the larger hope and leave the rest.

vote of thanks to Dr. Goodhart for his address was ved by Dr. Ferguson, who declared that the Cheltenham ters were superior to those of Homburg, Kissingen, den-Baden, and Wiesbaden, and he did not know any ters in France equal to them. It was the duty of all them to do what they could to further the use of the eltenham waters and to extend the knowledge of their ling properties.

he vote of thanks was seconded by Mr. H. Stroud and ported by Dr. Armstrong, who praised the beauties of town, and observed that the Winter Garden was full great possibilities. In his opinion the Cheltenham ers formed the one drinking cure in England. He ised the town to make life as bright and pleasant in eltenham as at any of the Continental spas.

he proceedings closed with a vote of thanks to the yor.

CONTRACT MEDICAL PRACTICE.

FEES FOR ACCIDENTS.

ENHORN writes that he is surgeon to some clubs. and has cently attended two members for fracture of the leg. He oposed to charge for them on the Poor-law scale, but was ld by the secretary that the club paid no extra fees for tendance on such cases. He asks for advice under the rcumstances.

*** It is to be feared that our correspondent cannot claim y extra payment for these cases, as they are included in s ordinary duties as surgeon to the club. Practitioners out to take clubs at the usual inadequate rates of payment ould do well to reflect on our correspondent's experience.

THE ANNUAL MEETING AT TORONTO.

Reception Committees at Quebec and Montreal.

WE are informed that reception committees have been formed by the profession in Quebec and in Montreal to meet members travelling by the St. Lawrence route to Toronto, and to help them through the formalities attending arrival. The Chairman of the Committee in Quebec is Dr. M. J. Ahern, and the Secretaries are Dr. Stevenson and Dr. Daigneau. There is no doubt that both committees will take means to ensure that members who have any time to spare shall have an opportunity of seeing all that is interesting in the two cities, and there is much of medical interest in both.

Railway Certificates.

We understand that the Honorary Local Secretaries in Toronto have sent railway certificates to all members who before the end of May had expressed their intention of visiting Toronto. Any member who may have since determined to make the journey should communicate with Mr. Guy Elliston, the General Secretary of the Association, 429, Strand, London, W.C., who is also authorized to sign certificates. A separate certificate will be required for each member of the party, and under the regulations of the Eastern Canadian Passenger Association duplicates cannot be issued, so that it will be necessary to carefully preserve the certificate issued.

Trip to Vancouver and Victoria.

It was announced last week that those members who hope after the meeting to make the great trip across the continent to Vancouver are requested to send in their names as early as possible to the Honorary Local Secretaries of the Annual Meeting of the British Medical Association, Medical Building, The University, Toronto.

Since then information has been received from the Executive Committee in Toronto to the effect that a communication has been received from the Tourist Association of Victoria, inviting members to prolong their tour so as to include that city, and promising that everything shall be done to make the visit to this, which boasts itself to be the most English city in Canada, both pleasant and profitable. The cost of the round trip from Toronto to Vancouver and back will be £13 11s.; the extra fare for the tour to include Victoria will not very materially increase the expenditure.

METROPOLITAN PROVIDENT MEDICAL ASSOCIATION.

MR. FRANCIS BUXTON presided over the meeting of the Metropolitan Provident Medical Association on June 21st, at 42, Grosvenor Gardens, London, when the report of the Council of the Association was submitted.

The annual report of the Council for the year 1905 stated that there were twenty-one branches of the Association, consisting of sixteen dispensaries and five medical clubs, with a roll of 12,386 cards, family and single. The receipts from the provident members in 1905 amounted to £5,240 6s. 7d., or, including Hospital Saturday Fund payments, £5,496 16s. 7d. Of this amount the medical officers received £3,279 3s. 10d., making, with the sums expended on dispensers and drugs, a total of £4,841 15s. 6d. devoted to the medical part of the work, or 88 per cent. of the income. With regard to the branch work in detail it was stated that of the twenty-one branches, fourteen maintained or improved their position during 1905, some of them making a considerable advance, and where losses occurred they were, in most cases, quite trifling. There was awakened interest and healthy growth visible in some of the older branches, notably perhaps at Woolwich, Tottenham, and Notting Hill. Those signs of progress were the more satisfactory in the face of some conditions adverse to the promotion of thrift in general and medical providence in particular. Slackness of employment during the past year might no doubt be reckoned as one of these. Another was the competition of free medical agencies and missions of various kinds in the neighbourhood of provident dispensaries, as well as the existence of institutions ostensibly provident, but with objectionable features such as a very low scale of contribution, no wage limit, and a system of indiscriminate advertisement. Besides those, the hospital difficulty was always present and insistent. When, according to figures quoted by Mr. Nelson Hardy in a pamphlet on Subscribers' Letters, nearly half the population of London received hospital relief, and the number of recipients had gone up by 23 per cent. in the last ten years, while the population had only increased by 6 per cent., it was clear that some remedy for that state of things must, if possible, be found. The necessity for interaction between the hospitals and provident dispensaries as a means of reducing overcrowding in the out-patient and casualty departments was now a generally admitted principle. As to the details, a joint Committee of the Central Hospital Council and that Association had been considering the matter during the past year. Various forms to be used in hospitals and provident dispensaries for the mutual reference of patients, had been drawn up and submitted to the authorities of those institutions, by whom it was hoped they would be approved and brought into immediate use. The detailed report of the Committee was not yet issued, but there could be no objection to so far anticipating its circulation as to mention that the term "a recognized provident dispensary" would probably apply only to those which had a membership on the basis of regular payments on insurance principles, a reasonable wage limit, a medical staff of not less than three general practitioners, and which published annually a properly-audited balance sheet. It would be seen that that definition covered the branches of the Association. Progress towards that much desired end might appear slow, but the Council believed there was a growing conviction of the necessity for action on the above lines. Should effective co-operation with the hospitals become at all general, it would naturally be of the highest importance that the number of provident dispensaries should be largely increased.

Mr. Buxton, in moving the adoption of the report, explained that the objects of the Association were, first, to provide, upon principles of mutual assurance (by means of small periodical payments), efficient medical treatment and medicine for those members of the working classes and their families unable to pay ordinary medical fees; second, to co-operate with the governing bodies of the metropolitan hospitals, in order that they might be relieved of the large number of ordinary cases of illness that at present overcrowded their out-patient departments, and also have referred to them from the provident dispensaries cases which required special hospital treatment and nursing, or were suitable for clinical instruction. These objects were attained by the formation in suitable districts of provident dispensaries as branches of the Association, which were under the management of local committees, and to which the local medical practitioners were invited to attach themselves. The advantages of the Association were secured by the payment of 6d. a month for an individual, or 1s. 10d. a month for a man and his wife and any number of children up to fourteen. The Association limited its benefits to families whose united income was not above 40s. a week.

Mr. Victor Cavendish seconded the motion, and emphasized the importance of making the connexion between the hospitals and the Association permanent.

The adoption of the report was carried *nem. con.*

Sir W. S. Church then moved the following:

> That it is expedient that provident dispensaries working in co-operation with the hospitals, under rules generally approved by the medical profession, be formed in every district of the metropolis, and that funds for the creation of such dispensaries where they do not yet exist, and their maintenance until they reach self-support, are urgently needed by the Metropolitan Provident Medical Association, which has already established twenty-one Branches, and provides medical attendance for considerably more than 30,000 persons.

He said that the evils of hospital abuse were to be cured by work carried out on the lines of the Metropolitan Provident Medical Association. An effort must be made to place before the self-respecting members of the working classes a system of co-operation by means of which they could receive medical treatment. If the dispensaries were affiliated to large hospitals they should be associated with more than one hospital, so that the poor could choose their own hospitals. It was the only means by which the public could be educated, and that education must be in the direction of independence and thrift.

Mr. H. A. Harben, in seconding the motion, said that hospital and medical relief was devoid of system and arrangement; and Dr. Lauriston Shaw, in supporting the motion, pointed out that the provident dispensaries had always wanted to co-operate, but the hospitals had not always efficiently co-operated with the dispensaries. The hospitals must be taught that unless they co-operated they would not be doing their duty towards the sick poor. He advised medical men to seek the assistance of the Divisions of the British Medical Association in their several districts for the purpose of putting this matter on a proper footing.

The motion was carried unanimously, and the proceedings closed with a vote of thanks to Mr. and Mrs. Francis Buxton for permitting the meeting to take place in their house.

EXPERIMENTS ON LIVING ANIMALS.[1]

The reports of the inspectors appointed by the Home Office on experiments performed on living animals during 1905, in England, Scotland, and Ireland, were issued on June 19th.

England and Scotland.

Professor G. D. Thane states that the total number of persons holding licences during the year under review was 381. The names of all licensees are given in Tables I and II. Of the total number 122 performed no experiments. That number includes 22 licensees whose licences expired on February 28th, 1905, and who returned no experiments in 1905. Tables I, II, and III are given containing evidence that licences and certificates have been granted only upon the recommendation of persons of high scientific standing; that the licensees are persons who, by their training and education, are fitted to undertake experimental work and to profit by it; and that all experimental work has been conducted in notable places. A further table (IV) shows the number and nature of the experiments returned by each licensee, specifying whether these experiments were done under the licence or under any special certificate. Table IV is divided into two parts, A and B, for the purpose of separating experiments which were performed without anaesthetics from experiments in which anaesthetics were used. The total number of experiments included in Part A of this table is 2,506; Part B, which is devoted entirely to inoculatious, hypodermic injections and some few other proceedings, comprises 35,429 experiments. The total number of experiments, therefore, is 37,935, being 5,373 more than in 1904. Of this increase, 290 belong to the class of experiments included in Table A; and 5,083 to that included in Table B.

Experiments under Anaesthetics.

All experiments involving a serious operation are placed in Part A of Table IV. The larger part of the experiments included in that table—1,493 in number—come under the provision of the Act that the animal must be kept under an anaesthetic during the whole of the experiment, and must, if the pain is likely to continue after the effect of the anaesthetic has ceased, or if any serious injury has been inflicted on the animal, be killed before it recovers from the influence of the anaesthetic. In the other experiments, 1,013 in number, the initial operations were performed under anaesthetics, from the influence of which the animals were allowed to recover. It is pointed ou that the operations are required to be performed antiseptically, so that the healing of the wound shall as far as possible take place without pain If the antiseptic precautions fail and suppuration occurs the animal is required to be killed. It i generally essential for the success of these experiments that the wounds should heal cleanly and th surrounding parts remain in a healthy condition. Afte the healing of the wounds the animals are not necessarily, or even generally, in pain, since experiment involving the removal of important organs, including portions of the brain, may be performed without givin rise to pain after the recovery from the operation; an ter the section of a part of the nervous system ie resulting degenerative changes are painless. In e event of a subsequent operation being necessary, a ndition is attached to the licence requiring all operative ocedures to be carried out under anaesthetics of suffi- ent power to prevent the animal feeling pain; and no servations or stimulations of a character to cause pain e allowed to be made without the animals being aesthetized. In no case was a cutting operation more vere than a superficial venesection allowed to be rformed without anaesthetics.

---

[1] London: Printed for His Majesty's Stationery Office by Eyre an Spottiswoode, Printers to the King's Most Excellent Majesty. And t be purchased, either directly, or through any bookseller, from Wyma and Sons, Limited, Fetter Lane, E.C., and 32, Abingdon Stree Westminster, S.W.; or Oliver and Boyd, Edinburgh; or E. Ponsonb 116, Grafton Street, Dublin. Eyre and Spottiswoode, East Hardin Street, E.C.

Experiments Without Anaesthetics.

The experiments included in Table IV (B), 35,429 in mber, were all performed without anaesthetics. They re mostly inoculations, but a few were feeding experi- ents, or the administration of various substances by the outh, or the abstraction of a minute quantity of blood for amination. In no instance was a certificate dispensing th the use of anaesthetics allowed for an experiment volving a serious operation. Inoculations into deep rts, involving a preliminary incision in order to expose e part into which the inoculation was to be made, were quired to be performed under anaesthetics, and are erefore placed in Table IV (A). It is pointed out that e operative procedures in experiments performed with- t anaesthetics were only such as were attended by considerable, if appreciable, pain. The experi- nt lasts during the whole period from the ad- nistration of the drug, or injection, until the imal recovers from the effects, if any, or dies, is killed, possibly extending over several days, even weeks. The substance administered may give e to poisoning or set up a condition of disease, either which may lead to a fatal termination. To administer an animal such a poison as diphtheria toxin, for ample, or to induce such a disease as tuberculosis, hough it may not be accompanied by acute suffer- , is held to be a proceeding "calculated to e pain," and therefore experiments of the kind re- red to come within the scope of the Act 39 and 40 t., c. 77. The Act provides that, unless a special cer- cate be obtained, the animal must be kept under an esthetic during the whole of the experiment; and it to allow the animal to be kept without an anaesthetic ring the time required for the development of the ults of the administration that Certificate A is given l allowed in these cases. Professor Thane, however, s: It must not be assumed that the animal is pain during the whole of this time. In cases prolonged action of an injected substance, even when ling fatally, the animal is generally apparently well, l takes its food as usual, until a short time before th. The state of illness may last only a very few rs, and in some cases it is not observed at all. In a y large number of the experiments included in le IV (B) the results were negative, and the animals fer no inconvenience whatever from the inoculation. se experiments were, therefore, entirely painless. In event of pain ensuing as the result of an inoculation, ondition attached to the licence requires that the mal shall be killed under anaesthetics as soon as the in result of the experiment has been attained.

Medical and Sanitary Uses of Inoculation Tests.

he number of inoculations and similar proceedings rded in Table IV (B) continues to increase accordance with the progressive importance attached biological tests generally in practical medicine the diagnosis, treatment, and prevention of disease, to the more widely-recognized need for such eriments on the part of those responsible for care of public health. Several county councils municipal corporations have their own labora- es in which bacteriological investigations are ied on, including the necessary tests on living mals; and many others have arrangements by which ilar observations are made on their behalf in the ratories of universities, colleges, and other institu- s. A sewage farm is registered as a place in which eriments on living animals may be performed in order the character of the effluent may be tested by its cts on the health of fish. The Board of Agriculture two laboratories which are registered for the performance of experiments having for their objects the detection and study of the diseases of animals. In other places experiments have been made on behalf of the Home Office, the War Office, the India Office, the Local Government Board, the Office of Works, the Board of Agriculture and Fisheries, and the Metropolitan Asylums Board. A very large proportion of the experiments in Table IV (B), have thus been performed either on behalf of official bodies with a view to the preservation of the public health, or directly for the diagnosis and treatment of disease. Forty-one licensees return over 8,000 experiments which were performed for Government departments, county councils, or municipal corporations; 2,187 experiments were made by four licensees for the Royal Commission on Tuberculosis; twelve licensees performed 6,265 experiments, almost all inoculations, for testing antitoxic serums and vaccines and standardizing drugs; and 12,187 experiments, mostly inoculations into mice, were performed on behalf of the Imperial Cancer Research Fund. The number of injections made during the year 1905 for the diagnosis of rabies in dogs is 27; these are placed in Table IV (A).

Inspection of Registered Places.

During the year the usual inspections of registered places were made by Sir James Russell, Professor Thane, and by Mr. W. B. L. Trotter, who was appointed temporary assistant during Professor Thane's absence for three months. They found the animals suitably lodged and well cared for, and the licensees attentive to the requirements of the Act, as well as to the conditions appended to their licences by the Secretary of State.

Irregularities.

The irregularities recorded during the year were few and not of a serious character. Two licensees, holding certificates (A), entitling them to perform inoculations without anaesthetics, administered an anaesthetic during some of their experiments, whereas the Act prescribes another form of certificate (B) when an animal is anaesthetized during an experiment and allowed to recover from the anaesthetic. A licensee, through inadvertence, performed fifty-four inoculation experiments in excess of the number allowed by his certificate. Another licensee, not understanding that joint experiments are reckoned to both of the licensees, took part in the performance of eight experiments in excess of the number allowed by his certificate. By direction of the Secretary of State a suitable admonition was addressed to the licensee in each of the above cases. In the month of April, 1905, the attention of the Secretary of State was directed to certain experiments which were performed in 1903 and the early part of 1904 by persons not holding a licence under the Act 39 and 40 Vict., c. 77. The experiments consisted in vaccinating dogs against distemper and then exposing them to infection, the object being to test the efficacy of a method of vaccination as a safeguard against this disease. The Secretary of State thereupon caused inquiries to be made, and from these it appeared that the experiment, in some instances at least, had been accompanied by pain, and was, therefore, illegal. The persons, who were not aware that their experiments were of such a kind as to come within the provisions of the Act, were suitably admonished and warned against any similar illegal action in the future. The matter was not brought to the knowledge of the Secretary of State until it was too late for further proceedings to be taken if such had been considered necessary. It is as well to point out here that to expose an animal to an infectious and painful disease like distemper is a proceeding calculated to cause pain within the meaning of the Act, and that such experiments can only be legally performed by a person holding a licence and appropriate certificates.

IRELAND.

Sir W. Thornley Stoker, the Inspector for Ireland, states that twelve licences were in force during the year; of these, four expired and two were renewed. One new licence was granted. The experiments performed numbered 218, 106 being under licence alone, and 112 under certificates. Ten licensees performed experiments. The experiments were mainly pathological inoculations, done for the purpose of the investigation or diagnosis of various diseases, such as canine rabies, tuberculosis, cancer, glanders, and typhoid fever. A few were physiological, for the investigation of the functions of the thymus gland, and of the effects of chloroform and ether on renal activity. All these seemed to the inspector to be of a reasonable character, and intended to serve useful purposes in the elucidation of the phenomena of disease or of vital functions. They are reported to have been free from pain. Experiments numbering 8 were performed in illustration of lectures to demonstrate the phenomena of circulation and respiration and of nervous control. In these experiments two dogs, two cats, and four rabbits were employed. Some of the investigations were devoted to the study of diseases in cattle, horses, goats, and sheep, and seem to be useful and of economic value.

Inspection of Registered Places.

The registered places were inspected and their condition found satisfactory. The inspectors in Belfast and Cork report that in those places the provisions of the Act have been satisfactorily complied with.

LITERARY NOTES.

M. SAINT-YVES MÉNARD not long ago presented to the Paris Academy of Medicine a translation by M. Chambon of an Italian book which has now become extremely rare. It is a monograph on animal vaccination by Gennaro Galbiati, published at Naples in 1810. It is said to be the oldest document extant on the subject of which it treats, and it contains much matter of historical interest.

It was mentioned in the BRITISH MEDICAL JOURNAL two or three weeks ago that the proprietors of *Lloyd's News* are sending out gratis and post free to every one making application for it a book of 124 pages, describing and giving specimens of the *International Library* of twenty volumes, "comprising the best of the thousand best books ever written," which is now offered at a very low price. Those who may wish for particulars will find them in our advertisement columns. We are requested to state that the offer expires this week.

The scope of the *Wochenschrift für sociale Medizin, Hygiene und Medizinalstatistik* is sufficiently set forth in the title. It is described as "the successor or rather the continuator" of the *Medizinische Reform*, founded by Rudolf Virchow in 1848. The editor is Dr. Rudolf Lenhoff, of Berlin. As the official organ of several societies devoted to the consideration of social and benevolent institutions which affect the interests of the medical profession, the periodical furnishes information of the views and movements within the body of the profession in reference thereto. The periodical can be obtained of Messrs. Williams and Norgate.

Dr. G. G. Ellett (Cambridge) writes:

> A recent publication bears the legend "Arythmia of the Heart." This recalled to me the fact that in your issue of May 26th, p. 1230, you had corrected Dr. Brand, on the spelling of the word "arrythmia."
>
> Reference to Liddell and Scott's *Lexicon* will disclose a page or two of words in which the α privative is followed by the doubled ρ
>
> Let us by all means borrow Greek words, but let us at least borrow them in their proper form.
>
> Dr. Brand would shudder to see "asseptic." Plato would turn in his grave could he see "arythmia."

Tertullian, the well-known Christian apologist of the second century, was a lawyer and a philosopher, but to medical readers he will probably be most interesting from the fact that he is fond of allusions to physiology and medicine as they were in his day. A learned paper on this subject has recently been contributed to the *Archives Générales de Médecine* by P. de Labriolle, Professor of Latin Philology in the University of Fribourg, in Switzerland. Tertullian, notwithstanding a few epigrams from which he could not refrain his caustic wit, appears to have held medicine in high esteem. In his treatise on the soul he says that in treating the problem he had three sources of knowledge: (1) Philosophy, (2) medicine, (3) Holy Writ. He calls medicine the sister of philosophy, and he quotes a number of medical authorities. Replying to certain philosophers who made a distinction between the *anima* or principle of life, and the *spiritus*, or principle of breathing, based on the fact alleged by them that there are animals which undoubtedly live without organs of respiration, he asks who has penetrated so deeply into the works of God that he dare affirm that these organs are wanting in a living being? Referring to Herophilus "that physician, or butcher, who cut up six hundred men to study the secrets of Nature, who cast off human feeling in his eagerness for knowledge," he doubts whether he had fully explored the whole internal economy, as death, especially if it is violent, causes changes. He goes on to say that philosophers have positively denied that mosquitos, ants and moths have either lungs or arteries. But, argues Tertullian, have these creatures eyes? Nevertheless they go where they will; they avoid or seek the things they know by sight; yet show me, he concludes triumphantly, their eyes. Mosquitos buzz in the dark; show me their trumpet and the opening of their mouth. An animal of any kind, were he only the size of a point, must feed on something; show me the apparatus which serves for the introduction and digestion of food and the expulsion of faeces. Therefore if it is by such organs that life is carried on, they must exist in every living creature, even if, by reason of their smallness, they can neither be seen nor felt. You will believe this all the more if you reflect that God is as great an artificer in the smallest things as in the greatest. In discussing the question of the time at which the soul becomes united with the body, Tertullian asserts that it is at the moment of "quickening." In connexion with this subject he gives us a glimpse of ancient midwifery. He says that it sometimes happens that the child has "with necessary cruelty" to be killed inside its mother's womb, when it places itself obliquely across the passage of exit, preventing birth and slaying its mother unless it is itself slain (*cum in exitu obliquatus denegat partum, matricida ni moriturus*). In the armamentarium of surgery, therefore, there is an instrument which forces open the secret parts by means of a suitable curve, and cuts the limbs, the body being then extracted with a blunt hook. The bronze knife with which the fetus is killed was called *ἐμβρυοσφάκτης*, and Tertullian says that the instrument was used by Hippocrates, Asclepiades Erusistratus, and Herophilus. In regard to the severance of the union between the soul and the body, Tertullian holds that it takes place at the moment of death. To this view it is objected, he says, that the nails and the hair grow after death. His reply is curious. The nails, he says are the origins of nerves (*exordia nervorum*), and, therefore naturally, as the nerves become longer by relaxation the nails too become more prominent, and as the flesh daily falls away they seem to grow out. As for the hair it receives its nourishment from the brain, which a secre supply enables to last for some time. Physicians, he adds will tell you that even in living persons the hair is abundant or scanty in proportion to the mass of the brain. In all his writings Tertullian finds in medicine a frequen source of metaphors and comparisons. Speaking of the pains of martyrdom, he says:

> Look at the foolishness of men, they reject that which saves and cling to that which destroys them; they run towards the danger and flee from the remedy; they prefer death to cure for they are mostly fools or timid folk who place their modesty where they should not. Human medicine has also it cruelties—the knife, the cautery, the burning blister. Nevertheless, to be cut, cauterized, stretched, or bitten, is not an evil, because these sufferings are useful, and the pain caused thereby is not a reason for refusing to undergo them. It is necessary on the contrary to undergo them precisely becaus the suffering is necessary. The advantages of the operation excuse the horror of it. The patient who howls, yells and groans under the hands of the surgeons will presently fill with gifts those very hands, praise their skill and deny that the are cruel.

It is the same in regard to martyrdom:

> It hurts but it is to save . . . We must admire th doctor in this also, that in treating a disease he generally uses remedy of analogous nature, by a kind of perversity applyin for the purpose of cure the very things which cause the mischief. He subdues inflammations by greater heat, and extinguishes fevers by inflicting the greater torture of thirst. H overcomes the excess of bile by means of bitter potions, an stops bleeding by making a new opening in a vein.

The statement that the doctor *ferme pares adhibe qualitates medelarum adversus qualitates querelarum*, woul suggest that antiquity, which so often confounds th modern who thinks he has discovered something new had anticipated even Hahnemann's "principle" *Simili similibus curentur*.

Pereant qui ante nos nostra dixere is a sentiment familiar o all workers in literature or science who find too ate that they have been forestalled by some earlier rother of the craft who had the luck to be born some enturies earlier. The French form of the malediction is erhaps less familiar, though to our mind it is more raceful than the downright Latin curse. It runs, if we emember aright, as follows:

> Dis-je une chose assez belle ?
> L'Antiquité tout en émoi
> S'écrie, Je l'ai dite avant toi !
> Que ne venait-elle après moi ?
> Je l'aurais dite avant elle.

MEDICAL NEWS.

Professor Thomas Oliver, of Newcastle-upon-Tyne, has een elected an honorary corresponding member of the ociété Médicale des Hôpitaux de Paris.

A monument in memory of Professor Nocard was nveiled a few days ago in the Veterinary School of Alfort y M. Ruan, Minister of Agriculture.

The Secretary of State for War, Mr. R. B. Haldane, will istribute the prizes to the students and nursing proationers at the London Hospital Medical College on July 5th.

The late Miss Susan Cooper Jackson of Bournemouth, hose will has now been proved, left £500 to the London edical Mission.

Professor Albert Narath, of Utrecht, has been apointed to the Chair of Surgery in the University of eidelberg, in the room of Professor Czerny, who has signed as from October next.

At a meeting of the Pioneer Club, a ladies club at Grafton Street, Piccadilly, W., on Thursday next, at 15 p.m., the subject to be discussed will be "That the ranny of medical etiquette is a serious danger to the iblic."

Mr. John Tweedy, President of the Royal College of irgeons of England, has consented to present Dr. A. E. nes with the amount subscribed for his legal expenses. ie presentation will take place at Sir Victor Horsley's use, 25, Cavendish Square, on Monday next, at 5.30 p.m., ien an informal reception will be held.

Among the statements made in the report of the Statis- al Committee of the Metropolitan Asylums Board for 05, which was adopted last Saturday, is one to the effect at the case-rate mortality from diphtheria in the Board's spitals has fallen from 30.4 per cent. in 1893, the year fore antitoxin treatment was commenced, to 8.3 per cent. 1905.

The appeal against the decision of Mr. Fordham, who ently fined two publicans £1 and £100 costs each for ling a mixture of pot and patent still as Scotch and sh whisky, was concluded on June 25th at the Sessions use, Newington, when Mr. Connell, K.C., announced at the bench were equally divided, and therefore there ild be no judgement, and that the case, if necessary, ist be heard over again. The appeal occupied the sions for seven days.

An exhibition entitled "Country in Town," under the tronage of Her Majesty the Queen, will be opened in the itechapel Art Gallery next Thursday. One of the derlying objects is to show how Nature study can be ried on even under the circumstances of life in the tropolis. A certain number of lectures on cognate sub- ts will be given, and plans will be on view showing how ious crowded areas might be beautified. The exhibition l last a fortnight, and as admission is free, contributions ards the expenses are invited, and may be sent to the norary Secretary, Mr. W. Mark Webb, Toynbee Hall, itechapel.

The Governors of St. George's Hospital held a special eting on June 26th to consider certain offers which had n made for the existing site of the hospital. Mr. A. W. st reported that one offer, which had been definitely de, would leave the institution with a net sum of 0,000 after paying out the share to the Westminster ate, and that the medical staff were unanimously of nion that sooner or later the whole hospital would have be rebuilt. During the discussion of this report the meeting was reminded of the resolution against removal of the hospital passed two years ago, and opinions were expressed that in any case the site should not be sold for less than £400,000. Finally it was proposed and agreed that, as no adequate offer had been received, the resolution of 1904 should be reaffirmed.

The site for the proposed open-air sanatorium for children near Holt, in Norfolk, has now been fenced in and planted, and is ready for building operations. Meantime accommodation of a suitable character for some ten children has been arranged in a house not far off, and the work of providing for young phthisical cases at an age when the great majority of sanatoriums will not receive them will be commenced forthwith. The total number of children eventually to be received at the sanatorium is 100, and the building plans have been so arranged that different portions can be erected as funds come in. Before building can be commenced, however, more donations are required as well as additions to the annual subscription list. These can be sent to the Honorary Secretary, Children's Sanatorium, 68, Denison House, Vauxhall Bridge Road, Victoria, S.W.

A drawing-room meeting in support of the St. Luke's Home for the Dying Poor was held on June 20th, addresses being delivered by Mr. Howard Barrett, one of the visiting staff and original founder of the institution, Mr. Pearce Gould, and others. It was pointed out that such homes were of value to others than individual sufferers; the majority of patients admitted were cases of incurable phthisis or cancer, whose removal from crowded and otherwise healthy households was distinctly in the interests of the public health. Hence not only should this particular home receive ample support, but an endeavour should be made to establish many other similar institutions. The same conclusion was reached by Mr. Arnold White, who argued from what he had observed among uncivilized races in Africa that it was a natural human instinct to wish to die in dignified privacy, and that at present its satisfaction was less possible among the poor of civilized countries than anywhere else. Contributions to the charity will be received by the Honorary Secretary, Miss Helen Don, St. Luke's House, Pembridge Square, W.

Medical Magistrate.—Dr. George Locke has been appointed to the Commission of the Peace for the county borough of Hastings.

Christian Science.—The trial of Mr. George Robert Adcock, M.R.C.S., L.R.C.P., at the Central Criminal Court, for the manslaughter of Major John Nicholas Whyte, D.S.O., was commenced by Mr. Justice Bingham on Wednesday last, and adjourned till the following day.

Sleeping Sickness.—The King of the Belgians has signed a decree establishing a prize of £8,000 to be awarded to any one, regardless of nationality, who shall discover a cure for sleeping sickness; and opening a credit of £12,000 to be allotted towards the furtherance of research as to the treatment and prophylaxis of the disease.

The American Medical Editors' Association.—The thirty-eighth annual meeting of this association was, we learn from the New York *Medical Record*, held in Boston on June 4th, under the presidency of Dr. Henry Waldo Coe. Dr. Frank P. Foster of New York City read a paper on the repeater in medical literature, in which he advocated concerted action on the part of medical editors to prevent attempts at simultaneous publication of the same article in several different journals. Dr. W. C. Abbott of Chicago made a plea on behalf of the advertiser of proprietary preparations, in which he decried ill-advised criticism of all advertisers without discrimination. Dr. Kenneth W. Millican of St. Louis also dealt with the subject, saying that what should be insisted on in the advertising world was honesty, and that there was no sound reason why physicians should oppose advertising of that sort. Dr. James Evelyn Pilcher was elected President for the ensuing year. The annual banquet was held in the evening, when the following resolution was proposed by Dr. James Evelyn Pilcher, seconded by Dr. Henry O. Marcy, and unanimously carried: "That the American Medical Editors' Association telegraph to the Speaker of the House of Representatives that only the passage of the Bill to reorganize the medical department of the army can save this country from disgrace in the eyes of the world and avoid a mortality in peace and war which shall put the entire nation to shame, and that as citizens and representatives of the medical press of the United States we urge that this Bill in question be brought to passage and without delay."

British Medical Journal.

SATURDAY, JUNE 30th, 1906.

THE PROPOSED ROYAL CHARTER.

The procedure to be followed at the Annual Representative Meeting with regard to the discussion of the proposal to apply for a Royal Charter was, with one important exception, practically settled at the special meeting of the Council on June 20th.

The draft charter, ordinances, and by-laws prepared by the Organization Committee, together with the report of that Committee and the explanatory memorandum published in the Supplement to the British Medical Journal of March 24th last, will be presented to the Representative Meeting as the report of that Committee, the recommendations of the Central Council on the Report being submitted in the form of amendments.

As will be seen from the full minutes published in the Supplement for this week, a good many modifications were suggested, and among those carried were some raising matters of principle of more or less importance. Of the alterations proposed in the Charter itself, that which recommends that power should be sought to hold property not only within the United Kingdom but in any part of His Majesty's dominions will probably not give rise to any very serious difference of opinion; but as much cannot perhaps be said for the proposal to modify Clause 12 so as to increase the majority necessary for the acceptance of any future alteration of the Charter, after it has been granted, from two-thirds to three-fourths of the members present and voting at a Representative Meeting.

The most striking alterations in the draft charter proposed by the Council, however, are the suggested amendments of Clause 8 which defines the powers of the Central Council. The operative words as they stand in the draft charter issued by the Organization Committee are "[the Central Council] shall, save "as otherwise provided by the Ordinances, carry "into execution resolutions passed by the Repre-"sentative body, and administer the affairs of the "Association in accordance with" the charter, ordinances, and by-laws. The Council resolved by a majority to recommend the insertion, after the words "which shall," of the words "at their discretion." This was carried by 15 votes to 9; but on a demand for the names for and against, it appeared that 15 voted for the addition, and 11 against. Subsequently, without a division, the words "generally conduct and" were recommended to be inserted before the word "administer," so that the Central Council recommends that the passage should read "[the Central Council] shall at "their discretion, save as otherwise provided by the "Ordinances, carry into execution resolutions passed by "the Representative body, and generally conduct and "administer the affairs of the Association in accordance "with" the charter, ordinances, and by-laws.

The discussion of the finances of the Association which is now occupying so much space in the correspondence columns of the Journal will only serve to emphasize the importance of an alteration suggested in Ordinance 17, which relates to the powers of the Representative Meeting. The draft clause would provide that a resolution of the Representative Meeting "which "affects the funds of the Association" shall not be held to be the decision of the Association unless carried by a majority of two-thirds of the members present and voting. We shall not venture to discuss the question whether the Association has or has not attained such a position of financial stability that it may prudently so increase its expenditure in the promotion of the interests of its members and the profession at large, as greatly to reduce the amount of the annual surplus which has accrued for a good many years past. Without entering on any such discussion, however, it may not be improper to make the rather obvious remark that the Representative Meeting, when considering any proposal for action, ought to have before it some estimate of what the action, if taken, is likely to cost, or that in some other way it should be ensured that the financial aspects of a question should not be overlooked. At present there is no automatic machinery for attaining this object. The Council, on a division in which the numbers voting were 13 to 2, resolved to recommend the Representative Meeting to meet the difficulty in the following way. It has proposed the omission of the words within quotation marks above and the insertion at the end of the clause of the following: "but no resolution involving the expendi-"ture of money shall be binding on the Council unless "it has been presented by the Council or by the "Finance Committee."

The other amendments suggested by the Council appear to be of minor importance, and are, in fact, not very numerous; but, as has already been mentioned, Dr. Helme has given notice of a motion, the terms of which will be found in the Supplement (p. 351), raising the question whether it is not desirable to allow further time for the full appreciation and consideration of "the many important matters "involved in drafting a thoroughly comprehensive and "permanent form of charter." This motion will be considered during the early part of the ordinary meeting of the Council on Wednesday next.

THE PROFESSION AND THE PUBLIC IN AMERICA.

In his Presidential address delivered at the annual session of the American Medical Association recently held in Boston, Dr. William J. Mayo dealt, in the practical spirit characteristic of our Transatlantic cousins, with the problems which the medical profession in the United States has to face in its relations with the public. If allowance is made for certain differences arising from local conditions, the problems are essentially the same as those with which we in this country are confronted. The medical unit is on the whole satisfactory, but collectively the profession has not the influence which it should command either in the councils of the nation or in the moulding of public opinion. Without this the profession cannot take the place that rightly belongs to it in the direction of grea movements for the suppression of disease and the promotion of the welfare of mankind. The cause is no far to seek. As long as the profession is content t remain what for the most part it now is, a mere aggregate of units without combination, and even withou cohesion, it will be unable adequately to fulfil the mos important part of its mission to the nations.

In America, as here, the work of organization ha been begun, but in both countries there is still much t o before the medical profession stands a united body, four square to all the winds of heaven," ever ready to battle against the powers of wrong and darkness that eep the people in the thrall of ignorance, disease, and ime. Till the profession can make itself felt as a rce in the war of factions, Governments will continue turn a deaf ear to the counsels of science, to shelve estions profoundly affecting the health of the people, e efficiency of the public services, and the national osperity, and to sacrifice sanitary right to political pediency. For the lack of organization of the profes- on—which more than any other makes its direct aim e furtherance of the public wellbeing—the people rish.

But the all-important function of the medical pro- ssion will not be understood, nor will its services to e community be appreciated at their true value, until e public mind has been sufficiently educated to iderstand them. This education can be imparted ly by the profession itself. If people are led astray false doctrines, and place greater trust in the hollow etences of quackery than in the honest efforts of tional medicine, the blame lies largely at the door of e medical profession itself. As Dr. Mayo says, we ve allowed the public to be educated by "patent edicine" advertisements and by "the voluble charla- ism of the commercially interested." In return, he ds, we are classed with these schemers, and efforts for e general good are believed to be inspired by selfish gard for our own interests. As we have often insisted, real—indeed, the only—hope of suppressing ackery lies in teaching people to understand the aims d methods, the necessary limitations and the legiti- te aspirations, of scientific medicine. How is this to done? Dr. Mayo proposes that a propaganda of en- htenment should be organized, with medical societies local centres. He suggests that occasional meetings, en to the public, should be held, and that these etings should be devoted to the discussion of ques- ns of general interest, and the proceedings published the local newspapers. In a book published some ie ago Mr. Brudenell Carter states that he once posed that the British Medical Journal should be nsformed into a periodical for the publication of icles by recognized authorities intended for the edu- ion of the public mind in matters medical. Both se well-meant suggestions seem to us open to the ection embodied in the proverb which warns us that can take a certain animal to the well, but cannot ke him drink. How is the public to be made to end the meetings or read the periodicals intended its benefit? Unless some higher power is estab- ied which can say of the society *Compelle intrare*, or the periodical *Tolle lege*, the public is too likely show itself inappreciative of the educational ortunities offered to it.

n our opinion the true plan is to create an intel- ual atmosphere in which a belief in quackery can- live. The process must be gradual, as it takes a g time for scientific principles to saturate the public nd. The extension of scientific teaching in schools of itself do much, and the profession might help more actively than it does in the diffusion of sound wledge. We announced in the Journal some time that in Austria a system of popular lectures on cination had been organized. Why should not be done in this country, not only in regard to cination, but to the prevention of disease generally? point on which enlightenment is specially needed he public is "patent medicines," which, as pointed by Dr. Mayo, are "patent" only in the sense that the name is copyrighted, the vendors being free to change the constituents at any time and in any way they like. A movement in this direction has been started in America within the past year by two popular magazines, the *Ladies' Home Journal* and *Collier's Weekly*, and Dr. Mayo is hopeful of its success. "Do you think," he says, "that our American mothers will continue to "give 'Kopp's Baby Friend' and 'Mother Winslow's "Soothing Syrup' to their babies when they find that "these mixtures contain opium, and that instead of "securing rest the little ones are narcotized, and that "many deaths are attributable to this cause? Will the "American people continue to use bromo-seltzer and "similar dangerous preparations to an extent which "causes them to exhibit blueness of the skin surfaces "from poisonous coal-tar products, or become victims "of drug habits from cocaine catarrh cures, when they "discover the harmful and dangerous character of "these agents? Will our prominent people, statesmen, "politicians, ministers and ladies of note continue to "allow their photographs over signed testimonials to "be published, telling their fellow-citizens how much "better they have felt after taking Peruna, Warner's "Safe Cure, and the various nervines and tonics, when "they find that most of these preparations depend on "alcohol for the stimulating effects which they "describe?" Things are not perhaps quite so bad here, but the "patent medicine" is far too much with us. The remedy is publicity. The exact ingredients and the amount of each should be printed on the label of every bottle sold. Let what Dr. Mayo calls the public conscience—or, as we prefer to call it, the public concern for its own safety—be once fairly aroused, and it may be trusted to make the trade in nostrums so unprofitable that it will soon fade away, like Hans Breitmann's party, into *die Ewigkeit*.

Against the evils of contract practice and hospital abuse our American brethren, like ourselves, are waging a war of which the issue would not be doubtful if the profession were to stand shoulder to shoulder. Every one will heartily echo Dr. Mayo's conclusion that the vital need of the medical profession is an organization that will encourage right thinking and courteous and considerate usage among its members; that will help to secure needed medical reforms; that will compel redress of grievances and promote and encourage the highest interests of its individual members. We need only add that it is the object of the British Medical Association to give the benefit of such an organization to the medical profession of the British Empire.

ARMY NURSING.

Lieutenant-Colonel Valentine Mathews has recognized the importance of special training of the orderlies of the Royal Army Medical Corps (Volunteers) in nursing duties, and has wisely placed some of his men under instruction at the Royal Free Hospital. Here they will obtain from trained nurses a certain amount of experience in dealing with the sick, experience which otherwise hardly falls in their way. But though the knowledge thus gained will assist the orderlies in any nursing duties they may be called upon to perform, they will not be trained in such a manner as will fit them to take up the duties of trained nurses. It is a difficult matter for the mere man to obtain a training as a male nurse, but those of the Royal Army Medical Corps (Volunteers) who show an aptitude for this specialized duty may feel disposed to complete their nursing education and to take up nursing as a profession. Is it out of all reason that the Secretary of State for War should afford facilities for such training of volunteers in military hospitals under the army nurses? Should such be the outcome of the new departure, the Royal Army Medical Corps (Volunteers) will do well to encourage these men, so that in due course they may be in possession of a nursing section of the corps, which will be invaluable in case it should fall to the lot of the national army to be engaged in war. The surgeons of this army will then feel some confidence that the nursing duties will be carried out by men whose hands will not have been soiled by the ordinary fatigues of camp, and whose knowledge will prevent their neutralizing the skilled precautions of the operator, while the physician will be equally rejoiced to think that he possesses orderlies who are conversant with the nursing of cases of enteric fever and dysentery.

As a result of the experiences gained in the late war, the army has adopted a system of special training of orderlies as nurses. This system, there is good reason to believe, is producing a fair proportion of male nurses who will prove of the greatest value to medical officers in the field, more especially to those whose units are engaged in actual warfare. The Nursing Board, and also the Advisory Board are to be congratulated on this outcome of their labours. Under the arrangements now made general hospitals in war will be nursed largely by the Queen Alexandra's Nursing Service, while the field ambulances, the only units which can be said to be actually in the field, will possess a proportion of skilled male nurses properly trained in up-to-date methods. Military hospitals give the regular Royal Army Medical Corps an advantage over the Royal Army Medical Corps (Volunteers) in that they enable selected orderlies to obtain a continuous training in nursing duties, equivalent to that obtained by probationers in civil hospitals; so that at the end of three years the nursing-section orderly who has satisfactorily completed his training and has passed his examinations has become a competent male nurse. As such he can be employed in those numerous military hospitals which do not contain women nurses, and as such he has a reasonable chance of obtaining employment in civil life when he passes into the Reserve.

Now that this specialization is on the point of becoming an effective portion of our "curative" system in the army, it would be matter for congratulation could we find evidence that the subject of prevention of disease was being dealt with by the Advisory Board. A sanitary section of the Royal Army Medical Corps would meet an important requirement of an army in the field, an organization containing trained men competent to deal with water sterilization, and to act as sanitary inspectors and instructors. That the Advisory Board has recommended such a development is known,[1] but the steps being taken to carry the recommendation into effect are not yet apparent. The admirable report by the Advisory and Nursing Boards referred to above is worthy of the careful perusal of those who are honestly concerned in the real welfare and efficiency of the Royal Army Medical Corps, whether Regulars or Volunteers.

But more especially is this report worthy of assimilation by those who desire to return to the condition of things brought to light early in the South African war. This condition led to the formation of the Medical Advisory and Nursing Boards, with a subsequent reorganization and rejuvenescence of the Army Medical Service, the volunteer section of which is to be commended for its laudable striving to emulate th marked improvements now discernible in the Roya Army Medical Corps.

◆

RESOLUTIONS OF THE INTERNATIONAL MEDICA CONGRESS.

AMONG the resolutions passed by the Internation Medical Congress recently held at Lisbon many r ferred only to local conditions. Among those general interest the following were passed by th Section of Children's Diseases: That a committee physicians and surgeons chosen from all the sectio should be appointed to determine precisely the indic tions and contraindications of general anaesthesia i children and adults; that an international committ should be appointed to inquire into the conditio producing rickets; that the teaching of paediatri should be a part of the official course in all faculti and schools of medicine. The Section of Ment Diseases passed resolutions urging the establishme of special institutions for degenerates, imbeciles, an sufferers from moral insanity. In the Section Dermatology resolutions were passed in favour of t simplification of dermatological nomenclature and t adoption of a uniform classification, and calling on G vernments to take all possible steps to prevent the spre of leprosy. The Section of Tropical Diseases adopted motion that the word "colonial" should be substitut for "tropical" in its title, and passed a resolution th the Congress as a whole should draw up an inte national law for the protection of emigrants transport ships.

ENGLISH ETHNOLOGY.

GRADUAL but not very rapid progress has be made in the study of this subject during the la few years. Since Davis and Thurnam's, and Beddo and Ripley's contributions to the physical anthropolo of Britain, a number of writers have essayed develop either that or some other portions of the fiel for example, Rhys, Turner, Pitt-Rivers, Boy Dawkins, Haddon, Browne, Seebohm, J. Gray, Sho Shrubsall, Rowe, Washington-Smith, Duckwort Burnard, and one whose name we have just now j fully expunged from the obituary, Baring-Gould. most cases each one of these many labourers h ploughed his own furrow. Shore, whose posthumo volume, edited by his two medical sons, has just be brought out, has cross-ploughed a field which Gre the historian, but hardly any body else sin Elton, had attacked. And Green looked at t subject with the eye of a geographer, Shore, li Elton, from a historico-legal point of view, a meth necessitating a great deal of minute and careful search. Conspicuous among the foundations of beliefs and conjectures are the differences in custo as to the devolution of property. He claims with mu probability that the occurrence within the bounds one not very large country of quite a number of su customs, customs of the great antiquity and of almost unchangeable nature of which we have am evidence, must indicate an admixture of several ra stocks. The remarkable custom of Borough-Engli whereby the youngest son is his father's heir, is tra by Shore to the Slavs of what is now East Germany, and affords to him the basis of argument which is strengthened by several c siderations of less weight, but still collecti significant, in favour of the Wendish (Slavonic) ori of some of the so-called Saxon colonists. W seems defective here is more proof that the custom really general among Slavonic tribes and not mer disseminated among them, as it is in several Germa districts or countries besides England. It is one that probably might arise among an increasing population, whence the elder sons would find it necessary to emigrate. The parts of Sussex about Lewes are the ead quarters of Borough-English tenure in England; nd Mr. Shore, finding the custom in the great nanor of Taunton Dean also, adduces several ircumstances which lead him to think that the Vale of Taunton was colonized from Sussex; but when he proceeds to derive the name of Wiltshire rom the Transalbian and Slavonic tribe of the Wiltzi ie surely goes much too far, seeing that we already iave a very probable derivation for it from the River Viley—a name clearly Welsh, which the author is comielled to deduce backwards, so to speak, from the nhabitants of the river-valley. Another case in which e weakens his argument by the admission of a clearly insound support is that of the "Rythrenas," mentioned n the *Saxon Chronicle*, A.D. 1065, as invaders of Northmptonshire. The author thinks they may have been lavonic. Whatever may be the etymology of the ord, it is quite clear from the context that the pithet is applied to the Anglo-Danish Northumrian insurgents, including their Welsh allies. In oite of these blemishes the fact remains that Mr. hore has produced an interesting and valuable work, nd much strengthened the argument in favour of the icial complexity both of the earlier Saxons and Angles id the later Danes. Among the former the Frisians ere certainly very strong. The latter were the ruling ice among a number of Baltic tribes. The author well id pithily says, "The country of the Danes was small, and the parts of England which they colonized were large." The inference is obvious.

---

[1] *Journal of the R.A.M.C.*, vol. v, p. 300.

TRAINED NURSES FOR INDIA.

REUTER telegram from Simla announced last week at an appeal to Europeans had been made by the ountess of Minto, wife of the Viceroy, for support for new nursing association. From this it would appear at a scheme for a long time under consideration has en at length launched. This is by no means the st endeavour to provide medical men in India with oroughly-trained nursing assistance when required, it has one predecessor at least, the Up-Country ursing Association. This society, which has a career twelve years behind it, is still in being, and what ation the new association will bear to it is not quite ar. In any case the new scheme is very much wider character; it is hoped, for example, to include Burma the scope of its operation. A great deal of financial pport will have to be accorded to it if it is to be ccessful. The European community in India, welldo as a whole, contains plenty of members who ctically are quite poor, and not very many persons o are able to pay really remunerative nursing fees. the other hand, the contingent expenses of nursing association are great. Nurses are themves not immune from sickness; relatively large ffs must be maintained, larger salaries than in gland are rightly expected, and the travelling enses both locally and out and home are a very ous charge. There is no place where trained nursing stance can be of greater value to medical men than ia, no place where skilled nursing is likely to be re appreciated, and if it can be carried out in its irety the scheme will be an immense boon to all e. Nevertheless, there will be some who will regret opportunities for splendid devotion and selfifice in times of sickness which the scarcity of essional nurses in India has hitherto afforded; the liness to seize them, on the part of both men and nen alike, has been one of the best features of Indian al life.

WARNING NOTICES.

AMONG the places mentioned in the warning notice published in the advertisement columns is Ammanford. The notice refers to a colliery appointment recently advertised. An attempt is being made to do away with the existing system of paying the poundage received from the miners direct to the medical officers, and to substitute the system of management by a miners' committee, who would pay a fixed salary to the medical officer and dispose of any surplus received from the contributions. This is a system which has caused many difficulties in other places, and it is one to which the medical profession in South Wales is resolutely opposed. We understand that many of those who responded to the advertisements of the miners' committee have since withdrawn their names, and it is to be hoped in the best interests of the profession that no medical man will be found to accept the appointment on the terms offered. It should be added that the difficulty arises owing to the medical officers who have previously provided medical attendance on the 1,500 miners at the several pits having received in lieu of a poundage a contribution calculated at the rate of 1s. a month; an application was made to apply the poundage system generally enforced throughout South Wales, and the miners' committee, instead of responding to this, took the course outlined above.

THE FRENCH APOTHECARIES' OATH.

ONE of the last Acts of the late French Parliament before its demise was formally to abolish the enactment of the 21st Germinal Year XI of the Republic, one and indivisible, requiring pharmacists on admission to the privileges of their order to take an oath that they would practise their profession with fidelity and probity. This was the scanty remnant of a formidable oath which compounders and vendors of drugs had taken, or were supposed to take, from the eleventh or twelfth century up to the time of the Revolution. According to that formula, pharmacists had to declare their faith in "God "author and creator of all things, one in essence and "distinct in three persons everlastingly blessed," and to swear that they would live and die in the Christian faith. They had also to swear that they would love and honour their parents "to the best of "their power." Furthermore, they swore to honour, respect, and be of service not only to the doctors of physic who had taught them the precepts of pharmacy, but the masters from whom they had learnt their art. Among the other engagements they took upon themselves was to do all that in them lay for the promotion of the glory and majesty of medicine; to do nothing rashly, and in particular to give no purgative medicine to sufferers from acute disease, without taking counsel of a learned physician; not to touch the shameful or forbidden parts of a woman without necessity—that is to say, when some remedy had to be applied to them; not to reveal secrets confided to them; never to give any one poison to drink nor to advise any one else to do so, "not even to his greatest "enemies"; never to administer an abortive potion; never in any way to attempt to force the fetus out of its mother's womb; to make up the doctor's prescriptions with strict accuracy, without addition or diminution, "as far as they are in accordance with the rules of "art"; never to dispense any succedaneum or substitute without the advice of some more learned person; to "repudiate and avoid like the plague the scan"dalous and utterly pernicious method of practice used "by quacks, empirics, alchemists, to the great shame "of the magistrates who tolerate such things"; and to keep in stock no bad or old drug. The oath ended with the pious formula: "The Lord bless me as I observe all "these things." There are many good points in the ancient oath, though it can easily be understood that the theological flavour which pervades it makes it unsuitable for modern use. But the objection to a simple oath to practise a very responsible profession faithfully and honestly is not so readily perceptible. It is scarcely likely that the French Legislature, in abolishing this oath, was moved by regard for the precept "Swear not at all." It is interesting to note that the leniency of magistrates in dealing with quacks, of which bitter complaint is made by the medical profession in France at the present day, is a grievance of old standing. But their leniency extended also to pharmacists who encroached on the domain of the physician, for we find Gui Patin in the seventeenth century declaring with characteristic vehemence that "the barbers and apothecaries take upon them all they "can of our functions, to enrich themselves and deceive "the public, and the magistrate does nothing to prevent "them."

A METHOD OF INDICATING FOOD VALUES.

MR. IRVING FISHER, of Yale University, proposes to simplify the estimation of food values by the use of a graphic method[1] which readily lends itself to geometrical representation. He adopts the plan of measuring food by calories instead of by weight, and employs as the unit or "standard portion" the amount of food which is equivalent to 100 calories. With milk, for example, the unit, containing 100 calories, is 4.9 oz. This "standard portion" constitutes about two-thirds of an ordinary glass of milk. Of the 100 calories which it contains, 19 are in the form of proteid, 52 are fat, and 29 carbohydrate. The proportions of these three constituents are represented by a right-angled isosceles triangle which is subdivided into three by lines joining its angles with an interior point O. Of these three, the proteid triangle is determined by the height of O from the base, and the fat triangle by the distance of O from the side perpendicular to the base, whilst the area of the carbohydrate triangle is fixed by the distance of O from the hypothenuse. Similarly with other foods, where the proportions of proteid, fat, and carbohydrate are different from those found in milk, the relative values of these three constituents are at once indicated by a simple geometrical calculation which fixes the new position of O. In this way it is possible to indicate in the right-angled triangle the various positions of O which are representative of the food values of the various constituents of the daily diet. And when these positions are indicated, and the value in calories of each article of diet is attached to each point, we are able, by determining the "centre of gravity" of these values, to establish the total value in proteids, fats, and carbohydrates of the diet as a whole, no matter how many ingredients it may contain. In order to make this calculation, Mr. Fisher has devised an ingenious apparatus. The essential feature of this apparatus is a card on which is drawn the right-angled triangle described above. Within this triangle points are located to represent the various foods of which the diet consists. At points representing foods eaten pins with heavy heads are thrust through the cardboard, the weight of each representing one "standard portion." Similar pins to represent half and quarter portions are also provided. When these pins have been inserted, the total ration which has been consumed is readily found by counting the portions thus represented. In order to find the percentages of proteid, fat, and carbohydrate in the meal consumed, it is only necessary to obtain the centre of gravity of all the pins. For this purpose the card is placed in a basket and suspended on a standard, so that the centre of gravity of the pins may assume a position vertically under the point of support. The position of this centre of gravity is easily indicated on the card by means of a vertical pricker which is so arranged that it may be pressed upon the card. By this means the percentages of proteid, fat, and carbohydrate in the total diet are very rapidly determined.

THE CORONER'S JURISDICTION.

THE discussion recently held at the Medico-Legal Society relating to the cause of death turns attention to the question by what warrant the coroner exercises his jurisdiction. The office of coroner is of hoary antiquity; but it is not at all easy to specify the Acts or the exact dates of the Acts by which the various powers of the coroner have come to be vested in him. Thus the Statute *De Officio Coronatoris* 4 Edw. I, Stat. 2 is declaratory, in affirmance of the common law and is imperfect, for it does not describe the whole jurisdiction of coroners. Thus it omits the duty to hold an inquest on any prisoner dying in gaol, which by all the authorities is part of a coroner's duty. It was not until 1860 that the Queen's Bench held authoritatively that the duty of the office of coroner in holding inquests is limited to an inquiry into the cause of death, upon view of the body of the deceased, and that he cannot by common law, inquire into the cause of a fire at which no lives are lost. Vast learning and research were necessary for the solution of this question. In Hughes's translation of the *Mirror of Justices* (*temp.* Edward II) it is written: "To the office "of general and special coroners it doth belong to view "the carcasses of the dead by felony or by mischance, or "to see the burnings, and the wounds, and the other "felonies. . . . Also they used to inquire of burnings, "and who put to the fire (*sic*) and how." During the argument of the case of Reg. *v.* Herford, in 1860, counsel sought to throw doubt on the authority of the *Mirror* by reading certain other extracts therefrom. He said: "The author may have been writing of the "laws of the Saxons, for he says: 'If a man be killed "'by false judgment, the jury of the coroners are to "'declare who were the judges, who the officers to "'form the judgment, and who accessories, and if of "'false witnesses, who were they, and the jurors. . . "'Coroners ought also to make their viewes . . . of "'monstrous births of children, who have nothing of "'humanity, or who have more of other creatures than "'of man.' All these statements are erroneous, and "show that the book is not to be depended upon." In the *Articuli super Chartas* it is written: "*Ordeine est* "*que desormes encase de mort de home, ou office del corone* "*appent as viewes, et enquests de ces faire, soit maun* "*al coroner del pays*," which passage, Lord Coke says "is understood of felonies of the death of men; for the "inquiry of that felony belongs to the office of the "coroner of the vierge," and so it is hereafter in this Act explained. In addition to his power of inquiring into the cause of death, the coroner sometimes prosecutes inquiries relating to treasure trove, but it is not often that he is called upon to exercise this jurisdiction.

EMMANUEL COLLEGE, CAMBRIDGE.

THE annual Commemoration of Benefactors a Emmanuel College, Cambridge, was held on Wednesday, June 20th. As already announced, the Master and Fellows had resolved to make the function of the present year of a special character and invitations were sent to most of the old member of the College who had qualified as medical practitioners. Owing to the exigencies of medical practice many of those invited were unable to avail themselve of the compliment thus paid, and under these circumstances the number present could not but be esteeme satisfactory. Amongst the guests were the Regiu

---

[1] *American Journal of Physiology*, April, 1906.

Professor of Physic, Dr. Clifford Allbutt, and the Professor of Surgery, Mr. Howard Marsh, and ncluded in the medical graduates of the College present were Drs. Hector Mackenzie, T. H. Kellock, Glover Lyon, H. Timbrell Bulstrode, S. Vere Pearson, and J. A. Coutts. After a special service in the chapel, where an innovation was introduced in the shape of lay address by Dr. W. N. Shaw, Director of the Meteorological Department, there was a dinner in he hall. In speaking to the toast of "The College," he Master in felicitous terms welcomed the uests, and, as showing the progress of medicine n Cambridge of recent years, remarked that whilst n the Seventies the medical graduates of the College ould be counted by units, in the two following decades heir increase had not been in arithmetical but in geometrical progression. Mr. T. H. Kellock proposed The Cambridge Medical School," to which Professor llbutt and Professor Marsh replied. Professor llbutt dwelt on the advantage of a collegiate system to a university, and declared that he deemed it high privilege to be present on such an occasion at he great and illustrious College that had been the irthplace of freedom of thought on both sides of the tlantic. The toast of "The Guests" was proposed by he Bursar, Mr. J. B. Peace, and responded to by Drs. H. Timbrell Bulstrode and S. Vere Pearson. Rooms in ollege were provided for each guest with breakfast in all on the following morning. Each one left Cambridge ith the pleasantest recollections of the function, and ith a deep sense of the welcome extended to him by he Master and Fellows. The honour paid to the pro-ssion by its recognition in this manner by the mmanuel authorities will be further appreciated by any practitioners outside of the rank of members of at particular college.

MEDICAL ELECTRICITY.

HE proceedings at the annual dinner of the British ectro-Therapeutic Society on Friday, June 22nd, were a pleasantly informal character; little in the way a detailed account, therefore, need be given. The esident for the year, Mr. Hall Edwards, being tained at Birmingham, it fell to Dr. Lewis Jones take the chair, and thus to propose, among other asts, one to the welfare of the Society itself, which as acknowledged by Mr. A. D. Reid. Dr. Donald aynes proposed "The health of the Chairman," toast very warmly received; and Dr. Knowsley oley, in giving the toast of "The Guests," recalled e notable contributions of Professor Solly to the udy of radium. The Society, which is still young as cieties go, appears to be making steady headway, and ll doubtless in time include, as it should, all those ho are at once experts in medical electricity and e wishful that its practice should be conducted on oroughly sound lines. Apart from the fact that all active members are necessarily persons of highly-ecialized knowledge, the Society is in a certain gree unique. None other, so far as we are are, has been brought into existence for the iberate purpose of rescuing a whole department medical science from the domain of quackery and posture, and of endeavouring to inculcate in all who ve any right to practise it at all an unimpeachable ndard of professional morality. The task which it has itself is no light one, for perhaps nothing lends itself ore readily to chicanery and charlatanism than medical ctricity. Nor, it must be admitted, has the medical fession at large rendered the task any easier, or been ogether free from blame in the matter. With an erited memory of the disappointments of electricity a curative agent in the past and with direct experie of the wrongful purposes to which it has been frequently put in more recent times, the profession as a whole was slow to acknowledge that there could be any virtue even in modern electrotherapy. That point passed it jumped to the belief that it was merely a mechanical art which, given the necessary apparatus, was capable of being practised by any one and every one with equal efficiency. Thus it was that a good deal came to be heard of physicians and surgeons, otherwise spotlessly correct in attitude, sending patients to chemists for treatment—or, indeed, to any one who claimed to have machines and to know how to use them. This practice, we believe, is now dying out, if but slowly, but there still remains a considerable amount of elementary ignorance among otherwise accomplished men. Thus we heard recently of a surgeon who sent a patient to a nursing home with the simple instruction "for electrical treatment." The kind of electrical treatment required was a minor detail left to the matron and her nurses to decide. Still things are now rapidly improving; medical electricians, already specialists, are specializing still further, each devoting himself to one or more particular branches of the work; the hospitals, too, are providing greatly improved departments, and are no longer placing in charge of them any one who does not happen to fit in well elsewhere. The importance of the subject, in short, is not only growing, but making itself felt and tightening its connexions with other departments of medicine and surgery.

PAYING PATIENTS IN HOSPITALS.

Professor Osler, in the course of an address delivered at the prize-giving at St. Thomas's Hospital on June 27th, observed that there was one feature about the hospital that interested him particularly, and that was the admission of a certain number of paying patients. These patients came from a class of people in moderate circumstances, and he thought the plan of providing medical attendance in this manner for such persons was an excellent one. He said there was no need to plead for what he termed "the rich poor," for the poor were indeed rich in regard to hospitals. He advanced the claims of "the poor rich" who supported the hospitals, but who were poor inasmuch as they did not get as much out of the hospitals as they ought. There was no place where a sick man could receive the same care and nursing and after-attention in operation cases as in a large hospital. Further, paying wards for the rich would prove a source of income for the hospitals. He added that he had had large experience in regard to that matter in connexion with the Johns Hopkins Hospital, with which he had been connected for seventeen years. The work in the paying wards was interesting from a clinical standpoint, and it was, he said, "delightful" to see well-to-do people coming for treatment in hospitals with paying wards in the United States. He commented on the rapid development at St. Thomas's Hospital of the clinical laboratories and the active extension of research work, because in that way alone would hospitals contribute towards the progress of medicine. Professor Osler proceeded to quote from a letter written by a layman on the subject of scientific research. It was a matter of regret that that branch of study met with limited acceptance, and only too often its upholders were visited with contumely that was often shared by the institutions with which they were connected. Hospital efficiency should be raised a stage higher by calling in the aid of that form of laboratory investigation which made science its servant, and which was guided not only by sympathy with humanity but also by intellect, remembering that a hospital existed for the prevention of disease as well as for the relief of the sick. Referring to the work of

Pasteur and others, Professor Osler declared that what had been discovered was nothing to what might be done in the future. In the past, science wandered in a maze struggling with disease, but now it was engaged in the prevention of disease. The Professor concluded his address by warning the students against wasting valuable time, and urged them to learn the French and German languages.

IMAGINARY CURES FOR IMAGINARY DISEASES.

NOT long ago M. Richelot, Surgeon to the Cochin Hospital, Paris, was reported to have treated a poor woman who was convinced that she had had a lizard in her inside for forty years by an imaginary laparotomy, followed by exhibition of the *corpus delicti*, which had been bought for the purpose. The newspapers got hold of the case, and did their best to defeat the benevolent purpose of the surgeon by giving full particulars of the "pious fraud," embroidered with a good deal of invented detail. Austere moralists may frown on the innocent deception practised on a foolish woman. It should, however, be remembered that though the cause of her trouble was imaginary, her sufferings were real enough. She had worried herself into the belief that her unwelcome tenant diverted to its own uses the food which should have nourished her; and her belief made her thin. She thought she felt the beast move, and this caused very disagreeable sensations, probably to be explained by the pulsations of her own aorta. Nothing could shake her belief that her stomach was inhabited by a lizard. To reason with such people is worse than useless. What, then, is to be done? Only an imaginary remedy can cure an imaginary disease. Montaigne, in his essay *On the Force of Imagination*, relates a case which clearly points this moral. "A woman supposing to have swallowed a pinne " with her bread, cried and vexed herselfe, even as if " she had felt an intolerable paine in her throat, where " she imagined the same to sticke; but because there " appeared neither swelling or alteration, a skilfull man " deeming it to be but a fantaisie conceived, or opinion " apprehended by eating of some gretty piece of bread, " which haply might pricke her in the swallow, made " her to vomit, and unknowne to her, cast a pinne " in that which she had vomited. Which the woman " perceiving, and imagining she had cast the same, " was presently eased of her paine." A like device has often been successfully practised in similar circumstances. To show the length to which imagination may carry a neurotic person, we may mention the case of a great lady who had an ineradicable persuasion that all kinds of foreign bodies found their way into the throat and stuck there. Nothing was ever to be seen, but she was not to be satisfied with the most solemn assurance to that effect. So she went on spluttering and choking, especially when she went out to dinner, till life became a burden to her and to those about her. At last she found a physician who relieved her suffering. As he has long since gone to a place where he sleeps unvexed by the imaginings of hysterical patients, there can be no harm in telling how he did this. The method was simplicity itself. He laid in a stock of small coins, fragments of bone, feathers, small tangles of hair, pieces of wax, and the like unconsidered trifles, and triumphantly removed one or the other of these objects as the occasion required. This may be condemned by the righteous as quackery, and quackery of a kind it undoubtedly was. But if the real end of medicine is to cure, can it, when legitimate means fail, afford to despise anything that relieves suffering, even though the suffering be imaginary? Or must all such sufferers be allowed to drift into the net of the quack who applies his imaginary remedies not for their benefit but for his own?

RUPTURE OF SPLEEN: SPLENECTOMY: RECOVERY.

LATOUCHE of Autun[1] has reported the following case: A boy aged 10 fell off the parapet of a bridge and struck the edge of a stone about 16 ft. below. He declared that it was the right side of the abdomen which received the full force of the blow. He was picked up at once and walked with the aid of some passers-by to a house about 200 yards distant from the place where he fell. It was not until two hours later that he was transferred, in a laundress's hand-car, to a hospital, and he sat up in a chair all the time that he was kept waiting. Admitted into hospital, he drank some milk and went to sleep when put in bed, but soon awoke, complaining of abdominal pain. Latouche saw him twenty-one hours after the accident. The pulse was rapid, and there was a little tympanitic distension, but the symptoms pointed to rupture of intestine rather than to a splenic lesion, and the blow had been received on the right side of the abdomen. A free median incision was made, and a quantity of dark blood escaped, followed by much distended paralysed intestine. The spleen was found to be nearly torn in half horizontally, yet the haemorrhage had ceased. There was no difficulty about the removal of the damaged organ. The liver, kidneys, and intestines were explored, but no injury could be detected; then the peritoneal cavity was cleared of clots and fluid blood. Latouche met with unexpected difficulty in reducing the intestine. Lastly, a gauze drain was passed into the splenic fossa. There was recurrence of the tympanites with much vomiting, but on the third day the bowels were opened, and from that date convalescence proceeded rapidly. The mortality following rupture of the spleen appears very high. Février collected forty-six reported splenectomies undertaken for this accident, and twenty-three, or exactly 50 per cent., ended fatally. He made out that children bear the accident better than adults, for 15 cases in his series occurred in subjects under 20 and no less than 12, or 80 per cent., recovered. Latouche's case raises the proportion to 13 in 16, or 81.25 per cent. Speedy operation gives the best chances of success. According to Février, in nearly all the splenectomies that recovered the abdomen was opened within twenty-four hours after the injury. Latouche operated just twenty-one hours after the rupture occurred. In his case it is strange that there was so little shock, and that haemorrhage did not prove fatal before the patient was submitted to operation. Promptness and free incision are the great desiderata in bad cases of blows on the abdomen. In the BRITISH MEDICAL JOURNAL of December 23rd, 1905, mention was made of a case related by Le Lorier and Bazy, in which a rupture of the posterior part of the spleen was overlooked though the abdomen was laid open. A pregnant uterus bearing a fibroid tumour interfered with exploration; unfortunately, the patient died nine hours after the opening of the abdomen. No doubt cases of traumatic rupture of the spleen sometimes get well without any treatment besides rest. It is significant that in Latouche's case related above the haemorrhage had ceased though the spleen was nearly torn in half. Coagula tend to fill up the wound and stop the bleeding, but modern surgery would hardly admit that the probability of recovery in this manner can be greater than the chance of saving the patient by splenectomy. Two questions, however, have to be taken into account: First, the surgeon may not be accustomed to abdominal operations, a grave matter where a spleen has to be removed; and, secondly, when it is extirpated by an experienced operator the process of its removal is not without danger, and the after-results may be disagreeable. Mr. Charles Childe, however, discussed this subject at length in his interesting com nication on a case of splenectomy for haemorrhage thin the capsule of a wandering spleen which peared in the Journal for December 23rd, 1905. The ne writer dwelt on the unsuitability of the splenic sues for the application of sutures and ligatures. perience up to the present time has shown that ose tissues are ill adapted for suturing and for liga- ing of vessels; still, the same was taught in respect wounds of the liver down till a few years ago, yet rgeons now no longer fear to apply sutures to hepatic sue.

---

[1] *Bull. et Mém. de la Soc. de Chir. de Paris*, Nov. 28th, 1905.

THE BRITISH RED CROSS SOCIETY.

E British Red Cross Society, which, as already nounced, was reconstituted not long ago, is now pared to promote the formation of branches roughout the country. Subscribers of one guinea nually to a local branch become members, and scribers of 5s. associates; members and associates n be enrolled only through local branches, and ticulars of the steps necessary to form a local branch n be obtained from the central office, 9, Victoria eet, London, S.W. The object of the Society is, as is ll known, to furnish such additional aid to the sick l wounded in time of war as experience has shown to invariably required to supplement the utmost efforts he service departments primarily responsible. It has n found in the past that when war was imminent rs of assistance are made with the utmost generosity, were apt to be overwhelming in number and barrassing in kind; the Society, therefore, wishes to fect its organization in time of peace, so as to be pared in an emergency to examine, systematize, and ordinate all offers of help, and to prevent waste and rlapping. The Society intends to ascertain where l on what terms the necessary supplies can be ained when the need for them shall arise, but does propose to prepare or collect materials or stores in e of peace. The Society has received the official ognition of the Admiralty and War Office; Lord hschild is Chairman of its Council, and Sir Frederick ves Chairman of the Executive Committee.

JUVENILE SMOKING.

Bill which Lord Reay introduced this session in House of Lords with a view to preventing smoking ong boys was referred to a Select Committee for ort, and this body has now begun to receive evidence he subject. Some eight witnesses were heard at first sitting on June 27th, among them being Sir liam Broadbent, Professor Sims Woodhead, and Dr. hur Wigmore, a Vice-President of the Hygienic League. latter dwelt on the fact that among girls there was leterioration of physique similar to that observable ong boys. Such deterioration was largely ascribable, considered, to the increased prevalence of smoking ong boys. Sir William Broadbent said he thought worst mischief was done by smoking before the age 6; nevertheless he would like to see an age-limit 1, smoking at all being very undesirable in early Professor Sims Woodhead dealt at some length the general effect of nicotine, and said that he rded the cheap varieties of cigarettes which boys ked as so much rank poison. The effect of nicotine cumulative and certainly most deleterious to a ving boy; even in very minute quantities nicotine harmful to them. He thought it would be much er that no one should smoke at all until the age least 21 years was reached. Unless the question taken in hand, the results to future generations ld, he thought, be disastrous, since smoking among niles was greatly increasing. Among the general esses there were certain differences of opinion as to ther it was the tobacco seller, the parent, or the l who should be laid under penalties by the proposed Act. Some favoured birching the offending boy if need be; preventing the sale of small packets of cigarettes in sweet-stuff shops and by automatic machines, and in any case the giving of authority to policemen and others to take away cigarettes from boys who were found smoking in the streets, parks, and other public places.

We regret to have to record the death of Dr. John Henry Bridges, formerly Medical Inspector to the Local Government Board. We hope to publish an obituary notice in an early issue.

It is with deep regret we have to announce the death of Dr. Fritz Schaudinn, whose name, young as he was had already become famous by his work on the etiology of syphilis. Quite recently he was appointed head of the parasitological department of the Tropical Diseases Institute at Hamburg. His death was due to septic infection. He was 36 years of age.

The result of the election for three members of the Council of the Royal College of Surgeons of England will be declared on Thursday afternoon next, July 5th. We are requested to say that it is hoped that any Fellows intending to be present at the annual dinner of Fellows held at 8 p.m. on the same evening, in the Library of the College, who have not yet sent in their names, will do so at once to the Honorary Secretaries of the Dinner Committee at the College, in order to facilitate the necessary arrangements as to numbers.

Medical Notes in Parliament.

[From Our Lobby Correspondent.]

The Post-office and Vaccination.—When the Post-office vote came on last week Mr. Lupton raised the question of the vaccination of postal employés. He said he gathered that the Postmaster-General thought it good for postmen to be vaccinated, and he proposed by a few statistics to induce him to reconsider his position. He said that in a district with which he was acquainted he found that in five years of 577 cases of small-pox in the hospital no less than 509 had been vaccinated, probably more if their history could be traced, and some had been vaccinated several times. From such results unbiassed opinion had come to the conclusion that as a preventive of small-pox vaccination was absolutely useless. Turning to an interrupter, Mr. Lupton said he could convince him if he would give him two or three hours of his valuable time. The House laughed heartily at the prospect, and when the hon. member went on to say he "would give £10," Sir Gilbert Parker inquired if an offer of a bribe was in order. The Deputy Chairman advised that the question should be dropped, but Mr. Lupton proceeded to refer to the opinion that small-pox had been stamped out by vaccination in Germany, when he was again called to order. After this he contented himself with urging the Postmaster-General to alter the regulation for compulsory vaccination upon entry into the service. Later on, in his reply, Mr. Buxton said that assuming that vaccination was an advantage, the postal service above all other departments needed that protection. Those employed ran greater risks of catching small-pox than any other civil servants. Last year, however, in the postal service comprising 150,000 persons there was no case of death or retirement caused by small-pox, nor was there any case of death or retirement caused by vaccination. The matter then dropped and after further discussion the vote was agreed to without a division.

The Inspection of Meat and Food Products.—On Monday Mr. Percy Alden asked the President of the Local Government Board whether he could see his way to pay a few surprise visits to the chief manufactories of meat and food products throughout the metropolis; whether he would insist that, in the examinations conferring certificates on sanitary inspectors, some portion of the questions asked should be on the subject of meat and food inspection; if he would grant a return of the number of inspectors in England and Wales who hold a meat and food certificate; and whether he was aware of the differences in method of the meat and food inspection under the various local sanitary authorities in London. Mr. John Burns replied that as to the first question he did not think that any intimation that surprise visits would be paid to the chief manufactories of meat and food products in London would be likely to answer the object in view. Regarding the second, the subject of meat and food inspection was one of those upon which candidates for certificates from the Sanitary Inspectors' Examination Board and the Royal Sanitary Institute were examined at the present time. The latter body had also a special examination on the subject. As regards the third question, he would refer his hon. friend to a return which was obtained in 1904 by the hon. member for the St. Patrick's Division of Dublin, and which gave the particulars desired as respects London and certain large towns. To obtain a return for the whole country would involve much labour and expense. As regards the last question, he might state that he was aware of the differences in method of the meat and food inspection therein referred to, but he did not think that at the present time advantage would be likely to result from a circular of the kind suggested, but he was considering whether, when some further information had been obtained, a conference of the local authorities specially concerned might not usefully be convened with a view to uniformity of action in this matter.

The Increase of Consumption in Ireland.—On Tuesday Mr. Vincent Kennedy asked a question on this subject, and Mr. Bryce replied that the figures quoted were substantially, though not precisely, correct. The fall in England of the death-rate from consumption during the past 30 years was from 21 (not 24) to 12 per 10,000 of the population. The rise in Ireland was from 18 (not 19) to 22. The Local Government Board were about to issue circulars to local authorities and medical officers of health containing recommendations and instructions as to the means to be adopted to check the spread of consumption. The subject had been receiving and would receive the careful consideration of the Government.

Medical Relief on Loan in Ireland.—On Monday, Mr. Meagher asked the Chief Secretary to the Lord Lieutenant of Ireland whether it was competent for Boards of Guardians at their meeting subsequent to the admission of patients to the infirmaries or hospitals under their control, who sought relief by way of loan, to fix the amount which the patient or patients should pay per day for their maintenance and attendance while in the hospital or infirmary; and if not whether, seeing that at the present time such patients contributed but a fraction of the amount which they cost the rates, he would introduce a Bill granting Boards of Guardians the power to fix the rates of charges to patients who sought relief by way of loan, so as to include, in the case of patients who were able to pay, a part of the cost of medical and nursing attendance and the actual cost of the dietary. Mr. Bryce said that in the opinion of the Local Government Board, the answer to the first part of the question was that the guardians had only a limited power under Section 4 of The Poor Relief (Ireland) Act, 1862, whereby they were empowered to charge patients in hospitals or infirmaries a portion of their cost, but such portion was in no case to exceed the average of the general cost of maintenance, medical and surgical treatment, in such hospitals or infirmaries. The Government was not prepared to consider the suggestion contained in the latter part of the question pending the presentation of the report of the Poor-law Reform Commission.

The Kilkenny District Lunatic Asylum.—In answer to Mr. Meagher, Mr. Bryce stated that in the calendar year 1897 the average number of patients in this asylum was 388; the total cost, including maintenance and establishment charges, was £9,127, of which £4,400 was raised by local rates and £3,212 received from Government grants; and the net average weekly cost per patient was 7s. 6d. The corresponding figures for the financial year ending March 31st, 1905, were: Average number of patients, 452; total cost, £12,997; raised by local rates, £7,876; received from Government grants, £4,552; net average weekly cost, 8s. 10d.

The Removal of Offensive Matter Bill, which was introduced amid some laughter on Monday by Mr. Burns, is intended to regulate the conditions under which offal and other offensive matters can be removed in the Metropolitan police district, on similar lines to those in force in the County Council area. Within the County Council area removal is legal, but on going outside the person engaged in the work is liable to prosecution. The Local Government Board Bill will put an end to this anomaly. In connexion with this subject an amusing incident occurred in the House last week. Mr. Dillon complained of the presence of sewer gas in the Chamber and said it was the second day on which he had noticed it. Mr. Harcourt said that, as occasionally happened at this time of the year, the smoke of a steam tug was blown on to the terrace where the intake of air was, and occasionally barges laden with manure passed and the impure air was taken in. When Mr. Dillon raised the question a little later, the First Commissioner of Works said that he had been down to the terrace and was able to trace the offender. It was a barge filled with gas liquor, which was being taken down the river for disposal in the sea. The same barge had given rise to a similar complaint on the previous day. He would endeavour to make arrangements with the Gas Company for some other time for this conveyance.

The New Technological College and London University.—In answer to Sir W. Collins, Mr. Lough stated o Tuesday that the Board of Education was preparing scheme for a new institution on the lines recommende by the Departmental Committee on the Royal College o Science. The Board agreed with the Committee i regarding it as of the first importance that there should b no delay in the organization of the institution, and in th recommendation of the Committee that its relation t the University of London should in the first instance b that of a school of the University, a recommendation i which the Senate of the University had informed th Board that they concurred. In considering the constitution of the new institution the Board had had unde consideration the suggestion of the Departmenta Committee that, without delaying the commencement of the new institution's work, a Royal Commission should be appointed to consider whethe changes could advisably be made in the characte of the constitution of the University which migh make it desirable and possible to amalgamate the tw institutions. It had also had before it the resolution of the Senate of the University deprecating th appointment of such a Royal Commission within so shor a period after the reorganization of the University, and expressing the desire that opportunity should be afforde for conference between the Board and the Senate as to an changes of the kind suggested. In the course of the conference, which took place on March 9th, between the Boar of Education and a deputation from the University Senat upon these matters, the suggestions thrown out by th University deputation seemed to be contingent practicall upon the incorporation of the new institution with th University. As this would necessitate a prolonged dela in the starting of the institution, which the Committe specially recommended should be avoided, the Board ha found it impracticable to proceed on those lines, but wa hastening as much as possible the preparation of a dra charter on the lines of the report of the Department Committee.

The Course of Business in the Commons is now prett well mapped out till the House rises in August. Th Education Bill will probably occupy most of the time ti the end of July, and will get its third reading on July 25th 27th. Supply will be taken on the Thursdays; the Foreig Office Vote on July 5th, and Army Estimates on the 12t with the Board of Agriculture to follow. Friday in th week will be the last private members' day, and the Lar Tenure Bill will occupy that afternoon. The harvest private members will be very small this year, and th autumn session will be required to enable the Governme to realize even a respectable share of its programme.

Leeds.

THE GENERAL INFIRMARY: APPOINTMENT OF REGISTRARS.

Some time ago the Board of the infirmary decided, on the recommendation of the Faculty, to appoint a medical and a surgical registrar to supervise the clinical note-taking, to be responsible for the indexing and due preservation of the hospital clinical and pathological records, and generally to perform the well-recognized duties of the registrars in the different London hospitals. The appointments are made as in the case of the Clinical Pathologist and of the Anaesthetists by the Board on the nomination of the Faculty, and at a recent meeting Mr. G. W. Watson, M.D.Lond., M.R.C.P., was appointed Medical Registrar and Mr. Harold Collinson, M.B., B.S.Lond., F.R.C.S.Eng., Surgical Registrar, and these gentlemen have already entered on their duties. It may be matter for surprise that Leeds has been so long in making the appointments of registrars, but the reason is that the work of registrars has been incorporated with the duties of the large resident staff. Leaving out of consideration the two semi-convalescent hospitals to which resident medical officers are attached, there are thirteen fully qualified men in residence at the central institution. The resident medical, resident surgical, resident casualty, resident obstetric, and resident ophthalmic and aural officers, who are responsible under the honorary staff for the work in their departments, have under them three house-physicians and five house-surgeons, one of whom is attached to the eye and ear department. At one time most of the note-taking was done by the members of the resident staff, but with the development of the school this work has gradually, during the last twenty-five years, been transferred to the students, who are supervised in this work by the residents. In many respects the work of notetaking and the supervision of the records have been exceedingly well done, and the clinical and pathological "library" of the infirmary will bear favourable comparison with that of many of the larger London hospitals, but it is confidently expected that a higher standard of excellence will be obtained under the new system, and that the benefit will be experienced by the infirmary both as a charity and as a teaching institution.

SALARIES OF RESIDENT MEDICAL OFFICERS.

At all hospitals, and of course to a greater extent at the larger institutions than at the smaller, the members of the resident medical staff are from time to time called upon to perform duties arising out of their work in connexion with the hospital which involve the payment of fees by those who request their services. Such duties are the giving of evidence in courts of law, the making of autopsies in the case of any person who has not died within the walls of the infirmary, work in connexion with the Employers Liability Act, the writing of insurance certificates, etc. In some hospitals such fees are regarded as perquisites of the resident staff and supplement the salaries of those gentlemen; in other hospitals all such fees are retained by the institution, it being felt that the duties performed arise out of the residents' connexion with the hospital, to whose service it is usually a condition of his appointment that he should devote all his time. For many years the former tradition has prevailed at Leeds, but recently on the initiative of the Treasurer, Mr. Charles Lupton, the whole matter has been reconsidered, and it has been decided that in future all such fees as those above detailed shall be paid to the funds of the infirmary. At the same time the salaries of the residents have been reconsidered, and in future the two senior officers, the resident medical and the resident surgical officer, will receive £150 per annum instead of £100, the salary of the resident casualty officer has been raised from £100 to £125, and that of the resident ophthalmic and aural officer from £50 to £100. The matter was very fully discussed by the Faculty, to whom it was referred by the Board, and the decision was come to by the Board on an almost unanimous recommendation of the Faculty.

CHANGES IN THE FACULTY OF MEDICINE.

Professor de Burgh Birch, who was appointed Dean of the Faculty of Medicine on the death of Mr. Scattergood some six years ago, has, to the great regret of all his colleagues—a regret which is fully shared by the students—resigned his position. The duties of the Dean of the Faculty of Medicine are more onerous than those of the deans of the other faculties, for it has been found convenient, if not actually necessary, that the holder of the office should carry out all the functions formerly performed by the Dean of the Medical School—that is, to act as Chairman of the Board of the Faculty of Medicine and to be the responsible head of the medical school, exercise supervision over the entry of students, and advise them as to their classes. All those duties Professor Birch has carried out with the utmost efficiency, courtesy, and tact. One of the best pieces of work he carried to a successful ending was an adjustment of the hours to be devoted to lectures and to clinical work respectively. Students and teachers alike feel grateful to the retiring Dean for the settlement of this thorny question. Leeds is happy in having its medical school in immediate proximity to the Infirmary, and Dr. Birch's efforts have done much to utilize this natural advantage so as to avoid waste of time and prevent overlapping of lectures and clinical work with consequent friction.

Professor Grünbaum has been, on the unanimous nomination of his colleagues, appointed Dean of the Faculty of Medicine and Chairman of the Board of Faculty. During his short connexion with the University Professor Grünbaum has taken the greatest interest in all questions of administration, and will doubtless prove an excellent successor to Dr. Birch.

It has been decided, on the recommendation of Professor Barrs, that an Honorary Demonstratorship shall be instituted in connexion with the Practice of Medicine.

THE PUBLIC DISPENSARY.

On the recommendation of the Faculty of the Public Dispensary the Board of that institution at a recent meeting appointed Mr. F. J. Birks, M.B.Lond., an Honorary Anaesthetist, and Mr. G. E. St. Clair Stockwell, B.A., M.B., B.C.Cantab., an Honorary Clinical Assistant to Dr. Telling. A special appeal for a sum of £25,000 has just been issued. This sum is necessary to meet the expense of the new buildings which it is proposed to erect south of the river, and to provide a part of the income for the working expenses of the dispensary. A preliminary list of subscriptions amounting to £3,352 was published along with the appeal.

Liverpool.

LIVERPOOL HOSPITAL FUNDS.

The Lord Mayor presided at the meeting of the Hospital Sunday and Saturday Funds at the Town Hall on June 19th. It was unanimously resolved that £10,000 be distributed as an interim allocation to the same charitable institutions and in the same proportion as last year, a second distribution to follow about four months hence, when all the collections have been made and paid into the bank. The Hospital Sunday Fund, it was reported, showed a falling off of about £150 to date, as compared with last year, while the ladies' street collection had also declined. The Hospital Saturday Fund, the weekly collections being the most reliable source of income, was about normal. On the whole, therefore, the prospects were that the total fund will not reach the aggregate of last year, though the general needs, without taking account of the special demand through recent disasters, were growing. The £10,000 will be distributed within the next fortnight.

HOME FOR EPILEPTICS AT MAGHULL.

The annual meeting of the subscribers was held on June 16th at the institution. There was a record attendance. Colonel H. H. Hornby presided. The Committee, in their seventeenth annual report, stated that during the year 30 males and 14 females had been admitted, and in the home on December 31st, 1905, there were 108 males and 100 females; 36 had been discharged and 3 had died. Although the accommodation was not so heavily taxed as in former years, there was still need of further room, especially for children. On the education authorities of the various borough and county councils was placed the duty of providing for epileptics and feeble-minded children, and, where they had not a home of their own, were disposed to make use of institutions such as that at Maghull, paying the cost of teaching and maintenance. Every patient had some duty to perform, however seemingly unimportant, so that all felt they were doing their part in the work of the home. Those who took up regular duties received a small allowance by way of gratuity, the sum paid in this way during the year being nearly £171. The farm showed a profit on working of £87, and a new industry taken up in the past year had been the curing of bacon of their own production. While, however, real work of a regular nature, and purposely directed to make mental and physical effort a necessity, was one of their chief resources in the common-sense treatment of this malady, recreation and education had an important place. An extension of accommodation for the large number of third-class patients at the Henry Cox Home had been provided at a cost of about £370, of which £304 had been paid, and charged to estate account. There was still a debit of £10,500 due on mortgage of the home property, less £1,183 in bank. The medical report stated that during the year 3 of the inmates had died, and of the 24 males discharged, 12 were removed by friends. The Bishop, the Hon. Arthur Stanley, M.P., and others spoke in eulogistic terms of the great value of the institution to Liverpool and district.

North Staffordshire.

THE NORTH STAFFORDSHIRE INFIRMARY.

On June 19th a special meeting of supporters of the North Staffordshire Infirmary was held at the North Staffordshire Hotel, Stoke-on-Trent, to consider means for increasing the income of the institution. It was pointed out that the number of patients continues to increase, without any proportionate increase of income. Of late years additions have been made in the form of open-air wards, departments for electrical and light treatment, an isolation block, and the nurses' home—all helping to swell the working expenses. At least another £1,000 per annum in annual subscriptions is needed, and resolutions were passed that a united effort should be made to secure this, and that the Committee should be requested to consider the advisability of revising the existing scale of subscribers' privileges.

THE COMPENSATION BILL AND LEAD WORKERS.

On June 21st a meeting of china and earthenware manufacturers was held at Stoke, including representatives of the trade throughout Great Britain, to consider the Compensation Act Amendment Bill. The Bill as it stands would include not only those who actually work "in the lead," but many thousands of workpeople who use lead certainly, but in such small quantities and in such a form that they run no risk whatever in their occupation, and the trade is unanimous in asking that these should be omitted from the Bill. It is claimed that no case of plumbism has ever been known amongst this latter class, which includes the pottery printers, transferrers, gilders, enamellers, and decorators. The employers and employed are at one on this point, and consider that nothing would be gained by a monthly examination of some 18,000 such workers.

South Wales.

HYGIENE IN SCHOOLS.

An important conference was held on June 22nd at the Town Hall, Cardiff, for the purpose of encouraging the study of hygiene in the schools and appointing an executive committee for South Wales in connexion with the second International Congress on School Hygiene to be held in London in August, 1907. Dr. T. H. Morris, C.C., Chairman of the Education Committee of the Glamorgan County Council, presided, and among those present were Principal Griffiths, F.R.S., Dr. W. Williams (Medical Officer of Health for Glamorgan), Mr. Owen Owen (representing the Central Welsh Board), Dr. Lynn Thomas, C.B., Mr. Tom John (ex-President National Union of Teachers), Councillor Lewis Morgan, Mr. G. C. James (Merthyr), Miss E. P. Hughes (Barry), Professor (Mrs.) Mackenzie, Dr. Lloyd Edwards (Barry), Dr. Walford (Medical Officer of Health of the City of Cardiff), Dr. C. J. Thomas (Assistant Medical Officer for London Education Committee), Dr. J. D. Jenkins (Rhondda), and Mr. J. Austen Jenkins (Cardiff). Dr. Thomas (London) stated that the Education Committee of the London County Council were anxious for an improvement in the condition of work in the schools, in the surroundings, atmosphere, lighting, and accommodation, as well as in the actual methods of work. Many children suffered from curvature of the spine and similar diseases in consequence of wrong methods of teaching, and the time had come when teachers must be taught hygiene, for the physique of the nation depended upon it. The type of school books, too, required attention, and he would further suggest that no head teachers should be appointed unless they had passed an examination in hygiene. It had now been decided to appoint national committees for England, Wales, Scotland, and Ireland to act in connexion with the International Congress. The Chairman said that already Glamorgan had taken steps. Lectures in hygiene had been delivered to teachers, and these had proved very beneficial. Principal Griffiths suggested the appointment of a general committee to promote the study of hygiene in South Wales and Monmouthshire, and a committee to meet another already appointed for North Wales. This was seconded by Mr. Tom John, and it was agreed that there should be a representative on the general committee for every education authority. Both committees were then appointed, and Dr. W. Williams and Dr. E. Walford were appointed conveners of the next meeting, when the South Wales officers will be appointed.

THE EBBW VALE DISPUTE.

Meetings of the members of the Ebbw Vale Doctors' Fund have recently been held in various parts of the district to consider a proposal that the negotiations which had been carried on mainly through the Monmouthshire Division of the British Medical Association should be brought abruptly to an end, and the Committee of the fund instructed to take steps to fill the positions of any medical men on the staff who may decline to accept the terms proposed by the Workmen's Fund. A good many inaccurate statements have been made at some of these meetings, including the assertion that the British Medical Association had asked for a voice in the control of the funds in certain events. What the Association has asked is that no change shall be made in rules affecting the terms of employment of the medical staff, forming part of the contract under which they are engaged, without their consent—an obviously equitable suggestion. It has also been proposed, with a view to harmonious working, that the Monmouthshire Division of the British Medical Association should be consulted as to any proposed alteration. The assertion that the Association has asked that the local committee of medical officers should handle all the moneys is entirely incorrect. What has been asked is that in any difficulty affecting any member of the staff a committee of the staff should have the right to make representations to the fund committee, and that a reasonable opportunity should be afforded for this medical committee to consider and report upon such points. From the voting at some of the meetings it seems reasonable still to hope that the difficulty may be adjusted without going to extremes. It is, however, absolutely essential that the Workmen's Committee should show a conciliatory spirit, and a disposition to take an equitable view of the claims made by the medical officers and on their behalf.

Ireland.

THE BANKS MEDAL AND PRIZE.

We have pleasure in recording a very gracious act on the part of Sir John Banks, K.C.B., Physician in Ordinary to His Majesty the King in Ireland, towards the junior members of the profession in connexion with the School of Physic in Ireland. He has recently endowed a medal, to be called "the Banks Medal," and a money prize, to be awarded to the two best answers at the examination, held every second year, for the Medical Travelling Prize in Trinity College, Dublin. The Board of Trinity College has accepted the trust of the endowment, and has promised to place in the School of Physic the bronze plaque, or medallion likeness of Sir John, from which the dies for the medal have been struck. This generous gift has met with the unanimous approbation of the professors of the school, and at a meeting held last month they passed a resolution of hearty thanks to Sir John, as they feel assured that a wider competition for the Travelling Prize will be thereby encouraged; and also that the memory of one of the brightest ornaments of the profession will be happily perpetuated in the school, with which, as King's Professor of the Practice of Medicine, and subsequently as Regius Professor of Physic, Sir John Banks was officially and intimately associated for nearly forty years.

HEALTH OF BELFAST.

Discussion in the City Council.

On June 11th, the City Council met in Committee to discuss several important matters, including the salary of the new medical officer of health, the equalization of rates, and tram fares. Two hours were spent on the first question, and as at the end of that time a tie resulted, the meeting adjourned. The recommendation of the Health Committee, that the salary be £800 per annum, had been moved by its Chairman (Alderman King-Kerr), but had been met by an unsuccessful amendment proposing to add words making it necessary for the person appointed to have five years' experience as a medical officer of health. Further amendments, that the salary be £600, and another that it be £500, were proposed; the latter gave rise to the tie, and the Lord Mayor gave his casting vote against the £500.

At the adjourned meeting held on June 18th, a third amendment was proposed by Councillor Dr. Williamson, that the salary be £750, rising by increment of £50 every second year; this was also defeated. Finally, a fourth amendment that the salary be £600 per annum was adopted by 19 votes to 14. On this amendment being put as a substantive motion, a further amendment that the salary be £500 was moved but negatived, and the motion was carried by 21 to 16.

As the council is composed of 60 members it is felt that this vote does not necessarily represent the views of that body, and certainly not of the citizens in general; the Local Government Board is to be petitioned not to sanction the sum advocated only by 21 out of 60, and against the recommendation of the Public Health Committee.

At the meeting of the Public Health Committee on June 21st, Dr. Clibbor, the Local Government Board Inspector, attended, and expressed the opinion that the salary should be £800. It is felt by nearly every one that this salary at least is necessary to attract the services of a really good man. The death-rate from preventable disease is undoubtedly high in Belfast. Much has been done but much more remains to be done; the problems of consumption and of tuberculous disease in general, of infant mortality, of jerry-built houses, of the drainage of the city, of milk supply and meat inspection are all becoming more and more pressing. The facts with regard to the last two subjects are now well known, mainly through the energetic action and protests of Councillor Dr. Henry O'Neill. The public controversy which has lately been waged on the subject of the public health of the city in general has had an educative effect and has aroused much public interest. It is felt that the Public Health Committee has taken a right course in recommending £800 a year, and if it insists, even to resignation, on this being carried it will have the strong support of every intelligent and unbiassed citizen and the emphatic approval of the profession. Whatever comes of it, it will have done the right thing. The fight for putting the Public Health Department on the best modern lines has been long and strenuous; it is felt on all sides that the character and reputation of the new medical officer of health will decide whether Belfast will stagnate for another fifteen or twenty years, or will be aroused from the sleeping sickness that has affected it so long. If the death-rate of Belfast were the same as Leeds, London, Bristol, Cardiff, Glasgow, Nottingham, Birmingham, Bradford, Sheffield, Hull, or Newcastle, it is no exaggeration to say that literally hundreds of lives would be saved each year. The first step in any attempt to reach such a goal is to procure the best man to put at the head of affairs.

INSPECTION OF DUBLIN HOSPITALS.

The report of the Board of Superintendence of Dublin hospitals receiving a grant from Parliament has just been published. The criticisms are generally favourable. The Governors suggest that day rooms should be available in the general hospitals, and that the patients should not eat their meals in the wards. They speak flatteringly of Dr. Steevens' Hospital, the Richmond, the Rotunda, the Royal Victoria Eye and Ear, and others. The number of patients admitted during the year was 12,226, of whom 469 died. Mortality was 3.74 per cent. The daily average number of beds occupied was 940, and the average time spent in hospital 23 days.

Scotland.

SCOTTISH LUNACY LAW.

Purves v. Carswell and Gilchrist.

DR. J. CRAWFORD RENTON asks us to state that £534 3s. 8d. has been collected for the Carswell-Gilchrist Fund, and after deducting expenses, chiefly for printing and postage, a balance of £520 has been handed to Dr. Carswell and Dr. Marion Gilchrist to assist them in defraying the costs of the defence in the recent litigation, the facts of which were summarized in the BRITISH MEDICAL JOURNAL of March 24th, 1906, p. 704, and May 5th, 1906, p. 1060.

MEDICAL OFFICERSHIP OF SCHOOLS, DUNDEE.

The Dundee School Board has resolved to appoint a medical officer whose duties are stated to be to examine children absent from school and "alleged to be ill"; to visit schools "where the head teacher may have reason to suspect the existence of undeveloped disease"; to examine candidates for indenture as pupil teachers; and to examine and certify "all cases of assistant teachers where a doctor is not in attendance, who are absent from illness." For these services the medical officer is to receive the salary of £25 per annum, with 1s. for every child examined by him under the first clause.

On seeing the scheme in the newspapers the Branch Council, deeming that the scheme was defective in many respects, and that the remuneration was insufficient, requested the School Board to receive a deputation from the Council for the purpose of considering the scheme. The Board refused somewhat brusquely, and advertised for applications.

The Council prepared a memorandum stating their objections to the scheme, and issued this, along with the scheme, to every registered medical practitioner in Dundee inviting them to be present at the annual meeting of the Branch, when the matter would be discussed. At the meeting it was resolved:

> That the Branch declare it would be improper for any member of the profession to undertake the duties of medical officer to the Dundee School Board under the present draft scheme.

The Dundee members were empowered to meet for further consideration of the question, and the Dundee members of Council were appointed a subcommittee to carry out the resolution.

A circular was sent to all practitioners informing them of the resolution, stating that the chief objections were that there was a danger of ignorant parents being coerced into sending delicate children to school against the advice of the family practitioner; that the rule requiring the nature of the disease to be specified involved a breach of professional confidence; and that the scale of remuneration threatened to be oppressive. A form was attached to be signed by members of the profession pledging themselves neither to apply for nor to accept the position, nor to grant testimonials in connexion with it.

At a largely-attended meeting of the profession held on June 18th it was reported that only four practitioners had not intimated their intention not to apply for the appointment out of sixty-nine issued. No reply had been received from several who either are not in practice or were absent from town. The meeting unanimously resolved to adhere to the resolution passed at the annual meeting of the Branch.

At the meeting of the Dundee School Board on June 25th, Dr. Jas. Miller was elected Medical Officer under the Board; the other candidates for the appointment were Dr. D. Beattie Bain and Dr. R. Johnston. Dr. Miller, we are informed, has resigned his membership of the British

Medical Association, and the other two gentlemen are, we understand, not members of it.

Three years ago the Branch Council had an interview with the Board urging it to appoint a medical officer, and submitted a memorandum stating the duties and salaries under other school boards. The subject was referred to a Committee, and nothing was done at the time.

In connexion with a form of medical certificate issued by the Board two years ago the Council represented to the Board the undesirability of stating the nature of the illness, and asked the Board to pay each practitioner for certificates supplied on its forms. The Board replied that the obligation to furnish certificates rested on the parents, and refused to alter its forms.

The present Board refuses to consider the opinions of the profession on a subject first brought under its notice by the profession, and retains in the conditions of appointment of its medical officer the form of certificate which two years ago was pointed out to be professionally improper and publicly mischievous.

Cerebro-spinal Fever.

Reference was made a few weeks ago in this column to the fact that some cases of cerebro-spinal fever had occurred in Glasgow, and it was stated that the Health Committee of the Town Council had issued a circular to the medical profession in the city inviting intimation of all cases of cerebro-spinal fever observed during the previous twelve months. The replies added only 10 cases to those already known to the Health Department. Dr. Chalmers, the M.O.H., has reported that from March 10th last to June 22nd there have been altogether 44 known cases of cerebro-spinal meningitis in Glasgow. As regards the first 39 of these cases, 6 of the sufferers were under 1 year of age, 7 were from 1 to 5 years, 14 from 5 to 10 years, 2 from 10 to 15 years, and 5 from 15 to 25 years, while the remainder were of various ages beyond 25 years. Of the 5 others, 1 was 6 months, 2 were between that age and 7 years, 1 was about 18, and the other was an adult. Thus it will be seen that 32 of the 44 cases had affected persons under 15 years of age.

Not all the cases observed in Glasgow originated there, and it appears that of 16 cases which proved fatal in the Royal or Western Infirmaries 3 came from districts outside the city (Port Glasgow, Partick, and Whifflet). The organism of Weichselbaum has been found in a minority of the fatal cases only, so that some of the cases may have been examples of other forms of meningitis. On the other hand, it is known that even when cerebro-spinal fever is present the specific organism may disappear during the later stages of the illness, and Dr. Chalmers has reported to the Health Committee that

> Were the disease made notifiable, it is to be expected that a detailed study of the symptoms presented by these cases in which Weichselbaum's organism is present would enable cerebro-spinal fever to be more readily separated from those other forms of meningitis with which it is so liable to be confounded.

A special meeting of the Town Council of Glasgow, as local authority for the city, will be held on July 26th to consider Dr. Chalmers's recommendation as to notification.

Offers of a Convalescent Home to Edinburgh Royal Infirmary and the Admiralty.

In consequence of the removal of the Forth Guardship from Queensferry, and the transference of the boys of the *Caledonia* training ship to barracks in the South, the Sailors' Home at Queensferry and the Royal Naval Sick Quarters at Butlaw have been vacated. At a meeting of the Board of Managers of the Edinburgh Royal Infirmary on June 25th, a letter was read from the Director-General, R.N., saying that a proposal was under consideration to close the Royal Navy Sick Quarters at Queensferry, and asking if the Managers of the Infirmary would be prepared to consider an offer to take over the buildings unfurnished at a peppercorn rent. The suggestion was made that the place might be used as a sanatorium. The buildings, if taken, are to be kept in a thorough state of repair, and are to be handed over at, say, three months' notice should they be required by the Admiralty during peace time or in the event of war. The hospital stands on a bracing site on the high ground above Queensferry, about a mile west of the village. It was erected seven or eight years ago at considerable cost. It is adjacent to the ground used as a recreation park by the boys on the *Caledonia*. The matter has been remitted to the House and Medical Committees of the Infirmary. The Butlaw buildings would be very suitable as a sanatorium, but the distance is a barrier, involving as it would considerable expense, and the uncertainty of tenure has also to be taken into consideration.

Royal Victoria Hospital for Consumption, Edinburgh.

The annual meeting of the Royal Victoria Hospital for Consumption, Craigleith, Edinburgh, was held on Friday, June 22nd, in a marquee within the hospital grounds. Sir Alexander Christison, who presided, hoped that next year they would be able to meet in a solid structure, which thanks to the wonderful success of the fancy fair in November last, would, he hoped, be then built. He intimated a letter from Captain Alan Forster enclosing, on behalf of his father, a cheque for £1,000 for the benefit of the hospital. He submitted the print of a constitution and rules for the hospital, and moved their adoption. This was seconded by Sir Arthur Mitchell, and agreed to.

Sir Ralph Anstruther then moved the adoption of the sixteenth annual report, which stated that the fancy fair had yielded £13,245. This justified the Committee in proceeding to the erection of two new pavilions for patients, a central block with dining-room and kitchen for patients, and suitable quarters for the resident staff, and in transferring a considerable amount to the capital fund of the hospital. The work of the hospital as "an extensive organization for the combating of consumption in all its varying manifestations" was referred to. From the opening of the hospital to March 31st, 1906, 1,082 individual patients had been received for indoor treatment, and there were 172 "visitant" patients, who enjoyed the same régime as the others during the day, but returned home to sleep. There was still a long waiting list, and the waiting often meant that cases, at first apparently favourable, slipped into the ranks of the incurable. A certain number of patients contributed 1 guinea a week towards their board and treatment. The Stewartry of Kirkcudbright had entered into an arrangement for the maintenance of four beds at a cost of £320, with immediate right of nomination to four beds throughout the year. As to the results of treatment, the experience of the hospital was eminently satisfactory. Many of the patients had become stronger and healthier than they had ever been. When the need for complete rest was past, patients were enjoined to work subject to medical direction. Two-thirds did more or less assist the work of the institution. A convalescent colony was thus gradually being realized. The work at the dispensary, where 15,452 patients had been seen since its beginning; the important information gained there with reference to the disease; the Samaritan Committee; and the revenue were in turn dealt with in the report.

The Treasurer (Mr. Brown) seconded the motion, and hoped the day was far distant when city corporations would be asked to deal from first to last with consumption.

Lady Dunedin moved a resolution commending the hospital as worthy of the most liberal support from all classes of the community.

Dean Skinner Wilson seconded.

Various votes of thanks followed, and then Lady Dunedin opened a supplementary sale of articles left over from the winter bazaar.

SPECIAL CORRESPONDENCE.

BERLIN.

The Rudolf Virchow Hospital.—The Proposed Municipal Memorial to Virchow.—Virchow's Bust at the Pathological Institute.

It is believed that the new Rudolf Virchow Hospital has grown to be the largest hospital in Europe. It is a townlet of picturesque-looking red roofs, intersected by wide avenues and narrow roads, each pavilion flanked by gravel terraces, banked with turf. The total cost of the 57 buildings which make up the hospital, together with all the fittings, has amounted to 18,868,000 marks (£943,400). There are 2,000 beds in all; 564 beds in the 11 buildings of the surgical department, 500 beds in the 10 pavilions the medical department, 95 beds for gynaecological and 5 for obstetric cases, 19 for pregnant women, 11 beds for ptic cases, 24 in the quarantine pavilion, 34 in the diph-eria pavilion, 120 in the 4 pavilions for infectious cases, 3 for restless patients, 374 in the men's department for enereal disease, and 146 in the women's. The cost of each ed is calculated at about £400. October 1st has been xed for the opening of the hospital in all its departments.

Besides perpetuating Rudolf Virchow's name in this agnificent hospital, the Berlin municipality mean to onour the memory of him to whose initiative and energy erlin owes its position as one of the most sanitary of odern cities, by the erection of a monument. The pecial "Virchow Memorial Committee" formed some me ago, invited German sculptors to send in sketch odels and designs in competition for three money rizes. Commemorative statues being a very favourite rticle in Germany at present, a large number of sketches ere promptly sent in. The Committee made its awards ith equal promptitude, and then exhibited the designs ublicly in the City Hall, no doubt expecting that general pinion would confirm their selection. But the ontrary proved to be the case; indeed the model which the first prize had been awarded was so nanimously negatived by general opinion, that its final xecution has become very doubtful. And it must be aid that this time general opinion has not gone astray. he idea of Klimsch's monument is far-fetched and strange, ith more "allegory and zoology" (to quote the German mperor's remark on a similar occasion) than is con-istent with Virchow's unenthusiastic and sceptical haracter. On a high columned base, which bears on its ont Virchow's head in medallion, stands a large group: ercules struggling with the Nemean lion—supposed to e symbolic of the great sanitary reformer's struggle with rejudice and ignorance! One can only hope that the ommittee will reconsider its opinion, and select for xecution something quieter and more dignified than limsch's competition design.

The opening of the New Pathological Institute, too, hich took place early in the month, was made the ccasion of a Virchow Commemoration. The great athologist's bust stood on the platform surrounded by owers and plants, and Professor Orth, his pupil and uccessor, made Virchow and his life-work the theme of is address, which was listened to by an audience con-isting of all that is distinguished in medicine in Berlin.

CORRESPONDENCE.

A MODEL MARKET THAT FAILED.

Sir,—While the world is still astir about the Chicago candals and our senses are alive to the disgraceful way in hich our food is exposed to the dust and dirt of our treets, it may interest your readers to know that a noble ffort was made about three months ago to improve atters. In common with many others I received a ircular drawing my attention to the Hygeia Stores, and, eing rather impressed, I started off with a friend to see or myself where the "Goddess of Health" came in. rom the street we entered a fresh, cool, pretty salon urrounded with glass cases containing every kind of food, ish, poultry, vegetables, fruit, and country produce.

In the adjoining room one immense glass case con-ained every kind of butchers' meat, large joints and mall, safely barricaded off from the idle handling that revails in the ordinary butcher's shop of everyday life. lectric machinery from below supplied the whole of the lass cases with fresh cooled air, and thermometers howed the temperature to be from 32° to 42°. The air of he room on a hot summer day was sweet and cool. No hoppy odours were perceptible, and yet this was, in fact, market place—a modern, scientifically-managed market lace—wherein ladies could do their own marketing in omfort.

Four days later I went to pay another visit, accom-anied this time by the Secretary of the National Health ociety and other two ladies. We found the blinds all own, the door locked, and a little group of men outside. We had come, alas! at the critical moment, when the ailiffs were about to take possession! After a little dis-ussion we entered together, with the bailiffs, the receiver, etc., to find the silence of the tomb. The machinery had stopped, a wealth of beautiful food was doomed for want of public support at the beginning. In the time customers had increased threefold; a few more successful weeks might have lifted the company over their difficulties, but ten weeks proved the limit of their possibilities, and the world of London has lost its one and only model.—I am, etc.,

June 25th.

Eliza Priestley,
Member of the N.H.S.

FINANCES OF THE ASSOCIATION.

Sir,—One views with satisfaction the weekly contributions of the apostles of the Brierley-Helme creed to the discussions on the finances of the Association. Each week brings out more and more the illogical nature of the attack on the editorial and Medical Secretary's department, at the same time the colossal ignorance of the apostles.

To take Dr. Wolstenholme's attack on the editorial department. He declares that the Journal is not a profit-making concern, and asks if the *Lancet* is not carried on for the sake of humanity at a financial loss. Dr. Wolstenholme forgets to take into account in his balance sheet that we pay 25s. per annum for our Journal and the working of the Association, and that the subscribers to the *Lancet* pay 32s. 6d. for the *Lancet* only. Let us draw up a balance sheet on the same footing as the *Lancet*, and see what our Journal brings in.

Income.	£	s.	d.	Expenditure.	£	s.	d.
Subscriptions	24,755	0	10	Editorial...	6,101	3	1
Arrears	285	12	11	Expenses of printing Journal	22,059	17	7
Advertisements ...	20,440	9	11	Depreciation	250	0	0
Sundry sale, etc. ...	2,490	14	8	Subscriptions written off	742	18	4
Sale of waste	35	10	4	Rent, etc., allowed ...	1,000	0	0
Discounts on paper ...	915	6	3				
	48,922	14	11		30,153	19	0

Giving £18,768 15s. 11d. as the profit on the Journal at the subscription of 25s.

This ratio of profit at a subscription of 32s. 6d. as is paid for the *Lancet*, would give roughly an annual profit of £24,398 to the proprietors of that journal, so that one would urge Dr. Wolstenholme to be more accurate in his figures, and not to leave out such little items of revenue as a matter of £25,000. To put it in another form, the actual cost to the Association of the Journal (*vide* p. 207, Supplement, April 28th, 1906) is 4.6 shillings per annum per member including postage, deducting postage this gives 2.4 shillings as the net cost of the Journal, which works out that on Saturday's breakfast table the actual cost of each number of the Journal is 0.56 of a penny and of the *Lancet* 7d., that is 12½ times the price!

Then let us take us take Dr. Larkin's arguments with regard to the proposed assistant to the Medical Secretary. These are not his original views. He is simply pouring forth on paper the melodramatic misinformation he receives periodically from Dr. Brassey Brierley at the various meetings of the Branch and its Council. What does it all amount to? A matter of £300 per annum, which, I take it, would be about the difference between the salary of a medical man and the clerk that Dr. Larkin says will be efficient to do the work under the Medical Secretary. The real matter at issue is that Dr. Larkin objects to the Medical Secretary having a status equal to the General Secretary.

Personally, I think if any one should be at the head, it is the Medical Secretary, who has most to do with the interests of the members. Dr. Larkin wants to revert to the state of uselessness which existed before the reconstitution of the British Medical Association.

Again, I ask, why all this uproar about the possible £300 when there are many other larger items of expenditure? The whole thing is illogical.

Further, one asks if this assistant is simply a clerk, who is to tackle any ethical emergency in the absence of the Medical Secretary on other work? And would the profession pay as much attention to a layman as to one of their own calling who has suffered all their own trials and tribulations? What other trades-union takes for its secretaries and officials any but those of their own calling, who have graduated for the post by working side by side with them, and thus getting to know their trials and aspirations?

Drs. Helme and Brassey Brierley cannot grasp the fact that the work of the Medical Secretary is not merely secretarial, and in the memorandum sent out to our Branch occurs the paragraph:

> It must be remembered that all our committees are composed of *medical men*, whose qualification to be on a committee is the fact that they are competent to deal with the professional business of the Association.

But I would remind Drs. Helme and Brassey Brierley that these Committees only meet very occasionally. I ask on whom devolves the responsibility of dealing with knotty points in ethical matters and settling disputes, etc.? I suppose they would class this under "clerical work," which they seem to worry so much about. It would be a great relief to the Branch if they would get this bee out of their bonnets.

Then one would like to draw attention to the action of our representatives in the Council and their policy towards the Medical Secretary, and I again challenge them to show that they have not consistently in Council voted against the increase of the Medical Secretary's salary and staff, and at the same time voted for progressive increase in his work.

Mr. Whitaker was appointed to take charge of the secretarial work of the Medico-Political, Ethical, and Organization Committees; then we find the following:

Increase in Work Voted in Council by our Representatives.	*Increase of Salary Voted in Council by our Representatives.*
Public Health Committee ...	Nil.
Hospital Committee	
Military Committee	
Secretary to Representative Meeting	
(This last an enormous increase)	

Dr. Brassey Brierley boasts of his trades-unionism. There is only one word in trades-union parlance that fits the situation, and that is "sweating." Then, at the extraordinary meeting of the Branch, Dr. Helme accused the Medical Secretary of Napoleonic designs, stating that he "courted work," and with apparently telling effect, stating that the Medical Secretary had asked (even though overworked) to act as Secretary to the Ophthalmological Committee.

To let a little light on the subject, we find that this is a joint Committee of the Ophthalmological Society and British Medical Association to oppose the Sight-testing Opticians Bill now before the House of Lords. The Medical Secretary asked to undertake the Secretaryship to that Committee on the grounds that any opposition with the backing of the British Medical Association, would carry much more weight than if it came from the Ophthalmological Society, which would be at once open to the charge of pure self-interest. Further, this Committee has only met twice.

I ask the members in general, Was this action commendable and in the interests of the profession or not? It seems to me there is only one answer.

Then, to take another incident and argument the meeting was treated to. Dr. Brassey Brierley, in going through items of expenditure, made the following statement:

> Legal expenses, gentlemen! £533! [Pause.] Gentlemen! [Longer pause.] You can get a lawyer for that!

Does Dr. Brassey Brierley value his own service at the same rate? I trow not.

These are the trades-union sentiments of the Representatives, who are fighting for the better remuneration of their fellow-members. I venture to think that no dockyard delegate would have the effrontery to advance similar sentiments in a meeting of his trades-union.

Dr. Brassey Brierley also treated the meeting to his ideas on the fuctions of an editor. These savoured rather of quotations from comic opera than the sane ideas of a man of education.

Then, again, Dr. John Brown of Bacup (*vide* SUPPLEMENT, June 16th), the seconder of the retrograde resolutions at Manchester, moved at the annual meeting of the Rochdale Division:

> That this meeting is strongly of opinion that the British Medical Association should devote a portion of its income to benevolent and charitable purposes, the first claim being that of needy past and present members of the Association, their widows and orphans.

If Dr. Brown would keep in touch with the affairs of the Association he would have known that one of the chief reasons for the Charter was to obtain power to carry out benevolent work, and also that a motion with the same object was on the agenda paper at the Representative Meeting last year, but was dropped as the power was to be provided by the Charter. Also that at the annual meeting at Oxford I opposed the grant of £300 per annum to the office superannuation fund in order to draw attention to the want of provision for our own needy.

Although one admits and has worked for the obtaining of powers to deal with the inability to provide for our own brethren in distress, one is bound to admit that the first and foremost need of the profession is organization; and the watchword I would commend to the British Medical Association is "Organize." And even if we have to vote substantial sums out of our funds to achieve this, I shall regard it as money well spent.

I trust the members of the Association will not be led away by the resolutions of the Lancashire and Cheshire Branch, which are the outcome of a campaign conducted by a clamorous clique, samples of whose methods are contained in the above.—I am, etc.,

Accrington, June 25th. ELWIN H. T. NASH.

Memorandum of the Lancashire and Cheshire Branch.

SIR,—The importance of the issue in this discussion and the great position of the Lancashire and Cheshire Branch make it necessary to deal as soon as possible with this memorandum. The issue is whether, as it contends, an increase in the expenditure which reduces the annual surplus is a cause for alarm, or whether, as I have argued, the proper test of the efficiency of the Association is the full but economical application of its resources to the effective promotion of the honour and interests of the medical profession. Had the matter at stake been merely the scoring of points in a debate I should have had cause to rejoice over the appearance of this memorandum, which delivers my opponents into my hands; but, as I would rather see the Lancashire and Cheshire Branch and its representatives play a useful part in the central affairs of the Association, I shall refrain from the use of such tempting weapons as satire and raillery, and shall treat the document with a seriousness measured to its apparent credentials rather than to its merits.

Consideration of the memorandum falls naturally under three heads: (1) Its contents, which are one fact and three ideas; (2) its logical method, which would supply a teacher with a museum of the more subtle fallacies; (3) Its results, which are the throwing of a certain kind of light on the methods of the Journal and Finance Committee, and a still graver condemnation of the way in which the Representatives of the Lancashire and Cheshire branch handle their work in the Council.

The fact which the memorandum contains is the increase of the expenditure of the Association. The amount of this increase, if we take the gross figures, is roundly £5,000 in three years. As we have already seen, £1,000 of this appears this year for the first time owing to a change in the method of accounting. This leaves £4,000. In the years from 1900 to 1902 the increase of expenditure was over £1,000, so that we may take this as a measure of the mechanical growth of expenditure due to the expansion of the Association. This leaves £3,000, which we may accept as the figure due to the development of those parts of the Association's activities which have resulted from the reconstitution. How short man's memory is. If we go back to the discussions which took place during the consideration of the proposal for reconstitution, it will be found that the Association realized with absolute clearness that the expenditure would be increased, and while various sums were mentioned as the probable amount of the increase, £3,000 stands out with perfect distinctness in my mind[1] as the most likely. It has taken three years to reach this figure; why, then, should the Association or any individual member of it be alarmed, much less go into a state of panic such as shrieks from the front of the Lancashire and Cheshire memorandum?

First Idea.—"That the JOURNAL is run at a loss of about £5,500." This is equivalent to an assertion that the advertisers should pay for the whole cost of the JOURNAL, and we may leave those who make it to settle with those others, some of whom come from Lancashire, who argue that the Journal should exclude all trade advertisements. The rest—and this will include all who before the new Constitution were unattached members, subscribing for the sake of the Journal—will gladly say to Dr. Dawson Williams and Mr. Elliston, "Please lose us more such *Lancashire losses*," and the subscribers to the *Lancet* who pay 32s. 6d. may think many things when they realize that members of the Association who get the Journal for 4s. 6d. call it a loss.

---

[1] I am not at present in a position to verify my recollections.

Second Idea.—"That the Medical Secretary should have no clerical work to supervise." This is advocated on "economic and business grounds." The advocates of it, however, fail to advance any evidence that this proposal would subtract one iota from the number of letters that have to be written in the name of the Association, or that on the staff, which both in Mr. Elliston's office and in Dr. Whitaker's is fully occupied, a single clerk could be spared or a less expensive one substituted. Where is the economy? As to the business, which surely means efficiency of organization for the purpose of doing the work of the Association, the Representatives of the Lancashire and Cheshire Branch can surely never have attempted to get any notion of the work that is done in Mr. Whitaker's office. It has been my duty and privilege for two years to conduct the work of the Medico-Political Committee, and I can truly say that the task has been no light one; but my personal work would have been doubled if I had not had a Medical Secretary, and it could have been halved if Mr. Whitaker had the adequate staff and efficient medical assistance which the Lancashire and Cheshire Branch say is now likely to be asked for. Not only would the work of the Chairmen of Committees be increased, but the work would be delayed by the need for more frequent revision of drafts, both of reports and of letters, without a medical secretariat. Where is the business?

Third Idea.—That the Association or the Council (it is not clear which) is being "urged by a restless but active minority," and "may come to be dominated by a caucus." I do not know who compose the group which the writers of the memorandum had in mind when they used the last word, but think that I am safe in assuming that they consider Sir Victor Horsley a member of it, and I challenge them to show that he has ever concealed his opinion as to the development of the Association or of its staff so as to justify the use of the word "insidious," which they twice used in this connexion. Surely, too, it is an abuse of language to say of such a man, who has laid down the power which the Association thrust upon him, first as Chairman of the Medico-Political Committee, and then as Chairman of the Representative Meeting, "that the Association may come to be dominated by a caucus." It is part of my charge against the Representatives of the Lancashire and Cheshire Branch that they fail to realize the conditions under which the work of the Council has to be done, and if they will consider how, without being alert and watchful and persistent, one whose tenure is limited to two dozen quarterly meetings of Council, may hope to modify in any way its procedure, they will perhaps themselves realize the absurdity of their own position and method.

The logical method of the memorandum is a very tempting theme, but I must simply mention the exaggeration in their alarm, which, as I already said, shrieks from the front page, the misuse of question-begging epithets and terms, such as insidiously, caucus, verge of insolvency, and that variety of loss which should give to economics a new term—"Lancashire loss." I must note also the cool assumption—if one can call anything in such a panic-stricken document cool—of the proposition which has to be proved—namely, that the small balance is a dangerous matter for the Association.

The Results.—What does this document prove? The two things that it proves beyond all doubt do not appear on the face of it as questions raised in it at all. The first is one which in a previous year I have urged on the consideration of the Association—namely, that the methods of the Journal and Finance Committee are quite unfit for the financial work of the Association. Could anything be more evident from this document? Time and again the Secretary of the Lancashire and Cheshire Branch points out his inability to give certain information because of the form of the accounts. Now this statement is made not by an outsider but by and on behalf of the Representatives of the Lancashire and Cheshire Branch; and there is no year during the last six when one or other of these Representatives, and sometimes two simultaneously, have not been members of the Journal and Finance Committee. Will they tell us that they have not passed the accounts, or that this is one of the matters in which they have been thwarted and their efforts concealed? The fact of the matter is that in the main the form of the accounts has come down for many years substantially the same, and the only useful criticism of them has been that of Mr. Elliston himself and of the successive able treasurers, and they have done their work efficiently, though the check from the Journal and Finance Committee was almost nominal. This is no real cause for alarm, but the Association should be glad that last year the Representative Meeting asked for a Finance Committee which can only make for efficiency.

The other thing which the memorandum proves is that the Representatives of the Lancashire and Cheshire Branch fail to realize the conditions of the proper performance of the duties which they have undertaken. Not only do they not find the information which they want in the accounts but they do not know where to go for it. Would they have us believe that it does not exist? Members need not disquiet themselves. Subject to such demands upon his time as his routine duties demand, Mr. Elliston has always been both able and willing to give any information that any member of Council could with reason ask for, and if the members from Lancashire and Cheshire have not realized this, it proves the lack in them of a most elementary and needful piece of knowledge.

The other quality in which the Representatives of the Lancashire and Cheshire Branch show their ill-adaptation to the work which the Council has to do comes out in the complaint they make against the Chairmen as to the suppression in the proceedings of matters of interest to them, in the misconception of the Medical Secretary's work, and also in the descriptions of their opponents. Their conception of the Council seems to be a kind of Parliament, where any member may make as many interpellations as he thinks fit, and where he ought to be reported for the information of his constituents.

But each Council has to review the work of a quarter, to settle for action those matters that have to be settled, and generally to do the executive work of a great Association. Its methods must be summary, not discussional, and a member who wishes to keep hold of the work must make himself thoroughly acquainted with the work that has been prepared by the Committees. Its reports, moreover, are not privileged. If the Representatives of the Lancashire and Cheshire Branch will attempt to realize the conditions under which the work of the Association has to be done, and the difference of function of the Representative Meeting and Council, and will further ask themselves what the Association is going to do in future with the resources she is still accumulating, they will probably never produce another document such as this memorandum, but they may do as good work for the central business of the Association as they have previously done and as they still do in their own Branch.—I am, etc.,

Dundee, June 25th. R. C. Buist.

CENTRAL MIDWIVES BOARD.

Sir,—The writer of the letter in the issue of June 16th under the above heading appears from the language desirous of outdoing the Cardinal Archbishop of Rheims, and in my opinion with a similar result; for his letter is no answer to my statement that in the "list of training schools the extraordinary fact appears that there is not a single union infirmary licensed in London, and only seven in England outside London."

I look in vain through the list for places like Nottingham, Rochdale, and Manchester Union Hospitals, but I do find in the list of licensed places two old dwelling-houses in a row now dignified by the name of Maternity Hospital. To license the latter, and not yet to have licensed places like the former, does appear to me to be proof—to quote your correspondent's eloquent language—of "fecklessness and muddleheadedness and inefficiency in general." I hope he will not think the terms abusive, as they are his own.

When we come to consider the reasons your correspondent gives for the course he has taken, they are, in my opinion, aptly described in his own words as "feebleness piled on feebleness."

1. His first reason is that it is a shame to encourage the matrons and medical officers of workhouse hospitals to increase the numbers of confinements in workhouses, and so to apply to the helpless offspring the indelible brand of workhouse births. The matrons and medical officers have no more to do with any increase than your correspondent has; that is entirely in other hands. In regard to the brand of workhouse birth, for some years past all good workhouses are, by permission of the authorities, described as No. X, So-and-So Street; the term workhouse is not used.

Your correspondent states that no women except the hopelessly submerged and the semi-criminal class should be driven to seek refuge for their confinement in the workhouse. Where else can they find it? I well remember the time when it was a most difficult thing to get even a decent unmarried woman into a certain maternity institution; and, if your correspondent had made himself acquainted with the very low rates of mortality amongst both the mothers and infants in workhouse maternity wards and the very high rate in the wretched tenements where this most pitiable class have to seek shelter, he would hardly have written as he has. I hope it will enable him to see that the danger is not as great as he thinks it is when I state that the accommodation provided to-day at Chorlton is the same size as it was thirty years ago, and is still adequate to meet the claims made upon it.

2. Your correspondent states that

> in turning a workhouse into a lying-in hospital the guardians of the poor are exceeding their duties.

My reply to that is that the very reverse is the truth. If he will turn to Art. 213 of the Consolidated Orders of the Local Government Board he will find that Clause 1 directs the nurses "to attend upon the sick in the sick and lying-in wards."

3. In regard to

> the policy of the majority of the Central Midwives Board in offering facilities to workhouse hospitals with the object of multiplying training schools for the easy and cheap manufacture of midwives, etc.,

I think I need say little except that the percentage of passes of candidates trained in good workhouse hospitals at the examination of the Central Board has been as good or better than those from the voluntary hospitals, and also that I believe the majority of the Central Midwives Board is just as desirous of training thoroughly competent midwives as your correspondent, and also as capable of judging what the training should be. The assertion is made by your correspondent that "no workhouse or other semi-private institute situated in or near a city in which a lying-in hospital is already established should receive recognition from the Central Midwives Board." To put it plainly, that if carried into practice would mean that because there is in this city two old dwelling-houses called a maternity hospital, union hospitals like Manchester, Salford, and Chorlton are not to train, and the ratepayers are to be debarred from obtaining a supply of midwives trained in these State hospitals, for that is what they are.

6. We are told also that

> No workhouse hospital can be considered suitable when the annual number of cases is few, and consequently the classes of pupils must be so small that there can never come into existence the *esprit* of a school and all that "school" implies.

In this case what is sauce for the goose should be sauce for the gander, and I want to know why *workhouse*, that is, State, hospitals are specially selected as unsuitable, and small voluntary institutions considered suitable as the official list proves to be the case. Your correspondent states that the Chorlton Workhouse hospital was "the object of Dr. Rhodes's discourteous advocacy." The very reverse is the truth; the Chorlton Union is licensed, and therefore I have now little to complain of so far as regards Chorlton. It was because as a public man, who for more than a quarter of a century has taken a well-known part in improving the adminstration of the State hospitals, that I, perhaps better than any one else, know the indignation there is against this wilful and foolish obstruction and delay that exist throughout the country. Your correspondent writes:

> It would be so easy, on the demand of the medical profession in Manchester, to make arrangements for the foundation or extension of a hospital and the admission of certain classes of patients, paying according to their means, under the care of their own doctors.

Those are the words, but what they have to do with this question I utterly fail to see. Neither I nor any expert in Poor-law administration has suggested taking paying patients in; it is the pauper class that we are dealing with. No doubt we have now and then admitted an emergency case sent on from the Southern Hospital because there is no room in it; but, as in one case at least, the child had been born in the cab, it would have been cruel to refuse the patient even if she could pay.

Your correspondent appears to think that nurses should be sent to St. Mary's lecture room, and he goes on:

> They could at the same time be receiving the unsatisfactory clinical instruction afforded by exclusively in-patient cases in their own hospital.

May I ask the writer of the letter why he has nothing to say against the in-patient attendance of medical students at the branch of the Southern Hospital and condemns the system as unsatisfactory in the case of midwives in first-class wards?

> Coming to my objection (5) [he writes], it will hardly be believed, though it is an incontrovertible fact, that "the delay and trouble" in obtaining recognition of which Dr. Rhodes complains, and which he designates "a disgrace to the Central Midwives Board," arose almost entirely owing to the material and moral defects in the lying-in wards of the Chorlton Union Hospital. That portion was inspected by the Midwives Supervising Committee of the Manchester Corporation . . . and it was utterly condemned in their report as unfit for the purposes to which Dr. Rhodes and his colleagues desired to devote it.

Now what were the recommendations made by the Committee:

> 1. That the alterations that were being carried out in all the wards, concrete floors and wash-down closets, should be at once completed in the lying-in ward.
> 2. That the linoleum should be made to cover the whole floor, instead of bare flooring under the beds, and also linoleum in the labour room.
> 3. A slight alteration in the trap of the waste pipe from the drip receiver under the tap.
> 4. A fresh range of lavatory bowls in the bathroom.
> 5. A porcelain bath with porcelain rim, instead of a porcelain bath with wooden rim, also an alteration in the waste pipe from the baths.

Your correspondent states that, like many other people he has visited some hospitals in foreign countries. I venture to tell him that he will have to travel through more countries before he will find a maternity ward showing better results than the Chorlton Union has for over twenty years.

As for the moral defects to which your correspondent refers, those do not appear in the report of the Committee as far as I know. Is it possible that they were inserted for the sake of the alliteration?—I am, etc.,

Didsbury, Manchester, June 24th. JNO. MILSON RHODES.

PS.—Since writing the above I see that the Southern Maternity Hospital was closed last year. It would be interesting to know why, as there is not a brick yet laid of the New Southern. Can it be possible that it was so bad that it should never have been licensed?

THE DISCOVERY OF SHIGA'S BACILLUS IN ENGLISH DYSENTERY.

SIR,—Having read in your current issue just to hand Professor R. Saundby's reference to my work on the above subject, I should like, with your permission, to say that the bacillus referred to was isolated by me on Drigalski plates from a typical muco-sanguineous stool sent me by Dr. Heffernan from a severe (subsequently fatal) case of dysentery in Clonmel Asylum. The mucoid flocculi contained it in practically pure cultivation, and microscopically it occurred in the pus cells. The death of the patient prevented my testing its serum reactions, but that of other cases agglutinated it up to 1 in 50. I regret that I did not push the dilution higher, as the bacillus is very sensitive to normal serum. On the usual test media my bacillus behaved just like the typhoid and Shiga bacilli. It failed to grow visibly on potato, to produce indol, to coagulate milk, to form gas in glucose-agar shake, and to alter the colour of neutral red; it also agreed with the typhoid and Shiga bacilli in the appearance of its colonies on the Drigalski medium.

The differences between the three organisms are as follow: The typhoid differs from Shiga's bacillus and mine in being motile, whereas the two latter are non-motile, though possessed of a pronounced and occasionally deceptive "brownian waggle." Moreover, the typhoid bacillus differs from mine in the tinge of its colonies on Endo's sulphite-fuchsin medium. The only cultural distinction I have hitherto found between Shiga's bacillus and mine s their behaviour in mannite-litmus-agar, the medium first suggested by Lentz.[1] The Shiga bacillus leaves it unchanged, vhilst my bacillus and the typhoid bacillus slightly edden it owing to acid production. Moreover, the gglutination reactions of my bacillus differ from those of he genuine Shiga bacillus, as I learnt from the Imperial erman Health Office, where, through the great courtesy f Professor Gaffky, a culture sent in by me was tested gainst a high potential anti-Shiga goat serum. From all his it would appear that my bacillus is most probably dentical with "the pseudo-dysentery bacillus of the nsane," so-called by Kruse, who isolated it in 1901 from ases of asylum dysentery in Germany. My strain would ppear to be toxic for rabbits, as I lost some of these nimals through the intravenous injection of killed ultures in the act of preparing an antiserum for diagnostic urposes.

What has just been said may suffice to show the com- lexity of this matter, and the caution that should be xercised in pronouncing a given strain of bacillus isolated rom the contents of the bowel to be Shiga's or any other orm that has received a name. Were the occasion suit- ble, I should have wished to discuss the bacteriological ortion of Professor Saundby's paper from this point of iew. I may at any rate be permitted to express the urprise—which is no doubt shared by all bacteriologists ho have concerned themselves with this subject—that rofessor Saundby could think of claiming to have estab- shed the identity of his bacillus with that of Shiga on e strength of the characters given in his paper and in r. Hewetson's report.—I am, etc.,

E. J. McWeeney, M.D, F.R.C.P.I.,
Bacteriologist to the Local Government Board for Ireland.
Dublin, June 24th.

THE INFECTIVITY OF HEREDITARY SYPHILIS.

Sir,—As an appendix to Mr. Hutchinson's letter in the ritish Medical Journal of June 23rd, page 1501, may point out that the contagiousness of hereditary philitic lesions has been recently demonstrated by eisser by inoculation of monkeys with matter from the ngs, liver, kidneys, spleen, suprarenal capsules, testicles, varies, heart blood, and nasal mucus.[1] The idea that the ntagiousness of hereditary syphilis was exaggerated by iday and the older authors is based on statements made certain physicians who have noted the rarity of con- minations in the out-patient practice of certain children's spitals. Such negative evidence is of little value com- red with the positive evidence of the frequent infection wet nurses by syphilitic sucklings which was estab- shed by Professor Fournier in 1877, and published in e *Union Médicale* (Nourrices et Nourissons Syphilitiques). I am, etc.,

London, W.C., June 25th. C. F. Marshall, F.R.C.S.

THE BACTERIOLOGY OF A COMMON COLD.

Sir,—In answer to Dr. Prosser White's note in the ritish Medical Journal of June 16th, p. 1439, I should e definitely to contradict his statement that "all who ve worked at the bacteriology of a common cold have invariably found the *Bacillus septus* present at some age of the illness." Dr. Arkwright, who has done a very rge amount of work upon the subject at the Lister stitute, has not done so nor have I myself in a con- derable number of cases. The correct view, in my inion, to be deduced from the collected experimental idence before us is that it is only present where a sore roat complicates the coryza, and that it has little, if ything, to do with the etiology of the latter. Dr. White ls us that no coryza was produced in his monkey and bbits; upon the important question whether an inflam- tory throat was, he says nothing.

Dr. Gordon's suggestion that I should try the effect of inoculating the human subject with Friedlander's bacillus and see if a cold is thereby produced has been often involuntarily adopted in the bacteriological laboratory at Guy's Hospital with conspicuous success.

My excuse for thus further trespassing upon your valuable space is a conviction of the great importance of separating pure cases of coryza from those complicated by sore throat, if we are to arrive at a right understanding of the factors at work in various cases.—I am, etc.,

London, W., June 15th. R. W. Allen.

VERMINOUS HEADS OF CONVALESCENT CHILDREN.

Sir,—As medical officer of a large convalescent home, may I make a humble protest to general practitioners and medical officers of hospital out-patient departments against the careless and thoughtless way medical certificates are often filled up. I am not exaggerating when I say that over 50 per cent. of the girl convalescents who come down to me from their homes certified as not having "any infectious complaint whatsoever" have their hair containing live lice or nits, and this in spite of a special underlined sentence in the certificate to state the condition of the head.

I am not referring to children sent direct from hospital wards, but to those who come direct from their homes. I know what difficulties London mothers have in keeping their children clean, but this does not excuse medical men from certifying what is not true. Heads *can* be got clean, easily when the hair is cut short, for the boy convalescents are seldom culprits.

So may I urge medical men when they are asked to sign certificates for children suffering from this plague to harden their hearts like Pharaoh of old and not let the children go to the promised land till they are really cleaned from the complaint? Should this letter catch the eye of another convalescent home medical officer I should much like to hear his experience of this, I consider, growing evil.—I am, etc.,

Hugh M. Raven, M.R.C.S., L.R.C.P.
Broadstairs, June 20th.

THE TEACHING OF MIDWIFERY.

Sir,—The leading article in the British Medical Journal of June 9th, p. 1363, is much to the point, showing the absolute need of a revolution in the teaching of midwifery.

The correspondence on "Midwifery of the Present Day" has proved that the older and more experienced a practitioner becomes the more he advances in front of the current teaching, bound down as it is by the passing fashion of the day.

The General Medical Council would do wisely to collect evidence from advanced practitioners of experience as to the simple and absolutely safe method of rapid delivery under chloroform, facts from personal experience only being accepted as evidence. They might then consider the following suggestions:

1. That there be a small lying-in ward attached to each teaching hospital.

2. That in every case of delay, whatever the cause, even though it be due to the head requiring ever so little moulding to get through the bony outlet, chloroform be used, and the forceps applied, or turning or any other manipulation necessary be resorted to, in the presence of a class of students.

3. That at every teaching hospital a definite number of young qualified men be appointed as outside accoucheurs, to be called in by students in every case of delay. Each appointment to be for four months, two months as anaesthetist and two months as accoucheur. At every delayed case there would therefore be present the accoucheur, the anaesthetist, and the student, and in really difficult cases the assistant obstetric physician could be sent for as at present.

Such a system would put a stop to the waste of an immense amount of good material, would teach the student, and give some experience and confidence to the young accoucheur. It would also be much more fair to the patient, who at present is under the delusion that the raw student is a "hospital doctor."

Perhaps the General Medical Council might suggest that obstetric teachers of the "do-nothing" type take out a short post-graduate course with colliery doctors of advanced views and rapid, painless, and successful methods.—I am, etc.,

---

[1] *Zeitschr. f. Hyg.*, 1902, Bd. 41, Heft 2.

[1] *Deut. med. Woch.*, Nos. 1, 2, and 3, 1906.

North Shields, June 11th. F. C. Mears.

MR. ARNOLD LUPTON AND VACCINATION.

We have received another letter from Mr. Lupton, which begins as follows: "Your issue of the 9th contains a letter from me and also a footnote to that letter in which you accuse me of issuing 'false statements,' and of uttering 'untruths.' You state in the footnote that it is not necessary to argue with me. No doubt it is much easier to abuse me than to argue with me, but is it equally just? So far as I am aware you have not pointed out to me any single 'false statement,' nor proved any 'untruth.' I am aware that you differ from me in opinion and that you do not agree with all my calculations, but I have yet to learn that you have pointed out any false statement of mine. I do not quite know what is the taste of your readers. It is possible that some of them prefer vulgar abuse to reasonable argument, but, on the other hand, I should think that there are many who take a different view, and will agree with me that I am justified in calling on you either to prove your charges or to apologize. Your footnote also contains what, if I were inclined to use strong language, I should call a *suggestio falsi*, inasmuch as you intimate that out of 15 diseases in the return headed 'Vaccination, mortality,' dated 14th August, 1877, 14 had a steadily diminishing mortality."

Mr. Lupton's declaration that "so far as" he is "aware" we have not pointed out any single false statement or proved any untruth by him is another contribution to the psychology of antivaccination as illustrated in his own case. Taking a single example of his inaccuracies, Mr. Lupton declared in his leaflet that the Royal Commission on Vaccination had said:

> "3,953 revaccinated soldiers in the British army suffered from small-pox, of whom 391 died of the disease," and the monstrous calculation that "100,000 people are killed every year in our country alone by vaccination."

We pointed out that no such passage occurs at the quoted place. We went further and referred to the whole report of the Royal Commission as containing no such statement anywhere. But Mr. Lupton is "not aware." He is so much under the influence of a craze as to be, on his own confession, apparently incapable of becoming aware that it is an untruth to publish a statement that the Royal Commission said something which it never did say, either at the quoted page or anywhere else, and either in the words attributed to it or in any other words. His new statement, that we have intimated that fourteen of the diseases in Mr. Hopwood's return had a steadily diminishing mortality, is another inaccuracy of which Mr. Lupton is not and probably cannot be made aware, but which is apparent by reference to the footnote and our previous articles.

As for the rest of Mr. Lupton's letter we have already allowed him more than all the rope necessary for the proverbial purpose which he has so successfully accomplished, and we beg now to bid him good-bye. He can send the letter to the *Vaccination Inquirer* or to the Sleaford electors, or can explain that what it contains is so convincing that we dare not even publish it let, alone try to answer it.

ROYAL NAVY AND ARMY MEDICAL SERVICES.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS), LONDON COMPANIES.

On Saturday, June 23rd, the London Companies of the Royal Army Medical Corps (Volunteers) mustered at Barnes Station, and marched to Roehampton Gate after dividing into two divisions—that is, the Tent Division and the Bearer Division—in accordance with the new scheme of field ambulance organization. The Tent Division divided into two sections, the larger of which marched to the grounds of the Priory, on the kind invitation of Dr. Chambers, where preparations were made to erect a field ambulance camp. The remainder of the Tent Section, composing the Dressing Station Party, proceeded as far as Roehampton Gate with the Bearer Section, and at once erected an operating tent, flagstaff, and camp kitchen. The Bearer Division, consisting of several stretcher squads under an officer, marched considerably farther, towards the supposed battlefield, accompanied by four ambulance wagons. The supposed wounded, who were privates from the 1st Surrey Regiment stationed at Kingston, received first aid, and were conveyed by the wagons to the dressing station, where they were seen by the officer in charge, and serious cases taken into the operating tent, the remainder being sent straight on in the wagons to the Priory grounds. In the meantime a cyclist had been sent on ahead to warn the Tent Section in the rear that the enemy were advancing rapidly, and that the Dressing Station Party were striking the tent, and retiring with all speed, with the patients. On the message being received tents were at once erected in the Priory grounds, and all preparations made to receive them. An interesting item in the afternoon's programme was afforded by the presence of a number of civilian practitioners, forming part of the new medical reserve scheme suggested by Mr. Keetley, who was himself present. The C.O., Colonel Valentine Matthews, escorted the visitors round the camp, and explained the details of the working. After camp had been struck, all the members of the corps were entertained by Dr. Chambers at the Priory. The corps then marched back to Putney Station, and was dismissed, after a most interesting and instructive afternoon's work.

The annual inspection of the corps will take place in Hyde Park, on the Guards' Ground, Knightsbridge, at 6.45 p.m. on Saturday, 30th inst.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE PECULIAR PEOPLE.

James Cook, a member of the sect of Peculiar People, was tried at the Old Bailey on June 27th, and sentenced to nine months' hard labour in respect of the manslaughter of two of his children by refusing to call medical assistance during their illness.

The general facts were related in an account of the inquest in the issue of the British Medical Journal for May 19th and May 26th. At the trial the prisoner did not dispute the facts, and contented himself with showing that he had acted in accordance with his beliefs, habitually took good care of his children, taught them the Bible, and took them to Chapel; he himself had been cured of an attack of rheumatism by the prayers of his brethren.

In summing-up, the presiding judge said that it would never do for each man to be a law unto himself, and it was no answer to a charge of this kind for the prisoner to say that it was against his religious views to call in medical aid. All persons were bound to take reasonable precautions to protect the lives of the children which God had placed in their hands.

The jury, after finding the prisoner guilty, recommended him to mercy on the ground of his religious views.

When passing sentence, the judge reminded the prisoner that he had been tried in 1898 on a similar charge, and discharged on his own recognizances. He must not be allowed to escape a second time.

A CONVICTION UPHELD.

Judgement was given on June 12th by the Court for the Consideration of Crown Cases Reserved in the case of the King *v.* John Bond. The original trial was held at Chester Assizes, and resulted in the conviction of Dr. John Bond of Crewe, on a charge of performing an illegal operation. Some evidence was given in respect of a similar operation alleged to have been performed, and it was argued for the accused that it should not have been admitted. An appeal on this point heard some six weeks ago by five judges resulted in a disagreement. It was therefore reheard by seven judges, and though there was still disagreement, the majority considered that the evidence had been properly admitted. The conviction was therefore confirmed.

LOCUM TENENS AND LEGAL FEES.

"Locum Z" appears to object to the rule that a principal has claim to a portion of fees obtained by a *locum tenens* for giving evidence in cases that arise during temporary charge of the practice either before the coroner or in criminal cases. The reasons he gives are (1) that such a claim implies that the fees represent more than the work for which they are paid, or (2) that the principal is claiming a right in the body on which an inquest is held, as if it were a patient.

*** Such reasoning is entirely novel, and probably never entered into the mind of any principal. His claim rests on the principle that the work for which the "*locum*" is paid was only got by the latter because he was in charge of the principal's practice at the time, and was in fact acting for him. If our correspondent understands anything about the principle of "agency" he will find there a much better solution of his difficulty. It is a recognized principle in nearly every business of life, that where work which comes to A. is handed on to B. because A. does not find it convenient to do it himself, he is entitled to a certain portion of the proceeds, although he may personally do none of the work. If a solicitor, having charge of an action, hands it over to another solicitor, only the latter can recover costs, but he as to pay over half the profit costs to the solicitor who ave him the work. So, too, if Dr. A. asks Dr. B. to attend patient for him, it is very common for Dr. A. to receive alf fees for work he has never done. Such a division of ees is well recognized in many branches of the profession.

THE ACTION OF A *LOCUM TENENS.*

GUSTED.—We cannot express any opinion as to what the eneral Medical Council would do, as so much would depend pon the evidence laid before them, but we should advise ur correspondent at once to consult one of the medical efence societies if he is a member, or, failing that, a solicitor. was the duty of the representatives of the deceased practioner to take care that the *locum tenens* was prohibited by greement from starting in practice in the neighbourhood; ad if they have neglected to take this precaution our orrespondent would, we think, be justified in withholding e payment of the purchase money in order to indemnify imself for any loss he may suffer from their neglect. This, owever, is a legal question upon which he should have the lvice of a lawyer.

CERTIFICATES FOR INSURANCE COMPANY.

I.—The Executive Committee of the Norwich Division, in eir report on the replies received from certain insurance mpanies with reference to fees paid, state: "It will be nceded that insurance societies which do the great proporon of their business in sums of £50 to £200 cannot be pected to pay a guinea for each examination, but in these ses the amount of work which the societies require of edical referees must not be so arduous as in the cases of ose societies which do a large part of their business in the gher policies." "It is quite possible that with regard to the orter forms" . . . "that an understanding between the insurce companies and the medical profession could be brought out satisfactory to both parties, by which a fixed fee of nsiderably less than a guinea could be agreed upon." The mmittee in the close of their report recommend "that e fee to be paid to the medical examiner should be prortionate to the amount of work expected from him. The ort was approved at the Representative Meeting at icester.

VSPAPER NOTICES OF MEDICAL PRACTITIONERS.

. H. asks whether it is right for a medical man to allow name to appear almost weekly in a local weekly newser as having been called to attend accidents. He says re are eight or nine other medical men practising in same district who have an equal number if not more idents in their practices, yet no mention is ever made of m. He wants to know what steps should be taken to vent this practice.

** The local medical practitioners might send a joint er to the editor of the newspaper complained of, point- out the unfair prominence given to the practitioner in stion. Of course, if any evidence could be obtained that procures the publication of these notices, a complaint ht be made to the Ethical Committee of the Division or nch.

A VILLAGE WONDER.

. F. complains that a newly-arrived neighbouring pracner, X., who is M.B.Cantab., claims to be a "physician" a "specialist in eyes and throat," and to have "special erience in bone-setting"; all these "grotesque statets" are borne out by X.'s partner. The authority given these allegations is "the common talk of the village," in one case "H. W. F." had it "next door to first hand." wishes to know whether "as a registered medical pracner" he is expected "to put up with such grossly isive methods."

* While we may sympathize with our correspondent's ke of all attempts to get practice by making such claims pecial knowledge, we do not advise him to take any on on so vague a foundation as the "common talk of village," or even on tales repeated "next door to first l." If he has patience, he will see the practitioner plained of lose the charm of novelty andno longer be the ect of talk.

THE OBLIGATIONS OF A CONSULTANT.

writes: A., the chief medical practitioner in a provintown and assistant surgeon to the hospital, was called nsultation by B., with the result that the patient was n to the hospital and treated there by A. Some months wards B. was rung up on the telephone by A. to say that usband of the patient had just called, fearing his wife had a relapse, and wished A. to see her; A. added the tion, "Have you any objection?" B. replied, "No, inly not;" and A. attended the woman for a long illness r home. A. next heard that B. had several times refused ve him in consultation, and feels aggrieved. Has he any right to feel so? B. contends that he had no option but to reply on the telephone as he did, and that in asking such a question A. had "violated the elementary rules of consultations."

*** It is a most important rule that a practitioner called in consultation should not supersede the practitioner calling him in, but the difficulty in this case is that B. distinctly gave his consent. We understand him to contend that A. should not have asked him, but this is going too far, although A. might have appreciated that the question was one of some delicacy, and the telephone not the best medium for it. A. seems to have regarded his obligations as a consultant too lightly, and might have shown more unwillingness to supersede B. His proper course was to have told the husband of the patient that he had better see the case again in consultation with B.

MEDICAL WITNESSES' FEES IN SCOTLAND.

J. F.—Our correspondent's wisest course would probably be to restrict his claim to an amount not exceeding £12, and to instruct an agent to sue for the amount in the Small Debt (Sheriff) Court. This would be a cheap and expeditious course.

A DISCLAIMER.

Dr. James H. Sequeira (Physician in Charge of the Skin Department), **Dr. W. Bulloch** (Bacteriologist to the London Hospital), and **Dr. G. T. Western**, M.B. (Assistant to the Inoculation Department), write from the London Hospital Medical College, London, E.: Our attention has been directed to an article entitled "Fighting Consumption" in the *Daily Telegraph* of June 21st. As this has been published entirely without our knowledge, assistance, or consent, and we are specifically mentioned by name therein, we feel it to be our duty to the profession and ourselves emphatically to protest against it.

VALUE OF APPOINTMENTS.

Surgeon.—The answer must depend on the conditions of the sale. If the price was simply calculated on the average receipts for the last three years of the practice, the amounts from the appointments being included with the other receipts, the fact that one of the appointments had since deteriorated in value would not necessarily make any difference. On the other hand, if the value of the appointments was to be taken as it was at the time of the sale, some rebate might be fairly claimed, which might be calculated as suggested.

AREA OF PRACTICE.

Assistant wants to know whether half-a-mile radius is not the recognized limit in signing a bond in a London practice.

*** There is no recognized limit of half a mile. In many cases such a limit would be altogether valueless for what is required.

CONTRACTS NOT TO PRACTISE.

B. G. N.—Upon the facts as stated the local practitioners are not justified in resenting the return of our correspondent to practise in the village.

SUPERSESSION.

Cymro.—As the patient was seriously ill, and "Cymro" was unable to attend at once, it was natural for the friends to call in another practitioner, who only did his duty by attending. He should, however, have offered to leave the case in "Cymro's" hands when he arrived. As a general rule, it is ethically wrong to take advantage of such an accidental call to the prejudice of a brother practitioner.

MEDICAL BIOGRAPHIES IN LOCAL DIRECTORIES.

Durham.—We believe that the publication of biographical notices and photographs of medical practitioners in directories is generally disapproved by leading practitioners throughout the country, but we admit that where a local publication is concerned local opinion may be a safe guide to follow.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Professor Fuerstner, Director of the Psychiatric Clinic of the University of Strassburg; Dr. Friedrich Hegelmeier, Professor of Botany in the University of Tuebingen, aged 72; Dr. Theodor Polek, Professor of Pharmacy in the University of Breslau, aged 84; and Dr. C. W. Allen, Professor of Dermatology in the New York Post-Graduate School, author of *Radiotherapy, Photography, Radium and High Frequency Currents*, and the *Practitioner's Handybook of Medical Progress*, and other works, aged 52.

OBITUARY.

LIEUTENANT FORBES TULLOCH,

ROYAL ARMY MEDICAL CORPS.

Lieutenant Forbes Manson Grantt Tulloch, whose untimely death was announced in the British Medical Journal of June 23rd, was a son of the late Deputy-Surgeon-General John Tulloch, formerly of the Army Medical Staff. He was born twenty-seven years ago, and studied medicine at St. Mary's Hospital, London, becoming M.R.C.S. and L.R.C.P.Lond. in 1901. In 1902-3 he was a Civil Surgeon with the South African Field Force. He obtained a commission in the Royal Army Medical Corps in 1903. In 1905 he was seconded for service under the Colonial Office, and went to Uganda as a member of the Royal Society's Commission for the Investigation of Sleeping Sickness. He worked devotedly at Entebbe until three or four months ago, when he contracted sleeping sickness by cutting his hand with an infected knife. He was invalided home, and a further element of sadness is added to the tragedy by the fact that his father died while he was on his way to England. He was treated in the Queen Alexandra Military Hospital at Millbank, where all that was possible was done by Professor Rose Bradford and Major Leishman. The course of the disease was unusually rapid.

Lieutenant Tulloch was a man of fine nature, which made him universally popular. He has fallen on the field of battle against disease, giving his life in the noblest of all causes—the discovery of the means of doing good to his fellow-men.

E. L. JACOB, B.A.Lond., M.R.C.S., L.S.A.,

M.O.H. REIGATE.

Dr. E. L. Jacob, long so well known in the neighbourhood of Reigate, died in the last week of May, at the ripe age of 72. He was a son of the late Rev. G. A. Jacob, D.D., Head Master of Christ's College Hospital; he received his general education at Sheffield Collegiate School, of which his father was at that time in command, and took the degree of B.A.Lond. in 1853. His professional education, through which he passed with distinction, was pursued in turn at the Queen's University, Birmingham; St. Bartholomew's Hospital, London; and the Rotunda, Dublin. Having become L.S.A. and M.R.C.S.Eng. in 1853, he served as House-Surgeon at the Royal Hampshire Infirmary, and then established himself at Birkenhead. There he was appointed to the honorary surgical staff of the Birkenhead Hospital, and carried on practice for a good many years. In the Seventies, however, he began to devote himself to public health studies—a class of work for which he was in every respect exceedingly well endowed, and in which he proved eminently successful. In 1873 he was chosen by a number of different sanitary authorities in Surrey as their Medical Officer, and thus became responsible for the hygienic progress of a very large and scattered area, including the Epsom, Dorking, and Reigate Urban and Rural Districts, populated by not far short of 200,000 persons. He carried on the whole of the work involved for very many years, but at length, in 1900 resigned all but that connected with Reigate. This also he expressed a wish to give up last year, having been somewhat out of health for some months, and he actually resigned his appointment in March last. To meet the convenience of his Council, however, he continued to perform the duties, although fully conscious of the risk of the continuance of strain, until a suitable successor could be secured and arrive. He thus came to die suddenly in harness from a rupture of a blood vessel. Dr. Jacob was possessed in a high degree of the qualities—tact, sympathy, scientific knowledge, energy, and business-like habits—which go to make a really successful medical officer of health, and the value of his labours was very clearly recognized both by the Local Government Board and by the people among whom he lived. On his retirement from his Dorking and Epsom appointments in 1900 he was the recipient of an address and piece of plate "as a small appreciation of the duties he had performed and the friendships he had made," and his death evoked marked expressions of regret from all quarters. His personality was so well brought out in a note in a local paper that some of the lines are worth quoting:

> Whenever he was consulted on a case of infection it was
> surprising to find how thoroughly he had all details of the
> particular village at hand, and even the house and family
> involved. Such facts could never have been gathered by one
> who did not make a religion of his work. There was probably
> no official who was more worried by more petty and stupid
> questions, and yet no one ever saw the serenity of Dr. Jacob
> disturbed. His urbanity, however, did not mean inefficiency
> He was always on the side of progress; none knew better than
> he the wretched insanitary conditions which prevail in some
> of our villages, and once he had evidence of such nothing
> would move him from his point until the matter was adjusted
> as he wished. Many of his reports were blessings to the
> district council. After a long monotonous meeting they were
> read, and always contained some element which was a welcome
> relief. Dr. Jacob was a most devoted servant, a valued friend
> a man to whom kindness was as natural as light to the sun
> and, above all, a man whose self-denying work was appreciate
> by all and approached by few. Now, having served his own
> generation, he has fallen asleep.

Resolutions of regret and condolence were passed by each
of the three Councils whom Dr. Jacob had served, an
Dr. E. C. Seaton, Medical Officer to the Surrey Count
Council, prefaced his monthly notification return with
corresponding homage to the deceased penned on behal
of himself and his colleagues. Dr. Jacob was buried a
Wandsworth in the same grave as his wife, who pre
deceased him by seven years. They had no family, an
since her death his house had been kept for him by h
nieces. He was a member of the Reigate Division of th
South-Eastern Branch of the British Medical Associatio

MARY PUTNAM JACOBI, M.D.,

NEW YORK.

Dr. Mary Putnam Jacobi, of New York, who died o
June 10th, was born in 1842 and in 1861 entered th
Woman's Medical College of Philadelphia, where sh
graduated in 1864. In 1866 she went to Paris, being, it
said, the first woman who succeeded in gaining admissi
to the Ecole de Médecine. She took the degree of Doct
of Medicine at the Paris Faculty in 1871, being award
a medal for her graduation thesis. Returning
America, she practised in New York, where she was f
ten years Professor in the Woman's Medical College a
for some time a professor in the New York Post-gradua
Medical School. In 1873 she married Dr. Abraha
Jacobi, the well-known specialist in children's diseas
In 1874 she founded the Association for the Advanceme
of the Medical Education of Women, of which she was t
first President. In 1876 she won the Boylston Pri
awarded by Harvard University for an essay entitl
"The question of rest for women during menstruatio
She contributed numerous papers on medical subjects
various periodicals, and was also the author of writings
education and female suffrage.

ROBERT T. POOLE COLLYNS, M.R.C.S.

We regret to report the death of Robert T. Poole Colly
of Wimbledon, which occurred on May 10th at Bright
whither he had been called on a professional errand.
became ill suddenly in the train, but was able to dir
his own removal to the County Hospital, where he d
the next evening.

Robert Collyns was the son of a Devonshire clergym
He was born in 1853, and, with the exception of so
months' pupilage under the late Mr. Taylor of Guildf
received his medical training at University College H
pital, where he became House-Surgeon to Mr. Christop
Heath. Largely through the recommendation of t
shrewd judge of men, he subsequently obtained
appointment of Resident Medical Officer at the Atkin
Morley Hospital at Wimbledon, a post which under
existing circumstances required great tact and discret
in the holder. These qualities Robert Collyns showed
abundantly possessed; coupled with a genuine liking
capacity for his work, they made his administratio
conspicuous success.

After fourteen years he gave up this office, joined
staff of the Cottage Hospital, became a partner with
Pocklington, and practised at Wimbledon to the tim
his death.

Robert Collyns was a quiet, undemonstrative,
thoroughly self-reliant man, possessing considerable po
of observation, great aptitude for his work, and so
judgement, which won him the confidence of his m

patients, whilst his sterling character, unvarying good nature, and hospitable instincts made him a valued friend.

DR. LOUIS A. WEIGEL, of Rochester, a well-known surgeon of the State of New York, died on May 31st at the age of 52, of malignant disease apparently caused by prolonged exposure to the *x*-rays. Dr. Weigel was among the first to realize the possibilities of the Roentgen rays, and did much experimental work with the agent. The disease from which he suffered first showed itself on the hands. Early in 1904 specimens of the growth were submitted to Professor Welch of Johns Hopkins University, who pronounced the disease to be malignant. The right hand was amputated at the wrist and three fingers of the left hand, which had become covered with a cancerous growth, were removed at the same time. Before long, however, the disease manifested itself in other parts. Part of the right shoulder was removed, and afterwards a large growth affecting the left breast and neighbouring tissues was excised. Subsequently four more operations were performed, the last in February of the present year. The case recalls an equally sad one of an almost exactly similar kind which occurred in this country a few years ago.

DR. MATTHEW BAINES died on May 5th at his residence, Cranley Place, South Kensington, at the advanced age of 83. He was educated at Chelmsford Grammar School and King's College, London, and obtained the diploma of M.R.C.S.Eng. and L.S.A. in 1845. In that year also he graduated M.B.Lond., and was awarded the Scholarship and Gold Medal in Medicine; in 1850 he obtained the degree of M.D. He started in general practice in South Kensington in 1851, and remained at work until shortly before his death, a period of 55 years. He was highly esteemed, and for years had an extensive practice. He was a constant attendant at the meetings of Convocation of the University of London and at its various Committees. He did good work on the Committees of the British Medical Benevolent Fund, Epsom College, and other institutions. He was surgeon to the 1st Middlesex Royal Engineer Volunteers for many years; he retired with the rank of lieutenant-colonel, and with the volunteer decoration. He was in bygone years assistant-surgeon to the West London Eye Infirmary, and subsequently physician to St. Paul's Home, Sydney Street, Chelsea, and the Training Home, Wharfdale Street. Dr. Baines was an Associate of King's College, London, and a Knight of Grace of the Order of St. John of Jerusalem in England.

WE have with great regret to record the death, at the comparatively early age of 53, of Mr. ROBERT SMAILES, a well-known and highly-esteemed practitioner of Leeds. About a fortnight ago Mr. Smailes was stricken with acute pneumonia. It was thought that the worst was past, when he died suddenly from cardiac failure. A student of the Leeds School of Medicine, Mr. Smailes took the diploma of L.R.C.P.Edin. in 1883 and that of L.R.C.S.Edin. in 1884; since that time he had been engaged in active practice in Leeds. He was honorary medical officer to the Leeds Unmarried Women's Benevolent Institution, and for some years was joint steward with Dr. J. J. Pickles of the West Riding Medical Charitable Society. Mr. Smailes was a prominent Freemason and a Past-Master of the Zetland Lodge. He will long be remembered with affection by his patients and his private friends, and in his death his professional brethren will lament the loss of an honoured and straightforward colleague.

SURGEON-MAJOR JOHN WILLIAM TROTTER died at York on June 14th. He entered the service as Assistant Surgeon, May 26th, 1854, becoming Surgeon-Major, April 3rd, 1874. He served in the Crimean campaign from November, 1854, with the Coldstreams, and was present at the seige and fall of Sebastopol, receiving the medal with clasp and the Turkish medal.

CAPTAIN GEORGE C. I. ROBERTSON, M.B., half-pay, Indian Medical Service, died on April 11th, aged 29. He entered the service as a Lieutenant, July 26th, 1902, being made Captain three years thereafter.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

THE election to the Quick Professorship of Biology will take place on Thursday, July 26th. Candidates are requested to send in their applications to the Vice-Chancellor on or before Thursday, July 19th.

The Raymond Horton-Smith Prize for 1906 has been awarded to H. T. Thompson, M.A., M.B., B.C., of Christ College, for an M.D. thesis on Certain Changes in Sensation associated with Gross Lesions of the Spinal Cord.

The following candidates have been approved at the examinations indicated:

FIRST M.B. (*Chemistry and Physics*).—P. B. M. Allan, H. C. Attwood, T. E. Banister, H. W. Barnes, R. E. Barnsley, A. V. Boyall, F. W. Burn, J. R. W. Burnet, A. G. W. Compton, H. A. Douglas, G. E Dyas, J. Ellison, C. M. Forster, A. C. Gemmell, B.A., J. E. Gething, J. P. Glyn, A. Griffith-Williams, H. Hartridge, R. Hodson, R. S. Hooker, D. D. B. Jay, A. Jennings, T. J. J. Jeppe, J. C. John, W. L. Johnson, W. H. Jones, B.A., A. J. McNair, H. W. Malden, R. W. Meller, C. J. Nicholson, B.A., T. H. Oliver, H. R. Overbury, A. B. Pavey-Smith, J. W. Pigeon, R. A. Ramsay, D. A. Reid, C. M. Ryley, L. W. K. Scargill, M.A., F. T. Shackell, B.A., D. L. Spence, H. S. C. Starkey, W. A. Stokes, J. Ll. M. Symns, A. D. Taylor, W. F. Thompson, F. S. Tinker, C. B. Wainwright, H. Walker, A. J. Waugh, R. W. Willcocks, H. A. Williams, E. Wordley.

FIRST M.B. (*Elementary Biology*)—H. C. Attwood, T. E. Banister, C. H. B. Booth, C. P. Browne, F. W. Burn, J. R. W. Burnet, C. G. H. Campbell, L. B. Clarke, E. R. C. Cooke, F. C. Dickson, H. A. Douglas, G. E. Dyas, J. P. Glyn, E. M. Grace, R. E. Grice-Hutchinson, H. B. B. Hammond-Chambers, J. B. Hance, H. Hartridge, A. E. Herman, R. Hodson, R. S. Hooker, D. D. B. Jay, H. G. G. Jeffreys, T. J. J. Jeppe, J. C. John, W. L. Johnson, A. Kennedy, G. H. S. Letchworth, D. N. Macleod, A. J. McNair, J. R. Marrack, R. W. Meller, M. Moritz, R. S. Morshead, H. J. S. Morton, G. E. Neilson, T. H. Oliver, H. R. Overbury, M. W. Paterson, A. B. Pavey-Smith, J. W. Pigeon, H. B. Pope, R. A. Ramsay, D. A. Reid, H. B. G. Russell, H. N. Sealy, A. K. Soutar, D. L. Spence, E. P. F. Stamper, G. N. Stathers, O. W. D. Steel, W. A. Stokes, G. B. Sutton, F. S. Tinker, J. R. A. D. Todhunter, P. Verdon, C. B. Wainwright, H. Walker, Ll. M. Weeks, J. B. A. Wigmore, R. W. Willcocks, B. H. C. Wilson, E. Wordley, C. R. Wright.

SECOND M.B. (*Human Anatomy and Physiology.*)—F. S. Adams, W. B. G. Angus, M. W. Baker, B.A., C. J. Blaikie, A. E. Bonny, R. S. Carey, B.A., H. G. P. Castellain, M.A., F. G. Cawston, H. M. McC. Coombs, B.A., J. H. Crofton, B.A., C. C. Dobell, J. C. Fox, B.A., D. J. Freyer, B.A., W. B. Gourlay, B.A., H. A. Harris, B.A., C. B. Heald, B.A., R. H. P. Hick, R. F. Higgin, B.A., L. R. King, B.A., H. Lee, J. C. Marklove, B.A., E. Mellanby, B.A., H. G. Monteith, B.A., J. H. Newmarch, A. J. Rae, B.A., E. D. W. Reid, B.A., W. F. Rhodes, B.A., H. B. Richmond, J. H. Roberts, B.A., F. H. Robinson, L. M. Routh, J. G. Saner, C. F. Searle, B.A., R. M. Soames, B.A., F. R. Thornton, B.A., R. J. Vernon, B.A., J. M. Wallace, A. D. J. B. Williams, B.A., J. F. W. Wyer, B.A.

FINAL M.B. (*Pharmacology and General Pathology*).—A. C. Anderson, B.A., A. Barker, B.A., F. A. Barker, B.A., C. C. H. Binns, B.A., H. Bowring, B.A., L. B. Cane, B.A., F. J. Cleminson, M.A., C. N. Coad, B.A., R. M. Collinge, B.A., W. I. Cumberlidge, B.A., F. S. Eschwege, B.A., F. S. Hewett, B.A., R. A. P. Hill, B.A., E. B. Hinde, B.A., C. C. Holman, B. E. Ingleby, B.A., E. M. Lauderdale, B.A., A. A. H. Lawrence, B.A., R. J. B. Leney, B.A., W. F. Manners, B.A., R. M. Moore, B.A., B. K. Nutman, B.A., B. A. I. Peters, B.A., C. H. Rippmann, M.A., F. S. Scales, B.A., E. F. Skinner, M.A., J. N. Wheeler, B.A., P. F. Wilson, B.A., W. B. Wood, B.A., O. K. Wright, B.A., F. P. Young.

FINAL M.B. (*Surgery, Midwifery, and Medicine*)—J. D. Barris, B.A., H. J. Clarke, B.A., R. P. Cockin, B.A., R. M. Courtauld, M.A., W. I. Cumberlidge, B.A., R. Davies-Colley, B.A., J. R. Draper, B.A., C. F. Fothergill, B.A., A. Goulston, M.A., W. B. Grandage, B.A., M. Grundy, B.A., C. R. F. Hall, B.A., G. H. Harper-Smith, B.A., C. King, B.A., S. G. MacDonald, B.A., J. McIntyre, B.A., J. T. Macnab, B.A., E. H. Mayhew, B.A., A. W. Moore, B.A., W. L. Murphy, M.A., A. S. M. Palmer, B.A., W. H. Robinson, B.A., C. Stanley-Clarke, B.A., F. J. Thornton, B.A., J. H. Trench, B.A., A. Walker, B.A., G. L. Webb, B.A., C. J. Wilson, B.A., H. W. Wiltshire, M.A., F. Worthington, B.A.

UNIVERSITY OF LONDON.

CONVOCATION.

A MEETING of Convocation was held at the University on Tuesday, June 26th; Sir E. H. Busk, Chairman of Convocation, presided.

Clerk of Convocation.—Mr. H. E. Allen was re-elected.

The Standing Committee.—The graduates nominated by the various Faculties were all re-elected; in the Faculty of Medicine they were Miss Aldrich-Blake, M.D., Dr. H. A. Sansom, and Miss Vaughan, M.D.

The Statutes.—The alterations in the existing statutes of the University, as prepared by the Senate, were duly considered and approved; they referred to the definition of internal students, and the membership of the faculties.

University College.—The statutes for the management of University College under the direct control of the University, in accordance with the "University College, London, Transfer Act, 1905," were approved.

Examinations in Science.—It was resolved that certain examinations of which the syllabuses are identical for internal and external students in Science should be also utilized for certain students in veterinary science.

Membership of Convocation.—All graduates qualified to become members of Convocation were invited to join Convocation, and thus avail themselves of the privileges of such membership.

Official Robe Makers to the University.—The House resolved that it was desirable that official robe makers should be appointed.

UNIVERSITY OF LEEDS.

Degrees in Dental Surgery.

At a meeting of the Court of the University, the following Ordinances were adopted with reference to the institution of degrees in Dentistry:

1. The degrees in Dental Surgery shall be:
   Bachelor of Dental Surgery (B.Ch.D.).
   Master of Dental Surgery (M.Ch.D.).

Degree of Bachelor of Dental Surgery.

2. All candidates for the degree of Bachelor of Dental Surgery shall be required to have passed the Matriculation Examination, to have pursued thereafter approved courses of study for not less than five academic years, two of such years at least having been passed in the University subsequently to the date of passing Parts I and II of the First Examination, and to have completed such period of pupilage or hospital attendance, or both, as may be prescribed by the regulations of the University. No candidate shall be admitted to the degree who has not attained the age of 21 years on the day of graduation.

3 All candidates shall be required to have passed the following examinations: The First Examination, the Second Examination, the Final Examination.

4. Each examination shall include practical work in the subjects offered.

5. All candidates shall be required, before presenting themselves for examination, to furnish to the Registrar certificates testifying that they have attended the prescribed courses of instruction in accordance with the regulations of the University in each of the subjects which they offer, and that they have fulfilled the other requirements of the Ordinance and regulations in respect of such examination.

At a subsequent meeting of the Senate the following were, on the recommendation of the Board of the Faculty of Medicine, adopted as the

Regulations for the Degree of Bachelor of Dental Surgery (B Ch.D.).

1. In each examination the names of candidates who have satisfied the examiners shall be published in alphabetical order.

First Examination.—2. Candidates for Part I or Part II of the First Examination shall be required to have attended during at least one year, either in the University or in an institution recognized for this purpose by the University, courses of instruction, including laboratory work, in the subjects of the examination, namely:—Part I. Physics: Lectures and laboratory work. Chemistry, inorganic and organic: Lectures and laboratory work. Part II. Biology (zoology and botany): Lectures and laboratory work. 3. Every candidate for Part III of the First Examination shall be required to have spent two years in the prosthetic department of a recognized dental or general hospital, or in pupilage to a qualified and registered dental surgeon, and to have attended, during at least one year, courses of lectures and practical instruction approved by the University, in the subjects of the examination, namely—dental mechanics (including electrical appliances used in dentistry): Lectures and laboratory work. Dental metallurgy: Lectures and laboratory work. 4. The first examination shall be held twice in each calendar year.

Second Examination.—5. Candidates for the Second Examination shall be required to have attended courses of instruction approved by the University, as follows: anatomy lectures, two terms; practical anatomy and demonstrations, including the dissection of the head and neck, three terms; dental anatomy and physiology, one term; dental microscopy, one term; physiology lectures, two terms; physiological laboratory, one term; practical histology, one term; dental materia medica, one term. 6. The Second Examination shall be held twice in each calendar year.

Final Examination.—7. Candidates for the Final Examination shall be required to have attended courses of study, approved by the University, as follows: surgery lectures, two terms; special surgery of the mouth, six lectures; medicine lectures, two terms; dental surgery and pathology lectures, two terms; operative dental surgery lectures, one term; demonstrations on anaesthetics, two terms. 8. Candidates shall be required to present certificates of two years' medical, surgical, and dental practice at hospitals recognized by the University. These certificates must show that practical instruction has been received in medicine, surgery, and the administration of anaesthetics. Every candidate shall be required to have acted as clerk and as dresser for three months in each case in a hospital recognized by the University. 9. The Final Examination shall be held twice in each calendar year.

UNIVERSITY OF LIVERPOOL.

Civic Grant.

The City Council, at its recent meeting, renewed the grant of £10,000 to the University of Liverpool for a period of twelve months. The opposition of a small minority of the Council afforded the opportunity for a discussion which was not without value. It is very desirable that periodically the City Council should be able to review the situation and to discuss the general conduct of university affairs. Those interested in the University can in this way learn how their work is regarded by those outside, and can remedy any real defects that may be pointed out. The condition attached to the grant that a report shall be received from the Government inspectors as to the educational methods of the University in relation to the needs and requirements of the city is to be welcomed. The information that this report will furnish will, it is believed, prove conclusively that the city obtains full value for its money, and will induce the most rigid economists to admit that the university grant is one of the last items of expenditure which should, in the interests of the city, be reduced.

Research Diploma.

The authorities have recently decided to grant diplomas under certain conditions to research students in anatomy, bacteriology, and bio-chemistry. These diplomas are intended for students, not necessarily medical men, who have worked for three terms in the University laboratories and have carried on research work to the satisfaction of the Dean of the Faculty. Students who desire to obtain these diplomas must, before entering on their course of research, have passed an examination of high standard approved by the faculty in the subject selected. It is not improbable that soon the reputation of the school will be such that scholars will be attracted to Liverpool from all parts to study these specialized branches of learning.

UNIVERSITY OF BIRMINGHAM.

The following candidates have been approved at the examinations indicated:

Third M.B., Ch.B. *(Part I., Pathology and Bacteriology).*—J. Adams. Charlotte Bailey, *J. Dale, G. H. C. Mold, D. P. Smith, E. V. Whitby. *Part II (Materia Medica and Practical Pharmacy).*—J. Adams, *J. Dale, H. A. Evans, E. V. Whitby, Charlotte Bailey.†

* Recommended for the Queen's Scholarship of 10 guineas awarded to the candidate taking the highest place at the examination.

† Class II.

Fourth M.B., Ch.B.—*Class I.* C.*J. Fenton, *A. A. Sanders, F. B. Young. Class II. E. J. Boome. H. N. Crowe. E. T. Gaunt, J. K. Gaunt, P. J. Mason, N. C. Penrose, A. J. Smith, R. W. Thompson, N. V. Williams.

* Equal for first place, and recommended for the Queen's Scholarship of 10 guineas.

UNIVERSITY OF EDINBURGH.

The following candidates have been approved at the examination indicated:

Final M.B., Ch.B.—G. P. Adshead, J. H. Aikman, J. A. Ainscow, J. Alexander, M.A., A. W. Atkinson, R. C. E. Atkinson, M.A., A. F. Babonau, C. R. M. Baker, D. P. Blair, F. Blamire, J. D. Bowie, F. H. Bradley, I. W. Brebner, M.A., *T. G. Brown, B.Sc., C. H. Burgess, Alice Meredith Burn, E. Burnet, B.A., J. S. Caldwell, *S. T. Champtaloup, A. E. Chisholm, Marjorie D. Cohen, W. Core, M.A., S. G. Corner, M.A., D. Cotterill, Agnes Marshall Cowan, R. G. Cunningham, J. A. Currell, J. S. Daniell, J. Dass, S. K. Datta, B.A., R. Davidson, A. Davies, B.A., *A. M. Dick, T. H. Dickson, *A. M. Drennan, J. D. C. Duncan, R. Duncan, D. D. Dunn, E. W. Dyer, S. S. Dykes, *J. S. Edwards, P. El-Karey, R. H. Fothergill, M. S. Fraser, J. W. Frew, P. W. Freyer, Jessie Handyside Gellatly, K. N. Gosh, G. H. R. Gibson, L. Gibson, J. Gilmour, E. C. Girling, *G. A. Gordon, J. E. Gordon, W. L. Gordon, E. R. Grieveson, B.A., W. M'A. P. Henderson, M.A., B.Sc., Isabella Hill, A. S. Holden, G. H. Howe, *T. B. Johnston, N. W. Kidston, A. G. K. Ledger, A. Leitch, Olive T. Leonard, J. Lindsay, P. Lorrie, J. P. Lowson, A. T. M'Donald, J. W. S. Macfie, B.A., B.Sc., G. B. Macgregor, T. S. M'Intosh, M.A., J. MacKenzie, J. N. MacLaughlin, M. Maclean, M.A., J. A. MacLeod, J. B. M'Morland, R. P. M'Morland, G. M'Mullan, A. C. B. M'Murtrie, W. J. Macnab, J. M. MacPhail, A. S. Mactavish, J. N. M'Turk, D. Mann, J. S. Manson, J. Mathewson, M.A., G. M. Melville, H. J. More, M.A., J. E. Murray, M. A. D. Naoroji, A. J. P. Nowell, J. L. H. Paterson, A. Macf. Pirrie, B.Sc., G. Pollock, H. B. Porteous, Agnes E. Porter, C. Pycroft, Edith G. Pycroft, Mabel L. Ramsay, G. Raubenheimer, *J. Ritchie, W. G. Rivers, *H. D. Robb, R. M'N. Robb, T. E. Roberts, G. Robertson, Æ. Rose, M.A., F. Ross, J. M. Ross, Z. M. H. Ross, E. Russell, A. Sandison, Elsie B. Saunders, *W. O. Sclater, B.Sc., T. H. Scott, H. L. Sells, E. D. Simson, A. G. H. Smart, W. T. Smith, R. St. C. Steuart, *A. D. Stewart, G. H. de W. Stofberg, K. R. Tampi, B.A., D. R. Taylor, B.A., J. A. Taylor, C. H. Tewsley, M.A., E. R. Thompson, H. H. Thorburn, A. Todrick, J. N. Turnbull, Nettie B. Turnbull, Annie D. Urquhart, E. W. Vaughan, A. G. Visser, G. F. C. Wallis, R. H. Walton, W. H. Welsh, O. H. Williams, W. E. R. Williams, C. R. Wills, Ethel Wiseman, A. F. Wright, A W. Young.

* With distinction.

UNIVERSITY OF GLASGOW.

Proposed Degree in Pharmacy.

A proposal to institute a B.Sc. degree in pharmacy is blocked for the present. The University of Edinburgh has intimated an objection to the proposed scheme. Owing to the peculiar provision in the ordinances it is only necessary for one of the Scottish universities to intimate that it objects to prevent the carrying on of any scheme for instituting a new degree. The nature of the objection need not be stated for six months.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

At a meeting on June 14th the Council conferred the Fellowship on the following gentlemen:

E. V. Hugo, W. G. Mortimer, W. P. Noall, G. I. T. Stewart, A. F. Hayden, H. E. Ridewood, E. Ward, A M. Webber, P. P. Cole, G. R. Footner, W. M. Mollison, W. J. O. Malloch, J. A. Coupland, V. B. Bennett, G. G. Farquhar, D. C. L. Fitzwilliams.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION OF ENGLAND AND WALES.

The annual general meeting of this Association was held at the Trocadero, Piccadilly Circus, W., on June 26th, Surgeon

General Evatt, C.B., the President, being in the chair. A very satisfactory balance-sheet was presented and officers and council elected for the ensuing year.

After the general meeting the members and their guests dined together under the chairmanship of their President. Dr. Heron, in proposing "The Health of the Poor-law Medical Officers' Association," alluded to their latest annual report, and said that it was distressing to think that many of the grievances alluded to he could remember being complained of more than forty years ago. It was sad to think that so little had been achieved in the way of reform. He altogether disbelieved in Royal Commissions, and hoped that the Associaion did not expect much from that now sitting. It would probably be years before it reported, and then its recommendaions would be pigeon-holed and nothing more heard about hem.

The Honorary Secretary (Dr. Major Greenwood), in replying, aid he was sorry that the proposer of the toast had been so epressing in his remarks. Their cause wanted rather timulants and encouragement Unfortunately, he could ot deny the accuracy of what Dr. Heron had said. Among he archives of the Association was a copy of a report published by one of their past Presidents in 853, in which nearly all the present grievances were numerated Dr. Balding was never tired of pointing out hat practically all the duties of Poor-law medical ficers were regulated by a Poor-law Order enacted in 847. During the last year the Association had not been idle. ome might think from the little progress made that they had een simply marking time, but only those who did the work new how much had to be done without any apparent effect; ow many letters had to be written; how many rebuffs taken n good part; how many mistakes, even on the part of memers—to be rectified—for he regretted that there was often ant of care and thoughtlessness on the part of applints for advice, who made their cases wellnigh hopess before consulting the Association. Still, he did not ink their work was thrown away. Hard, indeed, was the ck of official indifference, but *gutta cavat lapidem non vi sed epe cadendo*, so he hoped that their puny efforts by constant petition might yet make an impression. Much time had en devoted to the work of the Royal Commission now sitng, as it was thought very desirable that the grievances of e Poor-law Service should be brought before that body, and attempt made to point out that they had an important aring on the welfare of the sick poor. If the Poor-law edical Service were underpaid, their poor patients ust suffer in the long run. It would be a great istake if the Commission regarded these matters as tside the scope of its inquiry. It ought to examine into e relations that existed between Poor-law medical officers d Boards of Guardians throughout the country. If it did so would discover great abuses, and be able to remove the uses of the grievances complained of, which greatly affected e well-being of the most helpless of the poor, the sick and abled. He was happy to say that the Commission had connted to hear the Association, and that he would have the nour of representing them at no distant date. He therefore ked members to furnish him with as much evidence as ssible to lay before the Commissioners.

The President, in proposing the health of the guests, spoke the excellent work done by Mr. Andrew Clark for the British dical Association, which was always ready to assist Poor-law dical officers. He complimented Dr. F. de Havilland Hall the admirable success of the Medical Sickness Society under chairmanship, and commented on the great importance of work it carried on. The Army Medical Service had once n as downtrodden as the Poor-law, but it had risen up again, the Poor-law Service would assuredly do in the future.

Mr. Andrew Clark, in responding, spoke of the frequency h which Poor-law matters came before the British Medical ociation, and its readiness to do all that was possible to mote Poor-law reform.

r. Hall said that his father had been a Poor-law medical cer for more than fifty years, and in his young days he had n very familiar with Poor-law matters. With regard to the dical Sickness Society it must never be forgotten how much its success was due to the energy and ability of the late Mr. est Hart. Dr. Major Greenwood, too, had sat on the cutive Committee of the Society ever since its foundation, had given great assistance in its development.

r. Holder proposed the health of the President, and said t Poor-law medical officers were greatly indebted to him, ecially their brethren in Ireland, and that the Association e fortunate in having him as President.

he President then proposed the health of Mr. Livock, Presit of the London and District Branch of the Poor-law cers' Association, who, he said, represented the large and ortant lay element of Poor-law workers; he had no doubt were in sympathy with medical colleagues.

r. Livock thanked the Association, and spoke with admiraof the work of the medical department of the Service. could assure them that the officers he represented were e ready to assist as far as lay in their power, and he himin his thirty years' service, had had ample opportunity eeing how unfairly Poor-law medical officers were often ted, considering the importance of their work and their t devotion to the service of the poor.

LETTERS, NOTES AND ANSWERS TO CORRESPONDENTS.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

PRACTICE IN NEW ZEALAND.

A. W. T. asks for information as to the conditions (professional and living expenses, etc.) of practice in New Zealand, the part most suitable, and the minimal amount of capital necessary to take out, and whether *locum tenens* work is easy to obtain.

*** We are advised that the best practices are, as might be expected, to be had in the large cities—Auckland, Wellington, Dunedin, and Christchurch; but to obtain such a man must have funds to carry him on until he becomes known. A practice cannot be transferred by purchase, as is the case in England. No ill-will is felt against a man who arrives and commences on his own account. A few successful cases will make his reputation almost at once. Country practices, on the other hand, can be bought easily. There are several hospital appointments throughout the Colony worth from £150 to £300, with right of private practice. Cost of living is perhaps somewhat higher than in England, but not very much. *Locum tenens* work is not much in demand. The minimal amount of capital to take out would be about £500.

ANSWERS.

A. P., who is attending a primipara suffering, a week after labour, from retention of urine, should direct that hot water should be put in the utensil and let the patient sit upright upon it. Or let the patient sit in a hot hip bath and pass water into the bath. If that fails, the catheter should be used.

LETTERS, NOTES, etc.

MOTOR CYCLES AND MOTOR CARS.

DR. T. GORDON KELLY, D.P.H.Oxon. (Desford Grange, Leicester), writes: I have read with interest the letter of Dr. Thompson Bell in the BRITISH MEDICAL JOURNAL of June 16th 1906, p. 1447, and, like him, would draw the attention of those members of our profession who cannot afford the initial expense and upkeep of the motor car to the great advantage as a "time saver" of the modest motor bicycle. As Dr. Bell says, a long round of visiting in the country can be got through in half the time by using one of these handy little motors. Many men are deterred from purchasing through fear of breakdowns and, to some extent, like the cautious individual who is still waiting for the perfect bicycle, are postponing the venture until "they are more reliable." I can assure your readers that both motor cars and motor cycles are past the experimental stage and present no difficulties to any one who will take the trouble of understanding the mechanism. I have used for nearly three years a 2-h.p. Quadrant motor cycle with little or no trouble. Although I have also driven a car I find my small Quadrant very handy. For those who prefer the car I would strongly advise the 6-h.p. De Dion with three speeds. This car is certainly expensive, more so I believe than any other single cylinder car, but is assuredly worth the money. Having driven two other well-known 6-h.p. cars, I find the De Dion has far more power, but its great charm to me is the flexibility of the engine, which is equal to any two-cylinder car I have come across. The bugbear of the novice, gear changing, in this car is simplicity itself, and the veriest beginner cannot "miss the change." In conclusion, I may say that I am a strong advocate of the single-cylinder engine, provided it is a good one.

UNIVERSAL NAVAL AND MILITARY SERVICE.

DR. W. CULVER JAMES, Surgeon-Lieutenant-Colonel Honourable Artillery Company (London, W.), writes: I beg to thank you for your kind and sympathetic remarks, in your issue of April 28th, on the paper I recently read on the above subject. Intimately connected as universal naval and military training and service would be with the health and general well-being of the community, this subject should, and does, interest our profession in England. I beg, however, to protest, with all the force and earnestness I possess, against your statement that the gentle and mild compulsion I propose would be "penal." The BRITISH MEDICAL JOURNAL has always, and rightly, advocated compulsory vaccination and compulsory notification of certain infectious diseases. In my humble opinion it would be as unfair for a critic to say that you advocated "penal" vaccination, etc., as for you to make the following statement in reference to my proposal:

"The advisability of instituting what would be practically a penal branch of the navy and army is open to question." Of course I understand that my scheme may be open to question, but I demur to your suggestion that compulsory training and service would be "penal." May I ask if you look upon the compulsory military and naval training and service of France, Germany, and Japan as "penal," patriotic, or prudent? The mild form of compulsion that I advocate is far less severe than any system that obtains in most other civilized countries, and, together with the physical education that I propose to be given to school children, would be of enormous advantage to our community. It is stated that 60 per cent. of the men in Lancashire who volunteered for the South African war were rejected by the medical officers as unfit; many men in the Imperial Yeomanry after landing in South Africa were sent back by the medical officers there, as unfit. Further, to fight a nation of 200,000 people, including old men, women, and infants, this Empire of 400,000,000 from first to last required 400,000 soldiers, lost 30,000 by death, had 70,000 casualties, spent £240,000,000 and were kept at bay for nearly three years. I submit that my scheme would not be a punishment, but would be a blessing to thousands of our fellow-citizens, and would lessen its number of loafers and drinkers. It would improve their moral and physical well-being, it might reduce the percentage of unfit, and it would certainly add to the safety, honour, and welfare of H.M. and his dominions.

THE REBUILDING OF 429, STRAND.

DR. J. S. PURDY (Port Said, Egypt) writes: On behalf of members of the Association resident abroad, I should like to add "the Colonial practitioners," an ever-increasing number of whom visit London, to the list of those who would appreciate the extension of the premises and the encouragement of the social or club element. As whilst resident in London I benefited much from an occasional visit to the Library, where more than once I met friends from South Africa and New Zealand, and through the courtesy of the Librarian was able to keep in touch with the writings of colleagues in the Colonial medical journals, I can fully support the suggestions of Dr. Broadbent and other correspondents.

MIDWIFERY OF THE PRESENT DAY.

VELOX writes: I was interested in the correspondence on the above subject. There can be no doubt about the expression "meddlesome midwifery"; it is responsible for a lot of mischief. Boiling forceps and boiling everything else may be all right in its way, but is not everything. A confinement is a physiological process, and a point that is overlooked is the fact that the uterine and vaginal secretions at the time are themselves antiseptic. I have come across doctors, living and dead, who never troubled their heads about antiseptics. They carried their forceps in their pockets, and warmed them before use either up their sleeve or within pockets; they rarely had cases of puerperal fever or subsequent trouble. The exact causes leading to puerperal fever are not known. True, it is due to microbic infection, but there are questions of immunity, opsonics, and phagocytosis to be considered. There may be an auto-infection. When puerperal fever has shown itself drastic measures are usually adopted to check it, which probably only tend to aggravate the condition. The American Gynaecological Society have come to the conclusion that routine curettage is not only dangerous, but a prolific cause of death. This is not surprising when one takes into consideration the friable condition of the uterus at the time. I have in my possession an old pair of short forceps the blades of which are covered with leather, presumably to prevent injury to the mother and child! What a culture medium for bacteria they must have been! I have often wondered what story they could tell if they could but speak. I am unable to say when they were used last, probably any one doing so at the present day would get into trouble. Cases that make as satisfactory progress as any are girls who, being afraid of the disgrace, keep the secret of their approaching confinement to themselves, and practically confine and attend on themselves at the birth.

SOME GRIEVANCES OF THE WEST AFRICAN MEDICAL STAFF.

AFRICANUS writes: In the BRITISH MEDICAL JOURNAL of April 2nd, 1904, a letter appeared from Dr. G. Rome Hall concerning some grievances of the West African Medical Staff, and I think it would be well if this subject were again ventilated in the public press. In the remarks that follow I am only expressing my own opinions (in the hope that others may follow suit with theirs), and do not wish to be considered as necessarily representing the views of the service as a whole.

1. *Title.*—Now that some of our Eastern and Central African colonies are passing under the sway of the Colonial Office it might be more convenient to amalgamate the medical departments of these colonies with the West African Medical Staff. Such a service might be called the "African Medical Service," and be to Africa what the I.M.S. is to India.

2. *Executive.*—It has always seemed to me that the Colonial Medical Service should be represented in the Colonial Office at home by one or more of its senior officers, who would direct the affairs of the Colonial Medical Service and act as advisers to the Colonial Office. In such a Council or Board a representative from the W.A.M.S. would naturally find a place.

3. *Pension.*—One of the objects I suppose of all pension schemes is to provide inducements for continued service. In the W.A.M.S., an officer is allowed to retire on a certain pension after eighteen years' service in West Africa. There is, I believe, one medical officer on the coast who has actually completed eighteen years' service, and is still alive. The remark that a newly-joined officer made when discussing the pension scheme shows what little attraction it has. "Well," he said, "I don't intend to spend eighteen years in West Africa, even if I live so long." I think, however, that men would try and complete, say, twelve years' service on the West Coast if the remaining six years could be spent in a healthier colony.

4. *Length of Tour.*—According to the regulations, officers of the W.A.M.S. serve for twelve months, and then go home on leave. As a matter of fact, however, it is a very rare thing indeed for any medical officer to get home up to time. This breach of contract gives rise to a great deal of grumbling and inconvenience; often, too, it is directly responsible for ill-health. The remedy for this state of things, of course, is an increase in the staff. Twelve months at a time in West Africa is quite long enough for all officials. There are no healthy hill stations in West Africa as in India, no health resort where a hard-worked official can get braced up by change of air, food, etc.; the only change that does good is the voyage home.

5. *Uniform.*—In a recently-issued list of articles of kit I notice that an attempt has been made to create different uniforms for the medical officers in each colony. This seems to me a great pity, and one which tends to frustrate the scheme for amalgamating the different West Coast medical departments into one complete service. All that is wanted is a serviceable and distinctive kit which shall be at the same time simple and comfortable. A corps crest and motto might also be designed.

6. Among other points which might be considered are the following: (*a*) That some of the lectureships at the Schools of Tropical Medicine be given to suitable men of the W.A.M.S. who are on the retired list. (*b*) That those members of the W.A.M.S. who so wish be given an opportunity of joining the Army Medical Reserve. It has, I believe, been already decided by the senior members of the service that they will have nothing whatever to do with the military medical service. Since the South African war, however, there have come into the service a good many who served in the Boer war, and who would like still to keep in touch with the military medical service.

BICYCLE SADDLES.

DR. A. CHURCHWARD (South Norwood) writes to say that he considers the saddle invented by him the best anatomically; there is no pressure on the perineum, there are two soft pads for the ischial bones to rest on, perfect ventilation, and a short peak for ladies. He has ridden over 80 miles a day on it for a week at a time with comfort. Our correspondent states that he has no pecuniary interest in the saddle, which is made by Messrs. Middlemore and Lamplough of Coventry, who will send a specimen on approval.

REMOVAL OF TATTOO MARKS.

DR. G. VARIOT, Physician to the Hospital for Sick Children, Paris, writes to state that the method for the removal o tattoo marks described in the BRITISH MEDICAL JOURNAL of June 9th, p. 1382, was that practised by him when temporarily in charge of wards in the Paris prison infirmary.

WHOOPING-COUGH ARRESTED BY SHOCK.

DR. A. J. MANASSIH (Brumana, Beyrout) writes: I have at present under treatment a child 5 years of age for an extensive burn of the true skin of buttocks and upper third of legs. At the time of accident the child was suffering from whooping cough, but as soon as she was burnt the cough and the characteristic whoop disappeared entirely, but came back after three weeks. It will be interesting to hear from experts how they explain the arrest of pertussis by the shock and whether others have had similar experiences.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

Eight lines and under	£0 4 0
Each additional line	0 0 6
A whole column	2 13 4
A page...	8 0 0

An average line contains six words.

Advertisements should be delivered, addressed to the Manager, at the Office, not later than first post on Wednesday morning preceding publication; and if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association at the General Post Office, London. Small amounts may be paid in postage stamps.

N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.

THE
British Medical Journal.
THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

EPITOME

OF

Current Medical Literature.

JANUARY TO JUNE, 1906.

London:
RINTED AND PUBLISHED AT THE OFFICE OF THE BRITISH MEDICAL ASSOCIATION,
429, STRAND, W.C.

INDEX TO THE EPITOME FOR VOLUME I, 1906.

The Figures in this Index refer to the Number of the Paragraph, NOT the Page.

A.

Abadie : The bladder in a femoral hernial sac, 105
Abderhalden : Bence Jones substance in the urine, 17
Abdominal aorta. See Aorta
Abdominal operations, pulmonary complications after, 170
Abdominal ovariotomy during labour, 307
Abdominal pain and digestive disorders, 104
Abdominal section during pregnancy, 290
Abdominal surgery in the Russo-Japanese war, 320
Abrogast : Life after recovery from phthisis, 371
Abscess, cerebellar, 21
Abscess (pancreatic ?) in lesser peritoneal cavity, 121
Actinomycosis, copper salts in, 97
Adrenalin chloride, influence of upon toxic doses of cocaine, 32
Agglutination, and leucocytosis, 33 ; of bacteria, 261
Airborne infection with plague, possibility of, 314
Albuminuria, 219
Albuminuria, glycosuria and eclampsia in pregnancy, 322
Alcohol and tuberculosis, 84
Alfredo : Diagnosis of gastric carcinoma, 262
Alimentary cure of biliary fistulae, 81
Allaria : Nervous complications in typhoid of children, 167
Alopecia areata in schools, false, 249
Altmann : Local treatment of prostatic hypertrophy with radio-active mineral water, 327
Amann : Large live lumbrici in an ovarian dermoid, 289
Amick : Typhoid appendicitis without other intestinal lesion, 118
Amoebic dysentery. See Dysentery
Amrein, O.: Tuberculin treatment of pulmonary phthisis, 63
Anaesthesia, spinal, 252
Anaesthetics, new local, 47
Anastomosis, ileo-rectal, in high cancer of rectum, 73
Anders, J. M. : Prophylaxis of lobar pneumonia, 232
Aneurysm, cirsoid of the scalp, treatment of, 54
Angelillo : Dimal in hyperhidrosis, 277
Angina pectoris, 69
Angioneurotic oedema involving the upper respiratory tract, 169
Ankylostomiasis, treatment of, 259
Anorexia in tuberculosis of the lungs, 330
Antibodies, passage of into the blood of nurslings, 165
Antiplague vaccination, 312
Antitetanus serum. *See* Serum
Antitubercle serum, Ravagliano's, 176 ; Marmorek's, 244
Antityphoid inoculation, 143
Anuria in uterine cancer, prophylaxis of, 160
Anzilotti : Cultivation of tubercle bacilli, 374
Aorta, abdominal, partial occlusion of, 74
Apfelstedt : Freeing of the arms in turning the fetus, 369
Apolant : Mixed malignant growths, 197
Appendages, inflamed, conservative treatment of, 12
Appendectomy, modified method of, 38
Appendicitis, *post-partum*, 224
Appendicitis resembling tubal gestation, 225
Appendicitis, typhoid, without other intestinal lesion, 118
Appendix, vermiform, primary carcinoma of, 181
Arneill, James R. : Asthma, 134
Arsenic in diabetes, 243
Arsenic ferratose, 31
Arterio-sclerosis as a general disease, 152
Aschoff : The cervix in pregnancy, 7
Aspergillosis, acute primary pulmonary, 347
Aspirin in chorea, 311
Asthma, 134
Atony of the stomach, 18
Attila : Bile ducts compressed by tuberculous glands, 364
Auricle, left, pressure on the recurrent laryngeal nerve by, 345
Avisa, E. : The gastric secretions in Bright's disease, 3
Ayer : Enteric cysts, 136

B.

Baccarani : Acute primary pulmonary aspergillosis, 347
Bacilli, typhoid, differential diagnosis of, 328
Bacilli, tubercle. *See* Tubercle
B. coli and *B. typhosus*, cultural distinction between, 34
Bacillus of influenza in bronchiectasis, 67
Bacillus of leprosy, cultures of, 99
Bacteria in the normal adult intestine, 53 ; agglutination of, 261
Bactericidal action of glycerine, 164
Bacteriolysins in phthisis, intrapulmonary injections of, 245
Baldauf : Primary carcinoma of vermiform appendix, 181
Ballantyne, J. W. : Delivery of a hydrocephalic fetus by spinal tapping, 287
Balneological treatment of old hemiplegias, 14
Balocco : Albuminuria, 219
Bandler : Toxaemia in early ectopic pregnancy, 139
Bandl's ring, internal podalic version for, 138
Bar : internal podalic version for Bandl's ring, 138
Bardach, L. : arsenic ferratose, 31
Bath treatment of enteric fever, 29
Bauereisen : Perforating duodenal ulcer in puerperium, 157
Beck, Carl : Modern treatment of fractures, 266
Beer : Blood cryoscopy and the functional activity of the kidneys, 150
Belladonna plasters, poisoning by, 357
Bence-Jones substance in the urine, 17
Bender : Kraurosis vulvae after hysterectomy, 78
Benedetti, L. : Manganese as a drug, 358
Benini : Diazo-reaction in mental disease, 234
Berger, A. : Variations in weight during sanatorium treatment, 228
Berger, A. : Ocular complications of pregnancy, 239
Bernard, P. : Epidemic of diphtheri
86
Bernheim, S. : Spread of tuberculosis
laundries, 132
Berry : Influence of adrenalin chlorid
upon toxic doses of cocaine, 32
Bertarelli, E. : Reptilian tuberculosi
344
Bevan, A. D. : Copper salts of actinom
cosis and blastomycosis, 97
Bibergeil : Pulmonary complicatio
after abdominal operations, 170
Bicornate uterus. *See* Uterus
Bile, toxicity of, 247
Bile ducts compressed by tuberculo
glands, 364
Biliary duct, obstruction in, 204
Biliary fistulae. *See* Fistulae
Biliary lithiasis. *See* Lithiasis
Bitters, influence of on digestion, 373
Bladder, in a femoral hernial sac, 1
operative treatment of tumours
220
Blastomycosis, copper salts in, 97
Blood, action of x rays on, 16
Blood changes in anatomical lesions
acute phosphorus poisoning, 115
Blood cryoscopy and the functio
activity of the kidneys, 150
Blood diagnosis in forensic medici
215
Blood of epileptics, 231
Boggs : Influenza bacillus in bronc-
cctasis, 67
Bonardi, E. : Pressure on recurr
largygneal nerve by the left auric
345
Bonnani : Influence of bitters on dig-
tion, 373
Boric acid, fate of in the body, 65
Bouchacourt : Fallacy of superfetati
268
Bourdzinsky : Caesarean section
malignant disease, 28
Bouret : Treatment of traumatic sepa-
tion of tibial tubercle, 89
Boursier : Acute torsion of peduncula
fibroids, 59
Boyd, Florence : Carcinoma of
female ureter, 174
Brain, tuberculosis of the, 278
Braun, H. : New local anaesthetics,
Brelet : Early diagnosis of meas
280
Bright's disease, the gastric secret
in, 3
Brinda, A. : Maretin, 230
Broca : Removal of cerebral cysticer
183
Bromide of methylatropin, 294
Bronchiectasis, influenza bacillus in
Broncho-pulmonary complications
operations, 263
Brown : Pregnancy in bicornute ute
Caesarean section, 210
Bruni : Treatment of enuresis in
dren, 258
Bruno : Action of sodium chlorid in
disease, 95
Burns, skin-grafting in late treatme
severe, 40
Buschke : *Spirochaeta pallida* in
tissues, 148
Butler, W. J. : Typhoid fever
children, 35
Butter-milk in gastro-intestinal
orders of infancy, 98
Buxbaum : Treatment of constipa
161

C.

ÉAC : Infection of tuberculosis by the
spiratory passages, 166
costomy and intestinal irrigation in
moebic dysentery, 304
sarean section and malignant disease,
3
sarean section in myasthenia gravis
mplicated by pregnancy, 58
ABRESE : Radium in rabies, 162
careous degeneration, 66
cium chloride as a preventive haemo-
atic, 103
culus of Wharton's duct, 284
nphor in treatment of phthisis, 340
al, parturient, injury to during
bour, 106
cer of cervix uteri, surgery of, 288
cer of Fallopian tube, primary, 175
cer, gastric, diagnosis of, 262
cer of hysterectomy stump, 142
cer, mediastinal, treated with Roent-
en rays, 193
cer of oesophagus, radium in, 15
cer, prostatic, 172; early diagnosis
nd radical cure of, 6
cer of rectum, ileo-rectal anasto-
osis in high, 73; radical treatment
, 184
cer of stomach, 85
cer of female ureter, 174
cer, uterine, 25; prophylaxis of
nuria in, 160
cer of vermiform appendix, 181
TACUZENE : Toxins of tubercle bacilli,

TAS : Radical cure of femoral hernia,
3
LESCO-POENARO : Treatment of tho-
co-abdominal wounds, 285
cinoma. *See* Cancer
liac compensation, failure of, 182
REL, ALEXIS : Experimental replanta-
on of thigh, 313
SÄET : Pemphigus treated by diet free
om salt, 355
TELLANI : Framboesia tropica (yaws),
7
tration, early, and lesions of the
eleton, 5
gut, dry iodine, 122
HALA : Fallacy of superfetation, 268
TERINA : Resection of the shoulder-
int, 135
tery, actual, in leucorrhoea, 141
ebellar abscess. *See* Abscess
ebral cysticercus, removal of, 183
ebral hernia. *See* Hernia
ebro-spinal meningitis, 51, 168, 260;
e meningococcus of, 360
ebro-spinal meningitis, cortical facial
ralysis following on, 151
vical sympathetic, resection of for
cial neuralgia, 202
vix in pregnancy. *See* Pregnancy
vix uteri, tuberculosis of, 108; surgery
cancer of, 288
TARD, acute pericarditis complicating
bar pneumonia, 102
UFFARD : Nephritis and tuberculosis,
3
VANNAZ : Surgical treatment of gastro-
lic fistula, 238
st operations, prevention of pneumo-
orax in, 4
yne-Stokes respiration, 52
dren, typhoid fever in, 35, 200;
eatment of enuresis in, 258; Ray-
ud's disease in, 301. See also In-
ncy
oride of calcium. *See* Calcium
oride of sodium. *See* Sodium
oro-morphino-scopolaminic narcosis,
9
lecystolithiasis, 101
lelithiasis, Riedel's lobe and, 218;
mmon duct, 334
lerrhagia, post-operative, in cases of
datids of liver, 120
rea, aspirin in, 311
rion-epithelioma malignum, 226
rion-epithelioma, primary, of the
be, 26. *See also* Cancer
MPIOLINI : Cerebellar abscess, 21
trization and staphylococcic toxin,
1
NOZZI : Cholecystolithiasis, 101
oid aneurysm. *See* Aneurysm

CLACYS : Saccular dilatation of saphena and hernia, 321
Clitoris, laceration of, causing fatal *post-partum* haemorrhage, 77
Cocaine, influence of adrenalin chloride upon toxic doses of, 32
COLEY, W. B. : Erysipelas toxins in sarcoma, 128
Colitis, chronic, surgical treatment of, 24
COLLET : Heliotherapy in laryngeal tuberculosis, 147
COLLINS, J. R. : Inversion of uterus during pregnancy, 125
COMBY : Infantile mongolism, 331
Common-duct cholelithiasis, 334
Constipation, treatment of, 161
Constipation, habitual, abuse of purgatives in, 13
Constipation in chronic peritonitis, 315
Consumption. *See* Tuberculosis
CONTI, A. : Bath treatment of enteric fever, 29; ultimate localization of mercury in the body, 276
COOLIDGE : Lavage for the gastritis of infancy, 246
COPETU : Laryngeal stenosis after tracheotomy or intubation, 335
Copper salts in actinomycosis and blastomycosis, 97
Cord, umbilical. *See* Umbilical
Cortical facial paralysis following on cerebro-spinal meningitis, 151
COTTE : Large cysts of urachus, 267; intermittent hydropsy of gall bladder, 283
Cryoscopy, blood and the functional activity of the kidneys, 150
CULLEN : Vaginal cysts, 127; primary carcinoma of Fallopian tube, 175
CUMSTON, C. G. : Pyelonephritis of pregnancy, 76
CURL : Caecostomy and intestinal irrigation in amoebic dysentery, 304
CURLO : Prognosis in typhoid fever, 201
CURLS : Cheyne-Stokes respiration, 52
CUSHING : Establishment of cerebral hernia, 22; surgical intervention for the intracranial haemorrhages of the newborn, 237
Cyst of ovary, haemorrhages of contorted, 109
Cysticercus, cerebral, removal of, 183
Cystitis and tuberculous nephritis in the female, 189
Cysts, enteric, 136
Cysts of neck, congenital, 376
Cysts, ovarian, tuberculous, 10
Cysts of urachus, large, 267
Cysts, vaginal, 127
Cytorrhyctes luis, 179

D.

DANIEL : Haemorrhages of contorted cysts of ovary, 109
DARLINGTON, Dr. : Cerebro-spinal meningitis, 51
Deciduoma in non-gravid fibroid uterus, 208
DE LA HARPE : Large doses of morphine in treatment of puerperal eclampsia, 156
DELAGENIÈRE : Ileo-rectal anastomosis in high cancer of rectum, 73
DELBET : Resection of cervical sympathetic for facial neuralgia, 202
DEL CONTE, G. : Staphylococcic toxin and cicatrization, 221
DELORE, Large cysts of urachus, 267
DENTU, LE : Broncho-pulmonary complications after operations, 263
DENYS : Denys's tuberculin, 309
Dermoid, ovarian, large live lumbrici in, 289
Diabetes, arsenic in, 243
Diabetes insipidus, treatment of, 372
Diabetes and stomach disorders, 2
Diazo-reaction in mental disease, 234
DICKINSON, ROBERT L. : Uterus and ovary of neurasthenia, 242
DIENST : Prolapse of female urethra in childhood and age, 339
Diet free from salt in treatment of pemphigus, 355
Digalen, 144
Digestion, influence of bitters on, 373
Digestion leucocytosis. *See* Leucocytosis
Digestive disorders and abdominal pain, 104
DIGHTON, A. A. : Inversion of uterus during pregnancy, 125
Digitalis, action of on the heart, 61
Dilatation of stomach, treatment of acute post-operative, 286
Dimal in hyperhidrosis, 277
DIONICIO, I. : Radiation in treatment of middle-ear suppuration, 274
Diphtheria, epidemic, 86; treatment of, 227; opium in laryngeal stenosis of, 256
Diphtheritis vaginae in puerperium, 9
Diplococcaemia in pneumonia, 281
DOLAND : Poisoning by belladonna plasters, 357
DOMENICO : Bromide of methylatropin, 294
DONATI, A. : Venous hyperaemia and acute inflammation, 329
DOPTER : Unity of dysentery bacilli, 149
DORAN, A. : Abdominal section during pregnancy, 290
DOWD, CHARLES N. : Cancer of the stomach, 85
DREYER : Agglutination of bacteria, 261
Drugs in heart disease, 80
DUDGEON, L. S. : Malignant teratoma of ovary, 190
DUJARIER : Post-operative cholerrhagia in cases of hydatids of the liver, 120
Duodenal ulcer. *See* Ulcer
Dupuytren's contraction, thiosinamin and, 211
DUVAL : Pancreatitis and biliary lithiasis, 55
Dysentery, amoebic, caecostomy and intestinal irrigation in, 304
Dysentery bacilli, unity of, 149
Dyspepsia of puberty, 233

E.

"Ecchymotic mask" in cases of thoraco-abdominal compression, 348
Eclampsia, 42
Eclampsia, glycosuria and albuminuria in pregnancy, 322
Eclampsia, puerperal, 124; large doses of morphine in, 156
Ectopic gestation. *See* Gestation
Ectopic pregnancy. *See* Pregnancy
EHRLICH : Mixed malignant growths, 197
EINHORN MAX : Radium treatment of cancer of oesophagus, 15
Electrical irrigation in intestinal obstruction, 310
ELLIOT : Intestinal obstruction, 155
EMILE-WEIL : Cultures of the leprosy bacillus, 99
Empyema, chronic, discission of pleura in, 350
Endocarditis and gonorrhoeal septicaemia, 346
Enteric cysts. *See* Cysts
Enteric fever. *See* Fever
Enteroptosis, 36
Enuresis in children, treatment of, 258
Eosin, effect of on tetanus toxin, 343
Epilepsy, treatment of, 110
Epileptics, blood of, 231
Epistaxis, control of, 49
ERDMANN, JOHN F. : Digestive disorders and abdominal pain, 104
Erysipelas toxins in sarcoma, 128
Ethyl-chloride in herpes zoster, 145
ETTINGEN, Von. *See* Von
EWALD : Examination of the stomach contents, 1; abuse of purgatives in habitual constipation, 13
Examination of the stomach contents, 1
Exercises in paralysis agitans, 130

F.

Facial paralysis. *See* Paralysis
Fallacy of superfetation, 268
Fallopian tube, consecutive simple and twin pregnancy of the same, 75; primary carcinoma of, 175; displacement of to produce sterility, 206; villous tumours of, 241. *See also* Tube
Female urethra. *See* Urethra
Femoral hernia. *See* Hernia
Femoral hernial sac, bladder in, 105
FÉRÉ, CH. : Influence of sugar on work, 192

FETT: Conservative treatment of inflamed appendages, 12
Fetus, hydrocephalic, delivery of by spinal tapping, 287; freeing the arms in turning the, 369
Fever, 250
Fever, enteric, bath treatment of, 29; in children, 35, 200; nervous complications in, 167; Ficker's serum in diagnosis of, 71; aberrant forms of, 199; prognosis in, 201
Fever, intermenstrual, 93
Fever, premenstrual, in tuberculous women, 46
Fever, scarlet, helminthol as a prophylactic in, 275
Fever, yellow, etiology of, 350
Fibroid causing fatal intraperitoneal haemorrhage, 126
Fibroids, pedunculated, acute torsion of, 59
Fibroids, uterine, 25; and torsion of uterus in pregnancy, 159; malignant degeneration of, 323
Fibroma-molluscum of vagina impeding labour, 92
Fibromyoma, sarcomatous, 255
Ficker's serum in diagnosis of typhoid, 71
FISCHER: *Spirochaeta pallida* in the tissues, 148
Fistula, biliary, alimentary cure of, 81
Fistula, gastro-colic, surgical treatment of, 238
Fistula, uretero-cervical, after cross-birth, intraperitoneal implantation of ureter, 45
Flagella in spirochaetes, demonstration of, 296
Flatus vaginalis, 60
FLEXNER: Effect of eosin upon tetanus toxin, 343
Flies and tuberculosis, 264
Forensic medicine, blood diagnosis in, 215
Formaldehyde in internal diseases, 30
Formic acid, action of on the heart, 194
FÖRSTERLING: Roentgen rays and growing tissue, 367
FOTHERGILL, W. E.: Injury to parturient canal during labour, 106
Fracture of external tuberosity of tibia by indirect violence, 171
Fractures, modern treatment of, 266
FRANKEL: Paths of infection in pulmonary tuberculosis, 216
Framboesia tropica. *See* Yaws
Freeing of the arms in turning the fetus, 369
FREUND: Diphtheritis vaginae in the puerperium, 9
FREUND, R.: Digalen, 144
FRISCHAUER, H.: Paralysis of the recurrent laryngeal nerve in mitral stenosis, 317
FRUHINHOLZ: Bicornute uterus and pregnancy, 270
FUA, Dr.: Ficker's serum in diagnosis of typhoid, 71
FUTCHER: Xanthelasma and chronic jaundice, 119
FUTH: Fibroma-molluscum of vagina impeding labour, 92

G.

Gall-bladder, intermittent hydropsy of, 283
GAMBLE: Chronic parenchymatous nephritis, 117
Gangrene of lower limb, *post-partum*, 352
GARDALL: Digestion leucocytosis, 20
GARRIGUES, LEON F.: Intraligamentous drainage for non-suppurating parametritis, 271
Garrulitas vaginae, or flatus vaginalis, 60
GASPARINI: Treatment of diphtheria, 227
Gastric carcinoma. *See* Cancer
Gastric secretions in Bright's disease, 3
Gastric ulcer. *See* Ulcer
Gastritis of infancy, lavage for, 246
Gastro-colic fistula. *See* Fistula
Gastro-intestinal disorders of infancy, buttermilk in, 98
Gastro-jejunostomy, relative indications of anterior and posterior, 203
GAUDIER: Treatment of traumatic separation of tibial tubercle, 89
GEMMELL, J. E.: Caesarean section in myasthenia gravis complicated by pregnancy, 58
General paralysis. *See* Paralysis
GENNARI, C.: Failure of cardiac compensation, 182
Gestation, ectopic, 91
Gestation, tubal, appendicitis, resembling, 225. *See also* Pregnancy
GHISELLINI, G.: Paraganglin, 191
GIGLIO: High-pressure inhalations in pulmonary disease, 112
GILLMORE: Vicarious menstruation: absence of uterus and tubes, 272
GIORDANO: Haemoantitoxin in phthisis, 146
GUIFFRÉ: Fever, 250
GIVEN, J. C. M.: Haematology of pregnancy, 336
Glands, tuberculous. *See* Tuberculous
GLOGNER, MAX: Menstruation in tropical countries, 94
Glycerine, bactericidal action of, 164
Glycosuria, in pregnancy, 8; physiological, 351
Glycosuria, albuminuria and eclampsia in pregnancy, 322
Gonorrhoeal septicaemia and endocarditis, 346
GORIS: Extirpation of malignant growths of mouth, 333
GOSS: Possibility of airborne infection with plague, 314
GRAMEGNA: Action of x rays on the blood, 16; trigeminal neuralgia treated by radiotherapy, 111
GRASSET: Differential diagnosis of organic and functional paralysis, 19
GRAUSSEL: Differential diagnosis of organic and functional paralysis, 19
GRIFFITH, W. S. A.: Sarcomatous fibromyoma, 255
Griserin, 212
Grocco's triangular dullness, 316
GROSS: Lesions of the skeleton and early castration, 5
GROUND, W. E.: Causes of failure of gynaecological operations, 44
Growing tissue, Roentgen rays and, 367
GRUNBAUM: Traumatic myositis ossificans, 72
GRYSEZ: Meningococcus of cerebro-spinal meningitis, 360
GUFFEY: Osteo-arthritis of spine (spondylitis deformans), 222
GUINARD: Sudden death on operating table, 185
Gunshot perforations of intestine, multiple, 302
GUTHRIE, C. C.: Experimental replantation of thigh, 313
Gynaecological operations, causes of failure of, 44

H.

HAEDICKE: Anorexia in tuberculosis of lungs, 330
Haematology of pregnancy, 336
Haemoantitoxin in phthisis, 146
Haemophilia, nature of, 100
Haemoptysis, treatment of, 325
Haemorrhage of contorted cysts of ovary, 109
Haemorrhage, intracranial, in newborn, surgical intervention in, 237
Haemorrhage, intraperitoneal, for a fibroid, 126
Haemorrhage, from laceration of clitoris, fatal *post-partum*, 77
Haemorrhage due to low situation of placenta, 253
Haemorrhage from diseases of uterine vessels, 79
Haemostatic, chloride of calcium as a preventive, 103
HALBRON: Typhoid fever in children, 200
HALSTEAD, Partial occlusion of abdominal aorta, 74; treatment of acute post-operative dilatation of stomach, 286
HALSTED: angioneurotic oedema involving the upper respiratory tract, 169
HAMMERSCHLAG: Uretero-cervical fistula after cross birth, intraperitoneal implantation of ureter, 45
HARPE, DE LA. *See* De
HARTWELL, Radical treatment of cance of rectum, 184
Heart, action of digitalis, strophanthu strychnine, and nicotine on, 61; actio of formic acid on, 194
Heart disease, certain drugs in, 80
Heart, massage of, 251
Heart, weak and dilated, opium in, 196
Heart, wound of, successfully treated b operation, 87, 236
HEIL: Lactation and menstruation, 223
Heliotherapy in laryngeal phthisis, 147
Helminthol as a prophylactic in scarle fever, 275
Hemiplegias, old, balneological treat ment of, 14
HENDRIX: Treatment of congenital luxation of hip, 303
HERNANDEZ: Dyspepsia of puberty, 233
Hernia, cerebral, establishment of, 22
Hernia, femoral, radical cure of, 153
Hernia, saccular dilatation of saphen and, 321
Herpes zoster, ethyl chloride in, 145
HERRINGHAM: Riedel's lobe and chole lithiasis, 218
Heteroplastic ovarian grafting, 306
High-pressure inhalations in pulmonar disease, 112
Hip, treatment of congenital luxatio of, 303
Hip and knee, coexistence of congenita luxations of, 56
Histosan, 48
HOFFA: Marmorek's antituberculou serum, 244
HOUGHTON, HARRIS A.: Bacteria in th normal adult intestine, 53
HOUZEL: Ligature of inferior vena cava 39
HUNNER, G L.: Actual cautery in leucorrhoea, 141
Hydatids of liver, post-operative cholerrhagia in, 120
Hydrocephalic fetus. *See* Fetus
Hydropericardium and syphilitic nephritis, 235
Hydropsy of gall bladder, intermittent 283
Hyperaemia, venous. *See* Venous
Hyperhidrosis, dimal in, 277
Hyperpyrexia, 198
Hypertrophied kidney. *See* Kidney
Hypertrophy, prostatic. *See* Prostatic
Hypnotic, proponal as, 293
Hysterectomy, kraurosis vulvae after 78
Hysterectomy stump, cancer of, 142

I.

Ileo-rectal anastomosis. *See* Anastc mosis
Infancy, buttermilk in gastro-intestina disorders, 98; lavage for gastritis o 246
Infant, malignant tumour of suprarena capsule in, 349
Infantile debility, subcutaneous injection of sea-water in, 114
Infantile mongolism, 331
Inflammation, acute, and venous hyperaemia, 329
Influenza bacillus in bronchiectasis, 67
Inoculation, antityphoid, 143
Intermenstrual fever. *See* Fever
Internal diseases, formaldehyde in, 30
Interstitial pregnancy. *See* Pregnancy
Intestinal irrigation and caecostomy i amoebic dysentery, 304
Intestinal obstruction, 155; electrica irrigation of, 310
Intestinal surgery, 265
Intestine, normal adult, bacteria in, 53 multiple gunshot perforations of, 302 formation of mucus and muco-membrane in, 375
Intracranial haemorrhage. *See* Haemorrhage
Intraligamentous drainage for non-suppurating parametritis, 271
Intraperitoneal haemorrhage. *See* Haemorrhage
Intrapulmonary injections of bacteriolysins in phthisis, 245
Intubation, laryngeal stenosis after, 335
Iodine catgut, dry, 122
ISAJA, A.: Isotachiol, 129
Isotachiol, 129

J.

Jardine, R.: Eclampsia, 42
Jaundice, xanthelasma in chronic, 119
Jayle: Kraurosis vulvae after hysterectomy, 78
Jessen: Symphysiotomy after failure of pubiotomy, 186
Jex-Blake: Agglutination of bacteria, 261

K.

Kakowski: Action of digitalis, strophanthus, strychnine, and nicotine upon the heart, 61
Kalischer, S.: Proponal as a hypnotic, 293
Kamann: Sarcoma of female urethra, 308
Kannegiesser: Interstitial or tubo-uterine pregnancy, 90
Karwacki, L.: Ravagliano's antitubercle serum, 176
Kaufmann, Martin: Atony of the stomach, 18
Kerr, J. M. Munro: Rupture of uterus during pregnancy through cicatrix of Caesarean section wound, 57
Kidney, hypertrophied, removed during pregnancy, 43
Kidneys, blood cryoscopy and the functional activity of, 150
Kinyoun, J. J.: Bactericidal action of glycerine, 164
Klatt, H.: Enteroptosis, 36
Klotz, Oskar: Calcareous degeneration, 66
Knee and hip, coexistence of congenital luxations of, 56
Kolle: Antiplague vaccination, 312
Kolliker: Modified method of appendectomy, 38
Kopetzky: Lumbar puncture, 361
Kosminski: Garrulitas vaginae or flatus vaginalis, 60
Kossow-Gerronay, E.: Fatal *post-partum* haemorrhage for laceration of clitoris, 77
Kouindjy: Massage in neuritis and polyneuritis, 356
Kraurosis vulvae after hysterectomy, 78
Kraus: Premenstrual fever in tuberculous women, 46
Krogius: Treatment of cirsoid aneurysm of the scalp, 54
Kudicke: Prophylactic use of quinine, 82
Kuln: Removal of naso-pharyngeal growths, 365
Kummell: The operative treatment of suppurative meningitis, 23
Küster, K.: Griserin, 212

L.

Labazine: Regeneration of suprarenal tissue, 298
Labour, impeded by fibroma-molluscum of vagina, 92; injury to parturient canal during, 106; abdominal ovariotomy during, 307
Lactation and menstruation, 223
Laiguel-Lavastine: Tuberculosis of the brain, 278
Laminectomy and section of nerve-roots in neuralgia, 154
Landolfi: "Phonacoscopy," 180
Laparotomies, five on one patient, 140
Lapointe: Malignant tumour of suprarenal capsule in an infant, 349
Laryngeal nerve. *See* Nerve
Laryngeal stenosis of diphtheria, opium in, 256; after tracheotomy or intubation, 335
Laryngeal tuberculosis. *See* Tuberculosis
Lassarew, A.: Exercises in paralysis agitans, 130
La Torre, F.: Passage of antibodies into the blood of nurslings, 165
Laundries, spread of tuberculosis by, 132
Lavage for gastritis of infancy, 246
Lazarus: Spinal anaesthesia, 252
Le Dentu. *See* Dentu
Lebou: Electrical irrigation in intestinal obstruction, 310
Lecène: Cancer of a hysterectomy stump, 142; malignant tumour of suprarenal capsule in an infant, 349
Legueu: Prophylaxis of anuria in uterine cancer, 160
Leneg: Rupture of rectus abdominis in cavalrymen, 137
Lenoble: Bile ducts compressed by tuberculous glands, 364
Lenormant: Massage of the heart, 251
Lenzi, L.: Congenital cysts of neck, 376
Leonardi: Epidemic of measles, 217
Lepage: Torsion of uterus and uterine fibroids in pregnancy, 159
Leprosy bacillus, cultures of, 99
Lesions of the skeleton and early castration, 5
Leucocytosis and agglutination, 33
Leucocytosis, digestion, 20
Leucorrhoea, actual cautery in, 141
Leyden, E. v.: Roentgen rays in medicine, 282
Life after recovery from phthisis, 371
Ligature of inferior vena cava, 39
Light, excessive, causing a neurasthenic state, 68
Liquor amnii of rabbits, 254
Lithiasis, biliary, and pancreatitis, 55
Liver, constricted, 299
Liver, post-operative cholerrhagia in cases of hydatids of, 120
Livierato: Action of formic acid on the heart, 194; intrapulmonary injections of bacteriolysins in phthisis, 243
Lobar pneumonia. *See* Pneumonia
Loeffler: Differential diagnosis of typhoid bacilli, 328
Loewy: Ocular complications in pregnancy, 239
Loggia: Prognosis in typhoid fever, 201
Lograsso: Blood of epileptics, 231
Longridge, C. N.: Puerperal eclampsia, 124
Lord: Flies and tuberculosis, 264
Lorente, Eugenio: Aberrant forms of typhoid, 199
Lorenzelli: Chloro-morphino-scopolaminic narcosis, 229
Lower limb, *post-partum* gangrene of, 352
Lumbar puncture, 361
Lumbrici in ovarian dermoid, large live, 289
Lung tuberculosis. *See* Tuberculosis
Lupus vulgaris, treatment of, 177
Luxation of hip and knee, coexistence of congenital, 56; treatment of, 303
Lymphocytosis, active, 279

M.

McDonald, Ellice: Puerperal infection, 207
Macé: Subcutaneous injections of sea-water in infantile debility, 114
Maclean, E. J.: Chronic inversion of uterus, 353
Malignant disease and Caesarean section, 28
Malignant growths, mixed, 197; of mouth, extirpation of, 333
Malignant tumour, excision of chest wall for, 366. *See also* Cancer
Mandoul, A.: Cortical facial paralysis following on cerebro-spinal meningitis, 151
Manganese as a drug, 358
Marchetti: Stovaine as a local anaesthetic, 178
Marchoux: Etiology of yellow fever, 359
Maretin, 230
Marmorek's antituberculous serum, 244
Marx, S.: Treatment of puerperal septic diseases, 305
Massage of the heart, 251
Massage in neuritis and polyneuritis, 356
Massalongo: Aspirin in chorea, 311
Materazzi: Rabies, 318
Mayo: Relative indications of anterior and posterior gastro-jejunostomy, 203
Measles, early diagnosis of, 280
Measles, epidemic of, 217
Measles, prevention of the complications of, 96
Medicine, forensic, blood diagnosis in, 215
Medicine, Roentgen rays in, 282
Meixner: Prophylactic use of quinine, 82
Meltzer: Toxicity of bile, 247
Melzi: Yeast in treatment of tonsillitis, 213
Memmi: Diplococcaemia in pneumonia, 281
Mendez: Cerebro-spinal meningitis, 260
Meningitis, cerebro-spinal. *See* Cerebro-spinal
Meningitis, suppurative, the operative treatment of, 23
Meningococcus of cerebro-spinal meningitis, 360
Mense, C.: Roentgen rays in sleeping sickness, 195
Menstruation, in tropical countries, 94
Menstruation and lactation, 223
Menstruation, vicarious, absence of uterus and tubes, 272
Mental disease, diazo-reaction in, 234
Mercury in the body, ultimate localization of, 276
Methylatropin, bromide of, 294
Meyer: Umbilical surgery on the new-born child, 27
Michel: Post-partum appendicitis, 224
Micheleau: Pemphigus treated by diet free from salt, 355
Middle-ear suppuration, radiation in, 274
Miliary tuberculosis. *See* Tuberculosis
Minchin: Consecutive simple and twin pregnancy in the same Fallopian tube, 75
Mineral water, radio-active, in local treatment of prostatic hypertrophy, 327
Minervini: Angina pectoris, 69
Mirabeau: Tuberculous nephritis and cystitis in the female, 189
Miserocapi: Helminthol as a prophylactic in scarlet fever, 275
Mitral stenosis, paralysis of recurrent laryngeal nerve in, 317
Mohr, H.: Thiosinamine in traumatic strictures, 292
Möller: Glycosuria in pregnancy, 8
Morgenroth: Quinine prophylaxis, 370
Mongolism, infantile, 331
Morphine, large doses of in the treatment of puerperal eclampsia, 156
Morris, Robert T.: Heteroplastic ovarian grafting, 306
Moschcowitz: Dry iodine catgut, 122
Mouchotte: Torsion of uterus and uterine fibroids in pregnancy, 159
Mouth, extirpation of malignant growths of, 333
Mucus and muco-membrane, formation of in the intestines, 375
Mulford, H. J.: Control of epistaxis, 49
Musser: Opium in myocarditis, weak and dilated heart, 196
Myasthenia gravis, Caesarean section in, complicated by pregnancy, 58
Myocarditis, opium in, 196
Myositis ossificans, traumatic, 72

N.

Narcosis, chloro-morphino-scopolaminic, 229
Nasal cavity, penetrating wounds of, 319
Naso-pharyngeal growths, removal of, 365
Nebesky: Primary tuberculosis of uterus and tubes, 11
Neck, congenital cysts of, 376
Neisser: Blood diagnosis in forensic medicine, 215
Nephritis, chronic parenchymatous, 117
Nephritis, syphilitic, and hydropericardium, 235
Nephritis and tuberculosis, 363
Nephritis, tuberculous, and cystitis in the female, 189
Nerve, recurrent laryngeal, paralysis of, in mitral stenosis, 317
Nerve, pressure on, by left auricle, 345
Nervous complications in typhoid of children, 167
Neumann: Balneological treatment of old hemiplegias, 14
Neuralgia, facial, resection of cervical sympathetic for, 202
Neuralgia, laminectomy and section of nerve-roots in, 154
Neuralgia, trigeminal, treated by radiotherapy, 111
Neurasthenia, uterus and ovary of, 242
Neurasthenic state caused by excessive light, 68

Neuritis, massage in, 356
Newborn child, umbilical surgery on, 27; surgical intervention for intracranial haemorrhages in, 237
Nicolini: Treatment of rectal prolapse by paraganglin, 257
Nicotine, action of on the heart, 61
Noguchi: Effect of eosin upon tetanus toxin, 343
Nové-Josseraud: Paralytic scoliosis, 362
Novy: Syphilis and pregnancy, 337
Nurslings, passage of antibodies into the blood of, 165

O.

Obstruction of common biliary duct, 204
Ocular complications of pregnancy, 239
Oedema, angioneurotic, involving the upper respiratory tract, 169
Oehler: Laminectomy and section of nerve roots in neuralgia, 154
Oesophagus, cancer of. *See* Cancer
Onuf: Blood of epileptics, 231
Operating table, sudden death on, 185
Operative treatment of heart. See Heart
Opium in myocarditis, weak and dilated heart, 196; in laryngeal stenosis of diphtheria, 256
Organic and functional paralysis. See Paralysis
Osteoarthritis of spine, 222
Otitis, scarlatinal, treatment of, 342
Ovarian cysts. *See* Cysts
Ovarian dermoid. *See* Dermoid
Ovarian grafting, heteroplastic, 306
Ovariotomy during labour, abdominal, 307
Ovary, malignant teratoma of, 190
Ovary and uterus of neurasthenia, 242
Ozaena, treatment of, 273

P.

Page, Charles E.: Curative treatment of pneumonia, 113
Palermo: Pathogenesis of simple gastric ulcer, 131
Pancreatic abscess. *See* Abscess
Pancreatitis and biliary lithiasis, 55
Pantaloni: Intestinal surgery, 265
Papale: "Phonacoscopy," 180
Paralysis, organic and functional, differential diagnosis of, 19
Paralysis agitans, exercises in, 130
Paralysis, cortical facial, following on cerebro-spinal meningitis, 151
Paralysis, general, and syphilis, 332
Paralysis of the recurrent laryngeal nerve in mitral stenosis, 317
Paralytic scoliosis, 362
Paraganglin, 191; treatment of rectal prolapse by, 257
Parametritis, intraligamentous drainage for non-suppurating, 271
Paravaginal section, 338
Parenchymatous nephritis. *See* Nephritis
Parturient canal. *See* Canal
Patel: Alimentary cure of biliary fistulae, 81
Pater: Typhoid fever in children, 200
Pathogenesis of simple gastric ulcer, 131
Paths of infection in pulmonary tuberculosis, 216
Paton, Noel: Digestion leucocytosis, 20
Pauchet: Surgical treatment of chronic colitis, 24; abscess (pancreatic?) of lesser peritoneal cavity, 121
Pausini: Tracheal tugging, 133
Pedunculated fibroids. *See* Fibroids
Pellegrini, A.: Congenital cysts of neck, 376
Pelvic surgery and the bacteriology of peritonitis, 324
Pemphigus treated by diet free from salt, 355
Pena, Prudencia de: Calculus of Wharton's duct, 284
Penetrating wounds of the nasal cavity, 319
Pepere, A.: Cultural distinction between *B. coli* and *B. typhosus*, 34
Pergola: Preventive use of antitetanus serum, 341
Pericarditis, acute, complicating lobar pneumonia, 102
Perineal lacerations, a factor in, 158
Peritonitis, bacteriology of, pelvic surgery and, 324
Peritonitis, chronic, constipation in, 315
Perrin: Syphilis and general paralysis, 332
Petijean: Treatment of haemoptysis, 325
Petroni: Action of sodium chloride in disease, 95
Pfahler, G. E.: Treatment of mediastinal carcinoma with Roentgen rays, 193
Pfeiffer-Kolles: Antityphoid inoculation, 143
"Phonacoscopy," 180
Phosphorus poisoning, blood changes in anatomical lesions in acute, 115
Phthisis. *See* Tuberculosis
Pic: Treatment of haemoptysis, 325
Picqué: Wound of heart successfully treated by operation, 87; multiple gunshot perforations of intestine, 302
Picquet: Saccular dilatation of saphena and hernia, 321
Pini: Diazo-reaction in mental disease, 234
Pinna: G., Prevention of the complications of measles, 96
Piquand: Uterine fibroids and uterine cancer, 25
Placenta, haemorrhage due to low situation of, 253
Placenta praevia in multipara, fatal haemorrhage on tenth day, 107
Plague, possibility of airborne infection with, 314
Pleura, discission of in chronic empyema, 350
Pneumonia, curative treatment of, 113
Pneumonia, diplococcaemia in, 281
Pneumonia, lobar, complicated by acute pericarditis, 102; prophylaxis of, 232
Pneumonia, prevention and treatment of, 295
Pneumothorax, prevention of, in operations on the chest, 4
Podalic version for Bandl's ring, internal, 138
Poisoning by belladonna plasters, 357
Poisoning, phosphorus. *See* Phosphorus
Pollesson: Tuberculous ovarian cysts, 10
Polyneuritis, massage in, 356
Posner, C: Treatment of diabetes insipidus, 372
Post-partum appendicitis, 224
Potherat: Fracture of the external tuberosity of the tibia by indirect violence, 171
Potocki: Threatened rupture of uterus, Caesarean section *versus* symphysiotomy, 354
Pozzi: Stercoral tumours, 123
Pregnancy, abdominal section during, 290
Pregnancy in bicornute uterus, 270; Caesarean section, 210
Pregnancy, cervix in, 7
Pregnancy complicating Caesarean section in myasthenia gravis, 58
Pregnancy, consecutive simple and twin, in the same Fallopian tube, 75
Pregnancy, ectopic, toxaemia in early, 139
Pregnancy, glycosuria in, 8, 351; glycosuria, albuminuria and eclampsia in, 322
Pregnancy, haematology of, 336
Pregnancy, interstitial, 90
Pregnancy, inversion of uterus during, 125
Pregnancy, ocular complications of, 239
Pregnancy, physiological glycosuria of, 351
Pregnancy, removal of hypertrophied kidney during, 43
Pregnancy, torsion of uterus and uterine fibroids in, 159
Pregnancy, toxaemia of, 187
Pregnancy, rupture of uterus during, through cicatrix of Caesarean section wound, 57
Pregnancy, pyelonephritis of, 76
Pregnancy and syphilis, 337
Pregnancy, tubo-uterine, 90
Pregnancy, pernicious vomiting of, 173, 205
Premenstrual fever. *See* Fever
Prieur: Surgical treatment of chronic colitis, 24
Prolapse of female urethra in childhood and age, 339
Proponal as a hypnotic, 293
Prostatic carcinoma. *See* Cancer
Prostatic hypertrophy, local treatment of with radio-active mineral water, 327
Pryor, John H.: Early diagnosis of pulmonary tuberculosis, 37
Psychoses and the puerperium, 269
Puberty, dyspepsia of, 233
Pubiotomy, symphysiotomy after failure of, 186
Puerperal eclampsia. *See* Eclampsia
Puerperal infection, 207
Puerperal septic diseases, treatment of, 305
Puerperium, diphtheritis vaginae in, 9; perforating duodenal ulcer in, 157; and psychoses, 269
Pulmonary complications after abdominal operations, 170
Pulmonary disease, high pressure inhalations in, 112
Pulmonary tuberculosis. *See* Tuberculosis
Purgatives in habitual constipation, abuse of, 13
Pusateri: Penetrating wounds of the nasal cavity, 319
Pyelonephritis of pregnancy, 76
Pyrexia of tuberculosis, 70

Q.

Quadrone: Action of x rays on the blood, 16
Quadros, de J. I.: Hyperpyrexia, 198
Quénu: Pancreatitis and biliary lithiasis, 55; operative treatment of wounds of heart, 236
Quinine, prophylactic use of, 82, 370
Quinton: Subcutaneous injection of sea water in infantile debility, 114

R.

Rabbits, liquor amnii of, 254
Rabies, 318; radium in, 162
Radiation in treatment of middle-ear suppuration, 274
Radio-active mineral water in local treatment of prostatic hypertrophy, 327
Radiotherapy in trigeminal neuralgia, 111
Radium, in cancer of oesophagus, 15; in rabies, 162. *See also X* rays, Roentgen
Randle, William H.: Ectopic gestation, 91
Ransohoff: Discission of pleura in chronic empyema, 350
Rauzier: Treatment of acute articular rheumatism, 291
Ravagliano's antitubercle serum, 176
Raw, Nathan: Chorion-epithelioma malignum, 226
Raynaud's disease in children, 301
Recalcification, tuberculosis and, 326
Rectal prolapse treated by paraganglin, 257
Rectum, cancer of. *See* Cancer
Rectus abdominis, rupture of in cavalrymen, 137
Recurrent laryngeal nerve *See* Nerve
Regeneration of suprarenal tissue, 298
Rendu: Glycosuria, albuminuria, and eclampsia in pregnancy, 322
Rénon, Louis: Tuberculosis and recalcification, 326
Replantation of thigh, experimental, 31
Reptilian tuberculosis. See Tuberculosis
Resection of shoulder joint, 135; of cervical sympathetic for facial neuralgia 202
Respiration, Cheyne-Stokes, 52
Respiratory passages, infection of tuberculosis by, 166
Respiratory tract, angioneurotic oedema involving the upper, 169
Rheumatism, treatment of acute articular, 291
Ribbert: Miliary tuberculosis, 116
Richelot: Tuberculosis of cervix uteri 108
Riedel's lobe and cholelithiasis, 218

Ries, Emil: Surgery of cancer of cervix uteri, 288
Risel: Primary chorion-epithelioma of the tube, 26
Riva: Formation of mucus and mucomembrane in the intestines, 375
Rixford: Excision of portions of the chest wall for malignant tumour, 366
Robinson, Beverley: Prevention and treatment of pneumonia, 295
Roblot, A.: Spread of tuberculosis by laundries, 132
Robson, Mayo: Common-duct cholelithiasis, 334
Rockey, A. E.: Displacement of Fallopian tubes to produce sterility, 206
Roentgen rays, in treatment of mediastinal carcinoma, 193; in sleeping sickness, 195; in medicine, 282; and growing tissue, 367. *See also* Radium, *X* Rays
Rollin: Sarcoma of vagina in childhood, 209
Rossi, F.: Bath treatment of enteric fever, 29
Rost: Fate of boric acid in the body, 65
Rostoski: Bence-Jones substance in the urine, 17
Royet: Treatment of ozaena, 273
Rudaux: Placenta praevia in multipara, fatal haemorrhage on tenth day, 107; vomiting of pregnancy, 173; haemorrhage due to low situation of placenta, 253; physiological glycosuria of pregnancy, 351
Rudolph: Opium in the laryngeal stenosis of diphtheria, 256
Ruge, E.: Primary tuberculosis of stomach, 248
Rupture. *See* Hernia
Rupture of uterus. *See* Uterus
Rupture of rectus abdominis in cavalrymen, 137

S.

Sabouraud: False alopecia areata in schools, 249
Saccular dilatation of saphena and hernia, 321
Sachs: Blood diagnosis in forensic medicine, 215
Sahli: Nature of haemophilia, 100
Salant: Toxicity of bile, 247
Sanatorium treatment, variations in weight during, 228
Saphena, saccular dilatation of, and hernia, 321
Sarcoma, erysipelas toxins in, 128
Sarcoma of female urethra, 308
Sarcoma of vagina. *See* Vagina
Sarcomatous fibromyoma, 255. *See also* Cancer
Sargent, P. W. G.: Pelvic surgery and the bacteriology of peritonitis, 324
Satterthwaite, Thomas E.: Certain drugs in heart disease, 80
Sawyer, John P.: Stomach disorders and diabetes, 2
Sawyer, J.: Tubercle bacilli extract, 62
Scalp, cirsoid aneurysm of, treatment of, 54
Scarlatinal otitis. *See* Otitis
Scarlet fever. *See* Fever
Schauta: Hypertrophied kidney removed during pregnancy, 43; torsion of tubal sac at term, 188
Schifone, O.: Radical treatment of varicocele, 88
Schools, false alopecia areata in, 249
Schuhl: Post-partum gangrene of lower limb, 352
Sciatica, treated by physical methods, 163
Scoliosis, paralytic, 362
Sea water, subcutaneous injections of in infantile debility, 114
Sencert: Lesions of the skeleton and early castration, 5
Senni, G.: Constricted liver, 299
Septicaemia, gonorrhoeal. *See* Gonorrhoeal
Serum, antitetanus, preventive use of, 341
Serum, antitubercle, Ravagliano's, 176; Marmorek's, 244
Shipps, William H.: A factor in perineal lacerations, 158
Shoulder-joint, resection of, 135
Siegel: *Cytorrhyctes luis*, 179
Simond: Etiology of yellow fever, 359
Simpson: Haemorrhage from diseases of uterine vessels, 79
Sinclair, W.: Paravaginal section, 338
Sippel: Deciduoma in non-gravid fibroid uterus, 208
Skeleton, lesions of, and early castration, 5
Skin diseases, *x* rays in, 214
Skin grafting in late treatment of severe burns, 40
Sleeping sickness, Roentgen rays in, 195
Smith, Lapthorn: Appendicitis resembling tubal gestation, 225
Smith, R. Greig: Agglutination and leucocytosis, 33
Sodium chloride, action of in disease, 95
Sommelet: Raynaud's disease in children, 301
Sommer, E.: Treatment of sciatica by physical methods, 163
Sondern: Toxaemia of pregnancy, 187
Spencer, H. R.: Abdominal ovariotomy during labour, 307
Spielmann: Syphilis and general paralysis, 332
Spinal anaesthesia, 252
Spinal tapping, delivery of hydrocephalic fetus by, 287
Spine, osteoarthritis of, 222
Spineanu: Therapeutic action of thermodine, 64
Spirig, W.: Transient stenosis of superior vena cava in pulmonary tuberculosis, 300
Spirochaeta pallida, 50; in the tissue, 148
Spirochaetes, demonstration of flagella in, 296
Spondylitis deformans, 222
Sprague: Treatment of scarlatinal otitis, 342
Staphylococcic toxin and cicatrization, 221
Stein: Fatal intraperitoneal haemorrhage from a fibroid, 126
Stengel, Alfred: Arteriosclerosis as a general disease, 152
Stenosis, laryngeal. *See* Laryngeal
Stercoral tumours. *See* Tumours
Sterility, displacement of Fallopian tubes to produce, 206
Stierlin, R.: Histosan, 48
Stokes: Typhoid appendicitis without other intestinal lesion, 118
Stomach, atony of, 18
Stomach, cancer of. *See* Cancer
Stomach contents, examination of, 1
Stomach, dilatation of, treatment of acute post-operative, 286
Stomach disorders and diabetes, 2
Stomach, complete extirpation of, 368
Stomach, primary tuberculosis of, 248
Stooss: Buttermilk in gastro-intestinal disorders of infancy, 98
Stovaine as a local anaesthetic, 178
Strong: Antiplague vaccination, 312
Strophanthus, action of on the heart, 61
Strychnine, action of on the heart, 61
Subcutaneous injection of sea water in infantile debility, 114
Sugar, influence of on work, 192
Superfetation, fallacy of, 268
Suprarenal capsule, malignant tumour of in an infant, 349
Suppurative meningitis. *See* Meningitis
Suprarenal tissue, regeneration of, 298
Surgical intervention for the intracranial haemorrhages of the newborn, 237
Surgical treatment, of chronic colitis, 24; of gastro-colic fistula, 238
Symphysiotomy after failure of pubiotomy, 186
Syphilis and general paralysis, 332; and pregnancy, 337
Syphilitic nephritis and hydropericardium, 235

T.

Tédenat: Villous tumours of Fallopian tubes, 241
Tenholt: Treatment of ankylostomiasis, 259
Teratoma of ovary, malignant, 190
Terrier: Post-operative cholerrhagia in cases of hydatids of liver, 120
Teschemacher: Thiosinamin in Dupuytren's contraction, 211
Tetanus toxin, effect of eosin upon, 343
Thayer: Gonorrhoeal septicaemia and endocarditis, 346
Thermodine, therapeutic action of, 64
Thesing, C.: *Spirochaeta pallida*, 50
Thigh, experimental replantation of, 313
Thiosinamin, in Dupuytren's contraction, 211; in traumatic strictures, 292
Thoraco-abdominal compression, "ecchymotic mask" in cases of, 348
Thoraco-abdominal wounds, treatment of, 285
Tibia, fracture of the external tuberosity of by indirect violence, 171
Tibial tubercle. *See* Tubercle
Tonsillitis, yeast in treatment of, 213
Torsion of pedunculated fibroids, 59; of tubal sac at term, 188
Toubert: Chloride of calcium as a preventive haemostatic, 103
Toxaemia in early ectopic pregnancy, 139
Toxicity of bile, 247
Toxin, tetanus. *See* Tetanus
Toxins of tubercle bacilli. *See* Tubercle
Tracheal tugging, 133
Tracheotomy, laryngeal stenosis after, 335
Traumatic strictures, thiosinamin in, 292
Tregel: Prevention of pneumothorax in operations on the chest, 4
Triangular dullness, Grocco's, 316
Tridon: coexistence of congenital luxations of hip and knee, 56
Trigeminal neuralgia. *See* Neuralgia
Tropical countries, menstruation in, 94
Tubal gestation. *See* Gestation
Tubal sac, torsion of at term, 188
Tube, primary chorion-epithelioma of the, 26. *See also* Fallopian
Tubercle bacilli, extract, 62; toxins of, 83; cultivations of, 374
Tubercle, tibial, treatment of traumatic separation of, 89
Tuberculin, Denys's, 309
Tuberculin treatment of pulmonary phthisis, 62
Tuberculosis and alcohol, 84
Tuberculosis of the brain, 278
Tuberculosis, camphor in treatment of, 340
Tuberculosis of cervix uteri, 108
Tuberculosis and flies, 264
Tuberculosis, haemoantitoxin in, 146
Tuberculosis, infection of by the respiratory passages, 166
Tuberculosis, interpulmonary injections of bacteriolysins in, 245
Tuberculosis, laryngeal, heliotherapy in, 147
Tuberculosis, laundries and spread of, 132
Tuberculosis, life after recovery from, 371
Tuberculosis of lungs, anorexia in, 330
Tuberculosis, miliary, 116
Tuberculosis and nephritis, 363
Tuberculosis, pulmonary, early diagnosis of, 37; tuberculin treatment of, 63; paths of infection in, 216; transient stenosis of superior vena cava in, 300
Tuberculosis, pyrexia of, 70
Tuberculosis and recalcification, 326
Tuberculosis, reptilian, 344
Tuberculosis, primary, of stomach, 248
Tuberculosis of uterus and tubes, 11
Tuberculous nephritis. *See* Nephritis
Tuberculous glands compressing bile ducts, 364
Tuberculous ovarian cysts. *See* Cysts
Tuberculous women, premenstrual fever in, 46
Tubes and uterus, tuberculosis of. See Tuberculosis
Tubo-uterine pregnancy. *See* Pregnancy
Tuffier: Obstruction of common biliary duct, 204
Tumour, malignant, of suprarenal capsule in an infant, 349; excision of portions of chest wall for, 366
Tumours of bladder, operative treatment of, 220
Tumours, stercoral, 123

Tumours, villous, of Fallopian tubes, 241
Typhoid appendicitis. *See* Appendicitis
Typhoid bacilli. *See* Bacilli
Typhoid fever. *See* Fever, enteric

U.

Ulcer, perforating duodenal, in puerperium, 157
Ulcer, gastric, pathogenesis of, 131
Umbilical cord, short, diagnosis of, before and during parturition, 41
Umbilical surgery on the newborn child, 27
Urachus, large cysts of, 267
Uretero-cervical fistula. *See* Fistula
Urethra, female sarcoma of, 308; prolapse of in childhood and age, 339
Urine, Bence-Jones substance in, 17
Uterine cancer. *See* Cancer
Uterine fibroids. *See* Fibroids
Uterine vessels, haemorrhage from diseases of, 79
Uterus, bicornute, pregnancy in, 270; Caesarean section, 210
Uterus, inversion of during pregnancy, 125; chronic inversion of, 353
Uterus, non-gravid fibroid, deciduoma in, 208
Uterus, threatened rupture of: Caesarean section versus symphysiotomy, 354
Uterus and ovary of neurasthenia, 242
Uterus, rupture of during pregnancy through cicatrix of Caesarean section wound, 57
Uterus, torsion of, and uterine fibroids in pregnancy, 159
Uterus, tuberculosis of. *See* Tuberculosis

V.

Vaccination, antiplague, 312
Vagina, fibroma-molluscum of. *See* Fibroma-molluscum
Vagina, flatulence per, 60
Vagina, sarcoma of in childhood, 209
Vaginal cysts. *See* Cysts
Van Ryn: Pyrexia of tuberculosis, 70
Vansteenberghe: Meningococcus of cerebro-spinal meningitis, 360
Variations in weight during sanatorium treatment, 228
Varicocele, radical treatment of, 88
Vasallo, B.: Complete extirpation of the stomach, 368
Vena cava, inferior, ligature of, 39
Vena cava, superior, transient stenosis of in pulmonary tuberculosis, 300
Venous hyperaemia and acute inflammation, 329
Verdalle: Arsenic in diabetes, 243
Vergely: Ethyl-chloride in herpes zoster, 145
Verrotti, G.: Syphilitic nephritis and hydropericardium, 235
Vetrano, G.: Diagnosis of short umbilical cord before and during parturition, 41
Vignola: Grocco's triangular dullness, 316
Villard: Intermittent hydropsy of gall bladder, 283; constipation in chronic peritonitis, 315
Villemin: The "ecchymotic mask" in cases of thoraco-abdominal compression, 348
Villous tumours. *See* Tumours
Violet: Tuberculous ovarian cysts, 10
Volland: Camphor in treatment of phthisis, 340
Vomiting of pregnancy, 173
Von Ettingen: Abdominal surgery in the Russo-Japanese war, 320
Voornveld, H. J. A. van: Intermenstrual fever, 93

W.

War, Russo-Japanese, abdominal surgery in, 320
Watson: Operative treatment of tumours of bladder, 220
Watson, B. P.: Liquor amnii of rabbits, 254
Weight, variations in, during sanatorium treatment, 228
Welsch, Henri: Blood changes and anatomical lesions in acute phosphorus poisoning, 115
Werther: Treatment of lupus vulgaris, 177
Weygandt: Puerperium and psychoses, 269
Wharton's duct, calculus of, 284
Widal: Cerebro-spinal meningitis, a recovery, 168
Williams, Whitridge: Pernicious vomiting of pregnancy, 205
Williamson, H.: Sarcomatous fibromyoma, 255
Winter: Malignant degeneration of fibroids, 323
Wise, Fred.: *X* rays in skin diseases, 214
Wolff, Dr.: Alcohol and tuberculosis, 84
Wolff-Eisner: Active lymphocytosis, 279
Women, tuberculous. *See* Tuberculous
Woodruff, Chas. E.: Neurasthenic state caused by excessive light, 68
Woods, Matthew: treatment of epilepsy, 110
Work, influence of sugar on, 192

X.

X rays, action of on the blood, 16; in skin diseases, 214. *See also* Radium, Roentgen
Xanthelasma and chronic jaundice, 119

Y.

Yaws, 297
Yeast treatment of tonsillitis, 213
Yellow fever. *See* Fever
Young: Early diagnosis and radical cure of prostatic carcinoma, 6; carcinoma of the prostate, 172
Young: Skin grafting in late treatment of severe burns, 40

Z.

Zacharias: Five laparotomies on one patient, 140
Zambelli: Aspirin in chorea, 311
Zettnow: Demonstration of flagella in spirochaetes, 296
Zuccola: Ultimate localization of mercury in the body, 276
Zwillinger, Jakob: Formaldehyde in internal diseases, 30

Printed and published by the British Medical Association at their Office, No 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

1. Examination of the Stomach Contents.

TWENTY years have passed since Ewald enriched medicine by introducing his "trial breakfast," and, in spite of many other methods of gauging the digestive capabilities of the stomach, some of which preceded Ewald and others succeeded his publication, none are capable of demonstrating it as well as this method. I. Boas finds that, in spite of the simplicity of the method and the practical usefulness, many practitioners have introduced various modifications which lead to error (*Berl. klin. Woch.*, No. 44a, 1905). The original details were as follows: The patient should receive into an empty stomach one roll of white bread, of about 35 grams weight, and 400 grams of water, or 400 grams of tea without milk or sugar, and after one hour the contents of the organ are regained by the tube and examined. In many publications considerable variations, both as to the quantity of the bread and fluid, and also as to the times after which the breakfast is to be regained are given under the misnomer of Ewald's breakfast. First, he deals with the importance of an empty stomach. This does not mean only during fasting, but the actual absence of all remains of food must be determined. In estimating the quantity of total acidity, t is obviously impossible to work if remainders of yesterday's meal are in the organ, since one has no idea of their chemical composition. Even for the measuring of free hydrochloric acid emptiness of the stomach is important. t is therefore necessary to pass the stomach tube before he breakfast to control this point. The importance of prescribing an exact quanity of the constituents of the meal, in estimating the quantity of acid, is clear without urther explanation. The time during which the food is eft in the stomach to digest is of utmost importance if one ishes to derive useful results. It is scarcely necessary to oint out that the breakfast must be given in the morning, and not during the course of the day, but some linicians appear to be in the habit of even making his error. Turning to an error which is of considerable mportance, he says that in certain individuals the ecreted hydrochloric acid varies within wide limits, and t times a trial breakfast may bring to light a very high alue. In order to avoid drawing conclusions from such a ariation, Ewald has insisted that unless the result of the est leads to a typical conclusion, it is necessary to repeat before making a diagnosis. In order to ascertain early the condition of the stomach he finds it wise to est the evacuation not only for HCl and lactic acid, but lso for the presence of peptic and rennet ferment. This stimation should be carried out quantitatively. But when he gastric contents include blood, bile, mucus, or saliva he quantitative analysis for acid is not reliable. Only when ositive results as far as HCl is concerned are obtained ay deductions be made in this case. Lastly, he deals riefly with the question of the increase of the gastric ice in the cases of disturbances of the motor function of he organ.

2. Stomach Disorders and Diabetes.

HN P. SAWYER (*Amer. Med.*, November 25th, 1905) ports 19 cases which illustrate that much may be accom- ished for the comfort and relief of many diabetics by rect attention to the condition of the stomach. Of these patients, 14 gave evident histories of previous dys- ptic trouble, 1 of alcoholism without dyspepsia, 3 of ght indigestion, and only 2 reported a complete freedom m dyspeptic disturbance. As to the duration of the ycosuria, 9 of the 19 had been diabetic for years, 7 for onths, 1 possibly for a month, while in 2 the period was ought to have been from one to six weeks. From these nsiderations, as well as from the clinical history, all ight be excluded from the range of alimentary glycos- ia. Among them were cases of the severest type, as well of the milder forms. With reference to the condition the stomach, 16 showed abundant catarrhal mucus, umpy, sago grainlike in the contents of the stomach; did not show this catarrhal process, and from 1, owing age and disinclination, no test meal was obtained. to motor function, 10 showed a considerable failure d of the 18 cases, the secretion of hydrochloric acid 8 was increased; 7 showed normal proportions, 3 showed s than normal or absent. Of the 19 cases, all but 2 showed definitely active catarrhal processes, and in every case of the 18 there had been marked subjective benefit—gain in strength, weight, freedom from thirst, and polyuria—gained by direct attention to the catarrhal process. The most striking influence had been observed on the polyuria and thirst. In some cases the percentage of sugar had undergone no change, but there had been in these cases a great reduction of the total excretion of sugar per day, owing to the great change in the quantity of urine excreted, and the clinical course of this group of diabetics had been much more favourable under direct treatment of the stomach than without it. Moreover, the cessation of this treatment had been followed by the recurrence of the difficulty with prompt relief on resuming the treatment directed to the catarrhal process. In most of the cases lavage formed an important part of the treatment, antiseptic and alkaline solutions being used.

3. The Gastric Secretions in Bright's Disease.

E. AVISA (*Wiener Klinik*, October, 1904) concludes that a diet of pure milk is advisable but by no means indispensable in cases of nephritis, whether acute or chronic. A milk diet does not diminish the amount of albumen in the patient's urine, and the patient's bodily condition slowly deteriorates on it; but the tendency to dyspepsia and vomiting is diminished, and the tendency to self-intoxication grows much less because the intestinal bacteria diminish greatly (up to 1-60 of the normal) on a milk diet. Milk diet is particularly indicated where vomiting occurs, though if the vomiting is uraemic or central it will probably prove fatal. Avisa states that both the motility of the stomach and the digestive efficiency of its secretions are diminished in Bright's disease; less HCl is secreted, but there is no excess of mucus. The removal of the kidney tissue from dogs causes diminution in the HCl of their gastric juice. The author argues that many of the phenomena of uraemia depend upon this subacidity of the gastric juice.

SURGERY.

4. Prevention of Pneumothorax in Operations on the Chest.

TREGEL (*Berliner Klinik*, Heft 209), in a memoir under the heading of "Should Operations in the Thoracic Cavity be performed with the application of the Positive Pressure Method, or that of the Negative Pressure Method of Sauerbruch?" discusses from both physiological and surgical points of view the effects on the organs of respiration and circulation of positive and negative air pressure in thoracotomy. The former method, as is well known, consists in the introduction into the lungs of air at a high pressure, while in the latter distension of the lungs is maintained by diminishing the pressure of the external air. The author criticizes at some length the recently-published views of Brauer, who is an ardent advocate of the positive-pressure method, and holds that, notwithstanding its apparent freedom from danger when applied to healthy animals in physiological experiments, it cannot on account of its traumatic action on the lung tissue, and of its influence on the circulation and the action of the heart, be used without serious risk during a serious operation on the chest of a diseased and enfeebled man. While acknowledging that the final decision on this question cannot be made until after extended experience on the human subject, he is of opinion that the application of the method of positive air-pressure must in actual practice be at least much restricted in favour of that of the method of negative pressure. The latter, he holds, should be exclusively employed in operations (*a*) on the thoracic portion of the oesophagus, (*b*) for abscess, gangrene, and wound of the lung, (*c*) for mediastinal growth. The method of lung inflation by positive air-pressure is absolutely contraindicated in subjects suffering from cardiac disease. This method should, it is held, be also rejected whenever the administration of chloroform is indispensable, whenever no anaesthetic or only a weak one is given, and whenever the patient is an alcoholic subject and likely to struggle in the course of the operation. Finally, on account of the difficulty of readily equalizing the external and internal pressure in this method, it should not be used in any case in which it may be found necessary to open both sides of the chest and thus to establish a double pneumothorax.

5. Lesions of the Skeleton and Early Castration.

Gross and Sencert (*Rev. de Chir.*, No. 11, 1905) point out that it is well known that there is a close relation between the testicular function and the development of the osseous tissue. Total castration practised in infancy exercises on the development of the skeleton a marked influence which is characterized by excessive elongation of the tubular bones, due to retardation of epiphysial union and to a persistence beyond normal limits of the cartilages of conjunction. Such a condition, it is held, may give rise in advanced periods of life to certain lesions of the skeleton which are unusual in the adult and are, as a rule, restricted within the limits of infantile pathology. Full details are given of the case of a total cryptorchid, aged 57, in whom the persistence of many of the epiphysial cartilages was demonstrated by radiographic investigation, and who had been the subject of two fractures caused by very slight violence, one near the upper extremity of the humerus, the other of the great trochanter. The fracture near the shoulder, which occurred eight years ago, is regarded by the author as having been a detachment of the superior epiphysis of the humerus, whilst that of the femur, which is of quite recent date, is supposed to have been due to special fragility of the great trochanter consequent on complete failure of ossification of its cartilaginous zone of attachment. The authors endeavour to show that the relation between this condition of the skeleton and the total absence of the testicles in this case was not a mere coincidence, and suggest that it is rather an instance of the fact proved by examination of eunuchs, by clinical observation of the subjects of natural castration and by experiments on animals, that removal of the testicles before puberty exerts a decided influence on the development of the skeleton and on ossification. That absence or atrophy in early life of both testicles may cause persistence beyond normal limits of the cartilages of conjunction may be proved indirectly by measurement of the limbs and directly by radiographic examination. There is in these cases a marked tendency to gigantism. The nature of the influence exerted by the testicles on the development of the skeleton has not yet been clearly determined, but anatomical researches on animals indicate that this part is played not by the seminal elements, which are situated within the seminiferous tubes and form the spermatozoa, but by the intestinal elements, which are situated between these tubes. The authors draw from the results of their study of this subject the clinical conclusion that in the case of an adult presenting a lesion of the skeleton, usually met with only in infancy and quite exceptional beyond this period of life, the surgeon should carefully examine the genital organs. It is believed that in many of these cases the cause of the peculiar pathological condition of the bones will be found in the absence or atrophy of the intestinal elements of the testes.

6. Early Diagnosis and Radical Cure of Prostatic Carcinoma.

Young (*Johns Hopkins Hosp. Bull.*, October, 1905) was led to study this subject by 6 cases of prostatic enlargement for which he performed a partial prostatectomy, thinking the overgrowth benign in nature; that this was not so was shown in each case by recurrence of a cancerous process. With this experience fresh in his mind, he was able to make an early diagnosis in 4 more cases, and to perform a radical operation. Of these, 3 were alive after some months, but 1 died of pyelitis due to excision of one ureteral orifice at the operation. A study of hospital and private records brought to light 40 cases. The youngest patient was 53 and the oldest 76, frequent and difficult micturition being usually the first symptom. Pain was experienced by two-thirds of the patients, but only 8 had haematuria. A hard enlargement of the prostate was usually felt; in three-quarters there was induration of the seminal vesicles, but the rectum was implicated only twice. Twenty-three cases were submitted to cystoscopy, and in 7 of these the bladder was seen to be involved, generally in the trigone. In only a quarter of the cases were the pelvic lymphatic glands infected. The malignant process may begin in a benign adenomatous hypertrophy; it remains for some time shut in by the firm capsule of the organ, eventually spreading through its weakest part at the base of the prostate, between the vesiculae seminales and the bladder. It also spreads by way of the vasa deferentia and seminal vesicles, hence reaching the trigonum vesicae; after this the growth travels laterally by the lymphatics, the glands, however, remaining unaffected till late. With regards to diagnosis, Young says that enlargements of the prostate are more often malignant than is usually supposed (10 per cent., Albarran); marked induration of the gland in a man over 50 is suspicious, especially if there be pain and tenderness, and only a slight intravesical projection as revealed by the cystoscope. As for treatment, the posterior surface of the organ is to be exposed as in ordinary prostatectomy; at this stage, if there is still any doubt as to the nature of the enlargement, a portion of the gland should be excised, frozen, and microscoped at once. Cure of malignant disease is only to be expected after removal of the seminal vesicles, vasa deferentia, and most of the trigonum, with the entire prostate. The stages of operation are fully described, with a series of very helpful illustrations, by the author, who claims in conclusion that the 4 cases dealt with by him show the simplicity, effectiveness, and remarkably satisfactory functional results attainable by the procedure which he advocates.

OBSTETRIC MEDICINE.

7. The Cervix in Pregnancy.

Aschoff (*Monats. f. Geb. u. Gyn.*, November, 1905) has carefully studied the precise nature of the changes which the cervix undergoes during pregnancy. According to his researches, the uterine segment of the cervical canal always develops decidual cells and shares in the formation of the cavity which lodges the ovum, the fetal membranes coming into close relation with the structures composing the cervical mucosa. It constitutes, in fact, an essential part of the lower uterine segment. The lower or vaginal segment of the cervical canal occasionally develops decidua which may even occupy its whole extent, but Aschoff has never found any evidence that it normally forms part of the fetal cavity. Its mucosa does not unite, like endometrium and the mucous membrane of the upper part of the cervical canal, with the elements in the fetal membranes. On the other hand a distinct change is often observed towards term, a funnel-shaped dilatation developing so as to simulate the lower part of the fetal cavity, but it is always sharply defined from the inferior uterine segment. The lower limits of attachment of the membranes represent the lower border of that segment. It is only in cases of abnormal attachment of the placenta that the inferior part of the cervical canal becomes portion of the fetal cavity.

8. Glycosuria in Pregnancy.

Möller (*Ugeskrift for Laeger*, No. 31, 1904, *Monats. f. Geb. u. Gyn.*, November, 1905) kept a case of glycosuri limited to pregnancy under close observation. The patien was 36 years old and in her first pregnancy. Sugar wa detected early in gestation, and it increased up to th fourth month, when it reached 2.93 per cent. Then th patient was put under suitable diet, and the proportion o sugar diminished until it had almost disappeared by th end of the seventh month, when the dieting was dis continued. There was no further rise and the patient wa delivered spontaneously at term. A few days later th proportion of sugar was 0.15 per cent. The patient wa able to suckle her child. After convalescence no suga could be detected.

9. Diphtheritis Vaginae in the Puerperium.

Freund (*Zentralbl. f. Gynäk.*, No. 41, 1905) observed thi condition in a young primipara delivered spontaneousl There was a slight laceration of the posterior commissur which he closed with three silkworm gut sutures. Th temperature rose to 101° on the third day; on the fourt it reached 102.5° and a rigor occurred. There was charac teristic diphtheritic deposit at the sutured spot, an thenceforth the disease developed, but never reached th uterus. The sutures were removed. The temperature fe to normal on the tenth day, but at that same date th patient's child showed signs of septic inflammation of th umbilicus; two days later the patient's temperature ros again. Then fresh deposit appeared on the perineal woun Loeffler's diphtheria bacillus was detected with only scanty proportion of the streptococcus, a germ seldo absent in typical diseases of the fauces. The child die of nasal and faucial diphtheria. The mother remaine feverish for a week. Injections of diphtheria seru proved beneficial. Aronson's antistreptococcic serum wa injected five times, but its advantages were not apparen Behring's serum was clearly of service; the wound becan clean and the temperature fell, but a week later it ro again and remained high for nine days. This rise temperature was associated with erythema ascribed to th doses of Aronson's serum. Lastly, convalescence set i Several members of the patient's family suffered fro typical diphtheria at the same time, and were cured serum injections. In a second case, the patient wa so rapidly delivered that her doctor had no oppo tunity of making an examination, the peritoneu was lacerated, and he closed the laceration with Behring catgut. On the second day the temperature rose, on th third there were signs of general puerperal infection. Freund was consulted; he removed the sutures, and a little discharge escaped, the fever subsiding. On the next day the temperature rose again without any rigors, and the perineal wound was found to be covered with a greyish deposit which contained the diphtheria bacillus in abundance, whilst the streptococcus was scanty. No trace of diphtheria appeared in any other region of the body. After a few injections of Behring's serum the patient recovered. The source of infection was not clear in this case. Freund, in conclusion, observes that whilst pseudo-diphtheria of the genital tract is not a very rare symptom of puerperal sepsis, true local diphtheria authenticated by the detection of Loeffler's bacillus is not so frequent. Suspicious deposit on the vaginal mucosa, etc., should always be examined by a competent bacteriologist. Diphtheritic infection does not tend to invade the uterus and its appendages, but it soon disseminates itself over the system. Behring's serum undoubtedly checked the virus in both the above cases.

GYNAECOLOGY.

10. **Tuberculous Ovarian Cysts.**

Pollesson and Violet (*Ann. de Gyn. et d'Obstét.*, October, 1905) report two cases of this condition. In the first the patient was a single woman aged 25. She had suffered from enteric fever when 14, and three months later was attacked with peritonitis which her doctor suspected to be tuberculous. For two months before she came under observation she had suffered from severe pains referred to the right side of the abdomen, and irregular action of the bowels. The uterus was pushed forwards by a pelvic tumour, which was removed, and as a collection of pus was found below it, a gauze drain was passed into the vagina. Convalescence was delayed by a febrile attack and an abscess developed in the gluteal region. The tumour was a cyst of the right ovary, and caseating tuberculous masses were found on its inner surface. The second patient was 32, married twelve years, and sterile. Four years before she came under observation she detected a mass of the size of an egg in the left iliac fossa. An attack of abdominal pain set in two months before she was admitted into hospital. A fluctuating swelling reached to the umbilicus, the uterus was pushed forwards and the tumour descended behind, whilst indurated masses could be felt in the right fornix. At the operation diffuse peritonitis was detected, with numerous adhesions. An intraligamentary cyst of the left ovary was extirpated, a fetid intraperitoneal abscess being ruptured during its enucleation. The right appendages, swollen, inflamed, and adherent, were removed, but not without great difficulty; they were the seat of tuberculous inflammation. The outer side of the ovarian cyst bore papillomatous masses of tuberculous deposit. Pollesson and Violet consider that 16 other genuine and 11 doubtful cases of tuberculous ovarian cysts have been published. They are to be found collected in Remy's *Thèse de Lyon*, 1904. The complication may involve grave difficulties during operation. thus in Pollesson and Violet's second case a faecal fistula developed, and was not cured until 6 in. of small intestine were resected nearly a year after the removal of the infected ovarian cyst.

11. **Primary Tuberculosis of Uterus and Tubes.**

Nebesky (*Monats. f. Geb. u. Gyn.*, November, 1905) reports a case where that condition was verified by operation. The patient was a factory hand aged 33, subject for eight months to menorrhagia, and for a week before she came under observation to severe sacral and hypogastric pain. There was no history of tubercle. The abdomen was not distended, nor tender on pressure; the uterus was tough, somewhat enlarged, anteverted and drawn towards the sacrum by a mass of cicatricial tissue behind it; the appendages were evidently involved in the dense tissue. The curette was employed, and after repeated examinations of quantities of friable, broken-down material removed from the uterine walls, the tubercle bacillus was detected. In April, 1904, Ehrendorfer operated. Not a single tuberculous mass could be discovered on the visceral or parietal peritoneum, pelvic or abdominal. The diseased tubes were removed, but as the ovaries showed no sign of tubercle they were saved, whilst the uterus and cervix were taken away with the tubes. The patient was in very good health over a year after the operation, and quite free from any symptom of tuberculous disease. The pathological appearances of the uterus and tubes are carefully described. The serous and subserous tissue was quite free from tuberculous disease, the endometrium was much involved, whilst in the cervical canal were tuberculous ulcers with the muscular coat for a base. Nebesky made out that ascending infection was evident, as tuberculosis was advanced in the cervical canal, marked in the endometrium, and much less in evidence in the tubal mucosa. Nebesky insists on the adoption of Veit and Martin's principle that in localized tuberculous disease of the female genital tract all the infected organs should be extirpated.

12. **Conservative Treatment of Inflamed Appendages.**

Fett (*Monats. f. Geb. u. Gyn.*, November, 1905) holds that under all circumstances inflammatory diseases of the appendages should be treated on strictly conservative principles. When acute, purely expectant treatment will be sufficient; when chronic, means by which absorption is promoted are at our disposal. Fett finds the hot-air treatment is particularly beneficial, but in bad cases it must be continued for months; then it will ensure cure as perfect as when an acute case is taken in time. The fact of pregnancies following the systematic management of chronic salpingo-oöphoritis, and the occasional evidence obtained at abdominal operations for other diseases where the once-inflamed tubes and ovaries can be inspected, alike prove that some of the most advanced and grave results of the class of disorder in question may be cured by medication. Exceptional conditions may, it is true, demand operation, as when perforative peritonitis is threatened, or when long-standing medical treatment proves unavailing. Even then the operation should be as conservative as possible, for an organ still capable of exercising its functions should never be removed. Operation from the vaginal side is only to be practised when a localized collection of pus can be clearly defined by the evidence of the touch and of clinical symptoms; then incision and drainage is indicated to be followed by a return to medication. Fett admits that backward displacements of the uterus following pelvic inflammation may require a plastic operation, such as ventrifixation.

THERAPEUTICS.

13. **The Abuse of Purgatives in Habitual Constipation.**

Ewald has said that in the treatment of habitual constipation one should give purgatives as seldom as possible and in the smallest possible doses. C. Juergensen, writing in Ewald's Birthday Number of the *Berl. klin. Woch.*, No. 44a, 1905, condemns the indiscriminate uses of purgatives, aperients, and drastics. The temptation to give such medicines is great, since not only is habitual constipation a very common condition, and the evil effects of retention of faeces generally accepted to be very great, but also one finds it extremely comfortable to take a spoonful of some nasty medicine rather than to apply mechanical, hydrotherapeutical, and electrical means, which take up time and cost a fair amount. He finds that the daily taking of purgatives is an unpermissible and harmful process. It leads to an inability of a spontaneous action of the bowels, and robs the physician of the power of judging the real condition of the functional condition of this portion of the digestive canal. It is a false idea that it is necessary for a person to have a daily evacuation. Most people, it is true, do have a daily motion in health, but that does not imply that this is a necessity. The important point in the treatment of habitual constipation is the character of the stool. Subjective impressions of insufficient action are very misleading. He wishes to place a narrow limit to the permissible aperients. First, he speaks of the side action of purgatives. Abdominal discomfort, amounting at times to pain, increased evolution of flatus, offensive nature of the stool, loss of appetite, general weakness, and feeling of being unwell. Lastly, he mentions unnatural consistency of the motions. All these effects must be avoided, and, above all, the motion must have a normal consistency and composition. Next, he finds that one must never fix the dose of the aperient, but should employ the smallest dose which will produce a satisfactory result in the individual. He comes to the conclusion that an aperient which does not produce any of these side-effects and which gives a natural-formed motion alone may be allowed. While he regards the treatment by mechanical, electrical, and other hygienic means as the best forms of treatment for habitual constipation, he admits the wisdom of at times employing medicines. Of the most suitable drugs, he cites frangula root given in the form of a concentrated decoction, senna pods in the form of an infusion, and lastly, mixtures containing such herbs as tilia, sambucus, arnica, and like flowers, and various roots. One obtains very satisfactory results from some of these old-fashioned remedies.

14. Balneological Treatment of Old Hemiplegias.

Neumann (*Therap. Monat.*, November, 1905) has treated on balneological lines 26 cases of long-standing hemiplegia. The time which had elapsed between the occurrence of the stroke and the beginning of treatment varied from one month to ten years in the different cases, but in most lay between five months and three years. Five of the patients were between 50 and 60 years of age; the youngest was 22 years. In the majority of the cases there was well-marked degeneration of the vessels; in no case could valvular heart disease be detected, but in several the heart was feeble. The history given was not, as a rule, definite enough to allow of decision as to whether haemorrhage, embolism, or thrombosis had caused the attack. Few of the patients gave any history of premonitory symptoms, but in one case the patient had suffered for some time before the stroke from neuralgia-like pains on the side afterwards affected. The cases in which loss of consciousness had occurred had not invariably been those in which the paralysis had been most extensive, and in one in which there had never been loss of consciousness extensive contractions of both arm and leg had supervened. A too early trial of physical health methods of any kind is to be deprecated, because of the danger of causing relapse, and for the same reason central galvanization of the brain should be discontinued. The bath is given at such a temperature that the circulation is not quickened. The sensation of a healthy person is not an adequate guide in fixing the temperature because the patients are often extremely sensitive to cold, and the best temperature for the early baths is from 25° R. to 26½° R. If the patient appears to be improving under treatment, a mild stimulus is given by varying the temperature of the bath from 24° R. at the outset to 26° R. at the conclusion. For the same purpose salt may be added to form a weak salt solution, and it is probable that the natural saltness of the thermal waters has a beneficial action. Each bath lasts from eight to twenty minutes, the duration being gradually increased as the treatment proceeds. While in the bath the patient feels better, increased reflexes are less marked, contractures are easily overcome, and the first attempts at active movements of the paralysed limbs may be made. At the end of the bath the pulse should be slowed rather than quickened, there should be no appearance of congestion about the face of the patient, nor any complaint of giddiness or headache; a rest of several hours' duration should follow the bath. Zander's gymnastic treatment supplements the balneological treatment, and often affords relief to the patient, but it needs skill and judgement on the part of the doctor for its successful application. The course of baths lasts from three to five weeks, and may with advantage be repeated every year. In some of the cases here described the improvement obtained was very considerable. In 1 case of severe crossed paralysis, probably due to thrombosis, the patient two years after the attack was quite unable to walk and his speech was halting. In fourteen days from the time the baths were started the speech was improved and he began to walk with sticks; at the end of the course the speech was smooth and distinct and the patient could mount steps with the help of a stick. Two patients treated during the present year were able to return to work, and another who had been pensioned off as unfit for work was also able to begin again. Local improvement, especially of contractures of the arm, are very frequent and the patient becomes able to raise the arm to the horizontal or even in some cases to fully abduct it. Along with these improvements goes often an improvement on the nutrition of the body generally as well as of the brain. While improvement cannot be promised and complete recovery does not occur, there is in from 30 to 40 per cent. of the cases a moderate amount of improvement in the direction of making the patient more fitted for his occupation and less dependent on his friends.

15. Radium in the Treatment of Cancer of the Oesophagus.

Max Einhorn reports on seven new cases of oesophagus cancer, which he has treated with radium (*Berl. klin. Woch.*, No. 44a, 1905). The method which he employs is as follows: An oesophageal tube is provided with a stylet, and has fitted on to its end by means of a screw a capsule, partly made of vulcanite, and the upper part made of metal. This capsule contains the radium. The tube is dipped into warm water, and passed, together with the style, until the stricture is reached. The style is then withdrawn, and the outer end of the tube fastened to the patient's ear. The instrument is allowed to remain in the gullet for ½ to 1 hour, according to the requirements of the case. After removing the tube, the capsule is unscrewed, and the small bottle containing the radium is taken out, before the capsule, etc., is disinfected. The results of the treatment of the seven cases was satisfactory. One patient, aged 75 years, had an obstruction 15 inches from the teeth, and could not even swallow fluids. He was treated for 2½ months, every other day for ½ hour. His condition improved during the treatment, and at the end of it he could swallow fluid and semi-solid diet; five months later he was still improved, and suffered no pain. The second case was somewhat improved as far as the passage of the bougie was concerned, and felt a little better in herself; the third case lost all pain, felt considerably better, and could swallow more easily, a larger bougie could be passed; the fourth case was objectively much improved, the bougie could be passed without obstruction into the stomach, and she could swallow fluid and some solid food; the fifth case was also much improved objectively, and also as far as swallowing was concerned; the sixth case was gaining in weight, could swallow solid food well, and the stricture had disappeared; and lastly, the seventh case was practically uninfluenced by the treatment. In the last six cases the treatment was carried out for one hour each day. He considers that if others obtain the same results which he has got, radium will become the proper treatment for oesophageal cancer, and even if one cannot yet speak of definite curing of the disease, he feels justified in saying that the cases were greatly improved by the treatment.

PATHOLOGY.

16. Action of X Rays on the Blood.

Gramegna and Quadrone, in trying to answer the question, Have the *x* rays any direct action on the blood corpuscles, especially in view of the observed reduction in the leucocytes under their influence in certain cases of leukaemia? have made experiments on their effect in rabbits and guinea-pigs in regard to the coagulability of the blood, its specific gravity, the qualitative and quantitative variations of the leucocytes, the changes in the composition of the urine, and the physical resistance of the red cells (*Arch. Général de Méd.*, October 10th, 1905, p. 2568). Of the 15 animals submitted to the action of the *x* rays, they found in 13 constant and well-defined alterations. While no alterations either in the colour or form of the red cells were observed, the leucocytes showed marked degeneration phenomena, particularly in the direction of fragmentation of the nucleus, while in others of the polynuclear variety the protoplasm was degenerated, so that it stained badly, and assumed indistinct outline coming to resemble a shadow of its former self, and in yet other forms the protoplasm was broken up into small masses which quite failed to take up the staining agent. There was almost always a decrease in the number of the leucocytes, polynuclear and mononuclear. There was an increase in the coagulability of the blood and in its specific gravity, but no appreciable change was observed in the haemoglobin. There was an increase (not quite constant) in the excretion of uric and phosphoric acid. The only recognizable change in the red cells was a decreased physical resistance. As a practical corollary of that part of their researches which refers to the increase in the coagulability and density of the blood they suggest that radiotherapy might be tried in haemophilia and in constitutional diseases with a tendency to haemorrhage, and as a theoretical corollary they point out that the *x* rays not only act on the lymphatic organs and on certain pathological tissues, but that they also act on the circulating leucocytes of healthy persons in the way of accelerating their physiological evolution.

17. The Bence-Jones Substance in the Urine.

Abderhalden and Rostoski (*Zeitschr. f. Physiol. Chemie*, October, 1905) have investigated the chemical nature of this body. The case was one of multiple tumours of the bones, and the urine during most of the time of observation was free from coagulable proteid, but contained constantly the Bence-Jones substance. They conclude that it is not a hydrolyzed proteid of the nature of an albumose or peptone. If it be injected into the circulation of a rabbit, neither albumose nor peptone appears in the urine; whereas, as is well known, if either of these substances be so injected they may be rapidly detected in that excretion. Further, from a study of the amido-bodies and other fractions obtained by the hydrolysis of the Bence-Jones body, it was found that it is built up of much the same molecules as the body proteids such as serumalbumin and serumglobulin. Hence the authors conclude that it is itself really a body proteid, and not derived directly out of proteid assimilated from the food as has been suggested.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

18. Atony of the Stomach.

ARTIN KAUFMANN (*Zentralbl. f. die gesamt. Therap.*, ptember and October, 1905) deals with the subject of ony of the stomach. When atony exists there is no fficulty in diagnosing its presence, but there may be ore difficulty in deciding whether complications are also esent, and, if so, whether these complications depend on the atony or are symptoms of an intercurrent disease. rave forms of motor insufficiency must always be cluded. To do this a meal is given at night; the mach is emptied by means of a stomach tube next orning, and its contents examined, when, if no remnants food are present, motor insufficiency of the second grade nnot exist. The recognition of slight forms of motor sufficiency or of hyperacidity of the stomach contents is t of much importance, because neither of these conditions materially alters either the prognosis or the treatment of the case; the presence of severe gastric catarrh, the other hand, should not be overlooked. The agnosis between atony and ulcer of the stomach cannot ways, in the absence of a history of haematemesis, be ade with certainty; but in doubtful cases, which have obably already undergone treatment for ulcer, the author accustomed to work on the hypothesis of the presence of ony merely, and to change his treatment only if no preciable improvement follows within a few weeks. e prognosis in most cases of atony is good in so far that, hough true recovery does not occur and the patient is vays liable to relapse, the symptoms can be almost vays removed for longer or shorter periods. The cases worst prognosis are those in which severe hysteria or urasthenia complicate the disease. The prognosis is od in all cases as far as danger to life is concerned. The thods of treatment can be divided under four heads: psychical, (2) dietetic, (3) drug treatment, and (4) treatment by physical methods. Of these the psychical and tetic forms of treatment are of by far the greatest portance. The patients, when they first come under atment, are usually greatly depressed. They have bably been living on a reduced diet, tending to become luid diet merely, for many months; they have lost ight and strength, and have obtained no relief of their nptoms. Such patients need to be convinced that their es are in no danger, that in all probability a far-ching improvement will occur, not improbably the nptoms will altogether disappear, and that a temporary urn of the symptoms would be of no great importance. they have probably been on too rigid a diet, a relaxa- n in this respect is desirable, and it will gratify a ient to find he is able to take more food than he had pected. The patients nearly always increase in weight, it is therefore well to have them weighed systemati- y, in order that they may appreciate the progress y are making. The effect of such psychical measures n becomes obvious. When the patient returns after it days' treatment, he is nearly always found to show siderably more improvement than could be the effect of ing alone, more especially in view of the fact that he long before he came under the system of treatment e described, been put on some more or less suitable . While it is easy to lay down definite rules of treatment on psychical lines, the dietetic rules do not admit of same precision of outline. The dietetic treatment of atony and of the complicating conditions may be of osite kinds; thus many cases are complicated by a lency to constipation, and the foods likely to remove tendency are not those which would be chosen in view he stomach condition. The tendency for an atonic nach to become dilated suggests in part the treatment ir as food is concerned. To avoid as far as possible this tation with its consequences, food should be given n, in small amounts, and in as nutritious a form as pos- e, probably, therefore, for the most part in a solid form. amount of fluid taken should be restricted. The patients usually underfed, and fat should be administered, espe- y in the form of cream and butter. It will be found as much as 500 cm. of cream per day can usually be n. Stomach irritants, whether the irritation be nical, thermal, or mechanical, are to be avoided. The t given should be tender, and, although it may be well to restrict the patient at first as to the varieties of meat eaten, he will soon be found able to take the more ordinary forms. If there is strong hyperacidity, not more than 350 gr. of meat should be eaten a day, and only at two meals a day. The value of milk for these cases has been overestimated, but a mixture of milk and cream forms a useful drink. The coarser breads are to be avoided, except in some cases in which the tendency to constipation is marked; the bread should then be cut thin and liberally buttered. Vegetables like asparagus, cauliflower, spinach, and carrots are useful; potatoes may be given in the form of purées. The drug treatment consists in most cases of the administration of some alkali three times a day after meals, and usually the dieting and the alkali will suffice to remove the sense of stomach oppression. Among physical methods may be mentioned cold spongings and rubbings and warm applications over the stomach region after food.

19. Differential Diagnosis of Organic and Functional Paralysis.

ABILITY to raise the paralysed lower limb from the bed with inability to raise both lower limbs simultaneously has been noted by Grasset and Graussel (*Rev. Neurol.*, September 15th, 1905, p. 882) as a distinctive symptom of organic paralysis, and is classed by them with Babinski's sign of "combined flexion of the thigh and the trunk." The symptom they have chiefly studied in hemiplegics, and they point out that it differs essentially from the well-known phenomena of associated movements in them such as being able to grasp more powerfully with the paralysed hand when grasping movements are made with the sound hand, the principle of the new symptom being, in fact, an inverse principle. Though the hemiplegic of organic type may be able to raise either lower limb separately from the bed yet he cannot raise the two simultaneously. Another way of demonstrating the same inability is for the patient to be directed to raise the paralysed limb and hold it in the air, and while he is thus holding it up the healthy leg is raised for him when the (partially) paralysed limb immediately falls. But the inverse is possible, while holding the sound limb in the air if the paralysed is raised for him he still holds up the healthy limb himself. The whole explanation is one of the fixation of the pelvis or the sound limb to provide a fulcrum for muscular action. On effecting a movement three influences, they remind us, are brought into play—the contraction of the acting muscle, the active relaxation of what is usually called the opposing muscle, and, thirdly, the contraction of certain other muscles at a distance—which help to fix parts of the skeleton round which the movement is to take place. Normally, with one leg on the bed the raised sound leg is acting against the fixed resting leg, but when both are raised the fixing muscles are the spinal muscles acting on the pelvis and it is these which in organic paralysis fail in their efficiency. This associated contraction is an automatic act and as such is not weakened in cases of functional paralysis, and hence the value of the phenomenon as a diagnostic point in distinguishing organic from functional paralysis. A healthy individual can raise some 12 to 15 kilos from the bed when attached to his foot with the other leg firmly applied to the bed, but with the second leg in the air he can only raise 4 or 5 kilos less.

20. Digestion Leucocytosis.

IT is well known that after taking food the number of leucocytes circulating in the blood is increased, and reaches a maximum in about four hours. Gardall and Noël Paton (*Journ. of Phys.*, September, 1905) have carried out a research into the source of the added cells. In a previous investigation they had found that removal of the spleen did not affect the leucocytosis in dogs and rabbits. Hence this organ does not play any important part in the supply of leucocytes to the circulation. Since no excess of white corpuscles has been found in the mesenteric veins over the number in the arteries during digestion, it follows that the intestinal wall is not a source of the increased number of white cells supplied to the blood. An examination of chyle from the thoracic duct led the writers to the conclusion that neither do the mesenteric glands furnish the cells. Experiments upon the bone marrow led, however, to positive results. During proteid digestion, blood coming from the marrow constantly contained more leucocytes than either venous, arterial, or capillary blood, and in six experiments the average excess was 37 per cent. It is mainly due to polymorphonuclear cells and lymphocytes. Hence they conclude that the bone marrow is probably the sole source and certainly the only important source of the leucocytes

SURGERY.

21. Cerebellar Abscess.

Ciampiolini reports a case of cerebellar abscess following otitis media (*Clin. Mod.*, July 19th, 1905) which occurred in a child of 10 years. He had suffered from infancy from a chronic otorrhoea, suddenly after severe pain he had an abundant purulent discharge from the meatus, accompanied by rigor, fever, occipital headache, vomiting, and vertigo. He was admitted to hospital for immediate operation. A quantity of pus was evacuated, the bone was found to be eroded, and the mastoid cells to be full of pus and débris. After the operation the temperature fell; although it rose at night, for some days there was no recurrence of the vomiting and vertigo, and the boy was shortly able to be up and about. On the twenty-third day a recurrence of headache and rigors with a rise of temperature made operative interference necessary. The surgeon exposed the meninges over the middle cerebral fossa, but was prevented from examining that fossa by haemorrhage which necessitated the plugging of that part of the cavity. He proceeded to explore the labyrinth, but did not find an abscess. Two days later he incised the dura mater over the middle cerebral fossa, when some clear yellow fluid escaped. The patient continued to suffer from headache and vertigo, with vomiting and optical disturbance. A subsequent operation was undertaken, the surgeon making his opening between the superior and inferior semicircular lines so as to command the posterior cerebral fossa. On examining the cerebellum he discovered a quantity of creamy yellow pus, about 50 cm. The abscess cavity, which occupied almost the whole of the right cerebellar lobe, was lightly packed with iodoform gauze. The symptoms did not abate and he died on the forty-fifth day from diffuse purulent meningitis. At the autopsy the longitudinal sinus was found to contain a blood coagulum, and the right lateral sinus was closed by a clot; there was a purulent exudation along the vessels of the meninges. The cerebral substance was soft and in a state of advanced putrefaction. The right lobe of the cerebellum was almost entirely destroyed; the small remaining part was pulpy and protruded through the opening in the cranium. The pons and bulb were hyperaemic. The middle ear contained granulations and pus. Evidences of tubercle were also found in the lungs and bronchial glands. This case demonstrates the tardy development of symptoms in cerebellar abscess.

22. Establishment of Cerebral Hernia.

Cushing (*Surg., Gynec., and Obstet.*, October, 1905) discusses the establishment of cerebral hernia as a decompressive measure for inaccessible brain tumours, and describes intermuscular methods of making the bone defect in the temporal and occipital regions. It is pointed out that the experience gained through the many ineffectual efforts to remove, or even to find, cerebral tumours known to be present, has taught surgeons that the operation may be expected to alleviate the underlying symptoms, the most constant of which are headache, vomiting, and choked disc, occasioned by the pressure effects of the growth. These symptoms, the author holds, are purely consequences of increased cerebral tension brought about by the foreign body; the oedematous swelling of the optic papilla being attributed to venous stasis and headache to stretching of the trigeminal filaments that sensitize the dura mater, whilst the cause of vomiting is left an open question. On whatever grounds these individual phenomena may be accounted for, it remains an undisputed fact that they are, remotely at all events, due to the pressure effects of a slowly-enlarging growth; and, this being so, it should be possible to relieve them by allowing the compressed brain to protrude through an artificial opening in the skull. Some striking instances are referred to in support of the statement that decompression in cases of brain tumour may be brought about by natural processes, such as perforation of bone and separation of cranial sutures. It would, the author thinks, be a mechanically ideal treatment for cases of inaccessible cerebral tumour if in adult life it were possible for the surgeon in some way to bring about such a dislocation of the sutures in the cranial vault; but, as this is impracticable, recourse must be had to less perfect decompressive methods. The author considers the causes of failure and disaster in palliative operations on the subjects of cerebral tumour and points out that there are two ends that the surgeon should seek to accomplish—one, to establish the hernia over as "silent" or unimportant an area of the cortex as possible; the other to avoid an unnecessarily large protrusion. With the object of controlling the growth of formidable cerebral herniae, the following operation was devised of making the bone defect under the temporal muscle: A curved incision is made over the side of the head concentric with and about 1 cm. within the line of origin of the temporal muscle at the temporal ridge. After downward reflection of the scalp and incision of the temporal fascia over the central part of the muscle in an oblique direction downward and forward, the exposed muscular bundles are separated in the line of the fascial wound down to the bone. The anterior and posterior borders of the divided temporal muscle are then retracted as widely as possible, and, after elevation of the periosteum, an opening, about 6 cm. in its vertical by 8 cm. in its antero-posterior diameter, is made by trephine and rougeurs in the cranial vault. After the bone defect has been enlarged to the requisite size, the dura is incised and cut away to its margins, the exposed posterior branch of the middle meningeal artery being ligatured and divided. Finally, the gaps in the temporal muscle and fascia and the external wound are carefully closed by sutures. This intermuscular temporal method the author has found useful not only as a palliative measure when the closed muscle and fascia act as a check to the hernia, but also in other conditions in which they serve as the covering of a bone defect made for drainage or exploration. Several times this method has been used to drain the subdural space in cases of fracture of the base accompanied by haemorrhage. There is no better way, the author holds, in which to explore for an extradural meningeal clot or for abscess of the temporal lobe. The author describes also a suboccipetal operation through a "crossbow" incision. Though uncertain whether decompression by this method be any more effectual than if accomplished by means of a defect placed elsewhere, he has found it of service in the removal of subtentorial growths.

23. The Operative Treatment of Suppurative Meningitis.

Kummell (*Arch. f. klin. Chir.*, Bd. 77, Heft 4) is of opinion that the progress recently made by the operative treatment of suppurative and tuberculous peritonitis is such as to favour the supposition that active surgical intervention might improve the very serious prognosis in cases of diffused inflammation of the meninges of the brain and cord. Lumbar puncture, it is stated, has been followed by very good results in cases of cerebro-spinal meningitis, and circumscribed suppurative meningitis set up by middle-ear disease and by compound fracture of the skull has been successfully treated by free removal of cranial bone and drainage. The prospects of operative treatment are generally regarded as much less favourable in diffused suppurative leptomeningitis, and, according to Macewen, such treatment is quite hopeless when the inflammatory mischief has extended from the base of the cranium to the cauda equina. The author reports a case in which intense and extensive meningitis following a fracture of the base, clearly indicated by the presence of pus in the fluid removed by lumbar puncture, was successfully treated by making two large openings into the posterior cranial fossa and excising the exposed portions of dura mater. Another case is referred to in which free exposure of the spinal canal in the lumbar region relieved to a considerable extent the more serious symptoms of fatal diffused cerebro-spinal meningitis following removal of a tumour from the sacrum.

24. Surgical Treatment of Chronic Colitis.

Pauchet and Prieur (*Archives Provinciales de Chirurgie*, No. 11, 1905) point out that some forms of chronic colitis resist all medical treatment, and entail disturbances of nutrition of sufficient severity to threaten life. In such forms, it is added, the surgeon finds an indication for operative intervention with the object of diverting the course of the faecal current, and affording rest to the diseased structures. In muco-membranous colitis operative treatment, the authors hold, is indicated by acute and constant pain, and consequent nervous depression, by repeated haemorrhage, and by progressive exhaustion. The surgeon should intervene also in every case of chronic dysentery. As in 80 per cent. of cases of this disease death results from exhaustion, peritonitis, or hepatic abscess, it is advisable to operate early, and before the infection has passed beyond the intestine. In his endeavour to establish functional rest of the inflamed or ulcerated colon, and thus to suppress intestinal spasm and arrest auto-intoxication, the surgeon has the choice between two methods: the formation of a caecal anus and entero-anastomosis. The former assures complete rest of the large intestine, and also favours cleansing of the mucous surface of the colon by the injection of simple or medicated fluids. A caecal anus, however, constitutes an objectionable infirmity, as it is associated with an incessant discharge of faecal matter, and for this reason is indicated only as a palliative or temporary measure in cases of severe ulcerative colitis extending to the rectum. This is the treatment of election in cases of chronic dysentery. Entero-anastomosis, implying in cases of colitis the total exclusion of the colon by attaching the lower part of the ileum to the sigmoid flexure, is indicated in cases of ulcerative colitis with infective symptoms of muco-membranous colitis with constipation, especially when either of these morbid conditions is complicated by peritonitic bands or adhesions likely to interrupt the passage of faecal matter. It has been proved, the authors state, by both clinical observation and by experiments on animals, that functional suppression of nearly the whole extent of the large intestine does not result in any serious disturbance of nutrition. The diarrhoea caused by the presence of fluid faecal matter in the sigmoid flexure and rectum ceases in the course of a few days, after an increased capacity of absorption developed in the mucous membrane of these portions of intestine. As simple lateral anastomosis is likely to be followed by the passage of the contents of the small intestine into the caecum and colon, the authors prefer Monprofit's method of completely dividing the ileum about 4 or 6 in. from the caecum, ond implanting both ends into the sigmoid flexure. Analyses of 31 cases of formation of caecal anus and 23 cases of entero-anastomosis for the treatment of chronic colitis afford results which are thus briefly summed up: In cases of chronic dysentery a caecal anus when established early rapidly ameliorates the general condition, and results in the cessation of pain, haemorrhage and suppuration; the treatment of ulcerative and muco-membranous colitis by anastomosis almost always affords good results, the constipation ceasing immediately after the operation, and the pain after a short period of exaggeration gradually diminishing and at last disappearing together with the discharge of pus and flakes of membrane. In a concluding review of the subject of this paper the authors state that in their opinion chronic colitis which does not yield to medical treatment, and which threatens the general health of the patient through pain, haemorrhage, and obstinate constipation, ought to be treated by surgical operation. Such treatment, which is free from risk, will often result in cure and almost always effect decided amelioration.

GYNAECOLOGY.

25. Uterine Fibroids and Uterine Cancer.

PIQUAND (*Annales de Gyn. et d'Obst.*, July, August, and September, 1905) has published a very complete summary of this question based on clinical and surgical evidence up to the present year. He concludes: (1) That he has been able to collect 360 reliable reports of this condition; (2) that there are three different varieties of these associated tumours. First, epithelioma may develop on a uterine fibro-myoma, a rare condition; 44 cases have been collected by Piquand. The malignant disease is nearly always derived from the uterine mucosa, occasionally from the ovary or other neighbouring organ, and very rarely from lymphatic infection causing neoplastic emboli from distant parts (2 cases recorded). Piquand includes 24 more cases where primary cancer undoubtedly developed in a uterine fibro-myoma; the epithelial elements usually come from involutions of the uterine endometrium, but in exceptional cases are derived from relics of Gärtner's or the Wolffian duct. Secondly, cancer of the body of the uterus may exist together with a fibro-myoma. This is the most frequent combination. Piquand has collected 179 cases, and he further declares that according to the statistics of 1,000 cases of uterine fibroid, cancer of the uterus was present in 15, a proportion eight or nine times higher than in other women. Thirdly, there remain cases where uterine fibroid complicates cancer of the cervix. The relation of the new growths is not so clear, the fibromyoma appears to predispose the patient to cancer of the cervix. When the latter disease is clearly seen to be consecutive to fibroid, the subject is generally a multipara between 45 and 50, a remarkable fact since cancer of the body of the uterus consecutive to fibroid is most frequent amongst multiparae between 50 and 60. (3) That total abdominal hysterectomy is the only surgical measure of any avail though it is dangerous and recurrence is frequent. Out of 68 total hysterectomies for fibroid and cancer of the body 11 proved fatal, and out of 52 for fibroid and cancer of the cervix 9 were fatal. Piquand considers the frequent association of cancer with fibro-myoma as a strong argument in favour of hysterectomy whenever the latter tumour develops.

26. Primary Chorion-epithelioma of the Tube.

RISEL (*Zeitschr. f. Geburts. u. Gynäk.*, vol. lvi, pt. i, 1905) has collected 11 cases of this disease associated with tubal gestation, over 300 examples of chorion-epithelioma in uterine pregnancy having been reported. He publishes a new case where Zweifel operated. The patient was 35 years of age, and her last pregnancy had occurred five years before the operation. She had been troubled for about three months with irregular haemorrhages and attacks of abdominal pain. A tense, elastic body was detected in Douglas's pouch and the left fornix, diagnosed as an ovarian cyst or double pyosalpinx chiefly affecting the left tube. At the operation a tumour of the size of a fist and resembling placenta was found to occupy the site of the left appendages and was removed. Recovery was speedy, but recurrence very rapid, the patient dying within four months. The tumour removed at the operation was a chorion-epithelioma originating in a left tubal sac. A great mass of malignant substance developed between the uterus and the rectum, the liver was full of metastatic deposits and minute metastases were detected in the lungs. All these recurrent growths corresponded histologically with the tumour of the Fallopian tube.

27. Umbilical Surgery on the Newborn Child.

MEYER (*Monats. f. Geb. u. Gyn.*, November, 1905) operated recently on a newborn child with a large hernia without using an anaesthetic, and the infant recovered, although the operation lasted for one hour and a quarter. The sac was very thick and consisted of amnion and peritoneum; they were separated and then a coil of ileum was discovered bearing a cystic Meckel's diverticulum. The neck of the sac was dilated, the cyst separated from the sac to which it adhered and resected, but suture of the ileum proved very difficult. The intestines were then reduced, the peritoneum sutured, the sac excised, and the integuments closed. Out of 32 radical operations for hernia of the cord at birth 6 deaths occurred, whilst 4 out of 7 cases of that form of hernia treated expectantly proved fatal.

28. Caesarean Section and Malignant Disease.

BOURDZINSKY (*Rev. de Gynéc. et de Chir. Abd.*, July-August, 1905) writes of a woman who underwent ovariotomy for a malignant tumour at the beginning of pregnancy. At term the abdomen was distended with ascitic fluid, a new growth occupied the posterior lip of the cervix, and the patient complained of pains in the region of the stomach. The pelvis was contracted. Caesarean section was performed, but the patient died on the third day. The stomach, intestines, uterus, and lumbar glands were infected with endothelial cancer. The primary seat of disease was uncertain. Bourdzinsky believed it to be the stomach, Ott and Bekmann were of opinion that the endothelioma started from the ovary. Secondary deposits in the stomach after ovarian cancer are not unknown.

THERAPEUTICS.

29. Bath Treatment of Enteric Fever.

A. CONTI AND F. ROSSI (*Il Morgagni*, October, 1905) have made numerous observations on the blood pressure, pulse rate, and temperature in cases of enteric fever with and without bath treatment. They give some account of the views of other observers of the blood pressure whose results are not the same as their own. The authors, however, attach more importance to their own results because they have connected their observations of blood pressure with those of pulse rate, and especially because the other observers whom they quote have used the sphygmanometers of Marie, Basch, and Potain, which Conti and Rossi do not consider as good as the Riva Rocci instrument with which their own observations were made. Their paper includes a record based on 80 cases untreated by baths, a series of 26 cases showing the effect of bath treatment, and an investigation into the causes of the results obtained. Dividing their untreated cases into five groups according to age, they find that at all ages the toxins of enteric diminish the blood pressure, but that this effect is much greater in adults than in young children. The fall of blood pressure proceeds more or less *pari passu* with the rise of temperature and the rise of pulse rate. At the time of defervescence there is what the authors describe as a vasal tone crisis as well as a thermal crisis. The two may not be altogether synchronous, and they may be preceded by a rise in the pulse frequency. In the 26 cases (two of them fatal) treated by baths, no drugs were administered. The pulse rate and blood pressure were recorded at least twice a day (morning and evening) as well as before and after each bath. The authors find that the maximal pressure after the bath was greater than the maximal pressure before the bath except in two cases, one a relapsing and the other a fatal case, and the minimal pressure after the bath was never less than the minimal pressure before it, except in the two fatal cases. Taking the mean values of all the observations at corresponding times, the pressure after the bath was in the case of each patient higher than that before the bath. The authors endorse all that has previously been claimed for the bath treatment of enteric and claim also that it has a lasting effect on the blood pressure, and maintains throughout the disease a higher mean pressure than would otherwise exist. The bath also reduces the pulse frequency and abolishes dicrotism. In the few cases in which cold bathing increases the pulse rate, accentuates dicrotism, and lowers blood pressure, the myocardium is exceptionally feeble, and bath treatment is contraindicated. The authors find an explanation of the facts observed in the theory that the bath exercises a regulating influence on the force of the cardiac systole and the degree of vascular constriction, bringing the two into harmony.

30. Formaldehyde in Internal Diseases.

Jakob Zwillinger (*Therap. Monats.*, October, 1905) has during the last four months given formaldehyde internally in cases of sore throat, catarrh of the bladder, erysipelas, scarlet fever, and diphtheria, and has also used it prophylactically for scarlet fever. In almost every case the results were favourable. The method of administration was by means of formamint tablets, each of which contained 1 cg. of formaldehyde. Three cases of angina catarrhalis and 4 cases of angina lacunaris showed improvement after eight to ten tablets had been given in each, the fever, swelling, and pain rapidly disappeared, and solid food could be taken on the second day. In no case were local applications made to the throat. In such affections the formaldehyde set free in the mouth as the tablet dissolves exerts a direct disinfectant and bactericidal action, and it is well, therefore, to tell the patients to keep the tablets in the mouth as long as possible. The pleasant taste of the tablet makes this easy even for children. The patients treated for scarlet fever were children of ages varying from 5 to 10 years. In the stage of fever the tablets were taken every hour until five had been taken; the interval between the doses was then increased to two hours until the temperature became normal, when it was again increased, this time to three hours. In the early stages the effect of the drug was good, and a critical fall of temperature usually occurred on the third to fourth day; but the later stages of the disease did not appear to be influenced. In 10 cases of diphtheria the treatment by formamint tablets was employed as a substitute for local treatment by disinfectant gargles, and in some of the milder cases antitoxin was dispensed with. In all cases the improvement was rapid, and in none did any post-diphtheritic paralysis occur. Again the tablets were given in five cases of cystitis, two of gonorrhoeal origin, and three following on spinal paralysis. Of the gonorrhoeal patients one discontinued the treatment after a few days, in which no improvement occurred, the other fully recovered after fourteen days' use of the drug. Two of the three spinal cases had been previously treated for long periods without result by means of urotropine, washing out of the bladder, etc., and in both after a fortnight's use of the formamint tablets the urine became clear and faintly acid, and the subjective symptoms disappeared. Two cases of erysipelas responded favourably to the treatment, and in one recovery occurred on the third day. The author has twice used formamint tablets prophylactically, once in a scarlet fever epidemic occurring in a hospital and once when a case of scarlet fever developed in an overfilled house. On each occasion none of the people to whom the tablets were given and who had been within reach of infection contracted the disease.

31. Arsenic Ferratose.

L. Bardach has found it of importance to test the action of a new stable soluble form of arsenic, and recites his experience in the *Therap. Monats.* of August, 1905. Arsenic ferratose is arsenic ferratin dissolved in a pleasant tasting solvent. The daily dose of 3 tablespoonfuls contains about 4 gr. of ferratin and about $\frac{1}{100}$ gr. of arsenic (more accurately 0.75 mg.). The adults received from 3 to 4 tablespoonfuls daily, and this was increased in a few cases to 6, while 3 dessertspoonfuls were given to elder children, and 3 dessertspoonfuls to smaller children. In all he gave it to twenty patients, and all of them took it well and liked it. The patients were suffering from scrofulous and anaemic diseases, and a few from dermatoses. Convalescents from prolonged illnesses were also treated with it. The brief histories of the cases state that the arsenic ferratose worked well in each and every case. Increase of weight, a marked tonic effect and improvement in the general appearance were the most marked signs that the preparation worked well. The author further considers that he is able to establish theoretical argument in favour of this preparation being of use as a tonic, in building up the blood in the anaemias, and as a plastic medicament in skin affections.

32. Influence of Adrenalin Chloride upon Toxic Doses of Cocaine.

Berry (*Amer. Jour. of Med. Sciences*, November, 1905) examined the conclusions arrived at by former experimenters that previous injections of adrenalin lessen the toxic action of cocaine while enhancing the duration, extent, and intensity of its anaesthetic effect. Other observers have shown that cocaine poisoning did not come on so rapidly in cases where adredalin was used, due to the fact that adrenalin chloride has an inhibitory action on the general absorption of fluids. In order to test the value of the addition of adrenalin chloride to cocaine as a local anaesthetic, its effect upon toxic doses of cocaine was studied in 27 experiments upon guinea pigs. The injections were made into the peritoneal cavity, the dosage being in proportion to the animal's weight, and when the drugs were used in combination the adrenalin was injected first, followed in ten minutes by the injection of cocaine. The doses of cocaine were too large to show the real value of the combination as a local anaesthetic, and it was manifest that adrenalin will not protect the organism against toxic doses of cocaine. In using adrenalin cocaine care should be taken not to inject a toxic dose of the cocaine, since the adrenalin not only fails to protect the body against toxic doses, but rather seems to enhance their action.

PATHOLOGY.

33. Agglutination and Leucocytosis.

R. Greig Smith (*Proc. Linn. Soc. of New South Wales*, 1905, Part 2, July 26th) has obtained leucocytes from blood, by the method recommended by Wright and Douglas in their work on opsonins, and has investigated the action of the leucocytes towards typhoid bacilli under various experimental conditions. He finds that, whereas normal typhoid bacteria are incapable of being absorbed by the leucocytes when these have been freed from adhering serum, typhoid bacteria, when treated with an active agglutinating serum, which has been heated to destroy the opsonins, are agglutinated, and are then englobed by the leucocytes. Typhoid bacilli which have been grown in agglutinating serum, heated or unheated, are also absorbed in the same way. But while active agglutinating serum prepares the microbes for inception by the phagocytes, the so-called chemical agglutinating substances, such as formaldehyde, vesuvin, mercuric chloride, and absolute alcohol, do not possess this property. The author's conclusion is that the function of agglutinin is to coat the bacteria with a precipitate which is positively chemiotactic towards the leucocytes, and thus, by facilitating the absorption of the microbes, agglutination plays an active part in immunity.

34. A Cultural Distinction between B. Coli and B. typhosus.

A. Pepere (*Lo Sperimentale*, September, 1905) makes a solid medium from liver bouillon and 3 to 4 per cent. of sodium nucleinate *a*, prepared from the thymus gland according to E. Neumann's directions. This medium is a firm, transparent, brownish jelly, and at 37° is liquefied rapidly by *B. coli*, but is not liquefied at all by *B. typhosus*. The commercial nucleinate gives less satisfactory results.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

35.

Typhoid Fever in Children.

AFTER first reviewing the literature with reference to the requency, theories of causation, etc., W. J. Butler (*Journ. Amer. Med. Assoc.*, November 11th, 1905) gives a clinical nalysis of 210 cases of typhoid fever in children—106 boys nd 104 girls. The duration of symptoms, such as restlessness, vomiting, drowsiness, headache, anorexia, fever, etc., before coming under observation was, on the average, seven days. In 107 in whom the condition of the bowels was ascertainable, 69 had diarrhoea, 31 constipation, and in the bowel movements were irregular. Nose-bleed occurred among the preliminary symptoms in only 29 of he 210. After coming under observation anorexia and urred tongue were the rule. Vomiting occurred in 28 cases, n 13 of which it had been present during the onset. In many cases it seemed to precede more serious symptoms or omplications. In 184 patients accurately noted as to this point, constipation existed in 100 and diarrhoea in 84. Butler does not ascribe to the former any very special rognostic significance. Tympany of varying degree was sually present after the first week, and in some cases was n annoying symptom extending into convalescence. The pleen was palpable in 134 out of 148 cases examined. Roseola was found in 115 of the 210 cases, seldom before the xth day of the disease. It was usually absent in the mild nd abortive cases. Epistaxis occurred in 12 cases during he course of the disease, in 1 case several times and with peated bowel haemorrhages, terminating fatally. The verage duration of temperature in all cases was 17.3 days. he disproportion between pulse rate and temperature, rst noted by Roger in adults, holds good for later child- ood, but in very young children they run more or less arallel. A dicrotic pulse was seldom found. Blood counts ere made in many cases, chiefly with reference to the ucocytes. The weekly averages were as follows: First eek, 6,571; second week, 7,200; third week, 6,740. Some teresting variations are recorded. The Widal test was ade in 96 cases, with 86 positive results. Butler does not nsider the negative tests as of much significance, as only ne, or at most two, trials were made. In 40 patients the action was positive within the first four days after ming under observation. In some it was considerably layed. Nervous symptoms, headache, drowsiness, and lirium were rather frequent, and there was generally me dullness or apathy. Ehrlich's urinary test was made a number of cases with usually positive results. Butler es not consider it, however, as of much diagnostic value. lapses seem to be more common in children than in ults, and in girls than in boys. They occurred in 31 of e 210 cases, in 5 cases fatal. The mortality, as usual ver in children, was 11, or 5.2 per cent. Among the ore interesting complications noted were ocular paresis the first week of the disease in 1 case, several cases of eningeal involvement, and 2 cases of neuritis occurring er relapse. In some of the severer cases evidences of ocardial involvement were present. Intestinal haemor- ge occurred in 13 patients, of whom 4 died—1 from per- ation occurring after a haemorrhage. Details of the al cases are given. The treatment was symptomatic and gienic. Butler, from his experience in these cases, is lined to think that the enlargement of the diet of hoid patients, advised by some, is unadvisable so far as ldren are concerned. Milk, diluted for infants and very ng children, with albumen water, and the usual cereal el diluents, such as barley water and rice water, as nks, he thinks, are best for this class of cases. Care in t during the early part of convalescence is as important during the height of the attack. Hydrotherapy was also ployed, tubbing in practically all cases. The tem- ature was the usual guide to its employment, also the vous symptoms, which it seemed to benefit. In very ere intoxication high enemas of salt solution were used h advantage in increasing elimination, especially al. Intestinal antiseptics—salol, acetozone, etc.—did seem to be of any particular advantage. Two of the atients with perforation were operated on, but all died.

6.

Enteroptosis.

KLATT (*Berl. Klin.*, Heft 210, December, 1905) summar- s much of the literature of enteroptosis, the disease invented and named by Glénard in 1885 after the study of 800 cases. Glénard believed it due primarily to a sinking of the ascending colon loaded with faeces. As regards its frequency, Dennig (1902) found gastroptosis present in 66 per cent. of 2,083 cadavera; Rumpf found movable kidney in 37 per cent. of 191 bodies; Rollet found it but 22 times in 5,500 patients. As regards its causation, Rosengart (1900) supposed enteroptosis to be due to a persistence of, or a return to, the fetal positions of the viscera; Godart-Danhieux (1900) attributed much to the influence of repeated pregnancies when it occurred in women; Stiller of Buda-Pesth (1897 and since) laid emphasis on the association of enteroptosis and movable tenth rib (but others assert that the tenth rib is more often movable than fixed); Cséri (1901) found that enteroptosis and lordosis often occurred together; Sérégé (1904) argued that some congenital anatomical defect underlies it; Aufrecht (1904) states that the *primum movens* of enteroptosis is a movable right kidney; Quincke (1905) concludes that enteroptosis may be due to a large number of conditions, several of which are usually at work in the production of any particular case. Wolkow and Delitzin (1897) laid great stress on the abnormal configuration of the two paravertebral grooves in movable kidney. Klatt connects enteroptosis with (1) a general relaxation of the musculature, weakness of suspensory ligaments, and instability of the nervous system; (2) special conditions for ptosis of each particular organ. He devotes several pages to a discussion of the special symptoms and the treatment of Glénard's disease.

37.

The Early Diagnosis of Pulmonary Tuberculosis.

JOHN H. PRYOR (*Med. Record*, November 23rd, 1905) states that as the result of experience gained while acting as the first medical superintendent of the New York State Hospital for the Treatment of Incipient Tuberculosis, his conviction that pulmonary tuberculosis is rarely recognized at an early and proper time for successful treatment, has been decidedly strengthened. This conclusion is corroborated by the fact that the hospital, which was created under a law providing that only incipient cases could be admitted, has never contained more than one-third of the number of cases that could be accommodated. The following definition of incipiency or favourability was agreed upon by a Committee of the National Association for the Study and Prevention of Tuberculosis: "Slight initial lesion in the form of infiltration limited to the apex or small part of one lobe. No tuberculous complications. Slight or no constitutional symptoms (particularly including gastric or intestinal disturbances or rapid loss of weight). Slight or no elevation of temperature or acceleration of pulse at any time during twenty-four hours, especially after rest. Expectoration usually small in amount or absent. Tubercle bacilli may be present or absent." Inquiries submitted to a number of sanatoriums in the United States to learn the percentage of incipient cases received, as thus defined, reveal the fact that the average percentage of all patients under treatment which could be designated as early and favourable varies from two to thirty. An analysis of all cases treated at the New York State Hospital shows that 60 per cent. were received. In attempting to account for this state of affairs the author says that one reason is that the patient does not seek medical advice early enough. This is especially the case among the poor, who also often receive incompetent counsel when they do go to a physician or dispensary. Another reason is the faulty education in medical schools and the recent tendency to give prominence to laboratory methods at the expense of the skill of the clinician. The classical symptoms almost invariably presented in combination are loss of appetite, chlorosis or anaemia, loss of weight, cough, with or without expectoration, haemorrhage, and fever. It is extremely rare that all of these are associated at an early time. They are apt to be present at a later stage. This is particularly true of patients who have had rest, nourishing diet, and open-air treatment. Many times, under these conditions, few or no symptoms are apparent, and yet the disease may be progressive. The author also discusses at length the physical examination of the chest, and points out the necessity for painstaking examination of the patient with the clothing removed to the waist.

SURGERY.

38. A Modified Method of Appendectomy.

Kölliker (*Zentralbl. für Chir.*, No. 41, 1905), in a contribution on resection of the appendix, describes a plan of external incision which, he holds, causes very little injury, and is as good a preventive of ventral hernia as the method of superimposed rows of suture. The skin incision commences at McBurney's point and is carried inwards and downwards towards the middle of the symphysis over a distance of about 8 cm. The exposed portion of the aponeurosis of the external oblique and from one-third to one-half of the sheath of the rectus having been divided the latter muscle is set free by blunt dissection in the direction of the wound, and drawn over towards the median line. After division of the tendinous portions of the internal oblique and transversalis muscles, and the transversalis fascia, a small opening, not more than 4 cm. in length, is made in the peritoneum. The advantages claimed for this incision are these: The peritoneal opening lies behind the replaced rectus, and very little muscular tissue is divided. In closing the external wound only two rows of sutures are required; one for the peritoneum, the second for all the other layers of the abdominal wall taken together. When exposure and separation of the appendix are hindered by adhesions the incision can be extended at either end. The author directs attention to two points which might be found useful in difficult cases of appendectomy. In a case of adherent appendix the anterior longitudinal band, it is stated, is drawn over in the direction of the displaced and fixed process, so that this band when convex along its inner margin indicates a retrocaecal position of the appendix, and when convex along its outer margin an inner or pelvic position. If an adherent appendix be at first exposed near its attachment to the caecum, and divided between two ligatures, and then dissected out from its proximal to its distal end, the operation will be rendered much easier than that in which separation of the process is the preliminary step.

39. Ligature of Inferior Vena Cava.

Houzel (*Arch. Prov. de Chir.*, No. 9, 1905) publishes the results of a recent examination of a woman aged 40, on whom four years ago he practised ligature of the inferior vena cava just below the right kidney for laceration of this vessel in the course of an operation on a large pyonephrosis. This patient made a rapid recovery, and after a short period of convalescence presented no indications of disturbance of the circulation beyond a slight oedema of the ankles. Her present condition, it is stated, proves that in this case sudden and complete closure of the inferior vena cava below the kidneys has left no trace, and has resulted in a durable, and, from both an operative and a physiological point of view, a complete cure. With the exception of slight and superficial varicosity of the legs, which, the author states, might naturally be present in a woman who, like the subject of this paper, had done much hard work and given birth to several children, there are no signs of superficial venous engorgement. In this remarkable absence of varicosity of the superficial abdominal veins and of signs of impaired circulation in the lower limbs, the author's case agrees with cases of ligature of the inferior vena cava for accidental laceration during surgical operation, that have been reported by Bottini and Hartmann, and also with the results of recent experiments on dogs. The results of both clinical and physiological observation prove beyond doubt, in the author's opinion, that after complete obstruction of the vena cava below the kidneys, the return of the venous blood from the lower part of the body is effected by the azygos, the lumbar plexus, and the intrarachidian veins.

40. Skin Grafting in the Late Treatment of Severe Burns.

Young (reprint from *International Clinics*, vol. i, 15th Series), having in the treatment of large granulating surfaces resulting from severe burns failed to obtain satisfactory results from Thiersch's method of skin grafting, has practised with good results a modification of Wolfe's or Krause's method in which the whole thickness of the skin is transplanted. The modifications devised by the author relate to (1) the cutting and preparation of the graft and the closure of the fresh wound made in the process; (2) the preparation of the granulating surface to be covered; and (3) the dressing of the grafted surface at the time of the operation and subsequently. The transplanted flap is detached directly from the fascial covering of the muscles, and thus consists of skin and all the underlying fat. After preparation of the granulatin surface and closure of the fresh wound, the flap of skin an fat, immersed during the interval in warm saline solution is laid on the palm of the hand with the epidermic surfac downwards, and all fat quickly but carefully cut away b means of scissors curved on the flat. The flap should b preference be applied directly to the surface of undisturbe granulation tissue, care having been taken to render thi surface quite healthy by removal of sloughs and exuberan granulations, and by thorough cleansing with antisepti solutions. After the application of one or more graft the whole surface is covered by a large sheet of perforate oil-silk or wide-meshed muslin or gauze soaked in steril saline solution or boracic lotion, and, over this, by severa layers of aseptic gauze soaked in the same solution, th whole being secured and kept moist by a large sheet gutta-percha tissue, and a copious swabbing of cotton wool. The author attaches much importance to the detai of a daily dressing from the very outset of the post operative treatment.

OBSTETRICS.

41. Diagnosis of Short Umbilical Cord before and during Parturition.

G. Vetrano (*Il Policlin.*, October, 1905) considers that th subject of shortness of the cord has been neglected in tex books, though it has been long recognized as a cause dystocia. He quotes two cases: One patient, aged 28, wa pregnant for the third time, after two normal pregnancie succeeded in each case by a normal parturition at term an a physiological puerperium. Her last menstruation wa at the beginning of July, 1904. The time of quickenin was not noticed, though it had been definite in the earli pregnancies. In the last months of pregnancy there we pains in the right renal region and in the left half of th uterus. The membranes ruptured on the night April 7th, and next morning a midwife came and staye for twelve hours. When a doctor arrived pains ha ceased for ten hours, the fetal head was in the left occipit posterior position, internal rotation having failed. The was complete uterine inertia and the instrumental extra tion of the dead fetus was immediately followed by th delivery of the membranes and placenta with gre haemorrhage. The cord measured 30 cm. The secon patient was 32 years old and had passed through fi previous pregnancies, terminated always at the right tim and followed by a physiological puerperium. She la menstruated in July, 1904. From the fifth month onwar she was disturbed by pain constantly at the same point the uterus. On April 15th labour set in with seve haemorrhage. The membranes were tense and no placent tissue could be felt. The dead fetus presented by th pelvis with its back to the left side. It was extract manually, and the mother almost died from haemorrhag but eventually recovered. The cord measured 30 cm. T author concludes from these cases that uterine pains constant position, posterior positions of the fetus, a haemorrhage during labour should excite the suspici that the umbilical cord is very short.

42. Eclampsia.

During a period of eighteen months, R. Jardine (*Journ. Obst. and Gyn. of the Brit. Empire*, July, 1905) has treat fifteen cases of eclampsia. The mothers recovered in cases. Six of the children lived, two were born alive b died in a few hours, one was born alive but died afte fortnight, and seven were born dead. The method treatment is summed up as follows: "Bleed the patie and transfuse a couple of pints of the solution, pu freely, and use hot packs. If labour has not come leave the uterus alone unless the fits continue to occur. the os is nearly or fully dilated delivery may as well be effec at once, while the patient is under chloroform. When patient is very restless, chloral and bromide may be giv but a hot pack will often do more good." The solution u differed from the ordinary saline solution in that it c tained a drachm of acetate of soda to the pint of ordinary solution, and the author attaches considera importance to this modification. In three of the earl cases of the series the os was dilated by Frommer's dilat and the child was extracted by version. This treatm was not adopted in the later cases, and after an extens experience the author has come to the conclusion t accouchement forcé is not necessary unless the fits c tinue to occur. Of the fifteen mothers, eight w primiparae, and in seven cases the pregnancy gone on to full term. In one case only the urine was found not to contain albumen, but this case was probably not one of true eclampsia. Albumen was present in noticeably large quantities in each of 2 cases in which the fetus was macerated at birth. One case was of interest because an application of ethyl chloride at the site of the insertion of the trochar for the infusion was followed by sloughing of the superficial tissues. In another case a succession of complications occurred and recovery was at one time despaired of. The patient in question was a primipara, aged 21. When admitted she complained of swelling of the vulva, legs, hands, etc., and of specks dancing before her eyes. There was great oedema of the vulva and of the abdomen. The urine was scanty, high-coloured, of specific gravity 1024 and contained albumen 10½ per 1,000 Esbach, and urea 7 gr. to the ounce. The patient was treated with hot packs, saline purges, diuretics, and a milk diet. The labia were punctured and 8 oz. of fluid withdrawn. The patient improved and the urine diminished in quantity. After three days labour set in and was terminated naturally, a living child being born. Six hours after delivery the patient had a typical eclamptic seizure; 12 oz. of blood were then withdrawn from the arm and two pints of the saline solution were transfused and a hot pack applied. She was kept under the influence of chloral for twenty-four hours and had no more fits, but had several marked shivering attacks. Eight days after delivery the temperature was 99.8° F. and the patient complained of headache. As the lochia were fetid the uterus was douched out and a large septic clot was removed by the fingers and a curette. Two days later cellulitis of the left broad ligament set in and was followed after three or four days by phlegmasia alba dolens of the left leg. In the second week of the phlegmasia, which had appeared to be progressing favourably, the patient was seized with terrible dyspnoea and with great pain in the chest. This attack was followed by several similar but less severe attacks. Two days after the first attack the temperature rose to 105° F. and tubular breathing and crepitations could be detected over a small area of the left lung. The right leg also swelled, but not to the same extent as the left one. The labia again became swollen and were again punctured. The patient's recovery was slow. The results in this series of cases have been so good that the author does not hesitate to strongly recommend the treatment adopted.

43. Hypertrophied Kidney Removed During Pregnancy

SCHAUTA (*Monats. f. Geb. u. Gyn.*, November, 1905) recently reported before the Vienna Obstetrical Society a case where hydronephrosis was suspected in a patient aged 21. When examined, during the second month of her pregnancy, a tumour of the size of a man's head occupied the right half of the abdomen. The tumour proved to be a hypernephroma, which was removed together with the unhypertrophied part of the right kidney. The patient recovered and the left kidney functioned well after the operation.

GYNAECOLOGY.

44. Causes of Failure of Gynaecological Operations.

NOTICING the frequent failure of gynaecological operations to give complete relief, W. E. Ground (*Journ. Amer. Med. Assoc.*, November 11th, 1905) discusses what he considers some of the more frequent causes of the failures. His observation has led him to believe that almost every woman during her confinement suffers injuries to the pelvic floor from which she does not recover, and that immediate suture of apparent lacerations does not restore pelvic support in the vast majority of cases. Only when there is full restoration of anatomic structures to their normal relations is the mischief rectified, and when this is not the case visceral ptoses and their manifold neurasthenic and other accompaniments of morbid symptoms are met. Uterine displacements are also attributed by him largely to this cause. When the uterus is infected, heavy, and traumatized, and its pelvic floor support is diminished, all these conditions need to be remedied before complete relief is afforded. The perfectly healthy uterus rarely causes symptoms, whatever its position. He has seen many cases of retroversion in young women that never produced symptoms until after pelvic floor relaxation occurred unless infected with the gonococcus or pregnancy occurred with its consequences. Another source of failure after gynaecologic operations, he says, is the so-called conservative operations on the ovaries. The vast majority of destructive lesions of the ovaries arise from uterine infection, and it is very much of a question, he says, whether, after a uterus once becomes thoroughly infected, it ever fully regains its normal condition. Hence, he thinks, physicians are more likely to conserve ovarian tissue by doing a supravaginal amputation of the uterus and removing the Fallopian tubes and the accompanying lymphatic trunks, than by doing conservative work on the ovaries and leaving the uterus. In cases of double salpingo-oöphorectomy for septic conditions there is no question in his mind as to the propriety of also removing the uterus. Leaving a uterus, the source of infection, renders other measures of doubtful utility, and removing it permits cleaner work with fewer post-operative adhesions to cause trouble. It has been his practice for several years to remove it in these cases, and the results have been eminently satisfactory.

45. Uretero-cervical Fistula after Cross-Birth; Intraperitoneal Implantation of Ureter.

HAMMERSCHLAG (*Monats. f. Geb. u. Gyn.*, August, 1905) operated on a woman, aged 36, with symptoms of uretero-cervical fistula. Five months previously her seventh labour occurred, all the six previous confinements had been normal, but on this occasion the presentation was transverse. Turning and extraction were effected under chloroform by the patient's doctor two hours and a half after the rupture of the membranes. Ever since the delivery of the child the patient had incontinence of urine. At the end of two months Hammerschlag examined the patient. There was a deep laceration of the cervix on the right side running into the right fornix, with several deposits of cicatricial tissue in the neighbourhood, and a vesico-vaginal fistula, big enough to admit the finger, immediately in front of the cervix. This fistula was at once closed by operation successfully. Yet urine escaped involuntarily, as before, for three months. Hammerschlag kept the patient under observation and found that she passed about 2 pints of urine from the bladder daily, yet urine also escaped involuntarily. By the milk and the indigo-carmine tests it was found that the bladder was absolutely free from leakage, whilst clear urine escaped from the cervix. The cystoscope showed that no urine issued from the right ureteral orifice. A vaginal operation was impracticable, and Hammerschlag objected to removal of the right kidney or ligature of the ureter. He made an abdominal incision, and found the vesical end of the right ureter embedded in cicatricial tissue; he therefore isolated it at the point where it crossed the great vessels, and cut it through. He then fixed a fine silk thread to its extremity, so that he was enabled to draw the ureter through a hole which he cut in the broad ligament, opened the bladder, cutting down on a pair of forceps introduced into its cavity, and then used the forceps to draw the fine silk through the bladder and out of the urethra; the silk was fixed for a time to the thigh. The opening in the bladder was closed by a fine silk, which was passed through the outer coat of the ureter, that duct was then sunk into the pelvic connective tissue, and the bladder was attached to the uterus by suture. The incision in the peritoneum over the great vessels at the pelvic brim was closed, and a catheter retained in the bladder. There was no more involuntary escape of urine, and the patient made a good recovery. The cystoscope showed the artificial orifice of the right ureter in the fundus, which protruded and retracted rhythmically.

46. Premenstrual Fever in Tuberculous Women.

KRAUS (*Wien. med. Woch.*, No. 13, 1905) observes that there is a distinct rise of temperature corresponding to the menstrual cycle in a certain number of perfectly healthy women, the rise occurring at regular intervals isochronous, but not synchronous, with the catamenial flow. It usually precedes the period at an interval of a day or two, more rarely it appears a week before the show. The rise rarely exceeds a few tenths of a degree. In tuberculous women, on the other hand, a distinct regular rise is very common. Kraus observed it in two-thirds of the patients at a sanatorium under his superintendence. As in healthy subjects, the rise was usually noted a day or two before the show of blood, but it often appeared a week earlier, and in some instances a fortnight before the show. In the latter cases the rise of necessity appeared about a fortnight after the preceding period; in each of these tuberculous subjects the interval between the rise of temperature and the show, whether long or short, remained regular. It was only in very rare cases that there was a sudden rise synchronous with the show. The rise was usually gradual, falling when the show appeared, and attended with little constitutional disturbance. It nearly always reached its highest point in the afternoon. The most important result of these investigations was the discovery of the fact that the periodical rise of temperature bore no relation to the gravity of the general tuberculous infection. Indeed, in some instances it led to the detection of the constitutional malady.

THERAPEUTICS.

47. New Local Anaesthetics.

H. Braun is of opinion that a few experiments on oneself, or on some suitable person who is capable of making exact observations, can settle the local action of a new drug in a few hours (*Deut. med. Woch.*, October 19th, 1905). A good local anaesthetic should possess the following characters: (1) It must be less toxic than cocaine in proportion to its local anaesthetizing properties; the toxicity of any drug can be readily determined by animal experiment, and this may be accepted as the index of its toxicity for human beings also. (2) The drug must not have any irritating action, nor may it damage tissue locally to the smallest extent. (3) The preparation must be soluble in water, and must be fairly stable; if possible it should be capable of being sterilized by heat, without undergoing alteration of action. (4) It should be capable of combining with suprarenal extract (suprarenin) without interfering with the vaso-constricting effect of the latter. (5) It should be capable of being taken up rapidly and completely by a mucous membrane. He has studied the action of three new drugs—stovain, alypin, and novocaine—by experiment on himself and on other suitable persons, and has criticized the action according to the requirements given above. Stovain is only slightly less toxic than cocaine, and its anaesthetizing action is weaker, so that it appears that its relative toxicity is not less than that of cocaine. Endermic and subcutaneous application of stovain solutions produce irritation of the tissues and actual damage. Injections of 5 and 10 per cent. solutions produce gangrene, so that the second condition is not fulfilled. Stovain is stable and can be sterilized by heat. When applied with suprarenin the hyperaemia produced by stovain is not completely neutralized by the latter. He therefore cannot regard it as a good anaesthetic, but mentions that it is said to be especially suited for intradural injection. The next drug is alypin. The anaesthetic action of this drug is very high, and is enormously increased by the addition of suprarenin, while the action of the latter on the vessels is not interfered with. The toxicity is less than that of cocaine. But alypin produces irritation and damage to local tissue, and he comes to the conclusion that we have as good local anaesthetics as alypin which have not this great disadvantage. Novocaine is a p-aminobenzoyl-diaethyl amino-aethenol, and exists as chloride. It is soluble in water and less so in alcohol, is stable, and can be boiled when in solution. The lethal dose for rabbits (subcutaneous) is 0.35 to 0.4 gram pro kilo body weight, while stovain is 0.15 and cocaine is 0.05 to 0.1 gram pro kilo body weight. The results of his trial injections showed that novocaine is a powerful local anaesthetic, but has a very transient action. It does not produce the least reaction on the tissues, and even a 10 per cent. solution can be applied without pain or irritation. He finds that its action does not justify one in regarding it as a substitute for cocaine, although it is a distinct improvement on tropococaine. When injected with suprarenin the action is intensely anaesthetic and is durable. The action of the suprarenin is increased, and he finds that this combination is better than that of cocaine and suprarenin. He therefore felt justified in applying it in surgical practice. His solutions were 0.25 per cent., 0.5 per cent., 1 per cent., and 2 per cent., to each of which suprarenin solution is added. In no case did he meet with any unpleasant side-effects, and he comes to the conclusion that the combination is very markedly less toxic than any other known anaesthetic. The action is as satisfactory as that of cocaine, and he places them both on the same level, while the fact that novocaine solutions can be sterilized by boiling, and can be kept for a long time, gives it an advantage over the cocaine. Koellner reviews the action of alypin in ophthalmic practice (*Berl. klin. Woch.*, October 23rd, 1905). He is of opinion, after a careful study of the effect of this drug on the eye, that although one cannot accept it as an improvement on cocaine, it is certainly worth a place in therapy as well as the latter. A 5 per cent. solution applied to the conjunctiva, even when only one drop is used, induces an anaesthesia sufficient for superficial operations. The anaesthesia is intenser than that produced by the same strength solution of cocaine. The internal ocular muscles are not affected unless larger doses or stronger solutions are employed. No increase or diminution of intraocular tension can be determined; alypin does not produce a contraction of the vessels like cocaine, and this difference is at times unpleasantly apparent in operations and inflammatory diseases. The anaesthesia is very rapidly produced, and is therefore especially well adapted for small operations, for removal of foreign bodies, etc., and it has been found that in spite of the hyperaemia which follows its use the wounds do well. When large doses are used the tissues show a definite reaction. Alypin does not produce mydriasis or disturbances of accommodation.

48. Histosan.

R. Stierlin (*Therap. Monats.*, November, 1905) has made use of histosan, a combination of guaiacol and an albumen, in the treatment of different forms of tuberculosis. Histosan can be obtained in the form of a powder or of a syrup; the powder has a strong smell of guaiacol, the syrup is a clear yellow fluid, which is readily taken by invalids whether adults or children. The dose is 0.5 gr. of the powder to adults, 0.25 gr. to children three times a day, or corresponding quantities of the syrup. In such doses the author has never found the drug to give rise to unpleasant results, but in two cases in which larger doses were given gastric disturbance quickly supervened. Twenty-seven patients took histosan for long periods. Ten of these patients suffered from phthisis, three from tuberculous peritonitis, one from serous tuberculous pleurisy, one from tuberculosis of the testis, and twelve from tuberculosis of bones or joints. One case was of special interest. The patient was a child 11 years old, who was treated for five years for tuberculous coxae. He did not improve, multiple fistulae formed, and in course of time amyloid disease developed, as shown by the appearance of the patient, an increase in the size of the liver to twice the normal, and by the constant presence of albumen in the urine. Towards the end of the fourth year the condition began to improve, the appetite and appearance became better, discharge from the fistulae diminished in amount and some of the fistulae healed up, the liver visibly diminished in size, and the albumen permanently disappeared from the urine. At the end of the year the patient began to walk with crutches, and finally was discharged able to walk with the help of sticks. It is true that the improvement in this case began a little before histosan began to be administered, yet the improvement during its administration was enormous. Histosan cannot be considered to be a panacea in phthisis, and in the advanced cases no improvement was perceptible, while in some of the other forms of tuberculosis also the treatment altogether failed. Nevertheless, after passing under review all his cases, the author cannot but decide that some were certainly benefited by histosan. Some of the phthisical patients improved with surprising rapidity, both with regard to weight and general and local condition, and in many other cases in which operation was needed, and in which histosan was also given, recovery occurred more quickly than could have been expected if ordinary drug treatment had been employed after the operation. The author is of opinion that histosan deserves serious trial, and would specially recommend its use after operations for tuberculous lesions, both in adults and in children.

49. Control of Epistaxis.

H. J. Mulford (*Amer. Med.*, December 23rd, 1905) describes a simple method for controlling nasal haemorrhage, citing cases and outlining the blood supply of the nose and pharynx. His method consists of the subcutaneous injection of adrenal extract into the arterial supply at the nearest accessible point to the bleeding area. The injection may be made directly into the artery supplying the part, or it may be thrown into the tissue closely adjacent to the artery. This certainly is simple, but the result is marvellous. The ingoing arterial current sweeps the solution directly into the leaking area, all the vessels of the part are constricted, and almost at once the haemorrhage ceases.

PATHOLOGY.

50. Spirochaeta Pallida.

C. Thesing (*Sitzungsberichte der Gesellschaft Naturforschender Freunde*, Nr. 8-9 Jahrgang, 1905), in a hostile criticism of Schaudinn's discovery, disputes the propriety of classifying spirochaetes amongst the protozoa, and denies that the significance of *Spirochaeta pallida* as the cause of syphilis has been proved.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

51. Cerebro-spinal Meningitis.

IN the first of a series of public lectures inaugurated by the New York Academy of Medicine, the Health Commissioner, Dr. Darlington, dealt with cerebro-spinal meningitis (*Boston Med. and Surg. Jour.*, January 4th, 1906). Darlington gave a summary of the results obtained by the Health Department Commission. The conclusions were as follows: (1) The disease has occurred in several large epidemics during the past century; sporadic cases are met with in the periods between these epidemics, and constitute the link between them. We do not know the circumstances giving rise to these epidemic outbreaks. (2) The epidemic form of cerebro-spinal meningitis is almost invariably associated with the meningococcus of Weichselbaum, and the sporadic cases are frequently associated with the organism. During the first week of the disease, this organism is present in the nasal mucus in fully half the cases; later in the disease it is found in a smaller fraction. It also occurs in the nasal mucus of some persons who are in close contact with cases of the disease. The meningococcus is of low vitality, and is rapidly killed by drying and on exposure to sunlight. This makes infection by dust extremely improbable. (3) The lisease seems distinctly communicable in the sense hat the organism is transmitted from the nasal secre- ion of one person to another. The transmission f the organism, however, is not synonymous with he transmission of the disease. The disease in some pidemics affects mostly infants, in others older children, nd sometimes chiefly adults. The reason for this s not at all clear. (4) It seems unlikely that infec- ion is frequently due to trauma or the result of ver-exertion. Cerebro-spinal meningitis in animals seems o have no connexion with the disease in men. There is o evidence to show that the disease is carried by vermin r insects. (5) The susceptibility of the individual is an nportant factor in the development of the disease. (6) The eriod of incubation is short, from one to four days.) There is no evidence of the occurrence of a dwelling nfection. (8) It would seem well to isolate most cases of erebro-spinal meningitis occurring in the crowded tene- nent districts. In the epidemic in New York last winter nd spring, Darlington said that out of 365 cases reported here were 344 deaths, a mortality of 91 per cent. All the ses of the disease were carefully indexed and arranged cording to sections and streets. In a group of 58 instances which more than one case occurred in a house, repre- nting 144 cases in all, the following results were shown: 39 instances, 2 cases to a house; in 15 instances, 3 cases a house; in 2 instances, 4 cases to a house; in 1 instance, cases to a house; in 1 instance 8 cases to a house. In of these instances the disease occurred in the families janitors, appearing to have been communicated to or by em in the ordinary intercourse with the tenants. In instances the disease appeared to have been contracted school.

52. Cheyne-Stokes Respiration.

URLS (*Gazz. degli Osped.*, December 10th, 1905) has studied e above phenomenon in a patient suffering from arterio- lerosis and failing heart, who presented the usual sym- oms of Cheyne-Stokes breathing for a somewhat pro- nged period. The trend of recent researches seems to ow that the respiratory rhythm is controlled by centres ich possess an automatic as well as a reflex excita- ity. On this view Cheyne-Stokes breathing indicates a ninution in the reflex excitability whilst the automatic citability persists. In normal breathing CO_2 acts as a fficient irritant for the regular reflex excitement of the piratory centre; when this latter becomes affected by anges in the circulation—by poisons, etc.—the reflex citability is the first to be affected, and the normal antity of CO_2 is no longer sufficient to excite a reflex. e fact that external or internal (the will) stimuli may er the respiratory rhythm does not impair the hypo- sis that CO_2 is the usual excitant of the respiratory act. m experiments made upon the author's patient, it did appear that oxygen had any appreciable action on the yne-Stokes rhythm. Under CO_2 the respiratory pauses dually disappeared. Morphine and its congeners exaggerated the phenomena, whilst strychnine and similar drugs diminished them. Vaso-dilators (caffein, amyl nitrite, etc.) modified the Cheyne-Stokes breathing in the direction of lessening it, and even making it disappear entirely in cases where it was due to changes in the circulation.

53. Bacteria in the Normal Adult Intestine.

HARRIS A. HOUGHTON (*Med. Record*, December 30th, 1905) says that while the presence of bacteria in the intestine is not essential, any bacterial content from complete negation to saturation may be considered normal when the numbers, virulence, and microbic association fall short of overcoming adverse influences provided by nature for preventing the formation of substances detrimental to the welfare of the whole organism. The urine of perfectly healthy individuals should be practically free from ethereal sulphates, assuming, of course, that their formation is impossible in any other place than the enteric tract, or in any other manner than the one under discussion. The question is complicated, however, by the food, manner of life, etc., of modern man, and the author reviews at length the work of the various observers who have investigated the flora of the human intestine. The results seem to show that there is a short neutral zone just above the ileo-caecal valve, where the bacteria are less in numbers than in the caecal region below, and sometimes more and sometimes less than in the duodenum and stomach above. From the stomach to this neutral zone the bacterial content both absolute and relative is a varying quantity, depending on a number of factors. At all times the numbers are less than in the caecum or colon. As the ileo-caecal valve is approached, and this neutral zone is passed, the stream becomes more constant, and in the caecum there is an enormous rise in both the relative and absolute values, both to decline again in the colon. The stomach and the small intestine down as far as the neutral zone just referred to can be made sterile in all probability, and it can be stated with confidence that withholding of food for a few hours, care of the mouth, and antiseptic stomach lavage produce the desired end. Even the most rigorous régime of starvation, cathartics, and enemata fails, however, to empty the caecum of its germ-laden contents, a fact which suggests a point in the etiology of appendicitis. It must be remembered that enterotoxismu- is the price which humanity pays for its artificial environs ment and urban congestion. In most cases it means some wrong habit of living. In others it seems to mean a diathesis.

SURGERY.

54. The Treatment of Cirsoid Aneurysm of the Scalp.

KROGIUS (*Zentralbl. f. Chir.*, No. 39, 1905) points out that of the operative methods hitherto practised for the cure of angioma arteriale racemosum, or cirsoid aneurysm of the scalp, all are unsatisfactory in their results, and some, especially cauterization and excision, are very dangerous. A case is reported in which the author applied with success an operation which, he states, is very simple and free from serious risk, and, moreover, likely to effect a complete and durable cure. This operation consists in the application of a continuous row of subcutaneous ligatures around the whole periphery of the pulsating tumour. The ligatures as applied by the author's method, without destroying the vitality of the skin, abolishes the dilated blood vessels, and this in a simple manner causes total disappearance of the angioma. Each ligature is applied by passing a curved needle, armed with a catgut ligature, under all the soft parts down to the bone, and by bringing together the ends of the ligature by a needle with a less pronounced curve, passed just under the skin. A small extent of the scalp is taken up by each ligature, but care should be taken that the row of ligatures be a continuous one, and that no free intervening tissue be left between any contiguous portions of catgut. Each ligature should be securely tied. Subcutaneous ligation in cases of cirsoid aneurysm is by no means, the author acknowledges, a new method, and has been applied by Beck and Stierlin, but as practised by these surgeons it seems to be less simple than that described in this paper, and in some instances has been practised as an indirect method of radical treatment, and with the object of arresting haemorrhage during excision of the vascular growth.

55. Pancreatitis and Biliary Lithiasis.

QUÉNU AND DUVAL (*Rev. de Chir.*, No. 10, 1905), who have recently operated in four cases of pancreatitis in association with biliary lithiasis, publish the results of a wide study of this complication, to which they state but little attention has hitherto been paid by French surgeons. The frequent coexistence of these two affections has long been recognized as a pathological fact, and the increased number of recorded instances in recent surgical literature fully justify the conclusion of Fuchs that the most frequent cause of pancreatitis, whether this be of the haemorrhagic or of the suppurative variety, is biliary lithiasis. The authors find, on an analysis of 118 collected cases of associated pancreatis and biliary disorder, that the chronic form of the inflammatory affection of the pancreas is most frequently met with in lithiasis of the common bile duct, whilst suppurative pancreatitis is in most instances a complication of vesicular lithiasis, and the haemorrhagic variety of the presence of calculi in the ampulla of Vater. In a very large majority of these cases there is a history of biliary lithiasis of long standing, and it seems that only in rare instances does the pancreatitis show itself before the appearance of any clear signs of hepatic disorder. In the chronic form of pancreatitis, which occurs in about one-half of the cases tabulated by the authors, the inflammatory affection is almost always localized only in the head of the gland, which is either uniformly indurated or studded with numerous hard nodules. In discussing the pathology of this association of pancreatic and biliary disorders, the authors, whilst acknowledging that in most instances the pancreatitis is the result either of (*a*) infection by contiguity, of which the common bile duct is the starting point, or of (*b*) direct ascending canalicular infection of duodenal or biliary origin, hold that it is difficult to explain some cases by either of these views, and that the hypothesis of an original infection common to both liver and pancreas, and resulting on the one hand in cholelithiasis, and on the other in pancreatitis, may be regarded as a logical one. With regard to the diagnosis, it is pointed out that chronic pancreatitis frequently remains latent, and cannot be discovered except on direct palpation of the inflamed gland. A pancreatic swelling that can be felt through the abdominal wall affords a valuable sign, but such is of very rare occurrence, and when present does not prove an inflammatory condition of the gland. Positive results, however, may be obtained by modern methods of urinary and faecal examinations for determining the state of the gland. In their remarks on the treatment of associated pancreatitis, the authors suggest the advisability of practising biliary drainage as well as direct drainage of the pancreas. The biliary passages, they argue, are always infected in these cases, and are probably the original sources of the infection. Chronic pancreatitis when associated with biliary lithiasis indicates drainage of the bile ducts at a part where free permeability is evident. If the gall bladder be relatively healthy and of ordinary size, if the cystic duct be permeable, and if the lithiasis be purely vesicular, cholecystostomy, the authors hold, should suffice, and be regarded as the operation of election. If, on the other hand, the gall bladder be atrophied, and its walls degenerated, and the cystic duct be obliterated, it would be necessary to perform cholecystectomy, and to establish drainage by opening, according to the condition of the case, either the hepatic or the common duct. Enterobiliary anastomosis under such circumstances is rejected on account of the difficulties of its execution, its greater operative danger, and the possibility of serious secondary haemorrhage.

56. Coexistence of Congenital Luxations of the Hip and Knee.

TRIDON (*Rev. d'Orthop.*, No. 6, 1905) having recently had an opportunity of observing in the hospital service of Kermisson a little girl who was the subject of both congenital luxation of the hip and forward displacement of the lower end of the femur in the same limb, has made investigations with the object of determining whether this association of deformities was quite fortuitous in this case, or, on the contrary, if it be fairly frequent if not habitual. He finds that such association is certainly not exceptional, since it occurred in 20 out of 121 recorded cases of congenital luxation of the knee. As the deformity of the knee is usually evident at the time of birth, and can hardly fail to be overlooked, while, on the other hand, luxation of the hip remains latent during some months, and is seldom diagnosed before the age of 2 years, it is possible, the author points out, that the co-existence of the two malformations has in a certain number of cases escaped observation. Statistics collected by the author indicate that congenital luxation of the hip is modified in some of its clinical details by its association with congenital luxation of the knee. The proportion of girls to boys is much reduced, and there is no longer any difference in the relative numbers of unilateral and bilateral luxations. In considering whether the study of these associated malformations be capable of throwing any light on their pathological origin, the author points out that the theory of arrested development, which is almost generally accepted as an explanation of congenital luxation of the hip, cannot be applied to the usual form of congenital malformation of the knee. It is suggested that in some cases of luxation of the hip the deformity may be the result of some intrauterine mechanism resembling those which cause traumatic luxation, but in which sudden violence is replaced by a prolonged force acting on the lower limbs when resting in a faulty position. The prognosis of the operative treatment for congenital luxation of the hip is not seriously affected, the author thinks, by the coexistence of congenital luxation of the knee. The information he has obtained on this point, though very meagre, is quite opposed to the view held by Redlon that operative treatment of congenital luxation of the hip associated with some other congenital deformity is almost quite hopeless with regard to an anatomical cure of the malformation. The association of the two deformities presents no special contraindication, but, if the author's views on their pathological causation be correct, quite the reverse. The surgeon should not hesitate to apply the same treatment as if each were isolated—that is to say, he would reduce the displaced lower end of the femur as soon as possible after birth, and would proceed to deal with the coxofemoral luxation after an interval varying from two to five years.

OBSTETRICS.

57. Rupture of Uterus during Pregnancy through Cicatrix of Caesarean Section Wound.

J. M. MUNRO KERR (*Journ. of Gyn. and Obstet.*, November 1st, 1904) describes a case of spontaneous rupture of the uterus occurring during pregnancy in a woman upon whom he had performed Caesarean section two years before. At that operation he employed the fundal incision of Fritsch, and on making the incision came down immediately upon the placenta. The mother recovered well from the operation; the wound healed by first intention, and the temperature never rose above normal. The pelvis of the patient was of the flat rachitic type, the diagonal conjugate being 3¾ in. About two years later the woman was admitted for a second operation. She was believed to be in the thirty-seventh week of pregnancy. Her general condition was good. The abdomen was irregularly enlarged; the cervix was not taken up, but admitted one finger. At about midnight on the day of her admission she complained of slight pain in the epigastrium, which extended upwards and to the right, but in spite of this pain she fell asleep and slept until 5 a.m. A bloody discharge from the vagina was then noticed, and there was slight pain in the right iliac region. At 7 a.m. the temperature was 97.6° F., the pulse 80. The pain had now spread over the abdomen, and was thought to be caused by painful uterine contractions. At 11 a.m. she was seen by Munro Kerr, who suggested the possibility that the old cicatrix in the uterus had given way. There was at this time considerable abdominal tenderness, but the pulse was 84, regular, and of good tension. At 12 o'clock the abdominal tenderness had become marked, the pulse was 90, the temperature subnormal, and the breathing rapid; the fetal parts were distinguishable with abnormal ease and percussion gave a slightly dull note in the flanks. The presenting parts could not be felt per vaginam. An immediate laparotomy was decided upon. When the abdomen was opened a large quantity of blood escaped and the intact membranes and placenta presented; a full time dead child was extracted. The uterus was found t have ruptured through the old scar. There were only tw slight adhesions—one to the omentum and one to th abdominal wall. The uterus was removed by supra vaginal hysterectomy, and the patient afterwards made good recovery. There are several points of interest about th case. In the first place, there was an absence of that con plete collapse which is often held to be an essential feature of a rupture. The symptoms were such that the author at irst inclined to the view that adhesions were limiting any ffusion of blood. In two other recent cases of rupture a imilar absence of collapse has been observed. The case lso suggests the three following questions: (1) Did the act that the incision was a fundal one predispose to upture? (2) Was there anything in the uterine wound t the previous Caesarean section which favoured the upture? (3) Is the danger of rupture such that non-terilization should be condemned? The first of these uestions the author would answer in the affirmative. He olds that with a fundal incision there is less likelihood han with a longitudinal one of strong adhesions being ormed which will support the cicatrix. He would never ow employ the fundal incision unless the uterus was bout to be removed. With regard to the second question, e believes that the placenta having been in the first nstance in the path of his incision may have led to the ormation of a cicatrix weaker than normal, and that this icatrix may have been further weakened by the development upon it of the second placenta. In the other similar ase of fundal rupture which he has found reported, the lacenta had been situated also upon the old scar. As to he third question, the results of section both for mother nd child are so good that the present tendency is against terilization. The mortality of first sections appears to be bout 6.8 per cent. only, and for repeated Caesarean sections Wallace, in an exhaustive paper on the subject, puts he mortality still lower. The author has performed aesarean section twice on each of two cases, and has btained satisfactory results both with regard to the mothers and the children.

58. Caesarean Section in Myasthenia Gravis Complicated by Pregnancy.

E. GEMMELL (*Journ. of Obstet. and Gynec. of the British mpire*, April, 1903) describes a case of myasthenia gravis omplicated by pregnancy in which Caesarean section was uccessfully performed. The patient was a married woman, ged 25, who was admitted into hospital complaining of rogressive weakness of the limbs, of eighteen months' uration. For some months also there had been a difficulty of speech and some trouble in swallowing. The atient was well nourished and of a healthy complexion; he appearance of the face was remarkable because of a xity of expression, the lips were constantly apart, the eck bent back and the eyelids drooping. The weakness as much more marked in some muscles than in others, s for example in the lower limbs the ileo-psoas and gluteal uscles were affected, while the movements of the leg and ot were fairly strong. The deep reflexes were normal nd the muscles of both limbs reacted normally to electricity. The patient was found soon after admission to the ospital to be pregnant and was sent to the lying-in hospital about a week before the date on which her confinement was expected. By this time her condition was one f extreme weakness and exhaustion, and she suffered om frequent attacks of dyspnoea. Six days later the yspnoea became continuous and immediate delivery by aesarean section was decided upon in view of the great anger that death should occur from respiratory paralysis, ther before labour set in or during delivery. The woman ad been led to dread the effect of labour, and this was an ditional reason for delivery by Caesarean section. The peration was successfully performed, the woman's recovery from it was uninterrupted and there was a gradual mprovement in the respiration during convalescence; the ild was healthy and well nourished. When last seen, a w weeks after leaving the hospital, the woman's general ndition showed some slight improvement only, but there as complete freedom from the attacks of dyspnoea.

GYNAECOLOGY.

59. Acute Torsion of Pedunculated Fibroids.

OURSIER (*Rev. de Gyn. et de Chirurg.*, November-December, 05) reports 2 cases of torsion of a pedunculated subserous ro-myoma of the uterus, one in an old and the other in young subject. The latter was a single woman, 30 years age, who after a shock was seized with a violent fit of in in the hypogastrium, followed by bilious vomiting. fter a few days' rest the symptoms subsided, but repeated tacks occurred, always relieved by rest. One seizure as very severe; it resulted in the discovery of a tumour, d an operation was performed over a year after the first tack. A livid, round tumour was discovered adherent to small intestine and omentum; the pedicle twisted spirally, one turn sprang from the fundus of the uterus; it was ligatured and divided. Recovery was rapid. The second patient was 54; the menopause had occurred eight years previously. She was seized with a violent attack of pain, radiating to the loins; there was obstinate constipation without sickness or rise of temperature. A tumour was detected, and the patient sent into hospital. A hard, round, dark-coloured tumour was discovered attached by recent adhesions to the omentum, small intestines, and appendices epiploicae. The pedicle, twisted one turn and a half, sprang from the left cornu. It was secured and divided; the patient recovered.

60. Garrulitas Vaginae or Flatus Vaginalis.

KOSMINSKI (*Zentralbl. f. Gynäk.*, No. 50, 1905) has observed several cases of this disagreeable condition. Gas may escape from the vagina when there is decomposing matter in the upper part of the genital tract, and intestinal flatus may pass through the vagina when there is a fistulous communication with the bowel. Great stress has been laid by Veit on the development of gas in vaginal secretions through the influence of micro-organisms. This phenomenon has been observed, but it is a secondary symptomatic condition associated with vaginal inflammation, especially colpitis parasitica. More often the bubbles do not represent air coming out of the vagina, for they are formed from air entering that canal. There is a primary garrulitas vaginae, and it is the most usual type of that affection. Atmospheric air enters the vagina under certain conditions, and when these conditions are changed it is expelled. The presence of air and its escape alike cause disagreeable sensations, but for evident reasons patients do not care to consult a doctor except when the escape of air is accompanied with an audible noise. Kosminski closely observed 4 cases of garrulitas vaginae; in 3 the patients were under 30, and all had borne children. By making the patient bend her body forward and part her thighs air could be made to enter the vagina. When she straightened out her body it was expelled; the patient could feel it escaping. Sometimes the expulsion of air was audible. Thus the condition in question is usually due to purely mechanical causes, which are self-evident. The vulvar structures are relaxed in these cases; they gape when the body is flexed and air enters the vagina. When the patient straightens her body, intra-abdominal pressure expels the air. Kosminski noted that in one of his cases there was much mucus in the vagina quite free from frothiness. After several flexions and extensions of the trunk, which admitted air into the vagina, the mucus became charged with bubbles. In another case the mucus was found to be frothy before the clinical experiments were commenced; it became much more so by the time that they were concluded. Hence the air bubbles had nothing to do in either case with gas-producing germs. As relaxation of the vulvar and vaginal tissues is the cause of this disagreeable condition, the remedy is evident. In some cases the perineum is deficient, and a plastic operation is indicated; in others simple attention to nutrition will suffice; a pessary and an abdominal belt are often of service.

THERAPEUTICS.

61. The Action of Digitalis, Strophanthus, Strychnine, and Nicotine upon the Heart.

IN a research upon the effect of a number of drugs upon the heart Kakowski (*Archiv. Intern. de Pharmacodyn. et de Thérap.*, vol. xv, 1905) applied the drugs by means of an artificial circulation through the excised organ. As examples of warm-blooded animals the hearts of rabbits and cats were used, and were supplied with Locke's fluid, containing sodium, potassium, and calcium chloride, sodium bicarbonate, dextrose and oxygen. A comparison was made of the digitalis glucosides and preparations. Digitalin, digitalein, digitoxin, the tincture, and the infusion of the leaves of digitalis were all found to have the same kind of action. But the more typical results were obtained with the tincture and the infusion, the latter giving the most marked slowing and strengthening of the heart beat; this is in accordance with general experience; the watery extract, however, is not so convenient to prepare and keeps badly; also, like the tincture, it does not contain a constant amount of the active glucosides, and probably the proportions of each differ in different extracts. Hence, although for accurate dosage the preparations of digitalin, digitalein and digitoxin possess a distinct advantage, the writer, nevertheless, concludes that no glucoside can as yet supply the place of the infusion. A narrowing of the coronary vessels takes place with all the preparations. In a similar way the active principle strophanthin was compared with the tincture of strophanthus. Here a different result was obtained, for strophanthin was found to be more certain than the tincture, and Kakowski recommends its extended use. Strychnine exerted a direct beneficial effect upon the heart, slowing and regulating the rhythm, but not adding to the strength of the beat. Strychnine is not a strong poison for the heart itself. Nicotine in warm-blooded hearts caused no marked stimulation of the local inhibitory apparatus, such as it does in the cold-blooded; there occurred some strengthening of the beat and improvement of the rhythm, followed by weakening with a more prolonged administration.

62. Tubercle Bacilli Extract.

J. Sawyer (*Zeit. für Tub. und Heilstatt.*, June, 1905) has employed the tubercle bacilli extract, as prepared by K. von Ruck, in the treatment of 25 cases of early phthisis. The diagnosis of phthisis was made in every case either from the preceding clinical course and diagnostic physical signs or from a positive reaction to the tuberculin test. Eleven of the patients discontinued the treatment before recovery was attained, after periods of time which varied from one to three months in the different cases. In each of these 11 cases there was a more or less marked local improvement, and in most cases also improvement in the general condition. The degree of the improvement varied with the length of the treatment and the doses of the extract which had been reached. In 14 cases the author was able to complete his course of treatment, and among the cases he has had no failures. In all but one case the physical signs absolutely disappeared. In about half the cases the tuberculin test was applied after the treatment, and no reaction followed. Among the cases in which the tuberculin test gave a negative result was the one already mentioned in which the physical signs had not become absolutely normal. Where the tuberculin test could not be applied the subsequent history of the patients proved that recovery had been obtained. The author does not doubt that if he had included more advanced cases he would have had failures to record, and he admits that many of his cases would have given favourable results if treatment on hygienic lines had been the only one adopted. But when he institutes a comparison between the cases treated by the extract and similar cases treated similarly but without the extract he finds that the former cases have given undoubtedly the best results. In some cases treated on hygienic lines he has seen the disease advance in spite of treatment and even in the most satisfactory, the physical signs have not completely disappeared, and if the tuberculin test were applied the patients have almost always been found still to react to it. The author has not found in his own practice any undesirable complications to occur as a result either of the use of the tubercle bacilli extract or of the tuberculin test.

63. Tuberculin Treatment of Pulmonary Phthisis.

O. Amrein (*Beitr. z. Klin. d. Tuberk.*, July, 1905) details the course and treatment of 24 cases of phthisis treated with a series of subcutaneous injections of Koch's Tuberculin R. A series of 10 to 15 such injections is given; the dose increases from 0.00002 up to from 0.1 to 0.6 mg., given at intervals of two to three days. After this a series of from 10 to 50 injections of Koch's Old Tuberculin is given in doses generally increasing from 0.0001 up to 1.0 gram. If the patient's temperature rose to 37.0° C. or higher after any of these injections, the next dose given was usually diminished, the series of increasing doses thus starting again at a slightly lower level. Amrein finds that this treatment produces definite and considerable improvement in early cases of phthisis; two-thirds of the patients in the second and in the third stages of pulmonary phthisis were improved by it. The pulse becomes notably slower during and after this treatment; the body weight increases little or not at all. Both the local and the general condition improve; the treatment demands constant care and supervision in its administration.

64. The Therapeutic Action of Thermodine.

Spineanu (*Arch. Internat. de Pharm. et de Thér.*, vol. xiv, 1905) finds that thermodine—the ethyl ester of acetylethoxyphenylcarbamic acid—has a powerful antipyretic action in all cases of fever. It should be given in quantities of from 45 to 75 gr. a day for from one to five days; in continued fevers, usually for three days. It is very insoluble, except in acid media, and is best given in combination with ♏ vijss to ♏ xv of acetyl chloride, syrup, and water to ʒ v, the whole making a pleasant lemonade-like draught. Thus administered, thermodine is an efficient antipyretic; it is also a mild diuretic, and appears not to depress either the heart or the respiratory centre. Spineanu also claims that it destroys the haematozoa circulating in the blood of patients with malaria.

65. The Fate of Boric Acid in the Body.

Experiments upon this subject are reported by Rost in the *Arch. Internat. de Pharmacodyn. et de Thérap.*, vol. xv, 1905. His results show that the kidneys are practically the only channels by which elimination of boric acid takes place. The quantity occurring in the saliva, the milk, perspiration, and faeces is in each case quite minimal. Fifty per cent. of the quantity administered was excreted in the urine within twelve hours. The substance does not, however, disappear from the body as rapidly as was thought, as the remaining portion is not excreted for three or four days, and if boric acid be repeatedly taken it may accumulate in the body.

PATHOLOGY.

66. Calcareous Degeneration.

Oskar Klotz (*Journ. of Exper. Med.*, November, 1905) finds that bone formation and pathological calcareous infiltration are wholly distinct processes. In the former there is no evidence of associated fatty change, and the cells associated with the process of deposition of calcium are functionally active. In pathological calcification, on the other hand, there is antecedent fatty change in the affected areas, and the cells involved constantly present evidences of degeneration. In the latter type of change, again, there is a tendency to the formation of calcium soaps, by combination of the fats present with calcium salts. In old areas of calcification soaps are largely if not entirely wanting, although, when the process is still advancing, it is sometimes possible to detect them at the periphery. The reactions given by old areas of calcification are almost entirely those of calcium phosphate, though some calcium carbonate may occasionally be identified. The final stage in calcification is regarded by the author as an interaction between the calcium soap albuminates and substances containing phosphoric and carbonic acids. The acid sodium phosphates of the lymph act on the calcium soap, with the formation of the highly insoluble calcium phosphates and the liberation of diffusible sodium soap, while similarly alkaline carbonates form calcium carbonate, and liberate sodium and potassium soaps.

67. Influenza Bacillus in Bronchiectasis.

Boggs (*Amer. Jour. of Med. Sci.*, November, 1905) describes 5 definite cases of bronchiectasis in which the influenza bacillus was found in the sputum. In two other cases of chronic bronchitis with probable dilatation of the bronchi the influenza bacillus was obtained in pure culture. Both these cases were in middle-aged men, who had had a cough for years with fever and night sweats but no haemoptysis. That dilatation of the bronchi may occur in the course of acute influenza, either of the bronchial or pneumonic type, has been shown by the cultivation of the specific organism from the lesions after death. Similar cases have also been reported in which recovery from the acute illness was followed by the gradual development of chronic bronchitis and bronchiectasis. Boggs concludes that the influenza bacillus is probably capable of producing extensive pathological changes in the lungs, leading at times to bronchiectasis. The organism may be a secondary invader or may be associated with other bacteria, in which case the latter may be the predominant factor. In the small series reported there was no determinable clinical difference between the pure influenzal infections and the mixed or non-influenzal cases. The very close resemblance of these cases of bronchiectasis to some cases of chronic tuberculosis with cavity formation is important and may in the absence of cultural investigations lead to a wrong diagnosis. Physical signs alone, therefore, cannot be relied upon for a positive diagnosis of tuberculosis. The author adds the warning that care should be taken to prevent the possible infection of other cases from these chronic cases having the influenza bacillus in the sputum as the organism may not have lost its pathogenicity by a continued growth in these old infections.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

68. Neurasthenic State Caused by Excessive Light.

AS. E. WOODRUFF (*Med. Record*, December 23rd, 1905) st refers to the various ways in which different forms of ht have been made use of for therapeutic purposes, and n goes on to explain his theory that an excess of light y be injurious, owing to the underlying law that the ect of the short waves is always destructive and never nstructive. This view is that the various races have n provided by Nature with a degree of cutaneous mentation suitable for the average intensity of light the region in which they are native. The blonde, fairnned races are indigenous in the comparatively dark, omy, northern countries, whereas the inhabitants of pical and subtropical latitudes are universally brunette. s principle is so radical that the blondes, in the course time, tend to become extinct if they migrate to more shiny regions. By extending the process of reasoning, author states that the excess of sunlight to which the ple of many parts of this country are exposed is tinctly injurious and is a potent cause of neurasthenia. states that, as a matter of fact, neurasthenia is commer in blondes than in brunettes, is worse in cities n in the country, and is vastly benefited or cured by noval to dark, cloudy climates. The same element is mportance in the treatment of tuberculosis, and the hor says that excellent results in treating the disease his country and in Europe are obtained in sanatoriums re there is a minimum of sunshine. Woodruff sugs that a uniform system of recording complexions be pted, for the purpose of gathering statistics, and he devised a numerical scheme of notation, by using ch it will be possible to secure uniformity in the rds.

Angina Pectoris.

ERVINI (*Rif. Med.*, November 18th, 1905) discusses the tion which patients usually assume during the attack ngina. Most authors lay stress on the immobility h is assumed by these unfortunate subjects, but either r or make no note of the actual position. The author ves that the position of election is one of retroversion, the head and trunk extended, the whole body being l in this attitude. Not every case assumes this posi, but in the author's experience it is sufficiently cont to be an aid in the differential diagnosis in the ous types of spasmodic dyspnoea—for example, in ma or uraemia; so that in addition to the two carl symptoms of pain and anguish he would add a rextended position of the head and trunk. This attiwas exemplified in the 6 cases he records in the nt contribution.

The Pyrexia of Tuberculosis.

RYN (*Journ. Méd. de Brux.*, September 19th, 1905) ves that the temperature in tuberculosis is a sign not ded to with sufficient care. The Belgian Minister of s has recently instituted a service for the control of instruments, so that in Belgium the clinical thermors are now absolutely reliable. Van Ryn recomds the mouth or rectum in preference to the axilla, insists that even the so-called half-minute thermors should be left for ten or fifteen minutes to register. eatment he has found that whatever the stage of the disrest is the most valuable, indeed the essential, measure, that rest in bed is necessary if the couch has not sufficient to reduce the temperature to normal within night. The extent of pulmonary lesion is no guide e time required in bed; sometimes the initial fever res months to reduce, while in the same case a few s are enough to reduce the fever of softening. In a few bed alone is enough; as a rule, however, drug treatis useful in addition. For the fever of onset, and often e fever of softening, progressively-increasing doses licylate of soda with arsenic have been found most l. If this treatment has not been found sucl within a month, or if gastric intolerance is ced, it is best to try the bromhydrate of quinine ding to Jaccoud's method: the first day 2 grams in four doses at intervals of ten minutes, seven hours e the rise of temperature; the second day, 1½ grams in three doses; the third day, 1 gram in two doses; then after an interval of two or three days the same series repeated. If this method fails, injections (5 centigram) of cacodylate of soda may be given daily for ten consecutive days, and repeated after a week's interval. If these means all fail, the prognosis must be considered grave. In the fever of absorption, salicylic acid is the best drug. Jaccoud's method is to give ½-gram doses repeated four times at intervals of a quarter of an hour, four hours before the time at which the temperature usually begins to rise, three doses being given the second day, two the third, and so on; the series being repeated if necessary. In pyrexia due to patches of bronchopneumonia van Ryn has found the best results from blistering or dry-cupping with antimony internally.

71. Ficker's Serum in the Diagnosis of Typhoid.

DR. FUA (*Clin. Mod.*, November 22nd, 1905) is assured that the reaction given by Ficker's serum in typhoid fever is of equal diagnostic value to that of Widal. Further, it is much more easy to employ, since this can be done without the aid of a microscope or laboratory, only a culture of the dead bacillus being required, whereas in Widal's test a fresh culture is necessary. It is an advantage that one uses a culture of constant virulence, which is not possible in the Widal reaction. He has employed Ficker's reaction in 28 cases of typhoid fever; in all of them he obtained a positive reaction which was confirmed by Widal's test. He attempted to retain the reaction in other cases of diabetes and tubercle, but always with a negative result. He considers the simplicity of the test its chief recommendation.

SURGERY.

72. Traumatic Myositis Ossificans.

GRÜNBAUM (*Wien. med. Presse*, No. 39, 1905) points out that there are two recognized forms of traumatic muscular ossification, one due to repeated slight irritation, the other to a single injury of a more or less severe character. Whilst the former, of which the so-called "rider's bone" is a characteristic instance, is well known, and has been frequently recorded, the more decidedly traumatic variety has until quite recently been regarded as an exceptional lesion. Of late, however, in consequence, probably, of the more careful observation of injuries necessitated by claims for compensation, and also of the constant and methodical use of the Roentgen rays, myositis ossificans, suddenly developed after a severe injury, has been shown by a much increased number of published instances to be by no means of infrequent occurrence. The author reports 8 cases which he has observed in the course of the last four years. A review of these records, six dealing with injury to the elbow, and the remaining two injury to the thigh, shows that in all the cases the lesion presented a typical course. As a result of severe injury, one, for instance, of a kick on the thigh, or of contusion or laceration of the elbow, there is painful swelling, together with much bruising of the soft parts. Whilst as a rule complete restoration occurs without any marked changes of the injured structures, in some few cases the swelling progressively becomes firmer, and finally feels as hard as bone. Ossification in such cases is developed in a relatively brief period. In one recorded case a bony growth could be made out on the nineteenth day after the date of injury, and in two of the author's cases muscular ossification was demonstrated by the Roentgen rays in the course of the fourth week. In a very large majority of published instances the affected muscle was either the quadriceps femoris or the brachialis anticus. The other muscles of the arm, and also the psoas muscle, may also be thus affected after injury, but instances of this kind are rare. With regard to the disputed question whether the bony growth be of muscular or periosteal origin, Grünbaum holds that although there have certainly been instances in which the ossification originated in shreds of periosteum detached through the injury, the traumatic osteoma is more frequently developed in the muscular tissue quite independently of periosteum. It is still an open question whether the bony swelling be the result of an inflammatory process or a new growth; whether, in fact, it should be called traumatic myositis ossificans or traumatic osteoma of muscle. The main point that has been determined by microscopical examination is that the development of the neoplasm is always associated with a more or less abundant growth of connective tissue in the affected muscle. A favourable, and probably a necessary, condition of the development of the swelling is an abundant effusion of blood at the time of the injury. The effused blood, it is assumed, stimulates the proliferation of connective tissue, and supplies nutritive material in furtherance of its development. In cases of fracture, when there is little or no contusion, the formation of callus is likely to be very slight or to fail altogether. The hard swelling, whether it be a new growth or an inflammatory deposit, is essentially benign, as it never attains excessive proportions, and never presents the characters of a malignant tumour. As it sometimes undergoes spontaneous absorption, and rarely causes any trouble, the surgeon, the author holds, should refrain (as a rule) from radical operation. Should, however, it cause much pain and interfere with the function of the affected limb, it would be advisable to remove it, the operation being a simple one when the bony deposit is distinctly circumscribed, and has but slight if any adhesions to the periosteum of the subjacent bone.

73. Ileo-Rectal Anastomosis in High Cancer of the Rectum.

Delagénière (*Bull. et Mém. de la Soc. de Chir.*, No. 31, 1905) holds that ileo-rectal anastomosis ought always to be preferred to colostomy in cases of inoperable cancer of the upper part of the rectum and of the lower part of the sigmoid flexure, when such operation is permitted by the situation of the tumour. The number of cases in which this anastomosis is likely to be found practicable must be somewhat restricted, as this operation cannot be performed when the volume of the tumour prevents free access to the sound portion of rectum in the recto-vesical or recto-uterine *cul-de-sac*, or when the disease has extended so far down the rectum that a sufficient space of healthy intestine cannot be found for the application of sutures. Two cases are reported in which ileo-rectal anastomosis, though only of temporary benefit, afforded considerable relief, the symptoms of obstruction having been removed and the general health improved. The chief objection to this operation is the probable risk of extension of the cancerous growth to the anastomotic opening, and of consequent intestinal obstruction. In such case it would be advisable, the author points out, to have recourse to iliac colostomy.

74. Partial Occlusion of Abdominal Aorta.

Halsted (*Johns Hopkins Hospital Bull.*, October, 1905) publishes a preliminary report of the results of experiments recently performed by Sowers and himself upon the abdominal aorta and other large blood vessels of dogs. These experiments were made with the idea that the aorta might be successfully occluded in man if the operation were undertaken in several acts instead of one. As gradual compression in the ordinary use of the term was assumed to be incompatible with the preservation of asepsis, the method adopted was one that permitted in each *entr'acte* complete closure of the wound, the conditions of such method being that the apparatus or material applied to the aorta should not be bulky nor endanger by its form or substance the adjacent parts; and that it should admit of easy readjustment at subsequent operations. Bands of silver and aluminium were employed, with the belief that at each operation the amount of constriction could be regulated to a nicety. The metallic band was first curled in perfect cylinder form about the vessel, and then tightened by finger pressure. With the object of obviating the effects of undue compression of the pulsating and constricted aorta, both the width and the thickness of the bands were reduced in a later series of experiments. Much care is evidently required in the practice of this method. Attempts to diminish the blood pressure very gradually and with accuracy are made futile by an imperfection in the rolling of the band, as an imperfectly rolled band might, even if loosely applied, injure the intima and so cause thrombosis and completely interrupt the circulation. In a summary of the results of these experiments, it is stated that thrombosis was not observed in a single instance. Applied tightly enough to completely interrupt the circulation, the band caused atrophy and sometimes complete absorption of the aortic wall, haemorrhage in such cases having invariably been prevented by the formation of connective tissue. With two or three exceptions, there was no evidence of adhesion of the folded intima under the band. Loosely applied bands may, it is asserte remain on the aorta, femorals, and carotids for mont without causing macroscopic injury to the walls of t artery. In experiments of this kind the band at the e of so long an interval as one hundred days, shimme brightly under a normal-looking peritoneum, causing visible reaction and capable of being as easily remov from the aortic wall as when originally applied. T author suggests that there may be a place in surgery f the partially occluding band. The smaller arteries, t ligation of which endangers merely the life of a lim may prove as suitable for partial occlusion as the ao which has never been successfully ligatured in ma Whilst recognizing the meagreness of our knowledge this subject, the author states that he should proba feel it his duty to test the value of partial rather th resort to complete occlusion of the aorta, common carot popliteal and other arteries whose ligature is attend with great danger to life or limb. Reference is made two instances of its application on the human subject, the conditions in each were too unfavourable to permit a definite conclusions as to the results.

OBSTETRICS.

75. Consecutive Simple and Twin Pregnancy in the Sam Fallopian Tube.

Michin (*Monats. f. Geb. u. Gynäk.*, October, 1905, p. 4 has recently published an instance of repeated pregnan in one Fallopian tube. A woman, aged 32, came un his care in December, 1904, suffering from hypogast pains and uterine haemorrhage. She had been mar for eight years, and had never passed through a nor pregnancy, but two years before she came under Mich care she underwent a vaginal operation for rupture left tubal sac, which was laid well open and emptied, patient making a good recovery. She had previou passed through several attacks of pelvic inflammati The catamenia returned, and became very profuse altho regular, the last ended on October 5th, 1904. Early December hypogastric pains set in, followed by an att of syncope and haemorrhage; the pains persisted, extended to the left inguinal region. Michin obser that the patient was very anaemic, the abdomen was tended and tender inferiorly, there was colostrum in breasts, the cervix was soft, the body of the ute enlarged, and a tender, oval mass as big as a fist lay o left side. A pulsating vessel could plainly be detecte the left vaginal fornix. To add to the complicatio small ovarian cyst lay to the right of the ute On December 18th Michin operated, removing a se cyst of the right ovary and a big fetal sac develope the left tube. This sac included two distinct cavities; contained an old clot, and undoubtedly represented pregnancy of two years past. The other contained f clot, in the midst of which lay two small embryos, enveloped in its own distinct membrane. The left o contained a recent corpus luteum. Michin notes that first tubal pregnancy was preceded by chronic pe inflammation. He also points out how a second pregna may occur in the same tube, and how his case shows the extirpation of the tube by an abdominal operatio preferable to opening the sac through the vagina packing and drainage.

76. Pyelonephritis of Pregnancy.

C. G. Cumston (*Journ. of Obstet. and Gyn. of the Brit. E* October, 1905) discusses the pyelonephritis of pregna Dilatation of the ureter is not uncommon in pregna and is due to compression of the ureter by the preg uterus at the superior strait. Hydronephrosis pre pyonephrosis, and as in other forms of pyelonephriti infection may be an ascending one from the bladder, o bacteria may be carried by the blood to the kidney renal pelvis. Clinically cystitis often precedes the infection, but in certain of the graver cases here rep the colon bacillus was found in the pus, and appear have been taken up by the blood from the intestine. of the 11 cases reported at length gastro-intestinal turbances were practically coincident with the onset general symptoms of pyonephrosis, suggesting th increase in the virulence of the colon bacillus broug the kidney from the intestine was a factor in the caus of the disease. In 2 of the cases cold and ove appeared to be important secondary causes. The on the symptoms was usually in the fifth or sixth mon ater, and never before the end of the third mon pregnancy, that is, never before the uterus rose out of the true pelvis. The condition must be diagnosed from cystitis and from perinephritic abscess, and when the diagnosis of pyelonephritis has been made, causes such as traumatism, tuberculosis, or renal lithiasis must be excluded before the condition is held to depend on the pregnancy. There are many mild forms of the disease, such as the latent form described by Bredier, in which the only symptom is the presence of polyuria, the urine being cloudy or containing pus. In other cases the general symptoms may be severe, the temperature rises to 39° or 40° C., and the fever may take on a hectic character. In the gravest forms in which the kidney ceases to be painful, while the retention of pus persists and the general condition becomes aggravated, active interference may be needed in order to save life. The best treatment is then the induction of labour, after which recovery usually occurs. Nephrotomy has been advocated for the benefit of the child; but, on the one hand, nephrotomy does not always prevent miscarriage or spontaneous premature labour, and on the other, there is the danger of causing the formation of a permanent renal fistula. The author would reserve the treatment by nephrotomy for cases in which even after miscarriage has occurred or labour been induced the kidney is still not adequately drained, and symptoms of infection continue.

77. Fatal Post-partum Haemorrhage from Laceration of the Clitoris.

Haemorrhage during and after labour is in the great majority of cases of uterine origin, and the possibility of another source is apt to be forgotten. E. Kossow-Gerronay (*Wien. klin. Woch.*, December 14th, 1905) was at 7.45 a.m. summoned by a midwife to a case of *post-partum* haemorrhage. Labour had been precipitate, and the child, which was born at 7.15 a.m., was rapidly followed by the placenta. Profuse haemorrhage immediately occurred, according to the midwife, because the uterus did not contract well. The uterus had been kneaded and managed. The woman was extremely pallid and restless, and the pulse was imperceptible. Two hypodermic injections of ether were given, and while the midwife continued to rub the uterus the vulva was examined. After removal of some clots, dark blood was seen to be issuing from a laceration 1½ cm. in length and 7 mm. in depth, which was situated between the clitoris and the external orifice of the urethra, and had opened up the blood spaces in the corpus cavernosum. No spouting vessel was found, possibly because the heart's action was rapidly failing. A tampon was pressed on the wound and some sutures were inserted, but before the operation was completed death occurred. As haemorrhage had continued from this wound for at least half an hour the fatal issue was not surprising. It could, if the source had been recognized, have been sufficiently controlled by pressure until the arrival of a practitioner. Such lacerations *intra partum* are not common, and usually occur in primiparae. This patient was a secundipara. Haemorrhage can be controlled by placing the finger on the bleeding part and compressing it against the pubes.

GYNAECOLOGY.

78. Kraurosis Vulvae after Hysterectomy.

Jayle and Bender (*Bull. et Mém. de la Soc. Anat. de Paris*, July, 1905) report two cases of this disease following in one instance a vaginal, in the other an abdominal hysterectomy. The clinical and pathological features of the cases are minutely described. Both patients were 43 when under Jayle and Bender. The first was a sterile married woman; the uterus had been curetted nine years previously, and three years later Segond removed it through the vagina. Symptoms attributable to absence of ovarian substance set in; and the patient again came under hospital treatment three years after the hysterectomy. She declared that pruritus vulvae began a few months after the removal of the uterus. At last vulval irritation became intolerable, and dyspareunia caused intense pain, so she consulted Pozzi and came under Jayle and Bender's observation. The growth of hair around the pudenda had been affected, each hair was short and weak. The labia majora were quite normal, as was the clitoris, whilst the labia minora were much shrivelled and thinned, the right being the most diseased; the introitus was contracted and tough, its mucosa marked with red spots which temporarily disappeared on pressure. Introduction of the finger into the vagina caused great pain, as it was much contracted and dense cicatricial tissue had formed at the seat of the hysterectomy. The second patient was also a sterile married woman. She had contracted syphilis when 18 years of age, but had apparently been cured. Seven years before she came under observation Pozzi performed abdominal panhysterectomy for fibroid disease. Then flushings, loss of memory, depression of spirits, and other symptoms of ovarian insufficiency followed. At length pruritus and dyspareunia were added to the patient's torments, and she came again under Pozzi. Jayle and Bender, who examined the case, found no alteration in the pubic hairs and labia majora and minora. There were characteristic red spots on the mucosa of the vestibule, which was much contracted; the vagina was very narrow. Pathological examination of the cases proved that the disease was kraurosis and not vulvar leucoplasia. The first patient was still under treatment. In the second case, a piece of mucous membrane, the seat of a painful red spot, was excised, and the pain and dyspareunia ceased, but two months later another red spot had to be excised.

79. Haemorrhage from Diseases of Uterine Vessels.

Simpson (*Amer. Journ. Obstet.*, November, 1905) notes that bleeding from the uterus is very frequent in relation to physiological and pathological conditions in pregnancy and childbed, and to malignant and innocent tumours. One of the rarest causes of uterine haemorrhage is spontaneous rupture of a large varicose vein. Aneurysmal and varicose conditions of the vessels in the uterus are rare, whilst varicosity of the broad ligament veins is common, because the uterine muscle supports the vessels whilst the connective tissue of the broad ligament is very loose. Simpson reports a rare type of case in his experience where there was varicosity of the veins in the muscular tissue of the right cornu and severe uterine haemorrhage. The patient was a healthy married woman, aged 45. She married when 30 years of age, and had been seven times pregnant, miscarrying on four occasions. The last pregnancy ended normally twenty months before she came under observation on May 7th, 1905. She did not menstruate after the last labour until March 1st, 1905. Previously she had been subject to menorrhagia without pain. On March 5th nearly a pint of arterial blood came away, and there was much pain referred to the right side of the uterus, very grave haemorrhage occurred on April 7th. It recurred on April 30th. The patient was kept at rest. Simpson examined her and found that she was quite free from visceral disease. On May 31st he performed vaginal hysterectomy; the uterus bled very freely when handled until the fundus was delivered, then it ceased. Convalescence was free from complications. The vessels in the walls of the right cornu were greatly dilated. Endoarteritis was marked and there was abundant infiltration of small round cells in the tissue around the vessels. A big clot protruded from a varicose vein into the uterine cavity. Large groups of sclerosed arteries were detected on the cut surface of the uterine wall from fundus to cervix. The endometrium appeared practically normal and there was no trace of any new growth. In chronic Bright's disease with general arterio-sclerosis, uterine haemorrhages were not rare, but in this case there was no renal disease.

THERAPEUTICS.

80. Certain Drugs in Heart Disease.

Thomas E. Satterthwaite (*Amer. Med.*, November 18th, 1905) calls attention to the facts that in the year 1900, according to the last census, as many as 70,000 persons died of heart disease in the United States. Of the nine principal causes of death, heart disease was third on the list in point of frequency, tuberculosis holding the first place, and pneumonia the second. Now that apparently successful efforts have been directed against tuberculosis, and pneumonia has been investigated by a commission, heart disease should logically be next attacked. In so far as drugs were concerned Satterthwaite regards suprarenal gland as the most powerful heart stimulant known. As to the dangers from the nitrites and nitrates, about which much has been written, he finds their effects are always evanescent. Ordinarily in angina, hypertension, and in arterio-sclerosis they are useful, but if they produce violent pulsation in an arterio-sclerotic they should be suspended. For advanced cases of this affection the tetranitrate of erythrol was specially adapted owing to its prolonged action. But after all iodine in some form or other should be the main reliance. Strychnine is a reliable heart stimulant, but should be used with discretion and in moderate doses. Larger doses produce nervousness and insomnia. It should never be continued more than a couple of weeks at a time. Cactus he finds a good heart regulator, and strophanthus is excellent if prompt action is needed. Digitalis acts best when the arteries are flaccid, and just enough is given to restore normal tension. If the drug produces too much tension, the work of the heart is unnecessarily increased. In acute endocarditis, the fat heart, fatty degeneration, advanced arterio-sclerosis, aortic diseases and in cardiac neuroses, digitalis may do serious harm. In deficient or failing compensation digitalis is useful up to the point of producing normal arterial tension, after which its action is harmful, except in so far as it may increase diuresis. Circulatory depressants such as antimony, veratrum, pulsatilla, and hellebore are out of date in the treatment of cardiac diseases; but aconite is useful, certainly in cardiac neuroses. There are some drugs in particular the action of which requires further investigation, because we are not sufficiently acquainted with their active principles or modes of action. These are adonis vernalis, trythropleum, epocynin and cretegus.

81. The Alimentary Cure of Biliary Fistulae.

Patel (*Lyon Méd.*, October 22nd, 1905) insists upon the importance of diet in the after-treatment of cholecystotomy, to hasten the closure of the fistula. In 1902, Jaboulay had a patient who had suffered from biliary fistula for six months. In this case three meals a day had been taken at half-past 6, 10, and 4 o'clock; it was noticed that the bile stained the dressing only during the night, the flow beginning about 11 o'clock. When a fourth meal was taken at 11 o'clock in the evening the flow of bile was postponed till 5 a.m. In a recent case of cholecystitis with suppuration, during convalescence from typhoid, Patel stitched the opening of the gall bladder so that fibres of the right rectus should act as a sphincter. The operation was performed on July 29th. The drain was removed three days later, and the flow of bile was free. On August 7th the patient took food twice during the night, with the result that the night dressing, which had previously been soaked, was hardly soiled. Two days later she began to take food regularly every three hours, and from August 12th the fistula has been healed. Patel advises that in old-standing cases of cholecystitis, provided the main bile duct is permeable, the three-hourly feeding should be begun two or three days before the operation.

82. Prophylactic Use of Quinine.

Meixner and Kudicke (*Arch. f. Schiffs und Tropen Hygiene*, November, 1905) give in a tabulated form the answers supplied by 59 persons living in German East Africa to questions as to the efficacy of a prophylactic use of quinine. The length of time during which the quinine was taken varied in the different cases from one month to two years and six months, the dose from 0.5 to 1 gram per day, the interval between the doses from four to eight days. The statistics included persons living under very different conditions—thus some lived in towns, others took journeys into the interior, some went early to bed, others were out late at night, some slept in wide beds protected by mosquito nets, others in narrow beds without protection; 44 of the persons had suffered from malarial attacks before the prophylaxis began, 20 while taking quinine, and 6 after its use had been discontinued. The small number of cases, and the fact that the accuracy of the replies could not be tested, detract from the value of the conclusions to be drawn from them. The answers, however, show clearly that none of the recognized ways of taking quinine prophylactically give an absolute protection against malarial infection, nor even against an outbreak in cases in which the disease is latent. Individual condition, especially with respect to the state of the gastro-intestinal tract, is a factor of great weight. For example, one person who during the course of a year took quinine prophylactically, first according to one and then to another method, suffered from repeated attacks of malaria, while another who lived in the same place had no attack so long as he took quinine. Other factors which affect the frequency of attacks in spite of the attempted quinine prophylaxis are locality, the prevalence of malaria among the natives, the number of *Anopheles*, etc. Three of the cases are described at some length. In the first case the patient took quinine in doses of 1 gram each, ninth and tenth day, beginning the practice after an attack of malaria from which he suffered a few weeks after his arrival in East Africa; as soon as he discontinued the use of quinine he had a second attack of malaria. He again started the quinine prophylaxis, but sickened with a third attack several months later, eight days after the last dose of quinine; this attack was complicated by blackwater fever. A fourth attack, but this time without haemoglobinuria, occurred before the patient had again become able to tolerate gram doses of quinine. After this he began to live in a house protected mechanically from mosquitos, and had no further attack until a year later, when by accident mosquitos gained access to the house. In the second case also the patient began to take quinine prophylactically after an attack of malaria. Nine months later he had a second attack, which began eight days after a dose of quinine, and he also had haemoglobinuria. In the third case the patient had no fewer than twenty attacks of malaria, in spite of the steady use of quinine, and in this case also finally had an attack of haemoglobinuria. This case is so unusual that the authors accept it only with great reserve. The statistics tend to show that if the exposure to infection be long enough continued no form of quinine administration will prevent malarial infection. This is well brought out by the fact that of eight persons not previously infected only one (12.5 per cent.) had an attack during three months of quinine prophylaxis, but of seven who continued the prophylaxis for a longer time, four (or 57.1 per cent.) had an attack. The answers to the questions also demonstrate the difficulties of a systematic use of quinine. The most ordinary method is to take 1 gram of quinine on the ninth and tenth days, but in all but a very few cases this dose gives rise to unpleasant symptoms, and sensitive persons are rendered unfit for work for the greater part of the day; moreover, the sensitiveness to quinine tends to increase. In many cases, also, the absorption of quinine is hindered by weakness of the digestive organs. The authors conclude that gram doses of quinine taken every ninth or tenth day commonly suffice for protection, and that they are especially effective for a short residence in an infected neighbourhood or where malaria is seasonal in its outbreaks. The method of quinine administration is to be modified as far as possible in order to reduce the side-effects to a minimum, and where the liability to infection is a prolonged one, mechanical protection should be resorted to if possible.

PATHOLOGY.

83. The Toxins of Tubercle Bacilli.

Cantacuzene (*Ann. de l'Inst. Pasteur*, November 25th, 1905) has investigated the toxic action of tubercle bacilli from which the fatty substances have been completely removed by extraction with methyl alcohol and petroleum ether. The bacilli he employed were of bovine origin and were grown on glycerine broth. After removal of the fatty substances the toxicity of these bacilli was such that 20 centigrams injected intraperitoneally into a guinea-pig weighing over 350 grams killed the animal in 36 hours; whilst a dose of 8 centigrams was sufficient to kill a guinea-pig weighing 300 grams in five days. When a fatal dose was administered, a rapid fall of temperature was produced, there was an immigration of leucocytes followed by the death of these cells, the renal epithelium and the cardiac tissue showed degenerative changes and the blood showed a marked eosinophilia. Smaller doses were productive of a chronic disease characterized by subnormal temperature and a transitory eosinophilia, a more or less temporary emaciation, the formulation of tuberculous nodules and abscesses, and an enormous hypertrophy of the spleen. The tuberculous new formations, after undergoing caseation, were finally absorbed without leaving a trace, and about three months after inoculation the animals were completely cured. The inoculated animals gave, for several weeks, a typical reaction to the tuberculin test. When bacilli from which the fat had been removed were treated by Gram's solution they lost their toxicity; they caused no necrosis of the polynuclear cells and were absorbed much more quickly than bacilli which had not been subjected to the action of iodine. Animals once inoculated by an injection of iodized bacilli showed a remarkable toleration of the toxic effects of a second injection of bacilli which were not so treated. The author also found that he could greatly increase the resorption of the fat-free bacilli and of the tuberculous new formations by daily injections of iodide of potassium; this substance acted as a vigorous stimulant to the phagocytic properties of the mononuclear leucocytes.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

84. Alcohol and Tuberculosis.

DR. WOLFF (*Beiträge zur Klin. der Tuberk.*, Bd. iv, Heft 3) examines into the connexion between alcohol and tuberculosis. He divides his subject into two parts, and considers first to what extent alcohol, as used at the present day, is a cause of phthisis, and second, whether the consumption of alcohol by phthisical patients should be absolutely forbidden or may be allowed in certain cases and in moderate quantities. Reliable statistics as to the effect of alcohol on the causation of phthisis are few in number. There is an impression that tuberculosis prevails amongst peoples in proportion to the amount of alcohol consumed amongst them, but careful investigation does not altogether support this view. Thus in England there has been a drop in the prevalence of phthisis since 1872, when sanitary regulations began to receive more attention, yet the consumption of alcohol has increased during the same period. Other similar instances are quoted. Another fact which goes to prove that alcohol is not important as a direct cause of phthisis is that the proportion of the number of women attacked by phthisis to the number of men is far greater than is the proportion between the number of women and the number of men who are addicted to the excessive use of alcohol. The enormous spread of tuberculosis in its milder form amongst children who can never have taken alcohol must also be considered. After a study of such facts the author concludes that alcohol does not to any great extent directly cause the spread of tuberculous infection. A second question is how far alcohol results in the development of phthisis after infection has occurred. Certain experiments on animals and the comparative rarity with which recent tuberculous lesions are found in *post-mortem* examinations of alcoholic subjects suggest that the importance of alcohol in this respect also has been overrated. Clinical observation is of great value in deciding the matter, and the author has investigated it in connexion with 767 sanatorium patients. Of these patients 39 out of 322 men belonging to the better class, 2 out of 246 women, and 13 out of 199 men of the working class had been addicted to the excessive use of alcohol. The answers to questions on the subject given by the men of the working class were not held to be trustworthy, and the small proportion of 13 to 199 is thus accounted for. The doctors agreed that the causes leading to the development of phthisis were in most cases many, and a single cause could only seldom be adduced. For example, 72 of the 322 men had been great smokers, 19 had a hereditary disposition to phthisis, etc. The author believes that in only about 2.4 per cent. of the cases could alcohol be considered with any great degree of probability to be the cause of the outbreak of the disease. Indirectly, however, the importance of alcohol in predisposing to tuberculosis cannot be exaggerated. The amount of money spent on alcohol would be invaluable if expended wisely in the struggle against tuberculosis; drinking among the lower classes, at any rate, is carried on in ill-ventilated, smoke-filled rooms, and it leads to lack of food and miserable hygienic conditions at the homes. The author strongly advocates State regulations as to the taxing of alcohol and the reform of public-houses. The following are his conclusions on the second part of his investigations: (1) Tuberculosis does not belong to those illnesses in which the use of alcohol is to be in all cases forbidden. Its use, however, should be narrowly limited or even forbidden (*a*) for nervous and excitable comsumptives, and (*b*) for patients with a tendency to haemorrhage, especially where there has been previous excess. (2) The alcohol treatment introduced by Brehmer and Dettweiler, and which is now altogether abandoned, had deserved consideration, the more because unprejudiced pathological researches seem to show that alcohol may possibly exert a directly beneficial influence on the healing of tuberculous processes. (3) Since the harmlessness of alcohol in moderate doses has been proved, its use in the symptomatic treatment of phthisis is justifiable, and in some cases to be recommended. (4) Alcohol, on account of its fat-sparing properties, and the fact that it is readily taken by patients who are feverish and have no appetite, should probably be given more frequently in such cases than at the present day is customary. (5) With the necessary limitations alcohol should not be forbidden to phthisical patients as a means of enjoyment; its effect upon the spirits of the patient is of no small value, and those patients to whom it is unnecessarily forbidden tend to become hypochondriacal. (6) On practical and humane grounds temperance rather than total abstinence should be earnestly taught in the sanatoriums for the poorer classes.

85. Cancer of the Stomach.

CHARLES N. DOWD (*Med. Record*, January 20th, 1906) calls attention to the large number of deaths resulting from gastric cancer. The census report for 1900 shows that there were at least 9,000 deaths from cancer of the stomach in the United States during that year; this is 65 per cent. more than from appendicitis, and statistics indicate that it is on the increase. The writer emphasizes the fact that cancer of the stomach is primarily a surgical disease, and considers the mortality from the operation no greater than that from others that are frequently performed. In illustration he describes the case of a man of 54 years, in good health and working on a farm, who had a pylorectomy in 1902. The diseased end of the stomach was excised, the patient made a rapid recovery, and left the hospital on the twenty-sixth day. He states that the number of operations is relatively small. It is important to make an early diagnosis while there is still a fair prospect of cure. Kocher found that the initial symptoms were loss of appetite and pyrosis; that epigastric discomfort often preceded the vomiting by months, and therefore this symptom, which he considered most important, was not constant. The writer found it in 73 per cent. of his cases, and it had generally existed about seven months before admission to the hospital. Sometimes it was present after every meal, at others only at irregular intervals. Pain, though not so characteristic, is also an important symptom. Exploratory operation is valuable in helping to establish the diagnosis. A small incision of 1½ or 2 in. between the umbilicus and ensiform cartilage is sufficient for the introduction of the finger. Mayo has his patients out of bed two or three days after an exploration.

86. Epidemic of Diphtheria.

P. BERNARD (*Arch. Gén. de Méd.*, January 16th, 1906) has analysed the chief clinical facts observed amongst patients suffering from diphtheria, which occurred in epidemic form at Corbelin in 1904-5. The onset of the disease was generally abrupt, and characterized by headache, vomiting, pain in the back, fever, and rapid pulse, also by slight soreness of the throat, some difficulty in swallowing, and alteration of the voice. Glandular enlargement was constantly present, and most marked on the affected side. Suppuration of the enlarged glands was not observed to occur. The false membrane always appeared first on the tonsils, especially at their lower borders or posterior surface. Numerous cases of nasal diphtheria were observed, all following on the throat affection, and in all such cases this localization has been a bad prognostic sign. Two cases of diphtheria of the conjunctiva were observed to follow after nasal diphtheria, and one patient had diphtheria of the ear. Of the complications, paralysis and erythema were the most common. The paralysis, which affected 25 per cent. of the cases, generally occurred about a week or fortnight after the commencement of the illness, and was especially common amongst children. The commonest forms of paralysis were paralysis of the palate and pharynx, giving rise to a nasal voice and difficulty in swallowing. In one patient the laryngeal muscles were paralysed. Paralysis of the limbs and other parts was rare; the author quotes a case, however, in which hemiplegia occurred. Two varieties of erythematous skin rashes were observed to occur, a toxic form due to the injection of serum, localized chiefly to the seat of injection, and an infectious form which was very frequent, and occurred at variable periods of the disease, resembling erythema multiforme or measles. These rashes lasted only a few days. Of all the skin rashes, urticaria was most frequently observed. Extension of the false membrane, great glandular enlargement, epistaxis, and late paralyses were all signs of bad prognostic import, as were also loss of appetite and vomiting during convalescence. The mortality during the epidemic was about 12 per cent.

SURGERY.

87. Wound of the Heart Successfully Treated by Operation.

Picqué (*Bull. et Mém. de la Soc. de Chir.*, No. 28, 1905) publishes two cases of wound of the heart, in which surgical intervention, though followed by serious complications, resulted in complete recovery. The subject of the first case—a man aged 24—had been stabbed in the chest a little to the outside of the left nipple. He presented very soon after the injury marked signs of profuse internal haemorrhage, with cyanosis of the face and limbs. There was no bleeding from the external wound, and no haemoptysis. A decided increase of cardiac dullness, together with the signs of internal bleeding, led to the diagnosis of punctured wound of the heart. M. F. de Fourmestraux, interne of the Bichat Hospital, promptly operated, making a large skin flap, with its base outwards, and an osteomuscular flap, the base or attached portion of which was placed inwards. The fourth and fifth ribs were divided at a distance of 8 cm. from the left border of the sternum. After elevation of this flap the operator found a wound of the pleura, protrusion through this wound of a portion of lung, and a punctured wound of the anterior wall of the pericardium, from which there was free bleeding. The pericardial sac, which was much distended by blood, having been laid open, a penetrating wound was seen in the anterior wall of the left ventricle, about 2 in. above the apex of the heart, and about ½ in. from the intraventricular sulcus. This wound was closed by deep sutures, whilst the apex was held between the thumb and forefinger of the left hand. The patient ultimately made a good recovery, in spite of serious septic infection of the seat of operation, and abundant effusion of blood into the left pleural cavity. In the second case, which was treated by M. Picqué himself, the relation to the surgical intervention (the ultimate result) seems to be very indefinite. The patient was a young woman affected with melancholia, who, in a violent fit of chagrin, had shot herself in the left side of the chest with a revolver. The external wound was in the fifth intercostal space just outside the sternum. There was a remarkable absence of symptoms indicative of injury to any important thoracic organ, and of pleural effusion, and it is stated that there was no modification of the pulse and that the general condition of the patient was excellent. In an operation similar to that performed in the first case, which was indicated, the author thought, as simply a procedure for disinfecting and draining the wound, the exposed pericardium was found to be distended by blood, and in its anterior wall could be seen a small perforating wound. On exposure of the surface of the heart a small wound was found at the base of the left ventricle, and the auricle also was perforated through and through. As there was no bleeding from these wounds the author made no search for the bullet and applied no sutures to the heart. The patient made a good recovery after a second operation for the removal of a collection of sero-sanguinolent fluid from the left pleural cavity, and on examination of the chest after an interval of three months from the date of the first operation the heart was found to be absolutely normal.

88. Radical Treatment of Varicocele.

O. Schifone (*Il Policlin.*, November, 1905), discussing the best method of operating on varicocele, describes the objects of the operation as the re-establishment of the altered venous circulation in physiological conditions and the support of the testicle in such a way that its descent and the elongation of the cord may be permanently hindered. The method of double ligature, with or without section, of the venous mass he considers insufficient and often dangerous, since it is difficult to make sure that the spermatic artery, the nerves of the cord, and even the vas deferens itself shall escape section or compression. But he admits the operation to be one of the best, and the only suitable one for those cases in which there is a very great and incompletely reducible mass of veins with thickened walls encrusted with calcareous salts. For all other cases he prefers Durante's operation. Durante first exposes the whole mass of spermatic veins, then separates the vas deferens and the spermatic artery, with a curved needle passes a catgut thread (No. 0) round one or more veins of the pampiniform plexus, knots it, and passes and repasses the needle, working from below upwards, so as gradually to surround and strangle more and more of the venous mass. When the process has been carried up to the external ring he fastens the ligature there with another knot, and unites the two knots. A few of the least abnormal veins are left out of the ligature to carry on the circulation. The lump left after this operation, while at first considerable and sensitive to pressure, soon shrinks and ceases to give any trouble. It is found in practice that there is no real danger, if the operation be carefully performed, of catching the nerves, and so causing atrophy of the testicle. The author supplies notes of the subsequent condition of 24 of Durante's hospital patients, finding it impossible to trace the others. From these reports it appears that: (1) Even partial relapse is exceptional; (2) the operation causes no disturbances, either nutritive or functional, of the genital glands; (3) no hard and sensitive mass is left at the seat of operation; (4) there is complete disappearance of the neuralgic pains which frequently accompany varicocele; (5) the scrotum is reduced in volume, though no removal of skin has been practised. Experiments on dogs are described, which show that even if the vas deferens, the arteries, and the nerves are accidentally included in the suture above described, the vas remains pervious, and the testicle does not atrophy.

89. Treatment of Traumatic Separation of Tibial Tubercle.

Gaudier and Bouret (*Rev. de Chir.*, No. 9, 1905), in concluding a clinical review of traumatic separation of the tibial tubercle, based on a study of 22 collected cases together with one recently under their own observation, state that the chief indications to be fulfilled in the treatment of this injury are (1) as complete a reduction as possible of the detached fragment; and (2) a complete restoration of the movements of the injured limb by preventing, as far as possible, ankylosis and muscular atrophy. While cases of incomplete separation and also of complete separation without swelling of the knee may be best dealt with by reduction of the fragment and immobilization during about three weeks of the injured limb, haemarthrosis, it is held, indicates a more active treatment, and in all such cases, in the absence of contraindications presented by an unfavourable condition of the patient or the impossibility of operating under aseptic conditions, should lead the surgeon to practise arthrotomy. This operation only will enable him to remove the coagulated blood from the knee-joint, to deal effectually with the fracture, and to secure the fragment in its proper position by suture or any other method of maintaining reduction. The seat of injury having been exposed by the dissection of a U-shaped flap, with its convex end downwards and well below the fracture, the articular cavity is emptied of effused blood, and carefully washed out with boiled water. Any lacerated opening in the synovial membrane is then closed by sutures, the surgeon, if quite sure as to his asepsis, dispensing with drainage. In most cases the fragment can be easily reduced by extending the leg and depressing the patella. If the detached fragment of tibia be too slight to resist any forcible traction, or if it be comminuted, it would be well, the authors point out, to pull it into proper position by means of a wire ligature passed through the ligamentum patellae. The fragment may be secured in contact with the tibia either by a peg or a wire suture, or by a large "agrafe." Complete immobilization of the injured limb should not be kept up for longer than a period of ten days after the operation, so that early recourse may be had to massage and passive movements. In the case observed by the authors, the patient was able to walk at the end of the third week.

OBSTETRICS.

90. Interstitial or Tubo-uterine Pregnancy.

Kannegiesser (*Zentralbl. f. Gynäk.*, No. 3, 1906) reports a case in which a woman, aged 27, twice delivered normally at term, was seized on March 27th, 1905, eight weeks after the last period, with symptoms of intraperitoneal haemorrhage. They began a few hours after an attack of pain caused by lifting a heavy bundle. Kannegiesser lays stress on the fact that although the patient was clearly suffering from internal haemorrhage due to a ruptured gestation sac, the fornices were free, and the only palpable condition in any way abnormal was enlargement of the uterus. On opening the abdominal cavity 2½ pints of liquid blood and clot were removed. The haemorrhage proceeded from a villous mass only as big as a pea, posterior to the left cornu. This mass was connected with a sac lined with villi which projected into the uterine cavity. An elliptical piece of the cornu was excised; then the operator passed his finger into the uterine cavity and found that the os internum was closed. The endometrium was scraped away with a sharp spoon. Lastly, the wound in the cornu was closed, as in a conservative Caesarean section, with deep and superficial silk sutures. Appropriate means were employed to restore the patient, and she recovered. In a discussion on this case, Schmorl reported a necropsy on another, where the patient died before an operation could be performed; the haemorrhage was traced to a perforation no larger than a pin's head in a swelling on the left cornu. The gestation had not reached the second month; there was decidual reaction in the ovaries and uterus. Leopold considered that these interstitial sacs occasionally developed in a diverticulum in the uterine portion of the tubal canal of the kind described by von Recklinghausen. Schmorl described a small tumour removed from the back of a uterus, which consisted of a thin wall enclosing a cystic cavity lined with uterine mucous membrane. This cyst, no doubt, developed from a diverticulum, and the implantation of an ovum was therefore quite conceivable. Kannegiesser laid more stress on the course of the tubal canal than on diverticula. As Werth had demonstrated it, it did not run straight through the middle of the muscular wall of the cornu, but made a curve with the convexity backwards. Therefore it came much closer to the uterine serosa posteriorly than anteriorly, which accounted for the fact that rupture nearly always occurred posteriorly.

91. **Ectopic Gestation.**

William H. Randle (*Amer. Med.*, January 20th, 1906) believes that many patients die each year of so-called heart disease and other causes, when in reality the death is due to internal haemorrhage from ectopic gestation. He discusses the pathology, symptoms, and diagnosis of this condition. In cases of doubtful diagnosis a small vaginal incision may be made through the posterior vaginal vault, when the escape of free blood will verify the diagnosis. The treatment is invariably surgical. As little anaesthesia should be used as possible, and stimulation should be withheld until the bleeding point is secured. When the abdominal incision is made no attention should be paid to the enormous quantity of blood that usually gushes forth, but the surgeon should place his hand directly on the ruptured tube and clamp the bleeding parts. After this vigorous stimulation may be employed. The blood clots may be rapidly ladled out, and the abdominal cavity flushed with a large quantity of sterile saline solution. A quantity of this fluid may be allowed to remain in the pelvic cavity. Drainage is rarely necessary, in fact it is detrimental. In all cases in which a haematocele has formed, a vaginal incision may be made with the evacuation of the clots which lie in large quantities in the pelvic cavity; but the patient should be prepared for the abdominal operation should it prove necessary, because of the recurrence of haemorrhage.

92. **Fibroma-Molluscum of Vagina Impeding Labour.**

Füth (*Zentralbl. f. Gynäk.*, No. 43, 1905) exhibited at a meeting of a medical society a woman, aged 25, subject since childhood to numerous pigmentary naevi and small fibroma-molluscum growths over the trunk. A bulky tumour of the same class occupied the inner part of the left thigh extending backwards to the buttock so that its middle portion involved the perineum, left labia, and left vaginal wall. The patient had recently been delivered artificially at the end of her first pregnancy. Füth attended her and found that spontaneous delivery was impossible. The occiput presented in the first position. The middle part of the vagina, owing to the tumour and to changes in tissues adjacent to it, was converted into a rigid pipe which only admitted the passage of two fingers. The membranes had ruptured, the os was dilated to the diameter of a half-crown piece; its edge was rather rigid. The stenosis of the vagina precluded all chance of delivery of the child entire through that canal. Caesarean section was considered inadvisable, as the child was probably dead, meconium escaping, and the patient's temperature was high. Oblique incisions were made with a metrotome along the normal side of the posterior vaginal column, then perforation and extraction was found practicable. Haemorrhage, which had been feared, proved trifling, although a small laceration of the cervix occurred, whilst the oblique incision on the right side of the vagina had been extended forwards during extraction, forming a laceration which involved the connective tissue outside the vagina and the urethro-vaginal septum. This laceration was repaired by suture, but the vaginal incisions were simply tamponned. After convalescence, the stenosis of the vagina became as rigid and narrow as before. Should the patient become pregnant again, Caesarean section will probably be performed.

GYNAECOLOGY.

93. **Intermenstrual Fever.**

H. J. A. van Voornveld (*Zeit. f. Tub. und Heilstätt.*, October, 1905) describes the case of a patient who was found to have a rise of temperature, which occurred regularly on the thirteenth or fourteenth day after the beginning of each menstrual period, and which continued for from one to two days. The patient, a girl of 18, was being treated for phthisis at Davos, but, except for the periodical rise of temperature, was wholly free from fever. The fever caused a certain amount of malaise, but otherwise was accompanied by no symptoms—no increase in cough or expectoration, no headache, abdominal pain, nor indeed anything which appeared to connect it with menstruation; the patient felt quite well as soon as the temperature fell. Menstruation had become established at the age of 13 years, and the periods had always been regular. During the earlier years the loss had been excessive and had been accompanied by great pain, but for two years each period had lasted only from three to four days, while the pain had ceased to be severe. A white discharge, slight in amount, sometimes occurred between the periods, usually from ten to twenty days after the beginning of a period. The most plausible explanation of the regularly-recurring feverish attacks is that they were definitely intermenstrual, and corresponded to the "douleur intermédiaire" described by French workers. The lung condition, although it might perhaps increase the patient's sensitiveness and thus increase an existing fever, could not be supposed to be the sole cause of the phenomenon. Again, there were no symptoms which suggested abnormality of the genital organs, and on external examination there were no signs of disease of the tubes; while, therefore, the possibility of the existence of a tuberculous salpingitis could not be positively excluded, there was no reason to believe it to be present. In the absence of any sign of disease, the fever is to be regarded as a more or less normal phenomenon, a token of a periodical intermenstrual hyperaesthesia of the heat centre.

94. **Menstruation in Tropical Countries.**

Max Glogner (*Arch. für Schiffs und Tropen Hyg.*, Bd. ix, No. 8) discusses the time of onset of menstruation in Europeans born and living in the tropics. The matter is considered as being one method of throwing light on the disputed point as to whether or not Europeans under such circumstances undergo some material change of organic condition to fit them for the changed conditions of life. In collecting statistics care has been taken to distinguish between true Europeans and those of mixed blood, because the latter may inherit from native ancestry a tendency to the early onset of menstruation. He finds that in 18 out of 25 true Europeans resident in the tropics, and in all but 3 of 50 Europeans of mixed race, the function was established before the normal time for European countries. The numbers are small, but if the fact which they suggest be true—that is, if Europeans menstruate early when living in the tropics—it would seem to bear out the theory that some material change of constitution occurs.

THERAPEUTICS.

95. **The Action of Sodium Chloride in Disease.**

Bruno and Petroni (*Clin. Mod.*, November 15th and 22nd, 1905) discuss the clinical importance of the action of sodium chloride in various diseases; they compare the effect of a diet more or less salted upon collections of fluid in the serous cavities and upon oedema, due either to cardiac disease or to nephritis. They have investigated the subject extensively with the object of assigning its proper value to sodium chloride. The method of administration is of primary importance: when a large dose is given all at once, the salt on reaching the intestine does not promote absorption, but is the cause of a copious secretion followed by diarrhoea with the elimination of a quantity of the salt and much fluid withdrawn from the body; when, however, it is administered in small doses spread over the day it is entirely absorbed and has an exactly opposite effect. Having summarized the literature already published on this subject they quote a large number of cases of pleurisy, ascites, and cardiac disease upon which they have experimented and from which they have been able to draw certain deductions. The administration of considerable quantities of sodium chloride produces a remarkable diminution in the quantity of urine secreted and an increase in the percentage of chlorides in the urine itself and in fluid contained in the serous cavities; if salt is withdrawn from the diet the urine secreted is increased in amount and there is a proportional fall in the percentage of chlorides in the urine and in the fluid in the serous cavities. Those patients to whom a salt diet was administered retained the major part of the fluid which they imbibed. The effect of a salt diet upon collections of fluid in serous cavities was irregular; in some there was apparent diminution, in others an increase ensued when they reverted to a diet without salt, and in others there was no appreciable result. In 2 cases of cardiac disease with serious functional insufficiency the symptoms were aggravated by this treatment; in the others, the heart being well compensated and equal to its work, no undesirable effect was noted, the amount of urine was diminished but there was no oedema. The most important fact demonstrated by these researches is that of a diminution in diuresis with a corresponding increase in the percentage of chlorides: from this the conclusion is drawn that the retention of fluids in the body is not likely to be favourable in disease, and is distinctly unfavourable in cardiac affections.

96. Prevention of the Complications of Measles.

G. Pinna (*Il Policlin.*, September, 1905), starting from the fact that the complications of measles are more fatal than the original disease, proposes to diminish the mortality by preventing the complications. He gives an account of his investigations into two cases. In each, besides a blood count, there was a bacteriological examination of the faeces and skin. In the first case the skin yielded the *Staphylococcus pyogenes albus*, the *Micrococcus candicans*, the *Diplococcus lanceolatus*, the *Sarcina alba*, and the *Staphylococcus pyogenes haemorrhagicus*. In the second he isolated from the skin the *Staphylococcus pyogenes albus*, the *Diplococcus lanceolotus*, the *Sarcina alba*, the *Streptococcus pyogenes*, and the *Micrococcus rosettaceus*. In the latter case, with the intention of provoking local suppuration, he pierced the skin with an aseptic platinum needle. On the third day after the fever disappeared, and the patient appeared well. Five or six hours later rigors occurred, and an hour afterwards the temperature was 40° C. Inflammation of the right lung declared itself, and, running a mild course, disappeared in three days. During the course of the pneumonia the expectoration contained a few diplococci. As the patient was isolated, confined to her bed, guarded against chills, and in a hospital where there was no other case of pneumonia, the author suggests that her attack may have been caused by the infection conveyed through the skin from the epidermis by the platinum needle. Hence he deduces that we should guard against any breach of continuity of the skin or mucous membrane during convalescence from measles. The skin should be carefully cleansed, the patient's surroundings disinfected, and the simple cases of measles isolated from those with complications, no great aggregation of sick being permitted under any circumstances. Antiseptic treatment of the skin is especially necessary when peeling is taking place, so that there may be no inhalation of micro-organisms from the skin. Particular care should be exercised in avoiding all danger of tuberculous or diphtheritic infection, and whenever diphtheria and measles are epidemic at the same time, sufferers from measles should be immunized by the injection of antidiphtheritic serum.

97. Copper Salts in Actinomycosis and Blastomycosis.

A. D. Bevan (*Jour. Amer. Med. Assoc.*, November 11th, 1905) says that, while iodide of potassium has a very definite and positive effect on circumscribed lesions of actinomycosis, a very large proportion of the cases of abdominal and lung infection are fatal, in spite of the treatment. He has been looking, therefore, for some other method of treatment, and the well-known action of copper salts on vegetable parasites suggested their employment. Of these the most powerful is the sulphate, which the French investigators have shown can be taken in doses of from 2 to 8 grains a day for a long period without deleterious results. He has used it in several cases in doses of from ¼ to ½ grain, in some cases increasing it to 1 grain three times a day, also employing irrigation with a 1 per cent. solution. The results seemed so satisfactory that he has also used it in two cases of blastomycosis, the skin lesions of which are likewise benefited by iodide of potassium, especially in conjunction with the *x* ray. A case of each of the two diseases thus treated with good results is reported. The treatment seems to him to be a logical one, and he thinks that collective further experimentation should be undertaken to determine the value of copper as a cure for these conditions. It is possible that, as in syphilis, a mixed treatment, using both copper and the iodides, would be most effective in some cases.

98. Butter-Milk in the Gastro-Intestinal Disorders of Infancy.

Stooss (*Corr.-Bl. f. Schweizer Aerzte*, November 1st, 1905) has employed butter-milk in certain gastro-intestinal disorders of infancy. As a food for infants it has recently been recommended by de Jager and Teixeira de Mattos. It contains 2.5 to 2.7 per cent. of albumen, 0.5 to 1 per cent. of fat, and 3 to 3.5 per cent. of sugar. Teixeiro de Mattos gives the following directions: A level tablespoonful (10 to 12 grams) of fine rice or wheaten flour is stirred in a litre of butter-milk, which is placed on the stove and constantly stirred until it has thrice been on the point of boiling over (for about twenty-five minutes). Two or three heaped tablespoonfuls (70 to 90 grams) of cane or beet sugar are then added. As butter-milk is acid the utensils should not be of any metal which is soluble in acids. The writer follows Heubner's recommendation and adds slightly less sugar (50 grams of cane sugar). The food is then poured into Soxhlet's flasks and boiled for a further three minutes. Unless it is poured into several flasks (one for each feed) an upper watery layer forms on standing. Case I.—A male child of prosperous parents weighed at birth 3,640 grams. At first it throve on cow's milk and water, but afterwards became constipated, and, in spite of change of diet and the addition of various infants' foods, emaciated. At four months the weight was only 3,215 grams. Six feeds, each of 100 grams, and later of 120 grams, of butter-milk, were given daily. The bowels at once acted normally. This diet was continued (except during ten days, when there was diarrhoea) until June 23rd, when ordinary cow's milk was gradually substituted. On that date the weight was 5,410 grams, and on July 15th 6,500 grams. Thus in the first four months weight was lost, but in the second four months it was doubled. Case II.—A female child at nine months weighed 3,640 grams. At nine weeks there was an attack of diarrhoea and vomiting, and the weight fell from 4,000 to 3,500 grams. Since then, in spite of numerous changes of wet nurses and of foods, she did not thrive. There were constant constipation and vomiting, which were uninfluenced by gastric irrigations and enemata. At the ninth month the weight was practically the same as at the third. Butter-milk (120 grams for each feed) was, on June 3rd, gradually substituted for the infants' food which was previously given. The stools rapidly became normal, and on July 20th the weight had increased to 5,050 grams. Cow's milk was then substituted and was digested perfectly. Case III.—A child, aged 2 years and 2 months, weighed only 4,275 grams. It had always been fed artificially and with a variety of milks (including goat's) and foods. It was of about the size of a 6-months-old baby, and scarcely more intelligent. In hospital, between December 7th and February 17th, there was no improvement. Numerous furuncles and slight pyrexia developed. Butter-milk was then given. There was rapid improvement; and though there were two attacks of convulsions, the child was discharged on March 29th, weighing 6,120 grams, and in good condition. Butter-milk is thus of special service in cases of infantile atrophy from chronic dyspepsia from which there is no intestinal irritation. If there is diarrhoea alternating with constipation, it may occasionally be given in the latter periods with advantage, but is harmful in cases of acute diarrhoea and vomiting. Only butter-milk which has been obtained by the most cleanly methods is admissible.

PATHOLOGY.

99. Cultures of the Leprosy Bacillus.

Émile-Weil (*Ann. de l' Inst. Pasteur*, December, 1905) has met with some measure of success in his efforts to propagate the leprosy bacillus on artificial media. He finds an egg-agar medium the most suitable for his purpose. The medium he employed contained, per litre of broth, 40 grams of glycerine, 8 grams of glucose, 10 grams of peptone, and 20 grams of agar; to 4 parts of this medium 1 part of yolk of egg was added. Growth, he states, commences about the fifth day and continues for fifteen to twenty days, then it stops, and cannot be renewed by subculture. The author suggests that failure to perpetuate the growth is due to the fact that in the primary cultures the human tissue cells, carried along with the inoculated material, provide some essential element of nutrition, which is exhausted in about three weeks' time, and cannot be replaced by any of the constituents in the artificial media.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

100. The Nature of Haemophilia.

SAHLI (*Zeit. für klin. Med.*, Bd. lvi, Hft. 3 and 4) records the histories of four haemophilics with their genealogies. From his investigations of these cases he comes to the following conclusions: The blood pressure is not increased, and the number of leucocytes is normal or slightly diminished with relative excess of lymphocytes. The number of blood platelets varies, but does not exceed normal. The percentage of water, the freezing point, and the alkalinity are all normal, as are also the fibrin contents. The time taken for coagulation, however, is much prolonged during the periods in which the patients are free from bleeding, the final stage of coagulation being especially lengthened. During an attack of haemorrhage, on the contrary, the coagulation time is comparatively much shortened. These observations explain the contradictory statements in literature. The increase in the rate of extravascular coagulation during the bleeding stage is probably due to a reaction of the organism. The author explains the fact that, in spite of this, coagulation is so defective within the vessels by assuming some abnormal quality in the vessel walls. Thrombokinase or the zymoplastic substance or both are probably not formed in sufficient quantity. The slower coagulation during a period free from haemorrhage is probably due to an analogous condition of the blood. An abnormal condition of the vessel wall also explains the spontaneous haemorrhages of haemophilia and so-called local haemophilias. Inflammation of joints and its slow course is explained by supposing that the abnormal properties of the cells of the vessel walls and of the blood are also possessed by all the body cells. Therapeutically, the first thing is to improve the general health by suitable diet. The haemorrhages are best treated by compression with a pad soaked in a sterilized 2 per cent. solution of gelatine. Subcutaneous injections of gelatine are dangerous, and given internally it is useless. Calcium chloride, ergotin, and adrenalin are also useless. Local applications of calcium chloride or of thrombokinase in the form of tissue juice may be serviceable.

101. Cholecystolithiasis.

CIGNOZZI (*Rif. Med.*, October 21st, 1905) gives a detailed account of the various symptoms and conditions met with in association with gall stones, and as a result of this study he proposes to classify the cases into the following four groups: (1) Cases where pain of the type of biliary colic is the only symptom, and where nothing can be discovered objectively; (2) cases with a tumour in the region of the gall bladder and often accompanied by pain; (3) cases with tumour, pain, and an infective type of fever; (4) cases where there is evidence of implication of the ductus choledochus, with jaundice, hepatomegalia, changes in the urine and faeces. The typical attack of biliary colic is sufficiently well known, but there are anomalous cases where the pain takes on a gastric, appendicular, or renal shape, and the author points out detailed differences which may help in the differential diagnosis. Again, in certain non-inflammatory conditions of the bile duct, attacks exactly simulating biliary colic may occur without any gall stones being present. The pain in biliary colic, although due to spasm of the bile duct, is not necessarily due to the blocking of a gall stone. Recent anatomical researches, by showing the presence of branches of the vagus going directly to the gall bladder, help to explain the common association of secondary cardiac and gastric symptoms with biliary colic—and one need not rely only on the sympathetic in striving to explain these reflex and often alarming symptoms. The ample supply of nerve plexuses and ganglionic cells in the biliary system accounts for the severity of the pain in these cases. The fact that biliary colic frequently occurs three or four hours after the last meal points to a connexion between the normal physiological contraction of the gall bladder provoked by the passage of the food from the pylorus. Probably only about 10 per cent. of the cases of biliary colic are followed by expulsion of a gall stone. The author draws attention to the comparatively trivial (although often high) and short fever, which accompanies or may even be one of the chief symptoms of an attack of gall stones, and the much more serious intermittent type which is associated with an angio-colitis. Acute and subacute empyema of the gall bladder are discussed in detail, and the pulsating character of the pain, particularly in the more acute cases, laid stress on. In the severe cases of suppurative inflammation along the bile ducts the liver may be enormously enlarged. Where there is obstruction of the ductus choledochus and yet no sucking of the gall bladder, this is probably due to repeated inflammatory lesions of the walls of the gall bladder.

102. Acute Pericarditis complicating Lobar Pneumonia.

CHATARD (*Johns Hopkins Hosp. Bull.*, October, 1905) has made a summary of the clinical and *post-mortem* records of the Johns Hopkins Hospital, and finds that of 665 cases of acute lobar pneumonia there were 31, or 4.66 per cent., with acute pericarditis; only 2 of these recovered, and 29 died. The average age of the patients was 32.5 years; in 13 of the cases pericarditis was diagnosed, in 12 it was missed, in 6 it was doubtful. Only 2 were cases of chronic disease, terminated by acute pneumococcus invasion. The pneumonia affected both lungs in 13 cases, the right side only in 13 cases, and the left side only in 5. On two occasions the pneumococcus was found in the blood during life. There were autopsies on all the 29 patients who died, and in 19 of these the pneumococcus was isolated from the pericardial exudate; no other important organism was found. The effusion was fibrino-purulent in 10 instances, fibrino-serous in 9, fibrinous in 8, and purulent in 2; in only 3 cases was the fluid at all plentiful. Twenty-eight times pleurisy was seen—13 times on the right side, 8 times on the left, and 7 times on both sides. Treatment was very unsatisfactory, no case being considered suitable for aspiration or drainage; and Chatard finds that writers on the subject, though differing widely on many points, agree with him and with each other in finding that the prognosis is very gloomy. His most important point is the relative frequency of right-sided pneumonia and pleurisy as associated with a pneumococcus pericarditis; this fact was noted by several writers, though, curiously enough, many textbooks make a precisely opposite statement. Taken in conjunction with the frequency with which the pneumococcus, when looked for, is found in the blood, this fact seems to indicate that the pericardium is infected from the blood stream at least as often as by direct contiguity of tissue, since more often than not it is the lung which is least closely in relation with the pericardium from which the latter structure becomes infected.

SURGERY.

103. Chloride of Calcium as a Preventive Haemostatic.

TOUBERT (*Bull. et Mém. de la Soc. de Chir.*, No. 1, 1906) reports favourably of his experience of the results obtained from the use of chloride of calcium administered internally with the object of arresting or restraining bleeding in surgical operations. The mode of administration, he states, is very simple, this agent being very soluble in water and readily tolerated by the stomach. It is well to bear in mind, however, that it is incompatible with milk. Often two days before the date of operation, and always on the preceding day, the patient is supplied with a solution containing 3 grams of the chloride, of which fractional quantities are taken during the twenty-four hours, the last dose being used a few hours before the operation. The author has tried this method of haemostasis in operations for circumcision and for hypospadias; in internal urethrotomy, radical cure of hernia, haemorrhoids, varicocele, hydrocele, appendectomy, ingrowing toe-nail, skin grafting by Thiersch's method, and osseous suture. It is stated that, notwithstanding individual differences which occur, in spite of the use of chloride of calcium, a very large majority of the patients observed by the author benefited from the action of this agent, and that the coagulability of the blood was distinctly increased in all. There was never any necessity to interrupt the operation for more than a few seconds in order to clear the wound of blood, and in many instances the gauze pads were used for removing clots and not liquid blood. It was not found necessary to pack the wound after the operation in order to prevent recurrent bleeding. The number of buried ligatures was much reduced, and in some cases not a single vessel was tied. The author states that after the use of chloride of calcium he has never observed any post-operative haemorrhage and deep-seated collections of blood, even in parts such as the scrotum, penis, and perineum, in which accidents are likely to occur. In conclusion, the author gives it as his opinion that chloride of calcium administered internally acts as a harmless and simple preventive against free bleeding, and at the same time is not less efficient than other haemostatic agents—heat and gelatine, for instance—which either cause much local irritation or expose the patient to the risk of infection.

104. Digestive Disorders and Abdominal Pain.

John F. Erdmann discusses from the standpoint of the surgeon as to gall bladder, pancreas and gastric adhesions (*Med. Rec.*, January 20th, 1906), a region which he says is comprised in an area irregularly pyramidal in shape, the base not exceeding 3 in. square in the normal human subject, with the apex made by the common biliary duct, head of the pancreas, the duodenal end of the stomach, and the first portion of the duodenum; while in the base during health we have the fundus of the gall bladder, a portion of the lesser curvature of the stomach, etc. The difficulty of clinically establishing an absolute diagnosis of disease invading one of the structures mentioned as forming the apex of the pyramid often renders it desirable to make use of all possible aids in the chemistry of digestion and of the excreta. Exploratory operations, however, frequently reveal conditions at variance with what the chemical examination indicates, so that for the present at least the symptomatology must often be relied upon in arriving at a decision. The author discusses the symptoms likely to be encountered under such conditions, particularly the various forms of digestive disorders and the nature of the pain present. Three illustrative cases treated successfully by operation are described; in one there were gastro-duodenal and biliary adhesions with gastroptosis; another was an instance of acute haemorrhagic pancreatitis, and the third patient had gall stones in the common duct.

105 The Bladder in a Femoral Hernial Sac.

Abadie relates (*Bull. et Mém. de la Soc. Anat. de Paris*, July, 1905, p. 617) a case of strangulated femoral cystocele. A woman, aged 26, was admitted into a hospital at Montpellier for strangulated hernia. About twenty-four hours before admission she felt a swelling develop below the left groin, just as she was opening a trap-door in the ceiling of her room. The characteristic signs of strangulation developed, and an attempt at reduction proved a failure. Abadie operated in the absence of the resident medical officer. Just as he was about to make the incision in the integuments the swelling suddenly increased in size. The urine had not been drawn off. The sac was dissected free and opened along its outer side. A coil of congested gut was discovered, and easily reduced after a little notching of Gimbernat's ligament. Further dissection of the sac was easy externally, but the wall seemed unaccountably thick on the inner side, so that dissection was completed with the scissors. The neck of the sac was ligatured and let go after division, so that it might reduce itself, but, instead of slipping back into the abdominal cavity, it remained outside, and some clear yellow fluid escaped. He drew forward the stump of the sac, and made a chain ligature a little higher, but more fluid escaped. Then it was found to issue from a cavity to the inner side of the sac. The operator's finger was passed into the cavity, which proved to be the bladder. The wound in that organ was closed with two sunken continuous sutures, the material of which is not specified in the report. The crural canal was repaired and closed; lastly, a retention catheter was passed into the bladder and kept there for a fortnight, being frequently withdrawn, cleaned, and replaced. No complications ensued during convalescence. When the patient was seen a year later she was free from urinary troubles, and the cure of the hernia appeared perfect. Abadie notes that in this case there was no prevesical lipoma, seen as a rule in inguinal cystocele, but apparently unusual in the femoral variety of hernia of the bladder. In his case the hernia was new, developing when the patient strained the neighbouring parts as she stood on a chair pulling at a skylight. The sac dragged the bladder out of the abdominal cavity. Abadie's patient was a female, the rule in femoral cystocele, but the hernia was on the left side, which is quite exceptional, indeed out of 19 such cases collected by Morin in 17 the sac occupied the right crural canal.

OBSTETRICS.

106. Injury to Parturient Canal During Labour.

W. E. Fothergill (*Journ. of Obstet. and Gyn. of the Brit. Emp.*, December, 1905) describes three cases of injury of the parturient canal, two which he saw in consultation and one of which he received a report. The cases illustrate the fact that injuries may occur where there is no serious cause of dystocia, and that lacerations may be produced as easily before as at term. In the first case the progress of labour was somewhat slow because of an occipito-posterior position, but under an anaesthetic the head was rotated and was delivered easily with forceps; the delivery of the shoulders was a matter of considerable difficulty. The placenta was retained, and on the introduction of the doctor's hand into the uterus a tear through which several loops of bowel were protruding was discovered in the posterior vaginal fornix. At a later examination it was found that the hand could be passed straight into the rectum through a transverse tear extending across the vaginal vault; the rectum, sigmoid flexure and the whole of the descending colon were distended by solid faecal masses. In this case the determining cause of the laceration was the presence of the faecal accumulations and would probably have occurred apart from the delivery by forceps, because there must have been a predisposing cause—an unusual friability of the tissues. The fact that the patient was suffering from melancholia indicates a condition of toxaemia which might have some causal relationship with the friability of the tissues. The second and third cases have certain points in common. In both there was prolonged haemorrhage, followed by the premature expulsion of the fetus at the end of the fifth and seventh months respectively; in each case the fetus had died before delivery. In the first case the doctor was sent for after delivery of the fetus because of retention of the placenta. During the prolonged manipulation needed to separate the adherent placenta it was noticed that there was an abnormality of the posterior fornix. When the patient was examined later in hospital, the posterior lip of the cervix was found to be separated from the vaginal wall by a tear which crossed from the right fornix, round the back of the cervix into the left fornix; the peritoneum seemed to be stripped off the lower 2 in. of the back of the uterus, and the left broad ligament was split extensively. In the third case labour was artificially induced by means of, first, Hegar's dilators, and later of a Champetier de Ribes's bag. The bag was left in position eight hours, and at the end of that time, as labour pains had not come on, gentle traction on the stalk of the bag was begun, and was continued until dilatation was complete. The fetus, which was absolutely rotten, was delivered piecemeal, and the uterus was emptied and washed out. On the following morning the patient had a temperature of 103° F. A blunt curette was introduced, and tissue which was recognized to be maternal omentum was brought down. Rather than return the omentum to the peritoneum through the foul uterus, the doctor in charge did an abdominal section, and ligatured the omentum above the point where it entered the uterus. A uterine rupture was found in the lower uterine segment. The doctor who reported the case thought that the rupture had probably occurred in connexion with the Champetier de Ribes's bag. In the former of these two cases the uterine tissue was thinned and stretched by previous repeated pregnancies, but this fact alone was not enough to account for the laceration. In all probability some form of toxaemia is the underlying feature common to the majority of these cases.

107. Placenta Praevia in Multipara: Fatal Haemorrhage on Tenth Day.

Rudaux (*Compt. Rend. de la Soc. d'Obstét. de Gyn. et de Péd. de Paris*, October, 1905) reports this case where the patient was a married laundress aged 41; she had borne eleven children to the same husband, all spontaneously, and all except the first at term. The twelfth pregnancy proceeded normally until the beginning of the ninth month. Characteristic haemorrhages set in, and a fortnight later, when labour had commenced with severe bleeding, Rudaux turned and delivered. The fetus was dead; it weighed 6¼ lb.; the placenta and membranes, a little over 1 lb. in weight, were extracted without difficulty. The patient's condition was very grave; subcutaneous injections of ether, caffeine, ergotine, and artificial serum were administered. There was, however, no trouble due to atony of the uterus. High temperature followed, with streptococcus poisoning, combated by serum treatment. On the eighth day haemorrhages set in, and 1 lb. of clot was expelled from the uterus, which was then packed with gauze; the patient became semicomatose. She rallied a little on the ninth day under appropriate treatment, but early on the tenth haemorrhage set in again, and the uterus expelled the tampon and some clots. Notwithstanding subcutaneous artificial serum injections and hot vaginal douches, the patient died a few hours after the expulsion of the tampon. The uterus and appendages showed no morbid appearances; the source of haemorrhage could not be discovered. The kidneys were normal, the spleen small and friable, and the liver pale and fatty.

GYNAECOLOGY.

108. Tuberculosis of Cervix Uteri.

Richelot (*La Gynéc.*, December, 1905) was consulted by a young woman, a midwife by profession, on account of uterine disease. She deceived him by concealing the fact that she had consulted others. According to palpation, there seemed to be cervical metritis; the uterus was bulky and movable, the fornices free. There was apparently bilateral laceration, and marked eversion of both lips of the os externum, which were much swollen and bore sinuous, grey-based, bleeding ulcers. There was none of the woody induration always to be felt around an advanced cancer of the cervix. A little swelling was discovered on a rib immediately below the left breast. A piece of the cervix was excised and examined by Cornil, who detected all the signs of tuberculous metritis. At the same time it transpired that the patient had been examined by several authorities who had been very uncertain about diagnosis. Vaginal hysterectomy was performed. The cervical tissue was very friable, and during the operation coexistence of cancer seemed probable as far as appearances went; the uterine cavity contained a proliferating growth of unfamiliar aspect. The appendages, thickened and nonadherent, were removed with the uterus. Characteristic tuberculous disease of the cervix was discovered widely disseminated; sections prepared by Cornil are figured by Richelot. On the other hand, the serous coat of the uterus and Fallopian tubes was quite free from tubercle, whilst tuberculous elements were detected in the muscular wall of the tube and uterus, all of recent development. Thus there could be no doubt that the primary seat of disease was the cervix. The main histological feature was the immunity of the uterine mucosa even in the cervical canal, on the outer part of the vaginal portion it was invaded. The clinical interest lay in the difficulties of diagnosis experienced by several experts (Siredey, Bar, Labadie-Lagrave, and Cazin), and increased by deceit on the part of the patient.

109. Haemorrhages of Contorted Cysts of the Ovary.

Daniel (*Rev. de Chir.*, No. 10, 1905) having recently had occasion to observe, in Tuffier's wards at the Beaujon Hospital, two cases of contortion or, in Lawson Tait's definition, axial rotation of ovarian tumour, complicated by haemorrhage, and having carefully analysed a collection of forty-three records of this kind, has been led to the conclusion that this accidental association, on account of its diverse clinical and anatomical particularities, imparts to ovarian cyst with contorted pedicle special characters that often necessitate immediate operative treatment. In a summary of the results of an elaborate study of the complete evolution of haemorrhagic contorted cysts of the ovary, with all their pathological, clinical, and operative consequences, the author gives the following conclusions: Haemorrhage into a contorted cyst is, he states, a complication of fairly frequent occurrence, as it has been noted in nearly half the cases of axially-rotated pedicle. With the recognized varieties of colloid, dermoid, purulent, and other cysts should, it is held, be included cysts with haemorrhagic contents. The symptoms of this last-mentioned variety vary according to the abundance of the effusion, whether this be slight, recurrent, or sudden and profuse; and according to its situation, whether parietal, intracystic, or mixed—that is to say, being both cystic and peritoneal. The complication, which can be readily diagnosed when severe effusion has set up symptoms of internal bleeding, is only revealed by accident in the course of some surgical operation when the loss of blood is but slight. The treatment indicated in every case of contorted ovarian cyst complicated by haemorrhage is the performance of laparotomy with the least possible delay. In the puerperal condition the same treatment should be applied. According to Pinard, any risk of interfering with pregnancy may be obviated by the systematic use of subcutaneous injections of morphine for some days after the operation.

THERAPEUTICS.

110. Treatment of Epilepsy.

At the annual meeting of the National Association for the Study of Epilepsy and the Care and Treatment of Epileptics, held in New York in November (*Med. Rec.*, December 30th, 1905), Matthew Woods related the following case: When the patient, a man aged about 57, first came under his observation, the history obtained from him and from his mother, who had been his constant nurse, was that he had suffered from severe and frequent epileptic attacks for fifty-two years. The patient himself had kept a carefully-tabulated record for many years of his *grand mal* seizures, and he had estimated that during his life he had had over 28,000 severe attacks. During the first fifteen years of his infirmity he had consulted many physicians, and had tried numerous remedies without apparent benefit, so that all treatment had long ago been abandoned. Woods said it was the first chronic case he had ever seen in which the patient did not come to him saturated with the bromides. The patient frequently had three or four attacks daily, and scarcely a day passed that he did not have at least one. The treatment advised by Woods was as follows: An almost exclusively vegetable diet was ordered, only a little meat being allowed, and that in the middle of the day. The patient's supper was to consist of tea or coffee, with bread and butter, and he was told to avoid eating pork, veal, cabbage, cooked tomatoes, pastry, and other foods difficult of digestion or apt to excite fermentation. A pill containing $\frac{1}{10}$ gr. of capsicum, $\frac{1}{30}$ gr. of strychnine, and $\frac{1}{2}$ gr. of the hydrocyanate of iron was ordered before each meal and at bedtime. Also 1½ drachms of the bromide of potassium, divided into four doses, each dose given with the utmost regularity at 8 a.m., at 12 o'clock, and at 4 and 8 p.m. The bromide was ordered to be given in a very weak solution, the quantity of water with each dose being increased by 1 oz. every week, until each dose was taken in 12 oz. of water. When the attacks were nocturnal the last two daily doses should be united, and taken at 9 p.m. in a pint of water. After two weeks of the above treatment, during which period the patient had two convulsions, he consented to an operation, under ether, for the relief of a phimosis of long standing. The prepuce was removed, together with three calculi and nearly an ounce of thickened, gelatinous subpreputial secretions. This added very much to his comfort and satisfaction, and made a profound impression on him. Subsequent to the beginning of his treatment, the patient had six convulsions in all; four of these occurred while he had temporarily stopped his medicine, and the other two while he was taking medicine, but prior to the operation. His death occurred three years and nine days after his last convulsion, at the age of 60, and was due to valvular insufficiency.

111. Trigeminal Neuralgia treated by Radiotherapy.

Gramegna (*Rif. Med.*, December 9th, 1905) reports a case of obstinate trigeminal neuralgia successfully treated by *x* rays. The patient was a man, aged 33, of neuropathic history, who began to suffer from periodic migraine at 8 years of age. For the last six years he has suffered from intense trigeminal neuralgia on the left side. In 1900 he underwent electrical treatment and had the floor of the left orbit scraped without benefit. In 1901 part of the Gasserian ganglion was excised; severe haemorrhage occurred during the operation, which prevented the complete removal of the ganglion as was originally intended. However, this partial operation gave some temporary relief, but in February, 1902, he was as bad as ever. In 1903 excision of the left cervical sympathetic was performed, which gave no immediate relief, but was followed shortly after by some diminution in the amount of pain. In February, 1905, the pain was as bad as ever, and life was only tolerable under large doses of morphine. On April 8th the *x* rays were applied through the mouth by means of a tube 6 cm. in diameter, and rays registering 5 in Benoist's radio-chromometer were used. In the first sitting 4 H units were absorbed. A week later another application was given and some slight improvement was noted. Altogether 26 H units were given in six sittings with excellent results. For the last seven months there has been no return of the pain at all. He is able to take his ordinary meals, and beyond some ill-defined, non-painful sensations in the affected area he has nothing to complain about.

The quantity of rays was carefully regulated at each sitting, and rays of weak penetrating power were used. The author does not venture any opinion as to the *modus operandi* of this successful treatment of such an obstinate disease.

112. High-pressure Inhalations in Pulmonary Disease.

Giglio (*Gazz. degli Osped.*, January 16th, 1906) wishes to reawaken interest in this method of treating pulmonary diseases, which he thinks is unduly neglected. In other diseases we endeavour to treat the part locally whenever possible, and in many pulmonary complaints, owing to various causes—for example, blocked tubes, general muscular weakness—a simple inhalation never reaches the part. But if the vapour is inhaled under pressure it may reach parts which otherwise would remain untouched. It is understood that various drugs may be administered in this way. Certain precautions are advisable. In the first place, the inhalation should be given on an empty stomach and the patient comfortably seated. Inspiration should be slow, prolonged, and deep, and about thirty to a hundred inhalations should be given at a sitting. The pressure should vary from $\frac{1}{100}$ to $\frac{1}{40}$ of an atmosphere, beginning with the lower pressures. A second series of expiratory exercises into rarefied air should be carried out simultaneously, and in this way a kind of massage of the lung takes place. The author says he has had excellent results with his system of aërotherapeutics, and promises to record some cases in a future communication. The particular apparatus used by the author was that devised some years ago by Waldenburg.

113. The Curative Treatment of Pneumonia.

Charles E. Page (*Med. Record*, December 23rd, 1905) enters a strong protest against what he terms the non-curative, not to say killing, treatment of pneumonia, which is the prevailing one, and includes drugs and forced feeding *plus* the mischievous effects of hot poultices on hot lungs. The essential features of his own plan consist in the use of cool applications to the chest and abstinence from practically all nourishment except water. In this way the disease, when taken early, is frequently aborted, and the normal death-rate becomes 5 per cent. for private and hospital cases combined, while in private practice alone it is about 2 per cent. The procedure recommended is as follows: A large towel, coarse linen or cotton, is folded lengthwise in the middle, then folded crosswise in the middle, and one-half the length of this four-ply towel is wrung tightly from ice-water or the coldest water obtainable, and again folded crosswise so as to give four thicknesses of damp towel next the skin, and the same, dry, outside. The damp folds should be freshened as often as they become at all hot, whether this be in ten, twenty, or thirty minutes. At first, in severe cases, the changes will be as often as every eight or ten minutes, the intervals lengthening more and more as the inflammation subsides, and breathing consequently becomes deeper and easier. When the patient is able to breathe naturally, and the compress no longer becomes hot, and before it is felt to be an uncomfortable treatment, this local cooling should cease. In some cases hot applications are also made to the legs. The author emphasizes the untoward results attending the employment of forced feeding, and points out the great advantages of keeping the patient on a diet of warm water until convalescence is established.

114. Subcutaneous Injection of Sea Water in Infantile Debility.

This treatment has been carried out with relative success by Macé and Quinton in Porak's wards for sickly infants attached to the Paris Maternité (*L'Obstétrique*, September, 1905). Subcutaneous injections of artificial serum have already proved most beneficial in counteracting fatal debility in premature and ill-nourished newborn children. But Quinton and Julia demonstrated in a work on sea water as an organic medium, published last year, that in animal physiology the natural saline solution was superior to artificial serum. Macé and Quinton therefore made use of sea water as a therapeutic agent. It was procured out at sea at a depth of over five fathoms, off the Bassin d'Arcachon, then kept at a uniform strength by the addition of spring water, sterilized by the cold method, placed free from contact with metal or rubber and utilized within a fortnight or at most three weeks after its removal from the ocean. The artificial serum employed at the Maternité is the usual 7.5 per cent. solution of sodium chloride sterilized in the autoclave. The infants selected were either cases of debility, stationary weight or loss of weight, or athrepsia or else subjects suffering from an acute disease, bronchitis bronchopneumonia, enteritis or icterus. Every second day 10 c.cm. (2 fluid drachms 49 ♏) of the sea water were injected under the skin in the scapular region. Half that amount was injected daily in a few cases, whilst in others 10 c.cm. were injected every third day. All the infants were fed on human milk, and kept according to their condition in a close or open couveuse or in a cradle; where an acute malady existed it was treated with appropriate remedies. Forty infants were selected, and great pains taken to render all conditions as uniform as possible. The working out of the clinical problem is given in full in Macé and Quinton's paper. Six of the children died, 3 with marked oedema, but in the fatal cases the sea-water treatment appeared beneficial as far as temporary gain of weight was concerned, the infant succumbing to grave complications. There remained 34 in which oedema never appeared, and all were discharged alive from the Maternité. In them, the daily gain in weight when no subcutaneous injections were used averaged 1.64 grams, the gain under artificial serum treatment was 5.32 grams, and the gain under sea-water treatment was 9.7 grams. Thus, physiologically sea-water would appear to be of higher value than artificial serum, and Macé and Quinton could not detect any bad results following its use. Quinton and Julia discovered in the course of their physiological experiments that the kidneys are twice as permeable to sea-water as to artificial serum. Perhaps we may soon be using this new drug so freely supplied by Neptune's pharmacy for other therapeutic purposes; unfortunately, although the supply is unlimited, carriage is expensive, a great drawback except in the case of patients and hospitals in seaport towns.

PATHOLOGY.

115. Blood Changes and Anatomical Lesions in Acute Phosphorus Poisoning.

Henri Welsch (*Arch. Internat. de Pharm. et de Thér.*, vol. xiv, 1905) finds that dogs poisoned by the subcutaneous injection of phosphorus show a relative increase in the number of red corpuscles and the amount of haemoglobin contained in the blood before they die; there is also a moderate leucocytosis. But the total quantities of red cells and of haemoglobin in the body are diminished. He leaves it an open question whether these decreases are due to diminished blood formation or to increased blood destruction. After reviewing the extensive literature that deals with the fatty degeneration of the tissues seen in acute phosphorus poisoning, he details his own experiments. He concludes that the essential anatomical lesion is fatty degeneration of the organs and muscles, which is directly due to the death or the functional paralysis of the liver cells. These cells are no longer able to arrest or destroy the ferments brought to them by the portal blood stream from the alimentary canal after they have been poisoned by phosphorus, so that these ferments escape in abnormal quantities into the general circulation. The "autolysis" observed in portions of organs or tissues removed from the body and preserved under aseptic conditions is proof that under normal circumstances these ferments can to some extent escape fixation by the liver cells, and do normally reach and attach themselves to the other tissues of the body. This "autolysis" takes the visible form of fatty degeneration. Welsch leaves it uncertain whether the fat thus appearing in acute phosphorous poisoning is pre-existent in the form of ultra-microscopical granules in the cells, or is transported to them from the subcutaneous tissues (Lebedew, Rosenfeld), or is newly formed in them (Waldvogel, Tintemann).

116. Miliary Tuberculosis.

Ribbert (*Deut. med. Woch.*, January 4th, 1906) discusses the origin of miliary tuberculosis. Adhering to opinions he has previously expressed, he denies that it is the rule for the disease to arise from a simple invasion of the blood with large numbers of bacilli. His explanation is that at some time a few bacilli, gaining access to the circulation, form tubercles in the intima of the vessels; in these tubercles the bacilli multiply; subsequently the tubercles break down, the contained bacilli are disseminated, fresh foci are formed within the vessels, and so the process is repeated and dissemination progresses. The lesions in the organs are of different ages, and are due to a constantly repeated succession of bacillary invasions.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

117. Chronic Parenchymatous Nephritis.

GAMBLE (*Amer. Journ. of Med. Sciences*, December, 1905) records a case of partial recovery from chronic parenchymatous nephritis with acute general infection, infarction of the lung, double phlebitis, and nephrolithiasis. A man, aged 39, suffered six weeks previously from a pharyngitis, after having been in contact with a scarlet-fever patient. Formerly a very active man, he began to complain of fatigue and shortness of breath upon slight exertion. The urine showed specific gravity 1012, and contained a large amount of albumen with granular, epithelial, and hyaline casts. The amount of albumen increased, and oedema of the legs developed. Double pleurisy and phlebitis of the veins of the left leg ensued, with a mass just below Poupart's ligament and considerable swelling of the leg. Becoming worse, decapsulation of the kidneys was performed, the left kidney being slightly and the right considerably larger than normal. Temporary improvement resulted, but a few weeks later the oedema rapidly increased until two months after the operation he was practically waterlogged, repeated scrotal tappings and scarifications of he legs causing considerable loss of fluid. He had an attack of pain and swelling in the right leg. Three months ater he developed colicky pains in the region of the right kidney, accompanied by an increase in the amount of urine, and a week later by the passage of small phosphatic calculi. This was followed by an attack in the left kidney. Placing him upon a salt-free diet was followed by marked mprovement, which has been maintained although the urine still contains albumen. During the first five weeks he was kept upon a milk diet modified to contain a low percentage of proteid and with the addition of calcium arbonate. Later he was given broths without meat, and mall quantities of starchy food, and unmodified milk. It was noted that the oedema increased and the urine iminished in quantity when too much water was given, nd that as this was reduced the oedema diminished and he urine output increased. In strong contrast to the nefficacy of drugs were the beneficial results obtained from apping the scrotum and scarifying and draining the legs. he benefit obtained from decapsulation of the kidneys was doubtful, though the relief of tension probably did ood. Venesection acted markedly as a diuretic, but prouced no permanent result, while it was found that the ubcutaneous injection of salt solution embarrassed rather han relieved the patient.

118. Typhoid Appendicitis without other Intestinal Lesion.

TOKES AND AMICK describe a case of this rare condition *Johns Hopkins Hosp. Bull.*, August, 1905). Although imple appendicitis and appendicitis with the characteristic sions of intestinal typhoid both occur in the latter disase, the authors have been unable to find a report of a revious case of uncomplicated primary appendicitis from hich the typhoid bacillus has been isolated. The patient as a medical student, aged 24, who had suffered from a vere attack of typhoid fever thirteen years before. He as attacked suddenly with a severe pain in the entire bdomen, which later became localized in the right iliac gion. This was followed by nausea, vomiting, and ight diarrhoea. The patient had eaten freely of pea uts the night before. The temperature on admission was 0°, but after the operation, which immediately followed, never exceeded 99°. An appendectomy was performed elve hours after the onset, and the patient made a comete and uneventful recovery. The appendix on inspecon was about three times the normal size, and about idway between the tip and the intestinal attachment the all was thin and gangrenous, and about to rupture from stension. The mucous membrane was covered in places th a dirty grey fibrinous membrane, and at its base ere was an irregular ulcer. The lumen contained three ft, putty-like concretions resembling partly-digested a nuts. Cultures taken from the base and apex of the pendix gave colonies of *B. pyocyaneus* and *B. typhosus*. he blood of the patient was tested with the organisms olated from the appendix. *B. pyocyaneus* gave no action, but *B. typhosus* gave a positive reaction one week er the operation. Sections of the appendix showed a xture of two distinct processes. The portion of the submucosa which formed the base of the ulcer, and even the muscular and peritoneal coats, corresponded to the condition called acute diffuse appendicitis. This variety showed cloudy swelling of the surface epithelium, ulceration, and general infiltration of the coats by polymorphonuclear leucocytes. This process was probably caused by the *B. pyocyaneus*. In other portions of the appendix, where there was no surface ulceration, a marked proliferation of the endothelium of the lymphatic spaces appeared, and the polymorphonuclear leucocytes were not so numerous. These changes were more characteristic of typhoid fever. The authors believe that the infection was limited to the appendix, because forty-eight hours after its removal the temperature dropped to normal. It is possible that the typhoid bacillus may have remained in the gall bladder ever since the attack of typhoid fever thirteen years before.

119. Xanthelasma and Chronic Jaundice.

FUTCHER (*Amer. Journ. of Med. Sciences*, December, 1905) gives notes of three cases of chronic jaundice in which xanthelasma, or xanthoma multiplex, occurred. These were all females, aged respectively 39, 39, and 41, and the duration of the jaundice prior to the appearance of the xanthomata was eight months, eight years, and one and a half years. The cause of the jaundice in two of the cases was gall stones in the common duct, together with, in one of these, hypertrophic cirrhosis. In the third there was hypertrophic cirrhosis only. The eyelids were involved in all, and in two of the cases lesions were present on the extremities and trunk. The xanthomata were chiefly in the form of plaques, but in two there were a few nodular xanthomata also. In one case spontaneous disappearance of the condition occurred four years after the gall stones had been removed. From other reported cases it would appear that males and females are about equally affected, and the causative factors of the jaundice have been gall stones, stricture of the bile ducts, atrophic and hypertrophic cirrhosis, hydatids, and cancer. The onset is frequently on the eyelids, and the condition seems to be directly due to the jaundice, or to some associated toxin in the blood. There is a remarkable symmetry in distribution of the condition, with a marked tendency to develop in the folds of the joints. The only treatment is surgical for the relief of the cause underlying the jaundice.

SURGERY.

120. Post-operative Cholerrhagia in Cases of Hydatids of the Liver.

TERRIER AND DUJARIER (*Rev. de Chir.*, No. 1, 1906) discuss at length the causation and treatment of the free and a more or less prolonged discharge of bile, which, it is held, is a frequent occurrence after the operative treatment of hydatid cyst of the liver by the method of marsupialization. Two forms of this post-operative cholerrhagia are distinguished—one partial, in which the discharge ceases spontaneously after a variable, but as a rule brief, duration without seriously disturbing the progress of the cure; the other, occurring much less frequently, in which the whole of the bile is discharged by the external wound. This latter form, distinguished as total cholerrhagia, though it sometimes causes but little, if any, general disturbance, and after a time disappears, may in some cases, by its persistency and its serious and threatening effects on the patient, necessitate a critical operation for its removal. Cases are referred to in which, with this object in view, operations were successfully performed for establishing a fistula between the cystic cavity and the gall bladder; for removing a calculus from the common duct, and for drainage of the hepatic duct. In most instances, it is stated, the discharge of bile is observed in the course of the first twenty-four hours after the operation. Occasionally it occurs immediately after incision of the cyst, and in some few instances is delayed until the stage of convalescence, and after almost complete healing of the wound. In these cases of delayed cholerrhagia the discharge of bile is usually most profuse and troublesome. The bilious discharge is the result either of perforation of the walls of the intrahepatic bile passages, and even of the large ducts, or of complete or partial obliteration of one of the main canals. In some cases both these causes may co-operate, but in most instances of total and persistent cholerrhagia obstruction of the main excretory canal is to be suspected. The communication of the open hydatid cyst with the biliary canals may be the result of operative traumatism, or, if this cause can be excluded, to (1) denudation of the hepatic parenchyma on suppuration and detachment of the external envelope of the cyst; (2) perforation of one of the dilated biliary canals ramifying over the inner surface of this coat; or (3) primary or secondary development of the cyst within a biliary canal. Biliary obstruction, which is an important cause of total cholerrhagia, may be due to (1) obliteration of the canal of the hepatic or of the common duct by a "daughter cyst" or by débris of the cyst walls, or (2) the impaction of a calculus in the hepatic or the common duct, or (3) torsion of either of these ducts. The frequent occurrence of cholerrhagia after the surgical treatment of a hydatid cyst of the liver by the method of marsupialization indicates the necessity of very careful and gentle handling in the performance of this operation. In order to avoid laceration of the denuded dilated and friable biliary canals the surgeon should detach the capsule with very delicate action and endeavour to remove it intact. In considering the advantages that have been claimed for the method of closing the cystic cavity and completely suturing the external wound without drainage, and the diminished risk of cholerrhagia in this operation, the authors point out that, though when practised in suitable cases it may enable the surgeon to prevent this bad result, it is just in the cases in which this method is contraindicated that a profuse and disquieting discharge of bile from the seat of operation has been most frequently observed. Reference is made to cases in which cholerrhagia, after the removal of a hydatid cyst, was permanently arrested by firm aseptic plugging of the orifice of the biliary fistula. In most instances, however, of profuse and persistent discharge of bile it has been found necessary to operate either for the removal of a duct-obstructing calculus or for establishing a fistulous communication between the cystic cavity and the gall bladder.

121. Abscess (Pancreatic ?) of Lesser Peritoneal Cavity.

Pauchet (*Rev. de Gynéc. et de Chir. Abd.*, November-December, 1905) reports a case in which a man, aged 35, without any previous history of gastric disorder, was seized with violent pain and faintness, followed by vomiting and a rise of temperature to 100.5° for two or three days. At the end of that time a swelling developed in the epigastrium. Pleural friction sounds were audible, and there was dyspnoea, with earthy complexion and extreme depression. Pauchet defined a tumour above the umbilicus, dull on percussion, and not fluctuating; there was resonance all round its limits, and the liver was separated from the mass by a resonant area, which proved to be the stomach. An incision was made above the umbilicus, exposing the stomach and the lesser omentum. On incising that peritoneal fold, clear pus full of globules of grease and sloughy fragments came away. The pus smelt faint rather than fetid. The abscess wall was marsupialized and washed out with peroxide of hydrogen. A fistulous tract developed, from whence issued a fluid, which digested the skin. It closed completely in two months' time, a slight hernia of the cicatrix developing.

122. Dry Iodine Catgut.

Moschcowitz (*Ann. of Surg.*, September, 1905) states that Claudius's catgut, which is prepared by prolonged immersion in a solution of iodine, though presenting many advantages over catgut prepared by other methods, has been found unsatisfactory on account of its impaired textile strength. By various experiments the author has become convinced that in the use of this form of catgut for sutures and ligatures no chemical substance was necessary in its preparation, but one was indicated in its subsequent preservation. The loss of strength, he finds, is due only to its long-continued immersion in the iodine solution. According to Claudius's directions the catgut, just as it is brought from the dealers, is loosely wound on a spool, and then immersed in a solution of 1 part of iodine and 1 part of iodide of potassium in 100 parts of water. The catgut was preserved in the original solution until used, but the author proposes to remove it on the eighth day, and to preserve it thereafter dry in a sterile vessel, which should not be exposed to the light. It is used dry, just as it is cut from the spool, without previous immersion in any germicide or sterilized solution. The author believes that his clinical experience and the experimental work detailed in this paper fully justify the following conclusions: (1) The dry iodine catgut is absolutely sterile; (2) it is impossible to infect it by ordinary means; (3) its inhibition with iodine is not sufficient to act as an irritant upon the tissues; (4) its textile strength is superior to that of raw catgut and of catgut prepared by the sublimate-alcohol method; (5) it is easily and cheaply prepared; (6) it is absorbed only after it has served the purposes for which it was intended.

123. Stercoral Tumours.

Pozzi (*Rev. de Gyn. et de Chir. Abd.*, November-December, 1905) observed a large stercoral fistula in a lad aged 16. It occupied the lower part of the sigmoid flexure and upper part of the rectum. The bowel was freely laid open, and nearly 1¾ lb. of scybala as hard as stone were removed from its interior. Pozzi, in closing the wound in the intestinal walls, folded in its edges so as to narrow the diameter of the bowel, lest faeces should again accumulate at the same level. No recurrence of retention of faeces in the sigmoid flexure was observed after convalescence.

OBSTETRICS.

124. Puerperal Eclampsia.

C. N. Longridge (*Journ. of Obstet. and Gyn. of the Brit. Emp.*, December, 1905) describes a case of eclampsia in which in addition to other treatment an attempt was made to increase the alkalinity of the blood and in which sugar was given to the patient by the mouth and rectum for the purpose of strengthening the antitoxic action of the liver. The patient was aged 25 years and was first seen in the fourth month of her second pregnancy; she had had eclampsia during her first labour. The urine proved to be free from albumen, there was no oedema, the blood pressure in the right tracheal artery was 140 mm. The urine was examined at intervals during the pregnancy, but was always free from albumen. The patient was admitted to hospital when labour set in; she complained of headache, vomiting and diarrhoea, and she had a fit immediately after admission. The blood pressure was now 160 mm., the urine became nearly solid on boiling and there was oedema of the feet and legs. Between 10.30 p.m. when she was admitted and 6.30 next morning, the time of full dilatation of the os, the patient had six eclamptic fits, each fit being of about three minutes' duration; there was marked cyanosis during the fits and deep unconsciousness between them. During this time there were administered two ¼ gr. doses of morphine, a 5 gr. dose of calomel which was vomited and 1 oz. of castor oil. At 6.30 a.m. the membranes were ruptured and the child was delivered; the haemorrhage at the birth was unchecked and amounted to 12 oz. A fit occurred during the birth of the placenta. A third injection of morphine was made at 9.30 a.m. Between 7 and 10.30 a.m. the patient had six fits, between 10.30 and 11.30 four fits. As the condition seemed to be getting rapidly worse 10 oz. of blood were withdrawn from the patient's right median basilic vein; 32 oz. of saline solution were run into the vein. The stomach was washed out, and 5 oz. of milk and 1 oz. of castor oil were left inside it; in the next two hours there were three fits. An enema was then given, and 2 minims of croton oil; there were two fits during the next hour. The patient had occasional whiffs of chloroform; she was warmly wrapped up, and at 3 o'clock she began to perspire profusely, and she passed a little water. About two hours later there were two slight fits. At 6.30 p.m. a fourth injection of morphine was given, and 2 pints of saline, with 1 oz. of brandy, were given per rectum. At 10.45 p.m. the bowels acted and there was a slight fit, which proved to be the last one; the temperature was 105° at the time of the last fit, but it fell in the morning. The patient was unconscious for two days nineteen and a half hours. On the fifth day after admission she developed a jaundice, which lasted five days. The oedema had disappeared by the fourth day, and the albumen by the sixth. The alkalinity of the blood, as tested the day after delivery, was found to be defective, and on this account citrate of soda in drachm doses was given every three hours; in two days the normal alkalinity was restored. Sugar was administered in large quantities, but none appeared in the urine. The theory upon which the sugar was given was that the liver possesses a power of antitoxic action which can only be exerted in the presence of glycogen, and which varies directly with the amount of glycogen contained in the liver cells; in this case it was supposed that, owing to the high temperature and the severe muscular exertion which the patient had undergone, the store of glycogen would be practically exhausted. It is probable that the patient's life was saved by the transfusion. Seventeen out of a total of twenty-five fits occurred after delivery, ten, which were of increasing severity, occurred in the five hours before the transfusion, and only seven, of which three were slight ones, in the ten and a half hours after it.

125. **Inversion of the Uterus during Pregnancy.**

A. A. DIGHTON AND J. R. COLLINS (*Journ. of Obstet. and Gyn. of the Brit. Emp.*, October, 1905) describe a case of complete inversion of the uterus in parturition. The patient was a well-developed woman, 24 years of age, in her second labour. She was attended by a certificated midwife, who worked in connexion with the Cheltenham District Nursing Association. The child was born three hours after the onset of true labour pains and one hour after the nurse had found the os to be fully dilated. At birth the cord was coiled once round the neck, twice round the body, and once round a leg, the funis felt quite taut and evidently caused strong traction on the placenta. After the delivery of the child the uterus was small and low down. At the end of half an hour an attempt was made to express the placenta, and as soon as the patient began to bear down in order to help in its expulsion retching and signs of collapse set in, while a small rush of haemorrhage occurred and a large tumour appeared behind the placenta; no traction had been made on the cord. When the doctor arrived the entire uterus was found inside out, resting upon the bed, the placenta being adherent. The patient was in a condition of extreme collapse, although she had not lost much blood. The placenta and membranes were removed, the uterus was well washed in a solution of 1 in 200 of cyllin, and was replaced without difficulty in less than forty minutes after its expulsion. The uterus and vagina were again douched with cyllin and the uterus lightly packed with iodoform gauze, wrung out in boric lotion. Measures were also taken to combat the state of collapse. The patient made a good recovery, the temperature during the puerperium never rose above 98.8° F., the lochia were never offensive and a fortnight after labour the uterus was found on bimanual examination to be in its natural position, while involution was taking place normally. The inversion of the uterus was predisposed to in this case by a previously existent, untreated partial prolapse of the uterus, and at the commencement of the labour the uterus was down. The pull upon the uterus of the tense funis was the second predisposing cause and probably the inversion would have taken place even if it had not been more mmediately caused by the failure on the part of the midvife to recognize that the placenta was not detached and herefore not ready to be expressed. The case affords strong vidence of the value of cyllin as a disinfectant in nidwifery practice.

GYNAECOLOGY.

126. **Fatal Intraperitoneal Haemorrhage from a Fibroid.**

TEIN (*Monatsschr. f. Geb. u. Gyn.*, November, 1905) reports very characteristic case. The patient was 49, the mother f three children. She was seized with symptoms of acute ternal haemorrhage, and the peritoneum clearly con- ined much fluid. A tumour of the size of a small fist as detected on the right hand of the uterus. There was uch delay in getting the patient into the Heidelberg ynaecological clinique, so that she was not admitted until early twenty-four hours after the onset of the symptoms. here was no haemorrhage from the os externum; the ass on the right of the uterus was rather soft and sausage- aped, so that ruptured tubal sac seemed possible. bdominal section was performed, and a couple of sub- rous fibroids were detected attached to the right cornu of e uterus, the one superimposed on the other. They ere very soft, and their capsule contained dilated veins. large hole, 3 to 4 mm. wide, was found in one of ese veins. Subtotal hysterectomy was performed. The tient died forty hours after the operation from repeated traperitoneal haemorrhage, the source of which could t be found out, although the abdominal aorta was in- cted with water to throw light on that point. Emphy- ma, with bronchitis, myocarditis, perisplenitis, and rihepatitis, were discovered at the *post-mortem* examina- n. Rokitansky and Gusserow and Zweifel report two nilar cases, Pollasson of Lyons a fourth. The rupture of vein into the uterine cavity in cases of fibroid has been reported. Matthews Duncan's and Cruveilhier's cases ended fatally; Pollasson and Jamin's was saved by operation.

127. **Vaginal Cysts.**

CULLEN (*Johns Hopkins Hosp. Bull.*, June, 1905) has examined 53 vaginal cysts which were observed at the Johns Hopkins Hospital in ten years. In 26 the origin was clearly the result of a perineal tear or of a perineal operation. Four seemed to originate from vaginal glands; 11 were apparently derivatives of Gaertner's duct; 3 were situated near the external orifice of the urethra; and in 8 it was impossible to determine the mode of origin. Those due to small portions of the vaginal mucosa included in the stroma are relatively small, and are naturally found in the posterior or in the lower lateral wall of the vagina. They are often situated in the scar tissue of an old tear, or may form a globular mass projecting from the posterior vaginal wall and covered by normal vaginal mucosa. The smaller ones were yellowish in colour, the larger white. The cyst walls vary from 2 to 4 mm. in thickness; the inner surface is smooth. The contents vary, the smaller ones contain friable material representing masses of exfoliated squamous epithelium. The cyst walls are composed of fibrous tissue, and the inner surface is lined with a varying number of layers of squamous epithelium. The larger cysts are often partially filled with clear fluid. Cysts originating from vaginal glands are less common. They are lined with cubical cells, and may be found side by side with inclusion cysts. Isolated links of a persisting Gaertner's duct may become cystic as a result of accumulated secretions. Numerous examples are on record. If only one segment persist a single cyst develops, but should five or six be present there may be a corresponding number of cysts which occur in a single row. They may be exceedingly small, but as a rule reach several centimetres in diameter. In rare instances they almost block the vagina. The most common situation for these cysts is the anterior vaginal wall just behind the urethral orifice. The walls are composed of fibrous tissue, sometimes with bundles of non-striped muscle fibres. The inner surface is lined with one layer of cylindrical, cubical, or almost flat epithelium. If vaginal cysts ever owe their origin to urethral glands such a condition is rare. Gaseous cysts (colpitis emphysematosa) have been described by v. Winkel. They are usually associated with pregnancy, and consist of small submucous cysts, which collapse with the escape of gas on puncturing. Echinococcus cysts may develop in the tissue between the rectum and vagina, and resemble vaginal cysts. All the cysts described are small, and give rise to no symptoms. Cysts of the posterior wall may, however, obstruct delivery. The smaller cysts should be excised and the cavity sutured. Where the cysts are larger and removal is difficult, half or three-quarters of the cyst should be cut off, and the edge of the vagina united with that of the cyst on all sides. A small dilated blind ureter must always be borne in mind when removal of cysts in the lateral or anterior wall is contemplated.

THERAPEUTICS.

128. **Erysipelas Toxins in Sarcoma.**

W. B. COLEY gives (*Med. Record*, January 20th, 1906) a brief history of the development of the method, stating that he had used the mixed toxins of erysipelas and *Bacillus prodigiosus* since 1892. Up to the present time he had advocated the treatment practically only in cases of inoperable sarcoma; but, in view of the experience thus far gained from his own cases, as well as the successful cases in the hands of other surgeons, he believed it wise to use the injections in all cases after primary operation for sarcoma as a prophylactic against recurrence. In these cases, however, the dose should be much smaller—just sufficient to produce a very slight reaction—and the treatment should be continued for two or three months. He also believed it wise, in practically all cases of sarcoma of the extremities, to give the patient the benefit of a trial with the mixed toxins before sacrificing the limb by amputation. This opinion was based upon 12 cases of sarcoma of the extremities in which the treatment had been so tried, with the result that the tumour disappeared, and in 8 of the 12 cases the patients were alive and well from three to six years afterwards; 2 were well at the time of the last observation, at the end of one year; the other 2 were recent cases; 3 of these 12 were personal cases; 8 of them were of the round-celled variety; 2 spindle-celled;

and in 2 no microscopical examination was made, although amputation had been advised by prominent surgeons; 5 were sarcoma of the tibia; 1 of the fibula; 2 of the femur; 1 of the forearm; 1 of the humerus; 1 of the thigh, involving the periosteum; 1 of the calf of the leg. In all these cases amputation had been seriously considered, but it seemed justifiable to give the toxins a trial before resorting to operation. As to the final results of personal cases, of 34 cases which might be fairly classed as successful, in that the tumour disappeared under the injections with the mild toxins, the type of the neoplasm was as follows: 12 round-celled, 16 spindle-celled, 2 mixed-celled, 1 epithelioma, 3 no microscopical examination made, but the clinical appearance, together with the history of recurrence, left practically no room for doubt as to the diagnosis. The results in these cases thus far had been as follows: Four were well less than a year, 3 were well from one to two years, 3 were well from two to three years, 3 were well from three to five years, 23 were well from five to thirteen years. In 5 cases a recurrence took place and finally proved fatal. In 1 of these recurrent cases the patient had remained well for eight years; in 1, three and a quarter years; in 1, two and a half years; in 1, seven months; in 1, six months. These 5 cases of recurrence, the author argued, were important in that they furnished absolute proof of the correctness of the diagnosis, and refuted the statements formerly often made in regard to the successful cases, namely, that there must have been an error in diagnosis. Dr. Coley had collected 56 cases of complete or partial success obtained by other men. The results in these cases were as follows: Thirteen were observed less than one year; in 6 the tumour disappeared and the patient remained well from one to two years; in 9 the tumour disappeared and the patient remained well from two to three years; in 12 the tumour disappeared and the patient remained well from three to five years; in 9 the tumour disappeared and the patient remained well from five to eleven years; in 5 cases recurrence took place six months to two years later; 2 patients died during the treatment, 1 of pyaemia due to staphylococcus infection, the other of septic absorption, the tumour being a large intra-abdominal sarcoma which had completely degenerated.

129. **Isotachiol.**

A. Isaja (*Il Policlin.*, October, 1905) describes a new silver salt, isotachiol, which is cheaper and more stable than tachiol. His experiments determine its antiseptic qualities, its toxic power, and its local and general actions. Two mgr. of bacterial culture were evenly distributed in 4 c.cm. of isotachiol solution and cultures attempted after one, three, five, and ten minutes. The micro-organisms used were *Staphylococcus pyogenes aureus* and *albus*, the typhoid bacillus, the colon bacillus, and the anthrax bacillus, without spores. Solutions of 1 in 10,000 destroyed in one minute all the micro-organisms, except those of anthrax, and even they did not survive three minutes. Solutions of 1 in 50,000 destroyed the typhoid bacillus in one minute, the other micro-organisms in three minutes. Solutions of 1 in 100,000 destroyed in five minutes everything but the anthrax bacilli. They gave at the end of that time a very limited growth, and, when treated with the antiseptic for ten minutes, gave no growth at all. Different strains of anthrax spores gave varying results, but none resisted for longer than twenty minutes the action of a 1 in 1,000 solution of isotachiol. Injecting a 1 per cent. solution into the subcutaneous tissue of rabbits and guinea-pigs, the author finds that a dose of 1 centigram for every hundred grams of the animal's weight is well tolerated, twice that dose is usually toxic, and a dose of 3 or 4 cgr. to each 100 grams of body weight is always toxic. As much as 80 c.cm. of a 1 in 10,000 solution have been injected into the veins of a rabbit weighing 2.1 kilog. without causing any noticeable reaction. Daily repeated injections, covering a period of ten or fifteen days, produce no sign of intolerance. The author lays stress on this toleration of the antiseptic when administered by endovenous injection. Stronger solutions injected into the veins cause death by thrombosis and embolism. Injecting subcutaneously a preparation of anthrax bacilli into two guinea-pigs, and immediately afterwards into one of them 5 c.cm. of a 1 in 1,000 solution of isotachiol the author found that where the injections were close together death was delayed for at least twenty or thirty hours compared with the control, but when the injections were in different parts of the body or when the antiseptic injection was much later than the other no good effect was produced. It was found possible by repeated endovenous injections of isotachiol to delay, but not to avert, the death of animals inoculated with fatal doses of anthrax bacilli the day before treatment was begun. The great antiseptic power and the slight toxicity of isotachiol suggested its use for the disinfection of drinking water. The addition of isotachiol (1 in 500,000) to ordinary unsterilized water was sufficient to sterilize it in two days and to keep it sterile during the fifteen days over which the experiments extended. Tachiol in the same proportions was not quite so speedy in its action. Similar experiments with almost equally good results were made on waters infected by *Staphylococcus pyogenes aureus*, the typhoid bacillus, and the *Bacterium coli.*

130. **Exercises in Paralysis Agitans.**

W. Lasarew (*Zeit. f. Diät. und Physik. Therap.*, November, 1905) describes a case of paralysis agitans which was greatly benefited by a course of exercises. The patient was a man, 43 years of age, who came under treatment in 1904. Symptoms of the disease had been present since 1899, but the symptoms had become more marked since 1902. When seen the patient exhibited the disease in a typical form. In the treatment three kinds of movements were employed—the active, the passive, and the active-passive. Both passive and active movements were especially directed towards combating the rigidity, the movements had as great an amplitude as possible, and different groups of muscles were systematically called into action. The most complicated exercises were those in which as a preliminary measure the abnormal attitude was as far as possible corrected. The active-passive movements were especially useful at the beginning of the treatment. In this case no special exercises were undertaken to combat the tremors, partly because the symptom was not a prominent one, and partly because of the author's view that the tremors are of a paralytic nature, and disappear, together with the other symptoms, such as the rigidity, etc. The exercises were carried out many times in the day, but never to such an extent as to tire the patient. As the result of the treatment, the patient, who at the outset had needed help hourly either in changing his position or in eating and drinking, at the end of the treatment went about unaided, raised himself easily, and could halt and turn at the word of command. Propulsion and latero-propulsion had disappeared. Paresis of the left leg was present in a small degree only; rigidity had disappeared on the right side, and was only slight on the left side; the tremor of the right hand had so far abated that the patient could drink without spilling; the voice was loud, and the patient could sing with expression. The attitude was altered, the head was pressed back, the knee and elbow joints were extended, and the "writing hand" was no longer visible on the right side, and only in a very modified form visible on the left.

PATHOLOGY.

131. **Pathogenesis of Simple Gastric Ulcer.**

Palermo (*Rif. Med.*, October 28th, 1905) comes forward with a new hypothesis on this question. He first succinctly discusses the very many theories that have been already advanced, and points out some of the chief objections to them—for example, against the thrombotic theory he points out that all evidence of endocarditis is often absent, and that just in the cases (old people) where one would be most likely to get the vascular conditions predisposing to thrombosis gastric ulcer is comparatively rare. Again, although microbes may cause ulcers in the alimentary canal, these do not at all resemble in character or in course the typical gastric ulcer. The author's theory depends on the facts of pathological anatomy as seen in the results of chronic gastritis or the anadenia of Ewald. Starting from the presence of an anadenia focus—that is, a point where the gastric glandular epithelium is wanting), either as a normal factor (not uncommon in the pyloric region) or as the result of a previous chronic inflammation, the author points out the difficulty in repair, if such an area gets injured, owing to the absence of the glandular epithelium. This difficulty would be further aggravated by the presence of gastric peristalsis and by the gastric juice, for, owing to the absence or inefficient repair of protective epithelium, the submucoid or even the muscular coat would be fully exposed to the digestive action of the gastric juice. In the cases where an ulcer is found in spite of a condition of anachlorhydria, the author supposes there is an extensive anadenia; further, this anadenic condition may serve to explain (when the anadenia is extensive) the relapses which in some cases occur after gastro-enterostomy.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

132. **Spread of Tuberculosis by Laundries.**

S. Bernheim and A. Roblot (*Zeit. f. Tuberk.*, Band viii, Heft 1) call attention to the danger of the spread of phthisis by means of the soiled linen from tuberculous patients. The authors have been struck by the large number of men and women engaged on work at laundries who attend at he antituberculosis dispensaries in Paris, and who if questioned state that very many of their companions have died of phthisis. Statistics bear out the impression thus obtained. Laënnec, for example, states that 143 out of 238 nen and women engaged in laundry work who died during ive years died from phthisis. The authors believe that the nortality from phthisis amongst laundry workers, at any ate those belonging to the small laundries, is higher than he mortality from the same cause amongst nurses. There an be no doubt that inoculation with the tuberculous irus may occur as a result of handling the linen from uberculous patients, and Foa has made an observation on cases in which tuberculous nodules developed under uch circumstances. At the same time a profound negli- ence is shown both by the public and the laundry vorkers in the treatment of linen which may be contagious. he authors examined the handkerchiefs, the serviettes, nd the bed linen of tuberculous patients, and demon- trated the presence of Koch's bacilli. Yet such linen is aken to the laundry and mixed with that of healthy eople without any precaution whatever. To lessen the anger of spread of infection the authors recommend:) That the linen should be taken away from the houses in oxes, or bags, which should be disinfected before they are eturned; (2) that there should be a preliminary disinfec- on of the linen on its arrival at the laundry, the disin- ection to take place preferably within the boxes or bags which the linen has been brought; (3) that the reception nd disinfecting room should be altogether separate from e washing room; (4) that there should be one set of ehicles for taking the soiled linen from the houses, and at these vehicles should be often disinfected, while the ean clothes should be delivered from another set of ehicles. The Ministry of Commerce published regula- ons on the subject in 1905, which would have been satis- ctory enough if carried out; but the regulations were not come into operation at once, and some of them not for ree years, by which time they will probably have sunk t of sight. The difficulty of pressing such regulations der present conditions is obvious because the price of rrying them out would be prohibitive for the smaller undries, but at the same time the precautions are needed the interests both of the workers at the laundries and of e general public. In addition to these measures, the thors recommend that the linen of all poor families in ich there are phthisical patients should be washed atuitously in laundries under municipal control.

133. **Tracheal Tugging.**

usini (*Rif. Med.*, January 6th-13th, 1906) records four ses of intrathoracic aneurysm where the symptom of cheal tugging proved of much value in diagnosis. On e value of the symptom in general as an indication of hesions between the trachea or bronchi and the eurysm (or new growth) the author speaks decidedly. e rare case of fallacy was due to the existence of a yroid artery and somewhat unusually long innominate. e rhythm of a trachea which pulsates in hysterical hypnoea is respiratory and not cardiac. As a rule, the lsation is systolic, and it is only of this systolic pulsa- n that the author writes; but a diastolic pulsation has en described by Hall, and is said by him to be even more gnostic of aneurysm. Tracheal pulsation has been scribed in perfectly healthy subjects, but in the author's perience this is very rarely met with and may practi- ly be disregarded. As a pathological symptom, except cases where the aneurysm is situated just where the ta crosses the left bronchus, it is a sure sign of adhesion ween an aneurysm and the main respiratory tubes chea and bronchus). Although it is true that a diastinal new growth may give rise to tracheal tugging, aneurysm is much more likely to do so, for media- al growths rarely start from the left pre-tracheal- nchial glands, but more commonly from other diastinal glands or from the thymus.

134. **Asthma.**

Jas. R. Arneill (*Amer. Med.*, February 10th, 1906) gives the deductions drawn from the study, treatment, and observation of a number of cases of asthma. He was impressed with the fact that we are frequently deceived in regard to the recovery of our patients, because we do not take the trouble to trace their ultimate history. If we did, we should find many of them in the hands of osteopaths, Eddyites, and vendors of patent medicines. Patients often improve for a short time after consulting new physicians, osteopaths, and Eddyites, but if followed up will again be found in the hands of regular physicians, or treating themselves. We are prone to make a simple diagnosis of asthma. Instead we should make a close study of each patient, making a vigorous effort to locate the reflex, which directly or indirectly has considerable bearing on the development of the disease. The eyes, nose, and throat, stomach and intestines, genito-urinary system, and nervous system in general, should be carefully investigated, and the treatment directed accordingly. Six cases, illustrating a variety of causes and treatment, are reported. The pathology is summed up as follows: (1) a vulnerable mucous membrane; (2) abnormally sensitive nerve centres; (3) an external irritant or exciting cause; (4) the presence in the body of known and unknown substances which are toxic to patients susceptible to asthma.

SURGERY.

135. **Resection of the Shoulder-joint.**

Catterina (*Zentralbl. f. Chir.*, No. 2, 1906) points out that a rational method of resection of the shoulder should fulfil the following conditions: (1) It should do as little mischief as possible and not endanger any important vessels and nerves; (2) it should be free from difficulty in its performance; (3) it should permit free exposure to sight of all parts of the joint; (4) it should be applicable to every case in which resection of this joint is indicated. The method here proposed by the author consists in temporary resection of the outer third of the clavicle, this fragment of bone, together with the intact deltoid muscle and its circumflex nerve, being turned outwards. By this method, which is free from danger and suitable in all cases, especially in reduction of old anterior dislocation of the head of the humerus, the interior of the joint is freely exposed. The skin incision extends from a point in the neck about 2 in. above the junction of the middle with the outer third of the clavicle, downwards over the interspace between the deltoid and pectoralis major muscles. After section of the clavicle it is necessary, in order to obtain free external rotation of the outer fragment, to divide the attachment of the trapezius, the subclavius, and the coraco-clavicular ligament. After resection of the joint the outer fragment of the clavicle is replaced and fixed in its normal relations by sutures.

136. **Enteric Cysts.**

Ayer (*Amer. Journ. Med. Sciences*, January, 1906) has compiled a monograph on enteric and mesenteric cysts based upon an instance of a tumour of the former type. The patient was a Japanese, aged 23. Seven years before his admission into a New York hospital he had an acute attack of severe pain in the right lower quadrant of the abdomen. Similar attacks, variable in severity, occurred from time to time; at length he applied for hospital relief during a seizure where the suffering was severe and accompanied by vomiting. Examination showed slight tenderness and resistance at McBurney's point, but no tumour could be made out. Recurrent catarrhal appendicitis was suspected. The caecum was exposed by the usual parietal incision and drawn into the wound, the appendix, retrocaecal in position, was free from disease. The lumen of the caecum was occupied by a mass as large as a duck's egg, tense, fluctuating and smooth. The portion of the intestinal wall opposite the mesocolic attachment was freely movable over the mass, which at first was mistaken for an intussusception of the ileum. The caecum was opened by an incision parallel to its circular fibres, and the tumour delivered. It was covered by what appeared to be congested, eroded and transformed mucosa, and was apparently sessile over about one-fifth of its surface which corresponded to that portion of the colon which lay in contact with the parietes and was devoid of a peritoneal covering. The operator's finger was passed around the lower extremity, which lay free in the cavity of the caecum, and further onwards through the ileo-caecal valve, which was found to be patulous. The upper half of that valve was apparently fused to the outer covering of the tumour. The upper or narrower end of the cyst was more sessile than the lower, and terminated in a sort of funicular process about 2 in. in length, its diameter diminishing to nothing at its upper end. An incision was made through the presenting wall of the tumour, in its long diameter, and over 3 oz. of a clear viscid fluid escaped. The cyst wall was three-sixteenths of an inch in thickness. The smooth grey inner wall did not extend into the funicular process at the upper limits of the cyst, but at the site of the attachment of the tumour to the gut was a much bigger funnel-shaped process extending for 2 in. backwards and inwards between the layers of the mesentery proper and just large enough to admit the examining finger. Enucleation was impossible, resection seemed inadvisable, the free portion of the cyst wall was simply trimmed off to within a quarter of an inch of its point of fusion with the bowel, the haemorrhage which set in being controlled by a rapidly-applied continuous catgut suture. The wound in the gut was then closed by three layers of suture applied in the usual manner and drained for three days. Recovery was uncomplicated. Unfortunately the excised cyst wall and the fluid were not examined. Sainsbury, Coudamin, and Conant have described intra-intestinal cysts in the neighbourhood of the ileo-caecal valve. Ayer discusses purely mesenteric cysts at length.

137. Rupture of the Rectus Abdominis in Cavalrymen.

The adductors of the thigh are most frequently ruptured in cavalrymen, and other forms of muscular rupture have received but scant attention. Léneg (*Allgem. militärärzt. Zeitung*, Beilage zur *Wien. med. Presse*, December 24th, 1905) states that rupture of the rectus abdominis is not infrequent. He has seen 12 cases within a period of three weeks, though only 13 other cases have been published since 1858, probably because the injury is usually without danger or complications. The history of the accident is almost always identical. A recruit (not a trained soldier) attempts to mount without placing the foot in the stirrup. At the moment of springing a violent, stabbing, strictly localized pain is felt in the lower part of the abdominal wall to one or other side of the middle line. Further attempts at mounting are impossible, as the slightest exertion is painful. Respiration is momentarily arrested, or is extremely superficial, and entirely costal. The body is bent, as it is impossible to stand upright, and the face is pallid. At the time the accident occurs the patient feels that something has given way and that the lower part of the abdomen is weak. The pain radiates downwards to the corresponding thigh, and frequently also to the loins. Usually there are no general symptoms, but in two of the writer's cases there were nausea, vomiting, and colic; and in a case observed by Richardson the symptoms resembled those of a strangulated hernia, and herniotomy was performed. The skin of the abdominal wall is normal, and, except in one case in which the aponeurosis was probably ruptured, no ecchymoses have been observed. The ruptured muscle is seldom prominent, though occasionally it forms a globular swelling. Palpation is painful, the most tender spot being always opposite the rupture, and reveals—even when none is visible—a sharply-defined swelling, with its long axis directed transversely. When the rectus abdominis is at rest, this swelling, which varies greatly in size in different cases, is freely movable, but when the muscle contracts it becomes fixed, and moves only with the muscle. Its volume is constant under all circumstances in a given case, and there is dullness to superficial percussion over it. Thus it is distinguished from hernia. In none of the writer's cases was it possible to feel the groove which has been described between the ends of the ruptured muscle. Coughing, vomiting, and defaecation are more or less painful. Of the 12 cases, the rupture was on the right side in 9, though other authorities state that it is more common on the left side. It usually occurred from 2 to 4 cm. above the pubes, though in 3 it was 6 or 7 cm. above the pubes, and in one reported case was above the umbilicus. This position is explained by the anatomy of the rectus. Below the umbilicus the posterior layer of its sheath is formed only by the transversalis fascia, which gives but slight support to its fibres. This fact also explains the absence of ecchymoses and of a palpable gap between the ends of the muscle, the rupture being partial in 83 per cent. of all cases, and affecting the deeper layers only. If there is a large visible tumour it is formed by a haematoma, and may be due to rupture of the epigastric artery, which enters the muscle about 3 cm. above the pubes. In Richardson's case this artery was completely torn across, and the symptoms of strangulation may have been caused by extension of a haematoma posteriorly into the subserous cellular tissue. Partial ruptures of the rectus heal rapidly. In the writer's cases all symptoms had disappeared in from three to seventeen days. In 2 cases in which the men resumed duty after four days' rest a relapse occurred, and ran an identical, though more prolonged, course. In no case has suppuration of the haematoma occurred. The diagnosis of rupture of a rectus muscle is usually easy, the only conditions which may simulate it being irreducible intraparietal hernia and epiplocele. The treatment consists in rest, bandaging, and massage.

OBSTETRICS.

138. Internal Podalic Version for Bandl's Ring.

Bar defines podalic version as a process by which it is possible to change a face or shoulder presentation into a breech presentation (*Journ. des Prat.*, February 10th, 1906). Bandl's ring is situated at the lower limit of the mixed fibres—that is to say, of those fibres which constitute the greater part of the muscular uterine wall, and which are responsible for the expulsive force. This ring is the chief obstacle in internal version. Version is usually performed when the fetus is at or near term. The part of the fetus which it is wished to displace always lies in the lower segment of the uterine canal—that is, below Bandl's ring, and the part which it is necessary to bring down lies above Bandl's ring. Version is only successful when the fetal part which lies above the ring is made to replace the part below the ring, and the success of this operation depends upon the speed with which the part lying below the ring can be induced to pass above it. The operation should be undertaken as soon as dilatation is complete and before the membranes rupture. If the membranes rupture before dilatation is complete this process must be hastened. The best method to employ for this purpose is the introduction of tents into the cervical canal. In order to overcome the tonic contraction of Bandl's ring the patient should be deeply anaesthetized. The hand is then introduced slowly along the ventral surface of the fetus; the fingers and hand are insinuated between the fetus and the ring, and with the back of the hand the ring is pushed in every direction in which there is any resistance. When it has yielded, and only then, a foot may be seized and brought down; a ligature is then attached to it. The foot should never be drawn upon for the purpose of delivery until it is quite certain that the presenting part has retired above the ring. If there is any doubt of this while the foot is retained by the ligature, the hand may be reinserted and the fetal part below the ring be pushed upwards and forwards; an assistant at the same time should make pressure on the fundus, and thus support the uterus and assist the descent of the breech. The operator, by working slowly and without force, and by pushing the part always forwards as well as upwards, will presently find the obstruction overcome and the way clear. Version, properly so-called, is then finished, for the presenting part has passed above Bandl's ring; then, and only then, can delivery be safely begun.

139. Toxaemia in Early Ectopic Pregnancy.

Bandler (*Amer. Journ. Obstet.*, January, 1906) attended a multiparous woman, aged 42, who had not borne children for twelve years. After missing a period over two weeks she was seized with abdominal pain, followed on the next day by vomiting; this continued for five days, when she was sent into a hospital. Appendicitis had been diagnosed. The patient on admission was delirious, vomiting frequently. On operating Bandler discovered a very large haematocele, consisting chiefly of fluid black blood; the absence of clots was remarkable; no other unusual appearance was discovered. The vomiting continued for two days after the operation, and then was relieved by washing out the stomach, but anuria followed, and the patient died; unfortunately a necropsy was refused, but the abdominal wound was reopened. There was no blood in the abdominal cavity, nor any sign of peritonitis. A piece of liver was removed with one kidney. Neither yellow atrophy nor Schmorl's lesions were detected in the hepatic tissue. The symptoms indicated toxaemia of pregnancy, but uraemia seemed probable, and the kidney would be thoroughly examined. Paltauf had reported a case of toxaemia in early ectopic gestation.

GYNAECOLOGY.

140. Five Laparotomies on one Patient.

AT a recent meeting of the Obstetrical Society of Leipzig, Zacharias (*Zentralbl. f. Gynäk.*, No. 1, 1906, p. 27) reported a remarkable case where a woman underwent abdominal section five times in the course of eight and one-quarter years, 109 lb. of tumour being removed altogether. The patient was 57 when she underwent the first operation in October, 1896. She had noticed for some time that the abdomen was growing larger, the circumference at the umbilicus was 43 in. Two tumours of the combined weight of 27 lb. were removed; they were retroperitoneal and connected with the vertebral column by a very thick pedicle; the genital tract was quite free from the new growth. In April, 1899, 16 lb. of tumour were resected from the great omentum, transverse mesocolon, right broad ligament, and mesentery, making in all ten separate growths. Sixteen pounds of tumour were removed in November, 1900, from the parietal peritoneum, stomach, and gall bladder. In November, 1903, two big tumours of the combined weight of 24 lb. were dissected out of the pelvic peritoneum and muscular structures in the pelvis. In February, 1905, the last operation was performed; 26 lb. of tumour were removed from the parietal peritoneum, sigmoid, mesocolon, and bowel; 5½ in. of bowel had to be resected; Murphy's button was employed. The patient died of perforative peritonitis on the ninth day. The precise origin of the new growths could not be determined at the necropsy, but the uterus and appendages were free from disease. The tumours were in every instance well encapsuled, and therefore enucleable like a lipoma, but pathologically they were myxo-sarcomata. Zacharias notes that Salzer described in 1888 a case where three similar retroperitoneal tumours were discovered. In a discussion in the Section of Surgery at the Oxford meeting of the Association (BRITISH MEDICAL JOURNAL, October 22nd, 1904, p. 1080), references were made to Saneyosti's case of multiple fibro-myoma disseminated over the subperitoneal tissue from the hypochondrium to the pelvis. In respect to general surgery, Dr. Zacharias's case shows the value of asepsis, which allowed the patient to be repeatedly relieved, although subject to a semi-malignant new growth situated in a region accessible no doubt, but dangerous for surgical manipulations, especially in regard to the vascular supply of the adjacent intestine.

141. The Actual Cautery in Leucorrhoea.

G. L. HUNNER (*Journ. Amer. Med. Assoc.*, January 20th, 1906) describes his method of treating leucorrhoea by making deep radial incisions of the cervical tissues by means of the cautery blade. With the patient in the dorsal or lithotomy position, a broad-bladed Sims's speculum is introduced into the vagina, the anterior lip of the cervix is seized with a tenaculum and the cervix is pulled down as near to the vulva as possible. The nurse works the cautery bulb with one hand, while she holds the speculum with the other, and the operator keeps the tenaculum in one hand and manages the cautery with the other. The strokes should be made one at a time, the cautery is removed from the vagina after each stroke as the patient feels the radiated heat on the vaginal walls. She must be warned not to move and she will feel no actual pain, unless there already exists a painful cervical scar, in which case Hunner uses preliminary cocaine anaesthesia by means of a tampon soaked with 20 per cent. cocaine solution applied for ten minutes. The number and depth of the strokes vary with conditions present, but he usually gives six, ranging from 2 mm. to 5 mm. in depth, and extending across the whole hypertrophied mucosa. The treatments are given once in three weeks and usually number from three to six. A sterile strip of gauze is left in the vagina against possible haemorrhage and the patient is instructed to withdraw it the following evening. If the bleeding is profuse she should go to bed. There is often a little haemorrhage after three or four days, and in one or two of his cases this was enough to alarm the patient. A daily douche is advised during the interval between treatments. So far as Hunner knows, there have been no bad after-effects as regards parturition. He emphasizes the importance of a correct diagnosis before treating any case of leucorrhoea. If there is any suspicion of cancer, he advises an examination by a competent pathologist. In fresh gonorrhoeal cases he does not use the cautery or anything that can excite or extend a cervical infection. In chronic gonorrhoea he does not persist too long with the cautery or cervical treatments, as there may be infection higher up, but cases not extending above the cervix may be considered curable. The quickest and best results are obtained in a cervical hypertrophy and eversion due to multiple childbirth. One advantage of the method is that it can be used in office practice and without anaesthesia.

142. Cancer of a Hysterectomy Stump.

LECÈNE (*Bull. et Mém. de la Soc. Anat. de Paris*, October, 1905) exhibited before a medical society a cervix uteri with the upper part of the vagina removed by abdominal section two years and a half after subtotal hysterectomy for uterine fibroid disease. When the uterus was amputated the patient was 53 years old, the menopause had not arrived, and there was menorrhagia, and also free uterine haemorrhages, between the periods. There was a fibromyoma of the size of a fist in the body of the uterus; the cervix was reported as absolutely free from disease. The right ovary was preserved, and the patient remained in good health and free from bleeding for over two years. Then haemorrhages set in and became frequent; emaciation soon showed itself. The patient was examined, and the cervix was found to be the seat of cancer, which had not extended either into the parametrium or into the vagina. Lecène therefore operated on July 7th, 1905. The patient was discharged from hospital on the 28th, but no more was heard about her. The cancer was typical epithelioma of the vaginal portion of the cervix.

THERAPEUTICS.

143. Antityphoid Inoculation.

THE *Archiv f. Schiffs u. Tropen Hyg.* for December, 1905, contains a report on the results of protective inoculation against typhoid among German troops for South-West Africa. The course of the disease was observed in 424 cases, of which 100 had been previously inoculated and 324 had not been inoculated. The method of inoculation was that of Pfeiffer-Kolles. The inoculation had been performed once in 30 of the patients, twice in 52, and three times in 18. The time which had elapsed between the time of inoculation and the time at which the disease was contracted is not given, but could not in any case have been more than ten months. It is expressly stated that those cases which sickened soon after inoculation were the most severe, and although it cannot yet be decided how far the "negative phase" had to do with this fact, yet it would appear that this phase is not always overcome after a period of three weeks. The general results were as follows: Of the 324 not inoculated, 36 (11.1 per cent.) died; and of the 100 inoculated, 4 (4 per cent.); of these 4, 3 had been inoculated only once, and the fourth twice. Of those not inoculated, 25.3 per cent. were severe cases, 21.3 per cent. were average cases, and 42.3 per cent. were slight; of those inoculated, 10 per cent. were severe, 20 per cent. average, 66 per cent. slight. In the 10 severe cases among those who had been previously inoculated the inoculation had been performed once in 6 cases, twice in 3 cases, and three times only in 1 case. There were complications in 113 cases (or 34.9 per cent.) among those not inoculated, and in only 20 cases (or 20 per cent.) among those previously inoculated. Moreover, the sanitary officers who had the opportunity of watching the course of the disease among the inoculated and the uninoculated reported that among the patients who had been inoculated, as compared with the others, headache was seldom present, the sensorium was almost always unaffected, the effect on the heart was slight, the fever ran a shorter course and did not reach the same height, and sequelae were rare. From such a report it follows that a positive refusal of inoculation cannot be justified, and that inoculation is especially to be recommended for soldiers on service in countries in which sanitary measures against typhoid cannot be effectually carried out. At the same time, it is important that those inoculated should not go to an infected neighbourhood until at least three weeks has elapsed from the time of the second inoculation.

144. Digalen.

R. FREUND (*Therap. Monat.*, December, 1905) passes in review the different preparations of digitalis, and strongly recommends digalen, which is, according to Cloetta, amorphous digitoxin. Digalen was recommended by von Naunyn in 1904 on the ground that it had a quicker action than the infusion of digitalis, its effect becoming obvious within twenty-four hours. It is stated to have no cumulative action, never to give rise to vomiting, and to be the only preparation of digitalis which can be injected into the veins. Such an injection is painless and only needs to be repeated every twenty-four hours; its effect is seen in from two to five minutes in a rise of blood pressure of about twenty-four hours' duration. The author has made use of digalen in 1 case of cardiac weakness after chloroform narcosis, in 2 of acute dilatation after strain, in 4 of chronic myocarditis, in 2 of mitral insufficiency with dropsy, and in 1 of pleurisy complicated by cardiac weakness. The preparation was well taken by the patients, and in each case gave good results. In one case of acute dilatation in which digalen was injected into the veins the effect was obvious after five seconds. The pulse-rate fell from 120 to 76, and a minute later to 68. The author has never seen a case of acute dilatation in which the worst symptoms were so speedily relieved. He finds digalen to be the most satisfactory preparation of digitalis at present in our possession.

145. Ethyl-Chloride in Herpes Zoster.

Vergely (*Rev. de Med. y Cirurgia Practicas*, November, 1905) publishes the case of a young woman aged 26, in the enjoyment of good health previously, who presented herself with well-marked herpes zoster, the pain and burning sensation being sufficiently troublesome to prevent her from working. Applications of cotton soaked in spirit and covered with oil-silk were attended with no effect, and successive eruptions continued to appear for the succeeding seven or eight days. Acting on the knowledge that Abadie had in several cases cured an attack of zona by lumbar puncture and the evacuation of some 20 c.cm. of the cerebro-spinal fluid, it was thought that the production of a shock to the spinal cord by means of somewhat less heroic measures might be beneficial; and with this idea ethyl-chloride was applied over an area corresponding to the eight first dorsals. The result was most gratifying. The pain and anaesthesia instantly disappeared, and the eruptive process was evidently checked, for the already-formed vesicles began to form crusts on the following day, and the patches which had last appeared aborted, the little vesicles drying up and disappearing as red points without arriving at the vesicular stage. On the tenth day after the application all the crusts had fallen off, and the eruption was gone. Vergely opines that it is not sufficient to make the skin very cold, but that a true congelation of the surface should be produced.

146. Haemoantitoxin in Phthisis.

Giordano (*Gazz. degli Osped.*, January 9th, 1906) reports 4 cases of phthisis treated with haemoantitoxin. Of these 4 cases, 2 were said to be cured in three or four months, 1 much improved, and 1 only temporarily benefited. This last case presented advanced signs in each lung, so that cure could hardly be hoped for. Of the 2 cured cases, definite but slight signs of pulmonary phthisis were present, and tubercle bacilli found in the expectoration. After treatment all the clinical symptoms disappeared, and no bacilli could be detected. In the third case, which was one of phthisis following influenza, very marked improvement took place, and the author believes that cure will eventually occur. In all the cases an improvement in the general condition—an increase of appetite and a sense of *bien être*—made itself speedily felt.

147. Heliotherapy in Laryngeal Tuberculosis.

Collet (*Lyon Médical*, January 7th, 1906) records the successful treatment of a case of laryngeal tuberculosis by the action of the sun's rays. He saw the man, aged 33, for the first time on March 10th, 1905. The symptoms were slight cough, wasting, and dysphagia, with loss of voice. On examination there was no rise of temperature, and the only pulmonary lesion was a little loss of resonance to percussion at the right apex. The laryngoscope showed great infiltration of the epiglottis and of the arytenoid cartilages. The epiglottis was swollen, grey, and indented; it was very rigid, and the curvature was partly lost. The arytenoids had a similar appearance; the infiltration of the ventricular bands resembled the teeth of a saw. The vocal cords were untouched. There was nothing abnormal in the pharynx or nasal fossae. The patient went to the South of France away from the sea. He practised the heliotherapy by facing the sun and directing the rays on to the larynx by means of a laryngoscopic mirror. This manœuvre he managed for five minutes at a time for at first half an hour and afterwards an hour a day. The treatment was associated with generous feeding and the administration of cacodylate of soda, measures which had been tried without success for some time before the heliotherapy. The patient was examined again on November 9th. The epiglottis had become supple again, the border was smooth, save for a small notch to the right; there were no nodules; the normal rose colour had returned, and the mobility during phonation was perfect. Some of the arytenoid lesions persisted, so that the patient was instructed to direct the sunlight directly on to the vestibule of the larynx. Another examination on December 13th proved the arytenoid swelling almost entirely to have disappeared. The general health improved with the amelioration of the local lesions.

PATHOLOGY.

148. Spirochaeta Pallida in the Tissues.

Buschke and Fischer (*Berl. klin. Woch.*, January 1st, 1906) have studied the distribution of *Spirochaeta pallida* in the organs of infants affected with congenital syphilis. For the demonstration of the organisms they recommend the method of Levaditi. After hardening in formalin and alcohol, small pieces of tissue are kept for three days in a 1.5 per cent. solution of silver nitrate at a temperature of 38° C. They are then kept for twenty-four hours at room temperature in a reducing fluid which consists of: Pyrogallic acid 2 gm., formol 5 c.cm., distilled water 100 c.cm. The tissues are embedded in paraffin, and cut in as thin sections as possible. For a counterstain, either Giemsa's solution or toluidin blue may be used, but in the opinion of the authors the parasites are best seen when no counterstain is employed; there is no danger of confusing them with elastic fibres, connective tissue fibrils, or nerve endings. Following this method, they have demonstrated the parasites in a condyloma, in the liver and spleen of two cases of hereditary syphilis, and in the kidneys and skin papules of one case of the hereditary form of the disease. The parasites are found in the walls of blood vessels attached to endothelial cells, and may be traced from the vessels into the surrounding tissue. They are often attached to epithelial cells, though it is doubtful if their position is actually intracellular. In the skin papules from a syphilitic child their distribution was particularly interesting. In the papillae, particularly within and around the capillaries, large numbers of definitely coiled spirochaetes were seen; from this situation they passed, at right angles to the surface, through the epithelium, which showed little or no infiltration, and could be traced as far as the under surface of the horny layer. In the deeper parts of the cutis only a few isolated parasites could be seen, but they were somewhat more numerous in the sebaceous glands, sweat glands, and hair follicles.

149. The Unity of Dysentery Bacilli.

Dopter (*Ann. de l'Inst. Pasteur*, December, 1905) finds that in the serum of animals vaccinated against the bacillus of dysentery, and in the serum of patients infected with dysentery of bacillary origin, a specific fixative is demonstrable. This fixative is present in all cases of the disease, whether acute or of only moderate severity; it generally makes its appearance at the end of the first week, and persists during convalescence. It is independent of agglutinating power. In amoebic dysentery, on the other hand, this specific fixative is absent. Both with animals and with patients a serum rendered specific by one kind of dysentery bacillus is capable of acting as a fixative towards dysentery bacilli of other types. Thus the Shiga type, the Flexner type, and the pseudo-dysentery organism of Kruse exhibit in this respect an identical action. These observations, in the opinion of their author, have an important bearing on the possible differences in etiological significance of different so-called "types" of dysentery bacilli. Thus the Shiga and the Flexner types have been distinguished on the ground of differences in their agglutination reactions; and for these, as for other dysentery organisms, tests in broth cultures, to which various sugars and other bodies have been added, have established individual differences which are characteristic of each organism. On the ground of these biological differences, a doubt has been raised by some authorities as to whether the same etiological significance is to be attached to those organisms which diverge from the true Shiga type. Dopter, however, pointing to the identity of the specific fixative substances, urges that these so-called "types" are not specifically distinct organisms such as might be capable of giving rise to different types of disease. Their differences in certain biological characters he compares to the differences observable in different strains of cholera vibrios, which no one would regard as important enough to invalidate the specific unity of these vibrios, from whatever source derived.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

150. Blood Cryoscopy and the Functional Activity of the Kidneys.

BEER (*Amer. Journ. Med. Sci.*, February, 1906) doubts the value of blood cryoscopy for determining the functional activity of the kidneys. It is not proven that the molecular concentration of the blood is regulated purely and simply by the excretory activity of the kidneys. As we have good reason to think that the kidneys are not the sole regulators of the blood's concentration, nobody has the right to reason as if they were. Cryoscopic data, like quantitative analyses of the urine, tell us in a measure what is happening at the moment, and nothing more. The compensatory powers of the kidney are far from the cryoscopist's observational powers, and probably they will never reveal themselves. Amongst other facts discovered in the course of cryoscopic research, it is now known that the concentration of the blood may be normal, equal —0.56° C., even though the kidneys are functionally inactive and anatomically the seat of grave disease. On the other hand, the concentration of the blood may be markedly increased even though both kidneys are in good condition. In a large number of cases high concentration corresponds to bilateral kidney disease, but as yet we are unable to decide which cases of high concentration are not of renal origin and which cases of low concentration are suffering or likely to suffer from renal insufficiency. With the solution of this problem future work will have to concern itself. Excessive molecular concentration is not necessarily a bar to operation, or rather for the above reasons cryoscopic evidence is no guide in renal surgery. Cryoscopy is not only doubtful in calculating the actual state of renal activity; it is useless in prognosis, as it is incapable of measuring the compensatory hypertrophy which may develop in any kidney.

151. Cortical Facial Paralysis following on Cerebro-spinal Meningitis.

A. MANDOUL (*Arch. Gén. de Méd.*, January 16th, 1906) describes a case of facial paralysis of cortical origin occurring in a man who some months previously had suffered from symptoms of cerebro-spinal meningitis. The patient, a soldier, soon after leaving his regiment, in which an epidemic of cerebro-spinal meningitis had been prevailing, was struck down with fever, vomiting, and stiffness of the neck, and a diagnosis of meningitis was made. Six months later he was found to complain of pains in the legs, occipito-frontal headache, and general weakness. There was no paralysis of the limbs and no sensory disturbance; the deep reflexes were exaggerated, and ankle and rectus clonus could be obtained. Babinski's sign was absent, and the superficial reflexes were normal. The muscles of the left side of the face, except the uppermost ones, were paretic, and this paresis was exaggerated by voluntary and diminished by emotional movements. Nothing else abnormal could be discovered. A diagnosis of cortical facial paralysis was made on the following grounds: The upper facial muscles were unaffected, showing that the lesion was not one involving the nerve trunk at the base of the brain; there was no internal strabismus, which, owing to the close proximity of the sixth and seventh cranial nuclei, would almost have certainly been present had there been a nuclear lesion; a lesion of the internal capsule was unlikely, since there was no hemiplegia. The author therefore concludes that the lesion was situated over the motor area for the face on the right side, and probably consisted of a thickening of the meninges here.

152. Arteriosclerosis as a General Disease.

ALFRED STENGEL (*Amer. Med.*, February 10th, 1906) says the conception of arteriosclerosis as merely a passive process of hardening of the vessels is now completely out of date. A proper picture of the condition portrays a more general disturbance of the whole organism. Three stages of the disease may be recognized: (1) A preliminary one difficult of recognition in its beginnings and confusing to the clinician in his first efforts to distinguish what part the etiologic factors have contributed to the symptom-complex and what part has resulted from the arterial disease itself. (2) A middle period, during which the arterial disease is easy to recognize, but in which secondary organic changes have a rôle of variable importance. (3) A final stage of failure of circulation, organic failure and terminal infection. Arteriosclerosis as ordinarily seen begins in middle or later life, progresses regularly and slowly, involving all the vessels uniformly and causing a coincident involution of the body as a whole. Contrasted with this is the form seen in younger subjects, more rapid in its course, showing a tendency to the greater involvement of certain vessels, causing notable functional disturbances. In this form especially are the general changes quite out of proportion to the arterial involvement. Some investigators have insisted that there is a preliminary presclerotic stage of continued high blood pressure attributed either to a spasm of the arterioles due to toxic or nervous influences or to a change in the viscosity of the blood causing obstruction to the circulation. Stengel's clinical studies have shown that in the earliest stages there is rather a condition of decreased tension with a tendency to temporary or paroxysmal elevations, that the condition is one of loss of elasticity in the vessels due in part to toxic alterations (degenerations) in the vessel walls. Among the varieties of early arteriosclerosis he has observed several more or less distinct types: The nutritional type presenting obscure disturbance of general health with a tendency to digestive disorders and anaemia or pseudo-anaemia; the neurasthenic type with or without definite nutritional disorders; the nervous type with the tendency to vertigo, tinnitus, syncopal attacks in early stages or temporary paralysis, spasmodic or convulsive disorders or disturbances of consciousness in advanced disease. In the more advanced stages of arteriosclerosis the disease may be classified under the following headings:—(1) The thoracic: (*a*) cardiac or disturbances incident upon special involvement of the coronary arteries; (*b*) aortic, referring not merely to aneurysm, but also to a sclerotic and calcareous roughening without dilatation but causing embarrassment of cardiac action. (2) Abdominal: (*a*) Renal, manifesting itself in the symptoms of chronic interstitial nephritis; (*b*) intestinal, as evidenced by atrophy of the mucous membrane, tendency to chronic colitis, etc.; (*c*) pancreatic, difficult of recognition, often, however, active in diabetes; (*d*) hepatic, occurring as cirrhosis; (*e*) cerebro-spinal, most numerous and varied; and (*f*) arterio-capillary, manifested in moderate circulatory disturbances.

SURGERY.

153. The Radical Cure of Femoral Hernia.

CANTAS (*Journ. de Chir. et Ann. de la Soc. Belge de Chir.*, No. 1, 1906) publishes the results of some researches he has made at the University of Athens with the object of improving the operative treatment of reducible femoral hernia. It is held that the necessary and indispensable conditions of an effectual operation for the radical cure of this form of hernia are: (1) Suppression of every trace of a peritoneal infundibulum by the application of the ligature to the highest possible level of the neck of the sac; (2) annihilation of the femoral ring by dragging downwards Poupart's ligament; (3) replacement of the septum crurale by a strong musculo-aponeurotic screen. In the method devised by the author the skin incision, which commences over the spine of the pubis, is carried outwards just above Poupart's ligament, over an extent of about 4 in. If the hernia be a large one a second incision is made over the front of the thigh, joining the middle of the first incision. In the second stage of the operation Gimbernat's ligament is cut across and the sac is dissected up to its peritoneal opening, ligatured, and resected. An incision is next made through the aponeurosis of the external oblique, parallel to and a little above Poupart's ligament. After isolation of the spermatic cord and liberation of the margins of the internal oblique and transversalis muscles, the pectineus is detached from the os pubis. The inner portion of Poupart's ligament is fixed by sutures to the horizontal branch of the os pubis, and through the orifice in the external oblique the detached margin of the pectineus is passed and fixed by sutures to the margin of the internal oblique and transversalis and to the conjoined tendon. Before the external wound is closed the upper margin of the slit in the aponeurosis of the external oblique is brought down over the displaced pectineus and sutured to the fascia in the front of the thigh.

154. Laminectomy and Section of Nerve-roots in Neuralgia.

Oehler (*Zentralbl. f. Chir.*, No. 5, 1906) proposes a method of relieving the severe pain caused by the pressure of enlarged axillary and supraclavicular glands in cases of recurrent or no longer operable cancer of the breast by exposure and section of the posterior roots of the brachial plexus. A case is reported in which laminectomy was produced on the four lower cervical and the first dorsal vertebrae, and followed by incision of the dura and division of the posterior roots of the fifth and three following cervical nerves and of the first dorsal nerve. The results in this case were not satisfactory, as, though much relief was afforded, some pain persisted in the arm and hand, and after an interval of ten days the upper extremity became completely paralysed, in consequence probably of increased swelling in the axilla. Seventeen days after the date of operation the patient died from pulmonary embolism. The author, however, is so far satisfied with the results of his treatment that he recommends its adoption under like conditions.

155. Intestinal Obstruction.

Elliot (*Ann. of Surg.*, November, 1905) points out that the results of enterectomy in certain critical cases of intestinal obstruction, and especially in cases of obstruction due to cancer, are very unsatisfactory. It is well known, he states, that the operative mortality under the prevalent method of enterectomy with immediate suture is not less than 50 per cent., and in cases of resection for gangrene of the intestine even higher. The principal cause of death is septic peritonitis, due in most instances to the fact that, in consequence of a diseased condition of the bowel, the most perfectly-placed sutures or mechanical devices do not hold. The author holds that enterostomy, with later enterectomy, should be reserved for cases in which the condition of the patient is too critical to justify primary resection, and that enterectomy with a temporary artificial anus should be the operation of choice in all critical cases of intestinal obstruction where there is an opportunity for resection, whether it involves the large or the small intestine. The following improvements in technique have been found very satisfactory in the author's practice: (1) The upper distended bowel should not be opened until the peritoneal cavity is completely closed; (2) the open ends of the bowel should be stitched together on their mesenteric sides before they are attached to the margins of the parietal wound; (3) when the artificial anus is in the small intestine, the partially-digested faecal matter discharged from the upper opening should be collected and injected into the efferent opening. The closing of the artificial anus, which is greatly facilitated by stitching together the mesenteric portions of the extremities of the divided bowel, is, the author asserts, a safe operation, and hardly disturbs the convalescence.

OBSTETRICS.

156. Large Doses of Morphine in the Treatment of Puerperal Eclampsia.

De la Harpe (*Journ. of Obst. and Gyn. of the Brit. Emp.*, February, 1906) describes Veit's treatment of puerperal eclampsia by large doses of morphine, as carried out during recent years at the Rotunda Hospital. Induction of labour is never performed, and forceps are only applied in very exceptional cases and when the head is already on the vulva. Half a grain of morphine is given hypodermically at the outset, and subsequently ¼-gr. doses are given if necessary every two hours, the maximum amount given in twenty-four hours being 2 gr. If possible, large quantities of water are given to the patient to drink, but if this is not possible the stomach is washed out with 3 or 4 pints of hot water; ½ pint of water is left in the stomach, and to this is added 2 oz. of castor oil and 3 to 4 drops of croton oil. The patient is then placed on her side, a long tube is passed gradually per anum, and the lower part of the intestinal canal is washed out with soapy water until faecal material ceases to be passed through the tube; about a pint of saline solution is left in the intestine. The patient is then covered with warm blankets, and poultices applied about the loins to alleviate the congestion of the kidneys. In order to prevent fluid or foreign bodies entering the trachea, the patient is kept lying on her side, the head is turned to the side, no gag is used because of the effect it would produce in preventing swallowing, and, the digestive function being in abeyance, absolutely no nourishment is given by mouth. The best points in the treatment are the administration of digitalis when the pulse becomes rapid and feeble, of atropine when the respirations become slow and sighing, and, in very serious cases, the use of saline infusions preceded by phlebotomy in cases of plethora. The author lays especial stress upon the importance of washing out the intestinal canal as thoroughly as possible in order to increase the elimination of toxins by the intestinal tract during the temporary suspension of the filter action of the kidneys. Another point of importance is that the treatment should be begun if possible at an early stage of the disease, most of the deaths which have occurred at the Rotunda in recent years having been those of patients who came into the hospital in a moribund condition. The following statistics are given: Before the introduction of the treatment above described the mortality in the hospital from 1889 to 1892 was 35.3 per cent. for cases of eclampsia, while the present statistics show a mortality of 16.9 per cent. only—that is, a reduction of more than 50 per cent. is obtained from 71 cases. These figures are comparatively low; thus Herman gives a mortality of 20 per cent., Williams 20 to 25 per cent., and Edgar 25 to 35 per cent.

157. Perforating Duodenal Ulcer in Puerperium.

Bauereisen (*Zentralbl. f. Gynäk.*, No. 6, 1906) reports that on the fifth day after the delivery of her third child a woman was seized with abdominal pain and distension with fever. A swelling reached nearly as high as the umbilicus; it was closely connected with the uterus and appendages, and when freely opened to the right of the hypogastrium was found to be an intraperitoneal abscess containing 5 pints of fetid pus. The patient died on the ninth day. At the *post-mortem* examination subacute miliary tuberculosis of the peritoneum was discovered, with much adhesion of intestine and secondary suppurative peritonitis, traced to a perforating duodenal ulcer close below the under surface of the right lobe of the liver. A second duodenal ulcer was detected; it was closely soldered to the subjacent pancreas.

158. A Factor in Perineal Lacerations.

William H. Shipps (*Med. Rec.*, February 17th, 1906) calls attention to the unhappy results of the violent and uncontrolled expulsive efforts of the mother just prior to the birth of the child. He clearly explains why this factor plays an important part in the causation of perineal rupture. The patient is worn out with the exertion which she has been making for hours, and which she believes to have been futile. She is anxious to see the end of her sufferings, and, listening to the advice of her friends, she uses all her reserve force and strains with all the energy of which she is possessed. Shipps believes that too short a time is given as a rule for the physiological softening and stretching of the tissues. In his practice he encourages the woman in labour, assuring her that though the pains she is suffering are apparently accomplishing little, they are in fact surely preparing the way for the birth of the child. He, moreover, warns her of the approach of the period just prior to the delivery, when all bearing-down efforts must cease. Little difficulty in general is experienced in securing the necessary co-operation of the patient. The integrity of the perineum remains intact in proportion as control over the last expulsive efforts of the patient is secured. The writer operates in every case of laceration except in the most superficial.

GYNAECOLOGY.

159. Torsion of Uterus and Uterine Fibroids in Pregnancy.

Lepage and Mouchotte (*Comptes Rendus de la Soc. d'Obstét., de Gyn., et de Péd. de Paris*, January, 1906) report in full a case where torsion of the uterus itself, caused by a pedunculated uterine fibromyoma, occurred in a pregnant woman aged 27. The patient's pregnancy (her first) began in April, 1902. On July 13th, 1902, she fell on her knees when getting off an omnibus. Until July 28th she was able to attend to her duties as a shopwoman, then she was seized at night with violent hypogastric pains. A very hard tumour was detected filling the right iliac fossa, and connected with a body on its left which felt like a gravid uterus. On August 3rd Lepage operated. He drew out a pale fibroid tumour, ovoid, 4 in. in its longest diameter, and weighing 1½ lb. It was attached to the uterus by a very broad pedicle, too wide and narrow to become twisted, but in consequence of rotation of the tumour itself the uterus had undergone torsion from left to right, its anterior aspect looking directly towards the right. The pedicle was attached to the uterus anteriorly over 1 in. below the fundus. There was, as usual, some difficulty in checking haemorrhage when the pedicle was divided. The patient was safely delivered of a live female child on December 26th, 1902. The same writers report a case, instructive for comparison, where the fibroid was twisted on its pedicle. The patient, aged 28, was seized with violent pains early in February, 1905, in the second month of her first pregnancy. After rest they subsided, but several severe attacks occurred later, and on April 19th Mouchotte operated. At that date a prominent, hard tumour lay on the right of the pregnant uterus, it was of the size of a fist, and to a certain extent movable; a deep groove separated it from the uterus. The tumour was easily brought out of the abdominal incision, its pedicle was broad, attached to the fundus, right cornu and adjacent part of the anterior wall of the uterus, and twisted half a turn. The uterus itself was rotated a little on its vertical axis, so that its right border lay somewhat anteriorly. There was a broad omental adhesion on the fundus. A cuff of serous and muscular tissue was made close above the pedicle, then turned down and sewn up after the tumour had been enucleated. There was but little haemorrhage, but during the subsequent enucleation of an interstitial fibroid of the size of a nut the bleeding was sharp; it was arrested, however, by sutures. The patient was delivered by forceps on September 20th of a live child weighing over 6½ lb.; there was no flooding. The authors tabulate the 5 authentic cases of torsion of pedunculated fibroids during pregnancy, reported by Maygrier, Routier, Ribemont-Dessaignes and Grosse, Lepage and Mouchotte (the above case), and Cappie. The last-named writer, Dr. James Cappie, is placed first in the tables, as his was the earliest record, Case of Fibroid of the Uterus complicating Pregnancy, and proving fatal by Torsion of the Pedicle, *Edin. Med. Journ.*, vol. xx, 1874, p. 10.

160. Prophylaxis of Anuria in Uterine Cancer.

LEGUEU (*Ann. de. Gynéc. et d'Obstét.*, January, 1906) has performed nephrotomy in cases of advanced anuria where the ureter was compressed by cancerous growths originating in the uterus; and Uteau has reported other cases. Its value, however, seems to be overrated. Legueu admits that in one instance he found the kidney distended, as expected, but the incision did not restore its functions, as it proved to be altered histologically by long-standing pressure. The patient died a few days later, and Legueu, on the strength of this experience, decided to anticipate anuria in the next case of inoperable cancer. The patient on this occasion was only 35 years of age, the cervix was already destroyed by malignant ulceration, and the pelvis was widely invaded. The right kidney was movable and slightly enlarged, and symptoms of anuria were threatening, the amount of fluid not falling as yet, whilst there was deficient excretion of urea. On October 15th, 1904, Legueu tapped and drained the right kidney, which had become much distended. Urine passed by the loin and by the urethra for several weeks freely, then the bladder urine became watery first, and afterwards scantier and scantier, until by November 15th it ceased altogether. Yet the patient lived, passing urine from the right kidney through the lumbar drain, until September 22nd, 1905, surviving the suppression of the functions of the left kidney for ten months and a week, Death was due to cancerous cachexia. The parenchyma of the right kidney was found to be fairly hick, the pelvis being but little dilated. As usual in advanced uterine cancer, the ureters were closed by simple mechanical compression by cancerous growth entirely outside their walls.

THERAPEUTICS.

161. Treatment of Constipation.

BUXBAUM (*Zentralbl. d. ges. Therap.*, February, 1906), in ealing with chronic constipation, describes three varieties, the spastic, the atonic, and the partial, and considers that this clinical differentiation should form the basis of ational treatment. The spastic variety is most frequently met with, and has the most unfavourable after-consequences. t is common to find it associated with nervous or neursthenic troubles, or with mental disease; it is necessary to istinguish whether it is the cause or the result of disease efore instituting treatment. In many cases it has been observed that it bears a definite relation to excitement, worry, grief, or mental strain, and that it is relieved by the removal of these disturbances. It is met with in renal colic and in diseases of the generative organs, and it is important to bear in mind its occurrence as the result of lead or nicotine poisoning and in arterial sclerosis; in the latter case it is particularly obstinate. The treatment of such general causes is necessary for the relief of constipation not associated with disease; it is advisable to begin by regulating the diet. The regular use of a simple saline water is beneficial, and may be followed later by spa treatment; good results have been obtained from the ingestion of milk and Rhine wines and from a general improvement in nutrition. Constipation may be due to a diet which consists of material leaving little residue; the addition of vegetables to such a diet will often overcome an apparently obstinate constipation. It is best to order patients a mixed diet, containing in some cases more fat-containing foods, in others more vegetables, and to impress upon all of them the importance of consuming plenty of water or other fluids. Injections of warm water or of oil are useful, their success in overcoming the spastic condition of the bowel is probably due as much to the heat as to the fluid, and should be combined with external applications. The author especially recommends the use of hot Karlsbad water for these injections, and prefers the knee-elbow position during the administration; olive oil is most readily injected in the form of an emulsion. He employs hot fomentations and hot bottles or hot-water belts to the abdomen, a steam or hot-air bath is also effective in some cases, and the ordinary hot bath lasting from twenty to thirty minutes is not to be despised. Massage, if given, should be very light, its beneficial effect is somewhat doubtful; more benefit may be expected from the application of the galvanic current. Atonic constipation is due to loss of muscular tone, and is often difficult to treat, and will require a far longer course of treatment. A diet which will excite peristalsis is essential. A purely flesh diet is so thoroughly absorbed that it leaves practically no residue, and a purely vegetable diet leaves a mass of residue which the already weakened intestine is unable to deal with successfully. It follows that a mixed and nourishing diet will be the most suitable. In these cases means should be adopted to strengthen the muscles of the abdominal walls and of the intestine; cold sitz-baths lasting for five minutes, and followed by cold abdominal douches, if the patient can tolerate them, produce a reaction. Good results are claimed from the application of the ether spray to the abdomen. Light massage, gymnastic exercises, and the electrical current may also be tried for these patients; the cold sitz-bath followed by rectal faradization, lasting only a few minutes, appears to give the best result.

162. Radium in Rabies.

CALABRESE (*Rif. Med.*, January 13th, 1906), having repeated the experiments performed by Tizzoni and others, is unable to report equally good results. In the three series of experiments carried out by the author he was unable to obtain any curative effect, whether dealing with the fixed virus *in vitro* or in the body of the animal. Where any apparently good results occurred they seemed more due to the method of inoculation than to the action of the radium. And whereas Tizzoni reported that no ill-effects on the eye had been noticed from the prolonged use of the radium, the author has to report that when the radium was applied directly to the eyelid, ulcerations and loss of lashes followed in ten days or so. When the radium (whether of 10 or 100,000 U.R.) was held at a distance no ill-effects were observed.

163. Treatment of Sciatica by Physical Methods.

E. SOMMER (*Zeit. für Diät. und physik. Therap.*, December, 1905) describes the treatment of sciatica inaugurated by Brieger and carried out at the Berlin University Hydrotherapeutic Institution. The treatment is essentially a sedative one and consists of baths in which movements are carried out and of a subsequent massage; it is especially successful in cases of primary idiopathic sciatica. In severe cases the patient is kept at first in a state of as complete physical and mental rest as circumstances will permit, rest in bed being enforced if possible. The effect of cold compresses on the leg is first tried. The leg is enveloped in a cold wet cloth covered with flannel, and this compress is left on for the night. Such a procedure combined with rest has an excellent result in many cases. There are, however, many other cases in which cold applications cannot be borne and for these hot wet applications are tried. This can be done either by laying over the part a cloth which has been wrung out from hot water and covering it with flannel or by Diehl's method in which the compress can be left on for the night. In a few cases patients cannot bear water compresses, and in these either the compress is applied only over the course of the nerves, alcohol compresses are tried, or as a last resort dry heat only is used and the leg simply enveloped in cotton-wool or flannel. For patients who cannot be easily conveyed to the bathing pavilion warm full baths are next used. The bath is at a temperature of 37° C. to 40° C.; the duration of the bath varies from ten minutes at the beginning of the treatment to three-quarters of an hour at the end; towards the end of the time in the bath the temperature of the water may be reduced by the addition of cold water to 25° C. or lower. Movements are carried out in the bath—first passive, then active, and then movements against resistance. The limit to which the movements can be carried depends on the amount of pain which they give rise to. If during the course of the bath pain should become excessive, vibration massage, carefully applied with the forefinger over the sensitive area, often acts like a narcotic and gives speedy relief. Massage, except the vibration massage, is not begun until the most prominent subjective symptoms have begun to yield to treatment. It is carried out directly after a bath, or, if it be necessary in order to lessen the pain, while the patient is in the bath. At first light stroking or pressing is used, and later the typical Mezger's massage. Special emphasis is laid on Lasèque's method of stretching the sciatic nerve. To do this the doctor lays one hand on the patella, and with the other grasps the patient's heel and raises the leg; as soon as the patient feels severe pain the leg is brought down to the horizontal again. This exercise can be performed at first once a day, and later two or three times or even oftener. Later on in the treatment gymnastic exercises are employed, designed to produce a slight passive extension of the nerve. In many cases from the outset of the treatment the Scotch douche with its alternatives of heat and cold proves useful for patients who can be moved to the bathing pavilion or for out-patients who attend the clinic. During the whole course of treatment care is taken that the patient has a daily evacuation of the bowels. At the end of the treatment advice is given to the patient as to his manner of life, and he is warned of the danger of chills and of sitting on hard seats or seats covered with leather. The results of the treatment are very good. It is not easy to estimate the percentage of recoveries because the patients often insist on a return to work as soon as improvement becames obvious, and they are lost sight of, but at any rate in cases of rheumatic origin the percentage of recoveries lies between 80 and 90 per cent. The failures are usually in cases with complications, and neurasthenia is a specially unfavourable complication. Sciatica is an obstinate disease, and time enough must be allowed for the treatment, nor should it be discontinued if there should be by chance a temporary increase in the severity of the symptoms. A case is described in which a patient, in spite of different treatment tried during two years, had become unfit for his work. This patient at the beginning of the Brieger's treatment had a painful relapse, but nevertheless by the end of four months he made a complete recovery and was afterwards able to ride and walk in all weathers for hours at a time without any return of the symptoms. Scoliosis and certain paraesthesias are liable to remain as sequelae of severe attacks of sciatica. The scoliosis is to be treated by exercises methodically carried out, and later, if necessary, by an orthopaedic scoliosis treatment. The paraesthesias are best treated by massage.

164. Bactericidal Action of Glycerine.

J. J. Kinyoun (*Journ. of Exper. Med.*, November, 1905) in the course of his investigations into the purifying influence of glycerine in glycerinated vaccine virus, was led to observe that many bacteria are destroyed much more rapidly in vaccine emulsions containing glycerine alone than in cultures to which glycerine was added. It occurred to him that the tissue fluids or cell contents might in some way be concerned in the bactericidal effect, possibly through some combination between theglycerine and the constituents of the emulsion or through the agency of the glycerine in extracting from the cells some peculiarly active bactericidal substance. In the course of his researches he found that when normal serum and glycerine were permitted to act together their bactericidal power was much more effective than when either fluid was allowed to act alone; he also noted the peculiar result that immune serums were less effective in this respect than normal serum, or, at least, with the latter the reduction in the number of organisms proceeded with considerably greater celerity. In one of his experiments he investigated a pneumonic exudate containing innumerable bacteria in every loopful. This exudate, when mixed with glycerine, suffered progressive diminution of bacteria, but all growth was not eliminated until after thirty-two hours. The addition of normal serum, however, to the mixture of glycerine and exudate brought about sterility in the short space of five hours. It was further found that the bactericidal action of various immune and normal serums was increased by the addition of glycerine, and that the most favourable proportion of this substance to add was 25 per cent. The most striking results were obtained when the glycerine was mixed with the immune or normal serum before being added to the material containing the bacteria.

PATHOLOGY.

165. The Passage of Antibodies into the Blood of Nurslings.

F. la Torre (*Il Policlin.*, December, 1905) states that there is general agreement as to the elimination of antibodies by the milk. The only questions are whether they find their way in any useful quantity into the blood of nurslings, and, if so, whether this happens constantly or only in the case of very young infants. He criticizes Salge's experiments in elucidation of these points as being too few in number, and of purely scientific rather than of clinical interest. La Torre made his observations on 17 healthy children of ages from 1 month to 2 years. To begin with—22 children were available, but 5 of these began to suffer from gastro-intestinal disturbances, and were left out of account. In 5 cases 3,000 units of Behring's serum were injected into the wet nurse. In each of the other 12 cases 6,000 units were employed. This quantity of serum was administered in three injections at intervals of three days. The antitoxic power of the nursling's serum was tested the day before the first injection, and again three days after the last injection. In the first series of ten experiments from $\frac{1}{12}$ to $\frac{1}{60}$ c.cm. of the child's serum was withdrawn and mixed with from one to ten times the minimal lethal dose of diphtheria toxin and injected hypodermically into a guinea-pig. The object of these experiments was to determine whether any useful degree of antitoxic power could be conferred on the blood of nurslings by means of milk. In the second series of seven experiments a smaller dose of toxin was used—from $\frac{1}{10}$ to $\frac{8}{10}$ of the minimal lethal dose—and an attempt was made to find in the time of onset of oedema and other symptoms a means of measuring the antitoxic power conferred on the child's serum. The author found that the passage of antibodies was on a very small scale. He could only rarely satisfy himself that as much as $\frac{1}{1000}$ part of the antitoxin injected into the wet nurse was present in the blood of the child. He therefore entertains no hope that the child can be advantageously immunized by injecting the wet nurse. The proceedings were found not to be uniformly harmless to the persons injected. Forty per cent. of the women suffered from one or other of the symptoms mentioned—namely, articular and muscular pains, fever, vomiting, headache, ecchymoses, pruritus, and albuminuria—1 case. The passage of antitoxin into the child's serum was not found to depend in any way on the age of the child.

166. The Infection of Tuberculosis by the Respiratory Passages.

Cadéac (*Lyon Méd.*, December 10th, 1905) considers that the hypothesis of the transmission of tuberculosis by inhalation of the dust from dried sputa, has not been proved. He found from experiment that the expectorated matter dried slowly and that its conversion into dust was neither simple nor easy. Spread thickly upon a glass plate and exposed to natural light in the laboratory, the sputum adhered in drying as a bright varnish, and was not easily powdered into dust till the tenth or twelfth day. Even on the sixth day a considerable quantity of the powdered sputum was required to cause a discrete peritoneal tuberculosis by inoculation. The sputum spread upon a marble plate and kept above a stove for fourteen days was found to have lost its virulence for the guinea-pig. Spread upon a porous plate and exposed to sunlight, it was innocuous for inoculation after forty-eight hours. Sputum dried in the dark at the normal temperature or in a stove at 36° C. preserved some amount of virulence. Koch's bacilli, artificially mixed with viscous sputum, were imprisoned in such a way that the inoculation of the mixture had often no result; and the inoculation of the dried dust of this mixture caused tuberculosis of very slow evolution. Cadéac contends that dust which will cause tuberculosis with so much difficulty by direct inoculation into the peritoneal cavity of a guinea-pig will have much more difficulty in infecting man's respiratory passages.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

167. Nervous Complications in the Typhoid of Children.

ALLARIA (*Gazz. degli Osped.*, January 7th, 1906) records some ases of typhoid in children complicated with affections of he nervous system. In the first case, a girl aged 6, ieningism, right spastic hemiparesis, and aphasia occurred; in the second, a boy aged 6, meningism, aphasia, ight spastic hemiparesis, and Jacksonian epilepsy. In both iese cases recovery took place. There was no cardiac or enal disease. In the first case the nerve symptoms ppeared slowly in the fourth week of the illness as a ght hemiparesis, followed three days later by neck gidity, and later by motor aphasia which lasted three eeks. In the second case the meningeal symptoms ppeared first (in the second week), followed by motor phasia in the third week, and right arm Jacksonian pilepsy in the fourth week. Lumbar puncture gave some mporary relief. The increased knee-jerks persisted on e right side. In the second case the aphasia only lasted fortnight. In a third case, a girl aged 8, death occurred om definite meningitis of typhoid origin. Most of these ralyses of toxic origin (as in the first two cases) come on adually, and have no relation to the gravity or intensity the intestinal lesion. They are often associated with egularities in the temperature, perhaps due to irritation the heat centres. The diagnosis between a paralysis of xic and one of organic origin is difficult, and all the more there are symptoms of meningism present, although ese latter are rare in typhoid. The best criterion in dif- entiating meningism from true meningitis is an exa- nation of the cerebro-spinal fluid. In the fourth case, girl aged 13, the typhoid was complicated by tetany.

168. Cerebro-spinal Meningitis: a Recovery.

IDAL (*Journ. des Prat.*, February 17th, 1906) reports case of a woman who, having had a miscarriage in gust, subsequently suffered from a white or colourless ginal discharge. On October 25th she had abdominal n, and developed headache, constipation, head retrac- n, trismus, and Kernig's sign, accompanied by rigors, niting, and a high temperature. Lumbar puncture s performed and a purulent liquid withdrawn, which s found to contain 95 per cent. of polynuclear bodies l the meningococcus in abundance. It was thought t the gonococcus might be the cause of the spinal ningitis, and the vaginal discharge was examined, but h a negative result. At the end of three weeks the ient had some herpetic patches about the mouth; she l retained consciousness and showed signs of super- al cortical irritation. Had the meningitis been of erculous origin she would, at this stage of the illness, e been more or less unconscious and have developed ious paralyses. Widal gave a favourable prognosis. continued very ill; the fever increased, she had rium and incontinence, and was very prostrate. eral lumbar punctures were performed and fluid wn off; finally, a lumbar injection of 5 cg. of collargol given, and, although she developed pneumonia the t day, in forty-eight hours she showed evidence of rovement, and eventually left the hospital cured. en discharged she had exaggeration of the reflexes but e of the psychic or nervous disturbances so often seen r meningitis. Ignorance of the state of the reflexes re the onset of the illness made it impossible to de whether this exaggeration was due to an individual liarity or the illness itself.

9. Angioneurotic Oedema involving the Upper Respiratory Tract.

STED (*Amer. Journ. of Med. Sci.*, November, 1905) gives s of three cases of angioneurotic oedema, chiefly ting the throat, which came under his own personal rvation, and he quotes cases recorded by others. The ition is regarded as a vasomotor neurosis in which e circumscribed non-inflammatory swellings of the and mucous membranes, chiefly on the face, throat, extremities, occur without warning or apparent cause. swellings as they appear upon the mucous membranes ie respiratory and gastro-intestinal tract resemble occurring on the skin. They arise very suddenly the patient is asleep or awake, and the symptoms they give rise to seem largely due to the mechanical obstruction they set up. When they occur in the nose the symptoms are those of obstructed breathing, differing from hay fever in the absence of excessive sneezing and secretion, but resembling it in the suddenness of origin and subsidence. When affecting the larynx it constitutes an immediately serious condition, and some obscure and sudden deaths occurring in the night may possibly be due to such a cause. All the cases show marked heredity, and the individual attacks are probably provoked by some toxin produced within the body or introduced from without. The patients are invariably of a marked neurotic temperament. Though gout and rheumatism have been regarded as causes it is more probable that the condition is often mistaken for a manifestation of these diseases. A certain poison or food may cause an attack in one person, but not in another, and cold, traumatism, worry, mental excitement, and fright may determine an attack. Similar oedemata occur in the brain and kidneys and probably in every tissue of the body, and sudden deaths following the injection of antitoxin may be attributable to this condition. It is possible that, in certain individuals in whom an inherited tendency to angioneurotic oedema exists, antitoxin may be the exciting cause of an attack either in the larynx or lungs causing asphyxiation, or in the medulla or brain paralysing the respiratory centres. When, therefore, antitoxin is used for prophylactic reasons the family history as regards erythematous tendencies should be inquired into and in such cases the injection should be withheld until diphtheria has actually developed. Adrenalin and cocaine locally applied to milder cases, and scarification of the pharyngeal and laryngeal oedemata in severer attacks, may afford relief, but if dyspnoea threatens life immediate tracheotomy may be necessary. Ice is contraindicated as possibly increasing the oedema, but brisk friction of the skin to produce an attack of urticaria might be tried on theoretical grounds. Mental and physical rest are important and saline laxatives and alkalies should be given internally to reduce hyperacidity of the urine and increase its quantity. The treatment of any local disease of the throat or upper air passages should be undertaken between the attacks with a view to removing the localization of the disease in these areas.

SURGERY.

170. Pulmonary Complications after Abdominal Operations.

BIBERGEIL (*Archiv f. klin. Chir.*, Bd. lxxviii, Heft 2) publishes the results of an analysis of 3,909 abdominal operations, including those for strangulated and reducible herniae, practised in Korte's clinic, and points out what he concludes to be the most likely causes of post-operative pneumonia in this class of cases. Notwithstanding the protection afforded by modern aseptic methods against peritoneal infection, this pulmonary complication occurs, it is stated, more frequently after laparotomy than after any other major operation. Pneumonia followed in 135 of the collected cases, and presented in 10 instances the croupous or lobar, in 98 the lobular, and in the remaining 27 the hypostatic, form. Other complications, such as pulmonary embolism and abscess, bronchitis, pleurisy, and empyema, occurred in 147 other cases. In his study of the causes of pneumonia in abdominal surgery, the author finds that the occurrence of this complication is not influenced in any way by the condition of the wound. Of 10 cases of the croupous and distinctly septic form of pneumonia, 8, with regard to the seat of operation, were aseptic, and 2 only were septic. Careful study of the collected cases of post-operative pneumonia has led to rejection of the views that this complication may be due to infection by way of the lymphatics, and to such causes as exposure to cold of the surface of the body or of the peritoneal cavity, to abdominal irrigation, and to direct action of a general anaesthetic. The lobular form, or bronchopneumonia, which is most frequently met with after laparotomy, is regarded as being usually the result of autoinfection due to aspiration, whilst the patient is under the full influence of an anaesthetic, of secretions from the mouth and pharynx. It is pointed out that the interference with free breathing and expectoration resulting from pain at the seat of operation and impeded movements of the incised abdominal wall, must favour very much the development of lung disease after laparotomy, whilst the resistance to the inflammatory attack is in many cases much impaired in consequence of the enfeebled condition of the patient. In concluding, the author recommends, as suitable prophylactic measures, thorough cleansing of the mouth and throat and irrigation of the stomach before the operation: a cautious administration of the anaesthetic, the patient's face being turned to one side to permit a free external flow of oral secretion; prevention of chilling of the surface of the abdomen during and after the operation; the application of thick and warm compresses to the wound, and avoidance of tight bandaging; frequent change of the patient's position in bed during the after-treatment; and as speedy a release from the recumbent posture as the state of the wound will allow.

171. **Fracture of the External Tuberosity of the Tibia by Indirect Violence.**

Potherat (*Bull. et Mém. de la Soc. de Chir. de Paris*, No. 4, 1906) reports an instance of a form of fracture involving the head of the tibia, which, though classed in surgical literature as a rare injury, has, it is stated, been proved by radiographic research to be really a not very rare complication in severe cases of supposed sprain of the knee. This injury consists in an isolated fracture of the external tuberosity of the tibia, the line of fracture extending from the cartilaginous surface of the bone just outside the tibial spine, downwards and outwards to the external surface of the tibia a few centimetres below the tibio-peroneal articulation. This fracture involves the whole of the antero-posterior diameter of the bone, so as to form a pyramidal and triangular fragment with base above and apex below, comprising the whole of the external tuberosity of the tibia. In the author's case the head of the fibula remained in its normal position, and the shaft of this bone was intact along its whole extent. There was a slight lateral displacement of the head of the bone, giving the appearance of a thickening of the upper extremity of the tibia. On forcible movement of the head of the fibula backwards and forwards crepitus could be made out, the existence and nature of the fracture being subsequently demonstrated by the use of the *x* rays. The injury in the case reported by the author was caused by the kick of a horse, received on the middle of the shaft of the fibula, and not applied directly to the head of this bone or to the upper extremity of the tibia, and is regarded as an instance of forcible detachment of the external tibial tuberosity caused by indirect violence.

172 **Carcinoma of the Prostate.**

Young (*Bull. of the Johns Hopkins Hosp.*, October, 1905) publishes the results of a clinical and pathological study of 40 cases of cancer of the prostate. Of these cases, 19 were taken from Halsted's hospital records, and the remaining 21 occurred in the author's private practice. The author finds that carcinoma of the prostate is more frequent than is generally supposed, and he confirms the statement of Albarran that it occurs in about 10 per cent. of all the cases of prostatic enlargement. It may begin as an isolated nodule in an otherwise benign hypertrophy, or a prostatic enlargement which has for many years furnished the symptoms of benign hypertrophy may suddenly become malignant. Cancerous disease is suggested by pain and tenderness in the prostate, by marked induration in one or both lobes and especially by the discovery on cystoscopic examination of a small intravesicular prostatic outgrowth. In a case of this kind the posterior surface of the affected organ should be exposed as for an ordinary perineal prostatectomy, and if the operator is unable to make a positive diagnosis of malignancy, longitudinal incisions should be made on each side of the urethra, and pieces of tissue excised for frozen sections, which can be prepared for the surgeon's examination in about six months. Cancer of the prostate, it is stated, remains for a long time within the confines of the lobes, the urethra and bladder, and especially the posterior layer of the prostatic capsule remaining inviolate for a considerable period. Extraprostatic invasion nearly always occurs at first along the ejaculatory ducts into the space immediately above the prostate between the seminal vessels and the bladder. Thence the disease gradually invades the inferior surface of the trigone and the lymphatics leading towards the lateral walls of the pelvis. Extension to the pelvic glands does not occur, it is believed, until late. The author, convinced that partial operations are of no permanent utility in cancer of the prostate, describes, with the aid of some excellent and clear illustrations, a radical operation by which the whole of the diseased organ with its capsule and the prostatic portion of the urethra, and a cuff of the adjacent portion of the bladder including most of the trigone with the seminal vesicles, is removed in one piece. Four cases on which the author has performed this operation since the spring of last year demonstrate, he holds, its simplicity, effectiveness, and the remarkably satisfactory functional results it is capable of furnishing.

OBSTETRICS.

173. **The Vomiting of Pregnancy.**

Rudaux (*La Clinique*, January 19th, 1906) divides the vomiting of pregnancy into simple or ordinary vomiting and intractable vomiting; both are the result of organic disturbance, they differ only in degree. Neglect of simple vomiting may lead to the establishment of the intractable variety. Vomiting during pregnancy occurs in 42 per cent. of women, whilst in primiparae the percentage is 46.5. As a rule, vomiting first begins a month after the appearance of the last menstrual period; it occurs generally in the early morning, but is also frequent during the day, and may come on in the middle of a meal. Gerst has estimated it to be present in the early morning in 31 per cent. of his cases, several times daily in 25 per cent., at irregular intervals in 21 per cent., and after meals in 15 per cent. The vomit contains either bile and food, mucus and bile or simply food. In some women it is present during each pregnancy, in others only during one, this being usually the first. The sex of the child has no bearing upon the amount or character of the vomiting. Its duration is from three to five months, but it may persist during the whole period. The examination of the urine is unfortunately much overlooked; Gerst has found that 91 out o 560 women who had vomiting had also albuminuria. Systematic investigation of the amount of urine passed and th substances eliminated might throw light upon the cause and lead to rational treatment of this disorder. By intractable vomiting is meant constant sickness, which does no permit any nourishment to be retained, and which i accompanied by rapid emaciation and a rise in the pulse rate. The onset is not sudden, it usually supervenes upo a period, more or less long, of simple vomiting. Th vomit consists of food, mucus, and bile, and is sometime streaked with blood, due to the rupture of small vessels i the stomach. The feeling of nausea is often constant, an the attacks of vomiting are so frequent both night and da that the patient suffers from want of rest. At the sam time, autointoxication is evidenced by the appearance skin eruptions, neuralgias, etc., and there is a marked dis taste for food. The acidity of the vomit produces a h burning feeling in the throat and mouth, with pain in th epigastrium. The patient loses from 500 to 1,000 grams i weight per day, the pulse rises to 120 or 140, the tempera ture remaining, as a rule, normal, the tongue is dry an furred, the excretion of urine is much reduced. This co dition will last for one to three months, the patient b coming more and more emaciated and prostrate, an greatly depressed; finally delirium, hallucinations, an coma supervene. The prognosis is not good, about on fourth of the cases are fatal; even termination of th pregnancy will not always save the patient, alrea exhausted and saturated with toxins. Treatment of th condition is either medical or obstetrical; a large numb of drugs have been employed as well as local application Electricity, massage, and suggestion have been much favour. The best results have been obtained from treatment based upon the theory that the vomiting pregnancy is due to auto-intoxication. When t vomiting is frequent and severe the following treatme is adopted: Alternatively every hour a teacupful of mi or a claret-glassful of Vals or Evian water is given. T milk may be warm or iced, and flavoured to taste wi tea, coffee, vanilla, sugar, or salt, or it may be combin with mineral water. The patient should rinse the mou out with mineral water after each cup of milk so to prevent fermentation from occurring in the mout Small doses of calomel are given twice a week, and eve day a copious enema, either of boiled water or of sali solution, is administered. The vomiting is rapidly reduc by this treatment, and more milk may then be added the diet, and gradually the patient gets back to ordina diet, but meat should only be allowed when the urine normal and the vomiting has completely ceased. cases of intractable vomiting it is essential to isolate t patient and to place her in the care of a nurse. Feedi by the mouth is limited to hourly teaspoonfuls of ic mineral water, and the bowel having been evacuated by an olive oil injection and washed out with saline solution, the following enema is given: Chloral hydrate 2 to 4 grams, warm milk 50 c.cm., the yolk of one egg. The loss of fluids by vomiting is compensated for by injecting about ½ litre of saline solution subcutaneously; the general condition is improved by inhalations of oxygen and subcutaneous injections of cacodylate of sodium 0.50 gram in aq. dest. 10 c.cm. Nutrients containing peptone 1 dessertspoonful, the yolk of 2 eggs, and 150 c.cm. of milk are given two or three times a day. The whole body is well rubbed twice a day, in the morning with a rough glove and in the evening with eau de Cologne or camphorated spirit. Notes are kept of the temperature and pulse, the number of times vomiting occurs, the amount of urine passed, and the albumen in it. The injections of cacodylate of sodium are given for seven days, then intermitted for a like period, and repeated in this manner until the patient is thoroughly recovered. If this treatment is rigorously applied the vomiting will be much lessened in from five to eight days, and rather more iced water may be allowed by mouth. Recovery is gradually established. Obstetrical treatment often fails because it is instituted too late; it is indicated when other measures have failed, when the general condition is deteriorating, when the pulse-rate continues above 100, and the amount of urine excreted is less than 500 c.cm. Once decided upon, it must be rapidly carried out; if the cervix is not dilated tents are introduced for that purpose; if the cervix is patulous a Champetier de Ribes's bag is introduced or dilatation by bougies is undertaken; the uterus is then emptied and curetted. Before emptying the uterus the medical man should receive a written permit from the patient's friends.

GYNAECOLOGY.

174. Carcinoma of the Female Ureter.

FLORENCE BOYD (*Journ. of Obst. and Gyn. of the Brit. Emp.*, January, 1906) describes two cases of primary carcinoma of the female urethra. The patients in both cases were 51 years of age. The first patient complained of having had pain about the vulva for the last six months and of an increasing frequency of micturition. On examination a urethral growth was detected which, as seen through the stretched urethral orifice, was as large as the index finger. The urethro-vaginal septum was hardened and thickened in about half its length; there were no enlarged glands in the groin. At the operation the growth was removed, ¼ to ½ in. of the urethra being left; the urethra was fixed by stitches beneath the pubic arch, the mucous membrane of the vagina behind was united to that of the nymphae in front by catgut stitches and the urethral mucous membrane was held to the surrounding mucous membrane by two or three interrupted sutures. After the operation, which was otherwise successful, incontinence of urine developed, and when the patient was last seen incontinence had become complete. At this time the urethra was held to the left side of the pubic ramus by scar tissue, and the index finger could be passed without resistance directly into the bladder; the mucous membrane of the bladder prolapsed anteriorly. The growth proved to be a columnar-celled epithelioma, and probably had originated either in the mucous glands of the urethra or in Skene's ducts. There has been no recurrence of the growth in the four and a half years which have elapsed since the operation. The second patient had suffered for about six months before she came for treatment from pain on micturition; for two months there had been blood in the urine, and for three months increasing frequency of micturition. In this case the growth involved the orifice and posterior wall of the urethra throughout nearly its whole extent, and infiltrated the adjacent anterior vaginal wall as well as the tissue of the fossa navicularis beneath the pubic arch; a large hard gland could be felt on the inguinal region on the left side, and smaller glands on the right side. It was found possible in removing the growth to leave ¼ in. of the vesical end of the urethra; and as with the finger a definite contractile ring could be felt to remain, it was decided to fix the urethra in the wound, in the hope that the patient might retain control over micturition. The urethra was stitched to the posterior vaginal wall by interrupted catgut sutures, and to the subpubic ligament by a stitch which did not pass through the mucous membrane. The large wound was almost covered by bringing the parts together and turning in flaps from the labia. The growth was a squamous-celled carcinoma, and may have been either a peri-urethral or vulvo-urethral growth or a primary carcinoma of the mucous membrane of the urethra. The results of the operation, with regard to control of the bladder, were at first exceedingly good, but as cicatrization proceeded the result was not maintained, and after about two months there was complete incontinence. In view of the more favourable results in this respect which have been reported by Kynoch, Thomas, and Fritsch, the author thinks that it may have been a mistake to try to obtain primary union of the urethral and vaginal mucous membranes. The cases suggest that when it is necessary to remove the urethra above the triangular ligament, closure of the urethra and suprapubic drainage may afford the greatest relief to the patient.

175. Primary Carcinoma of the Fallopian Tube.

CULLEN (*Bull. Johns Hopkins Hosp.*, December, 1905) reports in full, with drawings, a case where the patient was 55 years of age. She applied to her doctor for relief from haemorrhage from the uterus which had continued "for months," followed by great pain on defaecation, which had grown unendurable. Cullen found the uterus slightly enlarged, with a firm mass about 2⅖ in. in diameter on its right side. He opened the abdomen, and found the omentum studded with malignant nodules. It was resected; the colon seemed free from disease. The right Fallopian tube was much enlarged, the adjacent peritoneum, rectum, uterus, and ovaries being involved. Hysterectomy after Wertheim's method was performed and then 6 in. of the rectum were excised through an incision from without, as in Whitehead's operation. This complicated operation was performed on January 7th, 1905, and the patient enjoyed six months of comparative comfort. About the middle of August she became rather weak, took to her bed, and died suddenly seven days later, probably from embolism. The right tube was much enlarged, obstructed, dilated, and the seat of papillomatous cancer, The left tube and both ovaries were quite small.

THERAPEUTICS.

176. Ravagliano's Antitubercle Serum.

L. KARWACKI (*Zeit. für Tuberk.*, Bd. viii, Heft 1) has carried out experiments with Ravagliano's antituberculous serum in order to determine whether the serum has a specific action, what is the nature of this action, and how far it can be made useful for purposes of treatment. In the preparation of Ravagliano's serum tuberculous toxalbumin (the true toxin) and watery tuberculin (endotoxin) in the proportions of 1 to 3 are used for the injections. From a theoretical standpoint, if the toxalbumin proves to be the true tuberculous toxin, the serum so obtained would possess both bactericidal and antitoxic properties. The animals used for the experiments were guinea-pigs and rabbits. The first investigation was as to the agglutinizing power of the serum, and this proved to be the same as that of normal horse serum, and less than that of human serum from tuberculous subjects. The author next attempted to discover the action of the serum on the toxins and on the protoplasm poisons of the bacilli. For this purpose he tried to obtain the tuberculous toxalbumin according to Ravagliano's method, but he found that this toxalbumin was too feeble a poison to form a test of the serum. The watery tuberculin, proteins extracted from the tubercle bacilli cells, were, however, highly poisonous, a dose of 0.64 per cent. injected into a guinea-pig causing death in six days. The tuberculin far exceeds in value the TR tuberculin, because it is a chemical preparation absolutely sterile and very active, and it should be of great use for active immunization. Different sets of guinea-pigs were next treated as follows: (1) by the injection of a lethal dose 0.64 per cent. of tuberculin and the dose of serum 0.05 per cent., which on Ravagliano's reckoning should be protective; (2) by the injection of 0.7 per cent. of tuberculin and a double dose 0.1 per cent. of serum; (3) by 0.7 per cent. of tuberculin and 0.1 per cent. of normal horse serum; and (4) by 0.64 per cent. of tuberculin and 0.05 per cent. of normal horse serum. The following were the results obtained: The animals which received the protective dose of serum and the ordinary lethal dose of tuberculin died in from 9 to 11 days; those which received the stronger dose of tuberculin died on the following day in spite of the serum, while the two sets treated with normal horse serum died after 21 and 33½ days respectively. From these experiments it follows that the antituberculous serum cannot neutralize the tuberculous protein poisons, and, moreover, that the ordinary horse serum has a much better influence than Ravagliano's serum on the protein intoxication. The next point was to investigate the bacteriolytic action of the serum. Four loopfuls of an agar culture of tubercle bacilli were added to 4 c.cm. of serum, and the preparation kept in an incubator for a period of three weeks. After centrifugalizing, etc., the bacilli were enveloped in collodion, and placed in two lots in the peritoneal cavities of rabbits for 24 and 48 hours respectively. It was now found that no culture could be made from the bacilli on glycerine agar, and that under the microscope the bacilli showed distinct bacteriolytic modifications. The second lot of the prepared bacilli were injected into and peritoneal cavity of guinea-pigs; the animals died after 15 and 23 days respectively, and, on section, marked hyperaemia of the abdominal organs and large white kidneys were found, but no signs of tubercle. It is thus evident that Ravagliano's serum has a distinct bacteriolytic action on tubercle bacilli. Finally, experiments were made as to the effect of the serum on experimental tuberculosis. Guinea-pigs were used for the experiment, and were divided into three groups. In the case of the first group tubercle bacilli were injected subcutaneously, and no serum was given. For those of the second group bacilli were injected together with serum, and the animals were treated with serum on every second day afterwards. For those of the third, bacilli were injected without serum, and the serum treatment was not begun until 8 days later. The animals of the first group died after 27½ days, and on section typical tubercles were found. Those injected with bacilli and serum together died after 21½ days; there was much infiltration at the site of injection, the inflammation had spread to the neighbouring muscles, and the nearest lymph glands were caseating, but there was no sign of tubercle. In the third group death took place in from 5 to 13 days after the serum treatment was begun, the time which elapsed before death varying inversely with the amount of serum injected. No effect of the serum could be traced in this group on the development of tubercles, and typical tubercles were seen wherever life had been prolonged for twenty days after the first infection. Contrasting the first and second groups the serum had clearly prevented in the second group the formation of tubercles, and the animals had died not from tuberculosis but from protein poisoning. The animals for whom serum treatment was begun after an interval of eight days had elapsed died more quickly than when serum was given at once; this can be explained by the fact that during the eight days the infective material in the body became greater in amount, and the intoxication when bacteriolysis occurred was therefore more marked. The author comes to the following conclusions: Ravagliano's serum is more poisonous to guinea-pigs than is normal horse serum. The serum contains no antiprotein, and does not protect the guinea-pig from a lethal dose of tuberculin, but rather it hastens death through acute intoxication. The serum has no higher agglutinizing properties than normal horse serum. The serum in the animal organism gives rise to bacteriolysis of the tubercle bacilli. The serum when injected together with tubercle bacilli protects from anatomical tuberculosis but not from protein intoxication. The serum has an unfavourable action on tuberculosis in process of evolution.

177. The Treatment of Lupus Vulgaris.

Werther (*Berliner Klinik*, January, 1906), after describing the modes of origin and the appearances of the disease, discusses the various methods of treatment. Treatment by injections of tuberculin he considers uncertain in the results, and a method only to be employed when other means are inapplicable. The ideal method, he considers, is excision of the diseased patch, and bringing the edges of the wound together with stitches, so as to obtain primary union of the edges; in cases in which primary union is either inexpedient or inapplicable he advises skin grafting, either by Thiersch's or Krause's method; by these means may deformity be in a great measure prevented. Volkmann's method of scraping with a sharp spoon is a much less efficacious means of dealing with the disease, and causes considerable bleeding; this method he considers should be used only on the extremities. The scarification method of Vidal is a tedious one, is painful, but is a good method of treatment for lupus affecting the nose. A treatment which the author strongly recommends is the application to the diseased part of compresses soaked in a 1 per cent. solution of potassium permanganate, and changed frequently; to any ulcerated nodules he applies the dry potassium permanganate powder, and any deep-lying nodule he sticks with a pointed match dipped first in boiling water and then in the dry powder. On account of the simplicity of this method, and the non-poisonous properties of the permanganate of potash, the author thinks this a very good way of treating the disease; its drawback, however, is that it has very little action on the deep tissues. Of the modes of treatment by the application of caustics to the diseased parts, he does not consider any of them ideal; some, such as pyrogallic acid, cause considerable pain, and if used on large extents of surface, where free absorption can readily take place, may cause symptoms of poisoning. A further disadvantage of all methods of treatment by the application of caustics is the fact that several repetitions are as a rule necessary before anything like cure occurs. Freezing by means of the ethyl chloride spray he considers a useful means of treatment for lupus of the ear. It should not be used on ulcerated surfaces on account of the great pain which it then causes. Burning by the galvano-cautery or by Paquelin's cautery he does not care for; but the application of hot air to the diseased part, according to the method first employed by Hollander, he thinks a very good method of treatment. Treatment by the Finsen light, which is now generally employed in those cases where excision of the diseased part cannot be carried out, has many advantages: it is practically painless, it can be used on the face in cases where other methods of treatment are inapplicable; the scar is very good; its disadvantages are: the number of applications required before cure is obtained in some cases may be very considerable, any fibrous thickening or scar tissue produced by other methods of treatment cannot be easily penetrated by the rays of the lamp; this method cannot be used for lupus of the nose. The x-ray treatment has the advantage that it can be applied to large surfaces at one time, but it has the drawback that one cannot tell how intense the inflammatory reaction to the light will be, and there is a danger that this may be excessive after a few applications. The same objection holds to the treatment by radium. In selecting a method of treatment the author rightly says that it should be as simple as possible, and treatment should be possible without the patient being confined to hospital or home. The cost of the Finsen treatment, he says, may be considerably lessened by first using other methods of treatment and then completing the cure with the aid of the Finsen lamp. In all cases where the face is the seat of the disease the greatest care should be taken to prevent any disfigurement or deformity, and any treatment carried out should be employed with the greatest care.

178. Stovaine as a Local Anaesthetic.

Marchetti (*Gazz. degli Osped.*, November 26th, 1905) gives brief records of 47 cases, of ages varying from 8 to 65 years, where a ½ per cent. solution of stovaine was successfully used to produce local anaesthesia. In some cases a drop of adrenalin solution was added to every 3 c.cm. of the stovaine. The results were uniformly successful, and no ill effects were observed. Stovaine possesses this great advantage over cocaine, that it is much less poisonous; at least twice as much stovaine as cocaine can be given with safety. It is said that stovaine dilates the arterioles, but the author believes that this action, if it takes place at all, is very slight. Owing to the alterations which so powerful a vaso-constrictor as adrenalin produces in the tissues, and the need for very strict haematasis for fear of secondary oozing, the author believes that the admixture of adrenalin is inadvisable as a general rule. It may be useful for the deeper tissues or for very vascular parts—for example, the face. It is good practice to use stovaine for the skin incisions, and the adrenalin and stovaine mixture for the deeper incisions.

PATHOLOGY.

179. Cytorrhyctes Luis.

Siegel (*Münch. med. Woch.*, No. 2, 1906) finds reassuring evidence that the organism which he designates by this name is the cause of syphilis. He can detect the parasite in the blood of syphilitic patients, and is able to propagate it in the tissues of both rabbits and mice. In his first experiments on rabbits large doses were used and the animals succumbed within a short period; but in later experiments with smaller doses he has been able to keep the animals alive for seven or eight months. On dissecting one of these rabbits he found in the liver a diffuse distribution of miliary nodules, which resembled gummata and contained the *Cytorrhyctes luis*. After inoculating mice he can recover the parasites from the blood of the tail. He has also met with considerable success in the experimental infection of monkeys.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

180. "Phonacoscopy."

LANDOLFI AND PAPALE (*Rif. Med.*, March 3rd, 1906) describe a new method of combined auscultation and percussion, to which they give the name phonacoscopy. By means of a bell-shaped resonating chamber containing a percussive hammer (the instrument being christened a phonacoscope) a uniform percussion note is given by the patient, who holds the instrument on the anterior wall of the thorax, and the physician listening at the back of the thorax is able to acquire valuable information as to the state of the thoracic contents. The novelty of the procedure is the invention of an instrument which gives a uniform percussion note—that is, is independent of the variations in percussion which attend percussion by the ordinary methods—and which can be and is worked by the patient whilst the physician is free to listen to the sounds as modified by the state of the thoracic contents. Clinically, the instrument has proved useful, especially in the differential diagnosis of pneumonia and pleurisy with effusion, the early diagnosis of phthisis, and in conditions of disease where the conducting medium is altered. The results follow the ordinary laws of acoustics; the more homogeneous and solid the conducting medium the clearer and better the pleximetric sound is heard, and vice versa. A drawing and explanation of the phonacoscope is given.

181. Primary Carcinoma of the Vermiform Appendix.

BALDAUF (reprinted from *Albany Med. Ann.*, December, 1905) reports 3 original cases of primary carcinoma of the vermiform appendix, and tabulates 31 other cases collected rom literature. One of the cases was that of a girl aged years, and is remarkable as the first recorded instance under 10 years of age. The histological nature of the growth in the 3 original cases was described as "carcinoma implex." Carcinoma generally is regarded as a disease of hose in or past the fourth decade of life, but carcinoma of he appendix is a surprising exception to this rule; of 8 cases only 4 were over 40 years of age, and 17, or 60.7 per ent., were under 30. Sex has no influence on the incience. Acute or chronic inflammatory lesions are usually ssociated with the growth, and are responsible for the ymptoms demanding operation, the tumour itself, while ocalized, giving rise to no pathognomonic symptoms. Direct extensions to other organs and metastases are rare. The usual nature of the tumour is a spheroidal-celled arcinoma, 17 coming under this category, while cylindrical-celled growths, 2 colloid, and 7 merely ormed carcinoma have been recorded. It is estimated hat it occurs in from ⅓ to 1 per cent. of the appendices emoved at operation; its discovery at autopsies is very nusual.

182. Failure of Cardiac Compensation.

. GENNARI (*Arch. per le Sci. Med.*, December, 1905) pubshes an account of his efforts to corroborate some of the uthors who have attempted to explain the failure of comensation in heart disease by the deposits of connective ssue sometimes found between the muscle fibres after eath from heart failure. Krehl found such deposits onstantly present, and concluded that in typical cases of iopathic hypertrophy of the heart the cardiac insufciency was caused by anatomical lesions of the heart uscle. Dehio gave to these anatomical lesions the name myofibrosis cordis." On the other hand Bollinger, schoff, and others state that such lesions are frequently bsent. The author proposed to observe by careful histogical examination of hearts whether the lesions deribed were constantly present and whether the intensity the heart failure could be shown to be in any relation to e number and extent of the lesions discovered. Nine arts were selected as being free from obvious macroopic lesions of the muscular walls, and very numerous ctions were made from them. These were fixed in cohol and stained with various regents. The clinical atures of each case are described. In two cases the most olonged search showed none of the conditions in estion. The muscle fibres, connective tissue, and teries were normal; there was no fatty degeneration, the clei were well coloured, the endocardium and pericardium were normal, though both patients died from heart failure, caused in one case by arterio-sclerosis and angina pectoris, in the other by lead poisoning. In the remaining cases Gennari found the lesions described by the authors above mentioned, especially small-celled infiltrations, thickening of perivasal connective tissue, fatty degeneration of muscle fibres, coronary endarteritis, but these lesions were sometimes only found in a very small proportion of the sections examined; they appeared sometimes to be of very long standing in cases where compensation had only failed recently and suddenly, and they were very severe and numerous in cases where heart failure had been gradual. The author therefore concludes that failure of compensation is not proportional to the amount of myocarditis or of other vascular and interstitial lesions in the heart, and suggests that the explanation of heart failure is likely to be given by more perfect physico-chemical research. Possibly recent observations on changes in the nerves and cardiac ganglia will lead to a solution of the difficulty.

SURGERY.

183. Removal of Cerebral Cysticercus.

BROCA (*Bull. et Mém. de la Soc. de Chir.*, No. 36, 1905) reports on an interesting case communicated by Waquet, of Jacksonian epilepsy with left-sided hemiplegia caused by an encysted cysticercus in the right Rolandic zone, which was exposed by trephining and removed with good results. The subject of this case was a young butcher who at the age of 23 had, in the course of a fortnight, two sudden falls with loss of consciousness. Three months later he had an attack of convulsions commencing in the left arm, which was also associated with loss of consciousness. In the course of the next five years convulsive attacks were repeated every third or fourth month, two or three occurring on the same day. In the spring of 1905, when the patient was 28 years old, the convulsive crises were associated with hemiplegia on the left side. The patient when first seen by Waquet in June had from 250 to 300 convulsive attacks in the course of twenty-four hours, the convulsions always beginning in the left upper extremity and afterwards extending to the rest of the body though less intense on the right side. In the brief intervals of calm there was an absence of sensorial disturbances, of headache, and of ocular symptoms. Waquet trephined over the right Rolandic line, and after incision of the protruded and nonpulsatile dura, exposed a cyst with transparent walls and containing a clear fluid and a loose glairy body made up of four or five transparent vesicles. The cyst, it is thought, was situated in the fissure at the junction of the upper and middle thirds, and did not involve the thickness of the cortex. The transparent mass on histological examination presented the characters of *Cysticercus racemosus*, a form of cerebral entozoon which, though a frequent cause of "staggers" in sheep, is rarely met with in man. The operation, it is stated, resulted in radical suppression of the convulsive crises and in gradual restoration of movement from above downwards, in the left upper limb. The patient when seen after an interval of four months from the time of the operation was quite free from functional trouble. Broca in his comments on this case refers to two others of a similar kind reported by Tietze and Troje in which the prominent symptoms were Jacksonian epilepsy and hemiparesis. The good results of operative intervention in all these 3 cases show a marked contrast between the benignity of cysticerci under surgical treatment and the serious mortality of operations for the removal of hydatid cysts which often communicate with the cerebral ventricles.

184. Radical Treatment of Cancer of the Rectum.

HARTWELL (*Annals of Surgery*, September, 1905) publishes an analysis of 46 cases in which operative treatment was practised for the radical cure of cancer of the rectum. Four of these cases came under the author's care in the course of the past twelve months, and 42 were treated by other surgeons of New York. The study of these cases has, it is stated, been carried on mainly with the objects of determining operative results, and, as far as possible, of ascertaining the line of treatment which promises the most cures with the least sacrifice of functional control. The author points out that the prognosis of operative treatment is not so good in rectal cancer as in cancerous disease of the breast, by reason of the difficulties in the former of obtaining an early diagnosis and of completely eradicating the disease without causing serious anatomical and functional disturbances. The first difficulty may be obviated to some extent by a thorough rectal examination of every patient suffering from symptoms of trouble in the lower bowel, but the second, it is acknowledged, presents a far more serious problem. Moreover, an extensive and radical operation for cancer of the rectum must on account of the anatomical relations of the affected part be a dangerous one with regard both to its immediate results and to the risks of septic infection. In the series of cases collected and analysed by the author the operative mortality was 26 per cent., death having been in twelve instances the direct result of the operation. In 7 of these cases, or 58½ per cent., the patient died of sepsis in one form or another. Other observers have put the proportion of death due to sepsis at from 60 to 70 per cent. A still more serious rate of mortality is to be expected with present methods if an operative procedure be carried out which is radical enough to promise better permanent results, statistics now giving only from 15 to 20 per cent. of cures. The problem of lowering mortality without sacrificing thoroughness may be dealt with to some extent by earlier operation, but can only be effectually solved by the elimination of sepsis, which in the majority of cases is due to the contamination of the wound by faecal matter. This, the author believes, can in a great measure be avoided, and hence the mortality should be diminished by about one-half. A more radical operation would increase to a certain extent the death-rate from shock, but this danger would be slight as compared with the gain from the elimination of faecal infection. The author is strongly of opinion that this object can only be satisfactorily effected by the performance of a complete inguinal colostomy with a view to total and permanent deflection of the faecal current from the normal channel in the lower bowel. When done by the intermuscular method and beneath the rectus sheath, this operation gives a better control than does the impaired retained sphincter in most cases. By the author's method inguinal colostomy is first performed by drawing the sigmoid flexure through an intermuscular incision just external to the left rectus muscle, and dividing the intestine between two ligatures. The distal end is closed and dropped into the pelvic cavity, or, if it be indicated, may be fastened to the lower angle of the wound for the purpose of through-and-through irrigation. An incision is then made in the linea alba at the same level as the intermuscular incision or slightly above it, and the anterior sheath of the rectus is raised up from its muscle between the two incisions. The proximal end of the divided gut with its mesentery is then drawn under this strong sheath over the rectus muscle, and attached to the skin and fascia at the wound in the middle line. After an interval of three weeks, the radical operation is performed, the rectum from above the growth to and including the anus being sacrificed. It is held that the attempt to retain the anal portion, even when the cancer involves an elevated part of the rectum, is open to many objections, and that the results of operation, so far as obtaining a cure is concerned, would be improved by sacrificing it.

185. **Sudden Death on Operating Table.**

Guinard (*Bull. et Mém. de la Soc. de Chir.*, No. 37, 1905) reports a case of sudden death of a patient suffering from long-standing pelvic suppuration, on whom he was about to open an abscess in the left iliac fossa. After some few inhalations of chloroform, the pupils suddenly dilated, and the respiratory and cardiac movements ceased. This fatal event, which at first was attributed to chloroform, was found on *post-mortem* examination to have been due to a large embolus that had been detached from the iliac vein and become entangled in the cords of the tricuspid valve. Both iliac veins, it is stated, were surrounded by inflamed tissues, and whilst the left vein was empty, that on the right side contained a clot resembling that found in the heart. Guinard, though disclaiming any idea that every death occurring at the commencement of anaesthesia by chloroform is due to cardiac embolism, is convinced that this is not an isolated case, and that in submitting a subject of deep-seated venous coagulation to surgical operation, there is undoubtedly a risk of the clot being detached during the movement of the patient to the theatre, or during the cleansing of the skin at the seat of operation, or again, as a result of the patient's excitability in the early stages of the administration of the anaesthetic. This case, it is urged, indicates the necessity of making a *post-mortem* examination in every instance of supposed death from chloroform.

OBSTETRICS.

186. **Symphysiotomy after Failure of Pubiotomy.**

Jessen (*Zeitsch. f. Geburtsh.*, No. 8, 1906) attended a woman, aged 35, for lingering labour at the end of her third pregnancy. The pelvis was of the flat rachitic type, the conjugata vera 8.5 centimetres ($3\frac{3}{10}$ in.). Her two children died during birth; one was delivered in turning. She longed for a living child and would not consent to premature confinement. Prochownik's diet was enforced. At 6 p.m. on November 5th the pains began; by 3 p.m. on the 6th the head was still above the brim, although the pains were strong. The colpeurynter, applied on the previous day, was expelled by 11 p.m. One hour later pubiotomy or hebotomy was performed. There was much bleeding from the short incision over the os pubis. Just as the saw had divided three-quarters of the thickness of the bone it broke. Jessen enlarged the cutaneous incision without provoking any fresh haemorrhage, and divided the symphysis, gaining 6 centimetres ($2\frac{3}{10}$ in.); the head at once became deeply engaged. The fetus was promptly and without difficulty delivered with forceps. It was saved, although at birth it was very livid and with the funis twisted three times round its neck. As the head was being delivered the vaginal wall was lacerated behind the side of the attempted pubiotomy, 1½ in. from the vulva; the cervix showed a bilateral laceration. All these tears were closed by suture after expression of the placenta. Five weeks later the patient was able to walk without waddling. There was no callus over the saw wound in the bone, but the part was tender.

187. **The Toxaemia of Pregnancy.**

Sondern (*Bull. of the Lying-in Hosp., City of New York*, December, 1905) points out that recent investigations have established the belief that hyperemesis of pregnancy, hepatic changes usually classed as acute yellow atrophy, and most of the cases of eclampsia are the result of toxaemia. Literature on this subject distinctly lends the belief that changes found in the nitrogenous metabolism are the cause of the clinical symptoms. A poison, such as phosphorus, brings about similar changes in the liver, with similarly disturbed nitrogenous metabolism; this leads to the inference that a causative toxin must be found in these cases of pregnancy. The frequent history of intestinal toxaemia in cases of toxaemia of pregnancy suggest it as one of the predisposing causes of the latter condition. In the absence of knowledge of the direct causative factors in toxaemia of pregnancy there are a number of abnormal conditions in the urine which are corroborative and aid in diagnosis. These are the evidences accompanying intestinal toxaemia, excess of indican, skatol, or phenol, or the presence of acetone, diacetic acid, and beta-oxybutyric acid. Usually at the beginning of hyperemesis acetone is found; if the condition becomes more serious the other two acids appear also. The same conditions precede eclamptic seizures. Routine urine examination of pregnant women should include tests for the evidences accompanying intestinal toxaemia as well as those for acidosis.

188. **Torsion of Tubal Sac at Term.**

Schauta (*Zentralbl. f. Gynäk.*, No. 5, 1906) attended a woman, aged 44, pregnant for the third time. The second pregnancy (gemellar) had ended eleven years previously. On this third occasion seven bad attacks of crampy pains and vomiting occurred during the first two months, then ceased; fetal movements were felt in the fifth month, and two very severe attacks of pain set in at the end of the seventh, when the fetal movements ceased. In the ninth month bleeding occurred, and Schauta detected signs of pregnancy in the breasts and vulva. A moderately movable tumour filled the greater part of the abdomen, the uterus could be defined clearly in front of the mass. Abdominal section was performed in the tenth month. A large tubal sac was exposed, strongly adherent to omentum. It was twisted two turns on its pedicle, and (as in all cases except Martin's) on the distal side of the ovary, which was removed with the sac after ligature. There was no difficulty in taking away the parts entire. On opening the sac after removal a macerated, fully developed fetus, over 6½ lb. in weight and 19 in. in length, was discovered. Schauta claims his case as the first instance of torsion of a tubal sac where pregnancy went to term. The twist was on the distal side of the ovary, as in five out of the entire six cases on record ; this fact implies that the sac is usually developed in the ampulla well external to the ovary. In all the cases except Schauta's the complication occurred at or much under the fifth month. In Littauer's patient the sac was twisted completely off its pedicle, a condition not unknown in axial rotation of ovarian dermoids.

GYNAECOLOGY.

189. Tuberculous Nephritis and Cystitis in the Female.

Mirabeau (*Monats. f. Geb. u. Gyn.*, February, 1906), after lose study of the subject for several years, has come to the onclusion : (1) That tuberculosis of the bladder in women s, without exception, a secondary process, descending rom the kidney, and stands in no direct relation to genital uberculosis ; (2) in at least 50 per cent. of all cases renal uberculosis is unilateral ; (3) by means of the cystoscope nd ureteral catheterism diagnosis may be made absolute ; 4) detection by palpation of a thickened ureter, is pracically sufficient, and can be effected by practitioners not pecially experts in renal and vesical surgery ; (5) in uniateral renal disease descending to the bladder the full unctional activity of the healthy kidney can usually be etermined by clinical observation and by chemical and nicroscopical examination of urine isolated by ureteral atheterism and the segregator, if not, examination of the idney itself may be necessary ; (6) early removal of the uberculous kidney is sometimes the best treatment. Iirabeau performed nephrectomy on a patient suffering om unilateral renal tuberculosis in the fifth month of regnancy. The patient was delivered at term of a healthy hild, and was in very good condition two and a half ears later.

190. Malignant Teratoma of Ovary.

. S. Dudgeon (*Journ. of Obst. and Gyn. of the Brit. Emp.*, anuary, 1906) describes a case of malignant teratoma of e ovary occurring in a child 3 years 11 months of age. ntil a few months before the child was brought for treatent she had been fairly healthy, but latterly a gradually-creasing distension of the abdomen had been observed. n admission the abdomen was enormously distended, and hard swelling could be felt, which occupied the whole of e front of the abdomen, the edge being felt above, just low the level of the costal margin, and below, above the lvic brim ; a fluid thrill could be detected. The child was the hospital a little more than five months, and during is time passed successfully through an attack of phtheria. Three months after admission the tumour had come considerably larger, and there was oedema of the ght foot. At this time the abdomen was tapped and me thick greenish gelatinous fluid escaped. A little later dular growths could be felt all over the abdomen. The ild became steadily worse until death occurred. At the *st-mortem* examination cystic tumour of the left ovary s found, entirely filling the abdominal cavity ; it lay mediately beneath the abdominal wall, but was not herent to it. A secondary nodule was found in the liver. e surface of the ovarian tumour was irregular, and protions—cystic or hard and knob-like—could be felt dotted er the external surface. After the growth had been rdened a partial section was made. There were numerous aces lined by a smooth dull membrane and filled with id or with coagulated proteid. Some small loculi conned "caseous" material, like that of dermoid cysts, but a naked-eye inspection there was no positive evidence in growth of any tissue such as may be seen in teratomata. e cut surface of the solid part of the tumour resembled ndular tissue. The growth was next examined microscopily. One of the most striking features was the presence of ll-defined spaces lined with cubical and in some places ical columnar epithelium ; in the latter case there was a emblance to intestinal mucous membrane, a resemblance ich was more marked where some of the spaces were rounded by patches of lymphoid tissue. In most areas re were seen large, round cells with pale nuclei, and ndle-shaped cells were abundant round the epithelium ces. The delicate connective tissue which surrounded se cells resembled embryonic structure such as might seen in varieties of very cellular sarcomata, while in a sections the structure resembled that of spindle-celled comata. Throughout the tumour and in the nodule of growth in the liver, masses of polyhedral cells were seen, which were most probably deposits of embryonic cartilage. True epithelial pearls and areas of squamous epithelium were scattered irregularly throughout the tumour. Unstriped muscular fibres were especially abundant, and formed large strands of tissue in parts of the tumour, and these muscle bundles were also numerous in the secondary nodule in the liver. Although unstriped muscle fibres are present in the normal ovary, this would not account either for their presence in the secondary growth or for their abundance in the primary growth. The only theory which accounts for this tissue, and for the abnormal embryonic structures, is that the growth was a malignant teratoma. The dissemination of the growth, and the deposit of secondary nodules outside the original focus was not well marked, the one in the liver being the only secondary nodule found. There was no local extension through the cyst wall, nor evidence of lymphatic glandular invasion. The fluid in the cyst removed during life contained 6½ grams of urea per c.cm., an inexplicably large proportion, as there was no evidence of true renal tissue being present in the growth. An interesting point about this case is the age of the patient. The earliest age at which such a tumour has been previously described is 6 years.

THERAPEUTICS.

191. Paraganglin.

G. Ghisellini (*Il Morgagni*, December, 1905) describes cases treated with Vassale's extract of the medullary portion of the suprarenal capsule. It is stated that the function of the medullary portion of the suprarenal capsule is to maintain the tone of unstriated muscular fibres, to regulate organic metabolism, and to prevent autointoxication. The extract, under the names paraganglin and myosthenin, is therefore recommended in atonic gastrectasis and all conditions of debility. Ghisellini describes two children, aged 9 years and 3 years respectively, suffering from gastric atony and obstinate constipation, leading to anaemia and profound digestive disturbance, both cured with paraganglin. The third case was one of myxoedematous idiocy with obstinate constipation. Thyroid treatment was unsuccessful, but paraganglin in doses of 15 to 30 drops a day had a very good effect. The fourth case was that of a young man suffering from loss of memory and loss of power to co-ordinate his ideas. He was pale and nervous, but free from gastro-intestinal symptoms. Daily doses of 40 drops of paraganglin, increased to 90 drops, rapidly restored his power of working. A hypochondriacal woman was successfully treated with paraganglin and Fellowes' syrup. Two cases of gastric atony in elderly men, one of obstinate constipation in a young woman, one of persistent vomiting during pregnancy, and one of shock and wasting after a confinement which involved considerable haemorrhage, are reported as yielding promptly the best results when treated with paraganglin. The author calls special attention to the use of the drug in these obstetrical cases, for which it has not hitherto been prescribed.

192. The Influence of Sugar on Work.

Ch. Féré (*Rev. de Méd.*, Paris, January, 1906) brings forward experimental evidence to show that there is no paradox in the statement that sugar may be a condiment rather than a food. Most observers who have examined the effect of the ingestion of sugar on the power of doing work, but not all, have come to the conclusion that sugar directly increases this power. Féré, quoting elaborate experiments done on himself with a Mosso's ergograph, points out that the sensory effect of the sugar's sweetness has been overlooked ; he finds that sugar diminishes the power of working, excepting for the short initial period during which the sensory stimulus of its sweetness lasts, and, like any other sensory stimulus, increases the power of doing work. Hence sugar, like kola, coca, or alcohol, diminishes the amount of work that can be done in an hour or in a day, but increases the force of a single shorter effort ; sugar is a stimulant, and, like anything else that excites, accelerates the onset of fatigue.

193. Treatment of Mediastinal Carcinoma with Roentgen Rays.

G. E. Pfahler (*Amer. Med.*, February 10th, 1906) reports 6 cases in which carcinoma of the mediastinum developed secondarily to carcinoma of the breast. All of the patients had been previously operated upon. The diagnosis of mediastinal carcinoma was confirmed by consultation and by radiographs. One patient had palsy of the left arm, due to pressure of deep-seated cervical glands upon the cervical plexus. Treatment was directed to these glands as well as the mediastinum, and was followed by what appears to be complete recovery; 3 of the 6 patients have apparently recovered, though they are still under observation; in none was any bad results noted. Fifty per cent. of recoveries in an otherwise fatal disease, for which other forms of treatment offer no hope, justifies the recommendation of this form of treatment to patients as early as possible.

194. Action of Formic Acid on the Heart.

LIVIERATO (*Gazz. degli Osped.*, November 26th, 1905), after mentioning the favourable results described by French writers (Huchard and Clément), proceeds to give an account of certain experiments made by him with the object of ascertaining the action of formic acid and formate of soda upon the heart muscle. The animals selected for experiment were the frog and the tortoise, and graphic tracings are given of the results obtained. Formate of soda was also administered to nine subjects (mostly tuberculous cases). On the whole the author's results do not confirm those obtained by the French observers, at any rate as far as the cardiac muscle is concerned. The changes noticed in the heart varied directly with the strength of the drug employed. Up to a certain point a strengthening of the systolic force, reaching its maximum an hour after administration, was observed, which lasted about three hours, and was followed by a slight prolongation of the diastole. With larger doses the diastolic pause is prolonged, and the heart finally stops in diastole. No marked effects were observed *quâ* cardiac action in the patients upon whom the drug (formate of soda) was tried. Whatever tonic action formic acid and its salts may exercise on the skeletal muscles, it does not appear that they possess any similar action, or at least to any appreciable degree, on the cardiac muscle.

195. Roentgen Rays in Sleeping Sickness.

C. MENSE (*Archiv für Schiffs und Trop. Hygiene*, July, 1905) discusses the possibility of successful treatment of sleeping sickness by means of Roentgen rays. The state of the blood in sleeping sickness has not been always satisfactorily demonstrated, and while some authors have neglected the matter altogether, others have classed together in their reports lymphocytes and Ehrlich's large mononuclear leucocytes. The condition is, however, one of mononuclear leucocytosis, and resembles that of leukaemia, with the great difference that the pathological cell forms formed in the latter disease are almost wholly absent in sleeping sickness. Of late years many cases of leukaemia have been reported in which Roentgen rays have produced improvement or even complete recovery, and it may be that a similar treatment might be equally effective in sleeping sickness. Again, the work of Schaudinn on trypanosomata has brought out similarities in the development of trypanosomata and of spermatozoa. The effect of Roentgen rays upon spermatozoa has long been recognized. Brown has demonstrated a condition of complete azoospermia in each of 10 cases treated for long periods by Roentgen rays, and in another case treated by *x*-rays for pruritus ani in which spermatozoa were found accidentally to be present in large numbers before treatment began, they had disappeared at the end. These facts constitute another argument in favour of the use of Roentgen rays in sleeping sickness, and the experiment would seem to offer at least a possibility of a successful combat with the disease.

196. Opium in Myocarditis, Weak and Dilated Heart.

MUSSER (*Amer. Journ. Med. Sci.*, January, 1906) urges the continuous use of opium or morphine in myocarditis to prevent angina or to lessen the effect of the asystole. He has given opium in small doses for several months, claiming thereby the checking of waste and a lessened susceptibility to peripheral sensations, and, by reducing the need for food, affording a relief to digestion, metabolism, and elimination. In cases of weak heart consequent upon exhausting disease, or after prolonged mental or physical pain, opium is useful where there is no organic valvular or muscular lesion. In patients with failing compensation, especially in those of excitable temperament, opium steadies and supports the heart, and in the gradual engorgements from dilatation, in chronic parenchymatous nephritis, and in arteriosclerosis it is of value. The dyspnoea of myocarditis and the tachycardia of Graves's disease is relieved by continuous small doses of morphine, and the author has seen a case of myocarditis with restlessness, Cheyne-Stokes breathing, dyspnoea, and rapid puls helped by such continuous administration of opium.

PATHOLOGY.

197. Mixed Malignant Growths.

APOLANT AND EHRLICH (*Berl. klin. Woch.*, January 8th 1906), who have been working on the transplantation o malignant disease in mice, find, in the case of three of th carcinomatous strains which they have transmitted from mouse to mouse, that in course of time sarcomatous tissu has made its appearance. In the first case the origina material was an alveolar adeno-carcinoma, exhibiting i places a papillary structure. The growth of the firs inoculated generation was of the pure alveolar type; it stroma showed some inflammatory infiltration, but ther was not the least trace of sarcomatous structure. In th sixth generation malignant tissue was still purely carcinomatous, but in the tenth the tumour was definitely of mixed character, the stroma of the carcinomatous tract being replaced by actively-growing masses of sarcom tissue, which was of the spindle-celled type and containe very few polymorphous cells. In each subsequent generation the proportion of carcinomatous tissue progressivel became less, and in the fourteenth it had completely disappeared. On continued propagation up to the fortiet generation the tumour preserved its character of a pure sarcoma, which grew with a rapidity typical of malignant disease. In the second case the initial inoculation was mad with a mixture of four strains, three of which were typica alveolar carcinomata, whilst the fourth was more after th pattern of an adenoma malignum. The earlier generation raised subsequent to the first inoculation exhibited n divergence from the usual alveolar carcinoma. But in th twelfth to fourteenth generations the stroma increased an raised a suspicion of sarcomatous development, and from the sixteenth generation onwards the structure was definitely that of a mixed tumour. The proportions o sarcoma to carcinoma were about equal, but the two type of growth were not, as in the first case, sharply demarcate from each other. The carcinomatous tissue was in th form of anastomosing trabeculae, the limits of which wer often not clearly distinguishable from the sarcomatou part. The sarcoma cells were less generally spindle-shape but often exhibited polymorphism. In contrast, again, t the first case, the sarcomatous element did not progressively increase at the expense of the other, but the tw remained about equally balanced during the course of te generations. The third case did not show any deviatio from the original type until the fortieth generation ha been passed. It then began to exhibit an increase of th connective tissue element, which was noted subsequently fo more than twenty generations. Then suddenly, in the sixty eighth generation, the tumour became frankly of a mixe character, and in the sixty-ninth and following generation it was a pure sarcoma, with the exception of small remnant of carcinomatous tissue which occasionally cropped up Apolant and Ehrlich append to their article a note by th former author on the influence of heat on tumours of th mixed type. Apolant prepared for inoculation portions o a mixed tumour, and enclosed his preparations in capillar pipettes which were exposed to a temperature of 44° C. fo times ranging between five and sixty-five minutes. H found that heat had a retarding effect on the subsequen development of the inoculated material. After it had bee heated for five minutes tumour formation was observed t commence in the second week, but the longer the period o heating the longer the time which elapsed before a recognizable tumour was formed. Thus, after twenty-fiv minutes' heating, development was not demonstrable unt the end of the fourth week, and after sixty minutes' exposure not until the seventh week. Another interesting fac noticed was that after heating for longer periods than te minutes the amount of carcinomatous element in th resultant growth rapidly diminished and soon disappeare Only a few groups of carcinoma cells developed afte twenty-five minutes' heating, and after longer periods—namely, thirty-five, forty, fifty-five, and sixty minutes—this element entirely disappeared, the resultant growth being pure sarcomata. In addition to eliminating th carcinomatous element, heating also had the effect o altering the characters of the sarcoma cells whic developed. They showed a strong tendency to pleomorphism and the formation of multinucleated giant cells The author is making further experiments with a view t seeing how far these observations can be corroborated.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

198. **Hyperpyrexia.**

J. I. de Quadros not long ago reported an unusual case of hyperpyrexia to the Bombay Medical and Physical Society; it is published in full in the *Transactions* of the Society (vol. ix, No. 4). An unmarried European lady, aged 47 years, after having been in her stable to see it disinfected after one of the servants had died of plague, had a rigor followed by vomiting, headache, pains all over her body, and fever. The same night her temperature was 107.5° F. In spite of this the patient slept well, and her temperature at 7 a.m. the next day was normal; she still complained of pains in the left axilla and side of the chest. By 2 p.m. the temperature had risen to 110° F. The next day the temperature rose to 108.5°, and the following day it reached 111°, and later 112.5°. She was very low, the pulse intermittent, and was hiccoughing a good deal. Colonel Dimmock, who was called in consultation, diagnosed endocarditis, and rejected the supposition, which had previously been entertained, that it was a case of plague. For nearly a month (twenty-six days) the temperature ran up almost every day, often to 110°; and similar rises occurred less frequently until the thirty-sixth day, after which it remained normal, and the patient slept well. One notable feature was the length of time the temperature remained very high, sometimes as much as two hours. The patient was neurotic, and the illness was followed by loss of sensation and paresis of the right leg. No definite cause for the fever could be discovered by physical examination or on microscopic examination of the blood. De Quadros inclines to the opinion that it was a case of "flushings" due to climacteric disturbances in a neurotic individual. Menstruation, which had been regular up to the commencement of the illness, ceased from that time.

199. **Aberrant Forms of Typhoid.**

Eugenio Lorente (*Revista de Med. y Cir. Practicas*, February 7th) records an epidemic of unusual type which appeared during the summer in a village in Spain which is described as being one of the most unhealthy in the province of Palencia. At first registered as "colibacillar" in character, the earlier cases, some 150 in number, showed *malaise*, anorexia, weakness (which in many instances was anterior to any other symptom of illness), headache, steady fever (101°), vomiting, and diarrhoea. Later cases were more toxic, with greater fever and prostration and low delirium, or else more gastric in nature. Subsequently, a case occurring with nasal haemorrhage, pain in the right iliac region, and other characteristic symptoms, made Dr. Lorente suspect typhoid, and this was followed by similar ones with the usual eruption and temperatures. In some of the cases the onset of the disease was extremely sudden, the patient being stricken in the field at his work and being unable to get home on foot. Nasal haemorrhage was a common and marked symptom. The later cases appeared fairly normal; but the epidemic was not of a severe character, for of 300 cases only 24 proved fatal.

200. **Typhoid Fever in Children.**

Pater and Halbron (*Arch. Gén. de Méd.*, Paris, January, 1906) give a detailed discussion of 63 cases of typhoid fever in children. A prodromal period of two to fourteen days of feebleness and somnolence was frequent; the onset was acute in 3 cases only. Vomiting and spontaneous moderately severe abdominal pains, independent of constipation or diarrhoea, often began the attack. Meteorism was observed in 62 per cent.; 50 per cent. had diarrhoea; 13 per cent. were constipated; the rest presenting both conditions successively. Rose spots were present in 44 out of 54 cases; the spleen was enlarged in 52 out of 63, and often early, or very early, in the disease. The pulse was often early dicrotic, particularly in the larger children. The temperature was high in 90 per cent.; it usually remained high for a few days only. Defervescence by crisis occurred twice; a short lysis was infrequent, lysis of eight to ten days' length being commonest. The signs of meningitis appeared once (recovery); acute endocarditis once (in relapse; recovery); cardiac depression eight times, with tachycardia (5 deaths; myocarditis found in the 2 cases obducted); intestinal perforation was not observed, but 4 cases of haemorrhage, with recovery, occurred; benign otitis media thrice; and during recovery 3 cases developed boils. Relapse occurred in 11 cases—17.4 per cent.—from four to fifteen days after defervescence, with 1 death. Death occurred in 9 cases—14.5 per cent.—7 out of 37 girls, 2 out of 26 boys; 41 were over 10, 22 under.

201. **Prognosis in Typhoid Fever.**

Curlo and Loggia (*Gazz. degli Osped.*, February 4th, 1906) discuss the prognosis of typhoid in relation to certain special factors, namely, the rate of the pulse, the agglutinative power of the serum and the blood pressure. They find a slow pulse and a high agglutinative power existing contemporaneously are of favourable import, whilst the reverse of this (a quick pulse and low agglutinative power) is serious. The two factors to have any significance must exist together. A quick pulse with high agglutinative power may coincide with or indicate a bad attack. The two factors are independent. The blood pressure is as a rule only slightly elevated. In man it seems probable that the cardiac inhibitory centres are specially sensitive to the typhoid toxins, hence the slow pulse and the occasional presence of bradycardia in favourable cases of typhoid. In severe cases the normal sensitiveness of the vagus is more or less lost, hence the quickened pulse, cardiac failure, and lowered blood pressure.

SURGERY.

202. **Resection of Cervical Sympathetic for Facial Neuralgia.**

Delbet (*Bull. et Mém. de la Soc. de Chir.*, No. 34, 1905) renews his advocacy of resection of the superior ganglion of the cervical sympathetic nerve in cases of severe and obstinate facial neuralgia, which operation, he holds, should be practised in preference to any other when medicinal treatment has failed. It is, he believes, the least formidable and probably the most efficacious of all operative methods, and is free from such results as anaesthesia, paresis, and the formation of a visible and unsightly scar. This operation, he regrets, has not been favourably received, but he is able to refer to three cases treated by Poirier, in two of which resection of the ganglion was followed by very encouraging results. In the third case this surgeon was unable to find the superior ganglion, and the results of the operation are reported as having been insignificant. In discussing the relative advantages of an incision in front of, and one behind, the sternomastoid muscle, Delbet states that the anterior method is in some subjects very direct and very easy, but as in other subjects this method may unexpectedly present serious difficulties he thinks that the posterior method should be always adopted. The operation, it is evident, will not always be found an easy one, as not only, as in Poirier's experience, may it be impossible to distinguish the superior ganglion, but there is also a risk of failure to distinguish the sympathetic cord from the vagus.

203. **Relative Indications of Anterior and Posterior Gastro-jejunostomy.**

Mayo (*Annals of Surgery*, November, 1905) publishes a review of 500 cases of gastro-enterostomy, including pyloroplasty, gastro-duodenostomy, and gastro-jejunostomy, and describes a new method of the last-mentioned operation which, he states, can be depended upon to give good results steadily with a sufficiently low mortality to justify its employment in cases in which disability, rather than impending death, is the indication for operative relief. In discussing the question whether the operation should be made by Wölfler's anterior or von Hacker's posterior method, the author holds that for benign disease, the latter is the procedure of choice. It is applied at a higher point on the jejunum, and is unattended with the risk pertaining to the presence of the loop which must surround the transverse colon. The length of this loop, varying from 16 to 20 in., is a decided disadvantage when one considers the proportionally high value of the upper part of the jejunum in digestion and absorption. The anterior operation, it is stated, has some few indications.

In cases of cancer it has the advantage of causing less disturbance, and as the gastric juice contains but little acid, the patient cannot be expected to live long enough to develop a secondary jejunal ulcer. Wolfler's method is more likely to be followed by contraction of the opening, but such contraction, it is pointed out, is liable to occur after any form of operation, especially if the pylorus is unobstructed. The vicious circle or regurgitant vomiting is, the author asserts, less liable after the anterior than the posterior operation. Notwithstanding the objections to the anterior operation in a large number of cases referred to in this paper, the patients after surgical treatment by this method remained in perfect health for periods up to twelve years. Angulation and obstruction are the two chief causes of regurgitant vomiting, and in the experience of the author and his colleague, Charles H. Mayo, the short posterior loop from 7 to 10 in. gives the greatest number of such complications. Early regurgitant vomiting occurs very rarely if the opening be placed at the lowest part of the gastric cavity, but a considerable number of patients begin to have trouble of this kind after an interval of two or three months.

204. Obstruction of Common Biliary Duct.

TUFFIER (*Bull. et Mém. de la Soc. de Chir. de Paris*, No. 36 1905) points out that the diagnosis of the nature of obstruction of the common bile duct is often difficult, not only before but also during and after direct operation. In the first instance it may be doubtful whether the patient be affected with lithiasis or organic obstruction of the duct. Progressive and persistent jaundice may be regarded as an indication of permanent organic obstruction, whilst emaciation, on the other hand, has no symptomatic value. The determination of the coexistence of pancreatic with choledochal obstruction would be a valuable aid in diagnosing malignant disease, but unfortunately in regard to the former neither pathological nor clinical investigation will authorize the surgeon to form any sure conclusions. The chief diagnostic difficulty during an operation consists in deciding, not between lithiasis and cancer but between the latter and chronic pancreatitis. The difficulty in determining the presence or absence of an infraduodenal calculous impaction in the common duct may, it is stated, be overcome either by a cautious exploration of the indurated tissues at the seat of obstruction, or, if this be found risky, by opening the duct above the pancreas and passing through the orifice a probe as far as the obstructing agent. Another difficulty that may not be overcome by operative exposure of the supposed seat of obstruction is that of distinguishing the presence of calculi in the liver. The author holds that it is impossible during an operation to decide between cancer of the head of the pancreas and the condition known as chronic pancreatitis, the difficulty in this respect being so much increased by the fact that these pathological conditions are often associated. The seemingly paradoxical assertion that uncertainty of diagnosis may persist after an operation is illustrated by a clinical report of a man who, two years after an apparently successful cholecystenterostomy for choledochal obstruction diagnosed as due to simple chronic pancreatitis, proved to be the subject of epithelioma of the gland which had spread along the cicatrix to the surface of the abdominal wall. In discussing the surgical treatment of calculous obstruction of the common duct, Tuffier holds that in cases in which the obstacle is situated near the duodenum, the best and surest plan is to endeavour to remove this obstacle, and with this aim, if incision of the duct does not enable the surgeon to carry out extraction, he should, before resorting to duodenostomy, make an effort to break up the impacted stone. Choledochoenterostomy is indicated when the affected region, including the gall bladder, has been more or less modified by chronic inflammation. The difficulties likely to occur in this operation are friability of the coats of the common duct, and traction of the intestine on this canal. In cases in which there is chronic inflammation, the question of the situation of the opening, whether, that is to say, it be duodenal, jejunal, or gastric, is one of little importance, it being especially necessary to find a portion of the gastro-intestinal canal that is supple and capable of being readily applied to the duct. If the intestinal wall be indurated, sclerosed, and the seat of chronic inflammation, the operation, it is held, will inevitably fail. The author, in concluding, holds that whenever it is possible the surgeon should establish an anastomosis between the gall bladder and a healthy portion of intestine. If the bladder be found defective he should make a communication between the common duct and the intestine. The latter operation, he adds, has been rendered a justifiable one by recent improvements in its technique.

OBSTETRICS.

205. Pernicious Vomiting of Pregnancy.

WHITRIDGE WILLIAMS (*Johns Hopkins Hosp. Bull.*, March, 1906) divides the vomiting of pregnancy into three varieties—reflex, neurotic, and toxaemic—each of which is dependent upon etiological factors and demands especial methods of treatment. He finds that vomiting occurs in more than half of his private cases, but not so frequently among hospital cases. Reflex vomiting may be due to the presence of abnormalities of the uterus, especially displacements; to endometritis, to ovarian tumours, to abnormalities of the ovum, such as hydramnios, hydatidiform mole and certain cases of twin pregnancy. Kaltenbach considered that the vast majority of cases of vomiting of pregnancy were due to a neurosis more or less allied to hysteria. He thought that latent hysteria might become manifest under the influence of pregnancy. These cases of neurotic vomiting are frequent, but it is possible that the underlying cause of the neurosis may be a mild toxaemia; the evidence is at present unsatisfactory. The toxaemic nature of the vomiting of pregnancy has received much support; four main theories have been advanced attributing the source of the toxic material respectively to the gastro-intestinal tract, the ovum and its appendages, ovarian secretion, and hepatic lesions. In certain cases of toxaemic vomiting there is a marked disturbance of metabolism, which is manifested by a decrease in the amount of nitrogen excreted as urea and a great increase in the ammonia coefficient; it must be left to future investigators to determine whether the change is directly due to the inability of the diseased liver to effect complete oxidation or whether it is a manifestation of an acid intoxication or some other condition. We are still ignorant concerning the nature of the toxic material and whether it is derived from the fetus or the mother. Vomiting is pernicious when it interferes seriously with the taking of food or produces marked emaciation. It is important to decide whether one is dealing with the reflex, neurotic, or toxaemic variety, as treatment depends upon this distinction. A careful vaginal examination should first be undertaken to discover the presence of abnormalities, and then a thorough chemical examination of the urine should be made and the ammonia coefficient determined. In normal pregnancy, and even in neurotic vomiting, the ammonia coefficient varies from 3 to 5 per cent., in the toxaemic type it may reach 32 to 46 per cent. It is probable that an increase to 10 or 15 per cent. would justify a diagnosis of toxaemic vomiting and would indicate the termination of the pregnancy. A rise of temperature and pulse-rate is not always present, even in the most serious cases; dark-coloured vomit and jaundice are ominous signs. In its later stages the vomiting of pregnancy has been mistaken for eclampsia, especially if the patient has been comatose; the two diseases differ clinically, chemically, and histologically. From the evidence at present available it appears that there are two varieties of the toxaemia of pregnancy, one giving rise to eclampsia, or the pre-eclamptic toxaemia, and the other to the vomiting of pregnancy and acute yellow atrophy. The prognosis is good in the reflex and neurotic forms, provided they be properly treated; the outcome is generally fatal in the toxaemic form unless the pregnancy is promptly interrupted. As regards the treatment of the reflex form it is necessary to remedy any displacement of the uterus which may be present, to remove ovarian tumours, and, should hydramnion or hydatidiform mole be diagnosed, to terminate the pregnancy. The neurotic variety should be isolated under the care of a nurse, feeding by mouth should be stopped, and saline and nutrient enemata be given by the rectum, with small doses of morphine; if this is not effective removal to hospital or the threat of an abortion will often tend to produce a rapid improvement. In toxaemic cases abortion affords the best chance of saving the patient. After the uterus has been emptied saline injections by the rectum or subcutaneously are indicated, and if vomiting persists the stomach should be washed out with a weak solution of sodium bicarbonate, even ice should be withheld till vomiting has ceased.

206. Displacement of the Fallopian Tubes to Produce Sterility.

A. E. ROCKEY (*Med. Record*, March 17th, 1906) mentions instances in which he considers an abortion justifiable as a necessity in saving life, and others in which the possible occurrence of pregnancy would expose the patient to danger which it is most desirable to avoid. He cites a number of cases in point, and gives his method of ensuring sterility both safely and positively. His technique he describes as follows:—When the cornu of the uterus is brought into the field of incision, the tube is seized near its uterine end with a pair of forceps. The sharp point of a pair of scissors is thrust into the cornu, and the uterine end of the tube is cut out by a V-shaped incision with two cuts of the scissors. The wedge-shaped point of the excised end of the tube is caught with the forceps, drawn out a little between the partly-closed blades of the scissors and cut off. The severed end of the tube will then slip into the peritoneal sheath and be completely covered by it. One catgut stitch is passed through this cuff, then through the fundus posterior to the inner end of the V-shaped incision from behind, forward, and tied, thus fastening the closed ends of the tube back of its original position. Two more stitches are passed around the tube and through the cornu to close the V, to control the bleeding, and to fasten the tube to the outside of the closed cornu.

207. Puerperal Infection.

Ellice McDonald (*Amer. Med.*, February 17th, 1906) reviews the lesions of puerperal infection and directs attention to the three forms infection may take—toxaemia, septicaemia, or pyaemia. Six cases illustrative of the more unusual terminal forms of puerperal infection are eported. The cases are discussed separately and the general conclusions deduced that, while streptococcus is he most common infecting organism, other types of infection not infrequently cause severe symptoms. The erm "puerperal infection" should be broadened to include infection elsewhere than in the uterus, and the nature nd location of such lesions should be recognized before ny operative measures are undertaken. The harmfulness f curettement is dwelt upon.

GYNAECOLOGY.

208. Deciduoma in Non-gravid Fibroid Uterus.

IPPEL (*Monats. f. Geb. u. Gynäk.*, March, 1906) reported efore a medical society a case which gave rise to much iscussion. He removed a fibroid uterus from a woman, ged 32, who had been three times pregnant. Her last regnancy, three years before the hysterectomy, ended in bortion at the second month, and since then the patient ever had the least sign of gestation. The tumour was collection of myomata, but on the surface of the mucous embrane lining the posterior part of the uterine cavity as an area measuring about 1½ in. by 2 in., raw and eeding, and circumscribed by healthy mucous memane. This raw tissue went deep into the muscular coat. he clinical symptoms, besides the existence of the tumour, d been profuse, but perfectly regular, menstrual haemorage, without any intermediate discharge of pus or mucus. e new growth on the mucous membrane appeared on icroscopical examination to be a tumour of the deciduoma pe, strongly resembling microscopically metastatic owths in a case of hydatidiform mole recently under n Herff's observation, defined by Wallart as "atypical orion-epithelioma." Schottlander believed that Sippel's se was an instance of haemangeio-endothelioma, and er others expressed some doubts about the deciduoma eory. von Rosthorn declared that it was not always easy distinguish the two kinds of tumour. He considered at we had much to learn about endothelioma associated th fibroids.

209. Sarcoma of Vagina in Childhood.

LLIN (*Revue de Gynéc. et de Chir. Abdom.*, January-bruary, 1906) has prepared a monograph on this very lignant type of new growth; twelve clinical records are lected, including 2 cases (Le Dentu, Aubert) published hin the last two years. As has been already recognized, differs from the less definite forms of sarcoma of the gina in the adult in that it tends to become racemose pedunculated, although in its earliest stages it appears a smooth convex swelling on the vaginal mucosa. In great majority of cases it is the anterior vaginal wall t is the seat of disease. A big, malignant mass deops very soon, and may invade the cervix; as to gnosis under these circumstances, Rollin notes that ypoid primary sarcoma of the uterus is up to the present e unknown in childhood. The bladder, parametrium, appendages become involved, pyometra may be set up and cystitis not rarely develops, owing to infection through the urethra, the discharge from the growth being very septic. Distant metastases are not frequent. This kind of tumour often causes no symptoms so long as it remains intravaginal and before it takes on free proliferation, hence it is usually detected too late for treatment. Recurrence after excision may be very rapid—ten days in one case (Rabé); Schuchardt's patient underwent a second operation, yet was living ten years later, whilst in several cases of recovery after operation the after-history is defective. Bleeding is the first and most important symptom, and it is followed by pelvic pain, constipation, and dysuria. The appearance of the racemose mass in the vulvar cleft and the definition of its attachment to the vaginal mucosa render diagnosis easy when the disease has probably advanced too far to allow of operation.

210. Pregnancy in Bicornute Uterus: Caesarean Section.

Brown of Birmingham, Alabama (*Surgery, Gynaecology, and Obstetrics*, February, 1906), was consulted about a woman, aged 30, who was in her fourth labour, as placenta praevia was diagnosed. Term had been reached. He found the pelvic cavity occupied by a soft, boggy mass, simulating a sessile myoma of the lower uterine segment. As it clearly prevented the head from coming down, Caesarean section was performed, when the mother and child were still in good condition. Then it was found that the uterus was bicornute. A full-term healthy male child was removed from the left cornu. The right cornu was then opened. It was as large as a normal uterus at the fourth month, and was lined with a true decidua, which was scraped off. The patient appeared to be in danger from the anaesthetic (ether), so neither cornu was removed, as Brown would have preferred. Two hours after the operation the patient appeared as well as after a normal labour. Two weeks later she suffered from a complication diagnosed as an infarct, or else ether pneumonia. Within a few days she recovered completely. The child was reared.

THERAPEUTICS.

211. Thiosinamin and Dupuytren's Contraction.

Teschemacher (*Therap. Monat.*, January, 1906) has found that the treatment of Dupuytren's contraction of the hand in diabetic patients by means of thiosinamin injections has been successful in two out of four cases in which he has seen it tried. In one of the two unsuccessful cases the injections were given up after twelve had been made because of the onset of a skin necrosis followed by lymphangitis; in the second case forty injections were made, but no improvement could be detected. The first of the successful cases was that of a soldier, 42 years of age, who had suffered for four or five years from diabetes and from a developing Dupuytren's contraction. The left hand was more deformed than the right, but operative measures were undertaken for the right hand because of the inconvenience of the deformity on this side. The operation was successful, but when the patient was seen by the author two years after it, the patient suffered considerable inconvenience because the second and third parts of the little finger of the right hand were fixed at right angles to one another. In the left hand, which had not been operated upon, the second and third fingers were slightly bent towards the palm, while the first and second parts of the third finger were bent at right angles to one another, and the little finger was pressed into the palm. The injections were made into the left forearm at the rate of one a day, and no improvement manifested itself until after the twenty-fifth injection. From this time, however, improvement was obvious, and after fifty injections the fingers of the left hand could be freely extended, and only a soft swelling could be felt as a remains of the scar-like contraction in the palm. The condition of the left hand was now, therefore, far better than that of the right, although the latter had been at the beginning the less involved of the two. In addition to the injections, the hands were treated daily by means of warm baths, massage, and rubbing with fat in some form or other. The second of the successful cases was that of a man, 54 years of age, who suffered from marked contraction in the two last fingers of the right hand. After the third injection the patient began to complain of pain at the site of injection, and after the eighth an abscess developed, which made it impossible to continue the injections into the arm. They were now made into the gluteal muscles, and were much less painful. After twenty-one injections the patient was obliged to return home and discontinue the treatment. The only result of it so far was that the power of movement of the little finger was slightly increased, and the author thought that he detected some softening of the tense tissues in the palm. While the patient was at home he took thiosinamin internally in doses of 0.025 gr. three times a day, and continued the massage and hand baths. When he reappeared for treatment the condition was unchanged. The injections were now started again in the gluteal muscles, but this time fibrolysin, a preparation of thiosinamin, was used, and these injections proved to be quite painless. After twelve there was marked improvement, and after nineteen an almost complete recovery; both fingers could be extended almost normally, and the swelling on the palms was almost wholly softened. Fibrolysin thus proved superior to thiosinamin both in the rapidity of the results it gave and in the absence of pain on use. Because of these two cases, the author strongly recommends the treatment. It is perfectly safe even for diabetic patients, for whom an operation would be a matter of some risk, and if relapses should occur there would be no objection to a renewal of treatment. Massage of the hands, etc., should be continued for some time after the injections have ceased to be made.

212. **Griserin.**

Griserin, a modification of the preparation lovetin, which had fallen into disuse, has been warmly recommended by K. Küster as a remedy in phthisis. It is claimed that after the first reaction the patient has a feeling of general well-being, fever diminishes, night sweats disappear, the appetite quickly begins to improve, and the weight increases steadily unless severe diarrhoea should develop, the cough and spit become less, and finally a slow but steady improvement begins to appear in the objective lung condition. E. Huhs (*Beitrag für Klinik der Tuberkulose*, Bd. iv, Heft 3) has tried the effect of griserin upon 18 cases of phthisis under sanatorium treatment. Of these patients 6 were in the first, 3 in the second, and 9 in the third stage of the disease. The results of the treatment are given in considerable detail in tabulated form. The changes in the objective lung condition are perhaps the best test of results. These changes may be summarized as follows: in no case did recovery occur; in 3 there was slight improvement; in 8 the condition was unchanged; in 5 it became worse; and in 2 much worse. Huhs also made use of guinea-pigs, in order to determine the effect of griserin under experimental conditions. He found that two animals experimentally infected with tuberculosis, and treated with griserin, both died sixteen days after infection, while the control animal, which was similarly infected, but received no griserin, was alive at the end of the sixteen days, and had gained in weight during the interval; moreover, the signs of disease on section were more widespread in the first two animals than in the third. Further experiments showed that griserin had a distinctly unfavourable effect upon an already existing tuberculosis in guinea-pigs. To explain the complete absence in man of any internal disinfectant action of griserin Huhs points out that the preparation is only with difficulty soluble, and that only small doses can be taken for any length of time; griserin, therefore, is only present in the stomach in a dilution of 1 in 60,000, which is not strong enough to be effective. O. Roepke, Director of the sanatorium, discusses the conclusions to be drawn from Huhs's experiments. He compares the results of the combined treatment with those obtained under the ordinary sanatorium treatment alone. Of the patients to whom griserin was given, the physical signs improved in 16.5 per cent., did not improve in 44.5 per cent., became worse in 39 per cent., while of the patients in the second class the signs improved in 74.5 per cent., did not improve in 20 per cent., and became worse in 5.5 per cent. In no case among the patients of the first class did tubercle bacilli disappear from the sputum, but in 25 per cent. of the cases of the second class the bacilli did disappear; 16 out of the 18 patients treated with griserin suffered from diarrhoea, the general condition of these patients during the time of intestinal disturbance became decidedly worse. The conclusions at which Roepke arrives are that: (1) Griserin in the treatment of tuberculosis is quite ineffectual as an internal disinfectant, because of the smallness of the dose which can be administered. (2) Griserin is directly harmful in the treatment of phthisis; it leads to more or less disturbance of the intestinal tract which must lessen the resisting power of the organism; (3) the use of griserin in tuberculosis should be altogether discontinued.

213. **Yeast in the Treatment of Tonsillitis.**

Melzi (*Gazz. degli Osped.*, January 28th, 1906) speaks very favourably of yeast in the treatment of acute phlegmonous tonsillitis. As most of the cases seen by him were in the later stages of the disease, and required prompt surgical treatment, he is only able to record 11 early cases, for it is only in the early stages of the disease that the yeast treatment is beneficial. The author reviews the various explanations given as to the *modus operandi* of yeast, and finds none satisfactory. He is content to record the clinical facts without attempting to explain them. And if given early enough he has no doubt that yeast is very valuable, as it not only speedily allays the inflammation, shortens the attack, checks suppuration, and may even abort the disease. Moreover, it prevents spreading to the opposite side. It may be given fresh, dried, or as an extract, but as there is no advantage in the other preparations, it is more convenient to use the dried yeast in powder, and of this he gives from three teaspoonfuls to three tablespoonfuls per diem in warm milk.

214. **X Rays in Diseases of the Skin.**

Fred. Wise summarizes (*Med. Rec.*, January 20th, 1906) the conclusions reached in regard to the use of the *x* ray in treating various disorders at the New York Skin and Cancer Hospital as follows: (1) The *x* ray will cure ringworm and favus of the hairy skin more rapidly and reliably than any other method of treatment; the advantages of the method are that it is painless, harmless when properly used, and thorough, and that it cuts down the expense incurred by the city in the treatment and care of these patients to a very considerable extent. (2) Hypertrichosis should be treated with electrolysis, not with the *x* ray. (3) The *x* ray gives very satisfactory results in the various forms of cutaneous tuberculosis; in keloid, in keratoses, in infiltrated patches of chronic eczema, lichen planus pityriasis rubra; in the tubercles, ulcers, and tumour masses of mycosis fungoides, psorospermosis, and sarcoma. (4) *X* radiation relieves pruritus, burning, tingling, and pain; it decreases the discharge and foul odours of various dermatoses, often causing them to disappear completely. (5) In selected cases radiotherapy is the ideal agent in the treatment of epithelioma and rodent ulcer.

PATHOLOGY.

215. **Blood Diagnosis in Forensic Medicine.**

Neisser and Sachs (*Berl. klin. Woch.*, January 15th, 1906 recommend for blood diagnosis a test based on the properties of the antihaemolysins. They find it most convenient to make use of the haemolysin for sheep's blood which is present in normal rabbit serum. The method of applying the test is as follows: A preliminary experimen is first made in order to determine the amount of rabbi serum which effects complete solution. This they found to be, for the purpose of the particular experiments which they undertook, 0.25 c.cm. This quantity of rabbit serum was then mixed with the fluid to be tested for human blood and with 0.01 c.cm. of antiserum. The antiserum was obtained from rabbits which had previously been treated with human serum. The mixture was allowe to remain for one hour at a temperature of 37° C Then 1 c.cm. of 5 per cent. sheep's blood was added and the mixture was again kept at a temperatur of 37° for two hours. Absence of haemolysis indicates th presence of human blood. In a control experiment, wher an identical procedure is adopted, with of course, th omission of the material to be tested for human blood haemolysis must take place. This test is so delicate tha even $\frac{1}{100000}$ c.cm. of human serum is enough to completel prevent haemolysis. Neisser and Sachs recommend tha their method should be employed in conjunction with th Wassermann-Uhlenhuth method when a blood diagnos is required for forensic purposes. They have themselve undertaken this combined investigation in two forensi cases. In the first they received for examination a sma leaf from a tree on which were a few spots of blood. A extract of this was made in the smallest possible quantit of normal saline. One c.cm. of this extract was used f the precipitin test with 0.1 c.cm. of antiserum. A sligl but definite clouding appeared, and afterwards a pr cipitate. The remaining 0.2 c.cm. of the extract wa diluted ten times, and various quantities of this dilut material were used for the haemolysin test, with 1 c.c of sheep's blood, 0.25 c.cm. of rabbit serum, and 0.02 c.c of antiserum. It was found that 0.25 c.cm. of the dilut extract was enough to completely prevent haemolysi In the second case which the authors investigated simil results were obtained; 1 c.cm. of their extract of t material for diagnosis gave a slight but definite reacti to the precipitin test, whilst 0.2 c.cm. of the same extra completely prevented haemolysis.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

216. The Paths of Infection in Pulmonary Tuberculosis.

FRAENKEL (*Deutsch. med. Woch.*, March 1st, 1906) discusses the relative importance of the three possible routes by which tubercle bacilli may travel to the lungs—namely, the blood stream, the lymphatic system, and the respiratory tract. He thinks that the danger of haematogenous infection through the placenta is commonly underestimated, and points out that Schmorl, in an examination of the placentas of 20 tuberculous women, found tuberculous nodules in 9 cases, or 45 per cent. ; and a fact of particular significance is that these nodules were found not only in cases of miliary tuberculosis or advanced lung disease, but also in a case of incipient phthisis. But these observations, though important, are not sufficient to justify the extravagant theory that infection with tuberculosis usually dates from the period of intrauterine life. Infection of the lungs by way of the lymph channels appears to be particularly common in infancy. Fraenkel refers in this connexion to the frequent swellings of the cervical glands in scrofulous children, and to the still more significant fact that in infantile tuberculosis the bronchial glands are almost invariably affected. There can be no doubt that in a considerable proportion of the cases of infantile pulmonary tuberculosis the infection has been introduced by the alimentary tract, and has been carried thence to the lungs by the lymphatic system ; but Fraenkel does not go so far as to advocate the extreme view that the nfant's lungs may not, in a certain proportion of cases, be directly infected by inhalation ; and in the adult, where the bronchial glands are frequently less affected than in the child, the occurrence of direct infection by the respiratory tract is undoubtedly common.

217. An Epidemic of Measles.

LEONARDI (*Gazz. deg. Osped.*, February 4th, 1906) points out certain facts he has observed in connexion with an epidemic of measles (600 cases) which he had to do with in 1901-2. Without exact figures, he is under the impression that Koplik's spots were present in 50 per cent. of his cases, and sometimes for six or seven days before any signs of illness were noticed. It is, however, doubtful whether this early discovery is of much value as a prophyactic measure. A map of the course of the epidemic is given, showing how it proceeded steadily from south to north, a course due, in the author's opinion, to the direction of the upper air currents (places in the valley were unaffected). Like every one who has seen much measles, he strongly deprecates the view that it is a light and trivial disease that one must have, and so no special precautions need be taken. The mortality varied in different places rom 1½ per cent. to 28 per cent. ; possibly the higher morality may be accounted for by mixed infection, the measles, by weakening the resisting power of the tissues, allowing other germs to act more potently. It was more atal in older children than in the very young. In addiion to the many sequelae left by measles, the author was much impressed by certain cases which developed mental weakness or joint troubles after the original disease.

218. Riedel's Lobe and Cholelithiasis.

HERRINGHAM (*St. Bart.'s Hosp. Rep.*, vol. xli, 1905) publishes some new cases where, owing to disease of the gall bladder or neighbouring organs, a tongue of liver is proonged downwards from the right lobe. Riedel, in 1888, decribed 6 cases associated with pain and swelling. Herringam finds 2 more cases in the Surgical Registrar's Reports, St. Bartholomew's Hospital, for ten years. In the first ase the linguiform process of the right lobe was taken for movable kidney until it was exposed from the front. In the second the lobe was the seat of pain ascribed to appendicitis. Herringham reports 3 cases under his own observaion. The first patient, a woman aged 34, suffered from acute local pain and bile-stained urine. The lobe was detected on palpation, jaundice set in and lasted for a fortight, and during convalescence the lobe grew smaller. In he second case the patient was a man aged 56. There were, as in the first, symptoms of cholecystitis, and the obe could be defined on palpation, and so it was with the hird case. Cholecystotomy was performed on the third patient, and a single calculus about an inch long was found close by the opening of the cystic duct. Before the operation a tumour connected with the lower border of the liver had been defined on palpation ; it extended for about an inch and a half below the ribs and was rounded below, whilst its inner side was sharp-edged. Herringham notes some other cases. [In the BRITISH MEDICAL JOURNAL, June 17th, 1905, Doran describes a case of dilatation of the gall bladder simulating ovarian cyst. At the operation, a well-developed Riedel's lobe was observed passing over the uppermost part of the anterior surface of the gall bladder and running for nearly 3 in. towards the left, somewhat downwards.]

219. Albuminuria.

BALOCCO (*Gazz. deg. Osped.*, January 28th, 1906) has studied albuminuria by the method of fractional precipitation. His results do not on the whole confirm the results obtained by other workers as regards the prognostic indications to be drawn from the presence of various types of albumin. The author carefully estimated the amount of serum albumin, of englobulin and of pseudoglobulin in various forms of albuminuria, by means of fractional precipitation with sulphate of ammonia, and subsequent determination of nitrogen by Kjeldahl's method. Englobulin was never found in febrile albuminuria. The globulinic index cannot be accepted as a guide in the discrimination of various kinds of albuminuria, as it varies in such wide limits in cases which are closely akin to each other. No reliance can be placed on the albuminoid index as a prognostic criterion, for although sometimes it was higher in cases where the kidneys were comparatively free from disease the reverse was the case at other times. The author did not find a marked increase in globulin in acute nephritis, febrile albuminuria, orthostatic albuminuria and the albuminuria of pregnancy.

SURGERY.

220. The Operative Treatment of Tumours of the Bladder.

WATSON (*Ann. of Surg.*, December, 1905) proposes to substitute bilateral lumbar nephrostomy and the establishment of renal fistulae in cases of tumour of the bladder for ureteral implantation in connexion with resection or total extirpation of this organ, the bladder operation being practised after an interval and not simultaneously with the operation on the kidneys. The unsatisfactory results of surgical intervention in cases of vesical tumour have led the author to seek for some means by which the treatment of such growths might be improved. He shows by an analysis of 653 recorded cases that if the operative deaths and rapid recurrences are combined under the single heading of operative failures, such failures occur in 28.6 per cent. of benign tumours and in 40 per cent. of the cases of carcinoma. On considering whether it is desirable to operate or not in cases of tumour of the bladder, he concludes that the factors favouring surgical intervention outweigh those opposed to it in all cases of benign growth and also of carcinoma in which there is a fair probability that the malignant process has not as yet exceeded the limits of the bladder itself. The very large percentage of recurrences seems, in the author's opinion, to point logically to the necessity of more radical measures in cases of benign as well as of malignant tumour, if surgeons can hope for better results. The suggestion made in this respect is that total extirpation of the bladder, and also of the prostate if it be involved in the disease, be done at the outset in all cases of carcinoma that has not extended beyond the limits of the above-named structures, and in which it is believed that there are no secondary growths, and that the same plan should be applied to all cases of benign growths in which recurrence has taken place after a primary operation for their removal. Ureteral implantation, which, the author thinks, contributes to the surgical failure, should, he holds, be abandoned, and lumbar nephrostomy, with ligation of the ureters, should be done instead, and at some time previous to the operation for the removal of the vesical tumour, as this preliminary operation seems to offer a much safer and less objectionable way of disposing of the most difficult part of the main operation. The following are the different stages of the operative treatment suggested by the author: (1) Lumbar nephrostomy, bilateral, or unilateral at first, and in the latter case, if the operation has been well tolerated, to be followed by the same on the other kidney later; (2) total removal of the bladder, to follow the nephrostomy after an interval of from four to six weeks. Full details are given of a radical method of removing the bladder by a free incision in the median line, opening the peritoneal cavity, and by another incision in the middle line of the perineum. The bladder is not opened in the course of the operation, and thus the risks of intraperitoneal infection are much reduced.

221. Staphylococcic Toxin and Cicatrization.

G. DEL CONTE (*Giorn. Internaz. d. Sci. Med.*, January, 1906) examined the effects of injections of either *Staphylococcus pyogenes aureus* or its toxins upon the healing of wounds in rabbits. He finds that the bacterium retards cicatrization although it does not infect the wound itself; that the toxin, or its proteid constituents, also delay healing, although injected at a distance from the wound; and that if they are injected directly into the wound, they exercise a marked positive chemiotaxis on the white blood cells, and upset the normal processes of repair.

222. Osteoarthritis of the Spine (Spondylitis Deformans).

GUFFEY (*Univ. of Pennsylvania Med. Bull.*, November, 1905) discusses this condition on the basis of 131 collected cases. He defines it as a subacute or chronic progressive ankylosis of the vertebral column, characterized by structural changes in the bones, ligaments, and articular cartilages of the joints. It usually begins in the lumbar region, and extends upwards, and is nearly always associated with some deformity, usually dorsal kyphosis and decrease in, or loss of, the normal lumbar lordosis. It may or may not be associated with involvement of the shoulder, hip, or other joints, and is not, as a rule, accompanied by spinal root symptoms, such as paraesthesia, anaesthesia, etc. It is found in cats, oxen, horses, and gorillas, as well as in man. That it is not a modern disease is shown by the fact that it has been found in an Egyptian mummy dating from 3700 B.C. The condition is but one of the many manifestations of arthritis deformans. It must not be confused with osteitis deformans affecting the spine. The best term for it is "osteoarthritis of the vertebral column." Of the 131 collected cases, 75 per cent. were males and 50 per cent. were between the ages of 25 and 35. The most constant antecedent is exposure to cold and wet. Trauma is the next most constant factor. The disease especially occurs in men whose occupation requires much exposure to the weather or great strain to certain joints. Hod carriers have the shoulder first affected and later the spine. It is more common in the country than the town, and is a disease of the poor and poorly nourished. Certain infectious diseases may predispose; there was a history of gonorrhoea in 13, and of rheumatism in 22. The onset is generally gradual and insidious, beginning with pain and stiffness; sometimes it is acute and severe. The pain may be felt in the small of the back, so interfering with stooping, or in the neck, interfering with nodding and rotation of the head. It varies much in character and severity, and becomes less severe as the disease advances. The limitation of movement is usually greater on one side than the other, and may be first noticed in the arm when attempts are made to raise it above the head, or in the chest on deep respiration. Spinal rigidity and limitation of movement gradually increase, first in the lumbar region but soon spreading slowly upwards. There is dorsal kyphosis and a loss of the lumbar curve, the chest becomes flat, and the breathing abdominal in type. The gait is peculiar, being shambling, irregular, and difficult. The patient stands with his knees bent and the toes turned out. On lying down the appearance is more striking. In complete ankylosis the shoulders and hips cannot touch the bed at the same time—the rocking-chair condition. He sleeps on one side, or propped up in bed. Ankylosis of other joints may occur, most often of the hips and shoulders. There is atrophy of the muscles in the neighbourhood of the affected joints—the spine, shoulder, and hips. Exostoses are often found along the antero-lateral aspect of the vertebra, but may be found elsewhere. Sensory or motor nervous disorders may be present, such as paraesthesia, hyperaesthesia, tremor, and increased excitability. The pathology of the disease is that of osteoarthritis elsewhere—proliferation of cartilage cells, a subsequent absorption of the intervertebral discs, fusion of vertebrae, ossification of ligaments, and formation of exostoses. A diagnosis must be made from (1) Pott's disease, in which there are a positive reaction with tuberculin, angular deformity, a family history of tubercle, no affection of other joints, and no exostoses. (2) Pachymeningitis; here the onset is more acute, the stiffness is confined to the cervical region, the other joints are free, and there are marked mental symptoms. (3) Occupation kyphosis. There is a history of a stooping occupation and no joint complication, pains, or exostoses. (4) Hysterical stiffness of the spine would yield to an anaesthetic; osteitis deformans would show deformity in the long bones, enlargement of the calvarium, broadening of the pelvis, and no exostoses. The prognosis largely depends upon the stage at which the condition is recognized; there can be no cure when bony changes have occurred. Death takes place from intercurrent disease, especially of the lungs. Treatment must be mainly constitutional—good nutritious food, fresh air, sunshine, warm baths, and tonics, such as iron, cod-liver oil, arsenic, and strychnine. Salicylates occasionally relieve pain, but may upset the stomach. A warm, dry climate is the most suitable. Any source of toxic material must be removed, constipation corrected, and the skin kept healthy by baths. In the early stage a mechanical support, such as a plaster jacket fixed in the erect position, should be used. Later this should be replaced by a flexible support, such as a spring-steel brace or leather jacket. Electricity, massage, and local warmth do much to relieve the pain and stiffness.

OBSTETRICS.

223. Lactation and Menstruation.

HEIL (*Monats. f. Geb. u. Gyn.*, March, 1906) has made some researches which tend to confirm the opinion of Remfry and others on this subject. Out of 200 women under Heil's observation during lactation 24 became pregnant (12 per cent.), one woman conceiving twice when suckling, one "several times," whilst one invariably conceived before weaning. It is important to note that 17 of these 24 who conceived during lactation had likewise begun to menstruate during lactation, whilst in only 7 had the catamenia not returned; Heil, however, reminds us that Remfry gives a lower proportion, as the British observer found that if absolute amenorrhoea be present during lactation, the chances of impregnation are only 6 in 100. Heil, in conclusion, finds that about half only of all suckling women have absolute amenorrhoea. The appearance of the catamenia during lactation is not a reason for weaning the child, nor is it necessarily followed by suppression of milk. The longer that suckling is continued after the fourth month the higher is the chance that menstruation will return. In individual cases the cause of the reappearance or absence of menstruation during suckling cannot always be made clear; a considerable proportion of women may menstruate during lactation on one or more occasions, yet not on other occasions. Heil, like Thorn, believes that menstruation, not amenorrhoea, during lactation is the original normal condition with women.

224. Post-partum Appendicitis.

MICHEL (*La Prov. Méd.*, March 17th, 1906) thinks appendicitis a rare complication of pregnancy which, when it occurs after delivery, makes the diagnosis between puerperal infection and appendicular infection difficult. Pinard finds that all *post-partum* appendicitis has been preceded by a previous attack either before or during pregnancy. It occurs generally in young women; the appendicular crisis may arise during pregnancy or after labour, but is most frequent from a few days to three weeks after delivery. It may be due to local causes, such as traumatism. During the later months of pregnancy the gravid uterus may bruise the tissues in the ileo-caecal region, these tissues being at this time less resistant owing to the changes in the pelvic and abdominal vascular supply. Many women suffer from constipation and faecal accumulation, which favours the development and increases the virulence of the *B. coli.* Pregnancy and delivery tend to light up old inflammatory trouble, and to break down adhesions which have been shutting off old residual abscesses. When delivery has been difficult it may be followed by slight uterine sepsis with secondary infection of the appendix, or infection may be due to a general sepsis. If a woman who has been recently confined has a high temperature without apparent cause it is advisable to investigate the past history thoroughly for previous attacks or anything approaching to such attacks. The symptoms are as usual, acute pain in the right iliac fossa, a rise of temperature, rapid pulse, vomiting, and furred tongue. The peritonitis is either generalized or localized and suppurative. In women, owing to the low position of the appendix, it is not uncommon to find it causing a localized pelvic peritonitis. A typical appendicular attack occurring ten days after a normal confinement is not difficult to diagnose, but after a difficult labour with, perhaps, prolonged manual interference, the supervention of fever with a tender uterus, abnormal lochia, and vomiting, may easily be attributed to uterine infection, and a treatment undertaken which will only serve to aggravate the situation. Care should be taken to eliminate pneumonia, lymphangitis, and mammary abscess, all of which have been known to simulate appendicitis. The condition of the cervix is an important diagnostic point : if it is closed and firm the uterus is healthy, if t is patulous the uterus is infected or doubtful. If the uterus and its appendages appear healthy and do not correspond with the general symptoms, the cause of the illness probably lies elsewhere. If the uterus is doubtful the ordinary treatment for uterine nfection should be instituted : the symptoms will subside rapidly in a case of endometritis, but remain unabated in appendicitis. Local examination determines the diagnosis of later manifestations of puerperal infection, such as pelvic peritonitis, perimetritis or salpingitis. In diagnosing appendicitis one must be influenced by the previous history, the predominance of symptoms on the right side, and the unilateral character of the lesion. Pelvic appendicitis is associated always with swelling in the right iliac region and pain on pressure, whereas salpingtis is exclusively pelvic. The alarming symptoms due o constipation in the recently delivered woman may simulate appendicitis, but the pain is less severe. Cases of entero-colitis, cholecystitis and pyelonephritis have been recorded as sequelae of confinements. The prognosis of *post-partum* appendicitis is serious. Michel considers hat there are many reasons for advocating surgical treatment, and points to the excellent results obtained by early nterference.

GYNAECOLOGY.

225. Appendicitis Resembling Tubal Gestation.

Lapthorn Smith (*Montreal Med. Journ.*, March. 1906) operated on a woman aged 35 who had missed two periods nd been subject for six weeks to irregular uterine haemorhages. One or two severe attacks of pain occurred with ise of temperature. Appendicitis was suspected, but, wing to the pain being so low down, tubal disease was hought possible. A rounded tumefaction was defined in the right iliac fossa, its lower portion extending down to Douglas's pouch ; it was tense, but fluctuation was pereptible. Altogether, considering the menstrual history nd the position of the lower part of the tumour, tubal pregnancy seemed more probable than appendicitis. The bdomen was opened, and the right tube and ovary were detected adherent to the mass in Douglas's pouch ; otherwise they were normal, and no pregnancy of any type xisted. The appendix was found embedded in adhesions eep down in the pelvis, gangrenous, and almost perorated. It was intimately connected with a coil of reatly-thickened small intestine, the tumefaction which ad been defined in the right iliac fossa and pelvis. The ppendix contained very fetid pus; it was successfully emoved.—Péraire (*Bulletins et Mém. de la Soc. Anat. de Paris*, November, 1905) describes a case of coincident ppendicitis and inflammation of the right Fallopian tube nd ovary. The patient, 25 years old, had suffered from our attacks of acute hypogastric pain associated with a ender mass in the right fornix, but the attacks almost oincided with four regular periods, the region of the ermiform appendix was tender, and mucus and blood assed with the stools. The uterus was fixed. At the peration the right Fallopian tube was found converted nto a large hydrosalpinx, the right ovary was sclerosed, nd the vermiform appendix greatly thickened. All were trongly adherent to each other. Péraire believed that the nflammation had arisen simultaneously in the appendix nd uterine appendages.

226. Chorion-epithelioma Malignum.

. Raw (*Journ. of Obstet. and Gyn. of the Brit. Emp.*, ovember, 1905) describes a case of chorion-epithelioma. he patient was 39 years of age, and at the time of her dmission into hospital had been suffering for three months from profuse haemorrhage and offensive discharge from the vagina and from progressive weakness and emaciation ; the symptoms followed a miscarriage at the seventh month. The patient remained under treatment from January, 1902, until her death in the following June. Soon after admission she had a rigor and a rise of temperature to 105° F. Antistreptococcic serum was given and the temperature quickly fell to normal. About three weeks later she had a severe flooding followed by rigors and a temperature of 105° F. and 106° F. The uterus was curetted, the haemorrhage during the operation being so severe as to necessitate the packing of the uterus with gauze. Rigors continued to occur and the temperature at intervals rose as high as 106° F. in spite of the use of the serum. In March a mitral murmur, due apparently to infective endocarditis, was observed. The day before death the patient complained of severe pain in the abdomen, and during the last week of her life the uterus was noticed to become much larger. The diagnosis of deciduoma malignum was made during the lifetime of the patient, but her condition was such as to preclude the possibility of operation. At the *post-mortem* examination the body of the uterus was found to consist merely of a thin membrane of muscular tissue, enclosing a bleeding fungating mass. The appearance suggested that the growth had begun at the mucous membrane, and had completely replaced the original tissue. On microscopical examination no decidual cells were found. The syncytium showed processes which often contained a group of nuclei closely packed together, and, as they were always found lying free in a blood space, they resembled in every minute particular the syncytial buds seen not only in sections of hydatidiform mole, but also in normal villi, and still more markedly in the early stages of the development of the chorion. Prowse was of opinion that the condition was one of true carcinoma arising in the chorionic epithelium and parasitic on the maternal organism.

THERAPEUTICS.

227. Treatment of Diphtheria.

Gasparini (*Gazz. degli Osped.*, February 18th, 1906) publishes some observations on diphtheria, based on 150 cases treated by him in the past two years. His mortality was 7.33 per cent. No large doses of serum were given, never more than 6,000 units. In addition to serum treatment, he used a local application of nitrate of silver for painting on the throat and a mixture of lead lotion and carbolic for the glandular enlargement; sprays and gargles were also used. The bulk of his remarks are, however, directed to a strong plea for intubation as against tracheotomy. His results with tracheotomy were unfortunate, for out of the three cases tracheotomized all died. Of the chief difficulties met with in intubation (haemorrhage, glottic oedema, vomiting, and glottic spasm), glottic spasm is perhaps the most obstinate at times. Syncope never occurred during the operation. Occasionally some difficulty is found in removing the tube, and in these cases Bayeux's methods of enucleation by means of the thumb at the point of the cannula in the crico-thyroid space, the child's head being extended and then rapidly flexed, may be useful. As a general rule the tube was kept *in situ* from three to five days, but there are exceptions, just as there are with regard to the possibility of discarding a tracheotomy tube. Although intubation, in the author's opinion, is essentially to be preferred to tracheotomy in hospital practice, he admits that in private practice tracheotomy may in some cases be more advantageous. For there are accidents in connexion with intubation—for example, sudden mechanical obstruction from blocking or dislodgement of the tube—which call for immediate and prompt attention.

228. Variations in Weight during Sanatorium Treatment.

A. Berger (*Zeit. für Tub. und Heilstät.*, October, 1905) has made investigations as to the variations in weight of tuberculous patients under treatment at a sanatorium in Davos. At this sanatorium the mountain climate, together with hygienic and dietetic treatment, are relied upon to bring about recovery, and treatment by drugs is only resorted to in case of need. The patient's day lasts from 7 o'clock in the morning to 9 o'clock at night. About two hours of this time is spent at meals, in many cases five to six hours in lying down, and the remaining six hours in taking exercise in the open air. The stronger patients are allowed, under careful medical supervision, to go out for half-day or day expeditions, and often do eight hours' walking in the day. The food receives the most careful attention, but no systematic overfeeding treatment is carried out. The patients were weighed once a month until June, 1902, at which time a system of weighing patients weekly was inaugurated. As the author's intention was to investigate especially the effect of mountain climate upon weight, the weights of patients who were suffering from intercurrent diseases were not included in the statistics, nor those of patients confined to bed on account of fever or haemorrhages. The following are the conclusions arrived at: (1) As a rule the patients increase in weight during their stay—the increase in weight is greatest during the first weeks of the cure; (2) patients in a reduced state of nutrition on admission gain weight far more readily than those who are well nourished on admission, and this distinction holds good until a medium nutritional state is reached; (3) the increase in weight varies with the stage of the disease; (4) female patients put on less weight than male patients, but the period of greater increase continues longer in the latter; (5) the rate of increase in weight is not the same at different ages, the age of greatest increase being between 30 and 40 years; (6) the weight of patients who are confined to bed, but have no temperature, as a rule remains stationary; occasionally there is a slight loss; (7) intercurrent illness or advance of the phthisis, with fever, reduces the weight; (8) the normal nutritional condition which has been regained at the sanatorium is, in the majority of the cases, retained after the patient's return to the plains, while in about a third of the cases a further increase in weight takes place; (9) the mean results as to weight obtained do not differ materially from those of the best low-lying sanatoriums, and, on the other hand, hospital patients who have lived under practically the same conditions at sanatoriums, both in the plains and among the mountains, are found to reach a normal nutritional state more quickly at the higher level; (10) the winter cure has no greater influence than the summer cure upon the weight.

229. Chloro-Morphino-Scopolaminic Narcosis.

Lorenzelli (*Rif. Med.*, February 17th, 1906) gives his experience of the above mixed method of narcosis in 200 cases of general surgery. There were 7 deaths (none at the time of operation) in these cases, but none of them could be fairly attributed to the anaesthetic. All the patients were over 16 years of age. Two separate solutions of scopolamin bromide (½ mg. to 1 c.cm. water) and morphine (1 cg. to 1 c.cm.) were used; freshly-prepared solutions are to be recommended. Two hours before operation ½ cg. of morphine hydrochlor. and ½ mg. of scopolamin were given, and one hour before operation a second injection of 1 cg. of morphine and ½ mg. of scopolamin was administered. In some cases this gave such satisfactory anaesthesia that no $CHCl_3$ was required. In 2 cases rather alarming symptoms (high pulse-rate, lessened respiration—down to 6 per minute—and profound collapse) occurred, probably due to an overdose. In the majority of cases chloroform was subsequently given. After the morphine and scopolamin injections a very much smaller dosage of chloroform was necessary, and vomiting was conspicuous by its absence both during and after the operation (unless a large amount of chloroform had been given). As a rule, only about 10-15 gr. of chloroform were required, even in long operations. One of the chief difficulties in this method of anaesthetization is the regulation of the exact dose of scopolamin and morphine, its effects being sometimes too much and sometimes not enough. Another inconvenience is the greater tendency for the tongue to fall back. A greater tendency to haemorrhage which has been noted by some surgeons was not observed in the author's experience.

230. Maretin.

A. Brinda (*Giorn. della R. Accad. di Med. di Torino*, September and October, 1905) has carried out a complete pharmacological and clinical study of an acid carbaminate of methyl-toluyl-hydrazid, the trade name for which is maretin. His first experiments show the action of the drug in relatively large doses on healthy animals. He found that an endovenous injection of 5 gr. into a healthy rabbit weighing 2,500 gr. lowered the rectal temperature less than one degree, the whole effect lasting less than four hours and being unattended by any constitutional disturbance. To test the effect of the drug on animals suffering from febrile diseases, guinea-pigs and rabbits were treated with subcutaneous injections either of hay infusion or *Bacillus coli* broth culture so as to give rise to two separate varieties of fever both of slow course. A type of these experiments is one in which a rabbit weighing 2,687 gr., and with a steady temperature of 40.5° received an injection of one-tenth of a gram of maretin, after which the temperature fell o 37° and remained for about three days lower than befor and substantially lower than that of the rabbit used for pu poses of control. Thus maretin has a much more decide and prolonged action on febrile than on normal temperature With considerable difficulty the author executed a numbe of experiments to show whether the effect was produced b disturbing the heat-regulating centre. The only exper ment successfully concluded tends to show that the hea regulating centre is unaffected by maretin. In the case o a new antipyretic unusual importance must be attached t its action on the heart. A frog's heart was freed from th pericardium and treated by the application of three o more drops of normal saline solution containing 1 gram o maretin in 100 c.cm. This caused some slowing of th heart's action, giving place in an hour or two to a sligh quickening. The injection of maretin (one ten-thousandth of the body weight) into the muscular mass of a frog' heart quickened the heart's action. Repeated injection increased this effect, but led to a rapid fall at last in the number of heart beats, and the heart ceased beating in diastole. In numerous experiments on dogs the autho tested simultaneously the effects of small doses of maretin (one twenty-thousandth of the body weight) on the pulse rate, the arterial blood pressure, and the respiration. The pulse-rate increased slightly, the blood pressure underwen a distinct but not dangerous fall, and the respiratory movements increased very much in amplitude, and diminished in number to a corresponding extent These results were obtained by injecting the drug in a single dose into the jugular vein, but a minimum of disturbance is produced by breaking up the dose. Even after large doses of maretin spectroscopic examination shows normal oxyhaemoglobin with no traces of methaemoglobin. The effect of maretin on the nervous system was tested by administering very large doses. In frogs such doses caused hyperexcitability, convulsions, and death from paralysis, sometimes preceded by tetanic spasm. Such symptoms attend poisoning by saccharine and by all the members of the aromatic class to which maretin belongs. Similar results were obtained on rabbits, a dose of 1 gram per kilog. of body weight being rapidly fatal, and rather smaller doses giving a cumulative effect when exhibited at intervals of one day. Another series of experiments, checked by controls, showed that maretin is a disinfectant as well as an antipyretic. Finally the drug was tested on 12 children from 1 to 8 years of age suffering respectively from follicular tonsillitis, enteritis bronchopneumonia (4 cases), enteric (2 cases), measles acute bronchitis, croupous pneumonia, and empyema Each patient received, not oftener than once a day ¼ gram of maretin. No inconvenience followed in any case. The action was of considerable duration, lasting at least a day, and in some cases the treatment exercised a decisive influence on the course of the disease.

PATHOLOGY.

231. The Blood of Epileptics.

Onuf and Lograsso (*Amer. Journ. of Med. Sciences*, February, 1906) conducted observations upon the blood of epileptics in order to ascertain the condition of the blood elements (*a*) during the intervals, and (*b*) in connexion with the seizures; and whether such latter were primary, secondary, or merely side issues. During the free intervals the haemoglobin and erythrocyte figures were found to vary within relatively narrow limits, especially in men, and while the leucocyte variation was greater it was not abnormally so. In studying the blood in relation to the seizures due account was taken of the time of day, and the influence of meals, fatigue, change of habits, etc. The erythrocytes showed nothing characteristic or definite. There were, however, marked fluctuations in the leucocyte count quite apart from the influence of meals, work, or sleep, and it was noted that a leucocytosis may be present before a seizure, and is then not a secondary phenomenon produced thereby, although a seizure need not necessarily be so preceded. From further observations after the onset of the attack there is no absolute parallelism between seizure and leucocytosis, which appear to be independent of each other, and marked elevations in leucocyte counts need not necessarily mean seizures. In order to ascertain whether the great fluctuations in the leucocyte count were due to the epileptic state or merely accidental, a case was studied in which the seizures occurred at long intervals. The fluctuations were here found to be but slight during the intervals, and to be concentrated round the period of the seizure, the curve during the free interval tending to be almost an entirely even one.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

232. Prophylaxis of Lobar Pneumonia.

J. M. Anders (*Amer. Med.*, March 31st, 1906) believes the revalence of the disease is much influenced by indoor onditions, especially such as obtain during the cold eason. Effective prophylaxis embraces four main bjects: (*a*) The thorough disinfection of pneumonic putum as well as that of healthy persons, including the ecretions of the upper air passages; (*b*) isolation of the atient, especially from the debilitated, and disinfection f the sick chamber, together with its contents, after death r recovery; (*c*) the removal of personal predisposition; nd (*d*) the introduction of certain public measures. horough and prompt sterilization of pneumonic sputum nd of the secretions from the upper respiratory tract, and hen the prompt destruction of the same by burning, is matter of first necessity. Disinfection of the bed inen and body linen, the mattress, and the room occupied y the pneumonia patient is also a primary requisite. hese matters do not receive the rigid care and attention hich they richly merit by the average general practiioner. The public measures of greatest value may be ummarized as follows: The issuance of drastic edicts gainst spitting on the pavements; the work of street cleanng and street sprinkling should be looked after by oards of public health, to whom should be given full xecutive authority; there should be greater diffusion of opular information concerning efficient ventilation of our ffice buildings, theatres, courts of justice, manufacturing stablishments, churches, public schools, and passenger nd street railway cars, and also regarding details conected with the subject of the prevention of lobar pneuonia, stating simple, plain facts about the way in which e disease is spreading.

233. Dyspepsia of Puberty.

Ermandez has contributed an important essay on the isorders of digestion associated with puberty (*Thèse de aris*, 1905). The onset of menstruation may be the occaion for the appearance of more or less severe gastric erangement in girls. There may be no symptoms during e interval. Should previous dyspeptic symptoms have xisted they are liable to aggravation at puberty. They ay become so serious that the patient's disposition underoes complete change. There are loss of appetite, gastric lic, and vomiting; occasional symptoms of hyperlorhydria accompanied by pain, appearing two or three ours after food, are present. The usual form of dyspepsia the hyposthenic, characterized by pain, which only isappears at the end of the digestive process. The symtoms may disappear on the termination of the period, but some cases they persist, and chronic dyspepsia is estabshed. The onset of puberty in boys may also be accomanied by symptoms of dyspepsia, especially in patients of eurotic disposition. Mild cases of the dyspepsia of uberty are characterized by a feeling of weight, distenon, tenderness on pressure, regurgitation, and heartburn. onstipation is the rule, and there is a tendency to mucoteritis. Some cases are more serious, especially those which there is a neuro-arthritic family history. They e severe, not only in the intensity of the symptoms, but their intensity and liability to relapse. Instead of eing transitory the symptoms appear on the slightest ovocation, such as fatigue; frequently they appear ithout apparent provocation. The patients are thin, eble, listless, incapable of concentration, sleep badly, d present the typical phenomena of intense neurasthenia. he treatment is difficult. The most minute attention ust be paid to general hygiene and diet. Alkalies may given a quarter of an hour before food. Sometimes drochloric acid (3 to 4 per 1,000) may be taken with food. he writer points out the frequency of drug gastritis in ese cases, for it is generally found that before a patient mes under medical treatment various digestive tonics ve been liberally administered by anxious relatives.

234. The Diazo-reaction in Mental Disease.

ni and Benini (*Rif. Med.*, February 3rd, 1906) have amined the urine in various cases of mental disease with view to the presence of a diazo-reaction and of indican. Altogether they examined 105 cases, and in the great majority of these the results for both reactions were negative. Positive results were obtained in both cases fairly easily in grave forms of maniacal excitement and in severe melancholia. Out of 10 cases of general paralysis, 4 (in the last stage of the disease, and with some evidence of septicaemia from bedsores) gave positive reactions. No positive value in prognosis can be attributed to the presence of indican, or of the diazo-reaction, in mental disease, for they sometimes fail in identical cases. As an index of profound organic intoxication their presence is, in so far, of bad import.

235. Syphilitic Nephritis and Hydropericardium.

G. Verrotti (*Giorn. Internaz. d. Sci. Med.*, January, 1906) adds a twelfth to the 11 cases of nephritis occurring in secondary syphilis already recorded. Three months after the primary sore appeared, the patient exhibited pustular acne and ecthyma over much of the trunk, numerous enlarged lymphatic glands, sore-throat, a painful swelling of the left testis, general prostration, anaemia, marked albuminuria (albumen 4 per cent.), and oedema of the face and lower limbs. The urine was acid, specific gravity 1031, and contained numerous red cells. Signs of pericardial effusion were also present. Digitalis was exhibited, and 1 cgm. $HgCl_2$ was injected subcutaneously daily. In five days the pericardial fluid had disappeared; in ten days the urine was almost free from albumen. The patient went out cured in a month, sixteen injections having been given. Mauriac advised treatment with iodide in such cases as these. Fournier recommends mercury and iodide together.

SURGERY.

236. Operative Treatment of Wounds of the Heart.

Quénu (*Bull. et Mém. de la Soc. de Chir. de Paris*, No. 10, 1906) reports a case of penetrating wound of the left cardiac ventricle successfully treated by suture. Since 1905, when the wounded heart in man was first exposed and sutured by Farina, 63 instances of this kind have been recorded, showing 23 recoveries. Reference is made to an original case communicated to the author by Savariaud, in which suture of a penetrating wound of the left ventricle was followed by fatal pleuro-pericardial infection, probably due to double suppurative bronchopneumonia. In considering the factors of pleural infection, which is the most frequent secondary complication of surgical operations on the heart, Quénu, while attributing some share to the condition of the wounding weapon and also to insufficient preparation of the patient's skin owing to the urgency of the intervention, holds it as evident that pulmonary atelectasis leading to the formation of a cavity in which blood and other fluids collect and stagnate, plays in the development of infective processes the chief part. Such mischief, it has been sufficiently shown by experience, is not prevented but rather favoured by drainage of the pleural and pericardial sacs. Early death after operations on the heart is, it is stated, usually due to recurrent haemorrhage into the pleural sac. Such haemorrhage is derived not from the heart but from the wound made by the surgeon, and may be readily explained by the fact that at the time of the operation the cut branches of the internal mammary artery do not bleed in consequence of temporary lowering of arterial tension, or from some other cause. It is possible also that when the superficial parts of the wound have been closed a pleural vacuum may be formed which, under the influence of the respiratory movements, may favour bleeding from small arteries. The prognosis in cardiac surgery, the author concludes, depends very much on the treatment of the pleura, as in cases of wound of the heart pleural haemorrhage is the primary danger, and pleural infection the principal secondary danger. As in exposing and suturing a wound of the heart it is usually found difficult to avoid opening the pleural cavity, it might, Quénu suggests, be found very possible and easy to prevent pulmonary retraction in such operations by the help of the method of hyperpressure of inspired air, or of that of hypopressure of external air established by the use of Sauerbruck's chamber. The future of cardiac, as of pulmonary and thoracic surgery seems, it is held to depend on the methods at the surgeon's disposal of maintaining the pulmonary function intact during and after the operation, and at the present time Sauerbruck's excellent though costly apparatus seems best fitted to accomplish this object.

237. **Surgical Intervention for the Intracranial Haemorrhages of the Newborn.**

CUSHING (*Amer. Journ. of Med. Sciences*, October, 1905), from the experience of 4 cases of intracranial haemorrhage, in each of which a cranial operation was performed to clear out the clot, considers that a craniotomy in the newborn under proper precautions is comparatively free from danger, and that the immediate risk of death and the later consequences of meningeal birth haemorrhages may thus in many cases be avoided. Contrary to the generally-accepted opinion, newborn children bear cranial operations well; and, since there is no marked evidence that their blood is slower in coagulation than in the adult, fatal haemorrhage from the incision is not to be feared. In 3 of the cases with primary cortical haemorrhages the effusion of clotted blood was unilateral only, and in two of the patients definite intracranial symptoms did not become manifest for several days after birth, but with a more careful study of symptomatology it may be possible to recognize these conditions earlier. When the actual nature of the lesion is doubtful a lumbar puncture is conclusive, for free corpuscles will soon be evident in the fluid of the lumbar meninges if there has been any effusion of blood into the subdural spaces. The labour will probably have been difficult, or there will have been some considerable degree of *post-partum* asphyxiation. The fontanelle will be bulged, and in some cases may be so tight as to show no pulsation, and in two of the cases its bony outlines could not be palpated in consequence of the tension. Convulsions, undue reflex activity to sensory stimuli, ocular palsies, and inequality of pupils are common, but in the early days evidences of paralysis are rare. It is not until some months have elapsed that the sequelae begin to manifest themselves—for example, epilepsy, spastic palsies, blindness, deafness, and varying grades of intellectual weakness. The operation in each of the 4 cases consisted in raising an osteoplastic flap, including almost the whole parietal bone through a horseshoe-shaped skin incision just within and concentric with the border of the parietal bone. By this means the clot was exposed and removed carefully by forceps and irrigation with warm saline solution, the wound being closed without drainage. In one of the cases it was found necessary to carry out a similar procedure on the other parietal bone in order to expose both hemispheres; and even in so severe a case recovery took place by primary union, and up to the present the infant appears to be developing normally.

238. **The Surgical Treatment of Gastro-Colic Fistula.**

CHAVANNAZ (*Bull. et Mém. de la Soc. de Chir. de Paris*, No. 5, 1906), who has recently operated in a case of gastro-colic fistula, discusses the different methods of surgical intervention for the treatment of this condition. Although such intervention is of quite recent date and only 8 instances have hitherto been recorded, it has been practised in several very different ways. Exclusion being made of those cases in which a simple exploratory laparotomy was performed, and also of those of incision of a circumscribed peritoneal abscess communicating with both stomach and colon, it will be found that four different methods of operation have been practised for radical cure or for relief on the subjects of gastro-colic fistula. The surgeon, it is pointed out, has acted directly on the fistula by performing laparotomy, separating the stomach from the colon, and closing the abnormal orifices after simple refreshing of the margins, or after gastric and intestinal resection. The second method, which aims at exclusion of the portion of large intestine adherent to the stomach, has been varied according to the indications for making this exclusion either complete or incomplete; one procedure consisting in section and closure of the colon above and below the fistula followed by re-establishing of the continuity of the large intestine, the adherent portion of the colon being transformed into a simple gastric diverticulum; the other procedure in the setting up of a simple intestinal, usually colo-colic, anastomosis. The other methods practised merely as palliative operations have been jejunostomy and colotomy on the proximal side of the gastric fistula. In one only of the eight collected cases was the patient treated by direct closure of the fistula. The operation, which was a very long and difficult one, had a fatal result. Of three patients who were treated by exclusion of the adherent and perforated portion of colon, and re-establishing of the continuity of the intestinal canal, two were completely cured and the third was considerably relieved. Simple intestinal anastomosis, which was practised on two patients, gave very good results in one case and failed altogether in the second. Colostomy did no good in the single case on which this operation was performed, and in the remaining case jejunostomy resulted in decided but only temporary relief. The author concludes that the surgeon in dealing with a case of gastro-colic fistula should in his choice of one or other of the proposed operative methods, be guided by the general condition of the patient, the nature of the symptoms, and the origin of the fistula. If the patient be still able to tolerate operative intervention, laparotomy should be practised in order that as much information as possible may be gained of the nature and extent of the lesion. In a case of simple fistula without extensive changes in the surrounding tissues—a condition which is acknowledged to be exceptional—the surgeon might practise the first of the above-mentioned methods—that of resection and suture. In the presence of extensive and firm adhesions complete exclusion of the affected portion of colon should be attempted if the patient be in a good condition, but if there be much exhaustion the surgeon should not attempt more than a simple lateral anastomosis. If a long operation, with the administration of a general anaesthetic, be contraindicated by the enfeebled state of the patient, it would be advisable, the author states, to perform jejunostomy. The choice between this operation and intestinal (colo-colic) anastomosis is likely, it is pointed out, to be a very difficult one. The former would probably be best suited for badly-nourished and debilitated patients, the latter for those affected with faecal vomiting.

OBSTETRICS.

239. **Ocular Complications of Pregnancy.**

BERGER AND LOEWY have recently published an interesting account of ocular symptoms in various diseases of the reproductive system, and those constituting the complications of pregnancy in particular (Paris: Félix Alcan and *Journ. de Méd. et de Chir. Prat.*, October 25, 1905). In the writers' opinion 1.5 per cent. of pregnant women suffer from some defect or disease of the visual apparatus. Some, such as pigmentation of the lids, are of no clinical importance. The lachrymal gland may secrete abnormally; a case is quoted of a primipara who suffered during the first two months from ptyalism and mucous vomiting—at the third month there was a copious secretion of tears causing considerable discomfort. Ulceration of the cornea in pregnant women has been frequently observed. The ulcers are situated, as a rule, at the centre, are independent of traumatism, and appear to be trophic in origin. Conjunctival haemorrhage appears to be the result of vomiting. The intrinsic muscles are liable to paralysis, and a case of unilateral mydriasis is quoted, which appeared ten weeks before delivery, and was present seven months after. The muscles of accommodation show weakness, in some cases as early as the first two or three months, and glasses become necessary. This is usually attributed to general weakness and nutritional defect; the symptom generally disappears after delivery, though it may remain for some months. Sometimes the muscles of accommodation are completely paralysed. Glaucoma has occasionally appeared during pregnancy; cataract, unilateral or bilateral, has appeared during pregnancy, becoming aggravated on each successive occasion. It is independent of glycosuria or albuminuria. *Optic nerve and retina:* Asthenopia, due to malnutrition of the optic nerve and retina, is frequently present in pregnancy. Retinal anaesthesia also occurs, and it is well known that towards the end of utero-gestation hemeralopia occurs. It is, however, suggested that this symptom may depend on deficient hepatic function, and therefore be indirectly due to pregnancy. Sudden or prolonged exposure to light may be the immediate cause of hemeralopia, as in a case recorded by Kutsner. Hemeralopia is occasionally accompanied by general diminution of visual acuity. Temporary blindness occurs in connexion with icterus gravidarum. Lutz records a case of a woman aged 37 who developed severe jaundice with subcutaneous haemorrhages during the eighth month of pregnancy. Complete blindness supervened before delivery. Vision improved slightly, but the patient died two days after, the child being born before term. Landesberg describes a case of sudden loss of vision in association with jaundice of four days' duration. The writers are of opinion that amaurosis in these cases is due to the action of toxines acting presumably on the cortical centres. Neither Lutz nor Landesberg was able to detect any fundus changes in their cases. Bose has examined the fundus oculi of a large number of pregnant women. There were redness of the optic disc, dilatation of the veins and occasionally slight papillitis without any subjective alteration of vision. Optic neuritis and retrobulbar neuritis have been known to occur during pregnancy. The latter usually develops about the fourth or fifth month, is generally bilateral, and reveals itself by central scotoma or amblyopia, the intensity of which varies. Relapse is probable in subsequent pregnancies. The vision occasionally improves before delivery, but has been known to persist for some time after. Cases have been recorded of persistent amblyopia, sometimes unilateral, recovery taking place in the other eye. Loss of sight in the one eye, with contraction of the visual view in the other, has been described. The writers refer to an interesting case published by Lawford Knaggs, in which, after each succeeding pregnancy contraction of the visual view occurred, corresponding to the loss of a quadrant, therein resembling contraction in sectors in the visual field met with in cases of optic atrophy in association with menstruation. In an interesting case described by P. Bull, there was aggravation of bilateral contraction during successive pregnancies. Amblyopia appeared during the second month and progressed till the patient was completely blind. Vision was restored six months after delivery. During the third pregnancy blindness was complete by the fifth month, and only partially disappeared after delivery. The same symptoms supervened with the fourth pregnancy, but after delivery there was perception of light only in the right eye, the vision being one-sixtieth in the left. Optic atrophy was detected. A further interesting point connected with this case was the absence of tears on crying. The latter phenomenon has been met with in hysteria and in cases of optic atrophy of tabetic origin in women. The clinical importance of these lesions is great, as it may be necessary to induce abortion. The patient should be made aware of the risk to vision in subsequent pregnancies. At the same time it must be remembered that optic atrophy may be due to other causes than pregnancy in women. Abortion under such circumstances may not be followed by improvement. The differential diagnosis between hysterical amaurosis and esions of the optic nerve in pregnancy should present ittle difficulty, owing to the presence of other stigmata of hysteria and the absence of changes in the fundus. Retinal changes are found in pregnant women without the presence of albuminuria. Sometimes extensive scotoma suddenly develops, caused by effusion of blood. Detachment of the retina is rare. *Ocular muscles:* Pregnant women not infrequently develop muscular asthenopia, which may require correction by suitable prisms. After delivery the symptom generally disappears. The internal recti are the most commonly affected, but Altman records a case of paralysis of the right external rectus. Pulsating exophthalmos has been known to occur in pregnancy. *Uraemic amaurosis:* This ymptom may occur in the latter half of pregnancy, sometimes during labour. The onset is usually sudden, and loss of vision is complete within a few hours or a day. Sometimes perception of light is retained. The condition s always bilateral, and headache, vomiting, loss of conciousness, and convulsions usually follow. The patient may become comatose. The amount of urine is reduced nd albumen is present. The pupils are either normal or ilated, and may retain their reflexes, which is a favourable indication. There are usually no fundus changes, though albuminuric retinitis may be present. The duration rarely exceeds twenty-four hours. The vision may be completely restored provided the patient recover from the ther symptoms. This form of amaurosis tends to relapse, nd may then be followed by contraction of the fields. ttacks of uraemic amaurosis have no effect on the proress of albuminuric retinitis.

GYNAECOLOGY.

241. Villous Tumours of the Fallopian Tubes.

ÉDENAT (*Archives Provinciales de Chirurgie*, No. 3, 1906) ates that tumours, whether primary or secondary, of the allopian tubes, though less frequent than tumours of the terus and ovaries, are not at the present time to be rearded as rare or exceptional varieties of morbid growth. he existence of primary growths was barely recognized efore 1890, but since this year a greater care in pathogical examination of the uterine annexes, and the frequent practice of laparotomy in uterine surgery have furnished a fair and rapidly-increasing number of specimens of both cancerous and benign growths of the Fallopian tubes. To this list the author adds three cases, one of branching papilloma of both tubes, the second of villous tumour of the right tube with papillary cyst of the corresponding ovary, and the third of villous growths of both tubes; in all of which complete castration was practised with good results. In discussing the pathological histology of tubal papilloma he points out that in this region as in mucous membrane elsewhere, and in the external integument, the growth is often the result of irritation, and may be occasionally due to the action of the gonococcus. The growth presents the form in some cases of a typical adeno-papilloma, in other cases of an adeno-carcinoma. The epithelial proliferation in these growths of the Fallopian tubes, as in other parts lined by mucous membrane, seems for a time to consist in an ordinary irritative process, and whether presenting the papillary or the glandular type, so long as there is not any excessive multiplication of cells, and these cells preserve a cylindrical form and are arranged in a single layer, the neoplasic formation may be regarded as benign. On the other hand, when the cells multiply to excess, when they become misshapen and atypical and infiltrate the layers of the tubal wall, the growth acquires the form of a malignant tumour. The diagnosis of tubal papilloma has, it is stated, never been made before exposure in an operation performed in most instances for supposed pyosalpinx. The only effectual treatment when an accurate diagnosis has been made is total utero-annexial castration, such radical measure being indicated by the following pathological data: (1) both tubes involved in 25 per cent. of cases; (2) grafts in the uterus in 10 per cent.; (3) frequent extension of the growth to the lateral angle of the uterus; and (4) frequent invasion of the broad ligament and the paracervical glands by nodules of the new growth. For these reasons it is necessary, it is held, to perform abdominal hysterectomy with a free dissection, and as wide an excision as possible of the parametric tissues. The author has thus obtained excellent results in two cases, one patient being free from relapse five years and the other nine years after the date of operation. In cases of malignant growth the prognosis is very unfavourable, relapse taking place in a large majority within the first year. It is possible that free removal of the uterus with the diseased tubes and wide excision of the parametric tissues may improve the results of operative treatment, but the records of abdominal hysterectomy applied to cancer of the uterus do not, it is pointed out, favour very sanguine expectations.

242. The Uterus and Ovary of Neurasthenia.

ROBERT L. DICKINSON (*Med. Record*, March 24th, 1906) presents the results of the study of a hundred cases selected from nearly three hundred in private practice. These patients are teachers, musicians, young women worn out by long attendance on sick relatives, older women exhausted by rapid childbirth, a few suffering from the shock of accident or operation, college girls, and society women. All are pronounced types of nerve exhaustion of considerable standing. Neurasthenic women readily become sexual hypochondriacs in the physical—not the moral—sense. All of these women have lumbar pain. In sixty-five the uterus is in normal position; in the rest of the cases abnormalities of that organ exist. The writer believes that a protest against offering anteflexion as an explanation for the severe dysmenorrhoea of the neurasthenic should be repeatedly put on record. There is one retroversion to every five cases in this series. This is about the usual average among gynaecological patients. Endometritis chiefly affecting the cervix is commonly found in its milder types. In two-thirds of these individuals ovarian abnormalities exist. It would seem plausible from the findings to conclude that most chronic neurasthenics have chronic ovaritis. Removal of such ovaries has brought much discredit on surgery. The writer believes that there is a large proportion of arterio-sclerosis in old cases of neurasthenia. He concludes by saying that in confirmed neurasthenics with prolonged pelvic symptoms the hopefulness of the outlook depends not so much upon the operative cure of the few life-endangering conditions as upon the measure of the physician's success in persuading patients to live and work contentedly within the fences of their limitations; on happy mental occupation; on the outdoor habit and outdoor hobby; on graduated muscular training and hydrotherapy; and on regulated feeding and resting. What hospitals now are to major surgery, country and suburban sanatoriums will become for the education of the sufferers from chronic illness.

930 0

THERAPEUTICS.

243. Arsenic in Diabetes.

Verdalle (*Arch. Générales de Méd.*, March 20th, 1906), in a paper on the treatment of diabetes by arsenic and by the arsenical waters of La Bourboule, has briefly described the effects of the latter in 24 patients, whom he has specially studied. In almost all these cases, several of whom were suffering from severe forms of diabetes, he found a marked diminution in the quantity of sugar excreted in the urine, and at the same time the amount of urea excreted was generally increased. He finds that these waters are well borne by the patients if at first the quantities given are small and then gradually increased, according to the several necessities of the individual cases. Moderate doses, he finds, appear to have a more marked action in diminishing the excretion of sugar than large ones. The effect of the water is often very rapid, and moderate doses in three to four days may diminish the excretion of sugar in the urine by one-fourth or one-half. These waters, he finds, are particularly beneficial in those cases of diabetes in which the functional activity of the liver is excessive; he states, however, that they are beneficial in all forms of the disease, and in any case are harmless. In some cases he finds a permanent cure results; in others, the sugar disappears for years or months at a time, but returns now and then, and for these patients he advises a course of the waters twice a year, and the taking occasionally for a few days of the exported waters on returning home. The exported water has, however, not nearly so marked an effect in reducing the glycosuria, and he states that these exported waters should always be used prudently and in small doses. Some of the conclusions he draws from the results of his observations are: (1) That in nearly all cases of diabetes, treatment by these waters has a very beneficial action, the general health improves, often remarkably so, the glycosuria always diminishes, and often completely disappears; (2) the waters tend to regulate the excretion of urea, reducing it when in excess and increasing it when diminished; (3) no harm results from the taking of the waters, and in complications—such as anaemia, tuberculosis, asthma, etc.—they are especially indicated; (4) albuminuria, unless due to nephritis, is no contraindication to the taking of the waters.

244. Marmorek's Antituberculous Serum.

Hoffa (*Berl. klin. Woch.*, February 19th, 1906) has had two years' experience of the use of Marmorek's serum, in the course of which it has been employed by him in 40 cases of various forms of bone and joint tuberculosis. In many instances the treatment has been maintained for several months, but in no case has he found that it exerted a prejudicial influence on the course of the disease. In severe cases with advanced tissue destruction the serum did not bring about a complete arrest of the process, but the author has observed unusually rapid granulation and healing of extensive osteomyelitic processes, a result which he regards as attributable to the serum. In many cases the serum had a beneficial effect on the temperature and the general condition, as well as on the local morbid process. In about one-third of his cases the local reaction at the site of inoculation caused some discomfort, but in no instance was this of more than a transitory nature. Generally, it had subsided after the first twenty-four hours. It is recognized, however, that this local irritation may appear to justify a temporary discontinuance of the treatment. Such an interruption is undesirable, and in order to obviate this difficulty, Hoffa has tried the administration of the serum per rectum. This method he has now employed for six months, with the result that no disturbance, either local or general, has ever been set up. Administered per rectum, the serum is always retained; it is fully efficacious, and it may be given daily for weeks at a time.

245. Intrapulmonary Injections of Bacteriolysins in Phthisis.

Livierato (*Gazz. degli Osped.*, February 18th, 1906) has practised intrapulmonary injections of tuberculous bacteriolysins in the treatment of several cases of phthisis. A full report will be published later; meantime he gives the details of one severe case of phthisis in a man aged 35 treated by this method. The condition of the lungs was, on the right, chronic tuberculous bronchopneumonia of a destructive type affecting the upper, middle, and lower lobes, and, on the left, the upper lobe. Tubercle bacilli and elastic fibres were found in abundance in the expectoration. The treatment was carried out from February 16th to March 21st, and the chief beneficial effects were seen in the temperature, the sweating, and the amount of expectoration. The body weight and the physical signs showed little or no change. The injections were made directly into the lung—generally in the right infrascapular region, and given every other day or every two days, beginning with a small dose of 1 c.cm. Altogether 70 c.cm. were given during the time of treatment. No ill effects were observed either in this case or in others. The temperature chart, which is reproduced, shows clearly the lowering which occurred in the temperature after the treatment was started.

246. Lavage for the Gastritis of Infancy.

Coolidge (*Bull. of the Lying-in Hosp. City of New York*, December, 1905) considers that lavage is more beneficial to young babies suffering from acute or chronic gastritis than any other therapeutical treatment. In acute cases one washing is often sufficient; in chronic and semi-chronic cases daily washing is advisable. At the same time attention must be given to the food, state of the bowels, and care of the infant generally. The apparatus required consists of a large-sized rubber catheter joined by a piece of glass tubing to a rubber tube, 2 ft. in length, on to which a glass funnel is fitted. Water previously boiled and cooled down to a temperature of 100° or 110° is used, a teaspoonful of sodium bicarbonate being added in cases where there is much mucus. The child is held sitting upright; the tube, having been lubricated with olive oil, is introduced for 6 in. or 8 in.; gas and food in the stomach are permitted to escape, and from 4 oz. to 6 oz. of water are poured in, the funnel is then lowered and the water, food, and mucus siphoned out. This procedure is repeated till the water runs out quite clear. In chronic cases or where there is much prostration it is an excellent plan to leave in the stomach an ounce of hot water to which a drachm of liquid peptonoids has been added. It is best to wash the stomach two to three hours after food has been taken, and to give no food for an hour after the washing.

PATHOLOGY.

247. The Toxicity of Bile.

Meltzer and Salant (*Journ. of Exper. Med.*, January, 1906), in their researches upon this subject, have observed the action of bile and bile salts when injected into animals. They have chiefly employed rabbit's bile, although bile from the ox, dog, and guinea-pig has also occasionally been used. Experiments have also been made with glycocholate and taurocholate of sodium. The injections were made into the dorsal or ventral lymph-sacs of the frog. The authors find that, contrary to prevalent opinion, bile contains a "tetanic" element, that is, an agent which causes increase of excitability of the nervous system. Bile from the common duct of many rabbits produces marked hyperaesthesia and tetanic attacks when injected into frogs, whilst stagnant bile, as from the gall bladder, invariably gives rise to coma and paralysis. The depressing and exciting elements of the bile are mutual antagonists, and the total effect of both, when simultaneously present, is equivalent to the surplus effect of the constituent present in larger quantity. The depressing element, when present in a highly effective dose, is by far the stronger of the two; but, on the other hand, the tetanic element becomes effective in a dose far below that which constitutes the minimum for the depressing element. Owing to these peculiar characteristics of the two antagonistic toxic elements, the mixture of both within the bile can be so adjusted as to produce any of the many possible degrees of irritability lying within the range of tetanus at the one extreme and paralysis at the other and including a neutral state presenting apparently a normal or tranquil condition. The bile salts, it seems probable, contain the tetanic element in a distinctly less amount than the whole bile. The excitable element in bile toxin can be increased by nephrectomy, or, in place of nephrectomy, may be imitated by subcutaneous injection of strychnine. It was found that the bile of nephrectomized rabbits which received strychnine produced hyperaesthesia and convulsions more readily than any other bile.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

248. Primary Tuberculosis of the Stomach.

E. Ruge (*Beit. zur klin. der Tub.*, Bd. iii, Heft 2) reports case in which the stomach was the seat of primary attack n tuberculosis. The clinical course resembled that of a nalignant growth of the stomach. The patient, a man ged 50, complained of severe pain in the stomach, loss of ppetite, and the presence of a swelling in the epigastric egion. His father had suffered all his life from symptoms eferable to the stomach, and a brother had died at the age f 45 from some disease of that organ. The patient himself ad suffered for thirty years from a tendency to abdominal ain and diarrhoea, and these symptoms had been more narked at intervals during the two years before he was irst seen; the swelling in the stomach region had been oticed for about four months. During the year before reatment was begun the patient had lost 30 lb. in veight. The stomach contents were repeatedly examined nd there was throughout an absence of free hydrochloric cid. The patient was transferred to the surgical side of he hospital and two operations were performed, first a lastic operation for stenosis of the pylorus, and later, on he return of the symptoms, a posterior gastro-enterostomy hich was completely successful. About eight months fter the second operation the patient again presented imself, this time complaining of pain in the chest nd shortness of breath. On examination there was leurisy on the left side, the cardiac dullness reached to e right border of the sternum, and over the right heart ere was an extrapericardial rub. The abdomen was dis-nded, and gave a tympanitic note. Clear serous fluid as withdrawn from the right side of the chest on two casions, and fluid collected later on the right side and as withdrawn. A little later pain was felt in the loin, nd hard, painful swellings developed there. The patient's eakness increased, and he suffered from obstinate con-ipation and abdominal pain. Death ensued about four onths after the pleurisy was first complained of. The inical diagnosis was of carcinoma ventriculi with many etastases. At the *post-mortem* examination a large mour of the stomach wall was found showing a deep lceration on its inner surface. The tumour was thought be malignant, and the anatomical diagnosis was as llows: Carcinoma ventriculi, with metastases in the bs and pelvic, inguinal, and para-aortic glands; car-nomatous pleurisy and peritonitis; pachymeningitis aemorrhagica interna; thrombosis venae iliacae externae xtr. Microscopic examination showed, however, that e tumours were tuberculous, and were made up for the ost part of a central mass of necrosed tissue, with an ter layer, in which typical tubercles could be seen; bercle bacilli were present in large numbers. The ulcer the stomach was also tuberculous. The lungs were refully examined for tubercle with negative results. he author is of opinion that the stomach lesion as the primary one in this case, and he estab-shes his proposition by a process of exclusion. the first place, the disease of the stomach was not rt of a general tuberculosis spread by means of the blood ssels, because in such a tuberculosis extensive ulcera-on is seldom seen, and the lungs are almost certain to be volved. Again, it is improbable that the disease spread the stomach by way of the lymph vessels, for the lymph w is normally in the opposite direction, and it is more obable that the superior gastro-epiploic lymph glands re infected from the stomach than vice versa. That the sease should have reached the stomach from the intes-ne would presuppose antiperistaltic movements, which e not common, and the primary intestinal tuberculosis uld still remain to be explained. The *post-mortem* amination gave no support to the idea that the disease d spread to the stomach by contact with any neighbour-g organ, and the fact that the lungs were sound negatives e possibility that swallowing sputum containing bacilli as the origin of the stomach lesions. We must, there-re, fall back upon the hypothesis that the stomach itself as first affected. The clinical course of the disease also pports this hypothesis. The frequent occurrence of stric troubles in the patient's family, and the long-anding gastric catarrh from which the patient himself ffered, may have formed predisposing causes for the infection of the stomach, and the absence of free hydrochloric acid may have weakened its resistance to the tubercle bacilli. In several respects—as, for example, the presence of a limited number of large tumours which showed a marked tendency to extensive necrosis, and the presence of tubercle bacilli in unusually great numbers—the type of disease approximated to that usually seen in cattle, and it may well be that the origin of the disease was the ingestion of infected milk from a tuberculous cow.

249. False Alopecia Areata in Schools.

Sabouraud (*La Clinique*, No. 9, 1906) says the essential characteristic of alopecia areata is the presence of bald patches which appear suddenly and spontaneously without any visible preceding lesion or injury. Of the bald patches seen in school children, 95 per cent. do not belong to this category. Sabouraud has often been asked to inspect schools in which epidemics, real or supposed, of alopecia areata, ringworm, etc., had broken out. On every occasion the same thing happened. When he was told, on arriving at the school, that all the "suspect" children had been put aside for him, he knew beforehand what would prove to be the state of things. The "suspects" invariably showed scars of blows, burns, boils, abscesses, cured favus. He mentions incidentally that he once found in barracks a case of premature baldness labelled "alopecia areata." Sabouraud states that, although he has sometimes come across a sporadic case of pelade, he has never seen an epidemic of the disease, and when there was an outbreak of ringworm in a school, it was always among the children regarded as non-suspect that he had to seek for those affected. The following, according to him, is the way in which an "epidemic" of alopecia areata generally originates in a school. A case of impetigo contagiosa is imported. In a fortnight ten or twelve of the children are attacked. As the lesions are simple and well known, they are treated without particular care, often without medical advice. The epidemic dies out. The crusts become dry and fall off, more quickly on hairless spots, more slowly on the scalp where they remain stuck to the hairs. Everything, however, has disappeared when, six weeks later, each impetigo spot becomes a patch of alopecia, pink, smooth, and presenting to the experienced eye a very "peladoid" aspect. The first bald spots, which are small and hidden by the hair, escape observation. When they are seen, there may be twenty on ten children. The teachers become alarmed, they do not connect the supposed new disease with the impetigo; still less does the doctor, who often has not been told of the original affection, do so. In this way a new imaginary "epidemic" is added to medical literature. In 1897 Sabouraud first pointed out the falseness of all the supposed epidemics of pelade which he had had the opportunity of investigating. In every case they proved to be examples of impetigo, followed after a certain interval by what looked like an epidemic of alopecia.

250. Fever.

Giuffrè (*Rif. Med.*, January 27th, 1906) discusses the current theories as to the causation and meaning of fever in health and disease. He believes that the regulation of heat differs in health and in disease, even differs in different febrile conditions in relation to the differing cause—bacteria, protozoa, chemical agents. In his opinion there is no sufficient evidence for the existence of specific heat centres. Thermo-regulation can be adequately explained by the functions of the ordinary nerves and motor centres, vaso-motorial and trophic. In considering the problem of heat regulation one must take into account heat absorption as well as heat production and radiation. As the thermic function is secondary to the motorial, there is no occasion to presuppose the existence of heat centres. By the excitation of muscular spasm through the ordinary motor nerves a greater amount of glycogen is consumed, and thence a greater development of heat. However, this will not account for fever in the diseased person—for example, in tetanus there may be very powerful muscular spasm and yet no rise of temperature. Again, many fevers have no rigor. In these cases the toxins act directly on the glycogen contained in the muscles and liver. It has long been known that bacteria are capable of destroying glucose, and in diabetics the glycosuria has disappeared when an acute infection has attacked them; probably this disappearance of the glycosuria is due to the glycolytic action of the bacteria. In non-diabetics hyperthermia follows from the greater consumption of glucose which exists normally and the diminished synthesis of glycogen. In the healthy, heat is produced and regulated by muscular action; in the diseased, although the combustible material is the same, the modus operandi is quite different, being due in this case to the result of bacterial action and quite independent of any nerve action. The function of thermogenesis is not the peculiar property of any exclusive organ or organs, but is secondary to the processes of general nutrition, so that no nerves can be considered as exclusively thermic; every nerve may in a certain sense be thermic. The regulation of temperature is strictly correlated to the production, absorption, and radiation of heat—or, in other words, to the catabolic, anabolic, and ecbolic processes of metabolism.

SURGERY.

251. Massage of the Heart.

LENORMANT (*Rev. de Chir.*, No. 3, 1906) in an original memoir on massage of the heart in man, particularly in cases of chloroform syncope, reviews the whole question, and endeavours to reverse the unfavourable judgement of this method expressed by Gattel and Vidal and by the French Surgical Congress of 1902. He considers, in the first place, the experimental data which have established the value of cardiac massage in animals, and afterwards sets forth the results of its application to man, and the different modes of its practice. The numerous experiments that have been made on animals concur, it is stated, in establishing the value of cardiac massage, and their incontestable results justify the employment of this method in man. By experimental research it has been shown that the chief obstacle to the renewal of the normal beats of the heart is tremulous fibrillar contraction of the cardiac muscles. When this tremulous movement is observed there is very little hope, it is asserted, of restoring the circulation and the cardiac function by massage alone. In describing the technique of cardiac massage in man the author states that while there are different methods of rendering the heart accessible, the kneading manœuvres are always the same. These manœuvres consist in regular and rhythmical compression of the ventricular portion of the heart by the thumb and all the fingers. These compressions, it has been recommended, should be made at the rate of sixty per minute, but this the author thinks is too high, and can hardly be attained. Le Fort found it impossible to make more than thirty compressing movements in the minute. Of the three methods of gaining access to the heart—the sterno-costal, the abdomino-trans-diaphragmatic, and the abdomino-subdiaphragmatic—the last, in the author's opinion, ought always to be selected as the easiest, the most rapid, and the least dangerous. This opinion is confirmed by the results of clinical experience, as in three-fourths of the small number of really successful cases the third method was adopted. In discussing the results of cardiac massage the author states that of twenty-five patients subjected to this treatment, four, showing a proportion of 16 per cent., were definitely restored to life and cured. This succinct statement, however, fails to give an exact and precise idea of the clinical value of massage of the heart. The fatal cases are not all comparable, as it is necessary to take into account arrest of the respiratory movements as much as cardiac failure, also the previous condition of the patient and the presence of lesions incompatible with prolonged survival. The author suggests, therefore, that instead of making a simple classification of fatal and successful cases, it would be better to distinguish the cases as positive and negative, the former being those in which, under the influence of massage, the heart again presented its regular and spontaneous beatings, and in which, whatever may have been the terminal result, these beatings persisted for some time after the cessation of the massage. As negative cases he would class those in which massage had no effect whatever, and those in which the renewal of the cardiac movements was but of slight duration and did not persist after the cessation of the massage. The statistics thus treated show in the 25 cases of cardiac massage 17 negative results (68 per cent.) and 8 positive results (32 per cent.). It is, however, acknowledged that in three of the four really successful cases the good results might have been due to some degree to the combination with cardiac massage of artificial respiration and other means of restoring vitality. At present, therefore, there is on record but one instance of positive and unquestionable success. Referring to certain methods proposed as adjuvants to cardiac massage, but of which very little, if any, experience has hitherto been gained in man, the author holds that direct electrization of the heart is dangerous and ought to be absolutely proscribed, and that the arterial injection of serum has given encouraging results in animals.

252. Spinal Anaesthesia.

LAZARUS (*Zeitsch. f. phys. u. diätet. Therapie*, April, 1906) puts forward a plea for the wider use of spinal anaesthesia in surgery. He contends that the unfavourable results which have been obtained by some of those who have used this method are due to either the use of an unsuitable anaesthetic or to faulty technique. Cocaine is not a good drug to use, on account of the dangerous symptoms which may accompany the production of anaesthesia. A number of similar alkaloids have been investigated, and the author recommends stovain, a product synthesized by Fourneau at the suggestion of Emil Fischer. Its chemical constitution is near to that of cocaine and eucaine, but it is only a half to a third as poisonous as cocaine, and can therefore be safely used in larger doses. Glass capsules are used, supplied by Riedel, containing 0.04 gram of stovain, 0.0001 adrenalin, 0.00004 boric acid, 0.0011 sodium chloride. 0.04 to 0.06 gram of stovain are given in one dose. The technique of the injection is as follows: The patient lies on the affected side, as the anaesthesia is deeper on the side which is most dependent at the time of injection. In some cases the patient is in the sitting position. The usual precautions having been taken to prevent infection, a hollow needle 6 to 8 cm. long attached to an exploring syringe is plunged in immediately below the spine of the second or third lumbar vertebra, directly in the middle line. The needle should contain a fine trocar, which prevents it from becoming blocked. On removal of the trocar, if the point of the needle is at the right depth from the surface, about 5 to 7 cm., a little cerebro-spinal fluid will escape, and should be allowed to do so to the extent of 1 or 2 c.cm. The injection of the lukewarm fluid above mentioned should then be made quite slowly. Rapid injection may lead to the fluid reaching the upper part of the spinal cord, and causing vomiting and collapse. After removal of the needle the patient is laid upon the back, with only a small cushion beneath the head. In three to ten minutes a sensation of weight, warmth, and deadness develops in the legs, and the sensation of pain is found to be lessened, and soon disappears. The sense of touch, and of heat, cold, and vibration is usually dulled, but pain may be lost while these sensations or some of them remain. The reflexes are usually lost in five to ten minutes after the infusion. An example is given of a case in which an immovable knee-joint from gonorrhoeal arthritis was forcibly bent under spinal anaesthesia, mobility ultimately resulting from the treatment.

OBSTETRICS.

253. Haemorrhage due to the Low Situation of the Placenta.

RUDAUX (*La Clinique*, April 13th, 1906) points out that the occurrence of haemorrhage during pregnancy or at the time of delivery is often explained by finding that the placental site is situated in the lower segment of the uterus. The condition is not necessarily placenta praevia; the placenta may be attached to any part of the wall of the lower third of the uterus. Losses of blood from the uterus are characterized by being either copious, continuous, or recurring. When due to the placental situation they occur during pregnancy, or else tend to complicate delivery and the post-partum period. In discussing a case of ante-partum haemorrhage, he says that it is only possible to form a correct estimate of the amount of the loss by personal observation, which should include a careful examination of the general condition and pulse of the patient. The patient being placed in bed with the head low, a douche of very hot water should be administered; several pints may be passed in until the returning fluid is no longer blood-stained. The patient must continue in bed for some time after complete cessation of the bleeding. Should the desired result not be obtained, or should the general condition be serious when the case is first seen, it is necessary (with due antiseptic precautions) to rupture the membranes. In multiparae this interference is not difficult, as the cervix is usually patulous, and it is not usual to find the placenta lying before the cervical orifice. Antiseptic, but not poisonous, injections should be administered every four hours, and a pad kept over the vulva. It is unwise to leave the patient until one hour at least has elapsed since the cessation of all haemorrhage. It is prudent to leave ready a supply of gauze and cotton wool, with the necessary antiseptics and some saline solution, and to instruct the nurse to prepare a good supply of boiling water, and send for assistance should the bleeding recur. In the case of a patient who has frequent or continuous slight losses rest in bed is required, and if possible a hot douche should be given night and morning. If the pulse-rate does not rise above 100 it is better to let the pregnancy continue, an increase in the pulse-rate accompanied by signs of anaemia and syncopal attacks is an indication for rupturing the membranes with a view to bringing on labour. Subcutaneous saline injections are required, and four-hourly antiseptic douches with a protective pad over the vulva are advisable. If the haemorrhage continues, or if the fetus is dead, labour is more speedily brought on by introducing a Champetier de Ribes bag. When bleeding occurs during labour it may be checked by a very hot douche or by rupturing the membranes. Before doing this, it is necessary to make certain that the position is not transverse, or to correct it if needful. Continued haemorrhage with a rapidly rising pulse-rate indicates the necessity to terminate the pregnancy without delay. This is best accomplished by dilating the os with Champetier de Ribes's bag or with tampons of gauze, or in urgent cases by manipulation, version is then performed and the fetus delivered rapidly. Injections of saline solution are given to combat the syncope. Delivery may be accomplished more rapidly if dilatation is complete by putting on forceps, or, in the case of a dead fetus, by using the cephalotribe. Extraction of the fetus is often followed by serious haemorrhage, which will speedily cause collapse. In such cases, if hot douching does not check it, the hand must be introduced and the placenta delivered; this is then followed by an intrauterine injection. The patient requires to be watched for several hours; if the uterus relaxes abdominal massage must be employed and hot vaginal or intracervical douches given. The lower segment of the uterus does not contract well, and it may be necessary to plug the cervix with gauze tampons in order to arrest the haemorrhage. In all cases of haemorrhage the general condition requires that the patient shall maintain the recumbent position, with the head low. She should be given hot-water bottles, injections of ether and caffeine, subcutaneous injections of salt solution, and spoonfuls of hot water with alcohol in it; inhalations of oxygen are useful when there is a tendency to syncope.

254.

Liquor Amnii of Rabbits.

B. P. WATSON (*Journ. of Obstet. and Gyn. of the Brit. Emp.*, January, 1906) has carried out a series of experiments on pregnant rabbits in the hope of being able to determine the origin of the liquor amnii; and although in this respect the experiments failed they yet gave interesting results with regard to fetal death, and the changes which the dead fetus and its placenta undergo when retained in the uterus. Liquor amnii was removed under antiseptic precautions from the gestation sacs of rabbits at different stages of pregnancy and at the same time for purposes of comparison; one of the normal sacs was in every case removed complete. The results were satisfactory; only one rabbit aborted during the investigation, and in this case the pregnancy had advanced almost to full term when the experiment was undertaken. Eight complete experiments were done, the period of pregnancy varying from the tenth to the twenty-first day. After an interval which varied from three to fourteen days in the different cases the animals were killed, and the uteri were excised and subsequently examined. Yolk sac fluid, not liquor amnii, was removed in three of the cases in which the pregnancy had not advanced beyond the twelfth day, but the results did not differ in any way from those obtained when liquor amnii was removed. The conclusions at which the author arrived were as follows:—(1) On the withdrawal of the yolk sac fluid or the liquor amnii the fetus dies at once, death being caused by arrest of the vitelline and allantoic circulation. (2) The dead fetus and its placenta are retained *in utero*, and the former undergoes degenerative processes and becomes flattened out. (3) The changes which occur in the two parts of the retained placenta—maternal and fetal—are different in nature. (4) The fetal part slowly degenerates, the mesoderm becoming invaded by fibrin, and the cells of the ectoderm undergoing granular degeneration. (5) There is no tendency to proliferation of the ectoderm after the death of the fetus. (6) The changes undergone by the maternal placenta do not differ in their essential nature from those of normal development. (7) The placenta only becomes detached when the tissue forming the zone of separation has become sufficiently attenuated, and it does so in the same manner as the normal placenta. (8) The secretion of liquor amnii ceases on the death of the fetus.

GYNAECOLOGY.

255.

Sarcomatous Fibromyoma.

W. S. A. GRIFFITH AND H. WILLIAMSON (*Journ. of Obstet. and Gyn. of the Brit. Emp.*, February, 1906) describe a case in which a woman, aged 56, suffering from abdominal pain and diarrhoea, was admitted to St. Bartholomew's Hospital under a provisional diagnosis of typhoid fever, but in which the symptoms proved to be caused by a uterine fibroid undergoing a sarcomatous change. The presence of uterine fibroids had been diagnosed six years before by Champneys, and at the time of admission there was a large firm abdominal tumour rising out of the pelvis and reaching to 2 in. above the umbilicus. After admission the diarrhoea from which the patient had suffered ceased, but she constantly had some fever, the temperature varying between 99° and 101°, and later on when rigors occurred rising sometimes to 103°. About a fortnight after admission peptone was discovered in the urine, and it was thought that necrosis was going on, possibly in the fibroid. When Champneys saw the patient, six days later, he found that there was a large movable fibroid, that the pelvic tissues felt normal and that there was no reason to connect the temperature with the pelvic condition. The patient became gradually worse, and about seven weeks after admission haemorrhage occurred from the vagina and continued during three days. The patient was seen at this stage by Griffith, who recommended an exploratory operation. The patient, however, refused her consent. She became much worse during the next few days, and when percussion dullness and weakened breath sounds developed at the apex of the right lung in front and behind, it was suspected that the uterine tumour was malignant and that secondary deposits were present in the lung. At the *post-mortem* examination a large mass of new growth was seen in the upper lobe of the right lung, and similar, but smaller, masses in both lungs. The uterus was enlarged and the external surface, which was smooth and covered by peritoneum, showed a number of small bosses, due to subperitoneal fibromyomata. The uterine cavity was found to be dilated by a fibroid polypus, while a group of tumours was seen in the anterior wall—two of them typical fibromyomata. The third tumour was 5½ in. in length, 4½ in. antero-posteriorly. It was interstitial and encapsuled, and was composed of (*a*) dense white, fibrous-looking tissue, the continuity of which had become broken by (*b*) masses of friable material of a deep red or brown colour, similar to the new growth in the lungs. Microscopically, a section from the firm white part of the tumour presented the appearances common in degenerating fibromyomata, and at one spot the fibromyomatous tissues were invaded by an elongated strand of sarcoma cells. The red friable part of the tumour was composed of a mass of cells of undoubted malignity. At the periphery of the malignant portion were seen elongated cells with long rod-shaped nuclei, which were obviously malignant, but which in shape and form resembled muscle cells; these latter cells were not present in the secondary growths. The authors regard the tumour as being an instance of sarcomatous change occurring in a fibromyoma, but whether the sarcoma arose *de novo* in a pre-existing fibromyoma, or whether the cells of the fibromyoma assumed malignant characters they do not decide. From the microscopical appearances at the growing edge they think it possible that the sarcoma originated, in part at any rate, in muscle cells. They call attention to the wide differences which exist between the statistics given by different workers with respect to the frequency of the association of sarcoma and fibromyoma. They explain this as being the result of the difficulty of making an absolute diagnosis from a microscopical examination, and emphasize the importance of after-histories in such cases.

THERAPEUTICS.

256. Opium in the Laryngeal Stenosis of Diphtheria.

RUDOLPH (*Therap. Monats.*, October, 1905) advocates the use of opium, in addition to the serum treatment, for severe cases of laryngeal stenosis in diphtheria, and deprecates a too speedy recourse to intubation or tracheotomy. The first patient upon whom he employed the treatment was a child 2 years of age, to whom he was summoned after the parents had refused to follow the advice of the doctor in attendance and send the child into hospital for the performance of tracheotomy. Rudolph also was unable to influence the parents, and, under these circumstances, instituted his second line of treatment. Behring's serum No. 2 was injected, and 2 minims of tincture of opium were administered to the patient four times a day, or oftener. When the child roused up from the sleepy condition due to the opium, food was given, and if he did not quickly fall asleep again, opium was again administered, even if only four hours had elapsed since the previous dose. The effect of the serum began to be evident after twenty-four hours and the membrane on the tonsils to become loosened. At this time, however, the laryngeal stenosis became if anything, more noticeable, the breathing was more noisy, and the indrawing of the sternum more evident—at any rate, when the child was not under the influence of opium; and it may be that the serum, as it began to take effect, gave rise to mechanical obstruction of the larynx. By the second morning the stridor had disappeared, the general condition had improved, and recovery was speedy. The author has had two more very similar cases. In one he was not called to the patient until symptoms of laryngeal stenosis had been present for two days, but nevertheless the case progressed favourably. This patient's brother had died a few days before, after tracheotomy had been performed. These cases demonstrated the excellent effects of the serum in laryngeal stenosis, while during the time before the serum produced any appreciable result the patient's sufferings were made bearable and the breathing freer by means of opium. The dose of the tincture recommended is a number of drops equal to the years of age of the child.

257. The Treatment of Rectal Prolapse by Paraganglin.

Nicolini (*Gazz. degli Osped.*, February 4th, 1906) speaks very favourably of paraganglin (Vassall) in the treatment of prolapse of the rectum in children. Paraganglin is an extract of the medullary substance of the suprarenal capsule. It has usually been given locally in cases of prolapse, but the author found that it acted equally well in his case when given by the mouth. When the child (aged 14 months) was first seen, the prolapse (about 5 cm.) had existed for two months, and most of the usual remedies were tried without success. Three days' treatment with paraganglin (35 to 40 ♏ in twenty-four hours) sufficed to reduce and cure the prolapse. After a month's complete relief from all symptoms, the prolapse reappeared but was speedily cured (in two days) by the paraganglin treatment.

258. Treatment of Enuresis in Children.

Bruni (*Rif. Med.*, December 2nd, 1905) publishes 23 cases of enuresis treated by the Cathelin method. This consists of an epidural injection of a sterile 1 per cent. solution of stovain in the sacral fontanelle. The patient is placed in the Sims position with legs flexed on the abdomen so as to make the sacral hiatus prominent (a triangular space bounded above by the last spinal apophysis and laterally by the tubercles of the fifth sacral vertebra) and the needle (about 6 cm. long) inserted at first vertically and then turned horizontally in this position. As a rule no difficulty is found in carrying out the above technique. From 5 to 10 c.cm. are injected and, with one exception, where a temporary sciatica was excited, no bad results followed. Of the 23 cases 7 were completely cured after the first or second injection, 10 were very much improved, and 6 adolescents where the results were negative. This treatment is also useful in nervous spermatorrhoea and in painful cystitis, and the author quotes successful cases in illustration of this. Whether the beneficial effects are lasting or permanent remains to be proved.

259. Treatment of Ankylostomiasis.

Tenholt (*Berl. klin.*, H. 213, March, 1906), who has had a very extensive experience in the treatment of ankylostomiasis, finds that he generally gets the best results with extractum filicis maris, but in cases where there is heart failure or disturbance of vision it is safer to avoid this drug and use thymol as a substitute. Successful results with extractum filicis cannot be expected unless a fresh preparation is used, and even then success is not likely to be obtained in more than 70 per cent. of the cases treated. Tenholt has also tried "filmaron," which is a new preparation supposed to contain the essential anthelmintic properties of extractum filicis, but to be free from toxic substances. He has not found that this preparation yields any better results than the ordinary extract; whether it is free from toxic substances cannot be decided with certainty until it has had a longer trial. Tenholt does not accept the usual theory that the anthelmintic property of extractum filicis is due to the direct action of the drug upon the worm in the intestine. If this were the case the drug ought to be more efficacious when administered in capsules which would not be dissolved until the intestine was reached. Tenholt's experience, however, is that when administered in capsules the drug is less efficacious than when taken per os in the usual way. The explanation which he suggests is that the action of the drug is indirect; it is absorbed into the vascular system, and exerts its specific action on the worms through the capillaries of the intestinal mucosa.

PATHOLOGY.

260. Cerebro-Spinal Meningitis.

Mendez of Barcelona sums up (*Rev. de Med. y Cir. Prac.*, February 21st) our present knowledge of Weichselbaum's meningococcus. On examination of the cerebro-spinal fluid it is generally found in the interior of the polynuclear leucocytes. It is a true diplococcus, resembling a gonococcus in size and shape, and like this is flattened on the sides in contact. Its surrounding envelope stains with difficulty. Cultures are easily made, and seem to produce two types, but this distinction is now not admitted by most observers. The meningococcus as it occurs in the cultures has very little power of resistance. It comes to an end after a few successive cultures, only develops between 95° F. and 102° F., succumbs immediately at boiling point, and in half an hour at 150° F., while frost kills it in forty-eight hours. It is necessary to make a fresh culture every two days. Antiseptics rapidly prove fatal to it; corrosive sublimate 1 in 1,000 destroying it instantly, and lysol 1 in 100 in a minute. Drying, especially in sunlight, is likewise soon fatal. So far as regards experimental inoculation, Weichselbaum infected mice by peritoneal injection, but apparently only with large doses, and the results were not constant. Bonhoff and Griffon inoculated a rabbit by intravenous injection, while Hübner produced a typical case in a goat by introducing the culture into the spinal cavity. Albrecht and Gohn were unable to infect rabbits by injection into the peritoneum or dura mater, but were successful in one instance by subcutaneous injection. Vansteenberghe and Grysez, availing themselves of a meningococcus from a *foudroyant* case which proved fatal in forty-eight hours, obtained a virulent culture which reproduced the disease in different animals in various ways—by the meninges, veins, pleura, etc.—but could not succeed by application to the nasal fossae or conjunctiva. The disease, in spite of some opinions to the contrary, is markedly contagious, and can be propagated directly, or by means of the clothing (Kohlmann), or by fleas (Verill), and probably by healthy persons who have been in contact with the sick, for the meningococcus has been found in the nostrils of nurses and attendants. We have, however, no clear explanation of the first cases of an epidemic, or of sporadic cases. We know that in the nasal passages of those in health there is a microbe much resembling the meningococcus. Ordinarily benign, it may under certain conditions become lethal and cause infection. The leucocytes possibly carry it to the lymphatics, and thus to the subarachnoid space. In this way the part played by influenza in the spread of cerebro-spinal meningitis may be explained, and its prevalence in winter—the season of catarrhs. Some authorities, like Pinto, mindful of the connexion between meningococcus and gonococcus, hold that the two are identical, and cerebro-spinal meningitis merely a localized gonococcus invasion.

261. Agglutination of Bacteria.

Dreyer and Jex-Blake (*Journ. of Path. and Bact.*, January, 1906) find that solutions of caustic soda have no agglutinating influence on *B. coli* or *B. typhosus*, whether added in large quantities or in small. But *B. coli* suspensions, to which regularly-increasing amounts of caustic soda have been added, lose much of their power of being agglutinated by immune serum. The agglutination grows progressively less as increasing quantities of the alkali are added. In its action upon the agglutinin of *B. coli* immune serum, caustic soda is far more destructive than an equimolecular solution of hydrochloric acid. Thus HCl of $\frac{1}{20}$ normal strength destroys practically none of the agglutinin, while the equimolecular NaOH solution, acting under identical circumstances, may reduce the agglutinating power of the immune serum to one-thirtieth of its original value.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

262. The Diagnosis of Gastric Carcinoma.

ALFREDO (*Rif. Med.*, March 24th, 1906) gives his experience after working for two years on the early diagnosis of gastric cancer by means of the method of serum precipitin. This method depends ultimately on some experiments of Tschistowitsch, who found that after njecting rabbits with horse blood, their serum acquired the property of giving a precipitate when mixed with horse blood. Alfredo's attempts were to procure a cancer serum and then test this with serum drawn from the stomach; f this gastric serum gave a precipitate with the cancer serum, this was evidence in favour of the existence of cancer. There are many difficulties in this line of research, and the results at present are by no means certain—for example, in some cases of simple gastric ulcer a precipitate was obtained by this serum method. Still the author feels he is on the right lines. In preparing the serum the author ook pieces of cancer from the centre of a gastric carcinoma about a few hours after death, reduced it to a fine pulp, and suspended in saline solution with the addition of a little chloroform which was eliminated by a Bunsen pump twenty or thirty days later. From 2 to 10 c.cm. of this material was injected into rabbits and the serum withdrawn as required. At first this rabbit serum was ried on the blood serum of cancer patients and others, but subsequent experience showed better results were btained by mixing it with the gastric fluid instead of he blood serum. It was also found that metastatic nodules of the liver gave better immunizing material than that which was prepared from the growth itself. The author discusses some other recent methods of early iagnosis—namely, the failure of digestive hyperleucoytosis, the presence of an albuminous liquid in the stomach after free lavage (Salomon's method), and luzinski's method of testing the digestive power of the stomach by means of two test meals rich in albumin, iven at short intervals, and, lastly, the tryptophanic reaction.

263. Broncho-Pulmonary Complications after Operations.

E DENTU (*Arch. Gén. de Méd.*, March 20th, 1906) describes he various forms these complications may take and discusses the various factors which may take part in their prouction. The respiratory troubles which may supervene fter operations consist of inflammation of the trachea and ronchi, pulmonary congestion or broncho-pneumonia, n the last form the bases of the lungs are the parts chiefly ffected and the right lung is affected as a rule more than he left; these broncho-pneumonic patches are found s a rule only in severe cases and not constantly in these. eath sometimes results from these pulmonary troubles, nd in one case observed by the author was due to a purunt infectious bronchitis developing from an ordinary ronchial catarrh; in this patient the quantity of pus exectorated was very large—no tubercle bacilli were found n it. Advanced or very tender age, alcoholism, diseases the cardio-pulmonary apparatus, cold and influenza, are ctors which may assist in the production of pulmonary mplications after surgical operations. The author inances several cases in which individual predisposition as apparently the chief factor concerned in the producon of these lung troubles. Cold also appears to have conderable influence in aiding pulmonary complications ter operations, as it has been found that by having a armed operating table, by replacing the usual watery lutions for cleansing the skin with solution of soap in cohol, and by carrying out these preparations whilst the tient is warm in bed, the occurrence of pulmonary mplications has been reduced from about 8 to 2 per cent. mboli, either innocent or septic, the latter occurring pecially after operations on the uterus, may also cause ouble by lodging in the lungs. The Trendelenburg sition and partial loss of function of the abdominal uscles after their division in abdominal operations, by heir tendency to cause blood stasis in the lungs, favour or ggravate any pulmonary complications. Blood stasis is so said to depend upon a paralysis of the muscles of the onchi, produced by the anaesthetic, or it may be due to rdiac weakness, also a result of the anaesthetic. The at of operation is an important factor in the production of these pulmonary complications; thus they are common after operations on the stomach, and probably here we have to deal with the question of traumatic shock. The existence of infective lesions in other parts of the body (salpingitis, appendicitis, etc.), infection of the lungs through the bronchi (aspiration pneumonia), by the blood (emboli), and by the lymphatics, all play undoubtedly important parts in the production of pulmonary complications after operations. The relative influence of ether and chloroform in causing pulmonary complications varies according to the opinions expressed by different observers, some thinking ether and some chloroform the most injurious in this respect. Doubtless, as the author rightly says, much depends upon the skill with which these anaesthetics are given. Before concluding his paper the author briefly indicates the main points to be attended to in order to diminish the risk of occurrence of post-operative pulmonary complications. He advises that operation should not be carried out, unless urgency is called for, if the patient is exposed to any epidemic influence; avoid exposing the patient to cold, and be especially careful with elderly people, and with those subject to bronchial catarrh or affected with emphysema of the lungs. If a local anaesthetic be employed, moderate doses only should be used. If ether be the general anaesthetic it should be given well diluted with air, and the duration of anaesthesia should be reduced as much as possible. After anaesthesia the patient should be roused, and deep respiration should be encouraged, to aid in the expulsion of mucus from the air passages, and to check blood stasis in the lungs.

264. Flies and Tuberculosis.

LORD (*Clin. Contrib. Massachusetts Gen. Hosp.*, February, 1906), from experiments upon flies and tuberculous sputum, concluded that flies may ingest such sputum and excrete tubercle bacilli whose virulence may last for at least fifteen days, and that there is a danger of human infection from tuberculous fly specks by the ingestion of such specks upon food. From an inhalation experiment in which a healthy guinea-pig was supplied with air which had passed over tuberculous fly specks it would seem that spontaneous liberation of the bacilli, even when swept by a current of air, does not take place, though probably if such specks became mechanically disturbed infection of the air would ensue. As the result of his observations he suggests that all tuberculous material (sputum, pus, faecal matter, etc.) should be carefully protected from flies, and that greater attention should be paid to the screening of rooms and wards where tuberculosis is treated, and of laboratories where tuberculous material is examined. Since, however, such precautions would not prevent fly infection by tuberculous patients at large, he recommends that a practice should be made of protecting all food so that it cannot become contaminated by flies who may have ingested tuberculous material.

SURGERY.

265. Intestinal Surgery.

PANTALONI (*Arch. Prov. de Chir.*, No. 3, 1906), in a contribution to the surgery of the large intestine, publishes 3 remarkable cases of successful operative intervention in varied conditions of disease. The first is an instance of stenosis of the commencing portion of the transverse portion of the colon near the hepatic flexure in a woman, aged 56 years, which gradually resulted in complete intestinal obstruction. The formation of a caecal anus was followed after an interval of five weeks by laparotomy and anastomosis by suturing of the transverse and ascending portions of the colon. The second operation was followed by spontaneous closure of the caecal anus and by complete relief of digestive disturbances. In the second case—which was one in the first instance of double suppurative salpingo-ovaritis with diffuse pelvic suppuration, in a patient aged 35—a large perforation was found in the adherent sigmoid flexure after total abdominal castration. As it was found impossible to close the opening by suture by reason of the friability of the intestinal wall, the perforated portion of the large intestine, about 4 in. in length, was resected, the colic and rectal ends of the divided intestine well closed by suture, and lateral anastomosis was finally established between the posterior surface of the sigmoid flexure and the anterior surface of the rectum. The patient made a speedy recovery, and was discharged on the eighteenth day with her digestive functions in perfect order. The subject of the third report was a man, aged 55, who for some years had been prevented from doing any active work by an enormous irreducible hernia on the left side of the scrotum. The author practised lateral laparotomy, resected nearly 19 in. of herniated sigmoid flexure, and re-established the intestinal canal by end-to-end sutural anastomosis. This operation, which was associated with closure of the inguinal canal by Bassini's method, was followed by excellent results.

266. Modern Treatment of Fractures.

Carl Beck (*Medical Record*, March 24th, 1906) sums up his views on this subject as follows: The Roentgen method, in combination with the usual methods of examination, determines the character of a suspected bone injury. If there be no bone injury, the proper treatment consists in massage followed by immobilization, a movable splint being preferable for the latter purpose. If there is a fissure or fracture, followed by no displacement, manipulations of the injured area must be avoided, and immobilization in the most comfortable position should be instituted. As a rule, a plaster-of-paris dressing answers the purpose best. After two or three weeks it must be removed, and at this time massage should be begun. In about two weeks a splint of plaster-of-paris is applied, which the patient can take off and reapply. If there is any displacement, reduction must be tried at once. This can be done under the control of the fluoroscope on a translucent table, a plaster-of-paris dressing being applied after reposition is perfect. This is a simple, short, and cheap method. A more tedious but a safer way is to reduce the displacement under the guidance of a skiagraph. After a plaster-of-paris dressing, padded by cotton layers at its ends only, is applied, the skiagraph is taken through it, in order to ascertain whether reposition be complete. If it does not seem to be, the dressing must be removed and another attempt at reposition must be made. Anaesthesia is sometimes necessary. In those cases in which, on account of extensive splinter formation or similar complications reposition cannot be accomplished, the fragments must be exposed by the scalpel and brought into apposition. If there be no tendency to displacement, a plaster-of-paris dressing will ensure immobilization, but if the fragments slip out easily, it is safer to unite them with catgut, provided there is enough periosteum to be utilized for that purpose. Otherwise it is best, especially if large bones are involved, to keep them close with a bronze wire suture. The sooner this is done, the better it will be, because of the smaller changes taking place in the soft tissues.

267. Large Cysts of the Urachus.

Delore and Cotte (*Rev. de Chir.*, No. 3, 1906), whose attention has recently been directed to the subject by a case in Poincet's clinique, publish the results of a study of ten collected records of large cystic growths developed in connexion with the urachus. Minute growths of this embryonic structure are not infrequent, and, it is pointed out, have often been observed in subumbilical laparotomy; but large and very evident urachal cysts are so rare that their existence has until quite recently been doubted by pathologists. The authors, in quoting Poincet's case and by their reference to cases published by Hoffman and others, show that there can be no question that the urachus may become so distended by fluid as to form a large cystic tumour. The fluid contents vary considerably in their nature in different cases, the cyst presenting in some instances a clear serous fluid, in others a thick chocolate-coloured fluid mixed with fibrinous flakes, and occasionally, as demonstrated by two of the collected cases, a fluid presenting urinary constituents. The frequent presence of thick, dark-coloured, and, it may be, purulent fluid, is attributed to the fact that these large cysts are, in the course of their clinical evolution liable to haemorrhages into these cavities. Cysts of the urachus are, it is held, the result of congenital malformation, and due either to urinary distension of a permeable urachal canal in cases of obstructed micturition, or, as occurs much more frequently, to localized distension of an incompletely occluded canal, a condition analogous to that of encysted hydrocele of the spermatic cord. The tumour, when not very large, can be diagnosed by its median position, its connexion with the umbilicus, and its fusiform shape, but, when it has increased to such a degree as to invade every region of the peritoneal cavity, it offers no special clinical character by which it can be distinguished from any other form of large abdominal cyst. The chief and almost exclusive dangers of urachal cyst beyond those due to the compression of other parts are haemorrhage into the sac, inflammation and suppuration, and rupture of the cyst wall. The only effectual treatment is laparotomy and free removal of the cyst, and, in cases in which its interior communicates with the bladder, in complete closure of the opening in this cavity. Simple puncture or incision of the cyst, as such treatment is followed invariably by rapid reaccumulation of the fluid, and sometimes by a persistent fistula, should be reserved for cachectic subjects who are too feeble to tolerate a major operation, and as a measure of urgency for the relief of grave results of compression.

OBSTETRICS.

268. The Fallacy of Superfetation.

Bouchacourt and Cathala (*L'Obstét.*, March, 1906) describe their experience of a case of true twin pregnancy where at first they suspected genuine superfetation on the ground of one common source of fallacy, the relative sizes of the twins. Scrutiny of the ossification of the skeleton of the smaller twin settled the question. The mother was a primipara, and there were no twin-bearers in her family. During labour at term the vertex of one twin was found presenting in the first position; fetid lochia stained with meconium came away; a live, well-developed male child was delivered with forceps; it weighed a little less than 5½ lb. A second child was then discovered, the vertex presenting with the occiput towards the sacrum; it was spontaneously delivered; it was a female, under 2 lb. in weight, without any signs of compression; it was thin, free from malformation of the acardiac or any other type, and seemed as though of but six months' development. This puny fetus only lived for a few hours. The placenta was much smaller and lighter than that of the brother fetus. The mother declared that her abdomen suddenly increased in bulk during the third month of her pregnancy. Thus there seemed strong evidence that superfetation had occurred. The skeleton of the small female fetus was carefully examined, then it was found that the ossification of the shafts and epiphyses had clearly reached the stage normally seen at the ninth month. Therefore Bouchacourt and Cathala considered that superfetation was out of the question. For some unknown reason the growth of one of the twins had been greatly checked.

269. Puerperium and Psychoses.

Weygandt (*Zentralb. f. Gynäk.*, No. 16, 1906) discusses at length the nature of the psychoses of childbed, taking pregnancy and lactation into consideration. He disbelieves in a specific puerperal psychosis. General and special observations show that taking all sources of insanity into account, there is no place left for such a condition. First, we must deduct infection and intoxication, such as germs may cause where there is any kind of wound, then hysteria, epilepsy, and aphasia breaking out during childbed, and then forms of insanity which may occur in males after shock. It has been urged that delusions marked by extreme jealousy, observed during lactation, are specific, but this form of mental aberration has also been seen in alcoholic and cocaine-taking subjects. Weygandt, denying a specific psychosis, discusses what types may complicate pregnancy. Dementia praecox is, according to recent statistics, the most frequent, and may leave permanent impairment of mind. Maniacal depression comes next in frequency, and tends to appear in fits with long lucid intervals. Weygandt relates a marked instance of this condition instructive for its clinical history. A woman suffered from maniacal attacks for nine months when 17 years old and for four when 20. They did not recur until she was 23, suckling at the time her second child 3 months old. They then lasted for three weeks. The fourth recurrence also occurred during lactation, when her third child was 6 weeks old. Thus the later attacks, though excited by a second and third pregnancy, were not apparently so bad as the earlier, before marriage. Psychoses, due to exhaustion, are seen after septic infection and haemorrhages; hence it is not surprising that they are known to complicate the puerperium. It seems clear, according to the above facts, that where there is a predisposition psychoses may be excited. Primipara suffer most. Menstrual and sexual aberrations must not be overlooked; the change of condition involved by marriage will shake a weak mind. Half the cases of puerperal psychoses recover or improve. Lactation psychoses do better than aberrations setting in during pregnancy.

270. The Bicornate Uterus and Pregnancy.

Fruhinholz (*La Prov. Méd.*, March, 1906) finds that the bicornate uterus generally occurs in conjunction with some other congenital malformation, that it is no hindrance to pregnancy, and that it is not as a rule recognized unless when pregnancy supervenes the malformation is made to project, and thus becomes tangible. It is usually made up of two horns opening freely into a common uterine cavity, or more rarely into a cavity of the cervix. When the septum between the two horns is low down, the diverticula are quite distinct, and conception may occur in one while the other remains free; though it develops a decidua, it contains no fetal membranes, and is simply attached to the side of the gravid division, which develops itself in the same way as the normal pregnant uterus. In cases in which only the upper part of the fundus is bifid, namely, the cordiform or heart-shaped uterus, pregnancy involves the whole organ, distending it equally in either direction, both sides being occupied by the fetal membranes. Out of 32 recognized cases of malformation of the uterus, 17 were bicornate, the ovum occupied both horns in 16 of these, whilst in only 1 conception was limited to one horn. When the fetus occupies both the horns, pregnancy is usually normal. Abortion is not frequent. In the later months it is possible to feel the two uterine lobes; these are as a rule not equal in size, one seeming to be the annex of the other; the larger part of the fetus lies in the more developed horn, the smaller one containing some amniotic fluid or a fetal part. If the smaller horn does not contain any part of the fetus, and is distended with amniotic fluid, it may give rise to painful symptoms and simulate a twisted ovarian cyst. Abnormal or atypical presentations are very common; the placenta is situated low down, and there is a tendency to premature labour and premature rupture of the membranes. Spontaneous version converting a shoulder presentation into a breech has been noted several times. The expulsion of the placenta is often delayed, the whole or part of the membranes may be retained, and haemorrhage is not rare. When only one horn is occupied by the pregnancy, the other section has been mistaken for a fibroid; it also happens that the decidua with which it is lined may bleed or even be expelled without the character of the membrane or the condition being recognized. A case which began to menstruate at 18 became pregnant at 28, and had two premature confinements. On palpation immediately after the second delivery the abnormal shape of the uterus could be felt, the smaller horn appearing like a well-defined tumour springing from the uterus, and projecting into the left iliac fossa. The placenta was adherent, and in delivering it it was possible to determine the size and shape of the two cavities, and to recognize that the fetus had lain only in the right one, while the left one was lined with a thick decidual membrane. The abnormal form of the uterus accounted for the late appearance of the menses, the premature deliveries, the abnormal presentations, and the retention of the placenta. A few days after delivery the empty horn casts off the decidua lining it either intact or in shreds; should this not occur, the membrane is liable to become a source of sepsis.

GYNAECOLOGY.

271. Intraligamentous Drainage for Non-Suppurating Parametritis.

Leon F. Garrigues (*Med. Record*, April 7th, 1906) defines parametritis as a cellulitis situated between the layers of the broad ligaments, the sacro-uterine ligaments, or rarely between the uterus and bladder. He describes his method of operating as follows: After curetting the uterus the cervix is drawn towards the healthy side, and a bullet forceps is inserted in the vagina to the side and slightly posterior to the cervix, so as to put the vagina on the stretch. An incision, about three-fourths of an inch in length, is made through the vaginal wall close to the uterus. Through this incision the forefinger is inserted, and, keeping close to the uterus, is pushed well up between the layers of the ligament into the hard parametrium, and then outward, so as to open up the mass freely for drainage. Should the Fallopian tube be much swollen it is opened by means of a blunt forceps under the guidance of the index finger. A good-sized tube is introduced, either into the parametrium or into the tube, as the case may be, and the operation is complete. If no pus is present a small quantity of bloody serous fluid escapes. The writer has never had to use an artery forceps, and has had no deaths following this operation. He appends the history of two cases.

272. Vicarious Menstruation: Absence of Uterus and Tubes.

Gillmore (*Amer. Journ. Obstet.*, April, 1906), after referring to cases of alleged vicarious menstruation or periodical haemorrhages defined as such, reports an instance under his own observation. The patient was 28 years of age and had never menstruated. Malformation of the outer parts was discovered during an unsuccessful attempt at coitus. Inguinal hernia developed during infancy. At 14 the breasts became enlarged and tender, and a regularly recurring molimen, with headache, nausea, and vomiting, was established. About a year later, an attack of epistaxis set in, with relief of all the symptoms. Since that time until the age when she came under observation, the vicarious haemorrhage was constant so long as the patient enjoyed good health. When a period was passed without haemorrhage from the nose, headache, hysteria, and a feeling of weight in the pelvis appeared. Gillmore found the breasts well developed but without nipples, there was double inguinal hernia, each sac holding a tender body of the size of a walnut, quite irreducible. The outer parts were infantile, the vagina was a pouch under an inch in length, and no cervix could be defined. An operation was performed, the right and left ovaries, which lay in the hernial sacs, were separated from their attachments and dropped back into the abdomen. The uterus and Fallopian tubes were absent. Six months later the patient had gained flesh and she continued in good health when observed nearly five years after the operation. There was a regular monthly molimen with profuse epistaxis. Gillmore considered that the genital glands in this case were true ovaries, not testes, and that the patient was psychologically a female.

THERAPEUTICS.

273. The Treatment of Ozaena.

Royet in three cases of ozaena has used adrenalin to secure contraction of the mucous membrane in order to examine the sinuses, and in each case caused an exacerbation of the malady (*Lyon Méd.*, February 11th, 1906). He thinks that the recrudescence was directly due to the action of the adrenalin for three reasons: (1) There is a great similarity between the appearance of a nasal mucosa well retracted by adrenalin and that seen in ozaena. Adrenalin often also causes an abnormal secretion. (2) The atrophy of ozaena, especially in early cases, is more apparent than real. In periods of least activity of symptoms, or after treatment, the signs of atrophy are often very sensibly diminished. (3) In states of grave intoxication, especially tuberculosis, the nasal mucosa may show the atrophic aspect. Since a vasoconstrictor had an unfavourable influence, Royet determined to seek benefit from the local use of vasodilators. He found in three cases of ozaena great palliation resulted from the use of stovaine and dionine. In the first case the patient had been obliged for six months to use a nasal douche of boric lotion twice daily on account of the abundant fetid secretion. After a few days of treatment by means of a daily spray of a 1 per cent. solution of stovaine in glycerine and water, he was able to diminish the number of injections to one a fortnight. The fetid smell disappeared, and the good result had already been maintained for more than a year. In the second case the injections, which had been necessary twice a week, were only needed once a fortnight after a short use of stovaine, and later of dionine. The third patient, who had been obliged to douche once every five or six days, was able to discard treatment for two months after the use of stovaine, but a nasal catarrh caused the crusts to form again.

274. Radiation in the Treatment of Middle-Ear Suppuration.

I. Dionicio (*Gaz. Med. Ital.*, January, 1906) refers to his successful treatment of ozaena by Finsen's methods, and states that the results thus obtained led him to apply the same ideas to the treatment of chronic suppurative otitis media. The technique was in every respect the same as that employed in ozaena. The patients treated had suffered for years from purulent discharges and had been unsuccessfully treated by lotions and sometimes by surgical operations carried out through the ear, so that the treatment now described was the only alternative to surgical interference through the mastoid if a cure were still to be looked for. Out of twenty cases treated one was not improved in any way, in one treatment was still giving satisfactory results but was unfinished, in two others improvement had almost reached the stage of cure, and the remaining sixteen cases were definitely cured, the cures having lasted for periods varying from three months to three years. All the cases were reported. A sample case is No. 11. A woman had bilateral aural suppuration from infancy, with large perforations of the tympanic membranes, which were almost completely destroyed. There were granulations on the mucous membrane of the middle ear, the pus was fetid and abundant. For fifteen years she underwent various forms of treatment without success. The watch was heard only on contact with the ear on either side. Radiotherapy was administered in 180 sittings of two hours each, and led to a complete cure, which has now lasted a year. After treatment the watch could be heard at 4 metres on one side and at 3 metres on the other.

275. Helminthol as a Prophylactic in Scarlet Fever.

MISEROCAPI (*Gazz. degli Osped.*, March 11th, 1906) has given helminthol in 15 cases of scarlet fever (4 of which were of some gravity) with a view to prevent renal complications. Urotropin has previously been used for a similar purpose, but, owing to its occasional irritant properties, the author preferred to use helminthol. As soon as the diagnosis of scarlet fever was made, 0.10 to 0.50 gram of helminthol per day were given in the twenty-four hours in five doses. This was continued for four days and then suspended for ten days, and then readministered for another six days. The urine was examined every other day. In 14 out of the 15 cases no albumen and no casts were found. In one case (a severe one) slight traces of albumen were found on the tenth day but no casts. Two days after the second period of administration of helminthol the albuminuria had disappeared. It is supposed that the drug acts by its antiseptic action on the urinary tract; no ill effects were observed.

276. The Ultimate Localization of Mercury in the Body.

CONTI AND ZUCCOLA (*Rif. Med.*, March 17th, 1906) have carried out a series of researches with regard to the ultimate destination of mercury whether given hypodermically or by the mouth. They conclude that in whatever mode mercury is administered, it is carried to and deposited in the various organs by means of the white corpuscles of the blood. The liver, the intestines, and the kidneys receive the chief bulk of the mercury in ordinary doses. Elimination and isolation from more vital organs are thereby insured. In other organs—for example, salivary glands, pancreas, thyroid, thymus, testes, etc.—the drug is not deposited constantly, but only after excessive dosage, when the previously mentioned organs have become saturated. When mercury is found in the saliva of the mouth and not in saliva drawn direct from Steno's duct, the explanation is that the mercury comes from the lungs (from the leucocytes). In every case the drug is situated in the nucleus of the cell by preference rather than in the body, which seems to support the views of those who believe that mercury exists in the body as a nucleinate. The chief paths of elimination are the intestine, the kidneys, and the lungs, the saliva having only a secondary importance. Experiments on the localization of mercury in relation to the fetus when given to the pregnant mother are reserved for a future occasion.

277. Dimal in Hyperhidrosis.

ANGELILLO (*Gazz. degli Osped.*, February 6th, 1906) speaks very favourably of dimal as a dusting and drying powder in cases of excessive sweating; out of the 20 cases in which he has used it failure only occurred in 3, and these were very exceptional cases in hysterical subjects who sweated on the least provocation. Dimal, which is a salicylate of didymium, does not cake and crust like many desiccating powders, and gave excellent results in the sweating of obese people, whether palmar, axillary, or intertriginous. It has already been used with success in eczema, impetigo, burns, herpes, bedsores, etc. By its antiseptic qualities it also acts as a deodorizer, and has the advantage of being quite innocuous. It has been used with success in vulvitis and balanitis, and in certain catarrhal conditions of the vagina or cervix. In troublesome feet sweating it proved highly satisfactory.

PATHOLOGY.

278. Tuberculosis of the Brain.

LAIGUEL-LAVASTINE (*Rev. de Méd.*, March 10th, 1906), in a paper on histological researches on the cerebral cortex of the tuberculous, has described the results in 24 cases which he has minutely examined. He divides the cases into those in which the brain showed obvious macroscopic lesions, either in the form of solitary tubercles or of meningitis, and into those in which no macroscopic evidence of brain disease could be detected, but in which microscopically either acute cellular lesions or degenerative changes could be found. Of the first group in which solitary tubercles were present he finds as a result of the examination of 4 such cases the following changes: Around the tubercle there is produced a neuroglial reaction, taking the form of a collection of small cells, which later on becomes fibrillary in character and tending to isolate the tubercle. Only the nerve cells immediately in contact with the tubercle are affected, all the others remaining normal. If the tubercle reaches the superficial part of the cortex or the meninges, it may excite either a meningitis with exudation or a granular form of meningitis. This strict localization of action on the adjacent nerve cells is in agreement with the fact that meningeal injections of toxins of the tubercle bacillus do not cause any change in the nerve cells around. Of 7 cases of meningitis he found the pyramidal cells of the cortex profoundly altered, the chromatin threads were undergoing destruction, the nucleus became irregular. In the granular forms of meningitis, occurring as a terminal event in cases of chronic phthisis, or in the very acute forms, causing death in from two to three days, the cellular lesions were much more marked. The author thinks that these cellular lesions are probably the signs of reaction to the poisons of the tubercle bacillus, and do not depend upon lesions of the meningeal vessels. In 6 cases in which on microscopical examination acute cellular lesions were found, but in which no microscopic evidence of disease could be detected, the changes varied somewhat according to the intensity. In the most marked degree, the lesions of the pyramidal cells were similar to those found in cases of polyneuritis associated with mental symptoms; in lesser degrees of intensity there was found a breaking up of the chromatin threads in the central part of the cell. In 7 cases of phthisis in which the cerebral cortex was examined microscopically, degenerative changes were found in the pyramidal cells, consisting of an abundant deposit of brown pigment in these cells: these were the only constant changes. These changes, according to the author, are due to a long-continued poisoning of the cells by small doses of the toxins of the tubercle bacillus; under this influence the cells grow old quickly and become pigmented—in fact, they take on the appearances of senile cells. In the preceding cases, where acute cellular lesions were found, the author considers these changes as toxic in origin. He further considers that the delirium from which tuberculous patients sometimes suffer often depends upon a diseased state of the liver.

279. Active Lymphocytosis.

WOLFF-EISNER (*Berl. klin. Woch.*, Nos. 9 and 10, 1906) defends his opinions, with which some authorities do not completely agree, concerning the functions and capacities of lymphocytes. All kinds of leucocytes are capable of passing out of vascular channels. It is undoubtedly true that the polynuclear cells (particularly the neutrophiles, but also the eosinophiles) possess a greater migratory power than the lymphocytes, but these last cells also possess the power of active migration. These different kinds of cells respond specifically to different chemiotactic stimuli. When infective organisms have been introduced into the body, there appear during the first twenty-four hours different forms of cells, which all arise from the haematopoietic system, and amongst these are to be included the adventitial cells (the so-called "leucocytoid" cells and "polyblasts"). These cells are all the same in kind as the white corpuscles in the circulating blood, and may be divided into two groups, the one being represented by the granular polymorphonuclear leucocyte and the other by the basophile mononuclear lymphocyte. The fixed tissue elements (epithelium, endothelium, connective-tissue cells, etc.) take no part during the first twenty-four hours in the formation of the exudate; they merely become swollen, as the expression either of commencing proliferation or direct injury due to the action of the irritant which has been introduced. These changes are not associated with phagocytic properties, and when these cells are detached from their normal environment they at once perish.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

280. Early Diagnosis of Measles.

BRELET (*Arch. Gén. de Méd.*, March, 1906) discusses the various methods suggested for the diagnosis of measles before the appearance of the cutaneous rash. At the period of incubation of the disease, Meunier's sign may be found present. This consists in a marked diminution of the weight of the child; it appears first about the third, fourth, or fifth day of incubation, and the loss in weight averages about 60 grammes per day; its cause is probably a disturbance of nutrition brought about by the measles infection. Meunier allows that this sign might be found in the incubation period of other infectious diseases, but thinks it may be of value in cases where children have been exposed to infection, as by weighing these each day one may conjecture in which of them measles is likely to appear. During the period of incubation, there is an increase in the number of white cells, especially the polynuclear forms, in the blood; this leucocytosis increases rapidly, and attains its maximum about the sixth day before the appearance of the rash; it then diminishes to such an extent that, during the period of eruption, in cases of uncomplicated measles, a leucopaenia is present. At the period of invasion several signs have been found which are supposed to be of some assistance in the diagnosis before the appearance of the rash, but the only one which is pathognomonic of the disease is the sign of Koplik; this consists of rose-coloured or bright red spots situated on the mucous membrane of the cheeks and lips, and the centres of which are occupied by a bluish-white point. These red spots, at first small and rounded, enlarge, and may unite with neighbouring spots. The central bluish-white point is the pathognomonic sign; it is very small, rarely exceeding six-tenths of a millimetre in diameter; it is slightly raised, and only removed from the surface with difficulty; the mucosa on which the spot rests often presents a roughened appearance, which is very characteristic. Koplik's spots do not ulcerate, and disappear in three or four days. They may be few in number or very numerous, and never occur on the gums. These spots are pathognomonic of measles, and occur in from 80 to 100 per cent. of cases. The author concludes that, during the period of incubation, a diagnosis is rarely possible. At the stage of invasion, the presence of Koplik's spots, appearing as they do several days before the cutaneous rash, makes the diagnosis of measles certain.

281. Diplococcaemia in Pneumonia.

MEMMI (*Rif. Med.*, February 17th, 1906) gives a detailed summary of the results of previous workers in this field of research, and points out how conflicting these results are. His own figures are derived from a study of 80 cases, which gave a positive result in 25 cases. Of the 56 cases which recovered, only 6 gave evidence of diplococcaemia, whereas in the 24 fatal cases the diplococcus was found in the blood in 19. This corresponds with the generality of observations as showing that, *caeteris paribus*, the presence of diplococcaemia is a bad sign, but it is not by any means necessarily fatal, as the author's cases clearly show. In 2 cases diplococci were found in the blood as early as the first day of the illness. A temporary and scarce diplococcaemia is not reckoned by the author as a true diplococcaemia; in true diplococcaemia the diplococci are very abundant and easy to find by the ordinary methods. The author never detected diplococci in the blood during the period of resolution or in convalescence. The pneumococcus usually developed after about twenty-four hours in the thermostat. Turbidity of the broth medium without any actual germ being present was observed once or twice during the course of the experiments.

282. The Roentgen Rays in Medicine.

E. v. LEYDEN gives a summary of the results obtained by the use of the *x* rays in medicine, as distinguished from surgery (*Zeitschr. f. physikal. u. diatet. Therapie*, April, 1906). For the exact determination of the extent of the lesions of bones and joints in the limbs in such complaints as gout, osteo-arthritis, and gonorrhoeal arthritis, the value of the rays is obvious. Moreover, this important means of diagnosis and treatment is becoming more and more used by physicians in dealing with diseases of the thoracic and abdominal organs. In heart disease the size and position of the organ is visible, and dilatations of the aorta, as well as actual aneurysms, can be detected; also in the smaller arteries not accessible to the touch, such as the posterior tibial, degenerative changes with calcification, such as lead to and accompany senile gangrene, may be demonstrated. In the lungs the *x* rays show the position and extent of tuberculous disease, and this, according to the author, often earlier than the physical signs. Tumours, abscesses, foreign bodies, the boundaries of pleuritic exudations, the presence of thickening or consolidation of normal tissues, and the extent of the diaphragmatic movements may also be revealed by the examination of the thorax. Air in the pleural cavity gives a characteristic appearance. In the abdomen stones can be recognized in the gall bladder, the kidneys, ureters, and urinary bladder, and the outlines of tumours made clear. The boundaries, and in some cases even the movements, of the stomach and intestines can also be seen when salts of bismuth have been administered with the object of coating the walls of these viscera with a layer of material impermeable to the rays. Special stress is laid by v. Leyden on the value of this means of diagnosis in diseases of the spine and spinal chord, and several cases are quoted. For instance, a woman of 26 years had been treated for over a year for syphilitic myelitis without beneficial result. An examination with the *x* rays showed a carious process involving the eighth and ninth dorsal vertebrae, and the tuberculous nature of this was further demonstrated by a positive reaction with tuberculin. In another case presenting the symptoms of atrophic bulbar paralysis the third and fourth cervical vertebrae were seen to be collapsed upon one another. Decalcification of the vertebrae can also be detected, and of course growths. As regards treatment, in addition to certain skin diseases, promising results have been obtained in leukaemia.

SURGERY.

283. Intermittent Hydropsy of the Gall Bladder.

VILLARD AND COTTE (*Rev. de Chir.*, Nos. 1 and 2, 1906) hold that the radical cure of intermittent hydropsy of the gall-bladder is entirely a surgical matter. Medical treatment, it is true, will very often afford relief, and hygienic measures will diminish the frequency, and retard the recurrence, of painful attacks, but still the patient will evidently remain the subject of serious hepatic lesion, ever ready to reveal its existence, and the effectual cure of which can only be attained by the use of the knife. In cases in which the intermittent hydropsy is due to biliary lithiasis, the surgeon, it is held, should as a rule have recourse to cholecystostomy, or the operation of cholecystendysis in which the gall bladder, after the opening in its walls has been carefully sutured, is returned into the abdominal cavity. In the choice of one or the other of these two procedures, the operator should be guided by the condition of the biliary passages. The absence of inflammatory lesions, and free permeability of the cystic and common ducts would justify the so-called "ideal" operation, which, as is shown by the recent experiences of Löbker and Küster, is free from danger in experienced hands; but in most cases, the authors think, the preference should be given to cholecystostomy. Cholecystectomy, which is an excellent operation in cases of complete and decided obliteration of the cystic duct, is not indicated in the treatment of intermittent hydropsy of the gall bladder. As it does away with the possibility of any ulterior derivation of bile, whether externally or by the intestine or stomach, it has the disadvantage in instances of secondary calculi in the deep bile ducts of necessitating choledochotomy, which when performed in such conditions is a difficult operation. In dealing with intermittent hydropsy due not to cholelithiasis but to flexure of the cystic duct resulting from displacement of surrounding parts, as, for instance, cholecystoptosis, movable liver, or floating kidney, the surgeon must direct his immediate efforts to the fixation in its normal position of the displaced organ.

284. Calculus of Wharton's Duct.

Prudencia de Pena (*Revista Med. del Uruguay*, December, 1905) records a case of lithiasis of Wharton's duct. A man of 30 came at night with a submaxillary swelling of twenty-four hours' standing, soreness beneath the tongue, and great malaise. The speech was much interfered with, and examination of the mouth showed the tongue raised in level, the mucous membranes very red and oedematous, and beneath, near the frenum, a roundish, white opalescent spot, sharply defined, showing fluctuation, and excessively tender. The movements of the tongue were much limited, the expression one of intense anxiety. Temperature 99.5°, pulse 106, headache, and great sense of illness, the general appearance being that of a person with angina Ludovici. Exploration of the sublingual white spot revealed the orifice of Wharton's duct, on probing which a rough substance of stony hardness was felt. Pressure around it brought to light a stone, smooth and rounded on its upper surface, but rough beneath, and about 3 mm. in diameter. Its removal was followed by a flow of dark-yellow pus. The patient experienced relief, and was disinclined for further interference, but showed no improvement in the morning. Pus still oozed from the duct. At night the condition was much worse; the temperature had risen, the pulse was 120, and the urine very scanty and dark mahogany colour. The local conditions were worse. Further examination revealed a second, but much larger, stone, in this case 1 cm. in diameter, of cubical form and rough surface. No more could be found, but there was a discharge of pus as before. The patient recovered slowly but steadily, and was well in a week's time. No examination of the structure of the stone appears to have been made.

285. Treatment of Thoraco-Abdominal Wounds.

Caplesco-Poenaro (*Bull. et Mém. de la Soc. de Chir. de Bucarest*, No. 4, 1905) puts on record two cases of penetrating wound involving both thorax and abdomen, and traversing the diaphragm, in which combined thoracotomy and laparotomy were practised with successful results. In both cases the injury consisted in a stab between the eighth and ninth ribs in the right hypochondrium. The pleural cavity having been exposed and explored, and a wound through which the finger could be passed into the abdomen having been found in the diaphragm, laparotomy was performed, and lesions discovered in the peritoneal cavity were dealt with. In one case in which there was free bleeding from a superficial rent in a much-enlarged spleen, a partial ligature was applied to the pedicle of this organ. In the second case the author found a wound of the stomach which was much distended by a recent meal and abundant extravasation of gastric contents into the peritoneal cavity. The wound, which involved the anterior wall of the stomach, and was about 3½ cm. in length, was sutured, and the abdomen washed out and drained. In the first case the wound in the diaphragm was sutured from its thoracic surface after partial resection of the ninth rib. Both of these patients, who were young men, made speedy and complete recoveries. The author publishes these two cases with the object of confirming his opinion that, in order to prevent late complications, both abdominal and costo-diaphragmatic exploration may be assumed as indicated in instances of penetrating wounds of either hypochondrium.

286. Treatment of Acute Post-Operative Dilatation of the Stomach.

Halstead of Chicago (*Surg., Gyn., and Obst.*, No. 1, 1906) publishes a fatal case of acute gastric dilatation following nephropexy, and gives an instructive review of the pathology, symptoms, and treatment of this rare and very grave condition. In discussing the treatment he points out that a sufficient number of cases have recovered to lead to the hope that an early diagnosis will in the future be made more frequently, and that with proper treatment the death-rate, which is now very high, will be lowered. Müller, who succeeded in saving life in two cases, lays great stress upon the posture of the patient, the pelvis being elevated, and the body so placed that the stomach can be readily emptied, retraction of the distended viscus being favoured by gravity. This surgeon also employed the stomach tube frequently. In general the plan of treatment may be briefly stated as consisting in stimulants, preferably the hypodermic injections of strychnine administered to the full physiological limit. Rectal alimentation, with complete rest of the stomach, secured by frequent use of the stomach tube, should be employed. The pain, which is frequently severe, may be controlled by the judicious use of hypodermic injections of morphine. The thirst from loss of large quantities of fluid through the stomach should be relieved by saline solutions given hypodermically or by the rectum. When collapse is imminent, or where suppression of urine occurs, intravenous administration of saline solution may be found useful. In the most severe type of this complication operative measures—such as gastrostomy or gastroenterostomy—for the purpose of draining and relieving the over-distended stomach, would, the author thinks, be found rational. It is pointed out, however, that the patient's condition under these circumstances would render any surgical procedure extremely hazardous.

OBSTETRICS.

287. Delivery of a Hydrocephalic Fetus by Spinal Tapping.

J. W. Ballantyne (*Journ. of Obst. and Gyn. of the Brit. Emp.*, February, 1906) describes a case in which he delivered a hydrocephalic fetus by spinal tapping. The patient was a healthy woman, 46 years of age, who had previously given birth to an anencephalic fetus. There was a moderately contracted pelvis, with a breech presentation. The abdomen was greatly distended; palpation revealed nothing like a hard fetal head, but rather a general, even, and rounded swelling extending up to the ensiform cartilage, and fluctuation could be indistinctly felt. Some difficulty was experienced in bringing down the feet and legs, and still greater difficulty in dragging the arms through the brim. It was then observed that there was a ruptured spina bifida in the lumbar region, and from this fact, as well as from the former history of the birth of an anencephalic fetus, and from the large size and peculiar feeling of the uterus, the author came to the conclusion that the fetal head was hydrocephalic. Traction was made upon the body, but the head could not be drawn through the brim. Perforation would have been difficult because the pelvic brim was narrow and the head quite above it; but in this case there was no thought of attempting delivery by perforation. Instead of this the fluid was drawn off by passing a male silver catheter through the opening in the spinal canal made by the spina bifida, up the canal, into the cranial cavity. As soon as the tip of the catheter was felt to be lying free in the cavity it was moved about in order to ensure reaching all the parts of the hydrocephalic sac. The fluid flowed freely, and in a few seconds the bones of the collapsing head could be easily felt through the abdominal walls. The head was then drawn with some difficulty through the contracted pelvic brim and the birth rapidly completed. In this case Ballantyne made use of the teratological opening into the spine, but in a case which he previously reported he made an opening in the upper dorsal region, and he would have done so in this case if there had been any difficulty in reaching the cranial cavity. In order to reach the fluid he thinks it probable that a metal rather than a rubber catheter must always be used. The operation of tapping, as thus conducted, fulfils the object of overcoming a grave obstruction existing above the pelvic brim by means of a simple operation performed outside the vulva. Another interesting point about this case is the previous obstetric history of the patient. She had given birth first to a female child, which had died *in utero* long before expulsion; second, to a female anencephalic fetus, the labour being complicated by marked hydramnios; third, to a living male child; fourth, to a hydrocephalic fetus, as described above. The author is strongly of opinion that the association of the two teratological conditions was not coincidental, but was relational in this patient, and that she was the subject of "recurrent monstriparity." In this recurrent monstriparity there seems to be a tendency to give birth to malformed infants rather than to infants with any special malformation, and there seems to be a sex preference, the female children being malformed more often than the male ones. Further, although the monstrosities may not be similar in appearance, there is a resemblance in origin. In this case, for instance, hydrocephalus, spina bifida, and anencephalus are all malformations of the nervous system, and they probably all originated in the same way.

GYNAECOLOGY.

288. The Surgery of Cancer of the Cervix Uteri.

Emil Ries (*Surg., Gyn., and Obst.*, September, 1905) shows how, thanks to the heroic industry of gynaecologists of various countries, the investigation of carcinoma of the cervix has recently made the most brilliant progress. Our old ideas of the pathology of this disease were erroneous in so far as they assumed that the advance and spreading of carcinoma of the cervix was different from that of other cancers. We know now that carcinoma of the cervix, like other carcinomas, is liable to invade early not only the connective tissue surrounding the primary seat of the cancer, but also the regionary lymphatic glands. The microscope alone can determine whether connective tissue and glands be invaded or not. Enlarged glands may be free from carcinoma, infiltration of ligaments near the cancerous cervix may be inflammatory and nothing more, whilst small glands and ligaments quite supple and normal according to touch may be full of cancerous elements. The size of the primary cancer is no reliable criterion of the lymphatic invasion, and this invasion follows, with more or less regularity, certain paths. In short, carcinoma of the cervix behaves exactly like other cancers. Therefore carcinoma of the cervix must be submitted to the same treatment which is generally accepted as the only scientific and safe course in cancer of other regions of the body. It is only, in Ries's opinion, by an abdominal operation including a thorough anatomical dissection, and not a mere search for glands, that the surgeon can insure the patient against recurrence. The complete operation is of necessity tedious, difficult, and dangerous, but the mortality has been increased because operators have undertaken advanced cases quite beyond the aid of surgery. On the other hand, the "reduction" or modification of the radical operation means, among other things, that the operative mortality sinks, but recurrences rise up to the old rate of pre-radical days. The advocates of this modified radical hysterectomy seem proud of declaring that it can be done within forty minutes—a space of time far too short, in Ries's opinion, for allowing of complete dissecting away of diseased glands. They further make out that the proportion of cancerous glands in an average case of cancer of the cervix is small—a misleading conclusion, because the fact that few glands are removed in "modified" operations does not prove that no infected ones are left behind. In short, "while radicalism mitigated and tamed is rewarded by a low operative mortality, ultimate failure of the whole work is invited." In conclusion, Ries insists that our duty towards the carcinomatous patient must be to attain the greatest possible protection from the return of the disease rather than to minimize the interference. The vaginal operation, which many surgeons can perform with admirable dexterity and with temporarily good results, cannot represent anything like an approach to perfect surgical treatment, since cancerous glands exist in over a third of apparently operable cases. In the abdominal operation it is useless to remove only such glands as are enlarged when small and soft glands left behind may be cancerous. As for igni-extirpation by the vaginal route, not only has it all the disadvantages of vaginal hysterectomy, but, as Ries points out, the father of the method has abandoned it in favour of the abdominal operation.

289. **Large Live Lumbrici in an Ovarian Dermoid.**

AMANN of Munich reported (*Monats. f. Geb. u. Gyn.*, July, 1905, p. 166) a case where an ovarian dermoid cyst contained live organisms far above microbes, as well as highly-organized tissues. The patient had suffered from fever after delivery, and the dermoid tumour which she bore suppurated, as is not rarely the case. It contracted parietal adhesions, and ultimately pus discharged from the umbilicus, a complication not unknown. The suppurating sinus was laid open and a cavity full of pus exposed; then a tuft of hair and some teeth were extracted. A mass of something indefinite lay deep in the sac; it was observed to move, and proved to be three large lumbrici twisting round each other. The longest measured nearly 1 ft. in ength. The most curious feature in the case was the absence of any trace of faeces or faecal odour in the cavity of the dermoid cyst, although the worms could only have entered it through a communication with some part of the alimentary canal. No faeces came away during convalescence, the cavity being drained and allowed to close, though the ultimate history of the case is not published.

290. **Abdominal Section during Pregnancy.**

A. DORAN (*Journ. of Obstet. and Gyn. of the British Empire*, November, 1905) describes 2 cases, in one of which a myomectomy, in the other an ovariotomy, was perormed during pregnancy. The first patient was a primipara in the third month of pregnancy. The tumour, a essile subserous fibromyoma of the uterus which occupied he whole of the left half of the pelvis to considerably below the level of the brim, was successfully enucleated; he haemorrhage was not excessive and was easily controlled. The subsequent labour was somewhat prolonged, on account first of an excess of liquor amnii and second of a breech presentation which could not be turned because of the extreme irritability of the uterus. The patient, however, did well and involution of the uterus after labour proceeded normally. The second patient also was a primipara in the third month, the tumour in this case being a fibroma of the ovary. The tumour, which was freely movable, extended upwards more than half way to the umbilicus, downwards to the brim, and filled the right flank so as to displace the uterus to the left. The free mobility of the tumour was held to be an indication for operation; both because the removal of a pedunculated growth does not involve great risk of abortion, and because if such a tumour be left untreated axial rotation or descent into the pelvis may occur and lead to dangerous complications. The operation was successfully performed, there was very little haemorrhage, and the subsequent labour was an easy normal one. In both cases the diagnosis was easy. In many cases of the kind diagnosis is difficult, and if an ovarian tumour or uterine fibroid remain unrecognized until the onset of labour the difficulty of diagnosis becomes extreme. The author dwells upon the risk which may attend attempts to push up a pelvic tumour during labour.

THERAPEUTICS.

291. **Treatment of Acute Articular Rheumatism.**

RAUZIER (*Arch. Gén. de Méd.*, March 13th, 1906), in a paper on the treatment of acute articular rheumatism, points out the main lines on which it is to be carried out, and discusses the salicylate treatment and the treatment of the affected joints. When salicylate of soda cannot be tolerated by the stomach he recommends that it should be given per rectum. Pregnancy, cerebral, cardiac, and renal complications, contraindicate the use of salicylates. In pregnancy he thinks the best drug to employ is antipyrin. As an application to relieve pain in the affected joints he recommends a lotion containing oil of henbane and laudanum; he also thinks salicylate of methyl of great service for the relief of the joint pains. It should be applied to the skin over the affected joints, and covered with cotton-wool and a piece of waterproof material. The vapour given off from this drug is absorbed by the skin, and gives rise to the formation in the blood of salicylate of soda. Locally it causes some redness of the skin and slight smarting, but has marked analgesic properties. It should not be applied in the form of an ointment, as it is thereby liable to lose much of its therapeutic value.

292. **Thiosinamin in Traumatic Strictures.**

H. MOHR (*Therap. Monat.*, January, 1906) has employed thiosinamin in the treatment of a traumatic stricture of the duct of the parotid gland. The patient had received a wound of the left cheek, which extended from the outer canthus of the eye to the angle of the jaw, and was deep enough to reach almost to the mucous membrane of the mouth. About eight days after the injury the cheek in the neighbourhood of the parotid gland began to swell, a softened spot developed in the scar tissue, and finally a fistula formed from which saliva escaped. The fistula closed again several times, but always reopened. The author saw the patient about five weeks after the occurrence of the accident, and found that there was then a small fistula in the wound tissue. An attempt was made to pass a fine probe from the opening of the duct in the mouth along to the parotid gland, but the passage of the probe was stopped by scar tissue, and it was clear that the duct had been divided wholly or in part, and was now narrowed or altogether closed by scar tissue. A large probe was next introduced and pushed in the direction of the gland, and as a result a collection of saliva and pus escaped both from the external fistula and from the internal opening of the duct. The probe was introduced daily, being left in longer as time went on; the external fistula closed in eight days. Unfortunately there was a constant tendency for the stricture to reappear, and the fistula seemed several times in danger of breaking open again. Under these circumstances injections of thiosinamin began to be employed in addition to the other treatment, the fluid injected consisting of a watery solution of thiosinamin together with 20 per cent. of glycerine; the injections caused some pain, but the pain quickly passed off. In the course of four weeks ten injections were made subcutaneously at a distance from the wound and five directly into the scar tissue over the site of the stricture. For more than a fortnight scarcely any improvement could be seen, but after this time steady improvement set in. The scar tissue at the site of the stricture became progressively softer, the probe passed more readily, and soon the number of times of passing it could be diminished. Meanwhile the external scar became firmer, and saliva was passed normally into the mouth. At the end of two and a half months from the beginning of the thiosinamin treatment the external scar was perfectly firm, the probe passed along the duct with but little resistance, and the union between the parts of the divided duct was such as to allow of the normal passage of saliva. As to how far this result depended on the passing of the probe, etc., and how far upon the drug it is not easy to determine, but looking at the cause of the illness, and remembering that salivary fistulae often resist conservative treatment, the impression is gained that the action of thiosinamin in softening the scar tissue must have substantially contributed to the cure. The author believes that thiosinamin is chiefly valuable in the treatment of strictures in combination with mechanical dilatation, and that by softening the tissues it makes recovery possible in some cases, hastens it in others, and counteracts the tendency to relapse.

293. **Proponal as a Hypnotic.**

OBSERVATIONS on the hypnotic value of proponal, originally recommended in 1905 by Fischer and v. Mehring, have been recorded by S. Kalischer (*Neurolog. Centralb.*, March 1st, 1906, p. 206). Proponal is allied to veronal, and is dipropylbarbituric acid. Like veronal, it is a colourless crystalline substance, which in dilute solution has a bitter taste. It is easily soluble in dilute alkalies. It may be given in tabloid form (0.1 gram), or dissolved in water, tea, or milk either warm or cold. Care was taken to eliminate the effect of suggestion, and it was administered to a series of patients suffering from organic and functional nervous diseases, some of whom had been the subjects of protracted insomnia and were accustomed to the use of hypnotics, and others were sleep-hypochondriacs, such as were not satisfied unless they had slept for a definite number of hours and had wakened with a refreshed feeling. The doses used varied from 0.1 to 0.6 gram. A dose of 0.1 gram had apparently no hypnotic effect. A dose of 0.2 gram, while not definitely hypnotic, was useful in cases in which sleep was broken but rarely needed active assistance. It was found sufficient for patients who had difficulty in falling asleep or for those who woke up after a short sleep and did not easily fall asleep again. With this dose the drug given after the first sleep was of use. In doses of 0.3 to 0.5 gram sleep was produced in a quarter to one hour, and often more quickly than after the administration of veronal. Proponal was less conspicuous in its effect than the corresponding dose of veronal, but even with large doses there were not the after-effects of veronal-tinnitus, giddiness, etc. After proponal sleep the patients felt freer and fresher and were able to work. There was no obvious inclination to sleep the next day, or an effect lasting to the next night, as after sulphonal and trional. There was thus lacking a persistent sedative effect. Doses of 0.1 gram given frequently during the day exerted a sedative effect, but did not cause sleepiness at night unless the dose were increased. There was no tolerance of the drug after prolonged use, even for several weeks, requiring an increase of the dose to give the hypnotic effect. There were no untoward after-effects on the stomach, bowels, heart, kidneys, or skin. It appeared, therefore, that proponal was well worth recommending as a substitute or variant for other hypnotics. On the whole a smaller dose than that of veronal was effective. In slight cases of insomnia 0.2 to 0.3 gram might act very well, but in severe cases 0.4 to 0.6 gram might be required. It had no influence on pain and had no effect on the sleeplessness due to pain, and there was no evidence that it had a favourable action in conditions of mental excitement, depression, or anxiety.

294. **Bromide of Methylatropin.**

DOMENICO (*Rif. Med.*, January 27th, 1906) discourses on the merits of bromide of methylatropin as a mydriatic. Of the sixteen mydriatics used at one time or another by the author, this latest is especially useful in old people, in children, and where atropin is not tolerated. In one case of iritis with secondary glaucoma, bromide of methylatropin was used as a local mydriatic without producing any increase of tension or giving rise to any bad symptoms. The author has never observed any untoward results from its use. In addition to its mydriatic effect, which appears in about ten minutes, and lasts a longer or shorter time according to the strength of the solution, the drug, owing to the bromide element, has a distinct sedative and analgesic effect. It is a white, amorphous, very light, bitter powder, soluble in water, but hardly at all in chloroform or ether. For ophthalmic purposes it may be used in strengths from ¼ to 5 per cent.; a useful average strength is 1 per cent. It may also be used for general purposes, much in the same way that atropin is used.

295. **Prevention and Treatment of Pneumonia.**

BEVERLEY ROBINSON (*Med. Record*, April 7th, 1906) believes that with the first symptoms of fever, chill, pain in the side, cough, and expectoration, beechwood creosote should be vaporized more or less continually in the patient's room. He feels sure that there is no drug used in this way which has more preventive value in the treatment of pneumonia. Besides the use of creosote inhalations, he insists upon perfect ventilation. At frequent intervals the inhalations are stopped altogether and the windows are opened wide. Draughts must not be tolerated. The windows are opened more or less according to temperature and moisture. The writer believes that the physician should not be "unduly enthusiastic" as yet about any one agent alone.

PATHOLOGY.

296. **The Demonstration of Flagella in Spirochaetes.**

ZETTNOW (*Deut. med. Woch.*, March 8th) has been successful in demonstrating the flagella of the spirochaete of African relapsing fever, and publishes two photographic reproductions of his specimens. There is no special difficulty in the actual staining of the flagella; the main technical problem to be overcome is to free the spirochaetes from the albuminous material, with which they are surrounded in the circulating blood, without damaging them or breaking off their flagella. Unless this is done it is obviously impossible to obtain films free from extraneous matter, and consequently the clear ground, necessary for successful flagella staining, cannot be obtained. It is necessary first to defibrinate the blood, and then to centrifugalize it so thoroughly that the spirochaetes separate out as a white layer from the clear serum. After the serum has been poured off, the spirochaetes are treated with normal saline solution, and are then centrifugalized three times in order to wash off the adherent serum. The organisms are then emulsified in water, and spread on perfectly grease-free coverslips in a thin layer, which should dry quickly, as the flagella very readily disintegrate. The spirochaete of African relapsing fever possesses many lateral flagella, and tufts of from three to five are occasionally demonstrable at the extremities.

297. **Framboesia Tropica (Yaws).**

CASTELLANI (*Deut. med. Woch.*, January 25th, 1906), in continuation of his work on the parasites found in yaws, states that out of a total of 14 typical cases of this disease he has found spirochaetes in 11. Amongst these spirochaetes there occurs an extremely delicate variety which in circumscribed lesions is not associated with the presence of other micro-organisms. In his opinion this parasite is indistinguishable morphologically from the *Spirochaeta pallida* of Schaudinn. But since he maintains a differentiation between framboesia and syphilis, he is inclined to the view that if the spirochaete which he has found in framboesia has an etiological significance in that disease it must be biologically distinct from the spirochaete of syphilis. He proposes, therefore, to call his organism *Spirochaeta pertenuis* or *pallidula*.

298. **The Regeneration of Suprarenal Tissue.**

LABAZINE (*Arch. des Sciences Biol.*, St. Petersburg, p. 249, vol. xi, 1905) has produced experimental lesions on the suprarenals of rabbits, with the object of seeing how far these organs are capable of regeneration. He finds that they possess this capacity in only a very slight degree. Every lesion is followed by a loss of parenchymatous substance and a formation of connective tissue. When large portions of the gland are excised no restitution of parenchyma takes place. Cauterization is more deleterious in its action than traumatism. The multiplication of glandular cells appears early (twenty-four hours after a traumatic lesion), and attains its maximum in from two to five days. The multiplication takes place in the cortical but not in the medullary part of the organ, and is chiefly confined to the peripheral portion of the former.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

299. Constricted Liver.

G. SENNI (*Il Policlin.*, February, 1906) discusses the cause and describes the appearances of those cases in which a lower lobe is separated from the rest of the liver by a deep sulcus at the level of the costal arch. His remarks are illustrated by reports of eight cases observed by himself and ten cases recorded by others. The constriction is always in that part of the front of the liver between the mammillary and mid-axillary lines where the ribs and their cartilages are most yielding. Only adult females are affected, and the author ascribes all cases to tight lacing. The rarity of the disease in comparison with the frequency of tight lacing is explained by the fact that the excessive pressure usually falls on the under surface of the liver, and only affects its anterior face when the lower border of the liver is displaced downwards either by hypertrophy or ptosis of the liver. In recorded cases in which no attempt has been made to notice this point, it is common to find accidental allusion to enlargement of the liver or to the pre-existence of diseases causing it (for example, syphilis and malaria), or to a general ptosis of the abdominal viscera. A simple depression on the anterior surface of the liver is the earliest stage of the disease. Later the continuance of the cause, the atrophy of the part subject to pressure, the passive congestion of the dependent lobe and consequent traction on the contracted part, make the condition permanent, and sometimes lead to such a shrinkage of the atrophic part that it becomes little more than a pedicle containing some liver parenchyma with fibrous tissue, blood vessels, and bile duct. The gall bladder is necessarily displaced downwards, and its dependent position and the consequent stagnation of its contents frequently lead to stone formation, discovered *post mortem* or at operation, but not yielding symptoms during life, because the position of the gall bladder prevents the stones from entering he duct. The attribution of the whole disease to cholelithiasis is a confusion of cause and effect. The non-existence of reported cases in men is alone sufficient to negative this theory. The displaced portion of the liver may be of any volume, from that of a small orange to that of a fetal head. It is usually found in the right epicolic egion, but sometimes the abnormal length of the pedicle admits of its being found in the right iliac fossa or in the rue pelvis. The parenchyma of the portion displaced often undergoes the changes usually associated with passive congestion. The hepatic flexure of the colon is necessarily displaced and assumes a U shape. The ymptoms caused are very variable: nervous and digestive disturbances, painful dragging sensations, dull pains adiating to the back, thorax, and thighs. The dullness of he displaced lobe is sometimes separated from the rest of he liver dullness by an area of resonance, where a coil of ntestine intervenes between the pedicle and the body wall. As the liver is enlarged in nearly all these cases, the right kidney is usually somewhat displaced downwards, and may be recognized by palpation as a tumour distinct from that under consideration. The importance of an exact diagnosis is indicated by the fact that unnecessary surgical intervention has been practised in cases wrongly diagnosed. urgical treatment has consisted in removing the displaced obe as a neoplasm, or fixing it to the body wall. Any peration should include an examination of the gall ladder. Sometimes the tumour may be fixed by wearing suitable apparatus. Failing this the author recommends perative immobilization for all troublesome cases not omplicated by cholelithiasis and cholecystitis. These omplications call for cholecystotomy or cholecystectomy, r they may be treated by a partial hepatectomy.

300. Transient Stenosis of the Superior Vena Cava in Pulmonary Tuberculosis.

W. SPIRIG (*Corr.-Bl. f. Schweizer-Aerzte*, February 1st, 906) reports the case of a man, aged 40, with consolidation f the right apex and tubercle bacilli in the sputum, who was attacked with symptoms of occlusion of the superior ena cava. On June 27th, after eating, he complained of eadache, and fell asleep. He awoke suddenly shrieking, ot up, and fought in the air, thinking that he was being ttacked and strangled. An hour later he became calmer, ut was greatly changed in appearance. The face, neck, and arms were of a bluish-red colour and turgid, and the eyes were prominent. There were headache and a sensation of strangulation. The lower part of the body was normal. Similar though less violent attacks of delirium occurred during the night of June 28th and again on June 29th. On the latter date his mind became clear, though the headache and sensation of compression of the neck persisted. There was a sensation of "pins and needles" in the arms, which were cold, cyanosed, swollen, powerless, and heavy. No haemoptysis occurred. The conjunctivae were reddened, and the palpebral fissures were narrowed. The mucous membranes of the mouth, pharynx, and larynx were cyanosed, and the superficial veins of the neck and face were extremely prominent. The glottis was not oedematous. The optic discs were normal, but the retinal veins were engorged. There was no dyspnoea. The pupils were equal and reacted normally. The pulse was 94 and regular. The pulmonary signs were unchanged, but over the right supraclavicular fossa, right clavicle, right first two interspaces close to the sternum, upper part of the sternum, left sterno-clavicular joint, and left supraclavicular fossa there was a blowing murmur resembling the *bruit de diable*. It was most intense at the right second rib, became fainter when traced to the left, and was inaudible below the right third rib. It was uninfluenced by respiration and the cardiac beats. On July 3rd the congestion of the upper part of the body was subsiding and the *bruit* was audible only at the right sterno-clavicular joint and in the first two interspaces to the right of the sternum. On July 7th the venous congestion had completely disappeared and there was no *bruit*. On September 10th, after a stay in the country, the bloated appearance had been replaced by the pallor and sharpness of features characteristic of tuberculosis. The pulmonary signs were practically unchanged. The attack of June 27th could be explained only by obstruction of the superior vena cava or both innominate veins. The initial delirium was evidently due to sudden disturbance of the cerebral circulation. If obstruction of the superior vena cava gradually occurs the brain adapts itself to the altered conditions and delirium is exceptional. The distribution of the *bruit* exactly corresponded to that of the superior vena cava and its tributaries. The obstruction was probably situated behind the cartilage of the first right rib immediately below the junction of the two innominate veins. That it was not below the entrance of the vena azygos was proved by the absence of distension of the intercostal veins, all of which except the first enter the azygos vein. The obstruction was probably due to traction of adhesion between the two layers of the pleura over the diseased right apex, the mediastinal fibrous tissue, and the walls of the superior vena cava, which is here separated from the lung only by the mediastinal pleura. The vein thus became kinked but was soon straightened and its lumen was restored by the heightened intravenous pressure which resulted above the obstruction. Thrombosis was excluded by the rapid disappearance of the symptoms, and compression of, instead of traction on, the vein was rendered improbable by the absence of any condition which could produce it.

301. Raynaud's Disease in Children.

SOMMELET (*Thèse de Paris*, 1905), who has collected statistics, is of opinion that Raynaud's disease occurs as frequently in children as in adults. He met with 6 cases in one year. The writer raises the question whether Raynaud's disease differs in the child and the adult. He is of opinion that ulceration and tissue destruction are slight in the former, impairment of function is less marked, and there are practically no general symptoms. In children the disease follows vasomotor disturbances. Local syncope and asphyxia constitute general evidence, and there is usually considerable pain.

SURGERY.

302. Multiple Gunshot Perforations of the Intestine.

PICQUÉ (*Bull. et Mém. de la Soc. de Chir. de Paris*, No. 8, 1906), in a report of a case of gunshot wound of the abdomen, communicated to the Société de Chirurgie by M. Pieri of Marseilles, directs attention to some points of special interest from a clinical point of view to be found in this record. The patient was a male, aged 18, whose abdominal cavity had been traversed by a bullet entering near the lower end of the sacrum, and emerging in the middle line of the anterior abdominal wall at a point about four finger-breadths below the umbilicus. When first seen by Pieri, five hours after the receipt of injury, the man presented no indications of wounding of the intestine, the general condition being excellent, with a pulse of 92 and a temperature of about 99°. No pain was excited by pressure over the abdomen, and although, as was afterwards discovered, the intestine had been perforated in fifteen places, there was no prehepatic clear sound. There was, however, slight resistance of the recti muscles. Notwithstanding this absence of symptoms, Pieri at once practised free median laparotomy, and, after having sutured a wound in the rectum, discovered and sutured thirteen other intestinal perforations situated between the caecum and the duodenum. The fifteenth wound was a very irregular one, and the surrounding intestinal wall too much disorganized to permit of suturing; consequently the injured portion of the intestine was resected. Although there were evident signs of peritonitis, and false membrane and faecal matter were observed about the wounded portions of intestine, the wound in the abdominal wall was completely closed, and no attempt was made to establish drainage. The patient made a good recovery. In his comments on this record Picqué points out that in cases of this kind the two chief factors of success are the absence of haemorrhage and the individual resistance of the patient to peritoneal septicaemia. The interval between the time of the injury and that of the operation is also a point of great importance, as it has been proved statistically that there is a direct ratio between the prognosis and the duration of this interval. Reference is made to the delay in cases of perforating injury of the abdomen, of the first indications of peritonitis which usually are not observed before the eighth hour; while in cases of pathological perforation, as in gastric and duodenal ulcers, typhoid ulceration, and appendicitis, perforation is almost immediately followed by pain and inflammatory reaction. It is suggested that in cases of pathological perforation the intensity of the reaction may be dependent on a high degree of septicity and toxic action in the contents of the intestine. In Pieri's case the perforations in the intestines were closed by purse-string sutures. Picqué, though acknowledging this to have been a happy idea under the circumstances, and pointing out that the duration of the operation must thus have been much shortened, is of opinion that this method of suturing cannot be regarded as generally applicable. It can only be applied to small perforations, is likely to cause deformity of the intestine and constriction of its lumen, and offers less security than the ordinary suture in two rows.

303. **Treatment of Congenital Luxation of the Hip.**

Hendrix (*Journ. de Chir. et Ann. de la Soc. Belge de Chir.*, No. 2, 1906) holds that in the bloodless treatment of congenital luxation of the hip complete reduction of the head of the femur, notwithstanding elongation and a much improved position of the limb, is really in most cases not effected. The luxation, he states, is transposed and not reduced, the head of the femur being placed not into or over the cotyloid cavity, but just below the antero-inferior iliac spine. This transposition, which has been demonstrated by the methodical application of the Roentgen rays, is attributed in the first place to the abnormal condition of the cotyloid cavity, which in cases of congenital luxation is converted into a shallow triangular depression without any prominent and overhanging margin above; and in the second place to a change in the direction of the neck of the femur, which instead of diverging, as in the normal condition, upwards and inwards, is anteverted or carried forwards, so as in extreme instances to form an angle of 90 degrees, or it may be more, with the line it would have taken under normal anatomical conditions. With the object of overcoming the tendency to transposition the author, after forcible displacement of the head of the femur, rotates the limb inwards and fixes it in this position during a period of not less than four months. In his concluding remarks the author states that in every case of congenital luxation of the hip, whether this be simple or complicated, treatment by bloodless methods still remains, and indeed will long remain, a difficult matter. Each case has its individual physiognomy, and presents some special difficulty. The secret of success, it is held, depends on the care taken by the surgeon to make out the state of the neck of the femur and, immediately after reduction has been effected, to rotate the lower limb inwards to a degree corresponding to the degree of anteversion of the neck, and to maintain for a sufficient time the limb in this position. This method, the author states, has afforded a high percentage of good results, and been attended with a success superior to that indicated by the majority of published statistics.

304. **Caecostomy and Intestinal Irrigation in Amoebic Dysentery.**

Curl (*Annals of Surgery*, April, 1906), in a paper on the relative value of caecostomy and appendostomy in the treatment of amoebic dysentery by irrigation of the colon, gives the results of his experience of this therapeutical method in the Colon Hospital, Isthmus of Panama. He has reached the conclusion that irrigation is not justified in late cases in which there is great prostration and advanced pathological change in the mucous and submucous layers of the large intestine. On the other hand, early cases can be controlled by irrigation per rectum, combined with proper diet and rest. It is only in the intermediate class of cases, in which the ordinary treatment has failed, where there is a tendency to an increase in the daily number of stools, and where considerable strength remains, though the patient is getting weaker, that operative treatment is indicated. The author prefers caecostomy to appendostomy, as in his practice the results of the latter operation have not been so good as those of the operation in which the fistula was established in the caecum proper. The appendix, it is stated, even when most carefully handled, shows a tendency to sloughing, and there is a certain amount of secretion from its mucous membrane which may prevent spontaneous closure of the sinus. The appendix, it is held, should, as a precautionary measure, be removed in operations for caecostomy. A rapid improvement, it is stated, usually follows the beginning of irrigation, but convalescence is slow, and the closure of the fistula is in some cases attended with difficulty. The author does not express a sanguine view of the general prospects of this treatment, although he is of opinion that it may save life in selected cases.

OBSTETRICS.

305. **Treatment of Puerperal Septic Diseases.**

S. Marx (*Med. Record*, April 28th, 1906) declares that puerperal infection depends upon infection from without, gaining its entrance practically always by lesions in the vagino-uterine route. These, like infective areas in other parts of the body, should be discovered and attacked energetically and wisely. The writer has maintained for years that practically all sepsis arising after labour gains its entrance from the so-called puerperal ulcers, whether they be situated at the vaginal outlet, their most frequent site, or upon or within the cervix. Early recognition and treatment will cut short many a case from beginning sepsis that would otherwise develop into a dangerous and prolonged illness. All elevations of temperatures, or an abnormally high pulse-rate, with or without fever, in the period of the puerperium, should be considered with suspicion. Every case of this kind should be looked upon as one of sepsis, until the diagnosis can be absolutely made. A complete and thorough physical examination must always be made before the local one, except in those cases in which there is no question that sepsis is the one and only condition present. In the case of evident ulcerative areas, which are limited to the lower genital tract, the interior of the uterus should under no condition be invaded by hand or instrument. Carbolic acid, in pure form, is the cauterant of choice because of its painlessness, its deep influence, and the ability to control its action with alcohol. In the case only of intrauterine sapraemia is the exploration for retained products of conception justified.

306. **Heteroplastic Ovarian Grafting.**

Robert T. Morris (*Med. Record*, May 5th, 1906), reports a case of heteroplastic ovarian grafting followed by pregnancy, and the delivery of a living child. The patient was a married woman, 21 years old. Menstruation began when she was 15 years old, and stopped in four years. The last two years the patient had suffered from the common symptoms of the menopause. The writer made a diagnosis of cirrhotic ovaritis, and decided to do ovarian grafting. Four months after the operation the patient menstruated. The period lasted for five days. It was five months before menstruation again took place, lasting but one day. In the following month it lasted four days, and after that it appeared at normal intervals. Four years after the grafting the patient was delivered of a child, weighing 7½ lb. The writer states that the present case of heteroplastic grafting renews the hope that certain women who have reached the menopause through disease, surgical operation, or possibly after the normal menopause, may be made fertile.

GYNAECOLOGY.

307. Abdominal Ovariotomy during Labour.

H. R. Spencer (*Journ. of Obst. and Gyn. of the Brit. Emp.*, March, 1906) describes a case of ovariotomy performed during labour. The patient was a primipara, aged 24, who was admitted to University College Hospital three weeks after tapping of the abdomen had been carried out at a lying-in hospital; she was a little more than eight months pregnant. When first seen at the hospital, the patient's abdomen was enormously distended and measured 47 in. in circumference. The measurement from the ensiform cartilage to the umbilicus was 13 in., and from the pubes to the umbilicus 12 in. The greater part of the abdomen was occupied by a thin-walled cyst, dull on percussion, and giving distinct evidence of fluctuation; the outline of this cystic tumour could not be distinctly made out. The pregnant uterus could be felt as a firm tumour in the lower part of the abdomen on the right side. The os uteri admitted two fingers; the head presented low in the pelvis. Contractions could be felt per vaginam from time to time. The case was diagnosed as a large and probably ruptured ovarian cyst complicating labour. An operation was decided upon, but was not performed until later on in the labour, when strong pains had been felt for about an hour. At the operation the tumour was found to be a multilocular cyst of the left ovary, ruptured at the lower part so as to permit of the escape of fluid into the peritoneal cavity. The cyst was removed and every precaution taken against haemorrhage from the stump, the pedicle being tied in two and as a whole with floss silk, and the ovarian being afterwards understitched, while the peritoneum was drawn over the raw surface. After the abdominal wound had been closed a vaginal examination was made, and showed the cervix to be fully dilated and the head low in the pelvis. Forceps were applied, and a strong and living female child was delivered. The placenta was expressed a few minutes later. There was no *post-partum* haemorrhage. The whole operation, including the delivery, lasted seventy minutes. A point of interest in this case is the tapping to which the patient had been subjected before admission to the hospital. On this point experience has only strengthened the opinion expressed by the author twelve years ago, that "the tapping of ovarian cysts, unless they are undoubtedly malignant, or unless the patient is suffering very acutely from some pulmonary affection or grave general disease independent of the tumour, is in my opinion an unjustifiable procedure." The second point of interest is the treatment to be adopted in the case of a patient in labour who has a large ovarian tumour which does not obstruct delivery. The three alternatives are: (1) To deliver by the natural passage, dilating the canal if necessary, and then to perform ovariotomy; (2) to perform ovariotomy, and leave the delivery to nature; (3) to perform ovariotomy at the end of the first stage of labour, and immediately afterwards to deliver by forceps while the patient is under the anaesthetic, the course adopted in the case here recorded. Each of these three methods has advantages peculiar to itself; by the first method the injurious effects of the anaesthetic on the fetus are avoided, and the operation of ovariotomy is facilitated; by the second the maternal and fetal injuries common in instrumental deliveries are avoided; by the third the ovariotomy can usually be performed with more complete asepsis than just after delivery, the risk of rupture of the large cyst during labour is lessened, and only one administration of the anaesthetic is, as a rule, required.

308. Sarcoma of Female Urethra.

Kamann (*Monats. f. Geb. u. Gyn.*, April, 1906) describes an instructive case of a tumour which presented at the urethral meatus. The patient was 55, and had been subject for a year to a yellow discharge and for three months to burning pains during micturition. She consulted the doctor for a swelling in the vulva, which she had first noticed four days previously. Kamann detected a dark-red tumour of the size of a small walnut, with its surface ulcerated; it completely covered the meatus and part of the vaginal outlet, and was connected with the mucous membrane of the urethra by a distinct pedicle, so that it simulated a uterine polypus with its pedicle constricted by the meatus, simulating an os externum. Clumsy attempts were made afterwards by an inexperienced operator to remove the tumour; ultimately it was extirpated by aid of the thermo-cautery. One year later the patient was free from any sign of recurrence. The tumour was found to be a small-celled sarcoma, partly angeiomatous; it arose from the submucous connective tissue of the urethra.

THERAPEUTICS.

309. Denys's Tuberculin.

At a meeting of the Société Internationale de la Tuberculose held on January 9th (*Gaz. Méd. Belge*, January 25th) Denys, of Louvain, presented a communication in which he said that for ten years he had used in the treatment of tuberculosis in the human subject, whatever was the seat of disease, a tuberculin consisting simply in a bouillon of Koch's bacilli, passed through a porcelain filter so as to eliminate every germ. The product, according to him, is distinguished from all others by the fact that it has not undergone the altering action of heat or chemical reagents. It is extraordinarily active in tuberculous persons in whom it may cause reactions in doses of 0.000,001 gram, 0.000,000,1 gram, and even 0,000,000,01 gram. It is injected in doses progressively increased till the patient can tolerate a gram of the pure bouillon. An essential point in the method is that the injections must be made in such a way as to avoid exciting any reaction, as this is only exceptionally tolerated and then only when slight. Of 442 cases of pulmonary tuberculosis in the cavitation stage, 193, or 43.6 per cent., have been cured, the bacilli disappearing; 56 are in a condition as satisfactory as that of the cured cases, except that there is still a little expectoration containing bacilli, indicating that the lung is clearing itself; 36 have been greatly improved, 29 improved, 19 are stationary, 9 have got worse, and 100 have died. Denys claims a successful result in 314 cases, or 71 per cent. He holds that these results cannot be explained by hygienic treatment or diet. When the tuberculous process has not gone beyond consolidation, a cure may confidently be looked for. Excellent results are also obtained in cases in which the disease is situated in the pleura, intestine, peritoneum, glands, bones, and joints. Finally, Denys declares that the method is quite harmless. In reply to S. Bernheim, Denys said the treatment had never caused albuminuria. Some of the cases had been under observation since 1896, and during all that time the cure had been maintained. He added that after cure, further regular treatment was needed to prevent relapse.

310. Electrical Irrigation in Intestinal Obstruction.

Lebon (*La Clinica*, January 19th, 1906) recommends electrical irrigation for cases of intestinal obstruction which resist ordinary treatment by enemata or drugs. He considers it advisable to try this method before resorting to surgical measures. It will not overcome obstruction due to strangulation, but produces a rapid cure when faecal impaction is the cause. He employs Boudet's rectal electrode. This consists of a hollow metal sound insulated by a rubber envelope and perforated twice or more at the end. The sound is connected in the usual way with the coil battery and manometer, and is attached by a rubber tube to the irrigator. A large flat electrode wrapped in lint is provided for the abdomen. The patient lies on his back with the pelvis elevated; the electrode is applied to the abdomen after being saturated with salt solution, and the flow of water is slowly turned on. The sound requires to be held in position during the whole process. The current is then started; at first very weak, it is gradually increased until 35 to 40 milliampères are reached; after five minutes it is decreased to zero, and by means of a commutator or by altering the wires the direction of the current is altered. The intensity of the current is then gradually increased again; finally an interrupted current is used for a few minutes. The whole treatment should last for from fifteen to twenty minutes, unless relief has been obtained before. With each interruption of the current the abdominal muscles contract strongly, and peristalsis is excited so that the patient experiences severe colic. The irrigation must be kept up as long as the sound remains in the rectum. If the result is negative, a second application may be given four or five hours later; should this also fail to prove beneficial, surgical measures are indicated. Electrical treatment is contraindicated when one has reason to suspect intestinal ulceration, and when the patient is in a feeble and prostrate condition.

311. Aspirin in Chorea.

Massalongo and Zambelli (*Gazz. degli Osped.*, January 21st, 1906) have tried aspirin in many ordinary cases of chorea with good results. In 4 cases of very severe chorea they have had equally satisfactory results. In the beginning they gave from 3 to 5 grams daily (the patients varied from 10 to 15 years), and reduced it to 2 or 3 grams later. Some good effects were noticed as early as the second day, and chiefly showed themselves in the direction of lessened disturbance in the movements of the mouth and head, so that feeding became much less troublesome and some sleep was obtained. Treatment varied from fifteen to twenty-five days in duration. The authors were particularly impressed with the value of the drug in their 4 severe cases, and believe that no other remedy as yet proposed is as effectual as aspirin.

312. Antiplague Vaccination.

Kolle and Strong (*Deut. med. Woch.*, March 15th, 1906) have endeavoured to produce immunity against plague by inoculation with highly attenuated cultures of living bacilli. They obtained from Dr. Maassen a culture which was to begin with of low virulence, and this they further attenuated to such a degree that when a million times the usual fatal dose was inoculated into guinea-pigs and rats, the animals neither fell ill nor died. They also found that their highly-attenuated plague cultures produced in inoculated animals a high degree of resistance against virulent plague bacilli. Satisfied by these results that their material was innocuous, Strong inoculated in Manila 42 human beings with varying doses of these living attenuated plague cultures. The first experiments were made on criminals condemned to death, the dose first used being one hundredth of a loopful of culture. As this produced no manifest effect, 10 other persons were inoculated with the same dose, the results being in every case confirmatory of the first experiment. In subsequent experiments the doses were steadily increased, and in one instance a whole agar culture was finally inoculated. The persons inoculated have been kept for more than four months under observation, and it can be affirmed that no deleterious effects have resulted. There is a transient rise of temperature and some swelling at the seat of inoculation, but these disappear by the third day. A careful investigation for the presence of specific properties in the blood serum was made in 29 cases. It was found that the serum of the experimental subjects not only showed specific agglutinative properties towards fresh, virulent plague bacilli but also developed a marked degree of immunity in experimental animals. In order to determine how long these virulent bacilli survived in the animal body they were inoculated subcutaneously into monkeys. It was found by making cultures, under aseptic precautions, from the tissues of the inoculated animals that bacilli were still present in large numbers after the lapse of from six to eight hours, but after this period they gradually began to diminish, and cultures made twenty-four hours after the inoculations proved to be sterile. In both guinea-pigs and monkeys the inoculation of these attenuated cultures produced a high degree of immunity against virulent plague bacilli which were subsequently inoculated. Kolle and Strong find that the attenuation of plague bacilli is readily brought about by incubation at a temperature of from 41° C. to 43° C. and by the introduction into the nutrient broth of from 0.5 to 5 per cent. of alcohol.

PATHOLOGY.

313. Experimental Replantation of Thigh.

Alexis Carrel and C. C. Guthrie, of the Hull Physiological Laboratory, Chicago, report (*Science*, March 9th) the results of experiments on the replantation of the thigh after amputation in a dog. They had previously shown (*Amer. Jour. of Med. Sciences*, February, 1906) that a satisfactory circulation could be established in a replanted thigh. In the communication here abstracted they record a summary of observations made on a similar experiment extending over a longer post-operative period. The animal employed was a small white bitch. Through a longitudinal incision the vessels of the thigh were exposed and cut above the point of Scarpa's triangle. The skin was circularly severed, and the thigh completely amputated above the junction of its lower and middle third. After a few minutes the limb was replanted. The ends of the bone, the muscles, the vessels, and the sciatic nerve were united. The circulation was re-established after having been interrupted for one and a quarter hours. The pulsations of the popliteal and "saphenous" arteries were normal. The dark blood circulated very actively through the femoral and saphenous veins. Red blood flowed from the small arteries of the peripheral part of the cut limb. The skin was sutured and a plaster dressing applied to the limb and trunk. After the operation the general and local conditions of the animal remained very satisfactory. It drank and ate normally, and walked on its three sound limbs. The skin of the replanted foot remained normal, but its hue was redder and its temperature higher than that of the normal foot. The anterior part of the foot soon become moderately swollen. Seven days after the operation the dressing was partially removed. The limb presented neither oedema nor trophic troubles. The oedema of the anterior part of the foot was doubtlessly due to pressure by the lower edge of the bandage, as the swelling completely disappeared within a few hours after correcting the fault of the dressing. The skin was normal, and the wound had united *per primam intentionem* without evidence of inflammation. The temperature of the skin was higher below than above the line of suturing. Eight days after the operation the foot appeared normal in size, all oedema having disappeared. On the tenth day, during the afternoon, the temperature of the replanted foot became lower—that is, similar to that of the normal foot. The dressing was then removed. It was found that, owing to a slipping of the plaster bandage, some urine had got into the cotton dressing and caused infection of the upper part of the longitudinal incision. A small cutaneous abscess had developed along the vessels. The general conditions of the animal were excellent, and the nutrition of the limb satisfactory. As the arterial pulsations were much weakened, and as it was considered important to accurately determine the cause of this change, the animal was etherized and the vessels examined through cutaneous incisions, after which the animal was killed. This dissection *in vivo* gave the following results: The point of the vascular anastomoses was surrounded by the small subcutaneous abscess. The venous anastomosis was good. The arterial anastomosis was partially occluded by a small clot. All the other portions of the vessels appeared perfectly normal. The circulation through the limb was not satisfactory, as the obliteration of the anastomosis was not complete. The union of the skin, the muscles, and the sciatic nerve was normal. The process of consolidation of the bone was beginning. It is probable, but not certain, that if the animal had been allowed to live, the arterial stenosis would have gradually increased, and that in the end the circulation would have been interrupted. Then, no doubt, gangrene of the limb would have occurred, which result would have been due primarily to the secondary infection of the skin. This shows that in such experiments asepsis must be rigidly observed, not only during the operation but during all the post-operative period. Conclusions: (1) The circulation of a replanted limb, re-established an hour and a quarter after interruption by end-to-end anastomosis of the femoral artery and vein, is normal, as judged by the metabolism of the limb; (2) no trophic trouble occurs (at least during ten days); (3) healing of the severed tissues appears to be as rapid and complete as after an ordinary surgical wound.

314. The Possibility of Airborne Infection with Plague.

Goss (*Arch. des Sciences Biol.*, St. Petersburg, p. 330, vol. xi, 1905) has endeavoured to ascertain whether dust containing plague bacilli is a possible source of infection. For this purpose he has conducted inhalation experiments upon guinea-pigs and rabbits with material containing plague bacilli in suspension. In some of his experiments he has added pneumococci, in consideration of the fact that in some plague epidemics the pulmonary form of the disease has often been accompanied by a pneumococcic infection. It is therefore of interest to know whether the presence of the pneumococcus facilitates the penetration of the plague bacillus. He finds that when plague bacilli are slowly dried, at a moderately low temperature, they preserve their virulent properties for about a month. The inhalation of plague dust is harmless for guinea-pigs when their respiratory tracts are normal, but when the respiratory mucosa is injured the bacilli contained in the dust are enabled to gain access to the tissues. The presence of the pneumococcus in the plague-infected dust does not increase the virulent properties of the plague bacillus; nor, on the other hand, does the presence of plague bacilli facilitate the pathogenic action of the pneumococci.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

315. Constipation in Chronic Peritonitis.

Villard (*Lyon Méd.*, April 29th, 1906) believes that constipation is due under many circumstances to more or less latent chronic inflammation of the peritoneum. To prove his point he records a list of cases showing (1) the frequency of intestinal paresis in chronic inflammation of the peritoneum, and (2) the frequency of disappearance of the paresis after removal of the inflamed part. In the list of cases are 6 instances of appendicitis, 4 of salpingitis, and 3 of cholecystitis. In 2 cases constipation had preceded an acute attack of appendicitis by from ten to twenty years, and was cured by removal of the appendix. In a case of salpingitis due to gonorrhoea, the mischief seemed to be confined to the appendages of the left side, which were accordingly removed. The constipation persisted, however, till the right tube and ovary had also been removed on account of inflammation. Villard does not deny that the constipation may be due to the mechanical pressure of adhesions, but in the course of his observations he has not found the characteristics of this form, such as localized pain and gurgling, partial abdominal distension, and the alternation with diarrhoea. He believes the explanation is rather to be found in Stokes's law, "that muscle subjacent to a serous inflammation is more or less paralysed." He would seek, therefore, in every case of chronic constipation for localized tenderness, and even in default of any acute attack, would remove the appendix to relieve the constipation, provided that the tenderness, however slight, was constantly present over McBurney's point. In the cases of tenderness over the gall bladder and uterine appendages, where the symptoms are not severe enough to justify removal, the ordinary purgatives are not indicated, but, rather, measures should be adopted to counteract the intestinal paresis, such as massage, the administration of strychnine, and, above all, the use of large enemata of hot water, which act as sedatives to the inflamed tissue.

316. Grocco's Triangular Dullness.

Vignola (*Gazz. degli Osped.*, February 11th, 1906) discusses the triangular paravertebral area of dullness which was described by and named after Grocco. This dull area is found on the side opposite to that of the pleural effusion. Certain authors having injected one pleura *post mortem* were unable to find this dull area on the opposite side; but more recent experiments, in which the diaphragm was kept in position by peritoneal injections of gelatine and the aorta filled with similar fluid, confirmed Grocco's original statement; and it was proved that, after the pleura was filled with fluid under these conditions, the paravertebral area of dullness on the opposite side could be easily determined. Although it is not quite clear as to what is the cause of this dullness, actual observation has shown that it is not due to a second effusion. The author records 3 cases of pleural effusion occurring in children (6 and 8 years old) where this triangular dullness could be well made out. The dullness was observed to vary with the condition of the diseased pleura. In the third case (one of serous effusion gradually becoming purulent) the triangular dullness was marked as long as the effusion was serous, but when it became purulent this paravertebral dullness disappeared.

317. Paralysis of the Recurrent Laryngeal Nerve in Mitral Stenosis.

I. Frischauer (*Wien. klin. Woch.*, December 28th, 1905) eports a case of this rare complication of mitral stenosis, which was first described by Ortner in 1897. Five cases have been published in which the diagnosis was confirmed *ost mortem*, and two others in which the clinical diagnosis was unconfirmed anatomically. The mechanism appears ot always to be identical, and the nerve may be comressed in at least three ways: (1) The dilated left auricle may compress the nerve directly. This occurred in a case f Ortner's, in which the nerve was flattened between the pper wall of the dilated left auricle and the aorta, and in ne of Hofbauer's, in which the left auricular appendix was firmly wedged between the pulmonary artery and the orta exactly at the spot where the nerve wound round the ortic arch. (2) The nerve may be compressed against the ulmonary artery, which is forced upwards by the dilated left auricle, or in the acute angle between an abnormally directed ductus arteriosus and the left branch of the pulmonary artery. The latter mechanism was that found in a case recorded by Kraus in which the highest point of the auricle, though dilated, was at least 2⅜ in. distant from the compressed portion of the nerve. (3) The left bronchus may be forced upwards by the dilated left auricle and compress the nerve against the aortic arch. The writer's observation is as follows: A woman, aged 30, was admitted to hospital on August 7th. The apex beat was in the fifth interspace outside the nipple line. The cardiac dullness extended to the right of the sternum and upwards to the lower border of the second rib. In the second interspace it was two fingerbreadths in width, and in the third about three. There were a systolic thrill at the apex and systolic and diastolic apical murmurs. There was also a faint systolic tricuspid murmur. There was slight abductor paralysis of the left vocal cord, which later became complete, with extreme hoarseness. The x rays showed that the cardiac shadow was greatly enlarged. The right auricle took little part in the enlargement, but at the left border of the shadow, above that of the ventricle, were two pulsating elevations, the upper due to the pulmonary artery and the lower to the left auricle. The space between the heart and vertebrae was almost filled by the dilated auricles. As all the usual causes of paralysis of the recurrent laryngeal nerve could be excluded with certainty or great probability, compression of the nerve by the dilated left auricle was diagnosed. Death occurred on October 30th. The necropsy showed that there was extensive old endocarditis of the mitral valve. The ventricles and auricles were dilated and hypertrophied. The left recurrent laryngeal nerve was compressed between the aorta and the pulmonary artery, which was forced upwards by the dilated left auricle and pulmonary veins. At this spot the nerve was thinned and flattened, and its fibres had degenerated.

318. Rabies.

Materazzi (*Gazz. degli Osped.*, March 25th, 1906) has made some investigations on dogs and rabbits with regard to the value of Negri's corpuscles in the diagnosis and etiology of rabies. He believes the discovery of these bodies is sufficient to prove the presence of rabies. And although they are most commonly found in the cornua ammonis, and should be first looked for in that situation, yet they may exist elsewhere, and a negative report should not be given until the whole nervous system is examined. If after this the report is still negative, it is necessary to proceed to injection experiments in animals. In most cases it is not necessary to do more than examine for the Negri corpuscles, and thereby save much time and expense in arriving at a quick and sure diagnosis, for by this method a diagnosis can be reached in twenty-four hours, and since every hour gained, from the point of view of early treatment, represents so much better chance of recovery, any method which facilitates early and certain diagnosis is to be welcomed.

SURGERY.

319. Penetrating Wounds of the Nasal Cavity.

Pusateri (*Archiv. per le Sci. Med.*, December, 1905) states that amongst recent researches into the processes of healing as they affect cartilage there is no record of any inquiry into wounds of the nasal cartilages. The special interest of the subject depends on the difficulty of disinfecting the nasal cavities and on the question as to the part played by perichondrium in the regeneration of cartilage. The author investigated both aseptic and infected wounds in dogs, choosing animals of about 5 kilog. in weight and under 1 year of age. He passed a grooved sound into the nostril, cut down upon the groove, and carried his incision forwards and downwards for about 2 cm. After the subject was killed the parts were fixed in alcohol, cut into sections, and subsequently stained with haematoxylin, eosin, and other reagents. Twelve dogs aseptically wounded were killed after intervals of from two to twenty-six days. In the latter, as opposed to the earlier specimens, the wound of the cartilage, originally oblique, had become almost vertical. The cartilaginous stump adjoining the septum at first was twisted inwards so as to have a free end in the nasal cavity, but later the free end was retracted by the cicatrix first out to, and then beyond, the level of the other cut edge. The thickness of the cicatrix was not uniform. The cut edges of epithelium did not come into perfect apposition, but rapidly healed by proliferation of the deep epithelial cells. In four dogs, killed on the second, fourth, eighth, and thirteenth days, the wound was inflicted as before, but an attempt was made to provoke suppuration by means of a broth culture of *Staphylococcus pyogenes aureus*, with which the knife was treated. A pad of cotton-wool was also dipped in the culture and afterwards inserted in the nose. No suppuration was caused in any case, but the wounds healed exactly as in the first series of aseptically-wounded dogs, healing being complete, and the cicatrix hardly visible on the thirteenth day. The author, therefore, abandoned the attempt to cause a suppurating wound of the dog's nostril. He thus summarises the results obtained: (1) In aseptic wounds of the nose penetrating into the nasal cavity the two borders of the cut cartilage ride on one another so as to change the direction of the wound, and a distinct extravasation of blood is formed between the cartilaginous and the muscular layers; with the reabsorption of this coagulum and the beginning of cicatrization the pieces of cartilage are gradually approximated and come almost to the same level; (2) the cure of the cartilaginous wound is due to the new formation of connective tissue, the perichondrium and the pre-existing cartilaginous cells taking no part in the process of repair; (3) the two edges of the wound of the epithelium of the nasal mucosa are found united by the sixth day; (4) the cure of the wound is by first intention, and its margins show little inflammatory reaction. The fibroblastic new formation begins from the fifth day, and lasts a long time, on account of the blood extravasation on the surface of the cartilages, the process being completed only on the twenty-sixth day.

320. Abdominal Surgery in the Russo-Japanese War.

Von Ettingen (*Journ. de Chir. et Ann. de la Soc. Belge de Chir.*, No. 4, 1906), at the last Congress of the German Society of Surgery, presented a report on gunshot wounds of the abdomen in the Russo-Japanese war, to which class of injuries his attention was particularly directed whilst he was attached to the Red Cross Service of the Russian Army during this campaign. The benignity that had been previously noted, of modern infantry bullets as compared with former leaden projectiles and modern artillery projectiles, was, it is stated, confirmed and verified with regard to the weapons used by the Japanese, while gunshot injuries caused by discharge at a short distance—under 30 metres—have become more dangerous than they were formerly; those caused by a bullet discharged at longer distances are, as a rule, less serious, and, by reason of the anatomical condition of the wounds, assure a more favourable prognosis. Theoretically, a bullet wound of the abdomen ought never to indicate immediate laparotomy except in cases of rapidly progressive abdominal haemorrhage. With this exception, the treatment should be expectant. On the other hand, abdominal injuries caused by shrapnel, fragments of shell, and all irregularly-shaped projectiles present a much worse prognosis; but even in wounds of this kind, though laparotomy might be regarded theoretically as the proper treatment, it has been found in actual practice that the patient may sometimes recover without surgical intervention, while an operation will almost always fail. In such cases the idea of immediate laparotomy, the author holds, ought always to be rejected on the field of battle. The mortality of abdominal wounds treated without operation was 45 per cent. in the Japanese, and 55 per cent. in the Russian army. Primary laparotomy is not likely to give better results than these. Many patients whom an immediate operation would very probably have carried off have, it is held, been saved by secondary laparotomy.

321. Saccular Dilatation of Saphena and Hernia.

Picquet and Clacys (*Bull. et Mém. de la Soc. Anat. de Paris*, November, 1905) report an instance where a large dilatation of the internal saphena vein within 1½ in. of its junction with the femoral vein was diagnosed at a hospital as a femoral hernia. A truss was prescribed, which caused so much pain and interfered so completely with the patient's work that she had to discontinue it. She consulted Guinard for pains in the lower extremities and varicose veins. At that time she was 31 years of age. Over six years previously, in the course of a twin pregnancy, very large varices developed in each leg and disappeared after labour, whilst within two years a swelling developed in the left groin after heavy work. After the error in diagnosis and treatment above-noted, the varicose veins began to dilate again, and the patient suffered from frequent desire to make water. Guinard defined a tumour of the size of a small hen's egg in the middle of Scarpa's triangle on the left side. It could be reduced, and there was no gurgling during reduction, but directly pressure was relaxed the swelling reappeared. There was distinct thrill; impulse on coughing, and almost complete disappearance of the tumour when the patient lay down were also noted. The circulatory and respiratory centres showed no sign of disease, nor was there hernia of the bladder. Guinard operated; the swelling was a sacciform dilatation of the inner aspect of the internal saphena vein. When empty it was of the size of a walnut, the aperture of communication with the channel of its vein was wide, and its walls were healthy and uniform in thickness with the walls of the vein itself. Picquet and Clacys observe that Sir W. Bennett has shown that lateral dilatations of veins are of congenital origin, whilst fusiform dilatations are simply varices, both as to cause and pathology.

OBSTETRICS.

322. Glycosuria, Albuminuria, and Eclampsia in Pregnancy.

Rendu (*Ann. de Gyn. et d'Obstét.*, April, 1906) reports a case where the symptoms of eclampsia came on quite unexpectedly, and the proportion of albumen in the urine was phenomenal, yet the patient recovered. A married lady, aged 21, in good circumstances, and apparently in good health, became pregnant in April, 1905. On August 8th Rendu found that the urine contained a large proportion of sugar, but no albumen; on the 21st the sugar had disappeared, whilst phosphates were in excess. On October 1st the patient, living in the country, ate heartily of jugged hare, a fact on which Rendu lays stress. Next day she suffered from sickness and diarrhoea, and Rendu was called in, and during his visit she had a violent fit. The urine already passed solidified on boiling. The patient was put on milk diet; large doses of hydrate of chloral were injected. The fits continued—on the evening of the third day they occurred five or six times—amblyopia was marked, and there was much anasarca. On the fourth day the patient seemed better, artificial serum was given as an enema every six hours, and the strong doses of chloral were continued. The urine was still scanty, and solidified on boiling. The patient thenceforward began to improve steadily, the urine increased in amount, and the anasarca had disappeared by the ninth day. By October 13th the patient was doing well, she drank five pints of milk daily, the albuminuria began now to diminish. By the 23rd it had disappeared, and there was fetid vaginal discharge. Rendu induced labour, and on the next day delivered the patient of a macerated fetus. The placenta formed a small, tough, white mass. The puerperium was free from fever or any other complication. During the course of the illness above described the urine was analysed with great care by an expert, who found that the urine passed shortly before the first convulsion contained albumen in the enormous proportion of 50 grams to the litre. The value of the milk treatment was manifest. Rendu dwells on the fact that the patient on the day before the first attack ate a great deal of jugged hare, and certainly suffered from vomiting, diarrhoea, and abdominal pain soon after the meal. When he witnessed the first convulsion, it was urine passed before the fit occurred that he inspected and examined, and it was that sample which held 50 grams of albumen. On the next day, when every precaution had been taken to keep the urine from admixture with extraneous elements, it still contained 45 grams of albumen to the litre.

GYNAECOLOGY.

323. Malignant Degeneration of Fibroids.

Winter (*Monats. f. Geburts. und Gynäk.*, April, 1906), in discussing all forms of degeneration of fibroids, dwells at length on malignant changes. Beginning with carcinoma he insists that there is a direct relation between cancer and uterine myoma. Cancer of the cervix is found in 2 per cent. of all cases of uterine fibroid disease, whilst cancer of the body of the uterus occurs in no less than 1.2 per cent. In the uterus free from fibroids cancer of the cervix is fifteen times more common than cancer of the body. Winter maintains that the complication is too rare to influence the question of operative or expectant treatment, and does not even insist that in hysterectomy the cervix should always be removed. In 17 cases of cancer of the stump it is only certain that in 7 the cervix was free from cancer when the uterus was amputated. Diagnosis is difficult. The free escape of a sero-sanious discharge, sharp pains referred to the tumour, and haemorrhages at or after the menopause are highly suspicious. Sarcoma represents a change in the myoma itself. In 753 cases of uterine fibroid disease this change was noted in 5 per cent.; it occurred more than twice as frequently in submucous than in interstitial fibroids, and twice as often in the latter as compared with subserous fibroids. Diagnosis of sarcomatous degeneration of uterine fibroids is very difficult. In the case of interstitial myoma the complication alternately involves irregular haemorrhages, very severe local pain, and emaciation and debility; ascites and peritoneal inflammation appear later, and often it is not till the development of metastases that malignancy becomes evident. Change in consistence of the fibroid is in itself no indication of malignancy.

324. Pelvic Surgery and the Bacteriology of Peritonitis.

P. W. G. SARGENT (*Journ. of Obst. and Gyn. of the Brit. Empire*, March, 1906) discusses the bacteriology of peritonitis in relation to pelvic surgery. In collaboration with L. S. Dudgeon, he has examined a large number of cases of different forms of peritonitis, and claims through these investigations to have disproved the theory that the initial lesions in peritonitis of intestinal origin are due to the common pyogenic cocci, even though these may be rapidly outgrown by the colon bacilli, and to have established the fact of the pre-eminence of the colon bacillus as a cause of peritonitis. The organisms found in peritonitis are, in order of frequency and importance, the *Staphylococcus albus*, the colon bacillus, the *Streptococcus pyogenes*, *Bacillus pyocyaneus*, pneumococcus, gonococcus, and rarely the *Staphylococcus aureus*. The organism most frequently found, the *Staphylococcus albus*, seems to have a favourable influence in that it gives rise to the appearance of an exudate containing vast numbers of phagocytic cells upon whose presence and their power of dealing with pathogenic organisms the chances of recovery depend. The relative frequency with which the various organisms are found is not the same in diseases of the female pelvic organs as in peritonitis in general. The pelvic peritoneum is not less easily infected than the abdominal peritoneum, but the organisms most frequently met with in pelvic peritonitis are the less virulent ones, and the mortality is therefore low. The forms of peritonitis met with in gynaecological work are those connected with (1) extrauterine gestation, (2) salpingitis, (3) inflamed ovarian cysts, (4) infections connected with pregnancy, (5) accidental infections. In each of the 17 cases of extra-uterine gestation examined by the authors the presence of the *Staphylococcus albus* was demonstrated and they found the same organism to be present in haemorrhage into the peritoneal cavity from ruptured liver or spleen. In many of the cases of extrauterine gestation the patients' blood serum gave a specific agglutinative reaction with the *Staphylococcus albus*. This staphylococcus is quite distinct from the *Staphylococcus pyogenes albus* described by Rosenbach and closely resembles the white staphylococcus isolated by Welch from aseptic wounds; its presence does not denote sepsis, and a distinction is to be made between the terms "aseptic" and "sterile." In 5 out of the 8 cases of salpingitis examined by the author and L. S. Dudgeon the interior of the tubes and the peritoneal exudate were both sterile, but in one case the gonococcus was found in both situations. Other cases of peritonitis are on record in which the presence of the gonococcus has been demonstrated, and the apparent sterility in the majority of the cases shows the absence of the ordinary pyogenic organisms, and it must therefore be recognized that the gonococcus is certainly a cause, and probably a common cause, of peritonitis. In gonorrheal peritonitis the onset is usually sudden but not very severe, and the case commonly runs a very mild course and may subside without operation but with the formation of adhesions. In cases of inflamed ovarian cyst the outlook is very different. In 2 of the author's 3 cases the colon bacillus was obtained from the pus, in the third the *Streptococcus pyogenes*. In two of the cases the *Staphylococcus albus* was present on the exudate at a distance from the cyst. All three cases ended fatally, although in all of them operative treatment was resorted to, and the abdominal cavity in each case was flushed out and drained. No case of puerperal peritonitis occurred in the series, but the author thinks there is little doubt that many of the puerperal cases are of streptococcic origin. He believes streptococcus infection to be uniformly fatal. In accidental infection almost any of the pyogenic organisms may be the etiological factor. The bearing of these investigations on treatment may be considered under three heads:—(1) Operative treatment; (2) drug treatment; (3) specific drug treatment. (1) In any plan of operative treatment, the principle of treatment underlying action is that the so-called tolerance of the peritoneum, and therefore the chances of recovery of the patient, depend upon the number and effectiveness of the leucocytes thrown out into the exudate. In the more virulent infections, therefore—as, for instance, that due to the colon bacillus—heroic measures in the direction of evisceration and copious douching are likely to do harm by spreading infection and washing away phagocytes. In such cases the cleansing treatment should be strictly localized, the upper part of the peritoneal cavity being left untouched. Turbid exudate is to be recognized as being distinct from pus, and being indeed in many cases, especially when it is found in the peritoneal cavity remote from the area of intense inflammation, an aid towards recovery. In mild infections, however, when there is much foreign material to be removed—as, for instance, when blood has escaped into the peritoneal cavity from a pregnant Fallopian tube—copious and general irrigation should be employed because of the danger of a future infection by a more virulent organism. A general rule on the question of drainage is that drainage is unnecessary in the peritonitis due to intraperitoneal haemorrhage and pyosalpinx, but is indicated in the more severe infections, such as those arising from a suppurating or gangrenous ovarian cyst. (2) Drug treatment: The bacteriology of peritonitis bears upon the question of the administration of opium, for Dudgeon and Ross have shown that morphine inhibits leucocytosis and may thus militate against recovery, while the investigations of Durham and Dudgeon in disputing the theory that purges in peritonitis cause a spread of infection, lead to the view that the administration of opium for the purpose of limiting intestinal movement is unnecessary. (3) Serum treatment: This treatment needs an intelligent application to the particular case. The colon bacillus can be recognized with sufficient rapidity to allow of specific treatment if film preparations and cultures of the exudate are taken at the time of operation. But whatever serum is employed, the following rules should be adhered to: First, a multivalent serum is to be preferred to one prepared from a single strain of the organism in question; secondly, the dose should be much larger than that usually employed; thirdly, it should never be given as a last resort in desperate cases, where the moribund tissues are incapable of responding to the serum, or even in some instances of absorbing it from the site of inoculation.

THERAPEUTICS.

325. The Treatment of Haemoptysis.

PIC AND PETIJEAN (*Lyon Médical*, February 12th, 1906 believe, from the result of their laboratory experiments and clinical experience, that nitrite of amyl is the most useful pulmonary haemostatic; its action is always rapid and certain and its toxicity is little. The researches showed that the useful dose varies from 3 to 9 drops by inhalation; that the latent period is short—from half a minute to three minutes; that no pulmonary vaso-dilatation succeeds the vaso-constriction; that no case of fatal poisoning occurred; and that the haemostatic action resulted either in the early congestive stage, or at the period of cavitation. In the laboratory a curarized dog was kept alive by artificial respiration. The fall of arterial pressure in larger circulation was first noted. The colour of the lungs was observed before and after an injection of nitrite of amyl. After the injection the normal rose colour gave way to a white anaemic tint, beginning in patches, which extended and coalesced so as to involve the whole parenchyma of the lung. This action lasted for about eight minutes, and was so marked that if a deep section of the lung were made at the time of the injection at the end of the latent period, the bleeding ceased almost as if a ligature had been applied. A trocar placed in the pulmonary artery so as to give a pressure tracing showed a marked rise of blood pressure after the injection, a rise which was maintained for ten minutes. It is not pretended that amyl nitrite is a certain specific for haemoptysis. It is admitted, for instance, that in cases where the haemorrhage is due to pulmonary congestion due to enlargement of the right side of the heart, digitalis is likely to give a better and more permanent result; but Pic and Petijean believe their experiments have shown enough to give amyl nitrite the first place among the vasomotor drugs in haemoptysis.

326. Tuberculosis and Recalcification.

Louis Rénon (*Journ. des Prat.*, April 28th, 1906) describes in brief the treatment of tuberculosis by the administration of salts of lime as carried out by Ferrier. It appears that those persons in whom the teeth and bones are deficient in lime salts are more liable to tuberculosis than normal persons; this decalcification Ferrier considers due to the action of acid or acid salts (hydrochloric, phosphoric, sulphuric); to organic acids, such as are contained in oranges and lemons, and to acids derived from fermentation in the stomach (acetic, lactic, butyric). In the tuberculous the acids arising from fermentation in the stomach are probably important causes of decalcification, and this fermentation is no doubt produced by the excessive overfeeding which is often carried out by such patients. Ferrier's method of administering salts of lime is carried out in the following manner: The stomach is emptied half an hour before each meal, and the patient takes a glass of strong bicarbonate of lime water, and at the middle or end of the meal he takes a cachet containing 40 gr. each of calcium carbonate and tribasic phosphate of lime, and 35 gr. of sodium chloride. The diet is also regulated as follows: Three meals a day only are allowed; wine, cider, beer, alcohol, butter, fats, oils, and acids are forbidden; very little sugar or pastry is allowed, and the allowance of bread must not exceed 300 grams per day. With this treatment Ferrier has obtained very good results. The author has been able to endorse Ferrier's views as to the benefits to be derived from this method of treatment; he finds that, although the patient may not put on much flesh, yet the tuberculous lesions become "drier" and more limited, and a great increase of appetite occurs. Further, in support of this plan of treatment a colleague of the author has found that there is a diminution of tuberculosis amongst the people working or living in the neighbourhood of lime kilns, and due, he supposes, to the inhalation of particles of lime in the form of a powder.

327. Local Treatment of Prostatic Hypertrophy with Radio-active Mineral Water.

Altmann (*Wien. klin. Woch.*, December 7th, 1905), encouraged by the successful results obtained by Moszkowicz, Stegmann, and others with the Roentgen rays in the treatment of enlarged prostate, has investigated the local action of Gastein thermal water on this gland. Gastein water is on analysis simple pure warm water, and the source of its medicinal properties was unknown until it was found to be strongly radio-active. This radio-activity is probably induced in its passage through radio-active earths, and the emanations thus absorbed quickly evaporate—that is, it contains no radio-active substance. Hence it is efficacious only at the source. Curie and Detierne found that solutions of radium salts are much more active than is the same salt undissolved. To utilize the radio-activity of Gastein water the writer injected it straight from the spring into the bladder or rectum, or both, according to the case. The anterior subvesical part of the gland, especially an enlarged "middle lobe," is reached by the endovesical method, 50 c.cm. of the water being injected into the empty bladder through a catheter and left there. For the rectum the writer employs a specially-constructed instrument which he calls a prostatophor. It consists essentially of a double-channelled catheter, which is curved to fit over the prominence of the prostate gland. The openings are anterior, so that the posterior surface of the gland—separated only by the rectal wall—is constantly irrigated. The Gastein water is raised to body temperature, and irrigation may, if necessary, be continued for hours, the patient being in the lateral position. During the first week of treatment, or more rarely in the second week, a severe reaction occurs. The general symptoms are those which frequently affect patients taking the waters, and consist in depression, vertigo, and circulatory and gastrointestinal disturbances. The local symptoms are swelling and tenderness of the prostate gland, aggravation of the radiating pains and dysuria, turbidity of the urine, and haematuria. The reaction is more severe with the rectal than with the vesical application of the waters. It seldom lasts more than one or two days, and is not accompanied by pyrexia. A similar though more pronounced reaction occurs if the gland is subjected to the *x* rays. It is of good augury, and is almost invariably followed by rapid improvement. The cause is probably toxaemia, from absorption of products of glandular disintegration. The prostate becomes reduced in size through depletion and atrophy of its glandular elements, especially if the hypertrophy is of an adenomatous type. The bladder, unless completely paralysed, regains its tone, and cystitis is improved through the bactericidal action of the radium emanations. The rays also have an analgesic action, and subjective sensations and pains disappear. Micturition becomes normal, or at least improves as regards the length of time urine can be retained, the amount passed at a time, and the quantity of residual urine. The anatomical improvement in the gland is not necessarily parallel to the functional improvement in the symptoms, and occasionally, though the gland shrinks, functional improvement may not occur. The treatment is contra-indicated in advanced sepsis, profuse haemorrhages, and destructive renal changes.

PATHOLOGY.

328. The Differential Diagnosis of Typhoid Bacilli.

Loeffler (*Deut. med. Woch.*, February 22nd, 1906) has been continuing his researches on the differentiation of typhoid bacilli from nearly allied organisms by the use of media to which malachite green has been added. His experiments with liquid media are interesting. One of these media contains 2 per cent. peptone and 1 per cent. nutrose in 100 c.cm. of distilled water, and is neutralized by the addition of 1.06 c.cm. of normal potash. To this is added 5 per cent. of milk sugar and 1 per cent. of grape sugar. After boiling for a short time and then cooling to a gentle warmth, 3 c.cm. of a 2 per cent. solution of malachite green are added. When this medium is inoculated with typhoid bacilli and with other organisms belonging to the typhoid family, striking differences are brought out. In the typhoid tubes the nutrose is precipitated in a quite distinctive manner. The fluid is coagulated like acidified milk, and above the coagulated layer there is a clear green liquid. On the other hand, the majority of the other organisms, such as the coli group, Gaertner's bacillus and paratyphoid bacilli, produce quite a different result. Active fermentation takes place; the nutrose is precipitated, and adheres in dirty green flakes to the walls of the tube, whilst some of it is carried upwards by the development of gas and floats as a dirty green layer on the surface of the fluid. When the constitution of this medium is modified by the omission of grape sugar, further distinctions are brought out. Only the coli organisms and a few very closely related bacilli are capable of producing fermentation. The coli group can therefore be differentiated from the rest. Other organisms, again, while not producing fermentation, have a reducing action on the green, so that it turns to a pale yellow colour. This reduction is more quickly brought about when the alkalinity of the medium is slightly increased. The typhoid bacillus does not change the medium, but only exerts a very gradual reducing action on the green. The paratyphoid bacillus A, on the other hand, turns the solution pale blue. Amongst other liquid media which Loeffler finds useful is one which contains, in 100 c.mm. of distilled water, 1 per cent. nutrose, 2 per cent. milk sugar, and 5 per cent. of a 2 per cent. green solution. In this medium only one of the organisms which it may be requisite to differentiate produces a marked modification. This is the small, actively motile, typhoid-like bacillus which is found in faeces and in polluted water—the *Bacillus faecalis alcaligenes*. This organism converts the green solution into a bright blue.

329. Venous Hyperaemia and Acute Inflammation.

A. Donati (*Giorn. d. R. Accad. d. Med. d. Torino*, Nos. 1 and 2, 1906) has studied the influence of venous hyperaemia (Bier) upon the process of acute infective inflammation. He injects cultures of *Staphylococcus aureus* or *Streptococcus pyogenes* into the two ears of a rabbit under identical conditions. Twenty-four to thirty-six hours later, an inflammatory reaction having appeared, he adjusts an elastic band around the base of one ear, so as to produce venous hyperaemia; after eighteen to twenty hours the band is removed for a few hours and then reapplied. He finds that the area of inflammatory hyperaemia round the seat of injection grows more rapidly in the ear with constricted base than in the other; and that the abscess which appears is smaller, more rapidly formed, sooner opened, and sooner healed than it is in the ear which is not rendered hyperaemic by the bandage. Hence he concludes that venous hyperaemia accelerates the processes of inflammatory reaction and repair throughout their course.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

330. Anorexia in Tuberculosis of the Lungs.

AEDICKE (*Therap. Monats.*, March, 1906) mentions the hief causes of anorexia in tuberculous disease of the lungs, nd the various methods which may be employed to correct is loss of appetite. If anorexia be dependent upon yrexia, he advises that an antipyretic drug be adminis- red about one hour before the time of taking food, and e has found pyramidon or antifebrin the best drug for is purpose. If the temperature curve is very irregular, e advises that the chief meal of the day be taken at the me when the temperature of the body is lowest. Cough -a common cause of loss of appetite if occurring at meal mes—gives rise to shaking of the stomach, nausea, and metimes vomiting. For these patients the author vises the administration of small doses of dionin a uarter of an hour before meals. Inability to take fficient food may be due to tubercle of the epiglottis or ytenoids, which renders swallowing painful. These con- itions must be suitably treated to enable the patient to vallow comfortably. Imperfect state of the teeth and eglect of the state of the mouth, chronic gastric catarrh, lcer and cancer of the stomach, and nervous dyspepsia ay all give rise to loss of appetite ; swallowing of the utum may also do the same, and for this condition lavage the best remedy. Constipation and diarrhoea, both equent causes of anorexia, must be suitably treated, the rmer by the administration of laxatives, and the latter, ependent as it may be on chronic intestinal catarrh and berculous ulceration of the mucosa, by a suitable ietary, and by preparations of intestinal astringents such bismuth, and by opium. Intestinal parasites, marked aemia, and disease of the female generative organs may so cause loss of appetite; they must be treated in the propriate ways. Of medicinal means for the improve- ent of the appetite, the author has found that of the tters orexin has been most serviceable, increasing the nsation of hunger and aiding digestion. Of other omachics he mentions the spices, broth obtained from oking of salted meats, preparations of blood, creosote in nall doses, lysol (recently used by Burger in cases of berculous disease in children), and, lastly, alcohol in nall doses. In febrile cases, if the administration of an tipyretic does not have the desired effect in diminishing e anorexia, the author recommends that a little dilute ydrochloric acid should be given. He thinks it better, wever, to administer some gastric juice obtained from a g's stomach. Of all the methods employed to arouse a gging appetite in patients suffering from tuberculosis of e lungs, the author considers the following the most liable: Make the patient as happy and contented as ssible; let him have abundance of fresh air, and, in rtain cases, gentle exercise; let him take a course of senic.

331. Infantile Mongolism.

MBY (*Arch. de Méd. des Enfants*, No. 4, 1906), who, in ss than two years, has had under his own observation cases of infantile Mongolism, directs attention to this omaly, which, he believes, is more frequent than is pposed, and is often unrecognized. Mongolism, which s been described in this country by Langdon Down and uttleworth, is defined by the author of this memoir as a riety of congenital idiocy characterized by Mongolian atures, which give to the young subjects a vague resem- ance to individuals of the yellow race. It is not rare in rly infancy, and, according to English observers, occurs about 5 per cent. of the cases of idiocy; but this, the thor thinks, a low estimate, as many cases of Mongolism e, he believes, classed as instances of myxoedema, kets, and other infantile affections of a like character. e affection, which occurs more frequently in male than female infants, is decidedly congenital, and the Asiatic st of features is well marked at birth. It does not seem be influenced by consanguinity, and the part played by e inheritance of neuro-pathological conditions, and by philis, alcoholism, and tuberculosis is regarded as important. Much is attributed to the effect of long and fficult deliveries associated with strong mental emotion affliction. The results of pathological examination in ses of Mongolism indicate a general condition of arrested development; visceral abnormalities, especially malformations of the heart, having been found in many instances in association externally with marked atrophy of the genital organs and sometimes with cryptorchism. Lissencephaly has been observed in some instances, the convolutions of the brain being broad and flattened and less marked than in the normal condition, and the sulci not so deep. The root of the nose is depressed, and the almond-shaped palpebral clefts are small and oblique in an upward direction toward the external canthus. The patient is often blear-eyed and affected with chronic blepharitis, which condition is generally associated with strabismus, nystagmus, and epicanthus. The cheeks are large and soft and of a dirty yellow colour. The little subject is always brachycephalic, the antero-posterior diameter of the cranium being almost equal to the transverse diameter. The author describes the different characters presented by the hair, the teeth, tongue, skin, and extremities, all of which indicate retarded corporal development. Although the growth of the body is slow in comparison with that of healthy and normal infants, the trunk is not dwarfed in Mongolism as it is in myxoedema and rickets by kyphosis. In a review of the more or less depraved condition of the subjects of this form of idiocy it is stated that they are not so morose and torpid as the subjects of myxoedema, and that they all show signs of a remarkable development of the musical sense. In education much may be done by appealing to the instinct of imitation, while that of calculation must be regarded as altogether wanting. These Mongolian idiots, however, seldom reach an advanced age; the majority die in the early months or the early years of life, some from difficulties in feeding, others from an intercurrent malady, such as bronchitis, bronchopneumonia, and pulmonary tuberculosis. There can be no hope of cure, or even of a possible improvement, as one has to deal with a developmental anomaly and with an intrauterine cerebral malformation, which in many instances degrades the infant to or even below the level of the monkey. Mongolism has many characters in common with myxoedema, and might, perhaps, in some cases be confounded with rickets and achondroplasia ; but as a rule the characteristic Chinese or Mongolian aspect will suffice for establishing the diagnosis. The results of medical treatment have not been found encouraging. Some good, it is stated, may be effected by hygienic means, especially good and substantial nourishment and country air. In slight cases satisfactory results may be obtained by appropriate education, but under the most favourable conditions the only capacities that can be acquired by a subject of this affliction are those of simple manual labour.

332. Syphilis and General Paralysis.

SPIELMANN AND PERRIN (*Province Médicale*, April 12th, 1906) have investigated the antecedents of 75 cases of general paralysis, paying special attention to the frequency with which syphilis is to be found in their history. Of these 75 cases, the greater number showed their first signs of the disease between 32 and 45 years of age, and a considerable number of cases were made up of men who had been subject to considerable intellectual effort. In 7 of the cases locomotor ataxy had existed before the onset of the general paralysis. Of these 75 cases, in 60—that is, 81.08 per cent. —syphilis was found as an antecedent, and in 8 other cases syphilis was probable, although it could not be definitely proved; in every one of these 68 cases the syphilis had been either very mild or of a moderate severity. The disease was found to make its appearance most frequently between the sixth and twelfth years after syphilitic infection. Next to syphilis, the only other factor which plays an important part in the etiology of general paralysis is, according to the authors, alcoholism, and this they find to have been present in about 30 per cent. of their cases. As regards the effect of antisyphilitic treatment in ameliorating the symptoms of the disease, it is interesting to note that although all the cases investigated by the authors have been treated by the intensive mercurial treatment and by iodides (30 only, however, were well treated), in 6 a slight amelioration of the symptoms was noticed; 2 patients have had long remissions, fifteen months and twelve months respectively; in no case, however, has the progressively downward course of the disease been really checked. The authors conclude that general paralysis is usually due to syphilis, and that the chances of a non-syphilitic person becoming paretic are very small. They think, however, that certain toxins other than the syphilitic may act on the cerebral cortex in a similar way.

SURGERY.

333. Extirpation of Malignant Growths of the Mouth.

Goris (*Journ. de Chir. et Ann. de la Soc. Belge de Chir.*, No. 4, 1906) points out that the radical treatment of cancer, consisting in its latest developments in free removal of all the diseased structures, together with the associated lymph glands and vessels, is attended with special difficulty when the surgeon has to deal with a malignant growth of the mouth or the pharynx. In cases of this kind he not only endeavours to bring about what in the remote future may prove to be a definite and durable cure, but he has also to avoid the early post-operative dangers of septic infection, of erysipelas, and of bronchopneumonia. The author does not approve of the practice of operating for cancer of the tongue in two stages, as it is difficult, he believes, at the second operation performed for the removal of cervical glands to start at the level at which in the first operation the removal of the disease ceased. It is regarded as an essential condition of a good operation for cancer that no part of the infected tract be left untouched. Before removal of a growth from the tongue or pharynx, it is possible, the author thinks, to effect decided asepsis by strict injunctions to the patient to brush the teeth and to wash out the mouth frequently in the course of the day, with a solution of salicylic acid, for several days preceding the time of the operation. Just before the operation, the tongue, the oral surfaces of the cheeks, and the gums should be cleansed first with white soap, then with alcohol, afterwards with sublimate solution, and finally with alcohol again. Tracheotomy having been performed, the pharynx and the back of the mouth are packed with sterilized gauze. In extensive oral operations in which there is likely to be free bleeding, tracheotomy, it is urged, is a much more useful operation than ligature of the internal carotid. The latter operation, the author thinks, causes some disturbance in the region in which he is about to operate, as most of the affected glands are to be found over the carotid vessels. The arterial haemorrhage during the removal of the cancer is not very troublesome, and it is thought really not worth while to add a second delicate operation to one that in itself is decidedly grave. Tracheotomy, it is held, should be always practised when, as a result of operative mutilation, the patient is likely to be prevented during several days from swallowing and spitting. In such cases the tracheotomized patient would be able to expel easily through the cannula any fluid flowing into the trachea, which might if allowed to accumulate infect the bronchi. In the author's opinion tracheotomy under those circumstances, far from being a predisposing condition of bronchopneumonia, would, on the contrary, be an excellent means of preventing this complication. Moreover, it favours complete and comfortable anaesthesia, and thus tends to shorten the duration of the operation. Resection of one-half of the inferior maxilla, which is necessary in the removal of a growth, such, for instance, as malignant neoplasm of the tonsil, which cannot be otherwise rendered accessible, is also necessary, the author holds, in the extirpation of cancerous disease of the tongue and pharynx associated with glandular enlargement. If this operation be practised the buccal and cervical regions form a single cavity from which a malignant tumour, together with all diseased glands, can be as readily removed as in a case of cancer of the breast. In removal of the tongue for cancer, the author, after free excision of the original disease, extirpates the submaxillary gland, and dissects away the extension of cellular tissue together with all the visible lymph glands over the internal jugular vein, thus removing all doubtful tissue, from the lingual growth to the most remote appreciable ramifications of the lymphocytes. The floor of the mouth is reconstituted by suturing with catgut the mucous membrane of the cheek to what remains of that of the tongue.

334. Common-duct Cholelithiasis.

Mayo Robson (*Surgery, Gynaecology, and Obstetrics*, No. 1, 1906) publishes an important article on the recognition and prevention of the greatly-enhanced series of dangers of cholelithiasis threatened by the entrance of a gall stone into the common bile duct, and on the treatment of such dangers if they have unfortunately supervened. This surgeon in the first place states that he has been led by the results of his own experience to question the statements of Courvoisier with regard to the relative frequency of choledochal cholelithiasis, and also to the number of single stones in the common duct. He agrees with other recent observers that Courvoisier's estimate that the presence of calculi in the common duct occurs only in 4 per cent. of all cases of cholelithiasis is far too low, and states that in as many as 40 per cent. of his own gall-stone cases there have been concretions in the common duct. Courvoisier in his original observations stated that in two-thirds of the cases only a single stone was found in the common duct. This, again, is contrary to the author's experience, as he has found that a single gall stone is the exception, and that in quite 80 per cent. of cases the concretions are multiple. In discussing the diagnosis of common-duct cholelithiasis the author points out that important help may be found in a careful examination of the urine, when, if the pancreas is involved, certain crystals may be revealed by an elaborate chemical process discovered by Cammidge. As an aid to diagnosis, examination of the faeces has not, it is held, received sufficient attention. These excretions usually present variations with regard to the relative quantities they contain of neutral fat and fatty acids, and also to their chemical reaction, according as the case be one of calculous obstruction not involving the pancreas, or as one of obstruction of the pancreatic duct either by a growth of the head of the pancreas or by a gall stone impacted in the pancreatic portion of the common duct. Jaundice, from the author's experience, is a constant sign in common-duct lithiasis, though it is often revealed only by an icteric tinge in the conjunctivae. When stones are present in the gall bladder, the pain, it is stated, commences under the costal margin and radiates to a point beneath the right scapula, whereas when the stones are in the common duct, the pain is more centrally situated, and usually radiates to the mid-scapular region. In some cases, particularly those in which adhesions have formed between the stomach and gall bladder, and those of well-marked interstitial pancreatitis, the pain may be epigastric throughout. The author states that he has never received any help in diagnosis from the *x* rays, but he points out that carbonate of lime, which enters so largely into the composition of pancreatic calculi, casts a very deep shadow. A long, though not exclusive, list is given of the dangers associated with cholelithiasis, and after a reference to the very disappointing results of purely medicinal treatment when once gall stones have reached the common duct, the different steps are described of the author's modified operation of choledochotomy, by which, it is asserted, a complete clearance of the bile ducts can now be effectually performed, and with exactness and certainty. By this method the mortality of choledochotomy has in his practice been reduced from 16.2 to 3.9 per cent. In conclusion, the author expresses the opinion that in view of the serious dangers of cholelithiasis on the one hand, and the facility of diagnosis and the slight risk of his method of operative treatment on the other, the wisest course is not to wait for complications to arise, but to advise the removal of the disease at an early period.

335. Laryngeal Stenosis after Tracheotomy or Intubation.

Copetti (*Gazz. degli Osped.*, April 1st, 1906) discusses the persistence of laryngeal stenosis after tracheotomy and intubation in relation to 1,200 cases of diphtheria seen between 1900 and 1904. Of these cases, primary tracheotomy was necessary in 25 and secondary tracheotomy in 94; 300 were intubated. Post-operative stenosis persisted in 40 of the cases. But the difficulty in many of these was purely mechanical (granulations, pressure of glands, etc.) or due to the grave condition of the patients (all children), for example, pneumonic or cardiac complications. There remained, however, a residuum of 10 cases where no such explanation could be accepted. These might be divided into two groups, (1) where the stenosis and difficulty was due to a constitutional condition of "spasmophilia" associated with a rickety or tuberculous diathesis; (2) a smaller group where the spasm seemed to be reflexly produced by some pulmonary irritation, for example, bronchopneumonic foci. The author gives details of each of the 10 cases.

OBSTETRICS.

336. Haematology of Pregnancy.

J. C. M. Given (*Journ. of Obstet. and Gyn. of the Brit. Emp.*, April, 1906) has made examinations of the blood in twelve consecutive cases of women during pregnancy and the puerperium. The examinations were made at regular intervals, and as nearly as possible at about the same time in all the cases, the hour chosen for the examination being between 11 a.m. and 12 noon, in order to avoid the variations due to digestion. The conclusions at which the author arrived were as follows: (1) Slight leucocytosis occurs in the last months of pregnancy. (2) Sudden well-marked leucocytosis is found immediately after labour, and has probably commenced during labour. (3) This leucocytosis is a polymorphonuclear increase, and rapidly falls to normal in the few days which follow labour. (4) It is about equally common in primiparae and multiparae. (5) It occurs either in full time or premature labour. (6) If the child be dead before the onset of labour or in cases of renal inadequacy, the increase is slight. (7) The leucocytosis is not influenced by chloroform and other drugs. (8) A well-marked increase in the lymphocytes begins a few days after delivery, and becomes very marked during the second and third weeks; this increase is synchronous with, and probably caused by, the involution of the uterus. The more marked this lymphocytosis is the better the patient is doing, and the more rapid will be her return to health.

337. **Syphilis and Pregnancy.**

Novy (*Zentralbl. f. Gynäk.*, No. 20, 1906) reports a family history where Colles and Baumès's law was not followed. The husband had contracted syphilis six years and had been under treatment, when he married a healthy wife who became pregnant in the first year of married life, and gave birth three weeks before term to a weak, anaemic child, which she suckled. When five weeks old the infant became ill, there was paralysis of the left hand as well as periostitis of the left humerus, and later on coryza with eczema of the nose and mouth. The child died when 2½ years of age with symptoms of amyloid kidneys. Nineteen months after the birth of the first child the mother, who had continued in good health free from disease, gave birth to a robust infant. She suckled it, and when it was three months old a hard chancre developed in the mother's nipple; there was a papular eruption on the mouth of the child, who afterwards died with brain symptoms. The mother suffered from the usual secondary lesions. Novy is inclined to believe that the mother was not infected until she nursed the second of her two syphilitic infants, so although she had borne them she enjoyed no immunity against syphilis, primary symptoms developing through evident infection from the second.

GYNAECOLOGY.

338. **Paravaginal Section.**

W. Sinclair (*Journ. of Obstet. and Gyn. of the Brit. Emp.*, April, 1906) discusses the operation of paravaginal section, an operation which is an alternative to vaginal hysterectomy and to abdominal hysterectomy. In extended operations for cancer the immediate mortality from vaginal hysterectomy has been brought down to a very low figure as compared with that from abdominal hysterectomy, but the frequency of relapse after vaginal hysterectomy caused a reaction against this method and in favour of abdominal hysterectomy. Relapses have, however, proved frequent after the abdominal operation also. Paravaginal section was introduced by Schuchardt with the object of extending the percentage of operability in cancer of the uterus, of obtaining better remote results, and of at the same time avoiding the dangers inherent in abdominal hysterectomy. It is claimed in favour of the paravaginal operation that it is easy to perform; the surgeon can count with certainty upon being able to complete the operation; accidents to the bowels, bladder and ureters can be avoided with ordinary care; haemorrhage can be controlled in the early stage of the operation by pressure forceps, and post-operation haemorrhages can be entirely prevented; by suturing and pressure, the sides of the extensive wound can be kept together, and healing be obtained per primam; the operation is the safest of all the methods of hysterectomy when the vagina is narrow or the parametrium is involved The present article is written especially to call attention to the advantages of the operation in non-malignant cases. For diseases which cause chronic bad health without danger of a fatal result, a comparatively safe and easy method of operative treatment is essential, and by paravaginal section such a method is supplied. The author describes the operation both from the point of view of operative gynaecology and from that of the anatomist. The object of the incision is to obtain free access to the diseased parts, and if care be taken to avoid injury of the sphincter ani and the rectum, almost every other structure may be cut through in order to obtain a free field for manipulation of the affected parts. "The left labium is cut through, and with it the whole of the vaginal tube and vault; the paravaginal and pararectal tissues are laid open; the levator ani and coccygeus muscles are entirely or partially divided, as well as the cellular tissue of the ischio-rectal fossa. The first incision through the labium is made externally through the skin and subcutaneous structures of the perineum round towards the coccyx below the level of the anus, so as to get the widest gaping of the wound. . . . The second part of the operation consists in making a circular incision round the vault of the vagina, so as to separate the portio vaginalis uteri, and gain access to the broad ligaments. The third stage is the process of separation of the diseased uterus by ligation of the broad ligaments." Notes are given descriptive of the operation in six cases; five out of the six patients were unmarried. Two of the cases were of atresia cervicis uteri, one of multiple fibromyomata of the uterus and retroflexion, one of fibromyoma of the uterus undergoing necrosis and sarcoma of the posterior wall, one of multiple fibromyomata, and one of malignant disease of the cervix uteri with pyometra and necrosing fibromyoma. The last case is given as an example of the value of the operation in an advanced case of malignant disease as a safe alternative to abdominal hysterectomy. The mortality in these cases was *nil*, and in most cases the patients made uninterrupted recoveries. In one case in which the patient was in poor condition there was a small slough in the ischio-rectal fossa, and in the last case during the healing of the wound there was a little sloughing of the fat and subcutaneous tissues at the outer extremity of the paravaginal wound near the anus. The author confidently anticipates that the operation of paravaginal section will make its way in this country, especially in the treatment of such cases as are given as illustrations in the article.

339. **Prolapse of Female Urethra in Childhood and Age.**

Dienst (*Monats. f. Geb. u. Gyn.*, April, 1906) examined a girl, aged 10, who had recently bled from the vulva after falling against a log of wood. The bleeding was traced to a swelling of the size of a hazel nut, which was seen to be prolapsed urethral mucous membrane. Excision of a wedge-shaped piece of mucous membrane and suture of the cut edges proved satisfactory, curing the prolapse. Dienst had previously operated on a girl aged 11, where the prolapse had occurred when she lifted a heavy basket full of potatoes. He had also excised the urethral mucosa for prolapse in a woman 71 years of age; it developed when the patient strained during defaecation. In childhood the paraurethral connective tissue is very easily damaged and cannot resist a strain, in age it is very loose; hence the relative frequency of prolapse of the urethra in childhood and in aged subjects.

THERAPEUTICS.

340. **Camphor in the Treatment of Phthisis.**

Volland (*Therap. Monat.*, February, 1906) has during the last nine or ten months made use of injections of 10 per cent. camphor oil in the treatment of cases of phthisis complicated by a weak rapid pulse, a regular but weak pulse, or by an irregular or unequal pulse. He uses the camphor in large doses in some cases, giving as much as 0.4 gram of camphor in the twenty-four hours. The injections can be given every day for weeks or months without intermission, and the author believes that it is only by the use of large doses given for long periods that a marked and permanent effect upon the heart can be obtained. The first case in which the author tried camphor was that of a tuberculous man who after influenza began to suffer from attacks of breathlessness and cyanosis. Oxygen was freely used in these attacks, and apparently but for the oxygen the patient would have succumbed. In addition to the oxygen, injections of camphor oil were made every ten or fifteen minutes during the height of each attack, and later at intervals of from a quarter to half an hour. The patient gradually recovered, and six months after the first attack was able to walk about; the pulse by this time had sunk to 100 per minute. Camphor was again exhibited, and after another month the pulse-rate had fallen to 80. The author was impressed by the benefit derived from camphor in this acute case, and he therefore began its use in chronic cases of heart weakness in tuberculosis. The results he obtained were strikingly good.

In the case of one patient who had for years had an irregular thread-like pulse of from 140 to 150 per minute a course of camphor treatment was followed by a fall in pulse-rate to from 110 to 120 per minute, while the pulse became always readily perceptible. In another case a patient with disease of both lungs and marked shortness of breath had a pulse of 130 when she came to the sanatorium. Under general treatment she gradually improved, but neither the pulse-rate nor the shortness of breath showed any change. Camphor injections were now begun, and the pulse-rate fell to 90 per minute. Another successful case was that of an excitable man with an irregular pulse of 120 per minute. After six weeks of camphor treatment the pulse lost its irregularity, and the rate fell to 90. During the treatment the patients are subjectively improved. The author has never found camphor injections harmful. In one case in which 300 injections in all had been made under the skin of the forearm, four small abscesses formed, but they were clearly traumatic in nature. The injections were supposed by Nienhaus to dispose to haemorrhage in phthisis, but the author's observations do not support this view, and in one of the cases of haemoptysis treated by him the pulse came down from 130 to 80 in forty-eight hours under the camphor treatment. He would add to the number of effective remedies in phthisis 10 per cent. camphor oil given subcutaneously in sufficient amounts and for an adequate length of time; the injections undoubtedly increase the strength of the heart, and so influence favourably the tuberculosis.

341. **Preventive Use of Antitetanus Serum.**

PERGOLA (*Clin. Mod.*, October 18th, 1905) considers that injections of antitetanic serum should be used in all cases of wounds which have come into contact with the soil, or which have been caused by firearms, or which are from any cause liable to become infected with the tetanus bacillus. He has collected 30 cases in which it has been so employed as a prophylactic measure, and finds that the results obtained warrant its further use. He employed a serum prepared at the Pasteur Institute, and he recommends also Tissoni's antitoxin; he gives a dose of 10 to 40 c.cm., according to the extent and condition of the lesion. It is not possible to assert that these cases would have developed tetanus had they not been submitted to the preventive treatment, but similar cases which are not so treated tend to develop it; patients feel no constitutional disturbance from the use of the injection. He refers also to two persons brought to the hospital with tetanus already developed, and in whom the cure was attributed to the serum treatment. After a careful analysis of his cases he concludes that the mortality due to tetanus has been greatly reduced by the introduction of serumtherapy, which shows its full value best in prolonged cases. The longer the period of incubation is, the more favourable will the prognosis be. After the malady has declared itself he advocates the use of strong repeated doses, and points out the preventive value of the injections when the wounds are unclean. Intracerebral and intravenous injections have no advantage over those given subcutaneously. He thinks that by the general use of antitetanic serum as a prophylaxis the disease might become almost stamped out in Italy.

342. **Treatment of Scarlatinal Otitis.**

SPRAGUE (*Amer. Journ. of Med. Sci.*, September, 1905) inveighs against the expectant treatment of otitis media so frequently complicating scarlet fever, and quotes his personal experience of some 60 cases of the fever occurring in the first five months of last year. Pain in the ear, rise of temperature, and increased pulse-rate generally characterized the commencement of the affection, though pain was absent in some of the cases, and the only condition which attracted attention was an otherwise unaccountable sudden rise of temperature. The latter were discovered by the routine practice of aural examination in all cases where a sudden fever developed in order that by freely incising the drum ulcerative perforation might be forestalled and thorough drainage and depletion assured. No specific organism has yet been isolated as peculiar to the otitis of scarlet fever, but the condition is evidently due to a streptococcus invasion, most probably haematogenous in origin, rather than by way of the Eustachian tube. Treatment is essentially surgical and antiseptic. Daily irrigation of the nose and throat as a preventive measure is deprecated, as involving the risk of washing infection through the Eustachian tube. A warm, even temperature of the room night and day should be maintained to lessen the chances of congestion of the ear and mucous membranes. Ice should be constantly applied to the neck at the earliest signs of lymphatic swelling, and iodide of lead ointment is useful in reducing any inflamed glands. If spontaneous rupture of the drum occurs, the serous discharge should be removed by pledgets of sterilized wool and not by syringing; but when the discharge has become purulent syringing every two hours should be adopted in order to keep the canal as free as possible. In all cases of scarlet fever any discomfort in the ear or sudden rise of temperature should be immediately notified to the medical attendant in order that if signs of otitis are present the drum may be at once freely incised. Prior to incision the canal must be sterilized by syringing with 1 in 2,000 bichloride and dried with sterile wool, and afterwards it may be closed with sterile wool, which should be changed as often as it becomes saturated. If the discharge becomes purulent antiseptic syringing is indicated, followed by carefully drying and the instillation of boric acid solution in 60 per cent. alcohol. In severe cases a 1 per cent. solution of bichloride in 60 per cent. alcohol, or 2 per cent. nitrite of silver solution may be dropped into the ear. Tenderness and swelling of the mastoid lymphatics may be relieved by icebags or leeches, but mastoid suppuration necessitates immediate operation. If, however, desquamation is in progress and the urgency for operation is not great it is best to wait till the period of desquamation is over, as experience points to the slowness of repair during that time. As regards the infectivity of the discharge, a fortnight after the cessation of desquamation should elapse before such cases are freed from isolation, and during this time antiseptic treatment should be continued.

PATHOLOGY.

343. **The Effect of Eosin upon Tetanus Toxin.**

FLEXNER AND NOGUCHI (*Journ. of Exper. Med.*, January, 1906) find that eosin in solutions exceeding 1 per cent. in strength quickly destroys tetanospasmin in the dark, and in 0.6 per cent. solutions greatly reduces the activity of the poison. It is noteworthy that the tetanus produced by the modified poison is of a chronic nature. When eosin and tetanus toxin are injected separately but simultaneously into a rat, the effect of the eosin consists in delaying the onset of symptoms and prolonging the period of intoxication. The power of eosin to destroy or modify tetanus toxin in the body, though marked, is not absolute. In whatever way the eosin is brought into the body of the infected animals, it causes an increase in the period of intoxication and delay in the supervention of death. If the eosin solution is sufficiently concentrated and is brought into relation with the focus of development of tetanus spores, it is capable not only of modifying the tetanus, but of wholly suppressing its development. The mode in which the eosin acts has not yet been completely elucidated. Even in the highly sensitive guinea-pig tetanic symptoms may be restrained, provided that the eosin is brought into close relationship with the developing tetanus poison before it is fixed by the nervous tissues or reaches the general circulation.

344. **Reptilian Tuberculosis.**

E. BERTARELLI (*Archivio p. l. Sci. Med.*, No. 3, 1905) inoculated two large specimens of the South Australian lizard *Varanus varius* (Shaw), with cultures of avian and of human tubercle bacilli, subcutaneously. The results were negative, though the injections were large and were repeated. Then one of the animals was injected subcutaneously with 0.2 c.cm. of tuberculous human sputum; in 3½ months it showed marked signs of marasmus, and was killed. The site of the injection then showed a caseating tuberculous nodule the size of a cherry, with a necrotic centre; the heart and lungs were normal, but the mesenteric glands were much enlarged and caseating, and contained typical giant cells, but no tubercle bacilli. The subcutaneous tuberculous deposit also contained giant cells, and these were full of tubercle bacilli. The other lizard was given enormous subcutaneous injections of avian tubercle bacilli (Kral), but showed no signs at all of infection or disease. It was then injected with tuberculous human sputum twice, but showed itself much more resistant to the infection than did the animal described above. Four months later it was killed, and showed no signs of tubercle excepting at or near the sites where it had been inoculated with the sputum. Here there was definite evidence that the tubercle bacilli had multiplied freely, without producing any acute lesion. Bertarelli suggests that the tubercle bacilli from these foci might be much attenuated in virulence, and possibly suitable for antituberculous vaccination.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

345. Pressure on the Recurrent Laryngeal Nerve by the Left Auricle.

E. BONARDI (*Gazz. Med. Ital.*, February 1st, 1906) describes a case of laryngeal hemiparalysis caused by the pressure on the left recurrent laryngeal nerve of the dilated and hypertrophic left auricle. He describes the development of the aorta and its larger branches, and gives an account of other cases in which clinical and anatomical evidence has shown laryngeal paralysis to be due to compression of the left recurrent laryngeal nerve between the aorta and either a dilated auricle or the pulmonary artery displaced by cardiac enlargement. Bonardi's patient, a domestic servant aged 40, suffered from rheumatism four and a half years before admission to hospital. On admission she was suffering from dyspnoea, and was sometimes unable to lie down; her pulse was 110, small and irregular, respirations 28, digestion much disturbed. The heart beat was diffused, with feeble apex beat in the nipple line in the sixth space. At the apex, systolic and presystolic murmurs were heard. There were also pericardial and pleuro-pericardial friction sounds. The cardiac dullness was increased upwards and to the left, but there was no dullness over the manubrium or in the first or second right intercostal space. The liver and stomach were much enlarged, the lower extremities very oedematous. The urine was scanty and contained much albumen. The progress of the case was from bad to worse. A fortnight after admission there were signs of pulmonary infarction. Twelve days after this the symptoms suddenly became more urgent, with acute dilatation of the heart, increase of dullness over the upper part of the heart, systolic pulsation in the liver and the jugular vein, and a decided difference between the two radial pulses, the left being smaller, more feeble, and often lost altogether. At the same time there was sudden dysphonia and barking cough. A laryngoscopic examination was made and the report was, "profound anaemia of the whole pharyngo-laryngeal mucosa. Complete left hemiplegia, with the vocal cord in abduction through paralysis of the left recurrent laryngeal." The *post-mortem* examination, made three days later, confirmed this opinion and the clinical diagnosis of pericarditis and mitral stenosis and regurgitaion leading to pressure on the recurrent laryngeal. The eft auricle was found to be sensibly hypertrophied and enormously dilated, compressing the recurrent laryngeal against the aorta. Apparently the author explains the weakness of the left radial pulse by the pressure exerted on the aorta by the enlarged auricle, at the point of origin of the left subclavian artery.

346. Gonorrhoeal Septicaemia and Endocarditis.

THAYER (*Amer. Journ. of Med. Sci.*, November, 1905) says hat the comparative frequency of gonorrhoeal septicaemia nd endocarditis is generally recognized, and it has been hown by many that a demonstrable septicaemia may xist in connexion with various complications other than ndocarditis. The development of symptoms suggestive f septicaemia with fatal results, consecutive to gonorhoea, without evidence *intra vitam* of any local complicaon, is also an occurrence of no great rarity. In most of hese instances necropsy reveals some local focus of nfection outside of the urethra. Podula in 1892 described form of mild intermittent or continued fever which he ad observed in a number of cases of gonorrhoea, somemes in simple cases but more particularly in those with omplications. After running a course of several weeks' uration the fever disappeared. From our present knowdge of the gonococcus it is natural to regard these cases, oth mild and severe, as instances of true septicaemia. hayer observed an instance of this continued fever of bout seven weeks' duration occurring in a case of acute norrhoea without apparent complication, in which the istence of a septicaemia was established by cultures om the blood. Of 10 cases of gonorrhoeal septicmia at the Johns Hopkins Hospital, in 6 the gonoccus was positively identified by cultures found in e blood *intra vitam*, from the local lesions at cropsy, or by both methods. In 1 case gonococci re found in the lesions, but no growth was present ordinary media. In 3 cases there was a mixed infection, but gonococci were found. In 2 others organisms were present on the valves, but the infection clearly followed acute gonorrhoea without other apparent cause. One patient, a man aged 28, with vague general symptoms of headache, backache, and general *malaise*, continued fever, a thickly-coated tongue, a palpable spleen, and suspicious rose-spots, these symptoms lasting seven weeks, was not unsuggestive of typhoid fever, but cultures from the blood and the course of the case showed it to be a gonorrhoeal septicaemia. There was a suspicion throughout of the existence of endocarditis, but at a subsequent examination, five months later, there was no evidence of cardiac disease. If endocarditis was present, it was so slight as to leave no permanent change. These cases show that the mild continued fever sometimes seen in gonorrhoea without complications is, in some instances at least, evidence of a true gonorrhoeal septicaemia. A true gonorrhoeal septicaemia in cases in which there is no evidence of local complications may run a course not unlike that of typhoid fever. In doubtful cases of continued fever with gonorrhoea, the possibility of gonorrhoeal septicaemia must be borne in mind. Further, there is evidence that an acute urethritis is by no means infrequently followed by an endocarditis, either of specific gonorrhoeal nature, or due to secondary or mixed infections which have found their portal of entry in the urethritis, and have entered late upon the primary infected valves.

347. Acute Primary Pulmonary Aspergillosis.

BACCARANI (*Gazz. degli Osped.*, April 20th, 1906) records 3 cases (2 fatal) of this disease occurring in one family. The forms of pseudo-tuberculosis may be grouped in four chief types: (1) Those due to foreign bodies—for example, lycopodium powder, cantharides, China ink, croton oil, etc.; (2) those due to animal parasites; (3) those due to bacteria other than the Koch bacillus; (4) those due to mycotic fungi. The author's cases were due to the *Aspergillus fumigatus*. Of the 3, 2 were girls aged 19 and 15, who presented symptoms of acute tuberculosis, wasted very rapidly, got into a tyhpoid state, and died in six or eight weeks. When the sputa were examined for tubercle bacilli no bacilli were found, but abundant spores of hyphomycetes and mycelium. On cultivation it was identified as the *Aspergillus fumigatus*. A brother, aged 9, about a fortnight after the death of his sisters, developed similar symptoms, but in a much milder degree, and was cured in fifteen days by good generous living and arsenical treatment. There was no history of exposure to those causes—for example, working amongst cereal grains—which usually excite aspergillosis. The Widal reaction was not tried, and no *post-mortem* examination was allowed, but the microscopic examination of the sputa served to diagnose the disease, and indeed is the only way of effectually recognizing this affection during life. In each case the disease was primary, and not secondary or associated (as it sometimes is) with tuberculosis.

SURGERY.

348. The "Ecchymotic Mask" in Cases of Thoraco-Abdominal Compression.

VILLEMIN (*Bull. et Mém. de la Soc. de Chir. de Paris*, No. 9, 1906) reports on a case communicated by Morestin, of the interesting and not very rare result of forcible compression of the trunk, known as the ecchymotic mask. All the recorded cases of this traumatic condition present a close similarity. The cause is invariably a sudden and forcible compression of the chest or of the abdomen, or of both together, which usually is of brief duration. The ecchymotic infiltration is produced instantaneously, the face and the upper part of the neck in front and back being suffused by a continuous violet coloration marked by numerous haemorrhagic spots of darker tint, which are also to be observed on the mucous membrane of the mouth, palate and pharynx. It has been stated that the ecchymosis ceases at a circular margin on a level with the shirt collar, but this, it is stated, was not observed in Morestin's case. Intraorbital effusions of blood have been occasionally noted. These occur in the fatty tissue behind the eyeball, and but very exceptionally in the retina. As a rule the ocular disturbances do not last long. Indications of cerebral and meningeal haemorrhage have never been observed either during life or on *post-mortem* examination. Death, when the result of the injury, is usually due to multiple lesions of the skeleton, or of the thoracic or abdominal viscera. In all other cases the symptoms, so alarming at first sight, soon disappear, the violet coloration rapidly fading and disappearing by the end of a few days. There can be no doubt, Villemin acknowledges, that violent compression of the large venous reservoirs of the abdomen may cause a forcible reflux of blood into the system of the superior vena cava, and the jugular veins being feebly protected by valves are more open to an attack by this reflux than the venous trunks in the limbs. But as this repletion, which is purely passive, is not sufficient in itself to explain the mechanism of the ecchymotic infiltration of the face, it is necessary to seek for some more energetic factor. Villemin accepts the view of the influence of strong personal action, and recognizes the violent though unconscious struggles of the patient to evade the forcible pressure to which he is subjected at the moment of the injury by making a considerable thoraco-abdominal effort. Under such circumstances the intravenous pressure is likely to overcome the resistance of the vascular coats. As a proof that the factor of strong personal effort plays an important part in the pathogenesis of the ecchymotic mask it is pointed out that peripheral vascular ruptures have been observed in cases of delivery, convulsions, vomiting, and whooping-cough. Histological examination in cases of ecchymotic mask has, it is stated, revealed enormous distension of the small veins and the capillaries of the skin, and, in one instance, vascular ruptures and minute haematomata. In conclusion, Villemin insists on the importance of a wide recognition of the existence and nature of this special lesion, in order that a faulty diagnosis of direct injury or of fracture of the base of the cranium may be thus prevented.

349. Malignant Tumour of Suprarenal Capsule in an Infant.

LAPOINTE AND LECENE (*Bull. et Mém. de la Soc. Anat. de Paris*, November, 1905) describe the histology of a tumour removed by the former, which was certainly malignant and seemed to be mixed, carcinomatous and sarcomatous elements being detected in different parts of sections made from the growth. The patient was a girl 19 months old, she had an abdominal tumour which was diagnosed as an embryonic adeno-sarcoma of the kidney, a frequent error, as renal tumours of that type are not rare in childhood. The operation was difficult from the beginning and was really incomplete. The tumour was reached through an anterior abdominal incision; it adhered to the left crus of the diaphragm and the abdominal aorta was wounded and required ligature. The child survived the operation for two hours. The tumour was of the size of two fists, multilobular, and for the most part firm in consistence. It extended into the left loin, pushing the left kidney outwards; during the operation it was not until the tumour had been freely enucleated that the kidney was discovered quite separate from the new growth. Then it began to be suspected that the suprarenal body was the seat of disease. At the necropsy this suspicion was verified, as the left suprarenal body was missing, its fellow and the two kidneys being normal. A part of the growth was found unremoved, it ran into a mass of infected pre-vertebral glands which extended upwards into the posterior mediastinum and adhered to the great vessels, especially to the wounded aorta.

350. Discission of Pleura in Chronic Empyema.

RANSOHOFF (*Ann. of Surg.*, April, 1906), in discussing the modern operative treatment of chronic empyema, points out that the practice of decortication of the lung, based on the fact that the lung tissue long buried in thickened pleura retains its capacity of expansion, is often met by insurmountable difficulties. The close adhesions and the depth at which the work has to be done sometimes render the removal *en masse* of the thickened pleura an extremely tedious procedure. In one of his early cases the author observed that an incision carried through the thickened pulmonary layer of pleura until the lung tissue is reached, as is evidenced by the bluish tint at the floor of the cut, widens out rapidly and in full view, until the rent, increasing with each respiration, becomes a well-marked groove. The most potent factor in this widening of the incision is believed to be the inherent tendency of divided scar tissue to retract under tension. Where one incision carried down to the lung tissue widens into a groove, so will a second and a third, and any number that may and can be made. Acting on this observation, the author has devised and practised an operation for releasing the confined lung, which he proposes to name discission of the pulmonary pleura, as a modification of the operation of decortication. The special feature of this new procedure consists in "gridironing" the pulmonary pleura with many parallel incisions removed from each other about a quarter of an inch, and of crossing these obliquely or at right angles by other parallel cuts. A further step towards liberating the lung is an incision cautiously carried through the length of the groove or angle of reflection of the costal and pulmonary layers of the pleura. If this incision be limited to the costal portion of the gutter, and carried towards the chest wall, there is no danger, it is stated, of wounding any large vessels or of opening the sound pleura above. The author asserts that the haemorrhage which attends discission is really slight and can be easily controlled.

OBSTETRICS.

351. Physiological Glycosuria of Pregnancy.

RUDAUX (*La Clinique*, May 15th, 1906) distinguishes between glycosuria and pregnancy. It is normal for sugar to exist in the urine of parturient women, of nursing women, and of a certain number of pregnant women. During pregnancy the hepatic gland secretes an abnormal amount of glucose, partly as the result of the hyperactivity of all its functions, which involves also the glycogenic function, and partly to supply the mammary gland with the materials which it requires for the exercise of its function. A systematic examination of urine during pregnancy shows that after the sixth month it is not uncommon to detect as much as 3 or 4 grams of glucose in the urine, and that as term approaches this glycosuria tends more and more to become lactosuria. The mammary gland is preparing for the active exercise of its function after parturition. If the liver only secretes a small quantity of glucose, it will be entirely transformed into lactose by the mammary gland, and as it is not yet utilized it will be reabsorbed by the blood and excreted in the urine. If an excess of glycogen is secreted, only part of it will be converted into lactose; the remainder will be eliminated in the urine at the same time as the lactose, and both glycosuria and lactosuria will be present. When there is hyperactivity of the glycogenetic function, the urine may contain as much as 20 grams of glucose without being accompanied by any of the other characteristic symptoms of diabetes. The proof that this glycosuria is physiological and not pathological lies in the facts that the pregnancy is normal, and that it disappears a few days after parturition, when the function of the mammary gland is established. The glycosuria of pregnancy is more common among multiparae, especially among those who have already nursed their offspring, and indicates that the mother will be able to nourish the child well. It is questionable whether women who have suffered during pregnancy from a severe or prolonged toxaemia of hepatic origin will be able to supply a milk containing sufficient lactose, for an inefficient liver must react equally upon the glycogenetic and the antitoxic functions.

352. Post-partum Gangrene of Lower Limb.

THE condition is very rare. Schuhl (*Prov. Méd.*, May 5th, 1906) reports a case which occurred in hospital. The woman suffered from eclampsia, but was safely delivered and beginning to recover when she developed a painful gangrene which involved the whole of the left leg and foot, and which proved fatal. In this case the gangrene was due to obliteration of the femoral artery. Puerperal gangrene is due either to arterial or to venous obliteration, or to a combination of these. Endarteritis is more common than phlebitis, and a bacteriological examination of the clot generally shows the presence of an organism—either staphylococcus, or streptococcus, or, as in the case reported, the *Bacillus coli*. *Post-partum* gangrene does sometimes occur without any previous elevation of temperature; in the above case the temperature did not exceed 37.5° or 37.6° C. Obstetrical trauma, artificial delivery, haemorrhage, albuminuria, and eclampsia may all be considered as causes of infection which have an etiological importance. Some hours before death this case developed intestinal haemorrhage with abdominal pain and vomiting; these symptoms were in all probability due to a haemorrhagic infarct of the intestine the result of puerperal infection. The pathology of this condition is similar to that of puerperal gangrene in a limb; the autopsy reveals a clot in an intestinal artery. The prognosis is serious, and chances of successful surgical interference depend upon the position of the clot. The rate of mortality among these cases is very high.

GYNAECOLOGY.

353. Chronic Inversion of Uterus.

E. J. Maclean (*Journ. of Obstet. and Gyn. of the Brit. Emp.*, April, 1906) describes a case of chronic inversion of the uterus of puerperal origin. The patient was a woman, aged 29, who had had three or four miscarriages and five full-time normal labours. At her last confinement, two and a half months before she came to the Cardiff Infirmary, the patient had been treated by an unskilled midwife; the placenta had been retained, and when it had been finally delivered, as a result of traction applied to the cord and of other manipulations, free *post-partum* haemorrhage accompanied with some collapse and local pelvic pain had occurred. The patient rallied from the collapse, but from that time she had continued to lose blood in varying amounts, and on admission to the infirmary she was profoundly anaemic. On examination per vaginam there was found a smooth, elastic, pear-shaped swelling, about 2¾ in. in length, springing by its narrower stalk from the antero-superior wall of the vagina, and presenting a slightly raised, collar-like rim on its circumference at the level at which it became continuous with the vaginal walls; there was no opening into which a sound could be passed. Bimanually, the body of the uterus could not be made out in the pelvic cavity, and a cup-like depression was felt, which led to the vaginal tumour. The diagnosis was that of inversion of the uterus. There was no ulceration of the inverted mucous membrane of the uterus, but even the gentlest handling caused considerable haemorrhage, and a promptly effective treatment appeared to be indicated. The patient was prepared for operation by either the vaginal or abdominal route, and was deeply anaesthetized. Steady centripetal pressure was first applied to the uterus by the hand on the vagina, and by this means the bulk of the tumour was somewhat diminished. Ordinary bimanual pressure and counter pressure was next tried, but proved ineffectual. Volsellae were now fixed in front and behind in the middle line, at the level of the rim which represented the junction of the cervical and vaginal mucous membrane, and pressure applied evenly as against these two fixed points caused a further demarcation of the rim, so that it became possible to affix four volsellae at equal intervals on the cervical lips. While assistants held these volsellae, the author, by steady forcible pressure with his thumbs over the fundus and the remaining fingers of both hands supporting the lateral walls of the uterus, was able in the course of a few minutes to bring about the reinversion of the uterus. The cavity of the uterus was douched with hot iodine lotion; iodized phenol was applied to the mucous membrane, a tight pack of sterilized gauze was inserted, and a silkworm gut suture was applied at either angle of the os uteri, the two last operations being undertaken in order to prevent recurrence of the inversion. The patient made an uninterrupted recovery. With respect to the treatment adopted the author states that he never uses a repositor, and that in this case the tendency to haemorrhage formed a contra-indication. Amputation was out of the question, because there was no local sepsis, sloughing, or ulceration. If the treatment above described had failed the author intended to open the abdomen and to divide the "cup" posteriorly from the peritoneal aspect as deeply as might be needed for reposition by bimanual manipulation. An example such as the present one of successful application of taxis in chronic inversion suggests the advisability of giving this treatment a fair trial before resorting to anterior or posterior colpo-hysterotomy or to abdominal section.

354. Threatened Rupture of Uterus: Caesarean Section versus Symphysiotomy.

Potocki (*Comptes Rendus de la Soc. d'Obstét de Gyn. et de Péd. de Paris*, April, 1906) recently read a report of a case which led to an instructive discussion. A woman, aged 24, was in danger of rupture of the uterus when in her third labour. Not only was the pelvis narrow, but the fetal skull was remarkably ossified. Caesarean section was performed, and a living male fetus 19½ in. long and 6¾ lb. in weight was extracted. The mother was saved, and the child was, like its parent, in very good condition when they left hospital five weeks after the operation. Potocki stated that, considering the contracted pelvis of the mother and the big, prematurely ossified cranium of the fetus, he would certainly have divided the symphysis, and then (after allowing the head to dilate the os, a process which would have probably taken but a few minutes) he would have applied the forceps, were it not that a very definite complication was present. The condition of the inferior segment was found on palpation to be very unsatisfactory, the cervix was rigid and undilated, and hence symphysiotomy would have been inadvisable. The older operation can be done more speedily. Pinard quite agreed with Potocki and regretted that he once did symphysiotomy when the rupture was just taking place. Both admitted that Caesarean section should be preferred, and performed at once, when, as in Potocki's case, there is oedema of the anterior lip of the cervix, tetanic contraction of the internal os, hourglass contraction of the uterus, and oedema of the lower segment. Champetier de Ribes, like Pinard, agreed with Potocki, having had reason to regret the adoption of the longer operation when rupture threatened.

THERAPEUTICS.

355. Pemphigus Treated by Diet Free from Salt.

Cassäet and Micheleau (*Arch. Gén. de Méd.*, January 16th, 1906) describe two cases of pemphigus, both of which were cured by the administration of a diet free from salt. The first case was a man, 54 years of age, who some years previously had suffered from attacks of hepatic colic; these attacks ceased four years ago, but since then he had been subject every two or three months to attacks of great prostration, stiffness in the back, followed by the appearance of a pemphigoid eruption between the fingers. The patient had noticed that these cutaneous eruptions were particularly prone to appear after the eating of fish and shellfish, and that they occurred regularly when he was living close by the sea. On admission to hospital, besides the cutaneous eruption, it was found that his liver was considerably enlarged, and that the quantity of chlorides excreted in the urine was diminished. On being given a diet free from chlorides, the eruption rapidly disappeared, and a month later the liver was found to have resumed its normal size, and the excretion of chlorides in the urine had considerably increased. On resuming an ordinary diet the liver again enlarged, and the excretion of urinary chlorides again diminished in quantity and it was feared that the cutaneous trouble might return. He was again placed on a salt-free diet, and when last seen was in excellent health. The second case was that of a man, 43 years of age, who had drunk freely and suffered from dyspepsia. Some days before admission to hospital he had suffered from tonsillitis, which was followed by swelling of the left arm and pain in the left elbow. These symptoms were shortly followed by the appearance on the wrists, hands, and fingers of an eruption of pemphigus. The urine was found to be greatly deficient in chlorides. A salt-free diet was instituted, and in the course of a few days the cutaneous eruption had disappeared, as had also the sore throat and dyspepsia; the urine, however, still showed a diminution in the excretion of chlorides. Three months later the daily quantity of chlorides excreted in the urine had become quadrupled, the pemphigus had not returned, and the patient was in excellent health. The authors conclude that the presence of sodium chloride in the food plays no very important part in the causation of these cutaneous affections; they consider that a toxic infection through the digestive tract favours the appearance of these skin affections, and that the diminution of chlorides excreted in the urine is evidence of such infection. In the treatment of these and similar skin affections the excretion of urinary chlorides should be assisted by every means at our command, and a diet free from chlorides should be given.

356. Massage in Neuritis and Polyneuritis.

Kouindjy (*Zeit. für phys. und diät. Therap.*, February, 1906), in dealing with the indications for massage in neuritis and polyneuritis, finds the indications in symptoms such as pain, hyperaesthesia of the skin and muscles, motor paralysis, atrophy of muscles, sometimes joint changes and vasomotor disturbances. The soothing action of massage upon pain has long been recognized. In hyperaesthesia the author employs especially superficial circular stroking, and gradually applies this in order to act upon the deeper tissues, while at the same time he lengthens the sittings. If the pain yields he proceeds to massage the nerve stems by means of longitudinal effleurage along the course of the nerves in the centripetal direction; in massage of the nerves no pushing movements nor tapotage are allowed. The massage, according to von Castex's investigations, has a curative action upon the nerve fibres as well as the merely sedative action. The second great symptom of neuritis which forms an indication for the use of massage is atrophy of the muscles. For this symptom more diverse forms of massage are useful, as, for example, effleurage, superficial and deep kneadings, tapotement, vibration massage. The author lays especial weight on the importance of massage of the atrophied muscles while the opposing contracted muscles are left untreated. Joint diseases form a fourth indication for methodical massage, and finally, trophic and vasomotor disturbances such as oedema, desquamation of the skin, ulceration, etc. It often happens that when the most severe symptoms of neuritis have been removed by means of massage, ataxia and disturbance of co-ordination remain. The author treats such symptoms by means of a series of exercises. Electrotherapy and hydrotherapy both are useful in addition to massage in cases of neuritis. Cases of neuritis which are not healed by massage are especially those in which the neuritis depends on a constitutional disease, as, for instance, gout, diabetes, tuberculosis, or cancer. The massage should be given by a trained hand. Massage as applied by the laity is often rough and brutal, and may lead to injury of the nerve fibres.

357. **Poisoning by Belladonna Plasters.**

DOLAND (*Amer. Journ. Med. Sci.*, April, 1906) records 3 cases of belladonna poisoning from the application of plasters, and he points out that, such plasters being frequently applied on the patient's own initiative, serious symptoms may develop before coming under observation. The first case was that of a man, aged 47, admitted to hospital in violent delirium, with pupils wildly dilated and inactive to light. There was a diffuse erythematous eruption on the chest and back, and on the shoulder, back, and abdomen were four belladonna plasters. The mouth and tongue were dry. Complete recovery in five days followed removal of the plasters, two of which had been worn for several days, but the remaining two had been applied shortly before admission after the back had been briskly rubbed with a coarse towel. The second case was that of a man who had worn two belladonna plasters over his back for several days. One night he became semiconscious, with muttering delirium, and developed an erythematous rash on the face and upper part of the body; but this with other symptoms subsided in two or three days after removal of the plasters. The third case was that of a female, upon whose chest a small belladonna plaster had been placed. Two hours later she became highly excited, with dilated pupils, dry mouth, and a diffuse erythematous rash on the face, shoulders, and chest. Removal of the plaster soon effected a cure. Since atropine is rapidly eliminated, removal of the plaster will generally be quickly followed by cure, but the administration of a physiological antidote may be required.

358. **Manganese as a Drug.**

L. BENEDETTI (*Bull. delle Sci. Med.*, January, 1906), after describing the chemical methods best employed for the quantitative estimation of manganese salts in the various organs of the body, describes the fate of manganese citrate injected subcutaneously into dogs. The metal is deposited within twelve hours, mostly in the liver, but also in the other organs. It is excreted most by the bile, less so by the intestine, least by the kidneys; excretion begins in forty-five minutes, and continues for a week or ten days. The subcutaneous injection of manganese citrate seems to increase the amount of iron retained by the organism.

PATHOLOGY.

359. **Etiology of Yellow Fever.**

MARCHOUX AND SIMOND (*Ann. de l'Inst. Pasteur*, January, 1906) have shown that the *Stegomyia fasciata*, the insect which is known to transmit yellow fever from man to man, can also transfer the *materies morbi* to its own offspring. Their earlier experiments on hereditary transmission through the *Stegomyia* were made in 1903 and yielded negative results. But on renewing their experiments in February, 1905, they secured a positive result, the details of which are as follows: A female *Stegomyia*, reared in the laboratory, laid its second batch of eggs on January 28th, after having bitten, three days previously, a patient suffering from a moderately-severe attack of yellow fever. These eggs were hatched out, and yielded fully-developed insects on February 16th. From these, two females were isolated and were fed on glucose until March 2nd. On that date—that is, fourteen days after their metamorphosis—these two insects were made to bite a human subject of Portuguese nationality who had never suffered from yellow fever. As no reaction followed, the investigators caused the same person, after an interval of eight days, to be again bitten by one of these two mosquitos, the other having accidentally died. Four days after the second bite he developed yellow fever, the attack, though mild, being thoroughly characteristic of the disease. Previous to the onset of the disease the patient had been living in the laboratory with one of the experimenters, and the authors can guarantee that he did not come into contact with any infective agents other than the two mosquitos which they caused to bite him. In order to remove any possible objection that the infection produced was not a genuine case of yellow fever, they caused the patient after his recovery to be bitten by five insects which had previously bitten, on the second day of the disease, a case of yellow fever which ran a fatal course. Their experimental subject did not suffer the slightest inconvenience from these bites. The experiment was then repeated with five mosquitos which had previously bitten a severe yellow fever case on the first day of the disease, and the result was again negative. The patient's subsequent immunity to the disease, therefore, confirmed the genuine nature of the attack which had been caused by the material transmitted through an insect's ovum. Hereditary infection of this kind in the *Stegomyia fasciata* is not regarded by MM. Marchoux and Simond as playing any very considerable rôle in the propagation of yellow fever. It must, however, be regarded as a possible cause of the recrudescence of the disease in a focus where it has recently been extinguished, and on that account must be borne in mind with a view to the organization of prophylactic measures. The authors think it possible that in the passage of the virus from one generation of *Stegomyia* to the next an attenuation of virulence may take place. As the result of further investigations into the paths of infection they find that the *Stegomyia fasciata* does not infect itself by absorbing either the blood which escapes in the haemorrhages common in the second stage of yellow fever, or the liquid present in the black vomit, or the dejecta. Even in captivity the insects do not absorb these materials unless compelled by hunger. The larvae of the insect, when cultivated in water containing the dead bodies of freshly-killed infected insects, do not contract the infection, and the adult parasites which develop are not virulent. When infected insects are kept at a temperature as low as 20° C., they appear to lose the power of transmitting the infection. This observation is of significance in association with the frequently recorded fact that during an epidemic a temporary lowering of the atmospheric temperature, due, for example, to a succession of rainy days, causes a marked diminution in the daily number of cases reported.

360. **The Meningococcus of Cerebro-spinal Meningitis.**

VANSTEENBERGHE AND GRYSEZ (*Ann. de l'Inst. Pasteur*, January, 1906) have studied the characters of a meningococcus, which they obtained by lumbar puncture, during life, from a case of cerebro-spinal meningitis which terminated fatally in two days. They found that the reaction of the coccus, when tested by Gram's stain, depended upon its condition of vitality and its virulence; it varied in different epochs of the life of the microbe, and, when the organism was placed under unfavourable conditions, the capacity to stain by this method rapidly disappeared. The Gram test, therefore, they consider unreliable for diagnostic purposes. Their organism was found to be highly virulent for laboratory animals. When inoculated under the meninges of rabbits or guinea-pigs, it produced a disease completely resembling human cerebro-spinal meningitis, with identical lesions and similar complications. The nervous tissue of the animals which died of this disease was found to be virulent, and preserved its virulence for a long time, though it was progressively diminished by slow desiccation. In the nasal fossae of man, both in health and disease, there is frequently found a microbe possessing the morphological and cultural characters of the meningococcus. This microbe may sometimes prove to be virulent even when taken from subjects not affected with cerebrospinal meningitis. When virulent, inoculation beneath the meninges of laboratory animals produces an infection analogous to that produced by the typical meningococcus. This germ, normally avirulent for man, appears to be the origin of the auto-infection known as cerebro-spinal meningitis, just as, under analogous conditions, the pneumococcus produces pneumonia.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

361. Lumbar Puncture.

KOPETZKY (*Amer. Journ. of Med. Sciences*, April, 1906) reviews the value and applicability of lumbar puncture both as an aid to diagnosis, as a method of treatment, and for the production of anaesthesia. In the examination of the fluid, the pressure under which it is obtained, its coloration, bacteriological findings, cytodiagnosis, chemical composition, and cryoscopy are all considered, and it is pointed out that it is not so much any individual characteristic as the totality of the whole examination that is of value diagnostically, and that the results should always be considered in connexion with the clinical development of the case. A clear, normal, non-coagulable fluid indicates sinus thrombosis, brain abscess, simple serous meningitis, meningismus, hysteria, or occasionally a circumscribed meningitis. A fluid coming away in spurts under pressure increases the probability of serous meningitis, sinus thrombosis, or rarely brain abscess. A clear fluid without bacteria or coagulating elements probably indicates toxic or tuberculous meningitis. An opalescent or purulent fluid, forming a coagulum, with predominating polynucleosis and eventual presence of micro-organisms, points to acute diffuse meningitis, cerebro-spinal meningitis if Weichselbaum's meningococcus is present, or if the fluid has been aspirated it may indicate a circumscribed meningitis. Apart from clinical symptoms lumbar puncture fails in establishing a differential diagnosis between brain abscess, serous meningitis, meningismus, or sinus thrombosis. It is of more value in clearing up doubtful diagnosis than in substantiating probable ones. The data should invariably be considered with the clinical evidence, and when it becomes a question for or against surgical interference the patient should be given the benefit of the doubt. Therapeutically, lumbar puncture may be of value for the introduction of drugs into the spinal canal, and also it may act beneficially in the relief of pressure by withdrawal of excess of fluid and at the same time bringing about the removal of the causative foci of the disease. Any element of danger in this procedure is lessened by the horizontal position and the absolute condemnation of aspiration. The possibility of cerebral haemorrhage, especially when large amounts are removed, must be borne in mind, and the treatment is contraindicated in cases of vascular sclerosis and aneurysms of the cerebral vessels in all acute and chronic affections of the central nervous system without pressure symptoms arising from the spinal fluid. As a method of producing anaesthesia it is of value in selected cases, though deaths have been directly caused by the lumbar anaesthesia and intoxication from the drugs used, and many operators condemn its use. In order to modify the intoxication, a combination of cocainization, with artificially-induced congestive cerebral hyperaemia, has been recommended. Since cerebro-spinal fluid is rapidly drawn into the spinal canal when space is encroached upon —a condition which can be brought about by a congestive venous hyperaemia—the neck is bandaged tightly to produce cyanosis prior to the injection, and the bandage is left in place for some time after operation in order to prevent the danger of a sudden backflow of the cocainized cerebro-spinal fluid into the brain.

362. Paralytic Scoliosis.

NOVÉ-JOSSERAUD (*Prov. Méd.*, April 21st, 1906) describes six cases of scoliosis occurring in children and resulting from infantile paralysis. He finds that there is, as a rule, only one curve in the distorted spine, and has only on one occasion found a compensatory curve. The commonest seats for the curvature are the dorsal and the dorso-lumbar regions; sometimes the curvature is limited, at other times it may occupy the greater part of the spine. The convexity of the curve is generally to the left. Paralytic scoliosis, he finds, differs from ordinary scoliosis in the following particulars: The twist in the spine giving rise to the prominence at the back is generally less marked than in cases of ordinary scoliosis; the deformity remains supple much longer, and for a time even marked deformity may be remedied by compression of the thorax with the hands or by means of suspension. Later, however, fixation occurs, owing to secondary changes in the bones and ligaments; the thorax is strongly displaced towards the convexity of the curve. This form of scoliosis may develop very rapidly, even in the course of a few months, and its increase may be indefinite. The author does not consider the existence of cases of true static scoliosis as proved; he does not think that paralysis of the muscles of the upper limb can give rise to scoliosis, nor does he consider that shortening of a leg, sometimes found in patients who have suffered from infantile paralysis, is a cause of the scoliosis which may be found in such patients, and in proof of this latter statement he refers to three of his cases exhibiting curves in the same direction and in almost corresponding parts of the spine; in one of these the left leg was short and in the other two the right leg. Further he finds that his cases do not conform to the second class of cases of paralytic scoliosis as defined by Hoffa, namely, being dependent upon unilateral paralysis of the spinal muscles; in all but one of the author's cases the affections of the spinal muscles were bilateral and apparently equal on the two sides. From a consideration of his cases, the author concludes that there is a form of paralytic scoliosis in which paralysis of the trunk muscles exists to an equal extent on both sides, and which paralysis may affect varied muscle groups of the back and of the anterior abdominal wall; in cases such as these, he concludes that the curvature of the spine is a result of defective equilibrium of the trunk, and is assisted by the attitude which the patient takes to diminish the inconvenience of his paralysis. As regards treatment of these paralytic forms of spinal curvature, he advises that those muscles which are still healthy should be developed and utilized by means of gymnastics, electricity, and massage. To preserve the suppleness of the spine, movements similar to those made use of in cases of ordinary scoliosis should be employed. The thorax must be supported by suitable corsets, to maintain the body in the best possible attitude; and lastly, treatment must be carried out for a long time or perhaps indefinitely, to prevent the deformity becoming aggravated.

363. Nephritis and Tuberculosis.

THE kidneys may be affected in various ways in tuberculous patients. The paratuberculous lesions are the most interesting. Chauffard has made these the subject of investigation (Clinical Lecture, *Journ. de Méd. et de Chir. Prat.*, November 10th, 1905). The frequence of nephritis as a complication of tuberculosis has been variously estimated. The writer's own statistics give 8 to 10 per cent. of cases of nephritis in the presence of tuberculosis. The most common renal lesion is the amyloid kidney, but that to which Chauffard more particularly directs attention is nephritis presenting many of the signs of acute or subacute lesion, as copious albuminuria, haematuria, and casts. Haematuria may persist for long periods, and in one case it was noted that the erect posture had a marked influence in increasing the amount of blood. Chauffard records the interesting fact that nephritis appeared in a patient under his care who was being treated with tuberculin. There was an increase of albumen after each injection. He refers to the researches of Auclair, who found that two toxins are produced by the tubercle bacillus—one which causes caseous degeneration, the other having a sclerotic influence on the tissues. Chauffard suggests that if such be the case it may be possible to find an explanation for the recurrence of chronic interstitial nephritis in cases of tuberculosis.

364. Bile Ducts Compressed by Tuberculous Glands.

LENOBLE AND ATTILA (*Bull. et Mém. de la Soc. Anat. de Paris*, November, 1905). A man, aged 30, was admitted into hospital with fever and gastric irritation. He had been long under treatment for pulmonary phthisis, and there were cavities at both apices. Two days after admission the temperature fell and general jaundice was observed; the urine became so dark as to appear as though it contained blood as well as bile. Icterus gravis was suspected, but the physical signs in the thorax and the profuse sweats showed that acute phthisis was the primary complaint. There was sharp pain in the right hypochondrium, and the liver was enlarged and continued to swell. Compression of the ducts was therefore suspected. The patient died about a fortnight after admission; the jaundice had become intense. The lower parts of the lungs were found full of recent miliary tubercle, the upper parts were riddled with cavities and adhered to the pleura.

The liver was enlarged, softened, and bile stained, weighing four pounds. The gall bladder was distended and the cystic duct compressed by a large gland, a string of smaller diseased glands lay along the cystic and common duct; they were strongly adherent and completely obstructed the ducts by pressure.

SURGERY.

365. **The Removal of Naso-Pharyngeal Growths.**

Kuln (*Zentralbl. f. Chir.*, No. 9, 1906) describes a method of removing naso-pharyngeal growths which he has been led to believe by the results of his own experience will enable surgeons to overcome to a considerable extent the difficulties of this operation. The work of the operator is impeded by the situation and anatomical relations of the tumour, and deliberate and careful action, so necessary for radical removal of the disease, is rendered very difficult by free bleeding and incomplete anaesthesia. Except in cases of very small growth it is not easy to decide which is the least unsatisfactory of the three methods that have been devised. The nasal method. the author points out, affords insufficient room; the maxillary method, as in Langenbeck's operation, is objectionable on the score of mutilation and of the risk of facial paralysis; and in the oral method the troubles in arresting haemorrhage and in maintaining continuous and efficient anaesthesia are most marked. Almost exclusive preference is given to the last of these methods Inspection of a skull, it is held, should at once indicate that the cranial base is more readily accessible by the mouth than by any other way, that the oral operation is likely to be less severe than others, and that the wide natural cleft between the maxillae and the mandible allows of the freest possible approach to a large spheno-palatine growth. For the successful practice of this method, however, two conditions are necessary: the mouth must be opened as widely as possible, and kept so during the operation, and the communication of the oral cavity with the air-passages, and with the alimentary canal, must be temporarily suppressed, so that no blood can pass into the larynx, and vomiting can be prevented. The latter condition the author meets by peroral intubation of the glottis and by thorough packing of the pharyngeal cavity. The mouth having thus been rendered a freely accessible field of operation, the soft palate and the mucous membrane and periosteum of the hard palate are incised in the middle line, and the horizontal portion of the palate bone and as much as may be required of the palatine process of the maxilla are removed. In this way, it is asserted, sufficiently free access is afforded to the upper part of the naso-palatine cavity, so that any tumour therein situated can be thoroughly explored and eradicated. Peroral intubation the author has found useful also in cases in which it was found necessary to practise more extensive operations for the removal of large naso-pharyngeal sarcomata.

366. **Excision of Portions of the Chest Wall for Malignant Tumour.**

Rixford (*Annals of Surgery*, No. 1, 1906) reports five instances of resection of the chest wall for recurrent carcinoma of the breast in four patients. and one of removal of the clavicle and first rib, and portion of the sternum, for sarcoma. The artificial pneumothorax caused by such operations, if unilateral, presents, it is held, no dangers sufficient to constitute any contraindication to surgical treatment of this kind in patients who in other respects are well enough to tolerate radical measures. The fatiguing respiratory efforts which supervene when the chest is opened may be almost entirely done away with by the use of a wet towel covering the opening during the operation. In these 6 cases there was no operative mortality, although most of the patients were well advanced in years, the youngest being 40 and the oldest 70. Of the 4 cases of recurrent carcinoma, death occurred in the first four months after the operation; the second patient had further recurrence in the mediastinum after an interval of eight months; the third had further recurrence in the next lower intercostal space. for which a second resection was practised, and when this paper was written, six months later, remained free from further recurrence. The fourth patient remains free from recurrence, two years having passed since the date of operation. The subject of the extensive operation for the removal of a large sarcoma involving the first rib and the sternum and occupying the anterior mediastinum was well and strong when last seen. eleven months after the date of this treatment. The author, in concluding, points out that although life has been prolonged in these cases, it is still too soon to decide whether any of the three patients who, when last seen, were free from recurrence, will remain so.

367. **The Roentgen Ray and Growing Tissue.**

Försterling (*Zentralbl. für Chir.*, No. 19, 1906) publishes the results of a series of experiments on young animals and also on growing plants, which, he believes, prove that a single and transient application of the Roentgen rays less intense than when used for ordinary therapeutical purposes, is capable of causing a decided arrest of the growth of young and active tissues in the exposed parts of the body. The older the animal the less marked, the author finds, is the action of the rays in this respect; and with very young animals the effectual dose of the rays is much reduced. These results would seem to indicate that the therapeutical use of the Roentgen rays should in young children be restricted to cases only of malignant growth and leukaemia, and in these exceptional instances be made under strict precautions in regard to the thorough protection of the sound parts of the patient's body. Each sitting should be as brief as possible, and by reason of the cumulative action of the Roentgen rays, the treatment should not be frequently repeated. The minimum dose of the rays that might cause mischief has not yet, the author states, been determined.

368. **Complete Extirpation of the Stomach.**

B. Vassallo (*Semana Medica*, Buenos Aires, April 19th) records a successful case of total extirpation of the stomach performed by him in the Rosario Hospital. Various pylorectomies, more or less extensive, had been performed previous to 1897, but it was reserved for Schlater of Zurich to carry out in that year the first complete resection of the organ. Brooks Brigham of San Francisco was the next to attempt it. Vassallo, who has performed seventeen pylorectomies with only one death, and considers the gravity of stomach operations more apparent than real, did not undertake the present operation with the definite idea of gastrectomy, but on opening the abdomen the stomach proved so extensively involved by the carcinomatous growth that the only course was to remove it. The operation, which lasted thirty-eight minutes, and is described at considerable length, was unattended by any adverse occurrences, and proved completely successful. Four months later the patient returned to show himself in excellent health, and experiencing no pain or difficulty, with the exception of the inconvenience caused by having to eat somewhat frequently, and but little at a time.

OBSTETRICS.

369. **Freeing of the Arms in Turning the Fetus.**

Apfelstedt describes a method of freeing the arms in turning the fetus, which he considers improves the chances for the child considerably (*Berl. klin. Woch.*, December 11th, 1905). He points out that the high fetal mortality after version is largely contributed to by the accidental extension of the arms, and the time which is lost in bringing them down. The freeing of the first arm takes up the most time, and if it is possible to avoid having to manipulate with the arms after the version has been carried out, the risk of asphyxia, etc., will be materially lessened. He further considers that the operator has not fulfilled his duty by merely turning the fetus, when this is indicated, either from a vertex or a transverse presentation; he should attempt to avoid all complications in the birth. The choice of the hand with which he will turn, and the selection of the right foot, is of especial importance when the fetus has lost its fetal position, that is, its posture. The muscular tone of the fetus plays an important rôle. If the posture is maintained by a good muscular tone, the turning, even when the wrong foot is seized, offers a good chance for the child. Thus the result of turning depends partly on the fetal conditions (muscular tone, posture, etc.) and partly on the method and skill employed. In cases of a prolapsed arm, he finds that after version the arm remains in a favourable position, and does not, as a rule, call for any further manipulations. He goes as far as to state that the occurrence of this "complication" improves the chances for the child, since the version is easy and leads usually to a smooth delivery. It is unnecessary to tie a tape around the wrist. His method for all cases depends on this fact. First he carries out what he calls prophylactic freeing of the arm. The left hand, in the case of first presentations, is introduced into the vagina and through the os, while the right hand grasps the fundus. The membranes are then ruptured, and the nearest shoulder (in all cases save one) is sought, and the elbow and forearm of the fetus lie in the operator's hand. The arm is then passed over the front of the fetal trunk and brought down into the vagina, extended. It will then be placed abducted at right angles from the trunk. The arm is then held lightly for a few seconds in this position, and then the hand is again carefully introduced to seize the nearest leg—the same side as the arm—and this is likewise brought down into the vagina, the external hand assisting. As this is being done, the left hand feels if the arm retains its favourable position, and if it threatens to go upwards it is corrected early. The version is carried out in all other respects as usual. The exception mentioned above is met with in transverse presentations, with the abdomen toward the maternal front. In this case one should seek the upper and not the nearest arm, the latter being pushed upwards. The corresponding foot is then seized. The author has carried out this proceeding once when the fetus was in the first transverse position, and found it worked very well. While he does not feel justified in recommending the method without further experience of it, he thinks that it should be tried, and, if found as successful as he has found it and as it seems to promise, it should be adopted in regular midwifery practice. He considers the possible objections which could be raised, but finds them unimportant.

THERAPEUTICS.

370. Quinine Prophylaxis.

MORGENROTH (*Arch. fur Schiffs und Trop. Hyg.*, Bd. x, No. 5) gives his experiences of quinine prophylaxis in the case of the troops in South-West Africa. During the malarial season of 1904 and 1905 quinine was administered as far as possible to each of the men belonging to these troops. The drug was given in doses of 1 gram each Thursday and Friday. The time of day chosen was from eight to half-past eight o'clock at night, in order that the unpleasant side-effects might be got over during sleep. In spite of this precaution, in many cases the dose had to be reduced, the usual method being to give 1 gram on Thursday and ½ gram on Friday. Where even this amount could not be borne the dose was reduced to ½ gram on each of the days, but the protection obtained from the half dose was not adequate. Certain of the sanitary officers themselves took 1 gram of quinine every eighth and ninth day, in the morning before breakfast, and this method appeared to be satisfactory. Quinine taken at longer intervals—as, for instance, every tenth and eleventh day—did not give protection. At first many of the men, especially those who had already suffered from malaria, were unwilling to take quinine, but as it became evident that those who refused the treatment were the ones to contract malaria this unwillingness for the most part disappeared. Blackwater fever did not in any case develop as a result of taking quinine, but it was found that patients with recent scorbutus showed fresh and extensive haemorrhages into the skin and mucous membranes on the day after taking the quinine, and in the case of such patients the quinine prophylaxis was conducted with especial precautions. The different preparations of quinine differed greatly in solubility. Quinine sulphate in tablet form proved to be least soluble and could often be found in the stools almost unchanged after twenty-four hours. Quinine hydrochlorate in tablet form was found to vary greatly in solubility according to the method of preparation. The best result was obtained from the powdered quinine hydrochlorate given in cachets or dissolved in weak hydrochloric acid. Some cases of malaria developed even in the regiments where the quinine was taken. In most of these cases it appeared on inquiry that the quinine had not been taken regularly. In some few instances malaria developed even when the treatment had been carefully carried out, but the disease then usually ran a very mild course, and there was little or no tendency to relapse. These cases are probably to be accounted for as being cases in which the absorption of quinine was defective. The following are the conclusions to which the experiment led: (1) Quinine hydrochlorate given in powder is the best form of administration for prophylactic purposes; (2) prophylaxis can be more easily carried through if the bitter taste of the drug be hidden, and the use of cachets or gelatine capsules is therefore strongly recommended; (3) as a general rule, the dose of quinine should not be less than a gram, and it is only in the case of people who suffer severely from the side-effects that the dose may be diminished or may be replaced by 1.5 grams of euchinine; (4) in most neighbourhoods adequate protection is given if the quinine be taken every eighth and ninth day; and (5) the dose is best given, if it is convenient, in the morning before breakfast, when the powers of absorption are most active; (6) in the Northern States it must be left to the doctor to decide whether quinine should be given more frequently than every eighth and ninth day; (7) the keeping of a quinine calendar, in which the days for taking quinine are clearly marked, is advisable; (8) a specially stringent prophylaxis is needed for native troops; (9) the date for beginning the prophylaxis depends on the date of appearance of the *Anopheles* and on the prevailing temperature; frequent estimations of temperature are needed; (10) it is the duty of the different sanitary officers to decide in each case when the prophylaxis shall begin and shall end; (11) prophylaxis was found in the last year to be of very great value; (12) permanent injury from the long use of quinine was not in any case observed.

371. Life after Recovery from Phthisis.

ARBOGAST (*Zeit. für Tuberk.*, Bd. viii, Heft 3) points out the dangers which beset a phthisical patient after he has been dismissed from a sanatorium as being from a clinical point of view sound, and he comments on the habits of sanatorium life in order to decide which of them must be gradually abandoned and which must be to some extent always retained. Among those to be abandoned as harmful after recovery are: (1) Overfeeding, (2) excessive limitation of exercise, (3) excessive fear of fresh infection, (4) idleness. Continuous overfeeding is condemned as causing such diseases as fatty heart, gout, and indigestion. When combined with too little exercise for a long period the danger is more marked, and in any case constipation is likely to become a prominent symptom. Excessive fears are to be deprecated; the most difficult fear to lay is that of the bacillus, and we see patients who scent danger in every corner of a room or a carriage, in every carpet, and in every speck of dust. The resumption of work by the patient as soon as possible after recovery is of great importance both from the physical and the psychical points of view; naturally, however, occupations which have predisposed to the contraction of phthisis are not to be amongst those at once resumed. While, as we have seen, some of the sanatorium habits are to be discontinued, others should be carefully adhered to. The first of these mentioned is the daily rubbing down with cold water, to which the author attaches considerable importance. Again, regularity of life is a habit to be retained, although it should not be allowed to develop into pedantry. There should be great moderation in drinking and smoking, and while walks, mountain tours, and a certain amount of riding and driving cannot be too strongly recommended, games which lead to overstrain are to be avoided. The manner of life of the recovered patient must, of course, vary between wide limits. As a rule, the Sunday and perhaps one afternoon in the week should be given to recreation, the time for going to bed in an ordinary way should be between 10 and 11 o'clock at night, and early rising should be the rule.

372. The Treatment of Diabetes Insipidus.

C. POSNER says that the treatment of diabetes insipidus is not the most satisfactory part of medical science, and an etiological treatment is only possible when the disease depends on syphilis, and even then the treatment is not always successful. Strychnine is the drug which enjoys the first place in the medicinal treatment, but this only too often has no effect or only a temporary one (*Berl. klin. Woch.*, No. 44a, 1905). The dietetic means which can be employed in this disease are limited to a restriction of the amount of fluid taken, and in some cases this has led to actual cure, and not only to apparent improvement. This so-called "dry" treatment is only of use in primary polydipsia, and is even dangerous and harmful in polyuria. The attempts to cope with this disease have therefore to be chiefly symptomatic, and the symptoms which call for most energetic treatment are the thirst and the polyuria. The thirst causes disturbed sleep, and thus if this can be limited the night's rest will be improved and the excretion of urine diminished. The most striking abnormality, in this connexion, in diabetes insipidus is the dryness of the mouth and the paucity of saliva. In order to increase the secretion pilocarpin has been given, but the exhausting diaphoretic effect of this drug renders it little adapted for the treatment. It has long been known that the act of mastication produces an increased secretion of saliva; it has therefore been suggested to employ "mastication tablets," mostly made of rubber or tragacanth, which are chewed, and also dried plums, which also have the mechanical effect on the secretion. The effect of the chewing is striking in cases of pleural or ascitic effusions, when large quantities of fluid can be removed from the body. Posner has only had the opportunity of trying the "mastication tablets" in one case of real diabetes insipidus, and was fortunate in being able to remove the excessive thirst, improving the sleep and reducing the excretion of urine to normal. The specific gravity of the urine rose from 1004 to 1012, so that he claims to have an objective sign for the improvement. The nervousness which is so closely associated with the disease, however, was not influenced by the treatment. He states that the treatment has its disadvantages, in that the continual mastication is fatiguing to weakened patients; but nevertheless this suggestion may be found useful in some cases, and may prove of value in easing the distressing condition of a certain number of patients.

373. The Influence of Bitters on Digestion.

THE vegetable bitters have always been regarded as valuable weapons in the therapeutic armoury, but until recent times their mode of action has been imperfectly understood. Bonnani (*Arch. Ital. de Biol.*, March, 1906) has reinvestigated the question. He observed a dog in which, by the well-known Pawlow-Heidenhain operation, a portion of the stomach had been converted into an accessory organ, having an external opening near the nipple for the collection of gastric juice, and through which drugs could be directly applied to the secreting mucous membrane. Experiments were first performed with distilled water introduced into the real stomach by means of an oesophageal sound. The passage of the sound alone did not cause any secretion of gastric juice. Pawlow had stated that smaller quantities of water than half a litre did not cause a secretion, but in Bonnani's experiments it was found that 250 c.cm. of distilled water put into the large stomach brought about a flow of juice from the small stomach, commencing in about half an hour and lasting an hour and a half; 500 c.cm. caused a rather more copious secretion. After this point had been established by a series of fourteen experiments, aqueous solutions containing 5 per mille of gentian, quassia, or calumba, in each case added to an equal bulk of distilled water, were introduced by the sound into the stomach in quantities of 250 c.cm. A secretion followed from the small accessory stomach, but in its quantity, amount of solids, acidity, and time relations was identical with that produced by the same bulk of water. Moistening the mouth and the tongue of the dog with the bitter substance was then tried, and found to have no effect upon the production of gastric juice, neither when the bitter infusion was placed in contact with the lining membrane of the small stomach was there any result, except a slight secretion of mucus. It was found, however, that if the mouth and tongue were wetted with the bitter infusion and food given shortly afterwards a good flow of juice followed. Observations were then made to determine whether this flow was greater than that produced by food alone. With this object in view a dog was on one day given a meal of 100 grams of lean horseflesh, and on the following day the same quantity, with a previous moistening of the mouth and tongue with the bitter. The results showed that the quantity of gastric juice produced was always greater when the meal had been preceded by the administration in this way of gentian, quassia, or calumba. Of these three, the last named gave the best result. If, however, the solution were placed in the small stomach, and the food given after an interval, the secretion was less than when food was taken alone. These experiments confirm those of Borissow, and show clearly that the action of bitters is essentially due to their influence upon the nerves of taste, and not directly upon the gastric secretion, for the flow of juice which follows their introduction into the stomach can be attributed to the accompanying water. When bitters are taken into the mouth and followed by food, the contrast between the taste of the two substances is so greatly in favour of the latter that a lively desire for food arises, or in other words the appetite is increased. More gastric juice then flows, for, as Pawlow showed, appetite is a powerful excitant of that secretion. Bitters should therefore be given in cases in which there is loss of appetite. They should invariably be prescribed in a fluid form only, and administered immediately before a meal.

PATHOLOGY.

374. The Cultivation of Tubercle Bacilli.

FOR the last ten years Anzilotti (*Clin. Mod.*, An. 12, N. 12) has used a method of cultivating tubercle bacilli on glycerinated potato which he thinks gives better results as to constancy and virulence of culture than other methods. Carefully-selected cylindrical pieces of potato about 4 cm. in length are taken and sliced diagonally, washed in distilled water, and placed in a 6 per cent. alkaline solution of glycerine and boiled for about twenty minutes, care being taken to keep the solution alkaline. The potato is then placed in a test tube and kept about 2 cm. from the bottom of the tube, the space below being filled with the glycerine solution and the whole sterilized. It is then ready for insemination. The greyish-yellow granules of the culture begin to appear on the fourth or fifth day, and by the fifteenth day cover the whole surface. As time goes on the colour of the culture varies from grey to yellow or whitish, according to the species of potato used. Avian, bovine, and human tubercle each give good results. Cultures prepared in this way kept their vitality and virulence for three or four months in spite of differences in the surrounding temperature.

375. Formation of Mucus and Muco-Membrane in the Intestines.

RIVA (*Gazz. degli Osped.*, April 22nd, 1906) points out the difficulty in differentiating mucus that is merely condensed from that which is coagulated (that is, muco-membranous flakes). Ordinary mucus is miscible in dilute alkaline solutions, for example, lime water, from which it can be precipitated by acetic acid, whereas coagulated mucus (muco-membrane) cannot be dissolved in lime water. There are also differences in colour, consistence, and behaviour to staining reagents. Modern research supposes the existence of a ferment called mucinasis whose function is to coagulate mucin; it is probable there are other substances called antimucosis whose action is to prevent coagulation. The appearance of mucinasis concurrently with increased mucous secretion is a function of defence by which the organism meets attacks on the normal function of the intestinal canal. Such ferments are produced in the glands scattered along the digestive tract, in Peyer's patches as well as in the solitary follicles. The production of anticoagulating substances is most probably regulated and excited by the liver, and clinically one knows that colitis is frequently associated with biliary lithiasis. The formation of muco-membrane is due to an increase in the coagulating and a decrease in the anticoagulating ferments. The action of mucinasis prevails over the anticoagulating action of the bile only when there is mucous hypersecretion and extensive destruction of epithelial cells. The factors determining the presence of mucus or muco-membrane in the faeces are (1) mucous hypersecretion, (2) intestinal spasm, (3) inflammation of the intestinal walls, (4) abnormal peristalsis, and (5) variations in the anticoagulating substances.

376. Congenital Cysts of the Neck.

L. LENZI AND A. PELLEGRINI (*Lo Sperimentale*, No. 1, 1906) describe 14 cases of congenital cervical cyst; 8 were in the middle line of the neck, 6 were lateral. The patients varied from 1 to 54 years in age. The authors believe that any congenital cyst of the neck is either derived from the thyroid gland or is a branchial cyst proper; the former occurs mostly in the middle line, the latter are generally at the side. The lateral cysts contain both ectodermal and endodermal epithelium in their mucous lining, and so are generally derived from maldevelopment about the second branchial cleft; they may contain glandular lymphoid and follicular tissue in their walls, and have therefore been described as amygdaloid, and connected with congenital lateral fistulae of the neck. Others of them, again, have been shown to be dermoid branchial cysts, and these are similarly derivable from branchial fistulae. The median cysts all contain thyroid tissue; many of them (5 out of 8) are pathological developments of aberrant thyroid glands. Their walls often contain a great excess of blood vessels. Both median and lateral cysts show a marked tendency to recurrence if incompletely removed by the surgeon. An extensive bibliography is added.

THE

British Medical Journal.

THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

SUPPLEMENT

CONTAINING

PROCEEDINGS OF COUNCIL

REPORTS OF STANDING COMMITTEES

MEETINGS OF BRANCHES AND DIVISIONS

PROGRAMME OF ANNUAL MEETING

MEDICAL BILLS IN PARLIAMENT

PROCEEDINGS OF THE GENERAL MEDICAL COUNCIL

ETC.

VOLUME I 1906.

London:
PRINTED AND PUBLISHED AT THE OFFICE OF THE BRITISH MEDICAL ASSOCIATION,
429, STRAND, W.C.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JANUARY 6TH, 1906.

CONTENTS.

	PAGE
THE GENERAL ELECTION	1
MEDICAL ACTS AMENDMENT BILL	4
PROPOSED EMERGENCY FUND	6
CONTRACT MEDICAL PRACTICE	6
ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD	6
VACANCIES AND APPOINTMENTS	7
BIRTHS, MARRIAGES, AND DEATHS	7
DIARY OF THE WEEK	7
BOOKS, ETC., RECEIVED	7
CALENDAR	8

The General Election.

In view of the general election about to take place, the following Memoranda and Questions on parliamentary subjects affecting the medical profession have been drawn up under the authority of the Medico-Political Committee of the Association, in pursuance of a special instruction of the Annual Representative Meeting, and copies have been issued by the Medical Secretary to the Honorary Secretaries of all Divisions in the United Kingdom.

The memorandum in each case is very brief, and appended to each is a question or questions which it is suggested that Parliamentary candidates should be asked to answer. Fuller memoranda on some of the matters have been prepared, and can be supplied on application to the Medical Secretary, British Medical Association, 429, Strand, London, W.C.

With regard to the method of approaching parliamentary candidates, it is suggested that each candidate should be requested to receive a deputation. In a Division which includes several constituencies it may be convenient to include one or two official representatives of the Division in every deputation, but each deputation should contain constituents of the Parliamentary Division for which the candidate approached is standing. Divisions which have already approached Parliamentary candidates have found it convenient to forward two copies, before the interview, of the questions which it was desired to submit, to explain at the interview any point on which it was particularly desirous to dwell, and to request the candidate to forward his answers in writing.

The reply of every candidate received by the Medical Secretary in time will be printed and circulated to all medical practitioners in the constituency for which the candidate is standing.

We are informed that in some cases Divisions are making definite recommendations as to the candidates to be supported, basing the recommendation on the replies received to the questions.

MEMORANDA AND QUESTIONS ON PARLIAMENTARY SUBJECTS AFFECTING THE MEDICAL PROFESSION, SUBMITTED FOR THE CONSIDERATION OF PARLIAMENTARY CANDIDATES.

I.—Medical Acts Amendment Bill.

MEMORANDUM—

At present, the statutory control of the medical profession is vested in the General Council of Medical Education and Registration (General Medical Council), which, under the reservation of certain privileges of the various licensing corporations, is also charged with the regulation of medical education. It has proved a source of serious dissatisfaction that the body of those actually practising medicine is so inadequately represented in the Council, and that the universities and corporations, whose individual interests are not always identical with those of the best medical education, appoint the large majority of this governing body. The historic privileges of some of the licensing bodies have also been invoked to impair the control of the Council over the education of the student. The difficulties which have been experienced in controlling the standard of the various qualifying examinations, conducted by the different bodies, have shown that it is desirable that there should be a State examination on the practical subjects of Medicine, Surgery, and Midwifery.

Under the present Acts, the only restriction on those who are not properly qualified to practise medicine or dentistry is that they shall not assume a title which implies that they are registered, and experience has shown that this is not sufficient to secure the purpose of the Acts, which is to provide means whereby the public is able to distinguish those who are qualified to practise. It has thus been proved necessary, in the public interest, to make the provisions more stringent.

QUESTIONS—

Would you support in Parliament a Bill for the amendment of the Medical Acts based upon the following general principles?

1. That at least half the members of the General Medical Council should be directly elected by the general body of medical and dental practitioners in the country, instead of the large majority, as at present, being appointed by the universities or corporations, bodies financially interested in the examining and licensing of students and practitioners.
2. That the General Medical Council should have complete control over the registration and education of medical and dental students, including fixing the standard of preliminary general education requisite for admission to medical study.
3. That there be a "one-portal" system for admission to medical and dental practice—namely, through a State Examination, conducted by the General Medical Council under the supervision of the Privy Council.
4. That the practice of medicine or dentistry by unregistered persons, or by companies, and the signing of medical certificates by unregistered persons be more completely prevented.

[I.—A full explanatory memorandum on the principles of the Bill is published below. The discussion on the subject at the Annual Representative Meeting at Leicester was reported in the SUPPLEMENT of July 29th, 1905, p. 119.]

II.—Death Registration and Coroners' Law.

MEMORANDUM—

The present Acts have proved an insufficient protection to the public against the risks of murder on the one hand, and against the possibility of premature burial on the other. For these reasons it is proposed that it should be illegal to dispose of a body until the death has been registered, and to base the registration on a certificate that the fact of the death has been verified by actual inspection by a medical practitioner.

The present Acts do not afford a trustworthy basis for the vital statistics necessary for sanitary legislation, and from the lack of the registration of Stillbirths give no protection against the wilful destruction of infant life, a matter of serious national anxiety.

QUESTIONS—

Would you support Parliamentary amendments of the law as to Death Registration based on the following principles?

1. That no body should be buried except upon the production of a Registrar's Certificate or a Coroner's Order, and that no death should be registered except upon production of medical certificates in statutory form of the fact that death has actually occurred and of its cause, or upon a Coroner's Order.
2. That the medical certificate of the cause of death be given by a medical practitioner who has been actually in attendance within a specified period, and the certificate of the fact of death be given by a medical practitioner who has satisfied himself of the fact after inspection of the body, and that a statutory fee be paid for each certificate.
3. That where medical certificates in compliance with the statute are not received by the Registrar, he shall report the death to the Coroner, and the Coroner shall instruct the practitioner who has been in attendance, if any, or the special district medical officer in conjunction with the medical practitioner in attendance, if any, to investigate, and if so directed to make a *post-mortem* examination, and that medical practitioners be paid a statutory fee for preliminary information furnished to a Coroner for his assistance in deciding as to the necessity of an inquest.
4. That Stillbirths be certified and registered in a manner similar to deaths.

[II.—The report of the Medico-Political Committee on Death Registration and Amendment of the Coroners' Law, together with the draft Bill, was printed in the SUPPLEMENT of May 27th, 1905, p. 251. The discussion on the subject at the Annual Representative Meeting at Leicester was published in the SUPPLEMENT of July 29th, 1905, p. 117.]

III.—Public Health Bill.

MEMORANDUM—

Experience has proved that for all medical officers whose duties may from time to time bring them into conflict with the interests or opinions of members of the local governing bodies, it is essential if the duties are to be performed in the interests of the community and not of the individual governor, that the medical officer should be afforded such security of tenure as is provided by requiring the consent of a Central Department, usually the Local Government Board, to his dismissal. In England this security is at present not given to Medical Officers of Health nor to Public Vaccinators, and in Scotland it is not given to Poor-law Medical Officers.

In the Public Health Bill dealing with England, advantage has been taken of the opportunity to provide a standard of qualification for Medical Officers of Health and for Sanitary Inspectors.

To afford a means by which officers of advancing years may be removed without hardship to the individual, a scheme of superannuation is necessary.

QUESTIONS—

Would you support in Parliament the following alterations of the law? namely:

1. That Medical Officers of Health and Sanitary Inspectors in England and Wales should have the same security of tenure as is at present enjoyed by Medical Officers of Health in Scotland and London, and by Poor-law Medical Officers in England and Wales, that is, that they should not be appointed for a limited period only, and that they should not be removable except with the consent of the Local Government Board.
2. That the qualification for Medical Officers of Health in England and Wales be raised to a standard analogous to that prescribed for Scotland, and that a qualification satisfactory to the Local Government Board be required for Sanitary Inspectors.
3. That Medical Officers of Health and Sanitary Inspectors be placed on the same footing as Poor Law Medical Officers as regards superannuation.

[III.—The text of the Bill and a full explanatory memorandum on its principles was printed in the SUPPLEMENT of May 27th, 1905, p. 269. The discussion on the Bill at the Annual Representative Meeting at Leicester was printed in the SUPPLEMENT of July 29th, 1905, p. 120.]

IV.—Revaccination Bill.

MEMORANDUM—

The provisional promise made after the Report of the Royal Commission on Vaccination, to the effect that the relief of the conscientious objector would be followed by provision for the increased public protection afforded by compulsory revaccination, has never been implemented, and the increasing experience of this and of foreign countries shows that such a measure is still urgently necessary.

QUESTION—

Would you support in Parliament the Revaccination Bill, of which the main provision is as follows?

That, subject to the same conditions of exemption as primary vaccination, all children should be revaccinated before the statutory age for leaving public elementary schools.

[IV.—The text of the Bill was printed in the SUPPLEMENT of January 14th, 1905, p. 11.]

V.—Reorganization of the Local Government Board in the Interests of Public Health.

MEMORANDUM—

In England the care of Public Health has been undertaken piecemeal by various departments as they happened to be interested in the particular question under which each item arose. Hence, the administration of public health is in a condition of greater disorder than that of much less important matters, and is distinctly less efficient than in Scotland. The subject was reported on by an Inter-Departmental Committee, but from the public health side the report was most inadequate, and the British Medical Association is convinced that the subject is of sufficient importance to justify an inquiry by Royal Commission.

QUESTIONS—

Would you support in Parliament the appointment of a Royal Commission to investigate the present central administration dealing with public health, having regard particularly to the following proposals?

1. That the central administration in matters affecting public health should be vested in a single Department of State which, in view of the necessarily important part played by local authorities, should be organized from the Local Government Board.
2. That the Department should be administered by a Board, meeting for the transaction of business, which should include amongst its members medical, engineering, legal, and Poor-law experts, and that the President of the Local Government Board should be placed on equality as regards status and emoluments with the Principal Secretaries of State.
3. That matters relating to public health, at present administered through the Privy Council Office, the Home Office, and the Foreign Office should be transferred to the reorganized Local Government Board.

[V.—Explanatory memoranda and the text of the Bill was printed in the SUPPLEMENT of May 27th, 1905, p. 245. The discussion on the matter at the Representative Meeting at Oxford was reported in the SUPPLEMENT of August 6th, 1904, p. 115.]

VI.—MIDWIVES ACT.

MEMORANDUM—

The Midwives Act has imposed on midwives a statutory obligation to call in registered medical practitioners in certain emergencies, the patient having no power of veto. The urgency of such calls allows the practitioner no time to satisfy himself as to payment, or to put into action the ordinary Poor-law machinery for medical relief to the very poor. Nevertheless, the employment of a medical practitioner is practically imposed by the State upon the patient, and it is submitted that the State should at least guarantee the payment of the practitioner's fee.

QUESTION—

Would you support in Parliament legislation to enable local authorities to make provision for the payment of medical practitioners called under the requirements of the Midwives Act to assist midwives in emergencies?

[VI.—An explanatory memorandum on the subject was published in the SUPPLEMENT of May 27th, 1905, p. 255. A report of the discussion on the matter at the Annual Representative Meeting at Leicester was printed in the SUPPLEMENT of July 29th, 1905, p. 119. The draft memorial prepared for submission to the Lord President of the Privy Council concerning the present position of members of the medical profession when called by midwives to their assistance was printed] in the SUPPLEMENT of July 15th, 1905, p. 54.]

VII.—INCIPIENT INSANITY.

MEMORANDUM—

Alienists are agreed, and public opinion also recognizes, that patients suffering from early or unconfirmed mental disease are often gravely injured by association with lunatics, or by being to their own knowledge regarded or treated as insane. They require special care and treatment for which the Scottish law affords facilities not at present possessed in England or Ireland.*

QUESTION—

Would you support a Bill to give in England the same power of dealing with cases of unconfirmed mental disease as has existed in Scotland since 1857?

[VII.—The recommendations of the Medico-Political Committee on this matter were printed in the SUPPLEMENT of July 15th, 1905, p. 57. The discussion at the Representative Meeting at Leicester on lunacy law amendment was reported in the SUPPLEMENT of July 29th, 1905, p. 121.]

VIII.—HABITUAL INEBRIETY AND DRUG HABITS.

MEMORANDUM—

Inebriety is increasingly recognized both by experts and by the community as a vice which, to be successfully combated, must be treated by methods applicable to disease rather than to crime.

At present, however, the requisite restraint can only be obtained through criminal procedure.

QUESTION—

Would you support a Bill to give power to deal with non-criminal inebriates, and the subjects of other drug habits, under a procedure analogous to that of the Lunacy Acts?

[VIII.—The recommendations of the Medico-Political Committee with reference to this matter were printed in the SUPPLEMENT of July 15th, 1905, p. 57.]

IX.—POOR-LAW MEDICAL OFFICERS.

In Scotland.

MEMORANDUM—

In England and Wales Poor Law Medical Officers, and in Scotland Medical Officers of Health, enjoy security of tenure in that they cannot be appointed for limited periods only, and are not removable without the consent of the Local Government Board.

It is desired to extend this necessary protection to Scottish Poor Law Medical Officers, and a Departmental Committee of the Scottish Local Government Board has already reported in favour of this reform.

QUESTION—

Would you support a Bill to give these officers such a security of tenure as is afforded by making them removable only with the consent of the Local Government Board?

In Ireland.

MEMORANDUM—

The Irish Poor Law Medical Service is at present seriously injured from the following causes:

(1) The recent enactment whereby the Imperial contribution to the salaries of the Medical Officers have been made invariable, and, therefore, the expense of any increase falls upon the local poor rate.

(2) The poverty of many parts of Ireland which cannot afford even a quota of the cost of an adequate medical service.

(3) Lack of appreciation both centrally and locally of the medical needs of the country, and consequent errors of administration.

The first steps in reform must be legislative:

(*a*) To remove the recent restriction on Imperial grants.

(*b*) To make provision for special assistance to necessitous districts.

QUESTION—

Would you support necessary legislative and administrative changes to provide adequate salaries and superannuation for Poor Law Medical Officers?

[IX.—The report of the Departmental Committee on Poor-law medical relief in Scotland was printed in the SUPPLEMENT of April 30th, 1904, p. 86. The three reports by the Special Commissioners of the BRITISH MEDICAL JOURNAL on the Poor-law medical service published in the JOURNAL of 1891, vol. ii, 1892, vol. i, 1895, vol. ii, 1896, vol. i, and the SUPPLEMENT of March 26th, 1904, have been reprinted in pamphlet form, price 6d.]

X.—MEDICAL INSPECTION OF SCHOOL CHILDREN.

MEMORANDUM—

Opinion is now practically unanimous as to the necessity for the systematic inspection of school children, both for the prevention of epidemic disease and for the health of the children individually. In Scotland the school authorities have no power at present to make provision for this, and in some other cases the authorities have not yet made provision.

QUESTION—

Would you support legislation giving the Central

---

* The following is the text of Clause XIII of the Lunacy Acts mendment (Scotland) Act, 1866, referred to, and of the Schedule iving the form of the medical certificate. The proviso at the end of he clause is printed in italics:

Reception of Lunatics into Private Houses.

XIII. Section Forty-one of the first-recited Act is hereby repealed: nd in lieu thereof, no person shall receive or keep any person as a matic for gain, without the order of the sheriff or the sanction of he Board; and any person who shall receive into or keep in his ouse any such person, or any person alleged to be a lunatic, shall, ithin fourteen clear days thereafter, make application for such der or sanction: provided always, that when the lunatic is a pauper natic, such application shall be made by the inspector of the poor, nd it shall be lawful in such case for the sheriff to grant his order n one medical certificate. And every such lunatic shall be visited, s often as the Board shall regulate, by a medical person, who shall nter in a book to be kept in such house the date of each visit, and he condition of the mental and bodily health of the lunatic at each ach visit: and any medical person who shall make any such entry ithout having visited the patient within seven days of making such ntry, or who shall knowingly make any false entry in such book, shall liable in a penalty not exceeding ten pounds for each offence. And shall be in the power of the Board to order such inspection and isitation of every such house from time to time as to them shall seem oper. And every person detaining or aiding in detaining any ch lunatic, or any person who on inquiry is found to be a natic, without the order of the sheriff or the sanction of the Board, after such order or sanction has been withdrawn, shall be liable in penalty not exceeding twenty pounds: *Provided that the enactments this Section shall not apply to any case where the person so received and it has been sent to such house for the purpose of temporary residence only exceeding six months and under the certificate of a medical person, ich certificate shall be in the form of Schedule G. to the first-recited Act nexed.*

SCHEDULE G.

L. M., a medical person duly qualified in terms of the Act (specify s Act), certify on soul and conscience, that C. D. (name and design patient) is afflicted (state the nature of the disease), but that the lady is not confirmed, and that I consider it expedient, with a view his recovery, that he should be placed (specify the house in which patient is to be kept) for a temporary residence of (specify a time, exceeding six months).

Education Authorities power to order, and the local authorities power to provide for, the medical inspection of school children?

[X.—Report of the Medico-Political Committee on this subject was printed in the SUPPLEMENT of May 27th, 1905, p. 265.]

XI.—PUBLIC VACCINATORS.

MEMORANDUM—

The Departmental Committee of the Local Government Board on Vaccination Expenses reported in favour of placing Public Vaccinators in the same position as English Poor Law Medical Officers in respect of security of tenure; that is to say, that they should not be appointed for limited periods only, and that they should not be removable without the consent of the Local Government Board.

QUESTION—

Would you support a Bill to give Public Vaccinators the same security of tenure as Poor-law Medical Officers?

[XI.—The report on this matter was printed in the SUPPLEMENT of May 27th, 1905, p. 240. The discussion on the subject at the Representative Meeting at Leicester was printed in the SUPPLEMENT of July 29th, 1905, p. 120.]

XII.—PENSIONS FOR ASYLUM WORKERS.

MEMORANDUM—

The Asylum Workers' Association, which comprises between three and four thousand members engaged in the care of the Insane, including Medical and other Officers, and Nurses and Attendants, is desirous of bringing under the notice of candidates at the ensuing Parliamentary Election the claims of the employés of all ranks in the service of Public Asylums to assured and adequate pensions on superannuation after a sufficient length of service. At present, under Section 280 of the Lunacy Act, 1890, such pensions are *optional* at the discretion of the Visiting Committee of each Asylum; it is desired that it be enacted (as proposed in 1898 by Lord Chancellor Halsbury) that "it *shall be the duty* of the Visiting Committee of every Asylum to grant Superannuation Allowances."

QUESTION—

Would you support in Parliament statutory provision (such as that proposed by Lord Halsbury, as above stated) for pensioning Asylum Workers?

MEDICAL ACTS AMENDMENT BILL.

EXPLANATORY MEMORANDUM.

I.—PRINCIPLES OF THE BILL.

A.—GENERAL REMARKS.

1. *Purpose and Form of the Bill.*—The Bill being framed for the amendment of the Medical Acts, is drafted in such form as to be construed with those Acts. From this principle of construction it follows:

(*a*) That it is not proposed to repeal any of the Medical Acts except so far as may be necessary to bring these Acts into agreement with the Bill.

(*b*) That provisions which are contained in the Acts are not repeated in the Bill except when needful for clearness, as, for example, certain provisions as to nomination of members of the General Council by the Crown.

(*c*) That terms, such as "the General Council," which are defined in the Acts, are used in the same sense in the Bill, without further definition.

2. *Provisions as to Dentists.*—In the Bill the precedents of the Medical Acts of 1858 and 1886, which included provisions affecting both the medical and dental professions, have been followed, in preference to that of the Dentists' Act, 1878, which affected one profession only. If this principle receives the approval of the British Medical Association, as it has that of the British Dental Association, and if it is sanctioned by Parliament, the legislation affecting the constitution, duties, and powers of the General Medical Council will be brought into more convenient form for practical purposes.

3. *Arrangement of the Bill.*—The Bill is divided, for convenience of reference, into Parts, each of which relates to a definite group of reforms. In each of the following Sections of this Memorandum one Part of the Bill is dealt with.

B.—CONSTITUTION OF THE GENERAL COUNCIL (PART I).

The principles underlying this Part of the Bill are:

1. That the representation of the Crown on the Council should remain unaltered.

2. That those existing universities which have medical faculties should be represented on the Council, and that, as such representatives sit on the Council primarily as educational experts to advise the Council in its duty of controlling medical education and examinations, each university should be permitted to appoint its representative in such manner as it may deem most expedient.

3. That inasmuch as the medical corporations, with one exception, are not educational bodies, and no longer discharge those functions on behalf of the medical profession for which their charters were originally conferred, they should not be represented on the Council on an equality with the universities, but that their historic positions should be recognized by representation in a reduced degree.

4. That the direct representation of the medical profession should equal that of all the bodies above named, and that, to secure adequate representation of every part of the United Kingdom, a topographical method of election should be adopted.

5. That the principle of direct representation on the Council should be extended to the dental profession.

Other amendments have been included in this part which are consequential on the foregoing, or will simplify the procedure of election.

Statutory provision is proposed for the election of a Vice-President of the Council.

C.—BRANCH COUNCILS AND FINANCE (PART II).

The objects of this Part of the Bill are:

1. To simplify the administration of the Council, and reduce expenditure by doing away with the cumbrous machinery consequent upon the Branch Council system provided by the Act of 1858. Experience has shown (*a*) that no advantage results from the division of the work of registration; (*b*) that apart from registration no duties devolve upon Branch Councils which could not be performed equally well by the Committees proposed under the Bill.

2. To simplify the financial arrangements of the Council and thus also promote economy in administration.

3. To give statutory powers to the Council to provide pensions or contribute to superannuation funds for its officers. (Section 6 is so drawn as to enable the Council to adopt any kind of superannuation scheme which may be found suitable.)

D.—REGISTRATION (PART III).

The provisions of this Part fall under two principa heads:—(1) Affecting the students' registers; (2) affecting the medical and dentists' registers.

1. The statutory creation of a students' register under the absolute control of the Council is provided for.

The necessity for such a register has long been recog nized by the General Medical Council, but the efforts o the Council to establish it have been thwarted by th determination of the English Royal Colleges to maintai against the Council what they conceive to be the privi leges conferred upon them by their charters.

The sections relative to the students' register woul further (*a*) confer upon the Council definite control ove preliminary examinations, thus securing a uniformity o standard in this most important matter; (*b*) fix the age of commencing medical study at seventeen as a minimum in accordance with the opinion already expressed by th British Medical Association.

2. With reference to the medical and dentists' register it is provided in this Part:

(*a*) That registration should be annual, the object bein to keep the register correct and to facilitate the detectio of unregistered practitioners, especially of those wh personate registered practitioners.

(*b*) That an annual fee of one pound should be pai instead of a single payment of five pounds, the objec being to raise the income of the Council to an adequat amount.

The necessity for this proposal is shown by the followin considerations:

(i) The present income of the General Medic Council is insufficient for its present expend ture, and even under the existing law the work of the Council is crippled by want of funds.

(ii) The provisions of the Bill as to the increase of direct representation, as to the conduct of final examinations by the Council (the "one-portal system"), and as to the prohibition of unqualified practice, making it the duty of the Council to protect the profession and the public by enforcing the penal clauses (Part V), will entail considerable increase of expenditure. Such expenditure will be in the interest of the profession as well as of the public, and the only funds out of which it can be defrayed are those derived from medical and dental registration fees.

(*c*) The privileges conferred by registration upon medical and dental practitioners in respect of their practice are clearly defined, the anomalies and injustice of the existing law being removed. Among the privileges of medical registration it is proposed to include the right to use the style of "doctor" as a prefix to the name, thus recognizing by statute the customary usage of the public in reference to medical practitioners, and doing away with distinctions which the great differences in status of nominally equal qualifying examinations have rendered arbitrary and unjust.

E.—EXAMINATIONS (PART IV).

The principal changes in this Part of the Bill are:

1. The institution of the "one-portal" system for admission to both the medical and dentists' registers, by means of final (State) examinations under the absolute control and sole management of the Council.

2. Definite statutory provision for complete control by the Council of the medical curriculum, beginning with the preliminary examination, and for the effective supervision and control of the intermediate examination, subject only to a possible appeal by examining bodies to the Privy Council.

F.—OFFENCES (PART V).

The provisions of this Part fall under the heads of (1) those affecting registered persons, whether students or practitioners, (2) those affecting unregistered persons.

(1) As regards offences by registered persons:

(*a*) It is sought under Sections 21 and 22 to extend or improve the powers and procedure of the General Council in certain matters, the importance of which has been shown by experience. These matters are:

- (i) That the Council be enabled to inflict minor penalties, and therefore to adjust penalties to offences.
- (ii) That the Council should be able to compel the attendance of witnesses, to take evidence on oath, and to award costs.
- (iii) That removal from the register should involve, under penalties, disuse of medical degrees (including diplomas, etc.)

(*b*) In view of the creation of a statutory students' register, students are brought within the disciplinary powers of the Council.

(*c*) Section 27, which prohibits certain acts of registered practitioners, is directed against abuses which tend to facilitate practice by unregistered persons.

(2) Other sections of this Part are designed for the more effectual protection of the public and the profession against various forms of unqualified practice, *Section* (23) definitely prohibiting medical or dental treatment for gain, and also habitual medical or dental practice, *Section* (24) dealing with invalid certificates, *Section* (25) with bogus "diplomas," and *Section* (26) with the objectionable use by traders of the names of medical or dental practitioners, while *Section* (30) provides against the growing abuses of company practice.

Sections 23 and 25 are to be read in connexion with the definition clauses in Section 31 (Part VI).

In Part VI, Section 34, the "second schedule" is referred to. It has been thought desirable to defer the preparation of this schedule, which is a highly technical matter, until the principles of the Bill have been definitely decided by the Representative Meeting.

EPITOME OF THE PRINCIPLES OF THE BILL.

(I) INTRODUCTORY.

The Bill proposes reforms:

(A) In the composition and mode of election of the General Medical Council.

(B) In the administrative arrangements of the Council.

(C) In the control of education by the Council.

(D) In the registration of medical and dental practitioners.

(E) In the disciplinary powers of the General Medical Council.

(F) In the legal position of the practice of medicine and surgery by unqualified persons, and the rights of registered practitioners.

(II) IT IS PROPOSED AS REGARDS:

(A) *Composition and Mode of Election of the Council.*

1. That the direct representation of registered medical and dental practitioners on the Council be increased so that direct representatives compose at least half the Council.

2. That the direct medical representatives be elected by constituencies topographically defined, each constituency electing one representative.

3. That those universities which have medical faculties continue to be represented on the Council by one representative each, elected in such manner as each body may determine.

4. That the Licensing Corporations be grouped to form three constituencies, one for England and Wales, one for Scotland, and one for Ireland, each constituency electing one representative.

(B) *Administrative Arrangements of the Council.*

1. That the Branch Councils be replaced as regards some of their functions by Committees of the Council.

2. That the financial administration be consolidated by transference to the Central Office of the Council.

(C) *Control of Education.*

1. That the Council have complete control over the standard of preliminary general education and over the medical curriculum.

2. That the registration of students be placed under the direct control of the Council.

3. That the minimum age of registration of students be 17.

4. That the intermediate examination remain in the hands of the universities or corporations under the supervision of the Council.

(D) *Registration of Medical and Dental Practitioners.*

1. That there be a one portal system of admission to the *Register*, through a State final examination controlled and managed by the Council.

2. That registration be annual.

3. That there be an annual registration fee of £1.

4. That the privileges conferred by registration be clearly defined.

5. That one privilege of registration as a medical practitioner be the right to use the prefix Dr.

(E) *Disciplinary Powers of the Council.*

1. That the Council have power to suspend a practitioner without absolutely removing his name from the *Register*.

2. That the disciplinary powers be extended to include Medical and Dental Students.

3. That the procedure be made more effective by increasing the powers of the Council in respect of witnesses, and in other ways.

(F) *Unqualified Medical or Dental Practice and Protection of Registered Practitioners.*

1. That the habitual practice of medicine or dentistry for gain by unregistered persons be definitely prohibited.

2. That the granting of bogus diplomas be constituted an offence.

3. That the signing of medical certificates by unregistered persons be made an offence.

4. That the improper use of the names of registered practitioners in connexion with the sale of drugs, appliances, etc., be made an offence.

5. That medical or dental practice by companies be prohibited.

PROPOSED CENTRAL EMERGENCY FUND.

At the meeting of the Central Council of the British Medical Association on December 13th, 1905, the following resolution was adopted:

> That a central emergency fund for dealing with disputes in cases of contract practice, and otherwise, under the management of the Medico-Political Committee, be created by voluntary subscription.

The Medico-Political Committee, on the recommendation of the Contract Practice Subcommittee, has prepared the following scheme for the purpose.

SCHEME OF CENTRAL EMERGENCY FUND.

1. The fund is created by voluntary subscription to assist members of the profession in various parts of the country in maintaining the interests of the profession against organized bodies of the community.

2. All members of the profession are invited to contribute. Any contribution may be earmarked for use in specified disputes or for application to special methods of carrying out the objects of the fund, and when not so earmarked shall be deemed to be given for disposal at the discretion of the Medico-Political Committee in carrying out the general objects defined in Clause 1. At the termination of any special dispute for which funds may have been earmarked, the balance (if any) shall be merged in the General Fund.

3. Subject to the conditions defined in this scheme, the fund shall be under the entire control of the Medico-Political Committee of the British Medical Association, and shall be vested in the names of the Chairman of the Committee and the Treasurer of the Association, as representing the Committee. Payments shall only be made on the authority of a resolution of the Medico-Political Committee, or of a Subcommittee of the Medico-Political Committee acting under powers specifically delegated by the Committee.

4. The fund may be applied for the promotion of the general objects stated in paragraph 1 in any of the following ways:

(*a*) By a grant or grants to any individual practitioner to assist him in maintaining any position in which the Association shall have decided to support him, or to compensate him for losses which he shall have incurred through taking action approved by the Association.

(*b*) By a grant or grants to any Division or Branch of the British Medical Association for its assistance in defraying expenses incident to the conduct of local disputes falling within the scope of the objects of the fund.

(*c*) By expenditure under direct supervision of the Medico-Political Committee or of a Subcommittee for the purpose of any action which the Medico-Political Committee may deem necessary or advisable for the promotion of the general objects of the fund.

The Emergency Fund is now opened, and contributions will be received by the Medical Secretary of such sums, and at such periods—yearly, quarterly, monthly, or weekly as may be convenient to the donors.

CONTRACT MEDICAL PRACTICE.

Notice as to Districts in which Disputes Exist.

A notice as to places in which disputes exist between members of the medical profession and various organizations for providing contract practice will be found among the advertisements, and medical men who may be thinking of applying for appointments in connexion with clubs or other forms of contract practice are requested to refer to the advertisement on page 87

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m. Members can have their letters addressed to them at the office.

☞ *To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

Association Notices.

BRANCH AND DIVISION MEETINGS TO BE HELD.

Leinster Branch.—The annual meeting of the Leinster Branch will be held in the Royal College of Physicians, Kildare Street, Dublin, on Saturday, February 3rd, at 4.30 p.m.—Arthur H. White, Honorary Secretary.

Metropolitan Counties Branch: St. Pancras and Islington Division.—The next meeting will be held on Friday, January 19th, at University College Hospital, at 4 p.m., when Dr. Henry Kenwood, Medical Officer of Health of Stoke Newington, will open a discussion on Disinfection in Rooms occupied by the Infectious Sick.—Wynn Westcott, Honorary Secretary.

Metropolitan Counties Branch: Tottenham Division.—A meeting of the Division will be held at the Tottenham Hospital on Friday, January 26th, at 4 p.m. A discussion will be opened on Hospital Out-patients Departments, by Mr. R. F. Tomlin. Visitors are cordially invited.—Fred. Tresilian, Honorary Secretary, White Lodge, Enfield.

Metropolitan Counties Branch: Westminster Division.—A meeting of this Division will be held at 20, Hanover Square, on Thursday, January 18th, at 8.30 p.m. Mr. J. Bland-Sutton will be in the chair. Smoking. Agenda: (1) Minutes. (2) Correspondence. (3) Questions. (4) To receive Dr. Ewart's report on the Representative Meeting held at Leicester. (5) Mr. J. Smith Whitaker (Medical Secretary of the Association) will read a paper on The Association and the London General Practitioner. (6) Dr. Haslip will draw the attention of the meeting to the fact of members of the resident staff of Charing Cross Hospital having left the institution to inspect dead bodies in the vicinity, and he will move a resolution thereon. (7) To elect a Representative to act on the Metropolitan Branch Entertainment Committee. (8) Communications from the Medical Secretary *re* question of canvassing Parliamentary candidates on matters of importance and interest to the profession. (9) Communication from the Medical Secretaries of the Branch *re* the question of fees to be paid to medical men called in by midwives under the new Act. (10) Any other business.—W. Knowsley Sibley, M.D., Honorary Secretary.

South-Eastern Branch: Norwood Division.—A clinical meeting will be held on Thursday, January 11th, at 4 p.m., at the Cottage Hospital, Upper Norwood, Mr. W. Gandy, of Upper Norwood, in the chair. The staff have kindly promised to show cases. Agenda: (1) Minutes of last meeting. (2) To decide when and where the next meeting shall be held, and to nominate a member of the Division to take the chair thereat. Members desirous of exhibiting cases are requested to communicate with the Honorary Secretary at once. The Hospital is in Hermitage Road, ten minutes from Gipsy Hill (L.B. and S.C.R.) and ten minutes from Crystal Palace High Level (S.E. and C.R.).—Henry J. Prangley, Honorary Secretary; Arthur W. Soper, Assistant Honorary Secretary.

South-Western Branch.—The next meeting of this Branch will be held at the Royal Devon and Exeter Hospital, on Wednesday, January 10th, at 3 p.m., the President (Mr. G. Jackson, F.R.C.S., J.P.) in the chair. A Council meeting will be held on the same date and at the same place at 2 p.m. The following communications have already been promised:—Dr. W. Gordon: Advances in our Knowledge of Heart Diseases during the Past Year. Mr. Russell Coombe: (1) Notes of a Case of Ruptured Pyosalpinx with an unusual complication; (2) Notes on a Case of Haemorrhagic Pancreatis. Dr. R. V. Solly: Reports on Some *Post-mortem* Examinations, illustrated by Microscopic Specimens. Dr. Solly will also show Microscopic Slides of Gonococci and Pneumococci. Tea will be provided after the meeting, and gentlemen wishing to join the Branch are requested to communicate with Mr. G. Young Eales, 1, Matlock Terrace, Torquay, Honorary Secretary.

South-Western Branch: Truro Division.—A quarterly meeting of this Division will be held at the Miners' Hospital, Redruth, on Tuesday, January 9th, at 3 p.m. Agenda: (1) To read the minutes of the last meeting. (2) A short discussion on the question of the State Registration of Trained Nurses, to be opened by Dr. Walker, of Mevagissey. (3) Any other business. (4) To consider certain matters to be laid before candidates at the forthcoming election. (5) To arrange deputations for that purpose. Dr. Frank Hichens will read a paper on Remarks on Puerperal Eclampsia, especially as to treatment. The Honorary Medical Staff of the hospital will show cases of interest, on which discussion will be invited. Tea will be provided after the meeting.—Mark R. Taylor, Honorary Secretary.

South Wales and Monmouthshire Branch.—Nominaions for an elective member of the Central Council to fill the vacancy created by the death of Colonel Cresswell, C.B., must e made in writing, on or before January 6th, to Dr. Frank G. Thomas, 69, Walter Road, Swansea.

Southern Branch: Winchester Division.—There will be meeting of this Division on Wednesday, January 10th, t the Royal Hants County Hospital, Winchester, at 3 p.m. genda: 1. To consider the following matters referred to the ivisions: (*a*) Contract Practice (see Supplement, August th and July 22nd, 1905). (*b*) Medico-Political Committee (see upplement, October 7th, 1905). (*c*) Co-ordination of the cientific Work of the Association, its Branches and Divisions see Supplement, September 30th, 1905). (*d*) Notice to ivision Secretaries (see Supplement, November 11th, 1905). *e*) Questions suggested for use by Divisions in interviewing arliamentary Candidates (see Supplement, November 18th, 905). N.B.—Members are requested to bring their Supplements referring to the above subjects to the meeting. 2. Dr. riscoe (Alton) will bring forward for discussion Professional dvertisements. 3. Dr. Livingstone (Hursley) will move—"That the Executive Committee be requested to draw up a cale of fees for the guidance of members." 4. Dr. Thompson Chandlersford) will show a case for diagnosis. Tea will be rovided at 4.30 p.m.—H. J. Godwin, Honorary Secretary and reasurer, Winchester.

Vacancies and Appointments.

VACANCIES.

his list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

IRMINGHAM AND MIDLAND EAR AND THROAT DEPARTMENT.—House-Surgeon. Salary at the rate of £70 per annum.

IRMINGHAM UNIVERSITY.—Demonstrator of Anatomy. Stipend, £175 per annum.

RISTOL ROYAL INFIRMARY.—Pathologist, Bacteriologist, and Director of Clinical Laboratories. Salary, £250 per annum.

URNLEY COUNTY BOROUGH.—Medical Officer of Health. Salary, £500 per annum.

HESTER GENERAL INFIRMARY.—House-Surgeon. Salary, £100 per annum.

ERBYSHIRE: ROYAL INFIRMARY.—(1) Two House-Surgeons. (2) House-Physician. (3) Assistant House-Surgeon. Salary for (1) and (2), £100 per annum; and for (3), £60 per annum.

REAT YARMOUTH HOSPITAL.—House-Surgeon. Salary, £90 per annum. £10 a year extra allowed for lectures to probationer nurses.

ASTINGS: ST. LEONARDS AND EAST SUSSEX HOSPITAL.—House-Surgeon. Salary, £75 per annum.

OSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physicians. Honorarium, £25 for six months.

IDDLESBROUGH: NORTH RIDING INFIRMARY.—Assistant House-Surgeon. Salary, £75 per annum.

ATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Resident Medical Officer. Salary, £100 per annum.

ORTHAMPTON GENERAL HOSPITAL.—(1) Honorary Assistant Surgeon; (2) House-Surgeon. Salary, £90 per annum, increasing to £100.

OYAL FREE HOSPITAL, Gray's Inn Road. (1) Medical Registrar. (2) Surgical Registrar.

LFORD ROYAL HOSPITAL.—Honorary Assistant-Surgeon.

ICTORIA HOSPITAL FOR SICK CHILDREN, Tite Street, S.W.—House-Surgeon. Honorarium, £25 for six months.

ORK DISPENSARY.—Resident Medical Officer. Salary, £120 per annum.

APPOINTMENTS.

ALE, H. R., M.D.Lond., Medical Officer of Health, Retford Rural District Council, vice J. Housley, M.D.St. And.

YLE, H. Edmund G., M.R.C.S., L.R.C.P., Honorary Anaesthetist to the Paddington Green Children's Hospital.

OMLEY, J., M.R.C.S., L.R.C.P., District Medical Officer of the Halstead Union.

ERS, Alfred, M.D.Vict., Ch.B., Certifying Factory Surgeon for the Wilmslow District, co. Chester.

WAR, T. F., M.D.Aberd., C.M., Medical Officer of Health, Forfar County Council.

CKSON, Francis Henry, M.B., Ch.B.Edin. Univ., Junior Assistant House-Surgeon to the Stockport Infirmary.

ANS, W. B., M.B., C.M.Aberd., District Medical Officer of the Wakefield Union.

Y, A. R., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Walsingham Union.

CLEOD, D. MacKay, M.B., Ch.B.Edin., District Medical Officer of Wakefield Union.

COL, James, M.B., C.M.Aberd., Certifying Factory Surgeon for the Alford District, co. Aberdeen.

LERENSHAW, Robert, M.B., Ch.B.Vict., Assistant House Surgeon, Liverpool Infirmary for Children.

ITH, H. Watson, M.B., Ch.B.Aber., Second Assistant Medical Officer to the Durham County Asylum, Winterton Ferryhill.

Teasdale, J. C., M.B., Ch.B.Vict., Certifying Factory Surgeon for the Retford District, co. Nottingham.

Thompson, George William, M.B.Edin., F.R.C.S.Eng., Ophthalmic Surgeon in Charge of Out-patients at the French Hospital, Shaftesbury Avenue.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

Beatton.—At the Cliffe, Bradford, on January 2nd, the wife of Dr. Gilbert T. Beatton, of a daughter.

MacFadden.—On December 28th, 1905, at 30, Frognal, Hampstead, N.W., the wife of Cecil J. R. MacFadden, M.D., C.M.Edin., of a daughter.

MARRIAGE.

Thompson—Sherring.—December 28th, 1905, at West Derby Parish Church, by the Rev. Ralph T. Brockman, Vicar of S. John's, Tue Brook, Liverpool, assisted by the Rev. Percy Stewart, Rector of West Derby, Wm. Atkin Thompson, M.R.C.S.Eng., L.R.C.P.Lond., of Leigh, Lancashire, to Agnes Ellen Sherring (late Matron of Weston-super-Mare General Hospital).

DEATHS.

Greener.—On December 26th, 1905, at Falloden, Cathedral Road, Cardiff, Michael Hindmarsh Greener, M.B., C.M. Interred December 29th at Dinas Cross, Pembrokeshire.

Platt.—On December 29th, 1905, at 1, Clegg Street, Oldham, Thomas Platt, J.P., M.R.C.S., L.S.A. Aged 72 years.

IN MEMORIAM.

Urquhart.—In loving memory of my dear son, Alfred James Urquhart, L.S.A., eldest son of the late David Urquhart, Esq., of Claremont, Inverness, N.B., who passed away December 29th, 1904.. (Deeply regretted.)

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 p.m. Children's Diseases: (1) Chronic Membranous Colitis in Infancy, by Dr. Edmund Cautley; (2) Bronchiectasis in Childhood, by Dr. C. R. Box.

TUESDAY.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—Dr. Alexander Haig: Capillary Circulation and Blood Pressure and the Conditions that Control Them. Dr. Frederick Taylor: Three Cases of Myoclonus.

WEDNESDAY.

Dermatological Society of London, 11, Chandos Street, Cavendish Square, W., 5.15 p.m.

Hunterian Society, at the London Institution, 8.30 p.m.—Pathological meeting.

THURSDAY.

British Gynaecological Society, 20, Hanover Square, W., 8 p.m. Annual General Meeting: The President's Valedictory Address (Dr. William Alexander).

FRIDAY.

Clinical Society of London, 20, Hanover Square, W., 8.30 p.m.—The following papers will be read: Mr. Laurie McGavin: Transverse *versus* Inguinal Colotomy. Mr. A. Irving Pinches and Mr. E. M. Corner: Further Cases of Torsion of the Omentum. Dr. A. E. Garrod and Dr. Langmead: A Case of Associated Malformations including Transposition of Viscera.

POST-GRADUATE COURSES AND LECTURES.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows: Tuesday, Some Unusual Manifestations of Syphilis in the Upper Air Passages; Wednesday, Climacteric Insanities; Thursday, Some Problems in Morbid Physiology.

North-East London Post-Graduate College, Tottenham Hospital, N.—Friday, 4 p.m., Mr. John Langton: Opening Lecture of Spring Session, Exploratory Laparotomy, its Objects and Limitations.

West London Hospital Post-Graduate College, Hammersmith, W.—The following lectures and demonstrations have been arranged for next week, at 5 p.m. each day: Monday, Examination of Stomach and Gastric Contents; Tuesday, Errors in Treatment; Wednesday, Practical Medicine; Thursday, Some Common Diseases of the Pharynx and Larynx; Friday, Anaesthetics.

BOOKS, Etc., RECEIVED.

Medical Homes for Private Patients, 1906. Edited by R. P. Binnie. London: The Scientific Press. 6d.

Women as Barmaids. London: P. S. King and Son. 1905. 1s.

The Edinburgh Stereoscopic Atlas of Anatomy. Edited by D. Waterton, M.A., M.D., F.R.C.S.E., F.R.S.E. Section III. Edinburgh: T. C. and E. C. Jack. 1905. £1 5s.

Year Book of Pharmacy. Edited by J. O. Braithwaite. London: J. and A. Churchill. 1905.

Pathology and Treatment of Rheumatoid Arthritis. By P. W. Latham, M.D. London: G. Bell and Sons. 1905. 1s. 6d.

CALENDAR OF THE ASSOCIATION.

JANUARY.

Date.	Meetings to be Held.
7 Sunday	
8 MONDAY	
9 TUESDAY	PREMISES AND LIBRARY COMMITTEE, 3 p.m., 429, Strand. TRURO DIVISION, *South-Western Branch*, Miners' Hospital, Redruth, 3 p.m.
10 WEDNESDAY	JOURNAL AND FINANCE COMMITTEE, 2.30 p.m., 429, Strand; to meet Chairmen of Committees, 4 p.m. SOUTH-WESTERN BRANCH, Royal Devon and Exeter Hospital, 3 p.m. WINCHESTER DIVISION, *Southern Branch*, Royal Hants County Hospital, Winchester, 3 p.m.
11 THURSDAY	LEIGH DIVISION, *Lancashire and Cheshire Branch*, Scientific Section, Co-operative Offices, Ellesmere Street, Leigh, 3.30 p.m. NORWOOD DIVISION, *South-Eastern Branch*, Cottage Hospital, Upper Norwood, 4 p.m.
12 FRIDAY	HAMPSTEAD DIVISION, *Metropolitan Counties Branch*.
13 SATURDAY	
14 Sunday	
15 MONDAY	
16 TUESDAY	SCIENCE COMMITTEE, 2.30 p.m., London
17 WEDNESDAY	CENTRAL COUNCIL, 2 p.m.
18 THURSDAY	CITY DIVISION, *Metropolitan Counties Branch*, 4 p.m. WESTMINSTER DIVISION, *Metropolitan Counties Branch*, 20, Hanover Square, 8.30 p.m.
19 FRIDAY	ST. PANCRAS AND ISLINGTON DIVISION, *Metropolitan Counties Branch*, University College Hospital, 4 p.m.
20 SATURDAY	
21 Sunday	

JANUARY *(continued)*.

Date.	Meetings to be Held.
22 MONDAY	
23 TUESDAY	
24 WEDNESDAY	
25 THURSDAY	WANDSWORTH DIVISION, *Metropolitan Counties Branch*, Balham Hotel, 8.45 p.m.
26 FRIDAY	TOTTENHAM DIVISION, *Metropolitan Counties Branch*, Tottenham Hospital, 4 p.m.
27 SATURDAY	
28 Sunday	
29 MONDAY	
30 TUESDAY	
31 WEDNESDAY	BATH AND BRISTOL BRANCH, Bristol.

FEBRUARY.

Date.	Meetings to be Held.
1 THURSDAY	SWANSEA DIVISION, *South Wales and Monmouthshire Branch*, General Hospital, Swansea, 3 p.m. WANDSWORTH DIVISION, *Metropolitan Counties Branch*, Bolingbroke Hospital, 4 p.m.
2 FRIDAY	
3 SATURDAY	LEINSTER BRANCH, Annual Meeting, Royal College of Physicians, Kildare Street, Dublin, 4.30 p.m.
4 Sunday	
5 MONDAY	
6 TUESDAY	
7 WEDNESDAY	
8 THURSDAY	
9 FRIDAY	HAMPSTEAD DIVISION, *Metropolitan Counties Branch*.
10 SATURDAY	

MEMBERSHIP OF THE BRITISH MEDICAL ASSOCIATION.

THE British Medical Association exists for the promotion of medical and the allied sciences, and the maintenance of the honour and the interests of the medical profession.

The Annual Subscription to the British Medical Association is £1 5s. 0d., and the BRITISH MEDICAL JOURNAL is supplied weekly, post free, to every member of the British Medical Association wherever he may reside.

Forms of application for membership can be obtained from the General Secretary, 429, Strand, London, W.C.

The principal rules governing the election of a medical practitioner to be a member of the British Medical Association are as follow:

Article III.—Any Medical Practitioner registered in the United Kingdom under the Medical Acts and any Medical Practitioner residing within the area of any Branch of the Association situate in any part of the British Empire other than the United Kingdom, who is so registered or possesses such medical qualifications as shall, subject to the Regulations, be prescribed by the Rules of the said Branch, shall be eligible as a Member of the Association. The mode and conditions of election to Membership shall from time to time be determined by or in accordance with the By-laws. Every Member, whether one of the existing Members or a subsequently-elected Member, shall remain a Member until he ceases to be a Member in accordance with the provisions hereof.

By-law 1.—Every Candidate for Membership of the Association shall apply for election in writing, addressed to the Association, and stating his agreement, if elected, to abide by the Regulations and By-laws of the Association, and the Rules of such Division and Branch to which he may at any time belong, and to pay his subscription for the current year.

By-law 2.—Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the General Secretary of the Association, and to every Member of the Branch Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a member of the Association by the Branch Council at any meeting thereof held not less than seven days (or such longer period as the Branch may by its Rules prescribe) after the date of the said Notice. A Branch may by special Resolution require that each candidate for election to the Association shall furnish a certificate from two Members of the Association to whom he is personally known. Officers of the Navy, Army, and Indian Medical Services on the Active List are eligible for election through the Council or a Branch without approving signatures as laid down in By-law 3.

By-law 3.—Every candidate whose place of residence is not included in the area of any Branch shall forward his Application to the General Secretary of the Association, together with a statement signed by three members of the Association, that from personal knowledge they consider him a suitable person for election. Notice of the proposed election shall be sent by the General Secretary to every Member of the Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a Member of the Association by the Council at any meeting thereof held not less than one month after the date of the said notice.

The annual subscription to the BRITISH MEDICAL JOURNAL for non-members is £1 8s. 0d. for the United Kingdom and £1 12s. 6d. for abroad.

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JANUARY 13TH, 1906.

CONTENTS.

	PAGE
MEETINGS OF BRANCHES AND DIVISIONS:	
Dorset and West Hants Branch: Bournemouth Division ...	9
Glasgow and West of Scotland Branch: Lanarkshire Division ...	9
Oxford and Reading Branch: Oxford Division	9
ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD	10
NAVAL AND MILITARY APPOINTMENTS	10
VITAL STATISTICS	10
VACANCIES AND APPOINTMENTS...	11
BIRTHS, MARRIAGES, AND DEATHS	11
DIARY OF THE WEEK	11
CALENDAR	12

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

DORSET AND WEST HANTS BRANCH:
BOURNEMOUTH DIVISION.

A MEETING of this Division was held in the Bournemouth Medical Society's rooms on Wednesday, December 20th, 1905, Dr. SNOW in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Co-ordination of the Scientific Work of the Association.—It was resolved:

> That co-ordination between the Division and the Bournemouth Medical Society was much to be desired, and the Secretary be instructed to write to the Honorary Secretary of the Society and ask him to bring the views of the Division before the members.

Representatives on General Medical Council.—The question of the election of representatives on the General Medical Council was left to the Branch.

Questions to Parliamentary Candidates.—The Secretary was instructed to submit the questions issued by the Association to the candidates in the three constituencies in the area of the Division.

Divisional Meetings.—A discussion as to whether business matters only should be discussed at Divisional meetings resulted in a unanimous decision that medical work should be encouraged at Divisional meetings.

Next Meeting.—The next meeting was fixed for March.

GLASGOW AND WEST OF SCOTLAND BRANCH:
LANARKSHIRE DIVISION.

A MEETING of this Division was held in the Royal Hotel, Hamilton, on Thursday, December 21st, 1905, at 3.30 p.m., Dr. BRUCE GOFF (Bothwell), Chairman, presiding.

The Medical Profession and Parliamentary Candidates.—The Division first proceeded to deal with the "Memoranda and Questions on Parliamentary Subjects affecting the Medical Profession, submitted for the consideration of Parliamentary Candidates." Considerable difference of opinion prevailed amongst the members of the Division, especially regarding the Medical Acts Amendment Bill, and it was moved by Dr. MACPHERSON, seconded by Dr. CRAWFORD, and unanimously carried:

> That no special committees be appointed meantime on account of the short time elapsing before the election.

Report of Ethical Committee.—The next item was the presentation to the Division by the Ethical Committee of their report and findings on a matter of complaint submitted to them by one of the members. The report having been read by the Secretary, it was moved by Dr. BRUCE GOFF and seconded by Dr. MILLER:

> That the report be approved, and that the case calls for no further expression of opinion from the meeting.

This was put to the meeting, and on a division was carried by a majority.

OXFORD AND READING BRANCH:
OXFORD DIVISION.

AN extraordinary meeting of the Division was held on December 21st, 1905, at the Radcliffe Infirmary, Oxford, Dr. BLOXSOME, Chairman, presiding.

Questions to Parliamentary Candidates.—The purpose of the meeting was to consider the list of questions to be submitted to parliamentary candidates at the next General Election. The SECRETARY read the minutes of the last Divisional Council meeting, at which it was decided to form and send deputations to candidates to discuss the questions submitted to them. Some discussion arose as to whether candidates should be asked to pledge themselves in writing on subjects of which they could only hear one side, but it was finally resolved that they should be requested to forward answers in writing. The questions were then taken in detail, and it was agreed that all of the questions under the ten headings should be submitted, with the following exception:

(*a*) Question I. Under the Medical Acts Amendment Bill. The meeting felt that the profession was not sufficiently organized at the present time to submit this question.

(*b*) Question VII. (Incipient Insanity). The meeting was not sufficiently informed as to the Scottish law.

(*c*) Question VIII. (Habitual Inebriety and Drug Habits). The meeting did not consider such a Bill justifiable under present conditions.

It was further decided not to put the question *re* Security of tenure of public vaccinators.

Special Parliamentary Committee.—Notice was given of the appointment of a special Parliamentary Committee by the Divisional Council; the three members elected were Mr. Drew, Mr. Parker, and Dr. Duigan (Honorary Secretary).

Members Present at Divisional Meetings.—After some further business connected with time limits for members showing cases, reading papers, and taking part in discussions at the general meetings of the Division, Dr. COLLIER proposed the following resolution:

> That the Council be requested to publish the members present at any Divisional meeting.

—Seconded by Mr. THOMPSON, and carried *nem. con.*

☞ *To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

Association Notices.

BRANCH AND DIVISION MEETINGS TO BE HELD.

East Anglian Branch: South Essex Division.—The next meeting will be held at the Victoria Hospital, Southend-on-Sea, on Tuesday, January 16th, at 4 p.m. Business: (1) Minutes of meeting of December 19th, 1905. (2) Cases will be shown by Dr. F. Silva Jones, Dr. Bluck, Dr. Forsyth, and Dr. Smellie. (3) Dr. R. J. Probyn-Williams, Senior Anaesthetist, London Hospital, will give a paper on Some Points in the Administration of Anaesthetics.—W. Cardy Bluck, Honorary Secretary, Southend-on-Sea.

Leinster Branch.—The annual meeting of the Leinster Branch will be held in the Royal College of Physicians, Kildare Street, Dublin, on Saturday, February 3rd, at 4.30 p.m.—Arthur H. White, Honorary Secretary.

Metropolitan Counties Branch: City Division.—A general meeting will be held on Thursday, January 18th, at 4 p.m., at Salisbury House, Finsbury Circus, E.C. (Hall No. 20). Agenda: (1) Minutes. (2) Letters. (3) At 4.15 the meeting will be made special to consider a proposal *re* quorum. (4) Mr. Frederick Wallace's report on Representative Meeting. (5) Election of Representative on Branch Entertainment Committee. (6) Two propositions by Dr. Stuart Hallows *re* use of Association Library. (7) Consideration of Report on Contract Practice.—E. W. Goodall, Honorary Secretary.

Metropolitan Counties Branch: Hampstead Division—The next meeting of this Division will be held at St. Peter's Hall, Belsize Square, N.W., on Friday, January 12th, at 4.45 p.m., Mr. F. R. Humphreys in the chair. Agenda: (1) Minutes. (2) Correspondence. (3) Questions. (4) Paper by Dr. J. F. McCann on the Diagnosis of Cancer of the Womb, illustrated by lantern slides. (5) Election of Representative for the Metropolitan Branch Entertainment Committee. (6) Other business.—R. A. Yeld, Honorary Secretary, 29, Platt's Lane, Hampstead, N.W.

Metropolitan Counties Branch: St. Pancras and Islington Division.—The next meeting will be held on Friday, January 19th, at University College Hospital, at 4 p.m., when Dr. Henry Kenwood, Medical Officer of Health of Stoke Newington, will open a discussion on Disinfection in Rooms occupied by the Infectious Sick.—Wynn Westcott, Honorary Secretary.

Metropolitan Counties Branch: Tottenham Division.—A meeting of the Division will be held at the Tottenham Hospital on Friday, January 26th, at 4 p.m. A discussion will be opened on Hospital Out-patients Departments, by Mr. R. F. Tomlin. Visitors are cordially invited.—Fred. Tresilian, Honorary Secretary, White Lodge, Enfield.

Metropolitan Counties Branch: Westminster Division.—A meeting of this Division will be held at 20, Hanover Square, on Thursday, January 18th, at 8.30 p.m. Mr. J. Bland-Sutton will be in the chair. Smoking. Agenda: (1) Minutes. (2) Correspondence. (3) Questions. (4) To receive Dr. Ewart's report on the Representative Meeting held at Leicester. (5) Mr. J. Smith Whitaker (Medical Secretary of the Association) will read a paper on The Association and the London General Practitioner. (6) Dr. Haslip will draw the attention of the meeting to the fact of members of the resident staff of Charing Cross Hospital having left the institution to inspect dead bodies in the vicinity, and he will move a resolution thereon. (7) To elect a Representative to act on the Metropolitan Branch Entertainment Committee. (8) Communications from the Medical Secretary *re* question of canvassing Parliamentary candidates on matters of importance and interest to the profession. (9) Communication from the Medical Secretaries of the Branch *re* the question of fees to be paid to medical men called in by midwives under the new Act. (10) Any other business.—W. Knowsley Sibley, M.D., Honorary Secretary.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

Staff Surgeon H. N. Stephens is allowed to withdraw from the service with a gratuity, December 23rd, 1905. He was appointed Surgeon, November 14th, 1893, and Staff-Surgeon, November 14th, 1901.

The following appointments have been made at the Admiralty: William J. Codrington, M.B., Staff-Surgeon, and Kenelm D. Bell, Surgeon, to the *Isis*, on recommissioning, January 9th; Arthur S. Bradley, M.B., Surgeon, lent to Portland Hospital, January 9th; Walter T. Haydon, Surgeon, to the *Actaeon*, December 29th, 1905; George A. Dreaper, Fleet Surgeon, to the *Duke of Edinburgh*, January 20th; Frederick D. Lumley, Staff Surgeon, to the *Nile*, January 20th; Morris C. Langford, Staff Surgeon, to the *Blake*, on recommissioning, January 20th: George Gibson, Staff Surgeon, to the *Topaze*, January 2nd; Robert W. Stanistreet and Harold E. Fryer, Staff Surgeon, to the *President*, for three months' study at West London Hospital, January 8th; William Jackson, Staff Surgeon, to the *Tenedos*, January 8th; Cecil R. Richard, Surgeon, to the *Fisgard*, January 8th.

Alfred R. Kay, civil practitioner, has been appointed Surgeon and Agent at Morston and Weybourne and detachments.

ROYAL ARMY MEDICAL CORPS.

Colonel H. R. Whitehead, at present serving at Secunderabad, Madras, is appointed to officiate as Principal Medical Officer, Rawal Pindi Division.

Lieutenant-Colonel D. O'Sullivan, now serving at Rawal Pindi, is appointed to officiate as Principal Medical Officer, Abbottabad and Sialkot Brigades.

Colonel W. E. Saunders, C.B., is granted the temporary rank of Surgeon-General whilst officiating as Principal Medical Officer, Eastern Command, India, from October 31st, 1905.

Lieutenant-Colonel J. R. Dodd, M.B., is granted the temporary rank of Colonel whilst officiating as Principal Medical Officer of a Brigade in India, from November 5th, 1905.

Exchange.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

Major, R.A.M.C., returned from foreign service, December, 1904 willing to entertain offers for exchange with an officer ordered abroad, preferably India.—Apply, "Exchange," c.o. Holt and Co., 3, Whitehall Place, London."

A Lieutenant-Colonel, R.A.M.C., with over one year in South Africa, in charge of very good station, wishes an exchange with recent arrival home. Please state terms.—Address No. 242, British Medical Journal Office, 429, Strand, W.C.

SURGEON TO THE VICEROY OF INDIA.

Surgeon-Lieutenant-Colonel W. R. Crooke-Lawless, M.D., Medical Officer. 1st Grenadier Guards, has been appointed Surgeon to the Governor-General of India from November 18th, 1905.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 6,413 births and 5,199 deaths were registered during the week ending Saturday, December 30th, 1905. The annual rate of mortality in these towns, which had been 16.1, 17.0, and 17.8 per 1,000 in the three preceding weeks, declined again to 17.4 per 1,000 in the period under notice. The rates in the several towns ranged from 7.5 in King's Norton, 8.1 in Hornsey, 10.1 in York, 10.7 in Reading and in Walsall, 11.7 in Wallasey, and 11.9 Burton-on-Trent, to 21.5 in Burnley, 22.3 in Newcastle-on-Tyne, 22.4 in Tynemouth, 24.2 in Huddersfield, 24.8 in Preston, 24.9 in Liverpool, 25.4 in Merthyr Tydfil, and 30.6 in Hanley. In London the rate of mortality was 17.8 per 1,000, while in the seventy-five large provincial towns it averaged 17.2 per 1,000. The death-rate from the principal infectious diseases in the seventy-six towns averaged 1.3 per 1,000; in London this rate was equal to 1.6 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 2.1 in Coventry, in Stockport, in Middlesbrough, and in Merthyr Tydfil, 2.4 in Blackburn, in Leeds, and in Newcastle-on-Tyne, 2.6 in Burnley, and 4.1 in Preston. Measles caused a death-rate of 1.2 in Blackburn, 1.7 in Leeds, and 3.6 in Preston; diphtheria of 1.1 in Middlesbrough and 1.5 in West Hartlepool; whooping-cough of 1.2 in Rochdale and in Newcastle-on-Tyne, and 2.6 in Burnley; "fever" of 1.1 in Stockport and 1.2 in Wigan; and diarrhoea of 1.1 in Oldham and in Middlesbrough, and 1.4 in Coventry. The mortality from scarlet fever showed no marked excess in any of the large towns. No fatal case of small-pox was registered in the week under notice either in London or in any of the large provincial towns, and no small-pox patients were under treatment during the week in the Metropolitan Asylums Hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 3,888, 3,670, and 3,409 at the end of the three preceding weeks, had risen again to 3,446 on Saturday, December 30th; 295 new cases were admitted during the week, against 355, 341, and 295 in the three preceding weeks.

In seventy-six of the largest English towns, including London, 9,055 births and 5,548 deaths were registered during the week ending Saturday last, January 6th. The annual rate of mortality in these towns, which had been 17.0, 17,8 and 17.4 per 1,000 in the three preceding weeks, rose again to 18.3 per 1,000 last week. The rates in the several towns ranged from 9.0 in Walthamstow and in Rhondda, 9.6 in East Ham, 10.2 in Hornsey, 11.1 in Northampton, 11.2 in Reading, 11.5 in King's Norton, 12.4 in Hastings, and 12.9 in Swansea, to 21.5 in Leeds, 22.5 in Huddersfield, 23.3 in Burnley, 23.7 in Bootle, 23.9 in Liverpool, 24.2 in Smethwick, 24.9 in Bury, and 30.5 in Preston. In London, the rate of mortality was 19.4 per 1,000, while it averaged 17.8 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases in the seventy-six towns averaged 1.5 per 1,000; in London also this death-rate was equal to 1.5 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 2.8 in Liverpool and in Merthyr Tydfil, 2.9 in Leeds, 3.1 in Hanley and in Leicester, 3.8 in Aston Manor and in Gateshead, 4.3 in Blackburn, and 5.4 in Preston. Measles caused a death-rate of 1.1 in Willesden, 1.2 in Blackburn, 1.7 in Leeds, 1.9 in Aston Manor, 2.1 in Wolverhampton and in Gateshead, 2.2 in Swansea, and 4.9 in Preston; scarlet fever of 1.0 in Sheffield, 1.1 in Liverpool, and 2.3 in Blackburn; diphtheria of 1.0 in Hull and 1.4 in Merthyr Tydfil; whooping-cough of 1.1 in Salford, 1.3 in Gateshead, 1.5 in Warrington and in Burnley, 1.6 in Stockport, 1.9 in Aston Manor, and 2.0 in Leicester; and diarrhoea of 1.1 in Walsall. The mortality from "fever" showed no marked excess in any of the large towns. No fatal case of small-pox was registered last week either in London or in any other of the large towns, and no small-pox patients were under treatment last week in the Metropolitan Asylums Hospitals. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 3,670, 3,409, and 3,446 at the end of the three preceding weeks, had declined again to 3,299 at the end of last week; 291 new cases were admitted during the week, against 295 in each of the two preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, December 30th, 1905, 929 births and 609 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 19.9, 18.2, and 17.4 per 1,000 in the three preceding weeks, rose again to 18.2 per 1,000 in week under notice, and was 0.8 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 15.2 in Paisley and 15.4 in Leith to 19.3 in Greenock and in Aberdeen and 22.9 in Dundee. The death-rate from the principal infectious diseases averaged 1.9 per 1,000, the highest rates being recorded in Dundee and Greenock. The 287 deaths registered in Glasgow included 15 which were referred to measles, 5 to diphtheria, 5 to diarrhoea, 3 to whooping-cough, and 2 to "fever." Three deaths from diarrhoea occurred in Edinburgh; 6 from measles, 2 from diphtheria, 2 from whooping-cough, and 3 from diarrhoea in Dundee; 2 from "fever" in Paisley; 3 from measles and 2 from diphtheria in Greenock.

During the week ending Saturday last, January 6th, 881 births and 680 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.2, 17.4 and 18.2 per 1,000 in the three preceding weeks, further rose to 19.8 per 1,000 last week, and was 1.5 per 1,000 above the mean rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 13.2 in Paisley, and 16.5 in Aberdeen to 22.7 in Leith, and 26.2 in Dundee. The death-rate from the principal infectious diseases averaged 2.3 per 1,000 in these towns, the highest rates being recorded in Dundee and Greenock. The 335 deaths registered in Glasgow included 18 which were referred to measles, 6 to diphtheria, 2 to whooping-cough, and 11 to diarrhoea. Two fatal cases of diarrhoea were recorded in Edinburgh. Eight deaths from measles, 8 from whooping-cough, 4 from diarrhoea and 3 from diphtheria were registered in Dundee; 5 from measles in Greenock, and 2 from scarlet fever in Leith.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, December 23rd, 1905, 423 births and 358 deaths were registered in six of the principal Irish towns, as against 506 births and 334 deaths in the preceding period. The annual death-rate in these towns, which had been 19.9, 18.6, and 17.4 per 1,000 in the three preceding weeks, fell to 16.5 per 1,000 in the week under notice, this figure being 1.3 per 1,000 lower than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 7.8 in Waterford and 13.6 in Londonderry to 21.2 in Belfast and 22.3 in Dublin. The zymotic death-rate during the same period and in the same six Irish towns averaged 0.6 per 1,000, or 0.1 per 1,000 lower than during the preceding period, the highest figure (1.6) being recorded in Belfast, while Cork, Limerick, Londonderry, and Waterford registered no deaths under this heading at all.

During the week ending Saturday, December 30th, 1905, 452 births and 309 deaths were registered in six of the principal Irish towns, as against 423 births and 358 deaths in the preceding period. The annual death-rate in these towns, which had been 18.6, 17.4, and 16.5 per 1,000 in the three preceding weeks, fell to 15.3 per 1,000 in the week under notice, this figure being 2.1 per 1,000 lower than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 7.8 in Waterford and 11.2 in Londonderry to 18.0 in Belfast and 20.5 in Cork. The zymotic death-rate during the same period and in the same six Irish towns averaged 0.9 per 1,000, or 0.3 per 1,000 higher than during the preceding period, the highest figure, 2.1, being recorded in Cork, while Londonderry and Limerick registered no deaths under this heading at all.

Vacancies and Appointments.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

ASHTON-UNDER-LYNE UNION.—Junior Resident Medical Officer for the Workhouse. Salary, £100 per annum.

BIRMINGHAM AND MIDLAND EAR AND THROAT DEPARTMENT.—House-Surgeon. Salary at the rate of £70 per annum.

BIRMINGHAM: GENERAL HOSPITAL.—(1) House-Surgeon. (2) House-Surgeon for Special Departments. Salary £50 each.

BRIGHTON: ROYAL ALEXANDRA HOSPITAL FOR SICK CHILDREN.—(1) Physician in charge of Skin Department. (2) Dental Surgeon.

BURNLEY COUNTY BOROUGH.—Medical Officer of Health. Salary, £500 per annum.

CHELTENHAM GENERAL HOSPITAL.—Junior House-Surgeons. Salary, £60 per annum.

CHESTER GENERAL INFIRMARY.—House-Surgeon. Salary, £100 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL AND DISPENSARY.—Junior House-Surgeon. Salary, £50 per annum.

GLASGOW CORPORATION.—Lady Medical Assistant. Salary, £160 per annum.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway.—Two Anaesthetists. Honorarium 10 guineas per annum.

GREAT YARMOUTH HOSPITAL.—House-Surgeon. Salary, £90 per annum. £10 a year extra allowed for lectures to probationer nurses.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House-Physicians. Honorarium, £25 for six months.

SLINGTON: PARISH OF ST. MARY.—Medical Officer and Public Vaccinator for No. 9 District. Salary, £100 per annum and fees.

KING'S COLLEGE.—Sambrooke Surgical Registrar.

LIVERPOOL DISPENSARIES.—Assistant Surgeon. Salary, £100 per annum.

MIDDLESEX COUNTY ASYLUM, Napsbury, near St. Albans.—Assistant Medical Officer. Salary, £160 per annum.

MIDDLESEX HOSPITAL.—Casualty Medical Officer for six months. Salary, £50 per annum.

NATIONAL DENTAL HOSPITAL, Great Portland Street, W.—Deputy Anaesthetist.

NORTHAMPTON GENERAL HOSPITAL.—House-Surgeon. Salary, £90 per annum, increasing to £100.

ST. PANCRAS PARISH.—Junior Assistant Medical Superintendent of the North Infirmary, Dartmouth Park Hill. Salary, £75 per annum.

WEST HAM BOROUGH.—Resident Assistant Medical Officer at the Plaistow and Dagenham Hospitals for Infectious Diseases. Salary, £200 per annum.

WEST HAM UNION.—Four District Medical Officers. Salary, £130, rising to £180 per annum and fees.

YORK COUNTY ASYLUM.—House-Surgeon. Salary, £100 per annum.

YORK DISPENSARY.—Resident Medical Officer. Salary, £120 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacancies in the office of Certifying Factory Surgeons: Kirkby Stephen, co. Westmorland; Beckenham, co. Kent; Holbeach, co. Lincoln; Forfar, co. Forfar; Cockermouth, co. Cumberland; Innerleithen, co. Peebles.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTH.

BOYD.—At Pretoria, Transvaal, on January 7th, the wife of Dr. J. J. Boyd, M.O.H. Pretoria, of a daughter.

MARRIAGE.

KNIGHT—CHADBORN.—On December 9th, 1905, at St. Stephen's, Durban, Natal, by the Rev. C. S. Mills, Wilfred Edwyne Knight, M.B., L.R.C.P.E., son of Charles Frederick Knight, M.D., of Mount Charles, Portobello, and Chambers Street, Edinburgh, to Evelyn Louisa, fourth daughter of the late John Chadborn, of Barton House, Gloucester. No cards.

DEATH.

WILLIAMSON.—On December 22nd, 1905, at Larnaca, Cyprus, Marion Helen, infant daughter of George A. Williamson, M.A., M.D.

DIARY FOR NEXT WEEK.

TUESDAY.

CHELSEA CLINICAL SOCIETY, Chelsea Dispensary, Manor Street, Chelsea, S.W., 8.30 p.m.—Communications: Dr. Vincent Dickinson on Recurrent Vomiting with Acetonaemia in Children; Dr. Eric Pritchard on The Training of Nerve Centres in Children.

PATHOLOGICAL SOCIETY, 20, Hanover Square, 8.30 p.m. Communications: (1) A. E. Wright and S. R. Reid, Notes on Two Cases of Coli-cystitis Treated by Inoculations of *B. coli*; (2) A. E. Wright, A Note on Phagocytosis of Red Blood Corpuscles; (3) L. Dudgeon, On a New Method of Distinguishing *B. typhi* and *B. coli*; (4) J. Freeman, On the Relationship of the Temperature to the Opsonic Curve in Acute Anthrax Infection.

THURSDAY.

WESTMINSTER HOSPITAL MEDICAL SCHOOL, Caxton Street, S.W., 5 p.m.—Lecture on Applied Physiology by Dr. Bertram Abrahams.

FRIDAY.

EPIDEMIOLOGICAL SOCIETY, 11, Chandos Street, W., 8.30 p.m.—Paper: Glanders in the Horse and in Man, by Wm. Hunting, F.R.C.V.S.

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN, 11, Chandos Street, W., 5.30 p.m.—Clinical Meeting: Cases and Specimens will be shown by Drs. R. Hutchison, C. O. Hawthorne, C. W. Chapman, T. G. Emanuel, L. Guthrie, E. Cautley, and Mr. N. Bishop Harman. Short papers by Drs. F. J. Poynton and Percy Lewis.

POST-GRADUATE COURSES AND LECTURES.

CHARING CROSS HOSPITAL.—Thursday, 4 p.m., Surgical Cases.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical: Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows: Monday, The Management of the Breasts and Infant during the Early Days of the Puerperium; Tuesday, Hemiplegia; Wednesday, How to Certify an Insane Patient; Thursday, Some Problems in Morbid Physiology.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Central Out-patient Department, 7, Fitzroy Square, W.—Thursday 5 p.m., Modern Methods of Diagnosis and Treatment of Pulmonary Tuberculosis.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, Bloomsbury, W.C.—Friday, 3.30 p.m., Hereditary and Familial Maladies.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N.—The following are the arrangements for next week: Tuesday, 3.30 p.m. (at Colney Hatch Asylum, New Southgate), Demonstration on States of Mental Exaltation; Friday, 4.30 p.m., School Life as a Cause of Eye Disease.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W., Thursday, 3 p.m.—On Pain associated with Uterine Fibroid Disease.

WEST LONDON HOSPITAL POST-GRADUATE COLLEGE, Hammersmith, W.—The following arrangements have been made for next week, at 5 p.m. each day: Monday, Some Common Diseases of the Pharynx and Larynx, Treatment; Tuesday, Anaemia; Wednesday, Gynaecology; Thursday, Practical Surgery; Friday, Anaemia.

CALENDAR OF THE ASSOCIATION.

JANUARY.

Date.	Meetings to be Held.
12 FRIDAY	Hampstead Division, *Metropolitan Counties Branch.*
13 SATURDAY...	
14 Sunday	
15 MONDAY	
16 TUESDAY......	South Essex Division, *East Anglian Branch*, Victoria Hospital, Southend-on-Sea, 4 p.m.
17 WEDNESDAY	Central Council, 2 p.m., at the Metropolitan Asylums Board.
18 THURSDAY...	City Division, *Metropolitan Counties Branch*, Salisbury House, Finsbury Circus, E.C. (Hall No. 20), 4 p.m. Leigh Division, *Lancashire and Cheshire Branch*, Monthly Meeting, 8.30 p.m. Westminster Division, *Metropolitan Counties Branch*, 20, Hanover Square, 8.30 p.m.
19 FRIDAY.........	St. Pancras and Islington Division, *Metropolitan Counties Branch*, University College Hospital, 4 p.m.
20 SATURDAY...	
21 Sunday.........	
22 MONDAY	
23 TUESDAY......	
24 WEDNESDAY	
25 THURSDAY...	Wandsworth Division, *Metropolitan Counties Branch*, Balham Hotel, 8.45 p.m.
26 FRIDAY.........	Tottenham Division, *Metropolitan Counties Branch*, Tottenham Hospital, 4 p.m.
27 SATURDAY...	

JANUARY *(continued).*

Date.	Meetings to be Held.
28 Sunday.........	
29 MONDAY	
30 TUESDAY......	
31 WEDNESDAY	Bath and Bristol Branch, Bristol. Ulster Branch, Belfast.

FEBRUARY.

Date.	Meetings to be Held.
1 THURSDAY...	Swansea Division, *South Wales and Monmouthshire Branch*, General Hospital, Swansea, 3 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Bolingbroke Hospital, 4 p.m.
2 FRIDAY	
3 SATURDAY...	Leinster Branch, Annual Meeting, Royal College of Physicians, Kildare Street, Dublin, 4.30 p.m.
4 Sunday	
5 MONDAY	
6 TUESDAY......	
7 WEDNESDAY	
8 THURSDAY...	
9 FRIDAY	Hampstead Division, *Metropolitan Counties Branch.*
10 SATURDAY...	
11 Sunday	
12 MONDAY	
13 TUESDAY......	
14 WEDNESDAY	
15 THURSDAY...	
16 FRIDAY	
17 SATURDAY...	

MEMBERSHIP OF THE BRITISH MEDICAL ASSOCIATION.

The British Medical Association exists for the promotion of medical and the allied sciences, and the maintenance of the honour and the interests of the medical profession.

The Annual Subscription to the British Medical Association is £1 5s. 0d., and the British Medical Journal is supplied weekly, post free, to every member of the British Medical Association wherever he may reside.

Forms of application for membership can be obtained from the General Secretary, 429, Strand, London, W.C.

The principal rules governing the election of a medical practitioner to be a member of the British Medical Association are as follow:

Article III.—Any Medical Practitioner registered in the United Kingdom under the Medical Acts and any Medical Practitioner residing within the area of any Branch of the Association situate in any part of the British Empire other than the United Kingdom, who is so registered or possesses such medical qualifications as shall, subject to the Regulations, be prescribed by the Rules of the said Branch, shall be eligible as a Member of the Association. The mode and conditions of election to Membership shall from time to time be determined by or in accordance with the By-laws. Every Member, whether one of the existing Members or a subsequently-elected Member, shall remain a Member until he ceases to be a Member in accordance with the provisions hereof.

By-law 1.—Every Candidate for Membership of the Association shall apply for election in writing, addressed to the Association, and stating his agreement, if elected, to abide by the Regulations and By-laws of the Association, and the Rules of such Division and Branch to which he may at any time belong, and to pay his subscription for the current year.

By-law 2.—Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the General Secretary of the Association, and to every Member of the Branch Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a member of the Association by the Branch Council at any meeting thereof held not less than seven days (or such longer period as the Branch may by its Rules prescribe) after the date of the said Notice. A Branch may by special Resolution require that each candidate for election to the Association shall furnish a certificate from two Members of the Association to whom he is personally known. Officers of the Navy, Army, and Indian Medical Services on the Active List are eligible for election through the Council or a Branch without approving signatures as laid down in By-law 3.

By-law 3.—Every candidate whose place of residence is not included in the area of any Branch shall forward his Application to the General Secretary of the Association, together with a statement signed by three members of the Association, that from personal knowledge they consider him a suitable person for election. Notice of the proposed election shall be sent by the General Secretary to every Member of the Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a Member of the Association by the Council at any meeting thereof held not less than one month after the date of the said notice.

The annual subscription to the British Medical Journal for non-members is £1 8s. 0d. for the United Kingdom and £1 12s. 6d. for abroad.

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JANUARY 20TH, 1906.

CONTENTS.

PAGE
MEETINGS OF BRANCHES AND DIVISIONS:
Birmingham Branch: Central Division 13
Metropolitan Counties Branch: Hampstead Division ... 14
Southern Branch: Winchester Division 14
South-Western Branch: Truro Division 15
Yorkshire Branch: Bradford Division 15
PAYMENTS BY CORONERS TO PATHOLOGISTS 16
ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD 16
NAVAL AND MILITARY APPOINTMENTS 17
VITAL STATISTICS 17
VACANCIES AND APPOINTMENTS... 18
BIRTHS, MARRIAGES, AND DEATHS 19
DIARY OF THE WEEK 19
CALENDAR 20

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BIRMINGHAM BRANCH:

CENTRAL DIVISION.

A SPECIAL and general meeting of the Division was held at the Medical Institute on December 12th, 1905, at 4 p.m., Mr. HASLAM in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed.

Co-ordination of Scientific Work.—The following report of the Executive Committee on the Co-ordination of the Scientific Work of the Association, its Branches, and Divisions, was read by the HONORARY SECRETARY: "Your Committee begs to report to the Division that it has considered the question referred to it, and recommends as follows: That the report of the Science Co-ordination Committee be approved in its general sense. With regard to the questions of Library and Scientific Section, your Committee would point out that these advantages are already provided within the area of the Division by the Medical Institute and the Pathological and Clinical Section of the Branch. We support the suggestion that all local medical societies should, whenever feasible, be amalgamated into one body." It was proposed by Mr. NEAL, and seconded by Mr. MILLIGAN, and carried *nem. con.*, that the report be adopted.

Ambulance Work.—The report on ambulance work was read, and its adoption proposed by the HONORARY SECRETARY, seconded by Mr. OAKES. It was as follows: "Your Committee has considered the Medico-Political Committee's report on the relations of the medical profession to ambulance work, together with the approval given to that report by a resolution of the Annual Representative Meeting at Leicester. We recommend that a circular, stating the decision of this Division, that ambulance work should be treated as a matter of business and not philanthropy, and also the scale of fees, be sent to each member of the profession within the area of the Division. The decision of the Division as to the rate of payment is as follows: (1) The fee for each lecture should be £1 1s.; (2) the fee for each examination should be £1 1s. as a minimum; if more than twenty-one members, then 1s. per head; (3) the minimum fee for judging ambulance competitions should be £3 3s. Dr. POOLER moved as a rider that intimation be given also to the officials of the various societies which promoted the lectures. The rider was accepted, and the report, with the rider, was put to the meeting and carried.

Direct Representation on General Medical Council.—The CHAIRMAN then explained the process of nomination of Association candidates for election as direct representatives on the General Medical Council, and nominated, on behalf of the Executive Committee, Dr. Langley Browne, of West Bromwich, the Chairman of Council of the Association. The nomination was seconded by Mr. HALLWRIGHT, and supported by several members, put, and carried *nem. con.* No other nominations were received.

The Division and Parliamentary Candidates.—The HON. SECRETARY then proposed that the Executive Committee should be empowered to act for the Division in putting questions to candidates for Parliament at the forthcoming election. This was seconded by Mr. OAKES, and carried with one dissentient.

Contract Medical Practice.—The recommendations of the Medico-Political Committee with regard to Contract Practice were then considered. The HON. SECRETARY explained that the report on Contract Practice had been sent to every registered medical practitioner, and invitations to attend had been sent to all such residing in the area of the Division, in consequence of which there were present three non-members of the Division. Recommendation I, which was as follows:

> That the conditions upon which the medical practitioners in any district undertake Contract Practice should be prescribed by arrangement among themselves,

was carried *nem. con.*, having been proposed by Mr. MORRISON and seconded by the HON. SECRETARY. Recommendation II: That the control of the profession over the conditions of Contract Practice can only be effectually exercised under the conditions of a Public Medical Service, namely:

- (*a*) That the general control be in the hands of some organized local body representative of the profession, such as a Division of the British Medical Association.
- (*b*) That it be open to every medical practitioner in the district to take part in the work, should he desire to do so, and conform to the regulations of the profession.
- (*c*) That the details of administration be under the direct control of a purely Medical Committee representing both those who do and those who do not take part in contract work.

This was proposed by Mr. MILLIGAN and seconded by Mr. OAKES, and when put to the meeting, was carried. Recommendation III: That whenever, in the opinion of the local medical profession, the immediate institution of a public medical service is for any reason impracticable, the three main principles above stated should be carried into effect so far as possible. That is to say:—

(a) That, with regard to the conditions upon which they will accept Contract Practice, the medical practitioners of each district should collectively and individually enter into an agreement, in which the following matters are specifically prescribed:—

(i.) Rates of remuneration.

(ii.) Conditions of admission to attendance under contracts, including provisions with respect to the economic position, age, and health of candidates.

(iii.) Definitions of the services to be rendered under the contract.

(iv.) Where appointments are made by non-medical bodies, the forms of contract, tenure of office, and representation of the medical profession in the management of the medical service.

(b) That practitioners should cease to hold separate appointments or to carry on private clubs, and principle of distribution of Contract Practice among all practitioners in the district who desire to participate should be carried into effect.

(c) That organized forms of Contract Practice at present under the control of Non-medical Committees should gradually be brought under direct medical control.

This recommendation, having been put to the meeting, it was proposed by Mr. Neal and seconded by Mr. Hallwright, as an amendment, that clause (b) should be omitted. The amendment was carried. Recommendation IV: That agreements among local members of the profession with respect to contract practice should be effected through the agency of organized local bodies representative of the profession, the rulers of which should make agreements binding upon the members. This was carried unanimously. Recommendation V, namely: That the professional organizations referred to should in each case be a Division of the British Medical Association, was proposed for adoption by Mr. Whichello, seconded by the Honorary Secretary. Whereupon Mr. Neal moved its omission, and this was seconded by Mr. Hallwright, and its omission was carried. Recommendation VI: That to render professional co-operation as complete as possible the Division should endeavour to secure the inclusion of every practitioner in their membership, and should make their decisions binding by adopting rules such as have been suggested by the Ethical Committee. This recommendation was proposed by Mr. Milligan and seconded by Mr. Hallwright, whereupon Mr. Neal moved and Dr. Wilson seconded, that the word "Divisions" should read "Organizations," and all the words after "membership" should be omitted. The amendment was lost, and Clause VI, being put, was carried. Recommendation VII: That the Divisions be urged to establish a Public Medical Service in every area in which Contract Practice is believed by them to be necessary. This was carried *nem. con.* The meeting lasted an hour and three-quarters.

METROPOLITAN COUNTIES BRANCH:

HAMPSTEAD DIVISION.

A meeting of this Division was held on Friday, January 12th, at 4.45 p.m., at St. Peter's Hall, Belsize Square, Mr. F. R. Humphreys in the chair.

Minutes.—The minutes of the meeting of November 10th, 1905, were read and confirmed, and the minutes of December 16th, 1905, were taken as read. Arising out of the minutes of November 10th, 1905, Dr. Glover asked if a letter had not been received from Dr. Cook with regard to the proposed conference. The Honorary Secretary replied that the letter had been received, but could not be discussed at this meeting. Dr. Glover also asked whether the fifth resolution referred to in the last paragraph of the minutes of November 10th had not been "withdrawn" rather than "referred back." Mr. Armit explained that the phrase "referred back" was correct.

Letters of Apology.—Letters of regret were received from Dr. Ford Anderson and Dr. Pidcock for inability to be present.

Branch Entertainment Committee.—The Honorary Secretary explained that it was necessary to elect a representative to the Branch Entertainment Committee. Mr. R. H. Wellington, Vice-Chairman, had been nominated by the Committee. Mr. Wellington was then unanimously elected.

Diagnosis of Uterine Cancer.—The Chairman then called upon Dr. F. J. McCann to read his paper on the diagnosis of cancer of the womb. Dr. McCann then delivered a most instructive lecture, freely illustrated with exceptionally fine lantern slides of the various morbid conditions commonly found in early and advanced cases of uterine cancer, and explained how an early diagnosis could be made. A discussion followed, after which the cordial thanks of the meeting were conveyed to Dr. McCann for his address, and regret was expressed that more members were not present to hear it. Dr. McCann in reply, thanked Mr. Cunnington for kindly working the lantern.

The Division and Parliamentary Candidates.—Before the meeting broke up Mr. Armit stated that, at the request of the Committee and as a constituent of the Harrow (Parliamentary) Division of Middlesex, he had sought an interview with the two candidates for election (Messrs. Peel and Gibb). The Hon. W. Peel had spoken in general favour of the various measures of medical interest brought to his notice, but had declined to put anything on paper. Mr. J. Gibb had not answered his letter, so that he had sent a second letter to point out to him the possible effect of this want of attention on the medical section of the constituency.

SOUTHERN BRANCH:

WINCHESTER DIVISION.

A general meeting of this Division was held at the Royal Hants County Hospital, Winchester, on January 10th, at 3 p.m., Dr. Livingstone, Chairman, presiding.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

The late Mr. Langdon.—Dr. Harman proposed the following motion to be entered on the minutes:

> This Division, with deepest sorrow, record the very great and irreparable loss they have sustained by the death of their Chairman, Mr. T. C. Langdon, F.R.C.S., one of the founders of our Branch, and the originator and moving spirit of this Winchester Division; whose energetic and invaluable Secretary and Treasurer he was for twenty years. Among his many and onerous duties all this time Mr. Langdon always placed the British Medical Association in the forefront. He set a high example by his unswerving, upright, and unselfish professional conduct, and he perseveringly laboured to induce the medical fraternity to discard little differences and narrow views, and to join and work together in this great and beneficial Association for the honour and welfare of our profession as a whole. In every way he has won the highest esteem and regard of all those he came in contact with, especially the members of this Branch. They also desire to forward their collective expression of deepest sympathy and condolence to Mrs. Langdon and family in their great and inexpressible loss.

—This was seconded by Dr. Livingstone, and carried unanimously by the members standing.

Contract Practice.—It was proposed by Dr. Ritchie, seconded by Dr. Browne, and carried:

> That the proposals laid down in the Supplements of August 5th and July 22nd, 1905, be adopted.

Direct Representatives on General Medical Council.—It was proposed by Dr. Browne, seconded by Dr. Harman, and carried:

> That the proposals laid down in the Supplement of October 7th, 1905 (Medico-Political Committee), be adopted, and that Dr. Bullar (Southampton) and Dr. Straton (Wilton) be the candidates to stand as Direct Representatives on the General Medical Council on conditions laid down in the said Supplement.

Letters were read from Dr. Bullar (Southampton), and Dr. Straton (Wilton), accepting the invitation of the Division to stand as Direct Representatives on the General Medical Council on conditions laid down in the Supplement of October 7th, 1905.

The Division and Parliamentary Candidates.—It was proposed by Dr. Livingstone, seconded by Dr. England, and carried:

> That the proposals laid down in Supplement, November 18th, 1905, relating to Parliamentary Candidates, be adopted.

Co-ordination of Scientific Work.—It was proposed by Dr. Harman, seconded by Dr. Browne, and carried:

> That the proposals laid down in Supplement, September 30th, relating to the scientific work of the Association, be adopted and that the Secretary should report what arrangements can be made with the existing library at the Royal Hants County Hospital.

Annual Report.—The SECRETARY read the annual report for 1905, which is as follows:—

Three general meetings of the Division were held in 1905: One on April 19th at St. Patrick's Hall, Winchester; one on May 31st at Royal Hants County Hospital, Winchester; one on October 25th at Westbrooke House, Alton, Hants.

Three meetings of the Executive Committee were held n 1905: One on May 3rd at St. Patrick's Hall, Winchester; one on September 27th at St. Patrick's Hall, Winchester; one on November 30th at St. Patrick's Hall, Winchester.

The following new members have joined the Division: Dr. Ahrens, 79, Worthing Street, Basingstoke; Dr. F. J. Child, Kinellan, Winchester; Dr. William Kay, Bentley, Hants; Dr. L. W. Oliver, Ropley, Alresford, Hants; Dr. G. W. Wickham, 27, Southgate Street, Winchester; Dr. E. J. H. Rudge, Shawford, Winchester; Lieutenant Hoar, R.A.M.C., Princess Louise Hospital, Alton; Dr. S. Child, Royal Hants County Hospital; Dr. H. Scoones, Royal Hants County Hospital.

The following new members have removed into the Division: Captain Babington, R.A.M.C., Aldershot; Dr. F. W. Waters, Cove, Farnborough.

The following member has removed into the Division: Dr. W. B. Barclay (Mayfield, Aldershot).

The following deaths occurred in the Division: T. C. Langdon, F.R.C.S., Chairman; Dr. T. H. Griffiths (Preston andover, Hants); Lieutenant-Colonel Mulvany, R.A.M.C. Princess Louise Hospital, Alton).

Obituary notice and biography of Mr. T. C. Langdon was sent to the BRITISH MEDICAL JOURNAL, with photoraph, and appeared in the JOURNAL of January 7th, 1906.

At the annual meeting held May 31st, 1905, the various fficers appointed for the ensuing year were as follows: *Chairman*, T. C. Langdon, F.R.C.S.; *Vice-Chairman*, J. L. ivingstone, M.D. (Hursley); *Honorary Secretary and Treasurer*, H. J. Godwin, M.B., F.R.C.S. (35, Southgate treet, Winchester); *Representative for Representative Meeting*, D. Browne (Winchester); *Representatives on Branch ouncil*, J. F. Briscoe, G. F. A. England, F. W. Underhill; *Executive Committee*, J. F. Briscoe, G. F. A. England, W. M. Harman, T. C. Langdon, J. L. Livingstone, W. A. S. oyds, Thomas Wright, F. W. Underhill, H. J. Godwin.

Mr. T. C. Langdon resigned the post of Honorary ecretary and Treasurer at the commencement of the year. r. Langdon had held the post for upwards of twenty ears.

The following resolution was carried unanimously, and rdered to be entered on the minutes:

> The members of the Winchester Division of the British Medical Association having learnt with regret that the Honorary Secretary and Treasurer (Mr. T. C. Langdon) has determined to resign his office, desire to record their grateful thanks to Mr. Langdon for the valuable services he has rendered to the Division during the past twenty years, and trust that he may still continue to maintain his interest in the welfare of the profession in this neighbourhood.

Presentation to Mr. T. C. Langdon.—At the annual eeting, May 31st, 1905, a silver inkstand was presented Mr. T. C. Langdon, with the following inscription graved on it:

> Presented to T. C. Langdon, Esq., F.R.C.S., by the members of the Winchester Division of the British Medical Association in recognition of the valuable services he has rendered as Honorary Secretary and Treasurer for a period of twenty years, May 31st, 1905.

he following members subscribed to the Langdon testimonial: Drs. Harman, Loveless, Bevan, Ritchie, Browne, iscoe, James, Applebe, Bullar, England, MacNalty, vingstone, Curtis, Scott, Price, Wace, Jollye, Royds, aton, Allen, Colonel Moore, R.A.M.C., Godwin.

Matters referred to the Divisions during the year 1905 re considered at the meetings and the results recorded the minutes.

At the annual meeting, May 31st, 1905, the following eration to Rule 8*c* was made. The old rule read as lows:

> To arrange the date, place, and frequency of holding ordinary meetings.

e rule now reads as follows:

> To arrange the date, place, and frequency of holding ordinary meetings, *including the annual meeting.*

The following new rule was made at the annual meet-, May 31st, 1905:

> The time allowed for reading papers at the meetings is fifteen minutes, and every subsequent speaker is limited to five minutes.

The following papers have been read before the meetings during the year 1905: Mr. Bullar: On a Scheme for the Improvement and Organization of Contract Practice. Mr. Briscoe: On the Management of the Insane. Dr. Bevan: On a Case of Cirrhosis of the Liver, with Remarks on Causation and Treatment. Dr. Williams: On Cases of Addison's Disease. Dr. Harman: On Membranous Colitis. Mr. Godwin: On Prostatectomy. Captain Irvine, R.A.M.C.: On Self-Inflicted Wound of Larynx. Dr. Livingstone: On Belladonna Poisoning. Mr. Godwin: On Anthrax.

The following cases were shown at the meetings: (1) Tubercle of Lung; (2) Nephritis; (3) Aphasia; (4) Congenital Dislocation of Both Hip-joints; (5) Aneurysm of Abdominal Aorta; (6) Carcinoma of Larynx.

The year 1905 is memorable for the first time on record in which a general meeting of the Division has been held outside Winchester. The autumn meeting was held at Westbrooke House, Alton, by kind invitation of Dr. Briscoe. The meeting was an entire success, owing to the energies of Dr. Briscoe, and a vote of thanks to Dr. Briscoe was recorded on the minutes. It is now hoped that meetings will be held annually in various parts of the Division.

Financial Statement.—The following is the statement for the year 1905:

Receipts.	£	s.	d.	Expenditure.	£	s.	d.
Balance in hand from 1904	2	4	1	Printing and stationery	3	17	2
Grant for current expenses for the year ...	6	18	0	Hire of room and teas ...	1	17	9
				Annual subscription to B.M.A.	1	5	0
				Stamps	1	4	7
					£8	4	6
				Balance from 1905	0	17	7
	£9	2	1		£9	2	1

Communications.—Dr. BRISCOE (Alton) read a paper on professional advertisements, and an interesting discussion followed in which all the members took part.—Dr. THOMPSON read notes on an Obscure Case of Syphilis. The following members took part in the discussion: Drs. LIVINGSTONE, RITCHIE, CHILD, BROWNE, HARMAN, GODWIN, ROYDS.

Scale of Fees.—The following resolution was proposed by Dr. LIVINGSTONE, seconded by Dr. BRISCOE, and carried:

> That the Executive Committee do draw up a scale of fees for the guidance of members.

SOUTH-WESTERN BRANCH:

TRURO DIVISION.

A MEETING of this Division was held at the Miners' Hospital, Redruth, on Tuesday, January 9th, at 3 p.m.

State Registration of Nurses.—A resolution in favour of the State registration of trained nurses was passed.

The Division and Parliamentary Candidates.—It was decided that the questions to parliamentary candidates should be sent by post, it being impossible to arrange deputations satisfactorily.

Divisional Representatives and Branch Meetings.—It was resolved to suggest to the Branch that representatives of Divisions, when attending Branch meetings, be paid first-class return fares.

Indecent Advertisements.—A resolution in favour of sending the questions on indecent advertisements, etc., to parliamentary candidates was lost, the meeting deciding that such matters were better left to the Home Secretary.

Paper.—Dr. FRANK HICHENS then read a paper on puerperal eclampsia, and considerable discussion followed.

Demonstration of Cases in Hospital.—The Honorary Staff then took the members round the wards and showed cases of interest.

Tea.—Tea was then kindly provided by the matron and staff, to whom a vote of thanks was passed.

Next Meeting.—It was decided that the next meeting be held at Penzance.

YORKSHIRE BRANCH:

BRADFORD DIVISION.

A MEETING of this Division was held at the Eye and Ear Hospital, Bradford, on Tuesday, January 9th, at 8.30 p.m. Dr. MITCHELL, Chairman, presided.

The Division and Parliamentary Candidates.—Dr. Metcalfe reported that a subcommittee had interviewed the candidates for parliamentary election in the city, and they were generally in favour of the memorandum and questions submitted by the British Medical Association.

Contract Medical Practice.—The conclusions and recommendations of the Medico-Political Committee on Contract Practice were read and discussed. As any action determined on in Bradford could only be carried out by the unanimity of the whole of the profession in the Division, the following resolution was moved by the Chairman, seconded by Dr. Munro, and carried unanimously:

> That a meeting of the whole of the profession in the Bradford Division be called to consider the question, and that a copy of the conclusions and recommendations be sent to every medical practitioner.

Co-ordination of Scientific Work.—The report of the Science Co-ordination Committee was read and considered. On the proposition of Mr. Basil Hall, seconded by Dr. Little, it was agreed that the Division approved of the conclusions of the Committee. The meeting then terminated.

PAYMENTS BY CORONERS TO PATHOLOGISTS.

Mr. Cockerton, the District Auditor appointed by the Local Government Board to audit the accounts of the London County Council, has communicated to the British Medical Association in the following letter his decision in the matter of the objections of the Association to certain payments made by the London County Council to Mr. Troutbeck in respect of fees to a pathologist. The arguments in the case were reported in the Supplement to the British Medical Journal of November 4th, 1905, page 264, and December 2nd, 1905, page 312.

The Auditor has also promised to furnish the Association as soon as possible with a statement of the reasons for his decision. An appeal can be made from the District Auditor's decision at any time within six months.

11th January, 1906. 1, Pump Court, Temple, E.C.

Sir,—I have to inform you that I have carefully considered the objections of the British Medical Association and other ratepayers to certain payments made by the London County Council to Mr. John Troutbeck, one of the Coroners of the County of London.

These payments were made to the Coroner to reimburse him for fees paid to Dr. Louis Freyberger in respect of *post-mortem* examinations performed by direction of the Coroner.

The charges to which objection has been made have been classed under the following heads:

(*a*) Cases in which the medical man in attendance on the deceased before his death gave evidence before the Coroner, but was not directed to make any *post-mortem* examination.

(*b*) Cases in which the medical man in attendance on the disease during lifetime was neither summoned as a witness nor gave any evidence at all.

(*c*) Cases in which no medical man was engaged in attendance on the deceased either before or at or immediately after his death and in which the Coroner did not summon a medical practitioner in actual practice in or near the place where the death happened.

(*d*) Cases in which a medical man was requested to make a *post-mortem* examination and to give evidence, but although the Jury made no application under Section xxi of the Coroners Act, 1887, Dr. Freyberger was engaged to assist at the *post-mortem* examination.

The arguments on behalf of the objectors together with those in support of the payment by the London County Council were heard by me on two separate occasions and after reviewing the whole of the facts of the case and carefully considering the contentions on each side, I have come to the conclusion that I am bound to allow the whole of the payments in question in the accounts of the London County Council and I hereby decide and determine accordingly.

Whilst arriving at this decision, I desire to express my sympathy with those Members of the Medical Profession who are affected by Mr. Troutbeck's general mode of procedure, and I propose to refer to the matter in the Report which I shall make to the Council at the close of th Audit.

If requested to do so by any party interested in th matter, I shall be, of course, quite ready to enter a statement in writing for the reasons of my decision in th proper book of account in conformity with the requirements of the Public Health Act, 1875, which is mad applicable by the Local Government Act, 1888.

I am, Sir,
Yours faithfully,
T. Barclay Cockerton,
District Auditor.

Dr. Smith Whitaker,
Medical Secretary,
British Medical Association,
429, Strand, W.C.

To ensure the insertion of notices in this column the must be received at the Central Offices of the Associatio not later than the first post on Tuesday.

Association Notices.

BRANCH AND DIVISION MEETINGS TO BE HELI

Edinburgh Branch.—The annual clinical meeting of thi Branch will be held in the Royal Infirmary on Friday February 16th. Fuller particulars will be announced later —Norman Walker and A. Logan Turner, Honorary Secretaries.

Leinster Branch.—The annual meeting of the Leinste Branch will be held in the Royal College of Physicians, Kildar Street, Dublin, on Saturday, February 3rd, at 4.30 p.m.—Arthur H. White, Honorary Secretary.

Metropolitan Counties Branch: Kensington Divisio —A meeting of the Division will be held at the Hospital f Consumption and Diseases of the Chest, Brompton, S.W., o Tuesday, January 30th, at 5 p.m. Cases will be shown b members of the hospital staff.—Charles Buttar, Honorar Secretary, 10, Kensington Gardens Square, W.

Metropolitan Counties Branch: St. Pancras an Islington Division.—The next meeting will be held o Friday, January 19th, at University College Hospital, 4 p.m., when Dr. Henry Kenwood, Medical Officer of Healt of Stoke Newington, will open a discussion on Disinfection i Rooms occupied by the Infectious Sick.—Wynn Westcot Honorary Secretary.

Metropolitan Counties Branch: Tottenham Divisio —A meeting of the Division will be held at the Tottenha Hospital on Friday, January 26th, at 4 p.m. A discussion wi be opened on Hospital Out-patients Departments, by Mr. R. Tomlin. Visitors are cordially invited.—Fred. Tresilia Honorary Secretary, White Lodge, Enfield.

South-Eastern Branch: Brighton Division.—There wi be a special meeting of this Division at the dispensar 113, Queen's Road, Brighton, on Wednesday, January 24th, 4 p.m., to consider the action of Mr. E. A. Villiers, M.P whilst presiding over an antivivisection meeting at Brighto on November 23rd, 1905. An ordinary meeting of the Divisio will be held immediately after the special meeting. Agenda Minutes; cases and specimens; paper by Dr. Bushnell bacilluria. Other business.—Ryding Marsh, Honorary Secretary, Hove, Brighton.

South-Western Branch.—An extraordinary meeting of t Branch will be held on Thursday, February 1st, at t Athenaeum, George Street, Plymouth, at 4.30 p.m., whe Sir Victor Horsley, F.R.C.S., F.R.S., has kindly consented deliver an address, entitled, The Diagnosis and Surgical Treatment of Diseases of the Pituitary Gland. Tea will be provid at 4 p.m. at Messrs. Risdon's Restaurant, George Street (opposi the Athenaeum). The Branch Council trust that members wi make every effort to attend this meeting, and they invi members to bring with them any friends who are not membe of the Branch. By order of the Council.—G. Young Eale Honorary Secretary, 1, Matlock Terrace, Torquay.

Ulster Branch.—The winter meeting will be held Belfast on Wednesday, January 31st. Members having pape or business to bring before the meeting will please notify as early as possible, and not later than January 20th.—Cec E. Shaw, M.D., Honorary Secretary, 18, College Square Eas Belfast.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

FLEET-SURGEON J. LOWNEY has been placed on the retired list, at his own request, January 12th. He was appointed Surgeon-Major, August 20th, 1885, and was promoted to be Fleet-Surgeon, August 20th, 1901.

The following appointments have been made at the Admiralty: **WILLIAM J. COLBORNE**, Fleet Surgeon, to the *President*, for three months' hospital course, January 22nd; **ROBERT L. DICKINSON**, Surgeon, to the *President*, for three months' hospital course, January 11th; **SIDNEY ROACH**, Staff Surgeon, to the *Cormorant*, for Ascension, January 12th; **AUGUST J. WERNET**, M.B., Surgeon, to the *Cambridge*, January 12th; **FRANCIS E. MCCUNE**, M.B., Surgeon, to the *Berwick*, January 12th; **GEORGE WILSON**, Fleet Surgeon, to the *Nelson*, January 30th; **THOMAS AUSTEN**, Fleet Surgeon, and **FRANCIS F. LOBB**, Surgeon, to the *Albemarle*, January 30th; **GEORGE A. WATERS**, Fleet Surgeon, to the *Ramillies*, January 30th; **THOMAS W. PHILLIPS**, Staff Surgeon, to the *Iphigenia*, January 30th; **JOHN MACDONALD**, Surgeon, to the *Ringdove*, on commissioning, January 30th; **LIONEL C. E. MURPHY**, Surgeon, to the *Vivid*, additional, January 30th; **ALEXANDER C. W. NEWPORT**, Surgeon, to the *Victory*, for disposal, January 13th.

ARMY MEDICAL STAFF.

COLONEL W. B. SLAUGHTER, from the Royal Army Medical Corps, is promoted to be Surgeon-General, vice W. F. Burnett, retired, June 21st, 1905. Surgeon-General Slaughter entered the service as Assistant Surgeon, March 30th, 1872; became Surgeon, March 1st, 1873; Surgeon-Major, March 30th, 1884; was granted the rank of Lieutenant-Colonel, March 30th, 1892; made Brigade-Surgeon-Lieutenant-Colonel, July 6th, 1896; and Colonel, April 1st, 1902. He served in the Afghan war of 1878-80 (medal), and in the campaign on the North-West Frontier of India in 1897-8 (medal with clasp).

Colonel W. S. **PRATT**, M.B., from the Royal Army Medical Corps, is also promoted to be Surgeon-General, vice J. A. Clery, C.B., M.B., placed on temporary half pay, December 29th, 1905. Surgeon-General Pratt was appointed Surgeon, March 31st, 1874; Surgeon-Major, June 15th, 1885; granted the rank of Lieutenant-Colonel, September 30th, 1893; made Brigade-Surgeon-Lieutenant-Colonel, July 9th, 1896; and Colonel, April 1st, 1902. Surgeon-General Pratt was Assistant Surgeon with the Armée du Rhin, under Marshal Bazaine, in the Franco-German war of 1870-1, and was at the battles of Gravelotte and St. Privat; he was driven into Metz with the French army, and remained during the siege and until the surrender of the fortress from starvation. He was also with the Nile Expedition in 1884-5, was mentioned in dispatches, promoted to be Surgeon-Major, and received the medal with clasp, and the Khedive's bronze star.

Surgeon-General J. A. **CLERY**, M.D., C.B., is placed on temporary half pay on account of ill health, December 29th, 1905. He was appointed Assistant-Surgeon, April 1st, 1871; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1883; granted the rank of Lieutenant-Colonel, April 1st, 1891; made Brigade-Surgeon-Lieutenant-Colonel, March 10th, 1895; Surgeon-Colonel, March 13th, 1899; and Surgeon-General, May 23rd, 1902. His war record includes: Soudan Expedition, 1884-5, in charge of Abu Dom Field Hospital (medal with clasp, and Khedive's bronze star); Nile Expedition, 1898 (mentioned in dispatches, British and Egyptian medals); South African war, 1899-1902, as a Principal Medical Officer on the Lines of Communication, including the relief of Ladysmith and operations in the Transvaal, the Orange River Colony, and on the Zululand Frontier of Natal (several times mentioned in dispatches, Queen's medal with six clasps, King's medal with two clasps, and appointed C.B.).

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL C. SEYMOUR, M.B., is promoted to be Colonel, vice W. B. Slaughter, promoted, June 21st, 1905. Colonel Seymour was appointed Surgeon, August 4th, 1878; Surgeon-Major, August 4th, 1890; and Lieutenant-Colonel, August 4th, 1898. He was in the Soudan Expedition in 1885 (medal with clasp, and Khedive's bronze star), and with the Soudan Frontier Field Force in 1885-6, including the action of Giniss. He was appointed Physician and Surgeon at Chelsea Hospital, June 3rd, 1904. He retains this appointment.

Lieutenant-Colonel G. W. **ROBINSON** is also promoted to be Colonel, vice C. Seymour, M.B., seconded, June 21st, 1905. Colonel Robinson's previous commissions are thus dated: Surgeon, March 6th, 1880; Surgeon-Major, March 6th, 1892; and Lieutenant-Colonel, November 16th, 1898. He was with the Momeik Column in the Burmese campaign in 1891 (medal with clasp); he was also in the Nile Expedition in 1898, including the battle of Khartoum (mentioned in dispatches, promoted to be Lieutenant-Colonel. British medal, and Egyptian medal with clasp).

Lieutenant-Colonel A. W. P. **INMAN**, M.B., also, is promoted to be Colonel, *vice* W. E. Webb, M.D., retired, July 22nd, 1905. Colonel Inman joined the department as Surgeon, March 6th, 1880; was made Surgeon-Major, March 6th, 1892; and Lieutenant-Colonel, March 6th, 1900. He has no war record.

Lieutenant-Colonel T. M. **CORKER**, M.D., is promoted to be Colonel, *vice* G. A. Hughes, M.B., D.S.O., retired, August 26th, 1905. Colonel Corker's previous commissions are dated: Surgeon, March 6th, 1880; Surgeon-Major, March 6th, 1892; Lieutenant-Colonel, March 6th, 1900. He was in the North-West Frontier of India campaign in 1897-8 with the Mohmand Field and Tirah Expeditionary Forces, was mentioned in dispatches, and received a medal with two clasps.

Lieutenant-Colonel C. A. **WEBB** is made Colonel, *vice* C. H. Swayne, D.S.O., retired, September 18th, 1905. Colonel Webb's previous commissions are simultaneous with those of Colonels Inman and Corker. He served with the Nile Expedition in 1898, and was at the battle of Khartoum; he was mentioned in dispatches, and received the British medal and the Egyptian medal with clasp.

Lieutenant-Colonel H. **MARTIN**, M.B., whose previous commissions also bear the same date as those of Colonels Inman and Corker, is promoted to be Colonel, *vice* A. W. Duke, M.D., retired, December 18th, 1905. He was with the Zhob Valley Expedition in 1884. He was also in the South African war in 1899-1902, being present in operations in Natal, including the actions at Elandslaagte, Rietfontein, and Lombard's Kop, and at the defence of Ladysmith; he afterwards had charge of a general hospital (several times mentioned in dispatches, Queen's medal with three clasps, and King's medal with two clasps).

Lieutenant-Colonel A. E. J. **CROLY**, F.R.C.S.I., is promoted to be Colonel, vice W. S. Pratt, promoted, December 29th, 1905. Colonel Croly's previous commissions also bear the same dates as those of Colonels Inman and Corker. He served with the Southern Afghanistan Field Force during the Afghan war in 1880, and with the Tirah Expeditionary Force in the campaign on the North-West Frontier of India in 1897-8, receiving the medal with two clasps.

Lieutenant-Colonel A. **PETERKIN**, M.B., has been appointed Senior Medical Officer, Mauritius.

Lieutenant C. J. **WYATT**, M.B., from the Seconded List, to be Lieutenant, January 1st. He was appointed on probation July 31st, 1905.

Lieutenant R. S. **SMYTH**, from the Seconded List, to be Lieutenant, January 2nd. He also was appointed on probation, July 31st, 1905.

Colonel H. R. **WHITEHEAD**, Principal Medical Officer, Abbottabad and Sialkot Brigades, is transferred as officiating Principal Medical Officer, 2nd (Rawal Pindi) Division.

Lieutenant-Colonel D. **O'SULLIVAN**, now at Rawal Pindi, is appointed to officiate as Principal Medical Officer, Abbottabad and Sialkot Brigades.

Captain J. E. **CARTER**, M.B., is promoted to be Major, December 2nd, 1905. He joined the department as Surgeon-Captain, January 31st, 1891; was placed on half pay, December 1st, 1901; and restored to the establishment, October 2nd, 1905. He was in the South African war in 1899-1900, and was in operations in the Orange Free State and at Paardeberg, where he was wounded. He has the Queen's medal with two clasps.

Lieutenant R. P. **NASH** resigns his commission, January 6th. He was appointed Lieutenant on probation, January 31st, 1905.

Colonel W. E. **SAUNDERS**, C.B., who is serving in Bengal, has been appointed to officiate as Principal Medical Officer, Eastern Command, India.

Lieutenant-Colonel J. R. **DODD**, M.D., who is serving at Mhow, Bombay, is appointed to officiate as Principal Medical Officer, Bareilly and Garwhal Brigades.

Major T. H. F. **CLARKSON**, Senior Medical Officer, Jersey, has been appointed Medical Officer at the Tower of London, from February 1st, vice Lieutenant-Colonel J. Meek, M.D.

Lieutenant A. J. **ARCH** resigns his commission, January 10th. He was appointed on probation, July 31st, 1905.

ROYAL HOSPITAL, CHELSEA.

COLONEL C. SEYMOUR, M.B., R.A.M.C., Physician and Surgeon, to retain his appointment on promotion, June 21st, 1905.

INDIAN MEDICAL SERVICE.

CAPTAIN G. Y. C. HUNTER, Bengal Establishment, is promoted to be Major, from November 17th, 1905. He was appointed Surgeon-Lieutenant, January 30th, 1893, and Surgeon-Captain, January 30th, 1896.

Captain J. A. **BARNES** is permitted to resign the service, from December 9th, 1905. His commissions are thus dated: Lieutenant, January 27th, 1900; Captain, January 27th, 1903.

Colonel G. J. **KELLIE**, Bengal, is appointed to officiate as Principal Medical Officer, 7th (Meerut) Division.

Lieutenant-Colonel (temporary Colonel) W. G. H. **HENDERSON**, Bombay Establishment, is promoted to be Colonel from November 11th, 1905. He was appointed Assistant Surgeon, March 31st, 1876, and became Surgeon-Lieutenant-Colonel, March 31st, 1896. He was in the Burmese campaign in 1887-8, was mentioned in dispatches, and received the Frontier medal with clasp.

ROYAL NAVAL VOLUNTEER RESERVE.

KENNETH H. BEVERLEY has been appointed a Surgeon, January 9th.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

SURGEON-CAPTAIN C. R. SKYRME, M.B., 2nd Cinque Ports, resigns his commission, December 30th, 1905.

WILLIAM E. HENDERSON to be Surgeon-Lieutenant in the 1st Fifeshire, January 10th.

Vital Statistics.

VITAL STATISTICS OF LONDON DURING THE FOURTH QUARTER OF 1905.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

IN the accompanying table will be found summarized the vital statistics of the metropolitan boroughs and of the City of London, based upon the Registrar-General's returns for the fourth, or autumn, quarter of 1905. The mortality figures in the table relate to the deaths of persons actually belonging to the various boroughs, and are the result of a complete system of distribution of the deaths in public institutions among the several boroughs in which the deceased persons had previously resided.

The 30,454 births registered in London during the three months under notice were equal to an annual rate of 26.1 per 1,000 of the population, estimated at 4,684,794 persons in the middle of last year; in the corresponding quarters of the three preceding years the rates were 27.8, 27.4, and 27.2 per 1,000, the average rate for the fourth quarters of the ten years, 1895 to 1904, being 28.4 per 1,000. The birth-rates last quarter ranged from 12.0 in the City of London, 14.1 in Hampstead, 15.7 in the City of Westminster, 16.9 in Stoke Newington, 18.1 in Kensington, and 19.9 in Chelsea, to 31.6 in Bethnal Green, 31.9 in Shoreditch, 32.3 in Bermondsey, 33.1 in Stepney, 33.2 in Poplar, and 35.4 in Finsbury.

The 18,974 deaths of persons belonging to London registered during last quarter were equal to an annual rate of 16.2 per 1,000, against 17.2, 16.1, and 16.4 per 1,000 in the three preceding fourth quarters; in the corresponding periods of the ten preceding years the rate averaged 17.6 per 1,000. The death-rates last quarter ranged from 10.4 in Hampstead, 12.1 in Lewisham, 12.5 in Woolwich, 13.7 in Stoke Newington, and 14.0 in Wandsworth, to 19.4 in Stepney, 19.6 in Shoreditch, 19.8 in Finsbury, 20.4 in Bethnal Green, 20.9 in Southwark, and 21.1 in Bermondsey.

During the last quarter 1,547 deaths were referred to the principal infectious diseases; of these, 553 resulted from measles, 170 from scarlet fever, 158 from diphtheria, 279 from whooping-cough, 63 from enteric fever, and 324 from diarrhoea, but not any from small-pox, from typhus, or from ill-defined pyrexia. These 1,547 deaths were equal to an annual rate of 1.33 per 1,000, against an average rate of 1.84 per 1,000 in the corresponding quarters of the ten preceding years. The lowest death-rates last quarter from these principal infectious diseases were 0.37 in Hampstead, 0.46 in Stoke Newington, 0.49 in St. Marylebone and in Holborn, 0.57 in the City of Westminster, and 0.59 in Chelsea; the highest rates were 1.69 in Lambeth, 1.72 in Bethnal Green, 1.93 in Bermondsey, 2.04 in Stepney, 2.15 in Fulham, and 3.13 in Southwark. Measles showed the highest proportional

Analysis of the Vital Statistics of the Metropolitan Boroughs and of the City of London after Distribution of Deaths occurring in Public Institutions during the Fourth Quarter of 1905.

BOROUGHS.	Estimated Population middle of 1905.	Births.	Deaths.	Annual Rate per 1,000 Living.			Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Typhus.	Enteric Fever.	Simple and Ill-defined Fever.	Diarrhoea.	Phthisis.	Deaths of Children Under 1 Year of Age to 1,000 Births.
				Births.	Deaths.	Principal Infectious Diseases.												
COUNTY OF LONDON	4,684,794	30,454	18,974	26.1	16.2	1.33	1,547	—	553	170	158	279	—	63	—	324	1,824	130
Paddington	147,935	755	539	20.5	14.6	0.85	31	—	12	2	—	5	—	1	—	11	37	121
Kensington	180,083	814	636	18.1	14.2	0.96	43	—	18	7	1	4	—	3	—	10	67	127
Hammersmith ...	119,037	779	444	26.2	15.0	1.07	32	—	7	3	4	8	—	1	—	9	46	134
Fulham	157,210	1,087	588	27.7	15.0	2.15	84	—	30	7	11	18	—	5	—	13	58	132
Chelsea	74,496	369	308	19.9	16.6	0.59	11	—	3	2	—	—	—	—	—	6	31	125
City of Westminster	175,606	689	619	15.7	14.1	0.57	25	—	9	5	2	4	—	1	—	4	75	129
St. Marylebone ...	129,453	925	527	28.7	16.3	0.49	16	—	—	5	—	1	—	—	—	10	45	90
Hampstead	88,142	310	229	14.1	10.4	0.37	8	—	3	2	1	—	—	—	—	2	20	103
St. Pancras	236,183	1,439	1,032	24.4	17.5	1.54	92	—	22	12	5	35	—	2	—	16	97	138
Islington	342,994	2,091	1,389	24.4	16.2	1.55	132	—	60	16	10	19	—	4	—	23	128	135
Stoke Newington ...	52,828	223	181	16.9	13.7	0.46	6	—	—	—	3	1	—	—	—	2	30	121
Hackney	228,479	1,430	843	25.1	14.8	0.82	46	—	—	6	10	6	—	11	—	13	84	111
Holborn	56,481	365	257	25.9	18.3	0.49	7	—	1	—	—	—	—	2	—	4	50	66
Finsbury	98,207	867	486	35.4	19.8	1.14	28	—	1	7	3	5	—	3	—	9	62	104
City of London * ...	22,425	67	96	12.0	17.2	0.72	4	—	—	1	—	1	—	—	—	2	6	134
Shoreditch	116,565	928	568	31.9	19.6	1.10	32	—	2	6	5	12	—	—	—	7	51	150
Bethnal Green ...	130,401	1,027	664	31.6	20.4	1.72	56	—	10	7	6	17	—	1	—	15	59	167
Stepney	305,466	2,519	1,475	33.1	19.4	2.04	155	—	48	15	15	42	—	5	—	30	140	148
Poplar	170,280	1,409	757	33.2	17.8	1.60	68	—	4	10	12	22	—	2	—	18	60	145
Southwark	208,528	1,516	1,089	29.2	20.9	3.13	162	—	118	5	11	3	—	6	—	19	117	146
Bermondsey	129,006	1,040	679	32.3	21.1	1.93	62	—	17	9	6	10	—	3	—	17	64	169
Lambeth	313,045	2,150	1,241	27.5	15.9	1.67	133	—	75	9	16	16	—	1	—	16	102	107
Battersea	177,532	1,172	686	26.5	15.5	1.12	49	—	15	10	3	10	—	1	—	10	67	138
Wandsworth	265,392	1,663	926	25.1	14.0	1.12	73	—	25	3	11	15	—	3	—	16	86	116
Camberwell	271,240	1,633	1,072	24.2	15.9	1.20	81	—	39	11	6	9	—	2	—	14	102	140
Deptford	114,495	847	450	29.7	15.8	1.17	33	—	7	7	4	5	—	2	—	8	29	122
Greenwich	103,493	636	364	24.6	14.1	0.86	22	—	3	1	6	2	—	2	—	8	33	137
Lewisham	144,420	826	437	22.9	12.1	0.99	35	—	20	1	2	2	—	1	—	9	34	98
Woolwich	125,372	878	392	28.1	12.5	0.67	21	—	4	1	5	7	—	1	—	3	44	112

fatality in Fulham, Islington, Stepney, Southwark, and Lambeth; scarlet fever in Finsbury, Bethnal Green, Poplar, Bermondsey, Battersea, and Deptford; diphtheria in Fulham, Stoke Newington, Poplar, Southwark, and Greenwich; whooping-cough in Fulham, St. Pancras, Shoreditch, Bethnal Green, Stepney, and Poplar; enteric fever in Fulham, Hackney, Holborn, Finsbury, and Southwark; and diarrhoea in Finsbury, Bethnal Green, Stepney, Poplar, Southwark, and Bermondsey.

During the three months under notice 1,824 deaths from phthisis were registered, equal to an annual rate of 1.56 per 1,000; the rates in the corresponding quarters of the three preceding years were 1.64, 1.64, and 1.79 per 1,000 respectively. Among the various boroughs the lowest death-rates from phthisis last quarter were recorded in Paddington, Hampstead, the City of London, Deptford, and Lewisham; and the highest rates in Stoke Newington, Holborn, Finsbury, Bethnal Green, Stepney, Southwark, and Bermondsey.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 130 per 1,000, against 155, 152, and 128 in the corresponding periods of the three preceding years; in the fourth quarters of the ten preceding years the rate averaged 147 per 1,000. The lowest rates of infant mortality last quarter were recorded in St. Marylebone, Hampstead, Holborn, Finsbury, and Lewisham, and the highest rates in Shoreditch, Bethnal Green, Stepney, Poplar, Southwark, and Bermondsey.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 9,193 births and 5,052 deaths were registered during the week ending Saturday last, January 13th. The annual rate of mortality in these towns, which had been 17.8, 17.4, and 18.3 per 1,000 in the three preceding weeks, declined again last week to 16.7 per 1,000. The rates in the several towns ranged from 6.1 in Northampton, 7.8 in Hornsey, 9.7 in Wallasey, 10.1 in Leyton and in Derby, 10.3 in Walthamstow, 10.7 in West Hartlepool, and 10.9 in Stockton-on-Tees, to 21.1 in South Shields, 21.2 in Liverpool, 21.3 in Sunderland, 22.0 in Preston, 22.1 in West Bromwich, 22.2 in Tynemouth, 23.5 in St. Helens, 24.3 in Merthyr Tydfil, and 25.9 in Burnley. In London the rate of mortality was 17.5 per 1,000, while it averaged 16.3 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.3 per 1,000 in the seventy-six towns; in London this death-rate was equal to 1.4 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 2.4 in East Ham and in Smethwick, 2.6 in Barrow-in-Furness, 2.7 in Plymouth, 2.9 in Leicester and in Leeds, 3.3 in Handsworth (Staffs), 3.6 in Bury, and 5.8 in Preston. Measles caused a death-rate of 1.1 in Willesden and in Swansea, 1.2 in Blackburn, 1.3 in Gateshead, 1.8 in Leeds, 3.6 in Bury, and 5.4 in Preston; diphtheria of 1.3 in Norwich, 1.4 in Merthyr Tydfil, and 1.7 in Barrow-in-Furness; whooping-cough of 1.1 in Huddersfield, 1.3 in Reading, 1.6 in Smethwick, 1.8 in Plymouth and in Leicester, and 3.3 in Handsworth (Staffs); and diarrhoea of 1.2 in Blackburn. The mortality from scarlet fever and from enteric fever showed no marked excess in any of the large towns. No fatal case of small-pox was registered either in London or in any of the large provincial towns, and no small-pox patients were under treatment last week in the Metropolitan Asylums Hospitals. The number of scarlet fever cases in these hospitals and in the London Fever Hospital at the end of the week was 3,062, against 3,409, 3,446, and 3,299 at the end of the three preceding weeks: 257 new cases were admitted during the week, against 295, 295, and 291 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, January 13th, 901 births and 610 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 17.4, 18.2, and 19.8 per 1,000 in the three preceding weeks, declined again t 17.8 per 1,000 last week, but was 1.1 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 11.4 in Paisley and 11.6 in Aberdeen to 19.2 in Greenock and 24.4 in Dundee. The death-rate from the principal infectious diseases averaged 1.8 per 1,000, the highest rates being recorded in Glasgow, Dundee, and Greenock. The 304 deaths registered in Glasgow included 20 which were referred to measles, 4 to diphtheria, 2 to "fever," and 9 to diarrhoea. Two fatal cases of diphtheria and 3 of diarrhoea were recorded in Edinburgh; 5 of measles and 3 of diarrhoea in Dundee; 2 of measles in Paisley; 2 of whooping-cough in Leith; and 2 of scarlet fever in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, January 6th, 546 births and 371 deaths were registered in six of the principal Irish towns, as against 452 births and 309 deaths in the preceding period. The annual death-rate in these towns, which had been 17.4, 16.5, and 15.3 per 1,000 in the three preceding weeks, rose to 21.0 per 1,000 in the week under notice, this figure being 2.7 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 14.4 in Cork and 17.8 in Limerick, to 21.7 in Dublin and 31.2 in Waterford. The zymotic death-rate during the same period and in the same six Irish towns averaged 1.1 per 1,000, or 0.2, per 1,000 higher than during the preceding period, the highest figure, 1.9, being recorded in Waterford.

During the week ending Saturday, January 13th, 456 births and 347 deaths were registered in six of the principal Irish towns, as against 546 births and 371 deaths in the preceding period. The annual death-rate in these towns, which had been 16.5, 15.3, and 21.0 per 1,000 in the three preceding weeks, fell to 17.8 per 1,000 in the week under notice, this figure being 1.1 per 1,000 lower than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 8.7 in Londonderry and 13.6 in Waterford to 21.7 in Dublin and 30.1 in Limerick. The zymotic death-rate in the same six Irish towns averaged 0.3 per 1,000, or 0.8 per 1,000 lower than during the preceding period, the highest figure—1.3—being recorded in Belfast, while Cork, Londonderry, Limerick, and Waterford registered no deaths under this heading.

Vacancies and Appointments.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

BRISTOL CORPORATION.—Public Analyst and Bacteriologist. Salary, £450, rising to £600, per annum.

BURNLEY COUNTY BOROUGH.—Medical Officer of Health. Salary, £500 per annum.

BURTON-ON-TRENT INFIRMARY.—House-Surgeon. Salary, £120 per annum.

CARDIFF INFIRMARY.—(1) Two House-Surgeons. (2) House-Physician. Salary at the rate of £60 per annum each.

CHELTENHAM GENERAL HOSPITAL.—Junior House-Surgeons. Salary, £60 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL AND DISPENSARY.—Junior House-Surgeon. Salary, £50 per annum.

GLASGOW CORPORATION.—Lady Medical Assistant. Salary, £160 per annum.

HALIFAX ROYAL INFIRMARY.—Third House-Surgeon. Salary, £80 per annum.

ISLINGTON : PARISH OF ST. MARY.—Medical Officer and Public Vaccinator for No. 9 District. Salary, £100 per annum and fees.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—Physician.

NOTTINGHAM CITY ASYLUM.—Junior Assistant Medical Officer. Salary, £150 per annum.

SAMARITAN HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Surgeon to Out-patients.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Junior House-Surgeon. Salary, £80 per annum.

SEAMEN'S HOSPITAL, Greenwich.—(1) Assistant Physician. (2) Honorary Anaesthetist. (3) Medical Registrar. (4) Surgical Registrar. (5) Pathologist.

LEEDS HOSPITAL FOR WOMEN AND CHILDREN.—Resident Clinical Assistant.

WEST HAM BOROUGH.—Resident Assistant Medical Officer at the Plaistow and Dagenham Hospitals for Infectious Diseases. Salary, £200 per annum.

YORK COUNTY HOSPITAL.—House-Surgeon. Salary, £100 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacancies in the office of Certifying Factory Surgeons : Doune, co. Perth ; Castle Cary, co. Somerset.

APPOINTMENTS.

ALLAN, John, M.B., Ch.B.Edin., House-Surgeon to the Royal Alexandra Hospital for Sick Children, Brighton.

BEALE, H. R., M.D.Lond., Medical Officer of Health, East Retford Rural District.

BOWES, John Arnold, L.D.S. (R.C.S.Eng.), Dental House-Surgeon to Guy's Hospital.

BROOK, T. S., M.R.C.S., L.R.C.P., District Medical Officer of the Epping Union.

BROUGH, D., M.B., C.M.Edin., Certifying Factory Surgeon for the Battle District co. Sussex, and Medical Officer of Health Battle Urban District.

BROWN, H. M., M.B., Ch.B.Vict., District Medical Officer of the Drayton Union.

BRUCE, E. J., M.B., Ch.B., District Medical Officer of the East Retford Union.

BURGESS, Arthur H., F.R.C.S.Eng., M.B., M.Sc.Vict., Honorary Assistant Surgeon to the Manchester Christie Hospital for Cancer.

BURROWS, Harold, M.B., B.S.Lond., F.R.C.S.Eng., Assistant Surgeon to the Seamen's Hospital.

BYERS, A., M.D.Vict., Ch.B., District Medical Officer of the Bucklow Union.

COX, F., M.R.C.S., L.R.C.P., District Medical Officer of the Clutton Union.

DICKIE, W. S., F.R.C.S.Eng., Consulting Surgeon, Middlesbrough Union Workhouse.

DODD, Stanley, M.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P., Resident Medical Officer of the Chelsea Hospital for Women.

EDMOND, W. S., M.R.C.S., L.R.C.P., First Resident Assistant Medical Officer, St. George's Infirmary, Highgate Hill.

FARNCOMBE, E. L., M.B., B.Ch.Oxon., Certifying Factory Surgeon for the Chudleigh District, co. Devon.

HALL, J. S., M.D.Durh., M.B., B.S., District Medical Officer of the Farnham Union.

HAMILTON, Robert J., F.R.C.S.E., etc., Honorary Ophthalmic Surgeon, Stanley Hospital, Liverpool.

HEANLEY, C. M., M.B., B.S.Lond., D.T.M.H.Camb., M.R.C.S., L.R.C.P., D.P.H.Lond., Assistant to the Government Bacteriologist at Hong Kong.

JUBB, Archibald, M.D.Glasg., Assistant Medical Electrician, Glasgow Royal Infirmary.

KEELING, E. S., M.B., B.C., Clinical Assistant, Chelsea Hospital for Women.

LEITCH, Archibald, M.B., Ch.B.Glasg., Assistant to the Director of the Cancer Research Laboratories of the Middlesex Hospital.

MCBRIDE, John, L.D.S. (R.C.S.Eng.), Dental House-Surgeon to Guy's Hospital.

MERCIER, C. A., M.B., F.R.C.P.Lond., Physician for Mental Diseases at Charing Cross Hospital, vice R. Percy Smith, M.D., F.R.C.P. Lond., resigned.

MIALL, C. L'Oste, M.R.C.S., L.R.C.P., District Medical Officer of the Clutton Union.

MOORE, Wm., B.A., L.R.C.P. and S.Irel., Assistant Surgeon to the Civil Medical Department, Hong Kong.

PALIN, E. W., M.B., District Medical Officer of the Walsingham Union.

PIERCE, F. J., M.R.C.S., L.R.C.P., Resident Assistant Officer, Bethnal Green Parish Infirmary.

SNELL, E. H., M.D., B.Sc.Lond., D.P.H., Medical Officer to the Education Committee, Coventry.

STAMFORD, R. B., F.R.C.S.Edin., Certifying Factory Surgeon for the Loughborough District, co. Leicester.

STEPHENS, H. N., M.R.C.S., L.R.C.P., Clinical Assistant to the Chelsea Hospital for Women.

SYMONS, T. G. G., L.R.C.P. and S.Edin., District Medical Officer of the Hertford Union.

TEASDALE, J. C., M.B., Ch.B.Vict., District Medical Officer of the East Retford Union.

TURNER, A. S., M.R.C.S., L.R.C.P., District Medical Officer of the Croydon Union.

WARNER, Allan, M.D.Durh., D.P.H.Lond., Medical Officer to the Leicester Education Committee.

WAUGH, George Ernest, B.A.Cantab., M.D., B.S.Lond., F.R.C.S.Eng., Assistant Surgeon to the Hospital for Sick Children, Great Ormond Street.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTH.

CORNER.—On January 12th, at 37, Harley Street, W., the wife of Edred M. Corner, F.R.C.S., of a son.

MARRIAGES.

HAY—DUNCAN.—On January 17th, at St. George's Church, Tyldesley, by the Rev. J. Lund, M.A., John Hay, M.D., M.R.C.P., eldest son of James M. Hay of Liverpool, to Agnes Margaret, daughter of William Duncan, M.D., of Tyldesley.

RYALL—BARKER.—On January 16th, at All Saints Church, Margaret Street, W., by the Rev. G. F. Holden, Edward Canny Ryall, F.R.C.S., of Harley Street, son of Edward Canny Ryall, late 86th Regiment, to Eveline, daughter of the late C. D. Barker, J.P., D.L., and of Mrs. Barker, Radnor House, Great Malvern.

DEATH.

KINGDON.—On January 5th, at 31, The Broadway, Westminster, during sleep, John Abernethy Kingdon, F.R.C.S., late of 2, Bank Buildings, Lothbury, in his 78th year.

DIARY FOR NEXT WEEK.

MONDAY.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 20, Hanover Square, W. —Council meeting, 7 p.m. Ordinary meeting, 8 p.m. Communications : Dr. A. G. Levy, A Modification of a Gas and Oxygen Apparatus. Captain A. F. A. Howe, The Teeth of the Pygmies of Central Africa.

TUESDAY.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W., 8.30 p.m.—Dr. Frederick Taylor : Three cases of Myoclonus. Dr. William Ewart : Interrupted Circulation as a Therapeutic Agent, with illustrative cases of Rheumatoid Arthritis. Dr. Frederick Taylor and Dr. Ewart will both show some cases at 8.15.

THERAPEUTICAL SOCIETY, Apothecaries' Hall, Blackfriars, 4.30 p.m.—Dr. G. Newton Pitt : Antithyroid Serum in the Treatment of Exophthalmic Goître.

WEDNESDAY.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, 8.30 p.m. —Mr. Jonathan Hutchinson : Hunterian Lecture on Reminiscences of the Hunterian Society.

THURSDAY.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, Edgware Road, W.—Clinical meeting, 8.30 p.m., the President, Dr. F. W. Cock, in the chair.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 11, Chandos Street, Cavendish Square.—8 p.m., Card specimens by Messrs. A. Stanford Morton and G. Coats. 8.30 p.m., Papers—Dr. A. Maitland Ramsay : The Treatment of Detachment of the Retina. Mr. Simeon Snell : (1) A case of Thrombosis of the Cavernous Sinus ; (2) a case of Acute Oedema of the Eyelids. Dr. D. J. Wood : Case of Bilateral Hemianopsia.

WESTMINSTER HOSPITAL MEDICAL SCHOOL, Caxton Street, S.W., 5 p.m.—Lecture on Applied Physiology by Dr. Bertram Abrahams.

FRIDAY.

CLINICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8 p.m.—Clinical evening. Exhibition of clinical cases, followed by discussion. Patients will be in attendance from 8 p.m. till 9 p.m.

POST-GRADUATE COURSES AND LECTURES.

CHARING CROSS HOSPITAL.—Thursday, 4 p.m., Dermatological Demonstration.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C., Thursday, 4 p.m., Abscesses in Connexion with Spinal Caries and their Treatment.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week, at 4 p.m. each day :—Monday, Skin ; Tuesday, Medical ; Wednesday, Surgical ; Thursday, Surgical ; Friday, Throat. Lectures at 5.15 p.m. each day will be given as follows :—Monday, The Management of the Breasts and Infant during the Early Days of the Puerperium ; Tuesday, Stammering ; Wednesday, The Treatment of Rheumatism ; Thursday, The Differential Diagnosis of Abdominal Tumours.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Central Out-patient Department, 7, Fitzroy Square, W.—Thursday, 5 p.m., Phthisis in Old Age.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, Bloomsbury, W.C.—Tuesday, 3.30 p.m., Hysteria. Friday, 3.30 p.m., Surgery of the Nervous System.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital N.—The following are the arrangements for next week : Tuesday, 3.30 p.m. (at Colney Hatch Asylum, New Southgate), Demonstration on States of Mental Depression ; Thursday, 4.30 p.m., Clinical lecture on Hemiplegia.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W., Thursday, 3 p.m.—Cases from the Wards.

UNIVERSITY COLLEGE HOSPITAL, Gower Street, W.C., Wednesday, 4 p.m.—Clinical Lecture on Oral Sepsis.

WEST LONDON POST-GRADUATE COLLEGE, West London Hospital, Hammersmith Road, W.—The following arrangements have been made for next week, at 5 p.m. each day : Monday, Anaesthetics ; Tuesday, Mental Unsoundness amounting to Certifiable Insanity ; Wednesday, Practical Medicine ; Thursday, Practical Surgery ; Friday, Anaemia.

CALENDAR OF THE ASSOCIATION.

JANUARY.

Date.	Meetings to be Held.
19 FRIDAY.........	St. Pancras and Islington Division, *Metropolitan Counties Branch*, University College Hospital, 4 p.m.
20 SATURDAY...	
21 Sunday.........	
22 MONDAY	
23 TUESDAY......	
24 WEDNESDAY	Brighton Division, *South-Eastern Branch*, Dispensary, 113, Queen's Road, Brighton, 4 p.m.
25 THURSDAY...	Wandsworth Division, *Metropolitan Counties Branch*, Balham Hotel, 8.45 p.m.
26 FRIDAY.........	Tottenham Division, *Metropolitan Counties Branch*, Tottenham Hospital, 4 p.m.
27 SATURDAY...	
28 Sunday.........	
29 MONDAY	
30 TUESDAY......	Kensington Division, *Metropolitan Counties Branch*, Hospital for Consumption, Brompton, 5 p.m.
31 WEDNESDAY	Bath and Bristol Branch, Bristol. Ulster Branch, Belfast.

FEBRUARY.

Date.	Meetings to be Held.
1 THURSDAY...	South-Western Branch, Athenaeum, George Street, Plymouth, 4.30 p.m. Swansea Division, *South Wales and Monmouthshire Branch*, General Hospital, Swansea, 3 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Bolingbroke Hospital, 4 p.m.
2 FRIDAY	

FEBRUARY *(continued).*

Date.	Meetings to be Held.
3 SATURDAY...	Leinster Branch, Annual Meeting, Royal College of Physicians, Kildare Street, Dublin, 4.30 p.m.
4 Sunday	
5 MONDAY	
6 TUESDAY......	
7 WEDNESDAY	
8 THURSDAY...	London: Metropolitan Counties Branch Council, 5 p.m.
9 FRIDAY	Hampstead Division, *Metropolitan Counties Branch.*
10 SATURDAY...	
11 Sunday	
12 MONDAY	
13 TUESDAY......	
14 WEDNESDAY	
15 THURSDAY...	
16 FRIDAY	Edinburgh Branch, Annual Clinical Meeting, Royal Infirmary.
17 SATURDAY...	
18 Sunday	
19 MONDAY	
20 TUESDAY......	
21 WEDNESDAY	
22 THURSDAY...	City Division, *Metropolitan Counties Branch*, 4 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Battersea Town Hall, 3 p.m.
23 FRIDAY	
24 SATURDAY...	

MEMBERSHIP OF THE BRITISH MEDICAL ASSOCIATION.

The British Medical Association exists for the promotion of medical and the allied sciences, and the maintenance of the honour and the interests of the medical profession.

The Annual Subscription to the British Medical Association is £1 5s. 0d., and the British Medical Journal is supplied weekly, post free, to every member of the British Medical Association wherever he may reside.

Forms of application for membership can be obtained from the General Secretary, 429, Strand, London, W.C.

The principal rules governing the election of a medical practitioner to be a member of the British Medical Association are as follow:

Article III.—Any Medical Practitioner registered in the United Kingdom under the Medical Acts and any Medical Practitioner residing within the area of any Branch of the Association situate in any part of the British Empire other than the United Kingdom, who is so registered or possesses such medical qualifications as shall, subject to the Regulations, be prescribed by the Rules of the said Branch, shall be eligible as a Member of the Association. The mode and conditions of election to Membership shall from time to time be determined by or in accordance with the By-laws. Every Member, whether one of the existing Members or a subsequently-elected Member, shall remain a Member until he ceases to be a Member in accordance with the provisions hereof.

By-law 1.—Every Candidate for Membership of the Association shall apply for election in writing, addressed to the Association, and stating his agreement, if elected, to abide by the Regulations and By-laws of the Association, and the Rules of such Division and Branch to which he may at any time belong, and to pay his subscription for the current year.

By-law 2.—Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the General Secretary of the Association, and to every Member of the Branch Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a member of the Association by the Branch Council at any meeting thereof held not less than seven days (or such longer period as the Branch may by its Rules prescribe) after the date of the said Notice. A Branch may by special Resolution require that each candidate for election to the Association shall furnish a certificate from two Members of the Association to whom he is personally known. Officers of the Navy, Army, and Indian Medical Services on the Active List are eligible for election through the Council or a Branch without approving signatures as laid down in By-law 3.

By-law 3.—Every candidate whose place of residence is not included in the area of any Branch shall forward his Application to the General Secretary of the Association, together with a statement signed by three members of the Association, that from personal knowledge they consider him a suitable person for election. Notice of the proposed election shall be sent by the General Secretary to every Member of the Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a Member of the Association by the Council at any meeting thereof held not less than one month after the date of the said notice.

The annual subscription to the British Medical Journal for non-members is £1 8s. 0d. for the United Kingdom and £1 12s. 6d. for abroad.

Printed and published by the British Medical Association at their Office. No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT
TO THE
BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JANUARY 27TH, 1906.

CONTENTS.

PAGE
MEETINGS OF BRANCHES AND DIVISIONS:
Sydney and New South Wales Branch 21
South-Eastern of Ireland Branch: Waterford Division ... 21
South Connaught Division 22
NOTICE OF THE FORMATION OF NEW BRANCHES OF THE ASSOCIATION 22
ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD 22
PAGE
VITAL STATISTICS 22
NAVAL AND MILITARY APPOINTMENTS 25
VACANCIES AND APPOINTMENTS... 26
BIRTHS, MARRIAGES, AND DEATHS 27
DIARY OF THE WEEK 27
BOOKS, ETC., RECEIVED... 27
CALENDAR 28

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

SYDNEY AND NEW SOUTH WALES BRANCH.

THE regular monthly meeting of the Branch was held at the Royal Society's Rooms, Sydney, on November 24th, 1905, Dr. POCKLEY in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

New Members.—The PRESIDENT announced the election of the following members: Dr. W. Fisher, Weston; Dr. H. Chapman, Sydney University.

Communications.—Dr. W. J. MUNRO exhibited a preparation of the *Spirochaeta pallida*, an organism associated with primary and secondary syphilitic lesions, and read notes explaining the exhibit. Dr. WILKINSON made remarks.—Dr. EDWARDS read notes on the *Relation of Chronic Callus or Indolent Ulcer to Periostitis*, illustrated by skiagrams. Drs. HERSCHELL HARRIS, W. H. READ, and HANKINS made remarks, and Dr. EDWARDS replied.—Dr. CAMAC WILKINSON read a paper on *Pernicious Anaemia*, illustrated by 7 cases with microscopic demonstration. A discussion ensued, in which Drs. LITCHFIELD, FLASHMAN, SINCLAIR, GILLIES, and POCKLEY took part; Dr. WILKINSON replied.

SOUTH-EASTERN OF IRELAND BRANCH:
WATERFORD DIVISION.

A MEETING of this Division was held at the Town Hall, Clonmel, on January 3rd, at 4 o'clock, Dr. CREAN in the chair.

The Division and Parliamentary Candidates.—Deputations were appointed to interview parliamentary candidates. Many of the members, however, expressed small confidence in them, and showed a decided preference for paid parliamentary medical representatives.

Cases referred to Medico-Ethical Committee.—Two members having brought serious charges against one of the members of the Division, the matter was unanimously referred to the Central Council or the Medico-Ethical Committee.

Annual Representative Meeting.—The subjoined series of instructions were unanimously adopted for the Representative at the Annual Representative Meeting.—Proposed by Dr. LAFFAN and seconded by Dr. STEPHENSON and unanimously adopted:

1. That it be an instruction to our Representative to move at the annual meeting a motion to carry into effect our resolution asking for a representative on the Council of the Association for small Branches like ours where, as in our case, they represent interests different from and antagonistic to those of the predominant and associated Branch.
2. That he be instructed to move that the Association and its Council do bring to a practical conclusion the question of medical defence of the members of this Association, than which we conceive none to be more important to members of this Association, whether individually or collectively.
3. That the same be further instructed to move that such steps be taken to give practical effect to the Oxford resolutions, and to the whole trend of medical opinion, on the subject of the gratuitous or semi-gratuitous hospital treatment of the well-to-do as will place our profession in the same position as that of the law, and preserve us from further plunder and robbery.
4. That the same be further instructed to move that power be taken in the new Charter to subsidize a parliamentary representative or representatives.
5. That he be further instructed to give his warm support to any well-considered proposal for the reform on a representative basis of the General Medical Council.
6. That he be further instructed to take the sense of the meeting on the entire exclusion of the mass of the profession, and even of the majority of hospital staffs, from all share in medical teaching.
7. That he be further instructed to take the sense and pleasure of the meeting on the necessity for having all medical examinations duly advertised and open to the presence of every registered medical practitioner.
8. Further, that our Representative shall move at the annual general meeting, to be held in London in July next, that the Council be requested to appoint a Materia Medica Committee, whose duty it will be, with such professional aid as they can summon to their assistance, to investigate and pronounce on the uses and properties of all drugs which shall be used by the profession, and that in view of the grave injury inflicted on the public and on the profession alike by the present wholesale introduction of drugs by mere commercial firms, whereby the ground is being cut from under our feet, and the gullible public are induced to accept nostrums on the sole strength of mere assertions, that the hospitality of our museum and the pages of our JOURNAL shall be both shut out from giving any further aid to the wholesale advertisements of drugs and preparations the sole virtues of which have too often no existence save in the mendacity of their introducers.
9. Further, that our Representative shall move that, in the opinion of this meeting the BRITISH MEDICAL JOURNAL should more largely advocate the rights, interests, and claims of the medical masses in the future than it has done in the past.

The proceedings then terminated with a direction to Dr. Laffan to send forward the painful ethical matter.

SOUTH CONNAUGHT DIVISION.

A MEETING of this Division was held at 5 p.m. at Hayden's Hotel, Ballinasloe, on January 4th. Dr. W. M. RUTHERFORD was moved to the chair after the notice convening the meeting was read.

Appointment of Honorary Secretary.—Dr. Mills was appointed Honorary Secretary, and explained the need of organization to give effect to the demands of the profession as defined in the memorandum issued in view of the General Election.

Proposed Formation of Branch.—It was agreed that the Honorary Secretary should confer with the officers of the North Connaught and Mid Connaught Divisions with the view of forming a Connaught Branch.

Election of Officers.—The following were appointed officers of the Division:—*Chairman*, R. J. Kinkead, M.D.; *Vice-Chairman*, P. C. Gorham, M.D.; *Representatives on Branch Council*, T. B. Costello, M.D. (Tuam) and Dr. Joseph MacDonnell (Roscommon).

The Profession and Parliamentary Candidates.—The Division requested Drs. Costello, MacDonnell, Geraghty (Loughrea), R. J. Kinkead (Galway), P. C. Gorham (Clifden), and R. Reary (Woodford) to bring the Association memorandum before the parliamentary candidates in the two counties.

NOTICE OF THE FORMATION OF NEW BRANCHES OF THE ASSOCIATION.

NOTICE is hereby given of the following resolutions adopted on January 17th by the Central Council:

That a Branch be formed composed of the members of the Association resident in Egypt.

That the members of the Association resident in the province of Saskatchewan be constituted a Branch of the Association, having the name of the Saskatchewan Branch.

☞ *To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

Association Notices.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—The next meeting of this Division will be held at the Coventry and Warwickshire Hospital on Tuesday, February 6th, at 8.30 p.m. Agenda: (1) Dr. Phillips will show some clinical cases. (2) Specimen: Aortic Stenosis: Dr. Fenton. (3) Dr. Webster will move that the resolution of June 6th last (that in future no member of the profession in the area of the Division shall apply for the medical officership of a Friendly Society) be rescinded. (4) Dr. H. Brown will move: "That the resolution of March 7th last relating to the minimum fee for Friendly Societies be put in force not later than March 25th, 1906." (5) Dr. Snell will read a note on the operation of the Midwives Act in Coventry in 1905. (6) Report of the Foleshill and Bedworth Committee on the minimum fee desirable in their district for midwifery cases.—E. H. SNELL, Honorary Secretary.

EDINBURGH BRANCH.—The annual clinical meeting of this Branch will be held in the Royal Infirmary on Friday, February 16th. Fuller particulars will be announced later.—NORMAN WALKER and A. LOGAN TURNER, Honorary Secretaries.

LEINSTER BRANCH.—The annual meeting of the Leinster Branch will be held in the Royal College of Physicians, Kildare Street, Dublin, on Saturday, February 3rd, at 4.30 p.m.—ARTHUR H. WHITE, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—A meeting of the Division will be held at the Hospital for Consumption and Diseases of the Chest, Brompton, S.W., on Tuesday, January 30th, at 5 p.m. Cases will be shown by members of the hospital staff.—CHARLES BUTTAR, Honorary Secretary, 10, Kensington Gardens Square, W.

METROPOLITAN COUNTIES BRANCH: ST. PANCRAS AND ISLINGTON DIVISION.—The next meeting will be held at the North-West London Hospital, Kentish Town Road, N.W., on Friday, February 23rd, at 4 p.m., when Dr. Knowsley Sibley will give an address on Chronic Constipation and Its Treatment.—WM. WYNN WESTCOTT, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: TOTTENHAM DIVISION.—A meeting of the Division will be held at the Tottenham Hospital on Friday, January 26th, at 4 p.m. A discussion will be opened on Hospital Out-patients Departments, by Mr. R. F. Tomlin. Visitors are cordially invited.—FRED. TRESILIAN, Honorary Secretary, White Lodge, Enfield.

SHROPSHIRE AND MID-WALES BRANCH: CLINICAL AND PATHOLOGICAL SECTION.—The next meeting of this Section will be held 5 p.m. on Tuesday, February 6th, at the Salop Infirmary. Members who wish to read communications, or show cases or specimens, are requested to communicate with the Honorary Secretaries before Tuesday, January 30th.—HAROLD H. B. MACLEOD, LEONARD J. GODSON, Honorary Secretaries, Clive House, Shrewsbury.

SOUTH-EASTERN BRANCH: DOVER DIVISION.—The next meeting will be held at the Grand Hotel, Dover, on Wednesday, February 14th, at 8 p.m., when Dr. Guy Bellingham Smith, Assistant Obstetric Physician, Guy's Hospital, has kindly consented to read a paper. Particulars later.—F. A. OSBORN, Honorary Local Secretary, Ennismore House, Dover.

SOUTH-WESTERN BRANCH.—An extraordinary meeting of the Branch will be held on Thursday, February 1st, at the Athenaeum, George Street, Plymouth, at 4.30 p.m., when Sir Victor Horsley, F.R.C.S., F.R.S., has kindly consented to deliver an address, entitled, The Diagnosis and Surgical Treatment of Diseases of the Pituitary Gland. Tea will be provided at 4 p.m. at Messrs. Risdon's Restaurant, George Street (opposite the Athenaeum). The Branch Council trust that members will make every effort to attend this meeting, and they invite members to bring with them any friends who are not members of the Branch. By order of the Council.—G. YOUNG EALES, Honorary Secretary, 1, Matlock Terrace, Torquay.

ULSTER BRANCH.—The winter meeting will be held in Belfast on Wednesday, January 31st. Members having papers or business to bring before the meeting will please notify me as early as possible, and not later than January 20th.—CECIL E. SHAW, M.D., Honorary Secretary, 18, College Square East, Belfast.

Vital Statistics.

ENGLISH URBAN MORTALITY IN THE FOURTH QUARTER OF 1905.

THE vital statistics of the seventy-six large towns dealt with in the Registrar-General's weekly returns are summarized in the accompanying table. During the three months ending December last, 103,404 births were registered in these towns, equal to an annual rate of 26.6 per 1,000 of the population, estimated at 15,609,377 persons in the middle of last year; in the corresponding quarter of the preceding year the rate had been 28.1 per 1,000. In London the birth-rate last quarter was 26.1 per 1,000, while it averaged 26.8 in the seventy-five other large towns, among which the rates ranged from 14.7 in Bournemouth, 15.7 in Hastings, 16.8 in Halifax, 17.8 in Hornsey, 18.5 in Northampton, 19.2 in Bradford, and 19.4 in Bury, to 31.6 in Middlesbrough, 31.8 in Liverpool, 32.2 in Gateshead, 32.7 in Sunderland, 34.1 in St. Helens, 34.3 in Rhondda, and 35.5 in Merthyr Tydfil.

During the quarter under notice 61,518 deaths were registered in these towns, equal to an annual rate of 15.8 per 1,000 living, against a rate of 17.5 per 1,000 in the fourth quarter of 1904. In London the rate of mortality was 16.8 per 1,000, while it averaged 15.4 in the seventy-five large provincial towns, and ranged from 7.6 in Hornsey, 8.9 in King's Norton, 10.7 in Hastings, 10.9 in Grimsby, 11.0 in Leyton and in Handsworth (Staffs), and 11.5 in Walthamstow, to 18.3 in Merthyr Tydfil, 18.5 in Huddersfield, 18.6 in Middlesbrough, 18.8 in Tynemouth, 19.3 in Preston, 20.3 in Bootle, and 20.4 in Liverpool.

The 61,518 deaths from all causes in the seventy-six towns last quarter included 4,952 which were referred to the principal infectious diseases; of these, 1,183 resulted from measles, 668 from scarlet fever, 726 from diphtheria, 844 from whooping-cough, 356 from "fever" (principally enteric), and 1,175 from diarrhoea, but not any from small-pox. The death-rate from these diseases, which had been 2.14, 1.66, and 1.57 in the corresponding quarters of the three preceding years, declined to 1.27 per 1,000 last quarter. In London the death-rate from the principal infectious diseases was 1.34 per 1,000, while it averaged 1.25 in the seventy-five other large towns, among which the rates ranged from 0.31 in Handsworth (Staffs), 0.34 in Brighton, 0.35 in Hornsey, 0.42 in Coventry, 0.46 in Burton-on-Trent, and 0.52 in Nottingham and in Stockport to 1.96 in West Hartlepool and in Gateshead, 2.02 in Swansea, 2.03 in Middlesbrough, 2.34 in Wolverhampton, 2.92 in Blackburn, and 3.98 in Preston. The 1,183 deaths from measles were equal to an annual rate of 0.30 per 1,000; in London the death-rate from this disease was 0.47 per 1,000, while it averaged 0.23 in the seventy-five other large towns, and was highest in Willesden, Wolverhampton, Blackburn, Preston, Barrow-in-Furness, Rhondda, and Swansea. The 668 fatal cases of scarlet fever were equal to an annual rate of 0.17 per 1,000; in London the scarlet fever death-rate was 0.15 per 1,000, while it averaged 0.18 in the seventy-five other large towns, among which this disease was proportionally most fatal in Liverpool, Bootle, Oldham, Rochdale, Blackburn, Rotherham, and West Hartlepool. The 726 deaths from diphtheria corresponded to an annual rate of

Analysis of the Vital Statistics of Seventy-six of the Largest English Towns during the Fourth Quarter of 1905.

Towns.	Estimated Population middle of 1905.	Births.	Deaths.	Annual Rate per 1,000 Living.			Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Diarrhoea.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
				Births.	Deaths.	Principal Infectious Diseases.										
76 Towns	15,609,377	103,404	61,518	26.6	15.8	1.27	4,952	—	1.183	668	726	844	356	1,175	134	1.1
75 Provincial Towns	10,924,583	72,950	41,880	26.8	15.4	1.25	3,392	—	630	498	567	563	290	844	135	1.6
London	4,684,794	30,454	19,638	26.1	16.8	1.34	1,560	—	553	170	159	281	66	331	131	0.2
Croydon	147,704	879	486	23.9	13.2	1.22	45	—	18	4	7	6	2	8	122	—
Willesden	138,080	960	397	27.9	11.5	1.48	51	—	27	2	4	9	2	7	97	0.5
Hornsey	84,070	372	159	17.8	7.6	0.35	7	—	2	—	2	2	—	1	70	—
Tottenham	116,232	903	359	31.2	12.4	0.87	25	—	6	—	7	2	2	8	104	—
West Ham	294,997	2,181	1,095	29.7	14.9	1.60	118	—	34	10	12	18	9	35	137	0.1
East Ham	123,381	852	395	27.7	12.8	1.54	47	—	11	7	5	11	7	6	133	—
Leyton	114,555	786	313	27.5	11.0	0.69	19	—	5	3	3	3	1	4	107	0.6
Walthamstow	116,297	874	333	30.1	11.5	1.38	40	—	—	4	19	5	5	7	105	0.3
Hastings	66,820	262	178	15.7	10.7	0.54	9	—	6	—	—	—	1	2	80	—
Brighton	127,183	693	394	21.9	12.4	0.34	11	—	1	—	1	1	—	8	104	0.3
Portsmouth	201,975	1,418	759	28.2	15.1	0.98	49	—	—	3	24	5	4	13	95	2.1
Bournemouth	66,168	242	205	14.7	12.4	0.54	9	—	1	1	4	1	1	1	74	0.5
Southampton	114,897	695	386	24.3	13.5	0.93	27	—	—	—	13	4	3	7	98	—
Reading	77,674	478	234	24.7	12.1	1.24	24	—	—	4	9	4	—	7	90	2.6
Northampton	92,441	427	280	18.5	12.1	0.74	17	—	2	1	3	5	2	4	150	1.4
Ipswich	70,802	458	212	25.9	12.0	0.56	10	—	—	—	2	5	—	3	129	2.4
Great Yarmouth	52,353	332	221	25.4	16.9	0.84	11	—	—	1	2	3	—	5	133	—
Norwich	116,741	777	443	26.7	15.2	0.74	22	—	—	1	10	1	2	8	130	0.7
Plymouth	116,000	716	467	24.8	16.1	0.79	23	—	1	6	4	2	3	7	95	—
Devonport	76,864	528	249	27.6	13.0	0.73	14	—	—	1	2	5	3	3	108	—
Bristol	358,515	2,227	1,365	24.9	15.3	1.30	116	—	40	16	17	26	7	10	114	0.5
Hanley	64,667	504	289	31.3	17.9	1.12	18	—	—	4	3	2	—	9	216	1.7
Burton-on-Trent	52,424	315	155	24.1	11.9	0.46	6	—	—	—	1	1	2	2	76	1.9
Wolverhampton	99,456	637	407	25.7	16.4	2.34	58	—	22	7	5	2	4	18	148	0.5
Walsall	92,998	666	293	28.7	12.6	0.60	14	—	—	—	1	—	1	12	98	1.0
Handsworth	61,721	346	169	22.5	11.0	0.31	5	—	—	1	1	3	—	—	92	4.7
West Bromwich	67,823	501	248	29.6	14.7	0.90	15	—	1	2	2	4	1	5	142	4.8
Birmingham	542,959	3,662	2,220	27.1	16.4	1.66	225	—	66	20	27	53	18	41	150	3.2
King's Norton	69,630	400	154	23.0	8.9	0.98	17	—	7	—	1	5	—	4	105	3.2
Smethwick	62,605	441	231	28.3	14.8	1.21	19	—	2	3	—	6	2	6	181	2.1
Aston Manor	81,320	501	259	24.7	12.8	1.33	27	—	8	—	4	10	—	5	126	1.2
Coventry	75,134	507	248	27.1	13.2	0.42	8	—	1	—	1	—	1	5	110	1.2
Leicester	228,132	1,425	764	25.1	13.4	1.06	60	—	—	14	4	26	4	12	124	0.9
Grimsby	68,153	473	186	27.8	10.9	0.54	9	—	—	—	3	—	3	3	101	1.1
Nottingham	251,671	1,572	925	25.1	14.7	0.52	33	—	—	4	5	4	3	17	132	1.0
Derby	122,207	711	418	23.3	13.7	0.82	25	—	—	4	9	1	3	8	139	—
Stockport	98,320	631	382	25.7	15.6	0.52	13	—	—	3	1	4	2	3	158	0.5
Birkenhead	116,035	860	449	29.7	15.5	1.01	29	—	1	10	8	—	—	10	127	0.4
Wallasey	62,460	367	201	23.6	12.9	0.90	14	—	—	2	3	—	6	3	93	3.0
Liverpool	730,143	5,791	3,719	31.8	20.4	1.70	311	—	25	122	39	39	16	70	158	3.5
Bootle	62,758	485	317	31.0	20.3	1.92	30	—	—	11	4	11	—	4	167	5.0
St. Helens	89,843	763	326	34.1	14.6	1.02	23	—	1	6	5	3	—	8	127	4.3
Wigan	86,581	678	360	31.4	16.7	1.44	31	—	—	3	3	1	14	10	136	1.1
Warrington	68,301	498	270	29.2	15.9	1.89	32	—	—	3	2	15	1	11	141	3.3
Bolton	178,111	1,036	657	23.3	14.8	0.79	35	—	—	3	2	1	12	17	163	0.3
Bury	58,594	284	261	19.4	17.9	1.23	18	—	5	—	1	—	6	6	148	1.5
Manchester	631,185	4,299	2,722	27.3	17.3	1.12	178	—	13	27	40	22	14	62	143	1.8
Salford	231,514	1,612	935	27.9	16.2	1.82	105	—	7	20	22	11	17	28	133	0.2
Oldham	140,225	818	625	23.4	17.9	1.38	48	—	1	13	3	8	2	21	163	—
Rochdale	86,390	448	371	20.8	17.2	1.35	29	—	—	11	7	8	1	2	172	3.2
Burnley	101,682	586	416	23.1	16.4	1.46	37	—	—	1	3	18	3	12	177	0.7
Blackburn	133,067	740	576	22.3	17.4	2.92	97	—	42	23	12	1	5	14	174	3.8
Preston	115,721	740	556	25.6	19.3	3.98	115	—	86	3	6	—	9	11	128	2.3
Barrow-in-Furness	60,306	421	208	28.0	13.8	1.33	20	—	11	3	1	2	—	3	119	5.8
Huddersfield	94,888	536	436	22.7	18.5	1.23	29	—	—	4	5	7	3	10	140	0.9
Halifax	108,419	453	386	16.8	14.3	0.85	23	—	—	6	7	1	3	6	124	1 3
Bradford	286,799	1,373	1,005	19.2	14.1	0.79	57	—	1	13	18	2	3	20	128	1.1
Leeds	456,787	2.787	1,750	24.5	15.4	1.45	166	—	71	7	9	38	17	24	155	0.1
Sheffield	440,414	3,030	1,582	27.6	14.4	1.24	136	—	13	36	18	20	11	38	130	2.2
Rotherham	59,794	452	234	30.3	15.7	1.14	17	—	—	—	1	—	1	6	161	1.7
York	82,362	516	278	25.1	13.5	0.53	11	—	1	9	1	1	4	4	103	—
Hull	258.127	1,781	955	27.7	14.8	1.26	81	—	—	4	37	17	4	19	122	1.2
Middlesbrough	98,369	775	456	31.6	18.6	2.03	50	—	4	2	9	5	6	24	175	0.7
Stockton-on-Tees	52,425	371	187	28.4	14.3	0.69	9	—	—	1	3	—	2	3	129	0.5
West Hartlepool	71,313	476	301	26.8	16.9	1.96	35	—	1	11	8	7	4	4	170	—
Sunderland	152,761	1,246	680	32.7	17.9	1.14	43	—	6	1	6	3	10	17	145	2.8
South Shields	109,360	852	427	31.2	15.7	1.03	28	—	2	1	11	6	4	4	138	4.2
Gateshead	120,620	967	537	32.2	17.9	1.96	59	—	12	1	6	25	3	12	152	9.1
Newcastle-on-Tyne	264,511	2,058	1,096	31.2	16.6	1.07	70	—	11	1	18	24	3	13	139	0.6
Tynemouth	53,595	416	251	31.1	18.8	0.66	9	—	—	—	1	3	—	5	130	1.6
Newport (Mon.)	72,880	515	299	28.3	16.5	0.73	13	—	—	—	5	3	—	5	120	1.3
Cardiff	180,054	1,164	593	25.9	13.2	0.54	24	—	—	—	7	7	—	10	125	0.5
Rhondda	124,988	1,068	442	34.3	14.2	1.59	49	—	22	3	5	8	3	8	129	1.6
Merthyr Tydfil	73,848	653	337	35.5	18.3	1.95	36	—	1	9	10	4	4	8	168	—
Swansea	96,384	683	399	28.4	16.6	2.02	49	—	32	2	3	3	1	8	136	—

0.19 per 1,000; in London the death-rate from this disease was 0.14 per 1,000, while it averaged 0.21 in the seventy-five large provincial towns, among which the mortality from this disease was proportionally highest in Walthamstow, Portsmouth, Southampton, Reading, Hull, West Hartlepool, and Merthyr Tydfil. The 844 fatal cases of whooping-cough were equal to an annual rate of 0.22 per 1,000 in the seventy-six towns; in London the rate was 0.24 per 1,000, while it averaged 0.21 in the seventy-five other large towns, the highest rates being recorded in Birmingham, Aston Manor, Leicester, Bootle, Warrington, Burnley, Gateshead, and West Hartlepool. The 356 deaths referred to different forms of "fever" corresponded to an annual rate of 0.09 per 1,000; in London the "fever" death-rate was 0.06 per 1,000, while it averaged 0.11 in the seventy-five other large towns, and was highest in Wallasey, Wigan, Bolton, Bury, Salford, Preston, Middlesbrough, and Sunderland. The 1,175 fatal cases of diarrhoea were equal to an annual death-rate of 0.30 per 1,000; in London the death-rate from this disease was 0.28 per 1,000, while it averaged 0.31 in the seventy-five large provincial towns, among which this disease was proportionally most fatal in West Ham, Hanley, Wolverhampton, Walsall, Warrington, Salford, Oldham, and Middlesbrough.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 134 per 1,000 last quarter, against 166, 167, and 147 per 1,000 in the corresponding quarters of the three preceding years: in London the rate of infant mortality was 131 per 1,000, while it averaged 135 per 1,000 in the seventy-five other large towns, and ranged from 70 in Hornsey, 74 in Bournemouth, 76 in Burton-on-Trent, 80 in Hastings, 90 in Reading, 92 in Handsworth (Staffs), and 93 in Wallasey, to 170 in West Hartlepool, 172 in Rochdale, 174 in Blackburn, 175 in Middlesbrough, 177 in Burnley, 181 in Smethwick, and 216 in Hanley.

The causes of 704, or 1.1 per cent., of the deaths registered in the seventy-six towns last quarter were not certified, either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon, Hornsey, Tottenham, East Ham, Hastings, Southampton, Great Yarmouth, Plymouth, Devonport, Derby, Oldham, York, West Hartlepool, Merthyr Tydfil, and Swansea; while the largest proportions of uncertified deaths were registered in Handsworth (Staffs.), West Bromwich, Liverpool, Bootle, St. Helens, Blackburn, Barrow-in-Furness, South Shields, and Gateshead.

EPIDEMIC MORTALITY IN LONDON.

THE accompanying diagram shows the prevalence of the principal epidemic diseases during the fourth, or autumn, quarter of last year. The fluctuations of each disease and its relative fatality as compared with the corresponding period of recent years can thus be readily seen.

Small-pox.—No fatal case of this disease was registered in London last quarter, and no small-pox patients were under treatment during the quarter in the Metropolitan Asylums Hospitals.

Measles.—The deaths from measles, which had been 354, 551, and 257 in the three preceding quarters, rose again last quarter to 553, and were 22 in excess of the average number in the corresponding periods of the ten preceding years. Among the various metropolitan boroughs this disease was proportionally most fatal in Fulham, Islington, Stepney, Southwark, and Lambeth.

Scarlet Fever.—The fatal cases of this disease, which had been 134, 119, and 126 in the three preceding quarters, further rose last quarter to 170, and slightly exceeded the corrected average. Scarlet fever showed the highest proportional mortality last quarter in Finsbury, Bethnal Green, Poplar, Bermondsey, Battersea, and Deptford. The number of scarlet fever cases in the Metropolitan Asylums Hospitals, which had been 1,999, 2,444, and 3,567 at the end of the three preceding quarters, had declined again to 3,410 at the end of last quarter; 5,553 new cases were admitted during the quarter, against 3,122, 3,778, and 5,139 in the three preceding quarters.

Diphtheria.—The deaths referred to diphtheria in London, which had been 162, 121, and 111 in the three preceding quarters, rose again last quarter to 159, but were 363 below the average number in the corresponding quarters of the ten preceding years. Among the various metropolitan boroughs this disease was proportionally most fatal in Fulham, Stoke Newington, Poplar, Southwark, and Greenwich. The number of diphtheria patients in the Metropolitan Asylums Hospitals, which had been 788, 715, and 730 at the end of the three preceding quarters, had declined to 701 at the end of last quarter; 1,395 new cases were admitted during the quarter, against 1,425, 1,219, and 1,342 in the three preceding quarters.

Whooping-cough.—The fatal cases of this disease, which had been 436, 530, and 260 in the three preceding quarters, rose again to 281 last quarter, and were 14 in excess of the average number in the corresponding periods of the ten preceding years. Among the various metropolitan boroughs whooping-cough was proportionally most fatal in Fulham, St. Pancras, Shoreditch, Bethnal Green, Stepney, and Poplar.

"*Fever.*"—Under this heading are included deaths from typhus, from enteric fever, and from ill-defined pyrexia. The deaths referred to these different forms of "fever," which had been 51, 51, and 78 in the three preceding quarters, declined again last quarter to 66, and were 170 below the corrected average number. No death from typhus or from ill-defined pyrexia was registered during the quarter. Enteric fever mortality was highest in Fulham, Hackney, Holborn, Finsbury, and Southwark. The Metropolitan Asylums Hospitals contained 78 enteric fever patients at the end of last quarter, against 68, 78, and 143 at the end of the three preceding quarters; 238 new cases were admitted during the quarter, against 173, 156, and 264 in the three preceding quarters.

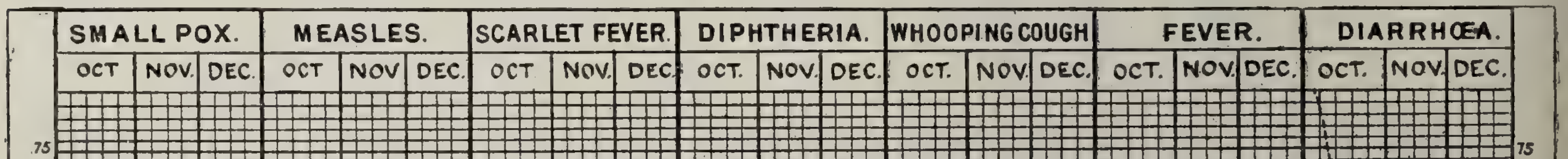
Diarrhoea.—The 331 deaths from diarrhoea in London last quarter were 81 below the average numbers in the corresponding quarters of the ten preceding years. Among the various metropolitan boroughs this disease was proportionally most fatal in Finsbury, Bethnal Green, Stepney, Poplar, Southwark, and Bermondsey.

In conclusion, it may be stated that the 1,560 deaths in London attributed to these principal epidemic diseases during the quarter ending December last were more than 26 per cent. below the corrected average number in the corresponding quarters of the ten preceding years. The lowest death-rates from these diseases last quarter were recorded in Chelsea, the City of Westminster, St. Marylebone, Hampstead, Stoke Newington, and Holborn; and the highest rates in Fulham, Bethnal Green, Stepney, Southwark, Bermondsey, and Lambeth.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,084 births and 4,800 deaths were registered during the week ending Saturday last, January 20th. The annual rate of mortality in these towns, which had been 17.4, 18.3, and 16.7 per 1,000 in the three preceding weeks, further declined last week to 15.8 per 1,000. The rates in the several towns ranged from 5.7 in Smethwick, 7.3 in Walthamstow, 8.6 in King's Norton, 8.9 in Burton-on-Trent, 9.4 in Willesden and in Portsmouth, and 9.6 in Hornsey, to 19.4 in Hastings, 19.5 in Merthyr Tydfil, 20.2 in Birmingham and in Liverpool, 21.1 in Newport (Mon.)., 22.1 in Swansea, 24.3 in Sunderland, and 28.2 in Preston. In London the death-rate was 15.5 per 1,000, while it averaged 16.0 per 1,000 in the seventy-five other large towns. The death-rate from

DEATHS FROM EPIDEMIC DISEASES IN LONDON DURING THE FOURTH QUARTER OF 1905.



NOTE.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths in the corresponding weeks of the ten preceding years, 1895-1904.

the principal infectious diseases in these towns averaged 1.2 per 1,000; in London also this death-rate was equal to 1.2 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 2.2 in Tottenham, 2.3 in West Bromwich, 2.5 in Handsworth (Staffs) and in Gateshead, 2.6 in Reading, 3.5 in Blackburn, and 5.4 in Preston. Measles caused a death-rate of 1.0 in Leeds, 1.1 in Swansea, 1.3 in Tottenham, 2.3 in Blackburn, and 4.9 in Preston; diphtheria of 1.1 in St. Helen's, 1.6 in Wallasey, and 2.0 in Stockton-on-Tees; whooping-cough of 1.3 in Reading, in Plymouth, and in Gateshead, 1.5 in West Bromwich, 1.9 in Aston Manor, and 2.5 in Handsworth (Staffs); "fever" of 1.1 in Northampton; and diarrhoea of 1.0 in Middlesbrough. The mortality from scarlet fever showed no marked excess in any of the large towns. One fatal case of small-pox was registered last week in Bristol, but none in any other of the seventy-six large towns, and no small-pox patients were under treatment last week in the Metropolitan Asylums Hospitals. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 3,446, 3,299, and 3,062 at the end of the three preceding weeks, had risen again to 3,066 at the end of last week; 328 new cases were admitted during the week, against 295, 291, and 257 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, January 20th, 943 births and 624 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18,2, 19.8, and 17.8 per 1,000 in the three preceding weeks, rose again to 18.2 per 1,000 last week, and was 2.4 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 11.4 in Paisley and 13.9 in Leith, to 18.7 in Glasgow and 22.8 in Dundee. The death-rate from the principal infectious diseases in these towns averaged 1.5 per 1,000, the highest rates being recorded in Dundee and Perth. The 299 deaths registered in Glasgow included 19 which were referred to measles, 3 to diphtheria, and 5 to diarrhoea. Three deaths from measles and 8 from diarrhoea were recorded in Dundee; 4 from diarrhoea in Aberdeen; and 2 from diphtheria in Perth.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, January 20th, 471 births and 342 deaths were registered in six of the principal Irish towns as against 456 births and 347 deaths in the preceding period. The annual death-rate in these towns, which had been 16.5, 15.3, and 21.0 per 1,000 in the three preceding weeks, fell to 17.7 per 1,000 in the week under notice, this figure being 1.9 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 11.7 in Waterford and 13 6 in Londonderry to 20.1 in Dublin and 23 2 in Limerick. The zymotic death-rate during the same period and in the same six Irish towns averaged 1.3 per 1,000 or 1 0 per 1,000 higher than during the preceding period, the highest figure—2.5—being recorded in Londonderry.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

Fleet-Surgeon E. H. Saunders is placed on the retired list at his own request, with the rank of Deputy Inspector-General, January 16th. He was appointed Surgeon, March 31st, 1874; Staff Surgeon, March 31, 1886; and Fleet-Surgeon, October 1st, 1890. The *Royal Navy List* informs us that he was Senior Surgeon of the *Minotaur* during the Egyptian Campaign; landed in medical charge of sailors and marines after the bombardment of the forts of Alexandria; employed on shore with marine battalion landed from H.M.'s ships, attached to Sir E. Wood's Brigade, for the defence of Alexandria: present at the surrender of the forts of Rosetta and Aboukir (Egyptian medal, Khedive's bronze star); Sir Gilbert Blane's Gold Medal, 1893; elected Fellow of the Royal Institute of Public Health, October 14th, 1897: Fleet-Surgeon of H.M.S. *Blake* at Sierra Leone during the troubles there, and also during the insurrection in the hinterland, May 5th to June 5th, 1898; Fleet-Surgeon of H.M.S. *Niobe*, employed on Cape of Good Hope Station during the Transvaal war, November 25th, 1899, to January 31st, 1900; had medical charge of military sick from ss. *Issmore* when she was wrecked off St. Helena Bay, and until they were landed at Capetown; frequently attended sick and hurt aboard transports in Table Bay; landed for duty on shore in Cape Colony; volunteered for, and had medical charge of, sick and wounded (military) on passage home from Cape in transport *Kildonan Castle*.

The following appointments have been made at the Admiralty: James J. Walsh, Fleet Surgeon, to the *Blenheim*, January 18th; Robert T. Gilmour, Staff Surgeon, to the *Talbot*, temporary, January 22nd; James M. Rogers, Fleet Surgeon, to the Royal Victoria Yard, January 22nd; George A. P. Bell, Staff Surgeon, to the *Monmouth*, January 30th; Harry Spicer, M.B., Staff Surgeon, to the *Cornwall*, January 19th; Alexander C. W. Newport, Surgeon, to the *Gladiator*, January 19th; Hugh B. German, Surgeon, to the *Argyll*, January 30th; Charles G. Matthew, Fleet Surgeon, and Richard Willan, Surgeon, to the *Donegal*, February 6th; Jeremiah Sugrue, Fleet Surgeon, to the *Resolution*, February 10th; Walter K. Hopkins, Staff Surgeon, to the *President*, for three months' hospital course, January 19th; Gordon Moir, Surgeon, to the *Donegal*, February 6th, and to the *Nightingale* on commissioning, undated; William Jackson, Staff Surgeon, to the *Tenedos*, January 8th; Cecil R. Richard, Surgeon, to the *Fisgard*, January 8th.

ROYAL ARMY MEDICAL CORPS.

Colonel J. I. Routh is placed on temporary half-pay on account of ill-health, January 8th. Appointed Surgeon, February 3rd, 1878, he became Surgeon-Major, February 3rd, 1890: Brigade-Surgeon, February 3rd, 1898; and Colonel, December 3rd, 1904. He was with the Tirah Expeditionary Force in the campaign on the North-West Frontier of India, receiving a medal with two clasps.

Lieutenant-Colonel R. H. Forman, M.B., is promoted to be Colonel, vice Routh, January 8th. Colonel Forman's previous commissions are thus dated: Surgeon, March 6th, 1880; Surgeon-Major, March 6th, 1892; Lieutenant-Colonel, March 6th, 1900. He has no war record in the Army Lists.

Major J. H. Rivers, from the Seconded List, to be Major, January 17th. He was seconded for service with the Egyptian army, January 17th, 1899.

Captain H. G. F. Stallard, from the Seconded List, to be Captain, January 7th. He was seconded for service with the Egyptian Army, January 7th, 1899.

Lieutenant-Colonel A. Peterkin, M.B., is granted the local rank of Colonel while serving in Mauritius, November 22nd, 1905.

Lieutenant-Colonel G. D. Hunter, D.S.O., is granted the local rank of Colonel whilst employed with the Egyptian Army, January 24th.

COLDSTREAM GUARDS.

Surgeon-Lieutenant-Colonel W. E. Crooke-Lawless, M.D., is seconded for service on the staff of the Governor-General of India, November 2nd, 1905. [As already stated in the British Medical Journal (January 13th), Surgeon-Lieutenant-Colonel Crooke-Lawless has been appointed Surgeon to the Governor-General of India.]

INDIAN MEDICAL SERVICE.

Lieutenant-Colonel F. W. Wright, M.B., D.S.O., Bengal Establishment, is permitted to retire from the service from December 7th, 1905. He was appointed Assistant Surgeon, April 1st, 1873, and became Surgeon-Lieutenant-Colonel, April 1st, 1893. He was in the Afghan war of 1878-80, and was at the actions of Jugdulluck and Charasiah, in the march from Kabul to the relief of Kandahar and the battle on September 1st, and in the operations against the Marris (medal with clasp and bronze decoration). He also served in the Burmese expedition in 1886-8 (mentioned in dispatches, medal with clasp, and appointed D.S.O.), and in the China war in 1900 (medal).

Lieutenant-Colonel E. Cretin, M.B., Bengal Establishment, also retires, from December 31st, 1905. He joined the Department as Surgeon, March 30th, 1878, and was made Surgeon-Lieutenant-Colonel, March 30th, 1898. He served in the Afghan war in 1880, including the action of Kam Dakka, the Lughman Valley Expedition, and the action of Hissarik (medal); in the Burmese Expedition in 1885-7 (medal with clasp); in the Dongola Expedition in 1896 (British and Egyptian medals); and with the Tochi Force on the North-West Frontier of India in 1897-8 (medal with clasp).

ARMY MEDICAL RESERVE.

Surgeon-Captain J. M. Moir, M.D., to be Surgeon-Major, January 13th.

ROYAL ARMY MEDICAL CORPS (MILITIA).

Denis Murphy to be Lieutenant, January 24th.

IMPERIAL YEOMANRY.

Surgeon-Lieutenant R. L. Moorhead, M.B., Royal East Kent (the Duke of Connaught's Own), to be Surgeon-Captain, September 12th, 1905.

VOLUNTEER RIFLES.

Surgeon-Major D. Stewart, 1st Volunteer Battalion the Northumberland Fusiliers, is granted the honorary rank of Surgeon-Lieutenant-Colonel, December 30th, 1905.

Surgeon-Lieutenant-Colonel and Honorary Surgeon-Colonel G. Westby, 2nd Volunteer Battalion the King's (Liverpool Regiment) (Brigade-Surgeon-Lieutenant-Colonel, Senior Medical Officer Liverpool Volunteer Infantry Brigade), resigns his commission, December 30th, 1905; he retains his rank and uniform.

The undermentioned Surgeon-Lieutenant-Colonels are granted the honorary rank of Surgeon-Colonel, dated December 30th, 1905: F. J. Walker, 3rd Volunteer Battalion the Lincolnshire Regiment; R. B. Smith, 1st Volunteer Battalion the Leicestershire Regiment (Brigade-Surgeon-Lieutenant-Colonel, Senior Medical Officer Leicester and Lincoln Volunteer Infantry Brigade); C. Knott, 3rd (the Duke of Connaught's Own) Volunteer Battalion the Hampshire Regiment; and E. J. Hunter, 3rd (the Duke of Connaught's Own) Volunteer Battalion the Hampshire Regiment (Brigade-Surgeon-Lieutenant-Colonel, Senior Medical Officer Hampshire Volunteer Infantry Brigade).

Surgeon-Major E. J. Hunter, 3rd (the Duke of Connaught's Own) Volunteer Battalion the Hampshire Regiment (Brigade-Surgeon-Lieutenant-Colonel, Senior Medical Officer Hampshire Volunteer Infantry Brigade), is promoted to be Surgeon-Lieutenant-Colonel, June 13th, 1904.

Surgeon-Captain T. Forrest, M.D., 3rd Lanarkshire Volunteer Rifles, to be Surgeon-Major, December 30th, 1905.

Surgeon-Major T. Philip, M.B., 1st (Renfrewshire) Volunteer Battalion Princess Louise's (Argyll and Sutherland Highlanders), to be Surgeon-Lieutenant-Colonel, December 30th, 1905.

Surgeon-Lieutenant-Colonel E. M. Garstang, M.D., 2nd Volunteer Battalion the Loyal North Lancashire Regiment, is granted the honorary rank of Surgeon-Colonel, January 10th.

William Dyson to be Surgeon-Lieutenant in the 1st Volunteer Battalion the King's (Shropshire Light Infantry), January 10th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

Supernumerary Surgeon-Captain W. B. Cockill, from the 2nd (Westmorland) Volunteer Battalion the Border Regiment, to be Captain Lancaster and Border Bearer Company, and to command, December 30th, 1905.

Captain C. T. D. Urquhart, M.B., London Companies, is seconded, under para. 90, Volunteer Regulations, whilst residing in South Africa, December 23rd, 1905.

Captain F. J. L. Warwick, M.B., London Companies (Transport Officer), resigns his commission, December 23rd, 1905.

Supernumerary Surgeon-Captain F.E.A. Webb, 3rd (Cambridgeshire) Volunteer Battalion the Suffolk Regiment, is absorbed into the establishment, November 1st, 1905.

Surgeon-Captain (Major Volunteers, retired) J. Chestnutt, 2nd Volunteer Battalion the East Yorkshire Regiment, is granted the honorary rank of Surgeon-Major, January 24th.

Charles J. Caddick and Thomas Hutchinson are appointed Surgeon-Lieutenants in the 2nd Volunteer Battalion the South Staffordshire Regiment, January 24th.

Supernumerary Surgeon-Major Q. Chalmers, 5th Glasgow (Highland) Volunteer Battalion the Highland Light Infantry (Brigade-Surgeon-Lieutenant-Colonel, Senior Medical Officer, Highland Light

Infantry Volunteer Infantry Brigade), to be Surgeon-Lieutenant-Colonel, remaining supernumerary, January 24th.

PETER MCFADYEN, M.B., to be Surgeon-Lieutenant in the 4th (Stirlingshire) Volunteer Battalion Princess Louise's (Argyll and Sutherland Highlanders), January 24th.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

SURGEON-CAPTAINS A. A. S. SKIRVING, M.B., C.M.G., and W. M. TAYLOR, M.B. (Honorary Lieutenant in the Army), 1st Midlothian, resign their commissions, January 24th.

CHANGES OF STATIONS.

THE following changes of stations amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during December, 1905:

	FROM	TO
Colonel W. E. Saunders, C.B.	Mussoorie	Naini Tal.
,, G. D. N. Leake	Naini Tal	Lucknow.
Lieut.-Col. A. W. P. Inman, M.B.	Meerut	,,
,, D. Wardrop, M.B.	Naini Tal	Netley.
,, J. R. Dodd, M.B.	Mhow	Bareilly.
,, D. F. Franklin	Chakrata	Calcutta.
,, B. T. McCreery, M.B.	Kinsale	Secunderabad.
,, L. W. Swabey	Calcutta	Sitapur.
,, W. Rowney, M.D.	Bareilly	Lucknow.
,, F. A. B. Daly, M.B., C.B.	Preston	Curragh.
,, G. W. Brasier-Creagh, C.M.G.	Fyzabad	Bareilly.
,, W. G. Macpherson, M.B., C.M.G.	—	War Office.
,, E. H. L. Lynden-Bell, M.B.	Lucknow	Fyzabad
,, R. J. Geddes, M.B., D.S.O.	Maryhill	Aldershot.
,, C. Birt	Pretoria	Millbank.
,, C. W. Johnson, M.B.	Darjeeling	Eastern Comd.
,, W. E. Berryman	—	Barrackpore.
,, R. E. Molesworth	Ranikhet	Lucknow.
Major J. B. W. Buchanan, M.B.	Darjeeling	Calcutta.
,, J. S. Edye	Ambala	Meerut.
,, G. F. H. Marks, M.D.	Sitapur	Darjeeling.
,, F. J. Morgan	Ambala	Netley.
,, S. F. Clark, M.B.	Wynberg	Bloemfontein.
,, E. M. Hassard	Jamaica	Eastern Comd.
,, J. Thomson, M.B.	London	Edinburgh.
,, G. T. Rawnsley	Portsmouth	W. Africa.
,, A. Wright	Halifax, N.S.	Southern Cmd.
,, A. J. Luther	Landour	Meerut.
,, T. W. Gibbard, M.B.	London	India.
,, W. E. Hardy	Shorncliffe	South Africa.
,, C. W. Duggan, M.B.	Lucknow	Fatehgarh.
,, H. A. Hinge	Aldershot	India.
,, R. C. Lewis	Chaubuttia	Bareilly.
,, W. Tibbits, M.B.	Barrackpore	Calcutta.
Captain A. E. Milner	Secunderabad	Ootacamund.
,, J. Grech	Meerut	Chakrata.
,, G. B. Riddick	Eastern Comd.	Calcutta.
,, A. J. MacDougall, M.B.	Edinburgh	Glasgow.
,, M. P. Corkery	Meerut	Southern Cmd.
,, J. M'D. M'Carthy, M.B.	Chester	West Africa.
,, F. J. C. Heffernan	York	Meerut.
,, G. H. Goddard	Bloemfontein	Eastern Comd.
,, A. O. B. Wroughton	Mandalay	Secunderabad.
,, P. S. O'Reilly	Aldershot	Bordon.
,, H. C. R. Hime, M.B.	Bordon	Aldershot.
,, J. A. Hartigan, M.B.	Cherat	,,
,, T. E. Fielding, M.B.	Jamaica	Southern Cmd.
,, G. Carroll	Chakrata	Dublin.
,, G. J. Houghton	Darjeeling	Calcutta.
,, J. M. Cuthbert, M.B.	Ranikhet	Agra.
,, A. D. Jameson	Malta	Eastern Comd.
,, C. R. L. Ronayne, M.B.	Campbellpore	Barrackpore.
,, W. S. Crosthwait	Calicut	Secunderabad.
,, R. F. Ellery	Landour	Allahabad.
,, W. J. Waters	Meerut	Delhi.
,, R. F. M. Fawcett	Halifax, N.S.	Eastern Comd.
,, J. H. Barbour, M.B.	,,	Dublin.
,, W. Davis	Calcutta	Bareilly.
,, L. Cotterill	Secunderabad	Mandalay.
Lieutenant A. B. Smallman, M.B.	Lebong	Secunderabad.
,, W. F. Tyndale, M.B., C.M.G.	Calcutta	Lucknow.
,, P. Davidson, M.B., D.S.O.	Ghora Daka	Rawal Pindi.
,, R. Storrs	Subathu	Ambala.
,, S. M. W. Meadows	Murree	Mian Mir.
,, H. G. S. Webb	Upper Toga	Peshawar.
,, J. E. H. Gatt, M.D.	Pretoria	Middelburg, Transvaal.
,, J. M. M. Crawford	Dalhousie	Mian Mir.
,, H. T. Stack, M.B.	Naini Tal	Lucknow.
,, B. G. Patch	Dagshai	Ambala.
,, J. E. Powell	Ranikhet	Bareilly.
,, O. Ievers, M.B.	St. Helena	South Africa.
,, G. A. Kempthorne	Aldershot	Mian Mir.
,, R. T. Collins	Kailana	Roorkee.
,, A. S. Arthur, M.B.	Cherat	Peshawar.
,, C. H. Turner	—	Sialkot.
,, J. A. Turnbull	Ghora Daka	Rawal Pindi.
,, W. H. Hills, M.B.	Leicester	India.
,, J. F. C. Mackenzie, M.B.	Devonport	Meerut.
,, H. T. Wilson	Bulford	Rawal Pindi.
,, E. J. H. Luxmoore	Eastern Comd.	Meerut.
,, N. Low	Bombay	St. Thomas's Mt.
,, K. A. C. Doig	York	Bareilly.
,, H. O. M. Beadnell	Glen Imaal	Mian Mir.
,, G. H. Richard	Bulford	Calcutta.
,, J. P. Lynch	Woolwich	India.
,, E. G. R. Lithgow	Aldershot	South Africa.
,, W. G. Maydon, M.B.	Netley	India.

Lieutenants R. P. Nash and G. Ormrod, M.B., appointed on probation, January 31st, 1905, are stationed at Woolwich.

The undermentioned officers on retired pay have been placed in medical charge of troops at the stations named: Lieutenant-Colonel H. Charlesworth, C.M.G., London; Lieutenant-Colonel F. J. Greig, Stirling; Major S. N. Cardozo, Exeter.

Lieutenant-Colonel W. W. Tomlinson, retired pay, has relinquished the medical charge of troops at Clifton, Bristol.

Vacancies and Appointments.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

BARNSLEY: BECKETT HOSPITAL.—House-Surgeon. Salary, £100 per annum.

BRADFORD POOR-LAW UNION. — Resident Assistant Medical Officer for the Hospital and Workhouse. Salary, £100 per annum.

BURTON-ON-TRENT INFIRMARY.—House-Surgeon. Salary, £120 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—Senior House-Surgeon. Salary at the rate of £80 per annum.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—(1) House-Physician. (2) House-Surgeon. Salary, £90 per annum each.

CHELTENHAM GENERAL HOSPITAL.—Surgeon in charge of the Branch Dispensary. Salary, £90 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Physician to Out-patients.

CROYDON EYE, EAR, AND THROAT HOSPITAL.—Aural Surgeon.

HALIFAX ROYAL INFIRMARY.—Third House-Surgeon. Salary, £80 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) Assistant Casualty Medical Officer. (2) House-Physician. Appointments for six months. Salary, £20, and £2 10s. washing allowance each.

LEEDS: GENERAL INFIRMARY.—Resident Medical Officer. Salary, £100 per annum.

NOTTINGHAM CITY ASYLUM.—Junior Assistant Medical Officer. Salary, £150 per annum.

POPLAR HOSPITAL FOR ACCIDENTS, E. — Assistant House-Surgeon. Salary at the rate of £80 per annum.

ST. MARK'S HOSPITAL FOR FISTULA, etc., City Road, E.C.—House-Surgeon. Salary, £80 per annum.

ST. MARY'S HOSPITAL MEDICAL SCHOOL, Paddington, W.—Lecturer on Physics. Salary, £100 per annum.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Junior House-Surgeon. Salary, £80 per annum.

SUNDERLAND INFIRMARY.—(1) House-Physician. (2) Third House-Surgeon. Salary, £80 per annum each.

WEST HAM BOROUGH.—Resident Assistant Medical Officer at the Plaistow and Dagenham Hospitals for Infectious Diseases. Salary, £200 per annum.

CERTIFYING FACTORY SURGEONS. — The Chief Inspector of Factories announces the following vacancies in the office of Certifying Factory Surgeons: Ashton-under-Lyne, co. Lancaster; Belfast, cos. Antrim and Down.

APPOINTMENTS.

ABERCROMBIE, Peter, M.D., Honorary Aural Surgeon to the Royal Caledonian Asylum, Bushey, Herts.

BARK, T. T., M.B., Ch.B.Vict., Resident Assistant Medical Officer, Brownlow Hill Workhouse, Liverpool.

CUNNINGHAM, H. H. B., M.D.Brux., F.R.C.S.I., Chief Clinical Assistant, Royal London Ophthalmic Hospital, and Senior Ophthalmic Clinical Assistant, St. Mary's Hospital.

DOBSON, Margaret B., M.D.Lond., Pathologist to the West Riding Asylum, Wakefield.

ELKINGTON, E. A., M.B.Lond., District and Workhouse Medical Officer of the Newport Union, Salop.

FISON, E. T., M.D.Camb., D.P.H., Medical Officer of Health, City of Salisbury.

FITZWILLIAMS, Duncan C. L., M.D., Ch.B., F.R.C.S.Eng., Casualty Officer to the Hospital for Sick Children, Great Ormond Street.

GOMES, S. Gerald, F.R.C.S.Edin., L.R.C.P.Edin., etc., Professor of Surgery, Charity Hospital, Medical College, Tokyo, Japan.

GOWLAND, W. P., M.B., B.S., Assistant Medical Superintendent, Brentford Union Infirmary.

GRANT, Dundas, M.A., M.D., F.R.C.S., Honorary Aural Surgeon to the Royal Caledonian Asylum, Bushey, Herts.

HARRIS, Herbert, M.D.Edin., Honorary Medical Officer to the Rochdale Infirmary.

HARRIS, H. S., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Esher District, co. Surrey.

HIGHET, H., L.R.C.P.and S.Edin., Certifying Factory Surgeon for the Kirkby Stephen District, co. Westmorland.

KAY, A. R., M.R.C.S., L.R.C.P., District Medical Officer of the Walsingham Union.

LAVAL, Evariste, M.B.Edin., Assistant Mediical Officer to the Warneford Mental Hospital, Oxford.

LYSTER, Robert Arthur, M.B., Ch.B., B.Sc.Lond., D.P.H., B.Sc.Pub. Health, Assistant County Medical Officer of Health to the West Riding County Council, vice Leslie Milburn, M.R.C.S., L.R.C.P., D.P.H., resigned.

MCNEILL, J. B., M.B., B.S.Edin., Resident Assistant Medical Officer, Brownlow Hill Workhouse, Liverpool.

MILLER, Jas. Webster, M.B., Ch.B., Assistant Medical Officer (Herrison), Dorset County Asylum.

POLLOCK, W. B. Inglis, M.D.(Honours)Glasg., Pathologist and Bacteriologist to the Glasgow Eye Infirmary.

SMITH, F. W. W., M.B.Lond., M.R.C.S., First Resident Assistant Medical Officer, Lambeth Parish Infirmary.

STRATFORD, H., M.B., M.R.C.S., L.R.C.P., Second Assistant Medical Officer, Paddington Parish Workhouse and Infirmary.

SUTCLIFFE, Miss Amelia, M.B., Ch.B.Edin., Clinical Assistant to the Southern Branch of the Leeds Public Dispensary.

THOMSON, M. E., F.R.C.P.Edin., L.R.C.S.I., Medical Officer, Reeth Rural District.

WHELAN, Lawder T., F.R.C.S.I., etc., Medical Officer and Public Vaccinator to Leintwardine District, Ludlow Union: Medical Officer of Health to the Wigmore Rural District Council.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTH.

GUNSON.—At 8, The Crescent, Wisbech, on January 20th, the wife of Dr. C. H. Gunson, of a son.

DEATHS.

JAMES.—On January 15th, 1906, at Little Billing Rectory, near Northampton, the Rev. Wand James, M.A.Cambridge, Rector, interred January 19th, 1906, at Little Billing Churchyard. He was the eldest son of the late Dr. Thomas James, of Aberystwyth, Cardiganshire, and brother of Dr. J. Brindley James.

JOHNSTON.—On January 16th, at his residence, 47, Barkerend Road, Bradford, Samuel Johnston, M.D.

LUND.—On January 6th, at Fern Hill, Pendleton, Manchester, Mary Crockatt, age 45, the dear wife of Herbert Lund, F.R.C.S.

MALLAM.—On January 19th, at 91, High Street, Oxford, Henry Parr Mallam, M.R.C.S., suddenly after a short illness.

DIARY FOR NEXT WEEK.

WEDNESDAY.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY, 20, Hanover Square, W., 5 p.m.—Ordinary meeting. Paper—Dr. Alexander Morison: The Present Position of the Treatment of Cardiac Diseases by Baths and Exercises. Dr. Braithwaite will, if time permits, read a paper on Cases Treated at the Devonshire Hospital by the Buxton Waters.

THURSDAY.

NEUROLOGICAL SOCIETY OF THE UNITED KINGDOM, 11, Chandos Street, 8 15 p.m.—Annual General Meeting: Election of Officers, 8.30 p.m. Mr. W. Bateson, F.R.S.: Mendelian Heredity and its Application to Man.

NORTH-EAST LONDON CLINICAL SOCIETY, Tottenham Hospital, N.—Clinical and Pathological Demonstration (illustrated by lantern slides) by Dr. A. J. Whiting and Dr. G. Basil Price.

WESTMINSTER HOSPITAL MEDICAL SCHOOL, Caxton Street, S.W., 5 p.m.—Lecture on Applied Physiology.

POST-GRADUATE COURSES AND LECTURES.

CHARING CROSS HOSPITAL.—Thursday, 4 p.m., Medical Cases.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Thursday, 4 p.m., Some Hepatic Affections in Children.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures at 5.15 p.m. will be given as follows: Monday, The Therapeutics of some Common Ailments; Tuesday, Remarks on the Diagnosis of Pleural Effusion and of Empyema; Wednesday, Disorders of Articulation; Thursday, Surgical Diseases of Children.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE Chest, Central Out-patient Department, 7, Fitzroy Square, W.—Thursday, 5 p.m., The Surgery of Pulmonary Cavities.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Cerebellar Disease. Friday, 3.30 p.m., Myasthenia Gravis.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N.—The following are the arrangements for next week: Tuesday, 3.30 p.m., Demonstration on States of Mental Weakness at Colney Hatch Asylum, New Southgate, N.; Friday, 4.30 p.m., Acne and its Treatment.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, Thursday, 3 p.m.—On Fibroids.

UNIVERSITY COLLEGE HOSPITAL, Gower Street, W.C.—Wednesday, 4 p.m., Clinical Lecture—Malignant Endocarditis.

WEST LONDON HOSPITAL POST-GRADUATE COLLEGE, Hammersmith Road, W.—The following arrangements have been made for next week, each evening at 5 p.m.: Monday, Functional Nervous Affections in Children, with cases; Tuesday, Cataract in its Various Form; Wednesday, Practical Medicine; Thursday, Practical Surgery; Friday, Food and Disease.

BOOKS, ETC., RECEIVED.

Ambulance Illustrated. Sixty photographs taken by W. M. Warneuke under direction of W. Cullen, M.D. London: Gowans and Gray, Limited. 1905. 6d.

Genito-Urinary Surgery and Venereal Diseases. By J. W. White, M.D., and E. Martin, M.D. Sixth Edition. London and Philadelphia: J. B. Lippincott Co. 21s.

Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India. (New Series.) No. 20. Serumtherapy of Plague in India: reports by W. M. Haffkine, C.I.E., and various officers of the Plague Research Laboratory, Bombay. Edited by Lieut.-Colonel W. B. Bannerman, M.D., B.Sc., F.R.S.E., I.M.S. Calcutta: Office of Superintendent of Government, India. 1905.

Mikroskopische Geschwulstdiagnostik. Von. Prof. Dr. F. Henke. Jena: Gustav Fischer. 1906. M.14.

Lectures on Tropical Diseases, being the Lane Lectures, 1905, delivered by Sir P. Manson, K.C.M.G., M.D., LL.D., F.R.C.P., F.R.S. London: A. Constable and Co., Limited. 1905. 7s. 6d.

La Guérison de la Tuberculose basée sur l'Étude des Cas de Guérison spontanée. Par le Dr. P. Ferrier. Paris: Vigot Frères. 1906. Fr.2.50.

Surgical Instruments and Appliances used in Operations. By H. Burrows, M.B., B.S., F.R.C.S. London: The Scientific Press, Limited. 1905. 1s. 6d.

The Management of a Nerve Patient. By T. Schofield, M.D. London: J. and A. Churchill. 1906. 5s.

Études sur le Traitement des Fractures des Membres. Par F. Guermonprez. Paris: J. Rousset. 1906.

Indigestion. By F. Clarke, L.S.A., L.R.C.P., M.R.C.S. London: John Bale, Sons, and Danielsson, Limited. 1906. 2s.

Beiträge zur Klinik der Tuberkulose. Herausgegeben von Dr. L. Brauer. Band IV, Heft 4. Würzburg: A. Stuber. 1906. M.4.

The Transactions of the Hunterian Society, 1904-5. Eighty-sixth Session. Edited by E. W. Goodall, M.D. London: Headley Bros. 1905.

Food and the Principles of Dietetics. By R. Hutchison, M.D., F.R.C.P. Revised Edition. London: E. Arnold. 1906. 16s.

The Edinburgh Medical Journal. Edited by A. Thomson, M.D., F.R.C.S.Edin., and H. Littlejohn, M.B., F.R.C.S.Edin. New Series, Vol. XVIII. Edinburgh and London: Young J. Pentland. 1905.

A Handbook of Climatic Treatment, including Balneology. By W. R. Huggard, M.A., M.D., F.R.C.P. London: Macmillan and Co., Limited. 1906. 12s. 6d.

Die Arzneimittel-Synthese auf Grundlage der Beziehungen zwischen chemischen Aufbau und Wirkung. Von Dr. S. Fränkel. Zweite Auflage. Berlin: Julius Springer. 1906. M. 16.

Self-Synthesis: A Means to Perpetual Life. By Cornwell Round. London: Simpkin, Marshall, Hamilton, Kent and Co. 1906. 1s.

Instructions to Midwives. Compiled by the Midwives' Supervising Committee of the Corporation of Manchester. London: The Scientific Press, Limited. 6d.

The Fern Paradise: A Plea for the Culture of Ferns. By F. G. Heath. Seventh Edition. London: The Country Press. 1905. 5s.

Mouches et Choléra. Par A. Chantemesse et F. Borel. Paris: J. B. Baillière et Fils. 1906. Fr. 1.50.

Les Blessures et les Accidents du Travail. Par P. Brouardel. Paris: J. B. Baillière et Fils. 1906. Fr. 15.

A Manual of Pharmacology. By W. E. Dixon. London: E. Arnold. 1906. 15s.

Recent Advances in Physiology and Bio-chemistry. Edited by L. Hill, M.B., F.R.S. London: E. Arnold. 1906. 18s.

The Cookery Annual for 1906. Twelfth Issue. Edited by C. H. Senn, G.C.A. London: Food and Cookery Publishing Agency. 1906.

Thérapeutique Oculaire. De l'Emploi des Alcaloïdes en Solution Huileuse. Par le Dr. Scrini. Paris: Vigot Frères. 1906. Frs. 2.50.

"Spirochaete Pallida" de Schaudinn e Hoffmann (Pequena contribuiçao para a etiologia da syphilis). Por F. G. Pereira. Porto: Typ. do Porto Medico. 1905.

The Laboratory Book of Dairy Analysis. By H. D. Richmond, F.I.C. London: C. Griffin and Co., Limited. 1905. 2s. 6d.

Surface Anatomy. By R. J. A. Berry, M.D., F.R.C.S.E., F.R.S.Edin. London: W. Green and Sons. 1906. 7s. 6d.

Der Krebs und die "Goldene Statue." Von A. Adamkiewicz. Wien: B. Bartelt. 1905.

Wissenschaft und Verbrechen. Von A. Adamkiewicz. Wien: B. Bartelt. 1899.

Sound and Rhythm. By W. Edmunds. London: Baillière, Tindall and Cox. 1906. 2s. 6d. Model, 21s.

A Textbook of the Diseases of the Ear, Nose, and Pharynx. By D. B. StJohn Roosa, M.D., LL.D., and B. Douglass, M.D. New York and London: Macmillan and Co., Ltd. 1905. 12s. 6d.

On the Nature, Causes, Variety, and Treatment of Bodily Deformities. A Series of Lectures by the late E. J. Chance, F.R.C.S.Eng. Edited by J. Poland, F.R.C.S.Eng. 2nd Edition. Vol. I. London: Smith Elder and Co. 1905. 6s.

Bibliothek v. Coler. Herausgegeben von O. Schjerning. Band 23. Die Blinddarmentzündung (Perityphlitis) in der Armee von 1880-1900. Von Dr. Stricker. Berlin: August Hirschwald. 1906. M.4.

Post-operative Treatment. By N. C. Morse, A.B., M.D. London: Rebman, Ltd. 1905. 17s. 6d.

Le Béribéri. Par Dr. C. M. E. Dubruel. Bordeaux: E. Taffard. 1905. Fr. 4.

Ambulance Handbook on the Principles of First Aid to the Injured. By G. T. Beatson, C.B., V.D., B.A., M.D. 11th Edition. Glasgow: St. Andrew's Ambulance Association. 1905.

London and Philadelphia: W. B. Saunders and Co. 1905.

- Gall-stones and their Surgical Treatment. By B. G. A. Moynihan, M.S., F.R.C.S. 2nd Edition. 21s.
- A Textbook of Physiology for Medical Students and Physicians. By W. H. Howell, Ph.D., M.D., LL.D. 18s.
- A Manual of the Diseases of Infants and Children. By J. Ruhräh, M.D. 10s.
- A Treatise on Diagnostic Methods of Examination. By Professor Dr. H. Sahli. Edited by F. P. Kinnicutt, M.D., and N. B. Potter, M.D. Authorized translation from 4th German edition. 27s. 6d.
- Treatise on Diseases of the Skin. By H. W. Stelwagon, M.D., Ph.D. 4th Edition. 25s.

The Principles of Bacteriology. By A. C. Abbott, M.D. 7th Edition. London: H. K. Lewis. 1906. 12s. 6d.

The Writers' and Artists' Yearbook 1906. London: A. and C. Black. 1s.

The Englishwoman's Yearbook and Directory, 1906. Edited by E. Janes (26th year). London: A. and C. Black. 1906. 2s. 6d.

The Oxford Yearbook and Directory. London: Swan, Sonnenschein, and Co., Limited. 1906. 5s.

Transactions of the Epidemiological Society of London. New Series. Vol. xxiv. Session 1904-5. London: Williams and Norgate. 1905.

Martin's Tables, or "One Language in Commerce." By A. J. Martin. Fourth thousand. London: T. Fisher Unwin. 1906. 2s. 6d.

The Ventilating, Heating, and Lighting of Dwellings. By J. W. Thomas, F.I.C., F.C.S. London: Longmans, Green, and Co. 1906. 6s.

⁂ In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

JANUARY.

Date.	Meetings to be Held.
26 FRIDAY.........	TOTTENHAM DIVISION, *Metropolitan Counties Branch*, Tottenham Hospital, 4 p.m.
27 SATURDAY...	
28 Sunday.........	
29 MONDAY	
30 TUESDAY......	KENSINGTON DIVISION, *Metropolitan Counties Branch*, Hospital for Consumption, Brompton, 5 p.m.
31 WEDNESDAY	BATH AND BRISTOL BRANCH, Bristol. ULSTER BRANCH, Belfast.

FEBRUARY.

Date.	Meetings to be Held.
1 THURSDAY...	SOUTH-WESTERN BRANCH, Athenaeum, George Street, Plymouth, 4.30 p.m. SWANSEA DIVISION, *South Wales and Monmouthshire Branch*, General Hospital, Swansea, 3 p.m. WANDSWORTH DIVISION, *Metropolitan Counties Branch*, Bolingbroke Hospital, 4 p.m.
2 FRIDAY	
3 SATURDAY...	LONDON : Public Health Committee, 3 p.m. LEINSTER BRANCH, Annual Meeting, Royal College of Physicians, Kildare Street, Dublin, 4.30 p.m.
4 Sunday	
5 MONDAY	
6 TUESDAY......	COVENTRY DIVISION, *Birmingham Branch*, Coventry and Warwickshire Hospital, 8.30 p.m. SHROPSHIRE AND MID-WALES BRANCH, Clinical and Pathological Section, Salop Infirmary, 5 p.m.
7 WEDNESDAY	
8 THURSDAY...	LONDON : Metropolitan Counties Branch Council, 5 p.m.

FEBRUARY *(continued)*.

Date.	Meetings to be Held.
9 FRIDAY	HAMPSTEAD DIVISION, *Metropolitan Counties Branch.*
10 SATURDAY...	
11 Sunday	
12 MONDAY	
13 TUESDAY......	LONDON : Organization Committee, 10.30 a.m.
14 WEDNESDAY	DOVER DIVISION, *South-Eastern Branch* Grand Hotel, Dover, 8 p.m.
15 THURSDAY...	CARDIFF DIVISION, *South Wales and Monmouthshire Branch*, Cardiff.
16 FRIDAY	EDINBURGH BRANCH, Annual Clinical Meeting, Royal Infirmary.
17 SATURDAY...	
18 Sunday	
19 MONDAY	
20 TUESDAY......	
21 WEDNESDAY	LONDON : Medico-Political Committee, 3 p.m.
22 THURSDAY...	CITY DIVISION, *Metropolitan Counties Branch*, 4 p.m. WANDSWORTH DIVISION, *Metropolitan Counties Branch*, Battersea Town Hall, 3 p.m.
23 FRIDAY	ST. PANCRAS AND ISLINGTON DIVISION, *Metropolitan Counties Branch*, North-West London Hospital, Kentish Town Road, N.W., 4 p.m.
24 SATURDAY...	
25 Sunday.........	
26 MONDAY	
27 TUESDAY ...	
28 WEDNESDAY	BATH AND BRISTOL BRANCH, Bath.

MARCH.

Date.	Meetings to be Held.
1 THURSDAY...	SWANSEA DIVISION, *South Wales and Monmouthshire Branch*, General Hospital, Swansea, 3 p.m.

MEMBERSHIP OF THE BRITISH MEDICAL ASSOCIATION.

THE British Medical Association exists for the promotion of medical and the allied sciences, and the maintenance of the honour and the interests of the medical profession.

The Annual Subscription to the British Medical Association is £1 5s. 0d., and the BRITISH MEDICAL JOURNAL is supplied weekly, post free, to every member of the British Medical Association wherever he may reside.

Forms of application for membership can be obtained from the General Secretary, 429, Strand, London, W.C.

The principal rules governing the election of a medical practitioner to be a member of the British Medical Association are as follow:

Article III.—Any Medical Practitioner registered in the United Kingdom under the Medical Acts and any Medical Practitioner residing within the area of any Branch of the Association situate in any part of the British Empire other than the United Kingdom, who is so registered or possesses such medical qualifications as shall, subject to the Regulations, be prescribed by the Rules of the said Branch, shall be eligible as a Member of the Association. The mode and conditions of election to Membership shall from time to time be determined by or in accordance with the By-laws. Every Member, whether one of the existing Members or a subsequently-elected Member, shall remain a Member until he ceases to be a Member in accordance with the provisions hereof.

By-law 1.—Every Candidate for Membership of the Association shall apply for election in writing, addressed to the Association, and stating his agreement, if elected, to abide by the Regulations and By-laws of the Association, and the Rules of such Division and Branch to which he may at any time belong, and to pay his subscription for the current year.

By-law 2.—Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the General Secretary of the Association, and to every Member of the Branch Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a member of the Association by the Branch Council at any meeting thereof held not less than seven days (or such longer period as the Branch may by its Rules prescribe) after the date of the said Notice. A Branch may by special Resolution require that each candidate for election to the Association shall furnish a certificate from two Members of the Association to whom he is personally known. Officers of the Navy, Army, and Indian Medical Services on the Active List are eligible for election through the Council or a Branch without approving signatures as laid down in By-law 3.

By-law 3.—Every candidate whose place of residence is not included in the area of any Branch shall forward his Application to the General Secretary of the Association, together with a statement signed by three members of the Association, that from personal knowledge they consider him a suitable person for election. Notice of the proposed election shall be sent by the General Secretary to every Member of the Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a Member of the Association by the Council at any meeting thereof held not less than one month after the date of the said notice.

The annual subscription to the BRITISH MEDICAL JOURNAL for non-members is £1 8s. 0d. for the United Kingdom and £1 12s. 6d. for abroad.

Printed and published by the British Medical Association at their Office. No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, FEBRUARY 3RD, 1906.

CONTENTS.

PAGE
THE SEVENTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, TORONTO: PROGRAMME OF BUSINESS ... 29
PROCEEDINGS OF COUNCIL ... 31
PROCEEDINGS OF COMMITTEES:
Medico-Political Committee ... 33
Irish Committee ... 33
Scottish Committee ... 34
Ethical Committee ... 34
Organization Committee ... 35
Hospitals Committee ... 36
Premises and Library Committee ... 36
Journal and Finance Committee ... 36
MEETINGS OF BRANCHES AND DIVISIONS:
Birmingham Branch: Coventry Division ... 36
Halifax and Nova Scotia Branch ... 37
Lancashire and Cheshire Branch: South Manchester Division... 37
" " " Stockport, Macclesfield, and East Cheshire Division ... 37
Metropolitan Counties Branch: City Division ... 37
" " " St. Pancras and Islington Division... 38
" " " Tottenham Division... 38
" " " Westminster Division ... 38
Queensland Branch ... 39
South-Western Branch ... 39
ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD ... 39
CENTRAL MIDWIVES BOARD ... 39
NAVAL AND MILITARY APPOINTMENTS ... 40
VITAL STATISTICS ... 40
VACANCIES AND APPOINTMENTS... 40
BIRTHS, MARRIAGES, AND DEATHS ... 41
DIARY OF THE WEEK ... 41
BOOKS, ETC., RECEIVED... 41
BRITISH MEDICAL ASSOCIATION LIBRARY ... 42
MEMBERS ELECTED DURING THE DECEMBER QUARTER... 43
CALENDAR ... 44

THE SEVENTY-FOURTH ANNUAL MEETING
OF
The British Medical Association,
TORONTO, CANADA, AUGUST 21st to 25th, 1906.

President: GEORGE COOPER FRANKLIN, F.R.C.S.Eng., Surgeon, Leicester Infirmary, Leicester.

Chairman of Council: HENRY WM. LANGLEY BROWNE, M.D., Ch.B., F.R.C.S.E., Consulting Surgeon, West Bromwich District Hospital.

President-elect: RICHARD ANDREWS REEVE, B.A., M.D., LL.D., Dean of the Faculty of Medicine, University of Toronto.

Treasurer: HY. RADCLIFFE CROCKER, M.D., F.R.C.P., Physician Skin Department, University College Hospital, London.

PROGRAMME OF BUSINESS.

An Address in Medicine will be delivered by Sir JAMES BARR, M.D., F.R.C.P., F.R.S.E.

An Address in Surgery will be delivered by Sir VICTOR HORSLEY, M.B., F.R.C.S., F.R.S.

An Address in Obstetrics will be delivered by WALTER SPENCER ANDERSON GRIFFITH, M.D., F.R.C.P.

THE SECTIONS.

There will be 13 Sections as shown in the subjoined list; hey will meet on Tuesday, Wednesday, Thursday and riday, August 21st, 22nd, 23rd and 24th, from 9.30 a.m. to 2.30 p.m.

The President, Vice-Presidents, and Secretaries of each ection constitute a Committee of Reference for that ection.

Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the BRITISH IEDICAL JOURNAL *without special permission.*

No paper must exceed 15 minutes in reading, and no subsequent speech 10 minutes.

ANATOMY.

President: Professor ARTHUR ROBINSON, M.D., Birmingham.

Vice-Presidents: Professor ALEXANDER PRIMROSE, Toronto; D. E. MANDELL, M.D., Kingston; DONALD ARMOUR, F.R.C.S., London.

Honorary Secretaries: C. B. SHUTTLEWORTH, M.D., 45, Bloor Street E., Toronto; GAWNSHAW CLELAND, M.D., 730, Queen Street E., Toronto.

Dermatology.

President: Norman Walker, M.D., Edinburgh.

Vice-Presidents: Graham Chambers, M.D., Toronto; Harry B. Anderson, M.D., Toronto; Arthur John Hall, M.D., Sheffield; Ernest Solly, M.B., Harrogate.

Honorary Secretaries: D. King Smith, M.D., 311, Jarvis Street, Toronto; Donald Macgillivray, M.D., 12, Carlton Street, Toronto; John Campbell Rankin, M.B., 38, University Road, Belfast.

Laryngology and Otology.

President: J. Dundas Grant, M.D., London.

Vice-Presidents: George R. McDonagh, M.D., Toronto; H. S. Birkett, M.D., Montreal; John Macintyre, M.B., Glasgow; Hugh Edward Jones, M.R.C.S., Liverpool.

Honorary Secretaries: David J. Gibb Wishart, M.D., 47, Grosvenor Street, Toronto; Geoffrey Boyd, M.D., 167, Bloor Street, Toronto; Adam Brown Kelly, M.D., 26, Blythswood Square, Glasgow.

Medicine.

President: Sir Thomas Barlow, Bart., K.C.V.O., M.D., London.

Vice-Presidents: Professor Alexander McPhedran, M.D., Toronto; Professor James Stewart, M.D., Montreal; Alexander Napier, M.D., Glasgow; William Calwell, M.D., Belfast.

Honorary Secretaries: Robert D. Rudolph, M.D., 396, Bloor Street W., Toronto; John Taylor Fotheringham, M.D., 36, Carlton Street, Toronto; Robert Hutchison, M.D., 22, Queen Anne Street, London, W.

Obstetrics and Gynaecology.

President: A. H. Freeland Barbour, M.D., Edinburgh.

Vice-Presidents: Professor James A. Temple, M.D., Toronto; Professor Adam H. Wright, M.D., Toronto; Professor William Gardner, M.D., Montreal; T. Arthur Helme, M.D., Manchester.

Honorary Secretaries: Frederick Fenton, M.D., 75, Bloor Street E., Toronto; Kennedy C. McIlwraith, M.D., 54, Avenue Road, Toronto; Cuthbert Lockyer, M.D., 117a, Harley Street, London, W.

Ophthalmology.

President: Robert Marcus Gunn, F.R.C.S., London.

Vice-Presidents: George Herbert Burnham, M.D., Toronto; John W. Stirling, M.D., Montreal; Joseph Nelson, M.D., Belfast; Arnold Lawson, F.R.C.S., London.

Honorary Secretaries: James M. MacCallum, M.D., Toronto; Duncan N. McLennan, M.D., 126, Bloor Street W., Toronto; Frank Pearson Skeffington Cresswell, M.B., 24, Windsor Place, Cardiff.

Pathology and Bacteriology.

President: Professor J. G. Adami, M.D., F.R.S., Montreal.

Vice-Presidents: Professor J. J. Mackenzie, M.D., Toronto; Professor W. T. Connell, M.D., Kingston; Ingersoll Olmsted, M.D., Hamilton; Professor Robert Fraser Calder Leith, M.B., Birmingham.

Honorary Secretaries: Gideon Silverthorn, M.D., 266, College Street, Toronto; Harold C. Parsons, M.D., 72, Bloor Street W., Toronto; Frank George Bushnell, M.D., Sussex County Hospital, Brighton.

Pediatrics.

President: George Alexander Sutherland, M.D., London.

Vice-Presidents: H. T. Machell, M.D., Toronto; Allan M. Baines, M.D., Toronto; Otto Jackson Kauffmann, M.D., Birmingham; H. Betham Robinson, M.S., London.

Honorary Secretaries: E. Stanley Ryerson, M.D., 261, College Street, Toronto; Joseph S. A. Graham, M.D., 102, College Street, Toronto; Ralph Vincent, M.D., 1, Harley Street, London, W.

Physiology.

President: Professor Wm. Dobinson Halliburton, M.D., F.R.S., London.

Vice-Presidents: Professor A. B. Macallum, M.D., Toronto; Professor J. Wesley Mills, M.D., Montreal; Professor Charles Scott Sherrington, M.D., F.R.S., Liverpool.

Honorary Secretary: Herbert E. Roaf, M.D., 44, Upper Parliament Street, Liverpool.

Psychology.

President: Wm. Julius Mickle, M.D., London.

Vice-Presidents: N. H. Beemer, M.D., Toronto; Charles K. Clarke, M.D., Toronto; Reginald Langdon-Down, M.B., London.

Honorary Secretaries: A. T. Hobbs, M.D., Guelph, Ontario; Goldwin Howland, M.D., 540, Spadina Avenue, Toronto; John Turner, M.B., Essex County Asylum, Brentwood.

State Medicine.

President: F. Montizambert, M.D., Ottawa.

Vice-Presidents: E. P. Lachapelle, M.D., Laval University, Montreal; Charles Sheard, M.D., Toronto; Peter H. Bryce, M.D., Ottawa; Joseph Groves, M.B., Isle of Wight.

Honorary Secretaries: J. Langrill, M.D., Hamilton.

Surgery.

President: Sir Hector Clare Cameron, Professor of Clinical Surgery, Glasgow.

Vice-Presidents: Fred. L. M. Grasett, M.D., Toronto; Francis J. Shepherd, M.D., Montreal; A. B. Atherton, M.D., Frederickton, N.B.; T. K. Holmes, M.D., Chatham, Ontario.

Honorary Secretaries: H. A. Beatty, M.D., 207, Simcoe Street, Toronto; Frederick W. Marlow, M.D., 699, Spadina Avenue, Toronto; Sinclair White, F.R.C.S., Ranmoor, Sheffield.

Therapeutics.

President: Donald MacAlister, M.D., Cambridge.

Vice-Presidents: John L. Davison, M.D., Toronto; A. D. Blackader, M.D., Montreal; Sir Alan Reeve Manby, M.V.O., M.D., East Rudham; Professor J. Rose Bradford, M.D., F.R.S., London.

Hon. Secretaries: V. Henderson, M.D., University of Toronto; C. P. Lusk, M.D., 99, Bloor Street W., Toronto.

HONORARY LOCAL SECRETARIES.

Dr. F. N. G. Starr, The Medical Building, Toronto.
Professor J. J. Mackenzie, The Medical Building, Toronto.
Dr. J. Gibb Wishart, The Medical Building, Toronto.

COMMITTEE PATHOLOGICAL MUSEUM.

Professor J. J. Mackenzie, Toronto, *Chairman*; Dr. Maud Abbott, *Secretary*; Professor Gordon Bell, Winnipeg; Professor W. T. Connell, Kingston; Dr. A. R. Gordon, Toronto; Dr. J. A. McGregor, London, Ontario.

EXHIBITION COMMITTEE.

Chairman: Dr. Arthur Jukes Johnson, Toronto.

Secretaries: Dr. T. D. Archibald, Toronto; Dr. W. A. Young, Toronto.

HONORARY LOCAL TREASURER.

Professor J. W. Ross, Toronto.

TORONTO ARRANGEMENTS COMMITTEE.

Dr. Geo. A. Bingham, 68, Isabella Street, Toronto.
Dr. C. J. C. O. Hastings, 258, Wellesley Street, Toronto.
Dr. A. A. Macdonald, 341, Bloor Street West, Toronto.
Professor J. J. Mackenzie, Medical Laboratories, Toronto.
Dr. Alex. McPhedran, 151, Bloor Street West, Toronto.
Dr. R. B. Nevitt, 46, Bloor Street West, Toronto.
Dr. R. A. Reeve, *President-elect*, 48, Bloor Street E., Toronto
Dr. F. N. G. Starr, 112, College Street, Toronto.
Dr. J. Algernon Temple, 333, Bloor Street W., Toronto.
Dr. D. J. Gibb Wishart, 47, Grosvenor Street, Toronto.

PROGRAMME OF PROCEEDINGS.

Tuesday, August 21st, 1906.

9.30—12.30 a.m.—Meetings of Sections.
2.30 p.m.—Address on Obstetrics, Dr. W. S. A. Griffith
4.30 p.m.—Garden Parties.
8 p.m.—Address of Welcome; Introduction o Guests, Delegates, etc.; and President' Address.
9.30 p.m.—Reception by the Lieutenant-Governor i the Parliament Buildings.

Wednesday, August 22nd.

9.30—12.30 a.m.—Meetings of Sections.
2.30 p.m.—Address on Medicine, Sir James Barr, M.I

4.30 p.m.—Garden Parties.
8.30 p.m.—Address on Surgery, Sir Victor Horsley, F.R.S.
9.30 p.m.—Reception.

THURSDAY, AUGUST 23RD.

9.30—12.30 a.m.—Sectional Meetings.
4.30 p.m.—Garden Parties.
7.30 p.m.—Annual Dinner.

FRIDAY, AUGUST 24TH.

9.30—12.30 a.m.—Sectional Meetings.
2.30 p.m.—General Meetings.
4.30 p.m.—Garden Parties.
Excursions.
8.30 p.m.—Soirée.

SATURDAY, AUGUST 25TH.

Excursions to Niagara Power Company's plant, through the courtesy of Sir Henry M. Pellatt.
Excursion to Muskoka.
Excursion to Lambton, through the courtesy of the President, Mr. Austin.

ASSOCIATION INTELLIGENCE.

PROCEEDINGS OF COUNCIL.

AT a meeting of the Council held, by kind permission of the Metropolitan Asylums Board, London, in their Board Room, on Wednesday, January 17th, at 2 o'clock in the afternoon,

Present:

Dr. H. W. LANGLEY BROWNE, Chairman of Council, in the Chair.
Mr. G. C. FRANKLIN, President.
Dr. WILLIAM COLLIER, Past-President.
Sir VICTOR HORSLEY, F.R.S., Chairman of Representative Meetings.
Dr. H. RADCLIFFE CROCKER, Treasurer.

Dr. JOHN FORD ANDERSON, London.
Dr. EDGAR G. BARNES, Eye.
Dr. T. R. BRADSHAW, Liverpool.
Dr J. BRASSEY BRIERLEY, Old Trafford.
Colonel DAVID BRUCE, C.B., F.R.S. (Cape of Good Hope Branch), London.
Dr. R. COCHRANE BUIST, Dundee.
Dr. W. A. CARLINE, Lincoln.
Mr. ANDREW CLARK, D.Sc., London.
Dr. JAMES CRAIG, Dublin.
Mr. E. J. DOMVILLE, Exeter.
Mr. GEORGE EASTES, M.B., London.
Professor DAVID W. FINLAY, M.D., LL.D., Aberdeen.
Dr. E. L. FOX, Plymouth.
Dr. JOHN H. GALTON, Upper Norwood
Dr. JOSEPH J. GIUSANI, Cork.
Dr. BRUCE GOFF, Bothwell.
Dr. DAVID GOYDER, Bradford.
Dr. T. DRUSLYN GRIFFITHS, Swansea.
r. J. GROVES, Carisbrooke.
Dr. T. ARTHUR HELME, Manchester.
r J. H. HUNTER, South SHIELDS.
Mr. R. H. KINSEY, Bedford.
r. C. W. MARRIOTT, Reading.
Dr. C. G. DRUMMOND MORIER, (South Australian Branch), London.
Professor J. T. J. MORRISON, M.B., Birmingham.
Mr. EDMUND OWEN, London.
Mr. C. H. W. PARKINSON, Wimborne Minster.
Dr. FRANK M. POPE, Leicester.
Dr. EDWIN RAYNER, Stockport.
Mr. H. JONES ROBERTS, Penygroes.
Mr. H. BETHAM ROBINSON, M.S., London.
Professor ROBERT SAUNDBY, M.D., LL.D., Birmingham.
Dr. E. MARKHAM SKERRITT, Clifton, Bristol.
Professor W. R. SMITH, M.D. (Malta and Mediterranean Branch), London.
Mr. W. D. SPANTON, Hanley.
Mr. C. R. STRATON. Salisbury.
Mr. JOHN LYNN THOMAS, C.B., Cardiff.
Dr. W. J. TYSON, Folkestone.
Mr. T. JENNER VERRALL, Brighton.
Dr. NORMAN WALKER, Edinburgh.
Dr. ARTHUR T. WEAR, Newcastle-on-Tyne.
Lieutenant-Colonel E. M. WILSON, C.B., R.A.M.C., Farnborough.

MINUTES.

The minutes of the last meeting having been printed nd circulated and no objection received, were taken as ead and signed as correct.

APOLOGIES.

Read letters of apology for non-attendance from Dr. M. everley, Dr. D. Burgess, Professor Byers, Dr. James amilton, Dr. R. McKenzie Johnston, Dr. C. H. Milburn, r. J. Murray, Dr. J. Maxwell Ross, and Fleet Surgeon Lloyd Thomas, R.N.

NEW MEMBERS OF COUNCIL.

The GENERAL SECRETARY reported that the South Wales and Monmouthshire Branch had returned Dr. T. D. Griffiths as its Representative on the Council vice Colonel Cresswell, C.B., deceased, and that the New Zealand Branch had returned Dr. Haines as its Representative on the Council.

Colonel David Bruce, C.B., F.R.S., Representative of the Cape of Good Hope (Eastern Province and Western Province) Branches, attended the Council for the first time.

ACKNOWLEDGMENT OF RESOLUTIONS OF CONDOLENCE.

Read acknowledgments to the resolutions of condolence passed at the last meeting of the Council relative to the deaths of Sir John Burdon-Sanderson, Bart., F.R.S., and Dr. Somerville, which were ordered to be entered upon the minutes.

ACKNOWLEDGMENT OF CONGRATULATORY RESOLUTIONS.

Read acknowledgments to the resolutions of congratulation to Sir James Barr, Sir Thomas Chavasse, and Sir Arthur Chance upon receiving the honour of Knighthood at the hands of His Majesty the King, which were ordered to be entered on the minutes.

TORONTO MEETING.

The consideration of the desirability or otherwise of the formation of a Section for Physical Therapeutics was referred to the officers of the Therapeutic Section.

LISBON MEDICAL CONGRESS.

The Treasurer, Professor Byers, and Mr. George Jackson were appointed delegates to attend the forthcoming International Medical Congress to be held at Lisbon from April 19th to 26th, 1906.

ELECTION OF MEMBERS.

The seven candidates whose names appeared on the circular convening the meeting were duly elected members of the British Medical Association.

JOURNAL AND FINANCE COMMITTEE.

The minutes of the Journal and Finance Committee having been received, it was moved by the TREASURER, seconded by the CHAIRMAN OF COUNCIL, and agreed

That the accounts for the quarter ending December 31st last, amounting to £11,161 0s. 5d., be received and approved, and the Treasurer be empowered to pay those remaining unpaid, amounting to £3,364 11s. 4d.

That a small Advisory Committee be appointed, consisting of Professor Cushny, Professor Wyndham Dunstan, F.R.S., and Mr. R. H. Kinsey, to assist the Editor in deciding what proprietary preparations should be noticed in the editorial columns of the JOURNAL. That Dr. Dawson Williams act as Secretary.

That it be an instruction to the officers concerned that in future all the "copy" for the *Year Book* be furnished by December 1st, and the *Year Book* be published on December 15th.

That Mr. J. Lynn Thomas, C.B., be elected to the Journal and Finance Committee vice Mr. W. Jones Morris, deceased.

That a grant of £100 be made to the Chloroform Committee.

PREMISES AND LIBRARY COMMITTEE.

Resolved: That the minutes of the Premises and Library Committee be received.

The following resolutions were duly approved by the Council at its meeting on December 13th, 1905:

1. That the Strand and Agar Street houses be demolished, and that the site be dealt with as a whole for the building of new premises up to a height of six stories.
2. That the whole of the ground floor and basement of the new premises be provided with separate entrances so that they may be let off at an estimated rent of £3,000 per annum.
3. That no special Council Room be provided, but the Library be so constructed that it may be conveniently used for meetings of the Council.
4. That the preparation of the plans for the new premises be thrown open to a limited competition, and that six architects be invited by the Committee to compete.
5. That a premium of 100 guineas and 50 guineas be offered to the first and second competitor respectively, and that an assessor be appointed to determine the relative merits of the plans submitted.

Moved by Mr. **Andrew Clark**, seconded by Dr. **Bradshaw**, and resolved:

That the report as to the accommodation required be approved, and that the Committee be empowered to invite competition for the erection of new premises, in accordance with the particulars contained therein.

Special Meeting of Journal and Finance Committee.

The minutes of the Journal and Finance Committee (with the Chairmen of Committees) having been received, the following recommendations were adopted:

1. That four more clerks be sanctioned for the Medical Secretary's department, to be appointed as required.
2. That the clerks of the central office be arranged in classes for the purposes of promotion and increase of salary.
3. That all clerks be recommended for appointment by the head of each department. Appointments shall be made by the General Secretary and Manager acting under the directions of the Journal and Finance Committee.
4. That all questions of promotion and increase of salary be recommended by the heads of departments and determined by the Chairman of Council and Treasurer in consultation with the General Secretary and Manager, and with reference to the Journal and Finance Committee, when necessary.
5. That all clerks be paid by the General Secretary and Manager.
6. That the Editor, the General Secretary and Manager, and the Medical Secretary be paramount in their respective departments. In all matters where expenditure is involved the General Secretary and Manager should be consulted, and if he object no further steps should be taken without the sanction of the Chairman of Council and Treasurer, who would, at their discretion, refer the matter to the Finance Committee.
7. That the Journal and Finance Committee annually present to the Council a detailed report upon the office staff in the various departments.

Organization Committee.

The minutes of the Organization Committee having been received:

New Branches Sanctioned.

On the motion of Mr. **Verrall**, the following resolutions were agreed upon:

That a Branch be sanctioned composed of the members of the Association resident in Egypt.

That the members of the Association resident in the Province of Saskatchewan be constituted a Branch of the Association, having the name of the Saskatchewan Branch.

Proposed New By-Law.

With reference to the following minute of the Representative Meeting, referred by the Council to the Organization Committee:

> *Minute* 185.—"That the Representative Meeting be given power to elect not less than four nor more than six members of the Central Council."

It was resolved:

That the Council submit the following draft By-law for the consideration of the next Representative Meeting:

> That the Representative Meeting shall have power to elect annually not more than six members of the Central Council.

That the Council report to the Representative Meeting that election under this By-law should be made subject to the same limitations as to duration of office as affect members of the Council elected by Branches, and that the Organization Committee be authorized to draft a By-law for submission to the Representative Meeting making such provision.

Grouping of Colonial Branches, 1906-7.

That the Colonial Branches already existing be grouped for representation on the Council for the year 1906-7 in the same manner as for the year 1905-6, and that the new Egypt Branch be grouped with the Malta and Gibraltar Branches, and the Saskatchewan Branch with the Toronto, Manitoba, and British Columbia Branches.

Draft Charter and Regulations.

That the Council authorize the Organization Committee to transmit the draft Charter and draft regulations thereunder direct to the Divisions as soon as prepared by them; that the Divisions be requested to give notice of any amendments that they desire to move not later than March 31st; that the draft be considered by the Council at its April meeting.

Hospitals Committee.

The minutes of the Hospitals Committee having been received, on the consideration of a recommendation asking for authority to carry out the resolution of the Joint Hospitals Committee to circulate certain printed matter to the Boards of Management and members of hospital staffs at an expense not exceeding £50,

An amendment was moved by Mr. **Domville**, seconded by Dr. **Fox**:

> That in consenting to allow the sum of £50 for the circulation of the recommendations of the Joint Hospitals Committee, this Council does not commit itself to the approval of the recommendations, and that a rider to this effect be appended to the recommendations.

The amendment having been put from the Chair, was declared carried (13—8).

The **Chairman of Council** then put the original recommendation of the Hospitals Committee, sanctioning the expenditure of a sum not exceeding £50, together with the rider of Mr. Domville, which was declared to be carried as a substantive resolution.

Irish Committee.

The minutes of the Irish Committee having been received, it was resolved:

That Dr. Kenny's name be added to the Poor-law Subcommittee.

Ethical Committee.

The minutes of the Ethical Committee having been received, it was resolved:

That the Rule submitted by the Gateshead Division be approved.

On the motion of Mr. **Kinsey**, seconded by Dr. **Goyder**, it was resolved:

That the travelling expenses be defrayed from central funds of all persons attending at the request of the Central Ethical Committee for the purpose of giving evidence in the investigation of cases of proposed expulsion or other cases coming before the Committee.

That in the opinion of the Council the proposal of the Scottish Committee would unduly restrict the work of the Central Ethical Committee, but that the principle formulated by the Central Ethical Committee, as the result of the previous consideration of this matter on March 18th 1904, be recommended as practicable:

> That ethical questions concerning individual members of the profession, where the facts are in dispute should in the first instance be referred by the Editor or by the Ethical Committee, to the Division within the area of which the practitioner affected resides and that no comments thereon should appear in the Journal until the local report has been received anc considered.

Scottish Committee.

The minutes of the Scottish Committee having bee received, it was moved by Dr. **Bruce Goff**, seconded b Dr. **Buist**, and resolved:

That the Council is of opinion that in small district as long as unselected lists of medical names appear a part of a directory in a newspaper no action is calle for. The Council is also of opinion that any practitione who objects to his name appearing in the list can us his influence with the editor of the newspaper to have i withdrawn.

Medico-Political Committee.

The minutes of the Medico-Political Committee havin been received, it was resolved:

That if a Bill be introduced into Parliament, as pro posed by the Spectacle-makers' Company, to create specially privileged class of sight-testing opticians, prope steps be taken to oppose it.

That such steps be taken as may be found practicabl with a view to maintaining the efficiency of the vaccina tion laws.

Matters Postponed.

The notices of motion, standing in the names of D

T. Arthur Helme and Dr. Brassey Brierley respectively, were postponed until the next meeting of the Council.

Also a letter relative to a proposal to hold in London a Section for Tropical Medicine, as to which Dr. Griffiths handed in formal notice of motion.

The Council rose at 5.45 p.m.

Proceedings of Committees.

MEDICO-POLITICAL COMMITTEE.

A MEETING of the Medico-Political Committee was held at the office of the Association on Wednesday, January 3rd, when there were present: Dr. R. C. BUIST (in the chair), Dr. H. Radcliffe Crocker (Treasurer), Mr. H. W. Armit, Dr. T. Arthur Helme, Dr. H. A. Latimer, Dr. J. A. Macdonald, Mr. C. H. Watts Parkinson, Dr. Cecil E. Shaw, Mr. C. R. Straton.

NEW MEMBER.

Dr. Helme, having been appointed by the Council to fill the vacancy on the Committee caused by the death of Mr. Jones Morris, was elected by the Committee a member of the Midwives and Parliamentary Subcommittees.

PARLIAMENTARY QUESTIONS.

The Medical Secretary was instructed to supply, for the use of those Division Secretaries who might apply for them, reprints of the memoranda and questions submitted to candidates for Parliament and addressed envelopes for issue, with the replies of the candidates (printed locally) to all practitioners within the area of each constituency. '

MIDWIVES ROLL.

With reference to Minute 206 (*a*) of the Representative Meeting at Leicester as follows:

> (*a*) That as no adequate provision is made for excluding ignorant women, the most fruitful causes of septic infection, up to the year 1910; and that as no adequate provision is made to ascertain that those put on the *Register* have any skill whatever, these should not be placed upon the same *Register* as those later ones who have presumably had some training, or, at any rate, have passed an examination.

It was decided on the recommendation of the Midwives Subcommittee to report to the Representative Meeting that the Midwives Roll could not conveniently be printed in two parts, and that the desired object was sufficiently attained by showing the qualification by virtue of which a midwife was registered in a separate column, as was already done by the Central Midwives Board.

PAYMENT OF MEDICAL MEN CALLED TO ASSIST MIDWIVES.

The Medical Secretary was instructed to make inquiry of medical officers of health as to the action, if any, which their respective authorities were taking, under Section 133 of the Public Health Act, in order to provide for the payment of medical men called to assist midwives.

As the result of the further consideration of the minute of the Representative Meeting concerning a scale of fees for the payment of medical practitioners called to assist midwives, the Midwives Subcommittee presented a report containing the following recommendations, which were adopted by the Committee:

> (*a*) That the Medico-Political Committee report to the Divisions that any legislation promoted or recommended by the Association with respect to the payment out of public funds of medical practitioners called to assist midwives should be in the form of conferring power on local authorities to pay or guarantee fees, and should not include any provision by schedule or otherwise specifying the fees to be paid.
>
> (*b*) That the schedule of fees should be prescribed by the Local Government Board.
>
> (*c*) That the scale adopted by the Metropolitan Counties Branch be recommended to the Divisions as a basis for adoption, subject to such modifications as may be necessary to meet local requirements.

With reference to the question of suitable fees to be paid to medical practitioners who may be called upon to act as inspectors of midwives, referred by the Committee to the Midwives Subcommittee, it was resolved, on the recommendation of the Subcommittee, that to the Memorandum to the Divisions already ordered to be sent be added a paragraph to the following effect:

> (*a*) That attention be drawn to the resolution of the Central Council that inspectors of midwives should be registered medical practitioners.
>
> (*b*) That the Committee has been asked to advise as to suitable fees for the purpose, but that in the opinion of the Committee these must depend upon local circumstances.
>
> (*c*) That the Divisions should therefore be prepared to advise any of their members by whom they may be consulted upon the matter.

CONTRACT PRACTICE SUBCOMMITTEE.

The report of the Contract Practice Subcommittee was received.

It was resolved:

> That the scheme for a Central Emergency Fund prepared by the Contract Practice Subcommittee be approved, and that immediate publication in the BRITISH MEDICAL JOURNAL be authorized.[1]

The report of the Contract Practice Subcommittee with respect to disputes at Ebbw Vale, Blaenavon, and Macclesfield was approved, and the action contemplated with respect to the formation of a Public Medical Service at Darlington and other neighbouring towns mentioned was also approved.

The Committee approved as a precedent the action taken in the matter of the appointment of a public vaccinator to fill a vacancy due to harsh dismissal of the previous officer.

DEPUTATION TO THE PRESIDENT OF THE LOCAL GOVERNMENT BOARD.

The CHAIRMAN of the Public Health Committee reported that a deputation had waited upon the President of the Local Government Board, on November 30th, with reference to the Public Health (Security of Tenure) Bill, but that in view of the change of Government it would now be necessary to arrange for another deputation.

DRAFT CLAUSE FOR INCLUSION IN THE MEDICAL ACTS AMENDMENT BILL.

A report was received from the Medical Secretary on the present position of negotiations with the Pharmaceutical Society concerning the insertion in the Medical Acts Amendment Bill of a saving Clause with reference to chemists, and it was resolved that the following clause be inserted in the final draft of the Medical Acts Amendment Bill:

> Nothing in this Act shall affect or modify the provisions of the Pharmacy Acts, 1862 to 1898, or render illegal any act or thing authorized by the said Acts to be done by any person in connexion with pharmacy.

INTRODUCTION BY THE SPECTACLEMAKERS' COMPANY OF A BILL INTO PARLIAMENT.

The MEDICAL SECRETARY reported information received as to the proposal of the Spectaclemakers' Company to introduce a Bill into Parliament to create a specially privileged class of sight-testing opticians, and it was resolved that such a Bill if introduced should be opposed.

IRISH COMMITTEE.

A MEETING of this Committee was held in the Shelbourne Hotel, Dublin, on January 6th, at 3 p.m., when there were present: Professor BYERS (Belfast), in the chair; Dr. R. B. Carey (Borris, co. Carlow), Dr. James Craig (Dublin), Dr. J. S. Darling (Lurgan), Dr. Joseph Giusani (Cork), Dr. J. M. Kenny (Granard), Dr. P. G. Lee (Cork), Dr. D. J. O'Connor (Cork), Dr. Cecil Shaw (Belfast), Dr. Denis Walshe (Graigue, co. Kilkenny), and Professor White (Dublin). The minutes of the previous meeting were read, amended, and confirmed as amended.

NEW MEMBER.

The HONORARY SECRETARY notified the election by the Leinster Branch of Dr. J. M. Kenny (Granard) as a member of the Committee.

POOR-LAW COMMISSION.

The HONORARY SECRETARY read correspondence in connexion with the formation of the Subcommittee. It was resolved to enter the two following letters on the minutes, and to agree to the request of the Poor-law Association for eight representatives on the Subcommittee.

---

[1] SUPPLEMENT to the BRITISH MEDICAL JOURNAL Jan. 6th, 1906, p. 6.

POOR-LAW ASSOCIATION OF IRELAND.

Castlecomer,
Co. Kilkenny,
December 10th, 1905.

Dear Sir,—In reply to your letter of the 24th ult., which came before our Committee, I beg to say that the Poor-law Association of Ireland will be most happy to co-operate with the B.M.A. and the I.M.A. on the subject of Poor-law Reform. I am, however, to state that in the opinion of the Committee, and on account of the large number of classes of officers concerned in the Poor-law Association, it should have a representation of at least eight members, and the following were suggested as the representatives:

> Dr. Patrick Donnellan, Castlerea; Dr. Richard Marlay Blake, Ravensdale; Dr. T. H. Moorhead, Cootehill; Messrs. J. R. Dagg, Clerk of Union, Baltinglass; D. J. Purcell, Clerk of Union, Nass; James Dooley, Master of Workhouse, North Dublin; Nicholas O'Carroll, Master of Workhouse, Ballinasloe; and Michael Connolly, Relieving Officer, Athenry.

If your Committee agree to this, please let me know when and where the conference is to take place, so that I can duly apprise representatives.

Yours very truly,
Denis O'Carroll,
Secretary.

Professor White,
Royal College of Surgeons,
Dublin.

IRISH MEDICAL ASSOCIATION.

Royal College of Surgeons, Dublin,
January 4th, 1906.

Dear Sir,—Your letter of November 24th, 1905, was read at the meeting on the 2nd instant, and the following resolution was passed:

> "That the Committee of Council be requested to nominate four members of the Association to act in conjunction with the Irish Branch of the British Medical Association and the Poor-Law Association in reference to the Royal Commission on the working of the Poor Law."

I am also to add that Dr. Donnelly, to whom your letter was addressed, was under the impression that he had acknowledged its receipt.

I am, yours faithfully,
Thomas Gick,
Secretary.

Professor White,
Hon. Sec.
Irish Committee,
British Medical Association.

The Committee adopted the following resolution:

> That in the opinion of the Irish Committee of the British Medical Association it is absolutely necessary, owing to the intricacy and importance of the subject to be inquired into, that an Irish medical man who is not a Government official should be added to the Poor-Law Commission,

and recommended that copies be sent by the Medical Secretary to the Prime Minister, the Secretary for Ireland, and the President of the Local Government Board for England.

Coroners Act Amendment Bill.

The following additions to the Bill were proposed by Dr. Walshe and seconded by Dr. Giusani, and unanimously agreed to:

> That Section xxxii of the Coroners Act, 9 and 10 Vict., c. 37, be and hereby is repealed.
>
> Provided also that, when upon death, illness, absence on sick leave, incapacity, or removal of any such coroner, the coroner of the adjoining district in the same county who shall be called upon to act as coroner in said vacant district, shall, for each inquest and for each adjourned inquest held by him in the said district, be paid, in addition to the sum of two pounds already allowed him under Section 3, 44 and 45 Vict., c. 35, mileage for each mile travelled, going to and returning from each such inquest or adjourned inquest, at the rate of sixpence per mile for each mile which he may have travelled in order to hold such inquest or adjourned inquest.

Notification to Divisions and Branches.

It was unanimously resolved:

> That in order to give Divisions and Branches the opportunity of submitting questions for the consideration of the Committee, a circular be sent before each meeting of the Committee to the Secretaries of the various Divisions and Branches in Ireland.

Resolved: That Dr. Kenny's name be added to the Poor-law Subcommittee.

Next Meeting.

The next meeting of the Committee was fixed for Saturday, March 31st, at 3 p.m.

SCOTTISH COMMITTEE.

A meeting of the Scottish Committee was held in the Station Hotel, Stirling, on Tuesday, December 19th, 1905, when there were present; Dr. **Bruce Goff** (in the chair), Dr. R. Cochrane Buist, Dr. R. Balfour Graham, Dr. R. McKenzie Johnston, Dr. J. E. Moorhouse, Dr. A. Trotter, Dr. Norman Walker.

The minutes of the Poor-law Subcommittee were received and approved.

The following recommendations were adopted:

> The Committee are of opinion that in small districts as long as unselected lists of medical names appear as part of a directory in a newspaper no action is called for. The Committee are also of opinion that any practitioner who objects to his name appearing in the list can use his influence with the editor of the newspaper to have it withdrawn.
>
> That in future complaints as to unprofessional conduct in Scotland should not be considered by the Central Ethical Committee until they have been reported on through the Secretary of the local Branch.

ETHICAL COMMITTEE.

A meeting of the Ethical Committee was held at the office of the Association on December 15th, 1905. Mr. R. H. Kinsey in the chair. The other members present being Dr. J. Ford Anderson, Mr. H. A. Ballance, Mr. G. H. Broadbent, Dr. G. W. Crowe, Dr. Bruce Goff, Dr. R. L. Langdon Down, Mr. W. D. Spanton.

Complaints against Members by Non-Members.

The Committee approved the reply which had been given to an inquiry from the Honorary Secretary of a Branch, advising that, though a non-member could not claim of right that the Association should consider a complaint from him against a member, there was nothing to prevent the Association, through any Division or Branch, from investigating at its discretion a question raised as to the conduct of a member. It was further advised that the inquiry could, as a rule, be carried out more conveniently in the first instance by a Division than by a Branch.

Proposed Expulsion of a Member.

The consideration of the recommendation of a Branch that a member of the Branch be expelled from the Association was deferred to a special meeting, which the member concerned and Representatives of the Division and Branch were to be requested to attend.

Assistance in Divisional Investigation.

The Committee approved the action of the Chairman in attending at the request of a Division, with the Medical Secretary, to assist the Division in investigating a case of special difficulty.

Trade and Other Advertisements and Newspaper Notices.

The Medical Secretary's report as to trade advertisements brought under notice since the last meeting, and as to newspaper notices dealt with since the last meeting, was received and approved.

Division Rules.

The following Rule submitted by the Gateshead Division was considered:

> When a practitioner is called to an urgent case, either of sudden or other illness, accident or injury, in a family usually attended by another, and is so informed, unless his further attendance is desired in consultation, when the emergency is provided for on the arrival of the attendant in ordinary, he should resign the case to the latter; but he is entitled to charge the family for his services.

The Council was recommended to sanction the adoption of the Rule by the Division.

Warning Notices by the General Medical Council against Canvassing and Advertising.

A communication was read from the General Medical Council stating the result of the application from the British Medical Association, made on the recommendation of the Central Ethical Committee, that a warning notice be issued against canvassing and advertising, the decision of the General Medical Council being to issue a warning notice.[1]

---

[1] British Medical Journal, December 9th, 1905, p. 1544.

The Committee expressed satisfaction at the result of the representations of the Association in the matter.

Another meeting of the Committee was held on Friday, January 5th, when there were present: Mr. R. H. Kinsey (in the Chair), Dr. H. Langley Browne (Chairman of Council), Dr. J. Ford Anderson, Mr. H. A. Ballance, Dr. A. G. Bateman, Mr. G. H. Broadbent, Dr. Bruce Goff, Dr. R. Langdon Down, Mr. W. D. Spanton.

Purchase of Practices.

The Committee approved the reply which had been given to an inquirer, to the effect that there is no objection to the purchase or sale of medical practices, apart from special regulations affecting those who hold certain diplomas.

Advertising by a Friendly Society.

A communication was read from a practitioner, concerning whom a complaint had been considered at the last meeting of the Committee, in respect of alleged advertising by a Friendly Society of which he was surgeon, and who now forwarded for the information of the Committee a copy of an undertaking by the Friendly Society not again so to advertise his name.

The undertaking was accepted as satisfactory.

Warning Notice as to Appointments.

The Committee considered and approved the recommendations of the Contract Practice Subcommittee (*a*) that the heading of the warning notice in the Journal should be henceforth: "Appointments Vacant: Warning Notice" instead of "Contract Practice and other Appointments"; and (*b*) as to the desirability of a standing reference to this notice in some conspicuous position in the Journal.

Travelling Expenses of Witnesses.

A communication from a Division, inquiring whether the expenses of representatives of the Division attending an inquiry in compliance with the request of the Committee would be defrayed from the central funds of the Association, was considered, and it was resolved:

> That it be recommended to the Council that the travelling expenses be defrayed from central funds of all persons attending at the request of the Central Ethical Committee for the purpose of giving evidence in the investigation of cases of proposed expulsion or other cases coming before the Committee.

Medical Officers and Insurance Companies.

A complaint from a member with respect to the alleged unprofessional action of the medical officer of an insurance company was considered. After consideration of the circumstances, the Committee adopted the following resolutions:

> (*a*) That having regard to the explicit statement, in Dr. B.'s first letter, of the conditions under which he asked for the information, namely (*a*) that the matter was settled as affecting the company, and (*b*) that the particulars were desired only for Dr. B.'s private records, he ought not to have asked Dr. A. subsequently for information about the case for the use of the company.
>
> (*b*) That Dr. A. would have been guilty of violating his professional obligation to his patient's family had he, otherwise than at their request, divulged, either to the company or to any one for the use of the company, the confidential information obtained by him as the medical attendant of Mr. X.
>
> (*c*) That the explicit statement of Dr. B., that the claim had been passed, is, in the opinion of the Committee, contradicted by his second letter and by the letter of the company's manager to Dr. A. The Committee notes that Dr. B. does not state that he made no suggestion to the manager which might have led him to apply to Dr. A. to "amplify his certificate." The Committee considers that an explanation should be given as to how the difficulty spoken of by the company's manager arose, which led to the reopening of a question stated by Dr. B. to have been settled.

Canvassing and Advertising in connexion with a Dispensary.

The Committee considered a complaint as to alleged canvassing and advertising, (*a*) by a provident dispensary, and (*b*) by a former medical officer of the same dispensary, and it was resolved:

> That, with regard to the dispensary, it be left to the Chairman, Medical Secretary, and Solicitor, in co-operation with the Executive Committee of the Division concerned, to take such action as may be found desirable.

It was further resolved to draw the attention of the former medical officer of the dispensary to the warning notice of the General Medical Council.

Advertisements of Home for Inebriates.

The Chairman reported the action taken by himself, with the Editor and Medical Secretary, in pursuance of a minute of the Committee on December 15th, 1905.

The Committee expressed satisfaction with the undertakings given by the proprietor of the home.

Advertising of Medical Practitioners by Newspapers.

The following resolution of the Scottish Committee on a question remitted to it by the Ethical Committee on October 6th was considered, and the Ethical Committee expressed its concurrence therein:

> That with reference to the question of advertising by the newspapers themselves of the names of medical practitioners in Scotland, the Committee find on inquiry that the practice is not common—only three instances having been ascertained. The Committee are of opinion that in small districts, as long as unselected lists of medical names appear as part of a directory, no action is called for. The Committee are also of opinion that any practitioner who objects to his name appearing in the list can use his influence with the editor of the newspaper to have it withdrawn.

The consideration of the case which had given rise to the reference to the Scottish Committee, and had been deferred in the meantime, was resumed, and it was resolved:

> That in the opinion of the Committee the publication of the names of medical practitioners in newspapers in the circumstances brought to the notice of the Committee in the present case is undesirable, but that, as the practice has been permitted by the profession in the district for so long a period, the Committee is not prepared to condemn any individual in respect thereof.

Ethical Cases in Scotland.

The following resolution of the Scottish Committee was considered:

> That in future complaints as to unprofessional conduct in Scotland should not be considered by the Central Ethical Committee until they have been reported on through the Secretary of the local Branch.

It was resolved:

> That in the opinion of the Ethical Committee the proposal of the Scottish Committee would unduly restrict the work of the Central Ethical Committee, but that the principle formulated by the Central Ethical Committee, as the result of the previous consideration of this matter on March 18th, 1904, be recommended as practicable.
>
> > "That ethical questions concerning individual members of the profession, where the facts are in dispute, should in the first instance be referred by the Editor, or by the Ethical Committee, to the Division within the area of which the practitioner affected resides, and that no comments thereon should appear in the Journal until the local report has been received and considered."

ORGANIZATION COMMITTEE.

A meeting of the Organization Committee was held at the office of the Association on December 12th, 1905, when there were present: Mr. T. Jenner Verrall in the chair, Mr. H. A. Ballance, Mr. Andrew Clark, Dr. Alfred Cox, Professor J. T. J. Morrison, Dr. E. Rayner, Professor A. H. White.

Connaught Branch.

An interim report from the Irish Committee was received, informing the Committee of the active steps which were being taken to organize the Connaught Branch.

Medical Secretary's Visits to Divisions and Branches.

The Committee approved the report of the Medical Secretary on visits to Divisions and Branches since the last meeting.

Proposed Formation of an Egyptian Branch.

The Committee decided to recommend the Council to approve the formation of a Branch composed of members of the Association resident in Egypt.

Forms of Annual Reports.

Forms of annual reports of Divisions to Branches and of Branches to the Central Council were considered, and after slight emendation approved.

Division and Branch Finance.

The Committee approved, with slight modification, a draft of an inquiry form to Divisions and Branches as to the present system of Division and Branch finance.

Alterations of By-Laws.

The Committee recommended the Council to adopt certain draft alterations of by-laws referring to the representation of the Representative Meeting on the Central Council, and as to grants to Branches and Divisions prepared by the Committee for submission to the next Representative Meeting in pursuance of the resolutions of the Representative Meeting at Leicester.

HOSPITALS COMMITTEE.

A meeting of the Hospitals Committee was held at the office of the Association on December 21st, 1905, when there were present: Dr. M. Beverley (Chairman) in the chair, Dr. H. Langley Browne (Chairman of Council), Dr. J. Ford Anderson, Dr. John R. Hamilton, Dr. E. B. Hastings, Dr. F. M. Pope, Dr. Lauriston E. Shaw, and Mr. E. F. White.

Fees from Hospital Patients.

The Committee approved advice which had been given on the subject of charges for treatment made to patients at a special hospital, namely, that the Division concerned should take action with a view to maintaining the principle laid down by the Association that no charge for the treatment of any hospital patient should be made.

Circulation of Proposals for Hospital Reform.

The Committee recommended the Central Council to approve the circulation to hospital boards throughout the country of the findings of the Joint Committee which had been sitting during the autumn composed of representatives of the Association and non-medical members of hospital boards nominated by the conference in March last.

Resignation of Chairman.

The Chairman having intimated his inability for personal reasons to continue in that office, the Committee accepted with much regret his resignation of the office in which he had rendered such great services to the Association, and deferred until its next meeting the appointment of a successor.

PREMISES AND LIBRARY COMMITTEE.

A meeting of the Premises and Library Committee was held at the office of the Association on January 9th. Mr. Andrew Clark, and afterwards Dr. H. W. Langley Browne (Chairman of Council) took the chair. The other members present were: Dr. H. Radcliffe Crocker (Treasurer), Dr. Edgar Barnes, Dr. J. H. Galton, Dr. Bruce Goff, Dr. E. Rayner, and Dr. E. Markham Skerritt.

Grant of Duplicate Books to Divisions.

Applications from the Divisions and Branches for a copy of the Duplicate List of the Central Library were considered, and the Librarian was instructed to forward the Duplicate List of Books in the order of receipt of application, and to request the Division Secretary to return the Duplicate List within fourteen days.

The General Secretary was instructed to prepare regulations for the consideration of the Committee, setting forth that all duplicate volumes acquired by the Divisions or Branches from the Central Library remain the absolute property of the Association.

Librarian's Report.

The Library accounts for the quarter were received and recommended for payment.

The Librarian reported that there had been 1,575 attendances in the Library during the last three months of 1905, as compared with 1,556 in the corresponding period of 1904. He also reported that a complete series of the *Thèses de Lyon* for 1904-5 (180 *Thèses*) and 83 of the new session (1905-6) of the *Thèses de Paris* had been received, and read a list of the books presented and purchased for the Library.

The Rebuilding of the Association Premises.

The Committee considered the steps to be taken as the result of the resolutions passed by the Council on December 13th, 1905, as to the rebuilding of the premises of the Association, and a special Building Subcommittee was appointed to supervise and settle all arrangements in connexion with the new building.

JOURNAL AND FINANCE COMMITTEE.

A meeting of the Journal and Finance Committee was held at the office of the Association on January 10th, when there were present: Dr. H. W. Langley Browne (Chairman of Council) in the chair, Sir Victor Horsley, F.R.S. (Chairman of Representative Meetings), Dr. H. Radcliffe Crocker (Treasurer), Dr. Edgar G. Barnes, Dr. W. A. Carline, Mr. Andrew Clark, Dr. J. H. Galton, Dr. J. Groves, Mr. R. H. Kinsey, Mr. C. H. W. Parkinson, Dr. Edwin Rayner, Dr. E. Markham Skerritt, Mr. T. Jenner Verrall.

Proprietary Preparations.

A memorandum from the Editor on proprietary preparations was received and adopted, and a small Advisory Committee, consisting of Professor Cushny, Professor Wyndham Dunstan, F.R.S., and Mr. R. H. Kinsey, was appointed to advise the Editor, with Dr. Dawson Williams as Secretary.

Chloroform Committee.

It was recommended that a grant of £100 be made to the Chloroform Committee.

Hospitals Committee.

It was recommended that the Hospitals Committee be empowered to incur an expenditure not exceeding £50 for the purpose of circulating certain printed matter to the Boards of Management and members of hospital staffs throughout the country.

Finance.

The accounts for the quarter having been submitted and explained by the Treasurer, it was recommended that he be empowered to pay those remaining unpaid.

New Member.

The Committee recommended that Mr. J. Lynn Thomas, C.B., be nominated to the vacancy on the Committee caused by the death of Mr. W. Jones Morris.

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

BIRMINGHAM BRANCH:

Coventry Division.

A meeting of this Division was held at the Coventry and Warwickshire Hospital on December 6th, 1905.

Acute Rheumatism.—Dr. J. Orton read a paper on the pathology of acute rheumatism; this was followed by a paper by Dr. Kenderdine on the clinical characteristics of acute rheumatism. Dr. Wynn of Birmingham opened the discussion, which was followed by an interesting account of the bacteriology of acute rheumatism, and illustrated his remarks by specimens and slides. The subsequent discussion was joined in by Drs. Milner Moore, Hawley, Webster, McGlashan, Webb Fowler, Snell, and the Chairman. Drs. Orton and Kenderdine replied.

Charges for Private Midwifery Cases.—Dr. McGlashan proposed the following proposition:

> That the minimum charge for private midwifery cases in the area of the Division shall be one guinea; and when in exceptional circumstances this amount is not forthcoming, the medical services shall be given gratis.

This was seconded by Dr. RICE. To this Dr. CALLAGHAN proposed the following amendment:

> That the minimum charge for normal midwifery cases in the area of the Division shall be one guinea, and that an extra fee be charged for instrumental delivery.

This amendment, not being seconded, was withdrawn. Dr. J. ORTON then proposed the following amendment:

> That the minimum charge for midwifery cases except parish cases in the area of the Division *should* be one guinea.

This was seconded by Dr. WEBB FOWLER, and supported by Dr. WEBSTER. During the discussion which followed, Dr. MCGLASHAN, with the consent of his seconder and the meeting, agreed to modify his original proposition so that it should read:

> That the minimum charge for midwifery cases other than parish cases in the area of the Division shall be one guinea.

Dr. J. ORTON'S amendment, on being put to the meeting, was carried. On becoming the substantive resolution, Dr. RICE proposed the following amendment:

> That a committee be formed of the members of the Division resident in the areas of the parishes of Foleshill and Bedworth—the areas affected by the resolution—to meet and report to the Division on the subject of the minimum fee desirable.

This was seconded by Dr. MCGLASHAN and supported by Dr. CALLAGHAN. On being put to the meeting this amendment was carried *nem. con.* It was then put as the substantive resolution and carried *nem. con.*

Specimens.—Dr. Bankes Price showed a specimen of dermoid of ovary and ulcerated appendix from the same subject; and also an intra-ocular tumour.

HALIFAX AND NOVA SCOTIA BRANCH.

A MEETING was held on December 6th, 1905, at the City Council Chamber, Halifax.

Papers.—Dr. R. EVATT MATHERS read a paper on acute otitis media and its treatment. Dr. F. W. GOODWIN read notes on flavouring of medicines.

A further meeting was held on December 20th, 1905.

Papers.—Dr. D. A. CAMPBELL read a paper on aortic regurgitation, exhibiting *post-mortem* specimens. Dr. ROBERT KING read a statistical paper on lobar pneumonia, an analysis of several hundred cases treated in the hospitals at Montreal.

Health Act.—Dr. A. P. REID, Provincial Health Officer, addressed the Branch concerning his work.

Another meeting was held on January 3rd, 1906.

American Medico-Psychological Association.—It was resolved that this Branch concur with the Provincial Government in an invitation to the American Medico-Psychological Association to hold its next annual meeting at Halifax.

Paper.—The PRESIDENT introduced Dr. Wm. Rockwell, of River Hebert, N.S., who read a most interesting case, report and paper, on subdiaphragmatic abscess following operation for appendicitis.

LANCASHIRE AND CHESHIRE BRANCH:

SOUTH MANCHESTER DIVISION.

A GENERAL meeting of this Division was held on Friday, January 26th, at 3.15 p.m. in the schoolroom of the Holy Innocents' Church, Fallowfield. The meeting was thrown open to every medical man practising in the area of the Division. The HONORARY SECRETARY reported that, out of 121 medical men resident in the district, 89 are members of the Division, 13 are members of other Divisions, 19 are non-members.

Rusholme Provident Dispensary.—The meeting received a report of the action taken in the matter of the recently-established Rusholme Provident Dispensary, including the proceedings before the General Medical Council in November in connexion therewith.

Standard Minimum Rate for Midwifery Cases.—The question of a standard rate for midwifery was discussed, but no resolution adopted in reference thereto.

Contract Practice.—Dr. WILLIS moved, and it was duly seconded:

> That in view of the fact that the present system of contract practice fails to carry out the intention of its founders as to the relief of the sick poor, and that such practice is opposed to the best interests of the medical profession, this Division of the British Medical Association is of opinion that the Association should oppose all forms of contract practice except the medical relief afforded by the State through the Poor Law authorities.

Dr. MCDOUGALL moved as an amendment:

> That the members of the Division reaffirm the opinions they have already expressed as to contract practice.

The amendment was defeated by 6 to 3. Dr. WILLIS moved as a rider:

> That the system of medical relief afforded by the State through the Poor Law authorities requires radical amendment.

The resolution with the rider was carried by 6 to 3.

Warning Notice as to Canvassing and Advertising.—Dr. COTTERILL moved, and it was resolved:

> That this Division heartily welcomes the recent announcement of the General Medical Council with reference to canvassing and advertising, and will endeavour to obtain in this district loyal and strict observance of the principles therein involved.

Direct Representatives on General Medical Council.—Dr. J. M. Rhodes, Ivy Cottage, Didsbury, was unanimously selected as a candidate for nomination by the Association as Direct Representative on the General Medical Council.

STOCKPORT, MACCLESFIELD, AND EAST CHESHIRE DIVISION.

AN adjourned meeting was held at the Stockport Infirmary on Thursday, December 22nd, 1905, Dr. A. GODSON, President, in the chair.

Contract Medical Practice.—The recommendations of the Medico-Political Committee as to contract work were considered in conjunction with the paper read by Mr. B. W. Housman at the previous meeting, and the following resolutions were carried *nem. con.* as answers to the recommendations:

1. That experience in Stockport shows that contract work can be dispensed with, and that the energies of all the Divisions should be directed to the abolition of contract work.
2. That this Division views with concern the suggestion for the introduction of a "public medical service," and expresses its regret that such a matter has been brought forward by the Committee, considering that such a scheme is both undesirable and unnecessary.

Condition at Macclesfield.—It was resolved:

> That the Medical Secretary be requested to visit Macclesfield, and to advise on the condition there existing.

The Division and Parliamentary Candidates.—It was resolved:

> That the memoranda and questions circulated be forwarded to each parliamentary candidate for their consideration and replies.

METROPOLITAN COUNTIES BRANCH:

CITY DIVISION.

A GENERAL meeting of this Division was held at Salisbury House, E.C., at 4 p.m. on January 18th, Dr. J. W. HUNT in the chair.

Confirmation of Minutes.—The minutes of the last general meeting were read, confirmed, and signed.

Division and Branch Finance.—With reference to a letter from the Medical Secretary on this subject, it was resolved that this matter be referred to the next Executive Committee meeting.

Special Meeting.—At 4.15 the meeting was made a special one to consider a proposal to alter the quorum at general meetings from twelve to six. It was proposed as an amendment by Mr. BEDDOW, and seconded by Mr. F. WALLACE, that the number be eight instead of twelve. This was carried unanimously. The general meeting was then resumed.

Representative on Branch Entertainment Committee.—Mr. F. Wallace was unanimously appointed to represent the City Division.

Annual Representative Meeting.—Mr. F. WALLACE read his report of the business of the Representative Meeting at Leicester. A vote of thanks was heartily accorded to him for his services.

Association Library.—Dr. STUART HALLOWS proposed, and Mr. HOPE GRANT seconded, that

> The Library Committee be asked to keep the library of the

> Association open until 11 p.m., except on Saturdays, when it shall be closed at 1 p.m.

This was carried unanimously.

Facilities for Social Intercourse.—Dr. Stuart Hallows also proposed and Mr. Hope Grant seconded:

> That facilities be provided at head quarters for the better social intercourse of members, especially for those visiting London.

This was carried unanimously. It was proposed by Mr. Beddow and seconded by Dr. Stuart Hallows:

> That these two resolutions be communicated to the other Divisions of the Branch, with a request to bring them before their Divisions at an early opportunity.

This was agreed to unanimously.

Contract Medical Practice.—Dr. Major Greenwood proposed and Dr. Stuart Hallows seconded:

> That the recommendations and conclusions of the Medico-Political Committee on Contract Practice be accepted, but that a rider be added that in the opinion of this Division the question of a wage limit is not so important in London as in the provinces.

This was carried unanimously.

St. Pancras and Islington Division.

A meeting was held at University College Hospital on Friday, January 19th, Dr. Francis J. Buckell (Canonbury) in the chair.

Representative on Entertainment Committee.—The Vice-Chairman, Dr. Walter Smith, was appointed to represent the Division on the Entertainment Committee of the Metropolitan Counties Branch.

The Division and Parliamentary Candidates.—The Chairman and Secretary and Dr. Walter Smith gave reports of their canvass of the seventeen candidates for seats in Parliament to represent St. Pancras and Islington.

Measures in Parliament.—After discussion on medical politics, it was resolved on the motion of Dr. Buckell:

> That this Division urges the Council of the Association to take immediate steps to secure the introduction into Parliament of measures dealing with (*a*) the payment of medical men called in to the assistance of midwives, and (*b*) the security of tenure for medical officers of health and sanitary inspectors.

Lecture.—Dr. Kenwood (M.O.H. for Stoke Newington) read a lecture on disinfection applied to the rooms of the infectious sick, for which he received a hearty vote of thanks.

Tottenham Division.

A meeting of the Division was held at the Tottenham Hospital on Friday, January 26th, at 4 p.m. Dr. C. E. Hutt, Chairman, presided.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Abuse of Out-patient Departments.—Mr. R. F. Tomlin read a paper on abuse of out-patient departments of hospitals. A very good discussion followed, in which Drs. Ford Anderson, Walter Smith, Fuller, Winston, Tresilian, and Mr. Carson took part. It was proposed by Dr. Fuller, and seconded by Dr. Fogarty:

> That this Division observes with regret that the Hospitals Committee has not referred to the Divisions the resolutions of the Representative Meeting as was promised before October 31st, 1905, bearing on the question of the relation of provident dispensaries to out-patient departments.

This was carried and passed.

It was proposed by Dr. Fuller and seconded by Dr. Shoyer, on the subject now before the meeting—namely, the abuse of out-patient departments of hospitals—

> That this Division accept and adopt the decisions of the Hampstead Division as printed in the Supplement of the British Medical Journal, June 3rd, 1905, which are as follows:
>
> 1. That this meeting approves cordially of the twelve principles of reform for hospitals, as issued by the Central Council of the Association.
>
> 2. That this meeting, recognizing the grave defects in the conduct of out-patient departments of hospitals, is of opinion that those departments should be chiefly used for consultations and casualties, which, after receiving first aid, shall, if not suitable for hospital treatment, be referred in general terms to general practitioners, provident dispensaries, or the Poor-law relieving officer.
>
> 3. That there shall be an organized system of co-ordination between hospitals and provident dispensaries which are approved by the profession, so that the hospitals shall refer to the provident dispensaries suitable cases of those not retained for hospital treatment, and the provident dispensaries shall refer to the hospitals cases for consultation, as well as those requiring hospital treatment and nursing, or specially suitable for purposes of clinical instruction.
>
> 4. That cases sent to the hospitals by private practitioners, provident dispensaries, or by Poor-law medical officers for consultation should be exempt from the almoner's inquiries, and should have priority of consideration, with an opinion on the condition of the patient.

These clauses were adopted unanimously by the Division.

Representative on Entertainment Committee.—Dr. J. R. Fuller was elected as Representative of the Division to act on the Metropolitan Branch Entertainment Committee. The meeting then terminated.

Westminster Division.

A meeting of the Division was held at 20, Hanover Square, on Thursday, January 18th, at 8.30 p.m., Mr. J. Bland-Sutton in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Hospital Abuse.—A communication from the Hampstead Division was read drawing the attention of the members to Dr. Ford Anderson's paper on Hospital Abuse, which was published in the Supplement to the British Medical Journal of June 3rd, 1905, and asking for an opinion on the four resolutions passed by the Hampstead Division at the meeting at which this paper was read. It was decided to postpone the consideration of this subject to a future meeting.

Lupus Street Dispensary.—A communication from the Medical Secretary of the Association *re* a complaint received about the Lupus Street Dispensary and a late medical officer of that institution was read. It was decided to postpone this till further particulars had been obtained.

Proposed Conjoint Meeting.—A communication was read from the Wandsworth Division, asking this Division to co-operate for a meeting to be held on Thursday, April 19th, at 3 p.m., at the Battersea Town Hall. It was decided to accept the invitation.

Annual Representative Meeting.—Dr. Ewart then presented his report on the Representative Meeting held last year at Leicester, pointing out the chief points of interest and explaining the way he voted on the several motions. The Chairman proposed a hearty vote of thanks to Dr. Ewart. This was carried by acclamation.

The Association and the London General Practitioner.—Mr. J. Smith Whitaker addressed the meeting at some length on the Association and the London general practitioner. The Chairman afterwards proposed a hearty vote of thanks to Mr. Smith Whitaker for his able and interesting address. This was carried by acclamation. A short discussion then took place during which Dr. Forbes Ross said he failed to see any hospital abuse. Dr. Bruce Porter thought hospital tickets should be given to the medical profession and not to the laity to distribute. Dr. Haslip sometimes thought the Association attempted too much, and that they should pass one Bill—such as the Medical Acts Amendment Bill—at a time. Dr. Donald Baynes severely criticized the action of Guy's Hospital in accepting £6 from rich people for a course of electrical treatment. Dr. McCann suggested there should be a mass meeting of the profession to protest against hospital abuse. Dr. Walter Smith complained of the action of the New Hampstead Hospital in opening an out-patient department, which he considered quite unnecessary.

Dr. Haslip drew the attention of the meeting to the fact of members of the resident staff of Charing Cross Hospital having left the institution to inspect dead bodies in the vicinity, and he moved that:

> In the opinion of this Division it is not the duty of the resident hospital staff to leave the institution to inspect dead bodies.

This was seconded by Dr. Dauber and carried. The Honorary Secretary was instructed to write to the Secretary of Charing Cross Hospital, and to draw his attention to the reported facts and to inquire if this were in accordance with the hospital rules and regulations.

Representative on Entertainment Committee.—Dr. McCANN was elected as representative to act on the Metropolitan Branch Entertainment Committee.

It now being close on the hour of 11, it was decided to postpone the consideration of the remaining subjects for a future meeting.

QUEENSLAND BRANCH.

THE annual meeting of this Branch was held on December 1st, 1905, and was adjourned in token of respect for the memory of the late Honorary Secretary, Dr. David Wield.

Resolution.—A resolution expressive of the sympathy and sorrow of the Branch was passed at the meeting held on December 1st, 1905, the feelings of every one present at the meeting being that the late Dr. Wield would be missed greatly by every one.

Election of Officers.—The adjourned meeting was held on December 15th, 1905, when the following officers were elected for 1906: *President:* Dr. Turner. *Vice-Presidents:* Drs. Robertson and Love. *Treasurer:* Dr. Carvosso. *Curator:* Dr. Hawkes. *Council:* Drs. Halford, F. Macdonald, L'Estrange, Whishaw. *Honorary Secretary:* Dr. Brockway.

SOUTH-WESTERN BRANCH.

A MEETING of this Branch was held at the Royal Devon and Exeter Hospital on January 10th, the PRESIDENT (Mr. G. Jackson, F.R.C.S.), in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Vote of Condolence.—The PRESIDENT proposed a vote of condolence with Dr. Davy (Vice-President) in the great affliction sustained by him in the death of his wife, and also that the sympathy of members present be extended to him in the serious accident which had subsequently befallen him.

☞ To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.

Association Notices.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—The next meeting of this Division will be held at the Coventry and Warwickshire Hospital on Tuesday, February 6th, at 8.30 p.m. Agenda: (1) Dr. Phillips will show some clinical cases. (2) Specimen: Aortic Stenosis: Dr. Fenton. (3) Dr. Webster will move that the resolution of June 6th last (that in future no member of the profession in the area of the Division shall apply for the medical officership of a Friendly Society) be rescinded. (4) Dr. H. Brown will move: "That the resolution of March 7th last relating to the minimum fee for Friendly Societies be put in force not later than March 25th, 1906." (5) Dr. Snell will read a note on the operation of the Midwives Act in Coventry in 1905. (6) Report of the Foleshill and Bedworth Committee on the minimum fee desirable in their district for midwifery cases.—E. H. SNELL, Honorary Secretary.

EDINBURGH BRANCH.—The annual clinical and pathological meeting of this Branch will be held in the Royal Infirmary on Friday, February 16th. The museum will be open from 11 a.m. onwards. Arrangements are being made for short cliniques and demonstrations by members of the staff in the forenoon. The demonstration of cases will take place at 4 p.m. Members who have patients, specimens, etc., for exhibition are requested to communicate with one of the Secretaries not later than February 7th. Members of the other Scottish Branches are invited to take part in the meeting and to show cases and specimens. The annual dinner will be held in the Royal British Hotel, Princes Street, at 6.30 p.m., Dr. Allan Jamieson, President, in the chair. Morning dress. Dinner ticket 5s.—NORMAN WALKER, 7, Manor Place, and A. LOGAN TURNER, 27, Walker Street, Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH: LEIGH DIVISION.—A meeting of the Scientific Section will be held iu the Co-operative Rooms, Ellesmere Street, Leigh, on Thursday, February 8th, at 3.30 p.m.—J. CLAY BECKITT, Honorary Secretary, The Lindens, Walmesley Road, Leigh, Lancashire.

LEINSTER BRANCH.—The annual meeting of the Leinster Branch will be held in the Royal College of Physicians, Kildare Street, Dublin, on Saturday, February 3rd, at 4.30 p.m.—ARTHUR H. WHITE, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: ST. PANCRAS AND ISLINGTON DIVISION.—The next meeting will be held at the North-West London Hospital, Kentish Town Road, N.W., on Friday, February 23rd, at 4 p.m., when Dr. Knowsley Sibley will read a paper on the Treatment of Chronic Constipation.—WM. WYNN WESTCOTT, Honorary Secretary.

SHROPSHIRE AND MID-WALES BRANCH: CLINICAL AND PATHOLOGICAL SECTION.—The next meeting of this Section will be held 5 p.m. on Tuesday, February 6th, at the Salop Infirmary.—HAROLD H. B. MACLEOD, LEONARD J. GODSON, Honorary Secretaries, Clive House, Shrewsbury.

SOUTH-EASTERN BRANCH: DOVER DIVISION.—The next meeting will be held at the Grand Hotel, Dover, on Wednesday, February 14th, at 8 p.m., when Dr. Guy Bellingham Smith, Assistant Obstetric Physician, Guy's Hospital, has kindly consented to read a paper. Particulars later.—F. A. OSBORN, Honorary Local Secretary, Ennismore House, Dover.

SOUTH-EASTERN BRANCH: NORWOOD DIVISION.—The next clinical meeting of the Division will be held at the Seamen's Hospital (Dreadnought), Greenwich, on Thursday, February 15th, Dr. Guthrie Rankin, M.D., M.R.C.P., in the chair. The hospital is five minutes' walk from Greenwich stations, both L.C. and Dover Railway and S.E. Railway. It can also be reached by electric tram from New Cross. The staff have kindly promised to show cases and provide tea. The hospital will be open to inspection.—H. J. PRANGLEY, Honorary Secretary; A. W. SOPER, Assistant Honorary Secretary.

CENTRAL MIDWIVES BOARD.

A MEETING of the Central Midwives Board was held on January 25th, at 6, Suffolk Street, Pall Mall, with Dr. F. H. CHAMPNEYS in the chair.

Proposed Suggestions for the Guidance of the Medical Advisers of Local Supervising Authorities.

The suggestions made by Mr. Ward Cousins and published in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL of December 23rd, 1905, p. 361, were submitted to the consideration of the Board.

Mr. WARD COUSINS pointed out that the successful working of the Midwives Act depended on the co-operation of the local supervising authorities. He knew that the medical officers concerned would be glad to receive suggestions of the kind he proposed, and the Board had already passed certain suggestions for the consideration of local supervising authorities on a previous occasion.

After some discussion it was arranged that the suggestions proposed by Mr. Ward Cousins should be referred to Mr. Fordham, the representative of the Association of County Councils, in order to ascertain whether, in his opinion, they would be acceptable and helpful to the authorities interested in the matter.

The Board's Examinations.

A letter from Dr. Fothergill, on behalf of the Examiners of the Manchester Centre, conveying certain suggestions as to the examination system of the Board was considered; it was decided that a reply should be sent stating that the Board saw no reason for making any alteration.

A letter was read from the Privy Council transmitting a copy of a resolution passed by the guardians of the Lutterworth Union, suggesting the reduction from 20 to 7 of the number of cases qualifying a candidate to enter for the Board's examination. The Board directed that a reply be sent to the Privy Council intimating that the Board did not approve of the suggested reduction.

Certificate of having Attended a Course of Instruction.

A letter was received from Dr. A. J. Wallace asking the Board's opinion as to his right, under certain circumstances, to refuse to sign the certificate of instruction required by the regulations. After some consideration it was held that the matter was one that did not come under the Board's jurisdiction.

Exemptions from the Rules Framed under the Midwives Act.—Rule E. 21, framed under the Midwives Act, provides that nothing in Section E, regulating supervising and restricting the practice of midwives, shall apply to certified midwives exercising their calling in hospitals, workhouses, or Poor-law infirmaries under the supervision of a duly-appointed medical officer. Dr. Eustace Hill, County Medical Officer for Durham, wrote to the Board concerning the extent of the exemption conferred by this rule. The Board directed the Secretary to reply, referring Dr. Hill to the Midwives Act.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

INSPECTOR-GENERAL R. W. COPPINGER, M.D., is placed on the retired list at his own request, January 25th. He entered the service as Surgeon, November 12th, 1870; became Staff Surgeon, November 3rd, 1876; Fleet-Surgeon, February 22nd, 1885; Deputy Inspector-General, May 20th, 1896; and Inspector-General, March 13th, 1901. Whilst Surgeon, Dr. Coppinger served in the Arctic Expedition in 1875-6, for which he was promoted and received the Arctic medal. He is the author of the *Cruise of the "Alert" in Patagonian and Polynesian Waters, 1885.*

The following appointments have been made at the Admiralty: FREDERICK W. STERICKER, M.B., Fleet-Surgeon, to the *Dryad*, for Navigating School, January 30th; LESLIE C. R. ROBINSON, M.B., Surgeon, to the *Foresight*, January 25th; GEORGE O. M. DICKINSON, M.B., Surgeon, to the *Forward* (lent), January 25th; JOHN K. ROBINSON, Staff Surgeon, to the *Niobe*, January 29th; PATRICK W. MACVEAN, Surgeon, to the *Skirmisher* (lent), January 29th; MAURICE W. HAYDON, Surgeon, to the *Adventure* (lent), January 29th; RICHARD S. OSBORNE, Surgeon, to the *President*, for three months' course of hospital study, February 6th; ARTHUR LA T. DARLEY, Surgeon, to the *Ganges*, for the *Boscawen II.*, February 6th; JOHN STODDART, Surgeon, to the *Pembroke*, January 24th.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL J. W. H. FLANAGAN is placed on retired pay, January 20th. He was appointed Surgeon, August 4th, 1878; Surgeon-Major, August 4th, 1890, and Lieutenant-Colonel, August 4th, 1898. He was with the Southern Afghanistan Field Force in the Afghan war in 1879-80, receiving the medal, and with the Zhob Valley Expedition in 1884.

INDIAN MEDICAL SERVICE.

THE following gentlemen were successful at the examination for admission to the Indian Medical Service held on January 23rd and the four following days:

	Marks.		Marks.
H. W. Pierpoint, F.R.C.S. ...	3.761	R. H. Lee, M.B.	3,217
W. D. H. Stevenson, M.B. ...	3,548	G. E. Malcomson, M.D. ...	3,178
H. P. Cook, M.B.	3,510	F. P. Wernicke, M.B.... ...	3,111
P. S. Mills, M.B.	3,501	P. Heffernan, M.B.	3,085
K. G. Gharpurey	3,492	W. A. Mearns, M.B.	3,085
W. J. Fraser, M.B.	3,451	D. M. C. Church, M.B. ...	3,081
D. C. V. FitzGerald, M.B. ...	3,353	S. T. Crump	3,074
C. R. O'Brien, M.B.	3,318	H. S. Hutchison, M.B. ...	3,055
R. S. Kennedy, M.B.	3,252	R. G. G. Croly, M.B.	3,034
C. A. Godson	3,249	W. B. A. K. Cullen, M.B. ...	2,988
B. Higham	3,248	J. McG. Skinner, M.B. ...	2,978
N. H. Hume, M.B.	3,222		

Forty-four candidates (twenty-nine of whom had University degrees) competed for the twenty-three vacancies.

ARMY MEDICAL RESERVE.

SURGEON-LIEUTENANT A. E. L. WEAR, M.D., to be Surgeon-Captain, January 16th.

HONORARY SURGEON TO THE KING.

SURGEON-GENERAL L. D. SPENCER, M.D., C.B. (retired), Indian Medical Service, is appointed Honorary Surgeon to the King, vice Surgeon-General J. M. Cunningham, M.D., C.S.I., deceased, January 27th.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,891 births and 4,834 deaths were registered during the week ending Saturday last, January 27th. The annual rate of mortality in these towns, which had been 18.3, 16.7, and 15.8 per 1,000 in the three preceding weeks, rose again to 15.9 per 1,000 last week. The rates in the several towns ranged from 8.1 in Smethwick, 9.2 in West Ham, 10.0 in Northampton, 10.8 in Bournemouth, 11.4 in Hornsey and in Aston Manor, and 11.5 in King's Norton, to 20 8 in Stockton-on-Tees, 21.1 in Liverpool, 21.5 in Stockport, 21.6 in Sunderland, 22.2 in Tynemouth, 23.8 in Great Yarmouth, and 24.6 in Preston. In London the death-rate was 15 3 per 1,000, while it averaged 16.2 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.3 per 1,000 in the seventy-six towns; in London this death-rate was equal to 1.5 per 1,000, while among the seventy-five other large towns it ranged upwards to 2.1 in Wolverhampton, in Stockport, and in West Hartlepool, 2.3 in West Bromwich, 2.5 in Leicester and in Burnley, 2.6 in Leeds, 3.2 in Aston Manor, and 3.6 in Preston. Measles caused a death-rate of 1 3 in Aston Manor, 1.6 in Wolverhampton and in Leeds, and 2 7 in Preston; scarlet fever of 1.4 in West Hartlepool; diphtheria of 1.2 in Hornsey and 1.4 in Merthyr Tydfil; whooping-cough of 1.2 in Birmingham, 1.5 in Burnley, 1.8 in Leicester, 1.9 in Aston Manor, and 2.1 in Stockport; and "fever" of 1.5 in West Bromwich. No fatal case of small-pox was registered either in London or in any of the large provincial towns, and no small-pox patients were under treatment last week in the Metropolitan Asylums Hospitals. The number of scarlet fever patients in these hospitals, and in the London Fever Hospital, which had been 3,299, 3,062, and 3,066 at the end of the three preceding weeks, had declined again to 2,983 at the end of last week; 322 new cases were admitted during the week, against 291, 257, and 328 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, January 27th, 943 births and 670 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 19.8, 17.8, and 18.2 per 1,000 in the three preceding weeks, further rose to 19.6 per 1,000 last week, and was 3.7 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 14.6 in Aberdeen and 17.0 in Leith to 21.1 in Perth and 29.7 in Dundee. The death-rate from the principal infectious diseases averaged 2.0 per 1,000 in these towns, the highest rates being recorded in Glasgow and Dundee. The 296 deaths registered in Glasgow included 25 which were referred to measles, 8 to diphtheria, 4 to whooping-cough, 2 to "fever," and 7 to diarrhoea. Two fatal cases of diphtheria were recorded in Edinburgh: 3 of measles, 2 of diphtheria, 2 of whooping-cough, and 2 of diarrhoea in Dundee; and 2 of measles in Paisley.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, January 27th, 554 births and 378 deaths were registered in six of the principal Irish towns, as against 471 births and 342 deaths in the preceding period. The annual death-rate in these towns, which had been 15.3, 21.0, and 17.7 per 1,000 in the three preceding weeks, rose to 18.8 per 1,000 in the week under notice, this figure being 2.9 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 13.6 in Waterford and 16.4 in Limerick, to 21.2 in Dublin and Cork and 23.3 in Belfast. The zymotic death-rate in the same six Irish towns averaged 0.9 per 1,000, or 0.4 per 1,000 lower than during the preceding period, the highest figure—2 1—being recorded in Cork, while no deaths under this heading were registered in Londonderry and Waterford.

Vacancies and Appointments.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

BRADFORD POOR-LAW UNION. — **Resident Assistant Medical Officer for the Hospital and Workhouse. Salary, £100 per** annum.

BRISTOL ROYAL INFIRMARY. — (1) Honorary Physician. (2) Honorary Surgeon, and, if necessary, an Honorary Assistant Physician and an Honorary Assistant Surgeon. (3) Resident Obstetric Assistant. (4) Junior House Surgeon. (5) Resident Casualty Officer. **Salary of £50 per annum attached to (4) and (5)** and £75 per annum to (3).

CANCER HOSPITAL, Fulham Road, S.W.—**Senior House-Surgeon.** Salary at the rate of £80 per annum.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—(1) House-Physician. (2) House-Surgeon. **Salary, £90 per annum each.**

CENTRAL MIDWIVES BOARD.—Examiner's remuneration, 7s. 6d. for each candidate examined, with minimum fee of £2 2s. for each examination and travelling expenses.

CHELTENHAM GENERAL HOSPITAL.—**Surgeon in charge of the** Branch Dispensary. **Salary, £90 per annum.** Junior House Surgeon. Salary, £60 per annum.

DUBLIN: RICHMOND DISTRICT ASYLUM.—Two Clinical Assistants. Salary, £60 per annum.

HOSPITAL FOR SICK CHILDREN, **Great Ormond Street, W.C.**—(1) Assistant Casualty Medical Officer. (2) House-Physician. **Appointments for six months. Salary, £20, and £2 10s. washing** allowance each.

LEEDS: GENERAL INFIRMARY.—**Resident Medical Officer. Salary,** £100 per annum. Clinical Pathologist. Salary, £200 per annum.

LEICESTER INFIRMARY.—**Assistant House Physician. Salary, at** the rate of £50 per annum.

LINCOLN COUNTY HOSPITAL.—Senior Male House Surgeon. Salary, £100 per annum.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST.—Honorary Surgeon.

MARGATE ROYAL SEA-BATHING HOSPITAL.—Resident Surgeon, junior for six months and senior for six months. Salary, £80 and £120 per annum respectively.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—Assistant Physician.

NEWCASTLE-ON-TYNE DISPENSARY.—Two Visiting Medical Assistants. Salary, £160 for first year and £180 afterwards.

OXFORD, RADCLIFFE INFIRMARY.—(1) House Physician. (2) Junior House Surgeon. Salary at the rate of £80 and £40 per annum respectively.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Assistant Medical Officer. Salary at the rate of £50 per annum.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Anaesthetist and Curator of Museum.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—Clinical Assistants.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Assistant House Surgeon. Honorarium at the rate of £75 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacancies in the office of Certifying Factory Surgeons: Dunkinfield, co. Chester; Tuam, co. Galway; Foxford, co. Mayo; Oxford, co. Oxford.

APPOINTMENTS.

Bates, W. R., L.R.C.P. and S.I., District Medical Officer of the Skipton Union.

Brodie, D., M.B., B.S.Durh., District Medical Officer of the Tetbury Union.

Brough, D., M.B., C.M., District and Workhouse Medical Officer of the Battle Union.

Brown, W. Langdon, M.D.Cantab., M.R.C.P., Physician to the Metropolitan Hospital.

Garratt, G. C., M.D., B.C.Cantab., Certifying Factory Surgeon for the Singleton District, co. Sussex.

Gibson, T. H., M.D.Edin., District and Workhouse Medical Officer of the East Ward Union.

Herbert, William, M.R.C.S., L.R.C.P., Medical Officer and Public Vaccinator to the Third District of the Aylsham Union, vice E. Kennington, M.R.C.S., L.R.C.P.

Ivens, Frances, M.B., M.S.Lond., Surgical Registrar to the Royal Free Hospital.

Lemin, Oscar E., L.S.A., Clinical Assistant to the Chelsea Hospital for Women.

Macfarlane, W. D., M.B., Clinical Assistant to the Chelsea Hospital for Women.

Miller, W., M.B., Ch.B., District Medical Officer of the Basford Union.

Montford. I., L.R.C.P., M.R.C.S., District and Workhouse Medical Officer of the Upton-on-Severn Union.

Morrison, J. W. H., M.B., B.S.Durh., District Medical Officer of the Gateshead Union.

Ramsden, William Bates, B.Sc., M.B., Ch.B.Vic., Lecturer in Sanitary Chemistry in the Public Health Department of the Victoria University of Manchester.

Routledge, R. L., M.B., B.S.Durh., District Medical Officer of the Hexham Union.

Selby, E. W., M.D.Lond., District Medical Officer of the Doncaster Union.

Telford, E. D., B.C.Cantab., F.R.C.S., Honorary Assistant Surgeon, Salford Royal Hospital, vice J. Howson Ray, M.B.Vict., F.R.C.S., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

MARRIAGE.

Frankling—Ashmall.—On Tuesday, January 30th, at St. Paul's, Portman Square, by the Rev. F. J. Ashmall, Rector of Hickling, Notts, assisted by the Rev. W. Moore, Curate of St. Paul's, Portman Square, Herbert Frankling, of Harrogate, to Florrence, third daughter of the late Joseph Ashmall, of Chorley, Lichfield.

DEATHS.

Fothergill.—Smart Atkinson Fothergill, M.R.C.S., L.R.C.P.Ed., Haswell, Sunderland, co. Durham, died on January 30th, 1906, aged 68 years.

James.—On January 15th, 1906, at Little Billing Rectory, near Northampton, the Rev. David James, M.A.Cambridge, Rector, interred January 19th, 1906, at Little Billing Churchyard. He was the eldest son of the late Dr. Thomas James, of Aberystwyth, Cardiganshire, and brother of Dr. J. Brindley James.

Weller.—On January 25th, at his residence, Mussell Lodge, Heathfield Road, South Croydon, George Weller, M.R.C.S.Eng., L.S.A. (late of Wanstead, Essex).

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 9 p.m.—Lettsomian Lectures on Some Points in the Surgery of the Brain and its Membranes, by Charles A. Ballance, M.S., F.R.C.S. First Lecture: Reminiscences of Dr. Lettsom and Some Points in the Surgery of Meningitis.

Otological Society of the United Kingdom, 11, Chandos Street, 4.30 p.m.—Cases, etc., will be shown by Messrs. Macleod Yearsley, A. A. Gray, L. A. Lawrence, Milligan, Dundas Grant, Whitehead.

TUESDAY.

Pathological Society of London, 5 p.m.—Laboratory meeting at the Lister Institute, Chelsea Gardens. Dr. A. Macfadyen: The Bacteriolytic and Agglutinative Properties of the Serum of Goats inoculated with Typhoid Cell Juice. Dr. Bainbridge and Dr. Leathes: The Fatty Change in the Liver produced by Ligature of the Hepatic Artery. Dr. Dudgeon and Dr. Leathes: The Fatty Change in the Heart caused by Diphtheria Toxin. Dr. MacConkey: Immunization between *B. pestis* and *B. pseudo-tuberculosis rodentium* Dr. Ledingham: Natural Occurrence of Weil's Disease in the Guinea-pig. Mr. Moon: *Sarcocystis muris.* Demonstrations will, in addition, be given by Dr. C. J. Martin, F.R.S., Dr. Harden, Dr. Barratt, Dr. Marshall, and Dr. Green.

WEDNESDAY.

Obstetrical Society of London, 20, Hanover Square, W., 8 p.m.—Annual meeting. A short communication will be read by Dr. Herbert R. Spencer on A Second Case of Ovariotomy during Labour. Specimens will be shown by Dr. Horrocks, Mr. Targett, and Dr. Handfield-Jones. The President (Dr. Dakin) will deliver the annual address.

University College Hospital, Gower Street, W.C., 4 p.m.—Clinical lecture: Surgery of the Spinal Cord.

THURSDAY.

British Gynaecological Society, 20, Hanover Square, W., 8 p.m.—Dr. Jellett: (1) Advanced Carcinoma of Both Ovaries. (2) Double Pyosalpinx associated with the Presence of a Four Months Extrauterine Fetus. Dr. Bedford Fenwick: Two Cases of Fibroid Uterus complicated by Pregnancy. Dr. H. Macnaughton Jones: A Note on Cysts of the Vagina. Papers: Dr. Jellett: Notes on Two Rare Conditions met with in the Pelvis during Operation. The President's Inaugural Address.

Harveian Society, Stafford Rooms, Titchborne Street, Edgware Road, 8 30 p m.—Papers: Mr. Campbell Williams: The Ethics of the Profession in Relation to Syphilis and Gonorrhoea. Dr. J. J. Perkins: Tuberculous Pleurisy—Its Treatment and Diagnosis by New Methods.

Ophthalmological Society of the United Kingdom, 11, Chandos Street, Cavendish Square, W.—Clinical evening. Cases will be shown at 8 p.m. by Messrs. Arnold Lawson, G. Coats, Stanford Morton, and others. The chair will be taken at 9 p.m.

Samaritan Free Hospital for Women, Marylebone Road, 3 p.m.—Cancer of the Uterus.

FRIDAY.

Clinical Society of London, 20, Hanover Square, W., 8.30 p.m.—The following papers will be read: Mr. B. G. A. Moynihan: A Review of 59 Cases of Cancer of the Stomach, treated by Operation. Mr. James Sherren: Three Cases of Intestinal Obstruction. Drs. Garrod and Langmead: Associated Malformations.

POST-GRADUATE COURSES AND LECTURES.

Charing Cross Hospital.—Thursday, 4 p.m., Surgical Cases.

Hospital for Sick Children, Great Ormond Street, W.C.—Thursday, 4 p m, Pyrexia in Children.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin: Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Throat. Lectures at 5.15 p.m will be given as follows: Monday, The Therapeutics of some Common Ailments; Tuesday, The Dangerous Sequelae of Suppuration in the Middle Ear (Diagnosis); Wednesday, The Tropical Ailments commonly met with in Britain; Thursday, Abortion and Premature Labour.

Mount Vernon Hospital for Consumption and Diseases of the Chest, Central Out-patient Department, 7, Fitzroy Square, W.—Thursday, 5 p.m., Spasmodic Asthma and its Treatment.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Tuesday, 3 30 p m., Epilepsy; Friday, 3 30 p.m, Syphilis of Nervous System.

North-East London Post-graduate College, Tottenham Hospital, N.—The following are the arrangements for next week: Tuesday, 3.30 p.m, Demonstration on Delusional Insanity at Colney Hatch Asylum, New Southgate, N.; Thursday, 4 30 p.m. Clinical Lecture on the Diagnostic Value of Referred Pain.

Westminster Hospital Medical School, Caxton Street, S.W., Thursday, 5 p.m.—Applied Physiology.

West London Hospital Post-graduate College, Hammersmith Road, W.—The following arrangements have been made for next week: Monday, 5 p.m., Mitral Stenosis; Tuesday, 3 p.m., Types of Mental Diseases at the London County Asylum, Claybury, Woodford Bridge, Essex; Wednesday, 5 p.m., Dental Diseases in Relation to General Diseases; Thursday, 5 p m., Plastic Surgery; Friday, 5 p.m., Cases of Skin Disease.

BOOKS, Etc., RECEIVED.

Last Words on Evolution. By E. Haeckel. Translated from 2nd edition by J. McCabe. London: A. Owen and Co. 1906. 6s.

An Atlas of Illustrations of Clinical Medicine, Surgery, and Pathology. Compiled for the New Sydenham Society. Fasciculus xxiv bis, or xvii of new series. Radiographs of Fractures and Dislocations. London: H. K. Lewis. 1905. 10s 6d.

Saint Thomas's Hospital Reports. New series. Edited by Dr. H. P. Hawkins and Mr. W. H. Battle. Vol. xxxiii. London: J. and A. Churchill. 1905. 8s. 6d.

Physiologie und Pathologie des Mineralstoffwechsels. Von Dr. A. Albu und Dr. C. Neuberg. Berlin: J. Springer. 1906. M. 7.

The Relations of Diseases of the Skin to Internal Disorders. By L. D. Bulkley, A.M., M.D. New York and London: Rebman, Limited. 1906. 7s.

Around the World viâ India; a Medical Tour. By N. Senn, M.D., Ph.D., LL.D., C.M. Chicago: American Medical Association Press. 1905.

Lectures upon the Nursing of Infectious Diseases. By F. J. Woollacott, M.A., M.D., B.Ch.Oxon., D.P.H. London: The Scientific Press. 2s. 6d.

Spemanns Historischer Medicinal-Kalender. Bearbeitet von Professor Dr. J. Pagel and Professor Dr. J. Schwalbe. Stuttgart: W. Spemann. 1906. M. 2.

North London or University College Hospital. Reports of Surgical Registrar, Resident Medical Officer, and Pathologist for 1902. London: H. K. Lewis

Formulaire des Médicaments Nouveaux pour 1906. Par H. Bocquillon-Limousin. Paris: J. B. Baillière et Fils. 1906. Fr. 3.

Nouveau Traité de Médecine et de Thérapeutique. Publié sous la direction de MM. P. Brouardel et A. Gilbert. XV. Maladies de la Bouche du Pharynx et de l'Oesophage. Par G. Roque et L. Galliard. Paris: J. P. Baillière et Fils. 1906. Fr. 5.

Oliver Wendell Holmes and the Contagiousness of Puerperal Fever. An address by C. J. Cullingworth, M.D., F.R.C.P. London: H. J. Glaisher. 1906.

The Cambridge Yearbook and Directory. London: Swan Sonnenschein and Co., Limited. 1906. 5s.

Home Gymnastics for Young and Old. By T. J. Hartelius, M.D. Translated from the Swedish by C. Löfving. Fifth edition, revised by A. A. Beale, M.B. London: Sir J. Pitman and Sons, Limited. 1906. 1s 6d.

The Dissociation of Personality. By M. Prince, M.D. London: Longmans Green and Co. 1906. 10s. 6d.

Les Raies de Feu. L'Education du Tuberculeux. Par M. le Dr. C. de Lagrave. Paris: A. Maloine. 1905. Fr. 0.50.

L'Albuminurie Goutteuse. Par le Dr. F. de Grandmaison. Paris: A. Maloine. 1906. Fr. 4.

The British Homoeopathic Congress, 1905. London: E. Gould and Son, Limited. 1905.

Annales Médicales et Bulletin de Statistique de l'Hôpital d'Enfants Hamidié. Publié sous la direction du Médecin en Chef. VIme Année. Constantinople: Imp. Osmanié. 1905.

The Physical Phenomena popularly classed under the Head of Spiritualism. By E. T. Bennett. London: T. C. and E. C. Jack. 1906. 1s.

Ethics. By C. W. Saleeby, M.D. London: T. C. and E. C. Jack. 1s.

Geschmack und Geruch. Von Dr. W. Sternberg. Berlin: J. Springer. 1903. M. 4

The Universal Kinship. By J. H. Moore. London: G. Bell and Sons. 1906. 4s. 6d.

Patent Foods and Patent Medicines: Two Lectures by R. Hutchison, M.D., F.R.C.P. Second edition. London: J. Bale, Sons, and Danielsson, Limited. 1906. 1s.

Mrs. Beeton's Book of Household Management. New edition. London: Ward, Lock, and Co., Limited. 1906. 7s. 6d.

*** In forwarding books the publishers are requested to state the selling price.

BRITISH MEDICAL ASSOCIATION LIBRARY.

List of Books, etc., Presented.

- Presented by the AUTHORS:
  - Ashby and Wright. The Diseases of Children. 5th Ed. 1905.
  - Bain and Edgecombe. The Physiology and Therapeutics of the Harrogate Waters, Baths and Climate. 1905.
  - Davies, A. M. Handbook of Hygiene. 3rd Ed. 1905.
  - Lane, W. A. Cleft Palate and Hare Lip. 1905.
  - Lendon, A. A. Nodal Fever. 1905.
  - Mackay, D. M. Action of the External Muscles of the Eye and the Diagnosis of Ocular Paralysis. 1905.
  - Mackay, D. M. Breathing Exercises for Use after the Removal of Post-nasal Growths. 1905.
  - Nabarro. The Laws of Health. 1905.
  - Osler, Wm. Principles and Practice of Medicine. 6th Ed. 1905.
  - Parsons and Snowball, Trans. of Boldt on Trachoma. 1905.
  - Reid, A. Principles of Heredity. 1905.
  - Roberts, F. T. Practice of Medicine. 10th Ed. 2 Vols. 1905.
  - Sandwith, F. M. Medical Diseases of Egypt. Vol. 1. 1905.
  - Savill, T. D. Clinical Medicine. 2 Vols. 1903-5.
  - Shaw (H. Batty). Organotherapy. 1905.
  - Stevenson, Surgeon-General. Report on the Surgical Cases Noted in the South African War. 1905.
  - Walters. Sanatoria for Consumptives. 3rd Ed. 1905.
- Presented by Messrs. BALE, SONS, AND DANIELSSON:
  - Braun's Animal Parasites. Edited by Sambon and Theobald. 1905.
- Presented by Dr. L. BELLOS, London:
  - Greek Translation of Dr. Galabin. Diseases of Women. 1895.
- Presented by Dr. F. J. BUCKELL, Canonbury:
  - Clemow. Geography of Disease. 1903.
  - Hallopeter. Hay Fever. 1903.
  - Metchnikoff. Immunity (Binnie). 1905.
  - Wundt. Physiological Psychology. 1904.
- Presented by Messrs CASSELL AND CO.:
  - Bruce. Materia Medica. New edition. 1905.
- Presented by ALFRED COX, Esq., M.B.:
  - Rivington. Carmichael Prize. Essay on the Medical Profession. 1887.
- Presented by Dr. JAMES GALLOWAY:
  - American Dermatological Association Transactions. 1903-4.
  - Councilman and others. Studies on the Pathology and Etiology of Variola and Vaccinia. N.d.
  - Dubreuilh. Travaux de la Clinique de Dermatologie. Bordeaux, 1895-7.
  - Harvard Medical School. Report of Cancer Committee. 1902.
  - Rixford and Gilchrist. Reprints of Papers on Dermatology. N.d.
  - Transactions of the IV Congrès International de Dermatologie et de Syphiligraphie. 1900.
- Presented by WM. HAMMOND, Esq., M.R.C.S., Liskeard:
  - Blane, Sir W. Medical Logick. 1825.
  - Good. Study of Medicine. Five vols. 1825.
  - Lawrence, W. Lectures on Physiology. 1822.
  - Mackintosh. Principles of Pathology. 1836.
  - Pharmacopoeia Londinensis. 1836.
  - Quain, J. Elements of Anatomy. 1826.
  - Richerand. Elements of Physiology. 1824.
- Presented by MASSON ET CIE, Paris:
  - Carlsson. La Lutte contre la Tuberculose. 1905.
- Presented by the MEDICAL OFFICER TO THE LOCAL GOVERNMENT BOARD:
  - Dr. Bulstrode's Report on the Sanitary Administration of the Isle of Wight. 1905.
  - Dr. Farrar's Report on Enteric Fever at Basingstoke. 1905.
  - Dr. Manby's Report on the Sanitary Circumstances and Administration of the Barnard Castle and Startforth Districts. 1905.
- Presented by A. L. SAVORY, Esq., London:
  - Abel and Bloxam. Chemistry. 1858.
  - Aegineta, P. Sydenham Society. 1, 2, 3. 1844-8.
  - American Cyclopaedia of Medicine and Surgery. 1834.
  - Annesley. Sketches of the most prominent Diseases of India. 1825.
  - Aretaeus. Works. Sydenham Society. 1856.
  - Bell, J. Anatomy of the Human Body. 1, 2. 1797.
  - Bowman. On the Eye. 1849.
  - Braithwaite. Retrospect of the Medical Sciences. 10 vols.
  - Bushnan. Cholera and its Cures. 1850.
  - Chapman. Therapeutics. 2. 1834.
  - Continental and British Medical Review. 1837.
  - Coulson. Hip-joint.
  - Dobell. Practical and Scientific Medicine in Different Parts of the World. II. 1871.
  - Dublin Journal of Medical Science. 12 vols. odd. 1832-40.
  - Dupuytren. On the Bones. Sydenham Society.
  - Durlacher. Corns, Bunions, etc. 1845.
  - Edinburgh Medical and Physical Dictionary. 2. 1807.
  - Ferguson, W. Notes and Recollections of a Professional Life. 1846.
  - Feuchterleben. Medical Psychology. Sydenham Society.
  - Fyfe. Anatomy. 1, 3, 4. 1823.
  - Gazette of Health. 13. 1828.
  - Good. Study of Medicine. 5 vols.
  - Gray, F. Automatic Mechanism and Artificial Limbs. 1855.
  - Haden. Diseases of Children. 1827.
  - Hasse. Pathological Anatomy. Sydenham Society.
  - Hewson. Works of. Sydenham Society.
  - Holland. Medical Notes and Reflections. 2nd Ed. 1840.
  - Hood. Scarlet Fever. 1857.
  - Kölliker. Histology. Sydenham Society.
  - Liebig. Chemistry. 1843.
  - Liebig and Kopp. Reports on Chemistry and Allied Sciences. 1847-53.
  - London Medical and Surgical Journal. (Ryan.) Several vols. Vol. 1, 1835; 1836-7.
  - Louis. Researches on Phthisis. Sydenham Society.
  - Lugol. Iodine in Scrofulous Diseases. 1831.
  - Medical Annual. 1891.
  - Medical and Physical Journal. 25 vols., not even. 1799-1821.
  - Mohr and Redwood. Pharmacy. 1849.
  - Reece, Reece and Co. Monthly Gazette of Health. 1827-1832.
  - Nasmyth. Researches on the Teeth. 1849.
  - Oesterlin. Medical Logic. Sydenham Society.
  - Ottley. Surgical Diseases of Head and Neck. Sydenham Society. 1848.
  - Parnell, E. A. Chemical Analysis. 1845.
  - Pilcher. Structure and Diseases of the Ear. 1842.
  - Ranking. Abstract of the Medical Sciences. 14 vols., odd.
  - Rhazes. Small-pox and Measles. Sydenham Society.
  - Romberg. Nervous System. I, II. Sydenham Society.
  - Roose. Nerve Prostration. 1891.
  - Royle. Antiquity of Hindo Medicine. 1837.
  - Rymer. Diet and Regimen. 1878.
  - Schenk. Determination of Sex. 1898.
  - Schwann and Schleiden. Researches. Sydenham Society.
  - Sydenham's Works. 1, 2. Sydenham Society.
  - Sydenham Opera Omnia.
  - Thomas. Practice of Physic. 1821.
  - Thorne, W. B. The Schott Methods. 1895.
  - Unzer and Prochaska. Nervous System. Sydenham Society.
  - Velpeau. Diseases of the Breast. Sydenham Society.
  - Wedl. Pathological Histology. Sydenham Society.
  - Weekly Medico-Chirurgical and Philosophical Magazine. Vol. 1. 1823.
  - Williams, J. C. Diseases of the Heart. 1852.
- Presented by the SURGEON-GENERAL U.S. ARMY:
  - Index Catalogue to the Surgeon-General's Library, Washington. New Series. Vol. 10. 1905.
- Presented by Dr. DAWSON WILLIAMS:
  - Sprigge, S. Squire. Medicine and the Public. 1905.
- Presented by the EDITOR of the BRITISH MEDICAL JOURNAL:
  - Baginsky, A. Lehrbuch der Kinderkrankheiten. 8 aufl. 1905.
  - Bates, L. W. The Panama Canal. 1905.
  - British Journal of Children's Diseases. Vol. 1. 1904.
  - Dawson, W. E. The Ship Surgeon's Pocket Book. 1905.
  - Epsom College Register. 1855-1905.
  - Findley, P. Diagnosis of Diseases of Women. 2nd Ed. 1905.
  - Gibson. Nervous Affections of the Heart. 2nd Ed. 1905.

MEMBERS ELECTED DURING THE DECEMBER QUARTER.

BY THE COUNCIL ON JANUARY 17TH, 1906.

Harvey, David, M.B., Ch.B., Capt. R.A.M.C.
Irani, Mewan Sorab, L.R.C.P.and S.E., L.F.P.S.G., L.M.and S. Bombay, Lieut. I.M.S.
Kishore, Nand, M.B., Civil Assist. Surgeon, Husainabad Dispensary, Lucknow.
Kunhardt, John Conrad Gie, Capt. I.M.S., M.R.C.S., L.R.C.P.
Maneckshaw, Hormusji Framji, L.M.and S., Bombay University, Amritsar, Punjab
Ross, Hugh Campbell, Surgeon R.N., M.R.C.S L.R.C.P.
Whale, George Harold Lawson, Captain, I.M.S., B.A. M.B., B.Ch.Camb., M.R.C.S., L.R.C.P.Eng.

BY BRANCH COUNCILS.

Birmingham Branch.

Alton, E. A., Esq., 40, High Street, Stirchley, Birmingham
Chadwick, C. S., Esq., 141, Stratford Road Birmingham
Ellis, R. S., M.B., Bank House, Aston Cross, Birmingham
Huxley, J. C., M.D., 91, Harborne Road, Birmingham
Leeds, C. G. S., M.B., 235, Dudley Road, Birmingham
Moore, G. S., Esq., 26, Bristol Road Birmingham
Plant, H. W., Esq., 187, Wolverhampton Street, Dudley
Underwood, A. C., Esq., 10, College Road, Saltley
Wilks, M., M.B., Church House, Sparkhill
Wood, A. H., M.D., General Dispensary, Birmingham

Border Counties Branch.

Lockerbie, Dr., Annan, N.B.

Burmah Branch.

Browne, W. W., Capt., R.A.M.C., Station Hospital, Rangoon
Charan, Isa, L.R.C.P. and S.Edin., General Hospital, Rangoon
Hormasji, Jehangir, L.R.C.P. and S.Edin., General Hospital, Rangoon
Windsor, F. N., M.B., Capt., I.M.S., Rangoon

Cambridge and Huntingdon Branch.

Atkinson, H. W., M.B., Saffron Walden
Lawton, W., Esq., 26, Newmarket Road, Cambridge
Roper, George, Esq., 5, Regent Street, Cambridge

Cape of Good Hope, Eastern Province Branch.

Skinner, W. B., M.D., East London, Cape Colony

Cape of Good Hope, Western Province Branch

Coates, John, F.R.C.S., New Somerset Hospital, Capetown
MacLaren, J. P., M.B., Parkhurst, Capetown
Stanley, W., Esq., P.O. Box 1870, Johannesburg
Swift, E. W. D., M.B., Lunatic Asylum, Bloemfontein
Venniker, J. C., M.D., Broadlands, Oudtshoorn

Colombo (Ceylon) Branch.

Evarts, A. C., M.B., Namunukula, Ceylon

Dorset and West Hants Branch.

Anderson, M. C. B., Esq., Winfrith, Dorchester

Dundee Branch.

Dickson, W. A., M.B., University College, Dundee
Milne, F. M., M.B., Royal Infirmary, Dundee
essor, T. S., M.B., The Cottage, Glamis

Edinburgh Branch.

Cathles, J. W., M.B., 16, Mortonhall Road, Edinburgh
De Spiganovicz, A. J., M.B., 1, Seton Place, Edinburgh
Hunter, John, M.B., 97, High Street, Musselburgh
Hutchison, Alice Marion, M.D., 14, Bruntsfield Gardens, Edinburgh
Somerville, J. W., M.B., 12, Abbotsford Road, Galashiels

Gloucestershire Branch.

Campbell, D. R., M.D., Cinderford
ess, J., M.B., Gloucester
Johnstone, T. R. St., Esq., Avoca, Cheltenham
ayne, W. S., Esq., Park End
Powell, H. F., Esq., Seagrave Lodge, Cheltenham

Halifax and Nova Scotia Branch.

Campbell, D. G. J., M.D., 130, Gottingen Street, Halifax
Edgar, W. H., M.D., 231, Pleasant Street, Halifax
[illegible], Robert, M.D., Nova Scotia Hospital, Dartmouth
essel, J. F., M.D., 76, Pleasant Street, Halifax
MacAnlay, M.A., M.D., 317, Brunswick Street, Halifax

Lancashire and Cheshire Branch.

Benington, P., M.B., Highfield House, Weaste
Bird, A. E., Esq., Trafalgar House, Burnley
ost ne, W. C., Esq., 235, Boundary St., Kirkdale, Liverpool
Higson, T., Esq., 87, Preston New Road, Blackburn
Hughes, C. A., M.B., Kenilworth, Dingle, Liverpool
Hutchinson, [illegible], M.B., Camelot, Egerton Park, Rock Ferry
Marshall, F. E., M.B., 41, Greenbank Road, Liverpool
Medwin, F. M. G., Esq., 22, High St., Wavertree, Liverpool
Munro, G., M.B., Greenbank, Bolton
Owen, John, M.B., 13, Rodney Street, Liverpool
Renshaw, G., M.B., Sale Bridge House, Sale
Roaf, H. E., Esq., 14, Upper Parliament Street, Liverpool
Telford, E. D., F.R.C.S., 14, Lansdowne Rd., West Didsubry
Waters, H., M.B., 19[illegible], Stanley Road, Bootle

Leinster Branch.

Addis, Thomas, M.B., Dublin
Denham, J. Knox, Esq., 67, Lower Baggot Street, Dublin
Gibbon, T. H., M.D., Lieut., R.A.M.C., Dublin
Harvey, W. G., M.B., 62, Lower Baggot Street, Dublin
Holmes, A. N., M.B., Rotunda Hospital, Dublin
Maunsell, O. H., Esq., 19, Northumberland Avenue, Kingstown

Malaya Branch.

Campbell, R. A., Esq., Municipal Health Office, Singapore
Cross, John, M.B., Singapore
Thornley, R. L., M.B., Kuala Lumpor
Tuck, G. L., M.D., Penang

Malta and Mediterranean Branch.

Ross, E. H., Esq., Public Health Department, Port Said
Scolaro, F., M.D., 2[illegible]9, Sda due Porte, Senglea, Malta
Zahra, M., M.D., 4[illegible], Sda S. Ursola, Valetta

Melbourne and Victoria Branch.

Courtney, C. H., Esq., Learmonth, Victoria
Phillpott, J. W., M.B., Hospital for Insane, Beechworth, Victoria

Metropolitan Counties Branch.

Alexander, J. F., M.B., Glendale, Cassio Road, Watford
Archer, T., M.D., 4, Huguenot Place, Wandsworth Common, S.W.
Bent, S. C. H., M.D., 99, Ravendlin Road, Balham, S.W.
Bibby, John, Esq., Woodthorpe, Atkins Road, Clapham Park, S.W.
Biggs, G. N., M.B., 101, Northcote Road, Battersea, S.W.
Carmichael, H., M.B., The Elms, East Hill, Wandsworth, S.W.
Drew, E. H., Esq., 167, Balham High Road, S.W.
Duffus, Henry, M.B., 53, Thurleigh Road, Wandsworth Common, S.W.
Glanville, Marcus, Esq., 174, High Road, Balham, S.W.
Hibbard, C. E., Esq., 76, The Grove, Wandsworth S.W.
Jones, H. S., M.B., 6, Abbeville Road, Clapham Park, S.W.
Lauchlan, C. A., M.D., 90, South Side, Clapham Common, S.W.
Lush, P. J. F., M.B., 4, Maresfield Gardens, Hampstead, N.W.
Macaulay, W. C., M.B., 83, Milkwood Road, Herne Hill, S.E.
Mackintosh, M., M.D., Frankfort House, West Side, Clapham Common, S.W.
Martin, C. J., M.B., 11, Northcote Road, Battersea, S.W.
Matthews, John, Captain, R.A.M.C., 7, St. Stephen's Square, W.
Monckton, R. V. G., Esq., Gothic House, Devonshire Road, Fulham S.W.
Neville, T. C., M.D., 346, Upper Richmond Road, Putney, S.W.
Porter, J. H., Esq., 17, Lauderdale Mansions, W.
Thyne, J. T., M.B., 101, Earlsfield Road, Wandsworth Common, S.W.
Tighe, A. [illegible], M.B., Darholme, Brentford
Twigg, [illegible] C., M.B., 27A, Nightingale Lane, Balham, S.W.
Welpley, [illegible], M.D., 1[illegible]2, High Road, Ilford
Wright, Hamilton, M.D., London School of Tropical Medicine, Royal Albert Dock, E.

Munster Branch.

Barry, Alice M., L.R.C.P. and S.I., 8, Belgrave Place, Cork
Norcott, W. B., M.R.C.S.Eng., L.R.C.P.Lond., Harbour View, Crosshaven, co. Cork

Natal Branch.

Bennett, James, M.B., Beatrice Street, Durban
Nundy, Edward G., 458, Long Market Street, Maritzburg

New Zealand Branch.

Cran, W. J., Esq., Denniston
Donald, R., Esq., Dunedin
Heard, C. de W., Esq., Timaru
Levis, J. M. S., Esq., Rotorua
Malcolm, J., Esq., Dunedin
Patnam, P. T., Esq., Palmerston North
Stapley, W., Esq., Palmerston North

Northern Counties of Scotland Branch.

Hall, A. W., Esq., Grantown-on-Spey

North of England Branch.

Caverhill, T. P., M.B., 46, Charlotte Street, South Shields
Macrae, James, Esq., 4, Benton Terrace, Newcastle-on-Tyne
Wilson, David, M.B., Birtley

North Wales Branch.

Gooddy, E. S., F.R.C.S., Glenthorn, Llandudno
Hughes, Michael, M.B., Llanerchymedd
Jones, John, Esq., Wenallt, Dolgelly
Lockhart-Mure, T. V., M.B., 10, Craig-y-don Parade, Llandudno
Roberts, R. L., Esq., Coedogwen, Bethesda
Williams, W. H., M.B., Taldrwst, Dwyran

Oxford and Reading Branch.

Gibson, A. G., M.B., 28, Banbury Road, Oxford

Perth Branch.

Mackay, N. D., M.B., County and City Infirmary, Perth
Robertson, W. S., M.B., Garth, Aberfeldy

Shropshire and Mid Wales Branch.

Bird, W. S. D., Esq., Claverley, nr. Wolverhampton
Crump, J. A., Esq., Welshpool
Lewis, Richard, Esq., Glenaber, Llanfyllin
Purchas, F. N., M.B., Newtown
Saifley, John, M.B., Salop Infirmary, Shrewsbury

South Indian and Madras Branch.

Halge, H. S., Esq., Washermaupett, Madras

South-Eastern Branch.

Francis, J. B. C., Esq., 18, Lower Addiscombe Road Croydon
Tabuteau, A. W., Esq., 195, Croydon Road, Anerley, S.E.
Thomas, J. D., Esq., 140, Sydenham Road, Sydenham
Williams, M. T., M.B., 9, Church Street, St. Paul's, Canterbury

South Wales and Monmouthshire Branch.

Barry, W. J. M., M.D., 17, Hickman Road, Penarth
Clarkson, Edward, Esq., Ebbw Vale
Crinks, V. A., Esq., County Hospital, Newport
Evans, W. Owen, Esq., Pontardawe
Jones, J. Havard, M.B., Clydach
Lloyd, D. G., Esq., Newcastle Emlyn
Spencer, E. M., M.D., Bridgend

South Western Branch.

Anderson, W. J., Esq., Helston
Appleton, H., Esq., The Lizard, Cornwall
Candle[illegible], G., Esq., Black Torrington
Forsyth, Alex., M.B., Woodside, Chacewater
Hitchins, F. E., Esq., Trevarrick, St. Austell
Wood, E. S., Esq., Buckfastleigh

Southern Branch.

Ahrens, H. A., Esq., Basingstoke
Carruthers, J. F., M.D., St. George's, Guernsey
Child, F. J., M.D., Winchester
Child, Stanley, M.B., Hants County Hospital, Winchester
Dodds, H. B., M.D., Royal National Hospital, Ventnor
Hoar, J. E., Lieut., R.A.M.C., Princess Louise Hospital, Alton
Ives, W. F. H., Esq., 14, Portswood Park, Southampton
Kay, Wm., Esq., Bentley
Oliver, L. W., Esq., Ropley, Alresford
Scoones, H. E., Esq., Hants County Hospital, Winchester
Wilmer, C. H., Esq., The Orchard, Lyndhurst

Staffordshire Branch.

Hardwicke, L. C. V., M.B., 3[illegible], Stockwell Street, Leek
Young, E. E., M.B., North Stafford Infirmary, Stoke-on-Trent.

Stirling Branch.

Mathieson, Alex., M.B., Arnothill House, Falkirk

Toronto Branch.

Crane, J. W., M.D., Wallacetown, Ontario
Davis, Letia, M.D., Queen's Avenue, Toronto
Davison, J. L., M.D., 20, Charles Street, Toronto
Monro, J. H., M.D., Greenfield, Ontario
Orr, Dorothy, M.D., 556, Dovercourt Road, Toronto
Pearson, H. C., M.D., Stayner, Ontario
Riordan, B. [illegible], M.D., 73, Simcoe Street, Toronto
Trow, C., M.D., Carlton Street, Toronto

Ulster Branch.

Hadden, R. E., M.D., Ardralla, Portadown
Jamison, Alex., M.B., 66, Woodstock Road, Belfast
Shaw, Wm., Esq., Larne

CALENDAR OF THE ASSOCIATION.

FEBRUARY.

Date.	Meetings to be Held.
3 SATURDAY...	LONDON : Public Health Committee, 3 p.m. LEINSTER BRANCH, Annual Meeting, Royal College of Physicians, Kildare Street, Dublin, 4.30 p.m.
4 Sunday	
5 MONDAY	
6 TUESDAY......	COVENTRY DIVISION, *Birmingham Branch*, Coventry and Warwickshire Hospital, 8.30 p.m. SHROPSHIRE AND MID-WALES BRANCH, Clinical and Pathological Section, Salop Infirmary, 5 p.m.
7 WEDNESDAY	
8 THURSDAY...	LONDON : Metropolitan Counties Branch Council, 5 p.m. LANCASHIRE AND CHESHIRE BRANCH, *Leigh Division*, Co-operative Rooms, Ellesmere Road, Leigh, 3.30 p.m.
9 FRIDAY	HAMPSTEAD DIVISION, *Metropolitan Counties Branch.*
10 SATURDAY...	
11 Sunday	
12 MONDAY	
13 TUESDAY......	LONDON : Organization Committee, 10.30 a.m.
14 WEDNESDAY	DOVER DIVISION, *South-Eastern Branch*, Grand Hotel, Dover, 8 p.m.
15 THURSDAY...	CARDIFF DIVISION, *South Wales and Monmouthshire Branch*, Cardiff. NORWOOD DIVISION, *South-Eastern Branch*, Seamen's Hospital (Dreadnought).
16 FRIDAY	EDINBURGH BRANCH, Annual Clinical Meeting, Royal Infirmary; Annual Dinner, Royal British Hotel, Princes Street, 6.30 p.m.
17 SATURDAY...	

FEBRUARY *(continued)*.

Date.	Meetings to be Held.
18 Sunday	
19 MONDAY	
20 TUESDAY......	
21 WEDNESDAY	LONDON : Medico-Political Committee, 3 p.m.
22 THURSDAY...	CITY DIVISION, *Metropolitan Counties Branch*, 4 p.m. WANDSWORTH DIVISION, *Metropolitan Counties Branch*, Battersea Town Hall, 3 p.m.
23 FRIDAY	ST. PANCRAS AND ISLINGTON DIVISION, *Metropolitan Counties Branch*, North-West London Hospital, Kentish Town Road, N.W., 4 p.m.
24 SATURDAY...	
25 Sunday.........	
26 MONDAY	
27 TUESDAY ...	
28 WEDNESDAY	BATH AND BRISTOL BRANCH, Bath.

MARCH.

Date.	Meetings to be Held.
1 THURSDAY...	SWANSEA DIVISION, *South Wales and Monmouthshire Branch*, General Hospital, Swansea, 3 p.m.
2 FRIDAY	LONDON: Central Ethical Committee, 2 p.m.
3 SATURDAY...	
4 Sunday.........	
5 MONDAY	
6 TUESDAY ...	
7 WEDNESDAY	ALTRINCHAM DIVISION, *Lancashire and Cheshire Branch*, Northwich.
8 THURSDAY...	SOUTH WALES AND MONMOUTHSHIRE BRANCH, Cardiff.
9 FRIDAY	HAMPSTEAD DIVISION, *Metropolitan Counties Branch.*

MEMBERSHIP OF THE BRITISH MEDICAL ASSOCIATION.

THE British Medical Association exists for the promotion of medical and the allied sciences, and the maintenance of the honour and the interests of the medical profession.

The Annual Subscription to the British Medical Association is £1 5s. 0d., and the BRITISH MEDICAL JOURNAL is supplied weekly, post free, to every member of the British Medical Association wherever he may reside.

Forms of application for membership can be obtained from the General Secretary, 429, Strand, London, W.C.

The principal rules governing the election of a medical practitioner to be a member of the British Medical Association are as follow:

Article III.—Any Medical Practitioner registered in the United Kingdom under the Medical Acts and any Medical Practitioner residing within the area of any Branch of the Association situate in any part of the British Empire other than the United Kingdom, who is so registered or possesses such medical qualifications as shall, subject to the Regulations, be prescribed by the Rules of the said Branch, shall be eligible as a Member of the Association. The mode and conditions of election to Membership shall from time to time be determined by or in accordance with the By-laws. Every Member, whether one of the existing Members or a subsequently-elected Member, shall remain a Member until he ceases to be a Member in accordance with the provisions hereof.

By-law 1.—Every Candidate for Membership of the Association shall apply for election in writing, addressed to the Association, and stating his agreement, if elected, to abide by the Regulations and By-laws of the Association, and the Rules of such Division and Branch to which he may at any time belong, and to pay his subscription for the current year.

By-law 2. Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the General Secretary of the Association, and to every Member of the Branch Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a member of the Association by the Branch Council at any meeting thereof held not less than seven days (or such longer period as the Branch may by its Rules prescribe) after the date of the said Notice. A Branch may by special Resolution require that each candidate for election to the Association shall furnish a certificate from two Members of the Association to whom he is personally known. Officers of the Navy, Army, and Indian Medical Services on the Active List are eligible for election through the Council or a Branch without approving signatures as laid down in By-law 3.

By-law 3.—Every candidate whose place of residence is not included in the area of any Branch shall forward his Application to the General Secretary of the Association, together with a statement signed by three members of the Association, that from personal knowledge they consider him a suitable person for election. Notice of the proposed election shall be sent by the General Secretary to every Member of the Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a Member of the Association by the Council at any meeting thereof held not less than one month after the date of the said notice.

The annual subscription to the BRITISH MEDICAL JOURNAL for non-members is £1 8s. 0d. for the United Kingdom and £1 12s. 6d. for abroad.

Printed and published by the British Medical Association at their Office. No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, FEBRUARY 10TH, 1906.

CONTENTS.

PAGE.
MATTERS REFERRED TO DIVISIONS: NOTICES OF MOTION AT THE REPRESENTATIVE MEETING 45
MEETINGS OF BRANCHES AND DIVISIONS:
Ulster Branch 45
ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD 46
CENTRAL MIDWIVES BOARD 46
MIDWIVES AND MEDICAL PRACTITIONERS 47
CARE OF THE FEEBLE-MINDED 47
VITAL STATISTICS 48
NAVAL AND MILITARY APPOINTMENTS 49
VACANCIES AND APPOINTMENTS... 49
BIRTHS, MARRIAGES, AND DEATHS 50
DIARY OF THE WEEK 50
BOOKS, ETC., RECEIVED... 50
BRITISH MEDICAL ASSOCIATION LIBRARY 51
CALENDAR 52

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains a matter specially referred to Divisions, until the subject has been discussed by the Division to which he belongs. BY ORDER.

MATTERS REFERRED TO DIVISIONS.

REPRESENTATIVE MEETING AT LONDON.

TUESDAY, JULY 24TH, AND FOLLOWING DAYS.

NOTICES OF MOTION.

THE following notices of motion have been received or discussion by the Annual Representative Meeting f the Association to be held at London, July 24th, 906, and following days.

ASSOCIATION ADMINISTRATION.

OFFICIAL REPORTS AND JOURNAL.

Title "Doctor."

By the GATESHEAD DIVISION (North of England Branch):

That in all official reports connected with the Association and in the columns of the BRITISH MEDICAL JOURNAL, the word Dr. be used as a title for every registered medical man unless he is either known to be practising as a consulting surgeon or has signified his desire to be called Mr.

MEDICO-POLITICAL.

NOMINATION OF CANDIDATES FOR GENERAL MEDICAL COUNCIL.

Declaration.

y the GATESHEAD DIVISION (North of England Branch):

That the second paragraph in the "Declaration by Candidates," in the Scheme for Selection of Candidates for the General Medical Council by the British Medical Association, be omitted as unnecessary.

ASSOCIATION ADMINISTRATION.

PREMISES.

Alterations.

By the WANDSWORTH DIVISION (Metropolitan Counties Branch):

That it be an instruction to the Central Council before arranging for any alteration of the present premises of the Association involving an outlay of over £200, or the obtaining at any time of premises elsewhere in London or the provinces, to first consult the members through the Divisions and obtain their wishes on the main principles involved.

By Direction of the Chairman of Representative Meetings,
J. SMITH WHITAKER, *Medical Secretary.*
February 8th.

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

ULSTER BRANCH.

THE winter meeting of this Branch was held in the Medical Institute, Belfast, on Wednesday afternoon, January 31st. Dr. LAWLESS (Armagh), Vice-President, occupied the Chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Apology for Non-attendance.—A letter was read from the President, Dr. Leonard Kidd (Enniskillen), apologizing for non-attendance.

Report of Council.—The HONORARY SECRETARY (Dr. Cecil Shaw) read the report of Council, which stated that the following had been elected members of the Branch:—Drs. R. M. Beatty, T. McC. Phillips and R. W. Harper (Belfast), J. Wilson and Moore Betty (Enniskillen), H. Warnock (Clogher, co. Tyrone), F. C. Mann (Pomeroy, co. Tyrone), and R. J. Mayberry (Maghera, co. Derry).

Irish Poor-law Committee.—The Council authorized the payment of a sum not exceeding £10 towards the expenses of the Irish Poor-law Committee.

Royal Medical Benevolent Fund for Ireland.—The Council also authorized a donation of five guineas to the Royal Medical Benevolent Fund for Ireland.

☞ ***To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.***

Association Notices.

BRANCH AND DIVISION MEETINGS TO BE HELD.

EDINBURGH BRANCH.—The annual clinical and pathological meeting of this Branch will be held in the Royal Infirmary on Friday, February 16th. The museum will be open from 11 a.m. onwards. Arrangements are being made for short cliniques and demonstrations by members of the staff in the forenoon. The demonstration of cases will take place at 4 p.m. Members who have patients, specimens, etc., for exhibition are requested to communicate with one of the Secretaries not later than February 7th. Members of the other Scottish Branches are invited to take part in the meeting and to show cases and specimens. The annual dinner will be held in the Royal British Hotel, Princes Street, at 6.30 p.m., Dr. Allan Jamieson, President, in the chair. Morning dress. Dinner ticket 5s.—NORMAN WALKER, 7, Manor Place, and A. LOGAN TURNER, 27, Walker Street, Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH: LEIGH DIVISION.—The ordinary monthly meeting will be held in the Co-operative Offices, Ellesmere Street, on Thursday, February 15th, at 8.30 p.m. Agenda:—(1) Minutes. (2) Dr. Eugene Young, Manchester, will give a demonstration with patients on the following: (*a*) Meyer's Method of Demonstrating the Larynx and Intralaryngeal Operations; (*b*) a Method for Simplifying the Examination of the Throat and Nose; (*c*) a New Method of Tracheal Injection; (*d*) Dr. Barr's Procedure for Anaesthetizing the Membrana Tympani; (*e*) some New Models of the Throat and Ear. (3) Appointment of small Committee to report on Rules of Central Midwives Board. (4) Any other business.—MICHAEL J. HALTON, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: ST. PANCRAS AND ISLINGTON DIVISION.—The next meeting will be held at the North-West London Hospital, Kentish Town Road, N.W., on Friday, February 23rd, at 4 p.m., when Dr. Knowsley Sibley will read a paper on the Treatment of Chronic Constipation.—WM. WYNN WESTCOTT, Honorary Secretary.

SOUTH-EASTERN BRANCH: DOVER DIVISION.—The quarterly meeting will be held at the Grand Hotel, Dover, on Wednesday, February 14th, at 8 p.m. Agenda: (1) Minutes. (2) A paper on Remarks on the Treatment of Accidental Haemorrhage and Eclampsia, which Dr. G. Bellingham Smith, Assistant Obstetric Physician, Guy's Hospital, has kindly promised to read. (3) Letter from Medical Secretary *re* the revision of the Rules of the Central Midwives Board. (4) Annual statement of accounts. (5) Other business, if any. Tea and coffee will be served during the meeting. All members of the South-Eastern Branch are invited to attend, and to introduce professional friends.—F. A. OSBORN, Honorary Secretary, Dover.

SOUTH-EASTERN BRANCH: ISLE OF THANET DIVISION.—A clinical meeting of this Division will be held at the Royal Sea-bathing Hospital, Margate, on Thursday, February 15th, at 4.15 p.m., W. G. Sutcliffe, F.R.C.S., in the chair. Agenda:—Dr. Coullie: The Vaccine Treatment of Tuberculous and other Bacterial Diseases regulated by the Opsonic Index. Cases of interest will be shown. Tea will be served during the meeting. All members of the South-Eastern Branch are invited to attend these meetings and to introduce professional friends.—HUGH M. RAVEN, Honorary Divisional Secretary, Broadstairs.

SOUTH-EASTERN BRANCH: NORWOOD DIVISION.—The next clinical meeting of the Division will be held at the Seamen's Hospital (Dreadnought), Greenwich, on Thursday, February 15th, at 4 p.m., Sir Dyce Duckworth in the chair. The hospital is five minutes' walk from Greenwich stations, both L.C. and Dover Railway and S.E. Railway. It can also be reached by electric tram from New Cross. The staff have kindly promised to show cases and provide tea. The hospital will be open to inspection.—H. J. PRANGLEY, Honorary Secretary; A. W. SOPER, Assistant Honorary Secretary.

SOUTHERN BRANCH.—A general meeting of the Branch is appointed to be held at the South-Western Hotel, Southampton, on Friday afternoon, February 16th, at 3.45. Agenda: (1) Professor A. E. Wright, St. Mary's Hospital, has kindly consented to deliver an address on the Principles of Therapeutic Inoculation. (2) Dr. J. Ward Cousins will read a paper entitled Puerperal Fever, its Prevention and Treatment. (3) General business. Dinner will be provided at 6 o'clock, the charge for which will be 5s. a head, wine not included. The Council hope that this meeting will be largely attended. If any member would prefer to stay the night at Southampton he should apply to either of the Divisional Secretaries, Dr Wade or Dr. MacKeith.—H. J. MANNING, Honorary Secretary

SOUTH WALES AND MONMOUTHSHIRE BRANCH: CARDIFF DIVISION.—An ordinary general meeting will be held at the Infirmary on Thursday, February 15th, at 3.15 o'clock. Agenda:—(1) Minutes. (2) To consider letters received from the South-West Wales Division concerning ethical and contract practice matters. (3) To discuss generally the ethical propriety of members of the profession in contributing autobiographies to publications intended for circulation amongst the general public. (The Executive Committee venture to recommend members who may have been invited to contribute to a publication of the kind referred to, to withhold or withdraw their consent until the Division has had this opportunity of considering the subject.) (4) Rules of the Central Midwives Board. To consider the Rules regulating: (*a*) The conditions of admission to the Roll of Midwives; (*b*) the obstetric apparatus which the midwife is required to provide; (*c*) the conditions of the mother and of the infant on the occurrence of which the midwife must decline to attend alone and must advise that a medical practitioner be sent for; (*d*) the form of the midwife's register of cases and the form of the record of sending for medical assistance; (*e*) the conditions under which midwives may be suspended from practice. Memorandum: In view of the impending revision of the Rules of the Central Midwives Board it is of importance that medical practitioners should express their opinions concerning them, especially with regard to those above indicated. A committee, nominated by the Chairman of the Division, will present a report to the meeting. (5) Paper by J. Lynn Thomas, C.B.: Has the Treatment of Fractures and Dislocations been Modified by *X*-ray Diagnosis? Members are asked to invite medical friends to be present and to take part in the discussion of the various items of the agenda, which are of important general interest to the profession. Tea will be provided.—EWEN J. MACLEAN, R. RUSSELL THOMAS, Honorary Divisional Secretaries.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: MONMOUTH DIVISION.—A quarterly meeting of this Division will be held at Abergavenny on February 23rd, at 3 p.m.—W. J. GREER, R. J. COULTER, Honorary Secretaries, Newport.

CENTRAL MIDWIVES BOARD.

A SPECIAL meeting of the Central Midwives Board, under the provisions of the rules of procedure on the proposed removal of a name from the Roll of Midwives, was held on January 30th at 6, Suffolk Street, Pall Mall, with Dr. F. H. CHAMPNEYS in the chair.

MIDWIVES STRUCK OFF THE ROLL.

The following charges alleged against a certified midwife, Eliza Pugh, were heard:

That being in attendance on the confinement of a woman on October 12th, 1905, she was guilty of negligence and misconduct in the following respects: The perineum being ruptured she did not decline to attend alone, or advise that a registered medical practitioner should be sent for, as required by Rule E 17. On the occurrence of a rigor on October 16th she did not decline to attend alone, or advise that a registered medical practitioner should be sent for, as required by Rule E 17. On the arrival of Dr. T. H. Scott on October 17th she stated, in reply to a question by him, that the patient was not torn or injured, well knowing that the perineum was ruptured, and that an attempt had been made by an unqualified person to stitch it up. That she was habitually uncleanly in person, and did not obey the requirements of Rule E 1. That when called to a confinement she did not take with her the appliances required by Rule E 2.

The Board directed that the name of Eliza Pugh be removed from the Roll.

The hearing of the following charges alleged against a certified midwife, Jane Tween, was then proceeded with:

That being in attendance on the confinement of a woman on September 17th, 1905, and subsequent days, she was guilty of negligence and misconduct in the following respects: The placenta not having been expelled within an hour after the birth she did not decline to attend alone or advise that a registered medical practitioner should be sent for, as required by Rule E 17; both mother and child being ill, she did not decline to attend alone or advise that a registered medical practitioner should be sent for as required by Rule E 17; on the arrival of Dr. F. Pershouse on September 22nd she did not faithfully carry out his instructions as required by Rule E 6, but declined to attend the patient, or to administer a vaginal douche as ordered by him; being ordered by Dr. F. Pershouse to administer vaginal douches on September 23rd and 24th, she purported to comply with these orders by injecting the lotion per rectum; she did not give directions for securing the comfort and proper dieting of the child, as required by Rule E 11, but fed it on oatmeal and gin, thereby conducing to its death on September 24th; that she was habitually uncleanly in person, and did not wear a dress of washable material as required by Rule E 1; that when called to a confinement she did not take with her the appliances and antiseptics required by Rule E 2; that she did not keep a register of cases as required by Rule E 19.

The Board directed that the name of Jane Tween be removed from the Roll.

The following charges alleged against a certified midwife, Elizabeth Jacklin, were then heard:

That she was a person of intemperate habits, and in particular she was intoxicated at 5 p.m. on August 2nd, 1905, in her own house. That she was under the influence of drink on June 23rd, 1905, at the office of the Medical Officer of Health. That she was habitually uncleanly in person, and did not wear a dress of washable material as required by Rule E 1. That when called to a confinement she did not take with her the appliances required by Rule E 2. That she did not keep a register of cases as required by Rule E 19.

The Board directed that the name of Elizabeth Jacklin be removed from the Roll.

The charges alleged against a certified midwife, Esther Smith, were then heard:

That she was habitually uncleanly in person, and did not wear a dress of washable material as required by Rule E 1. That when called to a confinement she did not take with her the appliances or antiseptics required by Rule E 2. That she did not disinfect her hands and forearms previous to touching the genital organs or their neighbourhood, as required by Rule E 3. That she did not before making the first internal examination wash the patient's external parts with soap and water and then swab them with an antiseptic solution as required by Rule E 7. That she did not keep a register of cases as required by Rule E 19.

The Board directed that the name of Esther Smith be removed from the Roll.

The following charges alleged a certified midwife, Mary Ann George, were then heard:

That on January 27th, 1905, she was charged with felony at the City of Worcester Police Court, and, having pleaded guilty, was convicted thereof. That on October 27th, 1905, she was charged at the City of Worcester Police Court with having failed to notify the fact of her intention to practise to the Local Supervising Authority, in accordance with Section 10 of the Midwives Act, 1902, and, being convicted thereof, was fined £1. That when called to a confinement she did not take with her the appliances or antiseptics required by Rule E 2. That she did not keep a register of cases as required by Rule E 19.

The Board directed that the name of Mary Ann George be removed from the Roll and also gave instructions that the papers in this case be sent to the Public Prosecutor for his consideration of the facts concerning the signing of a certificate of good character of this midwife by a clergyman.

A Midwife Cautioned.

The following charges alleged against a certified midwife, Sarah Howe, were heard:

That she was uncleanly in person and did not wear a dress of washable material, as required by Rule E. 1. That when called to a confinement she did not take with her the appliances or antiseptics required by Rule E. 2. That she did not keep a register of cases as required by Rule E. 19.

The Board decided in this case that Sarah Howe was to be severely censured and cautioned as to her future conduct.

MIDWIVES AND MEDICAL PRACTITIONERS.

We learn from the *Islington Gazette* that at a meeting of the London County Council on January 30th a recommendation of the Parliamentary Committee was submitted that the necessary measures be taken for promoting legislation in the next session of Parliament to provide that the Council shall be authorized to pay the fee of a medical practitioner, called at the instance of a midwife, to a case of emergency as defined in the rules made by the Central Midwives Board under the provisions of the Midwives Act, 1902, such payment to be made only when the patient is unable to pay such fee; as well as to enable the Council to recover from the patient, or from any person liable by law to maintain her, the amount of such fee, or any portion thereof, should it be discovered after payment had been made that the patient, or any person liable by law to maintain her, was in a position to pay the whole or a portion of such fee; that the costs and expenses of promoting the legislation referred to in the foregoing recommendation be defrayed out of the County Fund.

Dr. Benton strongly supported the recommendation of the Committee.

Sir William Collins, M.P., and Dr. Farwood urged that the payments of fees should be confined to cases of "operative interference." The former asserted that the Midwives Act, 1902, required stringent revision.

Dr. Cooper, M.P., said that all that was proposed was to spend £500 a year on cases of poor women in a dangerous and difficult condition who could not in their extremity fly to a hospital or a workhouse. He could not understand members who had voted for losing £50,000 a year on steamboats and £25,000 on the Woolwich Tunnel choking at such a trifling sum as £500.

Mr. G. H. Radford, M.P., observed that since the Council, by the ruling of the Chairman, must either adopt or reject the action proposed by the Parliamentary Committee, the best course would be to vote against it. The whole difficulty had arisen out of certain regulations made by the Midwives Board. It was a most extraordinary proposition to ask for legislation for the removal of a difficulty or a grievance which could be done by the Board itself by the alteration or amendment of rules from time to time. The rule now in question proposed that a midwife in attendance on a case that might develop into an emergency was to leave the house to call in a doctor.

Sir W. Collins: No; advise that a doctor should be called in.

Mr. Radford said that, at any rate, the position was a terrible one. The midwife left the patient, a doctor could not be persuaded to attend, and the patient died. The rule as it stood was inhuman, and ought never to have been passed.

In the result, the motion was declared "not carried," for the reason that its supporters did not reach the number required by the Standing Orders.

CARE OF THE FEEBLE-MINDED.

The Royal Commission on the Care and Control of the Feeble-minded met on February 2nd, when further evidence was taken.

Mr. E. B. Whitcombe, Medical Superintendent of the Birmingham City Asylum, suggested that feeble-minded or defectives should be dealt with in separate institutions, on the cottage principle. Those who were capable of ordinary education might be taught to read and write, but the whole should be trained to some light, useful employment, making such institutions as far as possible self-supporting. Different trades should be taught, such as basketmaking, shoemaking, tailoring, carpentering, matmaking, and brushmaking. The arrangements should be made by the existing lunacy authority.

Dr. W. A. Potts, Lecturer on Pharmacology at the Birmingham University, said that at present the feeble-minded were ignored till a catastrophe occurred; then they were usually accommodated temporarily in an institution intended for those of average intelligence. Such care did little good to them, while they were a disturbing element to the ordinary inmates. There was urgent necessity for the segregation of the feeble-minded of both sexes. No other remedy would be effective except sterilization or a lethal chamber, neither of which was justified. A central authority must be instistuted to supervise the care of the mentally defective. He would recommend a Board of four or six members. Under these there should be local inspectors, who should visit the schools, prisons, common lodging-houses, and charitable institutions. But measures must be taken to check alcoholism, tuberculous disease, and other social evils. Otherwise the feeble-minded would continue to increase in spite of segregation.

Councillor Sayer, Chairman of the Joint Committee of the combined unions of Birmingham, Aston, and King's Norton, said the Committee came to the unanimous conclusion that in providing accommodation other than at the workhouse for epileptics and feeble-minded persons the cottage homes system was the right one to adopt. It was agreed to commence with 210 cases, keeping steadily in view the probabilities of that number being considerably increased. The plans provided for three houses for men and three for women, each house to accommodate 36 patients; for the provision of a laundry, and adapting some of the farm buildings as workshops for the men. The houses for men would be arranged in one group, and those for women in another group, and there were sites in each group for four more houses, thus giving a total accommodation for approximately 500 patients, but if necessary that number could be exceeded. Some of the men would be employed on the land, and others in workshops; the women would be engaged in laundry work, gardening, and possibly in fruit growing. The Committee were of opinion that power should be given the magistrates, on the application of Boards of Guardians, to make an order for the detention of feeble-minded persons for a fixed period of, say, twelve months, such order to be renewable, and they were also of opinion that a weekly grant of 4s. should be paid from Imperial sources in respect of each case maintained in an institution provided to the satisfaction of the central authority.

Mr. R J. **CURTIS**, Clerk to the King's Norton Board of Guardians, and also to the Birmingham, Aston, and King's Norton Joint Poor-law Establishment Committee, said those engaged in the administration of Poor-law relief were almost unanimous in the opinion that separate institutions in which proper and adequate classification and care and treatment could be secured were very desirable in order that the epileptic in his sane intervals might not be associated with imbeciles, that the feeble-minded might not be put in depressing contact with severer forms of disease, and that both might have such instruction and attention as might be best calculated to improve, if improvement was possible, and, if not, to render their lives as comfortable and as useful as possible. He explained the measures taken by the Birmingham, Aston, and King's Norton Boards of Guardians which led to the adoption of a scheme whereby the three Boards combined for the purpose of the provision and maintenance of homes for the reception and treatment of sane epileptics and feeble-minded persons. The Local Government Board approved of the scheme, and constituted a joint Committee of the combined unions to undertake the management of a workhouse for the reception of epileptics and feeble-minded persons who were chargeable to the unions. Admission to the colony was to be obtained upon the report of any medical officer, so that suitable cases could be received direct without entering the workhouse All institutions, whether voluntary or rate-provided, dealing with mentally-defective persons, should be registered and placed under inspection by medical men from a central department. Mentally-defective children (except those certified under the Idiots or Lunacy Acts) should be under the care and control of education authorities until 16 years of age, and be dealt with either in special day schools or in boarding schools, according to the requirements of the cases. Those who needed institutional care after 16 years of age should be detained under medical advice. If their parents could pay the full cost of maintenance, such patients should be classed as private cases and sent to some registered institution. The rest should be dealt with by the Board of Guardians.

Mrs **HUME PINSENT**, a member of the Birmingham Education Committee, Chairman of the Special Schools Subcommittee, and late Chairman of the After-care Committee, said many defective children were still in elementary schools. Repeated inspections of the schools demonstrated the necessity for the appointment of a permanent official. Dr. Caroline O'Connor had been appointed in Birmingham, and her work showed that there were over 600 mentally-deficient children needing education in a special school. But education authorities seemed slow to take up domestic and manual work, as it was more expensive than the ordinary curriculum, and far harder to organize. Little could be expected from special school education until every feeble-minded child over 12, and, in many cases, before that age, spent at least half its time working in a laundry, kitchen, garden. or workshop properly equipped and staffed. Mrs. Pinsent also referred to the urgent necessity for the immediate provision of industrial colonies, which had been continually emphasized by cases in which admission to any existing institution was impossible. Leaving such cases under such supervision as could be exercised in a working man's home was a grave danger to the child, to the family, and to society in general.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m., except on Saturdays, when they close at 2 p.m. Members can have their letters addressed to them at the office.

Vital Statistics.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

THE Registrar-General has just issued his return relating to the births and deaths in the fourth quarter of last year, and to the marriages during the three months ending September last. The marriage-rate during that period was equal to 16.9 per 1,000 of the population, and was slightly below the average rate in the corresponding quarters of the ten preceding years.

The births registered in England and Wales during the quarter ending December last numbered 219,385, and were equal to an annual rate of 25.5 per 1.000 of the population, estimated by the Registrar-General at 34,152.977 persons in the middle of last year. In the fourth quarters of the ten preceding years the birth-rate averaged 28.0 per 1.000; the rate during the quarter under notice was lower than that recorded in the corresponding quarter of any preceding year. The birth-rates last quarter ranged in the several counties from 19.6 in Sussex, 20.1 in Carnarvonshire, 20.7 in Cornwall, 21.0 in Northamptonshire. 21.6 in Oxfordshire, and 21.7 in Bedfordshire, to 28.2 in Carmarthenshire, 28.6 in Staffordshire, 30.0 in Northumberland, 31.6 in Durham and in Glamorganshire, and 32.2 in Monmouthshire. In seventy-six of the largest English towns, including London, the birth-rate last quarter averaged 26.6 per 1,000; in London the rate was 26.1 per 1,000, while it averaged 26.8 in the seventy-five other large tows, and ranged from 14.7 in Bournemouth. 15.7 in Hastings, 16.8 in Halifax, and 17.7 in Hornsey, to 32.2 in Gateshead. 32.7 in Sunderland, 34.1 in St. Helens, 34.3 in Rhondda, and 35.5 in Merthyr Tydfil.

The births registered in England and Wales during the three months under notice exceeded the deaths by 91.639; this represents the natural increase of the population during that period. From returns issued by the Board of Trade it appears that 86,642 emigrants embarked during last quarter for places outside Europe, from the various ports of the United Kingdom at which emigration officers are stationed. Of these 86,642 emigrants, 36,816 were English, 7,093 Scottish and 8.115 Irish, while 34,618 others were of foreign nationality. Compared with the averages in the corresponding quarters of the three preceding years, the proportion of emigrants in the population of the several parts of the United Kingdom showed a decrease of 5.3 per cent. of English, 4.0 per cent. of Scottish, and 15.8 per cent. of Irish.

During the fourth quarter of the year the deaths of 127,746 persons were registered, equal to an annual rate of 14.8 per 1,000 persons living; this rate was 2.1 per 1,000 below the average rate in the ten preceding fourth quarters. The lowest county death-rates last quarter were 12.0 in Sussex, 12.3 in Middlesex and in Northamptonshire, 12.4 in Kent, 12.5 in Buckinghamshire, and 12.6 in Surrey; while the highest rates were 16.4 in Durham, 16.6 in Lancashire and in Monmouthshire, 16.7 in Herefordshire, and 16.8 in London. In seventy-six of the largest English towns, with an aggregate population of upwards of fifteen and a half millions, the mean rate of mortality was 15.8 per 1,000; in 141 smaller towns with an aggregate population of about four and three-quarter millions, the death-rate was 13.7 per 1,000: while in the remaining, and chiefly rural, parts of England and Wales the rate was 14.2 per 1,000. In the seventy-five large provincial towns the death-rate averaged 15.4 per 1,000, and ranged from 7.6 in Hornsey, 8.9 in King's Norton, 10.7 in Hastings, 10.9 in Grimsby. and 11.0 in Leyton and in Handsworth (Staffs), to 18.5 in Huddersfield, 18.6 in Middlesbrough, 18.8 in Tynemouth, 19.3 in Preston, 20.3 in Bootle, and 20.4 in Liverpool.

The 127,746 deaths from all causes in England and Wales last quarter included 8,985 which were referred to the principal infectious diseases; of these, 2,109 were attributed to diarrhoea, 1,876 to measles, 1,520 to diphtheria, 1,490 to whooping cough, 1,112 to scarlet fever, 874 to "fever" (principally enteric), and 4 to small-pox. The death-rate last quarter from these diseases in the aggregate was 1.04 per 1,000, or 0.69 per 1,000 below the average for the corresponding periods of the ten preceding years: the rates of mortality from all these infectious diseases were below the respective averages.

The rate of infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 120 per 1,000, against an average rate of 148 in the corresponding quarters of the ten preceding years. In the several counties the rates of infant mortality ranged from 70 in Herefordshire, 71 in Wiltshire, 80 in Somersetshire, 81 in Oxfordshire, 83 in Buckinghamshire, and 84 in Berkshire to 134 in Northumberland, 135 in Glamorganshire, 139 in Staffordshire, 143 in Lancashire. 144 in Carnarvonshire, and 148 in Durham. In the seventy-six large towns the mean rate was 134 per 1,000; in London the proportion was equal to 131 per 1,000, while it averaged 135 in the seventy-five other large towns, among which the rates ranged from 70 in Hornsey, 74 in Bournemouth, 76 in Burton-on-Trent, 80 in Hastings, 90 in Reading, and 92 in Handsworth (Staffs) to 172 in Rochdale, 174 in Blackburn, 175 in Middlesbrough, 177 in Burnley, 181 in Smethwick, and 215 in Hanley.

The mortality in England and Wales during the three months under notice among persons aged between 1 and 60 years was equal to an annual rate of 7.4 per 1,000 of the population estimated to be living at this group of ages, and was 1.3 per 1,000 below the mean rate in the ten preceding fourth quarters. In the seventy-six large towns the death-rate at this group of ages averaged 8.3 per 1,000: in London this death-rate was 9.0 per 1,000, while among the seventy-five large provincial towns the rates ranged from 3.3 in Hornsey. 4.0 in King's Norton, 5.1 in Ipswich, and 5.4 in Hastings and in Northampton, to 10.1 in Oldham and in Middlesbrough, 10.6 in Bury, 11.3 in Liverpool, and 11.7 in Bootle and in Preston.

Among persons aged 60 years and upwards the death-rate last quarter was equal to 69.3 per 1.000 of the estimated population at this age-period, and was 2.0 per 1.000 above the average rate. In the seventy-six towns the death-rate at this age-group averaged 75.0 per 1,000; in London the rate was 77.5, while among the seventy-five large provincial towns the rates ranged from 43.8 in Grimsby, 44.9 in King's Norton, 46.3 in Hastings, 48.1 in Leyton, 50.8 in Ipswich. and 54.3 in Hornsey, to 87.0 in Newport (Mon.). 88.3 in Manchester. 88.9 in Burnley, 91.5 in West Hartlepool, 93.0 in Huddersfield, and 101.1 in Tynemouth.

The mean temperature of the air during last quarter was below the average, the deficit varying from little more than half a degree in England North-East to more than one and a half degrees in England, East and South-West. The rainfall measured in London amounted to about 5 in., or 71 per cent. of the average. The duration of bright sunshine in London during the quarter was 157 hours, being eleven hours in excess of the average, but only 19 per cent. of the possible amount.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,557 births and 4,708 deaths were registered during the week ending Saturday last, February 3rd. The annual rate of mortality in these towns, which had been 16.7, 15.8, and 15.9 per 1,000 in the three preceding weeks, declined again to 15.5 per 1,000 last week. The rates in the several towns ranged from 7.9 in Hanley, 8.0 in Willesden, 8.2 in Handsworth (Staffs.), 9.2 in East Ham, 9.5 in Northampton, 10.2 in Coventry, and 10.5 in Wallasey, to 20.7 in Oldham, 20.8 in Plymouth, 20.9 in Stockport, 21.2 in Rhondda, 21.5 in Preston, 22.1 in West Bromwich, 23.2 in Newport (Mon.), 23.3 in Grimsby, and 25.7 in Merthyr Tydfil. In London the rate of mortality was 14.8 per 1,000, while it averaged 15.8 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases in the seventy-six towns was 1.2 per 1,000; in London this death-rate was equal to 1.1 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 2.3 in Birmingham and in South Shields, 2.4 in Bootle and in Halifax, 2.5 in Derby, 2.7 in Bury, 3.0 in Stockton-on-Tees, 3.9 in Blackburn, and 4.5 in Preston. Measles caused a death-rate of 1.6 in Blackburn, 1.8 in Bury, and 3.6 in Preston; scarlet fever of 1.2 in Blackburn and 1.6 in Hanley; diphtheria of 1.0 in Hull, 1.3 in Aston Manor, 1.5 in Ipswich, 1.9 in Halifax, and 2.1 in Derby; and whooping-cough of 1.5 in Burnley, 1.6 in Bootle, and 2.0 in Stockton-on-Tees. The mortality from "fever" and from diarrhoea showed no marked excess in any of the seventy-six towns. One fatal case of small-pox was registered last week in South Shields, but not one in any other of the large towns, and no small-pox patients were under treatment during the week in the Metropolitan Asylums Hospitals. The number of scarlet fever patients in these hospitals, and in the London Fever Hospital, which had been 3,062, 3,066, and 2,983 at the end of the three preceding weeks, had further declined to 2,912 at the end of last week; 319 new cases were admitted during the week, against 257, 328, and 322 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, February 3rd, 929 births and 564 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 17.8, 18.2, and 19.6 per 1,000 in the three preceding weeks, declined again to 16.5 per 1,000 last week, but was 1.0 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 13.7 in Aberdeen and 15.9 in Glasgow to 19.0 in Dundee and 19.2 in Greenock. The death-rate from the principal infectious diseases in these towns averaged 1.4 per 1,000, the highest rates being recorded in Greenock and Perth. The 254 deaths registered in Glasgow included 12 which were referred to measles, 4 to whooping-cough, and 10 to diarrhoea. Four fatal cases of diarrhoea were recorded in Edinburgh; 3 of measles in Dundee; 2 of measles and 2 of diphtheria in Greenock; and 2 of diarrhoea in Perth.

HEALTH OF IRISH TOWNS.

During the week ended Saturday, February 3rd, 634 births and 376 deaths were registered in six of the principal Irish towns, as against 554 births and 378 deaths in the preceding period. The annual death-rate in these towns, which had been 21.0, 17.7, and 18.8 per 1,000 in the three preceding weeks, rose to 18.9 per 1,000 in the week under notice, this figure being 3.4 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 11.7 in Waterford and 15.1 in Cork to 24.4 in Dublin, and 21.6 in Limerick. The zymotic death-rate in the same six Irish towns averaged 1.1 per 1,000, or 0.2 per 1,000 higher than during the preceding period, the highest figure—5.0—being recorded in Londonderry, while Cork, Limerick, and Waterford registered no deaths under this heading.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

The following appointments have been made at the Admiralty: **Robert D. Jameson**, Staff Surgeon, to the *Eclipse*, on recommissioning, January 30th; **Moyle Breton**, Surgeon, to the *Attentive*, on commissioning, undated (since cancelled); **Charles C. MacMillan**, Surgeon, to the *Victory*, undated; **John St. J. Murphy** and **Francis J. L. P. M'Kenna**, Surgeon, to the *Victory*, for disposal; **Norman S. Meiklejohn**, Surgeon, to the *Pembroke*, for disposal, January 30th.

ROYAL ARMY MEDICAL CORPS.

The following were the successful candidates for commissions in the Royal Army Medical Corps at the recent examination in London for which seventy-four candidates entered:

	Marks.		Marks.
C. M. Drew...	595	E. M. O'Neill	509
A. A. Sutcliff	585	V. C. Honeybourne	507
A. G. Cummins	584	J. C. L. Hingston	504
A. S. Millard	577	G. B. Edwards	501
H. E. Gotelee	573	F. D. G. Howell	501
A. S. Littlejohns	568	C. R. M. Morris	499
F. A. McCammon	558	P. Sampson	499
W. R. Galwey	548	W. H. Gillatt	498
R. G. Archibald	543	J. W. L. Scott	498
G. de la Cour	541	W. C. Smales	498
W. Egan	536	J. B. G. Mulligan	496
F. Forrest...	535	A. H. Bond...	494
T. W. O. Sexton	535	M. G. Dill	494
R. G. H. Tate	534	R. E. U. Newman	492
A. S. Williams	532	H. Jacques...	489
A. Dawson	515	D. de C. O'Grady...	484
C. T. Edmunds	514	T. T. H. Robinson	484
V. G. Johnson	513	T. C. C. Leslie	483
E. W. M. Paine	513	L. G. Gibson	480
E. J. Porteous	511	P. S. Stewart	475

Captains M. **Boyle**, M.B., P. **Evans**, M.B., C. K. **Morgan**, M.B., John M. **Buist**, M.B., and G. St. C. **Thom**, M.B., are promoted to be Majors, January 29th. Major Byles's previous commissions are thus dated: Surgeon-Lieutenant, January 29th, 1894; Surgeon-Captain, January 29th, 1897. The commissions of the other officers named bear date: Surgeon-Lieutenant, July 28th, 1894; Surgeon-Captain, July 28th, 1897. Majors Morgan and Buist have no war record; that of the others named is as follows: Major Boyle, North-West Frontier of India campaign in 1897-8 with the Tirah Expeditionary Force (medal with two clasps). Major Evans, South African War, 1900-2, including operations in the Orange Free State, the Transvaal, and Cape Colony (Queen's medal with three clasps, King's medal with two clasps). Major Thom, South African war, 1900-2, including operations in the Transvaal, the Orange River Colony, and Cape Colony (mentioned in dispatches, Queen's medal with three clasps, King's medal with two clasps).

Lieutenant-Colonel G. W. **Robinson**, Commanding the Dépôt and Training School, Aldershot, has been appointed Administrative Medical Officer, and posted to London for duty in the Eastern Command.

Lieutenant-Colonel C. A. **Webb**, from Dover, has been appointed Administrative Medical Officer at Cork.

Lieutenant-Colonel H. **Martin**, M.B., from Shorncliffe, has been appointed Principal Medical Officer, Welsh and Midland Command.

EXAMINATION OF MAJORS FOR PROMOTION.

It has been announced from the War Office that, at the next examination of Majors of the Royal Army Medical Corps for promotion, to be held in May, there will be for the first time questions on "The Laws and Customs of War on Land," besides the usual technical questions.

INDIAN MEDICAL SERVICE.

Captain H. **Bennett**, M.B., Bombay Establishment, is promoted to be Major, from July 29th, 1905. He was appointed Surgeon-Lieutenant, January 29th, 1894, and Surgeon-Captain, July 29th, 1897. He was in the campaign on the North-West Frontier of India in 1897-8, including the operations on the Samana Range and the action of the Ublan Pass (medal with clasp), and afterwards with the Tirah Expeditionary Force (clasp).

Colonel S. H. **Browne**, M.D., C.I.E., Bengal Establishment, is permitted to retire from the service, from April 29th. He joined the department as Assistant-Surgeon, March 31st, 1874, and became Colonel, April 10th, 1903. During the Afghan war in 1879 he was with the Peshawur Valley Field Force, and was mentioned in dispatches, receiving a medal. He was appointed an Honorary Surgeon to the Governor-General of India, January 6th, 1899.

Lieutenant-Colonel G. M. E. **M'Kee**, Madras Establishment, also retires from the service, from March 14th. Entering as Assistant-Surgeon, October 2nd, 1880, he was made Lieutenant-Colonel, October 2nd, 1900. He served with the Burmese Expedition in 1885-7 (medal with clasp), and in the China war in 1900 (medal).

Colonel W. G. H. **Henderson**, Bombay Establishment, officiating Principal Medical Officer Aden Brigade, is confirmed in that appointment.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

Surgeon-Lieutenant R. **Crerar**, M.B., the Highland Regiment, is removed from the Volunteer force for failing to fulfil the prescribed conditions for efficiency, January 12th.

Surgeon-Major J. I. **Palmer**, 3rd Middlesex Regiment, resigns his commission, retaining his rank and uniform, January 15th.

VOLUNTEER RIFLES.

Surgeon-Lieutenant C. B. **Gunn**, M.D., 6th Volunteer Battalion the Royal Scots (Lothian Regiment), to be Surgeon-Captain, February 7th.

Supernumerary Surgeon-Captain (Honorary Captain in the Army) G. **Black**, M.B., 2nd Volunteer Battalion the Royal Sussex Regiment, is absorbed into the establishment, January 17th, 1901.

SERVICE WITH THE TIBET MISSION ESCORT.

It has been decided that service with the Tibet Mission Escort is to be considered as war service, and recorded in the Army List and elsewhere accordingly. The record will be as follows: "Tibet, 1903-1904, for all who served with the escort between December 13th, 1903, and September 23rd, 1904, followed, when necessary, by a reference to any of the particular operations specified in the case of those who actually took part in them—(1) action at Niari, June 26th, 1904; (2) operations at and around Gyangtse between May 5th and July 6th, 1904; (3) march to Lhasa, July 14th to August 3rd, 1904."

Vacancies and Appointments.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

BIRMINGHAM: GENERAL HOSPITAL.—(1) Resident Medical Officer; salary, £70 per annum. (2) Two House-Physicians; salaries at the rate of £50 per annum.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—Junior House-Surgeon. Salary, £70 per annum.

BURY INFIRMARY.—Senior House-Surgeon. Salary, £110 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—Senior House-Surgeon. Salary at the rate of £80 per annum.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—(1) House-Physician. (2) House-Surgeon. Salary, £90 per annum each.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Two Physicians to Out-patients.

DENBIGH: DENBIGHSHIRE INFIRMARY.—House-Surgeon. Salary to commence, £100 per annum.

EDINBURGH: ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.—Four Resident Medical Officers.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Assistant Surgeon.

HULL ROYAL INFIRMARY.—House-Surgeon. Salary, 80 guineas per annum.

LINCOLN COUNTY HOSPITAL.—Senior Male House-Surgeon. Salary, £100 per annum.

LONDON COUNTY ASYLUMS.—Junior Assistant Medical Officer (male) for the Asylums at Banstead and Colney Hatch. Salary, £150 per annum.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST.—Honorary Surgeon.

MANCHESTER: ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN.—House-Surgeon for the Clifford Street Hospital. Salary, £70 per annum.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—Assistant Physician.

NEWCASTLE-ON-TYNE DISPENSARY.—Two Visiting Medical Assistants. Salary, £160 for first year and £180 afterwards.

NEW ZEALAND: GOVERNMENT MENTAL HOSPITALS.—Assistant Medical Officer. Salary, £250 per annum.

PETERBOROUGH INFIRMARY AND DISPENSARY.—(1) Surgeon. (2) Assistant Physician. (3) Assistant Surgeon.

RICHMOND, SURREY: ROYAL HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Anaesthetist and Curator of Museum.

SOUTHAMPTON: ROYAL HANTS AND SOUTHAMPTON HOSPITAL.—Junior House-Surgeon. Salary at the rate of £60 per annum.

STIRLING DISTRICT ASYLUM, Larbert.—Senior Assistant Medical Officer. Salary, £150 per annum.

WINCHESTER CITY.—Medical Officer of Health. Salary, £300 per annum.

WINCHESTER: ROYAL HANTS COUNTY HOSPITAL.—House-Physician. Salary, £65, rising to £75 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Assistant House-Surgeon. Honorarium at the rate of £75 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacancies in the office of Certifying Factory Surgeons: Sherston, co. Wilts; East Ilsley, co. Berks.

APPOINTMENTS.

ADDISON, H. C., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Ware Union.

BARWELL, Harold, M.B.Lond., F.R.C.S.Eng., Surgeon for Diseases of the Throat to St. George's Hospital.

CAMPBELL, M., L.R.C.P. and S.I., Resident Assistant Medical Officer to the Toxteth Park Workhouse.

CLATWORTHY, J. H., M.B.Lond., Resident Assistant Medical Officer, Camberwell Parish Infirmary.

COOKE, Alfred S., M.R.C.S.Eng., L.S.A., Consulting Surgeon, Stroud General Hospital.

DICKMAN, H. G., M.B., C.M.Edin, Certifying Factory Surgeon for the Holbeach District, co. Lincoln.

DODDS, H. B., M.D.Edin., Assistant Resident Medical Officer to the Royal National Hospital for Consumption, Ventnor, Isle of Wight.

EVANS, D. G., M.D., Medical Officer of Health, Pebworth Rural District.

FAIRFAX, N. P., L.R.C.P. and S.Edin., Certifying Factory Surgeon for the Inverleithen District, co. Peebles.

FORBES, Duncan, M.D.Edin., B.Sc. Public Health, Medical Officer of Health for Cambridge.

FREEMAN, W. T., M.D.Durh., F.R.C.S.Eng., Medical Officer to Reading Prison.

GRANT, W. Gordon, M.D.Aberd., Honorary Gynaecologist to the Hospital, Johannesburg, Transvaal.

GRIFFITHS, E. R., M.R.C.S., L.R.C.P.Lond., Senior Assistant Medical Officer at the Lewisham Infirmary.

REID, J., M.B., Ch.B.Glasg., Certifying Factory Surgeon for the Doune District, co. Perth.

RISIEN, E. R., L.S.A., District Medical Officer of the Wantage Union.

SMITH, A. E. Manners, M.R.C.S., L.R.C.P., Medical Officer of Health, Retford Town Council, vice J. Housley, M.D.St. And.

SMITH, H. L., M.D.Durh., District Medical Officer of the Clitheroe Union.

TURNER, A. S., M.R.C.S., L.R.C.P.Lond., Certifying Factory Surgeon for the Beckenham District, co. Kent.

DERBYSHIRE ROYAL INFIRMARY.—The following appointments have been made:

House-Surgeons: F. Arthur Hepworth, M.B., B.C.Cantab., M.R.C.S., L.R.C.P.Lond.; T. J. T. Wilmot, M.B., Ch.B., B.A.O., B.A.Dub.

House-Physician: E. J. Roberts, B.Sc., M.R.C.S., L.R.C.P.Lond.

Assistant House-Surgeon: Arthur E. Leapingwell, M.R.C.S., L.R.C.P.Lond.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

LAW.—On January 30th, at Sidcup, the wife of Robert Redman Law, M.D.Cantab., of a son.

TURNER.—On February 4th, at 17, Harley Street, W., the wife of William Turner, M.S., F.R.C.S., of a son.

MARRIAGE.

COCKELL—BEADLES.—On February 6th, at Christ Church, Forest Hill, by the Rev. Canon H. Scott Holland, of St. Paul's Cathedral, assisted by the Rev. C. R. Bailey, Vicar of Christ Church, Lewis Vincent, third son of Henry Edward Cockell of Forest Hill, to May, third daughter of Dr. A. Beadles, Park House, Forest Hill.

DIARY FOR NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8 30 p.m.—Clinical evening. Cases will be exhibited by Drs A Morison, Porter-Parkinson, Leonard Guthrie, Lewis Smith, Parkes Weber, and Messrs. Charters J. Symonds, F. C. Wallis, J. Hutchinson, jun., W. D. Harmer, and Maynard Smith.

TUESDAY.

MEDICO-LEGAL SOCIETY, 22, Albemarle Street, W., 8.15 p.m.—Papers, (1) Dr. F. S. Toogood: Alcoholism and Irresponsibility; (2) Dr. Albert Wilson: The Medico-Legal Aspect of Dual and Disjointed Personality.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W., 8.30 p.m.—Dr. William Gordon: The Effects of Violet Infusion on Malignant Growths. An interim report. Dr. H. D. Rolleston and Mr. Lawrence Jones: Primary Malignant Disease of the Vermiform Appendix. Exhibition of patients and epidiascope demonstration.

WEDNESDAY.

DERMATOLOGICAL SOCIETY OF LONDON, 11, Chandos Street, W., 5.15 p.m. precisely.—Cases and specimens.

HUNTERIAN SOCIETY.—The annual oration will be delivered at Pagani's Restaurant, Great Portland Street, W., by Mr. A. H. Tubby on "Recent Surgical Methods for the Treatment of Certain Forms of Paralysis," at 6.30 p.m. The anniversary dinner will take place at 7.45 p m.

UNIVERSITY COLLEGE HOSPITAL, Gower Street, W.C., 4 p.m.—Clinical lecture: Varieties of Lichen.

FRIDAY.

EPIDEMIOLOGICAL SOCIETY, 11, Chandos Street, Cavendish Square, W, 8 30 p m.—Paper: Dr Christopher Childs: A Study of the Typhoid Fever Epidemics in the United States Volunteer Camps in 1898.

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN, 11, Chandos Street, W., 5.30 p.m.—Mr. J. H. Evans: Meningocele (lantern demonstration) Short papers: Dr. F. J. Poynton: Jaundice in Infancy: Dr. E. C. Williams (Bristol): Splenomegalic Biliary Cirrhosis; Mr. W. Gifford Nash (Bedford): (1) Alopecia Areata Neurotica; (2) Renal Calculus; Dr. F. Langmead: Tuberculous Ulceration of Stomach.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Wednesday, 5 p.m., Nose.

CHARING CROSS HOSPITAL.—Thursday, 4 p.m., Medical Cases.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p m., Laryngeal Tuberculosis, with demonstration of cases.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Thursday, 4 p m, Surgical Conditions which Result from Improper Feeding.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin: Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear. Lectures at 5.15 p.m. will be given each day as follows: Monday, On Enteroptosis and Mobility of the Abdominal Organs; Tuesday, The Treatment of Ringworm; Wednesday, Observations on Treatment; Thursday, The Use of Pessaries.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Central Out-patient Department, 7, Fitzroy Square, W.—Thursday, 5 p.m., Treatment of Laryngeal Tuberculosis.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3 30 p.m., Temporo-Sphenoidal Lesions: Friday, 3 30 p m, Myelitis.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N.—The following are the arrangements for next week: Tuesday, 3.30 p.m, Demonstration on Lunacy Law and Certification at Colney Hatch Asylum, New Southgate, N.: Thursday, 4 30 p m., Lecture on Prognosis on Diseases of the Liver and Pancreas.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, Thursday, 3 p.m.—Appendicitis and Pregnancy.

WEST LONDON HOSPITAL POST-GRADUATE COLLEGE, Hammersmith Road, W.—The following arrangements have made for next week, each evening at 5 p.m.: Monday, Organic Nervous Affections of Children, with cases; Tuesday, *X* Rays: Diagnosis and Treatment, with lantern slides; Wednesday, Caries of the Teeth; its Treatment (a) by Filling and (b) by extraction of the Teeth; Thursday, Carcinoma of the Rectum, Lecture I; Friday, Food and Disease.

WESTMINSTER HOSPITAL MEDICAL SCHOOL, Caxton Street, S.W., Thursday, 5 p m.—Applied Physiology.

BOOKS, ETC., RECEIVED.

A Manual and Atlas of Orthopedic Surgery. By J. K. Young, M.D. London: Rebman, Ltd. 1906. £2 12s. 6d.

Electrical Power: What It Is, and What It Can Do. By A. W. Marshall, M.I.Mech.E., A.M.I.E.E. London: P. Marshall and Co. 3d.

Appendix xix to the Second Edition of the Descriptive Catalogue of the Pathological Specimens in the Museum of the Royal College of Surgeons of England. By S. G. Shattock. London: Taylor and Francis. 1905.

Chemistry of the Albumens. Ten lectures by S. B. Schryver, D.Sc., Ph.D. London: John Murray. 1906. 7s. 6d.

Précis de Chirurgie Infantile. Par E. Kirmisson. Paris: Masson et Cie. 1906. Fr. 12.

The Health of Our Children in the Colonies. By Doctor L. A. Robinson. London: Longmans. Green, and Co 1906. 2s. 6d.

The Game of Ju-Jitsu. By Taro Miyake and Yukio Tani. Edited by L. F. Giblin and M. A. Grainger. London: Hazell, Watson, and Viney. 5s.

Cancer Research Laboratories, University of Liverpool. The Maiotic Process in Mammalia. By J. E. S. Moore, F.L.S., and C. E. Walker, F.L.S. London: Williams and Norgate. 1903.

A General Election Supplement to Whitaker's Almanack, 1906. London: J. Whitaker and Sons, Ltd. 3d.

The Saline Iodurated Springs of Hall-Baths in Upper Austria. By Dr. J. Haidenthaller. Zürich: Art. Inst. Orell Füssli. 6d.

Essentials of Surface Anatomy. By C. R. Whittaker, L.R C.S.and P. London: J. and A. Churchill. 1906. 2s. 6d.

Technik, Wirkungen, und Indicationen der Hydro-Elektrotherapie bei Anomalien des Kreislaufs. Von Dr. P. C. Franze. München: "Aerzlichen Rundschau." 1905. M. 1.60.

Geisteskrankheit und Naturwissenschaft,-Sitte,-Genialität,-Schicksal. Von Dr. med. H. Stadelmann. München: "Aerzlichen Rundschau." 1905.

Das Wesen der Psychose auf Grundlage moderner naturwissenschaftlicher Anschauung. Von Dr. H. Stadelmann. Heft V, Die Paranoia. Heft VI, Die Epilepsie. München: "Aerzlichen Rundschau." 1905. M. 3.50.

The Champagne Standard. By Mrs. John Lane. London: John Lane. 1906. 6s.

The "Nauheim" Treatment of Chronic Diseases of the Heart in England. By L. T. Thorne, M.D., B.S. etc. Second Edition. London: Baillière, Tindall, and Cox. 1906. 3s. 6d.

A Treatise on Diseases of the Anus, Rectum, and Pelvic Colon. By J. P. Tuttle, A.M., M.D. Second Edition. London: Sidney Appleton. 1906. 25s.

Differential Diagnosis and the Treatment of Disease. By A. Caillé, M.D. London: S. Appleton. 1903. 25s.

Crematoria in Great Britain and Abroad. By A. C. Freeman. London: St. Bride's Press, Ltd.

⁂ In forwarding books the publishers are requested to state the selling price.

BRITISH MEDICAL ASSOCIATION LIBRARY.

List of Books, etc., Presented.

(Continued from page 42.)

Presented by the EDITOR of the BRITISH MEDICAL JOURNAL:

Friedberger and Fröhner. Veterinary Pathology. Vol. 2. 1905.
Harrington. Manual of Practical Hygiene. 1905.
Lehmann. Medizinische Atlanten. Bd. 5. Atlas Typischer Roentgenbilder vom normalen Menschen. 1905.
Nothnagel. Cyclopedia of Practical Medicine. Diseases of the Kidneys and Spleen. Haemorrhagic Diseases. 1905.
Rose and Carless. Manual of Surgery. 6th Ed. 1905.
Schultze—Stewart. Atlas and Testbook of Topographic and Applied Anatomy. 1905.
Scientific Memoirs by Officers of Medical and Sanitary Departments of the Government of India. No. 19-20. 1905.
Scudder. Treatment of Fractures. 5th Ed. 1905.
Sessions, H. Cattle Tuberculosis. 2nd Ed. 1905.
Smith, Col. F. Manual of Veterinary Hygiene. 3rd Ed. 1905.
Tooley, S. Life of Florence Nightingale. 1905.
Waldheim, Von. Ignaz Philipp Semmelweis: sein Leben and Wirken. 1905.
Waterston, D. The Edinburgh Stereoscopic Atlas of Anatomy. Sect. 1, 2. 1905.
Young, J. K. Handbook of Anatomy. 1905.

Calendars, Transactions, and Reports have been received from the following bodies:

American Association of Obstetricians and Gynaecologists. Transactions. Vol. 17. 1904.
——— Gynaecological Society. Transactions. Vol. 29, 1904.
——— Laryngological Association. Transactions. 1905.
——— Medico-Psychological Association. Transactions 9, 10. 1902-3.
——— Otological Society. Transactions. Vol. 9. 1905.
Asylums Committee of the London County Council. 16th Annual Report.
Birmingham University Calendar. 1905-6.
Edinburgh Medico-Chirurgical Society. Transactions. Vols. 22, 23, 24. 1902-5.
Edinburgh Obstetrical Society. Transactions. Vol. 30. 1905.
Guy's Hospital Reports. Vol. 59. 1904.
King's College Calendar. 1905-6.
Laryngological Society of London. Proceedings. 1905.
Life Assurance Medical Officers' Association. Proceedings. 1902-3.
Madras University. Calendar. 1905-6.
Massachusetts State Board of Health. Report. 1904.
Medical Society of the State of New York. Transactions. 1905.
Metropolitan Hospital Sunday Fund. Reports. 1902-5.
Mount Sinai Hospital Reports. Vol. 4. 1905.
New Sydenham Society. Atlas of Clinical Medicine and Surgery, Fasc. xvii. 1905.
Pathological Society of London. Transactions. Vol. 56. 1905.
Punjab University. Calendar. 1905-6.
Reading Pathological Society. Transactions. 1904-5.
Royal Academy of Medicine in Ireland. Transactions. Vol. 22, 23. 1904-5.
Royal College of Surgeons of England Calendar. 1905.
Royal Society. Reports on Sleeping Sickness. 1 to 5.

BOOKS NEEDED TO COMPLETE SERIES:

The Librarian will be glad to receive any of the following volumes, which are needed to complete series in the Library:

American Climatological Transactions. Vols. 1, 4, 5, 6.
——— Dermatological Association Transactions. Vols. 5, 7, 8, and 11.
——— Journal of the Medical Sciences. New series, vols. 4, 5, 1842-3; vols. 14, 15, 1847-8; vols. 18-30, 1850; vol. 33, 1857; vol. 46, 1864-5; vol. 59; or any parts of these vols.
——— Journal of Ophthalmology. Vols. 1-9.
——— Laryngological Association. Transactions. Vols. 1-6, 8-9.
——— Medical Association. Transactions, 1-28, 30, 31.
——— Otological Society. Transactions. Vol. 3, part 2, 1883.
——— Public Health Association. Transactions. Any vols.
Analyst. Vols. 1-24.
Archiv für Dermatologie und Syphilis. Prior to 1874, 1892, and 1893.
Annals of Surgery. Vols. 11, 13-16, and 26, 27.
Archives Générales de Médecine. 1831-9 inclusive; 1846-55 inclusive; 1857-64 inclusive; 1871.
——— of Ophthalmology. Vols. 1-3, 6, 7, 14-21.
——— of Otology. Vols. 1-7, and 20-22.
——— of Pediatrics. Vols. 1-11.
Asylum Journal of Mental Science. Vol. 1, 1854.
Bentley and Trimen. Atlas of Medicinal Plants.
British Journal of Dermatology. Vol. 2, part 3.
British Laryngological and Rhinological Association. 1900-1-2.
Caledonian Medical Journal. Vol. 1 prior to 1894.
Carmichael Essays. Laffan, 1879. Rivington, 1879.
Centralblatt für Augenheilkunde. Hirschberg. All prior to 1891, Index to 1891.
Centralbatt für Bakteriologie. Bound volumes prior to 1899.
——— für klinische Medicin. 1880-3; all 1888, 1891, No. 26,; 1892. No. 17.
——— für medicinischen Wissenschaften. Vols. 1-19.
Congrès Français de Chirurgie. Transactions 1, 2, 3, 6, and 10.
——— Internat. d'Obstétrique et de Gynécologie. 3. Amsterdam, 1899.
Connecticut State Board of Health Report. Vol. 11. 1887-8.
Dermatological Congress. Vienna, 1892, Paris, 1900, and Berlin, 1904.
Dublin Quarterly Journal of the Medical Sciences. Vols. 1, 10, 17, 20, 28, and 35-40.
Edinburgh Obstetrical Society. Transactions. Vol. 5.
Glasgow Medical Journal. 1833-68.
——— Pathological Society. Transactions. Vols. 1 and 2.
Guy's Hospital Gazette. Nos. 1 and 5, 1872; and 1881-86 inclusive.
Hunterian Transactions containing 76th Report.
Indian Medical Gazette. 1866-84.
International Congress of Hygiene. Congresses 1 to 6 and 10 to 12.
——— Ophthalmological Congress. Transactions of 5th, New York, 1876.
Johns Hopkins Hospital Bulletin. Vols. 1-10.
Journal of Laryngology. Vols. 1-9.
Neurologisches Centralblatt. Nos. 23, 1904, and 5, 10, 11, 12, 1905.
Ophthalmic Review, January, 1882.
Pediatrics, prior to 1902.
Pollatschek. Therapeutische Leistungen des Jahres. 1894, 1895, 1900.
Provincial Medical and Surgical Journal. March to September, 1841.
Recueil d'Ophtalmologie. 1891, January-June; 1892, December.
Registrar-General's Decennial Report, 1871-80.
Revue Générale d'Ophtalmologie. Prior to 1888, and 1891-2.
St. Bartholomew's Hospital Gazette. Vols. 1-6.
St. George's Hospital Gazette, 1-7.
St. Mary's Hospital Gazette, 1-5.
Sei-i-Kwai Medical Journal. Vols. 1-11.
South African Medical Journal. February, April, 1895. And titles for vols. 3 and 4.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
FEBRUARY.	
11 Sunday	
12 MONDAY	
13 TUESDAY......	
14 WEDNESDAY	DOVER DIVISION, *South-Eastern Branch*, Grand Hotel, Dover, 8 p.m.
15 THURSDAY...	CARDIFF DIVISION, *South Wales and Monmouthshire Branch*, Cardiff, 3.15 p.m. ISLE OF THANET DIVISION, *South-Eastern Branch*, Royal Sea-bathing Hospital, Margate. LEIGH DIVISION, *Lancashire and Cheshire Branch*, Co-operative Rooms, Ellesmere Street, 8.30 p.m. NORWOOD DIVISION, *South-Eastern Branch*, Seamen's Hospital (Dreadnought).
16 FRIDAY	EDINBURGH BRANCH, Annual Clinical Meeting, Royal Infirmary; Annual Dinner, Royal British Hotel, Princes Street, 6.30 p.m. SOUTHERN BRANCH, South-Western Hotel, Southampton, 3.45 p.m.; Dinner, 6 p.m.
17 SATURDAY...	
18 Sunday	
19 MONDAY	
20 TUESDAY......	LONDON: Organization Committee, 10.30 a.m.
21 WEDNESDAY	LONDON: Medico-Political Committee, 3 p.m.
22 THURSDAY...	LONDON: Science Committee, 3.30 p.m. CITY DIVISION, *Metropolitan Counties Branch*, 4 p.m. WANDSWORTH DIVISION, *Metropolitan Counties Branch*, Battersea Town Hall, 3 p.m.

Date.	Meetings to be Held.
FEBRUARY *(continued).*	
23 FRIDAY	MONMOUTH DIVISION, *South Wales and Monmouthshire Branch*, Abergavenny, 3 p.m. ST. PANCRAS AND ISLINGTON DIVISION, *Metropolitan Counties Branch*, North-West London Hospital, Kentish Town Road, N.W., 4 p.m.
24 SATURDAY...	
25 Sunday.........	
26 MONDAY	
27 TUESDAY ...	
28 WEDNESDAY	BATH AND BRISTOL BRANCH, Bath.
MARCH.	
1 THURSDAY...	SWANSEA DIVISION, *South Wales and Monmouthshire Branch*, General Hospital, Swansea, 3 p.m.
2 FRIDAY	LONDON: Central Ethical Committee, 2 p.m.
3 SATURDAY...	
4 Sunday.........	
5 MONDAY	
6 TUESDAY ...	
7 WEDNESDAY	LONDON: South-Eastern Branch Council, 3.15 p.m. ALTRINCHAM DIVISION, *Lancashire and Cheshire Branch*, Northwich.
8 THURSDAY...	SOUTH WALES AND MONMOUTHSHIRE BRANCH, Cardiff.
9 FRIDAY	HAMPSTEAD DIVISION, *Metropolitan Counties Branch.*
10 SATURDAY...	
11 Sunday.........	
12 MONDAY	
13 TUESDAY......	
14 WEDNESDAY	CENTRAL COUNCIL, 2 p.m.

MEMBERSHIP OF THE BRITISH MEDICAL ASSOCIATION.

THE British Medical Association exists for the promotion of medical and the allied sciences, and the maintenance of the honour and the interests of the medical profession.

The Annual Subscription to the British Medical Association is £1 5s. 0d., and the BRITISH MEDICAL JOURNAL is supplied weekly, post free, to every member of the British Medical Association wherever he may reside.

Forms of application for membership can be obtained from the General Secretary, 429, Strand, London, W.C.

The principal rules governing the election of a medical practitioner to be a member of the British Medical Association are as follow:

Article III.–Any Medical Practitioner registered in the United Kingdom under the Medical Acts and any Medical Practitioner residing within the area of any Branch of the Association situate in any part of the British Empire other than the United Kingdom, who is so registered or possesses such medical qualifications as shall, subject to the Regulations, be prescribed by the Rules of the said Branch, shall be eligible as a Member of the Association. The mode and conditions of election to Membership shall from time to time be determined by or in accordance with the By-laws. Every Member, whether one of the existing Members or a subsequently-elected Member, shall remain a Member until he ceases to be a Member in accordance with the provisions hereof.

By-law 1.—Every Candidate for Membership of the Association shall apply for election in writing, addressed to the Association, and stating his agreement, if elected, to abide by the Regulations and By-laws of the Association, and the Rules of such Division and Branch to which he may at any time belong, and to pay his subscription for the current year.

By-law 2.—Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the General Secretary of the Association, and to every Member of the Branch Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a member of the Association by the Branch Council at any meeting thereof held not less than seven days or such longer period as the Branch may by its Rules prescribe) after the date of the said Notice. A Branch may by special Resolution require that each candidate for election to the Association shall furnish a certificate from two Members of the Association to whom he is personally known. Officers of the Navy, Army, and Indian Medical Services on the Active List are eligible for election through the Council or a Branch without approving signatures as laid down in By-law 3.

By-law 3.—Every candidate whose place of residence is not included in the area of any Branch shall forward his Application to the General Secretary of the Association, together with a statement signed by three members of the Association, that from personal knowledge they consider him a suitable person for election. Notice of the proposed election shall be sent by the General Secretary to every Member of the Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a Member of the Association by the Council at any meeting thereof held not less than one month after the date of the said notice.

The annual subscription to the BRITISH MEDICAL JOURNAL for non-members is £1 8s. 0d. for the United Kingdom and £1 12s. 6d. for abroad.

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, FEBRUARY 17TH, 1906.

CONTENTS.

PAGE.
MATTERS REFERRED TO DIVISIONS: HOSPITAL OUT-PATIENT DEPARTMENTS... 53
GENERAL MEDICAL COUNCIL: ELECTION OF DIRECT REPRESENTATIVES FOR ENGLAND AND WALES, NOVEMBER, 1906 ... 55
MEETINGS OF BRANCHES AND DIVISIONS:
Birmingham Branch: Coventry Division 55
Cape of Good Hope, Eastern Province Branch 56
Metropolitan Counties Branch: Kensington Division ... 56
South-Eastern Branch: Brighton Division 56
PAGE.
ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD 56
NAVAL AND MILITARY APPOINTMENTS 57
VITAL STATISTICS 57
VACANCIES AND APPOINTMENTS... 59
BIRTHS, MARRIAGES, AND DEATHS 59
DIARY OF THE WEEK 59
CALENDAR 60

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.

MATTERS REFERRED TO DIVISIONS.

HOSPITAL OUT-PATIENT DEPARTMENTS.

THE Annual Representative Meeting at Leicester, upon consideration of the following motion:

> That in the opinion of this meeting there should be no out-patient departments in hospitals, except for consultations and casualties, and that this opinion specially applies to hospitals whose staff are general practitioners,

Resolved:

> That it is inadvisable that this meeting should pass a resolution on the general principle of hospital out-patient departments before that principle has been submitted to the Divisions, and this meeting hereby decides that the question be remitted through the Hospitals Committee to the Divisions.

The Hospitals Committee, having considered this instruction, has decided that the Divisions should have placed before them for their assistance in dealing with the subject the following resolutions relative thereto which at different times have been adopted by the Committee.

The first twelve of these resolutions have already received the approval of the Annual Representative Meeting at Oxford. The remainder have not yet been considered, on behalf of the Association, by any body other than the Hospitals Committee.

Propositions already Approved by the Representative Meeting.

HOSPITAL ADMINISTRATION.

(1) That inability to pay for adequate treatment shall be the consideration for the admission of all patients for hospital treatment.

[This shall not apply to Poor-law cases.]

(2) That no charge for the treatment of any patient shall be made.

[This shall not apply to Poor-law cases.]

(The foregoing Clause (2) was rejected by 28 votes to 17 at the Conference with non-medical Representatives of Hospitals held by invitation of the Association on March 2nd, 1905. The Committee are still of opinion that no charge should be made, and regret that this Clause was not confirmed by the Conference. The "Rider" as to Poor-law cases has been subsequently added.)

(3) That the production of subscribers' letters shall cease to be compulsory, and that where possible the system shall be abolished.

(4) That some means of investigation into the circumstances of the applicants for relief by means of an almoner or other agent shall be employed in all medical charities.

(5) That the foregoing recommendations apply to both in- and out-patients.

(6) That, except in emergencies, sufficient evidence shall be obtained on two points: (*a*) that the patient is not in a position to pay for adequate treatment; (*b*) that the case is, from a hospital point of view, suitable for treatment,

(7) That all cases of serious accident and severe sudden illness shall be attended to on their first application, and, if deemed eligible for further treatment, shall be referred to the appropriate department of the hospital; but, if ineligible, shall then be referred for treatment elsewhere.

(8) That all cases of trivial accident or illness deemed ineligible for the casualty department shall, after having been seen, be referred for treatment elsewhere.

(9) That, on the first visit no patient be permitted to leave a hospital without having been seen by a registered medical practitioner.

(10) That where possible the number of new cases to be seen on any one day by an honorary medical officer shall be limited.

(11) That special hospitals shall treat only those cases that come strictly within the scope of their work.

(12) That in all hospitals there shall be an age-limit for the retirement of the medical officers.

Propositions not yet Considered by the Representative Meeting.

HOSPITAL ADMINISTRATION (ADDITIONAL).

(13) That no scheme for the reform of Out-patient Departments can be successful without co-operation and co-ordination between Hospitals themselves, especially those which operate in the same area.

THE RELATIONSHIP OF HOSPITALS TO PUBLIC MEDICAL SERVICES,[*] PROVIDENT DISPENSARIES, FREE DISPENSARIES, AND THE POOR-LAW MEDICAL SERVICE.

(*A.*)—RELATION OF HOSPITALS TO PUBLIC MEDICAL SERVICES AND PROVIDENT DISPENSARIES.

Scope of Out-patient and Casualty Departments.

1. That hospital out-patient and casualty departments shall be as far as possible consultative (*see* paragraphs 2, 3, and 5 following), but cases requiring immediate attention shall be seen once, and only cases requiring hospital treatment or specially suitable for clinical instruction shall be treated at the hospital.

Reference Elsewhere of Unsuitable Cases.

2. That the remaining cases shall be seen by an almoner and each referred, in general terms, to a medical practitioner, to a Public Medical Service, an approved Provident Dispensary, or to the Relieving Officer under the Poor Law.

By approved Provident Dispensaries shall be understood Provident Dispensaries the constitution and conduct of which are in accordance with such principles as may be formulated in reference thereto by the British Medical Association, or by Divisions of the Association with respect to Dispensaries within their respective areas.

Co-ordination of Public Medical Services and Provident Dispensaries with Hospitals.

3. That there shall be a system of co-ordination between Hospitals, on the one hand, and Public Medical Services and Provident Dispensaries on the other, so that the Hospitals shall refer to the Public Medical Services and Provident Dispensaries suitable cases, of those not retained for Hospital treatment (*see* paragraph 2 foregoing), and the Public Medical Services and Provident Dispensaries shall refer to the Hospital cases for consultation, as well as those requiring Hospital treatment and nursing, or specially suitable for purposes of clinical instruction.

Notices of Public Medical Services and of Provident Dispensaries in Hospitals and vice versâ.

4. That notices be posted in out-patient and casualty departments of Hospitals calling attention to Public Medical Services or approved Provident Dispensaries in the neighbourhood, and the Public Medical Services and Dispensaries advertise similarly in their premises that consultations with the staffs of Hospitals can be arranged when desirable.

Public Medical Service, Dispensary and Private Practitioners' Cases referred to Hospitals for special advice.

5. That a member of a Public Medical Service or Provident Dispensary, or other patient referred to a Hospital for consultation, with a note, or personally by a general practitioner in attendance, should be exempt from the almoner's inquiries, should have priority of consideration, and should be referred back to such medical attendant, with a statement of the opinion of the Hospital Physician or Surgeon on the condition of the patient. In such a case drugs should not be supplied by the Hospital.

(*B.*)—RELATION OF HOSPITALS TO FREE DISPENSARIES.

6. That it is desirable that Free Dispensaries should as soon as possible be merged into Public Medical Services or Provident Dispensaries.

(*C.*)—RELATION OF HOSPITALS TO THE POOR-LAW MEDICAL SERVICE.

7. That cases of obvious destitution, or cases already in receipt of Poor-law relief, shall, after they have been once seen in the casualty or out-patient department, be referred to the Poor-law relieving officer unless they should be retained for hospital treatment, and Poor-law patients may be referred to hospitals for consultation as in the case of Public Medical Service and Provident Dispensary patients. In these cases payment might be required from the Poor-law Guardians if deemed advisable.

PUBLIC NURSING HOMES AND PAY WARDS.

That it is desirable that Public Nursing Homes should be established for patients who, being ineligible for the voluntary hospitals, are yet unable to pay the charges usually made in private Nursing Homes.

That pay wards should not be established in connexion with general hospitals.

Management of Public Nursing Homes.

1. That the management should be vested in a Public Committee in which the medical profession is adequately represented.

2. That no patient should be admitted to a pay ward or pay bed without first producing a certificate of fitness for admission from a medical practitioner, who should whenever possible be the patient's usual medical attendant. If the signatory be not the patient's usual medical attendant, an explanation of the fact should be appended to the certificate.

3. That it shall be open to a patient to select any registered medical practitioner as his attendant.

4. That when the payment made by a patient is insufficient to cover the entire cost of maintenance, or when any question arises as to reduction or remission of fees for professional services, a statement of the financial circumstances necessitating such consideration shall be signed by the patient or near relative, countersigned by the usual medical attendant or some other responsible householder, and submitted to the Committee.

COTTAGE HOSPITALS.

1. That every qualified practitioner, willing to act, in the district served by the Cottage Hospital, be a member of the medical staff.

2. That except in cases of emergency, Cottage Hospitals be only open to persons who, not being in receipt of parochial relief, are at the same time unable to secure adequate treatment at home.

3. That all persons admitted to Cottage Hospitals contribute where possible towards their maintenance.

4. That a certificate signed by a medical practitioner within the area be a sufficient recommendation for admission.

Divisions are requested, upon consideration of these resolutions of the Hospitals Committee, to express their opinion upon the following question:

QUESTION.

That there should be no out-patient departments in hospitals except for consultations and casualties, and that this opinion specially applies to hospitals whose staff are general practitioners.

---

[*] The term "Public Medical Service" has been applied in certain districts to organizations for providing medical attendance and medicine for certain sections of the community in which the Service is under the entire control of the medical profession. In other districts services of exactly the same general type have been established under the title of "Provident Medical Associations"; but the generic designation of "Public Medical Service" is preferable, as avoiding confusion with organizations under non-medical control.

GENERAL MEDICAL COUNCIL.

ELECTION OF DIRECT REPRESENTATIVES FOR ENGLAND AND WALES, NOVEMBER, 1906.

Candidates Nominated by Divisions for Selection by the Representative Meeting on behalf of the Association.

The following members of the Association have been nominated by the Divisions named to be candidates for election, and have accepted nomination in accordance with the terms of the scheme published in the Supplement of the British Medical Journal for October 7th, 1905:

Name.	*Address.*	*Nominating Division.*
BROWNE, Henry Langley, M.D. ... ... (Chairman of Council of the Association.)	Moor House, West Bromwich	Central Birmingham.
BULLAR, John Follett, M.B.... ... ... (Member of Branch Council, Southern Branch.)	7, Carlton Crescent, Southampton	Winchester.
MORISON, James Rutherford, F.R.C.S. (Member of Branch Council and Chairman of Northumberland Committee, North of England Branch.)	14, Saville Row, Newcastle-on-Tyne	Consett.
RHODES, John Milson, M.D. ... ... (Chairman of South Manchester Division, Lancashire and Cheshire Branch.)	Ivy Lodge, Didsbury, Manchester	Manchester (South).
STRATON, Charles Robert, F.R.C.S.Edin.... (Member of Central Council, Medico-Political Committee and Colonial Committee.)	West Lodge, Wilton, Salisbury	Winchester.

As provided by the scheme, nominations can be received until March 31st, and will henceforth be announced as received.

By Direction of the Chairman of Representative Meetings,

J. Smith Whitaker, *Medical Secretary.*

February 15th.

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

BIRMINGHAM BRANCH:

Coventry Division.

A meeting of this Division was held at the Coventry and Warwickshire Hospital on February 7th, Dr. Milner Moore being in the chair.

Cases, Specimens, etc.—Dr. Phillips showed a new chloride of ethyl inhaler designed by himself.—Dr. Phillips read notes of and exhibited the following cases: (1) A case of inversion of the uterus, which came late under his care, in which he was unable to reduce the inversion; he put on an *écraseur*, the bulk of the uterus came away, and the patient made a good recovery. (2) A case of retroflexion in which he performed ventrifixation. He also gave notes of a case of myoma, still in the hospital. These cases were discussed by Drs. Milner Moore, Webster, Hadley, Pickup, J. Orton, Kenderdine, and Harman Brown.—Dr. Fenton exhibited a specimen of aortic stenosis, which was commented on by the Chairman.

Medical Men and Friendly Societies.—Dr. Webster moved that the resolution of June 6th last (that no medical man in the area of the Division shall apply for the medical officership of a Friendly Society) be rescinded.—This was seconded by Dr. Hadley, and spoken against by Dr. Snell.—On being put, 5 voted for it, and 8 against (total present 21); it was therefore declared lost.

Minimum Fee for Friendly Societies.—Dr. Harman Brown proposed:

> That the resolution of March 7th last, relating to the minimum fee for Friendly Societies, be put in force not later than March 25th, 1906.

—Dr. Hird seconded, and it was carried unanimously.

The Midwives Act.—Dr. Snell read a note on the operation of the Midwives Act in Coventry in 1905.—The subsequent discussion was joined in by Drs. Webster, Phillips, Hawley, McGlashan, and Hadley.

Fees in Midwifery Cases.—A report was received from the medical men resident in the parishes of Foleshill and Bedworth as to the minimum fee desirable in their area in midwifery cases.

CAPE OF GOOD HOPE, EASTERN PROVINCE BRANCH.

An ordinary meeting was held at 8 p.m. on Friday, January 12th, at Steinman's Hotel, Grahamstown, Dr. C. E. Jones-Phillipson in the chair.

Confirmation of Minutes.—The minutes of the meeting of November 10th were read and confirmed.

Letter of Apology from President.—A letter was read from the President, Dr. J. Bruce-Bays, regretting that a professional call to the country prevented him from attending the meeting.

Presidential Address.—In the absence of the President, the Secretary read the presidential address on Medical Education. The paper dealt with the whole of the medical curriculum, and advocated a more stringent as well as a uniform entrance examination, less preliminary science, and that course to be taken in South Africa; more applied and less pure teaching of anatomy and physiology, more clinical work in the special departments of the hospitals, and a "one-portal" State examination to qualify a man for licence to practise. The paper evoked a warm discussion and not a few criticisms. All present, including the visitors by invitation, joined in the discussion, and a vote of thanks to the President was passed.

Letters.—Letters were read from Drs. Greathead and Batchelor, from the Prime Minister's and the Attorney-General's offices, and the Secretary of the Western Branch; the latter announced the acceptance of office by Colonel David Bruce, C.B. Letters were also read from Dr. Jones-Phillipson, on the subject of a pathological museum, and from Dr. C. J. Hill-Aitken, of East London, covering a draft of the proposed rules for the East London Division.

Specimen.—Dr. G. C. PURVIS showed a section of the wall of a gall bladder, from a case of a girl, aged 12 years, whose gall bladder when opened contained 10½ pints of hydatid fluid.

SPECIAL MEEING.

Branch and Division Rules.—A special meeting was then held finally to pass the rules of the Eastern Province Branch and of the Grahamstown Division respectively. In the case of the former three, and in the case of the latter no amendments had been received after the rules had been posted to every member of the Branch and of the Division. These were dealt with, and both sets of rules were ordered to be forwarded to the General Secretary of the Association for approbation of the Central Council.

METROPOLITAN COUNTIES BRANCH:

KENSINGTON DIVISION.

A MEETING of this Division was held at the Brompton Hospital for Consumption and Diseases of the Chest on Tuesday, January 30th. Mr. W. H. LAMB occupied the chair.

Representative on Entertainment Committee.—Mr. GEORGE EASTES was elected representative of the Division on the Entertainment Committee of the Metropolitan Counties Branch.

The late Dr. Campbell Pope.—The meeting passed a vote of condolence to the widow and family of the late Dr. Campbell Pope.

Clinical Cases.—Clinical cases were shown by the following members of the hospital staff: Drs. PERCY KIDD, MAGUIRE, HABERSHON, SCHORSTEIN, and WETHERED.

Vote of Thanks.—On the proposal of Mr. G. EASTES, seconded by Dr. RICE OXLEY, a hearty vote of thanks was passed to the hospital staff for their kind entertainment of the members of the Division.

SOUTH-EASTERN BRANCH:

BRIGHTON DIVISION.*

AN ordinary meeting of the Division was held at the Dispensary, Queen's Road, Brighton, on January 24th, Mr. T. JENNER VERRALL in the chair.

Confirmation of Minutes.—The minutes of the last ordinary meeting were read and confirmed.

Next Meeting.—It was decided to hold the next meeting at Hastings in conjunction with three other Divisions—namely, Hastings, Eastbourne, and Tunbridge Wells.

Division and Branch Finance.—An inquiry as to the present system of Division and Branch finance was submitted to the meeting for consideration.

☞ ***To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.***

Association Notices.

BRANCH AND DIVISION MEETINGS TO BE HELD

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—A general meeting of this Division will be held on Thursday, February 22nd, at 4 p.m., at the Great Eastern Hotel (Lincolnshire Room), Liverpool Street, E.C. Agenda:—(1) Minutes. (2) Letters. (3) Questions. (4) Report of Medico-Political Committee on Provident Dispensaries. (See Contract Practice Report: SUPPLEMENT TO BRITISH MEDICAL JOURNAL, July 22nd, 1905, p. 30.) (5) Report of same Committee on Public Medical Service. (Ditto, p. 32.) (6) Question of the State Registration of Nurses. (Referred from the last Annual Representative Meeting.) (7) Nomination of candidates for election as Direct Representatives on General Medical Council. (See SUPPLEMENT, October 7th, 1905.) (8) Report on Outpatient Departments of Hospitals. (To appear in SUPPLEMENT of February 17th, 1906.) (9) The Honorary Secretary will bring forward two notices of motion for next Representative Meeting, on the subject of keeping the library of the Association open till 11 p.m., and on the facilities for the better social intercourse of members. (10) Any other business.—E. W. GOODALL, Eastern Hospital, Homerton, N.E., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: ST. PANCRAS AND ISLINGTON DIVISION.—The next meeting will be held at the North-West London Hospital, Kentish Town Road, N.W., on Friday, February 23rd, at 4 p.m., when Dr. Knowsley Sibley will read a paper on the Treatment of Chronic Constipation.—WM. WYNN WESTCOTT, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: TOTTENHAM DIVISION.—A meeting of the Division will be held on Friday, February 23rd, at the Hornsey Conservative Association Rooms, opposite Finsbury Park Station, at 9.15 p.m. Agenda: Paper by Mr. G. B. Mower White, on Some Surgical Affections of the Kidneys. A discussion on Public Vaccinators and General Practitioners, and on Fees for Examination for Insurance will be opened by Dr. Leonard Grant. Visitors are cordially invited.—FRED. TRESILIAN, White Lodge, Enfield, Honorary Secretary.

NORTH WALES AND SHROPSHIRE BRANCH: NORTH CARNARVONSHIRE AND ANGLESEY DIVISION.—A meeting of this Division will be held on Wednesday, February 28th, at the British Hotel, Bangor. Members having papers to read, cases to communicate, or specimens to show, are requested to inform the Honorary Secretary on or before February 20th.—H. JONES ROBERTS, Penygroes, Honorary Secretary.

PERTHSHIRE BRANCH.—The clinical meeting will be held in the City and County Royal Infirmary, Perth, on Friday, February 23rd, at 4 p.m. Meeting of Council at 3.45 p.m. Business:—(1) Read minutes. (2) Reference by Dr. Urquhart to the late Dr. Thom, of Crieff. (3) Cases: Drs. Paton and Mackay: (*a*) Acute Nephritis; (*b*) Cirrhosis of the Kidney; (*c*) Large White Kidney; (*d*) Incipient Phthisis. (4) Cases: Dr. R. Stirling: (*a*) Osteo-myelitis; (*b*) Tuberculin injections. (5) Demonstration: High-frequency apparatus. (6) Any other business.—WILLIAM A. TAYLOR, ALEXANDER TROTTER, Perth, Joint Honorary Secretaries.

SOUTH-EASTERN BRANCH: BRIGHTON, TUNBRIDGE WELLS, EASTBOURNE, AND HASTINGS DIVISIONS.—A conjoint meeting of these Divisions will be held on Wednesday, February 21st, at the East Sussex Hospital, Hastings. The chair will be taken by Dr. Batterham at 5 o'clock. Agenda: (1) Minutes of last meetings will be read. (2) Dr. Frederick J. Smith, Physician to the London Hospital, will read a paper entitled Morbus Cordis Sine Bruits. (3) Dr. Allfrey will move the following resolution: "That this meeting of the Brighton, Tunbridge Wells, Eastbourne, and Hastings Divisions, while admitting the desirability of giving full information concerning medical candidates for Parliament in the Association's JOURNAL, regrets the recent action of the Central Committee in causing individual members of the Association to be approached by letter in such matters." (4) Consideration of the rules of the Central Midwives Board. Tea and coffee will be provided by the Chairman at 4.30. Dinner will be served at 6.45 p.m. at the Grand Hotel, Hastings; charge, 6s., exclusive of wine. Members who intend to be present at the meeting and dinner will facilitate arrangements by communicating with Dr. G. Vickerman Hewland on the previous day.—G. R. MARSH (Brighton), E. A. STARLING (Tunbridge Wells), W. J. C. MERRY (Eastbourne), G. VICKERMAN HEWLAND (Hastings), Honorary Secretaries.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: MONMOUTH DIVISION.—A quarterly meeting of this Division will be held at Abergavenny on February 23rd, at 3 p.m.—W. J. GREER, R. J. COULTER, Honorary Secretaries, Newport.

STAFFORDSHIRE BRANCH.—The second general meeting of the session will be held at the North-Western Hotel, Stafford, on Thursday, February 22nd. The President, Dr. G. S. Hatton, will take the chair at 5.30 p.m. Business: (1) Minutes of the last ordinary general meeting. (2) Correspondence. (3) Exhibition of living cases. (4) Paper by Dr. H. Marson: Twelve Cases of Goître treated with Thyroid Extract. (5) Paper: Some Cases of Acute Goître in connexion with Puberty and Pregnancy. (6) Exhibition of pathological specimens. Dinner at 7.15 p.m.; charge 5s. Members desiring to read papers at the next meeting are requested to communicate the titles to the General Secretary as soon as possible.—G. PETGRAVE JOHNSON, Stoke-on-Trent, Honorary General Secretary.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

URGEON B. LEY is promoted to be Staff Surgeon, from November 14th, 1902. He was appointed Surgeon, November 14th, 1894.

Surgeon E. G. E. O'LEARY is also promoted to be Staff Surgeon, from May 13th, 1904. His commission as Surgeon dates from May 13th, 1896.

The promotion to be Staff Surgeon is also announced of Surgeon . E. DARTNELL, from November 10th, 1904. He joined the department is Surgeon, November 10th, 1896.

Surgeons E. D. J. O'MALLEY and R. F. CLARK are promoted to be Staff urgeons, from May 25th, 1905. Their first commissions are dated lay 25th, 1897.

Surgeon R. WATERFIELD, also, is made Staff Surgeon, from November 29th, 1905. His commission as Surgeon bears date November 29th, 897.

The following appointments have been made at the Admiralty: OHN E. COAD, Fleet Surgeon, to the *Black Prince*, on commissioning, ebruary 7th; JOHN H. STENHOUSE, Fleet Surgeon, to the *Aboukir*, ebruary 7th; WILLIAM A. WHITELEGGE, Fleet Surgeon, and PALMER . RAMSAY, Surgeon, to the *Cornwallis*, February 7th; MATTHEW J. 'REGAN, Staff Surgeon, to the *Trafalgar*, February 7th: EDWARD B. ENNY, Surgeon, to the *Redbreast*, February 6th; JAMES BRADLEY, leet Surgeon, to the *Essex*, on commissioning; LIONEL C. E. MURPHY, urgeon, to the *Duke of Edinburgh*: SAMUEL H. VICKERY, Surgeon, to e *Thistle*, February 27th; CHARLES A. G. PHIPPS, to the *Vivid*, for isposal, undated: LLEWELLYN A. BAISS, Surgeon, to the *Tamar*, ebruary 12th; GERALD NUNN, Surgeon, to the *Barham*, February 2th; HENRY WOODS, Surgeon, to the *Vivid*, for disposal; DAVID H. ICKERY and WILLIAM L. HAWKINS, Surgeon, to the *Pembroke*, for isposal, February 10th; CHARLES W. SHARPLES, Fleet Surgeon, to e *Clyde*, February 28th: WALTER S. H. SEQUEIRA, Staff Surgeon, to e *Unicorn* (temporary), February 28th; AUGUST J. WERNET, Surgeon, Plymouth Hospital, February 26th; WILLIAM J. STITT, Surgeon, to e *Cambridge*.

ROYAL ARMY MEDICAL COLLEGE.

EUTENANT-COLONEL A. M. DAVIES to be Professor of Hygiene, vice eutenant-Colonel R. H. Firth, whose tenure of that appointment has pired, February 1st.

Captain W. S. HARRISON, M.B., to be Assistant Professor of thology, vice Captain D. Harvey, M.B., whose tenure of that pointment has expired, February 1st.

ROYAL ARMY MEDICAL CORPS.

AJORS J. G. BLACK, M.D., W. P. SQUIRE, and S. J. W. HAYMAN are ced on retired pay, January 30th. Their commissions, which are nultaneous, are thus dated: Surgeon, January 30th, 1886; Surgeon-ajor, January 30th, 1898. Their war records are as follow: Major ack—South African war, 1900-2, including operations in the Transal, Natal, the Orange River Colony, and on the Zululand Frontier Natal (Queen's medal with three clasps, King's medal with two sps). Major Squire—South African war, 1899-1902, including the ief of Ladysmith and the actions at Spion Kop and Vaal Kranz een's medal with three clasps, King's medal with two clasps). jor Hayman—Burmese expedition, 1886-8 (medal with two clasps).

lajor J. P. S. HAYES is also placed on retired pay, January 30th. was appointed Surgeon, January 30th, 1886, and Surgeon-Major, uary 30th, 1899. He was with the Nile expedition in 1898 (British l Egyptian medals); and in the South African war in 1900-2, includ- operations in Natal and the Transvaal (Queen's medal with two sps. King's medal with two clasps).

ieutenant R. J. C. THOMPSON, from the Seconded List, to be utenant, January 31st. He was appointed on probation, January t, 1905.

lajor C. H. MELVILLE, M.B., on return from India, has been ointed to the Advisory Board for Army Medical Service at the r Office, as Expert on Sanitation.

ieutenant-Colonel D. O'SULLIVAN is granted the temporary rank of onel while officiating as Principal Medical Officer, Abbottabad and kot Brigades, from December 16th, 1905.

INDIAN MEDICAL SERVICE.

IOR W. YOUNG, Bengal Establishment, resigns his commission n December 15th, 1905. He joined the department as Surgeon-tenant, January 30th, 1893, and became Major, January 30th, 1905.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

seventy-six of the largest English towns, including London, births and 4,711 deaths were registered during the week end- Saturday last, February 10th. The annual rate of mortality in e towns, which had been 15.8, 15.9, and 15.5 per 1,000 in the three eding weeks, was again 15.5 per 1,000 last week. The rates in the ral towns ranged from 8.4 in Willesden, 8.6 in Walthamstow, n East Ham and in Reading, 9.3 in Leyton and in Hastings, and n Hornsey, to 20.0 in Rhondda, 20.5 in Coventry, 20.8 in Great nouth, in Plymouth, and in Burnley, 21.1 in Warrington, 21.2 in rpool, 22.8 in Preston, and 24.2 in Merthyr Tydfil. In London the of mortality was 14.9 per 1,000, while it averaged 15.9 per 1,000 in eventy-five other large towns. The death-rate from the principal tious diseases in these towns averaged 1.3 per 1,000; in London death-rate was equal to 1.2 per 1,000, while among the seventy- large provincial towns the rates ranged upwards to 2.7 in outh, 2.9 in Leicester, 3.0 in Rochdale, 3.1 in Croydon and reston, and 3.5 in Merthyr Tydfil. Measles caused a death- of 1.2 in Leeds and in York, 1.3 in Tottenham, 1.4 in Croydon, 2.2 in Preston; diphtheria of 1.3 in Reading, 1.4 in Hull, 2.1 in Merthyr Tydfil; whooping-cough of 1.2 in Rochdale, 1.3 in ingham, in Aston Manor, and in Gateshead, 1.5 in Warrington n Burnley, 1.8 in Plymouth, and 2.7 in Leicester; and diarrhoea in Rochdale. The mortality from scarlet fever and from enteric showed no marked excess in any of the large towns. No fatal of small-pox were registered last week in London or in any of arge provincial towns, and no small-pox patients were under ment last week in any of the Metropolitan Asylums Hospitals. number of scarlet fever cases in these hospitals and in the on Fever Hospital, which had been 3,066, 2,983, and 2,912 at the end of the three preceding weeks, had further declined to 2,839 at the end of last week; 283 new cases were admitted during the week, against 328, 322, and 319 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, February 10th, 965 births and 577 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.2, 19.6, and 16.5 per 1,000 in the three preceding weeks, rose again to 16.8 per 1,000 last week, and was 1.3 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the rates ranged from 14.5 in Leith and 15.0 in Paisley to 20.6 in Dundee and 21.1 in Perth. The death-rate from the principal infectious diseases averaged 1.4 per 1,000 in these towns, the highest rates being recorded in Glasgow and Dundee. The 265 deaths registered in Glasgow included 14 which were referred to measles, 3 to scarlet fever, 2 to diphtheria, 3 to whooping-cough, 2 to "fever," and 6 to diarrhoea. Three fatal cases of diarrhoea were recorded in Edinburgh. Two deaths from measles and 5 from diarrhoea occurred in Dundee, and 2 from "fever" in Paisley.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, February 10th, 478 births and 377 deaths were registered in six of the principal Irish towns, as against 634 births and 376 deaths in the preceding period. The annual death-rate in these towns, which had been 17.7, 18.8, and 18.9 per 1,000 in the preceding weeks, rose to 22.7 per 1,000 in the week under notice, this figure being 7.2 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 20.5 in Dublin and 21.2 in Belfast to 23.4 in Waterford and 26.0 in Londonderry. The zymotic death-rate in the same six Irish towns averaged 2.2 per 1,000, or 1.1 per 1,000 higher than during the preceding period, the highest figure—7.4—being recorded in Londonderry, while no deaths under this heading were registered in Waterford.

ENGLISH URBAN MORTALITY DURING 1905.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

IN the accompanying table will be found summarized the vital statistics of the seventy-six large towns dealt with in the Registrar-General's weekly returns. During the fifty-two weeks ending December 30th last 438,360 births were registered in these towns, equal to an annual rate of 28.2 per 1,000 of their aggregate population, estimated at 15,609,377 persons in the middle of last year; this rate was 0.9 per 1,000 below the mean rate in the preceding year. In London the birth-rate was 27.1 per 1,000, while it averaged 28.6 per 1,000 in the seventy-five other large towns, and ranged from 16.8 in Bournemouth, 17.7 in Hastings, 18.5 in Hornsey, 19.2 in Halifax, 20.9 in Northampton, and 21.1 in Bradford, to 33.8 in Wigan, 34.4 in Sunderland, 35.0 in Middlesbrough, 36.2 in St. Helens, 37.5 in Rhondda, and 38.3 in Merthyr Tydfil.

During the period under notice, 244,840 deaths were registered in these seventy-six towns, corresponding to an annual rate of 15.7 per 1,000, which was 1.5 per 1,000 below the rate in the preceding year. In London the rate of mortality was 15.6 per 1,000, while it averaged 15.8 in the seventy-five large provincial towns, among which the rates ranged from 7.6 in Hornsey, 9.1 in King's Norton, 10.1 in Handsworth (Staffs), 10.3 in Leyton, 10.8 in Walthamstow, and 11.5 in Burton-on-Trent, to 19.1 in Rhondda, 19.3 in Hanley and in Tynemouth, 19.6 in Liverpool, 21.0 in Middlesbrough, and 22.1 in Merthyr Tydfil.

The 244,840 deaths from all causes in these towns last year included 29,355 that were referred to the principal infectious diseases; of these. 51 resulted from small-pox, 6,058 from measles, 2,082 from scarlet fever, 2,528 from diphtheria, 4,507 from whooping-cough, 1,252 from "fever" (principally enteric), and 12,877 from diarrhoea. The death-rate from these diseases was equal to 1.88 per 1,000, or 0.61 per 1,000 below the corresponding rate for the preceding year. In London the death-rate from the principal infectious diseases was 1.71 per 1,000, while it averaged 1.96 per 1,000 in the seventy-five large provincial towns, among which the rates ranged from 0.46 in Hornsey, 0.50 in Bournemouth, 0.56 in Brighton, 0.63 in Handsworth (Staffs), 0 67 in Burton-on-Trent, and 0.78 in King's Norton, to 2.98 in West Ham, 2.99 in Middlesbrough, 3 14 in Wigan, 3 15 in Preston, 3.20 in Sheffield, 3.21 in West Bromwich, and 4.04 in Merthyr Tydfil. Of the 51 fatal cases of small-pox registered in these towns last year, 10 belonged to London, 7 to Bradford, 5 to Oldham, 4 to Southampton, 4 to Burnley, 4 to South Shields, 3 to Leeds, and 3 to Hull. The 6,058 fatal cases of measles corresponded to an annual rate of 0.39 per 1,000; in London the death-rate from this disease was 0.37 per 1,000, while it averaged 0.40 in the seventy-five other large towns, among which the highest rates were recorded in Portsmouth, Southampton, West Bromwich, Nottingham, Warrington, Barrow-in-Furness, Sheffield, Stockton-on-Tees, and Merthyr Tydfil. The 2,082 deaths from scarlet fever were equal to an annual rate of 0 13 per 1,000; in London the scarlet fever death-rate was 0.12 per 1,000, the highest rates among the seventy-five large provincial towns being recorded in Liverpool, Bootle, Salford, Oldham, Blackburn, Rotherham, and Merthyr Tydfil. The 2,528 fatal cases of diphtheria corresponded to a rate of 0 16 per 1,000; in London the mortality from this disease was 0.12 per 1,000, while it averaged 0.18 in the seventy-five other large towns, and was highest in East Ham, Portsmouth, Hanley, Salford, Rochdale, Hull, Middlesbrough, and West Hartlepool. The 4,507 deaths from whooping-cough were equal to an annual rate of 0.29 per 1,000, the rate in London being 0 32 per 1,000; among the seventy-five other large towns whooping-cough was proportionally most fatal in Tottenham, West Ham, Hanley, Grimsby, Preston, South Shields, and Tynemouth. The 1,252 deaths referred to different forms of "fever" corresponded to an annual rate of 0.08 per 1,000; in London the "fever" death-rate was 0 05 per 1,000, while it averaged 0.09 in the seventy-five other large towns, and was highest in Wigan, Bolton, Bury, Salford, Huddersfield, Middlesbrough, Sunderland, South Shields, and Merthyr Tydfil. The 12,877 fatal cases of diarrhoea were equal to a rate of 0.83 per 1,000; in London the rate was 0.73, while it averaged 0.87 in the seventy-five other large towns, among which this disease showed the greatest proportional mortality in West Ham, Grimsby, Bootle, Wigan, Burnley, Sheffield, and Rhondda.

Infant mortality, measured by the proportion of deaths among children under one year of age to registered births, was equal to 140 per 1,000 last year, against 160 in the preceding year. In London the rate was 131 per 1,000, while it averaged 143 in the seventy-five other large towns, ranging from 66 in Hornsey, 80 in Handsworth (Staffs), 83 in Bournemouth, 87 in Burton-on-Trent, 89 in King's Norton, and 94 in Leyton, to 173 in Burnley and in Middlesbrough, 174 in Norwich and in Grimsby, 193 in Merthyr Tydfil, 195 in Hanley, and 200 in Rhondda.

Analysis of the Vital Statistics of Seventy-six of the Largest English Towns during 1905.

Towns.	Estimated Population middle of 1905.	Births.	Deaths.	Annual Rate per 1,000 Living.			Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Diarrhoea.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
				Births.	Deaths.	Principal Infectious Diseases.										
76 Towns	15.609,377	438.360	244,840	28.2	15.7	1.88	29,355	51	6.058	2,082	2,528	4,507	1,252	12,877	140	1.1
75 Provincial Towns	10,924,583	311,740	171,838	28.6	15.8	1.96	21,365	41	4,343	1,533	1,975	3,000	1,006	9,467	143	1.5
London	4,684,794	126.620	73,002	27.1	15.6	1.71	7,990	10	1,715	549	553	1,507	246	3,410	131	0.2
Croydon	147,704	3.895	1.839	26.4	12.5	0.98	145	—	25	11	23	33	4	49	95	—
Willesden	138,080	4,134	1,595	30.0	11.6	1.72	236	—	51	5	15	67	10	88	112	0.6
Hornsey	84,070	1,554	635	18.5	7.6	0.46	39	—	10	2	7	10	2	8	66	—
Tottenham	116,232	3.580	1,479	30.9	12.8	1.31	154	—	11	5	19	63	6	50	115	—
West Ham	294,997	9,029	4,366	30.7	14.8	2.98	877	—	103	35	76	166	29	468	153	0.0
East Ham	123,381	3,671	1,435	29.8	11.7	2.27	279	—	48	22	37	57	17	98	125	0.2
Leyton	114,555	3.209	1,180	28.1	10.3	1.37	157	—	32	10	15	29	10	61	94	1.0
Walthamstow	116,297	3.350	1,248	28.9	10.8	1.70	197	—	35	17	28	32	8	77	106	0.3
Hastings	66.820	1,182	851	17.7	12.8	0.90	59	—	10	1	2	33	2	11	113	0.6
Brighton	127,183	2,911	1,711	23.0	13.5	0.56	70	—	4	1	5	11	2	47	101	0.5
Portsmouth	201,975	5,641	3,345	28.0	16.6	2.64	534	—	218	11	69	45	18	173	133	1.4
Bournemouth	66.168	1.110	814	16.8	12.3	0.50	32	—	3	1	16	2	1	9	83	0.5
Southampton	114,897	2,868	1,648	25.0	14.4	2.37	270	4	130	10	26	19	10	71	132	—
Reading	77,674	1,992	1,038	25.7	13.4	1.54	119	—	57	7	18	11	2	24	121	2.7
Northampton	92,441	1.927	1,157	20.9	12.6	1.22	113	—	15	16	14	24	2	42	126	1.9
Ipswich	70.802	1,954	1,034	27.7	14.6	1.26	89	—	12	3	11	22	7	34	144	1.7
Great Yarmouth	52,355	1,433	824	27.4	15.8	0.86	45	—	—	1	2	4	6	32	132	—
Norwich	116,741	3,205	1,892	27.8	16.3	1.60	185	—	1	2	23	13	8	138	174	1.0
Plymouth	116,000	2,966	1,946	25.6	16.8	1.44	165	—	11	30	17	7	8	92	135	0.1
Devonport	76,864	2,227	1,067	29.1	13.9	1.05	81	—	9	11	7	14	13	27	113	—
Bristol	358,515	9,653	5,203	27.0	14.6	1.50	536	—	180	38	56	121	12	129	122	0.3
Hanley	64,667	2,167	1,245	33.6	19.3	2.80	180	—	4	14	21	67	4	70	195	1.8
Burton-on-Trent	52,424	1.328	600	25.4	11.5	0.67	35	—	9	—	7	2	2	15	87	1.5
Wolverhampton	99.456	2,851	1,488	28.7	15.0	2.26	225	—	45	14	18	12	9	127	137	0.4
Walsall	92.998	2.769	1,311	29.9	14.1	1.42	132	—	3	1	12	—	6	110	141	0.7
Handsworth	61.721	1,486	620	24.1	10.1	0.63	40	—	7	4	4	3	2	20	80	2.3
West Bromwich	67,823	2 137	1.132	31.6	16.7	3.21	217	—	119	11	6	7	12	62	146	1.9
Birmingham	542,959	15.857	8,752	29.3	16.2	1.90	1,030	1	238	52	94	156	37	452	154	3.5
King's Norton	69,630	1.782	630	25.7	9.1	0.78	54	—	20	4	6	11	1	12	89	1.7
Smethwick	62,605	1.910	831	30.6	13.3	1.75	109	—	42	7	1	27	6	26	137	2.2
Aston Manor	81.320	2,129	1,066	26.3	13.1	2.02	164	—	30	6	7	27	3	91	145	1.6
Coventry	75,134	2.147	1,092	28.7	14.6	1.49	113	—	58	1	12	1	7	34	108	1.6
Leicester	228.132	5,888	3,017	25.9	13.3	1.62	368	—	53	34	12	50	8	211	148	1.
Grimsby	68,153	1.984	1,007	29.2	14.8	2.78	189	—	5	—	14	38	11	121	174	1.8
Nottingham	251,671	6,652	4,141	26.5	16.5	2.27	570	1	230	18	48	60	23	190	155	0.8
Derby	122,207	3,095	1,775	25.4	14.6	1.52	185	2	45	11	23	21	9	74	151	—
Stockport	98,320	2,666	1,640	27.2	16.7	1.96	193	—	19	7	7	31	10	119	168	0.
Birkenhead	116.035	3,707	1,782	32.0	15.4	1.86	215	—	31	28	32	1	6	117	127	0.
Wallasey	62.460	1,657	781	26.6	12.5	1.08	67	—	1	6	10	2	9	39	98	1.
Liverpool	730.143	24.237	14.290	33 3	19 6	2.59	1,893	—	236	299	151	148	76	983	153	3.
Bootle	62,758	2,070	1,139	33.1	18.2	2.88	180	—	9	34	18	19	5	95	155	4.
St. Helens	89,843	3.239	1,528	36.2	17.1	2.13	191	—	42	16	19	27	2	85	134	4.
Wigan	86,581	2.917	1.608	33.8	18.6	3.14	271	—	58	11	7	15	35	145	164	0.
Warrington	68.301	2,281	1,159	33.5	17.0	2.69	183	—	66	9	6	17	4	81	147	5.
Bolton	178,111	4.446	2,677	25.0	15.1	1.94	344	—	94	4	17	8	34	187	167	0.
Bury	58,594	1,273	954	21.8	16.3	1.26	73	1	7	3	4	1	11	46	147	1.
Manchester	631,185	18.543	11,327	29.5	18.0	2.25	1,411	—	232	80	124	195	57	723	157	1.
Salford	231,514	7,079	3,910	30.7	16.9	2.57	591	—	73	67	82	46	44	279	148	0.
Oldham	140.225	3 395	2,514	24.3	18.0	2.10	292	5	62	45	12	57	11	100	150	0.
Rochdale	86,390	1,880	1,437	21.8	16.7	1.25	108	—	2	23	26	13	4	40	133	2.
Burnley	101,682	2,666	1,679	26.3	16.6	2.33	235	4	13	21	19	26	13	139	173	1.
Blackburn	133,067	3,193	2,151	24.1	16.2	2.01	267	—	46	77	32	12	15	85	146	4.
Preston	115,721	3,263	2,067	28.3	17.9	3.15	363	1	86	8	19	79	18	152	154	2.
Barrow-in-Furness	60,306	1,826	877	30.4	14.6	1.99	120	—	59	6	9	24	2	20	135	4,
Huddersfield	94,888	2.256	1,606	23.8	17.0	1.10	104	—	5	11	10	18	18	42	119	0.
Halifax	108,419	2.072	1,581	19.2	14.6	0.98	106	—	1	11	28	32	7	27	131	1
Bradford	286,799	6,044	4,357	21.1	15.2	1.42	409	7	12	47	80	96	24	143	144	1
Leeds	456,787	12.338	6,946	27.1	15.2	1.61	727	3	110	39	44	117	54	360	151	0
Sheffield	440,414	13,070	7,467	29.8	17.0	3.20	1,404	—	411	98	55	128	43	669	167	2
Rotherham	59,794	1,911	815	32.1	13.7	1.30	78	—	—	17	8	18	2	33	123	2
York	82,362	2,298	1,167	28.0	14.2	1.41	115	—	12	8	8	6	8	73	129	0
Hull	258.127	7.744	4,185	30.1	16.3	2.37	611	3	23	24	77	129	25	330	152	1
Middlesbrough	98,369	3,431	2,056	35.0	21.0	2.99	294	—	73	9	38	45	23	106	173	0
Stockton-on-Tees	52,425	1,584	930	30.5	17.8	2.49	130	—	73	11	14	2	6	24	150	0
West Hartlepool	71.313	2,079	1,127	29.2	15.8	2.04	145	1	36	17	27	24	7	33	146	0
Sunderland	152,761	5,238	2.837	34.4	18.6	2.24	340	—	95	1	30	58	30	126	142	3
South Shields	109,360	3,501	1,754	32.1	16.1	1.84	199	4	25	6	24	64	23	53	146	4
Gateshead	120,620	3,938	1.864	32.7	15.5	1.66	200	1	41	11	19	42	4	82	138	6
Newcastle-on-Tyne	264,511	8,478	4.432	32 1	16.8	1.33	354	2	35	14	51	87	11	154	135	[illegible]
Tynemouth	53.595	1,775	1,032	33.2	19.3	1.45	77	1	5	1	6	35	2	27	153	1
Newport (Mon.)	72.880	2,275	1,146	31.3	15.8	1.30	94	—	31	2	12	6	3	40	125	[illegible]
Cardiff	180,054	5,139	2,398	28.6	13.4	1.14	206	—	79	4	23	35	8	57	118	[illegible]
Rhondda	124,988	4,670	2,375	37.5	19.1	2.83	353	—	84	11	16	55	16	171	200	[illegible]
Merthyr Tydfil	73,848	2,820	1,628	38.3	22.1	4.04	297	—	135	21	21	11	14	95	193	[illegible]
Swansea	96,384	3,038	1,601	31.9	16.7	1.37	132	—	48	10	19	6	5	44	131	[illegible]

The causes of 2,759, or 1.1 per cent., of the deaths registered in the seventy-six towns last year were not certified either by a registered medical practitioner or by a coroner. In London the proportion of uncertified deaths was 0.2 per cent., while it averaged 1.5 per cent. in the seventy-five other large towns. All the causes of death were duly certified in Croydon, Hornsey, Tottenham, Southampton, Great Yarmouth, Devonport, and Derby: while the largest proportions of uncertified deaths were registered in Birmingham, Liverpool, Bootle, St. Helens, Warrington, Blackburn, Barrow-in-Furness, South Shields, and Gateshead.

THE PHTHISIS DEATH-RATE FOR ENGLAND AND WALES.

We are indebted to the courtesy of the Registrar-General, extended to us through Dr. Tatham, for the following statistics of the death-rate from phthisis in England and Wales for the years indicated in the table:

Year.	Rate per Million.
1902	1,233
1903	1,203
1904*	1,236

* Subject to correction.

Vacancies and Appointments.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN. — Physician for Out-patients. Salary, £40 per annum.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—Junior House-Surgeon. Salary, £70 per annum.

AMBRIDGE: ADDENBROOKE'S HOSPITAL.—(1) House-Physician. (2) Assistant House-Surgeon. Salary, £65 and £50 per annum respectively.

DINBURGH: ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.—Four Resident Medical Officers.

OSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Assistant Surgeon.

ULL ROYAL INFIRMARY.—House-Surgeon. Salary, 80 guineas per annum.

EEDS: HOSPITAL FOR WOMEN AND CHILDREN.—Honorary Assistant Surgeon (Gynaecological and Obstetrical).

EICESTER INFIRMARY. — House-Surgeon. Salary, £100 per annum.

IVERPOOL: DAVID LEWIS NORTHERN HOSPITAL. — Two House-Surgeons. Salary, £60 per annum each.

ANCHESTER PORT SANITARY AUTHORITY.—Medical Officer of Health. Salary, £350 per annum.

ETROPOLITAN EAR, NOSE, AND THROAT HOSPITAL, Grafton Street, W.—Three Clinical Assistants and an additional Anaesthetist,

T. PETER'S HOSPITAL FOR STONE, Henrietta Street, W.C.—Junior House-Surgeon. Salary at the rate of £50 per annum.

OUTHAMPTON: ROYAL HANTS AND SOUTHAMPTON HOSPITAL.—Junior House-Surgeon. Salary at the rate of £60 per annum.

OUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Assistant House-Surgeon. Salary, £75 per annum.

ORQUAY: TORBAY HOSPITAL.—House-Surgeon. Salary, £100 per annum.

RURO: ROYAL CORNWALL INFIRMARY. — House-Surgeon. Salary, £100 per annum.

INCHESTER CITY.—Medical Officer of Health. Salary, £300 per annum.

INCHESTER: ROYAL HANTS COUNTY HOSPITAL.—House-Physician. Salary, £65, rising to £75 per annum.

OLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Assistant House-Physician. Honorarium at the rate of £75 per annum.

ERTIFYING FACTORY SURGEONS. — The Chief Inspector of Factories announces the following vacancy in the office of Certifying Factory Surgeons: Burghead, co. Elgin.

APPOINTMENTS.

RIDE, T. Milnes, M.B., Ch.B., House Physician to the Manchester Royal Infirmary.

ROWN, W. Langdon, M.D.Cantab., M.R.C.P., Medical Registrar and Demonstrator of Morbid Anatomy to St. Bartholomew's Hospital.

APHAM, Lucy B., M.B.Lond., Anaesthetist to the New Hospital for Women.

AY-DEWDNEY, E. L., L.S.A., District Medical Officer of the Lutterworth Union.

RAHAM, J., M.B., Certifying Factory Surgeon for the Cockermouth District, co. Cumberland.

OWE, P., L.R.C.P. and S.Edin., Resident Medical Officer to the Ashton-under-Lyne Union Workhouse.

MES, W. T., M.B., Ch.B., District Medical Officer of the Aberayron Union.

AY, A. R., M.R.C.S., L.R.C.P., District Medical Officer of the Erpingham Union.

AKINS, R., M.B., Ch.B.Glasg., Resident Medical Officer, York Dispensary.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTH.

CARTER.—On February 4th, at The Abbey House, Shaftesbury, Dorset, the wife of Dr. H. H. A. Carter, of a daughter.

DEATHS.

DURHAM.—On February 14th, at 20, Ellerdale Road, N.W., Mary Durham, widow of the late Arthur E. Durham, F.R.C.S., Consulting Surgeon to Guy's Hospital. (No flowers, by request.)

FAIRCLOUGH.—On February 11th, at Knowle Cottage, Mirfield, aged 58 years, Thomas Butter Fairclough, Surgeon.

LOWSON.—At Duncraig, William Street, Dundee, on February 10th, George Lowson, M.B., C.M., in his 42nd year.

DIARY FOR NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 9 p.m.—Mr. C. A. Ballance: Second Lettsomian Lecture- Some Points in the Surgery of Brain Abscess.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Hunterian Lecture:—Professor H. J. Paterson, F.R.C.S.: Gastric Surgery.

TUESDAY.

CHELSEA CLINICAL SOCIETY, Chelsea Dispensary, Manor Street, Chelsea, S.W., 8 30 p.m.—Exhibit, 8 p.m.: A Case of Removal of the Epiglottis for Tuberculous Infiltration. Communications, 8.30 p.m.:—Dr. Eric Pritchard: The Training of Nerve Centres in Children. Dr. Harold Barwell: Surgical Treatment in Tuberculous Laryngitis.

PATHOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 p.m.—Professor A. S. Grünbaum: General Sarcomatosis of the Pia Mater. Dr. F. G. Bushnell: (1) Case of Leukanaemia; (2) Case of Lymphocythaemia without Lymphatic Enlargement. Dr. J. Bernstein: (1) Phlegmonous Gastritis: (2) Doubling of Spinal Cord. Mr. S. G. Shattock: Primary Squamous-celled Carcinoma of Male Urethra.

SOCIETY OF ANAESTHETISTS, 20, Hanover Square, W., 8.30 p.m.—Paper:—Professor F. W. Keeble: Action of Anaesthetics on Lower Forms of Life.

WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Hunterian Lecture:—Professor H. J. Paterson, F.R.C.S.: Gastric Surgery.

FRIDAY.

CLINICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 p.m.—Papers:—Mr. Jones Sherren: Three Cases of Intestinal Obstruction. Mr. H. W. Carson: Three Cases of Appendicitis due to Transposition of Viscera. Mr. John D. Malcolm: A Case of Appendix Abscess with Severe Haemorrhage.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Hunterian Lecture:—Professor H. J. Paterson, F.R.C.S.: Gastric Surgery.

POST-GRADUATE COURSES AND LECTURES

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Wednesday, 5 p.m., Nasal Accessory Sinuses.

CHARING CROSS HOSPITAL.—Thursday, 4 p.m., Mr. Gibbs: Surgical Cases.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m., Clinical Lecture: Bronchiectasis.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Thursday, 4 p.m., Scurvy.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures at 5.15 p.m. will be given each day as follows: Monday, Tuberculous Peritonitis; Tuesday, Some Unusual Forms of Hernia; Wednesday, Dilatation of the Stomach; Thursday, Chronic Gastritis.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Central Out-patient Department, 7, Fitzroy Square, W.—Thursday, 5 p.m., Climates and Health Resorts in Tuberculosis.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Clinical Lecture; Friday, 3 30 p.m., Chorea.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N.—The following are the arrangements for next week: Tuesday, 4.30 p.m., Pathological Demonstration; Thursday, 4.30 p.m., Demonstration on Electro-Diagnosis.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W., Thursday, 3 p.m.—Clinical Features of Diseases of the Fallopian Tubes.

UNIVERSITY COLLEGE HOSPITAL, Gower Street, W.C., Wednesday, 4 p.m.—Clinical Lecture on Acute Pleurisy with Effusion.

WEST LONDON HOSPITAL POST-GRADUATE COLLEGE, Hammersmith Road, W.—The following arrangements have been made for next week, each evening at 5 p.m.: Monday, Mitral Stenosis; Tuesday, Cancer of the Uterus; Wednesday, Practical Medicine; Thursday, Practical Surgery; Friday, Cases of Skin Disease.

WESTMINSTER HOSPITAL MEDICAL SCHOOL, Caxton Street, S.W., Thursday, 5 p.m.—Applied Physiology.

CALENDAR OF THE ASSOCIATION.

FEBRUARY.

Date.	Meetings to be Held.
18 **Sunday**	
19 MONDAY	
20 TUESDAY......	London: Organization Committee, 10.30 a.m. London: Premises Building Subcommittee, 3 p.m.
21 WEDNESDAY	London: Medico-Political Committee, 3 p.m. Brighton, Tunbridge Wells, Eastbourne, and Hastings Divisions, *South-Eastern Branch*, Conjoint Meeting, East Sussex Hospital, Hastings, 5 p.m.; Dinner, Grand Hotel, Hastings, 6.45 p.m.
22 THURSDAY...	London: Science Committee, 3.30 p.m. City Division, *Metropolitan Counties Branch*, Great Eastern Hotel (Lincolnshire Room), Liverpool Street, E.C., 4 p.m. Staffordshire Branch, General Meeting, North-Western Hotel, Stafford, 5.30 p.m.; Dinner, 7.15 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Battersea Town Hall, 3 p.m.
23 FRIDAY	Monmouth Division, *South Wales and Monmouthshire Branch*, Abergavenny, 3 p.m. Perthshire Branch, Clinical Meeting, City and County Royal Infirmary, Perth, 4 p.m.; Council, 3.45 p.m. St. Pancras and Islington Division, *Metropolitan Counties Branch*, North-West London Hospital, Kentish Town Road, N.W., 4 p.m. Tottenham Division, *Metropolitan Counties Branch*, Hornsey Conservative Association, opposite Finsbury Park Station, 9.15 p.m.
24 SATURDAY...	

FEBRUARY *(continued)*.

Date.	Meetings to be Held.
25 **Sunday**.........	
26 MONDAY	
27 TUESDAY ...	
28 WEDNESDAY	Bath and Bristol Branch, Bath. North Carnarvonshire and Anglesey Division, *North Wales and Shropshire Branch*, British Hotel, Bangor.

MARCH.

Date.	Meetings to be Held.
1 THURSDAY...	Swansea Division, *South Wales and Monmouthshire Branch*, General Hospital, Swansea, 3 p.m.
2 FRIDAY	London: Central Ethical Committee, 2 p.m.
3 SATURDAY...	
4 **Sunday**.........	
5 MONDAY	
6 TUESDAY ...	
7 WEDNESDAY	London: South-Eastern Branch Council, 3.15 p.m. Altrincham Division, *Lancashire and Cheshire Branch*, Northwich.
8 THURSDAY...	South Wales and Monmouthshire Branch, Cardiff.
9 FRIDAY	Hampstead Division, *Metropolitan Counties Branch.*
10 SATURDAY...	
11 **Sunday**.........	
12 MONDAY	
13 TUESDAY......	
14 WEDNESDAY	Central Council, 2 p.m.
15 THURSDAY...	Cardiff Division, *South Wales and Monmouthshire Branch.*
16 FRIDAY.........	
17 SATURDAY...	

MEMBERSHIP OF THE BRITISH MEDICAL ASSOCIATION.

The British Medical Association exists for the promotion of medical and the allied sciences, and the maintenance of the honour and the interests of the medical profession.

The Annual Subscription to the British Medical Association is £1 5s. 0d., and the British Medical Journal is supplied weekly, post free, to every member of the British Medical Association wherever he may reside.

Forms of application for membership can be obtained from the General Secretary, 429, Strand, London, W.C.

The principal rules governing the election of a medical practitioner to be a member of the British Medical Association are as follow:

Article III.—Any Medical Practitioner registered in the United Kingdom under the Medical Acts and any Medical Practitioner residing within the area of any Branch of the Association situate in any part of the British Empire other than the United Kingdom, who is so registered or possesses such medical qualifications as shall, subject to the Regulations, be prescribed by the Rules of the said Branch, shall be eligible as a Member of the Association. The mode and conditions of election to Membership shall from time to time be determined by or in accordance with the By-laws. Every Member, whether one of the existing Members or a subsequently-elected Member, shall remain a Member until he ceases to be a Member in accordance with the provisions hereof.

By-law 1.—Every Candidate for Membership of the Association shall apply for election in writing, addressed to the Association, and stating his agreement, if elected, to abide by the Regulations and By-laws of the Association, and the Rules of such Division and Branch to which he may at any time belong, and to pay his subscription for the current year.

By-law 2.—Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the General Secretary of the Association, and to every Member of the Branch Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a member of the Association by the Branch Council at any meeting thereof held not less than seven days (or such longer period as the Branch may by its Rules prescribe) after the date of the said Notice. A Branch may by special Resolution require that each candidate for election to the Association shall furnish a certificate from two Members of the Association to whom he is personally known. Officers of the Navy, Army, and Indian Medical Services on the Active List are eligible for election through the Council or a Branch without approving signatures as laid down in By-law 3.

By-law 3.—Every candidate whose place of residence is not included in the area of any Branch shall forward his Application to the General Secretary of the Association, together with a statement signed by three members of the Association, that from personal knowledge they consider him a suitable person for election. Notice of the proposed election shall be sent by the General Secretary to every Member of the Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a Member of the Association by the Council at any meeting thereof held not less than one month after the date of the said notice.

The annual subscription to the British Medical Journal for non-members is £1 8s. 0d. for the United Kingdom and £1 12s. 6d. for abroad.

Printed and published by the British Medical Association at their Office. No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, FEBRUARY 24TH, 1906.

CONTENTS.

	PAGE
MATTERS REFERRED TO DIVISIONS	
General Medical Council	61
Notices of Motion	62
MEETINGS OF BRANCHES AND DIVISIONS:	
Edinburgh and Other Branches	62
Lancashire and Cheshire Branch: Liverpool (Southern) Division	64
Leinster Branch	64
Metropolitan Counties Branch: Hampstead Division... ...	66
,, ,, ,, Stratford Division	66
South-Eastern Branch: Isle of Thanet Division	66
,, ,, Norwood Division	67
South Wales and Monmouthshire Branch: Branch Contract Practice Committee...	67
,, ,, ,, ,, Cardiff Division...	68
ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD	68
THE SEVENTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, TORONTO: PROGRAMME OF BUSINESS	69
NAVAL AND MILITARY APPOINTMENTS	71
VITAL STATISTICS	73
VACANCIES AND APPOINTMENTS...	74
BIRTHS, MARRIAGES, AND DEATHS	75
DIARY OF THE WEEK	75
BOOKS, ETC., RECEIVED	75
CALENDAR	76

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.

GENERAL MEDICAL COUNCIL.

ELECTION OF DIRECT REPRESENTATIVES FOR ENGLAND AND WALES, NOVEMBER, 1906.

Candidates Nominated by Divisions for Selection by the Representative Meeting on behalf of the Association.

THE following members of the Association have been nominated by the Divisions named to be candidates or election, and have accepted nomination in accordance with the terms of the scheme published in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL for October 7th, 1905:

Name.	*Address.*	*Nominating Division or Divisions.*
BROWNE, HENRY LANGLEY, M.D. ... ... (Chairman of Council of the Association.)	Moor House, West Bromwich	CENTRAL BIRMINGHAM.
BULLAR, JOHN FOLLETT, M.B.... ... ... (Member of Branch Council, Southern Branch.)	7, Carlton Crescent, Southampton	WINCHESTER.
ACKSON, GEORGE, F.R.C.S. ... ... (President of the South-Western Branch, and Member of the Medico-Political Committee.)	10, Portland Villas, Plymouth	GATESHEAD.
MORISON, JAMES RUTHERFORD, F.R.C.S. ... (Member of Branch Council and Chairman of Northumberland Committee, North of England Branch.)	14, Saville Row, Newcastle-on-Tyne	CONSETT. GATESHEAD.
HODES, JOHN MILSON, M.D. ... ... (Chairman of South Manchester Division, Lancashire and Cheshire Branch.)	Ivy Lodge, Didsbury, Manchester	MANCHESTER (SOUTH).
TRATON, CHARLES ROBERT, F.R.C.S.EDIN.... (Member of Central Council, Medico-Political Committee and Colonial Committee.)	West Lodge, Wilton, Salisbury	WINCHESTER.

As provided by the scheme, nominations can be received until March 31st, and will henceforth be nounced as received.

MATTERS REFERRED TO DIVISIONS.

REPRESENTATIVE MEETING AT LONDON.

TUESDAY, JULY 24TH, AND FOLLOWING DAYS.

NOTICES OF MOTION.

THE following notices of motion have been received for discussion by the Annual Representative Meeting of the Association to be held at London, July 24th, 1906, and following days.

ASSOCIATION REGULATIONS.

AMENDMENT OF BY-LAW.

Grants to Divisions.

By the ALTRINCHAM DIVISION (Lancashire and Cheshire Branch):

To amend By-law 17 by adding to it the following words: "If a Division shall be of opinion that the grant annually made by the Branch Council in any year to the Division is insufficient to defray those expenses which are necessary for the proper conduct of the work of the Division, the Central Council may, upon representation having been made to it by the said Division to that effect, direct that such additional grant shall be made by the Branch to the Division as the Central Council shall deem necessary, and the Branch Council shall thereupon make such additional grant; provided that in no case shall a Branch be called upon by the Central Council to make a greater additional grant than will raise the total amount granted by the Branch to that Division for the year to three shillings per head of the membership of the Division."

AMENDMENT OF ARTICLE.

Expenses of Representatives.

By the NORTHAMPTONSHIRE DIVISION (South Midland Branch):

That the Representatives of Divisions be paid all out-of-pocket expenses incurred in attending Representative Meetings, etc.

By Direction of the Chairman of Representative Meetings,
J. SMITH WHITAKER, *Medical Secretary.*

February 22nd.

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

EDINBURGH AND OTHER BRANCHES.

THE usual clinical and pathological meeting of the Edinburgh with other Scottish Branches was held in the Royal Infirmary, Edinburgh, on Friday, February 16th. A very full programme was provided.—At 11 a.m. Dr. ALLAN JAMIESON gave a lecture and demonstration on the treatment of eczema.—At 11 a.m. and 12 noon operations were performed by members of the surgical and gynaecological staff.—At 12 noon Dr. GEORGE MACKAY demonstrated cases and apparatus in the ophthalmic department, and Drs. DAWSON TURNER and HOPE FOWLER gave a demonstration in the electrical department.—At 1 p.m. Mr. ALEXIS THOMSON showed cases from the lock.—At 2 p.m. Dr. WEBSTER demonstrated recent modern appliances for the physical treatment of rheumatism.—At 3.15 p.m. Mr. WALLACE showed members over the new surgical out-patient department.

Museum.—The museum was as usual a striking feature of the meeting, and each year seems to be better than the last. From the programme appended it will be seen there was a great variety of specimens; curiously most of those contributed by the surgeons. The most interesting of the exhibits was the magnificent demonstration on renal pathology from the pathological department of the Royal Infirmary, supplemented from the museum of the Royal College of Surgeons. No fewer than 85 beautifully-mounted specimens were on view, and it was generally remarked that probably never before had there been so complete a demonstration on the subject.

Professor ANNANDALE: (1) Enlarged spleen, weighing 4½ lb., removed from a woman aged 19; microscopically, tuberculous; (2) dermoid cyst of ovary, containing hair and teeth, and portion of pedicle where acute torsion had occurred in the pedicle, and also in an adhesion to the apex of the bladder; married woman, aged 30; (3) lympho-sarcoma of ovary; patient was an unmarried woman, aged 18; (4) hernial sac, showing annular constriction opposite external abdominal ring; (5) epithelioma of bladder originating in a papilloma; patient was a man, aged 66; (6) calculus from bladder of a boy; (7) prepuce showing fringe of warts round orifice; (8) prepuce showing a very tight phimosis; (9) bones of elbow-joint removed for old-standing unreduced backward dislocation of elbow, with fracture of head of radius; (10) double compound depressed fracture of the skull; one large piece of bone was elevated; (11) myxo-fibro-adenoma of mamma; married woman, aged 35; (12) haematocele of prepatellar bursa; (13) paraffin epithelioma on forearm; (14) fracture of vertebral column in cervical region; (15) head of humerus excised; (16) series of specimens of tuberculous knee-joints; one shows a sequestrum in lower end of femur; (17) testicle with hernial sac; (18) supernumerary nipple on a mamma removed for scirrhous carcinoma; (19) appendices; (20) chondromata of hand, with Roentgen ray photograph; (21) simple apparatus for supporting flaps, or for lateral pressure after formation of new nose; (22) series of skiagrams. — Dr. MALCOLM CAMPBELL: Uterus and tubes showing pregnancy associated with tuberculous salpingitis; microscopic sections of tubes.—Dr. ROBERT A. FLEMING: Specimens from Hodgkin's disease, and spleno-medullary leucocythaemia, etc.—Mr. WALLACE, C.M.G.: (1) A series of prostates removed by suprapubic prostatectomy; (2) sections of the prostatic region after suprapubic prostatectomy; (3) kidney showing septic nephritis after operation on prostate; (4) twenty vesical calculi (carb. of calcium); (5) a series of vermiform appendices; (6) carcinoma of descending colon; (7) a split internal semilunar cartilage.—Mr. J. W. DOWDEN: (1) Hair ball from adult stomach; (2) tuberculous strictures of caecum, with stercolith; (3) gall bladder and gall stones; (4) plate of false teeth removed by oesophagotomy; (5) myeloma of lower end o femur; (6) tuberculous synovial membrane from arthrectomy of knee; (7) kidney removed with calculi.—Dr. MUNR MOIR: (1) Dermoid tumour of ovary, showing teeth an part of jaw; (2) sarcoma of jaw; (3) several specimen of uterine fibroids; (4) intraocular tumour.—Mr. GEORG CHIENE: Specimens and photographs (*x* ray and stereoscopic) illustrating various surgical conditions. — Mr CATHCART: (1) Three specimens of caecum (2 tuberculous, 1 malignant); (2) various forms of suction apparatus, invente by Dr. Klapp at Professor Bier's suggestion, for the treatmen of boils, carbuncles, etc.—Dr. NORMAN WALKER: Casts—(1 mycosis fungoides; (2) mycosis fungoides; (3) tinea circinata (4) dermatitis herpetiformis; (5) keloid; (6) impetigo contagiosa.—Mr. F. M. CAIRD: (1) Series of preparations t illustrate surgical affections of the kidneys; (2) fibro sarcoma from naso-pharynx; (3) large epitheliomatou ulcer of thigh.—Dr. JOHN THOMSON: Photographs an other illustrations of achondroplasia.—Mr. J. W. STRUTHERS Skiagraphs of fractures; other specimens.—Dr. A. BRUCE Two tumours of the pituitary body; brain showing di seminated sclerosis; microscopical sections: subacut poliomyelitis; photographs: two cases of partial doublin of the spinal cord; specimens from case of lymphadenoma.—Mr. J. M. COTTERILL: (1) Tumour of temporo-sphenoidal lobe (2) fibro-sarcoma of eighth nerve removed from left cerebello pontine angle; (3) kidneys from two cases of calculous pyone phrosis; (4) scirrhus of prostate, removed by suprapubi prostatectomy; (5) cases of senile hypertrophy of prostate removed by the suprapubic route; (6) series of diseased teste —tuberculous, cystic, sarcomatous, etc.; (7) various othe specimens from recent cases.—Mr. MILES: (1) Series of pr state glands, removed by prostatectomy; (2) kidney, showin advanced pyonephrosis, removed by nephrectomy; (3) sarcom of kidney in a child, aged 3½ years, removed by nephrectomy (4) three specimens of renal calculus, removed by nephr lithotomy; (5) two specimens of calculus impacted in urete removed by operation; (6) multiple calculi, removed fro bladder, prostatic urethra, and bulbous urethra by perinea route, man aged 23 years (patient showed at clinical meeting (7) calculi, removed from bladder by suprapubic cystotomy (8) carcinoma of stomach, removed by gastrectomy; (9) ca cinoma, involving body of stomach and transverse colo removed by operation; (10) caecum, ascending colon, and po tion of ileum excised for carcinoma; (11) unusual tumour liver, removed by operation; (12) other pathological specimen

-Dr. Logan Turner: Drawings and specimens illustrating ffections of the nose and throat.—Mr. Alexis Thomson: Microopic demonstration of lesions of the vermiform appendix.—r. Chalmers Watson and Dr. Geo. Lyon: The histological hanges induced in the kidney by a meat diet.—Dr. Chalmers Vatson: The structural changes of the thyroid gland associted with meat feeding.—Mr. E. Scott Carmichael: Specitens.—Mr. Scot-Skirving, C.M.G.: Photographs of patients ter inter-scapulo-thoracic amputations.—Dr. G. Lovell ulland and Dr. Geo. Lyon (from Chalmers's Hospital): (1) series of tumours of the brain; (2) a series of aneurysms of rta; (3) primary cancer of pancreas; (4) primary cancer of ll bladder; (5) thrombosis of left pulmonary artery and right illary artery; (6) hypertrophy of the kidney.—Drs. Shennan, tuart Macdonald, and Lyon:—Demonstration on renal thology from the pathological department of the Royal Inmary.—Mr. T. Shennan: Microscopical demonstration of irochaetes from syphilis.—Dr. Henry Wade: Demonstraon of photomicrographs, illustrating an experimental rearch on infective sarcoma in dogs.—Mr. Stiles: Various ecimens.

Clinical Meeting.

At the clinical meeting held in the large theatre, no wer than 57 cases were shown, and it is to the credit of e organization that these were got through without a tch in two hours. Mr. Stiles showed (1) three sisters, ed 6, 7, and 10 years respectively, each suffering from ultiple exostoses of congenital origin. The father hibited a similar condition. The youngest child was ought to the Royal Edinburgh Hospital for Sick ildren on account of a thickening in connexion with e upper end of the fibula, which was thought to have en caused by a blow. As the swelling resembled an ostosis rather than the callus of a fracture or any sease of the bone, the other long bones were examined, th the result that exostoses, more or less marked, were scovered on the clavicle, the scapulae, the humeri, the t radius, the femora, the tibiae, and several ribs. An amination of the two sisters showed that they presented ostoses with a distribution closely similar to those in e patient above referred to. (2) Child, aged 2½ years, ustrating early stage of myositis ossificans. The patient s exhibited at the corresponding meeting last year, ce when the disease has advanced considerably, so that e osseous thickenings about the back can now be stinctly felt. Radiograph by Dr. Rainy shows a distinct r of bone in the left erector spinae muscle. Thumbs and at toes show the deformity so frequently associated th the disease. (3) Girl, aged 17 years, after excision of ronchial fistula extending from suprasternal notch to sillar region of pharynx. Suffered from attacks of lammation, with intermittent discharge from lower ening ever since she can remember. In January, 1905, cessation of discharge was attended with pain on allowing and tenderness along the line of the carotid ssels. The fistulous tract was lined by mucous memne, outside which was a well-defined muscular wall. The ecimen exhibited resembled a small oesophagus. (4) Two ients, after operation for epithelioma of the floor of the uth and tongue. Billroth's modification of Regnoli's ration performed in one case; in the other, a recurrent e, the body of the jaw also removed. Tracheotomy in both es. Advantage of swabbing wound freely with turpene.—Sir Thomas R. Fraser showed a case of myxoedema, h photographs illustrating the case at different periods. r. Byrom Bramwell showed: (1) Case of infantilism own before—pancreas); (2) unusual case of angina toris; (3) case of aphasia and paragraphia.—Mr. orge Chiene: (1) patients after operations performed ler spinal anaesthesia; (2) a patient after appendicomy for haemorrhage from the lower bowel; (3) a ient after operation for long-standing separation of the er epiphysis of the tibia; (4) a patient after operation acute pancreatitis.—Dr. Francis D. Boyd, C.M.G., wed a case of Addison's disease.—Mr. Cathcart denstrated the method of applying Bier's congestion tment of acute suppurative inflammation.—Dr. James: Cases of localized paralysis following influenza; case of Klumpke's paralysis; (3) cases simulating ebitis, due to rheumatism.—Mr. Scot-Skirving, C.M.G.: after inter-scapulo-thoracic amputation, performed moist spreading gangrene of arm.—Dr. John Thomson: An infant cretin; (2) a child with achondroplasia.— Wallace, C.M.G.: (1) Patient after suprapubic statectomy. J. S., aged 68, had some micturitory ble for two years. Retention three weeks ago; catheterization required then and ever since. Usual suprapubic operation. Enucleation comparatively easy. Urine passed per urethram on twenty-sixth day; this later than usual, the average being about fifteen days. Now no difficulty with micturition, and patient states that he is much better in general health. The prostatic urethra was torn across at the operation, but, as in other cases, this has not impaired the power of retaining urine nor interfered with micturition. (2) Patients illustrative of the result of early movement and massage in fractures. Some years ago Lucas-Championnière advocated that movement after fracture should be used at much earlier periods than was customary. These cases are shown to illustrate the results of early movement in fractures of the radius (Colles), humerus, both bones of forearm, and the clavicle, and to demonstrate that massage and movement commenced within twenty-four or forty-eight hours do not interfere with satisfactory union, and permit the patients to use their injured limbs at a much earlier date than when rigid fixation is maintained for a longer period. Equally good results are obtained in fractures of the inferior extremity, more especially in Potts's fracture. The principle involved is to keep the fragments of the fractured bones completely at rest during the intervals between movement, and to carry out the movements and massage methodically.—Dr. F. Gardiner showed a case of adenoma sebaceum.—Mr. A. H. H. Sinclair showed: (1) Mrs. N., aged 27, who came under his care at the Edinburgh Eye Dispensary four years ago. Her vision was then reduced to "perception of light" in each eye. The eyes were of subnormal tension, the pupils occluded, and the cornea in each eye partially opaque. This condition resulted from an attack of double specific iritis, which had occurred two years earlier. The right eye was selected for operation, and, with a few weeks' interval between each interference, iridectomy, extraction of the lens, and, lastly, iridotomy were performed, with the result that useful vision ($\frac{6}{18}$) was restored. (2) Miss E. W., aged 24 years, came to Leith Hospital with congenital ptosis affecting the right eye. The eyelid drooped, so that only a small portion of the sclera at the lower part of the eyelid was seen as the patient looked straight forward. He performed Hess's operation, which has for its object the establishment of a connexion between the occipito-frontalis and the eyelid. The operation had been so recently performed that the amount of probable permanent effect could not be with certainty stated at present. (3) Andrew S., aged 35 years, came to Leith Hospital some weeks ago with a red indurated swelling about the size of a bean on the upper eyelid just above the inner canthus. The nature of this swelling was at first uncertain, but very soon the characters of a primary sore—hard chancre—became evident. Mr. Struthers confirmed Mr. Sinclair's opinion as to diagnosis, and is now treating the patient.—Dr. W. B. Drummond showed a case of congenital stenosis of the pylorus, recovering without operation.—Mr. Miles showed: (1) a man, aged 23 years, after operation for removal of multiple calculi from the bladder, prostatic urethra, and bulbous urethra, by perineal operation; (2) woman, after resection of stomach for carcinoma. —Mr. Caird showed: (1) Disarticulation at hip, under spinal anaesthesia, for large epitheliomatous ulcer; (2) patient after removal of fibro-sarcoma of nasopharynx. — Dr. Alex. Bruce showed a case of lupus treated with tuberculin by Wright's method.—Dr. A. Logan Turner showed patients after the mastoid operation for acute and chronic middle-ear suppuration. When the mastoid antrum and cells are opened for mastoid complications in acute middle-ear suppuration the perforation in the tympanic membrane heals, and the hearing is restored to normal. When the radical mastoid operation is deemed advisable in cases of chronic middle-ear suppuration the future hearing power is more difficult to estimate. These cases may be divided into three groups: (1) In which impairment in hearing remains unaltered after operation; (2) in which the hearing is made worse; (3) in which the hearing is improved. It may be stated generally that when hearing is good before operation, it is likely to be damaged by the radical procedure; if the hearing is only fair, improvement may follow.—Dr. Caverhill showed cases of pulmonary tuberculosis after sanatorium treatment. Capacity for work after one to six years' absence. These cases have already been shown at previous meetings. They have been treated in a high phthisis-free district. Full diet; rest; medical supervision; hill-climbing (nine to ten miles daily). Results in winter in Scotland more successful than in summer.—Dr. W. G. SYM showed: (1) Patient after excision of lachrymal sac; (2) patient after excision of lens for high myopia.—Mr. J. W. STRUTHERS showed patients after operation under local "regional" anaesthesia.—Dr. NORMAN WALKER showed cases of ringworm treated by x rays.

Dinner.—About ninety members and guests dined together at the Royal British Hotel. The PRESIDENT (Dr. Allan Jamieson) gave the loyal toasts. "The City of Edinburgh" was proposed by Dr. JAMES, and responded to by Baillie GIBSON, Convener of the Public Health Committee, who said that though the Corporations were often blamed for extravagance, he never heard any one complain of the cost of the Fever Hospital; and the toast of "The Association" was given by Sir HENRY LITTLEJOHN, who referred to his recollection of the early days of the Association in Scotland, and remarked on the contrast of the present attitude towards it; Dr. HAY, President of the Fife Branch, responded. "The Health of the President" was proposed by Dr. MACKIE WHYTE, President of the Dundee Branch.

LANCASHIRE AND CHESHIRE BRANCH:

LIVERPOOL (SOUTHERN) DIVISION.

AN ordinary meeting of the Division was held on February 13th at the Medical Institution, Dr. WESTBY in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

The late Dr. Cregeen.—A letter was read from the brother of the late Dr. Cregeen acknowledging the receipt of, and thanking the Division for, the vote of regret passed at the last meeting on his resignation.

Central Midwives Board.—The following modifications of the rules were suggested: In Chapter B, Rule 4, p. 7,

> That in the Roll of the midwives, their qualifications and how obtained shall be clearly set out, as is laid down and provided for in the Midwives Act.

In Chapter E, Rule 5, p. 14,

> A midwife, after attending a case of puerperal fever, must have the permission of the local supervising authority *in writing* before attending another labour. That all clothing should be sent to the local sanitary authority to be sterilized.

Ethical Rules.—The Central Ethical Committee having refused to accept the modifications suggested by this Division in the Draft Model Ethical Rules, it was resolved that the Division forego the alteration and pass them in their original form.

The Division and Parliamentary Candidates.—An account was given of the measures taken to bring the various questions of medical reform suggested by the Medico-Political Committee to the notice of the candidates at the recent general election, and a summary of their answers was given.

LEINSTER BRANCH.

THE annual meeting of the Leinster Branch of the British Medical Association was held on the afternoon of Saturday, February 10th, at the Royal College of Physicians, Kildare Street. Dr. J. M. FINNY presided, in the unavoidable absence of Sir Thomas Myles, the outgoing President.

Annual Report.—The annual report, which was adopted, mentioned the fact that 14 members were elected during the year, leaving the Branch membership on December 31st, 1905, at 340, while the balance at the close of the year was £22.

Election of Officers.—The following were elected officers of the Branch for 1906-7: *President,* James Craig, M.D.; *President-elect,* J. Lentaigne, F.R.C.S.; *Vice-Presidents,* J. Wallace Boyce, M.D., F. W. Kidd, M.D.; *Country Representative of Branch on Irish Committee,* J. M. Kenny, M.D., Granard; *Honorary Secretary and Treasurer,* Professor A. H. White.

President's Address.—Dr. CRAIG, the incoming President, delivered the annual address as follows: Gentlemen, I beg to tender you my sincere thanks for your kind indulgence in placing me in the honourable position of President of the Leinster Branch of the British Medical Association. I fully recognize that you have conferred this honour upon me in return for any small services you consider I may have rendered to the Branch during the seven years in which I acted as your Honorary Secretary and the three years in which
have been your representative on the Central Coun
of the Association. I have, however, to ask yo
further indulgence in listening to what on the prese
occasion is a poor companion to the many brillia
addresses which have been delivered from time to ti
by my predecessors in the chair. I shall venture, in t
first instance, to bring under your notice a rough summa
of the position which the Association occupies in rega
to its membership and finances, and I shall then endeavo
to touch on the work of the Association and the advantag
to be derived from its membership. The present memb
ship of the British Medical Association is 19,500, and
these 15,000 are resident in the United Kingdom. T
registered practitioners in Great Britain and Ireland
31,000, so that close upon 50 per cent. of these
members of the Association. The registered practition
in Ireland number 2,650, and of these 900, or, rough
speaking, one-third, belong to this Association. T
membership of the Irish Medical Association is actua
750, although on paper it reaches to something over 8
but of this total 380, or 50 per cent., are also allied
the British Medical Association. It would seem, th
that 900, *plus* 750, or 1,650 Irish practitioners, out o
total of 2,650, belong to either Association, but,
account of the overlapping to which I have referred,
will be seen that only 1,270, or considerably less th
50 per cent., belong to either or both Associations.
is hardly too much to say that in these unsatisfact
figures relating to Ireland there is ample evidence th
neither Association has up to the present offered su
cient inducement to medical men to join its ranks.
I have said elsewhere, the value to be received in li
of the subscription paid is the consideration whi
carries most weight with intending subscribers, and
have no hesitation whatever in stating that the apat
shown by medical practitioners in regard to joini
these Associations is due in a large measure to t
poor return which they consider they will recei
I have alluded to the membership of the Briti
Medical Association; let me now briefly refer
its financial position. Its total revenue for 1904 w
£51,000. Of this total about £30,000 was the appro
mate amount spent on producing and delivering t
JOURNAL, £13,000 went to Association expenses, £3,000 o
went to the Branches, and £5,000 were carried to reser
The assets of the Association are enormous. The freeho
property in the Strand, which is the home of the Assoc
tion in London, cost £86,000. The investments in Ba
of England Stock amount to some £15,000. The annu
subscriptions reach a total of something like £25,000, a
the amount received for the advertisements with whi
the JOURNAL is embellished reaches the respectab
figure of over £21,000 per annum. On the present oc
sion I do not hold any brief on behalf of the Irish Medi
Association, neither is it my purpose to injure its po
tion in any way, and I have alluded to its membership
order only to clear the air of a possible suggestion th
there is no room or sphere of usefulness in this count
for the British Medical Association when we have
powerful and well-supported Association of our own
existence. I do say, however, that the British Medi
Association has given in the past very substantial assi
ance to the medical profession in Ireland, and particula
to the cause of reform in the Poor-law Medical Servi
Let us not forget that the Association appointed
William Thomson as its special Commissioner to rep
on the condition of the service many years ago; that
the expenses in connexion with the preparation a
publication of that valuable report were met from t
finances of the Association; that in a like manner t
expenses incurred by the production of Surgeon-Gene
Evatt's report were also borne entirely by this Associati
And what greater service could the Association ha
rendered to the Irish dispensary doctors than that t
true state of their position should have been broug
within the searchlight of public opinion by a society a
by commissioners whose independence was unimpea
able? We in Ireland require the numerical support, t
moral support, and the financial support of the Briti
Medical Association, with its 19,500 members, and
yearly surplus balance of several thousand poun
Every year furnishes us with evidence that the Assoc
tion is anxious and willing to come to our assi

nce in our endeavours to improve our professional tatus. The democratic spirit which accomplished ie reorganization of the Association in 1902 was sponsible for the formation of the Branches into Divi- ons, so that the humblest member of the profession ight work for his own benefit in his Division and for ie Association at large through his representative at the nual meetings. To the local work of the Divisions were signed the following objects: (*a*) To promote by its eetings and in every way, union and good professional lations among the members of the medical profession ithin its area; (*b*) to afford to its members opportunities r discussing questions of medical science and kindred ibjects, and to promote, by this and other means, the lvancement of professional knowledge and skill; (*c*) to sist the members of the Division in maintaining standard of professional honour; (*d*) to maintain locally e interests of the profession, and to represent the pro- ssion in its relations with public bodies. If many of the visions in Ireland have failed so far to realize what an ganization drafted on these lines is capable of accom- ishing, the blame rests largely with the Divisions. But nay say here at once that in my opinion the Association ust spend some of its surplus funds in creating a greater terest among the Branches and Divisions that are merically and financially weak, and far removed from e influence of the parent body. There is a feeling adily growing in the minds of provincial members of e Central Council that the Association is spending too ich money in connexion with the offices in London, and t enough in the provinces. As already mentioned, the ehold property in the Strand cost the Association some 6,000. It is now proposed that a sum not exceeding 5,000 be expended on rebuilding and refitting this perty. Few will venture to object to this expenditure, the additional accommodation is urgently needed and property will be thereby enhanced in value. Then, in, the secretarial salaries and the cost of clerical istance are increasing at a rapid rate; but the increased enditure is spent entirely in London. The library, , is a splendid one; but, except where a few Divisions e asked for duplicate copies of volumes to be sent to m, this valuable asset is only of use to London mbers. It is felt that some of the work undertaken by highly-efficient Medical Secretary in his London office ght be carried on in the Branches themselves, greatly to advancement of the Association. I may say that in isting financially an energetic local practitioner I con- r organization could be carried out more efficiently in Branches and Divisions than is the case at present. nething also might be done to bring useful and modern lical literature within the reach of members who are removed from contact with medical libraries. The RNAL of the Association is not all that it might be, and tself is scarcely sufficient to form a library; but I am sfied that the Editor does not spare himself in his rts to provide information that is acceptable to the rent sections of his readers. At the same time, I w out the hint that some plan might readily be ised that would widen the scope of their possible ling for the outlying members. The Association is unmindful of the interests of science. In 1904-5 it nded £953 in research scholarships[1] and in grants rds scientific research. Of this sum £28 12s. 6d. e to Ireland—£20 went to workers in the laboratory Queen's College, Belfast, and £8 12s. 6d. to Dr. rhead, working in Trinity College Laboratory. In the ent year £44 were asked, and £29 granted, to four ibers in this country. How are we to apportion the ie for the lamentable state of affairs which these es bring to light? I find that in one case in the ent year £25 were asked for, and only £10 were ted, but in the case of the remaining three applicants ull amounts sought for were allowed by the Council , £5, and £10 respectively. If it were shown that the als for assistance from scientific workers in Ireland being ignored, or ruthlessly refused by the Science mittee and the Council of the Association, then it d become the obvious duty of the Irish members of Central Council to have this serious injustice to nd removed. However, until such proof be forth- ng, I fear we must conclude that the authorities of nedical schools in Ireland, who ought to encourage nal work, are mainly responsible for the miserable sum which reaches this country in the advancement of science. As one of the objects of the Association is to promote the advancement of medical knowledge, and as the Association seems perfectly willing to spend money in this direction, I trust that my criticism may have the effect of stimulating scientific workers in Ireland to seek for more material assistance. I pass on to speak of what, in my opinion, is the most important addition to its advantages in regard to Ireland which the Association has up to the present afforded us. At the annual meeting held in Leicester during the past year the Representative Meeting agreed to the formation of an Irish Standing Committee, to consist of the honorary secretaries of the various Branches, the Irish members of the Central Council, and an additional member elected by each Branch. This Committee will meet at least once a quarter, and the travelling expenses of its members will be defrayed by the Association itself, and not by the Branches. It might be thought that this Committee would interfere with the work of the Branches, and, indeed, it is even possible that some of the members may question the necessity for calling it into being. I say unhesitatingly that it will not interfere with the function of the Branches, and that it will strengthen immensely the influence of the Association in its relation to Irish affairs. The weakness of the Association in regard to Ireland has been due, not to any indifference on the part of the Council or the Representative Meeting, but chiefly to the inconvenience of travel, which prevented regular attendance on the part of Irish members of the Council; to the small number of Irish representatives on the Council, which has always been poorly represented on the governing body; and to the fact that, in the absence of concerted action, these representatives were not always in agreement when matters relating to Ireland were being discussed. Now, however, subjects requiring attention will be discussed by a Committee representing the different Branches and the various interests of the profession. The decisions arrived at will be the result of concerted action. The Branches or the Divisions may forward proposals to this Committee, and whatever propositions are finally adopted will go forward to the Central Council as the united wish of the Irish members, and the report of the Committee will be supported by the Irish members of the Council when it comes before that body for adoption. The members of the Committee must be selected, so that they will have the confidence and support of the Irish members of the Association, and this object can readily be achieved, as each member is elected by a general vote of his Branch to the position which gives him a seat on the Committee. If earnest, capable, and pacific men are chosen on this Irish Committee, we will have gained a step in managing our own affairs while still having the power of the Association behind us. The Committee has already decided to collect evidence on the Irish Poor-law system to be placed before the recently-appointed Poor-law Commission, and it has invited and secured the co-operation of the Irish Medical Association and the Poor-law Association of Ireland in undertaking this responsible work. If the British Medical Association gives financial assistance to the Irish Committee in carrying out this important work, as we have every hope it will, then the Association will have added a fresh claim for our support. The Council of the British Medical Association and the Irish Committee have each expressed dissatisfaction with the *personnel* of the Commission, and the latter has made strong representations through the Council that an Irish medical practitioner thoroughly conversant with the Poor-law service, but who is not a Government official, should be placed on this Commission. The matter is one of very serious importance, and no effort should be spared to have the request complied with. I do not propose to detain you longer, but when I say that one of your own members has been invited to deliver the popular lecture at the annual meeting to be held this year in Toronto, I think you have been given abundant proof that Ireland is not entirely neglected by the British Medical Association.

Vote of Thanks.—A vote of thanks to the President for his address was proposed by Surgeon-General EDGE, C.B., seconded by Dr. DENIS WALSHE and supported by Dr. MCWALTER, and passed with acclamation.

Additions to Rules.—A new rule and the additions to Rule 3 as under were adopted unanimously:

> That the country representative of the Branch on the Irish Committee shall be elected in the same manner and at the same time as are the officers of the Branch.

> *Additions to Rule 3.*
>
> (6) The Chairman of each Division.
>
> (7) The country representative of the Branch on the Irish Committee.

Nomination of Candidates.—On the motion of the HONORARY SECRETARY, seconded by Dr. HILLIS, it was unanimously resolved:

> That in future all candidates for election by the Council of this Branch to the membership of the Association shall be required to have their nomination papers signed by two members to whom they are personally known.

Irish Poor-Law Commission.—The HONORARY SECRETARY proposed and Dr. MCWALTER seconded the following resolution:

> That in the opinion of the Leinster Branch of the British Medical Association it is absolutely necessary, owing to the intricacy and importance of the subject to be inquired into, that an Irish medical man, who is not a Government official, should be added to the Poor-law Commission.

Dr. DELAHOYDE said nine-tenths of the Poor-law medical man's time was taken up in useless scribbling. In his opinion the Poor-law Commission would be of no earthly use. They had pressed before for an inquiry into the anomalies of the Poor-law medical service, but it was not granted because the Government would be ashamed of what would come out, and it would be shown that the system was indefensible, was deliberately mismanaged, and was worked by gentlemen who did not quite appreciate its meaning. He had been a long time in the service, and only now appreciated all he did not know about it. He suggested that the resolution should be altered, so as to ask to have a man appointed who "is or has been" in the service.—Dr. WALLACE BOYCE seconded the amendment.—Dr. MAGENNIS agreed as to the uselessness of Royal Commissions. There had been a Commission on University Education, which took the evidence of ecclesiastics and of the heads of schools, and did not take the evidence of the parents of pupils. In the last Commission (that of 1903) the medical branch had been ignored. It had now been sitting for two and a half years; it was still sitting; and, he added, "God knows when its report will be presented." Even then nothing will be done.—The amendment was lost, and the original resolution was subsequently carried.

Resolution from Torquay Branch.—A resolution from the Torquay Branch in reference to the JOURNAL was marked "read," and the meeting adjourned.

METROPOLITAN COUNTIES BRANCH:

HAMPSTEAD DIVISION.

A MEETING of this Division was held at the Central London Sick Asylum, Hendon, on Friday, February 9th, at 5 p.m., Mr. F. R. HUMPHREYS in the chair. By the kindness of the Medical Superintendent, Mr. Hopkins, the members were provided with tea and shown round the infirmary. Some cases of interest (thoracic aneurysm, locomotor ataxy, etc.,) were also shown by Mr. Hopkins. The two Secretaries were both unavoidably absent, and Mr. Farmer kindly acted as secretary *pro. tem.*

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Vote of Sympathy with Dr. Yeld.—A vote of sympathy was passed with Dr. Yeld, who was unable to attend owing to the illness of his father.

Letters of Regret.—Letters of regret for inability to be present were received from Dr. Lush and Mrs. Frazer Nash.

Resolutions from City Division.—A letter was received from the Honorary Secretary of the City Division in which three resolutions on the question of the Association Library were forwarded for consideration. These resolutions, which were recorded in the BRITISH MEDICAL JOURNAL SUPPLEMENT, February 3rd, 1906, pp. 37, 38, were then considered and adopted.

Financial Report.—The financial report for 1905 was then presented and unanimously approved.

Proposed Deputation to Parliamentary Candidate.—Mr. HUMPHREYS brought forward a proposal contained in a letter from Mr. Armit, that a deputation of local medical men should be formed to interview Mr. Gibb, the elect candidate for the Harrow Parliamentary Division Middlesex, with regard to various measures of medi interest. This question was, however, postponed for t present.

Offer of Journals.—A letter was received from Dr. Wea of Hampstead offering to the Division a number of bou volumes of the BRITISH MEDICAL JOURNAL, the *Lan* and the *Guy's Hospital Reports.* As the SECRETARY (I Yeld) had already formally thanked Dr. Weaver for l kind offer, the question was referred to the Committee further consideration.

Contract Practice.—The conclusions and recommen tions of the Medico-Political Committee of the Associati given in the report published in the SUPPLEMENT of Ju 22nd, 1905, were read to the meeting. The question medical men being prevented from holding private clu was raised by Drs. GLOVER and ANDREW, and the di culties that might arise were pointed out.—Dr. Fo ANDERSON explained that the aim of the Association w to establish eventually a "Public Medical Service." It w argued that there would always be a small minority medical men who would stand out of any combination the profession, and would derive all the more benefit fro being unfettered by any rules and being able to qu smaller fees.—The question of the arrangements betwe the local medical men and the Midland Railw employés was raised and discussed by Drs. Fo ANDERSON, ANDREW, and TURNER. Dr. Anders described the steps the Association was taking another district to reform the contract practice betwe the railway men and their medical officers.—Further d cussion was adjourned till the next meeting, the gene feeling being in favour of the recommendations of t Medico-Political Committee.

Central Midwives Board.—The rules were discussed as as Chapter E, Rule 17, and a letter was received from M Frazer Nash raising certain difficulties. No resoluti was brought forward, and the further consideration of t rules was adjourned.

Vote of Thanks.—A vote of thanks was passed to M Hopkins for his hospitality in receiving the meeting.

STRATFORD DIVISION.

A MEETING of this Division was held in the Alexan Hotel, High Street, Stratford, E., on Thursday, Febru 15th, at 9 p.m., Dr. STOCKER presiding.

Address.—Mr. PERCY FURNIVALL, F.R.C.S., delivere very interesting and practical address on Some Diseases the Rectum, which was greatly appreciated. He a answered a number of questions put by members of t Division, and was awarded a hearty vote of thanks for lecture.

Association Library.—It was unanimously decided support the recommendations of the City Division regard to the extension of the hours during which t Library of the British Medical Association should be k open.

SOUTH-EASTERN BRANCH:

ISLE OF THANET DIVISION.

THE fourteenth meeting of this Division was held at Granville Hotel, Ramsgate, on Friday, December 8th, 19 Dr. G. E. HALSTEAD in the chair.

Confirmation of Minutes.—The minutes of the l meeting (Broadstairs) were read, confirmed, and signed

School Certificates.—Dr. HALSTEAD read a summary the action of the Division in the matter of the signing school certificates, and read through the corresponde relating to the matter. The members unanimou adopted the resolution proposed at a former meetin namely, to refuse to sign medical certificates for the K County Educational Authority for a fee of less than h a crown.

Paper.—Mr. EDMUND OWEN read a paper entitled Ac Bone Disease in Children. The paper was discussed, a Mr. Owen replied.

Vote of Thanks.—Dr. TAMPLIN proposed a vote of tha to Mr. Owen for his paper, and this was unanimou carried. [The paper was published in the BRIT MEDICAL JOURNAL for February 3rd.]

The late Dr. C. J. Harnett.—The CHAIRMAN propo and Dr. SUTCLIFFE seconded:

> That a vote of condolence be passed and forwarded to

family of the late Dr. C. J. Harnett, who had been a member of the Division since he first came down to Thanet.

Norwood Division.

A clinical meeting of the Division was held at the Seamen's Hospital, Greenwich (*Dreadnought*), at 4 p.m., on February 15th, Sir Dyce Duckworth, M.D., LL.D., F.R.C.P., in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Next Meeting.—Dr. Annis proposed and Dr. Bigger seconded:

> That the next meeting should be held at the Queen's Hotel, Upper Norwood, on Thursday, March 8th, and that Dr. Henry Hetby, M.D., of Upper Norwood, be invited to take the chair thereat.

This was carried unanimously.

London School of Clinical Medicine.—Sir Dyce Duckworth welcomed the members and visitors, and drew special attention to the new London School of Clinical Medicine lately established in connexion with the hospital. He said that within the last few months the Seamen's Hospital had undergone somewhat radical changes. That institution had done excellent work in the past; but, like all institutions in a flourishing and prosperous country, it needed improvement and amendment as time went on. During the last few months the staff of the hospital had been materially increased. The purpose of what had been done was to create a body of men who were well qualified to give clinical teaching of a high order. They desired to add to the work of post-graduate education, which was already being done in London. He supposed there had never been in London a body that had been so qualified and so completely equipped for the purpose as that which was now organized there. That was a great step forward in the direction of supplying a want that had long been felt in London. Young members of the profession came from various parts of the world to England, and, not finding what they could find in Germany, Austria, or France, they supposed it did not exist, and, turning their backs on London, betook themselves to other countries. They were mistaken, but the fact remained that there had been no good organization for post-graduate teaching. That organization had gradually been brought about, and in several centres now in London there were good arrangements for men to carry on their studies and complete them, and study any branch of medicine and surgery. He thought they might fairly say that such arrangements had been set on foot there, together with an excellent equipment carried out with great kindness and spirit by the governing body of that hospital. That institution provided accommodation chiefly for sailors, and in connexion with the School of Tropical Medicine, of which it formed part, it provided for observation splendid examples of tropical diseases. They had examples of dysentery, beriberi, and all the diseases that were brought into that port day by day. Thus an excellent field was provided for observation by officers of the Navy and Army and those who were fitting themselves for Colonial practice. It was hoped that it would be fully taken advantage of by the many persons who required such teaching. Those connected with the hospital and school were full of hope and enthusiasm, believing that the work that had been organized there would not fail to prove useful to the whole realm of medicine.—Dr. Guthrie Rankin, in support, said the material that came to that hospital was not only varied but interesting from every point of view. It was true that their cases were limited to men; but in order to make that new school as useful as possible they had been lucky enough to get the Waterloo Hospital for Children and Women, the Royal Bethlem Hospital, and the York Road Lying-in Hospital to affiliate themselves with that hospital on conditions that would make it possible for every department of work that could not be undertaken at the Seamen's Hospital to be undertaken at those institutions. They looked forward to a day when, if they were supported by the public and by the governing body, work might be done in that school of the same type as that with which they were all familiar as coming from the Johns Hopkins University in America.

Demonstration of Cases.—The hospital and wards, including the new laboratories, were inspected, and an exceedingly interesting and instructive set of cases were shown and demonstrated by the members of the staff as follows: Sir Dyce Duckworth, aneurysm of aorta; Dr. Frederick Taylor, myoclonus; Dr. Tanner Hewlett, cerebritis; Dr. Guthrie Rankin, four nervous cases; Sir William Bennett, sarcoma of quadriceps; Mr. Mayo Robson, cholelithiasis, and gastric carcinoma; Mr. Turner, gumma of cervical vertebrae; Mr. McGavin, rodent ulcer, cured by x rays; Mr. Malcolm Morris, lupus; Mr. Cargill, eye cases; Dr. Russell Wells, heart cases; Dr. Ernest Jones, nervous cases; Mr. Burrows, pes cavus; Mr. E. Rock Carling, morbus coxae senilis, etc.

Tea was kindly supplied by the members of the staff.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

Branch Contract Practice Committte.

The first meeting of the Branch Contract Practice Committee was held on February 15th, at the Castle Hotel, Neath. Present: Drs. D. J. Williams, Frank Thomas, H. Hanson, Coulter Elsworth, Owen Williams, Roderick, Edgar Davies, D. R. Price, T. R. Llewellyn, E. Naunton Davies, Leigh, Biddle, R. W. Jones, Naunton Morgan, Powell, D. T. Richards, Mulligan, Garrett Horder, Brook, Mitchell, and E. J. Maclean. Apologies for absence were sent by Mr. Whitaker and Mr. Greer. As convener of the meeting the Secretary of Branch took the chair in order to start the business.

Election of Chairman.—Dr. Mulligan proposed, and Dr. D. R. Price seconded, the name of Mr. D. J. Williams (Llanelly) as Chairman of the Committee. Mr. D. J. Williams was elected.—Mr. Williams having thanked the members of the Committee for the honour of election, and having pointed out the great importance of the work of this new Committee, took the chair.

Honorary Secretary.—Proposed by Mr. Frank Thomas, and seconded by Mr. Brook, that Dr. Maclean of Cardiff be appointed Honorary Secretary. Dr. Maclean was elected.

Appointment of Subcommittees.—(*a*) Works and collieries: Drs. Leigh, Mulligan, Mitchell, R. W. Jones, D. T. Richards, Owen Williams, Naunton Morgan, Brook, D. R. Price. (*b*) General contract: Drs. Garrett Horder, T. Wallace, J. O'Keefe, E. B. Evans, R. C. Elsworth, Biddle, T. R. Llewellyn, D. J. Roderick, J. Powell, O. E. B. Marsh, Trafford Mitchell, and the *ex-officio* members of the Contract Practice Committee.

Appointment of Honorary Secretaries of Subcommittees.—After some discussion it was agreed that to save complication at first no separate secretaries should be appointed, but that matters be left in Dr. Maclean's hands till further experience was gained.

Contract Practice Fund.—After much discussion, it was resolved, on the proposition of Mr. Frank Thomas, seconded by Mr. Maclean;

> That members of the Branch be asked to contribute to the Contract Practice Fund on the following lines:
> By: 1. An annual subscription of 5s. from all members willing to contribute.
> 2. Foundation donations, in order to at once establish an adequate fund. These might be payable in instalments spread over some years.
> 3. Promises of weekly payments, to be called for, only in case of emergency, and *pro rata* as the emergency might demand.

Circular Letter.—It was resolved that a circular letter to be drafted by a Subcommittee consisting of the Chairman, Honorary Secretary, and Mr. Frank Thomas, should be sent to each member of the Branch, after having been submitted to the Branch Council.

Ebbw Vale Dispute.—In the absence of Messrs. Smith Whitaker and Greer, Mr. Coulter reported on the position of affairs in the Ebbw Vale dispute.

Mr. Frank Thomas read a letter from Mr. Whitaker containing a resolution of the Central Contract Practice Committee and asking the Branch Committee if they thought fit to confirm their action. The resolutions were as follows:

1. That the Association should nominate one of the arbitrators, the Workmen's Committee nominating the second, and the two so nominated agreeing upon a third.

2. That the terms of reference to the arbitrators must be decided by previous agreement between the Association and the Workmen's Committee.

3. That in any terms of arbitration in the Ebbw Vale dispute the terms of reference to the arbitrators should be so drawn up that the decision in this matter could not prejudice the interests of the profession in other districts.

Resolved:

> That the form of arbitration as laid down by the Central Contract Practice Committee be heartily approved.

CARDIFF DIVISION.

AN ordinary general meeting of the Cardiff Division was held at the Cardiff Infirmary on February 15th, Dr. CHARLES VACHELL in the chair.

Confirmation of Minutes.—The minutes of the meeting held on January 18th were read and confirmed.

Ethical and Contract Matters.—Letters from the Secretary of the South-West Wales Division concerning ethical and contract practice matters were considered. The following resolution passed by the South-West Wales Division was read:

> That this Division does not approve of the scale of pay by the South Wales Clerks' Association as offered, nor of the principle that would justify the extension of contract practice to others than working men.

Some discussion took place in connexion with this; and, after hearing a statement from the Cardiff medical officer of the local Branch of the South Wales Clerks' Association, it was resolved that no action was called for by the Cardiff Division.

Medical Autobiographies.—The next item on the agenda—as to the ethical propriety of members of the profession contributing autobiographies to publications intended for circulation amongst the general public—evoked considerable discussion, which was joined in by Drs. TATHAM THOMPSON, J. LYNN THOMAS, HESKETH EVANS, WILLIAM MARTIN, H. C. ENSOR, WILLIAM SHEEN, T. WALLACE, CRAWFORD TREASURE, ALFRED REES, and the CHAIRMAN; and finally it was unanimously resolved:

> That, in the opinion of the members of this Division, it is not desirable that members of the profession in the Division area should contribute their photographs or biographies to autobiographical works circulated amongst the general public.

Central Midwives Board.—A report on these rules, drawn up by a Subcommittee, was presented to the meeting, and, after discussion, it was resolved that the matter be referred to the Subcommittee for further consideration.

Paper.—A paper on Has the Treatment of Fractures and Dislocations been Modified by X-rays Diagnosis? by Mr. J. LYNN THOMAS, C.B., was postponed until the next meeting.

☞ ***To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.***

Association Notices.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—The fourth ordinary meeting of the session will be held at the Museum, North Parade, Bath, on Wednesday evening, February 28th, at 8 p.m., Dr. J. Michell Clarke, President, in the chair. The meeting will be devoted to a discussion on Recent Advances in respect to Diseases of the Joints. To be opened by Professor Howard Marsh. The Bath Secretary will be glad to hear from members wishing to show cases in illustration of the discussion. Dr. A. Ogilvy will show a patient with large orbital exostosis. A Council meeting will be held at 7.55.—W. M. BEAUMONT, NEWMAN NEILD, Honorary Secretaries, Bath.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—The next general meeting will be held on Wednesday, March 7th, at the Greenbank Hotel, Northwich, at 4.45 p.m. Agenda: (1) Minutes of meeting of December 7th, 1905. (2) Minutes of Committee meetings of December 20th, 1905, January 18th, January 31st, and February 14th. (3) Confirm action of Committee in filling vacancy. (4) To prevent underselling, by adopting a uniform scale of fees. To be introduced by Dr. G. H. Smith. (5) A black list, or (alternatively) a local debt collecting union; by Dr. C. A. K. Renshaw. (6) Payment of medical men called in to assist midwives; by Dr. P. R. Cooper. (7) Any other business. Railway arrangements: The 3.40 train from Manchester will stop at Sale (3.50) on notice being given to the stationmaster by 3.45. The 4.33 express from Manchester will stop at Hale (about 4.43); arrives at Greenbank Station 5.10. Return trains from Greenbank at 6.59, 8.24, and 9.27 will all stop at Sale (in the case of the 6.59 notice must be given to the guard on joining the train). Dinner at 7 o'clock, price 4s.; wine extra; for those members (and guests) who send their names to the Honorary Secretary by Monday, March 5th. The Greenbank Hotel is next to the Hartford and Greenbank Station. Excursion fares on Wednesdays.—T. W. H. GARSTANG, Honorary Secretary, Altrincham.

NORTH WALES AND SHROPSHIRE BRANCH: NORTH CARNARVONSHIRE AND ANGLESEY DIVISION.—A meeting of this Division will be held on Wednesday, February 28th, at the British Hotel, Bangor.—H. JONES ROBERTS, Penygroes, Honorary Secretary.

SOUTH-EASTERN BRANCH: FOLKESTONE DIVISION.—A meeting of this Division will be held at the house of Dr. Calverley, 21, Earls Avenue, on Friday, March 2nd, at 8.30 p.m. Agenda: Minutes. Correspondence. To elect a new member on the Executive Committee in place of Mr. Powell, resigned. Dr. Percy Lewis will read a paper on Enuresis. Dr. Larking will give an account of the annual meeting of the British Medical Association, held at Leicester last year. Dr. Eastes will give a practical demonstration on the use of portable electric lights from the main. Members are asked to bring any portable electric lamps they may have. To consider the revision of the rules of the Central Midwives Board. All members of the South-Eastern Branch are invited to attend and introduce professional friends.—P. VERNON DODD, M.D., Honorary Secretary, Folkestone.

SOUTH-EASTERN BRANCH: NORWOOD DIVISION.—The next meeting of the Division will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 8th, at 4 p.m.; exhibition of instruments will be ready by 3.30. Henry Hetley, M.D., of Upper Norwood, in the chair. Dinner at 8 p.m.; charge 7s., exclusive of wine. Agenda: (1) Minutes of last meeting. (2) To decide when and where the next meeting shall be held, and to nominate a member of the Division to take the chair thereat. (3) Letter from Wandsworth Division. (4) Invitation from Metropolitan Counties Branch to join in entertaining representatives. The following papers, etc., will be read: Dr. Guthrie Rankin: Suppressed Gout. Sir William Bennett: Stone in the Ureter, in relation to Pseudo-Appendicitis. Dr. Choyce: The treatment of Syphilis by Mercury, with special reference to the Hypodermic Method. There will be an exhibition of surgical instruments, etc., by Messrs. Allen and Hanbury, from 3.30. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. All members of the South-Eastern Branch are invited to attend and to introduce professional friends, but will be unable to vote on Divisional questions. N.B.—The Honorary Secretary would be much obliged if members would kindly inform him by post card, to reach him by the first post on the Tuesday before the meeting, whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By so doing they will very materially facilitate arrangements and promote the success of the meeting.—HENRY J. PRANGLEY, Honorary Secretary; ARTHUR W. SOPER, Assistant Honorary Secretary, Tudor House, Anerley.

SOUTH-WESTERN BRANCH.—The next meeting of this Branch will be held on Tuesday, March 6th, at the White Hart Hotel, St. Austell, at 2.30 p.m. The President, Mr. G. Jackson, F.R.C.S., in the chair. Tea will be provided after the meeting. The following communications are already promised:—Mr. J. C. Walker: Notes on Therapeutic uses of Salicylates and allied Drugs. Mr. C. Hamilton Whiteford: A paper on Tubal Pregnancy, its diagnosis and treatment, with notes of three cases. Mr. W. Woollcombe: A paper on a Few Practical Points in Intestinal Obstruction. Dr. E. S. Fox will show a Heart from a case of Mediastinitis. Gentlemen desirous of joining the Association and Branch should communicate with Mr. G. YOUNG EALES, 1, Matlock Terrace, Torquay, Honorary Secretary.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m., except on Saturdays, when they close at 2 p.m. Members can have their letters addressed to them at the office.

THE SEVENTY-FOURTH ANNUAL MEETING
OF THE
British Medical Association,
TORONTO, CANADA, AUGUST 21st to 25th, 1906.

President: GEORGE COOPER FRANKLIN, F.R.C.S.Eng., Surgeon, Leicester Infirmary, Leicester.

Chairman of Council: HENRY WM. LANGLEY BROWNE, M.D., Ch.B., F.R.C.S.E., Consulting Surgeon, West Bromwich District Hospital.

President-elect: RICHARD ANDREWS REEVE, B.A., M.D., LL.D., Dean of the Faculty of Medicine, University of Toronto.

Treasurer: HY. RADCLIFFE CROCKER, M.D., F.R.C.P., Physician Skin Department, University College Hospital, London.

PROGRAMME OF BUSINESS.

An Address in Medicine will be delivered by Sir JAMES BARR, M.D., F.R.C.P., F.R.S.E.

An Address in Surgery will be delivered by Sir VICTOR HORSLEY, M.B., F.R.C.S., F.R.S.

An Address in Obstetrics will be delivered by WALTER SPENCER ANDERSON GRIFFITH, M.D., F.R.C.P.

THE SECTIONS.

There will be 13 Sections as shown in the subjoined list; they will meet on Tuesday, Wednesday, Thursday and Friday, August 21st, 22nd, 23rd and 24th, from 9.30 a.m. to 12.30 p.m.

The President, Vice-Presidents, and Secretaries of each Section constitute a Committee of Reference for that Section.

Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the BRITISH MEDICAL JOURNAL *without special permission.*

No paper must exceed 15 minutes in reading, and no ubsequent speech 10 minutes.

ANATOMY.

President: Professor ARTHUR ROBINSON, M.D., Birmingam.

Vice-Presidents: Professor ALEXANDER PRIMROSE, oronto; D. E. MANDELL, M.D., Kingston; DONALD RMOUR, F.R.C.S., London.

Honorary Secretaries: C. B. SHUTTLEWORTH, M.D., 5, Bloor Street E., Toronto; GAWNSHAW CLELAND, M.D., 30, Queen Street E., Toronto; J. HERBERT SANDERS, M.D., A, Palace Gardens Mansions, W.

DERMATOLOGY.

President: NORMAN WALKER, M.D., Edinburgh.

Vice-Presidents: GRAHAM CHAMBERS, M.D., Toronto; ARRY B. ANDERSON, M.D., Toronto; ARTHUR JOHN HALL, .D., Sheffield; ERNEST SOLLY, M.B., Harrogate.

Honorary Secretaries: D. KING SMITH, M.D., 311, Jarvis reet, Toronto; DONALD MACGILLIVRAY, M.D., 12, Carlton reet, Toronto; JOHN CAMPBELL RANKIN, M.B., 38, Uniersity Road, Belfast.

LARYNGOLOGY AND OTOLOGY.

President: J. DUNDAS GRANT, M.D., London.

Vice-Presidents: GEORGE R. McDONAGH, M.D., Toronto; S. BIRKETT, M.D., Montreal; JOHN MACINTYRE, M.B., asgow; HUGH EDWARD JONES, M.R.C.S., Liverpool.

Honorary Secretaries: DAVID J. GIBB WISHART, M.D., Grosvenor Street, Toronto; GEOFFREY BOYD, M.D., 7, Bloor Street, Toronto; ADAM BROWN KELLY, M.D., Blythswood Square, Glasgow.

MEDICINE.

President: Sir THOMAS BARLOW, Bart., K.C.V.O., M.D., ndon.

Vice-Presidents: Professor ALEXANDER McPHEDRAN, M.D., Toronto; Professor JAMES STEWART, M.D., Montreal; ALEXANDER NAPIER, M.D., Glasgow; WILLIAM CALWELL, M.D., Belfast.

Honorary Secretaries: ROBERT D. RUDOLPH, M.D., 396, Bloor Street W., Toronto; JOHN TAYLOR FOTHERINGHAM, M.D., 36, Carlton Street, Toronto; ROBERT HUTCHISON, M.D., 22, Queen Anne Street, London, W.

OBSTETRICS AND GYNAECOLOGY.

President: A. H. FREELAND BARBOUR, M.D., Edinburgh.

Vice-Presidents: Professor JAMES A. TEMPLE, M.D., Toronto; Professor ADAM H. WRIGHT, M.D., Toronto; Professor WILLIAM GARDNER, M.D., Montreal; T. ARTHUR HELME, M.D., Manchester.

Honorary Secretaries: FREDERICK FENTON, M.D., 75, Bloor Street E., Toronto; KENNEDY C. McILWRAITH, M.D., 54, Avenue Road, Toronto; CUTHBERT LOCKYER, M.D., 117A, Harley Street, London, W.

OPHTHALMOLOGY.

President: ROBERT MARCUS GUNN, F.R.C.S., London.

Vice-Presidents: GEORGE HERBERT BURNHAM, M.D., Toronto; JOHN W. STIRLING, M.D., Montreal; JOSEPH NELSON, M.D., Belfast; ARNOLD LAWSON, F.R.C.S., London.

Honorary Secretaries: JAMES M. MACCALLUM, M.D., Toronto; DUNCAN N. McLENNAN, M.D., 126, Bloor Street W., Toronto; FRANK PEARSON SKEFFINGTON CRESSWELL, M.B., 24, Windsor Place, Cardiff.

PATHOLOGY AND BACTERIOLOGY.

President: Professor J. G. ADAMI, M.D., F.R.S., Montreal.

Vice-Presidents: Professor J. J. MACKENZIE, M.D., Toronto; Professor W. T. CONNELL, M.D., Kingston; INGERSOLL OLMSTED, M.D., Hamilton; Professor ROBERT FRASER CALDER LEITH, M.B., Birmingham.

Honorary Secretaries: GIDEON SILVERTHORN, M.D., 266, College Street, Toronto; HAROLD C. PARSONS, M.D., 72, Bloor Street W., Toronto; FRANK GEORGE BUSHNELL, M.D., Sussex County Hospital, Brighton.

PEDIATRICS.

President: GEORGE ALEXANDER SUTHERLAND, M.D., London.

Vice-Presidents: H. T. MACHELL, M.D., Toronto; ALLAN M. BAINES, M.D., Toronto; OTTO JACKSON KAUFFMANN, M.D., Birmingham; H. BETHAM ROBINSON, M.S., London.

Honorary Secretaries: E. STANLEY RYERSON, M.D., 261, College Street, Toronto; JOSEPH S. A. GRAHAM, M.D., 102, College Street, Toronto; Ralph Vincent, M.D., 1, Harley Street, London, W.

Physiology.

President: Professor Wm. Dobinson Halliburton, M.D., F.R.S., London.

Vice-Presidents: Professor A. B. Macallum, M.D., Toronto; Professor J. Wesley Mills, M.D., Montreal; Professor Charles Scott Sherrington, M.D., F.R.S., Liverpool.

Honorary Secretaries: Herbert E. Roaf, M.D., 44, Upper Parliament Street, Liverpool; Gustav Mann, M.D., 25, Beechcroft Road, Oxford.

Psychology.

President: Wm. Julius Mickle, M.D., London.

Vice-Presidents: N. H. Beemer, M.D., Toronto; Charles K. Clarke, M.D., Toronto; Reginald Langdon-Down, M.B., London.

Honorary Secretaries: A. T. Hobbs, M.D., Guelph, Ontario; Goldwin Howland, M.D., 540, Spadina Avenue, Toronto; John Turner, M.B., Essex County Asylum, Brentwood.

State Medicine.

President: F. Montizambert, M.D., Ottawa.

Vice-Presidents: E. P. Lachapelle, M.D., Laval University, Montreal; Charles Sheard, M.D., Toronto; Peter H. Bryce, M.D., Ottawa; Joseph Groves, M.B., Isle of Wight.

Honorary Secretaries: J. Langrill, M.D., Hamilton.

Surgery.

President: Sir Hector Clare Cameron, Professor of Clinical Surgery, Glasgow.

Vice-Presidents: Fred. L. M. Grasett, M.D., Toronto; Francis J. Shepherd, M.D., Montreal; A. B. Atherton, M.D., Frederickton, N.B.; T. K. Holmes, M.D., Chatham, Ontario.

Honorary Secretaries: H. A. Beatty, M.D., 207, Simcoe Street, Toronto; Frederick W. Marlow, M.D., 699, Spadina Avenue, Toronto; Sinclair White, F.R.C.S., Ranmoor, Sheffield.

Therapeutics.

President: Donald MacAlister, M.D., Cambridge.

Vice-Presidents: John L. Davison, M.D., Toronto; A. D. Blackader, M.D., Montreal; Sir Alan Reeve Manby, M.V.O., M.D., East Rudham; Professor J. Rose Bradford, M.D., F.R.S., London.

Hon. Secretaries: V. Henderson, M.D., University of Toronto; C. P. Lusk, M.D., 99, Bloor Street W., Toronto.

HONORARY LOCAL SECRETARIES.

Dr. F. N. G. Starr, The Medical Building, Toronto.
Professor J. J. Mackenzie, The Medical Building, Toronto.
Dr. D. J. Gibb Wishart, The Medical Building, Toronto.

COMMITTEE PATHOLOGICAL MUSEUM.

Professor J. J. Mackenzie, Toronto, *Chairman*; Dr. Maud Abbott, *Secretary*; Professor Gordon Bell, Winnipeg; Professor W. T. Connell, Kingston; Dr. A. R. Gordon, Toronto; Dr. J. A. McGregor, London, Ontario.

EXHIBITION COMMITTEE.

Chairman: Dr. Arthur Jukes Johnson, Toronto.

Secretaries: Dr. T. D. Archibald, Toronto; Dr. W. A. Young, Toronto.

HONORARY LOCAL TREASURER.

Professor J. W. Ross, Toronto.

TORONTO ARRANGEMENTS COMMITTEE.

Dr. Geo. A. Bingham, 68, Isabella Street, Toronto.
Dr. C. J. C. O. Hastings, 258, Wellesley Street, Toronto.
Dr. A. A. Macdonald, 341, Bloor Street West, Toronto.
Professor J. J. Mackenzie, Medical Laboratories, Toronto.
Dr. Alex. McPhedran, 151, Bloor Street West, Toronto.
Dr. R. B. Nevitt, 46, Bloor Street West, Toronto.
Dr. R. A. Reeve, *President-elect*, 48, Bloor Street E., Toronto.
Dr. F. N. G. Starr, 112, College Street, Toronto.
Dr. J. Algernon Temple, 333, Bloor Street W., Toronto.
Dr. D. J. Gibb Wishart, 47, Grosvenor Street, Toronto.

PROGRAMME OF PROCEEDINGS.

Tuesday, August 21st, 1906.

9.30—12.30 a.m.—Meetings of Sections.
2.30 p.m.—Address on Obstetrics, Dr. W. S. A. Griffith.
4.30 p.m.—Garden Parties.
8 p.m.—Address of Welcome; Introduction of Guests, Delegates, etc.; and President's Address.
9.30 p.m.—Reception by the Lieutenant-Governor in the Parliament Buildings.

Wednesday, August 22nd.

9.30—12.30 a.m.—Meetings of Sections.
2.30 p.m.—Address on Medicine, Sir James Barr, M.D.
4.30 p.m.—Garden Parties.
8.30 p.m.—Address on Surgery, Sir Victor Horsley, F.R.S.
9.30 p.m.—Reception.

Thursday, August 23rd.

9.30—12.30 a.m.—Sectional Meetings.
4.30 p.m.—Garden Parties.
7.30 p.m.—Annual Dinner.

Friday, August 24th.

9.30—12.30 a.m.—Sectional Meetings.
2.30 p.m.—General Meetings.
4.30 p.m.—Garden Parties.
Excursions.
8.30 p.m.—Soirée.

Saturday, August 25th.

Excursions to Niagara Power Company's plant, through the courtesy of Sir Henry M. Pellatt.
Excursion to Muskoka.
Excursion to Lambton, through the courtesy of the President, Mr. Austin.

The Atlantic Passage.

The following list shows dates of sailing by ships of the various lines, with first-class rates for the single journey. Discount of 10 per cent. on the homeward portion will be allowed on return tickets issued on payment of the combined outward and homeward fares.

Allan Line.

Liverpool to Quebec and Montreal.

July 26th ...	*Tunisian*	10,576 tons ...	£15 to £25
August 2nd	*Victorian*	12,000 ,, ...	£16 to £30
,, 9th...	*Ionian*	8,265 ,, ...	£14 to £18

Montreal and Quebec to Liverpool.

August 31st	*Virginian*	12,000 tons ...	£16 to £30
Sept. 7th ...	*Tunisian*	10,576 ,, ...	£15 to £25
,, 14th ...	*Victorian*	12,000 ,, ...	£16 to £30
,, 21st ...	*Ionian*	8,265 ,, ...	£14 to £18

Anchor Line.

Glasgow to New York.

			From
July 28th ...	*Columbia*	8,292 tons ...	£12 to £20
August 4th...	*Furnessia*	5,495 ,, ...	£12 to £22
,, 11th...	*Caledonia*	9,400 ,, ...	£14 to £27

New York to Glasgow.

Aug. 25th ...	*Caledonia*	9,400 tons ...	£14 to £27
Sept. 1st ...	*Astoria*	5,086 ,, ...	£10 to £12
,, 8th ...	*Columbia*	8,292 ,, ...	£12 to £20
,, 15th ...	*Furnessia*	5,495 ,, ...	£10 to £12
,, 22nd ...	*Caledonia*	9,400 ,, ...	£12 to £20
,, 29th ...	*Astoria*	5,086 ,, ...	£10 to £12

Canadian-Pacific Railway Atlantic Line.

Liverpool to Quebec and Montreal.

July 28th ...	*Empress of Britain*	14,500 tons ...	£20 to £50
Aug. 11th ...	*Empress of Ireland*	14,500 ,, ...	£20 to £50

Quebec and Montreal to Liverpool.

Aug. 25th ...	*Empress of Ireland*	14,500 tons ..	£20 to £50
Sept. 8th ...	*Empress of Britain*	14,500 ,, ...	£20 to £50
,, 22nd ...	*Empress of Ireland*	14,500 ,, ...	£20 to £50

Cunard Line.

Liverpool to New York.

			From
July 31st ...	*Caronia*	19,593 tons ...	£19 0 0
August 4th...	*Campania*	12,950 ,, ...	£20 0 0
,, 11th...	*Etruria*	8,119 ,, ...	£16 10 0
,, 14th...	*Carmania*	19,524 ,, ...	£19 0 0

Liverpool to Boston.

			From
July 24th ...	*Ivernia*	14,058 tons ...	£16 0 0
August 7th...	*Saxonia*	14,280 ,, ...	£16 0 0

New York to Liverpool.

			From
Aug. 25th ...	*Etruria*	8,119 tons ...	£16 10 0
,, 28th ...	*Carmania*	19,524 ,, ...	£19 0 0
Sept. 1st ...	*Lucania*	12,925 ,, ...	£20 0 0
,, 8th ...	*Umbria*	8,127 ,, ...	£16 10 0
,, 11th ...	*Caronia*	19,593 ,, ...	£19 0 0

New York to Liverpool.

			From
Sept. 15th	*Campania*	12,950 tons	£20 0 0
,, 22nd	*Etruria*	8,119 ,,	£16 10 0
,, 25th	*Carmania*	19,524 ,,	£19 0 0
,, 29th	*Lucania*	12,925 ,,	£20 0 0

Boston to Liverpool.

			From
Sept. 4th	*Ivernia*	14,038 tons	£16 0 0
,, 18th	*Saxonia*	14,280 ,,	£16 0 0

DOMINION LINE.

Liverpool to Quebec and Montreal.

July 26th	*Ottawa*[1]	5,070 tons	£9
Aug. 2nd	*Dominion*	7,008 ,,	from £14
,, 9th	*Southwark*[1]	8,606 ,,	£8 10s.
,, 16th	*Canada*	10,000 ,,	from £15

Montreal and Quebec to Liverpool.

Aug. 25th	*Southwark*[1]	8,606 tons	£8 10s.
Sept. 1st	*Canada*	10,000 ,,	from £14
,, 8th	*Kensington*[1]	8,668 ,,	£8 10s.
,, 15th	*Ottawa*[1]	5,070 ,,	£9

WHITE STAR LINE.

Liverpool to New York.

			From
July 27th	*Cedric*	21,000 tons	£19 0 0
Aug. 1st	*Oceanic*	17,300 ,,	£21 0 0
,, 8th	*Teutonic*	10,000 ,,	£18 0 0
,, 10th	*Celtic*	21,000 ,,	£19 0 0
,, 15th	*Baltic*	24,000 ,,	£19 0 0

Liverpool to Boston.

			From
July 20th	*Arabic*	15,800 tons	£16 0 0
Aug. 3rd	*Republic*	15,400 ,,	£16 0 0
,, 10th	*Cymric*	13,100 ,,	£14 0 0

New York to Liverpool.

			From
Aug. 29th	*Baltic*	24,000 tons	£19 0 0
Sept. 5th	*Majestic*	10,000 ,,	£18 0 0
,, 7th	*Cedric*	21,000 ,,	£19 0 0
,, 12th	*Oceanic*	17,300 ,,	£21 0 0
,, 19th	*Teutonic*	10,000 ,,	£18 0 0
,, 21st	*Celtic*	21,000 ,,	£19 0 0
,, 26th	*Baltic*	24,000 ,,	£19 0 0

Boston to Liverpool.

			From
Aug. 30th	*Arabic*	15,800 tons	£16 0 0
Sept. 13th	*Republic*	15,400 ,,	£16 0 0
,, 20th	*Cymric*	13,100 ,,	£14 0 0

On some of the liners there are special rooms on the various decks at prices ranging up to £150 when reserved for one occupant. All first-class passengers are entitled to the same privileges on the boat.

CIRCULAR TOURS FROM ENGLAND.

MESSRS. STOCKWELL AND CO., Limited, shipping and passenger ticket agents, 8–10, Beak Street, Regent Street, W., have sent us the following specimen tours designed to suit the convenience of members of the British Medical Association proposing to attend the annual meeting at Toronto on August 21st and following days:

FIRST CLASS CIRCULAR TOUR THROUGHOUT, LONDON TO TORONTO AND BACK.

Via Quebec or Montreal. £ s. d.

Saturday, August 4th. — Steamship *Empress of Britain*, 14,500 tons, C.P.R., arriving Quebec 11th, and thence to Montreal, rail to Toronto, returning by Lake steamer through the Thousand Islands and Rapids to Montreal, home by C.P.R. steamer ... ... From 36 16 6

Or Montreal to Toronto by steamer, rail home from Toronto via New York and Cunard steamer ... ... From 38 5 5

Wednesday, August 8th. — Steamship *Lake Erie*, 7,550 tons, C.P.R., arrive Montreal 19th, rail to Toronto, returning by Lake steamer through the Thousand Islands and Rapids to Montreal, home by C.P.R. steamer ... ... From 33 0 6

Montreal to Toronto by steamer, rail home from Toronto via New York and Cunard steamer ... ... From 36 5 5

Thursday, August 9th. — Steamship *Ionian*, 8,265 tons, Allan Line, arrive Montreal 18th. Rail to Toronto, returning by Lake steamer through the Thousand Islands and Rapids to Montreal, home by Allan Line steamer ... ... From 33 0 6

Or Montreal to Toronto by steamer, rail home from Toronto via New York and Cunard steamer ... ... From 36 5 5

Via New York.

Wednesday, August 8th. — Steamship *Teutonic*, 10,000 tons, White Star, arriving New York 15th. Rail to Toronto returning via Lake steamer to Montreal, thence by Dominion Line to Liverpool... ... From 41 11 5

Friday, August 10th.—Steamship *Celtic*, 20,000 tons, White Star, arriving at New York 17th. Rail to Toronto, returning via Lake steamer through the Thousand Islands and Rapids to Montreal, thence by Dominion Line steamer to Liverpool... From 43 9 5

Saturday, August 11th. — Steamship *Etruria*, 8,161 tons, Cunard Line, arriving at New York 18th. Rail to Toronto, returning via Lake steamer through the Thousand Islands and Rapids to Montreal, thence per Allan or C. P. R. steamer to Liverpool ... ... From 38 14 5

Saturday, August 11th.—Steamship *New York*, 10,000 tons, American Line, arriving New York 18th. Rail to Toronto, returning via Lake steamer through the Thousand Islands and Rapids to Montreal, thence by Dominion Line steamer to Liverpool... From 39 16 5

Berths may be secured on payment of £5 each as deposit, and are allotted according to priority. Early application is necessary to secure best positions.

If return tickets issued at lower rates are used during periods when higher rates are in force, they are subject to payment of difference in fares.

Plans of steamers and all particulars will be supplied by Messrs. Stockwell on application.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

DEPUTY-INSPECTOR-GENERAL H. T. COX is promoted to be Inspector-General, January 25th. Appointed Surgeon, March 30th, 1872, he became Staff Surgeon, September 30th, 1883; Fleet Surgeon, November 12th, 1892; and Deputy-Inspector-General, January 1st, 1900. He served on shore throughout the Ashanti campaign in 1873-4, receiving the medal; and in the *Amethyst* during the engagement with the Peruvian rebel turret-ship *Huascar* off Ylo in May, 1877.

Surgeon H. A. JULIUS has been placed on the retired list, February 8th. He was appointed Surgeon May 15th, 1895.

The undermentioned have been appointed Surgeons in his Majesty's Fleet, dated February 10th: LEONARD WARREN, M.B., EWEN CAMERON, M.B., LOUIS L. GREIG, M.B., FREDERICK G. GOBLE, REGINALD C. P. MCDONAGH, PERCY F. MINETT, HERBERT A. BROWNING, PERCY C. WOOLLATT, and JOHN BOURDAS.

The following appointments have been made at the Admiralty: RICHARD E. BIDDULPH, Fleet Surgeon, to the *Cressy*, on recommissioning, March 5th; EDWARD T. MEAGHER, Staff Surgeon, to the *Berwick*, on recommissioning, March 6th; FRANCIS HERNAMAN-JOHNSON, Surgeon, to the *Berwick*, on completing, undated; LIDBROOK F. COPE, Surgeon, to the *Victory*, for disposal, February 15th (his recent appointment to the *Attentive* being cancelled); LESLIE C. ROWAN ROBINSON, Surgeon, to the *Victory*, for disposal, undated.

Fleet-Surgeon W. E. BENNETT is placed on the retired list, with the rank of Deputy-Inspector-General, February 17th. His commissions are dated: Surgeon, March 31st, 1874; Staff Surgeon, March 31st, 1886; and Fleet Surgeon, December 9th, 1890.

Deputy-Inspector-General W. G. RIDINGS has been awarded the Greenwich Hospital pension of £50 a year, vacant by the death of Deputy-Inspector-General W. C. F. Bartlett on January 14th. He entered the service as Surgeon, July 11th, 1856; became Staff Surgeon, September 22nd, 1866; Fleet Surgeon, May 3rd, 1877; and Deputy-Inspector-General on retirement, February 25th, 1888. From the *Royal Navy List* we learn that as Assistant Surgeon at Jamaica Hospital in 1859-62 he, with the rest of the staff, received the thanks of the Admiralty for services in yellow fever epidemic of H.M.S. *Icarus* and *Imaum*. Staff Surgeon in *Rinaldo*, 1866-70. Present at Kioto on March 23rd, 1868, where the Legation Guard was attacked, and received the thanks of H.M. Ministers for attendance on wounded. Was P.M.O. of expedition landed at Outing Poy Creek, Swatow, December, 1868, under Commodore O. Jones, for the destruction of three walled villages. Staff Surgeon of *Niobe* at bombardment of Omoa, 1873. Wrecked in *Niobe*, 1874. Fleet Surgeon of *Shannon*, 1877-81. In charge of zymotic and upper medical wards at Haslar, 1882-85. In medical charge of the R.M. Artillery, Eastney, 1885-88.

Fleet-Surgeon J. O'B. WILLIAMS, M.D., is promoted to be Deputy Inspector-General, January 25th. His previous commissions are dated: Surgeon, March 30th, 1878; Staff Surgeon, March 30th, 1890; Fleet Surgeon, November 16th, 1894. He was Surgeon of H.M.S. *Albacore* at Suakin during Osman Digna's operations against it in 1887-8, and received the thanks of the Egyptian Government for his valuable services, placed voluntarily at the disposal of the Senior Medical Officer of the Egyptian army, and for his action in assisting to dress the wounded after the action on March 4th, 1888.

---

[1] Carries only second-cabin and third-class (steerage) passengers.

ARMY MEDICAL SERVICE.

Lieutenant-Colonel W. G. Macpherson, C.M.G., M.B., Royal Army Medical Corps, to be a Deputy-Assistant-Director-General (attached to the Department of the Director of Military Operations), December 29th, 1905.

ROYAL ARMY MEDICAL CORPS.

Lieutenant C. V. B. Stanley, M.D., is seconded for service with the Egyptian army, January 26th.

The undermentioned Lieutenants are confirmed in that rank: W. Byam, H. St. M. Carter, M.D., G. W. Heron, J. M. B. Rahilly, M.B., J. A. Anderson, M.B., H. G. Sherren, H. H. A. Emerson, M.B., R. P. Lewis, J. H. Graham, M.B., W. Benson, M.B., G. E. Ferguson, C. E. W. S. Fawcett, M.B., A. M. Rose, M.B., G. H. Rees, M.B., T. Scatchard, V. H. Symons, E. G. Anthonisz, R. A. Bryden, E. L. Moss, A. E. S. Irvine, T. B. Moriarty, M. B. H. Ritchie, M.B., W. J. Weston, A. E. F. Hastings, M. J. Cromie, J. S. Dunne, E. T. Potts, M.D., G. W. W. Ware, M.B., W. McConaghy, M.B., W. C. Nimmo, M. Keane, C. F. White, M.B., F. C. Sampson, M.B., T. S. Blackwell, H. E. Priestley, P. J. Marett, A. D. O'Carroll, M.B., A. C. Vidal, and H. Stewart, M.B. Lieutenants Byam and Carter were appointed on probation, July 30th, 1904: Lieutenants Heron and Rahilly on January 31st, 1905; all the other officers named on July 31st, 1905.

The undermentioned gentlemen to be Lieutenants, on probation, dated January 30th: C. M. Drew, M.B., A. A. Sutcliff, M.B., A. G. Cummins, M.B., A. S. Millard, M.B., H. E. Gotelee, A. S. Littlejohns, F. A. McCammon, M.B., W. R. Galwey, M.B., R. G. Archibald, M.B., G. De la Cour, W. Egan, M.B., F. Forrest, T. W. O. Sexton, R. G. H. Tate, M.D., A. S. Williams, A. Dawson, M.B., C. T. Edmunds, V. G. Johnson, E. W. M. Paine, E. J. Porteous, M.B., E. M. O'Neill, M.B., V. C. Honeybourne, J. C. L. Hingston, G. B. Edwards, F. D. G. Howell, C. R. M. Morris, M.B., P. Sampson, W. H. Gillatt, M.B., J. W. L. Scott, W. C. Smales, J. B. G. Mulligan, A. H. Bond, M. G. Dill, M.B., R. E. U. Newman, M.B., H. Jacques, D. De C. O'Grady, T. T. H. Robinson, M.B., T. C. C. Leslie, L. G. Gibson, and P. S. Stewart, M.B. The undermentioned Lieutenants to be seconded under the provisions of Article 349, Pay Warrant: H. E. Gotelee, G. De la Cour, A. S. Williams, V. G. Johnson, and J. W. L. Scott.

Surgeon-General W. S. Pratt, M.B., who returns home from India on promotion, has been appointed Principal Medical Officer, Southern Command.

Colonel T. M. Corker, M.D., has been appointed Principal Medical Officer, Scottish Command.

Colonel A. E. J. Croly has been appointed Administrative Medical Officer at Dover.

Colonel A. W. P. Inman, M.B., has been appointed Principal Medical Officer, South China.

Major H. A. Bray, from the Seconded List, to be Major, February 14th. (He was seconded for service with the Egyptian army, February 14th, 1899.)

ROYAL ARMY MEDICAL COLLEGE.

The following have been appointed Clinical Teachers: *Medicine*, H. M. Murray, M.D.; *Surgery*, G. H. Makins, C.B., and H. F. Waterhouse, M.B.; *Midwifery and Gynaecology*, H. R. Spencer, M.D.: *Ophthalmology*, W. T. H. Spicer, M.B.; *Otology with Laryngology*, StC. Thomson, M.D.; *Psychological Medicine*, R. Percy Smith, M.D.; *Specific Fevers*, R. M. Bruce.

ROYAL HORSE GUARDS.

Surgeon-Major H. Rayner, M.B., is promoted to be Surgeon-Lieutenant-Colonel, January 30th. He retires on retired pay from February 17th. He entered the service as Surgeon, January 30th, 1886; was appointed to the 1st Battalion Grenadier Guards, April 14th, 1884; was transferred to the 3rd Battalion in 1888; thence to the Royal Horse Guards, February 13th, 1897; from which regiment he now retires. He was promoted to be Surgeon-Major, June 19th, 1900. He has no war record in the Army Lists.

INDIAN MEDICAL SERVICE.

Captains C. R. Stevens, M.D., L. Rogers, M.D., and G. T. Birdwood, M.D., of the Bengal Establishment, are promoted to be Majors from January 30th, 1905. Their previous commissions are dated: Surgeon-Lieutenant, July 29th, 1893; Surgeon-Captain, July 29th, 1896. Major Stevens was with the Chitral Relief Force in 1895 (medal with clasp), and with the Tirah Expeditionary Force on the North-West Frontier of India in 1897-8 (two clasps). Major Birdwood was in the Abor Expedition, on the North-West Frontier of India, in 1894; with the Waziristan Expedition in 1894-5 (medal with clasp): and in the operations on the Samana and in the Kurram Valley during the campaign in 1897-8 (medal with three clasps). Major Rogers has no war record.

Captains C. C. S. Barry, E. A. R. Newman, M.D., J. Gould, M.B., R. G. Turner, J. Davidson, M.B., and J. Mulvany, Bengal Establishment, are promoted to be Majors, from July 29th, 1905. Their previous commissions bear the same date as the officers named in the preceding paragraph. Major Gould served with the Waziristan Expedition in 1894-5 (medal with clasp); with the Chitral Relief Force in 1895 (medal with clasp): and in the campaign on the North-West Frontier of India in 1897-8, including the capture of the Tanga Pass (clasp). Major Turner was with the Waziristan Expedition in 1894-5 (medal with clasp): in the Uganda campaign in 1897-8, including the attack at Kijembo, the capture of Kabagambi and the Soudanese Forts near Mruli (mentioned in dispatches, medal with two clasps); and in the China war in 1900 (medal). Major Davidson was with the Waziristan Expedition in 1894-5 (medal with clasp); with the Chitral Relief Force in 1895 (medal with clasp): with the Dongola Expedition in 1896 (British and Egyptian medals), and with the Tirah Expeditionary Force on the North-West Frontier of India in 1897-8 (two clasps). Major Mulvany served with the Chitral Relief Force in 1895 (medal with clasp): with the Tochi Force on the North-West Frontier of India in 1897-8 (clasp): and in the China war in 1900 (medal) No war experience is assigned to Majors Barry and Newman.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

Henry T. Samuel to be Lieutenant in the Welsh Bearer Company, February 10th.

ROYAL ENGINEERS (VOLUNTEERS).

David H. Weir, M.D., to be Surgeon-Lieutenant in the 1st Durham Regiment, February 10th.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

Surgeon-Major J. Rumboll, 1st West Riding of Yorkshire, resigns his commission, retaining his rank and uniform, February 10th.

VOLUNTEER RIFLES.

Surgeon-Lieutenant-Colonel W. Sneddon, M.D., 1st Volunteer Battalion the Royal Scots Fusiliers, is granted the honorary rank of Surgeon-Colonel, February 10th. He resigns his commission from the same date, retaining his rank and uniform.

Surgeon-Captain G. Stephen, M.B., 2nd Volunteer Battalion the Durham Light Infantry, resigns his commission, February 10th.

Surgeon-Lieutenant (Honorary Lieutenant in the Army) J. C. Taylor, M.B., 1st Volunteer Battalion the Royal Scots Fusiliers, to be Surgeon-Captain, February 17th.

Surgeon-Lieutenant-Colonel R. T. C. Robertson, M.B., 2nd Volunteer Battalion the Cameronians (Scottish Rifles), is granted the honorary rank of Surgeon-Colonel, February 16th. He resigns his commission from February 17th, retaining his rank and uniform.

Surgeon-Lieutenant H. G. L. Allford, 1st Cinque Ports Volunteer Rifle Corps, resigns his commission, February 17th.

Alexander C. Farquharson, M.D. (formerly Lieutenant), to be Surgeon-Lieutenant in the 2nd Volunteer Battalion the Durham Light Infantry, February 17th.

CANADIAN ARMY MEDICAL CORPS.

The following officers of the Canadian Permanent Army Medical Corps have been detailed for duty to the garrison of Halifax in place of the R.A.M.C. removed: Lieutenant-Colonel G. Carleton Jones, P.A.M.C., P.M.O., Major G. L. Foster, P.A.M.C., Captain C. Dickie Murray, P.A.M.C., Captain T. J. F. Murphy, P.A.M.C.

CHANGES OF STATIONS.

The following changes of stations amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during January, 1906:

	FROM	TO
Surg.-Gen. W. S. Pratt, M.B.	Mhow	Southn. Comd.
Colonel H. J. W. Barrow	Kasauli	Mian Mir.
,, B. M. Blennerhassett, C.M.G.	Murree	Rawal Pindi.
,, J. F. Williamson, M.B., C.B., C.M.G.	Bombay	Jubbulpore.
,, H. R. Whitehead	Secunderabad.	Rawal Pindi.
,, G. W. Robinson	Aldershot	London.
,, A. W. P. Inman, M.B.	Lucknow	Hong Kong.
,, T. M. Corker, M.D.	Belfast	Scottish Comd.
,, C. A. Webb	Dover	Cork.
,, H. Martin, M.B.	Shorncliffe	Welsh & Midland Comd.
,, A. E. J. Croly	Edinburgh	Dover.
Lieut.-Col. F. B. Maclean	Woolwich	Jersey.
,, D. O'Sullivan	Rawal Pindi	Sialkot.
,, H. W. Murray, M.B.	Halifax, N.S.	Shorncliffe.
,, H. G. Hathaway	Poona	Bombay.
,, T. J. O'Donnell, D.S.O.	—	Quetta.
,, C. W. Thiele, M.B.	Newcastle-on-Tyne	Secunderabad.
,, J. Carmichael	—	Mian Mir.
,, A. E. Tate	Simla	Calcutta.
,, R. J. Geddes, M.B., D.S.O.	Aldershot	Maryhill.
,, T. B. Winter	Portsmouth	Eastern Comd.
,, J. J. C. Donnet	Quetta	Jhansi.
,, H. A. Haines, M.D.	Dalhousie	Jullundur.
,, G. E. Hale, D.S.O.	Kirkee	Poona.
,, C. C. Reilly	Murree	Ambala.
,, A. E. Morris, M.D.	Woolwich	India.
,, J. M. F. Shine, M.D.	Cahir	Deesa.
,, W. B. Day, M.B.	Curragh	Crownhill.
,, G. Cree	Secunderabad.	Bellary.
,, H. D. Rowan, M.B.	Dalhousie	Mian Mir.
Major H. H. Brown, M.B.	Sheffield	Preston.
,, T. H. F. Clarkson	Jersey	Tower of Lond.
,, E. Eckersley, M.B.	Portsmouth	India.
,, M. J. Whitty, M.D.	Cahir	Liverpool.
,, H. A. Cummins, M.D., C.M.G.	Bara Gala	Rawal Pindi.
,, H. B. Mathias, D.S.O.	Campbellpore.	Peshawar.
,, J. J. Russell, M.B.	Kuldana	Rawal Pindi.
,, R. Holyoake	Colchester	Ambala.
,, O. R. A. Julian, C.M.G.	—	Peshawar.
,, A. B. Hinde	—	Bloemfontein.
,, H. St. G. S. Hore	Dublin	Birr.
,, L. E. A. Salmon	Exeter	Horfield.
,, R. C. Thacker	Jhansi	Aden.
,, E. M. Hassard	Eastern Comd.	Chichester.
,, L. Way	Landour	Allahabad.
,, A. E. Smithson, M.B.	Brecon	Chester.
,, R. J. W. Mawhinny	Multan	Ferozepore.
,, C. Dalton	Gharial	Rawal Pindi.
,, T. W. Gibbard, M.B.	London	,,
,, W. G. Beyts	Solon	Ambala.
,, J. Hennessy, M.B.	Aden	Dublin.
,, J. D. Alexander, M.B.	Birr	Cahir.
,, H. A. Hinge	Aldershot	Bombay.
,, L. P. More, M.B.	Bareilly	Sialkot.
,, J. H. Rivers	Egypt. Army	Woolwich.
,, A. C. Fox	Bulford	Tidworth.
,, W. Tibbits, M.B.	Calcutta	Meerut.
Captain A. H. Waring	Gosport	India.
,, A. W. Hooper, D.S.O.	Poona	Kirkee.
,, E. T. F. Birrell, M.B.	Aldershot	R.A.M. Coll.
,, S. A. Archer	Belfast	,,
,, R. E. G. Phillips	R.A.M. Coll.	Dublin.
,, P. MacKessack, M.B.	Falmouth	R.A.M. Coll.
,, J. Poe, M.B.	Newbridge	R.A.M. Coll.
,, H. G. F. Stallard	Egypt. Army	Woolwich.
,, F. S. Penny, M.B.	Mian Mir	Fort Lahore.
,, B. Watts	R.A.M. Coll.	Eastern Comd.
,, J. G. Berne	Nowgong	Jubbulpore.
,, W. P. Gwynn	R.A.M. Coll.	Chester.
,, A. H. O. Young	Belfast	Mullingar.
,, M. M. Lowsley	Portsmouth	R.A.M. Coll.
,, N. H. Ross, M.B.	Shorncliffe	,,
,, C. J. O'Gorman, D.S.O.	Maidstone	Brighton.

		FROM	TO
Captain	R. S. H. Fuhr, D.S.O.	Murree	Rawal Pindi.
,,	R. Selby, M.B.	R.A.M. Coll.	Eastern Comd.
,,	A. E. Weld	Devonport	Curragh.
,,	C. W. Mainprise	Tidworth	R.A.M. Coll.
,,	J. Cowan, M.B.	R.A.M. Coll.	W. Africa.
,,	E. P. Hewitt	Bermuda	Netley.
,,	H. P. W. Barrow	Dagshai	Woolwich.
,,	A. L. Scott	Eastern Comd.	Aldershot.
,,	J. G. Gill	R.A.M. Coll.	Netley.
,,	M. H. G. Fell	Aldershot	R.A.M. Coll.
,,	G. H. Goddard	Eastern Comd.	Dover.
,,	W. B. Winkfield	Devonport	Portsmouth.
,,	T. C. Lauder, M.B.	Kinsale	R.A.M. Coll.
,,	J. W. Leake	R.A.M. Coll.	Chester.
,,	G. M. Goldsmith, M.B.	Dublin	R.A.M. Coll.
,,	R. H. Lloyd	R.A.M. Coll.	Edinburgh.
,,	J. M. Sloan, M.B., D.S.O.	,,	,,
,,	G. J. A. Ormsby, M.B.	,,	Dublin.
,,	H. D. Packer	,,	Southn. Comd.
,,	L. Humphry	Curragh	R.A.M. Coll.
,,	H. K. Palmer	R.A.M. Coll.	Eastern Comd.
,,	R. A. Cunningham, M.B.	Glencorse	R.A.M. Coll.
,,	V. J. Crawford	Queenstown	,,
,,	A. Chopping	R.A.M.Coll.	York
,,	A. L. A. Webb	Eastern Comd.	Norwich
,,	S. G. Butler	R.A.M.Coll.	Eastern Comd.
,,	J. J. W. Prescott, D.S.O.	Devonport	R.A.M. Coll.
,,	P. H. Falkner	Dublin	,,
,,	H. E. M. Douglas, V.C., D.S.O.	Mian Mir	Calcutta
,,	E. E. Ellery	Birmingham	Gosport
,,	J. W. Langstaff	Manchester	R.A.M. Coll.
,,	J. I. W. Morris	Armagh	,,
,,	H. S. Anderson	Belfast	Malta
,,	T. C. MacKenzie, D.S.O.	R.A.M. Coll.	Aldershot
,,	J. H. R. Bond	Warwick	Bulford
,,	F. S. Irvine, M.B.	—	R.A.M. Coll.
,,	F. G. Richards	Alton	,,
,,	J. Matthews	R.A.M. Coll.	Eastern Comd.
,,	E. W. Siberry	Cahir	Cork
,,	B. F. Wingate	R.A.M. Coll.	Eastern Comd
,,	A. M. MacLaughlin, M.B.	Kildare	R.A.M. Coll.
,,	J. F. Martin, M.B.	Lower Topa	Jullundur
,,	A. H. Safford	Eastern Comd.	Aldershot.
,,	James M. Buist, M.B.	Colchester	Northampton
,,	C. S. Cato	Newport	R.A.M. Coll.
,,	W. L. Baker	Bhamo	Aldershot.
,,	F. W. Cotton	Nowshera	Eastern Comd.
,,	F. M. Parry, M.B.	Aden	Jersey.
,,	B. R. Dennis, M.B.	Secunderabad	Southn. Comd.
,,	J. Powell, M.B.	Thobba	Rawal Pindi.
,,	R. L. Argles	R.A.M. Coll.	York.
,,	W. Bennett, M.B.	Lucknow	Dublin.
,,	H. B. Fawcus, M.B.	York	Scarborough.
,,	G. Carroll	Dublin	Cork.
,,	J. G. Churton	Eastern Comd.	Woolwich.
,,	F. McLennan, M.B.	Lucknow	Edinburgh.
,,	J. H. Robinson	Kalabagh	Campbellpore.
,,	F. G. FitzGerald	R.A.M. Coll.	Eastern Comd.
,,	E. Bennett	Exeter	Devonport.
,,	F. H. Hardy	R.A.M. Coll.	Eastern Comd.
,,	W. B. Fry	Campbellpore	Rawal Pindi.
,,	H. F. Shea, M.B.	Bulford	R.A.M. Coll.
,,	P. S. Lelean	R.A.M. Coll.	Southn. Comd
,,	E. F. Q. L'Estrange	—	R.A.M. Coll.
,,	H. J. M'Grigor, M.B.	R.A.M. Coll.	Southn. Comd.
,,	A. W. Gibson	Deolalee	Aden.
,,	C. D. Myles, M.B.	Jubbulpore	Nowgong.
,,	R. F. M. Fawcett	Eastern Comd.	Woolwich.
,,	S. B. Smith, M.D.	Multan	Rawal Pindi.
,,	E. W. Powell	R.A.M. Coll.	Dublin.
,,	J. H. Barbour, M.B.	Dublin	Belfast.
,,	T. F. Ritchie, M.B.	Changla Gali	Ferozepore.
,,	H. Rogers, M.B.	Dalhousie	Mian Mir.
Lieutenant	J. G. Bell, M.B.	Belgaum	Colaba.
,,	T. S. Coates, M.B.	Poona	Mhow.
,,	O. Ievers, M.B.	St. Helena	Wynberg.
,,	R. B. Hole, M.B.	Indore	Khandalla.
,,	M. F. Grant	Colaba	Quetta.
,,	W. H. Hills, M.B.	Leicester	Allahabad.
,,	J. Campbell, M.B.	Belfast	Lucknow.
,,	G. R. Painton	Woolwich	Colchester.
,,	R. H. L. Cordner	,,	India.
,,	P. A. Lloyd-Jones	Bulford	Tidworth.
,,	G. H. Richard	Calcutta	Lebong.
,,	L. V. Thurston	Woolwich	Mhow.
,,	A. W. Gater	Woolwich	Rawal Pindi.
,,	J. P. Lynch	,,	Calcutta.
,,	W. Parsons	Netley	Secunderabad.
,,	C. W. O'Brien	,,	India.
,,	G. G. Tabuteau	Curragh	,,
,,	R. E. Humfrey	Netley	,,
,,	W. G. Maydon, M.B.	,,	Meerut.
,,	G. Ormrod, M.B.	Woolwich	India.

Lieutenant-Colonel T. J. R. Lucas, M.B., C.B., has assumed charge as Officer Commanding the Depot and Training School at Aldershot, vice Colonel G. W. Robinson, who has been transferred to London.

The undermentioned officers on retired pay have relinquished the medical charge of troops at the stations named: Lieutenant-Colonel A. Turner, Plymouth; Lieutenant-Colonel A. Asbury, Strensall; Major C. J. Holmes, M.D., Warrington.

WEST AFRICAN MEDICAL STAFF.

THE following appointments have recently been made to the West African Medical Staff: R. C. Hiscock, M.D., C.M.Canada, L.R.C.P. and S.Edin., *Lagos;* W. C. Bower, M.R.C.S., L.R.C.P., *Sierra Leone;* T. C. Caldwell, M.B., Ch.B.Edin., D.P.H.Edin. and Glasg., *Lagos;* H. L. Burgess, M.R.C.S., L.R.C.P., *Southern Nigeria;* H. Carlaw, L.R.C.P. and S.Edin., L.F.P.S.Glasg., *Gold Coast;* A. R. Rendle, M.R.C.S., L.R.C.P., *Southern Nigeria;* A. J. T. Swann, M.B., C.M. Glasg., *Northern Nigeria;* R. Cope, M.R.C.S., L.R.C.P., *Gold Coast;* J. C. Ryan, L. and L.M.R.C.P.I., L. and L.M.R.C.S.I., *Lagos;* J. J. Moore, L. and L.M.R.C.P.I., L. and L.M.R.C.S.I., *Sierra Leone;* J. C. S. McDonall, M.R.C.S., L.R.C.P., *Gold Coast.*

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,903 births and 5.214 deaths were registered during the week ending Saturday last, February 17th. The annual rate of mortality in these towns, which had been 15.5 per 1,000 in each of the two preceding weeks, increased last week to 17.2 per 1,000. The rates in the several towns ranged from 8.4 in Hornsey, 9.0 in Grimsby, 9.3 in Leyton and in King's Norton, 10.4 in East Ham, 10.8 in Burton-on-Trent, and 10.9 in Willesden, to 21.5 in Walsall and in South Shields, 21.6 in Plymouth, 21.8 in Warrington, 22.0 in Stockport, 22.3 in Merthyr Tydfil, 23.7 in Bootle, 24.2 in Preston, and 25.8 in Swansea. In London the rate of mortality was 16.8 per thousand, while it averaged 17.4 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.5 per 1,000 in the seventy-six towns; in London this death-rate was equal to 1.4 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 2.7 in Plymouth and in Blackburn, 2.9 in Leicester and in Derby, 3.0 in West Bromwich, in Oldham, and in Stockton-on-Tees, 3.6 in Burnley and in Preston, and 5.3 in Bury. Measles caused a death-rate of 1.1 in Swansea, 1.6 in Leeds, 1.7 in Tottenham, 1.9 in York, 2.1 in Wolverhampton, 2.7 in Preston, and 5.3 in Bury; diphtheria of 1.0 in Stockport and 1.1 in Oldham; whooping-cough of 1.5 in Bournemouth, in Warrington, and in Burnley, 2.0 in Reading, 2.2 in Leicester, and 2.3 in West Bromwich; and diarrhoea of 1.5 in Burnley. The mortality from scarlet fever and from enteric fever showed no marked excess in any of the large towns. No fatal case of small-pox was registered last week in any of the seventy-six towns. Two cases of this disease were admitted into the Metropolitan Asylums Hospitals during the week and remained under treatment on Saturday last, February 17th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 2,983, 2,912, and 2,839 at the end of the three preceding weeks, had further declined to 2,734 at the end of last week; 281 new cases were admitted during the week, against 322, 319, and 283 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, February 17th, 946 births and 618 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 19.6, 16.5, and 16.8 per 1,000 in the three preceding weeks, further rose to 18.0 per 1,000 last week, and was 0.8 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 13.4 in Aberdeen and 13.6 in Perth to 22.1 in Dundee and 25.1 in Greenock. The death-rate from the principal infectious diseases averaged 1.9 per 1,000 in these towns, the highest rates being recorded in Glasgow and Dundee. The 288 deaths registered in Glasgow included 25 which were referred to measles, 5 to diphtheria, 2 to whooping-cough, 2 to "fever," and 4 to diarrhoea. Five fatal cases of measles were recorded in Edinburgh. Two deaths from measles, 2 from diphtheria, and 2 from whooping-cough occurred in Dundee; 4 from diarrhoea in Aberdeen; and 2 from measles in Paisley.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, February 17th, 534 births and 393 deaths were registered in six of the principal Irish towns as against 478 births and 377 deaths in the preceding period. The annual death-rate in these towns, which had been 18.8, 18.9, and 22.7 per 1,000 in the three preceding weeks, fell to 21.8 per 1,000 in the week under notice, this figure being 4.6 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 17.5 in Waterford and 18.6 in Londonderry to 26.0 in Belfast and 28.7 in Limerick. The zymotic death-rate in the same six Irish towns averaged 0.6 per 1,000, or 1.6 per 1,000 lower than during the preceding period, the highest figure—1.9—being recorded in Belfast and Waterford, while no deaths under this heading were registered in Cork, Londonderry, and Limerick.

VITAL STATISTICS OF METROPOLITAN BOROUGHS DURING 1905.

[SPECIALLY REPORTED FOR THE "BRITISH MEDICAL JOURNAL."]

IN the accompanying table will be found summarized the vital statistics of the City of London and of each of the metropolitan boroughs, based upon the Registrar-General's returns for the year 1905. The mortality figures relate to the deaths of persons actually belonging to the various boroughs, and are the result of a complete system of distribution of the deaths occurring in the public institutions of London among the various boroughs in which the deceased persons had previously resided.

The 126,620 births registered in London during 1905 were equal to an annual rate of 27.1 per 1,000 of the population, estimated at 4,684,791 persons in the middle of the year; this rate was lower than that recorded in any preceding year, and was 2.2 per 1,000 below the average for the ten years 1895-1904. Among the various boroughs the birth-rates last year ranged from 13.5 in the City of London, 16.2 in Hampstead, 16.8 in the City of Westminster, 19.3 in Kensington, 20.5 in Stoke Newington, and 21.3 in Chelsea, to 32.1 Poplar, 33.2 in Bethnal Green, 33.3 in Bermondsey, 33.5 in Shoreditch, 34.7 in Finsbury, and 35.3 in Stepney.

The deaths, of persons belonging to London, registered during the year numbered 70,442, and were in the proportion of 15.1 deaths annually per 1,000 persons living, against 17.2, 15.2, and 16.1 per 1,000 in the three preceding years; the mean death-rate during the ten years 1895-1904 was 17.8 per 1,000. The lowest death-rates last year among the various metropolitan boroughs were 9.3 in Hampstead, 11.7 in Lewisham, 12.6 in Wandsworth, 12.8 in Woolwich, 12.9 in Stoke Newington, 13.3 in Paddington, 13.4 in Greenwich, and 13.5 in the City of Westminster; the highest rates were 17.5 in Holborn, 17.6 in Poplar, 17.7 in Stepney, 18.5 in Southwark, 18.6 in Bethnal Green, 18.7 in Bermondsey, 19.0 in Finsbury, and 19.7 in Shoreditch.

Analysis of the Vital Statistics of the Metropolitan Boroughs and of the City of London after Distribution of Deaths occurring in Public Institutions during 1905.

BOROUGHS.	Estimated Population middle of 1905.	Births.	Deaths.	Annual Rate per 1,000 Living.			Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Typhus.	Enteric Fever.	Simple and Ill-defined Fever.	Diarrhoea.	Phthisis.	Deaths of Children Under 1 Year of Age to 1,000 Births.
				Births.	Deaths.	Principal Infectious Diseases.												
COUNTY OF LONDON	4,684,794	126,620	70,442	27.1	15.1	1.70	7,894	10	1,709	549	546	1,487	—	234	3	3,356	6,622	129
Paddington	147,935	3.185	1,964	21.6	13.3	1.39	205	—	62	7	3	50	—	5	—	78	142	123
Kensington	180,083	3,458	2,515	19.3	14.0	1.39	250	—	56	21	9	60	—	13	—	91	204	144
Hammersmith ...	119,037	3.110	1,647	26.2	13.9	1.70	202	—	28	11	21	57	—	5	—	80	138	135
Fulham	157,210	4,760	2,364	30.4	15.1	2.71	425	—	84	22	24	83	—	10	—	202	191	145
Chelsea	74,496	1,583	1,100	21.3	14.8	1.03	76	—	5	9	5	22	—	4	—	31	112	117
City of Westminster	175,606	2.940	2.358	16.8	13.5	0.81	140	—	38	15	5	28	—	4	—	50	265	114
St. Marylebone ...	129,453	3.879	2,000	30.0	15.5	1.12	143	—	38	15	5	24	—	6	1	54	188	88
Hampstead	88,142	1.421	821	16.2	9.3	0.53	47	—	8	6	3	17	—	2	—	11	73	94
St. Pancras	236,183	5.811	3,713	24.7	15.8	1.50	354	—	77	27	26	82	—	7	—	135	357	135
Islington	342,994	8,604	4,960	25.2	14.5	1.47	502	1	123	38	34	112	—	16	—	178	432	125
Stoke Newington ...	52,828	1,078	679	20.5	12.9	1.14	60	—	12	3	5	10	—	—	—	30	70	122
Hackney	228,479	5,884	3,201	25.8	14.0	1.98	451	2	83	19	26	65	—	27	—	229	263	129
Holborn	56,481	1.603	985	28.5	17.5	1.12	63	—	11	4	4	17	—	4	—	23	160	92
Finsbury	98,207	3.398	1,863	34.7	19.0	2.17	213	—	41	21	12	32	—	9	—	98	198	127
City of London ...	22,425	302	390	13.5	17.4	0.57	13	—	1	1	2	2	—	—	—	7	30	149
Shoreditch	116,565	3,897	2,286	33.5	19 7	2.96	344	2	63	28	18	88	—	3	—	142	228	167
Bethnal Green ...	130,401	4.321	2,418	33.2	18.6	2.27	294	—	47	26	31	54	—	8	1	127	265	151
Stepney	305,466	10,744	5.381	35.3	17.7	2.58	787	1	157	58	61	137	—	21	1	351	524	141
Poplar	170,280	5,449	2,992	32.1	17.6	2.65	451	—	79	29	41	80	—	11	—	211	260	153
Southwark	208,528	6,240	3,848	30.0	18.5	2.39	500	—	154	28	44	80	—	11	—	183	443	148
Bermondsey	129,006	4,289	2,408	33.3	18.7	2.21	285	—	62	17	18	37	—	8	—	143	230	148
Lambeth	313,045	8.838	4,646	28.3	14.9	1.50	465	—	96	31	37	80	—	10	—	211	431	115
Battersea	177,532	4,843	2,567	27.4	14.5	1.99	351	—	125	24	12	51	—	6	—	133	238	131
Wandsworth	265,392	6,892	3,331	26.0	12.6	1.46	386	—	89	28	30	76	—	11	—	152	271	119
Camberwell	271,240	6,937	3,705	25.6	13.7	1.30	354	—	82	31	19	68	—	9	—	145	327	124
Deptford	114,495	3,299	1,631	28.9	14.3	1.19	135	—	16	10	9	19	—	6	—	75	139	122
Greenwich	103,493	2,676	1,383	25.9	13.4	1.30	133	—	18	5	16	14	—	5	—	75	130	119
Lewisham	144,420	3.633	1,682	25.2	11.7	0.95	137	4	41	5	8	26	—	6	—	47	123	92
Woolwich	125,372	3,546	1,604	28.4	12.8	1.02	128	—	13	10	18	16	—	7	—	64	190	102

During the year under notice 7,894 deaths were referred to the principal infectious diseases; of these, 10 resulted from small-pox, 1,709 from measles, 549 from scarlet fever, 546 from diphtheria, 234 from enteric fever, 3 from ill-defined pyrexia, and 3,356 from diarrhoea. These 7,894 deaths were equal to an annual rate of 1.70 per 1,000; the rates from these diseases in the three preceding years were 2.21, 1.75, and 2.14 per 1,000 respectively, and the mean rate in the ten years 1895-1904 was 2.42 per 1,000. Among the several boroughs the death-rates last year from these principal infectious diseases ranged from 0.53 in Hampstead, 0.57 in the City of London, 0.81 in the City of Westminster, 0.95 in Lewisham, 1.02 in Woolwich, and 1.03 in Chelsea, to 2.21 in Bermondsey, 2.27 in Bethnal Green, 2.39 in Southwark, 2.58 in Stepney, 2.65 in Poplar, 2.71 in Fulham, and 2.96 in Shoreditch. Compared with the averages in the ten preceding years, the mortality from each of the principal infectious diseases showed a decline which in the aggregate amounted to more than 30 per cent. Of the 10 fatal cases of small-pox recorded during the year, 4 belonged to Lewisham, 2 to Hackney, 2 to Shoreditch, 1 to Islington, and 1 to Stepney. The number of small-pox patients admitted into the Metropolitan Asylums Hospitals during the year was 72, against 414 and 512 in the two preceding years; no cases remained under treatment at the end of last year. Measles showed the greatest proportional mortality in Fulham, Shoreditch, Stepney, Southwark, and Battersea. Scarlet fever was proportionally most fatal in Finsbury, Shoreditch, Bethnal Green, Stepney, and Poplar; 17,592 scarlet fever patients were admitted into the Metropolitan Asylums Hospitals during last year, against 15,133, 10,808, and 11,629 in the three preceding years; 3,410 cases remained under treatment at the end of the year, against 2,327, 1,606, and 3,610 at the end of the three preceding years. The greatest proportional mortality from diphtheria occurred in Hammersmith, Bethnal Green, Stepney, Poplar, and Southwark; the number of diphtheria patients admitted into the Metropolitan Asylums Hospitals was 5,380 last year, against 7,988, 6,158, and 5,783 in the three preceding years; 701 cases remained under treatment at the end of the year, against 927, 734, and 801 at the end of the three preceding years. Whooping-cough was proportionally most fatal in Hammersmith, Fulham, Shoreditch, Bethnal Green, Stepney, and Poplar. The highest "fever" death-rates last year were recorded in Kensington, Hackney, Holborn, Finsbury, Bethnal Green, and Stepney; there were 831 enteric fever patients admitted into the Metropolitan Asylums Hospitals last year, against 1,806, 1,247, and 1,008 in the three preceding years; 78 cases remained under treatment at the end of the year, against 210, 246, and 150 at the end of the three preceding years. Diarrhoea showed the highest proportional fatality in Fulham, Hackney, Shoreditch, Stepney, Poplar, and Bermondsey.

The 6,622 deaths from phthisis registered during the year were equal to a rate of 1.42 per 1,000, the rates in the three preceding years having been 1.60, 1.55, and 1.52 per 1,000. Among the various boroughs the death-rates from this disease ranged from 0 83 in Hampstead, 0.85 in Lewisham, 0.96 in Paddington, 1.02 in Wandsworth, and 1.14 in Kensington to 1.79 in Bermondsey, 1.96 in Shoreditch, 2.02 in Finsbury, 2.04 in Bethnal Green, 2.13 in Southwark, and 2.84 in Holborn. In the central and eastern groups of boroughs the mortality from this disease is much greater than in the other parts of London, the rate per 1,000 living ranging from 1.23 in the western, 1.29 in the northern, and 1.37 in the southern, to 1.77 in the eastern, and 2.20 in the central group.

Infant mortality in London last year, measured by the proportion of deaths among children under one year of age to registered births, was equal to 129 per 1,000, or 24 per 1,000 less than the average. The lowest rates of infant mortality were 88 in St. Marylebone, 92 in Holborn and in Lewisham, 94 in Hampstead, and 102 in Woolwich; and the highest rates, 148 in Southwark and in Bermondsey, 149 in the City of London, 151 in Bethnal Green, 153 in Poplar, and 167 in Shoreditch.

Vacancies and Appointments.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

BATTERSEA BOROUGH COUNCIL.—Medical Officer of Health. Salary, £600 per annum.

BRIDGWATER HOSPITAL. — House-Surgeon. Salary, £80 per annum.

BRISTOL ROYAL INFIRMARY.—(1) House-Physician. Salary, £100 per annum. (2) Surgical Registrar.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—(1) House-Physician. (2) Assistant House-Surgeon. Salary, £65 and £50 per annum respectively.

CANCER HOSPITAL, Fulham Road.—Junior House-Surgeon. Salary at the rate of £70 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House-Surgeon. Honorarium, £25 per annum.

EVELINA HOSPITAL, Southwark Bridge Road, S.E.—Assistant House-Surgeon for three months. Salary, £70 per annum.

FARRINGDON GENERAL DISPENSARY, Bartlett's Buildings, E.C. —Honorary Physician.

HANDSWORTH URBAN DISTRICT COUNCIL.—Medical Officer of Health. Salary, £250 per annum.

LEEDS: PUBLIC DISPENSARY.—Junior Resident Medical Officer Salary, £100 per annum.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Assistant Resident Medical Officer. Honorarium at the rate of 50 guineas per annum.

METROPOLITAN EAR, NOSE, AND THROAT HOSPITAL, Grafton Street, W.—Three Clinical Assistants and an additional Anaesthetist.

MANCHESTER ROYAL INFIRMARY.—Medical Registrar. Salary, £70 per annum.

MANCHESTER TOWNSHIP.—Junior Resident Assistant Medical Officer of the Workhouse, Crumpsall. Salary, £110 per annum.

QUEEN'S JUBILEE HOSPITAL, Earl's Court, S.W. — Surgical Registrar.

TRURO: ROYAL CORNWALL INFIRMARY. — House-Surgeon. Salary, £100 per annum.

WEST BROMWICH DISTRICT HOSPITAL.—House-Surgeon. Salary, £100 per annum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) Two House-Physicians. (2) Three House-Surgeons. Appointments for six months.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W. — Surgical Registrar. Salary, £50 per annum.

CERTIFYING FACTORY SURGEONS. — The Chief Inspector of Factories announces the following vacancies in the office of Certifying Factory Surgeons: Dewsbury, co. York; Winchester, co. Winchester; Stokenchurch, co. Buckingham; Howden, co. York.

APPOINTMENTS.

Aldred, W. A., M.R.C.S., L.R.C.P., District Medical Officer of the St. Faith's Union.

Benton, William, M.R.C.S., L.R.C.P., L.S.A. and D.P.H., Deputy Medical Officer of Health for East Ham.

Bower, H. E., M.D., Medical Superintendent of the Runcorn Rural Council Isolation Hospitals.

Byers, A., M.D.Vict., M.Ch., Medical Officer of Health, Wilmslow Urban District.

Carwardine, T., M.S., M.B.Lond., F.R.C.S., Honorary Surgeon to the Bristol Royal Infirmary.

Cotton, R. H., M.R.C.S., L.R.C.P., Resident Assistant Medical Officer of the Lambeth Parish Infirmary.

Cresswell, S. C., M.R.C.S., L.R.C.P., District Medical Officer of the Merthyr Tydfil Union.

Curtis, G. W., M.R.C.P., L.R.C.P., District Medical Officer of the Great Ouseburn Union.

Graham, Geo. H., M.D., Assistant Physician in Charge of the Electrical Department to the Dreadnought Seamen's Hospital, Greenwich.

Holt, Thomas, M.B., C.M.Aberd., D.P.H., Medical Officer of Health for Burnley.

Latham, Henry, M.B. and C.M.Edin., B.Sc., Assistant-Physician to the Peterborough Infirmary.

Nixon, John Alexander, M.B.Cantab., M.R.C.P., Assistant Physician to the Bristol Royal Infirmary.

Peterkin, G., M.D.Edin., Certifying Factory Surgeon for the Forfar District, co. Forfar.

Price, B., L.R.C.P. and S.Edin., District Medical Officer of the West Derby Union.

Rafter, J., L.R.C.P. and S.I., District Medical Officer of the West Derby Union.

Sharpe, F. A., M.B., B.S.Lond., Resident Medical Officer, York Dispensary.

Simpson, W. J. B., M.R.C.S., L.R.C.P., Clinical Assistant to the Leeds Hospital for Women and Children.

Smith, F. W. W., M.B.Lond., Assistant Medical Officer. Lambeth Parish Infirmary.

Smith, M. W. S., M.R.C.S., L.R.C.P., Assistant Medical Officer, Lambeth Parish Infirmary.

Stolterforth, C. S., M.R.C.S., L.R.C.P., District Medical Officer of the Wycombe Union.

Thomson, Miss May, L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., L.M.Dub., Honorary Clinical Assistant to the Leeds Public Dispensary.

Turner, J. A., M.B., D.P.H.Camb., reappointed Executive Health Officer, Municipality of Bombay.

Wheeler, R. J., L.R.C.P.Edin., L.R.C.S.I., Medical Officer of Scattered Homes of Mile End Old Town.

Wright, B. D. Z., M.R.C.S., L.R.C.P., Medical Officer of Health, Smallburgh Rural District.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

Hunter.—At Duncairn, Helensburgh, N.B., on 15th inst., the wife of James Ewing Hunter, M.B., C.M., a son.

Meyer.—On February 6th, at Amwell Place, Hurstpierpoint, Sussex, the wife of William Robert Meyer, Surgeon, of a son.

MARRIAGES.

Gray—Collie.—On February 7th, at Tain, Douglas Gray, M.B.Lond., of Bolton, to Josephine, second daughter of the late Joseph Collie, Melbourne, Australia.

Stumbles—Prain.—At Bleekness House, Dundee, on 14th inst., by Rev. K. C. Anderson, D.D., assisted by Rev. W. H. Jefferson, Amble, Henry Martyn Stumbles, M.B., Ch.B., to Grace (Curror), daughter of John Easton Prain. At home, Amble House, Amble, March 14th, 15th, and 16th.

DEATH.

Winslow.—On the 7th inst., at 36, Sandgate Road, Folkestone, Florence Jessie, wife of Dr. L. Forbes Winslow, of 11, Burwood Place, Hyde Park, daughter of the late Dr. J. Michell Winn, of Harley Street, London.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Dr. Samuel West: Some Points in the Treatment of Chronic Renal Disease. Dr. Sidney Martin: The Diagnosis and Treatment of Acute Tuberculous Pleurisy.

Odontological Society of Great Britain, 20, Hanover Square, W., 8 p.m.—Mr. H. Bellamy Gardner, M.R.C.S.: Disorders and Diseases of the Heart in Relation to Anaesthesia for Dental Operations.

Royal College of Surgeons of England, Lincoln's Inn Fields, W.C., 5 p.m.—Hunterian Lecture:—Professor A. H. Cheatle, F.R.C.S.: Some Points in the Surgical Anatomy of the Temporal Bone from Birth to Adult Life.

TUESDAY.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., 8.30 p.m.—Dr. H. D. Rolleston and Mr. Lawrence Jones: Primary Malignant Disease of the Vermiform Appendix (with epidiascope demonstration).

WEDNESDAY.

Hunterian Society, London Institution, Finsbury Circus, E.C., 8.30 p.m.—Papers:—Dr. W. H. Kelson: Some Throat Affections. Dr. Purves Stewart: What is the Earliest Stage at which we can Diagnose Tabes Dorsalis? Dr. W. A. Milligan: The Diagnosis of Early Extrauterine Pregnancy.

Royal College of Surgeons of England, Lincoln's Inn Fields, W.C., 5 p.m.—Hunterian Lecture (continued).

THURSDAY.

Neurological Society of the United Kingdom, 11, Chandos Street, W., 8.30 p.m.—Papers:—(1) Dr. L. S. Dudgeon: Acute Diphtherial Toxaemia with special reference to Acute Cardiac Failure; (2) Dr. Gordon Holmes and Mr. J. H. Parsons: The Pathological Anatomy of Amaurotic Family Idiocy.

Royal College of Physicians of London, Pall Mall East, S.W., 5 p.m.—First Milroy Lecture:—Dr. W. H. Hamer: Epidemic Disease in England.

FRIDAY.

Royal College of Surgeons of England, Lincoln's Inn Fields, W.C., 5 p.m.—Hunterian Lecture (continued).

Society of Anaesthetists, 20, Hanover Square, W., 8.30 p m.—Paper:—Mr. C. Carter Braine: Experience of Anaesthetics in 200 Cases of Prostatectomy.

POST-GRADUATE COURSES AND LECTURES

Central London Throat and Ear Hospital, Gray's Inn Road, W.C.—Wednesday, 5 p.m., Pharynx.

Charing Cross Hospital.—Thursday, 4 p.m., Medical Cases.

Hospital for Consumption and Diseases of the Chest, Brompton, S.W.—Wednesday, 4 p.m., Demonstration of Clinical Cases.

Hospital for Sick Children, Great Ormond Street, W.C.—Thursday, 4 p.m., The Surgical Treatment of Spastic Paraplegia.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, Catarrhal Pneumonia in Children; Tuesday, Some Unusual Forms of Hernia; Wednesday, Difficult Micturition and Retention of Urine; Thursday, Some Cases in which Collections of Stones formed in the Prostatic Urethra.

Mount Vernon Hospital for Consumption and Diseases of the Chest, Central Out-patient Department, 7, Fitzroy Square, W.—Thursday, 5 p.m., Specific Diagnosis and Treatment of Phthisis.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Tuesday, 3.30 p.m., Subacute Degeneration of Spinal Cord. Friday, 3.30 p.m., Cerebral Tumours.

Samaritan Free Hospital for Women, Marylebone Road, N.W., Thursday, 3 p.m.—Cases from the Wards.

University College Hospital, Gower Street, W.C., Wednesday, 4 p.m.—Clinical Lecture on Methods of Investigation in Surgical Affections of the Kidneys.

West London Hospital Post-graduate College, Hammersmith Road, W.—The following are the lectures and demonstrations arranged for next week, at 5 each evening: Monday, Finsen, Ultra-violet, and other Methods of Phototherapy (illustrated by lantern slides); Tuesday, Pain in Acute Abdominal Disease; Wednesday, The Diagnosis of Appendicitis; Thursday, Practical Surgery; Friday, Food and Disease.

Westminster Hospital Medical School, Caxton Street, S.W., Thursday, 5 p.m.—Applied Physiology.

BOOKS, Etc., RECEIVED.

Medical Officers of Schools' Association. A Preliminary Inquiry Concerning the Milk Supply of Schools. By C. E. Shelly, M.D., M.R.C.P. London: J. and A. Churchill. 1906. 1s.

Transactions of the Association of American Physicians. Twentieth Session held at Washington, D.C., May 16th and 17th, 1905. Vol. XX. Philadelphia: Association of American Physicians. 1905.

Studies from the Rockefeller Institute for Medical Research. Reprints. Vol. III. 1905. New York: The Rockefeller Institute.

Sex and Character. By O. Weininger. Authorized translation from Sixth German Edition. London: W. Heinemann. 1906. 17s.

The Traveller's Telegraph Code. Compiled by A. Bishop. London: Effingham Wilson. 1s.

Radiography and the *X* Rays. By S. R. Bottone. Second Edition. London: Whittaker and Co. 1906. 3s. 6d.

Massage and the Original Swedish Movements. By K. W. Ostrom. Sixth Edition. London: H. K. Lewis. 1906. 3s. 6d.

Anaesthesia in Dental Surgery. By T. D. Luke, M.B., F.R.C.S.Edin. Second Edition. London and New York: Rebman Limited. 1906. 6s.

The Public Schools Year Book, 1906. London: Swan Sonnenschein. 2s. 6d.

Laboratory Manual of Physiology. By F. C. Busch, B.S., M.D. London: Baillière, Tindall and Cox. 1906. 6s.

On Professional Education, with special reference to Medicine. Address by T. C. Allbutt, M.A., M.D., F.R.S., etc. London: Macmillan and Co., Ltd. 1906. 2s.

Nutrition and Dysentery. By U. N. Mukerji, M.D. Calcutta: S. K. Lahiri and Co.; and London: Kegan, Paul and Trench. 1905. 3s. 6d.

Sulla Patogenesi e Trasmissibilità della Morva Chiusa. Pel Dott. Prof. A. Bonome. Padova: R. Stab. P. Prosperini. 1905.

\ₓ In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
FEBRUARY.	
25 Sunday.........	
26 MONDAY	
27 TUESDAY ...	
28 WEDNESDAY	Bath and Bristol Branch, Museum, North Parade, Bath, 8 p.m.; Council Meeting, 7.55 p.m. North Carnarvonshire and Anglesey Division, *North Wales and Shropshire Branch*, British Hotel, Bangor.
MARCH.	
1 THURSDAY...	London: Metropolitan Branch Council, 5 p.m. Swansea Division, *South Wales and Monmouthshire Branch*, General Hospital, Swansea, 3 p.m.
2 FRIDAY	London: Central Ethical Committee, 2 p.m. Folkestone Division, *South-Eastern Branch*, 21, Earls Avenue, Folkestone, 8.30 p.m.
3 SATURDAY...	
4 Sunday.........	
5 MONDAY	London: Premises and Library Committee, 3 p.m.
6 TUESDAY ...	South-Western Branch, White Hart Hotel, St. Austell, 2.30 p.m.
7 WEDNESDAY	London: South-Eastern Branch Council, 3.15 p.m. Altrincham Division, *Lancashire and Cheshire Branch*, Greenbank Hotel, Northwich, 4.45 p.m.; Dinner, 7 p.m.
8 THURSDAY...	Norwood Division, *South-Eastern Branch*, Queen's Hotel, Upper Norwood, 4 p.m.; Dinner, 6 p.m. South Wales and Monmouthshire Branch, Cardiff.
9 FRIDAY	Hampstead Division, *Metropolitan Counties Branch*.
10 SATURDAY...	
MARCH *(continued).*	
11 Sunday.........	
12 MONDAY	
13 TUESDAY......	
14 WEDNESDAY	Central Council, 2 p.m.
15 THURSDAY...	Cardiff Division, *South Wales and Monmouthshire Branch.*
16 FRIDAY.........	
17 SATURDAY...	
18 Sunday	
19 MONDAY	
20 TUESDAY......	
21 WEDNESDAY	
22 THURSDAY...	Wandsworth Division, *Metropolitan Counties Branch*, Wandsworth Infirmary, 8.45 p.m.
23 FRIDAY.........	St. Pancras and Islington Division, *Metropolitan Counties Branch*, Royal Free Hospital, 4 p.m.
24 SATURDAY...	
25 Sunday.........	
26 MONDAY	
27 TUESDAY......	City Division, *Metropolitan Counties Branch*, Conjoint Meeting with Walthamstow Division, Walthamstow Hospital, 4 p.m.
28 WEDNESDAY	Bath and Bristol Branch, Bristol.
29 THURSDAY...	
30 FRIDAY.........	
31 SATURDAY...	

MEMBERSHIP OF THE BRITISH MEDICAL ASSOCIATION.

The British Medical Association exists for the promotion of medical and the allied sciences, and the maintenance of the honour and the interests of the medical profession.

The Annual Subscription to the British Medical Association is £1 5s. 0d., and the British Medical Journal is supplied weekly, post free, to every member of the British Medical Association wherever he may reside.

Forms of application for membership can be obtained from the General Secretary, 429, Strand, London, W.C.

The principal rules governing the election of a medical practitioner to be a member of the British Medical Association are as follow:

Article III.—Any Medical Practitioner registered in the United Kingdom under the Medical Acts and any Medical Practitioner residing within the area of any Branch of the Association situate in any part of the British Empire other than the United Kingdom, who is so registered or possesses such medical qualifications as shall, subject to the Regulations, be prescribed by the Rules of the said Branch, shall be eligible as a Member of the Association. The mode and conditions of election to Membership shall from time to time be determined by or in accordance with the By-laws. Every Member, whether one of the existing Members or a subsequently-elected Member, shall remain a Member until he ceases to be a Member in accordance with the provisions hereof.

By-law 1.—Every Candidate for Membership of the Association shall apply for election in writing, addressed to the Association, and stating his agreement, if elected, to abide by the Regulations and By-laws of the Association, and the Rules of such Division and Branch to which he may at any time belong, and to pay his subscription for the current year.

By-law 2.—Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the General Secretary of the Association, and to every Member of the Branch Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a member of the Association by the Branch Council at any meeting thereof held not less than seven days (or such longer period as the Branch may by its Rules prescribe) after the date of the said Notice. A Branch may by special Resolution require that each candidate for election to the Association shall furnish a certificate from two Members of the Association to whom he is personally known. Officers of the Navy, Army, and Indian Medical Services on the Active List are eligible for election through the Council or a Branch without approving signatures as laid down in By-law 3.

By-law 3.—Every candidate whose place of residence is not included in the area of any Branch shall forward his Application to the General Secretary of the Association, together with a statement signed by three members of the Association, that from personal knowledge they consider him a suitable person for election. Notice of the proposed election shall be sent by the General Secretary to every Member of the Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a Member of the Association by the Council at any meeting thereof held not less than one month after the date of the said notice.

The annual subscription to the British Medical Journal for non-members is £1 8s. 0d. for the United Kingdom and £1 12s. 6d. for abroad.

Printed and published by the British Medical Association at their Office. No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MARCH 3RD, 1906.

CONTENTS.

PAGE
MATTERS REFERRED TO DIVISIONS
General Medical Council 77
Notices of Motion 78
Medico-Political Committee: Nurses' Registration Report ... 78
CONTRACT PRACTICE. By F. R. HUMPHREYS 79
THE SEVENTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, TORONTO 80
ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD 80
PAGE
CENTRAL MIDWIVES BOARD 81
VITAL STATISTICS 82
NAVAL AND MILITARY APPOINTMENTS 82
VACANCIES AND APPOINTMENTS... 82
BIRTHS, MARRIAGES, AND DEATHS 83
DIARY OF THE WEEK 83
CALENDAR 84

SPECIAL NOTICE TO MEMBERS.
Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.

GENERAL MEDICAL COUNCIL.

ELECTION OF DIRECT REPRESENTATIVES FOR ENGLAND AND WALES, NOVEMBER, 1906.

Candidates Nominated by Divisions for Selection by the Representative Meeting on behalf of the Association.

THE following members of the Association have been nominated by the Divisions named to be candidates for election, and have accepted nomination in accordance with the terms of the scheme published in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL for October 7th, 1905:

Name.	*Address.*	*Nominating Division or Divisions.*
BROWNE, HENRY LANGLEY, M.D. ... ... (Chairman of Council of the Association.)	Moor House, West Bromwich	CENTRAL BIRMINGHAM. CITY (LONDON).
BULLAR, JOHN FOLLETT, M.B.... ... ... (Member of Branch Council, Southern Branch.)	7, Carlton Crescent, Southampton	WINCHESTER.
CLARK, ANDREW, F.R.C.S., ... (Member and late Chairman of Central Council, and President of the Metropolitan Counties Branch)	71, Harley Street, W.	CITY (LONDON). ST. PANCRAS AND ISLINGTON.
JACKSON, GEORGE, F.R.C.S. ... ... (President of the South-Western Branch, and Member of the Medico-Political Committee.)	10, Portland Villas, Plymouth	GATESHEAD. PLYMOUTH.
MORISON, JAMES RUTHERFORD, F.R.C.S. ... (Member of Branch Council and Chairman of Northumberland Committee, North of England Branch.)	14, Saville Row, Newcastle-on-Tyne	CONSETT. GATESHEAD.
RHODES, JOHN MILSON, M.D. ... ... (Chairman of South Manchester Division, Lancashire and Cheshire Branch.)	Ivy Lodge, Didsbury, Manchester	MANCHESTER (SOUTH).
STRATON, CHARLES ROBERT, F.R.C.S.EDIN. ... (Member of Central Council, Medico-Political Committee and Colonial Committee.)	West Lodge, Wilton, Salisbury	WINCHESTER.

As provided by the scheme, nominations can be received until March 31st, and will henceforth be announced as received.

MATTERS REFERRED TO DIVISIONS.

REPRESENTATIVE MEETING AT LONDON.

TUESDAY, July 24th, and Following Days.

NOTICES OF MOTION.

The following notices of motion have been received for discussion by the Annual Representative Meeting of the Association to be held at London, July 24th, 1906, and following days.

ASSOCIATION REGULATIONS.

Amendment of Article xxvii.

Election of Representatives.

By the Wandsworth Division (Metropolitan Counties Branch):

For "three months" read "nine months."

Amendment of Articles and By-Laws.

Officers of Divisions.

By the Wandsworth Division (Metropolitan Counties Branch):

That it be an instruction to the Central Council to alter all Articles and By-laws so that "the Chairman of a Division" be called "the President of the Division"; and the "Executive Committee of a Division" be called "the Division Council."

ASSOCIATION ADMINISTRATION.

Management of Library.

By the City Division (Metropolitan Counties Branch):

That it be an instruction to the Council of the Association to make arrangements for keeping the Library of the Association open till 11 p.m. daily; except on Saturdays, when it shall be open till 1 p.m.

Facilities for Social Intercourse at Head Office.

By the City Division (Metropolitan Counties Branch):

That it be an instruction to the Council of the Association to provide facilities at the Association's premises in London for the better social intercourse of members, especially country members visiting London.

By Direction of the Chairman of Representative Meetings.
J. Smith Whitaker, *Medical Secretary.*

February 28th.

MEDICO-POLITICAL COMMITTEE.

NURSES' REGISTRATION REPORT.

In remitting the subject of Nurses' Registration again to the Divisions in accordance with the instruction of the Annual Representative Meeting at Leicester (Minute 220), the Medico-Political Committee presents the following Memorandum for the assistance of the Divisions:

The Memorandum consists of:

(a) A short history of the recent consideration of the subject by the Association.
(b) An abstract of the recommendations of the Select Committee of the House of Commons.
(c) Questions which it is suggested that the Divisions should answer.

(a) Recent Consideration by the Association.

The subject of Nurses' Registration was brought under the notice of the Medico-Political Committee in March, 1904, in connexion with the introduction into the House of Commons of two Bills for the State Registration of Nurses, one prepared and promoted by the Association for the State Registration of Nurses, and the other by the Royal British Nurses' Association.

The Medico-Political Committee prepared a report on these Bills, which was circulated to the Divisions on June 10th, 1904, for their assistance in discussing the subject preparatory to the decision of the ensuing Annual Representative Meeting thereon.

The matter was considered accordingly at the Annual Representative Meeting at Oxford, and the meeting resolved (Minute 66) that this meeting approves of the principle of the Registration of Nurses. The meeting also resolved (Minute 67) that the foregoing resolution be transmitted to the Select Committee of the House of Commons then sitting.

On the reappointment of the Select Committee, the Chairman of Representative Meetings, in accordance with Minute 67, transmitted the resolution of the Representative Meeting, and tendered himself as a witness on the subject on behalf of the Association. By request of the Medico-Political Committee, Dr. H. Langley Browne also attended to give evidence as a representative general practitioner.

The action so taken was reported to the Representative Meeting at Leicester and approved, and the Representative Meeting passed the following resolutions:

1. That the subject of the State Registration of Nurses be referred to the Divisions for further consideration (Minute 220).
2. That Registration of Nurses should include midwifery nurses who should have three years' training, of which one at least should be in a "lying-in hospital."

Pursuant to Minute 220, the matter is now referred to the Divisions; and as the report of the Select Committee of the House of Commons has in the meantime been published,[1] it is considered convenient to submit herewith a statement of its recommendations, as the most authoritative explanation of the meaning of the term "State Registration of Nurses."

(b) Recommendations of the Select Committee of the House of Commons on the State Registration of Nurses: and Nursing Homes.

(Abstract from the report of the Committee.)

Registration of Nurses.

1. That a *Register of Nurses* should be kept by a Central Body appointed by the State; and that, while it is not desirable to prohibit unregistered persons from nursing for gain, no person should be entitled to assume the designation of "Registered Nurse" whose name is not upon the *Register.*

2. That the Central Body should be set up by Act of Parliament, and that its constitution should be defined in the Act, as was done in the case of the Central Midwives Board.

3. That the Central Body should consist of matrons, nurses, and representatives of the medical profession, of training schools for nurses, and of the public.

4. That the number of representatives should not exceed fifteen.

5. That the Central Body should admit to the *Register of Nurses* such nurses as have had a training at a recognized training school of nurses for a period to be determined by such body, and have satisfied their training school, whose certificate they must hold, stating that they are equipped with the knowledge and experience requisite for nursing, and that they are of good character.

6. That the Central Body should decide what constitutes a recognized training school for nurses, taking into consideration the number of beds, the accommodation for probationers, the facilities afforded for learning, and the general standard and conduct of the examination; that for this purpose the Central Body should have the power of inspection. That the examination be held at and by the training school.

7. That for the purpose of defraying the expenses of the Central Body a registration fee should be charged, not exceeding one guinea.

8. That the minimum period of training should not be fixed by Act of Parliament, but should be left to the discretion of the Central Body, three years being suggested.

9. That there should be an annual publication of the *Register of Nurses*, and for this purpose the Central Body should make provision for striking off the *Register* the names of those nurses who have died or who have ceased nursing, and also of those nurses who, in the opinion of

---

[1] Supplement to the British Medical Journal, August 5th, 1905, page 157.

the Central Body, have been guilty of serious misconduct in the discharge of their duty, or of moral delinquency.

10. That existing nurses who can produce evidence satisfactory to the Central Body both as regards efficiency and character should be placed upon the *Register* on payment of the registration fee.

11. That it should be the duty of the Central Body at a date not later than four years after the passing of any Act for the Registration of Nurses to submit a Report to the Privy Council on the advisability of instituting a separate *Register of Nurses* whose training is of a lower standard than that laid down for "Registered Nurses."

12. That a separate Register of "Registered Asylum Nurses" should be kept by the Central Body, to which should be admitted the names of nurses who have served for not less than three years (in not more than two asylums), and have received the certificate of the Medico-Psychological Association, and can produce satisfactory certificates of good character.

Licensing of Nursing Homes and Institutions.

(Nursing homes are deemed to include all homes and places conducted for profit where patients are taken in for treatment. By nursing institutions are meant those societies or bodies which supply nurses to the public.)

13. That the licensing of such homes and institutions is highly desirable, that the licence be issued by the county or county borough authority in whose area the home or institution is situated, and that no such home or institution receive the licence unless it is conducted in conformity with requirements to be laid down by that authority; that the county or county borough authority be empowered to draft regulations to be approved by the Local Government Board, and to appoint inspectors who should have the right of entry and inspection; that it should be a condition of such licence that when a nurse employed in a nursing home or sent out by a nursing institution is not a "Registered Nurse" the fact shall be definitely stated.

(C) QUESTIONS SUBMITTED.

The Medico-Political Committee recommends that the Divisions should consider the following questions and present their opinion thereon as a convenient means of obtaining the views of the Association:

(1) Does the Division approve in general of the method of Registration for Nurses proposed by the Select Committee of the House of Commons?

(2) Does the Division approve of the separate Registration of Midwifery Nurses?

CONTRACT PRACTICE.

By F. R. Humphreys,

CHAIRMAN, HAMPSTEAD DIVISION.

Last year the Medico-Political Committee of the British Medical Association issued a report on Contract Practice, he result of two years' work; it appeared with the British Medical Journal for July 22nd.

It is based upon information received from practitioners n response to a series of questions issued by the Committee. In all, 856 replies, relating to 2,300 appointments, were received. In addition to these, much information was received from local medical societies, from Branches nd Divisions of the Association, and from other sources.

Special reports are included in it dealing with Provident nstitutions and Public Medical Services.

Contract Practice includes Private Clubs, organizations managed by non-medical bodies, Works Clubs, Medical Aid Societies, Friendly Societies, and Friendly Societies' nstitutes, with Provident Institutions and Public Medical ervices.

Following the recommendations of the Committee, given below, is a brief summary of them, and of the facts upon which they are based. It is hoped that it may prove seful at the present moment.

Recommendations.

1. That the conditions upon which the medical practitioners n any district undertake contract practice should be prescribed by arrangement among themselves.

2. That the control of the profession over the conditions of contract practice can only be effectually exercised under the conditions of a Public Medical Service, namely:
   (*a*) That the general control be in the hands of some organized local body representative of the profession, such as a Division of the British Medical Association.
   (*b*) That it be open to every practitioner in the district to take part in the work, should he desire to do so, and conform to the regulations of the profession.
   (*c*) That the details of administration be under the direct control of a purely medical committee representing both those who do and those who do not take part in contract work.

3. That whenever, in the opinion of the local medical profession, the immediate institution of a Public Medical Service is for any reason impracticable, the three main principles above stated should be carried into effect as far as possible. That is to say:
   (*a*) That, with regard to the conditions upon which they will accept contract practice, the medical practitioners of each district should collectively and individually enter into an agreement, in which the following matters are specifically prescribed:
      (i) Rates of remuneration.
      (ii) Conditions of admission to attendance under contracts, including provisions with respect to the economic position, age, and health of candidates.
      (iii) Definitions of the services to be rendered under the contract.
      (iv) Where appointments are made by non-medical bodies—the forms of contract, tenure of office, and representation of the medical profession in the management of the medical service.
   (*b*) That practitioners should cease to hold separate appointments or to carry on private clubs, and the principle of distribution of contract practice among all practitioners in the district who desire to participate should be carried into effect.
   (*c*) That organized forms of contract practice at present under the control of non-medical committees should gradually be brought under direct medical control.

4. That agreements among local members of the profession with respect to contract practice should be effected through the agency of organized local bodies representative of the profession, the rules of which should make the agreements binding upon the members.

5. That the professional organizations referred to should in each case be a Division of the British Medical Association.

6. That to render professional co-operation as complete as possible the Divisions should endeavour to secure the inclusion of every practitioner in their membership, and should make their decisions binding by adopting rules such as have been suggested by the Ethical Committee. (See Appendix G.)

7. That the Divisions be urged to establish a Public Medical Service in every area in which Contract Practice is believed by them to be necessary.

Comments.

1. That the conditions upon which the medical practitioners in any District undertake Contract Practice should be prescribed by arrangement amongst themselves.

2 and 3. These recommendations deal with the ways in which (1) can best be carried into effect.

2. Advises, as the only effectual means of control by the profession, the formation of a Public Medical Service, which should be similar to a Provident Institution, but, unlike it, entirely controlled by the Medical Profession.

3. Recommends that wherever the establishment of a Public Medical Service is impossible, the medical practitioners of the District should collectively and individually enter into an agreement as to the rates of remuneration, conditions of admission to benefits, and other details. In addition they should agree (*a*) to cease to run Private Clubs; (*b*) to hold separate appointments; (*c*) to support the principle of the distribution of contract practice amongst all practitioners in the district who desire it; and (*d*) that medical control should be substituted for non-medical committees in existing institutions and for contract practice.

Thus (2) replaces all existing clubs by the Public Medical Service under the sole control of the Profession; and (3) provides for the organization of the local profession in cases where local conditions prevent the formation of the Public Medical Service, though leading up to this ideal.

Both of these proposals, it is suggested, should be effected through the local Division of the British Medical Association, in order to obtain local cohesion and central support.

Below are given the disabilities connected with Contract Practice which have led to the above recommendations.

DEFECTS OF CONTRACT PRACTICE.

In General.

(*a*) The remuneration is inadequate for the services rendered. Some rates are absolutely inadequate, and fees for special services are not often given or are quite insufficient.

(*b*) Wage-limit provisions are non-existent or ineffective.

(*c*) Women and children are now largely admitted to organizations from which they were formerly excluded. The tendency of Societies is to include the whole of that portion of the community for which they cater, and to entirely do away with the family practice formerly attached to club practice.

(*d*) The rates for women and children are especially inadequate, both on account of their greater liability to illness and of the absence of economic restraint. The lower fee in the case of children is obviously wrong.

(*e*) The conditions of tenure of appointment are often unjust to the medical attendant.

Special Bad Effects upon Individual Doctors, the Profession, and the Community.

(*a*) On the medical attendant club practice is extremely bad and demoralizing, and is attended by grave dangers to his character and efficiency. The status of the "club doctor" is lowered by his acceptance of low remuneration, by the competition for club appointments, and by the occasional unworthy efforts to obtain the appointments.

(*b*) The effects upon the profession are those of organized (non-medical) bodies upon individuals. The inducements as to family practice, etc., held out by the organization, together with the fear of losing the appointment, enables the organization to enforce onerous terms. The pressure which results is shown by underselling by practitioners and canvassing and advertising by the organization.

(*c*) The effects on the community are those of inefficiency of medical service, and inferiority of or frequent change in the medical attendant.

The special evils connected with the different forms of contract practice are:

Friendly Societies.

1. The club doctor is at the mercy of a small but active minority of the members.
2. There is no restriction of benefits to the wage-earning class.
3. The formation of juvenile courts and the admission of women on unremunerative conditions. (Becoming very common.)
4. Remuneration in general inadequate.

Works Clubs.

1. No restriction of benefits to men on the works.
2. Loss of independence by the practitioner.
3. Remuneration inadequate.

Medical Aid Societies.

1. Government by non-medical, dividend-taking promoters.
2. Indiscriminate canvassing.
3. Admission of juveniles and of families.
4. Unremunerative fees.

Private Clubs.

1. Collector employed, resulting in canvassing; cards issued, in practice acting as advertisements.
2. Admission of women and children on unremunerative terms.
3. Severe downward competition between neighbouring practitioners.

CONCLUSIONS.

1. Contract practice appears to be necessary in certain districts.
2. The chief evils connected with the present system which require correction are (*a*) unremunerative and downward competition, (*b*) injustice to and loss of independence by medical men, due to their isolated position, (*c*) the non-limitation of benefits to wage earners, (*d*) the demoralizing effects of club practice upon club doctors, (*e*) the bad effects upon the community.

THE SEVENTY-FOURTH ANNUAL MEETING
OF THE
British Medical Association,
TORONTO, CANADA,
AUGUST 21ST TO 25TH, 1906.

THE CANADIAN GOVERNMENT AND THE BRITISH MEDICAL ASSOCIATION.

A MEDICAL deputation had a conference with Sir Wilfrid Laurier, Premier of Canada, recently with reference to a grant to the guarantee fund raised in Toronto in connexion with the Annual Meeting of the British Medical Association next August. The deputation, which consisted of Dr. Roddick, Past-President of the Association, Dr. R. A. Reeve, President-elect, Drs. Ross and Starr, Treasurer and Secretary respectively of the local Committee, and Drs. Powell and Prevost of Ottawa, was introduced to Sir Wilfrid Laurier by the Hon. Mr. Aylesworth. It is understood that the deputation met with a sympathetic reception.

Subsequently the same deputation had an interview with Mr. McDougald, Commissioner of Customs, in connexion with the admission free of duty of specimens and samples to be shown in the annual exhibition. Mr. McDougald subsequently informed Dr. F. N. G. Starr, the Honorary Local Secretary, that samples and printed matter entered for exhibition in the premises used for the annual museum may be distributed to members of the medical profession attending the annual meeting without customs duty.

RAILWAY TRAVELLING IN CANADA.

The Grand Trunk Railway.

We are informed that the Grand Trunk Railway has arranged to grant special reduced fares to members of the British Medical Association attending the Annual Meeting at Toronto next August. Round trip tickets will be issued to passengers from Europe between all points in Canada at one-half of the lowest one-way first-class railway fare from July 1st to September 30th, the final return limit being the latter date. These special tickets will be issued on presentation of a certificate prepared and signed by the Secretary of the Eastern Canadian Passenger Association and countersigned by the Secretary of the Canadian Committee or the General Secretary of the British Medical Association. Further particulars as to the Grand Trunk Railway System can be obtained from Mr. Frederick C. Salter, European Traffic Office, Grand Trunk Railway, 22, Water Street, Liverpool.

THE ATLANTIC PASSAGE.

IN the list of fares by the various liners, published in the SUPPLEMENT last week, p. 70, the fares by the *Empress of Britain* and the *Empress of Ireland*, of the Canadian Pacific Atlantic Line, should have been £16 to £90.

CIRCULAR TOURS FROM ENGLAND.

Messrs. Stockwell and Co., Limited, Shipping and Passenger Agents, 8-10, Beak Street, Regent Street, W., write with reference to the list of specimen tours received from them and published in the SUPPLEMENT of February 24th, p. 71, to state that owing to an alteration in the dates of sailing, the *Empress of Britain* will not sail on August 4th, but the *Empress of Ireland*, which is a sister ship, will leave Liverpool on August 11th.

Association Notices.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—The next meeting of this Division will be held at the Coventry and Warwickshire Hospital on Tuesday, March 6th, at 8.30 p.m. Agenda: (1) Dr. Milner Moore will move that it be a Standing Order that no smoking be allowed at the meetings of the Division until 9.30 p.m., after which time it shall be in the power of any member to move that smoking be now allowed. (2) Dr. Harman Brown will read a note on the Radical Cure of Hernia in infants and young children, illustrated by cases. (3) Dr. Milner Moore will move the adoption of the recommendations of the Medico-Political Committee on Public Medical Services (SUPPLEMENT, July 22nd, 1905, p. 32). (4) Dr. Phillips will move that the minimum fee for midwifery in the area of the Division be one guinea.—E. H. SNELL, Honorary Secretary, Warwick Avenue, Coventry.

BORDER COUNTIES BRANCH: NORTH CUMBERLAND DIVISION.—A meeting of the North Cumberland Division of the Border Counties Branch will be held at Penrith on Friday, April 6th. The Honorary Secretary will be pleased to hear from members who wish to read papers, show cases or pathological specimens.—NORMAN MACLAREN, Honorary Secretary, 23, Portland Square, Carlisle.

EAST ANGLIAN BRANCH: SOUTH ESSEX DIVISION.—The next meeting will be held at the Victoria Hospital, Southend-on-Sea, on Tuesday, March 6th, at 8.30 p.m. Business: (1) Minutes of meeting of January 15th. (2) Cases will be shown by Dr. Forsyth, Dr. F. Silva Jones, and Dr. Smellie. (3) Dr. J. R. Pooler will read a paper on Some Points of Difference between Syphilis and Yaws, illustrated by plates and specimens.—W. CARDY BLUCK, Honorary Secretary, Southend-on-Sea.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—The next general meeting will be held on Wednesday, March 7th, at the Greenbank Hotel, Northwich, at 4.45 p.m. Agenda: (1) Minutes of meeting of December 7th, 1905. (2) Minutes of Committee meetings of December 20th, 1905, January 18th, January 31st, and February 14th. (3) Confirm action of Committee in filling vacancy. (4) To prevent underselling, by adopting a uniform scale of fees. To be introduced by Dr. G. H. Smith. (5) A black list, or (alternatively) a local debt collecting union; by Dr. C. A. K. Renshaw. (6) Payment of medical men called in to assist midwives; by Dr. P. R. Cooper. (7) Any other business. Railway arrangements: The 3.40 train from Manchester will stop at Sale (3.50) on notice being given to the stationmaster by 3.45. The 4.33 express from Manchester will stop at Hale (about 4.43); arrives at Greenbank Station 5.10. Return trains from Greenbank at 6.59, 8.24, and 9.27 will all stop at Sale (in the case of the 6.59 notice must be given to the guard on joining the train). Dinner at 7 o'clock, price 4s.; wine extra; for those members (and guests) who send their names to the Honorary Secretary by Monday, March 5th. The Greenbank Hotel is next to the Hartford and Greenbank Station. Excursion fares on Wednesdays.—T. W. H. GARSTANG, Honorary Secretary, Altrincham.

LANCASHIRE AND CHESHIRE BRANCH: LIVERPOOL AND BIRKENHEAD DIVISIONS.—It is proposed to hold a combined dinner on March 22nd, at 8 p.m., when an address upon the advantages of medical organization to the community at large, and the public duty thereby devolving upon members of the profession, will be given by Mr. J. Smith Whitaker, the Medical Secretary of the Association. The price of tickets is 5s. each, exclusive of wine, and the dinner will be open to all members of the profession. Applications are requested to be sent to the Honorary Secretary, Dinner Committee, Medical Institution, Liverpool.—JAMES BARR, President of the Branch, ARTHUR W. GERMAN, Honorary Secretary, Dinner Committee, Liverpool.

LANCASHIRE AND CHESHIRE BRANCH: LEIGH DIVISION.—A meeting of the Scientific Section will be held in the Co-operative Rooms, Ellesmere Street, Leigh, on Thursday, March 8th, at 3.30 p.m. Agenda: (1) Minutes. (2) Pathological specimens: (*a*) cancer of pancreas; (*b*) rupture of aorta into pleural sac. (3) Acromegaly. (4) Locomotor ataxy with Charcot's joint and prolapse iris after iridectomy.—J. CLAY BECKITT, Honorary Secretary of Section.

LANCASHIRE AND CHESHIRE BRANCH: LEIGH DIVISION.—The usual monthly meeting of this Division will be held on March 15th in the Co-operative offices at 8.30 p.m.—MICHAEL J. HALTON, Honorary Secretary, 95, Chapel Street, Leigh, Lancs.

METROPOLITAN COUNTIES BRANCH: HAMPSTEAD DIVISION.—A meeting of this Division will be held at the Hampstead Conservatoire, Swiss Cottage, N.W., on Friday, March 9th, at 5 p.m. Mr. C. B. Lockwood, F.R.C.S., will read a paper on The Modern Diagnosis of Tumours, and will include a demonstration of the rapid cutting of fresh sections during operations by Mr. E. Shaw. The Executive Committee of the Division wish to take this opportunity of inviting all members of the Association who are interested in the important subject to be present.—H. W. ARMIT, Honorary Secretary.

NORTHERN COUNTIES OF SCOTLAND BRANCH.—A clinical meeting of the Branch will be held at the Northern Infirmary, Inverness, on Saturday, March 24th. Particulars will be sent to members by circular later. Members desirous of exhibiting specimens, or reading notes of cases are requested to communicate at once to the Secretary.—J. MUNRO MOIR, M.D., Honorary Secretary, Ardross Terrace, Inverness.

SOUTHERN BRANCH: WINCHESTER DIVISION.—A special meeting of this Division (under Rule XII) will be held in St. Patrick's Hall, Trafalgar Street, Winchester, on Friday, March 2nd, 1906, at 3 p.m. Agenda: (1) To consider and if thought fit to pass a resolution, or resolutions, on the recent action of the Winchester Town Council regarding the appointment of Medical Officer of Health for the city. (2) To consider the report of the meeting of the town council in the *Hampshire Chronicle* and other papers which appeared on February 3rd, 1906, and also letters which have since appeared on the subject in the Press, and to pass resolutions on the same.—H. J. GODWIN, Honorary Secretary and Treasurer, Winchester.

SOUTH-EASTERN BRANCH: CROYDON DIVISION.—A meeting of this Division will be held at the Greyhound Hotel, Croydon, on Thursday, March 15th, at 4 p.m. Mr. St. George C. Reid in the Chair. Agenda: (1) Minutes of the previous meeting. (2) To decide when and where the next meeting shall be held, and to elect a Chairman. (3) Other business. The following papers will be read:—Dr. W. S. A. Griffith: Note on Excessive Lochia, and on After-pains. Dr. R. Hutchison: Treatment of the Various Forms of Diarrhoea in Infancy and Childhood. Dinner at 6 p.m. Charge 5s., exclusive of wine. Members intending to stay to dinner are kindly requested to send a postcard to the Honorary Secretary.—E. H. WILLOCH, Honorary Secretary, 113, London Road, Croydon.

SOUTH-EASTERN OF IRELAND BRANCH.—An ordinary meeting of this Branch will be held at the Club House, Carlow, on March 7th, at 5.30 p.m.—J. QUIRKE, Honorary Secretary, Piltown, co. Kilkenny.

SOUTH-EASTERN BRANCH: NORWOOD DIVISION.—The next meeting of the Division will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 8th, at 4 p.m.; exhibition of instruments will be ready by 3.30. Henry Hetley, M.D., of Upper Norwood, in the chair. Dinner at 8 p.m.; charge 7s., exclusive of wine. Agenda: (1) Minutes of last meeting. (2) To decide when and where the next meeting shall be held, and to nominate a member of the Division to take the chair thereat. (3) Letter from Wandsworth Division. (4) Invitation from Metropolitan Counties Branch to join in entertaining representatives. The following papers, etc., will be read: Dr. Guthrie Rankin: Suppressed Gout. Sir William Bennett: Stone in the Ureter, in relation to Pseudo-Appendicitis. Dr. Choyce: The treatment of Syphilis by Mercury, with special reference to the Hypodermic Method. There will be an exhibition of surgical instruments, etc., by Messrs. Allen and Hanbury, from 3.30. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. All members of the South-Eastern Branch are invited to attend and to introduce professional friends, but will be unable to vote on Divisional questions. N.B.—The Honorary Secretary would be much obliged if members would kindly inform him by post card, to reach him by the first post on the Tuesday before the meeting, whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner. By so doing they will very materially facilitate arrangements and promote the success of the meeting.—HENRY J. PRANGLEY, Honorary Secretary; ARTHUR W. SOPER, Assistant Honorary Secretary, Tudor House, Anerley.

SOUTH-WESTERN BRANCH.—The next meeting of this Branch will be held on Tuesday, March 6th, at the White Hart Hotel, St. Austell, at 2.30 p.m. The President, Mr. G. Jackson, F.R.C.S., in the chair. Tea will be provided after the meeting. The following communications are already promised:—Mr. J. C. Walker: Notes on Therapeutic uses of Salicylates and allied Drugs. Mr. C. Hamilton Whiteford: A paper on Tubal Pregnancy, its diagnosis and treatment, with notes of three cases. Mr. W. Woollcombe: A paper on a Few Practical Points in Intestinal Obstruction. Dr. E. S. Fox will show a Heart from a case of Mediastinitis. Gentlemen desirous of joining the Association and Branch should communicate with Mr. G. YOUNG EALES, 1, Matlock Terrace, Torquay, Honorary Secretary.

YORKSHIRE BRANCH.—The next meeting of the Branch will be held at the Station Hotel, York, on Wednesday, March 7th. Members intending to read papers, to propose new members, or to make any communication, are requested to write to the Secretary at once. Members will dine together at 6.30 p.m.—ADOLPH BRONNER, Honorary Secretary, Bradford.

CENTRAL MIDWIVES BOARD.

A MEETING of the Central Midwives Board was held on February 22nd at 6, Suffolk Street, Pall Mall, with Dr. F. H. CHAMPNEYS in the chair.

Constitution of the Board.

The following members constitute the Board at the present time: Dr. F. H. Champneys, Mr. J. Ward Cousins, F.R.C.S., Dr. W. R. Dakin, Mr. H. G. Fordham, Mrs. Latter, Miss Rosalind Paget, Sir William J. Sinclair, M.D., Miss Wilson, Dr. E. Parker Young.

Defective Training of Midwives.

A letter was read from Dr. Stookes, of Liverpool, as to the scope of the teaching prescribed by the Board on the subjects of sanitation and emergencies. A letter was read from Dr. J. H. Fairbairn and Dr. Hicks as to the defective training of a candidate at a recent examination of the Board, who, it was stated, had been taught to give a vaginal douche with a Higginson's syringe that she also used for giving enemas. A letter was read from Dr. Swayne, on behalf of the examiners for the Bristol Centre, drawing attention to the defective training of some of the candidates at the recent examination. The Board directed that these letters should be taken into consideration on the revision of the Rules of the Board.

Suggested Official Handbook for Midwives.

A letter was read from Dr. Fothergill on behalf of the examiners for the Manchester Centre suggesting the publication by the Board of an official handbook for midwives, with a view to securing uniformity of teaching. After some discussion it was decided to refer the letter to a meeting of the examiners of the Board for their consideration.

Nervous Candidates.

A letter was received from Mrs. Heywood Johnstone, Chairman of the Executive Committee of the Rural Midwives' Association, as to the difficulties experienced by women of the working class when appearing before the examiners. These women, though fitted by experience for the duties of a midwife, were unable through nervousness to do themselves justice at the examination. The Chairman of the Board, Dr. Champneys, announced that he would write to Mrs. Heywood Johnstone, and assure her that the greatest care was taken by the examiners to make all allowances for nervousness on the part of the candidates.

Midwives Working in Institutions.

A letter was read from the Clerk of the London County Council as to the extent of the exemption conferred by Rule E 21. This rule provides that nothing in Section E of the Rules of the Central Midwives Board regulating the practice of midwives shall apply to certified midwives exercising their calling in hospitals, workhouses, or Poor-law infirmaries under the supervision of a duly appointed medical officer. As the letter from the Clerk of the London County Council referred to a nursing home, the Secretary was instructed to reply that in the opinion of the Board the institution in question did not fall under Rule E 21.

Result of Examination for Midwives.

We have received through the courtesy of the Secretary of the Central Midwives Board a list of the names of the successful candidates at the examination on February 6th. The following is a classification of the places at which the successful candidates were trained:

Hospitals	160
Workhouse hospitals, workhouses, and infirmaries	23
Maternity charities	43
Trained nurses' institutes	2
District nurses' societies and associations	18
Nurses' homes	2
Mothers' homes	10
Missionary homes	3
Benevolent institutions	9
Private tuition	97
	367

From a statistical note appended to the return it appears that there were 486 candidates. The number rejected was 119, or 24.5 per cent.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,623 births and 5,248 deaths were registered during the week ending Saturday last, February 24th. The annual rate of mortality in these towns, which had been 15.5, 15.5, and 17.2 per 1,000 in the three preceding weeks, further rose last week to 17.3 per 1,000. The rates in the several towns ranged from 8.4 in Hornsey, 8.8 in East Ham, 9.0 in Walthamstow 9.8 in Willesden, 10.1 in Leyton, 10.8 in King's Norton, and 10.9 in Great Yarmouth, to 22.5 in Plymouth, 22.8 in Stockton-on-Tees, 23.0 in Stockport and in Merthyr Tydfil, 23.3 in Hastings, 24.5 in Middlesbrough, 28.2 in Preston, and 28.5 in Swansea. In London the rate of mortality was 17.5 per 1,000, while it averaged 17.2 per 1,000 in the seventy-five other large towns. The death-rate from the principle infectious diseases averaged 1.3 per 1,000 in the seventy-six towns: in London this death-rate was equal to 1.4 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 2.5 in York, 2.7 in Bury and in Swansea, 3.0 in Great Yarmouth and in West Bromwich, 3.5 in Plymouth, and 4.9 in Preston. Measles caused a death-rate of 1.2 in Blackburn and in York, 1.3 in Tottenham, 2.7 in Bury, and 3.6 in Preston; scarlet fever of 1.5 in Oldham; diphtheria of 1.0 in Wolverhampton; whooping-cough of 1.2 in York, 1.3 in Southampton, 1.4 in King's Norton, 1.5 in Warrington, 1.6 in Handsworth (Staffs.) and in Stockport, 1.8 in Rochdale, 2.0 in Reading, 2.2 in Plymouth, and 2.3 in West Bromwich; and diarrhoea of 2.0 in Great Yarmouth. The mortality from enteric fever showed no marked excess in any of the large towns. No fatal cases of small-pox were registered last week in any of the seventy-six towns. Five small-pox patients remained under treatment in the Metropolitan Asylums Hospitals on Saturday last, February 24th, against 2 on the preceding Saturday; 3 new cases were admitted during the week, against 2 in the preceding week. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 2,689, against 2,912, 2,839, and 2,734 at the end of the three preceding weeks; 274 new cases were admitted during the week, against 319, 283, and 281 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, February 24th, 941 births and 671 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 16.5, 16.8, and 18.0 per 1,000 in the three preceding weeks, further rose to 19.6 per 1,000 last week, and was 2.3 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 9.1 in Perth and 14.3 in Aberdeen, to 22.9 in Greenock and 25.3 in Dundee. The death-rate from the principal infectious diseases averaged 1.6 per 1,000 in these towns, the highest rates being recorded in Dundee and Paisley. The 336 deaths registered in Glasgow included 16 which were referred to measles, 2 to whooping cough, and 3 to "fever." Four fatal cases of measles, 3 of scarlet fever, and 2 of whooping-cough were recorded in Edinburgh. Five deaths from whooping-cough, 2 from measles, 2 from "fever," and 2 from diarrhoea occurred in Dundee; and 5 from measles in Paisley.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, February 24th, 464 births and 432 deaths were registered in six of the principal Irish towns, as against 534 births and 393 deaths during the preceding period. The annual death-rate in these towns, which had been 18.9, 22.7, and 21.8 per 1,000 in the three preceding weeks, rose to 23.3 per 1,000 in the week under notice, this figure being 6.0 per 1.000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 17.5 in Waterford and 23.3 in Cork, to 24.6 in Limerick and 25.3 in Belfast. The zymotic death-rate in the same six Irish towns averaged 0.9 per 1,000, or 0.3 per 1,000 higher than during the preceding period, the highest figure (2.5) being recorded in Londonderry, while no deaths under this heading were registered in Cork, Limerick, and Waterford.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

Staff-Surgeons F. W. Parker, G. G. Borrett, W. H. S. Stalkartt, M.D.; G. A. S. Bell, and J. A. Keogh, M.B., have been promoted to be Fleet Surgeons, from February 21st. Their previous commissions, which are simultaneous, are thus dated:—Surgeon, February 21st, 1890; Staff Surgeons, February 21st, 1898. Fleet Surgeon Stalkartt, whilst Surgeon of the *Racer*, served with the Naval Brigade in the expedition up the Gambia in 1891-2, resulting in the capture of Tambi and Toniataba, receiving a medal with clasp. The other officers above mentioned have no war record.

ROYAL ARMY MEDICAL CORPS.

Exchange.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

Major, R.A.M.C., one year home, will exchange for India, either for part tour or whole tour, but part tour preferred. Address: "Marshburgh," c.o. McGrigor and Co., 25, Charles Street, London, S.W.

INDIAN MEDICAL SERVICE.

In the Supplement of February 17th, p. 57, it was erroneously stated that Major W. Young, of the Bengal Establishment, had resigned his commission in the Indian Medical Service. The error appears to be due to the fact that Major Young has recently resigned his commission as Medical Officer of the Naini Tal Volunteer Rifles.

Vacancies and Appointments.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

BIRKENHEAD BOROUGH HOSPITAL.—Junior Resident House-Surgeon. Salary, £80 per annum and notification fees.

BRIDGWATER HOSPITAL.—House-Surgeon. Salary, £80 per annum.

BRISTOL: BRISLINGTON HOUSE PRIVATE ASYLUM.—Assistant-Medical Officer. Salary £160 per annum.

BURY INFIRMARY.—Junior House-Surgeon. Salary £80, increasing to £90 per annum.

CANCER HOSPITAL, Fulham Road.—Junior House-Surgeon. Salary at the rate of £70 per annum.

CARLISLE: CUMBERLAND INFIRMARY.—Resident Medical Officer (male), to act as House-Physician and House-Surgeon for six months each. Salary at the rate of £80 and £100 per annum respectively.

CHESTER GENERAL INFIRMARY.—House-Physician. Salary, £90 per annum.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary £100 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House-Surgeon. Honorarium, £25 for six months.

EVELINA HOSPITAL, Southwark Bridge Road, S.E.—Assistant House-Surgeon for three months. Salary, £70 per annum.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—Resident House-Surgeon. Salary, £100 per annum.

HAMPSTEAD GENERAL HOSPITAL.—Resident Medical Officer. Salary at the rate of £80 per annum.

HOSPITAL FOR WOMEN, Soho Square, W. — House-Physician. Salary, £30 for six months.

JERUSALEM: BRITISH OPHTHALMIC HOSPITAL. — Assistant Surgeon. Salary, £300 per annum.

LEITH HOSPITAL.—(1) Assistant House-Surgeon. (2) Assistant House-Physician and Surgeon in Out-Patient Department.

LONDON HOSPITAL PATHOLOGICAL INSTITUTE, Mile End, E.—Director. Salary, £500 per annum.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon. Salary, £80 per annum.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.—House-Physician. Salary at the rate of £60 per annum.

MACCLESFIELD GENERAL HOSPITAL.—Junior House-Surgeon. Salary £50 per annum.

MAIDSTONE: WEST KENT GENERAL HOSPITAL.—House-Surgeon. Salary, £120 per annum.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—(1) House-Physician; (2) House-Surgeon; (3) Assistant House-Physician; (4) Assistant House-Surgeon; (5) Casualty Officer. Salaries: for (1) and (2) £40 per annum; (3) and (4) £20 per annum; (5) £150 per annum.

WALLINGFORD UNION.—Medical Officer for the No. 3 district.

WEST BROMWICH DISTRICT HOSPITAL.—House-Surgeon. Salary, £100 per annum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) Two House-Physicians. (2) Three House-Surgeons. Appointments for six months.

WESTMINSTER HOSPITAL MEDICAL SCHOOL, Caxton Street, S.W.—Lecturer on Forensic Medicine.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacancies in the office of Certifying Factory Surgeons: Dewsbury, co. York; Winchester, co. Winchester; Stokenchurch, co. Buckingham; Howden, co. York; Bridgwater, co. Somerset; Haswell, co. Durham.

APPOINTMENTS.

ST. THOMAS'S HOSPITAL.—The following gentlemen have been selected as House Officers:

Casualty Officers.—(Senior) G. R. Footner, M.B., B.C.Cantab., M.R.C.S., L.R.C.P.; (Junior) F. R. E. Wright, M.B.Lond., M.R.C.S., L.R.C.P., D.P.H.

Resident House-Physicians.—F. M. Bulley, M.R.C.S., L.R.C.P., M.A.Cantab.; R. C. Jewesbury, M.A., M.B., B.Ch.Oxon., M.R.C.S., L.R.C.P.

House-Physicians to Out-Patients.—M. A. Cassidy, M.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P.; H. S. Sington, M.R.C.S., L.R.C.P.

Resident House-Surgeons.—H. T. Gray, B.A., B.C.Cantab., M.R.C.S., L.R.C.P.; A. W. Hooker, M.B., B.S.Lond., M.R.C.S., L.R.C.P.; J. H. Drew, M.B., B.S.Lond., M.R.C.S., L.R.C.P.; H. Falk, B.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P.

House-Surgeons to Out-Patients.—R. J. H. Cox, M.R.C.S., L.R.C.P.: F. S. Hewett, B.A.Cantab., M.R.C.S., L.R.C.P.; A. B. Howitt, B.A Cantab., M.R.C.S., L.R.C P.; W. G. Howarth, M.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P.

Obstetric House-Physicians.—(Senior) R. E. Whitting, M.A., M.B., B.C.Cantab.; (Junior) S. R. Gibbs, M.R.C.S., L.R.C.P.

Ophthalmic House-Surgeons.—(Senior) C. R. B. Eyre, M.R.C.S., L.R.C.P.; (Junior) H. E. Gotelee, M.R.C.S., L.R.C.P.

Special Departments. — Throat: S. G. MacDonald, B.A.Cantab., M.R.C.S., L.R.C.P.; H. B. Whitehouse, M.R.C.S., L.R.C.P. Skin: W. O. Sankey, M.R.C.S., L.R.C.P.; A. N. Dickson, M.R.C.S., L.R.C.P. Ear: N. R. Cunningham, B.A.Cantab., M.R.C.S., L.R.C.P.; A. L. Loughborough, M.R.C.S., L.R.C.P.

Children's Surgical.—C. M. Page, M.R.C.S., L.R.C.P.; S. G. MacDonald, B.A.Cantab., M.R.C.P., L.R.C.P.

Electrical Department (*X*-ray Department).—N. R. Cunningham, B.A.Cantab., M R.C.S., L.R.C.P.

Two other gentlemen have received extension of their appoint-ents.

BIRTHS, MARRIAGES, AND DEATHS.

he charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insur insertion in the current issue.

BIRTH.

EELE-PERKINS.—On February 20th, at 47, Southernhay W., Exeter, the wife of J. Shirley Steele-Perkins, B.A., M.B., B.C.Cantab., M.R.C.S.Eng., L.R.C.P.Lond., of a son.

MARRIAGES.

AIG—MILLAR.—On February 21st at St. Andrew's Church, Blackrock, co. Dublin, by the Rev. John Steuart, B.A., James Craig, M.D., F.R.C.P.Irel., 18, Merrion Square, Dublin, to Kathleen Isabel, daughter of Thomas Millar, and of Mrs. Millar, Belle Vue, Merrion, Dublin.

JOR—BALLEINE.—On February 20th, at St. Brelade Church, Jersey, by the Rev. James A. Balleine, M.A., Vicar of Acock's Green, Birmingham, assisted by the Rev. A. J. Balleine, M.A., Vicar of St. Andrew's, Jersey, brothers of the bride, Herbert Coddington Major, M.D., of Bedford, second son of the late James M. Major, to Mary Ann, daughter of the late George Balleine, of Mont Plaisir, Jersey. No cards.

DEATHS.

EA.—On February 20th, at 1705, North 18th Street, Philadelphia, Pennsylvania, U.S.A., the wife of William Ker Shea, L.R.C.S.Irel., L.R.C.P.Edin., after a long illness.—By cable.

LLWORK.—On February 21st, at Crosshill by Lochgelly, Fifeshire, James Wallwork, L.R.C.P.Lond., M.R.C.S.Eng., eldest son of Joseph Wallwork, Pharmaceutical Chemist, of Tyldesley, Lancashire.

DIARY FOR NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 9.0 p.m.—The third Lettsomian Lecture by Mr. C. A. Ballance, M.S., F.R.C.S., on Some Points in the Surgery of Brain Tumour.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m. — Hunterian Lecture: — Professor Warrington Haward: Phlebitis and Thrombosis.

TUESDAY.

PATHOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 p.m.—Paper:—Dr. F. Gowland Hopkins, F.R.S.: The Bearing of Recent Research upon some Problems of Urinary Excretion.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Second Milroy Lecture:—Dr. W. H. Hamer: Epidemic Disease in England.

WEDNESDAY.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY, 20, Hanover Square, 5 p.m.—Dr. Chalmers Watson (Edinburgh): Observations on Diet. with special reference to a Meat Diet and Uric Acid. (Lantern demonstrations.)

OBSTETRICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8 p.m.—The following specimens will be shown:—Mrs. Scharlieb: Uterus with a small growth. Dr. Lockyer: A case of Congenital Absence of Uterus in an Epileptic Subject. Two cases of Adeno-myoma Uteri. Dr. Amand Routh: A case of Fibroma of the Ovary with Ascites. Paper.—Mr. J. D. Malcolm: Peritonitis and the *Staphylococcus albus*.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Hunterian Lecture (continued).

THURSDAY.

BRITISH GYNAECOLOGICAL SOCIETY, 20, Hanover Square, W., 7.30.—Special general meeting. 8 p.m.—Papers:—Dr. Jellett: Notes on two rare conditions met with in the Pelvis during Operation. Mrs. Scharlieb: The advantages of the Abdominal Route in Operations for Cancer of the Uterus.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 8 p.m.—Card specimens: Messrs. Sydney Stephenson, A. Levy and Priestley Smith. 8.30 p.m.—Papers:—Mr. C. Worth: Hereditary Influence in Myopia. Messrs. J. H. Parsons and G. Coats: Further History and Pathological Examination of a case of Microphthalmia associated with Congenital Tumours previously shown by Mr. Parsons. Mr. Priestley Smith: A Scotometer for the Rapid Diagnosis of Incipient Glaucoma and other purposes.

ROYAL COLLEGE OF PHYSICIANS, Pall Mall East, S.W., 5 p.m.—Third Milroy Lecture:—Dr. W. H. Hamer: Epidemic Disease in England.

FRIDAY.

CLINICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 p.m.—Papers:—Dr. H. French and Mr. C. B. Ticehurst: A Note upon the Relation of Traumatic Diabetes Insipidus to Glycosuria. Dr. Farquhar Buzzard and Mr. Joseph Cunning: A Case of Post-traumatic Haemorrhage from the Superior Longitudinal Sinus, without Fracture of the Skull: Operation and Recovery. Mr. J. E. Spicer, introduced by Dr. Percy Kidd: An Unusual Case of Dilatation of the Stomach following Hour-glass Contraction. Dr. A. E. Garrod and Dr. Langmead: Associated Malformations, including Transposition of Viscera.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Hunterian Lecture (continued).

POST-GRADUATE COURSES AND LECTURES

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Wednesday, 5 p.m., Ear.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m., Types of Pulmonary Tuberculosis, with illustrative cases.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Thursday, 4 p.m., Rheumatism and its Manifestations in Children.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, Infantile Paralysis; Tuesday, Diet in Skin Disease; Wednesday, Acid Intoxications; Thursday, Surgical Diseases of Children.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Hampstead, N.W.—Thursday, 5 p.m., Oral Sepsis in Pulmonary Affections.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday and Friday, 3.30 p.m., Cranial Nerves.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N.—The following are the arrangements for next week: Tuesday, 4.30 p.m., Pyrexia of Obscure Causation in Children: Thursday, 4.30 p.m., Suppurative Diseases in the Pelvis.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W., Thursday, 3 p.m.—On Ovarian Tumours.

WEST LONDON HOSPITAL POST-GRADUATE COLLEGE, Hammersmith Road, W.—The following are the lectures and demonstrations arranged for next week: Monday, 3 p.m., Medical Demonstration in Wards, 5 p.m., Surgical Cases; Tuesday, 5 p.m., General Paralysis and its Diagnosis; Wednesday, 5 p.m., Practical Medicine; Thursday, 4 p.m., Surgical Demonstration in Wards, 5 p.m., Carcinoma of the Rectum; Friday, 3 p.m., Medical Demonstration in Wards, 5 p.m., Ocular Symptoms in General Diseases. Daily, at 2.15 p.m., Medical and Surgical Clinics.

WESTMINSTER HOSPITAL MEDICAL SCHOOL, Caxton Street, S.W., Thursday, 5 p.m.—Applied Physiology.

CALENDAR OF THE ASSOCIATION.

MARCH.

Date.	Meetings to be Held.
2 FRIDAY	London: Central Ethical Committee, 2 p.m. Folkestone Division, *South-Eastern Branch*, 21, Earls Avenue, Folkestone, 8.30 p.m. Winchester Division, *Southern Branch*, St. Patrick's Hall, Trafalgar Street, Winchester, 3 p.m.
3 SATURDAY...	
4 Sunday.........	
5 MONDAY	London: Premises and Library Committee, 3 p.m.; Journal and Finance Committee, 4 p.m.
6 TUESDAY	Coventry Division, *Birmingham Branch*, Coventry and Warwickshire Hospital, 8.30 p.m. South Essex Division, *East Anglian Branch*, Victoria Hospital, Southend-on-Sea, 8.30 p.m. South-Western Branch, White Hart Hotel, St. Austell, 2.30 p.m.
7 WEDNESDAY	London: South-Eastern Branch Council, 3.15 p.m. Altrincham Division, *Lancashire and Cheshire Branch*, Greenbank Hotel, Northwich, 4.45 p.m.; Dinner, 7 p.m. South-Eastern of Ireland Branch, Club House Carlow, 5.30 p.m. Yorkshire Branch, Station Hotel, York; Dinner, 6.30 p.m.
8 THURSDAY...	Leigh Division, *Lancashire and Cheshire Branch*, Scientific Section, Co-operative Rooms, Ellesmere Street, Leigh, 3.30 p.m. Norwood Division, *South-Eastern Branch*, Queen's Hotel, Upper Norwood, 4 p.m.; Dinner, 6 p.m. South Wales and Monmouthshire Branch, Cardiff.
9 FRIDAY	Hampstead Division, *Metropolitan Counties Branch*, Hampstead Conservatoire, Swiss Cottage, N.W., 5 p.m.
10 SATURDAY...	

MARCH *(continued)*.

Date.	Meetings to be Held.
11 Sunday.........	
12 MONDAY	
13 TUESDAY......	
14 WEDNESDAY	Central Council, 2 p.m.
15 THURSDAY...	Cardiff Division, *South Wales and Monmouthshire Branch.* Croydon Division, *South-Eastern Branch*, Greyhound Hotel, Croydon, 4 p.m.; Dinner, 6 p.m. Leigh Division, *Lancashire and Cheshire Branch*, Co-operative Offices, 8.30 p.m.
16 FRIDAY.........	
17 SATURDAY...	
18 Sunday	
19 MONDAY	
20 TUESDAY......	
21 WEDNESDAY	
22 THURSDAY...	Liverpool and Birkenhead Divisions, *Lancashire and Cheshire Branch*, Combined Dinner, 8 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Wandsworth Infirmary, 8.45 p.m.
23 FRIDAY.........	St. Pancras and Islington Division, *Metropolitan Counties Branch*, Royal Free Hospital, 4 p.m.
24 SATURDAY...	Northern Counties of Scotland Branch, Northern Infirmary, Inverness.
25 Sunday.........	
26 MONDAY	
27 TUESDAY......	City Division, *Metropolitan Counties Branch*, Conjoint Meeting with Walthamstow Division, Walthamstow Hospital, 4 p.m.
28 WEDNESDAY	Bath and Bristol Branch, Bristol.

MEMBERSHIP OF THE BRITISH MEDICAL ASSOCIATION.

The British Medical Association exists for the promotion of medical and the allied sciences, and the maintenance of the honour and the interests of the medical profession.

The Annual Subscription to the British Medical Association is £1 5s. 0d., and the British Medical Journal is supplied weekly, post free, to every member of the British Medical Association wherever he may reside.

Forms of application for membership can be obtained from the General Secretary, 429, Strand, London, W.C.

The principal rules governing the election of a medical practitioner to be a member of the British Medical Association are as follow:

Article III.—Any Medical Practitioner registered in the United Kingdom under the Medical Acts and any Medical Practitioner residing within the area of any Branch of the Association situate in any part of the British Empire other than the United Kingdom, who is so registered or possesses such medical qualifications as shall, subject to the Regulations, be prescribed by the Rules of the said Branch, shall be eligible as a Member of the Association. The mode and conditions of election to Membership shall from time to time be determined by or in accordance with the By-laws. Every Member, whether one of the existing Members or a subsequently-elected Member, shall remain a Member until he ceases to be a Member in accordance with the provisions hereof.

By-law 1.—Every Candidate for Membership of the Association shall apply for election in writing, addressed to the Association, and stating his agreement, if elected, to abide by the Regulations and By-laws of the Association, and the Rules of such Division and Branch to which he may at any time belong, and to pay his subscription for the current year.

By-law 2.—Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the General Secretary of the Association, and to every Member of the Branch Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a member of the Association by the Branch Council at any meeting thereof held not less than seven days (or such longer period as the Branch may by its Rules prescribe) after the date of the said Notice. A Branch may by special Resolution require that each candidate for election to the Association shall furnish a certificate from two Members of the Association to whom he is personally known. Officers of the Navy, Army, and Indian Medical Services on the Active List are eligible for election through the Council or a Branch without approving signatures as laid down in By-law 3.

By-law 3.—Every candidate whose place of residence is not included in the area of any Branch shall forward his Application to the General Secretary of the Association, together with a statement signed by three members of the Association, that from personal knowledge they consider him a suitable person for election. Notice of the proposed election shall be sent by the General Secretary to every Member of the Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a Member of the Association by the Council at any meeting thereof held not less than one month after the date of the said notice.

The annual subscription to the British Medical Journal for non-members is £1 8s. 0d. for the United Kingdom and £1 12s. 6d. for abroad.

Printed and published by the British Medical Association at their Office. No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MARCH 10TH, 1906.

CONTENTS.

PAGE

MATTERS REFERRED TO DIVISIONS:
General Medical Council 85
MEETINGS OF BRANCHES AND DIVISIONS 86
THE SEVENTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, TORONTO 90
ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD 91
GENERAL MEDICAL COUNCIL 92
NOTICE OF ACCIDENTS BILL, 1906 93
METROPOLITAN HOSPITAL SUNDAY FUND 93

PAGE

ROYAL COMMISSION ON THE CARE AND CONTROL OF THE FEEBLE-MINDED AND EPILEPTIC 93
THE HEALTH OF THE NAVY 94
BRITISH MEDICAL ASSOCIATION LIBRARY 96
NAVAL AND MILITARY APPOINTMENTS 96
VITAL STATISTICS 97
VACANCIES AND APPOINTMENTS... 97
BIRTHS, MARRIAGES, AND DEATHS 98
DIARY OF THE WEEK 98
BOOKS, ETC., RECEIVED 99
CALENDAR 100

GENERAL MEDICAL COUNCIL.

ELECTION OF DIRECT REPRESENTATIVES FOR ENGLAND AND WALES, NOVEMBER, 1906.

Candidates Nominated by Divisions for Selection by the Representative Meeting on behalf of the Association.

THE following members of the Association have been nominated by the Divisions named to be candidates for election, and have accepted nomination in accordance with the terms of the scheme published in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL for October 7th, 1905:

Name.	*Address.*	*Nominating Division or Divisions.*
BROWNE, HENRY LANGLEY, M.D. ... ... (Chairman of Council of the Association.)	Moor House, West Bromwich	CENTRAL BIRMINGHAM. CITY (LONDON). SWANSEA.
BULLAR, JOHN FOLLETT, M.B.... ... ... (Member of Branch Council, Southern Branch.)	7, Carlton Crescent, Southampton	WINCHESTER.
CLARK, ANDREW, F.R.C.S. ... ... (Member and late Chairman of Central Council, and President of the Metropolitan Counties Branch.)	71, Harley Street, W.	CITY (LONDON). ST. PANCRAS AND ISLINGTON.
JACKSON, GEORGE, F.R.C.S. ... ... (President of the South-Western Branch, and Member of the Medico-Political Committee.)	10, Portland Villas, Plymouth	GATESHEAD. PLYMOUTH.
LATIMER, HENRY ARTHUR, M.D. ... ... (Chairman and Representative of Swansea Division, Member of Medico-Political Committee.)	4, Belvoir Place, Swansea.	SWANSEA.
MORISON, JAMES RUTHERFORD, F.R.C.S. ... (Member of Branch Council and Chairman of Northumberland Committee, North of England Branch.)	14, Saville Row, Newcastle-on-Tyne	CONSETT. GATESHEAD. NEWCASTLE-ON-TYNE
RHODES, JOHN MILSON, M.D. ... ... (Chairman of South Manchester Division, Lancashire and Cheshire Branch.)	Ivy Lodge, Didsbury, Manchester	MANCHESTER (SOUTH).
STRATON, CHARLES ROBERT, F.R.C.S.EDIN.... (Member of Central Council, Medico-Political Committee and Colonial Committee.)	West Lodge, Wilton, Salisbury	WINCHESTER.

As provided by the scheme, nominations can be received until March 31st, and will henceforth be announced as received.

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

HALIFAX AND NOVA SCOTIA BRANCH.

A MEETING of this Branch was held on January 17th.

Communications.—After routine business Dr. A. C. HAWKINS showed three cases of trachoma, emigrants about to be deported as incurables.—Dr. F. V. GOODWIN reported a case of phlebitis following pneumonia, which showed a peculiar eruption along the course of the internal saphenous vein.

Discussion.—The regular programme for the evening, a discussion on immunity, was then proceeded with, Drs. L. M. MURRAY and J. J. DOYLE taking up different phases of the subject.

A FURTHER meeting was held at the Nova Scotia Hospital, Dartmouth, on January 31st.

Paper.—Dr. H. K. MACDONALD read a paper, Cerebrospinal Meningitis, a brief account of an epidemic in Lunenburg county in 1905, with case reports. This paper was discussed at length by several of the members present.

Supper.—After adjournment the members of the Branch were entertained at supper by the Medical Superintendent, Dr. W. H. Hattie.

METROPOLITAN COUNTIES BRANCH:

CITY DIVISION.

A GENERAL meeting of this Division was held on Thursday, February 22nd, at 4 p.m., at the Great Eastern Hotel, Liverpool Street, E.C. In the absence of the Chairman (Dr. J. W. Hunt) through illness, the VICE-CHAIRMAN (Dr. Major Greenwood) presided.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed, and signed by the Chairman.

Letter from Chairman of Division.—The following, amongst several, were read: One from the Chairman, stating that he would not be able to be present on account of ill health. It was resolved that a letter be written to him expressing the regret of the meeting at his absence.

Letter from Chairman of Wandsworth Division.—A letter was read from the Chairman of the Wandsworth Division, addressed to the Chairman of the City Division, asking the Division to co-operate with certain other Divisions in sending two general practitioners to act on a Central Committee for the purpose of nominating general practitioners as representatives of the Branch on the Central Council. It was unanimously resolved that a reply be sent to the effect that, since some of the most important Divisions of the Branch were omitted from the list given in the letter, the City Division prefers to nominate its own candidates, unless an unanimity amongst all the Divisions on this matter can be attained.

Friendly Societies and their Medical Officers.—A member asked whether the Division would take any steps with respect to the action (which he specified) of a certain Friendly Society to which he was a medical officer. As it was deemed that the matter was one affecting many other members, it was referred to the Executive Committee for consideration and report.

Notices of Motion for Next Representative Meeting.—Two notices of motion were carried unanimously. They referred to the extension of the hours during which the Association Library was kept open, and to the advisability of providing for the social intercourse of members of the Association. These notices appeared in the SUPPLEMENT for March 3rd under the heading "Notices of Motion."

Provident Dispensaries.—The report of the Medico-Political Committee was considered paragraph by paragraph, and unanimously approved.

Public Medical Services.—The recommendations of the Medico-Political Committee were considered seriatim and unanimously agreed to.

State Registration of Nurses.—The two following resolutions were carried:

(1) That this Division approves of the State registration of nurses.
(2) That registration of nurses should include midwifery nurses, who should also have three years' training, of which one, at least, should be in a lying-in hospital.

Nomination of Candidates for General Medical Council.—Dr. MAJOR GREENWOOD proposed that Dr. Langley Browne, the Chairman of the Council of the Association, and Mr. FREDERICK WALLACE proposed that Mr. Andrew Clark be nominated by the City Division in accordance with the scheme of the Association. These propositions were duly seconded and carried unanimously.

Out-patient Departments of Hospitals.—The Hospitals Committee's report was discussed, and the thirteen propositions set out therein were approved *nem. con.*

Relationship of Hospitals to Public Medical Service.—The following resolution was carried *nem. con.*:

> That there be no out-patient departments in hospitals except for consultation and casualties, and that this opinion especially applies to hospitals whose staff are general practitioners.

Vote of Thanks.—A vote of thanks to the Vice-Chairman for presiding was carried unanimously.

STRATFORD DIVISION.

A MEETING of the Division was held at the Alexandra Hotel, High Street, Stratford, E., on Thursday, March 1st, at 9 p.m., Dr. STOCKER, presiding.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Paper.—Mr. FREDERIC EVE, F.R.C.S. (London Hospital), read a paper on gall stones and their surgical treatment, which proved to be of a very interesting and instructive character. Mr. Eve also showed some excellent specimens, and after answering some questions, was awarded a hearty vote of thanks.

Rules of Central Midwives Board.—Thereafter the CHAIRMAN opened a discussion on the recommendations relative to the Central Midwives Board, and on the motion of Dr. SANDERS it was unanimously resolved:

> That the Representative of the Division be instructed to watch and consider any proposed recommendations as to alteration of the rules of the Central Midwives Board at the Annual Representative Meeting.

Medical Practitioners and Midwives.—Dr. ROSE proposed, and Dr. FREDERICK seconded the following resolution, which was carried, namely:

> That this Division regrets that the Council of the British Medical Association have not taken more active steps to secure payment for medical practitioners called in to assist midwives.

Contract Medical Practice.—The discussion on Contract Practice was postponed till next meeting.

TOTTENHAM DIVISION.

A MEETING of this Division was held on Friday evening, February 23rd, at 9.15 p.m., at the Hornsey Conservative Association Rooms at Finsbury Park. Mr. C. E. HUTT, Chairman, presided.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Paper.—Mr. G. B. MOWER WHITE read a paper on pyelitis in its surgical aspect and treatment, and showed a variety of instruments used in diagnosis.—A hearty vote of thanks was passed to Mr. White for his interesting paper.

Public Vaccinators and General Practitioners.—In the absence of Dr. Leonard Grant, the SECRETARY opened a discussion on the relations of public vaccinators and general practitioners.—It was proposed, seconded, and carried:

> That this Division is opposed to security of tenure of office for public vaccinators, because it considers that every medical man ought to be an actual public vaccinator, working under authority and supervision, and under some such regulations as public vaccinators now are, as the present system creates a monopoly in each district of vaccination for one man only, and gives to him unfair advantages of introduction to other men's patients.

Fees for Insurance Examinations.—On the question of regulation of insurance fees for examinations the opinion of the members was:

> That a fixed tariff was impossible under present conditions.

SOUTH-EASTERN BRANCH:

BRIGHTON, TUNBRIDGE WELLS, EASTBOURNE AND HASTINGS DIVISIONS.

A COMBINED meeting of Brighton, Tunbridge Wells, Eastbourne and Hastings Divisions was held on Wednesday, February 21st, at the East Sussex Hospital, Hastings, at 5 p.m. The chair was taken by Dr. BATTERHAM, who entertained the members to tea.

Address.—Dr. FREDERICK SMITH, Physician to the London Hospital, gave an address entitled, Morbus Cordis Sine Bruits. The address was listened to with great interest and several members spoke upon the various points of the subject.

The Divisions and Parliamentary Candidates.—Dr. ALLFREY moved the following resolution:

> That this meeting of the Brighton, Tunbridge Wells, Eastbourne and Hastings Divisions, while admitting the desirability of giving full information concerning medical candidates for Parliament in the Association's JOURNAL, regrets the recent action of the Representative Meeting in causing individual members of the Association to be approached by letter in such matters.

The motion was carried.

Dinner.—After the meeting a number of the members dined together.

DOVER DIVISION.

THE quarterly meeting of the Division was held at the Grand Hotel, Dover, on Wednesday, February 14th, at 8 p.m., Dr. C. PARSONS in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Rules of Central Midwives Board.—A letter from the Medical Secretary *re* the revision of the Rules of the Central Midwives Board was read, when Dr. BEST moved:

> That it is desirable that the local supervising authority under the Midwives Act should yearly supply all medical practitioners in its area with an official list of those midwives entitled to practise, with any alterations in the *Register* that may have occurred during the twelve months.

Dr. KOETTLITZ seconded this resolution, which the Division then passed.

Statement of Accounts.—The annual statement of accounts was then rendered and passed by the Division.

Paper.—Dr. G. BELLINGHAM SMITH then read a most interesting paper, "Remarks on the Treatment of Accidental Haemorrhage and Eclampsia." After a number of questions had been put to Dr. Smith, the CHAIRMAN moved:

> That the Division pass a vote of thanks to Dr. Smith for his paper, and hope that he will have it fully published in the Association JOURNAL.

This the Division passed unanimously.

Vote of Thanks to the Chairman.—A vote of thanks to the Chairman then terminated the proceedings.

FOLKESTONE DIVISION.

A MEETING of the Folkestone Division was held at the house of Dr. Calverley, Earl's Avenue, on March 2nd, at 8.30 p.m.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Duplicate Books in Library.—A letter was read from the General Secretary of the British Medical Association in answer to one from the Honorary Secretary of the Folkestone Division, with reference to the duplicate books in the library of the Folkestone Medical Society.

Executive Committee.—Mr. Chambers was elected a member of the Executive Committee, in the place of Mr. Powell, resigned.

Paper.—Mr. PERCY LEWIS read a paper on enuresis.

Annual Representative Meeting.—Dr. LARKING gave a short account of the annual meeting of the British Medical Association held at Leicester last year.

Demonstration.—Dr. EASTES gave a practical demonstration on the use of portable electric lights from the main.

SOUTH MIDLAND BRANCH:

NORTHAMPTON DIVISION.

A MEETING of the Division was held at the Library, General Hospital, Northampton, on Tuesday, February 20th, at 3.30 p.m. Dr. BUSZARD took the chair until Dr. DUKES arrived.

Representative at Representative Meeting and Honorary Secretary.—The resignations of Mr. C. J. Evans as Representative, and Mr. E. H. Jones as Secretary, were received with regret, and a hearty vote of thanks was passed for their services. Mr. S. E. Baxter (Wollaston), was elected Representative, and Dr. Hichens (Northampton), Secretary and Treasurer.

Executive Committee.—Three vacancies were declared on the Executive Committee, and the following gentlemen were elected to fill them: Mr. C. J. Evans, Mr. Dryland, Dr. Maguire.

Annual Representative Meeting.—Mr. C. J. EVANS read notes and summaries of the discussions at the Representative Meeting held at Leicester last summer.

Surplus Divisional Funds.—The disposal of surplus divisional funds was then discussed. It was agreed that surplus funds should be devoted to purely divisional purposes, but that the exact mode of disposal should be left till after the next Representative Meeting.

MATTERS REFERRED TO DIVISIONS.

Contract Practice.—Mr. LINNELL moved, and Dr. MILLIGAN seconded, that the report published in the SUPPLEMENT, August 5th, 1905, be adopted.

Formation of Divisional Library.—On the proposal of Mr. LINNELL, seconded by Dr. MILLIGAN, this was left for the Executive Committee to discuss and formulate a scheme if possible. As a rider, Dr. BUSZARD proposed, and Mr. EVANS seconded, that arrangements should be made for four clinical afternoons at the hospital during the year.

Direct Representatives on Council.—Dr. Langley Browne and Mr. Rutherford Morison were supported.

Hospital Management.—It was proposed by Mr. DRYLAND and seconded by Mr. BAXTER:

> That there should be no out-patient department in small hospitals where the staff are general practitioners.

SOUTHERN BRANCH:

WINCHESTER DIVISION.

A SPECIAL meeting of this Division (under Rule XII) was held at St. Patrick's Hall, Winchester, on March 2nd, at 3 p.m., Dr. LIVINGSTONE, Vice-Chairman, being in the chair.

Appointment of Medical Officer of Health for Winchester.—The meeting was held to consider and, if thought fit, to pass a resolution, or resolutions, on the recent action of the Winchester Town Council regarding the appointment of Medical Officer of Health for the city.

Dr. FULLER ENGLAND opened the discussion, and pointed out some facts with regard to the appointment.

1. That the meagre salary of £275 a year is totally inadequate, in view of the fact that the M.O.H. is expected to give his whole time to the work of the Council in a city of the size and importance of Winchester. That there is no mention of a possible increase in the emolument. That there are no other combined appointments available to attract by reason of their additional salary, except the isolation hospital at a salary of £20, and supervising authority under the Midwives Act at a salary of £5, bringing the total salary up to £300 per annum. That no provision for, or means of, locomotion has been either included or suggested.

2. That the terms of probation (one year) is reprehensible and degrading in the highest degree when applied to a member of a learned profession, since security of tenure for a period of at least seven years is essential to the maintenance of a high standard of work.

Dr. England went on to say: It may be taken as an accepted fact that a whole-time M.O.H. will be appointed in this city, so it is no use for me to waste the time of this meeting in discussing the pros and cons, but I do maintain that to offer a medical man the sum of £275 per annum for an appointment on the proper carrying out of which the health and well-being of so large a community depends is quite inadequate. I may say that the city surveyor receives nearly £400 per annum, with means of locomotion provided, and the borough accountant £200 per annum, with a clerk at £50 per annum. The whole department of public health appears to me to be wretchedly underpaid, with a few exceptions, considering the importance of the public service rendered, and in my opinion the profession at large should, whenever and wherever possible, make a stand against what I can only describe as an imposition upon it. The fact that men will always apply for an appointment, even at a low salary, does not affect the principle; and here I wish to say that the new M.O.H. for Winchester will be welcomed and in no way treated as an outsider by the members of the profession here. Our only desire is to see him properly remunerated for his work and responsibilities. He will have the assistance of the sanitary inspector, who receives a salary of £150 per annum, but, after all, the M.O.H. is the man on whom onus would fall in the event of any failure to safeguard either the individual or the public. We must bear in mind that the duties of the M.O.H. include the charge of an isolation hospital with 32 beds, a mile out of the town, at the absurd salary of £20 per annum; and it would be only fair that a salary of £50 at least should be attached to it; at any rate, some provision should be made to enable him to visit this hospital as well as to get about other parts of his district.

I should like to refer you to a letter in the British Medical Journal of February 24th, 1906, p. 475 (Dr. England read the letter to the meeting). These extracts prove the necessity of security of tenure. In my opinion a year's probation is degrading, and how, I should like to ask, are the town council to judge as to whether their officer has carried out his duties satisfactorily? They are a lay body with one exception, and cannot be expected to understand the difficulties and details of sanitary matters; moreover they are only human, and apt to be swayed by personal prejudices, so that if the M.O.H. does not satisfy their ideas of what he ought or ought not to do, he is liable to dismissal at the end of a year, and his future, if not damned, at any rate his success is problematical in the extreme. Supposing he passes this ordeal he is then expected to engage himself for three years, making a total of four years at £300 per annum, during which time he is unable to take any steps to improve his position, since there is no suggestion of an increase of salary during that period.

A wise and graceful act on the part of the town council before making such a stipulation would have been to have consulted one or two of the senior members of the medical profession in this town on this and other details of the scheme before finally adopting it. The town council is doubtless actuated by the laudable idea of keeping down the rates, since by adopting a whole-time M.O.H. the Local Government Board agree to pay £150 towards his salary per annum, whereas in the case of a part-time man this body would only pay £75 per annum. This may be strict economy, but I fail to see why we should be made the victims of such parsimony.

Gentlemen, I maintain that these matters which I have briefly put before you fully warrant the calling of the present special meeting of this Division, and I will now formally move the following resolution:

> That this meeting regrets the decision of the Winchester Town Council to appoint a whole-time medical officer of health on terms wholly inadequate as regards salary and insecure as regards tenure.

This was seconded by Dr. Hoyle.

Mr. Wace moved that the following rider be added to the resolution:

> That the resolution be brought before the Southern Branch of the British Medical Association with a request that it be brought to the notice of the Local Government Board, and that no resolution should be sent to the Winchester Town Council.

This was seconded by Dr. Ritchie.

Dr. Browne proposed the following amendment:

> That the matter be dropped altogether.

This was not seconded. The following members spoke strongly supporting the resolution: Drs. Hoyle, Briscoe, Browne, Livingstone, Roberts, Wace, Hodgson, Royds.

On the motion of the Chairman, the visitors—namely, Dr. Ward Cousins (Portsmouth), Dr. Straton (Wilton), Dr. Groves (Carisbrooke)—were asked to speak, all speaking in favour of the resolution.

The Chairman then put the resolution, together with the rider:

> That this meeting regrets the decision of the Winchester Town Council to appoint a whole-time medical officer of health on terms wholly inadequate as regards salary and insecure as regards tenure. That the resolution be brought before the Southern Branch of the British Medical Association, with a request that it be brought to the notice of the Local Government Board, and that no resolution should be sent to the Winchester Town Council.

This was carried *nem. con.* The following members voted for the resolution: Drs. Livingstone, Harman, England, Scott, Wace, Ritchie, Hodgson, Jolly, Hoyle, Roberts, Briscoe, Ahrens, Royds, Mosse, Godwin. The following members did not vote: Drs. Browne and Child.

It was proposed by Mr. Wace and seconded by Dr. Hodgson that the Secretary do send a copy of the resolution direct to the Local Government Board and also to the Southern Branch. This was carried.

The following resolution was proposed by Dr. England to be recorded in the minutes:

> That this meeting desires to place on record a protest against the discourtesy shown to the gentleman temporarily fulfilling the duties of Medical Officer of Health by his exclusion from the proceedings of the Sanitary Committees, except for the express purpose of presenting his reports.

This was seconded by Dr. Hoyle.

Mr. Godwin was then asked to give the meeting an account of the treatment he had received at the hands of the Winchester Town Council.

Mr. Godwin replied.

The Chairman then put the resolution, which was carried unanimously.

The meeting may be considered an entire success, and a hearty vote of thanks to the members of the Southern Branch was given for so kindly attending the meeting, and it only proves that when a call to arms is made in the Winchester Division, or any Division of the Southern Branch, it is responded to by all the profession in Hampshire, as was noticed at this special meeting.

ULSTER BRANCH:

Portadown and West Down Division.

The winter meeting of this Division was held in the County Asylum, Armagh, on January 3rd, by invitation of the Chairman, Dr. Lawless, who kindly entertained those present.

The Division and Parliamentary Candidates.—The members undertook to interview and bring the memoranda of the Council before the candidates seeking Parliamentary honours in the various constituencies.

Chairman's Address.—The Chairman delivered the following address:—As this meeting is held in a lunatic asylum it would seem natural that cases illustrative of different forms of mental disorder should be exhibited and discussed, but such cases are not of very great interest to the ordinary medical man and might only prove wearisome. I have, therefore, decided that it might be more interesting to give you a short summary of the history of this Asylum, to trace its growth, and to give some information as to the numbers of the insane and their growth within comparatively recent years. Before entering on my subject, however, let me express the pleasure I feel at having this meeting here and at welcoming the members of the Branch to this Asylum which is one of the oldest of the Irish asylums. The Asylum was formally taken over by what were then called the "Local Commissioners of the Ash District Asylum for Lunatic Poor" on December 10th, 1824. Before the Asylum was opened all the lunatics were sent to the respective gaols in their districts where there were departments specially set aside for their detention and "treatment," if the term can be used in connexion with the barbarities practised upon these unfortunates in the early part of the last century, when "going to see the lunatics" was one of the amusements of the time. From the fact that lunatics were housed in gaols it was natural that lunatic asylums should be built in conformity with the gaol pattern, and such was the case when this asylum was built, as the vaulted corridors, strong doors reinforced by iron bars, the small windows placed high up in the walls of the sleeping-rooms and iron bars fixed up outside, abundantly testify. These surroundings must have helped to fix the idea in the unfortunate patient's mind of hopeless confinement rather than that of relief and cure. The authorities of the time could not have had much idea of the way in which insanity would increase, as when this asylum was built it was thought that it would be sufficient for the needs of no less than five counties with its accommodation for 104 patients. The accommodation provided for each county appears ludicrous, when the increase in the numbers of the insane is remembered. The counties and their proportion of accommodation are as follows: Tyrone, 87 patients; Donegal, 26; Armagh, 20; Monaghan, 18; Fermanagh, 13. However, very soon it was seen that the Armagh Asylum could not accommodate such a large district, and in 1829 the Derry Asylum was opened, and the patients chargeable to Donegal and Tyrone were sent there. This continued until 1853, when the asylum at Omagh was built, which relieved the Armagh district of the county Fermanagh, but added the county of Cavan. But still as time went on the numbers of insane progressively increased, and it was not until 1869 that the asylum at Monaghan was built to take the Monaghan and Cavan patients, leaving this asylum to take patients from the county Armagh alone. The accommodation of this asylum remained at 104 for about 40 years, until about 1864, when, owing to the number of applications for admission and the numbers resident being far in excess of its capacity, two extra blocks of buildings were added, which raised the accommodation to 162; even with this the numbers continued to increase. To remedy this, or to meet the difficulty, the counties of Monaghan and Cavan were taken off the district, but in about twenty years it was found that the numbers were still steadily increasing, and as there were no more counties to knock off the district some more buildings had to be erected, and the corridors were extended and new blocks added on to them. These were completed in the year 1885, and they increased the accommodation to 304. This was a considerable increase—from 162 to 304—and it must have been thought at the time that at last a large enough asylum had been built for all the lunatics that co. Armagh could produce; but we find that the numbers still continued to increase, and in five years—that is, in 1890—the house was again full and more than full, so, in order to meet this it was decided not to add any more to the old building, but to build a separate asylum detached entirely from the parent institution. This building was primarily intended to accommodate from 60 to 70 patients; but as time went on it was felt that it must take in more, and it was finally built to accommodate 150. This building was completed in 1898, and raised the total accommodation to 434. When it was completed it was at once filled from the excess contained in the old building. Since that time the numbers of inmates have steadily increased, so that on December 31st, 1905, there were 522 patients in the asylum, or close on 100 more than it should normally contain. Thus we see history repeating itself in the matter of numbers, and the problem of housing these ever-increasing numbers is yearly getting more pressing, and eventually, at no very distant date, something must be done to provide the additional accommodation which is even now necessary. The burden of the insane is getting heavier and heavier each year—not alone in Ireland, but everywhere where lunatic asylums are we hear of the ever-increasing number of lunatics, so that how to prevent this ever-increasing tendency to insanity will soon become a very acute social problem, not by any means easy of solution. In this connexion I might allude to the causes of this increase in insanity. There is, first of all, in Ireland a diminishing population, the cause of which is the emigration of the best and strongest of the members of families, leaving behind those less fitted for the battle of life; also the increased stress of life which obtains at the present day, poor and insufficient food, alcoholic intemperance, and excessive tea drinking; but by far the most important factor is hereditary influence, and this is fostered and encouraged by the existence of lunatic asylums—or hospitals for the insane, as some prefer to call them. This is a startling statement and requires explanation. In the year 1825, when this asylum was built, it could not be said that lunacy was rampant in the country, as, from the figures I have already mentioned, in that year it was considered that an asylum for 104 patients would be sufficient provision for the lunatics of five counties. I may say that those five counties now have no less than 2,786 patients. The treatment of lunatics at that time and earlier was anything but curative, the consequence being that the man or woman who became insane usually continued so and died unmarried, thus avoiding the transmission of the mental weakness or insane taint to possible offspring. Nowadays matters are very different, the man or woman becoming insane is placed early in an asylum under the most favourable hygienic surroundings, well fed and well cared for, wholesome work and recreation provided in order to effect a cure, and the record of discharges as cured are between 30 and 50 per cent. of the admissions. These people marry and transmit their taint to their children, and as these curative conditions have obtained for about three generations the natural and inevitable consequence is that the numbers of mentally infirm has enormously increased in that time, and if the present conditions continue, the increase in lunacy will also continue. It may be of interest to show the increase in this asylum in decades. In the year 1869, as I said, the patients belonging to Monaghan and Cavan were sent to the Monaghan Asylum, leaving 142 patients in 1870, all belonging to county Armagh. The population in 1871 was 179,260; proportion of insane, 79.21 per 100,000.

Year.	No. resident.	Population.	Proportion of Insane per 100,000.
1881	196	168,177 (11,083 less than in 1871)	116.54
1891	326	143,289 (24,888 less than in 1881)	227.51
1901	469	123,392 (19,897 less than in 1891)	380.08
1903	511	Estimated 117,806	433.76
1905	522	—	—

I have not estimated the population in 1905, but there can be little doubt but that there is still a progressive increase in the number of lunatics. You will remember that these figures refer to co. Armagh alone, but the same investigation of figures for other counties will give similar results. So far as this asylum and county are concerned, it will be seen that in a period of thirty-four years—a little over one generation—the numbers of the insane in this comparatively small county have increased from 142 to 522. In this connexion I might mention the figures relating to the whole of Ireland. In 1880 the population was 5,202,648; number of lunatics under care, 12,982; proportion per 100,000, 250. In 1904, population, 4,402,182; number of lunatics, 22,996; proportion per 100,000, 522; so that in twenty-four years the population has diminished by 800,466, and the lunatics have increased by 10,014; while the proportion of lunatics to sane per 100,000 has risen from 250 to 522; and, if idiots are added to the lunatics, it brings the figures to 610 per 100,000.

Communications.—The Chairman showed some cases of congenital deformity, Professor R. J. Anderson read short papers on (*a*) some points of contact and divergence between man and mammals; (*b*) latency after injury; (*c*) rest and fatigue. Dr. W. E. Hadden read notes of a very interesting case of duodenal ulcer observed through several years and finally cured by gastro-duodenostomy. The Chairman and Drs. Deane and Darling spoke to the paper, and Dr. Hadden replied.

BRITISH MEDICAL ASSOCIATION MEETING AT TORONTO, CANADA.

The Atlantic Passage.

We regret to have to state that the Canadian Pacific Railway Company have altered the dates of sailing of its boats from Liverpool to Quebec and Montreal. The sailing of the *Empress of Ireland* on August 11th has been cancelled; the *Empress of Britain*, announced to sail on July 28th, will leave Liverpool on August 4th. Mr. F. W. Flanagan, General Passenger Agent of the Canadian Pacific Railway in this country, 62, Charing Cross, London, S.W., informs us that members of the British Medical Association, with their wives and daughters, will be allotted accommodation in the *Empress of Britain* on August 4th at the following rates: £20 berths for £18; £22 10s. berths for £20; £25 berths for £22 10s.; and £2 10s. rebate off higher priced berths.

THE SEVENTY-FOURTH ANNUAL MEETING
OF THE
British Medical Association,
TORONTO, CANADA, AUGUST 21st to 25th, 1906.

President:
George Cooper Franklin, F.R.C.S.Eng., Surgeon, Leicester Infirmary, Leicester.

President-elect:
Richard Andrews Reeve, B.A., M.D., LL.D., Dean of the Faculty of Medicine, University of Toronto.

Chairman of Representative Meetings:
Sir Victor Horsley, F.R.C.S., F.R.S., Surgeon, University College Hospital; and Surgeon, National Hospital for Paralysed and Epileptic.

Chairman of Council:
Henry Wm. Langley Browne, M.D., Ch.B., F.R.C.S.E., Consulting Surgeon, West Bromwich District Hospital.

Treasurer:
Hy. Radcliffe Crocker, M.D., F.R.C.P., Physician Skin Department, University College Hospital, London.

PROGRAMME OF BUSINESS.

An Address in Medicine will be delivered by Sir James Barr, M.D., F.R.C.P., F.R.S.E.

An Address in Surgery will be delivered by Sir Victor Horsley, M.B., F.R.C.S., F.R.S.

An Address in Obstetrics will be delivered by Walter Spencer Anderson Griffith, M.D., F.R.C.P.

THE SECTIONS.

There will be 13 Sections as shown in the subjoined list; they will meet on Tuesday, Wednesday, Thursday and Friday, August 21st, 22nd, 23rd and 24th, from 9.30 a.m. to 12.30 p.m.

The President, Vice-Presidents, and Secretaries of each Section constitute a Committee of Reference for that Section.

Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the British Medical Journal *without special permission.*

No paper must exceed 15 minutes in reading, and no subsequent speech 10 minutes.

Anatomy.

President: Professor Arthur Robinson, M.D., Birmingham.

Vice-Presidents: Professor Alexander Primrose, Toronto; D. E. Mandell, M.D., Kingston; Donald Armour, F.R.C.S., London.

Honorary Secretaries: C. B. Shuttleworth, M.D., 45, Bloor Street E., Toronto; Gawnshaw Cleland, M.D., 730, Queen Street E., Toronto; J. Herbert Sanders, M.D., 1a, Palace Gardens Mansions, W.

Dermatology.

President: Norman Walker, M.D., Edinburgh.

Vice-Presidents: Graham Chambers, M.D., Toronto; Harry B. Anderson, M.D., Toronto; Arthur John Hall, M.D., Sheffield; Ernest Solly, M.B., Harrogate.

Honorary Secretaries: D. King Smith, M.D., 311, Jarvis Street, Toronto; Donald Macgillivray, M.D., 12, Carlton Street, Toronto; John Campbell Rankin, M.B., 38, University Road, Belfast.

Laryngology and Otology.

President: J. Dundas Grant, M.D., London.

Vice-Presidents: George R. McDonagh, M.D., Toronto; H. S. Birkett, M.D., Montreal; John Macintyre, M.B., Glasgow; Hugh Edward Jones, M.R.C.S., Liverpool.

Honorary Secretaries: David J. Gibb Wishart, M.D., 47, Grosvenor Street, Toronto; Geoffrey Boyd, M.D., 167, Bloor Street, Toronto; Adam Brown Kelly, M.D., 26, Blythswood Square, Glasgow.

Medicine.

President: Sir Thomas Barlow, Bart., K.C.V.O., M.D., London.

Vice-Presidents: Professor Alexander McPhedran, M.D., Toronto; Professor James Stewart, M.D., Montreal; Alexander Napier, M.D., Glasgow; William Calwell, M.D., Belfast.

Honorary Secretaries: Robert D. Rudolph, M.D., 396, Bloor Street W., Toronto; John Taylor Fotheringham, M.D., 36, Carlton Street, Toronto; Robert Hutchison, M.D., 22, Queen Anne Street, London, W.

Obstetrics and Gynaecology.

President: A. H. Freeland Barbour, M.D., Edinburgh.

Vice-Presidents: Professor James A. Temple, M.D., Toronto; Professor Adam H. Wright, M.D., Toronto; Professor William Gardner, M.D., Montreal; T. Arthur Helme, M.D., Manchester.

Honorary Secretaries: Frederick Fenton, M.D., 75, Bloor Street E., Toronto; Kennedy C. McIlwraith, M.D., 54, Avenue Road, Toronto; Cuthbert Lockyer, M.D., 117a, Harley Street, London, W.

Ophthalmology.

President: Robert Marcus Gunn, F.R.C.S., London.

Vice-Presidents: George Herbert Burnham, M.D., Toronto; John W. Stirling, M.D., Montreal; Joseph Nelson, M.D., Belfast; Arnold Lawson, F.R.C.S., London.

Honorary Secretaries: James M. MacCallum, M.D., Toronto; Duncan N. McLennan, M.D., 126, Bloor Street W., Toronto; Frank Pearson Skeffington Cresswell, M.B., 24, Windsor Place, Cardiff.

Pathology and Bacteriology.

President: Professor J. G. Adami, M.D., F.R.S., Montreal.

Vice-Presidents: Professor J. J. Mackenzie, M.D., Toronto; Professor W. T. Connell, M.D., Kingston; Ingersoll Olmsted, M.D., Hamilton; Professor Robert Fraser Calder Leith, M.B., Birmingham.

Honorary Secretaries: Gideon Silverthorn, M.D., 266, College Street, Toronto; Harold C. Parsons, M.D., 72, Bloor Street W., Toronto; Frank George Bushnell, M.D., Sussex County Hospital, Brighton.

Pediatrics.

President: George Alexander Sutherland, M.D., London.

Vice-Presidents: H. T. Machell, M.D., Toronto; Allan M. Baines, M.D., Toronto; Otto Jackson Kauffmann, M.D., Birmingham; H. Betham Robinson, M.S., London.

Honorary Secretaries: E. Stanley Ryerson, M.D., 261, College Street, Toronto; Joseph S. A. Graham, M.D., 102, College Street, Toronto; Ralph Vincent, M.D., 1, Harley Street, London, W.

Physiology.

President: Professor Wm. Dobinson Halliburton, M.D., F.R.S., London.

Vice-Presidents: Professor A. B. Macallum, M.D., Toronto; Professor Wesley Mills, M.D., Montreal; Professor Charles Scott Sherrington, M.D., F.R.S., Liverpool.

Honorary Secretaries: Herbert E. Roaf, M.D., 44, Upper Parliament Street, Liverpool; Gustav Mann, M.D., 25, Beechcroft Road, Oxford.

Psychology.

President: Wm. Julius Mickle, M.D., London.

Vice-Presidents: N. H. Beemer, M.D., Toronto; Charles K. Clarke, M.D., Toronto; Reginald Langdon-Down, M.B., London.

Honorary Secretaries: A. T. Hobbs, M.D., Guelph, Ontario; Goldwin Howland, M.D., 540, Spadina Avenue, Toronto; John Turner, M.B., Essex County Asylum, Brentwood.

State Medicine.

President: F. Montizambert, M.D., Ottawa.

Vice-Presidents: E. P. Lachapelle, M.D., Laval University, Montreal; Charles Sheard, M.D., Toronto; Peter H. Bryce, M.D., Ottawa; Joseph Groves, M.B., Isle of Wight.

Honorary Secretaries: J. Langrill, M.D., Hamilton.

Surgery.

President: Sir Hector Clare Cameron, Professor of Clinical Surgery, Glasgow.

Vice-Presidents: Fred. L. M. Grasett, M.D., Toronto; Francis J. Shepherd, M.D., Montreal; A. B. Atherton, M.D., Frederickton, N.B.; T. K. Holmes, M.D., Chatham, Ontario.

Honorary Secretaries: H. A. Beatty, M.D., 207, Simcoe Street, Toronto; Frederick W. Marlow, M.D., 699, Spadina Avenue, Toronto; Sinclair White, F.R.C.S., Ranmoor, Sheffield.

Therapeutics.

President: Donald MacAlister, M.D., Cambridge.

Vice-Presidents: John L. Davison, M.D., Toronto; A. D. Blackader, M.D., Montreal; Sir Alan Reeve Manby, M.V.O., M.D., East Rudham; Professor J. Rose Bradford, M.D., F.R.S., London.

Hon. Secretaries: V. Henderson, M.D., University of Toronto; C. P. Lusk, M.D., 99, Bloor Street W., Toronto.

HONORARY LOCAL SECRETARIES.

Dr. F. N. G. Starr, The Medical Building, Toronto.
Professor J. J. Mackenzie, The Medical Building, Toronto.
Dr. D. J. Gibb Wishart, The Medical Building, Toronto.

COMMITTEE PATHOLOGICAL MUSEUM.

Professor J. J. Mackenzie, Toronto, *Chairman;* Dr. Maud Abbott, *Secretary;* Professor Gordon Bell, Winnipeg; Professor W. T. Connell, Kingston; Dr. A. R. Gordon, Toronto; Dr. J. A. McGregor, London, Ontario.

EXHIBITION COMMITTEE.

Chairman: Dr. Arthur Jukes Johnson, Toronto.

Secretaries: Dr. T. D. Archibald, Toronto; Dr. W. A. Young, Toronto.

HONORARY LOCAL TREASURER.

Professor J. W. Ross, Toronto.

TORONTO ARRANGEMENTS COMMITTEE.

Dr. Geo. A. Bingham, 68, Isabella Street, Toronto.
Dr. C. J. C. O. Hastings, 258, Wellesley Street, Toronto.
Dr. A. A. Macdonald, 341, Bloor Street West, Toronto.
Professor J. J. Mackenzie, Medical Laboratories, Toronto.
Dr. Alex. McPhedran, 151, Bloor Street West, Toronto.
Dr. R. B. Nevitt, 46, Bloor Street West, Toronto.
Dr. R. A. Reeve, *President-elect*, 48, Bloor Street E., Toronto.
Dr. F. N. G. Starr, 112, College Street, Toronto.
Dr. J. Algernon Temple, 333, Bloor Street W., Toronto.
Dr. D. J. Gibb Wishart, 47, Grosvenor Street, Toronto.

PROGRAMME OF PROCEEDINGS.

Tuesday, August 21st, 1906.

9.30—12.30 a.m.—Meetings of Sections.
2.30 p.m.—Address on Obstetrics, Dr. W. S. A. Griffith.
4.30 p.m.—Garden Parties.
8 p.m.—Address of Welcome; Introduction of Guests, Delegates, etc.; and President's Address.
9.30 p.m.—Reception by the Lieutenant-Governor in the Parliament Buildings.

Wednesday, August 22nd.

9.30—12.30 a.m.—Meetings of Sections.
2.30 p.m.—Address on Medicine, Sir James Barr, M.D.
4.30 p.m.—Garden Parties.
8.30 p.m.—Address on Surgery, Sir Victor Horsley, F.R.S.
9.30 p.m.—Reception.

Thursday, August 23rd.

9.30—12.30 a.m.—Sectional Meetings.
4.30 p.m.—Garden Parties.
7.30 p.m.—Annual Dinner.

Friday, August 24th.

9.30—12.30 a.m.—Sectional Meetings.
2.30 p.m.—General Meetings.
4.30 p.m.—Garden Parties.
Excursions.
8.30 p.m.—Soirée.

Saturday, August 25th.

Excursions to Niagara Power Company's plant, through the courtesy of Sir Henry M. Pellatt.
Excursion to Muskoka.
Excursion to Lambton, through the courtesy of the President, Mr. Austin.

☞ ***To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.***

Association Notices.

BRANCH AND DIVISION MEETINGS TO BE HELD.

Border Counties Branch: North Cumberland Division.—A meeting of the North Cumberland Division of the Border Counties Branch will be held at Penrith on Friday, April 6th. The Honorary Secretary will be pleased to hear from members who wish to read papers, show cases or pathological specimens.—Norman Maclaren, Honorary Secretary, 23, Portland Square, Carlisle.

East Anglian Branch *(Preliminary Announcement)*.—The spring meeting of the East Anglian Branch will be held at King's Lynn on Thursday, April 5th. Members wishing to show cases or specimens or read papers should communicate at once with Dr. Gardiner, Tuesday Market Place, King's Lynn.—B. H. Nicholson, General Secretary of Branch, East Lodge, Colchester.

Lancashire and Cheshire Branch: Liverpool and Birkenhead Divisions.—It is proposed to hold a combined dinner on March 22nd, at 8 p.m., when an address upon the advantages of medical organization to the community at large, and the public duty thereby devolving upon members of the profession, will be given by Mr. J. Smith Whitaker, the Medical Secretary of the Association. The price of tickets is 5s. each, exclusive of wine, and the dinner will be open to all members of the profession. Applications are requested to be sent to the Honorary Secretary, Dinner Committee, Medical Institution, Liverpool.—James Barr, President of the Branch, Arthur W. German, Honorary Secretary, Dinner Committee, Liverpool.

Lancashire and Cheshire Branch: Leigh Division.—The usual monthly meeting of this Division will be held on March 15th in the Co-operative offices at 8.30 p.m.—Michael J. Halton, Honorary Secretary, 95, Chapel Street, Leigh, Lancs.

Northern Counties of Scotland Branch.—A clinical meeting of the Branch will be held at the Northern Infirmary, Inverness, on Saturday, March 24th. Particulars will be sent to members by circular later. Members desirous of exhibiting specimens, or reading notes of cases are requested to communicate at once to the Secretary.—J. Munro Moir, M.D., Honorary Secretary, Ardross Terrace, Inverness.

South-Eastern Branch: Croydon Division.—A meeting of this Division will be held at the Greyhound Hotel, Croydon on Thursday, March 15th, at 4 p.m. Mr. St. George C. Reid in the Chair. Agenda: (1) Minutes of the previous meeting. (2) To decide when and where the next meeting shall be held, and to elect a Chairman. (3) Other business. The following papers will be read:—Dr. W. S. A. Griffith: Note on Excessive Lochia, and on After-pains. Dr. R. Hutchison: Treatment of the Various Forms of Diarrhoea in Infancy and Childhood. Dinner at 6 p.m. Charge 5s., exclusive of wine. Members intending to stay to dinner are kindly requested to send a postcard to the Honorary Secretary.—E. H. Willoch, Honorary Secretary, 113, London Road, Croydon.

South-Eastern Branch: Guildford Division.—The next meeting of this Division will be held at the Royal Surrey County Hospital, Guildford, on Friday, March 30th, at 4.30 p.m., the Chairman of the Division, Dr. J. P. A. Gabb, in the chair. Agenda: (1) Minutes of last meeting. (2) Adjourned discussion *re* contract practice. (3) Other matters referred to Divisions. (4) Mr. C. A. Ballance, F.R.C.S., Surgeon to St. Thomas's Hospital and to the National Hospital for the Paralysed and Epileptic, will give an address on The Surgery of Brain Abscess, illustrated by lantern slides. (5) Any other business. Tea will be provided during the meeting. Members desirous of showing cases or specimens are invited to communicate with the Honorary Secretary. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends, and visitors are cordially invited.—E. J. Smyth, Honorary Secretary, Maythorne, Epsom Road, Guildford.

South Wales and Monmouthshire Branch: Cardiff Division.—The ordinary meeting of this Division, noted on the fixture card for March 15th, will be postponed to a date in April, which will be subsequently announced.

GENERAL MEDICAL COUNCIL.

Executive Committee.

A meeting of the Executive Committee of the General Medical Council was held on Monday, February 26th, when Dr. **MacAlister**, President, occupied the chair, and the following members were present:—Sir Hugh Beevor, Dr. Pye-Smith, Mr. Young, Mr. Tomes, Sir John Batty Tuke, Sir Patrick Heron Watson, Sir Christopher Nixon, Sir William Thomson.

Members.

The official notifications of the appointment of Sir Hugh R. Beevor, Bart., M.D., as representative of the Apothecaries' Society of London, and of Sir Thomas Myles as representative of the Royal College of Surgeons in Ireland, were read.

University of Wales.

A letter was read from the clerk to the Privy Council transmitting Article VIII of the draft charter of the University of Wales, and inviting the observations of the Council thereon.

Extract from the Draft Charter.

"VIII.—FACULTY OR FACULTIES OF MEDICINE AND SURGERY.

"Upon such terms and conditions as may be prescribed by Statute and notwithstanding anything hereinbefore contained the Court may by Statute establish a Faculty or Faculties of Medicine and Surgery and save as may be from time to time by Statute determined all that is provided by the Charter in respect of degrees diplomas certificates fellowships scholarships exhibitions and prizes in the Faculties of Arts or Letters Science Technical or Applied Science Law and Music shall apply equally to degrees diplomas certificates fellowships scholarships exhibitions and prizes in the Faculty or Faculties of Medicine and Surgery.

"Provided always that no person shall be admitted to a degree in the Faculty of Medicine or in the Faculty of Surgery or in the Faculty of Medicine and Surgery who has not pursued a course of study in that Faculty in one of the Constituent Colleges."

The Executive Committee adopted the following resolution:

> That the Executive Committee raise no objection to the proposed Supplemental Charter to the University of Wales, it being understood that the proposed Degrees in Medicine and Surgery do not confer registrable qualifications until an Act of Parliament amending the Medical Acts has been passed for that purpose.

Medical Practice in Nova Scotia.

Communications were read from the Colonial Office and Privy Council Office regarding the application of Part II of the Medical Act, 1886, to the Province of Nova Scotia. The following reply was directed to be addressed to the Lord President:

> The Executive Committee has heard with satisfaction of the request of the Government of Nova Scotia that Part II of the Medical Act of 1886 may be applied to that province. In the opinion of the Executive Committee the provisions of the Revised Statutes of Nova Scotia, 1900, with regard to the recognition of British qualifications are satisfactory, and afford a just basis for medical reciprocity. Should His Majesty in Council be pleased to grant the application, the General Medical Council will take all necessary steps for ascertaining what qualifications granted in Nova Scotia should be recognized for registration in the Colonial List of the British *Medical Register*.

Council Chamber.

The Executive Committee approved of steps being taken for the enlargement of the Council Chamber by the erection of an addition on the part of the site vacated by the Council's tenants.

Medical Practice in Swaziland.

A communication was read from the Colonial Office informing the Council that the Governor had issued a proclamation applying to Swaziland certain provisions of the Medical, Dental, and Pharmacy Ordinance 1904 of the Transvaal. The Ordinance vests in the Transvaal Medical Council and the Transvaal Pharmacy Board all the powers, authorities, jurisdictions, and duties in relation to Swaziland which are vested in each of them in relation to the Transvaal.

B.Sc. in Public Health, Glasgow.

Acting under authority given to it by the General Council on December 2nd, 1905, the Executive Committee instructed the Registrars to accept for registration as an additional qualification the degree of B.Sc. in Public Health of the University of Glasgow.

Apothecaries' Hall, Dublin.

A report on the final examination of the Apothecaries' Hall, Dublin, for their licence, held in January, 1906, was presented by the Examiners in Surgery, Sir **Henry G. Howse** and Mr. **Alexis Thomson**, acting as Inspectors of the whole examination. The Inspectors reported that they were satisfied with the methods by which the examination was conducted, and that the standard of knowledge required was sufficient.

Practice by Companies.

After a statement by the **President** the Committee adopted the following resolution:

> That the Executive Committee learn with satisfaction that Sir John Tuke is prepared to introduce into the House of Commons the Bills which have already been approved by the Council relating to the practice of medicine and of dentistry by limited companies, and requests the President, in consultation with the legal advisers of the Council, to confer with Sir John Tuke as to any amendments which may be necessary, and on behalf of the Council to agree to the same.

Sir William Thomson.

Sir **William Thomson** having intimated his resignation as a member of the Committee, the **President** expressed from the chair, on behalf of the Executive Committee, its regret at the retirement of Sir William Thomson, and its high appreciation of the services that he had rendered to the Council.

The Committee co-opted Sir Thomas Myles to fill the vacancy thus created.

Dental Business.

The Treasurers laid before the Committee the audited statement of receipts and expenditure of the Dental Fund for the year ending December 31st, 1905.

Dentistry in Hong Kong.

A communication from the Colonial Office as to a draft ordinance to regulate the registration of dentists in Hong Kong was read. The Committee adopted a resolution expressing satisfaction that provision was made therein for the prevention under penalties of dental practice by unqualified persons and by joint stock companies.

NOTICE OF ACCIDENTS BILL, 1906.

A BILL to amend the law relating to returns and notifications of accidents in mines, quarries, factories, and workshops, and under the Notice of Accidents Act, 1894, was introduced into the House of Commons by Mr. Herbert Samuel, Parliamentary Under-Secretary, Home Department, on February 21st, 1906. The following is the memorandum prefixed to the Bill:

Memorandum.

This Bill carries out, as far as regards mines and factories, certain recommendations contained in the report of the Departmental Committee appointed in 1901 to inquire into the notification of industrial accidents (Cd. 998 of 1902).

As regards mines, the chief effect of the Bill is, first, to make more definite the existing requirements as to reporting accidents causing serious personal injury; secondly, by requiring annual returns of all accidents which disable for more than fourteen days, to bring a much larger number of accidents than at present under the notice of the Department. Some further classes of accidents—for example, overwinding and electric shock, are added to those of which notice is required when any injury whatever is caused, and power is given to the Secretary of State to add other classes. The report is in future to be made in a prescribed form.

As regards factories, an alteration is proposed in the period of disablement which makes an accident reportable. At present an accident is reportable if it prevents the workman, on any one of the three days following the day of the accident, from being employed for five hours on his ordinary work. In the case of the special classes of accidents reportable both to the inspector and to the certifying surgeon, the Bill, with a view to simplifying the existing requirement, makes one whole day's absence, *whenever it occurs*, the standard. In the case of accidents reportable to the inspector only, with a view to relieving inspectors of the task of examining large numbers of casual and unpreventable accidents, and enabling them to concentrate their attention on grave or preventable accidents, fourteen days is made the standard. Power, however, is given to the Secretary of State to require report, after one day's disablement, of other classes of accidents besides those specified in the Bill. The position of the certifying surgeons is left untouched. The report is to be made in a prescribed form. The maximum penalty for failure to report is increased from £5 to £10.

It appears unnecessay to reprint the whole Bill, but the following is the text of the Clause 4 (1) which affects the position of the factory surgeons. As is pointed out elsewhere the words in italics added at the end of the Clause meet the representations made to the Home Office on behalf of the British Medical Association and the Association of Certifying Factory Surgeons:

4. *Notices of Accidents in Factories and Workshops.*—(1) Where any accidents occur in a factory or workshop which is either—

(*a*) An accident causing loss of life to a person employed in the factory or workshop; or

(*b*) An accident due to any machinery moved by mechanical power, or to molten metal, hot liquid, explosion, escape of gas or steam, or to electricity, and so disabling any person employed in the factory or workshop as to cause him to be absent throughout at least one whole day from his ordinary work; or

(*c*) An accident due to any other special cause which the Secretary of State may specify by order, and causing such disablement as aforesaid; or

(*d*) An accident disabling for more than *fourteen days* a person employed in the factory or workshop from working at his ordinary work,

written notice of the accident in such form and accompanied by such particulars as the Secretary of State prescribes, shall forthwith be sent to the inspector of the district *and also in the case of the accidents mentioned in paragraphs* (a) *and* (b) *of this subsection, and* (*if the order of the Secretary of State specifying the special cause so requires*) *of accidents mentioned in paragraph* (c) *to the certifying surgeon of the district.*

METROPOLITAN HOSPITAL SUNDAY FUND.

INCREASE OF OUT-PATIENTS.

AT a meeting of the Council of the Metropolitan Hospital Sunday Fund on March 2nd, the following report from the Committee of Distribution was adopted:

The Committee of Distribution beg to submit the following report resulting from their inquiries respecting the increase in the number of out-patients at the various hospitals.

At a meeting held on July 27th, 1905, the following resolution was unanimously passed:

> This Committee is of opinion that the serious increase in the number of out-patients (many of whom have trivial complaints) is detrimental to the welfare of the hospitals and patients, inasmuch as they are a burden to the funds of the hospitals, and prevent the hospital staffs from giving the necessary attention to serious cases.

A copy of this resolution was forwarded to eighty hospitals having out-patient departments, inviting the opinions of their Committees on the question, and asking if they could suggest any remedy. Their replies have been received, and their suggestions tabulated.

It would seem from the reports furnished to the Committee by the hospitals that the number of general out-patients is decreasing, but the attendances at the special departments cause an increase in the actual figures.

Subsequent meetings of the Committee were held on November 30th and December 14th, 1905, and January 11th and February 15th, 1906. At the meeting on December 14th, a deputation was received from the East London Medical Society, who submitted a memorandum stating their views, to which the Committee have given every consideration.

Suggestions have been made to the Committee that after the first visit, patients should not be allowed to attend a second time without a certificate from a medical man in the neighbourhood that the case is a proper one for treatment at a hospital. The Committee cannot see their way to agree to this proposition, but they are of opinion that if such cases could be referred to a private practitioner, or to a self-supporting dispensary (provided sufficient of these could be established), nothing but good would result, especially if the dispensaries were attended, not by a few medical men in the district, but by the whole of the general practitioners in the immediate neighbourhood, such dispensaries to be affiliated to the nearer general hospitals.

The Committee recognize that the constituents of the Fund have for the first time decided to make grants to "district nursing associations, employing fully-trained hospital nurses" (there are about 300 of them engaged throughout the metropolitan area) and as these nurses work only under the direction of local medical men, the Committee are of opinion that some sort of affiliation should be made, and that casualty patients might be recommended to apply to the superintendents of these associations after receiving "first aid" at the hospital, and thus come under the professional care of local medical men.

The Committee are of opinion:

(*a*) That notwithstanding the large number of attendances in the out-patient departments of the general hospitals, the hospitals have hitherto increased their accommodation and qualified staffs to an extent sufficient to enable them to cope with all such cases.

(*b*) That there is not any serious abuse of the out-patient departments in the general hospitals, and that any which may exist at the present time can be met by an efficient system of investigation, conducted by a competent staff in the out-patient department, who should visit the homes of the patients, and for that purpose the addresses of all out-patients should be taken.

The Committee has considered it advisable to confine its investigation to the general hospitals only, and not to the special ones.

W. S. CHURCH,
Chairman.

February 22nd, 1906.

ROYAL COMMISSION ON THE CARE AND CONTROL OF THE FEEBLE-MINDED AND EPILEPTIC.

THE Royal Commission on the Care and Control of the Feeble-minded met to receive further evidence on February 19th.

Dr. T. W. HIME (Bradford) was of opinion that it would be most desirable for the Board of Education to make obligatory the possession by school medical officers of special knowledge of their important work. Medical officers of schools should be appointed for areas sufficiently large to give full employment for their whole time, and at salaries commensurate with the importance of their work. In the case of medical officers of health, their appointment must be approved by the Local Government Board, which also had power to pay half their salary; similarly the appointment of a school medical officer should be subject to the approval of the Board of Education, which should have power to pay half his salary, and to define the general conditions of his appointment. One of such conditions should be the possession of special knowledge of the work about to be undertaken, and another security in office, so long as the duties were performed satisfactorily and no serious grounds for dismissal arose. When the Central Board paid half the salary its approval should be necessary before a medical officer was dismissed. The necessity for extreme care and skill in the selection of children for special classes was obvious. The boarding-out of defective or feeble-minded children was much to be recommended, unless in very exceptional circumstances.

Dr. E. S. **PASMORE**, Medical Superintendent of the Lunatic Asylum for the County Borough of Croydon, stated his belief that two factors stood out prominently in the causation of insanity and feeble-mindedness, (1) heredity, (2) environment. Heredity was a most potent factor in the production of insanity and congenital imbecility. His opinions on heredity were based not only on over 500 cases which he had examined at the London County Lunatic Asylum at Banstead, but also upon 718 patients who had been admitted into Croydon Mental Hospital since its opening in 1903 to January this year. On whatever lines fresh legislation was based for the future care, training, and control of the feeble-minded, the following two great principles should be borne in mind, and measures directed to their fulfilment: (1) economical housing; (2) the prevention of the propagation of the feeble-minded.

AT a further sitting of the Royal Commission on the Care and Control of the Feeble-minded, held on February 23rd, the evidence received included that of Dr. Henry Maudsley and Dr. J. Macpherson, Commissioner in Lunacy, Edinburgh.

Dr. **MAUDSLEY**, speaking of his experience as a Lord Chancellor's Visitor, said it was practically certain that at present feeble-minded persons might be kept under private care and control in unlicensed houses without those who received them running any serious risks should a prosecution be instituted for breach of the law. His experience as a practising physician had often impressed him with the difficulty of dealing with weak-minded persons when, being possessed of, or entitled to, property exceeding £2,000 in value, it was desirable to protect it and themselves. In order to prove that such an one was incapable of managing himself and his affairs it appeared to be necessary to institute an inquiry in lunacy before the master, or the master and a jury if a jury be demanded on behalf of the person. When the inquiry was before the master alone, the procedure was comparatively simple and inexpensive, but if a jury be demanded and the person was defended by solicitor and counsel, then the inquiry might last for two or three days or longer, and great expense be incurred, and in the end the result was uncertain. In spite of what might be said to the contrary, a jury was apt to be influenced by a suspicion that the object was to deprive the unfortunate person of his property and to confine him as a lunatic. In one case of this sort, in which he and others gave evidence of weakness of mind with criminal tendencies, the inquiry went on for two days; in the result the jury by a majority pronounced the person to be of sound mind and capable of managing his affairs. Within a fortnight after the verdict the unfortunate youth was committed to prison for a criminal offence. One naturally hesitated, when consulted in troublesome and painful cases of the kind, to recommend an inquiry the publicity of which was so much dreaded, the expense so great, the result so uncertain.

Dr. **MACPHERSON** said the present administrative machinery in Scotland, whereby the mentally unsound of all classes were dealt with under the Lunacy Acts, was admirable; but it required some amendment and extension, so that all persons who on account of mental impairment or deficiency required care and treatment should receive it. Mentally unsound persons who were not properly looked after by their friends or relatives were not contemplated in the following summary of recommendations: (1) All neglected cases, and all cases apprehended by the police, should be subjected to examination as to their mental condition by an expert in mental diseases. (2) Observation wards, similar to those now in existence in Glasgow should be established in every large centre of population, and all cases regarding whom there was any doubt ought to be sent there for observation. (3) Persons who were manifestly insane ought to be certified in the usual way and sent to asylums. (4) Persons who were morally, though not to a marked degree intellectually, insane should be committed by the sheriff to a State institution of the "village" asylum type for such terms as might be thought advisable, at the expense of their own parishes. (5) It should be made obligatory on parish councils to undertake the care of all neglected imbecile children in the same way as they at present dealt with the ordinary insane. (6) A wider recognition of insane conduct as a sign of insanity and as a basis of certification was urgently required.

THE HEALTH OF THE NAVY.

THE Statistical Report of the Health of the Navy for the Year 1904, just issued,* states that the returns for the total force serving afloat during the year 1904 may be considered very satisfactory. With a *personnel* increased by 7,470 as compared with the previous year, there are decreases in the ratios of cases, invalidings, and deaths as compared with the average of the last seven years. Contrasted with 1903, the case and invaliding ratios show a reduction; on the other hand, the death ratio shows a fractional increase.

Total Force Afloat.

The total force serving afloat, corrected for time, in the year 1904 was 110,570. Arranged according to age in decennial periods, the numbers were as under:

63,790, or 57.69 per cent., were between 15 and 25 years of age.
36,160, or 32.7 per cent., were between 25 and 35 years of age.
9,350, or 8.45 per cent., were between 35 and 45 years of age.
1,270, or 1.14 per cent., were 45 years and upwards.

Total Cases of Disease and Injury.

The total number of cases of disease and injury entered on the sick list was 83,447, which is in the ratio of 754.69 per 1,000, being a decrease of 118.07 per 1,000 as compared with the average ratio of the last seven years. The average number of men sick daily was 3,467.25, giving a ratio of 31.35 per 1,000, and showing a decrease of 5.22 in comparison with the last seven years' average. The total days' sickness on board ship and in hospital was 1,269,015, which represents an average loss of service from disease and injury of 11.47 days for each person, which is a decrease of 1.84 in comparison with the average of the last seven years.

Invalidings.

The total number of persons invalided was 2,511, which is in the ratio of 22.7 per 1,000, and shows a decrease of 7.28 in comparison with the average of the last seven years. Of the above total 1,756 persons were finally invalided from the service (149 of these refused surgical operation, giving a ratio of 15.88 per 1,000 for the whole force, or 69.93 per cent. of the number invalided, thus showing a decrease of 1.16 per 1,000 when contrasted with 1903). The ratio of cases per 1,000 of force shows a reduction on all stations except Pacific as compared with the average ratio for the last seven years. The invaliding ratio of the total force, namely, 22.7 per 1,000, shows a decrease of 7.28 in comparison with the average for the last seven years.

Death-rate.

As regards the death-rate, the ratio per 1,000 was 4.45, showing a decrease of 1.01 per 1,000 when contrasted with the last seven years' ratio. The death-rate from disease alone was 3.14 per 1,000. The highest invaliding and death-rates were on the East Indies Station.

---

* London: Printed for His Majesty's Stationery Office by Eyre and Spottiswoode, Printers to the King's Most Excellent Majesty. And to be purchased, either directly or through any bookseller, from Wyman and Sons, Limited, Fetter Lane, E.C., and 32, Abingdon Street, Westminster, S.W.; or Oliver and Boyd, Edinburgh; or E. Ponsonby, 116, Grafton Street, Dublin. Price 1s. 11d.

General Diseases.

One fatal case of *yellow fever* is returned, contracted at amaica. One case of *plague* occurred in the person of a ascar on the East Indies Station. Twelve cases of *small-pox* re recorded, with no deaths. Two hundred and forty cases of *ow-pox* occurred. One thousand five hundred and eighty-six ases of *influenza* are recorded, a considerable decrease in the atio as compared with preceding years. The Irregular Force eturns one death. The cases are distributed as follows: Home Station, 1,083 cases; Mediterranean, 311; Irregular Force, 93; China, 37; Australia, 31; South Atlantic, 16; North America, 11; Pacific, 4. Two fatal cases of *cerebro-spinal fever* occurred, 1 on the Home Station (this case had been discharged to hospital during the previous year as a case of sore hroat), 1 in China. One thousand and thirty-five cases of *simple continued fever* are returned, with 2 invalidings and no deaths. The Mediterranean Station returns 401 cases; East Indies, 310; China, 126; Irregular Force, 84; Home, 54; Cape of Good, 27; North America, 11; South Atlantic, 14; Pacific, 5; and Australian, 3. Two hundred and twenty-six ases of *enteric fever* are recorded, with 35 invalidings nd 39 deaths. The ratio of entries for this disease per 1,000 of strength shows a decrease of 0.58; of nvalidings, a decrease of 0.12; and of deaths a derease of 0.17 as compared with the average ratio of the previous seven years. The cases were distributed as follows: Mediterranean Station, 61 cases; Home, 51; China, 49; North American, 25; Irregular Force, 17; Australian, 9; East ndian, 6; Cape of Good Hope, 5; and Pacific, 3. Of *typhus ever* 1 case is returned from the China Station. Of *scarlet ever* 179 cases, of *measles* 118, of *rubella* 47, of *chicken-pox* 29, nd of *mumps* 140 occurred. Of *diphtheria* 29 cases are eturned, with 1 death. Of *dengue* there were 26 cases. Four undred and thirty cases of *Mediterranean fever* occurred, iving 191 invalidings and 9 deaths. This gives a decrease f entries per 1,000 of strength of 0.37, of invalidings of 0.14, but an increase of deaths of 0.03, as compared with the verage ratios for the previous seven years. The Mediterranean tation gives 333 cases; Home, 59; Irregular Force, 22; China, 12; North American, Cape of Good Hope, East ndian, and Australian, 1 each. In all probability the great majority, if not all, the cases reported, from stations other han the Mediterranean were relapses, or cases which had actually contracted the disease when passing through the Mediterranean. One hundred and thirty-three cases of *ysentery*, with 12 invalidings and 9 deaths, are recorded. Forty cases are returned from East Indian Station, 36 from hina, 23 from Irregular Force, 16 from Pacific, and 1 from ape of Good Hope. These *malarial fevers* contribute a total f 693 cases, with 16 invalidings and 5 deaths. This is a ecrease in ratio per 1,000 of strength of 11.03 as regards ases, of 0.74 as regards invalidings, and of 0.05 as regards eaths, compared with the average ratio of the previous even years. The Home Station gives 167 cases; East ndian, 122; South Atlantic, 115; China, 105; Cape of ood Hope, 69; Mediterranean, 45; Irregular Force, 29; orth American, 27; Australian, 11; and Pacific, 3. Four undred and fifty-six cases of *tubercle* are recorded, with 367 nvalidings and 64 deaths. This is an increase in ratio, per 000 of strength, of 0.83 as regards cases, 0.91 as regards nvalidings, and 0.09 as regards deaths, compared with the verage ratios of the previous seven years. The Home Station urnished 272 cases; the Mediterranean, 75; China, 39; rregular Force, 21; Australia, 17; Cape of Good Hope, 10; orth America, 9; South Atlantic, 9; Pacific, 4; and East ndies, 1. The total number of cases of *venereal disease* corded is 12,258, namely, *primary syphilis*, 3,669 cases; *condary syphilis*, 2,500 cases, with 112 invalidings and 10 eaths; *gonorrhoea* and its sequelae, 6,039 cases, with 69 validings. *Primary syphilis* shows a decline of 5.02 per 000 of strength as compared with the average ratio of the revious seven years. *Secondary syphilis* shows a decline 1.23 per 1,000 as regards cases, 0.5 per 1,000 as regards eaths. *Gonorrhoea* and its sequelae show a decrease 10.53 per 1,000 as compared with the previous seven ears' ratio. The returns from South Atlantic, Cape Good Hope, and East Indies, show an increase in the tio for primary disease; the remaining stations show a ecrease as compared with the previous year; 117 cases of *oisoning* are recorded, 41 of these were due to lead, giving invalidings, the remaining 76 were due to various other oisons, of which 2 died; 86 cases of *alcoholism* are returned, th two deaths; 2,361 cases of *rheumatism* are returned, iving 93 invalidings and 1 death. The ratio of cases per 1,000 strength shows a decrease of 9.66, of invalidings a decrease 0.46, and of deaths a decrease of 0.03, as compared with the erage ratios for the previous seven years. The average duraon of each case was 18.68 days, and the number of men daily effective 120.51; 150 cases of *gout* are recorded, with 1 validing. Of *non-malignant new growths* 153 cases are corded, giving 6 invalidings; of *malignant*, 9 cases me under notice, 8 of which proved fatal; 8 cases of *abetes* are returned, with 4 invalidings and 2 deaths. Four ases of *beri-beri* are recorded—3 from the East Indies, and 1 rom the Cape of Good Hope Station. No deaths are recorded der this heading. Of *septic diseases*, there were 34 cases, th 12 deaths. Of other *general diseases*, 73 cases are eturned, with 13 invalidings and 4 deaths. Included under this heading were 2 of *leucocythaemia* (Home Station); 2 of *tetanus*, both fatal (Home Station 1, East Indies 1); 1 of *Hodgkin's disease* (Home Station); 2 of *purpura*, 1 fatal case (Home Station 1, Pacific 1); and 1 of *pernicious anaemia* (a fatal case, Home Station).

Parasitic Diseases.

Under this head there are 4,289 entries; of these 4,041 were cases of scabies, of which 3,354 occurred in the Home Station. Other parasitic affections numbered 248.

Local Diseases.

One thousand and sixty-five cases of *diseases of the nervous system* are recorded, with 336 invalidings and 27 deaths. Of the total, 131 cases, with 126 invalidings and 2 deaths, are classified as mental diseases, and 934 cases, with 210 invalidings and 25 deaths, as nervous diseases. The ratio of cases under this heading shows a slight decline as compared with the average ratio for the previous seven years. Eight hundred and fifty-three cases of *diseases of the eye* are returned, with 88 invalidings. There were 568 cases of *other organs of special senses*, with 117 invalidings and 4 deaths. Six hundred and fifty-one cases are recorded of *diseases of the circulatory system*, giving 252 invalidings and 35 deaths. Nine thousand six hundred and fifty cases of *diseases of the respiratory system* are returned, with 122 invalidings and 55 deaths. The ratios per 1,000 of strength show a decrease as regards cases of 15.18, of 1.62 as regards invalidings, and 0.34 as regards deaths, compared with the previous seven years' ratios, a very satisfactory condition of affairs. *Catarrh* is responsible for 7,818, or 81.01 per cent., *bronchitis* for 583, or 6.04 per cent., and *pneumonia*, 478 cases, or 4.95 per cent. of the total number. Under the heading *phthisis*, 152 cases are recorded, with 66 invalidings and 9 deaths. It is considered as more than probable that the great majority of these cases of *phthisis* should have been returned as *tuberculosis*. The East Indies, Cape of Good Hope, and Home Stations, in the order given, show the highest case ratio, while the highest invaliding ratios are from Pacific, East Indies, and Cape of Good Hope. The vessels of the training service in home waters return 1,385 cases, giving a ratio of 171.83 per 1,000 of strength, a decrease of 5.33 as compared with last year's return. The steady annual decline of this ratio in these ships is notable. *Catarrh* furnishes 1,122 cases, or 81.01 per cent. of the total number. The number invalided was 7, a ratio of 0.86 per 1,000 of strength, also a decrease compared with the average ratio of the last few years. The causes of invaliding are thus summarized: *Phthisis*, 1; *pneumonia*, 2; *bronchitis*, 3; and *pleurisy*, 1. Three deaths are returned—a ratio of 0.37 per 1,000 of strength—all from *pneumonia*. This ratio also shows a decrease. Thirteen thousand two hundred and sixty-four cases of *diseases of the digestive system* are recorded, giving 268 invalidings and 29 deaths. This is a decrease of 10.3 per 1,000 as regards cases, of 0.93 per 1,000 as regards invalidings, but an increase of 0.04 in the ratio of deaths, as compared with the previous seven years' ratio. *Sore throat* and *tonsillitis* contributed 6,521 cases, and *diseases of the stomach and intestines*, 5,195 cases; 149 cases of *hernia* were invalided, the majority of these having declined operation for the radical cure of this complaint. Seven hundred and fifty-nine cases of *diseases of the lymphatic and glandular system* are returned, giving 14 invalidings. *Non-venereal bubo* furnishes 595 cases, 2 invalidings. Nine hundred and twenty-one cases of *diseases of the urinary and generative systems* are returned, with 92 invalidings and 21 deaths. There were 183 cases of *diseases of the kidneys*, with 50 invalidings and 19 deaths. The remaining deaths are due to disease of *bladder* and *urethral stricture*, 1 each. Seven hundred and fifty-eight cases of *diseases of the organs of locomotion* are entered, giving 82 invalidings. *Diseases of the joints* furnished 330 cases, with 27 invalidings. *Diseases of the bursae*, 217 cases. Thirteen thousand one hundred and thirty cases of *diseases of the connective tissue and skin* are recorded, with 36 invalidings and 1 death—a general decline as compared with the ratio for the previous seven years.

Wounds and Injuries.

Sixteen thousand eight hundred and seventy-nine cases of injuries of various kinds occurred during the year, with 172 invalidings and 135 deaths. Of this total, 338 cases with 9 invalidings and 117 deaths were due to *general injuries;* 16,527, with 156 invalidings and 15 deaths to *local*, while there were 14 *wounds in action*, with 7 invalidings and 3 deaths. The ratio per 1,000 of strength of *general injuries* shows a fractional decrease as compared with the ratio for the previous seven years; for *local injuries* there is a decrease of 14.57 per 1,000 in the case ratio, with a fractional decrease in the invaliding and death ratios. The deaths under *general injuries* were caused by *burns and scalds*, 9; *heat stroke*, 4; *multiple injury*, 32; *suffocation from submersion*, 72. The *local injuries* comprise 1,284 *burns and scalds*, and 15,243 *wounds, fractures, dislocations, contusions, etc.*

Suicide.

Ten persons committed suicide during the year, a fractiona decrease on the ratio for the previous seven years.

APPENDIX.

The Appendix contains several papers on Mediterranean fever. Fleet Surgeon P. W. Bassett-Smith discusses the etiology of the disease, and its distribution in the fleet; Staff Surgeon E. A. Shaw deals with the agglutination reaction in the disease; and Fleet Surgeon J. D. McNabb with its treatment and symptoms. Staff Surgeon R. T. Gilmour contributes a report on the year's work in the laboratory of the Royal Naval Hospital, Malta. The rest of the contents include communications by Fleet Surgeon E. P. Mourilyan on compressed air illness and its treatment by the inhalation of oxygen; by Fleet Surgeon J. L. Barrington on caisson disease; by Staff Surgeon Oswald Rees on a case of splenic anaemia; by Fleet Surgeon P. B. Handyside on cases resembling a case of dermatitis repens; by Staff Surgeon P. Hamilton Boyden on Ningpo varnish disease; and by Fleet Surgeon Vidal G. Thorpe on the radical cure of inguinal hernia.

BRITISH MEDICAL ASSOCIATION LIBRARY.

List of Books, etc., Presented.

CALENDARS, Transactions, and Reports have been received from the following bodies:

Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India. Nos. 19 and 20. 1905.

University College, London, Calendar. 1905-6.

Victoria University, Manchester, Calendar. 1905-6.

West Kent Medico-Chirurgical Society Proceedings. Vol. 49. 1905.

BOOKS NEEDED TO COMPLETE SERIES:

The Librarian will be glad to receive any of the following volumes, which are needed to complete series in the Library:

American Climatological Transactions. Vols. 1, 4, 5, 6.

——— Dermatological Association Transactions. Vols. 5, 7, 8, and 11.

——— Journal of the Medical Sciences. New series, vols. 4, 5, 1842-3; vols. 14, 15, 1847-8; vols. 18-30, 1850; vol. 33, 1857; vol. 46, 1864-5; vol. 59; or any parts of these vols.

——— Journal of Ophthalmology. Vols. 1-9.

——— Laryngological Association. Transactions. Vols. 1-6, 8-9.

——— Medical Association. Transactions, 1-28, 30, 31.

——— Otological Society. Transactions. Vol. 3, part 2, 1883.

——— Public Health Association. Transactions. Any vols.

Analyst. Vols. 1-24.

Archiv für Dermatologie und Syphilis. Prior to 1874, 1892, and 1893.

Annals of Surgery. Vols. 11, 13-16, and 26, 27.

Archives Générales de Médecine. 1831-9 inclusive; 1846-55 inclusive; 1857-64 inclusive; 1871.

——— of Ophthalmology. Vols. 1-3, 6, 7, 14-21.

——— of Otology. Vols. 1-7, and 20-22.

——— of Pediatrics. Vols. 1-11.

Asylum Journal of Mental Science. Vol. 1, 1854.

Bentley and Trimen. Atlas of Medicinal Plants.

British Journal of Dermatology. Vol. 2, part 3.

British Laryngological and Rhinological Association. 1900-1-2.

Caledonian Medical Journal. Vol. 1 prior to 1894.

Carmichael Essays. Laffan, 1879. Rivington, 1879.

Centralblatt für Augenheilkunde. Hirschberg. All prior to 1891, Index to 1891.

Centralbatt für Bakteriologie. Bound volumes prior to 1899.

——— für klinische Medicin. 1880-3; all 1888, 1891, No. 26,; 1892. No. 17.

——— für medicinischen Wissenschaften. Vols. 1-19.

Congrès Français de Chirurgie. Transactions 1, 2, 3, 6, and 10.

——— Internat. d'Obstétrique et de Gynécologie. 3. Amsterdam, 1899.

Connecticut State Board of Health Report. Vol. 11. 1887-8.

Dermatological Congress. Vienna, 1892, Paris, 1900, and Berlin, 1904.

Dublin Quarterly Journal of the Medical Sciences. Vols 1, 10, 17, 20, 28, and 35-40.

Edinburgh Obstetrical Society. Transactions. Vol. 5.

Glasgow Medical Journal. 1833-68.

——— Pathological Society. Transactions. Vols. and 2.

Guy's Hospital Gazette. Nos. 1 and 5, 1872; and 1881-8 inclusive.

Hunterian Transactions containing 76th Report.

Indian Medical Gazette. 1866-84.

International Congress of Hygiene. Congresses 1 to 6 an 10 to 12.

——— Ophthalmological Congress. Transaction of 5th, New York, 1876.

Johns Hopkins Hospital Bulletin. Vols. 1-10.

Journal of Laryngology. Vols. 1-9.

Neurologisches Centralblatt. Nos. 23, 1904, and 5, 10, 11 12, 1905.

Ophthalmic Review, January, 1882.

Pediatrics, prior to 1902.

Pollatschek. Therapeutische Leistungen des Jahres. 1894 1895, 1900.

Provincial Medical and Surgical Journal. March to September, 1841.

Recueil d'Ophtalmologie. 1891, January-June; 1892 December.

Registrar-General's Decennial Report, 1871-80.

Revue Générale d'Ophtalmologie. Prior to 1888, an 1891-2.

St. Bartholomew's Hospital Gazette. Vols. 1-6.

St. George's Hospital Gazette, 1-7.

St. Mary's Hospital Gazette, 1-5.

Sei-i-Kwai Medical Journal. Vols. 1-11.

Semaine Médicale. Prior to 1890, and title and index t year 1892.

South African Medical Journal. February, April, 1895 And titles for vols. 3 and 4.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m., except on Saturdays, when they close at 2 p.m. Members can have their letters addressed to them at the office.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty:—**PERCY M. MAITLAND**, Fleet Surgeon, to the *Pembroke*, additional, for Queensferry sick quarters, January 1st; **RICHARD C. MUNDAY**, Staff Surgeon, to the *Essex*, on recommissioning, March 20th; **JAMES J. WALSH**, M.B., Fleet Surgeon, to the *Blenheim*, on recommissioning, March 20th; **EDWARD R. D. FASKEN**, Fleet Surgeon, to the *Implacable*, March 1st; **JOHN JENKINS**, Fleet Surgeon, to the *Hood*, March 1st; **ROBERT D. JAMESON**, Staff Surgeon, and **WILLIAM C. B. SMITH**, Surgeon, to the *Lancaster*, on recommissioning, March 20th; **GEORGE T. BISHOP** and **RICHARD F. CLARK**, Staff Surgeons, to the *President*, additional, for three months' course at West London Hospital, March 1st; **HARRY V. WELLS**, Surgeon, to the *Eclipse*, March 20th; **JOHN THORNHILL**, Surgeon, to the *President*, for hospital course, March 8th; **EDWARD SUTTON**, Staff Surgeon, to the *President*, for hospital course, February 19th; **ARTHUR R. DAVIDSON**, Surgeon, to the *Egeria*, additional, and on recommissioning, February 20th; **GEORGE O. M. DICKENSON**, Surgeon, to be lent to the *Triton* for the surveying season, February 26th; **LESLIE C. ROWAN-ROBINSON**, M.B., Surgeon, to the *Dwarf*, February 26th.

The appointment of Fleet Surgeon J. **BRADLEY**, M.D., to the *Essex*, on recommissioning, has been cancelled.

ROYAL HORSE GUARDS.

SURGEON-CAPTAIN BASIL PARES, from the 1st Life Guards, to be Surgeon-Major, vice Surgeon-Lieutenant-Colonel H. Rayner, M.B., retired, February 17th. He joined the R.A.M.C. as Lieutenant, November 14th, 1900; was appointed to the 1st Life Guards, October 15th, 1902; and promoted to be Surgeon-Captain, November 14th, 1903. During the South African war in 1899-1901 he served as a Civil Surgeon, and has received the Queen's medal with five clasps.

ROYAL ARMY MEDICAL CORPS.

COLONEL J. F. WILLIAMSON, M.B., C.B., C.M.G., Principal Medical fficer Jubbulpore and Jhansi Brigades, is transferred in the same apacity to the 5th (Mhow) Division.

Colonel F. W. TREVOR, M.B., now serving at Poona, has been ppointed an Honorary Surgeon to the Viceroy of India.

ARMY MEDICAL RESERVE.

URGEON-LIEUTENANT-COLONEL G. MIDDLEMISS, M.D., and Surgeon-ajor F. J. L. WARWICK, M.B., having resigned their commissions in he Volunteers, cease to belong to the Army Medical Reserve, March rd.

Surgeon-Major C. N. LEE, M.B., to be Surgeon-Lieutenant-Colonel ebruary 14th.

Surgeon-Captain C. BOYD to be Surgeon-Major, February 24th.

INDIAN MEDICAL SERVICE.

IEUTENANT-COLONEL A. M. CROFTS, C.I.E., Bengal Establishment, is ppointed Agency Surgeon First Class, and is confirmed as Agency urgeon and Administrative Medical Officer in the North-West rontier Province.

Major P. HEHIR, M.D., Bengal Establishment, has been awarded the edal of the Order of the Hospital of St. John of Jerusalem, conferred r distinguished acts of gallantry in saving life on land at imminent ersonal risk, for his intrepidity displayed during the earthquake at harmsala on April 4th, 1905.

THE HONOURABLE ARTILLERY COMPANY OF LONDON.

RGEON-MAJOR and Honorary Surgeon-Lieutenant-Colonel W. C. AMES, M.D., to be Surgeon-Lieutenant-Colonel, February 5th.

ROYAL ARMY MEDICAL CORPS (MILITIA).

APTAIN and Honorary Major (Honorary Captain in the Army) J. T. MPSON, to be Major, January 13th.

Captain (Honorary Captain in the Army) A. H. BENSON is granted e honorary rank of Major, February 2nd.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

IEUTENANT JOHN INNES, M.B., and Lieutenant RORIE, M.B., Aber- en Companies, R.A.M.C. (Volunteers) have passed the examination d been granted certificates of proficiency.

Surgeon-Lieutenant J. H. STEPHEN, M.B., 1st Banff R.G.A. (Volun- ers) has also passed the same examination.

Lieutenant G. GORDON, M.B., Glasgow Companies, Scottish Com- nd, to be Captain, March 3rd.

IMPERIAL YEOMANRY.

RGEON-LIEUTENANT C. FARRANT, West Somerset Regiment, to be rgeon-Captain, March 3rd.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

RGEON-LIEUTENANT G. HADDOW, M.B., 1st Warwickshire, to be rgeon-Captain, February 24th.

EORGE MACKIE to be Surgeon-Lieutenant in the 1st Worcester- ire, February 24th.

urgeon-Lieutenant-Colonel W. CHALMERS-COWAN, 1st Forfarshire, granted the honorary rank of Surgeon-Colonel, March 3rd.

ROYAL ENGINEERS (VOLUNTEERS).

RGEON-CAPTAIN W. COX, 1st Gloucestershire, to be Surgeon-Major, bruary 24th.

urgeon-Major H. HAY, M.B., the Forth Division (Submarine Miners), igns his commission, retaining his rank and uniform, February h.

urgeon-Major F. W. GIBBON, The Tyne Division (Submarine es), is granted the honorary rank of Surgeon-Lieutenant-Colonel, rch 3rd.

VOLUNTEER RIFLES.

RGEON-CAPTAIN A. F. WILSON-GUNN, M.B., 4th Volunteer Battalion Cameronians (Scottish Rifles), resigns his commission, February

urgeon-Captain J. C. MACKAY, M.D., 2nd Volunteer Battalion the ce of Cornwall's Light Infantry, resigns his commission, February

OBERT H. GILBERT BRUCE to be Surgeon-Lieutenant in the 2nd gus) Volunteer Battalion the Black Watch (Royal Highlanders), ruary 24th.

ENRY L. GREGORY, M.B., to be Surgeon-Lieutenant in the 1st unteer Battalion the Duke of Cambridge's Own (Middlesex iment), February 24th.

AURENCE W. POLE, M.B., to be Surgeon-Lieutenant in the Queen's e Volunteer Brigade, the Royal Scots (Lothian Regiment) March

urgeon-Lieutenant W. P. SIMPSON, 8th Volunteer Battalion the al Scots (Lothian Regiment), resigns his commission, March 3rd.

urgeon-Lieutenant A. MACLENNAN, M.B., 2nd (Earl of Chester's) unteer Battalion the Cheshire Regiment, to be Surgeon-Captain, ch 3rd.

ENRY W. SPAIGHT to be Surgeon-Lieutenant in the 1st Volunteer alion the Duke of Cambridge's Own (Middlesex Regiment), March

urgeon-Captain S. A. M. COPEMAN, M.D., F.R.S., 2nd London unteer Rifle Corps, to be Surgeon-Major, February 12th.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

eventy-six of the largest English towns, including London, 8,530 s and 5,288 deaths were registered during the week ending rday last, March 3rd. The annual rate of mortality in these s, which had been 15.2, 17.2, and 17.3 per 1,000 in the three pre- ng weeks, further rose to 17.4 per 1,000 last week. The rates in several towns ranged from 8.9 in Northampton, 9.7 in Wallasey, in Newport (Mon.), 10.8 in King's Norton, 11.4 in Handsworth fs.), and 11.6 in East Ham, to 22.2 in Liverpool and in Blackburn, n Gateshead, 23.3 in Warrington, 23.5 in Stockport, 23.7 in Merthyr il, 24.9 in Bury, 25.8 in Nottingham, and 27.7 in Bournemouth. In London the rate of mortality was 16.6 per 1,000, while it averaged 17.8 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.4 per 1,000 in the seventy-six towns; in London also this death-rate was equal to 1.4 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 2.4 in Leeds, 2.5 in York, 2.6 in Reading, 2.7 in Huddersfield, 2.8 in Liverpool, 3.1 in Preston, 3.9 in Bournemouth, 4.3 in West Hartlepool, and 6.2 in Bury. Measles caused a death-rate of 1.2 in Hornsey, 1.3 in Tottenham and in Leeds, 1.4 in Liverpool, 1.9 in Blackburn, 2.2 in Preston, and 6.2 in Bury; scarlet fever of 2.1 in West Hartlepool; diphtheria of 1.1 in Huddersfield and 2.1 in Merthyr Tydfil; and whooping-cough of 1.1 in Birmingham, 1.2 in Brighton, in York, and in Rhondda, 1.3 in Gateshead, 1.4 in West Hartlepool, 1.6 in Leicester, 2.0 in Reading, 2.2 in Southampton, and 3.1 in Bournemouth. The mortality from enteric fever and from diarrhoea showed no marked excess in any of the large towns. No fatal case of small-pox was registered last week either in London or in any of the seventy-five other large towns. The number of small-pox patients under treatment in the Metropolitan Asylums Hospitals, which had been 2 and 5 on the two preceding Saturdays, had further risen to 6 on Saturday, 3rd inst.; 1 new case was admitted during the week, against 2 and 3 in the two preceding weeks. The number of scarlet-fever patients in these hospitals and in the London Fever Hospital at the end of the week was 2,628, against 2,839, 2,734, and 2,689 at the end of the three preceding weeks; 273 new cases were admitted during the week, against 283, 281, and 274 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, March 3rd, 928 births and 661 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 16.8, 18.0, and 19.6 per 1,000 in the three preceding weeks, declined again to 19.3 last week, but was 1.9 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among the Scotch towns the death-rates ranged from 10.7 in Leith and 13.6 in Perth to 21.4 in Greenock and 27.5 in Dundee. The death-rate from the principal infectious diseases averaged 1.8 per 1,000 in these towns, the highest rates being recorded in Dundee and Paisley. The 320 deaths registered in Glasgow included 16 which were referred to measles, 4 to diphtheria, 6 to whooping-cough, and 6 to diarrhoea. Two fatal cases of measles were recorded in Edinburgh. Five deaths from diarrhoea, 3 from measles, and 2 from whooping-cough occurred in Dundee; and 4 from measles in Paisley.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, March 3rd, 590 births and 431 deaths were registered in six of the principal Irish towns as against 464 births and 432 deaths in the preceding period. The annual death-rate in these towns, which had been 22.7, 21.8, and 23.3 per 1,000 in the three preceding weeks, rose to 25.1 per 1,000 in the week under notice, this figure being 7.7 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 16.1 in Londonderry and 23.3 in Cork to 27.3 in Limerick and 35.1 in Waterford. The zymotic death-rate in the same six Irish towns averaged 1.1 per 1,000, or 0.2 per 1,000 higher than during the preceding period, the highest figure, 2.5, being recorded in Londonderry, while no deaths under this heading were registered in Limerick and Waterford.

Vacancies and Appointments.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

BIRKENHEAD BOROUGH HOSPITAL.—Junior Resident House-Surgeon. Salary, £80 per annum and notification fees.

BIRKENHEAD AND WIRRAL CHILDREN'S HOSPITAL.—Male House-Surgeon. Honorarium, £100 per annum.

BOLTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Salary, £100 per annum.

BRADFORD CHILDREN'S HOSPITAL.—House-Surgeon. Salary, £100 per annum.

BRISTOL: BRISLINGTON HOUSE PRIVATE ASYLUM.—Assistant-Medical Officer. Salary £160 per annum.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—(1) House-Physician. (2) Assistant House-Surgeon. Salary, at the rate of £65 and £50 per annum respectively.

CANCER HOSPITAL, Fulham Road.—Junior House-Surgeon. Salary at the rate of £70 per annum.

CARLISLE: CUMBERLAND INFIRMARY.—Resident Medical Officer (male), to act as House-Physician and House-Surgeon for six months each. Salary at the rate of £80 and £100 per annum respectively.

CHESTER GENERAL INFIRMARY.—House-Physician. Salary, £90 per annum.

CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—Junior House-Surgeon. Salary, £80 per annum.

DERBY BOROUGH ASYLUM.—Assistant Medical Officer. Salary, £120 per annum.

EDINBURGH HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN.—Female Resident Medical Officer.

GLASGOW EYE INFIRMARY.—Resident Assistant House-Surgeon. Salary, £75 per annum.

HACKNEY UNION.—Medical Officer for the Schools at Brentwood. Salary, £100, rising to £150 per annum.

HASTINGS, ST. LEONARDS, AND EAST SUSSEX HOSPITAL.—House-Surgeon, unmarried. Salary, £75 per annum.

JERUSALEM: BRITISH OPHTHALMIC HOSPITAL.—Assistant Surgeon. Salary, £300 per annum.

KING'S LYNN: WEST NORFOLK AND LYNN HOSPITAL.—House-Surgeon. Salary, £100 per annum.

LEYTON: WALTHAMSTOW AND WANSTEAD CHILDREN'S AND GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

LONDON HOSPITAL PATHOLOGICAL INSTITUTE, Mile End, E.—Director. Salary, £500 per annum.

LONDON THROAT AND EAR HOSPITAL, Great Portland Street, W.—House-Surgeon, non-resident. Honorarium, £25 for six months.

MAIDSTONE: WEST KENT GENERAL HOSPITAL.—House-Surgeon. Salary, £120 per annum.

MANCHESTER VICTORIA MEMORIAL JEWISH HOSPITAL.—Resident Medical Officer. Salary, £80 per annum.

MEDICAL MISSION HOSPITAL SETTLEMENT OF WOMEN WORKERS, Canning Town, E.—Female Assistant Doctor for Dispensary.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—(1) House-Physician; (2) House-Surgeon; (3) Assistant House-Physician; (4) Assistant House-Surgeon; (5) Casualty Officer. Salaries: for (1) and (2) £40 per annum; (3) and (4) £20 per annum; (5) £150 per annum.

MIDDLESBROUGH: NORTH ORMESBY HOSPITAL.—House-Surgeon. Salary, £120 per annum.

MIDHURST: KING EDWARD VII SANATORIUM.—Assistant Medical Officer. Salary, £150 per annum.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—House-Surgeon. Salary, £80 per annum.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon. Salary, £80 per annum.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.—House-Physician. Salary at the rate of £60 per annum.

SHEFFIELD CORPORATION FEVER HOSPITALS.—Junior Assistant Medical Officer. Salary, £120 per annum.

SHREWSBURY: SALOP INFIRMARY.—House-Physician. Salary, at the rate of £50 per annum.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—House-Physician. Honorarium, £25 for six months.

WEST RIDING COUNTY COUNCIL.—Assistant Medical Officer, Scalebor Park (Private Asylum). Salary, £150 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacancies in the office of Certifying Factory Surgeons: Irvinestown, co. Fermanagh; Kenmore, co. Kerry; Tullaroan, co. Kilkenny.

APPOINTMENTS.

BODINGTON, A. E., M.D., B.C.Camb., District Medical Officer of the Winchester Union.

CHADBORN, C. N., M.R.C.S., L.R.C.P., Honorary Anaesthetist to the Sussex County Hospital, Brighton.

CLARK, J., M.D.Edin., Medical Officer of Health, Cleator Moor Urban District.

COXON, Stephen A. T., L.D.S., R.C.S.I., Honorary Dental Surgeon to the West Norfolk and Lynn Hospital.

CURTIS, G. W., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Great Ouseburn Union.

EVANS, R. J., M.R.C.S., L.R.C.P., District Medical Officer of the Pwllheli Union.

FAIRBANK, H. A. T., M.S.Lond., F.R.C.S.Eng., Assistant Surgeon to the Hospital for Sick Children, Great Ormond Street.

FALCONER, Francis W., M.B., Ch.B.Aberd., L.M.Rot.Hos.Dub., Junior House-Surgeon of the Blackburn and East Lancashire Infirmary.

FINCH, G., M.R.C.S., L.R.C.P., Junior House Surgeon at the Radcliffe Infirmary, Oxford.

FLETCROFT, Thos. E., L.R.C.P.Eng., L.R.C.S.Eng., L.F.P.S.Glasg., Medical Officer to the Newcastle Dispensary.

GRIFFITHS, E. R., M.R.C.S., L.R.C.P., Resident Assistant Medical Superintendent of the Infirmary, and Assistant Medical Officer of the Workhouse of the Lewisham Union.

HALL, I. Walker, M.D., Professor of Pathology at the University College, Bristol.

HAMILTON, A., L.R.C.P. and S.Edin., Certifying Factory Surgeon for the Ashton-under Lyne District, co. Lancaster.

LEES, Harold C., M.B., B.S.Lond., Senior House-Surgeon of the Blackburn and East Lancashire Infirmary.

MACILWAINE, J. E., M.D., R.U.I., B.Ch., Certifying Factory Surgeon for the North Belfast District, cos. Antrim and Down.

MAITLAND, Lytton, M.B., B.S.Lond., House Surgeon to the Great Yarmouth General Hospital.

MALLAM, Ernest, M.D.Oxon,, M.Ch., Certifying Factory Surgeon for the Oxford District, cos. Oxford and Berks.

MASKELL, John William, M.R.C.S.Eng., L.R.C.P.Lond., Honorary Medical Officer to the Chorley Dispensary and Rawcliffe Hospital.

MULLIGAN, E., L.R.C.P. and S.Irel., Certifying Factory Surgeon for the Foxford District, co. Mayo.

POLLARD, G. S., L.R.C.P.Edin., M.R.C.S.Eng., District Medical Officer of the Clutton Union.

PURDON, E. B., M.B., C.M.Edin., Certifying Factory Surgeon for the South Belfast District, cos. Antrim and Down.

READ, W. W., M.R.C.S., L.R.C.P.Lond., Resident Assistant Medical Officer, Shoreditch Parish Infirmary.

RISIEN, E. Russell, L.S.A., Certifying Factory Surgeon for the East Ilsley District., co. Berks.

ROBINSON, H. J., M.R.C.S., L.R.C.P.Lond., Medical Officer of Health, Burnley Rural District.

SHEPPARD, A. L., M.B., B.S.Durh., Senior House-Physician, Bristol Royal Infirmary.

THOMSON, M. E., L.R.C.P.Edin., L.R.C.P.I., District Medical Officer of the Reeth Union.

TURNER, Robert, M.A., M.D., C.M.Aberd., F.R.C.S.Edin., Honorary Surgeon, Bootle Borough Hospital, Liverpool.

WALLER, Alfred W., M.R.C.S., D.P.H., Honorary Surgeon to Stroud General Hospital.

WARREN, W. P., L.R.C.P. and S.Edin., District Medical Officer of the Edmonton Union.

WOODHOUSE, Cecil, M.D., B.C.Cantab., Clinical Assistant to the Chelsea Hospital for Women.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 8s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

CAZALET.—On March 1st, at Sutton, Surrey, the wife of Grenville Wm. Cazalet, L.R.C.P.Lond., M.R.C.S.Eng., of a son.

MASTERMAN.—On February 18th, at Jerusalem, the wife of E. W. G. Masterman, F.R.C.S., D.P.H.Cantab., of a daughter.

MARRIAGES.

CLARKE—ADAMS.—At St. George's Church, Agra, on February 15th, 1906, by the Rev. W. Lorimer W. Kitching, M.A., Chaplain of Agra, Captain J. B. Clarke, Royal Army Medical Corps, to Violet Grace Seymour Adams, M.B., C.M.Edin.

SULLY—KING.—On February 24th, at the Parish Church of St. Mary, Acton, by Rev. F. O. Sutton, assisted by Rev. J. N. Blackman, Albert Max Sully, M.R.C.S., of Claygate, Surrey, to Adeline, daughter of the late Robert King, J.P., of Durban, South Africa. At home, Parkhurst, Claygate, after April 3rd, 1906.

THOMAS—OWEN.—On February 27th, at Llangeinor Parish Church, by the Rev. W. Edwards, Vicar of Llandyfodwg, assisted by the Rev. J. Jones, Vicar of Llangeinor, and the Rev. S. Jackson, Vicar of Llangynwyd, G. M. A. Thomas, L.R.C.P., L.R.C.S.Edin., eldest son of the late Dr. W. H. Thomas, Maesteg, to Katie, only daughter of Mr. J. Owen, The Villa, Nantymoel. No cards.

DIARY FOR NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Papers: Dr. H. A. Caley: Some Clinical Features of the Several Types of Colitis; Dr. J. J. Perkins: Syphilis in Medical Practice.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Erasmus Wilson Lecture—Mr. James Sherren: The Distribution and Recovery of Peripheral Nerves studied from Instances of Division in Man.

TUESDAY.

CHELSEA CLINICAL SOCIETY, Chelsea Dispensary, Mann Street, King's Road, S.W., 8.30 p.m.—Annual Clinical Debate, subject: Serum therapy; selected speakers: Professors R. T. Hewlett, Sims Woodhead, and Dr. A. E. Wright.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—First Goulstonian Lecture—Dr. H. Batty Shaw: Autointoxication.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W., 8.30 p.m.—Mr. A. W. Ormond: Notes on 100 cases of Intracranial Tumour, with Special Reference to the Ocular Symptoms; Dr. P. J. Cammidge: An Improved Method of Performing the "Pancreatic" Reaction in the Urine.

WEDNESDAY.

DERMATOLOGICAL SOCIETY OF LONDON, 11, Chandos Street, 5.15 p.m.—Cases and Specimens.

HUNTERIAN SOCIETY.—Clinical Meeting at Guy's Hospital: Cases on view at 3.30.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Erasmus Wilson Lecture (continued).

THURSDAY.

ROYAL COLLEGE OF PHYSICIANS, Pall Mall East, S.W., 5 p.m.—Second Goulstonian Lecture—Dr. H. Batty Shaw: Autointoxication.

MEDICAL SOCIETY'S ROOMS, 8.30 p.m.—Demonstration by Dr. Charlton Bastian, F.R.S., of Some Heterogenetic Processes.

FRIDAY.

EPIDEMIOLOGICAL SOCIETY, 11, Chandos Street, Cavendish Square, 8.30 p.m.—Paper:—Dr. J. C. T. Nash: Evolution in Relation to Disease.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Erasmus Wilson Lecture (continued).

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN, 11, Chandos Street, W., 5.30 p.m.—Cases and Specimens will be shown by Drs. W. Ewart, C. O. Hawthorne, E. Pritchard, F. J. Poynton, K. R. Hay, Mr. Douglas Drew, Mr. Hugh Lett, and others.

POST-GRADUATE COURSES AND LECTURES.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m., Mitral Stenosis.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Thursday, 4 p.m., Pharyngeal Abscesses.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear. Lectures at 5.15 p.m. each day will be given as follows: Monday, Errors of Refraction; their Diagnosis and Treatment: Tuesday, Errors of Digestion in Relation to Disease: Wednesday, The Cerebro-Spinal Fluid, and its Diagnostic Importance; Thursday, Therapeutical Applications of Adrenalin and Allied Bodies.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Central Out-Patient Department, 7, Fitzroy Square, W.).—Thursday, 5 p.m. The Pathology and Treatment of Mitral Disease.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Hydrocephalus; Friday, 3.30 p.m., Acute Infection of Brain and Membranes.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N.—The following are the arrangements for next week at 4.30 p.m. each day: Tuesday, Lecture on Diseases of the Testis; Thursday, Infant Feeding, with special reference to the production of Rickets.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W., Thursday, 3 p.m.—The After-treatment of Gynaecological Operations.

UNIVERSITY COLLEGE HOSPITAL, Gower Street, W.C.—Wednesday, at 4 p.m., Clinical Lecture on Some Forms of Surgical Tuberculosis in Children.

WEST LONDON HOSPITAL POST-GRADUATE COLLEGE, Hammersmith Road, W.—The following are the lectures and demonstrations arranged for next week: Monday, 12 p.m., Pathological Demonstration; 5 p.m., The Medical Profession in relation to Industrial Disease and the Factory Act; Tuesday, 3 p.m., Medical Demonstration; 5 p.m., Middle-ear Suppuration and its Treatment, with lantern slides; Wednesday, 5 p.m., Gynaecology; Thursday, 4 p.m., Surgical Demonstration; 5 p.m., Constipation from a Surgical Point of View; Friday, 5 p.m., Middle-ear Suppuration and its Treatment (lantern slides): Saturday, 2 p.m., Medical Demonstration; daily at 2 p.m., Medical and Surgical Clinics.

WESTMINSTER HOSPITAL, Thursday, 5 p.m.—Extra lecture in the course of Applied Physiology,

BOOKS, ETC., RECEIVED.

The Gardening Year Book and Garden Oracle, 1906. By G. Gordon, V.M.H. Forty-eighth year. London: "Gardener's Magazine" Office. 1s.

Evolution, The Master Key. By C. W. Saleeby, M.D. London and New York: Harper and Bros. 1906. 7s. 6d.

The Hospital Formulary of the Department of Public Charities and the Department of Bellevue and Allied Hospitals of the City of New York. Sixth edition. Edited by W. E. Dreyfus, A.B., Ph.D. New York: General Medical Superintendent, Bellvue and Allied Hospitals. 1903.

The Chemistry of the Proteids. By G. Mann, M.D., B.Sc. London: Macmillan and Co. 1906. 15s.

Sul trattamento chirurgico delle nefriti mediche. Por il Dott. G. Quattro-Ciocchi. Milano-Roma: Albrighi, Segati and Co. 1906. L. 5.

An Essay on the Treatment and Cure of Pulmonary Consumption. By G. Bodington, A.D. 1840. Reprinted and prefaced by Dr. A. E. Bodington. London: Simpkin, Marshall, Hamilton, Kent and Co. 1906.

Gynaecological Diagnosis. By A. E. Giles, M.D., B.Sc., F.R.C.S., M.R.C.P. London: Baillière, Tindall and Cox. 1906. 7s. 6d.

A Textbook of Pharmacology and Therapeutics, or the Action of Drugs in Health and Disease. By A. R. Cushny, M.A., M.D. Fourth edition. London: Rebman Ltd. 17s. 6d.

Patents to Inventors. By A. H. Stanley. London: P. Marshall and Co. 1906. 3d.

Notes on Surgery for Nurses. By J. Bell, M.D., F.R.C.S. Sixth edition. Edinburgh: Oliver and Boyd; and London: Simpkin, Marshall and Co. 1906. 2s. 6d.

Rome: A Practical Guide to Rome and Its Environs. By E. Reynolds-Ball, B.A., F.R.G.S. London: A. and C. Black. 1906. 2s. 6d.

Lectures to Teachers on the Prevention of Infectious Diseases. By W. Berry, F.R.C.S.I., D.P.H. Bristol: J. Wright and Co. 1906. 6d.

Die Topographie des Lymphgefässapparates des Kopfes und des Halses in ihrer Bedeutung für die Chirurgie. Von Dr. A. Most. Berlin: A. Hirschwald. 1906. M. 9.

Die Behandlung der Krankheiten der Nase und des Nasenrachens. Von Professor Dr. A. Ónodi and Professor Dr. A. Rosenberg. Berlin: Oscar Coblenz. 1906. M. 8.50.

Les Accidents du Travail. Par le Dr. Ch. Vibert. Paris: J. B. Baillière et Fils. 1906. Fr. 10.

En guérit-on? Par le Professor A. Fournier. Paris: Ch. Delagrave. 1906. Fr. 1.

U. S. Department of Agriculture. Twenty-first Annual Report of the Bureau of Animal Industry for the Year 1904. Washington: Government Printing Office. 1905.

Notable Scottish Trials. Trial of Dr. Pritchard. Edited by W. Roughhead. London: Sweet and Maxwell, Ltd. 5s.

A Time of Terror. The Story of a Great Revenge (A.D. 1910). London: Greening and Co., Ltd. 1906. 6s.

The Orthoscript, or Combined Writing and Spelling Book. Parts 1 and 5. London: Allman and Son, Ltd. 1906. 2d. each part.

Physician's Edition. Photographic Atlas of the Diseases of the Skin. In 4 volumes. By G. H. Fox, A.M., M.D. Vol. IV. Philadelphia and London: J. B. Lippincott Co. 25s. per vol.

Gedenkschrift für den verstorbenen Generalstabsarzt der Armee, Leibarzt seiner Majestät des Kaisers und Königs, etc. Dr. Rudolph v. Leuthold. Herausgegeben zum 15 Februar, 1906, von O. Schjerning. Bands I and II. Berlin: August Hirschwald. 1906.

The Alcohol Problem in its Biological Aspect. By T. N. Kelynack, M.D., M.R.C.P. London: R. J. James. 1906. 2s.

Die erste Hilfe in einer zuckünftigen Schlacht. Eine Skizze von Prof. Dr. H. Fischer. Berlin: August Hirschwald. 1906.

The Cornish Riviera. How to go there and What to see. New edition. London: G.W.R. Co. 1905. 3d.

The Transactions of the Society of Anaesthetists. Vol. VII. 1903-4 and 1904-5. London: J. Bale, Sons and Danielsson, Ltd. 1905.

Clinical Applied Anatomy. By C. R. Box, M.D., B.S., etc., and W. McAdam Eccles, M.S., F.R.C.S. London: J. and A. Churchill. 1906. 12s. 6d.

Die Phocomelie und ihre Mebergänge. Von R. Krueger. Berlin: A. Hirschwald. 1906. M.3.60.

Nervenleiden und Nervenschmerzen. Von Dr. med. O. Naegeli. Dritte Auflage. Jena: Gustav Fischer. 1906. M.2.

The Physical Examination of Infants and Young Children. By T. W. Kilmer, M.D. Philadelphia: F. A. Davis Co. 1906. 75 cents.

Nasal Sinus Surgery. By B. Douglas, M.D. Philadelphia: F. A. Davis Co. 1906. 2.50 dols.

A Laboratory Manual of Physiological Chemistry. By E. W. Rockwood, M.D., Ph.D. Second Edition. Philadelphia: F. A. Davis Co. 1906. 1 dol.

Christianity and Sex Problems. By H. Northcote, M.A. Philadelphia: F. A. Davis Co. 1906. 2 dols.

Small-pox: Its Dissemination and Prevention. By F. J. Stevens, M.A., M.D., M.R.C.S., D.P.H. London: Henry Frowde. 1906. 2s. 6d.

The Operating Room and the Patient. By R. S. Fowler, M.D. London and Philadelphia: W. B. Saunders Co. 1906. 10s.

Reference Handbook of the Diseases of Children. By Prof. Dr. F. Frühwald. Edited by T. S. Westcott, M.D. London and Philadelphia: W. B. Saunders and Co. 1906. 18s.

Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India. (New Series.) No. 21. On the Standardization of Antityphoid Vaccine. By Captain G. Lamb, M.D., I.M.S., and Captain W. B. C. Forster, M.B., D.P.H., I.M.S. Calcutta: Office of the Superintendent of Government Printing, India. 1905. 7d.

Diseases of the Rectum. By F. V. Milward, M.B., B.C. Birmingham: Cornish Brothers, Ltd. 1906. 5s.

Practice of Medicine. By H. Dayton, M.D. The Medical Epitome Series, edited by V. C. Pedersen, A.M., M.D. London: Hodder and Stoughton. 4s.

Vorlesungen über Magen- und Darmkrankheiten. Von Hofrat Dr. F. Crämer. 2 Heft. Darmatonie (Dyspepsia nervosa-Dyspepsia intestinalis flatulenta.) München: J. F. Lehmann. 1906. M.4.50.

Jubiläumsschrift zum 50 Jährigen gedinken der Begründung der lokalistischen Lehre Max von Pettenkofer's. 1 Band. Die Entstehungsursachen der Gelsenkirchener Typhusepidemie von 1901. Von Dr. R. Emmerich and Dr. F. Walter: München: J. F. Lehmann. 1906. M.20.

Das Schielen, Ursachen, Folgen, Behandlung. Von Prof. Dr. W. Schoen. München: J. F. Lehmann. 1906. M.6.

Die Orthodiagraphie. Von Dr. K. Francke. München: J. T. Lehmann. 1906. M.4.

Traité d'Hygiène. Publié en fascicules sous la direction de MM. P. Brouardel et E. Mosney. IV. Hygiène Alimentaire. Par J. Rouget et Ch. Dopter. Paris: J. B. Baillière et Fils. 1906. F. 6.

Nouveau Traité de Médecine et de Thérapeutique. Publié en Fascicules sous la direction de MM. P. Brouardel et A. Gilbert. VII. Maladies Vénériennes. Par F. Balzar. Paris: J. B. Baillière et Fils. 1906. Fr. 6.

Uric Acid. The Chemistry, Physiology, and Pathology of Uric Acid and the Physiologically Important Purin Bodies. By F. H. McCrudden. New York: P. B. Hoeber. 2.50 dol.

The Origin of Life. Its Physical Basis and Definition. By J. B. Burke. London: Chapman and Hall, Ltd. 1906. 16s.

Reports of the Commission appointed by the Admiralty, the War Office, and the Civil Government of Malta, for the Investigation of Mediterranean Fever, under the Supervision of an Advisory Committee of the Royal Society. Part IV. London: Harrison and Sons. 1906. 3s. 6d.

Examination Questions for the Diploma of Public Health. By H. R. Jones, M.A., M.D., D.P.H. London: Baillière, Tindall and Cox. 1906. 2s. 6d.

Colour in Mourning; or, A Plea for the Abolition of Black at Death. By J. S. Hooker, M.D. London: The Paternoster Publishing Society. 1s. 6d.

The Treatment of Gonorrhoea in the Male. By C. Leedham-Green, M.B., F.R.C.S. London: Baillière, Tindall, and Cox. 1906. 5s.

Maladies caused by the Air we Breathe Inside and Outside the Home. By T. Oliver, M.A., M.D., LL.D., F.R.C.P., the Harben Lectures, 1905. London: Baillière, Tindall, and Cox. 1906. 3s. 6d.

Third Treatise on the Effects of Borax and Boric Acid on the Human System. By Dr. O. Liebreich. Translated from German. London: J. and A. Churchill. 1906. 5s.

Physical Efficiency. By J. Cantlie, M.A., M.B., D.P.H. London and New York: G. P. Putnam's Sons. 1906. 3s. 6d.

Hints on the Cure of Stammering. By One who has Suffered. Edinburgh: Andrew Elliot. 6d.

Diagnostic des Maladies simulées dans les Accidents du Travail. Par le Dr. P. Chairgny. Paris: J. B. Baillière et Fils. 1906. Fr. 10.

A Textbook on Plague. II. By Dr. T. Ishigami and Prof. S. Kitasato. Translated by D. MacDonald, M.B., C.M. Adelaide: W. Ramsay. 1905. 1 guinea.

Surgical Aspects of Digestive Disorders. By J. G. Mumford, M.D., and A. K. Stone, M.D. New York and London: Macmillan. 1905. 10s. 6d.

⁂ In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

MARCH.

Date.	Meetings to be Held.
11 Sunday	
12 MONDAY	
13 TUESDAY	
14 WEDNESDAY	Central Council, 2 p.m.
15 THURSDAY	Cardiff Division, *South Wales and Monmouthshire Branch.* (Postponed). Croydon Division, *South-Eastern Branch*, Greyhound Hotel, Croydon, 4 p.m.; Dinner, 6 p.m. Leigh Division, *Lancashire and Cheshire Branch*, Co-operative Offices, 8.30 p.m.
16 FRIDAY	London: Metropolitan Branch Committee, 4.30 p.m.
17 SATURDAY	
18 Sunday	
19 MONDAY	
20 TUESDAY	London: Metropolitan Branch Council, 5 p.m.
21 WEDNESDAY	
22 THURSDAY	Liverpool and Birkenhead Divisions, *Lancashire and Cheshire Branch*, Combined Dinner, 8 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Wandsworth Infirmary, 8.45 p.m.
23 FRIDAY	St. Pancras and Islington Division, *Metropolitan Counties Branch*, Royal Free Hospital, 4 p.m.
24 SATURDAY	Northern Counties of Scotland Branch, Northern Infirmary, Inverness.
25 Sunday	
26 MONDAY	
27 TUESDAY	City Division, *Metropolitan Counties Branch*, Conjoint Meeting with Walthamstow Division, Walthamstow Hospital, 4 p.m.
28 WEDNESDAY	Bath and Bristol Branch, Bristol.

MARCH *(continued)*.

Date.	Meetings to be Held.
29 THURSDAY	
30 FRIDAY	Guildford Division, *South-Eastern Branch*, Royal Surrey County Hospital, Guildford, 4.30 p.m.
31 SATURDAY	

APRIL.

Date.	Meetings to be Held.
1 Sunday	
2 MONDAY	
3 TUESDAY	
4 WEDNESDAY	London: Journal and Finance Committee, 2.30 p.m.
5 THURSDAY	East Anglian Branch, King's Lynn. Swansea Division, *South Wales and Monmouthshire Branch*, General Hospital, Swansea, 3 p.m.
6 FRIDAY	London: Ethical Committee, 2 p.m. Hampstead Division, *Metropolitan Counties Branch.* North Cumberland Division, *Border Counties Branch*, Penrith.
7 SATURDAY	
8 Sunday	
9 MONDAY	
10 TUESDAY	
11 WEDNESDAY	
12 THURSDAY	
13 FRIDAY	*Good Friday.*
14 SATURDAY	
15 Sunday	
16 MONDAY	*Bank Holiday.*
17 TUESDAY	
18 WEDNESDAY	Central Council, 2 p.m.
19 THURSDAY	City Division, *Metropolitan Counties Branch*, Conjoint Meeting with Tottenham Division, Brooke House, Upper Clapton, 8.30 p.m.

MEMBERSHIP OF THE BRITISH MEDICAL ASSOCIATION.

The British Medical Association exists for the promotion of medical and the allied sciences, and the maintenance of the honour and the interests of the medical profession.

The Annual Subscription to the British Medical Association is £1 5s. 0d., and the British Medical Journal is supplied weekly, post free, to every member of the British Medical Association wherever he may reside.

Forms of application for membership can be obtained from the General Secretary, 429, Strand, London, W.C.

The principal rules governing the election of a medical practitioner to be a member of the British Medical Association are as follow:

Article III.—Any Medical Practitioner registered in the United Kingdom under the Medical Acts and any Medical Practitioner residing within the area of any Branch of the Association situate in any part of the British Empire other than the United Kingdom, who is so registered or possesses such medical qualifications as shall, subject to the Regulations, be prescribed by the Rules of the said Branch, shall be eligible as a Member of the Association. The mode and conditions of election to Membership shall from time to time be determined by or in accordance with the By-laws. Every Member, whether one of the existing Members or a subsequently-elected Member, shall remain a Member until he ceases to be a Member in accordance with the provisions hereof.

By-law 1.—Every Candidate for Membership of the Association shall apply for election in writing, addressed to the Association, and stating his agreement, if elected, to abide by the Regulations and By-laws of the Association, and the Rules of such Division and Branch to which he may at any time belong, and to pay his subscription for the current year.

By-law 2.—Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the General Secretary of the Association, and to every Member of the Branch Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a member of the Association by the Branch Council at any meeting thereof held not less than seven days (or such longer period as the Branch may by its Rules prescribe) after the date of the said Notice. A Branch may by special Resolution require that each candidate for election to the Association shall furnish a certificate from two Members of the Association to whom he is personally known. Officers of the Navy, Army, and Indian Medical Services on the Active List are eligible for election through the Council or a Branch without approving signatures as laid down in By-law 3.

By-law 3.—Every candidate whose place of residence is not included in the area of any Branch shall forward his Application to the General Secretary of the Association, together with a statement signed by three members of the Association, that from personal knowledge they consider him a suitable person for election. Notice of the proposed election shall be sent by the General Secretary to every Member of the Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a Member of the Association by the Council at any meeting thereof held not less than one month after the date of the said notice.

The annual subscription to the British Medical Journal for non-members is £1 8s. 0d. for the United Kingdom and £1 12s. 6d. for abroad.

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MARCH 17TH, 1906.

CONTENTS.

PAGE
ATTERS REFERRED TO DIVISIONS:
General Medical Council... 101
EETINGS OF BRANCHES AND DIVISIONS:
Birmingham Branch: Coventry Division 102
South Midland Branch; Aylesbury Division 103
Yorkshire Branch.—Special Meeting 103
HE SEVENTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, TORONTO 103
SSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD 104
HE REGISTRATION OF NURSES: DEPUTATION TO THE LORD PRESIDENT 104

PAGE
ROYAL COMMISSION ON THE CARE AND CONTROL OF THE FEEBLE-MINDED AND EPILEPTIC 105
NAVAL AND MILITARY APPOINTMENTS 105
VITAL STATISTICS 106
VACANCIES AND APPOINTMENTS... 106
BIRTHS, MARRIAGES, AND DEATHS 107
DIARY OF THE WEEK 107
BOOKS, ETC., RECEIVED... 107
CALENDAR 108

GENERAL MEDICAL COUNCIL.

ELECTION OF DIRECT REPRESENTATIVES FOR ENGLAND AND WALES, NOVEMBER, 1906.

Candidates Nominated by Divisions for Selection by the Representative Meeting on behalf of the Association.

HE following members of the Association have been nominated by the Divisions named to be candidates r election, and have accepted nomination in accordance with the terms of the scheme published in the PPLEMENT of the BRITISH MEDICAL JOURNAL for October 7th, 1905:

Name.	*Address.*	*Nominating Division or Divisions.*
OWNE, HENRY LANGLEY, M.D. ... ... (Chairman of Council of the Association.)	Moor House, West Bromwich	CENTRAL BIRMINGHAM. CITY (LONDON). SWANSEA.
LLAR, JOHN FOLLETT, M.B.... ... ... (Member of Branch Council, Southern Branch.)	7, Carlton Crescent, Southampton	WINCHESTER.
ARK, ANDREW, F.R.C.S. ... ... (Member and late Chairman of Central Council, and President of the Metropolitan Counties Branch.)	71, Harley Street, W.	CITY (LONDON). ST. PANCRAS AND ISLINGTON.
CKSON, GEORGE, F.R.C.S. ... ... (President of the South-Western Branch, and Member of the Medico-Political Committee.)	10, Portland Villas, Plymouth	GATESHEAD. PLYMOUTH.
TIMER, HENRY ARTHUR, M.D. ... ... hairman and Representative of Swansea Division, Member of Medico-Political Committee.)	4, Belvoir Place, Swansea.	SWANSEA.
RISON, JAMES RUTHERFORD, F.R.C.S. ... (Member of Branch Council and Chairman of Northumberland Committee, North of England Branch.)	14, Saville Row, Newcastle-on-Tyne	CONSETT. GATESHEAD. NEWCASTLE-ON-TYNE
ODES, JOHN MILSON, M.D. ... ... (Chairman of South Manchester Division, Lancashire and Cheshire Branch.)	Ivy Lodge, Didsbury, Manchester	MANCHESTER (SOUTH).
ATON, CHARLES ROBERT, F.R.C.S.EDIN.... (Member of Central Council, Medico-Political Committee and Colonial Committee.)	West Lodge, Wilton, Salisbury	WINCHESTER.

As provided by the scheme, nominations can be received until March 31st, and will henceforth be ounced as received.

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BIRMINGHAM BRANCH:

COVENTRY DIVISION.

A SPECIAL meeting of this Division was held on February 15th at the Coventry and Warwickshire Hospital, Dr. MILNER MOORE occupying the chair.

Contract Medical Practice.—Dr. MILNER MOORE introduced a discussion on the report of the Medico-Political Committee of the Association on Contract Practice. He said: The reconstruction of the British Medical Association having now existed for three years, the members have had sufficient experience to enable them to see what benefits they have derived from it. Contrasting the conditions of the profession in Coventry before that era with its present state I am led to form the opinion that there is greater unanimity, more forbearance, and a greater desire to act in an ethical manner to each other, than then. The time seems, therefore, propitious for opening a discussion upon a topic which must interest all medical men in a community such as Coventry, which contains as its principal population thousands of wage earners and others below the middle class, who consider that they ought to have medical attendance and medicine for the smallest sum that they can induce the doctors to provide them. There is no necessity to disguise the fact that circumstances have arisen during the last month which render it incumbent on the members of the profession to make their views upon contract practice of all kinds known to each other, in order that some concerted action may be taken and a clear line of conduct laid down for all members of the Division. I propose this evening, as briefly as I can, to give you a digest of the investigation on contract practice published on July 22nd last, and to ask you to discuss and arrive at some definite conclusion as to what systems are advisable and to be followed, and what are prejudicial to the welfare and honour of the profession. When 12,000 circulars were sent out to practitioners there resulted a variety of opinions as to the utility or otherwise of the inquiry: for while some approved, others considered the inquiries impertinent: but the majority expressed their acquiescence. To these 12,000 circulars, 1,548 replied, 692 of whom were not engaged in any form of contract practice, but yet tendered their experience on the subject: 856 have given their personal experience, and in addition information has been obtained from various medical societies, the Divisions and Branches of the Association, and from the Medical Secretary, who has visited various districts. The term contract practice includes Friendly Societies, works clubs, medical aid societies, provident dispensaries, public medical services, and private clubs, but excludes the public services and private arrangements with individual patients, such as contracting to attend a certain family for a settled sum a year. These may be subdivided into those managed by doctors and those by a lay body; to the former belong public medical services and private clubs, while the latter comprise Friendly Societies, works clubs, medical aid societies, and provident dispensaries. Another difference exists amongst the latter group, for while the Friendly Societies provide other benefits besides medical attendance, the others do not (unless allied to some insurance scheme). Now, broadly, what are the objections to contract practice generally? It must, I suppose, be granted that under existing circumstances some form for providing medicine and attendance on the wage-earning class must be continued, and it should be the aim of those who undertake it to see that the contracts are so made and carried out as not to injure a brother practitioner by unfair competition in underselling, or advertising. It has been asserted by some of those who replied to the queries that the system of rendering medical aid under contract is attended by grave dangers to the character and efficiency of the medical practitioner concerned; inducing in him habits of hasty and careless diagnosis and routine, perfunctory and ineffective treatment, and that these in time so pervade all his practice that he becomes professionally demoralized, and the status and reputation of himself and the profession suffer in consequence. In addition to what I have already said as to objections, it must be granted that the remuneration is inadequate, the beneficiaries are in many instances well-to-do, there is inefficient provision for special services, the terms of contract are unfair, and there is greater inducement for medical practitioners to compete for club appointments, thus giving rise to canvassing and underselling. As contract practice exists, and for the present, apparently, must continue, it behoves the profession to institute such reforms as will minimize, if not altogether abolish, the dangers, and take care that contracts by medical practitioners shall be continued with such safeguards as the profession may devise against acknowledged abuses. Private clubs, although managed by medical men themselves, are prejudicial, because the practitioner is competing against his neighbours, and the rules have to be made under pressure, as it were, while the power of non-medical organizations to impose unsatisfactory conditions on the medical profession increases; moreover, a collector must be employed, and whether or not he be paid by salary, there is the element of canvassing present, no matter how ingeniously it may be veiled. Public medical services are managed by the profession, and in sympathy with the profession in the neighbourhood. A proper wage limit being fixed, only the poorer members of the community are admitted members and any medical man, after a certain term of residence, may join the staff. All the other forms of contract practice are managed by lay members, and the medical staff are the servants, and liable to be dismissed for what may be considered by the managers any dereliction of duty. Friendly Societies, the medical officership of which was at one time thought to be an introduction to practice among the wives and children of its members, have in late years introduced juvenile lodges, and in some cases made clubs for their wives and children. These and provident dispensaries have been found most opposed to reform, and have rejected all interference on the part of the profession. The question whether the professson is to sit down quietly and allow its business to be controlled by a body of tradesmen, who for their own benefit impose on it certain conditions, is a most important one, and must be answered in no uncertain manner. The means of doing this must be by agreement among local members of the profession, with respect to contract practice, through the instrumentality of a Division of the British Medical Association. A rule should be established that all practitioners should be included in the membership, and they should bind themselves to adopt the Bradford rules. Then there must be an agreement on the following matters: rates of remuneration; conditions of admission to attendance under contracts, including provision with respect to the economic position, age, and health of candidates; definition of services to be rendered; tenure of office, and representation of the medical profession in the management. Practitioners should cease to hold private clubs, and the principle of distribution of contract practice among all practitioners in the district who desire to participate should be carried into effect. And organized contract practice, at present under the control of non-medical persons or committees, should gradually be brought under medical control. Works clubs and medical aid societies are likewise unsatisfactory, as they are both managed by non-medical committees and tend, especially in the case of the medical aid societies, to the underselling of other practitioners and of canvassing. Gentlemen, the analysis of this investigation which I have endeavoured to give is not, I am sorry to say, so clear as I could have wished, but I have been rather hurried owing to various circumstances. I hope, however, that it will suffice for the purpose for which it was undertaken. The investigation was most complete and elaborate, and well deserves careful and thoughtful perusal. I ask you therefore first to discuss all the points I have touched upon, and decide upon the wisest course to pursue with regard to all kinds of contract practice, subdividing them as I have endeavoured to do into those which are managed by committees, and those properly controlled by medical men. On page 29 of the report you will find the conclusions and recommendations of the Medico-Political Committee, and I now propose that those recommendations be adopted by that Division. On page 30 you will find the special report on provident dispensaries, and this, on behalf of your Committee, I beg to recommend for your adoption with certain modifications.

The motion was seconded by Dr. CALLAGHAN, discussed by Drs. J. ORTON, PICKUP, RICE, KENDRICK, and others, and carried unanimously.

Provident Dispensaries.—Dr. MOORE proposed, on behalf of the Committee of the Division, the adoption of the special report on provident dispensaries, with certain modifications; these were discussed seriatim, and the whole of the principles and rules were adopted, with the following clauses substituted for those in the SUPPLEMENT, July 22nd, pp. 30 and 31:

(*a*) (4) Inasmuch as the system of provident dispensaries is a form of contract practice, it should be a fundamental principle of their constitution that every medical practitioner in the district for which the dispensary provides, who wishes so to act, and who is not engaged in other contract practice (not including Poor-law or other suchlike appointments) should be a medical officer of the dispensary, provided that he conforms to the rules thereof. Provided always that there shall be a time limit of residence during which a newcomer who does not buy a practice cannot claim to be put on the staff.

(*b*) (2) That Friendly Societies be admitted at 4s. per member per year.

(*b*) (13) That all payments of provident members shall be made at an office provided for the purpose, and visiting collectors shall not be employed except if paid by salary.

(*b*) (16) (*c*) That no member of the staff shall be dismissed except by the vote of three-fourths of the Committee, and likewise by the approval of the Executive Committee of the Division of the British Medical Association.

The following rule was also added:

That no assistant shall be employed for dispensary work except for the temporary absence or illness of the principal.

SOUTH MIDLAND BRANCH:

AYLESBURY DIVISION.

MEETING of this Division was held in the Board-room of the Royal Bucks Hospital on Monday, February 26th, at 30 p.m., Dr. EAGLES in the Chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Hospital Abuse.—The HONORARY SECRETARY explained the attitude of the Board of the Royal Bucks Hospital in respect of the question of hospital abuse, and this was considered satisfactory.

Rules of Central Midwives Board.—It was decided to write to the Medico-Political Committee *re* any alteration rules of Central Midwives Board by the Privy Council, and inform them that this meeting is unanimous in its request for adequate payment for medical men called in assist midwives under the Midwives Act, 1902, and that payment could best be made through the Poor-law authorities.

YORKSHIRE BRANCH.

MEETING of the Yorkshire Branch was held at the Station Hotel, York, on Wednesday, March 7th, Dr. BLACK, President, in the chair.

New Members.—The following gentlemen were elected members of the Association: Drs. and Messrs. Elliston, rgus, Horsfall, Kennedy, McBride, Nesfield, and wley.

SPECIAL MEETING.

Proposed Modification of By-law.—At a special meeting he Branch the following modification of By-law 5 was posed by Dr. SWANSON (York), seconded by Dr. GOYDER adford), and carried:

o Division shall be entitled to more than one representative on the Central Council.

o that:

o cumulative voting for election of Branch members on the Central Council be allowed.

nnual Report and Financial Statement.—The annual ort and financial statement of the Branch were read, the reports of the various Divisions. The membership is about 770. Expenditure, including grants to the ous Divisions, £77 15s. 6d. Balance in hand, December , 1905, £177 18s.

ommunications.—Dr. CHURTON (Leeds) read notes on emarkable heart murmur, illustrated by two cases. . SWANSON, GOYDER, BLACK, and LEE took part in the discussion, and Dr. CHURTON replied.—Dr. CAMPBELL (Bradford) read a paper on some remarks upon diet. He drew attention to the great danger of "faddism" in diet, and to the tendency of the present age to restrict diet to certain kinds of food, irrespective of age, occupation, or habits. He thought it was important that the medical profession should point out to the public the great danger in following out these fads. Drs. PETCH, SWANSON, and GOYDER took part in the discussion.—Mr. MOYNIHAN (Leeds) read notes on operation upon the lower part of the common bile duct, with a series of cases, illustrated by numerous lantern slides.—Mr. JALLAND (York) read notes on a case of removal of one lobe of the thyroid. A large horseshoe-shaped incision was made.

Dinner.—After the meeting fifteen members dined together at the Station Hotel.

THE SEVENTY-FOURTH ANNUAL MEETING

OF THE

British Medical Association,

TORONTO, CANADA,

AUGUST 21ST TO 25TH, 1906.

THE ATLANTIC PASSAGE.

THE DOMINION AND OTHER LINES.

THE White Star Line informs us that members proposing to attend the annual meeting of the British Medical Association at Toronto who take return tickets by the Dominion Line will have the option of returning by that line or from New York or Boston by any one of the following: American Line (New York to Plymouth and Southampton), Atlantic Transport (New York to London), Leyland Line (Boston to Liverpool), Red Star Line (New York to Dover). In addition to this, passengers with return tickets travelling to Canada via New York and Boston by any of the above lines can, if desired, return from Canada by the Dominion Line. A discount of 10 per cent. on the homeward portion will be allowed on return tickets issued on payment of the combined outward and homeward journey.

The following list shows dates of sailing by ships of the various lines referred to, with first-class passage for the single journey. Further particulars can be obtained on application to the Passenger Department, White Star Line, 1, Cockspur Street, London, S.W.

AMERICAN LINE.

Southampton to New York.

			From
July 28th	*Philadelphia*	10,786 tons	£18 0 0
Aug. 4th	*St. Paul*	11,629 ,,	£18 0 0
,, 11th	*New York*	10,798 ,,	£18 0 0
,, 18th	*St. Louis*	11,629 ,,	£18 0 0

New York to Southampton.

Sept. 1st	*St. Louis*	11,629 tons	£18 0 0
,, 8th	*Philadelphia*	10,786 ,,	£18 0 0
,, 15th	*St. Paul*	11,629 ,,	£18 0 0
,, 22nd	*New York*	10,798 ,,	£18 0 0

ATLANTIC TRANSPORT LINE.

London to New York.

			From
July 28th	*Mesaba*	6,833 tons	£16 0 0
Aug. 4th	*Minneapolis*	13,401 ,,	£16 0 0
,, 11th	*Minnehaha*	13,403 ,,	£16 0 0

New York to London.

Sept. 1st	*Minnetonka*	13,398 tons	£16 0 0
,, 8th	*Mesaba*	6,833 ,,	£16 0 0
,, 15th	*Minneapolis*	13,401 ,,	£16 0 0

LEYLAND LINE.

Liverpool to Boston.

			From
July 28th	*Devonian*	10,418 tons	£14 0 0
Aug. 4th	*Bohemian*	10,300 ,,	£14 0 0
,, 11th	*Canadian*	9,301 ,,	£14 0 0

Boston to Liverpool.

Aug. 29th	*Canadian*	9,301 tons	£14 0 0
Sept. 5th	*Winifredian*	10,405 ,,	£14 0 0
,, 12th	*Cestrian*	8,823 ,,	£14 0 0
,, 19th	*Devonian*	10,418 ,,	£14 0 0

RED STAR LINE.

The first-class fare by this line from Dover to New York is from £16.

White Star Line.

			From
	Liverpool to New York.		From
July 27th	*Celtic*	21,000 tons	£19 0 0
Aug. 1st	*Oceanic*	17,300 ,,	£21 0 0
,, 8th	*Teutonic*	10,000 ,,	£18 0 0
,, 10th	*Cedric*	21,000 ,,	£19 0 0
,, 15th	*Baltic*	24,000 ,,	£19 0 0
	Liverpool to Boston.		From
July 20th	*Arabic*	15,800 tons	£16 0 0
Aug. 3rd	*Republic*	15,400 ,,	£16 0 0
,, 10th	*Cymric*	13,100 ,,	£14 0 0
	New York to Liverpool.		From
Aug. 29th	*Baltic*	24,000 tons	£19 0 0
Sept. 5th	*Majestic*	10,000 ,,	£18 0 0
,, 7th	*Celtic*	21,000 ,,	£19 0 0
,, 12th	*Oceanic*	17,300 ,,	£21 0 0
,, 19th	*Teutonic*	10,000 ,,	£18 0 0
,, 21st	*Cedric*	21,000 ,,	£19 0 0
,, 26th	*Baltic*	24,000 ,,	£19 0 0
	Boston to Liverpool.		From
Aug. 30th	*Arabic*	15,800 tons	£16 0 0
Sept. 13th	*Republic*	15,400 ,,	£16 0 0
,, 20th	*Cymric*	13,100 ,,	£14 0 0

☞ ***To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.***

Association Notices.

BRANCH AND DIVISION MEETINGS TO BE HELD.

Birmingham Branch.—The annual meeting of the Birmingham Branch will be held at the Medical Institute on Thursday, June 14th, at 3.30 p.m., and nominations for offices should reach the Honorary Secretary not later than May 23rd.—T. Sydney Short, Honorary Secretary, 35, Newhall Street, Birmingham.

Border Counties Branch: North Cumberland Division.—A meeting of the North Cumberland Division of the Border Counties Branch will be held at Penrith on Friday, April 6th. The Honorary Secretary will be pleased to hear from members who wish to read papers, show cases or pathological specimens.—Norman Maclaren, Honorary Secretary, 23, Portland Square, Carlisle.

East Anglian Branch *(Preliminary Announcement).*—The spring meeting of the East Anglian Branch will be held at King's Lynn on Thursday, April 5th. Members wishing to show cases or specimens or read papers should communicate at once with Dr. Gardiner, Tuesday Market Place, King's Lynn.—B. H. Nicholson, General Secretary of Branch, East Lodge, Colchester.

Lancashire and Cheshire Branch: Liverpool and Birkenhead Divisions.—It is proposed to hold a combined dinner on March 22nd, at 8 p.m., when an address upon the advantages of medical organization to the community at large, and the public duty thereby devolving upon members of the profession, will be given by Mr. J. Smith Whitaker, the Medical Secretary of the Association. The price of tickets is 5s. each, exclusive of wine, and the dinner will be open to all members of the profession. Applications are requested to be sent to the Honorary Secretary, Dinner Committee, Medical Institution, Liverpool.—James Barr, President of the Branch, Arthur W. German, Honorary Secretary, Dinner Committee, Liverpool.

Metropolitan Counties Branch: Walthamstow and City Divisions.—A conjoint meeting of these Divisions will be held at the Walthamstow Hospital, Walthamstow, on Tuesday, March 27th, at 4 p.m. Dr. Mitchell Bruce will read a paper on the Natural History of Tuberculosis.—Herbert Alexander, Honorary Secretary, Walthamstow Division; E. W. Goodall, Honorary Secretary, City Division.

Northern Counties of Scotland Branch.—A clinical meeting of the Branch will be held at the Northern Infirmary, Inverness, on Saturday, March 24th. Particulars will be sent to members by circular later. Members desirous of exhibiting specimens, or reading notes of cases are requested to communicate at once with the Secretary.—J. Munro Moir, M.D., Honorary Secretary, Ardross Terrace, Inverness.

South-Eastern Branch: Canterbury and Faversham Division.—The next meeting will be held at Sittingbourne on Thursday, March 22nd, at 3 p.m., Dr. Wm. Gosse presiding. The Chairman invites members to lunch at Westdene, London Road, at 1.45 p.m., and will be glad if those accepting will write to him not later than Tuesday, March 20th. Agenda: Clinical Meeting—Dr. T. Colcott Fox, Physician to the Skin Department, Westminster Hospital, will give a clinical demonstration on Skin Cases at Dr. Gosse's Surgery, 113, High Street, where members will kindly ask their patients to attend at 2.45 p.m. Medico-Political Meeting: At the termination of the clinical meeting a Medico-Political Meeting will be held at 1a, Crescent Street—(1) To read minutes of last meeting; (2) time and place of next meeting; (3) Nurses' Registration Report (vide Supplement, March 3rd, 1906; also papers sent by Honorary Secretary); (4) Hospital Out-patient Department (vide Supplement, February 17th, 1906): "That there should be no out-patient departments in hospitals except for consultations and casualties, and that this opinion specially applies to hospitals whose staff are general practitioners"; (5) to consider a communication from the Central Ethical Committee in reference to a resolution passed by the Ethical Committee of the Canterbury and Faversham Division (Herne Bay case); (6) the President of the South-Eastern Branch, Dr. Whitehead Reid, will probably have something to communicate with reference to police emergency fees; (7) any other business. It is hoped that members will bring up as many interesting skin cases as they can to the meeting, and kindly send the Honorary Secretary a few particulars of each one to facilitate matters and for Dr. Colcott Fox's use.—A. R. Henchley, Honorary Secretary and Treasurer, 1, London Road, Canterbury.

South-Eastern Branch: Guildford Division.—The next meeting of this Division will be held at the Royal Surrey County Hospital, Guildford, on Friday, March 30th, at 4.30 p.m., the Chairman of the Division, Dr. J. P. A. Gabb, in the chair. Agenda: (1) Minutes of last meeting. (2) Adjourned discussion *re* contract practice. (3) Other matters referred to Divisions. (4) Mr. C. A Ballance, F.R.C.S., Surgeon to St. Thomas's Hospital and to the National Hospital for the Paralysed and Epileptic, will give an address on The Surgery of Brain Abscess, illustrated by lantern slides. (5) Any other business. Tea will be provided during the meeting. Members desirous of showing cases or specimens are invited to communicate with the Honorary Secretary. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends, and visitors are cordially invited.—E. J. Smyth, Honorary Secretary, Maythorne, Epsom Road, Guildford.

West Somerset Branch.—The spring meeting of this Branch will be held at the Taunton and Somerset Hospital on Tuesday, March 27th, at 3.30 p.m., when the President, Mr. Gordon Henry, will take the chair. Mr. H. T. S. Aveline, Superintendent of the Bath and Somerset Asylum, Cotford, has kindly promised to read a short paper and open a discussion on the Care and Treatment of the Feeble-minded. The Hospitals Committee of the Association also asks for an expression of opinion from the Branch with regard to the following resolution: "That, in the opinion of this meeting, there should be no out-patient departments in hospitals, except for consultations and casualties, and that this opinion specially applies to hospitals whose staff are general practitioners." Will any member wishing to bring any other matter before this meeting kindly give me early notice? Tea will be provided after the meeting.—W. B. Winckworth, Honorary Secretary, Taunton.

Yorkshire Branch: Bradford Division.—A joint meeting of the Division and the Bradford Medico-Chirurgical Society will be held at the Bradford Royal Infirmary on Tuesday, March 20th, at 8 p.m. The meeting will be devoted exclusively to the exhibition of pathological specimens and papers dealing with pathological subjects.—James Metcalfe, Lynthorne Hey, Frizinghall, Bradford, Andrew Little, 114, Manningham Lane, Bradford, Honorary Secretaries.

THE REGISTRATION OF NURSES.

Deputation to the Lord President.

On March 8th a deputation on the registration of nurses waited on the Earl of Crewe, Lord President of the Privy Council. The deputation, which was introduced by Mr. H. J. Tennant, M.P., consisted of Viscount Morpeth, M.P.; Sir John Dickson Poynder, M.P.; Mr. Munro Ferguson, M.P.; Mr. C. Hobhouse, M.P.; Sir James Crichton-Browne; Dr. Bedford Fenwick; Dr. Langley Browne; Lady Helen Munro Ferguson; Mrs. Garrett Fawcett, LL.D.; Miss E. S. Haldane, Chairman Scottish Registration Committee; Mrs. Bedford Fenwick, Honorary President International Council of Nurses; Miss S. F. Hampson, President Irish Nurses' Association; Miss Peter, late General Superintendent Queen Victoria's Jubilee Institute for Nurses; Miss H. L. Pearse, Matron Great Northern Hospital; Miss Mollett, Matron Royal South Hants Hospital, Southampton; Miss

Barton, Matron Chelsea Infirmary; Miss C. Forrest, Matron Victoria Nurses' Institute, Bournemouth; and Miss M. Breay, Honorary Secretary Matrons' Council. We are indebted to the *British Journal of Nursing* for advance proofs of a full report of the proceedings, only a brief summary of which need be given here.

After some introductory remarks by Mr. TENNANT, Sir JAMES CRICHTON-BROWNE, representing the Royal British Nurses' Association, said the time had come when the regulation of the education, supervision, and registration of nurses should be undertaken by the State. Nursing was no longer a domestic affair; it was a fine art, demanding special skill, technical ability, and cultured insight as well as sympathy. Of the possession by a nurse of these qualifications the public had no means of judging; this, registration would afford. The establishment of a State register would be evidence that those whose names were found upon it were properly trained and of good character.

Dr. LANGLEY BROWNE, who was next called upon, said that the large majority of medical men were in favour of a system of registration of nurses. The British Medical Association had twice in annual meeting endorsed this principle, *nemine dissentiente*, and by the wish of the last annual meeting it had been referred to the Divisions, which were now considering the subject in detail. Only one Branch had objected to the decision of the annual meeting on this question. Registration of nurses would be of great advantage to the medical profession. They would be able to ascertain from a State Register that a nurse had had three years' training. The nurses were now a large body, and were entitled to take rank, as the medical profession does, as a self-governing profession. Years ago there were good nurses, but since ladies took up and organized nursing the great improvement which had taken place had been universally acknowledged. At the present time, however, many hospitals maintained different standards. A Central Council was needed to regulate and assimilate the training, and arrange for examinations at its conclusion. One of the duties of the Central Board would be to test the knowledge of candidates for registration. The bare fact of registration, if it did not carry with it this power, would be of very little use. On that body nurses should have the control. It was they who had made their profession what it was, and they ought to have the numerical control when it was formed. They should elect their own representatives. In the case of the election of the direct representatives on the General Medical Council, the necessary expense entailed only amounted to about £500 every five years, so that it was not a costly matter. Personally he would prefer that all members of the Board should be elected by the nurses.

Mrs. GARRETT FAWCETT looked to the influence of a Central Nursing Board to set up higher standards of both professional and general education for nurses, as well as professional standards of honour. The disciplinary effects of the General Medical Council had been good, and she had no doubt the same results would be attained in the case of a General Nursing Council.

Miss M. MOLLETT, Mr. C. HOBHOUSE, M.P., Lady HELEN MUNRO FERGUSON, Dr. BEDFORD FENWICK, and Miss S. E. HAMPSON also spoke.

Lord CREWE, in reply, said it was of national importance hat the efficiency of the nursing profession should be ncreased, and that its members should be of high haracter. The history of the demand for registration howed that it was not seriously suggested that registration of nurses should be compulsory. It was important, if any legislation was to be effected, that there hould be general concurrence between nurses, the medical profession, and the public. From a study of the evidence iven before the Select Committee it was apparent hat while absolute agreement was not reached, there was strong preponderance of opinion in favour of the scheme. There was general agreement that on the Central Body set up under a Registration Act nursing should be represented to a very considerable extent. It was presumable hat such a body would exercise control over the training of nurses. He was not sure that the hospitals would be altogether pleased with this supervision. The Government had a full programme of legislation, and he could ot hold out a hope that they would take the matter up uring the present session. It might, however, be possible to secure discussion of the subject in the House of Commons. Another course remained to be considered, that was the introduction of a Bill into the House of Lords, in which case it would receive the benevolent attention of the Government and full discussion. In any case, it could not be long before the subject occupied the serious attention of Parliament.

ROYAL COMMISSION ON THE CARE AND CONTROL OF THE FEEBLE-MINDED AND EPILEPTIC.

THE Royal Commission on the Care and Control of the Feeble-Minded met on March 2nd to receive further Scottish evidence.

Mr. RICHARD BROWN of Edinburgh described the system under which the Court of Session in Scotland appoints persons to whose care, under the supervision of the Court, is entrusted the management of the estates and interest of persons who are insane or otherwise incapable. Speaking generally, any male person, 21 years of age, in solvent circumstances, and not disqualified by incapacity or interest, could be appointed *curator bonis.* This system had worked smoothly and with satisfaction to all concerned, while it appeared to have sufficient elasticity to cover all ordinary cases. If habitual drunkards or even spendthrifts were certified to the Court as incapable of managing their own affairs, possibly the present law in Scotland might be sufficient to enable the Court to appoint a curator of their estates, and he had no doubt that the system would be found perfectly suitable to all such cases.

Dr. CHARLES MACPHERSON, Deputy Commissioner in Lunacy for Scotland, dissented from the suggestion that all weak-minded people should be consigned to institutions for life, and that by this means a decided increase in the production of defective families would be brought about. In Scotland practically all persons who showed mental defects were under the supervision of the Lunacy Board either in asylums or boarded out, and were so well cared for that risk was reduced to a minimum. Though a large number of defective children were not educable, he believed that many of them could be trained to a small amount of usefulness, to be smarter, tidier, and more obedient, if suitable classes, entirely separate from the other scholars, were provided for them.

Mr. JAMES RUSSELL MOTION, Inspector of Poor in Glasgow, thought the existing provision for the care of imbecile children of an educable character was hardly sufficient. Under the authority of the Local Government Board there should be combinations of parishes for the erection, equipment, and maintenance of training schools for the care of "defectives" and imbeciles. There should be no overlapping authority in connexion with the care and treatment of any class of person within the verge of pauperism. The parish council should enclose within its net the insane, the defective, the vagrant, the tramp, and every one who was disabled by poverty, destitution, mental defect, or otherwise. Labour colonies of quite simple character would be of some use in stopping the flow of epileptics and certain other defectives to asylums if such colonies were not converted into institutions almost as expensive in their equipment and maintenance as lunatic asylums.

Dr. JOHN CARSWELL, Certifying Physician in Lunacy to the Glasgow Parish Council, advocated further powers of compulsory control over the person and property of habitual inebriates, and the extension of such powers to the case of habitual drunkards who were a danger to themselves and others, but might have not committed any police offence or crime. "Habitual drunkards" should include the habitual users of narcotic drugs.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: JOHN A. KEOGH, M.B., Fleet Surgeon, to the *Spartiate*, March 10th; ROBLEY H. J. BROWNE, Fleet Surgeon, to the *Albion*, on recommissioning, April 3rd; EDWARD H. MEADEN, Fleet Surgeon, to the *Illustrious*, on completing, April 3rd; JOHN A. L. CAMPBELL, Staff Surgeon, to the *Repulse*, on recommissioning, March 24th; SAMUEL H. FACEY, Surgeon, to the *Pembroke*, additional, for disposal, April 3rd; DAVID H. VICKERY, Surgeon, to the *Illustrious*, on commissioning, March 24th; Patrick W. M'Vean, M.B., Surgeon, to the *Tyne*, on recommissioning, March 13th.

The notice which appeared in the *London Gazette* of February 20th relative to the appointment of Percy C. Woollatt to be a Surgeon in His Majesty's Fleet has been cancelled.

Civilian Dental Surgeons B. H. Martin, A. Harris, and V. E. Mills have been reappointed for the year from April 1st.

Civil Practitioner F. J. H. Cann, M.B., has been appointed Surgeon and Agent at Dawlish, March 8th.

ROYAL ARMY MEDICAL CORPS.

The undermentioned Majors are promoted to be Lieutenant-Colonels, dated January 30th, 1906: M. T. Yarr, F.R.C.S.I., C. H. Melville, M.B., B. L. Mills, M.B., F.R.C.S.Edin., H. Cocks, M.B., J. B. Wilson, M.D., J. Kearney, M.D., F. W. G. Hall, M.B., A. Kennedy, H. P. G. Elkington, J. B. W. Buchanan, M.B., H. M. Adamson, M.B., T. G. Lavie, H. H. Brown, M.B., T. H. Corkery, J. J. O'Donnell, M.B. The last-named officer joined as Surgeon, January 30th, 1886, and was made Surgeon-Major, March 25th, 1898; the previous commissions of all the others cited are dated: Surgeon, January 30th, 1886; Surgeon-Major, January 30th, 1898. Their war records are as follow:—Lieutenant-Colonel Yarr—South African war, 1899-1901 (Queen's medal with four clasps). Lieutenant-Colonel Melville—Hazara Expedition, 1888 (medal with clasp). Lieutenant-Colonels Mills and Wilson—North-West Frontier of India campaign in 1897-8, including the capture of the Tanga Pass (medal with clasp); South African war, 1899-1901 (Queen's medal with five clasps). Lieutenant-Colonel Kearney—South African war, 1899-1902, including the defence of Ladysmith and operations in the Transvaal and Orange River Colony (Queen's medal with four clasps, King's medal with two clasps). Lieutenant-Colonel Elkington—Hazara Expedition, 1891. Lieutenant-Colonel Buchanan—South African war, 1899-1901, including the relief of Ladysmith, actions at Colenso, Pieter's Hill, and Laing's Nek, and operations in Natal, the Transvaal, and Orange River Colony (mentioned in dispatches, Queen's medal with seven clasps). Lieutenant-Colonel Adamson—Burmese campaign, 1887-9 (medal with clasp); Nile Expedition, 1898, including the battles of the Atbara and Khartoum (twice mentioned in dispatches, Egyptian medal with two clasps, British medal). Lieutenant-Colonel Lavie—South African war, 1900-02 (slightly wounded), including operations in the Orange River Colony and the Transvaal (twice mentioned in dispatches, Queen's medal with three clasps, King's medal with two clasps). Lieutenant-Colonel Brown—Burma, 1885-7-9 (medal with two clasps). Lieutenant-Colonel Corkery—Manipore Expedition, 1891 (medal with clasp); expedition to the Kachin Hills, Burma, 1891-2 (clasp). Lieutenant-Colonel O'Donnell—Chitral Relief Force, 1895 (medal with clasp). Lieutenant-Colonels Cocks, Hall, and Kennedy have no war records in the Army Lists.

Lieutenant-Colonel J. Kearney, M.D., retires on retired pay, March 14th. Particulars of his commissions and war services are to be found in the preceding paragraph.

INDIAN MEDICAL SERVICE.

Major A. E. Roberts, M.B., Bengal Establishment, has been appointed Secretary to the Director-General, Indian Medical Service.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

Surgeon-Lieutenant-Colonel J. S. Carleton, 1st Gloucestershire, is granted the honorary rank of Surgeon-Colonel, March 14th.

Surgeon-Major (Honorary Captain in the Army) A. Thorne, M.B., 2nd Middlesex, to be Surgeon-Lieutenant-Colonel, February 19th.

ROYAL ENGINEERS (VOLUNTEERS),

Surgeon-Captain R. Jackson, M.B., 2nd Lancashire (the St. Helens), to be Surgeon-Major, March 14th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

Peter Howie, M.B., to be Lieutenant in the Aberdeen Companies, Scottish Command, March 14th.

John M. Darling, M.B., to be Lieutenant in the Edinburgh Company, Scottish Command, March 3rd.

Captain (Surgeon-Captain, Army Medical Reserve) S. M. Sloan, M.B., Glasgow Companies, Scottish Command, resigns his commission, March 14th.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,849 births and 5,076 deaths were registered during the week ending Saturday last, March 10th. The annual rate of mortality in these towns, which had been 17.2, 17.3 and 17.4 per 1,000 in the three preceding weeks, declined again last week to 16.7 per 1,000. The rates in the several towns ranged from 6.0 in Barrow-in-Furness, 9.6 in Hornsey, 9.7 in Croydon, 10.7 in West Hartlepool, 10.9 in Ipswich, 11.3 in Willesden, 11.4 in Handsworth (Staffs.), and 11.5 in King's Norton, to 21 1 in Newport (Mon.), 21.3 in Bootle, 21.6 in Merthyr Tydfil, 22.0 in Brighton and in Preston, 22.6 in Liverpool, 24.1 in Warrington, and 29.9 in Tynemouth. In London the rate of mortality was 16.2 per 1,000, while it averaged 17.0 per 1.000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.6 per 1,000 in the seventy-six towns; in London this death-rate was equal to 1 5 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 2.5 in Derby, 2.6 in Liverpool and in Middlesbrough, 2.7 in Southampton, 2.8 in East Ham, 2.9 in Newcastle-on-Tyne, and 3.1 in Tottenham and in Plymouth. Measles caused a death-rate of 1.1 in Liverpool and in Swansea, 1.3 in Leyton and in Plymouth, 1.6 in Leeds and in Newcastle-on-Tyne, 1.7 in Walthamstow, 1.8 in Bury and in Preston, and 2.2 in Tottenham; scarlet fever of 1.0 in Wolverhampton and 1.4 in West Hartlepool; whooping-cough of 1.0 in Birmingham, 1.1 in Leicester, 1 2 in Newcastle-on-Tyne, 1.3 in Reading, in Plymouth, and in Gateshead, 1.4 in King's Norton, 1.6 in Handsworth (Staffs), and 2.7 in Southampton; "fever" of 1.2 in Wigan; and diarrhoea of 1.4 in Newport (Mon.), 1.6 in Middlesbrough, and 1.7 in Barrow-in-Furness. The mortality from diphtheria showed no marked excess in any of the large towns. No fatal case of small-pox was registered last week, either in London or in any of the large provincial towns. There were 6 small-pox patients under treatment in the Metropolitan Asylums Hospitals on Saturday last, March 10th, against 2, 5, and 6 on the three preceding Saturdays; 1 new case was admitted during the week, against, 2, 3, and 1 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 2,734, 2,689, and 2,628 at the end of the three preceding weeks, had further declined to 2,545 at the end of last week; 268 new cases were admitted during the week, against 281, 274, and 273 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, March 10th, 961 births and 622 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.0, 19.6, and 19.3 per 1,000 in the three preceding weeks, further declined to 18.2 per 1,000 last week, but was 1.5 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the rates ranged from 13.8 in Paisley and 14.9 in Aberdeen to 22.7 in Perth and 22.8 in Dundee. The death-rate from the principal infectious diseases averaged 1.7 per 1,000 in these towns, the highest rates being recorded in Dundee and Paisley. The 304 deaths registered in Glasgow included 10 which were referred to measles, 7 to diphtheria, 7 to whooping-cough, 2 to "fever," and 4 to diarrhoea. Six fatal cases of measles were recorded in Edinburgh; 2 of measles, 2 of whooping-cough, and 2 of diarrhoea in Dundee; and 4 of measles in Paisley.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, March 10th, 518 births and 412 deaths were registered in six of the principal Irish towns, as against 590 births and 431 deaths in the preceding period. The annual death-rate in these towns, which had been 21.8, 23.3, and 25.1 per 1,000 in the three preceding weeks, fell to 22.2 per 1,000 in the week under notice, this figure being 5.5 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 19.1 in Limerick and 19.5 in Waterford to 24.0 in Cork and 24.6 in Dublin. The zymotic death-rate in the same six Irish towns averaged 1.0 per 1,000, or 0.1 per 1.000 lower than during the preceding period, the highest figure—3.7—being recorded in Londonderry, while no deaths under this heading were registered in Cork, Limerick, and Waterford.

Vacancies and Appointments.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

BEDFORD COUNTY HOSPITAL.—House-Physician. Salary, £60 per annum.

BOLTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Salary, £100 per annum.

BRISTOL: BRISLINGTON HOUSE PRIVATE ASYLUM.—Assistant Medical Officer. Salary £160 per annum.

BURY INFIRMARY.—Junior House-Surgeon. Salary £80 per annum, increasing to £90.

CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—Junior House-Surgeon. Salary, £80 per annum.

DOWN COUNTY INFIRMARY.—House-Surgeon. Salary £60 per annum.

DUDLEY: GUEST HOSPITAL.—Assistant House-Surgeon. Salary, £40 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Medical Officer for the Casualty Department. Salary at the rate of £100 per annum.

EDINBURGH HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN.—Female Resident Medical Officer. Appointment for six months.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Eight Qualified Clinical Assistants to the Out-patient Department.

GERMAN HOSPITAL, Dalston.—Honorary Anaesthetist.

GREAT NORTHERN CENTRAL HOSPITAL.—(1) Senior House-Physician; (2) Senior House-Surgeon; (3) Junior House-Physician; (4) two Junior House-Surgeons. Salary for (1) and (2) at the rate of £60 per annum, and (3) and (4) £30 per annum.

HASTINGS, ST. LEONARDS, AND EAST SUSSEX HOSPITAL.—House-Surgeon, unmarried. Salary, £75 per annum.

HULL ROYAL INFIRMARY.—House-Surgeon. Salary, 100 guineas per annum.

ITALIAN HOSPITAL, Queen Square, W.C.—Honorary Assistant Surgeon.

KING'S COLLEGE.—Sambrooke Medical Registrar.

KING'S LYNN: WEST NORFOLK AND LYNN HOSPITAL.—House-Surgeon. Salary, £100 per annum.

LANARK: BELLEVILLE SANATORIUM.—Resident Physician. Salary to begin, £150.

MANCHESTER ROYAL INFIRMARY.—(1) Resident Medical Officer at the Infirmary; (2) Resident Medical Officer at the Convalescent Home, Cheadle. Salary £150 per annum each.

MIDDLESBROUGH: NORTH ORMESBY HOSPITAL.—House-Surgeon. Salary, £120 per annum.

NOTTINGHAM: CHILDREN'S HOSPITAL.—House-Surgeon.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Assistant Surgeon.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill.—Senior House-Surgeon. Salary, £100 per annum.

READING: ROYAL BERKSHIRE HOSPITAL.—Assistant House-Surgeon. Salary, £60 per annum.

TAUNTON ISOLATION HOSPITAL.—Medical Attendant, non-resident. Salary, £120 per annum.

TAUNTON AND SOMERSET HOSPITAL.—Resident Assistant House-Surgeon. Salary at the rate of £50 per annum.

VALKENBERG ASYLUM, near Capetown.—Assistant Medical Officer. Salary £250, rising to £300.

WEST RIDING COUNTY COUNCIL.—Assistant Medical Officer, Scalebor Park (Private Asylum). Salary, £150 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacancies in the office of Certifying Factory Surgeons: Wootton Bassett, co. Wilts; Athboy, co. Meath.

APPOINTMENTS.

BERRY, Joseph Foreman, L.R.C.P. and S.Edin., House-Surgeon at the Rawcliffe Hospital and Dispensary, Chorley, Lancs.

BROWN, R. B., L.R.C.P. and S.Edin., Certifying Factory Surgeon for the Howden District, co. York.

BURLAND, Charles, M.D.Brux., L.R.C.P. and S.Edin., Medical Officer to the Board of Trade for the Port of Glasgow.

CANN, Francis J. H., M.B.Lond., M.R.C.S., L.R.C.P., Admiralty Surgeon and Agent at Dawlish, Devon.

CRAWFORD, H. W., M.B., Ch.B.Glas., District and Workhouse Medical Officer of the Howden Union.

DANIEL, W. P. T., M.R.C.S., L.R.C.P.Lond., District Medical Officer of Parish of St. George-in-the-East.

GREENE, G. W., M.B., District Medical Officer of the Newport Pagnell Union.

HIGHET, Campbell, M.B., C.M., Medical Officer, Renfrewshire Combination Poorhouse, Crookston.

MANSEL, C. J. L, M.D.Edin., District Medical Officer of the Billericay Union and of the Romford Union.

MUNRO, W. E., M.B., C.M.Aberd., Certifying Factory Surgeon for the Burghead District, co. Elgin.

NEIL, R. C., M.R.C.S., L.R.C.P., Junior Resident Medical Officer, Fulham Parish Infirmary.

PRICE, D., M.B.Lond., Certifying Factory Surgeon for the Cary District, co. Somerset.

SAWYER, James E. H., M.A., M.D.Oxon., M.R.C.P., Physician for Outpatients, Birmingham and Midland Free Hospital for Sick Children.

STOLTERFOTH, C. S., M.R.C.S., L.R.C.P.Lond., Certifying Factory Surgeon for the Stokenchurch District, co. Buckingham.

THOMPSON, W., M.R.C.S., L.R.C.P.Lond., D.P.H., Medical Officer of Health, Bridgwater Rural District.

WALLIS, Whishaw, L.D.S., R.C.S.Eng., Assistant Dental Surgeon to the Italian Hospital, Queen Square, W.C.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTH.

WOOLLEY.—At Ansty, near Leicester, on March 9th, the wife of Thomas F. Woolley, M.R.C.S., L.R.C.P., of a son.

DEATH.

MEREWETHER.—On March 7th, at Simon's Bay, Cape Colony, of malignant malarial fever, Staff Surgeon Alworth E. Merewether, M.B., Royal Navy, H.M.S. *Crescent*, and 14, Allan's Road, Southsea, aged 36.

DIARY FOR NEXT WEEK.

MONDAY.

OYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—The Arris and Gale Lecture—Professor J. H. Watson, F.R.C.S.: The Viscosity of the Blood.

TUESDAY.

ATHOLOGICAL SOCIETY OF LONDON, the Royal Army Medical College, Examination Hall, Victoria Embankment, 5 p.m.—Papers and Demonstration—Lieutenant-Colonel C. Birt, R.A.M.C.: Dysentery in South Africa. Captain W. S. Harrison, R.A.M.C: On the Phagocytosis of *B. typhosus*. Lieutenant-Colonel W. B. Leishman, R.A.M.C.: (1) A Simplified Method of Enumerating Leucocytes; (2) Demonstration of the Undulating Membrane of Spirochaete.

OYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Third Goulstonian Lecture—Dr. H. Batty Shaw: Autointoxication.

WEDNESDAY.

OYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—The Arris and Gale Lecture (continued)—Professor J. H. Watson, F.R.C.S.; The Viscosity of the Blood (continued).

THURSDAY.

ARVEIAN SOCIETY, Stafford Rooms, Tichborne Street, Edgware Road, 8.30 p.m.—Dr. J. Risien Russell—Harveian Lecture: Myelitis (with lantern demonstration).

OYAL COLLEGE OF PHYSICIANS, Pall Mall East, S.W., 5 p.m.—First Lumleian Lecture—Dr. D. Ferrier: Tabes dorsalis.

FRIDAY.

CLINICAL SOCIETY OF LONDON, 20, Hanover Square, W., March 23rd, 8 p.m.—Clinical evening for the exhibition of clinical cases. Patients will be in attendance from 8 p.m. till 9 p.m.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—The Arris and Gale Lecture—Mr. S. W. Curl: The Arterial Pulse: Its Physiology and Pathology.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Wednesday, 5 p.m., Larynx.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m., Selection of Cases for Sanatorium Treatment.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Thursday, 4 p.m., Pyloric Obstruction in Infants.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear. Lectures at 5.15 p.m. each day will be given as follows: Monday, The Vasomotor Element in Skin Diseases as a Guide to Diagnosis and Treatment; Tuesday, The True Interpretation of Certain Clinical Manifestations often Ascribed to Liver; Wednesday, Evolution in the Treatment of Mental Diseases; Thursday, Congenital Diseases of the Heart.

MOUNT VERNON HOSPITAL FOR CONSUMPTION (Central Out-Patient Department, 7, Fitzroy Square, W.).—Thursday, 5 p.m., Aortic Valvular Disease.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Disseminated Sclerosis.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N.—The following are the arrangements for next week, each day at 4.30 p.m.: Tuesday, Clinical Medicine Lecture: Thursday, lecture on Observations on the part played by the Sigmoid Flexure in Health and Disease.

UNIVERSITY COLLEGE HOSPITAL, Gower Street, W.C.—Wednesday, at 4 p.m., Clinical Lecture on Ovarian Tumours Complicating Pregnancy and Labour.

WEST LONDON HOSPITAL POST-GRADUATE COLLEGE, Hammersmith Road, W.—The following arrangements have been made for next week: Monday, 12 noon, Pathological Demonstration; 3 p.m., Demonstration in Surgical Wards; 5 p.m., Middle-ear Suppuration and its Treatment. Tuesday, 5 p.m., The Legal Aspect of Insanity. Wednesday, 4.14 p.m., Demonstration in Medical Wards; 5 p.m., Plaster-of-paris Splints. Thursday, 3 p.m., Demonstration in Medical Wards; 5 p.m., Practical Surgery. Friday, 5 p.m., Chlorosis. Daily, at 2.15, Medical and Surgical Clinics.

BOOKS, ETC., RECEIVED.

Potter's Cyclopaedia of Botanical Drugs and Preparations. By R. C. Wren. London: Potter and Clarke.

Marlborough's Self-Taught Series. Nos. 3 and 13. London: E. Marlborough and Co.

Italian Self-Taught. By C. A. Thimm, F.R.G.S. Third edition. Revised by G. Dalla Vecchia. 1906. 1s. 6d.

Turkish Self-Taught. By C. A. Thimm. Revised by Professor G. Hagopian. Fourth edition. 1905. 2s. 6d.

"First Aid" to the Injured and Sick. By F. J. Warwick, B.A., M.B., M.R.C.S., L.S.A., and A. C. Tunstall, M.D., F.R.C.S. Fourth edition. Bristol: J. Wright and Co. 1906. 1s., cloth 2s.

Manuel Pratique pour le Choix des Verres de Lunettes et l'Examen de la Vision. Par le Dr. Scrini et le Dr. Fortin. Paris: Vigot Frères. 1906. Fr.4.

Technique de Stérilization à l'Usage des Pharmaciens. Par le Dr. E. Gérard. Paris: Vigot Frères. 1906. Fr.5.

Anémie des Mineurs. Par le Dr. E. Francois. Paris: A. Maloine. 1906. Fr. 2.50.

Die Betriebsunfälle der Telephonistinnen. Von Professor Dr. M. Bernhardt. Berlin: A. Hirschwald. 1906. M.1.50.

Chavasse's Advice to a Mother. Sixteenth edition. Revised by T. D. Lister, M.D. London: J. and A. Churchill. 2s. 6d.

An Atlas of Illustrations of Clinical Medicine, Surgery, and Pathology. Compiled by the New Sydenham Society. Fasciculus XXIVter, or XVIII of New Series. Elephantiasis in English Practice, etc. London: The New Sydenham Society. 1906. 1 guinea.

Die Placentation beim Menschen. Von J. C. Webster. Ins Deutsche übersetzt von Dr. G. Kolischer. Berlin: O. Coblentz. 1906.

The King's Coroner. By R. H. Wellington. Vol. II. London: Baillière, Tindall, and Cox. 1906. 7s. 6d.

The Edinburgh Stereoscopic Atlas of Anatomy. Edited by D. Waterston, M.A., M.D., F.R.C.S.E., F.R.S.E. Section IV. Edinburgh: T. C. and E. C. Jack. 1906. £1 5s.

Our Heritage in the Land. By H. E. Moore, F.S.I., F.S.S. London: P. S. King and Son. 1906. 1s.

1905. New South Wales. The Aetiology of Plague Deduced from its Epidemiology, as observed at Sydney during the years 1900-1904. By J. A. Thompson, M.D., D.P.H. Sydney: W. A. Gullick. 1905.

Burdett's Hospitals and Charities. 1906. By Sir H. Burdett, K.C.B. London: The Scientific Press. 6s.

Spezielle Diagnostik der Hautkrankheiten. Von Dr. L. Török. Wien: A. Hölder. 1906. M.9.

On Leprosy and Fish-eating. By Jonathan Hutchinson. London: A. Constable and Co., Ltd. 1906. 12s. 6d.

⁂ In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

MARCH.

Date.	Meetings to be Held.
18 Sunday	
19 MONDAY	
20 TUESDAY	LONDON: Metropolitan Branch Council, 5 p.m. BRADFORD DIVISION, *Yorkshire Branch*, Joint Meeting with Bradford Medico-Chirurgical Society, Bradford Royal Infirmary, 8 p.m.
21 WEDNESDAY	
22 THURSDAY	CANTERBURY AND FAVERSHAM DIVISION, *South-Eastern Branch*, Sittingbourne, Clinical and Medico-Political Meeting, 3 p.m. LIVERPOOL AND BIRKENHEAD DIVISIONS, *Lancashire and Cheshire Branch*, Combined Dinner, 8 p.m. WANDSWORTH DIVISION, *Metropolitan Counties Branch*, Wandsworth Infirmary, 8.45 p.m.
23 FRIDAY	ST. PANCRAS AND ISLINGTON DIVISION, *Metropolitan Counties Branch*, Royal Free Hospital, 4 p.m.
24 SATURDAY	NORTHERN COUNTIES OF SCOTLAND BRANCH, Northern Infirmary, Inverness.
25 Sunday	
26 MONDAY	
27 TUESDAY	WALTHAMSTOW AND CITY DIVISIONS, *Metropolitan Counties Branch*, Conjoint Meeting, Walthamstow Hospital, 4 p.m. WEST SOMERSET BRANCH, Taunton and Somerset Hospital, 3.30 p.m.
28 WEDNESDAY	BATH AND BRISTOL BRANCH, Bristol.
29 THURSDAY	
30 FRIDAY	GUILDFORD DIVISION, *South-Eastern Branch*, Royal Surrey County Hospital, Guildford, 4.30 p.m.
31 SATURDAY	

APRIL.

Date.	Meetings to be Held.
1 Sunday	
2 MONDAY	
3 TUESDAY	
4 WEDNESDAY	LONDON: Journal and Finance Committee, 2.30 p.m.
5 THURSDAY	EAST ANGLIAN BRANCH, King's Lynn. SWANSEA DIVISION, *South Wales and Monmouthshire Branch*, General Hospital, Swansea, 3 p.m.
6 FRIDAY	LONDON: Ethical Committee, 2 p.m. HAMPSTEAD DIVISION, *Metropolitan Counties Branch.* NORTH CUMBERLAND DIVISION, *Border Counties Branch*, Penrith.
7 SATURDAY	
8 Sunday	
9 MONDAY	
10 TUESDAY	LONDON: Organization Committee, 10.30 am.
11 WEDNESDAY	
12 THURSDAY	
13 FRIDAY	*Good Friday.*
14 SATURDAY	
15 Sunday	
16 MONDAY	*Bank Holiday.*
17 TUESDAY	
18 WEDNESDAY	CENTRAL COUNCIL, 2 p.m.
19 THURSDAY	CITY DIVISION, *Metropolitan Counties Branch*, Conjoint Meeting with Tottenham Division, Brooke House, Upper Clapton, 8.30 p.m.
20 FRIDAY	
21 SATURDAY	
22 Sunday	
23 MONDAY	
24 TUESDAY	

MEMBERSHIP OF THE BRITISH MEDICAL ASSOCIATION.

THE British Medical Association exists for the promotion of medical and the allied sciences, and the maintenance of the honour and the interests of the medical profession.

The Annual Subscription to the British Medical Association is £1 5s. 0d., and the BRITISH MEDICAL JOURNAL is supplied weekly, post free, to every member of the British Medical Association wherever he may reside.

Forms of application for membership can be obtained from the General Secretary, 429, Strand, London, W.C.

The principal rules governing the election of a medical practitioner to be a member of the British Medical Association are as follow:

Article III.—Any Medical Practitioner registered in the United Kingdom under the Medical Acts and any Medical Practitioner residing within the area of any Branch of the Association situate in any part of the British Empire other than the United Kingdom, who is so registered or possesses such medical qualifications as shall, subject to the Regulations, be prescribed by the Rules of the said Branch, shall be eligible as a Member of the Association. The mode and conditions of election to Membership shall from time to time be determined by or in accordance with the By-laws. Every Member, whether one of the existing Members or a subsequently-elected Member, shall remain a Member until he ceases to be a Member in accordance with the provisions hereof.

By-law 1.—Every Candidate for Membership of the Association shall apply for election in writing, addressed to the Association, and stating his agreement, if elected, to abide by the Regulations and By-laws of the Association, and the Rules of such Division and Branch to which he may at any time belong, and to pay his subscription for the current year.

By-law 2.—Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the General Secretary of the Association, and to every Member of the Branch Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a member of the Association by the Branch Council at any meeting thereof held not less than seven days (or such longer period as the Branch may by its Rules prescribe) after the date of the said Notice. A Branch may by special Resolution require that each candidate for election to the Association shall furnish a certificate from two Members of the Association to whom he is personally known. Officers of the Navy, Army, and Indian Medical Services on the Active List are eligible for election through the Council or a Branch without approving signatures as laid down in By-law 3.

By-law 3.—Every candidate whose place of residence is not included in the area of any Branch shall forward his Application to the General Secretary of the Association, together with a statement signed by three members of the Association, that from personal knowledge they consider him a suitable person for election. Notice of the proposed election shall be sent by the General Secretary to every Member of the Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a Member of the Association by the Council at any meeting thereof held not less than one month after the date of the said notice.

The annual subscription to the BRITISH MEDICAL JOURNAL for non-members is £1 8s. 0d. for the United Kingdom and £1 12s. 6d. for abroad.

Printed and published by the British Medical Association at their Office, No, 429, Strand, in the Parish of St Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MARCH 24TH, 1906.

British Medical Association.

PROPOSED APPLICATION FOR ROYAL CHARTER.

REPORT OF ORGANIZATION COMMITTEE ... 109
EXPLANATORY MEMORANDUM 109
ESTIMATE OF PROBABLE COST 112
DRAFT CHARTER 113
DRAFT ORDINANCES 119
DRAFT BY-LAWS 126

REPORT

ON

ACTION TAKEN IN THE PREPARATION OF THE DRAFT CHARTER.

The Council has taken into consideration the following resolutions of the Annual Representative Meeting at Leicester:

> "That the Representative Meeting issue the necessary authority for application on behalf of the Association to be made to the Privy Council, praying His Majesty to grant a Royal Charter of Incorporation to the Association."
>
> "That the Central Council be instructed to submit the draft of the application for a Royal Charter to the Divisions as soon as possibie, with an estimate of the probable cost, and with an explanatory memorandum."

Preparation and Circulation of Drafts.

The Council delegated to the Organization Committee he duty of taking the detailed steps which were necessary o give effect to the instructions contained in the above esolutions. The Committee accordingly consulted Counsel Mr. T. R. C. Dill), under whose advice have been prepared he draft Charter, draft Ordinances, and draft By-laws which are presented herewith.

Regard being had to the time which the preparation of ocuments of such importance and complexity has ecessarily occupied, and to the desire of the Representative Meeting that the requisite drafts should be submitted o the Divisions at the earliest possible moment, the Council has further authorized the Organization Committee to circulate the drafts, as settled by Counsel, to the Divisions before they are considered by the Council.

Replies of Divisions.

Divisions in the United Kingdom are requested to give otice not later than May 14th, 1906, of such amendments s may be deemed by them desirable.

Divisions and Branches not in the United Kingdom are quested to take the matter into their consideration and o report thereon at the earliest opportunity.

Explanatory Memorandum.

The Council has further delegated to the Organization Committee the duty of preparing the Explanatory Memorandum, with estimate of probable cost, desired by the Representative Meeting, as stated in the second resolution above cited.

The Organization Committee has accordingly prepared and submits a Memorandum herewith.

(Signed) T. JENNER VERRALL,
Chairman of Organization Committee.
(Signed) J. SMITH WHITAKER,
Medical Secretary.

EXPLANATORY MEMORANDUM

(Prepared pursuant to Minute 54 of the Representative Meeting at Leicester, to accompany the draft Charter, draft Ordinances, and draft By-laws, now submitted to the Divisions).

CONTENTS.

In this Memorandum are stated;

I. History of circumstances which have led to the present application for a Charter.

II. The advantages and possible disadvantages of incorporation under a Charter.

III. General principles observed by the Organization Committee in preparing the Draft Charter, and comparison with the present Regulations.

IV. Legal opinions obtained upon certain important matters.

I. HISTORY OF CIRCUMSTANCES WHICH HAVE LED UP TO THE PRESENT APPLICATION.

The possibility of obtaining incorporation of the British Medical Association by Royal Charter has been considered at various times in the history of the Association, from the period of the deliberations which resulted in its incorporation in 1873 under the Companies Acts down to 1901, when the changes were under consideration which resulted in the adoption of the present Constitution.

The Constitution Committee of 1900-1 had before it the results of previous inquiries into this matter. That Committee was advised by the then legal advisers of the Association that it was open to considerable doubt whether a Charter would be granted, and that the necessary procedure would be tedious and expensive. It appeared to the Committee that such a procedure should not be undertaken without the prospect of some more definite advantage than was then apparent, and the Committee reported accordingly.

It is to be observed that the questions with which the inquiries and deliberations of the Constitution Committee were, in accordance with its reference, specially concerned, related to the *mode of government and administration* of the Association, and the expediency of applying for a Charter at that stage was considered with reference to those questions.

The present reconsideration of the proposal of incorporation by Royal Charter is primarily due to the necessity which is felt of extending the *Objects* of the Association, and to the fact, which appears not to have been fully appreciated at the time when the extension of the Objects was last under consideration, namely, in 1896, that under the Companies Acts the granting of such an extension as appears to be desired by the Association would be fraught with such legal difficulties as could probably only be surmounted by the formation of a new Company.

The Annual Representative Meeting at Oxford in 1904 directed the Council to take the legal steps necessary to obtain such alteration of the present Memorandum of Association as would give effect to that which was desired in expansion of the Objects of the Association. The Council, in proceeding to carry out this instruction, was legally advised that it was exceedingly doubtful whether the requisite extension of the Memorandum of Association would, or even could, be granted by the High Court, and that therefore the only procedure for carrying out the wishes of the Association under the Companies Acts would be to wind up the present Company and form a new one.

One of the Counsel consulted, however, Mr. F. B. Palmer, a recognized authority on Company Law, made the following important suggestion, in an opinion, dated May 16th, 1905, which was reported to the Annual Representative Meeting at Leicester:

> "It occurs to me that it would be expedient for the Association to consider, before taking any further steps in regard to the alteration of the objects, whether the time has not now come to apply for a Royal Charter. The Association is one of great magnitude, and with interests in all parts of the world, and I cannot but think that there would be little difficulty in obtaining a Charter. The advantage of obtaining a Charter would be very great, for not only would the Association be free from the somewhat troublesome restrictions under the Companies Acts but its powers for good would become much greater. It would be freed, for all practical purposes, from the trammelling rules of the Courts in regard to what is and what is not *ultra vires*, and thus, as the undertaking develops, so could the operations be extended without the necessity for seeking for express provision among the objects.
>
> "A Chartered Corporation, even though constituted for specified objects, is not in point of law limited by those objects."

The Committee to which the matter had been referred thereupon instituted an inquiry as to the likelihood of the Association being granted a Royal Charter, and found that the practice of the Privy Council had changed somewhat in recent years as regards advising His Majesty to grant Charters, these being granted now more readily than formerly. The information obtained on this and other points was so encouraging that the Council adopted *nemine contradicente* the conclusion of the Committee that the Representative Meeting should be recommended to authorize an application being made to the Privy Council praying His Majesty to grant a Royal Charter, and that, pending the decision of His Majesty, no further steps should be taken to move the Courts for an alteration of the Memorandum. The Representative Meeting adopted this recommendation, and instructed the Central Council to submit the draft of the application for a Royal Charter to the Divisions as soon as possible with an estimate of the probable cost and with an explanatory Memorandum.

II. ADVANTAGES OF INCORPORATION UNDER A CHARTER.

The prospective advantages to the Association resulting from incorporation by a Royal Charter, instead of under the Companies Acts, are to some extent indicated in the account of the circumstances which have led up to the present further consideration of the matter, and also in the comparison, in Part III of this Memorandum, of the Constitution of the Association on that basis with that now existing. The Organization Committee considers, however, that it will be of assistance to the Divisions to be furnished with a separate collected statement of the advantages which are anticipated to be attendant upon the grant of a Charter.

1. *Wider Definition of the Objects of the Association.*

The primary reason in favour of applying for a Charter has already been stated, namely, that it is believed that the Association could thus secure a wider definition of its objects than could be obtained by any alteration of the present Memorandum of Association which would be likely to be sanctioned by the High Court.

2. *Greater Freedom of Action.*

In the opinion of Mr. F. B. Palmer cited in the first part of this Memorandum it is expressly stated as follows:

> "The Association would be freed for all practical purposes from the trammelling rules of the Courts in regard to what is and what is not *ultra vires*, and thus, as the undertaking develops, so could the operations be extended without the necessity for seeking for express provision among the objects. A Chartered Corporation, even though constituted for specified objects, is not in point of law limited by those objects."

3. *Extension of Representative Principle.*

The Constitution of a Chartered Corporation depends entirely upon the terms of the Charter, and is therefore not subject to the limitations imposed by the Companies Acts upon a Company registered thereunder. Under a Charter, therefore, it will be possible to transfer to the Representative Body those powers, as regards the consideration of the Annual Financial Statement, the appointment of auditors and other matters, which the Constitution Committee in 1901 and 1902 found it necessary in compliance with the Companies Acts to leave in the hands of the General Meeting. The Representative Meeting at Leicester instructed the Council, in framing the draft Charter, to provide for the transfer of financial business from the General Meeting to the Representative Meeting. This has been provided for in the accompanying draft Charter.

4. Alterations of Regulations under a Charter.

The Committee has carefully considered the possibility, which has been suggested, that under the Charter there would be special difficulties in effecting those changes in the Regulations of the Association which must be expected to be constantly necessary in order to meet its varying requirements. Specific questions on this subject have been submitted to Counsel (Mr. Dill), who has advised that it is possible to frame many of the Regulations of the Association as By-laws which can be altered exactly as under the present Constitution; that the Privy Council would probably require, however, that the more important of the Regulations should be in the nature of Ordinances which could be from time to time amended by the Representative Meeting, subject to the approval of the Privy Council.

Counsel, moreover, advised that, in such circumstances, the Privy Council would not be likely to refuse its sanction to what was clearly desired by the majority of the Association, that the process of obtaining approval of such changes would not occupy more than a few weeks, and that no fee would be payable to the Privy Council Office. Inasmuch as, under the present Constitution, the analogous provisions—namely, those contained in the Articles of Association—can only be changed by the cumbersome procedure of passing a Special Resolution, the difficulty of changing the important Regulations of the Association would, on the whole, appear to be materially decreased under a Charter.

5. Specific Question put to Counsel.

Having regard to the importance in the working of the Association of the utmost attainable freedom, the Committee submitted to Counsel (Mr. Dill) the following specific question:

> "In general terms, is it probable that the alteration from the present Constitution, with Memorandum of Association, Articles, and By-laws, to that under a Charter will give the Association greater freedom of action and elasticity as regards adaptation of its Regulations to its varying requirements from time to time?"

Counsel answered this question in the affirmative.

III. GENERAL PRINCIPLES OBSERVED BY THE ORGANIZATION COMMITTEE IN PREPARING THE DRAFT CHARTER, AND COMPARISON WITH THE PRESENT REGULATIONS.

Form of Draft.

The Organization Committee, on undertaking the duty referred to it by the Central Council of carrying out the instruction of the Annual Representative Meeting to prepare a draft application for a Charter, ascertained from Counsel that an application for a Charter must be accompanied by a draft of the proposed Charter. It was further ascertained that it was not necessary for all the Regulations of the Association to be included in the Charter, but that there might be Ordinances or By-laws alterable by the Association, subject, however, as regards the more important of them (to be classed as Ordinances), to the approval of the Privy Council. Counsel also advised that such subsidiary Regulations should, as a matter of convenience, be scheduled to the Charter, in order that, if the petition were approved by the Privy Council, the Regulations might as a whole take effect at once.

It was accordingly decided to frame—

(*a*) A draft *Charter*, embodying the fundamental principles of the Constitution of the Association.

(*b*) Draft *Ordinances*, containing the more important Regulations for the government and administration of the Association.

(*c*) Draft *By-laws*, containing the remaining regulations.

Powers of Future Modification.

The *Charter* itself will only be capable of modification by the grant from the Crown of a supplemental Charter.

The provisions as to alterations of *Ordinances* and of *By-laws* are contained in the Charter, the Ordinances being capable of alteration by the Association subject to the approval of the Privy Council, the By-laws by the Association without control of the Privy Council.

Principles Observed.

The principles by which the Committee has been guided in the preparation of these drafts have been—

(i) Primarily, to obtain an extended definition of *the Objects* of the Association and greater liberty of action. The provisions to this end are contained in Clauses 2 and 3 of the draft Charter, which are to be compared with Clauses 3, 4, and 5 of the present Memorandum of Association.

(ii) To carry into effect the specific instructions of the Representative Meeting that all financial business should be transferred from the General Meeting to the Representative Meeting. This being provided for, it has been deemed unnecessary to make provision for the future holding of any General Business Meetings of the Association. Under the proposed new regulations, therefore, General Meetings would be held for scientific and social purposes only.

(iii) To give effect to the resolutions of the Annual Representative Meeting at Leicester with respect to the alteration of certain Articles of Association, and also the instructions to the Central Council to prepare By-laws on certain matters for the consideration of the next Representative Meeting.

(iv) To carry out such other modifications of the present regulations as have been suggested by Counsel as being consequential upon the foregoing alterations.

(v) To translate, in other respects, the present Regulations, without alteration of substance.

IV. LEGAL OPINIONS OBTAINED IN CERTAIN IMPORTANT MATTERS.

In the course of preparation of the drafts now submitted, the Organization Committee has had occasion to take the opinion of Counsel (Mr. Dill) on specific points in addition to those already enumerated. As regards the most important of these, it appears to the Committee that it will assist the Divisions to have before them the advice thus obtained.

1. *Definition of Objects.*

The construction of the Objects Clause of the draft Charter (Clause 2) has received the very careful and close attention of the Committee and of Counsel, in order that the Objects of the Association, and the means by which it is proposed to carry out those Objects, may be framed so as to include everything which the Association may possibly at any time desire to undertake, and not by implication to debar the Association from doing those things which are not specifically mentioned.

The general statement of the Objects is contained in Subclause (1) of Clause 2, which Subclause appears to the Committee to include, in general terms, everything which the British Medical Association is likely at any time to wish to undertake for the benefit of its members or of the profession. Counsel has definitely advised, however, that the Privy Council would probably not approve a Charter containing only a definition of objects in these general terms, but would insist upon some more specific indication of the work which the Association undertakes or may at any time contemplate undertaking. Further, Counsel advises that a more detailed definition is, in his view, on the whole desirable in the interests of the Association.

To meet the objections that it is impossible to foresee and provide in specific terms for all that the Association may find it expedient to do in order to carry out in all respects these general objects as defined in Subclause (1) and that a definition of specific methods might conceivably be deemed to limit the Association, by implication, to the matters so stated, Counsel has framed the first part of Clause 2, Subclause (2), and its final Paragraph, (x), in such terms as in his view would give the greatest possible latitude to the Association.

The matters stated in the Paragraphs (i) to (x) of Subclause (2) include all the matters which were placed before Mr. Fischer Williams and Mr. Beaufort Palmer when the proposed alteration of the Memorandum of Association was under consideration, these having been reported to the Annual Representative Meeting at Leicester.

2. *Winding Up.*

The following statement embodies the replies of Counsel to specific inquiries by the Committee as to the legal form necessary to effect the transition from the present incorporation of the Association under the Companies Acts to incorporation by Royal Charter.

(*a*) The grant of a Charter would not *ipso facto* terminate the present Company, which must be duly wound up in the manner prescribed by the Companies Acts.

(*b*) For this purpose a Special Resolution of the Company would be necessary, which must be passed by a three-fourths majority of a General Meeting and confirmed by a simple majority in a subsequent meeting.

(*c*) The Meeting to consider the Winding-up Resolution should not in Counsel's opinion be convened until a Representative Meeting has definitely approved the Application for a Charter, and the Petition has been presented and an intimation received that it will be granted.

(*d*) It would be a matter of arrangement so to fix the dates of the meetings convened to pass the winding-up resolutions that the second should practically coincide with the date of grant of the Charter.

(*e*) The winding-up, if decided upon, would follow the ordinary course of a voluntary winding up: a liquidator would be appointed, who might be an officer of the Company, and whose duties would be to collect the assets of the Company, discharge its liabilities, and transfer the balance of assets to the Chartered Association. It would not be necessary actually to realize the assets, except so far as might be required for the discharge of liabilities.

ESTIMATE OF PROBABLE COST OF OBTAINING A CHARTER.

In reporting as to the probable cost of obtaining a Charter, the Organization Committee would first point out that a considerable portion of the cost has necessarily been already incurred in the preparation as directed by the Representative Meeting of the drafts now submitted. It is, therefore, desirable to set out the estimated cost of obtaining a Charter in two parts, namely,

(*A*) The cost already incurred.

(*B*) The estimated cost of completing the matter.

A. The costs up to the present have been *approximately:*

(1) Legal expenses	Counsel's fees	£75
	Other charges	115
(2) Other expenses (Printing, Committee Meetings, etc.)		200
		£390

B. The cost of completing the application will depend upon whether it is opposed or not.

If it were seriously opposed, it is impossible to estimate with any approach to accuracy the cost of proceeding with the matter.

If the application is not opposed, it is estimated that the costs would be, approximately:

(1) Government stamps and fees	£130
*(2) Legal expenses of completing the requisite papers (including such further fees as would be payable to Counsel) ...	200
*(3) Other expenses (Printing, Committee Meetings, etc.)	200
(4) Cost of winding up the existing Association	100
	£630

It is evident that the costs under (2) and (3) must depend to a considerable extent upon the nature of the alterations made by the Representative Meeting in the Draft now submitted, and the consequent legal expenses incurred in giving effect to such alterations.

---

*These items have been estimated on the supposition that the cost of completing the preparation of the draft Charter and Petition would at most not exceed that of preparing the drafts now circulated.

DRAFT CHARTER, ORDINANCES, AND BY-LAWS.

(*As drafted by Counsel, Mr. T. R. C. Dill, January, and revised by the Organization Committee and by Counsel, to March,* 1906.)

CHARTER.

British Medical Association.

EDWARD VII. by the Grace of God of the United Kingdom of Great Britain and Ireland and of the British Dominions beyond the Seas, King, Defender of the Faith—TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETING.

WHEREAS

[a]

have presented to Us their humble Petition setting forth (amongst other things), to the effect following:—

[b]

AND WHEREAS We are minded to comply with the said prayer and to grant a charter containing the provisions hereinafter set forth.

NOW KNOW YE that We having taken the premises into Our Royal consideration of Our special Grace certain knowledge and mere motion, do will, ordain, constitute, declare, appoint, and grant as follows, that is to say:—

1. For the purposes hereinafter set forth and all other purposes of this Our Charter the above-named Petitioners and all other persons who shall pursuant to this Our Charter and the Ordinances made thereunder be members of the Corporation hereby constituted are hereby created and henceforth for ever shall be one body politic and corporate by the name of the "British Medical Association" (hereinafter called "the Association"), and by the name aforesaid shall have perpetual succession and a common seal with full power and authority to alter, vary, break, renew the same at their discretion, and by the same name may sue and be sued, in every court of Us, Our heirs and successors, and We do hereby grant to the Association full licence, right, authority, power and capacity (notwithstanding the statutes of Mortmain), First to take and hold all such lands, tenements, hereditaments and property as are now

---

[a] Here insert the names and descriptions of a few representative members of the existing Association as Petitioners.

The number of them is immaterial, but it is not desirable to make the document unnecessarily bulky, and I suggest that the number should not exceed twelve.—T.R.C.D.

[b] Here will be inserted a statement of the substance of the Petition which is not yet drafted, but will contain a short history of the Association and the reasons for desiring a Charter.—T.R.C.D.

Subjects of Clauses.

Corresponding provisions of the present Regulations.

vested in or held by the existing Association (c) hereinbefore referred to, or any trustees or trustee for that Association, and, secondly, to take, acquire, purchase and hold (d) in perpetuity or otherwise any lands, tenements, hereditaments and property whatsoever, situate within Our United Kingdom of Great Britain and Ireland; And (subject to such consent if any as may be required by law) (e) to grant, demise, alien, mortgage, charge or otherwise dispose of all or any of the lands, tenements, hereditaments and property for the time being of the Association, and also to do all other matters incidental or appertaining to a body corporate.

Objects of the Association.

Memorandum of Association, Clause 3.

2.—(1) We do hereby declare the objects of the Association to be the promotion of the medical and allied sciences, the maintenance of the honour and interests of the medical profession and of the members thereof collectively and individually, and the co-operation of the members of the Association for their mutual assistance and support in all matters affecting them in their professional capacity, including the encouragement, promotion or provision of means for protecting Members and their families against the exigencies of age, sickness, death or misfortune.

Methods.

(2) Without prejudice to the generality of the foregoing objects and to the other powers conferred by these presents and so that the said objects and powers shall be in no wise restricted by the powers next hereinafter specified We do hereby expressly declare that for the attainment of the aforesaid objects the Association may adopt any or all of the following means, that is to say:—

(i) May hold meetings and conferences at any place in the United Kingdom or in any part of Our dominions for the discussion of the affairs, interests and duties of the medical profession and for promoting personal and friendly intercourse between Members of the Association and between members of the medical profession in general.

(ii) May compile, revise, publish and distribute or sell lists and registers of medical practitioners, and records of events, transactions and proceedings of interest to the Members of the medical profession.

(iii) May publish periodically and sell the *British Medical Journal* or any other journal of a character specially adapted to the needs of the Medical Profession.

(iv) May encourage research in the medical and allied sciences by grants from the funds of the Association, by the establishment of scholarships, prizes or rewards and in such other manner as the Association may determine upon.

(v) May originate, support, promote, and oppose alterations in the law of the United Kingdom or any British Colony or Dependency affecting the Public Health or the Medical Profession and may promote the candidature of any member of the Association for Parliament or for any British Legislative Assembly.

Memorandum of Association, Paragraphs (*a*) to (*d*) of Clause 3.

(vi) May take or defend and assist persons in taking or defending any legal proceedings civil or criminal (including proceedings before the General Medical Council) in which in the opinion of the Association the honour or interests of the Medical Profession or of any Member of the Association in his professional capacity or any question of professional principle is or are involved.

(c) The expression, existing Association, will be defined in the preamble or recitals to the Charter.—T.R.C.D.

(d) The Privy Council may require a limit to be imposed on the annual value of the land which may be held.—T.R.C.D.

(e) The words in brackets are inserted as a reminder that the consent of the Charity Commissioners may be required to the alienation of land by the Association.—T.R.C.D.

(vii) May provide facilities for sales or transfers of medical practices, for the arrangement of medical partnerships and for the engagement of qualified assistants and temporary substitutes for medical practitioners being Members of the Association.

(viii) May establish, endow, contribute to, organise and manage provident or benevolent funds for the benefit or assistance of Members of the Association or of the Medical Profession and their families or dependents.

(ix) May undertake and carry out the execution of any trusts which the Association may deem to be directly or indirectly conducive to the interests of the Medical Profession or any branch thereof.

(x) May take such other means (whether of the same nature as the means hereinbefore stated or not) as may seem to the Association incidental or conducive to the promotion or carrying out of the foregoing objects or any of them.

Memorandum of Association, Clause 3, Paragraph (*e*).

Association not to carry on trade or make profit for individual members.

3. The Association shall not carry on any trade or business (except so far as the same may be involved in the publication, conduct and sale of the Journal of the Association and of the other documents and records hereinbefore mentioned and in the provision of facilities for the matters mentioned in paragraph (vii) of the last preceding clause) nor engage in any transaction with a view to the pecuniary profit or gain of the individual Members thereof, provided that this shall not preclude the Association from applying its funds in any manner within the contemplation and intention of the last preceding clause of these Presents, or in the remuneration of Members of the Association for services actually rendered.

Memorandum, Clause 4.

Membership: First Members.

4. The first Members of the Association shall be the persons named in the Register of the Members of the existing Association which has been certified by (the Secretary of the existing Association) as complete and correct and bears even date with the Order in Council for the preparation of the Warrant for passing this Our Charter under the Great Seal of the United Kingdom.

Article II.

Election of Members.
Ordinance 4;
By-laws 4 to 9.

Ordinary Members of the Association shall hereafter be elected in such manner as may be from time to time prescribed by the Ordinances and By-laws of the Association.

Honorary Members of the Association.
By-law 8.

5.—(1) The Association shall have power to elect as Honorary Members such persons, and in such manner as the By-laws of the Association may provide, and to admit members so elected to such privileges other than that of voting as Members of the Association, as may from time to time be conferred on them by or under the By-laws.

Article X.

Extraordinary Members of Divisions or Branches.
By-law 9.

(2) Each Division or Branch hereinafter mentioned of the Association shall have power to admit to certain of the privileges of membership of such Division or Branch, other than that of voting, Members of the Association, who are not entitled to be Ordinary Members of such Division or Branch and each Division or Branch of the Association not in the United Kingdom shall have power to admit to certain of the privileges of membership of such Division or Branch, other than that of voting, Members of the Medical Profession who are not eligible for election as Ordinary Members of the Association. The By-laws of the Association may prescribe the designation under which persons

Article VI.

Subjects of Clauses.
Corresponding Clauses of this Draft.

Corresponding provisions of the present Regulations.

shall be admitted to such privileges, the nature of the privileges to be conferred upon them, and the conditions of admission thereto.

Local Bodies of Members.

6.—(1) For the better attainment of the objects of the Association the Members thereof shall be formed into separate local bodies styled Divisions and Branches.

Article IV.

Divisions.
Ordinances 11, 12.
Branches.

(2) A Division shall comprise such body of Members as the Association shall in the manner prescribed by the Ordinances of the Association declare to be a Division, and a Branch shall be such Division, or such group of Divisions, as the Association shall in like manner declare to be a Branch.

Area of Divisions.

(3) Each Division shall have a local area to be fixed from time to time by or in accordance with the provisions contained in the Ordinances.

Membership of Divisions and Branches.

(4) Every Member whose address as registered for the time being in the books of the Association is at a place situate within the area of any Division shall *ipso facto* be an Ordinary Member of that Division and of no other, and every Ordinary Member of a Division shall *ipso facto* be an Ordinary Member of the Branch which comprises that Division and of no other.

Regulations as to constitution and government of Divisions and Branches.
Ordinances 11 to 13; By-laws 17 to 23.

(5) In all other respects the Divisions and Branches shall be so constituted, managed, and governed, and shall have such powers, rights, and privileges and shall be under such obligations, as shall be prescribed by or under the Ordinances and By-laws for the time being, and the By-laws may provide for contributions, grants and subscriptions out of the general funds of the Association to Divisions or Branches, and may impose on the Members of any Division or Branch such obligations towards the Association, and the Division and Branch respectively, as may seem to the Association to be expedient, and may empower any Division or Branch to make (subject or not subject to the approval of the Association) any rules in relation to the affairs thereof and to vary and repeal any such rules.

Article V.

Representative Body.
Ordinances 14 to 17; By-laws 24 to 34.

7. The general control and direction of the policy and affairs of the Association shall be vested in a body of Representatives (hereinafter called the "Representative Body") annually elected by the Divisions in accordance with the provisions of the Ordinances and the By-laws. The Representative Body shall hold an annual meeting (hereinafter called the "Annual Representative Meeting") and may hold other meetings (hereinafter called "Special Representative Meetings").

Articles XXVI to XXXV; By-laws 18 to 21.

Central Council.
Ordinance 19; By-laws 35 to 47.

8. There shall be a Central Council (hereinafter called "the Council") which shall, save as otherwise provided by the Ordinances, carry into execution resolutions passed by the Representative Body, and administer the affairs of the Association in accordance with this Our Charter and the Ordinances and the By-laws and shall exercise such powers and do such acts and things as may be exercised or done by the Association and are not by the Provisions of this Our Charter or the Ordinances or By-laws directed to be exercised or done by the Representative Body.

Articles XXXVIII to XL; By-laws 22 to 35.

Ordinances.

9.—(1) The Ordinances of the Association may (subject to the provisions of this Our Charter)

Ordinances 4 to 8.

(*a*) Prescribe the qualifications for membership of the Association and the other terms of such membership and prescribe or limit the amount of the subscriptions to be paid by members.

Articles II, III, VI to X.

Ordinances 8 to 10.

(*b*) Provide for the resignation of membership and for the removal from or other modes of termination of membership of the Association.

Articles VIII, XLII to XLIV.

Subjects of Clauses.

Corresponding Clauses of this Draft.

Corresponding provisions of the present Regulations.

Ordinances 11, 12.

(*c*) Provide for the formation of the Divisions and Branches.

Articles IV, V; By-laws 4 to 12.

Representative Body, Ordinances 14 to 17; Council, Ordinance 19.

(*d*) Provide for and prescribe the constitution and powers of the Representative Body and the Council and the mode of election of the members thereof respectively.

Meetings of the Association, Ordinance 18; of the Representative Body, Ordinance 14, By-laws 26, 27; of the Council, Ordinance 19, By-laws 44–47.

(*e*) Provide for the holding of meetings of the Association and of the Representative Body and of the Council.

Representative Meetings, Articles XXVI to XXXV, By-laws 18 to 21; *Council*, Articles XXXVIII to XL, By-laws 22 to 35.

Ordinances 21, 22.

(*f*) Provide for the appointment of Officers of the Association.

Articles XXXVI and XXXVII.

Ordinance 23.

(*g*) Provide for the payment of the personal expenses incurred by members in connection with their attendance at meetings of the Representative Body or of the Council or of any Committee of either of the said bodies or at any Conference authorised by the Representative Body or by the Council.

Article XLV.

Ordinance 24; By-law 28.

(*h*) Provide for the audit of the accounts of the Association.

Article XVIII(A).

Ordinances 17, 26; By-law 28.

(*i*) Empower the Representative Body (subject or not subject to the consent of the Council or other restrictions) to make and from time to time to add to, amend, alter or repeal By-laws for regulating (subject to this Our Charter and the Ordinances of the Association) the proceedings of the Representative Body and the Council and any committee thereof respectively and the conduct of the business and affairs of the Association and any other matters which require to be so regulated.

Article XLVII.

(*j*) Provide for the government of the Association in all respects not otherwise provided for by this Our Charter.

Ordinances; Making, alteration, and repeal.

(2) The first Ordinances of the Association shall be those set forth in the 1st Schedule hereto and the same are hereby declared to be valid and effectual to all intents and purposes whatsoever. The Ordinances (including the first Ordinances) may be added to, amended, altered or repealed and new Ordinances made from time to time by the Representative Body subject to such restrictions (if any) as may be prescribed by the Ordinances. Provided that no such addition, amendment, alteration, repeal or new Ordinance shall come into operation unless and until it shall have been allowed by Our Privy Council. Such allowance shall be conclusive evidence that the addition, amendment, alteration, repeal or new Ordinance has been in all respects duly made and is valid and effectual for all purposes.

First By-laws.

10. The first By-laws shall be those set forth in the 2nd Schedule hereto, and the same are hereby declared to be valid and effectual to all intents and purposes whatsoever until the same shall be amended, altered or repealed in pursuance of the powers conferred by the Ordinances.

Article XLVII.

Continuity of office.

11. The Representatives of Divisions of the existing Association, who shall be holding office as such at the date when this Our Charter comes into operation, shall be deemed to be the first Representatives of the Divisions of the Association, and shall continue to hold office as such until their successors are appointed in pursuance of this Our Charter and Members of the Council of the existing Association holding office at the date when this Our Charter comes into operation shall be

Continuity of Divisions and Branches.

deemed to be the Members of and to form the first Council of the Association, and shall continue to act as such until the new Council is elected in pursuance of this Our Charter and the several Officers and Committees of the existing Association shall continue to hold their respective offices and discharge their respective duties and receive such emoluments, if any, as pertain to the offices which they fill until it shall be otherwise determined in pursuance of this Our Charter, and the Divisions and Branches of the existing Association, with their Officers, Councils and Committees existing and holding office respectively at the date of the grant of this Charter shall be deemed to be Divisions and Branches, Officers, Councils and Committees constituted or appointed in pursuance of this Our Charter, and shall continue until otherwise determined in pursuance of this Our Charter.

Supplemental Charter.

12. It shall be lawful for Us, Our Heirs and Successors by supplemental Charter to add to, amend or repeal the provisions of this Our Charter or any of them provided that a resolution to accept and approve such supplemental Charter shall have been passed by a majority of not less than two-thirds of the members present and voting at a Representative Meeting specially summoned for the purpose. Any such resolution shall have effect subject to such approval or confirmation (if any) as may from time to time be required by the Ordinances with respect to the amendment of an Ordinance ([h]).

Surrender of Charter and winding up.

13. It shall be lawful for the Association by a resolution of the Representative Body passed at a representative meeting specially summoned for the purpose by such majority as mentioned in the last preceding clause hereof and subject to such approval or confirmation as therein mentioned to surrender this Our Charter and to wind up the affairs of the Association, but if on the winding up or dissolution of the Association there shall remain after the satisfaction of all its debts and liabilities any property whatsoever, the same shall not be paid to or distributed among the Members of the Association or any of them, but shall, subject to any special trusts affecting the same, be given and transferred to some other institution or institutions having objects similar to the objects of the Association to be determined by the Representative Body at or before the time of dissolution or in default thereof by a judge of the Chancery Division of Our High Court of Justice.

14. Lastly, We do hereby for Us, Our Heirs and Successors grant that these Our Letters Patent shall be in and by all things good, firm, valid, sufficient and effectual in law notwithstanding any omission, imperfection, defect, matter, cause, or thing whatsoever to the contrary thereof in these Our Letters Patent contained and shall be taken, construed and adjudged in the most favourable and beneficial sense and to the best advantage of and for the Association as well in Our Courts of Record as elsewhere notwithstanding any recital, mis-recital, uncertainty, or imperfection in these Our Letters Patent ([i]).

In Witness whereof We have caused these Our Letters to be made Patent.

Witness Ourselves at Our Palace of this
day of in the year of Our Reign.

By warrant under the King's Sign Manual.

---

[h] Provisions such as this and the next clause are usually inserted in Charters and facilitate amendments.—T.R.C.D.

[i] This is usual and formal only.

THE FIRST SCHEDULE.

ORDINANCES OF THE BRITISH MEDICAL ASSOCIATION.

SECTION I.

PRELIMINARY.

Corresponding Clauses of this Draft.

Corresponding provisions of the present Regulations.

Article I.

1.—(1) In these Ordinances (where not repugnant to the Context)

(*a*) "The Charter" means and includes the Royal Charter granted in the year 1906, and incorporating the British Medical Association and any amendment thereof, and any supplemental Charter for the time being held by that Association.

(*b*) "The Ordinances" means the Ordinances for the time being of the Association.

(*c*) "The By-laws" means the By-laws for the time being of the Association.

(*d*) "The Journal" means the *British Medical Journal* or other the professional journal for the time being published by the Association.

(2) Words occurring in these Ordinances and also occurring in the Charter shall bear the same respective meanings in these Ordinances as they bear in the Charter.

2. The Interpretation Act, 1889, shall apply for the purpose of the interpretation of these Ordinances as it applies for the interpretation of an Act of Parliament.

3. These Ordinances shall be construed so as not to conflict with the Charter.

SECTION II.

MEMBERSHIP.

Eligibility.

Charter 4 and 9 (*a*). By-laws 4 to 9.

4. Any Medical Practitioner registered in the United Kingdom under the Medical Acts, and any Medical Practitioner residing within the area of any Branch of the Association situate in any part of the British Empire other than the United Kingdom, who is so registered or possesses such medical qualification as shall, subject to the By-laws, be prescribed by the Rules of the said Branch, shall be eligible as a Member of the Association. Subject as aforesaid the mode and conditions of election to membership shall from time to time be determined by or in accordance with the By-laws. Article III.

Subscriptions.

Charter 9 (*a*); By-laws 11 to 14.

5. Every Member shall pay to the Association a subscription of such amount not exceeding sixty shillings per annum, as may for the time being be prescribed by the By-laws. The said subscription shall be considered due in advance on the first of January of each year, or in the case of Members elected during the year at the time of election. Article VII.

Charter 9 (*a*).

6. Each year's subscription shall entitle the Member to all privileges of membership of the Association, including that of receiving the *Journal* for the current year, and to the ordinary privileges of membership of that Division and of that Branch of which he is an ordinary Member. Article VII.

Corresponding Clauses of this Draft.

Corresponding provisions of the present Regulations.

Re-Eligibility.

Charter 9 (*a*).

Article IX.

7. No person who shall have been a Member of the Association and ceased to be such shall be eligible for re-election until he shall have paid all arrears of subscription (if any) due from him to the Association at the date when his former membership ceased, and no person whose former membership shall have been terminated by reason of his conviction or expulsion as hereinafter provided shall be eligible for re-election by any Branch Council without the sanction previously obtained of the Central Council.

Duration of Membership.

Charter 9 (*a*).

Article III (second paragraph).

8. Every Member whether one of the first members or a subsequently elected Member shall remain a member until his membership is terminated in accordance with the provisions hereinafter contained.

Termination of Membership.

Charter 9 (*b*).

9. Membership of the Association may be terminated in any of the following ways, namely:—

By-law 14. — Article VIII.

(*a*) By resignation subject to such notice as may be provided for by the By-laws and subject to the provisions of the next succeeding Ordinance.

By-law 14. — Article VIII.

(*b*) *Ipso facto* by default in the payment of subscriptions to the Association for such period as may be stated in the By-laws.

Article XLII.

(*c*) *Ipso facto* upon sentence (after conviction in a Court of Justice of any crime) to imprisonment with hard labour without the option of a fine or to any greater punishment, or upon erasure from the Medical Register under Section 29 of the Medical Act of 1858, or upon forfeiture through misconduct of the medical qualification by virtue of which the Member shall have been eligible for membership.

Article XLIII.

(*d*) *Ipso facto* by expulsion (after the enquiry and in the manner prescribed in the next succeeding Ordinance) on the ground that the conduct of the Member is detrimental to the honour and interests of the Medical Profession or Association or calculated to bring the Profession into disrepute, or on the ground that the member has wilfully and persistently refused to comply with the regulations of the Association or the rules of any Division or Branch of which he may be a member.

Expulsion.

By-law 54 (8), (as regards "enquiry"); By-law 57 (as regards "notice").

Article XLIV (*a*).

10. (*a*) The Council shall have power on the representation of any Branch and after due enquiry, of which not less than fourteen days' notice specifying a time and place at which he may be heard in his defence shall have been served on the Member in the manner prescribed by the By-laws, finally to expel from membership of the Association any Member of such Branch whose conduct shall be held by the Council to be such as renders him liable to expulsion under paragraph (*d*) of the last preceding Ordinance.

Article XLIV (*b*).

(*b*) The Council of each Branch out of the United Kingdom having a membership of not less than thirty shall have power, on the representation of any two Members of such Branch and at a Special Meeting convened at not less than one month's notice, and after due enquiry of which not less than fourteen days' notice in writing specifying a time and place at which he may be heard in his defence shall have been given to the Member, to expel from membership of the Association any Member of such Branch whose conduct shall be held by the Council

Corresponding Clauses of this Draft.

Corresponding provisions of the present Regulations.

of the Branch to be such as renders him liable to expulsion under paragraph (*d*) of the last preceding Ordinance.

(*c*) A majority of two-thirds of those present and voting at a meeting whether of the Council or of a Branch Council shall be required for the purpose of exercising the powers conferred by the last two preceding clauses. Article XLIV (*c*).

(*d*) When a member is expelled he shall notwithstanding that he has ceased to be a member be liable to pay all sums due from him to the Association, or any Division or Branch thereof, at the time of his expulsion. Article XLIV (*d*).

(*e*) No member in regard to whom a representation as aforesaid has been made or whose conduct is under investigation, or is the subject of enquiry by the Council, or by a Branch Council, or by any Council or Committee of a Division, or by any Committee authorised in that behalf by any such Council as aforesaid, shall be capable of effectively resigning his membership of the Association until the investigation or enquiry is completed and the decision thereunder is made known. An enquiry or investigation shall, for the purpose of this clause, be deemed to commence at the time when the matter of such investigation or enquiry is first brought officially under the notice of the body authorised by or in pursuance of this Ordinance to make such investigation or enquiry. Article XLIV (*e*).

SECTION III.

Charter, 6 (2).

DIVISIONS AND BRANCHES.

Formation.

11. It shall rest with the Council from time to time to determine, recognise, and declare by resolution published in the Journal, what bodies of Members shall be Divisions, and what Divisions and groups of Divisions shall be Branches of the Association, and what shall be the local area of each Division, and accordingly the Council shall have full power from time to time to amalgamate, subdivide and modify Divisions and Branches and the local areas thereof. Nevertheless, not less than one calendar month's notice in all cases shall be given (in the manner prescribed by the By-laws) to any existing Division or Branch in whose boundaries or area any change is proposed. By-law 4.

By-law 57 (as regards notice).

Boundaries.

12. In determining the boundaries or area of Divisions and Branches, the Council shall have regard to the expressed wishes of the existing local bodies concerned, and to the facilities of communication in each district by railway and otherwise, and the opportunities thus afforded to Members of local bodies for meeting to transact the business thereof, and to the expediency of making the boundaries of such bodies coincide with those of Parliamentary constituencies, counties, or other public administrative divisions of the country. By-law 5.

Autonomy.

13. (*a*) Subject to the Charter and the Ordinances and By-laws each Division and each Branch shall be free to govern itself in such manner as it shall think fit, and for that purpose to make from time to time such Rules as it may think fit, and to repeal or alter the same as and when it shall consider it expedient. By-law 11 (*a*).

(*b*) The Rules so made, and for the time being in force, shall be binding on the Members constituting the Division or Branch in reference to which they are made. Provided that such Rules shall be By-law 11 (*b*).

Corresponding Clauses of this Draft.

Corresponding provisions of the present Regulations.

submitted for approval to the Council and shall not come into operation unless and until they are approved by the Council.

SECTION IV.

Representative Body.

Charter 7, 9 (*d*); By-laws 24 to 34.

Articles XXVI to XXXV; By-laws 18 to 21.

Composition.

14. The Representative Body shall be composed of the Representatives annually elected by the Divisions in the manner prescribed by the Ordinances and the By-laws and of the members of the Council in office for the time being. No Member of the Association who is not a Representative of a Division or group of Divisions, or a Member of the Council, shall be entitled to take part in any Representative Meeting. Article XXVI.

Voting Power.

15. Members of the Representative Body elected by the Divisions shall alone be entitled to vote at a Representative Meeting. By-law 20.

Election of Representatives.

16.—(1) Representatives of Divisions shall be elected by Constituencies formed as follows, each such Constituency being entitled to elect one Representative. Article XXVII.

(2) Any Division having not less than fifty members may form one Constituency, and except as hereinafter provided every Division having less than fifty members shall be grouped by the Council with another Division, or with other Divisions, to form a Constituency having not less than fifty members.

(3) Provided that the Council shall have power to give separate representation to Divisions having fewer than fifty members in those cases in which it appears to the Council that special difficulties exist as to the holding of joint meetings with neighbouring Divisions.

(4) In no case shall the total number of Constituencies formed throughout the Association exceed 300.

(5) Subject as aforesaid the Constituencies shall be formed and may be from time to time altered by the Council, and the Council shall publish lists of the Constituencies as and when they may think expedient.

(6) In the case of a Constituency formed within the United Kingdom, the Representative shall be elected by a General Meeting of the Members of the Constituency, held not more than three months, nor less than three weeks, before the Annual Representative Meeting, and in the case of a Constituency not formed within the United Kingdom, the Representative shall be elected either in manner aforesaid, or by voting papers sent to each Member of the Constituency, as the said Constituency may decide.

Resolutions.

Charter 9 (1) (*d*) (*i*). 17.—(1) Subject as hereinafter provided a Resolution of the Representative Body (not being inconsistent with any provision of the Charter, Ordinances or By-laws) which affects the funds of the Association, or relates to the Ordinances or By-laws or to the policy of the Association in matters affecting the honour or interests of the medical profession, and is carried by a majority of not less than two-thirds of the members present and voting thereon, or which relates to any other business within the powers of the Representative Body, and is carried by a simple majority, shall be deemed to be a decision of the Association. Article XXXV.

Corresponding provisions of the present Regulations.

Proviso as to Notice.

(2) Provided that no resolution to make any addition to or any amendment, alteration or repeal of any Ordinances or By-laws, or to make any new Ordinance or By-law, shall have any operation unless a proposal to make the same shall have been previously approved and submitted to the Representative Body either by the Council, or by a Division, and shall have been published in the Journal, not less than three months before the Annual Representative Meeting or one month before the Special Representative Meeting at which such resolution is passed.

Proviso as to Referendum.

(3) Provided also that in respect of every resolution of the Representative Body the following provisions shall have effect:—

Articles XXII and XXXV (second paragraph).

(*a*) Within twenty-eight days after the date on which the resolution was passed the Council shall hold a meeting for the purpose of considering the resolution. Such meeting may be convened by a notice given either before or after or during the progress of the Representative Meeting at which the resolution was passed.

Article XXII (1).

(*b*) The Council at their said meeting may either approve the resolution or determine on a Referendum and they shall determine on a Referendum if in their opinion the resolution does not truly represent the wishes of the Association.

Article XXII (2)

(*c*) If the Council at their said meeting determine on a Referendum then the Secretary of the Association shall as soon as may be after the said meeting send by post to the Secretary of each Division of the Association a requisition requiring him to convene a meeting of the members of his Division (hereinafter called "the Division Meeting") for the purpose of considering the resolution and shall with such requisition transmit such observations (if any) on the subject of the resolution as the Council may direct, and the Secretary of each Division shall immediately after the holding of the Division meeting (if any) certify in writing to the Council the number of the votes given at the Division meeting for and against the resolution.

Article XXII (4) and (5).

(*d*) If the aggregate number of votes given for the resolution at all the Division meetings shall exceed the aggregate number of votes given against the resolution at all the Division meetings or if no vote shall be given at any Division meeting against the resolution the same shall be deemed to have been approved on a Referendum, provided that for the purpose of this provision no votes shall be reckoned unless the same shall be included in such certificate as aforesaid and such certificate shall have been received by the Secretary of the Association within four months after the date of the said meeting of the Council.

Article XXII (5).

(*e*) If the said meeting of the Council shall not be held within the said period of twenty-eight days then the resolution shall come into operation immediately upon the expiration of that period. But save as aforesaid the resolution shall have no operation unless and until it shall have been approved either by the Council or on a Referendum as hereinbefore provided and if and when so approved the same shall come into

Article XXII (3).

Corresponding Clauses of this Draft.

Corresponding provisions of the present Regulations.

operation as a valid and effectual decision of the Association.

(*f*) The fact of the resolution having been so approved shall be forthwith published in the Journal.

SECTION V.

Annual Scientific Meetings.

Charter 9 (1) (*e*).

18. The Council shall annually arrange Meetings which it shall be open to every Member of the Association to attend, for the purpose of receiving addresses or other communications relating to the Medical or allied sciences, and discussing such subjects pertaining thereto as the Council may think proper, and the Council may arrange to hold such Meetings in the United Kingdom or abroad. When held in the United Kingdom, such Meetings shall be convened at the same place as the Annual Representative Meeting and in connection, but so as not to conflict, therewith. For the more convenient consideration of the matters to be discussed, the Council may provide that they shall be considered in Sectional Meetings, and the Council shall appoint a President and other Officers of such Sections as well as readers of any addresses that may be given.

Article XVIII (B).

SECTION VI.

Council.

Charter 8, 9 (*d*).
By-laws 35 to 47.

19. The Council shall come into office at the commencement of the Annual Representative Meeting of each year, and shall be composed of the President of the Association, the President Elect, the Past President, the Chairman of Representative Meetings, the Chairman of Council and Treasurer *ex officio* and of Members duly elected by the following bodies, namely (*a*) by the Branches of the Association which shall be grouped for the purpose in such manner as the By-Laws may prescribe (*b*) by the Representative Body, which shall have power to elect annually not less than four, nor more than six members of the Council, and (*c*) by the Council itself, which shall have power to add to its numbers by the co-optation of not more than one member for every ten members elected by the Branches and further by the election if it think fit, at any of its Meetings of all or any one of the following, namely: One Medical Officer on the active or retired list of each of the following services:—The Royal Navy Medical Service, the Army Medical Service, and the Indian Medical Service, provided that in each case such Medical Officer shall not have retired from the active list more than three years previously.

By-law 22.

SECTION VII.

Committees.

By-laws 53, 54, 55.

20. Committees may be appointed in such manner and having such powers as may be prescribed by the By-laws, or as the Representative Body or the Council, subject to the provisions of the By-laws, may think proper. The President of the Association, the Chairman of Representative Meetings, the Chairman of Council, and the Treasurer shall be *ex officio* Members of all Committees of the Association.

Article XLI.

SECTION VIII.

Officers.

Articles XXXV and XXXVII.

Charter (9) (1) (*f*).

21. There shall be the following executive officers of the Association, namely, a President, a President Elect, a Past President a

Corresponding Clauses of this Draft.

Corresponding provisions of the present Regulations.

By-laws 49, 50.

Chairman of Representative Meetings, a Chairman of Council, and a Treasurer. The Officers aforesaid for the time being, other than the Chairman of Council, shall hold office for such period, and shall have and enjoy such duties, powers and privileges as shall be determined from time to time by the By-laws. The Chairman of Council shall be elected by the Council from its own number, and shall hold office for such period and discharge such duties as shall be determined by the Council. During his period of office and for one year thereafter he shall be an *ex officio* member of the Council, and any Branch of which at the time of his election he was a Representative shall be entitled to elect another in his stead.

22. The Council may from time to time appoint and dismiss such salaried and other officers and servants as it may think fit.

SECTION IX.

TRAVELLING EXPENSES.

Charter 9 (1) (*g*).

Article XLV.

23. The first-class travelling expenses within the United Kingdom of Members of Council and Representatives of Divisions attending any Representative Meeting shall be defrayed out of the general funds of the Association. Attendance of Representatives of Divisions for this purpose shall be construed to mean attendance at each Session of the Representative Meeting, unless the Council shall be satisfied that good cause existed for absence from any particular Session or Sessions. The first class travelling expenses within the United Kingdom of all Members attending Meetings of Council or of Committees and of all Members authorised by the Representative Body or by the Council to attend and attending any Conference shall be defrayed in like manner. The Council shall (subject as hereinbefore provided) determine what shall be considered an attendance for the purpose of this clause.

SECTION X.

By-law 34.

FINANCIAL AND OTHER REPORTS AND AUDIT.

Charter 9 1) (*d*) (*h*).

24. The Council shall annually prepare a Balance Sheet and Financial Statement of the Association for the past year, an Estimate of the probable income and expenditure of the Association for the coming year, and a Report of the general state and proceedings of the Association for the past year to be presented to the Annual Representative Meeting. Such Balance Sheet and Statement shall be audited by a professional Accountant and a copy of the same as audited and also a copy of such Estimate and Report shall be sent to the Secretary of every Branch and Division, and published in the Journal not less than two months before the said Meeting.

25. In addition to the above-mentioned Report, the Council shall have power to present to any Representative Meeting such further report or reports as it may deem advisable, and the same shall be published in the Journal if time permits.

SECTION XI.

BY-LAWS.

Charter 9 (1) (*i*).

Article XLVII.

26. Save so far as determined by the Charter, or by the Ordinances, the constitution and mode of government of the Association, the rights and obligations of every Member and separate body of Members thereof, the duties, powers, and privileges of all Officers, and of all Councils, Committees and governing and

Corresponding Clauses of this Draft. — Corresponding provisions of the present Regulations.

administrative bodies, both of the Association and of every Division and Branch, shall be such as may from time to time be prescribed and determined by or in accordance with the By-laws, and the By-laws (including the first By-laws) may from time to time be added to, amended, altered, or repealed by the Representative Body, subject to the provisions hereinbefore contained with respect to a resolution of that Body for the purposes aforesaid.

THE SECOND SCHEDULE.

BY-LAWS OF THE BRITISH MEDICAL ASSOCIATION.

SECTION I.

Preliminary.

1.—(1) In these By-laws (where not repugnant to the context) the expression "The Ordinances" means and includes the ordinances of the British Medical Association contained in the First Schedule to the Royal Charter granted in the year 1906, and incorporating that Association and any amendment of those Ordinances.

(2) Words occurring in these By-laws and also occurring in the Ordinances shall bear the same respective meanings in these By-laws as they bear in the Ordinances.

2. The Interpretation Act, 1889, shall apply for the purpose of the interpretation of these By-laws, as it applies for the interpretation of an Act of Parliament.

3. These By-laws shall be construed so as not to conflict with the Charter or the Ordinances.

SECTION II.

Membership.

Charter, 4;

Application.

Ordinance 4. 4. Every candidate for Membership of the Association shall apply for election in writing, addressed to the Association, and stating his agreement, if elected, to abide by the Ordinances and By-laws, and the Rules of the Division and Branch to which he may at any time belong, and to pay his subscription for the current year. By-law 1.

Election by a Branch Council.

5. Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the General Secretary of the Association, and to every Member of the Branch Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a Member of the Association by the Branch Council at any meeting thereof held not less than seven days (or such longer period as the Branch may by its rules prescribe) after the date of the said notice. A Branch may, by special Resolution, require that each candidate for election shall furnish a certificate from two Members of the Association, to whom he is personally known, stating that they consider him a suitable person for election. By-law 2. Ordinance 4.

Election by the Council of the Association.

6. Every candidate who does not reside within the area of any Branch shall forward his application to the General Secretary of the Associa- By-law 13.

tion, together with a statement signed by three Members of the Association that from personal knowledge they consider him a suitable person for election. Notice of the proposed election shall be sent by the General Secretary to every Member of the Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a Member of the Association by the Council at any meeting thereof held not less than one month after the date of the said notice.

Election of Officers of Services.

7. Notwithstanding anything contained in the two last preceding By-laws, officers of the Navy, Army, and Indian Medical Service on the Active List, are eligible for election through the Council or a Branch without any such certificate or statement as therein mentioned.

Honorary Members.

Charter, 5 (1).

8. The election of Honorary Members shall be by the Representative Body, on the recommendation of the Council. Honorary Members shall have none of the liabilities of Members as regards subscriptions, and shall not be entitled to any vote, but shall have such privileges as may be conferred upon them by resolution of the Representative Body. Every Honorary Member shall cease to be such Member upon a resolution of the Council to that effect passed by a majority of not less than two-thirds of those present and voting, and confirmed by the Representative Body.

Article X.

Extraordinary Members—"Associate," "Complimentary."

Charter, 5 (2).

9. Extraordinary Members shall be either Associate or Complimentary Members. Any Division or Branch may elect any Ordinary Member of any other Division or Branch as an Associate Member and any Division or Branch not in the United Kingdom may elect as a Complimentary Member any qualified Medical Practitioner resident within the area thereof, but not eligible for ordinary membership of the Association. Divisions or Branches may by their local Rules confer on Extraordinary Members such privileges other than that of voting, and impose such conditions of election as they may think desirable, subject to the sanction of the Council.

Article VI.

Annual List of Members.

By-law 19 (3).

10. In the month of May in each year a List of Members of the Association shall be prepared and published stating the names and addresses of the Ordinary Members of each Division and Branch as shown by the Register (to be kept by the Secretary of the Association) of Members of the Association on April 30th of that year, and those named in the said List as Members of any Division or Branch and no others shall be deemed to be the Ordinary Members of such Division and Branch at the date of the publication of such list for all the purposes of the Ordinances and the By-laws. Such list is hereinafter referred to as the "Annual List."

By-law 6.

SECTION III.

SUBSCRIPTIONS.

Charter 9(1) (*a*); Ordinances 5, 6, 9(*b*).

By-law 31.

Amount.

11. Except in the case of Members elected on or after the first of July in any year, the subscription to the Association shall be twenty-five shillings or such greater amount not exceeding thirty shillings as the Council may determine in the manner herein provided. A Member admitted on or after the first of July in any year shall pay half the current subscription for that year.

Corresponding Clauses of this Draft.

Corresponding provisions of the present Regulations.

Increase.

By-law 13.

12. The Council, in exercising the power conferred upon it by the last preceding By-law, shall insert a notice in the *Journal* not later than the first Saturday in November of any year, to increase the annual subscription to such amount, not exceeding thirty shillings, as it may think necessary or desirable, such increase of subscription to take effect on the first day of January following.

To whom Paid.

By-law 14.

13. Subscriptions shall be paid by all Members to the General Secretary at the registered office of the Association, or in the case of Members residing out of the United Kingdom, to such persons (if any) as the General Secretary may authorise to receive subscriptions on his behalf, of which authorisation notice shall be given to all Members concerned.

Ordinance 9(*b*).

Arrears of Subscription, Cessation of Membership.

Article VIII.

14. Any Member whose subscription shall not have been paid on or before the 31st December of the current year shall, without prejudice to his liability to the Association, be suspended from all privileges of membership, and at the end of the succeeding year, if the arrears be still unpaid, he shall, *ipso facto*, cease to be a Member. No Member shall (except in case of his death or expulsion, or of his ceasing to be a

Ordinance 9(*a*).

Member under the provisions of Ordinance 9(*c*) or under the previous provision of this By-law) cease to be a Member without having given previous notice, in writing, of his intention in that behalf on or before the first December in the current year to the Secretary of the Association, and having paid all arrears of subscription (if any) due from him.

Charter 9 (1) (*a*).
Ordinances 5 and 6.

Extra Subscription to Divisions and Branches.

By-law 15.

15. It shall be competent for any Division or Branch offering special privileges to its Members to require a special subscription from those Members who desire to avail themselves of such special privileges, and it shall likewise be competent for any Division or Branch to charge such special subscription as it may think proper to its Extraordinary Members; but no Ordinary Member of any Division or Branch shall be called upon to pay any further subscription than that paid to the Association as a condition of enjoying any ordinary privilege of membership of such Division or Branch.

Special Subscriptions to Branches not in the United Kingdom.

16. It shall also be competent for any Branch not in the United Kingdom by Rule to require each member of such Branch to pay (in addition to his Subscription to the Association and to any special subscription payable under the last preceding By-law) an annual subscription of such amount not exceeding thirty-five shillings as may be deemed by such Branch to be necessary for defraying expenses occasioned by the special circumstances of such Branch, and not to be capable of being defrayed out of any grant from the funds of the Association made in pursuance of the provisions hereinafter contained, but such a Rule shall not have effect unless and until (*a*) it shall have been approved by a majority of three-fourths of those present and voting at the meeting of the Branch at which the same is considered; and (*b*) it shall have been approved by the Council, and the approval of the Council shall not be given to such Rule if the Council shall before considering the said Rule have received a representation in writing, purporting to be signed by not less than one-eighth of the total number of the members of such Branch (as appearing in the Annual

List for the time being in force) praying that the said Rule shall not be approved.

SECTION IV.

Charter 6 (5).

Ordinances 11, 12, 13

DIVISIONS AND BRANCHES.

Local Management: Branches.

17. The management of the affairs of each Branch shall be vested in a Branch Council, of which the Members of the Council of the Association elected by the Branch shall be Members *ex officio*. In the case of a Branch comprising more than one Division, each Division shall be entitled to elect a Member or Members of the Branch Council and the number of Members to be elected by each Division shall be as nearly as possible proportional to the membership of such Division. In addition to the Members so elected, the Branch Council may have as *ex officio* Members thereof such Officers of the Branch as the Branch may think desirable. By-law 8.

Local Management: Divisions.

Charter 6 (5).

18. Any Executive Committee or Council appointed to manage the affairs of any Division shall include *ex officio* the Member who for the time being represents the Division on the Representative Body, and any Executive Committee or Council of any Division which is not in itself a Branch shall also include, as *ex officio* Members thereof, the Members of the Branch Council elected by such Division. By-law 7.

Grant to Branches: Ordinary. By-law 16.

Charter 6 (5).

19. (1) The Treasurer of the Association shall annually pay or allow out of the funds of the Association, to the Treasurer of each Branch the sum of four shillings for each Member of the said Branch who has paid to the Association the full current annual subscription for that year, and the sum of two shillings for each Member elected after the 1st July, who has paid to the Association half the current annual subscription.

(2) The grants made under this clause shall be applied to the expenses of the bodies to which they are made at the discretion of those bodies and within the limits of the objects of the Association as defined in the Charter. By-law 16.

By-law 10.

(3) For the purposes of this By-law, those named in the Annual List for the time being in force, as Members of any Branch, shall be deemed to be Members of the said Branch for the year in which such Annual List is published, and those elected by any Branch Council, whose membership dates from July 1st in any year and has been notified to the Council, shall be deemed to be Members of the said Branch for the ensuing half-year. By-law 16.

(4) Provided that it shall be competent for the Treasurer in any year to make grants on account to any Branch prior to the publication of the Annual List for that year.

Supplementary Grants.

Charter 6 (5).

20. In addition to the grants made in pursuance of the last preceding By-law, the Council, on the application of any Division or Branch, shall have power to make a supplementary grant of such amount as the Council may deem proper. Every application by a Division, not itself a Branch, shall be forwarded through the Branch Council, whose duty it shall be to transmit the same to the Central Council, with such comment (if any), as the Branch Council may deem expedient.

21. All applications for supplementary grants shall be referred by the Council to the Organisation Committee for report thereon, and, in

Corresponding Clauses of this Draft.

Corresponding provisions of the present Regulations.

considering the same, the said Committee and Council shall have regard to the evidence of work done by or through the agency of such Division or Branch for the Association or the medical profession, and also to the amount which may have been voluntarily subscribed locally for any purpose for which such a grant may be desired.

Application of Grants.

Charter 6 (5).

22. Out of the moneys received by way of grant from the Association as aforesaid each Branch shall defray all its expenses, and shall also pay to each Division of the Branch such sum as the Branch Council may consider necessary to enable the Division to defray its expenses.

By-law 17.

Annual Reports.

23. Every Division shall furnish annually to the Branch Council during the month of January, and every Branch shall furnish to the Council of the Association not later than March 15th in every year, a report of its proceedings during the previous year, a statement of its numbers and a financial statement in such form as the Council may from time to time prescribe.

By-law 9.

SECTION V.

Charter 7; Ordinances 14 to 17.

Representative Body.

Election of Representatives.

24. (1) A meeting of members of a constituency to elect a Representative on the Representative Body shall be convened (or where the election is by voting papers, the voting papers shall be despatched) by the Secretary of that constituency, or in the case of a constituency composed of more Divisions than one, by the Secretary of one of those Divisions to be chosen by the Secretaries of those Divisions, and if they cannot agree, by the Council.

Article XXVII.

(2) The person so acting shall, not less than fourteen days before the Annual Representative Meeting, inform the General Secretary of the name and address of the Representative elected by the constituency, and the General Secretary shall issue to such Representative a ticket of admission to the Meeting.

Article XXVII.

Substitutes for Representatives.

25. In the event of a Representative of any constituency being unable or unwilling to attend a Representative Meeting, the said constituency shall have power to select a Representative to act at the said Meeting in his stead, and such selection may be made by the constituency in General Meeting or by such Officer or Member of the Division or Divisions composing the constituency as may have been authorised by the Rules of the Division or Divisions or by a Resolution of the constituency to make such selection.

Article XXX; By-law 18.

Charter 9 (1) (*e*).

Convening of Annual Representative Meetings.

26. The Annual Representative Meeting shall be convened in every year by the Council, and shall be held at such time and place as shall have been prescribed by the Association in the previous Annual Representative Meeting, and if no time or place shall have been so prescribed, the same shall be determined by the Council.

Article XXVIII.

Special Representative Meetings

27. (1) Representative Meetings, other than the Annual Representative Meeting, shall be styled Special Representative Meetings, and may be convened at any time by the Council of its own motion and shall be so convened on requisition of not less than three Constituencies.

Article XXIX.

Corresponding Clauses of this Draft.

Corresponding provisions of the present Regulations.

(2) At least 14 days' notice of such Meeting shall be given in the Journal, and such notice shall indicate the object for which such meeting is convened. Article XXIX.

(3) No business shall be dealt with by a Special Representative Meeting other than that for which it is specifically convened. Article XXXII.

Charter 9(1)(*i*); Ordinance 17.

Business of Annual Representative Meeting. Article XXXI.

28. The business of the Annual Representative Meeting shall be to elect a Representative of a Division as the Chairman of Representative Meetings for the year; to elect a President of the Association and a Deputy-Chairman of Representative Meetings; to elect not less than four nor more than six Members of the Council, and such other Officers and such Members of Committees as by the Ordinances or By-laws for the time being may be required to be so elected; to consider the election of Honorary Members when recommended by the Council; to appoint a place at which the next Annual Representative Meeting shall be held; to consider the Annual Financial Statement and Balance Sheet presented by the Council; to appoint an Auditor (who shall be a professional Accountant) and fix his remuneration; to consider Reports of the Council, Reports of Committees instructed to report to such Meeting and Reports of Branches and motions relating to the adoption of such reports in whole or in part; to make new Ordinances or By-laws and alter and repeal existing Ordinances or By-laws and to consider any resolution relating to the honour and interests of the Medical Profession or of the Association which shall have been adopted by any Division or Branch, provided that any such Resolution proposing material alteration of the Constitution or policy of the Association shall have been submitted through the Journal for the consideration of all the Divisions not less than three months previously.

Charter 9(1)(*h*). — Article XVIII(A).

29. The first business of the Annual Representative Meeting shall be to elect the Chairman of Representative Meetings. The next business shall be to determine the order in which the various matters placed upon the Agenda of the said Meeting shall be taken. By-law 19.

Chairman. Article XXXIII.

30. At every Representative Meeting the Chairman of Representative Meetings, when present, and in his absence the Deputy Chairman of Representative Meetings, when present, shall preside. In the absence of both the said Officers the Meeting shall appoint a Chairman from its own number.

Voting.

Ordinance 15.

31.—(1) In any Representative Meeting Representatives of Divisions only shall be entitled to vote. By-law 20.

(2) Voting shall be, as a rule, by show of hands, unless before such vote is taken twenty Representatives present request that the vote shall be taken by card, in which case every Representative shall record as many votes as there are Members in the constituency which he represents according to the annual list then in force.

(3) In voting upon any matter upon which a constituency has passed a Resolution within the nine months immediately preceding such Meeting, the Representative of that constituency shall be under obligation to vote in accordance with such resolution.

(4) The Chairman shall in the case of an equality of votes have a second or casting vote.

Corresponding Clauses of this Draft.

Corresponding provisions of the present Regulations.

Quorum

32. No business shall be transacted at any Representative Meeting unless there be present at least one-half of the number of Representatives appointed to attend such Meeting. By-law 21.

Adjournment. Article XXVIII.

33. Any Representative Meeting may be adjourned from day to day until the completion of its business.

Minutes. By-law 19.

34. The Minutes of every Representative Meeting shall, after confirmation, be transmitted by the Chairman thereof to the Council for presentation to its next meeting.

SECTION VI.

Council.

Charter 8, 9 (1) (e .
Ordinance 19.

Branch Representation.

35.—(1) Any Branch, or group of Branches, having an aggregate membership of not less than 200, may elect one Member of Council, and any Branch, or group of Branches having an aggregate membership of not less than 400, may elect two Members of Council and an additional Member for each complete 600 Members in excess of 400. By-law 23.

(2) Branches in the United Kingdom having less than 200 Members shall be grouped for this purpose with neighbouring Branches unless in the opinion of the Council the special conditions of any such Branch justify the grant of separate representation.

(3) The grouping of Branches not within the United Kingdom for the purpose of electing Members of Council, shall be determined by the Council, provided that the total number of Members of Council to be elected by the Branches outside the United Kingdom shall not bear a less proportion to the total number of Members of such Branches than the total number of Members of Council to be elected by the Branches in the United Kingdom bears to the total number of Members of the last mentioned Branches.

(4) For the purpose of this By-law the number of the Members of a Branch shall be determined by the Annual List for the time being in force.

Election.

36. The election of Members of Council by the Branches shall be by means of voting papers sent by post to each member of the Branch. The said voting papers shall contain the names of those candidates who have been nominated, either (*a*) by a Division, or (*b*) in writing, signed by such number of Members (not less than three) as the Branch may by its Rules prescribe, and sent to the Secretary of the Branch on or before an appointed day of which not less than fourteen days' notice has been given in the Journal. The said voting papers shall contain such other particulars (if any) and shall be sent to the Secretary of the Branch within such time as the Branch may by its Rules prescribe. By-law 24.

Term of Office of Members of Council elected by Branches.

37.—(1) Each Member of Council elected by a Branch or group of Branches in the United Kingdom shall hold office for one year, and at the end of that time shall be eligible for re-election, unless he have served as the representative on the Council of one and the same Branch or group for six years successively, in which case he shall for one year be incapable of being elected as such representative. By-law 25.

(2) Each Member of Council elected by a Branch or group not in By-law 26.

Corresponding Clauses of this Draft.

Corresponding provisions of the present Regulations.

Charter 8, 9 (1) (*e*). Ordinance 19.

the United Kingdom, or elected by the Council to represent the Royal Naval Medical Service, the Army Medical Service, or the Indian Medical Service, shall hold office for such period, not exceeding three years, as the electing Branch or Body may determine, and at the expiration of such period shall be eligible for re-election, provided that no such Member shall be re-elected so as to make his period of continuous service as the Representative on the Council of one and the same Branch exceed eight years.

Term of Office of Members elected by the Representative Body.

38. Each Member of Council elected by the Representative Body shall hold office for one year, and at the end of that time shall be eligible for re-election, unless he have served as a Member of Council elected by the Representative Body for six years successively, in which case he shall for one year be incapable of being so elected.

Term of Office of Co-opted Members.

39. Each Member of Council co-opted by the Council shall vacate his office at the close of the last meeting of the Council for the year, but shall be eligible for re-appointment unless he shall have been appointed in each of the then last preceding five years, in which case he shall be incapable of being so co-opted for the next ensuing twelve months.

Qualification. By-law 27.

40. No person shall be eligible for election as a Member of Council by a Branch or group of Branches in the United Kingdom unless at the time of his election, he shall be a Member of such Branch or of a Branch comprised in such group. The eligibility for election as a Member of Council by a Branch or group not in the United Kingdom, shall be such as may be determined by the Rules of the said Branch or of the Branches forming the said group, and if no such Rule shall be adopted, the regulations as to eligibility shall be the same as for the Branches and groups in the United Kingdom.

Election Return. By-law 28.

41. The return of the election of each Member of Council elected by a Branch or group shall be communicated in writing to the Secretary of the Association by the President or Secretary of the Branch by which he is elected or of which he is a Member, not less than twenty-eight days prior to the Annual Representative Meeting of the Association.

Powers of incomplete Council. By-law 29.

42. In default of and until election of a Member or Members by any Branch or other body authorised to elect, or so far as such election shall not be complete, all the powers conferred on the Council shall belong to and be exercised by the *ex officio* Members thereof alone and such other Members (if any) of the Council as may have been duly elected by any Branch or Branches or other bodies authorised to elect.

Casual Vacancies. By-law 30.

43. Any casual vacancy occurring in the Council not less than four months before the Annual Representative Meeting may be filled up by any Branch, or body, the representation of which may have so become vacant, and the election to fill such vacancy shall be conducted in the same manner as the Annual Election, or, in respect of election by a Branch, in such other manner as may be prescribed by the Rules of the said Branch Any person so chosen shall retain his office

Corresponding Clauses of this Draft.

Corresponding provisions of the present Regulations.

so long only as the Member in whose office such casual vacancy shall have occurred would have retained the same if such vacancy had not occurred. The provisions of this clause shall apply as well to the members forming the first Council of the Association in pursuance of Clause 11 of the Charter as to members subsequently taking office.

Charter 8, 9; Ordinance 19.

Proceedings.

44. The Council shall meet not less than four times a year, and shall be presided over by the Chairman of the Council, or in his absence by a Chairman to be appointed by the Meeting from its own number. By-law 32.

45. Meetings of the Council shall be held at such time and place, and upon such notice as the Council shall appoint. By-law 32.

46. No business shall be transacted at any Meeting of the Council unless at least 15 Members be present. By-law 32.

47. The Chairman of Council may, if he think fit, and shall, upon receiving a requisition signed by not less than fifteen Members of the Council, and specifying the business for which a Special Meeting is required, call together a Special Meeting thereof. No business shall be transacted at a Special Meeting other than that for which such Meeting is called. By-law 33.

SECTION VII.

JOURNAL.

48. The *Journal* shall be conducted by a paid Editor, who shall be responsible for all that appears therein except such matters as are inserted therein in accordance with the Ordinances or By-laws, or by the direction of the Council. The Editor shall be appointed by and shall be subject to the control of the Council. Article XI.

SECTION VIII.

OFFICERS.

Charter 9 (1) (*f*); Ordinance 21.

49. The President of the Association shall be elected annually at the Annual Representative Meeting and shall enter upon the duties of his office at the next Annual Representative Meeting, and until then shall bear the title of President-Elect. At the expiration of his year of office as President he shall be designated Past President, and shall hold office as such for one year. By-law 36.

Ordinance 21.

50. The Treasurer shall be elected at an Annual Representative Meeting and shall hold office for three years. He shall receive all moneys payable to the Association, and discharge all accounts which have been ordered by the Council to be paid. By-law 37.

51. The Council shall have power to nominate for election at the Annual Representative Meeting those members who by their services to the Association are in the opinion of the Council worthy of election as Vice-Presidents. Such election shall be for life unless any appointment shall be subsequently cancelled by a vote of the Association in Representative Meeting assembled on a motion brought forward by the Council. No special privilege shall attach to the office of Vice-President. By-law 38.

Ordinance 22.

52. All salaried officers shall be appointed and may be dismissed by the Council and shall hold office for such period and perform such duties and receive such remuneration as the Council may from time to time determine. By-law 42.

Corresponding Clauses of this Draft.

Corresponding provisions of the present Regulations.

SECTION IX.

Committees.

53. Subject to the Regulations of the Association, the Representative Body and the Council shall respectively have power to appoint Committees, with such powers as may to them seem necessary or convenient, and to fix the quorum thereof, and lay down Rules for regulating the proceedings of such Committees. By-law 39.

Ordinance 20.

54. Nevertheless, there shall be Standing Committees as follows:— By-law 40.

(1) *Finance.*

A Finance Committee not exceeding sixteen in number (five to form a quorum) shall be appointed by the Council, which shall, *inter alia*, examine into the general working of the office, and certify the quarterly accounts prior to their being presented to the Council. By-law 40(1).

(2) *Journal.*

A Journal Committee not exceeding nine in number (three to form a quorum) shall be appointed by the Council, which shall, *inter alia*, examine into the general working of the Journal, and report to the Council thereon. By-law 40(1).

(3) *Premises and Library.*

A Premises and Library Committee not exceeding nine in number (three to form a quorum) shall be appointed by the Council, to which shall be referred all matters connected with the Library and its management, as well as the management of the House Property and other real property of the Association. By-law 40(2).

(4) *Public Health.*

A Public Health Committee not exceeding nine in number (three to form a quorum) shall be appointed by the Council, to which shall specially be referred all questions relating to Public Health and the Poor-Law Medical Service. By-law 40(3).

(5) *Colonial.*

A Colonial Committee consisting of eleven Members (three to form a quorum) shall be appointed, to which shall be referred all questions specially relating to the Branches not in the United Kingdom. Of such Committee five Members shall be appointed by the Representatives of these Branches on the Council, and two by the Council. By-law 40 (4).

(6) *Naval and Military.*

A Royal Naval and Military Committee not exceeding eleven in number (three to form a quorum) shall be appointed by the Council, to which shall be referred all matters relating to the Royal Navy Medical Service, the Army Medical Service, the Indian Medical Service, and the Medical Organisation of the Auxiliary Forces. Such Committee to include the Representative Members of these Services on the Council. By-law 40 (5).

(7) *Medico-Political.*

A Medico-Political Committee shall be appointed, consisting of sixteen Members (seven to form a quorum), which shall deal with all matters involving the public relations of the Profession not specially referred to other Committees, and shall have six Members appointed by the Council, and six by the Representative Body; such Committee to report to the Council and to the Representative Body and to act under the Council By-law 40 (6).

Corresponding Clauses of this Draft.

Corresponding provisions of the present Regulations.

(8) *Ethical.*

By-law 40 (7).

An Ethical Committee (otherwise designated the Central Ethical Committee) shall be appointed, consisting of fourteen Members (five to form a quorum), which shall advise the Council on proposed Rules of Divisions and Branches relating to professional conduct, shall investigate and report to the Council upon the cases of Members whose conduct is to be considered by the Council, shall adjudicate in cases of disputes on ethical questions referred to it by members of the Association and generally shall advise, and where so directed, act for the Council on all questions of professional conduct. Five members of such Committee shall be appointed by the Council and five by the Representative Body.

(9) *Organisation.*

By-law 40 (8).

An Organisation Committee shall be appointed by the Council, not exceeding ten in number (three to form a quorum), which subject to the directions of the Council shall deal with all questions of the Boundaries or area of Divisions and Branches, and the Rules thereof other than those relating to ethical matters, and advise the Council thereon, and shall exercise such powers as may be conferred upon it by the Council in advising and assisting Divisions or Branches in the strengthening of their organisation. This Committee shall have power to add to its number, for special purposes, a limited number of members specially qualified to assist in its work.

(10) *Scottish Committee.*

By-laws 40 (9).

A Scottish Committee, consisting of one Secretary from each Scottish Branch and the Members of the Council representing Scottish Branches. It shall have a Secretary, resident in Scotland, and shall meet at such place and time as the Committee may itself direct, and shall report to the Council on any matter specially concerning Scotland.

(11) *Irish Committee.*

By-law 40 (10).

An Irish Committee consisting of the Members of the Council representing Irish Branches, one Secretary from each Irish Branch, and one Member elected by each Branch; provided that, in the case of the Leinster and Ulster Branches, such elected Members shall be practitioners not resident either in Dublin or Belfast, and provided that, in the event of the Secretary of a Branch being also a Member of the Central Council such Branch shall have power to elect a further Member of the Committee.

In each of the foregoing sections of this By-law the number stated as the total number of the Members of the Committee shall be deemed to be inclusive of those who are Members *ex officio* in pursuance of the Ordinances.

Chairman.

By-law 41.

55. Each Standing Committee shall appoint from its own number a Member of Council as Chairman.

SECTION X.

SEAL.

56. The Council shall provide for the safe custody of the seal of the Association, and the seal shall not be used except in pursuance of a resolution of the Council and in the presence of at least one member of the Council and of the Secretary of the Association who shall sign every instrument to which the seal is affixed.

SECTION XI.

General.

Corresponding provisions of the present Regulations.

Notices.

Article XLVI.

57.—(1) A notice may be served by the Association upon any member either personally or by sending it through the post, in a prepaid letter, addressed to such member at his last known address or by publication of such notice in the *Journal* and sending a copy of the *Journal* containing such notice to such member, prepaid and addressed as above mentioned.

(2) A notice may be served on any Division or Branch, by serving the same as aforesaid on the Secretary of such Division or Branch, and if there be none, then on any two members of such Division or Branch.

(3) Any notice, if served by post, shall be deemed to have been served on the day following that on which the letter, or a copy of the *Journal* containing the same is posted, and in proving such service it shall be sufficient to prove that the letter, or a copy of the *Journal* containing the notice, was properly addressed and put into the Post Office.

Validity of Proceedings.

By-law 44.

58. The proceedings of the Representative Body or of the Council or of any Branch Council or Committee or other Body acting under the Charter or the Ordinances or the By-laws shall not be invalidated by any accidental omission to give any notice required by the By-laws or by any vacancy among their members or by any defect in the election or qualification of any of the members thereof.

☞ ***To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.***

Association Notices.

BRANCH AND DIVISION MEETINGS TO BE HELD.

Birmingham Branch.—The annual meeting of the Birmingham Branch will be held at the Medical Institute on Thursday, June 14th, at 3.30 p.m., and nominations for offices should reach the Honorary Secretary not later than May 23rd.—T. Sydney Short, Honorary Secretary, 35, Newhall Street, Birmingham.

Birmingham Branch: Coventry Division.—A special meeting of this Division will be held at the Coventry and Warwickshire Hospital on Tuesday, April 3rd, at 8.30 p.m. Agenda: (1) Mr. W. E. Bennett will read a paper on the Tolerance of the Peritoneum; (2) the Committee will recommend the adoption of the following resolution: "That the Division having, on February 15th last, approved of a scheme of principles and rules which they consider appropriate for the proper management of a provident dispensary, hereby declare that no member of the profession in the area of the Division should associate himself with, or continue to be associated with, any provident dispensary which is managed on lines fundamentally different from these principles and rules;" (3) the Committee will recommend that the Bradford Rule (B) should be altered so that "fourteen days' notice" should read "seven days' notice." After the meeting, a meeting of the members of the Voluntary Book Section will be held. Members desiring to join during the ensuing twelve months will oblige by either attending that meeting or otherwise signifying their wish.—E. H. Snell, Honorary Secretary, Warwick Avenue, Coventry.

Border Counties Branch: North Cumberland Division.—A meeting of the North Cumberland Division of the Border Counties Branch will be held at Penrith on Friday, April 6th. The Honorary Secretary will be pleased to hear from members who wish to read papers, show cases or pathological specimens. —Norman Maclaren, Honorary Secretary, 23, Portland Square, Carlisle.

Border Counties Branch: Scottish Division.—A meeting of this Division will be held in Dumfries about the middle or end of April. Members who have business or communications to bring before the meeting are requested to give notice to the Secretary.—George R. Livingston, Honorary Secretary, Dumfries.

East Anglian Branch *(Preliminary Announcement).*—The spring meeting of the East Anglian Branch will be held at King's Lynn on Thursday, April 5th. Members wishing to show cases or specimens or read papers should communicate at once with Dr. Gardiner, Tuesday Market Place, King's Lynn. —B. H. Nicholson, General Secretary of Branch, East Lodge, Colchester.

Edinburgh Branch: South-Eastern Counties Division. —The spring meeting will be held at St. Boswells in the house of Dr. Cullen, Chairman, in the afternoon of Friday, April 6th, at 4 o'clock. Agenda: (1) Matters referred by Medico-Political Committee to be considered. (2) Papers by various members to be read and discussed. (3) Annual balance sheet to be audited.—W. Hall Calvert, M.D., Honorary Secretary, Melrose.

Metropolitan Counties Branch: Kensington Division. —An ordinary meeting will be held at the Town Hall, High Street, Kensington, W., on Tuesday, March 27th, at 8.30 p.m. Dr. Robert Hutchison will read a paper on Chronic Diarrhoea. Certain matters referred to the Divisions will also be discussed. —Charles Buttar, Honorary Secretary, 10, Kensington Gardens Square, W.

Metropolitan Counties Branch: Walthamstow and City Divisions.—A conjoint meeting of these Divisions will be held at the Walthamstow Hospital, Walthamstow, on Tuesday, March 27th, at 4 p.m. Dr. Mitchell Bruce will read a paper on the Natural History of Tuberculosis.—Herbert Alexander, Honorary Secretary, Walthamstow Division; E. W. Goodall, Honorary Secretary, City Division.

Northern Counties of Scotland Branch.—A clinical meeting of the Branch will be held at the Northern Infirmary, Inverness, on Saturday, March 24th. Particulars will be sent to members by circular later. Members desirous of exhibiting specimens, or reading notes of cases are requested to communicate at once with the Secretary.—J. Munro Moir, M.D., Honorary Secretary, Ardross Terrace, Inverness.

North Wales Branch : South Carnarvon and Merioneth Division.—A meeting of the Division will be held at the Queen's Hotel, Portmadoc, on Thursday, April 5th, at 2 p.m. Members having papers to read or cases to show will please communicate with me before the 28th inst.—Hy. Gladstone Jones, Honorary Secretary, Criccieth.

South-Eastern Branch: Guildford Division.—The next meeting of this Division will be held at the Royal Surrey County Hospital, Guildford, on Friday, March 30th, at 4.30 p.m., the Chairman of the Division, Dr. J. P. A. Gabb, in the chair. Agenda: (1) Minutes of last meeting. (2) Adjourned discussion *re* contract practice. (3) Other matters referred to Divisions. (4) Mr. C. A Ballance, F.R.C.S., Surgeon to St. Thomas's Hospital and to the National Hospital for the Paralysed and Epileptic, will give an address on The Surgery of Brain Abscess, illustrated by lantern slides. (5) Any other business. Tea will be provided during the meeting. Members desirous of showing cases or specimens are invited to communicate with the Honorary Secretary. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends, and visitors are cordially invited.—E. J. Smyth, Honorary Secretary, Maythorne, Epsom Road, Guildford.

South-Eastern Branch : Isle of Thanet Division.—The next meeting of this Division will be held at the St. Mildred's Hotel, Westgate-on-Sea, on Friday, March 30th, at 4.30 p.m., Dr. C. J. Heaton in the chair. Agenda: Correspondence. Consideration of (1) Nurses Registration Report (see Supplement to the British Medical Journal, March 3rd, 1906); (2) Hospital Administration (see Supplement to the British Medical Journal, February 17th, 1906). Mr. W. H. Clayton-Greene, M.B., B.C., F.R.C.S. (St. Mary's and the French Hospitals), will read a paper entitled Anuria. Dr. Street will show an electric signalling apparatus for the use of invalids. If time permits Dr. Watts will introduce a discussion on the recommendations of the Medico-Political Committee on the subject of Contract Practice (see Supplement to the British Medical Journal, July 22nd, 1905, p. 29). Tea will be served at 4 p.m. All members of the South-Eastern Branch are invited to attend these meetings and to introduce professional friends, but will not be entitled to vote on Divisional questions. A dinner will be held after the meeting in a private room of the hotel at 6.45 p.m. Members intending to dine are requested to inform the Honorary Secretary before the commencement of the meeting. It is hoped that members will endeavour to be present.—Hugh M. Raven, Honorary Divisional Secretary, Broadstairs.

South-Eastern of Ireland Branch.—An ordinary meeting will be held at the County and City Infirmary, Waterford, on April 4th, at 2 p.m. Agenda: To receive and formulate evidence regarding Poor-law reform to be given before the forthcoming Royal Commission on the Poor Law, through a Committee consisting jointly of members of the Irish Committee, the Irish Medical Association, the Poor-law Association, and the Workhouse Association.—J. Quirke, Honorary Secretary, Piltown, co. Kilkenny.

South-Western Branch : Barnstaple Division.—A meeting will be held at Barnstaple on Wednesday, March 28th, at 3.30. Titles of papers and particulars of clinical cases must be sent to the Honorary Secretary not later than Saturday 24th inst., that they may appear on the agenda.—F. W. Kendle, Honorary Secretary and Treasurer.

West Somerset Branch.—The spring meeting of this Branch will be held at the Taunton and Somerset Hospital on Tuesday, March 27th, at 3.30 p.m., when the President, Mr. Gordon Henry, will take the chair. Mr. H. T. S. Aveline, Superintendent of the Bath and Somerset Asylum, Cotford, has kindly promised to read a short paper and open a discussion on the Care and Treatment of the Feeble-minded. The Hospitals Committee of the Association also asks for an expression of opinion from the Branch with regard to the following resolution: "That, in the opinion of this meeting, there should be no out-patient departments in hospitals, except for consultations and casualties, and that this opinion specially applies to hospitals whose staff are general practitioners." Will any member wishing to bring any other matter before this meeting kindly give me early notice? Tea will be provided after the meeting.—W. B. Winckworth, Honorary Secretary, Taunton.

Yorkshire Branch : Bradford Division.—A special meeting of the whole of the profession in the Divisional area will be held at the Great Northern Victoria Hotel, Bradford, on Wednesday, March 28th, at 8.30 p.m. The meeting is being called together by the Division in order to consider the best method of attempting to solve the difficulty of medical club practice. A copy of the recommendations of the Medico-Political Committee on contract practice has been sent to every medical practitioner in the district. As an introduction to the question, the following resolution will be moved by Mr. J. Wherry Willson, "That in the opinion of this meeting the present system of contract club practice is unsatisfactor and unnecessary in Bradford, and that a Committee b appointed to consider another scheme of carrying on the work. It is earnestly hoped that every practitioner in the district especially those who are interested in club practice, wil endeavour to be present as it is only by absolute unanimit that it will be possible to come to any decision on th subject.—James Metcalfe, Lynthorne Hey, Frizinghall Bradford, Andrew Little, 114, Manningham Lane, Bradford Honorary Secretaries.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,47 births and 4,909 deaths were registered during the week ending Satu day last, March 17th. The annual rate of mortality in these towns which had been 17.3, 17.4, and 16.7 per 1,000 in the three precedin weeks, further fell to 16.2 per 1,000 last week. The rates in the severa towns ranged from 5.9 in Burton-on-Trent, 6.5 in King's Norton, 7.0 i Aston Manor, 8.7 in Ipswich, 9.2 in Tottenham, 9.4 in Barrow-in-Fu ness, 9.6 in Hornsey, and 9.8 in Warrington to 20.6 in Bradford and i Sunderland, 20.7 in Wolverhampton, 20.8 in Bournemouth, in Nor wich, and in Middlesbrough, 21.2 in Liverpool, 21.7 in St. Helens, 22. in Hanley, and 23.2 in Wigan. In London the rate of mortality wa 16.5 per 1,000, while it averaged 16.0 per 1,000 in the seventy-five larg provincial towns. The death-rate from the principal infectiou diseases averaged 1.4 per 1,000 in the seventy-six towns; in Londo this death-rate was equal to 1.7 per 1,000, while among the seventy five large provincial towns the rates averaged upwards t 2.1 in West Ham and in Merthyr Tydfil, 2.5 in Handswort (Staffs.) and in Liverpool, 2.7 in Plymouth and in Bury, 2. in Newcastle-on-Tyne, 3.0 in West Bromwich, and 5.7 in Smethwick Measles caused a death-rate of 1.0 in Croydon, in West Ham, and i Manchester, 1.1 in Liverpool and in Swansea, 1.2 in York, 1.3 i Preston, 1.9 in Newcastle-on-Tyne, and 2.7 in Bury; scarlet fever o 1.3 in Birkenhead; diphtheria of 1.0 in Hull and Middlesbrough, 1. in St. Helens, and 1.4 in Coventry and in Merthyr Tydfil; whooping cough of 1.0 in Stockport, in Liverpool, and in Sunderland, 1.1 i Cardiff, 1.2 in Rhondda, 1.3 in Plymouth, 1.6 in Handsworth (Staffs. 1.7 in Rotherham, 3.0 in West Bromwich, and 4.0 in Smethwick and diarrhoea of 1.3 in Reading. The mortality from enteri fever showed no marked excess in any of the large towns One fatal case of small-pox was registered last week i Plymouth, but none in any other of the seventy-six larg towns. Seven small-pox cases remained under treatment i the Metropolitan Asylums Hospitals at the end of last week against 6 at the end of each of the two preceding weeks; one ne case was admitted during the week, against 3, 1, and 1 in the thre preceding weeks. The number of scarlet-fever patients in thes hospitals and in the London Fever Hospital, which had been 2,68 2,628, and 2,545 at the end of the three preceding weeks, had furthe declined to 2,485 at the end of last week; 252 new cases were admitte during the week, against 274, 273, and 268 in the three precedin weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, March 17th, 963 births an 661 deaths were registered in eight of the principal Scotch towns The annual rate of mortality in these towns, which had been 19.6 19.3, and 18.2 per 1,000 in the three preceding weeks, rose again t 19.3 per 1,000 last week, and was 3.1 per 1,000 above the mean rat during the same period in the seventy-six large English towns Among these Scotch towns the death-rates ranged from 13.9 i Leith and 15.1 in Perth to 21.6 in Paisley and 24.7 in Dundee. Th death-rate from the principal infectious diseases averaged 2.4 pe 1,000 in these towns, the highest rates being recorded in Dundee an Paisley. The 335 deaths registered in Glasgow included 18 whic were referred to measles, 5 to diphtheria, 5 to whooping-cough, 3 t "fever," and 12 to diarrhoea. Three fatal cases of measles and 2 o diarrhoea were recorded in Edinburgh. Eight deaths from measles 2 from scarlet fever, and 2 from diphtheria occurred in Dundee 3 from diarrhoea in Aberdeen; 8 from measles in Paisley; and from scarlet fever in Leith.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, March 17th 511 births and 41 deaths were registered in six of the principal Irish towns, as agains 518 births and 412 deaths in the preceding period. The annual death rate in these towns, which had been 23.3, 25.1, and 22.2 per 1,000 in th three preceding weeks, fell to 19.4 per 1 000 in the week under notice this figure being 3.2 per 1,000 higher than the mean annual rate in th seventy-six English towns for the corresponding period. The figure ranged from 15.0 in Limerick and 15.6 in Waterford to 23.1 in Dubli and 27.8 in Belfast. The zymotic death rate in the same six Iris towns averaged 1.1 per 1,000, or 0.1 per 1 000, higher than during th preceding period, the highest figure—2.8—being recorded in Belfast while no deaths under this heading were registered in Cork an Waterford. The deaths included 12 from whooping-cough (9 a Belfast), 5 from diphtheria, and 10 from enteric.

Naval and Military Appointments

ROYAL NAVY MEDICAL SERVICE.

The following appointments have been made at the Admiralty Arthur S. Bradley, M.B., Surgeon, to the *Crescent*, March 12th Henry Cooper, Surgeon, to be lent to the *Research*, for surveyin service, March 12th; Walter G. M. Anderson, Surgeon, to the *Pembroke*, additional, March 13th; Francis E. McCune, M.B., Surgeon, t the *Pembroke*, additional, for disposal, March 13th, and to the *Blac Prince* on completing; Maurice T. Male, Surgeon, to be lent to th *Russell*, vice Thomson, March 15th; Norman H. Mummery, Surgeon to the *Victory*, additional, for disposal, March 13th; George (Borrett, Fleet Surgeon, to the *Mars*, on commissioning, March 31st.

Deputy Inspector-General Alexander J. J. Johnston has bee appointed to the *President*, additional, to represent the Admiralty a the International Congress of Medicine, April 9th. Deputy Inspector-General Johnston was Surgeon in 1878, and became Staff Surgeon in March 30th. 1890, Fleet Surgeon on November 16th. 1894, and Deputy Inspector-General of Hospitals and Fleets on May 27th, 1905.

Civil Practitioner **JOHN W. G. KEALY** has been appointed Surgeon and Agent at Priddy's Hard, March 14th.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL W. G. MACPHERSON, C.M.G., is granted the next higher rate of pay of his rank in recognition of special services rendered when acting with the Japanese forces operating in Manchuria during the recent Russo-Japanese campaign, dated March 16th.

Captain **THOMAS C. MACKENSIE**, D.S.O., is seconded for service with the Egyptian army, March 1st.

Captains **S. M. ADYE-CURRAN**, **A. W. A. IRWIN**, and **B. A. CRAIG** have been posted to Dublin.

Captain **H. C. R. HIME**, M.B., has been appointed to the command of B company and Assistant Instructor, Dépôt and Training School, Aldershot.

Vacancies and Appointments.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

ABERDEEN: CITY (FEVER) HOSPITAL.—Resident Physician. Salary, £100 per annum.

BIRKENHEAD BOROUGH HOSPITAL.—Junior Resident House-Surgeon (male). Salary, £80 per annum.

BOURNEMOUTH: ROYAL BOSCOMBE AND WEST HANTS HOSPITAL.—House-Surgeon. Salary, £80 per annum.

BRIDGWATER HOSPITAL.—House-Surgeon. Salary, £80 per annum.

BRISTOL GENERAL HOSPITAL.—Assistant House Physician. Salary, £60 per annum.

BURY INFIRMARY.—Junior House-Surgeon. Salary £80 per annum, increasing to £90 after six months.

CHARING CROSS HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Two House Physicians (male). Salary at the rate of £30 per annum each.

CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—Junior House-Surgeon. Salary, £80 per annum.

DUDLEY: GUEST HOSPITAL.—Assistant House-Surgeon. Salary, £40 per annum.

DURHAM COUNTY HOSPITAL.—House-Surgeon. Salary £120 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Medical Officer for the Casualty Department. Salary at the rate of £100 per annum.

EGYPTIAN GOVERNMENT.—Resident Surgical Officer for the Kasr-El-Ainy Hospital. Salary £250 per annum.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Eight Qualified Clinical Assistants to the Out-patient Department.

FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY.—Honorary Dental Surgeon.

GERMAN HOSPITAL, Dalston.—Honorary Anaesthetist.

HUDDERSFIELD INFIRMARY.—Senior Male House-Surgeon. Salary, £80 per annum.

KILLARNEY DISTRICT LUNATIC ASYLUM.—Resident Medical Superintendent. Salary, £450 per annum.

LEITH HOSPITAL.—Surgeon for Outdoor and Dispensary Department. Salary, £80 per annum.

MANCHESTER NORTHERN HOSPITAL FOR WOMEN.—House-Surgeon. Salary £80 per annum.

MANCHESTER ROYAL INFIRMARY.—(1) Resident Medical Officer at the Infirmary; (2) Resident Medical Officer at the Convalescent Hospital, Cheadle; not less than 25 years of age. Salary £150 per annum each.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Assistant Surgeon.

NEW HOSPITAL FOR WOMEN, Euston Road, N.W.—Female Clinical Assistant in Out-patient Department.

NOTTINGHAM: CHILDREN'S HOSPITAL.—House-Surgeon.

OLDHAM INFIRMARY.—Senior House-Surgeon. Salary, £100 per annum. State whether willing to accept Junior post at £75.

PUBLIC DISPENSARY, Drury Lane, W.C.—Physician.

TAUNTON AND SOMERSET HOSPITAL.—Resident Assistant House-Surgeon. Salary at the rate of £50 per annum.

VALKENBERG ASYLUM, near Capetown.—Assistant Medical Officer. Salary £250, rising to £300.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacancies in the office of Certifying Factory Surgeons: Dawley and Worthen, co. Salop; Crettyard, co. Carlow.

APPOINTMENTS.

BRADBURY, J. C. O., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Elham Union.

CROSBY, Harry Man, M.B., C.M.Edin., Assistant Honorary Surgeon to the Stroud General Hospital.

DEAKIN, Frank N., M.R.C.S., L.R.C.P.Lond., Surgeon to In-patients, Walsall and District Hospital.

HASTINGS, D. A., L.R.C.P. and S.Edin., Resident Medical Officer, Liverpool Parish Infirmary.

JONES, Richard, M.D.Edin., D.P.H.Camb., reappointed Medical Officer of Health for co. Merioneth.

LAWSON, T. C., M.R.C.S.Eng., L.S.A., District Medical Officer of the Blandford Union.

OLDFIELD, Carlton, M.D., B.S., Honorary Assistant Surgeon to the Hospital for Women and Children, Leeds.

POLLARD, G. S., L.R.C.P.Edin., M.R.C.S.Eng., District Medical Officer of the Clutton Union.

RICHMOND, B. A., M.B., B.S.Lond., District Medical Officer of the Bermondsey Union.

TOSSWILL, Leonard R., M.R.C.S., L.R.C.P.Lond., Surgeon to the Exeter Dispensary.

TRESIDDER, W. E., M.B., B.S.Lond., District Medical Officer of the Newton Abbot Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

FORGE.—On March 4th, at Rochford, Essex, the wife of G. Baynton Forge, M.R.C.S., L.R.C.P., of a son.

RUNDLE.—On March 12th, at Babbacombe, Torquay, the wife of Lieutenant-Colonel C. S. Rundle, M.B., C.M., I.M.S., of a daughter.

MARRIAGE.

GREAVES—RICE.—On March 20th, at the Church of St. John, Derby, by the Right Rev. the Lord Bishop of Derby, assisted by the Rev. Canon Hamilton, R.D., Francis L. A. Greaves, F.R.C.S., Surgeon to the Derbyshire Royal Infirmary, elder son of Charles Augustus Greaves. M.B., LL.B., to Constance May, elder daughter of George Rice, M.D.

DEATHS.

BROWN.—At Edinburgh, on March 2nd, Marguerite Jessie, younger daughter of J. Murdoch Brown, M.D., F.R.C.P.E., 9, Walker Street, Edinburgh.

HEDGES.—On the 13th inst., at Rutland House, Leighton Buzzard, John Alexander Hedges, M.R.C.S.Eng., L.R.C.P.London, aged 65 years.

PEARSON.—At 17, Alva Street, Edinburgh, on the 14th inst., Margaret Caroline, younger daughter of C. Mowbray Pearson, M.B., F.R.C.P.E., aged 1½ years.

SKELDING.—On February 26th, at Homewood, Tenterden, Kent, Joseph Skelding, M.R.C.S., L.S.A., aged 84. Late of Euston Square, London.

STEEL.—At Redhouse Crook, County of Durham, on March 15th, Margaret Agnes, beloved wife of Robert Steel, Physician and Surgeon, aged 38 years. Deeply regretted.

DIARY FOR NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Papers: Mr. Jonathan Hutchinson, jun.—Results of Operation for Radical Cure of Hernia; Mr. H. B. Robinson—Angio-sarcoma of the Breast.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 20, Hanover Square, W., 8 p.m.—Paper—Mr. Kenneth W. Goadby: On the Vaccine Treatment of Pyorrhoea Alveolaris and its Sequelae.

TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Second Lumleian Lecture—Dr. D. Ferrier: Tabes Dorsalis.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W., 8.30 p.m.—Drs. Alexander Paine and David J. Morgan: The Value of a Serum (Doyen) in Cases of Malignant Disease (with Epidiascope Demonstration).

WEDNESDAY.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, E.C., 8.30 p.m.—Pathological Evening.

THURSDAY.

NEUROLOGICAL SOCIETY OF THE UNITED KINGDOM, 11, Chandos Street, Cavendish Square, 8 p.m.—Exhibition of Clinical Cases illustrating Various Kinds of Ocular Palsy.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Third Lumleian Lecture—Dr. D. Ferrier: Tabes Dorsalis.

FRIDAY.

BRITISH ELECTRO-THERAPEUTIC SOCIETY, 11, Chandos Street, W., 8.30 p.m.—Paper—Mr. Chisholm Williams: X Rays in the Treatment of Carcinoma and Sarcoma.

CLINICAL SOCIETY OF LONDON, 20, Hanover Square, W., March 30th.—The following papers will be read: 1. Mr. Arthur Barker—Treitz's Hernia Complicating Gastro-enterostomy. 2. Mr. E. Percy Paton—A Case of Right Duodenal Hernia in a Child aged 3 Months. 3. Mr. Frederick Eve—Enormous Cyst of the Common Bile Duct. 4. Mr. Frederick C. Wallis—Three Cases of Gastro-jejunostomy.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Wednesday, 5 p.m., Special Pathology.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Wednesday, 4 p.m., Characters and Causes of Cough in Children.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Thursday, 4 p.m., Hydrocephalus.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, Vasomotor Disorders and their Bearing on the Diagnosis and Treatment of Disease; Tuesday, Some Pathological Specimens, with Interesting Clinical Histories; Wednesday, Bronchocele; Thursday, The Connexion Between Mind and Body.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N.—Tuesday, 4.30 p.m., Lecture-Demonstration on Anaesthetics.

WEST LONDON HOSPITAL POST-GRADUATE COLLEGE, Hammersmith Road, W.—The following arrangements have been made for next week: Monday, 12 noon, Pathological Demonstration; 3 p.m., Demonstration in Medical Wards; 5 p.m., Surgical Cases. Tuesday, 5 p.m., Chorea. Wednesday, 5 p.m., Practical Medicine. Thursday, 4 p.m., Demonstration in Surgical Wards; 5 p.m., Plaster-of-paris Splints. Friday, 3 p.m., Demonstration in Medical Wards; 5 p.m., Injuries to the Eye and their Treatment. Daily, at 2.15 p.m., Medical and Surgical Clinics.

BOOKS, ETC., RECEIVED.

The Influence of the Menstrual Function on Certain Diseases of the Skin. By L. D. Bulkley, A.M., M.D. New York and London: Rebman, Ltd. 1906. 5s.

Minor and Operative Surgery, including Bandaging. By H. R. Wharton, M.D. Sixth edition. London: Rebman, Ltd. 14s.

Traité d'Hygiène. Publié en Fascicules sous la direction de MM. P. Brouardel et E. Mosny. II. Le Sol et l'Eau. Par L. de Launay, Ed. Bonjean, E. A. Martel, et J. Ogier. Paris: J. B. Baillière et Fils. 1906. Fr.10.

Aids to Surgical Diagnosis. By H. W. Carson, F.R.C.S. London: Baillière, Tindall, and Cox. 1906. 3s. 6d.

London: H. Kimpton. 1906:—

Kimpton's Students' Essentials. Essentials of Bacteriology. By M. V. Ball, M.D. Fifth edition. Revised by K. M. Vogel, M.D. 4s.

Kimpton's Student's Essentials. Essentials of Gynecology. By E. B. Cragin, M.D. Sixth edition. Revised by F. S. Mathews, M.D. 4s.

Surgical Diagnosis. By A. A. Berg, M.D. 16s.

The Science and Art of Prescribing. By E. H. Colbeck, B.A., M.D., F.R.C.P., D.P.H., and A. Chaplin, B.A., M.D., F.R.C.P. Second edition. 3s. 6d.

The Diseases of Infancy and Childhood. By H. Koplik, M.D. Second edition. 25s.

Pathogenic Micro-organisms, including Bacteria and Protozoa. By W. H. Park, M.D., and A. W. Williams, M.D. Second edition. 18s.

Lehmann's Medizin-Handatlanten. Band XXXIII. Lehrbuch und Atlas der zahnärztlichen Technik. Von Dr. Med. und Phil. G. Preiswerk. München: J. F. Lehmann. 1906. M.14.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
MARCH.	
24 SATURDAY...	NORTHERN COUNTIES OF SCOTLAND BRANCH, Northern Infirmary, Inverness.
25 Sunday.........	
26 MONDAY	
27 TUESDAY......	KENSINGTON DIVISION, *Metropolitan Counties Branch*, Town Hall, High Street, Kensington, 4.45 p.m. WALTHAMSTOW AND CITY DIVISIONS, *Metropolitan Counties Branch*, Conjoint Meeting, Walthamstow Hospital, 4 p.m. WEST SOMERSET BRANCH, Taunton and Somerset Hospital, 3.30 p.m.
28 WEDNESDAY	LONDON: Medico-Political Committee, 3 p.m. BARNSTAPLE DIVISION, *South-Western Branch*, Barnstaple, 3.30 p.m. BATH AND BRISTOL BRANCH, Bristol. BRADFORD DIVISION, *Yorkshire Branch*, Special Meeting, Great Northern Victoria Hotel, Bradford, 8.30 p.m.
29 THURSDAY...	
30 FRIDAY.........	GUILDFORD DIVISION, *South-Eastern Branch*, Royal Surrey County Hospital, Guildford, 4.30 p.m.
31 SATURDAY...	
APRIL.	
1 Sunday.........	
2 MONDAY	
3 TUESDAY......	COVENTRY DIVISION, *Birmingham Branch*, Coventry and Warwickshire Hospital, 8.30 p.m.
4 WEDNESDAY	LONDON: Journal and Finance Committee, 2.30 p.m. SOUTH-EASTERN OF IRELAND BRANCH, County and City Infirmary, Waterford, 2 p.m.
APRIL *(continued)*.	
5 THURSDAY...	EAST ANGLIAN BRANCH, King's Lynn. SOUTH CARNARVON AND MERIONETH DIVISION, *North Wales Branch*, Queen's Hotel, Portmadoc, 2 p.m. SWANSEA DIVISION, *South Wales and Monmouthshire Branch*, General Hospital, Swansea, 3 p.m.
6 FRIDAY	LONDON: Ethical Committee, 2 p.m. HAMPSTEAD DIVISION, *Metropolitan Counties Branch.* NORTH CUMBERLAND DIVISION, *Border Counties Branch*, Penrith. SOUTH-EASTERN COUNTIES DIVISION, *Edinburgh Branch*, St. Boswell's, 4 p.m.
7 SATURDAY...	
8 Sunday	
9 MONDAY	
10 TUESDAY......	LONDON: Organization Committee, 10.30 am.
11 WEDNESDAY	
12 THURSDAY...	
13 FRIDAY	*Good Friday.*
14 SATURDAY...	
15 Sunday	
16 MONDAY	*Bank Holiday.*
17 TUESDAY......	
18 WEDNESDAY	CENTRAL COUNCIL, 2 p.m.
19 THURSDAY...	CITY DIVISION, *Metropolitan Counties Branch*, Conjoint Meeting with Tottenham Division, Brooke House, Upper Clapton, 8.30 p.m.
20 FRIDAY	
21 SATURDAY...	
22 Sunday	
23 MONDAY ...	

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MARCH 31st, 1906.

CONTENTS.

PAGE
MATTERS REFERRED TO DIVISIONS:
Notices of Motion 141
NOTICE OF THE FORMATION OF NEW BRANCHES OF THE ASSOCIATION 141
PROCEEDINGS OF COUNCIL 142
PROCEEDINGS OF COMMITTEES:
Medico-Political Committee 144
Organization Committee... 147
Science Committee 148
Journal and Finance Committee 149
Public Health Committee 150
MEETINGS OF BRANCHES AND DIVISIONS:
Bath and Bristol Branch 150
Metropolitan Counties Branch: Hampstead Division ... 150
" " " Kensington Division ... 151
Lancashire and Cheshire Branch: North Manchester Division 151
Oxford and Reading Branch: Oxford Division 151
ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD 152
GENERAL MEDICAL COUNCIL: ELECTION OF DIRECT REPRESENTATIVES FOR ENGLAND AND WALES, NOVEMBER, 1906 ... 153
NAVAL AND MILITARY APPOINTMENTS 154
VITAL STATISTICS 155
VACANCIES AND APPOINTMENTS... 155
BIRTHS, MARRIAGES, AND DEATHS 155
DIARY OF THE WEEK 156
CALENDAR 156

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.

MATTERS REFERRED TO DIVISIONS.

REPRESENTATIVE MEETING AT LONDON.

TUESDAY, JULY 24TH, AND FOLLOWING DAYS.

NOTICES OF MOTION.

THE following notices of motion have been received for discussion by the Annual Representative Meeting of the Association to be held at London, July 24th, 1906, and following days.

ASSOCIATION REGULATIONS.

AMENDMENT OF BY-LAW.

Standing Committees: Election.

By the NORTH MANCHESTER DIVISION (Lancashire and Cheshire Branch):

> That the Annual Representative Meeting be empowered to elect half the members of each Standing Committee.

STANDING COMMITTEES:

Attendance.

By the NORTH MANCHESTER DIVISION (Lancashire and Cheshire Branch):

> That any member of a Standing Committee of the Association absenting himself from two successive meetings without satisfactory explanation shall be deemed to have resigned, and the Committee shall forthwith fill the vacancy.

ASSOCIATION ADMINISTRATION.

YEAR BOOK.

Date of Issue.

By the NORTH MANCHESTER DIVISION (Lancashire and Cheshire Branch):

> That the Year Book be issued not later than October 1st in each year.

CENTRAL OFFICIALS.

Regulation and Co-ordination of Duties.

By the NORTH MANCHESTER DIVISION (Lancashire and Cheshire Branch):

> That a Committee be appointed to inquire into the duties of the General and Medical Secretaries, with a view to their better regulation and coordination.

By Direction of the Chairman of Representative Meetings,
J. SMITH WHITAKER, *Medical Secretary.*
March 29th.

NOTICE OF CHANGES OF BOUNDARIES OF DIVISIONS AND BRANCHES.

THE following changes have been made in accordance with the regulations of the Association, and take effect from the date of publication of this notice:

1. That the boundary of the Gateshead Division be extended to include the area formerly included in the Chester-le-Street Division, which is henceforth merged in the Gateshead Division.

2. That the boundary of the Monmouthshire Division be extended to include Brynmawr and the portion of the Rhymney Valley, as far south as Maesycwmmer, formerly included in the North Glamorgan and Brecknock Division,

ASSOCIATION INTELLIGENCE.

PROCEEDINGS OF COUNCIL.

At a meeting of the Council held, by kind permission of the Metropolitan Asylums Board, London, in their Board Room, on Wednesday, March 14th.

Present:

Dr. H. W. Langley Browne, Chairman of Council, in the Chair.

Dr. William Collier, Past-President.

Sir Victor Horsley, F.R.S., Chairman of Representative Meetings.

Dr. H. Radcliffe Crocker, Treasurer.

Dr. John Ford Anderson, London.
Dr. Edgar G. Barnes, Eye.
Dr. T. R. Bradshaw, Liverpool.
Colonel David Bruce, C.B., F.R.S. (Cape of Good Hope Branch), London.
Dr. R. Cochrane Buist, Dundee.
Dr. W. A. Carline, Lincoln.
Mr. Andrew Clark, London
Mr. E. J. Domville, Exeter.
Mr. George Eastes, M.B., London.
Professor David W. Finlay, M.D., LL.D., Aberdeen.
Dr. E. L. Fox, Plymouth.
Dr. John H. Galton, Upper Norwood.
Dr. Bruce Goff, Bothwell.
Dr. David Goyder, Bradford.
Dr. T. Druslyn Griffiths, Swansea.
Dr. J. Groves, Carisbrooke.
Dr. James Hamilton, Glasgow.
Dr. T. Arthur Helme, Manchester.
Mr. R. H. Kinsey, Bedford.
Dr. C. W. Marriott, Reading.
Dr. C. H. Milburn, Hull.
Professor J. T. J. Morrison, M.B., Birmingham.
Dr. James Murray, Inverness.
Professor William Osler, M.D., F.R.S., Oxford.
Mr. Edmund Owen, London.
Mr. C. H. W. Parkinson, Wimborne Minster.
Dr. Frank M. Pope, Leicester.
Dr. Edwin Rayner, Stockport.
Mr. H. Jones Roberts, Penygroes.
Mr. H. Betham Robinson, M.S., London.
Dr. E. Markham Skerritt, Clifton, Bristol.
Professor W. R. Smith, M.D. (Malta and Mediterranean Branch), London.
Mr. C. R. Straton, Salisbury.
Mr. John Lynn Thomas, C.B., Cardiff.
Dr. W. J. Tyson, Folkestone.
Mr. T. Jenner Verrall, Brighton.
Dr. Norman Walker, Edinburgh.
Dr. Arthur T. Wear, Newcastle-on-Tyne.
Lieutenant-Colonel E. M. Wilson, C.B., Farnborough.

The minutes of the last meeting having been printed and circulated and no objection received, were taken as read and signed as correct.

Read letters of apology for non-attendance from the President, Dr. M. Beverley, Dr. J. Brassey Brierley, Dr. James Craig, Dr. G. W. Crowe, Dr. C. G. Gooding, Dr. J. H. Hunter, Dr. McKenzie Johnston, Dr. J. Maxwell Ross, Professor Saundby, Mr. W. D. Spanton, and Fleet Surgeon J. Lloyd Thomas, R.N.

Moved by the Chairman of Council, seconded by the Treasurer, and

Resolved: That the congratulations of the Council be forwarded to the Right Hon. Sir Walter Foster, M.P., a former President of Council, on the honour of being sworn a member of His Majesty's Privy Council.

The Chairman of Council reported that Dr. T. Arthur Helme had resigned his seat on the Puerperal Morbidity Committee.

Read communication from Mr. James Cantlie asking that a Section of Tropical Medicine may be arranged for this year in London.

Moved by Dr. Griffiths, seconded by Mr. Eastes, and

Resolved: That it be left to the Toronto Executive to make what arrangements it thinks desirable for the discussion of Tropical Medicine in the Sections.

Resolved: That, as a result of the opinion expressed by the President of the Therapeutic Section, no further action be taken for the organization of a section of Physical Therapeutics at the Toronto meeting.

Moved by Dr. Helme, seconded by Dr. Bradshaw, and

Resolved: That the constitution of the Royal Commission on the Poor Laws would command the confidence of the medical profession if the Government were to appoint upon the Commission representatives of those responsible for the administration of the Medical Service of the Poor Laws.

Resolved: That the minutes of the Journal and Finance Committee be received.

Moved by the Treasurer, seconded by Dr. Markham Skerritt, and

Resolved: That the General Secretary be empowered to engage the second, third, and fourth floors of certain premises contiguous to the Strand from July 1st next as temporary premises during the rebuilding.

Resolved: That the minutes of the Premises and Library Committee be received.

Resolved: That Mr. William Henman, F.R.I.B.A., Architect to the Birmingham General Hospital, and Belfast Infirmary, etc., be invited to act as Assessor in the competition for erection of new premises.

Resolved: That during the rebuilding, the books of the Library be carefully stored in Harvey's Buildings, and that a Reading Room be provided in the temporary offices, to be supplied with current periodicals and new books.

Resolved: That the minutes of the Public Health Committee be received.

Moved by Dr. Groves, seconded by Dr. Markham Skerritt:

That at present it is not desirable for the British Medical Association to request that such an inquiry regarding Hospital Isolation should be instituted as suggested by the resolution passed in the Section of State Medicine at Leicester.

Whereupon an amendment was moved by Dr. Helme, seconded by Dr. Bradshaw:

That it is desirable for the British Medical Association to make such inquiry as suggested by the Section of State Medicine at Leicester, but in the meantime there is not sufficient positive evidence to ask the Local Government Board to receive a deputation on the subject.

The amendment having been put from the Chair the same was declared to be lost.

The recommendation moved by Dr. Groves was then put and carried as a substantive motion.

Resolved: That the Council appoint Dr. Groves, Mr. Herbert Jones, and Dr. Manley as representatives of the Association at the Congress of the Royal Sanitary Institute to be held at Bristol in July.

Resolved: That the minutes of the Organization Committee be received.

Moved by Mr. Verrall, seconded by Mr. Andrew Clark, and

Resolved: That the Council recommend the following draft by-law as to supplementary grants to Divisions and Branches for the consideration of the Representative Meeting:

In addition to the grants made in pursuance of By-law 16, the Council, on the application of any Division or Branch, shall have power to make a supplementary grant of such amount as the Council may deem proper. Every application by a Division not itself a Branch shall be forwarded through the Branch Council, whose duty it shall be to transmit the same to the Central Council, with such comment, if any, as the Branch Council may deem expedient.

All applications for supplementary grants shall be referred by the Council to the Organisation Committee for report thereon, and, in considering the same, the said Committee and Council shall have regard to the evidence of work done by or through the agency of such Division or Branch for the Association or the medical profession, and also to the amount which may have been voluntarily subscribed locally for any purpose for which such a grant may be desired.

Moved by Mr. Verrall, seconded by Professor Morrison, and

Resolved: That the Chester-le-Street Division be merged in the Gateshead Division.

With regard to a recommendation relative to the validity of the election of a certain member, it was moved by the Treasurer, seconded by Mr. Kinsey, and

Resolved: That the question raised be referred to the Solicitor of the Association for opinion and report.

Resolved: That the following By-law, with respect to the tenure of office of Representative Meeting Members of Council, be recommended to the Representative Meeting for adoption:

Each Member of Council elected by the Representative Meeting shall hold office for one year, and at the end of that time shall be eligible for re-election, unless he has served as a Member of Council elected by the Representative Meeting for six years successively, in which case he shall for one year be incapable of being so elected.

Resolved: That the Rules of the following be approved: Cape of Good Hope Eastern Branch, Leinster Branch, East London Division, Grahamstown Division, and Wandsworth Division.

Resolved: That the Home Divisions be requested to send in their replies regarding the proposed Royal Charter early in May.

Resolved: That the minutes of the Medico-Political Committee be received.

Moved by Dr. BUIST, seconded by Sir VICTOR HORSLEY, and

Resolved: That the Council approve the following action:

That representations be made to the Privy Council as to the necessity of scheduling diachylon as a poison under the Pharmacy Acts.

Moved by Dr. BUIST, seconded by Sir VICTOR HORSLEY,

That representations be made to the Pharmacopoeia Committee of the General Medical Council as to the desirability of removing diachylon from the *Pharmacopoeia*.

The motion having been put from the Chair was declared to be lost, 10—15.

Moved by Dr. BUIST, seconded by Sir VICTOR HORSLEY, and

Resolved: That a communication be sent to non-medical periodicals embodying the following:

That the attention of the British Medical Association has been drawn to the dangers incurred through the use of diachylon in pills or otherwise, and the Council feels that the public should be made aware that it has resulted frequently in paralysis, blindness, insanity, and death.

Moved by Dr. BUIST, seconded by Mr. C. R. STRATON, and

Resolved: That action be taken by approaching the Lunacy Commissioners and the Lord Chancellor on the subjects of this report at an early date, and that co-operation of the Medico-Psychological Association be invited.

Moved by Dr. BUIST, seconded by Sir VICTOR HORSLEY, and

Resolved: That the following recommendation as to pauper lunatics be brought to the notice of the Royal Commission on the Feeble-minded:

That provision be made for the supervision under the Commissioners in Lunacy of all persons of unsound mind who are in receipt of parochial relief.

Resolved: That the Asylums Committee of the London County Council be informed of the concurrence of the British Medical Association as to the boarding out of pauper lunatics. That the whole report be referred to the Irish Committee for consideration in order that they may make recommendations with respect to such provisions as in their view should be extended to Ireland.

Moved by Dr. BUIST, seconded by Sir VICTOR HORSLEY, nd

esolved: That the Council approve the Report and Recommendations on the Amendment of the Inebriates Act.

esolved: That the Home Secretary be requested to receive a deputation from the Association on the subject of Amendment of the Inebriates Acts.

esolved: That the support of the Association be given to the Inebriates Acts Amendment (Scotland) Bill.

esolved: That copies of the Warning Notice as to the appointments be forwarded to Secretaries of Medical Schools and Colleges, and that they be asked to have them placed on their notice boards.

Moved by Dr. HELME, seconded by Sir VICTOR HORSLEY, d

esolved: That the following resolution be issued with the circulars on Medical Contract Practice:

That it be pointed out, for the information of the Divisions, that the Contract Practice Report does not include any recommendation to carry on contract practice; that in the view of the Committee the question as to the necessity of contract practice in any given district is a matter for local determination; and that the recommendations in the Contract Practice Report were simply intended as suggestions as to how contract practice could be conducted in the interests of the profession and the public in those districts where it was believed to be for the present unavoidable. (*Minute* 35.)

solved: That the Prime Minister be requested to receive a deputation on the subject of the reorganization of the Local Government Board.

solved: That representations be made to the President of the Board of Education as to the desirability of including in the Education Bill systematic provision for medical inspection of school children.

Resolved: That the attention of the Lord Chancellor be drawn to the representations made by the Association to the late Lord Chancellor respecting the action of the Coroner for South-west London, and that he be requested to receive a deputation.

Resolved: That the minutes of the Science Committee be received.

Resolved: That the report of the Editor and Dr. Cecil Shaw, relating to special research libraries, be received, approved, and adopted when opportunity offers after the rebuilding of the premises.

Moved by Dr. NORMAN WALKER, seconded by Sir VICTOR HORSLEY, and

Resolved: That the Science Committee be made a standing committee, and the question of drafting the necessary by-law be referred to the Organization Committee.

Resolved: That the constituent members of the Special Societies of the Congress of American Physicians and Surgeons be invited to participate in the work of the Sections at the Toronto meeting.

Resolved: That a copy of the findings of the Puerperal Morbidity Committee be forwarded to the officers of the Section of Obstetrics and Gynaecology for presentation to the Section.

Moved by Dr. MILBURN, seconded by Dr. WEAR,

That it be an instruction to the Science Committee to take steps towards founding a British Medical Association Scholarship in Tropical Medicine.

The motion having been put from the Chair was declared to be lost.

Resolved: That the minutes of the Ethical Committee be received.

Resolved: That the Council approve the adoption of the Model Rules of Ethical Procedure by the Liverpool (Southern) Division, and of the Bradford Rules by the North Suffolk Division.

Read resolution from the British Medical Benevolent Fund:

BRITISH MEDICAL BENEVOLENT FUND,
ST. BARTHOLOMEW'S HOSPITAL, SMITHFIELD, E.C.,
February 22nd, 1906.

DEAR SIR,—I am desired to inform you that at the recent Annual General Meeting of Subscribers to this Fund the following vote of thanks to the Officers of the British Medical Association was passed:

That this Meeting desires to welcome Dr. Langley Browne on joining the Committee and to tender its warmest thanks to the Officers of the British Medical Association for the very cordial assistance received from them, and especially to Dr. Dawson Williams for his kindness in reporting the business of the monthly meetings in the BRITISH MEDICAL JOURNAL, and to Mr. Guy Elliston for his most valuable help in the collection of subscriptions.

Yours faithfully,
W. E. SARGANT, Hon. Sec.

GUY ELLISTON, Esq.

Resolved: That the same be received and entered on the minutes.

Moved by Mr. ANDREW CLARK, seconded by the TREASURER, and

Resolved: That a Special Committee be appointed to represent the various interests concerned to inquire into the existing constitution of the Volunteer Medical Service with a view to ascertaining whether it can be rendered more serviceable as an Army Medical Reserve.

Moved by Mr. ANDREW CLARK, seconded by Mr. LYNN THOMAS, and

Resolved: That the Committee consist of:

3 Senior Medical Officers of Brigades ...	In each case 1 from London and 2 from the country.
3 Officers commanding Volunteer Medical Staff Corps	
3 Officers commanding Bearer Companies	
3 Junior Officers of Medical Staff Corps or Bearer Companies	
6 Volunteer Regimental Surgeons ...	2 from London and 4 from the country.

together with the Representative of the Army Medical Service on the Council.

Moved by Dr. Buist, seconded by Dr. Norman Walker, and

Resolved: That the nomination of the Committee be left in the hands of the Chairman of Council, Mr. Andrew Clark, and Colonel Wilson for report to the Council.

Proceedings of Committees.

MEDICO-POLITICAL COMMITTEE.

A meeting of the Medico-Political Committee was held at the office of the Association on February 21st, when there were present: Dr. R. C. Buist (in the chair), Mr. G. C. Franklin (President), Sir Victor Horsley, F.R.S. (Chairman of Representative Meetings), Dr. H. Radcliffe Crocker (Treasurer), Mr. H. W. Armit, Dr. T. Arthur Helme, Dr. J. H. Hunter, Mr. George Jackson, Dr. J. A. Macdonald, Dr. L. S. McManus, Dr. H. F. Oldham, Mr. C. H. Watts Parkinson, Dr. Cecil E. Shaw, Mr. C. R. Straton.

The Committee's Recommendations.

The Chairman reported that at the last meeting of the Council all the recommendations of the Committee had been adopted.

Lead Poisoning Subcommittee.

The minutes of the Lead Poisoning Subcommittee of January 17th were received, and the following recommendations adopted:

(*a*) That representations be made to the Privy Council as to the necessity of scheduling diachylon as a poison under the Pharmacy Acts.

(*b*) That the Central Council be recommended to adopt for communication to non-medical periodicals in the districts concerned the following statement:

> That the attention of the British Medical Association has been drawn to the dangers incurred through the use of diachylon in pills or otherwise, and the Council feels that the public should be made aware that it has resulted frequently in paralysis, blindness, insanity, and death.

Votes of thanks were passed to Dr. Arthur Hall and Dr. W. B. Ransom for the assistance they had given by preparing articles on the subject.[1]

Amendment of the Lunacy Laws.

The following report of the Lunacy Subcommittee on the amendment of the lunacy laws was approved, and the recommendations adopted as recommendations of the Committee to the Council:

REPORT OF THE MEDICO-POLITICAL COMMITTEE ON THE AMENDMENT OF THE LUNACY LAWS.

With Special Reference to the Care and Treatment of Cases of Unconfirmed Mental Disease.

The importance of being able to treat early and unconfirmed cases of mental disease without bringing the patient into personal contact with the ordinary Lunacy administration has long been recognized by the medical profession, and the difficulties placed in the way of such treatment in England and Wales by the present Lunacy Acts have occupied the attention of the British Medical Association for the last ten years.

In Scotland, on the other hand, the requisite legal sanction for the special treatment of unconfirmed cases has been afforded through a saving Clause inserted in the Section xiii of the Lunatics (Scotland) Act, 1866. That Section prohibits the reception of a lunatic into an unlicensed house and the saving clause is as follows:

> Provided that the Enactments of this Section shall not apply to any Case where the Person so received and kept has been sent to such House for the purpose of temporary Residence only not exceeding Six Months, and under the Certificate of a Medical Person, which Certificate shall be in the Form of Schedule G to the first-recited Act annexed.

Schedule (G).

> I, L. M., a Medical Person duly qualified in Terms of the Act (specify this Act), certify on Soul and Conscience, that C. D. (name and design the Patient) is afflicted (state the Nature of the Disease), but that the malady is not confirmed, and that I consider it expedient, with a view to his recovery, that he should be placed (specify the House in which the Patient is to be kept) for a temporary Residence of (specify a Time not exceeding Six Months).

In considering the advisability of the insertion of such a provision in the English law, the Legislature has therefore available almost fifty years' experience of the working of the system in Scotland, and the evidence as to the results of that experience, collected from time to time by the British Medical Association, has been uniformly favourable.

A Committee of the Association in the years 1897-8, with the valuable co-operation of the Medico-Psychological Association, collated evidence as to the Scottish experience, and laid it before the Lord Chancellor (Lord Halsbury) with a joint recommendation from the two Associations that the English law should be modified in the same way.

The introduction into the last session of Parliament of the Attorney-General's (Sir Robert Finlay) Lunacy Acts Amendment Bill and of the Bill of the London County Council, introduced in their behalf by Sir John B. Tuke, indicated the acceptance by public authorities of those principles for which the medical profession has for so long been striving. The Attorney-General's Bill[2] incorporated, with other detailed improvements of the present Lunacy Law, the method of the Scottish Act for the treatment of cases of unconfirmed mental disease. Sir John B. Tuke's Bill[3] was to enable the London County Council to provide for the early treatment of cases of unconfirmed mental disease in special "receiving houses," a provision which has, with the knowledge and approval of the Scottish Lunacy Commissioners, for several years been made by the Glasgow Parish Council.

Though, owing to the exigencies of public business, these Bills were not passed, their introduction showed that the time was opportune for the definite formulation of the views of the medical profession on this subject, and for an attempt to make these views effective in the preparation of future Bills to amend the Lunacy Acts.

A small Subcommittee was therefore appointed by the Medico-Political Committee in May, 1905, and a report on the subject was laid before the Representative Meeting. The Representative Meeting directed the Medico-Political Committee to continue the consideration of the subject through a Subcommittee containing a sufficient number of members experienced in the administration of the Lunacy Act, and the present Subcommittee was appointed accordingly.

Recognizing with the late Attorney-General that some adjustments of detail in the present Lunacy Laws were necessary, not only as to the treatment of unconfirmed cases, but also in other respects, the Committee has taken into consideration several propositions relative to these Acts that have been brought before it, and it now presents its conclusions in the following recommendations:

(A) The Treatment of Unconfirmed Cases of Mental Disease.

Under this head the Committee, while in the main approving the principles underlying the clauses on this subject in the Attorney-General's Bill of 1905, considers that, in order to bring them into harmony with the views of the medical profession, and with the needs of the public, modifications in certain particulars are urgently needed.

The Committee therefore recommends:

That the support of the Association should be given to Clause 3 of the late Attorney-General's Bill, in the following modified form:

"*Temporary Care of Cases of Unconfirmed Mental Diseases.*

3.—(1) If a medical practitioner certifies that a person is suffering from mental disease, but that the disease is not confirmed, and that it is expedient, with a view to his recovery, that he be placed under the care of a person whose name and address are stated in the certificate for a period therein stated, not exceeding *six months*, then during that period the provisions of

---

[1] British Medical Journal, 1905, p. 428.

[2] British Medical Journal, 1905, vol. i, p. 1009.

[3] Ibid., 1905, vol. i, p. 846.

Section three hundred and fifteen of the Lunacy Act, 1890, shall not apply.

(2) The certificate must not be signed by the person under whose care the patient is to be placed.

(3) Where a medical practitioner signs any such certificate he shall, within one clear day after signing it, send a copy of it to the Commissioners.

(4) The person who receives a patient under any such certificate shall, within one clear day after receiving the patient, give notice to the Commissioners of his reception, and of the name and address of a medical practitioner who undertakes the treatment of the patient who may be the person under whose care the patient is placed. If the patient dies, or the residence of the person receiving him is changed, within the period mentioned in the certificate, the person receiving the patient shall within two clear days give notice of the death or change of residence to the Commissioners.

(5) He shall also, within two clear days after the expiration of the period mentioned in the certificate, or if he ceases to have the care of the patient at an earlier date, then within two clear days after that earlier date, send a report to the Commissioners stating whether the patient recovered, and, if not, in what manner he was dealt with when the person making the report ceased to have the care of him under the certificate.

(6) If default is made in sending any notice or report required by this section, the person in default shall be guilty of a misdemeanour, and be liable to a penalty not exceeding *twenty pounds*.

(7) If before the expiration of the period mentioned in the said certificate it shall appear to the person in whose charge the patient is, if a medical practitioner or the ordinary medical attendant of the patient, that an extension of the said period as hereinafter provided is desirable in the interests of the patient, then such medical practitioner shall, not less than one week before the end of the period, send to the Commissioners in Lunacy a report on the mental and physical condition of the patient.

Subject to the transmission to the Commissioners of such report as aforesaid, another certificate may, before the expiration of the period mentioned in the original certificate, be given for a further period not exceeding three months, provided that no patient shall in respect of the same attack of illness be detained under this form of certificate for more than nine months in all, and provided that after the expiry of these certificates no further certificate under this section shall be given in respect of the same patient within six months from the date of the expiration."

The Committee further recommends:

That clauses should be added providing for the treatment of cases of unconfirmed mental disease in special institutions or special wards, or in houses or homes, and that as far as possible the patients be placed under the charge of medical practitioners who have special experience in the treatment of mental disease.

(*B*) *Other Amendments of the Lunacy Laws.*

Under this head the Committee recommends that in any Bill amending the Lunacy Acts, clauses dealing with the following matters should be included:

(1) Applying the principles of the Superannuation Act and the Workmen's Compensation Acts as regards injuries received in performance of duties to members of the staffs of asylums supported out of public funds.

(2) Removing the disqualification imposed by Sections 158 and 165 of the Lunacy Act (1890) on certain medical practitioners from time to time.

(3) Permitting the Lord Chancellor to appoint from time to time such additional persons qualified for appointment by being medical practitioners, and such additional persons qualified for appointment by being barristers, to be paid Commissioners in Lunacy, as may be necessary for the performance of the duties of the Commissioners under the Lunacy Acts, 1890 and 1891, instead of limiting the power to the appointment of one additional medical man, and one additional barrister, as provided by Clause 2 of the Attorney-General's Bill, 1905.

(4) Permitting the reception of voluntary boarders in public asylums.

(5) Deleting from the forms of medical certificate required by the Lunacy Acts the words "separately from any other medical practitioner."

(6) Removing the restrictions whereby the validity of a licence is limited to the locality for which it was originally granted.

(*C*) *Lunacy Act (1890) Section 202.*

That provision be made for the supervision under the Commissioners in Lunacy of all persons of unsound mind who are in receipt of parochial relief.

(*D*) *Lunacy (Scotland) Acts.*

(1) That the protection which the English law at present affords to medical practitioners who certify in cases of lunacy should be extended to Scotland, and that the Association should at the first opportunity take steps to obtain the inclusion in the Scottish Law of Section 330 of the Lunacy Act (1890).

(2) That the provisions of the Lunacy Act (1890), Sections 13–15, charging the constable with the duty of arresting an alleged lunatic not under proper care, should be introduced into the Scottish law, and the duties of the Procurator Fiscal (Lunacy Act (Scotland) 1862, Clause 15) should be defined to show that he only takes action when the Inspector of Poor neglects to do so.

(*E*) *Action to be Taken.*

The Committee recommends:

(1) That action be taken by approaching the Lunacy Commissioners and the Lord Chancellor on the subjects of this report at an early date and that the co-operation of the Medico-Psychological Association be invited.

(2) That the recommendation (C) as to pauper lunatics be brought to the notice of the Royal Commission on the Feeble-minded.

(3) That the Asylums Committee of the London County Council be informed of the concurrence of the Medico-Political Committee of the British Medical Association as to the boarding out of pauper lunatics.

(4) That the whole report be referred to the Irish Committee for consideration, in order that they may make recommendations with respect to such provisions as in their view should be extended to Ireland.

AMENDMENT OF THE INEBRIATES ACTS.

The report of the Lunacy Subcommittee on the amendment of the Inebriates Acts was received, and the following report and recommendations were adopted for submission to the Council:

Report on Amendment of the Law Relating to the Detention and Care of Inebriates and Persons Suffering from the Habitual Use of Drugs.

The Committee has considered various proposals which have been put forward with reference to this matter, and has deemed it most convenient to draw up:

(A) A formal statement of the reasons for which further legislation appears to be necessary, and

(B) Recommendations as to such legislation.

(A) CONSIDERATIONS AS TO THE NECESSITY FOR LEGISLATION.

1. From the considerations placed before the Committee, it appears to be clearly established that there are in all classes of society persons who are, by indulgence to excess in intoxicating liquor, or in the use of stimulant, sedative or narcotic drugs or substances:

(*a*) At times incapacitated from performing their duties to themselves, their families, or the State; and

(*b*) By the same cause, at times rendered dangerous or offensive to themselves, their families, or the public.

2. The number of such persons is sufficiently great, and their conduct, in consequence of excessive indulgence in alcohol, etc., as aforesaid, is sufficiently noxious, to render it desirable that there should be means of restraining them from such excessive indulgence;

3. It is found by long and frequent experience that no means, except compulsory deprivation of the alcohol, or drug, is efficient in restraining such persons from their excessive indulgence;

4. There is at present no legal power by which such persons can be subjected to compulsory deprivation of alcohol unless they themselves so desire, or unless they have been repeatedly convicted of offences, and no legal power by which the takers of drugs in excess can under any circumstances be subjected to compulsory deprivation of such drug;

5. In the opinion of the Committee, there is urgent need that legislation should be provided, by which such persons could be placed under suitable control and restrained from excessive indulgence in alcohol, or drugs, as the case may be, whether they are willing to be so controlled or no, and whether or no they have been convicted of an offence;

6. The Committee recognizes the gravity of the recommendation which, if carried into effect, will authorize the deprivation of some of the liberty of persons who may have committed no crime or offence recognized by the law; and would include in its recommendation safeguards against the improper application of the powers that they desire to be created. It is of opinion that efficient safeguards may be constituted in two ways—namely: First, by requiring the consent of a judicial authority before any person can be restrained for such cause as is herein indicated; and second, by giving power to such judicial authority to give costs against any applicant for a detention order, whose application ought not, in the opinion of the judicial authority, to have been made.

(B) RECOMMENDATIONS.

Persons to be placed under Restraint.

1. Subject to the safeguards stated in paragraph 6 of part (A) of this report, the Committee is of opinion that powers should be given to a judicial authority to place under restraint, in spite of his own objection thereto, any person who is so addicted to the habitual use of alcohol or opium, or any stimulant, sedative, or narcotic drug or substance as

(*a*) to render him at times dangerous to himself or others;

(*b*) to render him at times incapable of managing himself or his affairs.

Form of Restraint.

2. If, in the opinion of a judicial authority, any person comes within the description of the last paragraph, then the judicial authority should have power to order that such person be committed for any period not exceeding three years to the custody of (*a*) any person named in the order willing to act as guardian; or (*b*) the managers of any licensed Retreat or Inebriate Reformatory who are willing to receive him. When any person is admitted to a Retreat or Reformatory under these circumstances, all conditions shall apply as if he had been admitted to a Retreat or Reformatory under the Inebriates Acts, 1879–1900. Power should be given to the Secretary of State to transfer the inebriate from the control of any guardian in whose charge he may be placed under order of Court—

(1) If the person in whose charge he was so placed declines to continue his responsibility or becomes incapable of properly exercising it.

(2) If the inebriate cannot be restrained from the use of alcohol or other substance as aforesaid.

Such power of transfer should include power to transfer the inebriate from the charge of the guardian to a Licensed Retreat or Inebriate Reformatory, or from a Retreat to a Reformatory, or from one Retreat or Reformatory to another.

Power to deal with Estates.

3. Power should also be provided to deal with the estates of persons who are by indulgence to excess in alcohol or drugs at times incapable of administering their estates with ordinary prudence.

Procedure.

4. In the opinion of the Committee the following matters should be provided for in any measure that deals with the persons under consideration:

(A) The judicial authority should be set in motion by petition.

(B) The provision as to the person by whom the petition is to be presented should be analogous to that contained in Section 5, Subsection (1), of the Lunacy Act, 1890.

(C) The petition should be supported by affidavits or by documents having the force of documents made on oath.

(D) The judicial authority should have power:

(*a*) To visit, or cause to be brought before him, the person whose conduct is in question.

(*b*) To make such further inquiries and summon such witnesses, including the husband or wife of the person complained of, as he may think necessary.

(*c*) To adjourn the inquiry.

(*d*) To make an order for the immediate committal of the person as hereinbefore suggested.

(*e*) To make an order for the committal of the patient at any time within   months of the date of the order, contingent on the behaviour of the patient and at the discretion of the petitioner.

(*f*) To dismiss the petition without or with costs against the petitioner, according as, in the opinion of the judicial authority, the petitioner has, or has not, acted in good faith, and without malice.

(*g*) To make a maintenance order on the estate of the inebriate, or to require guarantee that maintenance expenses shall be met.

(E) Protection should be afforded to all persons who have in good faith, and with reasonable care, done anything purporting to be done under the legislation proposed.

It was further resolved:

That it be a recommendation to the Council that the Home Secretary be requested to receive a deputation from the Association on the subject.

That it be recommended that the support of the Association be given to the Inebriates Amendment Act (Scotland) Bill.

That Dr. Cunyngham Brown, Mr. J. Carswell, Dr. John Macpherson, and Dr. Wyler be thanked for the assistance they have rendered.

CONTRACT PRACTICE.

The minutes of the Contract Practice Subcommittee of January 3rd and February 14th were received, and, on the recommendation of the Subcommittee, the following resolutions were adopted:

A.—That it be recommended to the Council that copies of the Warning Notice as to appointments be forwarded to Secretaries of Medical Schools and Colleges, asking them to have them placed on their notice boards.

B.—That the attention of Division Committees be drawn to the opening of the Central Emergency Fund, and that it be suggested that they should appoint one or two members to organize the contributions from their areas, and that small periodic subscriptions be specially encouraged.

C.—That the Medical Secretary and the Solicitor be instructed to draw up a model set of rules for a Public Medical Service, based on the principles stated in the memorandum approved by the Subcommittee.

D.—That it be pointed out, for the information of the Divisions, that the Contract Practice Report does not include any recommendation to carry on contract practice; that in the view of the Committee the question as to the necessity of contract practice in any given district is a matter for local determination; and that the recommendations in the Contract Practice Report were simply intended as suggestions as to how contract practice could be conducted in the interests of the profession and the public in those districts where it was believed to be for the present unavoidable.

PARLIAMENTARY SUBCOMMITTEE.

The CHAIRMAN presented the recommendations of the Subcommittee, which had met that morning, and these were adopted as follows:

Compulsory Vaccination.

With respect to a communication from the Jenner Society inquiring whether the British Medical Association would consider any policy for adoption with a view of meeting any proposal which may be made in the present House of Commons for the abolition of compulsory vaccination, it was resolved:

That the Jenner Society be informed that the policy of the Association is unaltered; that in the event of any proposal being made for the abolition of compulsory vaccination the Association would use its influence as far as possible against abolition; and that any proposals with respect to vaccination which the Jenner Society may think it advisable to make, will receive the careful consideration of the Association.

It was further resolved:

> That members of the Public Health Committee of the House of Commons be requested to confer with representatives of the Association on the subject of action to be taken in the present session with respect to vaccination.

Poor-law Medical Officers.

With respect to a communication from the Chairman of Council as to the advisability of approaching the President of the Local Government Board with a view to obtaining a return showing the number for each Poor-law union, the area, population, number of medical officers, and whether extra fees were paid as required by the Poor Law Orders, it was resolved:

> That it is desirable that such a return be obtained through a motion in the House of Commons, and that the Medical Secretary be instructed to request some member to bring the matter forward.

Replies of Members of Parliament to Questions Submitted at the General Election.

The Medical Secretary was instructed to prepare for inclusion in the report on action taken during the election, and for publication in the Journal, a tabular statement showing the replies of each member of Parliament to the questions submitted by him on behalf of the Association; the list to be alphabetically arranged according to Divisions of the Association.

Medical Acts Amendment Bill.

With respect to a communication from the British Dental Association suggesting that the British Medical Association should appoint representatives on a joint committee of the two Associations, to watch the interests of the Medical Acts Amendment Bill if it obtained a favourable place in the ballot, it was resolved:

> That the Chairman of Representative Meetings, Mr. Armit, Dr. Macdonald, and Dr. McManus be appointed Representatives of the Association upon the suggested Subcommittee, and that it be proposed that the Medical Secretary should act as Secretary.

Election of Member of Parliamentary Subcommittee.

Dr. J. A. Macdonald was appointed a member of the Parliamentary Subcommittee.

Reorganization of the Local Government Board.

The Committee resolved that the Prime Minister be requested to receive a deputation on the subject of the reorganization of the Local Government Board.

Poor-Law Commission.

The Committee resolved that renewed representation should be made to the Prime Minister as to the desirability of appointing on the Poor-Law Commission additional members who have knowledge of the operation of the Poor Law in its medical aspects.

Medical Inspection of School Children.

The Committee decided that representations should be made to the President of the Board of Education as to the desirability of including in the Education Bill the systematic provision for the medical inspection of school children.

Indecent Advertisements Acts.

It was resolved that the Home Secretary should be approached with respect to the amendment of the Indecent Advertisements Act.

Coroner for South-West London.

The Committee decided to call the attention of the Lord Chancellor to the representations made by the Association to the late Lord Chancellor, and request him to receive a deputation on the subject.

The decision of the Local Government Board auditor in the matter of the objections of the Association to certain payments by the London County Council to the Coroner for South-West London was ordered to be received; and the Medical Secretary reported that upon receipt of this information he had, by direction, asked Mr. Cockerton to state the reasons for his decision, and also to furnish the Association with a copy of the special report of the case which he proposes to make to the County Council, and that Mr. Cockerton had replied promising to do this, but indicating that probably some time would elapse before his report could be ready.

Conference with Pathologists.

The report of the conference of pathologists convened in accordance with the minutes of the Representative Meeting and of the Medico-Political Committee was received, and the Committee concurred in the findings of the conference:

> (*a*) That the employment of expert pathologists to assist in the *post-mortem* examination in medico-legal cases of special difficulty is highly desirable, and indeed necessary.
>
> (*b*) That such an expert cannot replace the medical practitioner.
>
> (*c*) That the medical practitioner, through his attendance during life or presence at or about the time of death, is in possession of first-hand knowledge which should be available both in evidence at the inquest and also at the *post-mortem* examination.
>
> (*d*) That the employment of expert pathologists should be in addition to, and not in substitution for, the employment of the practitioner who has previous knowledge of the case.
>
> (*e*) That experts should be remunerated at expert rates, with a minimum fee of five guineas for *post-mortem* examination and evidence. Any separate investigation to be paid for at special rates.
>
> (*f*) That expert pathologists should decline to act in any case in which they have not an assurance that the principles of the clauses will be observed.

The Carmichael Trust.

The Committee considered an application from a member of the Association asking for assistance in taking proceedings in respect of alleged non-compliance by the Royal College of Surgeons of Ireland with the conditions of the Carmichael Trust in a recent award. The Committee expressed its regret that it could not recommend the Association to take the action proposed.

"Sight-testing" Bills.

The Committee appointed Sir Victor Horsley, Mr. Armit, and Dr. Cecil Shaw to serve with representatives of the Ophthalmological Society on a Joint Committee to take action in opposition to Bills for the registration of "sight-testing" opticians.

ORGANIZATION COMMITTEE.

A meeting of the Organization Committee was held at the office of the Association on February 20th, Mr. T. Jenner Verrall in the chair, the other members present being: Mr. H. A. Ballance, Mr. Andrew Clark, Dr. Alfred Cox, Professor J. T. J. Morrison, Dr. E. Rayner, and Mr. W. E. Hempson (Solicitor to the Association).

The Bombay Branch.

On the consideration of a letter suggesting that the management of the Bombay Branch of the Association should be taken over by the Bombay Medical and Physical Society, it was resolved:

> That the Medical Secretary be instructed to reply that it would be impracticable for a Branch of the Association to be managed by a committee constituted and appointed as proposed; that the Organization Committee will be glad to give every assistance to the local members of the Association in organizing the Bombay Branch, and it is suggested as the first step that a meeting of members of the Branch be called at the first opportunity to elect officers and a committee or council.

Suggested Reduced Subscription in Certain Cases.

The Committee resolved that it was impossible to entertain the suggestion that under certain conditions the subscription of a member should be reduced.

Colonial Branches Finance.

The Committee instructed the Medical Secretary to inform certain Colonial Branches which had suggested that they should receive larger grants from the parent Association that the whole question was under consideration by the Council and the Organization Committee, and that it was hoped that provision may be made in the proposed Charter for greater freedom for the Colonial branches as to finance.

Branch Maps.

In reply to a communication from a Division, suggesting that maps showing the boundaries of all Divisions and Branches should be inserted in the *Year Book*, the

Committee resolved that the Division be informed that, under instructions already given, maps are supplied from the Medical Secretary's office showing the boundaries of those Divisions and Branches which apply for such maps. Inquiries which had been made showed that it would be too expensive to prepare a map of the whole Association showing the boundaries of its local bodies for publication in the *Year Book*.

Supplementary Grants to Divisions and Branches.

The Chairman having reported that the Council had adopted the recommendations of the Committee of December 12th, except that concerning supplementary grants to Divisions and Branches, it was resolved:

> That the Council be recommended to reconsider the draft By-law as to Supplementary Grants to Divisions and Branches, submitted by the Committee; that the Chairman be requested for this purpose to move the suspension of the standing orders of the Council, and that a special report on the subject be prepared for the consideration of the Council setting forth the special character of the alteration suggested in the draft by-law in question.

The Chairman further reported and the Committee approved additional recommendations which he had made to the Council and which the Council had adopted respecting matters which became ripe for recommendation subsequent to the Committee meeting. These were: the formation of a Saskatchewan Branch, the grouping of Colonial Branches for representation on the Council, and arrangements for issuing the Charter to the Divisions.

Application for a Charter.

The draft Charter was considered, certain additional emendations agreed upon, and points reserved for further reference to counsel and to the Charter Subcommittee.

Alteration of Boundaries.

Certain alterations of boundaries were recommended for approval by the Council.

Grouping of Divisions and Branches for Representative Purposes.

The Committee considered the grouping for 1906-7 of Divisions for representation in Representative Meetings and of Branches in the United Kingdom for representation on the Council; the Divisions and Branches were directed to be informed that the Committee was dealing with the matter, and would be glad to receive any suggestions.

Alteration of Articles.

Attention having been drawn to the alteration of Articles approved by the Representative Meeting at Leicester, the Chairman of Representative Meetings was requested to bring the matter before the Council, in order that, if the Council should think proper, the requisite General Meetings might forthwith be convened.

Election of a Member.

The Medical Secretary presented a report on information obtained with regard to an alleged irregularity in the election of a member by a Branch in the area of which he was not permanently resident, and the Committee directed the facts of the case to be reported to the Council with an intimation that, in the opinion of the Committee, the question was one of the interpretation of the word "residing" in Article III. The Committee recommended that in future it should be specified that the permanent address alone be given in the form of application for membership.

Tenure of Office of Representative Meeting Members of Council.

The following by-law, drafted in accordance with the instruction of the Council, was recommended for presentation to the Representative Meeting:

> Each member of Council elected by the Representative Meeting shall hold office for one year, and at the end of that time shall be eligible for re-election, unless he has served as a member of Council elected by the Representative Meeting for six years successively, in which case he shall for one year be incapable of being so elected.

SCIENCE COMMITTEE.

A meeting of the Science Committee was held at the office of the Association, on February 22nd, Dr. Norman Walker in the chair; the other members present were Sir James Barr, Dr. R. C. Buist, Mr. Andrew Clark, Dr. Wm. Collier, Dr. F. M. Pope, Professor Wm. Osler, F.R.S., Mr. H. Betham Robinson, Dr. Cecil E. Shaw, and Dr. W. J. Tyson.

Special Research Library.

The Committee considered the following report from Dr. Cecil E. Shaw (Belfast) and the Editor, made in pursuance with the instructions of the Committee at the previous meeting:

The Science Committee, at its meeting on October 4th, 1905, had before it a report presented by the Science Co-ordination Committee to the Council on February 15th 1905. This report contained the following paragraphs:—

> "*C.* Special Research Library.
>
> "That it is desirable to form a Lending Library for Research by duplicating the leading special periodicals.
>
> "The Committee recommend to the Scientific Grants Committee that they should consider the question of supplying or aiding in the purchase of the necessary literature for individual scientific researches with a view to the formation of a special Library for research."

The Science Committee deferred the consideration of these clauses until it could have before it a memorandum on the subject. We beg now to submit the following memorandum, and have appended to it a list of foreign publications (including American) which are frequently consulted by members engaged in clinical and pathological research.

We have ascertained that a considerable proportion, as indicated in the list, are already filed in the Library, and it is probable that some of the others might be obtained by way of exchange for the British Medical Journal.

We believe that many of these sets are seldom consulted, as workers in London have the opportunity of using the library of the Royal College of Surgeons, which is well known to be fully provided with this class of literature.

We understand that research workers in provincial centres frequently find considerable difficulty in obtaining access to such publications.

We are therefore of opinion that the usefulness of the Library would be materially increased by forming a Section containing such periodicals, and permitting members to borrow them under suitable regulations.

To facilitate the working of such a scheme, we are of opinion that these regulations should be as simple as possible, and would suggest the following:

1. No book shall be issued except to a member whose address is registered with the General Secretary.
2. A member desiring to borrow a book or periodical shall make an application to the Librarian, in writing, which application shall be filed by the Librarian, who shall forward the book as soon as it is available.
3. A member requiring a book to be transmitted by post shall send with his application a fee of 4d. for postage.
4. Any book in the custody of a member shall be returned carriage paid within twenty-four hours of the receipt of a written application from the Librarian.
5. The Librarian shall, on the first day of July in every year, require the return of all books, and none shall be issued between that day and the first day of September next following.

The appended list of periodicals, which is not put forward as complete, is submitted merely as an indication of the class of publications in view, and we venture to suggest that the work of the Committee will be facilitated if members would forward proposals for its extension or modification to one of us, so that a complete list may be submitted to the Committee at its next meeting.

With regard to foreign books, as distinguished from periodical publications, we have not attempted to draw up any list, but we believe that many now in the Library might advantageously be placed in this Section with the approval of the Library Committee. Applications for books not on the list of the Lending Section, or not in the Library, should be submitted by the Librarian to the Library Committee.

We recommend that the collection of theses of the Universities of Paris and Lyons now filed in the Library should be placed in the Lending Section.

A list of the publications in the proposed Lending Section should be prepared and published in the SUPPLEMENT of the JOURNAL. It should also be supplied to medical schools and colleges, and, on application, to members. A list of additions should be published from time to time.

CECIL E. SHAW.
DAWSON WILLIAMS.

November 22nd, 1905.

* "Schmidt's Jahrbücher."
* "Virchow's Arch. f. path. Anat."
Lubarsch und Ostertag: "Ergebnisse der allgemeinen Pathologie," etc.
"Smiedeberg's Arch. f. experiment. Path. u. Pharmac."
"Archives des Sciences Biologiques, publiée par l'Institut Impérial de Méd. Expér. à S. Pétersbourg."
"Journal de Micrographie."
"Comptes Rendus de l'Académie des Sciences."
"Comptes Rendus de la Société de Biologie."
* "Bull. de l'Académie de Médecine."
* "Johns Hopkins Hospital Reports."
"Wiener Klinik."
* "Centralbl. f. die med. Wissenschaften."
"Journal of Experimental Physiology" (American).
"American Journal of Comparative Neurology."
* "Arbeiten a. d. K.K. Gesundheitsamt."
"Zeitschrift f. Hygiene," Koch.
* "Centralblatt f. Bakteriologie."
"Hygienische Rundschau."
* "Annales de l'Institut Pasteur."
"Bulletin de l'Institut Pasteur."
"Frommel's Jahrbuch" (Gynaecology).
"The Ophthalmic Yearbook."

*Indicates periodicals already filed in the Library.

The report was approved, and recommended to the Council for adoption when opportunity offers after the rebuilding of the premises.

SCIENTIFIC GRANTS.

In accordance with the resolution adopted at the previous meeting, and approved by the Council, the Committee co-opted the following four gentlemen to be members of the Science Committee for the purpose of advising as to the allocation of scientific grants: Professor E. H. Starling, M.D., F.R.S. (London); Professor G. H. F. Nuttall, M.D., F.R.S. (Cambridge); Professor Ralph Stockman, F.R.S.E. (Glasgow); Professor A. H. White (Dublin).

The Committee considered reports on grantees received from Professor Starling, F.R.S., on London and district, Sir James Barr on Liverpool, Dr. T. Arthur Helme on Manchester, Dr. Milburn on Hull, Dr. W. Collier on Oxford, Professor Sims Woodhead on Cambridge, the Chairman on Scotland, and Dr. James Craig on Ireland.

ANNUAL MEETING, TORONTO.

A communication was read from the Honorary Secretary of one of the Sections of the Annual Meeting inquiring whether papers might be read by proxy. The Committee resolved that the officers of Sections be informed that no paper must be received on the understanding that it is to be read by proxy.

Preliminary circulars issued by the officers of the Sections of Dermatology and Pathology and Bacteriology were considered and approved.

Having heard a report from Professor Osler, F.R.S., the Committee resolved to recommend the Council that the constituent members of the special societies of the congress of American physicians and surgeons be invited to participate in the work of the sections.

CO-ORDINATION OF SCIENTIFIC WORK.

The following resolution passed by the Liverpool Southern Division was considered:

> It was agreed that in this District the Local Medical Societies provided ample opportunities for Scientific Meetings and discussions, but it was also pointed out that much good work might be done in the way of collective investigation of scientific subjects, through the Divisional Organization, if suitable subjects and inquiries were sent down to the Divisions from the Central Authorities.

The Committee resolved to suggest to the Division that the question of fixing a standard of puerperal morbidity would be a suitable subject for consideration.

PUERPERAL MORBIDITY.

It was reported that the Special Committee on Puerperal Morbidity, consisting of Professor Herbert R. Spencer, London, Convener; Miss Garrett Anderson, M.D., London; Dr. R. C. Buist, Dundee; Professor John W. Byers, Belfast; Dr. T. Arthur Helme, Manchester; Professor E. Hastings Tweedy, Dublin; Dr. Thomas Wilson, Birmingham; Dr. Robert Boxall, London Obstetrical Society; Dr. J. W. Ballantyne, Edinburgh Obstetrical Society; Professor Robert Jardine, Glasgow Obstetrical Society; Dr. W. E. Fothergill, Manchester, North of England Obstetrical Society; Dr. Andrew J. Horne, Dublin, Royal Academy of Medicine in Ireland; with Miss Garrett Anderson, M.D., as Honorary Secretary, has held meetings and was now preparing its report. It was resolved to recommend the Council to forward a copy of the findings of the Committee to the officers of the Section of Obstetrics and Gynaecology.

INVESTIGATION OF HEREDITARY DISEASE.

The following resolution, the outcome of a paper read by Dr. Urquhart in the Section of Psychological Medicine last year, and published in the BRITISH MEDICAL JOURNAL on December 16th, 1905, together with a letter from Dr. Urquhart, showing the lines upon which he was anxious the inquiry should follow, was considered:

> That the Section of Psychological Medicine respectfully request the Council to appoint a Committee for the investigation of hereditary forms of disease, and to place at the disposal of the Committee such funds as will enable them to report on the whole subject.

It was resolved to defer the consideration of the matter to afford an opportunity for the Chairman to confer with Professor Karl Pearson, F.R.S., Dr. Macpherson, and Dr. Bashford.

JOURNAL AND FINANCE COMMITTEE.

A MEETING of the Journal and Finance Committee was held at the office of the Association on March 5th, when there were present: Dr. H. W. LANGLEY BROWNE (Chairman of Council) in the chair, Sir Victor Horsley, F.R.S. (Chairman of Representative Meetings), Dr. H. Radcliffe Crocker (Treasurer), Dr. W. A. Carline, Mr. Andrew Clark, Dr. J. H. Galton, Dr. J. Groves, Mr. R. H. Kinsey, Mr. C. H. W. Parkinson, Dr. Edwin Rayner, Dr. E. Markham Skerritt, Mr. J. Lynn Thomas, C.B., Mr. T. Jenner Verrall.

PREMISES.

The recommendations of the Premises and Library Committee, which will be found set out in the report of the proceedings of Council, were considered, and the recommendation as to expenditure on temporary premises was approved and recommended to the Council for adoption.

MIDDLEMORE PRIZE.

It was resolved that as the Middlemore Prize may be awarded during the current year the nomination of adjudicators be referred to the Science Committee, with a recommendation that the prize be only offered for original work in the department of ophthalmic medicine or surgery.

PROPRIETARY DRUGS.

The minutes of the Proprietary Drugs Committee of February 9th, were approved, and the recommendations contained therein directed to be carried into effect.

At the meeting of this Committee on February 9th all the members were present, namely, Mr. R. H. Kinsey, Chairman of the Ethical Committee, in the chair; Professor Wyndham Dunstan, F.R.S.; and Professor A. R. Cushny; the Editor and General Secretary also attended. The following rules were adopted:

The Committee considered the principles which should guide the admission into the editorial columns of the JOURNAL of notices of proprietary drugs and preparations, and, after full discussion, adopted the five following resolutions:

1. That firms requesting notices of proprietary preparations in the editorial columns of the JOURNAL be required to state in confidence, for the information of the expert committee, the proportion of all the ingredients, and that the firms be asked to indicate any parts of their statements they would not wish to be published.

2. That in the case of a chemical compound firms be required to furnish to the Committee full information regarding its composition and constitution, together with tests for identity purity, and strength.
3. No notice of an article shall be admitted about which the manufacturer, or his agents, make false or misleading statements.
4. No notice of an article shall be admitted about whose therapeutic value the manufacturer, or his agents, make unwarranted, exaggerated, or misleading statements.
5. If the article is patented, either process or product, the number and date of such patent or patents must be furnished. If patented in other countries, the name of each country in which a patent is held must be supplied, together with the name under which the article is there registered.

Questions connected with the labelling and advertising of such preparations were discussed, and their further consideration deferred until the next meeting of the Committee.

PUBLIC HEALTH COMMITTEE.

A MEETING of the Public Health Committee was held at the office of the Association on February 3rd. Dr. GROVES, and afterwards Mr. C. H. WATTS PARKINSON, occupied the chair. The other members present were: Mr. Herbert Jones, Dr. F. C. Martley, Dr. T. G. Nasmyth, and Dr. J. Maxwell Ross.

DISMISSAL OF A PUBLIC VACCINATOR.

Action which had been taken in the matter of the dismissal of a public vaccinator from his office was approved.

HOSPITAL ISOLATION.

The resolution adopted in the Section of State Medicine at the annual meeting of the Association at Leicester suggesting that an inquiry should be held with regard to isolation hospitals as a preventive measure in checking the spread of infectious diseases was considered, and the Committee decided to report to the Council that it was not desirable for the British Medical Association to recommend such an inquiry (see Proceedings of Council, p. 142).

CONGRESS OF THE ROYAL SANITARY INSTITUTE.

It was decided to recommend the Council to appoint Dr. Groves, Mr. Herbert Jones, and Dr. Manley as representatives of the Association at the Congress of the Royal Sanitary Institute to be held at Bristol next July.

PUBLIC HEALTH (SECURITY OF TENURE) BILL.

The CHAIRMAN reported as to the present position of the Security of Tenure of Medical Officers of Health Bill, and the following resolution was adopted:

> That in the opinion of the Committee the Public Health Bill should be pressed forward, in its present form, by the Association, in co-operation with the Sanitary Inspectors' Association, and with that object the present President of the Local Government Board should be requested to receive a deputation.

PUBLIC HEALTH MATTERS BEFORE PARLIAMENT.

The MEDICAL SECRETARY reported as to other matters affecting public health which might require attention during the ensuing session, and it was resolved:

> That in the opinion of the Committee the parliamentary work of the Association in matters affecting public health should be concentrated in the first instance on the Public Health Bill, and that efforts be made by members of the Committee in co-operation with the Medical Secretary to induce members of Parliament to ballot for the Bill.

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BATH AND BRISTOL BRANCH.

THE fourth ordinary meeting of the session was held at Bath on February 28th, Dr. J. MICHELL CLARKE, President, in the chair.

A discussion on Recent Advances in Respect to Diseases of the Joints was opened by Professor HOWARD MARSH, of Cambridge, and the following members took part in it: Dr. CAVE, Dr. PRESTON KING, Dr. STACK, Dr. WATERHOUSE, Dr. WATSON WILLIAMS, Dr. PARKER, and Dr. MICHELL CLARKE. Patients were shown by Dr. OGILVY, Dr. PRESTON KING and Mr. BENSON.

METROPOLITAN COUNTIES BRANCH:

HAMPSTEAD DIVISION.

A MEETING of this Division took place on Friday, March 9th, at 4.45 p.m., at the Hampstead Conservatoire, Swiss Cottage. Mr. F. R. HUMPHREYS in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Hampstead Hospital.—Dr. GLOVER then demanded that a letter should be read which had been received from Dr. Cook on the subject of the Hampstead Hospital Conference. The CHAIRMAN declined to permit the reading of one letter, as it would be impossible to read one without reading all, and there was no time to read all the correspondence. He explained to the meeting that no agreement had been reached between the Committee and the acting staff of the hospital on this matter.

Paper.—Mr. LOCKWOOD read a paper entitled the *Modern Diagnosis of Tumours*, which will be published. After the paper, Mr. ERNEST SHAW demonstrated the immediate method of preparing sections for microscopical examination during operations. In the discussion which followed, Mr. HUMPHREYS thought the paper unduly pessimistic, as to ordinary diagnostic methods. The method left very little to the skill of the surgeon, but the advantage of having a competent pathologist present at the operation was proved. Mr. ARMIT corroborated Mr. Lockwood's statements as to the rapidity of the method. He thought it should have a very great future. There were certain difficulties, however, in microscopical diagnosis. It was not always easy to distinguish between carcinoma and sarcoma, between malignant and inflammatory tissues, even with the aid of the microscope. He proposed a vote of thanks to Mr. Lockwood; this was seconded by Mr. NELSON HARDY, and carried with acclamation. Dr. FORD ANDERSON asked if this method might be of value in obscure medical cases. Might it not be possible to take samples—for example, from the liver with an acupuncture needle—and determine their nature at once with the microscope? Mr. LOCKWOOD, in reply, said he had found this method most useful in cases of tumour of the breast where naked-eye appearances are especially fallacious. By means of the microscopic examination the area of operation could be extended with confidence, even to the dreaded supraclavicular region. Such extensive operations were by no means easy, and the skill of the surgeon could scarcely be regarded as unimportant. In reply to Mr. Armit, he thought that from the operator's point of view, the distinction between sarcoma and carcinoma—for example, of testicle—was not important. In reply to Dr. Anderson, he recalled a case of obscure disease of the gall bladder suspected of being empyema associated with a lump on a rib. He had incised this lump and found pus and bare bone. This was at first thought to be inflammatory, but he noticed that the exposed bone was red, not white, and an immediate microscopical examination of a piece of the abscess wall proved it to be columnar-celled carcinoma and cleared up the diagnosis. In general he disliked "harpooning" tissues; he preferred incision. A hearty vote of thanks was passed to Mr. Lockwood and his assistant. The interest taken in the subject was shown by the fact that the number of members present (25) was a record for this Division.

Meetings.—The CHAIRMAN mentioned that the April meeting, which appeared on the programme for April 13th, would be held on April 6th, as the former date was Good Friday. A special meeting would be held at Finchley in April, if possible.

Contract Practice.—The CHAIRMAN announced that the Committee had formed a subcommittee for the purpose of ascertaining the facts about local contract practice in the Division, and hoped that members would give all the information in their power.

Subdivisions.—The CHAIRMAN then proposed, and Dr. OPPENHEIMER seconded:

> That in the opinion of this meeting it is desirable that in any distant part of the Division, if the members therein resident should express their desire for the same, (1) a

> local Subdivision should be formed with power to annually nominate its own officers; (2) the proceedings of the Subdivision to be under the general supervision of the Divisional Committee, to whose Secretary notices of all meetings should be sent; (3) no resolution passed by a Subdivision to be binding upon the Division; (4) no independent report of the proceedings of the Subdivision to be published in the SUPPLEMENT; [(5) the expenses of a Subdivision to be defrayed by special local subscription]; (6) that the local meetings should be open to any members of the Division.

—There was decided opposition to Clause (5) of the resolution. Dr. MACEVOY objected to the whole proposal, and thought it would be far better to form new Divisions. Eventually the proposal of Mr. Humphreys was agreed to, with the exception of Clause (5), which was omitted on an amendment by Mr. HARDY, seconded by Mr. MOXEY.

Divisional Finance.—The SECRETARY read the Committee's reply to the inquiry by the Organization Committee of the Association as to Divisional finance. The reply was approved.

Conference of Divisions.—Dr. YELD proposed, and Dr. OPPENHEIMER seconded:

> That in view of the fact that the fifteen Divisions of the Metropolitan Counties Branch have only five Representatives on the Central Council, two delegates be nominated by this Division to arrange with delegates from other Divisions a list of names to be presented to the Divisions for their approval.

This was agreed to, with the following comments: (1) That it is desirable that all the Divisions should be invited to join the Conference; (2) that it is desirable that Divisions should not bind their delegates to vote for any particular names; (3) that members of Divisions are not bound to vote in accordance with the views of the Conference. Dr. Yeld pointed out that it was most desirable that general practitioners should be well represented, and the Conference would help to put forward the names of general practitioners who might otherwise be unknown outside their own Divisions. The Division expressed no opinion as to the number of general practitioners to be nominated by the Conference. Mr. R. H. Wellington and Mr. W. H. Farmer were then elected delegates.

Hospital Abuse.—Mr. HUMPHREYS proposed:

> That with respect to the question of the abuse of hospitals this Division is of opinion that the time has arrived when the Divisions should unite upon a common course of action, and that with a view to this end each Division should be invited to nominate two delegates to meet those of other Divisions, to arrange with them a scheme of action to be submitted to the Divisions.

—This was seconded by Mr. CUNNINGTON.—Mr. NELSON HARDY proposed as an amendment:

> That this Division is of opinion that the time has arrived when the subject of hospital abuse might be usefully discussed at a special meeting of the Metropolitan Branch Council called for the purpose, and hereby requests the authorities of the Branch to call such a meeting.

—This was seconded by Mr. FARMER.—On being put to the vote it was lost.—Dr. FORD ANDERSON then proposed:

> That a Special Hospitals Committee be appointed by the Branch Council to consider the subject, and report thereon.

—This was seconded by Mr. ARMIT, and carried.—Dr. ANDERSON pointed out that Mr. Humphreys's resolution could be brought forward again if the Committee was not formed.

Rules of Central Midwives Board.—Further discussion on this subject was adjourned owing to lack of time.

KENSINGTON DIVISION.

A MEETING of this Division was held at the Kensington Town Hall on Tuesday, March 27th, at 4.45 p.m.

Direct Representatives on General Medical Council.—Dr. Langley Browne and Mr. George Jackson were nominated as candidates for direct representation on the General Medical Council.

Nominations for Branch Officers.—The following nominations were made as candidates for office in the Council of the Metropolitan Counties Branch:—*Vice-President:* Dr. Crawford Thomson. *Treasurer:* Mr. Betham Robinson. *Honorary Secretaries:* Dr. F. J. Smith and Mr. Ernest Clarke. *Representative on the Central Council:* Mr. George Eastes.

Rebuilding of Association Premises.—The proposed rebuilding of the premises of the Association in the Strand was discussed.

Branch and Division Finance.—After consideration of the present system of Branch and Division Finance it was decided to suggest to the Organization Committee that a definite grant, not exceeding half-a-crown per member, should be made to the Divisions; and that, if the Royal Charter is granted, Divisions might employ their funds in medical charities and social entertainments, amongst other objects.

Paper.—Dr. ROBERT HUTCHISON read a paper on chronic diarrhoea. Mr. BRINDLEY JAMES, Mr. T. R. ATKINSON, Mr. EICHHOLZ, Mr. SPENCER MEERWALD, Mr. LYNCH, Mr. GEORGE EASTES, Dr. MOORHEAD, and the CHAIRMAN discussed the paper. Dr. HUTCHISON replied.

Vote of Thanks.—On the proposal of Mr. E. G. BARNES, seconded by Mr. BRINDLEY JAMES, a hearty vote of thanks to Dr. Hutchison was carried by acclamation.

LANCASHIRE AND CHESHIRE BRANCH:

NORTH MANCHESTER DIVISION.

A MEETING of this Division was held on Thursday, March 22nd, Dr. BODDY in the chair.

Resolutions.—The following resolutions were unanimously adopted:

1. This Division nominates as candidates for election as Direct Representatives on the General Medical Council, Mr. G. H. Broadbent and Mr. George Jackson.

2. This Division utterly condemns the methods employed by the Universal Insurance Company, Limited, and trusts that no medical man will accept the appointments offered; and, further, invites the Central Ethical Committee to consider the matter, and if desirable issue a warning notice to members against being in any way connected with the company.

Notices of Motion for Representative Meeting.—The following notices of motion were adopted:

(*a*) That the *Year Book* be issued not later than October 1st in each year.

(*b*) That any member of a Standing Committee absenting himself from two successive meetings of that Committee without satisfactory explanation shall be deemed to have resigned, and the Committee shall forthwith fill the vacancy.

(*c*) That a Committee be appointed to inquire into the duties of the General and Medical Secretaries, with a view to their better regulation and co-ordination.

(*d*) That the Annual Representative Meeting be empowered to elect half the members of each Standing Committee.

Notifications to Medical Secretary.—It was resolved that the following recommendation be forwarded to the Central Council:

> That Divisional Secretaries be recommended, by means of a permanent notice in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL, to notify the Medical Secretary of all intended meetings of their Divisions, and that post-cards be supplied them for this purpose; so that any matter awaiting consideration may, if possible, be forwarded in time for such meetings.

OXFORD AND READING BRANCH:

OXFORD DIVISION.

A GENERAL meeting of this Division was held on March 23rd at the Redcliffe Infirmary, Oxford, at 3 p.m. In the absence of Dr. Bloxsome, Dr. INNES GRIFFIN took the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Deceased Members.—Dr. COLLIER proposed a vote of sympathy with the families of Dr. Tuckwell, Dr. H. P. Mallam, and Dr. Stark, three members of the Division lately deceased. The vote was carried unanimously.

Midwives Act.—The SECRETARY read Section VIII of the Midwives Act, and laid it on the table, general assent being expressed.

☞ ***To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.***

Association Notices.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Notice is given that the Library will be closed on Monday and Tuesday next, April 2nd and 3rd.

March 29th. Guy Elliston, *General Secretary.*

BRANCH AND DIVISION MEETINGS TO BE HELD.

Birmingham Branch.—The annual meeting of the Birmingham Branch will be held at the Medical Institute on Thursday, June 14th, at 3.30 p.m., and nominations for offices should reach the Honorary Secretary not later than May 23rd.—T. Sydney Short, Honorary Secretary, 35, Newhall Street, Birmingham.

Birmingham Branch: Coventry Division.—A special meeting of this Division will be held at the Coventry and Warwickshire Hospital on Tuesday, April 3rd, at 8.30 p.m. Agenda: (1) Mr. W. E. Bennett will read a paper on the Tolerance of the Peritoneum; (2) the Committee will recommend the adoption of the following resolution: "That the Division having, on February 15th last, approved of a scheme of principles and rules which they consider appropriate for the proper management of a provident dispensary, hereby declare that no member of the profession in the area of the Division should associate himself with, or continue to be associated with, any provident dispensary which is managed on lines fundamentally different from these principles and rules;" (3) the Committee will recommend that the Bradford Rule (B) should be altered so that "fourteen days' notice" should read "seven days' notice." After the meeting, a meeting of the members of the Voluntary Book Section will be held. Members desiring to join during the ensuing twelve months will oblige by either attending that meeting or otherwise signifying their wish.—E. H. Snell, Honorary Secretary, Warwick Avenue, Coventry.

Border Counties Branch.—The next meeting of this Branch will be held in Keswick on Friday, May 4th. Any member who desires to make a communication to the meeting is requested to inform the Secretary at his earliest convenience. Fuller details of arrangements will be published later. —Francis R. Hill, Carlisle, Honorary Secretary.

Border Counties Branch: North Cumberland Division. A meeting of the North Cumberland Division of the Border Counties Branch will be held at Penrith on Friday, April 6th. The Honorary Secretary will be pleased to hear from members who wish to read papers, show cases or pathological specimens. —Norman Maclaren, Honorary Secretary, 23, Portland Square, Carlisle.

Border Counties Branch: Scottish Division.—A meeting of this Division will be held in Dumfries about the middle or end of April. Members who have business or communications to bring before the meeting are requested to give notice to the Secretary.—George R. Livingston, Honorary Secretary, Dumfries.

East Anglian Branch —The spring meeting of this Branch will be held at the Globe Hotel, King's Lynn, on Thursday, April 5th. Programme of proceedings: 12.30, meeting of Council at the Globe Hotel. 1 o'clock, Luncheon. Those who intend to be present should send an intimation to Dr. Gardiner, King's Lynn, on or before Monday, April 2nd. 2 o'clock, General meeting of members: (1) Minutes of last meeting; (2) Sir Alan Reeve Manby, M.D., M.V.O., will read Short Notes on Some Colonial Hospitals, 1901; (3) S. W. Curl, M.D., M.R.C.P., Physician to the Essex and Colchester Hospital, will read a paper on Some Cases of Bright's Disease in which the Actual Condition of the Kidneys is Obscure. 4 o'clock, Afternoon Tea, by kind invitation of the members of the West Suffolk Division. Dr. Plowright has kindly offered to take members for a walk round Lynn about 3.30. Surgical instruments will be shown by Messrs. Down Bros.—B. H. Nicholson, H. A. Ballance, J. Gutch, Honorary Secretaries.

Edinburgh Branch: South-Eastern Counties Division. —The spring meeting will be held at St. Boswells in the house of Dr. Cullen, Chairman, in the afternoon of Friday, April 6th, at 4 o'clock. Agenda: (1) Matters referred by Medico-Political Committee to be considered. (2) Papers by various members to be read and discussed. (3) Annual balance sheet to be audited.—W. Hall Calvert, M.D., Honorary Secretary, Melrose.

Edinburgh Branch: Southern Division.—An ordinary meeting of the Division will be held in Room No. 5, Oddfellows Hall, Forest Road, on Tuesday, April 3rd, at 8.15 p.m. Business: (1) Minutes. (2) Correspondence. (3) Report of Representative to Representative Meetings. (4) Consideration of Draft Charter and Ordinances and other matters referred to Divisions. (5) Any other competent business.—Michael Dewar, Honorary Secretary, Edinburgh.

Metropolitan Counties Branch: Marylebone Division. —A meeting of this Division will be held on April 3rd at 11, Chandos Street, W., at 5 p.m.—Comyns Berkeley, 53, Wimpole Street, Cavendish Square, W., Honorary Secretary.

Metropolitan Counties Branch: Wandsworth Division. —A conjoint meeting of the Chelsea, Westminster, Lambeth, Norwood, Croydon, Richmond, and Wandsworth Divisions will be held at the Battersea Town Hall, Clapham Junction, at 4 p.m. on Thursday, April 19th, to discuss the proposed Royal Charter. Special speakers will be invited. Any member of the Association is invited to attend.—E. Rowland Fothergill, Honorary Secretary.

North of England Branch.—A meeting of the North of England Branch will be held on Tuesday, April 24th, at Stockton-on-Tees. Members wishing to read papers or show cases are requested to inform Dr. Cox as soon as possible.— Alfred Cox, J. H. Hunter, Honorary Secretaries.

North Wales Branch: South Carnarvon and Merioneth Division.—A meeting of the Division will be held at the Queen's Hotel, Portmadoc, on Thursday, April 5th, at 2 p.m. Members having papers to read or cases to show will please communicate with me before the 28th inst.—Hy. Gladstone Jones, Honorary Secretary, Criccieth.

South-Eastern of Ireland Branch.—An ordinary meeting will be held at the County and City Infirmary, Waterford, on April 4th, at 2 p.m. Agenda: To receive and formulate evidence regarding Poor-law reform to be given before the forthcoming Royal Commission on the Poor Law, through a Committee consisting jointly of members of the Irish Committee, the Irish Medical Association, the Poor-law Association, and the Workhouse Association.—J. Quirke, Honorary Secretary, Piltown, co. Kilkenny.

South-Eastern Branch: Norwood Division.—A clinical meeting will be held on Thursday, April 12th, at 4 p.m., at St. John's Hospital, Morden Hill, Lewisham, H. C. Burton, F.R.C.S., of Blackheath, in the chair. The staff have kindly promised to show cases. Members desirous of exhibiting cases are requested to communicate with the Honorary Secretary at once. St. John's Hospital is a few minutes from Lewisham Junction and the Catford and Greenwich trams pass the bottom of Morden Hill.—H. J. Prangley, Honorary Secretary.

South-Eastern Branch: Reigate Division.—A meeting will be held at the Cottage Hospital, Red Hill, on Thursday, April 5th, at 3.15 p.m., Mr. John Walters, J.P., in the chair. Important Association business will be considered. Members are requested to bring the Supplment of the British Medical Journal of March 24th. Patients will be shown by the medical officers of the hospital. They will also be glad to see any patients sent by the members of the Division. Tea will be provided after the meeting. All members of the South-Eastern Branch are invited to attend and to introduce professional friends.—W. A. Berridge, Honorary Secretary, 158, Station Road, Red Hill.

South Midland Branch: Bedford and Herefordshire Division.—A meeting of this Division will be held at the Three Counties Asylum, Arlesey, on Thursday, April 5th, at 3 p.m., by the kind invitation of Dr. S. E. De Lisle, Medical Superintendent of the Asylum. Agenda: (1) Minutes of the last meeting, *vide* British Medical Journal, December 9th, 1905. (2) Letters and communications. (3) Dr. J. F. Dixon, Assistant Medical Officer of the Three Counties Asylum, will read a paper on Some Early signs and Symptoms of Insanity. (4) Dr. Bower will read a paper on The Insane in Private Dwellings. (5) Any other business.—H. Savory, Honorary Secretary, Bedford.

GENERAL MEDICAL COUNCIL.

ELECTION OF DIRECT REPRESENTATIVES FOR ENGLAND AND WALES, NOVEMBER, 1906.

Candidates Nominated by Divisions for Selection by the Representative Meeting on behalf of the Association.

The following members of the Association have been nominated by the Divisions named to be candidates for election, and have accepted nomination in accordance with the terms of the scheme published in the Supplement of the British Medical Journal for October 7th, 1905:

Name.	*Address.*	*Nominating Division or Divisions.*
BROADBENT, George Harry, M.R.C.S. ... (Member of Central Ethical Committee, Member of Lancashire and Cheshire Branch Council, and Representative of North Manchester Division.)	8, Ardwick Green, Manchester	Manchester (North).
BROWNE, Henry Langley, M.D. ... .. **(Chairman of Council of the Association.)**	**Moor House, West Bromwich**	**Central Birmingham.** **City (London).** **Kensington.** **Marylebone.** **Swansea.**
BULLAR, John Follett, M.B. ... . **(Member of Branch Council, Southern Branch.)**	**7, Carlton Crescent, Southampton**	**Winchester.**
CLARK, Andrew, F.R.C.S. ... ... **(Member and late Chairman of Central Council, and President of the Metropolitan Counties Branch.)**	**71, Harley Street, W.**	**City (London).** **Marylebone.** **St. Pancras and Islington.**
HELME, Thomas Arthur, M.D. ... ... (Honorary Secretary and Treasurer of Lancashire and Cheshire Branch, Member of Central Council and Medico-Political Committee.)	3, St. Peter's Square, and Mayfield, Victoria Park, Manchester	Manchester (West).
JACKSON, George, F.R.C.S. ... . **(President of the South-Western Branch, and Member of the Medico-Political Committee.)**	**10, Portland Villas, Plymouth**	Exeter. **Gateshead.** Kensington. Manchester (North). **Plymouth.**
LATIMER, Henry Arthur, M.D. ... ... **(Chairman and Representative of Swansea Division, Member of Medico-Political Committee.)**	**4, Belvoir Place, Swansea**	**Swansea.**
McMANUS, Leonard Strong, M.D. ... .. (Representative of Wandsworth Division, Member of Medico Political Committee.)	25, Spencer Park, Wandsworth Common, S.W.	Stratford. Wandsworth.
MORISON, James Rutherford, F.R.C.S. .. **(Member of Branch Council and Chairman of Northumberland Committee, North of England Branch.)**	**14, Saville Row, Newcastle-on-Tyne**	Blyth (Cleveland). **Consett.** Furness. **Gateshead.** Marylebone. **Newcastle-on-Tyne.** Stockton-on-Tees. Sunderland.
RENSHAW, Charles Jeremiah, M.D. ... (Representative on Lancashire and Cheshire Branch Council of Altrincham Division.)	Beech Hurst, Ashton-on-Mersey, Lancashire	Manchester (West).
RHODES, John Milson, M.D. ... ... **(Chairman of South Manchester Division, Lancashire and Cheshire Branch.)**	**Ivy Lodge, Didsbury, Manchester**	**Manchester (South).**
SMITH, Frederick John, F.R.C.P., M.D. ... (Honorary Secretary, Metropolitan Counties Branch.)	138, Harley Street, W.	Stratford.
STRATON, Charles Robert, F.R.C.S.Edin. ... **(Member of Central Council, Medico-Political Committee and Colonial Committee.)**	**West Lodge, Wilton, Salisbury**	Wandsworth. **Winchester.**

A final list of nominations incorporating all notices received up to March 31st will be published in next week's issue.

March 29th.

J. SMITH WHITAKER, *Medical Secretary.*

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: WILLIAM GORDON STOTT, M.B., Fleet Surgeon, to the *Bedford*, on recommissioning, March 27th; OSWALD REES, M.D., Staff Surgeon, to the *Mercury*, March 22nd; LOUIS E. DARTNELL, Staff Surgeon, to the *Thames*, April 2nd; LANCELOT KILROY, Staff Surgeon, to the *Brilliant*, on recommissioning, April 3rd; JOHN K. ROBINSON, M.B., Staff Surgeon, to the *Niobe*, and JAMES W. W. STANTON, Staff Surgeon, to the *Suffolk*, both on recommissioning, April 10th; LAWRENCE C. HUNT, Surgeon, to the *Suffolk*, on recommissioning, April 10th.

Surgeon HILARY C. ARATHOON has been promoted to the rank of Staff Surgeon with seniority of May 16th, 1902. Surgeon Arathoon joined the service on May 16th, 1894.

Surgeon SAMUEL H. FACEY has been promoted to the rank of Staff Surgeon. with seniority of November 29th, 1905. Staff Surgeon Facey's appointment to the *Pembroke* has been cancelled, and he has been appointed to the *Wildfire*, in the place of Staff Surgeon Lancelot Kilroy, to date April 3rd. Staff Surgeon Facey entered the service in 1897.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL JAMES MURRAY IRWIN, M.B., B.Ch., who has been for nearly three years Staff Officer to the Principal Medical Officer, Aldershot command, has been appointed Assistant Director.-General, Army Medical Service, vice Lieutenant-Colonel Babtie, V.C., C.M.G., M.B. Colonel Irwin joined the R.A.M.C. in 1882, becoming Surgeon-Major in 1894, and Lieutenant-Colonel in 1902. He served in the Egyptian expedition of 1898 (Egyptian medal, and medal), and in South Africa in 1900-1902, in the course of which he saw most of the important fighting, including the actions near Johannesburg, Pretoria, and Diamond Hill. He received for his services mention in dispatches, the Queen's medal with five clasps, and the King's medal with two clasps.

Lieutenant-Colonel T. W. O'HORA HAMILTON, C.M.G., M.B., B.Ch., has been appointed Staff Officer to the Principal Medical Officer at Aldershot, in the place of Lieutenant-Colonel Irwin. Lieutenant-Colonel Hamilton joined the service as Surgeon in February 3rd, 1883, became Surgeon-Major in 1895, and was promoted Lieutenant-Colonel in 1903. He served in the South African war, 1899-1902, and took part in the relief of Kimberley, the operations at Paardeberg, at Poplar Grove, Dreifontein, and Zand River. He was also in the actions near Johannesburg, Pretoria, and Diamond Hill, and those at Belfast and Colesberg. He was mentioned in dispatches, and has the Queen's medal with six clasps, and the King's medal with two clasps.

Lieutenant-Colonel Sir A. A. BROOKE-PECHELL, now at Portsmouth, has been appointed a Recruiting Medical Officer in the London district.

Major J. C. Morgan has succeeded Major A. R. Aldridge as Sanitary Officer, Eastern command, India.

The following officers have been appointed to the command of the various Indian station hospitals set forth: Lieutenant-Colonel T. B. WINTER, to Meerut, vice Lieutenant-Colonel A. S. Rose; Major J. S. EDYE, to Cawnpore, vice Lieutenant-Colonel R. E. R. Morse; and Captain A. MCMUNN to Jutogh, vice Major N. Tyacke, vacated.

ARMY MEDICAL RESERVE OF OFFICERS.

SURGEON-CAPTAIN JAMES A. CLARK, M.B., has been promoted to be Surgeon-Major, under date March 15th.

INDIAN MEDICAL SERVICE.

COLONEL A. F. DOBSON, M.B., Madras Establishment, has been appointed Principal Medical Officer, 9th (Secunderabad) Division.

Colonel R. MACRAE, M.B., is confirmed in appointment of Inspector-General of Civil Hospital, Bengal, to date from April 29th.

Major R. HEARD has been appointed to the Medical Charge of the Staff and Establishments, Army Head Quarters at Simla for the winter months.

Captain N. P. O'G. LALOR, M.B., is transferred from Sagaing to Rangoon, and is appointed to officiate as Deputy Sanitary Commissioner, Burmah.

Captain H. ST. J. FRASER, of the Madras Establishment, is promoted to be Major from January 29th. Captain Fraser was a Surgeon-Lieutenant in January, 1894, and became Surgeon-Captain in January, 1897. He served with the Malakand expedition (medal with clasp). and in the Tirah campaign. He was present at the capture of Sampagna and Arhanga passes and the operations in the Bazar Valley, December 25th to 30th, 1897 (clasp).

The following Lieutenants, also of the Madras Establishment, are promoted to be Captains from January 31st: W. S. J. SHAW, M.B., C. S. PARKER, M.B., H. H. BROOME, M.B., F. N. WHITE, M.B., C. G. SEYMOUR, D. HERON, M.B., T. C. RUTHERFOORD, M.B., H. C. KEATES, M.B., L. REYNOLDS, E. C. TAYLOR, M.B., R. A. NEEDHAM, M.B., D. P. GOIL, M.B., J. KIRKWOOD, M.B., and A. WHITMORE, M.B.

ROYAL NAVAL VOLUNTEER RESERVE.

MR. HENRY GORDON CAMPBELL has been appointed a Surgeon, and attached to the Clyde division; Mr. JOHN MARTIN BICKERTON has also been appointed a Surgeon, and attached to the Sussex division, March 16th.

ROYAL ARMY MEDICAL CORPS (MILITIA).

MR. ROBERT A. O'DONOVAN is appointed Lieutenant.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

SURGEON-MAJOR JAMES DRUMMOND, M.D., 3rd Durham, to be Lieutenant-Colonel, and to command under the conditions of para. 47 Volunteer Regulations.

HARRY A. ROBINSON, M.D., to be Surgeon-Lieutenant of the 2nd Lancashire, March 28th.

ROYAL ENGINEERS (VOLUNTEERS),

MR. LEONARD R. TOSSWILL has been appointed Surgeon-Lieutenant in the 1st Devonshire and Somersetshire.

VOLUNTEER RIFLES.

MR. CLARENCE B. WHITEHEAD, 1st Volunteer Battalion Yorkshire Regiment, to be Surgeon-Lieutenant.

Mr. JONAS W. ANDERSON, M.B., 1st Volunteer Battalion Welsh Fusiliers, to be Surgeon-Lieutenant.

CHANGES OF STATIONS.

THE following changes of stations amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during February, 1906:

	FROM	TO
Colonel J. F. Williamson, M.B., C.B., C.M.G.	Jubbulpore	Mhow.
Lieut.-Col. R. D. Hodson	Ceylon	Chatham.
,, J. R. Dodd, M.B.	Bareilly	Mhow.
,, A. M. Davies	Advis. Board	R.A.M.Coll.
,, W. L. Reade	Weedon	India.
,, W. Dick, M.B.	Straits Settlm.	Dover.
,, H. S. McGill	Gravesend	London.
,, R. H. Firth	R.A.M.Coll.	Aldershot.
,, G. F. Gubbin	Dover	India.
,, F. F. Freyer, M.B., C.M.G.	Netley	,,
,, C. W. Johnson, M.B.	Eastern Comd.	Woolwich.
,, S. Hickson, M.B.	—	Wynberg.
,, G. Davis	Subathu	Ambala.
,, A. E. Morris, M.D.	Woolwich	Sitapur.
,, R. H. Hall, M.D.	Cork	London.
Major C. H. Melville, M.B.	Simla	London Dist.
,, J. J. Gerrard, M.B.	Brighton	Malta.
,, R. H. Penton, D.S.O.	Gosport	York.
,, W. C. Poole, M.B.	Saugor	Dublin.
,, J. H. E. Austin	Straits Settlm.	Eastern Comd
,, A. W. Bewley	Dublin	Newbridge.
,, J. Hennessy, M.B.	,,	Kildare.
,, G. S. Crawford	Aldershot	Malta.
,, H. A. Hinge	Bombay	Indore.
,, W. J. Taylor, M.B.	Deesa	Kamptee.
,, B. W. Longhurst	Cyprus	Gibraltar.
Captain M. P. Corkery	Southern Com.	Portsmouth.
,, M. MacG. Rattray, M.B.	Jhansi	Colaba.
,, H. G. F. Stallard	Woolwich	Aldershot.
,, B. Watts	Eastern Comd.	Woolwich.
,, W. P. Gwynn	Chester	Newport.
,, G. J. S. Archer, M.B.	Belfast	Armagh
,, R. Selby, M.B.	Eastern Comd.	Woolwich
,, H. D. Packer	Southn. Comd.	Tidworth.
,, H. K. Palmer	Eastern Comd.	Colchester.
,, W. R. Blackwell	Dublin	Woolwich.
,, A Chopping	York	Sheffield.
,, S. G. Butler	Eastern Comd.	Aldershot.
,, E. P. Connolly	Belfast	Enniskillen
,, F. G. Richards	R.A.M. Coll.	Aldershot.
,, J. Matthews	Eastern Comd.	Woolwich.
,, B. F. Wingate	,,	Dover.
,, A. H. Safford	Aldershot	Woolwich.
,, R. L. Argles	York	N'castle-on-T.
,, L. M. Purser, M.B.	Ceylon	Eastern Comd.
,, T. E. Fielding, M.B.	Southn. Comd.	Gosport
,, E. P. Sewell, M.B.	Mian Mir	London Dist.
,, C. H. Straton	Meerut	Eastern Comd.
,, J. M. Cuthbert, M.B.	Agra	Edinburgh.
,, A. F. Weston	Sialkot	Eastern Comd.
,, Fitz G. G. Fitzgerald	Eastern Comd.	Shorncliffe
,, F. H. Hardy	,,	Colchester
,, A. D. Jameson	,,	Woolwich
,, C. E. Fleming, M.B.	Barbados	Dublin.
,, P. S. Lelean	Southn. Comd.	Portsmouth.
,, H. J. McGrigor, M.B.	,,	Bulford.
,, J. W. West, M.B.	Bloemfontein	Dublin.
,, E. W. Powell	Dublin	Queenstown.
,, G. F. Sheehan	Straits Settlm.	Dublin.
,, F. W. Lambelle, M.B.	Hong Kong	Edinburgh.
,, E. V. Aylen	Wei-hai-Wei	Southn. Comd.
,, A. W. A. Irwin	Barbados	Dublin.
,, C. G. Thomson	Enniskillen	India.
,, S. M. Adye-Curran	Barbados	Dublin.
,, W. J. S. Harvey	Hong Kong	Chester.
,, B. A. Craig	,,	Dublin.
Lieutenant J. W. S. Seccombe	Devonport	Fort Tregantle
,, D. S. Skelton	Ceylon	Southern Com.
,, C. V. B. Stanley, M.D.	Chatham	Egypt. Army.
,, J. G. Bell, M.B.	Colaba	Jhansi.
,, R. G. Anderson	Aldershot	Gibraltar.
,, E. C. Whitehead, M.B.	Middelburg, Cape Colony	Pretoria.
,, P. Dwyer, M.B.	Cork	India.
,, M. Sinclair, M.B.	Edinburgh	,,
,, P. A. Lloyd-Jones	Tidworth	Malta.
,, J. St. A. Maughan	Bulford	,,
,, G. B. F. Churchill	Aldershot	India.
,, R. G. Meredith, M.B.	Dublin	Malta.
,, F. E. Roberts	Aldershot	,,
,, A. A. McNeight, M.B.	Dublin	India.
,, E. B. Booth, M.D.	Netley	,,
,, C. D. M Holbrooke	,,	,,

Lieutenants H. St. M. Carter, M.D., and W. Byam, appointed on probation, July 30th, 1904, are stationed at Curragh and Netley respectively.

Lieutenants G. W. Heron and J. M. B. Rahilly, M.B., appointed on probation, January 31st, 1905, are stationed at Millbank and Aldershot respectively.

The undermentioned Lieutenants, appointed on probation, July 31st, 1905, are appointed to the stations respectively: J. A. Anderson, M.B., H. G. Sherren, H. H. A. Emerson, M.B., and W. Benson, M.B., Millbank; R. P. Lewis, J. H. Graham, M.B., A. M. Rose, M.B., E. G. Anthonisz, E. L. Moss, M.B., H. Ritchie, M.B., T. W. McConaghy, M.B., Netley; G. E. Ferguson, G. H. Rees, M.B., T. Scatchard, V. H. Symons, R. A. Bryden, W. J. Weston, M. J. Cromie, J. S. Dunne, E. T. Potts, M.D., W. C. Nimmo, H. E. Priestley, P. J. Marett, A. D. O'Carroll, M.B., and A. C. Vidal, Aldershot; G. E. W. S. Fawcett, M.B., A. E. S. Irvine, T. B. Moriarty, A. E. F. Hastings, G. W. W. Ware, M.B., M. Keane, C. F. White, M.B., F. C. Sampson, M.B., T. S. Blackwell, and H. Stewart, M.B., Curragh.

Lieutenant-Colonel E. J. Fairland, retired pay, has relinquished the medical charge of troops, London.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,510 births and 4,808 deaths were registered during the week ending Saturday last, March 24th. The annual rate of mortality in these towns, which had been 17.4, 16.7, and 16.2 per 1,000 in the three preceding weeks, further fell last week to 15.8 per 1,000. The rates in the several towns ranged from 6.2 in Hastings, 8.4 in Willesden, 8.9 in Wallasey, 9.6 in Hornsey, 9.8 in Bury, and 9.9 in Walthamstow and in Reading, to 19.1 in Coventry, 19.6 in Hanley, 19.7 in Newport (Mon.), 20.5 in Swansea, 20.8 in Plymouth, 21.6 in Liverpool, and 25.0 in Swansea. In London the rate of mortality was 15.8 per 1,000, while it averaged 15.9 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases in these towns averaged 1.4 per 1,000; in London this rate was equal to 1.5 per 1,000 while among the seventy-five other large towns the rates ranged upwards to 2.5 in Handsworth (Staffs.), in Liverpool, in York, and in Rhondda, 2.9 in St. Helens and in Newcastle-on-Tyne, 3.0 in West Bromwich, and 3.1 in Croydon. Measles caused a death-rate of 1.1 in Bristol and in Liverpool, 1.2 in Hornsey and in Leeds, 1.4 in Croydon, 1.7 in Tottenham, 1.8 in Bury, and 2.3 in Newcastle-on-Tyne; diphtheria of 1.0 in Croydon, 1.1 in St. Helens, 1.4 in Merthyr Tydfil, and 1.9 in York; whooping-cough of 1.3 in Plymouth and in Gateshead, 1.6 in Smethwick and in Rhondda, 2.0 in Coventry and in Leicester, 2.5 in Handsworth (Staffs), and 3.0 in West Bromwich; "fever" of 1.0 in Burnley and 1.1 in St. Helens; and diarrhoea of 1.0 in Middlesbrough. The mortality from scarlet fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The number of small-pox patients in the Metropolitan Asylums Hospitals on Saturday last, the 24th instant, was 10, against 6, 6, and 7 on the three preceding Saturdays; 5 new cases were admitted during the week, against 1 in each of the three preceding weeks. The number of scarlet fever cases remaining under treatment in these hospitals and in the London Fever Hospital at the end of last week was 2,434, against 2,628, 2,545, and 2,485 at the end of the three preceding weeks; 234 new cases were admitted during the week, against 273, 268, and 252 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, March 24th, 990 births and 617 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 19.3, 18.2, and 19.3 per 1,000 in the three preceding weeks, declined again to 18.0 per 1,000 last week, but was 2.2 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 12.6 in Leith and 15.1 in Perth to 20.6 in Greenock and 22.8 in Dundee. The death-rate from the principal infectious diseases averaged 1.7 per 1,000 in these towns, the highest rates being recorded in Dundee and Greenock. The 293 deaths registered in Glasgow included 14 which were referred to measles, 9 to whooping-cough and 8 to diarrhoea. Three fatal cases of measles, 2 of whooping-cough, and 2 of diarrhoea were recorded in Edinburgh. Two deaths from measles, 3 from whooping-cough, and 3 from diarrhoea were registered in Dundee; 2 from diarrhoea in Aberdeen, and 2 from whooping-cough in Greenock.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, March 24th, 536 births and 420 deaths were registered in six of the principal Irish towns, as against 511 births and 417 deaths in the preceding period. The annual death-rate in these towns, which had been 25.1, 22.2, and 19.4 per 1,000 in the three preceding weeks, rose to 23.6 per 1,000 in the week under notice, this figure being 7.8 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 9.9 in Londonderry and 22.1 in Belfast to 27.3 in Limerick and 31.2 in Waterford. The zymotic death-rate in the same six Irish towns averaged 0.7 per 1,000, or 0.4 per 1,000 lower than during the preceding period, the highest figure—1.7—being recorded in Belfast, while no deaths under this heading were recorded in Limerick and Waterford. In all there were 8 deaths from whooping-cough (5 in Belfast) and 3 from diphtheria, all in Belfast.

Vacancies and Appointments.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

ABERDEEN (NEW) POORHOUSE.—Resident Assistant Medical Officer. Salary, £80 per annum.

BIRKENHEAD BOROUGH HOSPITAL.—Junior Resident House-Surgeon (male). Salary, £80 per annum.

BOURNEMOUTH: ROYAL BOSCOMBE AND WEST HANTS HOSPITAL.—House-Surgeon. Salary, £80 per annum.

BRIDGWATER HOSPITAL.—House-Surgeon. Salary, £80 per annum.

BRISTOL EYE HOSPITAL.—House-Surgeon. Salary, £80 per annum.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House-Physician. Salary, £90 per annum.

CARLISLE NON-PROVIDENT DISPENSARY.—Resident Medical Officer. Salary, £150 per annum.

CHARING CROSS HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

CHURCH OF SCOTLAND WOMEN'S ASSOCIATION FOR FOREIGN MISSIONS.—Lady Medical Missionaries.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Two House Physicians (male). Salary at the rate of £30 per annum each.

DURHAM COUNTY HOSPITAL.—House-Surgeon. Salary £120 per annum.

EGYPTIAN GOVERNMENT.—Resident Surgical Officer for the Kasr-El-Ainy Hospital. Salary £250 per annum.

GARTCOSH: GARTLOCH ASYLUM.—Assistant Medical Officer. Salary, £125 per annum.

HALIFAX ROYAL INFIRMARY.—Second House-Surgeon. Salary, £100 per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Resident House-Physicians. Honorarium, £25 for six months.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W.—Senior Clinical Assistants.

HOSPITAL FOR EPILEPSY AND PARALYSIS, Maida Vale.—Resident Medical Officer. Salary at the rate of £50 per annum.

HULL ROYAL INFIRMARY.—Honorary Assistant Ophthalmic Surgeon to Out-patient Department.

KENSINGTON DISPENSARY AND CHILDREN'S HOSPITAL.—Vacancy on Honorary Medical Staff.

KILLARNEY DISTRICT LUNATIC ASYLUM.—Resident Medical Superintendent. Salary, £450 per annum.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Salary, £100 per annum, increasing £10 on reappointment.

LINCOLN COUNTY HOSPITAL.—Junior Male House-Surgeon. Honorarium, £25 for six months.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Assistant Surgeon.

NOTTINGHAM: CHILDREN'S HOSPITAL.—House-Surgeon.

OLDHAM INFIRMARY.—Senior House-Surgeon. Salary, £100 per annum. State whether willing to accept Junior post at £75.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Pathologist and Registrar. Remuneration at the rate of £80 per annum.

REIGATE BOROUGH.—Medical Officer of Health. Salary, £500 per annum.

ROYAL EAR HOSPITAL, Soho.—(1) House-Surgeon, non-resident. Honorarium at the rate of £40 per annum; (2) Clinical Assistants.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—(1) Resident Medical Officer. Salary at the rate of £120 per annum. (2) Clinical Assistants.

ST. BARTHOLOMEW'S HOSPITAL, E.C.—Lecturer on Chemistry.

ST. GEORGE'S UNION.—Assistant Medical Officer at the Infirmary, Fulham Road. Salary, £120 per annum.

SAMARITAN HOSPITAL FOR WOMEN, Marylebone Road.—Clinical Assistants.

SEAMEN'S HOSPITAL SOCIETY, Greenwich.—(1) Two House-Physicians; (2) two House-Surgeons; (3) Senior House-Surgeon; (4) House-Surgeon. The two former at the Dreadnought Hospital and the two latter at the Branch Hospital. Salaries for (1), (2), and (4) £50 per annum, and (3) at £75 per annum, with an addition of £25 for acting as Secretary.

SETTLEMENT OF WOMEN WORKERS, Canning Town, E.—Assistant Doctor for the Dispensary.

SOMERSET AND BATH ASYLUM, Cotford.—Assistant Medical Officer. Salary, £140 per annum, increasing to £160.

SWANSEA GENERAL AND EYE HOSPITAL.—Assistant House-Surgeon. Salary, £50 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacancy in the office of Certifying Factory Surgeons: Mallow, co. Cork.

APPOINTMENTS.

Annand, W. F., M.D., B.S., Clinical Assistant to the Chelsea Hospital for Women.

Buckley, J. C., M.D., Ch.B.Vict., Honorary Assistant Physician to the Nottingham General Hospital.

Caddick, C. J., M.B., F.R.C.S.Edin., D.P.H.Camb., Surgeon in Out-patient Department, Walsall and District Hospital.

Dearden, W. F., L.R.C.P., M.R.C.S.Eng., D.P.H.Vict., Medical Officer of Health, Manchester Port Sanitary Authority.

Duhig, D. J., L.R.C.P.E., L.R.C.S.E., L.F.P.S.Glasg., Medical Officer to the Cottage Homes, Hornchurch, of the Parish of St. Leonard's, Shoreditch.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

Aldren.—On March 21st at 42, Bristol Road, Edgbaston, Birmingham, the wife of Bertram C. R. Aldren, M.B., Ch.B., of a son (stillborn).

Bayliss.—On March 27th, at 5, Gay Street, Bath, the wife of Richard Arthur Bayliss, M.R.C.S.Eng., L.R.C.P.Lond., a daughter.

Chambers.—On March 21st, at The Priory, Roehampton, the wife of James Chambers, M.D., of a son.

Hicks.—On March 18th, at Park House, East Finchley, the wife of Thomas W. Hicks, M.D.Lond., of a son.

MARRIAGE.

Clogg—King.—On March 24th, at Holy Innocents Church, South Norwood, by the Rev. H. Bickersteth Ottley, M.A., Herbert Sherwell Clogg, M.S., F.R.C.S., of Harley Street, second son of the Rev. William H. Clogg, of Clapton, and Emma Charlotte Mildred, eldest daughter of the late Frank King, Esq., M.I.C.E., of Barnes, and "Colwyn," Sydenham, and Mrs. King, of South Norwood.

DEATHS.

Bull.—On March 23rd, at Sparkhill, Birmingham, Elizabeth Grace, wife of Edwin G. Bull, M.B.Edin.

Leech.—At Prince's Buildings, Weston-super-Mare, on March 16th, Henry Richard Leech, M.D., late of Birmingham, aged 51.

Marriott.—On March 20th, at Swaffham, Norfolk, Robert Buchanan Marriott, M.R.C.S., L.S.A., L.M., aged 75 years.

DIARY FOR NEXT WEEK.

TUESDAY.

PATHOLOGICAL SOCIETY, 20, Hanover Square, W., 8.30 p.m.—Communications: (1) Alex. G. R. Foulerton—A Streptococcic Infection of the Pig simulating Tuberculosis. (2) S. R. Douglas—Some Experiments in Reference to to Immunity against Bacillus Pestis.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, **Pall Mall East, S.W., 5 p.m.**—First Oliver Sharpey **Lecture—Dr.** E. I. Spriggs: The Bearing of Metabolism Experiments upon the Treatment of Some Diseases.

WEDNESDAY.

OBSTETRICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8 p.m.—Short communication: Dr. E. J. Maclean—Case of Ectopic Gestation in which the Fetus was removed 6½ months after Spurious Labour at term. Specimens: Dr. Amand Routh—Fibroma of the Ovary with Ascites. Dr. Boxall—Note on the After-history of a Case of Cystic Fibroid with Carcinoma of the Left Ovary and Right Fallopian Tube. Dr. Blacker—(1) A Fibromyoma of Uterus with Free Fluid in Peritoneum; (2) A Tubo-Abdominal Gestation Sac with Fetus. Mr. J. Bland Sutton—Cancer of the Body of the Uterus complicated with Fibroids. Demonstration: Dr. A. W. Addinsell—Chronic Infective Metritis.

THURSDAY.

NORTH-EAST LONDON CLINICAL SOCIETY, Tottenham Hospital, N., 4 p.m.—Clinical Cases.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, **Pall Mall East, S.W., 5 p.m.**—Second Oliver Sharpey Lecture—Dr. E. I. Spriggs: The Bearing of Metabolism Experiments upon the Treatment of Some Diseases.

FRIDAY.

LARYNGOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, W., 5 p.m.—Exhibition of Cases, Drawings, and Specimens.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—West London Hospital, Hammersmith, W., 8 p.m. Clinical meeting.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Wednesday, 5 p.m., Nose.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Thursday, 4 p.m.. Tuberculous Enlargement of the Bronchial Glands in Children.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. **Lectures at 5.15 p.m. each day will be given as follows: Monday,** Rectal Examination in Urinary Disease; Tuesday, Pulmonary Tuberculosis in Children; Wednesday, Some Acute Infective Disorders of the Nervous System, Thursday, Internal Derangements of the Knee.

WEST LONDON HOSPITAL POST-GRADUATE COLLEGE, Hammersmith **Road, W.—The following arrangements have been made for next week: Monday,** 12 noon, Practical Surgery; 4 p.m., Ophthalmology. Tuesday, 11.30 a.m., Bacteriology. Wednesday, 11 a.m., Examination of Throat, Nose, and Ear; 12 noon, Practical Surgery. Thursday, 3.15 p.m., Intestinal Anastomoses. Friday, 11 30 a.m., Bacteriology. Daily, at 2.15 p.m., Medical and Surgical Clinics.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
	APRIL.
1 Sunday	
2 MONDAY	
3 TUESDAY	LONDON: Premises and Library Committee, 3.30 p.m. COVENTRY DIVISION, *Birmingham Branch*, Coventry and Warwickshire Hospital, 8.30 p.m. MARYLEBONE DIVISION, *Metropolitan Counties Branch*, 11, Chandos Street, 5 p.m. SOUTHERN DIVISION, *Edinburgh Branch*, Room No. 5, Oddfellows' Hall, Forrest Road, 8.15 p.m.
4 WEDNESDAY	LONDON: Journal and Finance Committee, 2.30 p.m. SOUTH-EASTERN OF IRELAND BRANCH, County and City Infirmary, Waterford, 2 p.m.
5 THURSDAY	BEDFORD AND HERTFORDSHIRE DIVISION, *South Midland Branch*, Three Counties Asylum, Arlesey, 3 p.m. EAST ANGLIAN BRANCH, Globe Hotel, King's Lynn; Council, 12.30; Luncheon, 1; General Meeting, 2; Tea, 4. REIGATE DIVISION, *South-Eastern Branch*, Cottage Hospital, Redhill, 3.15 p.m. SOUTH CARNARVON AND MERIONETH DIVISION, *North Wales Branch*, Queen's Hotel, Portmadoc. 2 p.m. SWANSEA DIVISION, *South Wales and Monmouthshire Branch*, General Hospital, Swansea, 3 p.m.
6 FRIDAY	LONDON: Ethical Committee, 2 p.m. HAMPSTEAD DIVISION, *Metropolitan Counties Branch.* NORTH CUMBERLAND DIVISION, *Border Counties Branch*, Penrith. SOUTH-EASTERN COUNTIES DIVISION, *Edinburgh Branch*, St. Boswell's, 4 p.m.
7 SATURDAY	
	APRIL *(continued).*
8 Sunday	
9 MONDAY	
10 TUESDAY	LONDON: Organization Committee, 10.30 am.
11 WEDNESDAY	
12 THURSDAY	NORWOOD DIVISION, *South-Eastern Branch*, St. John's Hospital, Morden Hill, Lewisham, 4 p.m.
13 FRIDAY	*Good Friday.*
14 SATURDAY	
15 Sunday	
16 MONDAY	*Bank Holiday.*
17 TUESDAY	
18 WEDNESDAY	CENTRAL COUNCIL, 2 p.m.
19 THURSDAY	CITY DIVISION, *Metropolitan Counties Branch*, Conjoint Meeting with Tottenham Division, Brooke House, Upper Clapton, 8.30 p.m. CHELSEA, WESTMINSTER, LAMBETH, NORWOOD, CROYDON, RICHMOND, AND WANDSWORTH DIVISIONS, Battersea Town Hall, Clapham Junction.
20 FRIDAY	
21 SATURDAY	
22 Sunday	
23 MONDAY	
24 TUESDAY	NORTH OF ENGLAND BRANCH, Stockton-on-Tees.
25 WEDNESDAY	ALTRINCHAM DIVISION, *Lancashire and Cheshire Branch*, Brooklands. BATH AND BRISTOL BRANCH, Bath.
26 THURSDAY	WANDSWORTH DIVISION, *Metropolitan Counties Branch*, Worple Hall, Wimbledon, 8.45 p.m.
27 FRIDAY	

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St Martin-in-the-Fields, in the County of Middlesex.

LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, APRIL 7TH, 1906.

CONTENTS.

PAGE

PROCEEDINGS OF COMMITTEES:
Ethical Committee 157
MEETINGS OF BRANCHES AND DIVISIONS:
Birmingham Branch: Coventry Division 158
Dorset and West Hants Branch: Bournemouth Division ... 158
East Anglian Branch: East Norfolk Division 158
Glasgow and West of Scotland Branch: Dumbartonshire and Argyllshire Division 159
Halifax and Nova Scotia Branch 159
Lancashire and Cheshire Branch: Liverpool and Birkenhead Divisions 159
Metropolitan Counties Branch: Marylebone Division ... 159
" " St. Pancras and Islington Division... 160
" " Stratford Division 160
North Wales Branch: Denbigh and Flint Division 160
Perth Branch 160
South-Eastern Branch: Canterbury and Faversham Division ... 161
" " Croydon Division 161
" " Eastbourne Division 162
" " Guildford Division... 162
" " Sevenoaks Division 162
Ulster Branch 162
West Somerset Branch 162
Yorkshire Branch: Bradford Division 163

PAGE

ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD 163
GENERAL MEDICAL COUNCIL: ELECTION OF DIRECT REPRESENTATIVES FOR ENGLAND AND WALES, NOVEMBER, 1906 ... 164
THE SEVENTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, TORONTO 165
ROYAL COMMISSION ON THE CARE AND CONTROL OF THE FEEBLE-MINDED AND EPILEPTIC 168
CENTRAL MIDWIVES BOARD 168
NAVAL AND MILITARY APPOINTMENTS 169
VITAL STATISTICS 169
VACANCIES AND APPOINTMENTS... 170
BIRTHS, MARRIAGES, AND DEATHS 171
DIARY OF THE WEEK 171
BOOKS, ETC., RECEIVED... 171
CALENDAR 172

Proceedings of Committees.

ETHICAL COMMITTEE.

A MEETING of the Ethical Committee was held at the office of the Association on March 2nd, Mr. R. H. KINSEY (in the chair); the other members present were: Dr. J. Ford Anderson, Mr. H. A. Ballance, Dr. A. G. Bateman, Mr. G. H. Broadbent, Dr. Bruce Goff, Dr. R. L. Langdon Down, Mr. W. D. Spanton. Mr. W. E. Hempson, Solicitor to the Association, attended to advise the Committee.

TRADERS' COMMISSION TO MEDICAL MEN.

The Committee considered correspondence since the ast meeting of the Committee in a case which it had been previously decided should be reported in the JOURNAL when completed. In this case a medical practitioner practising abroad had received a letter rom a wholesale chemist in the United Kingdom pressing upon his notice certain special preparations and asking him to endeavour to sell them, and offering a commission on orders obtained through his introduc-ion. The medical practitioner in question placed the papers in the hands of the Editor of the BRITISH MEDICAL OURNAL, who placed them before the Ethical Committee. By direction of that Committee a letter was written to the hemist pointing out the impropriety of such an offer of ommission, and asking for an explanation.

The Committee now had before it a letter from the hemist explaining that his action was due to a mistake, xpressing great regret, and stating that he would not repeat the offence. The Committee accepted this xplanation and undertaking.

MEDICAL AID SOCIETIES.

The Committee approved of the reply which had been iven to an inquiry from the honorary secretary of a Division concerning the alleged connexion of a local medical practitioner with a medical aid society which canvassed, and the probability of the General Medical Council dealing with such a matter.

The reply given had been that the General Medical Council would only deal with such cases if definite evidence was placed before them of canvassing or advertising, and that if such evidence could be obtained the Association would assist in the preparation of a case for consideration by the General Medical Council.

PUBLICATION OF PHOTOGRAPHS AND BIOGRAPHIES.

The Committee approved of the action of the Chairman in replying to an inquiry from a Division to the effect that the propriety of members of the profession furnishing photographs and biographies for a county history was a matter depending in some degree upon special circumstances, and therefore for local consideration, but that in general such action was to be regarded adversely. The Division had since passed a resolution stating that no member of it should furnish the particulars.

COPYRIGHT OF THE "JOURNAL."

The GENERAL SECRETARY reported successful action taken to protect the copyright of the JOURNAL in a case in which a company had used an extract from it as an advertisement. The Committee expressed satisfaction at the result.

MISLEADING DESCRIPTION IN THE "MEDICAL DIRECTORY."

It was decided to address a remonstrance to a medical practitioner with respect to a misleading record of his former appointments which appeared in the *Medical Directory*.

COMMITTEE'S RECOMMENDATIONS.

The CHAIRMAN reported that the Council had at its last meeting adopted all the recommendations of the Committee. With respect to the resolution of the Council as to primary reference of ethical cases to Divisions or Branches for investigation, the following additional rule was adopted by the Committee for its own guidance:

> That in any cases referred to a Division or Branch for primary investigation, no decision should be arrived at by the

Central Ethical Committee until a report from the Division or Branch has been received.

Trade Advertisements.

The Committee expressed satisfaction at the result of the action taken in the matter of a company which had undertaken to discontinue printing the names of its medical officers on its wrappers.

Anonymous Complaints.

The Committee decided that it could not take into consideration complaints received anonymously.

Division Rules.

The Committee recommended the Council to approve the adoption of the model rules of ethical procedure submitted by the Liverpool (Southern) Division, and also the rules submitted by the North Suffolk Division.

The opinion of the Committee with respect to the rules submitted by the Wandsworth Division was directed to be communicated to the Division.

Investigation of an Ethical Case.

The Chairman reported, with reference to a request from a Division in Ireland, that an ethical case should be investigated by an impartial and independent person from a distance, and that he had asked the Irish Committee to appoint a suitable person in Ireland. The Chairman's action was approved.

Gratuitous Medical Advice.

The Committee considered complaints with respect to a scheme of gratuitous medical advice initiated by *Answers*, and the Editor was requested to deal with the matter in the Journal.[1]

Standing Order as to Hypothetical Cases.

It was resolved:

> That it be a standing order of the Committee that it give no opinion upon purely hypothetical cases. That the names of the practitioners concerned must in all cases be supplied, in order that a statement from them may be invited.

Medical Men and Public Appointments.

On consideration of an inquiry as to whether it was permissible for a medical practitioner to apply for a public appointment which had not been advertised as vacant, the Committee expressed the opinion that a medical practitioner is justified in applying for a public appointment which is actually vacant, whether the fact has been advertised or not.

Consultants.

The Chairman submitted a memorandum as to consultants which he prepared at the request of the Committee, and it was resolved to consider the matter further at the next meeting.

Members of Public Bodies giving Expert Advice.

A communication from the Public Health Committee was received, requesting the Ethical Committee to consider the propriety of the practice of medical members of public bodies giving expert advice in order to avoid the necessity for appointing expert officials, and the advisability of circulating an inquiry to the Divisions on the subject.

The following resolution was adopted:

> That, in the opinion of the Committee, the practice in question is undesirable, and that the Public Health Committee be informed that a recommendation to this effect will be included in the Annual Report of the Ethical Committee in order that it may receive the consideration of the Divisions.

School Certificates.

The Committee considered a communication from the Education Committee of a County Council with respect to alleged impropriety of a certificate of unfitness to attend school given by a medical practitioner; and a letter from the practitioner was read expressing regret for his action. The following resolutions were adopted:

> That in the opinion of the Committee the practitioner ought to make an apology to the Education Committee for his error.
>
> That the Education Committee be informed of this decision, and also that in the opinion of the Committee both the antecedent circumstances in this particular case, and the action of the Education Committee towards medical practitioners in the county, appear to require serious consideration, and that the papers have therefore been handed to the Committee of the Association which considers such matters.

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

BIRMINGHAM BRANCH:

Coventry Division.

A meeting of this Division was held at the Coventry and Warwickshire Hospital on March 6th, Dr. Milner Moore in the chair.

Letters of Apology.—Apologies for non-attendance were received from Drs. Davidson, Pickup, and J. Orton.

Public Medical Services.—Dr. Moore moved the adoption of the recommendations contained in the Special Report on Public Medical Services of the Medico-Political Committee (Supplement, July 22nd, 1905).—This was seconded by Dr. Harman Brown.—The whole were agreed to unanimously with the following alterations:

> A. (4) In this clause "12 months" was substituted for "6 months."
>
> B. (2) As an addition to this clause, "That at least two-thirds of the Committee of Management should consist of active members of the staff of the Public Medical Service."

Paper.—Dr. Harman Brown read a paper on the Radical Cure of Hernia in Infants and Young Children, as illustrated by a successful series of cases. Six of these cases were exhibited.—The paper was discussed by Drs. Moore, Heal, and McGlashan, and Dr. Brown replied.

Minimum Midwifery Fee.—Dr. Brown moved:

> That the minimum fee for midwifery in the area of the Division be 1 guinea.

—This was seconded by Dr. McGlashan, but as the requisite notice for the resolution to be operative under the Bradford Rules had not been given, its consideration was deferred.

DORSET AND WEST HANTS BRANCH:

Bournemouth Division.

A meeting of this Division was held on Wednesday, March 28th, at Bournemouth, Dr. Snow in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Bournemouth Medical Society.—A communication from the Bournemouth Medical Society was read.

The Title of Doctor.—A resolution *re* the title of doctor, from the Gateshead Division, was negatived.

Hospital Out-patient Departments.—The question of hospital out-patient departments (Supplement, February 17th) was negatived.

Grants to Divisions.—The proposed amendment to the by-law relative to grants to Divisions (Altrincham Division) was negatived.

Expenses of Representatives.—The proposed amendment of the article relative to expenses of representatives (Northamptonshire Division) was negatived.

Registration of Nurses.—The questions submitted by the Medico-Political Committee as to nurses' registration (Supplement, March 3rd) were considered. Both questions were answered in the affirmative, after an interesting discussion.

Discussion.—A discussion on haematemesis was ably introduced by Dr. Littledale, Dr. Muspratt, and Mr. Vernon, and continued by Dr. Lys, Dr. Purkiss, Mr. Midelton, Dr. McCulloch, Dr. Belben, Dr. Barraclough, and Dr. Snow.

EAST ANGLIAN BRANCH:

East Norfolk Division.

The quarterly meeting of this Division was held at the Great Yarmouth Hospital on March 23rd, Dr. H. Wyllys in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

---

[1] British Medical Journal, March 10th, 1906, p. 583; March 17th, p. 639.

Grouping of Division.—The question of the grouping of this Division was considered, and it was decided that the present grouping with Lowestoft was satisfactory and should be adhered to. This was on the proposal of Mr. A. C. Mayo, seconded by Mr. W. Wyllys.

Case.—Mr. H. Wyllys read notes of a case of severe abdominal injury which had been treated in hospital. The man had fallen on to the spikes of some railings, one of which had torn open the abdominal walls, allowing a large portion of bowel to protrude; another spike had gone through the perineum in an oblique direction to Poupart's ligament, tearing a portion from its attachment together with a piece of the bone. The patient was then shown; he walked with a slight limp and looked well.

Lowestoft Medical Institute.—A resolution of the North Suffolk Division was read which declared that any medical man accepting the position of medical officer to the Lowestoft Medical Institute under existing conditions is acting in a manner detrimental to the interests and honour of the profession. This received the hearty support of the meeting, as did the opinion that consultants should not meet any one holding the appointment whilst the Lowestoft members are unable to do so.

Draft Charter.—The Draft Charter was laid before the meeting, and further consideration of the same was postponed until all the members should have had copies of it.

Women and Children's Clubs.—Drs. A. Mayo and H. Blake were invited to attend the Branch meeting at Lynn, and to bring forward the question of combating women and children's clubs.

Papers for Next Meeting.—Clinical cases or papers for the next meeting would be welcomed by the Secretary, J. Vickers.

GLASGOW AND WEST OF SCOTLAND BRANCH:
Dumbartonshire and Argyllshire Division.

A meeting of the Executive Committee of the Dumbartonshire and Argyllshire Division was held at Dr. Nicoll's house, 4, Woodside Place, Glasgow, on March 13th.

Letters.—The Honorary Secretary read letters of apology for absence from Drs. Sewell and Robertson, the latter requesting to be relieved of his duties owing to his advancing years. Dr. Nicoll, in Dr. Sewell's absence, took the chair.

Constitution of the Division.—The Honorary Secretary intimated that he had circularized the members of this Division on February 19th, asking them to vote on the following questions:

1. Should the Dumbartonshire and Argyllshire Division of the British Medical Association continue as at present constituted, and meet at a centre within the area of membership?
2. Should it remain as at present and meet in Glasgow?
3. Should this Division be merged in one of the Glasgow Divisions?
4. Should the whole matter be referred to the Executive Committee of the Branch?

The Honorary Secretary intimated that he received forty-four replies to the postcards sent to members. The majority of the members voted in favour of Resolution 2, which was declared carried.

Officers and Representatives.—It was agreed that Dr. Sewell remain in office; that the Honorary Secretary, J. Ewing Hunter, be appointed Representative to the Representative Meeting; that the Chairman, Dr. Sewell, and Honorary Secretary be appointed Representatives for the Branch meetings.

Surplus Funds.—It was agreed that any surplus funds should *not* be returned to the central funds, but should be kept in the Branch to meet any contingencies.

Proposed Association House in Edinburgh.—It was agreed that there should be no Association House, including library, in Edinburgh, for the obvious reason that there are not sufficient funds.

HALIFAX AND NOVA SCOTIA BRANCH.

The regular fortnightly meeting of this Branch was held at the City Council Chamber, Halifax, on February 14th, 1906.

Representative on Central Council.—On motion, it was resolved:

> That the election of a Representative of this Branch on the Central Council and Parliamentary Bills Committee be held at this meeting.

Lieutenant-Colonel G. Carleton Jones, A.M.S., the only nominee, was declared elected.

Communications.—Lieutenant-Colonel Jones read a paper on the household fly as a factor in the causation of disease, drawing much of his evidence from the records of the military sanitation arrangements in the Cuban, Boer, and Russo-Japanese wars. A discussion followed.—Dr. James Ross read a paper entitled Remarks on the Diagnosis and Treatment of Syphilis, which was also followed by discussion.

LANCASHIRE AND CHESHIRE BRANCH:
Liverpool and Birkenhead Divisions.

A joint meeting and dinner of these Divisions was held on the 22nd ult., when the members were invited to meet Mr. J. Smith Whitaker, the Medical Secretary of the Association, at the Adelphi Hotel. Covers were laid for some sixty members and friends, and the chair was taken at 8.15 p.m. by Sir James Barr, the President of the Branch, who, after ample justice had been done to the good fare provided, proposed the toast of "The British Medical Association." This was responded to by Mr. Smith Whitaker, who, in the course of his speech, gave an able and instructive address on medical organization. A cordial vote of thanks was afterwards passed to that gentleman on the proposition of the Chairman, seconded by Dr. Given, and a similar compliment to Sir James Barr for presiding terminated a very successful and enjoyable evening.

METROPOLITAN COUNTIES BRANCH:
Marylebone Division.

A meeting of this Division was held on March 21st at 11, Chandos Street, Dr. Radcliffe Crocker in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Direct Representatives on General Medical Council.—Mr. Andrew Clark was nominated as a candidate for the General Medical Council. It was resolved to support the nomination of Dr. Langley Browne and Mr. Rutherford Morison for the General Medical Council.

Annual Representative Meeting.—Sir Victor Horsley gave his report, as Representative of the Division, of the business done at the last Representative Meeting. A cordial vote of thanks was given to Sir Victor Horsley for the able manner in which he had represented the Division.

Entertainment Committee.—Mr. Armour was elected a Representative on the Entertainment Committee of the Metropolitan Counties Branch.

New Rules of Central Midwives Board.—It was resolved to take no action with regard to the new rules of the Central Midwives Board, as the Branch Council was already dealing with the matter.

Out-patients at Hospitals.—Resolutions i, ii, iii of the Hampstead Division on the question of out-patients at hospitals were agreed to. Resolution iv was rejected.

The Treatment of the Sick Poor.—The following resolution was unanimously passed, on the resolution referred to the Divisions from the Leicester Representative Meeting:

> That provided no interference with medical education is thereby caused, and in the neighbourhood concerned there exist sufficient facilities for the treating of the sick poor by means of public medical services or provident dispensaries, this Division approves of the resolution of the Representative Meeting.

Expenses of Representatives.—The resolution of the Nottingham Division on the payment of representatives' expenses was rejected.

By-law 17.—The resolution of the Altrincham Division to amend By-law 17 was approved.

Title of "Dr."—The resolution of the Gateshead Division on the title of "Dr." was rejected.

Declaration by Candidates.—The resolution of the Gateshead Division on the declaration by candidates was rejected.

New Premises of Association.—The resolution of the Wandsworth Division on consulting the Division before any sum over £200 was spent on the new premises of the Association was rejected.

St. Pancras and Islington Division.

The regular monthly meeting was held on March 23rd at the Royal Free Hospital, London, W.C. Dr. **Francis J. Buckell**, of Canonbury (Chairman), presided.

Sir William Collins.—The **Secretary** reported that in accordance with the wishes of the members, Sir William Job Collins, M.P., had been asked to join the Association, and he had written expressing his sympathy, but said he felt unable to accept the invitation.

General Medical Council.—Mr. Andrew Clark has accepted the nomination by the Division as a candidate for a seat on the General Medical Council.

Address.—Mrs. **Mary Scharlieb**, M.D., gave a lecture on The Significance of Uterine Haemorrhage both in Child-bearing Women and at the Menopause. A discussion followed, and Mrs. Scharlieb was heartily thanked, and she agreed to hand the lecture to the Secretary, to be forwarded to the Editor of the Journal with a request for its publication.

Medical Politics.—The members then discussed several points of medical politics, including the use of the title of "Dr."; the proposed outlay on Association buildings; the amount of expenses per head of members of Divisions, and the payment of the expenses of Representatives at annual meetings.

Stratford Division.

A meeting of this Division was held on Thursday, March 15th, at 9 p.m., at the Alexandra Hotel, Stratford, E., Dr. **Stocker** presiding.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Address.—Dr. **F. J. Smith** (London Hospital) gave a short address of a very interesting and practical character on colitis, and was awarded at the close a hearty vote of thanks, on the motion of the **Chairman**.

Election of Candidates for Central Council.—The meeting then proceeded to consider a communication from the Wandsworth Division regarding the selection of candidates for the Council of the Association, and, on the motion of Dr. **Percy Rose**, seconded by Dr. **Hay**, it was unanimously resolved:

> That this Division is prepared to take part in a committee of selection of candidates for the General Council of the Association, provided every Division in the Branch is represented on that Committee by a delegate, with voting powers according to their membership.

Candidates for General Medical Council.—Dr. F. J. Smith (Honorary Secretary, Metropolitan Branch) and Dr. L. S. McManus (Wandsworth Division) were nominated as candidates for the General Medical Council by the Stratford Division.

NORTH WALES BRANCH:

Denbigh and Flint Division.

A meeting of this Division was held at the Lion Hotel, Mold, on February 23rd.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

The Division and Parliamentary Candidates.—The **Secretary** presented a report on the memorandums and questions on parliamentary subjects affecting the medical profession, submitted for the consideration of parliamentary candidates.

Ethical Rules.—Division rules as to professional conduct, as well as those pertaining to contract practice and appointments, as drafted by the Medical Secretary and adopted by the Bradford Division, were discussed and referred to a Special Committee for consideration.

Next Meeting.—The annual meeting was fixed to be held at Wrexham in May.

Paper.—Mr. **James Taylor**, F.R.C.S., read a paper on the treatment of acute peritonitis. Discussing the pathology of the disease, he pointed out that neither mechanical nor chemical causes would alone suffice to set up the disease. A pathogenic organism was essential, and this, following Dudgeon and Sargent, to whose Erasmus Wilson Lectures he referred his audience, he showed to be usually the colon bacillus, which made its way into the peritoneal cavity and infected any previously-contained sterile fluid or foreign body. The streptococcus frequently found in conjunction with it he regarded as probably harmless and possibly as even benign in its influence. As for treatment, he showed by reference to the works of various authorities, that although the disease was so well known, there were curiously wide differences in the views taken as to the principles on which it should be treated. McCosh, of New York, for instance, described himself as operating only on 50 per cent. of all cases encountered, while Lennander, of Upsala, advised that in every case operation should be performed as soon as possible. Speaking for himself, he said the sum total of medical treatment was rest for the body, the intestines, and the mind. One form of rest was relief from pain. This could be obtained by opium, and the reasons commonly given for abstaining from its use seemed to him poor. Certainly it masked pain, but remembering what pain had existed before they could allow for that effect. If opium immobilized the intestines, it merely increased a condition which already existed, while it could not affect the amount of toxicity. Large doses need not be given; merely sufficiently to keep down the pain and secure rest for the nervous system. The time at which surgery should step in must vary with each patient. If the pulse-rate persistently increased from hour to hour or tympanitis increased, operation must be early. On the other hand, some delay was permissible if the expression became less anxious. In a case originating in the appendix, the question of locality might account for something; thus, if the patient were far off, immediate operation was indicated, but if near at hand, in a place where the patient could constantly be watched, one might be inclined to wait awhile. He had never, however, regretted early operation, and in some instances had regretted the opposite course. The urgency was greatest in first attacks of appendicitis, later ones being less frequently violent and fatal. As for the operation to be chosen in peritonitis, the author, after describing several incisions which had been advocated, described his own method, namely, that of following any localizing indications which might be discoverable, and opening the abdomen as near to the site as convenient, enlarging the primary incision if need be when exploration was complete. If a pus cavity were opened it should be emptied without disturbing surrounding adhesions, and the cause of suppuration removed if it were possible with the same limitations. If the peritonitis were general probably the best course, if the cause could not readily be found, was to wash out the cavity quickly, using a good quantity of saline fluid. If, however, the exudate were not markedly purulent, and the cause could be removed, washing out was not advisable, as, the cause being removed, the peritoneum could look after itself. When distended small intestine appeared in the wound his practice was to incise it, let out the gas and faeces, and sew up the opening; large intestine might often be treated in the same way, but sometimes it was well to stitch it to the skin wound, and make a temporary artificial anus. Drainage was essential in all purulent cases, and he greatly preferred using two or three india-rubber tubes. Gauze was useful when there was much oozing of blood, but he did not like it and preferred to avoid its use. In after treatment the main thing was rest in every form. The passage of a rectal tube was often useful to remove flatus, but he favoured no kind of enema; even saline rectal injections often did harm. Looking far ahead it seemed to him that though the surgical treatment of peritonitis was at present all-important, and would play a still more prominent part in the early future, yet, sooner or later, the treatment might once more be purely medical; for since acute peritonitis was always due to microbic invasion, and usually to the *B. coli*, a serum antitoxic to the latter might one day be found. This microbe disarmed, the peritoneum would be able to look after any perforations by itself.

PERTH BRANCH.

Meeting of Council.

A meeting of Council was held at 3.45 p.m. on Friday, February 23rd, Dr. **McEwan** in the chair.

New Member.—Dr. J. A. B. Sim, of Perth, was elected a member of the Association and Branch.

Clinical Meeting.

A clinical meeting was held at 4 p.m., Dr. **Norwell**, President, in the chair.

Apologies for Absence.—Apologies for absence were intimated from Dr. Buist (Dundee), Dr. Borrowman (Crieff), and Dr. Urquhart.

Confirmation of Minutes.—The minutes of last meeting were read, approved, and signed by the President.

The late Dr. Thom.—In the unavoidable absence of Dr. Urquhart, the Secretary read a communication from him in reference to the late Dr. Thom, of Crieff.—On the motion of the President, the Secretary was instructed to write and thank Dr. Urquhart for his interesting reference to the late Dr. Alexander Thom, and also to write Mrs. Thom, expressing the sympathy of the Branch in her bereavement.—The offer of Dr. Urquhart to have his reference printed and circulated to members of the Branch was agreed to.

Cases.—Dr. Paton showed several cases: (1) A boy recovering from acute nephritis; he had marked oedema and scanty urine loaded with albumen, which persisted for several weeks, and in the treatment advocated, amongst other drugs, the use of pulv. scammonii co., the administration of which drug seemed to cause the turning-point in his illness; (2) a case of interstitial nephritis; (3) a case of large white kidney, which was probably tuberculous in origin, because though albumen and blood had disappeared and urine plentiful, body weight was steadily decreasing; (4) a case of incipient phthisis with practically no physical signs to begin with, but persistent cough and later tubercle bacilli in sputum. Some discussion followed, Drs. Stirling and Beatty both advocating the use of purgatives in nephritis, such as pulv. scammonii co., and thinking purging was the means of eliminating the poison. Dr. Haig (Crieff) thought that the benefit from purging was due to rest given to the kidney by giving the kidney less work to do, etc.—Dr. Lyell showed a girl, aged 14, suffering from ichthyosis, which had existed since shortly after birth. In his remarks he said it was a deformity more than a disease. This was a very aggravated case and the distribution unusual. It is usually on the extensor surfaces, but a number of flexor surfaces were involved. All forms of treatment had been tried, large doses of cod-liver oil and thyroid extract, but the disease remained stationary.—Dr. Stirling showed a series of cases of osteomyelitis, specially referring to the differential diagnosis, and in the treatment the early recognition and free opening as the only chance of recovery. He also showed a few cases under treatment with tuberculin injections—namely, tuberculous glands improving and sinuses closing up. He also referred to its uses in skin and genito-urinary affections of tuberculous origin.—Dr. Taylor showed three cases of tuberculous peritonitis with marked improvement in two of the cases.

Demonstration.—A demonstration of the high-frequency apparatus then followed.

Tea.—Dr. Mackay kindly entertained the members to tea in his room.

SOUTH-EASTERN BRANCH:

Canterbury and Faversham Division.

An ordinary meeting of this Division was held at Sittingbourne on March 22nd.

Luncheon.—The Chairman of the Division, Dr. Gosse, kindly provided luncheon.

Clinical Meeting.

A clinical meeting was held at Dr. Gosse's surgery, 113, High Street, where Dr. T. Colcott Fox, Physician to Skin Department Western Hospital, gave a demonstration on some twenty or more skin cases shown by Drs. Gosse, Fisher, Whitehead Reid, Boodle, Grayling, Henchley, and surgeons Holmes, Gittings, and Dickenson, of the Royal Navy.

Medico-Political Meeting.

At the termination of the clinical meeting a medico-political meeting was held over the County Court Offices, 1a, Crescent Street, Dr. William Gosse presiding.

Confirmation of Minutes.—Minutes of previous meeting confirmed.

Next Meeting.—It was agreed that the next meeting should be held in Canterbury early in June, and that Dr. Whitehead Reid, President of the South-Eastern Branch, should be invited to preside.

Registration of Nurses.—The Nurses' Registration Report[1] was discussed. Dr. Whitehead Reid proposed and Dr. Evers seconded:

> That this Division approves in general of the method of registration for nurses proposed by the Select Committee of the House of Commons, but disapproves of a separate register of nurses whose training is of a lower standard than that laid down for registered nurses.

This was carried *nem. con.*—Dr. Evers proposed and Dr. Boodle seconded:

> That registration of nurses should include midwifery nurses who should have three years' training, of which one at least should be in a lying-in hospital.

This was carried unanimously.

Hospital Out-patient Departments.—Dr. Boodle proposed and Dr. Etheridge seconded, the resolution of Supplement of February 17th. This was carried unanimously.

Resolution of Ethical Committee.—A communication was read from the Central Ethical Committee in reference to a resolution passed by the Ethical Committee of this Division; the members present unanimously agreed with the finding of the Divisional Ethical Committee.

Police Emergency Fees.—The President of the South-Eastern Branch read some correspondence with reference to police emergency fees in Kent. It appeared that the police authorities would only hold themselves responsible for a medical man's fees when called in by the police to attend a prisoner. In other cases the medical practitioner had to look to the patient for his fee. This matter was brought forward by the Chairman (Dr. Wm. Gosse) at the Sheerness meeting in October last, and a resolution was passed calling on the Branch Council to take action in the matter for the purpose of procuring payment of medical practitioners called in by the police in all emergency cases.

Representative at Annual Representative Meeting.—It was decided to leave the matter of the grouping or not of this Division for the purpose of electing a Representative to attend the Representative Meeting to the central authorities.

Nomination of Members for the General Medical Council.—No action was taken thereon.

East Kent and Canterbury Medical Society.—Correspondence was read with reference to amalgamating the East Kent and Canterbury Medical Society with this Division of the British Medical Association.

Divisional Finance.—The questions asked by the Organization Committee with reference to Divisional finance were discussed.

Messages of Apology.—A letter and telegram of apology for absence were read from Drs. Alexander and Kessick Bowes respectively.

Communication from South-Eastern Branch.—It was resolved at this (Sittingbourne) meeting that the reply to the communication of the South-Eastern Branch be sent to the Medico-Political Committee of the Association "to render such support to the Divisions concerned as may be required" (vide Supplement, July 15th, 1905, p. 54).

Votes of Thanks.—Votes of thanks were passed to Dr. Gosse for presiding, allowing the use of his surgery for the clinical cases, and for hospitality in providing lunch and tea; and to Mr. Greensted for the use of offices for the medico-political meeting.

Croydon Division.

A meeting of this Division was held at the Greyhound Hotel, Croydon, March 15th. Mr. St. George Reid in the chair.

The late Dr. T. R. Adams.—In opening the meeting the Chairman referred to the great loss that the Division had sustained in the death of its late Chairman, Dr. T. R. Adams.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Next Meeting.—On the motion of Dr. Haslam, seconded by Mr. Horsley, it was resolved to hold the next meeting at the Croydon General Hospital with Dr. Redfern as Chairman.

Papers.—Dr. R. Hutchison read a paper upon the Treatment of Various Forms of Diarrhoea in Infancy and Childhood. Drs. Meredith Richards, Addey, Bell, Mark Jackson, and Reid took part in the subsequent discussion. Dr. W. S. A. Griffith read a paper upon Excessive Lochia and After-pains. Drs. Cressey, Braddon,

---

[1] Supplement, British Medical Journal, March 3rd, 1906.

Gripper, Addey, Turner, and Mark Jackson afterwards discusssd various points raised.

Dinner.—Fifteen members remained to dinner.

Eastbourne Division.

A meeting of this Division was held on Thursday, March 29th, at 8.30, in the Mayor's parlour, Town Hall, Eastbourne, Dr. Habgood in the chair.

Hospital Out-patient Departments.—The report of the Hospitals Committee was read and considered, and after considerable discussion the question on the scope of out-patient departments in hospitals was voted upon, with the result that the general principles involved were approved, though it was felt that the final form of the resolution would require modification and made less limited in application.

Registration of Nurses.—After discussion it was resolved:

> That this Division, while still feeling that the registration of nurses is unnecessary, considers that the method of registration proposed by the Select Committee of the House of Commons is the best under the circumstances.

The separate registration of midwifery nurses was approved by the members present.

Contract Practice.—The recommendations of the Medico-Political Committee on contract practice, as printed in the Supplement for August 5th, 1905, were approved.

Guildford Division.

A meeting of this Division was held at the Royal Surrey County Hospital, Guildford, on Friday, March 30th, at 4.30 p.m., Dr. A. Hope Walker, Vice-Chairman of the Division, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Paper.—Mr. C. A. Ballance, F.R.C.S., gave an interesting address on the *Surgery of Brain Abscess*, which was much appreciated by those present. The paper was illustrated by an excellent series of lantern slides.

Contract Practice.—The adjourned discussion on this subject took place, and reports were received by Dr. Minchin (Godalming) and Dr. Sloman (Farnham) with regard to the feeling of practitioners in their respective neighbourhoods on the recommendations of the Medico-Political Committee (vide Supplement, July 22nd, 1905). In both cases a general approval of the principles of a public medical service was expressed, but it was not considered practicable, or in some respects desirable, to give effect to the recommendations at present. After some discussion by members the following resolution was then submitted to the meeting and carried unanimously:

> That this Division approves in general of resolutions 1, 3 (except section *b*), 4, 5, and 6, but does not consider it practicable at present to take any steps to carry them into effect in the area of the Division, as there appears to be no general dissatisfaction on the part of members with existing conditions of contract practice.

Non-approval of resolutions 2 and 7 and section (*b*) of 3 was expressed.

Hospital Out-patient Departments.—It was proposed by Dr. Hudson and seconded by Dr. Pearse that the proposal of the Hospitals Committee that out-patient departments should be limited to consultations and casualties, especially in the case of hospitals whose staff are general practitioners, be approved. This was carried.

Royal Charter.—The proposed application by the Association for a Royal Charter was approved.

Medical Practitioners and Midwives.—It was agreed to support as far as possible the action of the Metropolitan Counties Branch in regard to legislation for ensuring these payments by the London County Council, and the scale of fees proposed by the Council of the above Branch was considered suitable and adequate. It was hoped that similar action would be taken in other parts of the country.

Vote of Thanks.—A hearty vote of thanks was accorded by the meeting to Mr. Ballance for his paper.

Sevenoaks Division.

The spring meeting of this Division was held at the Royal Oak Hotel, Sevenoaks, on March 29th, Dr. Tew, M.O.H. Tonbridge, in the chair.

Parliamentary Committee.—Dr. Marriott (Sevenoaks), Chairman of the Parliamentary Committee, gave an account of the work of the Committee in connexion with the recent election, and it was resolved that the attention of the member for the Sevenoaks Division be called to the question of remuneration of medical men under the Midwives Act by the local authorities.

Papers.—Dr. E. W. White, of King's College Hospital, read an interesting and practical paper on the treatment of incipient and borderland cases of insanity in general practice, which gave rise to many questions. These were answered and discussed by the author.

General Accident Assurance Corporation.—Mr. H. M. Watts (Tonbridge) introduced the subject of the methods adopted by the General Accident Assurance Corporation, and the following resolutions were adopted:

> In the judgement of this meeting, the proposals of this Corporation for enlisting the services of medical men are unworthy of attention and derogatory to the profession, and it is to be hoped that there will be no acceptance of their terms in this Division; that this resolution be circulated to members of the British Medical Association in the Division and to non-members, and that it be sent with the Corporation's paper to the Medical Secretary of the British Medical Association.

Dinner.—The members subsequently dined together, and entertained the Chairman of the Urban District Council and two other guests.

ULSTER BRANCH.

A joint meeting of this Branch and of the Ulster Medical Society was held in the Medical Institute, Belfast, on Thursday evening, March 29th. Dr. Calwell, President of the Ulster Medical Society, occupied the chair, and Dr. Cecil Shaw, Honorary Secretary of the Branch, and Dr. Thomas Houston, Honorary Secretary of the Society, acted as joint secretaries.

Apologies for Non-Attendance.—Apologies were read from a large number, including Dr. Leonard Kidd, the President of the Branch, who was prevented at the last moment from attending and occupying the chair as had been arranged.

Tughan v. *Darnell.*—The business for which the meeting was summoned was: (1) To discuss what action, if any, should be taken with regard to the legal aspects of the decision in the recent action, Tughan *v.* Darnell; (2) to consider the advisability of raising a fund to assist Dr. Darnell in defraying the expenses of the case. Mr. Kirk read certain questions which he, Dr. McKisack, and Dr. Campbell had agreed to submit to counsel, seeking for information as to how the law as laid down by the learned judge would affect the practice of the profession. After considerable discussion it was arranged that these questions, supplemented by several others suggested at the meeting, should be submitted to counsel, the expenses to be defrayed by the two societies if their respective councils consented. The consideration of the second part of the business, concerning the raising of a fund, was deferred, and the meeting adjourned.

WEST SOMERSET BRANCH.

The spring meeting was held at the Taunton and Somerset Hospital on March 27th, Mr. Gordon Henry, President, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and signed.

Paper.—Mr. H. T. S. Aveline, Superintendent of the Bath and Somerset Asylum, Cotford, read a very interesting paper on the care and treatment of the feeble-minded. Some discussion followed, which was joined in by the President, Dr. Macdonald, and Mr. Sydenham, after which Mr. Aveline was accorded a hearty vote of thanks for his interesting address.

Case.—Dr. H. T. Rutherfoord gave a brief outline of a case and showed a specimen of a uterus with large fibroid which he had removed from a patient on whom four years previously he had performed Caesarean section. On the motion of the President, Dr. Rutherfoord was cordially thanked for bringing this interesting specimen before the Branch.

Proposed Royal Charter.—Dr. Macdonald introduced the subject of the proposed application for a Royal Charter, which he explained lucidly and briefly to the meeting. It was decided in view of the importance of the subject to call a special meeting to consider the proposals.

Hospital Out-patient Departments.—The following resolution sent to the Branch from the Hospitals Committee was discussed, the subject being opened by the President:

> That in the opinion of this meeting there should be no out-patient departments in hospitals, except for consultations and casualties, and that this opinion specially applies to hospitals whose staff are general practitioners.

After a general discussion, it was proposed by Dr. H. T. Rutherfoord, seconded by Mr. C. Randolph, and carried *nem. con.*

> That this meeting do not approve of the resolution *re* out-patient departments on the agenda paper.

Tea.—The members adjourned to tea before dispersing.

YORKSHIRE BRANCH:

Bradford Division.

An ordinary general meeting of this Division was held at the Eye and Ear Hospital, Bradford, on Tuesday, March 13th, at 8.30 p.m. In the unavoidable absence of the Chairman and Vice-Chairman, Dr. Hime was voted to the chair.

Confirmation of Minutes.—Dr. Metcalfe, an Honorary Secretary, read the minutes of the last meeting, which were adopted.

Administration Orders.—A letter was read from Messrs. Lund and Plunkett, accountants, Bradford, asking for a donation to a fund to pay the expenses of an appeal to the High Court with a view to reversing the decision of his Honour Judge Bompas, K.C., in regard to administration orders. The Chairman and other members present considered the matter a very important one for general practitioners in the Division, but there appeared to be some doubt as to whether the Division could legally subscribe to a fund for the purpose mentioned. Eventually Dr. Rabagliati proposed and Dr. Little seconded:

> That 3 guineas be given to the fund from the moneys in the hands of the Treasurer received from the Bradford and West Riding Medico-Ethical Union on its dissolution.

This was carried unanimously.

Notices of Motion for Representative Meeting.—The notices of motion in the Supplement for March 3rd, p. 78, were then considered. Decisions were arrived at for the guidance of the Representative at the next Annual Representative Meeting.

Registration of Nurses.—The nurses' registration report was discussed at considerable length, most of the gentlemen present taking part in the discussion. It was generally felt that it was impossible to answer the two questions suggested by the Medico-Political Committee in a direct manner.—Dr. Arnold Evans proposed, and Mr. Peck seconded, a resolution to the effect that the Division did not approve of any part of the recommendations.—Dr. Craig proposed, and Dr. H. J. Campbell seconded, the following amendment:

> That this Division, while approving in general of the proposed method of registration for nurses as contained in the abstract of the House of Commons Report, cannot approve of the suggested method of examination, or of the indefinite periods of training, or of the principle of the proposal in Paragraph XI relating to the possibility of instituting a separate *Register of Nurses*, whose training would be of a lower standard than that laid down for registered nurses.

On being put to the vote, the amendment was declared carried. In connexion with the second question, Mr. Horrocks proposed and Dr. Rabagliati seconded:

> That the names of all nurses should be registered in one register, but that a distinction should be made as to the class to which the nurse belonged, such as surgical, mental, midwifery, etc.

This was carried unanimously. The meeting then terminated.

Association Notices.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Notice is given that the Library will be closed from Thursday next, April 12th, to Tuesday, April 17th.

April 5th. Guy Elliston, *General Secretary.*

BRANCH AND DIVISION MEETINGS TO BE HELD.

Border Counties Branch.—The next meeting of this Branch will be held in Keswick on Friday, May 4th. Any member who desires to make a communication to the meeting is requested to inform the Secretary at his earliest convenience. Fuller details of arrangements will be published later.—Francis R. Hill, Carlisle, Honorary Secretary.

Border Counties Branch: Scottish Division.—A meeting of this Division will be held in Dumfries about the middle or end of April. Members who have business or communications to bring before the meeting are requested to give notice to the Secretary.—George R. Livingston, Honorary Secretary, Dumfries.

Lancashire and Cheshire Branch: Liverpool (Northern) Division.—A meeting of the members of the above Division will be held at the Medical Institution, 114, Mount Pleasant, on Monday, April 9th, at 4 p.m. Agenda: To consider and, if approved of, confirm the recommendations of the Executive Committee with reference to: (1) An ethical question. (2) Rules of the Central Midwives Board. (3) Matters referred to Divisions: (*a*) Contract Practice (see Supplement, British Medical Journal, August 5th, 1905); (*b*) selection of Direct Representatives on General Medical Council (see Supplement, October 7th, 1905), (*c*) suggested formation by Divisions of sections for clinical and pathological work (see Supplement, November 11th. 1905); (*d*) inquiry (1905-6) as to the present system of Division and Branch Finance; (*e*) Hospital Out-patient Departments (see Supplement, February 17th, 1906). (4) Notices of Motion: By the Gateshead Division, by the Wandsworth Division (see Supplement, February 10th, 1906); by the Altrincham Division, by the Northamptonshire Division (see Supplement, February 24th, 1906).—A. W. German, Honorary Secretary.

Metropolitan Counties Branch: Hampstead Division.—The next meeting of the Division will be held this day, Friday, April 6th, at the Hampstead Conservatoire, Swiss Cottage, N.W., at 8.30 p.m., Mr. F. R. Humphreys in the chair. Agenda: (1) Minutes. (2) Correspondence. (3) Questions. (4) The Hampstead Hospital Question. (5) Consideration of the Report of the Hospitals Committee (see British Medical Journal Supplement for February 17th, 1906). (6) Resolutions for the Representative Meeting. (7) Contract Practice Report (an epitome of which will be found in the British Medical Journal Supplement for March 3rd, 1906).—R. A. Yeld, Hampstead, Honorary Secretary.

Metropolitan Counties Branch: St. Pancras and Islington Division.—The next meeting will be held on Friday, April 27th, at the St. Pancras Infirmary, in Pancras Road, London, N.W., at 4 p.m. Agenda: (1) To consider the clauses of the Draft Charter, which will be explained by Mr. J. Smith Whitaker. (2) Hospital out-patient reform. (3) The registration of nurses.—Wm. Wynn Westcott, Secretary.

Metropolitan Counties Branch: Tottenham and City Divisions.—A conjoint meeting will be held on Thursday, April 19th, at 8.30 p.m., at Brooke House, Upper Clapton (by the kind invitation of Dr. J. O. Adams). Dr. J. H. Sequeira will give a demonstration of skin diseases. Members are invited to bring their professional friends.—Fred. Tresilian, Honorary Secretary, Tottenham Division; E. W. Goodall, Honorary Secretary, City Division.

Metropolitan Counties and South-Eastern Branches.—A conjoint meeting of the Chelsea, Westminster, Lambeth, Norwood, Croydon, Richmond, and Wandsworth Divisions will be held at the Battersea Town Hall, Clapham Junction, at 3.45 p.m. on Thursday. April 19th, to discuss the proposed Royal Charter. Dr. T. Jenner Verrall, Chairman Organization Committee, will address the meeting, followed by the Medical Secretary. The Presidents of the two Branches, as well as others, will be attending. All members of the Association who care to attend will be welcomed.—E. R. Fothergill, J. R. Johnson, P. H. Parsons, H. J. Prangley, W. K. Sibley, W. H. B. Stoddart, and E. H. Willock, Honorary Secretaries.

North of England Branch.—A meeting of the North of England Branch will be held on Tuesday, April 24th, at Stockton-on-Tees. Members wishing to read papers or show cases are requested to inform Dr. Cox as soon as possible.—Alfred Cox, J. H. Hunter, Honorary Secretaries.

South-Eastern Branch: Norwood Division.—A clinical meeting will be held on Thursday, April 12th, at 4 p.m., at St. John's Hospital, Morden Hill, Lewisham, H. C. Burton, F.R.C.S., of Blackheath, in the chair. The staff have kindly promised to show cases. Members desirous of exhibiting cases are requested to communicate with the Honorary Secretary at once. St. John's Hospital is a few minutes from Lewisham Junction and the Catford and Greenwich trams pass the bottom of Morden Hill.—H. J. Prangley, Honorary Secretary.

GENERAL MEDICAL COUNCIL.

ELECTION OF DIRECT REPRESENTATIVES FOR ENGLAND AND WALES, NOVEMBER, 1906.

Candidates Nominated by Divisions for Selection by the Representative Meeting on behalf of the Association.

The following members of the Association have been nominated by the Divisions named to be candidates for election, and have accepted nomination in accordance with the terms of the scheme published in the Supplement of the British Medical Journal for October 7th, 1905:

Name.	*Address.*	*Nominating Division or Divisions.*
BROADBENT, George Harry, M.R.C.S. ... (Member of Central Ethical Committee, Member of Lancashire and Cheshire Branch Council, and Representative of North Manchester Division.)	8, Ardwick Green, Manchester	Manchester (North).
BROWNE, Henry Langley, M.D., F.R.C.S.Ed. **(Chairman of Council of the Association.)**	**Moor House, West Bromwich**	**Central Birmingham.** City (London). Kensington. Marylebone. Swansea.
BULLAR, John Follett, M.B., F.R.C.S. ... **(Member of Branch Council, Southern Branch.)**	**7, Carlton Crescent, Southampton**	**Winchester.**
CLARK, Andrew, F.R.C.S. ... ... **(Member and late Chairman of Central Council, and President of the Metropolitan Counties Branch.)**	**71, Harley Street, W.**	City (London). Marylebone. St. Pancras and Islington.
HELME, Thomas Arthur, M.D., M.R.C.P. ... (Honorary Secretary and Treasurer of Lancashire and Cheshire Branch, Member of Central Council and Medico-Political Committee.)	3, St. Peter's Square, and Mayfield, Victoria Park, Manchester	Manchester (Central). Manchester (West).
JACKSON, George, F.R.C.S. ... ... **(President of the South-Western Branch, and Member of the Medico-Political Committee.)**	**10, Portland Villas, Plymouth**	Exeter. **Gateshead.** Kensington. Manchester (North). Plymouth.
LATIMER, Henry Arthur, M.D. ... ... **(Chairman and Representative of Swansea Division, Member of Medico-Political Committee.)**	**4, Belvoir Place, Swansea**	**Swansea.**
McMANUS, Leonard Strong, M.D. ... ... (Representative of Wandsworth Division, Member of Medico-Political Committee.)	25, Spencer Park, Wandsworth Common, S.W.	Stratford. Wandsworth.
MORISON, James Rutherford, F.R.C.S. ... **(Member of Branch Council and Chairman of Northumberland Committee, North of England Branch.)**	**14, Saville Row, Newcastle-on-Tyne**	Blyth (Cleveland). **Consett.** Furness. **Gateshead.** Marylebone. **Newcastle-on-Tyne.** North Northumberland. South Shields. Stockton-on-Tees. Sunderland.
RENSHAW, Charles Jeremiah, M.D., F.F.P.S.Glas. (Representative on Lancashire and Cheshire Branch Council and ex-Chairman of Altrincham Division.)	Beech Hurst, Ashton-on-Mersey, Lancashire	Altrincham. Manchester (Central). Manchester (West).
RHODES, John Milson, M.D. ... ... **(Chairman of South Manchester Division, Lancashire and Cheshire Branch.)**	**Ivy Lodge, Didsbury, Manchester**	Manchester (Central). **Manchester (South).**
SMITH, Frederick John, F.R.C.P., M.D. ... (Honorary Secretary, Metropolitan Counties Branch.)	138, Harley Street, W.	Stratford.
STRATON, Charles Robert, F.R.C.S.Edin.... **(Member of Central Council, Medico-Political Committee and Colonial Committee.)**	**West Lodge, Wilton, Salisbury**	Wandsworth. **Winchester.**
GODSON, Alfred, M.B., M.C.Cantab.... ... (Chairman of the Stockport, Macclesfield, and East Cheshire Division.)	Cheadle House, Cheadle, Cheshire	Stockport, Macclesfield, and East Cheshire.

April 5th.

J. SMITH WHITAKER, *Medical Secretary.*

THE SEVENTY-FOURTH ANNUAL MEETING
OF THE
British Medical Association,
TORONTO, CANADA, AUGUST 21st to 25th, 1906.

President:
George Cooper Franklin, F.R.C.S.Eng., Surgeon, Leicester Infirmary, Leicester.

President-elect:
Richard Andrews Reeve, B.A., M.D., LL.D., Dean of the Faculty of Medicine, University of Toronto.

Chairman of Representative Meetings:
Sir Victor Horsley, F.R.C.S., F.R.S., Surgeon, University College Hospital; and Surgeon, National Hospital for Paralysed and Epileptic.

Chairman of Council:
Henry Wm. Langley Browne, M.D., Ch.B., F.R.C.S.E., Consulting Surgeon, West Bromwich District Hospital.

Treasurer:
Hy. Radcliffe Crocker, M.D., F.R.C.P., Physician Skin Department, University College Hospital, London.

PROGRAMME OF BUSINESS.

An Address in Medicine will be delivered by Sir James Barr, M.D., F.R.C.P., F.R.S.E.

An Address in Surgery will be delivered by Sir Victor Horsley, M.B., F.R.C.S., F.R.S.

An Address in Obstetrics will be delivered by Walter Spencer Anderson Griffith, M.D., F.R.C.P.

THE SECTIONS.

There will be 13 Sections as shown in the subjoined list; they will meet on Tuesday, Wednesday, Thursday and Friday, August 21st, 22nd, 23rd and 24th, from 9.30 a.m. to 12.30 p.m.

The President, Vice-Presidents, and Secretaries of each Section constitute a Committee of Reference for that Section.

Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the British Medical Journal *without special permission.*

No paper must exceed 15 minutes in reading, and no subsequent speech 10 minutes.

Anatomy.

President: Professor Arthur Robinson, M.D., Birmingham.

Vice-Presidents: Professor Alexander Primrose, M.B., C.M., Toronto; David Edward Mundell, B.A., M.D., C.M., Kingston; Donald Armour, F.R.C.S., London.

Honorary Secretaries: Charles Buckingham Shuttleworth, M.D., C.M., F.R.C.S., 45, Bloor Street E., Toronto; Gawn Shaw Cleland, M.B., M.D., C.M., 730, Queen Street E., Toronto; J. Herbert Sanders, M.D., 1a, Palace Gardens Mansions, W.

Dermatology.

President: Norman Walker, M.D., Edinburgh.

Vice-Presidents: Graham Chambers, M.B., Toronto; Harry B. Anderson, M.D., C.M., Toronto; Arthur John Hall, M.D., Sheffield; Ernest Solly, M.B., Harrogate.

Honorary Secretaries: David King Smith, M.B., 311, Jarvis Street, Toronto; Donald Macgillivray, M.B., 12, Carlton Street, Toronto; John Campbell Rankin, M.B., 38, University Road, Belfast.

Laryngology and Otology.

President: J. Dundas Grant, M.D., London.

Vice-Presidents: George R. McDonagh, M.B., L.R.C.P., Toronto; Herbert Stanley Birkett, M.D., C.M., Montreal; John Macintyre, M.B., Glasgow; Hugh Edward Jones, M.R.C.S., Liverpool.

Honorary Secretaries: David James Gibb Wishart, B.A., M.D., C.M., L.R.C.P., 47, Grosvenor Street, Toronto; Geoffrey Boyd, B.A., M.B., 167, Bloor Street, Toronto; Adam Brown Kelly, M.D., 26, Blythswood Square, Glasgow.

Medicine.

President: Sir Thomas Barlow, Bart., K.C.V.O., M.D., London.

Vice-Presidents: Professor Alexander McPhedran, M.B., Toronto; Professor James Stewart, M.D., C.M., Montreal; Alexander Napier, M.D., Glasgow; William Calwell, M.D., Belfast.

Honorary Secretaries: Robert Dawson Rudolph, M.D., M.R.C.P., 396, Bloor Street W., Toronto; John Taylor Fotheringham, B.A., M.B., M.D., C.M., 36, Carlton Street, Toronto; Robert Hutchison, M.D., 22, Queen Anne Street, London, W.

Obstetrics and Gynaecology.

President: A. H. Freeland Barbour, M.D., Edinburgh.

Vice-Presidents: Professor James Algernon Temple, M.D., C.M., Toronto; Professor Adam H. Wright, B.A., M.B., Toronto; Professor William Gardner, M.D., Montreal; T. Arthur Helme, M.D., Manchester.

Honorary Secretaries: Frederick Fenton, M.D., C.M., 75, Bloor Street E., Toronto; Kennedy Crawford McIlwraith, M.B., 54, Avenue Road, Toronto; Cuthbert Lockyer, M.D., 117a, Harley Street, London, W.

Ophthalmology.

President: Robert Marcus Gunn, F.R.C.S., London.

Vice-Presidents: George Herbert Burnham, M.D., F.R.C.S.E., Toronto; John W. Stirling, M.D., Montreal; Joseph Nelson, M.D., Belfast; Arnold Lawson, F.R.C.S., London.

Honorary Secretaries: James Metcalf MacCallum, B.A., M.D., C.M., Toronto; Duncan Neil McLennan, M.D., C.M., 126, Bloor Street W., Toronto; Frank Pearson Skeffington Cresswell, M.B., 24, Windsor Place, Cardiff.

Paediatrics.

President: **George Alexander Sutherland**, M.D., London.

Vice-Presidents: **Henry T. Machell**, M.D., L.R.C.P., Toronto; **Allan M. Baines**, M.B., Toronto; **Otto Jackson Kauffmann**, M.D., Birmingham; **H. Betham Robinson**, M.S., London.

Honorary Secretaries: **Edward Stanley Ryerson**, M.D., C.M., 261, College Street, Toronto; **Joseph S. A. Graham**, M.B., 102, College Street, Toronto; **Ralph Vincent**, M.D., 1, Harley Street, London, W.

Pathology and Bacteriology.

President: Professor **J. G. Adami**, M.D., F.R.S., Montreal.

Vice-Presidents: Professor **John J. Mackenzie**, B.A., M.B., Toronto; Professor **Walter Thomas Connell**, M.D., C.M., Kingston; **Ingersoll Olmsted**, M.D., Hamilton; Professor **Robert Fraser Calder Leith**, M.B., Birmingham.

Honorary Secretaries: **Gideon Silverthorn**, M.B., M.D., C.M., 266, College Street, Toronto; **Harold C. Parsons**, B.A., M.D., C.M., 72, Bloor Street W., Toronto; **Frank George Bushnell**, M.D., Sussex County Hospital, Brighton.

Physiology.

President: Professor **Wm. Dobinson Halliburton**, M.D., F.R.S., London.

Vice-Presidents: Professor **Archibald B. Macallum**, M.A., M.B., F.R.S., Toronto; Professor **Wesley Mills**, M.A., M.D., Montreal; Professor **Charles Scott Sherrington**, M.D., F.R.S., Liverpool.

Honorary Secretaries: **Herbert E. Roaf**, M.D., The Bio-Chemical Department, The University, Liverpool; **Gustav Mann**, M.D., 25, Beechcroft Road, Oxford.

Psychology.

President: **Wm. Julius Mickle**, M.D., London.

Vice-Presidents: **Nelson Henry Beemer**, M.D., Toronto; **Charles Kirk Clarke**, M.D., Toronto; **Reginald Langdon-Down**, M.B., London.

Honorary Secretaries: **Alfred Thomas Hobbs**, M.D., Guelph, Ontario; **Goldwin Howland**, B.A., M.B., 540, Spadina Avenue, Toronto; **John Turner**, M.B., Essex County Asylum, Brentwood.

State Medicine.

President: **Frederick Montizambert**, I.S.O., F.R.C.S.E., D.C.L., M.D., Ottawa.

Vice-Presidents: **E. P. Lachapelle**, M.D., Laval University, Montreal; **Charles Sheard**, M.D., Toronto; **Peter Henderson Bryce**, B.A., M.B., Ottawa; **Joseph Groves**, M.B., Isle of Wight.

Honorary Secretaries: **Joseph D. Page**, M.D., Quebec; **F. G. E. Pearson**, M.D., Brantford, Ontario; **Arthur A. Mussen**, M.D., Municipal Offices, Liverpool.

Surgery.

President: Sir **Hector Clare Cameron**, M.D., Professor of Clinical Surgery, Glasgow.

Vice-Presidents: **Fred. Le M. Grasett**, M.B., C.M., F.R.C.S.E., Toronto; **Francis J. Shepherd**, M.D., C.M., LL.D., F.R.C.S.E., Montreal; **Alfred B. Atherton**, B.A., M.D., LL.D., Frederickton, N.B.; **Tecumseth Kingsley Holmes**, M.D., Chatham, Ontario.

Honorary Secretaries: **Harry A. Beatty**, M.B., 207, Simcoe Street, Toronto; **Frederick William Marlow**, M.D., C.M., F.R.C.S., 699, Spadina Avenue, Toronto; **Sinclair White**, F.R.C.S., Ranmoor, Sheffield.

Therapeutics.

President: **Donald MacAlister**, M.D., Cambridge.

Vice-Presidents: **John Lorenzo Davison**, B.A., M.D., C.M., Toronto; **Alexander D. Blackader**, B.A., M.D., Montreal; Sir **Alan Reeve Manby**, M.V.O., M.D., East Rudham; Professor **J. Rose Bradford**, M.D., F.R.S., London.

Hon. Secretaries: **Velyien E. Henderson**, M.A., M.B., University of Toronto; **Charles Potter Lusk**, M.D., C.M., 99, Bloor Street W., Toronto.

HONORARY LOCAL SECRETARIES.

Frederic Newton Gisborne Starr, M.B., Medical Building, Toronto.

Professor **John Joseph Mackenzie**, B.A., M.B., Medical Building, Toronto.

David James Gibb Wishart, B.A., M.D., L.R.C.P., Medical Building, Toronto.

COMMITTEE PATHOLOGICAL MUSEUM.

Professor **John Joseph Mackenzie**, B.A., M.B., Toronto, *Chairman.*
Maude Abbott, B.A., M.D., Montreal, *Secretary.*
Professor **Gordon Bell**, M.D., Winnipeg.
Professor **W. T. Connell**, M.D., Kingston.
Andrew Robertson Gordon, M.B., Toronto.
J. A. McGregor, M.D., London, Ontario.

EXHIBITION COMMITTEE.

Chairman: Dr. **Arthur Jukes Johnson**, Toronto.

Secretaries: Dr. **T. D. Archibald**, Toronto; Dr. **W. A. Young**, Toronto.

HONORARY LOCAL TREASURER.

Professor **J. W. Ross**, Toronto.

TORONTO ARRANGEMENTS COMMITTEE.

Dr. **Geo. A. Bingham**, 68, Isabella Street, Toronto.
Dr. **C. J. C. O. Hastings**, 258, Wellesley Street, Toronto.
Dr. **A. A. Macdonald**, 341, Bloor Street West, Toronto.
Professor **J. J. Mackenzie**, Medical Laboratories, Toronto.
Dr. **Alex. McPhedran**, 151, Bloor Street West, Toronto.
Dr. **R. B. Nevitt**, 46, Bloor Street West, Toronto.
Dr. **R. A. Reeve**, *President-elect*, 48, Bloor Street E., Toronto.
Dr. **F. N. G. Starr**, 112, College Street, Toronto.
Dr. **J. Algernon Temple**, 333, Bloor Street W., Toronto.
Dr. **D. J. Gibb Wishart**, 47, Grosvenor Street, Toronto.

PROGRAMME OF PROCEEDINGS.

Tuesday, August 21st, 1906.

9.30—12.30 a.m.—Meetings of Sections.
2.30 p.m.—Address on Obstetrics, Dr. W. S. A. Griffith.
4.30 p.m.—Garden Parties.
8 p.m.—Address of Welcome; Introduction of Guests, Delegates, etc.; and President's Address.
9.30 p.m.—Reception by the Lieutenant-Governor in the Parliament Buildings.

Wednesday, August 22nd.

9.30—12.30 a.m.—Meetings of Sections.
2.30 p.m.—Address on Medicine, Sir James Barr, M.D.
4.30 p.m.—Garden Parties.
8.30 p.m.—Address on Surgery, Sir Victor Horsley, F.R.S.
9.30 p.m.—Reception.

Thursday, August 23rd.

9.30—12.30 a.m.—Sectional Meetings.
4.30 p.m.—Garden Parties.
7.30 p.m.—Annual Dinner.

Friday, August 24th.

9.30—12.30 a.m.—Sectional Meetings.
2.30 p.m.—General Meetings.
4.30 p.m.—Garden Parties.
Excursions.
8.30 p.m.—Soirée.

Saturday, August 25th.

Excursions to Niagara Power Company's plant, through the courtesy of Sir Henry M. Pellatt.
Excursion to Muskoka.
Excursion to Lambton, through the courtesy of the President, Mr. Austin.

First-Class Circular Tours.

Messrs. Stockwell and Co., Limited, 8-10, Beak Street, London, W., send us the following particulars of first-class tours throughout London to Toronto and back:

Via Quebec and Montreal.		£	s.	d.
Saturday, August 4th.—Steamship *Empress of Britain*, 14,500 tons, C.P.R., arriving Quebec 11th, and thence to Montreal, rail to Toronto, returning by Lake steamer through the Thousand Islands and Rapids to Montreal home by C.P.R. steamer	From	36	16	6
Or Montreal to Toronto by steamer, rail home from Toronto via New York and Cunard steamer	From	38	5	5
Wednesday, August 8th.—Steamship *Lake Erie*, 7,550 tons, C.P.R., arrive Montreal 19th, rail to Toronto, returning by Lake steamer through the Thousand Islands and Rapids to Montreal, home by C.P.R. steamer	From	33	0	6

Montreal to Toronto by steamer, rail home from Toronto via New York and Cunard steamer ... ... From 36 5 5

Thursday, August 9th.—Steamship *Ionian*, 8,265 tons, Allan Line, arrive Montreal 18th, rail to Toronto, returning by lake steamer through the Thousand Islands and Rapids to Montreal, home by Allan Line steamer ... ... From 33 0 6

Or Montreal to Toronto by steamer, rail home from Toronto via New York and Cunard steamer From 36 5 5

Via New York.

Wednesday, August 8th.—Steamship *Teutonic*, 10,000 tons, White Star, arriving New York 15th, rail to Toronto, returning via Lake steamer to Montreal, thence by Dominion Line to Liverpool ... ... From 41 11 5

Friday, August 10th.—Steamship *Cedric*, 20,000 tons, White Star, arriving at New York 17th, rail to Toronto, returning via Lake steamer through the Thousand Islands and Rapids to Montreal, thence by Dominion Line steamer to Liverpool ... ... From 43 9 5

Saturday, August 11th.—Steamship *Etruria*, 8,161 tons, Cunard Line, arrive at New York 18th, rail to Toronto, returning via Lake steamer through the Thousand Islands and Rapids to Montreal, thence per Allan or C.P.R. steamer to Liverpool ... ... From 38 14 5

Saturday, August 11th.—Steamship *New York*, 10,000 tons, American Line, arriving New York 18th, rail to Toronto, returning via Lake steamer through the Thousand Islands and Rapids to Montreal, thence by Dominion Line steamer to Liverpool ... ... From 39 16 5

Messrs. Stockwell also forward the following rates for cabins in the Empress boats of the Canadian Pacific Railway and the boats of other lines. The *Empress of Britain* sails on August 4th:

"Empress of Britain" and "Empress of Ireland."
Proposed Saloon Rates.

	From Liverpool, August 1st to October 31st.			
	1 Adult.	2 Adults, Each.	3 Adults, Each.	4 Adults, Each.
	£ s.	£ s.	£ s.	£ s.
Upper Promenade Deck:				
Cabins 22, 23, 30, 31	40 0	25 0	—	—
Other cabins	42 10	27 10	22 10	—
Lower Promenade Deck:				
125	40 0	25 0	—	—
Other outside rooms ...	42 10	27 10	22 10	—
Inside rooms 101, 102	35 0	25 0	20 0	—
Saloon Deck:				
Outside rooms 203, 204 ...	40 0	25 0	—	—
201, 202, 205, 206, 211, 212 ...	40 0	25 0	21 0	—
Other outside rooms	45 0	27 10	22 10	20 0
Inside rooms 207, 208, 209, 210	35 0	22 10	20 0	—
Other inside rooms	35 0	22 10	20 0	17 0
Upper Deck:				
Outside room 350	35 0	25 0	—	—
Other outside rooms	35 0	25 0	22 10	20 0
Inside rooms 338, 356, 364, 370	30 0	20 0	—	—
Other inside rooms	32 10	22 10	18 0	16 0

Saloon Rates, ss. "Victorian," August 2nd.

	For 1.	For 2.	For 3.	For 4.
	£ s.	£ s.	£ s.	£ s.
Bridge deck:				
H., K., L., N., O., P.	45 0	55 0	65 0	—
Rooms J., M., N., O.	40 0	50 0	—	—
		each	each	
Rooms 1 to 37	40 0	25 0	20 0	—
Rooms 38 and 39	30 0	20 0	18 0	—
Saloon Deck:				
All outside rooms	35 0	22 10	20 0	17 0
All inside ,, ...	30 0	20 0	18 0	16 0

"Dominion," August 2nd.

	For 1.	For 2.	For 3.	For 4.
Promenade Deck:	£ s.	£ s.	£ s.	
Room A, containing brass bedstead	19 0	18 0	—	—
Saloon deck room	—	16 0	14 0	—
Upper ,, ,, ...	—	15 0	14 0	—

Saloon Rates, "Ionian," August 9th.

	For 1.	For 2.	For 3.	For 4.
	£ s.	£ s.	£ s.	£ s.
Shelter Deck:				
All outside rooms	31 10	21 0	18 0	16 0
All inside ,, ...	30 0	18 0	16 0	14 0
Main Deck:				
All outside rooms	30 0	18 0	16 0	—
All inside ,, ...	—	17 0	14 0	—

The rates are subject to the following reductions:

£27 10 0	berth for	£25 0 0
£25 10 0	,, ,,	£22 10 0
£22 10 0	,, ,,	£20 0 0
£20 0 0	,, ,,	£18 0 0

SECOND-CLASS CIRCULAR TOURS.

Messrs. Stockwell and Co. also ask us to state that they issue second-class circular tours from London to Toronto. Passengers travel by the Canadian route via Liverpool to Montreal, by railway to Toronto, returning by steamer through the Thousand Islands and the Lachine Rapids to Montreal, and thence to Liverpool and London; the fare is £18 6s. 6d. They state that the accommodation and dietary are good, and, judging from the bill of fare submitted, there can be no doubt that it is ample, including three meat meals a day. Dates of sailing, bills of fare, and plans of steamers can be obtained on application to Messrs. Stockwell.

HOTELS IN TORONTO.

OUR Toronto correspondent has forwarded the following list of hotels in Toronto and their charges:

Name of Hotel.	Location.	Rates per Day.
King Edward	33 to 41, King St. East..	$3 00 to $5 00
Queen's Hotel ...	78 to 92, Front St. West	3 00 to 5 00
Rossin House... ...	King and York Sts. ...	2 50 to 5 00
Walker House ...	Front and York Sts. ...	2 00 to 2 50
Palmer House ...	King and York Sts. ...	2 00 to 3 50
Arlington	King and John Sts. ...	2 50 to 3 50
Iroquois Hotel ...	King and York Sts.	2 00 to 2 50
Leader Hotel	King St. E. and Leader Lane	1 50 to 2 00
English Chop House..	50, King St. West ...	1 50 to 2 50
Gladstone House ...	Queen St. and Gladstone Ave.	2 00
Albion Hotel	31, Jarvis St.	1 50
Richardson House ...	458, King St. West ...	1 50
Grand Union Hotel ...	Simcoe St.	2 00 to 3 00
Stag Hotel	124, King St. West ...	2 00
Elliott House... ...	Church and Shuter Sts.	2 00
Empress	Yonge and Gould Sts....	1 00 to 1 50
Russell House ...	217, Yonge St.	1 50 to 2 00
Daly House	Simcoe and Front Sts. .	1 00 to 1 50
Power House	421, King St. West ...	1 00
Clyde Hotel	King St. East	1 25
Grosvenor House ...	Yonge and Alexander...	2 00
Somerset House ...	Church and Carlton ...	2 00
Gibson House... ...	Queen and George Sts. .	1 50 to 2 00
O'Connor House ...	94, Front St. East ...	1 00
Black Bull Hotel ...	298, Queen St. West ...	2 00
Carlton House ...	183, Yonge St.	1 00 to 2 00
Tremont House ...	163 to 167, Yonge St. ...	1 50 to 2 00
Crystal Palace ...	King St. and Strachan Av.	1 50 to 2 00
York Hotel	187, King St. East ...	1 00
Nealon House ...	197, King St. East ...	1 00 to 1 50
Union House	21, Simcoe St.	1 00 to 1 50
Lake View Hotel ...	Parliament and Winchester Sts.	1 50
Grand Central ...	57, Simcoe St.	1 00
Avonmore	274, Jarvis St.	1 50
Y. W. C. Association	52, Elm St. (ladies only)	1 00
Hanlan's Hotel ...	The Island	—
Mrs. Mead's Hotel ...	Centre Island	—
Frances E. Willard Home	Elm and Teraulay ...	—

NOTE.—Accommodation for over 30,000 visitors can be found in the number of good boarding-houses all over the city, at $1 00 per day, or $4 00 and $6.00 per week.

ROYAL COMMISSION ON THE CARE AND CONTROL OF THE FEEBLE-MINDED AND EPILEPTIC.

The Royal Commission on the Care and Control of the Feeble-Minded met on March 9th to receive evidence from Ireland, the principal witnesses being Sir G. P. O'Farrell, M.D., Inspector of Lunatic Asylums; Mr. J. M. Colles, Registrar of Lunacy; Mr. E. Burke, a General Inspector of the Irish Local Government Board, and Dr. F. E. Rainsford, Medical Superintendent of the Stewart Institution for Imbeciles, Palmerstown.

Sir G. P. O'Farrell, after giving an account of the general provisions for the treatment of persons of unsound mind in Ireland, said that the procedure for admission to public asylums differed altogether from that in England, as the initiative did not rest with the local Poor-law authorities, except as regarded cases actually in union workhouses. The necessary action had to be taken by a relative or friend of the lunatic, and as this involved the payment of a fee to the certifying medical practitioner, it presented a serious bar in the majority of cases owing to the poverty of the parties concerned. In consequence, recourse was had to the quasi-criminal procedure of swearing informations, and taking the lunatic before two magistrates to obtain an order. His experience in Ireland convinced him that fine or imprisonment were quite unable to effect any reformation in the habits of the confirmed drunkard. Quite 50 per cent. of the crime committed in Ireland could be traced to alcoholic excess; this excess was the cause of much insanity, and the efforts to deal with this great national evil had hitherto been trivial. It was not unreasonable to expect that grants similar to those originally given in England to enable inebriate institutions to be started and fostered should be made to such institutions in Ireland. As to persons mentally deficient who were possessed of means, while they were minors they were under the care of the Court of Chancery. Many of these persons, though weak-minded, were not absolutely imbecile or insane, and having a considerable amount of wealth at their disposal, eventually became the easy prey of designing and parasitical adventurers; in the course of a few years they might thus squander money which would have been enough to afford them a competence for life, and contracting at the same time vicious and intemperate habits, become ultimately a burden on the public rates by gravitation into asylums or prisons. Protection in such cases could be afforded by a slight extension of the powers of the Lord Chancellor, who was already charged with the care and commitment to custody of the persons and estates of those found to be idiot, lunatic, or of unsound mind.

Mr. Colles suggested that if schools for training improvable children were provided by voluntary effort, feeble-minded and imbecile children found in unsuitable surroundings might be committed to them by a magistrate. The expense should be met partly by capitation grants from the Treasury and partly by local authorities, subject to the conditions that all such schools should be adequately supervised, and that the period of detention should be somewhat longer than in industrial schools.

Mr. Edmund Burke said that the want of institutions for the education of mentally-deficient or backward children was very apparent, not only in the case of feeble-minded pauper children, but in the case of children belonging to the poorer classes who now lived with their relatives. The boarding-out system could be seldom resorted to with advantage in such cases, and if separate schools could be provided for their reception it would be an enormous gain.

Dr. Frederick E. Rainsford said that in his institution the inmates, unless helpless idiots, could, as a rule, be easily taught something. The establishment of an industrial school or colony for the benefit of weak-minded persons, the greater part of the work being done by the inmates, was highly desirable.

At a meeting of the Royal Commission on the Care and Control of the Feeble-minded on March 16th further evidence was received from Ireland, the principal witnesses being Sir Christopher Nixon, ex-President of the Royal College of Physicians and Visiting Physician to the Central Criminal Lunatic Asylum at Dundrum; Dr. Conolly Norman, Resident Medical Superintendent of the Richmond Asylum; and Mr. E. M. Courtenay, Lunacy Inspector.

Sir Christopher Nixon said that in considering the factors which contribute to swell the number of feeble-minded and defective persons, post-natal conditions such as the influence of insanitary and depressing environment, insufficiency of food and parental care, and alcoholic excess, counted for much. On the other hand, there was constant evidence of a parallelism in conformation, in disposition, and in diathesis between a child and its parent. Hence it was most desirable that feeble-minded and defective women should be kept in institutions during the entire procreative period. This consideration applied with particular force in the case of a woman who, when out of a workhouse, lived the life of a prostitute. All pauper imbeciles should be removed from workhouses and kept in special institutions. As for ordinary defectives, the problem of dealing with them would be solved if certain religious bodies already engaged in allied work could be persuaded to take charge of a colony for the feeble-minded such as that at Ursberg in Bavaria. As for criminal lunatics, the accommodation at Dundrum should be increased so as to permit of a better segregation of different classes of lunacy, and of the separation of convicts who became insane during imprisonment, from persons detained "during pleasure" as having been irresponsible for the commission of a crime. The former persons, on termination of their sentence, should not be sent to an ordinary asylum or released, but kept under supervision in a special asylum. Prisoners who were merely feeble-minded and persons known to be habitual criminals should be treated in much the same way.

Dr. Conolly Norman said that in an asylum for imbeciles and idiots the adults should be separated from the young. No effort should be spared to kindle in the latter any spark of intelligence that might exist. In a few cases "higher grade imbeciles" might be made self-supporting. Many more could be taught to occupy their time in useful employments. The great majority at least could be improved in habits of cleanliness and self-care. Those incapable of any improvement should be permanently detained as they required more nursing and care than it could reasonably be expected they would get in a private household. Those who had been taught to earn or to assist in earning their own living, the harmless and tranquil, and those who had acquired habits of decency and order, should be provided for by an organized system of family care as in France, Germany, and elsewhere abroad.

Mr. E. M. Courtenay stated that the Acts relating to the care of the insane in Ireland in some cases contained provisions not in accordance with modern ideas on the subject. They did not sufficiently guarantee the proper admission of the insane to asylums, nor did they adequately safeguard the public against the suspicion that cases were unnecessarily detained in these institutions.

CENTRAL MIDWIVES BOARD.

A meeting of the Central Midwives Board was held on March 29th at 6, Suffolk Street, Pall Mall, with Dr. F. H. Champneys in the chair.

Information as to the Proceedings of the Board.

A letter from Dr. Meredith Young (M.O.H. Stockport) was read, forwarding a copy of a resolution passed at a meeting of the Incorporated Society of Medical Officers of Health on February 16th, asking for information as to the proceedings of the Board so far as they affect local supervising authorities. In the course of the discussion on this letter, Mr. Ward Cousins pointed out the advisability of supplying the Society concerned with the information desired, and this suggestion was adopted.

Proposed Cardiff Examination Centre.

A letter was read from Dr. E. Walford (M.O.H. Cardiff), forwarding a copy of a resolution passed by the local supervising authority at Cardiff, asking the Board to make Cardiff one of the provincial centres for the Board's examinations. Some of the candidates did not understand the English language, and it was urged that this difficulty would be obviated by having a provincial centre at Cardiff. The matter was referred to the Standing Committee, in spite of the opposition of Sir William Sinclair, Mr. Ward Cousins, and Mr. Parker Young.

Suggested Official Handbook for Midwives.

The report of the meeting of examiners held on March 20th, 1906, to consider the question of an official handbook for midwives was received. The following is quoted from the report:

> It was moved by Dr. Lyle, and seconded by Dr. Fothergill, "That the examiners recommend to the Board the publication of an official handbook for midwives." After discussion, during which suggestions were made that the object of the motion might be met by an amplification of the syllabus of instruction, the motion was put and lost, 7 voting in favour of it and 17 against.

Sir W. J. Sinclair said that he would give formal notice of a resolution bearing on this matter.

Duties of Inspectors of Midwives.

The Standing Committee recommended that local supervising authorities, having appointed inspectors of midwives, be requested to furnish the Board with copies of the rules that have been drawn up for the inspector's guidance, and that, where no rules have been compiled, the local supervising authority be asked whether such rules, if drawn up by the Central Midwives Board, would be acceptable. This was discussed, and it was decided that the consideration of this recommendation be postponed for six months.

Persistently Disobedient Midwives.

The Clerk of the London County Council having reported that two midwives were guilty of persistent disobedience to Rule E, 19 (b), and had announced their intention of not complying with the rule, the Board directed that the midwives in question should be called on to furnish an explanation of the facts alleged against them by the London County Council.

Certificates of Character.

At a meeting of the Board on January 30th, 1906, the name of Mary Ann George was removed from the Roll, and instructions were given that the papers in the case should be sent to the Public Prosecutor for his consideration of the facts concerning the signing of a certificate of good character by a clergyman. The Board had received a letter from the Director of Public Prosecutions, dated March 5th, 1906, in which he says that he has read and considered the papers forwarded to him. Although the conduct of the clergyman in question was, in his opinion, morally inexcusable, and the explanation altogether unsatisfactory, he did not think in view of that explanation that the clergyman would be convicted under Section 12 of 2 Ed. VII, cap. 17, of wilfully making or causing to be made a falsification in a matter relating to the Roll of midwives. The Director of Public Prosecutions submitted that, if any indictable offence under that Act should be brought to the notice of the Central Midwives Board, it would be within its power to institute a prosecution, and that these would not necessarily be cases calling for the intervention of the Director of Public Prosecutions under 42 and 43 Vict., cap. 22, and the regulations made under that Act.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

The following appointments have been made at the Admiralty: **Francis H. Clayton**, M.D., Staff Surgeon, to the *Egmont*, additional, for miscellaneous service, vice Shaw, March 28th; **Charles E. Matthew**, M.B., Fleet Surgeon, to the *Monmouth*, on recommissioning, April 10th; **William E. Marshall**, Staff Surgeon, to the *Pembroke*, additional, and **John McElwee**, M.D., Fleet Surgeon, to the *President*, additional, for three months' course of study at West London Hospital, both dated April 9th; **Richard Willan**, Surgeon, to the *Monmouth*, on recommissioning, April 10th; **Evan St. M. Nepean**, Fleet Surgeon, to the *Empress of India*, vice McElwee, April 1st; **George A. S. Bell**, Fleet Surgeon, and Staff-Surgeons **Frederick Fedarb** and **Flystan G. E. O'Leary** have been appointed to the *President* for hospital course, the former under date April 12th and the latter both under date April 9th; **Richard W. Stanistreet**, Staff Surgeon, to the *Doris*, vice F. Fedarb, and **Harold E. Fryer**, Staff Surgeon, to the *Tyne*, April 9th; **Patrick W. MacVean**, M.B., Surgeon, to the *Sapphire II*, vice O'Leary, April 9th; **Alfred T. Gailleton**, M.B., to the *President*, for hospital course, April 9th.

Fleet Surgeon E. W. **Luther** has been placed on the retired list (at his own request), with the rank of Deputy Inspector-General. He was Surgeon in March, 1874, Staff Surgeon in March, 1886, and became Fleet Surgeon in September, 1890.

ROYAL ARMY MEDICAL CORPS.

Colonel D. **Bruce**, M.B., C.B., has been ordered to Malta, on duty with the Mediterranean Fever Commission. Colonel Bruce is a member of the Army Medical Service Advisory Board, and is an expert in tropical diseases.

Major T. **McCulloch**, M.B., now at the War Office, Major J. G. **McNaught**, M.D., at Edinburgh, and Major J. C. **Weir**, M.B., London, are also to be appointed members of the foregoing Fever Commission. Major McCulloch saw service in China in 1900 (medal), and was mentioned in dispatches; while Major McNaught was in the South African War, 1901-2, and has the Queen's medal with five clasps.

Colonel M. W. **O'Keefe** has been appointed to the charge of the Royal Herbert Hospital, Woolwich. Colonel O'Keefe took part in the Egyptian Expedition, 1882 (medal with clasp, bronze star), and in the Tirah Campaign, 1897-8.

Colonel **Montgomery Blennerhassett**, C.M.G., retires on retired pay, April 4th. Colonel Blennerhassett's appointment as Lieutenant-Colonel was dated March 30th, 1892, and he became Colonel on April 1st, 1902, when he served as Administrative Medical Officer, India. He was in the Ashanti expedition of 1895-6, and was honourably mentioned (star).

INDIAN MEDICAL SERVICE.

Major R. **Heard**, M.B. (Bengal), is confirmed in appointment of Joint Medical Officer at Simla, from February 9th.

Captain W. M. Houston, M.B., Personal Assistant to Surgeon-General with the Government of Bombay, is appointed Inspector of Factories within the local limits of the City of Bombay.

In the Eastern Command Captain L. B. **Scott**, M.B., 8th Rajpoots, has been appointed to the medical charge of the regiment, vice Lieutenant-Colonel S. C. **Nandi**, retired; and Captain F. P. **Connor**, 13th Rajpoots, to the medical charge of that regiment.

The receipt of charge by Major J. **Jackson**, M.B., of Yeravda Central Prison on March 6th, 1906, is gazetted, as well as that by Captain J. M. **Woolley**, of Bhagalpore Central Gaol, on December 4th, 1905.

The following officers are admitted to the Indian Medical Service, from September 1st, 1905, and are assigned to the commands specified: C. H. **Reinhold**, A. F. **Hayden**, and B. E. M. **Newland** (Northern); L. A. H. **Lack** (Eastern); E. J. C. **McDonald**, R. W. **Mackenzie**, W. D. **Wright**, and J. F. **Boyd** (Northern); V. N. **Whitamore** (Eastern); J. **Catto** (Western); N. S. **Sodhi** (Eastern); W. J. **Powell** (Western); and W. C. **Gray** (Secunderabad Division).

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

Alexander Callam is gazetted a Lieutenant in the North-East Lancashire Bearer Company, March 27th.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Lieutenant-Colonel **Robert T. C. Robertson**, M.B., having resigned his commission in the Volunteers, ceases to belong to the Army Medical Reserve of Officers, April 4th.

Mr. W. J. F. **Middlemiss**, L.D.S.Edin., has been appointed a Dental Surgeon to the troops in Ireland, and Mr. E. H. **Wyand**, L.D.S.Eng., to the troops at Aldershot.

Vital Statistics.

In seventy-six of the largest English towns, including London, 8,933 births and 5,150 deaths were registered during the week ending Saturday last, March 31st. The annual rate of mortality in these towns, which had been 16.7, 16.2, and 15.8 per 1,000 in the three preceding weeks, rose again last week to 17.0 per 1,000. The rates in the several towns ranged from 8.3 in Grimsby, 9.0 in Hornsey, 9.4 in Willesden, 9.7 in Leyton, 10.1 in King's Norton, 10.6 in Handsworth (Staffs.), and 10.9 in Stockton-on-Tees, to 21.3 in Birmingham, in Bootle, and in Bury, 21.4 in Huddersfield, 22.1 in Liverpool, 22.2 in Blackburn, 22.8 in Hanley, 23.3 in Warrington, and 24.5 in Middlesbrough. In London the rate of mortality was 18.5 per 1,000, while it averaged 16.4 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.6 per 1,000 in the seventy-six towns; in London this death-rate was 1.8 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 3.1 in Liverpool and in Preston, 3.3 in Handsworth (Staffs.), 3.6 in Wolverhampton, 3.9 in Blackburn, 4.0 in Smethwick, and 4.4 in Bury. Measles caused a death-rate of 1.4 in Manchester and in Halifax, 1.6 in Liverpool, 1.7 in Bristol and in Newcastle-on-Tyne, 2.0 in Great Yarmouth, 2.2 in Tottenham, 2.7 in Blackburn and in Preston, and 3.6 in Bury; diphtheria of 1.1 in St. Helen's; whooping-cough of 1.5 in Oldham, 1.6 in Wolverhampton, 1.8 in Southampton, 2.3 in Warrington, 2.5 in Aston Manor, 3.0 in West Bromwich, 3.3 in Handsworth (Staffs.), and 4.0 in Smethwick; and diarrhoea of 1.1 in Oldham. The mortality from scarlet fever and from enteric fever showed no marked excess in any of the large towns. No fatal case of small-pox was registered last week in any of the seventy-six towns. The number of small-pox cases under treatment in the Metropolitan Asylums Hospitals, which had been 6, 7, and 10 at the end of the three preceding weeks, had declined again to 8 at the end of last week; no new case was admitted during the week, the numbers having been 1, 1, and 5 in the three preceding weeks. The number of scarlet-fever patients in these hospitals and in the London Fever Hospital at the end of the week was 2,386, against 2,545, 2,485, and 2,434 at the end of the three preceding weeks; 223 new cases were admitted during the week, against 268, 252, and 234 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, March 31st, 974 births and 647 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.2, 19.3, and 18.0 per 1,000 in the three preceding weeks, rose again to 18.9 per 1,000 last week, and was 1.9 per 1,000 in excess of the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 15.8 in Leith and 16.5 in Edinburgh to 21.8 in Dundee and 25.7 in Paisley. The death-rate from the principal infectious diseases averaged 1.8 per 1,000 in these towns, the highest rates being recorded in Dundee and Greenock. The 306 deaths registered in Glasgow included 14 which were referred to measles, 2 to scarlet fever, 3 to diphtheria, 7 to whooping-cough, and 5 to diarrhoea. Seven fatal cases of measles, 2 of scarlet fever and 2 of diarrhoea were recorded in Edinburgh. Two deaths from measles, 2 from whooping-cough, 2 from diarrhoea, and 1 from typhus fever occurred in Dundee; 2 from measles in Paisley; and 2 from diarrhoea in Greenock.

HEALTH OF IRISH TOWNS.

During the week ending Saturday March 31st, 650 births and 482 deaths were registered in six of the principal Irish towns as against 536 births and 420 deaths in the preceding period. The annual death-rate in these towns, which had been 22.2, 19.4, and 23.6 per 1,000 in the three preceding weeks, rose to 26.6 per 1,000 in the week under notice, this figure being 9.6 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 23.4 in Waterford and 24.0 in Cork to 29.2 in Belfast and 31.4 in Limerick. The zymotic death-rate in the same six Irish towns averaged 1.7 per 1,000, or 1.0 per 1,000 higher than during the preceding period, the highest figure—3.9—being recorded in Belfast, while no deaths under this heading were recorded in Waterford. The Belfast deaths included 21 from whooping-cough.

Vacancies and Appointments.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

ABERDEEN (NEW) POORHOUSE.—Resident Assistant Medical Officer. Salary, £80 per annum.

AYR COUNTY HOSPITAL.—Resident House-Surgeon. Salary, £70 per annum.

BRIDGWATER HOSPITAL.—House-Surgeon. Salary, £80 per annum.

BUXTON: DEVONSHIRE HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House-Physician. Salary, £90 per annum.

CARLISLE: CUMBERLAND AND WESTMORLAND ASYLUM, Garlands.—Junior Assistant Medical Officer. Salary, £130, rising to £150, per annum.

CARLISLE NON-PROVIDENT DISPENSARY.—Resident Medical Officer. Salary, £150 per annum.

CHESTER GENERAL INFIRMARY.—House-Physician. Salary, £90 per annum.

DUNFERMLINE: CARNEGIE TRUST.—Female Assistant Medical Officer, holding D.P.H. Salary, £200 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Assistant Surgeon to Out-patients.

GARTCOSH: GARTLOCH ASYLUM.—Assistant Medical Officer. Salary, £125 per annum.

HALIFAX ROYAL INFIRMARY.—Second House-Surgeon. Salary, £100 per annum.

HOSPITAL FOR WOMEN, Soho Square, W.—House-Physician. Salary, £60 for six months.

HULL ROYAL INFIRMARY.—Honorary Assistant Ophthalmic Surgeon to Out-patient Department.

KILLARNEY DISTRICT LUNATIC ASYLUM.—Resident Medical Superintendent. Salary, £450 per annum.

KNIGHTON UNION.—District Medical Officer. Salary, £40 per annum.

LEITH HOSPITAL.—Medical Registrar.

LIVERPOOL INFIRMARY FOR CHILDREN.—House-Surgeon. Salary, £100 per annum.

LIVERPOOL: ROYAL SOUTHERN HOSPITAL.—Junior House-Surgeon. Salary 60 guineas per annum.

LIVERPOOL: STANLEY HOSPITAL.—House-Surgeon. Salary, £60 per annum.

LONDON LOCK HOSPITAL.—House-Surgeon to the Female Hospital. Salary, £80 per annum.

MAIDSTONE: WEST KENT GENERAL HOSPITAL.—(1) House-Surgeon; (2) Assistant House-Surgeon and Anaesthetist. Salary, £100 and £80 per annum respectively.

MANCHESTER CORPORATION.—Fourth Medical Assistant at the Monsall Fever Hospital. Salary, £100 per annum.

MARGATE: ROYAL SEA-BATHING HOSPITAL.—Resident Surgeon, to act as Junior and Senior for six months. Salary at the rate of £80 and £120 per annum respectively.

PADDINGTON GREEN CHILDREN'S HOSPITAL.—(1) House-Physician; (2) House-Surgeon. Salary at the rate of 50 guineas a year each.

PORTSMOUTH: ROYAL PORTSMOUTH HOSPITAL.—House-Physician. Salary at the rate of £50 per annum.

REIGATE BOROUGH.—Medical Officer of Health. Salary, £500 per annum.

ROYAL COLLEGE OF SURGEONS, Lincoln's Inn Fields.—(1) Examiners under the Conjoint Examining Board in England; (2) Examiners in Anatomy and Physiology for the Fellowship.

ROYAL EAR HOSPITAL, Soho.—(1) House-Surgeon, non-resident. Honorarium at the rate of £40 per annum; (2) Clinical Assistants.

ROYAL EYE HOSPITAL, Southwark, S.E.—House-Surgeon. Salary at the rate of 50 guineas per annum.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—(1) Resident House-Physician; (2) Resident House-Surgeon; (3) House-Physician; (4) Casualty House-Surgeon; (5) Assistant to Clinical Pathologist: salary, £50 per annum; (6) Assistant Anaesthetist.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Resident Medical Officer. Salary at the rate of £120 per annum.

ST. GEORGE'S UNION.—Second Assistant Medical Officer at the Infirmary, Fulham Road. Salary, £120 per annum.

SOMERSET AND BATH ASYLUM, Cotford.—Assistant Medical Officer. Salary, £140 per annum, increasing to £160.

TOTTENHAM HOSPITAL.—(1) House-Surgeon; (2) House-Physician; (3) Casualty Officer. Salaries at the rate of £90, £60, and £40 per annum respectively.

VIRGINIA WATER: HOLLOWAY SANATORIUM.—Junior Assistant Medical Officer. Salary to begin, £175 per annum.

CERTIFYING FACTORY SURGEON.—The Chief Inspector of Factories announces a vacancy in the office of Certifying Factory Surgeon at Uppingham, co. Rutland.

APPOINTMENTS.

Downes, Harold, M.B., M.Ch.Edin., L.R.C.P., Medical Superintendent, Bellefield Sanatorium for Consumption, Lanark.

Eager, Richard, M.B., B.Ch., Assistant Medical Officer, Devon County Asylum, Exeter.

Eastment, J. W., M.R.C.S., L.R.C.P., District Medical Officer of the Fareham Union.

Fairbank, H. A. T., M.S.Lond., F.R.C.S.Eng., Orthopaedic Surgeon to Charing Cross Hospital.

Frazer, S., L.R.C.P. and S.Edin., Medical Officer of the Brentwood Training School of the Hackney Union.

Good, A. S., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Torrington Union.

Grene, J. W., L.R.C.P. and S.Irel., Certifying Factory Surgeon for the Athboy District, co. Meath.

Halliwell, T. O., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Dewsbury District, co. York.

Hewitson, W. A., L.R.C.P.Edin., M.R.C.S.Eng., Certifying Factory Surgeon for the Haswell District, co. Durham.

Honeybourne, W. R., B.S.Camb., Resident Assistant Medical Officer to the Bradford Union Infirmary.

Jenkins, M., L.S.A., Medical Officer, Rhayader Union Workhouse.

Klumpp, E. G., M.B., B.S.Durh., Certifying Factory Surgeon for the Wootton Bassett District, co. Wilts.

Lambert, Frederick Samuel, M.R.C.S.Eng., L.R.C.P.Lond., Medical Officer to the Lincoln Post Office.

Lawson, R., M.R.C.S., L.R.C.P., District Medical Officer of the Wandsworth Union.

MacIlraith, W. MacLaren, L.R.C.P., L.R.C.S.Edin., L.F.P. and S.Glasg., and L.D.S., R.C.S.E., House-Surgeon at the Royal Cornwall Infirmary, Truro.

Martin, S. E., M.B., Resident Assistant Medical Officer, Central London Sick Asylum, Cleveland Street.

Milne, Leslie J., M.A., M.D.Aberd., Certifying Factory Surgeon for Mirfield, Ravensthorpe, and Thornhill, and Medical Officer of Health for Mirfield, and Medical Officer, Crossley Infectious Hospital.

Page, C. H. W., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Towcester Union.

Pollock, A. K. Halliday, M.R.C.S., L.R.C.P.Eng., Medical Officer to the East Indian Railway.

Price, David, M.B.Lond., Medical Officer for the Castle Cary District of the Wincanton Union.

Ridout, C. A. Scott, M.S.Lond., F.R.C.S.Eng., Honorary Pathologist to the Royal Portsmouth Hospital.

Thomson, Edward Mervyn, M.R.C.S., L.R.C.P.Lond., House-Surgeon to the Torbay Hospital, Torquay.

Warren, W. P., L.R.C.P. and S. Edin., District Medical Officer of the Edmonton Union.

Wellington, R. Henslowe, M.R.C.S., L.R.C.P., Lecturer on Medical Jurisprudence, Westminster Hospital Medical School.

Wheeldon, F. J., M.R.C.S.Eng., L.S.A., Medical Officer of Health, Borough of Middleton.

Whitaker, J. H., M.D., B.Ch., Clinical Assistant to the Chelsea Hospital for Women.

Williams, Penrose, M.R.C.S., L.R.C.P., Honorary Medical Officer to the Bridgwater Hospital and Medical Officer to the Bridgwater Post Office.

Williams, D. L., M.R.C.S., L.R.C.P., District Medical Officer of the Carmarthen Union.

Wilson, W. James, B.A., M.B., R.U.I., Riddel Demonstrator in Pathology and Bacteriology, Queen's College, Belfast.

Edinburgh Royal Infirmary.—The following appointments have been made:

In Charge of Gynaecological Ward No. 36.—N. T. Brewis, F.R.C.S.E.

Tutors.—J. S. Eason, M.D., F.R.C.P.E., to University Medical Wards; B. P. Watson, M.D., F.R.C.S.E., to University Gynaecological Ward.

Resident Physicians.—C. M'Neil, M.B., Ch.B.; J. Z. H. Rousseau, M.B., Ch.B.; P. M'Ewan, M.B., Ch.B.; E. A. Elder, M.A., B.Sc., M.B., Ch.B.; W. L. Robertson, M.A., M.B., Ch.B.; H. P. Milligan, M.B., Ch.B.; J. A. Cruickshank, M.B., Ch.B.; J. C. D. Allan, M.B., Ch.B.; and J. S. Mitchell, M.B., Ch.B.

Resident Surgeons.—T. R. Smith, M.B., Ch.B.; A. M'Kendrick, L.R.C.P. and S. Edin.; H. J. Stewart, M.B., Ch.B.; J. G. Craig, M.B., Ch.B.; D. C. Crole, M.B., Ch.B.; N. C. Forsyth, M.B., Ch.B.; E. M. Simmers, M.B., Ch.B.; W. M. Hewetson, M.B., Ch.B., and H. C. Weber, M.B., Ch.B.

Non-Resident House-Surgeons.—G. A. Davies, M.D., Ch.B.; J. S. Fraser, M.B., Ch.B., F.R.C.S.E.; A. M. M'Intosh, M.B., Ch.B., F.R.C.S.E.

Clinical Assistants.—D. M'F. Barker, M.B., Ch.B.; R. S. Frew, M.B., Ch.B.; H. M. Brown, M.B., Ch.B.; J. M. Dickson, M.B., Ch.B.; R. J. Johnston, M.B., C.M.; R. Bruce, M.B., Ch.B.; J. L. Green, M.B., Ch.B.; H. Jamieson, M.D., M.R.C.P.E.; A. M. Malcolmson, M.B., Ch.B.; R. M. Matheson, M.D., Ch.B.; K. Melville, M.D.; R. W. Buchanan, M.A., B.Sc., M.B.; J. C. P. Ritchie, Ch.M., F.R.C.S.E.; A. G. V. van Someren, M.B., Ch.B.; F. W. Cragg, M.B.; and F. D. Simpson, M.D.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to insure insertion in the current issue.

BIRTHS.

ALCOCK.—On March 31st, at 25, Norfolk Mansions, Battersea Park, London, S.W., the wife of N. H. Alcock, M.D., of a daughter.

BRÉE.—On March 31st, at Manningtree, the wife of Sidney Brée, of a son.

CARMICHAEL.—On March 27th, at The Elms, East Hill, Wandsworth, S.W., the wife of Henry Carmichael, M.B., C.M.Glasg., of a son.

MARRIAGES.

HURST—BAUMANN.—At Savannah, Georgia, U.S.A., on March 10th, Walter Hurst, M.D., B.Sc., L.S.A., and Alice Heseltine Baumann, M.D. Home address, 502, Stanyan Street, San Francisco, California.

KAY—LAVER.—At St. Martin's Church, Scarborough, on March 20th, by the Rev. A. F. Mitchell, Vicar of St. Augustine's, Sheffield, and the Ven. Archdeacon Mackerness, Vicar of St. Martin's, Scarborough, Walter Smith Kay, M.D., Medical Superintendent of the South Yorkshire Asylum, Wadsley, Sheffield, to Elizabeth Mary, widow of Arthur H. Laver, M.D., of Sheffield.

DEATHS.

PITT.—On March 29th, at Wolverton, High Road, Chiswick, the wife of Francis Dingley Pitt, L.R.C.P., etc.

WALKER.—On March 28th, at his residence, Abydos, Longfellow Road, Worthing, Charles Rotherham Walker, M.D. (late of Gainsborough House, Leytonstone), aged 46. Friends kindly accept this (the only) intimation.

DIARY FOR THE WEEK.

MONDAY.

BRITISH GYNAECOLOGICAL SOCIETY, 20, Hanover Square, W., 8 p.m.—Exhibition of specimens.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Clinical evening. Cases, etc., will be by shown by Drs. Poynton, F. Parkes Weber, J. Calvert, O. K. Williamson, H. O. Carson, Messrs. J. Berry, C. Gordon Watson, C. B. Keetley, Maynard Smith, J. Lynn Thomas.

TUESDAY.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W., 8.30 p.m.—R. McCarrison, M.B., I.M.S.: Observations on Endemic Goître in the Chitral and Gilgit Valleys (with epidiascope demonstration).

SOCIETY FOR THE STUDY OF INEBRIETY, 11, Chandos Street, Cavendish Square, W., 4 p.m.—(1) Annual General meeting. (2) Discussion on The Alcoholic Craving, to be opened by Dr. Harry Campbell.

WEDNESDAY.

DERMATOLOGICAL SOCIETY OF LONDON, 11, Chandos Street, 5.15 p.m.—Cases and Specimens.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Wednesday, 5 p.m., Nasal Accessory Sinuses.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin: Tuesday, Medical; Wednesday, Surgical. Lectures at 5.15 p.m. will be given as follows: Monday, Rectal Examination in Urinary Disease; Tuesday, The Dangerous Sequelae of Suppuration in the Middle Ear (Treatment): Wednesday, How to Recognize and Treat Abscess of the Liver. On Thursday the College closes for the Easter holidays.

POST-GRADUATE COLLEGE, West London Hospital, Hammersmith Road, W.—The following arrangements have been made for next week: Monday, 4 p.m., Ophthalmology; Tuesday, 11.30 a.m., Bacteriology; Thursday, 11.30 a.m., Bacteriology; Friday, 11.30 a.m., Bacteriology; Wednesday, 12.15 p.m., Practical Surgery: Saturday, Practical Surgery. Daily, at 2.15 p.m., Medical and Surgical Clinics.

BOOKS, ETC., RECEIVED.

Personal Hygiene (Designed for Undergraduates). By A. A. Woodhull, A.M., M.D., LL.D. First edition. New York: John Wiley; and London: Chapman and Hall. 1906. 4s. 6d.

The World's Anatomists (from 300 B.C. to the Present Time). By G. W. H. Kemper, M.D. Philadelphia: P. Blakiston's Son and Co. 1905.

International Clinics. A Quarterly. Edited by A. O. J. Kelly, A.M., M.D. Vol. iv, Fifteenth Series, 1906. Philadelphia and London: J. B. Lippincott Co. Set of four vols., 35s.

The Frog: An Introduction to Anatomy, Histology, and Embryology. By the late A. M. Marshall, M.D., D.Sc., M.A., F.R.S. Edited by F. W. Gamble, D.Sc. Ninth edition. London: D. Nutt. 1906. 5s.

The Jungle. By Upton Sinclair. London: W. Heinemann. 1906. 6s.

The Economical Management of an Efficient Voluntary Hospital. Prize essays. By G. H. Hamilton and E. W. Morris. London: G. Barber. 1906. 6d.

Das Rettungs und Krankenbeförderungswesen im deutschen Reiche. Prof. Dr. George Meyer. III. Ergänzungsband zum klinischen Jahrbuch. Jena: Gustav Fischer. 1906. M.14.

The Operative Treatment of Fractures. By W. A. Lane, M.S., F.R.C.S. London: The Medical Publishing Co. 1905.

Beiträge zur Klinik der Tuberkulose. Herausgegeben von Dr. L. Brauer. I. Supplementband. Uber die numerischen Verhältnisse der Leukocyten bei der Lungentuberkulose. Von Dr. Med. R. Kjer-Petersen. Würzburg: A. Stuber. 1906. M.8.40.

Mitteilungen aus dem Laboratorium für radiologische Diagnostik und Therapie. Herausgegeben von Dr. G. Holznecht. Erster Band. Erstes Heft. Jena: Gustav Fischer. 1906. M.3.00.

Lincoln: A Historical and Topographical Account of the City. By E. M. Sympson. London: Methuen and Co. 4s. 6d.

Affektivität, Suggestibilität, Paranoia. Von E. Bleuler. Halle a. S.: Carl Marhold. 1906. M.3.

Précis de diagnostic chimique, microscopique et parasitologique. Par les Drs. J. Guiart et L. Grimbert. Paris: F. R. de Rudeval. 1906. Fr. 15.

Die chirurgischen Untersuchungsarten. Von Dr. O. Manz. II. Teil. Jena: Gustav Fischer. 1906. M.5.

An Essay on the General Principles of the Treatment of Spinal Curvatures. By Heather Bigg, F.R.C.S.Ed. London: J. and A. Churchill. 1905. 5s.

On Means for the Prolongation of Life. Second Edition of a Lecture delivered before the Royal College of Physicians on December 3rd, 1903. By H. Weber, M.D., F.R.C.P. London: J. Bale, Sons and Danielsson. 1906. 2s. 6d.

The Philosophy of Voice: showing the Right and Wrong Action of Voice in Speech and Song. By C. Lunn. Tenth edition. London: Baillière, Tindall and Cox. 1906. 6s.

The City of London Directory for 1906. The thirty-sixth annual edition. London: W. H. and L. Collingridge. 12s. 6d.

Studies from the Rockefeller Institute for Medical Research. Reprints. Vol. IV. 1905. New York: Rockefeller Institute. 1905.

A Handbook of Medical Jurisprudence and Toxicology. By W. A. Brend, M.A., M.B., B.Sc. London: C. Griffin and Company, Limited. 1906. 8s. 6d.

Punsavana, or the Causing the Birth of a Male Child. (Reprinted from the Calcutta Journal of Medicine.) By S. N. Goswami, B.A., L.M.S. Calcutta: P. Sircar. 1902. R.1.

Studies in Anatomy from the Anatomical Department of the University of Manchester. Vol. III. Edited by A. H. Young, M.B.Edin., F.R.C.S. Manchester: University Press. 1906. 10s.

Bantu Folk Lore (Medical and General). By M. L. Hewat, M.D. Cape Town: T. Maskew Miller; and London: J. and A. Churchill, 7s. 6d.

The Pharmacopoeia of the Harrogate Infirmary. Edited by C. E. J. Eynon. Harrogate: R. Ackrill. 1906. 1s. 6d.

Handbook of Obstetric Nursing. By F. W. N. Haultain, M.D., F.R.C.P.Ed., and J. H. Ferguson, M.D., F.R.C.P.Ed., M.R.C.S.Eng. Fifth edition. Edinburgh and London: Young J. Pentland. 1906.

Simple Introductory Lessons in Midwifery. By M. Loane. London: The Scientific Press. 1s.

The Dentists' Register. 1906. London: Spottiswoode and Co., Limited.

Diseases of the Eye. By G. E. de Schweinitz, A.M., M.D. Fifth edition. Philadelphia and London: W. B. Saunders and Co. 1906. 21s.

Saint Bartholomew's Hospital Reports. Edited by A. E. Garrod, M.D., and W. McA. Eccles, M.S., F.R.C.S. Vol. XLI. London: Smith, Elder and Co. 1906.

The Medical Annual. 1906. Bristol: J. Wright and Co., and London: Simpkin, Marshall. 7s. 6d.

Baby: Useful Hints for Busy Mothers. By E. L. Maynard. Bristol: J. Wright, and London: Simpkin, Marshall. 1906. 1d.

A Soul's Wayfaring. By "Z." Bristol: J. W. Arrowsmith, and London: Simpkin, Marshall. 1906. 3s. 6d.

The Anaesthetic Technique for Operations on the Nose and Throat. By A. de Prenderville. London: H. J. Glaisher. 1906. 3s. 6d.

Essai sur la Puberté chez la Femme. Par le Dr. M. Francillon. Paris: F. Alcan. 1906. F. 4.

The Dental Annual and Directory. 1906. London; Baillière, Tindall and Cox. 7s. 6d.

Plant Response as a Means of Physiological Investigation. By J. C. Bose, M.A., D.Sc. London: Longmans, Green and Co. 1906. 21s.

The Practice of Pharmacy. Fourth edition. By J. P. Remington, Ph.M., Phar.D., F.C.S. Philadelphia: J. B. Lippincott Co.

Klinik für psychische und nervöse Krankheiten. Herausgegeben von R. Sommer. 1 Band. 1 Heft: Halle A. S.: C. Marhold. 1906. M. 3.

The Pharmacy Students' Pocket Notebook. Edited by J. Humphrey. London: The Pharmaceutical Journal Office. 1906.

A Vocabulary of Malay Medical Terms. By P. N. Gerrard, B.A., B.Ch., M.D., etc. Singapore: Kelly and Walsh. 1905.

Indian Toxicology. By F. N. Windsor, I.M.S., M.B., etc. Calcutta and London: Thacker, Spink and Co. 1906. Rs. 3.

Beiträge zur Klinik der Tuberculose. Herausgegeben von Dr. L. Brauer. Band V. Heft 2. Würzburg: A. Stuber. 1906. M. 4.50.

Die Arzneimittel der heutigen Medizin, Von Dr. O. Dornblüth. Zehnte Auflage. Würzburg: A. Stuber. 1906. M. 7.60.

Plain Dinners: A Help to a Uric Acid Free Diet. By A. Braithwaite. London: R. J. James. 6d.

The Starchy Foods in Health and Sickness, with Sidelights from the Japanese. By A. Braithwaite. London: R. J. James. 3d.

The Real Triumph of Japan. The Conquest of the Silent Foe. By L. L. Seaman, M.D., LL.D. London: S. Appleton. 1906. 6d.

⁂ In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

APRIL.

Date.	Meetings to be Held.
6 FRIDAY	London : Ethical Committee, 2 p.m. Hampstead Division, *Metropolitan Counties Branch*, Hampstead Conservatoire, Swiss Cottage, N.W., 8.30 p.m.
7 SATURDAY...	
8 Sunday	
9 MONDAY	Liverpool (Northern) Division, *Lancashire and Cheshire Branch*, Medical Institution, 114, Mount Pleasant, 4 p.m.
10 TUESDAY......	London : Organization Committee, 10.30 a.m. London : Public Health Committee, 3 p.m.
11 WEDNESDAY	West Bromwich Division, *Birmingham Branch*, District Hospital, 4 p.m.
12 THURSDAY...	Leigh Division, *Lancashire and Cheshire Branch*, Scientific Section, Co-operative Rooms, Ellesmere Street, Leigh, 3.30 p.m. Norwood Division, *South-Eastern Branch*, St. John's Hospital, Morden Hill, Lewisham, 4 p.m.
13 FRIDAY	*Good Friday.*
14 SATURDAY...	
15 Sunday	
16 MONDAY	*Bank Holiday.*
17 TUESDAY......	
18 WEDNESDAY	Central Council, 2 p.m.
19 THURSDAY...	City and Tottenham Divisions, *Metropolitan Counties Branch*, Conjoint Meeting, Brooke House, Upper Clapton, 8.30 p.m. Chelsea, Westminster, Lambeth, Norwood, Croydon, Richmond, and Wandsworth Divisions, Battersea Town Hall, Clapham Junction.
20 FRIDAY	

APRIL *(continued)*.

Date.	Meetings to be Held.
22 Sunday	
23 MONDAY ...	
24 TUESDAY ...	North of England Branch, Stockton-on-Tees.
25 WEDNESDAY	Altrincham Division, *Lancashire and Cheshire Branch*, Brooklands. Bath and Bristol Branch, Bath.
26 THURSDAY...	Wandsworth Division, *Metropolitan Counties Branch*, Worple Hall, Wimbledon, 8.45 p.m.
27 FRIDAY	St. Pancras and Islington Division, *Metropolitan Counties Branch*, St. Pancras Infirmary, Pancras Road, N.W., 4 p.m.
28 SATURDAY...	
29 Sunday.........	
30 MONDAY	

MAY.

Date.	Meetings to be Held.
1 TUESDAY......	
2 WEDNESDAY	
3 THURSDAY...	Swansea Division, *South Wales and Monmouthshire Branch*, Annual Meeting, General Hospital, Swansea, 3 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Bolingbroke Hospital, 4 p.m.
4 FRIDAY	Border Counties Branch, Keswick.
5 SATURDAY...	
6 Sunday.........	
7 MONDAY	
8 TUESDAY ...	
9 WEDNESDAY	
10 THURSDAY...	
11 FRIDAY.........	Hampstead Division, *Metropolitan Counties Branch*.

MEMBERSHIP OF THE BRITISH MEDICAL ASSOCIATION.

The British Medical Association exists for the promotion of medical and the allied sciences, and the maintenance of the honour and the interests of the medical profession.

The Annual Subscription to the British Medical Association is £1 5s. 0d., and the British Medical Journal is supplied weekly, post free, to every member of the British Medical Association wherever he may reside.

Forms of application for membership can be obtained from the General Secretary, 429, Strand, London, W.C.

The principal rules governing the election of a medical practitioner to be a member of the British Medical Association are as follow:

Article III.—Any Medical Practitioner registered in the United Kingdom under the Medical Acts and any Medical Practitioner residing within the area of any Branch of the Association situate in any part of the British Empire other than the United Kingdom, who is so registered or possesses such medical qualifications as shall, subject to the Regulations, be prescribed by the Rules of the said Branch, shall be eligible as a Member of the Association. The mode and conditions of election to Membership shall from time to time be determined by or in accordance with the By-laws. Every Member, whether one of the existing Members or a subsequently-elected Member, shall remain a Member until he ceases to be a Member in accordance with the provisions hereof.

By-law 1.—Every Candidate for Membership of the Association shall apply for election in writing, addressed to the Association, and stating his agreement, if elected, to abide by the Regulations and By-laws of the Association, and the Rules of such Division and Branch to which he may at any time belong, and to pay his subscription for the current year.

By-law 2.—Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the General Secretary of the Association, and to every Member of the Branch Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a member of the Association by the Branch Council at any meeting thereof held not less than seven days (or such longer period as the Branch may by its Rules prescribe) after the date of the said Notice. A Branch may by special Resolution require that each candidate for election to the Association shall furnish a certificate from two Members of the Association to whom he is personally known. Officers of the Navy, Army, and Indian Medical Services on the Active List are eligible for election through the Council or a Branch without approving signatures as laid down in By-law 3.

By-law 3.—Every candidate whose place of residence is not included in the area of any Branch shall forward his Application to the General Secretary of the Association, together with a statement signed by three members of the Association, that from personal knowledge they consider him a suitable person for election. Notice of the proposed election shall be sent by the General Secretary to every Member of the Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a Member of the Association by the Council at any meeting thereof held not less than one month after the date of the said notice.

The annual subscription to the British Medical Journal for non-members is £1 8s. 0d. for the United Kingdom and £1 12s. 6d. for abroad.

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

F THE
UNIVERSI Y OF ILLINO

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, APRIL 14TH, 1906.

CONTENTS.

PAGE
MEETINGS OF BRANCHES AND DIVISIONS:
Cape of Good Hope (Eastern Province) Branch: Grahamstown Division ... 173
Halifax and Nova Scotia Branch ... 173
South-Eastern Branch: Isle of Thanet Division ... 173
" " Reigate Division ... 174
South-Western Branch: Barnstaple Division ... 174
GRANTS FOR SCIENTIFIC RESEARCH ... 174
GENERAL MEDICAL COUNCIL: ELECTION OF DIRECT REPRESENTATIVES FOR ENGLAND AND WALES, NOVEMBER, 1906 ... 175
PAGE
ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD ... 176
VITAL STATISTICS ... 176
NAVAL AND MILITARY APPOINTMENTS ... 178
BRITISH MEDICAL ASSOCIATION LIBRARY ... 178
VACANCIES AND APPOINTMENTS... ... 179
BIRTHS, MARRIAGES, AND DEATHS ... 179
DIARY OF THE WEEK ... 179
BOOKS, ETC., RECEIVED... ... 179
CALENDAR ... 180

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

CAPE OF GOOD HOPE (EASTERN PROVINCE) BRANCH:

GRAHAMSTOWN DIVISION.

AN ordinary meeting of this Division was held on Friday, March 16th, in the Committee Room of the Albany General Hospital, at 8 p.m., Dr. J. BRUCE-BAYS in the chair. The meeting had been postponed from March 9th owing to the visit of H.E. the Governor to Grahamstown on that date. A letter from Dr. C. E. Jones-Phillipson was read, apologizing for his absence and for his inability to send cases as he had hoped.

Specimens.—The following specimens were then shown:—Dr. DRURY: Local melanosis in the lower eyelid—section. Kindly lent by C. B. LOCKWOOD, F.R.C.S.: Microphotograph showing bilharzia ova in the vermiform appendix. Shown for Dr. C. S. HAWES, now at Davos Platz: Blood film to demonstrate the estimation of the "opsonic index"; *Microsporon audouini* stained by Gram's method; pedunculated soft fibroma removed after twenty-five years' duration, on account of severe haemorrhage. Dr. DRURY: Pus from knee-joint, with diplococci. Dr. GREATHEAD: Specimen of fatal strangulation of ascending colon by an attenuated strand of omentum; small daughter-cysts from a case of hydatid disease infiltrating the os innominatum and destroying the sacro-iliac synchondrosis. Dr. PURVIS exhibited a microscopical section of the above case of Dr. Greathead's, showing the cysts lying in lacunae of bone. Dr. PURVIS also showed a section of scirrhus of an axillary gland. Dr. WROUGHTON: Horseshoe-shaped kidney with trifurcated ureter. Dr. MULLINS: Tuberculous ulceration of the bladder, etc.

Paper.—Dr. BRUCE-BAYS described an attempt to treat a granulating bedsore by application of a glass plate, which failed.

Letters, etc.—Letters were read from Dr. Grant, of Fort Beaufort, Mr. Smith Whitaker, and a wire from Dr. Jones-Phillipson.

Vote of Thanks.—A vote of thanks to the chairman of the hospital for the use of the committee-room closed the proceedings.

HALIFAX AND NOVA SCOTIA BRANCH.

The regular fortnightly meeting was held on February 28th.

Motion re Election of Representative.—Dr. C. D. MURRAY, seconded by Dr. T. J. F. MURPHY, moved a resolution deprecating the proposed grouping of this Branch with others for the election of one Representative on the Council. This was carried.

Model Tenements.—The Rev. Dr. ARMITAGE addressed the Branch, setting forth a proposition for the building of a block of model tenements in Halifax, and asking the interest of the Branch.

Communications.—Dr. C. DICKIE MURRAY, United States Immigration Inspector at Halifax, read a paper entitled The Medical Examination of Immigrants.—Dr. A. C. HAWKINS, Canadian Immigration Inspector at Halifax, followed with a paper on The Diseases of Immigrants.—These papers were discussed together.

The regular fortnightly meeting was held on March 14th.

Compulsory Registration of Births.—A motion was passed favouring the compulsory registration of births in Halifax, and a Committee was appointed to lay the matter before the City Council.

Patent Medicines.—On motion, a Committee was appointed to deal with the patent medicine question with a view to securing any necessary legislation.

Paper and Demonstration.—Dr. G. L. SINCLAIR read a paper on the medical aspects of hypnotism, supplementing it in a most interesting manner by hypnotizing several of the gentlemen present.

A meeting of the Branch Council was held after adjournment.

SOUTH-EASTERN BRANCH:

ISLE OF THANET DIVISION.

THE sixteenth meeting of this Division was held at St. Mildred's Hotel, Westgate, on March 30th, Dr. C. HEATON in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed.

The Division and Parliamentary Candidates.—The

Honorary Secretary reported that the candidates at the last general parliamentary election had been each personally interviewed by members of the Executive Committee of the Division, and had given answers in writing to the various medico-political questions brought forward by the Association, and that the answers were favourable to practically every question.

Medical Practitioners and Midwives.—A letter was read from Dr. Watts giving information that the guardians were prepared to pay fees on the Poor-law scale to private practitioners called in to assist midwives provided the practitioners informed the relieving officer forthwith, and provided the Board at the next meeting considered the cases to be those of destitution.

Registration of Nurses.—It was resolved that the discussion on the registration of nurses be adjourned.

Hospital Administration.—A discussion then took place on the report of the Hospital Committee on Hospital Administration. Dr. Thornton proposed, and Dr. Street seconded, a resolution that the report be not approved; this was rejected by a large majority. Dr. Watts proposed, and Dr. Raven seconded, a resolution that the report be approved, including the four recommendations and the special question at the end. This was carried.

Paper and Demonstration.—Mr. W. H. Clayton Greene, F.R.C.S., M.B., B.S., of St. Mary's and the French Hospitals, read a paper entitled Anuria. The paper was discussed, and Mr. Greene replied. Dr. Street showed and demonstrated an electric signalling apparatus for the use of invalids.

Annual Meeting of Division.—It was decided that the annual meeting should be held in Ramsgate in June.

Dinner.—A dinner was held after the meeting, at which eight members were present.

Reigate Division.

A meeting was held at the Cottage Hospital, Redhill, on April 5th, Dr. John Walter, J.P., in the chair.

Draft Charter.—The draft Charter of the Association was considered. It was proposed by the Chairman, and seconded by Dr. E. Bromet, M.A., etc., that the draft Charter be approved by this Division. This was carried unanimously.

SOUTH-WESTERN BRANCH:

Barnstaple Division.

A special meeting was held at the North Devon Infirmary, Barnstaple, on Wednesday, March 28th, at 3.30 p.m., Dr. Toye, Chairman, presiding.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Correspondence.—Letters of regret for non-attendance were read from Drs. Atkinson, Ware, and Chapman.—A communication received from the Medical Secretary *re* representation of the Division was placed before the meeting.

Paper.—Dr. Jonas read notes of a case of (toxic) fatty degeneration of liver.

Case.—Dr. Morris showed a case of cretinism improving under thyroid extract.

Microscopic Specimens.—Dr. Jonas showed microscopic specimens of: (1) Carcinoma of prostate; (2) fatty liver.

Contract Practice.—The resolutions respecting contract practice passed at the Annual Representative Meeting of the Association were discussed, with a view of discovering some means for carrying them into effect. It was resolved that for convenience of organization the Division should be split up into five subdivisions as under: (1) Lynton, Coombe Martin, Ilfracombe, and adjoining minor parishes; (2) Barnstaple, Ashford, Braunton, Pilton, Newport, and adjoining minor parishes; (3) Bideford, Westward Ho, Northam, Appledone, Torrington, Clovelly, Hartland, and adjoining minor parishes; (4) Bradworthy, Winkleigh, Dolton, High Bickington, Chumleigh, Marchard Witheridge, and adjoining minor parishes; (5) South Molton and North Molton. It was resolved that each subdivision be under the charge of a member of the Executive Committee, whose duties should be to convene a meeting of all the medical practitioners in each area at an early date, at which the suggestions of the Medico-Political Committee should be considered. It was resolved that all agreements so arrived at should be approved by the Executive Committee as a whole and finally ratified by a general meeting of the Division. Whether it would be possible to make such decisions binding under Rule G of the Ethical Committee was considered to be highly improbable, it being pointed out that if a member chose to put himself in opposition to his professional brethren he could still do so with comparative immunity by severing his connexion with the Association. On the proposition that contract practice should be thrown open and that private clubs should be abolished, Dr. Smyth moved as an amendment:

> That this Division expresses its approval of the resolution, but considers that it is not expedient to attempt to carry it into effect in this district at the present time.

This was seconded by Dr. Jonas. On the amendment being put to the meeting, it was carried by a majority of 2. It was agreed that steps be taken to obtain direct medical representation on the Managing Committees of all local organizations connected with contract practice.

Draft Charter.—It was resolved not to suggest any amendments to the draft of the proposed Royal charter.

Annual Meeting of Division.—It was decided to hold the forthcoming annual meeting at Ilfracombe on Wednesday, April 18th.

GRANTS FOR SCIENTIFIC RESEARCH.

The Council of the British Medical Association desires to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that it is prepared to receive applications for grants in aid of such research. Applications for sums to be granted, which must reach this office not later than May 31st, must include details of the precise character and objects of the research which is proposed, and must be made on forms to be had of the General Secretary, at the office of the Association, 429, Strand, London.

Every recipient is required to furnish to the Science Committee, on or before May 31st following upon the allotment of the grant, a report (or, if the object of the grant be not then attained, an interim report to be renewed at the same date in each subsequent year until a final report can be furnished) containing: (*a*) A brief statement for the Report of the Science Committee, showing the results arrived at, or the stage which the inquiry has reached; (*b*) a general statement of the expenditure incurred, accompanied, so far as is possible, with vouchers; (*c*) and references to any Transactions, Journals, or other publications in which the results of the research have been printed.

The work of the Grantees shall be subject to inspection.

Research Scholarships.

The Council of the British Medical Association is prepared to receive applications for three Research Scholarships, each of the value of £150 per annum, tenable for one year, and subject to renewal by the Council, provided the whole term of office has not exceeded three years.

The scholarships exist for the encouragement of research in Anatomy, Physiology, Pathology, Bacteriology, State Medicine, Clinical Medicine, and Clinical Surgery.

The Scholars' work shall be subject to inspection.

Applications for Scholarships must be made on forms to be had of the General Secretary, and returned on or before May 31st.

Ernest Hart Research Scholarship.

The Council of the British Medical Association is also prepared to receive applications for the Ernest Hart Memorial Scholarship of the value of £200 per annum, tenable for one year, but subject to renewal by the Council for another year. The Scholarship is for the study of some subject in the department of State Medicine.

N.B.—Applications for Scholarships and Grants should, as a rule, be accompanied by a recommendation from the head of the laboratory in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended, however, to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

Guy Elliston, *General Secretary.*

429, Strand,
April, 1906.

GENERAL MEDICAL COUNCIL.

ELECTION OF DIRECT REPRESENTATIVES FOR ENGLAND AND WALES, NOVEMBER, 1906.

Candidates Nominated by Divisions for Selection by the Representative Meeting on behalf of the Association.

THE following members of the Association have been nominated by the Divisions named to be candidates for election, and have accepted nomination in accordance with the terms of the scheme published in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL for October 7th, 1905. The list of Nominations by Divisions was closed on March 31st, as provided in the Scheme, and will not be republished except in the Agenda of the Representative Meeting.

Name.	*Address.*	*Nominating Division or Divisions.*
BROADBENT, GEORGE HARRY, M.R.C.S. ... (Member of Central Ethical Committee, Member of Lancashire and Cheshire Branch Council, and Representative of North Manchester Division.)	8, Ardwick Green, Manchester	MANCHESTER (NORTH).
BROWNE, HENRY LANGLEY, M.D., F.R.C.S.Ed. (Chairman of Council of the Association.)	Moor House, West Bromwich	CENTRAL BIRMINGHAM. CITY (LONDON). KENSINGTON. MARYLEBONE. SWANSEA.
BULLAR, JOHN FOLLETT, M.B., F.R.C.S. ... (Member of Branch Council, Southern Branch.)	7, Carlton Crescent, Southampton	WINCHESTER.
CLARK, ANDREW, F.R.C.S. ... ... (Member and late Chairman of Central Council, and President of the Metropolitan Counties Branch.)	71, Harley Street, W.	CITY (LONDON). MARYLEBONE. ST. PANCRAS AND ISLINGTON.
GODSON, ALFRED, M.B., M.C.Cantab.... ... (Chairman of the Stockport, Macclesfield, and East Cheshire Division.)	Cheadle House, Cheadle, Cheshire	STOCKPORT, MACCLESFIELD, and EAST CHESHIRE.
IELME, THOMAS ARTHUR, M.D., M.R.C.P. ... (Honorary Secretary and Treasurer of Lancashire and Cheshire Branch, Member of Central Council and Medico-Political Committee.)	3, St. Peter's Square, and Mayfield, Victoria Park, Manchester	MANCHESTER (CENTRAL). MANCHESTER (WEST).
ACKSON, GEORGE, F.R.C.S. ... ... (President of the South-Western Branch, and Member of the Medico-Political Committee.)	10, Portland Villas, Plymouth	EXETER. GATESHEAD. KENSINGTON. MANCHESTER (NORTH). PLYMOUTH.
ATIMER, HENRY ARTHUR, M.D. ... ... (Chairman and Representative of Swansea Division, Member of Medico-Political Committee.)	4, Belvoir Place, Swansea	SWANSEA.
IcMANUS, LEONARD STRONG, M.D. ... ... (Representative of Wandsworth Division, Member of Medico-Political Committee.)	25, Spencer Park, Wandsworth Common, S.W.	STRATFORD. WANDSWORTH.
ORISON, JAMES RUTHERFORD, F.R.C.S. ... (Member of Branch Council and Chairman of Northumberland Committee, North of England Branch.)	14, Saville Row, Newcastle-on-Tyne	BLYTH (CLEVELAND). CONSETT. FURNESS. GATESHEAD. MARYLEBONE. NEWCASTLE-ON-TYNE. NORTH NORTHUMBERLAND. SOUTH SHIELDS. STOCKTON-ON-TEES. SUNDERLAND.
ENSHAW, CHARLES JEREMIAH, M.D., F.F.P.S.Glas. ... Representative on Lancashire and Cheshire Branch Council and ex-Chairman of Altrincham Division.)	Beech Hurst, Ashton-on-Mersey, Lancashire	ALTRINCHAM. MANCHESTER (CENTRAL). MANCHESTER (WEST).
IODES, JOHN MILSON, M.D. ... ... (Chairman of South Manchester Division, Lancashire and Cheshire Branch.)	Ivy Lodge, Didsbury, Manchester	MANCHESTER (CENTRAL). MANCHESTER (SOUTH).
IITH, FREDERICK JOHN, F.R.C.P., M.D. ... Ionorary Secretary, Metropolitan Counties Branch.)	138, Harley Street, W.	STRATFORD.
RATON, CHARLES ROBERT, F.R.C.S.EDIN.... (Member of Central Council, Medico-Political Committee and Colonial Committee.)	West Lodge, Wilton, Salisbury	WANDSWORTH. WINCHESTER.

April 11th.

J. SMITH WHITAKER, *Medical Secretary.*

☞ *To ensure the insertion of notices in this column, they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

Association Notices.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Notice is given that the Library will be closed from Thursday next, April 12th, to Tuesday, April 17th.

April 5th. Guy Elliston, *General Secretary.*

BRANCH AND DIVISION MEETINGS TO BE HELD.

Birmingham Branch.—The annual meeting of the Birmingham Branch will be held at the Medical Institute on Thursday, June 14th, at 3.30 p.m., and nominations for offices should reach the Honorary Secretary not later than May 23rd.—T. Sydney Short, Honorary Secretary, 85, Edmund Street, Birmingham.

Border Counties Branch.—The next meeting of this Branch will be held in Keswick on Friday, May 4th. Any member who desires to make a communication to the meeting is requested to inform the Secretary at his earliest convenience. Fuller details of arrangements will be published later. —Francis R. Hill, Carlisle, Honorary Secretary.

Border Counties Branch: Scottish Division.—A meeting of this Division will be held in Dumfries about the middle or end of April. Members who have business or communications to bring before the meeting are requested to give notice to the Secretary.—George R. Livingston, Honorary Secretary, Dumfries.

Lancashire and Cheshire Branch.—In accordance with By-law 24, notice is hereby given that nominations of Representatives of this Branch in the Council of the Association must be received by me, duly signed and in writing, on or before May 1st, 1906.—T. Arthur Helme, M.D., Honorary Secretary, 3, St. Peter's Square, Manchester.

Lancashire and Cheshire Branch: Altrincham Division.—A special meeting of this Division will be held on Thursday, April 19th, at Altrincham, at 6 p.m. (Committee at 5 p.m.).—T. W. H. Garstang, Edge Mount, Altrincham, Honorary Secretary.

Lancashire and Cheshire Branch: Leigh Division.—The monthly meeting of the Division will be held at 8.30 p.m. on Thursday, April 19th, at the Co-operative Rooms, Ellesmere Street. Agenda: (1) Minutes; (2) correspondence; (3) notices of motion for Representative Meeting; (4) suggestion for collective investigation by the members of the Division; (5) formation of library; (6) anyother business.—M. J. Halton, Honorary Secretary.

Metropolitan Counties Branch: St. Pancras and Islington Division.—The next meeting will be held on Friday, April 27th, at the St. Pancras Infirmary, in Pancras Road, London, N.W., at 4 p.m. Agenda: (1) To consider the clauses of the Draft Charter, which will be explained by Mr. J. Smith Whitaker. (2) Hospital out-patient reform. (3) The registration of nurses.—Wm. Wynn Westcott, Secretary.

Metropolitan Counties Branch: Tottenham and City Divisions.—A conjoint meeting will be held on Thursday, April 19th, at 8.30 p.m., at Brooke House, Upper Clapton (by the kind invitation of Dr. J. O. Adams). Dr. J. H. Sequeira will read a paper on the Various Forms of Ringworm and their Treatment. The paper will be illustrated by lantern slides. Members are invited to bring their professional friends.—Fred. Tresilian, Honorary Secretary, Tottenham Division; E. W. Goodall, Honorary Secretary, City Division.

Metropolitan Counties and South-Eastern Branches.—A conjoint meeting of the Chelsea, Westminster, Lambeth, Norwood, Croydon, Richmond, and Wandsworth Divisions will be held at the Battersea Town Hall, Clapham Junction, at 3.45 p.m. on Thursday, April 19th, to discuss the proposed Royal Charter. Dr. T. Jenner Verrall, Chairman Organization Committee, will address the meeting, followed by the Medical Secretary. The Presidents of the two Branches, as well as others, will be attending. All members of the Association who care to attend will be welcomed.—E. R. Fothergill, J. R. Johnson, P. H. Parsons, H. J. Prangley, W. K. Sibley, W. H. B. Stoddart, and E. H. Willock, Honorary Secretaries.

North of England Branch.—A meeting of the North of England Branch will be held on Wednesday, April 25th, at Stockton-on-Tees. Members wishing to read papers or show cases are requested to inform Dr. Cox as soon as possible.—Alfred Cox, J. H. Hunter, Honorary Secretaries.

North Wales Branch.—A meeting of this Branch will be held at Rhyl on Tuesday, April 24th, at 2 p.m. Members having papers to read, cases to communicate, or specimens are requested to send notice before the 14th April to the Honorary Secretary, H. Jones Roberts, Penygroes.

South-Eastern of Ireland Branch.—The annual meeting of this Branch will be held at the Victoria Hotel, Kilkenny, on May 2nd, at 12 noon. Agenda: (1) To receive annual report of Branch; (2) to elect officers; (3) motion by Honorary Secretary to have a code of ethical rules adopted by Branch; (4) any other business. Members are requested to notify their intention of reading papers.—J. Quirke, M.D., Piltown, Honorary Secretary.

South Midland Branch.—In accordance with the by-laws, nominations of a member of Central Council to represent this Branch must reach me on or before 12th May, 1906.—E. Harries Jones, Honorary Secretary, 45, Sheep Street, Northampton.

South Wales and Monmouthshire Branch: Cardiff Division.—An ordinary general meeting of this Division will be held at the Cardiff Infirmary on Thursday, April 26th, at 3.15 p.m. Agenda: (1) Minutes of last meeting. (2) Dr. T. Garrett Horder will move, "That in the opinion of this Division it is not desirable that any member should hold two official positions at the same time, either in a Branch or a Division, and that the Central Council be requested to draw up a regulation to that effect." (3) To consider the proposed Royal Charter of incorporation to the British Medical Association. (4) To consider the report of the Medico-Political Committee on the proposed registration of nurses. (5) Mr. F. P. S. Cresswell will show a patient who has marked ptosis, associated with a tumour in the malar region of a doubtful nature.—Ewen J. Maclean, R. Russell Thomas, Honorary Secretaries.

South-Western Branch: Barnstaple Division.—The annual meeting will be held at the Queen's Hotel, High Street, Ilfracombe, on Wednesday, April 18th, at 2.30 p.m. Papers.—Dr. Toye: (1) Haemorrhage from the Ear; (2) Should Fishing be permitted in the Public Reservoirs? Mr. W. F. Kendle: Notes on a Case of Pancreatic Abscess. Business: To read and confirm minutes; to consider the special report on public Medical Services, the adoption of which will be formally moved by the Honorary Secretary (N.B.—It will facilitate business if members will hand the Honorary Secretary copies of proposed amendments before the commencement of the meeting); to receive annual report; to elect Chairman for the ensuing year; to elect Vice-Chairman; to elect Executive Committee; to elect Honorary Secretary and Treasurer; to elect Representative for Representative Meeting; to elect Representative on Branch Council. Clinical: Dr. Toller will exhibit the electrical installation at the Hydro at the conclusion of the meeting. Gentlemen who wish to lunch at the Queen's Hotel before the meeting are requested to communicate direct with Dr. Kettlewell, Capstone Lodge, Ilfracombe, on or before Saturday, April 14th.—F. W. Kendle, Honorary Secretary.

Vital Statistics.

VITAL STATISTICS OF LONDON DURING THE FIRST QUARTER OF 1906.

[Specially Reported for the British Medical Journal.]

In the accompanying table will be found summarized the vital statistics of the metropolitan boroughs and of the City of London, based upon the Registrar-General's returns for the first, or winter, quarter of the year. The mortality figures in the table relate to the deaths of persons actually belonging to the various boroughs, and are the result of a complete system of distribution of the deaths in public institutions among the several boroughs in which the deceased persons had previously resided.

The 32,670 births registered in London during the three months under notice were equal to an annual rate of 27.8 per 1,000 of the population, estimated at 4,721,217 persons in the middle of the year; in the corresponding quarters of the three preceding years the rates had been 29.1, 28.7, and 28.5 per 1,000 respectively, the average rate for the first quarters of the ten years 1896-1905 being 30.2 per 1,000. The birth-rates last quarter ranged from 14.9 in Hampstead, 16.5 in the City of Westminster, 18.0 in the City of London, 19.0 in Stoke Newington, 19.6 in Kensington and 21.8 in Chelsea to 32.5 in St. Marylebone, 33.9 in Shoreditch, 34.0 in Poplar, 35.3 in Bethnal Green, 36.8 in Finsbury, and 37.4 in Stepney.

Analysis of the Vital Statistics of the Metropolitan Boroughs and of the City of London after Distribution of Deaths occurring in Public Institutions during the First Quarter of 1906.

Boroughs.	Estimated Population middle of 1906.	Births.	Deaths.	Annual Rate per 1,000 Living.			Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Typhus.	Enteric Fever.	Simple and Ill-defined Fever.	Diarrhoea.	Phthisis.	Deaths of Children Under 1 Year of Age to 1,000 Births.
				Births.	Deaths.	Principal Infectious Diseases.												
COUNTY OF LONDON	4,721,217	32,670	18,834	27.8	16.0	1.42	1,671	—	680	129	193	456	—	44	—	169	1,783	115
Paddington	148,913	815	471	22.0	12.7	0.65	24	—	4	2	3	4	—	3	—	8	46	86
Kensington	180,952	883	609	19.6	13.5	0.86	39	—	21	2	5	4	—	2	—	5	52	108
Hammersmith ...	120,679	788	462	26.2	15.4	1.89	57	—	35	—	8	7	—	—	—	7	42	129
Fulham	161,965	1,203	545	29.8	13.5	1.21	49	—	23	4	8	6	—	3	—	5	46	116
Chelsea	74,672	405	328	21.8	17.6	1.35	25	—	10	1	7	2	—	—	—	5	43	109
City of Westminster	173,905	714	606	16.5	14.0	0.49	21	—	3	3	5	6	—	—	—	4	59	118
St. Marylebone ...	128,580	1,041	502	32.5	15.7	0.77	25	—	9	3	1	7	—	1	—	4	53	82
Hampstead	89,633	333	245	14.9	11.0	0.12	3	—	1	1	1	—	—	—	—	—	19	99
St. Pancras	236,455	1,509	1,012	25.6	17.2	1.35	80	—	23	10	3	40	—	2	—	2	105	129
Islington	344,987	2,212	1,394	25.7	16.2	1.65	142	—	95	10	9	22	—	1	—	5	119	123
Stoke Newington ...	53,217	252	168	19.0	12.7	1.13	15	—	4	—	2	9	—	—	—	—	22	83
Hackney	230,721	1,542	817	26.8	14.2	0.56	32	—	6	5	3	13	—	1	—	4	87	99
Holborn	55,805	435	257	31.3	18.5	0.65	9	—	1	1	1	3	—	—	—	3	33	83
Finsbury	97,466	893	492	36.8	20.2	2.29	56	—	30	3	6	11	—	2	—	4	70	91
City of London ...	21,367	96	88	18.0	16.5	1.13	6	—	—	3	1	2	—	—	—	—	9	125
Shoreditch	116,108	981	618	33.9	21.4	2.14	62	—	17	3	5	28	—	1	—	8	59	144
Bethnal Green ...	130,609	1,148	655	35.3	20.1	1.69	55	—	13	7	6	24	—	2	—	3	71	151
Stepney	307,176	2,866	1,388	37.4	18.1	2.12	162	—	44	10	24	61	—	5	—	18	121	111
Poplar	170,673	1,445	743	34.0	17.5	1.73	73	—	11	8	8	30	—	3	—	13	58	120
Southwark	209,143	1,669	998	32.0	19.1	1.61	84	—	46	13	8	10	—	1	—	6	105	124
Bermondsey	128,629	1,035	621	32.3	19.4	1.63	52	—	14	5	8	16	—	—	—	9	54	134
Lambeth	315,774	2,314	1,330	29.4	16.9	1.57	124	—	54	12	11	30	—	5	—	12	137	111
Battersea	179,622	1,231	638	27.5	14.2	1.36	61	—	21	4	3	19	—	1	—	13	67	125
Wandsworth	273,381	1,708	883	25.1	13.0	1.06	72	—	27	4	14	16	—	3	—	8	81	104
Camberwell	274,132	1,760	1,098	25.8	16.1	2.03	138	—	81	4	15	25	—	3	—	10	82	113
Deptford	115,495	899	546	31.2	19.0	3.43	99	—	55	7	3	28	—	2	—	4	35	128
Greenwich	105,350	688	374	26.2	14.2	1.95	51	—	17	2	11	18	—	—	—	3	36	113
Lewisham	148,463	857	494	23.2	13.3	0.86	32	—	13	2	7	6	—	—	—	4	33	113
Woolwich	127,345	948	452	29.9	14.2	0.71	23	—	2	—	7	9	—	3	—	2	39	99

The 18,834 deaths of persons belonging to London registered during last quarter were equal to an annual rate of 16.0 per 1,000, against 16.8, 17.8, and 16.2 per 1,000 in the first quarters of the three preceding years; in the corresponding quarters of the ten preceding years the mean rate was 19.3 per 1,000. The death-rates last quarter in the various boroughs ranged from 11.0 in Hampstead, 12.7 in Paddington and in Stoke Newington, 13.0 in Wandsworth, 13.3 in Lewisham, and 13.5 in Fulham and in Kensington to 19.0 in Deptford, 19.1 in Southwark, 19.4 in Bermondsey, 20.1 in Bethnal Green, 20.2 in Finsbury, and 21.4 in Shoreditch.

During last quarter 1,671 deaths were referred to the principal infectious diseases; of these 680 resulted from measles, 129 from scarlet fever, 193 from diphtheria, 456 from whooping-cough, 44 from enteric fever, and 169 from diarrhoea, but not any from small-pox, from typhus, or from ill-defined pyrexia. These 1,671 deaths were equal to an annual rate of 1.42 per 1,000 against an average rate of 1.98 per 1,000 in the first quarter of the ten preceding years. The lowest death-rates last quarter from these infectious diseases were 0.12 in Hampstead, 0.49 in the City of Westminster, 0.56 in Hackney, 0.65 in Paddington and in Holborn, and 0.71 in Woolwich; the highest rates were 1.89 in Hammersmith, 1.95 in Greenwich, 2.03 in Camberwell, 2.12 in Stepney, 2.14 in Shoreditch, 2.29 in Finsbury, and 3.43 in Deptford. Measles showed the greatest proportional mortality in Hammersmith, Islington, Finsbury, Southwark, Camberwell, and Deptford; scarlet fever in St. Pancras, the City of London, Bethnal Green, Poplar, Southwark, and Deptford; diphtheria in Hammersmith, Chelsea, Finsbury, Stepney, Bermondsey, and Greenwich; whooping-cough in Shoreditch, Bethnal Green, Stepney, Poplar, Deptford, and Greenwich; "fever" in Paddington, Fulham, Finsbury, Stepney, Poplar, Deptford and Woolwich; and diarrhoea in Hammersmith, Chelsea, Shoreditch, Stepney, Poplar, Bermondsey, and Battersea.

During the three months under notice 1,783 deaths from phthisis were registered, equal to an annual rate of 1.52 per 1,000, the rates in the corresponding quarter of the three preceding years having been 1.66, 1.77, and 1.55 per 1,000 respectively. Among the various boroughs the lowest death-rates from phthisis were recorded last quarter in Kensington, Fulham, Hampstead, Wandsworth, Camberwell, and Lewisham; and the highest rates in Chelsea, Holborn, Finsbury, Shoreditch, Bethnal Green, and Southwark.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 115 per 1,000 last quarter, against 127, 133, and 114 per 1,000 in the corresponding quarters of the three preceding years; the mean rate in the first quarters of the ten years 1896-1905 was 131 per 1,000. The lowest rates of infant mortality last quarter were recorded in Paddington, St. Marylebone, Stoke Newington, Holborn, and Finsbury; and the highest rates in Hammersmith, St. Pancras, Shoreditch, Bethnal Green, Bermondsey, and Deptford.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,943 births and 5,157 deaths were registered during the week ending Saturday last, April 7th. The annual rate of mortality in these towns, which had been 16.2, 15.8, and 17.0 per 1,000 in the three preceding weeks, was again 17.0 per 1,000 last week. The rates in the several towns ranged from 8.4 in Willesden, 8.9 in Aston Manor, 9.3 in Leyton and in King's Norton, 9.6 in East Ham, and 9.9 in Burton-on-Trent, to 22.0 in Sunderland, 22.5 in Plymouth, 22.7 in Liverpool, 23.8 in Reading, 25.4 in Burnley, 27.1 in Warrington, and 28.1 in Middlesbrough. In London the death-rate was 16.8 per 1,000, while it averaged 17.1 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases in these towns averaged 1.5 per 1,000; in London this death-rate was equal to 1.6 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 2.6 in Bristol and in Leyton, 3.0 in Walthamstow, in Burton-on-Trent, and in Liverpool, 3.2 in Smethwick, and 4.5 in Warrington. Measles caused a death-rate of 1.1 in Leeds, 1.3 in Bradford, 1.4 in Croydon, 1.6 in Liverpool and Blackburn, 1.7 in Newcastle-on-Tyne, 2.1 in Walthamstow, and 2.4 in Hornsey; diphtheria of 1.1 in Walsall; whooping-cough of 1.1 in Bristol, 1.5 in West Bromwich, 1.6 in Handsworth (Staffs.) and in Smethwick; 2.2 in Plymouth, and 2.3 in Warrington; and diarrhoea of 1.2 in Rochdale, and 1.6 in Smethwick. The mortality from scarlet fever and from enteric fever showed no marked excess in any of the large towns. No fatal case of small-pox was registered last week in any of the seventy-six towns. The number of small-pox patients under treatment in the Metropolitan Asylums Hospitals, which had been 7, 10, and 8 at the end of the three preceding weeks, was again 8 at the end of last week; no new cases were admitted during the week, against 1.5 and none in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 2,322, against 2,485, 2,434, and 2,386 at the end of the three preceding weeks; 292 new cases were admitted during the week, against 252, 234, and 223 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, April 7th, 1,033 births and 665 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 19.3, 18.0, and 18.9 per 1,000 in the three preceding weeks, rose again to 19.4 per 1,000 last week, and was 2.4 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the rates ranged from 17.9 in Glasgow and 18.0 in Aberdeen to 22.2 in Paisley and 2.34 in Dundee. The death-rate from the principal infectious diseases in these towns averaged 1.5 per 1,000, the highest rates being recorded in Paisley and Perth. The 287 deaths registered in Glasgow included 8 which were referred to measles, 8 to whooping-cough, and 5 to diarrhoea. Four fatal cases of measles and 2 of diarrhoea were recorded in Edinburgh. Three deaths from measles and 2 from diarrhoea occurred in Dundee; 5 from measles and 2 from diarrhoea in Paisley; and 2 from diarrhoea in Perth.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, April 7th, 534 births and 389 deaths were registered in six of the principal Irish towns, as against 650 births and 482 deaths in the preceding period. The annual death-rate in these towns, which had been 19.4, 23.6, and 26.6 per 1,000 in the three preceding weeks, fell to 21.2 per 1,000 in the week under notice, this figure being 4.2 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 13.7 in Cork and 17.4 in Londonderry to 24.6 in Belfast and 31.4 in Limerick. The zymotic death-rate in the same six Irish towns averaged 1.0 per 1,000, or 0.7 per 1,000 lower than during the preceding period, the highest—3.2—figure being recorded in Belfast, while no deaths under this heading were recorded in Cork, Limerick, or Waterford.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

The following appointments have been made at the Admiralty: Herbert H. Gill, M.B., Staff Surgeon, to the *President*, additional, for three months' study at Dreadnought Hospital, Greenwich; John H. Pead, M.B., Staff Surgeon, to the *President*, additional, for three months' study at St. Bartholomew's Hospital, both dated April 9th; Walter H. Sequiera, Staff Surgeon, to *Charybdis*, vice Pead, April 5th; Alan G. Eastment, Surgeon, to the *Thetis*, vice Gill, April 9th, and Maurice T. Male, M.B., Surgeon, to the *Russell*, vice Thomson.

ROYAL ARMY MEDICAL CORPS.

Exchange.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

Officer, R.A.M.C., to go to India early 1907, desires exchange with a Lieutenant-Colonel or a Major due for promotion within the next ten months. Apply: Nodor, c.o. Sir C. McGrigor, 25, Charles Street, S.W.

Major John H. Rivers and Captain Hamilton G. F. Stallard have received authority to accept and wear the decoration of the Imperial Ottoman Order of Osmanieh (Fourth Class) conferred upon them by the Khedive of Egypt, authorized by the Sultan of Turkey, April 3rd. Major Rivers has been employed with the Egyptian army since January 17th, 1899, and Captain Stallard since January 7th, 1899.

Lieutenant-Colonel C. W. S. Magrath, M.D., having written a specially good essay during 1905-6, the fact has been recorded in the confidential report of the Chief of the General Staff.

Lieutenant-Colonel George J. Coates, M.D., from half-pay, is gazetted Lieutenant-Colonel, with precedence next below L. W. Swabey, March 13th.

Captain P. S. O'Reilly has been posted to the Cambridge Hospital at Aldershot, for duty, on completion of a course at the Dépôt.

Lieutenants J. A. Anderson and H. C. Sherren, now at the Queen Alexandra Hospital, Millbank, have been appointed to the Southern Command.

Lieutenant-Colonel W. A. Morris has been appointed to command the Station Hospital, Murree, vice Lieutenant-Colonel C. C. Reilly, vacated.

Quartermaster and Honorary-Lieutenant John Matthews has been granted the honorary rank of Captain, under date March 25th.

INDIAN MEDICAL SERVICE.

The retirement from the service of the undermentioned officers has been notified: Lieutenant-Colonel Frederick W. Wright, D.S.O. (Bengal Establishment). December 7th, 1905; Lieutenant-Colonel Eugene Cretin, M.B. (Bengal Establishment), December 31st, 1905; and Lieutenant-Colonel Gerard M. E. McKee (Madras Establishment), March 14th. Lieutenant-Colonel Wright was appointed Surgeon on April 1st, 1873, and became Surgeon-Lieutenant-Colonel on April 1st, 1893. He took part in the Afghan war of 1878-80, and was present at the actions of Jugdulluk and Charasiah. He was in the march from Kabul to Kandahar and at the battle on September 1st, as well as in the operations against the Maris (medal with clasp and bronze star). Lieutenant-Colonel Wright also saw service in the Burmese Expedition (1886-8), being mentioned in dispatches and receiving the D.S.O. (medal with clasp); in the expedition to China in 1900 (medal) and the North-West Frontier of India (Waziristan) 1901-2 (medal with clasp). Lieutenant-Colonel E. Cretin's commission as Surgeon was dated March 30th, 1878, and that of Surgeon-Lieutenant-Colonel, March 30th, 1898. His war services comprise the Afghan war, 1880, where he took part in the action of Kam Dakka, the Lughman Valley expedition, and the affair of Hissarlik (medal); the Burmese expedition, 1885-7 (medal with clasp); the expedition to Dongola, 1896 (medal); and operations on the North-West Frontier of India, at Tochi, 1897-8 (medal with clasp). Lieutenant-Colonel McKee entered the service as Surgeon on October 2nd, 1880, and became Lieutenant-Colonel on October 2nd, 1900. He took part in the Burmese expedition, 1885-7, receiving the medal with clasp, and in the expedition to China, 1900 medal).

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Lieutenant Francis E. Fremantle, M.B., Herts Imperial Yeomanry, is appointed Surgeon-Captain, to date April 7th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

Captain J. Macdonald, M.B., is promoted to be Major in the Seaforth and Cameron Bearer Company, March 31st.

Alfred E. Royce is appointed Quartermaster with the honorary rank of Lieutenant in the Manchester Companies of the Northern Command, March 31st.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

James H. H. Pirie to be Surgeon-Lieutenant of the 1st Edinburgh (City), dated March 31st.

ROYAL ENGINEERS (VOLUNTEERS).

Surgeon-Captain A. H. Croucher, M.D., resigns his commission in the 1st Sussex, March 31st.

VOLUNTEER RIFLES.

Surgeon-Captain J. A. Clark, M.B., Queen's R.V. Brigade Lothian Regiment (Royal Scots) to be Surgeon-Major, March 31st.

Supernumerary Surgeon-Lieutenant F. N. Grinling (commanding Tyne Volunteer Infantry Brigade Bearer Company) to be Surgeon-Captain, 2nd V.B. Northumberland Fusiliers, remaining supernumerary, March 31st.

Surgeon-Captain C. S. de Segundo, M.B., 20th Middlesex (Artists), is granted the honorary rank of Surgeon-Major, March 12th.

Civil Practitioner William Lockwood has been appointed Surgeon and Agent at Worthing and Lancing, vice Parish, to date April 2nd, and Civil Practitioner Walter T. James has been appointed Surgeon and Agent at New Quay, Cardigan, vice Evans, April 5th.

BRITISH MEDICAL ASSOCIATION LIBRARY.

Books Needed to Complete Series:

The Librarian will be glad to receive any of the following volumes, which are needed to complete series in the Library:

American Climatological Transactions. Vols. 1, 4, 5, 6.
——— Dermatological Association Transactions. Vols. 5, 7, 8, 11, and 29.
——— Journal of the Medical Sciences. New series, vols. 4, 5, 1842-3; vols. 14, 15, 1847-8; vols. 18-30, 1850; vol. 33, 1857; vol. 46, 1864-5; vol. 59; or any parts of these vols.
——— Journal of Ophthalmology. Vols. 1-9.
——— Laryngological Association. Transactions. Vols. 1-6, 8-9.
——— Medical Association. Transactions, 1-28, 30, 31.
——— Otological Society. Transactions. Vol. 3, part 2, 1883.
——— Public Health Association. Transactions. Any vols.
Analyst. Vols. 1-24.
Archiv für Dermatologie und Syphilis. Prior to 1874, 1892, and 1893.
Annals of Surgery. Vols. 1, 11, 13-16, and 26, 27.
Archives Générales de Médecine. 1831-9 inclusive; 1846-55 inclusive; 1857-64 inclusive; 1871.
——— of Ophthalmology. Vols. 1-3, 6, 7, 14, 15, 16 and 20.
——— of Otology. Vols. 1-7, and 20-22.
——— of Pediatrics. Vols. 1-11.
Asylum Journal of Mental Science. Vol. 1, 1854.

Bentley and Trimen. Atlas of Medicinal Plants.
British Journal of Dermatology. Vol. 2, part 3.
British Laryngological and Rhinological Association. 1900-1-2.

Caledonian Medical Journal. Vol. 1 prior to 1894.
Carmichael Essays. Rivington, 1879.
Centralblatt für Augenheilkunde. Hirschberg. All prior to 1891, Index to 1891.
Centralbatt für Bakteriologie. Bound volumes prior to 1899.
——— für klinische Medicin. 1880-3; all 1888, 1891, No. 26, ; 1892. No. 17.
——— für medicinischen Wissenschaften. Vols. 1-19.
Congrès Français de Chirurgie. Transactions 1, 2, 3, 6, and 10.
——— Internat. d'Obstétrique et de Gynécologie. 3. Amsterdam, 1899.
Connecticut State Board of Health Report. Vol. 11. 1887-8.

Dermatological Congress. Vienna, 1892.
Dublin Quarterly Journal of the Medical Sciences. Vols. 1, 10, 17, 20, 28, and 35-40.

Edinburgh Obstetrical Society. Transactions. Vol. 5.

Glasgow Medical Journal. 1833-68.
——— Pathological Society. Transactions. Vols. 1 and 2.
Guy's Hospital Gazette. Nos. 1 and 5, 1872; and 1881-86 inclusive.

Hunterian Transactions containing 76th Report.

Indian Medical Gazette. 1866-84.
International Congress of Hygiene. Congresses 1 to 6 and 10 to 12.
——— Ophthalmological Congress. Transactions of 5th, New York, 1876.

Johns Hopkins Hospital Bulletin. Vols. 1-10.
Journal of Laryngology. Vols. 1-9.

Neurologisches Centralblatt. Nos. 23, 1904.

Ophthalmic Review, January, 1882.

Pediatrics, prior to 1902.
Pollatschek. Therapeutische Leistungen des Jahres. 1894, 1895, 1900.
Provincial Medical and Surgical Journal. March to September, 1841.

Recueil d'Ophtalmologie. 1891, January-June; 1892, December.
Registrar-General's Decennial Report, 1871-80.
Revue Générale d'Ophtalmologie. Prior to 1888, and 1891-2.

St. Bartholomew's Hospital Gazette. Vols. 1-6.
St. George's Hospital Gazette, 1-7.
St. Mary's Hospital Gazette, 1-5.
Sei-i-Kwai Medical Journal. Vols. 1-11.
Semaine Médicale. Prior to 1890, and title and index to year 1892.
South African Medical Journal. February, April, 1895. And titles for vols. 3 and 4.

Vacancies and Appointments.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

BIRKENHEAD BOROUGH HOSPITAL.—Junior Resident House-Surgeon. Salary, £80 per annum.

BIRMINGHAM: GENERAL HOSPITAL.—House-Surgeon. Salary at the rate of £50 per annum.

BODMIN: CORNWALL COUNTY ASYLUM.—Third Assistant Medical Officer. Salary, £135, rising to £155 per annum.

BRIDGWATER HOSPITAL.—House-Surgeon. Salary, £80 per annum.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House-Physician. Salary, £90 per annum.

CARLISLE: CUMBERLAND AND WESTMORLAND ASYLUM, Garlands.—Junior Assistant Medical Officer. Salary, £130, rising to £150, per annum.

DUDLEY: GUEST HOSPITAL.—Assistant House-Surgeon. Salary, £40 per annum.

DUNFERMLINE: CARNEGIE TRUST.—Female Assistant Medical Officer, holding D.P.H. Salary, £200 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Assistant Surgeon to Out-patients.

ESSEX AND COLCHESTER HOSPITAL.—(1) Honorary Assistant Surgeon; (2) House-Surgeon, salary £100 per annum.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Surgeon to Out-patients.

GARTCOSH: GARTLOCH ASYLUM.—Assistant Medical Officer. Salary, £125 per annum.

HALIFAX ROYAL INFIRMARY.—Second House-Surgeon. Salary, £100 per annum.

HALSTEAD UNION.—Two District Medical Officers. Salary, £36 to £75 per annum respectively.

HEMEL HEMPSTEAD: WEST HERTS INFIRMARY.—House-Surgeon Assistant-Secretary. Salary (combined), £110 per annum.

HOSPITAL FOR WOMEN, Soho Square, W.—House-Physician. Salary, £60 for six months.

HUDDERSFIELD INFIRMARY.—Male Junior House-Surgeon. Salary, £50 per annum.

HULL ROYAL INFIRMARY.—Honorary Assistant Ophthalmic Surgeon for Out-patient Department.

KILLARNEY DISTRICT LUNATIC ASYLUM.—Resident Medical Superintendent. Salary, £450 per annum.

KNIGHTON UNION.—District Medical Officer. Salary, £40 per annum.

LEEDS TUBERCULOSIS ASSOCIATION.—Resident Medical Officer at the Sanatorium, Gateforth. Salary at the rate of £100 per annum.

LIVERPOOL INFIRMARY FOR CHILDREN.—House-Surgeon. Salary, £100 per annum.

LIVERPOOL: STANLEY HOSPITAL.—House-Surgeon. Salary, £60 per annum.

MAIDSTONE: WEST KENT GENERAL HOSPITAL.—(1) House-Surgeon; (2) Assistant House-Surgeon and Anaesthetist. Salary, £100 and £80 per annum respectively.

ANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST.—Resident Medical Officer. Salary, £100 per annum.

ARGATE: ROYAL SEA-BATHING HOSPITAL.—Resident Surgeon, to act as Junior and Senior for six months. Salary at the rate of £80 and £120 per annum respectively.

ONTROSE ROYAL ASYLUM.—Senior Assistant Medical Officer. Salary commencing at £200 per annum.

LDHAM INFIRMARY.—Junior House-Surgeon. Salary, £75 per annum.

OYAL FREE HOSPITAL, Gray's Inn Road, W.C.—(1) Assistant to Clinical Pathologist, £50 per annum; (2) Assistant Anaesthetist.

T. GEORGE'S UNION.—Second Assistant Medical Officer at the Infirmary, Fulham Road. Salary, £120 per annum.

HEFFIELD UNION HOSPITAL.—(1) Resident Medical Officer; (2) Resident Assistant Medical Officer. Salary, £100 and £80 per annum respectively, and allowance of £20 each for extra services.

HREWSBURY: SALOP INFIRMARY.—House-Surgeon. Salary, £100 per annum.

OUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Senior House-Surgeon. Salary, £100 per annum.

OTTENHAM HOSPITAL.—(1) House-Surgeon; (2) House-Physician; (3) Casualty Officer. Salaries at the rate of £90, £60, and £40 per annum respectively.

NIVERSITY COLLEGE HOSPITAL.—Resident Medical Officer.

IRGINIA WATER: HOLLOWAY SANATORIUM.—Junior Assistant Medical Officer. Salary to begin, £175 per annum.

EST RIDING OF YORKSHIRE.—Assistant to County Medical Officer. Salary, £250, rising to £400 per annum.

REXHAM INFIRMARY.—Resident House-Surgeon. Salary, £80 per annum.

APPOINTMENTS.

IKEN, A., L.R.C.P. and S.Irel., Certifying Factory Surgeon for the Irvinestown District, co. Fermanagh.

EAVER, R. A., M.D.Vict., Medical Officer of the Sturminster Union Workhouse.

IRD, G. W. H., M.B., B.C.Cantab., Medical Officer of Health, Bridgwater Port Sanitary Authority.

RY, F. G., L.R.C.P., M.R.C.S.Eng., District Medical Officer of the Sturminster Union.

RDEW, H. J., M.A.Cantab, M.R.C.S., L.R.C.P.Lond., House-Physician to the Royal South Hants and Southampton Hospital.

HUTT, C. W., B.A.Cantab., M.R.C.S., L.R.C.P.Lond., Junior House-Surgeon to the Royal South Hants and Southampton Hospital.

JOHNSON, J. B., M.D., C.M.Montreal, L.S.A., District Medical Officer of the Sturminster Union.

SANDILANDS, J. E., M.D., D.P.H.Camb., Medical Officer of Health for Winchester.

SPERBER, S. S., L.R.C.P. and S.Edin., L.F.P.S.Glas., Resident Medical Officer to the Manchester Victoria Memorial Jewish Hospital.

EDINBURGH ROYAL INFIRMARY.—The following appointments were made on April 2nd:

Assistants in the Gynaecological Department for 5 years.—J. H. Ferguson, M.D., F.R.C.P.E., F.R.C.S.E., etc., and Wm. Fordyce, M.D., F.R.C.P.E.

Resident Surgeon to Gynaecological Ward No. 36.—C. McMaster, M.B., Ch.B.

Clinical Assistants.—G. D. Matthewson, B.Sc., M.B., Ch.B.; R. C. Low, M.B., Ch.B., M.R.C.P.E.; and N. S. Carmichael, M.B., Ch.B.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

LOW.—On the 1st April, at 146, Harley Street, the wife of Vincent Warren Low, F.R.C.S., prematurely, of a son, stillborn.

SMITH.—On 4th inst., at 204, Selhurst Road, S. Norwood, the wife of W. H. M. Smith, M.R.C.S., L.R.C.P., of a son.

STALKNECHT.—On April 8th, at Great Harwood, Lancs., the wife of Bernard Stalknecht, M.B., Ch.B., of a son.

STEWART.—On April 7th, at Warbreck Road, North Shore, Blackpool, the wife of J. Stewart, M.A., M.B., of a son.

YOUNG.—At Applecross, Ross-shire, on the 7th inst., the wife of W. B. Young, M.B., C.M., of a daughter.

MARRIAGES.

HARMER—HEDLEY.—On the 5th of April, at St. Hilda's, Middlesbrough, by the Rev. F. H. Stock, M.A., Vicar of Middlesbrough, assisted by the Rev. G. Cobham, M.A., Vicar of Guisborough, William Douglas, youngest son of Frederick William Harmer, of Gringleford, Norwich, to May (Mittie), elder daughter of John Hedley, M.D., of Cleveland Lodge, Middlesbrough. At Home, 45, Weymouth Street, W., May 22nd, 23rd, 24th, and 25th. No cards.

DIARY FOR THE WEEK.

FRIDAY.

EPIDEMIOLOGICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Paper: Dr. Reginald Farrar, The Infectivity of Cerebro-spinal Fever.

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN, 11, Chandos Street, W., 5.30 p.m.—Papers—Dr. J. McCaw (Belfast): Chloroma in a Young Subject. Mr. R. Campbell (Belfast): The Treatment of Hernia in Children, with an analysis of 300 cases of operation for radical cure. Clinical cases will be shown by Dr. T. R. Whipham, Dr. C. W. Chapman, Mr. S. H. Wareham, and others.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Wednesday, 5 p.m., Pharynx.

BOOKS, ETC., RECEIVED.

How to Check Diabetes Mellitus. By Hamid Ali Khan. Lucknow: N. N. Sivapuri Press. 1906.

The Temple Cyclopaedic Primers. Food in Health and Disease. By H. Drinkwater, M.D. London: J. M. Dent and Co. 1s.

X Rays in General Practice. By A. E. Walter, Captain I.M.S. London: J. Lane. 1906. 5s.

The Thompson-Yates and Johnston Laboratories Report. Edited by R. Boyce and C. S. Sherrington, with H. E. Annett, B. Moore, R. Ross, and E. W. Hope, etc. Vol. vi (New Series). Part II, December, 1905, and vol. vii (New Series). Part I, February, 1906. London: Williams and Norgate. 1905-6.

Modern Surgical Technique in its Relation to Operations and Wound Treatment. By C. Y. Pearson, M.D., M.Ch., F.R.C.S. London: J. Bale, Sons, and Danielsson, Limited. 1906. 10s. 6d.

Low's Handbook to the Charities of London. 1906 (71st year). London: Eliot Boothroyd. 1s.

Transactions of the American Gynecological Society. Vol. 30. 1905. Philadelphia: W. J. Dornan.

Transactions of the Southern Surgical and Gynecological Association. Vol. xvii. Seventeenth session. Edited by W. D. Haggard, M.D., Nashville, Tennessee: Southern Surgical and Gynecological Association. 1905.

The Morphology of Normal and Pathological Blood. By G. A. Buckmaster, M.D. London: John Murray. 1906. 10s. 6d.

Medizinal-Berichte über die deutschen Schutzgebiete Deutsch-Ostafrika, Kamerun, Togo, etc., für das Jahr, 1903-4. Herausgegeben von der Kolonial-Abteilung des auswärtigen Amts. Berlin: E. S. Mittler und Sohn. M.7.50.

Traité de Chirurgie d'Urgence. Par F. Lejars. Cinquième édition. Paris: Masson et Cie. 1906. F.30.

The Examination of the Function of the Intestines by means of the Test Diet. By Professor Dr. A. Schmidt. Translated from the German by C. D. Aaron, M.D. Philadelphia: F. A. Davis Co. 1906. 1 dol.

*** In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
APRIL.	
15 Sunday	
16 MONDAY	*Bank Holiday.*
17 TUESDAY......	
18 WEDNESDAY	Central Council, 2 p.m. Barnstaple Division, *South-Western Branch,* Annual Meeting, Queen's Hotel, High Street, Ilfracombe, 2.30 p.m.
19 THURSDAY...	Altrincham Division, *Lancashire and Cheshire Branch,* Special Meeting, Altrincham, 6 p.m. (Committee, 5 p.m. City and Tottenham Divisions, *Metropolitan Counties Branch,* Conjoint Meeting, Brooke House, Upper Clapton, 8.30 p.m. Chelsea, Westminster, Lambeth, Norwood, Croydon, Richmond, and Wandsworth Divisions, Battersea Town Hall, Clapham Junction, 3.45 p.m. Leigh Division, *Lancashire and Cheshire Branch,* Co-operative Rooms, Ellesmere Street, Leigh, 8.30 p.m.
20 FRIDAY	
21 SATURDAY...	
22 Sunday	
23 MONDAY ...	
24 TUESDAY ...	North Wales Branch, Rhyl, 2 p.m.
25 WEDNESDAY	Bath and Bristol Branch, Bath. North of England Branch, Stockton-on-Tees.
26 THURSDAY...	Cardiff Division, *South Wales and Monmouthshire Branch,* Cardiff Infirmary, 3.15 p.m. Wandsworth Division, *Metropolitan Counties Branch,* Worple Hall, Wimbledon, 8.45 p.m.
APRIL *(continued).*	
27 FRIDAY	St. Pancras and Islington Division, *Metropolitan Counties Branch,* St. Pancras Infirmary, Pancras Road, N.W., 4 p.m.
28 SATURDAY...	
29 Sunday.........	
30 MONDAY	
MAY.	
1 TUESDAY......	
2 WEDNESDAY	South-Eastern of Ireland Branch Victoria Hotel, Kilkenny, 12 noon.
3 THURSDAY...	City Division, *Metropolitan Countie Branch,* Woodchester, Upper Clapton, N.E., 9 p.m. Swansea Division, *South Wales and Monmouthshire Branch,* Annual Meeting, General Hospital, Swansea 3 p.m. Wandsworth Division, *Metropolita Counties Branch,* Bolingbroke Hospital, 4 p.m.
4 FRIDAY	London: Ethical Committee, 2 p.m. Border Counties Branch, Keswick.
5 SATURDAY...	Ulster Branch, Spring Meeting Derry.
6 Sunday.........	
7 MONDAY	
8 TUESDAY ...	
9 WEDNESDAY	
10 THURSDAY...	
11 FRIDAY.........	Hampstead Division, *Metropolita Counties Branch.*
12 SATURDAY...	
13 Sunday	
14 MONDAY	
15 TUESDAY......	

MEMBERSHIP OF THE BRITISH MEDICAL ASSOCIATION.

The British Medical Association exists for the promotion of medical and the allied sciences, and the maintenan of the honour and the interests of the medical profession.

The Annual Subscription to the British Medical Association is £1 5s. 0d., and the British Medical Journ is supplied weekly, post free, to every member of the British Medical Association wherever he may reside.

Forms of application for membership can be obtained from the General Secretary, 429, Strand, London, W.C.

The principal rules governing the election of a medical practitioner to be a member of the British Medic Association are as follow:

Article III.—Any Medical Practitioner registered in the United Kingdom under the Medical Acts and any Medical Practitioner residing within the area of any Branch of the Association situate in any part of the British Empire other than the United Kingdom, who is so registered or possesses such medical qualifications as shall, subject to the Regulations, be prescribed by the Rules of the said Branch, shall be eligible as a Member of the Association. The mode and conditions of election to Membership shall from time to time be determined by or in accordance with the By-laws. Every Member, whether one of the existing Members or a subsequently-elected Member, shall remain a Member until he ceases to be a Member in accordance with the provisions hereof.

By-law 1.—Every Candidate for Membership of the Association shall apply for election in writing, addressed to the Association, and stating his agreement, if elected, to abide by the Regulations and By-laws of the Association, and the Rules of such Division and Branch to which he may at any time belong, and to pay his subscription for the current year.

By-law 2.—Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the General Secretary of the Association, and to every Member of the Branch Council, and the candidate, if n disqualified by any Regulation of the Association, may be elect a member of the Association by the Branch Council at any meeti thereof held not less than seven days (or such longer period the Branch may by its Rules prescribe) after the date of the sa Notice. A Branch may by special Resolution require that ea candidate for election to the Association shall furnish a certifica from two Members of the Association to whom he is persona known. Officers of the Navy, Army, and Indian Medical Servi on the Active List are eligible for election through the Coun or a Branch without approving signatures as laid down By-law 3.

By-law 3.—Every candidate whose place of residence is not included the area of any Branch shall forward his Application to General Secretary of the Association, together with a statem signed by three members of the Association, that from perso knowledge they consider him a suitable person for electi Notice of the proposed election shall be sent by the Gene Secretary to every Member of the Council, and the candidate not disqualified by any Regulation of the Association, may elected a Member of the Association by the Council at any meeting thereof held not less than one month after the date of said notice.

The annual subscription to the British Medical Journal for non-members is £1 8s. 0d. for the United Kingd and £1 12s. 6d. for abroad.

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT
TO THE
BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, APRIL 21st, 1906.

CONTENTS.

PAGE
ATTERS REFERRED TO DIVISIONS:
Notices of Motion 181
EETINGS OF BRANCHES AND DIVISIONS:
Bermuda Branch 184
Birmingham Branch: West Bromwich Division 184
Dundee Branch 184
East Anglian Branch 185
Edinburgh Branch: South-Eastern Counties Division ... 185
Metropolitan Counties Branch: Hampstead Division ... 185
" " " Marylebone Division ... 186
" " " Stratford Division 186
South-Eastern Branch: Brighton Division 187
South-Eastern (Ireland) Branch 187
RANTS FOR SCIENTIFIC RESEARCH 187
PAGE
ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD 188
ATTENDANCES OF COUNCIL, COMMITTEES, AND SUBCOMMITTEES FOR 1905-6 189
VACCINATION BILL 193
CENTRAL MIDWIVES BOARD 193
VITAL STATISTICS 194
VACANCIES AND APPOINTMENTS... 195
BIRTHS, MARRIAGES, AND DEATHS 195
DIARY OF THE WEEK 195
BOOKS, ETC., RECEIVED... 195
CALENDAR 193

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.

MATTERS REFERRED TO DIVISIONS.

REPRESENTATIVE MEETING AT LONDON.

TUESDAY, JULY 24TH, AND FOLLOWING DAYS.

NOTICES OF MOTION.

HE following notices of motion have been received
r discussion by the Annual Representative Meeting
f the Association to be held at London, July 24th,
906, and following days.

[*Notices previously received were published in the* SUPPLE-
ENT *of February 10th, page 45; February 24th, page 62;
arch 3rd, page 78; and March 31st, page 141.*]

ASSOCIATION REGULATIONS.

PROPOSED NEW BY-LAWS OR AMENDMENT OF BY-LAWS.

y the COUNCIL OF THE ASSOCIATION:

.—By-laws drafted by the Council pursuant to Instructions of the Representative Meeting at Leicester.

1. Representation of the Representative Meeting on the Council.

That the Representative Meeting shall have power to elect annually not more than six members of the Central Council.

2. Supplementary Grants to Divisions and Branches.

That in addition to the grants made in pursuance of By-law 16, the Council, on the application of any Division or Branch, shall have power to make a supplementary grant of such amount as the Council may deem proper. Every application by a Division, not itself a Branch, shall be forwarded through the Branch Council, whose duty it shall be to transmit the same to the Central Council, with such comment, if any, as the Branch Council may deem expedient.

All applications for supplementary grants shall be referred by the Council to the Organization Committee for report thereon, and, in considering the same, the said Committee and Council shall have regard to the evidence of work done by or through the agency of such Division or Branch for the Association or the medical profession, and also to the amount which may have been voluntarily subscribed locally for any purpose for which such a grant may be desired.

B. New By-laws Proposed by the Council.

1. Tenure of Office of Members of Council Elected by the Representative Meeting.

That each member of Council elected by the Representative Meeting shall hold office for one year, and at the end of that time shall be eligible for re-election, unless he has served as a member of Council elected by the Representative Meeting for six years successively, in which case he shall for one year be incapable of being so elected.

2. Standing Committees.

Additional Section of By-law 40.

Science Committee.

That a Science Committee, consisting of fourteen members, shall be appointed by the Council, who shall advise, and where so directed act for, the Council in all matters not specially referred to other Committees which concern the work of the Association for the promotion of the Medical and allied Sciences, including the conditions of award of Scholarships, Grants, or Medals given by the Association, or under trusts undertaken by the Association, the adjustment of the Sections at the Annual Meeting, the arrangement of Committees for special scientific work, and the encouragement and assistance of the scientific work of the Branches and Divisions. The Committee shall have power to co-opt, for the consideration of the award of Scholarships, Grants, and Medals, members, not exceeding four in number, specially qualified to assist in its work.

AMENDMENTS PROPOSED BY DIVISIONS AND BRANCHES.

Amendment of By-law 23.

Representatives on Central Council.

By the Hampstead Division (Metropolitan Counties Branch):

That a Branch have an additional member on the Central Council for each complete 300 members in excess of 400.

Amendment of Articles and By-laws.

Constitution of Central Council of the Association.

By the Hampstead Division (Metropolitan Counties Branch):

That at least one Registered Dental Surgeon should be added to the Central Council of the Association, either by election or by co-option.

Amendment of By-law 40.

Standing Committees.

By the Dundee Branch:

That the By-law be amended in accordance with the following propositions:

A.—STANDING COMMITTEES.

1. That there be a Finance Committee.
2. That there be a Journal Committee.
3. That there be a Hospitals Committee.
4. That there be an Arrangements (Annual Meeting) Committee.
5. That the Premises and Library Committee be removed from the List.

B.—MEMBERSHIP OF COMMITTEES.

6. That the Chairman of Representative Meetings and the Treasurer be *ex officio* members of all Committees.

1. Finance Committee.

7. That the Chairman of the Organization Committee for the time being be *ex officio* a member of the Finance Committee.
8. That the Chairman of the Journal Committee for the time being be *ex officio* a member of the Finance Committee.
9. That the Chairman of the Science Committee for the time being be *ex officio* a member of the Finance Committee.
10. That the Chairman of the Medico-Political Committee for the time being be *ex officio* a member of the Finance Committee.
11. That in addition to the *ex officio* members, the Finance Committee have eight ordinary members appointed by the Council from its own number.

2. Journal Committee.

12. That the Journal Committee have nine ordinary members appointed by the Council, of whom five at least shall be from its own number.

3. Hospitals Committee.

13. That the Hospitals Committee have twelve ordinary members appointed by the Council, of whom six at least shall be from its own number.

4. Arrangements Committee.

14. That the Arrangements Committee have as ordinary members six members appointed by the Council from its own number, and six members appointed by the Local Executive Committee for the annual meeting.

C.—FUNCTIONS OF COMMITTEES.

1. Finance Committee.

15. That it be the duty of the Finance Committee to certify the accounts prior to their presentation to the Council.
16. That it be the duty of the Finance Committee to advise the Council on the administration of any funds held in trust by the Association and of the Superannuation Fund, and, when necessary, the appointment of administrators for any such funds.
17. That it be the duty of the Finance Committee to report to the Council on the financial bearings of any proposals involving special expenditure.
18. That it be the duty of the Finance Committee to supervise and report to the Council on the general working and organization of the central office.
19. That it be the duty of the Finance Committee to consider and report to the Council upon the management of the property of the Association.

2. Journal Committee.

20. That it shall be the duty of the Journal Committee to consider and report to the Council upon any matters connected with the Journal or other publications of the Association.

3. Hospitals Committee.

21. That it shall be the duty of the Hospitals Committee to consider and report to the Council upon all questions concerning hospitals and other medical charities.

4. Arrangements Committee.

22. That it shall be the duty of the Arrangements Committee (*a*) to advise the Council on the arrangements for the Annual Meeting, including the definition of Sections and Subsections; (*b*) to submit to the Council a list of nominations for the officers of Sections and readers of the addresses.

5. Redrafting of By-law 40.

23. That it be an instruction to the Chairman, the Secretaries, and the Solicitor to adjust By-law 40 in accordance with these and any non-conflicting resolutions adopted at the Annual Representative Meeting, and until this be done these resolutions shall take the place of any corresponding parts of the present By-law 40.

Amendment of Article.

Expenses of Representatives.

By the Wandsworth Division (Metropolitan Counties Branch):

(Amendment to motion by the Northampton Division; vide "Supplement," February 24th.)

That the word "all" in the first line and the word "etc." in the third line be omitted, and that at the end the words "to the extent of not more than 15s. a day" be added,

AMENDMENT OF BY-LAWS 16 AND 17.

Capitation Grants.

By the WANDSWORTH DIVISION (Metropolitan Counties Branch).

1. That in view of the greater activity and organization now apparent in various Divisions of the Association, the time has come for reconsideration of By-laws 16 and 17 whereby fixed capitation grants are made to the Branches and through them to the Divisions.
2. That it be an instruction to the Central Council to consider the following among other subjects, and report to the Divisions by March 31st, 1907, what changes in the By-laws they suggest.

(*a*) That it is not desirable that there be gradually accumulating funds lying idle in the hands of various Branches, which, as such (at all events for the present), seem to have no need of them.

(*b*) In view of the expenses of local Scientific Medical Societies it is not unreasonable to suppose that a Division should require grants up to even 7s. 6d. a head per annum, which might be given in instalments in accordance with work done, and made direct from the Central Office.

(*c*) That there should also be made direct to Branches, for Branch expenses, from the Central Office capitation grants up to 2s. 6d. per annum in accordance with work done, which could be increased by grants from Divisions for special purposes made by special Division resolutions.

(*d*) That a basis for the necessary first instalment in each year to a Branch or Division could be arrived at by consideration of the average of expenses incurred during the past three years.

ASSOCIATION ADMINISTRATION.

MEDICAL SECRETARIES.

District Organizing Secretaries.

By the WANDSWORTH DIVISION (Metropolitan Counties Branch):

That in order to accelerate the consideration of, and dealing with, matters of local interest that do not affect the principles or policy of the Association, and so relieve the routine work of the Central Office, it is desirable that there be gradually introduced the principle of District Organizing Medical Secretaries. That it be an instruction to the Central Council to consider the matter, and to report with a scheme to the Divisions by March 31st, 1907.

Capitation Grant to Divisions and Branches.

Local Control.

By the BOURNEMOUTH DIVISION (Dorset and West Hants Branch):

That the Capitation Grant to Branches should be absolutely at the disposal of the Branches and Divisions, and to be allocated to the Divisions as agreed on.

MEDICO-POLITICAL.

Coroners' Law: Medical Witnesses.

By the HAMPSTEAD DIVISION (Metropolitan Counties Branch):

That the medical witness at a coroner's inquest should be the medical man last in attendance upon the deceased, or the first to see the dead body, as has been the practice until recently pursued.

ayment of Medical Men called in in Complicated Midwives' Cases.

y the HAMPSTEAD DIVISION (Metropolitan Counties ranch):

That the recommendations of the Medico-Political Committee relative to the payment of Medical Men called in to attend the patients of midwives be endorsed, and the Council of the Association urged to take immediate steps to ensure the introduction of clauses dealing with this matter into any suitable Bill at the earliest possible moment.

Vaccination.

Compulsory Revaccination.

By the HAMPSTEAD DIVISION (Metropolitan Counties Branch):

That revaccination prior to the statutory age for leaving elementary schools be made compulsory.

Supply of Government Lymph to all Practitioners.

That Government lymph should be supplied to all practitioners who desire it.

Office of Public Vaccinator.

That the office of Public Vaccinator should either be abolished, or made a whole-time appointment.

Contract Practice: Medical Organization.

By the HAMPSTEAD DIVISION (Metropolitan Counties Branch):

That for the purpose of deciding upon the local conditions under which contract practice should be carried on, an organized body, such as a Division of the British Medical Association, in conjunction with all the local profession, should be formed in each affected district.

Nurses' Registration: Representation of Medical Profession on Central Board.

By the WANDSWORTH DIVISION (Metropolitan Counties Branch):

1. That in the opinion of this Representative Meeting the number of seats allotted to the medical profession on the Council in the Bill for Nurses' Registration now before the House of Commons is inadequate.
2. That it be an instruction to the Central Council to take the necessary steps in order to have the one seat allotted under the auspices of this Association increased to seven.

Relation of the Medical Profession to the State. Income and Property Tax.

By the EXETER DIVISION (South-Western Branch):

That the question of the incidence of the Income Tax upon the medical profession be referred to the Divisions for consideration, together with the Memorandum on the subject submitted by the Exeter Division.

MEMORANDUM BY THE EXETER DIVISION ON REPLACEMENT OF INCOME TAX BY PROPERTY TAX.

Income tax, as now levied, puts a premium on idleness generally, and specially penalizes intellectual work, because it makes no practical distinction between income from earnings and income from property. It especially constitutes a most unfair burden on the professional classes.

Income tax thus forms a standing grievance, and a direct incentive to the introduction of steep graduation as a supposed means of remedying its injustice. But steep graduation will not right what is radically wrong in the tax, whilst it will introduce a very dangerous principle. The income tax is wrong because the theory on which it rests is wrong. The State is theoretically supposed to protect income, and income tax is the charge made for this protection. But does the State protect income? Take two illustrations:

1. A man without property earns £1,000 a year by his profession. He breaks down. (The State makes no attempt to replace his income.)
2. A family lives on an income of £1,000 a year wholly earned by a man who has no surplus to insure his life. He dies. (The State treats his survivors as paupers.)

In each of these cases a heavy payment is made to the State annually for protection of income. Where does the protection come in? It does not come in at all. The State in fact does not protect income.

The State protects two things—person and property. Person repays this protection by work and by indirect taxation; property should repay it by a proportional property tax. But income should not be taxed for protection which it does not get. In other words, income tax should be abolished and property-tax should be put in its place. No other arrangement will be equitable. Such a tax will not press on the artisan and labouring classes, will not constitute an unjust burden on the professional classes, penalizing intellectual work, but will be borne by those on whom it ought to fall—the owners of property over a certain minimum amount. By a reasonable system of exemption and abatements, its incidence can be adjusted so as not to fetter industry or to press unduly on those who may fairly claim abatement or remission. It will no more stop saving than the present income tax stops earning. It will no more drive capital out of the country than the income tax does. It will remove the excuse now existing for such confiscatory taxation as a steeply-graduated income tax.

Now that the principles of taxation are likely to be considered, this change from income tax to property tax ought to be taken into account.

ETHICAL.

Position of Consultants: Proposed Separate Class.

By the HAMPSTEAD DIVISION (Metropolitan Counties Branch):

> That a class to be styled "Consultants" shall be recognized as possessing special knowledge and experience of at least one department of practice and shall undertake not to treat patients, habitually, either at their own consulting rooms or at the houses of patients or elsewhere, except in cooperation throughout the treatment of any case, either personally or by correspondence, with practitioners usually in charge of such patients.
>
> Rider: This does not refer, under present circumstances, to patients seen at the charitable institutions to whose staff consultants are attached.

HOSPITALS.

Constitution and Management of Hospitals.

Representation of Local Profession on Committee.

By the HAMPSTEAD DIVISION (Metropolitan Counties Branch):

> That the constitution and management of hospitals whose staff are general practitioners are specially a matter of concern to the local profession, who should be adequately represented on the Committee of Management.

Hospital Administration.

By the HAMPSTEAD DIVISION (Metropolitan Counties Branch):

> That the following be substituted for the corresponding paragraphs in the propositions already approved by the Representative Meeting as to Hospital Administration. (Published by the Hospitals Committee in the SUPPLEMENT for February 17th, 1906.)
>
> (*a*) For Paragraph 10 substitute the following:
>
> *Limitation of Cases.*
>
> (10) That the number of new cases to be seen professionally on any one day by an honorary medical officer shall be limited to 20 (until the out-patient departments become consultative).
>
> (*b*) For Paragraph 12 substitute the following:
>
> *Retirement of Staff.*
>
> (12) That it is desirable that in all hospitals there shall be an age and service limit for the retirement of the members of the medical and surgical staff.

AMENDMENT OF STANDING ORDERS OF REPRESENTATIVE MEETINGS.

By the DUNDEE BRANCH:

> That there be added:—
>
> (*a*) The Annual Representative Meeting shall at its first meeting appoint a Committee of five members, who shall report upon the financial aspects of any proposal involving special expenditure which has not already been reported on by the Finance Committee.
>
> (*b*) The Meeting shall not consider any proposal involving special expenditure until it has been reported upon by the Finance Committee, or by the Committee appointed as above.

By Direction of the Chairman of Representative Meetings.

J. SMITH WHITAKER, *Medical Secretary.*

April 19th.

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BERMUDA BRANCH.

A MEETING of this Branch was held at the City Hall, Hamilton, on March 22nd, Dr. C. H. BUTTERFIELD, President, in the chair.

Outbreak of Diphtheria.—Dr. HARVEY (M.O.H.) stated some facts and outlined the recent outbreak of diphtheria in the colony. A lengthy discussion ensued on the treatment of diphtheria and the dosage of antitoxin.

Contribution to Cottage Hospital.—On a motion of Dr. TROTT, seconded by Dr. TUCKER, £10 of the amount on hand was put at the disposal of the staff of the cottage hospital to improve the apparatus for administering anaesthetics.

BIRMINGHAM BRANCH:

WEST BROMWICH DIVISION.

A MEETING of this Division was held in the Board Room of the District Hospital on Wednesday, April 11th, at 4 p.m., Dr. W. H. STEPHEN, Chairman, presiding.

Letters of Apology.—Apologies were announced from Mr. S. T. D. Weston, Dr. T. Underhill, and Dr. A. Underhill.

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed by the Chairman.

Proposed Royal Charter.—The proposed Royal Charter was explained by Dr. H. W. LANGLEY BROWNE and Dr. H. MANLEY, and it was unanimously resolved:

> That the Royal Charter be applied for.

Registration of Nurses.—On the report on the registration of nurses being considered it was resolved:

> 1. That this Division approves in general of the method of registration for nurses proposed by the Select Committee of the House of Commons.
> 2. That this Division does not approve of the separate registration of midwifery nurses.
> 3. That in the constitution of the Central Nursing Board the medical profession should have adequate direct representation.

Hospital Out-patient Departments.—On the report *re* hospital out-patient departments, it was resolved:

> That in the opinion of this Division the question is impracticable.

Direct Representative on General Medical Council.—It was also resolved that this Division nominate Dr. H. W. Langley Browne as one of the Direct Representatives on the General Medical Council.

Proposed Annual Dinner.—It was proposed by Dr. W. H. STEPHEN, seconded by Mr. T. SANSOME, and resolved:

> That the members of this Division should have an annual dinner,

arrangements for the same being left in the hands of Dr. H. Manley, Dr. A. Croll, and Mr. T. Sansome, jun.

DUNDEE BRANCH.

THE Dundee Branch held an ordinary meeting in the Students' Union, Dundee, on Friday, April 13th, J. MACKIE WHYTE, M.D., President, in the chair.

Motions for the Representative Meeting.—Resolutions (reported separately) relating to the Committees of the Association were adopted.

Bradford Rules.—These were discussed, and the Secretaries were instructed to put them on the agenda of the annual meeting.

Hospital Out-patient Departments.—Resolved:

> That locally it would be quite unsuitable to confine the out-patient department to casualties and consultations, and that no universal rule should be laid down.

Registration of Nurses.—Resolved:

> That registration of nurses on the lines of the Select Committee's report is desirable.

Resolved:

> That midwifery nurses should also be registered.

Royal Charter.—Resolved:

> That the application be approved, subject to amendments of by-law by the Representative Meeting.

Representative on Central Council.—The meeting resolved to nominate Dr. R. C. Buist as a candidate for the representation of the conjoint Branches.

EAST ANGLIAN BRANCH.

A MEETING of the Branch was held at the Globe Hotel, King's Lynn, on Thursday, April 5th, President, Dr. **Barton** (Norwich).

Council Meeting.—The Council meeting was held at 12.30.

Representative on Central Council.—A letter was read from Dr. Beverley tendering the resignation of his seat on the Central Council of the Association.

President-elect.—It was unanimously resolved that Dr. Brogden, of Ipswich, be invited to undertake the Presidency of the Branch in 1907. A letter has been received from Dr. Brogden accepting the honour.

The general meeting was held after luncheon.

Vote of Thanks to Dr. Beverley.—The following resolution was proposed by Dr. **Mayo**, seconded by Sir **Alan Reeve Manby**, M.V.O., and carried unanimously:

> That a hearty vote of thanks be accorded to Dr. Beverley for his excellent services as Representative of the East Anglian Branch on the Central Council of the Association. The Branch regrets his resignation, and it is the sincere wish of all the members that Dr. Beverley will show the same interest in the future as he has done in the past in all that concerns the welfare of the Branch.

Communications.—Sir **Alan Reeve Manby** read short otes on some colonial hospitals, 1901. Dr. S. W. **Curl** ead a paper on some cases of Bright's disease in which he actual condition of the kidneys is obscure.

Contract Practice.—Dr. **Gardiner** (King's Lynn), in the bsence of Dr. **Blake** (Great Yarmouth), read a paper by im on contract practice.

Visit to King's Lynn.—Dr. Plowright kindly took the embers for a most interesting walk round King's Lynn.

Tea.—Afternoon tea was kindly provided by the embers of the West Norfolk Division.

Annual Meeting.—The annual meeting will take place at outhend-on-Sea on June 26th.

EDINBURGH BRANCH:

South-Eastern Counties Division.

HE spring meeting was held in the house of Dr. **Cullen** Chairman), on the afternoon of Friday, April 6th, at o'clock.

Confirmation of Minutes.—The minutes of the previous eeting were read, approved, and duly signed by the hairman.

Matters Referred to Divisions.—The medico-political atters referred to the Division were then discussed: (*a*) he decisions in regard to contract practice arrived at on a revious occasion were adhered to; (*b*) the registration of urses was not considered advisable, Dr. **Calvert** issenting; (*c*) in regard to coroners' law, Dr. **Blair** oved:

> That the medical man in attendance ought to give evidence in all cases of sudden or suspicious death.

r. **Cullen** seconded, and the motion was agreed to;) the Charter was considered and approved on the otion of Dr. **Hamilton**, seconded by Dr. **Young**. he accounts for the year 1905 were audited and found orrect.

Midwives Act.—Dr. **Calvert** made a few remarks in dvising the extension of the Midwives Act to Scotland. e dwelt on the intolerable position in which medical ractitioners were placed by the spread of the idea that ll troubles which arose *post partum* were due to mal-raxis on their part. This was largely the result of the aching of Dr. Horrocks and others. In most cases and poorer-class midwifery a certificated nurse could do all at was necessary. The medical man would become a killed official called in when emergencies arose or when terference was necessary to bring about delivery. The members present seemed to agree with the premisses but refused to grant Dr. Calvert's conclusions. It was therefore decided that the extension of the Midwives Act to Scotland was not advisable.

British Medical Benevolent Fund.—The **Secretary** brought the British Medical Benevolent Fund under the notice of members, some of whom subscribed.

Vote of Thanks.—The members united in thanking Dr. Cullen for his kind hospitality which they had much enjoyed.

METROPOLITAN COUNTIES BRANCH:

Hampstead Division.

A MEETING of the Division was held on Friday, April 6th, at 8.30 p.m., at the Hampstead Conservatoire, Swiss Cottage, N.W., Mr. F. R. **Humphreys** in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were taken as read.

Correspondence.—Letters of regret for inability to be present were received from Miss Mary Rocke and Drs. Dick, Turner, Wellington, and C. Wilson.—The **Honorary Secretary** noted with great regret the death of Dr. Lemin, a new member of the Division.

Hampstead Hospital.—A prolonged discussion took place on this subject. The **Chairman** reported that since their last meeting he had written to the medical papers stating that in view of the meeting of the local profession which it was proposed to call in the course of a few weeks, to consider the whole matter of the administration and future of the Hampstead General Hospital, medical practitioners in the neighbourhood were invited to keep an open mind upon the subject. He had also written to the authorities of the King Edward's Hospital Fund, asking if any conditions were attached to their proposed grant of £5,000 to the hospital, and had received a reply in the negative. The Hampstead Division of the British Medical Association objected both to the out-patient department of the hospital and to the restricted nature of its medical staff.

Mr. **Armit** gave a short history of the agitation relative to the hospital in the Division, and the failure of their Committee to obtain a conference with the medical staff of the hospital. Their Committee had fully considered the subject, and had drawn up its report in the form of the following resolutions, which he now moved should be received:

1. That an out-patient department in Hampstead is unnecessary.
2. That the casualty department be kept distinct from any other department, and that casualty patients, if not suitable for admission, be seen once, and thereon be referred to private practitioners, provident dispensaries, or Poor-law authorities.
3. That there be greater facilities for general practitioners of the neighbourhood to attend in-patients.
4. That the more or less permanent appointment of the medical staff of the Hampstead Hospital is undesirable, and that there should be a *service* limit, as well as an age limit, to such appointments.
5. That the outside medical profession should be *adequately* represented on the Board.

The reception of this report was seconded by Mr. **Cunnington**, and passed *nem. con.* On its adoption being moved, Dr. L. G. **Glover** moved as an amendment:

> That the Hampstead Division of the British Medical Association, having heard a description of the means adopted at the Hampstead General Hospital (1) to prevent abuse of the charity by undeserving applicants for relief; (2) to facilitate the use of the institution by outside practitioners, cordially approves of the same, and in commending the institution to the favourable notice of the medical profession, trusts that the Council of the hospital will use every endeavour to prevent the alteration of the present constitution with regard to the status of those appointed on the staff; and it further resolves that the report of the Committee of the Division having been received, no further action be taken thereon.

Dr. Glover complained of the action of the Committee, and said he thought the hospital staff had been badly treated. Dr. Yeld had now explained the omission of his letter to the Hospital Secretary from the published letters, but he thought the explanation should have come earlier. The hospital staff had to reckon with laymen, lawyers, and others, to some of whom it appeared a dreadful thing that their Chairman should have written to the King Edward's Hospital Fund about the proposed grant. He was himself favourable to the adoption of a service limit, and he hoped also to see an almoner appointed to check abuse. The Committee's action had raised difficulties for the medical staff with the hospital authorities, and he thought the best way to bring matters to a successful termination was by the adoption of his amendment.

Mr. KINGSFORD seconded the amendment, with which he agreed much more than with the Committee's report.

Mr. CUNNINGTON said that at a former meeting it had been agreed to postpone the consideration of the subject until they had a conference with the medical staff, which unfortunately came to nothing. He had nothing to say against the management of the hospital, but felt he did not know enough about it to accept Dr. Glover's account. He had only heard one side of the question—the hospital side.

Dr. OPPENHEIMER thought it was undesirable at present to express any opinion on that matter.

Dr. COOKE said they had had similar difficulties at Willesden. He thought it would be quite impossible to be continually changing the hospital staff, and quite impracticable to have all the practitioners in Hampstead on it.

Mr. ARMIT said abuses occurred wherever there was an out-patient department. No hospital worked by general practitioners should have an out-patient department. If he were a general practitioner, which he was glad to say he was not, he would object to have his patients sent in to hospital to be treated by another general practitioner.

Dr. PEAKE thought there should be a consulting staff, and that the out-patient department would be excellent if used as a consultative department.

The CHAIRMAN thought the action of the hospital authorities in circulating at the present time a number of questions to local practitioners an exceedingly improper one. At the present moment there was a large amount of abuse of the Hampstead Hospital. He had been assured of this by several medical men. A great part of the out-patients came from a distance, and did not belong to Hampstead at all. It was for the hospital authorities to show that there was no abuse. The Hospital Sunday and Saturday Funds gave grants in proportion to the relief given, and the hospital authorities should show that such grants were properly applied. Patients at the provident dispensary who got behind in their payments went to the hospital and were treated gratuitously. Apart from the question of abuse, was there any need in Hampstead for an out-patient department at all? Why should they provide one for the benefit of Kentish Town? He asked if the practitioners present were satisfied with the arrangements as to the hospital staff.

Dr. MACFADDEN regretted that the Chairman had not mentioned more definitely the cases of abuse. As one of the hospital staff he had on several occasions referred cases both to private practitioners and to provident dispensaries, but he found that it sometimes happened that those sent to the dispensaries only paid one month's subscriptions, and then dropped off.

Dr. PIDCOCK thought it showed the demoralization produced by the out-patient department, that when patients got the opportunity of contributing to a provident dispensary they did not continue to do so. He mentioned several cases of abuse in detail. It seemed impossible to prevent abuse unless the patients were followed to their own homes. People put on their shabbiest clothes, and made a regular practice of going to the London hospitals.

Dr. TAYLOR asked if it would not be well to have the question deferred until all the profession in Hampstead had had an opportunity of expressing their opinion in public meeting?

Dr. MACNAUGHTON-JONES thought there was much in both the resolution and the amendment with which they could agree. It seemed to him that the hospital staff had been hardly dealt with. Dr. Glover's suggestion of having an almoner appointed was an excellent one, and should be accepted.

Mr. JESSOP said the amendment required great consideration. He asked if the Hampstead Hospital was benefiting the greatest possible number of medical men. He thought not. It was only giving four men the benefit of the practice there. At all hospitals having out-patient departments there was great abuse, and it would be well if those departments could all be done away with.

Mr. STOCKER thought that to ask members to vote *en bloc* for an amendment containing so many points was rather a large order. He agreed with Dr. Glover that a regular hospital staff was necessary, but he differed from him about the out-patient department not being abused. It was abused everywhere, and the abuse could only be stopped by getting the relieving officer to visit applicants at their own homes.

The CHAIRMAN then put the amendment to the meeting and declared it lost, 15 voting for and 27 against it.

It was agreed that the Committee's report should be voted on clause by clause.

Clause 1 was carried by 31 to 7.

Clause 2 was carried by 32 to 2.

Clause 3 was carried by 23 to 12.

On Clause 4, Dr. GLOVER moved the omission of all the words from "that" to "and," leaving it to read: "That there should be a service limit as well as an age limit to appointments to the medical staff."

This was carried with 1 dissentient.

Clause 5 was carried by 24 to 7.

Dr. OPPENHEIMER moved and Mr. ARMIT seconded:

> That the Committee of the Division be empowered to invite the local medical profession to a conference on the Hampstead Hospital question.

This was carried by 10 to 5. It was also agreed that the Committee should be empowered, in conjunction with any other medical bodies desiring it, to place before public bodies interested the views of the Division on the management of the Hampstead Hospital.

Resolutions for the Representative Meeting.—It was agreed that the resolutions which had been printed and circulated among members, and further revised by the Committee, should be submitted, as printed and revised, to the Medical Secretary as the resolutions of the Division.

A further resolution by Mr. H. W. ARMIT with reference to the EPITOME of the JOURNAL was suggested and carried, but subsequently withdrawn.

Contract Practice.—Owing to the late hour, the consideration of this subject was postponed.

MARYLEBONE DIVISION.

A GENERAL meeting of this Division was held at 11, Chandos Street, W., on April 3rd, at 5 p.m., Dr. RADCLIFFE CROCKER in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were signed as correct.

Candidates for Central Council.—Dr. F. J. Smith and Dr. Comyns Berkeley were appointed to attend a meeting of representatives of Divisions of the Metropolitan Branch to discuss the choice of candidates for the Council of the Association.

Ethical Rules.—The draft model rules regulating the procedure of a Division on ethical matters were unanimously adopted as the ethical rules of the Division.

Appointments.—The rules as to appointments, as adopted by the Bradford Division, were also adopted.

Proposed Alteration in Article XXVII.—The alteration in Article XXVII, as recommended by the Wandsworth Division, was rejected.

Proposed Change of Title.—The alteration in the title of the officers of a Division, as recommended by the Wandsworth Division, was rejected.

Fees for Ambulance Work.—It was decided that the minimum fee for lectures on ambulance work should be £1 1s. per lecture and for an examination £2 2s.

Resolutions Referred to Division.—No opinion was expressed on the resolutions referred to the Division by the Representative Meeting, namely, on:

(*a*) The Scientific Work of the Divisions and Branches.
(*b*) Sectional Work at the Annual Meeting.
(*c*) Special Research Library.
(*d*) Relation of the Association to other Scientific Societies.

Draft Charter.—The following resolution was carried:

> Provided that it be understood that it is not thereby giving adherence to any particular undertaking, this Division is in favour of the Draft Charter as printed.

STRATFORD DIVISION.

THE annual dinner of this Division was held in the Great Eastern Hotel, Liverpool Street, E.C., on Thursday

March 29th, Dr. Stocker, Chairman of the Division, presiding. Over 50 members and friends sat down to dinner, and the proceedings were characterized by great good fellowship and enthusiasm. After the loyal toasts had been proposed by the Chairman and duly honoured, Mr. J. Smith Whitaker proposed "The Health of the Stratford Division," which was responded to by the Chairman. Mr. Andrew Clark, Chairman of the Branch, responded to the toast of "The British Medical Association," proposed by Dr. Percy Rose; while Dr. Sanders, in a humorous speech, proposed the health of "The Guests," which was responded to by Dr. F. J. Smith. Dr. Grogono proposed "The Chairman," to which Dr. Stocker replied. A musical party rendered selections during the evening, which was altogether a most happy and successful one. Several applications for membership have resulted.

SOUTH-EASTERN BRANCH:

Brighton Division.

An ordinary meeting of this Division was held at the Dispensary on March 28th, Mr. T. Jenner Verrall in the chair.

Confirmation of Minutes.—The minutes of the previous meetings were read and confirmed.

Annual Meeting of Branch.—Dr. Marsh proposed, and Dr. Curwen seconded, a resolution to the effect that the annual meeting of the Branch next year be held at Brighton, and that Mr. T. Jenner Verrall be the President-elect. This was put to the meeting, and carried unanimously.

SOUTH-EASTERN OF IRELAND BRANCH.

A meeting of this Branch was held at the Adelphi Hotel, Waterford, on April 4th, at 2 p.m. A telegram having been received from Dr. Wynne, President, that, owing to an obstruction on the railway line, he could not arrive before 2.30 p.m., Dr. R. B. Carey was voted to the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Letters.—A letter from Dr. Laffan was read, expressing disappointment at support received in his effort to check hospital abuse in the case of those who are able to pay, he writer having forgot to appear.

Irish Committee.—The Chairman, taking up the first tem on the agenda list, gave a full and lucid exposition of the inception, constitution, and objects of the newly-naugurated Irish Committee. He told how recently, in conjunction with the other several Irish Poor-law Committees and the Irish Medical Association, it assisted in orming what is known as the Conjoint Committee, which s to be divided into four subcommittees—namely, Medical Relief, Health, etc.—for the purpose, each within its own cope, of collecting material for the Medico-Political and Public Health Committees of the British Medical Association, to be submitted by them as evidence before the orthcoming Royal Commission on the Poor Law. In the ourse of his remarks he drew special attention to the ircular recently issued by the Honorary Secretary of the Medical Relief Committee, Dr. Moorhead, to all Poor-law medical officers throughout Ireland, urging on them the ital necessity of keeping a minute account of all particulars in connexion with their work as such in course of he current year, and pending the sitting of the Royal Commission aforesaid.

Draft Charter.—The President (Dr. Wynne) then took he chair, and a discussion followed on the draft of the roposed Royal Charter. In the course of this it was pointed ut by Dr. D. Walshe that one of the chief advantages rising out of the transmutation over that of the Companies Act, under which at present the Association was ncorporated, would be that the Central Council would njoy greater facility in the way of disbursing larger sums f money for scientific research, etc., without direct appeal o special legislation. It was proposed by Dr. Carey and econded by Dr. Mackesy:

> That the Branch approves of the application for the proposed Royal Charter on the lines drafted in the Supplement of the British Medical Journal of March 24th, 1906.

Paper.—A paper by Dr. William Morris next claimed he attention of the meeting. It was on a case of intesnal obstruction under the care of Dr. Mary Strangman, caused partly by gall stones and partly by volvulus, and requiring operation for its relief. The calculi were numerous, one of which, as large as a medium-sized chestnut, excited considerable speculation as to its mode of entry into the intestine, and many theories were advanced in explanation thereof. No cicatrices or adhesions were observed either in the duodenum, colon, choledochus, or bowel, and the patient made a good recovery.

Vote of Condolence.—A vote of condolence, proposed by Dr. D. Walshe, and seconded by Dr. Morris, in sympathy with Dr. T. Laffan, late President of the Branch, on the occasion of the death of his brother, Dr. Patrick Laffan, of Tara, and which was received in silence, and followed by a highly eulogistic family tribute by Dr. O'Brien, brought the meeting to a close.

Waterford Division.—Subsequently a meeting of the Waterford Division of the Branch was held, when Dr. Wynne resigned the Honorary Secretaryship, and Dr. M. J. Morrissey (Waterford) was elected to the post.

Luncheon.—The members then lunched together at the Adelphi.

GRANTS FOR SCIENTIFIC RESEARCH.

The Council of the British Medical Association desires to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that it is prepared to receive applications for grants in aid of such research. Applications for sums to be granted, which must reach this office not later than May 31st, must include details of the precise character and objects of the research which is proposed, and must be made on forms to be had of the General Secretary, at the office of the Association, 429, Strand, London.

Every recipient is required to furnish to the Science Committee, on or before May 31st following upon the allotment of the grant, a report (or, if the object of the grant be not then attained, an interim report to be renewed at the same date in each subsequent year until a final report can be furnished) containing: (*a*) A brief statement for the Report of the Science Committee, showing the results arrived at, or the stage which the inquiry has reached; (*b*) a general statement of the expenditure incurred, accompanied, so far as is possible, with vouchers; (*c*) and references to any Transactions, Journals, or other publications in which the results of the research have been printed.

The work of the Grantees shall be subject to inspection.

Research Scholarships.

The Council of the British Medical Association is prepared to receive applications for three Research Scholarships, each of the value of £150 per annum, tenable for one year, and subject to renewal by the Council, provided the whole term of office has not exceeded three years.

The scholarships exist for the encouragement of research in Anatomy, Physiology, Pathology, Bacteriology, State Medicine, Clinical Medicine, and Clinical Surgery.

The Scholars' work shall be subject to inspection.

Applications for Scholarships must be made on forms to be had of the General Secretary, and returned on or before May 31st.

Ernest Hart Research Scholarship.

The Council of the British Medical Association is also prepared to receive applications for the Ernest Hart Memorial Scholarship of the value of £200 per annum, tenable for one year, but subject to renewal by the Council for another year. The Scholarship is for the study of some subject in the department of State Medicine.

N.B.—Applications for Scholarships and Grants should, as a rule, be accompanied by a recommendation from the head of the laboratory in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended, however, to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

Guy Elliston, *General Secretary.*

429, Strand,
April, 1906.

☞ *To ensure the insertion of notices in this column, they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

Association Notices.

1906 ANNUAL GENERAL MEETING.

The Annual General Meeting of the British Medical Association will be held in the Caxton Hall, Caxton Street, Victoria Street, London, S.W., on Tuesday, July 24th at 10 o'clock in the forenoon.

ANNUAL REPRESENTATIVE MEETING.

The Annual Representative Meeting will take place in the Caxton Hall, Caxton Street, Victoria Street, London, S.W., on Tuesday, July 24th, immediately after the Annual General Meeting, which will be held at 10 o'clock in the forenoon; on Wednesday, July 25th, at 10 a.m.; on Thursday, July 26th, at 10 a.m. if required; also on Friday, July 27th, at 10 a.m. if required.

BY ORDER OF THE COUNCIL,
GUY ELLISTON, *General Secretary.*

April 18th, 1906.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH.—The annual meeting of the Birmingham Branch will be held at the Medical Institute on Thursday, June 14th, at 3.30 p.m., and nominations for offices should reach the Honorary Secretary not later than May 23rd.—T. SYDNEY SHORT, Honorary Secretary, 85, Edmund Street, Birmingham.

BORDER COUNTIES BRANCH.—The next meeting of this Branch will be held in Keswick on Friday, May 4th. Any member who desires to make a communication to the meeting is requested to inform the Secretary at his earliest convenience. Fuller details of arrangements will be published later. —FRANCIS R. HILL, Carlisle, Honorary Secretary.

BORDER COUNTIES BRANCH: SCOTTISH DIVISION.—The annual general meeting of the above Division will be held at the Dumfries and Galloway Royal Infirmary, upon Tuesday, May 8th, when Dr. Gulland, of Edinburgh, will give an address on Blood Examination in General Practice. The April meeting will not now be held.—GEORGE R. LIVINGSTON, Dumfries, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—In accordance with By-law 24, notice is hereby given that nominations of Representatives of this Branch in the Council of the Association must be received by me, duly signed and in writing, on or before May 1st. — T. ARTHUR HELME, M.D., Honorary Secretary, 3, St. Peter's Square, Manchester.

METROPOLITAN COUNTIES BRANCH: HAMPSTEAD DIVISION. —An extra meeting will be held on Friday, April 27th, at 5 p.m., at Finchley.—R. A. YELD, Hampstead, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: ST. PANCRAS AND ISLINGTON DIVISION.—The next meeting will be held on Friday, April 27th, at the St. Pancras Infirmary, in Pancras Road, London, N.W., at 4 p.m. Agenda: (1) To consider the clauses of the Draft Charter, which will be explained by Mr. J. Smith Whitaker. (2) Hospital out-patient reform. (3) The registration of nurses.—WM. WYNN WESTCOTT, Secretary.

MIDLAND BRANCH.—Nominations of candidates for the Council of the Association for the ensuing year must be sent before May 14th to ASTLEY V. CLARKE, 37, London Road, Leicester, Honorary Secretary.

MIDLAND BRANCH: BOSTON AND SPALDING DIVISION.—A meeting of this Division will be held on Thursday, April 26th, at 3.45 p.m., at the Red Lion Hotel, Strait Bargate. Agenda: (1) Discussion on Motors for Medical Men, introduced by Drs. Mason and Miller. (2) Special subjects referred to the Division for discussion.—A. E. WILSON, Boston, Honorary Secretary.

NORTH OF ENGLAND BRANCH.—A meeting of the North of England Branch will be held on Wednesday, April 25th, at Stockton-on-Tees. Members wishing to read papers or show cases are requested to inform Dr. Cox as soon as possible.—ALFRED COX, J. H. HUNTER, Honorary Secretaries.

NORTH WALES BRANCH.—A meeting of this Branch will be held at Rhyl on Tuesday, April 24th, at 2 p.m. Members having papers to read, cases to communicate, or specimens are requested to send notice before the 14th April to the Honorary Secretary, H. JONES ROBERTS, Penygroes.

SOUTH-EASTERN OF IRELAND BRANCH.—The annual meeting of this Branch will be held at the Victoria Hotel, Kilkenny, on May 2nd, at 12 noon. Agenda: (1) To receive annual report of Branch; (2) to elect officers; (3) motion by Honorary Secretary to have a code of ethical rules adopted by Branch; (4) any other business. Members are requested to notify their intention of reading papers.—J. QUIRKE, M.D., Piltown, Honorary Secretary.

SOUTH MIDLAND BRANCH.—In accordance with the by-laws, nominations of a member of Central Council to represent this Branch must reach me on or before 12th May.—E. HARRIES JONES, Honorary Secretary, 45, Sheep Street, Northampton.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: CARDIFF DIVISION.—An ordinary general meeting of this Division will be held at the Cardiff Infirmary on Thursday, April 26th, at 3.15 p.m. Agenda: (1) Minutes of last meeting. (2) Dr. T. Garrett Horder will move: "That in the opinion of this Division it is not desirable that any member should hold two official positions at the same time, either in a Branch or a Division, and that the Central Council be requested to draw up a regulation to that effect." (3) To consider the proposed Royal Charter of incorporation to the British Medical Association. (4) To consider the report of the Medico-Political Committee on the proposed registration of nurses. (5) Mr. F. P. S. Cresswell will show a patient who has marked ptosis, associated with a tumour in the malar region of a doubtful nature.—EWEN J. MACLEAN, R. RUSSELL THOMAS, Honorary Secretaries.

STAFFORDSHIRE BRANCH.—The third general meeting of the session will be held at the Victoria Hotel, Wolverhampton, on Thursday, May 10th. The President, Dr. G. S. Hatton, will take the chair at 3.30 p.m. Business: (1) Minutes of the last general meeting. (2) Correspondence. (3) Exhibition of Living Cases. (4) Paper, B. Cridland: Some Remarks on the Treatment of Squint. (5) Paper, E. Deanesly: A Survey of Surgical Work in a Provincial General Hospital. (6) Exhibition of Pathological Specimens, etc. A dinner will be arranged for 6.30 p.m. (charge 5s.), should a sufficient number of names be sent in.—G. PETGRAVE JOHNSON, Stoke-on-Trent, Honorary General Secretary.

NORTH WALES BRANCH.—A meeting of this Branch will be held at the Westminster Hotel, Rhyl, on Tuesday, April 24th, at 2 p.m. Agenda: (1) To read the minutes of the last meeting. (2) To read correspondence. (3) To receive the report of the Branch Council. (4) To read the financial statement for 1905. (5) To receive the report of the Jones Morris Memorial Fund. (6) Dr. H. Grey Edwards will bring to the notice of the meeting the position taken up by the medical profession at Bangor in regard to the vacancy in the medical officership of the Bangor Workhouse, and will move a resolution. The following papers will be read: Richard Jones, M.D., D.P.H., Blaenau Festiniog: The Prevalence of Cancer in North Wales. G. P. Newbolt, F.R.C.S., Liverpool: Some Remarks on Four Consecutive and Successful Operations for Perforated Gastric Ulcer. G. A. Crace-Calvert, M.B., Ruthin: Observations on the Opsonic Index of Tuberculous Patients undergoing Sanatorium Treatment. J. Hill Abram, M.D., M.R.C.P., Liverpool: Some Cases of Intrathoracic Tumour. J. Howell Evans, M.Ch., F.R.C.S., London: (1) Injuries to the Head of the Fetus at Birth which result in Intracranial or Extracranial Haemorrhages, illustrated by numerous lantern slides; (2) Rebellious Uterine Haemorrhages, illustrated by pathological specimens. J. E. Gemmell, M.B., Liverpool: Tubal Abortion. J. Lloyd Roberts, M.D., M.R.C.P., Liverpool: Colitis Sinistra. Luncheon at 1 p.m. prompt; tickets, 2s. 6d. each. The Branch Council will meet at 1.45 p.m.—H. JONES ROBERTS, Penygroes, Honorary Secretary.

ULSTER BRANCH.—The spring meeting of this Branch will be held in Derry on Saturday, May 5th. Members having any communications to make to the meeting will please send me particulars not later than April 24th.—CECIL SHAW, M.D., Belfast, Honorary Secretary.

ATTENDANCES OF COUNCIL, COMMITTEES, AND SUBCOMMITTEES FOR 1905-6.

ATTENDANCES OF COUNCIL, 1905-6 (9 MEETINGS).

Member of Council.	July 25, 1905.	July 26, 1905.	July 27, 1905.	July 28, 1905.	Oct. 18, 1905.	Dec. 13, 1905.	Jan. 17, 1906.	Mar. 14, 1906.	April 18, 1906.	Total.
Franklin, G. C., Esq., F.R.C.S., Leicester (President)' ...	1	1	1	1	1	1	1	—	1	8
Reeve, Professor R. A., M.D., LL.D., Toronto (President-elect) ...	—	—	—	—	—	—	—	—	—	—
Collier, Dr. William, Oxford (Past-President)	1	1	—	—	—	1	1	1	—	5
Horsley, Sir Victor, F.R.S., London (Chairman of Representative Meetings) ...	1	1	1	1	1	1	1	1	1	9
Browne, Dr. H. W. Langley, West Bromwich (Chairman of Council) ...	1	1	1	1	1	1	1	1	1	9
Crocker, Dr. H. Radcliffe, London (Treasurer)	—	1	1	—	1	1	1	1	—	6
Anderson, Dr. J. Ford, London ...	1	1	1	1	1	1	1	1	1	9
Barnes, Dr. Edgar G., Eye ...	—	1	1	1	1	—	1	1	—	6
Beverley, Dr. M., Norwich ...	1	1	1	—	1	1	—	—	—	5
Bradshaw, Dr. T. R., Liverpool ...	1	1	—	1	1	1	1	1	1	8
Brierley, Dr. J. Brassey, Old Trafford ...	—	—	1	—	1	1	1	—	—	4
Bruce, Colonel David, C.B., F.R.S., London [Cape of Good Hope (Eastern Province), and (Western Province) Branches] ...	—	—	—	—	—	—	1	1	—	2
Buist, Dr. R. C., Dundee ...	1	1	1	1	1	1	1	1	1	9
Burgess, Dr. Duncan, Sheffield ...	—	—	—	—	—	—	—	—	—	—
Byers, Professor J. W., M.D., Belfast ...	—	—	1	1	—	1	—	—	—	3
Carline, Dr. W. A., Lincoln ...	1	1	1	1	1	1	1	1	1	9
Clark, Andrew, Esq., D.Sc., F.R.C.S., London	1	1	1	1	1	1	1	1	1	9
Craig, Dr. James, Dublin ...	1	1	1	1	—	1	1	—	1	7
Cresswell, P. R., Esq., C.B., Dowlais (dead)...	1	1	1	1	1	—	—	—	—	5
Crowe, Dr. G. W., Worcester ...	—	—	—	—	—	—	—	—	—	—
Domville, E. J., Esq., Exeter ...	1	1	1	1	1	1	1	1	1	9
Duer, Major C., I.M.S., London (Burmah Branch) ...	—	—	—	—	—	—	—	—	—	—
Eastes, George, Esq., M.B., London ...	1	1	1	—	1	1	1	1	1	8
Finlay, Professor David W., M.D., LL.D., Aberdeen ...	—	—	—	—	—	—	1	1	1	3
Fox, Dr. E. L., Plymouth ...	—	—	—	—	1	1	1	1	—	4
Francis, Dr. H. A., London (Brisbane and Queensland Branch) ...	—	—	—	—	1	—	—	—	1	2
ialton, Dr. John H., Upper Norwood ...	1	1	1	1	1	1	1	1	1	9
iusani, Dr. J. J., Cork ...	—	—	—	—	1	1	1	—	1	4
off, Dr. Bruce, Bothwell, N.B. ...	1	1	1	1	1	1	1	1	1	9
ooding, Dr. C. G., Brockley, S.E. (Barbados Branch) ...	—	—	—	—	1	—	—	—	—	1
oyder, Dr. D., Bradford ...	1	1	1	1	1	1	1	1	1	9
riffiths, Dr. T. D., Swansea...	—	—	—	—	—	—	1	1	—	2
roves, Dr. J., Carisbrooke ...	1	1	1	1	1	1	1	1	1	9
Iamilton, Dr. James, Glasgow ...	1	1	1	1	1	1	—	1	1	8
Ielme, Dr. T. Arthur, Manchester ...	1	1	—	—	1	1	1	1	1	7
Iunter, Dr. J. H., South Shields ...	1	1	1	1	1	—	1	—	—	6
ohnston, Dr. R. McKenzie, Edinburgh ...	—	—	—	—	1	—	—	—	—	1
insey, R. H., Esq., Bedford ...	1	1	1	1	1	1	1	1	1	9
Iarriott, Dr. C. W., Reading † ...	—	—	—	—	—	—	1	1	—	2
Iartin, Dr. C. J., F.R.S., London (Sydney and New South Wales Branch) ...	—	—	—	—	—	—	—	—	—	—
Iilburn, Dr. C. H., Hull ...	—	—	—	—	1	—	—	1	—	2
Iorier, Dr. C. G. D., London (South Australian Branch) ...	—	—	—	—	—	1	1	—	1	3
Iorris, W. Jones, Esq., Portmadoc (dead) ...	1	1	1	1	—	—	—	—	—	4
Iorrison, Prof. J. T. J., M.B., Birmingham...	1	1	1	—	—	—	1	1	1	6
ugliston, Dr. T. C., London (Malaya Branch)	—	—	—	—	—	—	—	—	—	—
urray, Dr. James, Inverness ...	1	1	1	—	1	—	—	1	—	5
sler, Prof. Wm., M.D., F.R.S., Oxford ...	—	—	—	—	—	—	—	1	1	2
wen, Edmund, Esq., F.R.C.S., London ...	—	—	—	—	1	1	1	1	—	4
arkinson, C. H. W., Esq., Wimborne Minster ...	1	1	1	—	1	1	1	1	1	8
ope, Dr. F. M., Leicester ...	1	1	1	—	1	—	1	1	1	7
ayner, Dr. Edwin, Stockport ...	1	1	1	1	1	1	1	1	1	9
ennie, Dr. Alex., Aberdeen (Hong Kong Branch) ...	—	—	—	—	—	—	—	—	—	—
oberts, H. Jones, Esq., Penygroes...	—	—	—	—	—	1	1	1	1	4
obinson, H. Betham, Esq., M.S., London ...	1	1	1	—	1	1	1	1	1	8
oss, Dr. J. Maxwell, Dumfries ...	—	—	—	—	1	1	—	—	—	2
owell, George, Esq., F.R.C.S., London ...	—	—	—	—	1	—	—	—	1	2
undby, Professor Robert, M.D., LL.D., Birmingham ...	—	1	1	—	1	—	1	—	—	4
aw, Dr. Cecil E., Belfast ...	1	1	1	1	1	—	—	—	1	6
erritt, Dr. E. Markham, Bristol ...	1	1	1	—	1	1	1	1	1	8
nith, Professor W. R., M.D., London (Malta and Mediterranean Branch) ...	—	1	1	1	1	1	1	1	1	8
anton, W. D., Esq., Hanley ...	—	1	1	—	1	1	1	—	—	5
edman, Dr. F. O., London (Hong Kong Branch) ...	1	1	1	1	1	—	—	—	—	5
raton, C. R., Esq., F.R.C.S., Salisbury ...	1	1	1	1	1	1	1	1	1	9
omas, Fleet Surgeon J. Lloyd, R.N., Haslar (Representative of the Royal Navy Medical Service) ...	—	1	1	—	—	—	—	—	—	2
omas, J. Lynn, Esq., C.B., Cardiff ...	1	1	1	1	1	1	1	1	—	8
omasz, H. George, Esq., Edinburgh (Colombo and Ceylon Branch) ...	1	1	1	1	1	1	—	—	—	6
ynam, Dr. G. E., London (Sydney and New South Wales Branch) ...	—	—	—	—	1	—	—	—	1	2
son, Dr. W. J., Folkestone ...	—	1	1	—	—	1	1	1	—	5
rrall, T. Jenner, Esq., Brighton ...	1	1	1	1	1	1	1	1	1	9
lker, Dr. Norman, Edinburgh ...	1	1	1	1	1	1	1	1	1	9
lshe, Dr. Denis, Graigue ...	1	1	1	1	—	—	—	—	—	4
ar, Dr. A. T., Newcastle-upon-Tyne ...	—	1	1	—	1	1	1	1	1	7
lson, Lieutenant-Colonel E. M., C.B., C.M.G., Farnborough (Representative of the Army Medical Service) ...	—	—	—	—	—	1	1	1	1	4

---

* Co-opted members. † Vice Mr. Cresswell, deceased.
‡ Vice Mr. W. Jones Morris, deceased.

ARRANGEMENTS COMMITTEE.

Member of Committee.	Oct 6. 1905					Total.
Chairman of Council (*ex officio*) (Chairman) ...	1					1
President (*ex officio*) ...	1					1
Treasurer ...	—					—
Byers, Professor, J. W., Belfast ...	1					1
Eastes, George, Esq., M.B., London...	1					1
Galton, Dr. J. H., Upper Norwood ...	1					1
Hamilton, Dr. James, Glasgow ...	1					1
Thomas, J. Lynn, Esq., C.B., Cardiff ...	1					1

CHLOROFORM COMMITTEE.

Member of Committee.	Oct. 7. 1905.	March 30. 1906					Total.
Crocker, Dr. H. Radcliffe, London (Chairman) ...	1	1					2
President (*ex officio*) ...	—	—					—
Chairman of Council (*ex officio*) ...	—	—					—
Barr, Sir James, M.D., Liverpool ...	1	1					2
Brodie, Dr. T. G., F.R.S., London ...	1	1					2
Buxton, Dr. Dudley, London ...	1	1					2
Dunstan, Professor Wyndham, F.R.S., London ...	1	—					1
Harcourt, Professor Vernon, F.R.S., Ryde ...	1	1					2
Horsley, Sir Victor, F.R.S., London...	1	—					1
McCardie, Dr. W. J., Birmingham ...	1	1					2
Martin, Dr. C. J., F.R.S., London ...	—	1					1
Rowell, George, Esq., F.R.C.S., London ...	1	1					2
Sherrington, Professor C. S., M.D., F.R.S., Liverpool	—	—					—

* Elected in 1905.

ETHICAL COMMITTEE.

Member of Committee.	Oct. 6, 1905.	Dec. 15, 1905.	Jan. 5, 1906.	Mar. 2, 1906.	April 6, 1906.		Total.
Kinsey, R. H., Esq., Bedford (Chairman) ...	1	1	1	1	1		5
President, *ex officio* ...	1	—	—	—	1		2
Chairman of Council, *ex officio* ...	1	—	1	—	—		2
Anderson, Dr. J. Ford, London ...	1	1	1	1	1		5
Ballance, H. A., Esq., M.S., Norwich ...	1	1	1	1	—		4
Bateman, Dr. A. G., London... ...	1	—	1	1	1		4
Broadbent, G. H., Esq., Manchester ...	1	1	1	1	1		5
Crowe, Dr. G. W., Worcester ...	—	1	—	—	1		2
Goff, Dr. Bruce, Bothwell ...	1	1	1	1	1		5
Jepson, Dr. E., Durham ...	—	—	—	—	—		0
Langdon-Down, Dr. R. L., London ...	1	1	1	1	1		5
Spanton, W. D., Esq., F.R.C.S., Hanley ...	1	1	1	1	1		5

IRISH COMMITTEE.

Member of Committee.	Oct. 14, 1905.	Jan. 6, 1906.	March 31, 1906.				Total.
Byers, Professor J. W., Belfast (Chairman)... ...	1	1	1				3
President (*ex officio*) ...	—	—	—				—
Chairman of Council (*ex officio*) ...	—	—	—				—
Carey, Dr. R. B., Borris ...	1	1	1				3
Cooke, Dr. J. G., Londonderry ...	—	—	1				1
Craig, Dr. James, Dublin ...	1	1	1				3
Darling, Dr. J. S., Lurgan ...	1	1	1				3
Giusani, Dr. J. J., Cork ...	1	1	1				3
Kenny, Dr. J. M., Granard ...	—	1	1				2
Lee, Dr. Philip G., Cork ...	1	1	1				3
O'Connor, Dr. D. J., Cork ...	1	1	1				3
Quirke, Dr. James, Pilltown... ...	—	—	1				1
Shaw, Dr. Cecil E., Belfast ...	1	1	1				3
Walshe, Dr. Denis, Graigue ...	1	1	1				3
White, Professor A. H., Dublin (Honorary Secretary)	1	1	1				3

COLONIAL COMMITTEE.

Member of Committee.	Oct. 20, 1905.	Total.
Owen, Edmund, Esq., F.R.C.S., London (Chairman)	1	1
President (*ex officio*)	-	—
Chairman of Council (*ex officio*)	—	—
Duer, Major C., I.M.S., London	—	—
Morier, Dr. C. G. D., London	1	1
Smith, Professor W. R., London	1	1
Straton, C. R. Esq., F.R.C.S., Salisbury	1	1
Twynam, Dr. G. E., London	1	1
Also the following Colonial Representatives in England:		
Armour, Donald, Esq., F.R.C.S., representing Canada	1	1
Chalmers, Dr. A. J., representing Ceylon	1	1
Francis, Dr. H. A., representing Brisbane and Queensland	1	1
Stedman, Dr. F. O., representing Hong Kong ...	1	1
Thomasz, Dr. H. G., representing Ceylon	1	1

The following Colonial Representatives held one Meeting to Elect Representatives on the Colonial Committee.	Sept. 29, 1905.	Total.
Francis, Dr. H. A., representing Brisbane and Queensland Branch	1	1
Morier, Dr. C. G. D., representing South Australian Branch	1	1
Stedman, Dr. F. O., representing Hong Kong Branch	1	1
Twynam, Dr. G. E., representing Sydney and New South Wales	1	1

JOURNAL AND FINANCE COMMITTEE.

Member of Committee.	Oct. 11, 1905.	Nov. 27, 1905.	Dec. 6, 1905	Jan. 10, 1906	March 5, 1906	April 4, 1906	Total.
Chairman of Council (*ex officio*) (Chairman)... ...	1	1	1	1	1	1	6
President (*ex officio*)	—	1	—	—	—	—	1
Chairman of Representative Meetings	1	1	1	1	1	1	6
Treasurer	1	1	1	1	1	1	6
Barnes, Dr. Edgar G., Eye	1	1	—	1	—	1	4
Carline, Dr. W. A., Lincoln	1	1	1	1	1	1	6
Clark, Andrew, Esq., F.R.C.S., London	1	1	1	1	1	1	6
Galton, Dr. J. H., Upper Norwood	1	1	1	1	1	1	6
Groves, Dr. J., Carisbrooke	1	1	1	1	1	1	6
Kinsey, R. H., Esq., Bedford	1	1	1	1	1	1	6
Morris, W. Jones, Esq., Portmadoc (dead)	—	—	—	—	—	—	—
Parkinson, C. H. W., Esq., Wimborne Minster ...	1	1	1	1	1	1	6
Rayner, Dr. E., Stockport	1	1	1	1	1	1	6
Skerritt, Dr. E. Markham, Bristol	1	1	1	1	1	1	6
*Thomas, Mr. J. Lynn, C B., Cardiff (added by Council, January 17th, 1906)	—	—	—	—	1	1	2
Verrall, T. Jenner, Esq., Brighton	1	—	1	1	1	—	4
The following Chairmen of Committees attended the Journal and Finance Committee.							
Brierley, Dr. J. Brassey (Poor-law Special Committee)	—	1	1	1	—	—	3
Buist, Dr. R. C. (Medico-Political Committee) ...	—	1	1	1	—	—	3
Goff, Dr. Bruce (Scottish Committee)	—	1	1	1	—	—	3
Owen, Edmund, Esq., F.R C.S. (Colonial Committee)	—	1	—	—	—	—	1
Walker, Dr. Norman (Science Committee)	—	1	—	—	—	—	1

* Vice Mr. W. Jones Morris, deceased.

SUBCOMMITTEE OF JOURNAL AND FINANCE COMMITTEE ON ADVERTISEMENTS.

Member of Committee.	Oct. 11, 1905.						Total.
Chairman of Council (*ex officio*) (Chairman	1						1
Treasurer	1						1
Barnes, Dr. Edgar G., Eye	1						1
Clark, Andrew, Esq., F.R.C.S., London	1						1
Kinsey, R. H., Esq., Bedford	1						1
Skerritt, Dr. E. Markham, Bristol	1						1

COLONIAL SUBCOMMITTEE.

Member of Committee.	Feb. 26, 1906.	Total.
*Morier, Dr. C. G. Drummond, London (Chairman)...	1	1
*Armour, Donald, Esq., F.R.C.S., London	1	1
*Twynam, Dr. G. E., London	1	1

ELECTION RETURNS COMMITTEE.

Member of Committee.	July 14, 1905.	July 26, 1905.	Total.
Chairman of Council (*ex officio*) (Chairman)... ...	—	—	—
President (*ex officio*)	—	—	—
Chairman of Representative Meetings	—	—	—
Buist, Dr. R. C., Dundee	1	1	[illegible]
Byers, Professor J. W., Belfast	—	—	—
Clark, Andrew, Esq., F.R.C.S., London (ex-Chairman of Council)	1	1	[illegible]
Goff, Dr. Bruce, Bothwell	1	1	[illegible]
Kinsey, R. H., Esq., Bedford	—	—	—
Owen, Edmund, Esq., F.R.C S., London	—	—	—
Parkinson, C. H. W., Esq., Wimborne	1	1	[illegible]
Verrall, T. Jenner, Esq., Brighton...	—	—	—
Skerritt, Dr. Markham (ex-Treasurer)	—	1	[illegible]

HOSPITALS COMMITTEE.

Member of Committee.	Oct. 5, 1905.	Oct. 18, 1905.	Nov. 2, 1905.	Nov. 16, 1905.	Dec. 21, 1905.
Beverley, Dr. M., Norwich (Chairman)	1	1	1	1	1
President (*ex officio*)	—	1	—	—	—
Chairman of Council (*ex officio*)	—	—	—	—	1
Anderson, Dr. J. Ford, London	1	—	1	1	1
Brierley, Dr. J. Brassey, Old Trafford	1	1	1	1	—
Collier, Dr. W., Oxford	1	—	1	1	—
Fox, Dr. E. L., Plymouth	1	1	1	1	—
Hamilton, Dr. John R., Hawick	1	—	1	1	1
Hastings, Dr. E. B., London...	1	1	1	1	1
Owen, Edmund, Esq., F.R.C.S., London	—	—	1	—	—
Pope, Dr. F. M., Leicester	1	1	1	1	1
Shaw, Dr. Lauriston E., London	—	—	1	1	1
White, E. F., Esq., F.R.C.S., Putney...	1	—	1	1	1

CHARTER SUBCOMMITTEE.

Member of Subcommittee.	Oct. 20, 1905.	Oct. 30, 1905.	Nov. 6, 1905.	Feb. 6, 1906.
Verrall, T. Jenner, Esq. (Chairman)...	1	1	1	1
Chairman of Representative Meetings	1	—	1	1
Chairman of Council	1	1	1	1
Treasurer	1	1	—	1
Clark, Andrew, Esq., F.R.C.S., London	1	1	1	—

ORGANIZATION COMMITTEE.

Member of Committee.	Oct. 10, 1905.	Dec. 12, 1905.	Feb. 20, 1906.	April 10, 1906.
Verrall, T. Jenner, Esq., Brighton (Chairman) ...	1	1	1	1
President (*ex officio*)	—	—	—	—
Chairman of Council (*ex officio*)	1	—	—	—
Ballance, H. A., Esq., M.S., Norwich	1	1	1	1
Clark, Andrew, Esq., F.R.C.S., London	1	1	1	1
Cox, Dr. Alfred, Gateshead	1	1	1	1
Morrison, Professor J. T. J., Birmingham	1	1	1	1
Rayner, Dr. Edwin, Stockport	1	1	1	1
White, Professor A. H., Dublin	1	1	—	1
With—				
Treasurer	1	—	—	—
Chairman of Representative Meetings	1	—	—	—

MEDICO-POLITICAL COMMITTEE.

Member of Committee.	Oct. 4, 1905.	Nov. 22, 1905.	Jan. 3, 1906.	Feb. 21, 1906.	March 28, 1906.	Total.
Buist, Dr. R. C., Dundee (Chairman)	1	1	1	1	1	5
President (*ex officio*)	—	—	—	1	—	1
Chairman of Representative Meetings (*ex officio*) ...	1	1	—	1	1	4
Chairman of Council (*ex officio*)	—	—	—	—	—	—
Treasurer (*ex officio*)	1	—	1	1	1	4
Armit, H. W., Esq., Wembley	—	1	1	1	1	4
Hunter, Dr. J. H., South Shields	1	1	—	1	—	3
Jackson, George, Esq., F.R.C.S., Plymouth... ...	1	—	—	1	1	3
Latimer, Dr. H. A., Swansea	1	1	1	—	1	4
Macdonald, Dr. J. A., Taunton	1	1	1	1	1	5
McManus, Dr L. S., Wandsworth	1	1	—	1	1	4
Morris, W. Jones, Esq., Portmadoc (dead)	1	—	—	—	—	1
Oldham, Dr. W. F., Morecambe	1	1	—	1	1	4
Parkinson, C. H. W., Esq., Wimborne	1	1	1	1	—	4
Shaw, Dr. Cecil E., Belfast	1	1	1	1	1	5
Straton, C. R., Esq., Salisbury	1	1	1	1	1	5
Helme, Dr. T. Arthur, Manchester	—	—	1	1	1	3

* Added by Council, December 13th, 1905.

CONTRACT PRACTICE SUBCOMMITTEE.

Member of Subcommittee.	Oct. 27, 1905.	Jan. 3, 1906.	Feb. 14, 1906.	March 28, 1906.	April 11, 1906	Total.
acdonald, Dr. J. A., Taunton (Chairman)	1	1	1	1	1	5
Buist, Dr. R. C., Dundee	1	1	1	1	1	5
unter, Dr. J. H., South Shields	1	—	1	—	1	3
ackson, George, Esq., F.R.C.S., Plymouth... ...	—	—	—	1	1	2
atimer, Dr. H. A., Swansea	1	1	1	1	1	5
traton, C. R., Esq., F.R.C.S., Salisbury	1	1	1	1	1	5
With—						
ash, E. H. T., Esq., Accrington	1	1	1	1	1	5
With—						
roadbent, G. H., Esq., Manchester	1	1	1	1	1	5
ackeith, Dr. A. A., Southampton	—	1	1	1	1	4
allance, H. A., Esq., M.S., Norwich	—	1	1	—	1	3
reer, W. J., Esq., Newport, Mon.	—	1	1	1	1	4
olstenholme, Dr. R. H.	—	—	—	—	—	—

SUBCOMMITTEE ON LEAD POISONING.

Member of Subcommittee.	Sept. 20, 1905.	Jan. 17, 1906.	Total.
uist, Dr. R. C., Dundee (Chairman)	1	1	2
ranklin, G. C., Esq., F.R.C.S., Leicester	—	—	—
all, Dr. Arthur, Sheffield	1	1	2
acdonald, Dr. J. A., Taunton	1	1	2
ope, Dr. F. M., Leicester	—	1	1
ansom, Dr. W. B., Nottingham	1	1	2

LUNACY LAW AMENDMENT SUBCOMMITTEE.

Member of Subcommittee.	Oct. 27, 1905.	Jan. 26, 1906.	Feb. 14, 1906.	Total.
uist, Dr. R. C., Dundee (Chairman)	1	1	1	3
mit, H. W., Esq., Wembley	1	1	1	3
acdonald, Dr. J. A., Taunton	1	1	1	3
Manus, Dr. L. S., Wandsworth	1	1	1	3
raton, C. R., Esq., Salisbury	1	1	1	3
With—				
rswell, J., Esq., Glasgow	1	1	1	3
ark, Andrew, Esq., F.R.C.S., London	1	—	1	2
own, Dr. R. Cunyngham, Parkhurst	1	1	1	3
slop, Dr. T. B., London	1	1	—	2
ngdon-Down, Dr. R. L., Hampton Wick (Hon. Secretary)	1	1	1	3
cDonald, Dr. P. W., Dorchester	—	1	1	2
rcier, Dr. Charles, Catford	—	1	1	2
wington, Hayes, Esq., Ticehurst	—	—	—	—
atherly, Dr. Lionel, Bath	—	1	1	2
ith—				
uglas, Dr. W., Goudhurst	1	1	1	3
wson, Dr. W. R., Dublin	1	1	—	2

MEDICAL WITNESSES AND POLICE FEES SUBCOMMITTEE.

Member of Subcommittee.	Nov. 8, 1905.	Mar. 14, 1906.	Total.
Macdonald, Dr. J. A., Taunton (Chairman)	1	—	1
Buist, Dr. R. C.	1	1	2
With—			
Barnes, Dr. Henry	—	1	1
Hardy, H. Nelson Esq., F.R.C.S. (Hon. Secretary) ...	1	1	2
Parkinson, C. H. W., Esq.	1	1	2

SUBCOMMITTEE ON QUESTIONS AFFECTING THE OPERATION AND AMENDMENT OF THE MIDWIVES ACT.

Member of Subcommittee.	Oct. 27, 1905.	Jan. 3, 1906.	April 18, 1906.	Total.
Hunter, Dr. J. H., South Shields (Chairman) ...	1	—	—	1
Buist, Dr. R. C.	1	1	1	3
Helme, Dr. T. Arthur	—	—	—	—
Jackson, George, Esq., F.R.C.S., Plymouth... ...	—	—	—	—
With—				
Fothergill, Dr. E. R., Wandsworth	1	1	1	3
Wolstenholme, R. H., Esq., Salford...	—	—	—	—

PARLIAMENTARY SUBCOMMITTEE.

Member of Subcommittee.	Oct. 18, 1905.	Nov. 8, 1905.	Dec. 13, 1905.	Feb. 21, 1906.	March 28, 1906.	Total.
Buist, Dr. R. C., Dundee (Chairman)	1	1	1	1	1	5
Armit, H. W., Esq., Wembley	1	1	1	1	1	5
Helme, Dr. T. Arthur	—	—	—	—	—	—
Horsley, Sir Victor, F.R.S., London	1	1	—	1	1	4
McManus, Dr. L. S., Wandsworth	1	1	1	1	1	5
Oldham, Dr. H. F., Morecambe	1	—	1	1	1	4
Parkinson, C. H. W., Esq., Wimborne Minster ...	1	1	1	—	—	3
Straton, C. R., Esq., Salisbury	1	1	1	1	1	5
Macdonald, Dr. J. A., Taunton	—	—	—	—	1	1

PUBLIC MORALITY SUBCOMMITTEE.

Member of Subcommittee.	Nov. 8, 1905.	Total.
McManus, Dr. L. S., Wandsworth (Chairman) ...	1	1
Chairman of Representative Meetings	1	1
Armit, H. W., Esq., Wembley	—	—
Buist, Dr. R. C.	1	1
With—		
Horder, T. Garrett, Esq., Cardiff	1	1

SUBCOMMITTEE ON VACCINATION.

Member of Subcommittee.	Sept. 20, 1905.	Total.
Parkinson, C. H. W., Esq., Wimborne (Chairman) ...	1	1
Buist, Dr. R. C., Dundee	1	1
Greenwood, Dr. Major, London	1	1
Jackson, George, Esq., F.R.C.S., Plymouth	—	—
McVail, Dr. John C., Glasgow	—	—
Manley, Dr. Herbert, West Bromwich	1	1
Nash, E. H. T., Esq.	1	1

POOR-LAW SPECIAL COMMITTEE.

Member of Committee.	Nov. 8, 1905.	Total.
Brierley, Dr. J. Brassey, Old Trafford (Chairman) ...	1	1
President (*ex officio*)	—	—
Chairman of Council (*ex officio*)	—	—
Buist, Dr. R. C.	1	1
Macdonald, Dr. J. A., Taunton	1	1
Oldham, Dr. H. F., Morecambe	1	1
Shaw, Dr. Cecil E., Belfast	—	—
Straton, C. R., Esq., F.R.C.S., Salisbury	1	1
With—		
Anderson, Dr. J. Ford, London	1	1
Darling, Dr. J. S., Lurgan	1	1
Jones, Herbert, Esq., Hereford	1	1
Manley, Dr. Herbert, West Bromwich	1	1
Muir, W. L., Esq., Dennistoun	1	1
Moorhouse, Dr. J. E., Stirling	1	1
White, Professor A. H., Dublin	1	1
Parkinson, C. H. W., Esq., Wimborne	1	1

PREMISES AND LIBRARY COMMITTEE.

Member of Committee.	Oct. 3, 1905.	Nov. 6, 1905.	Dec. 6, 1905.	Jan. 9, 1906.	March 5, 1906	April 3, 1906	Total.
Clark, Andrew, Esq., F.R.C.S., London (Chairman)...	1	1	1	1	1	1	6
President (*ex officio*)	—	—	—	—	—	—	—
Chairman of Council (*ex officio*)	1	1	1	1	1	1	6
Treasurer	—	1	1	1	1	1	5
Barnes, Dr Edgar G., Eye	1	1	—	1	—	1	4
Galton, Dr. J. H., Upper Norwood	1	1	1	1	1	1	6
Goff, Dr. Bruce, Bothwell	—	1	1	1	1	1	5
Johnston, Dr. R. McKenzie, Edinburgh	1	1	1	—	—	—	3
Skerritt, Dr. E. Markham, Bristol	1	1	1	1	1	1	6
Chairman of Representative Meetings (Co-opted Oct. 18, 1905)	—	—	1	—	1	1	3
Brierley, Dr. J. Brassey, Old Trafford (Co-opted Oct. 18, 1905)	—	—	1	—	—	1	2
Rayner, Dr. E., Stockport (Co-opted Oct. 18, 1905) ...	—	1	1	1	1	—	4

PREMISES BUILDING SUBCOMMITTEE.

Member of Subcommittee.	Feb. 20, 1906.	Total.
Chairman of Premises and Library Committee (Chairman)	1	1
Chairman of Council	1	1
Treasurer	—	—
Rayner, Dr. Edwin, Stockport...	1	1

SCOTTISH COMMITTEE.

Member of Committee.	Sept. 30, 1905.	Dec. 19, 1905.	Total.
Goff, Dr. Bruce, Bothwell (Chairman)	1	1	2
President (*ex officio*)	—	—	—
Chairman of Council (*ex officio*)	—	—	—
Buist, Dr. R. C., Dundee	1	1	2
Christie, Dr. J. F., Aberdeen	—	—	—
Finlay, Professor D. W., Aberdeen	1	—	1
Fraser, Dr. T., Aberdeen	—	—	—
Graham, Dr. R. Balfour, Fife	—	1	1
Hamilton, Dr. James, Glasgow	1	—	1
Hill, Dr. F. R., Carlisle	—	—	—
Johnston, Dr. R. McKenzie, Edinburgh	1	1	2
Low, Dr. A. P., Dundee	1	—	1
Moir, Dr. J. Munro, Inverness	—	—	—
Moorhouse, Dr. J. E. (Honorary Secretary)	1	1	2
Murray, Dr. J., Inverness	—	—	—
Nicoll, Dr. J. H., Glasgow	1	—	1
Ross, Dr. J. Maxwell, Dumfries	1	—	1
Taylor, Dr. W. A., Perth	—	—	—
Trotter, Dr. A., Perth	1	1	2
Turner, Dr A. Logan, Edinburgh	—	—	—
Walker, Dr. Norman, Edinburgh	1	1	2

PUBLIC HEALTH COMMITTEE.

Member of Committee.	Oct. 3, 1905.	Nov. 29, 1905.	Feb. 3, 1906.	April 10, 1906.	Total.
Parkinson, C. H. W., Esq., Wimborne (Chairman) ...	1	1	1	1	4
President (*ex officio*)	—	—	—	—	—
Chairman of Council (*ex officio*)	—	—	—	—	—
Groves, Dr. J., Carisbrooke	1	1	1	1	4
Jones, Herbert, Esq., Hereford	1	1	1	1	4
Martley, Dr. Herbert, West Bromwich	1	1	1	1	4
Manley, Dr. F. C., Dublin	1	—	—	1	2
Nasmyth, Dr. T. G., Fife	1	1	1	1	4
Ross, Dr. J. Maxwell, Dumfries	1	-	1	1	3

PROPRIETARY DRUGS COMMITTEE.

Member of Committee.	Feb. 9, 1906.	Total.
Kinsey, R. H., Esq., Bedford (Chairman)	1	1
Cushny, Professor A. R., M.D., London	1	1
Dunstan, Professor Wyndham, F.R.S., London ...	1	1
The Editor British Medical Journal (Hon. Sec.)...	1	1
The General Secretary B.M.A.	1	1

PUERPERAL MORBIDITY COMMITTEE.

Member of Committee.	Jan. 26, 1906.	March 9, 1906.	Total.
Spencer, Dr. H. R., London (Chairman)	1	1	
Anderson, Miss L. Garrett, M.D., London (Hon. Sec.)	1	1	
Ballantyne, Dr. J. W., Edinburgh	1	—	
Boxall, Dr. Robert, London	1	1	
Buist, Dr. R. C., Dundee	1	1	
Fothergill, Dr. W. E., Manchester	1	1	
Horne, Dr. A. J., Dublin	1	1	
Jardine, Dr. R. J., Glasgow	1	1	
Tweedy, Dr. Hastings, Dublin	1	1	
Wilson, Dr. Thomas, Birmingham	1	1	

SCIENCE COMMITTEE.

Member of Committee.	Oct. 4, 1905.	Feb. 22, 1906.	Total.
Walker, Dr. Norman, Edinburgh (Chairman) ...	1	1	
President (*ex officio*)	—	—	
Chairman of Council (*ex officio*)	—	—	
Treasurer	—	—	
Barr, Sir James, M.D., Liverpool	1	1	
Buist, Dr. R. C., Dundee	1	1	
Clark, Andrew, Esq., F.R.C.S., London	1	1	
Collier, Dr. Wm., Oxford	—	1	
Morrison, Professor J. T. J., Birmingham	1	—	
Osler, Professor Wm., F.R.S., Oxford	—	1	
Pope, Dr. F. M., Leicester	—	1	
Robinson, H. Betham, Esq., M.S., London	1	1	
Shaw, Dr. Cecil E., Belfast	1	1	
Tyson, Dr. W. J., Folkestone	1	1	

SUBCOMMITTEE OF SCOTTISH COMMITTEE.

Member of Subcommittee.	Nov. 2, 1905.
Buist, Dr. R. C. (Chairman)	1
Moorhouse, H. J. E., Stirling	1
Muir, Dr. W. L, Dennistoun...	1
Trotter, Dr. A., Perth	1

THERAPEUTIC COMMITTEE.

Member of Committee.	May 6, 1905.	Oct. 13, 1905.	April 6, 1906.				Total.
Tirard, Dr. Nestor, London (Chairman)	1	1	1				3
Bradbury, Dr. J. B., Cambridge	1	1	1				3
Brown, Dr. T. E. Burton, Brondesbury	1	1	1				3
Crawfurd, Dr. Raymond, London	1	1	1				3
Marshall, Professor C. R., Dundee (Hon. Secretary)	—	—	—				—
Phillips, Dr. Sidney, London	—	—	—				—
Smith, Dr. Walter, Dublin	—	1	1				2
Stockman, Professor Ralph, Glasgow	1	1	1				3
White, Dr. W. Hale, London...	1	—	1				2
Wild, Professor R. H., Manchester	—	1	1				2
Cushny, Professor A. R., London (incepted May 6th, 1905)	—	1	1				2

PHARMACOPOEIAL SUBCOMMITTEE OF THE THERAPEUTIC COMMITTEE.

Member of Subcommittee.	Oct. 13, 1905.	April 6, 1906.					Total.
irard, Dr. Nestor, London (Chairman)	1	1					2
rawfurd, Dr. Raymond, London	1	1					2
ushny, Professor A. R., London	1	1					2
arshall, Professor C. R., Dundee	1	1					2
tockman, Professor Ralph, Glasgow	1	1					2
ild, Professor R. H., Manchester	1	1					2

VACCINATION BILL.

HIS Bill was introduced into the House of Commons on arch 28th, 1906, by Mr. Arthur Black, and is supported Mr. Channing, Mr. Levy, Sir Charles McLaren, r. Ramsay Macdonald, Mr. Nicholls, Mr. George White, d Sir William Collins.

A BILL TO

nend the Law in respect to the Procedure of Officers and Justices of the Peace administering the several Vaccination Acts,

it enacted by the King's Most Excellent Majesty, by d with the advice and consent of the Lords Spiritual d Temporal, and Commons, in this present Parliament sembled, and by the authority of the same, as follows:

1. *Short Title.*—This Act may be cited as the Vaccinan Acts Amendment Act, 1906.

2. *Restrictions on Initiation of Proceedings under Vaccinan Acts by Officers of Local Authorities.*—After the passing this Act an officer of a Board of Guardians or other al authority, wholly or partly paid for his services out the proceeds of any rate, shall not institute proceedings be concerned in legal proceedings against any person non-compliance with the provisions of any Vaccination t, unless authorized to do so by a resolution passed by Board of Guardians or other local authority employing n, nor until a copy of each resolution in writing, signed the chairman presiding at the meeting of the Board of ardians or other local authority at which such resolu- was passed, has been handed to him; and such officer ll exhibit to the justices adjudicating upon a summons en out by him such copy of resolution when demanded them or by the defendant or other person appearing on behalf.

. *Certificates of Exemption.*—An application for a certifi- of exemption under the Vaccination Act, 1898, may made by the father or the mother or either of the rdians of a child liable to vaccination under any Act, the justices to whom the application is made shall catechize the applicant, but may, if not satisfied that applicant has a conscientious objection to vaccina-, administer, or cause to be administered, the usual ; and if the applicant declares on oath that he or she eves that vaccination would be prejudicial to the th of the child in question, a certificate of exemption l be granted, at a cost not exceeding one shilling, out further question or remark.

CENTRAL MIDWIVES BOARD.

A MEETING of the Central Midwives Board was held on April 10th, at 6, Suffolk Street, Pall Mall, with Dr. F. H. CHAMPNEYS in the chair.

Medical Men called in by Midwives.

The Board spent some time in considering the revision of its rules under the Act preparatory to sending them in to the Privy Council for approval. The following letter from the Privy Council was read:

Privy Council Office,
April 5th, 1906.

Sir,

Referring to the payment of legally qualified medical practitioners when called in by midwives in difficult cases I am directed by the Lord President of the Council to transmit to you to be laid before the Central Midwives Board the accompanying copy of a letter from the Local Government Board on the subject, and to state that it appears to his Lordship that the payment in the case of persons who are fit subjects for medical relief is a matter of arrangement and presents no special difficulty, but that there are a considerable number of cases where the persons who are willing to pay for a midwife refuse to incur further expense and the position of the midwife under Rule E. 17 becomes one of grave perplexity.

His Lordship is of opinion that Rule E. 17, being inconsistent with Rule 6, the difficulty might be solved by an amendment of Rule E. 17 by substituting for the word "decline" in the third line the words "explain that she is not qualified."

Further, his Lordship considers that a midwife should be required to intimate when she undertakes a case, that a necessity to send for a medical practitioner may arise at any moment.

I am, Sir,
Your obedient servant,
A. W. FITZROY.

To the Secretary,
Central Midwives Board,
6, Suffolk Street,
Pall Mall, S.W.

The letter from the Local Government Board referred to in the above communication was then read:

Local Government Board,
Whitehall, S.W.,
April 2nd, 1906.

Sir,

I am directed by the Local Government Board to state that they have had under consideration the question of the payment of medical practitioners called in by midwives under Rule E. 17 of the rules of the Central Midwives Board in difficult cases.

It appears to the Board that at present there is no legal provision under which the payment of the medical man called in by a midwife can be guaranteed. In the cases of poor persons entitled to receive medical relief at the hands of the Guardians, provision for the attendance, if necessary, of the district medical officer might be made beforehand by application to the relieving officer for an order. The Board are of opinion that in any such case, even if an order had not been previously obtained, and although some medical man other than the district medical officer were called in, it would be competent to the Guardians if they thought proper to pay for the medical assistance under the provisions of Section 2 of the Poor-law Amendment Act, 1848.

The Board are unable to concur in the suggestion that the notice of necessity for medical help issued by a midwife should have the same legal effect as an order by a relieving officer to the district medical officer. The Board consider that there are grave objections to conferring upon midwives powers to grant relief either absolutely or on loan.

Further, with regard to Section 133 of the Public Health Act, 1875, although it seems to them that the provisions of that section might possibly be available if a town council or other local authority for the execution of that Act are willing to pay for the medical assistance required, the Board are of opinion that it is not desirable as a general rule that payments to medical men in such cases should be made under this section. Apart from the question of the intention of the Legislature in framing this enactment, it seems to the Board that any payment made by a public authority to a medical man called in by a midwife would in fact be in the nature of relief to the poor, and that from every point of view it is better that such relief at the expense of the rates should only be administered by the authority empowered by law to do so, namely, the Guardians of the poor.

I am, Sir,
Your obedient servant,
NOEL T. KERSHAW,
Assistant Secretary.

The Central Midwives Board decided that the following revised rule should be submitted to the Privy Council for approval:

In all cases of abortion, of illness of the patient or child; or of any abnormality occurring during pregnancy, labour, or lying-in, a midwife must explain that the case is one in which she must advise that a registered medical practitioner be sent for, and must hand to the husband, or the nearest relative or friend present, the form of sending for medical help, properly filled up and signed by her, in order that this may be immediately forwarded to the medical practitioner. If for any reason the services of a registered medical practitioner be not available, the midwife must, if the case be one of emergency, remain with the patient and do her best for her until the registered medical practitioner arrives, or until the emergency is over. After having complied with the rule as to the summoning of medical assistance, the midwife will not incur any legal liability by remaining on duty and doing her best for her patient.

Illiterate Midwives.

The agenda paper contained a notice of a motion to be moved by Sir William Sinclair and seconded by Mr. Ward Cousins that a new rule in the following terms be inserted in the rules:

> No one shall be permitted to begin the course of instruction, either theoretical or practical, until she has produced evidence satisfactory to the Central Midwives Board that she has received sufficient elementary education to enable her to read a textbook and take notes of cases. But this rule shall not apply to pupils who have received training in general nursing for at least one year.

In the unavoidable absence of Sir William Sinclair and Mr. Ward Cousins, Mr. H. G. **FORDHAM** observed that he was in sympathy with the principle but not with the way in which the rule was worded, and he moved that the instructor who certifies a candidate as having attended a course of instruction should do so in the following terms:

> I certify that .... (to whom this certificate refers) has attended to my satisfaction a course of instruction in the subjects enmerated in Rule D 4, extending over a period of not less than three months, and consisting of not less than fifteen lectures, and has shown that she possesses sufficient elementary education to enable her to read and to take notes of cases.

This was seconded by Dr. W. R. **DAKIN**, and on being put to the vote was carried by the casting vote of the Chairman, to be submitted to the Privy Council for approval.

Vital Statistics.

THE ANNUAL REPORT OF THE REGISTRAR-GENERAL FOR ENGLAND AND WALES.

THE sixty-seventh annual report of the Registrar-General relating to the vital statistics of England and Wales for the year 1904 has just been issued. The more general statistical facts have already been dealt with in the quarterly returns relating to that year; but, besides much other additional information, the report now published contains a detailed analysis of the causes of death, which is necessary for a proper appreciation of the significance of the figures in the tabular portion of the report.

MARRIAGE-RATE.

The number of persons married during 1904 was 515,712, being equal to 15.2 per 1,000 of the estimated population, or 0.6 per 1,000 below the rate in the ten preceding years. Calculated on the unmarried and widowed population at age 15 years and upwards, the marriage-rate in 1904 was 46.5 per 1,000, or 1.3 per 1,000 less than the corresponding rate in 1903.

BIRTH-RATE.

The births registered in England and Wales during the year under notice numbered 945,389, and were equal to an annual rate of 27.9 per 1,000, which was 1.3 per 1,000 below the average rate for the ten years 1894-1903, and was the lowest rate hitherto recorded. Among the registration counties the birth-rates ranged from 21.5 in Sussex, 22.2 in Cornwall, 22.9 in Dorsetshire, 23.0 in Bedfordshire and in Herefordshire, and 23.2 in Devonshire, to 31.9 in Northumberland, 32.6 in Staffordshire, 34.9 in Durham and in Glamorganshire, and 35.5 in Monmouthshire. There were in England and Wales as a whole, 1,037 male births to 1,000 female births, the average proportion in the ten preceding years being 1,036 to 1,000. With reference to the decline of the birth-rate, it is shown in the report that, in equal numbers of females at ages between 15 and 45 years, the births in 1904, compared with those in the years 1870-2, showed a decrease of more than 27 per cent.; seven-tenths of this decrease was due to a lower rate of fertility in married women, and one-tenth to a decline in the proportion of illegitimate births.

DEATH-RATE.

The deaths registered in England and Wales during 1904 numbered 549,784, being 16.2 per 1,000 of the population at all ages; this rate is 1.0 per 1,000 below the averag in the ten years 1894-1903, and is only 0.1 per 1,000 abov the rate for the year 1903, which is the lowest on record. After correction for differences in the sex and age constitution of the several counties, the lowest rates of mortalit were recorded in Oxfordshire, Huntingdonshire, Wiltshire, Dorsetshire, Rutlandshire, and Westmorland; an the highest rates in Warwickshire, Lancashire, Durham Northumberland, Glamorganshire, and Denbighshire.

The death-rates at various age-periods were generall below the corresponding rates in the preceding decennium Infantile mortality, measured by the proportion of death among children under one year of age to registered birth was equal to 145 per 1,000, or 5 per 1,000 less than th decennial average. In a selected group of urban countie the corrected death-rate was 17.9 per 1,000, against 13.5 pe 1,000 in a group of rural counties, both the urban and th rural mortality being lower than the respective average for the preceding five years.

CAUSES OF DEATH.

The definite causes of death, excluding all forms o violence, specified in the present report, are groupe provisionally under two headings, namely, "Genera Diseases" and "Diseases of Particular Organs." Th mortality from two of the principal epidemic diseases whooping-cough and diarrhoea, was above the average, bu the deaths from small-pox, measles, scarlet fever, diphtheria, and enteric fever showed a decline, the death-rat from the last mentioned disease being the lowest on recor The mortality from influenza was equal to 168 per millio persons living, against an average of 302 in the fifteen yea 1890-1904. The deaths from phthisis were at the rate of 1,45 per million among males and 1,029 among females, thes rates being about 3 per cent. lower than the respectiv averages for the preceding five years; in the rural counti the quinquennial average was slightly exceeded in 190 while in the urban counties the decline of phthisis mo tality was rather greater than in England and Wales as whole. To cancer or malignant disease, 29,682 deaths we attributed during the year under notice, being 2,461 i excess of the annual average number in the preceding te years after correction for increase of population; amo males the death-rate from this disease in 1904 was 740 p million and among females 1,006 per million, both thes rates being respectively the highest on record. Alcoholis was definitely stated as the cause of death of 1,396 men a 962 women; among both sexes the recorded mortality fro alcoholism, as well as from cirrhosis of the liver, has bee declining since 1900, and it would appear, therefore, th there has been no increase recently in the loss of life intemperance.

INADEQUATE CERTIFICATION.

The deaths of 51,449 persons in 1904 were attributed ill-defined or not specified causes. Many other deat would have remained in this group but for the inquiri addressed to medical practitioners respecting deaths certified as due to dropsy, tumour, haemorrhage, and certa other indefinite conditions. In the course of a year repli to 3,896 inquiries of this kind were received and in ma cases enabled a more definite cause of death to be assigne For example, 466 deaths from malignant disease, 391 fr tuberculous diseases, 129 from appendicitis, and 118 fr puerperal septic diseases were transferred to definite headings as a result of the additional information so obtained

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8. births and 5,200 deaths were registered during the week end Saturday last, April 14th. The annual rate of mortality in th towns, which had been 17.0 per 1,000 in each of the two preced weeks, rose to 17.1 per 1,000 last week. The rates in the several tow ranged from 8.0 in Willesden, 8.8 in East Ham, 9.2 in Tottenh 9.7 in Portsmouth, 10.0 in Devonport, 10.1 in Aston Manor, and 10. Handsworth (Staffs.), to 21.1 in Oldham, 21.4 in Manchester, 21.5 Birmingham, 21.9 in Middlesbrough, 22.1 in West Bromwich, 22.6 Smethwick, 23.1 in Tynemouth, and 25.6 in Liverpool. In London rate of mortality was 17.4 per 1,000, while it averaged 17.0 per 1,00 the seventy-five other large towns. The death-rate from the princi infectious diseases averaged 1.7 per 1,000 in the seventy-six towns: London the death-rate was equal to 1.6 per 1,000; while among seventy-five large provincial towns the rates ranged upwards 2.7 in Bristol and in Preston, 2.9 in Tynemouth, 3.0 West Bromwich, 3.3 in Manchester, 3.4 in Rotherham, in Leyton, 4.0 in Great Yarmouth, and 4.8 in Liverp Measles caused a death-rate of 1.3 in Leyton, in Bristol, in Prest and in Bradford, 1.8 in Bury, 2.0 in Manchester, 2.6 in Liverpool, 3.0 in Great Yarmouth; scarlet fever of 2.6 in Rotherham: whoop cough of 1.1 in Leicester, 1.2 in Hornsey, 1.3 in Birmingham Birkenhead, 1.4 in Cardiff, 1.5 in Bournemouth, 1.8 in Leyton, 2 Smethwick, and 3.0 in West Bromwich; and diarrhoea of 1. Walsall, 1.2 in York, 1.6 in Middlesbrough, and 1.9 in Tynemouth. mortality from diphtheria and from enteric fever showed no mar excess in any of the large towns. No fatal case of small-pox was registered last week in any of the seventy-six towns. The number of small-pox patients under treatment in the Metropolitan Asylums Hospitals, which had been 8 on each of the two preceding Saturdays, had declined to 7 on Saturday last, the 14th inst.; no new case was admitted during the three weeks ending on that date. The number of carlet fever cases in these hospitals and in the London Fever Hospital was 2,301 at the end of last week, against 2,434, 2,386, and 2,322 at he end of the three preceding weeks; 270 new cases were admitted uring the week, against 234, 223, and 292 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, April 14th, 920 births and 655 eaths were registered in eight of the principal Scotch towns. The nnual rate of mortality in these towns, which had been 18.0, 18.9, and 9.4 per 1,000 in the three preceding weeks, declined again to 19.1 per 000 last week, but was 2.0 per 1,000 above the mean rate during the ame period in the seventy-six large English towns. Among these cotch towns the death-rates ranged from 11.6 in Aberdeen and 14.4 in aisley to 20.9 in Glasgow and 24.3 in Greenock. The death-rate from he principal infectious diseases averaged 1.6 per 1,000 in these owns, the highest rates being recorded in Glasgow, Dundee, and eith. The 335 deaths registered in Glasgow included 12 which were eferred to measles, 5 to diphtheria, 6 to whooping-cough, and 7 to iarrhoea. Six fatal cases of measles, 2 of diphtheria, and 2 of hooping-cough were recorded in Edinburgh; 3 of measles and 2 of iarrhoea in Dundee; and 2 of measles and 3 of whooping-cough in eith.

Vacancies and Appointments.

VACANCIES.

his list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

ARBADOS GENERAL HOSPITAL.—Junior Resident Surgeon. Salary, £200 per annum, with quarters.

IRKENHEAD BOROUGH HOSPITAL.—Junior Resident House-Surgeon. Salary, £80 per annum.

RMINGHAM UNIVERSITY.—Assistant Lecturer on Pathology and Bacteriology. Stipend, £250 per annum.

DMIN: CORNWALL COUNTY ASYLUM.—Third Assistant Medical Officer. Salary, £135, rising to £155 per annum.

RITISH LYING-IN HOSPITAL, Endell Street, W.C.—Physician to Out-patients.

XTON: DEVONSHIRE HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum.

IARING CROSS HOSPITAL, W.C.—Assistant Physician.

JDLEY: GUEST HOSPITAL.—Assistant House-Surgeon. Salary, £40 per annum.

ST SUSSEX COUNTY ASYLUM, Hellingly.—Second Assistant Medical Officer, male. Salary, £200 per annum.

SEX AND COLCHESTER HOSPITAL.—House-Surgeon. Salary, £100 per annum.

ELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Surgeon to Out-patients.

MEL HEMPSTEAD: WEST HERTS INFIRMARY.—House-Surgeon Assistant-Secretary. Salary (combined), £110 per annum.

SPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon. Salary, £20 for six months, and £2 10s. washing allowance.

LL ROYAL INFIRMARY.—Honorary Assistant Ophthalmic Surgeon for Out-patient Department.

LME DISPENSARY, Dale Street, Manchester. Honorary Surgeon.

ICESTER INFIRMARY.—Assistant Surgeon.

CARD: WALLASEY DISPENSARY AND VICTORIA CENTRAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

ERPOOL INFECTIOUS DISEASES HOSPITAL, Fazakerley.—Assistant Resident Medical Officer. Salary, £120 per annum.

CCLESFIELD GENERAL INFIRMARY.—Senior House Surgeon. Salary, £100, increasing to £110 per annum.

NTROSE ROYAL ASYLUM.—Senior Assistant Medical Officer. Salary commencing at £200 per annum.

WPORT AND MONMOUTHSHIRE HOSPITAL.—Junior Resident Medical Officer. Salary, £70 per annum.

HAM INFIRMARY.—Junior House-Surgeon. Salary, £75 per annum.

DINGTON GREEN CHILDREN'S HOSPITAL, W.—Second Honorary Anaesthetist.

NSEA GENERAL AND EYE HOSPITAL.—House-Surgeon. Salary at the rate of £50 per annum first six months and £75 after.

NTON AND SOMERSET HOSPITAL.—Resident Assistant House-Surgeon. Salary at the rate of £50 per annum.

GINIA WATER: HOLLOWAY SANATORIUM.—Junior Assistant Medical Officer. Salary to begin, £175 per annum.

T BROMWICH DISTRICT HOSPITAL.—Resident Assistant House Surgeon. Salary, £50 per annum.

T LONDON HOSPITAL, Hammersmith Road, W.—(1) Assistant Anaesthetist. (2) Second Assistant Anaesthetist. (3) Casualty Surgeon.

APPOINTMENTS.

ON, J. B., M.B., Ch.B Vict., Junior Resident Assistant Medical Officer at the Manchester Township Workhouse.

S, F. H., L.F.P.S.Glas., L.S.A., Certifying Factory Surgeon for the awley District, co. Salop.

AND, G. F., M.D.Camb., Certifying Factory Surgeon for the Winchester District, co. Hants.

CHER, J. R., L.R.C.P.Edin., L.F.P.S.Glas., Certifying Factory Surgeon for the Sherston District, co. Wilts.

IE, William, M.B., Ch.B.Edin., Medical Officer, East District, undee Combination Parish Council.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BENTLEY.—On April 6th, at Haworth, Mitcham, the wife of Harold Bentley, M.R.C.S., L.R.C.P., of a son.

BURGESS.—On 14th inst., at 195, High Street, Oxford Street, Manchester, the wife of Arthur H. Burgess, F.R.C.S., of a son.

DOUGLAS WILSON.—At 3, Ripon Road, Harrogate, on April 12th, the wife of H. Douglas Wilson, M.D.Edin., a daughter.

MILLER.—On March 22nd, at Ireland Island, Bermuda, the wife of Fleet Surgeon Richard Miller, Royal Naval Hospital, of a son.

WARREN.—On Sunday, April 15th, at 15, Lansdowne Crescent, W., the wife of Alfred C. Warren, M.A., M.R.C.S., L.R.C.P., of a son.

MARRIAGE.

GLENNY—HOPKINS.—On 11th April, by special licence, at Christ Church, West Didsbury, by the Rev. Walter Thompson, M.A., Rector, Edmund Glenny, F.R.C.S.I., of 14, Harrington Street, Dublin, third son of the Rev. R. Edmund Glenny, D.D., Rector of Clonallon, Warrenpoint, co. Down, to Florence, widow of the late John Beatty Hopkins, M.D., T.C.D., of Dunallan, Central Road, West Didsbury. At home, May 7th-12th.

DEATH.

HALL.—On Good Friday morning, April 13th, 1906, at "Tresco," Ballards Lane, Finchley, N., Charlotte, wife of James Hall (formerly of West Bromwich), and mother of J. Field Hall, M.B., in her 73rd year.

DIARY FOR THE WEEK.

MONDAY.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 20, Hanover Square, W., 8 p.m.—Cases and Specimens.

TUESDAY.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W., 8.30 p.m.—Paper—Dr. W. Soltau Fenwick and Dr. J. Porter Parkinson: The Use of an Antistreptococcus Serum in the Treatment of Gonorrhoeal Infections and in certain Cases of Purpura Haemorrhagica.

WEDNESDAY.

HUNTERIAN SOCIETY, London Institution, Finsbury Circus, 8 p.m.—Annual Meeting. 8.30, Adjourned Discussion on Syphilis: The President, Dr. F. J. Smith; Dr. Still (Congenital Syphilis); Dr. T. Shennan (the *Spirochaeta pallida*); Dr. Harry Sequeira and Dr. Morgan Dockrell (Syphilis of the Skin); Dr. W. Ettles (General Treatment).

THURSDAY.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, Edgware Road, 8.30 p.m.—Papers.—Dr. G. William Hill: Artificial Aids to Hearing. Mr. W. H. Clayton Greene: Simple Tumours and their Relation to Malignant Disease.

FRIDAY.

BRITISH ELECTRO-THERAPEUTIC SOCIETY, 11, Chandos Street, W., 8.30 p.m.—Paper—Dr. W. F. Somerville: The Influence of High-frequency Currents on the Surface Temperature of the Human Body.

CLINICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8 p.m.—Clinical evening for exhibition of Clinical Cases, followed by discussion. Patients in attendance from 8 to 9 p.m.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Wednesday, 5 p.m., Ear.

WEST LONDON HOSPITAL POST-GRADUATE COLLEGE, Hammersmith Road, W.—The following arrangements have been made for next week: Tuesday, 11.30 a.m., Bacteriology; Wednesday, 10 a.m., Clinical Examination of Blood and Urine; 3 p.m., Intestinal Anastomoses; Thursday, 11.30 a.m., Bacteriology: Friday, 11.30 a.m., Bacteriology; 3 p.m., Intestinal Surgery. Daily, at 2.15, Medical and Surgical Clinics.

BOOKS, ETC., RECEIVED.

The Annual Charities Register and Digest. 15th edition. London: Longmans, Green, and Co. 1906. 5s.

London: J. and A. Churchill, 1906:

- The Pharmacopoeia of the Evelina Hospital for Sick Children, Southwark. 3rd edition. 1s. 6d.
- Heath's Manual of Minor Surgery and Bandaging. 13th edition. Revised by B. Pollard, F.R.C.S. 6s.
- Medical Officers of Schools Association: On Physical Training in Schools. By W. P. Herringham, M.D., F.R.C.P. The Influence on National Life of Military Training in Schools. By T. C. Horsfall. 1s.
- Pathology, General and Special. By R. T. Hewlett, M.D, M.R.C.P., D.P.H. 10s. 6d.
- Rational Organotherapy with reference to Urosemiology. By Professor Dr. A. von Poehl, Professor Prince J. von Tarchanoff, Dr. A. von Poehl, and Dr. P. Wachs. Translated from the Russian text. Vol. i. 7s. 6d.

Beiträge zur Klinik der Tuberkulose. Herausgegeben von Dr. L. Brauer. Band v, Heft i. Würzburg: A. Stuber. 1906. M.3.50.

CALENDAR OF THE ASSOCIATION.

APRIL.

Date.	Meetings to be Held.
20 FRIDAY	Perthshire Branch, the Royal Infirmary, Perth, 3.45 p.m.
21 SATURDAY...	
22 Sunday	
23 MONDAY ...	
24 TUESDAY ...	North Wales Branch, Westminster Hotel, Rhyl, 2 p.m.
25 WEDNESDAY	Bath and Bristol Branch, Bath. North of England Branch, Stockton-on-Tees.
26 THURSDAY...	Boston and Spalding Division, *Midland Branch*, Red Lion Hotel, Strait Bargate, 3.45 p.m. Cardiff Division, *South Wales and Monmouthshire Branch*, Cardiff Infirmary, 3.15 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Worple Hall, Wimbledon, 8.45 p.m.
27 FRIDAY	Hampstead Division, *Metropolitan Counties Branch*, Finchley, 5 p.m. St. Pancras and Islington Division, *Metropolitan Counties Branch*, St. Pancras Infirmary, Pancras Road, N.W., 4 p.m.
28 SATURDAY...	
29 Sunday.........	
30 MONDAY	

MAY.

Date.	Meetings to be Held.
1 TUESDAY......	
2 WEDNESDAY	South-Eastern of Ireland Branch Victoria Hotel, Kilkenny, 12 noon.
3 THURSDAY...	City Division, *Metropolitan Counties Branch*, Woodchester, Upper Clapton, N.E., 9 p.m. Swansea Division, *South Wales and Monmouthshire Branch*, Annual Meeting, General Hospital, Swansea, 3 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Bolingbroke Hospital, 4 p.m.

MAY *(continued).*

Date.	Meetings to be Held.
4 FRIDAY	London: Ethical Committee, 2 p.m. " Volunteer Medical Service Committee, 2.30 p.m. Border Counties Branch, Keswick.
5 SATURDAY...	Ulster Branch, Spring Meeting, Derry.
6 Sunday.........	
7 MONDAY	
8 TUESDAY ...	Scottish Division, *Border Counties Branch*, Annual Meeting, Dumfries and Galloway Royal Infirmary.
9 WEDNESDAY	London: Medico-Political Committee 3 p.m.
10 THURSDAY...	Staffordshire Branch, Victoria Hotel, Wolverhampton, 3.30 p.m. Dinner, 6.30 p.m.
11 FRIDAY.........	Hampstead Division, *Metropolita Counties Branch.*
12 SATURDAY...	
13 Sunday	
14 MONDAY	
15 TUESDAY......	
16 WEDNESDAY	
17 THURSDAY...	Cardiff Division, *South Wales an Monmouthshire Branch*, Annua Meeting.
18 FRIDAY.........	
19 SATURDAY...	
20 Sunday.........	
21 MONDAY	
22 TUESDAY......	
23 WEDNESDAY	Altrincham Division, *Lancashire an Cheshire Branch*, Sale Hall (Garde Party by Sir W. H. Bailey).
24 THURSDAY...	City Division, *Metropolitan Counti Branch*, Annual Meeting, 4 p.m. Wandsworth Division, *Metropolit Counties Branch*, Annual Meetin Clapham.

MEMBERSHIP OF THE BRITISH MEDICAL ASSOCIATION.

The British Medical Association exists for the promotion of medical and the allied sciences, and the maintenan of the honour and the interests of the medical profession.

The Annual Subscription to the British Medical Association is £1 5s. 0d., and the British Medical Journ is supplied weekly, post free, to every member of the British Medical Association wherever he may reside.

Forms of application for membership can be obtained from the General Secretary, 429, Strand, London, W.C.

The principal rules governing the election of a medical practitioner to be a member of the British Medic Association are as follow:

Article III.—Any Medical Practitioner registered in the United Kingdom under the Medical Acts and any Medical Practitioner residing within the area of any Branch of the Association situate in any part of the British Empire other than the United Kingdom, who is so registered or possesses such medical qualifications as shall, subject to the Regulations, be prescribed by the Rules of the said Branch, shall be eligible as a Member of the Association. The mode and conditions of election to Membership shall from time to time be determined by or in accordance with the By-laws. Every Member, whether one of the existing Members or a subsequently-elected Member, shall remain a Member until he ceases to be a Member in accordance with the provisions hereof.

By-law 1.—Every Candidate for Membership of the Association shall apply for election in writing, addressed to the Association, and stating his agreement, if elected, to abide by the Regulations and By-laws of the Association, and the Rules of such Division and Branch to which he may at any time belong, and to pay his subscription for the current year.

By-law 2.—Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the General Secretary of the Association, and to every Member of the Branch Council, and the candidate, if disqualified by any Regulation of the Association, may be elect a member of the Association by the Branch Council at any meeti thereof held not less than seven days (or such longer period the Branch may by its Rules prescribe) after the date of the sa Notice. A Branch may by special Resolution require that ea candidate for election to the Association shall furnish a certific from two Members of the Association to whom he is persona known. Officers of the Navy, Army, and Indian Medical Servi on the Active List are eligible for election through the Coun or a Branch without approving signatures as laid down By-law 3.

By-law 3.—Every candidate whose place of residence is not included the area of any Branch shall forward his Application to General Secretary of the Association, together with a statem signed by three members of the Association, that from perso knowledge they consider him a suitable person for electi Notice of the proposed election shall be sent by the Gene Secretary to every Member of the Council, and the candidate not disqualified by any Regulation of the Association, may elected a Member of the Association by the Council at any me ing thereof held not less than one month after the date of said notice.

The annual subscription to the British Medical Journal for non-members is £1 8s. 0d. for the United Kingd and £1 12s. 6d. for abroad.

Printed and published by the British Medical Association at their Office, No. 429, Strand in the Parish of St. Martin-in-the-Fields, in the County of Middlesex

SUPPLEMENT

TO THE

3RITISH MEDICAL JOURNAL.

LONDON: SATURDAY, APRIL 28TH, 1906.

CONTENTS.

	PAGE
TTERS REFERRED TO DIVISIONS :	
NNUAL REPORTS OF COUNCIL :	
Report of Council, 1905-6	197
Balance Sheet for 1905	200
OTICES OF MOTION	207
)CEEDINGS OF COUNCIL	207
)CEEDINGS OF COMMITTEES :	
edico-Political Committee	209
thical Committee	210
ıblic Health Committee	211
rganization Committee	211
ish Committee	212
emises and Library Committee	213
urnal and Finance Committee	213
ETINGS OF BRANCHES AND DIVISIONS :	
ncashire and Cheshire Branch : Chester Division	213
etropolitan Counties Branch	214
„ „ „ City and Tottenham Divisions	214
ford and Reading Branch : Reading and Maidenhead Division	214
Ulster Branch : Derry Division	214
Yorkshire Branch : Bradford Division	214
ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD	215
GRANTS FOR SCIENTIFIC RESEARCH	216
BRITISH MEDICAL ASSOCIATION.—ANNUAL REPORTS OF BRANCHES	217
PROPOSED ROYAL CHARTER	223
VITAL STATISTICS	225
NAVAL AND MILITARY APPOINTMENTS	225
VACANCIES AND APPOINTMENTS	226
DIARY OF THE WEEK	227
BIRTHS, MARRIAGES, AND DEATHS	227
BOOKS, ETC., RECEIVED	228
CALENDAR	228

SPECIAL NOTICE TO MEMBERS.

***Every member is requested to preserve this "Supplement," which con-
ains matters specially referred to Divisions, until the subjects have been
iscussed by the Division to which he belongs. BY ORDER.***

ATTERS REFERRED TO DIVISIONS.

NUAL REPORT OF COUNCIL

TO BE PRESENTED TO THE

nnual Representative Meeting,

TO BE HELD IN

ton Hall, Caxton Street, Westminster, S.W.

ON

Y 24th, 1906, and following days (as may be necessary).

REPORT OF COUNCIL, 1905-6.

UR Council in submitting its report for the year
-6 congratulates the Association on its decision to
the seventy-fourth annual meeting in Greater
in.

agine with what pride your founder, Sir Charles
ings, would look back to that memorable gathering
orcester on July 19th, 1832, when, on his initiative,
gentlemen met and launched the British Medical
iation on its eventful career. Contrast the position
332 and 1906! To-day, through its numerous
ches, the activity of your great Association has extended to practically every corner of the British Empire, and no member need feel he is too far removed to appeal for assistance when the honour of the medical profession is assailed. The membership of fifty enrolled at Worcester has swollen to close on 20,000, while a reserve has been built up of over one hundred thousand pounds.

The annual meeting at Montreal in 1897 was the first in the history of the Association to be held elsewhere than in the United Kingdom. So great a success attended this departure that your Council felt no hesitation in recommending the acceptance of the cordial invitation proffered from Toronto, so happily designated the Queen City of Canada, an important centre of learning, whose University holds the proud position of Premier University of the Dominion of Canada.

Judging by the large numbers who have intimated their intention of being present from the Old Country, the great interest aroused throughout the Dominion, and owing to the unselfish efforts of the Local Executive, the seventy-fourth annual meeting is assured of being one of the most memorable gatherings in the annals of the Association.

Your Council would urge every member to make a special effort to be present, as the expense and time involved will be found to compare not unfavourably with those incidental to a month's trip in Europe.

CHAIRMAN OF COUNCIL.

2. In succession to Mr. Andrew Clark, who completed his three years' service as Chairman of Council at Leicester, your Council elected Dr. H. W. Langley Browne, one of the representatives returned by the Birmingham Branch.

GOLD MEDAL OF MERIT.

3. Your Council awarded to Mr. Andrew Clark the Gold Medal of Merit of the Association in recognition of the special services rendered by him to your Association as

Treasurer, as Chairman of Council, and in many other offices, the presentation being made at Leicester.

Deaths of Members of Council.

4. Since your Council last reported it has lost by death two old and valued colleagues in Mr. W. Jones Morris and Colonel Cresswell, C.B. Mr. Jones Morris had been a member of the Council without a break since 1885, and, by his regular attendance and unselfish labours on your Council and in the North Wales Branch, did much to advance the interests of your Association.

Colonel Cresswell also throughout his career was an active worker on behalf of your Association, and was as far back as 1872 a member of the old Committee of Council.

The Council has also to deplore the deaths of Dr. Robert Somerville, a former colleague and representative of the Border Counties Branch for a period of ten years; and Sir John Burdon-Sanderson, F.R.S., who rendered valued help to the Association, more especially in connexion with the Scientific Grants Committee.

Deaths of Members of the Association.

5. Your Council regrets to have to record the deaths since April, 1905, of the following members of the Association: Dr. Thomas Rutherford Adams, Chairman of the Croydon Division; Dr. John Appleyard, Dr. Albert Henry Baines, Dr. Thomas John Barnardo, the well-known philanthropist; Mr. Edward Henry Beaman, Captain George Crofts Beamish, I.M.S., Dr. Reginald Bigg, Mr. Peter Percival Bradford, Dr. J. E. Brogden, Dr. Joseph Orpe Brookhouse, who was President of the Section of Pharmacology and Therapeutics at the Nottingham meeting in 1892; Sir John Burdon-Sanderson, Bart., M.D., F.R.S., Dr. Keith Campbell, Colonel James Charles Gordon Carmichael, M.D., Dr. Thomas Albert Carter, Mr. John Augustus Tatham Cartwright, Dr. Thomas Edmonston Charles, Mr. Joseph Collier, who held the office of Vice-President in the Section of Diseases of Children when the Association held its annual meeting in Manchester in 1903; Dr. Robert Patrick Connell; Mr. Jonathan Nelson Cregeen, Vice-President of the Lancashire and Cheshire Branch; Colonel Pearson Robert Cresswell, C.B., Dr. W. Clement Daniel, Dr. Joseph Everett Dutton, who lost his life in the Congo territory while actively engaged in the investigation of trypanosomiasis and tick fever; Dr. John Eaton, Sir Joseph Ewart, M.D., a former President of the Bengal Branch, and Vice-President of the Section of Medicine when the Association met at Brighton in 1886, also President of the Section of Public Medicine at the Carlisle meeting in 1896; Dr. Ernest Field, Surgeon Alexander William Flood, R.N., Dr. Henry Isaac Fotherby, Dr. John Francis Scott Fowler, for several years Honorary Secretary of the British Guiana Branch; Dr. William Frazer, The Hon. Otho Galgey, Dr. Richard Garnham, Dr. William Graham, Major Alexander Gibb Grant, I.M.S.(ret.), Mr. Angus John Grant, Dr. Joseph Greasley, Dr. Michael Hindmarsh Greener, Dr. Arthur David Griffiths, Dr. Herbert Tyrrell Griffiths, Dr. Jonathan Atkinson Harrison, Mr. Christopher Heath, a Past-President of the Royal College of Surgeons; Dr. John Highet, Mr. Charles Hooper, Chairman of the Aylesbury Division of the South Midland Branch; Dr. James Jamieson, Dr. Samuel Johnston, Mr. Philip William Jones, Mr. Thomas Charles Langdon, one of the founders of the Southern Branch, and a member of the Parliamentary Bills Committee; Mr. George Longbotham, Dr. Edward John Longton, Dr. George Lowson, Dr. W. C. Lucey, Dr. James Lynass, Mr. William MacGeagh, Dr. Jessie MacGregor, Dr. D. McMordie, Lieutenant-Colonel Eugene Valentine MacSwiney, M.D.; Mr. Henry Parr Mallam, Mr. William Turner, Dr. Hooper Masters, Dr. Farquhar Matheson, Mr. Alexander Matthew, Staff-Surgeon Alworth E. Merewether, R.N.; Mr. Thomas Moreton, Mr. W. Jones Morris, Mr. William Moxon, formerly President of the South Midland Branch; Lieutenant-Colonel Peter Mulvany, R.A.M.C.; Dr. James Murphy, a member of the Central Council at the time of his death, and formerly a member of the Parliamentary Bills Committee; Lieutenant-Colonel Kaikhoshro Sorabji Nariman, Colonel Bartholomew O'Brien, M.D., I.M.S., Dr. William Ogle, Dr. William O'Neill, Dr. John Edward Panton, Dr. Francis Henry Parsons, Dr. William Arthur Payne, Dr. Harry Campbell Pope, the first Chairman of the Kensington Division; Dr. Henry S Purdon, Dr. John Robert Kealy, a past President an founder of the Southern Branch, and Vice-President of th Ethical Section at the Portsmouth meeting in 1899; Mr John Abernethy Kingdon, Dr. James Rankin, Captai James Valentine Roche, R.A.M.C.; Dr. William Sheldon Mr. Cyrus Walter Smith, Dr. George Daniel Smith Lieutenant-Colonel Maurice Henry Smith, late I.M.S. Dr. Robert Somerville, Surgeon-Captain William Car Sprague, M.D., late I.M.S., at one time President of th Cambridge and Huntingdonshire Branch; Major Harol Arthur Stalkartt, M.B., R.A.M.C.; Dr. J. F. Stewart, Mr George Stamp Taylor, Mr. Charles Robert Clark Tichborne, Dr. Llewellyn Treharne, Inspector-Genera Alexander Turnbull, M.D., R.N., at one time a member o the Parliamentary Bills Committee; Major Wilfre Constant Vickers, M.B.; Captain James Waddell, R.A.M.C. Dr. James G. Walker, Mr. James Wallwork, Dr. Edwar Henry Warner, Mr. George Weller, Dr. William Augustu West, Lieutenant-Colonel Charles White, R.A.M.C.; Mr Samuel Whitlow, Dr. David Wield, Honorary Secretary o the Queensland Branch; Dr. Thomas Duddington Wilson Chairman of the South Edinburgh Division; Dr. W Wingate-Saul, and Colonel William Owen Wolseley R.A.M.C.

Royal Honours.

6. Your Council has had the pleasure of congratulatin the Right Honourable Sir Walter Foster, M.P., who wa Chairman of Council from 1884-6, on being sworn member of His Majesty's Most Honourable Privy Council also Sir James Barr, Sir Thomas Chavasse, and Sir Arthu Chance on receiving the honour of knighthood.

Dr. Robert Farquharson.

7. Dr. Farquharson, who for reasons of health did no seek re-election this year, had been a member of Parliament since 1880, and at all times rendered valuabl services to the Association as Chairman of the ol Parliamentary Bills Committee, and by his work in th House in watching matters affecting the public health Your Council takes this opportunity of placing on recor its appreciation of the work done by Dr. Farquharson o behalf of the Association both in and out of Parliament.

Medical Benevolent Institutions.

8. During the year 1905 the General Secretary receive from members nearly £800 on behalf of the Britis Medical Benevolent Fund, the Royal Medical Benevolent College, Epsom, and the Irish Medical Benevolen Fund.

Your Council would again urge on all members th claims of these institutions, believing that it is onl necessary for the Association to appreciate how muc distress is alleviated through these funds for member to extend at once more general support.

If every member would subscribe a minimum of 5s per annum the scope and usefulness of these institution might be considerably extended, and a step made toward the attainment of the ideal that no deserving case nee appeal in vain.

The Metropolitan Asylums Board.

9. The Council desires to place on record its hig appreciation of the kindness of the Chairman an members of the Metropolitan Asylums Board during th past twelve months in placing their Board Room at th disposal of the Council for its meetings.

Clerical Staff Superannuation Fund.

10. The scheme to provide superannuation allowances t members of your clerical staff on the attainment of 65 year of age, approved by the Representative Meeting at Leiceste came into operation on January 1st of the current yea All the members of the staff eligible to join the Fund hav availed themselves of the advantages offered.

The Journal.

11. In the history of the British Medical Journa during the past year the chief event has been the improvement in the type and general form, introduced in th first number of 1906.

The type and form of the Journal had remained practically unaltered since 1867. During that period of nearl forty years great advances were made in the periodic press generally, and your Council felt that the Journa

at a disadvantage owing to the failure to improve
general appearance in accordance with the times.
r Council, therefore, having considered memorandums
ented by the Editor and General Secretary, resolved to
e material alterations. The column has been lengthened
clearer and larger type has been introduced. A coloured
oper has been placed upon each issue, and opportunity
been taken to recognize the great services rendered by Sir
rles Hastings, founder of the Association, by introducing
the front page a medallion portrait, reproduced from
engraving by S. W. Reynolds after the oil painting by
. Faulkner presented to Sir Charles Hastings by the
ciation in 1839. These changes entailed a large
unt of work and anxiety upon the officers concerned,
your Council takes this opportunity of congratulating
n on the result of their labours.

pursuance of the policy of publishing from time
ime special numbers dealing fully with some par-
ar subject of interest to the medical profession at
, the greater part of the issue of the JOURNAL
d June 3rd, 1905, was devoted to a series of articles
he medical profession abroad, in its educational,
l, and economic aspects. The increased interest
n in the social and economic position of the
ssion in this country seemed to render opportune
ttempt to bring together information with regard to
position held by the profession in other European
tries, and the legislative and other regulations under
h medical practice is carried on abroad. With the
eration of contributors having special acquaintance
the conditions of medical practice in the chief
pean countries and British Colonies, it was found
ble to collect a mass of information of no little
est to all medical men which it is believed will
und useful also in the discussion of the legislative
sals which the Association intends to put forward.
e proceedings of the annual meeting at Leicester
fully reported immediately after the conclusion
e meeting, and the task of reporting the proceedings
e Sections was concluded in November.
e increase in the amount of official or semi-official
r rendered necessary by the increase in the work of
epresentative Meeting, Committees, and Branches of
ssociation induced your Council to sanction as from
eginning of 1905 the issue of a SUPPLEMENT weekly.
necessity for this change is shown by the fact that
number of pages in the SUPPLEMENT showed an
ase as compared with 1904 of 82 per cent. (from 500
to 912), and as compared with 1903 of 197 per cent.
ost of the production of the SUPPLEMENT is a serious
but a considerable expenditure under this head is
able if the members are to be kept fully informed of
olitical and economic activities of the Association.

FINANCIAL STATEMENT.

Owing to heavy expenditure consequent upon the
sed activity throughout the Association, your
il cannot submit so favourable a financial statement
the year 1904.
total revenue reached £50,100 and the expenditure
0, leaving, in comparison with former years, a
w margin on the right side. The candle has been
at both ends: the receipts have diminished by close
1,000, while the expenditure has increased by
), with the result that the credit balance of £5,000
year's working, which of recent years has been the
rd, shrinks to barely £900 for the year 1905. It is
ary to go back as far as the year 1878 to find a balance
ome over expenditure falling below four figures.
analysing the various heads of expenditure, it is
ying to note that the Editorial Department,
ct A, has entailed no increase of expenditure.
Abstract B, the cost of printing the JOURNAL
an increase of £135, and to this must be added,
mparison, approximately £250, a proportion of the
f the fifty-third journal printed in 1904, as against
the period under review. This increase is not
urable when it is appreciated that during 1905 there
published a supplement each week aggregating
ges while in 1904 there were only twenty-four
ments in all, with a total of 500 pages. All this
tailed considerable increase in composition, paper,
ning, and handling generally. Further, in 1905 the average issue per week increased, and reached the grand total of close on 1,200,000 copies for the year. It is satisfactory to record that these JOURNALS, sent off to all parts of the world, reached members with strict regularity, it being the rarest thing for a subscriber to have to complain of non-delivery of any issue.

In Abstract C, the General Association Expenses, there is a marked increase of expenditure amounting to £1,100. The principal items which go to make up this amount are £200 for repairs and upkeep of your premises, due to the necessity of painting the outside fabric; £140 legal expenses, as a result of the Troutbeck inquiry, the proposed alterations to the Memorandum of Association, the Contract Practice inquiry, and other matters on which legal assistance was necessary; £120 for miscellaneous printing, consequent upon the considerable increase of printing for the work of the Association; £480 increase in the cost of producing and circulating the *Year Book*, consequent on the increased circulation and the addition of an alphabetical list of members, entailing a jump from 172 pages in 1904 to 408 pages in 1905; £80 in the office postage, due to the large increase of correspondence in the General Secretary's department and in that of the Medical Secretary, which is also reflected in the increase of £35 for stationery. The increase of £60 in Sundries is on account of the award of two gold medals of merit.

In Abstract D the salaries show an increase of £440; £190 of this is for the Assistant Medical Secretary, appointed at the close of 1904; £50 for the Medical Secretary; £150 for the Medical Secretary's staff; and £50 for the clerical staff in the General Secretary's office.

In Abstract E there is an increase of £700 in the collective expenses of the Representative Meeting, Council, and Committees generally. The railway fares of the representatives for the Leicester Meeting, however, were about £70 less—due, perhaps, to meeting at a convenient centre in the Midlands. There is an increase, roughly, of £100 for Council fares, owing to there having been an extra meeting in 1905. Of committees, two dropped out, whereby £20 was saved; but nine additional committees were appointed, entailing a new expenditure of £140. Of the committees also at work in 1904, the Committee of Chairmen cost £50 more; the Ethical, £40; the Hospitals, £70; the Journal and Finance, £85 (this Committee now meets a week before the Council, instead of on the same day, which entails separate railway fares). The Medico-Political Committee cost £200 more; the Organization, £45; the Premises and Library, £100 (owing to the frequent meetings in connexion with the proposed rebuilding scheme); while the Public Health cost £20 more, and the Scottish £13.

The Medical Defence Committee made its report to the 1905 meeting, and has not met since, and in consequence a saving of £70 is effected as compared with 1904, while about £50 was saved over the Royal Naval and Military Committee. In 1904 it held seven meetings, while last year it met only once.

Turning to Abstract F, the Library, except for £20 more spent on books, has cost the Association about the same as in previous years. Your Council is of opinion that it is only necessary to write off £100 for depreciation, as your Library now stands in your balance-sheet at the low figure of £2,200.

It will be observed in the revenue or profit and loss account your Council has written off £250 from plant and type which is valued for the close of the year at £1,250. It is not considered prudent to write this down lower, as in the event of a loss by fire the claim could only be put forward at its value in the balance-sheet.

Your Council has given serious attention to the investments of the Association, and on the grounds of sound finance has written all holdings down to the market prices prevalent on December 31st last. This has involved the sum of £780, but it is not unreasonable to anticipate, with the revival of trade all round and the increase of business looked for generally, but more especially by banks, that Bank of England stock, of which you are holders to the extent of £14,500, will enjoy a return to popular favour, with consequent appreciation of price, whereby the shrinkage provided in your balance-sheet will ultimately prove merely a prudent bookkeeping adjustment.

The item of £300 to the Office Staff Superannuation Fund would appear a new charge. This is not the case, as

Balance Sheet 31st December, 1905.

Dr.

LIABILITIES.

	£ s. d.	£ s. d.
To Subscriptions paid in advance		379 10 7
,, Advertisements ditto		724 2 8
,, Contributions		717 8 6
,, Reporting		51 19 6
,, Engraving		71 11 8
,, Printing Journal		496 2 0
,, Paper for Journal		630 19 9
,, Miscellaneous Printing		444 16 1
,, Stationery		102 1 0
,, Repairs		30 6 4
,, Legal Charges		218 10 10
,, Rates and Taxes, Insurance and Electricity		447 19 10
,, Plant and Type		58 15 5
,, Editorial Expenses		29 16 9
,, Sundries		43 5 4
,, Library, Books, etc.		34 17 8
,, Overdraft from Bankers		3,624 10 9
,, Subscriptions due to Branches on December 31st, 1905		219 3 4
TOTAL LIABILITIES		8,325 18 0
Surplus Account—		
Balance on January 1st, 1905	101,397 2 0	
Balance of Income over Expenditure for 1905 brought from Revenue Account	862 1 5	
,, **Balance, being total of excess of Assets over Liabilities**		102,259 3 5
		£110,585 1 5

ASSETS.

	£ s. d.	
By Subscriptions—Amount due		1,
,, Advertisements—Amount due		3,
,, Sundry Sales—Amount due		
,, Furniture and Fixtures		1,
,, Library		2,
,, Plant and Type		1,
,, Accrued Rents		
,, Freehold, 2 & 3, Harvey's Buildings, bought at Public Auction 1894		4,
,, Freehold of 429, Strand, 2, 3, 4 & 5, Agar Street at price paid 1898	£79,000 0 0	
,, Redemption of Land Tax...	880 0 0	
,, Improvements by Alterations of General Office, 1903	1,500 0 0	
		81,
INVESTMENTS—		
,, £3,200 Bank of England Stock @ 295	9,452 17 6	
,, £6,400 Midland Railway 2½ per cent. Perpetual Guaranteed Preferential Stock @ 77¾ bought February, 1905	5,026 1 6	
		14,
,, Cash at Office		
,, Cash at Bank, being Branch Subscriptions in hand Dec. 31st, 1905		
		£110,

(The above assets do not include the unexpended balances of Capitation Grants held by the various Branches.)

Revenue or Profit and Loss Account for Year ending 31st December, 1905.

	1904. £ s. d.	1905. £ s. d.
Editorial ... ... See *Abstract A* ...	6,027 19 4	6,101 3 1
Expenses of Printing Journal ... ,, *B* ...	21,923 15 8	22,059 17 7
General Association Expenses ... ,, *C* ...	6,421 8 1	7,516 11 9
Office Salaries and Wages ... ,, *D* ...	4,349 5 5	4,791 2 8
Representative Meeting, Council and Committee Expenses ... ,, *E* ...	2,185 7 6	2,885 14 8
Library... ... ... ,, *F* ...	257 4 4	257 7 10
,, Written off towards Depreciation	250 0 0	100 0 0
Plant and Type—Written off towards Depreciation	500 0 0	250 0 0
Capitation Grants to Branches	3,389 11 9	3,459 14 8
Amount written off Investments	—	781 0 0
,, voted to Office Staff Superannuation Fund	—	300 0 0
Subscriptions:—Written off for Deaths, Arrears, &c.	710 6 3	742 18 4
	46,014 18 4	49,245 10 7
Balance of Income over Expenditure carried to Balance Sheet	5,075 14 6	862 1 5
	£51,090 12 10	50,107 12 0

	1904. £ s. d.	
Subscriptions	24,584 6 4	24
do. arrears of former years	300 17 3	
Advertisements	21,465 5 2	20
Sundry Sales:—Journal	2,262 16 11	2
,, ,, Reading and Binding Covers, &c.	135 14 2	
,, ,, Reprints	108 1 6	
Interest on Investments and Rents	1,120 2 9	1
Returned Scientific Grants	50 4 0	
Sale of Waste, &c.	21 10 0	
Discounts on Printing, Paper, &c.	913 12 4	
Amount unexpended on alterations as estimated for in accounts for 1903	128 2 5	
	£51,090 12 10	£5

Abstract A.]

EDITORIAL.

	1904. £ s. d.	1905. £ s. d.
Salaries:—Editor	1,000 0 0	1,000 0 0
,, Assistant Editor	750 0 0	750 0 0
,, Sub-Editor	200 0 0	250 0 0
,, Clerical Staff	391 13 6	390 4 6
Contributions	2,920 0 5	2,962 17 9
Reporting	245 3 10	231 7 9
Engraving	287 16 5	239 2 0
Legal Expenses	27 11 2	12 17 8
Postage	78 11 3	78 12 6
Analyses	8 0 4	10 10 0
Travelling Expenses, Papers, &c.	114 5 9	170 16 11
Cost of Journal Slips circulated to the Press ...	4 16 8	4 14 0
	£6,027 19 4	£6,101 3 1

Abstract B.]

EXPENSES OF PRINTING JOURNAL.

	1904. £ s. d.	
Compositors' Wages and Machining Journal	8,797 13 7	
Paper for Journal	8,861 13 3	
Postage for Dispatch of Journal	3,931 19 0	
Address Bands for issuing Journal	332 9 10	
	£21,923 15 8	£2

Abstract C.]

GENERAL ASSOCIATION EXPENSES.

	1904.			1905.		
	£	s.	d.	£	s.	d.
Annual Meeting—Cost of *Daily Journal*, etc. ...	189	13	0	200	19	0
,, ,, Expenses of Sections ...	4	9	2	27	1	2
Auditors' Fee	105	0	0	105	0	0
Bank Charges	39	11	4	73	10	2
Cleaning Offices	161	4	6	167	16	6
Coals and Coke	53	0	6	58	16	0
Compositors' Sick Fund	10	10	0	10	10	0
Donation to Charing Cross Hospital	10	10	0	10	10	0
General Repairs—Painting and General upkeep ...	207	15	4	406	14	8
Legal Expenses	394	13	2	533	14	8
Miscellaneous Printing	559	2	5	678	5	11
Year Book—Printing, &c.	342	18	0	724	2	9
,, Postage...	155	13	6	255	5	2
Reports of Poor Law System Ireland (4,000) ...	50	16	0	—		
Office—General Postage	551	19	0	632	8	4
Office Petty Cash	125	16	5	151	5	7
Pension, late General Secretary	600	0	0	600	0	0
Rates and Taxes, Insurance, Gas and Electric Light	821	18	6	789	19	0
Reporting Council and Finance Committee Meetings	101	6	6	142	5	6
Reprints	75	2	11	103	6	6
Research Scholarships	650	0	0	600	0	0
Scientific Grants	350	0	0	353	0	0
,, ,, Special Grant Chloroform Committee	100	0	0	—		
Stationery	453	2	7	486	17	1
Sundries	122	9	1	187	13	0
Travelling Expenses	184	16	2	217	10	9
	£6,421	8	1	£7,516	11	9

Abstract D.]

OFFICE SALARIES AND WAGES.

	1904.			1905.		
	£	s.	d.	£	s.	d.
General Secretary	800	0	0	800	0	0
Assistant Secretary	250	0	0	275	0	0
Medical Secretary	650	0	0	700	0	0
Assistant Medical Secretary	12	12	0	203	3	0
Clerical Staff	2,636	13	5	2,812	19	8
	£4,349	5	5	£4,791	2	8

Abstract E.]

REPRESENTATIVE MEETING, COUNCIL AND COMMITTEE EXPENSES.

	1904.			1905.		
	£	s.	d.	£	s.	d.
ANNUAL REPRESENTATIVE MEETING—Railway Fares	244	7	5	177	0	7
Agenda and Minutes for Representative Meeting ...	88	12	9	110	11	3
COUNCIL—Railway Fares	678	15	7	791	13	6
COMMITTEES—Railway Fares, Printing, &c. :—						
Annual Meeting Committee	22	11	2	22	7	0
Arrangement Committee	8	12	0	14	2	7
Chloroform Committee	10	19	0	10	11	0
Coat of Arms Committee	4	2	3	2	2	0
Colonial Committee	20	9	2	16	5	0
Committee on Alteration of Memorandum ...	—			5	4	10
Committee *re* Dental Section	0	18	6	—		
Committee of Secretaries of Branches and Divisions	—			23	13	5
Committee on Standing Orders	—			23	5	0
Committee of Chairmen	33	9	2	82	17	9
Co-ordination Committee	—			16	3	1
Election Returns Committee	—			5	10	3
Ethical Committee	76	19	4	119	0	1
Hospitals Committee	125	7	6	197	3	1
Irish Committee	—			14	10	9
Journal and Finance Committee	5	9	2	90	5	9
Medical Defence Committee	116	19	10	46	13	1
Medical Secretary's Committee	19	0	1	—		
Medico-Political Committee	351	9	8	555	4	1
Organization Committee	173	3	0	217	9	2
Premises and Library Committee	21	1	10	123	2	2
Public Health Committee	76	11	5	96	11	8
Royal Naval and Military Committee	53	13	2	5	6	1
Science Committee	—			30	8	3
Scientific Grants Committee	35	12	2	32	15	11
Scottish Committee	17	3	4	30	10	11
Superannuation Committee...	—			0	18	6
Therapeutic Committee	—			24	7	11
	£2,185	7	6	£2,885	14	8

Abstract F.]

LIBRARY.

	£	s.	d.
To Balance	2,198	6	3
,, Purchase of Books	109	16	0
,, Binding Books	29	3	0
,, Librarian's Salary	250	0	0
,, Printing and Postage of Circulars and Insurance of Books ...	7	7	10
	£2,594	13	1

	£	s.	d.	£	s.	d.
By Librarian's Salary	250	0	0			
,, Printing and Posting of Circulars and Insurance	7	7	10			
				257	7	10
,, Amount written off for Depreciation ...				100	0	0
,, Balance carried to Balance Sheet				2,237	5	3
				£2,594	13	1

TRUST FUNDS.

Stewart Fund.

Investment of £579 4 per cent. Caledonian Railway Debenture Stock, in the name of the British Medical Association.

1905.		£	s.	d.
an. 1.	To Balance brought over from 1904	34	11	1
	,, Interest	22	3	3
		£56	14	4

1905.		£	s.	d.
July 25.	By Award—William Henry Power, C.B., F.R.C.S., F.R.S.	42	0	0
	,, Mr. Stanley—Engrossing Certificate	1	17	6
Dec. 31.	,, Balance	12	16	10
		£56	14	4

Middlemore Fund.

Investment of £666 13s. 4d. 3 per cent. North British Railway Debenture Stock, in the name of the British Medical Association.

1905.		£	s.	d.
an. 1.	To Balance brought over from 1904	75	19	5
	,, Interest	19	0	0
		£94	19	5

1905.		£	s.	d.
Dec. 31.	By Balance carried down, being cash at Bank ...	94	19	5
		£94	19	5

Office Staff Superannuation Fund.

1905.		£	s.	d.
an. 1.	To Balance brought over from 1904	1,220	3	7
	,, Amount Voted from General Funds	300	0	0
	,, Interest	36	0	0
		£1,556	3	7

1905.		£	s.	d.
Dec. 31.	By Balance carried down—			
	,, Investments at cost—£600 Cape of Good Hope 3 per cent. Stock, bought @ 92¾, Dec., 1902	558	1	0
	,, £100 Bank of England Stock, bought Dec., 1903 ...	318	19	4
	,, £110 Bank of England Stock, bought @ 299½, Dec., 1904	330	10	3
	,, Cash at Bank	348	13	0
		£1,556	3	7

We certify, in accordance with the provisions of the Companies Act, 1900, that all our requirements as Auditors have been mplied with. Having examined the above Balance Sheet, dated 31st December, 1905, with the books and vouchers of the ssociation, and having inspected the Deeds of the properties, 429, Strand, 2, 3, 4 and 5, Agar Street, and 2 and 3, arvey's Buildings deposited with your Bankers, and having verified the investments held on account of the Association and of the ove Trust Funds, we report that the Balance Sheet is in our opinion properly drawn up so as to exhibit a true and correct ew of the state of the Association's affairs as shown by the books of the Association. PRICE, WATERHOUSE & CO.

3, Frederick's Place, Old Jewry, E.C., March 24th, 1906.

a similar sum was voted in 1904, but deducted from the capital account; consequently the item did not appear under the Profit and Loss. Your auditors, however, consider that such an item should be shown under that head, as it is a charge that may appear for some years until the Fund has become self-supporting on a sound financial basis.

The amount written off against losses on subscriptions by deaths and arrears is practically the same as for the previous year, and results in a nett loss of but a fraction over 1 per cent. of the total membership.

REVENUE.

Your Council is pleased to report that the revenue from subscriptions continues steadily progressive—a healthy and most satisfactory sign in an Association formed for mutual co-operation in the maintenance of the honour of the medical profession. The sum received is £25,000, or approximately half the total revenue.

ADVERTISEMENTS.

The year 1905 has earned for itself the unenviable reputation of being one of the worst years on record for securing advertisements. The oldest and most influential papers have not escaped this cycle of bad trade, as is evidenced by the publication of the reports of those papers owned by joint stock companies. The *Illustrated London News* had to admit a shrinkage of £10,000 from this source, in spite of an expanding circulation, and it is hardly to be expected that the BRITISH MEDICAL JOURNAL would be immune from similar influences. The contraction in receipts, as compared with 1904 amounts to £1,000, or about 5 per cent. In this connexion, however, it is satisfactory to be able to show that while there has been a shrinkage the total stated, £1,000, is more apparent than real. In 1904 you had fifty-three issues of the JOURNAL to earn £21,465, while in 1905 you had only fifty-two to earn £20,440. This alone would account for about £450. Further the special issue, generally published in December, was deferred until the first issue in the current year; but for this you would certainly have earned fully a further £250. The *Year Book* also suffered to some extent. It is generally recognized that it is difficult to keep a new publication at the level of a first number in the way of receipts from advertisements, but your Council is convinced that the *Year Book* will grow in favour with advertisers owing to the advantage of having an advertisement in a publication to which constant reference is made throughout the year.

When the foregoing facts are taken into consideration the Association must feel some sense of satisfaction that receipts from advertisements are not lower. At any rate, your Council is glad to report that in spite of the serious depression such care has been exercised in the accepting of business, that the large sum of £20,440 has been earned at the expense of bad debts amounting to only thirty shillings. Revenue from advertisements must always be an uncertain quantity and recognized as susceptible to trade fluctuations. A close study of the pages of the JOURNAL, however, will reveal an extraordinary diversity of interests advertised, which tends to minimize the risks of an irregular income from this source.

The sales of the JOURNAL have slightly diminished, but here again the 53 and 52 issues for the last two years would explain the difference. The interests on investments and rents show a small expansion. This item ought to have been more had all your house property been let during the year. It is difficult, however, to find suitable tenants unless a reasonably long lease can be offered: this has not been possible with the contingency of the whole of the houses in the Strand and Agar Street being needed for the erection of premises more in accordance with the increased requirements of the Association.

In conclusion, your Council reports that after providing for the additional expenditure resulting from the growing activity throughout the Association, by carrying the surplus of £862 for the year to capital account, you had on December 31st a balance of £102,259 of assets over liabilities.

ESTIMATE OF INCOME AND EXPENDITURE FOR 1906.

13. Your Council submits the following estimate of the probable receipts and expenditure for the year ending December 31st, 1906, and for comparison the amounts actually expended and received during the year 1905:

Expenditure.

	1905.			1906.		
	£	s.	d.	£	s.	d.
Editorial	6,100	0	0	6,500	0	0
Printing JOURNAL	22,059	0	0	21,000	0	0
General Association Expenses	7,516	0	0	8,000	0	0
Salaries and Wages	4,791	0	0	5,000	0	0
Representative Meeting, Council and Committees	2,885	0	0	3,000	0	0
Library	357	0	0	500	0	0
Depreciation of plant and type	250	0	0	500	0	0
Grants to Branches	3,459	0	0	3,600	0	0
Superannuation	300	0	0	300	0	0
Loss on subscriptions	457	0	0	400	0	0
	£48 174	0	0	£48,800	0	0

Income.

	£	s.	d.	£	s.	d.
Subscriptions	24,755	0	0	24,900	0	0
Advertisements...	20,440	0	0	19,500	0	0
Sales of JOURNAL, etc.	2,490	0	0	2,500	0	0
Investments and rents	1,188	0	0	1,200	0	0
Discounts on paper	915	0	0	900	0	0
	£49,788	0	0	£49,000	0	0

CHAIRMEN OF COMMITTEES.

14. Your Council would call special attention to the heavy work which has fallen on the Chairmen of the various Committees during the past twelve months, and would emphasize the heavy obligations your Association owes to these gentlemen. For some of the chairmen of central committees the amount of time and trouble involved to keep abreast of the steadily-increasing work entails no inconsiderable personal sacrifice. To give some idea of the remarkable increase in Committee work consequent upon the change of the constitution in 1902, it is interesting to note the striking expansion in the annual volume of minutes of Council, Committees, and Subcommittees. The volume for 1905 contains 1,136 pages, being an increase of 318 pages over 1904. The following are the figures of the last five years—namely, two years prior to the new constitution and the subsequent years:

1900	1901	1902	1903	1904	1905
386 pages	430 pages	470 pages	593 pages	818 pages	1,136 pages

COMMITTEES.

CHLOROFORM COMMITTEE.

15. This Committee has carried out the following work since its last report:

The work undertaken has been a continuation of that pursued during preceding years.

(*a*) Continuing the experiments performed by perfusing chloroform in various solutions through the tissues of the heart-muscle, skeletal muscle, and visceral muscle, the Committee has attempted to institute a comparison between these varieties of muscle, and has studied the effects of various concentrations of chloroform upon them respectively. It was found possible to establish a quantitative estimate of the susceptibility which these tissues present. The heart muscle is most susceptible, and voluntary muscle although evincing similar susceptibility to chloroform was far less profoundly affected, the dose of chloroform which produced marked depression and ultimate extinction of the heart beat when perfusing the heart caused no obvious depression in voluntary muscle. As in the case of the heart muscle, when chloroform was perfused in blood very much larger doses were tolerated by voluntary muscle than when the chloroform was presented in a medium of saline solution or other artificial circulating medium. Dealing with the effect of chloroform upon the blood vessels of the limb it was found that percentages of chloroform of the strength of 0.1 and 0.2 in equal parts of blood and saline caused a constriction of the vessels, which, however, was of brief duration. Higher percentages produced a dilatation consequent upon this initial constriction, and this persisted for a considerable time. When chloroform-free fluid was then perfused the outflow was at first lessened, and, coincidentally with this, the contraction of the voluntary muscles was found to be increased, and the converse. It thus appears that the difference of grade of susceptibility to chloroform of neuromuscular mechanisms in the body is very great. Further confirmatory experiments undertaken with the muscular wall of the intestine revealed that that structure behaved towards chloroform similarly to other muscular structures, the effects differing in degree but not in kind.

The Committee further made a considerable number of observations upon the inspired and expired air of persons taking chloroform, with a view of ascertaining whether the anaesthetic is retained and what is the proportion of chloroform exhaled to that inhaled.

This part of the Committee's research, although reported upon in an appendix to its report to the Association, has not been advanced sufficiently far for any definite pronouncement to be made upon it. It is under investigation on different lines by different workers among the Committee, and their findings will be submitted to the Council in the next report of the Committee.

It may be pointed out that the work which has so far been done has demonstrated that the neuromuscular mechanisms of the body react regularly to dosage of chloroform, that that dosage is a question of conveyance and retention of the anaesthetic in certain tissues, and that the amount of chloroform inspired bears a relation to that in the expired air, and this is believed to be definite and conditioned by circumstances within the control of the administrator of the anaesthetic.

Therapeutic Committee.

16. During the past year the Committee has investigated (1) the bactericidal action of a number of silver compounds—silver nitrate, silver fluoride, ammoniacal silver chloride, silver potassium cyanide, actol, itrol, argentol, ichthargan, argyrol, albargin, nargol, largin, novargan, protargol, argentamine, and argonin; (2) the influence of preservatives in antitoxic serums; and (3) the chemical composition of a new Argentine drug, which was found to contain a bitter principle, a volatile oil and sugar, but no alkaloid or glucoside.

A circular requesting clinical information regarding the value of the various silver compounds was sent to nearly 300 members of the profession, but owing to the small number of replies hitherto received the Committee is not yet in a position to report on this subject.

The Pharmacopoeial Subcommittee has had under consideration the drugs and preparations which might with advantage be deleted from the *British Pharmacopoeia*. Considerable progress has been made and the subcommittee is continuing its labours.

Premises.

17. Last year your Council reported that it was carefully considering the whole question of providing proper and sufficient accommodation for all departments of the work of your Association; and with this idea the Premises and Library Committee has spent much time and trouble in arriving at a thoroughly comprehensive scheme.

With the existing buildings, the Association is not in the most favourable position for securing the best return on the capital invested. For a considerable time the accommodation necessary for efficiently carrying on the work of the Association has been inadequate, and, except for the General Office, the rooms available are small, badly arranged, and ill-ventilated.

Having regard to the commanding position of your premises, and the great value of freehold frontages on the Strand, your Council felt that it might be advantageous to sell this property and acquire a site elsewhere equally suitable for the business of your Association. Accordingly your Council applied to some of the leading land agents and others in London for suitable sites, and stipulated that no property could be entertained other than freehold. As evidence of the difficulty of securing freehold property in the centre of London, it is remarkable that, in spite of a very extensive search, nothing at all suitable was forthcoming.

Certain properties were available on a ninety-nine years' lease; but, on consulting Mr. J. Brougham Glasier, senior partner in the well-known firm of Messrs. Glasier and Sons, Valuers and Land Agents, your Council was advised that the purchase of such a site as an investment would not compare favourably with a plan to demolish and rebuild suitable offices on your present freehold site.

In face of this opinion, from so eminent an expert, your Council felt it had no alternative whereby the Association could be placed in a more favourable financial position so far as your property is concerned, and therefore decided to rebuild on a comprehensive scheme. In order to secure suitable plans for the rebuilding, your Council invited six architects to compete and submit proposals for the best means of dealing with the site, and in the adjudication on the plans submitted has had the assistance of an experienced architect as assessor.

On considering the question of rebuilding, it is estimated that to construct suitable offices and take full advantage of the site a capital outlay of from £35,000 to £40,000 will be involved. Although this would appear a large sum, your Council feels that by such an outlay your Association for many years to come will be provided with modern, suitable, and convenient premises for the housing of all departments of its work. Further, what is of no less importance, as a result of the rebuilding a net increase of rent from the ground floors of £2,400 per annum is anticipated, being a return of 6 per cent. on a capital outlay of £40,000.

The carrying out of the rebuilding will necessitate considerable disturbance and the finding of temporary offices elsewhere, but your Council will use every endeavour to minimize any inconvenience to members, and to push on the work with the utmost expedition. It is hoped that by July, 1907, your Association will be able to resume possession of 429, Strand.

Colonial Committee.

18. This Committee has devoted much time to the consideration of ordinances governing medical practice in the Colonies, more especially Ceylon and the West Indies, where the Medical Acts have recently been under revision. The Committee continues to urge the importance of establishing Medical Registration in all His Majesty's Colonies and Dependencies. The Colonial Secretary has pointed out that he is unable to lay down any hard-and-fast regulations in this direction, as he must to a considerable extent be influenced by the views of local Legislatures, more especially in the smaller and less organized Colonies where there are difficulties of varying population and language.

A Special Subcommittee has been at work for the past two years with the view of establishing the principle of reciprocity of medical practice throughout the Empire, more especially in Australasia, and urging the expediency of registering only those medical qualifications which are registrable in the United Kingdom. Marked encouragement has been received through the Colonial Secretary from the Governors of the States in the Commonwealth; New South Wales, Western Australia, South Australia, and Tasmania, have formally expressed approval of the principle. Everything points to the efforts of the Association in this direction being successfully accomplished.

It is hoped that Australasia will follow the Ordinances of Ceylon and of the Medical Council of Cape Colony, whereby equal rights and advantages are given only to holders of British registrable Degrees, or to holders of Degrees from such Foreign Countries as admit those holding British registered Degrees to practise within their dominions.

Other interests of members resident in Greater Britain beyond the Seas have also from time to time received the careful consideration of the Committee.

Medico-Political Committee.

19. The Medico-Political Committee has held six meetings since the Annual Representative Meeting at Leicester.

The minutes of the Committee which have been placed before your Council have contained the record of the consideration of many important questions, upon which the Medico-Political Committee will in the ordinary course report fully to the Representative Meeting. The present report is confined to an account of those matters which have been the subject of special resolutions of your Council.

In accordance with the instruction of the Annual Representative Meeting at Leicester, the resolutions of that meeting on the subject of contract practice and the reports presented by the Medico-Political Committee in relation to that subject have been circulated, not only through the Supplement to all members of the Association, but also to all practitioners in the United Kingdom who are not members.

The attention of the Medico-Political Committee having been drawn by a Division of the Association to the fact that the Recommendations as to contract practice were being misunderstood as containing a recommendation by the Association that contract practice should be undertaken, the Committee decided to inform the Divisions that this was not the intention of the report, and your Council deemed it advisable that a communication to that effect should be included in the information sent to practitioners who are not members of the Association.

Your Council also approved the inclusion in the circular forwarding these recommendations of a report of the decisions of the Representative Meeting on other matters affecting the profession, and a paragraph drawing attention to the work which the Association is doing for the general good of the profession, and asking practitioners who are not members to join the Association. In response to this circular over 300 applications for membership of the Association have been received.

The attention of the Medico-Political Committee having been directed to the dangers to the community resulting from the increasing use in certain districts of diachylon for certain purposes, a special Subcommittee was appointed to investigate the matter, and as a result of their deliberations your Council, on the recommendation of the Medico-Political Committee, has taken the following action.

> (*a*) Representations have been made to the Privy Council that it is advisable that diachylon should be included as a poison in the first part of the schedule to the Pharmacy Act.
>
> It has also been recommended that the opportunity should be taken of the present consideration by Parliament of the Poisons and Pharmacy Bill, which provides, among other matters, for the revision of the schedule to the Pharmacy Act, to include diachylon in the revised schedule contained in that Bill.
>
> (*b*) A communication has been addressed to newspapers which circulate in the districts chiefly affected, asking them to publish a public warning from the Association against this use of diachylon.
>
> (*c*) The support of the Coroners' Society and of the Divisions of the Association is being sought with regard to this matter.

Pursuant to an instruction of the Annual Representative Meeting the Medico-Political Committee has appointed, with the approval of your Council, a special Lunacy Subcommittee, including experts specially qualified to advise on the subjects of the amendment of the Lunacy Laws, and also the amendment of the Inebriates Acts.

The principal subject considered as regards the amendment of the Lunacy Laws was that of the treatment of unconfirmed mental disease. In reference to this your Council has approved the recommendation that the general principles of the Scottish law on this subject in force since 1857 should be applied to England. Under this it would be possible for a case of unconfirmed mental disease to be placed under care and treatment for a period not exceeding six or nine months without being certified under the Lunacy Acts.

It has been decided to approach the Lord Chancellor on the subject, and the co-operation of the Medico-Psychological Association has been sought for this purpose. The full report of the Subcommittee on this matter will be placed before the Representative Meeting.

The Medico-Political Committee will also report fully on the proposals for amendment of the Inebriates Acts which were prepared by the Subcommittee.

The main principle underlying these proposals is that cases of inebriety, or of morphinism and similar drug habits, should be treated by a system of compulsory control analogous to that of the Lunacy Act, and that previous conviction under the criminal law should not be a condition necessary to make such control possible.

Your Council on the recommendation of the Committee proposes to make representations to the Home Secretary upon this subject, and has decided that the support of the Association shall be given to a Bill amending the Inebriates Acts as applying to Scotland based upon the principles above stated which is being promoted by the Glasgow Corporation.

Your Council has decided that members of the new Government should in due course be approached on several other important questions affecting the profession which from time to time have received the consideration of the Association.

In addition to the contemplated deputation to the Lord Chancellor on the subject of the amendment of the Lunacy Laws, it is proposed also to make representations to him with respect to the administration of the Coroners Law by the Coroner for South-West London.

It is proposed also to take advantage of the change in the Government to press forward the proposals as to the reorganization of the Local Government Board which were submitted by a deputation to Mr. Walter Long when President of that Board.

The Prime Minister will be asked to receive a deputation on this subject.

The Medico-Political Committee has carried out, so far as was practicable, the instruction of the Annual Representative Meeting with respect to bringing under the notice of candidates for Parliament questions affecting the medical profession, and circulating the replies to members of the profession in the several constituencies throughout the country.

Your Council, on the recommendation of the Medico-Political Committee, also gave instructions for the circulation to medical practitioners of information as to the past action with respect to medical questions of those candidates who were members of the last Parliament.

These instructions entailed considerable additional work on the Medical Secretary's department.

The Medico-Political Committee has reported to your Council that it is preparing a special report on this matter.

Central Ethical Committee.

20. The Central Ethical Committee has held five meetings and has been called upon to decide, or to advise upon, a greater number of questions of professional conduct than in any previous year, both questions of a general character and as affecting individual members of the profession.

The Committee will in due course present its annual report to the Representative Meeting, and your Council reports only upon those matters which have been the subject of special resolutions of the Council.

Upon the advice of the Central Ethical Committee your Council has approved the adoption by several Divisions and Branches of rules as to procedure in ethical cases, and of rules for the regulation of the professional conduct of the members of those bodies. The rules as to professional conduct in respect of appointments which were placed before the Annual Representative Meeting at Leicester by the Central Ethical Committee in its annual report, have been found suitable for the requirements of several Divisions and have been adopted by them with the approval of your Council. An important modification of the rule as to the adoption of such resolutions has been introduced by the Portsmouth Division, namely, that if a certain proportion of the members of the Division are not present at the meeting at which any resolution affecting the terms upon which appointments should be held is carried, the resolution shall be referred to a vote of the members of the Division taken through the post.

The Central Ethical Committee has been called upon to advise the Council on several questions affecting the insertion of advertisements in the British Medical Journal, and advertisements have been refused which in the opinion of the Central Ethical Committee contained unduly commendatory references to individuals, or undue claims as regards methods of treatment. In particular, advertisements relating to Homes for the treatment of inebriety have been refused which appeared to contain claims to the possession of special methods of treatment not generally made known.

The warning notice as to appointments which is published in the advertisement columns of the British Medical Journal, under the supervision of the Central Ethical Committee, has been found increasingly useful to the Association and the profession. The Central Ethical Committee has been unable to advise your Council to relax, as requested in some cases, the rule originally approved with respect to the insertion of these notices—namely, that the Medical Secretary must only insert a notice in this column upon the application, or with the concurrence, of the Honorary Secretary of the Division or Branch of the Association concerned, and that the name given as that of the person to whom applications for information should be addressed must in all cases be that of the Honorary Secretary who makes or authorizes the application. Inasmuch as this notice is inserted upon the responsibility of the Council of the British Medical Association, your Council concurs in the opinion of the Central Ethical Committee that the Council should be able to rely in every case upon a local officer of the Association for advice as to the propriety of the insertion of the notice. With a view to extending the usefulness of the notice to the members of the medical profession who may not see the British Medical Journal, your Council has directed that the medical schools throughout the country be requested to place this notice weekly upon their notice boards.

The question having arisen for consideration as to the advisability of the Central Ethical Committee dealing with cases which have not been previously referred for investigation by Divisions of the Association, your Council has approved a standing resolution whereby cases in which any question of fact appears to be in dispute will always be referred for primary investigation to the respective Division.

The effect of this resolution will be that issues of fact will only be tried by the Central Ethical Committee upon appeals from decisions of Divisions or Branches, or in cases where Branches propose the expulsion of members.

To facilitate the satisfactory investigation of such cases your Council has authorized the payment of the travelling expenses of those who may attend at the request of the Central Ethical Committee to give evidence.

ORGANIZATION COMMITTEE.

21. The most important matter engaging the attention of the Organization Committee during the year, apart from its ordinary routine work, has been that of the proposed application for a Royal Charter. Your Council received from the Annual Representative Meeting the following instructions:

Minute 50.

> "That the Representative Meeting issue the necessary authority for application on behalf of the Association to be made to the Privy Council praying His Majesty to grant a Royal Charter of Incorporation to the Association."

Minute 54.

> "That the Central Council be instructed to submit the draft of the application for a Royal Charter to the Divisions as soon as possible, with an estimate of the probable cost and with an explanatory memorandum."

Minute 239.

> "That it be an instruction to the Council, in drafting the new regulations in connexion with the application for a Charter, to provide for the transference of all financial business from the General to the Representative Meeting of the Association."

Minute 240.

> "That it be an instruction to the Council, in drafting new regulations in connexion with the application for a Charter, to provide for the constitution of a Finance Committee separate from the Committee which deals with the Journal."

In accordance with the standing order of the Council that the Organization Committee should deal with all matters affecting the regulations of the Association and standing orders, the foregoing resolutions of the Representative Meeting were referred to that Committee. After most careful consideration by the Committee, in conjunction with the Officers and the Solicitor of the Association, and with Counsel (Mr. T. R. Colquhoun Dill, who was specially engaged for this matter), a draft Charter, ordinances, and by-laws have been prepared, as well as an explanatory memorandum and estimate of cost, as directed by the Representative Meeting, and have been issued for the consideration of the Divisions.

The work of preparation of these documents was carried out in the office of the Medical Secretary, as Secretary of the Organization Committee, and has occupied much of the time of the staff of that department during the winter.

The following instructions of the Representative Meeting to your Council were also referred to the Organization Committee in order that draft by-laws might be prepared as directed:

Representation of Representative Meeting on Council, and Grants to Branches and Divisions.

Minute 185.

> "That the Representative Meeting be given power to elect not less than four nor more than six members of the Central Council."

Minutes 194-5.

> "That in the opinion of the Representative Meeting, it is desirable that the Council, having made due provision for the expenditure necessary to carry out other objects of the Association, should have power to make from time to time grants from the central funds to such Branches or Divisions, and of such amounts as the Council may think proper, having regard to the evidences of work done, and to the amount of local subscription for any purpose for which a supplementary grant may be given, the Council to be advised by the Organization Committee as to the distribution of the amount available; and that the Council be instructed at the first opportunity to bring before the Representative Meeting such alterations of the by-laws as may be necessary to give effect to this resolution."

Minute 197. (Rider added.)

> "That the applications for money by Divisions be in the first place made to the Branch Councils and forwarded by them with remarks thereon for the consideration of the Council."

Draft by-laws have accordingly been prepared by the Committee, and these having been approved by your Council as appearing to fulfil the intention of the Representative Meeting at Leicester, are now submitted for the consideration of the Annual Representative Meeting in London.

Upon consideration of the draft by-law as to the election of members of Council by the Annual Representative Meeting, the Organization Committee reported to your Council that it appeared desirable that some limit of time should be assigned to the continuous service of members of Council so elected, such as is assigned by the by-laws to the period of service of members of Council elected by the Branches and those co-opted by the Council. This recommendation having been approved by your Council, a draft by-law has accordingly been prepared and is submitted for the consideration of the Annual Representative Meeting.

Your Council further referred to the Organization Committee the following resolution of the Representative Meeting:

Minute 192.

> "That, with a view to furthering the organization of the medical profession, the Council be asked to consider the advisability of providing a scheme for the affiliation of local medical societies with the British Medical Association."

And your Council reports its concurrence in the following recommendation of the Committee:

> "That in the opinion of the Committee the only form of affiliation compatible with the constitution of the Association is that the local Society should be merged in the Association, and that, having regard to the variety of local conditions, no general scheme for this purpose can be formulated, and that the Council be recommended so to report to the Representative Meeting."

The Organization Committee has also had under consideration instructions of the Annual Representative Meeting at Leicester to that Committee as follows:

On consideration of the motion—

Minute 143.

Moved: "That in By-law 23, for '600' be read '300.'"

Minute 144.

Resolved: "That the resolution of the Wandsworth Division be remitted to the Organization Committee for consideration of the principle that it is undesirable to increase the membership of the executive body of the Association."

With reference to the resolution of the Representative Meeting contained in Minute 144 the Committee reports that it is inexpedient to increase the size of the Council, and that, having regard to the addition of members to be elected by the Representative Meeting, it is inadvisable that the number of Branch representatives should be increased.

The Annual Representative Meeting at Leicester postponed (Minute 136) consideration of a proposed resolution (Minute 134) as follows:

> "Except for the purpose of winding up, the Association shall not have power to call for the return to its general funds of any surplus accruing from the grants to Branches under By-law 16 until the Organization Committee should have reported to the Central Council upon Branch and Division expenditure."

The Organization Committee has made careful inquiry from the Branches and Divisions throughout the country as to their views upon this subject, and the replies have been collated. It is hoped that a complete report on the subject will be available for the Annual Representative Meeting.

The Organization Committee, in pursuance of its ordinary duties, has considered and reported to your Council upon Rules submitted by 4 Branches and 3 Divisions, and these have all been approved except in cases in which it appeared to the Organization Committee that the proposed Rules conflicted with the letter or spirit of the Articles and By-laws of the Association.

Adjustments of boundaries have been effected by your Council upon the recommendation of the Committee, or by the Committee itself under the standing authority conferred upon it by the Council to deal with cases in which there was entire local agreement.

In each case the modification of existing boundaries was considered at the request of the members of the Association directly concerned, and was carried through with the concurrence of the Divisions and Branches affected.

Your Council has approved the formation of two new Branches outside the United Kingdom, namely, the Egyptian Branch and the Saskatchewan Branch.

Your Council has carefully considered the most convenient grouping of Divisions and Branches for representation in the Representative Meeting and in the Central Council respectively. Attention having been drawn last year to the inconvenience resulting to some Colonial Branches from the fact that their grouping was only decided by your Council at the same time as that of the Home Branches, the matter was taken into consideration as affecting the Colonial Branches at the January meeting of the Council, and the decisions of your Council communicated to the Colonial Branches. Representations have again been made by certain Home Branches as to the inconvenience resulting from grouping with other Branches for representation on the Council, particularly in cases in which Branches having over 200 members have to be grouped in order to provide for the representation of neighbouring Branches having fewer than 200 members. Your Council, having regard to the terms of By-law 23, has been unable to depart from the principles originally laid down in this matter.

Your Council has received periodically from the Organization Committee reports of visits paid by the Medical Secretary to various Divisions and Branches, including both visits made by instruction of that Committee with the object of increasing the membership and strengthening the organization of the Association, and those made by direction of other Committees for the purpose of giving assistance in local difficulties affecting the interests of the profession, or in the investigation of ethical cases.

Repeated testimony has been received from the Branches and Divisions to which such visits have been paid as to the value of the work thus done in furtherance of the interests of the medical profession, in inducing medical practitioners who are not already members of the Association to join, and in awakening or increasing the interest of members in the work of the Association.

Public Health Committee.

22. The Public Health Committee has met four times since the last annual meeting, and has considered important questions affecting the public health service of the country generally, and also questions of defence of individual officers in cases of disputes as to terms of appointment.

The Public Health (Security of Tenure of Officers) Bill was the subject of a special instruction from the Annual Representative Meeting to your Council (Minute 41), and every effort has been made to prepare the way for the favourable consideration of the Bill by Parliament. As the result of representations made through the Chairman of the Public Health Committee, the late President of the Local Government Board (Mr. Gerald Balfour) received a deputation from the British Medical Association, the Incorporated Society of Medical Officers of Health, and the Sanitary Inspectors' Association on the subject of this Bill. Mr. Balfour expressed the sympathy of the Local Government Board with the general objects of the Bill, but indicated certain difficulties which might prevent the Board from approving it in its present form.

The Public Health Committee has carefully considered these difficulties, and to what extent it might be possible for the Association to modify the Bill in order to meet the views of the Board. It has been decided to seek the first favourable opportunity of bringing the matter before the present President of the Local Government Board.

On the recommendation of the Public Health and Medico-Political Committees, your Council has appointed a special Committee to collect evidence to be submitted on behalf of the British Medical Association to the Royal Commission on the Poor Law. Questions drawn up by the Committee are now being circulated to those who are believed to be in a position to give information of value, and the replies will be carefully collated and evidence thereon submitted to the Royal Commission.

The attention of the Public Health Committee has been drawn to the practice of some medical practitioners who are members of public bodies giving expert advice in order to enable such bodies to avoid the necessity of appointing expert officers. The Ethical Committee has been requested to consider the matter, and it will be the subject of a recommendation to the Annual Representative Meeting from that Committee.

Hospitals Committee.

23. The Hospitals Committee has met three times since the last annual meeting of the Association, in addition to holding two Conferences with non-medical representatives of the governing bodies of hospitals, appointed at the Conference held in March, 1905.

The conclusions of the Committee on various points considered subsequently to the Conference of 1905, namely, cottage hospitals, pay wards, and the relation of hospitals to provident dispensaries, public medical services, and the Poor Law, were reviewed by the Committee, and submitted with the findings of the Conference of March for the consideration of the Joint Committee. Having been amended in various respects to meet the views of the non-medical members of the Joint Committee, these were forwarded to your Council with a recommendation that they should be issued for the consideration of the governing bodies of all hospitals in the United Kingdom, together with a Memorandum explaining the circumstances in which they were so presented.

The Hospitals Committee has also considered the following resolution of the Annual Representative Meeting at Leicester:

> That it is inadvisable that this meeting should pass a resolution on the general principle of hospital outpatient departments before that principle has been submitted to the Divisions, and this meeting hereby decides that the question be remitted through the Hospitals Committee to the Divisions.

This resolution has been placed before the Divisions, together with all the resolutions of the Hospitals Committee, in order that the Divisions might be placed in a position to consider the question of out-patient departments in its relation to the various other questions affecting the government of hospitals which had come before the Committee.

Apportionment of a Member's Annual Subscription.

24. Your Council submits a Schedule as follows, showing how a member's subscription of 25s. per annum is apportioned for defraying the expenses of the Association during the past year:

General Association expenses, Representative Meeting, Council, Committees, Library, salaries, and wages ...	£15,549	13.67
Capitation to Branches	3,459	4.0
Type and plant depreciation	250	0.2
Written off investments...	781	0.8
Clerical staff superannuation...	300	0.25
Written off subscriptions	742	0.63
Carried to capital account	912	0.85
Net cost of printing Journal, postage, editorial, etc., after deducting receipts for advertisements, sales, etc.	5,230	4.6
	27,223	
Receipts from advertisements, sales of Journal, etc.	22,930	
	£50,153	25.0

Clerical Staff.

25. Your Council is aware that the success and activity of the Association is to no small extent dependent on the loyal and enthusiastic co-operation of the clerical staff at head quarters; and it takes this opportunity of placing on record its sincere appreciation of the valuable assistance rendered to your Association by the Editor, the General Secretary and Manager, the Medical Secretary, and the whole of the staff throughout the past twelve months.

Auditors.

26. Your auditors, Messrs. Price, Waterhouse and Co., have again examined and audited your books during the year 1905, and under Article XXIII (*a*) and in accordance with the Companies Act, 1900, they are eligible and seek re-election.

H. W. LANGLEY BROWNE,
Chairman of Council.

NOTICES OF MOTION.

The following notices of motion have been received for discussion by the Annual Representative Meeting of the Association to be held at London, July 24th, 1906, and following days.

[*Notices previously received were published in the* Supplement *of February 10th, page 45; February 24th, page 62; March 3rd, page 78; March 31st, page 141; and April 21st, page 181.*]

ADMINISTRATION OF THE ASSOCIATION LIBRARY.

Circulating Medical Library.

By the Gateshead Division (North of England Branch):
That the Council of the Association be requested to take into consideration the feasibility of adding to the other attractions of the Association a Circulating Medical Library, and report to the Divisions in time for a decision to be taken at the next Representative Meeting.

By Direction of the Chairman of Representative Meetings.

J. Smith Whitaker, *Medical Secretary.*

April 26th.

1906 ANNUAL GENERAL MEETING.

The Annual General Meeting of the British Medical Association will be held in the Caxton Hall, Caxton Street, Victoria Street, London, S.W., on Tuesday, July 24th at 10 o'clock in the forenoon.

BY ORDER OF THE COUNCIL,

GUY ELLISTON, *General Secretary.*

April 18th, 1906.

ASSOCIATION INTELLIGENCE.

PROCEEDINGS OF COUNCIL.

At a meeting of the Council held, by kind permission of the Metropolitan Asylums Board, London, in their Board Room, on Wednesday, April 18th, 1906, at 2 o'clock in the afternoon.

Present:

Dr. H. W. Langley Browne, Chairman of Council, in the Chair.
G. C. Franklin, F.R.C.S., Leicester, President.
Sir Victor Horsley, F.R.S., Chairman of Representative Meetings.

Dr. John Ford Anderson, London.
Dr. T. R. Bradshaw, Liverpool.
Dr. R. Cochrane Buist, Dundee.
Dr. W. A. Carline, Lincoln.
Mr. Andrew Clark, London.
Dr. James Craig, Dublin.
Mr. E. J. Domville, Exeter.
Mr. George Eastes, M.B., London.
Professor David W. Finlay, M.D., LL.D., Aberdeen.
Dr. H. A. Francis (Brisbane and Queensland Branch), London.
Dr. John H. Galton, Upper Norwood.
Dr. Joseph J. Giusani, Cork
Dr. Bruce Goff, Bothwell.
Dr. David Goyder, Bradford.
Dr. J. Groves, Carisbrooke.
Dr. James Hamilton, Glasgow.
Dr. T. Arthur Helme, Manchester.
Mr. R. H. Kinsey, Bedford.
Dr. C. G. Drummond Morier (South Australian Branch), London.
Professor J. T. J. Morrison, M.B., Birmingham.
Professor William Osler, M.D., F.R.S., Oxford.
Mr. C. H. W. Parkinson, Wimborne Minster.
Dr. Frank M. Pope, Leicester.
Dr. Edwin Rayner, Stockport.
Mr. H. Jones Roberts, Penygroes.
Mr. H. Betham Robinson, M.S., London.
Mr. George Rowell, F.R C.S., London.
Dr. Cecil E. Shaw, Belfast.
Dr. E. Markham Skerritt, Clifton, Bristol.
Professor W. R. Smith, M.D. (Malta and Mediterranean Branch), London.
Mr. C. R. Straton, Salisbury.
Dr. G. E. Twynam (Sydney and New South Wales Branch), London.
Mr. T. Jenner Verrall, Brighton.
Dr. Norman Walker, Edinburgh.
Dr. Arthur T. Wear, Newcastle-on-Tyne.
Lieutenant-Colonel E. M. Wilson, C.B., Farnborough.

The minutes of the last meeting (March 14th, 1906) having been printed and circulated and no objections received were taken as read and signed as correct.

Read letters of apology for non-attendance from the Treasurer, Dr. E. G. Barnes, Dr. J. Brassey Brierley, Colonel D. Bruce, C.B., F.R.S., Dr. D. Burgess, Dr. G. W. Crowe, Dr. T. D. Griffiths, Dr. R. McKenzie Johnston, Dr. James Murray, Mr. Edmund Owen, Dr. J. Maxwell Ross, Professor Saundby, Mr. W. D. Spanton, Mr. J. Lynn Thomas, C.B., and Dr. W. J. Tyson.

The Chairman of Council reported the resignation of Dr. M. Beverley as a representative of the East Anglian Branch on the Central Council.

Moved by the Chairman of Council, seconded by Dr. Markham Skerritt, and

Resolved: That this Council learns with regret that Dr. Beverley, who has so ably represented the East Anglian Branch for a number of years on the Central Council, resigns his seat, and desires to place on record its high appreciation of his services, more especially as Chairman of the Hospitals Committee.

Moved by Mr. Andrew Clark, seconded by Colonel Wilson, and

Resolved: That the Volunteer Medical Service Committee consist of: The President and Chairman of Council, *ex officio*, Colonel G. T. Beatson, C.B., V.D., Surgeon-Colonel W. H. Bull, V.D., Surgeon-Colonel Andrew Clark, V.D., Surgeon-Colonel G. S. Elliston, V.D., Surgeon-Captain W. N. Evans, Surgeon-Colonel P. B. Giles, V.D., Captain J. McK. Harrison, Lieutenant-Colonel Valentine Matthews, V.D, Surgeon-Major J. Munro Moir, Captain E. C. Montgomery Smith, Major C. P. Oliver, Surgeon-Captain W. Pemberton Peake, Captain H. Robinson, Captain Wm. Sheen, Lieutenant-Colonel R. R. Sleman, V.D., Surgeon-Captain J. B. Stevens, Surgeon-Colonel W. R. Smith, V.D., Surgeon-Lieutenant-Colonel Atwood Thorne, Surgeon-Lieutenant-Colonel A. T. Wear, V.D., and Lieutenant-Colonel E. M. Wilson, C.B., C.M.G.

Read acknowledgements from the Prime Minister, and Lord George Hamilton (Chairman of the Royal Commission on the Poor Laws and Relief of Distress) in reference to the minute, pointing out that the constitution of the Royal Commission on the Poor Laws would command the confidence of the medical profession if the Government were to appoint upon the Commission representatives of those responsible for the administration of the Medical Service of the Poor Laws, which were ordered to be entered on the minutes.

Read acknowledgement of the congratulatory resolution passed by the Council upon Sir Walter Foster having been sworn a member of His Majesty's Most Honourable Privy Council, which was ordered to be entered on the minutes.

30, Grosvenor Road, Westminster, S.W.,
March 31st, 1906.

Dear Mr. Elliston,—I am much gratified by the resolution passed by the Council of the Association at their last meeting congratulating me on being sworn a member of His Majesty's Most Honourable Privy Council. There are many burdens and drawbacks in public life, but in my experience they are amply compensated for by the kindly remembrance of old friends and associates like the members of your Council. It is on this account that I am most grateful for their kind resolution.—Yours truly,

WALTER FOSTER.

Guy Elliston, Esq.,
Secretary, British Medical Association.

The following resolutions from the Council of the Lancashire and Cheshire Branch were then considered:

1. This Council views with alarm the serious decrease in the surplus funds of the Association during the past year, and urges upon the Central Council the absolute necessity of curtailing the expenses in the several departments, notably that of the Medical Secretary.

2. That this Council instructs the Representatives of the Branch to bring the matter before the Council of the Association.

3. That the action of our members on the Council of the Association be approved, and that they be thanked for their services in opposing unnecessary expense in the organizing department of the Association; and, further, that this Branch Council hopes they will continue in such action.

4. That, in the opinion of this Council, it is desirable that the Medical Secretary should devote his attention to organizing and advisory, and not to clerical, work.

5. That this Council is of opinion that the proposal of *Answers* to appoint medical practitioners to give free medical advice in return for a supposed introduction to medical practice in their immediate neighbourhood is derogatory to the dignity of the profession, and against the interests of both the public and the profession.

6. That this Council is of opinion that the holding of such an appointment by a member of the British Medical Association is inconsistent with membership of the Association.

7. That this Council is prepared to lay before the General Medical Council the case of any medical man taking up such an appointment within the boundaries of this Branch.

8. That this Council regrets the delay in the report upon the complaint of a member of the Branch, and requests the Representatives of the Branch upon the Central Council to use every possible means to expedite the consideration of the case by the Council, and further request Dr. G. H. Broadbent to use his best efforts with the Ethical Committee for the same end.

Resolved: That Resolutions 1 to 4 be received and entered on the minutes, and that it be pointed out to the Council of the Lancashire and Cheshire Branch that the expenditure in the several departments, and notably that of the Medical Secretary, is largely consequent upon the due fulfilment of instructions of the Representative Meeting. That resolutions Nos. 5 to 8 be received and entered on the minutes.

Read communication conveying invitation for the Annual Meeting to be held in Exeter:

1, Matlock Terrace, Torquay,
March 7th, 1906.

Dear Sir,—The question of inviting the Association to hold its Annual Meeting of 1907 at some place within the Branch area has been under consideration by the Branch for some time past. I am now instructed to inform you that it is the unanimous wish of the Branch to issue a cordial invitation to the Association to hold its Annual Meeting of 1907 at Exeter.

A deputation from the Branch has been appointed to wait upon the Central Council and tender the invitation, and are ready to attend at your Council on the 14th inst. if it should be convenient for your Council to receive them.

I have the honour, Dear Sir, to remain,
Guy Elliston, Esq., Your faithful Servant,
General Secretary, G. YOUNG EALES, Hon. Sec.
British Medical Association.

Resolved: That the letter be received and entered on the minutes.

Resolved: That the South-Western Branch and the Bradford Division be respectively informed that the new Council for 1906-7 will be glad to receive deputations conveying invitations for the holding of the 1907 Annual Meeting on Wednesday morning, 26th July, at an hour to be subsequently arranged.

Resolved: That the 29 candidates whose names appear on the circular convening the meeting be and they are hereby elected members of the British Medical Association.

Resolved: That the minutes of the Journal and Finance Committee be received.

Dr. MARKHAM SKERRITT, in the absence of the Treasurer, presented the Financial Statement for the year ending December 31st, 1905.

Resolved: That the Financial Statement for the year ending December 31st, 1905, as certified by the auditors be received and approved and circulated, together with the estimate of receipts and expenditure for the year ending December 31st, 1906, to the Secretaries of Branches and Divisions and published in the JOURNAL in accordance with By-law 34. (see page 200.)

Moved by Dr. MARKHAM SKERRITT, seconded by the CHAIRMAN OF COUNCIL, and

Resolved: That the Council approve the Rules of the scheme for the Superannuation of the Clerical Staff, and that they be the rules governing the fund.

Resolved: That the salary of the Medical Secretary be increased by £50 per annum.

Resolved: That the Southern Branch be informed that it is by the consent of the Council that the advertisements referred to are advertised in the JOURNAL.

Resolved: That the accounts for the quarter ending 31st March last, amounting to £11,491 12s. 8d., be received and approved, and it be recommended that the Treasurer be empowered to pay those remaining unpaid, amounting to £3,963 5s. 10d.

Resolved: That the railway fares of witnesses called by the Irish Committee for an ethical inquiry be paid in the same way as witnesses summoned by the Central Ethical Committee.

Resolved: That the minutes of the Premises and Library Committee be received.

Resolved: That the Council award the first Prize to the competitor's plans No. 5, bearing the *nom de plume* "Light and Air," and the second Prize to the competitor's plans No. 3, bearing the *nom de plume* "Lux."

The CHAIRMAN of COUNCIL then opened the sealed envelopes and declared the author of "Light and Air" to be Mr. H. Percy Adams, F.R.I.B.A., 28, Woburn Place, W.C., and the author of "Lux" to be Mr. Edmund Woodthorpe, F.R.I.B.A., 32, Gresham Street, E.C.

Resolved: That the regulations for the guidance of the Librarian in regard to duplicates be approved and adopted, and stand as the regulations of the Association for the guidance of the Librarian.

Resolved: That the accounts for the quarter be received and that the Treasurer be empowered to pay them, amounting to £46 7s. 11d.

Resolved: That the General Secretary be instructed to inform the Honorary Secretaries of the Cheltenham Medical Library and the Portsmouth Medical Library that the Council regrets it cannot accede to their requests, as in giving duplicate books it is the rule of the Association to give priority to the Branches and Divisions of the Association.

Resolved: That the minutes of the Medico-Political Committee be received.

Moved by Dr. BUIST, seconded by Mr. PARKINSON, and

Resolved: That the support of the Association be given to the Prevention of Corruption Bill.

Moved by Mr. Kinsey, seconded by Dr. Craig, and

solved: That the action of the Chairman of the Medico-Political Committee in communicating with the Government regarding the composition of the Royal Commission on Vivisection be approved.

solved: That the minutes of the Irish Committee be received.

solved: That the minutes of the Ethical Committee be received.

solved: That the Council approve the adoption of the Model Rules of Ethical Procedure, and of the Bradford Rules by the Marylebone Division, and of the Bradford Rules by the Stockport, Macclesfield, and East Cheshire Division.

solved: That the minutes of the Organization Committee be received.

olved: That the Council do not approve the proposed new Rule of the Yorkshire Branch with reference to the election of representatives of the Branch on the Central Council.

olved: That having regard to the expression of opinion of those attending the Conference of Honorary Secretaries at Leicester as to the utility of such Conferences, the Council sanction that a Conference of Secretaries be held at the time of the forthcoming Annual Representative Meeting in London.

he Committee reported that in accordance with instruc- s already received they were preparing a comprehensive rt on Division and Branch expenditure, based on the ies to inquiries circulated by the Committee, and on annual reports of Divisions and Branches; that it was rable such a report should be available for the consider- of the Divisions before the Annual Representative ting.

lved: That the Council authorize the Committee to circulate the report when complete without waiting to place the same before the Council.

lved: That with respect to the Annual General Meeting this year all the business described under Section A of Article XVIII be transacted at the General Meeting in London.

lved: That the Council authorize the Organization Committee to regroup the North Wales, Shropshire, and Staffordshire Branches, and also the Dorset and West Hants, West Somerset, and Bath and Bristol Branches, if found desirable, upon consideration of he membership as shown by the Annual List of Members, and of intimations received as to the wishes f these Branches respectively.

lved: That the other Branches in the United Kingdom be provisionally granted independent epresentation, or be grouped, as the case may be, or the year 1906-7, in the same manner as for the ear 1905-6.

ved: That the West Bromwich Division, if not ttaining fifty members before April 30th, be grouped ith the Dudley and Bromsgrove Divisions.

ved: That the Enniskillen, Monaghan, and Omagh ivisions be grouped with the Divisions of Connaught form one constituency as was the case last year.

ved: That the Council do provisionally group the ther Divisions in the United Kingdom for repre- ntative purposes for the year 1906-7 in the same anner as in the year 1905-6.

ved: That the Council authorize the Organization ommittee, as in previous years, finally to determine e grouping of Divisions and Branches as soon as ssible after the information contained in the Annual ist of Members is available.

ed: That the Council accept the return of the presentative elected by the Halifax and Nova Scotia ranch.

ed: That arrangements be made for the forthcoming nual Representative Meeting to consider the draft arter, Ordinances, and By-laws, the replies of visions in the United Kingdom and the report of e Council thereon; that the Divisions in the United ngdom be informed that the matter will be so nsidered, and that the Divisions not in the United ngdom be informed that the Representative Meeting ll not be asked to come to any final decision upon matter until the replies of the Divisions outside United Kingdom have been received, five months being allowed for this purpose from the date of the issue of this notice.

Resolved: That Divisional Secretaries be requested to notify the Medical Secretary of all intended meetings of their Divisions, and that postcards be supplied them for that purpose, so that any matter awaiting consideration may, if possible, be forwarded in time for such meetings.

Resolved: That the minutes of the Public Health Committee be received.

Resolved: That in view of information received showing that Clause 2 (1) of the Public Health Bill has been interpreted in a sense not intended by the Association, the Council authorize such redrafting of the Clause as shall make clear that the only object is to secure that appointments of Sanitary Officers shall not lapse without the sanction of the Local Government Board.

Resolved: That the Report of Council be received and approved and submitted to the Secretaries of each Branch and Division, and published in the Journal in accordance with By-law 34. (See page 197.)

Moved by the Chairman of Council, seconded by Dr. Carline, and

Resolved: That Mr. W. E. Hempson be reappointed Solicitor to the Association for the ensuing twelve months.

Resolved: That the reports of Branches be received, approved, and published in the Journal. (See page 217.)

Moved by the Chairman of Council, and

Resolved: That the Annual General Meeting be summoned for 10 a.m. on Tuesday, July 24th, to be immediately followed by the Representative Meeting. Further, that the Representatives meet *de die in diem* at 10 a.m. until the completion of business.

Resolved: That the Report on Puerperal Morbidity be received and published in the Journal.

The Council rose at 6.30 p.m.

Proceedings of Committees.

MEDICO-POLITICAL COMMITTEE.

A meeting of the Medico-Political Committee was held at the office of the Association on March 28th, when there were present: Dr. R. C. Buist, in the chair; Sir Victor Horsley, F.R.S. (Chairman of Representative Meetings), Dr. H. Radcliffe Crocker (Treasurer), Mr. H. W. Armit, Dr. T. Arthur Helme, Mr. George Jackson, Dr. H. A. Latimer, Dr. J. A. Macdonald, Dr. L. S. McManus, Dr. H. F. Oldham, Dr. Cecil E. Shaw, Mr. C. R. Straton. Mr. W. E. Hempson, solicitor to the Association, also attended to advise the Committee upon certain matters.

Substitution of Property Tax for Income Tax.

The Committee considered a communication from the Exeter Division forwarding a copy of the memorandum on the substitution of property tax for income tax, and recommended the Division to refer the matter to the Representative Meeting.

Professional Responsibility.

Dr. Cecil Shaw drew attention to the case of Tughan *v.* Darnell, the third trial of which had taken place in Belfast in the previous week,[1] when the judge, in summing up, gave utterance to dicta with respect to the legal responsibilities of medical practitioners which, if accepted, would render those responsibilities much more onerous than they had hitherto been. A motion was made that the Committee recommend the Council to give the assistance of the Association in taking the case before higher courts, but upon careful consideration it was decided not to adopt this course.

Reports on Recommendations of Committee.

The Chairman reported the action of the Council with respect to the recommendations of the Committee at its last meeting. Also that the Council, on consideration of the minute of the Committee directing that the honorary secretaries of Divisions should be informed that the recommendations of the Committee as to contract practice were not intended to convey any recommendation in favour of such practice, ordered that a statement to this effect should also be included in the copies of the recommendations on contract practice which by direction of the Representative Meeting were being forwarded to all practitioners.

---

[1] British Medical Journal, April 7th, 1906, p. 833.

Medical Acts Amendment Bill.

The Committee received the report of Counsel instructed to revise the Medical Acts Amendment Bill in accordance with the instructions of the Representative Meeting and to prepare a schedule of repeals preparatory to the introduction of the Bill into Parliament. Upon consideration of Counsel's report, it was decided to instruct him to carry out the more complete redrafting of the Bill which he had suggested as desirable, and that the Committee should report accordingly to the Annual Representative Meeting.

Vivisection.

The Chairman reported that on receiving information as to certain Bills affecting the position of vivisection which had been introduced into the House of Commons and were down for second reading at an early date, and also as to the statement by the Home Secretary that he was prepared to appoint a Royal Commission to inquire into the subject of vivisection, he had, as a matter of urgency, directed that a letter be written to the Home Secretary, and also a letter to all members of Parliament, urging that in view of the proposed appointment of a Royal Commission the *status quo* as regards vivisection should not be disturbed in the meantime, and that, therefore, the two Bills in question should not be allowed to go forward. Special requests had been addressed to the medical members of Parliament to take action in the matter.

The Committee approved the action taken by the Chairman, and appointed a Subcommittee to draft a statement on the matter for the information of members of Parliament.

Poisons and Pharmacy Bill.

It was resolved, on the recommendation of the Parliamentary Subcommittee, that the Privy Council be recommended to include diachylon in the first part of the schedule of the Poisons and Pharmacy Bill (No. 25).

Notice of Accidents Bill.

The Committee placed on record its satisfaction with the incorporation in the Notice of Accidents Bill of those provisions which were urged upon the Home Office in June, 1905, by a joint deputation from the British Medical Association and from the Association of Certifying Factory Surgeons.

Prevention of Corruption Bill.

The Committee recommended the Council to accord the support of the Association to the Prevention of Corruption Bill, promoted with the object of preventing the payment of secret commissions.

Workmen's Compensation Bill.

Authority was given to the Chairman to take action, in accordance with the previously-declared views of the Association, with respect to the position of medical referees under the Workmen's Compensation Bill, which had been introduced into Parliament, but not printed, at the time of the meeting.

Contract Practice Subcommittee.

The Committee received from the Contract Practice Subcommittee a report on the present position of the existing dispute at Ebbw Vale—namely, that the appointment of Arbitrators, Mr. T. Richards, M.P., and the Medical Secretary of the Association, had been agreed to by both sides, but the terms of reference had not yet been settled. The Subcommittee approved the following terms, which had been approved by the Division and by the Contract Practice Committee of the South Wales Branch:

(*a*) That the reference should leave the widest possible powers to the arbitrators as to the conditions they should lay down in their award for the future terms of engagement of the medical staff attending the Ebbw Vale workmen, including whether there should be a workmen's committee of management, whether the poundage should be paid direct, and what the poundage should be.

(*b*) That the award should be in force for three years.

(*c*) That the two arbitrators themselves be requested, a a preliminary to the arbitration, to draw up the detaile terms of reference.

(*d*) That the Association insist that the terms of r ference must be submitted to meetings of the workme and agreed to by them.

A difficulty had in the meantime arisen as to th dismissal of a member of the staff and the appointmen of a successor while the negotiations as to arbitratio were in progress.

A report was also received as to the position at Maccles field, where the Medical Secretary had been requested t assist the local practitioners in clearing up certain diff culties. The Subcommittee reported that they still ha under consideration a model agreement between a contra practice organization and its medical officers, and a set model rules for the public medical services.

Amendment of the Lunacy Law.

The Chairman reported that on communicating to th Medico-Psychological Association, as directed, the desi of the British Medical Association for co-operation i approaching the Lord Chancellor with respect to th amendment of the lunacy laws, certain differences ha arisen which were to be the subject of a conference, ar the Committee gave directions as to the action to b taken.

ETHICAL COMMITTEE.

A meeting of the Ethical Committee was held at th office of the Association on April 6th, when there we present: Mr. R. H. Kinsey (in the Chair), Mr. G. Franklin (President of the Association), Dr. J. Fo Anderson, Dr. A. G. Bateman, Mr. G. H. Broadber Dr. G. W. Crowe, Dr. Bruce Goff, Dr. R. L. Langdon Dow Mr. W. D. Spanton. Among the matters considered we the following:

A Question of a Temporary Appointment.

The Chairman reported that a Division had aske advice as to the propriety of pronouncing unprofession the conduct of a medical practitioner in undertaking discharge temporarily the duties of an appointment whi was being offered for a permanency on terms which t Division had pronounced unsatisfactory. The Committ approved the advice which had been given—namely, th the Division should not condemn the action describ until they had communicated their opinion as to t undesirability of such temporary discharge of the duti of the appointment, and afforded the practition concerned an opportunity of conforming with their view

Powers of Calling Witnesses.

An application was also reported from the Irish Co mittee for information as to their power of summoni witnesses to attend before them in an ethical case, whi had been referred to that Committee, and their power paying expenses. The Chairman reported that the que tion of expenses had been referred to the Journal a Finance Committee.

The Committee resolved to consider at its next meeti the powers of various bodies of the Association to c witnesses in ethical cases.

Powers of Divisions to consider Ethical Cases.

It was also reported that a Division had been informe in answer to an inquiry, that it was competent fo Division of the Association to consider any question professional conduct, including resolutions of a lo medical society, but that it was advisable not to circul to members of the Division a notice such as had been su mitted relating to the conduct of a non-member.

Rules of Divisions and Branches.

The Committee considered Rules submitted by vario Divisions and Branches, and made recommendations the Council in reference thereto.

Action under Standing Orders as to Trade Advertisements.

The Committee received and approved the Medi Secretary's report of action taken under standing instr tions of the Committee with respect to trade advert ments and newspaper notices containing the names medical practitioners.

Medical Advice with “Answers.”

A report was received from the Editor stating that as esired by the Committee, an article had been published in ie British Medical Journal[1] with reference to the heme for the provision of medical attendance recently istituted by *Answers*, and that the appearance of this ticle had immediately been followed by a communica- on from the Editor of *Answers*[2] stating that in deference the opinion of the profession as indicated in the article had decided to abandon the scheme.

The Medical Secretary reported other information ceived indicating that the scheme had in fact been given).

The Committee expressed its satisfaction at the result the action taken through the Journal in the matter.

Results of Action Taken.

The Committee also received reports of the results of tion taken by instruction of the Committee in special ses, including the following:

Advertising by a Notice Board.

In the case of the exhibition by a medical practitioner notice boards, to which exception had been taken, and ich had been referred to the Division for consideration, was reported that the notice boards had now been noved.

False Description in “Medical Directory.”

The attention of a medical practitioner having been wn, by direction of the Committee, to the impropriety iis conduct in inserting in the *Medical Directory* that he l held a hospital appointment, which in fact he had held, it was reported that he had now expressed his ret for this false statement, and had undertaken not to eat it.

Assistant Opposing Former Principal.

he Committee received the report by a Division of the ılts of its investigation of a case, previously before the amittee, in which an Assistant had set up in oppo- m to a former Principal, and concerning which the amittee, seeing that no bond had been signed, had ed whether there was evidence of any under- ding, verbal or documentary, which should have binding between honourable men. With its rt on the facts the Division submitted also its lusions from those facts, and the Committee ex- sed its concurrence in the opinion of the Division, the Assistant in question had acted unprofessionally, ng taken an improper advantage of his fiduciary tion to obtain the patients of his former Principal. Committee further expressed the opinion that the cipal had been guilty of extreme negligence in not ining a proper undertaking when engaging the stant.

“Touting” Letter to Former Patient.

a case in which a medical practitioner had written a r to a patient under the care of another practitioner n he had previously attended, suggesting that he ld again be called in, the Committee found that his uct was most reprehensible, but that the apology h he had tendered should be accepted.

Question as to a Public Appointment.

e Committee considered the case of a practitioner, erly a member of the Association, who had applied to ivision of which he was then a member for support spect of the appointment as medical officer of health, he lost through a dispute with the sanitary rity, and which had been subsequently accepted by er member of the Division. Before the appointment ne vacant the Division had expressed its inability to action in the matter. Communications were also dered relative to the case from the Division con- d as to its action, and from the Council of the Branch ng attention to the delay in consideration of the case e Central Ethical Committee.

Committee resolved that having fully considered pers laid before it, it regretted that there was any in the matter, but considered that the delay was idable. The Committee further expressed the n that it was not called upon to take any action, regard to the fact that the matter had repeatedly been brought before the Executive Committee of the Division, and its decision on both occasions confirmed by the Division, the decision being that no action be taken.

Assurance Companies Offering Improper Inducements to Prospective Referees.

The Committee received a report from a Division with respect to the action of certain sickness and accident assurance companies which held out, as an inducement to medical practitioners to become referees, increase of practice which would accrue from the introduction given to patients of other practitioners. The Division condemned such methods, and suggested that the Central Ethical Committee should issue a warning to members against being connected in any way with the companies complained of.

The Committee concurred in the expression of opinion by the Division, and resolved that this opinion be communicated to Honorary Secretaries of Divisions in order that members might be warned against acting for such companies.

Report on Consultants.

The draft report on consultants, prepared by direction of the last Annual Representative Meeting, was further considered, and final consideration postponed to a special meeting.

PUBLIC HEALTH COMMITTEE.

A meeting of the Public Health Committee was held at the office of the Association on April 10th, Mr. C. H. Watts Parkinson in the chair, the other members present being Dr. J. Groves, Mr. Herbert Jones, Dr. Herbert Manley, Dr. F. C. Martley, Dr. T. G. Nasmyth, Dr. J. Maxwell Ross.

Suggested Inquiry as to Isolation Hospital.

A letter from the West Riding County Council was considered, inquiring as to a resolution which the County Council had been informed the British Medical Association had adopted at Leicester raising the question of the utility of hospital isolation. The Medical Secretary was instructed to inform the West Riding County Council that the resolution in question was not a resolution of the Association, but of the Section of State Medicine, and that the Council having in the ordinary course considered this recommendation of the Section of State Medicine, had decided not for the present to take any action.

Action of the Council respecting Recommendations of the Committee.

The Chairman reported that the Council had appointed Dr. Groves, Mr. Herbert Jones, and Dr. Manley to represent the Association at the Congress of the Royal Sanitary Institute at Bristol in July.

Public Health (Security of Tenure) Bill.

The Medical Secretary reported that Sir Francis Sharpe Powell had undertaken, at the instance of the Association and of the Public Health Committee of the House of Commons, to introduce the Public Health (Security of Tenure) Bill into the House of Commons. The Committee considered certain objections which had been raised in the General Medical Council to Clause 2, Subclause 1, of the Bill as at present framed, and decided to report to the Council that these objections and other information received indicated that the clause was open to an interpretation not intended by the Association, and that it would be redrafted in order to make the intention clear.

Bills before Parliament.

The Committee considered certain other public health Bills now before Parliament, and decided that no action by the Association was necessary.

Pending Disputes.

The Medical Secretary's report on action taken with respect to disputes affecting appointments under public authorities, including those at Aberystwyth and Bangor, was received and approved.

ORGANIZATION COMMITTEE.

A meeting of the Organization Committee was held at the office of the Association on April 10th, when there were present: Mr. T. Jenner Verrall in the chair; Mr. H. A. Ballance, Mr. Andrew Clark, Dr. A. Cox,

---

[1] British Medical Journal, March 10th, 1906, p. 583.

[2] British Medical Journal, March 17th, 1906, p. 639.

Professor J. T. J. Morrison, Dr. E. Rayner, Professor A. H. White.

Medical Secretary's Visits to Divisions and Branches.

The Medical Secretary reported that, in accordance with the instructions given by the Committee in December as the result of an application from the Council of the Yorkshire Branch, he had visited the following places in Yorkshire with a view to developing the organization of the Association and of the profession there—Huddersfield, Sheffield, Wakefield, Barnsley, Leeds, and Halifax. The reports received from the honorary secretaries of the Divisions and local medical societies in these centres indicated that there was a prospect of a considerable increase of membership and an awakening of activity in the Divisions, and in one case the probable formation of a Division in a district in which the Association had hitherto had very few members.

Visits to the Westminster Division and to a joint meeting of the Liverpool and Birkenhead Divisions were also reported, and the report was approved.

Issue of Recommendations as to Contract Practice.

The Committee also received a report of action taken by the Medico-Political Committee, who, in carrying out the instructions of the Annual Representative Meeting at Leicester to circulate to practitioners who were not members of the Association information as to the decisions of that meeting, had taken advantage of the opportunity to draw the attention of non-members to the work which the Association was doing for the profession, and to urge them to join the Association. The result of this action appeared to be a prospective increase of membership of over 300 at the date of the report, being about 200 more than the result from the ordinary routine circulars issued to non-members. The Committee expressed its concurrence in the action of the Medico-Political Committee.

Branch Rules.

The Committee considered and reported to the Council upon certain proposed alterations in the rules of the Yorkshire Branch.

Alteration of Boundaries.

The consideration of applications from the West Bromwich Division for a change of its boundaries, and from some medical practitioners in New Brunswick, Canada, for the formation of a new Branch of the Association was deferred pending receipt of further information.

Conference of Honorary Secretaries at Leicester.

The Committee received the report of the Conference of Honorary Secretaries of Branches and Divisions held at Leicester at the time of the last Annual Meeting, and recommended the Council to approve the holding of a similar Conference at the time of the next Annual Representative Meeting in London in July next.

Annual Reports of Divisions and Branches.

The Committee resumed the consideration of its instructions from the Council to report upon the annual reports of Divisions and Branches, and also to report on the present system of Division and Branch finance. The annual reports of Divisions and Branches for the year 1905 were considered, together with the replies received from those bodies to inquiries issued by the Committee in November last. A Subcommittee, consisting of the Chairman, Mr. Ballance, and Professor Morrison, was appointed to draft for the consideration of the Committee a report upon the whole subject, to be considered at the June meeting of the Committee. In view of the facts that the Council would not, after its meeting on April 18th, meet again until the beginning of July, and that it was desirable that a report on the subject should be available for consideration by the Divisions before the Representative Meeting, the Council was recommended to authorize the Committee to issue its report to the Divisions as soon as completed.

District Organizing Secretaries.

The consideration of a proposal to appoint district organizing secretaries, which had been referred by the Council to the Committee, was deferred pending the completion of the report on the finances of Divisions and Branches.

Grouping of Divisions and Branches.

The Committee considered the grouping of Divisions and Branches for the years 1906-7, and made provisional recommendations to the Council in reference thereto, recommending also that the Council as in previous years should authorize the Committee to determine the grouping finally after the annual list of members was made up on April 30th.

An application was considered from the Nova Scotia Branch to the effect that, the Representative of the Branch on the Council having been elected before the intimation of grouping by the Council in January had been received, the Branch requested the Council to accept the return of the Representative so elected; the Committee recommended the Council to accede to the application.

Science Committee.

In accordance with an instruction received from the Council the Committee drafted a new section of By-law 40 constituting a Standing Science Committee of the Association, and recommended the Council to adopt the same for submission to the Annual Representative Meeting.

The Charter.

The Committee received the Draft Charter, Ordinances and By-laws as finally revised by Counsel and sent to the Divisions. The Committee recommended the Council to arrange that the Annual Representative Meeting should consider the drafts in July, together with the replies of the Divisions in the United Kingdom and the report of the Council thereon; that the Divisions in the United Kingdom should be informed that the matter would be s considered, and that the Divisions not in the United Kingdom should be informed that the Representativ Meeting would not be asked to pronounce any fina decision upon the matter until sufficient opportunity ha been afforded for the reception of the replies of th Divisions and Branches outside the United Kingdom.

South African Medical Association.

Communications were considered from a Branch and Division in South Africa drawing attention to th suggested formation of a South African Medical Association, and asking for information as to certain points in th working of the British Medical Association and th possibility of carrying out in connexion with the Britis Medical Association all the work which it was propose that the South African Medical Association should unde take. A reply was ordered to be sent giving the informa tion desired.

Resolution of North Manchester Division.

Upon the consideration of a suggestion from the Nort Manchester Division the Council was recommended t approve the issue of a notice to honorary secretari requesting them to notify the Medical Secretary of a intended meetings of Divisions, postcards being supplie for the purpose, in order that matters awaiting consider tion might, wherever possible, be forwarded in time f such meetings.

IRISH COMMITTEE.

A meeting of the Irish Committee was held in t Shelbourne Hotel, Dublin, on March 31st, when the were present: Professor **Byers** (Belfast) in the chair, I R. B. Carey (Borris, co. Carlow), Dr. James Cra (Dublin), Dr. J. G. Cooke (Londonderry), Dr. J. S. Darli (Lurgan), Dr. Joseph Giusani (Cork), Dr. J. M. Ken (Granard), Dr. P. G. Lee (Cork), Dr. D. J. O'Connor (Cor Dr. J. Quirke (Piltown, co. Kilkenny), Dr. Cecil Sha (Belfast), Dr. Denis Walshe (Graigue, co. Kilkenny), a Professor White (Dublin).

Poor-law Commission.

The Secretary reported that the following gentlem had been nominated as Representatives of the Iri Medical Association on the Joint Poor-law Committe Dr. Thomas Donnelly (Dublin), Dr. F. W. Kidd (Dubli Dr. MacSweeney (Killarney), and Dr. Strahan (Dublin).

It was also reported that the Poor-law Associati nominated, instead of Dr. R. Marley Blake (who w unable to act), Dr. S. Agnew, of Lurgan.

The Secretary read correspondence with the Irish Workhouse Association relative to representation on the Joint Poor-law Committee and forwarding the following names of their representatives on the Joint Committee which were approved: Lord Mounteagle (London), Mr. Walter Kavanagh (Borris, co. Carlow), Mr. N. J. Synnott (Naas), and Miss Buchanan, P.L.G. (Dublin).

It was unanimously resolved:

> That in the opinion of the Irish Committee it is advisable that the Council should assist the work of the Irish Committee in connexion with the Poor-law inquiry by making a grant of £50 towards clerical assistance to the Secretary, postage, stationery, and local printing.

Connaught.

The Secretary reported that the South Connaught Division had held a meeting which was attended by four members, and that Dr. Mills stated that he saw no prospect of being able to hold, in the near future, a general meeting of the members of the Association in the province.

It was resolved:

> That we instruct our Honorary Secretary to circularize extensively the members of the British Medical Association in Connaught, informing them that the Irish Committee are willing to send a deputation, on a date to be fixed, to meet them, with a view to form a Connaught Branch of the British Medical Association so that they could have representation on the Irish Committee.

Power of Co-option.

It was resolved with one dissentient:

> That the Committee should, at the next Representative Meeting, seek for power to co-opt each year not more than three members from districts not already represented on the Committee.

Notice of motion accordingly to go forward to the next Representative Meeting.

Next Meeting.

It was reolved to hold the next meeting of the Committee in Belfast, on Saturday, June 16th.

PREMISES AND LIBRARY COMMITTEE.

A meeting of the Premises and Library Committee was held at the office of the Association on Tuesday, April 3rd, 1906, when there were present: Mr. Andrew Clark (Chairman) in the chair, Sir Victor Horsley, F.R.S. (Chairman of Representative Meetings), Dr. H. W. Langley Browne (Chairman of Council), Dr. H. Radcliffe Crocker (Treasurer), Dr. Edgar Barnes, Dr. J. Brassey Brierley, Dr. J. H. Galton, Dr. Bruce Goff, Dr. E. Markham Skerritt. Mr. Wm. Henman, Architect, attended as Assessor during the consideration of the competitive plans.

Premises.

The Committee considered the plans for the rebuilding of the Association's house in the Strand, and received the opinion of Mr. William Henman, F.R.I.B.A., architectural assessor. The Committee resolved to recommend the Council to award the first prize to the plans bearing the *nom de plume* "Light and Air," and the second prize to those bearing the *nom de plume* "Lux," in accordance with the recommendation of the assessor. Copies of these two sets of plans were directed to be forwarded to the Council, together with a copy of the report which the assessor undertook to make.

Regulations as to Duplicate Volumes.

The following regulations, drawn up in accordance with instructions of the Committee, were adopted and recommended to stand as the regulations of the Association for the guidance of the Librarian:

> 1. All volumes presented from the Central Library of the Association to Branch or Division Libraries remain the property of the Association.
> 2. In the event of a Branch or Division deciding to abandon its Library, all volumes presented from the Central Library must be returned.
> 3. All applicants for duplicate volumes must undertake to return to the central office the Duplicate List within 14 days after receipt.

Applications for Duplicate Volumes.

Applications from two provincial medical societies asking for duplicate volumes were considered. The Committee regretted it could not accede to the request, as in giving duplicate books it was the rule of the Association to give priority to Branches and Divisions of the Association.

Librarian's Report.

The Librarian reported that there had been over 1,720 attendances during the first three months of the year, being 171 more than in the corresponding period of last year. He also reported that 193 *Thèses de Paris* for the present session had been received, and stated the list of books presented or purchased for the Library.

The quarterly accounts for the Library were received and recommended for payment.

Library Hours.

Resolutions from the City Division suggesting that the library should remain open till 11 p.m., except on Saturdays, when it should be closed at 1 p.m., and the provision at head quarters for better social intercourse of members, especially for country members visiting London, were considered. The General Secretary was instructed to inform the City Division that the Committee regretted that it did not see its way at present to comply with the request.

JOURNAL AND FINANCE COMMITTEE.

A meeting of the Journal and Finance Committee was held at the office of the Association on April 4th, when there were present: Dr. H. W. Langley Browne (Chairman of Council) in the chair, Sir Victor Horsley (Chairman of Representative Meetings), Dr. H. Radcliffe Crocker (Treasurer), Dr. Edgar G. Barnes, Dr. W. A. Carline, Mr. Andrew Clark, Dr. J. H. Galton, Dr. J. Groves, Mr. R. H. Kinsey, Mr. C. H. W. Parkinson, Dr. Edwin Rayner, Dr. E. Markham Skerritt, Mr. J. Lynn Thomas, C.B.

Letters of apology for non-attendance were read from the President and Mr. Verrall.

The recommendations at which the Committee arrived are embodied in the report of the proceedings of Council.

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

LANCASHIRE AND CHESHIRE BRANCH:
Chester Division.

A meeting of this Division was held on April 3rd, Mr. Grainger in the chair.

Apology for Absence.—The Honorary Secretary stated that Mr. Taylor had expressed regret that he was unable to be present.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

Matters Referred to Divisions.—The recommendations and report upon Contract Practice, the Public Medical Service, and Provident Dispensaries were considered and discussed, and it was proposed by Dr. Mann, and seconded by Dr. Parry, that they be approved of, if not in every detail, at least in principle.—This was carried unanimously.

Co-ordination of Scientific Work.—The question of the co-ordination of the scientific work of the Association was then considered. The Chairman stated, and it was generally admitted, that the Chester Medical Society to a great extent supplied this want, but it was proposed by Dr. King, and seconded by Dr. Duff:

> That it is desirable that at some of the Division meetings scientific work should be included.

—This being put to the meeting was negatived.

Candidates for General Medical Council.—The question of the selection of Association candidates for the General Medical Council was then considered, and referred to a future meeting.

Rules of Central Midwives Board.—The rules of the Central Midwives Board were then considered and approved of.

Registration of Nurses.—The registration of nurses was supported.

Tea.—Tea was kindly provided by the Chairman previous to the meeting.

METROPOLITAN COUNTIES BRANCH.

Financial Relations of Branch to Divisions.—The following is the text of the report of the Committee appointed to consider methods of regulating the financial relations of the Branch to the Divisions. The Committee suggests that the Council should pass the following resolutions to be added to the present rules of the Branch on financial matters:

1. That the Branch Council shall each year, at its first meeting after the annual elections to the Council, appoint a Finance Committee.
2. That the Finance Committee shall consist of three ordinary members of the Council, together with the President, President-elect, Treasurer, and one of the Branch Secretaries, as *ex-officio* members.
3. That the Finance Committee shall, at its first meeting, elect one of the ordinary members to be its Chairman.
4. That the Finance Committee shall, at the close of each financial year:
   (*a*) Audit the Branch accounts and report upon them.
   (*b*) Report upon the accounts of the Divisions.
   For these purposes the Treasurer of the Branch and the Treasurers of the Divisions shall each submit to the Finance Committee an account of the moneys under their separate control, and of the sums which have been expended under their authority.
5. That all money desired by a Division over and above the sums (viz.: £10 and a second £10) at present allowed by the financial rules of the Branch, shall be applied for through the Financial Committee, which shall report the matter to the Branch Council, which alone shall have power to grant or refuse such additional sums.
6. That in making any application for money under Rule 5, the Division making the application shall submit a full account up to date of the divisional funds, and a detailed statement of the purpose or purposes for which such money is to be used.

(Signed)
ANDREW CLARK, Chairman.

Nomination for Offices.—Dr. Fred. J. Smith (138, Harley Street, W.), Honorary Secretary, has issued a circular reminding members that it is a privilege of the Divisions to nominate members for election to serve the offices respectively of President, Vice-Presidents (4), Treasurer, and Secretaries (2) of the Branch. Such nominations must be made to him before May 28th. Nominations of members for election by the Branch to the Central Council of the Association may also be made by Divisions. Dr. Smith is authorized to state that his colleague, Mr. Ernest Clarke, does not wish to be re-elected Secretary. Dr. Smith has already received nominations for the officers of the Branch made by the Kensington and Wandsworth Divisions.

CITY AND TOTTENHAM DIVISIONS.

A CONJOINT meeting was held on Thursday evening, April 19th, at Brooke House, Upper Clapton, by the kind invitation of Dr. J. O. Adams. The Chairman of the Division, Dr. J. W. HUNT, presided.

Branch and Division Finance.—The following resolution was passed and ordered to be forwarded to the Organization Committee in response to their inquiry:

> That the financial arrangements of Division and Branch be left as they are, but that the grant made by the Branch to each of its Divisions be limited to 3s. per member, provided that the Branch is not to be prevented from making a grant to any Division or Divisions for special objects.

Representation of Branch on Central Council.—It was resolved that if the Divisions unite in holding a conference on this subject the City Division send two delegates. Mr. Frederick Wallace and Dr. E. W. Goodall were appointed delegates.

Paper.—Dr. J. H. SEQUEIRA read a paper on the various forms of ringworm and their treatment. The paper was illustrated by lantern slides and preparations.

Vote of Thanks.—A vote of thanks to Dr. Sequeira was carried by acclamation.

OXFORD AND READING BRANCH:

READING AND MAIDENHEAD DIVISION.

A MEETING of this Division was held in the library of the Royal Berks Hospital, on April 23rd, at 3.30 p.m., Dr. MARRIOTT in the chair.

Proposed Royal Charter.—The proposal for an application for a Royal Charter was agreed to. Regarding the "methods" of the proposed Charter, it was proposed by Dr. MARRIOTT and seconded by Dr. FREEMAN:

> That Section vi be struck out of the proposed methods.

This was carried unanimously.

Branch Surplus Funds.—It was proposed by Dr. HOLDEN and seconded by Dr. FARNDON:

> That each Branch should dispose of its surplus funds for charitable or other purposes as its members may from time to time propose.

Anaesthetists and Unregistered Dentists.—Incidentally it was mentioned that a member of the Division was in the frequent habit of giving anaesthetics for an unregistered dentist. The offending member was to be warned in a friendly manner by the Chairman of the risks he was incurring.

Apologies for Absence.—Letters were read from Mr. Walters and Mr. H. G. Armstrong regretting their absence from the meeting, and Mr. Walters strongly expressed approval of the application for a Royal Charter.

ULSTER BRANCH:

DERRY DIVISION.

A MEETING of this Division was held on March 21st, in the Guildhall, Derry, Dr. HUNTER (Chairman) presiding.

Proposed Bacteriological Laboratory.—It was proposed by Dr. MCCURDY, seconded by Dr. JAS. CRAIG, and unanimously passed:

> That a deputation, consisting of Drs. Hunter, Craig, McCurdy, and Cooke, should approach the Corporation to ask them to fit up a small laboratory where the medical officer of health could examine swabs, blood, etc., from cases of suspected infectious disease (bacteriologically).

Out-patient Departments in Hospitals.—It was unanimously passed:

> That, in the opinion of this meeting, there should be no out-patient departments in hospitals except for consultations and casualties, and that this applies especially to hospitals whose staff are general practitioners. This does not apply to special departments—for example, for eye, ear, and throat work.

Routine Business.—Some routine business was also transacted.

YORKSHIRE BRANCH:

BRADFORD DIVISION.

A SPECIAL meeting of the medical profession in the Bradford district, called together by the Division, was held at the Great Northern Victoria Hotel, Bradford, on Wednesday, March 28th, at 8.30 p.m. Dr. MITCHELL, Chairman of the Division, presided.

Contract Medical Practice.—The meeting was convened for the consideration of the recommendations of the Medico-Political Committee on Contract Practice, and as an introduction to the discussion Mr. J. WHERRY WILLSON moved the following resolution:

> That in the opinion of this meeting the present system of contract club practice is unsatisfactory and unnecessary in Bradford, and that a Committee be appointed to consider another scheme of carrying on the work.

Mr. Willson, in an eloquent and lucid speech, said: In approaching the question there are three preliminary points to be especially noted. First, that the question is not one of sentiment, or of charity. We are not dealing with the poor, but with well-to-do members of wealthy and powerful organizations—organizations which have a capital of forty-seven millions. Secondly, that if medical men will analyse the work they do for clubs, they will find that they are being paid at the rate of from 6d. to 1s. a visit. Thirdly, that the root of the evil is the contract. It is of no use adding one shilling or so to the annual amount received from each club member, as the more he pays, the more he will expect. A fourth point also, that any proposals now made will be regarded by the clubs as final, and will not easily be amended afterwards. The club system was introduced to provide cheap medical attendance for the poor, but these have been replaced by the "well-to-do," who now demand as a right, services formerly volunteered to their poorer brethren almost as a charity. The system is unfair both to the patient and to the medical man because of the compulsory nature of the attendance on both sides. The system is also unfair to the medical man, because he has no means of knowing how much work he will have to do for a fee which is fixed beforehand. In one respect these societies are not "friendly" at all, in that their members have to pay for their privileges, and only those who can do so are admitted, while medical men protect their funds from the claims of the physically unfit, whom they also frequently attend as charity patients. There are three reasons why medical men accept club appointments: (1) for charity, misplaced; (2) for advertisement—futile and unworthy; (3) because if one doctor refuses or resigns a club there are plenty of others who are ready to take it up. The club doctor is regarded as the slave of his patients, and may be called upon to account for his conduct to a club committee. Medical men have their own futures to consider, while as the result largely of underpaid medical work these societies are accumulating millions, medical men in their declining years, and their dependents, have to trust for support in only too many cases to benevolent associations, kept up by subscriptions from the profession. The suggested remedy: that each club patient should be allowed to choose his own doctor, and that such doctor's fees at so much a visit should be paid by the club to which the patient belongs, or to the Friendly Society to which that club is affiliated. The Friendly Societies are perfectly able, and in some instances have shown themselves ready, to carry out the scheme.—Dr. Mercer seconded the resolution, which was supported by Drs. Goyder, Horrocks, Carroll, Bateson, Gray, Munro, J. J. Bell, and Metcalfe. Drs. Craig, Bonner, McGee, Manknell, and Parkinson thought the aim a desirable one, but did not consider it possible to abolish club practice as at present carried on. Mr. Willson replied. The resolution, on being put to the meeting, was adopted *nem. con.*

Appointment of Committee on Contract Practice.—Mr. Willson then proposed and Dr. Goyder seconded:

> That the following Committee should be appointed to formulate a scheme for carrying on the work in the future: Drs. and Messrs. Manknell, Willson, Munro, Wade, Bonner, Eames, Craig, Handcock, Mercer, Goyder, Gray, and Carroll.

This was carried unanimously.—Dr. Metcalfe proposed and Dr. Goyder seconded, that Mr. Willson should act as Convener and Secretary for the Committee. Carried *nem. con.* The meeting then terminated.

☞ *To ensure the insertion of notices in this column, they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

Association Notices.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m., except on Saturdays, when they close at 2 p.m. Members can have their letters addressed to them at the office.

BRANCH AND DIVISION MEETINGS TO BE HELD.

Bath and Bristol Branch: Trowbridge Division.—Notice is hereby given that the annual meeting of this Division will be held at the Town Hall, Trowbridge, on Wednesday, May 23rd, at 2.45 p.m. Business: To elect officers; consider communications from the Association *re* Charter, Contract Practice, etc., and any other business.—John Tubb-Thomas, The Halve, Trowbridge, Wilts, Honorary Secretary.

Birmingham Branch.—The annual meeting of the Birmingham Branch will be held at the Medical Institute on Thursday, June 14th, at 3.30 p.m., and nominations for offices should reach the Honorary Secretary not later than May 23rd.—T. Sydney Short, Honorary Secretary, 85, Edmund Street, Birmingham.

Birmingham Branch: Central Division.—A special and general meeting will be held at the Medical Institute, on Wednesday, May 9th, at 4 p.m. Business: (1) To consider the proposed Royal Charter. Professor Morrison, a member of the Organization Committee, will explain the question, and propose a resolution. (2) On behalf of the Executive Committee, the Chairman, Mr. W. F. Haslan, will propose the adoption of certain ethical rules. Copies of these rules will be sent to each member.—E. D. Kirby, Honorary Secretary.

Border Counties Branch.—The next meeting of this Branch will be held in Keswick on Friday, May 4th. Any member who desires to make a communication to the meeting is requested to inform the Secretary at his earliest convenience. Fuller details of arrangements will be published later.—Francis R. Hill, Carlisle, Honorary Secretary.

Border Counties Branch: Scottish Division.—The annual general meeting of the above Division will be held at the Dumfries and Galloway Royal Infirmary, upon Tuesday, May 8th, when Dr. Gulland, of Edinburgh, will give an address on Blood Examination in General Practice. The April meeting will not now be held.—George R. Livingston, Dumfries, Honorary Secretary.

Dundee, Perth, and Stirling Branches.—The nomination of candidates for the office of Elective Member of Council for the ensuing year must be made in writing on or before May 14th to Dr. J. E. Moorhouse, 6, Melville Terrace, Stirling.—A. P. Low, Honorary Secretary, Dundee Branch; W. A. Taylor, Honorary Secretary, Perth Branch; J. E. Moorhouse, Honorary Secretary, Stirling Branch.

East Anglian Branch.—Notice is hereby given that nominations of two members for the office of Representative on the Central Council of the Association, each signed by not less than three members, must reach me not later than May 21st.—B. H. Nicholson, M.B., East Lodge, Colchester, General Secretary of Branch.

Lancashire and Cheshire Branch.—In accordance with By-law 24, notice is hereby given that nominations of Representatives of this Branch in the Council of the Association must be received by me, duly signed and in writing, on or before May 1st.—T. Arthur Helme, M.D., Honorary Secretary, 3, St. Peter's Square, Manchester.

Metropolitan Counties Branch: City Division.—A general meeting will be held on Thursday, May 3rd, at 9 p.m., at Woodchester, 208, Upper Clapton Road, N.E. Agenda: (1) To consider the nomination of candidates for the various offices in the Branch. (2) To consider report (if any) of delegates to conference *re* Representation of Branch on Central Council. (3) To consider the Draft Charter.

The annual meeting of the Division, which is to take place on Thursday, May 24th, at 4 p.m., will be held at the Great Eastern Hotel, Liverpool Street, E.C.—E. W. Goodall, Eastern Hospital, Homerton, N.E., Honorary Secretary.

Metropolitan Counties Branch: Hampstead Division.—An extra meeting will be held on Friday, April 27th, at 5 p.m., at Finchley.—R. A. Yeld, Hampstead, Honorary Secretary.

Metropolitan Counties Branch: Hampstead Division.—A conference on the management of the Hampstead General Hospital will be held at the Hampstead Conservatoire on May 5th, at 4.30 p.m., under the auspices of the Hampstead Division of the British Medical Association. Agenda: (*a*) To consider and adopt the resolutions passed by the Hampstead Division, British Medical Association, on April 6th, which read: I. That an out-patient department in Hampstead is unnecessary. II. That the casualty department be kept distinct from any other department, and that casualty patients, if not suitable for admission, be seen once and thereon be referred to private practitioners, provident dispensaries, or Poor-law authorities. III. That there be greater facilities for general practitioners of the neighbourhood to attend in-patients. IV. That there should be a service limit as well as an age limit to appointments to the medical staff. V. That the outside medical profession should be adequately represented on the Board. (*b*) To consider the recent circular letter and questions issued by the council of the hospital to the medical profession in Hampstead, in which, on the suggestion of the Executive Committee of King Edward's Hospital Fund, the question of the appointment of consultants to the acting staff of the hospital is raised. (*c*) To decide upon the steps to be taken to carry into effect the objects of this conference.—Reginald A. Yeld, M.D., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: LAMBETH DIVISION.—The next meeting will be held at the Camberwell Infirmary, Brunswick Square, on Thursday, May 3rd, at 4 p.m. Agenda: (1) Minutes. (2) A paper by Dr. Frank C. Lewis on Artificial Immunity with especial reference to Opsonic Indices. (3) Demonstration of microscopic specimens. (4) Dr. Keats will show members round the Infirmary.—W. H. B. STODDART, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: ST. PANCRAS AND ISLINGTON DIVISION.—The next meeting will be held on Friday, April 27th, at the St. Pancras Infirmary, in Pancras Road, London, N.W., at 4 p.m. Agenda: (1) To consider the clauses of the Draft Charter, which will be explained by Mr. J. Smith Whitaker. (2) Hospital out-patient reform. (3) The registration of nurses.—WM. WYNN WESTCOTT, Secretary.

METROPOLITAN COUNTIES BRANCH: WESTMINSTER DIVISION.—A meeting of this Division will be held at 20, Hanover Square, on Thursday, May 3rd, at 8.30 p.m. Mr. J. Bland-Sutton will be in the chair. Agenda: (1) Minutes; (2) Correspondence; (3) Questions; (4) Communication from the Wandsworth Division *re* proposed nomination of candidates for election to the Central Council; (5) Consideration of Dr. Ford Anderson's paper on Hospital Abuse, and the propositions connected therewith, *vide* SUPPLEMENT, June 3rd, 1905; (6) Consideration of the proposed Royal Charter; (7) any other business.—W. KNOWSLEY SIBLEY, M.D., Honorary Secretary.

MIDLAND BRANCH.—Nominations of candidates for the Council of the Association for the ensuing year must be sent before May 14th to ASTLEY V. CLARKE, 37, London Road, Leicester, Honorary Secretary.

SOUTH-EASTERN BRANCH.—The annual meeting of this Branch will be held at Norwood on Wednesday, June 27th, Dr. Hetley, President-elect, in the chair. The following will be the agenda: (1) To elect the officers of the Branch. (This will be done by voting papers sent to each member of the Branch. Nominations by three members for the offices of President-elect, Vice-Presidents, and Secretary may be sent to the Honorary Secretary on or before May 21st.) (2) To receive the annual report of the Branch. (3) To transact any business that may be transacted by an ordinary meeting. N.B.—Three members to represent the Branch on the Central Council will also be elected by voting papers. Nominations for these posts, each of three members in writing, should be sent to the Secretary of the Branch on or before May 21st.—H. M. STEWART, Dyffryn, 123, Thurlow Park Road, Dulwich, Honorary Secretary.

SOUTH-EASTERN BRANCH: NORWOOD DIVISION.—A meeting of this Division will take place at the Queen's Hotel, Upper Norwood, on Thursday, May 10th, at 4 p.m., Henry Hetley, M.D., of Upper Norwood, in the chair. Agenda: (1) Minutes of last meeting. (2) To decide when and where the next meeting shall be held, and to nominate a member to take the chair thereat. (3) Draft of proposed Royal Charter (vide SUPPLEMENT to the BRITISH MEDICAL JOURNAL, March 24th, 1906).—H. J. PRANGLEY, Anerley, S.E., Honorary Secretary.

SOUTH-EASTERN BRANCH: REIGATE DIVISION.—A meeting will be held at the Cottage Hospital, Redhill, on Thursday, May 17th, at 3.30 p.m., to elect a Representative of the Division and to consider other Association business. Mr. James Berry, B.S., M.B.Lond., F.R.C.S.Eng., Surgeon to the Royal Free Hospital, will open a discussion on Urinary Surgery. Members wishing to show specimens or patients are requested to communicate at once with the Honorary Secretary, W. A. BERRIDGE, 158, Station Road, Redhill.

SOUTH-EASTERN OF IRELAND BRANCH.—The annual meeting of this Branch will be held at the Victoria Hotel, Kilkenny, on May 2nd, at 12 noon. Agenda: (1) To receive annual report of Branch; (2) to elect officers; (3) motion by Honorary Secretary to have a code of ethical rules adopted by Branch; (4) any other business. Members are requested to notify their intention of reading papers.—J. QUIRKE, M.D., Piltown, Honorary Secretary.

SOUTH MIDLAND BRANCH.—In accordance with the by-laws, nominations of a member of Central Council to represent this Branch must reach me on or before May 12th.—E. HARRIES JONES, Honorary Secretary, 45, Sheep Street, Northampton.

STAFFORDSHIRE BRANCH.—The third general meeting of the session will be held at the Victoria Hotel, Wolverhampton, on Thursday, May 10th. The President, Dr. G. S. Hatton, will take the chair at 3.30 p.m. Business: (1) Minutes of the last general meeting. (2) Correspondence. (3) Exhibition of Living Cases. (4) Paper, B. Cridland: Some Remarks on the Treatment of Squint. (5) Paper, E. Deanesly: A Survey of Surgical Work in a Provincial General Hospital. (6) Exhibition of Pathological Specimens, etc. A dinner will be arranged for 6.30 p.m. (charge 5s.), should a sufficient number of names be sent in.—G. PETGRAVE JOHNSON, Stoke-on-Trent, Honorary General Secretary.

ULSTER BRANCH.—The spring meeting of this Branch will be held in Derry on Saturday, May 5th. Members having any communications to make to the meeting will please send me particulars not later than April 24th.—CECIL SHAW, M.D., Belfast, Honorary Secretary.

WEST SOMERSET BRANCH.—In accordance with the resolution passed at the spring meeting last month, a special meeting will be held at the Taunton and Somerset Hospital on Tuesday, May 8th, when the President, Mr. Gordon Henry, will take the chair at 3.45 p.m., to discuss the proposed application for a Royal Charter for the British Medical Association, and other business if necessary. Details of the proposed Charter will be found in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 24th.—W. B. WINCKWORTH, Taunton, Honorary Secretary.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desires to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that it is prepared to receive applications for grants in aid of such research. Applications for sums to be granted, which must reach this office not later than May 31st, must include details of the precise character and objects of the research which is proposed, and must be made on forms to be had of the General Secretary, at the office of the Association, 429, Strand, London.

Every recipient is required to furnish to the Science Committee, on or before May 31st following upon the allotment of the grant, a report (or, if the object of the grant be not then attained, an interim report to be renewed at the same date in each subsequent year until a final report can be furnished) containing: (*a*) A brief statement for the Report of the Science Committee, showing the results arrived at, or the stage which the inquiry has reached; (*b*) a general statement of the expenditure incurred, accompanied, so far as is possible, with vouchers; (*c*) and references to any Transactions, Journals, or other publications in which the results of the research have been printed.

The work of the Grantees shall be subject to inspection.

RESEARCH SCHOLARSHIPS.

The Council of the British Medical Association is prepared to receive applications for three Research Scholarships, each of the value of £150 per annum, tenable for one year, and subject to renewal by the Council, provided the whole term of office has not exceeded three years.

The scholarships exist for the encouragement of research in Anatomy, Physiology, Pathology, Bacteriology, State Medicine, Clinical Medicine, and Clinical Surgery.

The Scholars' work shall be subject to inspection.

Applications for Scholarships must be made on forms to be had of the General Secretary, and returned on or before May 31st.

ERNEST HART RESEARCH SCHOLARSHIP.

The Council of the British Medical Association is also prepared to receive applications for the Ernest Hart Memorial Scholarship of the value of £200 per annum, tenable for one year, but subject to renewal by the Council for another year. The Scholarship is for the study of some subject in the department of State Medicine.

N.B.—Applications for Scholarships and Grants should, as a rule, be accompanied by a recommendation from the head of the laboratory in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended, however, to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

GUY ELLISTON, *General Secretary.*

429, Strand,
April, 1906.

[By-law 9: ". . . . every Branch shall furnish to the Council of the Association not later than March 15th, a report of its proceedings during the previous year, a statement of its numbers, and a financial statement in such form as the Council may from time to time prescribe."]

BRANCH.	MEMBERSHIP.		FINANCIAL STATEMENT.						MEETINGS.						REPORTS OF PROCEEDINGS AND REMARKS.
	On December 31st, 1904.	On December 31st, 1905.	Balance from 1904.	Deficit (if any) from 1904.	Receipts for 1905.	Expenditure, 1905.	Balance to 1906.	Deficit (if any) to 1906.	Branch.	Scientific.	Medico-Political, Ethical, etc.	Occasions when Members dined together.	Average attendance.	Branch Council.	
			£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.							
BIRMINGHAM	557	507	9 10 1	—	97 4 0	91 18 4	14 15 9	—	7	13	—	1	37½	8	A grant not exceeding 1s. per head per member was made to each Division, and found to be insufficient in the cases of the Central and the Coventry Divisions. A supplementary grant was therefore made of £10 11s. 8d. to the Central and of £3 0s. 6d. to the Coventry to clear off their arrears. The balance in the hands of the Honorary Treasurer at the end of the year is £5 1s. 8d., as against a balance of £9 10s. 1d. the previous year. This shows that the excess of income over expenditure, as shown on the year's working, has decreased, and that the margin is insufficient to meet any extraordinary expenditure, from whatever cause arising. The Branch Council is of opinion that the scheme lately approved by it—namely, of returning any surplus to, and receiving any deficit from, head quarters—would be a solution of the difficulty, and preferable to a *general* increase of grant throughout the kingdom.
BORDER COUNTIES ...	147	150	10 4 11	—	29 0 0	29 17 1	9 13 10	—	3	3	2	3	20	7	The position in which a local nursing association with reference to the working of the Midwives Act was carefully considered and the action of its Committee of Management controlled satisfactorily by the intervention of the Branch.
CAMBRIDGE AND HUNTINGDON	156	152	26 14 1	—	30 14 0	22 5 0	35 3 1	—	3	2	2	2	25	6	At one meeting the East Anglians were entertained as guests by members of this Branch.
DORSET AND WEST HANTS	203	219	32 9 10	—	43 3 8	33 16 11	41 16 7	—	3	3	3	3	39	4	The members of the Branch, being well over 200, are entitled to a separate Representative on the Central Council. Owing to the fact that the Treasurer of the Branch has changed hands during the year, and also the Secretaries of the Divisions (the Annual Meeting being held in May), there has been great difficulty in allocating the separate items, although, all payments having been made by cheque, there has been no difficulty as to the total receipts and payments. The sum of £10 10s. was voted as memorial to the late Secretary and Treasurer, Dr. Lush, in recognition of his long services and the manner in which he had hoarded up the funds, probably more than this being due to him.
DUNDEE	109	109	12 1 2	—	21 12 6	22 15 8	10 18 0	—	8	1	7	1	12	8	——
EAST ANGLIAN	420	415	24 9 1	—	83 10 0	64 11 6	43 7 7	—	3	3	3	3	60	4	——
EAST YORK AND NORTH LINCOLN	140	140	26 12 8	—	28 8 0	32 12 8	22 8 0	—	1			1	33	1	——
EDINBURGH	414	432	75 9 8	—	84 18 0	63 18 9	96 8 11	—	3	2	1	1	100	5	Both clinical meetings of the Branch were most successful.
FIFE	74	76	15 2 7	—	15 9 1	4 9 3	26 2 5	—	1		1		12	2	The Honorary Secretary issued in the early part of the year 33 circulars in the form recommended by head quarters to non-members with reference to their joining the Association, but the response has not been cheering, as only one election of members has followed. The Council met twice and elected 4 new members. An account of the proceedings at the Annual Meeting has already appeared in the SUPPLEMENT.

BRANCH.	MEMBERSHIP.		FINANCIAL STATEMENT.						MEETINGS.						REPORTS OF PROCEEDINGS AND REMARKS.
	On December 31st, 1904.	On December 31st, 1905.	Balance from 1904.	Deficit (if any) from 1904.	Receipts for 1905.	Expenditure, 1905.	Balance to 1906.	Deficit (if any) to 1906.	Branch.	Scientific.	Medico-Political, Ethical, etc.	Occasions when Members dined together.	Average attendance.	Branch Council.	
			£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.							
GLASGOW AND WEST OF SCOTLAND	653	666	124 7 10	—	153 10 9	88 6 0	189 12 7	—	—	—	—	—	—	—	——
LANCASHIRE & CHESHIRE	1,586	1,601	298 12 7	-	323 14 0	180 15 6	441 11 1		-	-	-	-	-	-	——
LEINSTER	338	310	21 3 4½	—	66 0 6	63 0 2	24 3 8½	—	1	—	—	1	33	5	The Branch has dealt locally with the work of the formation of the Irish Committee, and the question of fees paid to medical officers by Irish Lights Commissioners and Admiralty, besides other routine work.
METROPOLITAN COUNTIES	2,539	2,589	558 10 6	—	527 6 10	355 3 5	730 13 11	—	—	—	—	—	—	—	——
MIDLAND	510	546	55 15 3	—	108 19 9	93 2 0	71 13 0	—	1	—	—	—	23	4	In 1905 the whole energies of the Branch were given to the annual meeting of the Association held within its area at Leicester.
MUNSTER	103	109	31 7 8	—	22 2 0	10 12 3	42 17 5	—	4	—	4	—	16	2	At the general meeting of the Branch Dr. D. J. O'Connor was elected Representative of the Branch on the Irish Committee.
NORTH OF ENGLAND ...	569	645	95 9 8	—	125 16 0	133 9 8	87 16 0	—	4	2	2	1	35	5	The Branch is doing all it can to make itself indispensable to every member of the profession. We have organized two county Committees to take over the work of the Durham and Northumberland County Medical Union, which we have absorbed. This work, which necessitates paid secretaries (who are solicitors) is expensive, but absolutely essential in this district if we are to live up to our ideal. We have, therefore, opened a new voluntary fund, called the Branch Defence Fund, to meet these new expenses, and to carry on the work of protecting our members engaged in the various forms of contract practice. Will the Central Council allow the call for annual subscriptions to this fund to be placed on the notice sent from head quarters? We are at present engaged in fighting the Northumberland miners, or some of them, who wish the medical men engaged in colliery practice to take a reduction in their fees. The Branch is grateful to the Central Council and to the Editor of the JOURNAL for much help received, but would like to warn the Central Council that it may become necessary for us to approach it for an extra grant under the powers given by the last Representative Meeting, as we find the 4s. grant will be quite insufficient for fighting or protective purposes. As our Divisions become more active they alone will absorb most of the 4s.
NORTHERN COUNTIES OF SCOTLAND	118	124	2 11 4	—	22 14 0	14 0 0	11 5 4	—	2	2	2	2	30	4	The question of medical defence was again discussed at the annual meeting, when 18 voted for the motion that the Association should not undertake medical defence, while only 3 voted in favour of its doing so. The other questions discussed were advertising of medical practitioners in connexion with hydropathic establishments, ambulance work, medical inspection of schools, and the question of fees paid by police authorities to medical men in emergency cases. No questions of local interest came up for discussion.
NORTH LANCASHIRE AND SOUTH WESTMORLAND	135	128	18 12 6	—	26 15 2	6 8 0	38 19 8	—	3	3	1	1	32	4	The Branch is working satisfactorily. The meetings have been well attended, and much interest has been taken in the subjects under discussion. Mr. Stephen Paget very kindly delivered an address on Aural Cases in General Practice, which was published in the JOURNAL. The Furness Division reports that the members have found the organization a source of great strength in the negotiation with the clubs. The Lancaster Division explains that nearly all the men resigning are retiring from practice.

BRANCH.	MEMBERSHIP.		FINANCIAL STATEMENT.						MEETINGS.						REPORTS OF PROCEEDINGS AND REMARKS.
	On December 31st, 1904.	On December 31st, 1905.	Balance from 1904.	Deficit (if any) from 1904.	Receipts for 1905.	Expenditure, 1905.	Balance to 1906.	Deficit (if any) to 1906.	Branch.	Scientific.	Medico-Political, Ethical, etc.	Occasions when Members dined together.	Average attendance.	Branch Council.	
			£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.							
NORTH WALES	186	185	—	1 12 5	37 4 0	34 11 2	1 0 5	—	2	1	1	1	23	3	During the year the Branch was separated from the Shropshire and Mid-Wales Branch, resuming its former title of the North Wales Branch. The Divisions held regular meetings, and the matters referred to them from the Central Council were duly considered.
OXFORD AND READING ...	284	285	66 11 5	—	57 4 0	35 6 2	88 9 3	—	1	1	—	1	—	1	——
PERTH	60	63	20 12 10	—	10 18 10	7 2 0	24 9 8	—	4	2	2	2	8	2	——
SHROPSHIRE & MID-WALES	120	127	—	—	29 18 6	15 3 6	14 5 0	—	2	2	—	2	28	2	——
SOUTH-EASTERN	1,225	1,212	258 5 8½	—	245 17 0	106 7 8	397 15 0½	—	1	—	1	1	13	4	The question of dividing the Branch was referred to the Divisions and the majority were opposed to any such division. It was resolved at the annual meeting of the Branch that the Honorary Secretaries of Divisions should be *ex-officio* members of the Branch Council. The Branch Council resolved that the travelling expenses of members of the Branch Council attending the meeting of the Council should be paid by the Branch. The question of the payment of fees to medical men in Kent called in by the police in emergency cases is receiving the attention of the Council.
SOUTH-EASTERN OF IRELAND	67	68	3 10 9	—	11 8 0	11 7 3	3 11 6	—	7	2	3	5	8.1	2	——
SOUTH MIDLAND	222	197	34 5 0	—	45 7 6	30 14 6	48 18 0	—	2	2	—	2	22½	2	——
SOUTH WALES AND MONMOUTHSHIRE	447	476	65 14 6½	—	91 14 0	94 5 2	63 3 4½	—	3	2	1	1	40	8	During the past year the Branch Council has given very full consideration to the question of the conditions of Contract Practice, and has organized, for the purpose of dealing with this question, a standing Branch Contract Practice Committee. This Committee has met, and now has under its consideration the raising of an Emergency Fund to meet expenses incurred, and to assist members who may suffer loss by their loyalty to the Rules of the Branch. In the early part of the year the Branch Council had under its consideration the question of the Abergwynfi Colliery Workmen's Medical Society. They confirmed the action taken by the Cardiff Division, and appointed a small Subcommittee to meet the Workmen's Committee. A settlement ~~was~~ effected ~~on the Association's~~ terms. In July the Council was called upon by the Executive of the Newport Division to express its opinion upon some points in the dispute with the Ebbw Vale Workmen's Committee, especially with regard to the rate of remuneration to be demanded, as this might affect the Branch as a whole. Resolutions were passed insisting upon the creation of a Guarantee Fund for the salaries of the medical staff, and upon a sufficient stoppage out of the wages to provide adequate salaries per annum. No definite poundage rate was mentioned. In connexion with the Abertysswg dispute, it was resolved: "That this Branch Council cannot encourage any new scheme on the bases of fixed salaries and control by committees in any part of South Wales." The Branch Council desires to record its appreciation of the services rendered to them in connexion with the organization of the Contract Practice Committee, and in the Ebbw Vale, and other disputes by Mr. J. Smith Whitaker.

BRANCH.	MEMBERSHIP.		FINANCIAL STATEMENT.						MEETINGS.						REPORTS OF PROCEEDINGS AND REMARKS.
	On December 31st, 1904.	On December 31st, 1905.	Balance from 1904. £ s. d.	Receipts for 1905. £ s. d.	Deficit (if any) from 1904. £ s. d.	Expenditure, 1905. £ s. d.	Balance to 1906. £ s. d.	Deficit (if any) to 1906. £ s. d	Branch.	Scientific.	Medico-Political, Ethical, etc.	Occasions when Members dined together.	Average Attendance.	Branch Council.	
SOUTH-WESTERN	411	419	78 0 10	—	83 4 0	76 0 4	85 4 6	—	5	3	2	1	36	6	The policy of the Branch is, as it has been in the past, to keep the Branch meetings principally for the discussion of scientific matters, leaving as far as possible to the Divisions the questions concerning medico-politics and kindred matters. The Branch Council guarantees the payment of Division expenses up to an amount not exceeding 2s. per head per annum. The majority of the Divisions have kept well within this so far, and one Division (Barnstaple) has been assisted by an extra grant (during 1905) over and above the capitation grant allowed by the Branch Council. A Code of Rules to regulate procedure in ethical matters was adopted, having received the sanction of the Central Council. The Branch Council drew up a scale of fees for the guidance of practitioners in regard to the inspection and supervision of midwives under the provisions of the Midwives Act of 1902. The Branch Council sanctioned the petition of the Newton Abbot Division that henceforth this Division should be called "Torquay Division."
STAFFORDSHIRE	194	194	36 18 9	—	37 8 0	17 17 2	56 9 7	—	4	4	0	3	20	4	——
STIRLING	64	67	7 15 4	—	12 14 0	8 3 10	12 5 6	—	2	—	2	—	5	2	——
ULSTER	371	364	65 10 8	—	73 3 6	66 6 3	72 7 11	—	5	5	—	1	45	6	——
WEST SOMERSET	76	71	25 8 10	—	15 6 6	6 5 2	34 10 2	—	4	2	2	2	15¾	3	——
WORCESTERSHIRE AND HEREFORDSHIRE	118	125	24 5 3	—	24 0 6	13 14 0	34 11 9	—	1	1	0	0	15	2	The Gloucestershire Branch will elect a member of the Council for the ensuing three years.
YORKSHIRE	776	770	139 4 3	—	150 7 3	77 15 6	211 16 0	—	3	—	—	3	38	4	At the request of a number of medical men in the Richmond Division, they have left the Yorkshire Branch, and have joined the Darlington Division of the North of England Branch. The Branch Council again regrets that the Divisions take so little interest in the work of the Association. With the exception of Bradford and Scarborough very few meetings have been held. Huddersfield reports complete loss of interest in the Division. The Committee of the Wakefield and Doncaster Division decided at their annual meeting last June not to elect officers or call any more meetings owing to the apathy of the members of the Division. This was represented to the Medical Secretary, and arrangements were made for him to address meetings of the Wakefield and Huddersfield Divisions. No report has been received from the Halifax Division. The Council suggest that if possible arrrngements be made by the Divisions to have during the year two or three conjoint meetings with the local medical societies.
COLONIAL BRANCHES.															
BERMUDA...	14	14	2 8 0	—	2 0 0	0 1 6	4 6 6	—	3	0	2	0	8	—	The matters of local interest considered were a Medical Registration Act, 1905, and Public Health Act, 1905. Two of the meetings held were for the purpose of discussing the Bill providing for medical registration in this Colony.
BRISBANE & QUEENSLAND	131	142	114 12 5	—	329 8 3	241 7 3	202 13 5	—	12	12	—	—	15	11	——

BRANCH.	MEMBERSHIP.		FINANCIAL STATEMENT.						MEETINGS.						REPORTS OF PROCEEDINGS AND REMARKS.
	On December 31st, 1904.	On December 31st, 1905.	Balance from 1904.	Deficit (if any) from 1904.	Receipts for 1905.	Expenditure, 1905.	Balance to 1906.	Deficit (if any) to 1906.	Branch.	Scientific.	Medico-Political, Ethical, etc.	Occasions when Members dined together.	Average Attendance.	Branch Council.	
			£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.							
BRITISH GUIANA	32	31	—	—	—	—	—	—	3	2	—	—	6	3	Financial statement under revision. At the last annual meeting it was decided not to supply light refreshment, as the meetings will in all probability take place at the Public Hospital, where there will be no hiring of rooms.
BURMAH	34	41	59 5 4 (Rupees 889)	—	57 9 4 (Rupees 862)	35 2 0 (Rupees 526)	81 12 8 (Rupees 1,224)	—	13	13	13	—	13	2	During the year the question of the housing of the immigrant coolie population was raised, and the Sanitary Commissioner to the Government of Burmah was addressed on the subject, particularly with reference to the epidemics of plague and small-pox. A reply was received stating that steps were being taken in this matter by the Health Officer, Rangoon Municipality. The question of improvement of the condition of nurses in Burmah was also raised, but no definite conclusion was arrived at. The meetings are practically entirely devoted to clinical work, except so far as they are social gatherings. There is practically nothing of an ethical or medico-political nature about any of the discussions.
CAPE OF GOOD HOPE (EASTERN PROVINCE)	85	89	23 3 11	—	17 11 6	16 9 8	24 5 9	—	6	6	7	—	9.5	6	The most noteworthy event of 1905 has been the fission of the Grahamstown Division, hitherto identical with the Eastern Province Branch, into two smaller Divisions. Of these one remains—the Grahamstown Division; the other, whose area was most amicably agreed upon, becomes the East London Division.
CAPE OF GOOD HOPE (WESTERN PROVINCE)	142	160	102 4 10	—	27 19 0	30 6 1	99 17 9	—	8	8	4	1	20	9	The Committee for advancing medical science reported: (1) That a Clinical Committee be appointed, which should make, in conjunction with the President, the necessary arrangements for holding clinical and pathological meetings at the hospitals or elsewhere. (2) That an annual lecture be delivered in Capetown under the auspices of the Branch, with as long a notice as possible, and possibly a small endowment; the arrangements to be under the control of the Council of the Branch, with power to select the lecturer. (3) That the Branch recognizes the imperative necessity of providing permanent rooms for the Branch suitable for library, reading room, and meeting room; that the expense of equipment be met out of the surplus funds of the Branch, and the maintenance by an increased subscription from local members. (4) That a Post-Graduate Committee be formed to organize a scheme of post-graduate lectures such as may be thought suitable. (5) That the annual meeting be followed by a dinner. (6) That the Committee, while of opinion that the time had not yet arrived for promoting a complete scheme of medical education, recommends to the Branch that cordial support be given to the South African College in its proposal to found Chairs of Anatomy and Physiology. (7) That the Committee ask the Branch to discuss the reformation of a South African Medical Association. The holding of appointments under Associations that canvass for patients, and involving the making of profits by laymen through medical services, has been considered to be unethical by this Branch. Organization of medical aid to the poor was considered unnecessary. Evidence *re* amendments *re* Medical Acts was given before a Select Committee. The Public Health Acts Amendment Bill was considered seriatim, with recommendations. Colonel Bruce appointed Representative of Eastern and Western Branches on the Central Council.

BRANCH.	MEMBERSHIP.		FINANCIAL STATEMENT.						MEETINGS.						REPORTS OF PROCEEDINGS AND REMARKS.
	On December 31st, 1904.	On December 31st, 1905.	Balance from 1904.	Deficit (if any) from 1904.	Receipts for 1905.	Expenditure, 1905.	Balance to 1906.	Deficit (if any) to 1906.	Branch.	Scientific.	Medico-Political, Ethical, etc.	Occasions when Members dined together.	Average Attendance.	Branch Council.	
			£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.							
GRIQUALAND WEST ...	109	104	—	—	—	—	53 6 8	—	2	—	—	—	—	2	The reason why so few meetings have been held is due to the small number of local members who used to be present at the meetings; now, however, I am endeavouring to increase our local membership, and to induce country members to attend the meetings. Although our membership is large, yet it must be remembered that it is practically scattered all over South Africa.
HONG KONG AND CHINA	97	91	$\$287\frac{62}{100}$	—	$\$203\frac{08}{100}$	60	$\$433\frac{70}{100}$	—	4	4	—	1	17	4	——
MALAYA	71	85	$\$83\frac{89}{100}$	—	$\$540\frac{92}{100}$	$\$322\frac{47}{100}$	$\$302\frac{34}{100}$	—	—	—	—	—	—	—	Several meetings have been held by the Singapore Division at which many scientific papers were read. The annual meeting of the Branch was held at Penang, in addition to which nine meetings of the Penang Division have been held, at which there was an average attendance of 8 . There were several interesting debates on matters connected with Public Health, Medical Etiquette, Treatment of the Poor, the Medical Registration Bill, etc. During the year a Medical School has been instituted to the Senate of which the Branch was invited to send a Representative, which it did. The Council can leave the future of the Branch in the hands of its members without misgiving.
MALTA & MEDITERRANEAN	54	57	19 13 5	—	4 12 0	1 0 6	23 4 11	—	5	2	3	—	14	—	——
MELBOURNE & VICTORIA	209	187	230 17 10	—	*337 14 0	*309 7 7	259 4 3	—	10	10	—	2	12	13	The following questions of local interest have been discussed: (1) Action of coroner in cautioning, without any justifiable cause, medical man in case of death from chloroform; (2) new Dentists Act; (3) new Medical Act (both Acts passed by Parliament). It is very likely that during this year the Medical Society of Victoria will amalgamate with us and have their one large Society over 500 strong. *This contains special subscriptions in addition to capitation grant.
SOUTH AUSTRALIAN... ...	126	147	169 0 10	—	*295 1 10	*273 3 4	188 19 4	—	—	—	—	—	—	—	Our monthly meetings continue to be well attended, and our finances are in a satisfactory condition. Two representatives of the Branch (Drs. Brummitt and Cudmore) were elected to the newly-formed Dental Board of S.A. The most important event of the year was the holding of the Seventh Session of the Australasian Medical Congress in Adelaide, and since its close the Branch has formally thanked the President of Congress, Professor E. C. Stirling, C.M.G., F.R.S., and congratulated him on the success of the meeting. Several scientific papers were read at the meetings during the year. *This contains other subscriptions in excess of capitation grant.
SOUTH INDIAN & MADRAS	135	143	73 2 6 (Rupees 1,096)	—	34 5 5	13 5 11	94 2 0 (Rupees 1,429)	—	7	7	0	0	20	1	At the November meeting Lieutenant-Colonel J. L. van Geyzel read a paper on Madras drainage.

PROPOSED ROYAL CHARTER.

CONJOINT meeting of the Chelsea, Lambeth, Richmond,
andsworth, and Westminster Divisions of the Metro-
litan Counties Branch and of the Croydon and Norwood
visions of the South-Eastern Branch of the British
dical Association was held at the Battersea Town Hall
April 19th, under the chairmanship of Dr. J. H. **Galton**,
consider the proposed application for a Royal Charter
the British Medical Association, the draft of which
s published in the Supplement to the British Medical
urnal of March 24th.

Mr. T. **Jenner Verrall**, Chairman of the Central Organ-
ation Committee, gave a brief explanation of the draft.
e Explanatory Memorandum accompanying the draft
arter had been prepared by the Organization Com-
ttee at the request of the Central Council of the Asso-
tion, in accordance with the directions of the Repre-
tative Meeting at Leicester. He invited those present
ask questions concerning the draft Charter, and pointed
; that the Charter was drawn up on the lines of the
constitution of the Association. Scarcely any new
tter had been included except in regard to subjects
cerning which specific directions had been received
t they were to be included. The duty of the
nmittee therefore was practically, with the aid of
nsel, to draft a Charter in proper form, taking care
t everything was included that it was intended the
arter should contain. Mr. Verrall then related the
tory of the circumstances that had led up to the pro-
al for a Royal Charter, and observed that the prime
ver in the matter was the Association itself. The
presentative Meeting of the Association had directed
t an alteration of the Memorandum of the Association
uld be undertaken; but when the Council proceeded to
y that out, they were told by Mr. Beaufort Palmer,
counsel consulted, that it would be a much better
n to apply for a Royal Charter. That advice was
orted to the Representative Meeting at Leicester, and
as decided that a Royal Charter should be applied for.
Verrall then described the advantages to be gained by
harter, and commented on the reasons why it would
have met the difficulties of the question if the
ociation were to be wound up and a new company
ned. One great reason in favour of a Royal
rter was that certain objects could be included as
sible to be undertaken by the Association, such as
evolent schemes for which there was little chance of
ining the sanction of the Board of Trade if included
any fresh Memorandum. In proposing a Royal
rter, the Association was aiming at greater freedom
ction in the future, and Mr. Verrall explained how,
he opinion of counsel, this was to be obtained not
by the definition in the Charter of the objects of
Association, but also by giving facility for altering
regulations. Mr. Verrall dealt with the question of
difficulties in securing a Charter, and stated that the
ion had been formed that these difficulties were not
ly to be insuperable. He then discussed the form
he draft, its division into the Charter proper,
nances, and By-laws, and pointed out that the
nances contained those matters upon which it was
cially desirable the Association should not form
precipitate a judgement. That safeguard would
secured by reason of the fact that the Ordi-
es, as distinguished from the By-laws, could not
hanged without the consent of the Privy Council.
addition to the fresh subjects which the Repre-
ative Meeting had specifically directed to be in-
ed, provision had been made for giving the Colonial
ches greater freedom in regard to subscriptions, as
ad been frequently pointed out that it was not
ible in the Colonies to carry out all the work on the
subscription as sufficed at home. One important
t Mr. Verrall wished to emphasize was that the power
eferendum possessed by the Council was retained
r the Charter, although the control exercised by the
y Council might have been supposed to be sufficient
ke the place of the referendum; nevertheless it was
ght well, in the interests of the more conservatively-
ned members, to retain the referendum so as to secure
possible check upon precipitate action. As to the
of procuring the Charter, it had been pointed out by
Solicitor to the Association that the later stages of the proceeding were the most difficult to estimate, and it was not possible at present to form any very certain opinion on the point. Mr. Verrall concluded by reminding the meeting that under the present democratic form of constitution the Association must decide the matter entirely for itself. It was the Association that had first started the movement, and the officials, honorary and other, had only carried out the behests of the Association, so that the final responsibility of determining whether the answer to the question of obtaining a Charter was to be "yea" or "nay" rested with the individual members of the British Medical Association.

The **Chairman** then stated that the procedure to be followed was that those present should raise any point of difficulty that might occur to them. Any resolutions that might be proposed would be put to the vote at the conclusion of the discussion, after Mr. J. S. Whitaker, the Medical Secretary, had delivered his supplementary address explaining the difficulties that were raised. The Chairman also commented on the inclusion of medical defence and medical agency work in the objects clause of the proposed Charter and urged the meeting to give most serious consideration to these matters.

Dr. **Crookshank** inquired whether the inclusion of medical defence, medical agency, and other matters in the objects clause meant that those would be undertaken at once by the Association if the Charter were obtained.

With the leave of the meeting, Mr. **Whitaker** explained that the inclusion of those matters in the objects clause merely placed it in the power of the Association to undertake such work when it might think proper, but even after the granting of the Charter such new work could not be taken up without a definite vote of the Association.

Dr. **Fothergill**, after welcoming the precedent set by so many Divisions uniting to discuss important matters affecting the whole Association, reminded the meeting that, as the Representative Meeting at Leicester had by a vote of more than 4 to 1 approved of the suggestion that a Charter should be applied for, the discussion could hardly get away from that fact. The desire was for greater freedom; and opportunity to extend the usefulness of the Association gradually, and as thought desirable. This could be done only under a comprehensive Charter. He regretted that the Memorandum issued had not made the best of the case by concisely stating the nine or ten additional objects it was desired to include. After naming these, he stated that the keynote of the Charter should be to put the Representative Meeting in the right place as the Final Court of Appeal. In his opinion the principles that should be kept in view were shortly, that the Divisions should be paramount; the Representative body their mouthpiece; the Central Council being solely an executive body of the Representatives; the Branch Councils only existing when and under conditions desired by a coterie of Divisions, and to be their local organizing centre, getting their power from these Divisions; and not in any way acting as the master of those Divisions. In criticizing the details of the Charter, Ordinances, and By-laws, these principles should be borne in mind. He then asked several questions with regard to the various clauses in the Charter, pointing out what he suggested were desirable amendments.

Dr. **Capes**, Dr. **Bernard O'Connor** and Dr. **Belilios** also submitted various questions.

Dr. **Burgess** observed that medical defence was carried out at the present time by people who were well fitted for the task, and nothing could be better than the way in which they did the work. He was opposed to the Association taking up medical defence. It also seemed to him that the sale of medical practices was dirty work for the Association to undertake.

Dr. **L. Williams** expressed his concurrence with the views of the last speaker.

Dr. **Hugh Woods**, Secretary of the London and Counties Medical Protection Society, contended that it was better for the Association to apply for a Charter than to attempt to alter the Memorandum of the Association. There was a sentimental value in a Charter, because thereby the Association would be on a higher plane than it would be as merely a limited company. He advocated the approval of the proposal to procure a Charter.

Dr. **Hugo** asked for an explanation of the large powers contained in Clause 12 of the Draft Charter.

Dr. **McManus** said that in his view the Association should look after the medical man from his cradle to the grave, and his family as well. Medical defence should be taken up by the Association because it was notorious that the present Defence Associations had not the funds to fight a big case through to the House of Lords. He would like to see the sale of practices taken out of the hands of the present agencies and put on a sound commercial basis. He strongly supported the view that a Charter should be applied for.

Dr. WALKER then expressed his opinion that the word "may" should be eliminated from the Charter, and the word "shall" substituted.

Dr. O'SULLIVAN drew attention to the provisions for the election of members of the Central Council by the Representative Meeting, which he considered to be defective, inasmuch as they were elected for one year only; this would not afford sufficient time for experience to be gained. He thought that the period should be three years.

Mr. J. S. WHITAKER, the Medical Secretary, then delivered a supplementary address in explanation of the questions raised, and pointed out that, as regards the question raised by Dr. O'Sullivan, the Charter followed exactly the present regulations of the Association. It would be possible for a Division, in considering the draft Charter, to suggest any alterations in this respect that it might think proper, but the Organization Committee had had no instructions from the Representative Meeting to make the Charter different in this respect from the present regulations. Dr. Fothergill and other speakers had asked what were the advantages to be expected from the proposed Royal Charter, and it had been said that the Explanatory Memorandum in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 4th, 1906, was unsatisfactory from that point of view. It must be remembered, however, that in drawing up that Memorandum it was necessary in the one document to meet and anticipate all difficulties that might arise, not only concerning one section of members, but all. Dr. Fothergill, for example, had given much time and thought to the matter, and therefore might think explanations unnecessary which others would desire, such as the history of the circumstances which had led up to the present application. The opinion received from Mr. Fischer Williams which Dr. Fothergill considered ought to have been included in the history had been published in the BRITISH MEDICAL JOURNAL in full, and could be referred to when required. With regard to the advantages to be gained by obtaining a Royal Charter, the whole of Section II of the Explanatory Memorandum dealt with the advantages of incorporation under a Charter. These were specified under four separate headings: the first was the wider definition of the objects of the Association; the second was the greater freedom of action; the third was the extension of the representative principle; and the fourth was the alterations of regulations under a Charter. Concerning the fourth heading, the Organization Committee was bound by the resolution of the Representative Meeting at Leicester. The Committee had not been directed to recast the regulations, and it would have exceeded its duty if it had suggested such alterations. The Divisions of the Association might recast the regulations in any way they might think proper, but it was not the duty of the Organization Committee to do so. As far as possible the present framework of the Association had been retained. The financial statement for 1905 had not been circulated, because it was not ready at the time the Explanatory Memorandum was published. It had first to be submitted to the Council of the Association at its meeting on April 18th. Replying to Dr. Fothergill's question concerning the power of the Association to assign funds to others for carrying on work instead of doing it itself, Dr. Whitaker pointed out that that was provided for in the clause setting forth the objects of the Association. In Paragraph VIII of the second subclause of the part of the Draft Charter dealing with the objects of the Association it was provided that the Association

> may establish, endow, contribute to, organize and manage provident or benevolent funds for the benefit or assistance of members of the Association or of the medical profession and their families or dependents.

Dr. Fothergill and others had raised the difficulty that under a Charter it might be necessary to publish alterations of the regulations in the *London Gazette*, but the Solicitor of the Association had definitely ascertained at the Privy Council office that this was not required. The only publication necessary would be the fact that the Association had applied for the Charter; in any case all proposed alterations of the regulations of the Association were as a matter of fact published in the BRITISH MEDICAL JOURNAL, and were therefore made known as widely as if they were published in the *London Gazette*. It had been pointed out that life assurance appeared to be covered by the definition of the objects of the Association, and that the contemplated subscription would be insufficient for such a purpose. As had already been stated, however, in answer to other questions, the inclusion of insurance, medical benevolent work, medical defence, or medical agency within the scope of the defined objects of the Association did not necessarily mean that the Association would take up any of those departments of work. None of them could, in fact, be taken up without a vote of the Association specifically deciding the point, and if the Association should at any time decide, for example, to take up life assurance one of the matters then arising for consideration would be the provision of such additional subscription as might be necessary for the purpose. Attention had been drawn to the distinction between the home and the Colonial Divisions and Branches as regards the power to levy extra subscriptions. The reason for the distinction was simply that several Colonial Branches had intimated their desire for this power, which appeared necessary to meet their special requirements, whereas there had been up to the present no indication of such a need or such a desire in the case of the home Divisions or Branches. If they should desire it, it would be, of course, within their power to modify the regulations accordingly The advisability of procuring a new Memorandum instead of applying for a Charter had been raised by Dr. Bernard O'Connor. The answer was that the Association under a Charter would be free from the trammelling restrictions of the High Court; under a Charter the Association would enjoy much greater freedom than as a limited company The question of going to the High Court to change the present objects, Clause (3) in the Memorandum had been raised by Dr. Bernard O'Connor. It had to be remembered, however, that that clause was the only one that could be altered. Part of the difficulty lay in Clause 4 of the Memorandum, and that clause was unalterable even by the High Court, its powers only applying to the object Clause (3). Clause 4 contained the conditions on which the Board of Trade gave a right to the Association to dispense with the word "limited," and it prevented any part of the funds of the Association being applied for the benefit of individual members except for services rendered. Even if a new Company were formed, the Board of Trade was in Mr. Beaufort Palmer's opinion, unlikely to pass any clauses giving the Association all the powers required A certain paragraph in the history of the circumstances leading up to the present application for a Charter was criticized by Dr. Bernard O'Connor as being incomplete The answer was that the history was a mere recital of the events leading up to the consideration of the matter by the Representative Meeting last year. That meeting having before it in full all the information now summarized, decided by a four or five to one majority that it was advisable to apply for a Charter, and instructed the Council accordingly He had been asked by Dr. O'Connor specifically what were the matters, if any, contemplated in 1904 as desirable for the Association to undertake, which it appeared could only be undertaken under a Charter, which of these, if any, were contemplated in 1901 when the new constitution was under consideration, and why was it not then recognized that it would be necessary to obtain a Charter to carry them out. The answer was that the Representative Meeting at Oxford wished the Association to be free in the future to undertake medical benevolent work, medical defence, medical agency, and other matter of which only medical defence had been definitel contemplated prior to 1901. For medical benevolent work it was clear that the Association could not apply its funds under the present Memorandum of Association, and perhaps not in any way under the Companies Acts. As regards medical defence, the difficulty was one of varyin legal advice. In 1901 the Committee that considered the matter was still under the impression, which the Association had been under since 1896, that the resolutions passed at Birmingham in that year would, if confirmed by the High Court, enable the Association to take up individual defence; but after the Representative Meeting at Oxford in 1904 had directed the Council to have these resolutions again confirmed by general meetings and brought before the High Court, the Council, on taking counsel's opinion, was advised, as was reported to the Representative Meeting at Leicester, that it was very doubtful whether these resolutions would be sufficient for the purpose, and whether an alteration of the Memorandum of Association to carry these out could, in fact, be obtained. These were the new facts upon which the Council passed its resolution *nem. con.*, advising the Representative Meeting to give up the attempt to obtain an alteration of the Memorandum of Association, and instead to proceed to apply for a Charter. It was on this statement by the Council that the meeting, as had already been said, resolved, by a 4 or 5 to 1 majority, that an application for a Charter should be prepared.

In answer to the inquiry as to the effect of Clause 12 of the draft Charter,

Mr. **Whitaker** explained that the object of the clause was to provide the machinery by which alterations in the Charter might be obtained, these resting, so far as the Association was concerned, with the Representative Meeting, subject to a Referendum at the discretion of the Council, as in the case of other alterations of the regulations.

The following resolution, proposed by Dr. **Crookshank** and seconded by Dr. **Fothergill**, was then put to the meeting and carried unanimously:

> That this meeting of the Divisions, while approving the principle of the Association applying for a Royal Charter, reserves to themselves individually the suggestion of amendments to the scheme submitted.

The next resolution, proposed by Dr. **Crookshank** and seconded by Dr. **Fothergill**, was then put to the meeting and carried by 15 votes to 1:

> That it is desirable that the proposed scheme for a Royal Charter be reprinted and issued in the SUPPLEMENT at as early a date as possible, with the suggested alterations and additions sent in by Divisions inserted after the clause each refers to.

The last resolution, proposed by Dr. **Burgess** and seconded by Dr. L. **Williams**, referring to the clauses concerning medical defence and agency business being undertaken by the Association, was put to the meeting and declared not carried by 18 votes against to 9 in favour:

> That Subsections VI and VII in Section 2 of Clause *b* of the Ordinances be omitted from the Charter as being in every way undesirable.

Hearty votes of thanks to the speakers concluded the meeting.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,332 births and 5.250 deaths were registered during the week ending Saturday last, April 21st. The annual rate of mortality in these towns, which had been 16.9, 17.0, and 17.1 per 1.000 in the three preceding weeks, rose last week to 17.3 per 1,000. The rates in the several towns ranged from 6.9 in Bournemouth, 7.8 in Wolverhampton, 9.3 in Southampton, 9.6 in Tottenham, 9.8 in Handsworth (Staffs.) and in Newport (Mon.), and 10.1 in King's Norton, to 21.1 in Warrington, 21.6 in Merthyr Tydfil, 22.9 in Bootle and in Salford, 23.1 in Tynemouth, 23.2 in Coventry, 23.4 in Middlesbrough, 23.6 in Liverpool, and 25.9 in Burnley. In London the rate of mortality was 19.2 per 1,000, while it averaged 16.5 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.7 per 1,000 in the seventy-six towns; in London this death-rate was equal to 1.9 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 2.7 in Bury, 3.4 in Bradford, 3.6 in Bristol and in Preston, 4.1 in Liverpool, 4.3 in Walthamstow, and 7.6 in Burnley. Measles caused a death-rate of 1.7 in Bristol, 1.8 in Bury, 1.9 in Newcastle-on-Tyne, 2.0 in Great Yarmouth, 2.4 in Liverpool, 2.7 in Preston, 3.0 in Walthamstow, and 4.6 in Burnley; scarlet fever of 1.2 in Sheffield; diphtheria of 1.3 in Walthamstow and 1.4 in Halifax; whooping-cough of 1.3 in Bristol and in Aston Manor, 1.4 in Merthyr Tydfil, 1.5 in West Bromwich and in Burnley, and 2.0 in Coventry; and diarrhoea of 1.5 in Warrington. The mortality from enteric fever showed no marked excess in any of the large towns. One fatal case of small-pox was registered in Plymouth, but none in any other of the seventy-six towns. The number of small-pox cases under treatment in the Metropolitan Asylums Hospitals, which had been 8, 8, and 7 on the three preceding Saturdays, was again 7 on Saturday last, the 21st inst.; one new case was admitted during the week, against none in each of the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of last week was 2,225, against 2,386, 2,322, and 2,301 at the end of the three preceding weeks; 288 new cases were admitted during the week, against 223, 292, and 270 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, April 21st, 1,104 births and 604 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.9, 19.4, and 19.1 per 1,000 in the three preceding weeks, further declined to 17.6 per 1,000 last week, but was 0.3 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the rates ranged from 10.6 in Perth and 13.1 in Aberdeen to 19.6 in Dundee and 20.6 in Greenock. The death-rate from the principal infectious diseases averaged 1.5 per 1.000 in these towns, the highest rates being recorded in Glasgow and Leith. The 296 deaths registered in Glasgow included 8 which were referred to measles, 4 to diphtheria, 10 to whooping-cough, and 5 to diarrhoea. Three fatal cases of measles and 3 of diarrhoea were recorded in Edinburgh; and 2 of measles in Dundee.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, April 14th, 458 births and 406 deaths were registered in six of the principal Irish towns, as against 534 births and 389 deaths in the preceding period. The annual death-rate in these towns, which had been 23.6, 26.6, and 21.2 per 1,000 in the three preceding weeks, fell to 20.4 per 1,000 in the week under notice, this figure being 3.3 per 1.000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 7.8 in Waterford and 17.4 in Londonderry to 24.1 in Belfast and 28.7 in Limerick. The zymotic death-rate in the same six Irish towns averaged 0.7 per 1,000, or 0.3 per 1,000 lower than during the preceding period, the highest figure—2.5—being recorded in Belfast, while no deaths under this heading were recorded in Cork, Limerick, or Waterford. Whooping-cough was responsible for 17 deaths, 13 of them occurring in Belfast.

During the week ending Saturday, April 21st, 538 births and 425 deaths were registered in six of the principal Irish towns as against 458 births and 406 deaths in the preceding period. The annual death-rate in these towns, which had been 26.6, 21.2, and 20.4 per 1,000 in the three preceding weeks, fell to 17.3 per 1,000 in the week under notice, this figure being the same as the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 7.8 in Waterford and 11.2 in Londonderry to 24.9 in Belfast and 28.1 in Dublin. The zymotic death-rate in the same six Irish towns averaged 1.1 per 1,000, or 0.4 per 1,000 higher than during the preceding period, the highest figure—3.5—being recorded in Belfast. To whooping-cough 22 deaths were ascribed, all but 1 occurring in Belfast.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

The following appointments have been made at the Admiralty: J. **Jenkins**, Fleet Surgeon, to the *Hood*, on recommissioning, April 21st; G. T. **Collingwood**, Fleet Surgeon, to the *President*, additional, for three months' hospital course, to date April 12th; C. J. E. **Cock**, Staff Surgeon, to the *Thetis*, to date April 19th, and to the *Perseus*, on recommissioning, undated; H. H. **Pearse**, Staff Surgeon, to the *Vernon*, additional, for the *Furious*, and W. K. **Hopkins**, Staff Surgeon, to the *Victory*, for Portsmouth Dockyard, to date April 19th; G. S. **Davidge**, Surgeon, to the *Thetis*, on the *Perseus* paying off, undated; E. P. G. **Causton**, Surgeon, to the *Pembroke*, for disposal; W. N. L. **Cherry**, Surgeon, to Royal Marine Division, Chatham, to date April 11th; J. **Sugrue**, M.D., Fleet Surgeon, to the *Resolution*, recommissioning, undated; G. E. **Kennedy**, Fleet Surgeon, to the *Queen*, E. St. M. **Nepean**, Fleet Surgeon to the *Empress of India*, both on recommissioning; J. **Bradley**, M.D., Fleet Surgeon, to the *Royal Oak*, vice Kennedy; W. G. **Stott**, M.B., Fleet Surgeon, to the *Acheron*, vice Burton, all to date May 8th; H. W. **Macnamara**, Fleet Surgeon, to *Euryalus*, on recommissioning, May 15th; C. L. W. **Bunton**, M.B., Staff Surgeon, to the *Triumph*, on recommissioning, May 8th; H. E. **Tomlinson**, Staff-Surgeon, to the *Bedford*, vice Stott, May 9th; J. E. **Phillips**, Staff Surgeon, to the *Royal Arthur*, on recommissioning, May 15th; R. L. **Dickenson**, Surgeon, to the *Pembroke*, April 11th; and A. G. **Eastment**, Surgeon, to the *Pembroke*, April 19th, both for disposal. The appointment of Fleet-Surgeon W. J. **Colborne** to the *Russell* has been cancelled, and he has been appointed to the *Hogue*, on recommissioning, undated; J. H. **Acheson**, M.B., Fleet-Surgeon, to the *Russell*, on recommissioning, April 21st; E. **Sutton**, Staff Surgeon, to the *St. George*, on recommissioning, May 15th; E. S. **Tuck**, Staff Surgeon, to the *President*, additional, for three months' course at Guy's Hospital, April 23rd; N. H. **Mummery**, Surgeon, to the *Latona*, April 18th; J. **Verdon**, Surgeon, to the *Hyacinth*; M. T. **Malf**, M.B., Surgeon, to the *Russell*, both on recommissioning, April 21st; F. L. J. M. **de Verteuil**, Surgeon, to the *Hogue*, on completing, May 15th; G. E. **Hamilton**, M.B., Surgeon, to the *Vengeance*, on completing; W. N. **Horsfall**, M.B., Surgeon, to the *Euryalus*, on recommissioning, both May 15th; F. J. **Gowans**, M.B., Surgeon, to the *Triumph*; A. D. **Spalding**, Surgeon, to the *Queen*, both on recommissioning, and W. L. **Hawkins**, Surgeon, to the *Leda*, vice Gowans, all dated May 8th; C. A. G. **Philips**, Surgeon, lent to the *Trafalgar*, April 16th.

Staff Surgeon E. **Marshall** has been appointed to the *President*, additional, for study at the West London Hospital, and not to the *Pembroke*, additional, as stated in our issue for April 7th.

THE GRENADIER GUARDS.

Brigade-Surgeon-Lieutenant-Colonel Charles Edward Harrison, M.B., of the Grenadier Guards, is appointed President of a Medical Board to examine Militia and Yeomanry candidates for commissions in the regular forces in London on May 7th and 8th.

INDIAN MEDICAL SERVICE.

The services of Lieutenant-Colonel Sir R. H. **Charles**, K.C.V.O., M.D., Bengal Establishment, Surgeon in India to the Prince of Wales, are placed at the disposal of the Home Office, from March 20th.

Lieutenant-Colonel H. **Thomson** has been confirmed in appointment of Sanitary Commissioner, Madras, from April 29th.

Lieutenant-Colonel W. F. **Thomas** is appointed to act as District Medical and Sanitary Officer, with medical charge of Central Gaol, Trichinopoly.

CHANGES OF STATIONS.

The following changes of stations amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during March, 1906:

		FROM	TO
Colonel	R. H. Forman, M.B.	Woolwich	India.
Lieut.-Col.	J. R. Dodd, M.B.	Mhow	Bareilly.
,,	S. Townsend, M.D.	Wellington	Dover.
,,	B. T. McCreery, M.B.	Secunderabad.	Bangalore.
,,	C. W. Thiele, M.B.	,,	Bellary.
,,	W. L. Reade	—	Bangalore.
,,	J. Carmichael	Mian Mir	Jullundur.
,,	W. Dick, M.B.	Dover	Edinburgh.
,,	F. H. Treherne	Nowshera	Rawul Pindi.
,,	J. M. Irwin, M.B.	Aldershot	London.
,,	R. Kirkpatrick, C.M.G., M.D.	Jullundur	Lichfield.
,,	Sir A. A. Brooke-Pechell, Bart., M.B.	Portsmouth	London Dist.
,,	T. W. Hamilton, C.M.G., M.B.	Shorncliffe	Aldershot.
,,	J. R. Stuart, M.B.	Fort George	India.
,,	T. B. Winter	Eastern Comd.	Meerut.
,,	S. F. Freyer, C.M.G.	—	Secunderabad.
,,	E. Davis	Ambala	Nowshera.
,,	J. Meek, M.D.	Tower of Lond.	India.
,,	G. Cree	Bellary	Wellington.
,,	T. G. Lavie	,,	Thayetmyo.
Major	E. Eckersley, M.B.	—	Simla.
,,	D. M. O'Callaghan	Norwich	Colchester.
,,	E. S. Marder	Canterbury	Brighton.
,,	R. Holyoake	Ambala	Mian Mir.
,,	B. H. Scott	Murree	Rawal Pindi.
,,	W. C. Poole, M.B.	Dublin	Cork.
,,	D. Stiell, M.D.	Thayetmyo	Rangoon.
,,	E. C. Freeman	Colchester	London.
,,	W. Hallaran, M.B.	Mian Mir	Amritsar.
,,	J. H. E. Austin	Eastern Comd.	Woolwich.
,,	L. Way	Allahabad	Cawnpore.
,,	F. Smith, D.S.O.	—	Portsmouth.
,,	E. E. Powell	Gibraltar	Aldershot.
,,	H. A. Bray	—	Bulford.
,,	R. F. E. Austin	Chatham	Gravesend.
,,	K. M. Cameron, M.B.	Kasauli	Ambala.
,,	W. Tibbits, M.B.	Meerut	Delhi.
,,	J. E. Carter, M.B.	Dublin	South Africa.
Captain	S. W. Sweetnam	Warley	Colchester.
,,	L. F. Smith, M.B.	—	Chatham.
,,	G. T. K. Maurice	Bareilly	Lucknow.
,,	E. W. Bliss	—	Portsmouth.
,,	J. C. B. Statham	Netley	South Africa.
,,	A. H. Waring	—	Mian Mir.
,,	F. S. Penny, M.B.	Fort Lahore	Multan.
,,	S. de C. O'Grady, M.B.	Limerick	Tipperary.
,,	A. H. O. Young	Mullingar	Belfast.
,,	G. B. Carter, M.B.	Bangalore	Wellington.
,,	C. J. O'Gorman, D.S.O.	Brighton	Dover.
,,	R. Selby, M.B.	Woolwich	India.
,,	A. E. Thorp	Fort Tregantle	Worcester.
,,	J. W. Leake	Chester	Lichfield.
,,	D. E. Curme	Thayetmyo	Secunderabad.
,,	J. M. Sloan, D.S.O., M.B.	Edinburgh	Maryhill.
,,	H. E. M. Douglas, D.S.O.	Calcutta	Simla.
,,	T. C. MacKenzie, D.S.O.	Aldershot	Egypt. Army.
,,	M. H. Babington	Aldershot	Netley.
,,	H. S. Roch	Longmore	Cork.
,,	B. F. Wingate	Dover	Canterbury.
,,	James M. Buist, M.B.	Northampton	Colchester.
,,	F. W. Cotton	Eastern Comd.	Chatham.
,,	B. R. Dennis, M.B.	Southern Com.	Gosport
,,	W. J. P. Adye-Curran	Fermoy	Kilworth.
,,	E. G. Ford, M.B.	York	Manchester.
,,	L. M. Purser, M.B.	Eastern Comd.	Chatham.
,,	W. Bennett, M.B.	Dublin	Cork.
,,	C. H. Straton	Eastern Comd.	Dover.
,,	G. Carroll	Cork	Templemore.
,,	A. D. Waring, M.B.	—	Belfast.
,,	A. F. Weston	Eastern Comd.	Woolwich.
,,	F. P. Lauder	Calicut	Edinburgh.
,,	A. C. Adderley	Wellington	York.
,,	F. H. Hardy	Colchester	Warley.
,,	W. J. Waters	Delhi	Meerut.
,,	J. H. Brunskill, M.B.	Secunderabad	Thayetmyo.
,,	J. W. West, M.B.	Dublin	Newry.
,,	A. R. C. Parsons	Malta	Southn. Comd.
,,	R. McK. Skinner	Gibraltar	York.
,,	G. F. Sheehan	Dublin	Curragh.
,,	M. W. Falkner	Muttra	Lucknow.
,,	R. N. Woodley	Malta	Dublin.
,,	R. V. Cowey	Bangalore	Secunderabad.
Lieutenant	H. J. Crossley	Wellington	Calicut.
,,	R. B. Ainsworth	Secunderabad	Wellington.
,,	C. A. J. A. Balck, M.B.	Attock	Rawal Pindi.
,,	H. V. Bagshawe	Rangoon	Shwebo.
,,	H. G. S. Webb	Peshawar	Mian Mir.
,,	R. H. Bridges	Bangalore	Madras.
,,	H. T. Stack, M.B.	Lucknow	Sitapur.
,,	M. C. Wetherell, M.B.	Rawal Pindi	Attock.
,,	F. J. Turner	Colaba	Deolal.
,,	M. Sinclair, M.B.	—	Sialkot.
,,	R. H. L. Cordner	—	Rawal Pindi.
,,	H. St. M. Carter, M.D.	Curragh	Dublin.
,,	K. A. C. Doig	Bareilly	Shahjahanpur.
,,	H. O. M. Beadnell	Mian Mir	Fort Lahore.
,,	J. P. Lynch	Calcutta	Barrackpore.
,,	R. J. B. Buchanan	Curragh	Mauritius.
,,	W. S. Nealor	Aldershot	India.
,,	J. E. Hoar	Alton	Secunderabad.
,,	W. Parsons	Secunderabad	Bangalore.
,,	C. W. O'Brien	—	Peshawur.
,,	G. G. Tabuteau	—	Jhansi.
,,	W. E. Humfrey	—	Belgaum.
,,	W. G. Maydon, M.B.	Meerut	Lebong.
,,	G. Ormrod, M.B.	—	Meerut.
,,	A. E. S. Irvine	Curragh	Dublin.
,,	J. S. Dunne	Aldershot	Deepcut.
,,	H. Stewart, M.B.	Curragh	Dublin.

Orders have been given for the transfer on May 1st to the Northern Command of the Lichfield (Militia Company of the Royal Army Medical Corps) and the Sherwood Foresters and Staffordshire Volunteer Bearer Companies.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel H. Scott, M.B., retired pay, and Lieutenant-Colonel R. H. Hall, M.D., have been appointed Medical Officers in the London Recruiting Area.

Captain A. C. Lupton, from Newcastle-on-Tyne, has been appointed to the 1st Life Guards.

Lieutenant L. Bousfield, M.B., now at Malta, has been selected for employment with the Egyptian Army.

The following Indian appointments in the Eastern Command have been made to the command of the various hospitals specified: Lieutenant-Colonel W. E. Berryman, to Muttra; Lieutenant-Colonel M. J. Sexton, Chakrata; Major J. B. Buchanan, M.B., Barrackpore; Major J. Donaldson, Agra; Major A. J. Luther, Landour; Major S. H. Withers, M.B., Chaubuttia: Major W. Tibbits, M.B., Delhi; and Captain B. S. Bartlett, to Fort Allahabad.

In the Western Command, Lieutenant-Colonel G. F. Gubbin has been posted to the Bombay Brigade; Captain M. F. Foulds, from the Jubbulpore Brigade, has also been posted to the Bombay Brigade.

ROYAL ARMY MEDICAL CORPS (MILITIA).

Mr. Robert Johnstone Stirling is appointed to be Lieutenant, under date April 11th.

VOLUNTEER RIFLES.

Surgeon-Major J. P. Elliot, of the 1st Northumberland Fusiliers, is granted the rank of Honorary Surgeon-Lieutenant-Colonel. Surgeon-Major and Honorary Surgeon-Lieutenant-Colonel J. P. Elliot resigns his commission, with permission to retain his rank and to wear the prescribed uniform.

Surgeon-Lieutenant-Colonel Frederick W. Gibbon, V.D., of the Tyne Division, Submarine Miners, Royal Engineers, and Surgeon Lieutenant Edward Cureton, V.D., M.D., of the 1st Shropshire and Staffordshire Royal Garrison Artillery, from Honorary Associates, are appointed to be Knights of Grace in the Order of the Hospital of the St. John of Jerusalem in England, April 18th.

Vacancies and Appointments.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—Senior and Junior Resident Medical Officers. Honorarium at the rate of £20 and £10 a year respectively.

BIRKENHEAD BOROUGH HOSPITAL.—Junior Resident House-Surgeon. Salary, £80 per annum.

BODMIN: CORNWALL COUNTY ASYLUM.—Third Assistant Medical Officer. Salary, £135, rising to £155 per annum.

CAMBRIDGE UNIVERSITY: PATHOLOGICAL LABORATORY.—John Lucas Walker Studentship. Annual value, £200.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—House-Physician. Salary, £90 per annum.

CHARING CROSS HOSPITAL, W.C.—Assistant Physician.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—(1) Resident Medical Officer. Salary, £100 per annum. (2) Physician to Out-patients. (3) Surgeon-Dentist.

COLCHESTER: ESSEX AND COLCHESTER HOSPITAL.—House-**Surgeon. Salary, £100 per annum.**

COVENTRY AND WARWICKSHIRE HOSPITAL.—Junior House-Surgeon. Salary at the rate of £60 per annum.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

DOUGLAS: NOBLE'S ISLE OF MAN HOSPITAL AND DISPENSARY.—Resident House-Surgeon. Salary, £90 per annum.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Surgeon to Out-patients.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon. Salary, £20 for six months, and £2 10s. washing allowance.

HULL ROYAL INFIRMARY.—House Physician. Salary, 80 guineas per annum.

IPSWICH: EAST SUFFOLK AND IPSWICH HOSPITAL.—Third House-Surgeon. Salary, £50 per annum.

ITALIAN HOSPITAL, Queen Square, W.C.—Honorary Assistant Physician.

LEICESTER INFIRMARY.—Assistant Surgeon.

LONDON MEDICAL MISSION, Endell Street, W.C.—Assistant Medical Officer.

METROPOLITAN ASYLUMS BOARD.—Male Assistant Medical Officers at the Fever and Small-pox Hospitals. Salary, £180, rising to £240, per annum.

MONTROSE ROYAL ASYLUM.—Senior Assistant Medical Officer. Salary commencing at £200 per annum.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Hampstead.—Resident Medical Officer. Honorarium, £50 per annum.

NEWCASTLE-ON-TYNE: CITY ASYLUM, Gosforth.—Assistant Medical Officer. Salary, £140, rising to £160, per annum.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—Junior Resident Medical Officer. Salary, £70 per annum.

OLDHAM INFIRMARY.—Junior House-Surgeon. Salary, £75 per annum.

OXFORD: LITTLEMORE PAUPER LUNATIC ASYLUM.—Second Assistant Medical Officer. Salary, £120, rising to £150 per annum.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £50 per annum.

ROYAL DENTAL HOSPITAL, Leicester Square, W.C.—Assistant Dental Surgeon.

SHEFFIELD UNION HOSPITAL.—(1) Resident Medical Officer. (2) Resident Assistant Medical Officer. Salary, £100 and £80 per annum respectively, and £20 allowance each for extra services.

WARRINGTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Salary, £100 per annum.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Honorary Surgeon.

WEST BROMWICH DISTRICT HOSPITAL.—Resident Assistant House Surgeon. Salary, £50 per annum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) Assistant Anaethetist. (2) Second Assistant Anaesthetist. (3) Casualty Surgeon.

WEST RIDING COUNTY COUNCIL.—Male Assistant Medical Officer at Scalebor Park Private Asylum. Salary, £150 per annum.

APPOINTMENTS.

Anderson, Wm., M.B., B.Ch., M.A.Aberd., Ophthalmic Assistant, Registrar, and Tutor, Guy's Hospital.

Bergin, W. M., M.B., B.S.Lond., Ophthalmic Assistant, Registrar, and Tutor, Guy's Hospital, S.E.

Harnett, W. G., B.A., M.B., B.Ch.Dub., B.A.O., Senior House Surgeon to the Royal South Hants and Southampton Hospital.

Howard-Jones, J., M.R.C.S., L.R.C.P.Lond., Certifying Factory Surgeon for the Worthen District, co. Salop.

James, W. T., M.B., Ch.B.Edin., Medical Officer of Health, New Quay Urban District, Cardiganshire.

Jones, H. Travers, M.R.C.S.Eng., L.R.C.P., Resident Medical Officer to the Hospital for Epilepsy and Paralysis, Maida Vale.

Legg, J. P., F.R.C.S., Assistant Surgeon to the Italian Hospital, Queen Square, W.C.

Lewis, Arthur J., M.B., Ch.B., House-Surgeon to the Edinburgh Royal Maternity Hospital.

Longridge, C. Nepean, M.D.Vict., F.R.C.P.Lond., M.R.C.S.Eng., Registrar and Pathologist to Queen Charlotte's Lying-in Hospital.

Lyster, R. A., M.B., B.Ch., B.Sc.(Pub. Health)Birm., D.P.H., Medical Officer of Health, Handsworth Urban District.

May, Walter J., L.R.C.P., M.R.C.S., L.D.S., Lecturer on Dental Mechanics to the Royal Dental Hospital of London, Leicester Square, W.C.

Pryce, H. Vaughan. F.R.C.S.Eng., M.A., M.B., B.C.Cantab., Honorary Anaesthetist to the German Hospital, London.

Richards, P. A. Ellis, F.I.C., F.C.S., Lecturer on Dental Metallurgy to the Royal Dental Hospital of London, Leicester Square, W.C.

Rolston, John R., M.R.C.S.Eng., Honorary Ophthalmic Surgeon to the Royal British Female Orphan Asylum, Devonport.

Sherry, J. J. A., L.R.C.P.and S.Edin., District Medical Officer of the Parish of Islington.

Thompson, Herbert P., M.B., Ch.B., House-Surgeon to the Edinburgh Royal Maternity Hospital.

Williams, D. C. L., L.R.C.P.and S.Edin., Medical Officer of Health, Ludlow Rural District.

Wilson, A. Gordon, M.D.Lond., F.R.C.S., L.R.C.P., Honorary Medical Officer of the Kensington Dispensary and Children's Hospital.

Wilson, A. T., M.B., District and Workhouse Medical Officer of the Bridge Union.

Young, W. H. F., M.R.C.S., District Medical Officer of the Grantham Out-relief Union.

DIARY FOR THE WEEK.

TUESDAY.

Pathological Society of London, meeting at St. Bartholomew's. 5 p.m.—Professor Klein: (1) *B. equi*; (2) Conveyance of Plague by Feeding. Mr. F. A. Rose: Carcino-sarcoma of Larynx. Dr. Andrewes and Dr. Horder: Classification of Pathogenic Streptococci.

WEDNESDAY.

Obstetrical Society of London, 20, Hanover Square, W., 8 p.m.—Short Communication:—Dr. Lewers: Three Cases of Epithelioma of the Vulva, with History subsequent to Operation. Specimens:—Dr. Lewers: Large Fibroid undergoing Red Degeneration. Dr. McCann: (1) Cervical Fibroid: (2) Broad Ligament Cyst with Torsion of the Pedicle; (3) Primary Cancer of the Vagina; (4) Sarcoma of the Vagina. Dr. Tate: Large Fibroid and one other specimen. Dr. J. Inglis Parsons: Fibromyoma of the Vulva in an Unusual Position. Paper:—Dr. Herman: A Case showing (1) Uterine Contraction without Retraction; (2) Prolonged High Temperature of Nervous Origin.

University College Hospital, Gower Street, W.C., 4 p.m.—Clinical Lecture on the Physical Examination of the Heart and Great Vessels.

THURSDAY.

North-East London Clinical Society, Tottenham Hospital, 4 p.m.—Discussion on Asthma, opened by Dr. E. F. Willoughby.

Ophthalmological Society of the United Kingdom, 11, Chandos Street, Cavendish Square, W., 8 p.m.—Card Specimens. 8.30 p.m., Papers: (1) Messrs. Johnson, Taylor, and E. T. Collins: Congenital Malformed Cystic Eye. (2) Mr. Mackenzie Davidson: Radium in the Treatment of Rodent Ulcer. (3) Mr. Ransom Pickard: Implantation Tumour of the Iris. (4) Messrs. Cargill and Mayou: Tuberculosis of Choroid.

FRIDAY.

Society for the Study of Disease in Children, 11, Chandos Street, W., 5.30 p.m.—Pathological Meeting. Specimens will be shown by Mr. G. Pernet, Drs. E. Hobhouse (Brighton), J. G. Emanuel (Birmingham), G. Carpenter, F. Langmead, E. Cautley, L. S. Dudgeon, J. Porter Parkinson, E. C. Mackay, and others.

West London Medico-Chirurgical Society, West London Hospital, W., 8.30 p.m.—Discussion on Influenza, its varities and sequelae.

POST-GRADUATE COURSES AND LECTURES.

Medical Graduates' College and Poylclinic, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m.—Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Throat. Lectures at 5.15 p.m. each day will be given as follows: Tuesday, a Demonstration of Apparatus for Measuring the Blood Pressure in Man; Wednesday, the Prevention of Difficult Labour; Thursday, Surgical Diseases of Children.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Tuesday, 3.30 p.m., Ataxia in Childhood; Friday, 3.30 p.m., Infantile Hemiplegia.

West London Hospital Post-graduate College, Hammersmith Road, W.—The following arrangements have been made for next week: Daily, 2.15 p.m., Medical and Surgical Clinics. Monday, 2 p.m., Practical Skiagraphy: 12.15 p.m., Practical Surgery; 4 p.m., Ophthalmology; Tuesday, 11.30 a.m., Bacteriology; Wednesday, 10 a.m., Clinical Examination of Blood and Urine; 3 p.m., Intestinal Surgery; Thursday, 11.30 a.m., Bacteriology; 12.15 p.m., Practical Surgery; 2 p.m., Skiagraphy; 4 p.m., Ophthalmology; Friday, 11.30 a.m., Bacteriology; 3 p.m., Intestinal Surgery.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

Chaning Pearce.—On the 19th April, at 88, St. James's Road, West Croydon, the wife of Dr. A. Chaning Pearce, of a daughter.

Marshall.—At 25, Chester Street, Edinburgh, on the 12th inst., the wife of Major D. G. Marshall, I.M.S. (ret.), of a son.

Prichard.—On April 21st, at Pyllan, Bettws-y-Coed, the wife of D. Llewelyn Prichard, M.R.C.S., L.R.C.P., of a daughter.

MARRIAGES.

Barber—Howlett.—On the 24th inst., at St. George's, Tombland, Norwich, by the Rev. W. F. Crewe, Vicar, Hugh Barber, M.D.Lond., son of Mr. and Mrs. Christopher Barber, of Sheffield, to Ethel Mary, daughter of Mr. and Mrs. J. G. Howlett, of 36, Brecondale, Norwich.

Day—Williams.—On the 21st inst., at St. George's, Stonehouse, Plymouth, by the Rev. J. Gand, assisted by the Rev. Nicholson Watson, Vicar of St. George's, and the Rev. Walter Moyle, Vicar of Ashcombe, Dawlish, William Frank Lydstone Day, M.B., B.C. Cantab., youngest son of the late Robert Newcombe Day, of Harlow, Essex, and Dorothy Esther Katherine Williams, youngest daughter of F. M. Williams, Medical Officer of Health for Plymouth.

Ellis—Barnes.—On the 18th April, 1906, at St. Mary's Church, Kippington, near Sevenoaks, Kent, by the Rev. H. Percy Thompson, M.A., assisted by the Rev. H. T. Knight, M.A., Leonard Erasmus Ellis, M.D.Brux., M.R.C.S.Eng., L.R.C.P.Lond., L.S.A.Lond., of Clarendon Park, Leicester, to Evelyn le Hunte, only daughter of J. F. E. Barnes, Esq., C.M.G., M.I.C.E., of Pietermaritzburg, Natal.

Hearder—Stewart.—On April 18th, at St. Issell's, Saundersfoot, Frederic Pollington Hearder, M.D., of Whixley, Yorkshire, to Catherine Frances, third daughter of Alexander Stewart, of Saundersfoot, Wales, and late of the War Office.

Moyle—Kendall.—April 21st, at the Parish Church, Kingswear, S. Devon, by the Rev. F. Walker, Reginald Moyle, M.R.C.S.Eng., L.R.C.P.Lond., second son of J. Alfred Moyle, Esq., Brook Totnes, S. Devon, to Elliner Mary (May), only child of W. B. Kendall, M.R.C.S.Eng., L.R.C.P.Ed., Greenheys, Kingswear.

Scatchard—Milne.—On April 19th, at St. Lawrence's, York, by the Rev. George Allen, M.A., father of the bride, assisted by the Rev. J. Harper, M.A., Vicar of the parish, James Percival Scatchard, M.B., B.S.Lond., of Tadcaster, to Florence Mary Milne, of Burnedge House, Rochdale.

Webb—Thompson.—On April 23rd, at St. Georges's Church, Jesmond, Newcastle-on-Tyne, Samuel George Webb, M.B., B.S., of Birmingham, to Edith Agnes Thompson, daughter of William Thompson, of Newcastle-on-Tyne. At home, 221, Bloomsbury Street, Birmingham, June 7th and 8th.

Young—Walton-Brownf.—April 18th, at St. George's Parish Church, Belfast, by the Rev. Hugh Davis Murphy, M.A., D.D., Rector of the Parish, and the Rev. John Francis Cole, M.A., Captain A. H. O. Yonng, Royal Army Medical Corps, eldest son of Captain Young, Portarlington, late 60th Rifles, to Dorothy, daughter of Dr. J. Walton-Browne, Lismore, Windsor Avenue, Belfast.

DEATH.

Buchanan.—At Balanton, Stirling, on the 19th inst., George Buchanan, M.A., M.D., LL.D., aged 79, Emeritus Professor of Clinical Surgery, Glasgow University.

BOOKS, Etc., RECEIVED.

A Handbook of Anatomy for Art Students. By A. Thomson, M.A., M.B. Third Edition. Oxford: Clarendon Press. 1906. 16s.

Studies from Institute for Medical Research, Federated Malay States. Vol. 4, Part I, Observations in the Federated Malay States on Beri-beri. By C. W. Daniels, M.B., M.R.C.S. London: E. G. Berryman and Sons. 1906. 3s. 6d.

Traité d'Hygiène. Publié en Fascicules sous la direction de MM. P. Brouardel et E. Mosny. X, Hygiène Naval. Par A. Duchateau, Jan, et Planté. Paris: J. B. Baillière et Fils. 1906. Fr.7.50.

Éléments d'électrothérapié clinique. Par A. Zimmern. Paris: Masson et Cie. 1906. Fr.8.

Insidie alla vita. Por Dott. T. Ruata. Torino: Unione Tipografico-editrice. 1906. L.2.50.

Transactions of the American Climatological Association, 1905. Vol. XXI. Detroit: American Climatological Association. 1905.

Beiträge zur Lehre von den Geschlechts-Unterschieden. Heft 11-12. Die Geschlechter der Thiere. III Theil. Der Schädel. Von Dr. P. J. Möbius. Halle a. S.: C. Marhold. 1906. M.2.

Report to the Government of British Honduras upon the Outbreak of Yellow Fever in that Colony in 1905. By R. Boyce, M.B., F.R.S. London: J. and A. Churchill. 1906. 3s. 6d.

Klinische und anatomische Untersuchungen über den Cretinismus. Von Dr. W. Scholz. Berlin: A. Hirschwald. 1906. M.14.

Vivisection: Doubtfully Useful and Certainly Wrong. By J. P. Hopps. London: Henderson's. 6d.

A First German Course for Science Students. By H. G. Fiedler and F. E. Sandbach. London: The de la More Press. 1906. 2s. 6d.

Problems of Babyhood. By R. K. Fitz, A.M., and G. W. Fitz, M.D. New York: H. Holt and Co. 1906.

From Farm to Forum, or Young Africa. By A. H. Watkins. Capetown: J. C. Juta and Co. 1906. 3s.

Handbook of Surgery. By G. B. Buchanan B.A., M.B., C.M., F.F.P.S. Edinburgh: J. Currie. 1906. 9s.

Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India. Mediterranean Fever in India: Isolation of the *Micrococcus melitensis*. By Captain G. Lamb, M.D., I.M.S., and Assistant Surgeon M. Kesava Pai, M.B., C.M. New series, No. 22. Calcutta: Office of the Superintendent of Government Printing. 1906. 1s.

Glasgow: F. Bauermeister; and Wiesbaden: F. J. Bergmann, 1906:

- Atmokausis und Zestokausis die Behandlung mit hochgespanntem Wasserdampf in der Gynaekologie. Von Dr. L. Pincus. Zweite Auflage. 6s.
- Mikroskopie der Harnsedimente. Von Dr. A. Daiber. Zweite Auflage. 12s. 8d.
- Die anatomischen Namen, ihre Ableitung und Aussprache. Von Dr. H. Triepel. 2s.
- Physiologisches Praktikum für Mediziner. Von Dr. med. R. F. Fuchs. 7s. 6d.
- Immunität und Dispostion und ihre experimentellen Grundlagen. Von Dr. M. Jacoby. 4s. 8d.
- Die Elektrizität in der Medizin und Biologie. Von Prof. Dr. med. H. Boruttau. 6s.

⁂ In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
APRIL.	
27 FRIDAY	Hampstead Division, *Metropolitan Counties Branch*, Finchley, 5 p.m. St. Pancras and Islington Division, *Metropolitan Counties Branch*, St. Pancras Infirmary, Pancras Road, N.W., 4 p.m.
28 SATURDAY...	
29 Sunday.........	
30 MONDAY	
MAY.	
1 TUESDAY......	
2 WEDNESDAY	South-Eastern of Ireland Branch Victoria Hotel, Kilkenny, 12 noon.
3 THURSDAY...	City Division, *Metropolitan Counties Branch*, Woodchester, 208, Upper Clapton, N.E., 9 p.m. Lambeth Division, *Metropolitan Counties Branch*, Camberwell Infirmary, Brunswick Square, 4 p.m. Swansea Division, *South Wales and Monmouthshire Branch*, Annual Meeting, General Hospital, Swansea, 3 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Bolingbroke Hospital, 4 p.m. Westminster Division, *Metropolitan Counties Branch*, 20, Hanover Square, W., 8.30 p.m.
4 FRIDAY	London: Ethical Committee, 2 p.m. " Volunteer Medical Service Committee, 2.30 p.m. Border Counties Branch, Keswick.
5 SATURDAY...	Hampstead Division, *Metropolitan Counties Branch*, Conference on the Management of the Hampstead General Hospital, Hampstead Conservatoire, 4.30 p.m. Ulster Branch, Spring Meeting, Derry.
6 Sunday.........	
MAY *(continued).*	
7 MONDAY	
8 TUESDAY ...	Scottish Division, *Border Counties Branch*, Annual Meeting, Dumfries and Galloway Royal Infirmary. West Somerset Branch, Taunton and Somerset Hospital, 3.45 p.m.
9 WEDNESDAY	London: Medico-Political Committee, 3 p.m. Central Division, *Birmingham Branch*, Medical Institute, 4 p.m.
10 THURSDAY...	Norwood Division, *South-Eastern Branch*, Queen's Hotel, Upper Norwood, 4 p.m. Staffordshire Branch, Victoria Hotel, Wolverhampton, 3.30 p.m.; Dinner, 6.30 p.m.
11 FRIDAY.........	Hampstead Division, *Metropolitan Counties Branch.*
12 SATURDAY...	
13 Sunday	
14 MONDAY	
15 TUESDAY......	
16 WEDNESDAY	
17 THURSDAY...	Cardiff Division, *South Wales and Monmouthshire Branch*, Annual Meeting. Reigate Division, *South-Eastern Branch*, Cottage Hospital, Redhill, 3.30 p.m.
18 FRIDAY.........	
19 SATURDAY...	
20 Sunday.........	
21 MONDAY	
22 TUESDAY......	

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 5TH, 1906.

CONTENTS.

PAGE

MATTERS REFERRED TO DIVISIONS:

PROVISIONAL AGENDA FOR ANNUAL REPRESENTATIVE MEETING. 229
- Order of Business 229
- Amendments to Standing Orders 229
- Amendments to By-laws 230
- Proposed Alterations of the Articles of Association ... 232
- Notices of Motion 233
- Election of Committees 235

APPENDIX.—Standing Orders relative to Business at Representative Meetings 236

GENERAL MEDICAL COUNCIL: ELECTION OF DIRECT REPRESENTATIVES FOR ENGLAND AND WALES, NOVEMBER, 1906 ... 238

PAGE

MEETINGS OF BRANCHES AND DIVISIONS:
- Birmingham Branch: Coventry Division 239
- Metropolitan Counties Branch: Chelsea, Richmond, and Wandsworth Divisions... 239
- Metropolitan Counties Branch: Stratford Division ... 240

ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD 241

NAVAL AND MILITARY APPOINTMENTS 242

VITAL STATISTICS 243

VACANCIES AND APPOINTMENTS 243

BIRTHS, MARRIAGES, AND DEATHS 243

DIARY OF THE WEEK 244

CALENDAR 244

SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this " Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. **BY ORDER.**

MATTERS REFERRED TO DIVISIONS.

PROVISIONAL AGENDA

FOR

Annual Representative Meeting

TO BE HELD IN

Caxton Hall, Caxton Street, Westminster, S.W.,

ON

JULY 24th, 1906, and following days (as may be necessary).

The Annual General Meeting is fixed for Tuesday, July 24th, 1906, at 10 a.m., to be immediately followed by the Annual Representative Meeting.

ORDER OF BUSINESS.

1.

A. Receive the return of the election of Representatives of Divisions for the year, and receive notices, if any, of the appointment of substitutes for Representatives, under Article XXX and By-law 18.

2.

B. Elect Chairman.

3.

C. Adopt Standing Orders.

The Standing Orders as adopted at Leicester will be found appended (see p. 236).

Notice has been given of the following motions for amendment:

AMENDMENTS TO STANDING ORDERS.

4.

By the DUNDEE BRANCH:

That there be added:—

(*a*) The Annual Representative Meeting shall at its first meeting appoint a Committee of five members, who shall report upon the financial aspects of any proposal involving special expenditure which has not already been reported on by the Finance Committee.

5.

(*b*) The Meeting shall not consider any proposal involving special expenditure until it has been reported upon by the Finance Committee, or by the Committee appointed as above.

[*Supplement, April 21st.*]

6.

D. Receive the Annual Report of the Council, presented under By-law 34, and consider motions relating thereto.

ANNUAL REPORT OF COUNCIL, 1905-6.*

---

* The Annual Report of the Council was published in the SUPPLEMENT of April 28th.

7.

E. Receive the Financial Estimate presented by the Council under By-law 34, and consider motions relating thereto.

8.

F. Receive Special Report of the Council pursuant to Minutes 50, 53, and 54, of the Representative Meeting at Leicester:

Minute 50.

Resolved: That the Representative Meeting issue the necessary authority for application on behalf of the Association to be made to the Privy Council praying His Majesty to grant a Royal Charter of Incorporation to the Association.

Minute 54.

Resolved *nem. con.:* That the Central Council be instructed to submit the draft of the application for a Royal Charter to the Divisions as soon as possible, with an estimate of the probable cost and with an explanatory memorandum.

9.

G. Receive Additional Reports of the Council (if any) in the order in which the Council shall submit them for consideration, and consider motions relating thereto.

10.

H. Receive the Report of the Medico-Political Committee, and consider motions relating thereto.

MEDICO-POLITICAL COMMITTEE.

ANNUAL REPORT TO THE REPRESENTATIVE MEETING FOR THE YEAR 1905-6.*

11.

I. Receive Special Report of the Medico-Political Committee on action taken under the scheme, approved by the Representative Meeting at Oxford, for the nomination of candidates for the General Medical Council. (For List of Candidates see page 238.)

12.

J. Receive the Report of the Ethical Committee, and consider motions relating thereto.

ETHICAL COMMITTEE.

ANNUAL REPORT TO THE REPRESENTATIVE MEETING FOR THE YEAR 1905-6.*

13.

K. Consider any motions placed upon the Agenda of the Meeting by which it is proposed to make By-laws or to alter or repeal existing By-laws:

I. Amendments of substance of existing By-laws.

II. Proposed new By-laws.

AMENDMENTS TO BY-LAWS.

I. AMENDMENT OF EXISTING BY-LAWS.

14.

Amendment of By-law 17.

Grants to Divisions.

By the Altrincham Division (Lancashire and Cheshire Branch):

To amend By-law 17 by adding to it the following words: "If a Division shall be of opinion that the grant annually made by the Branch Council in any year to the Division is insufficient to defray those expenses which are necessary for the proper conduct of the work of the Division, the Central Council may, upon representation having been made to it by the said Division to that effect, direct that such additional grant shall be made by the Branch to the Division as the Central Council shall deem necessary, and the Branch Council shall thereupon make such additional grant; provided that in no case shall a Branch be called upon by the Central Council to make a greater additional grant than will raise the total amount granted by the Branch to that Division for the year to three shillings per head of the membership of the Division."

[*Supplement, February 24th.*]

Existing By-law 17.

Out of the moneys received in accordance with the last preceding By-law, the Branch shall defray all its expenses, and shall also pay to each Division of the Branch such sum per Member as the Branch Council may consider necessary to defray the expenses of the Division.

15.

Amendment of By-law 23.

Representatives on Central Council.

By the Hampstead Division (Metropolitan Counties Branch):

That a Branch have an additional member on the Central Council for each complete 300 members in excess of 400.

Existing By-law 23.

Any Branch, or group of Branches, having an aggregate membership of not less than 200 may elect one Member of Council, and any Branch or group of Branches having an aggregate membership of not less than 400 may elect two Members of Council, and an additional member for each complete 600 Members in excess of 400. Branches in the United Kingdom having less than 200 Members shall be grouped for this purpose with neighbouring Branches, unless in the opinion of the Council the special conditions of any such Branch justify the grant of separate representation. The grouping of Branches not within the United Kingdom for the purpose of electing Members of Council shall be determined by the Council, provided that the total number of Members of Council whom such Branches are entitled to elect shall not be less in proportion to the total membership thereof than those elected by the Branches in the United Kingdom.

[*Supplement, April 21st.*]

16.

By the Council of the Association:

Additional Section of By-law 40.

Science Committee.

That a Science Committee, consisting of fourteen members, shall be appointed by the Council, who shall advise, and where so directed act for, the Council in all matters not specially referred to other Committees which concern the work of the Association for the promotion of the Medical and allied Sciences, including the conditions of award of Scholarships, Grants, or Medals given by the Association, or under trusts undertaken by the Association, the adjustment of the Sections at the Annual Meeting, the arrangement of Committees for special scientific work, and the encouragement and assistance of the scientific work of the Branches and Divisions. The Committee shall have power to co-opt, for the consideration of the award of Scholarships, Grants, and Medals, members, not exceeding four in number, specially qualified to assist in its work.

[*Supplement, April 21st.*]

---

* The annual report of the Medico-Political and Ethical Committees will be published at an early date.

17.

Amendment of By-law 40.

Standing Committees.

By the Dundee Branch:

That the By-law be amended in accordance with the following propositions:

A.—STANDING COMMITTEES.

(1) That there be a Finance Committee.

(2) That there be a Journal Committee.

(3) That there be a Hospitals Committee.

(4) That there be an Arrangements (Annual Meeting) Committee.

(5) That the Premises and Library Committee be removed from the List.

B.—MEMBERSHIP OF COMMITTEES.

(6) That the Chairman of Representative Meetings and the Treasurer be *ex officio* members of all Committees.

1. Finance Committee.

(7) That the Chairman of the Organization Committee for the time being be *ex officio* a member of the Finance Committee.

(8) That the Chairman of the Journal Committee for the time being be *ex officio* a member of the Finance Committee.

(9) That the Chairman of the Science Committee for the time being be *ex officio* a member of the Finance Committee.

(10) That the Chairman of the Medico-Political Committee for the time being be *ex officio* a member of the Finance Committee.

(11) That in addition to the *ex officio* members, the Finance Committee have eight ordinary members appointed by the Council from its own number.

2. Journal Committee.

(12) That the Journal Committee have nine ordinary members appointed by the Council, of whom five at least shall be from its own number.

3. Hospitals Committee.

(13) That the Hospitals Committee have twelve ordinary members appointed by the Council, of whom six at least shall be from its own number.

4. Arrangements Committee.

(14) That the Arrangements Committee have as ordinary members six members appointed by the Council from its own number, and six members appointed by the Local Executive Committee for the annual meeting.

C.—FUNCTIONS OF COMMITTEES.

1. Finance Committee.

(15) That it be the duty of the Finance Committee to certify the accounts prior to their presentation to the Council.

(16) That it be the duty of the Finance Committee to advise the Council on the administration of any funds held in trust by the Association and of the Superannuation Fund, and, when necessary, the appointment of administrators for any such funds.

(17) That it be the duty of the Finance Committee to report to the Council on the financial bearings of any proposals involving special expenditure.

(18) That it be the duty of the Finance Committee to supervise and report to the Council on the general working and organization of the central office.

(19) That it be the duty of the Finance Committee to consider and report to the Council upon the management of the property of the Association.

2. Journal Committee.

(20) That it shall be the duty of the Journal Committee to consider and report to the Council upon any matters connected with the Journal or other publications of the Association.

3. Hospitals Committee.

(21) That it shall be the duty of the Hospitals Committee to consider and report to the Council upon all questions concerning hospitals and other medical charities.

4. Arrangements Committee.

(22) That it shall be the duty of the Arrangements Committee (*a*) to advise the Council on the arrangements for the Annual Meeting, including the definition of Sections and Subsections; (*b*) to submit to the Council a list of nominations for the officers of Sections and readers of the addresses.

5. Redrafting of By-law 40.

(23) That it be an instruction to the Chairman, the Secretaries, and the Solicitor to adjust By-law 40 in accordance with these and any non-conflicting resolutions adopted at the Annual Representative Meeting, and until this be done these resolutions shall take the place of any corresponding parts of the present By-law 40.

[*Supplement, April 21st.*]

18.

Amendment of By-law 40.

Standing Committees: Election.

By the North Manchester Division (Lancashire and Cheshire Branch):

That the Annual Representative Meeting be empowered to elect half the members of each Standing Committee.

19.

Attendance.

Standing Committees:

By the North Manchester Division (Lancashire and Cheshire Branch):

That any member of a Standing Committee of the Association absenting himself from two successive meetings without satisfactory explanation shall be deemed to have resigned, and the Committee shall forthwith fill the vacancy.

[*Supplement, March 31st.*]

Existing By-law 40, Standing Committees.

Nevertheless, there shall be Standing Committees as follow:

(1) *Journal and Finance.*

A Journal and Finance Committee not exceeding fifteen in number (five to form a quorum) shall be appointed by the Council, which shall, *inter alia*, examine into the general working of the Office and of the Journal, and certify the quarterly accounts prior to their being presented to the Council.

(2) *Premises and Library.*

A Premises and Library Committee not exceeding nine in number (three to form a quorum) shall be appointed by the Council, to which shall be referred all matters connected with the Library and its management, as well as the management of the House Property of the Association.

(3) *Public Health.*

A Public Health Committee not exceeding nine in number (three to form a quorum) shall be appointed by the Council, to which shall specially be referred all questions relating to Public Health and the Poor-law Medical Service.

(4) *Colonial.*

A Colonial Committee not exceeding nine in number (three to form a quorum) shall be appointed, to which shall be referred all questions specially relating to the Branches not in the United Kingdom. Of such Committee five members shall be appointed by the Representatives of these Branches on the Council, and two by the Council,

(5) *Naval and Military.*

A Royal Naval and Military Committee, not exceeding nine in number (three to form a quorum), shall be appointed by the Council, to which shall be referred all matters relating to the Royal Navy Medical Service, the Army Medical Service, the Indian Medical Service, and the Medical Organization of the Auxiliary Forces. Such Committee to include the Representative Members of these Services who are on the Council.

(6) *Medico-Political.*

A Medico-Political Committee shall be appointed, consisting of sixteen members (seven to form a quorum), which shall deal with all matters involving the public relations of the Profession not specially referred to other Committees, and shall be composed of the Chairman of Representative Meeting, the Treasurer, *ex officio*, and twelve other Members, all of whom shall be appointed by the Council, until the first Representative Meeting, and thereafter six of such Members shall be appointed by the Council, and six by the Representative Meeting. Such Committee to report to the Council and to the Representative Meeting, to act under the Council, and to have the services of a salaried officer.

(7) *Ethical.*

An Ethical Committee (otherwise designated the Central Ethical Committee) shall be appointed consisting of twelve members (five to form a quorum) which shall advise the Council on proposed Rules of Divisions and Branches relating to professional conduct, shall investigate and report to the Council upon the cases of Members whose conduct is to be considered by the Council, shall adjudicate in cases of disputes on ethical questions referred to it by Members of the Association, and generally shall advise, and, where so directed, act for the Council, on all questions of Professional conduct. Until the first Representative Meeting such Committee shall be appointed by the Council, and thereafter five members of such Committee shall be appointed by the Council and five by the Representative Meeting. This Committee shall have the services of a salaried officer.

(8) *Organization.*

An Organization Committee shall be appointed by the Council, not exceeding nine in number (three to form a quorum), which, subject to the directions of the Council, shall deal with all questions of the boundaries or area of Divisions and Branches, and the Rules thereof other than those relating to ethical matters, and advise the Council thereon, and shall exercise such powers as may be conferred upon it by the Council in advising and assisting Divisions or Branches in the strengthening of their organization. This Committee shall have power to add to its number, for special purposes, a limited number of Members specially qualified to assist in its work. This Committee shall have the services of a salaried officer.

(9) *Scottish Committee.*

A Scottish Committee, consisting of one Secretary from each Scottish Branch and the Scottish Members of the Central Council. It shall have a Secretary, resident in Scotland, and shall meet at such place and time as the Committee may itself direct, and shall report to the Council on any matters specially concerning Scotland.

(10) *Irish Committee.*

An Irish Committee, consisting of the Irish Members of the Central Council, one Secretary from each Irish Branch, and one Member elected by each Branch; provided that, in the case of the Leinster and Ulster Branches, such elected Members shall be practitioners not resident either in Dublin or Belfast, and provided that, in the event of the Secretary of a Branch being also a Member of the Central Council, such Branch shall have power to elect a further Member of the Committee.

II.—PROPOSED NEW BY-LAWS.

20.

By the Council of the Association:

(By-law drafted by the Council pursuant to Instructions of the Representative Meeting at Leicester.)

(1) Representation of the Representative Meeting on the Council.

That the Representative Meeting shall have power to elect annually not more than six members of the Central Council.

21.

Addition Proposed by the Council.

(2) Tenure of Office of Members of Council Elected by the Representative Meeting.

That each member of Council elected by the Representative Meeting shall hold office for one year, and at the end of that time shall be eligible for re-election, unless he has served as a member of Council elected by the Representative Meeting for six years successively, in which case he shall for one year be incapable of being so elected.

22.

(By-law drafted by the Council pursuant to Instructions of the Representative Meeting at Leicester.)

(3) Supplementary Grants to Divisions and Branches.

In addition to the grants made in pursuance of By-law 16, the Council, on the application of any Division or Branch, shall have power to make a supplementary grant of such amount as the Council may deem proper. Every application by a Division, not itself a Branch, shall be forwarded through the Branch Council, whose duty it shall be to transmit the same to the Central Council, with such comment, if any, as the Branch Council may deem expedient.

All applications for supplementary grants shall be referred by the Council to the Organization Committee for report thereon, and, in considering the same, the said Committee and Council shall have regard to the evidence of work done by or through the agency of such Division or Branch for the Association or the medical profession, and also to the amount which may have been voluntarily subscribed locally for any purpose for which such a grant may be desired.

[*Supplement, April 21st.*]

L. Consider proposed alterations of the Articles of Association which are submitted for the consideration of the Representative Meeting.

PROPOSED ALTERATIONS OF THE ARTICLES OF ASSOCIATION.

23.

Amendment of Article XXVII.

Election of Representatives.

By the Wandsworth Division (Metropolitan Counties Branch):

For "three months" read "nine months."

Existing Article.

Representatives of Divisions shall be elected by Constituencies formed as follows, each such Constituency being entitled to elect one Representative:—Any Division having not less than 50 Members may form one Constituency, and every Division having less than 50 Members shall be grouped by the Council with another Division or with other Divisions to form a Constituency having not less than 50 Members. In no case shall the total number of Constituencies formed throughout the Association exceed 300, and the final delimitation of such Constituencies shall rest with the Council. In the case of a Constituency formed within the United Kingdom, the Representative shall be elected by a general meeting of Members of the Constituency held not more than 3 months nor less than 3 weeks before the Annual Representative Meeting, and in the case of a Constituency not formed within the United Kingdom, the Representative shall be elected either in manner aforesaid or by voting papers sent to each Member of the Constituency, as the said Constituency may decide. Such meeting shall be convened, or such voting papers dispatched by the Secretary of the Constituency, who, in the case of a Constituency composed of more than one Division, shall be chosen by the Secretaries of those Divisions, and if they cannot agree, by the Council. The Secretary of each Constituency shall inform, not less than 14 days before the Representative Meeting, the General Secretary of the name and address of the Representative elected by such

Constituency, and the General Secretary shall issue to such Representative a ticket of admission to the Meeting.

[*Supplement, March 3rd.*]

24.

Expenses of Representatives.

By the Northamptonshire Division (South Midland Branch):

That the Representatives of Divisions be paid all out-of-pocket expenses incurred in attending Representative Meetings, etc.

[*Supplement, February 24th.*]

25.

Expenses of Representatives.

By the Wandsworth Division (Metropolitan Counties Branch):

(Amendment to foregoing motion by the Northamptonshire Division.)

That the word "all" in the first line and the word "etc." in the third line be omitted, and that at the end the words "to the extent of not more than 15s. a day" be added.

[*Supplement, April 21st.*]

M. Consider motions placed upon the Agenda of the Meeting by Divisions or Branches, relating to the honour and interests of the Medical Profession or of the Association.

NOTICES OF MOTION

(Other than Proposed Amendments of Articles, By-laws, or Standing Orders).

The following notices have been grouped according to the subjects to which they severally relate:

I.—NOTICES AFFECTING THE REGULATIONS AND ADMINISTRATION OF THE ASSOCIATION.

I.—NOTICES AFFECTING THE REGULATIONS OF THE ASSOCIATION.

26.

Officers of Divisions.

By the Wandsworth Division (Metropolitan Counties Branch):

That it be an instruction to the Central Council to alter all Articles and By-laws so that "the Chairman of a Division" be called "the President of the Division"; and the "Executive Committee of a Division" be called "the Division Council."

[*Supplement, March 3rd.*]

27.

Constitution of Central Council of the Association.

By the Hampstead Division (Metropolitan Counties Branch):

That at least one Registered Dental Surgeon should be added to the Central Council of the Association, either by election or by co-option.

[*Supplement, April 21st.*]

By-laws 16 and 17.

Capitation Grants.

By the Wandsworth Division (Metropolitan Counties Branch).

28.

(1) That in view of the greater activity and organization now apparent in various Divisions of the Association, the time has come for reconsideration of By-laws 16 and 17 whereby fixed capitation grants are made to the Branches and through them to the Divisions.

29.

(2) That it be an instruction to the Central Council to consider the following among other subjects, and report to the Divisions by March 31st, 1907, what changes in the By-laws they suggest.

30.

(*a*) That it is not desirable that there be gradually accumulating funds lying idle in the hands of various Branches, which, as such (at all events for the present), seem to have no need of them.

31.

(*b*) In view of the expenses of local Scientific Medical Societies it is not unreasonable to suppose that some Divisions should require grants up to even 7s. 6d. a head per annum, which might be given in instalments in accordance with work done, and made direct from the Central Office.

32.

(*c*) That there should also be made direct to Branches, for Branch expenses, from the Central Office capitation grants up to 2s. 6d. per annum in accordance with work done, which could be increased by grants from Divisions for special purposes made by special Division resolutions.

33.

(*d*) That a basis for the necessary first instalment in each year to a Branch or Division could be arrived at by consideration of the average of expenses incurred during the past three years.

[*Supplement, April 21st.*]

34.

Capitation Grant to Divisions and Branches.

Local Control.

By the Bournemouth Division (Dorset and West Hants Branch):

That the Capitation Grant to Branches should be absolutely at the disposal of the Branches and Divisions, and to be allocated to the Divisions as agreed on.

[*Supplement, April 21st.*]

II.—NOTICES AFFECTING THE ADMINISTRATION OF THE ASSOCIATION.

35.

Premises.

Alterations.

By the Wandsworth Division (Metropolitan Counties Branch):

That it be an instruction to the Central Council before arranging for any alteration of the present premises of the Association involving an outlay of over £200, or the obtaining at any time of premises elsewhere in London or the provinces, to first consult the members through the Divisions and obtain their wishes on the main principles involved.

[*Supplement, February 10th.*]

36.

Management of Library.

By the City Division (Metropolitan Counties Branch):

That it be an instruction to the Council of the Association to make arrangements for keeping the Library of the Association open till 11 p.m. daily; except on Saturdays, when it shall be open till 1 p.m.

[*Supplement, March 3rd.*]

37.

Circulating Medical Library.

By the Gateshead Division (North of England Branch):

That the Council of the Association be requested to take into consideration the feasibility of adding to the other attractions of the Association a Circulating Medical Library, and report to the Divisions in time for a decision to be taken at the next Representative Meeting.

[*Supplement, April 28th.*]

38.

Facilities for Social Intercourse at Head Office.

By the City Division (Metropolitan Counties Branch):

That it be an instruction to the Council of the Association to provide facilities at the Association's premises in London for the better social intercourse of members, especially country members visiting London.

[*Supplement, March 3rd.*]

39.

Official Reports and Journal.

Title "Doctor."

By the Gateshead Division (North of England Branch):

That in all official reports connected with the Association and in the columns of the British Medical Journal, the word Dr. be used as a title for every registered medical man unless he is either known to be practising as a consulting surgeon or has signified his desire to be called Mr.

[*Supplement, February 10th.*]

40.

Year Book.

Date of Issue.

By the North Manchester Division (Lancashire and Cheshire Branch):

That the Year Book be issued not later than October 1st in each year.

41.

Officials.

Regulation and Co-ordination of Duties.

By the North Manchester Division (Lancashire and Cheshire Branch):

That a Committee be appointed to inquire into the duties of the General and Medical Secretaries, with a view to their better regulation and co-ordination.
[*Supplement*, *March 31st.*]

42.

District Organizing Secretaries.

By the Wandsworth Division (Metropolitan Counties Branch):

That in order to accelerate the consideration of, and dealing with, matters of local interest that do not affect the principles or policy of the Association, and so relieve the routine work of the Central Office, it is desirable that there be gradually introduced the principle of District Organizing Medical Secretaries. That it be an instruction to the Central Council to consider the matter, and to report with a scheme to the Divisions by March 31st, 1907.
[*Supplement*, *April 21st.*]

II.—NOTICES AFFECTING THE WORK OF THE ASSOCIATION.

I.—MEDICO-POLITICAL.

43.

Coroners' Law: Medical Witnesses.

By the Hampstead Division (Metropolitan Counties Branch):

That the medical witness at a coroner's inquest should be the medical man last in attendance upon the deceased, or the first to see the dead body, as has been the practice until recently pursued.
[*Supplement*, *April 21st.*]

Nurses' Registration: Representation of Medical Profession on Central Board.

By the Wandsworth Division (Metropolitan Counties Branch):

44.

(1) That in the opinion of this Representative Meeting the number of seats allotted to the medical profession on the Council in the Bill for Nurses' Registration now before the House of Commons is inadequate.

45.

(2) That it be an instruction to the Central Council to take the necessary steps in order to have the one seat allotted under the auspices of this Association increased to seven.

46.

Payment of Medical Men called in in Complicated Midwives' Cases.

By the Hampstead Division (Metropolitan Counties Branch):

That the recommendations of the Medico-Political Committee relative to the payment of Medical Men called in to attend the patients of midwives be endorsed, and the Council of the Association urged to take immediate steps to ensure the introduction of clauses dealing with this matter into any suitable Bill at the earliest possible moment.
[*Supplement*, *April 21st.*]

Vaccination.

By the Hampstead Division (Metropolitan Counties Branch):

47.

Compulsory Revaccination.

That revaccination prior to the statutory age for leaving elementary schools be made compulsory.

48.

Supply of Government Lymph to all Practitioners.

That Government lymph should be supplied to all practitioners who desire it.

49.

Office of Public Vaccinator.

That the office of Public Vaccinator should either be abolished, or made a whole-time appointment.
[*Supplement*, *April 21st.*]

50.

Contract Practice: Medical Organization.

By the Hampstead Division (Metropolitan Counties Branch):

That for the purpose of deciding upon the local conditions under which contract practice should be carried on, an organized body, such as a Division of the British Medical Association, in conjunction with all the local profession, should be formed in each affected district.
[*Supplement*, *April 21st.*]

51.

Relation of the Medical Profession to the State. Income and Property Tax.

By the Exeter Division (South-Western Branch):

That the question of the incidence of the Income Tax upon the medical profession be referred to the Divisions for consideration, together with the Memorandum on the subject submitted by the Exeter Division.

MEMORANDUM BY THE EXETER DIVISION ON REPLACEMENT OF INCOME TAX BY PROPERTY TAX.

Income tax, as now levied, puts a premium on idleness generally, and specially penalizes intellectual work, because it makes no practical distinction between income from earnings and income from property. It especially constitutes a most unfair burden on the professional classes.

Income tax thus forms a standing grievance, and a direct incentive to the introduction of steep graduation as a supposed means of remedying its injustice. But steep graduation will not right what is radically wrong in the tax, whilst it will introduce a very dangerous principle. The income tax is wrong because the theory on which it rests is wrong. The State is theoretically supposed to protect income, and income tax is the charge made for this protection. But does the State protect income? Take two illustrations:

1. A man without property earns £1,000 a year by his profession. He breaks down. (The State makes no attempt to replace his income.)
2. A family lives on an income of £1,000 a year wholly earned by a man who has no surplus to insure his life. He dies. (The State treats his survivors as paupers.)

In each of these cases a heavy payment is made to the State annually for protection of income. Where does the protection come in? It does not come in at all. The State in fact does not protect income.

The State protects two things—person and property. Person repays this protection by work and by indirect taxation; property should repay it by a proportional property tax. But income should not be taxed for protection which it does not get. In other words, income tax should be abolished and property-tax should be put in its place. No other arrangement will be equitable. Such a tax will not press on the artisan and labouring classes, will not constitute an unjust burden on the professional classes, penalizing intellectual work, but will be borne by those on whom it ought to fall—the owners of property over a certain minimum amount. By a reasonable system of exemption and abatements, its incidence can be adjusted so as not to fetter industry or to press unduly on those who may fairly claim abatement or remission. It will no more stop saving than the present income tax stops earning. It will no more drive capital out of the country than the income tax does. It will remove the excuse now existing for such confiscatory taxation as a steeply-graduated income tax.

Now that the principles of taxation are likely to be considered, this change from income tax to property tax ought to be taken into account.
[*Supplement*, *April 21st.*]

52.

Nomination of Candidates for General Medical Council.

Declaration.

By the Gateshead Division (North of England Branch):

That the second paragraph in the "Declaration by Candidates," in the Scheme for Selection of Candidates for the General Medical Council by the British Medical Association, be omitted as unnecessary.

[*Supplement, February 10th.*]

II.—ETHICAL.

Position of Consultants: Proposed Separate Class.

By the Hampstead Division (Metropolitan Counties Branch):

53.
That a class to be styled "Consultants" shall be recognized as possessing special knowledge and experience of at least one department of practice and shall undertake not to treat patients, habitually, either at their own consulting rooms or at the houses of patients or elsewhere, except in cooperation throughout the treatment of any case, either personally or by correspondence, with practitioners usually in charge of such patients.

54.
Rider: This does not refer, under present circumstances, to patients seen at the charitable institutions to whose staff consultants are attached.

[*Supplement, April 21st.*]

III.—HOSPITALS.

55.
Constitution and Management of Hospitals.

Representation of Local Profession on Committee.

By the Hampstead Division (Metropolitan Counties Branch):

That the constitution and management of hospitals whose staff are general practitioners are specially a matter of concern to the local profession, who should be adequately represented on the Committee of Management.

Hospital Administration.

By the Hampstead Division (Metropolitan Counties Branch):

56.
That the following be substituted for the corresponding paragraphs in the propositions already approved by the Representative Meeting as to Hospital Administration. (Published by the Hospitals Committee in the Supplement for February 17th, 1906.)

(*a*) For Paragraph 10 substitute the following:

57.
Limitation of Cases.

(10) That the number of new cases to be seen professionally on any one day by an honorary medical officer shall be limited to 20 (until the out-patient departments become consultative).

(*b*) For Paragraph 12 substitute the following:

58.
Retirement of Staff.

(12) That it is desirable that in all hospitals there shall be an age and service limit for the retirement of the members of the medical and surgical staff.

[*Supplement, April 21st.*]

59.
NOTICES OF MOTION NOT CLASSIFIED.

By the Waterford Division (South-Eastern of Ireland Branch):

(1) That it be an instruction to our Representative to move at the annual meeting a motion to carry into effect our resolution asking for a representative on the Council of the Association for small Branches like ours where, as in our case, they represent interests different from and antagonistic to those of the predominant and associated Branch.

(2) That he be instructed to move that the Association and its Council do bring to a practical conclusion the question of medical defence of the members of this Association, than which we conceive none to be more important to members of this Association, whether individually or collectively.

(3) That the same be further instructed to move that such steps be taken to give practical effect to the Oxford resolutions, and to the whole trend of medical opinion, on the subject of the gratuitous or semi-gratuitous hospital treatment of the well-to-do as will place our profession in the same position as that of the law, and preserve us from further plunder and robbery.

(4) That the same be further instructed to move that power be taken in the new Charter to subsidise a parliamentary representative or representatives.

(5) That he be further instructed to give his warm support to any well-considered proposal for the reform on a representative basis of the General Medical Council.

(6) That he be further instructed to take the sense of the meeting on the entire exclusion of the mass of the profession, and even of the majority of hospital staffs, from all share in medical teaching.

(7) That he be further instructed to take the sense and pleasure of the meeting on the necessity for having all medical examinations duly advertised and open to the presence of every registered medical practitioner.

(8) Further, that our Representative shall move at the annual general meeting, to be held in London in July next, that the Council be requested to appoint a Materia Medica Committee, whose duty it will be, with such professional aid as they can summon to their assistance, to investigate and pronounce on the uses and properties of all drugs which shall be used by the profession, and that in view of the grave injury inflicted on the public and on the profession alike by the present wholesale introduction of drugs by mere commercial firms, whereby the ground is being cut from under our feet, and the gullible public are induced to accept nostrums on the sole strength of mere assertions, that the hospitality of our museum and the pages of our Journal shall be both shut out from giving any further aid to the wholesale advertisements of drugs and preparations the sole virtues of which have too often no existence save in the mendacity of their introducers.

(9) Further, that our Representative shall move that, in the opinion of this meeting, the British Medical Journal should more largely advocate the rights, interests, and claims of the medical masses in the future than it has done in the past.

ELECTION OF COMMITTEES.

60.
N. Elect six members of the Association in accordance with By-law 40 (6) to serve on the Medico-Political Committee for the ensuing year.

By-law 40. (6) *Medico-Political.*

A Medico-Political Committee shall be appointed consisting of sixteen members (seven to form a quorum), which shall deal with all matters involving the public relations of the profession not specially referred to other Committees, and shall be composed of the Chairman of Representative Meeting, the Treasurer, *ex officio*, and twelve other members, all of whom shall be appointed by the Council, until the first Representative Meeting, and thereafter six of such members shall be appointed by the Council, and six by the Representative Meeting. Such Committee to report to the Council and to the Representative Meeting, to act under the Council, and to have the services of a salaried officer.

61.
O. Elect five members of the Association in accordance with By-law 40 (7) to serve on the Ethical Committee for the ensuing year.

By-law 40. (7) *Ethical.*

An Ethical Committee (otherwise designated the Central Ethical Committee) shall be appointed consisting of twelve members (five to form a quorum), which shall advise the Council on proposed Rules of Divisions and Branches relating to professional conduct, shall investigate and report to the Council upon the cases of members whose conduct is to be considered by the Council, shall adjudicate in cases of dispute on ethical questions referred to it by members of the Association, and generally shall advise, and, where so directed, act for the Council, on all questions of professional conduct. Until the first Representative Meeting such Committees shall be appointed by the Council, and thereafter five members of such Committee shall be appointed by the Council and five by the Representative Meeting. This Committee shall have the services of a salaried officer.

62.
P. Elect other Committees, if any.

By Order, J. SMITH WHITAKER,
Medical Secretary.

APPENDIX.

STANDING ORDERS
RELATIVE TO
BUSINESS AT REPRESENTATIVE MEETINGS.
(AS ADOPTED AT LEICESTER.)

I.—ORDER OF BUSINESS.

(A) *Annual Representative Meeting.*

Except as may be otherwise determined in the manner prescribed by the Standing Orders, the order of business shall be as follows:

1. Election Returns.—Receive the return of the Election of Representatives of Divisions for the year, and receive notices, if any, of the appointment of substitutes for Representatives under Article XXX.

2. Standing Orders.—Adopt Standing Orders.

3. Annual Report of Council.—Receive the Annual Report of the Council, presented under By-law 34, and consider motions relating to the adoption thereof in whole or in part.

4. Financial Estimate.—Receive the Financial Estimate presented by the Council under By-law 34, and consider motions relating to the adoption thereof in whole or in part.

5. Special Reports of Council.—Receive Special Reports of the Council, if any, in the order in which the Council shall submit them for consideration, and consider motions for the adoption thereof in whole or in part.

6. Report of Medico-Political Committee.—Receive the Report of the Medico-Political Committee, and consider motions for the adoption of the same in whole or in part.

7. Report of Ethical Committee.—Receive the Report of the Ethical Committee, and consider motions for the adoption of the same in whole or in part.

8. Elect Members of Medico-Political Committee.—Elect six members of the Association to serve on the Medico-Political Committee for the ensuing year.

9. Elect Members of Ethical Committee.—Elect five members of the Association to serve on the Ethical Committee for the ensuing year.

10. Consider By-laws.—Consider, in such order as the Meeting shall determine, any motions placed upon the Agenda of the Meeting by which it is proposed to make By-laws or to alter or repeal existing By-laws.

11. Consider other Motions by Divisions or Branches.—Consider, in such order as the Meeting shall determine, any motions placed upon the Agenda of the Meeting by Divisions or Branches, relating to the honour and interests of the Medical Profession or of the Association.

12. Amendment of Standing Orders.—Consider proposed amendments of Standing Orders, other than those relating to the order of business.

13. General Order of Daily Sessions.—The matters described in the foregoing Clauses shall be considered in the order therein prescribed, or as otherwise duly determined, from day to day until the completion thereof or until the expiration of four days from the first day of the Meeting, whichever shall first occur; provided that at each daily session after the first, the Meeting shall, before proceeding to the consideration of the matters aforesaid, (*a*) confirm the Minutes of the Proceedings of the previous daily session; (*b*) consider motions, if any, relating to the order of business of the day. At the conclusion of the business of the last daily session the Meeting shall confirm the Minutes thereof for presentation to the Council.

14. Hours of Daily Sessions.—All Representative Meetings not concluded by 6.30 p.m. shall stand adjourned either to 8 p.m. of the same day, or to the next day, as may be decided by a show of hands. All such Meetings shall stand adjourned at 10 p.m.

15. Varying Order of Business.—The order of business may be varied, either at the commencement or after the expiration of two hours from the commencement of any daily session, by the vote of two-thirds of those present and voting.

16. Precedence of Motions of which Notice Given.—Motions and amendments of which notice shall have been given to the General Secretary in time for them to appear in the Daily Journal shall have precedence, in the order in which such notice shall have been given, over those relating to the same subject, or otherwise having a like claim to precedence in the order of business, of which such notice has not been given.

17. Motions on the Same Subject.—If two or more of the motions placed on the Agenda of the meeting by the Council and by Divisions and Branches shall appear to the Chairman to relate to the same subject he shall ascertain the will of the meeting in respect of the consideration of one of such motions as an original motion, and of the others as amendments thereto, in such order as the meeting may determine.

18. Motions on Subjects dealt with in Reports.—If a recommendation of the Council or of a Committee, or an amendment moved that a specified portion of a report of the Council or of a Committee be not approved, shall appear to the Chairman to relate to the same subject as a motion placed upon the Agenda by the Council or by a Division or Branch, the Chairman shall ascertain the will of the meeting as to the consideration of the said motion as an amendment to the adoption of the said recommendation, or to the approval of the said report.

(B).—*Special Representative Meetings.*

1. Read Authority for Convening Meeting.—Read the Resolution of Council, or the requisition from Divisions, in pursuance of which the Meeting is convened.

2. Notice of Substitutes.—Receive notices, if any, of the appointment of substitutes for Representatives.

3. Order of Business.—If the Meeting is convened to consider more than one matter, determine the order in which such matters shall be considered.

4 Special Business.—Consider the matters which the Meeting is specifically convened to consider, in order determined by the Meeting.

5. Minutes.—Confirm the minutes of the Meeting for presentation to the Council.

II.—COMPOSITION AND ARRANGEMENT OF THE MEETING.

1. Composition.—The persons constituting the Meeting, hereinafter called members of the Meeting, shall be those duly elected Representatives of Divisions, or substitutes duly appointed under Article XXX and By-law 18, of whose election or appointment the General Secretary shall have received due notice, together with Members of Council for the time being.

2. Arrangement.—Distinctive seats shall be provided for the following groups of persons respectively, namely:

(*a*) Representatives of Divisions.
(*b*) Members of Council who are not Representatives of Divisions or Officers of the Association.
(*c*) Officers of the Association, present in virtue of their office, or at the request of the Meeting, for the assistance thereof.
(*d*) Members of the Association who are not Representatives of Divisions or Members of Council.
(*e*) Reporters representing such journals as may be authorized by the Chairman, subject to the approval of the Meeting.

Withdrawal of Strangers.—It shall be competent at any time for a member of the Meeting to move that persons who are not members of the Meeting be requested to withdraw, or that persons who are not members of the Association be requested to withdraw, but it shall rest in the discretion of the Chairman to submit or not to submit such motion to the Meeting.

III.—PROCEDURE.

1. Temporary Chairman.—If the Chairman of Representative Meetings be not present at the time fixed for opening any daily session of a Representative Meeting, whether annual or special, the Chairman of Council, or in his absence the Treasurer, shall take the Chair, and shall forthwith call upon the Meeting to appoint a Chairman to act during the absence of the Chairman of Representative Meetings.

2. Minutes.—Minutes shall be taken of the proceedings of the Meeting, and the same shall be duly entered in a book provided for the purpose. The Minutes of each daily session of the Annual Representative Meeting shall be printed and circulated to the members of the Meeting. Minutes (if) (when) printed in the Daily Journal of the Annual Meeting shall be deemed thereby to have been circulated as required by this order.

3. Attendance.—No Representative shall leave the Meeting without permission obtained personally from the Chairman at the time of leaving. If during any daily session of a Representative Meeting it shall at any time appear to the Chairman that a quorum is not present, the roll shall be called of Representatives appointed to attend the meeting, and those Representatives who are found to be then absent, not having previously obtained leave from the Chairman, shall be deemed to have been absent from the said session. A list of members reported as absent from any daily session or sessions of a Representative Meeting shall be supplied at the close of such meeting to the Chairman and shall by him be transmitted to the Council, together with such explanations of the cause of absence as any members so reported may have furnished to him in writing.

4. Procedure as to Presentation of Reports.—A Report of the Council or of a Committee shall be brought before he Meeting by a motion or motions that the Report be eceived and approved, and that the recommendations to he Meeting (if any) therein contained be adopted, each uch recommendation being made the subject of a sepa- ate motion. The Chairman of the body submitting a Report shall if present move the reception and adoption hereof, and of the recommendations contained therein.

5. Procedure as to Other Motions.—Motions placed on he Agenda of the Meeting by the Council shall be brought efore the Meeting by the Chairman of Council if present, motions so placed by a Branch shall be introduced by a member of Council elected by the Branch, and motions so laced by a Division shall be introduced by the Representative thereof.

6. Absence of Authorized Mover of Adoption of Report r Other Motion.—In the absence of any member uthorized to make any motion referred to in the two last receding orders, any other member deputed by such ember may make such motion on his behalf, and if no ember shall have been so deputed, such motion shall be ade formally by the Chairman.

7. Seconding Motions.—No seconder shall be required r any of the motions referred to in Sections 4 and 5. All her motions and all amendments shall be required to be oved and seconded.

8. Time Limits of Speeches.—(*a*) A member of the eeting shall be allowed to speak for fifteen minutes in oving a resolution which does not require seconding, d for ten minutes in moving any other resolution, or y amendment. Except as aforesaid, no speech shall ceed five minutes.

Reducing Time Limit.—(*b*) The Meeting may at any riod of any session reduce the time to be allowed to eakers, whether in moving resolutions or otherwise, ring the remainder of such session.

9. Mode of Voting—Show of Hands.—Only Representa- tes of Divisions shall vote on any question before the eting.

Voting shall be by show of hands, except in the cases lowing, namely:

Vote by Card.—(*a*) If upon the Chairman proceeding to e the vote of the meeting upon any motion or amend- nt, any Representative of a Division shall move that said vote be taken by card, and twenty Representatives in their places in support of such motion, the vote ll be taken by card.

ivision.—(*b*) If the Chairman, after taking a vote by w of hands upon any motion or amendment, shall be pinion that the numbers of members voting for and inst such motion or amendment are not thereby ascer- ied with sufficient accuracy, he shall have power to ct that the meeting shall divide upon the said motion mendment.

0. Election of Committees.—Any member of a mittee elected by the Representative Meeting has not attended half of the meetings during year, shall for one year be ineligible for appointment to the same Committee. Nominations for those members of Standing Committees who are appointed by the Annual Representative Meeting shall be handed to the Secretary of the Meeting not later than the termination of the second day's proceedings. All nominations should be made with the assent of the nominee. The names of all those who have been so nominated before the close of the second daily session shall be printed in a list which shall be circulated with the minutes of the Representative Meeting of that day. Each member desiring to vote shall mark on the voting paper with a × names not exceeding the number of members to be elected to each Committee, and shall return the paper to the Secretary at such time before the close of the day's proceedings as shall be fixed by the Chairman.

IV.—RULES OF DEBATE.

1. Every member shall be seated except the one who may be addressing the Meeting, and when the Chairman rises no one shall continue standing, nor shall any one rise until the Chair is resumed.

2. A member of the Meeting shall stand when speaking, and shall address the Chair.

3. A member who speaks shall direct his speech strictly to the motion under discussion, or to a motion or amendment to be proposed by himself, or to a question of order.

4. A member shall not address the Meeting more than once on any motion or amendment, but the mover of an original resolution may reply, and in his reply shall strictly confine himself to answering previous speakers, and shall not introduce any new matter into the debate; provided always that a Member may speak to a point of order, or, by consent of the Meeting, in explanation of some material part of a speech made by him, which he believes to have been misunderstood.

5. A motion or amendment once made and seconded shall not be altered or withdrawn without the consent of the Meeting.

6. An amendment shall be either—

To leave out words;
To leave out words and insert or add others;
To insert or add words;

or in such form as shall be approved of by the Chairman, provided always that the amendment be relevant to the motion on which it is moved, and be not equivalent to the direct negative thereof.

7. No notice of motion, or amendment to any motion before the Meeting, not already published, shall be considered by the Meeting until a copy of the same with the name of the proposer has been handed in in writing to the Chairman.

8. Whenever an amendment upon an original motion has been moved and seconded, no second or subsequent amendment shall be moved until the first amendment shall have been disposed of, but notice of any number of amendments may be given.

9. If any amendment be rejected, other amendments may be moved on the original motion. If an amendment be carried, the amendment or motion as amended shall take the place of the original motion, and shall become the question upon which any further amendment may be moved.

10. If it be proposed and seconded that the Meeting do now adjourn, or that the debate be adjourned, or that the Meeting do proceed to the next business, or that the question be now put, such resolution shall immediately be put to the vote without discussion, except as to the time of adjournment, provided always that the Chairman shall have power to decline to put to the Meeting the motions that the Meeting do proceed to the next business, or that the question be now put.

11. A motion that the Meeting do now adjourn, or that the Meeting do now proceed to the next business, or that the debate be now adjourned, or that the question be now put, shall not be made within a period of one hour after a previous motion to the like effect, unless, in the opinion of the Chairman, the circumstances are materially altered.

12. Smoking shall not be allowed during such time as the Chairman is in the Chair.

V.—SUSPENSION OF STANDING ORDERS.

Any one or more of the Standing Orders, in any case of urgency, or upon motion made on notice given through the Daily Journal may be suspended at any Meeting, so far as regards any business of such Meeting, provided that three-fourths of those present and voting shall so decide.

GENERAL MEDICAL COUNCIL.

ELECTION OF DIRECT REPRESENTATIVES FOR ENGLAND AND WALES, NOVEMBER, 1906.

Meeting of Representatives for England and Wales to select Candidates for the General Medical Council.

A Meeting of Representatives for England and Wales will be held at a time fixed by the Representative Meeting to select candidates in accordance with the Scheme approved by the Representative Meeting at Oxford.

The following candidates have been duly nominated and have signed the requisite declarations:

Name.	*Address.*	*Nominating Division or Divisions.*
BROADBENT, GEORGE HARRY, M.R.C.S. ... (Member of Central Ethical Committee, Member of Lancashire and Cheshire Branch Council, and Representative of North Manchester Division.)	8, Ardwick Green, Manchester	MANCHESTER (NORTH).
BROWNE, HENRY LANGLEY, M.D., F.R.C.S.Ed. **(Chairman of Council of the Association.)**	**Moor House, West Bromwich**	CENTRAL BIRMINGHAM. CITY (LONDON). KENSINGTON. MARYLEBONE. SWANSEA. WEST BROMWICH.
BULLAR, JOHN FOLLETT, M.B., F.R.C.S. ... (Member of Branch Council, Southern Branch.)	7, Carlton Crescent, Southampton	WINCHESTER.
CLARK, ANDREW, F.R.C.S. ... ... (Member and late Chairman of Central Council, and President of the Metropolitan Counties Branch.)	71, Harley Street, W.	CITY (LONDON). MARYLEBONE. ST. PANCRAS AND ISLINGTON.
GODSON, ALFRED, M.B., M.C.Cantab.... ... (Chairman of the Stockport, Macclesfield, and East Cheshire Division.)	Cheadle House, Cheadle, Cheshire	STOCKPORT, MACCLESFIELD, and EAST CHESHIRE.
HELME, THOMAS ARTHUR, M.D., M.R.C.P. ... (Honorary Secretary and Treasurer of Lancashire and Cheshire Branch, Member of Central Council and Medico-Political Committee.)	3, St. Peter's Square, and Mayfield, Victoria Park, Manchester	MANCHESTER (CENTRAL). MANCHESTER (WEST).
JACKSON, GEORGE, F.R.C.S. ... ... (President of the South-Western Branch, and Member of the Medico-Political Committee.)	10, Portland Villas, Plymouth	EXETER. GATESHEAD. KENSINGTON. MANCHESTER (NORTH). PLYMOUTH.
LATIMER, HENRY ARTHUR, M.D. ... ... (Chairman and Representative of Swansea Division, Member of Medico-Political Committee.)	4, Belvoir Place, Swansea	SWANSEA. SOUTH-WEST WALES.
McMANUS, LEONARD STRONG, M.D. ... ... (Representative of Wandsworth Division, Member of Medico-Political Committee.)	25, Spencer Park, Wandsworth Common, S.W.	STRATFORD. WANDSWORTH.
MORISON, JAMES RUTHERFORD, F.R.C.S. ... (Member of Branch Council and Chairman of Northumberland Committee, North of England Branch.)	14, Saville Row, Newcastle-on-Tyne	BLYTH. CLEVELAND. CONSETT. FURNESS. GATESHEAD. MARYLEBONE. NEWCASTLE-ON-TYNE. NORTH NORTHUMBERLAND. SOUTH SHIELDS. STOCKTON-ON-TEES. SUNDERLAND. WANDSWORTH.
RENSHAW, CHARLES JEREMIAH, M.D., F.F.P.S.Glas. ... (Representative on Lancashire and Cheshire Branch Council and ex-Chairman of Altrincham Division.)	Beech Hurst, Ashton-on-Mersey, Lancashire	ALTRINCHAM. MANCHESTER (CENTRAL). MANCHESTER (WEST).
RHODES, JOHN MILSON, M.D. ... ... (Chairman of South Manchester Division, Lancashire and Cheshire Branch.)	Ivy Lodge, Didsbury, Manchester	MANCHESTER (CENTRAL). MANCHESTER (SOUTH).
SMITH, FREDERICK JOHN, F.R.C.P., M.D. ... (Honorary Secretary, Metropolitan Counties Branch.)	138, Harley Street, W.	STRATFORD.
STRATON, CHARLES ROBERT, F.R.C.S.EDIN. ... (Member of Central Council, Medico-Political Committee and Colonial Committee.)	West Lodge, Wilton, Salisbury	WANDSWORTH. WINCHESTER.

By Order, J. SMITH WHITAKER, *Medical Secretary.*

Meetings of Branches & Divisions.

[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the JOURNAL.]

BIRMINGHAM BRANCH:

COVENTRY DIVISION.

A MEETING of this Division was held on April 3rd, Dr. DAVIDSON being in the chair.

Paper.—Mr. W. E. BENNETT read a paper on The Tolerance of the Peritoneum. A discussion followed, in which Drs. MILNER MOORE, PENDRED, and J. ORTON took part, and Mr. BENNETT replied.

Provident Dispensaries.—Dr. DAVIDSON proposed the adoption of the resolution recommended by the Committee, namely:

> That the Division having, on February 15th, last, approved of a scheme of principles and rules which they consider appropriate for the proper management of a provident dispensary, hereby declare that no member of the profession in the area of the Division should associate himself with or continue to be associated with any provident dispensary which is managed on lines fundamentally different from those principles and rules.

Before moving the adoption of the resolution recommended by the Committee of the Division, he thought it would be well to refer to the way in which the dispensary uestion had been brought to the notice of the Division t that time. He did not think it necessary to recapitu- ate the various agitations against the Coventry Dispen- ary during the last twelve or fifteen years, or the attempts f the staff to obtain internal reforms in the working of e institution, nor would it be seemly on his part, from e position he once held on the staff, so to do. Dr. avidson thought, however, that all would agree that ntract medical practice, as understood and approved y the medical profession generally, aimed at providing tendance and medicine during sickness to working men nd their families, who were too poor to pay the ordinary es, by small regular payments during health. The spensary was a large institution of subscribing or free embers and members of friendly societies devoted to ntract work only, and under the control and manage- ent of a committee of which an overwhelming majority ere laymen, and here a danger arose of persons in a perior position, and able to pay the ordinary fees, being owed to become members, and take advantage of con- act work which was never intended for them. There s no doubt this abuse did exist and still existed, and as ng as it remained it acted detrimentally not only on ose on the staff of the institution, but on those who re in practice unconnected with it. It had become dent that this state of affairs could not go on indefi- ely, and the staff of the dispensary seemed to have ived at the same conclusion, for they recently ap- ached the Committee of the Division and submitted o questions: (1) What reforms does the Division think ould be introduced into the management of the dis- nsary? and (2) what support will the Division accord to e staff of the dispensary in carrying out these reforms? e Committee, however, did not feel that they could in y way pledge the Division in either of these questions; y therefore proceeded to answer the first question by ommending the Division to adopt the scheme fundamental principles and rules for the nagement of provident dispensaries recommended the Medico-Political Committee of the Associa- n with certain modifications. The scheme, some- at modified, was adopted by this Division on Feb- ry 15th last. This, therefore, formed the answer of Division to the first question. The second question o what support the Division would accord to the staff in ng to carry out the reforms presented some difficulties. ould, for instance, be of little assistance to the staff he dispensary for the Division to offer threats of what lutions it would pass if the staff were unable to carry r reforms, and, on the other hand, it would be absurd the Division to proscribe those who accepted new ointments under the dispensary while countenancing position of present holders. The only course apparently left open was to pass a definite resolution expressing the feeling of the Division on the present unsatisfactory condition of the dispensary management. This, if passed by the necessary majority, would strengthen the hands of the present staff by enabling them to represent, with the united force of the whole local profession behind them, that unless the needed reforms were carried their positions would be untenable, while it would equally express the relationship of the Division to any new comers who should accept such appointments while the matter is still *sub judice.* Dr. Davidson therefore moved, on the recommendation of the Committee, the resolution above mentioned. This was seconded by Dr. CALLAGHAN and supported by Dr. MILNER MOORE. Dr. PICKUP proposed as an amendment the addition of the following rider:

> Subject to any alteration which may be suggested by the staff of the Coventry Dispensary and not disapproved by the Division.

This was seconded by Dr. FENTON. After some discussion the mover and seconder of the amendment agreed to alter this rider to read as follows:

> Subject to any alteration which may be suggested by the staff of the Coventry Dispensary and approved by the Division.

This was spoken to by Drs. CALLAGHAN, RICE, KENDRICK, WEBSTER, SNELL, and PHILLIPS; Drs. DAVIDSON and CALLAGHAN with the assent of the meeting, agreed to add this rider to the original proposition. Dr. WEBSTER then proposed that the resolution should be amended by being made to apply to all forms of contract practice; this was not seconded. The original proposition, with the added rider, was then put to the meeting, and it was carried unanimously.

Bradford Rule B.—The SECRETARY proposed, on behalf of the Committee, that the Bradford Rule B should be altered so that "fourteen days' notice" should read "seven days' notice." This was seconded by Dr. PHILLIPS and spoken to by Dr. WEBSTER. Dr. PICKUP proposed as an amendment that the notice should be "ten days"; this was seconded by Dr. WEBSTER, and, after some discussion, the amendment was withdrawn and the original proposition was carried, 21 voting for it and 1 against it.

METROPOLITAN COUNTIES BRANCH.

CHELSEA, RICHMOND, AND WANDSWORTH DIVISIONS.

A CONJOINT meeting of these three Divisions was held on April 27th at the High School for Girls, Putney.

Wandsworth Cottage Hospital for Children.—The business of the meeting was to consider the report of a Committee with reference to the Wandsworth Cottage Hospital for Children. It appears that the building which it is proposed to use as a hospital had been taken by some nuns who had come over from France in recent years, and, being too large for their requirements, the trustee of the property, Father Cooney, while prepared to equip it in every way fully as a hospital ready for use, was not prepared, once it had been taken over by a committee of management, to provide funds for its maintenance. He had made a suggestion that the Committee should have full power over financial matters, including legacies left to the hospital, or that a lease should be granted to the Committee by the trustee. A conjoint Committee had been appointed by the Divisions to elaborate a scheme for the medical conduct of the hospital, and in their report this Committee recommended that the scheme, if approved, should be submitted to a meeting of the profession at an early date. On the motion of Mr. HUGH R. KER, Mr. G. D. MACKINTOSH took the chair.—Dr. BIGGS, Chairman of the Joint Committee, moved, and Mr. LLEWELLYN WILLIAMS seconded, that the report of the Joint Committee be received.—This was carried *nem. con.*—On its adoption being moved, Dr. SHEARER said the Committee did not seem to have seen all the trustees. They had only seen one, and the others might not be bound by what he said. Further, the report only referred to a hospital for children not exceeding 12 years of age. From inquiries he had made in the neighbourhood he found that a children's hospital was not wanted, and he would prefer a paying hospital for adults as well as children, with wards appropriated to certain districts. He moved that the report be referred back to the Committee for further inquiry.—Dr. BIGGS said the Committee had had several interviews with Father Cooney, and he had always given them to understand that he was the sole trustee, and had promised that whatever the profession agreed to should be carried out.—Mr. Howell said the position was this: Father Cooney was able somehow to provide money for building the hospital, and even for extension if necessary, but not for its maintenance. He did not think it safe for them to go in for it at all, unless they saw how it was to be carried on. They should not take the responsibility of assisting to start it without having any funds.—Dr. Fothergill said they had been asked to give a scheme how the hospital should be conducted, and they had done so. He read certain suggestions left at his house that day by Father Cooney, as follows:

1. That the title "Wandsworth Hospital" should signify the Management Committee only.
2. That all bequests, etc., left to the Wandsworth Hospital should go to this Committee.
3. That the Committee shall be free to leave the present buildings and go to other quarters, thus establishing an independence between the trustee and the Managers.

Or a lease. The Committee are prepared to accept one of these schemes; they have not had time to decide which. It is hoped that either would be acceptable to the British Medical Association.

—Mr. Hugh Ker said he agreed with Dr. Fothergill that they had nothing to do with the finance question at present. They had been asked to form a scheme for the conduct of the hospital, and had done so. If this scheme was passed now and accepted by the trustee, then would come the question how it was to be carried out.—Mr. Llewellyn Williams thought the hospital was not wanted, but that the best way was not actively to oppose it, but let it die of inanition.—Mr. Howell agreed that the hospital was not wanted. He referred to the financial difficulties in which so many of the London hospitals found themselves, and asked what was the use of increasing the number of beds to be provided for by building a hospital in Putney.—Mr. Edmund Owen thought it was remarkable that Father Cooney should be prepared to equip the hospital and not provide anything to maintain it. London hospitals were all more or less in need of funds. If he were in general practice in the neighbourhood he would have nothing to do with the hospital. It was the general practitioners who would apparently have to finance it. He advised them to tell Father Cooney that the hospital was not needed, and that it would be absurd to start it under present circumstances.—The amendment on being put to the vote was lost, as was also another one proposed by Mr. Howell that, having regard to the difficulty of raising funds for hospitals in general, it is inadvisable to prepare a scheme for a hospital in Putney; and the report was then carried *nem. con.*—The proposed constitution for the hospital was then considered and passed without material alteration, except the addition of a clause, proposed by Dr. Biggs, that there should be a Medical Committee to which all medical questions should be referred.—The Conjoint Committee's thirteen recommendations were next considered *seriatim*, and were approved. These suggested that the hospital should be open only to children not exceeding 12 years of age; that there be no subscribers' letters; that no charge be made to any patients for maintenance or medical attendance; that no accident be admitted and no out-patients receive treatment; and that every patient on admission produce a certificate of suitability for admission from a registered medical practitioner practising in the vicinity of the hospital. On the motion of Dr. Shearer, a recommendation was added that the nursing staff should be under the control of the Medical Committee.—Dr. Gilbert Richardson next proposed:

> That after a satisfactory arrangement shall have been made by the local medical profession with the Trustee of the Wandsworth Cottage Hospital for Children, the following be the procedure followed for the conduction by the Wandsworth Division of this Association of the annual election of the four representatives of the profession to act on the Committee of that hospital:
>
> (*a*) That nominations be asked for from all registered medical practitioners practising in Putney, Southfields, Fairfield, and Springfield Wards of the Wandsworth Borough who shall be entitled to vote, and that when the hospital has 100 beds, Fulham is to be included.
>
> (*b*) That only medical practitioners resident and practising in these districts shall be eligible for election.
>
> (*c*) That any medical practitioner who shall have served as such representative for five years consecutively shall be ineligible for re-election for one year.
>
> (*d*) That voting shall be by reply post-cards.

These proposals were carried. On the motion of Dr. Crookshank it was resolved:

> That each Division be asked to consider and approve a resolution in terms similar to the following:
>
> "That in the opinion of this Division any member of the profession who shall accept an appointment at, or use, the proposed Wandsworth Cottage Hospital for Children before any conference of the representatives of that hospital with representatives of the Chelsea, Richmond, and Wandsworth Divisions shall have had a definite and satisfactory result, will act in a manner injurious to the interests of the medical profession in the district."
>
> "That a copy of this resolution be sent to every medical practitioner within the area of this Division."

Vote of Thanks.—A vote of thanks to the Chairman brought the meeting to a close.

Stratford Division.

A meeting of the Stratford Division was held on Thursday, April 26th, at the Alexandra Hotel, Stratford, E., at 9 p.m., Dr. Stocker presiding.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Contract Practice.—A discussion on Contract Practice was opened by Dr. Rose. Dr. Beadles gave a lengthy and interesting summary of his experience in connexion therewith, and after a prolonged discussion it was proposed by Dr. Hay and seconded by Dr. Taylor:

> That this Division cannot endorse the recommendations of the Committee on Contract Practice, as they consider them based on insufficient information and impracticable in the present state of medical organization.

This was carried unanimously.

Hospital Out-patient Departments.—The question of hospital out-patient departments was then discussed, and as a result it was proposed by Dr. Parker and seconded by Dr. Rose:

> That the resolution on hospital out-patient departments does not, in the opinion of this Division, suggest a satisfactory solution of the question.

This was carried unanimously.

Registration of Nurses.—In regard to the registration of nurses, after discussion, the Division approved of the method of registration for nurses proposed by the Select Committee of the House of Commons; and the separate registration of midwifery nurses on the basis of the Leicester resolutions was also approved of, an amendment being negatived.

The Ethical Committee.—The Division then considered the Ethical Committee's reply to a resolution of the Division. It was decided to take no further action in the matter, and the following resolution, proposed by Dr. Hay and seconded by Dr. Parker, was unanimously carried:

> That in view of the great delay and consequent unsatisfactory termination of the case of gross unprofessional advertising sent up from this Division to the Central Ethical Committee in September last, it is advisable in the interests of efficiency that a less leisurely method be adopted at head quarters in dealing with similar cases in the future.

The Honorary Secretary was instructed to communicate this resolution to the Medical Secretary.

Proposed Royal Charter.—The proposed application for a Royal Charter was then considered, and in general approved of, the following resolution, however, being carried unanimously on the motion of Dr. Hay, seconded by Dr. Rose:

> That the Division is of opinion that the time has now come for the abolition of Branches and Branch Councils, and that the Central Council of the Association should be elected by the Representatives of the Divisions at the Annual Representative Meeting.

Letter Nominations for Central Council.—A letter was read from the Wandsworth Division *re* conference for suggesting nominations for Central Council election, and Dr. Harold H. Beadles and Dr. Percy Rose were nominated as delegates from this Division.

The proceedings then terminated.

☛ *To ensure the insertion of notices in this column, they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

Association Notices.

ANNUAL REPRESENTATIVE MEETING.

The Annual Representative Meeting will take place in the Caxton Hall, Caxton Street, Victoria Street, London, S.W., on Tuesday, July 24th, immediately after the Annual General Meeting, which will be held at 10 o'clock in the forenoon; on Wednesday, July 25th, at 10 a.m.; on Thursday, July 26th, at 10 a.m. if required; also on Friday, July 27th, at 10 a m. if required.

BY ORDER OF THE COUNCIL,

GUY ELLISTON, *General Secretary.*

April 18th, 1906.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—The annual meeting of the Branch will be held on Wednesday, May 30th, at the Medical Library, University College, Bristol, at 4.30 p.m. Names of andidates for Representatives of the Branch upon the Central ouncil must be sent to Dr. Newman Neild on or before May 5th. Candidates must be nominated by three members.—EWMAN NEILD, M.B., W. M. BEAUMONT, Honorary Secrearies.

BATH AND BRISTOL BRANCH: BRISTOL DIVISION.—The nnual meeting of the Division will be held on Thursday, ay 17th, at 8 o'clock, at the Medical Library, University ollege, Bristol.—NEWMAN NEILD, M.B., Honorary Secretary.

BATH AND BRISTOL BRANCH: TROWBRIDGE DIVISION.—otice is hereby given that the annual meeting of this ivision will be held at the Town Hall, Trowbridge, on ednesday, May 23rd, at 2.45 p.m. Business: To elect fficers; consider communications from the Association *re* harter, Contract Practice, etc., and any other business.—JOHN UBB-THOMAS, The Halve, Trowbridge, Wilts, Honorary ecretary.

BIRMINGHAM BRANCH.—The annual meeting of the Biringham Branch will be held at the Medical Institute on hursday, June 14th, at 3.30 p.m., and nominations for ffices should reach the Honorary Secretary not later than ay 23rd.—T. SYDNEY SHORT, Honorary Secretary, 85, Edmund treet, Birmingham.

BIRMINGHAM BRANCH: CENTRAL DIVISION.—A special and eneral meeting will be held at the Medical Institute, on ednesday, May 9th, at 4 p.m. Business: (1) To consider the oposed Royal Charter. Professor Morrison, a member of the rganization Committee, will explain the question, and opose a resolution. (2) On behalf of the Executive Comittee, the Chairman, Mr. W. F. Haslam, will propose the loption of certain ethical rules. Copies of these rules will be nt to each member.—E. D. KIRBY, Honorary Secretary.

BORDER COUNTIES BRANCH: NORTH CUMBERLAND DIVISION. The annual general meeting of the Division will be held at e County Hotel, Carlisle, on Friday, May 25th, at 3 30 p.m. is proposed to hold a discussion on "The Relation of edical Men to their Patients."—NORMAN MACLAREN, Carlisle, onorary Secretary.

BORDER COUNTIES BRANCH: SCOTTISH DIVISION.—The nual general meeting of the above Division will be held at e Dumfries and Galloway Royal Infirmary, upon Tuesday, ay 8th, at 2 30 p.m., when Dr. Gulland, of Edinburgh, will ve an address on Blood Examination in General Practice.—ORGE R. LIVINGSTON, Dumfries, Honorary Secretary.

DORSET AND WEST HANTS BRANCH.—Election of a Repretative of the Branch on the Central Council.—The nominan of candidates for the ensuing year must be made (in cordance with By-law 24) and sent to me in writing on or ore May 21st.—C. H. W. PARKINSON, Honorary Secretary of anch, Wimborne.

DORSET AND WEST HANTS BRANCH.—The annual meeting will be held at the Bournemouth Medical Society's Room, Shaftesbury Hall, on Thursday, May 24th. An agenda will be sent in due course. Members having cases to show or papers or other communications should give notice to the Honorary Secretary before May 16th. Candidates for election must send in applications signed by two members before May 16th.—C H. W. PARKINSON, Honorary Secretary, Wimborne.

DUNDEE, PERTH, AND STIRLING BRANCHES.—The nomination of candidates for the office of Elective Member of Council for the ensuing year must be made in writing on or before May 14th to Dr. J. E. Moorhouse, 6, Melville Terrace, Stirling.—A. P. LOW, Honorary Secretary, Dundee Branch; W. A. TAYLOR, Honorary Secretary, Perth Branch; J. E. MOORHOUSE, Honorary Secretary, Stirling Branch.

EAST ANGLIAN BRANCH.—Notice is hereby given that nominations of two members for the office of Representative on the Central Council of the Association, each signed by not less than three members, must reach me not later than May 21st.—B. H. NICHOLSON, M.B., East Lodge, Colchester, General Secretary of Branch.

LANCASHIRE AND CHESHIRE BRANCH: LEIGH DIVISION.—A meeting of the Scientific Section of this Division will be held in the Co-operative Rooms, Ellesmere Street, Leigh, on May 10th, at 3.30.—J. CLAY BECKITT, Honorary Secretary, Leigh, Lancashire.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The annual meeting of the Division, which is to take place on Thursday, May 24th, at 4 p.m., will be held at the Great Eastern Hotel, Liverpool Street, E.C.—E. W. GOODALL, Eastern Hospital, Homerton, N.E., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: HAMPSTEAD DIVISION.—A conference on the management of the Hampstead General Hospital will be held at the Hampstead Conservatoire on May 5th, at 4.30 p.m., under the auspices of the Hampstead Division of the British Medical Association. Agenda: (*a*) To consider and adopt the resolutions passed by the Hampstead Division, British Medical Association, on April 6th, which read: I. That an out-patient department in Hampstead is unnecessary. II. That the casualty department be kept distinct from any other department, and that casualty patients, if not suitable for admission, be seen once and thereon be referred to private practitioners, provident dispensaries, or Poor-law authorities. III. That there be greater facilities for general practitioners of the neighbourhood to attend in-patients. IV. That there should be a service limit as well as an age limit to appointments to the medical staff. V. That the outside medical profession should be adequately represented on the Board. (*b*) To consider the recent circular letter and questions issued by the council of the hospital to the medical profession in Hampstead, in which, on the suggestion of the Executive Committee of King Edward's Hospital Fund, the question of the appointment of consultants to the acting staff of the hospital is raised. (*c*) To decide upon the steps to be taken to carry into effect the objects of this conference.—REGINALD A. YELD, M.D., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: ST. PANCRAS AND ISLINGTON DIVISION.—The annual meeting will be held on Friday, May 25th, at 4 p.m., at the Islington Infirmary, Highgate Hill. Business: Election of officers; annual report and financial statement; to consider registration of nurses; the election of Representatives on the General Medical Council, and the business to be brought before the Annual Representative Meeting of the Association.—WM. WYNN WESTCOTT, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—A special meeting will be held on Thursday, May 10th, at 3.45 p.m., at Crichton's Restaurant, Clapham Junction, to discuss the details of the proposed Royal Charter and consider any alterations, additions, or resolutions with regard to same that members may wish to submit.—E. ROWLAND FOTHERGILL, Honorary Secretary.

The annual meeting will take place, preceding the annual dinner to be held in the Banqueting Hall, Battersea Town Hall, on Friday, May 25th, at 7 p.m. Invitations to attend have been issued and accepted by the M.P.'s for Wandsworth and Clapham; the Mayors of Battersea, Wandsworth and Wimbledon; the late candidates for Parliament in the Battersea, Clapham, Wandsworth, and Wimbledon areas; local members of the L.C.C. and S.C.C.; the Chairman, Wandsworth Guardians; the Chairman, Central Council; the President of the Branch; the Director-General A.M.S.; the Chairman, Organization Committee; and several others. The Committee hope the members of the Division will attend in large numbers and bring their medical friends. Tickets, 7s. 6d. each.—A. J. SWALLOW, Honorary Secretary Dinner Committee, 61, South Side, Clapham Common.

MIDLAND BRANCH.—Nominations of candidates for the Council of the Association for the ensuing year must be sent before May 14th to ASTLEY V. CLARKE, 37, London Road, Leicester, Honorary Secretary.

NORTH OF ENGLAND BRANCH.—Election of Representatives on the Central Council.—Notice is hereby given that nominations of two Representatives for the North of England Branch, each signed by not less than three members, must reach me not later than May 21st.—ALFRED COX, Cotfield House, Gateshead, Honorary Secretary.

NORTH WALES BRANCH: NORTH CARNARVONSHIRE AND ANGLESEA DIVISION.—The annual meeting of this Division will be held at the British Hotel, Bangor, on Wednesday, May 30th, for the election of officers, Representatives, etc., and other business. Members having papers to read or cases to show will please notify the honorary secretary on or before May 19th.—H. JONES ROBERTS, Pen-y-groes, Honorary Secretary.

SOUTH-EASTERN BRANCH.—The annual meeting of this Branch will be held at Norwood on Wednesday, June 27th, Dr. Hetley, President-elect, in the chair. The following will be the agenda: (1) To elect the officers of the Branch. (This will be done by voting papers sent to each member of the Branch. Nominations by three members for the offices of President-elect, Vice-Presidents, and Secretary may be sent to the Honorary Secretary on or before May 21st.) (2) To receive the annual report of the Branch. (3) To transact any business that may be transacted by an ordinary meeting. N.B.—Three members to represent the Branch on the Central Council will also be elected by voting papers. Nominations for these posts, each of three members in writing, should be sent to the Secretary of the Branch on or before May 21st.—H. M. STEWART, Dyffryn, 123, Thurlow Park Road, Dulwich, Honorary Secretary.

SOUTH-EASTERN BRANCH: CROYDON DIVISION.—The annual meeting of the Division will be held at the Croydon General Hospital on Thursday, May 17th. Business meeting, chairman, Dr. Rosser. Agenda: (*a*) Minutes of the previous meeting. (*b*) Election of officers for the coming year. (*c*) To decide when and where the next meeting shall be held, and to elect a chairman. (*d*) Other business. Clinical meeting, chairman, Mr. C. Wray. Members willing to exhibit cases are requested to communicate with the honorary secretary not later than May 12th. A detailed agenda paper will be issued later. Dinner at the Greyhound Hotel, charge 5s., exclusive of wine. Members intending to remain to dinner are requested to send a post-card to that effect to E. H. WILLOCK, 113, London Road, Croydon, Honorary Secretary.

SOUTH-EASTERN BRANCH: NORWOOD DIVISION.—A meeting of this Division will take place at the Queen's Hotel, Upper Norwood, on Thursday, May 10th, at 4 p.m., Henry Hetley, M.D., of Upper Norwood, in the chair. Agenda: (1) Minutes of last meeting. (2) To decide when and where the next meeting shall be held, and to nominate a member to take the chair thereat. (3) Draft of proposed Royal Charter (vide SUPPLEMENT to the BRITISH MEDICAL JOURNAL, March 24th, 1906).—H. J. PRANGLEY, Anerley, S.E., Honorary Secretary.

SOUTH-EASTERN BRANCH: REIGATE DIVISION.—A meeting will be held at the Cottage Hospital, Redhill, on Thursday, May 17th, at 3.30 p.m., Dr. John Walters, J.P., in the chair. Agenda: To elect a Representative of the Division, and to consider any other Association business. A discussion on some points in Urinary Surgery will be opened by Mr. James Berry, B.S., M.B.Lond., F.R.C.S.Eng., Surgeon to the Royal Free Hospital. Some interesting specimens will be shown. All members of the South-Eastern Branch are invited to attend and to introduce professional friends. Tea will be provided after the meeting.—W. A. BERRIDGE, Honorary Secretary, Redhill.

SOUTH MIDLAND BRANCH.—In accordance with the by-laws, nominations of a member of Central Council to represent this Branch must reach me on or before May 12th.—E. HARRIES JONES, Honorary Secretary, 45, Sheep Street, Northampton.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—Election of Representatives on Central Council.—Nominations in writing, signed by three members of the Branch, must be sent in on or before May 24th to Dr. FRANK G. THOMAS, 68, Walter Road, Swansea.

SOUTH-WESTERN BRANCH.—The nomination of candidates for the office of elective members of Council (Branch Representatives on the Central Council of the Association) for the ensuing year must be made by three electors, and in writing, on or before May 19th, to the Honorary Secretary of the Branch, Mr. G. YOUNG EALES, 1, Matlock Terrace, Torquay.

STAFFORDSHIRE BRANCH.—In accordance with the By-laws notice is hereby given that nominations of Representatives of this Branch in the Council of the Association must be received by me, duly signed by three electors and in writing, on or before May 26th.—G. PETGRAVE JOHNSON, Stoke-upon-Trent, Honorary Secretary.

STAFFORDSHIRE BRANCH.—The third general meeting of the session will be held at the Victoria Hotel, Wolverhampton, on Thursday, May 10th. The President, Dr. G. S. Hatton, will take the chair at 3.30 p.m. Business: (1) Minutes of the last general meeting. (2) Correspondence. (3) Exhibition of Living Cases. (4) Paper, B. Cridland: Some Remarks on the Treatment of Squint. (5) Paper, E. Deanesly: A Survey of Surgical Work in a Provincial General Hospital. (6) Exhibition of Pathological Specimens, etc. A dinner will be arranged for 6.30 p.m. (charge 5s.), should a sufficient number of names be sent in.—G. PETGRAVE JOHNSON, Stoke-on-Trent, Honorary General Secretary.

ULSTER BRANCH.—The spring meeting of this Branch will be held in Derry on Saturday, May 5th. Members having any communications to make to the meeting will please send me particulars not later than April 24th.—CECIL SHAW, M.D., Belfast, Honorary Secretary.

WEST SOMERSET BRANCH.—In accordance with the resolution passed at the spring meeting last month, a special meeting will be held at the Taunton and Somerset Hospital on Tuesday, May 8th, when the President, Mr. Gordon Henry, will take the chair at 3.45 p.m., to discuss the proposed application for a Royal Charter for the British Medical Association, and other business if necessary. Details of the proposed Charter will be found in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 24th.—W. B. WINCKWORTH, Taunton, Honorary Secretary.

YORKSHIRE BRANCH.—The annual meeting of this Branch will be held at the Eye and Ear Hospital, Bradford, on Wednesday, June 13th. In accordance with By-law 24 notice is hereby given that nominations for Representatives on the Council of the Association must be received by me, in writing, duly signed by three members of the Branch, on or before May 19th.—ADOLPH BRONNER, M.D., 33, Manor Row, Bradford, Honorary Secretary.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: WALTER J. BEARBLOCK, Fleet Surgeon, to the *Hawke*, on recommissioning, May 15th; FRANK BRADSHAW, Staff Surgeon, to the *Edgar*, and HENRY W. FINLAYSON, M.B., Staff Surgeon, to the *Sutlej*, both on recommissioning, May 15th; ALFRED B. COX, M.B., Surgeon, to the *Sutlej*, on recommissioning, May 15th; JOHN H. STENHOUSE, M.B., Fleet Surgeon, to the *Queen*, on recommissioning, and LAWRENCE BIDWELL, to the *Aboukir*, vice Stenhouse, both May 8th; JOHN L. THOMAS, Fleet Surgeon, to the *President*, additional, for three months' course at West London Hospital, April 30th; GEORGE M. O. RICHARDS, Surgeon, to the *Exmouth*, vice Thomas, and ELIJAH R. L. THOMAS, Surgeon, to the *Victory*, for Royal Naval Barracks, vice Richards, both April 26th.

Fleet Surgeon GRAHAM E. KENNEDY has been placed on the retired list at his own request, under date April 27th. Fleet-Surgeon Kennedy's appointment as Surgeon is dated February 18th, 1886, and his promotion to the rank of Fleet-Surgeon, February 18th, 1902.

Sub-Lieutenants ERNEST L. COLLEY-GRATTAN and WILLIAM RAIGERSFELD PHILLIMORE have been promoted to be Lieutenants, the former with seniority of August 30th, 1905, and reappointed to the *Thames*, April 24th, 1906, and the latter with seniority of April 15th, and reappointed to the *Goliath*. Both officers were Naval Cadets on January 15th, 1901, Lieutenant Colley-Grattan becoming Sub-Lieutenant on May 30th, 1904, and Lieutenant Phillimore on April 15th in the same year.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL J. R. STUART, M.B., has been posted to the 5th (Mhow) Division, and Lieutenant-Colonel J. MEEK, M.D., to the 6th (Poonah) Division.

Lieutenant-Colonel C. G. D. MOSSE has been ordered to Jamaica for duty.

Major THOMAS MCCULLOCH, M.B., Deputy Assistant Director-General A.M.S., returning from Malta, is to join the London District from May 1st.

Captain H. E. J. A. HOWLEY, from Bermuda, and Captain J. G. FOSTER, from Mauritius, have been appointed for duty at Belfast early in May.

Lieutenant PERCY FARRANT, from the Seconded List, is appointed to be Lieutenant, under date April 1st.

Lieutenant W. BYAM has been ordered to Egypt for duty.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL KENNETH MCLEOD, M.D., retired, Indian Medical Service, is appointed to be a Honorary Physician to the King, and is granted the honorary rank of Colonel, vice Deputy-Surgeon-General T. E. Charles, M.D., deceased. Dated May 2nd.

Colonel P. H. BENSON, P.M.O., Madras Brigade, has been appointed to act as Surgeon-General with the Government of Madras during the absence on leave of Surgeon-General W. R. Browne.

ARMY MEDICAL RESERVE OF OFFICERS.

SURGEON-CAPTAIN THOMAS HOLT, M.B., is promoted to be Surgeon-Major, dated April 7th.

THE VOLUNTEERS.

THE King has been graciously pleased to confer the Volunteer Officers' Decoration upon the undermentioned officers of the Volunteer Force:

In the Northern Command (Rifles) Surgeon-Lieutenant (Hon Major Volunteers) JOHN C. NICHOL, M.D., of the 4th Volunteer Battalion Manchester Regiment.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 9.435 births and 5.080 deaths were registered during the week ending Saturday last, April 28th. The annual rate of mortality in these towns, which had been 17.0, 17.1 and 17.3 per 1.000 in the three preceding weeks, declined again last week to 16.7 per 1,000. Among the several towns the rates ranged from 7.7 in Walsall, 7.9 in Burton-on-Trent, 8.3 in Northampton, 8.8 in East Ham, 9.0 in Hornsey, and 9.8 in Brighton, to 20.2 in Tynemouth, 20.3 in Huddersfield and in Middlesbrough, 20.9 in Stockport, 21.1 in Oldham, 22.3 in Birmingham, 22.8 in Great Yarmouth and in Hanley, and 23.4 in Liverpool. In London the rate of mortality was 17.3 per 1,000, while it averaged 16.5 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.6 per 1,000 in the seventy-six towns: in London this death-rate was equal to 1.7 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 2.6 in Tottenham and in Birmingham, 2.9 in Tynemouth, 3.0 in Bristol, 3.1 in Middlesbrough, 3.9 in Liverpool, 4.4 in Bury, and 6.9 in Great Yarmouth. Measles caused a death-rate of 1.4 in Manchester, 1.6 in Newcastle-on-Tyne, 1.9 in Bristol and in Tynemouth, 2.0 in Burnley, 2.1 in Liverpool and in Middlesbrough, 4.4 in Bury, and 5.0 in Great Yarmouth; scarlet fever of 1.3 in Tottenham; diphtheria of 1.3 in Walthamstow; whooping-cough of 1.0 in West Ham, 1.3 in Reading, 1.4 in Birmingham and in Cardiff, 1.5 in West Bromwich and in Warrington, and 1.6 in Wallasey; and diarrhoea of 1.1 in Oldham. The mortality from enteric fever showed no marked excess in any of the large towns. No fatal case of small-pox was registered last week in any of the seventy-six towns. The number of small-pox patients in the Metropolitan Asylums Hospitals, which had been 7 on each of the two preceding Saturdays, had declined to 6 on Saturday last, April 28th; no new case was admitted during the week, against 1 in the preceding week. The number of scarlet fever cases remaining under treatment in these hospitals, and in the London Fever Hospital, at the end of last week was 2,240, against 2,322, 2,301, and 2,225 at the end of the three preceding weeks: 314 new cases were admitted during the week, against 292, 270, and 288 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, April 28th, 1,011 births and 531 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 19.4, 19.1, and 17.6 per 1,00 in the three preceding weeks, rose again to 18.4 per 1,000 last week, and was 1.7 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 12 6 in Leith and 14.0 in Aberdeen to 21.4 in Greenock and 23.4 in Paisley. The death-rate from he principal infectious diseases averaged 1.8 per 1,000 in these towns, he highest rates being recorded in Leith and Greenock. The 303 deaths registered in Glasgow included 12 which were referred to measles, 3 to diphtheria, 13 to whooping-cough, and 5 to diarrhoea. Four fatal cases of measles, 3 of scarlet fever, 2 of whooping-cough, and 2 of diarrhoea were recorded in Edinburgh: 4 of whooping-cough n Dundee; 2 of whooping-cough in Leith; and 3 of diarrhoea in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, April 28th, 571 births and 394 deaths were registered in six of the principal Irish towns, as against 538 births nd 425 deaths in the preceding period. The annual death-rate in hese towns, which had been 21.2, 20.4, and 17.3 per 1,000 in the three receding weeks, rose to 21.8 per 1,000 in the week under notice, this gure being 5.1 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 18.6 in Londonderry and 20.5 in Limerick to 22.4 in Dublin nd 26.0 in Cork. The zymotic death-rate in the same six Irish towns veraged 1.4 per 1,000, or 0.3 per 1,000 higher than during the preceding period, the highest figure—3.7—being recorded in Londonderry. From whooping-cough 18 deaths were recorded in Belfast, and rom typhus 1 in Galway.

Vacancies and Appointments.

VACANCIES.

his list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

ELGRAVE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—Senior and Junior Resident Medical Officers. Honorarium at the rate of £20 and £10 a year respectively.

RKENHEAD BOROUGH HOSPITAL.—Junior Resident House-Surgeon. Salary, £80 per annum.

RMINGHAM AND MIDLAND EYE HOSPITAL.—Resident Surgical Officer. Salary, £100 per annum.

RECKNOCK COUNTY AND BOROUGH INFIRMARY.—Resident House-Surgeon. Salary, £100 per annum.

UXTON: DEVONSHIRE HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum.

MBRIDGE UNIVERSITY: PATHOLOGICAL LABORATORY.—John Lucas Walker Studentship. Annual value, £200.

NTERBURY: KENT AND CANTERBURY HOSPITAL.—House-Physician. Salary, £90 per annum.

TY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—(1) Resident Medical Officer. Salary, £100 per annum. (2) Physician to Out-patients. (3) Surgeon-Dentist.

LCHESTER: ESSEX AND COLCHESTER HOSPITAL.—House-Physician. Salary, £60 per annum.

VENTRY AND WARWICKSHIRE HOSPITAL.—Junior House-Surgeon. Salary at the rate of £60 per annum.

VONPORT: ROYAL ALBERT HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

NTS COUNTY ASYLUM.—Second Assistant Medical Officer (male). Salary, £175 per annum.

IDSTONE: WEST KENT GENERAL HOSPITAL.—Senior House-Surgeon. Salary, £100 per annum,

MANCHESTER AND SALFORD HOSPITAL FOR SKIN DISEASES.—House-Surgeon. Salary, £75 per annum.

NEWCASTLE-ON-TYNE: CITY ASYLUM, Gosforth.—Assistant Medical Officer. Salary, £140, rising to £160, per annum.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill.—Junior House-Surgeon. Salary, £50 per annum.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £50 per annum.

ROYAL EYE HOSPITAL, Southwark, S.E.—(1) Pathologist; (2) Refraction Assistant. Honorarium, £50 and £40 per annum respectively.

SHEFFIELD ROYAL INFIRMARY.—(1) Junior Assistant House-Surgeon. (2) Junior House-Physician. Salary, £65 and £60 per annum respectively.

SHEFFIELD UNION HOSPITAL.—Resident Medical Officer and Resident Assistant Medical Officer. Salary, £100 and £80 per annum respectively, and £20 allowance each for extra services.

SOCIETY OF APOTHECARIES OF LONDON.—Examiner in Midwifery.

SOMERSET AND BATH ASYLUM, Wells.—Second Assistant Medical Officer. Salary, £130 rising to £150 per annum.

SWANSEA GENERAL AND EYE HOSPITAL.—House-Surgeon (male). Salary at the rate of £50 per annum for the first six months and £75 after.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—(1) Honorary Anaesthetist. (2) Surgeon to in-patients. (3) House-Surgeon. Honorarium, £25.

WEST END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, Welbeck Street, W.—Clinical Assistant.

WEST RIDING COUNTY COUNCIL.—Male Assistant Medical Officer at Scalebor Park Private Asylum. Salary, £150 per annum.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Honorary Surgeon.

WIGAN: ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Salary, £80 per annum.

APPOINTMENTS.

BEESLEY, Lewis, F.R.C.S.E., Resident Surgeon, Chalmers Hospital, Edinburgh.

BELL, T., L.R.C.P.Lond., M.R.C.S., Certifying Factory Surgeon for the Uppingham District, co. Rutland.

DANIEL, W. P. T., M.R.C.S., L.R.C.P., District Medical Officer, St. George-in-the-East Parish.

HORGAN, J., L.R.C.P.and S.Edin., L.F.P.S.Glas., Certifying Factory Surgeon for the Kenmare District, co. Kerry.

LANE, J. S., L.R.C.P. and S.Irel., Certifying Factory Surgeon for the Crettyard District, Queen's County.

LAWSON, T. C., M.R.C.S., L.S.A., District Medical Officer of the Wimborne and Cranborne Union.

LENNANE, G. Q., F.R.C.S., L.R.C.P.Irel., D.P.H., Medical Officer of Health to the Borough of Battersea.

PARSONS, E. D., M.R.C.S., L.R.C.P., Junior Resident Assistant Medical Superintendent, St. Pancras Parish Infirmary.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

JOHNSTON.—At Corstorphine House, Corstorphine, N.B., on 24th ult., the wife of T. N. Johnston, M.B., C.M., F.R.S.E., of a daughter.

KNIGHTS RAYSON.—On February 16th, at Steytlerville, C.C., South Africa, the wife of H. Knights Rayson, M.D., M.R.C.S., L.R.C.P., of a daughter.

STRACEY.—At Sutton Bonnington, Loughborough, on April 23rd, the wife of Bernard Stracey, M.B., Ch.B., of a daughter.

MARRIAGES.

BENNETT—MACOWAN.—At Holy Trinity Church, Richmond, Surrey, on 26th April, Edward Bennett, L.R.C.P., L.R.C.S.Ed., son of the late Edward Augustus Bennett, M.R.C.S., L.S.A., of Marsden Hall, Nelson, to Frances Louisa, youngest daughter of Rev. J. M. MacOwan, Spring Grove Road, Richmond.

MURIEL—OWTRAM.—On April 25th, at the Church of St. John-the-Baptist, St. John's, Woking, Surrey, by the Rev. H. Laugham Muriel, M.A., Priest Vicar of Lichfield Cathedral, brother of the bridegroom, assisted by the Rev. Wm. Bury, M.A. (Rural Dean), uncle of the bride, George Bertram Muriel, M.B., B.C.Cantab., second son of Mr. and Mrs. G. J. Muriel, The Retreat, Whitehaven, to Janet Beatrice, youngest daughter of Mr. and Mrs. H. C. Owtram, of "The Dawn," St. John's, Woking.

PENDRED—MATTHEW.—On April 23rd, at St. Barnabas, Addison Road, Kensington, by the Rev. J. Grant, M.A., assisted by the Rev. T. Guy Rogers, B.D., Vaughan Pendred, M.D., F.R.C.S.Eng., of Coventry, eldest son of Vaughan Pendred, M.I.M.E., and Mrs. Pendred, of Crohill, Pendennis Road, Streatham, to Beatrice Elizabeth, younger daughter of Dr. and Mrs. Mordaunt Matthew, of 22, Holland Road, Kensington, W.

SHUTER—SAUNDBY.—On the 25th ult., at the Parish Church, Edgbaston, Birmingham, by the Rev. Canon Foakes Jackson, D.D., Dean of Jesus College, Cambridge, assisted by the Rev. A. Roberton, Alfred Dever, second son of William Shuter, of 22, Belsize Grove, N.W., to Marjorie Spencer, daughter of Robert Saundby, M.D., J.P., Professor of Medicine in the University of Birmingham.

THOMPSON—HOOPER.—On April 24th, at the Parish Church, Ripley, Derbyshire, by the Rev. E. T. Pegg, Walter Thompson, F.R.C.S. Eng., of 4, Park Square, Leeds, youngest son of the late Samuel Thompson, of East Rigton, Yorkshire, to Ann Elizabeth Hooper, M.B., B.S.Lond., daughter of Marshall Hooper, J.P., of Ripley, Derbyshire.

DEATH.

MALLOCH.—At Elie, Fifeshire, on the 28th ult., Katie Macpherson, wife of John T. Malloch, L.R.C.P. and S.Ed,

DIARY FOR THE WEEK.

TUESDAY.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W., 8.30 p.m.—Drs. Guthrie Rankin and Ernest C. Mackay: Achondroplasia—with Epidiascope demonstration.

WEDNESDAY.

DERMATOLOGICAL SOCIETY OF LONDON, 11. Chandos Street. W.C., 5.15 p.m.—Cases and specimens.

UNIVERSITY COLLEGE HOSPITAL. Gower Street, W.C., 4 p.m.—Clinical Lecture on the Diagnosis and Treatment of Tuberculous Disease of the Spine.

THURSDAY.

BRITISH GYNAECOLOGICAL SOCIETY, 20, Hanover Square, W., 8 p.m.—Paper, Mrs. Scharlieb: The Advantages of the Abdominal Route in Operations for Cancer of the Uterus.

HARVEIAN SOCIETY OF LONDON, Paddington Infirmary, Harrow Road, W., 8.30 p.m.—Clinical meeting.

FRIDAY.

CLINICAL SOCIETY, 20, Hanover Square, W., 8.30 p.m.—The following papers will be read:—Mr. Cuthbert Wallace: Case of Cystic Tumour of the Spermatic Cord. Mr. A. C. Hudson: Carcinoma of the Thyroid Gland. Mr. E. W. Roughton: Case of Perforated Gastric Ulcer Treated by Evisceration and Irrigation. Mr. John D. Malcolm: Complete Removal of a Multilocular Cyst of the Pancreas; Intestinal Anastomosis for Partial Obstruction Sixteen Days later.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Wednesday, 5 p.m. Larynx.

CHARING CROSS HOSPITAL, 4 p.m.—Monday, Electrical; Thursday, Surgical.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical: Thursday, Surgical; Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows: Monday, Bronchiectasis; Tuesday, Gastric Ulcer; Wednesday, Eccentricity and Insanity; Thursday, Some Points in the Diagnosis and Treatment of Frontal Sinusitis.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m. Neuritis, Friday, 3 30 p.m., Cerebral Tumours.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N.—The following clinical lectures have been arranged for next week at 4.30 p.m.: Tuesday, Mental Affections of Childhood and Adolescence; Thursday, Clinical Examination of the Blood.

WEST LONDON HOSPITAL POST-GRADUATE COLLEGE, Hammersmith Road, London, W.—The following are the arrangements for next week: Daily, 2.15 p.m., Medical and Surgical Clinics. Monday, 12 noon, Pathological Demonstration; 3 p.m., Demonstration in Medical Wards; 5 p.m., Cerebral Haemorrhage and Thrombosis; Tuesday, 5 p.m., Cerebral Haemorrhage and Thrombosis; Wednesday, 5 p.m., Practical Medicine; Thursday, 4 p.m., Demonstration in Surgical Wards; 5 p.m., Practical Surgery; Friday, 3 p.m., Demonstration in Medical Wards; 5 p.m., Cases of Skin Disease.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
	MAY.
4 FRIDAY	LONDON: Ethical Committee, 3.30 p.m. " Volunteer Medical Service Committee, 2.30 p.m.
5 SATURDAY...	HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, Conference on the Management of the Hampstead General Hospital, Hampstead Conservatoire, 4.30 p.m. ULSTER BRANCH, Spring Meeting, Derry.
6 SUNDAY.........	
7 MONDAY	
8 TUESDAY ...	LONDON: Premises and Library Committee, 2.30 p.m. SCOTTISH DIVISION, *Border Counties Branch*, Annual Meeting, Dumfries and Galloway Royal Infirmary, 2.30 p m. WEST SOMERSET BRANCH, Taunton and Somerset Hospital, 3.45 p.m.
9 WEDNESDAY	CENTRAL DIVISION, *Birmingham Branch*, Medical Institute, 4 p.m.
10 THURSDAY...	LONDON: Hospitals Committee, 2 p.m. NORWOOD DIVISION, *South-Eastern Branch*, Queen's Hotel, Upper Norwood, 4 p.m. STAFFORDSHIRE BRANCH, Victoria Hotel, Wolverhampton, 3.30 p.m.; Dinner, 6.30 p.m. WANDSWORTH DIVISION, *Metropolitan Counties Branch*, Special Meeting, Crichton's Restaurant, Clapham Junction, 3.45 p m.
11 FRIDAY.........	HAMPSTEAD DIVISION, *Metropolitan Counties Branch.*
12 SATURDAY...	
13 SUNDAY	
14 MONDAY	
15 TUESDAY......	

Date.	Meetings to be Held.
	MAY *(continued).*
16 WEDNESDAY	LONDON: Medico-Political Committee, 3 p.m. (N.B. *Change of Date.*)
17 THURSDAY...	BRISTOL DIVISION, *Bath and Bristol Branch*, Medical Library, University College, Bristol, 8 p.m. CARDIFF DIVISION, *South Wales and Monmouthshire Branch*, Annual Meeting. CROYDON DIVISION, *South-Eastern Branch*, Annual Meeting, Croydon General Hospital; Dinner, Greyhound Hotel. REIGATE DIVISION, *South-Eastern Branch*, Cottage Hospital, Redhill, 3.30 p.m.
18 FRIDAY.........	
19 SATURDAY...	
20 SUNDAY.........	
21 MONDAY	
22 TUESDAY......	
23 WEDNESDAY	ALTRINCHAM DIVISION, *Lancashire and Cheshire Branch*, Sale Hall (Garden Party by Sir W. H. Bailey). TROWBRIDGE DIVISION, *Bath and Bristol Branch*, Town Hall, Trowbridge, 2.45 p.m.
24 THURSDAY...	CITY DIVISION, *Metropolitan Counties Branch*, Annual Meeting, Great Eastern Hotel, Liverpool Street, E.C., 4 p.m.
25 FRIDAY.........	NORTH CUMBERLAND DIVISION, *Border Counties Branch*, Annual Meeting, County Hotel, Carlisle, 3.30 p.m. ST. PANCRAS AND ISLINGTON DIVISION, *Metropolitan Counties Branch*, Islington Infirmary, Highgate Hill, 4 p.m. WANDSWORTH DIVISION, *Metropolitan Counties Branch*, Annual Meeting preceding Annual Dinner, Banqueting Hall, Battersea Town Hall, 7 p.m.
26 SATURDAY...	

Printed and published by the British Medical Association at their Office, No. 429, Strand in the Parish of St Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 12TH, 1906.

CONTENTS.

PAGE
THE SEVENTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, TORONTO : PROGRAMME OF BUSINESS 245

MEETINGS OF BRANCHES AND DIVISIONS :

Border Counties Branch 248
" " " North Cumberland Division... ... 248
Gibraltar Branch 248
Glasgow and West of Scotland Branch : Lanarkshire Division .. 249
Halifax (Nova Scotia) Branch 249
Lancashire and Cheshire Branch.—The Finances of the Association 249
Lancashire and Cheshire Branch : Chester and Crewe Division. 250
Metropolitan Counties Branch : Hampstead Division ... 250
" " St. Pancras and Islington Division... 250
" " Westminster Division 251
North Wales Branch 251
South Wales and Monmouthshire Branch : Cardiff Division ... 251
South-Western Branch : Barnstaple Division 252
PAGE
Sydney and New South Wales Branch 252
Ulster Branch 252
" " Portadown and West Down Division 252
ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD 253
CENTRAL MIDWIVES BOARD 254
GRANTS FOR SCIENTIFIC RESEARCH 256
VITAL STATISTICS 256
NAVAL AND MILITARY APPOINTMENTS 258
VACANCIES AND APPOINTMENTS 259
BIRTHS, MARRIAGES, AND DEATHS 259
DIARY OF THE WEEK 259
BOOKS, ETC., RECEIVED... 260
CALENDAR 260

THE SEVENTY-FOURTH ANNUAL MEETING

OF THE

British Medical Association,

TORONTO, CANADA, AUGUST 21st to 25th, 1906.

President :

GEORGE COOPER FRANKLIN, F.R.C.S.Eng., Surgeon, Leicester Infirmary, Leicester.

President-elect :

RICHARD ANDREWS REEVE, B.A., M.D., LL.D., Dean of the Faculty of Medicine, University of Toronto.

Chairman of Representative Meetings :

Sir VICTOR HORSLEY, F.R.C.S., F.R.S., Surgeon, University College Hospital; and Surgeon, National Hospital for Paralysed and Epileptic.

Chairman of Council :

HENRY WM. LANGLEY BROWNE, M.D., Ch.B., F.R.C.S.E., Consulting Surgeon, West Bromwich District Hospital.

Treasurer :

HY. RADCLIFFE CROCKER, M.D., F.R.C.P., Physician Skin Department, University College Hospital, London.

PROGRAMME OF BUSINESS.

An Address in Medicine will be delivered by Sir JAMES BARR, M.D., F.R.C.P., F.R.S.E.

An Address in Surgery will be delivered by Sir VICTOR HORSLEY, M.B., F.R.C.S., F.R.S.

An Address in Obstetrics will be delivered by WALTER SPENCER ANDERSON GRIFFITH, M.D., F.R.C.P.

THE SECTIONS.

There will be 13 Sections as shown in the subjoined list; hey will meet on Tuesday, Wednesday, Thursday and Friday, August 21st, 22nd, 23rd and 24th, from 9.30 a.m. to 2.30 p.m.

The President, Vice-Presidents, and Secretaries of each Section constitute a Committee of Reference for that Section.

Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the BRITISH MEDICAL JOURNAL *without special permission.*

No paper must exceed 15 minutes in reading, and no subsequent speech 10 minutes.

It is requested that copies of any papers offered in any of the Sections might be supplied to one of the Honorary Secretaries of the Section not later than May 15th, accompanied by a short abstract, in order that such abstract may be printed and circulated before the meeting.

ANATOMY.

President: Professor Arthur Robinson, M.D., Birmingham.

Vice-Presidents: Professor Alexander Primrose, M.B., C.M., Toronto; David Edward Mundell, B.A., M.D., C.M., Kingston; Donald Armour, F.R.C.S., London.

Honorary Secretaries: Charles Buckingham Shuttleworth, M.D., C.M., F.R.C.S., 45, Bloor Street E., Toronto; Gawn Shaw Cleland, M.B., M.D., C.M., 730, Queen Street E., Toronto; J. Herbert Sanders, M.D., 1a, Palace Gardens Mansions, W.

DERMATOLOGY.

President: Norman Walker, M.D., Edinburgh.

Vice-Presidents: Graham Chambers, M.B., Toronto; Harry B. Anderson, M.D., C.M., Toronto; Arthur John Hall, M.D., Sheffield; Ernest Solly, M.B., Harrogate.

Honorary Secretaries: David King Smith, M.B., 311, Jarvis Street, Toronto; Donald Macgillivray, M.B., 12, Carlton Street, Toronto; John Campbell Rankin, M.B., 38, University Road, Belfast.

LARYNGOLOGY AND OTOLOGY.

President: J. Dundas Grant, M.D., London.

Vice-Presidents: George R. McDonagh, M.B., L.R.C.P., Toronto; Herbert Stanley Birkett, M.D., C.M., Montreal; John Macintyre, M.B., Glasgow; Hugh Edward Jones, M.R.C.S., Liverpool.

Honorary Secretaries: David James Gibb Wishart, B.A., M.D., C.M., L.R.C.P., 47, Grosvenor Street, Toronto; Geoffrey Boyd, B.A., M.B., 167, Bloor Street, Toronto; Adam Brown Kelly, M.D., 26, Blythswood Square, Glasgow.

MEDICINE.

President: Sir Thomas Barlow, Bart., K.C.V.O., M.D., London.

Vice-Presidents: Professor Alexander McPhedran, M.B., Toronto; Professor James Stewart, M.D., C.M., Montreal; Alexander Napier, M.D., Glasgow; William Calwell, M.D., Belfast.

Honorary Secretaries: Robert Dawson Rudolph, M.D., M.R.C.P., 396, Bloor Street W., Toronto; John Taylor Fotheringham, B.A., M.B., M.D., C.M., 36, Carlton Street, Toronto; Robert Hutchison, M.D., 22, Queen Anne Street, London, W.

The following subjects have been selected for discussion:

Tuesday, August 21st.—On Blood Pressure in Relation to Disease. The subject will be treated under the following headings: (*a*) Physiological Introduction, by Dr. Percy M. Dawson (Baltimore). (*b*) Clinical Methods of Investigating Blood Pressure, by Dr. G. A. Gibson (Edinburgh). (*c*) Pathology and Therapeutics of Morbid Blood Pressure, by Sir Wm. Broadbent. (*d*) The Relation of Blood Pressure to Arterial Sclerosis, by Professor Clifford Allbutt. The following will also take part: Dr. Mackenzie (Burnley), Sir James Barr, Dr. Theodore Janeway (New York), Dr. Rudolf (Toronto), and others.

Wednesday, August 22nd.—A joint discussion with the Physiology Section on Over-nutrition and Under-nutrition, with special reference to Proteid Metabolism, to be opened by Professor Chittenden (Yale).

Thursday, August 23rd.—Papers on Heart Block, by Dr. Mackenzie (Burnley), Dr. G. A. Gibson, Dr. Erlanger, Professor Osler, and others.

Friday, August 24th.—Papers.

OBSTETRICS AND GYNAECOLOGY.

President: A. H. Freeland Barbour, M.D., Edinburgh.

Vice-Presidents: Professor James Algernon Temple, M.D., C.M., Toronto; Professor Adam H. Wright, B.A., M.B., Toronto; Professor William Gardner, M.D., Montreal; T. Arthur Helme, M.D., Manchester.

Honorary Secretaries: Frederick Fenton, M.D., C.M., 75, Bloor Street E., Toronto; Kennedy Crawford McIlwraith, M.B., 54, Avenue Road, Toronto; Cuthbert Lockyer, M.D., 117a, Harley Street, London, W.

It has been arranged that on August 21st, 22nd, and 23rd the first part of the meeting be devoted to a discussion on the following subjects:

Tuesday, August 21st.—Hyperemesis Gravidarum.

Wednesday, August 22nd.—The Changes in Uterine Fibroids after the Menopause, with Special Reference to Operation.

Thursday, August 23rd.—The Appendix Vermiformis in Relation to Pelvic Inflammation.

Friday, August 24th.—Papers, etc.

Dr. J. C. Cameron, of Montreal, will introduce the discussion on August 21st; Dr. Charles A. L. Reid will probably introduce that on August 22nd; and Dr. T. Arthur Helme will introduce that on August 23rd.

OPHTHALMOLOGY.

President: Robert Marcus Gunn, F.R.C.S., London.

Vice-Presidents: George Herbert Burnham, M.D., F.R.C.S.E., Toronto; John W. Stirling, M.D., Montreal; Joseph Nelson, M.D., Belfast; Arnold Lawson, F.R.C.S., London.

Honorary Secretaries: James Metcalf MacCallum, B.A., M.D., C.M., Toronto; Duncan Neil McLennan, M.D., C.M., 126, Bloor Street W., Toronto; Frank P. S. Cresswell, F.R.C.S., B.Sc., 24, Windsor Place, Cardiff.

The subjects which have been chosen for discussion are:

Tuesday, August 21st.—Rare Forms of Choroiditis. To be opened by Mr. J. B. Lawford (London). The following will also take part: Dr. Hill Griffith (Manchester), Dr. H. Knapp (New York), and Dr. C. Bull (New York).

Wednesday, August 22nd.—Sympathetic Ophthalmia. To be opened by Dr. G. H. Burnham (Toronto). The following will also take part: Mr. Arnold Lawson (London) and Dr. J. W. Stirling (Montreal).

Thursday, August 23rd.—Affections of the Lachrymal Passages. To be opened by Dr. Desjardines (Montreal). The following will take part in the discussion: Dr. Risley (Philadelphia) and Dr. Theobald (Baltimore).

Friday, August 24th.—Visual Tests for Public Services. (*a*) Marine and Railroad Services. To be opened by Dr. T. H. Bickerton (Liverpool). Dr. Williams, jun. (Boston), Dr. Thompson, sen. (Philadelphia), and Dr. Allport (Chicago) will also take part. (*b*) Military Services. To be opened by Mr. Arnold Lawson (London).

PAEDIATRICS.

President: George Alexander Sutherland, M.D., London.

Vice-Presidents: Henry T. Machell, M.D., L.R.C.P., Toronto; Allan M. Baines, M.B., Toronto; Otto Jackson Kauffmann, M.D., Birmingham; H. Betham Robinson, M.S., London.

Honorary Secretaries: Edward Stanley Ryerson, M.D., C.M., 261, College Street, Toronto; Joseph S. A. Graham, M.B., 102, College Street, Toronto; Ralph Vincent, M.D., 1, Harley Street, London, W.

The Section will meet on Tuesday, Wednesday, Thursday, and Friday (August 21st, 22nd, 23rd, and 24th), at 9.30 a.m., adjourning at 12.30 p.m. each day.

The following preliminary arrangements have been made:

A discussion on Congenital Pyloric Stenosis. The medical aspects of the subject will be introduced by Dr. Edmund Cautley (London), and the surgical aspects will be introduced by Mr. Harold J. Stiles (Edinburgh).

A discussion on Pneumococcal Infection. The medical aspects of the subject will be introduced by Dr. Henry Ashby (Manchester).

It is hoped that a Clinical Demonstration of interesting cases in one of the Toronto hospitals may be arranged.

PATHOLOGY AND BACTERIOLOGY.

President: Professor J. G. Adami, M.D., F.R.S., Montreal.

Vice-Presidents: Professor John J. Mackenzie, B.A., M.B., Toronto; Professor Walter Thomas Connell, M.D., C.M., Kingston; Ingersoll Olmsted, M.D., Hamilton; Professor Robert Fraser Calder Leith, M.B., Birmingham.

Honorary Secretaries: Gideon Silverthorn, M.B., M.D., C.M., 266, College Street, Toronto; Harold C. Parsons, B.A., M.D., C.M., 72, Bloor Street W., Toronto; Frank George Bushnell, M.D., Sussex County Hospital, Brighton.

The following preliminary arrangements have been made:

Tuesday.—On Nuclear Pathology and Physiology, to be pened by Professor Adami and Dr. McCallum, and llowed by Dr. Gustav Mann (Oxford), Professor E. Vace Carlier (Birmingham), and Professor A. S. F. rünbaum (Leeds).

Wednesday.—Etiology and Life-history of Malignant ew Growths. To be opened by Professor H R. Gaylord Buffalo); Professor Clowes (Buffalo) and Drs. Buxton nd Beebie (New York), and others are expected to take art in the discussion.

Thursday.—The Forms of Arterio-sclerosis, their Classication and Experimental Production. To be opened by rofessor W. H. Welch (Johns Hopkins University, Baltiore), Dr. Klotz (Montreal), and Dr. J. J. MacKenzie Toronto); and followed by Professor L. Aschoff (Freiburg), rofessor Leith (Birmingham), Professor Clifford Allbutt Cambridge), Professor W. Osler (Oxford), Professor Adami Montreal), and others.

Friday.—Papers upon Pathogenic Protozoa, by Professor ary N. Calkins (New York), Dr. Mott (London), and Dr. . Ballah.

Arrangements will be made for the exhibition in the athological Museum of specimens illustrating the work f the section. Members wishing to exhibit material or hotographs should communicate with Dr. N. E. Abbott, IcGill Medical College, Montreal.

Those who propose taking part in the discussions are equested to send in their papers, accompanied by a short bstract, to the Honorary Secretaries not later than May 5th, in order that the abstracts may be printed and irculated before the meeting. Papers from members in he United Kingdom and Europe should be sent to Dr. ushnell, and those from members in the Dominion of anada or the United States of America, etc., to Dr. ilverthorn or Dr. Parsons.

PHYSIOLOGY.

President: Professor **Wm. Dobinson Halliburton**, I.D., F.R.S., London.

Vice-Presidents: Professor **Archibald B. Macallum**, I.A., M.B., F.R.S., Toronto; Professor **Wesley Mills**, I.A., M.D., Montreal; Professor **Charles Scott Sherington**, M.D., F.R.S., Liverpool.

Honorary Secretaries: **Herbert E. Roaf**, M.D., The Biohemical Department, The University, Liverpool; **Gustav Iann**, M.D., 25, Beechcroft Road, Oxford.

A large number of prominent American physiologists ave accepted invitations to attend, and British physilogists will thus have the opportunity of making the ersonal acquaintance of their American colleagues. everal French physiologists have also signified their itention to be present, and it is hoped that other reigners may also accept the invitations sent to them.

A joint discussion on the Rôle of the Nucleus in utrition with the Section of Pathology has been arranged, nd another joint discussion with the Section of Medicine ill also take place, the subject being Over-nutrition and nder-nutrition, with special relation to Proteid Metaolism in Health and Disease. This will be opened by rofessor Chittenden.

PSYCHOLOGY.

President: **Wm. Julius Mickle**, M.D., London.

Vice-Presidents: **Nelson Henry Beemer**, M.D., Toronto; **harles Kirk Clarke**, M.D., Toronto; **Reginald Langon-Down**, M.B., London.

Honorary Secretaries: **Alfred Thomas Hobbs**, M.D., uelph, Ontario; **Goldwin Howland**, B.A., M.B., 540, padina Avenue, Toronto; **John Turner**, M.B., Essex ounty Asylum, Brentwood.

The following subjects have been selected for special iscussion in the Section of Psychology:

General Paralysis.
Epilepsy.
Dementia Praecox.
Psychology and Medicine.

STATE MEDICINE.

President: **Frederick Montizambert**, I.S.O., F.R.C.S.E., .C.L., M.D., Ottawa.

Vice-Presidents: **E. P. Lachapelle**, M.D., Laval Univerty, Montreal; **Charles Sheard**, M.D., Toronto; **Peter enderson Bryce**, B.A., M.B., Ottawa; **Joseph Groves**, .B., Isle of Wight.

Honorary Secretaries: **Joseph D. Page**, M.D., Quebec; **F. G. E. Pearson**, M.D., Brantford, Ontario; **Edward Sergeant**, L.R.C.P., County Offices, Preston; **Arthur A. Mussen**, M.D., Municipal Offices, Liverpool.

The following special subjects have been suggested for discussion:

Protection and Control of Milk Supply.
Prevention of Tuberculosis.
Training and Supervision of Midwives.
Notification of Phthisis.
Provision and Administration of Isolation Hospitals.
Isolation Hospitals and "Return" Cases.
Medical Inspection of Children attending Elementary Schools.
Quarantine and Inspection of Shipping.
Medical Examination of Immigrants.
Supply of "Water Gas" and Dangers of Carbon Monoxide Poisoning.

SURGERY.

President: Sir **Hector Clare Cameron**, M.D., Professor of Clinical Surgery, Glasgow.

Vice-Presidents: **Fred. Le M. Grasett**, M.B., C.M., F.R.C.S.E., Toronto; **Francis J. Shepherd**, M.D., C.M., LL.D., F.R.C.S.E., Montreal; **Alfred B. Atherton**, B.A., M.D., LL.D., Frederickton, N.B.; **Tecumseth Kingsley Holmes**, M.D., Chatham, Ontario.

Honorary Secretaries: **Harry A. Beatty**, M.B., 207, Simcoe Street, Toronto; **Frederick William Marlow**, M.D., C.M., F.R.C.S., 699, Spadina Avenue, Toronto; **Sinclair White**, F.R.C.S., Ranmoor, Sheffield.

Arrangements have been made for special discussions on the following subjects:

The Surgical Treatment of Ascites Secondary to Chronic Hepatitis.
Prostatectomy.
Duodenal Ulcer.
Peritonitis.

THERAPEUTICS.

President: **Donald MacAlister**, M.D., Cambridge.

Vice-Presidents: **John Lorenzo Davison**, B.A., M.D., C.M., Toronto; **Alexander D. Blackader**, B.A., M.D., Montreal; Sir **Alan Reeve Manby**, M.V.O., M.D., East Rudham; Professor **J. Rose Bradford**, M.D., F.R.S., London.

Hon. Secretaries: **Velyien E. Henderson**, M.A., M.B., University of Toronto; **Charles Potter Lusk**, M.D., C.M., 99, Bloor Street W., Toronto; **E. R. Morton**, M.D., 22, Queen Anne Street, London, W.

The following subjects have been selected for discussion:

Tuesday, August 21st.—The Kidney, its Pharmacology and Therapeutics.

Wednesday, August 22nd.—Serumtherapy.

Thursday, August 23rd.—Joint Session with the Section of Medicine on the subject of Heart-block.

Friday, August 24th.—The Place of Materia Medica and Therapeutics in the Medical Curriculum.

The Secretaries will be glad to receive specimens, drawings, tracings, or preparations for exhibition during the session.

HONORARY LOCAL SECRETARIES.

Frederic Newton Gisborne Starr, M.B., Medical Building, Toronto.
Professor **John Joseph Mackenzie**, B.A., M.B., Medical Building, Toronto.
David James Gibb Wishart, B.A., M.D., L.R.C.P., Medical Building, Toronto.

COMMITTEE PATHOLOGICAL MUSEUM.

Professor **John Joseph Mackenzie**, B.A., M.B., Toronto, *Chairman.*
Maude Abbott, B.A., M.D., Montreal, *Secretary.*
Professor **Gordon Bell**, M.D., Winnipeg.
Professor **W. T. Connell**, M.D., Kingston.
Andrew Robertson Gordon, M.B., Toronto.
J. A. McGregor, M.D., London, Ontario.

EXHIBITION COMMITTEE.

Chairman: Dr. **Arthur Jukes Johnson**, Toronto.

Secretaries: Dr. **T. D. Archibald**, Toronto; Dr. **W. A. Young**, Toronto.

HONORARY LOCAL TREASURER.

Professor J. W. Ross, Toronto.

TORONTO ARRANGEMENTS COMMITTEE.

Dr. GEO. A. BINGHAM, 68, Isabella Street, Toronto.
Dr. C. J. C. O. HASTINGS, 258, Wellesley Street, Toronto.
Dr. A. A. MACDONALD, 341, Bloor Street West, Toronto.
Professor J. J. MACKENZIE, Medical Laboratories, Toronto.
Dr. ALEX. MCPHEDRAN, 151, Bloor Street West, Toronto.
Dr. R. B. NEVITT, 46, Bloor Street West, Toronto.
Dr. R. A. REEVE, *President-elect*, 48, Bloor Street E., Toronto.
Dr. F. N. G. STARR, 112, College Street, Toronto.
Dr. J. ALGERNON TEMPLE, 333, Bloor Street W., Toronto.
Dr. D. J. GIBB WISHART, 47, Grosvenor Street, Toronto.

PROGRAMME OF PROCEEDINGS.

TUESDAY, AUGUST 21ST, 1906.

9.30—12.30 a.m.—Meetings of Sections.
2.30 p.m.—Address on Obstetrics, Dr. W. S. A. Griffith.
4.30 p.m.—Garden Parties.
8 p.m.—Address of Welcome; Introduction of Guests, Delegates, etc.; and President's Address.
9.30 p.m.—Reception by the Lieutenant-Governor in the Parliament Buildings.

WEDNESDAY, AUGUST 22ND.

9.30—12.30 a.m.—Meetings of Sections.
2.30 p.m.—Address on Medicine, Sir James Barr, M.D.
4.30 p.m.—Garden Parties.
8.30 p.m.—Address on Surgery, Sir Victor Horsley, F.R.S.
9.30 p.m.—Reception.

THURSDAY, AUGUST 23RD.

9.30—12.30 a.m.—Sectional Meetings.
4.30 p.m.—Garden Parties.
7.30 p.m.—Annual Dinner.

FRIDAY, AUGUST 24TH.

9.30—12.30 a.m.—Sectional Meetings.
2.30 p.m.—General Meetings.
4.30 p.m.—Garden Parties.
Excursions.
8.30 p.m.—Soirée.

SATURDAY, AUGUST 25TH.

Excursions to the Niagara Power Company's plant, through the courtesy of Sir Henry M. Pellatt.
Excursion to Muskoka.
Excursion to Lambton, through the courtesy of the President, Mr. Austin.

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BORDER COUNTIES BRANCH.

THE spring meeting of this Branch was held at the Keswick Hotel, Keswick, on May 4th. In the unavoidable absence of the President, Vice-President, and the President-Elect, the chair was taken by Dr. J. W. CRERAR of Maryport.

Confirmation of Minutes.—The minutes were read, approved, and signed.

Apologies for Absence.—Apologies for absence were intimated from the President (Sir James Crichton-Browne), Vice-President (Dr. Barnes of Carlisle), and the President-Elect (Dr. Bowser of Penrith); also from Drs. Bell, Donald, Doughty, G. B. Muriel, G. J. Muriel, Logan, and Powers.

Branch Representative on Central Council.—The CHAIRMAN then intimated that the election of the Branch's Representative upon the Central Council would shortly take place, and that he had pleasure in announcing that Dr. Maxwell Ross of Dumfries had agreed to allow himself to be again nominated for the post—an announcement that was received with great satisfaction by the meeting. The Chairman went on to say that at the meeting of the Branch Council which had just taken place it had been resolved to approach the Council of the North Lancashire and South Westmorland Branch with a view to altering the terms of the subsisting agreement between that Branch and the Border Counties Branch. He pointed out that it was understood between the two Branches at present that each Branch was in turn to have the right of nominating the Representative upon the Central Council for four years successively. Last year, however, the term for which it was possible for any member to sit upon that Council had been reduced to six years instead of eight, and it was thought that it would be better to extend the terms of the agreement between the Branches to that time and so allow each Branch a full term of membership. A resolution confirming the action of the Council was then passed *nem. con.*

Registration of Nurses.—A motion standing in the name of the President, Sir J. Crichton-Browne, and dealing with the proposed composition of the Central Board to supervise the registration, etc., of nurses, was then discussed, and it was agreed that this was a very important question, and that it would be as well to ask the different Divisions of the Branch to consider the following (draft) resolution, and report to the Branch Council:

> The members of the Border Counties Branch beg to record their opinion that on any Central Board formed by legislative enactment to supervise the education, registration, and discipline of nurses, there should be medical representatives, at least equal in number to the representatives of the nursing body.

Another matter which had been brought before the Council that day was also mentioned by the Chairman, namely, the advisability of revising the boundaries of some of the Divisions in the light of the experience gained during the past three years. The Council had, he said, agreed to go into this matter, and had appointed a Subcommittee to deal with the question and report to it.

The meeting confirmed the action of its Council.

Dinner.—After the conclusion of the meeting the members dined together in the hotel.

NORTH CUMBERLAND DIVISION.

A MEETING of the Division was held as the George Hotel, Penrith, on Friday, April 6th, at 3 p.m. The Council met at 2.45 p.m. Dr. BOWSER of Penrith was in the chair.

Confirmation of Minutes.—The minutes of the last meeting having been read and approved were signed by the Chairman.

Matters referred to Divisions.—The various matters referred to the Divisions which had been printed in the SUPPLEMENTS of the JOURNAL from July 22nd, 1905, to March 31st, 1906, were then read over by the CHAIRMAN and laid before the meeting. Some discussion took place on the recommendation on ambulance work, and it was finally resolved that in this Division the matter remain *in statu quo*. The draft Royal Charter for the Association was then discussed, and it was unanimously resolved to recommend that a clause be inserted in Paragraph 2 authorizing the formation of (*a*) a circulating medical library; and (*b*) social club houses in London and other large centres if such be desired.

Rules of Central Midwives Board. — The CHAIRMAN intimated that the Subcommittee appointed to consider the rules of the Central Midwives Board reported that in its opinion no change was necessary. This was confirmed.

Division Areas.—The CHAIRMAN further stated that the Division Committee had resolved to request the Branch Council to reconsider the Division areas in the light of the experience gained during the three years' working under the new organization. This action was also confirmed by the meeting.

Communications.—Dr. SYME showed (*a*) a patient operated on for suppuration in both frontal sinuses and in the right maxillary antrum; (*b*) a case of laryngeal paralysis; (*c*) a patient on whom the radical mastoid operation was performed for urgent symptoms. Dr. EDINGTON read a paper on serumtherapeutics with special reference to pernicious anaemia; cases were shown with charts. Dr. DONALD read a paper on auto-intoxication in goître. Dr. SEDGWICK reported a case of Banti's disease, with a brief note on blood examination. All the papers were followed by interesting discussions.

Dinner.—Several of the members dined together after the meeting.

GIBRALTAR BRANCH.

A GENERAL meeting of the members of this Branch was held on April 20th, Colonel MCNAMARA, P.M.O., in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

History of the Branch.—Dr. L. D. PARSONS, Assistant Surgeon, Colonial Hospital, and Port Surgeon, Gibraltar, gave a short sketch of the Branch since its organization. The last meeting of the Branch was held in October, 1899. The present meeting was convened for the purpose of admitting new members, electing office bearers, and settling the agenda for the next ordinary meeting of the Branch.

Resignation of Honorary Secretary.—The Honorary Secretary, Dr. ABRINES, then tendered his resignation, and stated that he had already handed over to Dr. Parsons the papers relating to the Branch, together with a small sum remaining of the funds.

Election of Officers.—The following office-bearers were elected:—*President:* Colonel J. McNamara, R.A.M.C. *Vice-President:* Deputy-Inspector-General J. Porter, C.B. *Honorary Secretary and Treasurer:* Dr. L. D. Parsons. *Members of Council:* Lieutenant-Colonel D. V. O'Connell, R.A.M.C., Major Robinson, R.A.M.C., Dr. N. Oman, Dr. Abrines, Dr. Fairbank.

Meetings.—It was decided that the meetings of the Branch should be held quarterly unless otherwise specially notified. The meetings will be held in the Board Room of the Colonial Hospital, or such other place as may from time to time be decided upon. The hour of meeting will be 5 p.m.

Next Meeting.—The next meeting was fixed for the last Thursday in May (31st).

Complimentary Member.—Dr. Oliva, a local Spanish practitioner, was proposed as a complimentary member by Dr. ABRINES, seconded by Dr. OMAN, and unanimously elected.

Vote of Thanks.—The meeting closed with a hearty vote of thanks to the Chairman.

GLASGOW AND WEST OF SCOTLAND BRANCH: LANARKSHIRE DIVISION.

A MEETING of this Division was held on April 27th in the Royal Hotel, Hamilton. Dr. BRUCE GOFF presided.

Confirmation of Minutes.—The minutes of the last meeting were read, and after a slight addition suggested by Dr. ROBERTSON, were approved and signed by the Chairman.

Letters.—The SECRETARY read two letters received by the Division, one of which he was instructed to answer; the Division appointed a small committee to answer the other.

Financial Statement.—The SECRETARY read his annual report, which showed that the income of the Division was £5 8s., being at the rate of 1s. 6d. per head on 72 members. The expenditure was £4 13s. 10d., leaving a balance of 14s. 2d.

Election of Officers.—The following officers were elected: *Chairman*, Dr. Bruce Goff (Bothwell); *Vice-Chairman*, Dr Millar (Uddingston); *Secretary*, Dr. Livingstone Loudon (Hamilton); *Representative to Representative Meeting*, Dr. Goff; *Representatives to Branch Council*, Drs. Service and Loudon; *Council*, Dr. Kirkland, Dr. Crawford, Dr. Jack, Dr. Kerr (Hartwood), Dr. Lindsay.

Matters referred to Divisions.—The following decisions were come to in regard to matters referred to the Division:

(*a*) Recommendations of Science Co-ordination Committee. The Division determined to do nothing.
(*b*) Question of out-patient departments in hospitals. The Division generally approved.
(*c*) Division libraries. Division determined to do nothing.
(*d*) Draft Royal Charter. Generally approved.
(*e*) Recommendations of Committee on Contract Practice. Not approved by Division.

HALIFAX (NOVA SCOTIA) BRANCH.

THE regular fortnightly meeting of the Branch was held at the City Council Chamber on February 28th.

Proposed Grouping of Branches.—Pursuant to a communication from the Medical Secretary regarding the proposed grouping of this Branch with those of Bermuda and Montreal for the election of one representative on the Central Council, a resolution was passed deprecating such action, and the Secretary was instructed to communicate to the Medical Secretary the views of the Branch in this matter.

Model Tenements.—The PRESIDENT introduced the Rev. Dr. Armitage, who addressed the Branch, setting forth a proposition for the erection of a block of model tenements in Halifax, and asking the interest and support of the medical profession. A Committee was appointed to investigate and report on the subject.

Papers.—C. DICKIE MURRAY, M.B., read a paper entitled The Medical Examination of Immigrants, giving a clear account of the working of the United States Immigration Service at Halifax.—Dr. A. C. HAWKINS followed with a short paper on The Diseases of Immigrants. The two papers were discussed together.

A meeting was held on March 14th.

Registration of Births.—A committee was appointed to interview the proper authorities with a view to securing compulsory registration of births at Halifax.

Model Tenements.—The Committee *re* model tenements reported strongly in favour of the proposition, which was therefore on motion heartily endorsed.

Patent Medicine Legislation.—A Committee was appointed to investigate the patent medicine question, with a view to securing any necessary legislation.

Paper.—Dr. G. L. SINCLAIR, Government Inspector of Humane and Penal Institutions, read a short paper entitled The Medical Aspects of Hypnotism, supplementing it with a series of demonstrations of hypnotic phenomena, using as subjects several of the gentlemen present.

New Members.—At the close of the regular meeting, the Branch Council elected sixteen new members.

On March 28th the Branch met at the Halifax Hotel.

Practising Opticians.—The action of certain practising opticians at Halifax in prescribing eye-drops and ointment in certain cases was condemned, and it was decided to bring the cases reported to the notice of the Provincial Medical Board.

Papers.—Dr. E. A. KIRKPATRICK read a paper entitled Nasal Obstruction: Its Effects, Prevention, and Cure. Discussion followed. Dr. W. N. EAGAR read a paper entitled Congenital Hypertrophic Pyloric Stenosis. He claimed that this condition was usually considered rare only because most cases are undiagnosed, and that it was really responsible for a good many of the cases of "marasmus" so-called.

New Members.—The Branch Council, after this meeting, elected eight new members, and re-elected one former member.

On April 11th the final meeting for the year was held.

Registration of Births.—The Committee *re* birth registration reported satisfactory progress in securing legislation.

Patent Medicine Legislation.—The Committee *re* patent medicine legislation reported that their Bill had passed its second reading in the Legislature.

Exhibit.—JOHN STEWART, M.B., exhibited Luys's segregator, explaining its uses, and stating his experience with the instrument.

Physical Deterioration.—The programme for the evening concluded with a discussion on physical deterioration, taken part in by Dr. A. P. REID, Provincial Health Officer, and others.

New Members.—The Branch Council elected seven new members.

LANCASHIRE AND CHESHIRE BRANCH.

THE FINANCES OF THE ASSOCIATION.

A GENERAL meeting of this Branch was held in the Memorial Hall, Albert Square, Manchester, on Thursday, May 3rd, at 4.15 p.m., to consider the present state of the finances of the Association, the chair being taken by the PRESIDENT, Sir James Barr, M.D.

The following resolutions, which had been unanimously adopted by the Council of the Branch, were considered:

1. This Council views with alarm the serious decrease in the surplus funds of the Association during the past year, and urges upon the Central Council the absolute necessity of curtailing the expenses in the several departments, notably that of the Medical Secretary.

2. This Council instructs the Representative of the Branch to bring the matter before the Council of the Association.
3. That the action of our members on the Council of the Association be approved, and that they be thanked for their services in opposing unnecessary expense in the organizing department of the Association, and further that this Branch Council hopes that they will continue in such action.
4. That in the opinion of this Council it is desirable that the Medical Secretary should devote his attention to organizing and advisory, and not to clerical, work.

Resolution 1.—It was proposed and seconded that Resolution 1 be approved; whereupon an amendment was moved and seconded—

> To omit the last six words, "notably that of the Medical Secretary."

The amendment, having been put from the Chair, was declared to have been lost. On the motion being put as the substantive resolution, a further amendment was moved and seconded:

> To substitute for the last six words the following, "notably those of the Editor and the Medical Secretary, and of increasing the income."

The amendment, having been put from the Chair, was declared to have been lost. On the original motion being put as the substantive resolution it was declared to be carried.

Resolution 2 was approved.

Resolution 3.—It was proposed and seconded that Resolution 3 be approved, whereupon an amendment was moved and seconded—

> To delete the words "in the organizing department of the Association."

The amendment, having been put from the Chair, was declared to have been lost. On the motion being put as the substantive resolution it was declared to be carried.

Resolution 4 was approved.

Chester and Crewe Division.

Annual Meeting.

The annual meeting of the Chester Division was held in the Chester General Infirmary at 6 p.m. on May 4th.

Minutes.—The minutes of the last annual meeting as reported in the British Medical Journal were taken as read.

Alteration of Rules.—Mr. Taylor moved and Dr. Stolterforth seconded the deletion of the latter half of Rule 6 of the Division Rules. This was modified by Dr. Mann to read, instead of the latter half: "The Chairman not to hold office for more than two consecutive years." This, on being put to the meeting, was carried.

Report of Executive Committee.—The Executive Committee's report was then read and approved.

Election of Officers.—The officers for the ensuing year were elected. It was proposed by Dr. Mann and seconded by Mr. Taylor that Mr. Granger be re-elected Chairman. It was proposed by Dr. King and seconded by Dr. Jephcott that Dr. Laird (Crewe) be elected Vice-Chairman. It was proposed by Mr. Taylor and seconded by Dr. Mann that Dr. King be re-elected Honorary Secretary and Treasurer. It was proposed by Dr. King, and seconded by Dr. Stolterforth, that Dr. Parry be elected the Representative at Representative Meetings. It was proposed by Mr. Taylor and seconded by Dr. Stolterforth, that Mr. Granger and Dr. King be the Representatives on the Branch Council. It was proposed by Dr. Stolterforth and seconded by Dr. King that Mr. Taylor and Drs. Mann and Robinson (Runcorn), and Dr. Grey (Crewe) be members of the Executive Committee. These were all agreed to *nem. con.*

Proposed Application for a Charter.—This question was then discussed. It was decided that it be left to the discretion of the Representatives: this to apply after further discussion, to all matters which might come before the Representative Meeting. This concluded the business of the meeting.

Clinical and Pathological.—An interesting clinical and pathological meeting had been held immediately before the meeting by the Chester Medical Society.

METROPOLITAN COUNTIES BRANCH:

Hampstead Division.

An extra meeting of this Division was held on Friday, April 27th, at 5 p.m., at St. Mary's Schools, Church End, Finchley (the first meeting held there), Mr. F. R. Humphreys in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were taken as read.

Nominations for Officers.—The Honorary Secretary read a letter from Dr. F. J. Smith (honorary secretary, Metropolitan Counties Branch) asking for nominations for election of Branch Council officers. Dr. Ford Anderson proposed and Dr. Oppenheimer seconded that Mr. Humphreys should be nominated as one of the Vice-Presidents, Dr. Smith as Senior Secretary, Mr. H. W. Armit as Junior Secretary, or, failing the latter, Dr. Goodall.

General Medical Council Election.—A letter was received from the Honorary Secretary of the Wandsworth Division with respect to the election for the General Medical Council. It was decided to defer consideration of this to a later date.

Cottage Hospitals.—A discussion took place on this subject with special reference to proposed formation of a cottage hospital at Finchley. Dr. Ford Anderson said that our object should be to establish hospitals for the good of the community which shall satisfy the aspirations of the medical profession. He warned Finchley members to beware of initial faulty conditions. "Initial errors of disposition prove fatal beyond belief," as a great general had said. Started on improper lines the evils would increase like a "snowball." The interests of the medical profession must be considered. He had examined the reports of twenty-five cottage hospitals and he found the Finchley scheme one of the best as regards the rules laid down. A basal rule should be: "That there shall be adequate representation of the medical profession on the management of the hospital." Representatives should be annually elected by some organized body which would obtain the suffrages of the professsion. It was not proposed at Finchley to have an out-patient department, and that was wise. As regard the casualty department, they must bear in mind, however, that nothing was so much abused as casualties. As regards medical staff, his idea was that all the medical men in the neighbourhood should be entitled to treat patients in the hospital. He thought that there should be no fixed staff, but that medical men should be elected from month to month to deal with casualties. There should be no subscribers' letters. As regards paying patients, a few beds should be reserved for these, and patients might pay for maintenance according to their means. A cottage hospital should enable us to treat our patients on the same lines as in private practice, with all the advantages of a hospital added.—Mr. Nockolds, in proposing a vote of thanks to Dr. Anderson, said he was very glad to hear that he approved of the proposed rules.—Dr. Dill Russell, in seconding the vote of thanks to Dr. Anderson, said that he would pay special attention to the question of adequate representation of the medical profession on the management—a point not clearly defined in the rules drawn up. He would like to know what Dr. Anderson considered adequate representation.—Dr. Anderson expressed the opinion that five out of twenty, or one-third of the members of the Board, should be medical men. For admission to the hospital patients must be financially and medically suitable. Subscribers had no right to dictate to the professsion as to who should be admitted. They must not expect a *quid pro quo* for money given as charity. He thought that laparotomies and other major operations should be done by consultants acting as a consulting staff only.—Dr. Russell thought that the general practitioners at Finchley should do all the operations.—Dr. Oppenheimer agreed with Dr. Anderson on the question of consultants. He thought the tendency of general practitioners towards universal specialism was as bad as the tendency of consultants to act as general practitioners.

St. Pancras and Islington Division.

A meeting was held at the St. Pancras Workhouse on Friday, April 27th, Dr. Francis J. Buckell of Canonbury in the chair.

Nominations for Vacancies.—The following members were nominated to fill vacant offices on the Branch Council: Drs. Lauriston E. Shaw, as President; F. J. Buckell, as a Vice-President; F. J. Smith, as Secretary; and Betham Robinson, Treasurer. Drs. Walter Smith and Buckell were nominated as candidates for the membership of the Council of the Association. Drs. Theobald and Yeld were chosen to attend the proposed conference on the selection of candidates for membership of the Central Council.

Proposed Royal Charter.—Mr. WHITAKER, Medical Secretary of the Association, gave an address explaining the terms of the Draft Royal Charter, and answered questions as to the changes it would bring about if adopted. Dr. WALTER SMITH, who has made a deep study of the Draft Charter, raised many questions upon the advantages and disadvantages of the proposals; he objected to the Council having unlimited power in spending money; to the restriction of the power of meeting to this country and the colonies; to the absence of any scheme for the formation of a club for medical men, and of the provision of a large hall for meetings. He raised the question of the payment of arrears of subscriptions, and of what was meant by "the honour and interests of the profession" in Ordinance 17. He thought the period of twenty-eight days within which the Council must meet—see Section IV, 17 (*a*) and (*e*)—was too short. Mr. WHITAKER explained that the present period was only seven days. Dr. BUCKELL called attention to the serious under-representation of large Divisions upon the Council, and suggested an extra representative for each additional 300 instead of 600 members. In the end the Division approved the application for a Charter unanimously, and also approved the terms of the Draft Charter in general, but was unable to accept all the clauses in detail. Several amendments were carried.

Hampstead General Hospital.—Drs. THEOBALDS and YELD reported on the results of a conference held to consider the question of out-patient practice at the general hospital at Hampstead, and a series of resolutions was adopted *nem. con.* as drawn up by the conference.

Vote of Thanks.—A vote of thanks to Dr. THACKRAY for providing refreshments was duly passed.

Annual Meeting.—The SECRETARY announced that the next meeting would be the annual meeting for election of officers, etc., and would be held on May 25th at the Islington Infirmary on Highgate Hill, by the invitation of Dr. Robinson.

WESTMINSTER DIVISION.

A MEETING was held at 20, Hanover Square, on Thursday, May 3rd, at 8.30 p.m., Dr. HASLIP in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Correspondence.—A letter received from the Secretary of Charing Cross Hospital was read in reply to the one the Honorary Secretary of the Division had been instructed to write, drawing the attention of the Hospital to the resolution passed at the last meeting of the Division in reference to the fact that members of the resident hospital staff had left the institution, for the purpose of viewing dead bodies.

Central Council Election.—Communications from the Wandsworth Division were read, inviting this Division to send two representatives to take part in a meeting to be held in which representatives from all Divisions of the Metropolitan Counties Branch should arrange to support the candidature of general practitioners for the Central Council election. After considerable discussion as to the definitions of consultants and general practitioners, it was decided to send two representatives, and they were instructed to put forward the name of Dr. Haslip as a candidate. Dr. Donald Baynes and Dr. Bruce Porter were then elected representatives.

Hospital Abuse.—The meeting then proceeded to the consideration of Dr. Ford Anderson's paper on hospital abuse, which had been published in the SUPPLEMENT for June 3rd, 1905. The four resolutions which had been carried at the meeting before which this paper had been read were one by one discussed. The discussion was chiefly carried on by the CHAIRMAN, Dr. CAUTLEY, Dr. DAUBER, Dr. BRUCE PORTER, Dr. LONGHURST, and Dr. DONALD BAYNES. The resolutions were then put separately to the meeting, and were carried.

Proposed Royal Charter.—It was decided to postpone the consideration of the Royal Charter to a future meeting.

NORTH WALES BRANCH.

A MEETING of the Branch was held at the Westminster Hotel, Rhyl, on Tuesday, April 24th, at 2 p.m., Dr. EMYR O. PRICE (Bangor), President, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read, confirmed, and signed.

Report of Branch Council.—The HONORARY SECRETARY (Mr. H. Jones Roberts) read the report of the Branch Council, which was received and adopted.

Financial Statement.—The financial statement for the year 1905, which showed a balance to the credit of the Branch of £1 0s. 5d., was received and adopted.

The Jones Morris Memorial Fund.—The HONORARY SECRETARY reported that the total amount of the subscriptions received was £100 15s. It was resolved:

> That another and final appeal be made to those members who have not yet subscribed, and that the subscription list be closed the end of June, in order that the form which the memorial shall take may be decided upon at the annual meeting of the Branch to be held in July.

The Medical Officership of Bangor Workhouse.—Dr. GREY EDWARDS (Bangor) brought to the notice of the meeting the position taken up by the medical profession at Bangor in regard to the vacancy in the medical officership of the Bangor workhouse. The guardians having refused to increase the salary of £50 previously attached to the appointment, the local practitioners agreed not to apply for the post unless the salary was increased to £70. This the guardians had been forced to do at their last meeting, and it was considered that the field should be left clear to the three local practitioners who were applying for the appointment at the increased rate of pay. It was resolved:

> That this meeting approves of the action of the profession at Bangor in relation to the appointment of a medical officer to the Bangor Workhouse, and wishes it ultimate and complete success.

Papers:—Cancer in North Wales.—Dr. RICHARD JONES, D.P.H. (Blaenau Festiniog): On the Prevalence of Cancer in North Wales—a Statistical Inquiry. A discussion followed, in which the PRESIDENT, Drs. JOHN ROBERTS (Menai Bridge), W. PERMEWAN (Liverpool), and J. LLOYD ROBERTS (Colwyn Bay), took part. It was resolved:

> That in the opinion of this Branch it is desirable that the vital statistics for England and Wales, as prepared by the Registrar-General, be separately prepared for Wales—namely, for South Wales and Monmouthshire and North Wales. A copy of this resolution to be forwarded to the Local Government Board.

The following papers were also read: Mr. J. HOWELL EVANS, F.R.C.S. (London): Rebellious Uterine Haemorrhage, illustrated by a number of pathological specimens; in the discussion which followed, Professor BRIGGS, Drs. HILL ABRAM, PERMEWAN, RICHARD JONES, and H. JONES ROBERTS took part. Mr. G. F. NEWBOLT, F.R.C.S. (Liverpool): Some Remarks on Four Consecutive and Successful Operations for Perforated Gastric Ulcer. Dr. G. A. CRACE-CALVERT (Ruthin): Obervations on the Opsonic Index of Tuberculous Patients undergoing Sanatorium Treatment. Dr. J. HILL ABRAM (Liverpool): Some Cases of Intrathoracic Tumour. Dr. J. LLOYD ROBERTS (Liverpool): On Colitis Sinistra. Mr. J. HOWELL EVANS (London) gave a Lantern Demonstration illustrating Injuries to the Fetal Head at Birth which produce Intracranial or Extracranial Haemorrhages.

Vote of Thanks.—The PRESIDENT proposed, the HONORARY SECRETARY seconded, and it was unanimously resolved:

> That a hearty vote of thanks be accorded to the readers of papers, the meeting having been one of the most interesting in the history of the Branch.

SOUTH WALES AND MONMOUTHSHIRE BRANCH

CARDIFF DIVISION.

AN ordinary general meeting of this Division was held at the Cardiff Infirmary on Thursday, April 26th, Dr. D. R. PATERSON in the chair.

Confirmation of Minutes.—The minutes of the last ordinary general meeting were read and confirmed.

Proposed Royal Charter.—The proposed Royal Charter was briefly explained by the SENIOR SECRETARY (Dr. Ewen J. Maclean), and it was unanimously resolved:

> That the Cardiff Division approves of the proposed application for a Royal Charter of Incorporation to the British Medical Association.

Proposed State Registration of Nurses.—The recommendations drafted by the Select Committee of the House of Commons were read, and, after some discussion, it was unanimously resolved:

1. That the Cardiff Division approves in general of the method of registration for nurses proposed by the Select Committee of the House of Commons.
2. That the Cardiff Division approves of the separate registration of midwifery nurses.

SOUTH-WESTERN BRANCH:

BARNSTAPLE DIVISION.

THE annual meeting of this Division was held at the Queen's Hotel, Ilfracombe, on Wednesday, April 18th, Dr. E. J. TOYE in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Annual Report.—The HONORARY SECRETARY presented his annual report, which showed that the membership of the Division remained about stationary, but that there was a very marked increase in the attendance of members at the meetings, and that there had been at times an overplus of clinical material.

Election of Officers.—The following officers were then elected for the ensuing year: *Chairman*, Dr. E. J. Toye; *Vice-Chairman*, Dr. Tucker; *Executive Committee*, Drs. Kettlewell, Jonas, Valentine, Parsons, Kendle, and Hobling; *Honorary Secretary and Treasurer*, Dr. Ellis Pearson; *Representative on Branch Council*, Dr. E. J. Toye.

Discussion.—Dr. TOYE then opened a discussion on Should Fishing be Permitted in the Public Reservoirs? in which Drs. SLADE-KING, GOODING, KETTLEWELL, JONAS, and KENDLE joined.

Paper.—The HONORARY SECRETARY (Dr. Kendle) read notes on a case of pancreatic abscess, and an interesting discussion followed, in which all present took part.

Entertainment at Cliff Hydro.—At the conclusion of the meeting the members present were kindly entertained to tea at the Cliff Hydro by the courtesy of Dr. Toller, who also exhibited to them the very excellent electrical installation there, a demonstration of which was much enjoyed by all present.

SYDNEY AND NEW SOUTH WALES BRANCH.

THE regular general meeting of this Branch was held at the Royal Society's Rooms, Sydney, on Friday, December 15th, 1905, Dr. RENNIE in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

New Members.—The CHAIRMAN announced the election of Dr. W. D. Langton of Redfern, and the nomination of Dr. E. H. M. Stephen and Dr. F. G. Connor.

The late Dr. D. Weald.—Dr. RENNIE proposed a resolution of condolence with the Queensland Branch on the death of their late Honorary Secretary (Dr. David Weald).—Seconded by Dr. QUAIFE and carried.

Apology for Non-attendance.—An apology was received from the President (Dr. Beeston) for non-attendance.

Papers.—Professor WELSH, in conjunction with Dr. CHAPMAN, read a paper on Precipitin. Drs. FLASHMAN, STACY, and HANKINS made some remarks on the paper. Dr. CHAPMAN replied.—Dr. SINCLAIR GILLIES read a paper on a case of Bradycardia. A discussion ensued, in which Drs. WILKINSON, LITCHFIELD, and MACDONALD GILL took part. Dr. SINCLAIR GILLIES replied.

The annual meeting of the Branch was commenced on Thursday, March 29th, at the Association Rooms, 121, Bathurst Street, Sydney, Dr. BRADY in the chair.

Appointment of Scrutineers.—The Chairman appointed Drs. Gill and Palmer scrutineers, and Drs. Harris and Nolan assistants.

The Chairman then handed the ballot papers to the scrutineers, and the meeting adjourned until the following evening.

The adjourned annual meeting was held on Friday, March 30th, Dr. BEESTON in the chair.

New Members.—The following were elected: Dr. G. A. Buchanan, Nyngan; Dr. A. W. Campbell, 183, Macquarie Street, Sydney; Dr. Constance D'Arcy, Royal Hospital for Women, Paddington; Dr. John C. Douglas, Stockton; Dr. W. B. Kerr, Hellensburg; Dr. James M. McEnroe, R.P.A. Hospital, Camperdown.

Report and Balance Sheet.—The report and balance sheet were taken as read. Dr. CRAGO proposed that the report and balance sheet be adopted. Seconded by Dr. CARRUTHERS. Carried unanimously.

Presidential Address.—Dr. BEESTON read his Presidential address. Dr. RENNIE proposed that a hearty vote of thanks be accorded to Dr. BEESTON for his address. Carried by acclamation. Dr. BEESTON replied.

Election of Office-bearers.—The following office-bearers were elected for the ensuing year:—*President:* Dr. F. A. Pockley. *Vice-President:* Dr. Newmarch. *Councillors:* Dr. Hankins, Dr. Crago, Dr. Rennie, Dr. Beeston, Dr. Abbott, Dr. Dick, Dr. Brady, Dr. MacCormick, Dr. Worrall, Dr. Hinder, Dr. Maitland, Dr. Read.—Dr. POCKLEY then took the chair, and thanked the members for having elected him President.

Auditors.—Election of auditors for 1906:—Drs. Sawkins and T. H. Hall.

Vote of Thanks to Scrutineers.—A vote of thanks was accorded to the scrutineers and assistants; carried by acclamation.

By-law.—The HONORARY SECRETARY moved the adoption of the following by-law:

> That the Representative of the Branch on the Central Council may be a member of a Branch of the British Medical Association other than the Sydney and New South Wales Branch.

—Seconded by Dr. CRAGO and carried.

Representatives on Central Council.—The following gentlemen were elected representatives on the Home Council:—Dr. C. J. Martin, G. E. Twynam.

Portrait of Sir P. S. Jones.—The PRESIDENT (Dr. Pockley) presented the portrait of Sir Philip Sydney Jones. Sir PHILIP JONES thanked the members for the gift.

Vote of Thanks to Mr. P. Spence.—The HONORARY SECRETARY moved a vote of thanks to Mr. Percy Spence for his work in connexion with the portrait of Sir Philip Jones.

ULSTER BRANCH.

A JOINT meeting of this Branch and of the Ulster Medical Society, adjourned from March 29th, was held in the Medical Institute, Belfast, on Wednesday, April 25th, Dr. CALWELL in the chair.

Tughan v. Darnell.—The meeting was summoned to consider what further proceedings should be taken regarding the decision in the case of Tughan *v.* Darnell. It was reported that after inquiry and due consideration of the prospects of success, Dr. Darnell had decided to abandon the appeal of which notice had been lodged. The meeting thereupon decided to start a fund to assist Dr. Darnell in paying the expenses of the proceedings, which will probably amount to about £800 out of pocket. A large General Committee was formed, with Dr. Leonard Kidd (Enniskillen), President of the Ulster Branch, and Dr. William Calwell, President of the Ulster Medical Society, as Honorary Treasurers; and Drs. Cecil Shaw and Thomas Houston, Honorary Secretaries. A number of subscriptions have been promised, and a circular will shortly be sent out giving particulars.

PORTADOWN AND WEST DOWN DIVISION.

THE spring meeting of the Portadown and West Down Division was held at Portadown on April 4th, Dr. LAWLESS in the chair. Apologies were received from Drs. S. E. Martin and Chancellor.

Proposed Royal Charter.—The Draft Charter was considered and approved.

State Registration of Nurses.—The principle of the State Registration of Nurses was approved, the Division confiding in the Council to use its best efforts to secure due control of the profession in the government of the nurses.

Papers.—Dr. HOWARD SINCLAIR read an interesting and instructive paper on points in the early diagnosis of pulmonary tuberculosis.—Dr. DEENY read notes of a case of perforative appendicitis.—Dr. DARLINGTON showed a young man with large tumour of elbow. There was a good deal of discussion of the cases.

Next Meeting.—The next meeting was directed to be held in Newry.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m., except on Saturdays, when they close at 2 p.m. Members can have their letters addressed to them at the office.

Association Notices.

RANCH AND DIVISION MEETINGS TO BE HELD.

Aberdeen Branch.—Election of Member of Council.—ominations are requested to be sent to Dr. J. F. Christie, onorary Secretary, 7, Alford Place, Aberdeen, on or before une 2nd. Each candidate must be nominated by not less an three members.

Bath and Bristol Branch.—The annual meeting of the ranch will be held on Wednesday, May 30th, at the Medical ibrary, University College, Bristol, at 4.30 p.m. Names of andidates for Representatives of the Branch upon the Central ouncil must be sent to Dr. Newman Neild on or before May 5th. Candidates must be nominated by three members.—ewman Neild, M.B., W. M. Beaumont, Honorary Secre-aries.

Bath and Bristol Branch: Bristol Division.—The nnual meeting of the Division will be held at the Medical ibrary, University College, Bristol, on Thursday, May 17th, at o'clock. Business: (1) To elect officers and the Representatives the Division on the Branch Council. (2) To elect Division epresentative in Representative Meetings of the Association.) To receive the annual report of the Executive Committee.) To consider the business of the Annual Representative eeting. (5) The application for a Royal Charter for the ssociation.—Newman Neild, Honorary Secretary, Clifton.

Bath and Bristol Branch: Trowbridge Division.—otice is hereby given that the annual meeting of this ivision will be held at the Town Hall, Trowbridge, on ednesday, May 23rd, at 2.45 p.m. Business: To elect ficers; consider communications from the Association *re* harter, Contract Practice, etc., and any other business.—John ubb-Thomas, The Halve, Trowbridge, Wilts, Honorary ecretary.

Birmingham Branch.—The annual meeting of the Bir-ingham Branch will be held at the Medical Institute on hursday, June 14th, at 3.30 p.m., and nominations for fices should reach the Honorary Secretary not later than ay 23rd.—T. Sydney Short, Honorary Secretary, 85, Edmund reet, Birmingham.

Border Counties Branch: North Cumberland Division. The annual general meeting of the Division will be held at e County Hotel, Carlisle, on Friday, May 25th, at 3.30 p.m. is proposed to hold a discussion on "The Relation of edical Men to their Patients."—Norman MacLaren, Carlisle, onorary Secretary.

Border Counties Branch and North Lancashire and uth Westmorland Branch.—In accordance with By-law 24 tice is hereby given that nominations for the office of Repre-ntative of the above Branches on the Central Council of the ssociation must be received by me, duly signed by not less an three members of the Association, not later than May 28th. Francis R. Hill, M.B., 62, Warwick Road, Carlisle.

Cambridge and Huntingdon Branch.—The annual meet-g of the Branch will be held at Peterborough on Thursday, ne 14th. Any member having communications to make ould apply to the Honorary Secretary, F. E. Apthorpe ebb, Grafton House, Cambridge.

Dorset and West Hants Branch.—Election of a Repre-ntative of the Branch on the Central Council.—The nomina-n of candidates for the ensuing year must be made (in cordance with By-law 24) and sent to me in writing on or fore May 21st.—C. H. W. Parkinson, Honorary Secretary of anch, Wimborne.

Dorset and West Hants Branch.—The annual meeting ll be held at the Mont Dore Hotel, Bournemouth, Thursday, May 24th. An agenda will be sent in e course. Members having cases to show or papers other communications should give notice to the Honorary cretary before May 16th. Candidates for election must send applications signed by two members before May 16th.—H. W. Parkinson Honorary Secretary, Wimborne.

Dundee, Perth, and Stirling Branches.—The nomina-n of candidates for the office of Elective Member of Council the ensuing year must be made in writing on or before ay 14th to Dr. J. E. Moorhouse, 6, Melville Terrace, Stirling.— P. Low, Honorary Secretary, Dundee Branch; W. A. ylor, Honorary Secretary, Perth Branch; J. E. Moorhouse, onorary Secretary, Stirling Branch.

East York and North Lincoln Branch.—The annual eeting will be held at the Grimsby and District Hospital Thursday, June 7th, at 4.30 p.m., and will be followed by e annual dinner.—E. M. Hainworth, Honorary Secretary, ull.

East Anglian Branch.—Notice is hereby given that nominations of two members for the office of Representative on the Central Council of the Association, each signed by not less than three members, must reach me not later than May 21st.—B. H. Nicholson, M.B., East Lodge, Colchester, General Secretary of Branch.

Metropolitan Counties Branch: City Division.—The annual meeting will be held on Thursday, May 24th, at 4 p.m., at the Great Eastern Hotel, Liverpool Street, E.C. Agenda: (1) Minutes. (2) Letters. (3) Questions. (4) Report of Executive Committee. (5) Election of officers. (6) Further consideration of notices of motion for Representative Meeting (see Supplement to the British Medical Journal for April 28th). The first annual dinner will be held at the Gaiety Restaurant, Strand, W.C., at 7 p.m on Thursday, June 7th. Tickets, 7s. 6d. each (exclusive of wine), to be obtained of J. Beddow, Esq., Rossendale, 89, Cazenove Road, Stamford Hill, N.E.—E. W. Goodall, Eastern Hospital, Homerton, N.E., Honorary Secretary.

Metropolitan Counties Branch: St. Pancras and Islington Division.—The annual meeting will be held on Friday, May 25th, at 4 p.m., at the Islington Infirmary, Highgate Hill. Business: Election of officers; annual report and financial statement; to consider registration of nurses; the election of Representatives on the General Medical Council, and the business to be brought before the Annual Representative Meeting of the Association.—Wm. Wynn Westcott, Honorary Secretary.

Metropolitan Counties Branch: Wandsworth Division.—The annual meeting will take place, preceding the annual dinner to be held in the Banqueting Hall, Battersea Town Hall, on Friday, May 25th, at 7 p.m. Invitations to attend have been issued and accepted by the M.P.'s for Wandsworth and Clapham; the Mayors of Battersea, Wandsworth and Wimbledon; the late candidates for Parliament in the Battersea, Clapham, Wandsworth, and Wimbledon areas; local members of the L.C.C. and S.C.C.; the Chairman, Wandsworth Guardians; the Chairman, Central Council; the President of the Branch; the Director-General A.M.S.; the Chairman, Organization Committee; and several others. The Committee hope the members of the Division will attend in large numbers and bring their medical friends. Tickets, 7s. 6d. each.—A. J. Swallow, Honorary Secretary Dinner Committee, 61, South Side, Clapham Common.

Midland Branch.—Nominations of candidates for the Council of the Association for the ensuing year must be sent before May 14th to Astley V. Clarke, 37, London Road, Leicester, Honorary Secretary.

Midland Branch: Leicester Division.—The annual meeting of the Division will be held on Wednesday, May 30th, at 4 p.m., at the Infirmary, Leicester. Business: (1) To nominate a Vice-President of the Branch for 1906-7. (2) To elect the officers of the Division. (3) To elect Representatives on the Branch Council. (4) To elect the Executive Committee of the Division. (5) To elect a Representative at the Representative Meeting of the Association. (6) To receive a report of the work of the Division. (7) To discuss matters referred to the Division in the Supplement to the British Medical Journal. (8) Any other business.—Robert Sevestre and Wilfred E. Gibbons, Honorary Secretaries, Leicester.

North of England Branch.—Election of Representatives on the Central Council.—Notice is hereby given that nominations of two Representatives for the North of England Branch, each signed by not less than three members, must reach me not later than May 21st.—Alfred Cox, Cotfield House, Gateshead, Honorary Secretary.

North Wales Branch.—Nominations of a member of the Central Council to represent this Branch for the ensuing year must be made in accordance with By-law 24, and sent to me in writing on or before May 31st.—H. Jones Roberts, Honorary Secretary, Pen-y-groes.

North Wales Branch: Denbigh and Fleet Division.—The annual meeting of the Division will be on Friday, May 25th, at the Wrexham Infirmary.—E. D. Evans, Honorary Secretary.

North Wales Branch: North Carnarvonshire and Anglesea Division.—The annual meeting of this Division will be held at the British Hotel, Bangor, on Wednesday, May 30th, for the election of officers, Representatives, etc., and other business. Members having papers to read or cases to show will please notify the honorary secretary on or before May 19th.—H. Jones Roberts, Pen-y-groes, Honorary Secretary.

South-Eastern Branch.—The annual meeting of this Branch will be held at Norwood on Wednesday, June 27th, Dr. Hetley, President-elect, in the chair. The following will be the agenda: (1) To elect the officers of the Branch. (This will be done by voting papers sent to each member of the Branch. Nominations by three members for the offices of President-elect, Vice-Presidents, and Secretary may be sent to the Honorary Secretary on or before May 21st.) (2) To receive the annual report of the Branch. (3) To transact any business that may be transacted by an ordinary meeting. N.B.—Three members to represent the Branch on the Central Council will also be elected by voting papers. Nominations for these posts, each of three members in writing, should be sent to the Secretary of the Branch on or before May 21st.—H. M. STEWART, Dyffryn, 123, Thurlow Park Road, Dulwich, Honorary Secretary.

SOUTH-EASTERN BRANCH: CROYDON DIVISION.—The annual meeting of the Division will be held at the Croydon General Hospital on Thursday, May 17th. Business meeting, chairman, Dr. Rosser. Agenda: (*a*) Minutes of the previous meeting. (*b*) Election of officers for the coming year. (*c*) To decide when and where the next meeting shall be held, and to elect a chairman. (*d*) Other business. Clinical meeting, chairman, Mr. C. Wray. Members willing to exhibit cases are requested to communicate with the honorary secretary not later than May 12th. A detailed agenda paper will be issued later. Dinner at the Greyhound Hotel, charge 5s., exclusive of wine. Members intending to remain to dinner are requested to send a post-card to that effect to E. H. WILLOCK, 113, London Road, Croydon, Honorary Secretary.

SOUTH-EASTERN BRANCH: FOLKESTONE DIVISION.—A meeting of the Division will be held at the Hotel Wampach on Tuesday, May 15th, at 8.30 p.m. Agenda: To consider the matters referred to the Divisions (see SUPPLEMENT to the BRITISH MEDICAL JOURNAL, May 5th). The annual meeting of the Division will be held at the Hotel Wampach on Tuesday, May 22nd, at 7.15 p.m. Agenda: (1) To elect officers, the Representative of the Division on the Branch Council, and the ordinary members of the Executive Committee. (2) To receive the annual report of the Executive Committee, including the finances. (3) To make new rules or alter or repeal existing rules. (4) To transact any business that may be transacted at an ordinary meeting. A meeting of the Folkestone, Ashford, and Dover constituency will be held after the annual meeting at the same place. Agenda: (1) To elect Representative in Representative Meetings of the Association. (2) To elect a Secretary. (3) To consider the business of the Annual Representative Meeting. Dinner at 8.30 p.m.; charge 5s.—P. VERNON DODD, M.D., Honorary Secretary, 14, Manor Road, Folkestone.

SOUTH-EASTERN BRANCH: REIGATE DIVISION.—A meeting will be held at the Cottage Hospital, Redhill, on Thursday, May 17th, at 3.30 p.m., Dr. John Walters, J.P., in the chair. Agenda: To elect a Representative of the Division, and to consider any other Association business. A discussion on some points in Urinary Surgery will be opened by Mr. James Berry, B.S., M.B.Lond., F.R.C.S.Eng., Surgeon to the Royal Free Hospital. Some interesting specimens will be shown. All members of the South-Eastern Branch are invited to attend and to introduce professional friends. Tea will be provided after the meeting.—W. A. BERRIDGE, Honorary Secretary, Redhill.

SOUTH MIDLAND BRANCH.—In accordance with the by-laws, nominations of a member of Central Council to represent this Branch must reach me on or before May 12th.—E. HARRIES JONES, Honorary Secretary, 45, Sheep Street, Northampton.

SOUTH MIDLAND BRANCH: AYLESBURY DIVISION.—The annual meeting of this Division will be held in the Board room of the Royal Bucks Hospital on Tuesday, May 15th, at 2.30 p.m. Agenda: (1) The minutes of the last meeting to be read and confirmed. (2) To elect the Chairman and other officers for the ensuing year. (3) To consider the advisability of drawing up list of medical men willing to be sent for by midwives in emergencies. (4) To decide which Branch this Division should be grouped with for purposes of representation. (5) To consider the application of the Association for a Royal Charter (see SUPPLEMENT to the BRITISH MEDICAL JOURNAL, March 24th, 1906). (6) Letters and any other business.—HORACE ROSE, Honorary Secretary, Aylesbury.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—Election of Representatives on Central Council.—Nominations in writing, signed by three members of the Branch, must be sent in on or before May 24th to Dr. FRANK G. THOMAS, 68, Walter Road, Swansea.

SOUTH-WESTERN BRANCH.—The nomination of candidates for the office of elective members of Council (Branch Representatives on the Central Council of the Association) for the ensuing year must be made by three electors, and in writing, on or before May 19th. to the Honorary Secretary of the Branch, Mr. G. YOUNG EALES, 1, Matlock Terrace, Torquay.

STAFFORDSHIRE BRANCH.—In accordance with the By-laws notice is hereby given that nominations of Representatives of this Branch in the Council of the Association must be received by me, duly signed by three electors and in writing, on or before May 26th.—G. PETGRAVE JOHNSON, Stoke-upon-Trent, Honorary Secretary.

YORKSHIRE BRANCH.—The annual meeting of this Branch will be held at the Eye and Ear Hospital, Bradford, on Wednesday, June 13th. In accordance with By-law 24 notice is hereby given that nominations for Representatives on the Council of the Association must be received by me, in writing, duly signed by three members of the Branch, on or before May 19th.—ADOLPH BRONNER, M.D., 33, Manor Row, Bradford, Honorary Secretary.

CENTRAL MIDWIVES BOARD.

A MEETING of the Central Midwives Board was held on April 26th at 6, Suffolk Street, Pall Mall, with Dr. F. H. CHAMPNEYS in the chair.

Payment to Medical Men called in by Midwives in Difficult Cases.

A letter was read from a certified midwife saying that since the Midwives Act came into force it had made, so far, very little difference in the practice of midwives. It was also stated in the letter that in the locality where the writer practised the untrained women still practised, and that with one exception the doctors did not approve of practising midwives, and informed prospective mothers that if the certified midwives summoned doctors in difficult cases the doctors would double their fees. It was further pointed out in the letter that the poor folk on 12s. a week were frightened that the certified midwife would send for a doctor, and so let them in for a bill for two guineas.

Mr. WARD COUSINS observed that cases had undoubtedly occurred in which certified midwives were compelled to pay the fees of the medical men summoned before they would assist the midwives in the cases. In his opinion the medical profession did not think that a doctor called into an emergency case of difficulty should expect to be paid by the midwife who called him in. If the fee of the doctor was paid by the patient the difficulty was solved, because no one would object to the doctor being paid in that manner. It was a serious question, involving the satisfactory carrying out of the Midwives Act.

The SECRETARY of the Board explained that the letter was an *ex-parte* statement that the doctors in a certain locality did not like the certified midwives practising, and managed to squeeze them out by saying to the prospective mothers that if they employed a certified midwife should she send for a doctor the fee would be two guineas. Naturally the women would consider whether it would be better to employ a doctor for one guinea rather than run the chance of having to pay two guineas.

Mr. WARD COUSINS said that in Cardiff and Liverpool the local supervising authorities had made arrangements for the payment of doctors in these cases. It was a critical question, because the members of the medical profession were required in every sense of the word to give assistance in these cases, and the Central Midwives Board ought to insist that some provision should be made by the local supervising authorities for the purpose.

Miss WILSON asked under what powers Liverpool and Cardiff arranged for the payment of medical men when called in.

The SECRETARY explained that the accounts of County Councils were subjected to the Local Government Board auditors, and such payments would be surcharged; but the boroughs were not in that position, for they elected their own auditors, whose reports need not be regarded by the boroughs. If rich and large boroughs chose to break the law it was their own matter.

Mr. WARD COUSINS said that the difficulty was felt in country places where practitioners had to travel sometimes many miles at night without receiving any fee.

Dr. PARKER YOUNG said it could not be expected that doctors were to be called up at any time day or night and then not be paid. Medical men were summoned in cases of difficulty, and after being put to great trouble and a great expenditure of time they received no fee, therefore he was not surprised that they said their fees would be a certain amount. The people to blame in the matter were those who framed the Midwives Act; it ought to be amended. He concluded by moving that the matter should be referred to the Standing Committee to consider and report what amendment of the Act was desirable.

Mr. Ward Cousins seconded the motion, which was carried.

Report on the April Examination.

The following report by the Secretary on the April examination was received.

Results of Individual Training Schools.

Examination April 3rd, 1906.

Training School.	Total.	Passed.	Failed.	Percentage of Failures.
London.				
City of London Lying-in Hospital, City Road, E.C.	4	2	2	50.0
Clapham Maternity Hospital, 39 to 43, Jeffreys Road, Clpaham, S.W.	6	4	2	33.3
East End Mothers' Home, 394 to 396, Commercial Road, E.	9	6	3	33.3
General Lying-in Hospital, York Road, Lambeth, S.E.	17	14	3	17.6
Guy's Trained Nurses' Institution, 14, St. Thomas's Street, S.E.	7	7	0	0.0
London Hospital, Whitechapel, E.	11	10	1	9.9
Plaistow Maternity Charity, Howard's Road, Plaistow, E.	43	31	12	27.9
Queen Charlotte's Lying-in Hospital, Marylebone Road, N.W.	18	18	0	0.0
Salvation Army Maternity Hospital, Mare Street, Hackney, N.E.	9	6	3	33.3
Woolwich, Military Families' Hospital, Woolwich, S.E.	1	1	0	0.0
England (except London).				
Aldershot, Louise Margaret Hospital	5	4	1	20.0
Bristol Royal Infirmary	1	1	0	0.0
Chatham, Military Families' Hospital	1	1	0	0.0
Chester Benevolent Institution, 7, Grosvenor Street, Chester	2	2	0	0.0
Derby, Royal Derby and Derbyshire Nursing Association	3	1	2	66.6
Essex County Cottage Nursing Society, Beachcroft Road, Leytonstone, N.E.	3	3	0	0.0
Hull Lying-in Charity, 31, Beverley Road, Hull ...	1	1	0	0.0
Ipswich Nurses' Home, Brook Street, Ipswich ...	4	4	0	0.0
Liverpool Ladies' Charity and Lying-in Hospital...	1	1	0	0.0
Portsmouth, Military Families' Hospital	1	0	1	100.0
Sheffield, Jessop Hospital for Women	2	0	2	100.0
West Ham Union Infirmary, Leytonstone	1	1	0	0.0
Wales.				
Cardiff and District Branch of the Queen Victoria Jubilee Nurses' Institute	1	0	1	100.0
Scotland.				
Dundee Maternity Hospital	4	4	0	0.0
Edinburgh Royal Maternity Hospital...	2	2	0	0.0
Glasgow, Eastern District Hospital	2	2	0	0.0
Ireland.				
Dublin, Rotunda Hospital...	5	4	1	20.0
	164	130	34	20.7
Private tuition	51	39	12	23.5
	215	169	46	21.4

A special meeting of the Central Midwives Board, under the provisions of the rules of procedure on the proposed removal of a name from the Roll of Midwives, was held on May 3rd at 6, Suffolk Street, Pall Mall, with Dr. F. H. Champneys in the chair.

Midwives Struck off the Roll.

The following charges alleged against the certified midwives Sarah Hine and Mary Ann Wallis were heard:

That when called to a confinement they did not take with them the appliances or antiseptics required by Rule E 2, and that they declined to undertake to provide themselves with them; that they did not keep or possess a register of cases as required by Rule E 19 (*a*); and that they declined to undertake to provide themselves with one.

The Board ordered the removal of the names of these two midwives from the Roll.

The following charges alleged against Mary Alice Jackson, a certified midwife, were heard:

That she was intoxicated while on duty at a confinement on December 4th, 1905; that while on duty as aforesaid she did not wear a dress of washable material as required by Rule E 1; that she did not take with her to a confinement the appliances or antiseptics required by Rule E 2; that she did not disinfect her hands and forearms on each occasion of touching the genital organs as required by Rule E 3; that she did not wash the patient's external parts with soap and water, and then swab them with an antiseptic solution as required by Rule E 7.

The Board ordered the removal of the name of Mary Alice Jackson from the Roll of Midwives.

The following charges alleged against Harriet Fields were heard:

That being in attendance at a confinement on November 12th, 1905, and subsequent days she did not take with her the appliances and antiseptics required by Rule E 2. That she did not possess such appliances or antiseptics, and had never used them. That before making the first internal examination she did not wash the patient's external parts with soap and water and then swab them with an antiseptic solution as required by Rule E 7. That she did not wash the patient after her confinement, thereby neglecting to give full directions for securing her comfort during the lying-in period, as required by Rule E 11. That the patient being ill and her progress unsatisfactory on the fifth day after confinement, she did not, until the seventh day, decline to attend alone or advise that a registered medical practitioner should be sent for, as required by Rule E 17. That she did not keep a register of cases or a record of sending for medical help, as required by Rule E 19.

The Board ordered the removal of the name of Harriet Fields from the Roll of Midwives.

The following charges alleged against Mary Ann Stead, a certified midwife, were heard:

That being in attendance at a confinement on October 30th, 1905, and subsequent days, she did not take with her the appliances or antiseptics required by Rule E 2. That she did not previously disinfect her hands and forearms on each occasion of touching the patient's genital organs, as required by Rule E 3. That before making the first internal examination she did not wash the patient's external parts with soap and water and then swab them with an antiseptic solution, as required by Rule E 7. That she did not wash the patient after her confinement, thereby neglecting to give full directions for securing her comfort during the lying-in period, as required by Rule E 11. That the patient being ill and her progress unsatisfactory, she did not decline to attend alone or advise that a registered medical practitioner should be sent for, as required by Rule E 17.

The Board ordered the removal of the name of Mary Ann Stead from the Roll of midwives.

The following charges alleged against Emma Jones, a certified midwife, were heard:

That being in attendance at a confinement on November 29th, 1905, and subsequently during the lying-in period, she was guilty of negligence and misconduct in the following respects: (*a*) that having attended to the patient on November 30th, she did not again visit her until 3 p.m. on December 2nd; (*b*) that at 3 p.m. on December 2nd she was found lying in the garden of the patient's house drunk and incapable; (*c*) that on December 3rd she was drunk when she arrived at the patient's house about 3.30 p.m.; (*d*) that on December 5th she was drunk when she arrived at the patient's house. That being in attendance at a confinement on January 13th, 1906, and subsequently during the lying-in period, she was guilty of misconduct in the following respect: that having undertaken to convey the body of the deceased infant to the churchyard for burial on January 16th, 1906, she was found sitting in a garden, drunk and incapable, with the corpse in a box by her side.

The Board ordered the removal of the name of Emma Jones from the Roll of midwives.

The following charges alleged against Emma Whittaker, a certified midwife, were heard:

That being in attendance at a confinement on January 28th 1906, and subsequently during the lying-in period, she was guilty of negligence in the following respects: (*a*) That she did not wear a dress of washable material, nor a washable apron, as required by Rule E 1. (*b*) That she did not take with her the appliances nor the antiseptics required by Rule E 2. (*c*) That she omitted to notice that a portion of the membranes belonging to the after-birth had not been expelled. (*d*) That on January 29th, the patient being ill and her progress unsatisfactory, she did not take her temperature, nor did she decline to attend alone, nor advise that a registered medical practitioner should be sent for, as required by Rule E 17. That she habitually practised as a midwife without possessing a washable dress (Rule E 1), or appliances and antiseptics (Rule E 2).

The Board ordered the removal of the name of Emma Whittaker from the Roll of midwives.

A Midwife Severely Censured.

The following three charges alleged against Elizabeth Pattillo, a certified midwife, were heard:

(1) That being in attendance at a confinement at No. 42.

Granville Road, Crumpsall, she failed to apply proper and sufficient ligatures to the umbilical cord, whereby haemorrhage ensued, causing the death of the new-born infant. (2) That the death of the child having occurred before the attendance of a registered medical practitioner, she failed to notify the same to the local supervising authority, as required by Rule E 18 (1). (3) That she did not keep a register of cases as required by Rule E 19 (1).

The Board found that charge No. 1 had not been proved, but that charges Nos. 2 and 3 had been proved, and ordered that the midwife Elizabeth Pattillo be severely censured in regard to the last two charges. The Board also directed that a report be furnished in three months' time as to whether the midwife was observing Rule E 18 (1) and Rule E 19 (1).

Rule as to the Calling in of Medical Men by Midwives.

In regard to the conditions in which medical help must be sent for by midwives the Board had submitted the following rule for the approval of the Privy Council:

> In all cases of abortion, of illness of the patient or child, or of any abnormality occurring during pregnancy, labour, or lying-in, a midwife must explain that the case is one in which she must advise that a registered medical practitioner be sent for, and must hand to the husband or the nearest relative or friend present the form of sending for medical help properly filled up and signed by her, in order that this may be immediately forwarded to the medical practitioner.

In a letter dated April 26th, 1906, the Privy Council suggested that the words "the attendance of a registered medical practitioner is required" would be preferable to the words in the rule "she must advise that a registered medical practitioner be sent for."

The Board therefore amended the rule in accordance with the suggestion of the Privy Council.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desires to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that it is prepared to receive applications for grants in aid of such research. Applications for sums to be granted, which must reach this office not later than May 31st, must include details of the precise character and objects of the research which is proposed, and must be made on forms to be had of the General Secretary, at the office of the Association, 429, Strand, London.

Every recipient is required to furnish to the Science Committee, on or before May 31st following upon the allotment of the grant, a report (or, if the object of the grant be not then attained, an interim report to be renewed at the same date in each subsequent year until a final report can be furnished) containing: (*a*) A brief statement for the Report of the Science Committee, showing the results arrived at, or the stage which the inquiry has reached; (*b*) a general statement of the expenditure incurred, accompanied, so far as is possible, with vouchers; (*c*) and references to any Transactions, Journals, or other publications in which the results of the research have been printed.

The work of the Grantees shall be subject to inspection.

RESEARCH SCHOLARSHIPS.

The Council of the British Medical Association is prepared to receive applications for three Research Scholarships, each of the value of £150 per annum, tenable for one year, and subject to renewal by the Council, provided the whole term of office has not exceeded three years.

The scholarships exist for the encouragement of research in Anatomy, Physiology, Pathology, Bacteriology, State Medicine, Clinical Medicine, and Clinical Surgery.

The Scholars' work shall be subject to inspection.

Applications for Scholarships must be made on forms to be had of the General Secretary, and returned on or before May 31st.

ERNEST HART RESEARCH SCHOLARSHIP.

The Council of the British Medical Association is also prepared to receive applications for the Ernest Hart Memorial Scholarship of the value of £200 per annum, tenable for one year, but subject to renewal by the Council for another year. The Scholarship is for the study of some subject in the department of State Medicine.

N.B.—Applications for Scholarships and Grants should, as a rule, be accompanied by a recommendation from the head of the laboratory in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended, however, to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

GUY ELLISTON, *General Secretary.*

429, Strand,
April, 1906.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,793 births and 4,955 deaths were registered during the week ending Saturday last, May 5th. The annual rate of mortality in these towns, which had been 17.1, 17.3, and 16.7 per 1,000 in the three preceding weeks, further fell last week to 16.3 per 1,000. The rates in the several towns ranged from 7.2 in Hornsey, 7.3 in Willesden, 7.9 in King's Norton, 8.4 in Leyton, 8.5 in Bournemouth, 9.2 in East Ham, and 9.6 in Tottenham, to 20.9 in Birkenhead, 21.2 in Hanley, 21.7 in Norwich and in St. Helens, 22.2 in Oldham, and 27.1 in Liverpool. In London the rate of mortality was 16.0 per 1,000, while it averaged 16.5 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.6 per 1,000 in the seventy-six towns; in London this death-rate was equal to 1.5 per 1,000, while among the seventy-five other large towns the rates ranged upwards to 2.7 in Coventry and in Salford, 2.8 in Merthyr Tydfil, 3.0 in Burton-on-Trent and in Manchester, 3.6 in Burnley, 3.9 in Walthamstow, 4.2 in Liverpool, and 5.0 in Great Yarmouth. Measles caused a death-rate of 1.3 in Preston, 1.6 in Manchester and in Salford, 1.8 in Bury and in Bradford, 2.0 in Burnley, 2.1 in Walthamstow, 2.3 in Liverpool, and 4.0 in Great Yarmouth; scarlet fever of 1.1 in Leicester; diphtheria of 1.3 in Walthamstow; whooping-cough of 1.1 in Walsall, Leicester, Liverpool, and Swansea, 1.3 in Southampton and Reading, 1.4 in Sunderland, 2.0 in Burton-on-Trent and Coventry, 2.1 in Merthyr Tydfil, and 2.4 in Bootle. The mortality from enteric fever and from diarrhoea showed no marked excess in any of the large towns. No fatal case of small-pox was registered last week in any of the seventy-six towns, and no small-pox patients were admitted into the Metropolitan Asylums Hospitals. The number of scarlet-fever cases remaining under treatment in these hospitals and in the London Fever Hospital at the end of the week was 2,337, against 2,302, 2,225, and 2,240 at the end of the three preceding weeks; 357 new cases were admitted during the week, against 270, 288, and 314 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, May 5th, 1,084 births and 618 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 19.1, 17.6, and 18.4 per 1,000 in the three preceding weeks, declined again to 18.0 per 1,000 last week, but was 1.7 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 10.8 in Paisley and 15.6 in Aberdeen to 20.6 in Dundee and 21.4 in Greenock. The death-rate from the principal infectious diseases averaged 2.0 per 1,000 in these towns, the highest rates being recorded in Dundee and Leith. The 311 deaths registered in Glasgow included 12 which were referred to measles, 6 to diphtheria, 10 to whooping-cough, 2 to "fever," and 4 to diarrhoea. Five fatal cases of measles, 2 of scarlet fever, 4 of whooping-cough, and 2 of diarrhoea were recorded in Edinburgh. Three deaths from measles, 2 from whooping-cough, and 5 from diarrhoea occurred in Dundee: 3 from whooping-cough in Aberdeen; and 2 from measles in Leith.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, May 5th, 607 births and 442 deaths were registered in six of the principal Irish towns, as against 571 births and 394 deaths in the preceding period. The annual death-rate in these towns which had been 20.4, 17.3, and 21.8 per 1,000 in the three preceding weeks, rose to 22.7 per 1,000 in the week under notice, this figure being 6.4 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 17.5 in Waterford and 19.8 in Londonderry to 25.9 in Dublin and 26.0 in Belfast and Limerick. The zymotic death-rate in the same six Irish towns averaged 1.0 per 1,000, or 0.4 per 1,000 lower than during the preceding period, the highest figure—3.3—being recorded in Belfast, while no deaths under this heading were recorded in Cork, Limerick and Waterford.

ENGLISH URBAN MORTALITY IN THE FIRST QUARTER OF 1906.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

THE vital statistics of the seventy-six large towns dealt with in the Registrar-General's weekly returns are summarized in the accompanying table. During the three months ending March last, 113,207 births were registered in these towns, equal to an annual rate of 28.7 per 1,000 of the population, estimated at 15,818,360 persons in the middle of the year; in the corresponding quarter of the three preceding years the rates were 30.1, 29.7, and 29.4 per 1,000. In London the birth-rate last quarter was 27.8 per 1,000, while it averaged 29.1 in the seventy-five other large towns, and ranged from 16.4 in Hastings, 16.7 in Hornsey, 17.4 in Bournemouth, 19.2 in Halifax, 20.8 in Bradford, 21.5 in Northampton, and 22.4 in Rochdale, to 34.4 in Sunderland, 34.5 in Smethwick and in St. Helens, 34.7 in Rotherham, 34.9 in Gateshead, 35.9 in Hanley, 36.5 in Merthyr Tydfil, and 39.5 in Rhondda.

During the quarter under notice 65,351 deaths were registered in these towns, equal to an annual rate of 16.6 per 1,000: in the three preceding first quarters the rates were 17.3, 18.7, and 17.2 per 1,000. In London the rate of mortality last quarter was 16.6 per 1,000, while among the seventy-five large provincial towns the rates ranged from 10.2 in Hornsey, 10.7 in King's Norton, 10.9 in East Ham, 11.1 in Walthamstow, 11.3 in Northampton, 11.6 in Willesden, and 11.8 in Leyton, to 19.1 in Sunderland, 19.3 in Middlesbrough and in Tynemouth, 19.6 in Warrington, 20.0 in Swansea, 20.1 in Merthyr Tydfil, 21.3 in Liverpool, and 22.5 in Preston.

Analysis of the Vital Statistics of Seventy-six of the Largest English Towns during the First Quarter of 1906.

Towns.	Estimated Population middle of 1906.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Annual Rate per 1,000 Living. Deaths.	Annual Rate per 1,000 Living. Principal Infectious Diseases.	Deaths from Principal Infectious Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Diarrhoea.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
76 Towns - - - -	15,818.360	113.207	65.351	28.7	16.6	1.38	5,444	3	1.628	537	847	1,597	266	566	128	1.2
75 Provincial Towns -	11,097,143	80,537	45,870	29.1	16.6	1.36	3,757	3	944	408	650	1,139	221	392	133	1.6
London - - - -	4,721,217	32,670	19,481	27.8	16.6	1.44	1,687	—	684	129	197	458	45	174	117	0.2
Croydon - - - -	151,011	956	510	25.4	13.5	1.21	45	—	20	4	13	4	1	3	105	—
Willesden - - - -	143,622	1,120	414	31.3	11.6	0.81	29	—	13	4	5	5	1	1	96	2.2
Hornsey - - - -	86,935	363	220	16.7	10.2	1.02	22	—	11	1	4	—	1	5	96	—
Tottenham - - - -	119,503	948	451	31.8	15.1	1.77	53	—	37	5	4	4	—	3	111	0.2
West Ham - - - -	301,617	2,446	1,068	32.5	14.2	1.60	120	—	29	12	29	37	3	10	105	—
East Ham - - - -	129,886	935	353	28.9	10.9	1.17	38	—	7	10	13	4	1	3	88	—
Leyton - - - -	118,287	860	347	29.2	11.8	1.22	36	—	13	2	8	10	—	3	98	0.6
Walthamstow - - -	121,334	909	337	30.0	11.1	1.03	31	—	12	3	7	3	2	4	106	—
Hastings - - - -	67.144	275	270	16.4	16.1	0.30	5	—	2	—	—	1	—	2	171	1.1
Brighton - - - -	128,095	746	569	23.4	17.8	0.68	22	—	2	2	5	10	—	3	127	—
Portsmouth - - -	205,118	1,488	757	29.1	14.8	0.59	30	—	—	1	13	10	4	2	103	2.1
Bournemouth - - -	67,702	293	289	17.4	17.1	0.71	12	—	—	—	3	8	—	1	174	0.7
Southampton - - -	117,312	758	428	25.9	14.6	1.02	30	—	—	—	3	24	1	2	128	—
Reading - - - -	78.987	463	281	23.5	14.3	1.41	28	—	—	—	5	19	—	4	106	2.8
Northampton - - -	93,749	502	265	21.5	11.3	0.61	14	—	—	2	2	4	4	2	104	1.1
Ipswich - -	71,809	504	281	28.2	15.7	2.01	7	—	—	—	2	3	—	2	141	—
Great Yarmouth - -	52,613	347	230	26.5	17.5	0.90	12	—	5	—	1	—	1	5	141	—
Norwich - - - -	117,958	793	486	27.0	16.5	0.61	18	—	—	1	8	2	2	5	130	0.2
Plymouth - - - -	118.014	706	553	24.0	18.8	2.01	59	1	7	4	5	36	4	2	157	—
Devonport - - - -	78,405	585	307	29.9	15.7	0.91	18	—	—	2	2	10	2	2	123	—
Bristol - - - -	363,223	2,453	1,515	27.1	16.7	1.41	129	1	51	5	23	38	4	7	146	0.2
Hanley - - - -	66,360	594	296	35.9	17.9	1.08	18	—	—	5	4	1	4	4	131	0.3
Burton-on-Trent - -	52,922	316	183	24.0	13.9	0.24	3	—	1	—	1	1	—	—	120	5.5
Wolverhampton - -	100,729	700	431	27.9	17.2	1.84	46	—	22	5	5	9	2	3	131	0.9
Walsall - - - -	94,577	727	384	30.8	16.3	0.50	12	—	—	1	1	1	1	8	179	1.3
Handsworth - - -	63,819	419	206	26.2	12.9	1.63	26	—	1	—	—	23	1	1	131	1 5
West Bromwich - -	68,469	586	306	34.3	17.9	2.06	35	—	—	3	2	23	6	1	172	2.9
Birmingham - - -	548,022	4,202	2,468	30.8	18.1	1.81	248	—	45	15	30	122	8	28	140	3.2
King's Norton - - -	72,608	475	193	26.2	10.7	0.62	11	—	3	1	—	7	—	—	105	1.6
Smethwick - - -	64,531	555	233	34.5	14.5	1.54	25	—	1	—	2	18	2	2	104	3.0
Aston Manor - - -	82,288	606	290	29.5	14.1	1.81	37	—	6	2	2	20	2	5	119	1.4
Coventry - - - -	76.374	568	304	29.8	16.0	0.80	15	—	—	2	5	7	—	1	109	3.0
Leicester - - - -	232,111	1,492	890	25.8	15.4	2.01	117	—	2	10	10	87	—	8	202	1.1
Grimsby - - - -	69,359	513	235	29.7	13.6	0.46	8	—	—	—	4	1	3	—	131	1.3
Nottingham - - -	254,563	1,735	1,191	27·3	18.8	0.96	60	—	1	1	14	19	10	15	176	0.7
Derby - - - - -	123,981	781	441	25.3	14.3	1.16	36	—	1	2	18	8	3	4	104	—
Stockport - - - -	99,646	676	454	27.2	18.3	1.04	26	—	1	—	3	18	1	3	154	—
Birkenhead - - -	117,292	966	467	33.0	16.0	0.58	17	—	—	7	1	2	3	4	100	—
Wallasey - - - -	64,578	418	206	26.0	12.8	0.56	9	—	—	3	5	—	—	1	105	1.0
Liverpool - - - -	739,180	6,157	3,928	33.4	21 3	2.22	409	—	130	82	49	108	10	30	147	4.3
Bootle - - - - -	65,989	546	281	33.2	17.1	0.91	15	—	—	5	2	8	—	—	141	2.8
St. Helens - - - -	91,153	784	408	34.5	17.1	0.83	19	—	—	1	11	2	3	2	140	6.9
Wigan - - - - -	87,588	749	357	34.3	16.3	0.24	5	—	—	1	1	—	3	—	144	1.1
Warrington - - -	69,280	588	338	34.0	19.6	0.99	17	—	—	—	1	14	1	1	151	5.3
Bolton - - - -	180,502	1,123	662	25.0	14.7	0.54	25	—	1	2	5	2	9	6	116	0.3
Bury - - - - -	58,744	351	267	24.0	18.2	2.60	38	—	36	—	—	1	1	—	157	3.0
Manchester - - -	637,126	4,697	2,850	29.6	17.9	1.49	236	—	60	24	26	66	24	36	134	1.2
Salford - - - -	234,077	1,819	968	31.2	16.6	1.34	78	—	8	14	13	25	11	7	109	0.2
Oldham - - - -	140,969	924	615	26.3	17.5	1.37	48	—	3	15	5	18	—	7	136	—
Rochdale - - - -	87,189	488	329	22.4	15.1	1.02	22	—	—	4	1	10	1	6	123	2.7
Burnley - - - -	102,808	752	475	29.3	18.5	1.57	40	—	1	—	4	18	4	13	153	0.8
Blackburn - - -	134,015	838	601	25.1	18.0	2.34	78	—	40	16	11	—	2	9	155	3.5
Preston - - - -	116,399	849	654	29.3	22.5	3.59	104	—	85	5	2	—	6	6	193	2.3
Barrow-in-Furness - -	60,967	447	212	29.4	13.9	0.93	14		—	2	5	1	1	5	132	3.3
Huddersfield - - -	94,851	621	390	26.3	16.5	0.93	22	—	—	1	5	9	3	4	87	0.5
Halifax - - - -	109.272	524	464	19.2	17.0	0.95	26	—	6	3	9	3	—	5	118	1.3
Bradford - - - -	288,544	1,499	1,160	20.8	16.1	0.96	69	—	15	17	19	3	9	6	129	0.4
Leeds - - - - -	463,495	3,111	2,003	26.9	17.3	2.14	248	—	145	4	34	43	12	10	142	0.1
Sheffield - - - -	447,951	3,380	1,709	30.3	15.3	1.30	145	—	9	58	28	31	8	11	114	2.5
Rotherham - - -	61,098	528	233	34.7	15.3	0.86	13	—	—	4	3	4	1	1	116	4.3
York - - - - -	83,467	564	321	27.1	15.4	1.50	31	—	12	4	6	6	1	2	119	—
Hull - - - - -	262,426	2,005	1,059	30.6	16.2	1.09	71	—	—	2	46	20	—	3	121	0.1
Middlesbrough - -	100,069	897	482	36.0	19.3	1.44	36	—	6	2	9	2	1	16	144	1.7
Stockton-on-Tees - -	52,664	475	218	36.2	16.6	1.37	18	—	1	1	5	7	2	2	112	—
West Hartlepool - -	73,387	544	264	29.7	14.4	1.43	26	—	—	10	4	8	2	2	101	0.4
Sunderland - - -	154,385	1,326	734	34.4	19.1	1.01	39	—	2	2	13	13	4	5	133	3.5
South Shields - - -	111,402	916	455	33.0	16.4	0.89	25	1	—	—	9	4	4	7	131	4.8
Gateshead - - -	123,191	1,072	501	34.9	16.3	1.76	54	—	13	—	8	27	3	3	125	7.0
Newcastle-on-Tyne - -	268.721	2,123	1,158	31.7	17.3	1.62	109	—	56	3	14	31	1	4	130	0.7
Tynemouth - - -	54 138	423	261	31.3	19.3	0.52	7	—	—	—	4	—	—	3	137	2.3
Newport (Mon.) - -	74.227	619	326	33.4	17.6	0.97	18	—	—	2	1	9	1	5	153	0.3
Cardiff - - - -	183,823	1,272	673	27.8	14.7	0.72	33	—	—	—	6	17	4	6	127	—
Rhondda - - - -	127,684	1,258	547	39.5	17.2	1.49	47	—	4	4	9	19	5	6	184	0 2
Merthyr Tydfil . -	74.961	683	376	36.5	20.1	1.76	33	—	—	3	18	8	4	—	165	0.5
Swansea - - - -	96,848	806	482	33.4	20.0	1.32	32	—	18	2	2	3	3	4	158	—

The 65,351 deaths from all causes in the seventy-six towns last quarter included 5,444 which were referred to the principal infectious diseases: of these, 3 resulted from small-pox, 1,628 from measles, 537 from scarlet fever, 847 from diphtheria, 1,597 from whooping-cough, 266 from "fever" (principally enteric), and 566 from diarrhoea. The death-rate from these diseases, which had been 1.67, 1.60, and 1.39 per 1,000 in the corresponding quarters of the three preceding years, was 1.38 per 1,000 last quarter. In London the death-rate from these principal infectious diseases was 1.44 per 1,000, while it averaged 1.36 in the seventy-five other large towns, among which the rates ranged from 0.24 in Burton-on-Trent and in Wigan, 0.30 in Hastings, 0.39 in Ipswich, 0.46 in Grimsby, 0.50 in Walsall, 0.52 in Tynemouth and 0.54 in Bolton, to 2.01 in Plymouth and in Leicester, 2.06, West Bromwich, 2.14 in Leeds, 2.22 in Liverpool 2.34 in Blackburn, 2.60 in Bury, and 3.59 in Preston. The 1,628 deaths from measles were equal to an annual rate of 0.41 per 1,000; in London this rate was 0.58 per 1,000, while it averaged 0.34 in the seventy-five other large towns, and was highest in Tottenham, Wolverhampton, Bury, Blackburn, Preston, Leeds, and Newcastle-on-Tyne. The 537 fatal cases of scarlet fever corresponded to an annual rate of 0.14 per 1.000; in London the death-rate from this disease was only 0.11 per 1,000, while it averaged 0.15 in the seventy-five large provincial towns, among which scarlet fever was proportionally most fatal in East Ham, Hanley, Liverpool, Bootle, Oldham, Blackburn, Sheffield, and West Hartlepool. The 847 deaths from diphtheria were equal to an annual rate of 0.21 per 1,000; in London the diphtheria mortality was 0.17 per 1,000, while it averaged 0.24 in the seventy-five other large towns, and was greatest in West Ham, Derby, St. Helens, Hull, Middlesbrough, Stockton-on-Tees, and Merthyr Tydfil. The 1,597 fatal cases of whooping-cough corresponded to an annual death-rate of 0.41 per 1,000: in London this rate was 0.39 per 1,000: among the seventy-five large provincial towns whooping-cough was proportionally most fatal in Reading, Plymouth, Handsworth (Staffs), West Bromwich, Smethwick, Aston Manor, and Leicester. The 266 deaths referred to different forms of "fever" were equal to a rate of 0.07 per 1,000; in London the "fever" death-rate was only 0.04 per 1,000, while it averaged 0.08 per 1,000 in the seventy-five other large towns, and was highest in Northampton, Hanley, West Bromwich, Grimsby, Bolton, Salford, Preston, and Merthyr Tydfil. The 566 fatal cases of diarrhoea corresponded to an annual rate of 0.14 per 1.000: in London the rate was 0.15 per 1.000; among the seventy-five other large towns diarrhoea was proportionally most fatal in Great Yarmouth, Walsall, Rochdale, Burnley, Barrow-in-Furness, and Middlesbrough. Of the 3 fatal cases of small-pox registered in the seventy-six towns last quarter, 1 belonged to Plymouth, 1 to Bristol, and 1 to South Shields.

Infant mortality, measured by the proportion of deaths among children under one year of age to registered births, was equal to 128 per 1,000 last quarter, against 135, 145, and 127 in the corresponding periods of the three preceding years; in London the rate of infant mortality was 117 per 1.000, while it averaged 133 in the seventy-five other large towns, and ranged from 87 in Huddersfield, 88 in East Ham, 96 in Hornsey and in Willesden, 98 in Leyton, and 100 in Birkenhead, to 174 in Bournemouth, 176 in Nottingham, 179 in Walsall, 184 in Rhondda, 193 in Preston, and 202 in Leicester.

The causes of 764, or 1.2 per cent., of the deaths registered in the seventy-six large towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon, West Ham, East Ham, Brighton, Southampton, Plymouth, Derby, Birkenhead, Oldham, Cardiff, and nine other smaller towns: while the largest proportions of uncertified deaths were registered in Burton-on-Trent, Liverpool, St. Helens, Warrington, Rotherham, South Shields, and Gateshead.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

Deputy-Inspector-General of Hospitals and Fleets John Tyndall has been awarded the Greenwich Hospital Pension of £50 a year in the vacancy caused by the death of Deputy-Inspector-General Thomas R. Warren. Deputy-Inspector-General Tyndall's commission as surgeon is dated March 2nd, 1871; he was promoted Staff-Surgeon on March 2nd, 1883, Fleet-Surgeon on May 8th, 1891, and retired with the rank of Deputy-Inspector-General on Oct. 22nd, 1899. Deputy-Inspector-General Tyndall served at the Royal Naval Hospital, Jamaica, 1876-9. He performed a notable service in voluntarily attending in the Military Hospital, Port Royal, 1878, during an outbreak of yellow fever. Here he contracted the disease, and narrowly escaped death (recommended for promotion). He was Senior Medical Officer in the Niger Expedition, 1883, and was mentioned in dispatches.

The following appointments have been made at the Admiralty: Francis J. L. P. McKenna, M.B., Surgeon, to the *Egmont*, additional for Malta Dockyard, vice Westcott; Edward P. G. Causton, B.A., Surgeon, to the *Britannia*, additional, for Dartmouth College; Reginald H. St. B. E. Hughes, Surgeon, and John J. H. Rooney, Surgeon, both to the *Victory*, additional, for disposal—all dated May 2nd.

Civil Practitioner Thomas J. O'Meara, M.B., is appointed Surgeon and Agent at Castletownsend, Union Hall, Ballyally, and Baltimore; and Civil Practitioner George W. Daunt, Surgeon and Agent at Mill Cove and Ross Bar, both May 5th.

THE LIFE GUARDS.

The appointment is gazetted of Captain Alfred Crichton Lupton, M.B., from the Royal Army Medical Corps, to be Surgeon-Captain in the 1st Life Guards, under date of May 5th, vice Surgeon-Major B. Pares (promoted). Captain Lupton's first appointment, as Lieutenant, is dated January 28th, 1898 and his captaincy January 28th, 1901. He saw active service in the South African war, 1899-1902, in the operations in the Orange River Colony, including the action at Wittebergen, and in the operations in Cape Colony south of the Orange River. He has the Queen's medal with four clasps.

ARMY MEDICAL STAFF.

Major Herbert John Martin Buist, D.S.O., M.B., B.Ch., Royal Army Medical Corps, to be a Deputy-Assistant Director-General, vice Major T. McCulloch, M.B., Royal Army Medical Corps, whose tenure of that appointment has expired (dated May 1st). Major Buist's commission as Surgeon-Captain is dated July 28th, 1891, and that as Major July 28th, 1903. He saw active service in the campaign on the North-West Frontier of India in 1897 with the Malakhand Field Force, being mentioned in dispatches (medal with two clasps).

ROYAL ARMY MEDICAL CORPS.

Colonel O. E. P. Lloyd, V.C., has been appointed Principal Medical Officer of the Jubbulpore and Jhansi Brigades.

Colonel R. H. Foreman has been appointed Principal Medical Officer of the Bombay Brigade.

Lieutenant-Colonel Octavius Todd, M.B., M.Ch., is promoted to be Colonel, vice Colonel B. Montgomerie Blennerhassett, C.M.G., retired April 4th. Lieutenant-Colonel Todd's commission as Major is dated March 6th, 1892, and that of Lieutenant-Colonel March 6th, 1900. Lieutenant-Colonel Todd served in the South African war in 1899-1900 as Principal Medical Officer of a Division, and also as that of the 14th General Hospital. He saw much of the fighting, being engaged in the Relief of Ladysmith, including the action at Vaal Kranz, the operations on the Tugela Heights (February 14th to 27th, 1900), and the action at Pieter's Hill. He also took part in the Natal operations of March to the beginning of June of the same year, including the action at Laing's Nek, as well as in those in the Transvaal. He was twice mentioned in dispatches, and has the Queen's medal with five clasps, and the King's medal with two clasps.

Lieutenant W. C. Nimmo has assumed medical charge of women and children, Marlborough lines, Aldershot.

Lieutenant-Colonel Francis Joseph Lambkin to be Colonel, under the provisions of Articles 36 and 356 of the Royal Warrant of March 19th, 1906 (dated May 9th). Lieutenant-Colonel Lambkin entered the service as Surgeon on July 30th, 1881, became Surgeon-Major on July 30th, 1893, and Lieutenant-Colonel on July 30th, 1901. He served in the South African war, 1899-1900, and was present at the battle of Colenso, the action at Spion Kop, the engagements of Vaal Krantz and Pieter's Hill, and at the relief of Ladysmith.

INDIAN MEDICAL SERVICE.

Major F. J. Crawford has been gazetted to act as Senior Medical Officer, General Hospital, Madras, in the room of Lieutenant-Colonel W. B. Browning, C.I.E., who is proceeding on leave.

The following officers have been appointed to the *personnel* of the Medical Division of the new Military Organization in India:

Principal Medical Officer—Sir T. J. Gallwey, K.C.M.G., C.B., A.M.S.

Secretaries to Surgeon-General (I.M.S.)—Major W. H. W. Elliot, D.S.O., I.M.S. (on leave); Major B. G. Seton, I.M.S. (officiating).

Secretary to Surgeon-General (R.A.M.C.)—Captain E. B. Knox, R.A.M.C. Assistant-Secretary to Surgeon-General—Assistant-Surgeon J. J. McDonald, M.D., I.S.M.D.

Sanitary Officer, Army Head Quarters—Captain H. E. M. Douglas, D.S.O., R.A.M.C.

INFANTRY (MILITIA).

Surgeon-Lieutenant-Colonel T. Carter, of the 4th Battalion Yorkshire Regiment, is retired, under the conditions of para. 55, Militia Regulations, with permission to retain his rank, and to wear the prescribed uniform, May 5th.

ARMY MEDICAL CORPS (MILITIA).

Surgeon-Captain Samuel M. Sloan, M.B., Army Medical Reserve of Officers (late Captain, Scottish Command, Glasgow Companies, R.A.M.C. (Volunteers) to be Captain, March 15th.

Supernumerary Lieutenant (Honorary Lieutenant in the Army) G. Lane to be Captain, remaining seconded, March 30th.

RIFLE (VOLUNTEERS).

Walter Fitzpatrick is gazetted to be Surgeon-Lieutenant in the 5th Volunteer Battalion Devonshire Regiment, under date April 28th.

Supernumerary Surgeon-Lieutenant-Colonel and Honorary Surgeon-Colonel W. D. Waterhouse, V.D., of the 4th Volunteer Battalion Royal Fusiliers, resigns the appointment of Brigade-Surgeon-Lieutenant-Colonel (Senior Medical Officer) 2nd London Volunteer Infantry Brigade, April 1st.

Surgeon-Major H. M. Ramsay resigns his commission in the 14th Middlesex (Inns of Court) Volunteer Rifle Corps, April 9th.

Surgeon-Lieutenant W. A. Malcolm, M.B., of the 21st Middlesex (Finsbury) Volunteer Rifle Corps, is appointed Surgeon-Captain.

Surgeon-Captain C. Boyd, of the 3rd Volunteer Battalion (Royal West Surrey Regiment), is granted the honorary rank of Surgeon-Major.

Surgeon-Captain C. A. O. Owens, M.D. (Brigade-Surgeon-Lieutenant-Colonel, Senior Medical Officer, Norfolk Volunteer Infantry Brigade), of the 4th Volunteer Battalion Norfolk Regiment, is promoted to be Surgeon-Major, August 1st, 1902.

Surgeon-Lieutenant-Colonel H. W. Roberts, V.D., of the 2nd Volunteer Battalion Queen's Own Royal West Kent Regiment, is granted the honorary rank of Surgeon-Colonel, April 28th.

Surgeon-Lieutenant B. Stracey, M.B., resigns his commission in the 1st Volunteer Battalion Leicestershire Regiment, April 28th.

Alexander B. Sloan, M.D., is appointed to the 4th Volunteer Battalion Scottish Rifles (Cameronians) as Surgeon-Lieutenant, April 28th.

The King has been graciously pleased to confer the Volunteer Officers' Decoration upon the undermentioned officers of the Volunteer Force:

In the Scottish Command (Artillery) Surgeon-Lieutenant-Colonel William R. Sewell, M.D., of the 1st Renfrew and Dumbarton Royal Garrison Artillery (Volunteers).

In the Southern Command (Artillery) Surgeon-Lieutenant George C. Searle, of the 1st Devonshire Royal Garrison Artillery (Volunteers).

In the Western Command (Rifles) Surgeon-Major James S. Wilson, M.D., of the 2nd Volunteer Battalion South Staffordshire Regiment, and Surgeon-Major and Honorary Surgeon-Lieutenant-Colonel W. H. Packer, M.D., of the 1st Volunteer Battalion King's (Shropshire Light Infantry).

The military rank of Surgeon-Lieutenant-Colonel Edward Cureton, V.D. (Honorary Surgeon-Colonel), is as now given, and not as stated in the Supplement on April 28th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

James A. H. Aitken, M.B., of the Highland Light Infantry Bearer Company, to be Lieutenant, April 28th.

Captain J. N. Brown, M.D., of the 2nd London Bearer Company, is appointed Brigade Surgeon Lieutenant-Colonel whilst employed as Senior Medical Officer of the 2nd London Volunteer Infantry Brigade, April 1st.

George W. Craig, of the Worcester and Warwick Bearer Company, is gazetted Lieutenant, April 28th.

Vacancies and Appointments.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

BIRKENHEAD UNION.—Resident Assistant Medical Officer. Salary, £120 per annum.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Clinical Assistant. Honorarium at the rate of 52 guineas per annum.

BIRMINGHAM GENERAL HOSPITAL.—(1) Assistant Physician. (2) Dermatologist. (3) House-Surgeon. (4) Two Assistant House-Surgeons. Salary for (1), £100; and for (3) and (4) at the rate of £50 and £40 per annum respectively.

BRECKNOCK COUNTY AND BOROUGH INFIRMARY.—Resident House-Surgeon. Salary, £100 per annum.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—Honorary Assistant Physicians.

DUDLEY: GUEST HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £40 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Dental Surgeon.

ESSEX AND COLCHESTER GENERAL HOSPITAL. — House-Physician. Salary, £60 per annum.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark.—(1) House-Physician. (2) House-Surgeon. (3) Assistant House-Surgeon. Salary for (1) and (2), £80, and for (3) £70 per annum.

HOSPITAL FOR WOMEN, Soho Square, W.—Surgeon Dentist.

HANTS COUNTY ASYLUM.—Second Assistant Medical Officer (male). Salary, £175 per annum.

LANCASHIRE COUNTY ASYLUM, Winwick.—Locum Tenens Medical Officer. Salary, 4 guineas per week.

LEEDS TUBERCULOSIS ASSOCIATION.—Resident Medical Officer at the Sanatorium, Gateforth. Salary at the rate of £100 per annum.

LIVERPOOL INFIRMARY FOR CHILDREN. — Assistant House-Surgeon. Salary, £60 per annum.

LONDON HOSPITAL, Whitechapel, E.—Surgical Registrar.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary. £[illegible]0 per annum.

MAIDSTONE: WEST KENT GENERAL HOSPITAL.—Senior House-Surgeon. Salary, £100 per annum.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill.—Junior House-Surgeon. Salary, £50 per annum.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road, N.W.—(1) Resident Medical Officer. (2) Assistant Resident Medical Officer. Salary at the rate of £50 per annum each.

PORTSMOUTH BOROUGH ASYLUM.—Assistant Medical Officer. Salary, £150, rising to £200 per annum.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—(1) Assistant to the Clinical Pathologist; Salary, £[illegible]0 per annum. (2) Junior Obstetric Assistant. (3) Assistant Anaesthetist.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, W.C.—(1) House-Surgeon; honorarium, £25 for six months. (2) Clinical Assistants.

SHEFFIELD: CHILDREN'S HOSPITAL.—House-Surgeon for East End Branch. Salary, £70 per annum.

SHEFFIELD ROYAL HOSPITAL.—Male Assistant House-Physician. Salary, £50 per annum.

SHEFFIELD ROYAL INFIRMARY.—(1) Junior Assistant House-Surgeon. (2) Junior House-Physician. Salary, £65 and £60 per annum respectively.

SWANSEA GENERAL AND EYE HOSPITAL.— House-Surgeon. Salary, £75 per annum.

TAUNTON AND SOMERSET HOSPITAL.—Resident Assistant House-Surgeon. Salary at the rate of £[illegible]0 per annum.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—(1) Surgeon to in-patients. (2) House-Surgeon. Honorarium, £25.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Honorary Surgeon.

WIGAN: ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY.—Junior House-Surgeon Salary, £80 per annum.

CERTIFYING FACTORY SURGEONS.— The Chief Inspector of Factories announces the following vacancy in the office of Certifying Factory Surgery: Cavendish, co. Suffolk.

APPOINTMENTS.

ADAMS, J. A., M.B., B.Ch.R.U.I., Medical Officer of Health for the Sowerby Urban District.

AIKEN, Acheson, L.R.C.P.and S.Irel., Medical Officer of the Workhouse and Dispensary District of Irvinestown.

ASHWIN, R. H., M.D.Lond., Certifying Factory Surgeon for the Market Weighton District, co. York.

BIRD, P. J. S., B.A., M.D.Dub., Honorary Anaesthetist to the Dental Department, Leeds Public Dispensary.

BLAKENEY, John Henry, M.R.C.S.Eng., L.R.C.P.Lond., Public Vaccinator for the No. 1 District of the Cheltenham Union, vice Dr. J. F. Johns, resigned.

CARDOZO, S. N., M.R.C.S., L.R.C.P., District Medical Officer of the South Molton Union.

DE BOINVILLE, V. Chastel, M.B., Ch.B.Edin., Honorary Anaesthetist to the David Lewis Northern Hospital, Liverpool.

DICK, W., L.R.C.S., L.R.C.P., House-Surgeon to the Bradford Children's Hospital.

HARDING, C. H., M.R.C.S., L.R.C.P., District Medical Officer of the Whittlesey Union.

HARTFORD, A. H. B., L.R.C.P and S.Irel, Certifying Factory Surgeon for the Christchurch District, co. Hants.

HOWLETT, Bernard, M.R.C.S., L.R.C.P., Medical Officer and Public Vaccinator for the Parishes of Ham and Coombe of the Kingston Union.

JAMES, H. W., M.R.C.S., L.R.C.P., Resident Assistant Medical Officer to the Camberwell Parish Infirmary.

LIGHTFOOT, J. P., M.R.C.S., L.R.C.P., Medical Officer of Health of the Leyburn Rural District and Workhouse Medical Officer of the Leyburn Union.

LYS, Henry Grabham, M.D.Lond., M.R.C.P.Edin., Physician to the Royal Victoria Hospital, Bournemouth.

PRINGLE, A. M. N., M.B., C.M.Edin., Medical Officer of Health to the Ipswich Borough and Port.

RADCLIFFE, R. B., M.B., Ch.B., Fourth Resident Medical Officer to the Leeds Public Dispensary.

SHEEHAN, M., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Mallow District, co. Cork.

STARK, J. Nigel, M.D., F.F.P.S.Glasg., Surgeon to the Glasgow Samaritan Hospital for Women, vice J. Stuart Nairne, F.R.C.S.E., resigned.

STEAVENSON, A. P., M.D.Edin., District Medical Officer of the Darlington Union.

STRAIN, Arthur C., M.B., Ch.B., Resident Physician, Chalmers Hospital, Edinburgh.

THOMAS, H. Mortimer, M.R.C.S., L.R.C.P., House-Surgeon to the Royal National Orthopaedic Hospital, vice Sidney Welham, M.R.C.S.Eng.

WAGGETT, Ernest, M.B., B.C.Cantab., Surgeon to the newly constituted Department for Diseases of the Throat, Ear and Nose at Charing Cross Hospital.

WILKINS, Eric M., M.B., M.R.C.S., Junior Assistant Medical Officer at Monsall Fever Hospital, Manchester.

LEEDS GENERAL INFIRMARY.—The following appointments have been made by the Faculty of the General Infirmary:

Resident Ophthalmic Officer: R. G. Dixon, M.B., Ch.B.Leeds.
Ophthalmic House-Surgeon: P. A. H. Radcliffe, M.B., Ch.B.Vict.
Resident Obstetric Officer: W. E. Brierley, M.B., Ch.B.Vict.
Resident at the Convalescent Homes: Alf. Gough, M.B., Ch.B. Leeds.
House-Physicians: A. L. Walker, M.B., Ch.B.Leeds, and R. A. Veale, B.A.Oxon.
House-Surgeon: W. Edmondson, M.R.C.S., L.R.C.P.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

HENDERSON.—On May 4th, at The Elms, Lasswade, the wife of John Henderson, M.B., C.M., of a daughter.

HOLMAN.—On Thursday, May 3rd, at Galeston, Eton Avenue, Hampstead, the wife of Frank Kay Holman, M.D., M.R.C.S., L.R.C.P., of a son.

WILSON.—On May 3rd, at 227, Oldfield Road, Salford, Manchester, to Mr. and Mrs. A. W. Wilson, M.B. a daughter.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square. W.C., 8 p.m. General meeting, 8.30 p.m.—Papers: (1) Mr. W. H. Battle: Method of Operation for the Radical Cure of Femoral Hernia. (2) Mr. W. H. Curtis: A Successful Case of Appendicitic Abscess and Multiple Liver Abscess: Appendicectomy and Drainage.

TUESDAY.

PATHOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 p.m.— 1) Papers: Chorion-Epithelioma of Congenital Origin, by Drs. Victor Bonney (jointly with Dr. Schenk), J. Bernstein, Teacher (Glasgow), Williamson, Spilsbury, and Mr. Hicks. (2) Dr. J. Fawcett: Diphtheria of Oesophagus and Bronchi. Cards specimens will also be shown.

WEDNESDAY.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY, 20, Hanover Square, W., 5 p.m., General meeting; 5.30 p.m., an address by Dr. Frederick T. Roberts, on Some General Comments on Balneology and Associated Methods; and on Spas.

FRIDAY.

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN, 11, Chandos Street, W., 5 30 p.m.—The Wightman Lecture, by Dr. Broca, of Paris, on Appendicitis in Childhood.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Wednesday, 5 p.m. Pathology.

CHARING CROSS HOSPITAL, 4 p.m.—Monday, Mental: Thursday, Medical.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C., Thursday, 4 p.m —Congenital Heart Disease.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.—The following are the arrangements for next week: Clinical Demonstrations: Monday, 2.30 p m., Medicine; 3.15 p.m., Surgery; 4 p.m., Throat and Ear. Tuesday, 2.30 p.m., Medicine; 3.15 p.m., Surgery; 4 p.m., Skin Diseases Wednesday, 2.30 p.m., Medicine; 3.15 p.m., Surgery: 4 p.m., Ophthalmology. Thursday, 2 30 p m., Medicine; 3.15 p m., Surgery; 4 p.m., Radiography. Friday, 2.30 p.m., Medicine; 3.15 p.m., Surgery. Out-patient Demonstrations, Medical, and Surgical, daily at 10 a.m. Ear and Throat, Mondays and Thursdays, at noon. Eye, Wednesdays and Saturdays, 11 a.m. Skin, Tuesdays and Fridays, at noon. Operations, 2.30 daily.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day:

Monday, Skin; Tuesday, Medical; Wednesday, Surgical: Thursday, Surgical; Friday, Ear. Lectures at 5 15 p.m. each day will be given as follows: Monday, (1) Appendicostomy, (2) Tuberculosis of the Caecum. Tuesday, Gastric Ulcer; Wednesday, Dementia Praecox; Thursday, Observations on Treatment.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m. Cerebral Tumours. Friday, 3 30 p.m., Cerebral Surgery.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N.—The following clinical lectures have been arranged for next week at 4.30 p.m.: Tuesday, Lecture: Diagnosis and Treatment of Ringworm; Thursday, Lecture-demonstration: Electrical Treatment.

UNIVERSITY COLLEGE HOSPITAL, Gower Street, W.C.—Wednesday, 4 p.m., Clinical Lecture on Types of Pulmonary Tuberculosis from the Point of View of Treatment.

WEST LONDON HOSPITAL POST-GRADUATE COLLEGE, Hammersmith Road, London, W.—The following are the arrangements for next week: Monday, 10 a.m., Tropical Medicine; 12 noon, Practical Surgery; 5 p.m., The Examination of the Gastric Contents; Tuesday, 3 p.m., Demonstration in Medical Wards: 5 p.m., Intestinal Obstruction; Wednesday, 5 p.m.. Practical Medicine: Thursday, 10 a.m.. Tropical Medicine; 12 noon, Practical Surgery; 5 p.m., Practical Surgery: Friday, 5 p.m., Diagnosis of Appendicitis; Saturday, 2 p.m., Demonstration in Medical Wards.

BOOKS, ETC., RECEIVED.

Bulletins et Mémoires de la Société de Médecine et de Chirurgie de Bordeaux. Année 1905. Paris: Masson et Cie; and Bordeaux: Feret et Fils. 1906.

Physiology of the Nervous System. By J. P. Morat. Translated and edited by H. W. Syers, M.A., M.D. London: A. Constable and Co. 1906. 31s. 6d.

Life's Orchestra. By H. Killick. Fifth edition. London: E. Miles, M.A. 1s.

Life's Colours. By H. Killick. London: E. Miles, M.A. 1s. 6d.

The Management of a Plague Epidemic and the Principles on which it should be Based. By E. F. G. Tucker, Captain I M S. Calcutta: Thacker, Spink, and Co. 1906. Rs. 1/8.

Elementary First-Aid Handbook and Syllabus of Lectures, being a Synopsis of Beatson's Ambulance Handbook. Glasgow: St. Andrew's Ambulance Association. 1905.

Die Untersuchung der Faeces auf Blut. Von O. Schumm. Jena: G. Fischer. 1906. Mk. 1.50.

Das Reizleitungssystem des Säugetierherzens. Von Dr. S. Tawara. Jena: G. Fischer. 1906. Mk. 10.

Infection, Immunity, and Serumtherapy. By H. T. Ricketts, M.D Chicago: American Medical Association Press. 1906.

Transactions of the American Ophthalmological Society: Forty-first Annual Meeting, Boston, Mass., 1905. Vol. X, Part III. Hartford: American Ophthalmological Society. 1905.

The British Guiana Medical Annual for 1905. Edited by C P. Kennard, M.D., M.R.C.S. Fourteenth year of issue. Demerara: "The Argosy" Co., Limited. 1906. 5s.

Praescriptiones Rezept-Taschenbuch für die Praxis. Von Dr. E. Kantorowicz. Berlin: A. Hirschwald. 1906. Mk. 2.

A Manual of Diseases of the Eye. By C. H. May, M.D.; and C. Worth, F.R.C.S.Eng. London: Baillière, Tindall, and Cox. 1906. 10s. 6d.

Textbook of Anatomy. Edited by D. J. Cunningham, F.R.S. Second edition. Edinburgh and London: Young J. Pentland. 1906.

*** In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
	MAY.
11 FRIDAY.........	HAMPSTEAD DIVISION, *Metropolitan Counties Branch.*
12 SATURDAY...	
13 Sunday	
14 MONDAY	
15 TUESDAY......	LONDON: Volunteer Subcommittee, 3 p.m. AYLESBURY DIVISION, *South Midland Branch*, Royal Bucks Hospital, 2.30 p.m. FOLKESTONE DIVISION, *South-Eastern Branch*, Hotel Wampach, 8.30 p.m.
16 WEDNESDAY	LONDON: Medico-Political Committee, 3 p.m. (N.B. *Change of Date.*)
17 THURSDAY...	BRISTOL DIVISION, *Bath and Bristol Branch*, Medical Library, University College, Bristol, 8 p.m. CARDIFF DIVISION, *South Wales and Monmouthshire Branch*, Annual Meeting. CROYDON DIVISION, *South-Eastern Branch*, Annual Meeting, Croydon General Hospital; Dinner, Greyhound Hotel. REIGATE DIVISION, *South-Eastern Branch*, Cottage Hospital, Redhill, 3.30 p.m.
18 FRIDAY.........	LONDON: Premises and Library Committee, 3 p.m.
19 SATURDAY...	
20 Sunday.........	
21 MONDAY	
22 TUESDAY.....	FOLKESTONE DIVISION, *South-Eastern Branch*, Annual Meeting, Hotel Wampach, 7.15 p.m; Dinner, 8.30 p m. Meeting of Folkestone, Ashford, and Dover Constituency after annual meeting.

Date.	Meetings to be Held.
	MAY *(continued).*
23 WEDNESDAY	ALTRINCHAM DIVISION, *Lancashire and Cheshire Branch*, Sale Hall (Garden Party by Sir W. H. Bailey). TROWBRIDGE DIVISION, *Bath and Bristol Branch*, Town Hall, Trowbridge, 2.45 p.m.
24 THURSDAY...	CITY DIVISION, *Metropolitan Counties Branch*, Annual Meeting, Great Eastern Hotel, Liverpool Street, E.C., 4 p.m. DORSET AND WEST HANTS BRANCH, Annual Meeting, Bournemouth Medical Society's Room, Shaftesbury Hall.
25 FRIDAY.........	NORTH CUMBERLAND DIVISION, *Border Counties Branch*, Annual Meeting, County Hotel, Carlisle 3.30 p.m. ST. PANCRAS AND ISLINGTON DIVISION, *Metropolitan Counties Branch*, Islington Infirmary, Highgate Hill, 4 p.m. WANDSWORTH DIVISION, *Metropolitan Counties Branch*. Annual Meeting preceding Annual Dinner. Banqueting Hall, Battersea Town Hall, 7 p.m.
26 SATURDAY...	
27 Sunday	
28 MONDAY	
29 TUESDAY ...	LONDON: Metropolitan Branch Council, 5 p.m.
30 WEDNESDAY	BATH AND BRISTOL BRANCH, Annual Meeting, Medical Library, University College Bristol, 4 30 p.m. LEICESTER DIVISION, *Midland Branch*, Annual Meeting, Infirmary, Leicester, 4 p.m. NORTH CARNARVONSHIRE AND ANGLESEA DIVISION, *North Wales Branch*, Annual Meeting, British Hotel, Bangor.
31 THURSDAY...	

Printed and published by the British Medical Association at their Office, No 429, Strand in the Parish of St Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 19TH, 1906.

CONTENTS.

PAGE

RITISH MEDICAL ASSOCIATION: COMMITTEE ON PUERPERAL MORBIDITY.—REPORT 261

EETINGS OF BRANCHES AND DIVISIONS:

Lancashire and Cheshire Branch: Liverpool (Northern) Division 265

Lancashire and Cheshire Branch: Southport Division ... 265

Metropolitan Counties Branch: City Division 265

" " " Lambeth Division 265

North Lancashire and South Westmorland Branch: Lancaster Division 266

South-Eastern Branch: Norwood Division 266

South-Eastern of Ireland Branch 266

Ulster Branch 266

West Somerset Branch 266

EMBERS ELECTED DURING THE MARCH QUARTER ... 267

RITISH MEDICAL ASSOCIATION LIBRARY 268

PAGE

ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD 269

NOTICE OF CHANGES OF BOUNDARIES OF DIVISIONS AND BRANCHES... 271

GRANTS FOR SCIENTIFIC RESEARCH 271

ABUSE OF MEDICAL CHARITIES IN NOTTINGHAM ... 272

VITAL STATISTICS 272

NAVAL AND MILITARY APPOINTMENTS 273

VACANCIES AND APPOINTMENTS 274

BIRTHS, MARRIAGES, AND DEATHS 274

DIARY OF THE WEEK 275

BOOKS, ETC., RECEIVED... 275

CALENDAR 276

British Medical Association

COMMITTEE ON PUERPERAL MORBIDITY.

T the annual meeting of the Association at Leicester paper was read in the Section of Obstetrics and ynaecology by Professor Hastings Tweedy, Rotunda ospital, Dublin, on the High Range of Normal Tempe- ture and Pulse throughout the Puerperium.

Dr. Tweedy urged that success in obstetrical practice more accurately gauged by a low percentage of morbid ses than by any table of septic mortality. At present, wever, no definite agreement exists as to the physical dications of puerperal morbidity, and every maternity spital fixes its own arbitrary standard for statistical rposes, its cases being grouped accordingly as normal abnormal. He said that a clear insight into the effi- ency of our methods could only be gained by the loption of a common standard on which to base orbidity returns.

In order that statistics may be comparable they must compiled on a similar basis. In the discussion which llowed speakers agreed that a common standard was ost desirable, and a resolution was unanimously passed the Section:

> That it is desirable that a standard of morbidity be fixed fo use in maternity hospitals, and that the Council be requested to arrange for a Special Committee to inquire into the matter.

In accordance with this resolution a Special Committee is appointed consisting of members selected by the uncil and of Representatives nominated by their re- ective societies at the request of the Council, an effort us being made to obtain a Committee representing the ews of obstetricians throught the United Kingdom.

The Committee consisted of the following members: ofessor H. R. Spencer (London), Convener; Miss rrett Anderson, M.D., Honorary Secretary; Dr. R. C. ist (Dundee), Professor Byers (Belfast), Professor veedy (Dublin), Dr. Thomas Wilson (Birmingham), Dr. bert Boxall (London Obstetrical Society), Dr. J. W. llantyne (Edinburgh Obstetrical Society), Professor bert Jardine (Glasgow Obstetrical Society), Dr. W. E. Fothergill (North of England Obstetrical Society), Dr. Andrew J. Horne (Royal Academy of Medicine in Ireland).

REPORT.

THE Committee held two meetings, on January 26th and March 9th.

At the preliminary meeting, January 26th, information was received from maternity hospitals in England and abroad in regard to the standards of puerperal morbidity which they recognize. From the diversity of the replies it was obvious that efficient comparison of the statistics of these institutions would be practically impossible.

After careful consideration of the information at their disposal, the Committee decided to make practical trial of a criterion of morbidity which was incorporated in their interim report.

At the final meeting of the Committee, on March 9th, members submitted the results which they had obtained from the application of this criterion to series of cases in their own hospitals. As a result of the practical experience gained in this way the criterion of puerperal morbidity at first recommended by the Committee was considerably modified.

It was then resolved:

> That it is desirable that maternity hospitals should adopt a uniform standard of puerperal morbidity, so that doubtful cases should no longer be included in one set of statistics and excluded from another, as is the case at present. A criterion of morbidity, necessarily arbitrary, is therefore recommended in the hope that it may be adopted in British and colonial hospitals.

Recommendations.

The Committee accordingly beg to submit the recommendations embodied in the following six resolutions:

1. That irregularities in temperature occurring during the twenty-four hours following delivery should not be considered for statistical purposes.

2. That as the time puerperal patients remain in hospital varies in different institutions, statistical tables should be formed from the records up to the end of the eighth day after delivery.

3. That statistical records should relate only to patients delivered after the sixth lunar month of pregnancy.*

---

* It is recommended that cases delivered before the end of the sixth lunar month of pregnancy should be tabulated separately.

Hospital, Physician, etc., from which Reply Received.	What conditions throughout the puerperium do you regard as indicative of Morbidity?					In the Normal Puerperium are the Temperature and Pulse ever over 99° F. and 90 Beats per Minute respectively?	Do you ever discharge Patients with P. over 90 per Minute and T. over 99° F. on the Day of Departure?	Within what Limits of P. and T. do you regard the Puerperium as Normal?	Have you any Suggestions as to general adoption of a Standard for use in Maternity Hospitals to serve as an Index of Septic Morbidity?
	(*A*) Temperature.	Where and How Taken.	(*B*) Pulse.	(*C*) Lochia.	(*D*) Disturbances associated with Lactation.				
1 General Lying-in, York Road, S.E. 26 beds. Dr. Dakin	Above 99° F. for 12 hours	Mouth. M. and E. in normal, 4-hourly in abnormal cases	If over normal for some hours	Only if combined with other signs	—	Yes, temporarily	No	No limit. It depends on duration and various other circumstances	No. Everyone who is fit to be in charge of a lying-in hospital is capable of deciding this, and a standard is, in my opinion, useless.
2 Rotunda Hospital, Dublin. Over 1,900 deliveries yearly. Dr. Tweedy	Above 99° F. combined with P. over 90; recorded for 3 consecutive readings—*i.e.*, for 24 hours	Mouth. M. and E.	Over 90 for period of 24 hours	—	—	Yes, frequently for the first 24 hours after labour, and transitory rises may occur on other days	No; unless there is some complicating disease as phthisis, etc.	The high limit ranges are T. 99° F. and P. 90 per minute. We do not count the first 24 hours after delivery, and the morning and evening records must show consecutive abnormality for 3 records. This method of recording morbidity seems to us satisfactory.	
3 Glasgow Maternity Hospital. 44 beds. Dr. Robert Jardine	100° F. or over. Temperature and pulse must be considered together: of the two the pulse is the better index	Axilla. M. and E. in normal, 4-hourly in abnormal cases	90 or upwards. Much better guide than the T.	Fetid or scanty. Bacteriological examination final test	—	Not as a rule, but there are many exceptions	No	T. 100° F. and P. 90, but there are many exceptions to this	I do not think it is possible to adopt any standard of temperature and pulse-rate as an index of sepsis, as there are too many other causes of rises of temperature and pulse. The only accurate method will be by having bacteriological examination of the lochial discharge.
4 Clapham Maternity Hospital. 36 beds. Dr. Annie McCall	100° F. or over	Mouth. Twice daily in normal, 4-hourly in abnormal cases	P. 100 or more	—	—	Yes; excitement	No	T. 100° F., P. 100	No.
5 Large private practice, Madras. Mrs. Scharlieb, M.D.	100° F. or over	Mouth	—	—	Rise of T. associated with engorgement of the breasts not considered an indication of sepsis	Yes	—	—	—
6 Frauenklinik, Munich. 1,700 deliveries yearly. Dr. F. v. Winckel	37°–38° C.	Axilla and rectum. 2–6 daily	Over 80	—	—	No	No	P. 40–80. T. 37°–38° Celsius	—
7 Lying-in Hospital, Newcastle. 150 deliveries yearly. Dr. Ranken Lyle	100.8° F. or over	Mouth. M. and E.	Over 100	Foul-smelling	No disturbance of P. or T. with normal lactation	Yes, frequently; especially after termination of labour in 1-para when temp. may rise to 103° F. and fall to normal in a few hours	No	T. 100.8° Fahr. P. 100	Temperature 100.8° Fahr.
8 British Lying-in, London. 30 beds. Dr. J. S. Fairbairn	101° F. for 24 hours, or if it rises again to this level	Axilla. M. and E.	Over 100, for more than 24 hours	—	Scarcely ever occurs unless with abscess, etc.	Yes. Many causes of temporary rise of P. and T.	No.	T. up to 99° F. P. 80-90	Temp. and pulse are impossible as an index, as they are liable to sudden rises due to all sorts of minor causes. A temperature above 100° F. on two days would be almost enough. Pulse has too wide a personal equation. Offensive lochia would always be a sign of morbidity.
9 Battersea Branch of Clapham Maternity. 600 extern cases yearly. Dr. Margaret Joyce	100° F. or over	Mouth. Once daily unless abnormal	Over 100	Any offensive odour	Should be none	Yes. During first 24 hours T. often averages between 98°-100° F.	No.	T. 97.8°-100° F. P. 60-90	—
10 Dundee Royal Infirmary, Dundee. 14 beds. Dr. R. C. Buist	100.4° F.	Axilla. M. and E. except in special cases, when 4-hourly	100 and over	—	Yes	Yes	Three cases (in 100) had T. 99° on morning of discharge, and 9 had pulse 90 or more	T. 100.4 F. P. 100 per min.	—
11 Clinique Tarnier, Paris. 1,800 deliveries yearly. Professor Budin	37.5° C. and over	Axilla "pendant un temps assez long" M. and E., or oftener if indicated	—	—	Temporary rise of T. may occur with onset of lactation	Yes, occasionally	No.	Very difficult to determine because there are various conditions apart from sepsis which raise temperature above 37° C.	No. We base our statistics of morbidity primarily on the temperature.

12	Belfast Maternity, Belfast. 25 beds. Dr. J. Dobson Osborne	100.8° F.	Axilla. Twice daily if not above 100° F.: every hour if above 100° F.	90 or more	Foul-smelling or scanty. If suspicious a bacteriological examination is made	Rise of T. with engorgement of the breasts	Yes	No.	T. 97°-100.8° F. P. 60-90.	Bacteriological examination of the lochia is the only sure guide in a doubtful case, but a temperature over 100.8° F., and a pulse over 100 are suggestive.
13	Jessop Hospital for Women, Sheffield. Dr. John W. Martin	99.5° F. or over	Axilla. M. and E. in ordinary cases: 4-hourly in abnormal ones	—	—	Cracked nipples very common cause of temporary rise of T. 3rd or 4th day	Yes, but only temporarily due to excitement, anxiety, etc.	No	Temperature limit = 99.5° F.	—
14	Guy's Hospital, London. 8 maternity beds. Mr. J. H. Targett	100° F. or more, persisting for 24 hours	Mouth. 4-hourly	Increased pulse	—	—	Yes, temporarily, but not for more than 24 hours	No	—	Practically all our cases are examples of difficult labour or some complication. Hence we have no fixed standard as you suggest.
15	Liverpool Ladies' Charity and Lying-in Hospital. 15 beds, 2,000 out-patients. Dr. Alexander Stookes	100° F. or more for 24 hours	Axilla. Twice daily in normal cases, every 4 hours in abnormal	100 or more	—	All disturbances are reported as abnormal	Yes	No, unless there has been and is some extra-obstetrical disease	—	We consider a pulse and temperature above 100 beats and degrees, for 24 hours, morbid.
16	Frauenklinik, Wien. 3,000 deliveries yearly. Dr. Schauta	Over 100.4° F. (=33° C.)	Axilla. Twice daily	—	—	—	Yes	—	Up to 38° C.	No.
17	Clinique Baudelocque, Paris. Professor Pinard	37.5° C. A single rise is considered sufficient	Axilla. M. and E.	90 or more	—	—	No	No	—	No.
18	Johns Hopkins Hospital, Baltimore, U.S.A. 40 beds. Dr. Whitridge Williams	Above 100.2° F. (38° C.)	Mouth. Taken every 4 hours	Of no value unless associated with other symptoms	Of no value unless associated with other symptoms	Not considered unless uterine contents are sterile	Yes. If temperature be taken every 4 hours it rises above 99° in say, 75 per cent. of all cases	Patients are not discharged unless T. has been normal for several days	T. 98.4°-100.2° F. (37°-38° C.), P. more variable	I regard all cases as septic in which the temperature rises above 100.2° F. (38° C.), unless some other perfectly satisfactory explanation can be adduced. The pulse may be very variable. Many apparently normal women have pulse of 100 or more before labour sets in, and continue so throughout the puerperium without any sign of infection.
19	Hospital for Women, Leeds. 76 deliveries last year. Dr. E. O. Croft	Over 99° F., if for more than 24 hours	Axilla	P. 90	—	—	—	No.	T. 99° F.; P. 90	Do not think any very definite standard can be fixed. During 1905, 76 cases were delivered: of these, in 66 the temperature never rose above 99° F.; in 7 it rose for single short periods, not exceeding 24 hours during the puerperium, remaining under 99° F. at other times: in 3, 1 had acute rheumatism and 2 had eclampsia, and all had a temperature of 102° F. or more. The first 73 cases were clinically non-septic and practically normal.
20	University Maternity, Philadelphia. 50 beds. Dr. Barton C. Hirst	Over 100.5° F. for more than 48 hours	Mouth. Twice daily	P. 90 or more	—	—	Yes occasionally	Not unless there is some intercurrent affection like phthisis or pneumonia	T. 100.5° F. for less than 48 hours. P. below 90.	V. letter quoted in "abstract of table."
21	Boston Lying-in. 70 beds. Dr. Chas. M. Green	Over 99.5° F.	Mouth. Twice daily routine, every 4 hours in abnormal cases	P. 90 or more	—	—	Yes; nervous patients, constipation, etc.	No	T. 99.5° F., P. 80-90	I like our rule "to look for a cause for any temperature elevation above 99.5°F." Of course many causes other than sepsis may account for rise of temperature, but cases of mild sepsis which might otherwise become grave are thus discovered early.
22	Preston Retreat, Philadelphia, Pa. 50 beds. Dr. R. C. Norris	Over 38° C. (100.2° F.)	Mouth. Morning and evening routine, oftener in abnormal cases	P. 90 or more	Offensive or scanty when associated with rise of P. and T.	—	Yes: occasionally from non-septic conditions, as emotion, constipation	No	T. 38° C., P. 90, not lasting more than 24 hours	P. above 90, T. above 38°C. for more than 48 hours
23	St. Mary's Hospital, Manchester. 40 beds. Dr. W. E. Fothergill	Over 99°	Axilla. Routine morning and evening, oftener if abnormal	P. 100 or more for 24 hours	Not much importance attached to lochia	Ignored	Yes; often	With P. over 90, yes; with T. over 99°, never	No definite convention is in use in this hospital	No. Pulse is principal point.
24	Boston Lying-in Hospital. 42 beds. Dr. Franklin S. Newell	Over 99.5° F.	Mouth. Routine M. and E., every 4 hours if T. above 99.5°	P. 100 or more. P. variable, may reach 110 without sepsis in nervous patients	—	T. is frequently raised to 100° while lactation being established	Yes	No	T. 99.5° F. P. 60-100	Culture taken from fundus uteri in all doubtful cases.

	Hospital, Physician, etc., from which Reply Received.	What Conditions throughout the Puerperium do you regard as indicative of Morbidity?					In the Normal Puerperium are the Temperature and Pulse ever over 99° F. and 90 Beats per Minute respectively?	Do you ever discharge Patients with P. over 90 per Minute and T. over 99° F. on the Day of Departure?	Within what Limits of P. and T. do you regard the Puerperium as Normal?	Have you any Suggestions as to general adoption of a Standard for use in Maternity Hospitals to serve as an Index of Septic Morbidity?
		(*A*) Temperature.	Where and How Taken.	(*B*) Pulse.	(*C*) Lochia.	(*D*) Disturbances associated with Lactation.				
25	Sloane Maternity, New York. 126 beds. Dr. Edwin B. Cragin	Over 100.6° F.	Mouth. Every 4 hours	—	—	—	Yes	No	T. 100.6° F.	Would suggest 100.6° F. as highest temperature of normal puerperium.
26	New Zealand Hospital for Women and Children. 27 beds. Dr. Emma L. Call	Over 99.4° F.	Mouth. Morning and evening	P. over 80, if constant	—	Moderate rise of T. and P. may occur when breasts overdistended	Yes	No	T. 98-99.8° F. P. 68-88	It is highly desirable that such a standard of temperature and pulse should be recognized in maternity hospitals, and that all departures from it, unless due to some evident cause or very temporary in duration, should be regarded as indicative of some form of infection.
27	National Maternity Hospital, Dublin. 40 beds. Dr. A. J. Horne	Over 100° F., with corresponding pulse-rate	Axilla or mouth. Routine twice daily, oftener if abnormal	—	—	—	No	No	T. 98°–100° F. P. 60–100	No. Every case must be judged on its merits.
28	Royal Maternity and Simpson Memorial Hospital, Edinburgh. 40 beds Dr. J. W. Ballantyne	100° F. or more	Axilla generally: mouth if 4-hourly record taken. Twice daily, routine	—	Less important, except when bacteriological examination shows streptococci	—	Yes	No	Difficult to fix unless a period of time be allowed, then below 100° F. and 90 beats per min.	Desirable, but hardly practicable, no one factor being sufficient in itself.
29	Queen Charlotte's Hospital, London 88 beds. Dr. W. S. A. Griffith	Over 100° F.	Three times daily—8 a.m., 2 p.m., 8 p.m. Mouth	No special limit	—	—	—	No	T. 97°–99° F. P. 60–90 (not absolute)	No. The diagnosis of septic morbidity is usually easy enough to the unprejudiced observer.

4. That records of pulse and temperature should be taken twice a day in every case, the following precautions being observed:

(*a*) The temperature to be taken night and morning—if possible between the hours of 7 and 9 a.m. for the morning, and between the hours of 5 and 7 p.m. for the evening record.

(*b*) The temperature to be taken in the mouth.

(*c*) The thermometer to be left in the mouth for four minutes.

5. That the table of puerperal morbidity should include all fatal cases, and also all cases in which the temperature reaches 100° F. on any two of the bi-daily readings from the end of the first to the end of the eighth day after delivery.*

6. That all cases which according to this convention are "morbid" should be tabulated in statistics, the probable cause of the illness and its duration in days being given.

HERBERT SPENCER, M.D.,
Chairman of the Committee.

APPENDIX.

REPLIES FROM MATERNITY HOSPITALS.

A schedule of questions in regard to their standard of puerperal morbidity was sent to maternity hospitals in England, Scotland, Ireland, Canada, the United States, Germany, Austria, and France, as shown in the accompanying table, which embodies the 29 answers received.

The conclusions to be drawn from them may be summarized as follows:

The main criterion of septic morbidity was considered to be:

The temperature alone, by 15.
The pulse alone, by 3.
A combination of temperature and pulse, by several.
Bacteriological examination of the lochia, by 4.

In this connexion it may be noted that Schauta does not consider the pulse-rate a reliable guide and Whitridge Williams regards it as "of no value unless associated with other symptoms."

On the Continent the temperature in all cases was taken in the axilla, in British hospitals it was taken in the mouth in ten instances and in the axilla in nine, while in the United States mouth temperatures were recommended by every institution.

There was practically unanimous agreement that transitory rises of temperature and pulse-rate were liable to occur throughout the puerperium, especially during the twenty-four hours immediately following delivery, and that such rises were not necessarily an indication of sepsis.

Among institutions which took the temperature as the criterion, varying degrees of pyrexia were named as indicative of morbidity; the majority, however—twenty-three—considered that any temperature of 100° F. or more should be regarded as an indication of sepsis unless another perfectly satisfactory explanation could be adduced. Several of those included in the 23 were of opinion that a more exacting standard should be fixed, and that cases of morbidity would be missed by a standard of 100° F.; they proposed fixing the normal limit at 99° F. or 99.5° F.

In this connexion Whitridge Williams remarks that "if the temperature be taken every four hours it rises above 99° F. in, say, 75 per cent. of all cases." American hospitals tend to recommend a more elaborate criterion. Hirst of Philadelphia writes:

> At the present time we subject all doubtful cases to the following tests: A blood count for leucocytosis, a uterine culture to determine the bacteriological contents of the uterus, and a blood culture to determine the systemic infection. There is too large a percentage of error in uterine cultures in both directions to make it reliable. If any standard must be adopted to express definitely the record of a maternity hospital I should favour the following: The rise of temperature above 100.5° F. persisting for more than forty-eight hours should be regarded as indicative of infection, unless it can be clearly demonstrated to be due to some other cause. If the rule were adopted that all such cases should have a leucocyte count, uterine cultures, and blood cultures, a positive result might clearly determine which febrile cases are septic.

---

* Dr. Tweedy urged that the table should, in addition, include all cases where on three consecutive bi-daily readings the pulse-rate exceeded 90 per minute and the temperature 99° F., but the majority of the Committee were of opinion that the introduction of a double standard was not advisable at present.

Without such methods of precision, Dr. Hirst does ot think that reports from different maternities can be ompared with advantage.

The rate of involution of the uterus was regarded as omparatively unimportant in all the communications.

Opinion was divided as to whether a rise of temperature-ate and pulse-rate on the third day might be explained by ngorgement of the breasts apart from sepsis.

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the ssociation relating to Scientific and Clinical Medicine, hen reported by the Honorary Secretaries, are published in e body of the* JOURNAL.]

LANCASHIRE AND CHESHIRE BRANCH:
LIVERPOOL (NORTHERN) DIVISION.

N ordinary meeting of the Division was held at the edical Institution on April 9th, Dr. J. J. TISDALL esiding.

Confirmation of Minutes.—The minutes of the last dinary meeting were read and confirmed.

An Ethical Question.—The meeting received a report om the Executive (acting as the Ethical) Committee of a se of exhibition of a notice of an unprofessional character which action had been taken, resulting in the withawal of the offending notice. The Committee advised at the matter need not be pursued further, and this commendation was approved by the meeting.

Rules of the Central Midwives Board.—It was unaniously resolved—

> That this meeting recognizes the danger of allowing midwives to use drugs, except as disinfectants, and with this expression of opinion leaves the matter in the hands of the Medico-Political Committee.

Matters Referred to Divisions.—With regard to Contract actice (see SUPPLEMENT, BRITISH MEDICAL JOURNAL, gust 5th, 1905) it was resolved unanimously—

> That the recommendations of the Medico-Political Committee be approved of.

With regard to the selection of Direct Representatives on e General Medical Council (see SUPPLEMENT, October 7th, 05) it was unanimously decided to make no nomination.

With respect to the suggested formation by Divisions of ctions for clinical and pathological work (see SUPPLENT, November 11th, 1905), it was unanimously solved:

> That as regards local requirements, these matters are already provided for.

With regard to the inquiry (1905-6) as to the present stem of Division and Branch finance, the meeting conlered a communication from the Organization Committee to Division and Branch finance, and instructed the cretary as to the reply which should be given.

In regard to hospital out-patient departments (see PPLEMENT, February 17th, 1906), it was resolved animously:

> That the following proposition of the Hospitals Committee be approved of—namely, that there should be no outpatient departments in hospitals except for consultations and casualties; that this opinion specially applies to hospitals whose staff are general practitioners.

Notices of Motion (see SUPPLEMENT, February 10th, 1906). By the Gateshead Division: Title "Doctor" unaniusly approved of; declaration unanimously approved By the Wandsworth Division: Alterations unaniusly disapproved of. See SUPPLEMENT, February 24th, 06:—By the Altrincham Division: Grants to Divisions animously disapproved of. By the Northamptonshire vision: Expenses of Representatives, resolved animously:

> hat this motion be approved of, such out-of-pocket expenses not to exceed half a guinea per day *plus* third-class travelling expenses.

SOUTHPORT DIVISION.

E annual meeting was held on May 11th at the Temance Institute, Dr. WALKER in the chair.

onfirmation of Minutes.—The minutes of the last nual meeting were read and confirmed.

lection of Officers.—The following officers were elected: *sident*, Dr. Ashworth; *Vice-President*, Dr. G. R. Anderson; *Secretary and Treasurer*, Dr. Harris; *Representative at Representative Meeting*, Dr. Baildon, and failing his ability to attend, Dr. Gill; *Representatives on Branch Council*, Drs. Harris and Walker; *Other Members of Executive Committee*, Drs. Brown, Gill, Mackay, and Sykes.

Report of Executive Committee.—The annual report of the Executive Committee was read.

It was resolved to add to the rules:

> 15. The quorum at all meetings of the Division shall be five.

Matters Referred to Divisions.—Matters referred to Divisions were then considered, and respecting the proposed application for a Royal Charter it was unanimously resolved:

> That this Division approves the application for a Charter, but does not approve of some of the objects for which it is sought—namely, those contained in Sections VI, VII, and VIII of Clause 2, providing for medical defence, medical agency, and providence and benevolence.

Respecting hospital out-patient departments, by a unanimous vote an affirmative answer was given to the question

> That there should be no out-patient department in hospitals except for consultations and casualties, and that this opinion specially applies to hospitals whose staff are general practitioners.

It was decided to vote against the motion of which notice has been given by the Altrincham Division regarding grants to Divisions, published in the SUPPLEMENT of February 24th. The notice of motion in the same SUPPLEMENT by the Northamptonshire Division, respecting expenses of Representatives, was considered and it was decided—

> That ten shillings and sixpence a day during the time of the Representative meeting should be paid to each Representative in addition to his railway fare.

The motion of the City Division advocating facilities for social intercourse at head office was approved. The questions appended to the Nurses' Registration Report in the SUPPLEMENT of March 3rd were considered and general approval given, but in approving of the separate registration of midwifery nurses it was resolved—

> That they should be fully trained and not registered after having had only three months' training at a lying-in hospital.

Further, Clause 13, respecting the licensing of nursing homes and institutions, was emphatically approved.

METROPOLITAN COUNTIES BRANCH:
CITY DIVISION.

A GENERAL meeting of this Division was held at Woodchester, Upper Clapton, N.E., on Thursday, May 3rd, Dr. J. W. HUNT, Chairman of the Division, presiding.

Nominations for Officers in the Branch.—It was unanimously resolved to nominate the following gentlemen for the offices mentioned: *President-elect*, Dr. F. de Havilland Hall; *Vice-Presidents*, Mr. Andrew Clark, Dr. Major Greenwood, Dr. Hooper May; *Treasurer*, Mr. Betham Robinson; *Honorary Secretary*, Dr. F. J. Smith.

Draft Royal Charter.—It was unanimously resolved—

> That the draft Charter be approved.

Selection of Candidates for General Medical Council.—It was unanimously resolved to instruct the Representatives at Representative Meetings to support the candidature of Dr. Langley Browne and Mr. Andrew Clark.

Notices of Motion for Representative Meeting.—Several of these were considered, and it was resolved to give certain instructions to the Representative.

LAMBETH DIVISION.

A MEETING was held at the Camberwell Infirmary on Thursday, May 3rd, at 4 p.m.

Vote of Congratulation.—A vote of congratulation was accorded to Mr. W. B. Taylor on his appointment as a Justice of the Peace.

Wandsworth Division.—It was resolved to invite the Wandsworth Division to the next meeting.

Paper.—Dr. F. C. LEWIS read an interesting paper on Artificial Immunity with especial reference to Opsonic Indices.

Visit to Infirmary.—Dr. KEATS showed members round the infirmary after the meeting.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH:

LANCASTER DIVISION.

THE annual meeting of the Lancaster Division was held at Lancaster on Saturday, May 5th.

Election of Officers.—The following officers were elected for the ensuing year:—*Chairman:* G. R. Parker. *Vice-Chairman:* H. O. Lawport. *Secretary:* J. A. Gibson. *Representatives on Branch Council:* H. F. Oldham and J. A. Gibson. *Representative to Representative Meeting:* H. F. Oldham. *Committee:* W. Bradley, W. Hall, J. Harrison, and H. Graham Smith.

SOUTH-EASTERN BRANCH.

NORWOOD DIVISION.

A CLINICAL meeting was held on Thursday, April 12th, at the St. John's Hospital, Lewisham, Mr. H. C. BURTON, of Blackheath, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Special Meeting.—It was decided to hold a special meeting on Thursday, May 10th, at the Queen's Hotel, Upper Norwood, Dr. Henry Hetley of Upper Norwood in the chair, to discuss the Royal Charter.

Visit to Hospital.—After tea the wards and hospital generally were inspected, and many interesting cases were shown and discussed by the members present.

SOUTH-EASTERN OF IRELAND BRANCH.

THE annual meeting of this Branch was held at the Victoria Hotel, Kilkenny, at 12 o'clock on May 2nd. In the absence of the President, Dr. C. E. JAMES was voted to the chair.

Confirmation of Minutes.—The minutes of the last meeting were read, approved, and signed.

Letters of Apology.—Letters of apology from Dr. Wynne (President) and Dr. Quirke (Honorary Secretary), for inability to attend, were read.

Correspondence.—A letter from H. Bell, Superintendent of G.S. and W. Railway Company, was read, in which he declined to allow any reduction of fares for members travelling to Branch meetings. Marked "Read."—A letter from Messrs. Parkes, Davis, and Co., postponing their representative's visit to the meeting to exhibit pharmaceutical products, etc., to some future date, was read; also the following letter from Dr. T. Laffan, which was ordered to be inserted in the minutes:

Cashel, May 2nd, 1906.

Gentlemen,—I beg to thank you most warmly for your very kind resolution of sympathy on the death of my dear brother.—Truly yours, T. LAFFAN.

Annual Report.—The annual report of the Branch was received and approved and passed.

Election of Officers.—Owing either to the nominations of all officials by individual members or the Council having lapsed, a discussion ensued as to how this year nominations are to be made, and it was unanimously decided, under the circumstances, that the present meeting should nominate all officials for the ensuing year. It was proposed by Dr. T. LAFFAN, seconded by J. B. HACKETT:

> That the following officials be elected for the ensuing year: *President-elect*, Dr. J. V. Ryan (Carlow); *Representative for Representative Meeting*, Dr. T. Laffan (Cashel); *Representative on Council of Association*, Dr. D. Walshe (Graigue); *Honorary Secretary*, J. Quirke (Piltown); *Honorary Treasurer*, R. B. Carey (Borris); *Branch Council*, Chas. E. James, J. B. Hackett, H. Kidd, E. J. Farmer, G. J. Mackesy, W. R. Morris, and R. R. O'Brien. Last year's President-elect—W. J. Shee—becoming President.

—Carried unanimously.

Code of Ethical Rules.—The motion of the Honorary Secretary to adopt a code of ethical rules was adjourned owing to his absence, and it was proposed by Dr. T. LAFFAN, and seconded by W. J. SHEE:

> That the Honorary Secretary be directed to obtain from head quarters copies of the suggested code of ethical rules, and send one to each member of the Branch prior to next meeting.

—Carried unanimously.

Installation of New President.—Dr. James here vacated the chair, which was assumed by the incoming President, Dr. SHEE, who said he trusted the meetings during his year of office would be well attended; he requested the Honorary Secretary to draw attention to this desire in his report of this meeting to the JOURNAL.—This brought the meeting to a close.

Luncheon.—The members lunched together at the Victoria Hotel.

ULSTER BRANCH.

THE spring meeting of this Branch was held in the Harbour Office, Derry, on Saturday, May 5th. The PRESIDENT, Dr. Leonard Kidd (Enniskillen), occupied the chair.

Confirmation of Minutes.—The minutes of the previous meeting and of the special meeting *re* the Darnell case were read and confirmed.

Report of Council.—The report of Council was read by the HONORARY SECRETARY, Dr. Cecil Shaw. It stated that four new members had been elected—Drs. Ferran, Sydney Blakely, and W. J. Wilson (Belfast), and M. O. Wilson (Campsie, Omagh). The Council had resolved that in future the expenses of bringing patients to meetings of the Branch should be paid out of the Branch funds. The Council called the attention of all dispensary doctors to the circular lately issued by the Joint Committee on Poor Law, and urged on them the necessity of helping in the work of reform by carefully attending to the requests of that circular. Dr. Cooke (Derry) had reported to the Council an ethical question, which he had submitted to the Medical Secretary of the Association.

Visit to County Infirmary.—At the conclusion of the meeting a number of the members lunched together in the Northern Counties Hotel, and subsequently the Belfast members present were shown over the County Infirmary by several of the staff. They expressed themselves as greatly pleased with the excellent general arrangements, and specially with the operation theatre and rooms connected with it, which form a model group both for convenience of working and scientific thoroughness in aseptic precautions.

WEST SOMERSET BRANCH.

A SPECIAL meeting of this Branch was held at the Taunton and Somerset Hospital on May 8th, Dr. GORDON HENRY, President, in the chair.

Confirmation of Minutes.—The minutes of the spring meeting were read and signed.

Proposed Royal Charter.—The meeting having been called to consider the draft of the proposed Charter, Dr. MACDONALD, the Representative of the Branch, explained its provisions, which were discussed by those present, and in most cases unanimously agreed to. In conclusion the following resolution was passed by the meeting:

> That this meeting of the West Somerset Branch of the British Medical Association approves of the draft of the proposed Charter, and instructs its Representative to support the same when brought before the Representative Meeting, but hopes that the Association will in no way interfere with the work of the medical defence societies as at present existing.

Tea.—Tea was served after the meeting.

DR. H. W. KING, Honorary Secretary of the Chester Division, informs us that Dr. Robinson, of Runcorn, whose name was included last week among the executive officers of the Division, is unfortunately unable to take up the position.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m., except on Saturdays, when they close at 2 p.m. Members can have their letters addressed to them at the office.

MEMBERS ELECTED DURING THE MARCH QUARTER.

UNDER BY-LAWS 2 AND 3.

BY THE COUNCIL ON APRIL 18th, 1906.

n-Scott, Duncan Gordon, M.B., Ch.B.Edin., R.N.
Cornelia Bonté Sheldon, M B., L.S.A., Maison aca, Sharia, Abbas, Tewfikieh, Cairo
Frederick Eustace, M.R.C.S., L.R.C.P., Surg. R.N.
ton, James William Herbert, M.B., Ch.B., Lieut.
ll, Herbert Owen Marsh, M.R.C.S., L.R.C.P., . R.A.M.C.
t, William Leslie, M.B., Ch.B.Glasg., Captain .I.C.
J. C., M.D., C.M. McGill, Regina, Canada
im, Frederick Wm. Elias, M.D., C.M., 373, Broadway, ipeg
Vil'iam Richard, M.D., C.M., Regina, Canada
Crossley, Henry Joseph, M.R.C S., L.R.C.P., Lieutenant R.A.M.C.
Ellis, Wm. Francis, L.R.C.P.Lond., M.R.C.S.Eng., Lieut. R.A.M.C.
Gair, Abraham A., L.M. and S., 12, Khetwady Cross Lane, Girgaum, Bombay
Graham, J.A. M.D., Regina, Canada
Jenkins, John, M.R.C.S.Eng, L.S.A.Lond., Fleet Surg. R.N.
McCoy, John William, M.R.C.S., L.R.C.P., Captain I.M.S.
McGahey, Kennedy, F.R.C.P. and S.E., L.F.P.Glas., Lokoja, Northern Nigeria
McKenna, Francis John, M.B., B.Ch., B.A.O.R.U.I., Surgeon R.N.
McLeod, James, M.D., C.M. (McGill), Regina, Canada
Morris, John Ignatius Worgan, M.R.C.S., L.R.C.P., Capt. R.A.M.C.
Moses, Owen St. John, M.D., F.R.C.S., F.R.S. (E.), Capt I.M.S.
Perry, Samuel James Chatterton Prittie, F.R.C.S. (Ireland), Captain R.A.M.C.
Prescott, John, L.R.C.S.I. and P.I., Capt. R.A.M.C.
Reinhold, Carl Henry, M.R.C.S.Eng., L.R.C.P.Lond., Lieut. I.M.S.
Roper, Charles, M.B., B.C., B.A. (Camb.), Digboi, Upper Assam
Shirgaoker, Vishnor Jafannatti, L.M. and S., Belgaum, Bombay Presidency
Stephens, Henry Matthew, M.D., C.M., Regina, Canada
Swaybey, Maurice, M.R.C.S., L.R.C.P., Capt. R.A.M.C.
Thomas, Harold Wolferstan, M.D., C.M. (McGill), Monaos, Brazil
Thomson, Wm. A., M.D., C.M, Regina, Canada

BY BRANCH COUNCILS.

Aberdeen Branch.

Henry, M.D., Aberdeen

Bath and Bristol Branch.

J., M.D., Wilts County Asylum, Devizes
, R. Glyn, Esq., Portledge House, Newbridge Hill,
t, J. F., M.B., 489, Gloucester Road, Bristol
k, E. D., Esq., 31, Milsom Street, Bath
, Arthur F., Esq., Tower House, Malmesbury

Bermuda Branch.

thom, R. R., M.D., St. George's, Bermuda

Birmingham Branch.

, G. C., M.B., 80, Dale End, Birmingham
l, E. H., Esq., Workhouse Infirmary, Gravelly Hill
yril P., Esq., Albert Road, Tamworth
iers, W. D., M.B., Queen's Hospital, Birmingham
J. V., M.B., Redhill, South Yardley, Birmingham
l, A. E., Esq., 72, Summer Hill Road, Birmingham
ald, A. H. W., M.B., 52, Soho Road, Handsworth
l, A. J., M.B., West Bromwich Hospital
R. C., Esq., County Lunatic Asylum, Hatton, near ick
r, W. G., Esq., 26, The Parade, Leamington Spa
G. H. A., Esq., 150, Coventry Road, Birmingham
G., M.B., 221, Bloomsbury Street, Birmingham

risbane and Queensland Branch.

H. V., Esq., Brisbane Hospital
P. F. Esq., Mitchell
., M.B., Howard
E. H., Esq., Clifton

British Guiana Branch.

, A. J., M.B., Public Hospital, Georgetown
ais, A. C. L., Esq., Public Hospital, Georgetown
, E. S., M.B., Brick Dam, Georgetown

Burmah Branch.

iael, D. G., M.B., Lieut., R.A.M.C., 76, Ahlone Road, on
Miss Isabel G., M.B., Dufferin Hospital, Rangoon

nbridge and Huntingdon Branch.

ames M., Esq., Barley, Royston
, W. W., M.B., 60, St. Andrew's St., Cambridge

Colombo (Ceylon) Branch.

adewa, T. B., Esq., Maradana, Colombo
inam, H. B., Esq., Maradana, Colombo
pillai Sinnetamby, Esq., Buttala
t, Miss C. F., Colombo

Dorset and West Hants Branch.

d, F. O., M.D., Bournemouth
J. Burdon, M.D., Bournemouth
lalcolm, Esq., Bournemouth
R. L., Esq., Christchurch
. M. A., Esq., Poole
. Medley, Esq., Bournemouth

Dundee Branch.

n, Hugh, M.B., Newtyle

East Anglian Branch.

, S. J., M.B, Norwich
R., Esq., Norwich
, L. G., M.D., Westcliff-on-Sea
R., Esq., Cley, Norfolk
. H., Esq., Southend-on-Sea
a, M. J., Esq., West Newton, King's Lynn
g-Smith, R. C., M.B., Ipswich
J. F., M.B., Southend-on-Sea
. W. D., Esq., Leigh-on-Sea
, A. J., Esq., Westcliff-on-Sea
a, D. W., Esq., Norwich

East York and North Lincoln Branch.

Williamson, J., M.B., New Cleethorpes

Fife Branch.

Hunter, T. R., Esq., Cardenden
Proudfoot, R. B., M.D., Pathhead, Kirkcaldy

Glasgow and West of Scotland Branch.

Anderson, W. D., Esq., 8, Somerset Place, Glasgow, W.
Campbell, Gilbert, M.B., 14, Hamilton Crescent, Partick
Campbell, Wm., M.B., 143, Balgray Hill, Springburn, Glasgow
Cross, John, M.B., 79, Quarry Street, Hamilton
Downs, W. C., M.B., Helensville, Motherwell
Higgins, Janet B., M.B., 33, High Street, Paisley
Kyle, David, M.B., 11, Barns Street, Ayr
Laurie, A. M., Esq., Braeside, Houston
McIntyre, Geo., M.B., Fairholm, Milliken Park, by Johnston
Marshall, John, M.B., Auchengramont, Hamilton
Philip, Thomas, M.B., 35, Union Street, Greenock
Smellie, Lily, M.B., 2, Kelvingrove Terrace, Glasgow, W.
Stewart, John, Esq., East Bay, Dunoon
Stewart, John B., M.B., Wellington Place, Kirkintilloch
Tellet, W. E., M.D., 2, Greenlaw Terrace, Paisley
Young, R. T., M.B., Wellcroft, Renfrew

Gloucestershire Branch.

Burner, L. H., Esq., General Hospital, Cheltenham
Pritchett, G. W. M., Esq., Lydney
Wilson, Mrs. Sarah, M.B., Roseneath, St. Mark's, Cheltenham

Griqualand West Branch.

Robertson, J. A., M.B., P.O. Box 191, Boksburg, Transvaal

Halifax and Nova Scotia Branch.

Campbell, D., M.D., West Branch, Picton Co., N.S.
Christie, W. A., M.D, 55, Waterloo Street, St. John, N.B.
Clay, H. P., M.D., Pugwash, N.S.
Dyas, I. E., M.D., Amherst, N.S.
Ellis, R. L., M.D., Jacquet River, Restigouche Co., N.B.
Farish, G. W. T., M.D., Yarmouth, N.S.
Fulton, S. A., M.D., Truro, N.S.
Green, F. W., M.D., Glace Bay, C.B.
Macdonald, D. J., M.D., P.O. Box 291, Sydney, C.B.
McDonald, E. O, M.D., New Aberdeen, Glace Bay, C.B.
Macdonald, H. K., M.D., Lunemburg, N.S.
Macdonald, J. C., M.D., Westville, N.S.
Mackintosh, D., M.D., Pugwash, N.S.
McLaren, P., M.D., Montague, P.E.I.
McLennan, S. J., M.D., Glace Bay, C.B.
McManus, J. P. C., M.D., Box 35, Blackville, N.B.
McNichol, John, M.D., Bathurst, N.B.
MacQueen, C. A., M.D., Amherst, N.S.
Millar, J. R., M.D., Amherst, N.S.
Murray, A. J., M.D., Fredericton Junction, N.B.
O'Neil, F., M.D., Louisbury, C.B.
Price, B. S., M.D., 157, Germain Street, St. John, N.B.
Sprague, T. F., M.D., Woodstock, N B.
Taylor, D. A., M.D., Londonderry, N.S.
Thomas, Lewis, M.D., Halifax, N.S.
Van Wart, G. C., M.D., Fredericton, N.B.
Watson, D. T. C., M.D., Halifax, N.S.
Wiley, R. B. M., M.D., Andover, N.B.

Hong Kong and China Branch

Jones, John, Esq., Ningpo
Judd, F. H., M.B., Kiukiang
Smith, Dansey, Esq., Canton

Jamaica Branch.

Russell, H. W., M.D., Up Park Camp, Kingston, Jamaica

Lancashire and Cheshire Branch

Anderson, J. W., M.B., Salford Royal Hospital, Salford
Balmer, Ruth, M.B., 22, Greek Street, Stockport
Becker, H. L., Esq., 104, Cheetham Hill Road, Manchester
Connolly, A. J., Esq., 83, Thursby Road, Burnley
Davies, Katherine C., L.R.C.P., 79, Watergate Street, Chester
Doonan, J. A. C., M.B., Witton House, Northwich
Erskine, W. F., M.D., Preston
Falconer, J. L., M.B., 66, Barlow Moor Road Chorlton-cum-Hardy, Manchester
Gardner, James M.B., 1, Piccadilly Road, Burnley
Maclean, S. W., M.B., Brinscall, near Chorley
Moreton, J., M.D., Nantwich Road, Middlewich
Pemberton, G. B., M.B., Athol House, Brooks's Bar
Pullon, G. S., M.D., 114, Westgate, Burnley, Manchester
Riley, Arthur, M.D., Woodleigh, Sale
Robinson, Frank, M.B., Inglewood, Ashworth Lan Bolton
Robinson, H. J., Esq., Springfield House, Burnley
Rodgers, R. C., Esq., 22, Accrington Road, Burnley
Smith, E. E., Esq., Thorn Bank, Mottram Road, Hyde
Tinne, P. F., M.B., 4, Mayfield Road, Aigburth, Liverpool
Turnbull, J. C., M.D., 94, Walmersley Road, Bury
Walker, T. E., M.B., 23, Merton Park, Bootle, Liverpool
Woodyatt, B. H., Esq., Over, Winsford
Woolfenden, H. F., M.B., 38, Grosvenor Road, Birkdale, Southport
Yates, Annie M., M.B., 38, Rockmount Terrace, Accrington

Leinster Branch.

Crawley, F. C., M.D., 41, Lower Baggot Street, Dublin
Ewing, Cecil O'Hanlon, Esq., Ballymore-Eustace, co. Kildare

Malaya Branch.

Black, Norman, M.D., Singapore
Harvey, G. A. D., Lieutenant, R.A.M.C., Pulo Brani, Singapore
Johnston, H. H., C.B., M D., Lieutenant-Colonel, R.A.M.C., Singapore

Melbourne and Victoria Branch.

Henderson, J. Leslie, M.B., Wangaratta, Victoria

Metropolitan Counties Branch.

Addinsell, A. W., M.B., 10, Curzon Street, W.
Bayley, Eric, M.B., 36 City Road, E.C.
Bowerbank, F. T., M.B., 56, Orford Road, Walthamstow
Bolton, Elizabeth, M.B., Royal Free Hospital, Gray's Inn Road, W.C
Brewer, D., Esq., Eastern Hospital, Homerton
Brews, R. V., Esq., 10, High Street, North Woolwich, E.
Challens, F., M.D., Dacre Lodge, Upton Manor, E.
Colbeck, E. H., M.D., 55, Upper Berkeley Street, W.
Davy, W. B., Esq., 348, Finchley Road, N.W.
Downton, A. S., Esq., 5, Weston Park, Crouch End, N.
Easton, F. E., Esq., 12, Devonport Street, Hyde Park, W.
Edmunds, P. J., M.B., 5, Great Marlborough Street, W.
Emin, M., M.B., 44, Thorne Road, Albert Square, S.W.
Glanville, W. M. G., M.B., Heath Street, Hampstead, N.W.
Goitein, B., M.D., 114, High Street, Kingsland, N.E.
Gowdey, Annie C., M.B., 293, Goldhawk Road, W
Gray, A. M. H., M.D., North-Eastern Hospital, Hackney Road, N.E.
Grimmer, G. K., M.D., Roseneath, Hounslow
Guthrie, R. L., M.D., 180, Fleet Street, E.C.
Hertz, A. F., M.B., The College, Guy's Hospital, S.E.
Hunt, H. L., M.D., 49, Loveday Road, West Ealing, W.
Ingram, R. E. T., M.D., 149, Warwick Street, S.W.
Irving, H., M.B., 20, Redcliffe Street, S.W.
Jones, A. E., M.D., 13, Harley Street, W.
Kennedy, A. E., Esq., 113, Balaam Street, Plaistow
Kingsford, A. B., Esq., 19, Upper George Street, W.
Lathbury, E. B., Esq., Chipperfield, King's Langley
Mowat, D., M.D., 38, Amhurst Park, N.
Myer, Leonard, Esq., 76, Wimpole Street, W.
Needham, J., M.D., 34, Loats Road, Clapham Park, S.W.
New, J. S., Esq., Lister Institute, Chelsea Gardens, S.W.
Paton, D. M., Esq., 1, Sloane Gate Mansions, S.W.
Payne, Florence M., M.D., 27, Mayflower Road, Clapham Rise, S.W.
Pereira, George, M.B., 9, Duke's Avenue, Muswell Hill, N.
Pereira, Henry M., Esq., Eastern Hospital, Homerton
Perodean, E. G., M.B., Durham Lodge, St. Margaret's-on-Thames
Philip, J. F., M.D., 102, The Avenue, West Ealing, W.
Rawling, L. B., M.B., 16, Montagu Street, W.
Rolleston, John D., M.D., Grove Hospital, Tooting, S.W.
Ross, C. J., M.B., 53, Bedford Road, Clapham, S.W.
Roth, Paul B., M.B., Kingswood, Enfield
Shanks, Henry P., Esq., Calstock, Norwood Road, Southall, W.
Simpson, Geo. H., Esq., 20, Madeley Road, Ealing, W.
Smith, Sydney, Esq., 71, Wandsworth Bridge Road, S.W.
Spaight, H.W., Esq., Holmwood, Waltham Cross, Middlesex
Strand, A. C., Esq., 34, Baker Street, W.
Taylor, Alice, L.R.C.P., 128, Piccadilly, W.
Taylor, Thomas, Esq., Lavington House, Lavington Road, Ealing, W
Turner, H. S., Esq., 1, Bank Side, Hendon, N.W.
Wedd, B. H., M.B., Eastern Hospital, Homerton
Whitehouse, A. L. W., Esq., 139, Victoria Street, S.W.
Wirgman, C. W., M.D., 45, Queen Anne Street, W.
Wood, F. H., Esq., Turner's Hill, Cheshunt

Midland Branch.

Ashworth, F. H. S., M.B., Brampton House, Hucknall Torkard, Notts
Barton, G. D., M.B., Derby
Bellaby, F., Esq., Park House Row, Nottingham
Boreham, H. W., M.B., Blaby, Leicester
Broster, A. E., Esq., Wicksworth, Derbyshire
Dabell, T. J., Esq., 92, Mansfield Road, Nottingham
Denny, E. B., Esq., East Barkwith, Lincoln
Eddy, J., Esq., 86, Battenberg Road, Leicester
Gilford, Miss B. Marion, M.B., Messingham, Brigg, Lincoln
Michell, R., Esq., 173, London Road, Leicester
Reese-Jones, E. W., M.D., Corporation Offices, Lincoln
Rhind, A. L., M.B., Keyworth, Notts
Roy, S. C., Esq., Tichborne Street, Leicester
Talbot, F., Esq., 41, Belvoir Street, Leicester
Wraith, E. A., Esq., 118, Osmaston Road, Derby

New Zealand Branch.

Newlands, Wm., Esq., Dunedin
Noonan, Patrick, Esq., Manaia
Rogers, R. J., Esq., Taihape
Shand, W. M., M.B., Wellington
Swanseger, P. C. B., Esq., Wairoa, H.B.
Thomas, J. R., Esq., Christchurch
Watt, James, M.D., Dunedin

North Lancashire and South Westmorland Branch.

Callender, D. M., M.B., 6, Rose Bank, Lancaster
McIntyre, E., Esq., Dalton-in-Furness

Northern Counties of Scotland Branch.

Clark, Robert, M.B., Kininvie Cottage, Lossiemouth
Fraser, J. G., M.B., Braehead, Inverness
Kaye, H. W., M.B., Eaglestone, Strathpeffer Spa
Turner, J. W., M.B., Grampian Sanatorium, Kingussie

North of England Branch.

Benson, F. A., Esq., Heath House, North Ormesby
Botham, R. H., Esq., Staindroo, Darlington
Bootiman, John S., jun., M.B., 3, Thorney Terrace, South Shields
Buchanan, Angus, M.B., Ingham Infirmary, South Shields
Campbell, Colin M., Esq., Winlaton, R.S.O.
Davidson, T., M.B., Gowanlea, Chester Road, Sunderland
Dix, R. H., M.D., Otto Terrace, Sunderland
Ede, W. E. Moore, M.B., 64, Jesmond Road, Newcastle-on-Tyne
Gilbertson, A. J., M.B., Ullithorne House, Sunderland
Harris, Alfred, M.B., City Hospital, Walker Gate, Newcastle-on-Tyne
Hartley, John, F.R.C.S., 26, Stanhope Road, Darlington
Hill, Ludovic, Esq., Westgate, Haltwhistle
Hope, C. W. M., M.B., 3, Tankerville Terrace, Jesmond, Newcastle-on-Tyne
Hume, Norman H., M.B., 61, Osborne Road, Newcastle-on-Tyne
Livingstone, Archibald, M.B., 38, Heaton Road, Newcastle-on-Tyne
McDowall, Colin F. F., M.B., East Cottingwood, Morpeth
McDowall, John H., M.B., East Cottingwood, Morpeth
O'Brien, A. J. R., M.B., Monkwearmouth Hospital, Sunderland
O'Brien, Mary, L.S.A., East Cottingwood, Morpeth
Pearson, H. C., M.B., 57, Stanhope Road, Darlington
Ross, J. A., M.B., The Hospital, Darlington
Rutter, Joseph, M.B., 85, Westmorland Road, Newcastle-on-Tyne
Scott, F. R., M.B., The Dispensary, Gateshead
Stevenson, A., M.B., 17, General Gordon Terr., Sunderland
Tivy, C. B. F., M.B., The Infirmary, Sunderland
Walker, N. B., M.B., Seaton Burn, Dudley, R.S.O.
Waters, J. B., M.B., 39, North Bridge Street, Monkwearmouth, Sunderland
Weighton, H., M.D., Barnard Castle
Whillis, S. S., M.D., 46, Westmorland Road, Newcastle-on-Tyne
Wilson, J. L., M.B., 56, Walker Terrace, Gateshead

North Wales Branch.

Aldred, F. M., Esq., Dyffryn Aled, Abergele
Evans, T. J. C., M.D., Llysmeddyg, Blaenau Festiniog
Grierson, G. A., M.B., 16, Hightown Road, Wrexham
Heap, E. F. G. T., Esq., Pendinas, St. Asaph
Hewitt, W. E. Huff, M.B., Rhianfa, Landrills-yn-Rhôs
Lawrie, Wm. D., M.D., Lloyd Street, Llandudno
Lowe, Henry, Esq., Ty Croes, Anglesey
Middleweek, F. F., Esq., The Infirmary, Bangor
Warburton, John, Esq., Plas Darland, Wrexham

Oxford and Reading Branch.

Adams, P., F.R.C.S., 53, Broad Street, Oxford
Daukes, S. H., Esq., High Wycombe
Fielden, E., M.B., Bracknell

Perth Branch.

Sim, J. A. B., M.B., James Murray's Royal Asylum, Perth

South Australian Branch.

Bollen, C., M.D., Woodville, Adelaide

South-Eastern Branch.

Anderson, R. G., Lieut., R.A.M.C., Blackheath, S.E.
Brunyate, Annie T., M.D., Dover
Conway, J. P., Esq., 353, Evelyn Street, Deptford, S.E.
Hamond, P. W., M.B., Thornton Heath
Higson, J. R., M.B., Oakmere, Honor Oak Park, S.E.
Holmes, J. McA., M.B., Surg., R.N., Sheerness
Lawrence, A. A. H., Esq., Singleton, nr. Chichester
Low, P. C., M.B., Tunbridge Wells
Merryweather, R. C., Esq., Frimley
Pearse, F. E., Esq., Ripley
Pinniger, A. E., M.B., Broadstairs
Stone, F. W. S., Esq., Dover
Sutton, E., Staff-Surg., R.N., Sittingbourne
Warde, W. B., M.D., Tunbridge Wells
Wood, D. A., M.B., Sittingbourne

Southern Branch.

Ash, B. N., Esq., The Infirmary, Salisbury
Henderson, T. B., F.R.C.S., The Infirmary, Salisbury

South Indian and Madras Branch.

Forrest, John, M.B., Capt., I.M.S., Madras

South Midland Branch.

Benett, A. M., Esq., Northampton Hospital
Birks, G. T., M.B., Bedford Hospital
Bovill, F. M., Esq., Redbourn
Goldsmith, G. H., M.D., Harpur Street, Bedford
Ingram, T. L., Esq., Welford, Rugby
Joy, G. P., M.B., Northampton Hospital
King, W. A. D., Esq., Bedford Hospital
Robson, W. M., M.D., Abington Street, Northampton
Sedgwick, C. H., M.B., Weedon
Sheppard, J. F., Esq., Newport Pagnell
Walter, H. W. L., M.B., Midland Road, Bedford

South-Western Branch.

Ash, T. L., Esq., Holsworthy
Lacey, H. K., Esq., Torbay Hospital, Plymouth
Walters, C. F., F.R.C.S., 13, Tothill Avenue, Plymouth

South Wales and Monmouthshire Branch

Bonsall, G. R. E., Esq., Edleston House, Queen's Ro
Aberystwyth
Brownlee, A., Esq., 7, Windsor Place, Cardiff
Davies, J. Lloyd, Esq., 158, Caerleon Road, Newport
Evans, Miss Ellie, M.B., 23, Dumfries Place, Cardiff
Evans, W. T., Esq., Maes-y-bryn, Treharris
Forsdike, H. S., M.B., 71, Cathedral Road, Cardiff
Hood, A. B., Esq., Waunllwyd, Ebbw Vale
Johnson, M. B., Esq., Nantyglo, Mon.
Jones, John H., Esq., Buttrells, Llanfihangel, near Bort
Martin, E. W. S., M.B., Brithdir, Glam.
Munro, R. H., Esq., Tonyrefail
Murphy, W. E. C., M.B., Cwmbran, R.S.O.
Thomas, D. J., Esq., Nantymoel, Bridgend
Thomas, T. P., Esq., 32, North Parade, Aberystwyth
Wade, N. N., M.D., Risca, Mon.

Sydney and New South Wales Branch.

Bell, G. L., M.B., Waverley
Chapman, H. G., M.B., Sydney University
Douglas, J. C., Esq., Stockton, N.S.W.
Dowling, Norman, Esq., Young
Fitzpatrick, E. B., M.B., Hillston
Langton, W. D., M.B., Cleveland Street, Redfern
Lidwell, Mark C., M.D., Beecroft, nr. Sydney
McEwcroe, J. S., M.B., Royal Prince Alfred Hospit
Camperdown, N.S.W.
Paton, James S., Esq., Dudley, via Newcastle
Read, George, Esq., Watson's Bay, nr. Sydney
Sadler, Henry F., M.B., Kurri Kurrim
Stephen, E. H. M., M.B., Elizabeth Bay, Sydney
Wallace, Donald, M.B., Coast Hospital, Little Bay

Toronto Branch.

Aylesworth, G. W., M.D., Collingwood, Ontario
Clarke, W. F., M.D., 2282, Queen Street E., Toronto
Cleland, G. S., M.D., 730, Queen Street East, Toronto
Clouse, Elias, M.D., 468, College Street, Toronto
Farncomb, T. S., M.D., Trenton, Ontario
Free, E. J., M.D., Campbellford, Ontario
Lehmann, W., M.D., 104, Spadina Avenue, Toronto
O'Reilly, Charles, M.D., 52, College Street, Toronto
Parfitt, C. D., M.D., Gravenhurst, Ontario
Perkins, M. J., M.D., 349, Bathurst Street, Toronto

Ulster Branch.

Beatty, R. M., M.B., 9, Clifton Street, Belfast
Betty, Moore M., Esq., Enniskillen
Harper, R. W., M.B., 39, Camden Street, Belfast
Mann, F. C., M.B., Pomeroy, co. Tyrone
Mayberry, R. J., M.B., Maghera, co. Derry
Phillips, T. McC., M.B., Royal Victoria Hospital, Belfast
Warnock, H., Esq., Clogher, co. Tyrone
Wilson, John, Esq., Enniskillen

West Somerset Branch.

Meredith, R. W. H., Esq., Haynes, Wellington

Worcestershire and Herefordshire Branc

Swettenham, A. W., Esq., Bodenham, Leominster

Yorkshire Branch.

Elliston, C. Eric, M.B., Royal Infirmary, Sheffield
Fergus, W. J. B., M.B., 53, Church Street, Hunslet
Horsfall, A. E., M.B., the Infirmary, Huddersfield
Kennedy, Neil, M.B., Shepley, near Huddersfield
McBride, J. G., F.R.C.S., North-Eastern Railway Offic
York
Nestfield, R. W., M.B., Clifton House, Shelley, near Hu
dersfield
Rowley, O. F., Esq., 20, Church Street, Barnsley

BRITISH MEDICAL ASSOCIATION LIBRARY.

Books Needed to Complete Series:

The Librarian will be glad to receive any of the following volumes, which are needed to complete series in the Library:

American Climatological Transactions. Vols. 1, 4, 5, 6.
——— Dermatological Association Transactions. Vols. 5, 7, 8, 11, and 29.
——— Journal of the Medical Sciences. New series, vols. 4, 5, 1842-3; vols. 14, 15, 1847-8; vols. 18-30, 1850; vol. 33, 1857; vol. 46, 1864-5; vol. 59; or any parts of these vols.
——— Journal of Ophthalmology. Vols. 1-9.
——— Laryngological Association. Transactions. Vols. 1-6, 8-9.
——— Medical Association. Transactions, 1-28, 30, 31.
——— Otological Society. Transactions. Vol. 3, part 2, 1883.
——— Public Health Association. Transactions. Any vols.
Analyst. Vols. 1-24.
Archiv für Dermatologie und Syphilis. Prior to 1874, 1892, and 1893.
Annals of Surgery. Vols. 1, 11, 13-16, and 26, 27.
Archives Générales de Médecine. 1831-9 inclusive; 1846-55 inclusive; 1857-64 inclusive; 1871.
——— of Ophthalmology. Vols. 1-3, 6, 7, 14, 15, 16 and 20.
——— of Otology. Vols. 1-7, and 20-22.
——— de Parasitologie. Vols. 1-8.
——— of Pediatrics. Vols. 1-11.
Asylum Journal of Mental Science. Vol. 1, 1854.
Bentley and Trimen. Atlas of Medicinal Plants.
British Journal of Dermatology. Vol. 2, part 3.
British Laryngological and Rhinological Association. 1900-1-2.
British Medical Journal, June 14th, 1884, with plate.
Caledonian Medical Journal. Vol. 1 prior to 1894.
Carmichael Essays. Rivington, 1879.
Centralblatt für Augenheilkunde. Hirschberg. All prior to 1891, Index to 1891.
Centralbatt für Bakteriologie. Bound volumes prior to 1899.
——— für klinische Medicin. 1880-3; all 1888, 1891, No. 26,; 1892. No. 17.
——— für medicinischen Wissenschaften. Vols. 1-19.
Congrès Français de Chirurgie. Transactions 1, 2, 3, 6, and 10.
——— Internat. d'Obstétrique et de Gynécologie. 3. Amsterdam, 1899.
Connecticut State Board of Health Report. Vol. 11. 1887-8.
Dermatological Congress. Vienna, 1892.
Dublin Quarterly Journal of the Medical Sciences. Vols. 1, 10, 17, 20, 28, and 35-40.
Edinburgh Obstetrical Society. Transactions. Vol. 5.
Glasgow Medical Journal. 1833-68.
——— Pathological Society. Transactions. Vols. 1 and 2.
Guy's Hospital Gazette. Nos. 1 and 5, 1872; and 1881-86 inclusive.
Hunterian Transactions containing 76th Report.
Indian Medical Gazette. 1866-84.
International Congress of Hygiene. Congresses 1 to 6 and 10 to 12.
——— Ophthalmological Congress. Transactions of 5th, New York, 1876.
Johns Hopkins Hospital Bulletin. Vols. 1-10.
Journal of Laryngology. Vols. 1-9.
Neurologisches Centralblatt. No. 23, 1904.
Ophthalmic Review, January, 1882.
Pediatrics, prior to 1902.
Pollatschek. Therapeutische Leistungen des Jahres. 1894, 1895, 1900.
Provincial Medical and Surgical Journal. March to September, 1841.
Recueil d'Ophtalmologie. 1891, January-June; 1892, December.
Registrar-General's Decennial Report, 1871-80.
Revue Générale d'Ophtalmologie. Prior to 1888, and 1891-2.

Association Notices.

1906 ANNUAL GENERAL MEETING.

The Annual General Meeting of the British Medical Association will be held in the Caxton Hall, Caxton Street, Victoria Street, London, S.W., on Tuesday, July 24th at 10 o'clock in the forenoon.

ANNUAL REPRESENTATIVE MEETING.

The Annual Representative Meeting will take place in the Caxton Hall, Caxton Street, Victoria Street, London, S.W., on Tuesday, July 24th, immediately after the Annual General Meeting, which will be held at 10 o'clock in the forenoon; on Wednesday, July 25th, at 10 a.m.; on Thursday, July 26th, at 10 a.m. if required; also on Friday, July 27th, at 10 a.m. if required.

BY ORDER OF THE COUNCIL,
GUY ELLISTON, *General Secretary.*

THERAPEUTIC COMMITTEE.

The attendances of the Therapeutic Committee for the year 1905-6 are as given in the following table, and not as published in the Supplement for April 21st, p. 193:

Member of Committee.	May 3, 1905.	Oct 13, 1905.	April 6, 1906.				Total.
Tirard, Dr. Nestor, London (Chairman)	1	1	1				3
Bradbury, Dr. J. B., Cambridge	1	1	1				3
Brown, Dr. T. E. Burton, Brondesbury	1	1	1				3
Crawfurd, Dr. Raymond, London	1	1	1				3
Marshall, Professor C. R., Dundee (Hon. Secretary)	1	1	1				3
Phillips, Dr. Sidney, London	—	—	—				—
Smith, Dr. Walter, Dublin	—	—	—				—
Stockman, Professor Ralph, Glasgow	—	1	1				2
White, Dr. W. Hale, London...	1	—	1				2
Wild, Professor R. H., Manchester	—	1	1				2
Cushny, Professor A. R., London (incepted May 3rd, 1905)	—	1	1				2

BRANCH AND DIVISION MEETINGS TO BE HELD.

Aberdeen Branch.—Election of Member of Council.—Nominations are requested to be sent to Dr. J. F. Christie, Honorary Secretary, 7, Alford Place, Aberdeen, on or before June 2nd. Each candidate must be nominated by not less than three members.

Bath and Bristol Branch.—The annual meeting of the Branch will be held on Wednesday, May 30th, at the Medical Library, University College, Bristol, at 4.30 p.m. Names of candidates for Representatives of the Branch upon the Central Council must be sent to Dr. Newman Neild on or before May 25th. Candidates must be nominated by three members.—Newman Neild, M.B., W. M. Beaumont, Honorary Secretaries.

Bath and Bristol Branch: Trowbridge Division.—Notice is hereby given that the annual meeting of this Division will be held at the Town Hall, Trowbridge, on Wednesday, May 23rd, at 2.45 p.m. Business: To elect officers; consider communications from the Association *re* Charter, Contract Practice, etc., and any other business.—John Tubb-Thomas, The Halve, Trowbridge, Wilts, Honorary Secretary.

Birmingham Branch.—The annual meeting of the Birmingham Branch will be held at the Medical Institute on Thursday, June 14th, at 3.30 p.m., and nominations for offices should reach the Honorary Secretary not later than May 23rd.—T. Sydney Short, Honorary Secretary, 85, Edmund Street, Birmingham.

Border Counties Branch: North Cumberland Division.—The annual general meeting of the Division will be held at the County Hotel, Carlisle, on Friday, May 25th, at 3.30 p.m. It is proposed to hold a discussion on "The Relation of Medical Men to their Patients."—Norman MacLaren, Carlisle, Honorary Secretary.

Border Counties Branch and North Lancashire and South Westmorland Branch.—In accordance with By-law 24 notice is hereby given that nominations for the office of Representative of the above Branches on the Central Council of the Association must be received by me, duly signed by not less than three members of the Association, not later than May 28th.—Francis R. Hill, M.B., 62, Warwick Road, Carlisle.

Cambridge and Huntingdon Branch.—The annual meeting of the Branch will be held at Peterborough on Thursday, June 14th. Any member having communications to make should apply to the Honorary Secretary, F. E. Apthorpe Webb, Grafton House, Cambridge.

Cambridge and Huntingdon Branch.—Notice of Election of a Member of Council.—Nominations for a Member of the Council, which must be signed by three members of the Branch, should be sent to the Honorary Secretary on or before Saturday, June 2nd.—F. E. Apthorpe Webb, Grafton House, Cambridge, Honorary Secretary.

Dorset and West Hants Branch.—The annual meeting will be held at the Mont Dore Hotel, Bournemouth, on Thursday, May 24th. An agenda will be sent in due course. Members having cases to show or papers or other communications should give notice to the Honorary Secretary before May 16th. Candidates for election must send in applications signed by two members before May 16th.—C. H. W. Parkinson Honorary Secretary, Wimborne.

Dorset and West Hants and West Somerset Branches—Election of a Representative of these Branches on the Central Council.—The nomination of candidates for the ensuing year must be made (in accordance with By-law 24) and sent in writing on or before May 21st to C. H. W. Parkinson, Honorary Secretary of Dorset and West Hants Branch, Wimborne; or Dr. W. B. Winckworth, Honorary Secretary of West Somerset Branch, Taunton.

Dundee Branch.—The annual meeting of this Branch will be held in the Students' Union, Dundee, on Friday, June 8th, at 4 o'clock. Business: Election of office bearers. Proposed adoption of the "Bradford Rules," etc.—R. C. Buist and A. P. Low, Honorary Secretaries.

East Anglian Branch.—Notice is hereby given that nominations of two members for the office of Representative on the Central Council of the Association, each signed by not less than three members, must reach me not later than May 21st.—B. H. Nicholson, M.B., East Lodge, Colchester, General Secretary of Branch.

East York and North Lincoln Branch.—The annual meeting will be held at the Grimsby and District Hospital on Thursday, June 7th, at 4.30 p.m., and will be followed by the annual dinner.—E. M. Hainworth, Honorary Secretary, Hull.

Edinburgh and Fife (Combined) Branches.—Nominations for two Members of Council will be received by Dr. Logan Turner, 23, Walker Street, Edinburgh, on or before June 2nd. Nominations must be signed by two members.—Norman Walker, Honorary Secretary.

Glasgow and West of Scotland Branch.—Election of Representatives on Central Council. In accordance with By-law 24, nominations, each signed by three members of the Branch, must reach the Honorary Secretary on or before Monday, June 4th.—Dr. James H. Nicoll, 4, Woodside Place, Glasgow, Honorary Secretary.

Lancashire and Cheshire Branch: Leigh Division.—The annual meeting of this Division will be held at the Cooperative Offices, Ellesmere Street, on Thursday, May 31st, at 8.30 p.m.—Michael J. Halton, Honorary Secretary.

Lancashire and Cheshire Branch: Liverpool (Northern) Division.—The annual meeting of the members of this Division will be held at the Medical Institution, 114, Mount Pleasant, on Wednesday, May 23rd, at 4 p.m. Agenda: Election of officers. Election of Representative on Branch Council. Election of Executive Committee. Election of Representative in Representative Meeting. To receive the annual report of the Executive Committee. To consider and, if approved of, confirm the recommendations of the Executive Committee with reference to matters referred to Divisions: (1) Proposed application for Royal Charter (see Supplement to the British Medical Journal, March 24th, 1906). (2) Notices of motion (see Supplements, March 3rd and 31st, April 21st and 28th, 1906). Any other business.—A. W. German, Honorary Secretary.

Lancashire and Cheshire Branch: Manchester (South) Division.—The annual general meeting of the above Division will be held on Friday, May 25th, in the Schoolroom of the Holy Innocents' Church, Fallowfield, at 4.15 p.m. Agenda: Election of officers for the next year; annual report of the Executive Committee; annual report of the Honorary Treasurer. Dr. Arthur T. Helme has consented to give an address on the Working of the Association.—Percy McDougall, Honorary Secretary of the Division, Fallowfield.

Metropolitan Counties Branch: City Division.—The annual meeting will be held on Thursday, May 24th, at 4 p.m., at the Great Eastern Hotel, Liverpool Street, E.C. Agenda: (1) Minutes. (2) Letters. (3) Questions. (4) Report of Executive Committee. (5) Election of officers. (6) Further consideration of notices of motion for Representative Meeting (see Supplement to the British Medical Journal for April 28th). The first annual dinner will be held at the Gaiety Restaurant, Strand, W.C., at 7 p.m. on Thursday, June 7th. Tickets, 7s. 6d. each (exclusive of wine), to be obtained of J. Beddow, Esq., Rossendale, 89, Cazenove Road, Stamford Hill, N.E.—E. W. Goodall, Eastern Hospital, Homerton, N.E., Honorary Secretary.

Metropolitan Counties Branch: Marylebone Division.—The annual meeting of the Division will be held at the Rooms of the Royal Medical and Chirurgical Society, 20, Hanover Square, W., on Tuesday, May 29th, at 5 p.m. Agenda: (1) Minutes. (2) To elect officers, namely—Chairman, Vice-Chairman, Honorary Secretary, and Treasurer. (3) To elect Representatives of the Division on the Branch Council. (4) To elect the Representative of the Division at Representative Meetings of the Association. (5) To receive the annual report of the Executive Committee. (6) To consider other business if necessary.

A general meeting of the Division will be held at the Rooms of the Medical Society, 11, Chandos Street, W., on Tuesday, May 22nd, at 5 p.m. Agenda: (1) Minutes. (2) Correspondence. (3) To receive the report of the representatives appointed to attend a meeting of representatives from the other Divisions of the Metropolitan Counties Branch to discuss the nomination of candidates for the Council of the Association. (4) To consider the following questions submitted by the Medico-Political Committee:—(*a*) Does the Division approve in general of the method of registration for nurses proposed by the Select Committee of the House of Commons? (*b*) Does the Division approve of the separate registration of midwifery nurses? (see Supplement to the British Medical Journal, March 3rd, 1906). (5) To consider the following notices of motion referred to the Division: C. 4. 5; K. 15. 16, 17, 18, 19, 20, 21, 22. 25; M. 27, 28, 29, 30, 31, 32, 33, 34, 37, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 59. The terms of these notices of motion will be found in the Supplement for May 5th, 1906, and cannot be further stated here. Members of the Division are therefore requested to bring this Supplement to the meeting, and if any member requires another copy of this Supplement he should apply to the Medical Secretary at the offices of the Association. If any member wishes to bring forward a proposition with regard to any of the notices of motion mentioned in the Supplement for May 5th other than those which have already been dealt with by this Division, and which are accordingly omitted from the above list, the Medical Honorary Secretary of the Division will be very obliged if he will kindly give notice of such intention before the meeting, so that the business may be facilitated, as probably the Division will think fit to give their Representative a free hand with respect to certain of the motions referred to.—Dr. Comyns Berkeley, Wimpole Street, Cavendish Square, W., Honorary Secretary and Treasurer.

Metropolitan Counties Branch: St. Pancras and Islington Division.—The annual meeting will be held on Friday, May 25th, at 4 p.m., at the Islington Infirmary, Highgate Hill. Business: Election of officers; annual report and financial statement; to consider registration of nurses; the election of Representatives on the General Medical Council, and the business to be brought before the Annual Representative Meeting of the Association.—Wm. Wynn Westcott, Honorary Secretary.

Metropolitan Counties Branch: Tottenham Division.—The annual meeting of the Division will be held at the Tottenham Hospital on Friday, May 25th, at 4 p.m. Agenda: (1) To instruct Representative. (2) To elect officers for next year.—Fred. Tresilian, White Lodge, Enfield, Honorary Secretary.

Metropolitan Counties Branch: Wandsworth Division.—The annual meeting will take place, preceding the annual dinner to be held in the Banqueting Hall, Battersea Town Hall, on Friday, May 25th, at 7 p.m. Invitations to attend have been issued and accepted by the M.P.'s for Wandsworth and Clapham; the Mayors of Battersea, Wandsworth and Wimbledon; the late candidates for Parliament in the Battersea, Clapham, Wandsworth, and Wimbledon areas; local members of the L.C.C. and S.C.C.; the Chairman, Wandsworth Guardians; the Chairman, Central Council; the President of the Branch; the Director-General A.M.S.; the Chairman, Organization Committee; and several others. The Committee hope the members of the Division will attend in large numbers and bring their medical friends. Tickets, 7s. 6d. each.—A. J. Swallow, Honorary Secretary Dinner Committee, 61, South Side, Clapham Common.

Midland Branch.—Annual Meeting. *Preliminary Notice:* The annual meeting of this Branch will be held at the County Hospital, Lincoln, on Thursday, June 7th, at 2.15. A meeting of the Council will be held at 1.45. The President-Elect, Mr. Mansell Sympson, will be "at home" to the members from 4 to 6. The annual dinner will be held at the White Hart Hotel at 6 p.m.—Astley V. Clarke, M.D., 37, London Road, Leicester, Honorary Secretary and Treasurer.

Midland Branch: Boston and Spalding Division.—The annual meeting will be held on Tuesday, May 22nd, at 12.30 p.m., at the Red Lion Hotel, Strait Bargate, when it is hoped members will endeavour to be present. Agenda: (1) Annual report. (2) Election of officers. (3) Any other business. Luncheon will be provided after the meeting; tickets, exclusive of wine, 3s. 6d. each. Members taking luncheon will please notify their intention before Saturday, May 19th.—A. E. Wilson, Boston, Honorary Secretary.

Midland Branch: Leicester Division.—The annual meeting of the Division will be held on Wednesday, May 30th, at 4 p.m., at the Infirmary, Leicester. Business: (1) To nominate a Vice-President of the Branch for 1906-7. (2) To elect the officers of the Division. (3) To elect Representatives on the Branch Council. (4) To elect the Executive Committee of the Division. (5) To elect a Representative at the Representative Meeting of the Association. (6) To receive a report of the work of the Division. (7) To discuss matters referred to the Division in the Supplement to the British Medical Journal. (8) Any other business.—Robert Sevestre and Wilfred E. Gibbons, Honorary Secretaries, Leicester.

North of England Branch.—Election of Representatives on the Central Council.—Notice is hereby given that nominations of two Representatives for the North of England Branch, each signed by not less than three members, must reach me not later than May 21st.—Alfred Cox, Cotfield House, Gateshead, Honorary Secretary.

North Wales Branch.—Nominations of a member of the Central Council to represent this Branch for the ensuing year must be made in accordance with By-law 24, and sent to me in writing on or before May 31st.—H. Jones Roberts, Honorary Secretary, Pen-y-groes.

North Wales Branch: Denbigh and Fleet Division.—The annual meeting of the Division will be on Friday, May 25th, at the Wrexham Infirmary.—E. D. Evans, Honorary Secretary.

North Wales Branch: North Carnarvonshire and Anglesea Division.—The annual meeting of this Division will be held at the British Hotel, Bangor, on Wednesday, May 30th, for the election of officers, Representatives, etc., and other business. Members having papers to read or cases to show will please notify the honorary secretary on or before May 19th.—H. Jones Roberts, Pen-y-groes, Honorary Secretary.

North Wales Branch: South Carnarvon and Merioneth Division.—The annual meeting of this Division will be held at the Gorsygedol Hotel, Barmouth, on Thursday, May 31st. Members having papers to read or cases to show will please communicate with the Honorary Secretary on or before May 23rd.—H. Gladstone Jones, Honorary Secretary.

South-Eastern Branch.—The annual meeting of this Branch will be held at Norwood on Wednesday, June 27th, Dr. Hetley, President-elect, in the chair. The following will be the agenda: (1) To elect the officers of the Branch. (This will be done by voting papers sent to each member of the Branch. Nominations by three members for the offices of President-elect, Vice-Presidents, and Secretary may be sent to the Honorary Secretary on or before May 21st.) (2) To receive the annual report of the Branch. (3) To transact any business that may be transacted by an ordinary meeting. N.B.—Three members to represent the Branch on the Central Council will also be elected by voting papers. Nominations for these posts, each of three members in writing, should be sent to the Secretary of the Branch on or before May 21st.—H. M. Stewart, Dyffryn, 123, Thurlow Park Road, Dulwich, Honorary Secretary.

SOUTH-EASTERN OF IRELAND BRANCH.—An ordinary meeting and meeting of the Council will be held at the Town Hall, Clonmel, on June 6th, at 11 o'clock. Agenda: (1) Minutes. (2) To appoint an Ethical Committee for Branch. (3) Investigate ethical case. (2 and 3 by Branch Council only.)—J. QUIRKE, Piltown, co. Kilkenny, Honorary Secretary.

SOUTH MIDLAND BRANCH: NORTHAMPTONSHIRE DIVISION.—A meeting of this Division will take place in the Library, General Hospital, Northampton, on Tuesday, May 22nd.—Dr. HICHENS, 45, Sheep Street, Northampton, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: SOUTH-WEST WALES DIVISION.—The annual meeting of the Division will be held at the Stepney Hotel, Llanelly, on Wednesday, May 30th, at 2.30 p.m. A meeting of the Ethical Committee will be held at 2 o'clock Professor Kocher, of Bern, will address the Cardiff Medical Society on Graves's disease, in the Y.M.C.A. Lecture Hall on Friday, May 25th, at 3.30 p.m. By the kind invitation of the Cardiff Medical Society, members of the South-West Wales Division can be present. Agenda: (1) Minutes of last meeting. (2) Election of officers—Chairman, Vice-Chairman, Secretary, three Representatives of the Division on Branch Council, Ordinary Members of Executive and Ethical Committees, and Representative of the Division for Annual Representative Meeting in London. (3) Annual report of Executive Committee. (4) Report *re* medical officer of Aberystwyth Workhouse. (5) To consider the business of Annual Representative Meeting. (6) To consider proposed Charter for the Association. (7) Other business. Papers: Mr. D. J. Williams: Notes on Four Cases of Suppurating Ovarian Cyst. Dr. R. G. Price: Quacks and Quackery; with special reference to Carmarthenshire. Dr. Owen Williams will show 2 cases of Exophthalmic Goître in Men. The Honorary Secretary of the South Wales Branch Contract Practice Committee wishes to remind members of the urgent importance of securing a wide support for the Contract Practice Fund, concerning which a circular was recently issued. Those who have not yet contributed are asked to do so as soon as possible, so that the list of contributors can be completed and circulated. Contributions should be sent to Dr. E. J. Maclean, 12, Park Place, Cardiff.—J. EDGAR P. DAVIES, Castle Hill, Llanelly, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—Election of Representatives on Central Council.—Nominations in writing, signed by three members of the Branch, must be sent in on or before May 24th to Dr. FRANK G. THOMAS, 68, Walter Road, Swansea.

SOUTH-WESTERN BRANCH.—The sixty-seventh annual meeting will be held on June 14th at the Royal Devon and Exeter Hospital, Exeter, at 3 p.m., when Mr. G. Jackson will resign the chair to Mr. E. J. Domville, who will deliver his inaugural address. The report of the Branch Council and annual financial statement for the year 1905-6 will be presented to the meeting, and the officers of the Branch will be elected for the year 1906-7. Luncheon, by kind invitation of the President-Elect, will take place from 12.30 p.m. to 2.30 p.m. at Northernhay House. The annual dinner will be held at 7 p.m. at the London (Pople's) Hotel. Tickets (exclusive of wine) 6s. each, which can be had from Dr. Solly, 40, Southernhay, the Honorary Treasurer of the Dinner Committee. Arrangements have been made for members who desire it to play either golf or croquet, and to visit the Cathedral, Chapter House, Library, Guildhall, etc.; and by the Exeter members, members are invited to a Garden Party to be held by permission of the Lord Bishop of Exeter and Mrs. Robertson at the Palace from 4.30 to 6 p.m. Members wishing to play golf are requested to send their names to Dr. Raglan Thomas, 13, West Southernhay, Exeter; and for croquet to Mr. A. C. Roper, The Shrubbery, Exeter, before June 10th. Members who attend the Garden Party are invited to bring their wives or lady friends, limited to two. It is particularly requested that members requiring dinner tickets send their names with P.O. for 6s. to Dr. Solly, 40, Southernhay, Exeter, before June 10th. Members wishing to be accommodated with bed and breakfast are invited to send their names to Dr. Miller, 14, East Southernhay, Exeter, who will endeavour to arrange matters. The Honorary Secretary takes this opportunity of informing members that he does not desire to offer himself for re-election.—G. YOUNG EALES, Torquay, Honorary Secretary.

SOUTH-WESTERN BRANCH.—The nomination of candidates for the office of elective members of Council (Branch Representatives on the Central Council of the Association) for the ensuing year must be made by three electors, and in writing, on or before May 19th, to the Honorary Secretary of the Branch, Mr. G. YOUNG EALES, 1, Matlock Terrace, Torquay.

ULSTER AND CONNAUGHT BRANCHES.—The annual meeting will be held on Thursday, June 21st, when the following officers will be elected:—President, Secretary, Treasurer, two Members of the Central Council to represent the Ulster and Connaught Branches, and a member of the Irish Committee (who shall not be resident in Belfast). Nominations for these posts must be sent to the Honorary Secretary not later than Saturday, June 2nd, signed by two members in the case of each except for Members of Central Council, in which case the nomination must be signed by three members. Members having business or scientific communications to make to the meeting will please send the Honorary Secretary notice of the same not later than June 12th.—CECIL E. SHAW, Honorary Secretary, Belfast.

YORKSHIRE BRANCH.—The annual meeting of this Branch will be held at the Eye and Ear Hospital, Bradford, on Wednesday, June 13th. In accordance with By-law 24 notice is hereby given that nominations for Representatives on the Council of the Association must be received by me, in writing, duly signed by three members of the Branch, on or before May 19th.—ADOLPH BRONNER, M.D., 33, Manor Row, Bradford, Honorary Secretary.

NOTICE OF CHANGES OF BOUNDARIES OF DIVISIONS AND BRANCHES.

THE following changes have been made in accordance with the regulations of the Association, and take effect from the date of publication of this notice:

1. That the boundary of the Barnstaple Division be extended to include Shebbear, formerly included in the Devonport Division.
2. That the boundary of the West Bromwich Division be extended to include Oldbury and Langley, formerly included in the Dudley Division.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desires to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that it is prepared to receive applications for grants in aid of such research. Applications for sums to be granted, which must reach this office not later than May 31st, must include details of the precise character and objects of the research which is proposed, and must be made on forms to be had of the General Secretary, at the office of the Association, 429, Strand, London.

Every recipient is required to furnish to the Science Committee, on or before May 31st following upon the allotment of the grant, a report (or, if the object of the grant be not then attained, an interim report to be renewed at the same date in each subsequent year until a final report can be furnished) containing: (*a*) A brief statement for the Report of the Science Committee, showing the results arrived at, or the stage which the inquiry has reached; (*b*) a general statement of the expenditure incurred, accompanied, so far as is possible, with vouchers; (*c*) and references to any Transactions, Journals, or other publications in which the results of the research have been printed.

The work of the Grantees shall be subject to inspection.

RESEARCH SCHOLARSHIPS.

The Council of the British Medical Association is prepared to receive applications for three Research Scholarships, each of the value of £150 per annum, tenable for one year, and subject to renewal by the Council, provided the whole term of office has not exceeded three years.

The scholarships exist for the encouragement of research in Anatomy, Physiology, Pathology, Bacteriology, State Medicine, Clinical Medicine, and Clinical Surgery.

The Scholars' work shall be subject to inspection.

Applications for Scholarships must be made on forms to be had of the General Secretary, and returned on or before May 31st.

ERNEST HART RESEARCH SCHOLARSHIP.

The Council of the British Medical Association is also prepared to receive applications for the Ernest Hart Memorial Scholarship of the value of £200 per annum tenable for one year, but subject to renewal by the Council for another year. The Scholarship is for the study of some subject in the department of State Medicine.

N.B.—Applications for Scholarships and Grants should, as a rule, be accompanied by a recommendation from the head of the laboratory in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended, however, to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

GUY ELLISTON, *General Secretary.*

429, Strand,
April, 1906.

ABUSE OF MEDICAL CHARITIES IN NOTTINGHAM.

A LARGE and representative meeting of the profession in Nottingham and the neighbouring district, convened by the Nottingham Medico-Chirurgical Society and Nottingham Division of the Midland Branch of the British Medical Association, was held on May 9th, under the presidency of Mr. T. J. DABELL, when the following resolutions were brought forward, discussed, and carried unanimously.

The first, proposed by Dr. W. TIBBLES, and seconded by Dr. W. B. RANSOM, was to the following effect:

> That abuse exists; and that this meeting invites the Governors of the respective charities in Nottingham to consider what steps can be taken to prevent it.

The PRESIDENT pointed out that if the meeting had the result of directing the funds subscribed by the charitable into what were more eligible channels, it would not only safeguard the medical profession, but do a service to the cause of charity generally.

Dr. W. TIBBLES, in moving the resolution, attributed the increasing abuse of hospitals to (1) indiscriminate distribution of letters of recommendation; (2) the increasing desire for pleasure and luxury amongst the masses, necessitating economies in other directions, such as medical attendance; and (3) the expansion of the hospitals themselves, the increase of their staffs, and the creation of new and additional institutions. The number of patients treated at the various charities in Nottingham had increased from 24,668 in 1885 to 45,147 in 1904, the latter figure being about 20 per cent. of the entire population of Nottingham. Thus, at the same rate of increase the numbers would be actually doubled in twenty-two years, while the increase of population did not exceed 25 per cent. Until some system of inquiry was established neither the governors nor any one else would have any means of determining the social status and financial position of the vast majority of those who were treated by them. Many striking examples were then given of abuse of the charities; at one institution the poorer patients said they felt ashamed to sit alongside the very respectable persons who waited their turn for treatment. Others drove up in cabs, which were kept waiting while the patient attended his medical adviser and then returned to his home or employment. In some cases tradespeople gave away to their customers recommendations to the various charities as an inducement to the purchase of their goods.

Dr. W. B. RANSOM, in seconding the resolution, traced the various steps of a similar movement on the part of the profession in Nottingham eight years ago, which unfortunately achieved nothing. The agitation had then dropped, with the understanding that an inquiry officer would be appointed as soon as the out-patient department at the General Hospital had been rebuilt and remodelled. This understanding had never been carried out, although the alterations then contemplated had since been completed.

Dr. J. A. WARING laid stress on the fact that many persons were ignorant of the fact that hospitals were intended for free treatment, and came there fully meaning to pay something.

Drs. G. B. WRAY, W. HUNTER, J. S. BOLTON, and T. W. KELLY having spoken, the motion was put and adopted.

The second resolution, proposed by the PRESIDENT and seconded by Dr. LEWIS W. MARSHALL, was also carried unanimously; it was,

> That this meeting begs to suggest that some system of inquiry be made into the financial status of *every person* presenting himself or herself for treament, in order to ascertain if they are suitable recipients of medical charity.
>
> The meeting desires also to express the opinion that the present system of recommendations is of doubtful value and should be modified.

This resolution was spoken to by Mr. R. C. CHICKEN, and Drs. W. B. RANSOM, J. F. BLURTON, W. HUNTER, and J. A. WARING.

Vital Statistics.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

THE Registrar-General has just issued his return relating to the births and deaths in the first quarter of this year, and to the marriages in the fourth quarter of 1905. The marriage-rate during that period was equal to 16.7 per 1,000 of the population, and was 0.8 per 1,000 below the average rate in the corresponding periods of the ten preceding years.

The births registered in England and Wales during the quarter ending March last numbered 237,396, and were equal to an annual rate of 27.9 per 1,000 of the population, estimated by the Registrar-General to be 34,547,016 persons in the middle of the year. In the first quarters of the ten preceding years the birth-rate averaged 29.1 per 1,000; the rate in the quarter under notice was lower than that recorded in the corresponding period of any preceding year. Among the several counties the birth-rates last quarter ranged from 21.8 in Sussex, 22.0 in Cornwall, 22.7 in Berkshire and in Somerset, 22.9 in Carnarvonshire, and 23.0 in Northamptonshire, to 31.4 in Northumberland, 31.5 in Carmarthenshire, 32.2 in Staffordshire, 35.2 in Glamorganshire, 35.4 in Durham, and 37.1 in Monmouthshire. In seventy-six of the largest English towns, including London, the birth-rate last quarter averaged 28.7 per 1,000, being 0.8 per 1,000 in excess of the general English birth-rate. In London the rate was 27.8 per 1,000, while it averaged 29 1 in the seventy-five other large towns, and ranged from 16.4 in Hastings, 16.7 in Hornsey, 17.4 in Bournemouth, and 19.2 in Halifax, to 36.0 in Middlesbrough, 36 2 in Stockton-on-Tees, 36.5 in Merthyr Tydfil, and 39.5 in Rhondda.

The births registered in England and Wales during the quarter under notice exceeded the deaths by 96,934; this represents the natural increase of the population during that period. From returns issued by the Board of Trade it appears that 98,955 passengers left the United Kingdom for places outside Europe during the three months under notice. These 98,955 persons included 39,775 who were stated to be English, 9,534 Scottish, 5,438 Irish, and 42,055 of foreign origin, while the nationality of 2,153 others was not distinguished. Compared with the numbers in the first quarter of the previous year, the proportion of English passengers showed an increase of 17.8 per cent., that of Scottish an increase of 52.3 per cent., and that of Irish a decrease of 38.0 per cent.

During the first quarter of the year the deaths of 140,462 persons were registered, equal to an annual rate of 16.5 per 1,000 persons living; this rate was 2.2 per 1,000 below the average rate for the first quarters of the ten preceding years. The lowest county death-rates last quarter were 13.6 in Middlesex, 13.7 in Northamptonshire, 13 9 in Essex, 14.5 in Kent, 14.6 in Buckinghamshire, and 14.7 in Surrey; and the highest rates were 17.8 in Warwickshire and in Durham, 17.9 in Cumberland, 18.2 in the North Riding of Yorkshire, 18.4 in Monmouthshire, and 18.6 in Denbighshire. In seventy-six of the largest English towns, with an aggregate population of nearly sixteen millions, the mean rate of mortality was 16.6 per 1,000, which was also the death-rate in London; among the large provincial towns the rate ranged from 10.2 in Hornsey, 10.7 in King's Norton, 10.9 in East Ham, 11.1 in Walthamstow, 11.3 in Northampton, 11.6 in Willesden and 11.8 in Leyton, to 19.6 in Warrington, 20.0 in Swansea, 20.1 in Merthyr Tydfil, 21.3 in Liverpool, and 22.5 in Preston.

The 140,462 deaths from all causes in England and Wales last quarter included 9,321 which were referred to the principal infectious diseases; of these, 2,736 were attributed to whooping cough, 2,283 to measles, 1,669 to diphtheria, 1,126 to diarrhoea, 934 to scarlet fever, 570 to "fever" (principally enteric), and 3 to small-pox. The mortality last quarter from each of these diseases was below the average. The three deaths from small-pox belonged to Bristol, Plymouth, and South Shields respectively.

The rate of infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 126 per 1,000, against an average rate of 139 in the corresponding periods of the ten preceding years. In the several counties the rates of infant mortality ranged from 92 in Oxfordshire, 97 in Middlesex, 98 in Wiltshire, 101 in Essex, 102 in Cornwall, and 103 in Buckinghamshire, to 149 in Monmouthshire, 150 in Glamorganshire, 154 in Nottinghamshire, 160 in Carnarvonshire, 162 in Leicestershire, and 176 in Denbighshire. In the seventy-six large towns the mean rate was 128 per 1,000; in London the proportion was equal to 117 per 1,000, while it averaged 133 in the seventy-five other large towns, and ranged from 87 in Huddersfield, 88 in East Ham, 96 in Willesden and in Hornsey, and 98 in Leyton, to 176 in Nottingham, 179 in Walsall, 184 in Rhondda, 193 in Preston, and 202 in Leicester.

The mortality in England and Wales during the three months under notice, among persons aged from 1 to 60 years, was equal to an annual rate of 8.0 per 1,000 of the population estimated to be living at this group of ages, and was 1.3 per 1,000 below the mean rate in the ten preceding first quarters. In the seventy-six large towns the death-rate at this group of ages averaged 8.6 per 1,000; in London this death-rate was 8.8 per 1,000, while among the large provincial towns the rates ranged from 4.4 in King's Norton, 5.2 in Handsworth (Staffs.), 5.3 in Leyton and in Northampton, and 5.5 in Willesden, to 10.5 in Warrington, 10.6 in Sunderland, 10.9 in Merthyr Tdyfil, 11.7 in Preston, and 12.1 in Liverpool.

Among persons aged 60 years and upwards the death-rate last quarter was equal to 78.1 per 1,000 of the estimated population at this age-period, being 5.9 per 1,000 below the average. In the seventy-six large towns the death-rate at this age-group averaged 80.9 per 1,000; in London the rate was 79.6 per 1,000; while among the other large towns the lowest rates were 62.8 in King's Norton, 63.4 in Northampton, 63.7 in Walthamstow, and 64.6 in Hastings and in Grimsby; and the highest rates were 100.1 in Middlesbrough, 101.1 in Warrington, 101.8 in St. Helens, 102.1 in Hanley, and 102.3 in Preston.

The mean temperature of the air last quarter was slightly above the average in all parts of the country except the North-West. The rainfall measured in London amounted to 6.7 in. during the quarter, being 35 per cent. in excess of the average amount. The aggregate duration of bright sunshine in London during the quarter was 219 hours, or fifty-three hours in excess of the average, but less than one-fourth of the possible duration.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,676 births and 4,698 deaths were registered during the week ending Saturday last, May 12th. The annual rate of mortality in these towns, which had been 17.3, 16.7, and 16.3 per 1 000 in the three preceding weeks, further fell last week to 15.5 per 1.000. The rates in the several towns ranged from 6.5 in King's Norton, 6.7 in Northampton, 6.9 in Walthamstow, 7.2 in Hornsey, 7.4 in Handsworth (Staffs.), and 9 4 in Willesden and in York, to 20.3 in Plymouth and in Warrington, 20 5 in Liverpool and in Salford, 21 0 in Bradford, 21.3 in Bury and in Rotherham, and 23.1 in Barrow-in-Furness. In London the rate of mortality was 15.6 per 1.000, while it averaged 15.4 per 1.000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.6 per 1,000 in the seventy-six towns; in London also this death-rate was equal to 1.6 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 2 7 in Coventry and in Leeds, 3 1 in Manchester and in Salford, 3 4 in Liverpool and in Bradford, 5.0 in Great Yarmouth, and 6.6 in Burnley. Measles caused a death-rate of 1.1 in Bristol and in Salford, 1.3 in Walthamstow, 1.6 in Newcastle-on-Tyne, 1.7 in Manchester, 2.1 in Liverpool, 2 3 in Bradford, 5.0 in Great Yarmouth, and 6.1 in Burnley; scarlet fever of 1.2 in Sheffield, and 1.7 in Rotherham; diphtheria of 1.3 in Derby; and whooping-cough of 1.6 in Bootle and in Huddersfield, 2.0 in Coventry, and 2.3 in Warrington. The mortality from enteric fever and from diarrhoea showed no marked excess in any of the large towns. No fatal case of small-pox was registered last week in any of the seventy-six towns, and no small-pox patients were admitted into the Metropolitan Asylums Hospitals during the week. The number of scarlet-fever patients remaining under treatment in these hospitals and in the London Fever Hospital, which had been 2.225, 2,240, and 2.337 at the end of the three preceding weeks, had further risen to 2.378 at the end of last week: 338 new cases were admitted during the week, against 288, 314, and 357 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, May 12th, 998 births and 645 leaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 17.6, 18.4, and 18.0 per 1.000 in the three preceding weeks, further increased to 18.8 per 1,000 last week, and was 3.3 per 1,000 above the mean rate during he same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 13.2 in Paisley and 16.5 in Aberdeen to 20.2 in Dundee and 22.7 in Perth. The death-rate from the principal infectious diseases averaged 2.0 per 1.000 in these towns, the highest rates being recorded in Edinburgh and Leith. The 318 deaths registered in Glasgow included 9 which were referred to measles, to diphtheria, 12 to whooping-cough, and 9 to diarrhoea. Eight atal cases of measles, 2 of scarlet fever, 2 of diphtheria, and 2 of vhooping-cough were recorded in Edinburgh. Six deaths from measles occurred in Leith, and 3 in Dundee; and 2 from diarrhoea in Paisley.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, May 12th, 642 births and 405 deaths were registered in six of the principal Irish towns, as against 607 births and 442 deaths in the preceding period. The annual deathate in these towns, which had been 17.3, 21 8, and 22.7 per 1,000 in he three preceding weeks, rose to 23.5 per 1,000 in the week under otice, this figure being 8.0 per 1,000 higher than the mean annual rate 1 the seventy-six English towns for the corresponding period. The gures ranged from 15.6 in Waterford and 21.7 in Dublin to 24.0 in ork and 32.8 in Limerick. The zymotic death-rate in the same six rish towns averaged 1.2 per 1,000, or 0.2 per 1,000 higher than during he preceding period, the highest figure—2.5—being recorded in ondonderry, while no deaths under this heading were recorded 1 Waterford.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

he following appointments have been made at the Admiralty: ichard S. Osborne, Surgeon, to the *Vivid*, additional, for disposal, ay 6th: Edward J. Morley, Fleet-Surgeon, to the *Ganges*, for iotley Barracks, June 1st: James R. A. Clark-Hall, Surgeon, to the *obin*. May 11th: John P. H. Greenhalgh, Surgeon, to the *Moorhen*, ay 11th; Reginald H. St. B. E. Hughes, Surgeon, to the *Vernon*, lditional, for the *Niger*, May 11th.

ROYAL ARMY MEDICAL CORPS.

he undermentioned Lieutenants to be Captains, dated March 1st, 06: A. B. Smallman, M.B., W. F. Tyndale, C.M.G., M.B., P. Davidon, D.S.O., M.B., W. F. Ellis, J. McKenzie, M.B., N. D. Walker, .B., A. H. Hayes, H. J. Crossley, R. B. Ainsworth, C. A. J. A. alck, M.B., R. Storrs, R. L. V. Foster, M.B., F. A. H. Clarke, A. K. H. Reed, J. W. S. Seccombe, J. M. H. Conway, S. M. W. eadows, H. V. Bagshawe, D. S. Skelton, C. V. B. Stanley, M.D., . G. S. Webb, W. W. Browne, R. Rutherford, M.B., W. D. C. elly, M.B., N. E. J. Harding, M.B., R. J. Franklin. Their first mmissions bear date September 1st, 1902.

Lieutenant Colonel C. R. Bartlett has been appointed Senior edical Officer, West Africa.

Colonel O. E. P. Lloyd, V.C., has been appointed Principal Medical ficer, Jubbulpore and Jhansi Brigades.

Colonel R. H. Forman, M.B., has been appointed Principal Medical ficer, Bombay Brigade.

Lieutenant A. S. Williams, from the Secondary List, to be Lieunant, April 1st. Lieutenant Williams was appointed on probation, nuary 30th, 1906, and was seconded at the same time.

Exchange.

e charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office rder with the notice, not later than Wednesday morning, in order to nsure insertion in the current issue.

ptain R.A.M.C., six years' service, due home, tour expired from dia beginning of trooping season, desires exchange with Captain I.S. For terms, etc., apply to Indophile, care of Messrs. King, ng, and Co., Bombay.

INDIAN MEDICAL SERVICE.

Lieutenant-Colonel J. Maitland, M.D., Madras Establishment, has been permitted to retire from the service, and has been granted one of the extra pensions of £100 per annum reserved for officers of the Indian Medical Service for the year 1906-7. He joined the Madras Department as Assistant Surgeon, March 31st, 1876, and was made Surgeon-Lieutenant-Colonel, March 31st, 1896. He has no war record in the Army Lists.

Lieutenant-Colonel Shambhu Chandra Nandi, M.B., Bengal Establishment, has retired from the Service, dated December 6th, 1905. He was appointed Assistant Surgeon, October 2nd, 1880, and became Lieutenant-Colonel October 2nd, 1900. He was in the Burmese expedition in 1886-8 (medal with two clasps); with the first Miramzai expedition in 1891: with the Tirah Expeditionary Force in the North-West Frontier of India campaign in 1897-8 (medal with two clasps); in the China war, 1900 (medal); and with the Waziristan expedition in 1901-2 (clasp).

To be Colonel.—Bombay.—Lieutenant-Colonel (temporary Colonel) W. G. H. Henderson, F.R.C.S.I. (November 11th, 1905).

Captains to be Majors.—Bengal.—Dated January 30th, 1905: C. R. Stephens, M.D., F.R.C.S., L. Rogers, M.D., F.R.C.S., G. T. Birdwood, M.D. Dated July 29th, 1905: C. C. S. Barry, E. A. R. Newman, M.D., J. Gould, M.B., R. G. Turner, J. Davidson, M.D., J. Mulvany. Dated November 17th, 1905: G. Y. C. Hunter. Madras.—Dated January 30th, 1905: E. H. Sharman, T. H. Foulkes, F.R.C.S. Dated July 29th, 1905: T. Stodart, M.B., Bhola Nauth, A. E. Berry, M.B., H. St. J. Fraser. Bombay.—H. Bennett, M.B., F.R.C.S.E., dated July 24th, 1905. The promotion of Major P. P. Kilkelly, M.B., is antedated from July 29th, 1905, to January 30th, 1905.

Lieutenants to be Captains, dated January 31st, 1906: W. S. J. Shaw, M.B., C. S. Parker, M.B., F.R.C.S., H. H. Broome, M.B., F. N. White, M.B., C. G. Seymour, D. Heron, M.B., T. C. Rutherford, M.B., H. C. Keates, M.B., L. Reynolds, E. C. Taylor, M.B., R. A. Needham, M.B., Dwarka Prasad Goil, M.B., J. Kirkwood, M.B., A. Whitmore, M.B.

To be Lieutenants, dated September 1st, 1905: C. H. Reinhold, A. F. Hayden, M.B., B. E. M. Newland, L. A. H. Lack, M.B., E. J. C. McDonald, K. W. Mackenzie, M.B., W. D. Wright, M.B., J. F. Boyd, V. N. Whitamore, J. Catto, M.B., Narindra Singh Sodhi, W. J. Powell, M.B., W. C. Gray, M.B.

ROYAL ARMY MEDICAL CORPS (MILITIA).

Captain and Honorary Major (Honorary Captain in the Army) A. H. Benson resigns his commission, retaining his rank and uniform, May 12th.

IMPERIAL YEOMANRY.

Surgeon-Lieutenant F. E. Fremantle, M.B., Herts Regiment, to be Surgeon-Captain, May 12th.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

John Stewart to be Surgeon-Lieutenant in the 1st Argyll and Bute, May 12th.

Surgeon-Major M. J. Fox, 3rd Lancashire, is granted the honorary rank of Surgeon-Lieutenant-Colonel, May 12th.

Surgeon-Lieutenant H. H. E. Scatliff, 1st Sussex, resigns his commission, May 12th. He is appointed Second Lieutenant in the same regiment from the same date.

ROYAL ENGINEERS (VOLUNTEERS).

Antony A. Martin, M.D., to be Surgeon-Lieutenant in the 1st Sussex Regiment, April 10th.

VOLUNTEER RIFLES.

Surgeon-Major T. Fennell, 3rd Volunteer Battalion the Cheshire Regiment, is granted the honorary rank of Surgeon-Lieutenant-Colonel, May 12th.

Surgeon-Lieutenant A. J. Dale, 1st Volunteer Battalion the Durham Light Infantry, resigns his commission, April 9th. He is appointed a Lieutenant in the same battalion from the same date.

Surgeon-Major G. B. Todd, M.B., 5th (Glasgow Highland) Volunteer Battalion the Highland Light Infantry, to be Surgeon-Lieutenant-Colonel, May 12th.

Surgeon-Lieutenant-Colonel J. Adam, M.D., 1st (Ross Highland) Volunteer Battalion Seaforth Highlanders (Ross-shire Buffs, the Duke of Albany's), is commissioned as supernumerary whilst holding the appointment of Brigade-Surgeon-Lieutenant-Colonel, and Senior Medical Officer, Seaforth and Cameron Volunteer Infantry Brigade, May 12th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

Captain T. Holt, M.B., North-East Lancashire Bearer Company, to be Major, May 12th.

WEST AFRICAN MEDICAL STAFF.

The following appointments, dated May 5th, have been made to the West African Medical Staff: P. H. MacDonald, M.B., Ch.B. (Southern Nigeria), B. Moiser, M.B., M.R.C.S., L.R.C.P. (Northern Nigeria), W. Rogers, M.B., Ch.B. (Southern Nigeria), G. J. Pirie, M.B., Ch.B., D.P.H. (Northern Nigeria), A. G. Eldred, M.R.C.S., L.R.C.P. (Gold Coast), and H. Kramer, M.B., Ch.B. (Gold Coast).

Dr. T. E. Rice, Senior Medical Officer in Southern Nigeria, has been transferred to the Gold Coast, vice Dr. K. F. T. Buée, deceased.

Dr. G. T. Rutherford, Medical Officer in the Gold Coast, has been promoted to be Senior Medical Officer, Southern Nigeria, vice Dr. T. E. Rice, transferred.

CHANGES OF STATIONS.

The following changes of stations amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during April, 1906:

		FROM	TO
Colonel	W. A. May, C.B.	Tidworth ...	Salisbury.
,,	H. Martin, M.B.	Welsh and Mid. Comd...	Western Command.
Lieut.-Col.	E. A. Roche	Chatham ...	Gravesend.
,,	E. North	Mauritius ...	Belfast.
,,	G. J. Coates, M.D.	—	Falmouth.
,,	T. E. Noding...	Maritzburg ...	Cape Town.
,,	R. I. D. Hackett, M.D. ...	Harrismith ...	Southn. Comd.
,,	J. R. Stuart, M.B.	Fort George ...	Mhow.
,,	G. F. Gubbin	Dover	Colaba.
,,	W. E. Berryman	Barrackpore ...	Muttra.
,,	S. Hickson, M.B.	Wynberg ...	Harrismith.
,,	J. Meek, M.D.	Tower of Lond.	Kirkee.

		From	To
Lieut.-Col.	R. E. Molesworth	Lucknow	Ranikhet.
,,	G. G. Adams	Mussoorie	Maryhill.
,,	J. M. F. Shine, M.D.	Deesa	Jhansi.
,,	P. C. H. Gordon	Bangalore	Poonamallee.
,,	T. Daly	Poonamallee	Eastern Comd.
,,	M. J. Sexton, M.D.	Muttra	Chakrata.
,,	J. B. W. Buchanan, M.B.	Calcutta	Barrackpore.
Major	A. R. Aldridge, M.B.	Naini Tal	London Dist.
,,	D. M. O'Callaghan	Colchester	Weedon.
,,	J S. Edye	Meerut	Cawnpore.
,,	W. C. Poole, M.B.	Cork	Waterford.
,,	T. M'Culloch, M.B.	War Office	Malta.
,,	J. C. Morgan	Lebong	Naini Tal.
,,	E. M. Hassard	Chichester	Shorncliffe.
,,	A. Wright	Falmouth	Devonport.
,,	A. J. Luther	Meerut	Landour.
,,	H. J. M. Buist, M.B., D.S.O.	Pretoria	War Office.
,,	W. E. Hardy	—	Pretoria.
,,	C. W. Duggan, M.B.	Fatehgahr	Lebong.
,,	H. P. Johnson	Bareilly	Benares.
,,	S. H. Withers, M.B.	Benares	Chaubuttia.
,,	J. G. M'Naught, M.D.	Edinburgh	Malta.
,,	R. F. E. Austin	Gravesend	Chatham.
Captain	J. V. Forrest, M.B.	—	Woolwich.
,,	G. E. F. Stammers	Mauritius	Chester.
,,	A. C. Lupton, M.B.	Nestl-on-Tyne	York.
,,	C. J. O'Gorman, D.S.O.	Dover	Shorncliffe.
,,	F. J. C. Hefferman	Meerut	Muttra.
,,	A. E. Thorp	Worcester	Taunton.
,,	H. B. G. Walton	Barbadoes	Devonport.
,,	R. H. Lloyd	Edinburgh	Glencorse.
,,	W. R. Blackwell	Woolwich	Dublin.
,,	L. Wood	Rawal Pindi	Eastern Comd.
,,	H. S. Roch	Cork	Ballincollig.
,,	P. S. O'Reilly	Bordon	Aldershot.
,,	J. Powell, M.B.	Rawal Pindi	Eastern Comd.
,,	J. G. Foster, M.B.	Mauritius	Dublin.
,,	L. M. Purser, M.B.	Chatham	Sheerness.
,,	W. Bennett, M.B.	Cork	Butterant.
,,	C. H. Straton	Dover	Brighton.
,,	B. S. Bartlett	Delhi	Ft. Allahabad.
,,	G. Carroll	Templemore	Cahir.
,,	C. H. Furnivall	Aden	Eastern Comd.
,,	W. B. Fry	Rawal Pindi	Eastern Comd.
,,	F. A. Stephens	Edinburgh	Glencorse.
,,	H. E. J. A. Howley	Bermuda	Dublin.
,,	T. White	Crete	Southern Com.
,,	J. B. Cautley	Roorkee	Northern Com.
,,	R. N. Woodley	Dublin	Kilworth.
,,	J. H. Barbour, M.B.	Belfast	Londonderry.
,,	A. H. McN. Mitchell	Cawnpore	Darjeeling.
,,	M. F. Foulds	Saugor	Deolalee.
,,	D. J. T. O'Donoghue	Belgaum	Aden.
,,	C. G. Thomson	Inniskillen	Mian Mir.
,,	W. J. S. Harvey	Chester	Brecon.
,,	B. A. Craig	Dublin	Curragh.
Lieutenant	D. S. Skelton	Southern Com.	Bulford.
,,	E. M. Pennefather	Secunderabad	Wellington.
,,	O. Ievers, M.B.	Wynberg	Middelburg, Cape Colony.
,,	H. C. Hildreth	Madras	Bangalore.
,,	J. Fairbairn, M.B.	Colaba	Khandalla.
,,	R. R. Lewis	Bellary	Ramandroog.
,,	E. C. Whitehead, M.B.	Pretoria	Maritzburg.
,,	S. C. Bowle	Mhow	Saugor.
,,	P. Dwyer, M.B.	Cork	Kirkee.
,,	W. H. Hills, M.B.	Allahabad	Cawnpore.
,,	G. R. Painton	Colchester	Jamaica.
,,	J. St. A. Maughan	Malta	Crete.
,,	G. B. F. Churchill	—	Lucknow.
,,	W. S. Nealor	Aldershot	Meerut.
,,	A. A. M'Neight, M.B.	Dublin	Lucknow.
,,	E. B. Booth, M.D.	Netley	Jhansi.
,,	C. D. M. Holbrooke	Netley	Poona.
,,	E. G. R. Lithgow	—	Pretoria.
,,	C. E. W. S. Fawcett, M.B.	Curragh	Cork.
,,	V. H. Symons	Aldershot	Bordon.
,,	G. W. W. Ware, M.B.	Curragh	Belfast.
,,	F. C. Sampson, M.B.	Curragh	Belfast.
,,	A. C. Vidal	Aldershot	Ewshott.

Lieutenant-Colonel J. P. H. Boileau, M.D., retired pay, has relinquished the medical charge of troops at Trowbridge.

Vacancies and Appointments.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

BIRKENHEAD BOROUGH HOSPITAL.—Junior Resident House-Surgeon; male. Salary, £80, with fees.

BODMIN: CORNWALL COUNTY ASYLUM.—Third Assistant Medical Officer. Salary, £135, rising to £155 per annum.

CAMBERWELL PARISH WORKHOUSE.—Locum Tenens for the Medical Officer. Remuneration at the rate of 4 guineas a week.

CANCER HOSPITAL, Fulham Road, S.W.—Surgical Registrar. Honorarium, £26 5s. per annum.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—(1) House-Surgeon. (2) Pathologist. Salary, £50 per annum each.

CHARING CROSS HOSPITAL.—Assistant Physician.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Dental Surgeon.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark.—(1) House-Physician. (2) House-Surgeon. (3) Assistant House-Surgeon. Salary for (1) and (2), £80, and for (3) £70 per annum.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Male Assistant House-Surgeon. Salary, £60 per annum.

GLASGOW SAMARITAN HOSPITAL FOR WOMEN.—House-Surgeon.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway, N.—Surgeon to the Ear and Throat Department, with charge of out-patients.

HOSPITAL FOR WOMEN, Soho Square, W.—Surgeon Dentist.

HUDDERSFIELD INFIRMARY.—Senior Male House-Surgeon. Salary, £80 per annum.

HULL ROYAL INFIRMARY.—(1) House-Physician. (2) Casualty House-Surgeon. Salary, £100 and £50 per annum respectively.

LONDON COUNTY ASYLUM, Horton, Epsom.—Junior Assistant Medical Officer: male. Salary, £150 per annum.

LONDON HOSPITAL, Whitechapel, E.—Surgical Registrar.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road.—House-Surgeon. Salary at the rate of £60 per annum.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road, N.W.—(1) Resident Medical Officer. (2) Assistant Resident Medical Officer. Salary at the rate of £50 per annum each.

PADDINGTON PARISH.—District Medical Officer. Salary, £1 per annum.

PERTH DISTRICT ASYLUM, Murthly.—Assistant Physician. Salary commences at £120.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Hunterian Professors and Erasmus Wilson Lecturer.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, W.C.—(1) House-Surgeon; honorarium, £25 for six months. (2) Clinical Assistants.

SHEFFIELD: CHILDREN'S HOSPITAL.—House-Surgeon for East End Branch. Salary, £70 per annum.

SHEFFIELD ROYAL HOSPITAL.—Male Assistant House-Physician. Salary, £50 per annum.

UNIVERSITY COLLEGE HOSPITAL, W.C.—Assistant Dental Surgeon.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacancies in the office of Certifying Factory Surgeons: Chelsea; Newburgh, co. Fife.

APPOINTMENTS.

ALLEN, R. W., M.A., M.B., B.S., Pathologist to the Royal Eye Hospital, Southwark.

ANDERSON, A. G., M.B., Ch.M.Sydney, Clinical Assistant to the Chelsea Hospital for Women.

BARNARD, Miss Annie T., M.B., B.S.Lond., Refractionist to the Royal Eye Hospital, Southwark.

BUCHANAN, W. I., M.B., C.M.Glasg., Medical Officer of Health, Thirsk Rural District.

CARTER, F. Bolton, M.D., M.S.Lond., F.R.C.S.Eng., Assistant Surgeon to the Leicester Infirmary.

DUNCAN, Miss Margaret, M.B., Ch.B.Aberd., Resident Medical Officer of the Aberdeen New Poorhouse.

GARDINER, P., M.D., District Medical Officer of the Redruth Union.

GILES, A. E., F.R.C.S., M.D., B.Sc., M.R.C.P., Surgeon to In-patients at the Chelsea Hospital for Women.

GRAHAM, James, M.B., C.M.Glasg., District Medical Officer of the Chesterfield Union.

GREENE, G. W., M.B., B.C.Cantab., District Medical Officer of the Bedford Union.

JONES, Gladstone, L.S.A., Medical Officer for the Criccieth District of the Pwllheli Union.

LEE, H. E., M.B., C.M., Clinical Assistant Chelsea Hospital for Women.

LEIGHTON, P. A., M.D.Edin., District Medical Officer of the Bromley Union.

MCILOUL, James, M.B., Ch.B.Glasg., House-Surgeon to the Royal Eye Hospital, Southwark.

PROUT, E. de Carle, M.D.Edin., Medical Officer of the Wheatenhurst Union Workhouse.

ROSS, Campbell, M.B., B.S.Glasg., Assistant Medical Officer, Derby Borough Asylum.

SHAW, Charles J., M.B., M.R.C.P.E., Senior Assistant Medical Officer, Royal Asylum, Sunnyside, Montrose.

TYRRELL, Edward M., M.B.Edin., Medical Officer to the Inland Co-operative Convalescent Homes, Galashiels.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

CARMICHAEL.—At Poonamallee, near Madras, on April 17th, the wife of Lieutenant J. C. G. Carmichael, R.A.M.C., of a son.

GOLDIE.—On May 9th, at Longcombe, 17, Harcourt Avenue, Southend-on-Sea, Essex, the wife of A. Evelyn Goldie, M.B., Ch.B.Edin., of a son.

MARSHALL.—On May 8th, at 36, Albion Street Hyde Park, W., to Dr. and Mrs. Cole Marshall, twin daughters.

MARRIAGES.

MARTIN—BRAUND.—On May 9th, at St. Mary's, Bratton Clovelly, Devonshire, by the Rev. Gregory C. Bateman, Ernest Jackson Martin, M.B., Ch.B., Kirkby Lonsdale, Westmorland, to Florence Harriet, only daughter of John and Charlotte Braund, of Bratton Clovelly, Devonshire.

PARKER—DAVIES.—On May 3rd, at Holy Trinity Church, Guildford, by the Rev. Prebendary E. H. Winnington-Ingram, Rector of Ross, assisted by the Rev. A. W. Parker, Vicar of Rowledge, father of the bridegroom, Herbert Francis Parker, M.D., M.R.C.S., of Guildford, to Edna Lloyd Davies, daughter of the late D. Lloyd Davies, Esq., of Wyre Court, Bewdley, and Mrs. Lloyd Davies of Glenshee Lodge, Guildford.

DIARY FOR THE WEEK.

MONDAY.

Medical Society of London, 11, Chandos Street, Cavendish Square. W.—Annual Conversazione. 8.30 p.m., Reception by the President. 9 p.m., Oration by Professor Kocher (Berne) on Some Contributions to the Pathology of the Thyroid Gland.

Odontological Society of Great Britain, 20, Hanover Square, W., 8 p.m.—Communication: Mr. J. Bland-Sutton: An Odontome. Paper: Mr. Oswald Fergus: Certain Considerations regarding Inlay Fillings.

TUESDAY.

Royal Medical and Chirurgical Society, 20, Hanover Square, W, 8.30 p.m.—Mr. B. G. A. Moynihan: Report upon 282 Operations for Non-malignant Diseases of the Stomach. Drs. Herbert French and H. T. Hicks: Mitral Stenosis and Pregnancy. Epidiascope demonstration.

WEDNESDAY.

Dermatological Society of Great Britain and Ireland, 11, Chandos Street, Cavendish Square, W., 4.30 p.m.—Annual Meeting. Address from Dr. Sabouraud on the Radio-therapeutics of Ringworm in the Municipal Laboratory of the City of Paris at the Hospital of St. Louis.

FRIDAY.

Clinical Society of London, 20, Hanover Square, W.—Annual general meeting for the election of officers for the session 1906-7. Papers as follow will be read and discussed from 8.30 to 9.30 p.m.: Dr. Francis Hawkins: Case of Thrombosis of the Abdominal Aorta. Dr. C. R. Box: A series of cases in which Pulmonary Embolism was due to Displacement of Pulmonary Thrombus. Dr. F. Parkes Weber: Acute Dilatation (Atony) of the Stomach and Intestines connected with Pneumonia and Pericarditis.

Royal Institute of Public Health, Russell Square, W.C.—First Harben Lecture, by Professor E. Metchnikoff: The Hygiene of the Inner Tissues of the Organism.

POST-GRADUATE COURSES AND LECTURES.

Central London Throat and Ear Hospital, Gray's Inn Road, W.C.—Wednesday, 5 p.m., Nose.

Charing Cross Hospital, 4 p.m.—Monday, Aural; Thursday, Surgical.

Hospital for Sick Children, Great Ormond Street, W.C., Thursday, 4 p.m.—Phlyctenular Conjunctivitis and its Complication.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical. Lectures at 5.15 p.m. each day will be given as follows: Monday, The Dietetic Treatment of Dyspepsia; Tuesday, the Necessity for and Nature of the Treatment of Backward Displacement of the Uterus; Wednesday, the Treatment of Acute Pneumonia; Thursday, Trophic Nervous Diseases.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Tuesday and Friday, 3 p.m., Paraplegia.

North-East London Post-graduate College, Tottenham Hospital, N.—The following are the arrangements for next week at 4.30 p.m.: Tuesday, Lecture on the Diagnosis of Abdominal Tumours; Thursday, Lecture on Obstructed Labour.

West London Hospital Post-graduate College, Hammersmith Road, London, W.—The following are the arrangements for next week: Daily, 10 a.m., Medical and Surgical Wards; 11 a.m., Operations in Out-patient Department: 2 p.m., Medical and Surgical Clinics; 2.30 p.m., Operations. Monday, 10 a.m., Tropical Medicine; 12 noon, Pathological Demonstration; Practical Surgery; 3 p.m., Demonstration in Surgical Wards; 5 p.m., The Examination and Treatment of Severe Cases of Gastric Ulcer; Tuesday, 2.30 p.m., Skin Diseases, Throat, Nose, and Ear Department; 5 p.m., Insects as Carriers of Disease in Tropical Medicine; Wednesday, 10 a.m., Throat, Nose, and Ear Operations: 12 noon, Medicine: 2 p.m., Demonstration in Medical Wards; 5 p.m., Puerperal Insanity; Thursday, 10 a.m., Tropical Medicine; 12 noon, Practical Surgery; 3 p.m., Demonstration in Medical Wards; 5 p.m., Unreduced Dislocation of Shoulder and Elbow: Friday, 10 a.m., Anaesthetics; 5 p.m., Cases of Skin Disease: Saturday, 10 a.m., Throat, Nose, and Ear Operations; 12 noon, Medicine.

BOOKS, Etc., RECEIVED.

Appendicitis: its Pathology and Surgery. By C. B. Lockwood, F.R.C.S. Second edition. London: Macmillan and Co., Limited. 1906. 10s.

International Clinics. A Quarterly, edited by A. O. J. Kelly, A.M., M.D. Vol. I. 16th Series. 1906. Philadelphia and London: J. B. Lippincott Co. 4 vols. £1 15s.

America Abroad. The Annual Handbook for American Travellers. Edited by J. W. Cundall. 16th year. London: Offices of "America Abroad." 1906. 6d.

The Management of Children. By H. Barrett. London: G. Routledge and Sons, Limited. 1906. 5s.

Lehrbuch der physiologischen Chemie in dreissig Vorlesungen. Von E. Abderhalden. Berlin and Wien: Urban and Schwarzenberg. 1906. M. 18.

Gastric Surgery. The Hunterian Lectures, 1906. By H. J. Paterson, M.A., M.B., B.C., F.R.C.S. London: Baillière, Tindall and Cox. 1906. 6s.

Columbia University Biological Series. VIII, The Dynamics of Living Matter. By J. Loeb. New York and London: Macmillan's. 1906. 12s. 6d.

Lectures on the Method of Science. Edited by T. B. Strong. Oxford: At the Clarendon Press. 1906. 7s. 6d.

Die Basedow'sche Krankheit. Von Dr. P. J. Möbius. Zweite Auflage. Wien: A. Hölder. 1906. M. 4.20.

Munchen: J. F. Lehmann, 1906:—

Lehmann's medizinische Handatlanten. Band VIII. Atlas und Grundriss der Traumatischen Frakturen und Luxationen. Von Prof. Dr. H. Helferich. Siebente Auflage. M. 12.

Band XVIII. Atlas der äusserlich sichtbaren Erkrankungen des Auges nebst Grundriss ihrer Pathologie und Therapie. Von Professor Dr. O. Haab. Dritte Auflage. M. 10.

Die Schmerzverhütung in der Chirurgie. Von O. Witzel, F. Wenzel, und P. Hackenbruch. M. 3.

Fortschritte in der Anwendung der Röntgenstrahlen. Von Dipl.-Ing. Dr. Phil. J. Rosenthal. M. 1.20.

Das Heufieber, sein Wesen und seine Behandlung. Von Dr. A. Wolff-Eisner. M. 3.60.

Die interne und chirurgische Behandlung der Gallensteinkrankheit. Vortrag von Prof. Dr. H. Kehr. M. 4.

Questions and Answers on First Aid. By C. T. Wightman, F.R.C.S. Revised by R. J. Collie. London: G. Gill and Sons, Limited. 2d.

Conférences Pratiques sur les Maladies du Coeur et des Poumons. Par le Dr. L. Renon. Paris: Masson et Cie. 1906. Fr. 5.

Philadelphia and London: W. B. Saunders and Co.:—

Saunder's Question Compends. No. 13. Essentials of Genito-urinary and Venereal Diseases. By S. S. Wilcox, M.D. 1906. 4s.

Nursing in the Acute Infectious Fevers. By G. P. Paul, M.D. 1906. 4s.

A Textbook of the Practice of Medicine. By J. M. Anders, M.D., Ph.D., LL.D. Seventh edition. 1905. 24s.

A Treatise on Surgery. By G. R. Fowler, M.D. Vol. I. 1906. Three guineas, two vols.

The New Guide to Bristol and Clifton and the Bristol Channel Circuit. Edited by J. Baker, F.R.Hist.S., F.R.G.S. Clifton: J. Baker and Son.

Liverpool School of Tropical Medicine—Memoir XVIII. Reports of the Expedition to the Congo, 1903-5. By the late J. E. Dutton, M.B., and J. L. Todd, B.A., M.D., C.M. March, 1906. London: Williams and Norgate. 7s. 6d.

On Carbohydrate Metabolism. (A Course of Lectures delivered at the University of London, May, 1905). By F. W. Pavy, M.D., LL.D., F.R.S. London: J. and A. Churchill. 1906. 6s.

Student's Manual of Medical Jurisprudence and Public Health. By G. H. Giffen, L.R.C.P. and S.E., F.R.C.S.I., D.P.H. Second edition. Edinburgh: W. Bryce; and London: Simpkin, Marshall and Co, Limited. 1906. 5s.

Practicum der physiologischen und pathologischen Chemie. Von Dr. E. Salkowski. Dritte Auflage. Berlin: A. Hirschwald. 1906. M. 8.

Uric Acid: An Epitome of the Subject. By A. Haig, M.A., M.D., F.R.C.P. Second edition. London: J. and A. Churchill. 1906. 2s. 6d.

Die Simulation von Geisteskrankeit. Von Professor Dr. P. Penta. Autorisierte Ubersetzung nach der dritten italienischen Ausgabe von R. Ganter. Wurzburg: A. Stuber. 1906. M. 3.50.

Berlin: S. Karger; and London: Williams and Norgate, 1906:—

Psychotherapeutische Briefe. Von Professor Dr. H. Oppenheim. 1s.

Beiträge zur Kenntnis der Rektumkarzinome nebst Bemerkungen zur Frühdiagnose. Von Dr. J. Boas. 1s.

Uber den Wiederersatz der Funktion bei Erkrankungen des Gehirnes. Von Professor Dr. G. Anton. 1s.

Die Prognose der Tabes dorsalis. Von Dr. E. von Malaisé. 1s.

The Diseases of the Nose and its Accessory Sinuses. By H. L. Lack, M.D., F.R.C.S. London: Longmans, Green and Co. 1906. 25s.

The Nature and Treatment of Cancer. By J. A. Shaw-Mackenzie, M.D Third edition. London: Baillière, Tindall and Cox. 1906. 2s. 6d.

Supplementary Essays on the Cause and Prevention of Dental Caries. By J. S. Wallace, M.D., D.Sc., L.D.S. London: Baillière, Tindall and Cox. 1906. 2s. 6d.

Wissenschaftliche Mitteilungen aus Bad Kreuznach. Bad Kreuznach: Jung and Co. 1906.

La Question Sexuelle. Exposée aux Adults cultivés. Par A. Forel. Paris: G. Steinheil. 1906. Fr. 10.

Nouveau Traité de Médecine et de Thérapeutique. Publié en Fascicules sous la direction de MM. P. Brouardel et A. Gilbert. X. Streptococcie, Staphylococcie, Pneumococcie. Colibacillose. Par F. Widal, J. Courmont, L. Landouzy, et A. Gilbert. Paris: J. B. Baillière et Fils. 1906. Fr. 3.50.

Ministero della Marina. Ufficio Sanitario. Statistica Sanitaria dell' Armata per gli anni 1899 e 1900. Roma: L. Cecchini. 1906.

⁂ In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
MAY.	
18 FRIDAY.........	London: Premises and Library Committee, 3 p.m.
19 SATURDAY...	
20 Sunday.........	
21 MONDAY	
22 TUESDAY......	Boston and Spalding Division, *Midland Branch*, Annual Meeting, Red Lion Hotel, Strait Bargate, 12.30 p.m. Folkestone Division, *South-Eastern Branch*, Annual Meeting, Hotel Wampach, 7.15 p.m.; Dinner, 8.30 p.m. Meeting of Folkestone, Ashford, and Dover Constituency after annual meeting. Marylebone Division, *Metropolitan Counties Branch*, Rooms of the Medical Society, 11, Chandos Street, W., 5 p.m. Northamptonshire Division, *South Midland Branch*, Library, General Hospital, Northampton.
23 WEDNESDAY	London: Volunteer Subcommittee, 3 p.m. Altrincham Division, *Lancashire and Cheshire Branch*, Sale Hall (Garden Party by Sir W. H. Bailey). Liverpool (Northern) Division, *Lancashire and Cheshire Branch*, Annual Meeting, Medical Institution, 114, Mount Pleasant, 4 p.m. Trowbridge Division, *Bath and Bristol Branch*, Town Hall, Trowbridge, 2.45 p.m.
24 THURSDAY...	City Division, *Metropolitan Counties Branch*, Annual Meeting, Great Eastern Hotel, Liverpool Street, E.C., 4 p.m. Dorset and West Hants Branch, Annual Meeting, Mont Dore Hotel, Bournemouth.
MAY *(continued).*	
25 FRIDAY.........	Denbigh and Fleet Division, *North Wales Branch*, Annual Meeting, Wrexham Infirmary. Manchester (South) Division, *Lancashire and Cheshire Branch*, Annual Meeting, Schoolroom of Holy Innocents' Church, Fallowfield, 4.15 p.m. North Cumberland Division, *Border Counties Branch*, Annual Meeting, County Hotel, Carlisle, 3.30 p.m. St. Pancras and Islington Division, *Metropolitan Counties Branch*, Islington Infirmary, Highgate Hill, 4 p.m. Tottenham Division, *Metropolitan Counties Branch*, Annual Meeting, Tottenham Hospital, 4 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Annual Meeting preceding Annual Dinner, Banqueting Hall, Battersea Town Hall, 7 p.m.
26 SATURDAY...	
27 Sunday	
28 MONDAY	
29 TUESDAY ...	Marylebone Division, *Metropolitan Counties Branch*, Annual Meeting, Rooms of the Royal Medical and Chirurgical Society, 20, Hanover Square, W., 5 p.m.
30 WEDNESDAY	London: Metropolitan Branch Council, 5 p.m. Bath and Bristol Branch, Annual Meeting, Medical Library, University College, Bristol, 4.30 p.m. Leicester Division, *Midland Branch*, Annual Meeting, Infirmary, Leicester, 4 p.m. North Carnarvonshire and Anglesea Division, *North Wales Branch*, Annual Meeting, British Hotel, Bangor. South West Wales Division, *South Wales and Monmouthshire Branch*, Annual Meeting, Stepney Hotel, Llanelly, 2.30 p.m.; Ethical Committee, 2 p.m.

MEMBERSHIP OF THE BRITISH MEDICAL ASSOCIATION.

The British Medical Association exists for the promotion of medical and the allied sciences, and the maintenance of the honour and the interests of the medical profession.

The Annual Subscription to the British Medical Association is £1 5s. 0d., and the British Medical Journal is supplied weekly, post free, to every member of the British Medical Association wherever he may reside.

Forms of application for membership can be obtained from the General Secretary, 429, Strand, London, W.C.

The principal rules governing the election of a medical practitioner to be a member of the British Medical Association are as follow:

Article III.—Any Medical Practitioner registered in the United Kingdom under the Medical Acts and any Medical Practitioner residing within the area of any Branch of the Association situate in any part of the British Empire other than the United Kingdom, who is so registered or possesses such medical qualifications as shall, subject to the Regulations, be prescribed by the Rules of the said Branch, shall be eligible as a Member of the Association. The mode and conditions of election to Membership shall from time to time be determined by or in accordance with the By-laws. Every Member, whether one of the existing Members or a subsequently-elected Member, shall remain a Member until he ceases to be a Member in accordance with the provisions hereof.

By-law 1.—Every Candidate for Membership of the Association shall apply for election in writing, addressed to the Association, and stating his agreement, if elected, to abide by the Regulations and By-laws of the Association, and the Rules of such Division and Branch to which he may at any time belong, and to pay his subscription for the current year.

By-law 2.—Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the General Secretary of the Association, and to every Member of the Branch Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a member of the Association by the Branch Council at any meeting thereof held not less than seven days (or such longer period as the Branch may by its Rules prescribe) after the date of the said Notice. A Branch may by special Resolution require that each candidate for election to the Association shall furnish a certificate from two Members of the Association to whom he is personally known. Officers of the Navy, Army, and Indian Medical Services on the Active List are eligible for election through the Council or a Branch without approving signatures as laid down in By-law 3.

By-law 3.—Every candidate whose place of residence is not included in the area of any Branch shall forward his Application to the General Secretary of the Association, together with a statement signed by three members of the Association, that from personal knowledge they consider him a suitable person for election. Notice of the proposed election shall be sent by the General Secretary to every Member of the Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a Member of the Association by the Council at any meeting thereof held not less than one month after the date of the said notice.

The annual subscription to the British Medical Journal for non-members is £1 8s. 0d. for the United Kingdom and £1 12s. 6d. for abroad.

Printed and published by the British Medical Association at their Office, No. 429, Strand in the Parish of St Martin-in-the-Fields, in the County of Middlesex.

OF THE
UNIVERSITY OF ILLINO

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 26TH, 1906.

CONTENTS.

	PAGE
THE SEVENTY-FOURTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, TORONTO.—PROGRAMME OF BUSINESS	277
MEETINGS OF BRANCHES AND DIVISIONS:	
Bath and Bristol Branch: Bristol Division	281
Border Counties Branch: Scottish Division...	281
Lancashire and Cheshire Branch: Manchester (North) Division	282
Midland Branch; Lincoln Division	282
Perth Branch	282
South Wales and Monmouthshire Branch: Cardiff Division ...	282
ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD	283
GRANTS FOR SCIENTIFIC RESEARCH	285
GENERAL MEDICAL COUNCIL: PRESIDENT'S ADDRESS ...	286
BRITISH MEDICAL ASSOCIATION LIBRARY	288
VITAL STATISTICS	289
NAVAL AND MILITARY APPOINTMENTS	290
VACANCIES AND APPOINTMENTS	290
BIRTHS, MARRIAGES, AND DEATHS	291
DIARY OF THE WEEK	291
BOOKS, ETC., RECEIVED...	291
CALENDAR	292

THE SEVENTY-FOURTH ANNUAL MEETING
OF THE
British Medical Association,
TORONTO, CANADA, AUGUST 21st to 25th, 1906.

President:
GEORGE COOPER FRANKLIN, F.R.C.S.Eng., Surgeon, Leicester Infirmary, Leicester.

President-elect:
RICHARD ANDREWS REEVE, B.A., M.D., LL.D., Dean of the Faculty of Medicine, University of Toronto.

Chairman of Representative Meetings:
Sir VICTOR HORSLEY, F.R.C.S., F.R.S., Surgeon, University College Hospital; and Surgeon, National Hospital for Paralysed and Epileptic.

Chairman of Council:
HENRY WM. LANGLEY BROWNE, M.D., Ch.B., F.R.C.S.E., Consulting Surgeon, West Bromwich District Hospital.

Treasurer:
HY. RADCLIFFE CROCKER, M.D., F.R.C.P., Physician Skin Department, University College Hospital, London.

PROGRAMME OF BUSINESS.

An Address in Medicine will be delivered by Sir JAMES BARR, M.D., F.R.C.P., F.R.S.E.

An Address in Surgery will be delivered by Sir VICTOR HORSLEY, M.B., F.R.C.S., F.R.S.

An Address in Obstetrics will be delivered by WALTER SPENCER ANDERSON GRIFFITH, M.D., F.R.C.P.

THE SECTIONS.

There will be 13 Sections as shown in the subjoined list; they will meet on Tuesday, Wednesday, Thursday and Friday, August 21st, 22nd, 23rd and 24th, from 9.30 a.m. to 12.30 p.m.

The President, Vice-Presidents, and Secretaries of each Section constitute a Committee of Reference for that Section.

Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the BRITISH MEDICAL JOURNAL *without special permission.*

No paper must exceed 15 minutes in reading, and no subsequent speech 10 minutes.

It is requested that copies of any papers offered in any of the Sections should be supplied to one of the Honorary Secretaries of the Section not later than May 15th, accompanied by a short abstract, in order that such abstract may be printed and circulated before the meeting.

Anatomy.

President: Professor Arthur Robinson, M.D., Birmingham.

Vice-Presidents: Professor Alexander Primrose, M.B., C.M., Toronto; David Edward Mundell, B.A., M.D., C.M., Kingston; Donald Armour, F.R.C.S., London.

Honorary Secretaries: Charles Buckingham Shuttleworth, M.D., C.M., F.R.C.S., 45, Bloor Street E., Toronto; Gawn Shaw Cleland, M.B., M.D., C.M., 730, Queen Street E., Toronto; J. Herbert Sanders, M.D., 1a, Palace Gardens Mansions, W.

Dermatology.

President: Norman Walker, M.D., Edinburgh.

Vice-Presidents: Graham Chambers, M.B., Toronto; Harry B. Anderson, M.D., C.M., Toronto; Arthur John Hall, M.D., Sheffield; Ernest Solly, M.B., Harrogate.

Honorary Secretaries: David King Smith, M.B., 311, Jarvis Street, Toronto; Donald Macgillivray, M.B., 12, Carlton Street, Toronto; John Campbell Rankin, M.B., 38, University Road, Belfast.

Laryngology and Otology.

President: J. Dundas Grant, M.D., London.

Vice-Presidents: George R. McDonagh, M.B., L.R.C.P., Toronto; Herbert Stanley Birkett, M.D., C.M., Montreal; John Macintyre, M.B., Glasgow; Hugh Edward Jones, M.R.C.S., Liverpool.

Honorary Secretaries: David James Gibb Wishart, B.A., M.D., C.M., L.R.C.P., 47, Grosvenor Street, Toronto; Geoffrey Boyd, B.A., M.B., 167, Bloor Street, Toronto; Adam Brown Kelly, M.D., 26, Blythswood Square, Glasgow.

Medicine.

President: Sir Thomas Barlow, Bart., K.C.V.O., M.D., London.

Vice-Presidents: Professor Alexander McPhedran, M.B., Toronto; Professor James Stewart, M.D., C.M., Montreal; Alexander Napier, M.D., Glasgow; William Calwell, M.D., Belfast.

Honorary Secretaries: Robert Dawson Rudolph, M.D., M.R.C.P., 396, Bloor Street W., Toronto; John Taylor Fotheringham, B.A., M.B., M.D., C.M., 36, Carlton Street, Toronto; Robert Hutchison, M.D., 22, Queen Anne Street, London, W.

The following subjects have been selected for discussion:

Tuesday, August 21st.—On Blood Pressure in Relation to Disease. The subject will be treated under the following headings: (*a*) Physiological Introduction, by Dr. Percy M. Dawson (Baltimore). (*b*) Clinical Methods of Investigating Blood Pressure, by Dr. G. A. Gibson (Edinburgh). (*c*) Pathology and Therapeutics of Morbid Blood Pressure, by Sir Wm. Broadbent. (*d*) The Relation of Blood Pressure to Arterial Sclerosis, by Professor Clifford Allbutt. The following will also take part: Dr. Mackenzie (Burnley), Sir James Barr, Dr. Theodore Janeway (New York), Dr. Rudolf (Toronto), and others.

Wednesday, August 22nd.—A joint discussion with the Physiology Section on Over-nutrition and Under-nutrition, with special reference to Proteid Metabolism, to be opened by Professor Chittenden (Yale).

Thursday, August 23rd.—Papers on Heart Block, by Dr. Mackenzie (Burnley), Dr. G. A. Gibson, Dr. Erlanger, Professor Osler, and others.

Friday, August 24th.—Papers.

Obstetrics and Gynaecology.

President: A. H. Freeland Barbour, M.D., Edinburgh.

Vice-Presidents: Professor James Algernon Temple, M.D., C.M., Toronto; Professor Adam H. Wright, B.A., M.B., Toronto; Professor William Gardner, M.D., Montreal; T. Arthur Helme, M.D., Manchester.

Honorary Secretaries: Frederick Fenton, M.D., C.M., 75, Bloor Street E., Toronto; Kennedy Crawford McIlwraith, M.B., 54, Avenue Road, Toronto; Cuthbert Lockyer, M.D., 117a, Harley Street, London, W.

It has been arranged that on August 21st, 22nd, and 23rd the first part of the meeting be devoted to a discussion on the following subjects:

Tuesday, August 21st.—Hyperemesis Gravidarum.

Wednesday, August 22nd.—The Changes in Uterine Fibroids after the Menopause, with Special Reference to Operation.

Thursday, August 23rd.—The Appendix Vermiformis in Relation to Pelvic Inflammation.

Friday, August 24th.—Papers, etc.

Dr. J. C. Cameron, of Montreal, will introduce the discussion on August 21st; Dr. Charles A. L. Reid will probably introduce that on August 22nd; and Dr. T. Arthur Helme will introduce that on August 23rd.

Ophthalmology.

President: Robert Marcus Gunn, F.R.C.S., London.

Vice-Presidents: George Herbert Burnham, M.D., F.R.C.S.E., Toronto; John W. Stirling, M.D., Montreal; Joseph Nelson, M.D., Belfast; Arnold Lawson, F.R.C.S., London.

Honorary Secretaries: James Metcalf MacCallum, B.A., M.D., C.M., Toronto; Duncan Neil McLennan, M.D., C.M., 126, Bloor Street W., Toronto; Frank P. S. Cresswell, F.R.C.S., B.Sc., 24, Windsor Place, Cardiff.

The subjects which have been chosen for discussion are:

Tuesday, August 21st.—Rare Forms of Choroiditis. To be opened by Mr. J. B. Lawford (London). The following will also take part: Dr. Hill Griffith (Manchester), Dr. H. Knapp (New York), and Dr. C. Bull (New York).

Wednesday, August 22nd.—Sympathetic Ophthalmia. To be opened by Dr. G. H. Burnham (Toronto). The following will also take part: Mr. Arnold Lawson (London) and Dr. J. W. Stirling (Montreal).

Thursday, August 23rd.—Affections of the Lachrymal Passages. To be opened by Dr. Desjardines (Montreal). The following will take part in the discussion: Dr. Risley (Philadelphia) and Dr. Theobald (Baltimore).

Friday, August 24th.—Visual Tests for Public Services. (*a*) Marine and Railroad Services. To be opened by Dr. T. H. Bickerton (Liverpool). Dr. Williams, jun. (Boston), Dr. Thompson, sen. (Philadelphia), and Dr. Aliport (Chicago) will also take part. (*b*) Military Services. To be opened by Mr. Arnold Lawson (London).

Paediatrics.

President: George Alexander Sutherland, M.D., London.

Vice-Presidents: Henry T. Machell, M.D., L.R.C.P., Toronto; Allan M. Baines, M.B., Toronto; Otto Jackson Kauffmann, M.D., Birmingham; H. Betham Robinson, M.S., London.

Honorary Secretaries: Edward Stanley Ryerson, M.D., C.M., 261, College Street, Toronto; Joseph S. A. Graham, M.B., 102, College Street, Toronto; Ralph Vincent, M.D., 1, Harley Street, London, W.

The Section will meet on Tuesday, Wednesday, Thursday, and Friday (August 21st, 22nd, 23rd, and 24th), at 9.30 a.m., adjourning at 12.30 p.m. each day.

The following preliminary arrangements have been made:

A discussion on Congenital Pyloric Stenosis. The medical aspects of the subject will be introduced by Dr. Edmund Cautley (London), and the surgical aspects will be introduced by Mr. Harold J. Stiles (Edinburgh).

A discussion on Pneumococcal Infection. The medical aspects of the subject will be introduced by Dr. Henry Ashby (Manchester).

It is hoped that a Clinical Demonstration of interesting cases in one of the Toronto hospitals may be arranged.

Pathology and Bacteriology.

President: Professor J. G. Adami, M.D., F.R.S., Montreal.

Vice-Presidents: Professor John J. Mackenzie, B.A., M.B., Toronto; Professor Walter Thomas Connell, M.D., C.M., Kingston; Ingersoll Olmsted, M.D., Hamilton; Professor Robert Fraser Calder Leith, M.B., Birmingham.

Honorary Secretaries: Gideon Silverthorn, M.B., M.D., C.M., 266, College Street, Toronto; Harold C. Parsons, B.A., M.D., C.M., 72, Bloor Street W., Toronto; Frank

George Bushnell, M.D., Sussex County Hospital, Brighton.

The following preliminary arrangements have been made:

Tuesday.—On Nuclear Pathology and Physiology, to be opened by Professor Adami and Dr. McCallum, and followed by Dr. Gustav Mann (Oxford), Professor E. Wace Carlier (Birmingham), Professor A. S. F. Grünbaum (Leeds), and Dr. H. E. Roaf (Liverpool).

Wednesday.—Etiology and Life-history of Malignant New Growths. To be opened by Professor H. R. Gaylord (Buffalo); Professor Clowes (Buffalo) and Drs. Buxton and Beebie (New York). Professor G. Sims Woodhead (Cambridge), Professor A. S. F. Grünbaum (Leeds), Dr. Robert Muir (Glasgow) and others are expected to take part in the discussion.

Thursday.—The Forms of Arterio-sclerosis, their Classification and Experimental Production. To be opened by Professor W. H. Welch (Johns Hopkins University, Baltimore), Dr. Klotz (Montreal), and Dr. J. J. MacKenzie Toronto); and followed by Professor L. Aschoff (Freiburg), Professor Leith (Birmingham), Professor Clifford Allbutt Cambridge), Professor W. Osler (Oxford), Professor Adami Montreal), Dr. Pearce (Albany), and Dr. Robert Muir Glasgow).

Friday.—Papers upon Pathogenic Protozoa: by Dr. F. W. Mott (London), Acute and Chronic Changes in the Nervous System produced by Trypanosoma Infections; Professor F. E. Novy (Ann Arbor), On the Nature of Spirochaetes and he Prevention and Cure of Relapsing Fever, with lantern demonstrations; and Dr. J. Ballah (Montreal), On the Life History and Cultivations of Certain Pathogenic Protozoa.

Arrangements will be made for the exhibition in the Pathological Museum of specimens illustrating the work f the section. Members wishing to exhibit material or photographs should communicate with Dr. N. E. Abbott, McGill Medical College, Montreal.

Those who propose taking part in the discussions are requested to send in their papers, accompanied by a short bstract, to the Honorary Secretaries not later than May 5th, in order that the abstracts may be printed and irculated before the meeting. Papers from members in he United Kingdom and Europe should be sent to Dr. Bushnell, and those from members in the Dominion of anada or the United States of America, etc., to Dr. ilverthorn or Dr. Parsons.

PHYSIOLOGY.

President: Professor Wm. Dobinson Halliburton, M.D., F.R.S., London.

Vice-Presidents: Professor Archibald B. Macallum, .A., M.B., F.R.S., Toronto; Professor Wesley Mills, .A., M.D., Montreal; Professor Charles Scott Sherrington, M.D., F.R.S., Liverpool.

Honorary Secretaries: Herbert E. Roaf, M.D., The Biohemical Department, The University, Liverpool; Gustav Mann, M.D., 25, Beechcroft Road, Oxford.

A large number of prominent American physiologists ave accepted invitations to attend, and British physiogists will thus have the opportunity of making the ersonal acquaintance of their American colleagues. veral French physiologists have also signified their tention to be present, and it is hoped that other reigners may also accept the invitations sent to em.

A joint discussion on the Rôle of the Nucleus in utrition with the Section of Pathology has been arranged, d another joint discussion with the Section of Medicine ll also take place, the subject being Over-nutrition and nder-nutrition, with special relation to Proteid Metalism in Health and Disease. This will be opened by ofessor Chittenden.

PSYCHOLOGY.

President: Wm. Julius Mickle, M.D., London.

Vice-Presidents: Nelson Henry Beemer, M.D., Toronto; Harles Kirk Clarke, M.D., Toronto; Reginald LangN-Down, M.B., London.

Honorary Secretaries: Alfred Thomas Hobbs, M.D., elph, Ontario; Goldwin Howland, B.A., M.B., 540, padina Avenue, Toronto; John Turner, M.B., Essex unty Asylum, Brentwood.

The following subjects have been selected for special discussion in the Section of Psychology:

General Paralysis.
Epilepsy.
Dementia Praecox.
Psychology and Medicine.

STATE MEDICINE.

President: Frederick Montizambert, I.S.O., F.R.C.S.E., D.C.L., M.D., Ottawa.

Vice-Presidents: E. P. Lachapelle, M.D., Laval University, Montreal; Charles Sheard, M.D., Toronto; Peter Henderson Bryce, B.A., M.B., Ottawa; Joseph Groves, M.B., Isle of Wight.

Honorary Secretaries: Joseph D. Page, M.D., Quebec; F. G. E. Pearson, M.D., Brantford, Ontario; Edward Sergeant, L.R.C.P., County Offices, Preston; Arthur A. Mussen, M.D., Municipal Offices, Liverpool.

The following special subjects have been suggested for discussion:

Protection and Control of Milk Supply.
Prevention of Tuberculosis.
Training and Supervision of Midwives.
Notification of Phthisis.
Provision and Administration of Isolation Hospitals.
Isolation Hospitals and "Return" Cases.
Medical Inspection of Children attending Elementary Schools.
Quarantine and Inspection of Shipping.
Medical Examination of Immigrants.
Supply of "Water Gas" and Dangers of Carbon Monoxide Poisoning.

SURGERY.

President: Sir Hector Clare Cameron, M.D., Professor of Clinical Surgery, Glasgow.

Vice-Presidents: Fred. Le M. Grasett, M.B., C.M., F.R.C.S.E., Toronto; Francis J. Shepherd, M.D., C.M., LL.D., F.R.C.S.E., Montreal; Alfred B. Atherton, B.A., M.D., LL.D., Frederickton, N.B.; Tecumseth Kingsley Holmes, M.D., Chatham, Ontario.

Honorary Secretaries: Harry A. Beatty, M.B., 207, Simcoe Street, Toronto; Frederick William Marlow, M.D., C.M., F.R.C.S., 699, Spadina Avenue, Toronto; Sinclair White, F.R.C.S., Ranmoor, Sheffield.

Arrangements have been made for special discussions on the following subjects:

The Surgical Treatment of Ascites Secondary to Chronic Hepatitis.
Prostatectomy.
Duodenal Ulcer.
Peritonitis.

THERAPEUTICS.

President: Donald MacAlister, M.D., Cambridge.

Vice-Presidents: John Lorenzo Davison, B.A., M.D., C.M., Toronto; Alexander D. Blackader, B.A., M.D., Montreal; Sir Alan Reeve Manby, M.V.O., M.D., East Rudham; Professor J. Rose Bradford, M.D., F.R.S., London.

Hon. Secretaries: Velyien E. Henderson, M.A., M.B., University of Toronto; Charles Potter Lusk, M.D., C.M., 99, Bloor Street W., Toronto; E. R. Morton, M.D., 22, Queen Anne Street, London, W.

The following subjects have been selected for discussion:

Tuesday, August 21st.—The Kidney, its Pharmacology and Therapeutics.

Wednesday, August 22nd.—Serumtherapy.

Thursday, August 23rd.—Joint Session with the Section of Medicine on the subject of Heart-block.

Friday, August 24th.—The Place of Materia Medica and Therapeutics in the Medical Curriculum.

The Secretaries will be glad to receive specimens, drawings, tracings, or preparations for exhibition during the session.

HONORARY LOCAL SECRETARIES.

Frederic Newton Gisborne Starr, M.B., Medical Building, Toronto.

Professor John Joseph Mackenzie, B.A., M.B., Medical Building, Toronto.

David James Gibb Wishart, B.A., M.D., L.R.C.P., Medical Building, Toronto.

COMMITTEE PATHOLOGICAL MUSEUM.

Professor John Joseph Mackenzie, B.A., M.B., Toronto, *Chairman.*
Maude Abbott, B.A., M.D., Montreal, *Secretary.*
Professor Gordon Bell, M.D., Winnipeg.
Professor W. T. Connell, M.D., Kingston.
Andrew Robertson Gordon, M.B., Toronto.
J. A. McGregor, M.D., London, Ontario.
Wm. Herbert Pepler, M.D., C.M., L.R.C.P.Lond., Toronto.
Samuel Cummings, M.B., Toronto.
Edward Stanley Ryerson, M.D., C.M., Toronto.
Henry Seaton Hutchison, M.B., Toronto.

EXHIBITION COMMITTEE.

Chairman: Dr. Arthur Jukes Johnson, Toronto.
Secretaries: Dr. T. D. Archibald, Toronto; Dr. W. A. Young, Toronto.

HONORARY LOCAL TREASURER.

Professor J. W. Ross, Toronto.

TORONTO ARRANGEMENTS COMMITTEE.

Dr. Geo. A. Bingham, 68, Isabella Street, Toronto.
Dr. C. J. C. O. Hastings, 258, Wellesley Street, Toronto.
Dr. A. A. Macdonald, 341, Bloor Street West, Toronto.
Professor J. J. Mackenzie, Medical Laboratories, Toronto.
Dr. Alex. McPhedran, 151, Bloor Street West, Toronto.
Dr. R. B. Nevitt, 46, Bloor Street West, Toronto.
Dr. R. A. Reeve, *President-elect*, 48, Bloor Street E., Toronto.
Dr. F. N. G. Starr, 112, College Street, Toronto.
Dr. J. Algernon Temple, 333, Bloor Street W., Toronto.
Dr. D. J. Gibb Wishart, 47, Grosvenor Street, Toronto.

PROGRAMME OF PROCEEDINGS.

Tuesday, August 21st, 1906.

9.30—12.30 a.m.—Meetings of Sections.
2.30 p.m.—Address on Obstetrics, Dr. W. S. A. Griffith.
4.30 p.m.—Garden Parties.
8 p.m.—Address of Welcome; Introduction of Guests, Delegates, etc.; and President's Address.
9.30 p.m.—Reception by the Lieutenant-Governor in the Parliament Buildings.

Wednesday, August 22nd.

9.30—12.30 a.m.—Meetings of Sections.
2.30 p.m.—Address on Medicine, Sir James Barr, M.D.
4.30 p.m.—Garden Parties.
8.30 p.m.—Address on Surgery, Sir Victor Horsley, F.R.S.
9.30 p.m.—Reception.

Thursday, August 23rd.

9.30—12.30 a.m.—Sectional Meetings.
4.30 p.m.—Garden Parties.
7.30 p.m.—Annual Dinner.

Friday, August 24th.

9.30—12.30 a.m.—Sectional Meetings.
2.30 p.m.—General Meetings.
4.30 p.m.—Garden Parties.
Excursions.
8.30 p.m.—Soirée.

Saturday, August 25th.

Excursions to the Niagara Power Company's plant, through the courtesy of Sir Henry M. Pellatt.
Excursion to Muskoka.
Excursion to Lambton, through the courtesy of the President, Mr. Austin.

Atlantic Ocean Passage.

The price of first-class accommodation by the principal Atlantic steamship lines varies according to the position of the cabin and the number of occupants. The accommodation available for the passage westward during August and September is usually engaged a long time ahead, and it will be desirable that intending travellers should communicate with one of the passenger agents or with the company selected as early as possible. The owners, while declining to make any reduction to members of the British Medical Association below the minimum price of first-class fare, have promised where possible to provide berths or cabins of a higher category than the fare charged would ordinarily command, and this should be mentioned in making the application.

Messrs. Stockwell and Co., 8 and 10, Beak Street, Regent Street, London, W., in addition to arranging tours with first-class accommodation all the way, are forming special parties to travel second class from London or Liverpool to Montreal and back by certain steamers sailing to Canada. The accommodation in some instances is on the upper deck, and, in fact, the best in the boat. Circular tickets are issued by this firm to such parties from London or Liverpool to Toronto, and the price charged includes first class for the railway journey from Montreal to Toronto and back. The return fare under these conditions is from £18 6s. 6d. upwards.

Special Fares in Canada.

The following notice has been issued by the Eastern Canadian Passenger Association, enumerating the special rates granted to members attending the annual meeting of the British Medical Association at Toronto, both for the journey to and from Toronto and for side trips and excursions. The following is a list of the railway and steamship companies comprised in the Eastern Canadian Passenger Association:

Algoma Central and Hudson Bay Railway.
Bay of Quinte Railway.
Boston and Maine Rail Road.
Canadian Pacific Railway.
Central Ontario Railway.
Central Vermont Railway.
Grand Trunk Railway System.
Great Northern Railway of Canada.
Huntsville, Lake of Bays, and Lake Simcoe Navigation Company.
Kingston and Pembroke Railway.
Muskoka Lakes Navigation and Hotel Company.
New York Central and Hudson River Rail Road.
Niagara Navigation Company.
Northern Navigation Company.
Ontario and Quebec Navigation Company.
Oxford Mountain Railway.
Ottawa and New York Railway.
Ottawa River Navigation Company.
Pembroke Navigation Company.
Père Marquette, C. H. and D. System.
Quebec Central Railway.
Quebec Railway Light and Power Company.
Quebec Southern Railway.
Richelieu and Ontario Navigation Company.
Rideau Lakes Navigation Company.
Rutland Railroad.
Temiscouata Railway.
Temiskamming and Northern Ontario Railway.
Toronto, Hamilton, and Buffalo Railway.
Trent Valley Navigation Company.
Dominion Atlantic Railway.
Intercolonial Railway.

Regulations of the Eastern Canadian Passenger Association for the Annual Meeting of the British Medical Association at Toronto.

1. *Fares, Going Dates, and Limits.*—(*a*) Domestic Business, Certificate Plan Arrangements; free return regardless of number in attendance. Passengers going rail, returning Richelieu and Ontario Navigation Company, or vice versa, rate to be one and one-half fare.

(*b*) *European Business.*—On presentation of certificate, to be prepared and signed by the Secretary of the Eastern Canadian Passenger Association, and countersigned by the Secretary of the Canadian Committee or the Secretary of the British Medical Association, one-way tickets to be issued at one-half lowest one-way first-class rail fare; round trip tickets at lowest one-way first-class rail between all points in Canada. Rates to the Pacific Coast subject to concurrence of Transcontinental Passenger Associaton. Steamship lines to advise Secretary what, if any, additional arbitraries* are required.

Dates of Sail, July 1st to September 30th, 1906, inclusive. Final return date, September 30th, 1906.

2. *Extension of Time Limit.*—On deposit with joint agent of Standard Convention, certificates issued from points in the Maritime Provinces, points west of Port Arthur and from points in the United States, on or before August 28th, 1906, and on payment of fee of $1 00 at time of deposit, an extension of time until September 30th to be granted. Joint agency to be conducted in the name of G. H. Webster, Secretary, Eastern Canadian Passenger Association, will be kept open from August 21st to September 15th, 1906.

3. *Side Trips.*—(*a*) Side trip tickets to be sold from Toronto

---

* By arbitraries is to be understood additional charges for berths, meals, etc.

to delegates from the Maritime Provinces, from points west of Port Arthur, and from the United States, on presentation of validated certificate or deposit receipt, at lowest one-way first-class fare for the round trip to all points in Canada.

Dates of sail, August 23rd to September 1st, 1906, inclusive; return limit, September 30th, 1906.

(*b*) Side trip tickets also to be sold to delegates from Ontario and Quebec to stations west of and including Sudbury, and east of and including Montreal, on presentation of validated certificate or deposit receipt, at lowest one-way first-class fare for the round trip. It being understood also that the arrangements authorized for the extension of time limit from points in the Maritime Provinces, from points west of Port Arthur and from points in the United States will also apply for delegates from Ontario and Quebec.

Usual additional arbitraries via Upper Lake steamships to apply; namely, going lake, returning same, $8.50 additional to be collected. Going lake, returning rail, or going rail, returning lake, $4.25 additional to be collected. Also usual arbitraries via St. Lawrence route, for delegates desiring to return by steamer, on presentation of tickets to purser, namely, $6.50 Toronto to Montreal; $3.50 Kingston to Montreal.

Via Northern Navigation Company on lines where meals and berth are not included, the rail rate will apply; on lines where meals and berth are included, rate to be single fare plus meal and berth arbitrary.

Accommodation in Toronto.

Our Toronto correspondent has forwarded the following list of hotels and boarding-houses in Toronto and their charges:

Name.	Location.	Rates per Day.
	Hotels.	
King Edward ...	... 33 to 41, King St. East..	$3 00 to $5 00
Queen's Hotel	... 78 to 92, Front St. West	3 00 to 5 00
Rossin House...	... King and York Sts. ...	2 50 to 5 00
Walker House	... Front and York Sts. ...	2 00 to 2 50
Palmer House	... King and York Sts. ...	2 00 to 3 50
Arlington ...	... King and John Sts. ...	2 50 to 3 50
Iroquois Hotel	... King and York Sts.	2 00 to 2 50
Leader Hotel ...	... King St. E. and Leader Lane	1 50 to 2 00
English Chop House..	50, King St. West ...	1 50 to 2 50
Gladstone House	... Queen St. and Gladstone Ave.	2 00
Albion Hotel ...	... 31, Jarvis St.	1 50
Richardson House	... 458, King St. West ...	1 50
Grand Union Hotel	... Simcoe St.	2 00 to 3 00
Stag Hotel ...	... 124, King St. West ...	2 00
Elliott House...	... Church and Shuter Sts.	2 00
Empress ...	... Yonge and Gould Sts....	1 00 to 1 50
Russell House	... 217, Yonge St.	1 50 to 2 00
Daly House ...	... Simcoe and Front Sts. .	1 00 to 1 50
Power House ...	... 421, King St. West ...	1 00
Clyde Hotel ...	... King St. East	1 25
Grosvenor House	... Yonge and Alexander...	2 00
Somerset House	... Church and Carlton ...	2 00
Gibson House...	... Queen and George Sts. .	1 50 to 2 00
O'Connor House	... 94, Front St. East ...	1 00
Black Bull Hotel	... 298, Queen St. West ...	2 00
Carlton House	... 183, Yonge St.	1 00 to 2 00
Tremont House	... 163 to 167, Yonge St. ...	1 50 to 2 00
Crystal Palace	... King St. and Strachan Av	1 50 to 2 00
York Hotel ...	... 187, King St. East ...	1 00
Nealon House	... 197, King St. East ...	1 00 to 1 50
Union House ...	... 21, Simcoe St.	1 00 to 1 50
Lake View Hotel	... Parliament and Winchester Sts.	1 50
Grand Central	... 57, Simcoe St.	1 00
Avonmore ...	... 274, Jarvis St.	1 50
Y. W. C. Association	52, Elm St. (ladies only)	1 00
Hanlan's Hotel	... The Island	—
Mrs. Mead's Hotel	... Centre Island	—
Frances E. Willard Home ...	... Elm and Teraulay ...	—
	Boarding-houses.	
Waverley ...	... 484, Spadian Avenue ...	1 00 to 1 50
Matheson Hall	... 599, Yonge Street ...	1 00 to 1 50
Abberley ...	... 258, Sherborne Street ...	1 00 (special rate)
Snell's	... 39, Grosvenor Street ..	1 25 to 1 50
Conservatory Residence... ...	... 2, Orde Street	1 50 to 2 00
Ray's	... 70, Murray Street ..	1 00 (room and breakfast)
Queen's Hall ...	... University College Women's Residence ..	2 00 (room and board)
Annesley Hall	... Victoria College Women's Residence ..	Rates not fixed

The University Dining Hall will be open and meals served daily.

There will be no difficulty about accommodation for visitors to Toronto during the meeting. In addition to the numerous hotels shown in the accompanying table, the local Executive Committee have made special arrangements for placing college rooms at the disposal of members.

College Rooms.

At Queen's Hall (University College Women's Residence) there will be accommodation for 48.

At Annesley Hall (Victoria Women's Residence) there are 65 rooms.

Mr. John Ross Robertson, Chairman of the Board of the Hospital for Sick Children, will place at the disposal of the Lodgings Committee 100 rooms in the new Nurses' Residence, not yet occupied, which he has recently presented to the hospital.

Note.—Accommodation for over 30,000 visitors can be found in the number of good boarding-houses all over the city, at $1.00 per day, or $4.00 and $6.00 per week.

Hints for Travellers.

Clothing.

For the Atlantic voyage a warm suit, warm underclothing, an overcoat and wraps will be required, and they may prove useful also on the lakes or on the mountains, but the British traveller is likely to find Canada in August warm (the average temperature for Toronto in August is said to be 66° F.) and the United States something more than warm. As there will be dinners and evening receptions, as well as afternoon parties, dress appropriate to these occasions must be taken, but the high silk hat of European capitals will be out of place. There is a difficulty about getting boots cleaned in Canada; at Toronto during the meeting a "shoe-shine colony" will be established in the grounds for the convenience of members, but it will be well to take a box of shoe-polish for use in other places.

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

BATH AND BRISTOL BRANCH:

Bristol Division.

The annual meeting of the Bristol Division was held on Thursday, May 17th.

Proposed Royal Charter.—The following resolution was passed:

> The Division is in favour of the proposed application for a Royal Charter, but it does not thereby commit itself to the approval of the exercise of all the powers proposed to be taken under it.

Annual Representative Meeting.—Dr. George Parker, Pembroke Road, Clifton, Bristol, was appointed Representative of the Division to the Annual Representative Meeting.

BORDER COUNTIES BRANCH:

Scottish Division.

The annual general meeting of this Division was held in the Dumfries and Galloway Royal Infirmary on Tuesday, May 8th.

Election of Officers.—The following officers were elected for the ensuing year:—*Chairman:* Dr. Clarke (Dumfries). *Vice-Chairman:* Dr. Murdoch (Annan). *Members of Committee:* Dr. Robertson (Penpont); Dr. Anderson (Stranraer); Dr. Bell (Lockerbie); Dr. Robson (Maxwelltown). *Members of Branch Council:* Dr. Logan (Ecclefechan); Dr. Clarke (Dumfries). *Honorary Secretary:* Dr. G. R. Livingston. *Representative at Annual Meeting:* Dr. Maxwell Ross (Dumfries).

Address.—Dr. Gulland (Edinburgh) gave an address on blood examination in private practice.

Dinner.—The members afterwards dined together at the Station Hotel.

LANCASHIRE AND CHESHIRE BRANCH:

MANCHESTER (NORTH) DIVISION.

THE annual meeting of this Division was held on Thursday, May 17th, Dr. BODDY in the chair.

Proposed Royal Charter.—The following resolution was adopted:

> That this Division approves of the Royal Charter, provided that the estimated expenses are not exceeded to any material extent.

State Registration of Nurses.—The following resolution was passed:

> That this Division approves generally of the scheme suggested for the State registration of nurses; and that on the question of the separate registration of midwifery nurses the Representative be instructed to vote at his own discretion.

New Rules.—The following new rules were proposed and adopted subject to consent:

(*a*) That the Chairman, Secretary, and Representative be *ex-officio* members of all Division Committees.
(*b*) That Rule 6 be altered, leaving out the second part.

Election of Officers.—The following were elected as officers for the ensuing year:—*Chairman:* Dr. Boddy. *Vice-Chairman:* Dr. Hargreaves. *Secretary and Treasurer:* Dr. McGowan. *Representative to Annual Representative Meeting:* Dr. Broadbent. *Representatives to Branch Council:* Dr. Broadbent and Dr. Frazer.

Direct Representatives on General Medical Council.—The following resolution was adopted:

> That this Division supports the following two gentlemen as candidates for election as Direct Representatives, the third vote being left to the discretion of the Division's Representative: Dr. G. H. Broadbent and Dr. G. Jackson.

MIDLAND BRANCH:

LINCOLN DIVISION.

THE annual meeting of the Lincoln Division was held in the Guildhall, Lincoln, on Friday, May 18th.

Election of Officers.—The following officers for the ensuing year were elected:—*Vice-President of Midland Branch:* Dr. Farrar (Gainsborough). *Chairman of Division:* Dr. Mansel Sympson (Lincoln). *Vice-Chairman of Division:* Dr. Jagger (Lincoln). *Secretary and Treasurer:* Dr. Chater (Lincoln). *Representative for Representative Meeting:* Dr. Genney (Lincoln). *Representative on Branch Council:* Dr. C. Harrison (Lincoln). *To form Divisional Council:* Dr. W. H. B. Brook (Lincoln), Dr. J. C. Ellis (Metheringham), Dr. Levinson (Gainsborough).

Associate Member.—Dr. Howes (Horncastle) was elected an Associate Member.

Contract Medical Practice.—The Contract Practice Report and Report on Provident Dispensaries and Public Medical Services (see SUPPLEMENTS of JOURNALS of July 22nd and August 5th, 1905) were considered, and the report was approved *nem. con.*

Co-ordination of Scientific Work.—No resolution was proposed, it being suggested that it was a subject that rather concerned bigger centres with medical schools, etc.

Hospital Out-patient Departments.—Question on p. 54 of SUPPLEMENT of February 17th, 1906, was read and its contents approved *nem. con.*

State Registration of Nurses.—The questions on p. 79 of SUPPLEMENT of March 3rd, 1906, were put. The first was assented to *nem. con.*, and the second dissented from *nem. con.*

Proposed Royal Charter.—The application for a Charter was approved *nem. con.*

PERTH BRANCH.

A SPECIAL meeting was held in the Perth Infirmary on Friday, April 20th, Dr. MCEWEN, Vice-President, in the chair.

Apologies.—Apologies were intimated from Drs. Paton, Liddell, and R. C. Buist.

Election of Branch Council.—A proposal to elect the Council of the Branch in June, in order to be in time for the *Year Book*, was approved on the motion of Dr. STEWART, seconded by Dr. URQUHART, that the present Council having only been in office so short a time should be re-elected.

Proposed Royal Charter.—After discussion on the proposed application for a Royal Charter, Dr. URQUHART moved, and Dr. STEWART seconded, that it be remitted to the Central Council.

Division and Branch Finance.—With regard to the inquiry as to the present system of Division and Branch Finance, suggestions from the Branch were made, and a report sent to the General Secretary of the Association.

City and County Infirmary, Perth.—Dr. URQUHART made a general statement in regard to the infirmary and the coming removal of infectious diseases from it to the Town Fever Hospital, and requested consideration of the medical requirements of the locality in connexion with hospital administration. Various matters were discussed, including, Is there any abuse of the charity? whether maternity or children's wards were required, or whether accommodation could be secured for advanced cases of phthisis.—The Secretary was instructed to send the recommendations of the Branch to be brought before the notice of the Directors.

The late Dr. Thom.—The Secretary was instructed, on the motion of Dr. URQUHART, seconded by Dr. MCEWEN, to minute the following letter from the widow of the late Dr. Thom (Crieff):

> April, 1906.
>
> DEAR DR. TAYLOR,—I regret, owing to absence from home, having been unable till now to acknowledge your kind note and the extract of minute of the Perthshire Branch of the British Medical Association. On behalf of my children and myself, may I ask you to convey to the members of the Association our heartfelt thanks for their kind sympathy for us in our sad loss, and also for the many kind and friendly feelings of regard for my dear husband so touchingly expressed in this extract of minute, which we shall always treasure?
>
> Believe me,
> Yours very truly,
> Edinburgh. HELEN THOM.

Meeting of Council.—At a meeting of Council held after the meeting (Dr. MCEWEN in the chair), Dr. MCEWEN proposed that meetings be held at hours most convenient to country members, and Dr. HUME seconded. This was agreed to where possible.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:

CARDIFF DIVISION.

THE annual meeting of this Division was held at the Cardiff Infirmary, on Thursday, May 17th, at 3.15 p.m.

Election of Officers.—The following were elected officers for the ensuing year: *Chairman*, Dr. D. R. Paterson; *Vice-Chairman*, Dr. W. B. Crawford Treasure; *Secretaries*, Drs. Ewen J. Maclean and R. Russell Thomas; *Representatives of the Division on the Branch Council*, Drs. J. Tatham Thompson, J. Powell, E. E. Brierley, E. Williams, W. Kirkby; *Executive Committee*, Dr. Charles T. Vachell, Messrs. J. Lynn Thomas, William Martin, William Sheen. Dr. J. Tatham Thompson was elected the Representative of the Division in the Representative Meetings of the Association.

Report of Executive Committee.—The annual report of the Executive Committee was received and adopted.

Annual Representative Meeting.—The agenda of the Annual Representative Meeting was considered in detail with respect to the various items and the Divisional Representative was instructed in accordance therewith.

Vote of Thanks to Retiring Chairman.—The meeting concluded with a hearty vote of thanks to the retiring Chairman, Dr. Charles Vachell, for the very efficient manner in which he had discharged his duties during his year of office.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m., except on Saturdays, when they close at 2 p.m. Members can have their letters addressed to them at the office.

☛ *To ensure the insertion of notices in this column, they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

Association Notices.

1906 ANNUAL GENERAL MEETING.

The Annual General Meeting of the British Medical Association will be held in the Caxton Hall, Caxton Street, Victoria Street, London, S.W., on Tuesday, July 24th at 10 o'clock in the forenoon.

ANNUAL REPRESENTATIVE MEETING.

The Annual Representative Meeting will take place in the Caxton Hall, Caxton Street, Victoria Street, London, S.W., on Tuesday, July 24th, immediately after the Annual General Meeting, which will be held at 10 o'clock in the forenoon; on Wednesday, July 25th, at 10 a.m.; on Thursday, July 26th, at 10 a.m. if required also on Friday, July 27th, at 10 a.m. if required.

BY ORDER OF THE COUNCIL,
GUY ELLISTON, *General Secretary.*

BRANCH AND DIVISION MEETINGS TO BE HELD.

ABERDEEN BRANCH.—Election of Member of Council.—Nominations are requested to be sent to Dr. J. F. Christie, Honorary Secretary, 7, Alford Place, Aberdeen, on or before June 2nd. Each candidate must be nominated by not less than three members.

BATH AND BRISTOL BRANCH.—The annual meeting of this Branch will be held on Wednesday, May 30th, at the Medical Library, University College, Bristol, at 4.30 p.m., when Dr. J. Michell Clarke will resign the chair to Dr. D. S. Davies, President-elect, who will deliver the presidential address. The business of the meeting will be to receive the report of the Council and the annual financial statement, to elect the officers of the Branch, to receive the report of the election of members of Council and of the Representatives of Divisions, to transact the necessary business, and to consider such subjects connected with the interest of the Branch and of the profession as may be brought before it. The Secretaries will be obliged if members will send them notice of any alteration in their diplomas or addresses. N.B.—Members who have not paid their subscriptions are requested to do so immediately to the General Secretary of the Association, 429, Strand, W.C. The dinner will be held at the Clifton Down Hotel, at 7 p.m. Dinner tickets, 7s. 6d. each. The wines will be served at moderate charges. N.B.—The Bristol Secretary particularly requests that members will inform him by Monday, May 28th, whether it is their intention to be present at the dinner. The Secretary cannot undertake to provide places for members at the dinner without notice beforehand.—NEWMAN NEILD, Honorary Secretary of the Bristol District, Clifton, Bristol; W. M. BEAUMONT, Honorary Secretary of the Bath District, Bath.

BIRMINGHAM BRANCH.—The annual meeting of the Birmingham Branch will be held at the Medical Institute on Thursday, June 14th, at 3.30 p.m.—T. SYDNEY SHORT, Honorary Secretary, 85, Edmund Street, Birmingham.

BORDER COUNTIES BRANCH.—The annual meeting has been tentatively fixed for June 22nd, at the County Hotel, Carlisle. —F. R. HILL, Honorary Secretary.

BORDER COUNTIES BRANCH AND NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.—In accordance with By-law 24 notice is hereby given that nominations for the office of Representative of the above Branches on the Central Council of the Association must be received by me, duly signed by not less than three members of the Association, not later than May 28th. —FRANCIS R. HILL, M.B., 62, Warwick Road, Carlisle.

CAMBRIDGE AND HUNTINGDON BRANCH.—The annual meeting of the Branch will be held at Peterborough on Thursday, June 14th. Any member having communications to make should apply to the Honorary Secretary, F. E. APTHORPE WEBB, Grafton House, Cambridge.

CAMBRIDGE AND HUNTINGDON BRANCH.—Notice of Election of a Member of Council.—Nominations for a Member of the Council, which must be signed by three members of the Branch, should be sent to the Honorary Secretary on or before Saturday, June 2nd.—F. E. APTHORPE WEBB, Grafton House, Cambridge, Honorary Secretary.

DUNDEE BRANCH.—The annual meeting of this Branch will be held in the Students' Union, Dundee, on Friday, June 8th, at 4 o'clock. Business: Election of office bearers. Proposed adoption of the "Bradford Rules," etc.—R. C. BUIST and A. P. LOW, Honorary Secretaries.

EAST ANGLIAN BRANCH: SOUTH ESSEX DIVISION.—The next meeting will be held at the Victoria Hospital, Southend-on-Sea, on Tuesday, May 29th, at 4 p.m. Business: (1) Minutes of meeting of May 1st, 1906; (2) cases; (3) matters referred to Divisions; (4) election of Executive Committee for ensuing year.—W. CARDY BLUCK, Honorary Secretary, Southend-on-Sea.

EAST ANGLIAN BRANCH: WEST NORFOLK DIVISION.—The Annual meeting of this Division will be held on Wednesday, July 4th, at the residence of the Chairman (Dr. Thomas), Swaffham. Lunch at 1.30 by invitation of the Chairman. Meeting at 3 p.m. The agenda, besides containing the usual business of the annual meeting, contains for consideration the proposed application for a Royal Charter. The Chairman will also move the following alteration and addition to the rules: "That Rule 11 shall read, 'ordinary meetings of the Division shall be held *half-yearly*, etc.'" Addition to Rule 9: "That the Honorary Secretary of the Scientific Committee be *ipso facto* a member of the Executive Committee."—A. GARDINER, King's Lynn, Honorary Secretary.

EAST YORK AND NORTH LINCOLN BRANCH.—The annual meeting will be held at the Grimsby and District Hospital on Thursday, June 7th, at 4.30 p.m., and will be followed by the annual dinner.—E. M. HAINWORTH, Honorary Secretary, Hull.

EDINBURGH AND FIFE (COMBINED) BRANCHES.—Nominations for two Members of Council will be received by Dr. Logan Turner, 23, Walker Street, Edinburgh, on or before June 2nd. Nominations must be signed by two members.—NORMAN WALKER, Honorary Secretary.

GLASGOW AND WEST OF SCOTLAND BRANCH.—Election of Representatives on Central Council. In accordance with By-law 24, nominations, each signed by three members of the Branch, must reach the Honorary Secretary on or before Monday, June 4th.—Dr. JAMES H. NICOLL, 4, Woodside Place, Glasgow, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: BIRKENHEAD DIVISION.—A meeting of the members of this Division will be held on Tuesday, May 29th, at the Birkenhead Medical Society's rooms, 14, Hamilton Square (first floor), at 4 p.m. Agenda: (1) Minutes of last meeting. (2) Annual report. (3) Elect officers, etc., of Division, also the Representatives to Annual Representative Meeting and on Branch Council. (4) Consideration of matters referred to Divisions: (*a*) Hospital out-patient departments (see SUPPLEMENT, BRITISH MEDICAL JOURNAL, February 17th). (*b*) Proposed application for Royal Charter (see SUPPLEMENT, BRITISH MEDICAL JOURNAL, March 24th). (*c*) Registration of nurses (see SUPPLEMENT, BRITISH MEDICAL JOURNAL, March 3rd). (5) Agenda for Annual Representative Meeting (see SUPPLEMENT, BRITISH MEDICAL JOURNAL, May 5th). (6) Other business.—J. H. FARDON, Honorary Secretary, 59, Grange Mount, Birkenhead.

LANCASHIRE AND CHESHIRE BRANCH: LEIGH DIVISION.—The annual meeting of this Division will be held at 8.30 p.m. in the Co-operative Rooms, Ellesmere Street, on Thursday, May 31st. Agenda: (1) Minutes. (2) Election of officers. (3) Annual report. (4) To consider the business of the Annual Representative Meeting. (5) Fix date of annual cycle run. (6) Cases. (7) Any other business.—MICHAEL J. HALTON, Honorary Secretary.

Metropolitan Counties Branch: Lambeth Division.—The annual general meeting will be held at Bethlem Royal Hospital on Thursday, May 31st, at 4 p.m. A paper will be read by G. H. Savage, M.D., F.R.C.P., on "The Natural History of Delusions." If time permits, there will be a demonstration of cases by the staff of the hospital.—W. H. B. Stoddart, Honorary Divisional Secretary.

Metropolitan Counties Branch: Marylebone Division.—The annual meeting of the Division will be held at the Rooms of the Royal Medical and Chirurgical Society, 20, Hanover Square, W., on Tuesday, May 29th, at 5 p.m. Agenda: (1) Minutes. (2) To elect officers, namely—Chairman, Vice-Chairman, Honorary Secretary, and Treasurer. (3) To elect Representatives of the Division on the Branch Council. (4) To elect the Representative of the Division at Representative Meetings of the Association. (5) To receive the annual report of the Executive Committee. (6) To consider other business if necessary.—Comyns Berkeley, Wimpole Street, Honorary Secretary.

Metropolitan Counties Branch: St. Pancras and Islington Division.—The annual meeting will be held on Friday, May 25th, at 4 p.m., at the Islington Infirmary, Highgate Hill. Business: Election of officers; annual report and financial statement; to consider registration of nurses; the election of Representatives on the General Medical Council, and the business to be brought before the Annual Representative Meeting of the Association.—Wm. Wynn Westcott, Honorary Secretary.

Metropolitan Counties Branch: Tottenham Division.—The annual meeting of the Division will be held at the Tottenham Hospital on Friday, May 25th, at 4 p.m. Agenda: (1) To instruct Representative. (2) To elect officers for next year.—Fred. Tresilian, White Lodge, Enfield, Honorary Secretary.

Metropolitan Counties Branch: Wandsworth Division.—The annual meeting will be held on Friday, May 25th, at the Battersea Town Hall (entrance in Theatre Street) at 6.30 p.m. prompt. (1) Minutes. (2) Correspondence. (3) Questions. (4) Report of scrutineers (Drs. H. R. Ker and C. J. Martin) as to result of voting for representatives for Putney and Wimbledon on Executive Committee for 1906-7. N.B.—The other officers and members of Committee elected for 1906-7 are as follows: Chairman, Llewellyn Williams, L.R.C.S.; Vice-Chairman, Malcolm Mackintosh, M.D.; Chairman-elect, Gilbert Richardson, M.R.C.P.; Honorary Secretary and Treasurer, E. Rowland Fothergill, M.B.; Honorary Assistant Secretaries, D. R. Powell Evans, M.R.C.S., Chas. J. Martin, M.B., Allan J. Swallow, M.B.; Representatives on the Metropolitan Branch Council, M. G. Biggs, M.D., Geo. Walker, M.R.C.S.; ordinary members of Committee, (Balham) Hugh R. Ker, F.R.C.S., (Battersea) W. G. Gyton, M.R.C.S., (Clapham) F. Stocks, M.R.C.S., (Tooting) H. T. Barron, M.D., (Wandsworth) E. J. Pritchard, M.R.C.S.. (5) Election of Representative at Representatives' Meetings, 1906-7. (6) Election of deputy to Representative at Representatives' meetings. (7) Election of Ethical Committee (three seats); the Chairman and Honorary Secretary are *ex officio* members. (8) Election of Hospital Committee (four seats); the Chairman and Honorary Secretary are *ex officio* members. (9) Election of four members of Science Committee; this Committee, according to rule, is to consist of the Chairman-elect, one Honorary Assistant Secretary, three members elected by the Executive Committee, and four elected by the Division. (10) To receive the annual report of the Executive Committee. (11) Other business. There will be an exhibition of drugs, preparations, etc., by Messrs. Parke, Davis, and Co. The annual dinner will be held afterwards at 7.30 p.m.—E. Rowland Fothergill, Honorary Secretary, Southfields, S.W.

The annual dinner will be held in the Banqueting Hall, Battersea Town Hall, on Friday, May 25th, at 7 p.m. Invitations to attend have been issued and accepted by the M.P.'s for Wandsworth and Clapham; the Mayors of Battersea, Wandsworth and Wimbledon; the late candidates for Parliament in the Battersea, Clapham, Wandsworth, and Wimbledon areas; local members of the L.C.C. and S.C.C.; the Chairman, Wandsworth Guardians; the Chairman, Central Council; the President of the Branch; the Director-General A.M.S.; the Chairman, Organization Committee; and several others. The Committee hope the members of the Division will attend in large numbers and bring their medical friends. Tickets, 7s. 6d. each. —A. J. Swallow, Honorary Secretary Dinner Committee, 61, South Side, Clapham Common.

Midland Branch.—The annual meeting of this Branch will be held at the County Hospital, Lincoln, on Thursday, June 7th, at 2.15. Agenda: Minutes. Report of Council. Election of two Representatives of Branch on General Council (the only nominations received are Dr. Pope and Dr. Carline, who will therefore be elected). Election of Branch officers. Election of Honorary Secretary of the Branch (Dr. Astley Clarke does not seek re-election). Election of President-elect for 1907-8. Suggested re-combination of Divisions in Lincolnshire. Any other business. Address by the new President. The President and Mrs. Mansel Sympson will be "at home" to the members of the Branch in the Castle grounds from 4 to 6 p.m. Luncheon: The President will be glad to entertain members to lunch at his house, Deloraine Court, James Street, from 1 to 2 p.m. The annual dinner will be held at the White Hart Hotel at 6 p.m. Tickets, 7s. 6d. each, exclusive of wine. Members desiring to dine are requested to notify the fact to Dr. E. Mansel Sympson, Lincoln, before Monday, June 4th.—Astley V. Clarke, M.D., Honorary Secretary and Treasurer.

Midland Branch: Leicester Division.—The annual meeting of the Division will be held on Wednesday, May 30th, at 4 p.m., at the Infirmary, Leicester. Business: (1) To nominate a Vice-President of the Branch for 1906-7. (2) To elect the officers of the Division. (3) To elect Representatives on the Branch Council. (4) To elect the Executive Committee of the Division. (5) To elect a Representative at the Representative Meeting of the Association. (6) To receive a report of the work of the Division. (7) To discuss matters referred to the Division in the Supplement to the British Medical Journal. (8) Any other business.—Robert Sevestre and Wilfred E. Gibbons, Honorary Secretaries, Leicester.

North Wales Branch.—Nominations of a member of the Central Council to represent this Branch for the ensuing year must be made in accordance with By-law 24, and sent to me in writing on or before May 31st.—H. Jones Roberts, Honorary Secretary, Pen-y-groes.

North Wales Branch: North Carnarvonshire and Anglesea Division.—The annual meeting of this Division will be held at the British Hotel, Bangor, on Wednesday, May 30th, for the election of officers, Representatives, etc., and other business.—H. Jones Roberts, Pen-y-groes, Honorary Secretary.

North Wales Branch: South Carnarvon and Merioneth Division.—The annual meeting of this Division will be held at the Gorsygedol Hotel, Barmouth, on Thursday, May 31st.—H. Gladstone Jones, Honorary Secretary.

Perthshire Branch.—The summer meeting of the Branch will be held in the Clubhouse, Moncreiffe Island, at 3.15 prompt, on Friday, June 1st. Business: (1) Read minutes. (2) Confirm re-election of Council till June, 1907. (3) Appointment of Branch Representative to annual meeting. (4) Any other business. After the above meeting the usual golf match will take place against Dundee.—William A. Taylor, Alexander Trotter, Joint Honorary Secretaries.

South-Eastern Branch.—The sixty-second annual meeting will be held at the Crystal Palace on Wednesday, June 27th, at 2.15 p.m. Dr. Hetley (President-elect) kindly invites members to lunch at the Crystal Palace from 1 to 2 p.m. Agenda: In addition to the business of an ordinary meeting: (1) To receive the report of the election of new officers, who shall thereupon take office. (2) To receive the report of the Council on the affairs of the Branch and the annual financial statement. After the meeting, entertainments will be provided in the Crystal Palace, and expeditions will be arranged to the Norwood Cottage Hospital, the Norwood Sanatorium for the Treatment of Alcohol and Drug Inebriety, and the Dulwich Gallery. Dinner at the Crystal Palace at 6.15 p.m. (for 6.30 p.m.); charge 7s. Wine will be provided by local members. Those who propose to be present at lunch or dinner are requested to signify their intention to Dr. Prangley, 197, Anerley Road, S.E., not later than Saturday, June 23rd.—H. M. Stewart, Honorary Secretary.

South-Eastern Branch: Canterbury and Faversham Division.—The annual meeting of this Division will be held in the Library of the Canterbury Hospital on June 7th, at 3 p.m., Dr. T. Whitehead Reid presiding. Agenda: (1) Minutes. (2) Time, place, and Chairman of next meeting. (3) Election of officers for ensuing year. (4) Other business. At 4 o'clock members and friends will be driven to the Cathedral, the Dean of Canterbury having kindly consented to show them over it, after which a visit will be paid to the Canterbury Waterworks, where the various processes will be explained. Dinner will be served at the County Hotel at 6.15 p.m., charge 5s. Members who intend to be present at the dinner are requested to send a notification, not later than June 6th, to A. R. Henchley, Honorary Secretary and Treasurer, Canterbury.

A combined meeting of the Isle of Thanet, Canterbury, and Faversham Divisions will be held in the Hospital Library at

Canterbury on June 7th, at 2.45 p.m., for the purpose of electing a Representative of the above Divisions for the annual meeting of Representatives.—HUGH M. RAVEN, Honorary Secretary, Isle of Thanet Division, Broadstairs.

SOUTH-EASTERN BRANCH: NORWOOD DIVISION.—The annual meeting of the Division will take place at the Art Club, Blackheath, on Thursday, June 14th, at 4 p.m., Ralph Gooding, M.D., of Blackheath, in the chair. Dinner at 6 p.m.; charge 7s., exclusive of wine. Agenda: (1) Minutes of last meeting. (2) To decide where the next meeting shall be held, and to nominate a member of the Division to take the chair thereat. (3) To elect officers, the Representatives of the Division on the Branch Council, and ordinary members of Executive Committee. (4) To elect the Representative of the Division in Representative meetings of the Association. (5) To receive the annual report of the Executive Committee. (6) To consider business of Annual Representative Meeting. (7) To consider existing rules and discuss whether any alterations are necessary. (8) Any other business. The following papers will be read: Dr. C. R. Box, Bronchiectasis in Children (with lantern slides); W. Arbuthnot Lane, M.S., Defective Intestinal Drainage; Dr. Walter W. H. Tate, Indications for the Surgical Treatment of Uterine Fibroids. Exhibition of instruments, etc., by Messrs. Burroughs and Wellcome and Messrs. Arnold and Son. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. All members of the South-Eastern Branch are invited to attend and to introduce professional friends, but will be unable to vote on Divisional questions. The Art Club is at the end of Bennett Park, three minutes from Blackheath Station, S.E.R. The Honorary Secretary would be much obliged if members would kindly inform him by postcard, to reach him by the first post on Tuesday before the meeting, whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner.—HENRY J. PRANGLEY, Honorary Secretary, ARTHUR W. SOPER, Assistant Honorary Secretary, Anerley.

SOUTH-EASTERN OF IRELAND BRANCH.—An ordinary meeting and meeting of the Council will be held at the Town Hall, Clonmel, on June 6th, at 11 o'clock. Agenda: (1) Minutes. (2) To appoint an Ethical Committee for Branch. (3) Investigate ethical case. (2 and 3 by Branch Council only.)—J. QUIRKE, Piltown, co. Kilkenny, Honorary Secretary.

SOUTH MIDLAND BRANCH: BEDFORDSHIRE AND HERTFORDSHIRE DIVISION.—The annual meeting of this Division will be held at the Bedford County Hospital on Friday, June 8th, at 2.45 p.m. Agenda: (1) The minutes of the last annual meeting. (2) The annual report of the Executive Committee. (3) The election of officers for the ensuing year. (4) Letters and communications and any other business. (5) W. Hale White, M.D., Physician to Guy's Hospital, will read a paper on "Some Common Cases of Haematemesis which are frequently misunderstood."—H. SAVORY, Honorary Secretary, Bedford.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: SOUTH-WEST WALES DIVISION.—The annual meeting of the Division will be held at the Stepney Hotel, Llanelly, on Wednesday, May 30th, at 2.30 p.m. A meeting of the Ethical Committee will be held at 2 o'clock. Agenda: (1) Minutes of last meeting. (2) Election of officers—Chairman, Vice-Chairman, Secretary, three Representatives of the Division on Branch Council, Ordinary Members of Executive and Ethical Committees, and Representative of the Division for Annual Representative Meeting in London. (3) Annual report of Executive Committee. (4) Report *re* medical officer of Aberystwyth Workhouse. (5) To consider the business of Annual Representative Meeting. (6) To consider proposed Charter for the Association. (7) Other business. Papers: Mr. D. J. Williams: Notes on Four Cases of Suppurating Ovarian Cyst. Dr. R. G. Price: Quacks and Quackery; with special reference to Carmarthenshire. Dr. Owen Williams will show 2 cases of Exophthalmic Goître in Men. The Honorary Secretary of the South Wales Branch Contract Practice Committee wishes to remind members of the urgent importance of securing a wide support for the Contract Practice Fund, concerning which a circular was recently issued. Those who have not yet contributed are asked to do so as soon as possible, so that the list of contributors can be completed and circulated. Contributions should be sent to Dr. E. J. Maclean, 12, Park Place, Cardiff.—J. EDGAR P. DAVIES, Castle Hill, Llanelly, Honorary Secretary.

SOUTH-WESTERN BRANCH.—The sixty-seventh annual meeting will be held on June 14th at the Royal Devon and Exeter Hospital, Exeter, at 3 p.m., when Mr. G. Jackson will resign the chair to Mr. E. J. Domville, who will deliver his inaugural address. The report of the Branch Council and annual financial statement for the year 1905-6 will be presented to the meeting, and the officers of the Branch will be elected for the year 1906-7. Luncheon, by kind invitation of the President-Elect, will take place from 12.30 p.m. to 2.30 p.m. at Northernhay House. The annual dinner will be held at 7 p.m. at the London (Pople's) Hotel. Tickets (exclusive of wine) 6s. each, which can be had from Dr. Solly, 40, Southernhay, the Honorary Treasurer of the Dinner Committee. Arrangements have been made for members who desire it to play either golf or croquet, and to visit the Cathedral, Chapter House, Library, Guildhall, etc.; and by the Exeter members, members are invited to a Garden Party to be held by permission of the Lord Bishop of Exeter and Mrs. Robertson at the Palace from 4.30 to 6 p.m. Members wishing to play golf are requested to send their names to Dr. Raglan Thomas, 13, West Southernhay, Exeter; and for croquet to Mr. A. C. Roper, The Shrubbery, Exeter, before June 10th. Members who attend the Garden Party are invited to bring their wives or lady friends, limited to two. It is particularly requested that members requiring dinner tickets send their names with P.O. for 6s. to Dr. Solly, 40, Southernhay, Exeter, before June 10th. Members wishing to be accommodated with bed and breakfast are invited to send their names to Dr. Miller, 14, East Southernhay, Exeter, who will endeavour to arrange matters. The Honorary Secretary takes this opportunity of informing members that he does not desire to offer himself for re-election.—G. YOUNG EALES, Torquay, Honorary Secretary.

ULSTER AND CONNAUGHT BRANCHES.—The annual meeting will be held on Thursday, June 21st, when the following officers will be elected:—President, Secretary, Treasurer, two Members of the Central Council to represent the Ulster and Connaught Branches, and a member of the Irish Committee (who shall not be resident in Belfast). Nominations for these posts must be sent to the Honorary Secretary not later than Saturday, June 2nd, signed by two members in the case of each except for Members of Central Council, in which case the nomination must be signed by three members. Members having business or scientific communications to make to the meeting will please send the Honorary Secretary notice of the same not later than June 12th.—CECIL E. SHAW, Honorary Secretary, Belfast.

YORKSHIRE BRANCH.—The annual meeting of this Branch will be held at the Eye and Ear Hospital, Bradford, on Wednesday, June 13th.—ADOLPH BRONNER, M.D., 33, Manor Row, Bradford, Honorary Secretary.

GRANTS FOR SCIENTIFIC RESEARCH.

THE Council of the British Medical Association desires to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences that it is prepared to receive applications for grants in aid of such research. Applications for sums to be granted, which must reach this office not later than May 31st, must include details of the precise character and objects of the research which is proposed, and must be made on forms to be had of the General Secretary, at the office of the Association, 429, Strand, London.

Every recipient is required to furnish to the Science Committee, on or before May 31st following upon the allotment of the grant, a report (or, if the object of the grant be not then attained, an interim report to be renewed at the same date in each subsequent year until a final report can be furnished) containing: (*a*) A brief statement for the Report of the Science Committee, showing the results arrived at, or the stage which the inquiry has reached; (*b*) a general statement of the expenditure incurred, accompanied, so far as is possible, with vouchers; (*c*) and references to any Transactions, Journals, or other publications in which the results of the research have been printed.

The work of the Grantees shall be subject to inspection.

RESEARCH SCHOLARSHIPS.

The Council of the British Medical Association is prepared to receive applications for three Research Scholarships, each of the value of £150 per annum, tenable for one year, and subject to renewal by the Council, provided the whole term of office has not exceeded three years.

The scholarships exist for the encouragement of research in Anatomy, Physiology, Pathology, Bacteriology, State Medicine, Clinical Medicine, and Clinical Surgery.

The Scholars' work shall be subject to inspection.

Applications for Scholarships must be made on forms to be had of the General Secretary, and returned on or before May 31st.

ERNEST HART RESEARCH SCHOLARSHIP.

The Council of the British Medical Association is also prepared to receive applications for the Ernest Hart Memorial Scholarship of the value of £200 per annum, tenable for one year, but subject to renewal by the Council for another year. The Scholarship is for the study of some subject in the department of State Medicine.

N.B.—Applications for Scholarships and Grants should, as a rule, be accompanied by a recommendation from the head of the laboratory in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended, however, to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

GUY ELLISTON, *General Secretary.*

429, Strand,
April, 1906.

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION.

SUMMER SESSION 1906.

PRESIDENT'S ADDRESS.

AT the opening of the summer session of the General Medical Council on Tuesday, May 22nd, the President, Dr. DONALD MACALISTER, delivered the following address:

Direct Representative of Ireland.

GENTLEMEN,—One change only has occurred in our membership since the last session, though I understand that other changes are imminent. Sir William Thomson, who for ten years had filled an honoured place in the Council as Direct Representative for Ireland, ceased to hold office on February 28th. An election was accordingly held, in pursuance of the Medical Act, 1886, and under the regulations made by the Privy Council, during the month of January. The candidates nominated were Sir William Thomson and Dr. Leonard Kidd, of Enniskillen. As the result of the first scrutiny of the votes the Branch Council for Ireland found that the number of voting papers whose validity was regarded as doubtful exceeded the difference between the numbers of apparently valid votes recorded for the two candidates respectively. The Branch Council was thus unable, without further inquiry, to certify to me, as returning officer, the result of the election. In the circumstances I thought it proper to suggest that a recount should be made, with the aid, if necessary, of a legal assessor. The suggestion was adopted, and in the end Dr. Leonard Kidd was certified to be duly elected. In your name I bid him welcome to the Council as the representative of the registered medical practitioners of Ireland.

But we cannot part with Sir William Thomson without expressing our appreciation of the valuable service which since 1896 he has rendered to the Council, to the profession, and to the State. His courtesy, his independence of view, his impressive speech, and his zeal for the interest of his professional brethren in Ireland, will long be remembered by all with whom he was here associated. I am glad to have his assurance that he has recovered from the illness which disabled him during the election, and that his experience of the fortunes of war, acquired in other and sterner fields, now stands him in good stead.

Reciprocity with Canada.

In November I called your attention to the probability that some of the Canadian provinces might, in pursuance of the amending Medical Act of 1905, make application for the extension to them of the privileges of medical reciprocity with the United Kingdom. The first to seek admission is the province of Nova Scotia. His Majesty the King has been satisfied that the provincial laws afford an equitable basis for the grant of reciprocal privileges, and accordingly on May 11th an Order in Council was made applying Part II of the Medical Act, 1886, to that part of the Dominion of Canada. I have already forwarded a request, through the Secretary of State for the Colonies, for particulars of the conditions, as to study and examinations, under which medical diplomas are granted in Nova Scotia. These particulars will in due course be laid before you, in order that you may satisfy yourselves regarding the sufficiency of the qualifications, and give directions for their registration in the *Colonial List.*

In my own opinion it is highly desirable, in the interest of the Dominion itself no less than in that of the Empire at large, that closer professional relations should be established between the mother-country and her daughter-states beyond the seas. From recent minutes of the Executive Committee it will be seen that legislation for the better control of medical practice, and for the effective recognition of our own registrable qualifications, is making constant advances in the several Crown Colonies of the Empire. It will, I am sure, be welcome to the Council should the rest of the Canadian Provinces see fit to follow the example of Nova Scotia, and so enable us to unite all the self-governing Colonies with ourselves in one bond of mutual recognition and mutual privilege. I have accepted an official invitation to visit Canada during the summer, and I hope to have the opportunity of conferring on the question of medical reciprocity with some of the authorities there, who desire further explanations of its scope and purport. It will be gratifying if the result is to accelerate the movement which, by the action of the Maritime Province, has now auspiciously begun.

Reciprocity with Japan.

By an Order of His Majesty in Council, dated December 11th, the Medical Act of 1886 was applied to the Empire of Japan. Full details respecting the prolonged course of preparatory and professional study and examinations required for the medical degrees of the Imperial University have now been obtained through the Foreign Office. I have prepared for the use of the Executive Committee and of the Council a memorandum on the subject, in which these details are set forth. You will probably be of opinion that the conditions for University graduation in Japan are amply sufficient to guarantee the efficiency of its Bachelors and Doctors of Medicine. Complete information regarding the other avenues to medical qualification in that country is not yet to hand; but so far as our information goes, it shows that our Japanese Allies have provided wisely and fully for the education of their practitioners in the science and art of Western Medicine. Let me add that this information does much to explain the unparalleled efficiency and success of their military medical service in the recent war. It is not too much to say that the surgeons and sanitary officers of the Japanese forces have proved themselves capable of teaching many wholesome practical lessons to the nations of the West.

The Policlinic at Rome.

You will permit me to mention, before leaving the subject of international relations, a recent personal experience of my own. Last month I was invited, as your President, and as deputy for the Vice-Chancellor of the University of Cambridge, to be present in Rome at the ceremonial opening of the magnificent group of clinical schools and laboratories known as the Policlinico, and at the festival then held in honour of Professor Guido Baccelli, its founder and Director. Having been also accredited by the Lord President of the Privy Council, I was received in Rome as the representative of this country, and with other foreign delegates had the honour of delivering in the Capitol, before His Majesty King Victor Emmanuel and his Ministers, an address of congratulation to Professor Baccelli and to the University of Rome. As the Council is aware, Italy alone of European nations has entered into an agreement of reciprocity with us in respect of medical registration. His Majesty was pleased to note the fact with satisfaction, and graciously offered me a special welcome on that account. During the subsequent proceedings, the close professional relations between Italy and the United Kingdom were frequently referred to, and always with cordial expressions of goodwill. It was impossible to resist the impression that the Council, by recognizing for registration the medical degrees of the Italian universities, had made an important contribution to the traditional comity existing between the two nations.

The Quatercentenary of the University of Aberdeen.

In September next the University of Aberdeen celebrates its four-hundredth anniversary, and I have been favoured, as President of the Council, with an invitation to take part in the ceremonies. On the occasion of the four hundred and fiftieth anniversary of the University of Glasgow, the Council forwarded its congratulations and good wishes to that University (*Minutes*, 1901, p. 210). Should this precedent be followed, I shall be glad to receive your instructions for the preparation and presentation of a suitable address to the ancient University of Aberdeen.

Sight-Testing Opticians.

The Lord President has forwarded for our consideration a petition for a charter of incorporation, submitted to the Privy Council by the British Optical Association, and a copy of a Bill entitled "The Sight-Testing Opticians Bill," now before the House of Lords. Both documents propose that powers and privileges shall be conferred on certain persons, who are not qualified medical practitioners, in relation to the diagnosis and treatment of ocular defects. As the proposals touch closely the practice of ophthalmic medicine and surgery they will doubtless receive your careful scrutiny. At my request, a confidential memorandum has been prepared on the subject as an aid to your consideration, and you will probably find it a useful summary of the facts which have to be kept in mind.

Rules of the Midwives Board.

The Privy Council has also sent to the Council, for this purpose represented by the English Branch, a draft of the revised rules framed by the Midwives Board. Many important modifications have been made in the rules, as the result of the experience gained by the Board since 1903. Under the Midwives Act, 1902, the Branch Council is entitled to make representations on the revised text as on the original, and these must be considered by the Privy Council before the rules are approved as valid.

Medical Degrees of the University of Wales.

A draft of the supplemental charter which is being sought from His Majesty in Council by the University of Wales was before the Executive Committee in February. The Charter, if granted, will empower that University to establish a Faculty of Medicine and Surgery, and to grant degrees and diplomas in the Faculty. I have ascertained that the intention of the University authorities is to require that candidates for medical degrees shall have studied in one of the colleges of the University as matriculated students for not less than three years of the whole medical course, and that they shall have graduated in Arts or Science before graduating in Medicine or Surgery. The Executive Committee were of opinion that no objection should be raised to the grant of the Charter, but they pointed out that the degrees conferred in virtue of its powers would not be registrable qualifications, in the absence of an Act of Parliament amending the Medical Acts in that sense.

Enlargement of Council Chamber.

If precedents are followed such an Act will contain a clause empowering the University of Wales to appoint an additional member of this Council. The addition will bring our number up to thirty-five. As the Council Chamber is even now inconveniently crowded its extension becomes an urgent necessity. The Office Site Committee, acting on the powers entrusted to it, has completed an arrangement whereby the Council may at once resume possession of the reserved portion of our Hanover Square site. In view of the commencement of building operations there the Committee has thought it opportune to obtain plans and estimates for the enlargement during the summer of our present chamber. These the Committee will submit to you during the session. We may therefore hope that in November we shall be able to meet in greater comfort and convenience than is now possible.

Finance.

Fortunately the expense of the improvement, which I think is inevitable, will fall upon us at a time when we can bear it without difficulty. The accounts of the past year are already in your possession, and I am happy to say that for the first time since 1895 they show a surplus of income over expenditure. The amount of the surplus is £907; it is due partly to an increase of income, but in greater part to a decrease of expenditure, due to the expedition with which the Council carried through the business of its two sessions in 1905. Owing to the election of Direct Representatives in the current year an exceptional charge of considerable amount will have to be met by the Branch Councils, and it is therefore incumbent on us to persevere in our course of economy in so far as it is compatible with the full and efficient discharge of our statutory duties.

Reports.

One method by which our sittings may be kept within convenient limits has been in active operation during the present year. I refer to the careful preliminary consideration by the standing and special Committees of important subjects remitted to them. Digests, memoranda, and draft reports have been prepared and circulated in good time to members, who have thus had the opportunity of coming to a conclusion on the questions raised, and of offering reasoned recommendations to the Council concerning them. To the Chairmen of Committees and to the Council's officials our grateful acknowledgements are due for much preparatory work of this kind.

Reports by the Education and Examination Committees, and by the Practical Midwifery Committee, have been drawn up on this plan, and will be submitted to you at the present meeting.

It would, in my opinion, conduce to the value of our discussions in full Council were they in most cases confined to questions of principle, on which, of course, the decision of the Council must be clear and authoritative; questions of detail might then be left to the Committees to work out at leisure. Power to deal with details has already been given to the Pharmacopoeia, Education, and Students' Registration Committees, and in view of the great increase in the size of the Council within recent years, it is worth considering whether the practice might not with advantage be extended. It would also facilitate the arrangements of the Committee meetings if, so far as is practicable, the membership of each standing Committee were independent of the others. I commend the suggestion to the Branch Councils, with whom rests the duty of nominating standing Committees.

The Executive Committee also will present reports on certain points affecting your Standing Orders. Regarding the practice and constitution of the Penal Cases Committee, Dr. Finlay has given notice of an important motion. If I am in order in alluding to the subject from the Chair, I would say that in my opinion the full Committee of nine, with the Solicitor and Legal Assessor, who are always present, is unnecessarily large for the purpose in view. As a matter of practical experience, the Statutory Dental Committee of five, with the same legal assistance, is found to be sufficient and efficient, though it has to act not only as a committee of advice with reference to penal cases, but also as a court of first instance for ascertaining the facts. I see no disadvantage, and some substantial advantage, in reducing the Penal Cases Committee to five members, two from England, one from Scotland, and one from Ireland, with the President. If this were done, the objection felt by your legal advisers and by the Executive Committee to the mere recission of Chapter IX, 5 (ii) of the Standing Orders would be removed; and our practice under the Medical Acts would be assimilated to our practice under the Dentists Act.

Practice by Companies.

Under instructions from the Companies Bill Committee, I have had prepared two drafts, one of a "Prohibition of Medical Practice by Companies Bill," the other of a "Dental Companies (Restriction of Practice) Bill." In their preparation I have had the active co-operation of your legal advisers, and the friendly help, always willingly and cordially given, of Mr. Muir Mackenzie. Sir John Batty Tuke and other members of Parliament, in both Houses, have also afforded me the advantage of their practical experience and counsel as to the best method of presenting the Bills to Parliament. It will be enough here to say that the Bills are now ready, and that there is reason to hope that they may be introduced during the present session.

Disciplinary Cases.

Some of the disciplinary cases with which you will have to deal, and which present certain features of novelty in detail, will serve to bring home to the members of the Council the gravity of the situation arising from the unrestricted exercise of the skilled professions by joint-stock companies. The Council within the sphere of its jurisdiction can do something, the ordinary law of conspiracy or of fraud can do something more, to place obstacles in the way of flagrant abuse of the Companies Acts. But, as our experience accumulates, it becomes ever plainer that a change in the law is the only means whereby the public interest can be effectively safeguarded against the ingenious evasions that are possible under the existing law of corporate irresponsibility.

BRITISH MEDICAL ASSOCIATION LIBRARY.

List of Books, etc., Presented.

Presented by the AUTHORS:
- Ewart, W. Typhoid Fever (Empty Bowel Treatment). 1905.
- Horsley, Sir Victor. The Boyle Lecture, 1905. On the Cerebellum.
- Kelynack, T. N. The Alcohol Problem in its Biological Aspect. 1906.
- Lane, W. A. The Operative Treatment of Fractures. 1905.
- Manson, Sir Patrick. Lectures on Tropical Diseases. The Lane Lectures. 1905.
- Maylard, A. E. Abdominal Pain. 1905.

Presented by the ADMIRALTY:
- Statistical Report of the Health of the Navy. 1904.

Presented by ROBERT BIRCH, Esq., M.R.C.S., Newbury:
- Adélon. Physiologie de l'Homme, 1-4. 1829.
- Andral. Anatomie pathologique, 1-2. 1829.
- Bichat. Recherches physiologiques sur la Vie et la Mort. 1829.
- Cazenave. Maladie du Cuir Chevelu. 1850.
- Helvetius, Oeuvres de, 1-2. 1827.
- Rayer. Maladies de la Peau. 1827.
- Roche et Sanson. Pathologie Médico-Chirurgicale. 5 vols. 1828.
- Rostan. Corps de Médecine Clinique, 1, 2, 3. 1830.

Presented by Dr. LANGLEY BROWNE, West Bromwich:
- Congrès International Médical des Accidents du Travail. Compte rendu. Liége, 1905.

Presented by H. M. CHIEF INSPECTOR OF FACTORIES:
- Report for the Year 1904.

Presented by the DIRECTOR-GENERAL OF THE ARMY MEDICAL SERVICES:
- Final Report on the Treatment of Venereal Diseases and Scabies in the Army. 1906.

Presented by the EDITORS:
- The Guyoscope. New series. 1-4.

Presented by J. B. LAWFORD, Esq., F.R.C.S.:
- Archives of Ophthalmology. Vols. 17, 18, 19, 21. To complete series.

Presented by the MEDICAL OFFICER OF THE LOCAL GOVERNMENT Board:
- Report by Dr. Buchanan with regard to the Meat of Pigs Affected with Tuberculosis. 1906.
- ——— Dr. Klein on a New Plague Prophylactic. 1906.
- ——— Dr. Low on Enteric Fever at Sutton Bonnington. 1906.
- ——— Dr. Mair on Sanitary Circumstances of Rural District of Sleaford. 1906.
- ——— Dr. Reece on an Epidemic of Enteric at Lincoln. 1904-5.
- ——— Dr. Wheaton on Sanitary Circumstances at Abertillery. 1906.

Presented by the NEW SYDENHAM SOCIETY:
- Fasc. 18, 19 of the Clinical Atlas.

Presented by Dr. R. WALKER, Budleigh Salterton:
- Braithwaite. Retrospect of Medicine. 1840-82.
- Maclean. Epidemic and Pestilential Diseases. 2 vols. 1818.

Presented by the Editor of the BRITISH MEDICAL JOURNAL:
- Ashton. Essentials of Obstetrics. 1905.
- Ballantyne. Essentials of Obstetrics.
- Bergouignan. Les Cardiopathies Artérielles et la Cure d'Evian. 1905.
- Bocquillon-Limousin. Formulaire des Médicaments Nouveaux pour 1906.
- Bottone, S. Radium and all about it. 1904.
- Chantemesse and Borel. Moustiques et Fievre Jaune. 1905.
- Collie and Wightman. First Aid in Accidents. 3rd Ed. 1906.
- De Seigneux, R. Le Livre de la Sage Femme. 1905.
- Edinburgh Medical Journal. July-December, 1905
- Ellis. Demonstrations in Anatomy. 12th Ed. 1905.
- Fischer. Leitfaden der Kriegchirurgischen Operations und Verbandstechnik. 2 Aufl. 1905.
- Galli, G. Comme posso mantenermi sana e prolungarmi la Vita. 1905.
- Gyory, T. von. Semmelweis: Gesamwelte Werke. 1905.
- Hirst, B. C. Textbook of Diseases of Women. 2nd Ed. 1905.
- Lewis, C. J. and J. N. Natality and Fecundity. 1905.
- Liepmann, H. Uber Störungen d. Handelns bei Gehirn Kranken. 1905.
- Loch, Catherine Grace. A Memoir. 1905.
- Mèlier, de Labarthe (L. de). Le Celluloïde en Orthopédie. 1905.
- Meyer, G. Erste aerztliche Hülfe bei plötzlichen Erkrankungen und Unfallen. 2 Aufl. 1905.
- Parlavecchio, G. Le Nuove Conquiste della Chirurgia Renale. 1906.
- Queirol. Leçons de Clinique Obstétricale. 1905.
- Rathery, F. Le Tube Contourné du Rein. 1905.
- Scales, F. S. Elementary Microscopy. 1905.
- Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India. No. 21: On the Standardization of Antityphoid Vaccine. (Lamb and Forster.) 1906.
- Silvestri, E. de. Come si Evita e si Cura la Tuberculosi. 1906.
- Wright, A. E. Antityphoid Inoculation, 1904.
- Zacharin, G. A. Clinical Lectures. 1899.

Calendars, Reports, and Transactions have been received from the following bodies:
- American Laryngological Association. Transactions. Vol. 27. 1905.
- Association of American Physicians. Transactions. Vol. 20. 1905.
- Clinical Society of London. Transactions. Vol. 38. 1905.
- Dublin University. Calendar. 1905-6.
- Edinburgh Obstetrical Society. Transactions. Vol. 30. 1904-5.
- Education Committee of the L.C.C., including the Report of the Medical Officer (Education). 1905.
- Epidemiological Society of London. Transactions. Vol. 24. 1905.
- General Medical Council. Minutes. Vol. 42. 1905.
- Laryngological Society of London. Proceedings.
- Liverpool University. Calendar. 1905-6.
- Metropolitan Water Board. Chemical Reports. 1 and 2. 1905-6.
- Michigan State Board of Health. Report 31. 1903.
- Obstetrical Society of London. Transactions. Vol. 47. 1905.
- Ophthalmological Society of the United Kingdom. Transactions. Vol. 25. 1905.
- Otological Society of the United Kingdom. Transactions. Vol. 6. 1905.
- Pharmaceutical Society of Great Britain. Calendar. 1906.
- Royal College of Physicians. List of Members, etc. 1906.
- Royal Medical and Chirurgical Society. Transactions. Vol. 88. 1905.
- St. Bartholomew's Hospital Reports. Vol. 41. 1905.
- St. Thomas's Hospital Reports. Vol. 33. 1904.
- Society for Psychical Research. Proceedings.
- Society for the Study of Disease in Children. Proceedings. Vol. 5. 1905.
- United States Department of Agriculture. 21st Report of Bureau of Animal Industry. 1904.
- University College of South Wales and Monmouth. Calendar. 1906.
- Victoria College, Cape Town. Calendar. 1906.

BOOKS NEEDED TO COMPLETE SERIES:

The Librarian will be glad to receive any of the following volumes, which are needed to complete series in the Library:
- **American Climatological Transactions. Vols. 1, 4, 5, 6.**
- **——— Dermatological Association Transactions. Vols. 5, 7, 8, 11, and 29.**
- **——— Journal of the Medical Sciences. New series, vols. 4, 5, 1842-3; vols. 14, 15, 1847-8; vols. 18-30, 1850; vol. 33, 1857; vol. 46, 1864-5; vol. 59; or any parts of these vols.**
- **——— Journal of Ophthalmology. Vols. 1-9.**
- **——— Laryngological Association. Transactions. Vols. 1-6, 8-9.**
- **——— Medical Association. Transactions, 1-28, 30, 31.**
- **——— Otological Society. Transactions. Vol. 3, part 2, 1883.**
- **——— Public Health Association. Transactions. Any vols.**
- **Analyst. Vols. 1-24.**
- **Archiv für Dermatologie und Syphilis. Prior to 1874, 1892, and 1893.**
- **Annals of Surgery. Vols. 1, 11, 13-16, and 26, 27.**
- **Archives Générales de Médecine. 1831-9 inclusive; 1846-55 inclusive; 1857-64 inclusive; 1871.**
- **——— of Ophthalmology. Vols. 1-3, 6, 7, 14, 15, 16 and 20.**
- **——— of Otology. Vols. 1-7, and 20-22.**
- **——— de Parasitologie. Vols. 1-8.**
- **——— of Pediatrics. Vols. 1-11.**
- **Asylum Journal of Mental Science. Vol. 1, 1854.**
- **Bentley and Trimen. Atlas of Medicinal Plants.**
- **British Journal of Dermatology. Vol. 2, part 3.**
- **St. Bartholomew's Hospital Gazette. Vols. 1-6.**
- **St. George's Hospital Gazette, 1-7.**
- **St. Mary's Hospital Gazette, 1-5.**
- **Sei-i-Kwai Medical Journal. Vols. 1-11.**
- **Semaine Médicale. Prior to 1890, and title and index to year 1892.**
- **South African Medical Journal. February, April, 1895. And titles for vols. 3 and 4.**

Vital Statistics.

EPIDEMIC MORTALITY IN LONDON.

THE accompanying diagram shows the prevalence of the principal epidemic diseases during the first, or winter, quarter of the year. The fluctuations of each disease and its relative fatality compared with that in the corresponding periods of recent years can thus be readily seen.

Small-pox.—No fatal case of small-pox was registered in London last quarter. Thirteen small-pox patients were admitted into the Metropolitan Asylums Hospitals during last quarter, against 4 and none in the two preceding quarters, and 10 cases remained under treatment at the end of March last.

Measles.—The deaths from measles, which had been 551, 257, and 552 in the three preceding quarters, further rose to 684 last quarter, and were 66 in excess of the corrected average number in the corresponding quarters of the four preceding years. Among the various metropolitan boroughs this disease was proportionally most fatal in Hammersmith, Islington, Finsbury, Southwark, Camberwell, and Deptford.

Scarlet Fever.—The fatal cases of this disease, which had been 119, 126, and 170 in the three preceding quarters, fell again to 129 last quarter, but were 10 above the corrected average number. Scarlet fever showed the highest proportional mortality last quarter in St. Pancras, the City of London, Bethnal Green, Poplar, Southwark, and Deptford. The number of scarlet fever cases in the Metropolitan Asylums Hospitals, which had been 2,444, 3,567 and 3,410 at the end of the three preceding quarters, had further declined to 2,353 at the end of last quarter; 3,515 new cases were admitted during the quarter, against 3,778, 5,139, and 5,553 in the three preceding quarters.

Diphtheria.—The deaths referred to diphtheria in London, which had been 121, 111, and 159 in the three preceding quarters, further rose to 197 last quarter, but were 51 below the average number in the corresponding periods of the four preceding years. Among the various metropolitan boroughs this disease was proportionally most fatal in Hammersmith, Chelsea, Finsbury, Stepney, Bermondsey, and Greenwich. The number of diphtheria patients in the Metropolitan Asylums Hospitals, which had been 715, 730, and 701 at the end of the three preceding quarters, had risen again to 924 at the end of last quarter; 1,515 new cases were admitted during the quarter, against 1,219, 1,341, and 1.395 in the three preceding quarters.

Whooping-cough.—The fatal cases of this disease, which had been 530, 260, and 281 in the three preceding quarters, rose last quarter to 458, but were 113 below the corrected average number in the first quarters of the four preceding years. The greatest proportional mortality from this disease occurred in Shoreditch, Bethnal Green, Stepney, Poplar, Deptford, and Greenwich.

"*Fever.*"—Under this heading are included deaths from typhus, from enteric fever, and from ill-defined pyrexia. The deaths referred to these different forms of "fever," which had been 51, 78, and 66 in the three preceding quarters, further declined last quarter to 45, and were 34 below the corrected average number. During the quarter under notice no deaths were attributed either to typhus or to ill-defined pyrexia. Among the various metropolitan boroughs enteric fever was proportionately most fatal in Paddington, Fulham, Finsbury, Stepney, Poplar, Deptford, and Woolwich. The Metropolitan Asylums Hospitals contained 65 enteric fever patients at the end of last quarter, against 78, 143, and 78 at the end of the three preceding quarters; 166 new cases were admitted during the quarter, against 156, 264, and 238 in the three preceding quarters.

Diarrhoea.—The 174 deaths from diarrhoea in London last quarter were 32 below the corrected average for the corresponding periods of the four preceding years. This disease showed the highest proportional mortality in Hammersmith, Chelsea, Shoreditch, Stepney, Poplar, Bermondsey, and Battersea.

In conclusion it may be stated that the 1.687 deaths in London attributed to these principal epidemic diseases during the quarter ending March last were more than 17 per cent. below the corrected average number in the corresponding periods of the four preceding years. The lowest death-rates from these diseases were recorded last quarter in Paddington, City of Westminster, Hampstead, Hackney, Holborn, and Woolwich; and the highest rates in Hammersmith, Finsbury, Shoreditch, Stepney, Camberwell, Deptford, and Greenwich.

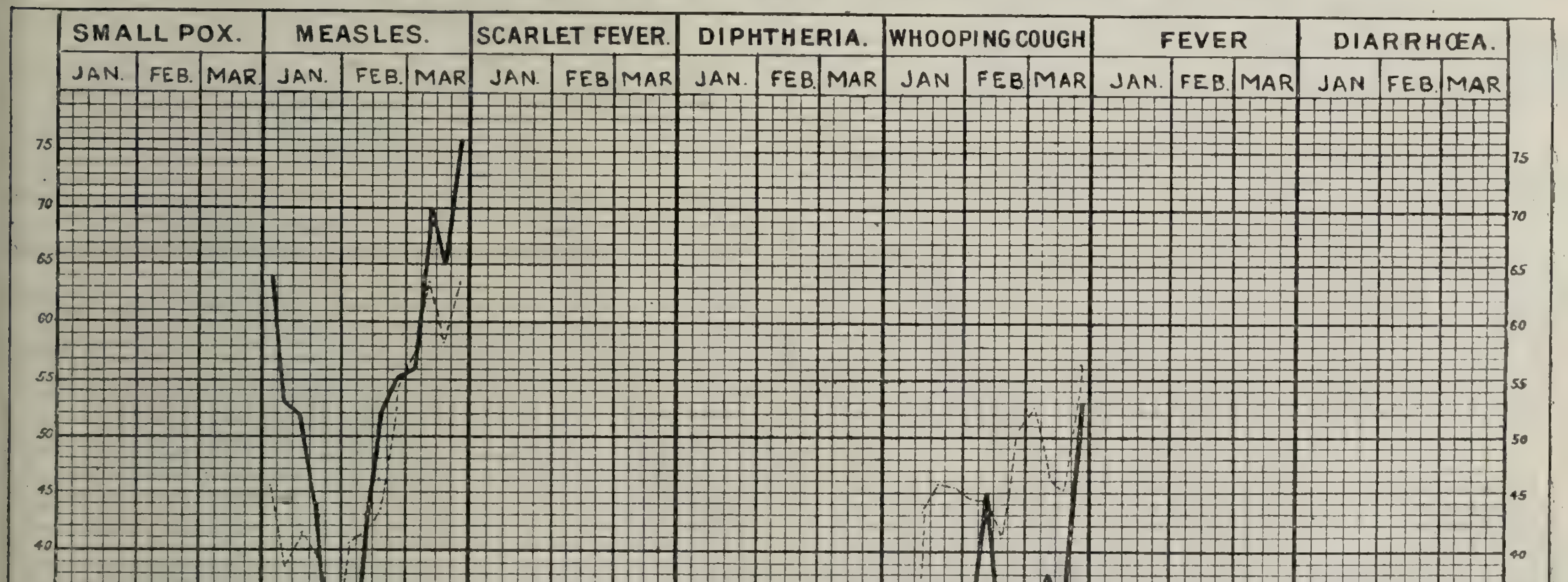
HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,671 births and 4,391 deaths were registered during the week ending Saturday last, May 19th. The annual rate of mortality in these towns, which had been 16.7, 16.3, and 15.5 per 1.000 in the three preceding weeks, further fell last week to 14.5 per 1,000. The rates in the several towns ranged from 4.2 in Hornsey, 7.9 in Leyton, 8.3 in Leicester, 8.5 in Rotherham and in West Hartlepool, and 8.6 in Walthamstow, to 20.5 in Liverpool and in Bootle, 20.8 in Great Yarmouth, 20.9 in Rochdale, 22.0 in Hanley, and 22 2 in Tynemouth. In London the rate of mortality was 14.0 per 1.000, while it averaged 14.7 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.4 per 1,000 in the seventy-six towns; in London this death-rate was equal to 1 3 per 1,000 while among the seventy-five other large towns the rates ranged upwards to 2.3 in St. Helen's, 2.4 in Hanley and in Bootle, 2.5 in Aston Manor and in Manchester, 2 7 in Birkenhead and in Salford, and 3.9 in Liverpool. Measles caused a death-rate of 1.1 in Bradford, 1.2 in Manchester, 1.3 in Walthamstow, 1.5 in Leeds, 1.7 in Liverpool, and 2.5 in Salford; whooping-cough of 1.1 in Walsall, 1.4 in Croydon, in Coventry, and in Newport (Mon.), 1.6 in Liverpool, 1.8 in Birkenhead, and 1.9 in Aston Manor; and diarrhoea of 1.1 in St. Helen's. The mortality from scarlet fever, from diphtheria, and from enteric fever showed no marked excess in any of the large towns. No fatal case of small-pox was registered last week in any of the seventy-six towns; 2 small-pox patients were admitted during the week into the Metropolitan Asylums Hospitals, and remained under treatment on Saturday last, the 19th inst. The number of scarlet fever cases remaining under treatment in these hospitals and in the London Fever Hospital, which had been 2,240, 2,337, and 2,378 at the end of the three preceding weeks, had risen again to 2,396 at the end of last week: 301 new cases were admitted during the week, against 314, 357, and 338 in the three preceding weeks.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, May 19th, 520 births and 381 deaths were registered in six of the principal Irish towns, as against 642 births and 405 deaths in the preceding period. The annual death-rate in these towns, which had been 21.8, 22.7, and 23.5 per 1,000 in the preceding weeks, fell to 23.1 per 1,000 in the week under notice, this figure being 8.6 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures

DEATHS FROM EPIDEMIC DISEASES IN LONDON DURING THE FIRST QUARTER OF 1906.



NOTE.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths in the corresponding weeks of the four preceding years, 1902–5.

ranged from 16.4 in Waterford and 20.4 in Belfast to 24.1 in Londonderry and 31.2 in Limerick. The zymotic death-rate in the same six Irish towns averaged 0.8 per 1,000, or 0.4 per 1,000 lower than during the preceding period, the highest figure—2.5—being recorded in Londonderry, while no deaths under this heading were registered in Cork, Waterford, and Limerick.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty:—**WALTER G. AXFORD**, Fleet Surgeon, to the *Prince of Wales*, on recommissioning, May 29th; **JEROME BARRY**, M.D., Fleet Surgeon, to the *Centurion*, on recommissioning, May 29th; **MONTAGU H. KNAPP**, Staff Surgeon, and **ERNEST D. RUTHERFORD**, M.B., Surgeon, to the *Venus*, on recommissioning, May 29th; **GEORGE T. BISHOP**, Staff Surgeon, to the *Emerald*, additional, for Haulbowline Dockyard, May 25th; **JAMES D. S. MILNE**, M.B., Staff Surgeon, to the *Scylla*, undated; **RICHARD F. CLARK**, Staff Surgeon, to Haslar Hospital, June 1st; **ALEXANDER C. W. NEWPORT**, Surgeon, to the *Gladiator*, on recommissioning, May 29th; **HUGH L. NORRIS**, Surgeon, to the *Sappho*, undated; **WILLIAM E. GRIBBELL**, Surgeon, to Haslar Hospital, June 7th; **WALTER J. BEARBLOCK**, Fleet Surgeon, to the *Challenger*, May 17th, and on recommissioning, undated; **ROBERT HILL**, M.V.O., Fleet Surgeon, to Malta Hospital, May 17th; **RICHARD W. STANISTREET**, Staff Surgeon, to the *Doris*, on recommissioning, June 9th; **ARTHUR E. KELSEY**, M.B., Staff Surgeon, to the *Trafalgar*, May 17th; **CHARLES A. G. PHIPPS**, Surgeon, to the *Challenger*, additional, May 17th, and on recommissioning, undated; **ALAN G. EASTMENT**, Surgeon, to the *Cadmus*, additional, May 17th, and on recommissioning, undated; **ROBERT L. DICKINSON**, Surgeon, to the *Clio*, additional, May 17th, and on recommissioning, undated; **NORMAN H. MUMMERY**, Surgeon, to the *Latona*, on recommissioning, undated; **WALTER G. EDWARDS**, Surgeon, to the *Kinsha*, on recommissioning, undated; **HORATIO S. R. SPARROW**, Fleet Surgeon, to the Royal Marines, Plymouth, May 19th; **ALFRED M. PAGE**, Fleet Surgeon, to the *Cambridge*, May 19th; **PERCIVAL M. MAY**, Staff Surgeon, to the *President*, additional, for three months' hospital course, May 17th; **EVELYN R. TOWNSEND**, Surgeon, to the *Victory*, additional, to be lent to Haslar Hospital, May 22nd; **NORMAN S. MEIKLEJOHN**, Surgeon, to the *Widgeon*, May 21st; **HENRY S. TURNER**, Surgeon, to the *Snipe*, May 21st; **PERCY M. RIVAZ**, M.B., Surgeon, to the *Teal*, May 21st; **AUGUSTUS J. LAURIE**, Surgeon, to the *Glory*, May 21st; **WILLIAM N. BLATCHFORD**, Surgeon, to the *Cambridge*, May 21st.

ROYAL NAVAL VOLUNTEER RESERVE.

M. **THOMAS GUTHRIE** has been appointed a Surgeon in the Royal Naval Volunteer Reserve, and attached to the Mersey Division, May 11th.

ARMY MEDICAL STAFF.

SURGEON-GENERAL **T. J. GALLWEY**, K.C.M.G., C.B., M.D., Principal Medical Officer, India, has been selected to succeed Surgeon-General W. H. McNamara, C.B., C.M.G., M.D., as Principal Medical Officer, Aldershot Army Corps.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT **L. BOUSFIELD**, M.B., is seconded for service with the Egyptian army, April 30th.

Captain **R. SELBY**, M.B., at present serving in India, has been appointed a Specialist in Dermatology in the 7th (Meerut) Division.

EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

CAPTAIN R.A.M.C., six years' service, due home, tour expired from India beginning of trooping season, desires exchange with Captain I.M.S. For terms, etc., apply to Indophile, care of Messrs. King, King, and Co., Bombay.

Required exchange to England at once, with an officer recently returned from foreign service, by Major, R.A.M.C., serving in the Eastern Command, India, whose tour expires in October, 1907. Write "Nemo," care of Messrs. Holt and Co., 3, Whitehall Place, S.W.

INDIAN MEDICAL SERVICE.

MAJORS **P. HEHIR**, M.D., **L. J. PISANI**, **W. R. EDWARDS**, M.D., C.M.G., **C. MACTAGGART**, M.B., **G. J. H. BELL**, M.B., **J. T. DALY**, M.B., **H. FOOKS**, **E. HUDSON**, **A. W. DAWSON**, M.D., and **W. H. B. ROBINSON**, of the Bengal Establishment, are promoted to be Lieutenant-Colonels, from April 1st. They entered as Surgeons, April 1st, 1886, and were made Surgeon-Captains, April 1st, 1898. Their war records are as follow: Lieutenant-Colonel Hehir—Burmese Expedition, 1886-7 (medal with clasp). Lieutenant-Colonel Pisani—Hazara Expedition, 1888, including the action at Kottai (medal with clasp). Lieutenant-Colonel Edwards—South African war, 1899-1900 (mentioned in dispatches, Queen's medal with five clasps, and appointed C.M.G.). Lieutenant-Colonel Bell—Lushai Expedition, 1889; Burmese Expedition, 1887-9 (medal with clasp). Lieutenant-Colonel Daly—China war, 1900 (medal). Lieutenant-Colonel Fooks—Chin-Lushai Expedition, 1889-90 (medal with clasp); Zhob Valley Expedition, 1890; Manipur Expedition, 1891 (clasp); China war, 1900 (medal). Lieutenant-Colonel Hudson—Chin-Lushai Expedition, 1889-90 (mentioned in dispatches, medal with clasp). Lieutenant-Colonel Dawson—Chin-Lushai Expedition, 1889-90 (medal with clasp); Hazara Expedition, 1891 (clasp); Chitral Relief Force, 1895 (medal with clasp); Tirah Expeditionary Force, 1897-8, including the action of Dargai, the capture of the Sampagha and Arhanga Passes, etc. (two clasps). Lieutenant-Colonel Robinson—Burmese Expedition, 1885-9 (mentioned in dispatches, medal with two clasps); Waziristan Expedition, 1894-5 (clasp); Chitral Relief Force, 1895 (medal with clasp); Tirah Expeditionary Force, 1897-8 (two clasps).

Captains **G. LAMB**, M.D., **H. BURDEN**, and **C. H. BOWLE-EVANS** (Bengal Establishment) are promoted to be Majors from July 29th, 1905. Their first commissions bear date January 29th, 1894. Major Lamb was in the Waziristan Expedition, 1894-5 (medal with clasp). Major Burden was with the Chitral Relief Force in 1895 (medal with clasp), and in the campaign on the North-West Frontier of India in 1897-8 (clasp). Major Bowle-Evans served with the Waziristan Expedition in 1894-5 (medal with clasp); with the Chitral Relief Force in 1895 (medal with clasp); with the Tochi Force in the campaigns on the North-West Frontier of India in 1897-8 (clasp); and in China in 1900 (medal).

Captains **J. FISHER**, M.B., D.S.O., **E. S. PECK**, M.B., **S. A. HARRISS**, M.B., **E. C. MACLEOD**, **C. THOMSON**, M.B., **D. W. SUTHERLAND**, M.D., and **W. SELBY**, D.S.O., also of the Bengal Establishment, are likewise promoted to be Majors, from January 29th, 1906. The first commissions of Majors Fisher, Peck, Harris, MacLeod, and Thomson are dated January 29th, 1894; those of Majors Sutherland and Selby, July 28th, 1894. The following are their war records: Major Fisher: Campaign on the North-West Frontier of India in 1897-8; with the Malakand Field Force (twice mentioned in dispatches, medal with two clasps, and appointed D.S.O.). Major Harriss: China war, 1900 (medal). Major Sutherland: Chitral Relief Force, 1895 (mentioned in dispatches, medal with clasp). Major Selby: Chitral Relief Force, 1895 (medal with clasp); North-West Frontier of India Campaign, 1897-8 (two clasps); and with the Tirah Expeditionary Force in 1897-8, including the actions of Chagra Kotal, Dargai, capture of the Sampagha and Arhanga Passes, etc. (mentioned in dispatches, appointed D.S.O., and clasp).

IMPERIAL YEOMANRY.

SURGEON-CAPTAIN **J. R. HARPER**, Royal North Devon (Hussars), to be Surgeon-Major, May 19th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

THE Christian names of Lieutenant **ALEXANDER WEATHERHEAD FRENCH**, South Yorkshire Bearer Company, are as now stated, and not as announced in the *London Gazette* of December 2nd, 1904.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

SURGEON-LIEUTENANT-COLONEL **J. P. MASSINGHAM**, 1st Shropshire and Staffordshire, is granted the honorary rank of Surgeon-Colonel, May 19th.

ROYAL ENGINEERS (VOLUNTEERS).

JOHN HOBBS, to be Surgeon-Lieutenant in the 1st London Regiment, May 7th.

VOLUNTEER RIFLES.

HENRY A. LEEBODY, M.B., to be Surgeon-Lieutenant in the Queen's Rifle Volunteer Brigade, the Royal Scots (Lothian Regiment), May 19th.

GEORGE E. ST. C. STOCKWELL, M.D., to be Surgeon-Lieutenant in the 3rd Volunteer Battalion the Prince of Wales's Own (West Yorkshire Regiment), May 19th.

Supernumerary Surgeon-Lieutenant-Colonel **A. NAPIER**, M.D. (Brigade Surgeon-Lieutenant-Colonel, Senior Medical Officer, Scottish Rifle Volunteer Infantry Brigade), is granted the honorary rank of Surgeon-Colonel, May 19th. He resigns his commission from the same date, retaining his rank and uniform.

Surgeon-Lieutenant **N. J. SINCLAIR**, M.B., 2nd (Angus) Volunteer Battalion the Black Watch (Royal Highlanders), resigns his commission, May 19th.

Surgeon-Captain **G. R. SWINHOE**, 2nd Volunteer Battalion the Duke of Edinburgh's (Wiltshire Regiment), to be Surgeon-Major, May 19th.

Vacancies and Appointments.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

BETHLEM HOSPITAL.—Two Resident House-Physicians for six months. Honorarium, £25 each.

BIRMINGHAM WORKHOUSE INFIRMARY.—Assistant Resident Medical Officer. Salary, £104 per annum.

BODMIN: CORNWALL COUNTY ASYLUM.—Third Assistant Medical Officer. Salary, £135, rising to £155 per annum.

BRITISH ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.—House-Surgeon. Salary, £80 per annum.

BURSLEM: HAYWOOD HOSPITAL.—Lady Medical Officer. Salary, £50, rising to £60.

CANCER HOSPITAL, Fulham Road, S.W.—Surgical Registrar. Honorarium, £26 5s. per annum.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—(1) House-Surgeon. (2) Pathologist. Salary, £50 per annum each.

CHARING CROSS HOSPITAL.—Assistant Physician.

CHELSEA HOSPITAL FOR WOMEN, S.W.—Surgeon to Out-patients.

COVENTRY AND WARWICKSHIRE HOSPITAL.—Honorary Medical Officer.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark.—(1) House-Physician. (2) House-Surgeon. (3) Assistant House-Surgeon. Salary for (1) and (2), £80, and for (3) £70 per annum.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Male Assistant House-Surgeon. Salary, £60 per annum.

HUDDERSFIELD INFIRMARY.—Senior Male House-Surgeon. Salary, £80 per annum.

HULL ROYAL INFIRMARY.—(1) House-Physician. (2) Casualty House-Surgeon. Salary, £100 and £50 per annum respectively.

ITALIAN HOSPITAL, Queen Square, W.C.—House-Surgeon. Salary, £60 per annum.

LANCASTER: COUNTY LUNATIC ASYLUM. Male Assistant Medical Officer. Salary, £125, increasing to £250 per annum.

LIVERPOOL: ROYAL SOUTHERN HOSPITAL.—Junior House-Surgeon. Salary, £60 per annum.

LONDON HOSPITAL, Whitechapel, E.—Surgical Registrar.

MANCHESTER: ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN.—Medical Officer. Salary, £60 per annum.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road. (1) Resident Medical Officer; (2) Pathologist and Bacteriologist. Salary, £100 and £75 per annum respectively.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL. —Assistant House-Surgeon. Salary at the rate of £50 per annum.

PLYMOUTH PUBLIC DISPENSARY.—(1) Honorary Physician; (2) Assistant Physician. Salary, £70 per annum.

ST. MARYLEBONE GENERAL DISPENSARY, Welbeck Street, W.—Honorary Dental Surgeon.

UNIVERSITY COLLEGE HOSPITAL, W.C.—Assistant Dental Surgeon.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Honorary Surgeon.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician for six months.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacancies in the office of Certifying Factory Surgeons: Barking, co. Essex; Kinghorn, co. Fife.

APPOINTMENTS.

ARMOUR, Donald, M.B.Tor., M.R.C.P.Lond., F.R.C.S.Eng., Assistant Surgeon to the National Hospital for the Paralysed and Epileptic.

COOMBS, Carey, M.D., B.S.Lond., Demonstrator of Pathology, University College, Bristol.

DE GRUCHY, A. Nicolle, M.B., Ch.B.Edin., Medical Officer, Southern Nigeria.

DONALD, David, L.R.C.P., L.R.C.S.Edin., L.F.P.and S.Glasg., Honorary Medical Officer to the Aldershot Hospital.

FRESHWATER, J. H. D., M.B., B.C.Camb., House-Physician, Essex and Colchester Hospital.

HALL, Arthur, M.A., M.D.Cantab, F.R.C.P., Visiting Physician, Sheffield Union Hospital.

HARDING, C. H., M.R.C.S., L.R.C.P., District Medical Officer of the Whittlesea Union.

HODGSON, H., M.B., B.S.Lond., District Medical Officer of the Alresford Union.

HOWLETT, B., M.R.C.S., L.R.C.P., District Medical Officer of the Kingston Union.

JACKSON, D. N., M.B., D.S.Durh., District Medical Officer of the Hexham Union.

JONES, H. GLADSTONE, L.S.A.Lond., Medical Officer and Public Vaccinator for the Criccieth District of the Pwllheli Union.

LYNCH, D., M.D., M.Ch.R.U.I., Certifying Factory Surgeon for the Slievereagh District, co. Cork.

MURDOCH, W. Hughes, M.D., Public Vaccinator for the Southern District, Parish of Liverpool.

MURRAY, J., M.B., C.M.Glasg., District Medical Officer of the Rhayader Union.

RICHMOND, B. A., M.B., B.S.Lond., District Medical Officer of the Bermondsey Parish.

ROE, William Francis, L.and L.M.R.C.P.I., L.and L.M.R.C.S.I., Clinical Assistant at the Royal Hospital for Diseases of the Chest, City Road.

STEAVENSON, A. P., M.D.Edin., District Medical Officer of the Darlington Union.

STEEN, Robert Hunter, M.D.Lond., Demonstrator in Psychological Medicine, King's College.

STRATFORD, Howard M., M.R.C.S., House-Surgeon, Essex and Colchester Hospital.

TURTLE, G. de B., M.D., B.S.Durh., M.R.C.S.Eng., L.R.C.P.Lond., Obstetric Registrar and Tutor to King's College Hospital.

WATSON, J. K., M.D.Edin., District Medical Officer of the Chertsey Union.

WILKINSON, George, B.A., M.B.Cantab., F.R.C.S., Visiting Surgeon, Sheffield Union Hospital.

WILTSHIRE, H. W., M.A.Cantab., M.R.C.S.Eng., L.R.C.P.Lond., Sambrooke Medical Registrar to King's College Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

CAMPBELL.—On May 19th, the wife of Dr. P. E. Campbell, Medical Superintendent, Caterham Asylum, of a daughter.

LACKIE.—At 1, Randolph Crescent, Edinburgh, on May 21st, the wife of J. Lamond Lackie, M.D., F.R.C.P.E., of a daughter.

DIARY FOR THE WEEK.

MONDAY.

ROYAL INSTITUTE OF PUBLIC HEALTH, Large Lecture Theatre, King's College, W.C., 5 p.m.—Second Harben Lecture, by Professor E. Metchnikoff: The Hygiene of the Intestinal Tract.

TUESDAY.

PATHOLOGICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 p.m.—Papers:—Dr. F. W. Mott: On the Changes in the Nervous System in Trypanosome Infections. Dr. F. Parkes-Weber: Symmetrical Adenomata of the Suprarenal Glands, with Atheroma of Aorta. Mr. F. Hobday: Abnormalities in Cases of Retained Testicle in the Horse.

WEDNESDAY.

ROYAL INSTITUTE OF PUBLIC HEALTH, Large Lecture Theatre, King's College, W.C., 5 p.m.—Third Harben Lecture, by Professor E. Metchnikoff: Syphilis.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Wednesday, 5 p.m., Nasal Accessory Sinuses.

CHARING CROSS HOSPITAL. 4 p.m.—Monday, Ophthalmology; Thursday, Medical.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C., Thursday, 4 p.m.—Operations in Infancy.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.—The following are the arrangements for next week: Clinical Demonstrations; Monday, 2.30 p.m., Medicine; 3.15 p.m., Surgery; 4 p.m., Throat and Ear. Tuesday, 2.30 p.m., Medicine; 3.15 p.m., Surgery; 4 p.m., Skin Diseases. Wednesday, 2.30 p.m., Medicine; 3.15 p.m., Surgery; 4 p.m., Ophthalmology. Thursday, 2.30 p.m., Medicine; 3.15 p.m., Surgery; 4 p.m., Radiography. Friday, 2.30 p.m., Medicine; 3.15 p.m., Surgery. Out-patient Demonstrations, Medical and Surgical, daily at 10 a.m. Ear and Throat, Mondays and Thursdays, at noon. Eye, Wednesdays and Saturdays, 11 a.m. Skin, Tuesdays and Fridays, at noon. Operations, 2.30 daily.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows: Monday, Functional Hemiplegia; Tuesday, On Some Practical Aspects of Blood Pressure Gauging; Wednesday, Hoarseness: its Clinical Significance, Diagnosis, and Treatment; Thursday, Some Points in the Surgery of the Peripheral Nerves.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Clinical Lecture; Friday, 3.30 p.m., Myasthenia Gravis.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N.—The following are the arrangements for next week, each day at 4.30 p.m.: Tuesday, Lecture on New Growths of the Intestinal Tract and their Treatment; Thursday, Lecture-Demonstration on the Administration of Anaesthetics.

WEST LONDON HOSPITAL POST-GRADUATE COLLEGE, Hammersmith Road, London, W.—The following are the arrangements for next week: Daily, 10 a.m., Medical and Surgical Wards; 11 a.m., Operations in Out-patient Department; 2 p.m., Medical and Surgical Clinics; 2.30 p.m., Operations. Monday, 10 a.m., Tropical Medicine; 12 noon, Pathological Demonstration; Practical Surgery; 3 p.m., Demonstration in Medical Wards; Tuesday, 10.30 a.m., Gynaecology; 2.30 p.m., Skin Diseases, Throat, Nose, and Ear Department; 5 p.m., Ankylostomiasis; Wednesday, 10 a.m., Throat, Nose, and Ear Operations, Diseases of Children; 12 noon, Medicine; 5 p.m., Practical Medicine, Thursday, 10 a.m., Tropical Medicine; 12 noon, Practical Surgery; 4 p.m., Demonstration in Surgical Wards; 5 p.m., Practical Surgery; Friday, 10 a.m., Anaesthetics; 10.30 a.m., Gynaecological Operations; 2.30 p.m., Skin Diseases; Saturday, 10 a.m., Operations on Throat, Nose, and Ear; 12 noon, Medicine.

BOOKS, ETC., RECEIVED.

"I Appeal unto Caesar." The Defence of the Rev. Dr. Thackeray, "The Clerical Publican." Hoddesdon: Rev. Dr. Thackeray. 1906. 6d.

Lehrbuch der organischen Chemie für Mediciner in siebzehn Vorträgen. Von Dr. Chem. et Med. G. v. Bunge. Leipzig: J. A. Barth. 1906. M. 7.

Sammlung zwangloser Abhandlungen aus dem Gebiete der Frauenheilkunde und Geburtshilfe. Herausgegeben von Dr. M. Graefe. Band VII, Heft 2. Die Infektionskrankheiten der weiblichen Genitalien. Von Dr. J. Bücker. Halle a S.: C. Marhold. 1906. M. 1.20.

Zur Hypertrophie der quergestreiften Muskeln speziell des Herzmuskels. Von Dr. M. Asch. Berlin: J. Springer. 1906. M. 1.20.

Diabetes Mellitus. Part VII. Clinical Treatises on Disorders of Metabolism and Nutrition. By Professor Dr. C. von Noorden. Bristol: J. Wright and Co. 1906. 5s.

New Serum-Therapy. By D. M. Paton, L.R.C.S. and L.R.C.P.Ed. London: Baillière, Tindall, and Cox. 1906. 6s.

Outlines of Zoology. By J. A. Thomson, M.A. Fourth Edition. Edinburgh and London: Young J. Pentland. 1906.

The Consumptive Working Man: What can Sanatoria do for him? By N. D. Bardswell, M.D., M.R.C.P., F.R.S.Ed. London: The Scientific Press. 1906. 10s. 6d.

London: The Health Resorts Association. 1906. Edited by G. W. May:

Woodhall Spa; Weston-super-Mare; Deal; Southport; Bournemouth.

Des Nouveaux Sels d'Argent en Thérapeutique Oculaire. Par le Dr. A. Darier. Paris: Bureau de la Clinique Ophthalmologique. 1906. Fr. 6.

Motors and Motor Driving. By Lord Northcliffe. Fourth Edition. London: Longmans, Green, and Co. 1906. 9s.

The Rise and Fall of Reading Abbey. By J. B. Hurry, M.A., M.D. London: Elliot Stock. 1906. 2s. 6d.

The Edinburgh Stereoscopic Atlas of Anatomy. Edited by D. Waterston, M.A., M.D., F.R.C.S.E., F.R.S.E. Section V. Edinburgh: T. C. and E. C. Jack. 1906. £1 5s.

⁂ In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
	MAY.
25 FRIDAY.........	St. Pancras and Islington Division, *Metropolitan Counties Branch*, Islington Infirmary, Highgate Hill, 4 p.m. Tottenham Division, *Metropolitan Counties Branch*, Annual Meeting, Tottenham Hospital, 4 p.m. Wandsworth Division, *Metropolitan Counties Branch*, Annual Meeting, Battersea Town Hall, 6.30 p.m.; Annual Dinner (Banqueting Hall) 7 p.m.
26 SATURDAY...	
27 Sunday	
28 MONDAY	
29 TUESDAY ...	Birkenhead Division, *Lancashire and Cheshire Branch*, Birkenhead Medical Society's Rooms, 14, Hamilton Square, 4 p.m. Marylebone Division, *Metropolitan Counties Branch*, Annual Meeting, Rooms of the Royal Medical and Chirurgical Society, 20, Hanover Square, W., 5 p.m. South Essex Division, *East Anglian Branch*, Victoria Hotel, Southend-on-Sea, 4 p.m.
30 WEDNESDAY	London: Metropolitan Branch Council, 5 p.m. Bath and Bristol Branch, Annual Meeting, Medical Library, University College, Bristol, 4.30 p.m.; Dinner, Clifton Down Hotel, 7 p.m. Leicester Division, *Midland Branch*, Annual Meeting, Infirmary, Leicester, 4 p.m. North Carnarvonshire and Anglesea Division, *North Wales Branch*, Annual Meeting, British Hotel, Bangor. South West Wales Division, *South Wales and Monmouthshire Branch*, Annual Meeting, Stepney Hotel, Llanelly, 2.30 p.m.; Ethical Committee, 2 p.m.
	MAY *(continued).*
31 THURSDAY...	Lambeth Division, *Metropolitan Counties Branch*, Annual Meeting, Bethlem Royal Hospital, 4 p.m. Leigh Division, *Lancashire and Cheshire Branch*, Annual Meeting, Co-operative Offices, Ellesmere Street, 8.30 p.m. South Carnarvon and Merioneth Division, *North Wales Branch*, Annual Meeting, Gorsygedol Hotel, Barmouth.
	JUNE.
1 FRIDAY	Perthshire Branch, Clubhouse, Moncreiffe Island, 3.15 p.m.
2 SATURDAY...	
3 Sunday	
4 MONDAY ...	
5 TUESDAY......	
6 WEDNESDAY	South-Eastern of Ireland Branch Town Hall, Clonmel, 11 a.m.
7 THURSDAY...	Canterbury and Faversham Division, *South-Eastern Branch*, Annual Meeting, Canterbury Hospital, 3 p.m.; Dinner, County Hotel, 6.15 p.m. City Division, *Metropolitan Counties Branch*, First Annual Dinner, Gaiety Restaurant, Strand, 7 p.m. East York and North Lincoln Branch, Annual Meeting, Grimsby and District Hospital, 4.30 p.m.; followed by Annual Dinner. Isle of Thanet Division, *South-Eastern Branch*, Combined Meeting with Canterbury and Faversham Divisions, Hospital Library, Canterbury, 2.45 p.m. Midland Branch, Annual Meeting, County Hospital, Lincoln, 2.15 p.m. Dinner, White Hart Hotel, 6 p.m.

MEMBERSHIP OF THE BRITISH MEDICAL ASSOCIATION.

The British Medical Association exists for the promotion of medical and the allied sciences, and the maintenance of the honour and the interests of the medical profession.

The Annual Subscription to the British Medical Association is £1 5s. 0d., and the British Medical Journal is supplied weekly, post free, to every member of the British Medical Association wherever he may reside.

Forms of application for membership can be obtained from the General Secretary, 429, Strand, London, W.C.

The principal rules governing the election of a medical practitioner to be a member of the British Medical Association are as follow:

Article III.—Any Medical Practitioner registered in the United Kingdom under the Medical Acts and any Medical Practitioner residing within the area of any Branch of the Association situate in any part of the British Empire other than the United Kingdom, who is so registered or possesses such medical qualifications as shall, subject to the Regulations, be prescribed by the Rules of the said Branch, shall be eligible as a Member of the Association. The mode and conditions of election to Membership shall from time to time be determined by or in accordance with the By-laws. Every Member, whether one of the existing Members or a subsequently-elected Member, shall remain a Member until he ceases to be a Member in accordance with the provisions hereof.

By-law 1.—Every Candidate for Membership of the Association shall apply for election in writing, addressed to the Association, and stating his agreement, if elected, to abide by the Regulations and By-laws of the Association, and the Rules of such Division and Branch to which he may at any time belong, and to pay his subscription for the current year.

By-law 2.—Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the General Secretary of the Association, and to every Member of the Branch Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a member of the Association by the Branch Council at any meeting thereof held not less than seven days (or such longer period as the Branch may by its Rules prescribe) after the date of the said Notice. A Branch may by special Resolution require that each candidate for election to the Association shall furnish a certificate from two Members of the Association to whom he is personally known. Officers of the Navy, Army, and Indian Medical Services on the Active List are eligible for election through the Council or a Branch without approving signatures as laid down in By-law 3.

By-law 3.—Every candidate whose place of residence is not included in the area of any Branch shall forward his Application to the General Secretary of the Association, together with a statement signed by three members of the Association, that from personal knowledge they consider him a suitable person for election. Notice of the proposed election shall be sent by the General Secretary to every Member of the Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a Member of the Association by the Council at any meeting thereof held not less than one month after the date of the said notice.

The annual subscription to the British Medical Journal for non-members is £1 8s. 0d. for the United Kingdom and £1 12s. 6d. for abroad.

Printed and published by the British Medical Association at their Office, No. 429, Strand in the Parish of St Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 2ND, 1906.

CONTENTS.

PAGE

GENERAL MEDICAL COUNCIL:
- TUESDAY, MAY 22ND ... 293
- WEDNESDAY, MAY 23RD ... 296
- THURSDAY, MAY 24TH ... 298
- FRIDAY, MAY 25TH ... 303
- SATURDAY, MAY 26TH ... 304
- MONDAY, MAY 28TH ... 307

MEETINGS OF BRANCHES AND DIVISIONS:
- Edinburgh Branch: North-East Edinburgh Division ... 314
- Lancashire and Cheshire Branch: Blackburn Division ... 314
- Malaya Branch: Singapore Division ... 314
- Metropolitan Counties Branch: City Division ... 314
- ,, ,, Marylebone Division ... 314
- ,, ,, Richmond Division ... 315
- ,, ,, St. Pancras and Islington Division ... 315
- ,, ,, Tottenham Division ... 315
- ,, ,, Wandsworth Division ... 315
- Southern Branch: Salisbury Division ... 317
- South-Eastern Branch: Folkestone Division ... 317
- South Eastern Branch: Annual Meeting of Folkestone, Ashford, and Dover Constituency ... 317
- South Midland Branch: Northamptonshire Division ... 317
- South Wales and Monmouthshire Branch: Monmouthshire Division ... 318
- South-Western Branch: Torquay Division ... 318
- Yorkshire Branch: Bradford Division ... 318

ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD ... 319
CENTRAL MIDWIVES BOARD ... 321
NAVAL AND MILITARY APPOINTMENTS ... 322
VITAL STATISTICS ... 322
VACANCIES AND APPOINTMENTS ... 322
BIRTHS, MARRIAGES, AND DEATHS ... 323
DIARY FOR THE WEEK ... 323
BOOKS, ETC., RECEIVED... 323
CALENDAR ... 324

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION.

SUMMER SESSION 1906.

REPORT OF PROCEEDINGS.

Tuesday, May 22nd, 1906.

Dr. DONALD MACALISTER, President, in the Chair.

PRESIDENT'S ADDRESS.

THE PRESIDENT delivered the address, published in the SUPPLEMENT of May 26th, 1906, p. 286, and a vote of thanks was unanimously adopted.

BUSINESS COMMITTEE.

On a motion to reappoint the Business Committee, the PRESIDENT, owing to his numerous engagements in connexion with the Council, expressed his desire to cease to be a member of the Committee, and nominated Dr. Norman Moore to be Chairman. It was then agreed to reappoint the Business Committee, with Dr. Norman Moore as Chairman.

DENTAL BUSINESS.

The Executive Committee presented a report on the dental business transacted since the last meeting of the Council. The report, which was entered on the minutes, stated that the Committee learn with satisfaction that Sir John Tuke was prepared to introduce into the House of Commons the Bills already approved by the Council relating to the practice of medicine and of dentistry by limited companies, and requesting the President, in consultation with the legal advisers of the Council, to confer with Sir John Tuke as to any amendments which might be necessary, and on behalf of the Council to agree to the same. The Committee also reported that it had received from the Colonial Office a copy of a dispatch from the Governor of Hong Kong enclosing the draft of an ordinance to regulate the qualifications and to provide for the registration of dentists in the Colony, and had expressed its satisfaction that provision is made therein for the prevention under penalties of dental practice by unqualified persons and by joint-stock companies.

UNIVERSITY OF GLASGOW: DEGREE IN PUBLIC HEALTH.

The Executive Committee reported that with regard to the following resolution, passed by the General Council on December 2nd, 1905:

> That the Executive Committee be authorized, if it be satisfied that the Regulations of the University of Glasgow are in agreement with the Council's Rules for Diplomas in Public Health, to recognize for the purpose of registration the newly-instituted Degree of B.Sc. in Public Health of the University of Glasgow,

the following communication was subsequently received:

The University, Glasgow,
January 26th, 1906.

Dear Sir,—With reference to your letter of the 7th ultimo, addressed to the Registrar, regarding the recognition for purposes of registration by the General Medical Council of the Degree of B.Sc. in Public Health of this University, I have to intimate to you that the Glasgow University Court have now approved an additional Regulation drawn up by the Senate with the view of bringing the University Regulations for the Degree into harmony with the Rules of the Council for Diplomas in Public Health. The Regulation is in the following terms:

"A period of not less than twelve months shall have elapsed between the attainment of a registrable qualification in medicine, surgery, and midwifery, and the admission of the candidate to any examination or any part thereof for the degree of B.Sc. in Public Health."

I may add that this rule will henceforth be printed in our Calendar and other publications.

I hope to learn from you in due course the decision of your Executive Committee.

Yours faithfully,
WILLIAM STEWART,
Clerk of Senate.

The Registrar,
General Medical Council Office.

After consideration the Executive Committee passed the following resolution:

> That in virtue of the authority conferred on the Executive Committee by the General Medical Council the Committee now instruct the Registrars to accept for registration as an additional qualification the degree of B.Sc. in Public Health of the University of Glasgow.

Mr. BROWN inquired whether degrees already issued would be registered, or whether the recognition would only take effect from January 1st, 1907.

Sir T. MCCALL ANDERSON said that the University of Glasgow had with pleasure harmonized its arrangements with the views of the General Medical Council, but, as a matter of fact, there never had been a degree of the kind conferred upon any person who had not been registered for more than one year.

RESULTS OF EXAMINATIONS.

A number of returns relating to various examinations were then laid on the table.

The following tables represent an analysis of the returns made to the General Medical Council of all examinations for the Services since the date of its last summer session—namely one for the Indian Medical Service, one for the Royal Navy, and two for the Royal Army Medical Corps:

TABLE I.

Showing the Extent of the Competition for each Service.

Services.	No. of Candidates.	No. of Vacancies.	Proportion of Candidates to Vacancies.
Royal Naval Medical Service	23	9	5 to 2
Royal Army Medical Corps...	111	80	5 to 4
Indian Medical Service ...	44	23	5 to 3
Total or average ...	178	112	5 to 3

TABLE II.

Showing whence the Candidates received their Qualifications.

Licensing Body.	Number of Candidates.	Proportion of Entire Number.
English Colleges and Universities ..	68	38.1 per cent.
Scottish .. ,, ..	47	26.4 ,,
Irish .. ,, ...	61	34 2 ,,
Colonial ., ,, ..	0	0 0 ,,
Mixed	2	1.1 ..
Total or average	178	——

TABLE III.

Showing the Proportion of Commissions Gained by the Candidates of each Country.

Country.	Number of Commissions Won.	Proportion of all Commissions Offered.
England	52	46.4 per cent.
Scotland	27	24.1 ,,
Ireland	33	29.5 ,,
Colonies	0	—
Mixed	0	—
	112	——

TABLE IV.

Showing the Relative Success of the Candidates of each Country in Proportion to their Respective Numbers.

Country.	Number of Candidates.	Number who Gained Commissions.	Proportion of Success to Candidates.
England	68	52	76 4 per cent.
Scotland	47	27	57.4 ,,
Ireland	61	33	54.1 ,,
Colonies	0	0	—
Mixed	2	0	—
Total or average...	178	112	63.0 per cent.

TABLE V.

Showing the Percentage of Candidates who Passed the Qualifying Standard, including those who Gained Commissions.

Countries.	Number who Entered.	Number who Passed the Standard.	Proportion to the Total.
English candidates ...	68	67	98 5 per cent.
Scottish ,, ...	47	37	78 5 ,,
Irish ,, ...	61	53	86 8 ,,
Colonial ,, ...	0	0	00 0 ,,
Mixed ,, ...	2	1	50 0 .,
Total or average ...	178	158	88.7 .,

TABLE VI.

Showing the Proportion of those who Failed Totally among the Candidates of Each Country.

Country.	Number of Candidates.	Number Rejected.	Proportion of Total Failures.
English candidates...	68	1	1.4 per cent.
Scottish ,, ...	47	10	21.2 ,,
Irish ,, ...	61	8	13.1 ,,
Colonial ,, ...	0	0	—
Mixed ,, ...	2	1	—
Total or average ...	178	20	11 2 ,,

TABLE VII.

Showing Details of the Performance of each Class of Candidate.

Qualifications.	Number of Candidates.	Commissions Gained.	Qualified but Unsuccessful.	Rejected.	Percentage Qualified.
English Conjoint Board alone	52	41	11	0	100
,, .. and Oxford degree...	—	—	-	—	—
,, ,, and Cambridge ,, ...	—	—	—	—	—
,, ,, and London ,, ...	4	4	0	0	100
,, ,, and Durham ., ..	1	1	0	0	100
,, ,, and Aberdeen ,, ...	—	—	- -	—	-
,, .. and Colonial ., ...	—	—	—	—	—
English Apothecaries' Society alone... ..	4	3	0	1	75
,, ,, ,, and London degree	—	—	—	—	—
English Apothecaries' Society and Scottish diploma	—	—	—	—	—
London degree alone	2	1	1	0	100
Manchester degree alone	2	1	1	0	100
Cambridge degree alone	—	—	—	—	—
Durham ,, ...	2	1	1	0	100
Oxford ,, ...	—	—	—	—	—
Birmingham ,, ...	1	0	1	0	100
Scottish Conjoint Colleges alone	11	3	1	7	36
,, ,, ,, and Colonial degree	2	0	1	1	—
Aberdeen degree alone	4	4	0	0	100
Edinburgh ,, ...	25	15	8	2	92
Glasgow ,, ...	7	5	1	1	85
Irish Conjoint Colleges alone	27	10	11	6	78
Dublin University alone	18	12	5	1	94
Royal University of Ireland	16	11	4	1	94
Colonial universities	—	—	—	—	—
Total or average	178	112	46	20	88

TABLE VIII.

Percentage Comparison of the Work of certain Classes of Candidates.

Qualifications.	Number of Candidates.	Gained Commissions.	Qualified but unsuccessful.	Total Qualified.	Number rejected.	Percentage of Winners.	Percentage qualified.	Percentage rejected.	Order.
English Conjoint diploma and English degree.	5	5	0	5	0	100 0	100 0	0 0	1
English Conjoint diploma alone	52	41	11	52	0	78 8	100 0	0 0	2
English degrees alone	7	3	4	7	0	42 8	100 0	0 0	3
Irish degrees alone	34	23	9	32	2	67 6	94 1	5 8	4
Scottish degrees alone	36	24	9	33	3	66 6	91 6	8 3	5
Irish Conjoint diploma alone	27	10	11	21	6	37 0	78 0	22 2	6
Scottish Conjoint diploma alone	11	3	1	4	7	27 2	36.3	63 6	7
Other classes together	13	—	—	—	—	—	—	—	—
Total or average	178	112	46	158	20	63.0	88.7	11 2	—

In reply to Dr. BRUCE, the CHAIRMAN said that there was a standing instruction that these returns should from time to time be reported upon by the Examination Committee.

PENAL CASES COMMITTEE.

The Executive Committee reported that with reference to the following resolution passed by the Council on December 2nd, 1905:

> That it be referred to the Executive Committee, in consultation with the legal advisers of the Council, to consider and report to the next meeting of the Council whether the Standing Orders affecting the Penal Cases Committee should not be amended by the omission of Subsection ii, Chapter IX, p. 19, or, alternatively, whether any change should be made in the constitution of the said Committee,

it had received the following opinion from the Council's solicitor:

> I do not advise that any alteration should be made in the Standing Orders with regard to the summoning of the Penal Cases Committee. It seems to me eminently convenient that where there is no business of serious importance, and where, in addition, the cases do not apply to Ireland or Scotland, the President should have a discretion not to summon members from those parts of the United Kingdom. I have come to this conclusion after reading Dr. Finlay's memorandum.

The REGISTRAR then read the following resolution which had been adopted by the Executive Committee:

> That, in accordance with the legal opinion obtained, the Committee recommended to the General Council that no alteration should be made in the Standing Orders, Chapter IX, Subsection ii.

Dr. FINLAY objected to the suggestion in the Solicitor's opinion as to the discretion of the President. He moved:

> (1) That Clause ii of Chapter IX, Section 5, of the Standing Orders—namely, "The President shall be empowered not to summon the Scottish or the Irish Members of the Committee, as the case may be, unless any complaint forwarded from Scotland or from Ireland has been presented for consideration"—be rescinded.

He agreed that a smaller Committee might be more effective and satisfactory, and would be a saving of expense to the Council; and should be quite willing to see the members of the Committee taken from the English branches resident in London. This would be a still greater saving of expense; and he had a motion on the programme that the Committee should be reduced from eight to four.

Sir VICTOR HORSLEY, in seconding the first part of the motion, said that the Penal Cases Committee was an extremely responsible Committee, and he therefore thought that members from all parts of the United Kingdom ought to be summoned. The reduction in the number of the Committee was a different question.

Sir CHRISTOPHER NIXON strongly supported the resolution. He did not see how the fact of a particular offence having occurred in Ireland should in any way involve the mode of procedure adopted by the Penal Cases Committee in dealing with it. All the cases had an equal interest to the members representing Scotland, England, and Ireland. It seemed to him an extraordinary distinction that because a case occurred in England the only persons considered competent to deal with it should be the English members of the Penal Cases Committee.

The PRESIDENT thought as the Committee was one with which he was very conversant, it might be desirable that he should make a statement. He took Dr. Finlay's notice of motion as containing two parts, not necessarily to be taken together. If the first part only had to be considered then the proper course would have been to move the rejection of the recommendations of the Committee. That, however, Dr. Finlay had not done; taking the two parts together was not a direct negative to the Committee's recommendation; it would, in fact, remove the difficulties of the Executive Committee in acceding to his suggestion. Whenever there had been any case raising questions of principle it had been his practice to summon all the members of the Penal Cases Committee, whether the case arose in Scotland or Ireland or not. The Standing Order did not forbid the President to summon Scottish or Irish members; it merely gave him a discretion. That was a responsibility the President would not take unless he were sure no harm would be done by it. He thought the members of the Council would agree that a Committee of eleven was too big for the work, and also that the members of the Committee were at a certain disadvantage in the unbiassed consideration of cases when they came before the Council by the fact that they then had to sift the evidence then brought forward. That was, perhaps, inevitable, and he thought it would be better that the number of members who had more or less made up their minds before the case came to the Council should be reduced as far as possible; he suggested the statutory analogy of the Dentists Committee, which consisted of five members. That Committee was very businesslike and very efficient, and no difficulty had arisen from its smallness. He believed a great advantage would result from a similar reduction in the number of the Penal Cases Committee.

Dr. NORMAN MOORE thought that was an illustration of the objection some felt to the existence of a Penal Cases Committee. The responsibility ought to rest with the President, and with him alone. It was not just that a man should be tried by a body of judges some of whom must necessarily have already made up their minds on the case. The President was amply sufficient to decide whether a man ought to appear before the Council or not: that was the true solution of the difficulty, but as it was clear that a very large Penal Cases Committee added to the wrongs of the judicial proceedings of the Council, he was in favour of the reduction.

The PRESIDENT desired to press on the Council the desirability of a Penal Cases Committee. He was quite prepared to take to the full all the responsibility that properly fell to him; but the Committee was advisory, not executive.

Mr. BROWN suggested that all penal cases should be referred in the first instance to the Branch Council.

Dr. LINDSAY STEVEN inquired if the ultimate decision whether a case should be brought before the Council or not rested with the President, and the President alone.

The PRESIDENT replied that the responsibility rested with him, and him alone; but he always acted on the advice of the Committee.

Dr. LINDSAY STEVEN thought that ought to remove Dr. Norman Moore's objection.

The PRESIDENT put the first part of Dr. Finlay's resolution, which was carried.

Dr. FINLAY then moved that the number of the members of the Penal Cases Committee be reduced from eight to four.

Sir THOMAS MYLES seconded.

The PRESIDENT having observed that, with the President, the Committee would then consist of five, this was agreed to.

On the motion of Dr. FINLAY, seconded by Sir CHRISTOPHER NIXON, it was agreed that the Penal Cases Committee should consist of two members from the English Branch Council, and one each from Scotland and Ireland.

Sir JOHN MOORE thought there should be a quorum of at least three.

The PRESIDENT said that two lawyers whose advice guided the Committee to a large extent were always present at its meetings, so that practically seven persons decided the questions brought before it. He did not think a quorum was called for.

Dr. NORMAN MOORE moved, Dr. FINLAY seconded, and it was agreed, that the Executive Committee be instructed to redraft the Standing Orders in accordance with the instructions of the Council.

Sir JOHN MOORE still thought a numerical majority should be possible on the Committee.

Sir VICTOR HORSLEY supported this view, and it was agreed that the quorum of the Penal Cases Committee should be three, including the President.

RECIPROCITY WITH JAPAN.

The following report of the Executive Committee in regard to the present position of the question of the application of Part II of the Medical Act, 1886, to the Empire of Japan, was received and entered on the minutes:

REPORT.

The Executive Committee report to the Council that Part II of the Medical Act, 1886, having been applied to the Empire of Japan by an Order of His Majesty in Council, dated December 11th, 1905, the Committee have carefully examined the Imperial Ordinance for the founding of Imperial Universities in Japan, dated March 1st, 1886, and the Regulations for Degrees in Medicine and Surgery made thereunder and at present in force. The Committee are assured that Candidates for Degrees in Medicine are required to pursue a course of literary and professional study extending over fourteen years, including successive courses at a Grammar School, a Middle School, and a Preparatory Science School or College. In the latter the preliminary scientific subjects (Chemistry, Physics, etc.) are studied before the student enters on the four years' course at the College of Medicine. The Committee have satisfied themselves that the Regulations provide a sufficient guarantee for the possession by Graduates in Medicine of the Imperial University of the requisite knowledge and skill for the efficient practice of Medicine, Surgery, and Midwifery, and they accordingly recommend—

(1) That the degrees of Bachelor (*Igakushi*) and Doctor (*Igaku Hakushi*) of Medicine of the Imperial University of Japan be recognized by the Council as entitling to registration in the Foreign List of the *Medical Register*.

(2) That with reference to applications from Japanese Medical Graduates for registration in the Foreign List, the Registrar be instructed to require the applicant to produce—

(*a*) Satisfactory evidence of identity;
(*b*) Satisfactory evidence of good character;
(*c*) Satisfactory evidence that he is by the law of Japan entitled to practise Medicine, Surgery, and Midwifery in that country;
(*d*) The diploma of Bachelor or Doctor of Medicine of the Japanese Imperial University:
(*e*) Satisfactory evidence in relation to the circumstances (1), (2), (3), set forth in Section 12 of the *Medical Act*, 1886;
(*f*) Officially-attested translations of such Japanese documents as are produced under any of the foregoing heads.

DONALD MACALISTER,
May 21st, 1906. *President.*

The PRESIDENT, in proposing that the report should be adopted, said the Committee had entrusted him with the duty of obtaining information as to the conditions of medical qualifications in Japan. It appeared that there were a number of kinds of qualifications, some local, some provincial, and some Imperial. The Council had to deal only with the qualification of a university character available over the whole Empire. With regard to the others the information was not complete. As to the degrees of the Imperial University of Japan, it appeared from the information contained in the memorandum that the course of educating medical students in Japan was long and thorough. It extended over fourteen years. A medical student had to begin in a certain kind of school—a grammar school—and pass through all its stages with success before he was allowed to take the next stage. He then had to pass through a high school, and then again he had to obtain a satisfactory leaving certificate, which showed that he was fit for the following stages. He had from two to three years at a science college where the preliminary sciences were taught, and there the student must obtain proper certificates equivalent to the Bachelorship of Science before he was allowed to enter the Medical College of the Imperial University. In that college the course began with anatomy and physiology. The final examination was, not only in extent but also in minuteness, at least equal to any in this country. It covered a very large number of special branches, and, judging by the particular results obtained by those who had obtained the degree of Bachelor of Medicine after so long a course, no one could come to any other conclusion than that it was a very thorough and satisfactory course. For the degree of Doctor of Medicine there was a higher course of study for three years, and he could then submit himself to an advanced examination. There were about 1,300 Bachelors and Doctors of Medicine in Japan at the present time, and he had reason to believe that the vast proportion of them served in the army during the last war, and that the graduates of the Imperial University were among the most distinguished of those who contributed to the success of the medical department in the war. The Council was satisfied that the degree of Doctor or Bachelor was a sufficient guarantee for the good practice of medicine; he ventured to hope that it would accept the report of the Executive Committee and adopt it.

Mr. MORRIS complained that the report had only been placed in his hands that morning, and he had not had the opportunity of reading it thoroughly. He thought the adoption of the report might be deferred, although he was quite sure the Council would eventually adopt it.

The PRESIDENT pointed out it was the report of the Executive Committee that they were dealing with, and they had either to approve of it or not, and after some further discussion put it from the chair that the report be adopted, and this was agreed to.

The Council then went into *camera*, and adjourned without any further public sitting.

Wednesday, May 23rd, 1906.

Dr. DONALD MACALISTER, President, in the Chair.

DISCIPLINARY CASES.

THE Council proceeded to the further consideration of the case of William Harding Crowther, registered as of 15, Bloomfield Road, Ealing, London, W., L.S.A.Lond., 1876, L.F.P.S.G., 1880, which had been adjourned from November 29th, 1905.

Mr. Lushington was present as Legal Assessor, and Mr. Winterbotham as Solicitor, to the Council. Dr. Hugh Woods represented the London and Counties Medical Protection Society, the complainants. Mrs. Crowther represented her husband, who was not present.

The PRESIDENT stated that at the close of the deliberations of the Council on the last occasion Mr. Crowther was "required to furnish at once a medical certificate in regard to his state of health." That certificate was received either the same day or the next, and satisfactorily showed the inability of Mr. Crowther to attend.

Mr. WINTERBOTHAM read the charge against Mr. Crowther, which was as follows:

> That you have systematically sought to attract patients by means of a series of advertisements in the *People* newspaper of an Institution for Stricture, etc., at 8A, Guilford Street, Gray's Inn Road, of which you are the Surgeon, and which is carried on for your private gain.

At the conclusion of the deliberations of the Council on the case on November 29th, 1905, the PRESIDENT announced the decision of the Council as follows:

> The Council have carefully considered the facts alleged against Mr. William Harding Crowther in the Notice of Inquiry, and have found that they have been proved to their satisfaction; but they have adjourned the further consideration of the case until the next session, in order that Mr. Crowther may have an opportunity of appearing before the Council and giving an account of his conduct in the interval. Meanwhile Mr. Crowther will be required to furnish at once a medical certificate in regard to his state of health.

He stated that Mr. Crowther had been served with formal notice that the further consideration would take place on that day. He had also received a letter from Mrs. Crowther, enclosing a medical certificate and a testimonial.

In answer to the PRESIDENT, Dr. HUGH WOODS stated that he had no fresh facts or evidence to lay before the Council.

A letter written by Mrs. Crowther on behalf of her husband was read, from which it appeared that he had been sent into the country in the hope of improving his health. She enclosed a medical certificate showing he was not able to attend. He had now retired from practice. He had been in the profession thirty years, and had never had a stain upon his character. He had no intention of breaking the rules or by-laws of the Council, and apologized for having done so.

In answer to the PRESIDENT, Mrs. Crowther said that her husband had been much agitated about this inquiry, that he had no sleep on the previous night, and was quite prostrate. It was out of no want of courtesy to the Council that he was not present.

After some discussion, strangers were ordered to withdraw. On their readmission

The PRESIDENT announced the decision of the Council as follows:

> Mrs. Crowther, I have to inform you that the Council have given careful consideration to this case, and that they have decided not to direct the Registrar to erase from the *Medical Register* the name of Mr. William Harding Crowther.

The consideration of the case of Hamlet Lloyd Davies, registered as of 2, Crofton Street, Great Western Street, Rusholme, Manchester, M.B., M.S.Edin., 1874, was next proceeded with.

The PRESIDENT stated that he was informed that the complainant, who had been represented by Dr. Bateman, did not propose to appear, and he was also informed that Mr. Davies was not present.

Mr. Lushington appeared as Legal Assessor and Mr. Winterbotham as Solicitor to the Council.

Mr. WINTERBOTHAM read the charge against Mr. Davies as follows:

> That you have accepted and continued to hold the appointment of paid Medical Officer to the Rusholme and District Provident Dispensary, an association which systematically practises canvassing for the purpose of procuring patients.

At the conclusion of the deliberation of the Council on the case on November 30th, 1905, the PRESIDENT addressed Mr. Davies as follows:

> Mr. Davies, the Council have deliberated very carefully on your case, and they have come to the conclusion that the facts alleged against you in the notice of inquiry have been proved to the satisfaction of the Council.
>
> The Council feel it their duty to express their sense of the gravity of the facts which have been proved against you; but in order to give you an opportunity seriously to reconsider your position in relation to the Rusholme and District Provident Dispensary, thay have adjourned the further consideration of the charge until the next session, when you will have to appear and satisfy the Council as to your conduct in the interval.

Mr. WINTERBOTHAM said that due notice of the adjournment had been given, and he had formal proof of the service. He had received a letter from Mr. Davies, dated May 15th, in which he stated that he had resigned the post of medical officer to the dispensary in question.

Strangers were directed to withdraw. On their readmission, it was stated that the case was adjourned to Saturday, May 26th.

The Council then proceeded with the consideration of the case of John Bate Bawden, registered as of Mountain View, Blaenavon, Mon., M.B., M.S., 1884, M.D.(1886)Edin., who has been summoned to appear before the Council to answer the following charge, as formulated by the Council's Solicitor.

> That you accepted and held, until after you had received notice of the present complaint, the appointment of paid medical officer of the Blaenavon Tradespeople's Doctor's Fund, an association which systematically practises canvassing for the purpose of procuring patients.

Mr. Lushington appeared as Legal Assessor and Mr. Winterbotham as Solicitor to the Council.

Dr. Avarne and Dr. Skrimshire were the complainants, and Dr. Bawden appeared in person.

The PRESIDENT called upon Dr. Skrimshire to state the case for the complainants.

Dr. SKRIMSHIRE wanted to explain why Dr. Avarne and he appeared in person in support of the statutory declarations they had made, and why they at the eleventh hour, as it were, became complainants in this case. Up to May 12th they were simply informants. They had gathered information and evidence, and they understood that the Council would undertake an investigation of the conditions and circumstances on proper evidence being tendered, and that, if it was found sufficient, the Council would act upon its warning notice of December, 1905. It, however, became known to them that that course would not be followed, and they very reluctantly stepped into the breach rather than have the matter postponed for another six months. What they had done they had done on principle, and all their efforts had been for the honour of the profession. Their desire was to approach the consideration of the case without animus, and with as little self-interest as possible. The commencement of the matter dated back to quite three months before Dr. Bawden arrived on the scene. In December, 1905, a Committee of the Tradespeople's Doctor's Fund in Blaenavon approached Dr. Avarne and himself and submitted their rules for inspection, stating that they had called upon and received 180 signatures in favour of the scheme. Knowing that the Committee had systematically canvassed most of the tradesmen and the larger part of the private residents, and had represented, without their consent, that one or other of them would be appointed surgeon, they both in turn refused the position. Dr. Bawden was appointed to the position, and arrived on January 29th, 1906. Directly after his appointment an active canvass took place, and the name of Dr. Bawden as "our new doctor" was freely mentioned, and several of the patients who had so far refused to join were again called upon for their contributions. Dr. Bawden's name and address was printed on the rules and contribution cards. On February 13th, a friendly letter of warning was sent to Dr. Bawden by the Secretary of the Monmouthshire Division of the British Medical Association, and on February 23rd a notice warning him of his position was sent to him by the Secretary of the Medical Defence Union. Neither of these communications were acknowledged. Then the statutory declarations obtained were sent to the Council. The next week Dr. Bawden, who was said to have severed his connexion with the fund, commenced a personal canvass, and issued letter cards, three of which he produced. The fund had been dissolved, but Dr. Bawden's conduct since that event showed that he had been endeavouring to make use for the future of the introduction given him by the advertising agency with which he had been associated.

Dr. AVARNE read his statutory declaration. He identified a letter card which was sent to a patient of his who was canvassed but never belonged to the Fund and who refused to have anything to do with it. This card stated: "In consequence of certain spiteful complaints that have been made to the General Medical Council Dr. Bawden had had to sever his connexion with the Blaenavon Tradespeople's Doctor's Fund. He has undertaken to attend the patients as usual, but payments must be made to him personally, and he will be glad to receive the same this week at his residence, No. 1, Park Street, Blaenavon, May 9th, 1906."

In cross-examination by Dr. BAWDEN, he stated that it was not the fact that a patient had told him that Dr. Bawden had said he would not attend him without his (Dr. Avarne's) consent. It was not the fact that the patient had not been seen by him for four days.

In answer to Mr. LUSHINGTON, the witness said that the card in question was in Dr. Bawden's handwriting, and this Dr. Bawden admitted.

Dr. SKRIMSHIRE was then called as a witness, and in answer to the PRESIDENT, said he did not desire to read his statutory declaration, as it was embodied in his statement. A similar postcard to the one above set forth was shown to the witness, and he said the card was addressed to a patient of his, who gave it to him.

Dr. SKRIMSHIRE then read the statutory declaration of John Jones of April 20th, 1906, from which it appeared that he had been solicited to become a member of the Fund, and he had been invited to a meeting of the Fund.

The PRESIDENT then referred to other statutory declarations and exhibits thereto, and, in answer to the PRESIDENT, Dr. BAWDEN said he did not desire to challenge the declarations or the exhibits.

Dr. BAWDEN, in opening his case, said he was pleased to know that, in regard to the members of the Council, there was an utter absence of animus. He would have brought witnesses to corroborate what he was going to say, but he had not the means. He denied that canvassing had taken place in any way, and he had distinctly warned the Committee of the Society of what the consequences might be if it were permitted. He assured the Council that he had no desire to act unprofessionally, or to oppose the wishes of the Council, and he had done everything in his power to remove any cause of complaint.

Cross-examined by Dr. AVARNE: On February 14th he was warned by Dr. Greer, Hon. Secretary of the Cardiff Division of the British Medical Association, of the position of affairs, and also by Dr. Bateman, of the Medical Defence Union, but took no notice of either.

By Sir VICTOR HORSLEY: He had no warning, and saw no notice in the BRITISH MEDICAL JOURNAL or any other medical paper before taking the appointment.

Other questions having been put to the accused, strangers were directed to withdraw. On readmission,

The PRESIDENT, addressing Dr. Bawden, said: It is my duty to inform you that the Council, after careful consideration, have come to the following decision:

> That the facts alleged against you in the notice of inquiry have been proved to the satisfaction of the Council; that the Council judges you to have been guilty of infamous conduct in a professional respect, and directs the Registrar to erase from the *Medical Register* the name of John Bate Bawden.

Strangers were then ordered to withdraw, the PRESIDENT stating that the Council would go into *camera* for the remainder of the sitting to consider business connected with penal cases.

Thursday, May 24th, 1906.

DR. DONALD MACALISTER, President, in the Chair.

DENTAL DISCIPLINARY CASES.

THE Council had before it a series of complaints against persons registered on the *Dentists' Register*. All the cases had been fully investigated by the Dental Committee, and the findings of that Committee were final as to the facts. The question for the Council was to decide what action it should take on the facts as found. The complainants in all the cases were the British Dental Association, and Mr. R. W. Turner (instructed by Messrs. Bowman and Curtis-Hayward) appeared for that Association. Mr. Lushington appeared as Legal Assessor and Mr. Winterbotham as Solicitor to the Council.

The Council first proceeded to the consideration, adjourned from December 1st, 1905, of the facts proved against John Jones Atwood, Thomas Rose Smart, Walter Bennett, Montague Alex Levason, and Daniel Shea, whose names all appear on the *Dentists' Register* as "in practice before July 22nd, 1878," and who were connected with the company of Guy White and Co., Limited. At the conclusion of the proceedings on December 1st, 1905, the President announced ***seriatim*** that in the cases of John Jones Atwood, Thomas Rose Smart, Walter Bennett, Montague Alex Levason, and Daniel Shea the further consideration of the charge against them had been postponed until the next session of the Council, of which due notice would be given them, and at which they would be expected to be present.

Four of the parties summoned appeared, but Thomas Rose Smart did not appear.

The further facts and evidence having been considered and dealt with by the Dental Committee, the Committee found that the following facts were established by the evidence:

The said J. J. Atwood, T. R. Smart, W. Bennett, M. A. Levason, and D. Shea have all severed their connexion with G. Guy White and Co., Limited, the company their association with which was the subject-matter of the complaint, and none of them has since had any connexion with this or with any other similar company.

In answer to the President, Mr. SHEA said he had nothing to add to what had been said before.

Mr. R. W. TURNER stated that from inquiries made, the complainants were perfectly satisfied of the severance of these persons from the company.

Strangers and the parties were directed to withdraw. On their readmission, the PRESIDENT announced the judgement of the Council as follows:

The Council, having further considered the charge proved against John Jones Atwood (or Thomas Rose Smart, or Walter Bennett, or Montague Alex Levason, or Daniel Shea), and the reports of the Dental Committee thereon, does not judge you guilty of infamous or disgraceful conduct in a professional respect.

The next case was that of Mr. George Charles Smith, who at the commencement of the proceedings did not appear personally or by counsel.

The Dental Committee had found that the following facts were established by the evidence, or by the admissions of the accused practitioner:

The accused practitioner is on the *Dentists' Register* as in practice before July 22nd, 1878, and his address in the *Register* is 153, High Street, Lewisham, London, S.E.

Mr. Smith has been in practice as a dentist at Lewisham for the last twenty-one years, and claims to have the largest practice in South London.

Mr. Smith recently entered into an arrangement with a Mr. Farkasch for the purpose of extending his practice by a system of canvassing by paid canvassers organized and superintended by Mr. Farkasch. The canvassers distributed documents from house to house containing order forms for signature addressed to Mr. Smith, with schedule of charges for dental operations and for supplying artificial teeth, and subsequently called to solicit signatures to these order forms and to receive deposits in respect thereof. The canvassers on these visits examined the mouths of persons who permitted them and advised them as to their requirements and gave estimates of cost. From twelve to twenty persons were employed to canvass for Mr. Smith's dental practice. Mr. Farkasch is not a qualified dentist, but he carries on a dental practice under the name of the "Hygienic Institute" at Glasgow and elsewhere by a similar system of canvassing, and carries on the practice by unqualified assistants. For the purpose of organizing the system of canvassing on behalf of Mr. Smith, Mr. Farkasch opened an office at 142, High Street, Lewisham, opposite Mr. Smith's surgery, and Mr. Smith's name appears on this door as well as on Mr. Smith's surgery. Mr. Smith employs unqualified assistants at 153, High Street aforesaid, who are in the habit of conducting dental operations on patients at Mr. Smith's surgery, and extract teeth at the private residence of patients who have signed orders in the form above mentioned.

Mr. Smith states that he does not wish to defend his right to remain on the ***Register.***

In answer to the President, Mr. R. W. TURNER said that the British Dental Association regarded this as a very bad case. The man was employing unqualified canvassers, and he had also been guilty of covering. It seemed to be a case in which the individual desire should be gratified, and that his name should not be allowed to remain on the *Register*.

Strangers and the parties were directed to withdraw. On their readmission:

The PRESIDENT, addressing Mr. George Charles Smith (who was now present), said: I have to inform you that the Council has given careful consideration to the report of the Dental Committee on your case, and have decided as follows:

In the facts found in the report of the Dental Committee it has been proved that you have been guilty of conduct which is infamous or disgraceful in a professional respect, and the Council directs the Registrar to erase from the *Dentists' Register* the name of George Charles Smith.

The Council next proceeded to the consideration of the charge against William MacGregor Veitch, L.D.S., R.C.S. Eng., and Mr. Thomas Wafer Byrne, L.D.S., R.C.S.Eng., L.D.S., F.P.S.Glasg., both of whom were present. The Dental Committee had found that the following facts were established by the evidence:

1. The practitioners complained of are on the *Dental Register* with the qualifications above set forth—Mr. Veitch at 112, Prince's Road, Liverpool, and Mr. Byrne at 2, Prince's Road, Liverpool.

2. Mr. Veitch and Mr. Byrne respectively carried on practice as dentists in their own names at their registered addresses, but they also carried on a dentist's practice under the name of Entwistle Bros., Ltd., at 218A, London Road, Liverpool, and also at Seacombe. They were the only two directors and Mr. Veitch was the Secretary of the Company, and with nominal exceptions they held the whole of the shares.

3. Mr. Veitch and Mr. Byrne purchased the goodwill of this business from the representatives of deceased dentists of that name, who had carried on a dental practice for many years previously. The company employed an expert advertiser of the name of Kelly, who had complete control of the advertising department. The company issued advertisements and circulars of an objectionable character, and containing claims of superiority over other practitioners.

4. The company employed an unregistered assistant named James Kermode Goldsmith, who attended patients and performed dental operations at 218A, London Road, aforesaid. Mr. Goldsmith was registered as a dental student in July, 1894, and had passed all his examinations except the final examination. and had gone through a course of practical dentistry at the Dental Hospital. Mr. Veitch or Mr. Byrne attended daily at the premises in London Road, with which they were in telephonic communication, and they superintended or performed the more serious operations. Their instructions to Mr. Goldsmith were to do the mechanical work of an unqualified assistant, but Mr. Goldsmith did not, as he admitted, in practice follow these instructions, but performed dental operations under gas administered by himself and on his own responsibility.

5. Both Mr. Veitch and Mr. Byrne retired from the directorship and parted with their shares in the company on April 2nd, 1906. The complaint against them was made on April 27th. and they were asked by the Registrar for an explanation on April 30th. In reply to the complaint and when under examination they expressed their unqualified regret for their mistaken conduct, and contended that the advertisements were directed against unqualified competitors.

The PRESIDENT, addressing Mr. Veitch and Mr. Byrne pointed out that, if they desired it, they could address the Council, but the accuracy of the facts contained in the report must be taken as established.

Mr. VEITCH regretted the absence of his counsel, who was not able to be present, because he felt sure his counsel would have been able to present the facts which had been found in such a way as to show that throughout their transactions with the company had been straightforward and honourable, and the Council would have been impressed with their innocence of having transgressed to such an extent against professional conduct as to come within the category of infamous or disgraceful. They extremely regretted having done what they did, and wished to point out that they had now severed all connexion with the company. Their private practices, which were kept apart from the company, had been carried on with the strictest regard to professional etiquette, and he submitted under the circumstances that they should not be subjected to the severe penalty of having their names erased from the *Register*.

In answer to the PRESIDENT, Mr. BYRNE said he had nothing to add to what Mr. Veitch had said. He took no objection to the facts as found.

Mr. TURNER submitted that this was a very serious matter, for on the facts found, it appeared that they, in competition with other unqualified persons, took over a business which they were employed to carry on for a person who was himself an unqualified competitor, and they left it entirely to this person to decide whether or not they should be called in to assist; this business was carried on under an advertisement sanctioned by the company of which these two gentlemen were directors, which stated that they made a special feature of their ability to rectify mistakes by inefficient practitioners. They had not expressed their regret to the Council, or given an undertaking to the Council as to the future.

Dr. SAUNDBY pointed out that the report stated that Mr. Veitch and Mr. Byrne retired from the directorship and parted with their shares in the company on April 2nd, 1906. They must have parted with those shares to somebody; who was it?

The PRESIDENT stated that the question had been directly put to the two persons charged, but the answer given was not satisfactory.

Strangers and the parties were directed to withdraw. On their readmission:

The PRESIDENT (addressing Mr. Veitch individually) said:

> The Council has given long and careful consideration to your case, and, on the facts found in the report of the Dental Committee, it has been found that you have been guilty of conduct which is infamous or disgraceful in a professional respect, and the Council directs the Registrar to erase from the *Dentists' Register* the name of William MacGregor Veitch.

Mr. VEITCH: I can give an undertaking if the Council wish.

The PRESIDENT then made a like statement to Mr. Thomas Wafer Byrne.

The next case was a charge against Isidore Clifford, Ruby Edmund Clifford, Walter Clifford, and Stanley Clifford, in regard to whom the Dental Committee had found the following facts:

> The practitioners complained of are all on the *Dentists' Register* as at 20, Grosvenor Street, London, W., and as in practice before July 22nd, 1878. [Mr. Isidore Clifford was also registered as L.D.S., R.C.S.Eng. (1887).]
>
> All the accused practitioners joined in forming and are the principal shareholders and the only directors of a limited company named the American Dental Institute, Limited, incorporated under the Companies Acts for the purpose (*inter alia*) of promoting the adoption of advanced American and other scientific methods of Dental Surgery, which company carries on dental practice at divers addresses in London, Manchester, and Liverpool.
>
> That in such practice the company employs unregistered assistants (namely, Mr. Skrimshire, Mr. Robertson, Mr. McCormick, Mr. Kennedy, Mr. McDermid, and Mr. Storey, all using the title of doctor) to attend patients, and perform dental operations upon them.
>
> That the company systematically advertises extensively by pamphlets of an objectionable character and containing claims of superiority over other practitioners and depreciation of them. The accused practitioners by their counsel also did not dispute the accuracy of an article in the *Review of Reviews* which sets out at great length within quotation marks an interview with one of the directors of the company, containing scandalous and highly objectionable remarks with regard to English dentists and dentistry.
>
> The accused practitioners by their counsel undertook that the company (of which they are practically the whole of the shareholders) should be dissolved; that neither they nor the company would employ any persons contrary to the resolution of Council of November 24th, 1892, and further that they and the company would discontinue all advertisements of every kind.

The respondents were represented by Mr. C. M. Warmington, K.C., and Mr. T. L. Wilkinson, instructed by Messrs. Frank Richardson and Sadlers.

The PRESIDENT inquired of Mr. Warmington if he desired to address the Council as to the judgement it might pass on the facts, the facts as found by the Dental Committee being conclusive.

Mr. WARMINGTON replied that the respondents through him desired to express their profound regret that they had been guilty, as had been found by the Council, of offences of professional misconduct; it was far from their wish to reflect upon their fellow practitioners, and they felt deeply the disgrace that it should have been thought they intended, by anything that had been said, especially in the *Review of Reviews*, to make odious charges (for they were odious charges) against members of their profession. They wished to give an undertaking to do the utmost in their power to make amends for their misconduct. They desired through him to express their intention henceforth to obey the rules of professional conduct which had been laid down by the Council for the good of the profession. He could not say more, but left the matter in the hands of the Council.

Mr. TURNER thought Mr. Warmington would desire to add that his clients entirely withdrew the allegation they had made, besides expressing their regret.

Mr. WARMINGTON assented.

Mr. TURNER pointed out that this again was a very serious case, and one of the leading examples of advertising in the kingdom. He was therefore glad that, when these gentlemen came under the influence of their learned counsel, they had adopted the course they had, and not endeavoured to fight the case. The advertisement stated one thing, the actual practice being entirely different; the public were thereby deceived, and were entitled to protection.

Strangers and the parties were directed to withdraw. On their readmission,

The PRESIDENT, addressing the four respondents by name, said:

> The Council has deliberated carefully on your case, and on the facts found in the report of the Dental Committee it has been proved that you have been guilty of conduct which is infamous or disgraceful in a professional respect, and the Council directs the Registrar to erase from the *Dentists' Register* the names of Isidore Clifford, Ruby Edmund Clifford, Walter Clifford, and Stanley Clifford.

SIGHT-TESTING OPTICIANS BILL.

The Council received from the Executive Committee a recommendation to adopt the following resolution in regard to a communication from the British Optical Association and in regard to the Sight-testing Opticians Bill:

> That the Lord President of the Privy Council be informed that the Council have carefully considered the petition and the Bill submitted to them, and are of opinion that it would be dangerous in the public interest to confer the privileges and powers contemplated therein on persons other than those duly qualified in ophthalmic medicine and surgery; that the Council trust that the sanction of Parliament and of the Privy Council will be withheld from these proposals, and submit the accompanying memorandum, which has been approved by the Council, as setting forth the grounds on which their objections are based.

Dr. NORMAN MOORE moved the adoption of the resolution.

Sir VICTOR HORSLEY suggested that as the resolution contained two separate propositions a full stop should be inserted after the word "proposals."

The PRESIDENT thought that was convenient, and Dr. NORMAN MOORE was willing to accept the suggestion.

Dr. McVAIL suggested that the word "ophthalmic" should be omitted from the resolution.

Dr. NORMAN MOORE said he was about to mention that obvious point. He thought it was quite clear that it was very important something should be done in this matter. The body which had been endeavouring to obtain this power had been putting out feelers in a variety of directions.

Sir VICTOR HORSLEY said that although he was not a member of the Executive Committee, he would second the resolution down to the word "proposals." The position did not require any long explanation. There was a Bill before Parliament, and this was the first occasion on which the Government had sought from the medical profession any expression of opinion, and naturally the Council welcomed the opportunity of expressing its opinion that the Bill went further than the circumstances warranted, and that it contained such powers as would enable persons who were wholly unqualified to examine eyes under all circumstances. It was quite true there were reservations made, but they were inadequate. He thought the Council ought to express its knowledge of the fact that these persons had been advertising as unqualified ophthalmic practitioners for a long time.

The President said that Sir Victor Horsley had rightly referred to the fact that through the Privy Council the document had been sent to the Council for its opinion. It might be remembered that some years ago the Council had reason to complain that sometimes matters affecting the medical profession were dealt with by Government offices without reference to the Council. In response to a request from the Council, the authorities had agreed that the Council should have an opportunity of seeing at an early stage any document that seemed to touch the medical profession. He had to acknowledge, on behalf of the Council, the courtesy of the various offices and the various Secretaries of State who had cordially given the Council the present opportunity of considering this document. The President then put the following resolution:

> That the Lord President of the Privy Council be informed that the Council have carefully considered the petition and the Bill submitted to them, and are of opinion that it would be dangerous in the public interest to confer the privileges and powers contemplated therein on persons other than those duly qualified in medicine and surgery, and that the Council trust that the sanction of Parliament and of the Privy Council will be withheld from these proposals.

The resolution was put to the Council and carried unanimously.

Dr. Pye-Smith moved:

> That the accompanying memorandum, subject to such amendments as may be approved, be transmitted to the Lord President of the Privy Council as setting forth the grounds on which the objections of the Council are based.

This was seconded by Mr. Morris, and a discussion ensued.

Professor Saundby, who had been concerned in fighting the Bill on behalf of the medical profession for several years, criticized the memorandum, as originally drafted, in certain respects, and mentioned that the Spectacle-makers' Company once gave an undertaking to the British Medical Association that they would not allow their diplomates or fellows to advertise improperly, but when subsequently appealed to they refused to take any action in this direction. As regards the title "optician," he thought that the Council should not try to take away from opticians the trade title which they had enjoyed for a considerable length of time, and on this ground he objected to the first paragraph in the memorandum, and called attention to the danger of the use of mydriatic drugs, which were indispensable if the opticians were to do all that they claimed to be able to do.

Sir Victor Horsley mentioned that he also had been engaged in the preparation of similar documents, and thought that these persons were, as Dr. Saundby had said, entitled to the use of the word "optician," and that the Council ought not to quarrel with their use of that title; that they sought to improve their knowledge of optics was a laudable intention, and he thought that in approaching the Legislature this should be acknowledged. He drew attention to two memorandums that had been published, one by the Royal College of Surgeons of England, and a second by the Medico-Political Committee of the British Medical Association. These documents brought out all the points which he would like to see embodied in the memorandum; he thought that the history of ophthalmology given in the memorandum was most important, and should go to the Privy Council. He thought the memorandum was very valuable from that point of view, but it should be supplemented by some special reference to the position of opticians by drawing attention to the fact of the inability of their carrying out what they purported to do, because of the impossibility of allowing them to use mydriatics. He therefore suggested that the memorandum should be added to in the way Dr. Saundby and he had suggested.

Mr. Arthur Thomson made some criticisms on the wording of the memorandum, which he thought might be improved from the point of view of accuracy.

After some discussion, the President stated that the document before the Council need not be the final memorandum, and if Sir Victor Horsley and Dr. Saundby would submit to the Council a statement of the supplemental points which they thought ought to be made, they could be embodied and sent up afterwards.

It was further suggested that the Council would be perfectly satisfied to leave the matter in the hands of the President to draft and prepare the Memorandum, and it was arranged that he should confer with Sir Victor Horsley and Dr. Saundby in order to amend it in the sense they suggested.

The memorandum, the text of which follows, is the amended form finally adopted, and entered on the minutes of the Council at its meeting on Monday, May 28th.

MEMORANDUM
ON
THE PETITION OF THE "BRITISH OPTICAL ASSOCIATION" FOR THE GRANT OF A CHARTER,
AND ON THE BILL NOW BEFORE PARLIAMENT
"TO REGULATE THE PRACTICE OF SIGHT-TESTING OPTICIANS AS REGARDS THE TESTING OF SIGHT."

Submitted by the President to the General Medical Council, and approved by the Council on May 26th, 1906.

The following statement sets forth the grounds on which the General Medical Council bases its objections to the proposals contained in the Petition and in the Bill laid before the Council by direction of the Lord President. The Lord President has already been informed that, in the Council's opinion, it would be dangerous to the public were the proposed powers and privileges conferred on persons other than those duly qualified in medicine and surgery.

An "optician" is defined by Johnson to be "one skilled in optics"—that is, in a branch of science which can be understood or cultivated only by the aid of considerable proficiency in mathematics. In this sense, at least, the word is inapplicable either to the great majority of those who follow the simple handicraft of a spectacle-maker or to the great majority of those who deal in the wares which spectacle-makers produce.

The fifth clause of the petition sets forth that "the trade or profession of a practical optician *includes and always has included* the practice of the science of measuring the refraction of the eye and the adaptation of lenses for aiding defective sight which forms a most important part of the practical optician's duty and requires special knowledge and training for rendering proficient those who profess to adapt lenses for aiding defective sight." The whole of this statement, and especially the words in italics, are devoid of any real foundation. The statement and the claim it implies are contradicted by the facts of history.

Until early in the second half of the nineteenth century, the nature, the extent, and the causes of the differences in the refraction of the eye were wholly unknown, the means of measuring them were non-existent, no standard of normal vision had been adopted, or even suggested, and no "sight-testing" was possible. It was known that the majority of people became unable to read small print with comfort at 50 years of age or earlier, and that their power to do so might usually be restored by convex spectacles. Such persons were said to have "aged sight," or to be "presbyopic," but no one understood the mechanism by which young eyes were "accommodated" or adjusted for near vision, and so no one understood the nature of the defect by which this power of adjustment was lost. The loss was ascribed, in books on optics, to an imaginary "flattening" of the front surface of the eye. Manufacturers supplied retail dealers with convex spectacles distinguished by "numbers," roughly corresponding with their focal lengths in inches; and it was a matter of common trade and popular knowledge that a presbyope of about 50 would require (say) number 36. This would be given to him to "try," and, if he did not like it, he would "try" weaker and stronger powers until he obtained what he could see with. In some shops his "number" would be approximately found by an "optometer"—that is to say, an instrument something like a shoemaker's measure, with a fixed lens and a sliding object of vision moving upon a graduated scale. The only part taken by the spectacle-seller was, as a rule, to caution his customer against selecting glasses which were "too strong," a caution which was based upon an entire misapprehension of the facts connected with a common form of eye disease.

It was also known, at the time referred to, that a certain proportion of people with good sight for near objects, were unable to see distant objects clearly. Such people were said to be "short-sighted," and their defect was explained by an imaginary excess of convexity either of the front surface of the eye or of its internal lens. It was customary to give them concave glasses which, in the words of the late Mr. White Cooper in 1853, would enable them "to distinguish the outline of objects distinctly at about forty or forty-five feet." Nothing was laid down with regard to the magnitude of the objects which were to be so distinguished; there was no "standard of vision," no scientific testing, and no knowledge of the ordinary cause of the condition.

Soon after 1850 the whole subject of the defects of vision was investigated for the first time by a succession of medical men possessing an adequate knowledge of optics and of physiology, and was placed by them upon an entirely new foundation. Helmholtz, by his invention of the ophthalmoscope in 1851, acquired the power of inspecting the interior of the living eye, which had never before been revealed to view, and of tracing the course of light through its refracting media. By his invention of the ophthalmometer in 1853 he acquired the power of measuring the curvatures of the eye surface and of the internal lens, a power which led to the discovery of the mechanism by which the eye is adjusted for vision at different distances, and hence to an explanation of the cause of "presbyopia." Donders, by the application of these and other inventions, showed that the eyeball as a whole is liable to depart from correct proportion in two opposite directions, that short sight is usually due to its elongation, that this elongation is liable to increase and to pass almost imperceptibly into disease, and that, when increasing, it must be dealt with not only by the most careful and scientific employment of spectacles, but also by limitation of use and by various medical and surgical means. After examining with the ophthalmoscope the interiors of 2,500 short-sighted eyes, he laid down the general proposition that "a short-sighted eye is not a sound eye," a proposition which subsequent experience has abundantly confirmed. He discovered, what had never before been suspected, that a large number of people have eyes which are too small, too short from front to back, a structural condition the reverse of that which produces short sight, and which is the ordinary cause of squint, and of various painful and troublesome disabilities, which had been previously known and regarded as incurable, but many of which he found to admit of complete relief by the careful adjustment of glasses. Thomas Young, in 1801, had discovered in his own eyes a difference of refraction in different meridians, and caused special cylindrical glasses to be ground for the correction of his defect. Airy, in 1826, independently repeated this experience, and Whewell suggested for the condition the name "astigmatism." Neither Young nor Airy regarded astigmatism as other than a curious personal malformation, and it remained practically unknown to spectacle sellers. Donders, working on the lines laid down by Young, discovered it to be of frequent occurrence, framed precise rules for its detection and estimation, and showed how to determine the strength and position of the cylindrical glasses required for its correction. The cases calling for such glasses have since been found to amount to about 14 per cent. of all the patients coming under the cognizance of an ophthalmic surgeon, but the condition had never received the smallest attention from "opticians." Donders also established a standard of normal vision, and showed how departures from this standard could be numerically stated, so that for the first time he rendered accurate "sight testing" possible. Every imperfection of vision is now expressed in figures as a fraction of the normal; whereas, in 1850, one of the surgeons to Moorfields Hospital could say nothing more precise, in describing the result of a case which had been under his treatment, than that "the patient could see well enough to drive a cart along four miles of bad road to fetch coal." Donders finally accomplished a work which might not unfairly have been expected from "opticians." He reconstructed the scale of lenses, and substituted the metre for the inch as the unit of measurement for visual refraction. By this reform he greatly simplified calculations, and his metric scale is now in use throughout the civilized world.

The researches of Donders were made known in outline in England in 1862, in a little book* written by the late Mr. Soelberg Wells, then Ophthalmic Surgeon to the Middlesex Hospital, and more completely in 1864, by the publication by a medical society of an English translation of the original papers in which they were described. The work which the great Dutch surgeon commenced has been continued by many successors in England, on the Continent, and in America. Better methods of investigation have been introduced, instruments have been multiplied and perfected, erroneous conclusions have been corrected, treatment has been improved, and a systematic literature of the subject has been brought into existence; but this progress has been due to medical men. Any information regarding the subject which non-medical opticians may now possess has been gained by studying medical writings, and in no other manner. It must be remembered, moreover, that, if a non-medical optician should improve or discover anything, he would be likely to regard the improvement or discovery as something to be patented or otherwise used for his personal advantage, and not, as is the practice of the medical profession, to be at once disclosed for the general benefit of mankind.

The admission by the petitioners in Clause 7 that, "where defective vision is due to other than optical conditions it should be treated by a duly qualified medical practitioner," is fatal to the rest of their contention; not only because, as a matter of fact, optical defects and diseased conditions constantly overlap and complicate each other, but also because the former cannot be certainly recognized or the latter certainly excluded by any but a medical practitioner.

In order that certain errors of refraction may be accurately measured, it is often necessary to produce temporary paralysis of the accommodation muscles by the careful use of atropine or some other poisonous drug. To entrust the employment of these poisons to opticians would be to endanger the public safety. Yet without their use it is impossible to fulfil "the function of dealing with the improvement of human vision so far as optical aids are necessary and applicable," which function the petitioners propose to assume.

On the other hand, defects of vision that can to some extent be counteracted by the use of spectacles are often associated with diseases of the eye, which cannot be detected or treated by the means at the optician's disposal. Weakness or error of sight is, moreover, in many cases but the initial symptom of grave disease affecting the nervous system or the body in general. Failure on the part of the optician to recognize such local or general disease would inevitably result from his lack of medical and surgical knowledge; and the consequences of his failure might be disastrous to those who, in ignorance of his limitations, had placed their trust in his powers of "sight testing."

The foregoing considerations apply equally to the Bill and the Petition, both of which are demands for exclusive privileges to be conferred upon persons who have no sort of claim to them, and who would be likely to use them to the prejudice of the public. A desire on the part of makers and sellers of spectacles to know all that can be learnt about the applications of their merchandize is laudable, and for this purpose the writings of medical men are freely open to them. But privileges which would hinder the village watchmaker from keeping a selection of "spectacles to suit all sights," or even from styling himself "watchmaker and optician," would be inconvenient to large sections of the population. The knowledge necessary to distinguish purely "optical" defects of the eye, if such there be, from conditions bordering upon or passing into disease can only be attained by a complete medical education; and the grant of "sight-testing" diplomas to persons who are not medically educated, and who, as we already see abundantly, would be likely to seek to use them as instruments of trade advertisement, could hardly fail to lead to disastrous results. The persons so furnished with diplomas would in many cases, to use the words of Donders, be "rendered rash by ignorance," and would be certain to transgress the wholly unpractical limitations laid down in the petition and in the Bill; while the public would be deceived by the grant of legal privileges, and would be likely to believe that those possessing them were really conversant with ophthalmology.

It remains to mention that an argument in support of the Bill has been founded upon the supposed analogy furnished by the Pharmacy Acts; but this argument will not bear investigation. The pharmacist deals with a great range and variety of raw materials and of preparations, many of which in unskilful hands would be extremely dangerous to life. The "optician" deals only with lenses, few in number, simple in construction, and harmless in themselves. His shop contains no sources of peril against which the public may rightly ask to be protected. Moreover, in regard to bodily infirmities, the pharmacist's duty is limited to the supply of preparations asked for by customers, or to the accurate dispensing of the prescriptions of qualified medical practitioners. He exceeds his duty when he himself undertakes to diagnose and to prescribe for even the simpler departures from health. The optician has at present the analogous functions of making and selling the mechanical and optical appliances which the purchaser may seek or the ophthalmic surgeon may prescribe. To confer on him the privilege of himself prescribing for and treating patients suffering from disorders of the eye would be to sanction the creation of an inferior and purely commercial order of medical practitioners, exempted from the training and the disciplinary restraints which the Medical Acts impose.

---

* The title of the book is, *On Long, Short, and Weak Sight, and their Treatment by the Scientific Use of Spectacles.* Here the word "scientific" first makes its appearance in relation to the use of spectacles.

ASSUMPTION OF TITLES BY COMPANIES.

The Council then considered the following letter from the President of the Pharmaceutical Society.

> 26, Brechin Place,
> South Kensington,
> May 22nd, 1906.
>
> Dear Dr. MacAlister,—I am writing as President of the Pharmaceutical Society of Great Britain, to draw the attention of the General Medical Council to the amendment which was recently carried in the House of Lords on the Poisons and Pharmacy Bill, to the effect that a company or body corporate, composed of unqualified persons, may use the title of chemist, provided they employ a person who is qualified under the Pharmacy Acts.
>
> This decision, if allowed to become law, may have far-reaching results, not only to chemists, but also to dentists, medical men, and others where a personal qualification is required by law.
>
> I hope the General Medical Council may see fit to exert their great influence to protest against such a new departure, and I have the honour to invite that Council to take such steps as they deem necessary to impress upon the Government and the Houses of Parliament the danger to the public, and the injustice to qualified persons, of such proposed legislation.
>
> I am,
> Yours very faithfully,
> R. A. ROBINSON,
> President of the Pharmaceutical Society
> of Great Britain.

Dr. NORMAN MOORE moved, Sir THOMAS MYLES seconded, and it was agreed that this letter should be received and entered on the minutes.

Mr. TOMES moved—

> That the President be requested to inform the Lord President of the Privy Council that, in the opinion of this Council, the principle involved in the Poisons and Pharmacy Bill, as amended in the House of Lords, whereby corporate bodies are permitted to assume professional titles, which, in the case of individuals, cannot legally be assumed by any but those who are personally qualified by training, examination, and registration, is fraught with danger to the public, inasmuch as it tends to impair the safeguards provided by the Medical, Dentists, and Pharmacy Acts.

He said that the Government had introduced into the House of Lords a Poisons and Pharmacy Bill which was partly designed to carry into effect the recommendations of a departmental committee which had been sitting on the sale of poisons. It embodied also some clauses introduced at the instance, he believed, of the Pharmaceutical Society, who wished to have the opportunity of getting some amendment of the Act, particularly of regulating company practice; and the Bill originally contained a clause rendering companies liable, just as though they were individuals, to the prohibitory clauses of the Pharmacy Acts, which prohibited unqualified persons using the titles conferred after examination and registration upon pharmaceutical chemists, or chemists and druggists. In the House of Lords an amendment was carried, the effect of which was to give a legal right or legal authority to a company to make use of the title of pharmaceutical chemists or chemists and druggists, as long as it employed at each of its places of business a qualified and registered pharmaceutical chemist. Now the company might have a fancy title, or the title of the company might be the name of a man so long as he appended the word "Limited" to it; in any case it was a complete abrogation of the restriction of the title implying qualification to the person who possessed it. The tone of the debate rendered it rather important that the Council should make some representation on the subject, because the advocates of the Bill and their opponents did not seem to realize the effect of what they were doing. The idea that these Acts, which put prohibitions in the way of using titles, were of no service to the public, but only of service as a protection to the holders thereof, was put forward even by the advocates of the Bill. That was an extremely serious misconception. The restrictions were no doubt beneficial to the holders of the titles, but they were beneficial to the public in a much greater degree. He therefore thought that the Council should represent to the Privy Council that there were aspects of the question which seemed to have dropped out of sight.

Sir VICTOR HORSLEY suggested that after the words "danger to the public" should be added: "by enabling unqualified persons to carry on medical, dental, and pharmacy work, inasmuch as it tends," etc.

The PRESIDENT did not think the Bill did that.

Sir VICTOR HORSLEY replied that then the whole of the resolution was not right.

Sir JOHN W. MOORE seconded the resolution. There were some very serious provisions in the Bill which had not been alluded to. One was that it would enable others than those hitherto qualified by law to sell poisons, and in all parts of the United Kingdom, because the Bill, as an after thought, had been extended to Ireland. The duty of making representations as to what should be deemed poisons under the Sale of Poisons (Ireland) Act had been entrusted by the State to the Royal College of Physicians of Ireland, of which he was the representative. The Bill seemed absolutely to supersede that power; to entrust the duty of licensing people to sell poisons to local authorities all over the country would be most dangerous.

The PRESIDENT thought that Sir Victor Horsley's point could be met by saying, "inasmuch as it tends to impair the safeguards against unqualified practice provided by."

Sir VICTOR HORSLEY agreed, and added that it ought not to be forgotten that in the House of Lords this all-important provision was left out on the strength of representations made by Lord St. Aldwyn, whose argument was based obviously on the notorious case, since all the points he referred to applied to the Boots Company. The Council must express its opinion in perfectly clear and unequivocal language. He had great pleasure in supporting the resolution.

Dr. SAUNDBY did not feel altogether satisfied that pharmacy should be bracketed with medicine and dentistry in this connexion. He did not agree with the view that a chemist's business might not fairly be carried on as a purely commercial affair provided there was a duly-qualified man in charge. A chemist's business was remunerative to the people who found the capital. That was quite different to a profession carried on without any capital in that sense. All that was necessary in the case of pharmaceutical chemists was to take care that those who actually carried on the business were properly qualified, and that there was no evasion of the Pharmacy Act.

The PRESIDENT remarked that at present no individual could call himself a pharmaceutical chemist or a chemist and druggist unless he had passed the examinations, and been properly registered as such; if he did, he was liable to punishment. As amended, not as introduced, the Bill enabled a company of unregistered, unqualified, untrained persons to assume those titles, and exempted them entirely from all punishment. Therefore, if the Bill were to pass in its present form, the titles which were forbidden to individuals might be assumed by companies.

After some fuller discussion, the PRESIDENT called on the Legal Assessor, Mr. LUSHINGTON, who suggested that the resolution should stand down to the words "professional titles, which," and then run "titles no member or director or person carrying on the business of such company need be personally qualified by training, examination, and registration to assume, is fraught with obvious and extreme danger to the public."

Mr. TOMES expressed his willingness to accept these words.

The PRESIDENT then (the Council having given leave to substitute these words for those in Mr. Tomes's resolution) put the resolution as follows, and it was carried unanimously:

> That the President be requested to inform the Lord President of the Privy Council that, in the opinion of this Council, the principle involved in the Poisons and Pharmacy Bill, as amended in the House of Lords, whereby corporate bodies are permitted to assume professional titles, which titles no member or director of such company need be personally qualified by training, examination and registration to assume, is fraught with obvious and extreme danger to the public.

The Society of Apothecaries of London.

Sir Hugh Beevor moved, Mr. Morris seconded, and it was agreed:

> That Mr. Edward Percy Paton, F.R.C.S.Eng., M.D.Univ. Lond., be appointed Assistant Examiner in Surgery to the Apothecaries' Society of London for a period of four years, vice Mr. Steward, who retires by rotation.

The Apothecaries' Hall, Dublin.

Dr. Adye-Curran moved:

> That in consideration of the heavy expense entailed on the Apothecaries' Hall, Dublin, by the appointment of the Surgical Examiners for London and Edinburgh respectively, the Council resolve that at the next vacancy these Examiners be appointed from amongst the profession practising in Dublin.

He reminded the Council that some years ago an inspection was ordered by the Council of the Apothecaries' Hall, which he had the honour to represent, and fault was found by the inspectors with the manner in which the examination was conducted, and he had no hesitation in admitting that at that time the examination was not up to date or strictly in accordance with modern ideas. Immediately on receipt of that report, however, the Hall put into practice every suggestion made by this Council; so much so, that he was happy now to be in a position to state that every subsequent one had been most satisfactory; every examination, without exception, had been inspected, and in the report on the January examination Sir Henry Howes stated that he saw no necessity for an inspector to attend the April examination. This state of affairs was no doubt a source of satisfaction to all parties; but what he was most concerned about at present was the fact that, although other bodies had been inspected and unfavourably reported upon, they nevertheless had been granted an interval of repose wherein to make good their shortcomings, but in the case of their Cinderella sister the inspection had been made perennial, or, he might more correctly say, permanent, and this in spite of recommendations of the Executive Committee. This state of affairs, which was without precedent or parallel in the annals of the General Medical Council, had done incalculable injury to the Hall in scaring away candidates; he confidently appealed to their love of justice and fair play no longer to enforce it. Yet a still further penalty had, unwittingly or otherwise, been imposed on the body he represented. No doubt many members of the Council were aware that the report in question had had the further effect of dissolving the conjoint examinations between the Royal College of Surgeons and the Apothecaries' Hall of Ireland, and, as a consequence, to the appointment by the Council of surgical examiners, at a remuneration of £5 a day and travelling allowances. The expenditure thus imposed on the Hall came to over £100 a year, as one of the examiners came from London and the other from Edinburgh. He did not wish to be taken as finding any fault with the gentlemen in question—on the contrary they had always conducted their examinations with the greatest courtesy. The Apothecaries' Hall had paid this penalty for a considerable number of years, without murmur, and he thought the Council would agree that in all fairness the time had come when this heavy and unnecessary expense might be removed, and that what had hitherto been regarded by the profession in Ireland as an unmerited slight be rectified by the appointment of these examiners from amongst the very distinguished members of the profession in Ireland.

Sir Thomas Myles supported the resolution. The difficulty about the appointment of examiners arose not from any embargo being laid by the Council upon the appointment of examiners, but from the fact that after the hostile and severe criticism by this Council of the system of examinations conducted by the Apothecaries' Hall it was practically ordered that no Fellow of the College should offer himself as a candidate for examinership. That embargo was now removed, and the examinations as conducted by the Apothecaries' Hall for many years past had been all that could be desired.

The President asked what the resolution meant. It used the words "in future." There was no examiner at present.

Dr. Adye-Curran said he meant the next examination.

Sir Thomas Myles said it was intended to refer to the next vacancy.

Dr. McVail suggested that the motion was entirely out of order; but the President replied that the motion was in order.

Dr. McVail said the resolution could not become a law of the Council, and was not binding upon it. He did not think that anybody would dream of electing an examiner outside Dublin at great cost to the Apothecaries' Society. He was entirely in favour of the resolution, but thought it wholly unnecessary.

The President remarked that when a vacancy did occur the representative of the Apothecaries' Company could nominate any surgeon of repute as examiner.

After some further discussion, Dr. Adye-Curran said that under these circumstances he would withdraw the resolution.

Sir John William Moore, before the resolution was withdrawn, wished to say that Dr. Adye-Curran's principal object, he took it, in moving the resolution, was to save expense to the Apothecaries' Hall; but he hoped the Council would not permit any examiner representing it and performing the very responsible duty of inspector as well as examiner in surgery to receive a less honorarium than had been paid up to the present. Therefore he did not think that whether a man in Dublin or Edinburgh was appointed could make any difference except so far as travelling expenses were concerned.

The Council having given leave for the motion to be withdrawn, Dr. Adye-Curran said he would withdraw it, having satisfied himself that his object had been attained.

Examinations for the Services.

Sir Heron Watson moved:

> That a report from the Examination Committee on the returns as to examinations for entrance to the Navy, Army, and Indian Medical Services received by the General Council on May 22nd, 1906, be received and entered on the minutes.

Dr. Norman Moore seconded, and this was agreed to.

Mr. Brown thought the Examination Committee ought to be thanked for the very exhaustive report, and moved that a copy of the report be sent to each licensing body.

Dr. Bruce seconded.

Mr. Thomson objected, because it was no part of the Council's business.

On the resolution being put, the President declared it lost.

Quatercentenary of the University of Aberdeen.

Sir Thomas Fraser called the attention of the Council to the fact that the University of Aberdeen was about to hold the celebration of its 400th anniversary. He proposed:

> That the President and Treasurers of the Council be requested to arrange for the preparation and transmission of a suitable address of congratulation to the University of Aberdeen on the celebration in September next of its 400th anniversary.

This was seconded by Sir Patrick Heron Watson and carried unanimously.

Strangers were then requested to withdraw, in order that a certain matter might be considered, and the Council subsequently adjourned.

Friday, May 25th, 1906.

Dr. Donald MacAlister, President, in the Chair.

Disciplinary Cases.

The Council proceeded to deal with the case of Alexander Lane, registered as of Saville Chambers, Newcastle-on-Tyne, M.R.C.S.Eng. 1880, L.S.A.Lond. 1880, F.R.C.S.I. 1893, M.D.Durh. 1899. Mr. Lushington appeared as Legal Assessor and Mr. Winterbotham as Solicitor to the Council. The complainants were the Medical Defence Union, represented by Dr. Bateman. Mr. Lane was represented by Mr. F. W. Hill, solicitor, Fenchurch Street, London.

Mr. Hill said he supposed that the *locus standi* of Dr. Bateman was well recognized now by the Council, and that he was entitled to represent the Medical Defence Union, and to conduct the case before the Council.

The President replied that the Medical Defence Union were the complainants, and Dr. Bateman was their officer.

Mr. Winterbotham read the charge, which was as follows:

That you sold to Mr. Ellis Pearson a medical practice at Bideford which was not a genuine, bona-fide saleable goodwill and practice, but was a practice fraudulently built up by you for the purpose of sale.

Documents and evidence as furnished by the Council's solicitor were before the Council.

Dr. Bateman said that the case rested solely upon the verdict in the action of Pearson *v.* Lane, and on the judgement in the Divisional Court on appeal. It was for the Council to say whether upon the verdict an order should be made to erase Mr. Lane's name from the *Register* for having been guilty of professional misconduct. He was quite prepared to go into the circumstances which led up to the verdict. He should like the ruling of the Council on the matter.

Mr. Hill was equally prepared to deal with the case either *ab initio* or simply on the findings of the jury, provided he might deal with the judge's summing-up to the jury.

The President stated that Mr. Lushington advised that the inquiry should start from the later part of the trial, and refer to the judge's direction to the jury and the verdict.

Dr. Bateman then called Mr. Ellis Pearson, who said that he was F.R.C.S. and L.R.C.P.Edin. He commenced an action in October, 1905, against Mr. Lane, formerly of Bideford, Devon. He was present when the trial took place at Exeter, and the jury found that the sale of the practice by Mr. Lane to Mr. Pearson was not a genuine bona-fide sale of a goodwill and practice; that the practice was built up for sale, and assessed the damages for the plaintiff at £200. Two days after the trial Mr. Lane made an assignment for the benefit of his creditors. The charge of fraud was never withdrawn by witness or his counsel at the trial.

Cross-examined by Mr. Hill: He was present in Court when Mr. Justice Lawrence summed up, but he did not consider that a transcript of the whole of that summing-up should have been presented to the Council in support of his complaint. He had supplied a part of it. Neither did he consider it necessary to include in his documents the report made by the Official Receiver who examined into the circumstances of Mr. Lane's bankruptcy.

In reply to Dr. Bateman, he said he was advised by his solicitor what documents he should furnish.

This closed the case for the complainants.

Mr. Hill then tendered Mr. Lane as a witness but did not ask him any questions.

In answer to Dr. Bateman, the Witness said he could not say what he had paid in reference to the damages and the costs. He was ruined over the case, and had no chance of paying. In reply to Mr. Hill, he said that an offer was made on his behalf to Mr. Pearson, after the verdict, that Mr. Pearson should be paid, in addition to retaining the practice, £200, and that he should be allowed to collect certain book debts which were not included in the purchase. This offer was refused. In reply to Mr. Lushington, he said his memory was rather hazy and he could not recollect whether it occurred to him immediately after the trial at Exeter to take steps to appeal, or why it was not until a month afterwards that he took such steps, and then, failing in that application, he never went further into the matter. His father put the matter in another solicitor's hands; that was all he knew.

Mr. Hill then addressed the Council on behalf of Mr. Lane. He said there were three points for the Council to consider: First, what was the real effect of the finding of the jury when all the circumstances surrounding it were considered; secondly, whether the effect of the verdict really amounted to infamous conduct on the part of Mr. Lane; and, thirdly, if the Council thought his conduct was "infamous," whether it amounted to infamous conduct in his professional capacity. Mr. Lane, however, did not desire him to rely on the third point; he did not wish to raise any technical or legal quibble, but he wished to contest the matter in its broad sense upon the question of whether, when all the circumstances were considered, he had been guilty of infamous conduct or not. Mr. Hill then read Mr. Justice Lawrence's summing-up to the jury at the trial, and contended that this showed that the learned judge entertained a different view to that expressed by the jury. The penalty involved in the complaint was a terrible one, because if the decision of the Council was adverse to Mr. Lane it was the end of his professional career; but he ventured to think in a case of this kind the Council would hesitate long before describing such conduct as infamous in a professional respect, because to so hold would be stretching the section of the Act far further than the legislature ever intended. The documents he had read showed that there was nothing in Mr. Lane's conduct which could be characterized as infamous conduct whether in a professional or any other respect, although it was not a wise thing for him to do.

Dr. Bateman, in reply, said the charge undoubtedly was one of infamous conduct in a professional respect, and it was based upon the verdict in the action of Pearson *v.* Lane, and also on the decision of the judges in the High Court. The jury found, first, that it was not a bona-fide genuine sale of the goodwill of the practice, and secondly, the practice was built up for sale; and by their verdict they practically found that fraud had been committed, and the decision of the judges in the Divisional Court confirmed that.

Strangers were directed to withdraw. On readmission, the President, addressing Mr. Lane, said that after careful consideration the Council had passed the following resolution:

That the facts alleged against you in the notice of inquiry had not been proved to the satisfaction of the Council.

The Council then proceeded to the consideration of the case of James Brander, registered as of 44, Lead Side, Northfield, Aberdeen, M.B., M.S., 1876, Univ. Aberd., who had been summoned to appear before the Council on the following charge, but was not present.

That you were on February 15th, 1906, convicted of the following crime or offence at Aberdeen Police Court—namely, of drunkenness and riotous behaviour.

The Solicitor read the notice of inquiry and the certificate of conviction, and stated that notices of other convictions of a similar character had been received to the number of fourteen. He then read a letter which had been received from the accused, in which he said:

That I have made mistakes in my life I do not deny, and accordingly deserve reprimand. With regard to the charge of drunkenness, I may state that I have been a temperate man all my life, although at times I may have stepped over the border. . . . I regret that neither physically nor financially am I in a position to face this charge, otherwise it would have been more satisfactory.

The President, in reply to Professor Finlay, said no notice of conviction had been received by the Council previous to that mentioned in the charge, to which fact he proposed to call the attention of the Home Secretary.

Strangers were directed to withdraw. On readmission, The President announced the decision of the Council as follows:

That James Brander having been proved to have been convicted of a crime or offence, the Registrar be directed to erase his name from the *Medical Register*.

The Council then adjourned.

Saturday, May 26th, 1906.

Dr. Donald MacAlister, President, in the Chair.

Poisons and Pharmacy Bill.

The President, in reply to Mr. Tomes, said he had sent the following letter to the Privy Council:

May 24th, 1906.

The Council to-day considered the enclosed letter from the President of the Pharmaceutical Society, and ordered it to be received and entered on the minutes. After careful consideration of the points raised in the letter, the following resolution was agreed to *nem. con.*:

> "That the President be requested to inform the Lord President of the Privy Council that, in the opinion of the Council, the principle involved in the Poisons and Pharmacy Bill, as amended in the House of Lords, whereby corporate bodies are permitted to assume professional titles, which titles no member or director of such company need be personally qualified by training, examination, and registration to assume, is fraught with obvious and extreme danger to the public."

I may add that the feeling of the Council in the matter was that, if the principle above referred to were once sanctioned by Parliament in a particular case, it would tend seriously to impair the safeguards against unqualified practice which in the public interest has been provided by the Medical and Dentists Acts.

Disciplinary Case.

The Council then proceeded to the consideration of the facts proved on November 30th, 1905, against Hamlet Lloyd Davies, registered as of 2, Crofton Street, Great Western Street, Rusholme, Manchester, M.B., Mast. Surg. 1874, Univ. Edin., who had been summoned to appear before the Council to answer the following charge as formulated by the Council's Solicitor:

> That you have accepted and continued to hold the appointment of paid Medical Officer to the Rusholme and District Provident Dispensary, an association which systematically practises canvassing for the purpose of procuring patients.

At the conclusion of the deliberation of the Council on the case on November 30th, 1905, the President addressed Mr. Davies as follows:

> Mr. Davies, the Council have deliberated very carefully on your case, and they have come to the conclusion that the facts alleged against you in the notice of inquiry have been proved to the satisfaction of the Council.
>
> The Council feel it their duty to express their sense of the gravity of the facts which have been proved against you; but in order to give you an opportunity seriously to reconsider your position in relation to the Rusholme and District Provident Dispensary, they have adjourned the further consideration of the charge until the next session, when you will have to appear and satisfy the Council as to your conduct in the interval.

Mr. Lushington appeared as Legal Assessor and Mr. Winterbotham as Solicitor to the Council.

The Solicitor explained the facts to the Council, and said a letter had been received from Dr. Bateman, who supported the charge in November last on behalf of the Medical Defence Union, stating that he had no further evidence to bring before the Council.

Mr. Davies, in reply to the President, said he had resigned the appointment to the Rusholme and District Provident Dispensary. Although he believed it was still going on, he had no connexion with it.

Strangers were directed to withdraw; on readmission,

The President, addressing Mr. Davies, said:

> The Council having given you an opportunity to seriously reconsider your position, and having heard the evidence as to your conduct in the interval, does not judge you guilty of infamous conduct in a professional respect, and does not direct the Registrar to erase your name from the *Medical Register*.

Restoration of Name.

The Council then considered *in camerâ* a report from the Executive Committee in regard to an application for the restoration of a name after erasure under Section 29 of the Medical Act (1858).

Strangers were directed to withdraw; on readmission,

The President announced that the Council had directed the Registrar to restore to the *Medical Register* the name of William Patrick Kirwan, L.R.C.P. and L.R.C.S.Edin.

Report on the Cycle of Inspections of the Final Examinations.

Sir Patrick Heron Watson moved, Mr. Young seconded, and it was resolved:

> That the report from the Examination Committee on the whole cycle of visitations and inspections be received and entered in the minutes, subject to such amendments as the Council may approve.

Sir Patrick Heron Watson said there were no recommendations in the report; it simply contained a series of opinions which the Committee submitted to the Council for adoption. He formally moved the adoption of the report.

Dr. Caton seconded.

The President pointed out that if the motion were adopted the opinions expressed in the report would be those of the Council. It contained matter as to which there might well be a difference of opinion, as, for instance, paragraph 10, and suggested that it be moved paragraph by paragraph.

After some discussion this suggestion was adopted. The report as finally adopted is as follows:

REPORT BY THE EXAMINATION COMMITTEE

On the recently-completed Cycle of Inspections of the Final Examinations of all the Qualifying Bodies mentioned in Schedule A of the Medical Act, 1858.

1. Within the past five years the final examinations of all the qualifying bodies* have been inspected; and all of them, either on a first or a second inspection, have been pronounced by the inspectors to be "sufficient" within the meaning of the Medical Act of 1886. The Examination Committee of the Medical Council adopted the conclusions of the inspectors, and the Medical Council adopted the reports of the Examination Committee, and thus the Council has pronounced officially that all the final examinations so inspected are "sufficient."

2. A review of the inspectors' reports shows considerable diversity in the methods of conducting the examinations and in the standard of knowledge required. Some examinations are just "sufficient," others are certainly more than sufficient, and a few are considerably above a mere pass mark. As all the inspectors' reports are in the hands of all the Examining Boards, this Committee refrains from classifying into grades the different examinations, but undoubtedly some do no more than attain to a bare sufficiency. Many of the candidates who pass at some of the Boards would apparently be rejected at others.

3. The criticisms of the inspectors on the examination of each Board have been fully considered by each Board, and although there has been in some instances considerable reluctance in admitting justification for the inspectors' animadversions, the probable result will be that when the next inspection takes place the inspectors' reports will have led to substantial improvement.

4. The Council's recommendation that two examiners should conduct the examination in any stage of it is frequently disregarded. It is true that no rejection takes place unless by the consent of two examiners, but it is far from certain that in all cases where pass-marks have been given by one examiner a colleague would have concurred. No two examiners can have quite the same mental appreciation of a candidate's answers in such subjects as medicine and surgery; therefore, the concurrence of at least two examiners should be required equally to pass or reject. The Committee is of opinion that this recommendation of the Council should be urged by the Council on all the Qualifying Boards.

5. In the written examinations some Boards do not carry out the Council's recommendation that half an hour should be allowed on an average for the answer to each written question. In the opinion of the Committee this rule should be rigidly enforced.

6. The Committee is of opinion that in regard to medicine and surgery every examination should be so devised as to show the candidate's acquaintance with pathological processes in either the written or the oral parts of the examination. The inspectors call attention to the circumstance that at some Boards no evidence of knowledge of ophthalmology was required.

7. The clinical examinations are conducted in hospital wards by all the Boards except two; at these two Boards patients are brought to the examination rooms. Generally the clinical examinations have been conducted satisfactorily both in medicine and surgery. In one instance on a first inspection the examination was reported as having been unduly hurried; at the second inspection ample time was allowed. In another instance the presence of strangers in the wards was stated to have interfered with the work; on a further visit the inspector was satisfied with the examination.

8. The examinations in practical surgery were generally satisfactory, although it was remarked that at some Boards the display of instruments and apparatus might have been more comprehensive. All the Boards require skin markings of operation incisions on the living subject.

9. As regards examination in operative surgery on the subject, some Boards exact this from every candidate, others from selected candidates only, and some Boards do not require it at all. One inspector commends such examination, another reprobates it and urges that the time might be more usefully employed. This Committee is of opinion that examination in operative surgery on the subject is a valuable test of the candidate's knowledge of surgical anatomy and of his manipulative skill,

---

* The number of qualifying bodies has been added to since the inspection was determined on by the foundation of new universities in Liverpool, Leeds, and Sheffield. The Victoria University, at the time of the inspection of its final examination, included as constituent colleges the several colleges at Manchester, Liverpool, and Leeds.

and the Committee believes that by having such examination in prospect the student will devote more time and attention to practical surgical procedure than if no such test be in front of him.

10. Some Boards are without special examiners in medical jurisprudence and hygiene and do not set a special paper on these subjects, but leave it to the examiners in medicine, surgery, and midwifery to ascertain as they may think fit the student's acquaintance with these subjects. This Committee is of opinion that these important departments should have special examiners.

11. Each of the three Irish Boards conduct a well-devised and searching practical examination in ophthalmology. Only one British Board has such an examination. The Irish example deserves to be commended and followed.

12. Two Boards only have instituted a special practical examination in mental disease at an asylum.

13. At some of the Boards certain of the examiners take part in all the stages of the examination in medicine or surgery—the written, the clinical, the practical, and the oral—thus ensuring that each candidate has been by at least one examiner followed from beginning to end of the examination on the subject. At other Boards no such procedure is provided, and seldom, if ever, does any one examiner see the written, the clinical, and the oral of any candidate throughout.

14. Some Boards require a candidate to enter for all the subjects of the final examinations at one time. Other Boards allow of entry for one of the subjects at a time. Where the latter practice is adopted, and where a Board that requires entry for all subjects at once gives credit for one or two subjects when there has been failure in the other subject or subjects, this Committee is of opinion that at least 10 per cent. more than a mere pass-mark of 50 per cent. should be exacted.

15. One Board separates the systematic examination in medicine and surgery from the clinical examination by an interval of some months—the clinical being the final or pass examination. There is much to be said in favour of this arrangement, as the student in the interval may devote himself entirely to clinical and practical work.

16. One Board allows a candidate to receive pass-marks for the systematic or the clinical examination in surgery independently of each other. He must enter for both, but may pass in systematic surgery and not in clinical surgery, and vice versa, and be only examined at a future time in the branch in which he failed. This Committee is of opinion that a pass-mark should not be allowed in clinical work if there has been failure in the systematic examination.

17. The Examination Committee commends the method of regarding systematic medicine and surgery respectively as separate subjects from clinical medicine and surgery, and is of opinion that failure in clinical medicine or surgery should not be compensated by excellence in the systematic branches.

18. At one Board no curriculum of study has yet been prescribed. The Medical Act of 1858 requires sufficiency of "study" as well as of examination.

This Committee makes no observations on the examination in midwifery, as a Special Committee of the Medical Council is at present considering all that pertains to the teaching of practical midwifery.

PATRICK HERON WATSON,
Chairman of Examination Committee.

May, 1906.

On paragraph 6 Mr. JACKSON moved to add after the word "ophthalmology" the words "otology and laryngology," as, in his opinion, it was a matter of serious importance that medical men of the present and future time should have some knowledge of these subjects.

Dr. KIDD seconded.

After some discussion the amendment was put and declared lost.

On paragraph 10 being adopted, the PRESIDENT expressed the opinion that it was very important not to require special examiners, because they could not then take part in any other part of the examination.

Dr. MCVAIL was of opinion that there should be attached to every Examining Board a person who knew hygiene thoroughly.

Sir THOMAS FRASER agreed with Dr. McVail, as it was not fair to a candidate to have an examiner who was not fully acquainted with the subject.

Dr. SAUNDBY said that the Council's object should be not to put up an additional barrier to the ordinary student getting on to the *Register*, but to see that they were sufficiently educated in medicine, surgery, and midwifery. The ordinary qualifying examination should be kept as simple as possible, and therefore the Council ought not at the present time to propose that there should be special examiners or special examinations in these subjects.

Dr. MACKAY, to bring the matter to an issue, proposed:

> That this Committee is of opinion that special questions should be set in these important departments.

He ventured to think they would not get the subjects examined upon at all except by special examiners.

Sir JOHN MOORE seconded.

Dr. LINDSAY STEVEN supported the amendment. In his opinion no examination in Forensic Medicine or Hygiene could be considered satisfactory unless it was conducted by men who had devoted most of their time to the subjects.

Sir CHRISTOPHER NIXON considered medical jurisprudence an important subject in medical education, and he had always been taught that hygiene was an essential part of medicine; therefore he could not understand a body like the General Medical Council trying to minimize the value of hygiene; it ought to try and increase it.

Dr. NORMAN MOORE said the duties of a medical officer of health were totally different to those of an ordinary practitioner. It would be better to leave the examining bodies to choose their own way with regard to the subjects.

Dr. BRUCE supported the amendment as it was the correct inference from the previous recommendations of the Council.

Sir T. MYLES supported the recommendation. In his opinion the amendment was a serious departure from it, and was not logical.

Mr. TOMES agreed with Sir T. Myles; in order to be logical there must be two examiners in the subjects.

The amendment was then put and declared lost.

Dr. NORMAN MOORE then moved:

> That all candidates should be examined in these subjects.

Mr. JACKSON seconded.

The amendment was lost.

Sir JOHN WILLIAMS moved that the last sentence of the paragraph be omitted.

Dr. NORMAN MOORE seconded the amendment, which was lost.

Dr. NORMAN MOORE suggested that if the Council was going to make a deliberate addition to the burden of intending practitioners, it ought to be done after full discussion. He moved that the whole of Clause 10 be omitted.

Sir JOHN WILLIAMS seconded.

The amendment was lost.

The motion was then put and carried.

At the request of Dr. BRUCE the names and numbers were taken down, when 20 voted for, 12 against; 1 did not vote, and 1 was absent.

Paragraphs 11, 12, 13, and 14 were agreed to.

Paragraph 15 was, at the instance of Sir VICTOR HORSLEY, amended and approved, as was also Paragraph 16.

Paragraph 17 was amended to read as printed above.

Sir PATRICK HERON WATSON moved, and Dr. CATON seconded, the adoption of Paragraph 18.

Dr. LINDSAY STEVEN moved that the last clause, "The Medical Act of 1858 requires sufficiency of 'study' as well as of examination," be omitted. To insert that clause was to express an adverse opinion by a side wind, and if the Committee could not express it openly it had better be omitted altogether.

Sir VICTOR HORSLEY seconded. It seemed to him the side wind was almost a gale.

Sir HUGH BEEVOR asked whether, having brought the matter to the notice of the Council, it could not be withdrawn.

Dr. MCVAIL said the Committee would be willing to withdraw the last clause.

This was agreed to and the paragraph as amended approved.

The last paragraph was also approved.

Mr. Morris moved, Sir T. Myles seconded, and it was resolved:

> That a copy of the Examination Committee's report as amended be sent to each of the licensing bodies for its information.

The Fifth Year.

Dr. Bruce moved:

> That it be remitted to the Education Committee to consider how far Recommendation V of the General Medical Council—namely, "that the fifth year should be devoted to clinical work at one or more public hospitals or dispensaries, British or foreign, recognized by any of the medical authorities mentioned in Schedule (A) of the Medical Act (1858), provided that of this year six months may be passed as a pupil to a registered practitioner possessing such opportunities of imparting practical knowledge as shall be satisfactory to the medical authorities"—is at present being given effect to, and if the Committee sees fit to recommend to the Council such changes in the said resolution as would be likely more effectually to secure the object aimed at by the Council in 1890.

He feared it was notorious that, although the resolution of the General Medical Council required that the fifth year should be given up to clinical work, as a matter of fact this rule in most cases was almost nugatory. It was, so to speak, merely a pious opinion, with the result that the practical side of the future doctor's training was forced into the background and the theoretical unduly exalted. The only cure yet suggested by reformers was to add another year to the present course of purely professional studies by putting certain ancillary studies outside the curriculum, and in this way to gain the additional time necessary for the work. While heartily approving such a change, he feared it would not help matters much; the same system of overlapping would almost certainly continue. To get at the root of the difficulty, the proper plan was not to postpone clinical work until the student had learnt the principles, but to start off immediately with practice, and to wed practice and principles together. Send the student straight, if not to the bedside, certainly to the out-patient's department; place him under tutorial care, teach him to observe for himself, and, as soon as possible, make him put his own hand to what was to be his life's work. Those who had taken the trouble to think on the best form of medical education looked back to the old apprenticeship system with, in many respects, feelings of regret. He ventured to suggest that the nearest solution of the problem of the best method of medical education was to secure to the student the advantages of the older system while retaining those of the newer and, he confessed, better, but, in spite of careful examination, far from faultless method. It may be said that as a Council they had refrained from laying down the precise times and the right course of medical studies, but they had declared for a final year of clinical work. It was their duty, if they had made a mistake, to retrace their steps, to abandon that undesirable position by declaring for early, steady, and continuous practical training of the student during his whole course. The opportunity for practical work under the supervision of a practitioner qualified for the duty had, so far as he knew, never once been taken advantage of, and it was never likely to be; the sooner such a recommendation disappeared from the list the better.

Sir T. McCall Anderson seconded.

Dr. Mackay was sure the Education Committee would be glad if this were remitted to them for consideration. It was unnecessary to discuss it in detail.

The resolution was then put and agreed to.

Report of the Pharmacopoeia Committee.

On the motion of Dr. Norman Moore, seconded by Dr. Lindsay Steven, the following report of the Pharmacopoeia Committee was received and entered in the minutes:

> From November 21st, 1905, to May 19th, 1906, the number of copies of the *British Pharmacopoeia* (1898) sold by the publishers was 516. The total number of copies sold in the year was 1,150. Up to the present date 37,584 copies of the *Pharmacopoeia* and 4,410 copies of the *Indian and Colonial Addendum* have been sold. The stock of the *Pharmacopoeia* remaining on hand now consists of 2,447 copies, with 1,954 copies of the *Addendum*. No new impression will therefore be necessary for some time to come.
>
> The Secretary of State for the Colonies has forwarded to the Committee a number of useful suggestions for the revision of the *Pharmacopoeia* from the Joint Committee of the Medical and Pharmaceutical Societies of Victoria, and also a report from New Zealand on the same subject. Other suggestions bearing on pharmacopoeial unification have been received from Holland. The new *Pharmacopoeias* of the Netherlands and of the Austrian Empire have been received. Each adopts the conclusions as to potent drugs and preparations arrived at by the Brussels Conference of 1902. These conclusions have now been finally embodied in an International Agreement, entered into between the British Government and the authorities of the other Powers.
>
> The Chairman of the Committee of Reference in Pharmacy nominated by the two Pharmaceutical Societies of the United Kingdom states that subcommittees for various branches of investigation have been formed and are at work. Reports on the progress made may be expected before the next meeting of the Council.

Election of Committees.

On the motion of Dr. Norman Moore, seconded by Mr. Morris, the following nominations by the Branch Councils were agreed to:

Examination Committee.

English Branch Council: Dr. Pye-Smith, Mr. Young, Dr. Caton.

Scottish Branch Council: Sir P. Heron Watson, Dr. Finlay, Dr. McVail.

Irish Branch Council: Sir Thomas Myles, Dr. Little, Sir John Wm. Moore.

Education Committee.

English Branch Council: Dr. Norman Moore, Sir G. Philipson, Sir J. Williams.

Scottish Branch Council: Dr. Mackay, Sir John Tuke, Sir T. McCall Anderson.

Irish Branch Council: Dr. Little, Sir C. Nixon, Sir John William Moore.

Public Health Committee.

English Branch Council: Dr. Cocking, Mr. Power, Mr. Jackson.

Scottish Branch Council: Dr. Bruce, Dr. Lindsay Steven, Dr. McVail.

Irish Branch Council: Sir John Wm. Moore, Sir Thomas Myles, Dr. Bennett.

Pharmacopoeia Committee.

English Branch Council: The President (Chairman), Dr. Norman Moore, Sir G. Philipson, Dr. Caton, Dr. Barrs.

Scottish Branch Council: Sir Thomas Fraser, Dr. McVail.

Irish Branch Council: Sir John Wm. Moore, Dr. Little.

Finance Committee.

Dr. Pye-Smith (Chairman), Mr. Tomes, Sir Patrick Heron Watson, Dr. Bennett.

Dental Committee.

The President (Chairman), Mr. Morris, Mr. Tomes, Sir Patrick Heron Watson, Sir Thomas Myles.

The Council then adjourned.

Monday, May 28th, 1906.

Dr. Donald MacAlister, President, in the Chair.

The minutes of Saturday's meeting were read and confirmed.

The British Medical Association and the Election of Direct Representatives.

Mr. Brown called attention to the scheme adopted by the British Medical Association in regard to the nomination and election of Direct Representatives to the Council, and asked the President whether the pledge exacted by the Association was not calculated to encroach on the privileges of the Council.

The President stated that Mr. Brown had given him notice of the question, and he had written his answer, which was as follows: "The general question whether a certain action is calculated to encroach on the privileges of the Council is one which the President cannot determine; it is a question for the Council itself. Having regard, however, to the observations of the Lords Justices in Allinson's appeal, I think it proper to state that in my opinion a member of the Council pledged to follow the directions of an association, or belonging to an association giving such directions, would be precluded from taking any part in judicial inquiries before the Council in which, as informants or otherwise, the association was concerned." He asked the Council to consent to this answer being put on the minutes.

PUPILAGE.

Mr. BROWN moved to refer the following notice of motion to the Education Committee for consideration and report to the Council:

> That a period of pupilage of not less than twelve months with a registered medical practitioner officially recognized for the purpose of one of the licensing bodies should be regarded as equivalent to a period of six months of the ordinary medical curriculum.

A resolution which had been passed on this subject in the year 1890, with the very best intention of meeting the demand that pupilage with a medical practitioner in ordinary general practice should be recognized as a part of a candidate's medical curriculum, had, as a matter of fact, been a dead letter because no candidate had ever asked any of the corporations to have six months' training or work with a medical practitioner recognized as part of his curriculum.

Mr. JACKSON seconded.

Mr. MORRIS thought something might have been said for the proposal if it had been that the last six months of the five years' curriculum should be spent in this way, but the five years' curriculum, as things were at present, was a pure fiction. The medical curriculum had never been more than four years, and the action of the Council had been not to extend it to five years but to reduce it to three and a half years; to permit six months of that time to be spent away from centres of medical education would be a very deplorable step.

Sir T. MYLES said that as far as Ireland was concerned there was a five years' curriculum. If the proposal was to substitute twelve months' pupilage for six months' hospital study he would oppose it most strenuously.

Dr. LINDSAY STEVEN did not think that pupilage with a private practitioner would ever come into use, and he doubted whether there was any registered practitioner who would apply for recognition to the licensing bodies for this purpose.

The PRESIDENT pointed out that the matter had already been referred to the Education Committee; the new point was the substitution of twelve months for six months.

Mr. BROWN assented. He was sure there were many practitioners who could give really valuable training to students by initiating them into the art of prescribing and dispensing.

The motion was lost.

SIGHT-TESTING OPTICIANS.

The PRESIDENT announced that the Memorandum transmitted by the Council to the Lord President of the Privy Council with regard to the petition of the British Optical Association would be entered on the minutes (see p. 300).

THE SOCIETY OF APOTHECARIES OF LONDON.

On the motion of Sir HUGH BEEVOR, seconded by Sir JOHN WILLIAMS, the following draft Bill, promoted by the Society of Apothecaries of London, was referred to the Council by the Executive Committee, and was received and entered on the minutes.

An Act to vary the Diploma or Title of Licentiates of the Society of Apothecaries of London.

Whereas since the 30th day of June, 1887, every person applying to the Society of Apothecaries of London for its licence to practise as an apothecary has been required to pass a qualifying examination in medicine, surgery, and midwifery duly held by the said Society of Apothecaries with the assistance of examiners appointed by the General Council of Medical Education and Registration of the United Kingdom (hereinafter referred to as the General Council) in accordance with the provisions of the Medical Act, 1886, which came into operation on the date aforesaid.

And whereas the diploma or title of "Licentiate of the Society of Apothecaries, London," has heretofore been inserted in the *Register* kept under the Medical Acts (hereinafter referred to as the *Medical Register*) as the qualification of a registered medical practitioner holding the said licence of the said Society of Apothecaries.

And whereas it is desirable that the terms of the diploma or title granted by the said Society of Apothecaries to its licentiates who have passed such qualifying examination as aforesaid shall clearly indicate that it is a qualification in both medicine and surgery.

Be it therefore enacted, etc.

This Act may be cited as the "Apothecaries Act, 1906."

It shall be lawful for the said Society of Apothecaries to grant to every person who has since the 30th day of June, 1887, passed or shall hereafter pass a qualifying examination in medicine, surgery, and midwifery duly held by the said Society of Apothecaries in combination with another medical corporation or a university, or with the assistance of examiners appointed by the General Council in accordance with the requirements of the Medical Act, 1886, the diploma or title of "Licentiate in Medicine and Surgery of the Society of Apothecaries, London."

The said diploma or title of "Licentiate in Medicine and Surgery of the Society of Apothecaries, London," shall be deemed to be added to the qualifications in Schedule (A) to the Medical Act, 1858, and every person possessed of such diploma or title shall be entitled to have the same entered in the *Medical Register* as his or her qualification or additional qualification for registration under the Medical Acts.

Sir HUGH BEEVOR moved:

> That this Council has no objection to the statutory definition (that is, in an Act of Parliament) of the registrable title L.S.A., whereby "Surgery" as well as "Medicine" shall be connoted.

It was a matter of propriety as well as courtesy that the Society should bring this draft Bill before the Council. It was more particularly the case owing to the large share the Council had in determining the examinations. He thought also the large number of signatures to the petition rendered the motion one which it would be proper and courteous for the Council to consider.

Dr. ADYE-CURRAN asked Sir Hugh Beevor to make his Bill applicable to Ireland; and

Sir CHARLES NIXON expressed the hope that the Council would see its way to treat the Apothecaries' Hall, Dublin, in the same way.

The PRESIDENT pointed out that it was stated by the Executive Committee, with the concurrence of the Council, that the Registrar was obliged to insert "Lic. of the Society of Apoth." in the *Register*. The Society had taken the only step open to it. The only other point was that "surgery" was now one of the ordinary subjects of the examination of the Society of Apothecaries. Formerly it could examine in medicine and midwifery; the Council could have no objection to the word "surgery" appearing in the title, as surgery was required for the actual qualification.

Sir JOHN WILLIAM MOORE thought that the word "midwifery" should be included.

Dr. NORMAN MOORE agreed with Sir John William Moore that as the Act provided that every practitioner must be qualified in the three subjects, midwifery should be included.

Sir HUGH BEEVOR said the Society had no difficulties as to midwifery.

The resolution was then put and agreed to.

SCRUTINY OF VOTING.

Sir VICTOR HORSLEY moved that, instead of the old practice being followed, two scrutineers should be appointed to count the votes on the elections of the Executive Committee and Penal Cases Committee in the room, and that they should report to the President.

Sir T. MCCALL ANDERSON seconded, and the motion was carried by 14 to 13. The PRESIDENT nominated Dr. Cocking and Dr. Kidd to act as scrutineers.

VISITATION AND INSPECTION OF EXAMINATIONS.

The Council then proceeded to the consideration postponed from December 1st, 1905, of the proposed standing orders relating to the visitation and inspection of qualifying examinations.

The PRESIDENT stated that the Standing Orders were revised by the Executive Committee, and were submitted to the Council in December last. Dr. McVail had sent in various suggestions, and Dr. Finlay various amendments. Dr. McVail's suggestions were not in the form of strict amendments. He had had a conversation with Dr. McVail, and he had formulated his principle into certain amendments.

Dr. MCVAIL moved, and Dr. BRUCE seconded, that the discussion of these regulations should take place *in camerâ.*

Sir VICTOR HORSLEY hoped the Council would not agree to this, as the matter was one of public importance.

Dr. NORMAN MOORE agreed.

Dr. MCVAIL said that as his proposition was opposed, he would give way. His first point was that there should be complete separation between visitation and inspection. Under the Act of 1896, he believed, the Council could not direct inspection to be combined with the visitation. The inspector must be appointed under the Act of 1886. Under the Act of 1858 the Council might appoint visitors. Under the Act of 1886 the inspector must report to the Council, and it must return his report with observations, and send the report to the Privy Council. Under the Act of 1858 the visitors might or might not report to the Council, and when the report came up the Council might either adopt it or decline to adopt it. The two matters were entirely separate. The Council was not precluded from sending a visitor who might be present at the inspection at the same time as the inspector, but the visitor must have no communication with the inspector as to his work. Another point in which he thought the Standing Orders should be altered was that hitherto the inspection had been intermittent, and this was not contemplated by the Act. Intermittency of inspection of any single examination might be as the Council might determine, but the whole reading of the second subsection of Section 3 implied practical continuity of inspection on the part of the Council. The Act intended these examinations to be inspected whenever the Council thought fit, but the Council was not entitled to think fit that a single inspection of one examination in ten years was sufficient. It should be the duty of the Examination Committee to advise the Council as to when the inspection should take place. Another point arose in connexion with Subsection 4 of Section 3, which did not mean that the Council was not to overpay its inspectors; it meant that the Council was not to underpay its inspectors. Therefore, his view was that the inspectors should be paid according to the work required of them by the Council on the advice of the Examination Committee. A further point was that hitherto the Council had published the reports. He held that under the Act they had no copyright in these reports. It was not for the Council to publish them or to sell them. He held that the right of the Council was exhausted when it received the report and sent it to the Privy Council. He felt that these reports should be confidential for discussion by the Council and for the consideration of the Privy Council. An inspector whose report was confidential would in all probability deal with the matter in a different way to that if he knew it was to be published. The next point was as to the qualifying examination. He thought it should include any examination held by a qualifying body in any subject or subjects in the medical curriculum.

The PRESIDENT said that if Dr. McVail's amendments were carried they would be instructions to the Executive Committee to draw up Standing Orders in accordance with them. The Council was not called upon to go into the minute wording of the Standing Orders because the instructions he thought were clear enough. It was for Dr. McVail to propose his amendments one by one, and the Council could either accept them or reject them. He added that as Dr. McVail had given several legal opinions upon the interpretation of the Acts he should like to call the attention of the Council to the fact that legal opinions had been obtained from the legal advisers on many of the points; these opinions were to be found on pages 238 and 246 of the Minutes of 1903.

Dr. McVAIL then proposed

> That the Standing Orders as submitted by the Executive Committee be recast so as to embody the following provisions: (1) That the existing system of cycles of inspection and visitation at intervals be discontinued.

Sir CHRISTOPHER NIXON seconded.

Dr. McVAIL said in reply to Mr. Thomson that the amendment meant that the visitation and inspection were not to be at intervals but were to go on continuously.

Dr. NORMAN MOORE thought that the whole point was that the proposal would enable the Council better to secure and maintain a proper standard of efficiency.

The PRESIDENT suggested that the words "and visitation" be left out.

Sir VICTOR HORSLEY hoped the Council would pass that without further discussion.

The amendment was then put and adopted.

Dr. McVAIL moved, Dr. FINLAY seconded, and it was resolved:

> That inspection and visitation be dealt with under distinct and separate rules.

Dr. McVAIL moved and Sir VICTOR HORSLEY seconded:

> That standing inspectors be appointed, who shall conduct inspections where and when required by the Council, on the advice of the Examination Committee.

Mr. THOMSON suggested the insertion after the word "inspectors" of the words "of the qualifying examinations."

Dr. NORMAN MOORE thought it would be a mistake to retain the inspectors permanently; they should be appointed for a definite purpose.

The PRESIDENT thought it would be better to move it in two sections.

Dr. McVAIL, with the assent of Sir VICTOR HORSLEY, reworded the amendment as follows:

> That inspectors be appointed for definite periods, who shall conduct inspections of the Qualifying Examinations where and when required,

and this was adopted.

Dr. McVAIL moved, Sir JOHN MOORE seconded, and it was resolved:

> That it shall be the duty of the Examination Committee to advise the Council as to the time and place of inspection.

Dr. McVAIL moved, and Dr. MACKAY seconded:

> That the reports of inspectors be henceforth not published in the Minutes, except by express direction of the Council in any particular case.

Dr. NORMAN MOORE thought it would be a great mistake to adopt this. The more publicity that was given to the Council's proceedings the more useful they were likely to be to the public.

Sir CHRISTOPHER NIXON said that the Council was bound to lay the views of the inspectors before the profession.

Dr. BRUCE observed that there was a further objection; he would not like to decide which report should be published and which not.

The amendment, by leave of the Council, was withdrawn.

Dr. McVAIL moved, and Sir VICTOR HORLLEY seconded,

> That the term "Qualifying Examination" include any examination held by a Qualifying Body in any subject or subjects of the medical curriculum.

The PRESIDENT pointed out that the Act of Parliament already contained a definition, and the Council must not by a definition of its own go behind it; nothing but confusion would arise if a technical term were used in a non-technical sense.

Mr. THOMSON thought the Council were trying to do something which implied control, not only over strictly professional education, but the cultural education, and many would resent such control.

Dr. SAUNDBY suggested that the matter should be postponed until a legal opinion had been obtained as to what was meant by surgery, medicine, and midwifery.

The PRESIDENT observed that the legal opinion had already been obtained, and was on the minutes.

After some further discussion, Dr. McVAIL, with the leave of the Council, withdrew the amendment.

ELECTION OF COMMITTEES.

The PRESIDENT announced the result of elections as follows:

EXECUTIVE COMMITTEE.

English Branch Council: Dr. Pye-Smith, Mr. Young, Sir Hugh Beevor.

Scottish Branch Council: Sir John Batty Tuke, Dr. McVail.

Irish Branch Council: Sir Christopher Nixon, Sir John Wm. Moore.

PENAL CASES COMMITTEE.

Dr. Saundby, Mr. Tomes, Dr. Finlay, and Sir Christopher Nixon.

INSPECTION OF EXAMINATIONS.

Dr. FINLAY moved, Sir VICTOR HORSLEY seconded, and it was resolved:

> That in Standing Order (5) instead of the words "one or more inspectors" the following should be substituted, namely, "three inspectors, one for medicine, one for surgery, and one for midwifery."

Dr. FINLAY moved:

> That in Standing Order (7) instead of the words "two (hundred)" the word "one" be substituted.

Dr. SAUNDBY suggested that it should be remitted to the Executive Committee to determine the remuneration of inspectors.

Dr. McVail said that the remuneration should be according to the work done by the inspectors.

Mr. Tomes said that it would be better to adopt Dr. Saundby's suggestion, and this was agreed to:

On the motion of Dr. McVail, seconded by Dr. Finlay, it was resolved:

> That it be remitted to the Executive Committee to redraft the Standing Orders accordingly.

Proposed Election of Direct Representatives by Ballot.

Sir Victor Horsley moved:

> That the Executive Committee be instructed to approach the Privy Council, and to secure such alteration in the Regulations 8 and 10 of the Schedule of Instructions to Voters under Section 8 of the Medical Act, 1886, as will provide for the adoption of the principles of voting by ballot in lieu of the existing open system of election of Direct Representatives.

He was anxious before leaving the Council to do his share towards improving the method of electing Direct Representatives. Under existing circumstances, the constituency in England was so enormous that secret voting, as compared with open voting, had not the same importance as it had in Scotland and Ireland. They were all agreed that the ballot or secret voting was greatly to be recommended in the place of open voting. Secret voting was the method *par excellence* for electing Direct Representatives, and he could not see what possible objection there could be to adopting that principle.

Dr. Bruce seconded the resolution—not that it affected him personally, but he felt on general principles the same protection should be given to every voter as in parliamentary elections.

The President said he had made inquiries in regard to the matter, and he understood that the Privy Council, considering personal attendance to be practically impossible, adopted the method of voting papers as the best alternative.

Dr. Kidd said the election was carried out under regulations laid down by the Privy Council, and might be framed so as to meet the case. At present there was nothing to prevent personation, nor any attempt to define residence.

Dr. Norman Moore asked for instances of personation or for other reasons for adopting the ballot. Members of the universities made no objection to voting by papers in a public manner.

Sir T. Myles assured Dr. Norman Moore that open voting was an ever-present menace to the personal freedom of the voter. In Ireland personal feeling ran high. It would be quite possible to frame regulations by which the voter could be protected.

Dr. Saundby observed that there were two reasons for the motion. One was that personation might occur and the other that intimidation was practised, which constituted a ground for calling the attention of the Privy Council to the matter so that it might be remedied.

The President thought it would be a very strong thing to say that evidence had been brought before the Council of personation and intimidation; it was desirable to proceed cautiously.

Mr. George Brown said that it was possible that intimidation had taken place, and it should be guarded against as much as possible.

Sir Victor Horsley, in reply, said that the resolution was merely to refer the matter to the Executive Committee. He believed that when the matter was looked into in accordance with the terms of the resolution, it would be found to be simple, and one which might well be carried to the Privy Council. Replying to the President, he said that the Executive Committee would have power to inquire. If it found the proposition impracticable it would report accordingly to the next meeting of the Council.

The motion was then put and agreed to.

Practical Midwifery.

On the motion of Sir John Williams, seconded by Mr. George Jackson, the following report was received, entered on the minutes, and directed to be circulated amongst the licensing and teaching bodies for their observations:

REPORT
BY THE
STUDENTS' PRACTICAL MIDWIFERY COMMITTEE
ON THE
Operation of the Rules Regarding the Midwifery Practice Required of Candidates for Medical Qualifications.

Members.

Sir John Williams, *Chairman;* The President (*ex officio*), Mr. Jackson, Mr. Young, Dr. McVail, Dr. Caton, Sir Christopher Nixon, Dr. Barrs.

The Committee reports under a resolution passed by the Council on May 27th, 1905, which is as follows,

> That a Committee of the Council be appointed to inquire into the operation of the rules regarding the midwifery practice required of candidates for medical qualifications. (Minutes, Vol. XLII, p. 87.)

This covers a wider field than any reference previously made to any Committee appointed to inquire into the teaching of practical midwifery. The reference to the Committee which reported to the Council on November 29th, 1895, had special regard to attendance by the student on cases of labour under the supervision of a registered medical practitioner, and was limited to that one point.

The reference to the present Committee covers the whole teaching of practical midwifery.

With the object of obtaining information upon the subject, the following letter, signed by the President, together with the questions appended thereto, was forwarded to the licensing bodies which include teaching institutions, and to other teaching institutions which are recognized by the licensing bodies for subjects other than those of the first year's course:

General Council of Medical Education
and Registration of the United Kingdom,
299, Oxford Street, London, W.,
August 2nd, 1905.

Sir,—At the last session of this Council a Committee was appointed to inquire into the operation of the rules regarding the midwifery practice required of candidates for medical qualifications, and in connexion with this inquiry I have to ask in the name of the Council that you will be good enough to assist the Committee, which is collecting information as to the present position of midwifery teaching, by answering the following questions, so far as they relate to your School.

Yours faithfully,
(Signed) Donald MacAlister,
President.

QUESTIONS.

1. At what period of the curriculum is the student allowed to attend his cases of labour?
2. What parts of his general medical education must he have completed?
3. What special preparation is given him previous to his attendance on his cases?
4. Are students required to attend clinical instruction in a lying-in hospital or obstetric wards? If so, how long is the student required to attend?
5. What is the midwifery teaching staff at your school, and what amount of instruction do the members of it severally give?
6. What are the regulations of your school respecting attendance on cases of labour? Must the student attend them in your maternity department, or may he attend them elsewhere?
7. How many cases of labour must the student have attended under adequate supervision before he is allowed to attend by himself alone?
8. How many cases is the student required to conduct personally? At how many conducted by others must he be present?
9. What is the average number of cases attended by each student in your school?
10. What proportion of your students "attend for three months the indoor practice of a lying-in hospital" as an alternative to not less than twenty cases of labour?
11. Who signs the Student's Certificate of Attendance on cases of labour, and on what evidence?
12. What are your arrangements for the student attending cases of labour:
    (*a*) Where does he reside during the time of his attendance on cases?
    (*b*) Does he attend the cases alone or in the presence of and under the personal supervision of
        (α) The obstetric physician;
        (β) The obstetric resident;
        (γ) A midwife?

(c) What instruction is given

(α) During the progress of the labour;

(β) During the puerperal period; and by whom is it given?

13. What are your rules respecting the student's action in abnormal cases?

14. Under what circumstances must the student send for help, and to whom?

This letter was sent to thirty-eight teaching institutions. Answers have been received from thirty-seven.

SUMMARY OF THE ANSWERS.

Three of the institutions have no school of practical midwifery, and their students obtain their practice elsewhere. Several of the other schools have no maternity, and their students take out their midwifery practice in lying-in hospitals or elsewhere.

From thirty-two institutions more or less full answers have been received. These contain a mass of information, which may be summarized as follows:

1. The period of the curriculum at which the Student is allowed to attend cases of labour varies in different schools, for

He is allowed to attend in his third year in	16
He is allowed to attend in his fourth year in	15
At any time, but usually at the end of the third year, in ...	1

2. He will already have completed

Anatomy and physiology in	8
Anatomy and physiology and lectures on materia medica in	1
Anatomy and physiology and lectures on midwifery in ...	14
Anatomy and physiology, lectures on medicine, surgery, midwifery, and part of hospital work in	2
Anatomy and physiology, pathology, surgery, and first course of medicine in	1
Anatomy and physiology, clerking and dressing in ...	5
Anatomy and physiology, first year's hospital work, and lectures on medicine in	1

3. With regard to the special preparation of the student previous to his attendance on cases, there are

Lectures on midwifery in	6
Lectures on midwifery and tutorial classes in	20
He is required to attend one to six cases under adequate supervision (which appears to mean in the presence of the obstetric resident or other responsible officer) in ...	21
To pass a preliminary examination in midwifery in ...	3

The six institutions, which provide systematic lectures on midwifery only, possess no maternities, and their students take their midwifery practice in lying-in hospitals or maternities in the neighbourhood.

4. It is obligatory on the student to attend the practice of a lying-in hospital for three or six months in 6

It is not obligatory in 26

In one of the twenty-six, however, most of the students attend a lying-in hospital.

5. It is difficult to summarize the information furnished respecting the staffs of the various schools and the duties of their several members.

In Scotland none of the teaching institutions possess hospitals or maternities, and the students obtain their clinical teaching and practical experience in the hospitals of the town in which the school is situated. In towns in which there are several medical schools, the infirmaries, dispensaries, and lying-in hospitals appear to be used in common by the students of all the schools. A similar practice seems to prevail in Ireland and in the provincial towns of England, while in London each school has its own outdoor maternity.

There is one professor of or lecturer on midwifery in every school, with the exception of that of the Irish Conjoint Board.

There is one professor, with or without assistants, in ...	9
There are two physicians (one being lecturer or professor) in	16
There are three physicians (one being lecturer or professor) in	1
There are four physicians (one being lecturer or professor) in	2
There are eight physicians (one being lecturer or professor) in	2
There are twelve physicians (one being lecturer or professor) in	1

Among the four physicians at one school, the eight physicians at another, and the twelve at a third, are included the medical officers of the lying-in hospital.

In five schools the professor has one or two assistants. Tutorial classes, conducted by one of the physicians, a professor's assistant, tutor, or demonstrator, are held in twenty-one. In ten these classes are conducted by one of the physicians; in three by the assistant to the professor; and in five by the tutor, demonstrator, or obstetric resident. The main work of the obstetric resident, however, is to accompany the student to his early cases, to attend difficult or abnormal cases, and generally to superintend the work of the maternity.

The length of the period during which the classes are held varies from three months to one academic year, and their meetings from one to three a week.

Clinical lectures are also given, but the replies do not enable the Committee to state in every case whether they are on subjects in midwifery or on subjects in gynaecology.

6. Six schools require their students to attend the practice of a lying-in hospital for a period of three or six months.

Eight require them to attend their cases in the maternity of the school, while nineteen permit them to take their cases elsewhere.

7. With regard to the number of cases the student is required to attend under adequate supervision, before he is allowed to attend cases alone, it appears that in

Two	the number of cases	required is	6.
Five	,,	,,	5.
Five	,,	,,	3.
One	,,	,,	2.
One	,,	,,	a few.
Seven	,,	,,	1.

In one school he may attend alone from the first, and in two schools there is no rule.

8. The student is required to conduct personally 20 cases at least in 19

Three of these require in addition 5 to 10 cases conducted under supervision.

10 conducted personally and 10 under supervision in ...	1
12 conducted personally in	3
9 conducted personally and 3 by house-surgeon in ...	1
9 conducted in	1
6 at least conducted personally, not less than 12 in all, in...	1
No fixed number in	2

9. The average number of cases attended by each student may be stated thus:

Between	20 and 40	cases	in 16	schools.
,,	20 and 60	,,	1	,,
,,	40 and 60	,,	4	,,
,,	20 and 200	,,	1	,,
,,	12 and 16	,,	7	,,

10. In eleven schools none of the students attend for three months the indoor practice of a lying-in hospital "as an alternative to 20 cases of labour"; and of those in ten others practically none do so. About 50 per cent. of the students in one school take the alternative; about 6 or 7 per cent. of those in another attend the indoor practice of a lying-in hospital for three weeks; and about 15 per cent. of those in a third attend for one month—most of them in addition to attendance on 20 cases.

All or almost all the students of six schools take three months in a lying-in hospital.

11. The certificate of attendance on cases is signed by an officer of the school or hospital generally appointed or authorized to do so. He may be the obstetric physician, house-surgeon, resident obstetric officer, midwife, secretary, dean of faculty, warden, demonstrator of midwifery, medical superintendent, or the whole visiting staff.

The certificate is signed on the evidence of the hospital register, record, medical staff, personal voucher of clinical clerk, obstetric resident, signed letters of the maternity officer in personal charge of students, student's report on cases which he has "seen," or examination after six months' work in hospital.

12. During the period of his attendance on cases of labour

(a) The student resides—

In the hospital in	12	institutions.
In quarters provided in... ...	6	,,
In lodgings near or within a radius of a mile from the hospital in ...	11	,,

(b) In twelve institutions the student attends his cases under supervision—

That of the obstetric physician in	2	institutions.
That of the obstetric resident in	4	,,
That of the obstetric resident, qualified midwife, nurse, or midwife nurse in	3	,,

In three he attends or may attend all his cases alone.

In lying-in hospitals the student is always under the supervision of the matron, resident medical officer, or physician, and is placed in favourable circumstances to receive bedside instruction in the progress of labour and of the puerperium.

The replies received respecting the instruction given in outdoor maternities during labour and the puerperium are sufficient to indicate that it is at the best of a meagre character.

13 and 14. In all outdoor maternities the rule is, broadly, to send for the obstetric resident in every case which presents any abnormality. In several answers particular abnormal conditions are mentioned, in the presence of which the student is required to summon the obstetric physician or resident, such as when the student is in doubt as to the nature of the presentation, or is unable to make it out, abnormal presentation, protracted labour, retention of the placenta, accident, such as haemorrhage before or after delivery, convulsions, exhaustion; when during the puerperal period the mother or child is not doing well; or when the pulse beats are 100 per minute or the temperature 101° F.

Such is a summary of the answers received in reply to the questions sent to the schools.

OBSERVATIONS BY THE COMMITTEE.

On reviewing the facts your Committee find that:

(1) In eight schools the student is allowed to attend

cases of labour after he has passed the examination in anatomy and physiology.

(2) In one after having in addition attended lectures on materia medica.

(3) In fourteen after having attended systematic lectures on midwifery.

That is, the students of twenty-three schools are allowed to attend cases of labour before they have acquired any knowledge whatever of medicine and surgery.

In nineteen schools the student may attend his cases in the school maternity or elsewhere; in eight he must attend them in the school maternity with this amount of supervision—that he is accompanied by the resident obstetric to his first case or first few cases, and has directions to summon the resident when he thinks that necessary.

The average number of cases attended by each student is in excess of that required by the Council in twenty-two schools, while it is below the Council's minimum in seven.

The evidence upon which the certificate of attendance is signed would be satisfactory, were it in all cases based on definite records of cases attended, and not on personal belief or recollection.

The nature of the supervision exercised over the student may be gathered from the fact that in twenty-one institutions, after he has attended from 1 to 6 cases with a medical officer, he attends the rest alone. Twelve of the institutions reply that he attends under personal supervision, so that the words "personal supervision" in this connexion mean no more than that the student must send for the responsible officer when he thinks it necessary in accordance with the rules of the institution.

With regard to the instruction given during the progress of labour and the puerperium, full instruction is or may be given within the walls of a lying-in hospital; but in outdoor maternities this is not possible, inasmuch as the student attends the great majority of his cases alone. Moreover, the fact that the cases are scattered over an area whose radius is a mile or more makes it impracticable for the resident officer or physician to visit them so as to give personal instruction upon them to the student in attendance. Consequently the instruction in this respect given is of a very meagre character.

Conclusions.

Your Committee have come to the conclusion that the rule of the Council—that is, that the student should attend the indoor practice of a lying-in hospital or be present at not less than twenty labours, at least five of which shall be conducted throughout under the direct supervision of a registered practitioner—is not complied with by the majority of the schools.

It seems obvious that even if the course of study recommended were in itself sufficient, since its requirements are not complied with, there is no evidence to show that persons obtaining qualifications possess the required knowledge and skill for the efficient practice of midwifery.

Your Committee are of opinion that no student should be allowed to attend cases of labour until:

1. He has filled the posts of clinical clerk and surgical dresser;
2. Has attended a course of lectures on midwifery, surgery, and medicine; and
3. Has given undivided attendance upon the indoor practice of a lying-in hospital or the lying-in wards of a general hospital for at least one month, and has therein been properly instructed in the conduct of cases of labour.

It appears to your Committee that by such means alone can the normal progress of labour, the use of antiseptics in midwifery, the course of the puerperium, and the care of the mother and child, be properly and practically taught, and the safety of lying-in women and newborn infants be ensured.

Recommendations.

The Committee accordingly recommend:

1. That the following be substituted for the existing Recommendations of the Council in regard to instruction in midwifery:

"That every student should be required to have conducted not less than twenty cases of labour, subject to the following conditions:

"(*a*) Before the student is allowed to conduct the above-mentioned twenty cases of labour he should be required to have held the office of clinical medical clerk and of surgical dresser; to have attended a course of lectures in medicine, surgery, and midwifery; to have during one month given undivided attendance upon the indoor practice of a lying-in hospital or the lying-in wards of a general hospital; and to have therein attended cases of labour under the direct supervision of a medical officer of the hospital. He should further be required to produce a certificate from the authorities of the hospital showing that he is competent to undertake the conduct of ordinary cases.

"(*b*) No certificate that the student has conducted the above-mentioned twenty cases of labour should be accepted unless it is given by a member of the staff of a lying-in hospital or of the maternity charity of a general hospital."

2. That copies of this report and of the resolution of the Council thereupon be sent to all licensing bodies and medical schools in the United Kingdom.

Report of the Education Committee.

Dr. Mackay (Chairman) moved the adoption and approval of a report of the Education Committee. The relation of chemistry, physics, and biology to the curriculum was not, he said, a new question; it had been discussed over and over again since the five years' curriculum was adopted. It was premature to speak of the effect of the new regulations until the Council was in a position to ascertain what improvement had taken place by renewed inspection, and, therefore, the Committee asked that the matter might be left over. With regard to the length of the curriculum, there was no subject more important, and he ventured to suggest that by an alteration in arrangement of the subject very much time could be saved, namely, by taking the first year's anatomy along with the other sciences so as to enable it to be settled by the end of the second year, which would meet the grievances of many teachers.

Dr. Norman Moore, in seconding, agreed that the whole subject of the curriculum deserved the most thorough and prolonged consideration, in view of the great variety of changes in study which had taken place.

The motion was agreed to.

Report of Finance Committee.

At the instance of the Treasurers (Dr. Pye-Smith and Mr. Tomes) a report of the Finance Committee on income and expenditure, and embodying a comparison with former years, was received, entered on the minutes, and approved.

Report of the Students' Registration Committee.

On the motion of Sir Hugh Beevor (Chairman) seconded by Sir John Batty Tuke, a report of the Students' Registration Committee on exceptional cases, and recommending that the Hull Municipal Technical School (Day Classes) be added to the list of recognized institutions approved by the Council, was received and entered on the minutes.

Increase in the Number of Direct Representatives.

Mr. George Brown moved:

> That representations be made to the Privy Council that the time has arrived when the number of Direct Representatives for England, Scotland, and Ireland should be increased to the maximum number permitted by the Medical Act of 1886.

He said that if the powers given by Parliament were to be exercised with any effect the motion must be adopted at the present session. Twenty years ago the ratio of the number of Direct Representatives to those of corporate bodies was 1 to 5, but the number of the latter had since been raised to 29. The ratio of Direct Representatives to corporate representatives was now 1 to 6. This was a reason why the Council should approach the Privy Council for an increased number of Direct Representatives. In 1885 the number of practitioners on the *Register* in England and Wales was 16,224. Last year it was 24,351, showing an increase of nearly 50 per cent. In 1886 there was one representative to every 5,000 practitioners, at the present time there was one to 8,000. In Scotland in 1885 there were 2,299 on the *Register*, and last year there were 3,773, an increase of about 50 per cent., and in Ireland there were 2,458 in 1885 and 2,602 in 1905. The total on the *Register* in 1885 was 25,998, and in 1906 39,060, or 14,000 more practitioners, which he thought warranted an application for increased Direct Representation.

Sir VICTOR HORSLEY seconded the motion purely as a matter of justice. The Act of 1886, carried to its maximum extent, would not completely restore the balance but it would do something towards it. The Council had had an opportunity previously of passing the resolution, and he hoped that on this occasion it would rise to the proper sense of the proportionate representation that ought to exist in the Council,

Mr. JACKSON supported the motion as he seconded it last year.

Dr. LITTLE thought it impossible to add to the numbers of the Council as it would greatly increase the expense and greatly diminish its efficiency. The great duty of the Council was to take such steps as would enable the public to distinguish between qualified and unqualified practitioners, and the secondary part of the Council's duty was to look after the interests and the honour of the profession. That was a duty which was far more efficiently discharged by voluntary associations such as the British Medical Association, and was no part of the duty of the Council. The representatives of the corporations and universities were just as alive to the wants of the profession and as anxious to secure them as the Direct Representatives, and therefore there was no need for further Direct Representatives to look after the interests of the profession.

Sir JOHN MOORE observed that of the constituents one-third did not think it worth while to record their vote. In 1896, 40 per cent. of the voting papers sent out in England were not sent back, in 1897, 36 per cent., and the most startling fact of all, and one which to his mind settled the question effectually, at least for him, was that in 1901 57.27 per cent. of the papers sent out never returned. Therefore the profession did not want more direct representation than it at present had.

Sir JOHN BATTY TUKE supported the motion. He was prepared to advocate, here and elsewhere, an increase of direct representation, but he was not prepared to advocate indirect representation. He wished to explain. A question had been raised before the Council that day by Mr. Brown as to the manner in which the British Medical Association intended to lay out a plan of campaign. They were to select a certain number of gentlemen, from whom were to be selected three candidates, and each had signed the undertaking referred to previously. He objected to the scheme in three capacities: He objected to it at first as a member of the Council; secondly, as a registered practitioner; and thirdly, as a member of the British Medical Association. Gentlemen so elected would be the delegates of the Association. He had been on the Council very nearly twenty years, and during the whole of that time he could not recollect any member of Council who had accepted such a position. It was perfectly true that on certain occasions members of Council had to advocate the policy adopted by the body they represented; but no man ever came into the Council chamber bound hand and foot.

Sir VICTOR HORSLEY: Yes, bound hand and foot.

Sir JOHN B. TUKE held that it would be inimical to the freedom and independence of discussion which characterized the Council if any one came there pledged, as a condition of his nomination, to obey the instructions of an external organization. The President had drawn attention to the effect it might have on their judicial work. Sir John Batty Tuke held that, in view of the existing decisions of courts of law, the presence of men so pledged would have the effect of invalidating the judgement of the Council as a judicial tribunal.

The PRESIDENT, in reply to Sir Victor Horsley, ruled that the reference to the British Medical Association came within the terms of the resolution.

Sir JOHN B. TUKE, continuing, said it was within his knowledge that on several occasions the British Medical Association had acted as informers, and direct representatives were elected on this system. The fact that the Association was promoting a prosecution would invalidate the action of the Council. As a registered practitioner he objected to the disfranchisement of all those who were not members of the British Medical Association, and further, as a member of the British Medical Association, he objected to it on grounds that delegates so appointed would have no views except the views put forward by the British Medical Association. It would, he believed, destroy the *libertas arbitrii* which was at the bottom of the history of the Association. For these reasons he asked Mr. Brown to withdraw his motion until such time as it could be seen whether this plan was carried into effect. It was a very dangerous position to stand in, and if the Council were to vote in favour of this motion it would be adding, or might probably be adding, four instead of three Direct Representatives.

Dr. SAUNDBY thought Mr. Brown had made out a very good case for adding one additional Representative for England, but not for Scotland and Ireland; therefore he moved as an amendment:

> That it is expedient to confer upon the registered medical practitioners residing in England and Wales the power of returning an additional member to the Council.

He did not think anything had been put forward to show that the general practitioners in Scotland or Ireland were not adequately represented by one member each. With regard to Sir John B. Tuke's observations, he was sure the British Medical Association would never ask any gentleman to come there elected by the members of the organization to do any public or professional wrong in their work.

Sir THOMAS MYLES seconded the amendment. He thought the immense numerical increase of practitioners in England called for increased representation. He sympathized with Sir John Batty Tuke and Mr. George Brown, but he failed to see how a large body of 20,000 or 30,000 gentlemen could give expression to their views except through their Representatives, and he was sure their Representatives would not be any less independent than the present members of the Council.

Dr. BRUCE as a Direct Representative, thought the argument of territorial representation had very great force. He believed that some better system of administration would have to be considered on lines of granting larger powers to the Executive Committee. It was true that there was apathy in the profession; but there was great difficulty in canvassing a large constituency, and that had a great deal to do with the fact that many of those who had a vote did not choose to record it. If the Council did not go to the Privy Council, in his opinion it would be quite within the power of the Direct Representatives to approach it.

Dr. FINLAY would vote both against the resolution and the amendment. What was wanted in the Council was men who were engaged chiefly in teaching. The argument that because there was an increased number of corporate and university representatives therefore there should be an increase in the Direct Representatives, seemed to him to cut the other way.

The amendment was then put and declared lost.

At the request of Dr. SAUNDBY the names and numbers were taken down, when 14 voted against, 7 for, 9 did not vote, and 4 were absent.

Mr. BROWN, in reply, acknowledged the kindness of the Council in discussing the motion so tersely and fairly. He would like to state, with regard to the British Medical Association, that it only represented one half of the profession. If he thought that the British Medical Association could dictate who should sit on the Council he would not vote for his own motion; but he thought the action of the Association would be this, that every member would exercise his own judgement, and vote only for whom they thought best to represent them on the Council. He was fortified in that view by the fact that not more than five Divisions of the British Medical Association had taken any action with regard to the nomination of candidates. Many had passed a resolution to the effect that it would be undesirable for the British Medical Association to nominate candidates or determine who should come forward for election, and therefore they could leave the election of representatives to the good sense of the members of the British Medical Association.

The motion was then put and lost.

At the request of Mr. GEORGE BROWN the names and numbers were taken down, when 18 voted against, 6 for, 8 did not vote, and 5 were absent.

Dental Education and Registration Committee.

Dr. Norman Moore moved, Mr. Morris seconded, and it was resolved:

> That the following be the members of the Dental Education and Examination Committee: Mr. Tomes (Chairman), Mr. Morris, Dr. Finlay, Mr. Brown, Sir Thomas Myles, Dr. Lindsay Steven, Dr. Bennett.

Students' Registration Committee.

Sir Hugh Beevor moved, Dr. Norman Moore seconded, and it was resolved:

> That the following be the members of the Students' Registration Committee: Sir Hugh Beevor (Chairman), The President, Sir John Batty Tuke, Dr. Mackay, Dr. Norman Moore, Sir Christopher Nixon, Dr. Adye-Curran.

Vote of Thanks to Chairman.

On the motion of Dr. Norman Moore, seconded by Dr. Bennett, a hearty vote of thanks was accorded the Chairman for his conduct in the chair; and the President having expressed his acknowledgement, the proceedings terminated.

Meetings of Branches & Divisions.

[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the Journal.]

EDINBURGH BRANCH:

North-East Edinburgh Division.

The annual meeting of the Division was held in the Royal College of Physicians on Thursday, May 17th, at 8.15 p.m. Dr. James Carmichael presided.

Election of Officers.—The following were elected office-bearers for this year:—*Chairman:* Dr. James Carmichael. *Vice-Chairman:* Dr. W. Leslie McKenzie. *Secretary:* Dr. G. Keppie Paterson. *Representative to Representative Meeting:* The Chairman. *Representative on Branch Council:* Dr. Andrew Balfour. *Executive Committee:* Dr. G. Fyfe, Dr. J. Cormack Smith, Dr. H. L. Calder, Dr. G. M. Johnston, Dr. James Cameron, and Dr. James Smith.

New Rule.—The following rule was adopted: "In cases of urgency the Chairman and Secretary shall have power to convene a special meeting, with not less than two clear days' notice."

Annual Representative Meeting.—The proposed Charter and the Provisional Agenda of the Representative Meeting were considered, and the Representative instructed on them.

Branch and Division Finance.—The inquiry on the system of Division and Branch finance was also discussed.

LANCASHIRE AND CHESHIRE BRANCH:

Blackburn Division.

The annual meeting of the Blackburn Division was held at the Old Bull Hotel, Blackburn, on Friday, May 25th, Dr. Ballantyne, who was voted to the Chair in the absence of Dr. Cunliffe, presiding.

Report of the Representatives.—Resolved: That at each annual meeting of this Division the representatives give an account of their work, attendances, etc., during the past year.

Secretary's Report.—The Secretary read his annual report.

Election of Officers.—The following officers were elected for the ensuing year:—*President:* Dr. Ballantyne. *Vice-President:* Dr. Wallers. *Secretary:* Dr. Greenwood. *Representative for Representative Meetings:* Dr. R. C. Holt. *Members of Branch Council:* Drs. Prebble and A. B. Craig. *Members of Executive Committee:* Drs. Macklin, Moir, Nash, Aitken.

Representative at Annual Meeting.—Resolved: That Dr. Prebble represent the Blackburn Division at the annual meeting of the Association in Toronto next August.

Resolutions of Lancashire and Cheshire Branch.—Resolved: That this Division instruct its Representatives on the Branch Council to the utmost of their power to oppose the resolutions put forward by order of the Council at the last meeting of the Lancashire and Cheshire Branch at Manchester.

Vote of Thanks.—It was resolved that a hearty vote of thanks be accorded to the officers for their services during the past year.

MALAYA BRANCH:

Singapore Division.

The Honorary Secretary of the Malaya Branch, under date of May 1st, has intimated to the General Secretary of the Association that the Singapore Division has voted in favour of the motion against out-patient departments given in the Supplement to the British Medical Journal of February 17th. The motion was carried by the casting vote of the President, the voting being even. The Division unanimously approved of the Royal Charter Scheme given in the Supplement of March 24th, and had no amendments to offer to the Draft Charter.

METROPOLITAN COUNTIES BRANCH:

City Division.

The fourth annual general meeting was held on Thursday, May 24th, at the Great Eastern Hotel, Liverpool Street, E.C. The Chairman of the Division, Dr. J. W. Hunt, presided.

Annual Report of Executive Committee.—This was read and adopted.

Election of Officers.—The following members were elected:—*Chairman:* Dr. Major Greenwood; *Vice-Chairman:* Mr. A. G. Southcombe; *Representatives on Branch Council:* Mr. H. E. Powell and Mr. Frederick Wallace; *Honorary Secretary and Treasurer:* Dr. E. W. Goodall; *Assistant Honorary Secretary:* Mr. C. R. Salisbury; *Other Members of Executive Committee:* Dr. J. O. Adams, Dr. G. P. Bate, Mr. J. Beddow, Mr. H. Bird, Mr. T. L. Brown, Mr. Hope Grant, Mr. A. Withers Green, Dr. J. W. Hunt, Dr. E. A. Lermitte, Dr. J. W. Oliver, Mr. J. Scott Sequeira, Dr. F. H. Spooner, Dr. W. Whitelaw, and Mr. H. Chisholm Will; *Representative at Representative Meetings:* Mr. Frederick Wallace; *Ethical Committee:* Dr. A. T. Davies, Mr. A. R. F. Evershed, Mr. Hope Grant, Dr. A. Hirst, Mr. H. E. Powell, Mr. Frederick Wallace, with the Chairman and Secretary.

Report of Delegates to Conference re Representation of the Branch on the Central Council.—The delegates, Mr. F. Wallace and Dr. Goodall reported that a meeting of delegates from the Stratford, Walthamstow, and City Divisions had been held; the delegates from the Tottenham Division had been prevented from attending. At this meeting it was resolved that Dr. St. Clair B. Shadwell be nominated by the eastern group of Divisions to represent the Branch on the Central Council.

Nomination of Representative of Branch on Central Council.—It was proposed by Dr. Major Greenwood, seconded by Mr. Chisholm Will, and unanimously resolved, that Dr. St. Clair B. Shadwell be nominated by the City Division to represent the Branch on the Council.

Notices of Motion, etc., for Representative Meeting.—The remainder of the provisional agenda paper was discussed, part having been considered at a previous meeting. While on several matters the wishes of the Division were expressed, generally it was left to the Representative to vote at the Representative Meeting as he thinks fit.

The meeting was then adjourned till 7 p.m. on Thursday, June 7th, at the Gaiety Restaurant. The adjourned meeting will be followed by the annual dinner at 7.30.

Marylebone Division.

A general meeting of the Marylebone Division was held at the rooms of the Medical Society, 11, Chandos Street, W., on Tuesday, May 22nd, at 5 p.m.

Confirmation of Minutes.—The minutes were signed as correct.

Nominations for Branch Council.—Dr. de Havilland Hall was nominated for Vice-President of the Branch Council, Mr. Betham Robinson for the Treasurership, and Mr. D'Arcy Power as Secretary.

Meeting of Representatives of Metropolitan Divisions.—The report of the Representatives appointed to attend a meeting of Representatives from the other Divisions of the Metropolitan Counties Branch to discuss the nomination of candidates for the Council of Association was received and approved of, and the Representatives were thanked for their services.

Nomination for Central Council.—Sir Victor Horsley was nominated as the candidate of the Marylebone Division for the Central Council.

Registration of Nurses.—(*a*) The Division approved in general of the method of registration of nurses proposed by the Select Committee of the House of Commons; (*b*) The Division approved of the separate registration of midwifery nurses.

Notices of Motion referred to the Division.—C. 4, 5; K. 15, 16, 17, 18, 19, 20, 21, 22, 25; M. 27, 28, 29, 30, 31, 32, 33, 34, 37, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 59. The Representative of the Division was empowered to act as he thought best with regard to these resolutions.

THE annual meeting of the Division was held at the Rooms of the Royal Medical and Chirurgical Society, 20, Hanover Square, W., on Tuesday, May 29th, at 5 p.m., Dr. RADCLIFFE CROCKER in the chair.

Confirmation of Minutes.—The minutes of the previous general meeting were signed as correct.

Election of Officers.—The following officers were elected: *Chairman*, Dr. Lauriston Shaw; *Vice-Chairman*, Dr. Dutton; *Honorary Secretary and Treasurer*, Dr. Comyns Berkeley. The following Representatives of the Division on the Branch Council were elected: Dr. Dutton, Dr. Hawthorne, Dr. Lauriston Shaw, Dr. Lennard Williams, Dr. Atwood Thorne, Dr. Comyns Berkeley, Mr. Armour. Sir Victor Horsley was elected as the Representative of the Division at the Representative Meetings of the Association.

Report of Executive Committee.—The annual report of the Executive Committee was received and adopted.

Votes of Thanks.—Votes of thanks were passed to the Chairman and Honorary Secretary for their services during the past year.

RICHMOND DIVISION.

THE annual meeting of the Richmond Division of the Metropolitan Counties Branch was held on May 16th.

Nomination for Central Council.—Dr. F. G. Crookshank, of D'Antraigues, The Terrace, Barnes, S.W., was nominated for election to the Central Council of the Association.

Annual Representative Meeting.—Dr. R. Langdon-Down, of Normansfield, Hampton Wick, Middlesex, was re-elected Representative of the Richmond Division at the Annual Meeting of Representatives.

Representative on Branch Council.—Dr. Wilson, The Moorings, Kew Gardens, Surrey, was elected the Representative of the Division on the Branch Council.

Election of Honorary Secretary.—Dr. Charles S. Blair, of Richmond, was elected Honorary Secretary.

ST. PANCRAS AND ISLINGTON DIVISION.

THE annual meeting was held on May 25th at the St. Mary Islington Infirmary, Highgate Hill; Dr. FRANCIS J. BUCKELL in the chair.

Election of Officers.—The officers for the ensuing year were elected as follows: *Chairman*, Dr. Walter Smith of St. Pancras; *Vice-Chairman*, Dr. F. Greaves of Islington; *Secretary*, Dr. W. H. Yeld, of 15, Gloucester Road, Regent's Park, N.W.; *Representative for the Annual Meeting*, Dr. Walter Smith; *Representatives on the Branch Council*, Drs. Buckell, Walter Smith, and W. H. Yeld; and *Members of the Executive Committee*, Drs. Theobalds, Hearne, Crabb, Ladell, Berton, Buckell, and Wynn Westcott.

Annual Report and Balance Sheet.—The SECRETARY read the annual report and balance sheet, which were received and adopted and ordered to be entered on the minutes. The expenditure for the year was £16 12s.; eight meetings had been held; at six meetings lectures were given and some political matter discussed; two meetings were entirely devoted to medico-political discussions.

Annual Representative Meeting.—The provisional agenda for the Annual Representative Meeting to be held in July was considered seriatim, and the Representative was instructed to propose amendments as follows: on page 233, No. 35, to alter consulting the Divisions to taking the opinion of a Representative Meeting; No. 48, as to the supply of vaccine to add the word "free"; No. 49, to read "every registered medical practitioner to have the privileges of a public vaccinator"; No. 55, to omit the words "whose staff are general practitioners," and the word "specially."

Resolution as to Meetings.—It was resolved to hold no further meeting until October, unless required to discuss some medico-political business.

TOTTENHAM DIVISION.

THE annual meeting of the Division was held at the Tottenham Hospital on Friday, May 25th, at 4 p.m. Dr. E. HOOPER MAY presided.

Nominations for Central Council.—Dr. St. Clair Shadwell, of Walthamstow, was selected and nominated by the Division as the Representative of the Metropolitan Counties Branch on the Central Council of the Association.

Election of Officers.—The following officers were elected for the next session: *Chairman*, Dr. Leonard Grant; *Vice-Chairman*, Dr. C. E. Hutt; *Committee*, Drs. Hooper, Major Greenwood, Gogarty, R. E. Foott, and Tresilian. Dr. H. F. Staunton, 88, High Road, Wood Green, N., was elected Honorary Secretary and Treasurer.

Annual Representative Meeting.—The Division decided to leave it in the hands of Dr. Fuller to vote as he judged best for the interest of the members at the meeting of the Representatives of Divisions and Branches to be held in London at the end of next July in connexion with the annual meeting of the Association.

The late Dr. Tomlin.—A vote of condolence was passed to the widow and family of the late Dr. R. F. Tomlin, of 49, Lordship Lane, Wood Green, expressing their sympathy in their bereavement; and the Secretary was directed to write to Mrs. Tomlin expressing the sympathy of the members of the Division.

WANDSWORTH DIVISION.

THE annual meeting was held on Friday, May 25th, at 6.30 p.m., in the Battersea Town Hall, H. R. KER, F.R.C.S., Chairman, presiding.

Minutes.—It was resolved that the minutes should be read at the next meeting.

Correspondence.—Several communications were read and dealt with. A lengthy correspondence with reference to the proposed children's hospital in Wandsworth was deferred for consideration at a special meeting to be called for June 5th at the Wandsworth Town Hall.

Representative at Annual Representative Meeting.—Dr. L. S. McManus was duly elected for the year 1906-7.

Election of Officers and Committee.—The CHAIRMAN reported that the following had been duly elected to act for the year 1906-7: *Chairman*, Llewellyn Williams, L.R.C.S.; *Vice-Chairman*, Malcolm Mackintosh, M.D.; *Chairman-Elect*, Gilbert Richardson, M.R.C.P.; *Hon. Secretary and Treasurer*, E. Rowland Fothergill, M.B.; *Hon. Assistant Secretaries*, D. R. Powell Evans, M.R.C.S., Charles J. Martin, M.B., Allan J. Swallow, M.B.; *Representatives on the Metropolitan Branch Council*, M. G. Biggs, M.D., George Walker, M.R.C.S.; *Ordinary Members of the Committee*, (Balham) Hugh R. Ker, F.R.C.S., (Battersea) W. G. Gyton, M.R.C.S., (Clapham) F. Stocks, M.R.C.S., (Putney) J. Gay, M.R.C.S., (Tooting) H. T. Barron, M.D., (Wandsworth) E. J. Pritchard, M.R.C.S., (Wimbledon) P. B. Spurgin, M.R.C.S.

Elections to Ethical, Hospital, and Science Committees.—These were deferred to the special meeting to be held on June 5th.

Annual Report.—The following is the text of the annual report presented: Your Executive Committee submit the annual report of the Division to its members. They consider that, on perusing the same, the members will say that during the past twelve months the Association in their district has not been inactive, but has done good work toward advancing science and the honour and interests of the medical profession. The membership in May last was 151, and now is 175. There have been sixteen ordinary meetings held in various districts, at three of which science papers have been read, and at four clinical demonstrations have been given; various matters of medico-political interest have been discussed at thirteen meetings. The average attendance has been nineteen. During the past twelve months several meetings of special interest have been held. A public meeting was held in February under the auspices of this Division to bring before the profession and members of the laity the aims and objects of the National League for Physical Education and Development; but owing to various other important meetings being held on that date, the attendance, although over sixty in number, was not as large as it would otherwise have been. There appears to be no reason why this Division should not annually have under its auspices a public meeting for the prominent members of the laity resident within its area, at which a popular lecture on some scientific topic could be given. There have also been three conjoint meetings held. Two have been with the Chelsea and Richmond Divisions to consider the questions of the proposed general hospital at Putney and the Wandsworth Children's Cottage Hospital on West Hill. Steps are now being taken to make these hospitals a benefit and not a source of abuse in the district, while at the same time safeguarding the interests of the medical profession. The third conjoint meeting was held on April 19th with the neighbouring Divisions (Chelsea, Westminster, Richmond, Lambeth, Norwood, and Croydon) to consider the proposed Royal Charter, at which the general principles were discussed, and explanations of important points were made by Dr. Verrall, Chairman of the Organization Committee, and the Medical Secretary. Other conjoint meetings could be held with great advantage as occasion offers, as they result in diffusing interest, and aid towards the union of the profession. A meeting of the whole of the local profession was held in December to consider contract practice. Three clinical meetings have been held at the Bolingbroke Hospital, and one at the Wandsworth Infirmary. Your Committee feel sure the local profession have greatly appreciated these facilities, and are indebted to those who have kindly offered them. Scientific meetings have been held at Clapham Common, Balham, and Wimbledon. Your Committee will shortly consider what may be done to extend these opportunities, more especially by holding meetings for the reading of papers and the demonstration of pathological specimens at two or more places in the wide area the Division covers on the same evenings. The Division had at its meeting, in December, at Clapham, the opportunity of hearing able addresses by Sir W. Broadbent and Dr. West, who placed before the members the claims of the British Medical Benevolent Fund. This resulted in a large collection being made, and several new annual subscribers being obtained. In Division meetings the following subjects have been considered and dealt with: Contract practice, ambulance lectures and examinations, co-ordination of science work, election to the General Medical Council in November, 1906, the pathologists to the London County Council, the desirability of the representation of the London members on the Central Council of the Association being more widely distributed, nurse registration, parliamentary elections, audit of Coroner Troutbeck's accounts, subscribers' letters at the Incurable Hospital, Putney, etc. Your Executive Committee have also had under consideration the following, among other matters: Advertising with reference to a laundry in Wimbledon, improvement of the BRITISH MEDICAL JOURNAL, scheduled poisons, ambulances for transference of sick poor to the hospitals, out-patient cards at the Bolingbroke Hospital, the actions of local midwives, licences required for doctors' boys, local advertising by dentists and sellers of abortives, etc. Subcommittees have been formed, and have dealt with the following subjects: Contract practice, conferences with L.C.C. pathologists, registration of nurses, parliamentary candidates in January last, science work of the Division. On the Branch Council the following subjects have been brought forward by your Representatives: The payment of medical men called in by midwives, revision of the rules of the Midwives Board, the formation of a Medico-Political Committee of the Branch, a *conversazione* of the Branch to be held in July next. At the Annual Representative Meeting held in Leicester last July, your Representative brought forward, among others, the following subjects for consideration: Increased metropolitan representation on the Central Council, representation of the Association on outside bodies, amendments in death certificates and coroners' law, the recent reference to the late Prime Minister with regard to Coroner Troutbeck, etc. At the Annual Representative Meeting to be held in London in July next the following subjects, among others, will be brought forward by your Representative: Capitation grants to Divisions, due representation of the profession on the Nurses' Educational Council, and the questions of obtaining new Association offices and the engaging of District Medical Organizing Secretaries, etc. There has happily been no need to call together the Ethical Committee. The conjoint South London Hospital Committee, which came into existence as a result of the initiative of your Division, and on which you are represented, is still negotiating with King's College Hospital; and the prospects of a satisfactory scheme being elaborated to prevent this hospital when at Camberwell being injurious to the profession practising within its vicinity are hopeful. The Troutbeck controversy, your Committee regrets, has not as yet been satisfactorily completed, in spite of the Association objecting to the needless expenses incurred by that coroner in carrying out his duties. But it is some gratification to the profession to know that the list of eighteen special pathologists has, through the efforts of your Committee, been reduced to two, neither of whom are members of the Association. Were the profession united, even these two would find it to their own personal interest to cease to act in a way that can only be characterized as detrimental to the honour and interests of the profession. Correspondence has taken place with Mr. Coroner Troutbeck with reference to some recent public statements of his, and it is proposed shortly to publish this. The above numerous and important undertakings cannot be carried out without some expense. The total amount expended during the past year was £69 3s. 3d., or 8s. 3d. per member. Your Committee feel that the members will agree that this is not to be considered in any way extravagant. As the result of numerous expressions by the members that something of the sort should be attempted, representatives have been elected to serve on a Conjoint Committee formed by this Division, the S.W. London Medical Society, and the Wimbledon and District Medical Society, in order to investigate and report what steps it might be thought desirable to take in order to combine the scientific and ethical work of these three societies. Greater interest has been shown during the past year by the local members, and your Committee hope that still further efforts will be made to develop the Association in your midst for the benefit of the medical profession. They are gratified to see several new members coming forward to help on your Executive Committee. They take this opportunity of thanking all those members who during the past twelve months have aided by work on Committees and Deputations in furthering in your midst the development of science and the maintenance of the honour and interests of the medical profession. Increased membership is most desirable. Many in your district are still unattached. Your Committee would again appeal to each member to obtain at least one new member during the coming year. The report was discussed, members expressing their appreciation of the work undertaken by their Committee and representatives. The report was adopted.

Annual Dinner.—At 7.15 p.m. Mr. Hugh R. Ker, F.R.C.S., Chairman, received the guests of the Division, and the members and their friends. At 7.30 the company, numbering 82, adjourned to the large Banqueting Hall, which presented a brilliant appearance, having been tastefully decorated with flowers by the wife of the Chairman. Among the guests were Mr. Percy Thornton, M.P., Surgeon-General Keogh, C.B., the Mayors of Battersea, Wandsworth and Wimbledon, the late candidates for the four parliamentary districts within the Division area, the local members of the London County Council, the Chairman of the Wandsworth Board of Guardians, Sir Cooper Perry, the Chairman of the Central Council, the President of the Metropolitan Branch, the Chairman of the Organization Committee, most of the visiting staff of the Bolingbroke Hospital, the Editor of the JOURNAL, Dr. Ernest Jones (Harley Street), as well as members of the Association from various districts in London. Letters of regret were received from Sir Henry Kimber, Bart., M.P., absent through illness, and Sir Batty Tuke, M.P., and Sir Victor Horsley, F.R.S., who were prevented from attending owing to the excessive work of the General Medical Council. After the dinner there was a lengthy toast list to be dealt with, which was interspersed with glees by the Lyston Glee Singers (kindly provided by the Chairman). Surgeon-General KEOGH, replying for "The Army, Navy, and

Reserve Forces," gave a most important exposition of the present intentions of the War Office with regard to the training of the civilian medical practitioner in war requirements during times of peace. The company separated at a late hour, after a most enjoyable evening. This annual event bids fair to become the great function of the medical profession in this district, and is used as the means of bringing the laity into touch with the Association and its objects.

SOUTHERN BRANCH:
Salisbury Division.

The annual meeting was held on May 16th at the Infirmary, Salisbury, at 8.30 p.m., preceded by dinner at the County Hotel, Dr. Harris (Chairman) presiding.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

Letters.—Letters were read by the Secretary from Dr. Tubb Thomas, from the Clerk to the Wilts County Council, and from Mr. George Harris, Clerk to the Salisbury Education Committee.

Balance Sheet.—The Treasurer's account and balance sheet, showing a balance in hand of £13 9s. 3d., were approved by the meeting.

Election of Officers.—Dr. E. T. Fison was elected Chairman for the ensuing year, and thereupon took the chair resigned by Dr. Harris. The following officers were then elected:—*Vice-Chairman:* Dr. E. Farr (Andover). *Honorary Secretary and Treasurer:* J. E. Gordon. *Representative for Representative Meetings:* Mr. C. R. Straton. *Representatives on Branch Council:* Dr. Fison, Mr. L. S. Luckham. *Executive Committee:* Dr. Blackmore, Dr. Kempe, Mr. Luckham, Mr. March, Mr. Richmond, Mr. Willcox.

Vote of Thanks to Retiring Chairman.—Mr. Luckham proposed that a vote of thanks be given to the retiring chairman (Dr. Harris of Shaftesbury) for his services as chairman during the past year. This was seconded by Dr. Fison and carried unanimously.

Vote of Thanks to Honorary Secretary.—It was proposed by Mr. Manning and seconded by Mr. Willcox that a vote of thanks be accorded by this Division to the Honorary Secretary for his services, and this should be entered on the minutes. This was carried unanimously.

Annual Representative Meeting.—The business of the Annual Representative Meeting was considered by the meeting, and an instruction given to the Representative with regard to the fees for life assurance examinations as follows:

> That the fee for examinations in cases of ordinary life assurance should be at least 10s. 6d. for policies up to and including £100, and 21s. for policies over £100.

Proposed Royal Charter.—The proposed application for a Charter for the Association was considered, and the scheme met with the approval of this Division.

Division and Branch Finance.—The present system of Division and Branch finance was considered and replies forwarded to the questions submitted by the Organization Committee.

Rules of the Central Midwives Board.—These were considered. No suggestions were made. It was decided to send a copy of the following resolutions, passed at the last meeting, to the Secretary of the Central Midwives Board:

> That the forms sent by midwives when attending labour cases are misleading as regards the payment to medical men called in to assist midwives.
>
> That the midwives should be instructed that the sending of such a form does not entail the compulsory attendance of any medical men.
>
> That on each form this should be specified; also that the patient in question should be responsible for the medical fee.

Fees for Life Assurance Examinations.—The report of the Executive Committee on Fees for Examination of Cases for Life Assurance was presented. After consideration of the subject, the Committee recommended that concerted action with regard to payment for these examinations should be taken by individual members of the Division, and that this might be done in two ways: (*a*) By fixing the fee according to the amount of information to be obtained irrespective of the sum to be assured; (*b*) by fixing the fee according to the sum assured, that is, 10s. 6d. for £100, and amounts under that sum; 21s. for amounts over £100. It was stated by Mr. Straton that in 1907 this matter would be referred to the Divisions, and it would be inadvisable to take any active steps in the matter at present. This was agreed to by the meeting, and a resolution by Dr. Harris embodying suggestion (*b*) of the Executive Committee was carried unanimously, as an instruction to the Representative of the Division.

Direct Representation on General Medical Council.—A letter was read from the Secretary of the Wandsworth Division advocating the claims of Dr. McManus as a candidate for election on the General Medical Council.

Paper.—Mr. L. S. Luckham read a paper on a case of infantile melaena.

Vote of Thanks to Infirmary Committee.—It was proposed that a vote of thanks be given to the Committee of the Salisbury Infirmary for allowing the Division the use of their room for the meeting. This was carried unanimously. The meeting then terminated.

SOUTH-EASTERN BRANCH:
Folkestone Division.

The annual meeting of the Folkestone Division was held at Hotel Wampach on Tuesday, May 22nd, at 7.15 p.m. Dr. P. Lewis occupied the chair.

Confirmation of Minutes.—The minutes of the last annual meeting were read and confirmed.

Election of Officers.—The following officers were elected: *Chairman*, Mr. W. P. Barrett; *Vice-Chairman*, Mr. A. R. Davis; *Representative on Branch Council*, Dr. J. A. Menzies; *Executive Committee*, Dr. E. G. Sworder, Dr. E. J. G. Calverley, and Mr. M. Dobbs; *Honorary Secretary*, Dr. P. Vernon Dodd.

Report of Executive Committee.—The annual report of the Executive Committee was received and adopted.

Average Attendance.—The average attendance during the year was eighteen.

Dinner.—Fifteen members were present at the dinner.

Annual Meeting of Folkestone, Ashford, and Dover Constituency.

The annual meeting of the Folkestone, Ashford, and Dover constituency was held on the same day.

Election of Officers.—The following officers were elected: *Representative at Representative Meetings*, Mr. R. W. Ord. *Deputy Representative at Representative Meetings*, Dr. P. Vernon Dodd.

Annual Representative Meeting.—Some discussion took place concerning the business of the Annual Representative Meeting.

SOUTH MIDLAND BRANCH:
Northamptonshire Division.

A largely-attended meeting of the Division was held in the Library of the Northampton General Hospital on May 22nd, under the chairmanship of Dr. Clement Dukes.

Election of Officers, etc.—Mr. S. E. Basseter (Wollaston) was elected Representative of this Division and the Aylesbury Division. Mr. H. Cropley (Northampton) was elected Chairman for the ensuing year. The election of the other officers at the last meeting was confirmed.

South Northamptonshire Nursing Club.—Mr. J. Terry (Daventry) introduced a discussion on The South Northamptonshire Nursing Club—its merits and demerits: Is the British Medical Association to support it? While acknowledging that nursing clubs are of great benefit to the poor, Mr. Terry formulated the following indictment against the club under discussion: (1) The non-representation of medical men on the Committee. (2) Inefficient control of nurses, because of head No. 1. (3) That, though the club professes to be self-supporting, it is not so in the proper sense of the term—that is, the scheme could not be carried out without the aid of honorary subscribers. (4) The midwife question. No one, he said, objects to the service of a nurse in really poor cases, but even then there are objections—for example, the question of covering an unqualified assistant. The great objection, however, is that patients who can afford £1 10s., now need pay only 5s. for confinements. (5) Without medical control abuses easily creep in. An animated discussion ensued, in which it was generally agreed that the nurses were useful and helpful, and a boon to the poor, but that it was essential that they should be under proper medical control, and not act as unqualified medical practitioners, thereby injuring not only the medical practitioners but their patients also. Dr. **Clement Dukes** pointed out that these nursing associations were rising in every direction, and that a time was coming when the British Medical Association should formulate a code of rules which it should invite them to accept. On the motion of Mr. **Baxter**, seconded by Mr. **Linnell**, the following two propositions were submitted to the meeting, and carried unanimously:

> (1) That all the medical men practising in the nursing area of the South Northamptonshire Nursing Club should be members of the Committee.
>
> (2) That the nurse should only attend a case with the sanction of a medical man.

It was hoped that if these rules are accepted by the Nursing Association all difficulties will be able to be arranged. The Secretary was requested to communicate them to the Nursing Association.

Registration of Nurses.—The State registration of nurses was then briefly discussed, but no proposal was voted on by the Division.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:

Monmouthshire Division.

The annual meeting of this Division was held in the Newport and Monmouthshire Hospital on Friday, May 25th, Dr. J. **Glendinning** in the chair.

Confirmation of Minutes.—The minutes of special meetings held on March 16th and on April 23rd were read and confirmed.

Apologies for Non-attendance.—Letters of regret for inability to attend from Drs. Redwood and Brown were read.

Installation of New Chairman.—Dr. S. Butler Mason having been elected Chairman for the ensuing year, Dr. Glendinning vacated the chair in his favour.

Vote of Thanks to Retiring Chairman.—A vote of thanks to Dr. Glendinning for the able manner in which he had conducted the business of the Division during his year of office was proposed by Dr. **Gratte**, seconded by Mr. **Greer**, and carried by acclamation. Dr. **Glendinning** briefly acknowledged the vote and thanked the members of the Division for the support they had given him.

Election of Officers and Council.—Dr. **Mulligan** proposed that Dr. W. D. Steel be elected Vice-Chairman for the ensuing year, and in doing so voiced the opinion of the meeting in expressing the sincere thanks of the Division to Dr. Steel for his services as Representative and its regret for his inability to continue the duties. The motion was seconded by Dr. **Essex**, and carried unanimously. Dr. **Steel** briefly returned thanks. On the proposition of Dr. T. M. **Thomas**, seconded by Dr. T. **McGinn**, the Honorary Secretaries, W. J. Greer and R. J. Coulter, were unanimously re-elected, and returned thanks for the expression of the continued confidence of the members of the Division. On the proposition of Dr. **Glendinning**, seconded by Mr. **Greer**, Dr. Essex was unanimously elected Representative of the Division at the Representative Meeting. The following were unanimously elected members of the Branch Council: Drs. Glendinning, Gamble, Gratte, and Marsh. A ballot having been taken, the following were elected on the Executive Committee: Drs. Griffiths, Haslett, Mulligan, and T. Morrell Thomas.

Report of Executive Committee.—The report of the Executive Committee was read. The Committee recommended the Division to approve of the Draft Royal Charter. The Committee expressed its opinion that there ought to be no curtailment of the work of the Medical Secretary's Department, but that in the interests of the Association and the profession it ought to be encouraged and extended. The report was adopted.

Annual Representative Meeting.—The Representative was given full power to act in relation to the business of the Representative Meeting.

Future Meetings of the Division.—It was decided to hold meetings of the Division quarterly as before, the annual meeting at Newport on the last Friday of May, a meeting at Pontypool on the first Friday of September, and the other meetings on the last Fridays of November and February at Newport and Abergavenny respectively. Authority was given to the Executive Committee to alter these dates if circumstances demand it.

SOUTH-WESTERN BRANCH:

Torquay Division.

The annual meeting of the Torquay Division was held on May 18th at the Torbay Hospital at 4.30 p.m.

Annual Report.—The **Honorary Secretary** read the following report on the work of the past year:

Mr. Chairman and Gentlemen,—In submitting to you my annual report I beg to point out the fact that the meetings of this Division being purely business ones, it is impossible to look for a large attendance or for an attendance in the least representative of the strength of the Division. That during the past year every meeting called has had a quorum is, I think, extremely creditable. The present membership of the Division is 87. There have been five meetings of the Division and one meeting of the Executive Committee. The average attendance at the Division at meetings has been $6\frac{4}{5}$. The Division appointed a Subcommittee to interview the candidates for Parliament to ascertain their views with regard to the Public Health Bill. The candidates' replies were circulated through the Division. The rules of the Central Midwives Board were referred to the Executive Committee. This Committee met on March 10th, and, after shortly discussing the rules, found them as satisfactory as possible. Dr. Eales brought up the question of the payment of doctors for certifying children unfit to attend school. The Secretary was instructed to write to the Education Department of Torquay on the matter. This Department, after considering the question, offered to pay 1s. for each certificate. This was accepted, and the Education Department has sent books of certificate forms to each doctor in Torquay. The proposed Charter for the Association was discussed at a meeting held on April 5th. It was thought that more time was required to carefully consider this matter, and that under no circumstances should the subscription to the Association ever exceed 30s.

Dr. **Odell** moved that the report be adopted. This was carried.

General Medical Council Election.—A letter from the Wandsworth Division *re* nominations by the Representative Meeting for the General Medical Council election, urging the claims of Dr. McManus, was read.

Election of Officers.—The election of officers for the ensuing year then took place. Dr. Odell was re-elected Chairman; Dr. Young Eales was elected Vice-Chairman; Mr. Wilkin was re-elected Honorary Secretary; Dr. Odell was re-elected Representative to the Representative Meeting; Dr. Eales was elected substitute; the following were elected Representatives on the Branch Council: Drs. J. H. Gough, A. E. Hayward, C. W. Vickers, G. C. Wilkin; Executive Committee, Drs. Carver, Culross, Dunlop, McKenzie, and Powell.

An Ambulance for Torquay.—Dr. **Carver** brought up the fact that there was no ambulance in Torquay. After the matter had been discussed, Dr. Carver moved the following resolution, which was seconded by Dr. **Tidswell**:

> That a suitable ambulance should be provided by the Borough of Torquay.

This was put to the meeting and carried unanimously.

YORKSHIRE BRANCH:

Bradford Division.

A special meeting of this Division was held at the Eye and Ear Hospital, Bradford, on Tuesday, May 22nd, at 8.30 p.m. Dr. **Mitchell** (Chairman) presided.

Confirmation of Minutes.—Dr. **Metcalfe** (Honorary Secretary) read the minutes of three meetings held in connexion with the Division, which were adopted unanimously.

Nomination of Officers.—The office-bearers for the session 1906-7 were nominated.

The Annual Meeting of the Association in 1907.—The following gentlemen, approved by the Executive Committee to act as a deputation to the Council for the purpose of inviting the Association to hold its annual general meeting in Bradford in 1907, were on the proposition of Dr. **Crowley**, seconded by Dr. J. H. **Bell**, unanimously elected: Sir George Robertson, K.C.S.I., M.P.; the President of the Yorkshire Branch; and Drs. and Messrs. Bronner, Basil Hall, Handcock, Goyder, Horrocks, Campbell, Evans, Bampton, Perry, Althorp, Little, and Metcalfe.

Voluntary Notification of Phthisis.—Dr. EVANS moved the following resolution:

> That this Division approves of a system of voluntary notification of phthisis in Bradford.

Dr. Evans, in moving his resolution, said he was anxious to obtain the views of the medical profession in Bradford on this subject. The function of the sanitary authority is to prevent, but not to cure, disease. He thought that voluntary notification would be of great assistance to his department in this way. Dr. CAMPBELL seconded the resolution. Drs. J. H. BELL, GOYDER, CROWLEY, BATESON, SHARP, and NEECH (Medical Officer of Health for Halifax) supported. Dr. HIME was antagonistic to the proposal. He showed a series of charts to demonstrate that notification had not reduced the incidence of any of the infectious diseases. Dr. MANKNELL was also opposed to the resolution, which was, however, on being put to the meeting, carried by a considerable majority.

Inquiry as to Public Vaccination.—Dr. HIME moved the following resolution:

> That in the opinion of the Bradford Division it is very important that the Council of the Association should take early steps to secure that witnesses representing the views of general practitioners, who are not public vaccinators, should be heard at the inquiry about to be held on the subject of public vaccination.

Dr. Hime's chief objection to the present method of carrying out public vaccination was the domiciliary visit. Mr. BECKTON seconded. Dr. J. H. BELL considered the resolution unnecessary. Mr. WHERRY WILLSON considered that public vaccination should be transferred to the department of the medical officer of health. Dr. DRURY (Halifax), who had been invited by Dr. Hime to be present, was against the resolution, although he considered it practically harmless. On being put to the vote the resolution was declared carried.

☞ *To ensure the insertion of notices in this column, they must be received at the Central Offices of the Association not later than the first post on Tuesday.*

Association Notices.

1906 ANNUAL GENERAL MEETING.

The Annual General Meeting of the British Medical Association will be held in the Caxton Hall, Caxton Street, Victoria Street, London, S.W., on Tuesday, July 24th at 10 o'clock in the forenoon.

ANNUAL REPRESENTATIVE MEETING.

The Annual Representative Meeting will take place in the Caxton Hall, Caxton Street, Victoria Street, London, S.W., on Tuesday, July 24th, immediately after the Annual General Meeting, which will be held at 10 o'clock in the forenoon; on Wednesday, July 25th, at 10 a.m.; on Thursday, July 26th, at 10 a.m. if required; also on Friday, July 27th, at 10 a.m. if required.

BY ORDER OF THE COUNCIL,
GUY ELLISTON, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m., except on Saturdays, when they close at 2 p.m. Members can have their letters addressed to them at the office.

BRANCH AND DIVISION MEETINGS TO BE HELD.

ABERDEEN BRANCH.—Election of Member of Council.—Nominations are requested to be sent to Dr. J. F. Christie, Honorary Secretary, 7, Alford Place, Aberdeen, on or before June 2nd. Each candidate must be nominated by not less than three members.

BIRMINGHAM BRANCH.—The annual meeting of the Birmingham Branch will be held at the Medical Institute on Thursday, June 14th, at 3.30 p.m.—T. SYDNEY SHORT, Honorary Secretary, 85, Edmund Street, Birmingham.

BIRMINGHAM BRANCH: CENTRAL DIVISION.—The annual meeting will be held at the Medical Institute on Wednesday, June 6th, at 4 p.m. Business: (1) Election of officers, members of Branch Council, and of Executive Committee. (2) To receive the annual report. (3) To instruct the Representative (SUPPLEMENT, BRITISH MEDICAL JOURNAL, May 5th). (4) Vote of thanks to retiring officers. (5) Any other business.—E. D. KIRBY, Honorary Secretary.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—The annual meeting of this Division will be held at the Coventry and Warwickshire Hospital on Wednesday, June 13th, at 8.30 p.m. Agenda: (1) To elect officers and the Executive Committee for the year. (2) To receive the annual report of the Executive Committee. (3) The Committee will recommend the adoption of the following resolution: "That no member of the profession in the area of the Division shall take over the medical officership of one of the Friendly Societies connected with the dispensary in the event of such society seceding from that institution before the satisfactory termination of the present dispute." (4) Dr. Milner Moore will move that the Division approve the proposed application by the Association for a Royal Charter. (5) To thank the Committee of the Coventry and Warwickshire Hospital for the continued use of their Board Room for the meetings of the Division.—E. H. SNELL, Honorary Secretary.

BIRMINGHAM BRANCH: TAMWORTH AND NUNEATON DIVISION.—A combined meeting of the Tamworth and Nuneaton Division with the Coventry Division will be held at the Coventry and Warwickshire Hospital, Coventry, on Tuesday, June 19th, at 3.30 p.m., for the purpose of electing a Joint Representative to represent them at the Annual Representative Meeting, and to instruct him in regard to matters arising at that meeting (see SUPPLEMENT, BRITISH MEDICAL JOURNAL, May 5th).—E. H. SNELL, Secretary of the Constituency.

BORDER COUNTIES BRANCH.—The annual meeting of this Branch will take place in the County Hotel, Carlisle, on Friday, June 29th, and not as previously announced.—F. R. HILL, Honorary Secretary.

CAMBRIDGE AND HUNTINGDON BRANCH.—The annual meeting of the Branch will be held at Peterborough on Thursday, June 14th. Any member having communications to make should apply to the Honorary Secretary, F. E. APTHORPE WEBB, Grafton House, Cambridge.

CAMBRIDGE AND HUNTINGDON BRANCH.—Notice of Election of a Member of Council.—Nominations for a Member of the Council, which must be signed by three members of the Branch, should be sent to the Honorary Secretary on or before Saturday, June 2nd.—F. E. APTHORPE WEBB, Grafton House, Cambridge, Honorary Secretary.

DORSET AND WEST HANTS BRANCH: WEST DORSET DIVISION.—The annual meeting of the Division will be held on Wednesday, June 13th, at the County Hospital, Dorchester, at 3 p.m. Agenda: (1) Minutes. (2) To elect officers, namely—Chairman, Vice-Chairman, and Honorary Secretary. (3) To elect the Executive Committee of the Division. (4) To elect Representatives of the Division on the Branch Council. (5) To elect the Representative of the Division at Representative Meetings of the Association. (6) To consider the question of altering the date of the annual meeting of the Division from June to May. (7) To consider matters referred to Divisions. (8) Any other business. Afternoon tea.—J. COMYNS LEACH, Sturminster Newton, Honorary Secretary.

DUNDEE BRANCH.—The annual meeting of this Branch will be held in the Students' Union, Dundee, on Friday, June 8th, at 4 o'clock. Business: Election of office bearers. Proposed adoption of the "Bradford Rules," etc.—R. C. BUIST and A. P. LOW, Honorary Secretaries.

EAST ANGLIAN BRANCH.—The annual meeting of the East Anglian Branch will be held at the Palace Hotel, Southend-on-Sea, on Tuesday, June 26th. Programme of Proceedings: 12.30, Council meeting. 12.45, General meeting. Agenda: (1) Minutes of last meeting. (2) Report of the Council.

(3) Report of election of officers. 1.54, Luncheon, by kind invitation of the President-elect, Dr. Clough Waters, at the Palace Hotel. 2.30, Resumed general meeting. Introduction of Dr. Clough Waters as President of the Branch, by Dr. Barton. (4) President's address. (5) Address by Sir Frederick Treves, Bart.. G.C.V.O., C.B., LL.D., Serjeant-Surgeon to His Majesty the King. 4 to 6, Garden party in the Shrubbery, by kind invitation of the Chairman and Members of the South Essex Division. By the kind courtesy of the Commodore and Committee of the Alexandra Yacht Club, members attending are considered to be members for the day.—B. H. Nicholson, H. A. Ballance, and J. Gutch, Honorary Secretaries.

East Anglian Branch: West Norfolk Division.—The Annual meeting of this Division will be held on Wednesday, July 4th, at the residence of the Chairman (Dr. Thomas), Swaffham. Lunch at 1.30 by invitation of the Chairman. Meeting at 3 p.m. The agenda, besides containing the usual business of the annual meeting, contains for consideration the proposed application for a Royal Charter. The Chairman will also move the following alteration and addition to the rules: "That Rule 11 shall read, 'ordinary meetings of the Division shall be held *half-yearly*, etc.'" Addition to Rule 9: "That the Honorary Secretary of the Scientific Committee be *ipso facto* a member of the Executive Committee."—A. Gardiner, King's Lynn, Honorary Secretary.

East York and North Lincoln Branch.—The annual meeting will be held at the Grimsby and District Hospital on Thursday, June 7th, at 4.30 p.m., and will be followed by the annual dinner.—E. M. Hainworth, Honorary Secretary, Hull.

Edinburgh Branch: South-Eastern Counties Division—The annual meeting of this Division will be held in the King's Arms Hotel, Melrose, on the afternoon of Friday, June 22nd, Dr. Cullen, Chairman, presiding. Business: (1) Election of office-bearers. (2) Instructions to Representative.—W. Hall Calvert, Honorary Secretary.

Edinburgh Branch: Southern Division.—The annual meeting of the Division will be held in the Oddfellows' Hall, Forrest Road, on Friday, June 8th, at 8.15 p.m. Business: (1) Minutes. (2) Annual report. (3) Secretary's statement. (4) Election of officers. (5) Election of Representative to Representative Meetings. (6) Election of Representatives on Branch Council. (7) Election of Executive Committee. (8) Instructions to Representative to Representative Meetings. (9) Alteration of Rule 11. (10) Any other competent business.—Michael Dewar, Honorary Secretary, 24, Lauriston Place, Edinburgh.

Edinburgh and Fife (Combined) Branches.—Nominations for two Members of Council will be received by Dr. Logan Turner, 23, Walker Street, Edinburgh, on or before June 2nd. Nominations must be signed by two members.—Norman Walker, Honorary Secretary.

Glasgow and West of Scotland Branch.—Election of Representatives on Central Council. In accordance with By-law 24, nominations, each signed by three members of the Branch, must reach the Honorary Secretary on or before Monday, June 4th.—Dr. James H. Nicoll, 4, Woodside Place, Glasgow, Honorary Secretary.

Leinster and South-East of Ireland Branch.—Nominations of candidates for election as members of Central Council must be received by the undersigned on or before June 12th.—Arthur H. White, Honorary Secretary Leinster Branch, Malvern, Terenure Road, Dublin.

Metropolitan Counties Branch.—Notice is hereby given that voting papers for electing the Metropolitan Counties Branch Representatives on the Central Council will be sent out on or before June 16th, and must be returned by June 20th. Notice is also given that the annual meeting of the Branch for the declaration of the poll of officers and for amending the ethical and financial rules, and other business, will be held on Tuesday, June 26th.—Frederick J. Smith and Ernest Clarke, Honorary Secretaries.

Midland Branch.—The annual meeting of this Branch will be held at the County Hospital, Lincoln, on Thursday, June 7th, at 2.15. Agenda: Minutes. Report of Council. Election of two Representatives of Branch on General Council (the only nominations received are Dr. Pope and Dr. Carline, who will therefore be elected). Election of Branch officers. Election of Honorary Secretary of the Branch (Dr. Astley Clarke does not seek re-election). Election of President-elect for 1907-8. Suggested re-combination of Divisions in Lincolnshire. Any other business. Address by the new President. The President and Mrs. Mansel Sympson will be "at home" to the members of the Branch in the Castle grounds from 4 to 6 p.m. Luncheon: The President will be glad to entertain members to lunch at his house, Deloraine Court, James Street from 1 to 2 p.m. The annual dinner will be held at the White Hart Hotel at 6 p.m. Tickets, 7s. 6d. each, exclusive of wine. Members desiring to dine are requested to notify the fact to Dr. E. Mausel Sympson, Lincoln, before Monday, June 4th.—Astley V. Clarke, M.D., Honorary Secretary and Treasurer.

Munster Branch.—Nominations will be received by me up to June 16th for Elective Member of Central Council, British Medical Association, in accordance with By-law 24.—Philip G. Lee, Honorary Secretary, 26, Patrick's Hill, Cork.

Southern Branch: Southampton Division.—The annual meeting of the Division will be held on Friday, June 8th, in the Lesser Philharmonic Hall, Southampton, at 3 30 p.m. Business: (1) Minutes. (2) Communications. (3) (*a*) To elect officers, the Representative of the Division on the Branch Council, and the ordinary members of the Executive Committee; (*b*) in conjunction with the Channel Islands Division—1. to elect the Representative of the Constituency in Representative Meetings of the Association; 2. to consider the business of the Annual Representative Meeting and to instruct the Representative as to how the members of the constituency desire him to vote thereat; (*c*) to receive the annual report of the Executive Committee. (4) To consider (*a*) the report of the committee on the formation of sections, postponed from the last annual meeting; (*b*) matters postponed from last two ordinary meetings; (*c*) hospital out-patient department (vide Supplement, British Medical Journal, February 17th); (*d*) nurses' registration (vide Supplement, British Medical Journal, March 3rd); (*e*) application for Royal Charter (vide Supplement, British Medical Journal, March 24th); (*f*) annual report of Council (vide Supplement, British Medical Journal, April 28th). The reports and the various notices of motion received for discussion by the Representative Meeting at the next Annual Meeting of the Association will be found in the Supplements of the British Medical Journal.—A. B. Wade and A. A. Mackeith, Honorary Secretaries.

South-Eastern Branch.—The sixty-second annual meeting will be held at the Crystal Palace on Wednesday, June 27th, at 2.15 p.m. Dr. Hetley (President-elect) kindly invites members to lunch at the Crystal Palace from 1 to 2 p.m. Agenda: In addition to the business of an ordinary meeting: (1) To receive the report of the election of new officers, who shall thereupon take office. (2) To receive the report of the Council on the affairs of the Branch and the annual financial statement. After the meeting, entertainments will be provided in the Crystal Palace, and expeditions will be arranged to the Norwood Cottage Hospital, the Norwood Sanatorium for the Treatment of Alcohol and Drug Inebriety, and the Dulwich Gallery. Dinner at the Crystal Palace at 6.15 p.m. (for 6.30 p.m.); charge 7s. Wine will be provided by local members. Those who propose to be present at lunch or dinner are requested to signify their intention to Dr. Prangley, 197, Anerley Road, S.E., not later than Saturday, June 23rd.—H. M. Stewart, Honorary Secretary.

South-Eastern Branch: Canterbury and Faversham Division.—The annual meeting of this Division will be held in the Library of the Canterbury Hospital on June 7th, at 3 p.m., Dr. T. Whitehead Reid presiding. Agenda: (1) Minutes. (2) Time, place, and Chairman of next meeting. (3) Election of officers for ensuing year. (4) Other business. At 4 o'clock members and friends will be driven to the Cathedral, the Dean of Canterbury having kindly consented to show them over it, after which a visit will be paid to the Canterbury Wateworks, where the various processes will be explained. Dinner will be served at the County Hotel at 6.15 p.m., charge 5s. Members who intend to be present at the dinner are requested to send a notification, not later than June 6th, to A. R. Henchley, Honorary Secretary and Treasurer, Canterbury.

A combined meeting of the Isle of Thanet, Canterbury, and Faversham Divisions will be held in the Hospital Library at Canterbury on June 7th, at 2.45 p.m., for the purpose of electing a Representative of the above Divisions for the annual meeting of Representatives.—Hugh M. Raven, Honorary Secretary, Isle of Thanet Division, Broadstairs.

South-Eastern Branch: Guildford Division.—The annual meeting will be held at the Royal Surrey County Hospital, Guildford, on Wednesday, June 20th, at 4 30 p.m. Agenda: (1) Minutes. (2) Election of officers, Representatives on Branch Council and in Representative Meetings, and members of Executive Committee. (3) To receive annual report. (4) Business of the Annual Representative Meeting. (5) Any other business. (6) Paper by Mr. G. Sichel, F.R.C.S.: Some remarks on radiotherapy. Tea will be provided at 4.15. The Honorary Secretary will be glad to receive any nominations for the above offices, and to hear from any members wishing to show cases or specimens.—E. J. Smyth, Maythorne, Epsom Road, Guildford, Honorary Secretary.

South-Eastern Branch: Norwood Division.—The annual meeting of the Division will take place at the Art Club, Blackheath, on Thursday, June 14th, at 4 p.m., Ralph Gooding, M.D., of Blackheath, in the chair. Dinner at 6 p.m.; charge 7s., exclusive of wine. Agenda: (1) Minutes of last meeting. (2) To decide where the next meeting shall be held, and to nominate a member of the Division to take the chair thereat. (3) To elect officers, the Representatives of the Division on the Branch Council, and ordinary members of Executive Committee. (4) To elect the Representative of the Division in Representative meetings of the Association. (5) To receive the annual report of the Executive Committee. (6) To consider business of Annual Representative Meeting. (7) To consider existing rules and discuss whether any alterations are necessary. (8) Any other business. The following papers will be read: Dr. C. R. Box, Bronchiectasis in Children (with lantern slides); W. Arbuthnot Lane, M.S., Defective Intestinal Drainage; Dr. Walter W. H. Tate, Indications for the Surgical Treatment of Uterine Fibroids. Exhibition of instruments, etc., by Messrs. Burroughs and Wellcome and Messrs. Arnold and Son. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. All members of the South-Eastern Branch are invited to attend and to introduce professional friends, but will be unable to vote on Divisional questions. The Art Club is at the end of Bennett Park, three minutes from Blackheath Station, S.E.R. The Honorary Secretary would be much obliged if members would kindly inform him by postcard, to reach him by the first post on Tuesday before the meeting, whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner.—Henry J. Prangley, Honorary Secretary, Arthur W. Soper, Assistant Honorary Secretary, Anerley.

South-Eastern of Ireland Branch.—An ordinary meeting and meeting of the Council will be held at the Town Hall, Clonmel, on June 13th, at 11 o'clock. Agenda: (1) Minutes. (2) To impress on Divisions the expediency of adopting Ethical Rules and of appointing Ethical or Executive Committees respectively. (3) To elect Ethical Committee for Branch. (4) To investigate ethical case. (3 and 4 by Branch Council only.) —J. Quirke, Piltown, co. Kilkenny, Honorary Secretary.

South Midland Branch: Aylesbury Division.—A meeting of the above will be held in the Board Room of the Royal Bucks Hospital on Tuesday, June 26th, at 2.30 p.m.: Agenda: (1) The minutes of the last meeting. (2) To consider whether or not it is advisable to continue the Aylesbury Division as a separate Division of the British Medical Association.—Horace Rose, Honorary Secretary, Melrose, Aylesbury.

South Midland Branch: Bedfordshire and Hertfordshire Division.—The annual meeting of this Division will be held at the Bedford County Hospital on Friday, June 8th, at 2.45 p.m. Agenda: (1) The minutes of the last annual meeting. (2) The annual report of the Executive Committee. (3) The election of officers for the ensuing year. (4) Letters and communications and any other business. (5) W. Hale White, M.D., Physician to Guy's Hospital, will read a paper on "Some Common Cases of Haematemesis which are frequently misunderstood."—H. Savory, Honorary Secretary, Bedford.

South Wales and Monmouthshire Branch.—The annual meeting will be held on Thursday, June 14th, at the Hospital, Swansea, at 4.30 p.m. Council meeting at 3.30 p.m. The annual dinner will take place at the Hotel Metropole at 6.30 p.m.

South-Western Branch.—The sixty-seventh annual meeting will be held on June 14th at the Royal Devon and Exeter Hospital, Exeter, at 3 p.m., when Mr. G. Jackson will resign the chair to Mr. E. J. Domville, who will deliver his inaugural address. The report of the Branch Council and annual financial statement for the year 1905-6 will be presented to the meeting, and the officers of the Branch will be elected for the year 1906-7. Luncheon, by kind invitation of the President-Elect, will take place from 12.30 p.m. to 2.30 p.m. at Northernhay House. The annual dinner will be held at 7 p.m. at the London (Pople's) Hotel. Tickets (exclusive of wine) 6s. each, which can be had from Dr. Solly, 40, Southernhay, the Honorary Treasurer of the Dinner Committee. Arrangements have been made for members who desire it to play either golf or croquet, and to visit the Cathedral, Chapter House, Library, Guildhall, etc.; and by the Exeter members, members are nvited to a Garden Party to be held by permission of the Lord Bishop of Exeter and Mrs. Robertson at the Palace from 4.30 o 6 p.m. Members wishing to play golf are requested to send heir names to Dr. Raglan Thomas, 13, West Southernhay, Exeter; and for croquet to Mr. A. C. Roper, The Shrubbery, Exeter, before June 10th. Members who attend the Garden Party are invited to bring their wives or lady friends, limited o two. It is particularly requested that members requiring inner tickets send their names with P.O. for 6s. to Dr. Solly, 0, Southernhay, Exeter, before June 10th. Members wishing o be accommodated with bed and breakfast are invited to end their names to Dr. Miller, 14, East Southernhay, Exeter, who will endeavour to arrange matters. The Honorary Secretary takes this opportunity of informing members that he does not desire to offer himself for re-election.—G. Young Eales Torquay, Honorary Secretary.

Ulster and Connaught Branches.—The annual meeting will be held on Thursday, June 21st, when the following officers will be elected:—President, Secretary, Treasurer, two Members of the Central Council to represent the Ulster and Connaught Branches, and a member of the Irish Committee (who shall not be resident in Belfast). Nominations for these posts must be sent to the Honorary Secretary not later than Saturday, June 2nd, signed by two members in the case of each except for Members of Central Council, in which case the nomination must be signed by three members. Members having business or scientific communications to make to the meeting will please send the Honorary Secretary notice of the same not later than June 12th.—Cecil E. Shaw, Honorary Secretary, Belfast.

West Somerset Branch.—The sixty-third annual meeting of this Branch will be held at the London Hotel, Taunton, at 12.15 p.m., on Friday, June 22nd, when the new President, Dr. R. Liddon Meade-King will take the chair. Agenda: Minutes of last meeting; annual report of Council; treasurer's accounts; election of officers; President's address (notes on a seventeenth century textbook of medicine); consideration of agenda of Representative Meeting on July 24th. This, as appearing in the Supplement to the British Medical Journal of May 5th, will be considered so far as time will permit. Members are requested to acquaint themselves with any particular item on that agenda which they wish to bring to the notice of the Branch. Luncheon will be served at 1.30 p.m. This will be paid for out of the Branch funds in the case of members signifying to the Honorary Secretary their intention of being present by June 19th. For others, and guests, a charge of 3s. per head will be made, in all cases exclusive of wine, etc. After lunch those present will become the guests of the President, and will be driven to Pickeridge Hill, where a golf match will be played between the medical members of the Pickeridge Club and the rest of the Branch. They will also be entertained there to tea. The return journey will be made in time to suit the convenience of those having to catch trains from Taunton station. In the event of the day proving wet an alternative programme will be arranged.—W. B. Winckworth, Honorary Secretary.

Yorkshire Branch.—The annual meeting of this Branch will be held at the Eye and Ear Hospital, Bradford, on Wednesday, June 13th, at 3.30. Members intending to read papers, make any communication, propose new members, etc., are requested to communicate with me at once. The annual dinner will take place at the Midland Hotel at 6.30.—Adolph Bronner, Honorary Secretary, 33, Manor Row, Bradford.

CENTRAL MIDWIVES BOARD.

A meeting of the Central Midwives Board was held on May 24th at 6, Suffolk Street, Pall Mall, with Dr. F. H. Champneys in the chair.

Proposed Examinations in Dublin.

A letter was read from the Privy Council enclosing a copy of a resolution passed by the Board of the National Maternity Hospital, Dublin, in favour of examinations being held by the Central Midwives Board in Dublin. A letter from the Secretary of the Rotunda Hospital, Dublin, was also read to the same effect. A further letter from the Privy Council, dated May 23rd, was read, enclosing a copy of a memorandum given to the Lord President of the Council during a recent visit to Dublin. In the course of the discussion on this subject the Board was reminded that on April 10th, 1906, a resolution was passed that the Board was not prepared to hold examinations outside the area of the Act. The Board decided that the question should be referred to the Standing Committee for consideration and report, and the Secretary of the Board was instructed to reply to the Clerk of the Privy Council, stating that the Central Midwives Board would give its best attention to the matter and reply in due course.

Certified Midwives acting as Monthly Nurses.

A communication from Dr. F. E. Fremantle, Medical Officer of Health, Hertfordshire, raised the point whether a certified midwife acting under a qualified medical practitioner was bound to keep a register. The Board decided that a certified midwife when acting as a monthly nurse need not keep a register. The following words were subsequently added to this ruling: "In cases of doubt, reference should be made to the medical practitioner in charge of the case."

New Offices for the Board.

It was reported that the Board after June 24th, 1906, will move its offices to Caxton House, Westminster.

Three Midwives Cautioned.

The Penal Cases Committee reported that it had considered a letter from Dr. Niven, Medical Officer of Health, Manchester, reporting the finding by the local supervising authority of a prima facie case of negligence against Ada Fisher, a certified midwife, together with her defence and the report of the solicitor thereon. The Board adopted the recommendation of the Committee that the midwife be warned to be more careful in the future as to antiseptic washing before examination of patients.

The Penal Cases Committee also reported that it had considered a letter from the Clerk of the London County Council reporting Mary Cecilia Lillie, certified midwife, and Ada Mary Roodhouse, certified midwife, as guilty of persistent disobedience to Rule E 19 (*b*), and as having announced their intention of not complying with the rule, together with their defence to the charges. The Board adopted the recommendation of the Committee that the two midwives concerned be cautioned as to the necessity of strict compliance with the rules, and warned that any future report for disobedience from the local supervising authority would probably entail serious consequences. The local supervising authority was asked to report further in three months' time.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE

FLEET SURGEON J. DUDLEY, M.B., has been placed on the retired list, with the rank of Deputy Inspector-General, May 13th. He was appointed Surgeon, March 31st. 1875; Staff Surgeon, March 31st, 1887; and Fleet Surgeon, January 29th, 1892.

The undermentioned Surgeons have been promoted to be Staff Surgeons, dated May 23rd: **H. C. WHITESIDE**, **R. L. DICKINSON**, **H. W. B. SHEWELL**, M.B., **J. MARTIN**, **C. B. FAIRBANK**, **H. J. CHATER**. **R. ST. G. S. BOND**, M.B., **F. C. B. GITTINGS**. M.B., **R. M. RICHARDS**, and **A. G. EASTMENT**. Their first commissions are dated May 23rd, 1898.

The following appointments have been made at the Admiralty: **ALEXANDER J. MACDIARMID**, Surgeon, to the *Venus*, on recommissioning, May 29th: **JOHN H. L. PAGE**, Surgeon, to the *Vivid*, additional, for disposal, May 15th: **FREDERICK G. WILSON**, M.B., Surgeon, to the *Commonwealth*, May 24th.

The appointment of Surgeon **E. D. RUTHERFORD** to the *Venus* has been cancelled.

GRENADIER GUARDS.

SURGEON-LIEUTENANT-COLONEL E. N. SHELDRAKE retires on retired pay May 23rd. His commissions are thus dated: Surgeon-Captain, May 30th, 1885; Surgeon Major, July 22nd, 1896; and Surgeon-Lieutenant-Colonel, May 30th, 1905. He served in the South African war in 1899-1902, and was present in the advance on Kimberley, including the actions at Belmont, Enslin, Modder River, and Magersfontein; he was also in operations in the Orange Free State, the Transvaal, and Cape Colony, and was in numerous engagements: he was mentioned in dispatches, and received the Queen's medal with six clasps and the King's medal with two clasps.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT F. M. M. OMMANNEY, from the Seconded List, to be Lieutenant, May 14th. He was seconded for service with the 6th (Somaliland) Battalion of the King's African Rifles, of which battalion he was the Medical Officer, August 12th, 1904.

EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

CAPTAIN R.A.M.C., six years' service, due home, tour expired from India beginning of trooping season, desires exchange with Captain I.M.S. For terms, etc., apply to Indophile, care of Messrs. King, King, and Co., Bombay.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL (temporary Colonel) **W. G. KING**. M.B., C.I.E., Madras Establishment, is promoted to be Colonel, from April 29th. He joined the department as Assistant Surgeon, March 31st, 1874, and became Surgeon-Lieutenant-Colonel, March 21st, 1894, being selected for increased pay, February 12th, 1900.

Colonel **A. F. DOBSON**, M.B., Principal Medical Officer. 9th (Secunderabad) Division, is permitted to retire from the service, from May 28th. He was appointed Assistant Surgeon, March 30th, 1874, and became Colonel, May 4th, 1901. He has no war record in the Army Lists. Colonel **T. J. H. WILKINS**, Madras Establishment, succeeds Colonel Dobson as Principal Medical Officer of the 9th Secunderabad) Division.

Colonel **T. S. WEIR**, Bombay Establishment, is also permitted to retire, from July 10th, 1905 He entered the service as Assistant Surgeon, April 1st, 1870, and was made Colonel, April 1st, 1900. He also has no war record.

HONOURABLE ARTILLERY COMPANY OF LONDON.

SURGEON-MAJOR R. J. REECE, M.D., to be Surgeon-Lieutenant-Colonel, May 14th.

ROYAL ARMY MEDICAL CORPS (MILITIA).

WILLIAM RANSON to be Lieutenant, May 26th.

VOLUNTEER RIFLES.

SURGEON-MAJOR J. A. GRAY, 5th Volunteer Battalion the Royal Scots (Lothian Regiment), Brigade-Surgeon-Lieutenant-Colonel, Senior Medical Medical Officer 2nd Lothian Volunteer Infantry Brigade, to be Surgeon-Lieutenant-Colonel, May 26th.

PERCY C. BURGESS to be Surgeon-Lieutenant in the 1st Volunteer Battalion the Buffs (East Kent Regiment), May 26th.

Surgeon-Captain **E. R. TWEED**, 3rd Volunteer Battalion the Devonshire Regiment, resigns his commission, May 26th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

ERNEST A. WRAITH to be Lieutenant in the Sherwood Foresters Bearer Company, May 26th.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,549 births and 4,293 deaths were registered during the week ending Saturday last, May 26th. The annual rate of mortality in these towns, which had been 16.3, 15.5, and 14.5 per 1,000 in the three preceding weeks, further declined last week to 14.2 per 1,000. The rates in the several towns ranged from 5.4 in Willesden, 6.2 in Leyton, 6.8 in East Ham, 7.7 in Walthamstow, 7.8 in Hornsey, 8.4 in Newport (Mon.), 8.6 in Devonport, and 8.9 in Wallasey, to 19.4 in St. Helen's, 19.6 in Warrington, 19.8 in Bootle and in Burnley, 20.3 in Middlesbrough, 20.7 in Salford, and 24.8 in Great Yarmouth. In London the rate of mortality was 12.8 per 1,000, while it averaged 14.7 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.5 per 1,000 in the seventy-six towns; in London this death-rate was equal to 1.3 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 3.1 in Manchester and in Middlesbrough, 3.2 in Bootle, 3.5 in Liverpool, 4.3 in Rotherham, 5.0 in Great Yarmouth, and 5.1 in Burnley. Measles caused a death-rate of 1.1 in Salford, 1.5 in Leeds, 1.6 in Bootle, 1.8 in Liverpool, 2.0 in Manchester, 4.0 in Great Yarmouth, and 4.6 in Burnley; scarlet fever of 1.2 in Hornsey and in Rochdale; diphtheria of 1.4 in King's Norton; whooping-cough of 1.3 in Derby, 1.4 in King's Norton and in Merthyr Tydfil, and 2.0 in Reading; "fever" of 1.7 in Rotherham; and diarrhoea of 1.1 in St. Helen's and 1.6 in Middlesbrough. No fatal case of small-pox was registered in any of the seventy-six large towns. The Metropolitan Asylums Hospitals contained 2 small-pox patients on Saturday, May 26th, against 2 on the preceding Saturday; no new cases were admitted during the week, against 2 in the preceding week. The number of scarlet-fever patients in these hospitals and in the London Fever Hospital, which had been 2,337, 2,378, and 2,396 at the end of the three preceding weeks, had further risen to 2,453 at the end of last week: 338 new cases were admitted during the week, against 357, 338, and 301 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday, May 19th, 1,010 births and 603 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.4, 18.0, and 18.8 per 1,000 in the three preceding weeks, declined again to 17.6 per 1,000 in the week under notice, but was 3.1 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 11.9 in Aberdeen and 12.6 in Leith to 19.0 in Glasgow and 21.0 in Paisley. The death-rate from the principal infectious diseases averaged 1.7 per 1,000, the highest rates being recorded in Glasgow and Dundee. The 305 deaths recorded in Glasgow included 8 which were referred to measles, 2 to diphtheria, 10 to whooping-cough, and 12 to diarrhoea. Five deaths from measles and 2 from whooping-cough were recorded in Edinburgh: 5 from diarrhoea in Dundee, and 2 from measles in Leith.

During the week ending Saturday last, May 26th, 885 births and 592 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.0, 18.8, and 17.6 per 1,000 in the three preceding weeks, further fell to 17.3 per 1,000 last week, but was 3.1 per 1,000 above the mean rate during the same period in the seventy-six large English towns. The rates in the eight Scotch towns ranged from 12.1 in Perth and 12.8 in Aberdeen to 17.4 in Paisley and 19.0 in Glasgow. The death-rate from the principal infectious diseases averaged 1.3 per 1,000, the highest rates being recorded in Glasgow and Edinburgh. The 304 deaths registered in Glasgow included 9 which were referred to measles, 8 to whooping-cough, and 7 to diarrhoea. Two fatal cases of measles, 4 of scarlet fever, 2 of whooping-cough, and 3 of diarrhoea were recorded in Edinburgh; and 2 of diarrhoea in Dundee.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, May 26th, 541 births and 385 deaths were registered in six of the principal Irish towns, as against 520 births and 381 deaths in the preceding period. The annual death-rate in these towns, which had been 22.7, 23.5, and 23.1 per 1,000 in the three preceding weeks, fell to 20.4 per 1,000 in the week under notice, this figure being 6.2 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 9.6 in Limerick and 21.1 in Londonderry to 23.4 in Waterford and 24.0 in Cork. The zymotic death-rate in the same six Irish towns averaged 0.9 per 1,000, or 0.1 per 1,000 higher than during the preceding period, the highest figure—2.5—being recorded in Cork, while no deaths under this heading were registered in Londonderry, Limerick, and Waterford.

Vacancies and Appointments.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

BETHLEM HOSPITAL.—Two Resident House-Physicians for six months. Honorarium, £25 each.

BRECKNOCK COUNTY AND BOROUGH IRFIRMARY.—Resident House-Surgeon. Salary, £100 per annum.

BRISTOL ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.—(1) House-surgeon; (2) Assistant House-Surgeon. Salary, £80 and £[illegible]0 per annum respectively.

BROMSGROVE: BARNSLEY HALL ASYLUM.—Medical Superintendent. Salary, £600 per annum.

BURSLEM: HAYWOOD HOSPITAL.—Lady Medical Officer. Salary, £50, rising to £60.

CANCER HOSPITAL, Fulham Road, S.W.—Surgical Registrar. Honorarium, £26 5s. per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—(1) House Physician, salary at the rate of £30 per annum. (2) Surgeon Dentist.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Surgeon and Assistant Surgeon.

INCORPORATED BELFAST MATERNITY HOSPITAL.—Resident Physician for six months.

LEICESTER INFIRMARY.—Assistant House Surgeon. Salary at the rate of £[illegible]0 per annum.

LIVERPOOL STANLEY HOSPITAL.—Assistant Honorary Ophthalmic Surgeon in the Out-patient Department.

LONDON HOSPITAL, Whitechapel, E.—Medical Registrar.

MIDDLESBROUGH NORTH RIDING INFIRMARY.—Assistant House-Surgeon. Salary, £75 per annum.

NORTHAMPTON: SAINT ANDREW'S HOSPITAL FOR MENTAL DISEASES.—Junior Assistant Medical Officer. Salary, £200 per annum.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road. (1) Resident Medical Officer; (2) Pathologist and Bacteriologist. Salary, £100 and £75 per annum respectively.

PERTH DISTRICT ASYLUM, MURTHLY.—Assistant Physician (male). Salary, commencing £120 per annum.

PLYMOUTH PUBLIC DISPENSARY.—(1) Honorary Physician; (2) Assistant Physician. Salary, £70 per annum.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £50 per annum.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Medical Officer to the Roentgen Ray Department. Honorarium, 25 guineas per annum.

ST. MARYLEBONE GENERAL DISPENSARY, Welbeck Street, W.—Honorary Dental Surgeon.

SALFORD ROYAL HOSPITAL.—Junior House-Surgeon (male). Salary at the rate of £90 per annum.

SHEFFIELD UNION HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

STROUD GENERAL HOSPITAL.—House-Surgeon. Salary, £80 per annum.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—Surgeon to Out-patients.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician for six months.

WOLVERHAMPTON AND MIDLAND COUNTIES EYE INFIRMARY.—House-Surgeon. Terms, £70 per annum.

CERTIFYING FACTORY SURGEON.—The Chief Inspector of Factories announces a vacancy in the office of Certifying Factory Surgeon at Sheffield.

APPOINTMENTS.

ALFORD, E. Frank R., M.R.C.S.Eng., L.R.C.P.Lond., Resident Medical Officer of City of London Hospital for Diseases of the Chest, Victoria Park, E.

ATKINSON-FAIRBANK, J. G., M.B., L.R.C.P., M.R.C.S., L.D.S.Eng., Demonstrator to the Royal Dental Hospital of London.

BALL, L. C., L.D.S.Eng., Demonstrator to the Royal Dental Hospital of London.

CAMPBELL, J. G., M.B.R.U.I., Second Resident Medical Officer Central London Sick Asylum District at Hendon.

COOPER, W. E., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Wayland Union.

INGRAM, T. L., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Lutterworth Union.

JOHNSTON, R. A., L.R.C.P.and S.Edin., District Medical Officer of the Tamworth Union.

LOWER, N. Y., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Knighton Union.

MCKAY, Robert, L.R.C.P., M.R.C.S., L.D.S.Eng., Assistant Dental Surgeon to Royal Dental Hospital, Leicester Square, vice W. S. Nowell, M.R.C.S., L.R.C.P.Lond., resigned.

OWEN, C. W., M.B., C.M.Edin., Medical Officer of the Workhouse of the Bangor and Beaumaris Union.

PATON, E. Perry, M.D., M.S.Lond., Examiner in Surgery to the Society of Apothecaries.

RATTRAY, S., M.B., Ch.B.Edin., District Medical Officer of the Tamworth Union.

SHORNEY, H. F., M.D., B.S. (Melbourne), House-Surgeon to the Throat Hospital, Golden Square.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 8s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTH.

CROWE.—On May 22nd, at Homeleigh, Yelverton, the wife of H. Warren Crowe, M.D., of a daughter.

MARRIAGE.

BLANDY—DENNY.—On May 29th, at St. John's Church, Westminster, by the Venerable Archdeacon Wilberforce, William Henry Blandy, eldest son of Henry Blandy, of Nottingham, to Lizzie Denny, L.R.C.P.and S., only daughter of Dr. Denny.

DEATH.

MOWAT.—At 1, Minto Street, Edinburgh, on May 25th, James Mowat, M.B., C.M. Funeral private. No flowers. This the only intimation.

DIARY FOR THE WEEK.

WEDNESDAY.

OBSTETRICAL SOCIETY OF LONDON, 20, Hanover Square, W., at 8 p.m.—Short communication: Dr. W. H. B. Brook: Three Cases of Glycosuria of Pregnancy. Specimens: Mr. H. T. Hicks: Carcinoma of the Uterus with Secondary Growth in both Ovaries. Dr. R. Hamilton Bell: After-history of Case of Fibro-myoma undergoing Degeneration. Mr. Douglas Drew (introduced by Dr. Tate): Carcinoma of Cervix complicating Pregnancy treated by Abdominal Panhysterectomy. Paper: Dr. G. E. Herman: A case showing (1) Uterine Contraction without Retraction; (2) Prolonged High Temperature of Nervous Origin.

THURSDAY.

NORTH-EAST LONDON CLINICAL SOCIETY, Tottenham Hospital, N., 4 p.m.—Clinical meeting.

FRIDAY.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, Kensington Town Hall, 8.30 p.m.—The Cavendish Lecture delivered by Sir William Macewen, M.D., F.R.S., followed by a Conversazione and Exhibition.

POST-GRADUATE COURSES AND LECTURES.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Wednesday, 5 p.m., Pharynx.

CHARING CROSS HOSPITAL, W.C., 4 p.m.—Monday, Gynaecology; Thursday, Surgical.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.—Clinical Demonstrations in Medicine and Surgery 2.30 and 3.15 p.m. respectively on Wednesday, Thursday, and Friday: Ophthalmology, 4 p.m. Wednesday; Radiography, 4 p.m. Thursdays. Out-patient Demonstrations, Medical and Surgical, 10 a.m. daily. Throat and Ear, noon Monday and Thursday; Eye, 11 a.m. Wednesday. Skin, noon Friday. Operations, 2.30 p.m. daily.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Whit Monday (closed); Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Throat. Lectures at 5.15 p.m. each day will be given as follows: Tuesday, The Diseases of the Breast which may resemble Carcinoma; Wednesday, The Rest Cure; Thursday, Surgical Diseases of Children.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Muscular Atrophy; Friday, 3.30 p.m., Ataxic Paraplegia.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N.—Tuesday, 4.30 p.m., Lecture on Prognosis in Diseases of the Spleen and Ductless Glands.

BOOKS, ETC., RECEIVED.

Medical Monograph Series No. 7, Anaesthetics. By J. Blumfeld, M.D. Second edition. London: Baillière, Tindall, and Cox. 1906. 2s. 6d.

Duty of Trustees as to Investment of Trust Funds. By A. R. Rudall. London: Effingham Wilson. 1906. 1s.

Notes on Miltary Sanitation. By Lieutenant-Colonel H. P. G. Elkington. London: St. John Ambulance Association. 1s.

London: Rebman Limited:

- Minor and Operative Surgery, including Bandaging. By H. R. Wharton, M.D. Sixth edition. 14s.
- The Surgical Treatment of Chronic Suppuration of the Middle Ear and Mastoid. By S. Oppenheimer, M.D. 1906. 7s. 6d.
- The Development of the Human Body: A Manual of Human Embryology. By J. P. McMurrich, A.M., Ph.D. Second edition. 1905. 14s.
- The Ophthalmoscope and how to use it. By J. Thorington, A.M., M.D. 1906. 11s.

A Nation's Youth. By the Countess of Warwick. London: Cassell and Co. 1906. 1s.

Ueber Robert Schumann's Krankheit. Von P. J. Möbius. Halle a S: C. Marhold. 1906. M. 1.50.

Course of Instruction in Operative Surgery in the University of Manchester. Medical Series No. IV. By W. Thorburn, B.S., F.R.C.S. Manchester: University Press. 1906. 2s. 6d.

Die Kontrakturen bei den Erkrankungen den Pyramidenbahn. Von Dr. O. Förster. Berlin: S. Karger; and London: Williams and Norgate. 1906. M. 1.60.

Grundriss der orthopädischen Chirurgie. Von Dr. M. David. Zweite Auflage. Berlin: S. Karger; and London: Williams and Norgate. 1906. M. 6.00.

An Atlas of Illustrations of Clinical Medicine, Surgery, and Pathology. Fasciculus XXV, Small-pox. London: H. K. Lewis. 1906. 1 guinea.

Swedish Gymnastics as a Physical Training for the British Schoolboy. By F. H. Grenfell, Lieutenant R.N. London: Simpkin, Marshall, Hamilton, Kent, and Co. Limited. 6d.

The Ophthalmic Year Book. Vol. III. By E. Jackson, A.M., M.D.; and G. E. de Schweinitz, A.M., M.D. Denver, Col.: The Herrick Book and Stationery Company. 1906.

Les Empoisonneuses. Par le Dr. R. Charpentier. Paris: G. Steinheil. 1906. Fr. 6.

Experiments on Hot Water Systems. By A. Sayers. London: Sanitary Publishing Company. 1906. 3s. 6d.

⁂ In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
JUNE.	
3 Sunday	
4 MONDAY ...	
5 TUESDAY......	
6 WEDNESDAY	CENTRAL DIVISION, *Birmingham Branch*, Annual Meeting, Medical Institute, 4 p.m.
7 THURSDAY...	CANTERBURY AND FAVERSHAM DIVISION, *South-Eastern Branch*, Annual Meeting, Canterbury Hospital, 3 p.m.; Dinner, County Hotel, 6.15 p.m. CITY DIVISION, *Metropolitan Counties Branch*, First Annual Dinner, Gaiety Restaurant, Strand, 7 p.m. EAST YORK AND NORTH LINCOLN BRANCH, Annual Meeting, Grimsby and District Hospital, 4.30 p.m.; followed by Annual Dinner. ISLE OF THANET DIVISION, *South-Eastern Branch*, Combined Meeting with Canterbury and Faversham Divisions, Hospital Library, Canterbury, 2.45 p.m. MIDLAND BRANCH, Annual Meeting, County Hospital, Lincoln, 2.15 p.m. Dinner, White Hart Hotel, 6 p.m.
8 FRIDAY	BEDFORDSHIRE AND HERTFORDSHIRE DIVISION, *South Midland Branch*, Annual Meeting, Bedford County Hospital, 2.45 p.m. DUNDEE BRANCH, Annual Meeting, Students' Union, Dundee, 4 p.m. HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, Annual Meeting. SOUTHAMPTON DIVISION, *Southern Branch*, Annual Meeting, Lesser Philharmonic Hall, Southampton, 3.30 p.m. SOUTHERN DIVISION, *Edinburgh Branch*, Annual Meeting, Oddfellows' Hall, Forrest Road, 8.15 p.m.
9 SATURDAY...	
JUNE *(continued).*	
10 Sunday.........	
11 MONDAY	LONDON: Naval and Military Committee, 2.30 p.m.
12 TUESDAY......	LONDON: Organization Committee, 10.30 a.m. BRADFORD DIVISION, *Yorkshire Branch*, Annual Meeting, Eye and Ear Hospital, Bradford, 8.30 p.m.
13 WEDNESDAY	LONDON: Medico-Political Committee, 3 p.m. COVENTRY DIVISION, *Birmingham Branch*, Annual Meeting, Coventry and Warwickshire Hospital, 8.30 p.m. SOUTH-EASTERN OF IRELAND BRANCH, Town Hall, Clonmel, 11 a.m. WEST DORSET DIVISION, *Dorset and West Hants Branch*, Annual Meeting, County Hospital, Dorchester, 3 p.m. YORKSHIRE BRANCH, Annual Meeting, Eye and Ear Hospital, Bradford, 3.30 p.m.; Dinner, Midland Hotel, 6.30 p.m.
14 THURSDAY...	BIRMINGHAM BRANCH, Annual Meeting, Medical Institute, 3.30 p.m. NORWOOD DIVISION, *South-Eastern Branch*, Annual Meeting, Art Club, Blackheath, 4 p.m.; Dinner, 6 p.m. SOUTH WALES AND MONMOUTHSHIRE BRANCH, Annual Meeting, Hospital, Swansea, 4.30 p.m.; Council, 3.30 p.m.; Annual Dinner, Hotel Metropole, 6.30 p.m. SOUTH-WESTERN BRANCH, Annual Meeting, Royal Devon and Exeter Hospital, Exeter, 3 p.m.; Luncheon, Northernhay House, 12.30 p.m.; Dinner, The London (Pople's) Hotel, 7 p.m.
15 FRIDAY	
16 SATURDAY...	

MEMBERSHIP OF THE BRITISH MEDICAL ASSOCIATION.

THE British Medical Association exists for the promotion of medical and the allied sciences, and the maintenance of the honour and the interests of the medical profession.

The Annual Subscription to the British Medical Association is £1 5s. 0d., and the BRITISH MEDICAL JOURNAL is supplied weekly, post free, to every member of the British Medical Association wherever he may reside.

Forms of application for membership can be obtained from the General Secretary, 429, Strand, London, W.C.

The principal rules governing the election of a medical practitioner to be a member of the British Medical Association are as follow:

Article III.—Any Medical Practitioner registered in the United Kingdom under the Medical Acts and any Medical Practitioner residing within the area of any Branch of the Association situate in any part of the British Empire other than the United Kingdom, who is so registered or possesses such medical qualifications as shall, subject to the Regulations, be prescribed by the Rules of the said Branch, shall be eligible as a Member of the Association. The mode and conditions of election to Membership shall from time to time be determined by or in accordance with the By-laws. Every Member, whether one of the existing Members or a subsequently-elected Member, shall remain a Member until he ceases to be a Member in accordance with the provisions hereof.

By-law 1.—Every Candidate for Membership of the Association shall apply for election in writing, addressed to the Association, and stating his agreement, if elected, to abide by the Regulations and By-laws of the Association, and the Rules of such Division and Branch to which he may at any time belong, and to pay his subscription for the current year.

By-law 2.—Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the General Secretary of the Association, and to every Member of the Branch Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a member of the Association by the Branch Council at any meeting thereof held not less than seven days (or such longer period as the Branch may by its Rules prescribe) after the date of the said Notice. A Branch may by special Resolution require that each candidate for election to the Association shall furnish a certificate from two Members of the Association to whom he is personally known. Officers of the Navy, Army, and Indian Medical Services on the Active List are eligible for election through the Council or a Branch without approving signatures as laid down in By-law 3.

By-law 3.—Every candidate whose place of residence is not included in the area of any Branch shall forward his Application to the General Secretary of the Association, together with a statement signed by three members of the Association, that from personal knowledge they consider him a suitable person for election. Notice of the proposed election shall be sent by the General Secretary to every Member of the Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a Member of the Association by the Council at any meeting thereof held not less than one month after the date of the said notice.

The annual subscription to the BRITISH MEDICAL JOURNAL for non-members is £1 8s. 0d. for the United Kingdom and £1 12s. 6d. for abroad.

Printed and published by the British Medical Association at their Office, No. 429 Strand in the Parish of St Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 9TH, 1906.

CONTENTS.

MEETINGS OF BRANCHES AND DIVISIONS: PAGE
Glasgow and West of Scotland Branch: Central Division ... 325
Lancashire and Cheshire Branch: Altrincham Division ... 325
" " " Liverpool (Northern) Dvision... 325
Metropolitan Counties Branch: Richmond Division... ... 326
North Wales Branch: Denbigh and Flint Division 326
" " North Carnarvonshire and Anglesea Division... 326
South-Eastern Branch: Croydon Division 327
" " " Maidstone Division 327
Stirling Branch 327

ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD 328
VITAL STATISTICS 330
NAVAL AND MILITARY APPOINTMENTS 330
VACANCIES AND APPOINTMENTS 330
DIARY FOR THE WEEK 331
BIRTHS, MARRIAGES, AND DEATHS 331
CALENDAR 332

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

GLASGOW AND WEST OF SCOTLAND BRANCH:
CENTRAL DIVISION.

THE annual meeting of this Division was held in the Faculty Hall, 242, St. Vincent Street, Glasgow, on May 31st, Dr. J. W. ALLAN, President, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read, approved, and signed by the Chairman.

Reports from the Secretary.—Reports from the Secretary were presented as (*a*) representative and (*b*) meetings of the Executive Committee. These were approved.

Election of Officers.—The office-bearers remain the same as last year: *President*, Dr. J. W. Allan; *Vice-President*, Professor Ralph Stockman; *Secretary*, Mr. James Grant Andrew; *Members of the Executive Committee*, Drs. John Adams, P. N. Grant, W. H. Hunter, Robert Jardine, A. W. Russell, William Wallace; *Representatives on Branch Council*, Professor Stockman and the Secretary; *Representative to Annual Meeting*, Mr. James Grant Andrew, 12, Woodside Terrace, Glasgow.

Matters Referred to Divisions.—The following matters referred to the Divisions were considered: (*a*) Hospital abuse (SUPPLEMENT, February 17th, 1906). The Division did not express any opinion on this question. (*b*) State registration of nurses (SUPPLEMENT, March 3rd, 1906). The following questions were submitted: "Does the Division approve in general of the method of registration for nurses proposed by the Select Committee of the House of Commons? Does the Division approve of the separate registration of midwifery nurses?" The objections stated by the Central Hospital Council for London against the State registration of nurses were read by the SECRETARY, and after discussion it became the finding of the meeting with one dissentient, "that the method proposed by the Select Committee of the House of Commons be not approved." (*c*) Proposed application for Royal Charter (SUPPLEMENT, March 24th, 1906). The application for Royal Charter was approved, provided that the cost would be as near as possible to that stated. (*d*) Provisional agenda for Annual Representative Meeting (SUPPLEMENT, May 5th, 1906). The agenda was briefly considered. This was all the business.

LANCASHIRE AND CHESHIRE BRANCH:
ALTRINCHAM DIVISION.

A GENERAL meeting of this Division was held on May 23rd at Sale Hall, on the invitation of Sir William Bailey, who gave a garden party. The proceedings were somewhat spoiled by the unsettled weather, but there was a large muster of members, most of whom were accompanied by ladies. The meeting took place in the library, Dr. E. L. LUCKMAN, Chairman, presided.

Confirmation of Minutes.—Dr. T. W. H. GARSTANG (Honorary Secretary) read the minutes of the previous general meeting and several intervening Committee meetings, which were unanimously confirmed.

The Division and a Local Medical Officer of Health.—A draft letter to the Central Council was considered in answer to inquiry as to evidence to be given in explanation of the attitude of the Division in not supporting a local medical officer of health who differed with his urban council. After a long discussion, it was unanimously decided that the meeting considered that the position taken up in the matter by the Executive Committee and the Division was inevitable under the circumstances, and the draft letter, with one unimportant alteration, was unanimously adopted.

Resignation of Representative on Branch Council.—Dr. CHARLES RENSHAW explained his reasons for resigning, and regretted that he did not see his way to withdraw his resignation; at the same time he thanked the meeting for their expression of confidence.

Vote of Thanks to Sir William Bailey.—A short meeting terminated with a vote of thanks to Sir William Bailey for his hospitality, proposed by the CHAIRMAN and seconded by Dr. HERBERT RENSHAW, to which Sir WILLIAM BAILEY made a characteristic reply.

LIVERPOOL (NORTHERN) DIVISION.

THE annual meeting of the Liverpool (Northern) Division was held at the Medical Institution on May 23rd, Dr. J. J. TISDALL, Chairman, in the chair.

Confirmation of Minutes.—The minutes of the last annual meeting were taken as read and confirmed. The minutes of the last ordinary meeting were read and confirmed.

Report of Executive Committee.—The annual report of the Executive Committee was read and adopted.

Election of Office-bearers.—The following members were elected office-bearers: *Chairman*, J. A. Cooke; *Vice-Chairman*, R. S. Archer, M.D.; *Secretary*, A. W. German; *Representative on Branch Council*, A. W. German; *Representative in Annual Representative Meeting*, E. T. Davies, M.D., or if unable to attend, S. Matthews, M.D.; *Executive Committee*, H. Adcock, S. H. House, M.B., S. Matthews, M.D., A. Ivor Thomas, and J. J. Tisdall.

Proposed Royal Charter.—The proposed application for a Royal Charter (see Supplement, British Medical Journal, March 24th) was considered. The scheme in general was approved of, subject to the following suggestions: Page 115, Subsection VIII, that the words "or the medical profession" be deleted. Page 117, Subsection (*g*), that line 3 be altered to read, "the Representative Body or of the Council or of any Branch Council." Page 125, Section IX, that first-class travelling expenses be altered to third-class, and that these be also allowed to members attending meetings of any Branch Council.

Notices of Motion.—By the Wandsworth Division (see Supplement, March 3rd, 1906): Election of Representatives not approved of; officers of Divisions not approved of. By the City Division: Management of Library, no opinion expressed; facilities for social intercourse at head office approved of. By the North Manchester Division (see Supplement, March 31st, 1906): Standing Committees, election strongly approved of; attendance approved of; date of issue of *Year Book* not approved of, as it is considered the *Year Book* should be abolished on the ground of unnecessary expense; central officials, regulation and co-ordination of duties approved of, subject to Committee being appointed by Annual Representative Meeting. By Council of the Association (see Supplement, April 21st, 1906): Representation of the Representative Meeting on the Council approved of; supplementary grants to Divisions and Branches approved of; tenure of office of members of Council selected by the Representative Meeting approved of; Standing Committees, addition to approved of. By the Hampstead Division: Representatives on Central Council disapproved of; constitution of Central Council of Association, addition of dental surgeon disapproved of. By the Dundee Branch: Standing Committees A., B., and C.—these were all left to the discretion of the Representative at the Annual Representative Meeting. By the Wandsworth Division: Expenses of Representatives—opinion already expressed at last meeting; capitation grants: this matter is dealt with by the proposed new by-laws, notice of which has been given by the Council; district organizing secretaries not approved of. By the Bournemouth Division: Capitation grant, local control not approved of. By the Hampstead Division: Coroners' law, medical witnesses, approved of but impracticable; payment of medical men called in in complicated midwives' cases approved of; vaccination approved of; supply of Government lymph to all practitioners approved of; office of public vaccinator considered impracticable; contract practice: medical organization approved of. By the Wandsworth Division: Nurses' registration: representation of medical profession on Central Board, 1 and 2 left to discretion of Representative. By the Exeter Division: Relation of the medical profession to the State; income and property tax—considered to be impracticable. By the Hampstead Division: Position of consultants; proposed separate class—considered impracticable. Constitution and management of hospitals—left to discretion of Representative. Hospital administration—left to discretion of Representative. By the Dundee Branch: Amendment of Standing Orders of Representative Meetings—approved of. By the Gateshead Division (see Supplement, April 28th, 1906): Circulating medical library—not approved of. Nurses' Registration Report (see Supplement, March 3rd, 1906). To the questions submitted, the meeting decided to answer: (1) Yes, but that the minimum period of training should not be less than three years; (2) No.

Medical Officers recognized under the Elementary School Teachers (Superannuation) Act, 1898.—Dr. Davies brought this matter forward, stating that whilst formerly school teachers about to present themselves for examination could obtain a medical certificate from any registered practitioner, they were now compelled to obtain one at their own expense from the medical officers of the Post Office, whose names appear in an official list published by the Board of Education. He complained of the unfairness of confining this privilege to a few medical men; and after some discussion, Dr. Davies proposed, Dr. Matthews seconded, and it was unanimously decided:

> That the Honorary Secretary be instructed to write to the Medical Secretary and ask if he can obtain the conditions and terms of appointment of medical officers recognized under the Elementary School Teachers (Superannuation) Act, 1898, and appointed by the Board of Education.

Illness of Dr. Adcock.—It was proposed by the Chairman, seconded by Dr. A. Ivor Thomas, and unanimously resolved:

> That the Honorary Secretary be instructed to convey to Dr. Adcock the sympathy of the members of the Division with him in his serious illness, and to express their hope for his speedy recovery.

Votes of Thanks.—Votes of thanks to the retiring Chairman and the Honorary Secretaries for their services during the past year terminated the proceedings.

METROPOLITAN COUNTIES BRANCH:

Richmond Division.

The annual meeting of the Division was held in the Talbot Hotel, Richmond, on May 16th, at 6.30 p.m. Dr. R. W. Wilson presided.

Election of Officers.—The following were elected for the ensuing year: *Chairman*, Dr. F. G. Crookshank; *Vice-Chairman*, Dr. R. W. Wilson; ***Representative at the Representative Meeting***, Dr. R. Langdon-Down; ***Representative on Branch Council***, Dr. R. W. Wilson; ***Members of the Executive Committee***, Drs. W. A. Bateman, Fletcher Beach, J. R. Johnson, G. J. Maguire, G. H. Rodman, C. C. Scott, G. E. Shuttleworth, and G. C. Still; ***Honorary Secretary and Treasurer***, Dr. C. Blair; ***Honorary Assistant Secretary***, Dr. A. E. Evans.

Nomination for Central Council.—Dr. F. G. Crookshank was nominated for election to the Central Council of the Association.

NORTH WALES BRANCH:

Denbigh and Flint Division.

The annual meeting of the Division was held at the Infirmary, Wrexham, on Friday, May 25th.

Election of Officers.—The following were elected officers for the ensuing year: *Chairman*, Dr. A. Eyton-Lloyd, Rhyl; *Vice-Chairman*, Dr. F. S. Manisty; ***Secretary***, Mr. E. D. Evans; ***Representative for Annual Representative Meetings of the Association***, the Secretary; *Executive Committee*, Dr. H. Drinkwater, Dr. H. V. Palin, Dr. J. Medwyn Hughes, and Dr. David Lloyd, Denbigh.

Nomination for Central Council.—The nomination of the present Representative (Dr. H. Jones-Roberts, Penygroes) was unanimously approved of.

Annual Report.—The annual report of the Executive Committee was received and adopted.

Matters Referred to the Divisions.—On several of the questions the Division members expressed their approval, the remainder being left to the discretion of the Representative when they come up for discussion at the Annual Representative Meeting.

Autumn Meeting.—It was decided to hold the autumn meeting at Rhyl.

Address.—An address was delivered by Mr. Frank T. Paul, F.R.C.S., Liverpool, on the value of the microscope as an aid to the early diagnosis of tumours. The address was illustrated by a series of excellent lantern slides of microscopic specimens. A very cordial vote of thanks was accorded Mr. Paul for his valuable and interesting paper.

North Carnarvonshire and Anglesea Division.

The annual meeting of the Division was held at the British Hotel, Bangor, on Wednesday, May 30th, Dr. J. Lloyd Roberts, Colwyn Bay, in the chair.

Confirmation of Minutes.—The minutes of the last regular meeting and of the special meeting were read, confirmed, and signed.

Midwives' Registration Act.—The replies received from the Clerks of the Carnarvonshire and Anglesea County Councils as to the working of the Act in the respective counties were read, and referred to the subcommittee appointed to deal with the matter.

Anglesea Coroner.—A letter was read from the Coroner stating that the press report of an inquest recently held by him containing certain strictures upon the medical profession in that county was incorrect.

Bangor Workhouse Dispute.—The satisfactory termination of the dispute which had arisen over the salary offered for the Medical Officership of the Bangor Workhouse, and which had resulted in a complete victory for the profession, was reported. It was resolved—

> That the Division greatly appreciates the initiative action and the zeal displayed by Dr. H. Grey Edwards in securing an adequate salary for the Workhouse Medical Officer; and also the loyalty shown by the neighbouring practitioners in refusing to become candidates for the appointment in opposition to the local practitioners, thereby greatly strengthening the position of their professional brethren in Bangor.

It was further resolved—

> That the best thanks of the Division be tendered to Mr. J. Smith Whitaker, the Medical Secretary, for the ready and valuable assistance which he rendered in the matter.

Report of Executive Committee.—The annual report of the Executive Committee was read and adopted.

Election of Officers for 1906-7.—The HONORARY SECRETARY (Mr. H. Jones Roberts) asked to be released from the secretarial work of the Division, inasmuch as he was also Secretary of the Branch. The request was granted, and it was resolved:

> That the best thanks of the Division be given to the Honorary Secretary for his services during the past three years.

The following officers were then elected: *Chairman:* Dr. G. R. Griffith, Carnarvon. *Vice-Chairman:* Dr. H. Grey Edwards, Bangor. *Honorary Secretary:* Dr. John Evans, Carnarvon. *Representative to Representative Meeting:* Dr. Emyr O. Price, Bangor (re-elected). *Representatives on Branch Council:* Drs. J. Lloyd Roberts (Colwyn Bay), R. Arthur Prichard (Conway), R. Parry (Carnarvon), J. R. Prytherch (Llangefni). *Executive Committee:* Drs. Corbet W. Owen (Bangor), G. W. Kendall (Holyhead), J. R. Williams (Penmaenmawr), R. Lumley Roberts (Bethesda).

Nomination of Representative of the North Wales Branch on Central Council.—It was resolved that Mr. H. Jones Roberts be nominated by the Division for re-election on the Central Council.

Proposed Royal Charter.—It was resolved that the Division approves of the proposed application for a Royal Charter.

Agenda of Annual Representative Meeting.—The agenda was considered, and instructions given to the Representative, including the selection of three Direct Representatives on the General Medical Council.

Ethical Rules re *Contract Practice and Appointments.*—The "Bradford rules" were discussed, approved of, and adopted, subject to the sanction of the Central Council.

SOUTH-EASTERN BRANCH:

CROYDON DIVISION.

A MEETING was held at the Croydon General Hospital on May 17th, Dr. ROSSER, Chairman, presiding.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Report of Committee.—The report of the Committee was adopted.

Next Meeting.—It was decided to hold the next meeting at Sutton. Dr Partridge was elected Chairman.

Election of Officers.—The following officers were elected for the coming year: *Chairman*, Dr. S. Parsons Smith; *Vice-Chairman*, Dr. Rosser; *Branch Council Representatives*, Dr. Parsons Smith and Dr. Fowler; *Direct Representative*, Dr. Macan; *Honorary Secretary*, Mr. Willock; *Committee*, Dr. Fowler, Mr. Newby, Mr. S. G. Reid, Dr. Redfern, Dr. Duncan, Mr. Wray, Dr. Carpenter, Dr. Wayte, Dr. Gripper, Mr. Cressy, Dr. Hugo, Mr. Horsley, Dr. Bower, and Dr. Meredith Richards.—It was proposed by Dr. MACAN, seconded by Dr. FOWLER, and carried unanimously, that at least three members of the Committee shall retire annually and shall not be eligible for re-election for a period of one year.

CLINICAL MEETING.

A clinical meeting was then held, Mr. C. WRAY in the chair.

Cases.—The following cases were shown:—Dr. W. J. PASSMORE: Aortic aneurysm in a female. Dr. REDFERN: Semi-solid oedema. Heart of case shown last year. Mr. CRESSY: Notes upon two cases of haemorrhage into the knee-joint. Mr. WRAY: Tobacco amblyopia after fourteen days' treatment. Inveterate follicular conjunctivitis cured by argyrol-adrenalin treatment. Acromegaly. Acromegaly incipiens. Dr. MALE: Congenital dislocation of the hip, with skiagraphs. Dr. WAYTE: Aneurysm (ileo-femoral) treated by ligature. Gumma of femur. Mr. NEWBY: Notes upon three cases of abdominal section: (1) Hysterectomy for menorrhagia in a patient with tuberculous peritonitis; (2) ovariotomy for tuberculous disease of adnexa in a patient with tuberculous peritonitis; (3) a case of perforating gastric ulcer situated in a position which precluded removal.

Dinner.—Eleven members remained to dinner.

MAIDSTONE DIVISION.

A MEETING was held at the West Kent General Hospital on May 10th, at 3.15, Dr. JOYCE in the chair.

Proposed Royal Charter.—The meeting was held to consider the proposed incorporation under a Royal Charter. It was proposed by Dr. DOUGLAS, and seconded by Dr. HOAR:

> That there be an application for a Royal Charter.

Proposed Pathological Department.—It was proposed by Dr. JOYCE, seconded by Dr. HOAR:

> That the Association be requested to form a department to which members can send pathological specimens for reports and analyses.

Name of Representative Body.—It was proposed by Dr. DOUGLAS, seconded by Dr. OLIVER:

> That (1) the representative body be called the Representative Council; (2) and that the Council of the Association be called the Central Council.

Proposed Life Membership of Association.—It was proposed by Dr. DOUGLAS and seconded by Dr. OLIVER:

> That the Council of the Association be requested to consider and submit to the next Representative Meeting a scheme whereby members of the Association may without injury to the finances of the Association become life members by making one payment.

The Association Finances.—Dr. DOUGLAS proposed:

> That, seeing the large present expenditure of the Association necessitated by the Charter and other expenditures, the Branch Councils be asked to forego a proportion of the amounts which would ordinarily be allotted to them for the year 1906, seeing that they now have an unexpended balance of over £4,000.

—This was seconded by Dr. OLIVER.

All these resolutions, after discussion, were duly passed *nem. con.*

STIRLING BRANCH.

THE annual general meeting for 1906 was held in the Falkirk Infirmary, on Wednesday, May 30th, at 4.15 p.m., Dr. GRIFFITHS, President, in the chair.

Confirmation of Minutes.—The PRESIDENT signed the minutes of the last general meeting.

Election of Office-bearers.—The following office-bearers were elected for the ensuing year: *President*, Dr. Alexander (Denny), *Vice-President*, Dr. McGowan (Grangemouth), *Representative*, Dr. Griffiths (Falkirk); *Secretaries*, Dr. Moorhouse (Stirling), Dr. Stewart (Falkirk), *Council*, Drs. Currie, Ferguson, Gardner, and Strachan.

Report of Council.—The report of Council was read by the SECRETARY.

President's Address.—The PRESIDENT (Dr. Griffiths) gave an account of the surgical technique in use in the Falkirk Infirmary; and at the close of the address, which was listened to with great interest, he was awarded a hearty vote of thanks.

Cases.—The PRESIDENT, and Drs. CLARKSON, MITCHELL, and WATT showed some cases of great clinical interest, on which remarks were made by several of the members.

Visit to Wards of Infirmary.—The members thereafter had the opportunity of inspecting the new operating theatre, and some cases of interest were shown in the wards.

Vote of Thanks to Matron.—A hearty vote of thanks was awarded to Miss Glendinning, the matron of the hospital, for her trouble and attention in connexion with the afternoon tea served to the members previous to the meeting.

Association Notices.

BRANCH AND DIVISION MEETINGS TO BE HELD.

Birmingham Branch.—The annual meeting of the Birmingham Branch will be held at the Medical Institute on Thursday, June 14th, at 3.30 p.m.—T. Sydney Short, Honorary Secretary, 85, Edmund Street, Birmingham.

Birmingham Branch: Central Division.—The annual meeting will be held at the Medical Institute on Tuesday, June 26th, at 4 p.m. Business: (1) Election of officers, members of Branch Council, and of Executive Committee. (2) To receive the annual report. (3) To instruct the Representative (Supplement, British Medical Journal, May 5th). (4) Vote of thanks to retiring officers. (5) Any other business.—E. D. Kirby, Honorary Secretary.

Birmingham Branch: Coventry Division.—The annual meeting of this Division will be held at the Coventry and Warwickshire Hospital on Wednesday, June 13th, at 8.30 p.m. Agenda: (1) To elect officers and the Executive Committee for the year. (2) To receive the annual report of the Executive Committee. (3) The Committee will recommend the adoption of the following resolution: "That no member of the profession in the area of the Division shall take over the medical officership of one of the Friendly Societies connected with the dispensary in the event of such society seceding from that institution before the satisfactory termination of the present dispute." (4) Dr. Milner Moore will move that the Division approve the proposed application by the Association for a Royal Charter. (5) To thank the Committee of the Coventry and Warwickshire Hospital for the continued use of their Board Room for the meetings of the Division.—E. H. Snell, Honorary Secretary.

Birmingham Branch: Tamworth and Nuneaton Division.—A combined meeting of the Tamworth and Nuneaton Division with the Coventry Division will be held at the Coventry and Warwickshire Hospital, Coventry, on Tuesday, June 19th, at 4 p.m., for the purpose of electing a Joint Representative to represent them at the Annual Representative Meeting, and to instruct him in regard to matters arising at that meeting (see Supplement, British Medical Journal, May 5th).—E. H. Snell, Secretary of the Constituency.

Border Counties Branch.—The annual meeting of this Branch will take place in the County Hotel, Carlisle, on Friday, June 29th, and not as previously announced.—F. R. Hill, Honorary Secretary.

Cambridge and Huntingdon Branch.—The annual meeting of the Branch will be held at Peterborough on Thursday, June 14th. Any member having communications to make should apply to the Honorary Secretary, F. E. Apthorpe Webb, Grafton House, Cambridge.

Dorset and West Hants Branch: West Dorset Division.—The annual meeting of the Division will be held on Wednesday, June 13th, at the County Hospital, Dorchester, at 3 p.m. Agenda: (1) Minutes. (2) To elect officers, namely—Chairman, Vice-Chairman, and Honorary Secretary. (3) To elect the Executive Committee of the Division. (4) To elect Representatives of the Division on the Branch Council. (5) To elect the Representative of the Division at Representative Meetings of the Association. (6) To consider the question of altering the date of the annual meeting of the Division from June to May. (7) To consider matters referred to Divisions. (8) Any other business. Afternoon tea.—J. Comyns Leach, Sturminster Newton, Honorary Secretary.

East Anglian Branch.—The annual meeting of the East Anglian Branch will be held at the Palace Hotel, Southend-on-Sea, on Tuesday, June 26th. Programme of Proceedings: 12.30, Council meeting. 12.45, General meeting. Agenda: (1) Minutes of last meeting. (2) Report of the Council. (3) Report of election of officers. 1.54, Luncheon, by kind invitation of the President-elect, Dr. Clough Waters, at the Palace Hotel. 2.30, Resumed general meeting. Introduction of Dr. Clough Waters as President of the Branch, by Dr. Barton. (4) President's address. (5) Address by Sir Frederick Treves, Bart., G.C.V.O., C.B., LL.D., Serjeant-Surgeon to His Majesty the King. 4 to 6, Garden party in the Shrubbery, by kind invitation of the Chairman and Members of the South Essex Division. By the kind courtesy of the Commodore and Committee of the Alexandra Yacht Club, members attending are considered to be members for the day.—B. H. Nicholson, H. A. Ballance, and J. Gutch, Honorary Secretaries.

East Anglian Branch: West Norfolk Division.—The Annual meeting of this Division will be held on Wednesday, July 4th, at the residence of the Chairman (Dr. Thomas), Swaffham. Lunch at 1.30 by invitation of the Chairman. Meeting at 3 p.m. The agenda, besides containing the usual business of the annual meeting, contains for consideration the proposed application for a Royal Charter. The Chairman will also move the following alteration and addition to the rules: "That Rule 11 shall read, 'ordinary meetings of the Division shall be held *half-yearly*, etc.'" Addition to Rule 9: "That the Honorary Secretary of the Scientific Committee be *ipso facto* a member of the Executive Committee."—A. Gardiner, King's Lynn, Honorary Secretary.

Edinburgh Branch.—The annual meeting of the Edinburgh Branch will be held in the Hall of the Royal College of Physicians on Friday, June 29th, at 4.15 p.m.—Norman Walker.

Edinburgh Branch: South-Eastern Counties Division.—The annual meeting of this Division will be held in the King's Arms Hotel, Melrose, on the afternoon of Friday, June 22nd, Dr. Cullen, Chairman, presiding. Business: (1) Election of office-bearers. (2) Instructions to Representative.—W. Hall Calvert, Honorary Secretary.

Leinster and South-East of Ireland Branch.—Nominations of candidates for election as members of Central Council must be received by the undersigned on or before June 12th.—Arthur H. White, Honorary Secretary Leinster Branch, Malvern, Terenure Road, Dublin.

Metropolitan Counties Branch.—Notice is hereby given that voting papers for electing the Metropolitan Counties Branch Representatives on the Central Council will be sent out on or before June 16th, and must be returned by June 20th. Notice is also given that the annual meeting of the Branch for the declaration of the poll of officers and for amending the ethical and financial rules, and other business. will be held on Tuesday, June 26th.—Frederick J. Smith and Ernest Clarke, Honorary Secretaries.

Metropolitan Counties Branch: Hampstead Division.—The fourth annual meeting of this Division will be held at St. Peter's Hall. Belsize Square, on Friday, June 8th, at 5 p.m., Mr. F. R. Humphreys in the chair. Agenda: (1) Minutes. (2) Correspondence. (3) Questions. (4) To receive the annual report of the Committee. (5) Election of officers and ordinary members of the Committee for the session 1906-7. (6) To instruct the Representative to the Representative Meeting. (7) To consider reports of Subcommittees—(*a*) on Contract Practice within the Division; (*b*) on the proposed Divisional Library. (8) Other business.—R. A. Yeld, M.D., Honorary Secretary, Hampstead, N.W.

Munster Branch.—Nominations will be received by me up to June 16th for Elective Member of Central Council. British Medical Association, in accordance with By-law 24.—Philip G. Lee, Honorary Secretary, 26, Patrick's Hill, Cork.

Northern Counties of Scotland Branch.—The annual meeting of this Branch will be held at the Railway Hotel, Tain, on Thursday, June 21st, at 12 noon. Agenda: (1) Minutes. (2) Election of office-bearers for the ensuing year and a Representative of the Branch in Representative Meetings of the Association. (3) To consider business at the Representative Meeting. (4) To consider communications from the Medical Secretary. (5) To arrange place for autumn meeting, and also for the next annual meeting. (6) Any other competent business. Luncheon will be served at the Railway Hotel, Tain, at 1 p.m. Tickets 3s., exclusive of wines. Through the courtesy of the Tain Golf Club members wishing to play golf will have an opportunity of doing so. Golfers kindly communicate with Dr. Gillies, Tain, who will make the necessary arrangements. In accordance with By-law 24 of the constitution, the election of a Representative of the Branch on the Central Council must be made by voting papers sent to each member, and the candidates' names must be sent to me on or before June 30th, and the nomination signed by three members.—J. Munro Moir, M.D., Honorary Secretary, 4, Ardross Terrace, Inverness.

North of England Branch: North Northumberland Division.—The annual meeting of the above will be held at the Infirmary, Berwick-upon-Tweed, on Wednesday, June 20th, at 2.30 p.m. Business: To elect officers as per Rule 11. To consider matters referred to Divisions since last meeting. Consultations between general medical practitioners and the question of fees (introduced by Dr. Burnand). Any other business.—R. B. Robson, M.B., Honorary Secretary, Alnwick.

South-Eastern Branch.—The sixty-second annual meeting will be held at the Crystal Palace on Wednesday, June 27th, at 2.15 p.m. Dr. Hetley (President-elect) kindly invites members to lunch at the Crystal Palace from 1 to 2 p.m. Agenda: In addition to the business of an ordinary meeting: (1) To receive the report of the election of new officers, who shall thereupon take office. (2) To receive the report of the Council on the affairs of the Branch and the annual financial statement. After the meeting, entertainments will be provided in the Crystal Palace, and expeditions will be arranged to the Norwood Cottage Hospital, the Norwood Sanatorium for the Treatment of Alcohol and Drug Inebriety, and the Dulwich Gallery. Dinner at the Crystal Palace at 6 15 p.m. (for 6.30 p.m.); charge 7s. Wine will be provided by local members. Those who propose to be present at lunch or dinner are requested to signify their intention to Dr. Prangley, 197, Anerley Road, S.E., not later than Saturday, June 23rd.—H. M. **Stewart**, Honorary Secretary.

South-Eastern Branch: Guildford Division.—The annual meeting will be held at the Royal Surrey County Hospital, Guildford, on Wednesday, June 20th, at 4 30 p.m. Agenda: (1) Minutes. (2) Election of officers, Representatives on Branch Council and in Representative Meetings, and members of Executive Committee. (3) To receive annual report. (4) Business of the Annual Representative Meeting. (5) Any other business. (6) Paper by Mr. G. Sichel, F.R.C.S.: Some remarks on radiotherapy. Tea will be provided at 4.15. The Honorary Secretary will be glad to receive any nominations for the above offices, and to hear from any members wishing to show cases or specimens.—E. J. **Smyth**, Maythorne, Epsom Road, Guildford, Honorary Secretary.

South-Eastern Branch: Hastings Division.—The annual meeting of this Division will be held at the East Sussex Hospital on Wednesday, June 13th. The chair will be taken by Dr. Batterham at 5 p.m. Agenda: (1) Confirmation of minutes. (2) Election of officers for ensuing year. (3) Any other business allowed by the rules. Tea and coffee will be provided by Dr. Batterham at 4 30 p.m.—G. **Vickerman Hewland**, Honorary Divisional Secretary, St. Leonards-on-Sea.

South-Eastern Branch: Norwood Division.—The annual meeting of the Division will take place at the Art Club, Blackheath, on Thursday, June 14th, at 4 p.m., Ralph Gooding, M.D., of Blackheath, in the chair. Dinner at 6 p.m.; charge 7s., exclusive of wine. Agenda: (1) Minutes of last meeting. (2) To decide where the next meeting shall be held, and to nominate a member of the Division to take the chair thereat. (3) To elect officers, the Representatives of the Division on the Branch Council, and ordinary members of Executive Committee. (4) To elect the Representative of the Division in Representative meetings of the Association. (5) To receive the annual report of the Executive Committee. (6) To consider business of Annual Representative Meeting. (7) To consider existing rules and discuss whether any alterations are necessary. (8) Any other business. The following papers will be read: Dr. C. R. Box, Bronchiectasis in Children (with lantern slides); W. Arbuthnot Lane, M S., Defective Intestinal Drainage; Dr. Walter W. H. Tate, Indications for the Surgical Treatment of Uterine Fibroids. Exhibition of instruments, etc., by Messrs. Burroughs and Wellcome and Messrs. Arnold and Son. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. All members of the South-Eastern Branch are invited to attend and to introduce professional friends, but will be unable to vote on Divisional questions. The Art Club is at the end of Bennett Park, three minutes from Blackheath Station, S.E.R. The Honorary Secretary would be much obliged if members would kindly inform him by postcard, to reach him by the first post on Tuesday before the meeting, whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner.—**Henry J. Prangley**, Honorary Secretary, **Arthur W. Soper**, Assistant Honorary Secretary, Anerley.

South-Eastern of Ireland Branch.—An ordinary meeting and meeting of the Council will be held at the Town Hall, Clonmel, on June 13th, at 11 o'clock. Agenda: (1) Minutes. 2) To impress on Divisions the expediency of adopting Ethical Rules and of appointing Ethical or Executive Committees respectively. (3) To elect Ethical Committee for Branch. (4) To investigate ethical case. (3 and 4 by Branch Council only.) —J. **Quirke**, Piltown, co. Kilkenny, Honorary Secretary.

South Midland Branch: Aylesbury Division.—A meeting of the above will be held in the Board Room of the Royal Bucks Hospital on Tuesday, June 26th, at 2.30 p.m.: Agenda: 1) The minutes of the last meeting. (2) To consider whether or not it is advisable to continue the Aylesbury Division as a eparate Division of the British Medical Association.—**Horace Rose**, Honorary Secretary, Melrose, Aylesbury.

South Wales and Monmouthshire Branch.—The annual meeting will be held on Thursday, June 14th, at the Hospital, Swansea, at 4.30 p.m. Council meeting at 3.30 p.m. The annual dinner will take place at the Hotel Metropole at .30 p.m.

South-Western Branch.—The sixty-seventh annual meeting will be held on June 14th at the Royal Devon and Exeter Hospital, Exeter, at 3 p.m., when Mr. G. Jackson will resign the hair to Mr. E. J. Domville, who will deliver his inaugural ddress. The report of the Branch Council and annual finanial statement for the year 1905-6 will be presented to the meeting, and the officers of the Branch will be elected for the ear 1906-7. Luncheon, by kind invitation of the President-Elect, will take place from 12.30 p.m. to 2.30 p.m. at Northernhay House. The annual dinner will be held at 7 p.m. t the London (Pople's) Hotel. Tickets (exclusive of wine) s. each, which can be had from Dr. Solly, 40, Southernhay, the Honorary Treasurer of the Dinner Committee. Arrangements have been made for members who desire it to play either golf or croquet, and to visit the Cathedral, Chapter House, Library, Guildhall, etc.; and by the Exeter members, members are invited to a Garden Party to be held by permission of the Lord Bishop of Exeter and Mrs. Robertson at the Palace from 4.30 to 6 p.m. Members wishing to play golf are requested to send their names to Dr. Raglan Thomas, 13, West Southernhay, Exeter; and for croquet to Mr. A. C. Roper, The Shrubbery, Exeter, before June 10th. Members who attend the Garden Party are invited to bring their wives or lady friends, limited to two. It is particularly requested that members requiring dinner tickets send their names with P.O. for 6s. to Dr. Solly, 40, Southernhay, Exeter, before June 10th. Members wishing to be accommodated with bed and breakfast are invited to send their names to Dr. Miller, 14, East Southernhay, Exeter, who will endeavour to arrange matters. The Honorary Secretary takes this opportunity of informing members that he does not desire to offer himself for re-election.—G. **Young Eales** Torquay, Honorary Secretary.

Ulster and Connaught Branches.—The annual meeting will be held on Thursday, June 21st, when the following officers will be elected:—President, Secretary, Treasurer, two Members of the Central Council to represent the Ulster and Connaught Branches, and a member of the Irish Committee (who shall not be resident in Belfast). Members having business or scientific communications to make to the meeting will please send the Honorary Secretary notice of the same not later than June 12th.—**Cecil E. Shaw**, Honorary Secretary, Belfast.

West Somerset Branch.—The sixty-third annual meeting of this Branch will be held at the London Hotel, Taunton, at 12.15 p.m., on Friday, June 22nd, when the new President, Dr. R. Liddon Meade-King will take the chair Agenda: Minutes of last meeting; annual report of Council; treasurer's accounts; election of officers; President's address (notes on a seventeenth century textbook of medicine); consideration of agenda of Representative Meeting on July 24th. This, as appearing in the Supplement to the British Medical Journal of May 5th, will be considered so far as time will permit. Members are requested to acquaint themselves with any particular item on that agenda which they wish to bring to the notice of the Branch. Luncheon will be served at 1.30 p m. This will be paid for out of the Branch funds in the case of members signifying to the Honorary Secretary their intention of being present by June 19th. For others, and guests, a charge of 3s. per head will be made, in all cases exclusive of wine, etc. After lunch those present will become the guests of the President, and will be driven to Pickeridge Hill, where a golf match will be played between the medical members of the Pickeridge Club and the rest of the Branch. They will also be entertained there to tea. The return journey will be made in time to suit the convenience of those having to catch trains from Taunton station. In the event of the day proving wet an alternative programme will be arranged.—W. B. **Winckworth**, Honorary Secretary.

Yorkshire Branch.—The annual meeting of this Branch will be held at the Eye and Ear Hospital, Bradford, on Wednesday, June 13th, at 3.30. Agenda: Minutes. Report of Council. Election of two Representatives of the Branch on the General Council (the only nominations received are Dr. Sinclair White (Sheffield) and Dr. Goyder (Bradford), who will therefore be elected). Election of Branch Officers. Dr. Mossop (President-elect) will deliver an address. Dr. Little will read notes on a case of Parrinaud's Conjunctivitis. Dr. Ray: Case of Obstructed Labour due to Pelvic Neoplasm (specimen). Mr. Basil Hall: Cases of Excision of the Gasserian Ganglion; Carcinoma of Caecum, of Transverse Colon, of Sigmoid removed by Operation; Case of Intussusception. Dr. Tregellis Fox: Plea for Habitual Performance of *Post-mortem* Examinations in General Practice. Dr. Bronner will show Cases of Cerebellar Abscess, Extradural Abscess, Thrombosis of Lateral Sinus of Aural Origin, some cases of Operation for Deviation of the Nasal Septum, Disease of the Frontal Sinus, etc. The annual dinner will be held at the Midland Hotel at 6.30. Members desiring to dine are requested to communicate with Dr. **Bronner**, Honorary Secretary, 33, Manor Row, Bradford, at once, so that the necessary arrangements can be made.

Yorkshire Branch: Bradford Division.—The annual meeting of the Division will be held at the Eye and Ear Hospital, Bradford, on Tuesday, June 12th, at 8 30 p.m. Agenda:—(1) The office-bearers for the session 1906-7, nominated at the last meeting of the Division, will be elected: Chairman, Mr. Basil Hall; Vice-Chairman, Dr. J. H Campbell; Honorary Secretaries, Drs. J. Metcalfe and A. Little (Treasurer); Representatives on the Branch Council, Drs. Brampton, Campbell, Hall, and Little: Executive Committee, Drs. and Messrs. Althorp, Berry (Keighley), Bronner, Clow, Craig (Bingley), Crowley, Eames, Goyder, Hunter (Pudsey), Mercer, Mitchell, Peck (Queensbury), Shaw (Liversedge), Sykes (Cleckheaton), Tunstall, Waugh (Skipton); Ethical Committee, the President and Secretaries and Drs. and Messrs. Althorp, Horrocks, Manknell, H. E. Taylor, Shackleton, J. W. Wilson. (2) The election of the Representative of the Division in Representative Meetings of the Association, Mr. Horrocks, nominated at the last meeting of the Division, will take place. (3) To receive the annual report of the Executive Committee. (4) The nomination and election of a proposed President-elect of the Association, if the invitation of the Bradford Division to the Council to hold the annual general meeting in Bradford in 1907 be accepted, will take place. (5) Dr. Metcalfe will move the following resolution: "That the Bradford Division of the British Medical Association, whilst noting with satisfaction the decision of the Baths Committee of the Bradford Corporation that the various forms of medicinal bath treatment should only be carried out from medical prescription, trusts that it will be an order to the bath attendants to carefully fulfil the instructions given; and respectfully suggests to the Committee the desirability of limiting the electrical appliances for the treatment of disease strictly to the method at present undertaken at the Central Baths. (6) The opinion of the Division will be taken on the proposed application for a Royal Charter. (7) Any question of importance on which the opinion of the Division has not yet been taken, and contained in the Provisional Agenda in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL for May 5th, will be considered.—JAMES METCALFE and ANDREW LITTLE, Honorary Secretaries.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN seventy-six of the largest English towns, including London, 8,601 births and 4,176 deaths were registered during the week ending Saturday last, June 2nd. The annual rate of mortality in these towns, which had been 15.5, 14.5, and 14.2 per 1,000 in the three preceding weeks, further declined last week to 13.8 per 1,000. The rates in the several towns ranged from 4.8 in Hornsey, 5.3 in Devonport, 5.7 in Handsworth (Staffs.) and in King's Norton, 6.4 in Walthamstow, 6.8 in East Ham, and 7.8 in Hastings, to 18.0 in Manchester and in Salford, 18.1 in Huddersfield, 18.6 in Bury, 19.7 in Preston, 19.8 in Stockton-on-Tees, and 19.9 in Stockport and in Swansea. In London the rate of mortality was 13.7 per 1,000, while it averaged 13.8 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.4 per 1,000 in the seventy six towns: in London also this death-rate was equal to 1.4 per 1,000, while among the seventy-five large provincial towns the rates ranged upwards to 2.3 in Bournemouth and in Liverpool, 2.5 in Burnley, 2.7 in Plymouth, 3.1 in Manchester and in Salford, 3.2 in Aston Manor, and 3.3 in Huddersfield. Measles caused a death-rate of 1.1 in Bradford, 1.2 in Wigan and in Newcastle-on-Tyne, 1.3 in Salford, 1.5 in Bournemouth, 1.9 in Tynemouth, 2.0 in Burnley, and 2.5 in Manchester; and whooping-cough of 1.3 in Aston Manor, 1.4 in Coventry, and 1.6 in Bootle and in Huddersfield. The mortality from scarlet fever, diphtheria, and enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The number of small-pox patients remaining under treatment in the Metropolitan Asylums Hospitals which had been 2 on each of the two preceding Saturdays, had increased to 5 on Saturday last, the 2nd inst.; 3 new cases were admitted during the week, against 2 and none in the two preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 2,378, 2,396, and 2,453 at the end of the three preceding weeks, had further risen to 2,516 at the end of last week; 313 new cases were admitted during the week, against 338, 301, and 338 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, June 2nd, 1,026 births and 600 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.8, 17.6, and 17.3 per 1,000 in the three preceding weeks, rose again to 17.5 per 1,000 last week, and was 3.7 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death rates ranged from 15.1 in Perth and 15.2 in Dundee to 18.2 in Glasgow and 24.3 in Greenock. The death rate from the principal infectious diseases averaged 1.8 per 1,000 in these towns, the highest rates being recorded in Leith and Perth. The 292 deaths registered in Glasgow included 6 which were referred to measles, 4 to diphtheria, 13 to whooping-cough, 2 to "fever," and 8 to diarrhoea. Four fatal cases of measles and 3 of diarrhoea were recorded in Edinburgh, 2 of scarlet fever and 3 of whooping-cough in Dundee, and 3 of whooping-cough in Aberdeen and 2 in Greenock

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

FLEET-SURGEON H. L. CROCKER has been placed on the retired list, at his own request with the rank of Deputy-Inspector-General, June 1st. He was appointed Surgeon, March 31st, 1876; Staff-Surgeon, March 31st, 1888; and Fleet-Surgeon, September 5th, 1892.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL T. H. CORKERY retires on retired pay, June 6th. He entered the service as Surgeon, January 30th, 1886; was made Surgeon-Major, January 30th, 1898; and Lieutenant-Colonel, January 30th, 1906. He was with the Manipore expedition in 1891, receiving a medal with clasp, and in the expedition to the Kachin Hills, Burma, in 1891-2, obtaining an additional clasp.

ARMY MEDICAL RESERVE.

SURGEON-MAJOR J. W. T. GILBERT to be Surgeon-Lieutenant-Colonel, May 22nd.

Surgeon-Captain H. C. REID, M.B., to be Surgeon-Major, May 26th.

Surgeon-Lieutenant-Colonel W. DRAPER, V.D., having attained the prescribed limit of age, is removed from the Army Medical Reserve, June 6th.

Surgeon-Captain R. E. BEVERIDGE, M.B., to be Surgeon-Major, May 26th.

INDIAN MEDICAL SERVICE.

MAJOR P. HEHIR, M.D., Bengal Establishment, Lahore Division, has been appointed a Specialist in Fevers.

An examination for not fewer than twenty commissions in the Indian Medical Service will be held in London on Tuesday, July 24th, and the four following days. Particulars regarding pay, etc., can be obtained from the Military Secretary, India Office, London, S.W.

IMPERIAL YEOMANRY.

ROBERT A. DRAPER (late Surgeon-Lieutenant 1st East Riding of Yorkshire Royal Garrison Artillery (Volunteers), Surgeon-Lieutenant Army Medical Reserve) to be Surgeon-Lieutenant in the East Riding of Yorkshire Regiment, May 19th.

ROYAL GARRISON ARTILLERY (VOLUNTEERS).

SURGEON-CAPTAIN A. K. CHALMERS, M.D., 1st Lanarkshire, to be Surgeon-Major, June 2nd.

Surgeon-Lieutenant G. MACKIE, M.B., 1st Shropshire and Staffordshire, to be Surgeon-Captain, June 2nd.

Surgeon-Lieutenant R. A. DRAPER, 1st East Riding of Yorkshire, resigns his commission, June 2nd.

ROYAL ENGINEERS (VOLUNTEERS).

FREDERICK PHILIP, M.B., to be Surgeon-Lieutenant in the 1st Aberdeenshire, June 2nd.

VOLUNTEER RIFLES.

THE following announcement is substituted for that relating to Surgeon-Captain C. Boyd which appeared in the *London Gazette* of May 4th: Surgeon-Captain C. BOYD, 3rd Volunteer Battalion the Queen's (Royal West Surrey Regiment), to be Surgeon-Major, May 5th.

ARTHUR H. FOSTER to be Surgeon-Lieutenant in the 1st (Hertfordshire) Volunteer Battalion the Bedfordshire Regiment, June 2nd.

ADAM B. MURRAY to be Surgeon-Lieutenant in the 6th Volunteer Battalion the Gordon Highlanders, June 2nd.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

ALBERT R. HENCHLEY, M.D., to be Lieutenant in the Maidstone Companies, Eastern Command, June 2nd.

NEW ZEALAND MILITIA.

SURGEON-CAPTAIN J. S. PURDY, M.D., of the New Zealand Militia, has been granted further extension of leave of absence whilst serving in the Egyptian Quarantine Service.

CORRECTION.—In the notice of Mr. Wilson Ransom's appointment as Lieutenant in the R.A.M.C. (Militia) published last week, his christian name was incorrectly printed.

Vacancies and Appointments.

VACANCIES.

ABERDEEN UNIVERSITY.—Additional Examiner in (1) Botany, (2) Chemistry, (3) Medical Jurisprudence and Public Health.

BIRMINGHAM GENERAL HOSPITAL.—(1) House-Surgeon; (2) House-Physician: (3) Casualty Assistant Physician; (4) Two Assistant House-Surgeons. Salary for (1), (2), and (3) at the rate of £50 per annum, and (4) £40 per annum.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—Junior House-Surgeon. Salary to commence, £70 per annum.

BOLTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Salary, £100 per annum.

BRECKNOCK COUNTY AND BOROUGH INFIRMARY.—Resident House-Surgeon. Salary, £100 per annum.

BRIGHTON THROAT AND EAR HOSPITAL.—Non-resident House-Surgeon. Salary at the rate of £75 per annum.

BRISTOL ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.—Assistant House-Surgeon. Salary, £50 per annum.

BROMSGROVE: BARNSLEY HALL ASYLUM.—Medical Superintendent. Salary, £600 per annum.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant to the Resident Medical Officer. Salary at the rate of £50 per annum.

EDINBURGH ROYAL HOSPITAL FOR SICK CHILDREN. Four Resident Medical Officers.

FAREHAM: HANTS COUNTY ASYLUM.—Third Assistant Medical Officer. Salary, £150 per annum.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W.—Honorary Assistant Surgeon.

ITALIAN HOSPITAL, Queen Square, W.C.—House-Surgeon. Salary, £60 per annum.

LEEDS CITY.—Assistant Medical Officer of Health and Chief Inspector of Nuisances. Salary commencing £300 per annum.

LIVERPOOL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Pathologist and Assistant to Honorary Medical Staff. Salary, £150 per annum.

LIVERPOOL STANLEY HOSPITAL.—Assistant Honorary Ophthalmic Surgeon in the Out-patient Department.

LONDON HOSPITAL, Whitechapel, E.—Medical Registrar.

LONDON OPEN-AIR SANATORIUM, Pinewood, Wokingham.—Male Assistant Medical Officer. Salary commencing £100 per annum.

MIDDLESBROUGH: COUNTY BOROUGH ASYLUM.—Locum Tenens Assistant Medical Officer. Terms, 4 guineas per week.

MIDDLESBROUGH NORTH RIDING INFIRMARY.—Assistant House-Surgeon. Salary, £75 per annum.

NEW HOSPITAL FOR WOMEN, Euston Road, N.W.—Ophthalmic Surgeon.

NORFOLK AND NORWICH HOSPITAL.—Second Assistant House-Surgeon. Honorarium, £20 for six months.

NORTHAMPTON GENERAL HOSPITAL.—Assistant House-Surgeon. Salary, £ 0 per annum.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road. (1) Resident Medical Officer: (2) Pathologist and Bacteriologist. Salary, £100 and £75 per annum respectively.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Anaesthetist.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—Refraction Assistant. Salary, £25 per annum.

SALFORD ROYAL HOSPITAL.—Junior House-Surgeon (male). Salary at the rate of £90 per annum.

SETTLEMENT OF WOMEN WORKERS: MEDICAL MISSION HOSPITAL, Canning Town, E.—Assistant Doctor for Dispensary.

SHOREDITCH: PARISH OF ST. LEONARD.—Resident Assistant Medical Officer for the Infirmary and Workhouse. Salary, £150 per annum.

STIRLING DISTRICT ASYLUM, Larbert, N.B.—Female Assistant Medical Officer. Salary, £100 per annum.

STOCKPORT INFIRMARY.—Junior Assistant House-Surgeon. Salary, £40 per annum.

STROUD GENERAL HOSPITAL.—House-Surgeon. Salary, £80 per annum.

WEST END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, Welbeck Street, W.—Resident House-Physician and Medical Registrar. Salary at the rate of 50 guineas per annum.

WOLVERHAMPTON AND MIDLAND COUNTIES EYE INFIRMARY.—House-Surgeon. Terms, £70 per annum.

CERTIFYING FACTORY SURGEON.—The Chief Inspector of Factories announces a vacancy in the office of Certifying Factory Surgeon at Sheffield.

APPOINTMENTS.

Ashton, George, M.D.Manchester, M.R.C.S.Eng., L.R.C.P.Lond., reappointed Medical Officer for Out-patients to the Manchester Royal Infirmary.

Barnes, A. Stanley, M.D., M.R.C.P., Assistant Physician to the Birmingham General Hospital, vice S. H. Perry, M.D.Lond., resigned.

Battersby, James, F.R.C.S.Eng., Extra Dispensary Surgeon to the Glasgow Royal Infirmary.

Clowes, Wm. F. A., M.R.C.S., L.R.C.P.Lond., Assistant Surgeon to the Essex and Colchester Hospital.

Cooper, H. Creemer, L.R.C.P., M.R.C.S., L.S.A., L.D.S.Eng., Assistant Dental Surgeon to the National Dental Hospital, Great Portland Street, W.

Day, H. B., M.B., B.S.Lond., Second Resident Assistant Medical Officer, St. George's Union Infirmary.

Gardiner, P., M.D.Glasg., District Medical Officer of the Redruth Union.

Heath, A. Douglas, M.D., M.R.C.P., M.R.C.S., Dermatologist to the New Department for Skin Diseases, Birmingham General Hospital.

Hobson, H. Overton, M.D.Edin., Examiner in Medicine, Cairo Medical School.

Jackson, D. N., M.B., B.S.Durh., District Medical Officer of the Hexham Union.

Langley, A. F., M.D., C.M.McGill, L.R.C.P. and S.Edin., District Medical Officer of the Bath Union.

Lightfoot, J. P., M.R.C.S., L.R.C.P.Lond., Medical Officer of the Workhouse and Eastern District of the Leyburn Union, and Medical Officer of Health to the Leyburn Union.

Naish, W. V., M.B., B.C.Camb., District Medical Officer of the Upton-on-Severn Union.

Paton, E. Percy, M.D., M.S.Lond., Examiner in Surgery to the Society of Apothecaries. (Correction.)

Porter, A. E., M.D., D.P.H.Cantab., Medical Officer of Health to the Borough and Rural District of Reigate.

Ritchie, A. L., M.B., B.S.Aberd., Certifying Factory Surgeon for the Cavendish District, co. Suffolk.

Sargent, Percy W. J., M.A., M.B., B.C., F.R.C.S., Assistant Surgeon to the National Hospital for the Paralysed and Epileptic, Queen Square.

Smith, M., M.B., Ch.B.Aberd., District Medical Officer of the Auckland Union.

Timothy, J. H., M.R.C.S., L.R.C.P.Lond., District Medical Officer of the Llandilofawr Union.

Walker, E. G., M.D., Ch.B., House-Surgeon, Birmingham General Hospital.

Worger, R. G., M.R.C.S., L.R.C.P., District Medical Officer of the Clutton Union.

Young, W. H. F., M.R.C.S., District Medical Officer of the Grantham Union.

St. Thomas's Hospital.—The following gentlemen have been selected as House Officers:

Casualty Officers: (Senior) F. R. E. Wright, M.B.Lond., M.R.C.S., L.R.C.P., D.P.H.: (Junior) L. E. C. Norbury, M.B., B.S., M.R.C.S., L.R.C.P.

Resident House-Physicians: R. C. Jewesbury, M.A., M.B., B.Ch.Oxon., M.R.C.S., L.R.C.P.; M. A. Cassidy, M.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P.; H. S. Sington, M.R.C.S., L.R.C.P.

House-Physicians to Out-Patients: H. C. Squires, M.A., M.B., B.Ch.Oxon., M.R.C.S., L.R.C.P.; A. N. Dickson, M.R.C.S., L.R.C.P.; N. R. Cunningham, M.R.C.S., L.R.C.P.; W. O. Sankey, M.R.C.S., L.R.C.P.

Obstetric House-Physicians: (Senior) S. R. Gibbs, M.R.C.S., L.R.C.P.; (Junior) E. L. Atkinson, M.R.C.S., L.R.C.P.

Ophthalmic House-Surgeons: (Senior) C. R. B. Eyre, M.R.C.S., L.R.C.P.; (Junior) H. E. Gotelee, M.R.C.S., L.R.C.P.

Special Departments: Skin—J. Wallace, B.A. Oxon., M.R.C.S., L.R.C.P.; G. L. Webb, B.A., B.C.Cantab., M.R.C.S., L.R.C.P. Ear—G. D. Alexander, B.A.Cantab., M.R.C.S., L.R.C.P.

Several other gentlemen received extensions of their appointments.

DIARY FOR THE WEEK.

TUESDAY.

Royal College of Physicians of London, Pall Mall East, S.W., at 5 p.m.—First Croonian Lecture, by Dr. W. H. R. Rivers: The Action of Drugs on Fatigue.

Royal Medical and Chirurgical Society, 20, Hanover Square, W., at 8.30 p.m.—Drs. Herbert French and H. T. Hicks: Mitral Stenosis and Pregnancy.

WEDNESDAY.

Dermatological Society of London, 11, Chandos Street, W., at 5.15 p.m.—Cases and Specimens.

Medico-Legal Society, 22, Albemarle Street, W., at 8.15 p.m.—(1) Exhibition of Medico-Legal Specimens. (2) Discussion: Reform in the Present Method of Ascertaining the Fact and Cause of Death. To be opened by Mr. John Troutbeck.

THURSDAY.

British Gynaecological Society, 20, Hanover Square, W., 8 p.m.—Specimens by Dr. Macnaughton Jones. Paper—Dr. Ranken Lyle: A Series of Fifty Consecutive Abdominal Sections.

Ophthalmological Society of the United Kingdom, 11, Chandos Street, Cavendish Square, W., at 8.30 p.m.—Papers—Mr. Simeon Snell: Note on Steels which are not Magnetic. Messrs. E. Nettleship and F. M. Ogilvie: A Peculiar Case of Hereditary Congenital Cataract. Messrs. L. V. Cargill and M. S. Mayou: An Unusual Case of Tuberculosis of the Choroid Involving the Optic Nerve.

Royal College of Physicians of London, Pall Mall East, S.W., at 5 p.m.—Second Croonian Lecture, by Dr. W. H. R. Rivers: The Action of Drugs on Fatigue.

POST-GRADUATE COURSES AND LECTURES.

Central London Throat and Ear Hospital, Gray's Inn Road, W.C.—Wednesday, 5 p.m., Ear.

Charing Cross Hospital, W.C., at 4 p.m.—Monday, Dermatology; Thursday, Medical.

London School of Clinical Medicine, Dreadnought Hospital, Greenwich.—Clinical Demonstrations in Medicine and Surgery 2.30 and 3.15 p.m. respectively on Monday, Tuesday, Wednesday, Thursday, and Friday: Throat and Ear, 4 p.m., Monday; Skin, 4 p.m., Tuesday; Ophthalmology, 4 p.m. Wednesday; Radiography, 4 p.m. Thursdays. Out patient Demonstrations, Medical and Surgical, 10 a.m. daily. Throat and Ear, noon Monday and Thursday; Eye, 11 a.m. Wednesday. Skin, noon Friday. Operations, 2.30 p.m. daily.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear. Lectures at 5.15 p.m. each day will be given as follows: Monday, Disorders of Hearing due to Residua of Suppurative Inflammation of the Middle Ear. Tuesday, The Diseases of the Breast which may resemble Carcinoma; Wednesday, The Use of Mechanical Appliances in Surgical Treatment; Thursday, Certain Points in the Diagnosis and Treatment of Meningitis.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., at 3.30 p.m.—Tuesday, Ilio-Psoas type of Myopathy; Thursday, Paralysis Agitans.

North-East London Post-graduate College, Tottenham Hospital, N., at 4.30 p.m.—Tuesday, Lecture on Tuberculous Laryngitis. Thursday, Lecture on Haematemesis.

West London Hospital Post-graduate College, Hammersmith Road, W.—The following arrangements have been made for next week: Daily, 10 a.m., Medical and Surgical Wards; 11 a.m., Minor Operations: 2 p.m., Medical and Surgical Clinics; 2.30 p.m., Operations. Monday, 12 noon, Pathological Demonstration; 3 p.m., Demonstration in Surgical Wards: 5 p.m., Renal Disease: Treatment. Tuesday, 10.30 a.m., Gynaecology; 2.30 p.m., Skin, Throat, Nose, and Ear: 5 p.m., Treatment of Enteric Fever. Wednesday, 10 a.m., Children's Diseases; 2 p.m., Demonstration in Medical Wards; 3 p.m., Intestinal Surgery; 5 p.m., Melancholia and its Treatment. Thursday, 12 noon, Tropical Medicine; 2.30 p.m., Eye Diseases; 5 p.m., Rectal Cases. Friday, 10 a.m., Practical Anaesthetics: 3 p.m., Intestinal Anastomoses; 5 p.m., Surgical Cases.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

MARRIAGES.

Flemming—Barrett.—On June 5th, at St. Andrew's Church, Holborn, by Rev. Knight McDowell, Arthur L. Flemming, M.R.C.S., L.R.C.P., of 34, Alma Road, Clifton, Bristol, son of the late Thomas Henry Flemming, M.D., of Freshford, Bath, to Violet Helen, second daughter of the late John Barrett, Esq., of Dunham Massey, Cheshire.

Noel—Sweeting.—On June 6th, at St. Margaret's, Westminster, by the Rev. Linton Thorp, Vicar of Kennington, Kent, assisted by the Rev. Canon Hensley Henson, Rector of the Parish, and the Rev. A. J. Carlyle, Chaplain of University College, Oxford, Marjorie, elder daughter of Dr. R. Deane Sweeting, of 34, Carlisle Mansions, S.W., to Evan Baillie, only son of Eugene F. Noel, of 15, Craven Hill Gardens, Hyde Park, W.

DEATHS.

Bradley.—Michael McWilliams Bradley, of Jarrow-on-Tyne, died at his Irish residence, Tamnagharrie Park, on May 25th, aged 62 years. R.I.P.

Lyle.—On June 2nd, at Eversley, Elmfield Road, Bromley, Kent, Elizabeth Ada, the dearly-loved wife of H. Willoughby Lyle, M.D., B.S.Lond., F.R.C.S.Eng., of Bromley, Kent, and 29, Charles Street, Berkeley Square, W.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
	JUNE.
8 FRIDAY	HAMPSTEAD DIVISION, *Metropolitan Counties Branch*, Annual Meeting, St. Peter's Hall, Belsize Sq., 5 p.m.
9 SATURDAY...	
10 Sunday.........	
11 MONDAY	
12 TUESDAY......	LONDON : Organization Committee, 10.30 a.m. BRADFORD DIVISION, *Yorkshire Branch*, Annual Meeting, Eye and Ear Hospital, Bradford, 8.30 p.m.
13 WEDNESDAY	LONDON : Medico-Political Committee, 3 p.m. LONDON : Chloroform Committee, 5 p.m. COVENTRY DIVISION, *Birmingham Branch*, Annual Meeting, Coventry and Warwickshire Hosp., 8.30 p m. HASTINGS DIVISION, *South-Eastern Branch*, Annual Meeting, East Sussex Hospital, 5 p.m. SOUTH-EASTERN OF IRELAND BRANCH, Town Hall, Clonmel, 11 a.m. WEST DORSET DIVISION, *Dorset and West Hants Branch*, Annual Meeting, County Hospital, Dorchester, 3 p.m. YORKSHIRE BRANCH, Annual Meeting, Eye and Ear Hospital, Bradford, 3 30 p.m. ; Dinner, Midland Hotel, 6 30 p.m.
14 THURSDAY...	LONDON : Naval and Military Committee, 2.30 p.m. BIRMINGHAM BRANCH, Annual Meeting, Medical Institute, 3.30 p.m. NORWOOD DIVISION, *South-Eastern Branch*, Annual Meeting, Art Club, Blackheath, 4 p.m. ; Dinner, 6 p.m. SOUTH WALES AND MONMOUTHSHIRE BRANCH, Annual Meeting, Hospital, Swansea, 4.30 p.m. ; Council, 3.30 p.m. ; Annual Dinner, Hotel Metropole, 6.30 p.m. SOUTH-WESTERN BRANCH, Annual Meeting, Royal Devon and Exeter Hospital, Exeter, 3 p.m. ; Luncheon, Northernhay House, 12.30 p.m. ; Dinner, The London (Pople's) Hotel, 7 p.m.

Date.	Meetings to be Held.
	JUNE *(continued).*
15 FRIDAY	
16 SATURDAY...	
17 Sunday	
18 MONDAY	LONDON : Science Committee, 2.30 p.m.
19 TUESDAY......	LONDON : Volunteer Committee, 2.30 p.m. LONDON : Public Health Committee, 3 p.m. TAMWORTH AND NUNEATON DIVISION, *Birmingham Branch*, Combined Meeting with Coventry Division, Coventry and Warwickshire Hospital, Coventry, 4 p.m.
20 WEDNESDAY	GUILDFORD DIVISION, *South-Eastern Branch*, Annual Meeting, Surrey County Hospital, Guildford, 4.30 p.m.
21 THURSDAY...	ALTRINCHAM DIVISION, *Lancashire and Cheshire Branch*, Annual Meeting. CITY DIVISION, *Metropolitan Counties Branch*, 4 p.m. NORTHERN COUNTIES OF SCOTLAND BRANCH, Annual Meeting, Railway Hotel, Tain, 12 noon. ULSTER AND CONNAUGHT BRANCHES, Annual Meeting.
22 FRIDAY	LONDON : Central Ethical Committee, 2 p.m. SOUTH-EASTERN COUNTIES DIVISION, *Edinburgh Branch*, Annual Meeting, King's Arms Hotel, Melrose. WEST SOMERSET BRANCH, Annual Meeting, London Hotel, Taunton. 12.15 p.m.
23 SATURDAY...	
24 Sunday.........	
25 MONDAY	
26 TUESDAY......	AYLESBURY DIVISION, *South Midland Branch*, Board Room, Royal Bucks Hospital, 2.30 p m. CENTRAL DIVISION, *Birmingham Branch*, Annual Meeting, Medical Institute, 4 p.m. EAST ANGLIAN BRANCH, Annual Meeting, Palace Hotel, Southend-on Sea ; Council, 12 30 p.m. ; General Meeting, 12.45 p.m.

MEMBERSHIP OF THE BRITISH MEDICAL ASSOCIATION.

THE British Medical Association exists for the promotion of medical and the allied sciences, and the maintenance of the honour and the interests of the medical profession.

The Annual Subscription to the British Medical Association is £1 5s. 0d., and the BRITISH MEDICAL JOURNAL supplied weekly, post free, to every member of the British Medical Association wherever he may reside.

Forms of application for membership can be obtained from the General Secretary, 429, Strand, London, W.C.

The principal rules governing the election of a medical practitioner to be a member of the British Medical Association are as follow:

Article III.—Any Medical Practitioner registered in the United Kingdom under the Medical Acts and any Medical Practitioner residing within the area of any Branch of the Association situate in any part of the British Empire other than the United Kingdom, who is so registered or possesses such medical qualifications as shall, subject to the Regulations, be prescribed by the Rules of the said Branch, shall be eligible as a Member of the Association. The mode and conditions of election to Membership shall from time to time be determined by or in accordance with the By-laws. Every Member, whether one of the existing Members or a subsequently-elected Member, shall remain a Member until he ceases to be a Member in accordance with the provisions hereof.

By-law 1.—Every Candidate for Membership of the Association shall apply for election in writing, addressed to the Association, and stating his agreement, if elected, to abide by the Regulations and By-laws of the Association, and the Rules of such Division and Branch to which he may at any time belong, and to pay his subscription for the current year.

By-law 2.—Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the General Secretary of the Association, and to every Member of the Branch Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a member of the Association by the Branch Council at any meeting thereof held not less than seven days (or such longer period as the Branch may by its Rules prescribe) after the date of the said Notice. A Branch may by special Resolution require that each candidate for election to the Association shall furnish a certificate from two Members of the Association to whom he is personally known. Officers of the Navy, Army, and Indian Medical Services on the Active List are eligible for election through the Council or a Branch without approving signatures as laid down in By-law 3.

By-law 3.—Every candidate whose place of residence is not included in the area of any Branch shall forward his Application to the General Secretary of the Association, together with a statement signed by three members of the Association, that from personal knowledge they consider him a suitable person for election. Notice of the proposed election shall be sent by the General Secretary to every Member of the Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a Member of the Association by the Council at any meeting thereof held not less than one month after the date of the said notice.

The annual subscription to the BRITISH MEDICAL JOURNAL for non-members is £1 8s. 0d. for the United Kingdom and £1 12s. 6d. for abroad.

Printed and published by the British Medical Association at their Office, No. 429 Strand in the Parish of St Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 16TH, 1906.

CONTENTS.

PAGE

MEETINGS OF BRANCHES AND DIVISIONS:

Dorset and West Hants Branch 333
Edinburgh Branch: Southern Division 333
British Guiana Branch 334
Glasgow and West of Scotland Branch: Glasgow Southern Division 334
Lancashire and Cheshire Branch: Burnley Division ... 334
" " Liverpool (Southern) Division ... 334
" " Manchester (Central) Division ... 334
" " Rochdale Division 334
Metropolitan Counties Branch: Lambeth Division 335
Midland Branch: Boston and Spalding Division 335
Perth Branch 335
North Wales Branch: South Carnarvon and Merioneth Division 335
Shropshire and Mid-Wales Branch 336
South-Eastern Branch: Canterbury and Faversham Division ... 336
South-Western Branch: Truro Division 336

ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD 336
NAVAL AND MILITARY APPOINTMENTS 338
VITAL STATISTICS 338
VACANCIES AND APPOINTMENTS 339
BIRTHS, MARRIAGES, AND DEATHS 339
DIARY FOR THE WEEK 339
CALENDAR 340

Meetings of Branches & Divisions.

***[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]**

DORSET AND WEST HANTS BRANCH.

THE annual meeting of this Branch was held in the Hotel Mont Doré, Bournemouth, on Thursday, May 24th, the President, Dr. E. HYLA GREVES, in the chair. Before the meeting the President entertained the party to a buffet luncheon in the hotel. The chair was taken at 3.30 p.m.

Confirmation of Minutes.—The minutes of the last annual meeting were read and confirmed.

Apologies for Non-Attendance.—Letters of apology for non-attendance were read from Dr. J. Roberts Thomson, of Bournemouth, and Dr. S. P. Snook, of Weymouth.

Financial Statement.—Mr. PARKINSON, the retiring Honorary Secretary, presented his financial statement for the past year, which was accepted.

Election of Honorary Secretary.—Dr. James Davison, of Bournemouth, took over the duties of Honorary Secretary and Treasurer.

Vote of Thanks to Mr. Parkinson.—On the motion of Dr. MOORHEAD, seconded by Dr. SNOW, a cordial vote of thanks was awarded to Mr. Parkinson for the manner in which he had executed the duties of Secretary and Treasurer of the Branch. Mr. PARKINSON suitably acknowledged the vote.

Installation of New President.—The PRESIDENT vacated the chair and introduced his successor, Mr. W. Hawkins, of Broadway, Dorchester. Mr. HAWKINS, on taking the chair, thanked the Branch for the honour they had done him by electing him President. As his first duty, he proposed that a hearty vote of thanks be given to Dr. E. Hyla Greves for the able manner in which he had fulfilled the duties of President for the past year. This was seconded by Dr. MACPHERSON LAWRIE of Weymouth and carried by acclamation. Dr. GREVES replied.

Apportionment of Old Balance.—It was unanimously agreed, on the motion of Mr. PARKINSON, that the old balance belonging to the Branch should be divided, practically, between the British Medical Benevolent Fund and the Epsom College.

Associate Members.—Mr. H. J. Manning (Salisbury), Dr. J. Groves (Carisbrooke), and Mr. W. B. Winckworth (Taunton) were unanimously elected associate members.

Representative on Central Council.—Mr. C. H. Watts Parkinson (Wimborne Minster) was re-elected the Representative of the Branch in the Council of the Association.

Summer Meeting.—It was proposed by Mr. BOVEY, seconded by Dr. COMYNS LEACH, and carried, that the summer meeting be held at Abbotsbury, Dorset.

Paper.—Mr. BERNARD SCOTT read a concise and able paper on prostatectomy, which was commented on at considerable length by Mr. VERNON, Dr. COMYNS LEACH, Dr. HYLA GREVES, Mr. H. SIMMONS, and Mr. HAWKINS. Mr. BERNARD SCOTT suitably replied.

Discussion.—Mr. SIMMONS, Vice-President, opened a discussion on the necessity of early abdominal section as a means of diagnosis. An excellent debate followed the reading of the Vice-President's introductory paper, and was joined in by Dr. E. HYLA GREVES, Dr. T. FRED GARDNER, Mr. VERNON, Dr. SNOW, Dr. MCCULLOCH, Mr. BERNARD SCOTT, and Mr. HAWKINS. Mr. SIMMONS replied.

Dinner.—After the meeting the members and friends dined together in the Winter Gardens of the Hotel Mont Doré.

EDINBURGH BRANCH:

SOUTHERN DIVISION.

THE annual meeting of the Division was held in the Oddfellows' Hall, Forrest Road, on Friday, June 8th, at 8.15 p.m., Dr. MATHESON, Vice-Chairman, in the chair. Dr. Caverhill, Chairman of the North-West Division, was present as a visitor.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

Annual Report.—The annual report and financial statement were submitted and approved.

Secretary's Report.—The SECRETARY read his annual statement of the work done during the year, dealing with the work of the Representative on the Branch Council and the secretarial work, including his co-operation in the furthering of hospital reform with the secretaries of the other Divisions.

Election of Officers.—The following gentlemen were elected officers of the Division:—*Chairman*, Dr. Matheson; *Vice-Chairman*, Dr. Cullen; *Secretary and Treasurer*, Dr. Dewar; *Representative to the Representative Meetings*, Dr. Simla Paterson; *Executive Committee*, the Chairman and Secretary, Representative on Branch Council, and Drs. Salt, Kennedy, Lundie, Proudfoot, Webster, Johnston, Boyd Jamieson, Scott, and Gordon Price.

Income Tax.—Dr. DEWAR moved:

> That the question of income tax be remitted to the Executive Committee, with power to add to their number, in order to consider the advisability of pro-

viding information to the members of the Division as to the making up of the annual return.

Dr. MATHESON seconded, and after discussion, joined in by Dr. CAVERHILL and PATERSON, the motion was adopted unanimously.

Collection of Medical Fees.—Dr. DEWAR moved:

> That the subject of collecting medical fees be remitted to the Executive, with power to add to their number, for consideration and report.

—Dr. MATHESON seconded.—Dr. CAVERHILL, by invitation, joined in the discussion, explained the Montreal system of collection of medical fees, and suggested that the Division should co-opt one or two of the members visiting Canada at the meeting of the British Medical Association to gather all the information they could from the profession in Canada.—The motion was unanimously adopted.

Vote of Thanks to Chairman.—The meeting was closed with a vote of thanks to the Chairman.

BRITISH GUIANA BRANCH.

A MEETING of this Branch was held at Georgetown on April 26th.

New Member.—Dr. Kenrick Stanton Wise, of the Public Hospital, Georgetown, was elected a member.

Election of Officers.—Dr. K. S. Wise was elected Honorary Secretary. Dr. J. E. Godfrey was chosen to represent the Branch at the annual meeting at Toronto.

Discussion.—A discussion on Malarial Fever in Infants was opened by Dr. C. P. KENNARD.

Specimens.—A number of microscopic specimens were exhibited by Dr. WISE.

GLASGOW AND WEST OF SCOTLAND BRANCH:

GLASGOW SOUTHERN DIVISION.

THE annual meeting of this Division was held in the Library of the Medical Club, 22, Carlton Place, on May 22nd; Dr. MILLER presided.

Confirmation of Minutes.—The minutes were read and approved of.

Annual Report.—The annual report was read, and showed that three general and seven committee meetings were held during the year, at which questions of medico-political importance were discussed. At the close of the year the membership of the Division was 95, and the expenses incurred £7 17s. 6d.

Election of Officers.—The following were elected office-bearers and members of Committee:—*Chairman*, John Brown, M.D.; *Vice-Chairman*, James Weir, M.B.; *Secretary and Treasurer*, John Stewart, M.D. *Representative to Annual Representative Meeting*, C. E. Robertson, M.D.; *Representatives on Branch Council*, John Stewart, M.D., Andrew Wauchope, M.B.; *Members of Committee*, Drs. Miller, Hamilton, Rankine, Leask, Hugh Kelly, Yuill Anderson, Burges, Hansen, Campbell Highet, Forrester, Arch. McCrorie, J. M. McLachlan, Paton, and Richards.

Annual Representative Meeting.—The provisional agenda of the Annual Representative Meeting to be held in London was considered.

LANCASHIRE AND CHESHIRE BRANCH:

BURNLEY DIVISION.

THE annual meeting of this Division was held at the Bull Hotel, Burnley, on May 29th.

Election of Officers.—The following officers were elected for the ensuing year:—*Chairman:* F. W. Marsden, Esq. *Vice-Chairman:* S. M. Giffen, Esq. *Honorary Secretary:* James Haworth, M.B., Wilfield House, Burnley. *Committee:* A. M. Sinclair, M.B.; J. Gardner, M.B.; W. Bird, M.B.; W. Wright, Esq. *Representative on Branch Council:* J. M. Ferguson, Esq. *Representative for Representative Meeting:* R. C. Holt, M.D.

LIVERPOOL (SOUTHERN) DIVISION.

THE annual meeting of the Division was held on June 5th, at the Liverpool Medical Institution, Dr. WESTBY in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Accounts for the Year.—The accounts for the past year were presented and passed.

Election of Officers.—The following officers were elected: *Vice-Chairman:* Dr. Harvey. *Honorary Secretary and Treasurer:* Dr. Given. *Representatives on Branch Council:* Drs. Given and C. Lee. *Representative at Annual Representative Meeting:* Dr. Westby. *Members of Executive Committee:* Drs. Macfie-Campbell, C. Lee, Logan, Steeves, and Bennett.

Annual Representative Meeting.—The agenda of the Annual Representative Meeting was then considered; also the proposed Charter of the Association; the nomination of candidates by the Annual Representative Meeting for the General Medical Council, and the financial position of the Association with special references to the resolutions passed on this subject by the special meeting of the Lancashire and Cheshire Branch. The Representative of the Division was instructed how to act in these matters at the forthcoming Representative Meeting.

MANCHESTER (CENTRAL) DIVISION.

THE annual meeting of the Manchester (Central) Division was held at the Queen's Hotel on May 31st.

Election of Officers.—Officers were elected for the ensuing year as follows: *Chairman*, Dr. Donald (St. Peter's Square, Manchester); *Vice-Chairman*, J. H. Ray (St. John Street, Manchester); *Secretary and Treasurer*, Dr. Harold Clifford (15, St. John Street, Manchester); *Representatives on Branch Council*, Dr. Booth, Dr. Milligan; *Other Members of Executive*, Mr. Burgess, Dr. Ferguson, Dr. Helme, Dr. Heywood, Dr. Walls. Dr. Booth (Swan Street, Manchester) was elected the Representative of the Division in Representive Meetings.

Annual Report.—The annual report was received and adopted.

Annual Representative Meeting.—The business of the annual meeting was considered, and instructions given the Representative (Dr. Booth) as follows: (*a*) In regard to nominations for the General Medical Council, to support Drs. Helme, George Jackson, and Rhodes (in that order); but, in the event of Dr. Helme's withdrawal, the name of Mr. Andrew Clark was placed third. (*b*) To support the formation of a committee of inquiry into the financial standing of the Association; and to make all endeavours to safeguard Branch funds to the Branches. (*c*) To oppose the application for a Royal Charter at the present time.

ROCHDALE DIVISION.

THE annual meeting was held at the Wellington Hotel, Rochdale, on Thursday, May 31st. In the absence of the President and Vice-President Dr. HENRY was voted to the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and passed.

Annual Report.—The SECRETARY read the annual report, of which the following is a summary: Members on December 31st, 1904, 52; members on December 31st, 1905, 50. The loss was due to changes of address.

Balance-Sheet.—The balance-sheet showed a balance of £2 12s. 5d.

Election of Officers.—The following officers were unanimously elected for the ensuing year:—*President:* C. W. Thorp, Todmorden. *Vice-President:* R. B. Sellers, Rochdale. *Secretary:* Dr. Melvin, Rochdale. On the proposition of Dr. HENRY, seconded by Dr. HITCHIN, the following were elected to the Committee: Dr. Hitchin (Heywood), Dr. Brown (Bacup), and Drs. Kerr and Bateman (Rochdale). Dr. Thorp (Todmorden) was re-elected as Representative on the Branch Council.

Association Funds and Benevolent Purposes.—Dr. BROWN (Bacup) moved and Dr. MILLS seconded the following resolution:

> That this Division is strongly of opinion that the British Medical Association should devote a portion of its income to benevolent and charitable purposes, the first claim being that of needy past and present members of the Association, their widows and orphans.

This was carried unanimously with very little discussion, the feeling of the meeting being very strongly in its favour.

The "Year Book."—Dr. BROWN moved and Dr. MILLS seconded:

> That this Division is of the opinion that the *Year Book* is absolutely useless, and suggests that it be discontinued,

and that the money thus saved be ear-marked for benevolent and charitable uses.

Dr. Henry moved, and Dr. Sellers seconded, an amendment to leave out all the words after discontinued. The amendment was carried, and the resolution thus amended carried unanimously. Dr. Brown moved, and Dr. Bateman seconded, the following proposition:

> As the *Year Book* costs about £1,000 a year, the Division is of the opinion that if it is discontinued this sum should be set apart as the nucleus of a fund to be devoted to the purposes of the first resolution.

This was carried.

Darnell Fund.—Dr. Brown moved and Dr. Melvin seconded a resolution:

> That the Division requests the Branch to subscribe to the Darnell Fund.

This was carried unanimously.

The Expenditure of the Association.—Dr. Brown moved, and Dr. Henry seconded:

> That this Division views with alarm the expenditure of the British Medical Association as revealed in the balance sheet, and requests the Annual Representative Meeting to appoint a committee of inquiry into the financial position of the Association with a view to a considerable reduction in the expenditure.

This was carried unanimously, there being a very strong feeling that the financial arrangements demand some drastic revision.

Vote of Thanks to Chairman.—A vote of thanks to the Chairman closed the meeting.

METROPOLITAN COUNTIES BRANCH:

Lambeth Division.

A meeting of this Division was held at Bethlem Royal Hospital on May 31st at 4 p.m.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Candidature for Central Council.—A letter was read from the Secretary of the Wandsworth Division asking the Lambeth Division to support the candidature of Dr. Crookshank for the Central Council.

Election of Officers.—The following gentlemen were elected to serve on the Committee for the ensuing year: *Chairman*, Dr. Capes; *Vice-Chairman*, Mr. H. Taylor; *Representative at Representative Meeting*, Dr. Esler; *Secretary*, Dr. Atkinson; *Representatives on Branch Council*, Dr. Atkinson (*ex officio*) and Mr. Sangster; *Committee*, Mr. Denning, Mr. H. Norton, Dr. Oswald, Mr. Hickley, Mr. W. B. Taylor, and Dr. Stoddart.

Dr. Capes thanked the Division for his re-election.

Vote of Thanks to Retiring Secretary.—A vote of thanks was accorded to the retiring Secretary, who briefly replied.

Paper.—Dr. Savage read an interesting paper on the natural history of delusions. He showed how delusions might arise from loss of memory, abnormal sensations, physical disorders, abnormal pride or suspicion, that they varied with age, sex, heredity and environment. Dr. Savage gave several examples of delusion. The paper was discussed by Dr. Hyslop, Mr. Leftwich, Mr. Duke, and Dr. Stoddart. A hearty vote of thanks was accorded to Dr. Savage, who briefly replied.

Visit to Hospital.—Dr. Hyslop took members round the hospital after the meeting.

MIDLAND BRANCH:

Boston and Spalding Division.

The fourth annual meeting was held at the Red Lion Hotel, Boston, on May 22nd, Dr. Smith in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Secretary's Report.—The Secretary's report was then read, showing an increase of two in membership. Two ordinary meetings were held during the year, eight and fourteen members attending respectively.

Treasurer's Report.—The Treasurer's report showed a balance of £1 1s. 9d.

Election of Officers.—The following were elected officers for the ensuing year:—*Chairman*, Dr. W. H. Smith; *Vice-Chairman*, Dr. Miller; *Representative in Representative Meetings*, Dr. H. G. White; *Representative on Branch Council*, Dr. Wilson; *Secretary and Treasurer*, Dr. Wilson; *Executive Committee*, Drs. Allan, Mann, Mason, Miller, Moxham, Pilcher, Slocock, Spilsbury, Taylor, White, Williams, and Wrinch.

Associate Member.—Dr. H. G. White, of Swineshead.

Programme for the Year.—It was decided that meetings should be held on October 2nd, 1906, and the last Tuesday in March, 1907.

Luncheon.—Ten members lunched in the hotel afterwards.

PERTH BRANCH.

The summer meeting was held in the Golf Club House, Moncrieff Island, on Friday, June 1st, at 3.15, Dr. MacEwen, Vice-President, in the chair.

Apologies for Non-Attendance.—Apologies were intimated from Drs. Temple and Borrowman, and Colonel Moffett.

Confirmation of Minutes.—The minutes of last meetings were read, approved, and signed.

Re-election of Council.—On the motion of Dr. Urquhart, seconded by Dr. Trotter, the Branch elected the present Council to continue in office till June, 1907.

Representative.—Dr. Alexander Trotter was unanimously elected Branch Representative to the Annual Meeting in London, on the motion of the Vice-President, seconded by Dr. Burnett.

School Certificates.—Some discussion arose in regard to the granting of medical certificates to children absent from school through ilness. Finally, Dr. Urquhart agreed to bring forward a motion in regard to this subject at the next meeting.

Golf Match.—A golf match then took place against golfing members from the Dundee Branch by the courtesy of the King James VI Golf Club, and resulted as follows:

Dundee.		*Perth.*	
Dr. Anderson...	1	Dr. Govan	0
Dr. Rogers	0	Dr. Alcock	1
Dr. P. Campbell	1	Dr. R. Stirling	0
Dr. Johnstone	1	Dr. Haig	0
Dr. Gowans	0	Dr. Taylor	1
Drs. Kynoch and MacEwan	0	Dr. Paton	1
Dr. Neave	1	Dr. Stewart	0
Dr. Thornton...	1	Dr. MacEwen	0
Dr. Whyte	1	Dr. Burnett	0
Dr. McKenzie	0	Dr. Mitchell	1
Dr. McNeill	0	Dr. Mackay	1
	6		5

Dundee winning by 1 match.

NORTH WALES BRANCH:

South Carnarvon and Merioneth Division.

The annual meeting of the Division was held at the Gorsygedol Hotel, Barmouth, on Thursday, May 31st. In the unavoidable absence of the Chairman, Dr. Rowlands (Towyn), Dr. Hamilton (Dolgelly) was voted to the Chair.

Confirmation of Minutes.—The minutes of the last meeting were read, approved, and signed by the Chairman.

Correspondence.—Letters of apology were read from Dr. Rowlands (Towyn), Dr. H. Briggs (Liverpool), and Dr. Walter Williams (Portmadoc).

Election of Officers, 1906-7.—The following were elected for the ensuing year:—*Chairman*, Dr. O. Wynn Griffith (Pwllheli); *Vice-Chairman*, Dr. Hugh Jones (Dolgelly); *Honorary Secretary*, Dr. Gladstone Jones (re-elected); *Representative to Representative Meeting*, Dr. O. Wynne Griffith. *Representatives on Branch Council*, Dr. Williams (Machynlleth), Dr. Hamilton (Dolgelly), and the Secretary; *Executive Committee*, Dr. J. O. Williams (Barmouth), Dr. W. Thomas (Nevin).

Nomination of Representative of the North Wales Branch on the Central Council.—The present representative (Dr. H. Jones Roberts, Penygroes) was unanimously approved of.

Report of Executive Committee.—The annual report of the Executive Committee was read and adopted.

Annual Representative Meeting.—The matters contained in the agenda of the Annual Representative Meeting were discussed, and, on the Executive Committee's recommendation, it was resolved that the Representative have full power to act.

Contract Practice Appointments.—The Bradford rules were discussed and the principles adopted; the matter was further referred to the Executive Committee to bring up a report to the next meeting.

Autumn Meeting.—It was decided to hold the autumn meeting at Blaenau Festiniog.

Discussion.—Dr. J. W. Rowlands (Llanaelhaiarn) opened a discussion on the use of the forceps in general practice. (Dr. H. Briggs, Rodney Street, Liverpool, had signified his intention of taking part in it, but was unable to attend, much to the regret of members present). A most interesting paper was read, all the members present, without exception, taking part in the discussion, and a very cordial vote of thanks was accorded Dr. Rowlands for his paper.

SHROPSHIRE AND MID-WALES BRANCH.

A special general meeting of this Branch was held at the Salop Infirmary on Tuesday, June 5th, at 3.45 p.m., Dr. Charles Gwynn, President, being in the chair.

Proposed Royal Charter.—The meeting was called to consider the question of the application of the Association for a Royal Charter. After some discussion the following resolution was proposed by Dr. Packer, seconded by Dr. Gardner, and carried unanimously:

> That this Branch approves of the application for a Royal Charter, but reserves itself the right to criticize details thereof through its Representative at the annual meeting.

SOUTH-EASTERN BRANCH:

Canterbury and Faversham Division.

The annual meeting of this Division was held at the Kent and Canterbury Hospital on Thursday, June 7th, Dr. Whitehead Reid in the chair.

Next Meeting.—Whitstable was agreed on, at Dr. Hayward's house on October 4th.

Election of Officers.—The following were elected officers for the ensuing year: *Chairman*, Dr. Whitehead Reid (proposed by Dr. Gosse, seconded by Dr. Evers); *Vice-Chairman*, Dr. Alexander (proposed by Dr. Hayward, seconded by Dr. Gowlland); *Representative on Branch Council*, Dr. Evers (proposed by Dr. Gosse, seconded by Dr. Hayward); *Executive Committee*, Drs. Bowes, Etheridge, Gowlland, Mr. Flint, Hayward, B. Rigden. *Honorary Secretary and Treasurer*, Dr. A. R. Henchley, 1, London Road, Canterbury; *Representative at Representative Meeting* (with Isle of Thanet), Dr. Gosse (proposed by Dr. Reid, seconded by Dr. Raven); Deputy, Dr. Street.

Proposed Royal Charter.—The proposed application for a Royal Charter was discussed, but this and other matters referred to in the provisional agenda of the Representative Meeting were left to the discretion of the Representative for action.

Association Candidates for the General Medical Council.—Attention was drawn by the Honorary Secretary to the opinion expressed by the President of the General Medical Council that if the Association candidates were elected as such in matters where the British Medical Association was taking any action in penal or similar cases, they would not be able to take any part in the deliberations of the Council on them.

Votes of Thanks.—Votes of thanks were passed to the Chairman for presiding, to the Hospital Board for the use of the library, to the Dean of Canterbury, to the Chairman of Canterbury East Waterworks, and to the officers of the Division for their services during the past year.

Excursion.—Subsequently the members and friends were shown round the Cathedral by the Dean of Canterbury, and a visit was afterwards paid to the Canterbury Waterworks, where the Directors were present to conduct the party round.

Dinner.—The members dined at the County Hotel, Dr. Whitehead Reid being in the chair.

Annual Report.—The annual report of the Division is as follows: The membership last June was 42 and now is 50. Several members have left the Division, and the Committee regret the loss through death of Dr. Gogarty, the first chairman of the Canterbury Division under the new régime. There have been 4 Divisional meetings in different parts of the Division, and 2 Committee meetings, the latter having to deal principally with ethical cases, most of which have terminated satisfactorily to all the parties concerned. All the meetings have been medico-political, clinical, and social in character. The most successful Divisional meeting in point of numbers was held at Sittingbourne, when 21 members were present. The average attendance is 16, as compared with 13 last year. The annual meeting of the South-Eastern Branch was held in Canterbury last June, and in every way was a success, Dr. Reid being President and Mr. F. Wacher, jun., Vice-President. The general election which took place in the early part of this year afforded the first real opportunity to the Association to bring before the prospective members of Parliament matters of real importance to the State as well as the medical profession. Your Honorary Secretary received satisfactory replies to the questions put to them (which have already appeared in the British Medical Journal Supplement) from Mr. Henniker Heaton, M.P. for Canterbury, Mr. L. Hardy, M.P. for Ashford, and Dr. Napier, M.P. for Faversham. An endeavour has been made to amalgamate with East Kent and Canterbury Medical Society, but without success. The expenditure since the last annual meeting is £8 19s. 3d., a fraction over 3s. 6d. a member, which, considering the expenses connected with the Branch meeting and the general work done by the Division, is somewhat small.

SOUTH-WESTERN BRANCH:

Truro Division.

A meeting of this Division was held at Penzance on Friday, May 11th.

Papers.—The following papers were read:—Dr. Ratcliffe-Gaylard: Rare cases of dermatitis. Dr. Hugh Montgomerie: Certain symptoms in pneumonia: crisis, lysis, sputum, herpes. Dr. H. Shore: Ichthyol. Dr. Edwards: Notes (with photographs) of a case of an anencephalous infant. Mr. M. R. Taylor: A case of multiple venous thrombosis. Dr. H. Shore: The effect of cycling in heart disease and phthisis. A general discussion followed each paper.

School Children.—Dr. Nesbit brought up the question of giving certificates to children unable to attend school. The Chairman and Honorary Secretary were asked to obtain certain information before the next meeting.

Annual Meeting.—The annual meeting will be held in the beginning of July at Newquay, when the election of officers for the ensuing year will take place.

Association Notices.

BRANCH AND DIVISION MEETINGS TO BE HELD.

Bath and Bristol Branch.—A combined meeting of the Bath and Trowbridge Divisions will be held at the Royal United Hospital, on Monday, July 2nd, at 6 p.m. Business: To elect Representative for the Bath and Trowbridge Divisions. —D. Leslie Beath, Honorary Secretary.

Birmingham Branch: Central Division.—The annual meeting will be held at the Medical Institute on Tuesday, June 26th, at 4 p.m. Business: (1) Election of officers, members of Branch Council, and of Executive Committee. (2) To receive the annual report. (3) To instruct the Representative (Supplement, British Medical Journal, May 5th). (4) Vote of thanks to retiring officers. (5) Any other business.—E. D. Kirby, Honorary Secretary.

Birmingham Branch: Tamworth and Nuneaton Division.—A combined meeting of the Tamworth and Nuneaton Division with the Coventry Division will be held at the Coventry and Warwickshire Hospital, Coventry, on Tuesday, June 19th, at 4 p.m., for the purpose of electing a Joint Representative to represent them at the Annual Representative Meeting, and to instruct him in regard to matters arising at that meeting (see Supplement, British Medical Journal, May 5th).—E. H. Snell, Secretary of the Constituency.

Border Counties Branch.—The annual meeting of this Branch will be held on Friday, June 29th, at the County Hotel, Carlisle, at 3 30 p.m. Business: Election of office-bearers; Presidential address by Dr. J. E. Bowser of Penrith. If any members of the Branch have got material that they wish to communicate to the meeting they will facilitate matters by informing the Secretary of their intention at their earliest convenience. In all probability there will be a joint meeting of the North and West Cumberland Divisions of the Branch immediately before the general meeting, at which the election of the Representative of these two Divisions to the Representatives' Meeting will be elected.—Francis R. Hill, Honorary Secretary.

East Anglian Branch.—The annual meeting of the East Anglian Branch will be held at the Palace Hotel, Southend-on-Sea, on Tuesday, June 26th. Programme of Proceedings: 12.30, Council meeting. 12.45, General meeting. Agenda: (1) Minutes of last meeting. (2) Report of the Council. (3) Report of election of officers. 1.54, Luncheon, by kind invitation of the President-elect, Dr. Clough Waters, at the Palace Hotel. 2.30, Resumed general meeting. Introduction of Dr. Clough Waters as President of the Branch, by Dr. Barton. (4) President's address. (5) Address by Sir Frederick Treves, Bart., G.C.V.O., C.B., LL.D., Serjeant-Surgeon to His Majesty the King. 4 to 6, Garden party in the Shrubbery, by kind invitation of the Chairman and Members of the South Essex Division. By the kind courtesy of the Commodore and Committee of the Alexandra Yacht Club, members attending are considered to be members for the day.—B. H. Nicholson, H. A. Ballance, and J. Gutch, Honorary Secretaries.

East Anglian Branch: West Norfolk Division.—The Annual meeting of this Division will be held on Wednesday, July 4th, at the residence of the Chairman (Dr. Thomas), Swaffham. Lunch at 1.30 by invitation of the Chairman. Meeting at 3 p.m. The agenda, besides containing the usual business of the annual meeting, contains for consideration the proposed application for a Royal Charter. The Chairman will also move the following alteration and addition to the rules: "That Rule 11 shall read, 'ordinary meetings of the Division shall be held *half-yearly*, etc.'" Addition to Rule 9: "That the Honorary Secretary of the Scientific Committee be *ipso facto* a member of the Executive Committee."—A. Gardiner, King's Lynn, Honorary Secretary.

Edinburgh Branch.—The annual meeting of the Edinburgh Branch will be held in the Hall of the Royal College of Physicians on Friday, June 29th, at 4.15 p.m.—Norman Walker and A. Logan Turner, Honorary Secretaries.

Edinburgh Branch: South-Eastern Counties Division.—The annual meeting of this Division will be held in the King's Arms Hotel, Melrose, on the afternoon of Friday, June 22nd, Dr. Cullen, Chairman, presiding. Business: (1) Election of office-bearers. (2) Instructions to Representative.—W. Hall Calvert, Honorary Secretary.

Glasgow and West of Scotland Branch.—The statutory meeting of the Branch will, by courtesy of the Glasgow Parish Council, be held in the Eastern District Hospital, 253, Duke Street (opposite Cattle Market), on the afternoon of Friday, June 22nd, at 3 o'clock. Programme: 3 p.m., annual business meeting. Agenda: (1) Minutes; (2) Secretaries' annual report; (3) Treasurer's annual report; (4) Report of Medico-Ethical Committee; (5) election of office-bearers. 3.30 p.m., afternoon tea. 4 p.m., Visit to wards of new hospital, under the guidance of the Medical Superintendent (Dr. John McCubbin Johnston). 4.30 p.m., Dr. Carswell will show some cases, and make some remarks bearing on the early diagnosis and treatment of mental affections.—James H. Nicoll, James Hamilton, Honorary Secretaries.

Lancashire and Cheshire Branch.—The annual meeting of this Branch will be held in Blackpool on Saturday, June 30th. Members wishing to bring any business before the meeting are requested to communicate at once with the Honorary Secretary, Dr. T. Arthur Helme, Mayfield, Victoria Park, Manchester.

Metropolitan Counties Branch.—Notice is hereby given that voting papers for electing the Metropolitan Counties Branch Representatives on the Central Council will be sent out on or before June 16th, and must be returned by June 20th. Notice is also given that the annual meeting of the Branch for the declaration of the poll of officers and for amending the ethical and financial rules, and other business, will be held on Tuesday, June 26th.—Frederick J. Smith and Ernest Clarke, Honorary Secretaries.

Metropolitan Counties Branch: Westminster Division.—The annual meeting will be held at 20, Hanover Square, on Wednesday, June 20th, at 9 p.m., Mr. J. Bland-Sutton in the chair. Agenda: (1) Minutes. (2) Correspondence. (3) Questions. (4) (*a*) To elect the officers, the Representatives of the Division on the Branch Council, and the ordinary members of the Executive Committee; (*b*) to elect the Representative of the Division—Representative Meeting of the Association; (*c*) to consider the annual report of the Executive Committee; (*d*) To consider the business of the Annual Representative Meeting. (5) To discuss the question of the Royal Charter. (6) Any other business.—W. Knowsley Sibley, Honorary Secretary.

Northern Counties of Scotland Branch.—The annual meeting of this Branch will be held at the Railway Hotel, Tain, on Thursday, June 21st, at 12 noon. Agenda: (1) Minutes. (2) Election of office-bearers for the ensuing year and a Representative of the Branch in Representative Meetings of the Association. (3) To consider business at the Representative Meeting. (4) To consider communications from the Medical Secretary. (5) To arrange place for autumn meeting, and also for the next annual meeting. (6) Any other competent business. Luncheon will be served at the Railway Hotel, Tain, at 1 p.m. Tickets 3s., exclusive of wines. Through the courtesy of the Tain Golf Club members wishing to play golf will have an opportunity of doing so. Golfers kindly communicate with Dr. Gillies, Tain, who will make the necessary arrangements. In accordance with By-law 24 of the constitution, the election of a Representative of the Branch on the Central Council must be made by voting papers sent to each member, and the candidates' names must be sent to me on or before June 30th, and the nomination signed by three members.—J. Munro Moir, M.D., Honorary Secretary, 4, Ardross Terrace, Inverness.

North Lancashire and South Westmorland Branch.—The annual meeting will be held at the Friends' Hall, Lancaster, on Wednesday, June 27th, at 3.45 p.m. Members willing to show slide specimens and patients are requested to send particulars to A. S. Barling, Honorary Secretary, Lancaster.

North of England Branch: North Northumberland Division.—The annual meeting of the above will be held at the Infirmary, Berwick-upon-Tweed, on Wednesday, June 20th, at 2.30 p.m. Business: To elect officers as per Rule 11. To consider matters referred to Divisions since last meeting. Consultations between general medical practitioners and the question of fees (introduced by Dr. Burnaud). Any other business.—R. B. Robson, M.B., Honorary Secretary, Alnwick.

Oxford and Reading Branch.—The annual meeting of this Branch will take place at the library of the Royal Berkshire Hospital, at 5 p.m., on Saturday, July 7th. Dr. W. Osler, F.R.S., Regius Professor of Medicine at Oxford, will give a lantern demonstration of the General Morphology of Abdominal Tumours. Dr. E. L. Bevers, Dr. Mallam, Mr. Arthur Roberts, the President (Mr. H. G. Armstrong), and probably others, will exhibit patients or specimens. The dinner will be held at the Queen's Hotel, Reading, at 7 p.m., when members have the privilege of bringing guests.—W. T. Freeman, 30, Portland Place London Road Reading Honorary Secretary

South-Eastern Branch.—The sixty-second annual meeting will be held at the Crystal Palace on Wednesday, June 27th, at 2.15 p.m. Dr. Hetley (President-elect) kindly invites members to lunch at the Crystal Palace from 1 to 2 p.m. Agenda: In addition to the business of an ordinary meeting: (1) To receive the report of the election of new officers, who shall thereupon take office. (2) To receive the report of the Council on the affairs of the Branch and the annual financial statement. After the meeting, entertainments will be provided in the Crystal Palace, and expeditions will be arranged to the Norwood Cottage Hospital, the Norwood Sanatorium for the Treatment of Alcohol and Drug Inebriety, and the Dulwich Gallery. Dinner at the Crystal Palace at 6.15 p.m. (for 6.30 p.m.); charge 7s. Wine will be provided by local members. Those who propose to be present at lunch or dinner are requested to signify their intention to Dr. Prangley, 197, Anerley Road, S.E., not later than Saturday, June 23rd.—H. M. Stewart, Honorary Secretary.

South-Eastern Branch: Chichester and Worthing Division.—The annual meeting of the above will be held at the Infirmary, Chichester, on Wednesday, June 20th, at 3.30 p.m. Mr. W. S. Simpson (Chairman of the Division) will preside. Agenda: (1) Minutes of the last meeting. (2) To appoint the place of next meeting. (3) Election of officers—Chairman, Vice-Chairman, Secretary, Representative on Branch Council, Representative at Representative Meeting, and members of the Executive Committee. (4) To discuss the proposed application for Royal Charter. (5) Dr. Ewart will show cases in the wards.—H. C. L. Morris, Honorary Secretary.

South-Eastern Branch: Guildford Division.—The annual meeting will be held at the Royal Surrey County Hospital, Guildford, on Wednesday, June 20th, at 4.30 p.m. Agenda: (1) Minutes. (2) Election of officers, Representatives on Branch Council and in Representative Meetings, and members of Executive Committee. (3) To receive annual report. (4) Business of the Annual Representative Meeting. (5) Any other business. (6) Paper by Mr. G. Sichel, F.R.C.S.: Some remarks on radiotherapy. Tea will be provided at 4.15. The Honorary Secretary will be glad to receive any nominations for the above offices, and to hear from any members wishing to show cases or specimens.—E. J. Smyth, Maythorne, Epsom Road, Guildford, Honorary Secretary.

South-Eastern Branch: Isle of Thanet Division.—The annual meeting of the Division will be held at the Victoria Hotel, Hardres Street, Ramsgate (opposite Sanger's Amphitheatre), on Tuesday, June 19th, at 4.15 p.m., F. Tyrell, M.R.C.S. in the chair. Tea will be served before the meeting. Agenda: (1) Election of officers—Chairman, Honorary Secretary and Treasurer, Members of Executive Committee. (2) To receive the report of the Executive Committee (3) To consider the business of the Annual Representative Meeting (vide Supplement of the British Medical Journal, May 5th.) (4) Dr. Watts will introduce a discussion on the Recommendations of the Medico-Political Committee on the subject of Contract Practice (See Supplement of the British Medical Journal, July 22nd, 1905, p. 29). (5) To consider the question of Registration of Nurses (see Supplement of the British Medical Journal, March 3rd). (6) Any other business. All members of the South-Eastern Branch are invited to attend these meetings and to introduce professional friends, but they are not entitled to vote on Divisional questions.—Hugh M. Raven, Honorary Divisional Secretary, Broadstairs.

Southern Branch.—The thirty-third annual meeting will be held at the Town Hall, Portsmouth (by kind permission of the Mayor, Sir George Couzens), on Friday, June 22nd. The general meeting will be held at 1.15 in the Grand Jury Room. At this meeting a communication from the Organization Committee of the Association will be considered. After the business is concluded the President will deliver an address. The President kindly invites the members to luncheon in the Mayor's banqueting room at 2 o'clock. Other arrangements for the afternoon are: (1) A visit to H.M.S. *Vernon*, by the kind permission of Sir Archibald Douglas, Commander-in-Chief; (2) a visit to Porchester Castle, where tea will be provided. Members intending to be present at luncheon are earnestly requested to communicate with C. P. Childe, Esq., Honorary Secretary of the Portsmouth Division, Kent Road, Southsea, as soon as possible; but in any case not later than June 18th.—H. J. **Manning**, Honorary Secretary and Treasurer, Laverstock House, Salisbury.

South Midland Branch.—The annual meeting of this Branch will be held at the Board Room, General Hospital. Northampton, on Thursday, June 21st, at 2.30 p.m., under the presidency of H. Cropley, F.R.C.S., Northampton. Agenda: (1) Minutes of last meeting. (2) Letters and communications. (3) Announcement of names of new members elected by Branch Council. (4) President's address. (5) Address on Gastric Surgery, by Mr. Mansell Moullin, F.R.C.S., Surgeon, London Hospital. There will be a demonstration of medical and surgical cases by the hospital staff after the meeting. This year being the jubilee of the Branch, it is hoped that all members will make a special effort to be present. The President invites the members to luncheon at the Masonic Hall, Princes Street, Northampton, at 1 p.m. sharp. Members intending to be present at the luncheon are requested to communicate with the Honorary Secretary on or before Monday, June 18th.—E. **Harries Jones**, Honorary Secretary.

South Midland Branch: Aylesbury Division.—A meeting of the above will be held in the Board Room of the Royal Bucks Hospital on Tuesday, June 26th, at 2.30 p.m.: Agenda: (1) The minutes of the last meeting. (2) To consider whether or not it is advisable to continue the Aylesbury Division as a separate Division of the British Medical Association.—**Horace Rose**, Honorary Secretary, Melrose, Aylesbury.

Staffordshire Branch.—The thirty-third annual meeting of the Branch will be held at the North-Western Hotel, Stafford, on Thursday, June 28th, at 5 15 p.m, when an address will be delivered by the President-elect, Charles Reid, Esq., M.B. Agenda: (1) Introduction of the new President. (2) Minutes of the last annual meeting. (3) Correspondence. (4) Address by the President (5) Report of the Council. (6) The financial statement. (7) To decide the place of holding the next annual meeting. (8) Election of officers for the ensuing year—President-elect, Secretary and Treasurer. The following gentlemen are nominated for the undermentioned offices: President-elect, J. T. Hartill, Willenhall; General Secretary, Dr. Petgrave Johnson, Stoke; Treasurer, Mr. J. Clare, Hanley. (9) Report on the election of the Representative of the Branch on the Council of the Association. Members have the privilege of introducing friends. Dinner at 7 p.m., charge 5s.—G. **Petgrave Johnson**, Honorary General Secretary, Stoke-on-Trent.

The first general meeting of the session will be held at Stoke on Thursday, November 29th. Members desiring to read papers are requested to communicate the titles to the General Secretary as soon as possible.

Ulster and Connaught Branches.—The annual meeting will be held on Thursday, June 21st, when the following officers will be elected:—President, Secretary, Treasurer, two Members of the Central Council to represent the Ulster and Connaught Branches, and a member of the Irish Committee (who shall not be resident in Belfast). Members having business or scientific communications to make to the meeting will please send the Honorary Secretary notice of the same not later than June 12th.—**Cecil E. Shaw**, Honorary Secretary, Belfast.

West Somerset Branch.—The sixty-third annual meeting of this Branch will be held at the London Hotel, Taunton, at 12.15 p.m., on Friday, June 22nd, when the new President, Dr. R. Liddon Meade-King will take the chair. Agenda: Minutes of last meeting; annual report of Council; treasurer's accounts; election of officers; President's address (notes on a seventeenth century textbook of medicine); consideration of agenda of Representative Meeting on July 24th. This, as appearing in the Supplement to the British Medical Journal of May 5th, will be considered so far as time will permit. Members are requested to acquaint themselves with any particular item on that agenda which they wish to bring to the notice of the Branch. Luncheon will be served at 1.30 p m. This will be paid for out of the Branch funds in the case of members signifying to the Honorary Secretary their intention of being present by June 19th. For others, and guests, a charge of 3s. per head will be made, in all cases exclusive of wine, etc. After lunch those present will become the guests of the President, and will be driven to Pickeridge Hill, where a golf match will be played between the medical members of the Pickeridge Club and the rest of the Branch. They will also be entertained there to tea. The return journey will be made in time to suit the convenience of those having to catch trains from Taunton station. In the event of the day proving wet an alternative programme will be arranged.—W. B. **Winckworth**, Honorary Secretary.

Worcestershire and Herefordshire Branch: Worcester Division.—The annual meeting of this Division will be held on Monday, June 18th, at 5 p.m., at the Worcester Infirmary. Business, etc.: To elect officers for the ensuing year (the present Secretary does not seek re-election) To elect Representative of the Division in the Representative Meeting of the Association. Matters referred to Divisions: (1) Hospital Out-patient Departments (Supplement, February 17th); (2) State Registration of Nurses (Supplement, March 3rd); (3) the Royal Charter (Supplement, March 24th). To adopt ethical rules for the Division. Any other business.—**Geo. W. Crowe**, Honorary Secretary.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

In accordance with the Order in Council of May 13th. 1901, a commission, dated November 26th, 1902, has been restored to Surgeon H. C. Ross, formerly in His Majesty's Navy, who has been placed on the list of volunteers for service in the event of war or emergency.

The following appointments have been made at the Admiralty: **Percy T. Sutcliffe**, M.B., Surgeon, lent to the *Sirius*, for manœuvres, June 5th; **Duncan G. Addison Scott**, M.B., Surgeon, lent to the *Hussar*, temporary, while on fishery duties, June 6th; **Reginald T. A. Levinge**, Fleet Surgeon, lent to the *Russell*, June 9th.

ARMY MEDICAL SERVICE.

Lieutenant-Colonel J. M. Irwin, M.B., R.A.M C., to be Assistant Director-General, vice Lieutenant-Colonel W. Babtie, V.C., C.M.G., M.B., R.A.M.C., whose tenure of that appointment has expired, June 1st.

Correction.—In the correction of Mr. Wilson Ranson's christian name published last week, p. 330, his surname was in error printed Ransom.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 7,242 births and 3,907 deaths were registered during the week ending Saturday last, June 9th. The annual rate of mortality in these towns, which had been 14.5, 14.2, and 13.8 per 1,000 in the three preceding weeks, further declined last week to 12.9 per 1,000. The rates in the several towns ranged from 4.2 in Hornsey, 4.7 in Walthamstow, 5.7 in Handsworth (Staffs), 6.7 in Devonport, 7.0 in Hastings, 7 2 in East Ham, 7.6 in Aston Manor, and 7.7 in Walsall and in Barrow-in-Furness to 16.7 in Middlesbrough, 16.9 in Bury, 17.8 in Manchester, 17.9 in Wigan and in Rochdale, 18.3 in Burnley, 19.6 in Birkenhead, and 23.1 in Bournemouth. In London the rate of mortality was 12.7 per 1,000, while it averaged 12.9 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.2 per 1,000 in the seventy-six large towns; in London this death-rate was equal to 1.1 per 1,000, while among the large provincial towns the rates ranged upwards to 2.3 in Warrington, 2.4 in Halifax, 2.7 in Birkenhead, 2.8 in Manchester, 3 2. in Bootle, 3.4 in Rotherham, and 4.1 in Burnley. Measles caused a death-rate of 1.1 in Swansea, 1.3 in Salford, 1.4 in Bradford, 1.6 in Manchester, 1.7 in Rotherham, 1.8 in Bury, and 2.5 in Burnley; scarlet fever of 1 3 in Birkenhead; diphtheria of 1.1 in Northampton and 1 4 in Halifax; and whooping-cough of 1 1 in Swansea, 1.6 in Bootle, 2.2 in Walsall, and 2.3 in Warrington. The mortality from enteric fever and from diarrhoea showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The number of small-pox patients remaining under treatment in the Metropolitan Asylums Hospitals, which had been 2, 2, and 5 on the three preceding Saturdays, had further risen to 6 on Saturday last, June 9th; one new case was admitted during the week, against 2, 0, and 3 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 2,396, 2,453, and 2,516 at the end of the three preceding weeks, had further increased to 2,603 at the end of last week; 344 new cases were admitted during the week, against 301, 338, and 312 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, June 9th, 1,037 births and 535 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 17.6, 17.3, and 17.5 per 1,000 in the three preceding weeks, declined again to 15.6 per 1,000 last week, but was 2.7 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 9.1 in Perth and 11.4 in Paisley to 16.2 in Greenock and 17.5 in Glasgow. The death-rate from the principal infectious diseases averaged 2 0 per 1,000, the highest rates being recorded in Glasgow and Dundee. The 281 deaths registered in Glasgow included 10 which were referred to measles, 4 to diphtheria, 12 to whooping-cough, and 12 to diarrhoea. Four fatal cases of measles and 2 of diarrhoea were recorded in Edinburgh. Two deaths from diphtheria, 3 from whooping-cough, 2 from "fever," and 4 from diarrhoea occurred in Dundee, and 4 from diarrhoea in Aberdeen.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, June 2nd, 579 births and 356 deaths were registered in six of the principal Irish towns, as against 541 births and 385 deaths in the preceding period. The annual death-rate in these towns, which had been 23.5, 23.1, and 20 4 per 1,000 in the three preceding weeks, fell to 18 1 per 1,000 in the week under notice, this figure being 4.3 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 13 6 in Londonderry and Waterford and 16.4 in Cork to 21 8 in Belfast and 23.2 in Limerick. The zymotic death-rate in the same six Irish towns averaged 1 0 per 1,000, or 0.1 per 1,000 higher than during the preceding period, the highest figure—2.6—being recorded in Belfast, while no deaths under this heading were recorded in Cork, Limerick, and Waterford.

During the week ending Saturday, June 9th, 477 births and 333 deaths were registered in six of the principal Irish towns, as against 579 births and 356 deaths in the preceding period. The annual death-rate in these towns, which had been 23.1, 20.4, and 18.1 per 1,000 in the three preceding weeks, fell to 17 8 per 1,000 in the week under notice, this figure being 4 9 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 9.6 in Limerick and 13.6 in Waterford to 19 8 in Belfast and 27.3 in Londonderry. The zymotic death-rate in the same six Irish towns averaged 1.3 per 1,000, or 0.3 per 1,000 higher than during the preceding period, the highest figure—3.8—being recorded in Belfast, while no deaths under this heading were recorded in Cork, Limerick, and Waterford.

Vacancies and Appointments.

VACANCIES.

BANBURY: HORTON INFIRMARY.—House Surgeon. Salary, £80 per annum.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—Assistant Physician.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR CHILDREN.—(1) Resident Medical Officer. (2) Resident Surgical Officer. Salary at the rate of £60, rising to £80 per annum each.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—Junior House-Surgeon. Salary to commence, £70 per annum.

BOLTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Salary, £100 per annum.

BRECKNOCK COUNTY AND BOROUGH INFIRMARY.—Resident House-Surgeon. Salary, £100 per annum.

BRIGHTON THROAT AND EAR HOSPITAL.—Non-resident House-Surgeon. Salary at the rate of £75 per annum.

CAIRO: SCHOOL OF MEDICINE.—Professor of Midwifery and Gynaecology. Salary, £400 per annum.

CAIRO: KASR-EL-AINY HOSPITAL.—Medical Tutor and Registrar. Salary, £400 per annum.

CARDIFF ASYLUM.—Medical Superintendent. Salary, £650, rising to £800 per annum.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—(1) Assistant House-Surgeon; (2) Radiographer; (3) Clinical Assistants. Salary, £70 and £50 per annum respectively for (1) and (2).

GLOUCESTER: GENERAL INFIRMARY AND THE GLOUCESTERSHIRE EYE INSTITUTION.—Assistant House-Surgeoncy. Remuneration at the rate of £30 per annum.

GRIMSBY AND DISTRICT HOSPITAL.—Resident House-Surgeon. Salary, £100 per annum.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W.—Honorary Assistant Surgeon.

ITALIAN HOSPITAL, Queen Square, W.C.—Honorary Ophthalmic Surgeon.

JAFFRAY BRANCH OF THE GENERAL HOSPITAL, Gravelly Hill, near Birmingham.—Resident Medical and Surgical Officer. Salary, £150 per annum.

LEEDS CITY.—Assistant Medical Officer of Health and Chief Inspector of Nuisances. Salary commencing £300 per annum.

LONDON HOSPITAL, Whitechapel, E.—Medical Registrar.

LONDON SCHOOL OF MEDICINE FOR WOMEN, Hunter Street, W.C.—Second Demonstrator of Anatomy.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N W.—Assistant House-Surgeon. Honorarium at the rate of £75 per annum.

NORTHAMPTON GENERAL HOSPITAL.—Assistant House-Surgeon. Salary, £50 per annum.

NORTH EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—House-Physician. Salary at the rate of £60 per annum.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—Refraction Assistant. Salary, £25 per annum.

ROYAL VETERINARY COLLEGE, Camden Town, N.W.—(1) Professor of Biology; (2) Lecturer on Physics.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Bridge Road, S E.—Honorary Dental Surgeon.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, W.C.—Assistant Surgeon.

SHEFFIELD CHILDREN'S HOSPITAL.—Honorary Medical Officer.

STAFFORDSHIRE GENERAL INFIRMARY.—Assistant House-Surgeon Honorarium, £41 for six months.

WEST RIDING ASYLUM, Wadsley.—Fifth Assistant Medical Officer. Salary, £140, rising to £160.

WOLVERHAMPTON AND MIDLAND COUNTIES EYE INFIRMARY.—House-Surgeon. Terms, £70 per annum.

WORCESTER GENERAL INFIRMARY.—House-Physician. Salary, £80 per annum.

APPOINTMENTS

BELL, R. Hamilton, M.B., B.C.Cantab., Physician to Out-patients, British Lying-in Hospital, Endell Street, W.C.

BREBNER, C. S., M.D.Edin., D.P.H.Camb., Medical Officer to the Education Authority, Widnes.

DEBENHAM, H. A., M.R.C.S., L.R.C.P.Lond., Medical Officer of Health, Presteign Urban District.

DOYLE, E. A. G., L.R.C.P., M.R.C.S., District Medical Officer of South Naparima.

RIDOUT, C. A. Scott, M.S.Lond., F.R.C.S.Eng., Surgeon to the Aural and Throat Department of the Portsmouth and South Hants Eye and Ear Infirmary.

WIGFIELD, F. P., M.B., B.S.Durh., District Medical Officer of the Guisborough Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

EVANS.—On June 7th, 1906, at Berth Ddu, Cottenham Park, Wimbledon, S.W., the wife of David Robert Powell Evans, M.R.C.S., L.R.C.P., L.S.A., of a son.

FIELDING-OULD.—On May 23rd, at 94, Mount Street, Grosvenor Square, W., the wife of R. Fielding-Ould, M.D., of a daughter.

GODWIN.—On June 7th, at 35, Southgate Street, Winchester, the wife of Herbert James Godwin, M.B., F.R.C.S., of a daughter.

MOLSON.—On June 6th, at Goring Hall, Worthing, the wife of J. Elsdale Molson, M.D.Cantab., M.R.C.S., L.R.C.P., of a son.

MARRIAGES.

CLEVELAND—PEEBLES.—On June 6th, at Albury, Guildford, by the Rev. R. P. Thompson, assisted by the Rev. H. E. Crawley, Rector, and the Rev. W. B. Norris, Rector of Warblington, John Wheeler Cleveland, M.R.C.S., Clarence Road, St. Albans, only son of the late Lieutenant-Colonel G. D. D. Cleveland, 98th Regiment, to Annie Rhoda Maskell, fourth daughter of Mr. Andrew Peebles, of Albury, Guildford, and Lundin Links, Fife, N.B.

MARRIS—BERRY.—On June 6th, at St. Peter's, East Carlton, by the Rev. Prebendary Howard, M.A., Vicar of Uffculme, brother-in-law of the bridegroom, assisted by the Rev. J. F. Mercer, M.A., Rector of the Parish, William Arthur Marris, M.D., of King's Heath, son of George Marris, Esq., J.P., of Edgbaston, to Mildred Agnes, daughter of Charles Berry, Esq., Middleton, Market Harborough.

MARTIN—MOODY.—On June 5th, 1906, at the Cathedral, Exeter, by the Rev. William David, M.A., Captain James Fitzgerald Martin, M.B., R.A.M.C., only son of Surgeon-Colonel W. T. Martin, M.D., A.M. Staff, retired, to Mary Latimer (Molly), eldest daughter of Colonel R. S H. Moody, C.B, late "The Buffs" and Royal Irish Fusiliers.

YEARSLEY—SECKENDORFF.—On June 14th, at St. Thomas's, Orchard Street, by the Rev. R. O. Yearsley, cousin of the bridegroom, assisted by the Vicar, Percival Macleod Yearsley, F.R.C.S., F.Z.S., Senior Surgeon to the Royal Ear Hospital, to Lavinia Rose, widow of the late Siegmund Seckendorff, Esq.

DEATHS.

BREWIS.—On June 5th, at "Curriemyre," Willington, co. Durham, Lenna, the dearly beloved wife of Edward J. Brewis, M.D.

HAYWARD.—On June 8th at Haydock, St. Helens, Lancs., Thomas Ernest Hayward, M.B.Lond., F.R.C.S.Eng., M.O.H. for Haydock. Interred at Newton-le-Willows Cemetery on Tuesday, June 12th.

VINRACE.—John Hinks Vinrace, M.B.Lond., M.R.C.P.Lond., of 88, Gower Street, London, on May 31st, aged 50. Eldest son of John Vinrace, M.D., Moseley, Birmingham.

DIARY FOR THE WEEK.

TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., at 5 p.m.—Third Croonian Lecture, by Dr. W. H. R. Rivers: The Action of Drugs on Fatigue.

THURSDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., at 5 p.m.—Fourth Croonian Lecture, by Dr. W. H. R. Rivers: The Action of Drugs on Fatigue.

SATURDAY.

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN.—Country meeting at the Radcliffe Infirmary, Oxford, at 3 p.m. Papers by Drs. G. Carpenter, Bertram Rogers, E. C. Williams, Collin, A. G. Gibson, and H. Croly. Exhibition of Clinical Cases, Pathological and Anatomical Specimens.

POST-GRADUATE COURSES AND LECTURES.

CHARING CROSS HOSPITAL, W.C., at 4 p.m.—Monday, Aural; Thursday, Surgical.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.—Clinical Demonstrations in Medicine and Surgery 2.30 and 3.15 p.m. respectively on Monday, Tuesday, Wednesday, Thursday, and Friday; Throat and Ear, 4 p.m., Monday; Skin, 4 p.m., Tuesday; Ophthalmology, 4 p.m. Wednesday; Radiography, 4 p.m. Thursdays. Out-patient Demonstrations, Medical and Surgical, 10 a.m. daily. Throat and Ear, noon Monday and Thursday; Eye 11 a.m. Wednesday. Skin, noon Friday. Operations, 2.30 p.m. daily.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows: Monday, High Arterial Tension and some of its Consequences. Tuesday, Head Nodding and other Curious Movements in Children. Wednesday, Cataract (with lantern slide demonstrations). Thursday, Anthrax.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., at 3.30 p.m.—Tuesday, Clinical Lecture. Friday, Ocular Movements and Paralysis.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Tottenham Hospital, N., at 4 30 p.m.—Tuesday, Pathological Demonstration: Non-malignant Ulcers of the Stomach and Intestines. Friday, Lecture on Glaucoma.

UNIVERSITY COLLEGE HOSPITAL, Gower Street, W.C., Wednesday, at 3 p.m.—Clinical Lecture on the Surgery of the Nervous System.

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
	JUNE.
17 Sunday	
18 MONDAY	London : Science Committee, 2.30 p.m. Worcester Division, *Worcestershire and Herefordshire Branch,* Annual Meeting, Worcester Infirmary, 5 p.m.
19 TUESDAY......	London : Volunteer Committee, 2 30 p.m. London : Public Health Committee, 3 p.m. Isle of Thanet Division, *South-Eastern Branch,* Annual Meeting, Victoria Hotel, Hardres Street, Ramsgate 4.15 p.m. Tamworth and Nuneaton Division, *Birmingham Branch,* Combined Meeting with Coventry Division, Coventry and Warwickshire Hospital, Coventry, 4 p.m.
20 WEDNESDAY	CENTRAL COUNCIL, Special Meeting, Offices of the Metropolitan Asylums Board, 2 p.m. Chichester and Worthing Division, *South-Eastern Branch,* Annual Meeting, Infirmary, Chichester, 3.30 p.m. Guildford Division, *South-Eastern Branch,* Annual Meeting, Royal Surrey County Hospital, Guildford, 4.30 p.m. North Northumberland Division, *North of England Branch,* Annual Meeting. Infirmary, Berwick-on-Tweed, 2 30 p.m. Westminster Division, *Metropolitan Counties Branch,* Annual Meeting, 20, Hanover Square, 9 p.m.
21 THURSDAY...	Altrincham Division, *Lancashire and Cheshire Branch,* Annual Meeting. Northern Counties of Scotland Branch, Annual Meeting, Railway Hotel, Tain, 12 noon. South Midland Branch, Annual Meeting, Board Room, General Hospital, Northampton, 2.30 p.m. Ulster and Connaught Branches, Annual Meeting.
	JUNE *(continued).*
22 FRIDAY	London : Central Ethical Committee, 2 p.m. Glasgow and West of Scotland Branch, Annual Meeting, Eastern District Hospital, 253, Duke Street, 3 p.m. South-Eastern Counties Division, *Edinburgh Branch,* Annual Meeting, King's Arms Hotel, Melrose. Southern Branch, Annual Meeting, Grand Jury Room, Town Hall, Portsmouth, 1.15 p.m. West Somerset Branch, Annual Meeting, London Hotel, Taunton, 12.15 p.m.
23 SATURDAY...	
24 Sunday.........	
25 MONDAY	
26 TUESDAY......	Aylesbury Division, *South Midland Branch,* Board Room, Royal Bucks Hospital, 2.30 p m. Central Division, *Birmingham Branch,* Annual Meeting, Medical Institute, 4 p.m. East Anglian Branch, Annual Meeting, Palace Hotel, Southend-on-Sea ; Council, 12.30 p.m. ; General Meeting, 12.45 p.m.
27 WEDNESDAY	London : Journal and Finance Committee, 2.30 p m. North Lancashire and South Westmorland Branch, Annual Meeting, Friend's Hall, Lancaster, 3.45 p.m. South-Eastern Branch, Annual Meeting, Crystal Palace, 2.15 p.m. ; Dinner, 6.15 for 6.30.
28 THURSDAY...	Staffordshire Branch, Annual Meeting, North-Western Hotel, Stafford, 5.15 p.m. ; Dinner, 7 p.m. Wandsworth Division, *Metropolitan Counties Branch,* Battersea Town Hall, 4 p.m.

MEMBERSHIP OF THE BRITISH MEDICAL ASSOCIATION.

The British Medical Association exists for the promotion of medical and the allied sciences, and the maintenance of the honour and the interests of the medical profession.

The Annual Subscription to the British Medical Association is £1 5s. 0d., and the British Medical Journal supplied weekly, post free, to every member of the British Medical Association wherever he may reside.

Forms of application for membership can be obtained from the General Secretary, 429, Strand, London, W.C.

The principal rules governing the election of a medical practitioner to be a member of the British Medical Association are as follow:

Article III.—Any Medical Practitioner registered in the United Kingdom under the Medical Acts and any Medical Practitioner residing within the area of any Branch of the Association situate in any part of the British Empire other than the United Kingdom, who is so registered or possesses such medical qualifications as shall, subject to the Regulations, be prescribed by the Rules of the said Branch, shall be eligible as a Member of the Association. The mode and conditions of election to Membership shall from time to time be determined by or in accordance with the By-laws. Every Member, whether one of the existing Members or a subsequently-elected Member, shall remain a Member until he ceases to be a Member in accordance with the provisions hereof.

By-law 1.—Every Candidate for Membership of the Association shall apply for election in writing, addressed to the Association, and stating his agreement, if elected, to abide by the Regulations and By-laws of the Association, and the Rules of such Division and Branch to which he may at any time belong, and to pay his subscription for the current year.

By-law 2.—Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the General Secretary of the Association, and to every Member of the Branch Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a member of the Association by the Branch Council at any meeting thereof held not less than seven days (or such longer period as the Branch may by its Rules prescribe) after the date of the said Notice. A Branch may by special Resolution require that each candidate for election to the Association shall furnish a certificate from two Members of the Association to whom he is personally known. Officers of the Navy, Army, and Indian Medical Services on the Active List are eligible for election through the Council or a Branch without approving signatures as laid down in By-law 3.

By-law 3.—Every candidate whose place of residence is not included in the area of any Branch shall forward his Application to the General Secretary of the Association, together with a statement signed by three members of the Association, that from personal knowledge they consider him a suitable person for election. Notice of the proposed election shall be sent by the General Secretary to every Member of the Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a Member of the Association by the Council at any meeting thereof held not less than one month after the date of the said notice.

The annual subscription to the British Medical Journal for non-members is £1 8s. 0d. for the United Kingdom and £1 12s. 6d. for abroad.

Printed and published by the British Medical Association at their Office, No. 429 Strand in the Parish of St Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 23RD, 1906.

CONTENTS.

PAGE

MEETINGS OF BRANCHES AND DIVISIONS :
- Birmingham Branch : Coventry Division 341
- Dorset and West Hants Branch : Bournemouth Division ... 341
- Dundee Branch... 342
- Edinburgh Branch : North-West Division 342
- Lancashire and Cheshire Branch : Manchester (West) Division. 342
- Midland Branch : Leicester Division 343
- Metropolitan Counties Branch : City Division 343
- ,, ,, ,, Hampstead Division ... 343
- North of England Branch : Gateshead and Consett Divisions ... 344
- ,, ,, ,, Gateshead Division 344
- South Wales and Monmouthshire Branch : North Glamorgan and Brecknock Division 344

PAGE

ASSOCIATION NOTICES.—BRANCH AND DIVISION MEETINGS TO BE HELD 344

VITAL STATISTICS 345

NAVAL AND MILITARY APPOINTMENTS 346

VACANCIES AND APPOINTMENTS 346

DIARY FOR THE WEEK 347

BIRTHS, MARRIAGES, AND DEATHS 347

BOOKS, ETC., RECEIVED 347

CALENDAR 348

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BIRMINGHAM BRANCH:
COVENTRY DIVISION.

THE annual meeting of this Division was held at the Coventry and Warwickshire Hospital on June 13th, Dr. DAVIDSON being in the chair.

Election of Officers.—The following officers for the ensuing year were unanimously elected: *Chairman,* Mr. Faulder White; *Vice-Chairman,* Dr. Pickup; *Representative on Branch Council,* Dr. Milner Moore; *Secretary,* Dr. Snell. The following were elected members of the Committee: Drs. Callaghan, J. Orton, Fenton, McGlashan, Davidson, and Hawley.

Report of Executive Committee.—The report of the Executive Committee was presented. (1) Membership: Membership on December 31st, 1904, 40; membership on December 31st, 1905, 43. (2) Financial Statement:—*Dr.:* Grant received from Branch Council, 43 members at 1s. per head, £2 3s.; deficit, December 31st, 1905, £3 0s. 6d.; total, £5 3s. 6d. *Cr.:* Deficit, December 31st, 1904, £1 5s.; printing, 18s. 6d.; stationery, £1 8s. 9d.; postage, £1 11s. 3d.; total, £5 3s. 6d. (3) Report of proceedings: (*a*) Meetings: Division meetings held during the year, 8; meetings at which scientific matters were discussed, 5; meetings at which medico-political, ethical or kindred matters were discussed, 6; occasions on which members dined together, 1; average attendance at meetings, 24.1; Division Executive Committee meetings, 11; also one joint meeting with Tamworth and Nuneaton, and Leamington and Warwick Divisions. (*b*) Notes of any special question of local interest dealt with (for example, local medical appointments, matters of public health, contract practice, etc.): The most noteworthy movement in the Division during the year in relation to contract practice has been the unanimous adoption of 4s. per member per annum as the minimum charge for medical attendance on members of Friendly Societies. In this connexion two deputations from members of Friendly Societies have been received by the Committee. The Division also decided that no member of the profession in the area of the Division should apply for the medical officership of a Friendly Society. Several papers on medical subjects have been read, and numerous specimens shown. Dr. Bateman, of the Medical Defence Union, gave a very interesting paper on Medical Defence, and the Laws relating to the Medical Profession. A joint meeting of the Division with the Tamworth and Nuneaton, and Warwick and Leamington Divisions, was held for the purpose of electing a Representative, and instructing him in relation to the Annual Representative Meeting. A very successful annual dinner was held. The Voluntary Book Section with sixteen members has been continued during the year. (*c*) Remarks: The Committee of the Division desire again to direct attention to the unsatisfactory arrangements existing in relation to the finances of the Division; this is shown by reference to the accompanying balance sheet. The Committee submit that neither the spirit nor the letter of By-law 17 of the Association is carried out by the Branch Council. It may be suggested that it is reasonable that a Division with such scanty expenses should be financed by the Association funds if the Division is to be a unit of the Association and not a separate local medical society.—Dr. DAVIDSON proposed, and Dr. PICKUP seconded, the receipt and adoption of the annual report of the Committee. This was spoken to by Drs. MILNER MOORE and RICE, and carried unanimously.

Proposed Royal Charter.—Dr. MILNER MOORE explained the position of the Association in regard to the proposed application for a Royal Charter, and gave the reasons for the application. He then moved:

> That this Division approve the proposed application for a Royal Charter.

This was seconded by Dr. DAVIDSON, and carried unanimously.

Vote of Thanks.—The CHAIRMAN proposed, and Dr. M. MOORE seconded, that a cordial vote of thanks be given to the Committee of the Coventry and Warwickshire Hospital for the continued use of their Board Room for the meetings of the Division.

DORSET AND WEST HANTS BRANCH:
BOURNEMOUTH DIVISION.

A MEETING was held at Bournemouth on June 6th at 3.45 p.m.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Election of Officers.—The following officers were elected: *Chairman,* Dr. James Davison; *Vice-Chairman,* Mr. Parkinson; *Representative,* Dr. Johnson Smyth; *Honorary Secretary,* Dr. E. K. Le Fleming. *Representatives on Branch Council,* Dr. W. V. Snow, Dr. E. Hyla Greves, Dr. W. Johnson Smyth, Dr. E. K. Le Fleming, Dr. G. H. Batterbury, Dr. A. Purkiss, Dr. Eleanor C. Bond.

Proposed Royal Charter.—A vote in favour of the general principle having been taken, the draft Charter was considered in detail, and the following amendments carried:—Draft Charter: Paragraph 2, Clause (2), Subdivision (v), referring to candidature of a member for Parliament, was objected to *in toto.* Paragraph 12, referring to Supplemental Charter: That the words "and voting" be omitted.

Draft Ordinances.—Section II, Paragraph 10, Clause (*b*), referring to expulsion of member: That the number "twenty-eight" be substituted for "fourteen" (days). Section IV, Paragraph 15, "Voting Power": That members of the Council be also entitled to vote. Section IV, Paragraph 16, Subsection (6), "Election of Representatives": That the words "more than three months" be omitted. Section IV, Paragraph 17, Subsection (3), Clauses (*a*) and (*e*): The words "three calendar months" be substituted for "twenty-eight days."

Draft By-laws.—Section II, Paragraph 5, "Election by a Branch Council": That "Branch" be substituted for "Association" in the last sentence. Section V, Paragraph 27, Subsection (1), "Special Representative Meetings": In place of the final words, "three constituencies," add "three Branches representing at least five hundred members." Section IX, Paragraph 54, "Committees": That the Committee for (1) Finance and (2) Journal be combined.

Discussion.—A discussion on The Management of Midwifery Cases under Insanitary Conditions was introduced by the HONORARY SECRETARY, in which many of those present joined.

DUNDEE BRANCH.

THE annual meeting of this Branch was held in the Students' Union, Dundee, on Friday, 8th June, at four o'clock, Dr. MACKIE WHYTE in the chair.

Confirmation of Minutes—The minutes of the last meeting were read, approved, and signed.

Election of Office-bearers.—The following were elected: *President*, G. C. Dickson, Carnoustie; *President-elect*, C. R. Marshall, Dundee; *Past-President*, J. Mackie Whyte, Dundee; *Vice-Presidents*, G. Peterkin, Forfar; M. F. Anderson, Dundee; *Treasurer*, D. M. Greig, Dundee; *Secretaries*, R. Cochrane Buist, Dundee, and A. P. Low, Dundee; *Council*, D. Lennox, Dundee (elected 1904), J. D. Gilruth, Arbroath (elected 1904), J. S. Y. Rogers, Dundee (elected 1904), J. Broom, Kirriemuir, R. Soutar, Montrose, A. J. Duncan, Dundee; *Representative for Representative Meeting*, A. P. Low; *Deputy*, C. R. Marshall; *Representative on Central Council*, R. C. Buist.

Bradford Rules.—Subject to their sanction by the Central Council, the "Bradford Rules" were adopted.

Proposed Medical Officer for Dundee School Board.—The Branch Council submitted the draft scheme prepared by the Board with a memorandum by the Council. After a long discussion, it was resolved:

> That the Branch declare that it would be improper for the profession to undertake the duties under the present draft scheme.

Thereupon it was resolved:

> That the Dundee members be empowered to take further action on this matter, and that the Dundee members of Council be appointed a Subcommittee.

Insusceptibility to Vaccination.—It was resolved:

> That the attention of the Scottish Local Government Board be drawn to the Registrar-General's Report on Vaccination of Children born in 1904, where on p. 25 it appears that in Dundee 1 in 90 was certified as constitutionally insusceptible of vaccination, and that it be represented that this does not correspond to the facts of the case, and that the Board should make inquiry as to the source of the lymph which gave such bad results; and also that the Branch urge upon the Board the desirability of the issue to all practitioners of standardized calf lymph, similar to that issued to public vaccinators in England.

Statement as to Abuse of Dundee Outdoor Maternity Department.—Dr. R. C. BUIST reported that the medical officer attending outdoor cases in connexion with the Royal Infirmary Maternity Department did not consider that there was any abuse of this charity. A form is required to be signed by the husband or other responsible person that they are unable to afford the services of a medical practitioner.

Annual Representative Meeting.—The Representative was given power to vote as he considered most advisable.

EDINBURGH BRANCH:

NORTH-WEST DIVISION.

THE annual meeting of this Division was held on Tuesday, June 5th, in the Hall of the Royal College of Physicians, Edinburgh, Dr. CAVERHILL in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were confirmed.

Election of Officers and Executive Committee.—The following were re-elected:—*Chairman:* Dr. Caverhill. *Vice-Chairman:* Mr. Hodsdon. *Honorary Secretary and Treasurer:* Dr. Dingwall Fordyce. *Executive Committee:* The following were elected: Professor Harvey Littlejohn, Dr. Fowler, Dr. Russell, Dr. Elder, Mr. Scott Carmichael, Dr. Oliphant Nicholson. Mr. Hodsdon and Dr. Dingwall Fordyce were elected Representatives of the Division to the Branch Council. Dr. Caverhill was elected Representative of the Division at Representative Meetings of the Association.

Report of Executive Committee.—The annual report of the Executive Committee was presented.

Annual Representative Meeting.—The business of the Annual Representative Meeting at London was considered.

Matters Referred to Divisions.—The Representative of the Division at the annual meeting at Leicester, 1905, presented a statement, and such subjects referred to the Division from (*a*) the Central Council, (*b*) the Representative Meeting at Leicester, as members brought up for discussion, were considered. In this connexion it was unanimously agreed by the meeting:

> That general approval be given to the obtaining of a Royal Charter, and that it be remitted to the Representative of the Division at the Representative Meeting of the Association to move that in Clause 13 of the Charter, in the second line after the word "specially" there be inserted the words "elected and."

Other Business.—Under this heading two motions brought forward by Dr. CAVERHILL were agreed to.

LANCASHIRE AND CHESHIRE BRANCH:

MANCHESTER (WEST) DIVISION.

THE annual meeting of this Division was held on Wednesday, May 30th, Dr. F. H. WORSWICK presiding.

Election of Officers.—The following gentlemen were elected officers for the ensuing year: *Chairman*, Dr. C. Stennett Redmond; *Vice-Chairman*, Mr. Wallace Eales; *Honorary Secretary*, J. Skardon Prowse, B.A., M.B., Willow Bank, Moss Lane East, Manchester (Telephone, 83 Rusholme); *Executive Committee*, Dr. John Broadbent, Dr. J. Brassey Brierley, Dr. E. W. Floyd, Dr. Worswick, Dr. Oswald Woodcock; *Representatives in the Branch Council*, Dr. Brassey Brierley, Dr. J. Skardon Prowse; *Representative in the Annual Representative Meeting*, Dr. J. Brassey Brierley; *Deputy Representative*, Dr. F. H. Worswick.

Vote of Thanks.—A cordial vote of thanks was accorded to Dr. Worswick for his services during the year as Chairman.

Annual Report.—The consideration of the annual report was deferred until the next meeting.

Annual Representative Meeting.—In regard to the subjects for discussion at the Annual Representative Meeting, it was decided to give Dr. Brassey Brierley a free hand to vote as he shall judge best for the interests of the Association and in view of his knowledge of the opinions of the Division.

Nominations for the General Medical Council Election.—In March last the Division nominated Dr. T. Arthur Helme and Dr. C. J. Renshaw as candidates. It was understood that at least two of the other Divisions of this Branch had adopted the same gentlemen as their nominees. The HONORARY SECRETARY said he had received a communication from Dr. Helme intimating that he wished to withdraw from the contest. The subject was fully discussed, and the meeting unanimously resolved that Dr. Helme be requested to continue to stand for election. In consideration of the fact that conditions have totally changed since the date of nomination, the meeting agreed *nemine dissentiente* to the following resolution:

> That this Division hereby withdraws its nomination of Dr. C. J. Renshaw as candidate for election to the General Medical Council.

The Honorary Secretary was instructed to inform the Manchester (Central) and the Altrincham Divisions of this decision, and to send a letter for publication in the BRITISH MEDICAL JOURNAL stating the action taken by the Division.

Payment of Representatives.—Dr. STENNETT REDMOND proposed:

> That the Manchester (West) Division is of opinion that the Representatives of Divisions in the Representative Meeting ought to be paid a sum sufficient to meet the expense which they necessarily incur in attending that meeting; and suggests that a portion of the surplus funds of the Branch, not exceeding £5 for each Representative, might with propriety be set aside for this purpose.

—Dr. NICHOL seconded, and the meeting unanimously agreed to the resolution.—The Representatives of the Division in the Branch Council were requested to bring the matter to the notice of that body.

Proposed Royal Charter.—The members present (with one dissentient) were in favour of the application for a Royal Charter.

MIDLAND BRANCH:

LEICESTER DIVISION.

THE annual meeting of this Division was held on May 30th.

Election of Officers.—The following were elected officers for the ensuing year:—*Chairman of the Division:* Dr. J. C. Burkitt. *Vice-Chairman:* Dr. A. V. Clarke. *Representatives on Branch Council:* Drs. Blakesley, Burkitt, Clarke, Lewitt, Gibbons. *Vice-President of the Branch:* Dr. J. T. Tibbles. *Executive Committee:* Drs. Ballard, Lewitt, Stamford, Henry, Harris, M. Williams, Vice. *Representative at Representative Meetings:* Dr. R. Sevestre. *Honorary Secretaries of the Division:* Dr. R. Sevestre, 119, London Road, Leicester; Dr. W. E. Gibbons, 1, Charles Street, Leicester. A small Committee was appointed to nominate another Representative in case the elected Representative was unable to attend the Representative Meeting.

Annual Representative Meeting.—The following resolution was carried:

> That this Division is of opinion that if under the proposed charter the Representative Meeting is to be the governing body of the Association, its meetings must be either more frequent, or as an alternative the Council must be given more discretion in dealing with the decisions of the Representative Meeting.

METROPOLITAN COUNTIES BRANCH:

CITY DIVISION.

THE first annual dinner was held at the Gaiety Restaurant, Strand, on Thursday evening, June 7th. The outgoing Chairman, Dr. J. W. HUNT, presided. Some fifty members and guests were present, amongst the latter being Mr. Albert Spicer (M.P. for Central Hackney), Dr. Langley Browne (Chairman of the Council of the Association), Mr. Andrew Clark (President of the Metropolitan Counties Branch), Dr. Walter Smith (St. Pancras Division), Dr. F. J. Smith, Dr. Risien Russell, Mr. W. D. Harmer, Dr. St. Clair Shadwell, and Dr. C. J Stocker (Chairman of the Stratford Division). The Executive Committee had invited the attendance of ladies, and several were present. After dinner several toasts were proposed and replied to, and all the speeches were of commendable point and brevity. An excellent programme of music was rendered by Mr. Charles Capper's quartette, and the evening was spent so enjoyably that the dinner will probably become an annual function.

HAMPSTEAD DIVISION.

THE fourth annual meeting of this Division was held at St. Peter's Hall, Belsize Square, on Friday, June 8th, at 5 p.m., Mr. F. R. HUMPHREYS in the chair.

Confirmation of Minutes.—The minutes of the previous meeting were taken as read.

Letters.—A letter was received from Dr. Ford Anderson regretting inability to be present.

Questions.—Dr. C. W. COOKE complained that he and other members had not received agenda for the meeting. The HON. SECRETARY promised to make inquiry of the printers, by whom these notices were sent out.

Deputation.—The HON. SECRETARY stated that a deputation of members of the Joint Committee appointed on May 5th would shortly be received by the Council of the Hampstead Hospital.

Medical Charities Committee.—The HON. SECRETARY informed the meeting that the resolution of the Hampstead Division in favour of a Medical Charities Committee of the Branch Council had been accepted by the Branch on May 30th.

Annual Report.—The CHAIRMAN called upon the Hon. Secretary to read the annual report, which stated that the number of medical men in the area was 427, of whom 191 were now members, as against 183 last June. The number of meetings had been increased from 8 to 10, the average attendance from 14 to 20. The increase in the average attendance was to a great extent due to the interest taken in the Hampstead Hospital question. Out of 191 members only 78 attended meetings, and of these 39 only attended one meeting each. The Committee had been very active, and had held 12 meetings with an average attendance of 9 out of 14 members, as against an average attendance of 8 out of 14 last session. Mr. R. Henslowe Wellington, Vice-Chairman, who would in the ordinary course have become Chairman for the ensuing session, had been obliged to resign his post owing to pressure of work. The Committee, while accepting his resignation with great regret, desired to congratulate him on his important appointment to the Chair of Medical Jurisprudence at the Westminster Hospital. The chief points of interest in the work of the session had been:—(1) The deputation to Parliamentary candidates in September, 1905 (see BRITISH MEDICAL JOURNAL, SUPPLEMENT, September 30th, 1905). (2) The first annual dinner of the Division on October 31st, 1905 (see BRITISH MEDICAL JOURNAL, SUPPLEMENT, November 11th, 1905). (3) The Hampstead Hospital question, which had been dealt with at two large meetings—(*a*) on April 6th, when only members of the Division were invited; (*b*) on May 5th, when the whole local profession were invited (invitations issued to 388 medical men). A total number of 91 medical men attended the two meetings. (4) Divisional meetings had been held for the first time in out-lying parts of the Division, namely, Finchley and Hendon. (5) A Subcommittee had been appointed to inquire into Local Contract Practice. (6) A Subcommittee had been appointed to inquire into the best means for starting a Divisional Medical Library.

Finance.—Owing to the Hospital question, the increased number of meetings, and the Contract Practice inquiry, expenses for the year would be much heavier than last year. For the year 1906, expenses up-to-date had been £32 18s. 8d., and the balance was £7 15s. 10d. Dr. MACEVOY proposed and Dr. CLAUDE TAYLOR seconded "That the annual report be approved." Carried unanimously.

Contract Practice Subcommittee.—Mr. ARMIT regretted that owing to pressure of work and the fact that replies were still coming in, he had been unable to prepare a written report. Inquiry forms had been issued to all the medical men in the area (427) and reminder cards had been sent to all those who had not replied to the first inquiry. The state of Contract Practice within the area was unsatisfactory, and called for reform.

Library Subcommittee.—The CHAIRMAN explained that a scheme for starting a Divisional Library in connexion with the Hampstead Central Library was under consideration of a Subcommittee.—Dr. TAYLOR said that the proposal of the Central Library Committee to extend the Central Library had been unnecessarily deferred. In the meantime accommodation at the Central Library was limited. He would urge members to press the importance of the extension scheme upon the Borough Council so that their recent decision might be altered.—Mr. HUMPHREYS remarked on the necessity for excluding the public from the use of these books.—Mr. CUNNINGTON thought that this could be managed at the present stage by keeping a separate catalogue for the use of medical men only.

Election of Officers and Committee.—Dr. C. W. COOKE proposed, and Dr. SANSOM seconded,

> That in future nominations for the Committee be printed and circulated to all members in the agenda for the annual meeting. This was carried.

Election of Chairman.—Mr. Wellington's letter of resignation was read. The HON. SECRETARY said that the Committee had nominated Mr. Humphreys for re-election. This would involve an alteration of Divisional Rule (6), but in accordance with Divisional Rule (13) rules could be altered at the annual meeting. Any alteration made, however, would be subject to the approval of the Central Council in accordance with By-law 12 of the Association. (See *Year Book*, 1906, p. 51.) —Mr. ARMIT then proposed, and Dr. OPPENHEIMER seconded,

> That Mr. Humphreys be re-elected Chairman for the 1906-1907 session subject to the approval of the Central Council.

Dr. HALL opposed strongly on the ground that notice of such suggested alteration of rule should have been duly given in the agenda issued to members. Time enough had elapsed since the meeting of the Committee for this to have been done. Other members agreed with Dr. Hall.—Mr. ARMIT then begged to move as an amendment of his original resolution,

> That the portion of this meeting dealing with the election of the Chairman be adjourned in order to allow of notice being given to all members of a proposal to suspend Divisional Rule (6).

This was seconded by Dr. OPPENHEIMER, and lost by a large majority.—The meeting then proceeded to the election of a Chairman. Dr. Macevoy, Dr. Pidcock, and Mr. Nelson Hardy were duly proposed and seconded, and Dr. Macevoy was eventually elected on a show of hands. Mr. Humphreys (who had temporarily left the chair, which was taken by Mr. Nelson Hardy during his absence), now resumed the chair. He referred briefly to the events of the past session and to the valuable aid he had received from the Hon. Secretary, Dr. Yeld. He was personally averse to re-election. In the action he had taken throughout his year of office he had had the honour and interests of the profession at heart. He welcomed the new Chairman (Dr. Macevoy) and wished him a successful year of office.

Vote of Thanks.—Dr. OPPENHEIMER, in proposing a hearty vote of thanks to the retiring Chairman, congratulated him on the immense amount of valuable work he had done during a difficult session. Dr. GLOVER cordially seconded the vote of thanks, which was carried with acclamation. Other elections were then proceeded with.

Vice-Chairman.—Dr. Pidcock was elected.

Representatives on the Branch Council.—Dr. Oppenheimer was re-elected. Dr. Sharman was elected.

Representative to the Representative Meeting.—Mr. Armit was nominated by the Committee. Dr. HALL proposed, and Dr. GLOVER seconded, the nomination of Mr. Cunnington.—Dr. YELD supported the re-election of Mr. Armit, and referred to his valuable work on the subject of the Royal Charter, the inquiry into local Contract Practice, his appointment to the Medico-Political Committee of the Association, and as special correspondent for the JOURNAL to the International Congress at Lisbon. Mr. Armit was then re-elected.

Hon. Secretary.—Dr. Yeld was unanimously re-elected.

Ordinary Members of Committee.—A proposal by the Committee to increase the number of ordinary members from 7 to 12 was rejected on the same grounds as the previous proposal to re-elect the retiring Chairman, and the matter will be referred to a special meeting. The following seven members were elected: Dr. Ford Anderson, Miss Ada Browne, Mr. Cunnington, Mr. Humphreys, Dr. Heath Strange, and Dr. Clark Wilson were re-elected, and Dr. Glover was elected as a new member.

Subcommittees.—The Subcommittees on local Contract Practice (Dr. Macevoy, Mr. Humphreys, and Mr. Armit) and on the Divisional Library scheme (Mr. Humphreys, Mr. Cunnington, and Dr. Yeld) were reappointed.

Instructions to Representative.—Dr. Anderson wrote to say that the resolution by the Hampstead Division on "consultants" might be subject to some modification, of which he would furnish information to Mr. Armit.

NORTH OF ENGLAND BRANCH:

GATESHEAD AND CONSETT DIVISIONS.

A MEETING of the Gateshead and Consett Divisions was held at Gateshead on June 12th. Dr. W. MEARNS was voted to the chair, and there was a very good attendance.

Representative at Annual Representative Meeting.—Dr. Alfred Cox of Gateshead was elected as Representative for the Annual Representative Meeting and was given his instructions.

GATESHEAD DIVISION.

The annual meeting was held on June 12th. In the absence of the Chairman (Dr. T. M. Kimpster), Dr. MEARNS took the chair.

Division Picnic.—It was resolved to hold this function in the first week in July if a sufficient number of members signified their willingness to go.

Election of Officers.—Dr. J. W. MacKay of Pelaw was elected *Chairman of the Division;* Dr. Cox was re-elected *Honorary Secretary;* Drs. Mearns, Blacklock, and Speirs were re-elected as *Representatives on the Branch Council.* The above, with Dr. W. Jaques of Washington, form the *Executive* of the Division.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:

NORTH GLAMORGAN AND BRECKNOCK DIVISION.

THE annual meeting of the Division was held at the Castle Hotel, Merthyr, on Thursday, May 31st, at 5 p.m., Dr. T. W. PARRY in the chair.

Confirmation of Minutes.—The minutes of the last regular meeting were read, confirmed, and signed.

Election of Officers.—The following were elected for the ensuing year:—*Chairman*, Dr. J. S. Lyttle; *Vice-Chairman*, Dr. R. W. Jones; *Secretary and Treasurer*, Mr. C. J. Weichert; *Representative for Representative Meeting*, Dr. W. E. Thomas; *Representatives on Branch Council*, Messrs. J. L. W. Ward, B. M. Lewis and D. N. Morgan; *Executive Committee*, Messrs. C. Biddle, C. E. Cochrane, T. Finney, Ll. Jones, R. W. Jones, R. C. Joyce, W. Ll. Rhys, W. E. Thomas, and Glanville Morris.

Report of Executive Committee.—The annual report of the Executive Committee was read and adopted.

Agenda of Annual Representative Meeting.—The following were appointed a special Committee to consider the agenda for the Annual Representative Meeting and to instruct the Representative thereon: Messrs. Evan Jones, C. Biddle, W. E. Thomas, T. W. Parry, J. S. Lyttle and E. N. Davies.

Proposed Royal Charter.—It was resolved that the Division approve of the proposed application for a Royal Charter.

Chairman's Address.—Dr. LYTTLE gave an address on recent actions for negligence against medical men, with special reference to the Judge's charge in the case of Tughan *v.* Darnell. At its close a hearty vote of thanks was accorded Dr. Lyttle.

☞ ***To ensure the insertion of notices in this column, they must be received at the Central Offices of the Association not later than the first post on Tuesday.***

Association Notices.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are fitted up for the accommodation of the members in commodious apartments, at the office of the Association, 429, Strand. The rooms are open from 10 a.m. to 5 p.m., except on Saturdays, when they close at 2 p.m. Members can have their letters addressed to them at the office.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—A combined meeting of the Bath and Trowbridge Divisions will be held at the Royal United Hospital, on Monday, July 2nd, at 6 p.m. Business: To elect Representative for the Bath and Trowbridge Divisions. —D. LESLIE BEATH, Honorary Secretary.

BIRMINGHAM BRANCH: CENTRAL DIVISION.—The annual meeting will be held at the Medical Institute on Tuesday, June 26th, at 4 p.m. Business: (1) Election of officers, members of Branch Council, and of Executive Committee. (2) To receive the annual report. (3) To instruct the Representative (SUPPLEMENT, BRITISH MEDICAL JOURNAL, May 5th). (4) Vote of thanks to retiring officers. (5) Any other business.—E. D. KIRBY, Honorary Secretary.

BIRMINGHAM BRANCH: WEST BROMWICH DIVISION.—The conjoint meeting of this Division with the Dudley and Bromsgrove Divisions will take place on July 2nd, at the Medical Institute, Birmingham, for the election of Representative. This meeting will be followed by the annual meeting of the West Bromwich Division.—H. W. B. PLUMMER, Honorary Secretary, West Bromwich Division.

Border Counties Branch.—The annual meeting of this Branch will be held on Friday, June 29th, at the County Hotel, Carlisle, at 3.30 p.m. Business: Election of office-bearers; Presidential address by Dr. J. E. Bowser of Penrith. If any members of the Branch have got material that they wish to communicate to the meeting they will facilitate matters by informing the Secretary of their intention at their earliest convenience. In all probability there will be a joint meeting of the North and West Cumberland Divisions of the Branch immediately before the general meeting, at which the election of the Representative of these two Divisions to the Representatives' Meeting will be elected.—Francis R. Hill, Honorary Secretary.

Dorset and West Hants Branch.—The summer meeting will be held at Abbotsbury, Wednesday, July 11th. Members desirous of reading papers or exhiting cases are requested to communicate, on or before June 30th, with the Honorary Secretary, Dr. James Davison, Streateplace, Bournemouth.

East Anglian Branch.—The annual meeting of the East Anglian Branch will be held at the Palace Hotel, Southend-on-Sea, on Tuesday, June 26th. Programme of Proceedings: 12.30, Council meeting. 12.45, General meeting. Agenda: (1) Minutes of last meeting. (2) Report of the Council. (3) Report of election of officers. 1.54, Luncheon, by kind invitation of the President-elect, Dr. Clough Waters, at the Palace Hotel. 2.30, Resumed general meeting. Introduction of Dr. Clough Waters as President of the Branch, by Dr. Barton. (4) President's address. (5) Address by Sir Frederick Treves, Bart., G.C.V.O., C.B., LL.D., Serjeant-Surgeon to His Majesty the King. 4 to 6, Garden party in the Shrubbery, by kind invitation of the Chairman and Members of the South Essex Division. By the kind courtesy of the Commodore and Committee of the Alexandra Yacht Club, members attending are considered to be members for the day.—B. H. Nicholson, H. A. Ballance, and J. Gutch, Honorary Secretaries.

East Anglian Branch: West Norfolk Division.—The Annual meeting of this Division will be held on Wednesday, July 4th, at the residence of the Chairman (Dr. Thomas), Swaffham. Lunch at 1.30 by invitation of the Chairman. Meeting at 3 p.m. The agenda, besides containing the usual business of the annual meeting, contains for consideration the proposed application for a Royal Charter. The Chairman will also move the following alteration and addition to the rules: "That Rule 11 shall read, 'ordinary meetings of the Division shall be held *half-yearly*, etc.'" Addition to Rule 9: "That the Honorary Secretary of the Scientific Committee be *ipso facto* a member of the Executive Committee."—A. Gardiner, King's Lynn, Honorary Secretary.

Edinburgh Branch.—The annual meeting of the Edinburgh Branch will be held in the Hall of the Royal College of Physicians on Friday, June 29th, at 4.15 p.m. — Norman Walker and A. Logan Turner, Honorary Secretaries.

Lancashire and Cheshire Branch.—The annual meeting of this Branch will be held in Blackpool on Saturday, June 30th. Members wishing to bring any business before the meeting are requested to communicate at once with the Honorary Secretary, Dr. T. Arthur Helme, Mayfield, Victoria Park, Manchester.

Lancashire and Cheshire Branch: St. Helen's Division.—A meeting of the members of the above Division will be held on Wednesday, June 27th, at the Y.M.C.A. Buildings, North Road, St. Helen's, at 8.15 p.m. Agenda: Annual meeting. Election of office-bearers, etc. Financial statement. Report of meeting with Warrington Division.—John J. Buchan, Honorary Secretary.

Leinster Branch: East Leinster Division.—The annual meeting of the Division will be held at the Royal College of Physicians, Dublin, on Wednesday, June 27th, at 5 o'clock.—Reginald Peacocke, Honorary Secretary.

Metropolitan Counties Branch: Kensington Division.—The annual general meeting will be held at the Kensington Town Hall, on Wednesday, June 27th, at 5 p.m. Agenda: Annual report of the Executive Committee. Election of Representative for the meeting in July. Consideration of the business of the Annual Representative Meeting. Election of officers for 1906-7. Any other business.—Charles Buttar, Honorary Secretary, 10 Kensington Gardens Square, W.

Northern Counties of Scotland Branch.—In accordance with By-law 24 of the constitution, the election of a Representative of the Branch on the Central Council must be made by voting papers sent to each member, and the candidates' names must be sent to me on or before June 30th, and the nomination signed by three members.—J. Munro Moir, M.D., Honorary Secretary, 4, Ardross Terrace, Inverness.

North Lancashire and South Westmorland Branch.—The annual meeting will be held at the Friends' Hall, Lancaster, on Wednesday, June 27th, at 3.45 p.m. Members willing to show slide specimens and patients are requested to send particulars to A. S. Barling, Honorary Secretary, Lancaster.

Oxford and Reading Branch.—The annual meeting of this Branch will take place at the library of the Royal Berkshire Hospital, at 5 p.m., on Saturday, July 7th. Dr. W. Osler, F.R.S., Regius Professor of Medicine at Oxford, will give a lantern demonstration of the General Morphology of Abdominal Tumours. Dr. E. L. Bevers, Dr. Mallam, Mr. Arthur Roberts, the President (Mr. H. G. Armstrong), and probably others, will exhibit patients or specimens. The dinner will be held at the Queen's Hotel, Reading, at 7 p.m., when members have the privilege of bringing guests.—W. T. Freeman, 30, Portland Place London Road, Reading Honorary Secretary

South-Eastern Branch.—The sixty-second annual meeting will be held at the Crystal Palace on Wednesday, June 27th, at 2.15 p.m. Dr. Hetley (President-elect) kindly invites members to lunch at the Crystal Palace from 1 to 2 p.m. Agenda: In addition to the business of an ordinary meeting: (1) To receive the report of the election of new officers, who shall thereupon take office. (2) To receive the report of the Council on the affairs of the Branch and the annual financial statement. After the meeting, entertainments will be provided in the Crystal Palace, and expeditions will be arranged to the Norwood Cottage Hospital, the Norwood Sanatorium for the Treatment of Alcohol and Drug Inebriety, and the Dulwich Gallery. Dinner at the Crystal Palace at 6.15 p.m. (for 6.30 p.m.); charge 7s. Wine will be provided by local members. Those who propose to be present at lunch or dinner are requested to signify their intention to Dr. Prangley, 197, Anerley Road, S.E., not later than Saturday, June 23rd.—H. M. Stewart, Honorary Secretary.

South-Eastern Branch: Dover Division.—The annual meeting of this Division will be held at the Grand Hotel, Dover, on Friday, the 29th inst., at 8.30. Agenda: (1) Reading of minutes; (2) election of officers; (3) business of the Representative Meeting (application for Royal Charter); (4) other business, if any.—F. A. Osborn, Honorary Secretary.

South Midland Branch: Aylesbury Division.—A meeting of the above will be held in the Board Room of the Royal Bucks Hospital on Tuesday, June 26th, at 2.30 p.m.: Agenda: (1) The minutes of the last meeting. (2) To consider whether or not it is advisable to continue the Aylesbury Division as a separate Division of the British Medical Association.—Horace Rose, Honorary Secretary, Melrose, Aylesbury.

Staffordshire Branch.—The thirty-third annual meeting of the Branch will be held at the North-Western Hotel, Stafford, on Thursday, June 28th, at 5.15 p.m., when an address will be delivered by the President-elect, Charles Reid, Esq., M.B. Agenda: (1) Introduction of the new President. (2) Minutes of the last annual meeting. (3) Correspondence. (4) Address by the President. (5) Report of the Council. (6) The financial statement. (7) To decide the place of holding the next annual meeting. (8) Election of officers for the ensuing year—President-elect, Secretary and Treasurer. The following gentlemen are nominated for the undermentioned offices: President-elect, J. T. Hartill, Willenhall; General Secretary, Dr. Petgrave Johnson, Stoke; Treasurer, Mr. J. Clare, Hanley. (9) Report on the election of the Representative of the Branch on the Council of the Association. Members have the privilege of introducing friends. Dinner at 7 p.m., charge 5s.—G. Petgrave Johnson, Honorary General Secretary, Stoke-on-Trent.

The first general meeting of the session will be held at Stoke on Thursday, November 29th. Members desiring to read papers are requested to communicate the titles to the General Secretary as soon as possible.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 9,100 births and 3,924 deaths were registered during the week ending Saturday last, June 16th. The annual rate of mortality in these towns, which had been 14.2, 13.8, and 12.9 per 1,000 in the three preceding weeks, was again 12.9 per 1,000 last week. The rates in the several towns ranged from 5.1 in Willesden, 5.2 in East Ham, 5.4 in Hornsey, 6.9 in Bournemouth, 7.2 in King's Norton, 7.3 in Reading, 7.7 in Barrow-in-Furness, 7.8 in Northampton, and 7.9 in Croydon, to 17.6 in Huddersfield, 17.7 in Bradford, 17.8 in Burnley, 18 3 in Manchester, 18.8 in Warrington, 19.4 in Liverpool, 20.6 in St. Helens and in West Hartlepool, and 21.4 in Middlesbrough. In London the rate of mortality was 12.2 per thousand, while it averaged 13.2 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.2 per 1,000 in the seventy-six large towns; in London this death-rate was equal to 1.1 per 1,000, while among the large provincial towns the rates ranged upwards to 2.6 in Rotherham and in Middlesbrough, 2.9 in Liverpool and in Manchester, 3.1 in Salford, 3.3 in Halifax, and 4.1 in Burnley. Measles caused a death-rate of 1.0 in Birmingham, 1.3 in Tottenham, 1.4 in Halifax, 1.6 in Huddersfield and in Bradford, 1.8 in Manchester, 2.2 in Salford, and 3.0 in Burnley; scarlet fever of 1.6 in Hastings; diphtheria of 1.0 in

Halifax and in Middlesbrough; and whooping-cough of 1.0 in Liverpool, 1.1 in Walsall and in Swansea, 1.3 in Reading, and 1.5 in Warrington. The mortality from enteric fever and from diarrhoea showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The number of small-pox patients remaining under treatment in the Metropolitan Asylums Hospitals, which had been 2, 5, and 6 on the three preceding Saturdays, had further risen to 7 on Saturday last, June 16th; 1 new case was admitted during the week, against 0, 3, and 1 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 2,453, 2,516, and 2,603 at the end of the three preceding weeks, had further increased to 2.677 at the end of last week; 355 new cases were admitted during the week, against 338, 312, and 344 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, June 16th, 1,005 births and 542 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 17.3, 17.5, and 15.6 per 1,000 in the three preceding weeks, rose to 15.8 per 1,000 last week, and was 2.9 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 12.0 in Leith and 14.3 in Aberdeen, to 16.9 in Glasgow and 17.4 in Dundee. The death-rate from the principal infectious diseases averaged 1.7 per 1,000, the highest rates being recorded in Edinburgh and Glasgow. The 271 deaths registered in Glasgow included 14 which were referred to measles, 4 to diphtheria, 4 to whooping-cough, and 9 to diarrhoea. Five fatal cases of measles and 4 of diarrhoea were recorded in Edinburgh. Three deaths from measles and 2 from diarrhoea occurred in Aberdeen; and 2 from diarrhoea in Dundee.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, June 16th, 565 births and 323 deaths were registered in six of the principal Irish towns, as against 477 births and 333 deaths in the preceding period. The annual death-rate in these towns, which had been 20.4, 18.1, and 17.8 per 1,000 in the three preceding weeks, rose to 19.9 per 1,000 in the week under notice, this figure being 7.0 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 16.4 in Dublin and Cork, to 21.4 in Waterford and 24.8 in Londonderry. The zymotic death-rate in the same six Irish towns averaged 1.4 per 1,000, or 0.1 per 1,000 higher than during the preceding period, the highest figure—5.0—being recorded in Londonderry, while Cork, Limerick, and Waterford registered no deaths under this heading at all.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

Fleet Surgeon D'Arcy Harvey, M.B., has been appointed to the *President*, lent to Deptford Yard, temporary, July 9th.

An examination for the rank of Staff Surgeon will be held at Haslar Hospital on July 16th.

ROYAL ARMY MEDICAL CORPS.

Major F. A. Saw, M.B., retires on retired pay, June 20th. He was appointed Surgeon, January 30th, 1886, and made Surgeon-Major twelve years thereafter. He served in South Africa in 1896 in medical charge of the Mashonaland Field Force (medal), and in Cape Colony during the war in 1899-1901. He is not, however, credited in the Army Lists with either medal or clasp for this latter service.

Colonel O. E. P. Lloyd, V.C., is appointed Principal Medical Officer, Jubbulpore and Jhansi Brigades, Western Command, India.

Colonel R. H. Forman, M.B., is appointed Principal Medical Officer, Bombay Brigade, Western Command, India.

Major J. R. McMunn has been appointed Staff Officer to the Principal Medical Officer, South Africa.

Captains W. A. Ward, G. J. S. Archer, M.B., E. McDonnell, M.B., P. J. Bodington, M.B., T. J. Crean, V.C., W. J. P. Adye-Curran, E. W. Siberry, N. J. C. Rutherford, M.B., and G. G. Delap, D.S.O., have been selected for the course of study at the Royal Army Medical College, commencing on August 1st.

Lieutenant C. G. Browne, from the Seconded List, to be Lieutenant, June 10th.

ARMY MEDICAL RESERVE.

Surgeon-Captain J. K. Tomory, M.D., having resigned his commission in the Volunteers, ceases to belong to the Army Medical Reserve, June 8th.

INDIAN MEDICAL SERVICE.

Lieutenant-Colonel J. W. T. Anderson, Bombay Establishment, is permitted to retire from the service from April 15th. He was appointed Assistant Surgeon, October 2nd, 1880, and was made Lieutenant-Colonel, October 2nd, 1900. He was with the Burmese expedition in 1886-7.

Lieutenant A. D. White, 8th (Lucknow) Division, has been appointed a Specialist in Operative Surgery.

Surgeon-General W. L. Gubbins, M.B., C.B., M.V.O., Army Medical Staff, now Principal Medical Officer, Eastern Command, India, will succeed Surgeon-General Sir T. J. Gallwey, M.D., K.C.M.G., C.B., as Principal Medical Officer in India Sir Thomas having been appointed Principal Medical Officer, Aldershot Army Corps.

Lieutenant-Colonel P. A. Weir, M.B., Bengal Establishment, has been promoted to be Colonel from October 26th, 1905. He entered the service as Assistant Surgeon, September 30th, 1875, and became Surgeon-Lieutenant-Colonel September 30th, 1895. He was in the Afghan war in 1879-80, receiving the medal for the campaign.

The undermentioned promotions, all of Bengal, and which have already been announced in the British Medical Journal, have received the approval of the King: Majors to be Lieutenant-Colonels: P. Hehir, M.D., L. J. Pisani, F.R.C.S., W. R. Edwards, C.M.G., M.D., C. MacTaggart, M.B., G. J. H. Bell, M.B., J. T. Daly, M.B., H. Fooks, E. Hudson, F.R.C.S., A. W. Dawson, M.D., W. H. B. Robinson, all dated April 1st, 1906. Captains to be Majors: G. Lamb, M.B., H. Burden, F.R.C.S., and C. H. Bowle-Evans, dated July 29th, 1905; J. Fisher, D.S.O., M.B., E. S. Peck, M.B., S. A. Harriss, M.B., E. C. MacLeod, C. Thomson, M.B., D. W. Sutherland, M.D., and W. Selby, F.R.C.S., dated January 29th, 1906. Particulars of their commissions and war services are to be found in the British Medical Journal of May 26th.

Lieutenant-Colonel K. A. Dalal, M.B., Bombay Establishment, has retired from the service, from January 3rd, 1906. He joined the department as an Assistant-Surgeon, March 31st, 1876, and was made Surgeon-Lieutenant-Colonel, March 31st, 1896.

Lieutenant-Colonel H. C. Banerji, Bengal Establishment, has also retired from the service, dated February 1st, 1906. His first commission bears date October 2nd, 1880; that of Lieutenant-Colonel, October 2nd, 1900. He was with the Burmese expedition in 1886-7 (medal with clasp), and with the Manipore expedition in 1891 (mentioned in dispatches, clasp).

Major J. O Pinto, Madras Establishment, has likewise retired, March 31st, 1906. He entered the service as Assistant-Surgeon, October 1st, 1887, becoming Major, October 1st, 1899. He served in the campaign on the North-West Frontier of India in 1897-8, including the operations on the Samana and in the Kurram Valley (medal with two clasps), and with the Tirah Expeditionary Force, being present at the actions of Chagra Kotal and Dargai (clasp).

ROYAL ARMY MEDICAL CORPS (MILITIA).

Captain (Honorary Captain in the Army) T. W. G. Kelly, M.D., resigns his commission, June 8th.

IMPERIAL YEOMANRY.

Surgeon-Major D. Harrison, Lancashire Hussars, is granted the honorary rank of Surgeon-Lieutenant-Colonel, June 8th.

VOLUNTEER RIFLES.

Seymour G. Barling to be Surgeon-Lieutenant in the 1st Volunteer Battalion the Royal Warwickshire Regiment, June 8th.

Surgeon-Lieutenant G. B. Robinson, M.D., 1st Volunteer Battalion the King's (Liverpool Regiment), to be Surgeon-Captain, June 8th.

Surgeon-Captain G. F. Morley, 3rd (Duke of Connaught's Own) Volunteer Battalion the Hampshire Regiment, resigns his commission, June 8th.

Surgeon-Captain R. E. Beveridge, M.B., 3rd (Sunderland) Volunteer Battalion the Durham Light Infantry, to be Surgeon-Major, June 8th.

Supernumerary-Surgeon-Captain (Honorary Lieutenant in the Army, Surgeon-Captain Army Medical Reserve) J. K. Tomory, M.D., 1st Sutherland (the Sutherland Highland) Volunteer Rifle Corps, resigns his commission, June 8th.

Surgeon-Captain F. S. Hogg, 20th Middlesex (Artists') Volunteer Rifle Corps, resigns his commission, retaining his rank and uniform, May 28th.

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

John A. Gibb to be Lieutenant in the Maidstone Companies, Eastern Command, June 2nd.

James K. Patrick, M.B., to be Lieutenant in the Glasgow Companies, Scottish Command, June 8th.

VOLUNTEER OFFICERS' DECORATION.

The Volunteer Officers' Decoration has been conferred upon the following officers: Surgeon-Major A. M Archer, M.D., 1st Cheshire Royal Garrison Artillery (Volunteers); Surgeon-Major and Honorary Surgeon-Lieutenant-Colonel M. J. Fox, 3rd Lancashire Royal Garrison Artillery (Volunteers); Honorary Assistant Surgeon D. Sloan, 2nd Volunteer Battalion the Royal Scots Fusiliers; Surgeon-Lieutenant-Colonel T. Philip, M.B., 1st (Renfrewshire) Volunteer Battalion Princess Louise's (Argyll and Sutherland) Highlanders.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BELFAST: PURDYSBURN FEVER HOSPITAL.—(1) Resident Medical Officer; (2) House-Physician. Salary, £150 and £125 per annum respectively.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—Assistant Physician.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—Junior House-Surgeon. Salary to commence. £70 per annum.

BURNLEY: VICTORIA HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

CAIRO: SCHOOL OF MEDICINE.—Professor of Midwifery and Gynaecology. Salary, £400 per annum.

CAIRO: KASR-EL-AINY HOSPITAL.—Medical Tutor and Registrar. Salary, £400 per annum.

CAMBRIDGESHIRE, Etc., ASYLUM, Fulham.—Senior Assistant Medical Officer. Salary, £50 per annum.

CARDIFF ASYLUM.—Medical Superintendent. Salary, £650, rising to £800 per annum.

CARDIFF: UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE.—Lecturer on Materia Medica and Pharmacology.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant to the Resident Medical Officer. Salary at the rate of £50 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House Physician. Honorarium, £25 for six months.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—(1) Radiographer; (2) Clinical Assistants. Salary, £50 per annum for (1).

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Male Assistant House-Surgeon. Salary, £60 per annum.

GLOUCESTER: GENERAL INFIRMARY AND THE GLOUCESTERSHIRE EYE INSTITUTION.—Assistant House-Surgeoncy. Remuneration at the rate of £30 per annum.

GRIMSBY AND DISTRICT HOSPITAL.—Resident House-Surgeon. Salary, £100 per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Resident House-Physicians. Honorarium, £25 each for six months.

HOSPITAL FOR DISEASES OF THE SKIN, Stamford Street, Blackfriars.—Clinical Assistants for Out-patients.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon. Salary, £20 for six months and £2 10s. washing allowance.

ITALIAN HOSPITAL, Queen Square, W.C.—Honorary Ophthalmic Surgeon.

LEICESTER INFIRMARY.—Refraction Assistant.

LONDON OPEN-AIR SANATORIUM, Pinewood.—Assistant Medical Officer. Salary, £100 per annum.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—Senior House-Surgeon, for three months. Salary, £40 per annum.

NORFOLK COUNTY ASYLUM, Thorpe, Norwich.—*Locum tenens* Assistant Medical Officer, for July and August, and probably September. Salary, 2 guineas per week.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £50 per annum.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Resident Medical Officer for Out-patient Department. Salary at the rate of £60 per annum.

RAMSGATE GENERAL HOSPITAL.—Male Resident Medical Officer. Salary, £100 per annum.

RYDE: ROYAL ISLE OF WIGHT HOSPITAL.—Honorary Ophthalmic Surgeon.

ROYAL EAR HOSPITAL, Dean Street, Soho, W.—Clinical Assistants.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, W.C.—Assistant Surgeon.

ST. MARYLEBONE GENERAL DISPENSARY, Welbeck Street, W.—Honorary Surgeon.

STOCKPORT INFIRMARY.—Junior Assistant House-Surgeon. Salary at the rate of £40 per annum.

WANDSWORTH UNION INFIRMARY, St. John's Hill.—Male Junior Assistant Medical Officer. Salary at the rate of £100 per annum.

WEST RIDING ASYLUM, Wadsley.—Fifth Assistant Medical Officer. Salary, £140, rising to £160.

WOLVERHAMPTON AND MIDLAND COUNTIES EYE INFIRMARY.—House-Surgeon. Salary, £70 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies in the office of Certifying Factory Surgeons in the following districts: Hatherleigh, co. Devon, Ayton, co. Berwick.

APPOINTMENTS.

BAKER, F. C. J., M.R.C.S., L.R.C.P., Assistant Medical Officer to the Workhouse and Infirmary of the Parish of Paddington.

BARFORD, A. M., M.D., D.P.H., L.R.C.P., M.R.C.S., Surgeon to the Throat and Ear Department, Portsmouth and South Hants Eye and Ear Infirmary.

BROWNLEE, Alexander, F.R.C.S.Edin., Honorary Anaesthetist to Cardiff Infirmary.

DURRAN, J. G., M.B., M.S.Edin., Medical Officer of Health, Eaton Bray Rural District.

FOWLER, Hope, M.B., Ch.B.Edin., Assistant Medical Electrician to the Edinburgh Royal Infirmary.

KITCHEN, H. E., B.A., M.R.C.S., L.R.C.P., House-Surgeon to the Tottenham Hospital, N.

LEWIS, A. C., M.R.C.S., L.R.C.P.Lond., District and Workhouse Medical Officer of the Rockford Union.

LOW, A. P., M.B., C.M.Edin., Honorary Assistant Surgeon to Dundee Royal Infirmary.

LYNE, D. J., L.R.C.P. and S.Edin., Certifying Factory Surgeon for the Castletown Berehaven District, co. Cork.

MCDONALD, J., M.B., C.M.Glas., Certifying Factory Surgeon for the Barking District, Essex.

M'DOWALL, Colin F. F., M.B., B.S., Assistant Medical Officer to the City Asylum, Newcastle-on-Tyne.

MCKEE, W. A., Resident Assistant Medical Officer, Birkenhead Union Workhouse.

MACMILLAN, J., M.D.Edin., Certifying Factory Surgeon for the Newburgh District, cos. Fife and Perth.

MAGILL, W., M.B.Edin., Second Assistant Medical Officer, Parish of Leicester Infirmary.

PEARSE, T. F., M.D., F.R.C.S., M.R.C.P., Acting Officer for seven months to the City of Calcutta.

PHILLIPS, Hubert C., M.R.C.S.Eng., L.S.A.Lond., Medical Officer to the South District of Paddington.

PHILLIPS, John, M.D., F.R.C.P., Consulting Physician to the British Lying-in Hospital, Endell Street, W.C.

TURNER, Dawson, M.D., F.R.C.P.Edin., Medical Electrician to the Edinburgh Royal Infirmary.

WHYTE, G. F., M.B., C.M.Edin., Honorary Assistant Surgeon to the Dundee Royal Infirmary.

YOUNG, H. G. K., M.R.C.S., L.R.C.P.Lond., Medical Officer of Health for the Braintree Rural District.

DIARY FOR THE WEEK.

MONDAY.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 20, Hanover Square, W., 8 p.m.—The President's Valedictory Address. Papers: (1) Mr. J. F. Colyer: On Some Odontomes in the Museum of the Society (illustrated with lantern slides). (2) Mr. F. Lawson Dodd: Some Notes on Oral Conditions in Relation to Tuberculosis.

TUESDAY.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W., at 8.30 p.m.—Mr. John D. Malcolm: Appendicitis and Gangrene of the Appendix considered as Separate Diseases. Dr. StClair Thomson: Submucous Excision of Deviations and Spurs of the Nasal Septum, with a report of 30 operations (with epidiascope demonstration).

POST-GRADUATE COURSES AND LECTURES.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.—Clinical Demonstrations in Medicine and Surgery 2.30 and 3.15 p.m. respectively on Monday, Tuesday, Wednesday, Thursday, and Friday; Throat and Ear, 4 p.m., Monday; Skin, 4 p.m., Tuesday; Ophthalmology, 4 p.m. Wednesday; Radiography, 4 p.m. Thursdays. Out-patient Demonstrations, Medical and Surgical, 10 a.m. daily. Throat and Ear, noon Monday and Thursday; Eye, 11 a.m. Wednesday. Skin, noon Friday. Operations, 2.30 p.m. daily.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, High Arterial Tension and some of its Consequences. Tuesday, Gynaecological. Wednesday, The Surgical Treatment of Cancer of the Stomach. Thursday, Purin Bodies and the Purinometer.

WEST LONDON HOSPITAL POST-GRADUATE COLLEGE, Hammersmith Road, W.—Daily, 2 p.m., Medical and Surgical Clinics; 2.15 p.m., *X* Rays; 2.30 p.m., Operations. Mondays and Thursdays, 2.30 p.m., Eyes. Tuesdays and Fridays, 2 p.m., and Wednesdays and Saturdays, 10 a.m., Throat, Nose, and Ear. Tuesdays and Fridays, 2.30 p.m., Skin. Wednesdays, 10 a.m., Diseases of Children. Lectures, 5 p.m., Monday and Tuesday, Diseases of Tonsils; Wednesday, Practical Medicine; Thursday, Practical Surgery; Friday, Diseases of the Cornea.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 8s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

BALFOUR.—At Craigellen, Carr Bridge, on June 18th, the wife of Archibald Craig Balfour, L.R.C.P. and S.E., L.F.P. and S.G., of a daughter.

BURNET.—At Beechknowe, Crieff, N.B., on the 16th inst., the wife of Morton Burnet, M.D.Edin., of a son.

SAW.—On the 15th June, at 27, Junction Road, Southsea, the wife of Major F. A. Saw, R.A.M.C., of a daughter.

TURNER.—On the 17th inst., at The Chestnuts, Oundle, Northants, the wife of B. Roworth Turner, M.B., B C.Cantab., of a son.

MARRIAGES.

ANDERSON—GRAY.—At the Roxburghe Hotel, Edinburgh, on the 19th inst., by the Rev. K. C. Anderson, D.D., Dundee (father of the bridegroom), assisted by the Rev. R. S. Simpson, High U. F. Church, George Cranston Anderson, M.B., Ch.B., to Elizabeth Alexa, younger daughter of the late Alexander Hay Gray and Mrs. Gray, 38, Chalmers Street, Edinburgh. At home, Denbeith, nr. Methil, 26th and 27th September.

BARTON-POOLE.—On June 19th, 1906, at St. Anne's Church, Tottington, by the Rev. Henry Reeder, John Barton, M.R.C.S.Eng., L.R.C.P. Lond., only son of John Barton, of Blackburn, late of Ince, Wigan, to Gertrude Mary, younger daughter of Thomas Poole of Tottington, Bury.

BILLINGTON—COOKE.—On June 13th, at the Church of the Redeemer, Hagley Road, Birmingham, by the Rev. J. M. Gwynne Owen, William Billington, M.B., M.S.Lond., F.R.C.S., of 9, Easy Row, Birmingham, to Winifred Mary Cooke, daughter of S. N. Cooke, Esq., of Holte Croft, Harborne Road, Edgbaston, Birmingham.

JOHNSON—BOLTON.—On June 14th, at St. James Church, Hope, by the Rev. H. S. Taggart, M.A., and Rev. R. P. Willock, M.A. (Vicar), William Crosby Johnson, M.B., Ch.B., only son of Thomas Mason Johnson, M.D., J.P., Oakfield, Pendleton, to Florence Lucy, younger daughter of J. J. Bolton, Esq., J.P., Heathfield, Lancaster Road, Pendleton. At home, Fairleigh, Hope Avenue, during September.

ROBINSON—MARTIN.—On 19th June, at the Parish Church, Littleport, by the Rev. Henry Martin, B.A., Vicar of Cookes, Sheffield, assisted by the Rev. W. W. Martin, M.A., Vicar of Trinity, Derby, brothers of the bride, and the Rev. F. H. Gibson, M.A., Vicar of St. Paul's, Penzance, G. Drummond Robinson, M.D., of 17, Seymour Street, Portman Square, London, to Constance Evelyn, youngest daughter of Joseph Martin, Esq., J.P., of Highfield House, Littleport, Isle of Ely.

DEATHS.

TAYLOR.—On Monday, June 18th, at Silverton, Llandaff, Sarah Ann, the beloved wife of William Taylor, M.D., J.P.

VERLEY.—On May 29th at 28, Hampton Place, Brighton, Reginald Louis Verley, M.R.C.S., F.R.C.P.Edin., in his 56th year.

BOOKS, ETC., RECEIVED.

London: H. K. Lewis. 1906:

The Combined Treatment in Diseases of the Eye. By G. H. Burnham, M.D., F.R.C.S., M.R.C.S. 3s.

Clinical Bacteriology and Haematology for Practitioners. By W. D'Este Emery, M.D., B.Sc. Second edition of "A Handbook of Bacteriological Diagnosis for Practitioners." 7s. 6d.

Catarrhal Fevers commonly called Colds; Their Causes, Consequences, Control, and Cure. By R. P. White, M.D., M.R.C.S. 4s.

Milano: Ulrico Hoepli. 1906:

Prontuario di Posologia dei Rimedi più usati nella Terapia Infantile. Por Dott. A. Conelli. L. 2.

Pneumonite Crupale con speciale riguardo alla sua cura. Por Dott. A. Serafini. L. 2.50.

I principi Fondamentali della Antropologia Criminale. Par Dott. G. Antonini. L.2.

***** In forwarding books the publishers are requested to state the selling price.**

CALENDAR OF THE ASSOCIATION.

Date.	Meetings to be Held.
JUNE.	
22 FRIDAY ……	LONDON: Central Ethical Committee, 2 p.m.
23 SATURDAY…	
24 **Sunday** ………	
25 MONDAY ……	
26 TUESDAY……	AYLESBURY DIVISION, *South Midland Branch*, Board Room, Royal Bucks Hospital, 2.30 p.m. CENTRAL DIVISION, *Birmingham Branch*, Annual Meeting, Medical Institute, 4 p.m. EAST ANGLIAN BRANCH, Annual Meeting, Palace Hotel, Southend-on-Sea; Council, 12.30 p.m.; General Meeting, 12.45 p.m.
27 WEDNESDAY	LONDON: Journal and Finance Committee, 2.30 p.m. EAST LEINSTER DIVISION, *Leinster Branch*, Annual Meeting, Royal College of Physicians, Dublin, 5 p.m. KENSINGTON DIVISION, *Metropolitan Counties Branch*, Annual Meeting, Kensington Town Hall, 5 p.m. NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH, Annual Meeting, Friends' Hall, Lancaster, 3.45 p.m. ST. HELEN'S DIVISION, *Lancashire and Cheshire Branch*, Y.M.C.A. Buildings, North Road, St. Helen's, 8.15 p m. SOUTH-EASTERN BRANCH, Annual Meeting, Crystal Palace, 2.15 p.m.; Dinner, 6.15 for 6 30.
28 THURSDAY…	STAFFORDSHIRE BRANCH, Annual Meeting, North-Western Hotel, Stafford, 5.15 p.m.; Dinner, 7 p.m. WANDSWORTH DIVISION, *Metropolitan Counties Branch*, Battersea Town Hall, 4 p.m.
JUNE *(continued).*	
29 FRIDAY ……	BORDER COUNTIES BRANCH, Annual Meeting, County Hotel, Carlisle. DOVER DIVISION, *South-Eastern Branch*, Annual Meeting, Grand Hotel, Dover, 8.30 p.m. EDINBURGH BRANCH, Annual Meeting, Hall of Royal College of Physicians, 4.15 p.m.
30 SATURDAY…	LANCASHIRE AND CHESHIRE BRANCH, Annual Meeting, Blackpool.
JULY.	
1 **Sunday** ……	
2 MONDAY ……	BATH AND TROWBRIDGE DIVISIONS, *Bath and Bristol Branch*, Combined Meeting, Royal United Hospital, 6 p.m. DUDLEY AND BROMSGROVE AND WEST BROMWICH DIVISIONS, *Birmingham Branch*, Conjoint Meeting, Medical Institute, Birmingham; followed by Annual Meeting of West Bromwich Division.
3 TUESDAY……	
4 WEDNESDAY	CENTRAL COUNCIL, 2 p.m. WEST NORFOLK DIVISION, *East Anglian Branch*, Annual Meeting, Swaffham, 3 p.m.
5 THURSDAY…	
6 FRIDAY ……	
7 SATURDAY…	OXFORD AND READING BRANCH, Annual Meeting, Library of the Royal Berkshire Hospital, 5 p.m.; Dinner, Queen's Hotel, Reading, 7 p.m.
8 **Sunday** ……	
9 MONDAY ……	
10 TUESDAY……	
11 WEDNESDAY	DORSET AND WEST HANTS BRANCH, Abbotsbury.

MEMBERSHIP OF THE BRITISH MEDICAL ASSOCIATION.

THE British Medical Association exists for the promotion of medical and the allied sciences, and the maintenance of the honour and the interests of the medical profession.

The Annual Subscription to the British Medical Association is £1 5s. 0d., and the BRITISH MEDICAL JOURNAL supplied weekly, post free, to every member of the British Medical Association wherever he may reside.

Forms of application for membership can be obtained from the General Secretary, 429, Strand, London, W.C.

The principal rules governing the election of a medical practitioner to be a member of the British Medical Association are as follow:

Article III.—Any Medical Practitioner registered in the United Kingdom under the Medical Acts and any Medical Practitioner residing within the area of any Branch of the Association situate in any part of the British Empire other than the United Kingdom, who is so registered or possesses such medical qualifications as shall, subject to the Regulations, be prescribed by the Rules of the said Branch, shall be eligible as a Member of the Association. The mode and conditions of election to Membership shall from time to time be determined by or in accordance with the By-laws. Every Member, whether one of the existing Members or a subsequently-elected Member, shall remain a Member until he ceases to be a Member in accordance with the provisions hereof.

By-law 1.—Every Candidate for Membership of the Association shall apply for election in writing, addressed to the Association, and stating his agreement, if elected, to abide by the Regulations and By-laws of the Association, and the Rules of such Division and Branch to which he may at any time belong, and to pay his subscription for the current year.

By-law 2.—Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the General Secretary of the Association, and to every Member of the Branch Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a member of the Association by the Branch Council at any meeting thereof held not less than seven days (or such longer period as the Branch may by its Rules prescribe) after the date of the said Notice. A Branch may by special Resolution require that each candidate for election to the Association shall furnish a certificate from two Members of the Association to whom he is personally known. Officers of the Navy, Army, and Indian Medical Services on the Active List are eligible for election through the Council or a Branch without approving signatures as laid down in By-law 3.

By-law 3.—Every candidate whose place of residence is not included in the area of any Branch shall forward his Application to the General Secretary of the Association, together with a statement signed by three members of the Association, that from personal knowledge they consider him a suitable person for election. Notice of the proposed election shall be sent by the General Secretary to every Member of the Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a Member of the Association by the Council at any meeting thereof held not less than one month after the date of the said notice.

The annual subscription to the BRITISH MEDICAL JOURNAL for non-members is £1 8s. 0d. for the United Kingdom and £1 12s. 6d. for abroad.

Printed and published by the British Medical Association at their Office, No. 429 Strand in the Parish of St Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 30TH, 1906.

CONTENTS.

PAGE
PROCEEDINGS OF COUNCIL 349
MEETINGS OF BRANCHES AND DIVISIONS :
Lancashire and Cheshire Branch : Altrincham Division ... 351
" " " " Liverpool (Bootle) Division.. 351
" " " " Liverpool (Central) Division 351
" " " " St. Helen's and Warrington Divisions 352
Metropolitan Counties Branch : Stratford Division 352
" " " Westminster Division ... 352
Southern Branch : Southampton Division 352
" " Winchester Division 352
PAGE
ASSOCIATION NOTICES.—Branch and Division Meetings to be Held 353
NAVAL AND MILITARY APPOINTMENTS 354
VITAL STATISTICS 354
VACANCIES AND APPOINTMENTS 354
BIRTHS, MARRIAGES, AND DEATHS 355
DIARY FOR THE WEEK 355
BOOKS, Etc., RECEIVED 355
CALENDAR 356
INDEX TO "SUPPLEMENT" FOR VOLUME I, 1906 357

ASSOCIATION INTELLIGENCE.

PROCEEDINGS OF COUNCIL.

At a special meeting of the Council held, by kind permission of the Metropolitan Asylums Board, London, in their Board Room, on Wednesday, June 20th, 1906, at 2 o'clock in the afternoon.

Present:

Dr. H. W. Langley Browne, Chairman of Council, in the Chair.

G. C. Franklin, F.R.C.S., Leicester, President.

Dr. H. Radcliffe Crocker, Treasurer.

Dr. John Ford Anderson, London.
Dr. J. Brassey Brierley, Old Trafford.
Colonel David Bruce, C.B., F.R.S. (Cape of Good Hope Eastern and Western Provinces Branches), London.
Dr. W. A. Carline, Lincoln.
Mr. Andrew Clark, London.
Mr. E. J. Domville, Exeter.
Mr. George Eastes, M.B., London.
Dr. E. Lawrence Fox, Plymouth.
Dr. Bruce Goff, Bothwell.
Dr. David Goyder, Bradford.
Dr. T. D. Griffiths, Swansea.
Dr. J. Groves, Carisbrooke.
Dr. James Hamilton, Glasgow.
Dr. T. Arthur Helme, Manchester.
Dr. R. McKenzie Johnston, Edinburgh.
Mr. R. H. Kinsey, Bedford.
Dr. C. H. Milburn, Hull.
Mr. Edmund Owen, F.R.C.S., London.
Mr. C. H. W. Parkinson, Wimborne Minster.
Dr. Frank M. Pope, Leicester.
Dr. Edwin Rayner, Stockport.
Dr. J. Maxwell Ross, Dumfries.
Dr. Cecil E. Shaw, Belfast.
Dr. E. Markham Skerritt, Clifton, Bristol.
Mr. C. R. Straton, Salisbury.
Mr. J. Lynn Thomas, C.B., Cardiff.
Mr. T. Jenner Verrall, Brighton.

Read letters of apology for non-attendance from the Chairman of Representative Meetings, Dr. Edgar Barnes, Dr. R. C. Buist, Dr. James Craig, Professor Finlay, Dr. J. H. Galton, Dr. J. J. Giusani, Dr. C. G. Gooding, Dr. C. G. D. Morier, Dr. James Murray, Professor Saundby, Dr. Norman Walker, Dr. A. T. Wear, Lieutenant-Colonel E. M. Wilson, C.B., C.M.G.

The Chairman of Council reported the resignation of Fleet Surgeon J. Lloyd Thomas, R.N., the representative of the Royal Navy Medical Service.

Resolved: That the resignation be received with regret.

Resolved: That the question of appointing a representative of the Royal Navy Medical Service, under By-law 22, be considered at a subsequent meeting of the Council.

The Council then proceeded to a general discussion as to the provisions of the Charter.

The Council decided that a prefatory note should be inserted to the effect that the report prepared by the Organization Committee is the Report of that Committee, and not a report of the Council.

On the motion of the Chairman of Council, seconded by Mr. Verrall, it was

Resolved: That the Council go into Committee for the purpose of considering the draft Charter.

The draft Charter was then considered clause by clause (*vide* Supplement, March 24th, 1906).

The Chairman reported that all resolutions would become amendments to the Charter, and, as such, presented to the Representative Meeting.

Charter—*Clause* 1.

Moved by Mr. Verrall, seconded by Mr. Straton, and

Resolved: That in Clause 1, after the words "Our United Kingdom of Great Britain and Ireland," the following words be inserted, "or in any part of our Dominions."

Moved by Mr. Parkinson, seconded by Dr. Groves,

That the Association be designated the "Royal British Medical Association."

After discussion, and with the consent of the meeting, the amendment was withdrawn.

Clause 2.

Moved by Dr. Helme, seconded by Dr. Bruce Goff, and

Resolved: That in Clause 2 (2) (v) the following words be deleted: "and may promote the candidature of any member of the Association for Parliament or for any British Legislative Assembly."

Moved by Dr. Helme, seconded by Dr. Groves,

That Clause 2 (2) (vi) be deleted.

After discussion, and with the consent of the meeting, the amendment was withdrawn.

Moved by Dr. Pope, seconded by Mr. Eastes:

That Clause 2 (2) (vii) be deleted.

The amendment having been put from the Chair was declared to be lost.

In regard to Clause 2 (2) (viii), the Solicitor was instructed to extend its verbiage to include families of deceased members of the Association and the Office Staff Superannuation Fund.

Resolved: That in Clause 2 (2) (ix), after the words "interests of the," the following words be inserted, "Association or of the."

Clause 7.

Moved by Dr. Pope, seconded by Dr. Carline,

That in Clause 7, first line, the words "and affairs" be deleted.

The amendment having been put from the Chair was declared carried, 18—7.

Moved by Dr. Helme, seconded by Dr. Brassey Brierley, and

Resolved: That where reference is made to "Representative Body" it be altered to "Representative Meeting" throughout the whole Charter.

Moved by Dr. Pope, seconded by Dr. Helme,

That the latter part of Clause 7 be amended to read: "The Representative Meeting shall meet not less than four times a year."

The amendment having been put from the Chair was declared to be lost.

Clause 8.

Moved by Mr. Straton, seconded by Mr. Parkinson,

That in Clause 8, line 2, after the words "which shall," the following words be inserted: "at their discretion."

The amendment having been put from the Chair was declared to be carried, on a show of hands, by 15—9.

Upon a demand for the names For and Against being taken, the following names were recorded as taking part in the division:

For—	*Against—*
The President	The Treasurer
Dr. J. Brassey Brierley	Dr. J. Ford Anderson
Dr. W. A. Carline	Colonel David Bruce
Dr. E. Lawrence Fox	Mr. Andrew Clark
Dr. Bruce Goff	Mr. E. J. Domville
Dr. D. Goyder	Mr. George Eastes
Dr. T. D. Griffiths	Mr. R. H. Kinsey
Dr. J. Groves	Dr. Cecil E. Shaw
Dr. James Hamilton	Dr. E. Markham Skerritt
Dr. T. Arthur Helme	Mr. John Lynn Thomas
Dr. R. McKenzie Johnston	Mr. T. Jenner Verrall
Mr. C. H. W. Parkinson	
Dr. F. M. Pope	
Dr. J. Maxwell Ross	
Mr. C. R. Straton	

Resolved: That in Clause 8, line 4, after the word "and," the following be inserted: "generally conduct and administer."

Clause 9.

Moved by Mr. Parkinson, seconded by Dr. Groves,

That in Clause 9 (1) (i) the words "Subject or not subject to the consent of the Council or other restrictions" be omitted.

After discussion, and with the consent of the meeting, the amendment was withdrawn.

Clause 12.

Moved by Dr. Brassey Brierley, seconded by Mr. Parkinson,

That in Clause 12 the word "three-fourths" be substituted for "two-thirds."

The amendment having been put from the Chair was declared to be carried, 14—10.

The Council then proceded to the consideration of the Ordinances (*vide* Supplement, March 24th, 1906).

Ordinances.—*Clause* 5.

Moved by Dr. Milburn, seconded by the President,

That under Subscription in Clause 5 the words "1½ guineas" be substituted for the words "sixty shillings."

The amendment having been put from the Chair was declared to be lost.

Moved by Dr. Markham Skerritt, seconded by Dr. Fox,

That the words "not exceeding sixty shillings per annum" be deleted.

The amendment having been put from the Chair was declared to be lost, 10—11.

Moved by Dr. Brassey Brierley, seconded by Mr. Eastes,

That the words "two guineas" be substituted for the words "sixty shillings."

The amendment having been put from the Chair was declared to be lost, 9—10.

Moved by Dr. Helme, seconded by Dr. Milburn,

That the amount of subscription be limited to the same figure as that provided for in Article VII under the existing regulations, namely, 30s., instead of the "sixty shillings" specified in Clause 5 of the Ordinance.

The amendment having been put from the Chair was declared to be lost, 8—14.

Clause 9.

Moved by Dr. Ford Anderson, seconded by Mr. Eastes,

That in Clause 9 (*c*) the word "British" be inserted before the words "Court of Justice."

The amendment having been put from the Chair was declared to be lost, 8—9.

Clause 10.

Moved by Mr. Eastes, seconded by Mr. Domville, and

Resolved: That in Clause 10 (*b*), line 5, the word "twenty-eight" be substituted for the word "fourteen."

Clause 14.

Moved by Mr. Domville, seconded by Dr. Brassey Brierley,

That in Clause 14, last line, after the words "to take part," be inserted the words "and vote."

The amendment having been put from the Chair was declared to be carried, 12—5.

Clause 15.

Moved by Mr. Domville, seconded by Dr. Brassey Brierley,

That in Clause 15, after the word "Divisions," the following words be inserted: "and members of Council."

The amendment having been put from the Chair, the same was declared to be carried, 8—5.

Clause 16.

In regard to Clause 16 (6), upon an explanation by the Chairman of the Organization Committee that separate legislation would be subsequently given to the Colonial Branches, an amendment was moved by Mr. Parkinson and carried, 10—4, that the Subclause read as follows:

> "In the case of a constituency formed within the United Kingdom, the Representative shall be elected by a general meeting of the members of the constituency, held not more than three months, nor less than three weeks, before the Annual Representative Meeting, or by voting papers sent to each member of the constituency, as the said constituency may decide."

Clause 17.

Moved by Dr. Pope, seconded by Dr. Carline,

That Clause 17 be amended by the deletion of the words "affects the funds of the Association or" and the addition of the following words:

> "but no resolution involving the expenditure of money shall be binding on the Council unless it has been presented by the Council or by the Finance Committee."

The amendment having been put from the Chair was declared to be carried, 13—2.

An amendment was moved, seconded, and carried,

That in Clause 17 (2), line 6, after the word "Council" the following words be substituted, "by a Branch."

An amendment was moved, seconded, and carried,

That in Clause 17 (3), Subclauses (*a*) and (*e*), the words "three calendar months," be substituted for the words "twenty-eight days."

Clause 19.

Moved by Dr. Milburn, seconded by Dr. Helme,

That in Section vi, Clause 19, provision be made to add a Representative of the Volunteer Medical Service on the Central Council.

The amendment having been put from the Chair was declared to be lost.

An amendment was moved, seconded, and carried:

> That in Clause 19, in the last line but one, after the words "Medical Officer," the following words be inserted: "shall be a member of the Association and."

Clause 21.

Resolved: That Clause 21, last line but three, be amended by the insertion of the words "for that period" between the words "and any."

Clause 22.

Resolved: That a fresh clause be inserted after Clause 21, and numbered Clause 22, to read as follows:

> "There shall be an Editor, a General Secretary and Manager, a Medical Secretary, and such other officers as the Council may from time to time appoint."

Resolved: That existing Clause 22 be renumbered 23.

Notice of Motion.

Dr. HELME gave notice that he would move at the next meeting of the Council:

> That while not expressing any opinion unfavourable to the application for a Royal Charter, this Council is of opinion that further and fuller consideration of the whole question is requested, and strongly recommends the Representative Meeting to delay the application so as to give the Association as a whole longer time to appreciate and consider the many important matters involved in drafting a thoroughly comprehensive and permanent form of Charter.

The CHAIRMAN OF COUNCIL undertook that this notice of motion should take precedence over the Reports of Committees on the Agenda Paper for July 4th.

Meetings of Branches & Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

LANCASHIRE AND CHESHIRE BRANCH:

ALTRINCHAM DIVISION.

THE annual meeting was held at Altrincham on Thursday, June 21st, Dr. LUCKMAN, and afterwards Dr. COOPER, presiding. There was a large and representative attendance, including visitors from two other Divisions.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Election of Officers.—The following gentlemen were elected officers for the ensuing year:—*Chairman*, Dr. P. R. Cooper. *Vice-Chairman*, Dr. G. H. Smith; *Representative at Representative Meeting*, Dr. Charles J. Renshaw; *Representatives on Branch Council*, Drs. Garstang and Luckman; *Honorary Secretary and Treasurer*, Dr. Garstang; *Assistant Secretary*, Dr. Adolphe Renshaw; *Additional Members of Executive Committee*, Drs. R. J. Browne, Cox, Owen Jones, Ransome, Basil Rhodes, and Surridge.

Branch Council Memorandum on Association Finances.—The following resolution was unanimously passed:

> That this Division instructs its Representatives to oppose the financial policy of the Branch Council as expressed in the memorandum recently issued; and authorizes the Committee to approach other Divisions with a view to joint action.

The memorandum was characterized by one speaker as "a campaign of unreason carried on by methods of misrepresentation," and this appeared to be the general opinion of the meeting.

Alteration of Rules.—Several small amendments in the rules were agreed to, and ordered to be submitted for confirmation to the Central Council.

Associate Members.—The following were elected: Drs. Coutts (Blackpool), Greenwood (Blackburn), Nash Accrington), and Wynne (Leigh).

Sanatorium Treatment of Phthisis.—Dr. BRIAN MELLAND resumed the reading of his paper on the Sanatorium Treatment of Phthisis, which had been interrupted at a former meeting. He showed that the disease was not peculiar to any particular climate, and in an exhaustive description of the methods of treatment adopted in sanatoriums, specified six headings for consideration: (1) Open air life, (2) removal from home, relations, etc., (3) nutrition, (4) antifebrile treatment, (5) convalescence, (6) precautions against infection.—Dr. HUTTON, in course of the discussion, gave an eloquent and interesting address, drawing attention to the value of drugs as adjuvants (though not cures); to the remarkable cessation of night sweats on adopting open-air treatment; to the great value of sanatoriums, if only from the training they give the individual patients, teaching them *inter alia* that they can live without alcohol; the value of rest; the nature of food to be taken; and the importance of dealing with their sputum.—Dr. BASIL RHODES advocated the provision of hospitals, more in number and simpler in design, and smaller and less costly than the recently-erected sanatoriums.—Drs. COOPER and LUCKMAN also spoke; and Drs. MELLAND and HUTTON replied.

Hospital.—A visit of inspection was then paid to the Altrincham Hospital.

Dinner.—Subsequent to the meeting a number of the members and guests dined together.

LIVERPOOL (BOOTLE) DIVISION.

THE annual meeting of this Division was held at the Masonic Hall, Bootle, on Wednesday, May 30th.

Balance Sheet.—The balance sheet was submitted by the SECRETARY, and considered satisfactory.

Office-bearers.—The following changes among the office-bearers have been made: *Chairman*, B. Sumner, M.D.; *Vice-Chairman*, J. Dunn, Esq. H. Waters, M.B., was elected a member of the *Executive Committee*, *vice* M. Dickson, M.D., now in the Northern Division. *Representative at the Annual Meeting*, Joseph Walker.

Candidates for General Medical Council.—It was resolved to support, as far as possible, local candidates for the General Medical Council.

Members and the Work of the Division.—A feeling was expressed by several members that many absentees might take a little more interest in the work of the Division, and thereby help the interests of the profession in general. Several members who take a great interest in local politics and devote much time to other public business, would no doubt be welcomed to take part in the work that falls upon a very few regular attenders.

LIVERPOOL (CENTRAL) DIVISION.

THE annual meeting of this Division was held on June 21st, Dr. T. DRAKE LEIGH, Chairman, presiding.

Election of Officers.—The following officers were elected: *Chairman*, Mr. George P. Newbolt; *Vice-Chairman*, Dr. A. Gordon Gullan; *Secretary*, Dr. Frank H. Barendt; *Members of the Executive Committee*, Drs. Hubert Armstrong, Francis W. Bailey, William Fingland, T. Drake Leigh, and William E. Livsey; *Representatives on the Branch Council*, Mr. George P. Newbolt and Dr. Frank H. Barendt; *Representative of the Division in Representative Meetings*, Dr. Francis W. Bailey.

Annual Report.—The annual report, which alluded *inter alia* to the success of the dinner of the United Liverpool and District Divisions, at which the Medical Secretary, Mr. J. Smith Whitaker, delivered an instructive address, was unanimously adopted.

Financial Position of the Association.—The financial position of the Association was discussed, chiefly as regards the increased expenditure. It was resolved that the publication of the *Year Book* should be recommended to be discontinued, and that, as the SUPPLEMENTS contained a full record of the proceedings of the Representative Meeting, the volume of the minutes published separately was unnecessary and therefore a needless expense.

Vote of Thanks.—A vote of thanks was passed to the retiring Chairman, Dr. T. Drake Leigh, for his services, and also to the Secretary, whose labours were thoroughly appreciated.

St. Helen's and Warrington Divisions.

A joint meeting of the St. Helen's and Warrington Divisions was held in the Infirmary, Warrington, on May 29th.

Representative on Branch Council.—Dr. Bowden (Warrington) was again unanimously elected representative on the Branch Council for the two Divisions of Warrington and St. Helen's. Dr. Bowden had previously written the Secretary regretting his inability to be present owing to a previous engagement.

Annual Representative Meeting.—The business of the general meeting was thoroughly discussed, and instructions noted by the Secretary for Dr. Bowden.

Warrington Division.

Afterwards the annual meeting of the Warrington Division was held.

Election of Officers.—Dr. Burrowes was elected President for the ensuing year, Dr. Joseph Vice-President, Mr. O. H. Edwards again consenting to be Secretary, but very much deploring the poor response to the quarterly circulars in the matter of attendance. There was not a single representative of the profession present at the annual meeting from Warrington.

METROPOLITAN COUNTIES BRANCH:

Stratford Division.

The annual meeting of this Division was held in the Alexandra Hotel, High Street, Stratford, on Thursday, June 14th, Dr. Stocker in the chair.

Meetings.—On the motion of Dr. Black, it was decided that two of the meetings of the Division should be held each year in the Tower Hamlets district.

Election of Office-bearers.—The meeting proceeded to elect office-bearers for the year, with the following result: *Chairman*, Dr. E. B. Hastings; *Vice-Chairman*, Dr. C. J. Stocker; *Honorary Secretary*, Dr. P. J. S. Nicoll; *Honorary Assistant Secretary*, Dr. G. A. Troup, 2, Romford Road, Stratford; *Representative at Annual Representative Meeting*, Dr. Percy Rose; *Representative on Branch Council*, Dr. W. A. Grogono; *Members of Executive Committee*, Dr. Beadles, Dr. Black, Dr. R. H. Collins, Dr. A. Corner, Dr. A. J. Couzens, Dr. Dale, Dr. Frederick, Dr. Hay.

Westminster Division.

The annual meeting of this Division was held at 20, Hanover Square, on Wednesday, June 20th, at 9 p.m. Mr. J. Bland-Sutton occupied the chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Election of Officers.—The meeting then proceeded to elect the officers for the coming year, with the following result: *Chairman:* Dr. Haslip. *Vice-Chairman:* Dr. Knowsley Sibley. *Honorary Secretary and Treasurer:* Dr. McCann. *Representatives on the Branch Council:* Dr. Ewart, Dr. Haslip, Dr. McCann, and Dr. Sibley. *Members of the Executive Committee:* Dr. Baynes, Mr. Bland-Sutton, Dr. Cautley, Dr. Dauber, Dr. de Castro, Dr. des Voeux, Mr. Durham, Dr. Ewart, Mr. Hilliard, Mr. E. Lloyd-Williams, Dr. Longhurst, Dr. O'Connor, Dr. Bruce Porter, and Dr. Hugh Woods. *Representative for the Representative Meeting of the Association:* Dr. William Ewart.

Report of Executive Committee.—The annual report of the Executive Committee was read and adopted, and the business of the Annual Representative Meeting was considered in detail.

Annual Representative Meeting.—The Division gave definite instructions on most of the points which were to be brought forward at the meeting. Some were, however, left to the discretion of their Representative.

Proposed Royal Charter.—A general discussion then took place as to the proposed application for a Royal Charter, in which most of the members present took part. The following resolution was eventually proposed by Dr. Dauber and seconded by Dr. Cautley:

> That a Royal Charter would be detrimental to the best interests of the British Medical Association, and this Division opposes the application.

This was put to the meeting and carried with one dissentient.

Vote of Thanks to Retiring Chairman.—Dr. Dauber proposed, and Dr. Longhurst seconded, a very hearty vote of thanks to the retiring Chairman, which was carried by acclamation. There being no other business, the meeting then adjourned.

SOUTHERN BRANCH:

Southampton Division.

The annual meeting of the Southampton Division was held on Friday, June 8th, at 3.30 p.m., at the Lesser Philharmonic Hall. Colonel MacLeod was voted to the chair.

Letter.—Dr. Gwillim sent an apology for absence.

Confirmation of Minutes.—The minutes of the last annual meeting were read and signed as correct. The resignation by Dr. Wade of the position of Honorary Secretary was received with regret. He was accorded a hearty vote of thanks for his past services, and this resolution was ordered to be entered in the minutes.

Election of Officers.—Drs. Purvis and May were appointed scrutineers. On the votes being counted, the following were unanimously elected:—*Chairman:* Dr. Simmonds. *Vice-Chairman:* Dr. Aldridge. *Honorary Secretary:* Dr. MacKeith. The following were elected as representatives on the Branch Council: Dr. Bullar, Colonel MacLeod, and Dr. Wade. The following were elected as members of the Executive Committee: Drs. Chinery, Gwillim, E. S. Hall, May, and Rogers. Dr. Simmonds, having been elected, now took the chair. In conjunction with the two Channel Island Divisions, Dr. Easton was elected as Representative to the Representative Meeting, Dr. Hughes as deputy Representative.

Annual Representative Meeting.—The Representative was instructed to vote for Dr. Bullar as one of the Direct Representatives to the General Medical Council. He was instructed to vote against the reform of the income tax being taken up by the British Medical Association, as it was felt that the Association had already enough work in hand to occupy all its energies. In reference to other matters the Representative was left with a free hand.

Report of Executive Committee.—The annual report of the Executive Committee was received and adopted. On the report of the Committee on the formation of sections being presented the matter was postponed for twelve months.

Provident Dispensaries.—With regard to provident dispensaries and provident medical services, the Division at its meeting last October agreed to support the recommendations of the Medico-Political Committee.

Matters Referred to Divisions.—The Division had no suggestions to offer on the following: Report of the Science Co-ordination Committee, ambulance work, formation of Division libraries, formation of sections for clinical and pathological work.

Division and Branch Finance.—The inquiry as to the present system of Division and Branch finance was referred to the Executive Committee for consideration and report.

Out-patient Departments.—It was resolved with regard to the hospital out-patient department:

> That in the opinion of this Division there should be no out-patient department in hospitals except for consultation and casualties.

Registration of Nurses.—On this subject it was resolved:

> (1) That this Division approves in general of the method of registration of nurses proposed by the Select Committee of the House of Commons, and (2) that this Division approves of the separate registration of midwifery nurses.

Proposed Royal Charter.—The application for a Royal Charter and the annual report of the Council were considered, but these matters were left to the Representative.

Winchester Division.

The annual meeting of this Division was held at the Royal Hants County Hospital, Winchester, on Thursday, May 31st, at 3.30 p.m.

Confirmation of Minutes.—The minutes of the last meeting and of the special meeting were read and confirmed.

Election of Officers.—The following officers were elected for the ensuing year: *Chairman of the Division*, F. W. Jollye, M.D., F.R.C.S. (Alresford); *Vice-Chairman*, W. A. S. Royds (Andover); *Honorary Secretary and Treasurer*, H. J. Godwin, M.B., F.R.C.S., 35, Southgate Street, Winchester; *Representative at Representative Meetings*, H. J. Godwin, M.B., F.R.C.S.; *Representatives on Branch Council*, W. A. S. Royds, J. L. Livingstone, M.D., J. C. Hoyle, M.B.; *Six*

Members of the Executive Committee, F. J. Child, M.D. (Winchester), G. F. A. England, M.D. (Winchester), W. M. Harman, M.D. (Winchester), H. A. Ahrens (Basingstoke), J. F. Briscoe (Alton), Thomas Wright, M.B. (Aldershot).

Annual Meeting of Branch in 1907.—The following resolution from the Executive Committee was passed unanimously:

> That this Division has great pleasure in inviting the Southern Branch of the British Medical Association to hold the annual meeting of the Branch for 1907 in Winchester, and that Dr. Fuller England be nominated for the post of President-elect.

Proposed Alteration of Rule.—Mr. Godwin (Winchester) moved that an alteration be made in Rule 9:

> That the other members of the Executive Committee shall be six in number.

This was seconded by Dr. Hoyle, and carried unanimously.

Matters referred to Divisions.—Matters referred to Divisions were discussed and voted on as follows: (Supplement, February 10th) "Title Dr.," negatived; "declaration" deemed unnecessary; "alterations," resolved that we have every confidence in the judgement of the Central Council. (Supplement, February 17th) Hospital outpatient departments, all in favour of "the question." (Supplement, February 24th) Grants to Divisions: (1) amendment of by-law, and (2) expenses of Representatives, negatived. (Supplement, March 3rd) Notices of motion: (1) Election of representatives, and (2) officers of Divisions, negatived; management of library, we recommend that the library be kept open to a later hour; (3) facilities for social intercourse at head office, all in favour; Nurses' registration: (1) All agreed, provided that the period of training be not less than three years; (2) negatived. (Supplement, March 24th) Proposed application for Royal Charter, all in favour. (Supplement, March 31st) Notices of motion: (1) Standing Committee's election, negatived; (2) attendance, negatived; (3) date of issue, negatived; (4) regulation and co-ordination of duties, negatived. (Supplement, April 21st) Notices of motion: (1) Representation of the Representative Meeting on the Council, all in favour; (2) supplementary grants to Divisions and Branches, all in favour; (3) tenure of office of members of Council elected by the Representative Meeting, all in favour.

Scale of Fees.—A scale of fees for guidance of members, drawn up by the Executive Committee, was presented. It was resolved that a printed copy be sent to every member.

Demonstration.—Captain Douglas, I.M.S. (St. Mary's Hospital, London), introduced by the Secretary, gave a very interesting demonstration on opsonins.

Epidemic Diarrhoea.—Dr. J. E. Sandilands (M.O.H., Winchester) read a paper on epidemic diarrhoea. Attention was directed to the fact that breast-fed and artificially-fed infants alike conveyed dirt to their mouths from the pavements of the streets and the floors of rooms on their hands and on rubber teats, and yet that the artificially-fed suffered from diarrhoea out of all proportion to the breast-fed. Under the circumstances, it was not probable that the essential cause of diarrhoea resided n street dirt. The incidence of diarrhoea fell in the late summer months, and great heat in the early months was requently accompanied by less diarrhoea than cooler weather in the later months. This peculiar incidence admitted of two explanations—one, an enhanced virulence n the third quarter of the year expressing a phase in the natural history of the causative micro-organisms; and the other the prevalence of carrying agents in the third quarter of the year, which were absent during the first quarter. It was suggested that flies, which had been held to be the carrying agents of diarrhoea infection by Newsholme and Nash, reached their maximum prevalence ate in the year, and that the incidence of diarrhoea oincided with and resulted from the seasonal prevalence of flies. By the end of the year Dr. Sandilands hoped to have established the seasonal prevalence of flies by direct xperiments. An interesting discussion followed, in which the following members took part: Drs. Briscoe Hoyle, Browne, Scott, Godwin. Dr. Sandilands eplied.

Vote of Thanks.—A vote of thanks was proposed by the Chairman to Captain Douglas for so kindly coming to give such an interesting demonstration. This was carried unanimously.

Poor-law Appointment at Alresford.—Dr. Hoyle proposed that the Poor-law appointment at Alresford be discussed at the next meeting of the Executive Committee. This was seconded by Dr. Browne, and carried.

Association Notices.

BRANCH AND DIVISION MEETINGS TO BE HELD.

Bath and Bristol Branch.—A combined meeting of the Bath and Trowbridge Divisions will be held at the Royal United Hospital, on Monday, July 2nd, at 6 p.m. Business: To elect Representative for the Bath and Trowbridge Divisions. —D. Leslie Beath, Honorary Secretary.

Birmingham Branch: West Bromwich Division.—The conjoint meeting of this Division with the Dudley and Bromsgrove Divisions will take place on July 2nd, at the Medical Institute, Birmingham, for the election of Representative. This meeting will be followed by the annual meeting of the West Bromwich Division.—H. W. B. Plummer, Honorary Secretary, West Bromwich Division.

Dorset and West Hants Branch.—The summer meeting will be held at Abbotsbury, Wednesday, July 11th. Members desirous of reading papers or exhibiting cases are requested to communicate, on or before June 30th, with the Honorary Secretary, Dr. James Davison, Streateplace, Bournemouth.

East Anglian Branch: West Norfolk Division.—The annual meeting of this Division will be held on Wednesday, July 4th, at the residence of the Chairman (Dr. Thomas), Swaffham. Lunch at 1.30 by invitation of the Chairman. Meeting at 3 p.m. The agenda, besides containing the usual business of the annual meeting, contains for consideration the proposed application for a Royal Charter. The Chairman will also move the following alteration and addition to the rules: "That Rule 11 shall read, 'ordinary meetings of the Division shall be held *half-yearly*, etc.'" Addition to Rule 9: "That the Honorary Secretary of the Scientific Committee be *ipso facto* a member of the Executive Committee."—A. Gardiner, King's Lynn, Honorary Secretary.

Northern Counties of Scotland Branch.—In accordance with By-law 24 of the constitution, the election of a Representative of the Branch on the Central Council must be made by voting papers sent to each member, and the candidates' names must be sent to me on or before June 30th, and the nomination signed by three members.—J. Munro Moir, M.D., Honorary Secretary, 4, Ardross Terrace, Inverness.

North Wales Branch.—The annual meeting will be held at Llandudno on Wednesday, July 11th. Members having papers to read, cases to communicate, or specimens to show, are requested to notify the Honorary Secretary on or before Saturday, June 30th.—H. Jones Roberts, Honorary Secretary, Penygroes.

Oxford and Reading Branch.—The annual meeting of this Branch will take place at the library of the Royal Berkshire Hospital, at 5 p.m., on Saturday, July 7th. Dr. W. Osler, F.R.S., Regius Professor of Medicine at Oxford, will give a lantern demonstration of the General Morphology of Abdominal Tumours. Dr. E. L. Bevers, Dr. Mallam, Mr. Arthur Roberts, the President (Mr. H. G. Armstrong), and probably others, will exhibit patients or specimens. The dinner will be held at the Queen's Hotel, Reading, at 7 p.m., when members have the privilege of bringing guests.—W. T. Freeman, 30, Portland Place, London Road. Reading, Honorary Secretary.

South-Eastern Branch of Ireland.—A meeting of the Branch will be held at the Club House, Carlow, on July 4th, at 5.30 p.m. (1) Minutes of Branch Meeting. (2) Minutes of Branch Council. (3) To discuss questions of vital interest, etc., to Branches, especially with reference to financial position of the Association, as commented on in circular.—J. Quirke, Honorary Secretary, Piltown, co. Kilkenny.

Worcestershire and Herefordshire Branch.—The annual meeting will be held at the Worcester Infirmary on Monday next, July 2nd, at 5 p.m. Business, etc.: To elect officers for the ensuing year. The Branch will be represented on the Council of the Association for the next three years by a member of the Gloucestershire Branch. The present Honorary Secretary, who has acted since the foundation of the Branch, does not seek re-election. Mr. Edgar Morris will read Some Notes on High Frequency Treatment. Clinical cases will be shown. There will be a Meeting of the Council of the Branch at 4.45 p.m. to elect members.—Geo. W. Crowe, Honorary Secretary.

Naval and Military Appointments.

ROYAL NAVY MEDICAL SERVICE.

The following appointments have been made at the Admiralty: Edward T P. Eames, Staff Surgeon, to the *Donegal*, on commissioning, June 23rd: George Ross, M B., Surgeon, to Chatham Hospital, undated; Edward R. D. Fasken, Fleet Surgeon, and Alfred T. Gailleton, M.B., Surgeon, to the *Implacable*, on recommissioning, July 10th; Frederick C. Lumley, Staff Surgeon, to the *Nile*, on recommissioning, July 10th; Herbert H. Gill, M.B., Surgeon, to the *Highflyer*. on recommissioning, July 14th; William E. Marshall, Surgeon, to the *Andromeda*, on recommissioning, July 14th.

ROYAL ARMY MEDICAL CORPS.

With reference to a paragraph in the Supplement to the British Medical Journal of June 23rd. p. 346, respecting the retirement from the service of Major F. A. Saw. M.B., we are informed that he has received the South African medal with two clasps for his services in 1899-1901, in addition to the Rhodesia medal for 1896.

Lieutenant-Colonel W. W. Pike, D.S.O., is appointed Officiating Principal Medical Officer Burmah Division, in addition to, and without prejudice to, his other duties, from May 16th.

INDIAN MEDICAL SERVICE.

Cadwallader E. Palmer, M.B., to be Lieutenant, September 1st, 1905.

The retirement from the service of Colonel A. F. Dobson, M.B., Colonel T. S. Weir, and Lieutenant-Colonel J. Maitland, M D., which has been already announced in the British Medical Journal, has received the approval of the King.

Lieutenant-Colonel J. Smyth, M.D., Madras Establishment, Officiating Senior Surgeon and Sanitary Commissioner with the Government of Mysore, is confirmed in that appointment from November 8th, 1904.

Colonel T. J. Hackett-Wilkins, Madras Establishment, Principal Medical Officer Burmah Division, is posted as Principal Medical Officer 9th (Secunderabad) Division.

ROYAL ARMY MEDICAL CORPS (MILITIA).

The appointment to a Lieutenancy of Robert J. Sterling bears date April 1st, 1906, and not April 11th, as stated in the *London Gazette* of April 20th.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In seventy-six of the largest English towns, including London, 8,854 births and 4,015 deaths were registered during the week ending Saturday last, June 23rd. The annual rate of mortality in these towns, which had been 13.8, 12.9, and 12.9 per 1,000 in the three preceding weeks, rose last week to 13.2 per 1,000. The rates in the several towns ranged from 5.7 in Leyton and in Handsworth, 6.5 in Smethwick, 6.9 in Willesden, 7.0 in Aston Manor, 7.2 in Hornsey, 7.6 in East Ham, and 7.7 in Walthamstow and in Rotherham, to 17.3 in Birkenhead and in Manchester, 17.6 in Sunderland, 18.1 in Warrington, 18.2 in Middlesbrough, 18 3 in Bradford, 19.5 in Merthyr Tydfil, 19.8 in Burnley, and 22.8 in Hanley. In London the rate of mortality was 13 3 per 1,000, while it averaged 13.2 per 1,000 in the seventy-five other large towns. The death-rate from the principal infectious diseases averaged 1.3 per 1,000 in the seventy-six large towns, agreeing with the rate in London; while among the large provincial towns the rates ranged upwards to 2.6 in Manchester, 2.8 in Merthyr Tydfil, 3.0 in West Bromwich, 3.1 in Salford, 3.3 in Halifax, 3.6 in Burnley, and 5.0 in Great Yarmouth. Measles caused a death-rate of 1.4 in Bradford, 1.6 in Wallasey, 2.2 in Manchester and in Salford, 2.9 in Halifax, and 3.0 in Burnley; diphtheria of 1.2 in Hornsey and 1 6 in Wolverhampton; whooping-cough of 1.1 in Swansea, 1.3 in Tottenham, 1.4 in Coventry, and 1.5 in West Bromwich; and diarrhoea of 1.1 in Walsall and in Oldham, 1.3 in Walthamstow, 1.4 in Merthyr Tydfil, and 3.0 in Great Yarmouth. The mortality from scarlet fever and from enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The number of small-pox patients remaining under treatment in the Metropolitan Asylums Hospitals, which had been 5, 6, and 7 on the three preceding Saturdays, had further risen to 13 on Saturday last, June 23rd; 7 new cases were admitted during the week, against 3, 1, and 1 in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 2,516, 2,603, and 2,677 at the end of the three preceding weeks, had further increased to 2,692 at the end of last week; 380 new cases were admitted during the week, against 312, 344, and 3[illegible]5 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, June 23rd, 1,020 births and 547 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 17.5, 15.6, and 15.8 per 1.000 in the three preceding weeks, further rose to 16 0 per 1,000 last week, and was 2.8 per 1,000 above the mean rate during the same period in the seventy-six large English towns. Among these Scotch towns the death-rates ranged from 9.5 in Leith and 10.2 in Paisley, to 19.6 in Dundee and in Perth. The death-rate from the principal infectious diseases averaged 2.0 per 1,000, the highest rates being recorded in Greenock and Glasgow. The 274 deaths registered in Glasgow included nine which were referred to measles. 10 to whooping-cough. 11 from fever (including 8 from cerebro-spinal fever), and 12 from diarrhoea. Five fatal cases of measles, and 4 of diarrhoea were recorded in Edinburgh. Two deaths from whooping-cough occurred in Aberdeen and 3 from diarrhoea in Dundee.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, June 23rd, 511 births and 326 deaths were registered in six of the principal Irish towns, as against 565 births and 232 deaths in the preceding period. The annual death-rate in these towns, which had been 18.1, 17.8, and 19.9 per 1,000 in the three preceding weeks, fell to 15.1 per 1,000 in the week under notice, this figure being 1.9 per 1,000 higher than the mean annual rate in the seventy-six English towns for the corresponding period. The figures ranged from 7.8 in Waterford and 10.9 in Limerick, to 19.0 in Belfast and 20.2 in Dublin. The zymotic death-rate during the same period and in the same six Irish towns averaged 0.9 per 1,000, or 0.5 per 1,000 higher than during the preceding period, the highest figure—2.5—being recorded in Londonderry, while Limerick and Waterford registered no deaths under this heading at all.

Vacancies and Appointments.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column, advertisements must be received not later than the first post on Wednesday morning.

VACANCIES.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BIRMINGHAM: QUEEN'S HOSPITAL.—Honorary Surgeon.

BURNLEY: VICTORIA HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

CAIRO: KASR-EL-AINY HOSPITAL.—Medical Tutor and Registrar. Salary, £400 per annum.

CAIRO: SCHOOL OF MEDICINE.—Professor of Midwifery and Gynaecology. Salary, £400 per annum.

DERBYSHIRE ROYAL INFIRMARY.—Honorary Surgeon. Liverpool Stanley Hospital; Lady Honorary Medical Officer for women's diseases.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Male Assistant House-Surgeon. Salary, £60 per annum.

FRIMLEY: BROMPTON HOSPITAL SANATORIUM.—Assistant to the Medical Superintendent. Salary, £100 per annum.

HAMBLEDON RURAL DISTRICT COUNCIL.—Medical Officer of Health. Salary, £100 per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Resident House-Physicians. Honorarium, £25 each for six months.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon. Salary, £20 for six months and £2 10s. washing allowance.

HUDDERSFIELD INFIRMARY.—Male Junior House Surgeon. Salary £50 per annum.

HULL: ROYAL INFIRMARY.—Casualty House-Surgeon. Appointment for six months. Salary, £50.

LANCASTER: COUNTY LUNATIC ASYLUM.—Male Assistant Medical Officer. Salary, £150 per annum.

METROPOLITAN ASYLUMS BOARD.—Male Assistant Medical Officers. Salary, £180, rising to £240.

METROPOLITAN WATER BOARD.—(1) Junior Chemical Assistant. (2) Junior Bacteriological Assistant. Salary, £150, rising to £200 per annum each.

NORFOLK COUNTY ASYLUM, Thorpe, Norwich.—*Locum tenens* Assistant Medical Officer, for July and August, and probably September. Salary, 2 guineas per week.

NOTTINGHAM WORKHOUSE INFIRMARY.—Resident Medical Officer. Salary, £130 per annum.

PINEWOOD: LONDON OPEN-AIR SANATORIUM.—Assistant Medical Officer, male. Salary, £100 per annum.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £50 per annum.

RYDE: ROYAL ISLE OF WIGHT HOSPITAL.—Honorary Ophthalmic Surgeon.

ROYAL EAR HOSPITAL, Dean Street, Soho, W.—Clinical Assistants.

ST. MARYLEBONE GENERAL DISPENSARY, Welbeck Street, W.—Honorary Surgeon.

STOCKPORT INFIRMARY.—Junior Assistant House-Surgeon. Salary at the rate of £40 per annum.

WEST HAM UNION INFIRMARY.—Junior Assistant Medical Officer. Salary, £140, rising to £160 per annum.

WOLVERHAMPTON AND MIDLAND COUNTIES EYE INFIRMARY.—House-Surgeon. Salary, £70 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces vacancies in the office of Certifying Factory Surgeons in the following districts: Strathmiglo, co. Fife, Rochford, co. Essex, Thrapston, co. Northampton, Annan, co. Dumfries.

APPOINTMENTS.

Bromley, J., M.R.C.S., L.R.C.P., District Medical Officer of the Halstead Union.

Drury, G. D., M.R.C,S., L.R.C.P., District Medical Officer of the Wareham and Purbeck Union

French, Margaret D., M.B., B.S.Durham, Resident Medical Officer, Haywood Hospital, Burslem.

Grosvenor, R. L., M.R.C.S., L.R.C.P.Lond., Certifying Factory Surgeon for the Chelsea District of London.

Holland, E. T., M.R.C.S., L.R.C.P.Lond., Second Resident Assistant Medical Officer, Kensington Parish Infirmary.

Jordan, Alfred C., M.D Cantab., Medical Officer to the Roentgen Ray Department of the Royal Hospital for Diseases of the Chest, City Road.

Kennedy, J. C., M.B., B.S.Melb., Clinical Assistant to the Chelsea Hospital for Women.

Moore, C. A., M.B., B.S.Lond., M.R.C.S., L.R.C.P., Senior Resident Medical Officer at Sheffield Union Hospital.

Rennie, George E., B.A.Syd., M.D.Lond., M.R.C.P.Lond., Honorary Physician, Royal Prince Alfred Hospital, Sydney.

Ring, C. A. E,, L.R.C.P. and S.Edin., L.F.P.S.Glasg., District Medical Officer of the Okehampton Union.

Shaw, W. Vernon, M.D., B.Ch.Oxon., Medical Officer of the Malton Workhouse.

Spence, A. B., M.B., Ch.B.Edin., Certifying Factory Surgeon for the Kinghorn District, co. Fife.

Stewart, D. A., M.D., District Medical Officer of the Northampton Union.

Wardleworth, D., M.B., Ch.B.Vict., Junior House-Surgeon, Salford Royal Hospital.

Waugh, Alec, M.B., C.M.Glasgow, Medical Officer to the Skipton and District Infectious Diseases Hospital, vice Dr. Thomson, resigned.

LEEDS PUBLIC DISPENSARY.—The following appointments have been made :—

- Birks, F. J., M.B.Lond., L.S.A., Honorary Anaesthetist to the Dental Department.
- Harrison, G. B., M.A.Cantab., M.R.C.S., L.R.C.P.Lond., Resident Medical Officer.
- Johnson, L. Capper, M.B.Lond., Ch.B.Vict., M.R.C.S., L.R.C.P. Lond., Honorary Anaesthetist to the Surgical Department.
- Stockwell, G. E. St. Clair, B.A.Cantab, M.B., B.C., Clinical Assistant to Dr. Telling.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post-office orders or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

MARRIAGE.

Hunt-Dutton.—On June 20th, at Henfield Parish Church, by the Rev. H. W. Hunt, M.A., Rector of Shermanbury and Rural Dean, father of the bridegroom, assisted by the Rev. L. Dutton, Rector of Aspenden, Herts, uncle of the bride, Ernest Rivaz Hunt, M.A., M.D.Cantab., of 19, Dyke Road, Hove, Sussex, to Margery Mary, second daughter of the Rev. W. T. Dutton, Vicar of Sidlesham, Sussex.

DEATH.

McCutchan.—On June 9th, at the Nursing Hostel, Cambridge, William Arthur McCutchan, L.R.C.P., etc. Indian papers please copy.

DIARY FOR THE WEEK.

TUESDAY.

Medico-Legal Society, 22, Albemarle Street, W., 8.15 p.m.—(1) Exhibition of Medico-legal Specimens. (2) Adjourned discussion on Reform in the Present Method of Ascertaining the Fact and Cause of Death.

WEDNESDAY.

Obstetrical Society of London, 20, Hanover Square, W., 8 p.m.—Short communications—Dr. C. Nepean Longridge: A Short Note on 64 Cases of Contracted Pelvis. Dr. Herbert Williamson: A Case of Adenoma of the Labium Majus. Specimens—Dr. Herbert R. Spencer: Caesarean Section and Total Abdominal Hysterectomy for Fibroids Complicating Labour near Term in a Patient who had recovered without Operation from Ruptured Tubal Pregnancy. Dr. H. Russell Andrews: (1) A Degenerating Fibroid Removed during the Puerperium; (2) A large Cystic Fibroid. Dr. Eden: A Case of Extrauterine Gestation. Dr. Foulerton: One specimen. Demonstration with the epidiascope on Primary Cancer of the Ovary by Miss A. Louise McIlroy, M.D.

THURSDAY.

North-East London Clinical Society, Tottenham Hospital, N., 4 p.m.—General meeting.

POST-GRADUATE COURSES AND LECTURES.

Central London Throat and Ear Hospital, Gray's Inn Road, W.C.—Wednesday, 5 p.m., Pathology.

Charing Cross Hospital, W.C.—Monday, 4 p.m., Ophthalmological. Thursday, 4 p.m., Surgical.

London School of Clinical Medicine, Dreadnought Hospital, Greenwich.—Clinical Demonstrations in Medicine and Surgery 2.30 and 3.15 p.m. respectively on Monday, Tuesday, Wednesday, Thursday, and Friday; Throat and Ear, 4 p.m., Monday; Skin, 4 p.m., Tuesday; Ophthalmology, 4 p.m. Wednesday; Radiography, 4 p.m. Thursdays. Out-patient Demonstrations, Medical and Surgical, 10 a.m. daily. Throat and Ear, noon Monday and Thursday; Eye, 11 a.m. Wednesday. Skin, noon Friday. Operations, 2.30 p.m. daily.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear. Lectures at 5.15 p.m. each day will be given as follows: Monday, Some Parasitic Diseases of the Skin. Tuesday, Errors of Digestion in Relation to Disease. Wednesday and Thursday, Diet Therapy in the Light of Recent Research, with Special Reference to the Use of Animal Proteid Food. (With lantern demonstration.)

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Tuesday, 3.30, Determination of Action of Muscles. Friday, 3.30 p.m., Cerebral Diplegia.

West London Hospital Post-graduate College, Hammersmith, Road, W.—Daily, 2 p.m., Medical and Surgical Clinics; 2.15 p.m., *X* Rays; 2.30 p.m., Operations. Mondays and Thursdays, 2.30 p.m., Eyes. Tuesdays and Fridays, 2 p.m., and Wednesdays and Saturdays, 10 a.m., Throat and Ear. Tuesdays and Fridays, 2.30 p.m., Skin. Wednesdays, 10 a.m., Diseases of Children. Lectures, 5 p.m., Monday, Surgical Treatment of Gastric Ulcer; Tuesday, Antiflexion and Sterility; Wednesday, Medico-legal Relationships of Insanity; Thursday, Practical Surgery; Friday, Short-circuiting Operations in Intestinal Obstruction.

BOOKS, Etc., RECEIVED.

Handbuch der Kinderheilkunde. Herausgegeben von Professor Dr. M. Pfaundler und Professor Dr. A. Schlossmann. I Band. I and II Hälfte. Leipzig: F. C. W. Vogel. 1906. M. 30.

London: J. Bale, Sons, and Danielsson, Ltd., 1906:

- The Operative Treatment of Prolapse and Retroversion of the Uterus. By J. I. Parsons, M.D., M.R.C.P., M.R.C.S. 3s. 6d.
- The Urethrotomies and Kidney Capsulotomy in Diseases and Injuries of the Urinary Organs. By R. Harrison, F.R.C.S. 2s. 6d.

Consumption: Its Treatment at Home, and Rules for Living. By H. W. Crowe, M.D. Bristol: J. Wright and Co. 1906. 1s.

War with Disease. A Series of Lectures on Preventive Medicine delivered to officers and N.C.O.'s of Cavalry Brigade in Ireland. By T. F. MacCabe, M.B. Dublin: Dollard, Ltd. 1906. 6d.

The God of this World. A Story for the Times. By J. B. Middleton. London: Kegan, Paul, Trench, Trubner, and Co., Ltd. 1905. 3s. 6d.

Beiträge zur experimentellen Therapie. Herausgegeben von Professor Dr. E. v. Behring. Heft. II. Moderne phthisiogenetische und phthisiotherapeutische Probleme in historischer Beleuchtung. Von Professor E. v. Behring. Berlin: A. Hirschwald. 1906.

Notes on Local Anaesthesia in General Surgery. By J. W. Struthers, M.B., F.R.C.S.Ed. Edinburgh: Wm. Green and Sons. 1906.

A Textbook of Botany. By M. Yates. Part I, "The Anatomy o Flowering Plants." London: Whittaker and Co. 1906. 2s. 6d.

Green's Encyclopedia and Dictionary of Medicine and Surgery. Vol. I. Aachen to Brain. Edinburgh and London: W. Green and Sons.

Nomenclature Anatomique en Quatre Langues: Latin, Français, Anglais, Esperanto. Par Dr. P. Rodet. Paris: Masson et Cie. 1906. F. 1.50.

Collected Studies on Immunity. By Professor P. Ehrlich. Translated by Dr. C. Bolduan. 1st Edition. New York: J. Wiley and Sons; London: Chapman and Hall. 1906. 25s. 6d.

Descriptive Catalogue of the Specimens illustrating Pathology in the Museum of University College, London. By R. Johnson, B.S., F.R.C.S., and T. W. P. Lawrence, M.B., F.R.C.S. Part III. London: University College. 1906.

Sammlung zwangloser Abhandlungen aus dem Gebiete der Nerven- und Geisteskrankheiten. Herausgegeben von Professor Dr. A. Hoche. VII Band. Heft 1. Ueber die Stimmungs-schwankungen der Epileptiker. Von Professor Dr. G. Aschaffenburg. Halle a S.: C. Marhold. 1906. M. 1.60.

A Handbook for Midwives and Maternity Nurses. By C. Berkeley, B.A., M.B., etc. London: Cassell and Co. 1906. 5s.

Traité d'Hygiène. Publié en Fascicules sous la direction de MM. P. Brouardel et E. Mosny. III. Anthropologie, hygiène individuelle, éducation physique. Par R. Anthony, E. Dupré, P. Ribierre, G. Brouardel, M. Boulay, V. Morax, et P. Lafeuille. Paris: J. B. Baillière et Fils. 1906. Fr. 7.50.

Transactions of the American Pediatric Society. 17th Session. June 19-21, 1905. Edited by L. E. la Fétra, M.D. Vol. xvii. New York: E. B. Treat and Co. 1906.

Die Technik der vaginalen Bauchhöhlen-operationen. Von E. Wertheim and Th. Micholitsch. Leipzig: S. Hirzel. 1906. Mk.20.

The Climber's Notebook. London: T. Fisher Unwin. 1906. 1s.

Preservatives in Food and Food Examination. By J. C. Thresh, M.D., D.Sc., F.I.C., and A. E. Porter, M.D., M.A. London: J. and A. Churchill. 1906. 14s.

The Public Health Acts and other Sanitary Laws and Regulations. By M. Elliott and G. Elliott, M.R.C.S., L.R.C.P., D.P.H. London: H. K. Lewis. 1906. 5s.

Problems in Animal Metabolism. By J. B. Leathes. London: J. Murray. 1906. 7s. 6d.

Archives of the Public Health Laboratory of the University of Manchester. Edited by A. S. Delépine, M.A., M.B., Ch.M. Vol. I. Manchester: University Press. 1906. 21s.

Cures de Vichy. Index clinique par le Dr. Clerc. Angoulême: L. Coquemard et Cie.

A System of Gynaecology by Many Writers. Edited by T. C. Allbutt, F.R.S., etc., W. Playfair, M.D., LL.D., F.R.C.P., and T. W. Eden, M.D., F.R.C.P. London and New York: Macmillan. 1906. 25s.

Infant Mortality: a Social Problem. By G. Newman, M.D., D.P.H., F.R.S.E. London: Methuen and Co. 7s. 6d.

Handbuch der experimentellen Pathologie und Pharmakologie. Von Professor Dr. Med. R. Heinz. Zweiter Band. Erste Hälfte. Jena: Gustav Fischer. 1906. M.20.

Untersuchungen über Aminosäuren, Polypeptide und Proteïne (1899-1906). Von E. Fischer. Berlin: J. Springer. 1906. Mk.16.

Arbeitem aus dem pathologischen Institut zu Berlin. Zur Feier der Vollendung der Instituts-Neubaten herausgegeben von J. Orth. Berlin: A. Hirschwald. 1906. Mk.18.

London: The Health Resorts Association:—

- Lowestoft; and Royal Leamington Spa, Llandrindod Wells, Weymouth, Clifton. Edited by G. W. May. Free on application.

Einführung in das Studium der Malariakrankheiten mit besonderer Berücksichtigung der Technik. Von Dr. R. Ruge. Zweite Auflage. Jena: Gustav Fischer. 1906. M. 12.

Lehmann's medizinische Atlanten. Band IV. Atlas der deskriptiven Anatomie des Menschen. Von Dr. med. J. Sobotta. III. Abteilung, I. Lieferung. Das Nerven- und Gefäss-system des Menschen. München: J. F. Lehmann. 1906. M. 16.

The Ship-Surgeon's Handbook. By A. V. Elder, M.R.C.S., L.R.C.P. London: Baillière, Tindall and Cox. 1906. 3s. 6d.

Fibroid Tumour: A New Treatment for Fibroid Tumour and some other Diseases of Women without Operation. By J. Shaw, M.D. London: Swan Sonnenschein and Co., Ltd. 1906. 2s. 6d.

Principia Therapeutica. By H. Sainsbury, M.D., F.R.C.P. London: Methuen and Co. 7s. 6d.

⁂ In forwarding books the publishers are requested to state the selling price.

CALENDAR OF THE ASSOCIATION.

JULY.

Date.	Meetings to be Held.
1 Sunday	
2 MONDAY	Bath and Trowbridge Divisions, *Bath and Bristol Branch*, Combined Meeting, Royal United Hospital, 6 p.m. Dudley and Bromsgrove and West Bromwich Divisions, *Birmingham Branch*, Conjoint Meeting, Medical Institute, Birmingham; followed by Annual Meeting of West Bromwich Division. Worcestershire and Herefordshire Branch, Annual Meeting, Worcester Infirmary, 5 p.m.; Council, 4.45 p.m.
3 TUESDAY......	
4 WEDNESDAY	Central Council, 2 p.m. South-Eastern of Ireland Branch, Club House, Carlow, 5.30 p.m. West Norfolk Division, *East Anglian Branch*, Annual Meeting, Swaffham, 3 p.m.
5 THURSDAY...	
6 FRIDAY	
7 SATURDAY...	Oxford and Reading Branch, Annual Meeting, Library of the Royal Berkshire Hospital, 5 p.m.; Dinner, Queen's Hotel, Reading, 7 p.m.
8 Sunday	
9 MONDAY	
10 TUESDAY......	
11 WEDNESDAY	Dorset and West Hants Branch, Abbotsbury. North Wales Branch, Annual Meeting, Llandudno.
12 THURSDAY...	
13 FRIDAY.........	London: Central Ethical Committee, 2 p.m. Hampstead Division, *Metropolitan Counties Branch.*
14 SATURDAY...	

JULY *(continued).*

Date.	Meetings to be Held.
15 Sunday.........	
16 MONDAY	London: Election Returns Committee, 2.30 p.m.
17 TUESDAY......	
18 WEDNESDAY	
19 THURSDAY...	
20 FRIDAY	
21 SATURDAY...	
22 Sunday	
23 MONDAY	
24 TUESDAY ...	Annual General Meeting, Caxton Hall, Caxton Street, Victoria Street, S.W., 10 a.m. Annual Representative Meeting, Caxton Hall, Caxton Street, Victoria Street, S.W., immediately after Annual General Meeting.
25 WEDNESDAY	Annual Representative Meeting, Caxton Hall, 10 a.m.
26 THURSDAY...	Annual Representative Meeting, Caxton Hall, 10 a.m.
27 FRIDAY	Annual Representative Meeting, Caxton Hall, 10 a.m. *(If required.)*
28 SATURDAY...	
29 Sunday	
30 MONDAY	
31 TUESDAY......	

AUGUST.

Date.	Meetings to be Held.
1 WEDNESDAY	
2 THURSDAY...	
3 FRIDAY	
4 SATURDAY...	
5 Sunday	
6 MONDAY	*Bank Holiday.*
7 TUESDAY......	

MEMBERSHIP OF THE BRITISH MEDICAL ASSOCIATION.

The British Medical Association exists for the promotion of medical and the allied sciences, and the maintenance of the honour and the interests of the medical profession.

The Annual Subscription to the British Medical Association is £1 5s. 0d., and the British Medical Journal supplied weekly, post free, to every member of the British Medical Association wherever he may reside.

Forms of application for membership can be obtained from the General Secretary, 429, Strand, London, W.C.

The principal rules governing the election of a medical practitioner to be a member of the British Medical Association are as follow:

Article III.—Any Medical Practitioner registered in the United Kingdom under the Medical Acts and any Medical Practitioner residing within the area of any Branch of the Association situate in any part of the British Empire other than the United Kingdom, who is so registered or possesses such medical qualifications as shall, subject to the Regulations, be prescribed by the Rules of the said Branch, shall be eligible as a Member of the Association. The mode and conditions of election to Membership shall from time to time be determined by or in accordance with the By-laws. Every Member, whether one of the existing Members or a subsequently-elected Member, shall remain a Member until he ceases to be a Member in accordance with the provisions hereof.

By-law 1.—Every Candidate for Membership of the Association shall apply for election in writing, addressed to the Association, and stating his agreement, if elected, to abide by the Regulations and By-laws of the Association, and the Rules of such Division and Branch to which he may at any time belong, and to pay his subscription for the current year.

By-law 2.—Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the General Secretary of the Association, and to every Member of the Branch Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a member of the Association by the Branch Council at any meeting thereof held not less than seven days (or such longer period as the Branch may by its Rules prescribe) after the date of the said Notice. A Branch may by special Resolution require that each candidate for election to the Association shall furnish a certificate from two Members of the Association to whom he is personally known. Officers of the Navy, Army, and Indian Medical Services on the Active List are eligible for election through the Council or a Branch without approving signatures as laid down in By-law 3.

By-law 3.—Every candidate whose place of residence is not included in the area of any Branch shall forward his Application to the General Secretary of the Association, together with a statement signed by three members of the Association, that from personal knowledge they consider him a suitable person for election. Notice of the proposed election shall be sent by the General Secretary to every Member of the Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a Member of the Association by the Council at any meeting thereof held not less than one month after the date of the said notice.

The annual subscription to the British Medical Journal for non-members is £1 8s. 0d. for the United Kingdom and £1 12s. 6d. for abroad.

INDEX TO SUPPLEMENT FOR VOLUME I, 1906.

A.

Abuse of medical charities. *See* Medical

Act, the Midwives, resolutions of: Coventry Division, 55; North Carnarvonshire and Anglesea Division, 326; Oxford Division, 151; South-Eastern Counties Division, 185

Acts, Inebriates, amendment of, 145

Advertising, medical, 35

Altrincham Division. *See* Division

Ambulance work, resolutions of: Central Division, 13; North Cumberland Division, 248

Annual meeting. *See* Association

Annual Representative meeting. *See* Association

Army, British, promotions and appointments in the medical service of, 10, 17, 25, 40. 49, 57, 139, 169, 225, 258, 273, 290, 322, 354; Royal Hospital, Chelsea, 17; Coldstream Guards, 25; Honorary Surgeon to the King, 40; successful candidates, 49; examination of majors for promotion, 49; service with the Thibet mission, 49; Royal Horse Guards, 72, 97; appointment of dentists, 169: Grenadier Guards, 225, 322; Life Guards, 258

Army, British, changes of station, 26, 72, 154, 226, 273

Army, British, medical service of, exchange, 10, 82, 178, 273, 290, 322

Army, British, Medical Reserve, promotions and appointments, 25, 40, 97, 154, 169, 178, 242, 330, 346

Army, British, Medical Staff, promotions and appointments, 17, 258, 290

Army, British, Royal Army Medical Corps, promotions and appointments, 10, 17, 49, 57, 72, 97, 106, 139, 154. 169, 178, 226, 242, 258, 273, 290, 322, 330, 338, 346, 354

Army, British, Royal Army Medical Service, promotions and appointments, 72, 338

Army, British, Royal Army Medical College, promotions and appointments, 57, 72

Army, British, Royal Army Medical Corps (Militia), promotions and appointments in the medical service of, 25, 97, 154, 226, 258, 273, 322, 346, 354

Army, British, infantry (Militia), promotions and appointments in the medical service of, 258

Army British, New Zealand Militia, promotions and appointments in the medical service of, 330

Army, British, West African Medical Staff, appointments and promotions, 73, 273

Army, Canadian, promotions and appointments in the medical service of, 72

Army, Indian, promotion and appointments in the medical service of, 10, 17, 25, 40, 49, 57, 72, 82, 97, 106, 154, 169, 178, 225, 242, 258, 273, 290, 322, 346, 354

Association, British Medical, annual meeting at Toronto, programme of business, 29, 69, 80, 89, 165, 245, 277; the Canadian Government and, 80; railway travelling in Canada, 80: the Atlantic passage, 80, 89, 103; circular tours from England, 80: communications, 149; the Sections, 277. *See also* Association, in Journal Index

Association, British Medical, Annual Representative Meeting in London, 45, 229; notices of motion, 45, 233; provisional agenda for meeting in London, 229; appendix, 236

Association, British Medical, annual reports of Branches, 217

Association, British Medical, attendance of Council, Committees, and Subcommittees 1905-6, 189

Association, British Medical, changes of boundaries of Divisions and Branches, 271

Association, British Medical, co-ordination of scientific work. *See* Co-ordination

Association, British Medical, Council proceedings, 31, 142, 207, 349; report of Council, 197

Association, British Medical, formation of new Branches, 22

Association, British Medical, grants for scientific research, 174, 187, 216, 256, 271, 285

Association, British Medical, list of books presented to library and needed to complete series, 42, 96, 178, 268, 283

Association, British Medical, members elected during the December quarter, 43; during the March quarter, 267

Association, British Medical, Royal Charter, proposed application for, 109; report on action taken in preparation of the draft charter, 109; explanatory memorandum, 109; estimate of probable cost of obtaining a charter, 112: draft charter, ordinances, and by-laws, 113; first schedule, ordinances of the British Medical Association, 119; second schedule, by-laws of the British Medical Association, 126; resolutions of Divisions. 159. 162, 174, 184. 185, 186, 187, 214, 240, 248, 249, 250, 251, 252, 265, 281. 282, 315, 325, 326, 327, 336, 341, 342, 343, 344, 352; conjoint meeting of Branches and Divisions, 223

Association, British Medical, notice of changes of boundaries of Divisions and Branches, 141

Association, Irish Medical, Irish Committee and, 34

Aylesbury Division. *See* Division

B.

Barnstaple Division. *See* Division

Bath and Bristol Branch. *See* Branch

Bermuda Branch. *See* Branch

Bill, Coroners Act Amendment, Irish Committee and, 34

Bill, Medical Acts Amendment, principles of the Bill, 4; Medico-Political Committee and, 210

Bill, Notice of Accidents, 1906, 93, 210

Bill, Poisons and Pharmacy, 210, 304

Bill, Prevention of Corruption, 210

Bill, Public Health (Security of Tenure), 150. 211

Bill, Sight-testing Opticians, 299

Bill, Vaccination, 193

Bill, Workmen's Compensation, 210

Births, compulsory registration of, 173, 249

Blackburn Division. *See* Division

Board, Central Midwives, 39, 46, 81, 168, 193, 254, 321; proposed suggestions for the guidance of medical advisers of local supervising authorities, 39; the Board's examiners, 39; certificate of having attended a course of instruction, 39; exemptions from the rules framed under the Midwives Act, 40: midwives struck off the roll, 46, 255; a midwife cautioned, 46; midwife severely censured, 255; constitution of, 81; defective training of midwives, 81; suggested official handbook for midwives, 82, 169; nervous candidates, 82; midwives working in institutions, 82; result of examination for midwives, 82, 255; information as to the proceedings of the Board, 168; proposed Cardiff examination centre, 168; duties of inspectors of midwives, 169; persistently disobedient midwives, 169; certificates of character, 169; medical men called in by midwives, 193; payment of medical men called in by midwives in difficult cases, 254; report on the April examination, 255; proposed examinations in Dublin, 321; certified midwives acting as monthly nurses, 321; new offices for the Board, 322; three midwives cautioned, 322

Board, Central Midwives: Resolutions of, Aylesbury Division, 103: Cardiff Division, 68; Chester Division, 213; Dover Division, 87; Hampstead Division, 66: Liverpool (Northern) Division, 265; Liverpool (Southern) Division, 64; Marylebone Division, 159; North Cumberland Division, 248; Salisbury Division, 317; Stratford Division, 86

Bootle Division. *See* Division

Border Counties Branch. *See* Branch

Boston and Spalding Division. *See* Division

Bournemouth Division. *See* Division

Bradford Division. *See* Division

Bristol Division. *See* Division

Branch, Bath and Bristol, 150; discussion, 150

Branch, Bermuda, 184; outbreak of diphtheria, 184; contribution to cottage hospital, 184

Branch, Border Counties, 248: spring meeting, 248; confirmation of minutes, 248; apologies for absence, 248; Branch representative on Central Council. 248; registration of nurses, 248; dinner, 248

Branch, Cape of Good Hope, Eastern Province, 55, 56; confirmation of minutes, 55; letter of apology from President, 55; presidential address, 55: letters, 56; specimen, 56; Branch and Division rules, 56

Branch, Dorset and West Hants, 333; annual meeting, 333: confirmation of minutes, 333; apologies for non-attendance, 333; financial statement, 333; election of honorary secretary, 333; vote of thanks to Mr. Parkinson; 333; installation of new President, 333, apportionment of old balance, 333: associate members. 333; representative on Central Council, 333; summer meeting, 333; paper, 333; discussion, 333; dinner, 333

Branch, Dundee. 184, 342; motions for Representative Meeting, 184; Bradford rules, 184; hospital out-patient departments, 184; registration of nurses, 184; Royal Charter, 185; representative on Central Council, 185; annual meeting, 342: confirmation of minutes, 342: election of office bearers, 342; Bradford rules, 342: proposed medical officer for Dundee School Board, 342: insusceptibility to vaccination, 342; statement as to abuse of Dundee Outdoor Maternity Department, 342; Annual Representative Meeting, 342

Branch, East Anglian, 185; Council meeting, 185; representative on Central Council, 185; president-elect, 185; vote of thanks to Dr. Beverley, 185; communications, 185; contract practice, 185; visit to King's Lynn, 1851; tea, 185; annua meeting, 185

Branch, Gibraltar, 248; general meeting, 248; confirmation of minutes, 249; history of the Branch. 249: resignation of Honorary Secretary, 249; election of officers, 249; meetings, 249; next meeting, 249; complimentary member, 249; vote of thanks, 249

Branch, Halifax and Nova Scotia, 37, 86, 159, 173, 249; papers, 37, 86 173, 249; Health Act, 37; American Medico-Psychological Association, 37; discussions, 86; supper, 86; Representative on Central Council. 159; communications, 159, 173: motion *re* election of Representatives, 173; model tenements, 173, 249: compulsory notification of births, 173: patent medicines, 173, 249: proposed grouping of Branches, 249; registration of births, 249; *re* new members, 249; practising opticians, 249; exhibits, 249; physical deterioration, 249

Branch. Lancashire and Cheshire, 249; general meeting, 249; the finances of the Association, 249

Branch, Leicester,. 64; annual meeting, 64; annual report, 64: election of officers, 64; president's address, 64; vote of thanks, 65: additions to rules, 65: nominations of candidates, 66: Irish Poor-law commissions, 66; resolution from Torquay Branch, 66

Branch, Metropolitan Counties, 214: financial relations of Branch to Divisions, 214; nomination for officers, 214

Branch, North Wales, 251; confirmation of minutes, 251: report of Branch Council, 251; financial statement, 251; Jones Morris memorial fund, 251: medical officership of Bangor Workhouse, 251; papers, 251; vote of thanks, 251

Branch, Perth, 160. 282, 335; new member, 160; clinical meeting, 160; apologies for absence, 160, 282, 335; confirmation of minutes, 161, 335; the late Dr. Thom, 161, 282; cases, 161: demonstrations, 161; tea, 161: election of Branch Council, 282; proposed Royal Charter, 282; Division and Branch finance, 282; City and County Infirmary, Perth, 282; meeting of Council, 282; re-election of Council, 335: Representative, 335; school certificates, 335; golf match, 335

Branch, Queensland, 39; resolution, 39; election of officers, 39

Branch, Shropshire and Mid-Wales, 336; special general meeting, 336; proposed Royal charter, 336

Branch, South-Eastern of Ireland, 187, 266; confirmation of minutes, 187, 266; letters, 187, 266; Irish Committees, 187; draft charter, 187: paper, 187: vote of condolence, 187; Waterford Division, 187; luncheon, 187, 266: annual report, 266; election of officers, 266; code of ethical rules, 266: installation of new president, 266; correspondence, 266

Branch, South Wales and Monmouthshire, 67; election of chairman, 67, honorary secretary, 67; appointment of Subcommittees, 67; appointment of honorary secretaries of subcommittees, 67; Contract Practice Fund, 67; circular letter, 67; Ebbw Vale dispute, 67

Branch, South-Western, 39; confirmation of minutes, 39: vote of condolence, 39

Branch, Stirling, 327; annual meeting, 327: confirmation of minutes, 327; election of office bearers. 327: report of council, 327; president's address, 327; cases, 327; visit to wards of infirmary, 327; vote of thanks to matron, 327

Branch, Sydney and New South Wales, 21, 252; confirmation of minutes. 21, 252; new members, 21, 252; communications. 21; the late Dr. D. Weald, 252; apology for non-attendance, 252; papers. 252; appointment of scrutineers, 252; report and balance sheet, 252; presidential address, 252; election of office-bearers, 252; auditors, 252; vote of thanks to scrutineers, 252; by-law, 252; representatives on Central Council 252: portrait of Sir P. S. Jones, 252; vote of thanks to Mr. P. Spence, 252

Branch, Ulster, 45, 162, 252, 266; confirmation of minutes, 45, 266; apology for non-attendance, 45, 162; report of council, 45: Irish Poor-law Committee, 46; Royal Medical Benevolent Fund for Ireland, 46; Tughan v. Darnell, 162, 252; report of council, 266: visit to County Infirmary, 266

Branch, West Somerset, 162, 266: confirmation of minutes, 162, 266; paper, 162; case, 162; proposed Royal Charter, 162, 266; hospital out-patient departments, 163; tea, 163, 266

Branch, Yorkshire, 103; new members, 103; proposed modification of by-law, 103; annual report and financial statement, 103; communications, 103; dinner, 103

Branches, Edinburgh and other Scottish, 62; clinical and pathological meeting, 62, 63; dinner, 64

Brighton Division. *See* Division

Brighton, Tunbridge Wells, Eastbourne and Hastings Divisions. *See* Divisions

Burnley Division. *See* Division

C.

Canterbury and Faversham Division. *See* Division

Cape of Good Hope, Eastern Province, Branch. *See* Branch

Cardiff Division. *See* Division

Central Division. *See* Division

Certificates, school: resolutions of Ethical Committee, 158; Isle of Thanet Division, 66; Perth Branch, 335; Truro Division, 336

Charter. *See* Association

Chelsea, Richmond and Wandsworth Divisions. *See* Divisions

Chester Division. *See* Division

Chester and Crewe Division. *See* Division

Church, Sir W. S.: Metropolitan Hospital Sunday Fund, 93

City Division. *See* Division

City and Tottenham Divisions. *See* Divisions

Committee, Ethical, 34, 157, 210; complaints against members by non-members, 34; proposed expulsion of a member, 34; assistance of divisional investigation, 34; trade and other advertisements and newspaper notices, 34, 158, 210; Division rules, 34, 158, 210; warning notices by the General Medical Council against canvassing and advertising, 34; purchase of practices, 35; advertising by a Friendly Society, 35; warning notice as to appointments, 35; travelling expenses of witnesses, 35; medical officers and insurance companies, 35, 211; canvassing and advertising in connexion with a dispensary, 35; advertisements of home for inebriates, 35; advertising of medical practitioners by newspapers, 35; ethical cases in Scotland, 35; traders' commission to medical men, 157; medical aid societies, 157; publication of photographs and biographies, 157; copyright of the Journal, 157; misleading description in the *Medical Directory*, 157, 211: Committee's recommendations, 157: anonymous complaints, 158; investigation of an ethical case, 158; gratuitous medical advice, 158; standing order as to hypothetical case, 158; medical men and public appointments, 158, 211; consultants, 158, 211; members of public bodies giving expert advice, 158; school certificates, 158; question of a temporary appointment, 210: powers of calling witnesses, 210; powers of Divisions to consider ethical cases, 210: medical advice with *Answers*, 211; results of action taken, 211; assistant opposing former principal, 211; "touting" letter to former patient, 211; question as to public appointment, 211; assurance companies offering improper inducements to prospective referees, 211; report on consultants, 211

Committee, Hospitals, 36; fees for hospital patients, 36; circulation of proposals for hospital reform, 36; resignation of chairman, 36

Committee, Irish, 33, 212; new member, 33; Poor-law Commission, 33, 212; Poor-law Association of Ireland, 34; Irish Medical Association, 34; Coroners Act Amendment Bill, 34; Connaught, 213; power of co-option, 213; next meeting, 213

Committee, Journal and Finance, 31, 36, 149, 213; proprietary preparations, 36, 149; Chloroform Committee. 36; Hospitals Committee 36; finance, 36; new member, 36; premises, 149; Middlemore Prize, 149

Committee, Medico-Political, 33, 78, 144, 209; new member, 33; Parliamentary questions, 33: Midwives Roll, 33; payment of medical men called in to assist midwives, 33; Contract Practice Subcommittee, 33, 146, 210; deputation to the President of the Local Government Board, 33; draft clause for inclusion in the Medical Acts Amendment Bill, 33, 210; introduction by the Spectacle-makers' Company of a Bill into Parliament, 33: Nurses' Registration Report, 78; Committee's recommendations, 104, 209: Lead Poisoning Subcommittee, 144; amendment of the lunacy laws, 144, 210; amendment of the Inebriates Acts, 145; Parliamentary Subcommittee. 146; substitution of property tax for income tax, 209; professional responsibility, 209; reports on recommendations of Committee, 209; vivisection, 210; Poisons and Pharmacy Bill, 210; Notice of Accidents Bill, 210; Prevention of Corruption Bill, 210; Workmen's Compensation Bill, 210

Committee, Organization, 35, 147, 211; Connaught Branch, 35; Medical Secretary's visits to Divisions and Branches, 35, 212; proposed formation of an Egyptian Branch, 36: forms of annual reports, 36: Division and Branch finance, 36; alterations of by-laws, 36; Bombay Branch, 147; suggested reduced subscription in certain cases, 147; Colonial Branches finance, 147; Branch maps, 147; supplementary grants to Divisions and Branches. 148; application for a charter, 148; alteration of boundaries. 148, 212; grouping of Divisions and Branches for representative purposes. 148, 212; alteration of articles, 148; election of a member, 148; tenure of office of Representative Meeting members of Council, 148; issue of recommendations as to contract practice, 212; Branch rules, 212; conference of honorary secretaries at Leicester, 212; annual reports of Divisions and Branches, 212; district organizing secretaries, 212; Science Committee, 212; the Charter, 212; South African Medical Association, 212; resolution of North Manchester Division, 212

Committee, Premises and Library, 31, 36, 213; grants of duplicate books to Divisions, 36, 213; librarian's report, 36, 213; rebuilding of the Association premises, 36, 213; library hours, 213

Committee on puerperal morbidity, 261; report and recommendations, 261

Committee, Public Health, 150, 211; dismissal of a public vaccinator, 150; hospital isolation, 150, 211; Congress of the Royal Sanitary Institute, 150; Public Health (Security of Tenure) Bill, 150, 211; public health matters before Parliament, 150; action of Council respecting recommendations of the Committee, 211: Bills before Parliament, 211; pending disputes, 211

Committee, Science, 148; special research library, 148; scientific grants, 149; annual meeting, Toronto, 149; co-ordination of scientific work, 149; puerperal morbidity, 149; investigation of hereditary disease, 149

Committee, Scottish, 34

Companies, assumption of titles by, 302

Connaught Division. *See* Division

Constituency, Folkestone, Dover, and Ashford, 317; annual meeting, 317; election of officers, 317; Annual Representative Meeting, 317

Contract practice (F. R. Humphreys), 79; (Dr. Blake), 185

Contract medical practice, Medico-Political Committee and, 33, 146, 210; resolutions of: Barnstaple Division, 174; Bradford Division, 214; Cardiff Division, 68: Central Division, 13; Chester Division, 213; City Division, 38; Coventry Division, 102; Eastbourne Division, 162; Guildford Division, 162; Hampstead Division, 66, 150; Lanarkshire Division, 249; Lincoln Division, 282; Liverpool (Northern) Division, 265; Northampton Division, 87; Stockport, Macclesfield, and East Cheshire Division, 37; Stratford Division, 86, 240: South Carnarvon and Merioneth Division, 335; South-Eastern Counties Division, 185: South Wales and Monmouthshire Branch, 67; Winchester Division, 14

Co-ordination of the scientific work of the Association, resolutions of: Science Committee, 149: Bournemouth Division, 9: Central Division, 13; Chester Division, 213; Lanarkshire Division, 249; Lincoln Division, 282; Liverpool Northern Division, 265; Winchester Division, 14

Coroners Act Amendment Bill. *See* Bill

Coroners' law, resolutions of Divisions, 185

Coroners, payments of to pathologists, 16

Council, General Medical, Direct Representatives on (*see* Direct); meetings, 92, 286, 293; Executive Committee, 92; members, 92; University of Wales, 92; medical practice in Nova Scotia, 92; Council chamber, 92; medical practice in Swaziland, 92; B.Sc. in Public Health, Glasgow, 92, 293; Apothecaries' Hall, Dublin, 92; practice by companies, 92; Sir William Thomson, 92: dental business, 92, 293; dentistry in Hong Kong, 92; President's address, 286, 293; Business Committee, 293: results of examinations, 294: Penal Cases Committee, 295; reciprocity with Japan, 295: disciplinary cases, 296, 303, 305: dental disciplinary cases, 298: Sight-testing Opticians Bill, 299, 308; assumption of titles by companies, 302: Society of Apothecaries, London, 303, 308; Apothecaries' Hall, Dublin, 303; examination for the services, 303: quatercentenary of the University of Aberdeen, 303: Poisons and Pharmacy Bill, 304: restoration of a name, 305; report on the cycle of inspections of the final examinations, 305: report of Pharmacopoeia Committee, 307; British Medical Association and the election of Direct Representatives, 307; election of committees, 307, 309, 314: pupilage, 308: scrutiny of voting, 308: visitation and inspection of examinations, 308: proposed election of Direct Representatives by vote, 310; practical midwifery, 310: reports of committees, 312: increase in number of Direct Representatives 312; vote of thanks to chairman, 314

Council proceedings. *See* Association

Coventry Division. *See* Division

Croydon Division. *See* Division

D.

Denbigh and Flint Division. *See* Division

Dental business (General Medical Council), 293, 298

Dentistry in Hong Kong, 92

Derry Division. *See* Division

Direct representation on General Medical Council, nominations, 55, 61, 77, 85, 101, 153, 164, 175, 238; British Medical Association and, 307; increase in number of, 312. Resolutions of: Bournemouth Division, 9; Central Division, 13; City Division, 265; Liverpool (Northern) Division, 265; Manchester (South) Division, 37; Salisbury Division, 317; Torquay Division, 318; West Bromwich Division, 184; Winchester Division, 14

Disciplinary cases, 296, 298, 303

Dispensaries, provident, 86, 103, 213

Dispensary, Rusholme Provident, 37

Division, Altrincham, 325, 351; general meeting, 325; confirmation of minutes, 325, 351; the Division and a local medical officer of health, 325; resignation of representative on Branch Council, 325; vote of thanks to Sir William Bailey, 525; annual meeting, 351; election of officers, 351; alteration of rules, 351; associate members, 351; sanatorium treatment of phthisis, 351; hospital, 351; dinner, 351

Division, Aylesbury, 103; confirmation of minutes, 103; hospital abuse, 103; rules of Central Midwives Board, 103

Division, Barnstaple, 174, 252; confirmation of minutes, 174, 252; correspondence, 174; papers, 174, 252; case, 174; microscopic specimens, 174; contract practice, 174: draft charter, 174; annual meeting of Division, 174; annual report, 252; election of officers, 252; discussion, 252; entertainment at Cliff Hydro, 252

Division, Blackburn, 314; annual meeting, 314; report of the Representatives, 314; secretary's report, 314: election of officers, 314; Representative at annual meeting, 314; resolutions of Lancashire and Cheshire Branch, 314; vote of thanks, 314

Division, Bootle, 351; annual meeting, 351; balance sheet, 351; office-bearers, 351; candidates for General Medical Council, 351: members and the work of the Division, 351

Division, Boston and Spalding, 335: annual meeting, 335; confirmation of minutes, 335; secretary's report, 335; treasurer's report, 335; election of officers, 335; associate member, 335; programme for the year, 335; luncheon, 335

Division, Bournemouth, 9, 158, 341; confirmation of minutes, 9, 158, 341; co-ordination of the scientific work of the Association, 9; representatives on General Medical Council, 9; questions to parliamentary candidates, 9; Divisional meeting, 9; next meeting, 9; Bournemouth Medical Society, 158; title of doctor, 158; hospital out-patient departments, 158; grants to Divisions, 158; expenses of Representatives, 158; registration of nurses, 158; discussion, 158; election of officers, 341; proposed Royal Charter, 342; draft ordinances, 342; draft by-laws, 342; discussion, 342

Division, Bradford, 15, 163, 214, 318; confirmation of minutes, 163, 318; administrative orders, 163; notices of motion for Representative Meeting, 163; registration of nurses, 163; contract medical practice, 214; appointment of committee on contract practice, 215; nomination of officers, 318; annual meeting of the Association in 1907, 318; voluntary notification of phthisis, 319; inquiry as to public vaccination, 319

Division, Brighton, 56, 187; confirmation of minutes, 56, 187: next meeting, 56; Division and Branch finance, 55; annual meeting of Branch, 187

Division, Bristol, 281: annual meeting, 281; proposed Royal Charter, 281; Annual Representative Meeting, 281

Division, Burnley, 334; annual meeting, 334; election of officers, 334

Division, Canterbury and Faversham, 161, 336; luncheon, 161; clinical meeting, 161: medico-political meeting, 161; confirmation of minutes, 161; next meeting, 161, 336; registration of nurses, 161; hospital out-patient departments, 161; resolution of Ethical Committee, 161; police emergency fees, 161; Representative at Annual Representative Meeting, 161; nomination of members for General Medical Council, 161; East Kent and Canterbury Medical Society, 161: Divisional finance, 161; messages of apology, 161; communication from South-Eastern Branch, 161; votes of thanks, 161. 336; annual meeting, 336; election of officers, 336: proposed Royal Charter, 336; Association candidates for General Medical Council, 336; excursion, 336; dinner, 336; annual report, 336

Division, Cardiff, 68, 251, 282: confirmation of minutes, 68, 251; ethical and contract matters, 68; medical autobiographies, 68; Central Midwives Board, 68; paper, 68; proposed Royal Charter, 251; proposed State registration of nurses, 251: annual meeting, 282; election of officers, 282; report of Executive Committee, 282; Annual Representative Meeting, 282; vote of thanks to retiring chairman, 282

Division. Central (Birmingham), 13; confirmation of minutes, 13; co-ordination of scientific work, 13; ambulance work, 13; direct representation on General Medical Council, 13; the Division and Parliamentary candidates, 13; contract medical practice, 13

Division, Central (Glasgow and West of Scotland Branch), 325; annual meeting, 325; confirmation of minutes, 325; reports from secretary, 325; election of officers, 325; matters referred to Divisions, 325

Division, Chester, 213; apology for absence, 213; confirmation of minutes, 213; matters referred to Divisions, 213; co-ordination of scientific work, 213; candidates for General Medical Council. 213: rules of Central Midwives Board, 213; registration of nurses, 214; tea, 214

Division, Chester and Crewe, 250; annual meeting, 250; minutes, 250; alteration of rules, 250; report of Executive Committee, 250; election of officers, 250; proposed application for Charter, 250; clinical and pathological, 250

Division, City, 37, 86, 265, 314, 343; confirmation of minutes, 37, 86; Division and Branch finance, 37; special meeting, 37; representative on Branch Entertainment Committee, 37; Annual Representative Meeting, 37, 86; Association Library, 37; facilities for social intercourse, 38; contract medical practice, 38; letter from Chairman of Division, 86; letter from Chairman of Wandsworth Division, 86; Friendly Societies and their medical officers, 86; notices of motion for next Representative Meeting, 86, 314; provident dispensaries, 86; public medical services, 86; State registration of nurses, 86; nomination of candidates for General Medical Council, 86; out-patient departments of hospitals, 86; relationship of hospitals to public medical service, 86: vote of thanks, 86; nomination for officers in the Branch, 265; draft Royal Charter, 265; selection of candidates for General Medical Council, 265; notices of motion for Representative Meeting, 265; annual general meeting, 314; annual report of Executive Committee, 314: election of officers, 314; report of delegates to conference *re.* representation of the Branch on Central Council, 314; nomination of representative of Branch on Central Council, 314; first annual dinner, 343

Division, Coventry, 36.55. 102, 158, 239, 341; acute rheumatism, 36; charges for private midwifery cases, 36; specimens, 37, 55; medical men and Friendly Societies, 55; minimum fee for Friendly Societies, 55: Midwives Act, 55; fees in midwifery cases, 55, 158; contract medical practice, 102; provident dispensaries, 103, 239; letters of apology, 158; public medical services, 158: paper, 158, 239; Bradford, Rule B., 239; annual meeting, 341; election of officers, 341: report of Executive Committee, 341: proposed Royal Charter, 341; vote of thanks, 341

Division, Croydon, 161, 327: the late Dr. T. R. Adams, 161: confirmation of minutes, 161, 327; next meeting, 161, 327: papers, 161: dinner, 161: election of officers, 327: clinical meeting. 327; cases, 327; dinner, 327

Division, Denbigh and Flint, 160, 326; confirmation of minutes, 160: the Division and Parliamentary candidates. 160: ethical rules. 160; next meeting, 160; paper, 160: election of officers. 326; nomination for Central Council, 326: annual report, 326: matters referred to Divisions. 326; autumn meeting, 326: address, 326

Division, Derry. 214; proposed bacteriological laboratory, 214: out-patient departments in hospitals, 214; routine business, 214

Division. Dover, 87; confirmation of minutes, 87; rules of Central Midwives Board, 87: statement of accounts. 87: paper, 87; vote of thanks to the chairman, 87

Division, Dumbartonshire and Argyllshire, 159; letters, 159: constitution of Division, 159: officers and representatives, 159; surplus funds, 159; proposed Association house in Edinburgh, 159

Division, Eastbourne, 162; hospital out-patient departments, 162; registration of nurses, 162: contract practice, 162

Division, East Norfolk, 158; confirmation of minutes, 158: grouping of Division, 159; case, 159; Lowestoft Medical Institute, 159; draft charter, 159: women and children's clubs, 159; papers for next meeting, 159

Division, Edinburgh, North East, 314; annual meeting, 314; election of officers, 314; new rule, 314; Annual Representative Meeting, 314; Branch and Division finance, 314

Division, Folkestone, 87, 317; confirmation of minutes, 87, 317; duplicate books in the library, 87; Executive Committee, 87: paper, 87; Annual Representative Meeting, 87; demonstration, 87; election of officers, 317; report of Executive Committee, 317; average attendance, 317; dinner, 317

Division, Gateshead, 344; annual meeting, 344; Division picnic, 344; election of officers, 344

Division, Glasgow Southern, 334; annual meeting, 334; confirmation of minutes, 334; annual report, 334; election of officers, 334; Annual Representative Meeting, 334

Division, Grahamstown, 173; specimens. 173; paper, 173; letters, etc., 173; vote of thanks, 173

Division, Guildford, 162; confirmation of minutes, 162; paper, 162; contract practice, 162; hospital out-patient departments, 162; Royal Charter, 162; medical practitioners and midwives, 162; vote of thanks, 162

Division, Hampstead, 14, 66, 150, 185, 250, 343; confirmation of minutes, 14, 66, 150, 185, 250, 343; letters of apology, 14, 66, 185, 343; Branch Entertainment Committee, 14; diagnosis of uterine cancer, 14: the Division and Parliamentary candidates, 14: vote of sympathy with Dr. Yeld, 66; resolutions from City Division, 66; financial report, 66; proposed deputation to Parliamentary candidates, 66; offer of Journals, 66: contract practice, 66, 150, 186; Central Midwives Board, 66; vote of thanks, 66, 344: Hampstead Hospital, 150, 185; paper, 150: meetings, 150; subdivisions, 150: Divisional finance, 151; conference of Divisions, 151; hospital abuse, 151; rules of Central Midwives Board, 151; resolutions from the Representative Meeting, 186; nomination for officers, 250; General Medical Council election, 250; cottage hospitals, 250: questions, 343; deputation, 343; Medical Charities Committee, 343; annual report, 343; finance, 343; Contract Practice Subcommittee, 343; Library Subcommittee, 343: election of officers and committee, 343; election of Chairman, 343; Vice-Chairman, 344; Representatives on Branch Council, 344; Representative to the Representative Meeting, 344; Honorary Secretary, 344: subcommittees, 344; instructions to Representative, 344

Division, Isle of Thanet, 66, 173; confirmation of minutes, 66, 173; school certificates, 66; paper, 66, 174; vote of thanks, 66; the late Dr. C. J. Harnett, 66; Division and parliamentary candidates, 173: medical practitioners and midwives, 174; registration of nurses, 174; hospital administration, 174; demonstration, 174: annual meeting of Division, 174; dinner, 174

Division, Kensington, 56, 151; representative on Entertainment Committee, 56: the late Dr. Campbell Pope, 56; clinical cases, 56: vote of thanks, 56, 151; direct representatives on General Medical Council, 151: nominations for Branch officers, 151; rebuilding of Association premises. 151: Branch and Division finance, 151; paper, 151

Division, Lambeth, 265, 335; vote of congratulation, 265: Wandsworth Division, 265; paper, 265. 335; visit to infirmary, 265: confirmation of minutes, 335; election of officers, 335; vote of thanks to retiring secretary. 335: visit to hospital, 335

Division, Lanarkshire, 9, 249; medical profession and Parliamentary candidates, 9; report of Ethical Committee, 9; confirmation of minutes, 249; letters, 249; financial statement, 249; election of officers, 249; matters referred to Divisions, 249

Division, Lancaster, 266: annual meeting, 266; election of officers, 266

Division, Leicester, 343; annual meeting, 343; election of officers, 343; annual representative meeting, 343

Division, Lincoln, 282: annual meeting, 282; election of officers, 282; associate member, 282: contract medical practice, 282; co-ordination of scientific work, 282: hospital out-patient departments, 282; State registration of nurses, 282: proposed Royal Charter, 282

Division, Liverpool Central, 351; annual meeting, 351; election of officers, 351; annual report, 351; financial position of the Association, 351; vote of thanks, 351

Division, Liverpool (Northern), 265, 325: confirmation of minutes, 265, 325; an ethical question, 265; rules of Central Midwives Board, 265; matters referred to Divisions, 265; notices of motion, 265, 326; report of

Executive Committee, 325; election of office-bearers, 325; proposed Royal Charter, 326; medical officers recognized under the Elementary School Teachers (Superannuation) Act 1898, 326; illness of Dr. Adcock, 326; votes of thanks, 326

Division, Liverpool (Southern), 64, 334; confirmation of minutes, 64, 334; the late Dr. Cregeen, 64; Central Midwives Board, 64; ethical rules, 64; the Division and parliamentary candidates, 64; annual meeting, 334; accounts for the year, 334; election of officers, 334; Annual Representative Meeting, 334

Division, Maidstone, 327; proposed Royal Charter, 327; proposed pathological department, 327; name of representative body, 327; proposed life membership of Association, 327; Association finances, 327

Division, Manchester (Central), 334; annual meeting, 334; election of officers, 334; annual report, 334; Annual Representative Meeting, 334

Division, Manchester (North), 151, 282; resolutions, 151; notices of motion for Representative Meeting, 151; notifications to Medical Secretary, 151; proposed Royal Charter, 282; State registration of nurses, 282; new rules, 282; election of officers, 282; direct representatives on General Medical Council, 282

Division, Manchester (South), 37; Rusholme Provident Dispensary, 37; standard minimum rate for midwifery cases, 37; contract practice, 37; warning notice as to canvassing and advertising, 37; direct representatives on General Medical Council, 37

Division, Manchester West), 334, 342; annual meeting, 334, 342; election of officers, 334, 342; vote of thanks, 342; annual report, 342; Annual Representative Meeting, 342; nominations for General Medical Council election, 342; payment of Representatives, 343; proposed Royal Charter, 343

Division, Marylebone, 159, 186, 314; confirmation of minutes, 159, 186, 314; Direct Representatives on General Medical Council, 159; Annual Representative Meeting, 159; Entertainment Committee, 159; new rules of Central Midwives Board, 159; out-patients at hospitals, 159; treatment of the sick poor, 159; expenses of representatives, 159; By-law 17, 159; title of "Dr.," 159; declaration by candidates, 159; new premises of Association, 159; candidates for Central Council, 186; ethical rules, 186; appointments, 186; proposed alteration in Article XXVII, 186; proposed change of title, 186; fees for ambulance work, 186; resolutions referred to Divisions, 186; draft Charter, 186; general meeting, 314; nominations for Branch Council, 314; meeting of representatives of metropolitan Divisions, 314; nominations for Central Council, 315; registration of nurses, 315; notices of motion referred to the Divisions, 315; annual meeting, 315; election of officers, 315; report of Executive Committee, 315; votes of thanks, 315

Division, Monmouthshire, 318; annual meeting, 318; apologies for non-attendance, 318; installation of new chairman, 318; vote of thanks to retiring chairman, 318; election of officers and council, 318; report of Executive Committee, 318; Annual Representative Meeting, 318; future meeting of Divisions, 318

Division, Northampton, 87, 317; Representative at Representative Meeting and Honorary Secretary, 87; Executive Committee, 87; Annual Representative Meeting, 87; surplus Divisional funds, 87; matters referred to Divisions, 87; contract practice, 87; formation of Divisional library, 87; direct representatives on Council, 87; hospital management, 87; election of officers, 317; South Northamptonshire Nursing Club, 317; registration of nurses, 318

Division, North Carnarvonshire and Anglesea, 326; annual meeting, 326; confirmation of minutes, 326; Midwives Registration Act, 326; Anglesea coroner, 326; Bangor Workhouse dispute, 326; report of Executive Committee, 327; election of officers, 327; nomination of Representative of the North Wales Branch on Central Council, 327; proposed Royal Charter, 327; agenda of Annual Representative Meeting, 327; ethical rules *re* contract practice and appointments, 327

Division, North Cumberland, 284; confirmation of minutes, 248; matters referred to Divisions, 248; rules of Central Midwives Board, 248; Division areas, 248; communications, 248; dinner, 248

Division, North Glamorgan and Brecknock, 344; annual meeting, 344; confirmation of minutes, 344; election of officers, 344; report of Executive Committee, 344; agenda of Annual Representative Meeting, 344; proposed Royal Charter, 344; Chairman's address, 344

Division, North-West (Edinburgh Branch), 342; annual meeting, 342; confirmation of minutes, 342; election of officers and Executive Committee, 342; report of Executive Committee, 342; Annual Representative Meeting, 342; matters referred to Divisions, 342; other business, 342

Division, Norwood, 67, 266; confirmationof minutes, 67, 266; next meeting, 67; London School of Clinical Medicine, 67; special meeting, 266; visit to hospital, 266

Division, Oxford, 9, 151; extraordinary meeting, 9; questions to Parliamentary candidates, 9; special Parliamentary committee, 9; members present at Divisional meetings, 9; confirmation of minutes, 151; deceased members, 151; Midwives Act, 151

Division, Portadown and West Down, 88, 252; the Division and parliamentary candidates, 88; chairman's address, 88; communications, 88; proposed Royal Charter, 252; State registration of nurses, 252; papers, 252; next meeting, 252

Division, Reading and Maidenhead, 214; proposed Royal Charter, 214; Branch surplus funds, 214; anaesthetists and unregistered dentists, 214; apologies for absence, 214

Division, Reigate, 174; draft Charter, 174

Division, Richmond, 315, 326; nomination for Central Council, 315, 326; Annual Representative Meeting, 315; representative on Branch Council, 315; election of honorary secretary, 315; election of officers, 326

Division, Rochdale, 334; annual meeting, 334; confirmation of minutes 334; annual report, 334; balance sheet, 334; election of officers, 334; Association funds and benevolent purposes, 334; the *Year Book*, 334; Darnell Fund, 335; expenditure of the Association, 335; vote of thanks to the chairman, 335

Division, St. Pancras and Islington, 38, 160, 250, 315; representative on Entertainment Committee, 38; Division and parliamentary candidates, 38; measures in Parliament, 38; lecture, 38; Sir William Collins, 160; General Medical Council, 160; address, 160; medical politics, 160; nomination for vacancies, 250; proposed Royal Charter, 251; Hampstead General Hospital, 251; vote of thanks, 251; annual meeting, 251, 315; election of officers, 315; annual report and balance-sheet, 315; Annual Representative Meeting, 315; resolution as to meetings, 315

Division, Salisbury, 317; annual meeting, 317; confirmation of minutes, 317; letters, 317; balance-sheet, 317; election of officers, 317; vote of thanks to retiring chairman, 317; vote of thanks to honorary secretary, 317; Annual Representative Meeting, 317; proposed Royal Charter, 317; Division and Branch finance, 317; rules of Central Midwives Board, 317; fees for life assurance examinations, 317; direct representation on General Medical Council, 317; paper, 317; vote of thanks to Infirmary Committee, 317

Division, Scottish, 281; annual meeting, 281; election of officers, 281; address, 281; dinner, 281

Division, Sevenoaks, 162; Parliamentary Committee, 162; papers, 162; General Accident Insurance Corporation, 162; dinner, 162

Division, Singapore, 314; out-patient departments, 314

Division, Southampton, 352; annual meeting, 352; letter, 352; confirmation of minutes, 352; election of officers, 352; Annual Representative Meeting, 352; report of Executive Committee, 352; provident dispensaries, 352; matters referred to Divisions, 352; Division and Branch finance, 352; out-patient departments, 352; registration of nurses, 352; proposed Royal Charter, 352

Division, South Carnarvon and Merioneth, 335; annual meeting, 335; confirmation of minutes, 335; correspondence, 335; election of officers, 335; nomination of Representative of North Wales Branch on Central Council, 335; report of Executive Committee, 335; Annual Representative Meeting, 335; contract practice appointments, 335; autumn meeting, 335; discussion, 335

Division, South Connaught, 22; appointment of honorary secretary, 22; proposed formation of Branch, 22; election of officers, 22; the profession and parliamentary candidates, 22

Division, South-Eastern Counties, 185; confirmation of minutes, 185; matters referred to Divisions, 185; Midwives Act, 185; British Medical Benevolent Fund, 185; vote of thanks, 185

Division, Southern, Edinburgh Branch, 333; annual meeting, 333; confirmation of minutes, 333; annual report, 333; Secretary's report, 332; election of officers, 333; income tax, 333; collection of medical fees, 334; vote of thanks to chairman, 334

Division, Southport, 265; annual meeting, 265; election of officers, 265; report of Executive Committee, 265; matters referred to Divisions, 265

Division, Stockport, Macclesfield, and East Cheshire, 37; contract medical practice, 37; condition at Macclesfield, 37; the Division and parliamentary candidates, 37

Division, Stratford, 66, 86, 160, 186, 240, 352; address, 66, 160; Association library, 66; confirmation of minutes, 86, 160, 240; paper, 86; rules of Central Midwives Board, 86; medical practitioners and midwives, 86; contract medical practice, 86, 240; election of candidates for Central Council, 160, 240; candidates for General Medical Council, 160; annual dinner, 186; hospital out-patient departments, 240; registration of nurses, 240; the Ethical Committee, 240; proposed Royal Charter, 240; meeting, 352; election of office-bearers, 352

Division, Torquay, 318; annual meeting, 318; annual report, 318; General Medical Council election, 318; election of officers, 318; an ambulance for Torquay, 318

Division, Tottenham, 38, 86, 315; confirmation of minutes, 38, 86; abuse of out-patient departments, 38; representative on Entertainment Committee, 38; paper, 86; public vaccinators general practitioners, 86; fees for insurance examinations, 86; nominations for Central Council, 315; election of officers, 315; Annual Representative Meeting, 315; the late Dr. Tomlin, 315

Division, Truro, 15, 336; State registration of nurses, 15; the Division and parliamentary candidates, 15; Divisional representatives and Branch meetings, 15; indecent advertisements, 15; papers, 15, 336; demonstration of cases in hospital, 15; tea, 15; next meeting, 15; school children, 336; annual meeting, 336

Division, Wandsworth, 315; annual meeting, 315; minutes, 315; correspondence 315; representative at Annual Representative Meeting, 315; election of officers and Committee, 315; electors to Committees, 315; annual report, 315; annual dinner, 316

Division, Warrington, 352; annual meeting, 352; election of officers, 352

Division, Waterford, 21; the Division and parliamentary candidates, 21; cases referred to Medico-Ethical Committee, 21; Annual Representative Meeting, 21

Division, West Bromwich, 184; letters of apology, 184; confirmation of minutes, 184; proposed Royal Charter, 184; registration of nurses, 184; hospital out-patient departments, 184; direct representation in General Medical Council, 184; proposed annual dinner, 184

Division, Westminster, 38, 251, 352; confirmation of minutes, 38, 251, 352; hospital abuse, 38, 251; Lupus Street Dispensary, 38; proposed conjoint meeting, 38; Annual Representative Meeting, 38; Association and the London practitioner, 38; representative on Entertainment Committee, 39; correspondence, 251; Central Council election, 251; proposed Royal Charter, 251, 352; election of officers, 352; report of Executive Committee, 352; Annual Representative Meeting, 352; vote of thanks to retiring chairman, 352

Division, Winchester, 14, 87, 352; confirmation of minutes, 14, 352; the late Mr. Langdon, 14; contract practice, 14; direct representation on General Medical Council, 14; the Division and parliamentary candidates, 14; co-ordination of scientific work, 14; annual report, 15; presentation to Mr. T. C. Langdon, 15; papers, 15; communications, 15; financial statement, 15; scale of fees, 15, 353; appointment of medical officer of health for Winchester, 87; annual meeting, 352; election of officers, 352; annual meeting of Branch in 1907, 353; proposed alteration of rule, 353; matters referred to Division, 353; demonstration, 353; epidemic diarrhoea, 353; vote of thanks, 353; Poor-law appointment at Alresford, 353

Divisions, Brighton, Tunbridge Wells, Eastbourne and Hastings, 87; combined meeting, 87; address, 87; the Divisions and parliamentary candidates, 87; dinner, 87

Divisions, Chelsea, Richmond, and Wandsworth, 239; Wandsworth Cottage Hospital for Children, 239; vote of thanks, 239

Divisions, City and Tottenham, 214; Branch and Division finance, 214; representation of Branch on Central Council, 214; paper, 214; votes of thanks, 214

Divisions, Gateshead and Consett, 344; Representative at Annual Representative Meeting, 344

Divisions, Liverpool and Birkenhead, 159; joint meeting and dinner, 159

Divisions, St. Helen's and Warrington, 352; Representative on Branch Council, 352; Annual Representative Meeting 352; election of officers, 352

"Doctor," title of. *See* Title

Dorset and West Hants Branch. *See* Branch

Dover Division. *See* Division
Dumbartonshire and Argyllshire Division. *See* Division
Dundee Branch. *See* Branch

E.

East Anglian Branch. *See* Branch
Eastbourne Division. *See* Division
East Norfolk Division. *See* Division
Eastern Province Branch. *See* Branch
Ebbw Vale dispute, 67
Edinburgh (North-East) Division. *See* Division
Edinburgh and other Branches. *See* Branches
Election, general, memoranda and questions, 1
Emergency Fund. *See* Fund
Ethical Committee. *See* Committee

F

Feeble-minded, care of, 47
Feeble-minded, Royal Commission on, 93, 105, 168. *See also* JOURNAL Index
Fees for ambulance work, 186
Fees in insurance examinations, 86, 315
Fees in midwifery cases, 55, 158
Fees, police emergency, 161
Folkestone Division. *See* Division
Folkestone, Dover, and Ashford constituency. *See* Constituency
Friendly Societies, medical men and, resolutions of City Division, 86; Coventry Division, 55
Friendly Societies, minimum fee for, resolutions of Coventry Division, 55
Fund, British Medical Benevolent, 185
Fund, Central Emergency, proposed, 6
Fund, Metropolitan Hospital Sunday, 93. *See also* JOURNAL Index

G.

Gateshead Division. *See* Division
Gateshead and Consett Divisions. *See* Divisions
General Accident Assurance Corporation, 162
General election. *See* Election
General Medical Council. *See* Council
General direct representation. *See* Direct
Gibraltar Branch. *See* Branch
Glasgow Division. *See* Division
Grahamstown Division. *See* Division
Grants for scientific research. *See* Association
Guildford Division. *See* Division

H.

Halifax and Nova Scotia Branch. *See* Branch
Hampstead Division. *See* Division
Hereditary disease, investigation of, 149
Hong Kong, dentistry in, 92
Hospital, Hampstead, 185
Hospital, Wandsworth Cottage, 239
Hospital out-patient departments, 53; resolutions of: Aylesbury Division, 103; Southampton Division, 352; Bournemouth Division, 158; Canterbury and Faversham Division, 161; Central Division (Scotland), 325; City Division, 86; Derry Division, 214; Dundee Branch, 184; Eastbourne Division, 162; Guildford Division, 162; Hampstead Division, 151; Isle of Thanet Division, 174; Lanarkshire Division, 249; Lincoln Division, 282; Liverpool Northern Division, 265; Marylebone Division, 159; Northampton Division, 87; Singapore Division, 314; Southport Division, 265; Stratford Division, 239; West Bromwich Division, 184; Westminster Division, 251; West Somerset Branch, 163
Hospitals Committee. *See* Committee
Hospitals, cottage, 250
HUMPHREYS, F. R.: Contract practice, 79

I.

Inebriates Acts. *See* Acts
Insurance companies and medical officers, 35
Isle of Thanet Division. *See* Division
Irish Committee. *See* Committee

J.

Japan, reciprocity with, 295
Journal and Finance Committee. *See* Committee

K.

Kensington Division. *See* Division

L.

Lambeth Division. *See* Division
Lanarkshire Division. *See* Division
Lancashire and Cheshire Branch. *See* Branch
Lancaster Division. *See* Division
Leicester Division. *See* Division
Leinster Branch. *See* Branch
Lincoln Division. *See* Division
Liverpool Division. *See* Division
Liverpool and Birkenhead Divisions. *See* Divisions
Lunacy laws, amendment of, 144, 210

M

Maidstone Division. *See* Division
Manchester Division. *See* Division
Marylebone Division. *See* Division
Matters referred to Divisions: Notices of motion, 45, 62, 78, 141, 181, 207, 342; hospital out-patient departments, 53; annual report of Council, 197. Resolutions of: Central Division (Scotland), 325; Chester Division, 213; Denbigh and Flint Division, 326; Lanarkshire Division, 249; Liverpool Northern Division, 265; Northampton Division, 87; North Cumberland Division, 248; Southampton Division, 352; South-Eastern Counties Division, 185; Southport Division, 265; Winchester Division, 353
Medical Acts Amendment Bill. *See* Bill
Medical Advertising. *See* Advertising
Medical charities, abuse of in Nottingham, 272
Medical practice in Nova Scotia, 92; in Swaziland, 92
Medical practitioners and midwives, 47, 86, 162, 174
Medical profession and parliamentary candidates. *See* Parliamentary
Medico-Political Committee. *See* Committee
Metropolitan Counties Branch. *See* Branch
Midwifery, practical, 310
Midwives Act. *See* Act
Midwives Board. *See* Board
Midwives and medical practitioners, 47
Midwives Roll, Medico-Political Committee and, 33. *See also* Board, Central Midwives
Militia. *See* Army
Monmouthshire Division. *See* Division

N.

Navy, Royal, promotions and appointments, in the medical service of, 10, 17, 25, 40, 49, 57, 71, 82, 96, 105, 138, 154, 169, 178, 225, 242, 258, 273, 290, 322, 330, 338, 346, 354; health of, 94
New Zealand Militia. *See* Army, British
Northampton Division. *See* Division
North Carnarvonshire and Anglesea Division. *See* Division
North Cumberland Division. *See* Division
North Glamorgan and Brecknock Division. *See* Division
North Wales Branch. *See* Branch
North-West Division. *See* Division
Norwood Division. *See* Division
Notice of Accidents Bill. *See* Bill
Notices of motion. *See* Matters referred to Divisions
Nottingham, abuse of medical charities in. *See* Medical
Nova Scotia, medical practice in, 92
Nurses, State registration of, Medico-Political Committee and, 78; deputation to the Lord President, 104. Resolutions of: Barnstaple Division, 174; Border Counties Branch, 248; Bournemouth Division, 158; Bradford Division, 163; Canterbury and Faversham Division, 161; Cardiff Division, 251; Central Division (Scotland), 325; Chester Division, 214; City Division, 86; Dundee Branch, 184; Eastbourne Division, 162; Lincoln Division, 282; Manchester (North), Division, 282; Marylebone Division, 315; Northamptonshire Division, 318; Portadown and West Down Division, 252; Southampton Division, 352; South-Eastern Counties Division, 185; Southport Division, 265; Stratford Division, 240; Truro Division, 15; West Bromwich Division, 184

O.

Opticians Bill. *See* Bill
Organization Committee. *See* Committee
Oxford Division. *See* Division

P.

Parliamentary candidates, questions to. Resolutions of: Brighton, Tunbridge Wells, Eastbourne and Hastings Divisions, 87; Bournemouth Division, 9; Central Division, 13; Denbigh and Flint Division, 160; Hampstead Division, 14; Isle of Thanet Division, 173; Lanarkshire Division, 9; Liverpool (Southern) Division, 64; Oxford Division, 9; Portadown and West Down Division, 88; St. Pancras Division, 38; South Connaught Division, 22; Stockport, Macclesfield, and East Cheshire Division, 37; Truro Division, 15; Waterford Division, 21; Winchester Division, 14
Patent medicines, 173
Payments by coroners. *See* Coroners
Payment of medical men called in to assist midwives, Medico-Political Committee and, 33
Perth Branch. *See* Branch
Phthisis. *See* Tuberculosis
Poisons and Pharmacy Bill. *See* Bill
Poor-law Association of Ireland: Irish Committee and, 34
Poor-law Commission, Irish Committee and 33, 212. Resolutions of: Leinster Branch, 66
Portadown and West Down Division. *See* Division
Premises and Library Committee. *See* Comittee
Prevention of Corruption Bill. *See* Bill
Provident dispensaries. *See* Dispensaries
Public Health Bill. *See* Bill
Public Health Committee. *See* Committee
Public medical services, 86, 158, 213
Public vaccinators and medical practitioners, 86
Puerperal morbidity, 149, 261
Puerperal morbidity, Committee on. *See* Committee

Q.

Queensland Branch. *See* Branch

R.

Reading and Maidenhead Division. *See* Division
Reciprocity with Japan, 295
Registration of nurses. *See* Nurses

Reigate Division. *See* Division
Richmond Division. *See* Division
Rochdale Division. *See* Division

S.

St. Helen's and Warrington Divisions. *See* Divisions
Salisbury Division. *See* Division
School certificates. *See* Certificates
Science Committee. *See* Committee
Scientific research, grants for. *See* Association
Scottish Committee. *See* Committee
Scottish Division. *See* Division
Sevenoaks Division. *See* Division
Shropshire and Mid-Wales Branch. *See* Branch
Sick poor, treatment of, resolution of Marylebone Division, 159
Singapore Division. *See* Division
South Carnarvon and Merioneth Division. *See* Division
South Connaught Division. *See* Division
South-Eastern Counties Division. *See* Division
South-Eastern of Ireland Branch. *See* Branch
Southern Division. *See* Division
Southport Division. *See* Division
South Wales and Monmouthshire Branch. *See* Branch
South-Western Branch. *See* Branch
Stirling Branch. *See* Branch
Stockport, Macclesfield and East Cheshire Division. *See* Division
Stratford Division. *See* Division
Swaziland, medical practice in, 92
Sydney and New South Wales Branch. *See* Branch

T.

Thibet mission escort, service with, 49
Title of "Doctor," resolutions of Bournemouth Division, 158; Marylebone Division, 159
Toronto, meeting of Association at. *See* Association
Torquay Division. *See* Division
Tottenham Division. *See* Division
Truro Division. *See* Division
Tuberculosis, voluntary notification of, 319

U

Ulster Branch. *See* Branch

V

Vaccination Bill. *See* Bill
Vaccination, public, inquiry as to, 319
Vivisection, 210
Vital statistics, 10, 17, 22, 40, 48, 57, 73, 82, 97, 106, 138, 155, 169, 176, 194, 225, 243, 256, 272, 289, 322, 330, 338, 345, 354
Vital statistics of London during the fourth quarter of 1905, 17; English urban mortality during the fourth quarter of 1905, 22, 57; during the first quarter of 1906, 256; epidemic mortality in London, 24, 289; Registrar-General's quarterly return, 48, 272; vital statistics of metropolitan boroughs during 1905, 73; annual report of Registrar-General for England and Wales, 194; health of English, Scotch, and Irish towns, 10, 18, 24, 40, 49, 57, 73, 82, 97, 106, 138, 155, 169, 176, 194, 225, 243, 256, 273, 289, 322, 330, 338, 345, 354
Volunteer officers' decoration, 242, 346
Volunteer Reserve, Royal Naval, promotions and appointments in the medical service of, 17, 154, 290
Volunteer Rifles, promotions and appointments in the medical service of, 25, 72, 97, 154, 178, 226, 273, 290, 322, 330, 346
Volunteers, Honourable Artillery Company of London, promotions and appointments in the medical service of, 322
Volunteers (Rifle), promotions and appointments in the medical service of, 258
Volunteers, Royal Army Medical Corps, promotions and appointments, 25, 72, 97, 106, 169, 178, 258, 273, 290, 322, 330, 346
Volunteers, Royal Engineers, promotions and appointments in the medical service of, 72, 97, 106, 154, 178, 226, 273, 290, 330
Volunteers, Royal Garrison Artillery, promotions and appointments in the medical service of 17, 26, 72, 97, 106, 154, 178, 273, 290, 330
Volunteers, Honourable Artillery Company, promotions and appointments in the medical service of, 97

W.

Wandsworth Division. *See* Division
Warning notices as to appointments, Ethical Committee and, 35. *See also* JOURNAL Index
Warrington Division. *See* Division
Waterford Division. *See* Division
West Bromwich Division. *See* Division
West Somerset Branch. *See* Branch
Westminster Division. *See* Division
Winchester Division. *See* Division
Workmen's Compensation Bill. *See* Bill

Y.

Year Book resolutions of Divisions and Branches, 334
Yeomanry, Imperial, promotions and appointments in the medical service of, 25, 97, 273, 290 330, 346
Yorkshire Branch. *See* Branch

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St Martin-in-the-Fields, in the County of Middlesex.

THE
British Medical Journal.
THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

SUPPLEMENT

CONTAINING

LIST OF MEMBERS

OF THE

British Medical Association

WITH

BRANCHES AND DIVISIONS.

CORRECTED TO APRIL 30th, 1906.

London:
PRINTED AND PUBLISHED AT THE OFFICE OF THE BRITISH MEDICAL ASSOCIATION,
429, STRAND, W.C.

CONTENTS.

HOME BRANCHES.

Page.
ABERDEEN BRANCH ... 3
BATH AND BRISTOL BRANCH ... 3
BIRMINGHAM BRANCH ... 4
BORDER COUNTIES BRANCH ... 6
CAMBRIDGE AND HUNTINGDON BRANCH ... 7
CONNAUGHT BRANCH ... 7
DORSET AND WEST HANTS BRANCH ... 7
DUNDEE BRANCH ... 8
EAST ANGLIAN BRANCH ... 8
EAST YORK AND NORTH LINCOLN BRANCH ... 10
EDINBURGH BRANCH ... 10
FIFE BRANCH ... 12
GLASGOW AND WEST OF SCOTLAND BRANCH 12
GLOUCESTERSHIRE BRANCH ... 14
LANCASHIRE AND CHESHIRE BRANCH ... 14
LEINSTER BRANCH ... 19
METROPOLITAN COUNTIES BRANCH ... 21
MIDLAND BRANCH ... 28
MUNSTER BRANCH ... 30
NORTH OF ENGLAND BRANCH ... 30
Page.
NORTHERN COUNTIES OF SCOTLAND BRANCH 32
NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH ... 33
NORTH WALES BRANCH ... 33
OXFORD AND READING BRANCH ... 34
PERTH BRANCH ... 35
SHROPSHIRE AND MID-WALES BRANCH ... 35
SOUTH-EASTERN BRANCH ... 35
SOUTH-EASTERN OF IRELAND BRANCH ... 39
SOUTHERN BRANCH ... 40
SOUTH MIDLAND BRANCH ... 41
SOUTH WALES AND MONMOUTHSHIRE BRANCH 42
SOUTH-WESTERN BRANCH ... 43
STAFFORDSHIRE BRANCH ... 44
STIRLING BRANCH ... 45
ULSTER BRANCH ... 45
WEST SOMERSET BRANCH ... 46
WORCESTERSHIRE AND HEREFORDSHIRE BRANCH ... 47
YORKSHIRE BRANCH ... 47

COLONIAL BRANCHES.

Page.
BARBADOS BRANCH ... 50
BERMUDA BRANCH ... 50
BOMBAY BRANCH ... 50
BRISBANE AND QUEENSLAND BRANCH ... 50
BRITISH GUIANA BRANCH ... 50
BURMAH BRANCH ... 51
CAPE OF GOOD HOPE—EASTERN PROVINCE BRANCH ... 51
CAPE OF GOOD HOPE—WESTERN PROVINCE BRANCH ... 51
COLOMBO, CEYLON, BRANCH ... 52
EGYPTIAN BRANCH ... 52
GIBRALTAR BRANCH ... 64
GRIQUALAND WEST BRANCH ... 52
HALIFAX, NOVA SCOTIA, BRANCH ... 52
Page.
HONG KONG AND CHINA BRANCH ... 35
JAMAICA BRANCH ... 53
LEEWARD ISLES BRANCH ... 53
MALAYA BRANCH ... 53
MALTA AND MEDITERRANEAN BRANCH ... 54
MELBOURNE AND VICTORIA BRANCH ... 54
MONTREAL BRANCH ... 54
NATAL BRANCH ... 54
NEW ZEALAND BRANCH ... 55
SASKATCHEWAN BRANCH ... 56
SOUTH AUSTRALIAN BRANCH ... 56
SOUTH INDIAN AND MADRAS BRANCH ... 56
SYDNEY AND NEW SOUTH WALES BRANCH ... 56
TORONTO BRANCH ... 58
TRINIDAD AND TOBAGO BRANCH ... 58
WEST AUSTRALIAN BRANCH ... 58

MEMBERS RESIDING IN THE DISTRICT OF BRITISH COLUMBIA ... 50
MEMBERS RESIDING AT GIBRALTAR ... 52
MEMBERS RESIDING IN THE DISTRICT OF MANITOBA AND WEST OF CANADA ... 54
MEMBERS RESIDING IN THE DISTRICT OF THE PUNJAB ... 55
ROYAL NAVY ... 59
ARMY MEDICAL SERVICE ... 60
INDIAN MEDICAL SERVICE ... 62
FOREIGN AND COLONIAL ... 63

LIST OF BRANCHES AND DIVISIONS.

Members are requested to communicate any alteration or correction to the General Secretary without delay.

ABERDEEN BRANCH.

istrict comprising the Counties of ABERDEEN and KINCARDINE, and the Eastern Portion of BANFF ORKNEY and SHETLAND Islands.

Members of Branch—179.

RECOGNISED 1872.

President, D. MAVER, M.B., Bucksburn.

President-elect, J. SCOTT RIDDELL, M.V.O., M.B., Aberdeen.

Vice-Presidents.
W. HENRY, M.D., Kemnay
J. MACKENZIE BOOTH, M.D., Aberdeen

Honorary Secretaries.
J. F. CHRISTIE, M.B., 7, Alford Place, Aberdeen
THOMAS FRASER, M.B., 45, Elmbank Terrace, Aberdeen

Hon. Treasurer, GEORGE WILLIAMSON, M.B., 256, Union Street, Aberdeen.

Representative on Council of Association.
Prof. David W. Finlay, M.D., LL.D., Aberdeen.

Branch Council.

Bruce, R., M.D.
Gray, H. M. W., M.B.
McKerron, R. G., M.D.
Marnoch, J., M.B.
Nicol, A., M.D.
Rannie, R., M.B.
Robertson, J. F., M.D.
Russell, G. R. C., M.D.

No. 1.—Aberdeen Division

NUMBERING 161.

Chairman,
Vice-Chairman,
Honorary Secretary,
Representative for Representative Meeting,
G. Rose, M.B., 16, Rubislaw Terrace, Aberdeen

dam, J. Wilson, M.B., 87, Crown Street, Aberdeen
lexander, H. de M., M.D., Royal Asylum, Aberdeen
ngus, C., M.B., Kingseat Asylum, Newmachar, Aberdeen
rthur, A. T., M.B., Cults
axter, Alexander, M.B., High Street, New Pitsligo
eddie, L. B., M.B., Fraserburgh
ell, C.T., M.B., 4, Albert Street, Aberdeen
ell, James, M.B., Faburn, Lumphanan, near Aberdeen
ennett, W. E., Fleet Surgeon, R.N., 41, Rubislaw Den, South Aberdeen
everidge, A. T. G., M.B., 31, King Street, Aberdeen
lack, George, M.B., Tomintoul, Ballindalloch
ooth, J. Mackenzie, M.D., 1, Carden Place Aberdeen
rand, W. H. E., F.R.C.S.Ed., Bellfield, Banchory
rown, William, M.B., Braemar
rown, W. Brodie, M.B., Aboyne
ruce, R., M.D., Thoresby, Cults, Aberdeen
ampbell, D., M.D., 102, Desswood Place, Aberdeen
ash, Professor J. T., M.D., F.R.S., 9, Albyn Place, Aberdeen
heyne, W. S., M.D., 33, Queen Street, Aberdeen
hristie, J. F., M.B., 7, Alford Place, Aberdeen
hristie, W., M.B., Woodside, Aberdeen
ark, W. H., M.D., 323, Clifton Road, Woodside, Aberdeen
ockburn, W., M.B., Old Meldrum
ooper, J. S., Esq., Nordrach-on-Dee, Banchory
ooper, W., M.D., New Machar, Aberdeen
an, G., M.D., Banchory-Ternan
arer, G. P., M.B., The Braes, Turriff
oll, W. F., M.B., 45, Albert Street, Aberdeen
ombie, J., M.B., 5, Golden Square, Aberdeen
ombie, Walter, M.B., 5, Golden Square, Aberdeen
uickshank, A. L., M.B., 31, Littleside Street, Fraserburgh
uickshank, Alex., M.B., Lochengar, Stonehaven
algarno, J. J. Y., M.B., 25, Bonaccord Terrace, Aberdeen
avidson, G., M.D., Torphins, Aberdeen
avidson, James, M.B., Brigade-Surgeon-Lieutenant-Colonel (I.M.S. ret.), 84, Crown Street, Aberdeen
avidson, N., M.B., 59, Queen Street, Peterhead
avidson, S. G., M.B., Insch
ckie, John L., M.B., Stonehaven
uffus, J., M.D., Auchinblae
uncan, G. M., M.B., Marischal College, Aberdeen
dmond, G. M., M.D., 11, 12, Rubislaw Terrace, Aberdeen
der, J. B., M.B., Limeworks, Grange, Banffshire
arquharson, R., M.D., M.P., Finzean, Aboyne
erdinands, G. S. P., M.D., 467, Union Street, Aberdeen
erguson, W., M.D., Banff
ndlay, John, M.B., Logie-Crimond
nlay, Prof. David W., M.D., LL.D., 2, Queen's Terrace, Aberdeen
orbes, Alex., M.B., Inverurie
orbes, C., M.B., 189, King Street, Aberdeen
ortescue, W. I., M.B., 7, Bonaccord Square, Aberdeen
owler, A., M.D., Ellon
owler, J. E., M.D., Woodside, Aberdeen
aser, Angus, M.D., 232, Union Street, Aberdeen
aser, Thomas, M.B., 45, Elmbank Terrace, Aberdeen
ll, A. G., M.B., 96, Powis Place, Aberdeen
alloway, A. R., M.B., 250, Union Street, Aberdeen
arson, P. C., M.B., 9, Gordon Street, Huntly
eddie, D. W., M.B., 13, Golden Square, Aberdeen
ibb, G., M.B., 294, Great Western Road, Aberdeen
ordon, J., M.D., 1, Rubislaw Terrace, Aberdeen
ray, A. E. L., M.B., Wartle-by-Aberdeen
ray, H. M. W., M.B., 5, Bonaccord Square, Aberdeen
ray, R., Brig.-Surg. (ret.) I.M.S., 48, Queen's Rd., Aberdeen
reig, C. O., M.B., Bridgend, Fyvie
amilton, Professor D. J., M.B., 35, Queen's Road, Aberdeen
ay, Professor M., M.D., 14, Rubislaw Terrace, Aberdeen
ector, W. M.B., Tarland
enderson, Albert, M.D., 11, Golden Square, Aberdeen
endry, Alex., M.D., Ballater
enry, W., M.D., Kemnay
rwie, P., M.B., 101, Crown Street, Aberdeen
owie, P. Elias, M.B., Craignahullie, Strathdon
nes, J., M.B., 513, George Street, Aberdeen
onside, J., M.B., Laurencekirk
elly, F., M.D., 6, Craibstone Street, W. Aberdeen
ing, A. R., M.B., Marischal College, Aberdeen
w, T. B., M.B., Macduff
wson, D., M.D., Nordrach-on-Dee, Banchory
vack, J. R., M.B., 10, Golden Square, Aberdeen
ster, A. H., M.D., 22, Queen's Road, Aberdeen
w, Alex., M.B., 142, Blenheim Place, Aberdeen
McArthur, J. I., M.B., Gardenstown
McHardy, J., Esq., Banchory-Ternan
McKerron, R. G., M.D., 1, Albyn Place, Aberdeen
Mackie, D., M.D., Brig.-Surg. (ret.), 4 Polmuir Road, Aberdeen
Mackintosh, A. W., M.D., 9, Bonaccord Square, Aberdeen
Mackintosh, D. D., M.B., Camden Cottage, Aboyne
Mackintosh, F. L., M.B., Kingsfield, Kintore, Aberdeen
Maclean, Hugh, M.B., Marischal College, Aberdeen
Macleod, P. B. H. M.D., New Deer
Macnaughton, W. A., M.B., Stonehaven
Maconachie, G. A., M.D., Brig.-Surg.-Lt.-Col. (ret.), I.M.S. 33, Queen's Road, Aberdeen
McWalter, W., M., M.B., H.M. Convict Prison, Peterhead
McWilliam, J. A., M.D., Cults, Aberdeen
Mair, G., M.D., Fleet-Surg., R.N. (ret.), 37, Queen's Road, Aberdeen
Marnoch, J., M.B., 2, Bonaccord Square, Aberdeen
Maver, D., M.B., Bucksburn, by Aberdeen
Mearns, J. A., M.B., 206, Victoria Road, Torry, Aberdeen
Middleton, J., M.B., 75, Queen Street, Peterhead
Miller, James, M.B., Forbes Hill, Banchory
Milne, J. E., M.D., 8, Albyn Place, Aberdeen
Milne, J. W., M.B., 193, Great Western Road, Aberdeen
Milne, Thomas, M.D., 26, Rubislaw Terrace, Aberdeen
Mitchell, Alexander, M.B., 70, High Street, Old Aberdeen
Mitchell, A., M.B., New Deer
Mitchell, Patrick, M.D., Old Rayne, Insch
Mitchell, Peter, M.D., Old Aberdeen
Mitchell, W. G., M.D., Ballater
Morrison, R., M.B., Springbank House, Methlick
Mortimer, W., M.D., Elizian Villa, Turriff
Nicol, A., M.D., High Street Inverurie
Nicol, J., M.B., Alford, N.B.
Noble, J., M.D., Braemar
Noble, J. D., M.B., 23, Albert Street, Aberdeen
Ogston, Prof. Alex., M.D., 252, Union Street, Aberdeen
Ogston, Alex., M.B., 86, Rosemount Place, Aberdeen
Oliphant, E., M.B., Bucksburn, Aberdeen
Paterson, William, M.B., Sunnybank, Portsoy
Peterkin, H., Esq., 491, Union Street, Aberdeen
Philip, F., M.B., 144, Victoria Road, Torry, Aberdeen
Pirie, W. R., M.B., 1, East Craibstone Street, Aberdeen
Rannie, R., M.B., Peterculter
Reid, James, M.D., Seafield Street, Portsoy
Reid, R. W., M.D., 37, Albyn Place, Aberdeen
Reid, W., M.D., Royal Asylum, Aberdeen
Reith, A., M.D., 34, Gilcomston Park, Aberdeen
Rennie, Alex., M.B., Kintore, Aberdeen
Riddell, J. Scott, M.V.O., M.B., 7, Rubislaw Terrace, Aberdeen
Robb, J., M.D., Surg.-Lt.-Col. (I.M.S. ret.), 19, King's Gate, Aberdeen
Rorie, David, M.B., St. Deverick Terrace, Cults, Aberdeen
Rose, G., M.B., 16, Rubislaw Terrace, Aberdeen
Sandeman, Laura S., M.D., 22, Waverley Place, Aberdeen
Shirreffs, Wm., M.B., 252, Holburn Street, Aberdeen
Simpson, James A., M., Forbes, Alford
Sinclair, W., M.B., Rose Cottage, Ellon
Sinclair, W., M.B., Supt., Royal Infirmary, Aberdeen
Slesser, R. A., M.B., 33, High Street, Fraserburgh
Smart, J., M.B., 244, Rosemount Place, Aberdeen
Stephen, John H., M.B., Hazeldean, Banff
Stephen, J., M.D., Bath House, Peterhead
Stephenson, Prof. W., M.D., 3, Rubislaw Terrace, Aberdeen
Taylor, W. E., M.B., 7, Barclay Street, Stonehaven
Thomson, James, M.B., 121, Desswood Place, Aberdeen
Thomson, W., M.B., Kindrought, Portsoy
Trail, J. W. H., M.D., Marischal College, Aberdeen
Trail, G. S., M.D., Strichen
Usher, C. H., M.B., 3, Bonaccord Square, Aberdeen
Walker, A., M.D., 48, Fountainhall Road, Aberdeen
Wallace, A., M.D., Turriff
Watson, Annie Mercer, L.R.C.P. and S.E., 22, Waverley Place, Aberdeen
Watt, John A., M.B., 14, Albyn Place, Aberdeen
Westland, A., M.D., 22, Albyn Place, Aberdeen
Whitton, A. B., M.B., Aberchirder
Will, J. C. O., M.D., 17, Bonaccord Square, Aberdeen
Williamson, G., M.B., 256, Union Street, Aberdeen
Williamson, W. H., M.D., 15, Union Terrace, Aberdeen
Willock, R. C., M.D., 4, Golden Square, Aberdeen
Wilson, J. O., M.D., Huntly
Wilson, R. M., M.D., Tarty, Ellon
Wood, Alex., M.B., Longside
Wyness, J. D., M.D., West Craibstone Street, Aberdeen

No. 2.—Orkney Division

NUMBERING 8.

Chairman,
Vice-Chairman,
Honorary Secretary,
Representative for Representative Meeting.
G. Rose, M.B., 16 Rubislaw Terrace, Aberdeen

Bell, B. D. C., L.R.C.S.Edin., 65, Albert Street, Kirkwall
Dewar, J., M.B., South Ronaldshay, Orkney
Gunn, A. B. M., M.B., Westray, Orkney
Heddle, R. P., M.B., 43, Albert Street, Kirkwall
McNeill, D., M.D., Holm, Kirkwall
Park, W., M.B., Sanday, Orkney
Russell, G. R. C., M.B., Kirkwall, Orkney
Sinclair, G., M.D., 14, Queen Street, Kirkwall

No. 3.—Shetland Division

NUMBERING 10.

Chairman,
Vice-Chairman,
Honorary Secretary.
Representative for Representative Meeting.
G. Rose, M.B., 16, Rubislaw Terrace, Aberdeen

Bowie, J. C., M.B., Clousta-by-Bixter, Shetland
De Sylva, E. M. J., M.D., Scalloway, Shetland Isles
Emlyn, Arthur, Esq., Brae, Shetland
Maclennan, Andrew A., M.B., Church Lane, Lerwick
Pretsell, T., M.B., Galloway
Robertson, J. F., M.D., Viewforth, Lerwick
Saxby, T. E., L.R.C.S.Ed., Halligarth, Shetland, N.B.
Sharp, P. J., M.B., Ollaberry, Shetland
Taylor, H., M.B., Reafirth, Mid Yell, Shetland
Yule, R. M., M.D., Queen's Lane, Lerwick

BATH AND BRISTOL BRANCH.

District comprising in SOMERSETSHIRE the portion north of a line drawn immediately north of Highbridge and south of Glastonbury and Wincanton; in GLOUCESTERSHIRE, the part south of Sharpness, Berkeley Road, and Dursley; in WILTSHIRE, the part north of a line passing due east and west through a point between Westbury and Warminster.

Members of Branch—378.

RECOGNISED 1842

President, J. MICHELL CLARKE, M.D., Clifton.

President-elect, D. S. DAVIES, M.D., Clifton.

Honorary Secretaries.
W. M. BEAUMONT, Esq., 4, Gay Street, Bath
NEWMAN NEILD, M.B., 9, Richmond Hill, Clifton, Bristo

Branch Council

Bayliss, R. A., Esq.
Beath, D. L., Esq.
Bloxam, G. E., Esq.
Brew, R. H., Esq.
Briscoe, W. T., M.D.
Bush, J. Paul, C.M.G.
Cross, F. Richardson, F.R.C.S.
Dobson, N. C., Esq.
Flemming, C. E. S., Esq.
Harrison, A. J., M.B.
Helps, G. C., Esq.
Herapath, C. K. C., Esq.
Hill, Hedley, M.D.
Lace, F., Esq.
Lansdown, R. G. P., M.D.
Martin, E. F., M.D.
Parker, G., M.D.
Pearse, J., M.D.
Shaw, J. E., M.B.
Skerritt, E. Markham, M.D.
Smith, G. Munro, Esq.
Smith, R. Shingleton, M.D.
Swain, J., M.D.
Symons, W. H., M.D.
Taylor, James, Esq.
Terry, H. G., Esq.
Tubb-Thomas, J., Esq.
Wigmore, J., M.D.

Representative on Council of Association.
E. Markham Skerritt, M.D., Ivor House, Durdham Park Clifton

No. 1.—Bath Division

NUMBERING 120.

Chairman, C. Curd, Esq., Bath

Vice-Chairman,

Honorary Secretary and Treasurer (pro tem.), D. Leslie Beath, Esq., Barnard House, Bath

Representatives on Branch Council.

Bayliss, R. A., Esq.
Beath, D. L., Esq.
Bloxam, G. E., Esq.
Briscoe, W. T., M.D.
Helps, G. C., Esq.
Lace, F., Esq.
Symons, W. H., M.D.
Terry, H. G., Esq.
Wigmore, J., M.D.

Executive Committee.

Cave, E. J., M.D.
Norburn, A. E., M.D.

Representative for Representative Meeting, J. Pearse, M.D., Trowbridge

Ackland, D., Esq., 30, Gay Street, Bath
Ashford, E. C., Esq., Moorlands, Bath
Bannatyne, G. A., M.D., 21, Circus, Bath
Barnes, C. J., Esq., Sutton Benger, Chippenham
Batten, W. S., Esq., Calne
Bayliss, R. A., Esq., 5, Gay Street, Bath
Beath, D. Leslie, Esq., Barnard House, Bath
Beaumont, W. M., Esq., 4, Gay Street, Bath
Begg, C., M.B., 62, Pulteney Street, Bath
Benson, J. R., Esq., 1, Oxford Row, Bath
Bloxam, G. E., Esq., 113, New Bridge Road, Bath
Bowker, G. E., M.D., 11, North Parade, Bath
Briscoe, W. T., M.D., Chippenham
Browne, C. Leslie, Esq., 26, High Street, Swindon
Bulleid, A., Esq., Midsomer-Norton
Campbell, D., M.D., Calne
Carsberg, A. E., M.B., Bruton
Carter, R., M.D., 4, Circus, Bath
Carter, T. P., Esq., Maudheath, Chippenham
Cave, E. J., M.D., 20, Circus, Bath
Cheesman, E. R. R., Esq., Chewton-Mendip, near Bath
Cobbold, C. S. W., M.D., The Elms, Batheaston
Collins, O. A. G., Esq., 5, Paragon, Bath
Cooke, W. H., M.D., 36, Gay Street, Bath
Coombe, T. S., Esq., Purton
Coombs, Carey P., M.D., Castle Cary
Coppinger, A. W., Esq., 24, Gay Street, Bath
Cowan, F. S., Esq., 27, Queen Square, Bath
Cox, Franklin, Esq., 2, Carlingford Villa, Radstock
Craddock, S., Esq., South Hill House, Bath
Crisp, J. E., Esq., Corsham
Curd, C., Esq., 6, Gay Street, Bath
Dale, B. H., Esq., Victoria Street, Swindon
Day, W. A., Esq., 12, Russell Street, Bath
Dickson, W. P., Esq., 46, Combe Park, Bath
Dismore, H. B., Esq., Wroughton, Swindon
Doidge, M. J., M.D., Glastonbury
Dunlop, J. B., M.B., Royal Mineral Water Hospital, Bath
Edwards, C. W., Esq., 11, High Street, Wincanton, Bath
Ferguson, R. S., M.B., Calne
Fosbery, F. C., M.D., 38, Gay Street, Bath
Fowler, R. S., Esq., 6, Belmont, Bath
Fox, A. E. W., M.B., Hinton Charterhouse, Bath
Fraser, Forbes, Esq., 2, The Circus, Bath
Fuller, A. L., Esq., 9, Gay Street, Bath
Gaine, C., Esq., Weston Lea, Weston Park, Bath
Goss, T. B., Esq., 1, The Circus, Bath
Gray, C. W. F., M.B., 5, London Street, New Swindon
Griffith, R. Glyn, Esq., Portledge House, Newbridge Hill, Bath
Hancock, E. D., Esq., 13, Milsom Street, Bath
Handfield-Jones, C. R., M.D., The Hermitage, Box
Hardyman, G., M.B., 43, Pulteney Street, Bath
Heathcote, H. C., M.B., Twerton-on-Avon, Bath
Heaton, A. F., Esq., Tower House, Malmesbury
Helps, G. C., Esq., Mells, Frome
Higgs, W. A., Esq., Castle Combe, Chippenham
Husband, W. E., Esq., 15, Lansdown Place East, Bath
Jay, H. M., M.D., Chippenham
Jennings, C. E., M.D., The Red House, Great Somerford
Jones, P. T., Esq., Coleford House, Bath
Jones, R. Llewellyn, M.B., 40, Gay Street, Bath
Kennard, T. A., Esq., Bloomfield House, Bath
Kennedy, W. P., M.D., 3, Gay Street, Bath
Kerr, J. G. D., M.B., 6, The Circus, Bath
King, P., M.D., 27, Gay Street, Bath
Knox, R. G., Esq., Freshford
Knyvett, H. F., Esq., Glastonbury
Lace, F., Esq., 1, Paragon, Bath
Langley, A. F., M.D., Wellow, Bath
Lawrie, D., M.B., Glastonbury

Lewarne, F., Esq., Cricklade
Lowe, T. P., Esq., 16, The Circus, Bath
MacBryan, H. C., Esq., Box
Mackenzie, A. L., Esq., 6, Brock Street, Bath
Maclean, J. C., M.B., Swindon
McReddie, P. G., M.B., Wincanton
Marsh, C. A., M.B., 13, Victoria Buildings, Bath
Martin, T., Esq., Temple Cloud, near Bristol
Martyn, G. J. K., M.D., 8, Gay Street, Bath
Melsome, W. S., M.D., 29, Circus, Bath
Miall, C. L'Oste, Esq., Paulton, near Bristol
Millen, S. A., Esq., Milverton, Malmesbury
Morgan, T. W. S., Esq., Timsbury, near Bath
Mumford, W. G., M.B., 18, Circus, Bath
Munro, J. M. H., Esq., 5, Duke Street, Bath
Norburn, A. E., M.D., Oldfield Park Lodge, Bath
Pain, B. H., M.B., 2, Lynvale Villas, Lyncombe, Bath
Paton, J. W., M.D., Lyde House, Bath
Plummer, E. C., Esq., Amoril House, Batheaston
Pollard, G. S., Esq., Midsomer-Norton, Bath
Proctor, T., Esq., Marshfield
Ransford, T. D., Esq., 6, Queen Square, Bath
Rattray, J. C., M.D., Granville, Swindon
Reid, Chas., Esq., 32, Wood Street, Swindon
Ryan, P. C. H., M.D., 1, Lynvale Villas, Bath
Scott, R. J. H., Esq., 28, Circus, Bath
Scott, R. R., Surgeon-Major, 54, Pulteney Street, Bath
Skeate, E., Esq., 16, The Paragon, Bath
Smith, T. W., M.D., 17, Brock Street, Bath
Sparks, John E., M.B., 6, Widcombe Crescent, Bath
Spender, J. K., M.D., 34, Marlborough Buildings, Bath
Spreat, J. H., Esq., 6, Tyning Road, Bath
Stockwell, F., M.D., Bruton
Swinhoe, G. R., Esq., New Swindon
Symons, W. H., M.D., 39, Combe Park, Bath
Tabor, C. J., M.B., 5, Pulteney Street, Bath
Terry, H. G., Esq., 2, Gay Street, Bath
Thomson, J. A. Mulville, Esq., Grosvenor, Bath
Townroe, E. Dunbar, Esq., Winsley Sanatorium, Limpley Stoke
Vicars, F. G., M.D., Hyde, Weston, Bath
Wallace, R. B., M.B., St. Mary Street, Chippenham
Walsh, L. H., M.D., 21, Gay Street, Bath
Waterhouse, R., M.D., 32, St. James's Square, Bath
Waugh, A., Esq., Midsomer-Norton
Weatherly, L. A., M.D., Bailbrook House, Bath
Welch, C. H., Esq., Eastern Dispensary, Bath
Whitby, C. J., M.D., The Limes, Oldfield Park, Bath
Wigmore, J., M.D., 26, Green Park, Bath
Williams, H. H., Esq., Wick, Bristol
Wilson, M. S., Esq., Chippenham

No. 2.—Bristol Division

NUMBERING 225.

Chairman, F. Richardson Cross, F.R.C.S., Clifton
Vice-Chairman, J. Michell Clarke, M.A., M.D., Clifton.
Honorary Secretary and Treasurer, Newman Neild, M.B., 9, Richmond Hill, Clifton, Bristol

Representative for Representative Meeting, Hedley Hill, M.D., 1, Redcliffe Hill, Bristol

Representatives on Branch Council.

Brew, R. H., Esq.
Bush, J. Paul, C.M.G.
Cross, F. Richardson, F.R.C.S.
Dobson, N. C., Esq.
Harrison, A. J., M.B.
Herapath, C. K. C., Esq.
Hill, Hedley, M.D.
Lansdown, R. G. P., Esq.
Martin, E. F., M.D.
Parker, G., M.D.
Shaw, J. E., M.B.
Skerritt, E. Markham, M.D.
Smith, G. Munro, Esq.
Smith, R. Shingleton, M.D.
Swain, J., M.D.
Taylor, James, Esq.

Ackland, W. R., Esq., 5, Rodney Place, Clifton
Alexander, D. A., M.B., 30, Berkeley Square, Clifton, Bristol
Ambrose, J., M.B., 138, Fishponds Road, Bristol
Atchley, E. G. C., Esq., 87, Whiteladies Road, Clifton
Aubrey, A. Reuben, M.D., Walliscote Rd., Weston-super-Mare
Bainbridge, G., M.D., Surg.-Gen. I.M.S. (ret.), The Grove, Clevedon
Ballance, H. S., M.D., Weston-super-Mare
Barber, M. C., Esq., Glenavon Ho., Staple Hill, near Bristol
Barker, G. H., M.D., Holly Bank, Redland Road, Bristol
Baron, B. J., M.B., 16, Whiteladies Road, Clifton
Belfield, C. W., M.D., 51, Old Market Street, Bristol
Berry, F. C., M.D., Locarno, Burnham
Beverley, K. H., Esq., Royal Hospital for Sick Children and Women, Bristol
Blacker, A. E., Esq., 20, Victoria Square W., Clifton
Blacker, E., M.D., 8, Meridian Road, Redland, Bristol
Blagg, A. F., M.D., 28, Caledonia Place, Clifton
Board, E. C., Esq., 8, Caledonia Place, Clifton
Boyce, J. G., Esq., The Chipping, Wotton-under-Edge
Brasher, C. W. J., Esq., 128, Cotham Brow, Bristol
Brew, R. H., Esq., Chew Magna
Bristowe, H. C., M.D., Wrington, R.S.O.
Brook, H., Esq., Moulton House, Weston-super-Mare
Brown, W., M.D., Park View, Fishponds, near Bristol
Bullen, F. St. J., Esq., 12, Pembroke Road, Clifton
Bunbury, E. G., Esq., 13, Dowry Square, Hotwells, Bristol
Burroughs, P. B. P., Esq., Weston-super-Mare
Bush, J. Paul, C.M.G., Vyvyan House, Clifton Park, Clifton
Campbell-Horsfall, C. E., M.B., Clevedon
Carling, A., M.B., 12, Great George Street, Bristol
Carter, T. M., Esq., 28, Victoria Square, Clifton
Carwardine, T., M.S., 16, Victoria Square, Clifton
Charles, J. R., M.D., 12, Victoria Square, Clifton
Christie, W. L., M.D., 17, Arlington Villas, Clifton, Bristol
Clarke, J. Michell, M.A., M.D., 28, Pembroke Road, Clifton
Clowes, E. F., Esq., Grantley, Wotton-under-Edge
Coathupe, E. W., Esq., 16, Elgin Park, Bristol
Cochrane, A., M.B., Kensington Hill, Brislington, Bristol
Cook, H., M.B., Lindthorpe, Southville, Bristol
Coombs, C. F., M.D., 11, Henleaze Rd., Bristol
Corfield, H. O., M.D., West Town, R.S.O., near Bristol
Cornall, Annie F. M., M.B., Ingleby, Arley Hill, Bristol
Cory, W. H., Esq., 29, Redland Grove, Bristol
Cotton, W., M.D., 231, Gloucester Road, Bishopston Bristol
Crawshaw, E. J., Esq., Tregunter House, Burnham
Cresswell, R., Esq., 10, Adelaide Terrace, Portishead
Cross, F. Richardson, F.R.C.S., Worcester House, Clifto
Crossman, F., M.B., Hambrook, near Bristol
Crouch, C. P., M.B., Weston-super-Mare
Dacre, J., Esq., 14, Eaton Crescent, Clifton
Davies, D. S., M.D., 60, Oakfield Road, Clifton
Davies, G. A., Esq., 7, Buckingham Place, Clifton
Davies, T. L., Esq., Thornbury
Davis, T., M.D., Beachcroft, Clevedon
Devis, H. F., Esq., 160, Wells Road, Totterdown, Bristo
Dobbyn, M. G., M.D., 43, Nevil Road, Bishopston, Bristol
Dobson N. C., Esq., Avonmore, Sneyd Park, Bristol
Duffett, E. D., Esq., The Lodge, Staple Hill, Bristol
Dunbar, Eliza L. W., M.D., 9, Oakfield Road, Clifton
Dutton, D. J., Esq., 2, Connaught Buildings, Wotton
Dymoke, F., Esq., 21, Cotham Road, Bristol
Eager, R., M.D., Northwoods Asylum, Bristol
Eager, Wilson, Esq., Northwoods, near Bristol
Eadon, W. F. B., Esq., Hambrook, near Bristol
Eberle, Emily Eliz., M.B., 17, Oakfield Road, Clifton
Edgeworth, F. H., M.B., 35, Pembroke Road, Clifton
Every-Clayton, L. E. V., M.D., Rosslyn, Clevedon
Ewens, J., Esq., 18, Edgecumbe Road, Redland
Ewing, A., Esq., Woodboro' House, Stapleton Road, Bristol
Fairbanks, W., M.D., Wells
Falconar, H. B., Esq., Tregenna, Shirehampton, Bristol
Fendick, R. G., Esq., 48, Apsley Road, Clifton
Firth, J. L., M.S., 8, Victoria Square, Clifton
Fleck, D. M.D., Brentry, near Bristol
Flemming, A. L., Esq., 34, Alma Road, Clifton
Fortescue-Brickdale, J. M., M.D., 52, Pembroke Rd., Clifton
Forty, D. H., Esq., Edbrook, Wotton-under-Edge
Foss, E. V., M.R.C.S., 336, Church Road, Bristol
Freeman, J., M.D., Queen's Road, Bristol
Fuller, J., Esq., Long Ashton, Bristol
Garland, E. B., M.B., 114A, Hampton Road, Redland, Bristol
Gent, G. S., Esq., 131, Coronation Road, Bristol
Gibbs, A. N. G., Esq., 52, Whiteladies Road, Clifton
Gloag, G. A., Esq., 7, College Green, Bristol
Grace, A., Esq., Chipping Sodbury
Grace, Edward Mills, Esq., Park House, Thornbury
Griffiths, G. S., Lieut.-Col., I.M.S. ret., 11, Vyvyan Terrace, Clifton
Griffiths, J. S., Esq., 25, Redland Park, Bristol
Griffiths, L. M., Esq., 11, Pembroke Road, Clifton
Groves, E. W. H., M.D., M.S., 16, Richmond Hill, Clifton
Gubbin, W. B., M.D., Surbiton Lodge, Redland, Bristol
Haegert, J. F., M.B., 489, Gloucester Road, Bristol
Hailes, C. D. G., M.D., 27, Alma Road, Clifton
Hall, E. G., M.B., 53, Hampton Road, Redland
Hall, Professor I. Walker, M.D., 9, Royal Park, Clifton
Hanan, T. J., Esq., 102, Chesterfield Road, Bristol
Harris, H. E., M.B., 13, Lansdown Place, Clifton
Harrison, A. J., M.B., Failand Lodge, Clifton
Harrison, C., Esq., Keynsham, near Bristol
Harsant, W. H., Esq., Tower House, Clifton]
Hartnell, E. B., Esq., Thornbury, R.S.O.
Harvey, Alfred, M.B., Evelyn House, Westbury-on-Trym
Hay, W., M.B., Henbury Hill, Westbury-on-Trym
Haydon, H. W., M.D., Beaufort House, Park Row, Bristol
Hayman, C. A., M.D., Kingston Villa, Clifton
Heaven, J. C., Esq., 17, Whiteladies Road, Clifton
Henson, W. J., Esq., Elmsett Hall, Wedmore
Herapath, C. K. C., Esq., Cotham Park, Bristol
Hill, Hedley, M.D., 1, Whiteladies Road, Clifton
Holmes, T. E., M.B., Rosendal, Redland Road, Cotham
Hopkins, F. Gethin, M.D., 36, Henleaze Gardens, Wesbury-on-Trym
Hopkins, T., M.D., Mostyn Lodge, Burnham
Houghton, L. F., Esq., Esplanade Cottage, Weston-super-Mare
Imlay, G. A., M.B., 1, Cotham Park, Bristol
Kelly, B. C., M.B., 3, Chamberlain Street, Wells
Kendall, H. W., Esq., 1, Burlington Road, Bristol
Kyle, H. G., M.B., 31, Westbury Road, Bristol
Lansdown, R. G. P., M.D., 39, Oakfield Road, Clifton
Leche, A., Esq., Axbridge
Lees, E. L., M.D., Queen's Road, Clifton
Leman, T. C., Esq., Chipping Sodbury
Leonard, R. C., M.D., 134, Coronation Road, Bristol
Linton, Marion S., M.B., 7, Tyndalls Park Road, Clifton
Logan, F. T. B., Esq., Eastfield, Southville, Bristol
Longley, J. A. N., M.B., 2, Portland Square, Bristol
Lucas, J. J. S., M.D., Highgrove, Wells Road, Bristol
MacCarthy, Ff., M.D., 21, Linden Road, Westbury Park, Bristol
McClelland, A. W., M.D., Penarth Lodge, Brislington
McCrea, P. W., M.D., 19, Portland Square, Bristol
McKee, A. B., M.B., Sussex Villa, Sussex Place, Bristol
MacLeod, D., M.B., 84, Redland Road, Bristol
MacWatters, J. C., Esq., The Copper Beeches, Almondsbury
Maddison, W. T., M.D., 172, Stapleton Road, Bristol
Martin, E. F., M.D., Weston-super-Mare
Martin, J., Esq., Stancliffe House, Clevedon
Martin, R. C., Esq., 3, Clifton Vale, Clifton, Bristol
Mather, J. S., M.B., Lawrence Hill House, Bristol
Mole, H. F., Esq., 19, Mortimer Road, Clifton
Monckton, W., Esq., Portishead
Morgan, A. T., M.D., 89, Chesterfield Road, Bristol
Morgan, F. C., Esq., 33, Sussex Place, Ashley Rd., Bristol
Morton, C. A., Esq., 14, Vyvyan Terrace, Clifton
Morton, W. B., M.D., Brislington House, Bristol
Muthu, D. J. A. Chowry, M.D., Hill Grove, Wells
Myers, A. A., Esq., Hill Grove, Wells
Myles, G. T., Esq., 147, Whiteladies Road, Clifton
Neild, Newman, M.B., 9, Richmond Hill, Clifton, Bristol
Nevill, W. N., M.D., Southville, Bristol
Newman, C., Esq., 156, Cheltenham Road, Bristol
Newnham, W. H. C., M.B., 3, Lansdown Place, Clifton
Newsome, H., M.B., Pill, near Bristol
Nicholson, T. D., M.D., Victoria House, Clifton]
Norton, T. C., Esq., 12, King's Square, Bristol
O'Brien, Cornelius, Esq., 146, Stapleton Road, Bristol
Ogilvy, Alex., M.D., Montrose House, Queen's Rd., Clifton
Ormerod, H. L., M.D., Burnley, Westbury-on-Trym
Osmond, C. H., Esq., 28, Seymour Avenue, Bishopston Bristol
Page, G. S., Esq., 78, Old Market Street, Bristol
Papillon, J. W., Esq., Brent Knoll
Parker, G., M.D., 14, Pembroke Road, Clifton
Parsons, H. F., Esq., The Heath, Sneyd Park, Bristol
Pauli, G. C. P., Esq., 240, York Road, Bath B'dg., Bristol
Peake, A. W., Esq., 34, Gloucester Road, Bishopston
Peake, F. E., Esq., 106, Coronation Road, Bristol
Perdran, J. A., M.B., Brislington House, near Bristol
Perrott, C. J., Esq., Kingswood Hill, Bristol
Phillips, C. M., M.D., Brislington, Bristol
Pickering, C. F., Esq., 12, Berkeley Square, Bristol
Pineo, E. G. D., Esq., Mendip View, Langford, Bristol
Pooley, Wm., Esq., Curraheen, Chew Magna
Pope, G. Stevens, Esq., Westfield, Wells
Powell, J. J., M.D., 2, Gloucester Rd., Bishopston, Bristol
Pratt, C. C., Esq., 10, Downleaze, Sneyd Park, Bristol
Prichard, A. W., Esq., 6, Rodney Place, Clifton
Prowse, A. B., M.D., 5, Lansdown Place, Clifton
Rayner, D. C., Esq., 9, Lansdown Place, Clifton
Risdon, G. O., Esq., 2, Chamberlain Street, Wells
Rodgers, J. W., M.B., Byron House, Redfield, Bristol
Rogers, B. M. H., M.D., 1, Victoria Square, Clifton
Rose, F., Esq., Westfield Park, Redland, Bristol
Rossiter, G. F., M.B., Weston-super-Mare
Roué, W. B., M.D., 2, Buckingham Place, Clifton
Roxburgh, R., M.B., 29, Knightstone Road, Weston-super-Mare
Scott, Edward, M.D., 25, York Crescent Road, Bristol
Shaw, J. E., M.B., 23, Caledonia Place, Clifton
Shaw, W. H. C., Esq., The Grange, Chew Magna
Sheppard, E. J., Esq., 8, Richmond Hill, Clifton
Shera, J. E. P., M.D., Somerset County Asylum, Wells
Sieveking, A. E., Esq., 18, Blenheim Road, Redland, Bristol
Skelton, H., M.D., Downend, Bristol
Skerritt, E. Markham, M.D., Ivor House, Durdham Park, Clifton
Smith, G. M., Esq., 18, Apsley Road, Clifton
Smith, R. Shingleton, M.D., Clifton Park, Clifton
Smith, W., Esq., Hawkesbury-Upton, Chippenham
Spoor, W. J., M.B., The Hydro, College Green, Bristol
Stack, E. H. E., F.R.C.S., 10, Whiteladies Road, Clifton
Staple, J. D., Esq., 153, Cheltenham Road, Bristol
Steele, C., M.D., Clifton Villa, Richmond Hill, Clifton
Stock, W. S. V., M.B., 4, Leicester Place, Clifton
Stocker, E. G., Esq., Holmesdale House, Clevedon
Swain, J., M.D., 4, Victoria Square, Clifton
Swayne, W. C., M.D., Mathon House, St. Paul's Rd., Clifton
Symes, J. O., M.D., 71, Pembroke Road, Clifton
Taylor, J., Esq., 36, Alma Road, Clifton
Taylor, J. W., Esq., 8, Redcliffe Parade W., Bristol
Temple, G. H., M.D., Ailanthus, Weston-super-Mare
Thomas, J. M. M., Esq., 5, Colston Parade, Redcliffe, Bristo
Thurnam, W. R., M.D., Nordrach-upon-Mendip
Tivy, W. J., Esq., 5, Victoria Square, Clifton
Waldo, H., M.D., 19, Pembroke Road, Clifton
Walker, C. H., M.B., 8, Oakfield Road, Clifton
Wallace, John, M.B., 15, Knightstone Rd., Weston-s.-Mare
Wallace, J. T., M.B., 48 and 49, Coronation Road, Bristol
Warden, C., M.D., 2, Southside, Weston-super-Mare
Wathen, J. H., Esq., 16, York Place, Clifton
Webster, T., Esq., Malvern House, Redland
Whicher, A. H., Esq., 115, Queen's Road, Clifton
White, J. W., Esq., Orchard House, Nailsea
Whitmore, F. C., Esq., 497, Fishponds Road, Bristol
Wigan, C. A., M.D., Portishead
Wilbond, R., Esq., 103, Chesterfield Road, Bristol
Willett, G. D. D., Esq., Keynsham, near Bristol
Williams, L. H., M.D., Oriel House, Thornbury R.S.O.
Williams, P. Watson., M.D., 4, Clifton Park, Clifton
Wills, W. K., M.B., 19, Whiteladies Road, Clifton
Windsor-Aubrey, H. W., Esq., Coronation Road, Bristol
Young, James, M.D., St. George Bristol

No. 3.—Trowbridge Division

NUMBERING 33.

Chairman, T. H. Haydon, M.B., Marlborough
Vice-Chairman, J. I. Bowes, Esq., Devizes
Honorary Secretary and Treasurer, J. Tubb-Thomas, Esq., The Halve, Trowbridge.

Representative for Representative Meeting, J. Pearse M.D., Trowbridge

Representatives on Branch Council.

Flemming, C. E. S., Esq.
Pearse, J., M.D.
Tubb-Thomas, J., Esq.

Executive Committee.

Locket, T. W., M.D.
Waylen, G. S. A., Esq.

Adye, W. J. A., Esq., Bradford-on-Avon
Beddoe, J., M.D., F.R.S., The Chantry, Bradford-on-Avon
Boileau, J. P. H., M.D., Lt.-Col. (ret.), A.M.S., Trowbridge
Bond, F. F., Esq., Trowbridge
Bowes, J. I., Esq., Campfield, Devizes
Cole, S. J., M.D., Wilts County Asylum, Devizes
Dupont, J. M., M.D., Bridge House, Frome
Edwards, A. L., Esq., Upavon, Pewsey
Farquhar, J., M.D., Burbage, Marlborough
Flemming, C. E. S., Esq., Manvers Ho., Bradford-on-Avon
Gedge, A. S., Esq., Pewsey
Haydon, T. H., M.B., High Street, Marlborough
Keir, W. I., Esq., Melksham
Locket, T. W., M.B., Melksham
Lush, John S., Esq., Ivy Lodge, Market Lavington
Lush, W. H., Esq., Market Lavington
Maurice, O. C., Esq., Kingsbury Street, Marlborough
Parsons, J. F., Esq., Frome
Pearse, J., M.D., 28, St. George's Terrace, Trowbridge
Penny, E., M.D., Marlborough
Raby, L., M.D., Devizes
Rattray, J. M., M.D., Frome
Rayment, E. W., M.B., Pewsey
Seddon, A., Esq., Frome
Shorland, Trevor, Esq., Westbury, Wilts
Sylvester, K. F., Esq., Trowbridge
Tayler, G. C., M.D., Trowbridge
Tayler, H. P., M.B., Abbey House, Bradford-on-Avon
Tubb-Thomas, J., Esq., The Halve, Trowbridge
Waylen, G. S. A., Esq., Devizes
Webber, W. L., Esq., Turleigh House, Bradford-on-Avon
Williamson, H. H., Esq., Ludgershall
Wise, N. V., Esq., Trowbridge

BIRMINGHAM BRANCH.

District comprising the County of WARWICK (except Rugby); the Parliamentary Boroughs of Birmingham and Dudley; in WORCESTERSHIRE, the Northern and Eastern Parliamentary Divisions; in STAFFORDSHIRE, the portion south and east of the boundary marked on the official map.

Members of Branch—515.

RECOGNISED 1854.

President, Sir THOMAS F. CHAVASSE, M.D., Birmingham
President-elect, O. F. WYER, M.D., Leamington Spa
Ex-President, T. E. UNDERHILL, M.D., Barnt Green

Honorary Secretaries.
T. SYDNEY SHORT, M.D., 85, Edmund Street, Birmingham
O. J. KAUFFMANN, M.D., 22, Broad Street, Birmingham

Honorary Treasurer, F. MARSH, F.R.C.S., 95, Cornwall Street, Birmingham.

Chairman of the Pathological Section, W. F. HASLAM F.R.C.S., Birmingham

Honorary Secretaries of the Pathological Section.
D. STANLEY, M.D., Birmingham
ALBERT LUCAS, Esq., Birmingham

Chairman of the Ethical Committee.
M. A. MESSITER, Esq., Dudley

Honorary Secretary of the Ethical Committee.
W. P. WHITCOMBE, Esq., Aston

Representatives on Council of the Association.
H. W. Langley Browne, M.D., West Bromwich
Professor J. T. J. Morrison, F.R.C.S., Birmingham

Branch Council.

Coaker, F. W. J., F.R.C.S.
Cole, T. E. C., M.D.
Edgington, R. W., M.B.
Haslam, W. F., Esq.
Heaton, G., M.B.
Kirby, E. D., M.D.
Manley, J. H. H., M.B.
Messiter, M. A., Esq.
Moore, Milner, M.D.
Nason, E. N., M.B.
Neal, J., Esq.
Parsey, E. W., M.B.
Plummer, H. B. W., M.D.
Taylor, L. A., Esq.
Thursfield, T. W., M.D.
Wilson, T., M.D.
Wood, A. A., Esq.,

Associate Members.

Armitage, J. A., M.D., Wolverhampton
Cholmeley, W. F., Esq., Wolverhampton
Codd, J. A., M.D., Wolverhampton
Deanesly, E., M.D., Wolverhampton
Galbraith, T. H., M.B., Wolverhampton
Gardner, H. W., M.D., Shrewsbury
Hunt, A. H. W., Esq., Wolverhampton.
McMunn, C. A., M.D., Wolverhampton
Malet, H., M.D., Wolverhampton
Polson, J. R., Esq., Worcester

No. 1.—Bromsgrove Division

NUMBERING 18.

Chairman, T. E. Underhill, M.D., Barnt Green
Vice-Chairman, F. W. J. Coaker, F.R.C.S., Bromsgrove
Honorary Secretary, E. W. Parsey, M.B., Glenavon, King's Norton

Representative for Representative Meeting.
A. Freer, Esq., Stourbridge

Representatives on Branch Council.

Coaker, F. W. J., F.R.C.S.
Parsey, E. W., M.B.

Ambrose, W. C., Esq., Barnt Green
Beilby, J. H., M.B., 39, High Street, Bromsgrove
Bodger, S., M.D., Studley, R.S.O.

Coaker, F. W. J., F.R.C.S., 22, High Street, Bromsgrove
Gummow, J. F., Esq., Northfield, near Birmingham
Hawkins, C. L., M.B., Inglewood, Bromsgrove
Jordan, B. F., M.B., King's Norton
Kidd, H. C., F.R.C.S., Bromsgrove
Mathews, E., Esq., Mount Prospect, Redditch
Moore, R. W., Esq., Bristol Road, Northfield
Parsey, E. W., M.B., Glenavon, King's Norton
Peirce, J. E., Esq., Redditch
Pritchard, E. T., Esq., 8, Church Green, Redditch
Rowlands, W. H., Esq., The Gables, Bromsgrove
Smith, C. C., M.B., Redditch
Smith, E. Prothero, Esq., Richmond House, Redditch
Suffern, A. C., M.D., Rubery Hill Asylum, near Birmingham
Underhill, T. E., M.D., Barnt Green

No. 2.—Central Division

NUMBERING 299.

Chairman, W. F. Haslam, Esq., Edgbaston
Vice-Chairman, W. Milligan, Esq., Yardley.
Honorary Secretary, E. D. Kirby, M.D., 106, Hagley Road, Edgbaston

Representative for Representative Meeting.
Thomas Wilson, M.D., 87, Cornwall Street, Birmingham

Representatives on Branch Council.
Edginton, R. W., M.D.
Haslam, W. F., Esq.
Heaton, G., M.B.
Kirby, E. D., M.D.
Neal, J., Esq.
Wilson, Thomas, M.D.

Abbott, J. C., M.B., Lichfield Road, Aston
Adamson, R., Esq., The Laurels, Water Orton
Aldren, B. C. R., M.B., 42, Bristol Road, Birmingham
Alldridge, W. E., Esq., 341, Dudley Road, Birmingham
Allport, W., M.B., Edmund Street, Birmingham
Alton, E. A., Esq., 40, High Street, Stirchley
Ballance, J. D., Esq., 38, Hagley Road, Birmingham
Barber, G. T. C., Esq., Coventry Road, Birmingham
Barnes, A. S., M.D., 141, Great Charles St, Birmingham
Barnes, F., F.R.C.S., 83A, Edmund Street, Birmingham
Barling, G., M.B., 87, Cornwall Street, Birmingham
Beards, E. J., Esq., 428, Moseley Road, Birmingham
Beatty, R. P., M.B., Workhouse Infirmary, Birmingham
Belcher, G. C., M.B., 80, Dale End, Birmingham
Bennett, J. H., Esq., 145, Birchfield Road, Birmingham
Berlyn, J. A., Esq., 6, Calthorpe Road, Edgbaston
Bernays, A. V., M.B., The Gables, Solihull
Berry, Herbert, M.B., 661, Bloxwich Road, Bloxwich
Best, N. Dewes, Esq., 113, Balsall Heath Road, Edgbaston
Betteridge, T., M.B., Bishopstone, Sutton Coldfield
Billington, W., M.B., 9, Easy Row, Birmingham
Birchall, E. H., Esq., Workhouse Infirmary, Gravelly Hill, Birmingam
Blake, G. F., Esq., Cambridge Road, Moseley
Boeddicker, H. F. W., M.B., 97, Bradford Street, Birmingham
Bottle, A., M.D., 8, Easy Row, Birmingham
Bradford, C., M.B., Merstowe, Acock's Green, near Birmingham
Bradshaw, A., Esq., Grove House, Vauxhall Road, Birmingham
Branson, G. J., M.D., 44, Sandon Road, Edgbaston
Brice, J. H., Esq., 78, Wellington Road, Birmingham
Briggs, H. M., Esq., 29, Stratford Place, Birmingham
Briggs, R. W., M.D., 51, High Street, Harborne, Birmingham
Brown, T. A., M.B., Glencoe, Maney, Sutton Coldfield
Bryce, Alexander, M.D., St. Kilda, Moseley, Birmingham
Bryce, G., Esq., 299, Wheeler Street, Lozells, Birmingham
Buchan, D., M.B., 357, Farm Street, Hockley
Buckley, J. R., M.B., 321, Gillott Road, Edgbaston
Bull, E. G., M.B., Weatheroak Ho., Sparkhill, Birmingham
Bunting, W. H., M.D., 22, Islington Row, Edgbaston
Burges, F. A. L'E., Esq., 62, Hockley Hill, Birmingham
Burnet, Robert, M.B., 369, Lodge Rd., Hockley, Birm'ham
Burton, E. T., Esq., 33, Spring Hill, Birmingham
Bygott, A. H., M.D., 106, Moseley Road, Birmingham
Caddick, C. J., Esq., 44, Bradford Street, Walsall
Campbell, Peter, M.B., 10, Nechells Park Road, Birmingham
Carlier, E. W. W., M.D., The University, Birmingham
Carruthers, W. D., M.B., Queen's Hospital, Birmingham
Carter, A. H., M.D., 61, Newhall Street, Birmingham
Chadwick, C. S., Esq., 141, Stratford Road, Birmingham
Chavasse, H. S., Esq., 56, High Street, Sutton Coldfield
Chavasse, Sir Thomas F., M.D., 22, Temple Row, Birming'm
Clarke, Annie E., M.D., 4, Calthorpe Road, Edgbaston
Clarke, W. J., Esq., Gravelly Hill, Birmingham
Clay, A., Esq., Moseley, Birmingham
Clay, G. L., Esq., 98, Moseley Road, Highgate, Birmingham
Clayton, J. H., M.B., 16, Hagley Road, Edgbaston
Cochrane, J., M.B., 99, Bloomsbury Street, Birmingham
Cox, W. M., Esq., St. Bernard's Road, Olton
Crabbe, J. S., Esq., Dundallan, Gravelly Hill, Birmingham
Craig, J. F., M.D., 328, Hagley Road, Birmingham
Dain, H. G., M.B., Bournbrook House, Selly Oak
Dale, C. B., Esq., 106, Bristol Road, Edgbaston
Deakin, F. N., Esq., 18, Bradford Street, Walsall
Davison, W. H., M.B., General Dispensary, Thimble Mill Lane, Nechells, Birmingham
Denne, H., M.D., 39, Calthorpe Road, Edgbaston
De Vall, A. E., Esq., 199, Alum Rock Road, Saltley
Donovan, H. L., Lieut.-Col. R.A.M.C., Oakthorpe, Acocks Green
Donovan, W., M.D., Glandore, Erdington, Birmingham
Dow, Thos., Esq., 536, Stratford Road, Birminghhm
Downing, W., Esq., 1, Great Colmore Street, Birmingham
Drury, R. J., M.D., 37, Highfield Road, Edgbaston
Duncan, J. Watt, M.B., 372, Lodge Road, Hockley, Birmingham
Dunkley, W. W., Esq., Broxash, Valentine Road, King's Heath
Eales, H., Esq., Fieldhead, Selly Oak
Edginton, R. W., M.D., 70, Portland Road, Edgbaston
Ellis, R. S., M.B., Bank House, Aston Cross, Birmingham
Ellison, S. C., M.D., 174, Golden Hillock Road, Birmingham
Emanuel, J. G., M.D., 36, Beaufort Road, Edgbaston
Emery, F. W., M.D., 196, Stratford Road, Birmingham
Emms, H. R., Esq., 132, Winston Green Road, Birmingham
Evans, A. H., Esq., Sutton Coldfield
Evans, J. J., M.B., 85, Edmund Street, Birmingham
Evans, T. D. F., M.B., 20, Augustus Road, Edgbaston
Fairley, S. B., M.D., West Bank, Gravelly Hill, Birmingham
Farncombe, W. T., M.D., Bishopstone, Harborne
Fawssett, B., Esq., 184, Stratford Road, Birmingham
Feast, F. B., M.B., 526 Coventry Road, Small Heath, Birmingham
Featherstone, W. B., M.D., The Grove, Erdington
Flewitt, C. Y., Esq., Sutton Coldfield
Flewitt, W., Esq., 129, Moor Street, Birmingham
Fooks, W. P., M.B., Broadway House, Five Ways, Birmingham
Fowler, H., M.D., 60, Bristol Road, Birmingham
Foxcroft, F. W., M.D., Newhall Street, Birmingham
Foxwell, A., M.D., Newhall Street, Birmingham
Fraser, J., M.B., Sutton Coldfield
Frew, John, M.B., Grange Rd., Small Heath, Birmingham
Gamgee, L. P., Esq., 95, Cornwall Street, Birmingham
Garner, J., Esq., 21, Easy Row, Birmingham
Gettings, G. S., Esq., Chase Lodge, Walsall
Gibbs, T. H., M.B., Chestnut Lawn, Stechford
Glegg, Norman, M.B., The Infirmary, Birmingham
Glegg, Wilfrid, M.D., 85, Cornwall Street, Birmingham
Good, J. P., M.B., 15, Lordswood Rd., Harborne, Birminghm
Gordon, W., Esq., 652, Stratford Road, Birmingham
Gosling, C. E., M.D., Moseley, Birmingham
Greenwood, F. R., M.D., 560, Stratford Road, Sparkhill, Birmingham
Haddow, R. W. T., M.B., Forest Road, Moseley, Birmingham
Hadley, G. Percival, M.D., 18A, Lozells Road, Aston Manor, Birmingham
Hall, F. J. V., M.B., Redhill, South Yardley, Birmingham
Hall, J. A., Esq., Pershore Road, Edgbaston
Hall-Edwards, J., Esq., 103, Newhall Street, Birmingham
Hallwright, M., Esq., 124, Hagley Road, Birmingham
Hamilton, R., M.D., Clyde Cottage, Washwood Heath Road, Saltley
Hancock, A. E., Esq., Highfield Road, Saltley
Hannah, E. W. St. C., M.B., Velmead, Tennyson Road, Birmingham
Harmar, J. R., Esq., 1/2, Hagley Road, Edgbaston
Hart, G. H., Esq., Harborne
Harvey, J. F., Esq., 91, Ashted Row, Birmingham
Haslam, W. F., Esq., 8, Vicarage Road, Edgbaston
Hasluck, E. P., Esq., Four Oaks, Sutton Coldfield
Hawkins, E., M.D., 241, Birchfield Road, Perry Barr, Birmingham
Hawley, S. H., M.B., 131, Lichfield Street, Walsall
Haynes, S. W., M.D., 161, Newhall Street, Birmingham
Heath, A. D., M.D., Francis Road, Edgbaston
Heaton, G., M.B., 47, Newhall Street, Birmingham
Hewetson, J. T., M.D., 89, Cornwall Street, Birmingham
Higginson, C. G., Esq., 372, Gillott Road, Edgbaston
Hill, A. B., M.D., 14, Temple Street, Birmingham
Hill, G. L., M.B., Acocks Green, Birmingham
Hirst, W. J., M.B., 2, Woodstock Road, Moseley
Hogg, C. H. J., Esq., 178, Monument Road, Edgbaston
Hora, Julian, M.B., Selly Oak Cottage, Selly Oak
Holland, W. A. L., Esq., Jaffray Hospital, Erdington
Hollinshead, F., M.D., Selly Oak, Birmingham
Holloway, G., Esq., 40, Bristol Road, Birmingham
Hosegood, W., M.B., Chesleyn Hay, Walsall
Howkins, C. H., Esq., Milverton, Yardley, Birmingham
Huband, A. E., Esq., 72, Summer Hill Road, Birmingham
Hunter, R. R., M.B., 377, Moseley Road, Birmingham
Hutchinson, T., Esq., 2A, Great Charles St., Birmingham
Huxley, F. E., Esq., 17, Waterloo Street, Birmingham
Huxley, J. C., M.D., 91, Harborne Road, Birmingham
Irvine, A. G., Esq., Selly Oak, Birmingham
Jackson, G. F., Esq., Marey Villa, Sutton Coldfield
Jessop, H., Esq., 1, Tintern Road, Aston Lane, Perry Barr
Johnson, C. J. B., Esq., King's Heath
Johnson, S. E., Esq., 171, Alcester Road, Moseley, Birmingham
Johnston, G. St., M.D., 127, Pershore Road, Edgbaston
Johnston, J. St., Esq., 49, Frederick Road, Edgbaston
Jones, E. Williams, M.B., Aldridge
Jordan, J. F., M.B., 9, Newhall Street, Birmingham
Jordan, Walter R., M.D., 91, Cornwall Street, Birmingham
Jordan, W. Ross, Esq., 10, Easy Row, Birmingham
Kauffmann, O. J., M.D., 22, Broad Street, Birmingham
Kennedy, J. B. M., Esq., 13, Gosta Green, Birmingham
Kenny, J. H., Esq., St. Mary's Square, Birmingham
Kerr, J. J., Esq., 172, Great Hampton Row, Birmingham
Kingsland, A. T., Esq., 477, Coventry Road, Small Heath
Kirby, E. D., M.D., 106, Hagley Road, Edgbaston
Kneale, J. C., Esq., Shirley Lodge, Shirley
Lamb, W., M.D., 349, Gillott Road, Edgbaston
Layton, F. G., Esq., The Lawn, Walsall
Leedham-Green, C. A., M.D., 9, Newhall St., Birmingham
Leeds, C. G. S., M.B., 235, Dudley Road, Birmingham
Leith, R. F. C., M.B., 16, Portland Road, Edgbaston
Lewis, C. J., M.D., 72, Newhall Street, Birmingham
Lewis, O. R., M.D., 324, Birchfield Road, Perry Barr, near Birmingham
Lloyd, Jordan, F.R.C.S., 16, Ampton Road, Edgbaston
Longmore, T., M.B., 130, Lichfield Street, Walsall
Loxton, W. A., Esq., 6, Raglan Road, Pershore Road Edgbaston
Lucas, Albert, Esq., 9, Easy Row, Birmingham
Lunn, C. R., Esq., St. Bernards Road, Olton
Lydall, W. T., M.D., 68, City Road, Birmingham
McCall, W., M.B., 25, Great Hampton Row, Birmingham
McCardie, W. J., M.B., 42, Wheeleys Road, Edgbaston
McCrindle, J. D., M.B., Council House, Birmingham
Machin, E. S., Esq., Erdington, Birmingham
Mackenzie, R. F., M.D., 167, Broad Street, Birmingham
McKinstry, W. H., M.B., 38, Bradford Street, Walsall
Macshery, M., Esq., 1, Hagley Grove, Hagley Road, Birmingham
Malins, E., M.D., 50, Newhall Street, Birmingham
Mann, W. S., Esq., Hagley Road, Birmingham
Marsh, F., F.R.C.S., 95, Cornwall Street, Birmingham
Marshall, C. F., M.D., 85, Cornwall Street, Birmingham
Martin, A. J., M.D., Bloxwich
Martin, Christopher, M.B., 35, George Road, Edgbaston
May, Bennett, M.B., 93, Cornwall Street, Birmingham
May, F. H., Esq., 9, Birchfield Road, Aston
May, H., Esq., 37, Birchfield Road, Birmingham
Melson, G. H., M.D., 102, Alcester Road, Moseley
Mellor, G. M., Esq., Ashted Row, Birmingham
Middleton, L. A., Esq., Belvedere, Harborne
Miller, J., M.B., The University, Birmingham
Milligan, W., Esq., Yardley, near Birmingham
Milward, F. V., F.R.C.S., 91, Cornwall St., Birmingham
Montgomery, J., M.B., Balsall Heath
Moore, G. S., Esq., 26, Bristol Road, Birmingham
Morrison, Professor J. T. J., M.B., 3, Great Charles Street, Birmingham
Mounsey, G. H., M.B., 20, Calthorpe Road, Edgbaston
Murray, W., M.D., Plough and Harrow Road, Edgbaston
Neal, J., Esq., 610, Coventry Road, Birmingham
Nelson, T., M.D., 78, Hagley Road, Birmingham
Newton, R. A., Esq., Newhall Street, Birmingham
Nicholls, G. F., Esq., Rotton Park Road, Birmingham
Norris, R. H., M.D., 59, Albert Road, Aston, Birmingham
Norton, J. C., Esq., Balsall Heath
Notley, W. J., M.D., 9, Langley Rd., Small Heath, Birmingham
Nutthall, A. W., Esq., 315, Hagley Road, Edgbaston
Oakes, A., Esq., 45, Whittall Street, Birmingham
Oliver, A. R., M.B., 108, Hurst Street, Birmingham
Oliver, W., Esq., Northumberland House, Walsall
O'Meara, J. F., Esq., 6, Wednesbury Road, Walsall
Orrock, G. D., M.B., 31, Waterloo Street, Birmingham
Osborne, Ernest, Esq., 38, Ashsted Row, Birmingham
Owen, D. C. L., Esq., 41, Newhall Street, Birmingham
Page, E. F., M.B., Solihull
Pailthorpe, Mary E., M.B., 22, College Road, Moseley
Patrick, J. H., Esq., 209, Balsall Heath Road, Birmingham
Pegg, J. E., Esq., 83, St. Luke's Road, Birmingham
Perry, S. H., M.D., 230, Hagley Road, Birmingham
Phillips, G. A., Esq., 1, Birmingham Road, Walsall
Pogson, J. W. B., M.D., 139, Hockley Hill, Birmingham
Pooler, H. W., M.B., 77, Gt. Brook Street, Birmingham
Potts, W. A., M.D., 118, Hagley Road, Edgbaston
Powell, G. W., M.B., 272, Hagley Road, Edgbaston
Purslow, C. E., M.D., 192, Broad Street, Birmingham
Ratcliffe, J. R., M.B., Wake Green Road, Moseley
Ravenhill, T. H., Esq., Bordesley, Birmingham
Reith, W. R., M.D., Erdington
Rennie, W., Esq., Ashfield Road, King's Heath Birmingham
Richards, T., M.D., Bath Row, Birmingham
Rickards, E., M.B., 43, Augustus Road, Edgbaston
Riordan, D., M.D., Caldmore Villa, Walsall
Robb, J. J., M.D., Linden Road, Bournville, nr. Birmingham
Roberts, S. J., Esq., Park House, Saltley, Birmingham
Robertson, John, M.D., The Hollies, Court Oak Road, Harborne
Robinson, Professor A., M.D., University of Birmingham
Rowlands, D. R., M.D., 17, Hagley Road, Edgbaston
Rosten, W. M., M.D., Acock's Green, Birmingham
Russell, J. W., M.D., 72, Newhall Street, Birmingham
Rust, James, M.D., 8, Great Colmore Street, Birmingham
Salt, T., Esq., Yiewsley, Washwood Heath, Birmingham
Saundby, Professor Robert, M.D., LL.D., 140B, Gt. Charles Street, Birmingham
Savage, E. S., M.B., 133, Edmund Street, Birmingham
Sawyer, Sir James, M.D., 31, Temple Row, Birmingham
Sawyer, J. E. H., M.B., 93, Cornwall Street, Birmingham
Shaw, O. C., M.D., Moseley
Short, T. Sydney, M.D., 85, Edmund Street, Birmingham
Simms, Hy., Esq., Coventry Road, Birmingham
Simon, R. M., M.D., 41, Newhall Street, Birmingham
Smith, E. Gilbert, Esq., 9, Newhall Street, Birmingham
Smith, Priestley, F.R.C.S., 95, Cornwall St., Birmingham
Southall, S., M.D., 256, Monument Road, Birmingham
Sproat, J. H., M.B., The Greylands, Gravelly Hill North
Stanley, A., Esq., Glendale, Coventry Road, Birmingham
Stanley, Douglas, M.D., 21, Broad Street, Birmingham
Starkie, E. G. B., M.D., 566, Moseley Road, Birmingham
Stead, G., M.D., Hatherton House, Walsall
Strathy, F. R. L., M.D., Harborne, Birmingham
Sturge, Mary D., M.D., 45, Hagley Road, Edgbaston
Sturrock, W. M., M.B., The Workhouse, Birmingham
Sydenham, F. W., M.B., Lichfield House, Walsall
Taplin, Julian, Esq., 69, Wordsworth Road, Small Heath
Taylor, G. H. A., Esq., 150, Coventry Road, Birmingham
Taylor, J. W., M.D., 22, Newhall Street, Birmingham
Thomas, L. K., Esq., Norval's Pont, Edgbaston Road Birmingham
Thomas, W., M.B., 200, Bristol Road, Birmingham
Tighe, J., Esq., 101, Ashted Row, Birmingham
Tipping, H. H., Esq., 578, Stratford Road, Birmingham
Trout, J. H. E., Esq., 412, Monument Road, Birmingham
Underwood, A. C., Esq., 10, College Road, Saltley
Utting, H. E., M.B., 117, Lichfield Street, Walsall
Vinrace, F. C., M.D., 45, Temple Row, Birmingham
Vinrace, J., M.D., Oxford Road, Moseley
Vokes, C., Esq., Gerrard Street, Birmingham
Watson, J. H., Esq., 34, Frederick Road, Edgbaston
Weaver, A. E. R., M.B., Queen's Hospital, Birmingham
Webb, S. G., M.B., 221, Bloomsbury Street, Birmingham
Whitby, E. V., Esq., 93, Bristol Road, Birmingham
Whichello, E., M.B., 174, Rotton Park Road, Birmingham
Whitcombe, Professor E. B., M.B., City Asylum, Birmingham
Whitcombe, W. P., Esq., Aston, Birmingham
White, E. W., M.D., 72, Newhall Street, Birmingham
White, Jas. A. H., M.D., 186, Monument Road, Edgbaston
Whiteford, Sara, M.B., 218, Stratford Road, Birmingham
Whitehouse, E., St. J., Esq., High Street, Solihull
Whitehouse, W. H., M.D., Keston House, Aston Road, Birmingham
Whittome, H., M.D., Cleeve Lodge, Rotton Park Road, Edgbaston
Wigginton, A. E., Esq., Sparkbrook, Birmingham
Wilkes, G. A., M.B., 49, Bevington Road, Aston Manor, Birmingham
Wilks, M., M.B., Church House, Sparkhill
Wilson, H. B., Esq., 38, Frederick Road, Edgbaston
Wilson, James E., M.B., City Infirmary, Birmingham
Wilson, J. S., M.D., Grasmere, Lichfield Road, Walsall
Wilson, T., M.D., 87, Cornwall Street, Birmingham
Wilson, T. Stacey, M.D., 51, Newhall Street, Birmingham
Wood, A. H., M.D., General Dispensary, Birmingham
Wood, H., Esq., Balsall Heath
Wynn, W. H., M.D., 41, Newhall Street, Birmingham
Young, J. M., M.B. 149 Edmund Street Birmingham

No. 3.—Coventry Division

NUMBERING 41.

Chairman, C. Davidson, M.D., Coventry
Vice-Chairman, W. J. Pickup, M.D., Coventry
Honorary Secretary and Treasurer, E. H. Snell, M.D., 10A, Hay Lane, Coventry

Representative for Representative Meeting,
M. M. Moore, M.D., Coventry

Representative on Branch Council,
M. M. Moore, M.D.

Executive Committee.
Brown, F. L. H., M.B.
Collington, F. A., Esq.
Fenton, W. W., M.D.
Hadley, C., Esq.
Orton, J., M.D.
Webb-Fowler, Thos., M.B.

Ballantyne, S. A., M.B., Coventry and Warwickshire Hospital, Coventry
Bankes-Price, Hugh, Esq., 4, Lansdowne Place, Coventry
Bennett, W. E., Esq., F.R.C.S., 8, Queen's Road, Coventry
Bradley, J., Esq., Holyhead House, Coventry
Brown, F. L. H., M.B., Warwick Road, Coventry
Callaghan, J. Leslie, Esq., The Towers, Coventry
Collington, F. A., Esq., 28, Much Park Street, Coventry
Croft, J. T. H., Esq., Longford, near Coventry
Davidson, C., M.D., Coventry
Fenton, W. W., M.D., Avonmore, Warwick Road, Coventry
Fisher, H. R., M.B., Fillongley, near Coventry
Growse, W., Esq., Kenilworth
Hadley, C., Esq., Shilton, Coventry
Hadley, E. C., Esq., The Cottage, Shilton, Coventry
Hawley, A., M.B., 1, Jesson Street, Coventry
Heal, W. E., Esq., 4, Albany Road, Coventry
Heffernan, H. H., Esq., Rosedale, Wolston, near Coventry
Hird, T. A., M.D., Norton Road, Coventry
Iliffe, C. W., Esq., The Chase, Willenhall, Coventry
Konderdine, E. H., Aneddle, Queen's Road, Coventry
Kendrick, H. H., Esq., St. Medards, Norton St., Coventry
Lowman, W. H., M.B., 4, White Street, Coventry
Lynes, E., M.D., 9, Priory Row, Coventry
McGlashan, James, M.D., Bedworth, near Coventry
Moore, M. M., M.D., Coventry
Orton, J., M.D., Great Heath House, Coventry
Orton, L. E., Esq., Bedworth, Coventry
Overton, P. E., Esq., Leicester Row, Coventry
Pendred, V., M.D., 2, Lansdowne Place, Coventry
Phillips, E., M.B., 20, Much Park Street, Coventry
Pickup, W. J., M.D., Swanswell, Coventry
Rice, W. R., M.D., Gosford Green, Coventry
Rudland, Robert, Esq., 14, Station St., Foleshill, Coventry
Smith, W. H., M.B., Meriden
Snell, E. H., M.D., 10A, Hay Lane, Coventry
Soden, T. A. B., Esq., Queen's Road, Coventry
Ward, H. K., Esq., Little Heath, Coventry
Ward, L. B., Lieut.-Col. A.M.S.(ret.), The Barracks Coventry
Webb-Fowler, Thos., M.B., Coventry
Webster, H. G., Esq., Westfield, Longford, Coventry
White, F. F., Esq., Hartford Place, Coventry

No. 4.—Dudley Division

NUMBERING 42.

Chairman, L. A. Taylor, Esq.
Vice-Chairman, H. D'Arcy Ellis, Esq.
Honorary Secretary and Treasurer, M. A. Messiter, Esq., Cappoly, Dudley

Representative for Representative Meeting,
A. Freer, Esq.

Representatives on Branch Council,
M. A. Messiter, Esq.
L. A. Taylor, Esq.

Beasley, J. G., Esq., Mountford House, Rowley Regis
Birt, G., M.B., 23, Hagley Road, Stourbridge
Branday, A. J. L., M.B., Cradley Heath
Bridge, J. F., M.B., The Grove, Lye, near Stourbridge
Broughton, L. C. S., Esq., Langley House, Langley Green

Brown, H. C., Esq., Castle View House, Tipton.
Burke, A. St. L., Esq., Netherton, near Dudley.
Buttery, G. B., Esq., Church Square, Oldbury
Clarke, H. H. R., Esq., Penrhyn, Hagley Rd., Stourbridge
Collis, E. L., M.B., Stourcote, Stourbridge
Dando, Edwin A., Esq., Dixon's Green, Dudley
Darby, H. C., Esq., Broadfields, Lye, near Stourbridge
Dudley, G. J., Esq., Stourbridge
Ellis, H. D'A., Esq., Amblecote, Stourbridge
Freer, A., Esq., Stourbridge
Freer, H. W., Esq., 7, High Street, Stourbridge
Gifford, G. K., M.D., Brierley Hill
Griffith, Robert, M.D., 100, St. Thomas Street, Netherton Dudley
Grindlay, Guy, M.B., Audnam, Stourbridge
Hardwicke, E. W., M.B., Lye, Stourbridge
Hickey, E. L., M.D., 87, High Street, Stourbridge
Higgs, T. F., M.D., Beaconsfield House, Dudley
McMillan, A. S., M.B., Laurel Lane, Halesowen
McQueen, A. D., M.B., Blackheath, near Birmingham
Messiter, M. A., Esq., Cappoly, Dudley
Mitchell, T. E., M.B., Old Hill
O'Dowd, John, Esq., Netherton, Dudley
Pearson, A. W., Esq., Townsend House, Kingswinford
Phillips, S. T., Esq., Townsend House, Halesowen
Pietersen, J. F. G., M.B., Kingswinford
Plant, H. W., Esq., 187, Wolverhampton Street, Dudley
Price, E., Esq., Dudley Port, Tipton
Price, J. D., Esq., Ambleside, Dudley
Sharpe, C. H., Esq., Langley, near Birmingham
Smith, H., Esq., The Dispensary, Dudley
Taylor, L. A., Esq., Brierley Hill
Thompson, J. A. D., M.B., Comberton House, Halesowen
Thomson, Arnold, Esq., The Ferns, Kingswinford
Tibbetts, T. M., M.B., Old Hill
Wilkinson, J. H., Esq., Ednam Lodge, Dudley
Williams, T. K., Esq., High Oak House, Pensnett, Dudley
Young, T. B., M.D., The Laurels, Halesowen

No. 5.—Nuneaton and Tamworth Division

NUMBERING 29.

Chairman, A. M. Sculthorpe, Esq., Tamworth
Vice-Chairman, E. T. Power, Esq., Atherstone
Honorary Secretary, A. A. Wood, Esq., Nuneaton
Representative for Representative Meeting, M. M. Moore, M.D., Coventry
Representatives on Branch Council.
Nason, E. N., M.D.
Wood, A. A., Esq.

Bond, N. T., M.B., Polesworth, Tamworth
Burd, C. P., Esq., Albert Road, Tamworth
Cant, A., M.B., Waltham House, Coleshill
Cormack, J. C., Esq., Fazeley, Tamworth
Fausset, H. J., M.D., Tamworth
Jones, J. W., Esq., Coleshill
Joseph, A., Esq., Attleborough Road, Nuneaton
Joy, C. H., M.D., Manor House, Tamworth
Marris, W., M.B., Wilnecote, near Tamworth
Nason, E. N., M.D., Nuneaton
Nason, W. S., M.B., Abbey Street, Nuneaton
Peacock, E., Esq., Hazlemere, Nuneaton.
Power, E. T., Esq., Coleshill House, Atherstone
Richardson, A. E., M.D., The Hollies, Gungate, Tamworth
Robertson, J. S. E., M.B., Manor Court Avenue, Nuneaton
Sculthorpe, A. M., Esq., Tamworth
Smart, W. H., M.B., Polesworth, Tamworth
Tomlinson, H. T., M.B., Nuneaton
Wall, J. B., Esq., Hazelwood, Coleshill
Wood, A. A., Esq., Nuneaton

No. 6.—Warwick and Leamington Division

NUMBERING 53.

Chairman, J. F. H. Ellerton, M.D., Leamington
Vice-Chairman, R. Latimer Greene, Esq., Stratford-on-Avon.
Honorary Secretary, T. E. C. Cole, M.D., 30, Clarendon Square, Leamington Spa
Representative for Representative Meeting, T. W. Thursfield, M.D., Leamington
Representatives on Branch Council.
Cole, T. E. C., M.D.
Thursfield, T. W., M.D.
Executive Committee.
Gardner, F. G., Esq.
Wyer, O. F., M.D.

Agar, S. H., M.B., Henley-in-Arden
Atkinson, M. H. C., M.D., 1, Newbold Terrace, Leamington
Bower, R., Esq., Knowle Lodge, Knowle, Birmingham.
Browne, B. S., Esq., Arrow Lodge, Alcester, R.S.O.
Browne, S., M.D., The Mill House, Warwick
Bullock, R., Esq., Warwick
Cole, T. E. C., M.D., 30, Clarendon Square, Leamington.
Dale-Roberts, A., Esq., 25, Waterloo Place, Leamington.
Dickinson, G. F., Esq., 1, Milverton Terrace, Leamington
Elkington, F. V., Esq., Fenny Compton, Leamington.
Ellerton, J. F. H., M.D., 9, Priory Terrace, Leamington
Foster, R. H., Esq., Knowle
Gallimore, T., Esq., Kingswood
Gardner, F. G., Esq., Avon Place, Warwick
Greene, R. Latimer, Esq., Stratford-on-Avon
Haynes, F. H., M.D., The Parade, Leamington
Hewer, E. S. E., Esq., 6, Church Street, Stratford-on-Avon
Hicks, P., M.D., 7, The Parade, Leamington
Hingston, J. T., Esq., 58, Clarendon Avenue, Leamington.
Hobbes, C. E., Esq., Bidford, R.S.O.
Hoffman, A. W. W., Esq., 30, The Parade, Leamington.
Marsh, J. H., Esq., Marton
Mason, Harold, M.B., 79, Willes Road, Leamington
Miller, A., M.B., Hatton Asylum, Warwick
Morris, A., Esq., Hamilton House, Leamington
Nelson, W. E., Esq., Arden House, Henley-in-Arden
Nicholl, R. C., Esq., County Lunatic Asylum, Hatton, near Warwick
Noott, R. H., M.B., Guysdale, Warwick Place, Leamington
Norbury, T. W., Esq., Bridge Street, Stratford-on-Avon
Oldmeadow, L. J. H., M.D., Kineton
Olive, E. J. P., M.D., Kenilworth Road, Leamington
Ormerod, E. W., Esq., Southam
Phillips, F. L., M.D., Inchford, Old Park, Warwick
Pirie, James, M.D., Ashton Ho., Harbury, Leamington Spa
Rice, B., M.D., 5, Clarence Terrace, Leamington
Ross, H., M.B., 16, Church Street, Stratford-on-Avon
Savage, T., M.D., The Ards, Knowle
Scott, W. S., M.B., Hampton in Arden
Silvester, W. G., Esq., 26, The Parade, Leamington Spa
Smith, T. Haywood, Esq., Alcester
Statter, H. B., M.D., 4, Clarendon Street, Leamington
Stuart, T. E., Esq., 100, Rugby Road, Leamington Spa
Sutcliffe, J. F., Esq., Harbury, Leamington
Thomson, A., M.B., Payton House, Stratford-on-Avon
Thorne, J. P., M.B., Newbold Terrace, Leamington
Thursfield, T. W., M.D., Beauchamp Square, Leamington
Ward, J., M.D., 16, Emscote Road, Warwick
Watson, A., M.D., Rabe Villa, Union Rd., Leamington Spa
West, J. T., Esq., Portland Villa, Leamington Spa
Wilcox, A. W., M.D., County Asylum, Hatton
Wilson, G., M.D., 7, Avon Place, Warwick
Wyer, O. F., M.D., Epperston House, Leamington Spa

No. 7.—West Bromwich Division

NUMBERING 42.

Chairman, W. H. Stephen, M.D., Raglan Road, Smethwick
Vice-Chairman, T. Sansome, Esq., West Bromwich
Honorary Secretary, H. B. W. Plummer, M.D., 54, Birmingham Road, West Bromwich
Representative for Representative Meeting. Andrew Croll, M.D., Handsworth
Representatives on Branch Council.
Manley, J. H. H., M.B.
Plummer, H. B. W., M.D.
Executive Committee.
Croll, A., M.D.
Garman, Walter C., M.D.
Motteram, H. P., M.B.
Shillito, H., M.B.
Urquhart, W. D., M.B.
Weston, S. T. D., Esq.

Allen, W., Esq., Whitehall Lodge, Great Bridge
Atkins, J. F., M.B., 13, Booth Street, Handsworth
Bark, E. O., Esq., 51, Grosvenor Road, Handsworth
Battie, E. W., Esq., 27, Hamstead Road, Handsworth
Browne, H. W. Langley, M.D., Moor House, W. Bromwich
Burn, D. H., M.D., Crocketts Road, Handsworth
Cassels, W., M.B., 234, Soho Road, Handsworth
Chaundy, R. B., Esq., Handsworth, Birmingham
Crew, H. C., Esq., Oakeswell House, Wednesbury
Croll, Andrew, M.D., Holyhead Road, Handsworth
D'Abreu, J. F., Esq., 73, Holyhead Road, Handsworth
Foster, W. J., Esq., Handsworth, Birmingham
Garman, Walter C., M.D., Wednesbury
Gill, S. D., Esq., 17, High Street, West Bromwich
Gorman, E. S., M.B., 105, Somerset Rd., Handsworth Wood
Griffiths, C. T., Esq., 125, Soho Hill, Handsworth
Heggs, F. R. M., Esq., Toronto House, W. Bromwich
Hughes, T. M., Esq., 362, Soho Road, Handsworth
Jackson, W. F. M., Esq., Smethwick
Lyster, R. A., M.B., 20, Hunter's Road, Handsworth
Macdonald, A. H. W., M.B., 59, Soho Road, Handsworth
Manley, J. H. H., M.B., 20, New Street, West Bromwich
Maskew, C. H., Esq., 14, Claremont Road, Handsworth
Mitchell, A. J., M.B., District Hospital, West Bromwich
Morris, H. G., Esq., Cambridge House, New Street, West Bromwich
Motteram, H. P., M.B., Smethwick
Plummer, H. B. W., M.D., 54, Birmingham Road, West Bromwich
Pollard, W. H., M.B., Tollesbury, Bearwood Rd., Birm'gh'm
Price, T. H., Esq., 1, Victoria Street, West Bromwich
Quirke, J., Esq., Hunters Road, Handsworth
Richmond, James, M.D., 11, Vicarage Road, Handsworth
Robertson, C., M.D., 117, Soho Hill, Handsworth
Sansome, T., Esq., 45, Lombard Street, West Bromwich
Sansome, T., Esq., jun., 73, Hill Top, West Bromwich
Shiels, R., M.D., Cape Hill, Birmingham
Stephen, W. H., M.B., Raglan Road, Smethwick
Sutton, F. W., Esq., Smethwick
Tomlinson, G. H., M.B., Handsworth Wood, Birmingham.
Underhill, A. S., M.D., New Street, West Bromwich
Underhill, T., M.D., West Bromwich
Urquhart, W. D., M.B., The Mount, High Street, Smethwick
Weston, S. T. D., Esq., Holyhead Road, Handsworth

BORDER COUNTIES BRANCH.

District comprising in *Scotland*, the Counties of DUMFRIES, KIRKCUDBRIGHT, and WIGTOWN; in *England*, CUMBERLAND AND WESTMORLAND (north of Ravenglass, Grasmere, Orton, and Kirkby Stephen).

RECOGNISED 1868.

Members of Branch—146.

President, Sir JAMES CRICHTON-BROWNE, M.D., LL.D. F.R.S., Dumfries.

President-elect, J. E. BOWSER, M.B., Penrith.

Vice-President, HENRY BARNES, M.D., LL.D., Carlisle

Honorary Secretary and Treasurer.
F. R. HILL, M.B., 62, Warwick Road, Carlisle

Representative on Council of Association
J. Maxwell Ross, M.B., Dumfries

Branch Council.
Bell, J. S., M.B.
Clarke, F. H., M.B.
Crerar, J. W., M.B.
Donald, C. W., M.D.
Doughty, D. S., M.D.
Graham, C. W., Esq.
Logan, G. D., M.B.
Murdoch, W., M.D.
Muriel, G. J., Esq.
Ogilvy-Ramsay, M., M.D.
Powers, C. H., Esq.
and the Divisional Secretaries *ex officio*.

Associate Member.
Syme, W. S., M.D., Glasgow.

No. 1.—Scottish Part Division

NUMBERING 63.

Chairman, David Smith, M.B., Creetown.
Vice-Chairman, F. H. Clarke, M.B., Dumfries.
Honorary Secretary and Treasurer, G. R. Livingston, M.D., 47, Castle Street, Dumfries.
Representative for Representative Meeting, G. R. Livingston, M.D., 47, Castle Street, Dumfries
Representatives on Branch Council.
Clarke, F. H., M.B.
Logan, G. D., M.B.
Executive Committee.
Anderson, J. A., M.D.
Bell, J. S., M.B.
Robertson, J. M., M.B.
Robson, J. D., M.B.

Adamson, J. A., M.B., Hastings Hall, Moniaive, Dumfries
Anderson, A. W., M.B., Dalbeattie
Anderson, J. A., M.D., Stranraer
Anderson, J. R., M.D., Esk Bank, Canonbie
Bell, J. S., M.B., The Green, Lockerbie
Brown, J., M.D., Burnside, Holywood, Dumfries
Cameron, M., M.B., Mainsriddell, Dumfries
Chalmers, Arch., M.D., Crocketford, Dumfries
Clarke, F. H., M.B., Charlotte Street, Dumfries
Cluckie, Andrew, M.D., George Street, Stranraer
Cowan, J., M.B., Kenview, New Galloway
Cox, J. N., Esq., Gatehouse-of-Fleet
Crichton-Browne, Sir James, M.D., LL.D., F.R.S., Crindau, Dumfries
Ferguson, T., M.B., 16, Castle Street, Dumfries
Forde, E. S., Esq., 33, Queen Street, Castle Douglas
Gill, J., M.B., Langholm
Gillespie, S. A. D., M.B., Dalbeattie
Gilroy, J., M.B., Waterbeck, Ecclefechan
Hunter, Joseph, M.B., 31, Castle Street, Dumfries
Huskie, David, M.B., Moffat
Irving, George, M.D., Craigdhu, Lockerbie, N.B.
Kerr, P. M., M.B., 20, Castle Street, Dumfries
Kirkwood, James, M.B., Drummore, Wigtown
Law, C. D., Esq., Crichton Royal Institution, Dumfries
Livingston, G. R., M.D., 47, Castle Street, Dumfries
Lockerbie, Dr., Annan
Logan, G. D., M.B., Ecclefechan
Lorraine, R. T. B., M.B., Castle Douglas, N.B.
Lucas, C. B., Esq., Greencroft, Annan
McKie, John, M.B., Glenluce
McKie, N. J., M.D., Newton Stewart
McLachlan, J., M.B., Lockerbie
Martin, J. E., M.B., Clydesdale Bank House, Lockerbie
Martin, J. W., M.D., J.P., Charterhall, Newbridge, Dumfries
Matthews, D., M.B., Glenluce
Monro, D. D., M.B., Stranraer, Wigtown
Morris, E. H. G., M.B., Burow's Craig, Dalbeattie
Muir, J. P. H., M.B., St. John's Road, Annan
Munro, J., M.D., Moffat
Murdoch, W., M.D., 14, St. John's Road, Annan
Murray-Aynsley, J. H., Esq., 11, Main Street, Wigtown
Park, W., M.D., Beechfield, Johnstone Bridge, Lockerbie
Reid, W. S. S., M.B., Kirkcudbright
Richards, W. B. K., Esq., Kirkmahoe, Dumfries
Robertson, George, Esq., Kirkpatrick-Durham
Robertson, J. M., M.B., Burnbank, Penpoint, Dumfries
Robson, J. D., M.B., 1, Hope Place, Maxwelltown
Rodger, T. R., M.D., Crichton Hall, Sanquhar
Ross, J. Maxwell, M.B., County Buildings, Dumfries
Rutherford, J., M.D., Crichton Royal Institution, Dumfries
Sanders, A. G., M.B., Castle Grove, Lochmaben
Scott, W., M.B., Ruthwell, R.S.O.
Selby, W. McD., M.B., Portwilliam
Shaw, E., M.B., Wigtown
Shaw, J. B., M.B. (address uncommunicated)
Shaw, R. B., M.B., Balmoral House, Castle Douglas, N.B.
Smith, David, M.B., 1, Park Crescent, Creetown.
Smith, J. F., M.B., Whithorn
Smith, J. W., M.B., Dunscore, Auldgirth
Wells, R. S., Esq., Kirkcowan
Welsh, D. C., M.B., Castle Douglas
Welsh, G. A., M.D., The Crescent, Carliestown
White, T. B., M.B., Dickson House, Moffat

No. 2.—North Cumberland Division

NUMBERING 51.

Chairman, J. E. Bowser, M.B., Penrith.
Vice-Chairman, J. B. Bird, M.D., Carlisle.
Hon. Secretary, Norman Maclaren, F.R.C.S., 23, Portland Square, Carlisle
Representative for Representative Meeting, F. R. Hill, M.B., Carlisle
Representatives on Branch Council.
Donald, C. W., M.D.
Graham, C. W., Esq.
Executive Committee.
Doughty, D. S., M.D.
Edington, D. C., M.D.
Ogilvy-Ramsay, M., M.D.
Powers, C. H., Esq.

Adam, W. T., M.B., 48, London Road, Carlisle
Aitken, C. C., M.D., 6, The Crescent, Carlisle.
Arnott, J., M.D., Rose Villa, Brampton
Barclay, J., M.B., Wetheral, Carlisle
Barnes, Henry, M.D., LL.D., 6, Portland Square, Carlisle
Bird, J. B., M.D., 2, Brunswick Street, Carlisle
Blacklock, J., M.D., Hill House, Wigton
Bowser, J. E., M.B., Musgrave Hall, Penrith
Brown, W., F.R.C.S.Edin., 12, Portland Square, Carlisle
Browne, J. J., Esq., The Limes, Wigton
Burrows, A. C., Esq., 35, Cecil Street, Carlisle
Carson, S., M.B., Salvin House, Alston
Causley, H. B., M.B., Rowelltown, Carlisle
Crerar, Charles, M.B., Monimail, Silloth
Denny, H. E., M.D., Longtown
Donald, C. W., M.D., 28, Portland Square, Carlisle
Doughty, D. S., M.D., Dalston
Edington, D. C., M.D., 4, Portland Place, Penrith
Farquharson, W. E., M.D., Garlands, Carlisle
Glen, T. M., Esq., Hesket New Market
Goodchild, W., M.B., Cumberland Sanatorium, Threlkeld
Graham, C. W., Esq., 20, Portland Square, Carlisle
Haswell, J. F., M.D., The Friarage, Penrith
Hele, J. W., jun., Esq., 11, Portland Square, Carlisle
Hill, F. R., M.B., 62, Warwick Road, Carlisle
Hill, G., Esq., Lorne Lodge, Abbey Town
Johnstone, R. B., F.R.C.S.Edin., Bishopyards, Penrith
Kekwick, J., Esq., 9, The Crescent, Carlisle
Livingstone, John, M.B., Corney House, Penrith
Lyall, C. H. G., Esq., Garlands Asylum, Carlisle
Macdonald, J., M.D., 17, Portland Square, Carlisle
McLachlan, S. F., M.B., Longtown
Maclaren, Norman, F.R.C.S., 23, Portland Square, Carlisle
Maclaren, R., M.D., 23, Portland Square, Carlisle
Martin, George, Esq., Silloth
Nicholson, T. D., M.B., Bleek House, Shap
Ogilvy-Ramsay, M., M.D., 37, Lonsdale Street, Carlisle
Pearson, W., Esq., Currock, Carlisle
Powers, C. H., Esq., Southwaite
Rigg, S. E., Esq., 2, Portland Square, Carlisle
Rumney, O. G., M.D., Watermillock, Penrith
Sedgwick, R. E., M.B., 3, Brunswick Street, Carlisle
Sheehan, P., Esq., 2, The Crescent, Carlisle
Sprott, A., M.B., Whitehouse, Appleby
Symington, W., M.B., Leafield, Brampton.
Symonds, G. H. Hamilton, M.D., High College, Kirkoswald
Thompson, H. Y., Esq., Brampton
Tylecote, J. H. L., M.B., Nenthead, by Alston
Wilkins, A. G., M.B., Glenridding, Penrith
Winship, W. A., Esq., Langwathby, Eden View
Wroughton, W. C. H., Esq., Eden Holme, Wetheral.

No. 3.—West Cumberland Division

NUMBERING 32.

Chairman, G. J. Muriel, Esq., Whitehaven
Vice-Chairman, A. A. H. Knight, M.D., Keswick
Honorary Secretary, John Penny, M.B., 61, Kirkgate, Cockermouth
Representative for Representative Meeting, F. R. Hill, M.B., Carlisle
Representative on Branch Council.
Crerar, J. W., M.B.
Executive Committee.
Clark, John, M.B.
Dudgeon, J. H., Esq.
Fisher, J. B., M.D.
Mitchell, H., M.D.

Ablett, E., M.D., Whitehaven
Braithwaite, S., Esq., Egremont
Briggs, W. P., Esq., Aspatria
Byers, H. S., M.B., Cleator
Burnett, J. R., M.D., Elm Grove, Keswick
Calderwood, C., M.D., Egremont.
Clark, R. L., M.D., Maryport.
Clark, John, M.B., Cleator Moor
Cooper, J. W. Astley, Esq., Hassness, Buttermere, Cockermouth
Coulthard, W. J. C., M.B., Bishop's Close, Aspatria
Crerar, J. W., M.B., Castle Hill, Maryport
Cullin, G. R., Esq., Church Road, Harrington
Dickson, J. H., M.B., 72, Lowther Street, Whitehaven
Donaldson-Sim, E., Esq., 19, Irish Street, Whitehaven
Dudgeon, J. H., Esq., Workington
Fisher, J. B., M.D., 77, Lowther Street, Whitehaven
Fletcher, Isaac, M.B., John Street, Workington
Govan, G., M.B., 18, Main Street, Cockermouth
Harris, C. J. J., M.D., Whitehaven.
Highet, J., M.D., Workington
Hodgson, I. C., M.B., Fieldside, Workington
I'Anson, W., M.B., Whitehaven
Kay, Richard, M.B., Waterloo House, Cockermouth
Knight, A. A. H., M.D., Keswick

Lace, J. I., Esq., Frizington
Mitchell, H., M.D., Cockermouth
Muir, J. F., M.D., 113, Scotch Street, Whitehaven
Muriel, G. B., M.B., 109, Scotch Street, Whitehaven
Muriel, G. J., Esq., The Retreat, Whitehaven
Penny, John, M.B., 61, Kirkgate, Cockermouth
Pickering, W. C., Esq., Whitehaven and West Cumberland Infirmary
Proud, F., M.D., 18, Curzon Street, Maryport

CAMBRIDGE AND HUNTINGDON BRANCH.

District comprising the Counties of CAMBRIDGE and HUNTINGDON: in HERTFORDSHIRE, the portion east of a line drawn from Potter's Bar due north to the county boundary, and north of a line drawn from Potter's Bar to High Ongar; in ESSEX, the portion north of the line last mentioned and west of a line from High Ongar to Bartlow Station; in NORTHAMPTONSHIRE the portion north and east of Thrapston.

Members of Branch—152.

President, L. HUMPHRY, M.D., Cambridge
President-elect, G. KIRKWOOD, M.D., Peterborough
Hon. Secretary and Treasurer, F. E. A. WEBB, Esq., Grafton House, Maid's Causeway, Cambridge

Representative on Council of Association.
C. H. Milburn, M.B., 158, Aulaby Road, Hull

Representative for Representative Meeting.
Henry Stear, Esq., Saffron Walden

Branch Council.
Deighton, F., M.B.
Fordyce, B. E., M.B.
Giles, J., Esq.
And the past Presidents.

Addison, H. C., Esq., Broxbourne
Agnew, E. D., Esq., North Street, Bishop's Stortford
Allbutt, Clifford, M.D., F.R.S., St. Radegunds, Cambridge
Allen, F. J., M.D., 107, Castle Street, Cambridge
Anningson, B., M.D., Barton Road, Cambridge
Armistead, W., M.B., Stapleford
Atkinson, H. W., M.B., 37, High Street, Saffron Walden
Balding, D. B., F.R.C.S., Royston
Baldwin, T. P., Esq., General Infirmary, Hertford
Bansall, W. H., M.B., 36, Lensfield Road, Cambridge
Barlow, H. C., M.B., La Maison, Somersham
Barrett, R. H., Esq., Parson Drove, Wisbech
Bartlett, H. C., Esq., High Street, Saffron Walden
Bayne, T. W., M.B., St. Ives
Bindloss, E. F., Esq., M.B., Melbourn, Royston
Bisdee, A. J., Esq., Stanborough Lodge, Hoddesden
Bowe, Arthur, Esq., New Street, St. Neots
Boyd, A. J., M.D., The Manor House, Ware, Herts
Bradbury, Professor J. B., M.D., 4, St. Peter's Ter., Cambridge
Buckenham, J., Esq., Cambridge
Bullmore, E. A., Esq., 10, South Brink, Wisbech
Butterworth, R., M.B., 6, The Crescent, Wisbech
Cayley, F. P., Esq., Woodville, Stansted
Campbell, E. McC., Esq., 86, Warkworth Street, Cambridg
Cane, Leonard, M.D., Peterborough
Christmas, R. W. S., Esq., Gamlingay
Collins, J. N., Esq., 18, Lincoln Road, Peterborough
Cooke, Arthur, F.R.C.S., 69, Bridge Street, Cambridge
Cory, C. G., Esq., Manor House, Soham, Cambridge
Cox, C. H., Esq., The Limes, Cottenham
Cross, E. J., Esq., St. Neots
Dalton J. H. C., M.D, The Plot, Adams Road, Cambridge
Davies, T., Esq., Whittlesea, near Peterborough
Day, F. N., M.B., Harlow Essex
Day, F. W. L., Esq., Baldock
Deighton, F., M.B., Cambridge
Denny, A. W., Esq., Isleham
Denyer, S. E., C.M.G., M.D., Tralea, De Freville Avenue, Cambridge
Dixon, H. S., Esq., Buntingford
Dockray, J. S., M.D., Bishop's Stortford
Dunwoody, W. G., M.D., St. Mary's, Ely
Eastwood, Arthur, M.B., Stansted, Essex
Edwards, K. C., Esq., Tudor House, Sawston
Elliott, A. F., Esq., Oundle
Evison, F. A., Esq., Broad Street, March
Fisher, W. F., M.D., Ramsey
Fordyce, B. E., M.B., Chesterton Road, Cambridge
Foster, M. B., Esq., The Moat, Puckeridge
Fraser, A., M.B., 237, Chesterton Road, Cambridge
Garrood, J. R., M.D., Alconbury Hill
Giles, J., Esq., Caxton
Graham, J. C. W., Esq., Gwydir House, Mill Road, Cambridge
Gray, C. F., Esq., Newmarket
Gray, H. E., Esq., 30, Thompson's Lane, Cambridge
Griffith, A. S., Esq., 2, Albany Villas, Stansted, Essex
Griffiths, J., M.D., 1, St. Peter's Terrace, Cambridge
Grogan, Gertrude, M.B., The Asylum, Fulbourn
Groom, H., M.D., 12, North Brink, Wisbech
Grove, W. Reginald, M.B., St. Ives
Gunson, C. H., M.B., 8, The Crescent, Wisbech
Hallett, H. A., M.D., Kimbolton
Hartigan, W., M.D., Thorley Avenue, Bishop's Stortford
Haynes, G. S., M.B., 4, Trinity Street, Cambridge
Haynes, S., Esq., Stansted-Mountfichet
Haynes, W. F., Esq., The Rise, Stansted
Head, R. T., Esq., Balsham
Hills, W. C. D., Esq., New Bridge House, Upwell
Hoskins, W., M.B., Broxbourne
Humphry, L., M.D., Lensfield, Cambridge
Jolly, R. W., Esq., 5, Broad Bridge Street, Peterborough
Jones, E. Lloyd, M.D., 59, Trumpington Street, Cambridge
Jupe, F. I. M., Esq., Histon
King, J. M., Esq., Barley, Royston
Kirkwood, G., M.D., 1, North Street, Peterborough
Latham, P. W., M.D., Cambridge
Lawton, W., Esq., 26, Newmarket Road, Cambridge
Lempriere, L. R., Esq., Haileybury College, Hertford
Lewis, R. T., M.B., Willingham
Lewis, T. W., M.D., King's Cliffe, Wansford
Llewellyn, E. E., Esq., Ramsey
Lucas, H., Esq., Huntingdon
Lucas, T., Esq., 58, Andrew Street, Cambridge
Macalister, Prof. Alex., M.D., LL.D., F.R.S., Cambridge
MacAlister, Donald, M.D., St. John's College, Cambridge
McCall, Eva, M.D., 1, Fitzwilliam Street, Cambridge
McCutchan, W. A., Esq., Asylum, Fulbourn, Cambridgeshire
Mackirdy, Wm., Esq., 157, Lincoln Road, Peterborough
MacRitchie, D., M.B., 84, High Street, Huntingdon
Magoris, W. O., Esq., Gt. Shelford
Malden, Walter, M.D., 53, Lensfield Road, Cambridge
Manners, W. F., Esq., 62, Glisson Road, Cambridge
Manners-Smith, T., M.B., Downing College, Cambridge
Manning, T. D., M.B., Hoddesdon
Marsh, Howard, F.R.C.S., 10, Scroope Terrace, Cambridge
May, G. E., Esq., Woodleigh, Ware
Mence, W. H. D., Esq., St. Ives
Morris, J. E., M.D., Bishop's Stortford
Myers, C. S., M.D., Melrose, Grange Road, Cambridge
Naish, R. E., Esq., 20, Newmarket Road, Cambridge
Newton, L., Esq., Alconbury Hill, Huntingdon
Nicholls, F. L., Esq., St. Osyth, Fulbourne
Nuttall, G. H. F., M.D., F.R.S., 3, Cranmer Rd., Cambridge
O'Connor, M., Esq., Chatteris
Odell, Robert, Esq., 6, Queen's Road, Hertford
Palmer, H. J., Esq., Montague House, Gamlingay
Palmer, W. M., Esq., Linton House, Linton
Patch, H. H. L., Esq., 17, Castle Street, Hertford
Phipps, E. V. A., Lieut.-Col., R.A.M.C. (ret.), The Rookery Royston
Pitts-Tucker, F., Esq., Sutton, Is. of Ely, Cambs
Poignand, M., M.D., Hereward House, Littleport, Ely
Price, T. E., Esq., Upwell, near Wisbech
Pridie, H. H., M.B., Wansford
Reid, John, Esq., Westmill Rectory, Buntingford
Rivers, W. H. R., M.D., St. Johns College, Cambridge
Robertson, J. A., M.D., Kelvingrove, Woodstone, Peterbo'
Robinson, E., Esq., Kimbolton
Roderick, H. B., Esq., 24, Petty Cury, Cambridge
Rogers, E. C., Esq., County Asylum, Fulbourne
Rogers, G. F., M.D., 4, King's Parade, Cambridge
Roper, George, Esq., 5, Regent Street, Cambridge
St. Stephens, W. T., Esq., Hillside, Buntingford
Shelly, C. E., M.D., Fore Street, Hertford
Shore, L. E., M.D., St. John's College, Cambridge
Simpson, J. C., M.D., 58, Corpus Buildings, Cambridge
Smith, C. Lawson Esq., 17, Castle Street, Hertford
¶Smith, E. B., M.D., East Brooklands, Royston
Smith, W. A., M.B., Newport, Essex
Stear, Henry, Esq., Saffron Walden
Stephen, L. H. Y., Esq., Ivy Lodge, Bassingbourne
Stephens, C. E., M.B., Doddington, March
Stewart, W. G., Esq., Ware
Sturge, W. Howard, M.D., Hoddesdon
Swatman, Helen, M.B., Kelshall Rectory, Royston
Tasker-Evans, J. T., M.D., Upton House, Hertford
Turner, B. R., M.B., Oundle
Tylor Max F., M.B., 6, The Crescent, Wisbech
Walker, T. J., M.D., 33, Westgate, Peterborough
Waters, A. C. S., Esq., High Street, March
Webb, F. E. A., Esq., Grafton House, Maid's Causeway Cambridge
Wells, J. E. B., Esq., Essex House, Hoddesdon
Wherry, G. E., M.B., 5, St. Peter's Terrace, Cambridge
White, H. F. L., Esq., Caxton
White, J. A. T., Esq., Broad Oak, Harlow
Wightman, C. F., Esq., Melbourne Street, Royston
Williams, F. E., Esq., Beech Lawn, Buckden
Windsor, C. W., M.D., The Old House, Royston
Wingate, W. W., M.B., 60, St. Andrew's Street, Cambridge
Woodhead, G. Sims, M.D., 6, Scrope Terrace, Cambridge
Woollett, S. W., Esq., Cardigan Lodge, Newmarket
Wright, J. A., M.D., 2, Corpus Buildings, Cambridge
Young, W. J., Esq., Harston, Cambridge

CONNAUGHT BRANCH.

Comprising the area composed of the areas of the NORTH CONNAUGHT, MID-CONNAUGHT, and SOUTH CONNAUGHT Divisions. (1. Co. Sligo and Co. Leitrim; the north districts of Co. Roscommon. 2. Co. Mayo; West Roscommon. 3. Co. Galway; South Roscommon).

Members of Branch—41.

President,
President-elect,
Honorary Secretary,
Representatives on Council of Association (with Ulster)
J. W. Byers, M.D., Belfast
W. Calwell, M.D., Belfast

No. 1—Mid Connaught Division

NUMBERING 15.

Chairman,
Vice-Chairman,
Honorary Secretary,
Representative for Representative Meeting,

Birmingham, A., M.B., Ballinrobe
Birmingham, C. L., M.D., Westport
Brennan, M. A., Esq., Charlestown
Crowley, J., Esq., Ballycastle, Ballina
Gill, A., Esq., Westport
Hanrahan, J. A., Esq., Woodville, Hollymount
Hopkins, J. J., Esq., Castlebar
Kelly, R. W., Esq., St. John's Villa, Claremorris
Maguire, C. J. O'L., M.D., Claremorris
Mahon, R. B., M.D., Ballinrobe
McNulty, J., Esq., Killala
O'Callaghan, J. M., Esq., Lahardam, Ballina
O'Donohoe, F. G., Esq., Castlerea
Palmer, G. E., Esq., Westport
Studdert, A. F., Esq., Curlew Hill, Belmullet

No. 2.—North Connaught Division

NUMBERING 10.

Chairman,
Vice-Chairman,
Honorary Secretary,
Representative for Representative Meeting,

Bradshaw, R., Esq., Carrick-on-Shannon
Carroll, J. M.D., Dromahair
Christal, J., M.D., Benbulben Grange, Co. Sligo
Delany, K., Esq., Carrick-on-Shannon
Flanagan, P. J., Esq., Cashelgarron, Sligo
Hamilton, W., M.D. Boyle
Jones, A. E. B., M.D., The Mall, Sligo
Laird, John, Esq., 1, Wine Street, Sligo
Martyn, R. J., Esq., Stephen Street, Sligo
White, P. B., M.D., Tangier, Boyle

No. 3.—South Connaught Division

NUMBERING 16.

Chairman, R. H. Kinkead, M.D., Galway
Vice-Chairman, P. C. Gorham, Esq., Clifden
Honorary Secretary, John Mills, M.B., District Asylum, Ballinasloe

Representatives on Branch Council.
T. B. Costello, M.D.
Joseph MacDonnell, Esq.

Brereton, W. W., Esq., Prospect Hill, Galway
Burkitt, R. W., F.R.C.S., Athenry
Costello, M. J. B., M.B., Dunmore, Co. Galway
Costello, T. B., M.D., Tuam, Galway
English, Ada, District Asylum, Ballinasloe
Ffrench D. P. F., Esq., Ballygar, Galway
Foley, C. H., M.B., Ardrahan
Gorham, P. C., Esq., Clifden
Hession, M. F., Esq., Tuam
Kinkead, R. J., M.D., Galway
MacDonnell, Joseph, Esq., Roscommon
Mangan, B., M.D., Ardrane, Oughterard
Mills, John, M.B., District Asylum, Ballinasloe
Pye, J. P., M.D., Queen's College, Galway
Rossiter, T. J., Esq., Ballinasloe
Rutherford, W., M.D., Ballinasloe

DORSET AND WEST HANTS BRANCH

District comprising the County of DORSET (Shaftesbury and Handley) excepted); in SOMERSETSHIRE: Yeovil, Milborne Port and Templecombe, in HAMPSHIRE: the portion west of and including Christchurch and Ringwood.

RECOGNISED 1883.

Members of Branch—216.

President, W. HAWKINS, Esq., Broadway, Dorchester
President-elect,

Vice-Presidents.
T. W. W. BOVEY, Esq., Abbotsbury
HAROLD SIMMONS, M.B., Bournemouth

Honorary Secretary and Treasurer.
JAMES DAVISON, M.D., Streateplace, Bath Rd., B'mouth

Representative on Council of Association.
C. H. Watts Parkinson, Esq., Wimborne Minster

Branch Council.
Alexander, W., M.D.
Batterbury, G. H., M.D.
Bovey, T. W. W., Esq.
Curme, D., Esq.
Good, W. E., Esq.
Leach, J. Comyns, M.D.
Le Fleming, E. K., M.B.
Mahomed, A. G. S., Esq.
Simmons, Harold, M.B.
Smyth, W. Johnson, M.D.
Snow, W. V., M.D.
Whittingdale, J. F. L., M.B

Associate Members.
Cousins, John Ward, F.R.C.S., Southsea
Holman, Sir Constantine, M.D., London

No. 1.—Bournemouth Division

NUMBERING 193.

Chairman, W. V. Snow, M.D., Bournemouth
Vice-Chairman, J. Davison, M.D., Bournemouth
Honorary Secretary, E. K. Le Fleming, M.B., St. Margaret's, Wimborne

Representative for Representative Meeting.
W. Johnson Smyth, M.D., Bournemouth West

Representatives on Branch Council.
Alexander, W., M.D.
Batterbury, G. H., M.D.
Le Fleming, E. K., M.D.
Mahomed, A. G. S., Esq.
Simmons, Harold, M.B.
Smyth, W. Johnson, M.D.
Snow, W. V., M.D.

Executive Committee.
Alexander, W., M.D.
Gott, Jeffrey, Esq.
Marriner, W. H. L., M.B.

Associate Members.
Cousins, John Ward, F.R.C.S., Southsea
Holman, Sir Constantine, M.D., London

Ackland, C. H., Esq., Poole Road, Bournemouth
Alderson, F. Henry, M.D., Princess Rd., W. Bournemouth
Alexander, W., M.D., Ashwick, Poole Road, Bournemouth
Allen, T., Esq., Summerfield, Princess Road, Branksome Bournemouth
Appleton, J. E., Esq., Poole Road, Bournemouth
Archibald, J., M.D., Wimborne Road, Bournemouth
Auld, W., M.B., Stoneleigh, Wimborne
Bacot, W. G., M.D., Marlborough Road, Bournemouth
Barlow, H. P., Esq., Gonerby, Parkstone
Barraclough, R. W. S., M.D., Seabourne House, Bournemouth
Batterbury, G. H., M.D., Codford, Wimborne
Beaver, H. A., M.B., Woodland Cottage, Branksome Bournemouth
Belben, F., M.B., Redlands, Knyveton Road, Bournemouth
Blackstock, C. E., Esq., Ringwood
Blake, T. W., M.D., Hurstbourne, Bournemouth
Bond, Eleanor C., M.D., St. Swithin's Road, Bournemouth
Bottomley, F. C., M.D., The Lindens, Christchurch Road, Boscombe
Buckland, F. O., M.D., Temple Dinsley, Branksome Park, Bournemouth
Burge, F. J., Esq., Chavenage, Southbourne West
Bushman, F. C. A., Esq., Wentbridge, Princess Road Bournemouth West
Busteed, J. H., Esq., Chewton House, Highcliffe-on-Sea
Carpenter, P. T., Esq., Engerren, Parkstone
Carrington, G. H., Esq., Seacroft, Longfleet, Poole
Chideil, C. C., M.B., Tintern, Richmond Park Avenue, Bournemouth
Clisborn, W., M.D., The Hydro, Bournemouth
Clift, S. L., M.D., Sutton, Knowle Road, Bournemouth
Coghlan, M., M.B., Kinkora, Branksome Terrace, Poole Hill, Bournemouth
Coles A. C., D.Sc., F.R.S.Edin., York House, Poole Road Bournemouth
Cooper, J. Burdon, M.D., Glenarkney, Poole Road, Bournemouth
Cory, E. R. H., Esq., Dunrobin, Wellington, Bournemouth
Cowie, C. G., M.D., Westminster Road, Bournemouth
Crespi, A. J. H., Esq., Cooma, Poole Road, Wimborne
Davidson, R. R., M.D., Newbury House, Charminster Road, Bournemouth
Davidson, W., M.B., Cairnbrogie, Bournemouth
Davison, James, M.D., Streateplace, Bath Road, B'mouth
Davy, A. H., M.D., The Red House, Alumhurst Road, Bournemouth
Dickie, J. S., M.D., Boscombe Park, Bournemouth
Dobell, H. B., M.D., Parkstone Heights
Dodd, Walter H., Esq., Maybrook, Wimborne
Dowse, T. S., M.D., St. Hilda, Bradbourne Rd., Bournemouth
Drake-Brockman, Captain R. E., Cheriton, Wellington Road, Bournemouth
Duncan, P. J., M.D., Christchurch Road, Bournemouth
Earls, J. H., M.D., The Red Lodge, Parsonage Road, Bournemouth
Facey, W. E., M.B., Sterlings, Southbourne
Felkin, H. G., Esq., Ringwood
Fennell, E. B., M.D., Ermville, Southbourne, Christchurch
Field, G. H., M.B., Forest Corner, Chester Rd., Bournemouth
Fiske, T. H., M.D., 1, St. Aldhelms Grange, Branksome Park, Bournemouth
Foley, C. N., Esq., Clyde House, Ringwood
Forster F. C., Esq., Ringwood, West Southbourne, Bournemouth
Fowler, Frank, M.D., Rochford, Lansdowne Rd., Bmmth.
Gardner, T. F., M.D., The Moyne, Boscombe
Gardner, W. T., M.B., 4, Poole Road, Bournemouth
Gibson, J. H., M.D., St. Winifreds, Parkstone
Girdlestone, H. E., Esq., 29, Poole Road, Bournemouth
Gott, Jeffrey, Esq., Ringwood
Graham, G. W., Esq., Camlough, Portarlington Road, Bournemouth
Greves, E. Hyla, M.D., Poole Road, Bournemouth
Grey-Edwards C., M.D., Cartrefle, Upper Parkstone
Habgood, W., M.D., Julian Dela, Wimborne
Hanbury, Sir James A., K.C.B., Manor Road, Bournemouth
Harper, J., Esq., Inwood, Vale Road, Parkstone
Harris, St. G. E., M.D., Fenton Court, Wellington Road, Bournemouth
Harsant, J. G., M.D., The Hive, Exeter Rd., Bournemouth
Haward, F. R., Esq., Khandwa, Surrey Rd., Bournemouth
Heasman, F., Esq., Highworth, Lea Road, Boscombe
Horden, A. G., M.D., Argyll House, Boscombe
Hosker, J. A., Esq., Kirkleatham, Boscombe, Bournemouth
Jacob, S., Esq., Glenelg, Westbourne Pk. Rd., Bournemouth
Johns, W. D., M.B., Alderney Manor, Parkstone
Kinch, C. H., Esq., 6, Crowther Terrace, Bournemouth W.
Kinsey-Morgan, A., M.D., Hillcote, Richmond Hill, B'mouth
Kinsey-Morgan, A., jun., Esq., Littleburn, Poole Road, Bournemouth

Lamb, Malcolm, Esq., Kinson, Bournemouth
Laurie, L., M.B., National Sanatorium for Consumption Bournemouth
Leeder, F. B. Esq., Ardmore Lodge, Parkstone
Le Fleming, E. K., M.B., St. Margaret's, Wimborne
Legate, R. L., Esq., Bridge House, Christchurch
Leishman, A., Esq., Ringwood
Letchworth, T. W., M.B., Fairlight, Parkwood Rd., B'mouth
Littledale, H. E., M.D., Broadstone, Wimborne
Lobb, H. P., Esq., Oakhurst, New Milton
Lys, H. G., M.D., Poole Road, Bournemouth
McCall, A., M.D., Boscombe Court, Bournemouth
McCulloch, H. D., M.B., Bassendean, Christchurch Road, Bournemouth
MacDermott, R. J., M.D., St. Wilfrids, Bournemouth
McGillycuddy, N., Esq., Darby Road, Bournemouth
Maddox, E. E., M.D., Lansdowne Road, Bournemouth
Magrath, H. G., Esq., Cranborne, near Salisbury
Mahomed, A. G. S., Esq., Astolat, Bournemouth
Marriner, W. H. L., M.B., Bournemouth
Midelton, W. J., Esq., 72, Charminster Road, Bournemouth
Milner, Vincent, M.B., Oak Lodge, Parkstone, Dorset
Montgomery, S., Esq., Ashly Lodge, Parkstone
Muspratt, C. D., M.D., Tantallon, Bournemouth
Olivey, J. M. A., Esq., Pelham House, Poole
Ormerod, E. W., M.D, Wimborne
Parkinson, C. H. Watts, Esq., Wimborne Minster
Paterson, A. R., M.D., Corfe Lodge, Parkstone
Pringle, H. T., M.D., Hawtree, Ferndown, Wimborne
Purkiss, A., M.D., Alum Chine Road, Bournemouth
Ramsay, F. W., M.D., Jesmond Dene, Bournemouth
Ransome, A., M.D., F.R.S., Sunnyhurst, Dean Park, Bournemouth
Ray, W. J. O., Esq., Stoneleigh House, Wimborne
Reid, G. A., M.D., Iona, Poole Hill, Bournemouth
Richards, J. E., M.D., 5, Wharncliffe Mansions, Bournemouth
Richardson, W. S., M D.Brux., F.R.C.S.Edin., Christchurch Road, Bournemouth
Rix, W. K., Esq., Stourwood Lodge, West Southbourne
Rockstro, F. B., ESq., Tower House, Bournemouth
Ross, D. M., M.D., Cedar Lodge, Littledown Rd., B'mouth.
Scorer, Frank, Esq., St. Cuthberts, Bournemouth
Scott, B., Esq., Chadwell, Poole Road, Bournemouth
Scott, H. B., Esq., Aldington, Poole Road, Bournemouth
Scott, M. B., Esq., Shiplake, Poole Road, Bournemouth
Simmons, Harold, M.B., Collipriest, Christchurch Road, Bournemouth
Smith, W. A., Esq., Branksome Park, Bournemouth
Smyth, R. M., M.D., Linford, Ringwood
Smyth, Wm. Johnson, M.D., Bournemouth West
Snow, W. V., M.D., Bournemouth
Spinks, C. F., Esq., Marr Lodge, Winton, Bournemouth
Stafford, A. M., M.B., South View, Canford Cliffs, Bournemouth
Telfordsmith, T., M.D., Wimborne
Thomas, A. W., M.D., Crabton Close Road, Boscombe
Thomson, C. B., Esq., Romansleigh, Wimborne
Thomson, J. Roberts, M.D., Monkchester, Bournemouth
Turner, H. Gunton, Esq., Holmwood, Bournemouth
Tuthill, A., M.D., Iron Parkstone
Van, A. F., Esq., Sandhurst, Irving Road, Southbourne, Bournemouth
Vernon, A. H., Esq., Christchurch Road, Bournemouth
Waggett, J., M.D., Perivale, Bournemouth
Wallis, George, Esq., Overbury Road, Parkstone
White, J. G., M.D., Bournemouth
Wood, J. Medley, Esq., Moresque, Holderness Road, Bournemouth

No. 2.—West Dorset Division

NUMBERING 83.

Chairman, P. W. MacDonald, M.D., Dorchester
Vice-Chairman, J. F. L. Whittingdale, M.B., Sherborne
Honorary Secretary, J. Comyns Leach, M.D., Sturminster Newton

Representative for Representative Meeting.
J. Comyns Leach, M.D., Sturminster Newton

Representatives on Branch Council.
Bovey, T. W. W., Esq.
Curme, D., Esq.
Good, W. E., Esq.
Leach, J. Comyns, M.D
Whittingdale, J. F. L., M.B.

Executive Committee.
Bovey, T. W. W., Esq.
Curme, D., Esq.
Daniell, G. W., Esq.
Flower, G. J. W., Esq.
Good, W. E., Esq.
Kerr, E. W., M.D.
Leach, J. Comyns, M.D.
Rendall, W., Esq.
Whittingdale, J. F. L., M.B.
Williams, W. H., Esq.

Alexander, W. G., M.B., Stalbridge
Anderson, M. C. B., Esq., Winfrith, Dorchester
Barclay, W. B., Esq., Wyville House, Weymouth
Barcroft, P. J., Esq. (address uncommunicated)
Barker, T., Esq., Corfe Castle
Bartlett, B. P., Esq., Bourton, Dorset
Beaver, R. Atwood, M.D., Sturminster Newton
Bell, F. O., M.B., Glebe House, Wareham
Bovey, T. W. W., Esq., Abbotsbury, Dorchester
Bradford, John, M.B., Sturminster Newton
Colmer, P. A., Esq., South Street House, Yeovil
Cooke, J. B., Esq., Medical Officer's House, Isle of Portland
Cosens, W. B., Esq., The Gables, Dorchester
Courtenay, K. J., Esq., Wareham
Crowe, J. D., Lt.-Col. R.A.M.C., Weymouth
Curme, D., Esq., Childe Okeford
Dalton, E. E., Esq., Cerne Abbas
Daniel, T. P., Esq., Beaminster
Daniell, G. H. S., M.B., Dale House, Blandford
Daniell, G. W., Esq., Dale House, Blandford
Day, E. J., M.D., Glenhurst, Dorchester
Dixon, W. J., M.B., Combe Cottage, Templecombe
Du Boulay, H. H., Esq., 2, Royal Terrace, Weymouth
Edwards, Chas., Esq., Granville House, Bridport
Empson, J., M.D., Knock-na-Cree, Milborne Port
Emson, A., Esq., 40, High West Street, Dorchester
Fielding, T., M.D., Milton Abbas
Flower, G. J. W., Esq., Yeovil
Fox, H. E. C., M.B., Monywyke, Bincleaves, Weymouth
Gibb, J. A., M.B., Dorset County Asylum, near Dorchester
Good, W. E., Esq., 48, High West Street, Dorchester
Gowring, B. W. N., Esq., 49, High West Street, Dorchester
Granger, W. S., Esq., 6, Victoria Terrace, Weymouth
Green, W. F. L., Esq., 4, Gloucester Row, Weymouth
Griffin, F. C. G., M.B., Weymouth
Harrison, A., Esq., Grove Avenue, Yeovil
Hawkins, H. C., Esq., Swanage
Hawkins, W., Esq., Hillfield, Broadway, Dorchester
Hay, W. A. E., Esq., Bridport
Hine, A. E. Barratt, Esq., Charmouth
Howard, T., M.B., Fortune's Well, Portland
Humble, W. E., M.D., Corfe Castle
Humphrys, C. B., Esq., Blandford
Keith, W. G., M.B., Swanage
Kerr, E. W., M.D., 5, South Terrace, Dorchester
Kingston, P. J., Esq., Yeovil
Kitson, F. P., Esq., Beaminster
Lawrie, J. M., M.D., Weymouth
Leach, J. Comyns, M.D., Sturminster Newton
Lys, G., Esq., Bere Regis, Wareham
MacCarthy, A. B., M.B., 26, West Allington, Bridport
McCarthy, T., Esq., Greenhill, Sherborne
MacDonald, P. W., M.D., The County Asylum, nr. Dorchester
Manby, W. E., Esq., Dorset House, Bridport
Marsh, C. J., Esq., Yeovil
Mathew, C. P., Esq., Greenhill, Thorncombe, near Chard
Miller, James, M.B., 22, Trinity Road, Weymouth
Miller, Jas. W., M.B., County Asylum, Dorchester
Moorhead, J., M.D., Weymouth
Morrice, G. G., M.D., 17, Royal Terrace, Weymouth
Newbould, N. J., Esq., Childe Okeford
Pim, A. A., Esq. Beaminster
Ratcliffe, J. R., M.B., 50, Abbotsbury Road, Westham, Weymouth
Reid, F. J. D., Esq., Bridport
Rendall, W., Esq., Maiden Newton
Rorie, G. A., M.B., Dorset County Asylum, Dorchester
Sanderson-Wells, Thos. H., M.D., 6, Royal Ter., Weymouth
Schofield, Frank, M.D., Buxton Road, Weymouth
Semple, W. R. M., M.B., Baltrees, Yeovil
Simpson, R. P., M.D., 11, Gloucester Row, Weymouth
Smith, H. L., Esq., Buckland House, Buckland Newton
Snook, S. P., Esq., 23, Trinity Road, Weymouth
Spooner, W. C., M.B., Coupar House, Blandford
Stack, J. G. M G., Esq., Clifton, Swanage
Stephens, S., Esq., Yetminster, Sherborne
Watts-Silvester, T. H. E., Esq., Montreux, Sturminster Newton
Wetherall, P. S. B., Esq., Weymouth
Whittingdale, J. F. L., M.B., Sherborne
Williams, W. H., Esq. Sherborne
Wilson, C. W., M.B., Granville House, Bridport
Woodhouse, F. D., Esq., Blandford St. Mary
Wright, W. S., Esq., The Cedars, Wool, Wareham
Yencken, R. F., Esq., 32, West Allington, Bridport

DUNDEE BRANCH.

Comprising the County of FORFAR, with Alyth and Bervie.

RECOGNISED 1893.

Members of Branch—109.

President, J. M. WHYTE, M.D., Dundee
President-elect, G. C. DICKSON, M.D., Carnoustie
Past-President, R. GRANT, M.D., Glamis

Vice-Presidents.
W. KINNEAR, M.D., Dundee
GEORGE PETERKIN, M.D., Forfar

Honorary Secretaries.
R. COCHRANE BUIST, M.D., 166, Nethergate, Dundee
A. P. LOW, M.B., Stirling Street, Dundee

Hon. Treasurer, D. M. GREIG, M.B., 25, Tay Street, Dundee

Representative on Council of Association.
R. C. Buist, M.D., 166, Nethergate, Dundee

Representative for Representative Meeting.
A. P. Low, M.B., Stirling Street, Dundee

Branch Council.
Gilruth, J. D., M.B.
Hall, W. T., M.B.
Lennox, D., M.D.
Rogers, J. S. Y., M.B.
Wardrop, D., M.B.

Anderson, J. K., M.D., Arbroath
Anderson, M. F., M.B., 161, Princes Street, Dundee
Aymer, Charles, M.B., Bervie
Bannister, P. G., M.D., 150, High Street, Montrose
Barron, W., M.D., Letham, Forfar
Boyes, A., M.B., East Poorhouse and Hospital, Dundee
Broom, John, M.B., 26, High Street, Kirriemuir
Bruce, R. H. G., M.B., Eastgate, Friockheim
Buist, Henry, M.B., 3, Springfield, Dundee
Buist, R. Cochrane, M.D., 166, Nethergate, Dundee
Butter, J. S., M.D., Downfield, Dundee
Cable, J., Esq., Forfar
Campbell, A. M.D., Clarendon Terrace Dundee
Campbell, P., M.B., 29, Springfield, Dundee
Campbell, W. G., M.B., 27, South Tay Street, Dundee
Clark, A. F. C., M.B., 81, Albert Street, Dundee
Colman, H. C., M.D., 5, Home Terrace, Broughty Ferry
Connon, Middleton, M D., 43, John Street, Montrose
Cowan, W. C., Esq., South Tay Street, Dundee
Cumming, R., M.B., 3, Eassons Angle, Dundee
Dewar, J. A., M.D., Arbroath
Dickson, G. C., M.D., Dalhousie Villa, Carnoustie
Don, Alex., M.B., Nethergate, Dundee
Douglas, R., M.B., Liff
Dow, A. G., M.B., 26, South Tay Street, Dundee
Duncan, A. J., M.D., 153, Nethergate, Dundee
Duncan, J. D., M.B., 7, Cairnie Street, Arbroath
Foggie, W. E., M.B., 4, Springfield, Dundee
Fraser, H. E., M.A. M.D., Royal Infirmary, Dundee
Fraser, Thos., Esq., 30, Ogilvy Place, Arbroath
Gilruth, J. D., M.B., Millgate, Arbroath
Gorrie, W., M.B., 12, King Street, Dundee
Gowans, J. M.B., Spring Lodge, Broughty Ferry
Grant, J. A. S., Esq., 7, Panmure Terrace, Montrose
Grant, R., M.D., Glamis Villa, Dundee
Gray, James, M.B., 9, Tay Street, Dundee
Greig, D. M., M.B., 25, Tay Street, Dundee
Guild, G. T., M.B., 164, Nethergate, Dundee
Hall, W. T., M.B., Denside, Brechin
Halley, G., M.B., 7, Airlie Place, Dundee
Hamilton, J. C., Esq., 30, Ferry Road, Monifieth
Havelock, J. G., M.D., Sunnyside, Montrose
Hoile, H. J., M.B., 178, High Street, Montrose
Hunter, J. H., M.B., 5, Beechwood Terrace, Dundee
Jamieson, J. G. S., M.B., Westwood, Brechin
Johnston, A. R., M.B, Carseview, Forfar
Johnston, Hugh, M.B., Newtyle
Johnstone, G. A., M B., Royal Lunatic Asylum, Montrose
Kelly, R., Esq., The Kepties, Arbroath
Kerr, C., M.D., 163, Princes Street, Dundee
Kidd, A. E., M.B., Inglewood, Carnoustie
Killoh, G. B., M.B., High Street, Lochee
Kinnear, W., M.D., 43, Tay Street, Dundee
Kynoch, J. A. C., M.B., 8, Airlie Place, Dundee
Laing, D., M.D., Maule Street, Arbroath
Laing, J. H. W., M.B., 9, Tay Square, Dundee
Lawrence, G., M.B., Annfield House, Dundee
Leishman, T. A., M.D., Castle Street, Brechin
Lennox, D., M.D., 144, Nethergate, Dundee
Linton R. F., M.B., Royal Infirmary, Dundee
Low, A. P., M.B., Stirling Street, Dundee
Lowson, W., M.B., 1, Wellington Street, Dundee
Lumsden, W., M.B., Edzell, Forfar
MacEwan, D., M.D., 15, S. Tay Street, Dundee
M'Gillivray, A., M.D., 23, South Tay Street, Dundee
McHoul, H. M., M.B., 79, Albert Street, Dundee
Mackay, J. Y., M.D., University College, Dundee
Mackness, G. O. C., M.D., Fort St. House, Broughty Ferry
MacVicar, Colin, M.D., 24, South Tay Street, Dundee
Malcolm, W. S., M.B., 85, Albert Street, Dundee
Marshall, Professor C. R., M.D., University College, Dundee
Martin, H. C., M.D., Dundee District Asylum, Dundee
Miller, G. W., M.B., 39, South Tay Street, Dundee
Miller, J., M.D., 13, King Street, Dundee
Milne, F. H., M B., Royal Infirmary, Dundee
Moon, Charles, M.D., 1, Airlie Place, Dundee
Myles, T. P., M.B., 1, Castle Street, Brechin
Neave, E. F. M., M.D., 11, Westfield Place, Dundee
Peterkin, George, M.D. 59, East High Street, Forfar
Pirie, G. A., M.D., 11, Perth Road, Dundee
Reid, Professor E. Waymouth, M.D., F.R.S., University College, Dundee
Richardson, J., M.B., Hillbank, Monifieth
Rogers, J. S. Y., M.B., Wellington House, Dundee
Rorie, J., M.D., 4, Roxburgh Terrace, Dundee
Shepherd, J. I., M.B., 9, Douglas Terrace, Broughty Ferry
Simpson, W. H., M.B., University College, Dundee
Sinclair, R., M.D., Roseangle House, Dundee
Slessor, T. S., M.B., The Cottage, Glamis
Smith, S. W., M.B., Royal Infirmary, Dundee
Soutar, R., M.D., 32, Bridge Street, Montrose
Stalker, A. M., M.D, 156, Perth Road, Dundee
Steven, P., M.D., Tay Square, Dundee
Stone, V., M.D., Holly House, Montrose
Sturrock, J. F., M.B., Arima, Broughty Ferry
Sutherland, Prof., L. R., M.B., University College, Dundee
Templeman, C., M.D., Dungarth, Dundee
Thomson, A., M.B., Scotswood, Carnoustie
Thomson, Emily C., M.B., 4, Tay Square, Dundee
Thornton, R., M.B., Fernbank, Lochee Road, Dundee
Trail, A. K., M.B., Sidlaw Sanatorium, Auchterhouse, by Dundee
Tuach-Mackenzie, W., M.D., Dundee Royal Asylum, Dundee
Tulloch, J. K., M.B., 20, South Tay Street, Dundee
Wannan, W. A., Esq., 51, Market Gate, Arbroath
Wardrop, D., M.B., Alyth, N.B.
Wemyss, J. W., M.D., Broughty Ferry
Whyte, G. F., M.B., Wellington Street, Dundee
Whyte, J. M., M.D., 15, Airlie Place, Dundee
Young, C. S., Esq., 21, South Tay Street, Dundee
Yule, A. D., M.B., 2, Hill Street, Arbroath

EAST ANGLIAN BRANCH.

District comprising the Counties of NORFOLK, SUFFOLK and ESSEX, except the portion of ESSEX to the west of a line drawn from Bartlow Station to High Ongar, and thence through Dagenham Station to the Thames.

Members of Branch—426.

RECOGNISED 1836.

President, S. J. BARTON, M.D., Norwich
President-elect, A. C. WATERS, M.B., Southend-on-Sea

Vice-Presidents.
J. C. THRESH, M.D., Chelmsford
W. E. WYLLYS, Esq., Great Yarmouth
H. B. WALKER, Esq., Lowestoft

Honorary Secretaries
B. H. NICHOLSON, M.B., Colchester
H. A. BALLANCE, M.S., Norwich
J. GUTCH, M.D., 30, Fonnereau Road, Ipswich

General Secretary and Treasurer for Branch.
B. H. NICHOLSON, M.B., East Lodge, Colchester

Representatives on Council of Association.
Edgar G. Barnes, M.D., Eye, Suffolk
M. Beverley, M.D., 54, Prince of Wales Road, Norwich

Branch Council.
The Officers of the Branch
Addison, C. E., Esq.
Black, W. C., M.B.
Curl, S. W., M.D.
Elliston, G. S., Esq.
Hatch, W. K., F.R.C.S.
Havell, C. G., M.D.
Hinnell, J. S., M.D
Horn, R. J., Esq.
Manby, Sir Alan R., M.V.O., M.D.
Mayo, A. C., Esq.
Skrimshire, G. T., M.D.
Storrs, K. S., M.B.
Walker, H. B., Esq

Associate Members.
Allbutt, Professor T. Clifford, M.D., F.R.S., Cambridge
Anderson, Mrs. Garrett, M.D., London
Anderson, Miss L. Garrett, M D., London
Clark, Andrew, D.Sc., F.R.C.S., London
Griffiths, J., F.R.C.S., Cambridge
Latham, P. W., M.D., Cambridge
Marsh, Professor Howard, Cambridge
Walker, Miss Jane, M.D. London

No. 1.—North-East Essex Division

NUMBERING 54

Chairman, C. E. Addison, Esq., Colchester
Vice-Chairman, S. W. Curl, M.D., Colchester
Honorary Secretary, W. L. M. Day M.B., 4, Head Street, Colchester

Representative for Representative Meeting.
R. C. Atthill, Esq., Great Bentley

Representatives on Branch Council.
Addison, C. E., Esq.
Curl, S. W., M.D.

Addison, C. E., Esq., 91, Maldon Road, Colchester
Alliott, Richard, Esq., Weathersfield Hall, near Braintree
Ashworth, J. H., M.D., Halstead
Atthill, R. C., Esq., Great Bentley
Bassano, T. M., M.B., 95, Winnock Road, Colchester
Beatty, Thomas C., M.D., Clacton-on-Sea
Bree, Sydney, M.B., High Street, Manningtree
Bromley, J. B., Esq., Castle Hedingham
Caudwell, F. B. H., Esq., Coggeshall
Chichester, E., M.B., Tranent, Crouch Street, Colchester
Clarke, T. H. M., C.M.G., D.S.O., M.B., Capt. R.A.M.C., Station Hospital, Colchester
Clinch, T. A., M.D., The Fields, Weeley R.S.O.
Clowes, W. F. A., Esq., 15, Queen Street, Colchester
Coleman, C. A., M.D., 12, The Parade, Clacton-on-Sea
Coleman, P., M.B., Carnarvon Road, Clacton-on-Sea
Curl, S. W., M.D., 58, Crouch Street, Colchester
Day, W. L. M., M.B., 4, Head Street, Colchester
Dickin, E. P., M.D., 51, High Street, Brightlingsea
Evans, S., Esq., 27, West Street, Harwich
Freeman, E. C., Major R.A.M.C., Station Hospital, Colchester
Galpin, R., Esq., Kelvedon
Gibbs-Smith, E. G., Esq., 37, Crouch Street, Colchester
Girling, J., M.D., Clacton-on-Sea
Godfrey, H. W., M.B., Holland Lodge, Frinton-on-Sea
Gostling, P. R., Esq., Bures St. Mary
Gurney, Harold, Esq., 30, West Street, Harwich
Haig, H. A., M.B., Colchester
Hall, Ben., M.B., West Mersea, Colchester
Howe, J. P., Esq., The Limes, Thorpe-le-Soken
Hunt, E. A., Esq., Crouched Friars, Colchester
Hutley, A., M.B., Wigborough, Colchester
Kevern, G. T., Esq., Rowhedge, near Colchester
Ling, C. A. S., Esq., Brightlingsea
McAllum, S. G., M.D., Military Hospital, Colchester
Maile, C. E. D., Esq., Dedham House, Dedham, Colchester
Nicholson, B. H., M.B., East Lodge, Colchester
Pallett, T. E., M.D., Eden House, Earls Colne, Essex
Renny, E. G., Esq., St. Mary's House, Colchester
Richardson, A. Y., Esq., North Street, Walton-on-Naze
Rimell, A. T., M.D., Manningtree
Roberts, C. G., M.B., Halstead, Essex
Robson, T. S., Esq., St. Osyth, Essex
Rowland, P. W., M.D., Priory House, Colchester
Ryan, J. M., M.B., East Hill, Colchester
Salter, J. H., Esq., Tolleshunt D'Arcy, Essex
Savage, W. G., M.D., 18, Inglis Road, Colchester
Slimon, W. H., M.D., Angle View, Clacton-on-Sea
Squire, E. H., Esq., Wivenhoe, Essex
Sweetnam, S. W., Capt. R.A.M.C., Station Hospital, Colchester
Teevan, A., Esq., Claremont, Clacton-on-Sea
Twamley, H. J., Esq., Sible Hedingham, Essex
Worts, C. J., Esq., Fordham, Colchester
Worts, E., Esq., 6, Trinity Street, Colchester
Wright, M. B., M.B., Red House, Halstead

No. 2.—Mid Essex Division

NUMBERING 32.

Chairman, J. C. Thresh, M.D., Chelmsford
Vice-Chairman, J. E. Molson, M.D., Chelmsford
Honorary Secretary, K. S. Storrs, M.B., Springfield, Chelmsford

Representative for Representative Meeting.
W. C. Bluck, M.B., Ludlow, York Road, Southend

Representative on Branch Council.
K. S. Storrs, M.B.

Amsden, G., M.B., Essex County Asylum, Brentwood
Arnold-Wallinger, R.N., Esq., Writtle, Chelmsford
Bawtree, F., Esq., The Lodge, Maldon
Boukin, W., M.D., Chelmsford
Boyd-Wallis, A. W., Esq., Brentwood
Brown, H. R., M.B., 188, High Street, Maldon
Combe, F. O., M.D., Witham House, Witham
Creswell, John C., Esq., Barnsley House, Billericay
De Stejger, A. Isabella, M.B., The Asylum, Warley
Ewens, H. L., M.D., West Square, Maldon
Fraser, S., Esq., King's Road, Brentwood
Frith, W. S., M.B., The Junior House, Felstead
Gardiner, J. N., M.D., Dunmow
Gimson, K. C., M.B., Witham, Essex
Gimson, W. Douglas, M.D., Springfield House, Chelmsford
Lyster, A. E., Esq., Great Baddow, Chelmsford
McNeight, W. R. P., M.D., Aldboro' House, Haxted
Marshall, J., Esq., Wickford, Essex
Martin, E. L., M.B., 110, London Road, Chelmsford
Martin, J. L., M.B., Bridge House, Chelmsford
Moore, F. F., Esq., Osea Island, Maldon, Essex
Neave, S., Esq., Mill Green Park, Ingatestone
Quennell, J. C., Esq., Brentwood
Scott, A., M.D., Bocking
Shaw, J. C., Esq., County Asylum, Brentwood
Smallwood, R. P., M.B., Little Waltham
Stansfeld, J. S., Esq., Horndon-on the-Hill
Storrs, K. S., M.B., Springfield, Chelmsford
Tench, M., M.D., Great Dunmow, Essex
Thresh, J. C., M.D., Chelmsford, Essex
Turner, J., M.B., Essex County Asylum, Brentwood
Wright, C. St. John, M.B., Felstead, Chelmsford

No. 3.—South Essex Division.

NUMBERING 43.

Chairman, F. Silva Jones, M.B., Westcliff-on-Sea
Vice-Chairman, F. D. Grayson, Esq., Rayleigh
Honorary Secretary, W. C. Bluck, M.B., Ludlow, York Road, Southend

Representative on Branch Council.
W. C. Bluck, M.B.

Representative for Representative Meeting.
W. C. Bluck, M.B., Ludlow, York Road, Southend

Executive Committee.
Forge, G. B., Esq.
Forsyth, C., Esq.
Nash, J. T. C., M.D.
Pershouse, F., Esq.
Raper, M. H., M.D.
Smellie, J. C., M.B.
Smith, H. C., Esq.

Bluck, W. C., M.B., Ludlow, York Rd., Southend-on-Sea
Bridger, S., Esq., 19, Royal Terrace, Southend-on-Sea
Corbet, R., Esq., Orsett, Grays
Day, C. F., Esq., Alexandra Road, Leigh-on-Sea
Downman, C. F., Esq., Arunhurst, Burnham, Essex
Floyd, S. G., M.D., Lister House, Grays
Forge, G. B., Esq., Roche House, Rochford, Essex
Forsyth, Charles, M.B., Southend-on-Sea
Goldie, A. E., M.B., 17, Harcourt Avenue, Southend-on-Sea
Grant, C., M.B., Thundersley, Essex
Grayson, F. D., Esq., Rayleigh, Essex
Hinks, A. G., M.B., St. Vincent's Road, Southend-on-Sea
Hodgson, V. J., Esq., 50, Argyle Road, Westcliff on-Sea
Hopkins, L. G., M.D., The Leas, Westcliff-on-Sea
Jones, F. Silva, M.B., 9, Britannia Road, Westcliff-on-Sea
Leonard, N., M.D., Valkyrie Road, Westcliff on-Sea
Leigh, B. H., Esq., 31, Park Road, Southend-on-Sea
Lewis, A. C., Esq., Rochford
Marsh, Cecil J., Esq., Broadmayne, Sutton Rd., Sthnd.-on-Sea
Maxwell, J. B., Esq., Allenda e, Dowsett Avenue, Southend
Morgan, W. H., Esq., Anerley Road, Westcliff-on-Sea
Nash, J. T. C., M.D., M.O.H. D.P.H., Southend-on Sea
Pershouse, F., Esq., Stanford-le-Hope
Poole, T. B., M.D., Lawrence House, Westcliff-on-Sea
Pooler, J. R., M.B., Strathray, Leigh Road, Westcliff-on-Sea
Raper, M. H., M.D., Great Wakering
Reeve, H. M., M.B., Southchurch Road, Southend-on-Sea
Roworth, A. T., Esq., Grays, Essex
Smellie, J. C., M.B., 39, Leigh Road, Westcliff
Smith, H. C., Esq., High Street, Southend-on-Sea
Smyth, F. S., Esq., Castle-acre, Cobham Road, Westcliff on-Sea
Softly, A. E., Esq., Ford Lodge, South Hornchurch
Walker, J. F., M.B., 37, High Street, Southend-on-Sea
Ward, J. A., Esq., Shaftesbury House, Grays
Waters, A. C., M.B., Whitegates, Southend-on-Sea
Watson, W. D., Esq., The Oriel House, Leigh-on-Sea
Weakley, A. J., Esq., 112, Valkyrie Road, Westcliff-on-Sea
White, T. D., Esq., King's, Burnham-on-Crouch
Whitcombe-Brown, W. H., Esq., Highfield, Westcliff-on-Sea
White, G. F., M.D., Pitsea
Wood, F. C., Esq., Ludlow, York Road, Southend-on-Sea

No. 4.—Norwich Division

NUMBERING 52.

Chairman, J. Fielding, M.D., Norwich
Vice-Chairman, D. D. Day, F.R.C.S., Norwich
Honorary Secretary, H. A. Ballance, M.S., 46, Prince of Wales Road, Norwich
Representative for Representative Meeting, H. A. Ballance, M.S., 46, Prince of Wales Road, Norwich

Representative on Branch Council.
W. K. Hatch, F.R.C.S.

Andrews, C. H., Esq., 46, St. Giles Street, Norwich
Ballance, H. A., M. S., 46, Prince of Wales Road, Norwich
Barton, S. J., M.D., 34, Surrey Street, Norwich
Bell, Mary C., M.B., Jenny Lind Infirmary, Norwich
Beverley, M., M.D., Norwich
Bremner, J. M. G., M.B., 18, St. Giles Street, Norwich
Burton, S. H., F.R.C.S., 49, St. Giles Street, Norwich
Burton-Fanning, F. W., M.D., Norwich
Bush, F. P., Esq., 27, Dereham Road, Norwich
Claremont, C. Cecil, Esq., 141, Dereham Road, Norwich
Cleveland, A. J., M.D., 8, Thorpe Mansions, Norwich
Crook, A., Esq., 80, Prince of Wales Road, Norwich
Crosse, H. W., M.D., 6, Theatre Street, Norwich
Darrell, H. W., M.D., 2, All Saints Green, Norwich
Day, D. D., F.R.C.S., Norwich
Eade, Sir Peter, M.D., Norwich
Everett, E. W., Esq., 11, Theatre Street, Norwich
Fielding, J., M.D., Norwich
Fielding, S. J., M.B., Bethel Street, Norwich
Flint, E. R., Esq., Norfolk and Norwich Hospital, Norwich
Gordon-Munn, J. G., M.D., Heigham Hall, Norwich
Goulder, F. S., Esq., 74, Unthank Road, Norwich
Greene, A., M.D., 4, Theatre Street, Norwich
Hatch, W. K., F.R.C.S., Norwich
Leach, Abraham, M.B., Norfolk and Norwich Hospital Norwich
Leith, W., M.B., 144, Dereham Road, Norwich
Long, S. H., M.D., 37, St. Giles Street, Norwich
McWilliam, A., M.B., Heigham Hall Asylum, Norwich
Mills, R. J., M.B., Norwich
Morse, T. H., Esq., 41, All Saints' Green, Norwich
Muriel, C. J., Esq., Norwich
Nance, H. C., Esq., Norwich
Nichols, F. P., Lieut.-Col., R.A.M.C., Yelverton, Thorpe Road, Norwich
Passmore, G. S., Esq., 214, Unthank Road, Norwich
Pattin, H. Cooper, M.D., Norwich
Preston, F., Esq., 47, Prince of Wales Road, Norwich
Ranson, Wilson, F.R.C.S.E., Ingleby House, Thorpe Hamlet, Norwich
Richardson, T. W., Esq., Norwich
Robinson, H. S., Esq., Norwich
Ross, A. M., Esq., 7, Magdalen Road, Norwich
Smith, C. B. M., M.B., 1, Trinity Street, Norwich
Spowart, W. R., M.D., St. Stephen's House, Norwich
Stacy, J. H., Esq., 38, St. Giles Street, Norwich
Starling, H. J., M.D., D.P.H.Camb., 45, All Saints Green, Norwich
Taylor, H. E., M.D., 5, Tombland, Norwich
Taylor, S. J., M.B., Norwich
Taylor, S. T., M.B., Chingford House, Earlham Rd., Norwich
Watson, H., M.D., 2, Earlham Road, Norwich
Whitwell, Hugh, Esq., St. Giles Plain, Norwich
Williams, C., Esq., Norwich
Wiseman, D. W., Esq., 134, Unthank Road, Norwich
Woodhouse, W., Esq., 3, Chapel Field North, Norwich

No. 5.—Mid Norfolk Division

NUMBERING 52.

Chairman, J. T. Shrimpshire, M.D., Holt.
Vice-Chairman, . . O. Owens, M.D.
Honorary Secretary, D. G. Thomson, M.D., Thorpe, Norwich
Representative for Representative Meeting, J. T. Skrimshire, M.D., Holt

Representatives on Branch Council.
Horn, R. J., Esq.
Skrimshire J. T., M.D.

Adams, W. D., M.B., The Cedars, Kenninghall, Thetford
Aldred, W. A., Esq., Wroxham
Allan, Richard, M.B., The Pines, Attleborough
Beveridge, J. S., Esq., Melton Constable
Burn, G. Wilson, Esq., 1, St. Margaret's Terrace, Norwich Road, Cromer
Burton, Arthur, Esq., Cromer
Clarke, J. Tertius, Esq., Rockland, All Saints, Attleborough
Cloud, F. H. L., Esq., New Buckenham, Attleborough
Colvin-Smith, R., C. M., M.B., Cromer
Crosse, R. E., Esq., East Dereham
Deacon, G. E., Esq., Hethersett, Norwich
Dent, H. C., Esq., Cromer
Duigan, V. J., Esq., Beech House, East Dereham
Edge, S. G., Esq., Blofield, Norwich
Ellis, C. G., Esq., Attleborough, Norfolk
Fanning, W. J., Esq., Kelling Sanatorium, Holt
Foster, H. G., Esq., Attleborough, Norfolk
Gillett, G. E., Esq., Brooke, Norfolk
Gillam, J. B., Esq., Holt, Norfolk
Hardyman, C. E., M.D., The Hill House, Bramerton
Harris, W., M.D., F.R.C.S., City Asylum, Hellesdon
Harrison, Sidney H., Esq., North Walsham, Norfolk
Herbert, W., Esq., Foulsham
Horn, R. J., Esq., St. Faith's, Norwich
Hosegood, S. P., Esq., North Walsham, Norfolk
Howard, Wilfred, Esq., New Buckenham, Norfolk
Hughes, D. W., Esq., Wymondham, Norfolk
James, E. W., Esq., Hingham
Kay, A. R., Esq., Zetland House, Cley
Kennington, Edgar, Esq. (address uncommunicated)
Lack, T. L., Esq., Hingham, Norfolk
Legat, R. E., M.B., Hanover House, Cromer
Lowe, G., M.D., Wymondham, Norfolk
McKelvie, R., M.D., Blofield, Norwich
Master, G. R., Esq., Henhurst, Sherringham
Menzies, F. N. K., M.D., Thorpe Abbotts, Scole
Owens, C. A. O., M.D., Long Stratton, Norfolk
Paulley, J. N. L., Esq., Pulham Market, Norfolk
Pearson, S. Vere, M.D., The Sanatorium, Mundesley
Perry, E. V., Esq., Reepham, Norfolk
Quait, A. W., Esq., Mundesley, Norfolk
Shepheard, John, Esq., North Walsham, Norfolk
Skrimshire, J. F., Esq., Melton Constable
Skrimshire, J. T., M.D., Holt, Norfolk
Spurrell, W. D., Esq., Aldborough, Norfolk
Sykes, Arthur, Esq., City Asylum, Hellesdon, Norwich
Thomson, D. G., M.D., Thorpe, Norwich
Wardleworth, D., J.P., Old Farm, Sheringham
Webb-Ware, Hugh, Esq., Saxlingham, Nethergate, Norwich
Whitaker, L. E., Esq., The Cottage, Diss, Norfolk
Wise, W. C., Esq., Mere House, Diss
Wright, B. D. Z., Esq., Coltishall Norfolk

No. 6.—West Norfolk Division

NUMBERING 32.

Chairman, A. W. Thomas, Esq., Swaffham
Vice-Chairman, Sir Alan Reeve Manby, M.V.O., M.D., East Rudham
Honorary Secretary, A. Gardiner, Esq., Tuesday Market Place, King's Lynn
Representative for Representative Meeting, H. A. Ballance M.S., 46, Prince of Wales Road, Norwich

Representative on Branch Council.
Manby, Sir Alan Reeve, M.V.O., M.D.

Executive Committee.
Chadwick, G. R., M.D.
Draper, T. M., Esq.
Lister, S. R., Esq.
Plowright, C.B., M.D.

Alexander, T. A., Esq., Watton, Norfolk
Allen, V. F., Esq., Swaffham, Norfolk
Allinson, H. C., Esq., Stonegate, King's Lynn
Archer, E. G., Esq., Feltwell, Brandon, Norfolk
Calthrop, G., Esq., Wells
Chadwick, G. R., M.D., St. Margaret's Place, King's Lynn
Cross, G. F., M.B., Athol House, Downham Market
Draper, T. M., Esq., Watlington, Norfolk
Fisher, W. H., M.B., Fakenham, Norfolk
Forrest, J. L., M.B., Sommerville, Terrington St. John
Gardiner, A., M.B., Tuesday Market Place, King's Lynn
Hamill, S. M., M.D., Burnham Market, Norfolk
Ha d, F. H., Esq., King's Lynn
Kingdon, J. R., Esq., Nelson Street, King's Lynn
Jackson, Chas., Esq., 18 King Street, King's Lynn
Laver, J. W., Esq., The Limes, Grimston, King's Lynn
Lister, S. R., Esq., Terrington Lodge, King's Lynn
Manby, Sir Alan Reeve, M.V.O., M.D., East Rudham, Nrfolk
Masson, G. B. Esq., Fincham, Downham, Norfolk
Mottram, M. J., Esq., West Newton, King's Lynn
Parry, G. H., Esq., Docking, Norfolk
Plowright, C. B., M.D., King's Lynn, Norfolk
Porter, G. C., Esq., Castle Acre, Norfolk
Roddis, T. E. E., M.B., Snettisham
Rowell, H. E., M.D., East Rudham, Norfolk
Steele, H. F., Esq., Stoke Ferry, Norfolk
Sturdie, F. H., F.R.C.S., Walsingham
Thomas, A. W., Esq., Swaffham, Norfolk
Trevor-Roper, G. D., Esq., Gt. Massingham, Norfolk
Wales, E. G., M.B., Downham Market
Wedgwood, W. B., Esq., King's Lynn, Norfolk
Whitlock, A. W. F., Esq., Wells, Norfolk
Whitty, C. R., M.D., Hunstanton, Norfolk

No. 7.—East Norfolk Division

NUMBERING 27.

Chairman, H. J. M. Wyllys, Esq., Gt. Yarmouth
Vice-Chairman, P. G. Gilmour, Esq., Gorleston
Honorary Secretary, J. B. N. Vickers Esq., 7, St. George's Terrace, Great Yarmouth
Representative for Representative Meeting, H. Blake, M.B., Gt. Yarmouth

Representative on Branch Council.
Mayo, A. C., Esq.

Back, H. H., M.B., Acle, Norwich
Beach, H. W., Esq., Town Hall, Great Yarmouth
Beales, T. W. L., Martham, Great Yarmouth
Blake, H., M.B., 5, Regent Road, Great Yarmouth
Boake, Basil, Esq., Ormesby, Great Yarmouth
Case, William, Esq., Caister-on-Sea, Great Yarmouth
Cutting, E. B., Esq., Stalham, Norfolk
Gilmour, P. G., Esq., Gorleston, Norfolk
Lettis, T., M.D., 6, Regent Road, Great Yarmouth
McClintock, L. T., Esq., Loddon, Norfolk
Mayo, A. C., Esq., St. George's Park House, Gt. Yarmouth
Mayo, H. R., M.B., St. George's Park House, Gt. Yarmouth
Meadowes, A. H., Esq., 141, King Street, Great Yarmouth
Moxon, A. H., Esq., Great Yarmouth
O'Farrell, C., Esq., Great Yarmouth
Potts, Horace, Esq., 116, Wellesley Road, Gt. Yarmouth
Rendall, R., M.B., 19, St. Peter's Road, Yarmouth
Rudd, C. F., Esq., Stalham, Norfolk
Sankey, J. I., Esq., 25, South Quay, Great Yarmouth
Shaw, R. H., M.B., Great Yarmouth
Ternau, P. J. W., Esq., Martham
Vickers, J. B. N., Esq., 7, St. George's Terr., Gt. Yarmouth
Willway, F. W., Esq., Lymehurst, Elm Grove Road, Gorleston
Wrigley, R., Esq., Great Yarmouth
Wyllys, H. J. M., Esq., Southtown, Great Yarmouth
Wyllys, W., Esq., 27, Nelson Road, S., Great Yarmouth
Wyllys, W. E., Esq., 25, King Street, Great Yarmouth

No. 8.—North Suffolk Division

NUMBERING 30.

Chairman, W. A. Shann, M.B., Lowestoft
Vice-Chairman, W. M. Crowfoot, M.B., Beccles
Honorary Secretary and Treasurer, W. Tyson, M.B., The Beeches, Lowestoft
Representative for Representative Meeting, H. Blake, M.B Gt. Yarmouth

Representative on Branch Council.
Walker, H. B., Esq.

Executive Committee.
Baylie, W. E., Esq.
Bell, W. L., M.D.
Herbert, A. W. C., Esq
Ransome, G. H., Esq.

Acton, C. J., Esq., Wangford
Barraclough, H. C., M.B., South Lowestoft
Baylie, W. E., Esq., Yoxford
Bell, W. L., M.D., 123, London Road, Lowestoft
Berry, W., M.D., Richmond House, South Lowestoft
Cadge, W. H., Lt.-Col. I.M.S., 4, Esplanade, Lowestoft
Colborne, G., Esq., Bungay
Crowfoot, W. B., M.D., The Walk, Beccles
Crowfoot, W. M., M.B., Beccles
Dixon, W. E., Esq., Oulton Broad, Lowestoft
Evans, H. M., M.D., Kirkley Cliff Road, S. Lowestoft
Helsham, H. P., Esq., 4, The Walk, Beccles
Herbert, A. W. C., Esq., Acton Lodge, Southwold
Hutchinson, D. H., M.B., 55, High Street, Lowestoft
James, F. C., M.B., Fressingfield, Harleston
Lay, C. E., Esq., Peasenhall
Marshall, A., M.D., 145, London Road, South Lowestoft
Morris, P. J. L., Esq., Halesworth, Suffolk
Mullock, R. W., M.D., Wymering House, Southwold
Ramsbottom, C. H. G., M.D., Waveney House, Bungay
Ransome, G. H., Esq., Bungay
Robinson, J. C. R., Esq., Harleston, Norfolk
Shann, W. A., M.B., Lowestoft
Smith, J. P., Esq., Lowestoft
Tyson, W., M.B., The Beeches, Lowestoft
Wade, E. W., M.D., Harleston
Walker, H. B., Esq., Grove House, Lowestoft
Warwick, P., Esq., Halesworth
Worthington, F. S., Esq., Gordon Road, Lowestoft
Worthington, Richard T., M.B., 10, Marine Parade, South Lowestoft

No. 9.—West Suffolk Division

NUMBERING 36.

Chairman, J. S. Holden, M.D.
Vice-Chairman, C. S. Kilner, M.B.
Honorary Secretary, W. J. Caie, M.B., Bury St. Edmunds

Representative for Representative Meeting.
J. S. Holden, M.D., Sudbury.

Representative on Branch Council.
Hinnell, J. S., M.D.

Anderson, R., Lt.-Col. (retired), A.M.S., Southgate Green Bury St. Edmunds
Caie, W. J., M.B., Bury St. Edmunds
Eminson, L., Esq., Silesia House, Lavenham
Finch, H. J., Esq., Crofton, Sudbury, Suffolk
Gelston, J. S., Esq., Ixworth, Suffolk
Glasier, H., M.B., Meldreth, Mildenhall
Goodman, T. H., Esq., Haverhill
Harris, A., M.B., Thetford, Norfolk
Hartley, R., M.D., Feltwell Lodge, Brandon
Hinnell, J. S., M.D., 62, Garland Street, Bury St. Edmunds
Holden, J. S., M.D., Sudbury
Horsford, J. A., Esq., Long Melford
Huntley, E., M.B., Friars Street, Sudbury
Image, F. E., M.B., Bury St. Edmunds
Kilner, C. S., M.B., Bury St. Edmunds
King, H. D., M.D., Sudbury
Law, W. T., M.D., Geeler House, Bury St. Edmunds
Lucas, R. H., Esq., 6, Angel Hill, Bury St. Edmunds
Master, G., M.B., 86, Guildhall Street, Bury St. Edmunds
Metcalfe, G. H., Esq., Clare, Suffolk
Minns, A. G., Esq., Thetford
Minns, P. R. J. B., Esq., Thetford
Pickworth, A. J., Esq., Lakenheath, Suffolk
Petherick, W., Esq., Hopton, Suffolk
Rivers, Stanley, Esq., Mildenhall
Smith, W. C. P., Esq., The Limes, Burnham-on-Crouch
Spanton, A. T., Esq., Haverhill
Stiff, H. H., M.B., 81, Guildford Street, Bury St. Edmunds
Stork, E., M.B., The Acacias, Bury St. Edmunds
Thompson, Alfred, Esq., Boxford, Suffolk
Trotter, W. O., Esq., Brandon, Suffolk
Walker, J. R. Hall, M.D., Haverhill
Wilkin, R. H., Esq., Wickhambrook
Wilson, F. K., M.B., The Beeches, Walsham-le-Willows
Wood, H. U., Esq., The Elms, Brandon
Wood, O. R. M., M.B., Woolpit, Bury St. Edmunds

No 10.—South Suffolk Division.

NUMBERING 63.

Chairman, R. W. Brogden, M.B., Ipswich

Vice-Chairman, Howard Henry, M.B., Debenham

Honorary Secretary and Treasurer, J. Gutch, M.D., 30 Fonnereau Road, Ipswich

Representative for Representative Meeting.
J. S. Holden, M.D., Sudbury

Representatives on Branch Council.
G. S. Elliston, Esq.
C. J. Havell, M.D.

Executive Committee.
Cotton, Captain H.
Eades, S. O., Esq.
Elliston, W. A., M.D.
Gibb, W. A., M.D.
Havell, C. G., M.D.
Staddon, J., Esq.

Addison, E. A., Esq., Coddenham, near Ipswich
Anderson, Mrs. Garrett, M.D., Aldeburgh
Askin, T. C., M.D., Alderton, Suffolk
Ball, J. A., M.B., The Cottage, Stradbroke, Eye
Barnes, E. G., M.D., Eye
Baron, H. N., Esq., The High House, Orford
Biden, C. W., Esq., Laxfield, Framlingham
Brogden, R. W., M.B., Ipswich
Brooks, F. A., M.D., Felixstowe
Brown, H. H., M.D., Museum Street, Ipswich
Campariole, P. C., M.B., Melton
Canton, F., Esq., Tufnells, East Bergholt
Carey, William, Esq., Holbrook, Ipswich
Casley, R. K., M.D., Elmroyd, Park Road, Ipswich
Collins, H. A., Esq., Saxmundham
Conford, G. James, M.B., Sandcroft, Bath Road, Felixstowe
Connor, W. G., Esq., Earl Soham, Suffolk
Cotton, H., Captain (ret.) A.M.S., 18, London Road, Ipswich
Drew, J. B., Esq., The Haynning, Framlingham, Suffolk
Dufton, H. T., Esq., Brockford, Stowmarket
Eades, S. O., Esq., 47, St. Helen's Street, Ipswich
Elliston, G. S., Esq., S. Edmunds, Felixstowe
Elliston, W. A., M.D., Scothorne House, Chevallier Road, Felixstowe
Everett, H. F., Esq., Hadleigh, Suffolk
Franey, A. B., Esq., Hadleigh, Suffolk
Fryer, W. F., jun., Esq., Chestnut Ho., St. Clements, Ipswich
Gordon, T. E., M.D., Debenham
Gibb, W. A., M.D., Major House, Major's Corner, Ipswich
Goldsmith, G. P., M.D., Springfield, Aldeburgh-on-Sea
Gutch, J., M.D., 30, Fonnereau Road, Ipswich
Hannigan, M. H., M.D., The Priory, Botesdale, Suffolk
Harper, H. C., Esq., Stowmarket
Havell, C. G., M.D., Felixstowe
Heath, H. L., Esq., 21, High Street, Ipswich
Henley, A. A., Esq., Woodbridge
Hetherington, G. M., Esq., 2, Museum Street, Ipswich
Hillier, S., M.D., Stowmarket
Hollis, E., M.D., Woodbridge
Hounsfield, S. C., Esq., Tinsley House, Stowmarket
Hulme, G. F., M.D., Montague Road, Felixstowe
Jeaffreson, G. E., Esq., Framlingham
Longworth, S. G., Esq., County Asylum, Melton
Mahon, W. A., Esq., Holbrook, near Ipswich
Nicholson, F. D., M.B., The Limes, Framlingham
Norman, J. C., Esq., Hadleigh
Paterson, A. W., M.B., Felixstowe Road, Ipswich
Preston, Arthur, M.D., Athenry Ho., Woodbridge, Suffolk
Pringle, A. M. N., M.B., M.O.H., Public Health Department, Exchange Chambers, Ipswich
Pringle, A. Y., Esq., St. Matthews, Ipswich
Ransom, W. E., Esq., Needham Market
Richardson, J. Ryder, M.B., Saxmundham
Rowe, E. L., Esq., Borough Asylum, Ipswich
Rygate, H. B., M.B., Gap House, Sizewell, Leiston
Sims, Mrs. Mildred, M.B., 13, Queen Street, Ipswich
Sinclair, W. W., M.B., 3, Arcade Street, Ipswich
Staddon, J. R., Esq., 6, Silent Street, Ipswich
Staddon, W. J., Esq., The Priory, Ipswich
Stewart, B. H., Esq., East Bergholt
Thorp, H. J., Esq., Granite Lodge, Ipswich
Tidbury, Robert, M.D., Borough Asylum, Ipswich
Vincent, George, M.D., Ipswich
Wallis, E. D., Esq., Leiston
Ward, F., M.D., Museum Street, Ipswich
Wetherell, F. C., M.B., Carr Street, Ipswich
Whitwell, J. R., M.B., County Asylum, Melton
Wood, A. T., Esq., Elm House, Ipswich
Wright, C. F., Esq., Eye
Wrightson, R. B., M.D., Aldeburgh, Suffolk

EAST YORK & NORTH LINCOLN BRANCH

District comprising in YORKSHIRE Hull; the Holderness Parliamentary Division; the portion of the Buckrose Division south of and excluding Rillington Junction and Hunmanby, and the portion of the Howdenshire Division south-east of the Railway from Market Weighton to Selby and including Market Weighton, Everingham, and Holme; in LINCOLNSHIRE: Grimsby Borough, and the Brigg Parliamentary Division.

RECOGNISED 1856.

Members of Branch—141.

President, T. CAMERON, M.B., Hull

President-elect, A. WESTLAKE, M.B., Grimsby

Ex-President, A. G. FRANCIS, M.B., Hull

Vice-Presidents.
H. J. C. GODFREY, Esq., Bridlington
W. HOLDER, Esq., Hull

Honorary Secretary and Treasurer.
E. M. HAINWORTH, M.D., 16, Albion Street, Hull

Representative on Council of Association.
C. H. Milburn, M.B., Hull

Branch Council.
Elliott, G. F., M.D.
Gaman, F. R. S., Esq.
Harrison, E., M.D.
Howlett, E. H., Esq.
Lowson, D., M.D.
Pigeon, H. W., M.B.
Turner, C. B., Esq.
Wilson, J. M., M.D.

No. 1.—East York Division.

NUMBERING 101.

Chairman, T. Cameron, M.B., Hull

Vice-Chairman, H. J. C. Godfrey, Esq., Bridlington

Honorary Secretary, E. M. Hainworth, M.D., 16, Albion Street, Hull

Representative for Representative Meeting.
J. MacNidder, M.B., Hull

Representatives on Branch Council.
Elliott, G. F., M.D.
Harrison, E., M.D.
Howlett, E. H., Esq.
Lowson, D., M.D.
Pigeon, H. W., M.B.
Wilson, J. M., M.D.

Appleton, O. L., Esq., 13, Newland Avenue, Hull
Appleton, Roy, M.B., Bar House, Beverley
Archdale, M. A., Esq., E. Riding Lunatic Asylum, Beverley
Ash, P. R., Esq., 73, Wright Street, Hull
Baine, L. A., M.D., 305, Hedon Road, Hull
Barker, E., Esq., 455, Hessle Road, Hull
Batchelor, E. H., Esq., Norton Ldg., Promenade, Bridlington
Brand, A. T., M.D., Invery, Driffield
Briggs, G. F., Esq., 136, Spring Bank, Hull
Briggs, G. J., Esq., Spring Bank, Hull
Bryant, W. A., M.B., Anlaby Road, Hull
Cameron, R. D., Esq., North Cave, Brough
Cameron, T., M.B., 77, Beverley Road, Hull
Close, J. B., M.D., 2, Pryme Street, Hull
Coleman, J. J., M.B., Bridlington
Collin, T. S., Esq., Newport, near Brough
Cumming, John, M.B., 289, Beverley Road, Hull
Daly, E. O., M.D., 23, Albion Street, Hull
Daniell C. H., Esq., 25, Charlotte Street, Hull
Davidson, W., Esq., South Cave, R.S.O.
Davies, A. D., Esq., 301, Hessle Road, Hull
Davy, D. H., Esq., 84, Beverley Road, Hull
Denison, E., Esq., Brough
Dewick, G., Esq., 44, Princes Avenue, Hull
Divine, J., M.B., Durham House, Holderness Road, Hull
Dowsing, H. L., Esq., 121, Beverley Road, Hull
Dutt, A. C., M.D., Everest Lodge, Newington, Hull
Eccles, C. H., Esq., Nafferton, near Hull
Elliott, G. F., M.D., 1, Albion Street, Hull
Evans, A., Esq., Bridge House, Market Weighton
Eve, F. C., M.D., 14, Albion Street, Hull
Falkner, H. G., Esq., Beverley Road, Hull
Farbstein, H., Esq., Anlaby Road, Hull
Field, R. C., M.B., The Chestnuts, Roos, near Hull
Francis, A. G., M.B., 101, Beverley Road, Hull
Gautby, G., M.D., 19, Regent Terrace, Hull
Gibson, D., Esq., Anlaby Road, Hull
Godfrey, H. J. C., Esq., Eaglehurst, Bridlington
Gray, A., M.B., Spring Bank, Hull
Grieve, R., jun., M.D., 45, Beverley Road, Hull
Hainworth, E. M., M.D., 16, Albion Street, Hull
Hardey, E. P., Esq., 89, Spring Bank, Hull
Harrison, E., M.D., 3, Wright Street, Hull
Hart, A. E., M.D., 72, Holderness Road, Hull
Holder, W., Esq., Somerstown House, Holderness Rd., Hull
Hollingworth, J., jun., Esq., Holderness Road, Hull
Holt, J. L., Esq., Stoneferry Road, Hull
Howlett, E. H., Esq., 4, Wright Street, Hull
Jackson, J. L., M.D., Kirk House, Hedon, near Hull
Jackson, T., M.D., Canton Place, Anlaby Road, Hull
Jarratt, A. K., M.B., Pembroke Villa, Bridlington Quay
Jefferson, T. J., M.D., Market Weighton
Johns, H. D., M.D., Hornsea, E. Yorks
Johnson, A. G., Esq., Rokeby, Newington, Hull
Johnson, S. H., Esq., Hessle, near Hull
Johnston, A. H., Esq., Lynton, Newington, Hull
Keith, J. R., M.D., 24, Middle Street, North Driffield
Lamb, G., Esq., Anlaby Road, Hull
Laslett, E. E., M.B., 515, Anlaby Road, Hull
Lee, C. A., M.D., 1, Pryme Street, Hull
Lovett, J. M., M.B., 6, Charlotte Street, Hull
Lowson, D., M.D., 15, Albion Street, Hull
Maclean, Madge S., M.B., 85, Beverley Road, Hull
MacNidder, James, M.B., 228, Anlaby Road, Hull
McWillie, J. G., M.B., Bon Accord House, Hull
Martin, J. C., M.D., 333, Beverley Road, Hull
Martindale, Louisa, M.B., 102, Beverley Road, Hull
Mason, J. W., M.B., 78, Beverley Road, Hull
Merson, J., M.D., City Lunatic Asylum, Willerby
Milburn, C. H., M.B., 158, Anlaby Road, Hull
Millar, W., M.B., Welton, Brough
Moir, D. R., M.B., 489, Hessle Road, Hull
Morison, D., M.B., Beeford, Hull
Mountain, J. J., Esq., Glenville, Brough
Murdoch, Miss M. C., L.R.C.P., 102, Beverley Road, Hull
Murray, W., M.D., Hessle
Nicholson, F., M.D., 29, Albion Street, Hull
Nicholson, R. H. B., Esq., 21, Albion Street, Hull
Niven, J. L., Esq., 59, Holderness Road, Hull
Parkin, A., M.D., 24, Albion Street, Hull
Pigeon, H. W., M.B., Albion Street, Hull
Raines, R., Esq., 365, Holderness Road, Hull
Robinson, H., M.B., 161, Beverley Road, Hull
Rockliffe, W. C., M.D., 17, Charlotte Street, Hull
Roe, A. L., Esq., 43, Pryme Street, Hull
Roe, A. J. S., Esq., 82, Prospect Street, Hull
Savege, G., M.D., Newbegin, Beverley
Shaw, A. P., Esq., 15, Holderness Road, Hull
Sheldon, W., Esq., Hessle, near Hull
Sherburn, Sir John, M.B., The Park, Hull
Sims, E. R., Esq., 38, Beverley Road, Hull
Sissons, A. T., M.B., 84, Princes Avenue, Hull
Soutter, J., Esq., Hedon
Sproulle, A. E., Esq., Withernsea
Stewart, F. N., M.B., Anlaby Road, Hull
Stothard, J., Esq., Walker Street, Hull
Swindells, S. W., M.B. (address uncommunicated)
Taplin, B. D., Esq., St. John's Avenue, Bridlington
Tireman, A. L., Esq., North Boulevard, Hull
Turton, E., M.D., 1, Albion Street, Hull
Waters, J. L., M.B., South Boulevard House, Hull
Watkins, E. M., M.B., 2, Dansom Rd., Holderness Rd., Hull
Watson, G. H., Esq., Hall Gate, Cottingham
Wetherell, J. A., M.D., Holderness Road, Hull
Wetwan, W. A., Esq., Marine House, Bridlington Quay
Wilson, A., Esq., 311, Anlaby Road, Hull
Wilson, F., Esq., 170, Spring Bank, Hull
Wilson, J. M., M.D., Co. Hall, Beverley
Wray, W. T., Esq., 113, Spring Bank, Hull

No. 2.—North Lincoln Division

NUMBERING 32.

Chairman, C. B. Turner, Esq.

Vice-Chairman, A. Westlake, M.B., Grimsby

Honorary Secretary, J. Matthews Duncan, M.B., Welholme Road W., Grimsby

Representative for Representative Meeting.
J. MacNidder, M.B., Hull

Representatives on Branch Council.
Turner, C. B., Esq.
Gaman, F. R. S., Esq.

Armitage, Edward, Esq., Waltham, Grimsby
Atkinson, F. H., M.D., Flottergate House, Grimsby
Baker, W. I. T., Esq., The Elms, Winterton
Barrowman, T., M.B., 182, Wellington Street, Grimsby
Birtwhistle, F., M.B., Priestgate, Barton-on-Humber
Booth, O. M., Esq., Sidney Terrace, New Clee, Grimsby
Bruce, John, M.B., Town Hall Square, Grimsby
Burnett, E. C., M.B., Grimsby and District Hospital, Grimsby
Chapman, C. G., Esq., Hainton Street, Grimsby
Couldrey, J., Esq., Scunthorpe
Duncan, J. Matthews, M.B., Welholme Rd. W., Grimsby
Felton, E. H., Esq., Park Street, Grimsby
Ffrench, W. J. L., Esq., Barnetby le Wold
Foster, W. H., M.B., Cleethorpes
Gaman, F. R. S., Esq., Caistor
Goodman, G., Esq., Bridge Street, Brigg
Grieve, R., C.M.G., M.D., Surg.-Genl., Barton-on-Humber
Lougheed, W. H., M.B., North Somercotes
Middlemist, G. E., M.B., Keelby, Brocklesby, R.S.O.
Morley, T. S., M.D., Barton-on-Humber
Munro, H. L., M.B., Invernith, Scunthorpe
Pickford, J. K., Esq., 75, St. Peter's Road, Cleethorpes, Grimsby
Pockett, L. W., Esq., 259, Hainton Street, Grimsby
Pratt, A. A., M.D., Ferngrove, Grimsby
Sharpley, C. W., Esq., Ulceby
Simpson, W. B., M.B., Cartergate, Grimsby
Tongue, E. J., Esq., Winterton
Turner, C. B., Esq., 9, Hainton Street, Grimsby
Wallace, W., M.B., 15, Hainton Street, Grimsby
Watt, T. M., Esq., Goxhill
Westlake, A., M.B., 5, Yarborough Terrace, Grimsby
Williamson, Joshua, M.B., Rawdon House, New Cleethorpes

EDINBURGH BRANCH.

Comprising The LOTHIANS, BERWICK, SELKIRK, PEEBLES, and ROXBURGH Counties.

RECOGNISED 1875.

Members of Branch—427.

President.
W. ALLAN JAMIESON, M.D., 35, Charlotte Square, Edinburgh

President-elect.
Professor J. CHIENE, C.B., M.D., Edinburgh

Vice-Presidents.
A. BALLANTYNE, M.D., Dalkeith
ANDREW BALFOUR, M.D., Portobello

Honorary Secretaries.
NORMAN WALKER, M.D., 7, Manor Place, Edinburgh
A. LOGAN TURNER, M.D., 27, Walker St., Edinburgh

Honorary Treasurer.
JAMES RITCHIE, M.D., 22, Charlotte Square, Edinburgh

Representatives on Council of Association.
R. McKenzie Johnston, M.D., Edinburgh
Norman Walker, M.D., Edinburgh

Branch Council.
Ballantyne, H. S., M.B.
Carmichael, Jas., M.D.
Dewar, Michael, M.D.
Hamilton, J. R., M.D.
Henderson, John, M.B.
Hodsdon, James, M.D.
Littlejohn, H. H., M.B.
Paterson, G. W. S., M.B.
Paterson, G. Keppie, M.B.

No. 1.—The Lothians Division.

NUMBERING 54.

Chairman, J. B. Ronaldson, M.B., Haddington

Vice-Chairman,

Honorary Secretary, H. S. Ballantyne, M.B., Ashton, Eskbank, Midlothian

Representative for Representative Meeting, A. M. Easterbrook, M.B.

Aitken, Peter, Esq., 1, Dean Terrace, Bo'ness
Allan, C. J., M.B., Oakmount, Lasswade
Anderson, J., M.B., Armadale
Badger, W., M.B., Penicuick
Ballantyne, A., M.D., Ashton, Eskbank, Midlothian
Ballantyne, H. S., M.B., Ashton, Eskbank, Midlothian
Cameron, James, Esq., Loanhead, Midlothian
Craig, A., M.D., Pathhead Ford, Dalkeith
Crombie, J. F., M.B., Park House, North Berwick
Cross, R., M.B., West Port House, Linlithgow
Dickson, G. A., M.B., Invermae, South Queensferry
Duncan, A. S., M.B., Margaret Place, Roslin, Midlothian
Easterbrook, A. M., M.B., Gorebridge, Midlothian
Fleming, A., M.B., St. John's Road, Corstorphine
Fowler, S. C., M.B., Juniper Green, Edinburgh
Glegg, C. S., M.B., Mid Calder
Gordon, J., M.D., Scotscraig, Prestonkirk
Henderson, John, M.B., The Elms, Lasswade
Howden, R., M.B., Maitland Field, Haddington
Hunter, J., M.D., St. Catherine's, Linlithgow
Hunter, John, M.B., 97, High Street, Musselburgh
Jeffrey, J. R., M.B., West Linton
Johnston, T. N., M.B., Corstorphine
Keay, J., M.D., Uphall, Linlithgow
Keith, G. [illegible] Esq., Currie, Midlothian
Kelso, A., M.B., Broxburn, Linlithgow
Kirk, R., M.D., Rowan Bank, Bathgate
Leebody, H. A., M.B., Rose Villa, Corstorphine
Lyon, T. M. Murray, M.D., Calder Hall, Midcalder, N.B.
Macpherson, A. H., Esq., Cliftonville, Blackhall
MacRae, J., M.D., Lynwood, Murrayfield
Malcolmson, A. M., M.B., Dalveen, Corstorphine
Marshall, John, M.B., 2, Dean Terrace, Bo'ness
Martine, W. R., M.B., Weston, Haddington
Matheson, A., M.D., North Berwick
Morison, J., M.B., Hestival House, Dunbar
Muir, W., M.B., Davidson's Mains, Midlothian
Nasmyth, Alex., M.D., Hillwood, Penicuick, Midlothian
Paton, B. Lewis, M.B., Redford House, Colinton
Ritchie, Daniel, M.D., Dunloe, Tranent, East Lothian
Robertson, A. G., M.D., Musselburgh, Midlothian
Ronaldson, J. B., M.D., Haddington
Rossie, J. C., M.D., 12, Hopetown St., Bathgate
Scott, Alex., M.B., The Firs, Broxburn
Scott, T. R., M.D., Musselburgh
Serle, G. B., Esq., 70, Joppa Road, Joppa, Midlothian
Shiels, R. D., M.B., 1, Rosebery Place, Dunbar
Simpson, W. P., Esq., Viewbank, Bathgate, N.B.
Sinclair, J., M.B., Bo'ness
Spalding, W., M.D., Gorebridge
Thomson, A. D. R., Esq., Musselburgh
Watson, W., M.D., The Lea, Corstorphine
Young, D. P., M.B., 23, Bridge Street, Musselburgh
Young, W., M.B., Burnvale, West Calder

No. 2.—North-East Edinburgh Divisi

NUMBERING 56.

Chairman, James Carmichael, M.D., 22, Northumberland Street, Edinburgh

Vice-Chairman, W. L. Mackenzie, M.D., Trinity, Edinburgh

Honorary Secretary and Treasurer, G. Keppie Paterson, M.B., 19, Albany Street, Edinburgh

Representative for Representative Meeting, James Carmichael, M.D., 22, Northumberland St., Edinburgh

Representative on Branch Council.
G. Keppie Paterson, M.B.

Executive Committee.
Balfour, Andrew, M.D.
Calder, H. L., M.D.
Fyfe, G., M.D.
Johnston, G. M., M.D.
Smith, J. Cormack, M.B.

Balfour, A., M.D., Abercorn House, Portobello
Balfour, J. H., M.B., 14, East Brighton Cres., Portobello
Butchart, C. A., M.B., 52, Leith Walk, Leith
Butler, James, M.B., 49, Charlotte Street, Leith
Cadell, Grace R., L.R.C.P., 145, Leith Walk, Leith
Calder, H. L., M.D., 3 Cassell's Place, Leith
Cameron, James, M.D., 13, Fettes Row, Edinburgh
Carmichael, E., M.D., 21, Abercromby Place, Edinburgh
Carmichael, J., M.D., 22, Northumberland St., Edinburgh
Deverell, H. G., M.D., 12, Windsor Street, Edinburgh
Dewar, H., M.B., 26, Brighton Place, Portobello
Donald, George, M.D., 46, Ferry Road, Leith
Dunlop, G. H. M., M.D., 20, Abercromby Place, Edinburgh
Eason, J., M.B., 196, Newhaven Road, Trinity, Edinburgh
Elder, W., M.D., 4, John's Place, Leith
Erskine, Elizabeth, L.R.C.P., Oaklands, Trinity, Edinburgh
Fyfe, G., M.D., 24, Broughton Place, Edinburgh
Garland, O. H., M.D., 53, Charlotte Street, Leith
Giffen, Grace Haxton, F.R.C.S.I., 14, Inverleith Gardens, Edinburgh
Gilmour, Andrew, M.D., 9, Inverleith Row, Edinburgh
Gray, J. A., M.D., 107, Ferry Road, Leith
Hall, A. A., M.D., 2, Hermitage Place, Leith
Harvey, James, M.D., 7, Blenheim Place, Edinburgh
Hay, Henry, M.B., 19, Nelson Street, Edinburgh
Henderson, Alex., M.B., 21, Pitt Street, Edinburgh
Hoernlé, Edward F., M.B., 11, John's Place, Leith

Ingram, Alex., Esq., 6, Brandon Street, Edinburgh
Jamieson, J., M.B., 10, Blenheim Place, Edinburgh
Johnston, G. M., M.D., 7, Wellington Place, Leith
Knight, H. A., M.B., Mount Charles, Portobello
Langwill, H. G., M.D., 5, Hermitage Place, Leith
Leighton, G. R., M.D., F.R.S.E., 51, East Trinity Road, Edinburgh
Mackay, J., Esq., 148, Ferry Road, Bonnington
Mackenzie, Colin, M.B., 1, Denham Green Terrace, Trinity, Edinburgh
Mackenzie, W. L., M.D., 1, Stirling Rd., Trinity, Edinburgh
McLarty, M., M.B., 7, Bellevue Place, Edinburgh
Meyer, H. B. W., Esq., 26, London St., Edinburgh
Mill, James, M.B., 26, N. Fort Street, Leith, N.B.
Millard, W. W., M.B., Leith Walk, Edinburgh
Osler, W. D., M.B., 11, Montgomery Street, Edinburgh
Paterson, G. Keppie, M.B., 19, Albany Street, Edinburgh
Paterson, W., M.B., 8, Hermitage Place, Leith
Robertson, W., M.D., 71, Constitution Street, Leith
Saffley, J., M.B., 3, East Savile Road, Edinburgh
Sloan, Allen T., M.D., 22, Abercromby Place, Edinburgh
Smith, J., M.D., 4, Brunton Place, Edinburgh
Smith, J. Cormack, M.B., 9, Brunton Place, Edinburgh
Stewart, W., M.D., 146, Ferry Road, Leith
Thin, R., M.B., 38, Albany Street, Edinburgh
Thomson, H. T., M.D., 7, Leopold Place, Edinburgh
Thyne, G., M.B., 13, Brunswick Street, Edinburgh
Titterton, J. T., M.B., 8, Brighton Place, Portobello
Tod, J., M.B., 69, Ferry Road, Leith
Whitelaw, T., M.D., Windsor Lodge, Portobello, Midlothian
Wilson, James, M.B., 53, Inverleith Row, Edinburgh
Wright, W. F., M.B., Bonnington Mount, Edinburgh

No. 3.—North-West Edinburgh Division.

NUMBERING 137.

Chairman, T. F. S. Caverhill, M.B., Edinburgh
Vice-Chairman, J. W. B. Hodsdon, M.D., Edinburgh
Honorary Secretary and Treasurer, A. Dingwall Fordyce, M.D., 19, Coates Crescent, Edinburgh
Representative for Representative Meeting, T. F. S. Caverhill, M.B., 6, Manor Place, Edinburgh

Representatives on Branch Council.
Hodsdon, J. W. B., M.D.
Littlejohn, H. Harvey, M.B.

Abernethy, R., M.D., 10, St. Colme Street, Edinburgh
Affleck, J. O., M.D., 38, Heriot Row, Edinburgh
Andrew, J., M.D., 2, Atholl Crescent, Edinburgh
Annandale, T., F.R.C.S., 34, Charlotte Square, Edinburgh
Ballantyne, J. W., M.D., 24, Melville Street, Edinburgh
Barbour, A. H. F., M.D., 4, Charlotte Square, Edinburgh
Bell, J., M.D., 2, Melville Crescent, Edinburgh
Berry, George H., M.B., 31, Drumsheugh Grdns., Edinburgh
Boyd, F. D., C.M.G., M.D., 22, Manor Place, Edinburgh
Bramwell, B., M.D., 23, Drumsheugh Gardens, Edinburgh
Bramwell, E., M.B., 23, Drumsheugh Gardens, Edinburgh
Brewis, N. T., M.B., 23, Rutland Street, Edinburgh
Brock, W. J., M.B., 5, Manor Place, Edinburgh
Brown, J. J. Graham, M.D., 3, Chester Street, Edinburgh
Brown, J. Murdoch, M.D., 9, Walker Street, Edinburgh
Brownlee, James, M.D., 2, West Stanhope Place, Edinburgh
Bruce, A., M.D., 8, Ainslie Place, Edinburgh
Buchan, Alex. H., M.B., 2, Dean Terrace, Edinburgh
Buist, J. B., M.D., 1, Clifton Terrace, Edinburgh
Burn-Murdoch, T. M., M.B., 14, Charlotte Sq., Edinburgh
Caird, F. M., M.B., 13, Charlotte Square, Edinburgh
Campbell, M., M.B., 17, Walker Street, Edinburgh
Carmichael, E. S., M.B., 32, Rutland Square, Edinburgh
Carruthers, G. J. R., M.B., 4A, Melville Street, Edinburgh
Cathcart, C. W., M.B., 44, Melville Street, Edinburgh
Caverhill, T. F. S., M.B., 6, Manor Place, Edinburgh
Chiene, G. L., M.B., 23, Alva Street, Edinburgh
Chiene, Professor John, C.B., M.D., 26, Charlotte Square, Edinburgh
Clark, H. Martyn, M.D., 11, Comely Bank, Edinburgh
Comrie, J. D., M.B., 7, S.E. Circus Place, Edinburgh
Cotterill, J. M., M.B., 24, Manor Place, Edinburgh
Croom, Sir J. Halliday, M.D., 25, Charlotte Sq., Edinburgh
Cunningham, D. J., M.D., F.R.S., 18, Grosvenor Crescent Edinburgh
Dickson, G., M.D., 9, India Street, Edinburgh
Douglas, K. M., M.D., 19, Chester Street, Edinburgh
Dowden, J. W., M.B., 27, Walker Street, Edinburgh
Duncanson, J. J. K., M.D., 22, Drumsheugh Gdns., Edinburgh
Dunlop, J. C., M.D., 33, Chester Street, Edinburgh
Dunsmure, J., M.D., 53, Queen Street, Edinburgh
Edington, A., M.D., F.R.S.E., 20, Kilmaurs Road, Edinburgh
Elder, W. N., M.D., 6, Torphichen Street, Edinburgh
Farquharson, J. M., M.B., 2, Coates Place, Edinburgh
Ferguson, J. H., M.D., 7, Coates Crescent, Edinburgh
Fleming, R. A., M.D., 10, Chester Street, Edinburgh
Fordyce, A. Dingwall, M.D., 19, Coates Crescent, Edinburgh
Fordyce, William, M.D., 20, Charlotte Square, Edinburgh
Fowler, J. S., M.D., 68, Northumberland Street, Edinburgh
Fox, C. H., M.D., 35, Heriot Row, Edinburgh
Fraser, John, M.B., 13, Heriot Row, Edinburgh
Fraser, J. S., M.B., 13, Heriot Row, Edinburgh
Fraser, Sir Thomas R., M.D., 13, Drumsheugh Gardens, Edinburgh
Frost, W. E., M.B., 6 Atholl Place, Edinburgh
Ghose, C. C., Esq., c.o. Messrs. T. Cook and Sons, Princes Street, Edinburgh
Gibbs, J. H., Esq., 7, Coates Place, Edinburgh
Gibson, G. A., M.D., 3, Drumsheugh Gardens, Edinburgh
Giles, A. B., M.D., 4, Palmerston Place, Edinburgh
Gilruth, G. R., L.R.C.P.&S., 48, Northumberland St., Edinb.
Graham, D. J., M.D., 26 Rutland Street, Edinburgh
Grant, J. T., M.D., 3, Manor Place, Edinburgh
Greenfield, W. S., M.D., 7, Heriot Row, Edinburgh
Gulland, G. L., M.D., 11, Chester Street, Edinburgh
Guy, William, F.R.C.S.Ed., 11, Wemyss Place, Edinburgh
Hart, D. B., M.D., 29, Charlotte Square, Edinburgh
Haultain, F. W. N., M.D., 12, Charlotte Square, Edinburgh
Herring, P. T., M.D., 87, Comely Bank Avenue, Edinburgh
Hodsdon, J. W. B., M.D., 6, Chester Street, Edinburgh
Hunter, G., M.D., 33, Palmerston Place, Edinburgh
Hutcheson, J., M.D., 44, Moray Place, Edinburgh
Inglis, Elsie Maud, M.B., 8, Walker Street, Edinburgh
James, A., M.D., 10, Melville Crescent, Edinburgh
Jamieson, W. A., M.D., 35, Charlotte Square, Edinburgh
Johnston, R. McKenzie, M.D., 2, Drumsheugh Gardens, Edinburgh
Kerr, George, M.B., 6, St. Colme Street, Edinburgh
Lackie, J. L., M.D., 1, Randolph Crescent, Edinburgh
Lewis, C. J., M.D., 13, Walker Street, Edinburgh
Littlejohn, Sir Henry Duncan, M.D., 24, Royal Circus, Edinburgh
Littlejohn, H. Harvey, F.R.C.S.Ed., 1, Atholl Crescent, Edinburgh
Luke, Thomas D., M.B., 95, Shandwick Place, Edinburgh
Lyall, W. L., M.B., 8, Murrayfield Gardens, Edinburgh
McBride, P., M.D., 16, Chester Street, Edinburgh
Macdonald, Angus, M.B., 31, Rutland Square, Edinburgh
MacDonald, K. N., M.D., 2, Clarendon Crescent, Edinburgh
McGibbon, John, M.B., 21, Heriot Row, Edinburgh
MacGillivray, C. W., M.D., 15, Charlotte Square, Edinburgh
MacInnes, I. L., M.B., Capt., I.M.S. (ret.), 8, Great Stuart Street, Edinburgh
Mackay, G., M.D., 20, Drumsheugh Gardens, Edinburgh
Macpherson, John, M.D., 8, Darnaway Street, Edinburgh
Menzies, David, M.B., 30, Rutland Square, Edinburgh
Miles, A., M.D., 20, Walker Street, Edinburgh
Miller, A. G., M.D., 8, Garscube Terrace, Murrayfield Edinburgh
Miller, W. H., M.D., 51, Northumberland Street, Edinburgh
Milligan, David, M.B., 11, Palmerston Place, Edinburgh
Mowat, R. S., M.B., 10, Raeburn Place, Edinburgh
Muirhead, C., M.D., 30, Charlotte Square, Edinburgh
Nicholson, H. O., M.D., 20, Manor Place, Edinburgh
Pearson, C. M., M.B., 17, Alva Street, Edinburgh
Peddie, H. A., M.B., 24, Palmerston Place, Edinburgh
Philip, R. W., M.D., 45, Charlotte Square, Edinburgh
Pirie, J. H. H., M.B., 13, Alva Street, Edinburgh
Playfair, J., M.D., 5, Melville Crescent, Edinburgh
Pole, A., M.B., 11, Danube Street, Edinburgh
Pole, L. W., M.B., 57, Nile Grove, Edinburgh
Raeburn, J. A., M.B., 35, Comely Bank Road, Edinburgh
Rainy, Harry, M.D., 16, Gt. Stuart Street, Edinburgh
Ritchie, J., M.D., 22, Charlotte Square, Edinburgh
Ritchie, W. T., M.D., 9, Atholl Place, Edinburgh
Robertson, R., M.B., 26, Royal Circus, Edinburgh
Ronaldson, T. R., M.B., 8, Charlotte Square, Edinburgh
Russell, Beatrice, M.D., 3, Walker Street, Edinburgh
Russell, W., M.D., 3, Walker Street, Edinburgh
Simpson, Professor A. R., M.D., 52, Queen St., Edinburgh
Simpson, F. D., M.D., 7, Kew Terrace, Edinburgh
Simpson, G. F. B., M.B., 50, Melville Street, Edinburgh
Sinclair, A. H. H., M.D., 5, Walker Street, Edinburgh
Skirving, A. A. S., C.M.G., M.B., 8, Randolph Cres., Edin.
Sloman, H., Esq., 9, Murrayfield Avenue, Edinburgh
Smart, A., M.D., 15, Rutland Square, Edinburgh
Steven, J. W., M.B., 13, Manor Place, Edinburgh
Stiles, H. J., M.B., 9, Great Stuart Street, Edinburgh
Struthers, J. W., F.R.C.S.Ed., 5, Lynedoch Place, Edinburgh
Stuart, W. J., M.B., 9, Chester Street, Edinburgh
Sym, W. G., M.D., 12, Alva Street, Edinburgh
Thomson, Alexis, F.R.C.S., 39, Drumsheugh Gdns., Edin.
Thomson, J., M.D., 14, Coates Crescent, Edinburgh
Thyne, T. J., M.B., 16, Randolph Crescent, Edinburgh
Turner, A. L., M.D., 27, Walker Street, Edinburgh
Underhill, C. E., M.B., 8, Coates Crescent, Edinburgh
Wade, Henry, F.R.C.S.E., 32, Alva Street, Edinburgh
Walker, Norman, M.D., 7, Manor Place, Edinburgh
Wallace, D., C.M.G., M.B., 11, Rutland Street, Edinburgh
Watson, Douglas Chalmers, M.B., 22, Coates Cres't, Edin.
Watson, Sir Patrick Heron, M.D., F.R.S.E., 16, Charlotte Sq., Edinburgh
Wilson, G. R., M.D., 8, Rutland Square, Edinburgh
Wolston, W. T. P., M.D., 46, Charlotte Street, Edinburgh
Wood, R. E., M.B., 9, Darnaway Street, Edinburgh
Wotherspoon, C. C., M.B., 18, Great Stuart St., Edinburgh
Young, P. A., M.D., 25, Manor Place Edinburgh

No. 4.—South-Eastern Counties Division

NUMBERING 53.

Chairman, W. L. Cullen, M.B., St. Boswells

Vice-Chairman, J. Young, M.B. Earlston

Honorary Secretary and Treasurer, W. Hall Calvert, M.D., The Laurels, Melrose

Representative for Representative Meeting.
W. Blair, M.D., Jedburgh

Representative on Branch Council.
Hamilton, J. R., M.D.

Executive Committee.

Barrie, W. T., M.B.	Henderson, G., M.D.
Dixon, C. J. W., M.D.	McVie, S., M.B.
Haddon, J., M.D.	Muir, J. S., M.B.

Bannerman, G. Gunn, M.B., 27, Bridge Street, Hawick
Barrie, W. T., M.B., 18, Bridge Street, Hawick.
Blair, W., M.D., Jedburgh
Brown, R. M., M.B., Denholm, Hawick
Calvert, W. H., M.D., The Laurels, Melrose
Cameron, J. M.D., Innerleithen
Campbell, Alex. J., M.D., Market Square, Duns
Cathels, Mildred M. L., M.B., The Manse, Hawick
Cullen, W. L., M.B., St. Boswells
Dalrymple, J. R., M.B., Yetholm
Davidson, S., M.D., Kelso
Dinsmore, G. H. J., M.B., Coldstream
Dixon, C. J. W., M.D., 25, Bridge Street, Hawick, N.B.
Doig, W., M.D., 7, Roxburgh Street, Galashiels
Dunn, W. L., M.B., Yetholm
Evans, R. E., M.D., Newcastleton
Fleming, A. D., M.B., Abbey Row, Kelso
Gunn, C. B., M.D., Lindores, Peebles
Haddon, J., M.D., Denholm
Hamilton, J. R., M.D., Hawick
Henderson, G., M.D., Tweedview, Coldstream
Henderson, Percy J., M.B., 9, Church Street, Galashiels
Hill, W. Hugh, M.D., Bridge Street, Kelso
Johnstone, J. C., M.D., Melrose
Kirkwood, Alexander, M.B., C.M., Peebles
Macdonald, T. R., Lieutenant-Colonel I.M.S. (ret.), Buccleuch Street, Hawick
McDougall, J. N., M.D., Coldingham
Macgregor, D., M.D., Friar Bank, Jedburgh
McKellar, G., M.D., 20, Bowmont Street, Kelso
Mackenzie, J., M.B., Moorlands, Duns
Macvie, S., M.B., Herbertknowe, Chirnside
McWatt, J., M.B., Morelands, Duns
McWhir, James, M.B., Swinton, Duns
Marr, J., M.B., Ivy Lodge, Greenlaw
Meikle, R. W., Esq., Ettrick Lodge, Selkirk
Muir, J. S., M.B., Selkirk
Murray, David, M.B., 39, Bridge Street, Hawick
Oliver, M. J., M.B., Hawthorndene, St. Boswells, N.B.
Renton, D., M.D., Brig.-Surg.-Lt.-Col., A.M.S. (ret.), Chester House, Eyemouth
Rodger, Alex., M.B., Yetholm, Kelso
Rogerson, T., M.B., Gordon
Rutherford, T., M.D., 2, Albany Road, Kelso
Scott, Hon. G. H., M.D., Mertoun House, St. Boswells
Somerville, J. W., M.D., 12, Abbotsford Road, Galashiels
Stevenson, N., M.B., Rutland House, Galashiels
Sturrock, J. P., Esq., Peebles Asylum
Taylor, D. R., Esq., Ayton
Tyrrell, E. M., M.B., Roundtree House, Galashiels
Watson, J. R., M.D., Peebles
Watson, R. H., M.D., Manor Valley Sanatorium, Caverhill, Peebles
Wilson, G. H., M.B., Glencorse House, Peebles
Wilson, J., M.B., Kirkbrae, Selkirk
Young, J., M.B., Earlston

No. 5.—South Edinburgh Division

NUMBERING 127.

Chairman,
Vice-Chairman, A. A. Matheson, M.D., Edinburgh
Honorary Secretary and Treasurer, M. Dewar, M.D., 24, Lauriston Place, Edinburgh
Representative for Representative Meeting.
G. W. S. Paterson, M.B., 147, Bruntsfield Place, Edinburgh

Representative on Branch Council,
Dewar, M., M.D.

Executive Committee.

Cullen, G. M., M.D.	Salt, E. G., Esq.
Gardiner, F., M.D.	Scott, James, M.D.
Kenneay, C., M.D.	Walker, W. O., M.B.
Lundie, R. A., M.B.	Webster, A. D., M.D.
Proudfoot, T., M.B.	

Ainslie, A. C., M.D., 20, Newington Road, Edinburgh
Anklesaria, H. N., Esq., 5, Roseneath Street, Warrender Park, Edinburgh
Arbuckle, H. E., Esq., 28, Marchmont Road, Edinburgh
Armour, E. F., M.B., 6, Bruntsfield Terrace, Edinburgh
Bannerman, W., M.D., 30, Polwarth Terrace, Edinburgh
Baylis, H. M., Esq., 63, Merchiston Crescent, Edinburgh
Beattie, James M., M.D., Pathological Lab., Univ. of Edin.
Bianchi, L. F., Esq., 45, South Clerk Street, Edinburgh
Black, W. G., Surg.-Maj., 2, George Square, Edinburgh
Blaikie, R. H., M.D., 10, Mayfield Gardens, Edinburgh
Bleloch, A., M.B., 26, Gilmore Place, Edinburgh
Bowie, J. M., M.D., 8, Hope Park Crescent, Edinburgh
Boxer, E. A., Esq., 1, Marchhall Crescent, Edinburgh
Bradley, O. C., M.B., 4, Argyll Park Terrace, Edinburgh
Bremner, D. C., M.B., Streatham, Canaan Lane, Edinburgh
Brock, Arthur J., M.D., 2, Comiston Gardens, Edinburgh
Brown, H. G., M.D., 1, Cluny Avenue, Edinburgh
Burns, J. Newton, M.B., 173, Bruntsfield Place, Edinburgh
Burns, W. C., M.B., 173, Bruntsfield Place, Edinburgh
Carmichael, A. N. S., M.B., 6, Morningside Road, Edinburgh
Cathles, J. W., M.B. 16, Mortonhall Road, Edinburgh
Cattanach, J. G., M.B., 3, Alvanley Terrace, Edinburgh
Chisholm, J. A., Esq., 85, Craiglea Drive, Edinburgh
Church, H. M., M.D., 36, George Square, Edinburgh
Clark, A. W. G., M.B., 30, Braid Crescent, Morningside, Edinburgh
Clarke, P. S., M.B., Australasian Club, Edinburgh
Clouston, T. S., M.D., Tipperlinn House, Edinburgh
Copeland, Paula Theodora, M.B., 11, Craighouse Terrace, Edinburgh
Cousland, P. B., Esq., 12, Crawfurd Road, Edinburgh
Craig, W., M.D., 71, Bruntsfield Place, Edinburgh
Cullen, G. M., M.D., 50, Minto Street, Edinburgh
Cumming, J., F.R.C.S.Ed., 20, Gilmore Place, Edinburgh
Darling, T. B., M.D., 13, Merchiston Place, Edinburgh
Darlington, G. D., M.B., 10, Ardmillan Ter., Edinburgh
Davidson, Andrew, M.D., 11, Morningside Place, Edinburgh
Davidson, D. G., M.D., 9, Granville Terrace, Edinburgh
De Spiganovicz, A. J., M.B., 1, Seton Place, Edinburgh
Dewar, M., M.D., 24, Lauriston Place, Edinburgh
Dickie, J. T., L.R.C.P.& S., 37, Lauriston Place, Edinburgh
Dickson, G., M.D., 14, Ardmillan Terrace, Edinburgh
Dixson, D. S., M.B., 23, Newington Road, Edinburgh
Drummond, G., M.B., 46, Clerk Street, Edinburgh
Drummond, G. T., M.B., 1, Gillespie Crescent, Edinburgh
Drummond, W. B., M.B., C.M., 9, Brougham Pl., Edinburgh
Duncan, J. A. H., M.D., 32, Morningside Drive, Edinburgh
Flett, A. D., M.B., 60, George Square, Edinburgh
Fry, E. S., M.B., 56, George Square, Edinburgh
Gairdner, Sir William T., K.C.B., M.D., F.R.S., 32, George Sq. Edinburgh
Galletly, G. W., M.B., 7, Bruntsfield Terrace Edinburgh
Gardiner, F., M.D., 14, Rankeillor Street, Edinburgh
Gibson, J. A., M.D., 12, Comiston Drive, Edinburgh
Goodall, A., M.D., 7, Mayfield Road, Edinburgh
Graham, F. M., Esq., 16, Mayfield Gardens, Edinburgh
Green, J. L., M.B., 16, Mayfield Gardens, Edinburgh
Harley, R. J., M.D., 10, Salisbury Road, Edinburgh
Hutchison, Alice M., M.D., 14, Bruntsfield Gardens, Edinburgh
Jamieson, Hugh, M.D., 13, Lauriston Place, Edinburgh
Jamieson, J. Boyd, M.D., 43, George Square, Edinburgh
Johnston, R. J., M.B., 1, Buccleuch Place, Edinburgh
Kenn, A. H., M.B., 14, Viewforth, Edinburgh
Kennedy, Charles, M.D., 5, Salisbury Road, Edinburgh
Ker, C. B., M.D., City Hospital, Edinburgh
Lundie, R. A., M.B., 55A, Grange Road, Edinburgh
Lyon, Geo., M.D., Pathology Laboratory, University Edinburgh
McDonald, Alex., M.B., 42, Polwarth Terrace, Edinburgh
McDonald, A. M., M.B., 108, Gilmore Place, Edinburgh
McDonald, S., M.B., 40, Thirlestane Road, Edinburgh
Mackay, G., M.B., 74, Bruntsfield Place, Edinburgh
McIntosh, J. W., M.B., 6, Church Hill, Edinburgh
McLaren, Agnes, M.D., Bruntsfield Lodge, Edinburgh
McLaren, J., M.B., 39, Lauriston Place, Edinburgh
McRae, G. D., M.B., Royal Asylum, Morningside, Edinb'gh
Matheson, A. A., M.D., 41, George Square, Edinburgh
Mears, Isabella, L.R.C.P.I., Woodburn, Edinburgh
Meikle, J. H., M.B., 40, Morningside Drive, Edinburgh
Menzies, Mary J., M.B. (address uncommunicated)
Middleton, R. W., M.B., 132, Bruntsfield Place, Edinburgh
Milne, W. M., M.B., 14, Newington Road, Edinburgh
Mowat, J., M.D., 6, Buccleuch Place, Edinburgh
Mowat, James, M.B. 1, Minto Street, Edinburgh
Orr, John, M.D., F.R.C.P., 1, Rillbank Crescent, Edinburgh
Orr, Wm. B., M.D., 13, Braid Road, South Morningside
Paterson, G. W. S., M.B., 147, Bruntsfield Place, Edinburgh
Paterson, J. V., M.B., 5, Castle Terrace, Edinburgh
Paton, D. N., M.D., 2, Forrest Road, Edinburgh
Pearse, P. S., Esq., 10, Meadow Place, Edinburgh
Pirie, John, M.B., 15, Ardmillan Terrace, Edinburgh
Porter, F., M.B., 65, Morningside Road, Edinburgh
Potts, George, Esq., 5, Keir Street, Edinburgh
Price, A. W. G., M.B., 9, Grange Road, Edinburgh
Proudfoot, T., M.B., 30, Lauriston Place, Edinburgh
Ritchie, L. C. Peel, M.B., 13, Castle Terrace, Edinburgh
Robertson, R. M., M.B., 53, Bruntsfield Place, Edinburgh
Robertson, W. F., M.D., 9, Priestfield Road, Edinburgh
Robertson, W. G. A., M.D., 26, Minto Street, Edinburgh
Ronaldson, R. M., M.D., 17, Morningside Road, Edinburgh
Ross, A. Aitken, M.B., 8, Newington Road, Edinburgh
Russell, Sir James A., M.B., Canaan Lane, Edinburgh
Rutherford, J. M., M.B., Craig House, Morningside, Edin.
Salt, E. G., Esq., 59, George Square, Edinburgh
Schäfer, Prof. E. A., F.R.S., University, Edinburgh
Scott, James, M.D., 43, Minto Street, Edinburgh
Shennan, T., M.D., 35, Mayfield Road, Edinburgh
Sillar, W. C., M.B., 46, George Square, Edinburgh
Simpson, J. W., M.B., 15, Granville Terrace, Edinburgh
Smith, J., M.B., 43, Cluny Drive, Morningside, Edinboro'
Stevens, J., M.D., 2, Shandon Street, Edinburgh
Stewart, J. S., Esq., 15, Merchiston Place, Edinburgh
Stewart, Robert, M.B., 42, George Square, Edinburgh
Taylor, Frances H. A., 67, Murchiston Crescent, Edinburgh
Teacher, C. C., M.B., 8, Nile Grove, Edinburgh
Thomson, T. J., M.D., 31, Morningside Rd., Edinburgh
Thomson, T. L., M.B., 33, Morningside Road, Edinburgh
Tuke, Sir J. Batty, M.D., Balgreen, Gorgie, Edinburgh
Turnbull, H. M., M.B., 18, Whitehouse Loan, Edinburgh
Turner, D. F. D., M.D., 37, George Square, Edinburgh
Veitch, A., M.B., 12, Gilmore Place, Edinburgh
Venters, Isabel, M.B., 6, Archibald Place, Edinburgh
Walker, W. O., M.B., 112, Gilmore Place, Edinburgh
Waterston, David, M.D., 23, Colinton Road, Edinburgh
Watt, N. B., M.B., 6, Merchiston Avenue, Edinburgh
Webster, A. D., M.D., 5, Blacket Avenue, Edinburgh
Whitaker, J. R., M.B., 8, Bruntsfield Crescent, Edinburgh
Whyte, James C., M.D., Stonefield House, Canaan Lane, Edinburgh
Wilson, J. L., Esq., 4, Buccleuch Place, Edinburgh
Yearsley, J. H., Esq., 199, Bruntsfield Place, Edinburgh
Yeates, Thomas, M.D., 157, Dalkeith Road, Edinburgh

FIFE BRANCH

Comprising the County of FIFE.

Members of Branch–79.

President, H. D. HAY, M.B., Leslie

President-elect, JOHN AITKEN, M.D., Buckhaven

Past-Presidents.
ROBERT SPENCE, M.B., Burntisland
T. G. NASMYTH, M.D., D.Sc., Cupar

Honorary Secretary and Treasurer.
R. BALFOUR GRAHAM, F.R.C.S.E., D.P.H., Seaview House, Leven

Representatives on Council of Association.
R. McKenzie Johnston, M.D., Edinburgh
Norman Walker, M.D., Edinburgh

Representative for Representative Meeting.
John Aitken, M.D., Buckhaven

Branch Council.
Craig, Wm., M.D.
Dickson, D. E., M.B.
Douglas, C. E., M.D., F.R.C.S.E.
Dow, W. B., M.D.
Laing, H. W., M.D., Kirkcaldy
Orr, J., M.B., Tayport
Richardson, Hugh, M.B.,

Associate Member, J. Mungle, Esq., Kinross

Aitken, John, M.D., Buckhaven
Anderson, Norman W., M.D., Strathmiglo
Andrew, Robert, M.B., Bridgend Cot., Windygates
Bell, James B., M.B., St. Margaret's, Lundin Links
Bow, M. R., M.B., Breakwater House, Elie
Bowman, L., M.B., Craigderran, Cardenden
Bryson, L. H., M.B., Wardlaw Gardens, St. Andrews
Carment, A. G., M.B., Kelty
Caskie, Jas., M.B., Methil
Constable, J., M.D., Leuchars
Craig, William, M.D., Woodside House, Cowdenbeath
Curror, A. L., M.B., Newton House, Kirkcaldy
Dalgleish, J., M.B., Dunfermline
Dawson, J. Maxwell, M.B., Buckhaven
Dickson, D. E., M.B., Hillcrest, Lochgelly
Dickson, Margaret S., M.B., St. Kildas, Rathelpie, St. Andrews
Dickson, W. A., M.B., Crosshill, Lochgelly
Donald, J. Q., Esq., Lathallan House, Colinsburgh
Douglas, C. E., M.D., Winthank House, Cupar
Dow, D. R., M.D., Crail
Dow, W. B., M.D., Dunfermline
Ferguson, R. T., M.D., Anstruther
Fleming, J. F., M.B., Dunsloy, Dunfermline
Gold, David D., M.D., Markinch
Graham, R. Balfour, F.R.C.S.Ed., Seaview House, Leven
Hay, H. D., M.B., Leslie
Henderson, W. E., M.B., Kirkcaldy
Hunter, R. H., Esq., Pleasance, Leven
Hunter, T. R., Esq., Cardenden
Jack, John G., M.B., Canonbury, Falkland
Jamieson, J. W. M., M.B., 1, Ellice Place, St. Andrews
Kyle, D. H., M.B., The Links, St. Andrews
Laing, H. W., M.D., Kirkcaldy
Lee, C. N., M.B., Viewfield Place Dunfermline
Macdiarmid, R. C., M.D., Crosshill, Lochgelly
Macdonald, G., Esq., Markinch
Macdonald, John, M.B., Marathon House, Cupar
McFarlane, W. M., M.B., Station Road, Lochgelly
MacGregor, D. R., M.B., Denbeath by Methil
McIntosh, G. W., M.B., 23, Townsend Place, Kirkcaldy
Mackay, J. S., M.D., Kirkcaldy
McKendrick, A., Esq., 120, High Street, Kirkcaldy
Mackenzie, W. H., M.D., Thornton
Maclaren, J. D., M.D., Dunreggan, Elie
Macnab, J. C. G., M.B., The Towers, Dysar
Mactier, W. B., M.B., 7, Queen's Gardens, St. Andrew
Malloch, J. T., Esq., Seaforth House, Elie
Moir, A. R., M.B., Kelty
Moir, J. W., M.D., 15, Howard Place, St. Andrews
Morris, J., F.F.P.S.G., Dumfermline
Mudie, R. F., M.B., Kinloch Street, Ladybank
Murray, Peter, M.B., Durie Street, Leven
Musgrove, Professor James, M.D., University St. Andrews
Nasmyth, T. G., M.D., Cupar
Nasmyth, W. R., M.D., Crossgates
Orr, J., M.B., 3, Alexander Place, St. Andrews
Orr, J., M.B., Tayport
Orr, Robert, M.B., Ceres
Palm, W. S., M.B., St. Leonards, Upper Largo
Paton, J. H. P., M.B., 15, Greyfriars Garden, St. Andrews
Pentland-Smith, A. L., M.B., St. Regulus, Elie
Philp, W., M.B., Inverkeithing
Pirie, R. J., Esq., Murrayfield, Pittenween
Proudfoot, R. B., M.D., Pathhead, Kirkcaldy
Richardson, Hugh, M.B., 8, Playfair Terr., St. Andrews
Selkirk, Alex., M.B., Cowdenbeath
Shearer, A., M.B., Cameron House, Auchtermuchty
Smith, J., M.D., Kirkcaldy
Sneddon, W., M.B., 58, Bonnygate, Cupar
Spence, R., M.B., Burntisland
Stewart, John, Esq., Newport
Stewart, T. P., M.D., Newport
Stooke, G. F., Esq., 22, Woodhead Street, Dunfermline
Sturrock, P. S., M.B., Canmore Street, Dunfermline
Turnbull, A. R., M.B., District Asylum, Cupar
Veitch, A., M.B., William Street, Tayport
Watson, A. E., M.B., East Wemyss
Wight, A. R., M.B., Woodmancott, Leslie
Wilson, J. J., M.D., Anstruther

GLASGOW AND WEST OF SCOTLAND BRANCH.

Comprising the Counties of AYR, RENFREW, LANARK DUMBARTON ARGYLL, and the ISLES.

Members of Branch–679.

RECOGNISED 1876.

President, JOHN MACINTYRE, M.B., Glasgow
President-elect, J. LINDSAY, M.D., Kirkmuirhill

Vice-Presidents,
E. DUNCAN, M.D., Glasgow
JOHN C. MCVAIL, M. D., Glasgow

Honorary Secretaries.
J. H. NICOLL, M.B., 4, Woodside Place, Glasgow
JAMES HAMILTON, M.B., 1, R'l Crescent, Crosshill, Glasgow

Representatives on Council of Association.
Bruce Goff, M.D., Bothwell
James Hamilton, M.B., Glasgow

Branch Council.
Andrew, J. Grant, M.B.
Caskie, W. A., M.D.
Cook, W. S., M.B.
Frew, W., M.D.
Hunter, J. Ewing, M.B.
London, J. L., M.D.
Millar, J., M.B.
Miller, A., Esq.
Patrick, John, M.B.
Penman, R. S., M.B.
Prentice, A., M.B.
Semple, M., M.B.
Sewell, W. R., M.D.
Stewart, John, M.D.
Stockman, Ralph, M.D.
Whitehouse, H., M.B.

No. 1.–Ayrshire Division

NUMBERING 63.

Chairman, W. Frew, M.D., Kilmarnock
Vice-Chairman, W. F. Brown, M.B., Ayr
Honorary Secretary and Treasurer, A. Prentice, M.B., Dundonald Road, Kilmarnock

Representative for Representative Meeting.
J. Rankin, Esq., 18, Dundonald Road, Kilmarnock

Representatives on Branch Council.
Frew, W., M.D.
Prentice, A., M.B.

Aird, A. W., M.B., Newmilns, Ayrshire
Aitken, John, M.D., Struan Villas, Kilmarnock
Allan, John, M.D., Clydeview, Ardrossan
Allan, R., M.D., 1, Arran Place, Ardrossan
Anderson, M. S., M.D., Glengarnock
Barron, A. C., M.D., Woodbank House, Dailly
Baxter, W., M.D., Old Nance, Hurlford
Beveridge, J., M.B., Hurlford
Black, F. M., Esq., Mauchline
Brown, W. F., M.B., 27, Eglinton Terrace, Ayr
Brown, W. M., M.B., Town End House, Dalry
Burns, J. R., M.B., 8, Barnes Street, Ayr
Burns, Samuel, M.B., 48, Park Circus, Ayr
Carruthers, D., Esq., Caird House, Muirkirk
Cunningham, J., M.B., Brae House, Stewarton
Easterbrook, C. C., M.D., Glengall, Ayr
Frew, W., M.D., "Walmer," Kilmarnock
Gairdner, E. D., M.B., 6, Wellington Square, Ayr
Gavin, A. T., M.B., Dunaskin-by-Ayr
Gow, A., M.D., Ryesholm, Beith
Girvan, R., Esq., Maybole, N.B.
Hanson, George, M.B., Springburn, New Cumnock
Hewitt, W., M.B., Prestwick
Kerr, J. G., M.B., Stepends, Old Cumnock
Kirkwood, W. A., M.B., Barrhill
Kyle, D., M.B., 11, Barns Street, Ayr
Lambie, James, M.B., Kilwinning, N.B.
McCaig, James, M.B., Ardeer, Kilmarnock
Macdonald, C. R., M.D., Ardantrae, Ayr
MacDougall, A., M.B., Girvan
Macfarlane, W., M.D., Carrick House, Maybole
McKerrow, G., M.B., 7, Barns Street, Ayr
Mackintosh, H. J., M.B., 11, Portland Terrace, Troon
Macrae, Alex. M., M.B., Bonnyton House, Drougan
Marshall, T. B., M.B., Irondall House, Muirkirk
Milroy, J., Esq., Kilbirnie
Mitchell, J., M.D., 12, Wellington Square, Ayr
More, R., M.B., West Kilbride
Morton, R. A., M.D., 3, Wellington Square, Ayr
Muir, J., M.B., Huntershill House, Kilmarnock
Muir, W., M.B., Brownlea, Mauchline
Munro, Alex., M.B., Mansfield, Kilmaurs
Prentice, A., M.B., Dundonald Road, Kilmarnock
Reid, J. C., Esq., Fenwick, Kilmarnock
Revie, Archibald, M.B., Calcutta Lodge, Kilmarnock
Richards, C. B., Esq., Prestwick, Ayr
Roberts, H. M., Esq., Kalimna, Stevenston
Robertson, J., M.B., Dounbank, Patna by-Ayr
Robertson, R. C., M.B., Holmhead, Kilmarnock
Roxburgh, W., M.D., Carrick House, Troon
Sandilands, John, M.D., Highgate Mill, Lugton
Sinclair, John, M.B., Stevenston
Sloan, John, M.B., Heathfield, Troon
Smith, H. B., M.B., Dundonald
Sneddon, W., M.D., Beith
Stewart, John, M.B., Beith
Taylor, J. Craik, M.B., Rosendaal, Stewarton
Thomson, J., M.D., Irvine
Watt, J. R., M.B., 6, Wellington Square, Ayr
White, Alexander, M.B., 2, Randolph Terrace, Ayr
Wilson, W., M.D., Irvine
Wylie, John, M.B., Allan Hill, Kilmarnock
Young, A., M.B., 18, Barns Street, Ayr

No. 2.–Dumbartonshire and Argyllshire Division

NUMBERING 53.

Chairman, W. R. Sewell, M.D., Helensburgh
Vice-Chairman,
Honorary Secretary, J. Ewing Hunter, M.B., Duncairn, Helensburgh

Representative for Representative Meeting.
J. Ewing Hunter, M.B., Duncairn, Helensburgh

Representatives on Branch Council.
Hunter, J. Ewing, M.B.
Sewell, W. R., M.D.

Allan, Richard, Esq., Glenfield, Glasgow Road, Dumbarton
Alexander, L. D., M.D., Kilcreggan
Baily, F., M.B., Victoria Crescent, Oban
Banks, J., M.B., Redhurst, Dunoon
Brown, J. F. Cullen, M.B., Overton Park, Alexandria
Cameron, J., M.D., Bute Asylum, Lochgilphead
Cameron, J. A., M.B., Lagganbie, Dalmally
Cameron, J. M., M.B., Glenlee, Dalmuir
Carmichael, D., M.B., Tarbert, Loch Fyne
Cottell, A. B., Lieut.-Col. R.A.M.C., Barrs, Taynuilt
Cramb, E. H., M.B., Ellyer Holm, Radnor Park
Cullen, J. R. F., M.D., Rowanlea, Alexandria, N.B.
Cumming, J. S., M.D., The Laurels, Kirn
Duff, J. B., M.D., Glencairn, Helensburgh
Gilmour, John, M.B., The Craigs, Duntocher
Gilmour, T. F., Esq., Port Ellen, Islay
Grant, L., M.D., Ballachulish Quarries
Henderson, A. E., M.B., Ballymeanoch, Lochgilphead
Henderson, G., Esq., Douglas Park, Kirn
Hunter, J. Ewing, M.B., Duncairn, Helensburgh
Hunter, J., M.B., Corran, Lochgilphead
Little, W., M.D., 21, High Street, Dumbarton
McCallum, N., M.B., Strachur
M'Calman, D., M.D., Oban, N.B.
Macdonald, Duncan, M.B., 21, Argyle Square, Oban
McDonald, D., M.B., Kyles of Bute
McEwan, J., M.B., Braeside, Helensburgh
McGregor, J. F., M.D., Aline Park, Morvern, R.S.O.
McGregor, P. W., Esq., Old Kilpatrick
McIntyre, J., Esq., Salen, Aros, Mull
Mackay, A., M.D., Port Appin
MacLachlan, D., Esq., Ballinaby, Bridgend, Islay
McLachlan, W. A., M.D., Vale View, Dumbarton
McLelland, A., M.B., Ardenlee, Alexandria
McNeill, R., M.D., Co. Med. Officer, Oban
MacNicol, R. R., M.B., Taynuilt
McRitchie, Peter, M.B., Dunivard, Garelochhead
Maxwell, J., M.D., Tobermory
Oastler, J., M.D., Ericstane, Helensburgh
Reid, R. D., Esq., Easterton, Helensburgh
Robertson, John, M.D., Benview, Dumbarton
Scott, J. G. C., M.B., Avandale, Dunolly Road, Oban, N.B.
Sewell, W. R., M.D., Rosemount, Helensburgh
Sinclair, H., Esq., Millport
Stevenson, J., M.B., Clydebank
Stewart, James, Esq., Inveraray
Stewart, John, Esq., East Bay, Dunoon
Strang, T. M., Esq., 2, Rosebery Place, Clydebank
Wilson, Allan, M.D., Ardrishaig
Wilson, A. C., M.D., Dunoran, Renton
Wilson, J., Esq., Ashville, Dumbarton
Wilson, T. L., Esq., Alexandria, N.B.
Young, Wm. Semple, M.D., Craigellachie, Helensburgh

No. 3.–Glasgow Central Division

NUMBERING 125.

Chairman J. W. Allan, M.B., 18, India Street, Glasgow
Vice-Chairman, Professor Ralph Stockman, M.D., 16, Newton Terrace, Glasgow
Honorary Secretary, J. Grant Andrew, M.B., 12, Woodside Terrace, Glasgow, W.

Representative for Representative Meeting.
J. Grant Andrew, M.B., 12, Woodside Terrace, Glasgow, W

Representatives on Branch Council.
Andrew, J. Grant, M.B.
Stockman, Ralph, M.D.

Executive Committee.
Adams, John, M.B.
Grant, P. N., M.B.
Hunter, W. K., M.D.
Jardine, R., M.D.
Russell, A. W., M.B.
Wallace, W., M.B.

Adams, F. V., Esq., 10, Queen's Crescent, Glasgow
Adams, J. A., M.D., 5, Woodside Crescent, Glasgow
Adams, John, M.B., 1, Queen's Crescent, Glasgow
Adam, T. B., Esq., 17, Newton Street, Glasgow
Alexander, John, M.D., 3, Queen's Crescent, Glasgow
Allan, J. W., M.B., 18, India Street, Glasgow
Allen, Wm., M.B., 4, Newton Terrace, Charing Cross Glasgow, W.
Anderson, W. D., Esq., 8, Somerset Place, Glasgow, W.
Andrew, J. Grant, M.B., 12, Woodside Ter., Glasgow
Ballantyne, A. J., M.D., 11, Sandyford Place, Glasgow
Barr, T., M.B., 13, Woodside Place, Glasgow
Beatson, G. T., M.D., 7, Woodside Crescent, Glasgow
Boyd, J. P., M.B., 2, Newton Terrace, Glasgow
Buchanan, A. McG., M.D., 13, Berkeley Terrace, Glasgow
Burns, J., Esq., 15, Fitzroy Place, Glasgow
Cameron, Sir Hector C., M.D., 200, Bath Street, Glasgow
Cameron, M., M.D., 7, Newton Terrace, Glasgow
Cameron, S. J., M.B., 13, Sandyford Place, Glasgow
Carslaw, James, M.B., 6, Woodside Crescent, Glasgow
Carswell, John, Esq., 5, Royal Crescent, W., Glasgow
Cassells, A. H., M.B., 34, Gray St., Overnewton, Glasgow
Christie, D., M.B., 12, Derby Terrace, Sandyford, Glasgow
Christie, J. C., Esq., 3, Gray Street, Glasgow
Clark, H. E. C.M.G., 24, India Street, Glasgow
Colquhoun, W., M.B., 7, Stanley Street, Glasgow, W.
Crawford, R., M.D., 16, Queen's Crescent, Glasgow
Currie, R. K., M.B., 294, Bath Street, Glasgow
Dalziel, T. K., M.B., 196, Bath Street, Glasgow
Dewar, D., McK., M.B., 12, W. Princes Street, Glasgow
Dougan, W., M.D., 2, Sandyford Place, Glasgow
Douglas, C. C., M.D., 2, Royal Crescent, Glasgow
Downie, J. W., M.B., 4, Woodside Crescent, Glasgow
Dun, W. G., M.D., 15, Royal Crescent, Glasgow
Dunlop, J., M.D., 1, Somerset Place, Glasgow
Edgar, John, M.B., 5, Clairmont Gardens, Glasgow, W.
Edington, G. H., M.D., 20, Woodside Place, Glasgow, W.
Erskine, J., M.B., 351, Bath Street, Glasgow
Fergus, F., M.D., 22, Blythswood Square, Glasgow
Fergus, J., M.D., 12, Sandyford Place, Glasgow
Ferguson, D., M.B., 23, Berkeley Terrace, Glasgow
Finlayson, J., M.D., 2, Woodside Place, Glasgow
Fullarton, R., M.B., 276, Bath Street, Glasgow
Fullerton, R., M.D., 24, Newton Place, Glasgow
Fyfe, David, Esq., 7, Fitzroy Pl., Sauchiehall St., Glasgow
Gemmell, S., M.D., 17, Woodside Place, Glasgow
Gilchrist, John, Esq., 316, Bath Street, Glasgow
Glaister, Prof. J., M.D., 3, Newton Place, Glasgow
Grant, P. N., M.B., 300, Bath Street, Glasgow
Gray, A. A., M.D., 14, Newton Terrace. Glasgow
Halket, G., M.D., 4, Royal Crescent, West Glasgow
Henderson, John, M.D., 923, Sauchiehall Street, Glasgow
Henderson, R. H., Esq., 19, Elmbank Crescent, Glasgow
Hinshelwood, J., M.D., 26, Woodside Place, W. Glasgow
Holmes, T., Esq., 6, Derby Terrace. Sandyford, Glasgow
Hunter, W. K., M.D., 7, Woodside Place, Glasgow
Jardine, R., M.D., 20, Royal Crescent, Glasgow, W.
Kennedy, R., M.D., 298, Bath Street, Glasgow
Kelly, A. B., M.D., 26, Blythswood Square, Glasgow
Kerr, J. M. M., M.B., 7, Clairmont Gardens, Glasgow
Knox, D. N., M.B., 10, Woodside Place, Glasgow
Lees, R. C., M.B., 1, Woodside Place, Glasgow
Lindsay, J., M.D., 44, Grant Street, Hillhead, Glasgow
McBryde, Peter, M.B., 18, Queen's Crescent, Glasgow, W.
McConville, J., M.D., 14, Parkgrove Terrace, Glasgow, W.
Macewen, Sir William, M.D., 3, Woodside Cres., Glasgow
Macfarlane, W. D., jun., M.B., 141, St. Vincent Street, Glasgow
McGregor, A. N., M.D., 14, Woodside Place, Glasgow
Macintyre, John, M.B., 179, Bath Street, Glasgow
McLachlan, L., M.B., 2, West Garden Street, Glasgow
McLaren, Alice Janet, M.D., 7, Newton Place, Glasgow
McLellan, A. N., M.B., 14, Somerset Place, Glasgow
MacLennan, A., M.B., 16, Sandyford Place, Glasgow
McLennan, Q., M.B., 191, Pitt Street, Glasgow
MacLeod, A. A., M.B., 17, Newton Terrace, Glasgow
Marshall, G. B., M.D., 19, Sandyford Place, Glasgow
Maylard, A. E., M.B., 12, Blythswood Square, Glasgow
Meighan, T. S., M.D., 37, Elmbank Crescent, Glasgow
Moffatt, D., M.B., 11, Walworth Terrace, Glasgow
Montgomery, A. N., M.D., 1, Ardgowan Terrace, Glasgow, W.
Monro, T. K., M.D., 12, Somerset, Place, Glasgow
Morton, A., M.D., 5, Woodside Place, Glasgow
Moyes, A., M.B., 25, West Princes Street, Glasgow
Neill, W. G., M.B., 18, West Princes Street, Glasgow
Ness, R. B., M.B., 19, Woodside Place, Glasgow
Newman, D., M.D., 28, Woodside Place, Glasgow
Nicoll, J. H., M.B., 4, Woodside Place, Glasgow
Oliphant, E. H. L., M.D., 23, Newton Place, Glasgow
Pace, Elizabeth Margaret, M.D., 7, Newton Place, Glasgow
Parry, R. H., Esq., 25, Blythswood Square, Glasgow
Paterson, J., M.D., 27, Berkeley Terrace, Glasgow
Perry, R., M.D., 11, Queen's Terrace, Glasgow
Pirie, J., M.D., 15, Newton Place, Glasgow
Pringle, J. H., M.B., 172, Bath Street, Glasgow
Ramsay, A. M., M.D., 15, Woodside Place, Glasgow
Ramsay, R., M.B., 9, Burnbank Terrace, Glasgow
Reid, A. F., Esq., 74, Cambridge Street, Glasgow
Reid, T., M.D., Elmbank Street, Glasgow
Reid, W. L., M.D., 7, Royal Crescent, Glasgow
Renton, J. C., M.D., 1, Woodside Terrace, Glasgow
Riddell, B., M.D., 23, Sandyford Place, Glasgow
Riddell, James R., Esq., 26, Elmbank Crescent, Glasgow
Ritchie, W., M.B., 327, St. George's Road, Glasgow
Robertson, A., M.D., 11, Woodside Crescent, Glasgow
Robertson Fullarton, A. L. F., M.B., 201, Bath St., Glasgow
Rowan, John, M.B., 10, Woodside Crescent, Glasgow
Russell, A. W., M.B., 11, Royal Crescent, Glasgow
Rutherfurd, H., M.B., 3, Royal Terrace, Glasgow
Scott, A., M.D., 12, Newton Place, Charing Cross W., Glasgow
Sloan, A., M.B., 21, Elm Bank Street, Glasgow
Sloan, S., M.D., 5, Somerset Place, Glasgow
Stark, J. N., M.D., 4, Newton Place, Glasgow
Steven, J. L., M.D., 16, Woodside Place, Glasgow
Stockman, Professor Ralph, M.D., 16, Newton Ter., Glasgow
Syme, W. S., M.D., 40, Elmbank Crescent, Glasgow
Tennent, G. P., M.D., 159, Bath Street, Glasgow
Thomson, H. W., M.D., 3, Sandyford Place, Glasgow
Thomson, W. E. F., M.D., 2, Somerset Place, Glasgow
Wallace, W., M.B., 25, Newton Place, Glasgow
Weir, R., M.B., 6, Corunna Street, Glasgow
Wilson, A., M.D., 1, Newton Terrace, Glasgow
Workman, C., M.D., 5, Woodside Terrace, Glasgow
Wright, J., M.B., 23, Westminster Terrace, Glasgow
Wright, W., M.B., 23, Westminster Terrace, W. Glasgow
Young, Archibald, M.B., 34, Berkeley Terrace, Glasgow
Young, A. A., M.B., 2, Woodside Terrace, Glasgow

No. 4.—Glasgow Eastern Division

NUMBERING 77.

Chairman, W. L. Muir, Esq., 1, Seton Terrace, Dennistoun

Vice-Chairman, R. McC. Service, M.D., Dennistoun

Honorary Secretary and Treasurer, John Patrick, M.B., 23, Westercraigs, Dennistoun

Representative for Representative Meeting.

W. L. Muir, Esq., 1, Seton Terrace, Dennistoun, Glasgow

Representatives on Branch Council.

Patrick, J., M.B.,
Semple, M., M.B.

Executive Committee.

Armstrong, W. B., M.B.
Black, M., M.D.
Bryce, W., M.D.
Buchanan, P. S., M.B.
Findlay, W., M.D.
Marr, H. C., M.D.
Munro, Alex., M.B.
Scott, Robert, M.B.
Whitelaw, W., M.D.

Anderson, J. W., M.D., 1, Annfield Place, Dennistoun
Anderson, R., M.B., Hazeldene, Shettleston, Glasgow
Armstrong, W. B., M.B., Lenzie, nr. Glasgow
Barras, T. C., M.B., 7, Bellgrove Street, Glasgow
Battersby, J., Esq., Parkhead Cross, Glasgow, E.
Bell, J. H. M., M.B., Royal Infirmary, Glasgow
Black, M., M.D., 5, Canning Place, Glasgow
Blakeley, W. T., M.B., Kirkintilloch, Glasgow
Brownlee, J., M.B., Fever Hospital, Belvedere, Glasgow
Bryce, W., M.D., 686, Gallowgate Street, Glasgow
Buchanan, P. S., M.B., 20, Circus Drive, Dennistoun, Glasg.
Buchanan, W., M.B., 1, Craigpark Terrace, Dennistoun
Burns, W. A., M.B., 102, Main Street, Bridgeton, Glasgow
Campbell, A. C., Esq., 114, Montrose Street, Glasgow
Campbell, Wm., M.B., 143, Balgray Hill, Springburn, Glasgow
Capie, S., M.B., 287, Duke Street, Glasgow
Core, W., M.D., Stobhill Hospital, Glasgow
Cosgrove, Henry J., Esq., Springfield, Parkhead, Glasgow
Couper, D., M.D., Oakley Terrace, Dennistoun
Craig, James, Esq., 11, Annfield Place, Dennistoun
Cullen, W., M.D., 9, Grafton Place, Glasgow
Davidson, R., M.B., Shettleston
Dunlop, James, M.B., 3, Seton Terrace, Dennistoun, Glasg.
Findlay, J. W., M.D., 19, Westercraigs, Dennistoun, Glasg.
Findlay, W., M.D., 67, George Street, Glasgow
Fletcher, T., McGibbin, M.B. 26, Canning Street, Glasgow
Fraser, John, M.D., Kilsyth, near Glasgow
Glaister, J. N., M.B., 4, Grafton Pl., Grafton Sq., Glagow
Granger, J. P., Esq., 25, Monteith Row, Glasgow
Greenhill, R., M.B., 556, Dalmarnock Road, Glasgow
Jeffery, W., M.D., Kilsyth, Glasgow
Johnston, J. McC., M.D., Eastern District Hospital, Duke Street, Glasgow
Kenyon, P., M.B., 796, Springburn Road, Glasgow
Lamont, Alex., M.B., Esslemont, Chryston, near Glasgow
Lang, J. M. D., M.B., 2, Bellgrove Street, Glasgow
Love, D.J., M.B., Cumbernauld, Glasgow
McFarlane W., M.B., 2, Morris Place, Glasgow
McIntyre, J. P., M.D., 94, North Frederick Street, Glasgow
McKail, D., M.B., 10, Binnie Place, Glasgow
McKie, J., M.B., 26, Hillside Street, Springburn, Glasgow
McLean, C. R., Esq., 12, Annfield Pl. Dennistoun, Glasgow
McLean, Sam., M.B., 13, Armadale Street, Dennistoun
Marr, H. C., M.D., Woodilee Asylum, Lenzie
Martin, John, M.B., Middlefield, Lenzie
Martin, Matthew, M.B., 737, Gallowgate, Glasgow
Mathie, J. W., M.B., 33, Monteith Row, Glasgow
Miller, J. B., M.B., Lillybank, Bishopsbriggs, near Glasgow
Morton, Robert, M.B., 723, London Rd., Bridgeton, Glasgow
Muir, John, M.B. 10, Newhall Terrace, Bridgeton, Glasgow
Muir, W. L., Esq., 1, Seton Terrace, Dennistoun, Glasgow
Munro, Alex., M.B., 12, Seton Terrace, Dennistoun
Murdoch, Alex. M., M.D., 388, Abercromby St., Glasgow
Neilson, A., Esq., 10, Somerville Place, Glasgow
Parker, W. A., M.B., Gartloch Asylum, Gartcosh
Patrick, J., M.B., 23, Westercraigs, Dennistoun, Glasgow
Patrick, W., M.D., 143, Greenhead St., Bridgeton, Glasgow
Philip, James, M.B., 1, Whitehill Gardens, Dennistoun
Porter, John, M.B., 253, Gallowgate, Glasgow
Ramsay, J. McAllister, Esq., Parkhead Cross, Glasgow
Rankin, Peter, M.B., 14, George Street, Glasgow
Ross, Alex., Esq., Muirhead House, Muirhead, Chryston
Russell, T., M.B., 47, Westmuir Street, Parkhead, Glasgow
Scott, Robert, M.B., 52, Hillside Terrace, Springburn
Semple, M., M.B., 183, Castle Street, Glasgow
Service, R. McC., M.D., 13, Annfield Pl., Dennistoun, Glasgow
Sinclair, W. J. H., M.B., Barlinnie General Prison, near Glasgow
Smith, J. T., M.B., 56, Whitevale Street, Glasgow
Stewart, J. B., M.B., Wellington Place, Kirkintilloch
Syson, J. C., M.D., 104, Bellgrove Street, Glasgow
Thom, J. M., M.B., Royal Infirmary, Glasgow
Thomas, D., M.D., Carmyle Avenue, Tollcross, Glasgow
Valentine, Leslie, M.B., 18, Whitehill St., Dennistoun, Glas.
Whitelaw, R. G., Esq., Victoria Place, Kirkintilloch
Whitelaw, W., M.D., Kirkintilloch
Wilson, J., M.D., 38, Monteith Row, Glasgow
Wilson, W. McK., M.B., 30, Grafton Square, Glasgow
Wright, E., Esq., 123, Moncur Street, Glasgow

No. 5.—Glasgow North-Western Division

NUMBERING 113.

Chairman, W. A. Caskie, M.D., 1, Beechwood Drive, Jordanhill

Vice-Chairman, J. S. Muir, M.B., Possilpark, Glasgow

Honorary Secretary, H. Whitehouse, M.B., 7, Lindsay Terrace, Dowanhill

Representative for Representative Meeting.

H. Whitehouse, M.B., 7, Lindsay Terrace, Dowanhill

Representatives on Branch Council.

Caskie, W. A., M.D.
Whitehouse, H., M.B.

Adamson, R. O., M.D., 15, Grosvenor Crescent, Dowanhill
Alexander, S., M.D., 51, Hamilton Terrace, Partick, Glasgow
Anderson, J. B. M., M.B., 8, Buckingham Ter., Glasgow, W.
Anderson, Sir T. McCall, M.D., The University, Glasgow
Anderson, W. K., M.B., 3, Ashton Ter., Hillhead, Glasgow
Baird, J., M.B., 3, Wilton Gardens, Kelvinside, N. Glasgow
Bannatyne, C., M.B., 138, Cambridge Drive, Kelvinside, N.
Brown, G. A., M.B., 180, Hyndland Road, Partick, Glasgow
Brown, T. D., M.D., 12, Highburgh Terrace, Dowanhill Glasgow
Browning, C. H., M.B., 128, Byres Road, Glasgow
Bruce, R. W., Esq., 65, Waverley Terrace, Glasgow
Bryce, T. H., M.D., 2, Granby Terrace, Glasgow, W.
Buchanan, G. B., M.B., 13, Buckingham Terrace, Glasgow
Buchanan, R. M., M.B., 2, Northbank Terrace, Glasgow
Campbell, A. T., M.B., 48, Belmont Gardens, Hillhead, Glas.
Campbell, G., M.B., 14, Hamilton Crescent, Partick
Campbell, J. H., M.B., 38, Clarence Drive, Glasgow, W.
Campbell, M., M.B., 6, Wilton Gardens, Glasgow
Caskie, W. A., M.D., 1, Beechwood Drive, Jordanhill, Glasgow
Chalmers, Archibald K., M.D., 7, Buckingham Terrace, Hillhead, Glasgow
Chalmers, Quintin, M.D., 14, Kew Tce., Kelvinside, Glasg.
Charteris, F. J., M.B., 400, Great Western Road, Glasgow
Christie, W. W., M.D., 5, Albion Street, Dowanhill, Glasgow
Cleland, Professor J., M.D., 2, The University, Glasgow
Connal, J. G., M.B., 4, Burnbank Terrace, Glasgow
Crichton, D M. R., M.B., Burgh House, Maryhill, Glasgow
Cumming, Robert, Esq., 61, Gleneagles Cottages, Scotstown, Glasgow
Curle, D., M.D., 1, Burnbank Gardens, Glasgow
Currie, J. R., M.B., 7, Strathallan Terrace, Glasgow
Cuthbert, C. C., M.D., 3, Kersland Street, Hillhead, Glasgow
Dickson, A., M.D., 379, St. George's Road, Glasgow
Dinwoodie, D., M.B., 299, New City Road, Glasgow
Donald, John, M.D., 23, Queen Margaret Drive, Glasgow
Edmiston, J. C., M.D., 24, Wilton Gardens, N. Glasgow
Erskine, D., M.B., 10, Rosebery Terrace, Kelvinbridge
Everett, Miss Maud E., L.R.C.P.&S.E., 20, North Gardner Street, Partick Hill, Glasgow, W.
Gilchrist, Marion, M.B., 5, Buckingham Terrace, Glas., W.
Goldie-Scot, T., M.B., Royal Asylum, Gartnavel, Glasgow
Gracie, J., M.B., 26, Balshagray Avenue, Partick
Graham, J. G., M.B., 17, Ashton Ter., Dowanhill, Glasgow
Gray, J. G., M.D., 2, Montgomerie Street, Glasgow
Hay, A. G., M.D., 4, Ancaster Drive, Anniesland, Glasg., W.
Head, L. C. B., M.B., 35, Burnbank Gardens, Glasgow, W.
Horne, J., M.B., 5, Windsor Street, Glasgow
Hotchkis, R. D., M.D., Royal Asylum, Gartnavel, Glasgow
Hunter, J., M.B., Scotstoun Villa, Scotstoun, Glasgow
Inglis, R. G., M.B., 3, West Garden Street, Glasgow
Jack, W. R., M.D., 43, Lansdowne Crescent, Glasgow
Johnston, A., M.D., Ruchill Fever Hospital, Glasgow
Jope, R., Esq., Pretoria, Possilpark, Glasgow
Jubb, George, M.D., 7, Clydeview, Partick
Kay, Thomas, M.B., 5, Rosebery Terrace, Kelvinbridge
Kennedy, John A. M.D., Lyndhurst, Bearsden
King, Robert, M.B., Park Cottage, Yoker, Glasgow
Kirk, R., M.D., Partick, Glasgow
Lowe, P., M.B., 18, Kelvin Drive, Glasgow
McDonald, W. F., M.B., 16, Buckingham Terrace, Glasgow
MacGregor, G. S., M.D., 2, Burnbank Terrace, Glasgow
McKendrick, Prof. J. G., M.D., 2, Buckingham Ter., Glasgow
McKendrick, J. S., M.D., 2, Buckingham Terrace, W., Glasgow
Mackintosh, D. J., M.V.O., M.B., Western Infirmary, Glasgow
MacLennan, W., M.B., Buckingham Terrace, Glasgow
Macleod, D., M.D., 3, Burnbank Terrace, Glasgow
McMillan, A. Lewis, M.D., 1, Rosebery Ter., Kelvinbridge
McNicol, D., M.D., Park Gardens North, Jordanhill, Glasgow
Macniven, E. O., M.B., 4, Queen's Gate, Dowanhill, Glasgow
Macphail, J. M., M.D., 46, Kersland St., Hillhead, Glasgow
McVail, D. C., M.D., 3, St. James's Ter., Hillhead, Glasgow
McVail, John C., M.D., 20, Eton Place, Hillhead, Glasgow
Marshall, C. S., M.D., 123, Cambridge Drive, Glasgow
Mechan, A., M.B., 2, Victoria Crescent, Dowanhill
Morton, J., M.B., 6, Foremount Ter., Dowanhill, Glasgow
Muir, J. S., M.B., Possilpark, Glasgow
Muir, Prof. R., M.D., Western Infirmary, Glasgow, W.
Murdoch, G. B., M.D., 14 Bothwell Ter., Hillhead, Glasgow
Murray, W. C., M.B., 3, Belmont Street, Glasgow
Oswald, L. Rose, M.B., Royal Asylum, Gartnavel
Paterson, W. G., M.B., Annfield Cottage, Partick, Glasgow
Patrick, J. K., M.D., 14, Broomhill Avenue, Partick, W.
Pirret, Mary J., M.B., 32, Westbourne Gardens, Kelvinside, Glasgow
Pollock, A. B., M.B., 3, Belgrave Ter., Hillhead, Glasgow
Pollock, C. F., M.D., Buckingham Ter., Hillhead, Glasgow
Primrose, E. J., M.D., 551, Dumbarton Road, Partick
Rankin, W. L., Esq., Strathblane, Glasgow
Reid, John, M.B., Corndavon, Milngavie
Richmond, T., L.R.C.P., 4, Burnbank Gardens, Glasgow
Ritchie, J., M.B., 12, Belmont Street, Glasgow
Robertson, J. McG., M.B., 2[illegible], Buckingham Ter., Glasgow
Robertson, P. F., M.D., Milngavie
Ross, A. F., M.B., 29, Huntly Gardens, Glasgow
Scott, James, M.B., 11, Hill End Gardens, Hyndland Road, Glasgow
Sinclair, D., M.D., Eastpark Terrace, Maryhill, Glasgow
Sinclair, W. Smith, M.B., 28, Bank St., Hillhead, Glasgow
Sloan, A. B., M.B., 54, Kersland Street, Hillhead
Sloan, S. M., M.B., 138, Hyndland Road, Kelvinside
Smart, Margaret H., M.B., 21, Holywood Crescent, Glasgow, W.
Smellie, Lily, M.B., 2, Kelvingrove Terrace, Glasgow, W.
Smith, A. M., M.D., 13, Montgomerie Street, N. Kelvinside, Glasgow
Smith, J. D., M.B., Daisy Brae, Maryhill, Glasgow
Snodgrass, W., M.B., 11, Victoria Cres., Dowanhill, Glasgow
Somerville, W. F., M.D., 14, South Park Terrace, Hillhead Glasgow
Stewart, James W., M.B., Holborn Terrace, N. Kelvinside, Glasgow
Strain, W. L., M.B., 47, Westbourne Gardens, Kelvinside, Glasgow
Stuart, R. W., Esq., 42, Wilton Gardens, N. Kelvinside, Glasgow
Teacher, J. H., M.D., 32, Kingsborough Grdns., Dowanhill
Thomson, Alexander, M.B., 8, Hamilton Park Terrace, Hillhead, Glasgow
Todd, James, M.D., Eastpark Terrace, Maryhill, Glasgow
Westwood, D., M.B., Ashlea, Clydeview, Partick
Whitehouse, H., M.B., 7, Lindsay Terrace, Dowanhill
Wilson, H. G., M.B., 5, St. James Terrace, Glasgow
Wylie, James, M.D., Westmount, Scotstounhill
Yellowlees, D., M.D., 6, Albert Gate, Dowanhill, Glasgow
Young, R. B., M.B., 8, Crown Gardens, Dowanhill, Glasgow

No. 6.—Glasgow Southern Division

NUMBERING 92.

Chairman, A. Miller, Esq., 1, Royal Terrace, Crosshill, Glasgow

Vice-Chairman, John Brown, M.D., Govanhill, Glasgow

Honorary Secretary and Treasurer, John Stewart, M.D. 3, Royal Crescent, Crosshill

Representative for Representative Meeting,

Stewart, John, M.D., 3, Royal Crescent, Crosshill, Glasgow

Representatives on Branch Council.

Miller, A., Esq.
Stewart, J., M.D.

Executive Committee.

Burges, L., Esq.
Forrest, R. W., M.B.
Forrester, J., M.B.
Hamilton, James, M.B.
Kelly, H., M.D.
Lawson W. M.D.
Leask, H. L. G., M.D.
Paton, John, M.D.
Rankin, Alexander, M.D.
Robertson, C. E., M.D.
Shaw, P. F., Esq.
Wauchope, A., M.B.
Weir, J. M.B.

Allan, W., M.D., Govandale, Govan
Anderson, John, M.B., Lincluden, Cathcart, Glasgow
Anderson, R. Yuill, M.B., Redclyffe, Beech Avenue, Glasgow
Broom, Henry, M.B., 27, Langside Road, Glasgow
Brown, John, M.D., 247, Calder Street, Govanhill, Glasgow
Brown, R., M.D., Pollokshields, Glasgow
Buchanan, John, M.B., 7, Hamilton Pl., Cathcart, Glasgow
Buchanan, J. M., M.B., Rutherglen
Burges, L., Esq., 45, Dixon Avenue, Glasgow
Cameron, J. W., M.B., 36, Apsley Place, Glasgow
Campbell, J. J. Y., M.B., 1, Buckingham Square, Govan
Campbell, J. M., M.B., Cairntable, Newlands
Carmichael, D. G., M.B., 68, Kenmure Street, Pollokshields
Cassie, Alex. W., M.B., 1, Cleland Place, Paisley Road, West Govan, Glasgow
Coutts, D., M.B., Paisley Road, W. Glasgow
Cumming, J. B., M.B., 1, Stuart Place, Govan
Duncan, E., M.D., Queen's Park House, Langside Road, Glasgow
Dunlop, R. N., M.D., 46, Melville Street, Pollokshields
Dunning, M., M.B., 46, Princes Square, Strathbungo, Glasgow
Faulds, W., M.D., Shawlands, near Glasgow
Forrest, R. Wardrop, M.B., 114, Dixon Avenue, Glasgow
Forrest, W., M.B., 533, Victoria Road, Crosshill, Glasgow
Forrester, J., M.B., 26, Langside Road, Glasgow
Forsyth, Thos., M.B., 58, Trefoil Avenue, Shawlands
Fraser, Lizzie T., M.B., Scotston, Pollokshields
Gordon, George, M.B., 1, Abercromby Ter., W. Glasgow
Haddow, J., Esq., Almond Bank, Bellahouston, Govan
Hamilton, James, M.B., 1, Royal Cres., Crosshill, Glasgow
Hansen W., M.B., 65, Bridge Street, Glasgow
Highet, Campbell, M.B., Cardonald, Govan
Hope, C., M.B., 9, Park Terrace, Govan
Hunter, G., Esq., 1, Bellahouston Terrace, Govan
Jeffrey, J. M., M.B., 7, Sinclair Drive, Langside, Glasgow
Kelly, H., M.D., 66, Ardgowan Street, Glasgow
Kelly, J. K., M.D., Queen Mary Avenue, Crosshill, Glasgow
Lamb, D., M.B., 1, Ethel Terrace, Mount Florida, Glasgow
Lambie, J. F., M.B., 4, Carment Drive, Shawlands Glasgow
Lawson, W., M.D., 36, Glencairn Drive, Pollokshields
Leask, H. L. G., M.D., 70, Dixon Avenue, Glasgow
Leitch, J. W., M.B., 8, Nithsdale Road, Glasgow
Love, J. K., M.D., Olrig, Pollokshields
Lyon, R. Murray, M.D., Strathmore, Cathcart
MacCrorie, A., M.B., 98, Dixon Avenue, Crosshill, Glasgow
McCrorie, David, Esq., 43, Abbotsford Place, Glasgow
MacFeat, Joseph, M.B., 31, Maxwell Drive, Glasgow
MacIlraith, A. R. MacIntyre, Esq., Brownlie Pl., Cathcart
MacIlraith, W. MacLaren, Esq., Brownlie Place, Cathcart
McLachlan, J. M., M.B., Wayne Lee, 6, Albert Road E., Crosshill, Glasgow
Maclean, James, M.B., 2, Maxwell Square, Pollokshields
MacLean, J. C., Esq., 22, Allison Street, Crosshill, Glasgow
McPhee, B., Esq., Torrance Lodge, Mansewood, Pollockshaws
Miller, A., Esq., 1, Royal Terrace, Crosshill, Glasgow
Murdoch, R., Esq., 330, Crown Street, Glasgow
Napier, A., M.D., Queen Mary Avenue, Crosshill, Glasgow
Nisbet, H. S. B., M.B., 65, Smith Street, Govanhill, Glasgow
Paterson, Wm., M.B., 43, Millbrae Road, Langside, Glasgow
Paton, John, M.D., 143, Sinclair Drive, Langside, Glasgow
Peden, W. K., M.B., 177, Crown Street, Glasgow
Pollok, R., M.B., Laurieston Ho., Pollokshields, Glasgow
Rankin, A., M.D., Myrtle Park, Crosshill, Glasgow
Reford, J. H., Esq., 211, Main Street, Glasgow, S.
Richard, W. J., M.B., Merryflatts, Govan
Robertson, C. E., M.D., 63, Dixon Ave., Crosshill, Glasgow
Robertson, Hugh, M.B., The Willows, Buchanan Drive, Rutherglen
Ross, Marion J., M.D., 4, Balmoral Crescent, Crosshill Glasgow
Roxburgh, A., M.D., Pollokshields, Glasgow
Russell, D. W., M.B., 63, Langside Avenue, Langside
Russell, James, M.B., Busby, by Glasgow
Shaw, P. F., Esq., Mount Blair, Crosshill, Glasgow
Smith, P. A., M.D., 50, Queen Mary Avenue, Glasgow
Steen, A. A. F., M.B., Howdenlea, Queen's Drive, Crosshill, Glasgow
Stewart, Alex., M.B., 18, Pollok Street, Glasgow
Stewart, John, M.D., 3, Royal Crescent, Crosshill, Glasgow
Stokes, F. E., M.B., 3, Myrtle Park, Crosshill, Glasgow
Strang, J., M.B., Thornliebank, by Glasgow
Thomas, M., M.D., Buchanan Drive, Rutherglen
Thomson, J. T. K., Esq., 148, Norfolk Street, Glasgow, S.
Tindal, A. S., M.D., The Raploch, Newlands, Langside, Glasgow
Tolmie, J. A., M.B., Olive Villa, Drive Road, South Govan
Vost, A., M.B., Edenside, Newlands Road, Glasgow
Walker, A. B., M.B., 208, Battlefield Road, Langside
Walker, W., M.D., Main Street, Pollokshaws
Wallace, James W., M.D., 67, St. Andrew's Drive, Pollokshields
Watson, R. McLeod, M.B., Gartmore, Sinclair Drive Langside, Glasgow
Wauchope, A., M.B., 190, Crown Street, Glasgow
Weir, James, M.B., 24, Abbotsford Place, Glasgow
West, J. T., M.B., Netherton House, South Avenue Govan
Whish, C., M.B., 1, Lansdown Place, Shawlands, Glasgow
White, George, M.B., 1, Bogton Park, Glasgow, S.
White, R. N., M.B., 4[illegible]9, Shields Road, Pollokshields
Wotherspoon, T. McK., Esq., Cathay, Langlands Road Govan
Wright, J., M.B., 1, Seyton Avenue, Langside, Glasgow

No. 7.—Lanarkshire Division

NUMBERING 76.

Chairman, Bruce Goff, M.D., The Lindens, Bothwell

Vice-Chairman, J. Millar, M.B., Uddingston

Honorary Secretary, J. Livingstone Loudon, M.D., Linnwood, Union Street, Hamilton, N.B.

Representative for Representative Meeting.

Bruce Goff, M.D., The Lindens, Bothwell

Representatives on Branch Council

Loudon, J. Livingstone, M.D.
Millar, J., M.B.

Executive Committee.

Crawford, C., M.D.
Goff, Bruce, M.D.
Kerr, N. T., M.B.
Kirkland, J., Esq.
Lindsay, J., M.D.
McPhail, D., M.D.
Millar, J., M.B.

Adam, J., M.B., Park Road, Hamilton
Adams, A. M., Esq., Friarsfield, Lanark
Adams, D. V. Maxwell, M.B., Friarsfield, Lanark
Allison, James, M.B., Hallside, Newton
Anderson, J. L., M.B., Glenbarry, Giffnock
Arthur, H., M.D., Fruitfield, Airdrie
Banks, R. McL., M.B., West Port, Lanark
Banks, T. W., M.B., 13, Hope Street, Lanark
Barr, R. B., M.B., Hollyden, Carluke
Baugh, L. D. H., M.B., Gartloch Hospital, Gartcosh
Cordiner, J., M.B., 83, Sunnyside Road, Coatbridge
Crawford, C., M.D., Catherine Bank, Hamilton
Downs, Harold, M.B., Bellefield Sanatorium, Lanark
Downs, W. C., M.B., Helensville, Motherwell
Findlay, W. S., M.B., Woodend, Mossend
Fotheringham, J., M.B., Rosshill, Motherwell
Gemmell, T. P., M.B., Sornbank, Airdrie
Gibson, A., M.B., Tayvillich, Baillieston
Goff, Bruce, M.D., The Lindens, Bothwell
Goff, John, M.D., The Lindens, Bothwell
Harrison, J., M.B., Lesmahagow
Hislop, J. A., M.D., County Offices, Hamilton
Jack, James, M.D., Wellbank House, Carluke
Jack, R. P., M.B., 20, Brandon Street, Motherwell
Jones, David, M.B., Tirlees House, Motherwell
Kelly, E. H., M.D., Lanark
Kennedy, R. P., Esq., 110, Bank Street, Coatbridge
Kerr, John, Esq., Roseville, Hamilton
Kerr, N. T., M.B., Hartwood, Shotts, N.B.
Kirkland, J., Esq., The Lindens, Airdrie
Laird, T. D., M.B., The Ingle, Beech Avenue, Cambuslang
Lane, W. L., M.B., Lieut.-Colonel R.A.M.C., Lismore, Hamilton
Lapraik, T., M.D., Glenella, Cambuslang
Lindsay, J., M.D., Lochanbank, Kirkmuirhill
Lithgow, J., M.D., Cleland
Little, J. W., M.B., Leslie Place, Newmains
Logan, D. D., M.B., Auchterhall, Newmains
Loudon, J. L., M.D., Linnwood, Hamilton
Love, T. W., M.B., Greenbank, Clark Street, Airdrie
McDonald, J., M.B., Hawthorn Cottage, Motherwell
MacFeat, Geo., M.B., Bogueside House, Douglas, Lanark
McKay, James, M.B., Westonlee, Coatbridge
McLean, A. H., M.B., Stonehouse
McNay, Thomas, M.B., Dalveen, Larkhall, N.B.
Macphail, D., M.D., Calder Avenue, Coatbridge
McPherson, R. B., M.D., Ardchattan, Cambuslang
McPherson, W. G., M.B., Barrogill, Bothwell
Mains, John H., Esq., The Surgery, Longriggend
Manuel, W., M.B., Caldercruix, Airdrie

Marshall, J., M.B., Auchengramont, Hamilton
Mason, W., M.D., Strathaven
Millar, J., M.B., Heathfield, Uddingston
Miller, G., Esq., Westwood, Bothwell
Miller, John, M.B., Viewbank, Harthill, Lanark
Newbigging, T. D., M.B., Abington, Lanark
Paterson, Robert, Esq., Curatehill, Law, Carluke
Ramsay, A., M.B., Leadhills, S.O.
Rennie, J. S., M.B., Coatbridge
Robertson, R., M.B., Windmill Hill Street, Motherwell
Rogerson, John, M.D., Dumcrieff, Dalserf, Netherburn
Service, John, M.D., Mossend
Skeen, J. H., M.B., Kirklands Asylum, Bothwell
Smith, James, M.B., Lesmahagow
Steele, T., M.B., Cadzow Cottage, Hamilton
Tant, Edward B., M.B., East Kilbride
Tant, J. Y., M.D., Uddingston
Thomson, J. M., M.B., Drumclair, Airdrie
Watt, Allan, M.B., Greenside, Strathaven
Wilson, A. J., F.R.C.S.E., Calderbank, by Airdrie
Wilson, J. A., M.D., Hardhill, Central Avenue, Cambuslang
Willis, W. R., M.B., Baillieston
Wilson, J. C., M.B., Park Villa, Blantyre
Wilson, J. T., M.D., County Buildings, Hamilton
Wright, Hugh P., M.B., Quarry Howe, Overtown-by-Wishaw
Wyper, Wm., M.B., Ivy House, Motherwell

No. 8.—Renfrewshire Division

NUMBERING 80.

Chairman, A. C. Munro, M.D., Health Dept., Co. Buildings, Paisley

Vice-Chairman, W. S. Cook, M.B., Greenock

Honorary Secretary, R. S. Penman, M.B., 12, St. James's Place, Paisley

Representative for Representative Meeting.
J. D. Holmes, M.B., 10, Neilston Road, Paisley

Representatives on Branch Council.
Cook, W. S., M.B.
Penman, R. S., M.B.

Executive Committee.
Gibb, W. F., M.D.
Marshall, J. N., M.D.
Parker, James, M.B.
Stevens, J. B., M.D.
Stewart, W., M.B.

Berwick, G., M.D., Mossbank, Port Bannatyne
Blair, R., M.D., Braefoot, Crookston, Paisley
Boyd, W. M., M.B., Largs
Brown, J. P., M.B., Ardmore, Campbeltown
Brownridge, R., M.D., 1, Calside Terrace, Paisley
Butler, A., M.B., Benclutha, Port Glasgow
Campbell, G. J., Esq., 12, Octavia Cottages, Greenock
Carlyle, J., M.D., 43, Regent Street, Greenock
Clow, W., M.B., 97, Causeyside Street, Paisley
Coats, G. W., M.B., 54, High Street, Paisley
Conner, J. B., Esq., 43, Regent Street, Greenock
Cook, W. S., M.B., 2, Ardgowan Square, Greenock
Cunningham, J., M.B., Campbeltown
Donald, H. C., M.B., 5, Gauze Street, Paisley
Dunsmuir, R., M.B., Barskimming, Paisley Road, Renfrew
Ferguson, Joshua, M.B., 4, Greenlaw Terrace, Paisley
Fraser, D., M.D., 3, Orr Square, Paisley
Fullarton, N., M.B., Lamlash, Arran
Fyfe, W. W., M.B., Belmont, Johnstone
Gibb, W. F., M.D., 7, St. James Place, Paisley
Gibson, R. M., M.D., Helenlea, Glasgow Road, Paisley
Gibson, W., M.D., Campbeltown
Graham, T., M.D., 3, Garthland Place, Paisley
Guy, John, M.D., The Sanatoria, Bridge of Weir
Hall, A. J., M.D., 13, Battery Place, Rothesay
Henderson, F., M.D., Craig Roy, Kilmalcolm
Herbertson, J. C., M.D., Bellevue, Johnston
Higgins, Janet B., 33, High Street, Paisley
Hill, James, M.D., Argyll Lodge, Renfrew
Holmes, J. D., M.B., 10, Neilston Road, Paisley
Jamieson, R., M.D., Brodick, Arran
Johnston, Archibald, M.B., Bruchladdich, Islay
Laird, P. A., M.B., Dorema, Kilmalcolm
Lawrie, A. M., Esq., Braeside, Houston
Lawrie, J., M.B., Greenock
Lawson, J. B., M.D., 1, Battery Place, Rothesay
McCallum, P., Esq., 42, Mearns Street, Greenock
Macdonald, D. S., M.B., Jura, by Greenock
Macdougall, J., M.D., 2, Shaw Place, Greenock
Mackinlay, J., jun., Esq., Meadowbank, Barrhead
McIntyre, G., M.B., Fairholm, Milliken Park, by Johnston
McLeod, A. P., Esq., Barrhead
McNeil, Margaret W. H., M.B., 14, Ardgowan Sq., Greenock
MacRury, J., M.B., Auchengree, Millport
Marshall, J. N., M.D., 7, Battery Place, Rothesay
Martin, T. M., M.D., Lochwinnoch
Miller, Elizabeth H., L.R.C.P., Bishopton
Morrison, J. Holmes, M.D., F.R.C.S., Seafield House, Greenock
Mudie, H. F., M.B., Kilbarchan
Munro, A. C., M.D., Health Dept., Co. Buildings, Paisley
Nairn, C., M.B., 19, Ardgowan Square, Greenock
Parker, James, M.B., Kilmalcolm
Penman, R. S., M.B., 12, St. James's Place, Paisley
Penney, D. J., M.B., 25, Battery Place, Rothesay
Philip, T., M.B., 38, Union Street, Greenock
Philp, W. C., Esq., Philp's Hydro Estab., Skelmorlie
Pride, W. A., M.B., Neilston
Reid, H. C., M.B., Braeside Villa, Port Glasgow
Robb, Alex., M.D., Public Health Office, Paisley
Robertson, J. K. A., M.B., 20, Ardgowan Sq., Greenock
Rose, M., M.B., Clachan, Kintyre
Russell, D., M.B., 1, Ardgowan Street, W. Greenock
Russell, Wm., M.D., Firgrove, Castlehead, Paisley
Sandeman, W., M.B., Bridge of Weir
Seright, W., M.D., 14, Ardgowan Square, Greenock
Squair, F. W., M.B., 35, Regent Street, Greenock
Stevens, J. B., M.D., Paisley Road, Renfrew
Stevenson, J., M.D., Stow Cottage, Stow Place, Paisley
Stewart, W., M.B., Gourock
Syme, C., Esq., Kilmalcolm
Symington, M. W., M.B., Gowan Bank, Johnstone, N.B.
Taylor, J. M., M.B., Skelmorlie
Te[illegible]t, W. E., M.D., 2, Greenlaw Terrace, Paisley
Thomson, H. Hyslop, M.D., Ivanhoe, Bridge of Weir
Thomson, T. Harvey, M.D., Drumore House, Campbeltown
Watson, W. R., M.D., Hawkhead Asylum, Paisley
Watt, Thomas, M.B., 44, High Street, Paisley
Whiteford, J., M.D., 6, Forsyth Street, Greenock
Wilson, J. E., M.B., Thorncliffe, Greenock
Young, R. T., M.B., Wellcroft, Renfrew

GLOUCESTERSHIRE BRANCH.

Comprising the county of GLOUCESTER, north of and including Sharpness, Berkeley Road, and Dursley, but excluding Fairford and Lechlade, and the portion of the county east of Chipping Campden and Stow-on-the Wold.

Members of Branch—132.

RECOGNISED 1868.

President, C. F. CUTHBERT, Esq., Gloucester

Honorary Secretary
JOHN HOWELL, M.B., F.R.C.S., 7, Imperial Square Cheltenham

Representative on Council of Association.
G. W. Crowe, M.D., Worcester.

Branch Council.
Batten, R. W., M.D.
Bower, E. D., Esq.
Buchanan, P., M.B.
Buckell, W. R., F.R.C.S.
Carter, E. C., M.B.
Clark, Oscar, M.D.
Cripps, E. C., Esq.
Ellis, T. S., Esq.
Ferguson, G. Bagot, M.D.
Macartney, R., Esq.
Pruen, S. T., M.D.
Soutar, J. G., M.D.
Storry, F. W., Esq.
Wilson, E. T., M.B.

Representative for Representative Meeting.
C. F. Cuthbert, Esq., 2, Barton Street, Gloucester

Associate Members.
Eager, R., M.D., Winterbourne, Bristol
Glegg, Wilfred, M.D., 85, Cornwall Street, Birmingham
Stewart, J., Esq., Dunmurry, Clifton

Addis, T., M.B., Gloucester Infirmary, Gloucester
Affleck, R. C., M.B., General Hospital, Cheltenham
Ancrum, G. W., M.B., 14, Barton Street, Gloucester
Batten, R. W., M.D., Brunswick Square, Gloucester
Blakeney, J. H., Esq., 5, Crescent Terrace, Cheltenham
Bletchley, G. P., M.B., Hazelwood, Nailsworth
Bond, F. T., M.D., Gloucester
Boodle, G. A., Esq., Highfield House, Longhope, Glos.
Bower, E. D., Esq., Elton House, Gloucester
Bower, J. A., M.B., Portland House, Cheltenham
Bowles, R. L., M.D., Prior's Mesne, Lydney
Braine-Hartnell, C., Esq., Napier House, Cheltenham
Bramwell, H., M.D., Promenade, Cheltenham
Bramwell, J. W., M.D., Bays Hill, Cheltenham
Brown, W., M.B., Carlton House, Gloucester
Buchanan, P., M.B., Bank House, Coleford
Buckell, W. R., F.R.C.S., Montpellier Drive, Cheltenham
Burner, L. H., Esq., General Hospital, Cheltenham
Campbell, A. J., M.D., Rose Villa, Dursley
Campbell, D. R., M.D., Cinderford
Cardew, G. A., Esq., 5, Fauconberg Villas, Cheltenham
Cargill, Eveline A., M.D., Lansdown Lodge, Cheltenham
Carter, E. C., M.D., Napier House, Pittville Gates, Cheltenham
Chesser, Elizabeth McF. Sloan, M.B., Beauchamp House, near Gloucester
Church, B., Esq., The Coigne, Minchinhampton
Clark, O. W., M.B., St. Luke's House, The Spa, Gloucester
Cole, R. M., Esq., Northgate House, Gloucester
Collins, J. R., M.B., 3, Columbia Place, Cheltenham
Corder, A. F. R., M.D., 3, Park Place, Cheltenham
Cooke, A. S., Esq., Badbrooke House, Stroud
Cox, W. A. C., Esq., Winchcombe
Cox, W., Esq., Stone House, Winchcombe
Creswell, A. H., Esq., Yorke Villa, Cinderford
Cripps, E. C., Esq., Cirencester
Crosby, H. M., M.B., Stroud
Cuthbert, C. F., Esq., 2, Barton Street, Gloucester
Dakin, T. B., Esq., 12, Barton Street, Gloucester
Davies, A. B., Esq., Lansdown, Stroud
Davies, H. R. L., M.D., Leckhampton Road, Cheltenham
Davis, C. Noel, Esq., Fieldhead, Amberley
De Lessert, A. A., Esq., Chedworth Villas, Barnwood Road, Gloucester
Dent, Ernest A., M.B., 20, Royal Parade, Cheltenham
Devereux, W. C., M.B., Tewkesbury
Dobell, C. B., M.B., 1, Royal Well Terrace, Cheltenham
Douglas, R. D. A., M.D., Hill House, Sapperton, near Cirencester
Drew, Joseph, M.B., Battledown, Cheltenham
Duke, A. F., Esq., London Road, Cheltenham
Elder, M., M.B., Tewkesbury
Elliot, J., Esq., Humphrey Ldg., St. Briavels, nr. Coleford
Esslemont, A. I., Esq., Chandos House, Abbey Terrace, Winchcombe R.S.O.
Etlinger, F. K., Esq., Cotswold Sanatorium, Birdlip
Ellett, G. G., Esq., Oakley Cottage, Cirencester
Ellis, T. S., Esq., 6, Clarence Street, Gloucester
Facey, R. A., Esq., Melville House, Ruardean
Ferguson, G. Bagot, M.D., M.Ch.Oxon., F.R.C.S.Eng., Altidore Villa, Pittville, Cheltenham
Fergusson, W. B., M.D., Painswick
Finlay, D. E., Esq., Southville, Park Road, Gloucester
Fisher, R. W., Esq., Westbury-on-Severn
Forster, A. G. F., M.D., 4, Imperial Square, Cheltenham
Fowler, O. H., Esq., Cirencester
Garrett, J. H., M.D., Promenade, Cheltenham
Goss, J., M.B., Gloucester
Griffith, A. E., Esq., Hillside, Upper Lydbrook
Grosvenor, W. W., M.D., 4, Clarence Street, Gloucester
Halliwell, I., Esq., Irwell, Winchcombe
Hardy, H. L. P., Esq., 11, Rowcroft, Stroud
Harris, Jas. C., Esq., Moira, Blakeney
Harrison, Beatrice M., M.D., Lansdowne Ldge, Cheltenham
Henley, E. W., Esq., 2nd County Asylum, Barnwood
Higgins, A., Esq., Bury Bar House, Newent
Hill, F. A., M.D., Chalford Hill, Stroud
Hodges, Wm., Esq., 38, Park Road, Gloucester
Holt, G. F., Esq., The Close, Minchinhampton
Hooker, C. P., Esq., Cirencester
Hope, W. M., Esq., Barton Street, Gloucester
Howell, J., M.B., 7, Imperial Square, Cheltenham
Hutton, Wm., Esq., Harley House, Cambray
Johns, J. F., M.D., 3, Lansdown Place, Cheltenham
Johnston, C. St., Esq., Westville, Gloucester
Johnstone, J. E. St. G., M.B., Corse Grange, Gloucester
Jones, W. D., M.D., Bristol Road, Gloucester
Joynes, F. J., Esq., Dursley, Gloucester
Kirkland, R., M.B., Nouvelle, Lansdown Crescent Cheltenham
Knight, C. V., M.B., 48, London Road, Gloucester
Lansdown, C. E., Esq., 5, Berkeley Place, Cheltenham
Linde, T., M.D., Lydbrook House, Lydbrook
Lunn, P. T., Esq., Highmead House, Blakeney
McCall, William, M.D., Fair View, Painswick
Macartney, R., Esq., Cinderford
Mackinnon, C., M.B., Dyer Street, Cirencester
McLannahan, J. G., Esq., Stonehouse
MacMahon, E. J. R., Esq., Elkstone House, Cheltenham
McQuaide, H. C., M.B., The Marshes, Coleford
Marshall, Howard, M.B., Park House, Cirencester
Martin, J. M., M.B., The Chesnuts, Stroud
Mayne, W. S., Esq., Park End
Meyrick-Jones, H. M., M.D., Overbury, Charlton Kings
Millard, W. J. K., M.D., Trocliden, Hewlett Road, Cheltenham
Moore, R. D., Esq., Churchdown, near Cheltenham
Mount-Biggs, C. E. F., Esq., Milverton, Bayshill, Cheltenham
Munro, D. G. M., M.D., 1, Oriel Villas, Cheltenham
Parker, F. H., M.B., Bickner, Suffolk Square, Cheltenham
Partridge, T., Esq., Stroud
Payne, J. R., Esq., Lawnstone House, Coleford
Peake, G. A., Esq., Alma House, Cheltenham
Pearson, J. D., Esq., Greville Lodge, Cheltenham
Porteous, H. L., Esq., Chalford, near Stroud
Powell, H. F., Esq., Seagrave Lodge, Cheltenham
Prance, G. H., M.D., Queen's Road, Cheltenham
Pritchett, G. W. M., Esq., Oakfield, Lydney
Prout, E. de C., M.B., Elgin Lodge, Stonehouse
Pruen, S. T., M.D., Lypiatt Lodge, Cheltenham
Roberts, C. D. Dale., M.B., The Hollies, Dursley
Scott, David J., M.B., Byfield House, Painswick
Scott, G., M.B., School House, Drybrook
Smelt, F. H., Esq., The Villa, Newent
Soutar, J. C., M.D., Barnwood House, Gloucester
Stewart-Billings, Mrs. Grace, M.B., Sussex Lodge, Pitville Gates, Cheltenham
Stilwell, H. F., Esq., Barnwood House, Gloucester
Storry, F. W., Esq., Dirleton House, Stroud
Tatham, E. J., M.D., Beaufort House, Montpellier, Cheltenham
Thomas, C. N., M.B., Severn House, Lydney
Thompson, C. C. B., Esq., Gloucester House, Tutshill
Todd, H. B., Esq., Keynsham Lodge, Cheltenham
Townsend, A. A. D., Esq., Barnwood House, Gloucester
Waddy, H. E., Esq., Gloucester
Waller, A. W., Esq., Waldringfield House, Stroud
Washbourn, W., Esq., Gloucester
Wilkin, Lancelot, Esq., 46, London Road, Gloucester
Wilson, E. T., M.B., Westal, Cheltenham
Wilson, R., M.B., Millbrook, Nailsworth
Wilson, Mrs. Sarah, M.B., Roseneath, St. Marks, Cheltenham

LANCASHIRE AND CHESHIRE BRANCH.

District comprising LANCASHIRE, except Garstang and north thereof; the ISLE OF MAN; CHESHIRE; in YORKSHIRE, the Saddleworth and Todmorden districts; in DERBYSHIRE, the Glossop district; (as far east as the watershed in each case)

Members of Branch—1,600

RECOGNISED 1837.

President, Sir JAMES BARR, M.D., Liverpool

President-elect, P. H. DAY, Esq., Stalmine Lodge, near Poulton-le-Fylde

Vice-Presidents.
HAYWARD, T. E., M.B., St. Helens
WALKER, G. C., M.D., Southport

Honorary Secretary and Treasurer.
T. ARTHUR HELME, M.D., Mayfield, Victoria Park, Manchester

Representatives on Council of Association.
T. R. Bradshaw, M.D., Liverpool
J. Brassey Brierley, M.D., Manchester
T. A. Helme, M.D., Manchester
Edwin Rayner, M.D., Stockport

Branch Council.
Barendt, F. H., M.D.
Boddy, H. W., M.D.
Booth, W. G., Esq.
Bowden, E. E., Esq.
Brazil, W. H., M.D.
Brown, E. V., M.D.
Crawshaw, S., M.B.
Day, P. H., Esq.
Ferguson, J. M., Esq.
Fleetwood, W. J., M.D.
Fort, T., Esq.
German, A. W., Esq.
Gifford, G. T., M.D.
Given, J. C. M., M.D.
Granger, F. M., Esq.
Grossmann, K., M.D.
Hall, H. S., Esq.
Hargreaves, F. B., Esq.
Harris, R., M.B.
Hayward, T. E., M.B.
Hughes, James B., Esq.
Kerr, J. B., M.B.
King, H. W., M.D.
Larkin, F. C., Esq.
Macfie, Charles, M.D.
Milligan, W., M.D.
Milroy, W. C., M.D.
Monks, E. H., Esq.
Newbolt, G. P., M.B.
Pearson, H. L., Esq.
Prowse, J. S., M.B.
Rayner, A. C., M.D.
Rayner, Edwin, M.D.
Renshaw, C. J., M.D.
Robertson, G. J., M.B.
Scott, W. E. Sawers, M.D.
Taylor, J. H., M.B.
Thorp, C. W., Esq.
Tisdall, J. J., Esq.
Turner, R. T., M.D.
Walker, G. C., M.D.
Wells, John W., M.D.
Wills, T. M., Esq.
White, W., M.D.
Wolstenholme, R. H., Esq.

Honorary Members.
Shuttleworth, G. E., M.D., London
O'Sullivan, D. A., Esq., London

No. 1.—Altrincham Division

NUMBERING 67.

Chairman, E. L. Luckman, Esq., Altrincham

Vice-Chairman, P. R. Cooper, M.D., Bowdon

Honorary Secretary and Treasurer,
T. W. H. Garstang, Edge Mount, Altrincham

Representative for Representative Meeting,
T. W. H. Garstang, Esq., Edge Mount, Altrincham

Representatives on Branch Council.
Renshaw, C. J., M.D.
Cox, F., M.D.

Executive Committee.
Jones, W. Owen, Esq.
MacLaren, J. A., M.D.
Melland, B., M.B.
Renshaw, C. A. K., Esq.
Rhodes, T. B., M.B.
Smith, G. H., M.B.

Alexander, F. J., M.B., Knutsford
Alexander, W. C., Esq., Delamer Road, Bowdon
Armstrong, P. L., M.B., 20, Castle Street, Northwich
Ashe, C. S., M.B., Northenden Road, Sale
Browne, R. J., Esq., The Beach, Hartford
Bucknill, P. J. R., Esq., Manchester Road, Altrincham
Callender, D. A., M.B., Hazelmere, Knutsford
Clarke, H. C. W., Esq., Oaklands House, Ashton-on-Mersey
Cooper, P. R., M.D., Glenthorn, Bowdon
Cox, F., M.D., Ellersdene, Ashley Road, Hale, Altrincham
Crowe, L. W., M.D., Ashley Road, Hale, Altrincham
Doonan, J. A. C., M.B., Witton House, Northwich
Duggan, M., Esq., Bowdon
Fenn, R. M., M.B., 30, Ashley Road, Altrincham
Fennell, T., Esq., Princess Street, Knutsford
Fennell, T. L., Esq., Princess Street, Knutsford
Garstang, T. W. H., Esq., Edge Mount, Altrincham
Golland, A., Esq., 18, Church Street, Altrincham
Gornall, J. P. J., Esq., Roxana, Park Road, Hale
Gough, H. E., Esq., Nether Lea, Hartford, Northwich
Hassall, J., M.D., 2, Dale Street, Northwich
Hickey, Walter, M.B., 42, Ashfield Road, Altrincham
Hutton, H. R., M.B., Breeze Hill, Bowdon
Jones, W. Owen, Esq., The Downs, Bowdon
Joynson, G. T., Esq., Parkfield, Northwich
Leak, H., Esq., Dingle House, Winsford
Leech, E. B., Esq., Oakmount, Timperley
Lister, H. S., M.B., Netheroyd, Regent Road, Altrincham
Love, G., M.D., Gt. Budworth, near Northwich
Luckman, E. L., Esq., The Downs, Altrincham
Lyon, J., M.D., Dep. Insp.-Gen. R.N., Bowdon Hydropathic
MacLaren, J. A., M.D., Regent Road, Altrincham
Melland, B., M.B., Ashley Road, Bowdon
Melville, S. L., Esq., Middlewich
Moreton, Joseph, M.D., Nantwich Road, Middlewich
Morrow, D., Esq., Yew Bank, Bowdon
Nesfield, Stephen, M.D., Fernholm, Barrington Road Altrincham
Okell, George, jun., Esq., Over Lodge, Winsford
Parkinson, A. S., M.B., 24, Winnington Street, Northwich
Ransome, H. F., Esq., Stamford Road, Bowdon
Renshaw, C. A. K., Esq., Lindenholm, Sale
Renshaw, Chas. J., M.D., Beech Hurst, Ashton-upon-Mersey
Renshaw, Graham, M.B., Sale Bridge House, Sale
Renshaw, H. S., M.D., Sale Bridge House, Sale, Manchester
Renshaw, J. A. Knowles, M.D., Laurel Lodge, Ashton-on-Mersey
Renshaw, J. H., M.B., The Lindens, Ashton-on-Mersey
Renshaw, W. A., Esq., Market Place, Altrincham
Rhodes, T. B., M.B., Baguley Sanatorium, Timperley, Altrincham
Riley, Arthur, M.D., Woodleigh, Sale
Roberts, Edward, Esq., Oakfield Hall, Hale, Altrincham

Rothwell, T. A., M.D., Clovelly, Ashley Road, Hale
Scott, W., M.B., Clifton Villas, Ashton Lane, Ashton-on-Mersey
Shed, A. B., M.B., Northwich
Smith, G. H., M.B., Knutsford
Smith, J. W., Esq., Weaverham
Smyth, J. C., Esq., Manchester Road, Altrincham
Southam, T. F., M.D., Newstead, Bowdon
Surridge, E. E. N., M.B., Knutsford
Tattersall, W. H., M.B., Mayville, Wash Lane, Timperley
Taylor, G. S., Esq., Redclyffe, Partington, Manchester
Terry, Herbert, M.B., Northwich
Turner, William, M.B., Ashford, Hale
Williamson, H. M., M.B., Delamere House, Palatine Rd. Northenden
Wilson, J. R., Esq., Hale Road, Hale, Altrincham
Withers, O., M.D., Woodacre, Sale
Woodhead, H. M., M.B., Chisholme, Sale
Woodyatt, B. H., Esq., Over Winsford

No. 2.—Ashton-under-Lyne Division

NUMBERING 50.

Chairman, J. B. Smith, M.B., Ashton-under-Lyne

Vice-Chairman, E. C. McCarthy, M.B., Stalybridge

Honorary Secretary, J. W. Talent, M.D., Wellbeck Place, Ashton-under-Lyne

Representative for Representative Meeting.
W. H. Hughes, Esq., Ashton-under-Lyne

Representative on Branch Council.
Crawshaw, S., M.B.

Allkin, F. W., M.B., Holmleigh, Denton
Awburn, G. J., M.B., Mottram
Bennett, John, M.B., Stockley Place, Chapel Street, Hyde
Bishop, J. R., Esq., Davenport House, Stalybridge
Bleasdale, Robert, M.B., Bedford Ho., Ashton-under-Lyne
Booth, D., M.D., Chapel Hill, Dukinfield
Bowman, G. F., M.B., 103, Wellington Road, Ashton-under-Lyne
Cameron, W., M.B., 35, Stamford Rd., Mossley, Manchester
Cheetham, D. H., M.B., Stockport Rd., Ashton-under-Lyne
Clarke, E. A., Esq., Weymouth Villa, Dukinfield
Clifford, Thomas, M.B., 33, Portland Place, Stalybridge
Cooke, T., Esq., Old Square, Ashton-under-Lyne
Crawshaw, S., M.B., Trafalgar Square, Ashton-under-Lyne
Dibbs, W. S., Esq., Portland Place, Stalybridge
Duncan, James, M.B., Tudor Cottage, Ashton-under-Lyne
Eatough, Robert, M.D., 66, Stamford Rd., Mossley, Manch
Fox, Adam, Esq., Stanley House, Stalybridge
Gunn, R. D. B., Esq., 259, Fairfield Road, Droylesden
Hamilton, A., Esq., Chester Place, Ashton-under-Lyne
Hamilton, Graeme, M.B., 7, Chester Square, Ashton-under-Lyne
Harrison, A. W., M.D., Stoneley House, Mossley, Manchr
Healey, John, M.B., Staley Road, Mossley, Manchester
Hilton, A., Esq., Long's Huts, Hurst, Ashton-under-Lyne
Houstoun, A. B., M.B., Fairfield, near Manchester
Howe, G. B., Esq., Bank House, Stalybridge
Hughes, W. H., Esq., Harwood Ashton-under-Lyne
Hughes, W. H., jun., M.B., Latchford House, Ashton-under-Lyne
Infield, S., Esq., Boston Bank, Hyde
Judd, W. R., Esq., Stockport Road, Ashton-under-Lyne
Judson, J. E., Esq., Park View, Ashton-under-Lyne
Lishman, R. N., M.D., B.S., Grosvenor House, Stalybridge
McCarthy, E. C., M.B., 60, Grosvenor Street, Stalybridge
MacGill, W., M.D., Huntroyd, Denton
Mann, F. W., M.B., 222, Katherine Street, Ashton-under-Lyne
Morison, J. M. W., M.B., Chester Sq., Ashton-under-Lyne
Park, John R. S., Esq., 183, King Street, Dukinfield
Pearce, Chas. Esq., Warrington Street, Ashton-under-Lyne
Pomfret, H. W., M.D., Hollingworth
Price, Richard, Esq., Dunham Terrace, Stamford Street, Ashton-under-Lyne
Rodocanachi, A. J., M.D., Grosvenor Square, Stalybridge
Smith, E. E., Esq., Thorn Bank, Mottram Road, Hyde
Smith, H. E., M.D., M.A., Fairfield, Manchester
Smith, J. B., M.B., Chester Square, Ashton-under-Lyne
Spencer, S., Esq., 226, Stamford Street, Ashton-under-Lyne
Talent, J. W., M.D., Wellbeck Place, Ashton-under-Lyne
Tinker, F. H., Esq., Talbot House, Hyde
Twomey, P. N., Esq., 136, Katherine Street, Ashton-under-Lyne
Wallace, Alex., Esq., 9, Cowhill Lane, Ashton-under-Lyne
Watts, T., M.D., 34, Church Street, Hyde
Williams, Thomas B., M.B., The Poplars, Cheetham Hill Road, Stalybridge

No. 3.—Birkenhead Division

NUMBERING 78.

Chairman, A. Craigmile, M.D., Liscard

Vice-Chairman, W. McAgee, M.D., West Kirby

Honorary Secretary, J. H. Fardon, Esq., 59, Grangemount, Birkenhead

Representative for Representative Meeting.
J. Lambert, M.D., 80, Price Street, Birkenhead

Representatives on Branch Council.
Milroy, W. C., M.D.
Pearson, H. L., Esq.

Alston, H., M.D., 5, Cannon Hill, Claughton, Birkenhead
Anderson, W. C., M.B., 2, Falkland Road, Egremont
Anderson, W. H., M.B., Devonshire Park, Birkenhead
Ball, A. W., Esq., 21, Prescot Street, New Brighton
Barton, F., Esq., 30, Sea Bank Road, Liscard
Bell, E. A., M.B., 1, Sandymount Drive, New Brighton
Bentley, H. K., Esq., 38, Hamilton Square, Birkenhead
Bicknell, A., M.B., 17, Banks Road, W. Kirby
Blood, J. F., M.D., Srg.-Mj., I.M.S., 8, Lorne Rd., Birkenhead
Brewer, C. S., Esq., 7, Park Road East, Birkenhead
Brien, E. H., M.D., Dunravin, Rock Ferry
Brown, A. C., M.D., Dacre Hill, Rockferry
Butcher, A. H., Esq., Park Road East, Birkenhead
Buxton, H., Esq., Somerville, Seacombe
Caine, N., M.D., New Ferry Park, Birkenhead
Carruthers, J., M.D., Rock Ferry
Craigmile, A., M.D., Manor Road, Liscard
Dalzell, W. R., M.B., Normanston, Birkenhead
Davies, J. T., M.B., 94, Liscard Road, Liscard
Dawson, H. G. F., Esq., 35, Beresford Road, Birkenhead
Dixon, J. H., M.B., Church Road, Birkenhead
Dwyer, H. H., Esq., Hawkshead, Hoylake
Fardon, J. H., Esq., 59, Grangemount, Birkenhead
Floyd, T. S., M.D., 16, Devonshire Road, Birkenhead
Floyd, W. R., M.B., 29, Devonshire Road, Birkenhead
Fox, E. A., M.D., Holly Bank, Mount Road, New Brighton
Garson, W. R. J., M.B., Bebington, Birkenhead
Godwin, A. H., Esq., Seaview Lodge, Liscard
Grant, Lewis, M.B., Radcliffe, Neston
Harrington, S. H. N., Esq., 1, Woodchurch Rd., Birkenhead
Harris, A. C. E., M.B., 2, Devonshire Place, Birkenhead
Heatherley, F., M.B., Ende lion, Rock Ferry
Hocken, W. M., Esq., Poulton Villa, Poulton, Seacombe
Hopper, A. S., M.B., 44, Earlston Road, Liscard
Hutchinson, L., M.B., Camelot, Egerton Park, Rock Ferry
Inman, F. W., M.D., 90, Brighton Street, Seacombe
Johnston, F., M.B., 49, Devonshire Rd., Claughton, Birkenh
Ker, Alice Jane S., M.D., James Street, Oxton
Kidd, W. A., Esq., Price Street, Birkenhead
King, R. T., M.D., West Kirby
Knowles, E., M.D., 19, Church Road, Birkenhead
Lambert, M.D., 80, Price Street, Birkenhead
Leask, W., M.B., Prenton Road, W. Birkenhead
Lloyd, H. W., Esq., 194, Sea View Road, Liscard
Lusk, T. G., M.B., Rowson House, New Brighton
McAfee, W., M.D., West Kirby, Birkenhead
McMillan, J. J., M.B., 44, Seabank Road, Liscard
Main, W. R., Esq., Heswall
Marsden, R. S., M.B., Town Hall, Birkenhead
Mill, G. R., M.D., 126, Whetstone Lane, Birkenhead
Milroy, W. C., M.D., 88, Seabank Road, Liscard
Montgomery, A. W., M.B., 98, St. Paul's Road, Seacombe
Morris, R. O., M.D., 23, Balls Road, Oxton, Birkenhead
Moss, A., M.B., Lisbean, Bank's Road, West Kirby
Murphy, M. M., Esq., Carrigeen, Woodchurch Rd, B'k'nhead
Murray, J. J. G., M.B., Eblana, Liscard Road, Egremont
Noble, J., M.B., Rockferry
Pearson, H. L., Esq., Hothill, Tranmere, Birkenhead
Peirce, F., M.D., Hoylake, Birkenhead
Philpots, Harris, M.B., 16, Chetwynd Road, Oxton, Birkenhead
Pierce, W. A., Esq., 46, Grange Mount, Birkenhead
Pinkerton, J., M.D., 39, Park Road South, Birkenhead
Pollard, G. W., M.D., 25, Park Road South, Birkenhead
Pritchard-Airey, W., Esq., Woodbine Cottage, St. James Road, New Brighton
Ransome, A. C., M.B., 56, Shrewsbury Road, Birkenhead
Riddell, A. W., Esq., 91, Rowson Street, New Brighton
Robinson, W. S., Esq., 64, Grove Road, Rock Ferry
Sanderson, J. A., Esq., 3, St. Martin's Lane, Liscard
Sclater, N. C., Esq., 12, Earlston Road, Liscard
Smith, D. M., M.D., 91, Seabank Road, Liscard
Stansfield, G. S., Esq., 10, Hamilton Square, Birkenhead
Stewart, A., M.D., 55, Devonshire Road, Birkenhead
Stones, G. J., Esq., 14, Melrose Ter., Rake Lane, Liscard
Temple, L. D., M.D., Bedford Road, Rockferry
Vacher, F., Esq., Glanmer, Shrewsbury Road, Birkenhead
Wilkinson, S., Esq., 4, Hamilton Square, Birkenhead
Wilson, A. R., M.D., Trafford House, Liscard
Yeoman, J. B., M.D., Neston

No. 4.—Blackburn Division

NUMBERING 70.

Chairman, Riley Cunliffe, M.D., Blackburn

Vice-Chairman, J. T. Ballantyne, M.B., Darwen

Honorary Secretary and Treasurer, A. Greenwood, M.D., Vine House, Revidge Road, Blackburn

Representative for Representative Meeting.
R. C. Holt, M.D., Burnley

Executive Committee.
Aitken, R. Y., M.D.
Bannister, M., M.B.
Willett, John, Esq.

Representatives on Branch Council.
Gifford, G. T., M.D.
Wells, John W., M.D.

Aitchison, J. P., M.D., 71, Preston New Road, Blackburn
Aitken, R. Y., M.D., 53, Preston New Road, Blackburn
Ballantyne, J. T., M.B., Green Street, Darwen
Bannister, M., M.B., Parkgate, Blackburn
Barker, W. E., M.B., 1, Castle View, Clitheroe
Barr, John, M.B., Willow Grange, Rishton, Blackburn
Barton, John, Esq., 410, Audley Range, Blackburn
Baxter, A., M.B., 39, Sudell Road, Darwen
Bowen, A. V., Esq., 66, Preston New Road, Blackburn
Bowes, J. E., M.B., Sherwood, Clifton Street, Rishton
Brook, S. W., M.B., Willows Lane, Accrington
Clayton, J. S., M.D., Ewbank House, Accrington
Clegg, R., Esq., Clayton-le-Moors, Accrington
Craig, A. B., M.B., 43, Blackburn Road, Church
Craig, J., Esq., 56, Bolton Road, Darwen
Cran, J., M.D., Great Harwood, near Blackburn
Cunliffe, Riley, M.D., 47, Eanam, Blackburn
Davies, G. H., Esq., 91, Preston New Road, Blackburn
Dougal, J., M.D., 141, Preston New Road, Blackburn
Duthie, W. C., M.B., Beechwood, Infirmary Rd., Blackburn
Fenwick, James, Esq., 53, Avenue Parade, Accrington
Foley, J., Esq., 54, Audley Range, Blackburn
Fox, J. Vincent, M.B., Myrtle House, Accrington
Frankish, T., M.B., Blackburn Road, Accrington
Geddie, W., M.D., Waterloo House, Accrington
Gifford, G. T., M.D., Park Villas, Darwen
Gill, F. A., M.D., Langho Reformatory, Whalley, Blackburn
Gornall, T. B., M.B., 40, Wellington Street, St. John's, Blackburn
Greenwood, A., M.D., Vine House, Revidge Rd., Blackburn
Greenwood, Alan Y., M.B., Garbett House, Accrington
Greeves, F. J., Esq., St. Albans View, Blackburn
Gregson, A. H., M.B., 86, Lower Audley Street, Blackburn
Haworth, F. G., Esq., Vale House, Darwen
Henry, Howard, M.B., Arnheim, Blackburn
Heyliger, E. D. S., M.B., 89, Preston New Road, Blackburn
Heywood, T. W., Esq., Lower Bank, Darwen
Higson, T., Esq., 87, Preston New Road, Blackburn
Hogan, M., Esq., 82, Bury Street, Darwen
Hunt, R., Esq., 54, Preston New Road, Blackburn
Jones, W. E., Esq., 64, Ainsworth Street, Blackburn
Macklin, T. T., M.D., The Croft, Whalley
Marsden, J. T., M.B., 7, Railway Road, Darwen
Miller, J. W., M.D., Isolation Hospital, Blackburn
Mitchell, E., Esq., Peveril House, Accrington
Moffatt, A. A. P., Esq., Bastwell House, Blackburn
Moir, W., M.D., Belgrave Square, Darwen
Musson, A. W., M.B., 15, King Street, Clitheroe
Nash, E. H. T., Esq., Oakfield House, Accrington
Nuttall, T. E., M.D., 101, Avenue Parade, Accrington
Owen, O. Trafford, M.B., 3, St. Albans Place, Blackburn
Patchett, J., Esq., St. Hubert's Lodge, Great Harwood
Prebble, P., M.B., 6, St. Albans Place, Blackburn
Rigby, W., M.B., 16, St. Albans Place, Blackburn
Robb, A. A., M.B., 2, Denmark Place, Accrington
Smith, R. B., Esq., 55, Preston New Road, Blackburn
Smith, W. Allan, M.B., Mount Coffer, Darwen
Stahlknecht, B., M.B., 172, St. Hubert's Road, Gt. Harwood
Steele, W. F., Bolton Road, Darwen
Stephenson, F. W. M., M.B., Mayfield, Blackburn
Stewart, Robert, Esq., Park View, Blackburn Rd., Darwen
Sutherland, A. L., M.B., 9, Richmond Terrace, Darwen
Taylor, F. W., M.B., 2, Russell Street, Blackburn
Tough, W. R., M.D., Parkside, Accrington
Townley, A. E., M.B., 239, Union Road, Oswaldtwistle
Walters, W., Esq., Blackburn
Wells, John W., M.D., Springburn House, Blackburn
Willett, John, Esq., Pleasant View, Hollins Grove, Darwen
Wraith, J. H., Esq., Newhaven, Darwen
Wraith, O. S., Esq., Thornleigh, Darwen
Yates, Annie M., M.B., 38, Rockmount Terrace, Accrington

No. 5.—Blackpool Division

NUMBERING 48.

Chairman, A. M. Eason, Esq., Lytham

Vice-Chairman, L. M. McIntosh, M.D., Blackpool

Honorary Secretary, F. J. H. Coutts, M.D., 264, Hornby Road, Blackpool

Representative for Representative Meeting.
F. J. H. Coutts, M.D., 264, Hornby Road, Blackpool

Representative on Branch Council.
Day, P. H., Esq.

Executive Committee.
Day, P. H., Esq.
Dunderdale, R. H. W. Esq.
Falconer, F., M.B.
Fisher, T., Esq.
Forbes, G., M.B.
Knight, E., M.B.
Molloy, L. G. S., M.D.
Richardson, W. B., Esq.,

Armstrong, W. L., M.B., West End House, Great Eccleston
Barton, H. T., M.B., 48, Lytham Road, Blackpool
Billing, G., Esq., 129, Church Street, Blackpool
Booth, F., M.D., Sunny Bank, St. Anne's-on-Sea
Conway-Hughes, L. F., Esq., 123, Warbreck Road, Claremont Park, Blackpool
Couper, S., M.B., 50, Alexandra Rd., South Shore Blackpool
Court, C., M.B., Moor Villa, Kirkham
Coutts, F. J. H., M.D., 264, Hornby Road, Blackpool
Day, P. H., Esq., Stalmine Lodge, near Poulton-le-Fylde
Dunderdale, R. H. W., Esq., 4, Raikes View, Blackpool
Eason, A. M., Esq., Park Villa, Lytham
Elliott, A. C., M.B., Cranford, St. Anne's-on-the-Sea
Falconer, F., M.B., Westbank Avenue, Ansdell, Lytham
Fearnhead, T., Esq., West Beach, Lytham
Fisher, T., Esq., Great Eccleston
Forbes, G., M.B., 2, Kensington Pl., South Shore, Blackpl.
Foyl, C. A., Esq., Foxhall Square, Blackpool
Gardner, A., M.B., 2, Devonshire Road, Blackpool
Hardman, W., M.B., Seabank Terrace, Blackpool
Heaney, F. J. S., M.D., 3, Brighton Parade, Blackpool
Hilliard, Ephraim, Esq., Queens Square, Blackpool
Iredale, Allen, M.B., Central Drive, Blackpool
Jeffrey, N. S., M.B., 2, Raikes Road, Blackpool
Johnson, J., Esq., Yates Street, North Shore, Blackpool
Kershaw, John, Esq., 46, North Drive, St. Anne's-on-the-Sea
Knight, E., M.B., Glengarth, St. Anne's-on-the-Sea
Knowles, R., Esq., Clandeboye, York Road, St. Anne's-on-Sea
Lawton, Arthur, M.B., 37, Warbreck Road, Blackpool
McIntosh, L. M., M.D., 97, Adelaide Street, Blackpool
Merrall, Harry, M.B., 7, North Drive, St. Anne's-on-Sea
Molloy, L. G. S., M.D., 3, Brighton Parade, Blackpool
Monteath, T. P., M.B., 288, Lytham Road, South Shore, Blackpool
O'Connor, J., M.D., 7, Clifton Drive South, St. Anne's-on-Sea
Parkinson, H. R., Esq., Great Eccleston
Porter, T., M.B., St. Anne's Road East, St. Anne's-on-Sea
Preston, J. R., Esq., Beechville, Fleetwood
Rhodes, F. S., Esq., Hope Villa, Thornton, Poulton le Fylde
Richardson, W. B., Esq., 33, Victoria Street, Blackpool
Robinson, W. H., Esq., Mount Road, Fleetwood
Saberton, C. W. S., M.B., 195, Warbreck Road, Blackpool
Shaw, W. W., Esq., Kirkham
Stewart, John, M.B., Warbreck Rd., North Shore Blackpool
Stott, F. W. A., M.B., Church St., South Shore, Blackpool
Taylor, Andrew, M.B., Old Hall, Stalmine, Poulton-le-Fylde
Vinter, C. H. S., Esq., The Gables, Station Road, Blackpool
Walter, R. A., Esq, 282, Lytham Road, Blackpool
Williams, W. H., M.D., Rossall School, Fleetwood
Woodhead, W. F. C., Esq, South Drive, St. Anne's-on-Sea

No. 6.—Bolton Division

NUMBERING 50.

Chairman, C. Macfie, M.D., Bolton

Vice-Chairman, R. D. Mothersole, M.D., Bolton

Honorary Secretary, James Wood, Esq., 141, Derby Street, Bolton

Representative for Representative Meeting.
T. W. Pattinson, Esq., Bolton

Representatives on Branch Council.
Brazil, W. H., M.D.
Macfie, C., M.D.

Ainsworth, R., M.B., Westholme, Chorley New Road Bolton
Alderson, G. P., M.B., Bank House, Turton
Boulton, Thomas, Esq., Astley Bank, Blackburn Rd., Bolton
Brazil, W. H., M.D., 365, Blackburn Road, Bolton-le-Moors
Brown, L., Esq., 28, Chorley Old Road, Bolton
Bryce, W. H., M.B., 22, Chorley New Road, Bolton
Coats, J. Mandall, M.B., Scholesbank, Horwich
Cosgrave, A., Esq., The Oaks, near Bolton
Derham, B., M.D., 110, St. George's Road, Bolton
Ferguson, J. H., Esq., 53, Manchester Road, Bolton
Flitcroft, T. E., Esq., Chorley New Road, Bolton
Garstang, E. M., M.D., Highfield, Radcliffe Road, Bolton
Gilchrist, R. M., M.B., 304, Derby Street, Bolton
Gould, J. E., M.D., Town Hall, Bolton
Hall, J. H., Esq., 283, Manchester Road, Bolton
Higginson, A., Esq., Vernon Street, Bolton
Jefferies, Horace, Esq., 38, St. George's Place, Bolton
Johnston, J., M.D., Lostock Lane, Bolton
Johnston, John, M.B., Long Causeway, Farnworth, R.S.O.
Kerr, F. F., M.D., Kildonan, Horwich
Kershaw, A., M.D., Vicarage Road, Farnworth, Bolton
Kilpatrick, R. R., M.B., 14, Angle Bank, Bolton-le-Moors
Lilwall-Cormac, J., Esq., 399, Church Road, Smithhills, Bolton
Macfie, C., M.D., 240, St. George's Road, Bolton
allett, F. R., M.D., Newport House, Bolton
Marsh, J. Holt, Esq., Little Hulton, Bolton-le-Moors
Marshall, Jean M. F., M.B., Derby Street, Bolton
Martin, W. Y., M.D., J.P., Walkden
Monks, Ernest, M.B., Haulgh, Bolton
Mothersole, R. D., M.D., 128, St. George's Road, Bolton
Munro, George, M.B., Green Bank, Bolton
Nuttall, W., M.B., Little Lever, near Bolton
O'Neill, T., M.B., 241, Blackburn Road, Bolton
Park, A. G., M.D., Folds House, Bolton
Patchett, E. J., Esq., 80, Rishton Lane, Bolton
Pattinson, T. W., Esq., 65, Orlando Street, Bolton
Pickford, J. S., Esq., Little Lever, near Bolton
Rigby, W. G., M.B., Adlington
Robinson, F., M.B., Inglewood, Ashworth Lane, Bolton
Robinson, J., M.D., Dunscar, near Bolton
Rose, Andrew, M.B., Duff House, Horwich
Sayers, R., M.D., 11, Manchester Road, Walkden, Bolton
Settle, R., M.D., 39, Chorley New Road, Bolton
Sewell, J. S., M.B., Winter Hay House, Horwich
Spencer, G. H., Esq., 185, Albert Road, Farnworth
Swainson, J. A., Esq., Moss House, Higher Bridge Street, Bolton
Taylor, A. H., M.D., 127, High Street, Bolton
Taylor, H. J., Esq., 44, St. George's Road, Bolton
Thompson, J. H., M.D., 248, Chorley Old Road, Bolton
Thornley, J., M.D., 293, Halliwell Road, Bolton
Tong, L., Esq., 151, Chorley Old Road, Bolton
Unsworth, J. W., M.B., Blackrod
Webster, F. B., Esq., 76, Cooper Street, Bolton
Whitaker, G. H., Esq., Horwich
Wood, James, Esq., 141, Derby Street, Bolton
Young, James, Esq., 267, Derby Street, Bolton

No. 7.—Burnley Division

NUMBERING 38.

Chairman, A. M. Sinclair, M.B., Burnley

Vice-Chairman, F. W. Marsden, Esq., Burnley

Honorary Secretary, Jas. Haworth, M.B., Wilfield House, Burnley

Representative for Representative Meeting.
R. C. Holt, M.D., Burnley

Representative on Branch Council.
Ferguson, J. M., Esq.

Executive Committee.
Bird, W., M.B.
Giffen, S. M., Esq.
Slane, H. J., M.B.
Wright, W., M.D.

Agnew, A. P., M.B., Lyndhurst, Padiham
Alderton, H. C., Esq., Barnoldswick Colne
Anderson, C. A., M.B., 89, Rectory Road, Burnley
Bird, A. E., Esq., Trafalgar House, Burnley

Bird, W., M.B., Brierfield, near Burnley
Bromley, W. J. D., M.B., Cross Hill, Padiham
Burns, J., Esq., Fulledge House, Burnley
Cadman, H. C., M.B., Park Road, Barnoldswick
Connolly, A. J., Esq., 83, Thursby Road, Burnley
Dickey, A. A. G., M.D., Higgen House, Colne
Ferguson, J. M., Esq., Ash Grove, Burnley
Findlay, Andrew, M.B., 20, Carr Road, Nelson
Gardner, James, M.B., 1, Piccadilly Road, Burnley
Giffen, S. M., Esq., 54, Bank Parade, Burnley
Grant, Alex., M.B., 31, Albert Road, Colne
Haworth, James, M.B., Wilfield House, Burnley
Holt, R. C., M.D., 60, Bank Parade, Burnley
Holt, Thos., M.D., Scott Park Road, Burnley
Hoyle, John, Esq., Adlington House, Brierfield
Jones, F. R., M.B., 7, Keighley Road, Colne
Jones, J. Grant, M.D., 47, Church Street, Padiham
Kippax, J., M.B., 7, Colne Road, Burnley
Lovett, W. L., Esq., Colne
Mackenzie, J., M.D., 68, Bank Parade, Burnley
Marsden, F. W., Esq., Rookwood House, Burnley
Millar, A. P., M.D., Nelson-in-Marsden
Mitchell, C. M., M.D., Carr Road, Nelson-in-Marsden
Normington, A. E., M.B., Nelson
Pim, F. E. De B., Esq., Barrowford, Nelson
Pullon, G. S., M.D., 114, Westgate, Burnley
Robb, A., M.D., 38, Carr Road, Nelson
Robinson, H. J., Esq., Springfield House, Burnley
Rodgers, R. C., Esq., 22, Accrington Road, Burnley
Sinclair, A. M., M.B., Manchester Road, Burnley
Tate, Isabel, A., M.D., The Infirmary, Burnley
Wright, W., M.D.Brux., 56, Oakmount Terrace, Burnley

No. 8.—Bury Division

NUMBERING 31.

Chairman, I. W. Johnson, M.D., Bury

Vice-Chairman,

Honorary Secretary,

Representative for Representative Meeting.
Robert Mitchell, M.D., Bury

Representative on Branch Council.
Kerr, J. B., M.B.

Baird, W. J., Esq., Springwell, Manchester Road, Bury
Brindley, A. E., M.D., The Elms, Walmersley Road, Bury
Bromhall, E., Esq., 124, Burnley Road, Rawtenstall
Broomhead, James, M.B., 18, Manchester Rd., Haslingden
Cook, J. W., M.B., 26, Manchester Road, Bury
Coutts, J. A., M.D., Waterfoot, near Manchester
Deans, William, M.B., Carr Bank, Ramsbottom
Eames, J. C., M.D., Stoneclough, Manchester
Edwards, A. A., M.D., Bank House, Rawtenstall
Farquharson, D. P. M., M.B., Bank House, Radcliffe
France, W. J., Esq., 65, Stanley Street, Bury
Greenhalgh, H., Esq., 155, Roach Ter., Rochdale Rd., Bury
Holmes, F. B. G., M.B., 78, Walmersley Road, Bury
Jelly, G. A., Esq., 239, Walmersley Road, Bury
Johnson, I. W., M.D., Brook House, Bury
Kerr, H., M.B., Florence Nightingale Infectious Hospital, Bury
Kerr, J. B., M.B., 9, St. Maries Gate, Bury
Lawrie, H., M.B., 42, Bolton Street, Ramsbottom
Lees, J. E., M.B., Elton, Bury
Lucas, Arthur, Esq., Stanley Place, Bury
Lusk, Thos., M.D., 133, Walmesley Road, Bury
Mitchell, Robert, M.D., St. Maries Gate, Bury
Nuttall, A. P., M.D., 18, Clough Street, Bury
Parks, J., Esq., Bank House, Manchester Road, Bury
Rawsthorne, H., Esq., Deardengate House, Haslingden
Robertson, W., Esq., Holly House, Rawtenstall
Saville, H. W. B., Esq., Radcliffe, Manchester
Silverwood, J., Esq., 171, Bolton Road, Elton, Bury
Sugden, S., Esq., Greenfield House, Newchurch
Troup J., M.B., Allandale, Whitefield
Turnbull, J. C., M.D., 94, Walmersley Road, Bury

No. 9.—Chester Division

NUMBERING 68.

Chairman, F. M. Granger, Esq., Chester

Vice-Chairman, T. S. Parry, M.B., Chester

Honorary Secretary and Treasurer, H. W. King, M.D. 26, Nicholas Street, Chester

Representative for Representative Meeting.
John Duff, M.D., 5, Abbey Street, Chester

Representatives on Branch Council.

Granger, F. M., Esq.	King, H. W., M.D.

Executive Committee.

Duff, John, M.D.	Laird, A. J., M.D.
Jephcott, C., M.B.	Taylor, J., Esq.

Annett, H. E., M.D., Crofton Lodge, Higher Runcorn
Archer, A. M., M.D., Dee Hill Lodge, Boughton, Chester
Archer, S. L. H., Esq., Edgeley Lodge, Haughton, Tarporley
Atkinson, J., Esq., Mirion House, Crewe
Bailey, E. C., M.B., Havelock House, Crewe
Blagden, J. J., Esq., 10, Nicholas Street, Chester
Briant, A. J., Esq., Helsby
Brierley, T. B., Esq., Tattenhall
Burton, W. E., Esq., Brockton, Frodsham
Butt, F. J., M.D., The Limes, Hoole Road, Chester
Cahill, M., Esq., 110, Station Road, Ellesmere Port
Carruthers, W. H., M.D., Halton, Runcorn
Colclough, W. F., M.D., 74, Hough Green, Chester
Crutchley, H., M.D., Holmcroft, Alsager
Cullen, James, Esq., Tower House, Runcorn
Davies, Katherine C., L.R.C.P., 79, Watergate St., Chester
Dickson, L. E., M.B., Mayfield, Hoole, Chester
Dobie, W. H., M.B., 2, Hunter Street, Chester
Dobie, W. M., M.D., 4, Hunter Street, Chester
Duff, John, M.D., 5, Abbey Street, Chester
Elliott, John, M.D., 24, Nicholas Street, Chester
Foster, S. W., M.B., Great Barrow, Chester
Fraser, D., M.B., Roseneath Cottage, Buckley, Chester
Giffen, J. T., M., Esq., 138, Boughton, Chester
Granger, F. M., Esq., 18, Nicholas Street, Chester
Gray, E., Esq., Nantwich Road, Crewe
Grills, G. H., M.D., County Asylum, Chester
Hamilton, A., Esq., 16, Whitefriars, Chester
Harrison, G., Esq., 13, Whitefriars, Chester
Harrison, T. H., Esq., Betley, near Crewe
Hodgson, W., Esq., J.P., Helmsville, Crewe
Jephcott, Charles, M.B., 2, The Northgate, Chester
Kenyon, G. A., M.B., Chester
King, H. W., M.D., 26, Nicholas Street, Chester
Kinghorn, Allan, M.B., Beaconhurst, Higher Runcorn
Laird, A. J., M.D., Municipal Offices, Crewe
Lapage, C. C., M.D., Elmwood House, Nantwich
Lawrence, A., M.D., County Asylum, Chester
Lees, Wm., Esq., Bars House, Foregate Street, Chester
Liddle, E. J., M.B., Lisgoole, Crewe
Lowe, C. E. M., M.B., Brooklyn House, Crewe
McDonnell, M.S., M.D., 124, Greenway Road, Runcorn
MacLennan, A., M.B., Grove House, Waterloo Rd., Runcorn
Mann, A., M.D., 18, Newgate Street, Chester
Matthews, F. E., Esq., Welsh Row House, Nantwich
Millar, J. B., M.B., Earnscliffe, Edleston Road, Crewe
Moody, J. W., Esq., Hightown, Crewe
Moreton, J. E., Esq., Tarvin, Chester
Munro, S. H., M.D., Nantwich
Newall, W. A., M.D., 9, Grosvenor Street, Chester
Nott, H. W., Esq., Little Sutton, nr. Chester
Parry, T. S., M.B., The Northgate, Chester
Pattullo, H. A., M.B., Kelsall, near Chester
Roberts, John, M.D., Abbey Square, Chester
Robinson, J., M.B., The Belvidere, Runcorn
Selby, T. J., M.B., Frodsham
Stain, W. C. W., M.B., Beech House, Audlem
Stolterfoth, H., M.D., 1, Grey Friars Chester
Sutton, D. C., M.B., 62, Watergate Street, Chester
Taylor, James, F.R.C.S., Haygarth House, Chester
Thomson, W., Esq., Wrenbury, Nantwich
Turner, R. T., M.D., Manor House, Nantwich
Welsh, John, Esq., 43, Tarvin Road, Chester
Whichello, H., Esq., The Mount, Tattenhall
Williams, Lewis A., M.D., The Cottage, Runcorn
Wilson, C., M.D., Coila, Crewe
Wright, R. B., Esq., Folliott House, Chester
Young, T. F., M.D., Carlton, Little Sutton

No. 10.—Glossop Division

NUMBERING 8.

Chairman, R. B. Sidebottom, Esq., Glossop

Vice-Chairman, A. C. Nicol, Esq., Glossop

Honorary Secretary, Arthur Walker, Esq., 16, High Street W., Glossop

Representative for Representative Meeting.
W. H. Hughes, Esq., Ashton-under-Lyne

Representative on Branch Council.
White, W., M.D.

Bollans, R. W., M.B., Hadfield, near Manchester
Bowden, W. J., M.B., Norfolk Street, Glossop
Mackenzie, D. J., M.D., North Road, Glossop
Mason, H. A., Esq., Broadbottom, near Manchester
Nicol, A. C., Esq., 93, High Street W., Glossop
Sidebottom, R. B., Esq., Redcourt, Glossop
Walker, Arthur, Esq., 16, High Street W., Glossop
White, W., M.D., Hadfield

No. 11.—Isle of Man Division

NUMBERING 14.

Chairman,

Vice-Chairman

Honorary Secretary,

Representative for Representative Meeting.
F. J. H. Coutts, M.D., 264, Hornby Road, Blackpool

Bailey, J. H., M.B., Church Street, Port Erin, Isle of Man
Casey, P. F., Esq., 2, Kingswood Road, Douglas, Isle of Man
Clague, J., Esq., Castletown, Isle of Man
Cordiner, R., Esq., 22, Derby Square, Douglas
Cowin, W. S., Esq., 4, Waterloo Road, Ramsey, Isle of Man
Gell, R., Esq., Peel, Isle of Man
Goulden, R., Esq., Peel, Isle of Man
Hannay, H. P., M.B., Castletown, Isle of Man
Mackenzie, T., M.D., Sydney Mount, Douglas, Isle of Man
Richardson, W., M.D., Union Mills, Isle of Man
Sugden, H. C., Esq., Ramsey, Isle of Man
Teare, J., M.B., Victoria Road, Castletown, Isle of Man
Thorburn, R., M.B., Bradda, Port Erin, Isle of Man
Wood T. A. M.D. Albert Terrace, Douglas, Isle of Man

No. 12.—Leigh Division

NUMBERING 27.

Chairman, W. Duncan, M.D., Tyldesley

Vice-Chairman, J. King, M.B., Leigh

Honorary Secretary, M. J. Halton, Esq., 95 Chapel Street, Leigh

Representative for Representative Meeting.
F. E. Wynne, M.B., 53, Church Street, Leigh

Representative on Branch Council.
Hall, H. S., Esq.

Executive Committee.

Beckitt, J. C., Esq.	Jones, Joseph, M.B.
Gray, Thomas, M.B.	Martin, R. J., M.B.

Auden, A. W. M., M.B., Birch House, Leigh
Beckitt, J. C., Esq., The Lindens, Leigh
Blakemore, B., Esq., Ingleside, Tyldesley, Manchester
Blakemore, H., Esq., 60, Market St., Atherton, nr. Manch.
Challinor, C., Esq., Avenue House, Leigh
Doyle, E. A., M.B., Birch House, Leigh
Duncan, W., M.D., Tyldesley
Gray, Thos., M.B., The Thistles, Tyldesley
Gray, William G., Esq., Brunswick House, Leigh
Hall, C. H., M.B., 7A, Leigh Road, Leigh
Hall, H. S., Esq., The Elms, Railway Road, Leigh
Halton, M. J., Esq., 95, Chapel Street, Leigh
Hamer, E. S., Esq., Tyldesley
Hamer, H., M.B., The Square, Tyldesley
Hayes, James, Esq., Stone House, Leigh
Jones, B., M.D., Avenue Gate, Leigh
Jones, Joseph, M.B., Howarth Cross, Henrietta St., Leigh
King, J., M.B., Leigh
Lowe, A. J., Esq., Home Lea, Boothstown
Marshall, B., Esq., Chapel House, Atherton
Martin, J. S., M.D., 34, Railway Road, Leigh
Martin, R. J., M.D., Atherton, Manchester
Sephton, Richard, Esq., 8, Chapel St., Bedford Leigh, Lancs.
Sephton, Robert, Esq., Atherton, Manchester
Shaw, G. H., M.B., Burnleigh, Leigh
Thompson, W. A., Esq., 262, Firs Lane, Leigh
Wynne, F. E., M.B., 53, Church Street, Leigh

No. 13.—Liverpool (Bootle) Division

NUMBERING 62.

Chairman, W. J. Fleetwood, M.D., Aintree, Liverpool

Vice-Chairman, B. Sumner, M.D., Waterloo

Honorary Secretary, Robert Turner, M.D., 81, Wadham Road, Bootle

Representative for Representative Meeting.
Joseph Walker, Esq., Bootle

Representatives on Branch Council.

Fleetwood, W. J., M.D.	Wills, T. M., Esq.

Ahern, J. M., Esq., H.M. Prison, Liverpool
Anderton, W., Esq., Mansion House, Ormskirk
Bates, T. W., Esq., Oriel House, Bootle, Liverpool
Blair, Mrs. G. A., L.S.A., 21, Church Street, Waterloo
Bradshaw, J. C. Esq., Donald Lodge, Walton, Liverpool
Brown, J. G., M.B., 196, Stanley Road, Bootle
Budden, C. W., M.B., 12, Cable Road, Hoylake, Liverpool
Buxton, Edward, M.D., South Road, Waterloo, Liverpool
Clemmey, W. N., Esq., 27, Merton Road, Bootle
Daley, W., Esq., Claremont House, Bootle
Dixon, H. L., M.B., 119, Strand Road, Bootle, Liverpool
Dunn, J., Esq., Tulliallan, Waterloo, Liverpool
Evans, J. H., Esq., Crosby Road North, Waterloo, Liverpool
Fleetwood, W. J., M.D., 63, Walton Vale, Aintree, Liverpool
Gaskell, R. A., Esq., Glendevon, Huyton, Liverpool
Gasteen, W. C., Lt.-Col. R.A.M.C., Mayfield, Waterloo, Liverpool
German, F. F., Esq., 47, Sandy Road, Seaforth
Gordon, J. F., M.D., High Pastures, Maghull
Gordon, R., M.B., Everest House, Liverpool Road, Great Crosby
Heald, H., Esq., 20, Derby Street, Ormskirk
Hepton, J. C., Esq., Springfields, Waterloo
Houlgrave, A., Esq., 23, St. George's Road, Waterloo, L'pool
Huskie, James, M.B., Romsdal, Blundellsands
Hutchinson, G. A., Esq., Newstead, Crosby Road N., Waterloo
Laing, J. G., Esq., Netherby House, Latham, Ormskirk
Little, G. W., Esq., 49, Cambridge Road, Seaforth
McGeagh, R. T., Surg.-Capt. (ret.), 20, Spellow Lane, L'pool
McMurray, J., M.D., 56, Merton Road, Bootle
McVitie, J. W., Esq., Kirkby, Liverpool
Marsden, H. H., Esq., The Hall, Ormskirk
Marsh, W. A., Esq., Skelmersdale, Ormskirk
Matthews, J. C., Esq., Agnes Rd., Blundellsands, Liverpool
Matthews, J., M.D., Forton Lodge, Blundellsands, Liverpool
Maudsley, H. A., M.B., 239, Westminster Road, Liverpool
Merrick, A. A. W., Esq., High Street, Skelmersdale
Mitchell, James, M.D., 142, County Road, Walton, Liverpool
Moyles, J. G., M.B., 2, Bedford Road, Walton, Liverpool
Nixon, J. P., M.B., Longmore Lane, Aintree, Liverpool
Oldershaw, George, Esq., 202, County Road, Liverpool
Owen, R., Esq., Sandy Nook, Seaforth
Paddock, T. D., Esq., corner of Linacre Lane and Stanley Road, Bootle
Pendlebury, J. P., Esq., Knowle House, Ormskirk
Price, A., Esq., Merriebank, Walton Park, Liverpool
Rafter, J., Esq., 41, Crosby Road, Waterloo, Liverpool
Reid, George, M.B., Mersey Road, Blundellsands, Liverpoo
Reid, J. M., M.D., Stanley Villas, Great Crosby
Robinson, G. B., M.B., Warrenhurst, Blundellsands, nr. Liverpool
Rotheram, W., Esq., Sandy Lane, Skelmersdale
Saunders, J. C., Esq., 76, Bedford Road, Bootle
Scholefield, G. E., M.D., Brentwood, Aughton, nr. Ormskirk
Stevenson, R., M.D., 12, Merton Road, Bootle
Sugden, E. Scott, M.D., Orrell Park, Aintree, Liverpool
Sumner, B., M.D., Capenhurst, Crosby Rd. N., Waterloo
Thomas, Alfred, Esq., 304, Rice Lane, Liverpool
Turner, Robert, M.D., 81, Wadham Road, Bootle
Walker, Joseph, Esq., 23, Merton Road, Bootle, Liverpool
Walker, T. E., M.B., 23, Merton Road, Bootle, Liverpool
Waters, H., M.B., 195, Stanley Road, Bootle
Wild, G. S., M.D., 31, Merton Road, Bootle, Liverpool
Wills, T. M., Esq., 44, Merton Road, Bootle, Liverpool
Worsley, R. Le Geyt, Esq., H.M. Prison, Liverpool
Wright, W. H., Esq., 16, Spellow Lane, Liverpool

No. 14.—Liverpool (Central) Division

NUMBERING 68.

Chairman, T. D. Leigh, Esq., Liverpool

Vice-Chairman, G. P. Newbolt, M.B., Liverpool

Honorary Secretary, Frank H. Barendt, M.D., 65, Rodney Street, Liverpool

Representative for Representative Meeting, A. G. Gullan, M.D., 37, Rodney Street, Liverpool

Representatives on Branch Council.

Barendt, F. H., M.D.	Newbolt, G. P., M.B.

Executive Committee.

Armstrong, H., M.D.	Douglas-Crawford, D., M.B.
Bradshaw, T. R., M.D.	Macalister, C. J., M.D.
Cairns, W. M., M.B.	

Alexander, W., M.D., 31, Rodney Street, Liverpool
Anderson, E. L., M.B., 51A, Rodney Street, Liverpool
Armstrong, H., M.D., 7, Rodney Street, Liverpool
Bailey, Frank W., Esq., 51, Grove Street, Liverpool
Barendt, Frank H., M.D., 65, Rodney Street, Liverpool
Bark, T. Taylor, M.B., Brownlow Hill Hospital, Brownlow Hill, Liverpool
Bell, W. B., M.D., 7, Rodney Street, Liverpool
Bligh, J., M.D., 109, Mount Pleasant, Liverpool
Boyce, Professor R., M.B., F.R.S., University College, Liverpool
Bradshaw, T. R., M.D., 51, Rodney Street, Liverpool
Brannigan, R. A., M.D., 100, Upper Parliament St., Liverpool
Briggs, H., F.R.C.S., 3, Rodney Street, Liverpool
Browne, E. A., Esq., 39, Rodney Street, Liverpool
Bushby, T., M.B., 43, Catharine Street, Liverpool
Cairns, W. M., M.B., 67, Catharine Street, Liverpool
Clarke, H. H., Esq., 67, Rodney Street, Liverpool
Currey, R. H., Esq., 154, Bedford Street, Liverpool
Dawson, T. M., Esq., 77, Upper Parliament St., Liverpool
Douglas-Crawford, D., M.B., 75, Rodney Street, Liverpool
Ellenbogen, A., Esq., 4, Elizabeth Street, Liverpool
Elliot, H. P., M.B., 111, Chatham Street, Liverpool
Fingland, W., Esq., 61, Rodney Street, Liverpool
Glynn, E. E., M.B., University of Liverpool
Griffith, F., M.B., Manor House, Hale, Liverpool
Grimsdale, T. B., M.B., 29, Rodney Street, Liverpool
Gullan, A. G., M.D., 37, Rodney Street, Liverpool
Harrisson, Damer, Esq., 53, Rodney Street, Liverpool
Henderson, W. S., M.B., 63, Rodney Street, Liverpool
Hill, C. A., M.B., 13, Rodney Street, Liverpool
Hunt, J. M., M.B., 55, Rodney Street, Liverpool
Ireland, J. A., Esq., 23, Russell Street, Liverpool
Jones, H. E., Esq., 19, Rodney Street, Liverpool
Jones, T. C. L., Esq., 1A, Rodney Street, Liverpool
Lamb, Ralph, Esq., 51A, Rodney Street, Liverpool
Leigh, T. D., Esq., 85, Bedford Street, South, Liverpool
Livsey, W. E., M.D., 78, Rodney Street, Liverpool
Macalister, C. J., M.D., 35, Rodney Street, Liverpool
Marsh, N. P., M.B., 7, Abercromby Square, Liverpool
Monsarrat, K. W., M.B., 11, Rodney Street, Liverpool
Morgan, L. A., M.D., 118 Bedford Street, Liverpool
Murray, H. L., M.D., 175, Brownlow Hill, Liverpool
Murray, R. W., Esq., 15, Rodney Street, Liverpool
Nelson, P., M.D., 73, Rodney Street, Liverpool
Newbolt, G. P., F.R.C.S., 42, Catharine Street, Liverpool
Nuttall, J. S. W., M.B., 10, Falkner Square, Liverpool
Owen, John, M.B., 13, Rodney Street, Liverpool
Palmer, S. J., M.D., 32, Oxford Street, Liverpool
Parker, Rushton, M.B., 59, Rodney Street, Liverpool
Paterson, A. M., M.D., 21, Abercromby Square, Liverpool
Permewan, W., F.R.C.S., 7, Rodney Street, Liverpool
Phillips, E. J. M., Esq., 33, Rodney Street, Liverpool
Puzey, C., Esq., 71, Rodney Street, Liverpool
Roaf, H. E., Esq., The University, Liverpool
Robinson, H. A., M.D., 57, Canning Street, Liverpool
Shears, C. H. B., Esq., 19, Upper Duke Street, Liverpool
Sherrington, C. S., M.D., F.R.S., University of Liverpool
Spooner, W. Esq. (address uncommunicated)
Stephens, J. W. W., M.D., School of Trop. Med., Liverpoo
Stevenson, Edgar, M.D., 39, Rodney Street, Liverpool
Stockdale, E. M., Esq., 67, Rodney Street, Liverpool
Stocker, J. R., M.B., Board of Trade Office, Canning Plac Liverpool
Walker, A. N., M.B., 45, Rodney Street, Liverpool
Walker, G. E., Esq., 45, Rodney Street, Liverpool
Wallace, A. J., M.D., 1, Gambier Terrace, Liverpool
Warrington, W. B., M.D., 69, Rodney Street, Liverpool
Waters, A. T. H., M.D., 69, Bedford Street, Liverpool
Willett, J. H., M.B., 25, Catharine Street, Liverpool

No 15.—Liverpool (Northern) Division

NUMBERING 54.

Chairman, J. J. Tisdall, Esq., Liverpool

Vice-Chairman, J. A. Cooke, Esq., Liverpool

Honorary Secretary and Treasurer, A. W. German, Esq., 296, Kensington, Liverpool

Representative for Representative Meeting,
James Shaw, M.D., Liverpool

Representative on Branch Council.
A. W. German, Esq.

Executive Committee.

Adcock, H. Esq.
Archer, R. S., M.D.
Davies, E. T., M.D.
Edwards, Percy, Esq.
Matthews, S., M.D.
Thomas, A. Ivor, Esq.
and *ex-officio* members.

Adcock, H., Esq., 143, Prescot Road, Fairfield, Liverpool
Archer, R. S., M.D., 15, St. Domingo Grove, Liverpool
Arkle, G. M., Esq., 51, Belmont Road, Liverpool
Baxter, J. C., Esq., 110, Robson Street, Everton, Liverpool
Blackledge, W. T., M.B., 2, Somerset Place, Liverpool
Blackwood, H. E, Esq., 335, Prescot Road, Stanley, Liverpool
Bligh, Alex. M., Esq., 59, Shaw Street, Liverpool
Bond, J., M.B., 202, Burlington Street, Liverpool
Bowen, O., Esq., Mere Lodge, Everton, Liverpool
Chain, A., Esq., 44, Juvenal Street, Liverpool
Clarke, H. A., M.D., 1, Deane Road, Liverpool
Clegg, W. T., F.R.C.S.Ed., 97, Durning Road, Liverpool
Cooke, J. A., Esq., Tuebrook Villa, Liverpool, E.
Cornett, J. A., Esq., 17, Norton Street, Liverpool
Costine, W. C., Esq., 235, Boundary Street, Liverpool
Davies, E. T., M.D., 1, St. Domingo Grove, Liverpool
Dickson, M., M.D., 117, Great Mersey Street, Liverpool
Dimond, J. E., Esq., 157, Breckfield Road North, Liverpool
Duncan, George, Esq., 139, Queen's Road, Liverpool
Edwards, Percy, Esq., 1, Newsham Drive, Liverpool
Evans, T. C., Esq., 1, Rose Vale, Everton, Liverpool
Fisher, A., M.B., 86, Shiel Road, Liverpool
German, A. W., Esq., 296, Kensington, Liverpool
Hall, J. P., M.B., 7, Eaton Road, West Derby
Harcourt, R. E., M.D., Stonleigh, Oakfield, Anfield, L'pool
Holmes, I., Esq., Oakfield, Anfield, Liverpool
House, S. H., M.B., 4, Shaw Street, Liverpool
Hutton, Gertrude M., L.R.C.P. and S.E., 1, Elm Bank Walton Breck Road, Liverpool
McFeely, J. D., F.R.C.S.I., 8, Shaw Street, Liverpool
McGeagh, J. P., M.D., Derby Lane, Stoneycroft, Liverpool
Mahony, M. J., M.D., 33, Derby Lane, Stoneycroft, Liverp'l
Matthews, S., M.D., 2, Edge Lane, Liverpool
Morris, T. Glynn, M.B., 139, Breckfield Road N., Liverpool
Mitchell, H. McC., M.B., 35, Belmont Road, Liverpool, N.
Murdoch, J. D., Esq., 16, Breck Road, Anfield
Nixon, H. T., M.B., 269, Walton Breck Rd., Anfield, Liv'rpool
O'Leary, A. J., Esq., 49, Pembroke Place, Liverpool
Oram, W. C., M.D., 59, Pembroke Place, Liverpool
O'Sullivan, J. E., Esq., 37, Shaw Street, Liverpool
Pitts, H. Y., Esq., Tuebrook, Liverpool
Rae, R. Rochfort, Esq., 11, Netherfield Rd. S., Liverpool
Richardson, R. I., M.B., J.P., 128, Shiel Road, Liverpool
Roberts, H. Lloyd, Esq., 75, Anfield Road, Liverpool
Shaw, James, M.D., 310, Kensington, Liverpool
Sheldon, R. G., Esq., 223, Boundary Street, Liverpool
Smith, Robert Ross, Esq., 1, Shaw Street, Liverpool
Somerville, William, Esq., 30, Breck Road, Liverpool
Stevenson, T., M.B., 1, Springfield, St. Anne's St., Liverpool
Stott, J. E., Esq., 201, Edge Lane, Liverpool
Thomas, A. I., Esq., 25, Derwent Rd., Stoneycroft, Liverpool
Tisdall, J. J., Esq., 73, Edge Lane, Liverpool
Whitford, W., M.D., J.P., 47, Shaw Street, Liverpool
Wilkins, Walter, Esq., 2, Haymans Green, Liverpool
Williams, O. T., M.D., 9, Oakfield, Anfield, Liverpool

No. 16.—Liverpool (Southern) Division

NUMBERING 60.

Chairman, G. Westby, Esq., Sefton Park, Liverpool

Vice-Chairman, H. Harvey, M.B., Wavertree, Liverpool

Honorary Secretary, J. C. M. Given, M.D., Elmsley Road, Mossley Hall, Liverpool

Representative for Representative Meeting.
G. Westby, Esq., Sefton Park, Liverpool

Representative on Branch Council.
Given, J. C. M., M.D.

Armour, T. R. W., M.B., 25, Park Way, Liverpool
Bennett, W. B., Esq., 2, Ashfield Road, Aigburth, Liverpool
Campbell, W. M., M.D., The Old House, Grassendale, Liverpool
Carse, R. F., M.D., 170, Upper Parliament Street, Liverpool
Chastel de Boinville, V., M.B., South Grange, Aigburth Road, Liverpool
Chisholm, J. M., M.D., Woolton, Liverpool
Davies, Mary B., L.R.C.P., 7, Princes Avenue, Liverpool
Donnelly, D., Esq., 15, Clarendon Road, Garston
Evans, O. F., M.D., 71, Mulgrave Street, Liverpool
Fisher, H. W., Esq., Greenbank Drive, Sefton Pk., L'pool
Given, J. C. M., M.D., Elmsley Road, Mossley Hill, Liverpool
Gorst, Henry, Esq., Huyton, Liverpool
Grimes, J., M.D., Grassendale, Liverpool
Groom, H. T., Esq., Island House, Garston
Halton, Henry, M.B., 97, Hartington Road, Liverpool
Hamilton, G. G., F.R.C.S., Glenallon, Greenbank Drive, Sefton Park, Liverpool
Harvey, H., M.B., 177, Picton Road, Wavertree, Liverpool
Hughes, C. A., M.B., Kenilworth, Argburgh Road, Dingle, Liverpool
Lee, C. G., Esq., 11, Princes Avenue, Liverpool
Lee, Miss Mary B., L.R.C.P., 39, Ivanhoe Road, Liverpool, S.
Logan, J. R., M.B., 81, Hartington Rd., Sefton Park, L'pool
Lyle, H. S., Esq., 209, Upper Parliament Street, Liverpool
McClelland, W., M.B., 171, Lodge Lane, Liverpool
MacKenna, R. W., M.B., 2, Langdale Rd, Sefton Pk, L'pool
Marshall, F. E., M.B., 41, Greenback Road, Liverpool
Martin, J. G., M.B., 1, Princes Gate East, Liverpool
Medwin, E. M. G., Esq., 22, High Street, Wavertree, Liverpool
Meeson, A., Esq., 7, Aigburth Road, Liverpool
Michell, H. S., Esq., Willow Bank, Smithdown Road, Liverpool
Molyneux, E., M.B., 67, Woolton Road, Garston
Monro-Home, G. H., M.D., South Grange, Aigburth Road, Liverpool
Murdoch, W. H., M., M.D., 2, Southwood Road, Liverpool
Myles, T., M.D., 45, Egerton Street, Liverpool
Nevins, J. E., M.B., 32, Princes Avenue, Liverpool
Nisbet, J. Tawse, M.D., 7, Croxteth Road, Liverpool
O'Hagan, J. J., M.B., Woodbourne, Aigburth, Liverpool
Oliver, J. B., M.D., 59, Parkfield Road, Liverpool
Pethick, C. S., M.B., Woolton, Liverpool
Paterson, W. B., M.B., 15, Grassendale Road, Grassendale
Reed, W. Cash, M.D., 15, Princes Avenue, Liverpool
Rentoul, R. R., M.D., 78, Hartington Road, Liverpool
Roberts, N. E., M.B., 17, Mulgrave Street, Liverpool
Roberts, R. G., M.D., 2, Gresford Avenue, Liverpool
Robinson, H. J., M.B., 22, Parkfield Road, Liverpool
Ross, Ronald, C.B., F.R.S., F.R.C.S., Major I.M.S. (ret.), The Lodge, Aigburth Vale
Sharp, C. J., Esq., 2, Wellington Avenue, Liverpool
Shaw, H. T., M.D., 146, Upper Parliament St., Liverpool
Simpson, A. P. H., Esq., 108, Hartington Road, Liverpool
Smart, D., M.B., 74, Hartington Rd., Sefton Park, Liverpool

Solomon, C. E., M.D., 42, Bentley Road, Liverpool
Stack, M. T., M.B., 19, High Street, Wavertree, Liverpool
Steeves, G. W., M.D., 53, Parkfield Road, Liverpool, S.
Tinne, P. F., M.B., 4, Mayfield Road, Aigburth, Liverpool
Vereker, C. V., Esq., Holly House, Woolton
Walker, A. F., Esq., 97, Arundell Avenue, Sefton Park
Westby, G., Esq., 189, Lodge Lane, Sefton Park, Liverpool
Williams, T. J., M.B., 3, Eversley Street, Liverpool
Williams, T. R., M.B., 4, Halkyn Avenue, Liverpool
Wood, R. L., M.B., Brookfield, Huyton
Wright, J. D., M.B., 67, Parkfield Road, Liverpool

No. 17.—Liverpool (Western) Division

NUMBERING 62.

Chairman, F. C. Larkin, Esq., Liverpool

Vice-Chairman, W. T. Thomas, Esq., Liverpool

Honorary Secretary, K. A. Grossmann, M.D., 70, Rodney Street, Liverpool

Representative for Representative Meeting.
K. A. Grossmann, M.D., 70, Rodney Street, Liverpool

Representatives on Branch Council.
Grossmann, K. A., M.D.
Larkin, F. C., Esq.

Executive Committee.

Barr, Sir James, M.D.
Drummond, P., M.B.
Raw, N., M.D.
Roberts, J. Lloyd, M.D.

Abram, J. H., M.D., 74, Rodney Street, Liverpool
Allen, W. T. D., M.B., 77, Mount Pleasant, Liverpool
Arkle, A. S., Esq., 24, Rodney Street, Liverpool
Bark, J., Esq., 54, Rodney Street, Liverpool
Barr, Sir James, M.D., 72, Rodney Street, Liverpool
Bennett, James Moore, M.D., 102, Princes Road, Liverpool
Bickersteth, E. R., Esq., 2, Rodney Street, Liverpool
Bickersteth, R. A., M.B., 10, Rodney Street, Liverpool
Bickerton, T. H., Esq., 83, Rodney Street, Liverpool
Bramwell, W., M.D., 26, Nelson Street, Liverpool
Broad, W. H., 18, Princes Road, Liverpool
Buchanan, R. J. M., M.D., 6, Rodney Street, Liverpool
Button, J. E., Esq., 64, Rodney Street, Liverpool
Cameron, J., M.D., 4, Rodney Street, Liverpool
Carter, W., M.D., 80, Rodney Street, Liverpool
Caton, R., M.D., 78, Rodney Street, Liverpool
Crawford, J. D., Esq., 40, Rodney Street, Liverpool
Davey, W. H. C., Esq., 30, Prince's Road, Liverpool
Davidson, P., M.B., 3, St. James Road, Liverpool
Davies, A. N., Esq., 56, Devonshire Road, Liverpool
Davis, A. E., Esq., 30, Great George Square, Liverpool
Drummond, P., M.B., 50, Princes Road, Liverpool
Dun, R. C., M.B., 6, Rodney Street, Liverpool
Ewart, R. J., M.D., 33, Berkeley Street, Liverpool
Finegan, J. H., M.D., 48, Rodney Street, Liverpool
Gemmell, J. E., M.B., 28, Rodney Street, Liverpool
Glynn, T. R., M.D., 62, Rodney Street, Liverpool
Grossmann, K. A., M.D., 70, Rodney Street, Liverpool
Hamilton, R. J., Esq., 42, Rodney Street, Liverpool
Hanna, Wm., M.B., Pier Head, Liverpool
Hawkins-Ambler, G. A., Esq., 30, Rodney Street, Liverpool
Hay, John, M.D., 12, Rodney Street, Liverpool
Hill, J. de V., Esq., 19, Upper Parliament Street, Liverpool
Holland, C. T., Esq., 2A, Princes Road, Liverpool
Hope, E. W., M.D., Municipal Offices, Liverpool
Howard, J. A., Esq., 1, Belvidere Road, Liverpool
Irvine, W., M.D., 55, Peel Street, Liverpool
Johnston, G., M.B., 13, Great George Square, Liverpool
Jones, H., Esq., 184, Upper Warwick Street, Liverpool
Jones, Robert, Esq., 11, Nelson Street, Liverpool
Kelly, R. E., M.B., 24, Rodney Street, Liverpool
Larkin, F. C., Esq., 54, Rodney Street, Liverpool
Lowndes, F. W., Esq., 40, Knight Street, Liverpool
McDougall, J. E., M.B., 86, Rodney Street, Liverpool
Morgan, D., M.B., 46, Nelson Street, Liverpool
Mussen, A. A., M.D., Municipal Bldngs, Dale St, Liverpool
O'Flaherty, F. B., M.B., 48, Park Place, Liverpool
O'Loughlin, W. F. N., Esq., Adelphi Hotel, Liverpool
Ouranofski, V., Esq., 1, Brunswick Street, Liverpool
Paul, F. T., Esq., 38, Rodney Street, Liverpool
Plant, H. W., M.D., 57, Upper Warwick Street, Liverpool
Raw, N., M.D., 66, Rodney Street, Liverpool
Roberts, H. Leslie, M.D., 46, Rodney Street, Liverpool
Roberts, J. Lloyd, M.D., 68, Rodney Street, Liverpool
Shaw, J. H., M.B., South Dispensary, Liverpool
Stookes, A., M.B., 8[illegible], Rodney Street, Liverpool
Taylor, G. G. S., M.D., 26, Rodney Street, Liverpool
Thomas, W. Thelwall, Esq., 84, Rodney Street, Liverpool
Warburton, J. W., M.D., 114, Prince's Road, Liverpool
Wilkinson, G., M.D., 3, Dingle Hill, Liverpool
Williams, Richard, Esq., 82, Rodney Street, Liverpool
Williams, W., M.D., 58, Rodney Street, Liverpool

No. 18.—Manchester (Central) Division

NUMBERING 75.

Chairman, J. H. Ray, M.B., Manchester

Vice-Chairman, J. J. Cox, M.D., Manchester

Honorary Secretary and Treasurer, W. K., Walls, M.B., 14, St. John Street, Manchester

Representative for Representative Meeting.
W. G. Booth, Esq., 30, Swan Street, Manchester

Representatives on Branch Council.
Booth, W. G., Esq.
Milligan, W., M.D.

Executive Committee.

Burgess, A. H., M.B.
Ferguson, J. M.D.
Helme, T. Arthur, M.D.
Heywood, C. C., M.B.
Wood, J. W. A., Esq.

Annacker, E., M.D., 342, Oxford Road, Manchester
Ashby, H., M.D., 13, St. John Street, Manchester
Bell, Margaret S., L.R.C.P., 334, Oxford Road, Manchester
Bernstein, M. J., M.B., 17, St. Ann's Square, Manchester
Beveridge, W. J., Esq., 135, Upper Brook Street, Manchester
Bishop, E. Stanmore, F.R.C.S., 189, High St., Manchester
Booth, W. G., Esq., 30, Swan Street, Manchester
Boycott, W. F., M.B., 92, Great Ancoats Street, Manchester
Burgess, A. H., M.B., 195 High Street, Manchester
Bury, J. S., M.D., 10, St. John Street, Manchester
Clarke, H. R., M.B., 37, York Chambers, Brazenose Street, Manchester
Clegg, J. G., M.D., 22, St. John Street, Manchester
Clifford, H., M.B., 15, St. John Street, Manchester
Cox, J. J., M.D., 38, Deansgate, Manchester
Cryer, J., Esq., 50, Upper Brook Street, Manchester
Dahms, Anna, M.D., 17, St. Ann's Square, Manchester
Delépine, Professor Sheridan, M.B., Public Health Laboratory, York Place, Manchester
Dulberg, J., M.D., 260, Oxford Road, Manchester
Emrys-Jones, A., M.D., 10, St. John Street, Manchester
Ferguson, J., M.D., 266, Stockport Road, Manchester
Fothergill, W. E., M.D., 1, Thorncliffe Grove, Manchester
Gibson, R., M.B., 140, Upper Brook Street, Chorlton-on-Medlock, Manchester
Griffith, A. H., M.D., 17, St. John Street, Manchester
Hardie, J., M.D., 15, St. John Street, Manchester
Harris, T., M.D., 325, Oxford Road, Manchester
Heathcote, G., Esq., 83, Grosvenor Street, Manchester
Helme, T. Arthur, M.D., Mayfield, Victoria Pk, M'chester
Henshaw, W. H., Esq., 30, Swan Street, Manchester
Herbert, Solomon, M.D., 81, Bellott Street, Manchester
Heywood, C. C., M.B., Winter's Buildings, St. Ann Street Manchester
Hill, E. F., M.B., 1, High Street, Chorlton-on-Medlock
Hodgkinson, A., M.B., 18, St. John Street, Manchester
Johnston, J. S., Esq., 26, Devonshire Street, Chorlton-on-Medlock, Manchester
Larmuth, L., M.B., 96, Mosley Street, Manchester
Lea, A. W. W., M.D., 216, Oxford Road, Manchester
Lund, H., M.B., 22, St. John Street, Manchester
McKeown, D., M.D., 25, St. John Street, Manchester
McNabb, H. H., M.B., 8A, St. John Street, Manchester
Mallett, W. J., M.D., 23, Lime Gr., Oxford Rd., Manchester
Mann, J. B., Esq., 26, St. John Street, Manchester
Mann, J. D., M.D., Plymouth Grove, Manchester
Marsden, R. W., M.D., 4, Swinton Grove, Manchester
Melland, C. H., M.D., 96, Mosley Street, Manchester
Milligan, W., M.D., 12, St. John Street, Manchester
Milner, E. T., Esq., 30, St. Ann Street, Manchester
Moody, W., M.B., 418, Stretford Road, Manchester
Parkinson, R. T., M.D., 336, Oxford Road, Manchester
Pemberton, G. B., M.B., Athol House, Brook's Bar, Manchester
Platt, J. E., M.D., 191, High Street, Manchester
Pritchard, Frank, M.B., 296, Upper Brook St. Manchester
Pritchard, H. W., Esq., 12, Brunswick Street, Chorlton-on-Medlock
Pritchard W. B., Esq., 272, Oxford Road, Manchester
Ray, J. H., F.R.C.S., 11, St. John Street, Manchester
Reynolds, E. S., M.D., Platt Cottage, Rusholme, M'chester
Roberts, Charles, M.B., 15, St. John Street, Manchester
Roberts, D. L., M.D., 11, St. John Street, Manchester
Scanlon, L. E., Esq., 101, Princess Road, Manchester
Scotson, F. C., M.B., Plymouth Grove West, Manchester
Scott, John, M.D., 249, Upper Brook Street, Manchester
Smith, J. W., Esq., 205, High Street, Manchester
Smith, R. B., Esq., 252, Oxford Road, C.-on-M., Manchester
Stallard, J. P., M.D., 256, Oxford Road, Manchester
Steell, G., M.D., 96, Mosley Street, Manchester
Sutherland, James, M.D., 325, Great Ancoats Street, Manchester
Thorburn, W., M.D., 2, St. Peter's Square, Manchester
Walls, W. K., M.B., 14, St. John Street, Manchester
Wharton, J., Esq., Royal Eye Hospital, Manchester
White, C. Powell, M.D., 143, High Street, Oxford Road, Manchester
Wilkinson, A. T., M.D., 22, St. John Street, Manchester
Williamson, R. T., M.D., 2, St. Peter's Square, Manchester
Wilson, Alex., F.R.C.S., 96, Mosley Street, Manchester
Wood, J. W. A., Esq., 53, Grosvenor Street, C.-on-M. Manchester
Wright, G. A., M.B., 16 St. John Street, Manchester
Wrigley, P. R., Esq., Royal Infirmary, Manchester
Yeats, W., M.D., 57, Brown Street, Manchester

No. 19.—Manchester (North) Division

NUMBERING 65.

Chairman, H. W. Boddy, M.D., Cheetham Hill

Vice-Chairman, F. B. Hargreaves, Esq., Manchester

Honorary Secretary and Treasurer, R. G. McGowan, M.D., Thomas Street, Cheetham Hill, Manchester

Representative for Representative Meeting.
G. H. Broadbent, Esq., 8, Ardwick Green, Manchester

Representatives on Branch Council.
Boddy, H. W., M.D.
Broadbent, G. H., Esq.

Executive Committee.

Barnes, E., M.B.
Dearden, W. F., Esq.
Junk, D. C., M.B.
Lawson, R. P., Esq.
Wardman, W., Esq.

Arnold, M. B., M.B., Monsall Hospital, Newton Heath Manchester
Ashworth, J. H., M.B., 385, Cheetham Hill Rd., Manchester
Barnes, E., M.B., The Pole, Failsworth, Manchester
Becker, H. L., Esq., 104, Cheetham Hill Road, Manchester
Boddy, H. W., M.D., Cheetham Hill, Manchester
Broadbent, G. H., Esq., 8, Ardwick Green, Manchester
Buck, W., Esq., Beswick House, Manchester
Buckley, S., M.D., Broadhurst, Bury Old Road, Manchester
Bythell, W. J. S., M.B., Woodcliffe, Prestwich
Carruthers, C., Esq., Barton House, Openshaw
Cluff, William, M.B., Highbank House, Openshaw
Dearden, W. F., Esq., Crumpsall Park, Manchester
Dick, J. S., M.B., Morley Place, Harpurhey, Manchester
Fraser, Alex., M.D., Queen's Park, Manchester
Fulton, A. B., M.B., Bank House, Cheetham Hill
Gilmour, A. J., M.D., 2, Higher Ardwick, Manchester
Graff, H., Esq., 156, Cheetham Hill Road, Manchester
Hargreaves, F. B., Esq., Midland House, Ardwick
Holmes, W. S., M.B., 31, Wellington St., Bradford, M'chester
Hopps, Thomas, Esq., 51, Euclid Street, Beswick
Hoyle, John, Esq., 231, Oldham Road, Manchester
Hudson, J., Esq., Ebor House, Bradford, Manchester
Jackson, W. F., M.B., 46, Wycliffe Street, Ardwick
Jenkinson, J. A., Esq., 34, Lansdowne Road, Crumpsall, Manchester
Johnstone, E., M.B., Brunswick House, Clayton
Jones, E. E., Esq., 919, Ashton Old Road, Openshaw
Jones, H. Leslie, M.D., Limefield House, Cheetham Hill
Junk, D. C., M.B., Thornton House, Clayton
Kitchen, C. F. H., Esq., 112, Cheetham Hill Road, Manchester
Laing, J., M.B., 780, Rochdale Road, Manchester
Larkham, E. T., M.D., Daisy Bank, Heaton Pk, M'chester
Lawson, Alex., M.B., 5, Lansdowne Road, Crumpsall, Manchester
Lawson, R. P., Esq., 822, Ashton Old Rd., Higher Openshaw
Lee, E., Esq., 618, Rochdale Road, Manchester
McGowan, R. G., M.D., 1, Thomas Street, Cheetham Hill
McGrath, John, Esq., 469, Ashton Old Road, Openshaw
Macmillan, D., M.D., Addiscombe, Prestwich
Macpherson, J. T., M.B., 13A, Brunswick St., Ardwick Gr'n.
Minns, J., Esq., 152, Conran Street, Harpurhey
Moore, F. C., M.D., The Priory, Ardwick Green, Manchester
Moore, J. W., Esq., Miles Platting, Manchester
Morrow, R. W., Esq., 383, Oldham Road, Manchester
Muir, W. S., Esq., 184, Wellington St., Bradford, M'chester
Murray, H. G., Esq., County Asylum, Prestwich
Orr, David, M.D., County Asylum, Prestwich
Palanque, J. A., Esq., Ivy Bank, Harpurhey, Manchester
Paton, R. A., M.B., Hendham House, Harpurhey, Mnchstr.
Pearson, A. C., M.D., 169, Cheetham Hill Road, Manchester
Perceval, F., Esq., Co. Asylum, Prestwich
Preston, J. M. S., M.B., 120, Cheetham Hill Rd., Manchester
Saul, V. S., Esq., 41, Cheetham Hill Road Manchester
Scott, B., M.B., 48, Ardwick Green, Manchester
Skinner, C. G. L., M.D., Harpurhey, Manchester
Smith, J. W., Esq., 55 & 57, Pin Mill Brow, Ardwick
Southam, Stanley, Esq., 512, Rochdale Road, Manchester
Stephenson, W. H., Esq., 95, Rochdale Road, Blackley, Manchester
Tytler, P., M.D., 114, Cheetham Hill Road, Manchester
Walker, Edward Jabez, M.D., 118, Great Ducie Street, Manchester.
Walsh, R. W., Esq., Ebor Lodge, Bury New Rd., M'chester
Wardman, W., Esq., 421, Rochdale Road, Manchester
Watson, J., M.D., 135, Stockport Road, Manchester
Whitfield, A., Esq., Baywood House, Harpurhey, Manchester
Whittington, T., Esq., Woodleigh House, Prestwich
Williams, W. T., Esq., 39, Great Ancoats St., Manchester
Young, T., M.D., 5, Stockport Road, Manchester

No. 20.—Manchester (Salford) Division

NUMBERING 68.

Chairman, J. W. Hamill, M.D., Higher Broughton

Vice-Chairman, D. Owen, Esq , Irlam-o'-th'-Heights

Honorary Secretary, J. H. Taylor, M.B., 299, Eccles New Road, Salford

Representative for Representative Meeting.
R. H. Wolstenholme, Esq., 15, Eccles New Road, Salford

Representatives on Branch Council.
Taylor, J. H., M.B.
Wolstenholme, R. H., Esq.

Executive Committee.
Bell, W. B., M.B.
Burgess, E. A., Esq.
Ferguson, W. A., Esq.
McNair, S., Esq.

Albrecht, J. A., Esq., 343, Lower Broughton Rd., M'chester
Anderton, J. W., M.B., Salford Royal Hospital, Salford
Balmford, J. T., M.B., 237, Oldfield Road, Salford
Beesley, G. Wm., Esq., 226, Lr. Broughton Rd., Manchester
Bell, W. B., M.B., Brae Lossie, Higher Broughton, M'hstr
Benington, P., M.B., Highfield House, Weaste
Berry, J. J., M.D., West Dene, Pendlebury
Birley, H. K., Esq., Penrhyn, Irlam-o'-th-Heights
Boutflower, A., Esq., Kersal, Manchester
Brightmore, H. S., M.B., Lime Field, Broughton Lane, Lower Broughton
Brown, A., M.D., Sandicroft, Higher Broughton
Brown, W. C., Esq., Heathfield, Broughton
Burgess. E. A., Esq., 306, Lr. Broughton Road, Broughton
Butterworth, J., jun., M.B., 13. Moorfield Road, Pendleton.
Carr, T. G., Esq., Irlams-o'-th-Heights, Manchester
Clarke, A. C., M.D.. Ch.B.(Vict.), Higher Broughton
Courtenay, F. W. E., Esq., Bank House, Eccles
Crau, R. D., Esq., 187, Regent Road, Salford
Creighton, G. E., Esq., 221. Cross Lane. Salford
Davenport, J. A., M.B., Salford Royal Hosptl., Manchester
Dowzer, John, Esq., Fern Acre, Eccles
English, Samuel, M.D., Belmont, Higher Broughton, Manchester
Evison, H. C., M.B ,313, Regent Road, Salford
Fairweather, W. E., Esq., Ordsall Park, Trafford Road, Salford
Falconer, J. L., M.B., Manchester Children's Hospital, Pendlebury
Ferguson, C. H., M.B., 2, Weaste Road, Weaste
Ferguson, W. A.. Esq., 195, Langworthy Road, Seedley
Fraser, D. H., Esq , 30, Broad Street, Pendleton
George, A. C., Esq., 538, Eccles New Road, Pendleton
Grange, J. W., M.D., Highfield, Kersall, Manchester
Gray, Charles, M.B., 72, Stephen Street, Salford
Gray, J., Esq., 101, Broughton Lane, Manchester
Hamill, J. W., M.D., Higher Broughton, Manchester
Hamilton, W. M., M.D., Patricroft, Manchester
Hartley, S., M.B., Albany House, Pendleton
Herbert, J. W. C., Esq., Carrington House, Pendlebury
Johnson, T. M., M.D., Oakfield, Pendleton, Manchester
Johnson, W. C., Esq., 11, Trafford Road, Salford
Ludlam, A. K., Esq., 24, Trafford Road, Salford
Macnair, A. D., M.B., Gt. Clowes St., Higher Broughton Manchester
McNair, S., Esq., 14, Langworthy Rd., Weaste. Manchester
Monteagle, H. W. B., M.D., 78, Broad Street, Pendleton
Moreland, G., M.B., Glencaird, Cheetham, Manchester
Morris, J. H., Esq., The Crescent, Salford
Mort, J. H., Esq., 384, Liverpool Road, Patricroft
Mullen, John Wm., Esq., Ladywell Sanatorium, Salford
O'Grady, W. F., Esq., Swinton
Orr, J., M.B., 3, Clarendon Road, Eccles
Owen, D., Esq., St. Brelades, Irlam-o'th'Heights
Phipps, H. H., Esq., Larkhill Swinton
Preston, H. H. Esq., 147, Church Street, Pendleton
Scowby, E. T., M.B., Windward, Worsley
Serra, C. L., M.D., Eccles, near Manchester
Sidley, George, Esq., Monk's Hall, Eccles
Snape, H., M.B., 148, Bolton Rd., Barr Hill, Pendleton
Somers, E., Esq., 4, Leaf Square, Pendleton
Spink, E. W., M.D., 36, Wellington Road, Eccles
Sprott, W. J., M D., Heathfield, Eccles Old Road, M'chester
Stewart, A., M.D., Holly Bank, Eccles Old Road, Pendleton
Sturrock, A. C., M.D., 11, Victoria Crescent, Eccles
Tattersall, C. H., Esq., M.O.H., Salford
Taylor, J. H., M.B., 299, Eccles New Road, Salford
Walker, Tom, Esq., Chorley Rd., Swinton, Manchester
Williams, A., M.D., 251, Chapel Street, Salford
Williams, J. P., M.D., Broomfield, Swinton, Manchester
Wolstenholme, R. H., Esq., 15, Eccles New Road, Salford
Wood, J., Esq., 4, Spring Bank, Sandy Lane, Pendleton
Young, R. S., M.B., Monton Green, Eccles

No. 21.—Manchester (South) Division

NUMBERING 84.

Chairman, J. M. Rhodes, M.D., Manchester

Vice-Chairman, J. Priestley, Esq., Fallowfield
Honorary Secretary, P. McDougall, M.B., Barcombe, Fallowfield

Representative for Representative Meeting.
S. Bagley, Esq., Clowes Street, West Gorton, Manchester

Representatives on Branch Council.
Brown, E. V., M.D.
Scott, W. E. Sawers, M.D

Anderton, W. B., M.B., Elsinore, Raynham Av., Didsbury
Ashton, George, M.D., 315, Wilmslow Road, Fallowfield
Bagley, S., Esq., Clowes Street, West Gorton, Manchester
Barr, James, M.B., 663, Hyde Road, Gorton
Boyd, J. W., M.B., Carlton Terrace, Fallowfield, Manchester
Bride, John, M.D., High Bank, Fulshaw Park, Wilmslow
Brockbank, E. M., M.D., 51, Palatine Road, Withington
Brooke, H. A. G., M.B., Victoria Park, Manchester
Brown, E. Vipont, M.D., 2, Birch Lane, Longsight, Manchester
Byers, Alfred, M.D., Wilmslow, Manchester
Chadwick, A., M.B., Clyde Ho., Heaton Chapel, Manchester
Chevers, M. J., Esq., Withington
Christie, J. G., M.B., 397, Stockport Road, Manchester
Claye, E., Esq., 7, Norman Road, Rusholme
Collins, F. H., M.D., Bridge House, Didsbury, Manchester
Conway, B W., Esq., 2, Newton Avenue, Longsight
Cotterill, A. E., Esq., 42, Brook Road, Fallowfield
Crossley, R., Esq., 172, Clowes St., West Gorton, M'nchester
Crowe, G. E., M.D., 8, Barlow Moor Road, Didsbury
Cruickshank, J. B., M.B., 240 Stockport Road, Levenshulme
Darwin, G. H., M.D., West Didsbury, Manchester
Davie, G. H. Grant, M.B., 21, Egerton Road, Withington
Dickey, H. J., M.B., 24, Didsbury Road, Heaton Mersey
Donald, A., M.D., Victoria Park, Manchester
Dreschfeld, Julius, M.D. Stanley House Wilmslow Road, Withington
Edlin, H. E., Esq., Middlemore House, Levenshulme
Featherstone, John, Esq., 251, Wilmslow Road, Fallowfield
Finney, A. E., M.D., Barwood, Wilmslow
Floyd, J. E., M.B., 144, Hyde Road, Gorton
Gamble, M., M.B., Arnwood, Wilbraham Rd., Fallowfield
Glascott, C. E., M.D., Lancaster Road, Didsbury
Godson, F. A., M.B., Westbrook, Central Rd., Wt. Didsbury
Goodfellow, T. A., M.D., 104, Palatine Road, West Didsbury
Grant-Johnston J., Esq., Ashforde Grange, Wilmslow
Hacking, J. H., Esq., Alderley Road, Wilmslow, Manchester
Haring, N. C., M.B., 112, Wilmslow Road, Rusholme
Helme, G. E., M.B., Gloucester House, Rusholme
Holt, Henry, M.B., 98, Wellington Road, Brookfield, Heaton Chapel, Manchester
Hopkinson, Albert, M.B., 2, Parsonage Road, Withington
Howe, John, M.B., Eskdale, Levenshulme
Ilderton, H. P., Esq., Fairfield, near Manchester
Jones, W. Wansbrough, M.B., Pinehurst, Didsbury
Jordan, F. W., M.D., Heaton Chapel, Manchester
Lancashire, G. H., Esq., Walton House, Withington
McDougall, P., M.B., Barcombe, Fallowfield, Manchester
Mackenzie, J. B., M.D., 10, Birch Lane, Longsight, Manchester
McNaughton, Maud H., M.B., 73, Barlow Moor Rd., Didsbury
Mayor, J. B., Esq., Westholme, Heaton Chapel
Mitchell, A. M., M.B., 357, Dickenson Road, Longsight
Moon, H. J., Esq., 91, Stockport Road, Levenshulme
Moritz, S., M.D., The Hornbeam, Rusholme, Manchester
Niven, J., M.B., Uplands, Victoria Park, Manchester
Platt, J. Noble, Esq., Whitefield House, Wilmslow
Rhodes, J. M., M.D., Barlow Moor, Didsbury, Manchester
Rhodes, Milson R., L.R.C.P., 51, Barlow Moor Road, Didsbury
Riddall, T. B., M.B., 189, Dickenson Road, Rusholme
Rigby, W. B., Esq., 233, Hyde Road, Gorton, Manchester
Robinson, Florence, M.B., 2, Clayton Villas, Gorton
Ross, J. C., M.D., Eaton House, Withington
Russell, G. H., M.D., 235, Stockport Road, Manchester
Salter, S. C., Esq., 394, Dickenson Road, Manchester
Saul, Helene G., M.D., Withington, Manchester
Scott, W. E. Sawers, M.D., 57, Wilmslow Road, Withington
Sellers, A., M.D., Malvern Grove, Burton Road, Withington
Senior, A. W., Esq., 16, Albert Road, Levenshulme
Smith, H. S., M.B., 357, Stockport Road, Levenshulme
Smith, Prof. J. L., M.D., 35, Palatine Road, Withington
Simcock, J., M.D., Heaton Chapel, Manchester
Southam, F. A., M.B., Oak Lawn, Rusholme
Stirling, Professor W., M.D., Belfield Lodge, Willow Bank, Fallowfield, Manchester
Stocks, W. P., Esq., 59, Wilmslow Road, Withington
Stothard, W. J. Esq., 163, Palatine Road, Didsbury
Telford, E. D., Esq., 14, Lansdowne Road, West Didsbury
Thompson, C. H., M.B., Thornville, Longsight, Manchester
Wahltuch, A., M.D., Moon Grove, Rusholme, Manchester
Walter, W., M.B., Rusholme Hall, Manchester
Webb, F. J., M.B., Edenagreena House, Gorton
Westmacott, F. H., Esq., 21, Ladybarn Road, Fallowfield, Manchester
Whitehead, Walter, F.R.C.S.Ed., 235, Wilmslow Road, Manchester
Wild, R. B., M D., Wilmslow Road, Fallowfield, Manchester
Willis, J. D., Esq., 169, Hyde Road, West Gorton
Wolfendale, G. A., Esq., 52, Cross Lane, Gorton
Yates, T. P., Esq., 313, Abbey Hey Lane, Abbey Hey, Gorton
Young, A. H., M.D., 3, Norman Rd., Rusholme, Manchester

No. 22.—Manchester (West) Division

NUMBERING 64.

Chairman, F. H. Worswick, M.D., Manchester

Vice-Chairman, C. Stennett Redmond, Esq., Manchester

Honorary Secretary, J. S. Prowse, M.B., Willow Bank, Moss Lane East, Manchester

Representative for Representative Meeting.
J. Brassey Brierley, M.D.

Representatives on Branch Council.
Brierley, J. Brassey, M.D.
Prowse, J. S., M.B.

Executive Committee.
Brierley J. Brassey, M.D.
Broadbent, J., Esq.
Eales, W., Esq.
Floyd, E. W., M.B.

Barlow, H. W. L., M.B., Urmston
Battersby, J., M.B., 152, Russell Street, Alexandra Park, Manchester
Booth, T. Carter, M.D., Gorse Hill, Urmston
Bowman, G., M.D., Monifieth, Old Trafford, Manchester
Brierley, J. Brassey, M.D., Old Trafford, Manchester
Broadbent, J., Esq., 8, Sunny Bank, Alexandra Rd., Mnchstr.
Brown, C. W., M.B., 7, Chorlton Road, Manchester
Burditt, R. A., Esq., 134, Embden Street, Manchester
Byrne, G., Esq., Wilbraham Road, Chorlton-cum-Hardy
Chapman, A. W., M.B., 6, Vine Street, Hulme, Manchester
Clegg, J., M.B., Netherley, Urmston, Manchester
Coates, W., C.B., Ingleside, Whalley Range, Manchester
Daly, R. A. S., Esq., 225, Stretford Road, Manchester
Davies, W., Esq., 25 Stretford Road, Manchester
Denholm, Andrew, M.D., Chorlton-cum-Hardy
Dutton, E. C., M.B., Sunnyside, Upper Chorlton Road, Manchester
Eales, W., Esq., 89, City Road, Manchester
Edge, A. M., M.D., Demesne Road, Whalley Range, Man'r.
Edwards, Arnold, M.D., Wilbraham Rd., Chorlton-c-Hardy
Fairclough, J. J. K., M.D., 414, Stretford Road, Manchester
Faulkner, J. T., M.D., Chester Road, Stretford, Manchester
Fiddes, Thomas, M.D., Moorfield, Urmston
Floyd, E. W., M.B., Westwood St., Moss Side, Manchester
Fraser, A. G., M.D., 98, Alexander Road, Manchester
Garrett, T. J. G., Esq., 159, Princess Road, Moss Side, Manchester
Garner, Charles, M.D., Willow Bank, Irlam Road, Flixton
Gordon, G. R., M.D., 96, Alexandra Road, Manchester
Harthan, H. D., Esq., 2, Derbyshire Lane, Stretford
Heslop, W. J., Esq., 366, Stretford Road, Manchester
Jackson, Edwin, Esq., 77, Withington Road, Manchester
Jones, J. W., Esq., 154, Chorlton Road, Manchester
Lacey, T. S., Esq., Wilbraham Road, Chorlton-cum-Hardy
Lund, J. K., Esq., 923, Chester Road, Gorse Hill, Stratford Manchester
McGlynn, J., M.D., 127, Radnor Street, Hulme, Manchester
Matthews, W. R., M.B., Shrewsbury Street, Brooks Bar, Manchester
Mayne, W. F., Esq., Gloucester Ho., Station Rd., Urmston
Mockler, J. C., Esq., 72, Manchester Road, Chorlton-cum Hardy
Morrison, F., M.B., 117, Boston Street, Hulme
Mumford, A. A., M.D., Gable Nook, Chorlton-cum-Hardy
Nichol, J. C., M.D., 345, Stretford Road, Manchester
O'Flanaghan, M. J., M.B., 94, Alexandra Road, Manchester
Owen, S. H., M.D., Whalley Range, Manchester
Paterson, T. G., M.B., 125, Moss Lane East, Manchester
Pinder, T. H., Esq., Graeme St., Alexandra Rd., Manchester
Pownall, A. E., Esq., Beulah House, Chorlton-cum-Hardy
Pringle, John, M.D., 97, Withington Rd., Whalley Range
Prowse, J. S., M.B., Willow Bank, Moss Lane, E. Manchtr.
Quayle, E., Esq., Belmont, Urmston, Manchester
Redmond, C. Stennett, Esq., 117, Stretford Rd., Manchester
Renshaw, J. W., Esq., Ash House, Stretford, Manchester
Richardson, W. Herbert, Esq., 139, Upper Lloyd Street, Moss Side, Manchester
Ritchie, A. Brown, M.D., Summer Lea, Withington Road, Whalley Range
Sinclair, Sir William Japp, M.D., Garvock House, Dudley Road, Whalley Range
Smith, A. H., Esq., 175, Withington Road, Manchester
Smith, C. E., Esq., Stretford near Manchester
Smith, J. Turville, Esq., 28, Chorlton Road, Manchester
Smithard, W. R. N., M.B., 15, Stretford Road, Manchester
Tempest, James, Esq., Whalley Range, Manchester
Walls, J., M D., Irlam Road, Flixton, near Manchester
Webster, E., Esq., 87, Chapman Street, Hulme, Manchester
Westwood, Andrew, M.B., 1, Leamington Terrace, Stretford
Woodcock, Harold B., M.B., 474, Stretford Rd., Manc'ter.
Worswick, F. H., M.D., Chorlton Road, Manchester
Yonge, E. S., M.D , 16, Belmont Street, Old Trafford

No. 23.—Oldham Division

NUMBERING 58.

Chairman, E. W. Martland, Esq., Oldham

Vice-Chairman, T. Fawsitt, Esq., Oldham

Honorary Secretary and Treasurer, Frank Radcliffe, M.D., 94, Werneth Hall Road, Oldham

Representative for Representative Meeting, T. Fawsitt, Esq., 46, Union Street West, Oldham

Representatives on Branch Council.
Fort, T., Esq.
Robertson, G. J., M.B.

Executive Committee.
Ramsden, H., M.D.
Thomson, G., M.D.
White, J. H., Esq.

Apthomas, Griffith, M.B., 5, Union Street, Oldham
Ashton, H., Esq., 423, Middleton Road, Oldham
Bauchop, J., M.B., Glenburn, Hollinwood
Bentley, W. L., Esq., 79, Rochdale Road, Royton
Blayney, J. H., Esq., Ellerslie, Middleton
Bowes, Paul, M.D., 469, Middleton Road, Oldham
Bowes, R., M.D., 86, Union Street West, Oldham
Broomhead, Charles, M.D., 2, Barker Street, Oldham
Buckley, W. H., Esq., 20, Union Street, Oldham
Burd, G. F., Esq., Dobcross, Saddleworth
Carson, T. J., Esq., 117, Union Street, Oldham
Claydon, Olive, M.B., Melford, Belgrave Road, Oldham
Clegg, T., Esq., 272, Chadderton Road, Oldham
Corns, J., M.D., 121, Union Street, Oldham
Cunliffe, T. V., M.D., 75, Greengate Street, Oldham
Currie, James, M.B., County End, Lees, nr. Oldham
Davies, A. V., M.B., Glenarm House, Shaw
Doble, H. T., Esq., 2, Union Street, Oldham
Fawsitt, T., Esq., 46, Union Street West, Oldham
Fort, T., Esq., Falcon House, Oldham
Gill, H. T., M.B., Manchester Road, Oldham
Godson, A. H., M.B., 63, Union Street West, Oldham
Gourlay, R., M.B., Spring Street, Oldham
Heap, H. S., M.B., 1, Crofton Street, Hathershaw
Hearne, W. E., Esq., Westwood House, Oldham
Holt, J. J. H., M.B., The Lodge, Middleton, Manchester
Johnstone, G., M.B., Beech House, Middleton
Kershaw, J. G., M.B., 94, Waterloo Street, Oldham
Law, J., Esq., Bridge House, Hollinwood
Leach, A., Esq., 220, Manchester Street, Oldham
Low, John, M.B., c.o. Dr. Wylie, Oldham
McGowan, J. Sinclair, M.D., 13, King Street, Oldham
Marsden, J., M.B., 68, Shaw Road, Oldham
Martland, E. W., Esq., 1, Walshaw Place, Oldham
Milne, J., M.B., 68, Manchester Old Road, Middleton
Murgatroyd, A., M.B., Sunnyside, Hollinwood
Oliver, William, M.B., Culvert House, Waterhead, Oldham
Park, R. L., Esq., The Rookery, Middleton
Patterson, Wm., Esq., 193, Ripponden Road, Oldham
Paxton, John, M.B., 149, King Street, Oldham
Pickering, R. W., Esq., Belmont House, Oldham
Price, David, Esq., Greenfield
Radcliffe, F., M.D., 94, Werneth Hall Road, Oldham
Ramsden, Herbert, M.D., Dobcross, Saddleworth
Ratcliffe, J. E. Esq., 97, Werneth Hall Road, Oldham
Roberts, T. H., Esq., Linfitts, Delph
Robertson, G. J., M.B., 61, Queen's Road, Oldham
Sparrow, R. L., Esq., 370, Manchester Road, Hollinwood
Stelfox, J. B., Esq., Parkfield Mount, Middleton
Thomson, G., M.D., 5, Huddersfield Road, Oldham
Wakelam, Edgar, Esq., Milfield House, Waterhead, Oldham
White, John H., Esq., 16, Milnrow Road, Shaw
White, William, M.D., 12, Glodwick, Oldham
Whitmore, John, Esq., 28, Glodwick Road, Oldham
Whitestone, H. L., Esq., Springfield House, Middleton
Wilkinson, J. B., M.D., Health Dept., Town Hall, Oldham
Yates, W. B., Esq., 368, Lees Road, Oldham
Young, Ralph, M.D., Park House, Royton, near Oldham

No. 24.—Preston Division

NUMBERING 52.

Chairman, R. C. Brown, M.B., Preston

Vice-Chairman, J. E. Garner, M.D., Preston

Honorary Secretary and Treasurer, W. H. Irvin Sellers, M.B., 1, Chapel Street, Winckley Square, Preston

Representative for Representative Meeting.
J. E. Garner, M.D., 6, Winckley Square, Preston

Representative on Branch Council.
Rayner, A. C., M.D.

Executive Committee.
Dunn, J. E., Esq.
Mooney, A. P., M.D.
Petyt, A. I., M.B.

Bell, F., Esq., 17, Winckley Square, Preston
Berry, E., Esq., Leyland, near Preston
Blandford, J. J. G., Esq., Co. Asylum, Whittingham, Preston
Brown, D. W., M.D., 11, Plungington Road, Preston
Brown, R. C., M.B., 27, Winckley Square, Preston
Case, H., Esq., Brinscall, Chorley
Clark, R. M., M.D., County Asylum, Whittingham
Collinson, F. W., M.D., 32, Winckley Square, Preston
Cookson, J., M.B., 167, Moor Lane, Preston
Derham, T. H. C., M.B., Garstang Road, Preston
Dixon, A., Esq., Grasmere House, Fulwood, Preston
Duckworth, Alfred, Esq., Croston, near Preston
Dunn, J. E., Esq., 25a, Winckley Square, Preston
Ferguson, Malcolm, Esq., 21, Stephenson Terrace, Preston
Fraser, P., M.D., Leyland
Garner, J. E., M.D., 6, Winckley Square, Preston
Gemmel, J. F., M.B. co. Asylum Whittingham, Preston
Harris, J. A., M.D., Netherside, Chorley
Holden, J. E., M.B., 95, Fishergate Hill, Preston
Holden, J. F., M.B., Cromwell Terrace, Preston
Izard, H. E., Esq., Woodland View, Hulton-le-Dale, Preston
Jackson, T. W., M.D., 13, St. George's Street, Chorley
Jones, J. E., M.D., Lawrence Lodge, Chorley
Langdon, J. W., Esq., 4, Winckley Square, Preston
Lowry, R. A. E., Esq., 4, Starkie Street, Preston
Macdonald, F. B., M.B., 1, Stanley Place, Preston
Maclean, S W., M.B., Brinscall, near Chorley
Mooney, A. P., M.D., 25B, Winckley Square, Preston
Patchett, R. A., Esq., Ribblesdale View, Ribchester
Pearson, John B., M.B., Ribbleton Lane, Preston
Peddie, C., Esq., Whittle-le-Woods, near Chorley
Petyt, A. I., M.B., Chestnut House, Longton, Preston
Pimblett, W. H., M.B. 2 Bow Lane, Fishergate Hill, Preston
Pimley, T., M.B., Fulwood, Preston
Rayner, A. C., M.D., 58, Pole Street, Preston
Reid, John, Esq., 146, Deepdale Road, Preston
Richardson, W. H., M.B., Ribblesdale Place, Preston
Rigby, W., M.B., 83, Fishergate Hill, Preston
Rigg, J., M.D., 91, Fishergate Hill, Preston
Roger, John, M.B., Waverley House, St. George Street, Chorley
Sames, H. V., M.B., Bank House, Crofton, Preston
Sellers, W. H. I., M.B., 1 Chapel St., Winckley Sq., Preston
Sergeant, E., Esq., County Offices, Preston
Sharples Thomas, Esq., Dardsley, Lostock Hall
Smith, D. T., M.B., 2, Fishergate Hill, Preston
Sykes, W., Esq., 20, Fox Street, Fishergate, Preston
Talbot, M. W., M.B., 1, Gladstone Terrace, Preston
Toulmin, A., Esq., 35, West Cliff, Preston
Trimble, C. J., Esq., Louth House, Bamber Bridge
Trimble, R., M.D., 9, Winckley Square, Preston
Walmsley, F. T., M.B., Moss Cottage, Preston
Watson, Major A. A., Fulwood Barracks Preston

No. 25.—Rochdale Division

NUMBERING 53.

Chairman, J. Henry, M.D., Rochdale
Vice-Chairman, C. W. Thorp, Esq., Todmorden
Honorary Secretary, W. H. Bateman, M.B., Daisy Bank, Rochdale

Representative for Representative Meeting.
Robert Mitchell, Esq., Bury

Representative on Branch Council.
Thorp, C. W., Esq.

Ashcroft, J. A., M.D., Littleborough, near Manchester
Baillie, P., M.D., Whitworth, Rochdale
Baldwin, Edgar, Esq., 218, Yorkshire Street, Rochdale
Barker, J. H., M.B., Claremont, Todmorden
Bateman, W. H., M.B., Daisy Bank, Rochdale
Brooks, Herbert, M.B., 108, Clements Royds St., Rochdale
Brown, J., M.D., Burwood House, Bacup
Brown, J. P., M.B., Burwood House, Bacup
Carse, W. H., M.B., Spotland Bridge, Rochdale
Chadwick, J., Esq., Butterworth Hall, Milurow, Rochdale
Currie, Wm., M.B., Riverside, Todmorden
Dickson, Arthur, M.D., Quarry House, Healey Rochdale
Elliott, G. P., Esq., North View, Todmorden
Falconer, E. W., M.B., 235, New Church Road Stackstead, near Manchester
Forbes, T. J. L., M.B., Whitworth, Rochdale
Geddes, G., M.D., 2, Rochdale Road East, Heywood
Harris, Herbert, M.D., Wellfield, Oldham Road, Rochdale
Hartley, F. W., Esq., 129, Manchester Street, Heywood
Harty, J. J., Esq., 12, Rochdale Road, Bacup
Henry, J., M.D., 107, Drake Street, Rochdale
Hitchin, H. H. I., Esq., Rock House, Heywood
Hodgson, W. J., M.D., Thornbury, Rochdale
Hunt, T., M.D., Heywood, Manchester
Howard, A., M.B., 14, Byrom Street, Todmorden
Jefferson, A. J., M.D., 2, West Street, Rochdale
Jefferson, George, M.B., Cornholme, Todmorden
Jeffery, H. F., M.B., Sandon House, Heywood
Johnson, J. A., M.B., 132, Drake Street, Rochdale
Lomas, Alfred, M.B., Castleton, near Manchester
Lord, S. T., Esq., Castleton, near Manchester
Leach, Edgar, Esq., 42, Deeplish Road, Rochdale
Kerr, W. J., M.D., Vicarage Drive, Rochdale
MacGill, G., Esq., Littleborough, Manchester
Malim, G. W., Esq., 171, Drake Street, Rochdale
Melvin, James, M.B., Newbold Hall, Rochdale
Menzies, J. A., M.D., 185, Drake Street, Rochdale
Mills, Wilton, Esq., Lyncroft, Milnrow
Moir, William, M.B., Whitworth House, Whitworth Park, Manchester
Pinck, Wm., M.B., Union Infirmary, Dearnley, Rochdale
Pitcairn, G. K., M.B., Littleborough
Richmond, D., M.B., 176, Drake Street, Rochdale
Rodley, John, Esq., 187, Yorkshire Street, Rochdale
Russell, James L., M.B., West Lodge, Todmorden
Scarr, John, Esq., Briercliffe, Littleborough
Sellers, R. B., Esq., Townhead House, Rochdale
Standing, J. G., M.B., Holly Bank, Drake St., Rochdale
Stanwell, W., Esq., 191, Drake Street, Rochdale
Stewart, Wm., M.D., Bank House, Bacup
Taylor, G. P., M.B., York Street, Heywood
Thorp, C. W., Esq., Dobroyd, Todmorden
Thorp, H., M.B., Vale Manse, Cornholme, near Todmorden
Wallace, Arch., M.D., Wellfield House, Rochdale
Welsh, A., M.D., Whitworth, Rochdale

No. 26.—St. Helens Division

NUMBERING 23.

Chairman, J. Reid, M.D., St. Helens
Vice-Chairman, C. J. Mouncey, M.B., Earlstown
Honorary Secretary, John J. Buchan, M.D., Town Hall, St. Helens

Representative for Representative Meeting,
Representative on Branch Council,
Hayward, T. E., M.B.

Bassett, F. P., Esq., Victoria Square, St. Helens
Bates, H. B., Esq., Leach Hall, Sutton, St. Helens
Bolton, J. S., Esq., County Asylum, Rainhill
Brunskill, R. R., M.D., Holly Bank, Rainford
Buchan, John J., M.D., Town Hall, St. Helens
Cotton, John, Esq., Simonswood, Prescott Road, St. Helens
Dowling, Arthur, Esq., Haydock, near St. Helens
Graham, Andrew, M.B., Ardgowan, Thatto Heath, St. Helens
Green, S. M., Esq., 12, Church Street, Prescot
Haslam, W. A., Esq., Whiston Workhouse Infirmary, Prescot
Hayward, T. E., M.B., Haydock, St. Helens
Jackson, R., M.B., 69, Church Street, St. Helens
Jackson, W. T., Esq., The Roost, Haydock, St. Helens
Johnson, Smeeton, M.B., County Asylum, Rainhill
Mouncey, C. J., M.B., 101, Market Street, Earlstown
Patterson, J. N., Esq., Earlstown
Reid, J., M.D., Hardshaw Street, St. Helens
Street, C. T., Esq., Haydock Lodge, Newton-le-Willows
Valentine, W., Esq., Staines House, Earlstown
Walker, J. P., Esq., 98, Market Street, Earlestown
Watkins, H. E., Esq., Stone Legh, Newton-le-Willows
Wiglesworth, J., M.D., County Asylum, Rainhill
Wild, C. H., Esq., 13, Church Street, Prescot

No. 27.—Southport Division

NUMBERING 61.

Chairman, G. C. Walker, M.D., Southport
Vice-Chairman, P. Ashworth, M.D., Southport
Honorary Secretary, R. Harris, M.B., 18, Duke Street, Southport

Representative for Representative Meeting.
Stanley A. Gill, M.D., Shaftesbury House, Formby

Representatives on Branch Council.
Harris, R., M.B.
Walker, G. C., M.D.

Executive Committee.
Baildon, F. J., M.B.
Brown, S. M., M.D.
Mackay, W. A., M.D.
Russel, J. C., M.D.

Anderson, Alex., M.B., 39, Sefton Street, Southport
Anderson, G. R., Esq., 36, Hoghton Street, Southport
Ashton, J. H., Esq., 138B, Duke Street, Southport
Ashworth, P., M.D., 65, Leyland Road, Southport
Baildon, F. J., M.B., 42, Hoghton Street, Southport
Barnardo, F. A. E., Esq., 33, York Road, Birkdale Park, Southport
Barnes, J. J., Esq., Linwood, Blundell Avenue, Birkdale
Barrett, W. H., M.B., 2[illegible], Park Crescent, Southport
Barwise, W., Esq., 20, Scarisbrick New Road, Southport
Beckett, A. D., M.B., 119, Liverpool Rd., Birkdale, Southport
Bradburne, A. A., Esq., 61, Hoghton St., Southport
Brown, S. M., M.D., 35, York Road, Birkdale
Burroughs, A. E., M.B., 62, Westbourne Road, Birkdale, Southport
Campbell, Colin G., Esq., 39, Queen's Road, Southport
Corkhill, J. G. G., M.D., 21, York Road, Birkdale, Southport
Cottu, T. E., Esq., 57, Scarisbrick Road, Southport
Cox, A. E., M.B., Roslyn, Queen's Road, Southport
Dall, Alex., M.D., 17, Manchester Road, Southport
Edmondson, John, M.B., Burscough, near Ormskirk
Fenn, S. B., Esq., 44, Scarisbrick, New Road, Southport
Forrest, W., Esq., Holly Bank, Mornington Rd., Southport
Gardner, James, M.B., Liverpool Rd., Burscough Bridge
Gill, Stanley A., M.D., Shaftesbury House, Formby
Hare, A. W., M.B., 4, Talbot Street, Southport
Harris, R., M.B., 18, Duke Street, Southport
Hawksley, H. L., Esq., 76, Roe Lane, Southport
Holmes, J., M.D., Sea Verge, Ainsdale, near Southport
Hunton, Alfred W., Esq., 2, Waterloo Road, Birkdale, Southport
Kenworthy, A. B., M.B., Bold Street, Southport
Littler, R. M., Esq., 29, Hawkeshead Street, Southport
Lyttle, L., M.D., 57, Ash Street, Southport
Maccall, W. N., M.D., 7, Argyle Road, Southport
Mackay, W. A., M.D., 30, Hoghton Street, Southport
Martin, E. T., M.D., 117, Sussex Road, Southport
Maule, W., M.B., 60A, Liverpool Road, Birkdale, Southport
Newsham, F., Esq., 50, Liverpool Road, Birkdale, Southport
Ogden, C., Esq., 47, Crescent Road, Birkdale
Payne, H., M.D., Convalescent Hospital, Southport
Pinkerton, C., M.D., 6, Queen's Road, Southport
Popert, A. W., Esq., 119, Cambridge Road, Southport
Pridie, J. F., M.B., 20, Scarisbrick Road, Southport
Reid, J. R., M.D., 87, Liverpool Road, Birkdale, Southport
Roberts, H. S., M.D., 13, Lord Street W., Southport
Roughan, G. F., Esq., Ardmore, Formby
Russel, J. C., M.D., 45, Portland Street, Southport
Rye, Mary E., M.B., 42, Aughton Rd., Birkdale, Southport
Schofield, C. R., M.B., 17, Church Street, Southport
Sewell, D. Lindley, M.B., 17, Grosvenor Road, Birkdale
Smith, E. A., M.B., 158, Lord Street, Southport
Spriggs, N. I., M.D., 1, Leyland Road, Southport
Storrs, A., M.D., 22, Scarisbrick New Rd., Southport
Sykes, J. H., M.D., 39, York Road, Birkdale, Southport
Treadgold, F. C. A., M.B., 34, Grosvenor Road, Birkdale, Southport
Twigge, Caroline, M.B., 92, Lord Street, Southport
Voigt, J. C., M.D., 10, Manchester Road, Southport
Walker, G. F. C., M.B., 47, Hoghton Street, Southport
Walker, Geo. Chas., M.D., 19, Preston Road, Southport
Walls, W., Esq., 71, Promenade, Southport
Wilshaw, R. H., M.B., 46, Hoghton Street, Southport
Wood, J. F., Esq., 10, Queen's Road, Southport
Woolfenden, H. F., M.B., 33, Grosvenor Road, Birkdale, Southport

No. 28.—Stockport, Macclesfield, and East Cheshire Division

NUMBERING 74.

Chairman, A. Godson, M.B., Cheadle
Vice-Chairman, J. Somerville, Esq., Macclesfield
Honorary Secretaries, E. Rayner, M.D., Tiviot Dale, Stockport; B. W. Housman, F.R.C.S., Lygon House, Stockport

Representative for Representative Meeting.
B. W. Housman, F.R.C.S., Lygon House, Stockport.

Representatives on Branch Council.
Hughes, James B., Esq.
Rayner, E., M.D.

Executive Committee.
Averill, C., M.D.
Carruthers, E. J. W., M.D.
Goulden, E. A., M.D.
Hughes, James B., Esq.

Allan, H., M.B., Whaley Bridge, by Stockport
Anderson, H. G. S., Esq., Bramhall
Ashworth, J. W., Esq., Heaton Chapel, Stockport
Averill, C., M.D., Park Green, Macclesfield
Bale, W., Esq., 130, Wellington Road North, Stockport
Bale, W. B., Esq., Heathbank, Stockport
Balmer, Ruth, M.B., 22, Greek Street, Stockport
Bellamy, H. Reynell, Esq., Greenhill House, Stockport
Bennett, C. H. W., Esq., Sandbach
Bentley, J. W., Esq., Brunswick House, Stockport
Bond, W. E., Esq., Richmond Terrace, Bramhall
Brennan, J. R. M., Esq., 108, Wellington Rd. N., H'n Norris
Browne, P. O. W., M.B., Hillfield, Alderley Edge
Cant, F., Esq., Woodley House, Woodley, Stockport
Carruthers, E. J. W., M.D., Moody Hall, Congleton
Carver, J. R., M.D., The Meadows, Alderley Edge
Chadwick, J. B., Esq., 40, Sandy Lane, Stockport
Christian, L. M. Frank, M.B., 125, Shaw Heath, Stockport
Clarke, W. H., Esq., Park Green, Macclesfield
Conway, A., Esq., Talbot House, Stockport
Cunliffe, E. N., M.B., Barnes Convalescent Hosp., Cheadle
Davidson, P. M., Esq., Congleton
Donnell, J. H., M.B., Park Hill, Disley
Drury, G. M., Esq., Cheadle Heath, Stockport
Farrow, F., Esq., Heaton Moor House, Heaton Moor
Fern, W. I., Esq., Bradshaw House, Congleton
Godson, A., M.B., Cheadle House, Cheadle
Goulden, E. A., M.D., 8, Greek Street, Stockport
Goulden, J. H. O., Esq., 6, Greek Street, Stockport
Green, James H., M.B., 56, Higher Hillgate, Stockport
Hardman, R. S., M.B., Sillinghurst, Cheadle Hulme
Harrison, J. F., Esq., 86, Wellington Road S., Stockport
Henderson, G. P., M.D., Tiviot Dale, Stockport
Hibbert, C. H., Esq., Marple Bridge
Housman, B. W., F.R.C.S., Lygon Ho., Cale Gn., Stockport
Hoyle, F., M.B., Heaton Norris, Stockport
Hughes, James B., Esq., Roe Street House, Macclesfield
Hughes, John B., M.B., 65, Roe Street, Macclesfield
Jackson, T. L., M.B., Cheadle
Le Page, J. F., M.D., The Poplars, Cheadle, Manchester
McConaghey, J. C., M.B., Parkside Asylum, Macclesfield
McDougall, A., M.B., The David Lewis Colony, Sandle-Bridge, near Alderley Edge
McElfatrick, J., Esq., Alderley Edge
McIlraith, James, M.B., Devonshire House, Trafford Road, Alderley Edge
McMaster, A. B., M.D., The Elms, Edgeley
Main, D. W., M.B., Brook H., Bollington, nr. Macclesfield
Marriott, Hyde, M.B., The Limes, Hall Street, Stockport
Marsh, J. Hedley, Esq., Cumberland House, Macclesfield
Moore, T., Esq., Hazel Grove, near Stockport
Murray, R. A., M.D., Apsley, Stockport
Phillips, Alic, Esq., Crescent View, Cheadle
Picton, L. J., M.B., Sadler's Close, Holmes Chapel
Proudfoot, R., M.B., 23, High Street Macclesfield
Rayner, E., M.D., Tiviot Dale, Stockport
Rogerson, J. T., M.D., Heaton Norris, Stockport
Ruston, J. L., M.D., 37, Jordangate, Macclesfield
Ryan, S. H., M.B., Lane Ends, Marple Bridge, nr. Stockport
Scowcroft, W., Esq., Royal Asylum, Cheadle
Sealy, R. B., Esq., Disley
Smith, J. H., M.B., 78, Wellington Road S., Stockport
Smith, T. H., M.D., Reddish Green, Stockport
Sheldon, T. S., M.D., Macclesfield
Smeeth, H. G., M.D., 126, Wellington Road, N. Stockport
Somerville, J., Esq., Park Street, Macclesfield
Sutcliffe, J., Esq., J.P., Royal Asylum, Cheadle
Swainson, E. A. C., M.B., Marple
Taylor, C. B., M.B., Chatham Street, Edgeley
Tierney, T., M.B., Durbeyville, New Road, Marple
Tomlinson, W. H., M.B., Spring Bank, Hazel Gr., Stockport
Townshend, H. M. D., M.D., Union Hospital, Stepping Hill, Stockport
Vernon, J. J., M.B., Longshut Lane West, Stockport
Wilson, H., Esq., The Beeches, Cheadle
Worthington, J., Esq., Beech Ho., Brinnington, Stockport
Young, M., M.D., Park Street, Stockport

No. 29.—Warrington Division

NUMBERING 28.

Chairman, G. W. Joseph, M.D., Warrington
Vice-Chairman, T. U. Mercer, M.B., Widnes
Honorary Secretary, O. H. Edwards, Esq., 2, Albert Road, Widnes

Representative for Representative Meeting.
Representative on Branch Council.
Bowden, E. E., Esq.

Anderson, Arthur, M.B., 66, Manchester Road, Warrington
Bennett, James, Esq., Padgate, Warrington
Bowden, E. E., Esq., 29, Bold Street, Warrington
Bower, H. E., M.B., Stretton, near Warrington
Brebner, C. S., M.D., Highfield, Widnes
Burrowes, H. A., M.D., Lymm
Caughey, R. H., M.B., Springfield, Albert Road, Widnes
Collins, W. J., Esq., 119, Wilderspool Road, Warrington
Dutton, W., Esq., 31, Grappenhall Road, Stockton Heath, Warrington
Eatock, J. A., Esq., Farnworth-in-Widnes
Edwards, Oswald H., Esq., 2, Albert Road, Widnes
Ferguson, D., M.B., 48, Horse Market Street, Warrington
Geary, E. J., Esq., 10, Egypt Street, Warrington
Gornall, J. G., M.B., Ribblesdale, Grappenhall, near Warrington
Howard, John A., M.B., 11, Whitefield Road, Stockton Heath, Warrington
Hutchinson, C., M.D., Irwell Street, Widnes
Hutchinson, J., M.D., Springfield, Widnes
Joseph, G. W., M.D., 21, Bold Street, Warrington
Kisby, J. H., Esq., 13, Palmyra Square, Warrington
Langdale, Henry, M.D., Stanley House, Warrington
Mercer, T. U., M. B., Ingleside, Hough Green, Widnes
Murray, T. A., Esq., Penketh, near Warrington
Naden, J. B., Esq., 111, Liverpool Road, Warrington
Peacocke, W. J., Esq., Ebenezer House, Warrington
Roberts, J. W., Esq., Cadishead
Schofield, G. T., Esq., J.P., Deacon Road, Widnes
Smith, R., Esq., Lynton House, Warrington
Willett, J., Esq., Stockton Ho., Stockton Hth., Warrington

No. 30.—Wigan Division

NUMBERING 36.

Chairman, W. Berry, Esq., Wigan
Vice-Chairman, H. Winstanley, Esq., Wigan
Honorary Secretary, L. Cooke, Esq., Aspull, Wigan

Representative for Representative Meeting.
F. E. Wynne, M.B., 53, Church Street, Leigh

Representative on Branch Council.
Monks, E. H., Esq.

Ainscow, J., Esq., 224, Manchester Road, Ince, near Wigan
Angior, F. L., Esq., 220, Gidlow Lane, Wigan
Baxter, R. H., Esq. (address uncommunicated)
Benson, M., M.D., 35, Dicconson Street, Wigan
Bentham, A. O., Esq., Springfield House, Abram, Wigan
Berry, W., Esq., Park House, Wigan
Blair, J., M.D., Bidston House, Wigan
Bradbury, J. A., Esq., 25, Upper Dicconson Street, Wigan
Chronnell, J., Esq., Ash Cottage, Hindley, Wigan
Cobban, A. L., M.B., Roslyn House, Ashton-in-Makerfield
Cooke, Luther, Esq., Aspull, Wigan
Dix, W. R., M.D., Platt House, Platt Bridge
Fletcher, John H., Esq., Ince Green Lane, Ince, near Wigan
Foulds, J. J., Esq., 19, Wigan Lane, Wigan
Girdwood, R., Esq., Branksome, Whelley, Wigan
Graham, C. R., Esq., Netherby House, Wigan
Hannah, N., Esq., Rock House, Ashton-in-Makerfield
Hatton, W. A., M.D., Oaklea, W. Houghton
Hodder, A. E., M.B., Bridstow, Wigan
Jackson, James, M.B., Standishgate, Wigan
Kirk, J., Esq., Hindley, Wigan
Lake, C. J. B., Esq., Hindley Green, Wigan
Latham, W., Esq., The Poplars, Ashton-in-Makerfield
McElligott, M. G., Esq., 23, Standishgate, Wigan
Matheson, Alex., M.B., 84, Orrell Road, Lamberhead Green, near Wigan
Mill, William, Esq., Brooklands, Upholland, Wigan
Monks, E. H., Esq., Regent House, Wigan
Neville, E. J., Esq., 168, Wallgate, Wigan
Parker, J. E., Esq., Moresby House, Hindley, Wigan
Rees, F., M.D., 46, Dicconson Street, Wigan
Shirlaw, J. T., Esq., M.B., Hall Green House, Upholland
Speight, Alfred, Esq., Warwick House, Standish, Wigan
Williams, E. C., M.D., 23, Standishgate, Wigan
Winstanley, H., Esq., Park Lane, near Wigan
Wolstenholme, G., M.B., Newtown, Pemberton
Wright, Charles H., Esq., 1, Park Road, Wigan

LEINSTER BRANCH.

Comprising the PROVINCE of LEINSTER, except th part thereof included in the South-Eastern of Ireland Branch.

Members of Branch—323.

RECOGNISED 1877.

President, JAMES CRAIG, M.D., Dublin
President-elect, JOHN LENTAIGNE, F.R.C.S., Dublin

Vice-Presidents.
J. WALLACE BOYCE, M.B., Blackrock
F. W. KIDD, M.D., Dublin

Honorary Secretary and Treasurer.
Professor A. H. WHITE, Royal College of Surgeons, Dublin

Representatives on Council of Association.
James Craig, M.D., Dublin
Denis Walshe, Esq., Graigue

Country Representative of Branch on Irish Committee.
J. M. S. Kenny, M.B., Granard

Branch Council
Bennett, E. H., M.D.
Boyce, J. Wallace, M.B.
Chance, Sir Arthur, P.R.C.S.I.
Earl, H. C., M.D.
Hillis, J. D., F.R.C.S.I.
Kidd, F. W., M.D.
Mason, J., M.B.
Moore, Sir John Wm., M.D.
Neale, J. M., Esq.
O'Carroll, J. F., M.D.
Redmond, J. M., M.D.
Smith, W. G., M.D.
Tabuteau, J. M., M.B.
Thompson, W. J., M.D.
Usher, Isaac W., J.P.

And Chairmen of various Divisions in Branch, and the Country Representative of Branch on Irish Committee.

Associate Members.
Clark, Andrew, F.R.C.S., London
Evatt, G. J. H., M.D., C.B., Surgeon-General, London
Williams, Dawson, M.D., London

No. 1.—Dublin Division

NUMBERING 159.

Chairman, F. W. Kidd, M.D., Dublin
Vice-Chairman, H. W. Oulton, M.D., Dublin
Honorary Secretary, L. G. Gunn, M.D., 43, Fitzwilliam Square, Dublin.

Representative for Representative Meeting.
F. C. Martley, M.D., Dublin

Representatives on Branch Council and Divisional Executive.

Bennett, Prof. E. H., M.D.
Chance, Sir Arthur, P.R.C.S.I.
Day, H. G. G., Esq.
Delahoyde, O'C. J., Esq.
Finny, J. M., M.D.
Fottrell, W. J., Esq.
Kidd, F. W., M.D.
Moore, Sir John William, M.D.
Peacocke, G. J., M.D.
Redmond, J. M., M.D.
Smith, Trevor N., F.R.C.S.
Smith, Walter G., M.D.
Thompson, W. J., M.D.
Woods, C. R., Lieutenant R.A.M.C.

Baker, A. W. W., M.D., 59, Merrion Square, Dublin
Ball, C. A., M.D., 12, Lower Mount Street, Dublin
Ball, Sir Charles Bent, M.D., 24, Merrion Sq. N., Dublin
Banks, Sir J. T., K.C.B., M.D., 45 Merrion Square E., Dublin
Bardi, D. R., Esq., 8, Harcourt Street, Dublin
Barton, John., M.D., 10, Mount Street, Crescent, Dublin
Beatty, Wallace, M.D., 38, Merrion Square, Dublin
Bell, C. P., M.D., St. Nessans, Ball's Bridge, Dublin
Bennett, E. H., M.D., 26, Lower Fitzwilliam Street, Dublin
Benson, A. H., M.B., 42, Fitzwilliam Square, Dublin
Benson, C. M., M.B., 65, Lower Baggot Street, Dublin
Benson, J. H. M.D., 57, Fitzwilliam Square, Dublin
Bewley, H. T., M.D., 89, Merrion Square, Dublin
Blayney, A. J. M., M.B., 15, Merrion Square North, Dublin
Bowie, R. F., Dep. Insp.-Gen. R.N. (ret.), Rotunda Hospital, Dublin
Boyce, C. E., Esq., 70, Lower Baggot Street, Dublin
Boyd, A. E., M.B., 4, Fitzwilliam Square E., Dublin
Chance, Sir Arthur, P.R.C.S.I., 90, Merrion Square W., Dublin
Charles, Andrew, Esq. 64, Harcourt Street, Dublin
Coffey, Professor Denis J., M.B., Cecilia Street, Dublin
Cope, G. P., Esq., 36, Harcourt Street, Dublin
Coppinger, C., M.D., 17, Merrion Square, Dublin
Cosgrave, E. M., M.D., 5, Gardiner's Row, Dublin
Cowe, S. McC., Esq., 118, St. Stephen's Green W., Dublin
Cox, M. F., M.D., 26, Merrion Square, Dublin
Craig, James, M.D., 18, Merrion Square N., Dublin
Crawley, F. J., M.D., 41, Lower Baggot Street, Dublin
Crinion, J. T. D., Esq., 58, Amiens Street, Dublin
Cronyn, John G., Esq., 4, Clare Street, Dublin
Cullinan, H., Esq., Richmond District Asylum, Dublin
Dargan, W. J., M.B., 45, Stephen's Green, Dublin
Davis, F. A. G., M.B., 30, York Street, Dublin
Day, H. G. G., Esq., 21, Lower Leeson Street, Dublin
Day, J. M., M.D., Cork Street Fever Hospital, Dublin
Delahoyde, O'C. J., Esq., 47, Rutland Square W., Dublin
Dempsey, P. J., Esq., 7, Merrion Square, Dublin
Denham, J. K., Esq., 67, Lower Baggot Street, Dublin
Dockeray, J. A., M.B., 4, Usher's Island, Dublin
Donnelly, T., M.D., 14, Rutland Square, Dublin
Doyle, J. P., Esq., 23, Lr. Fitzwilliam Street, Dublin
Drury, H. C., M.D., 48, Fitzwilliam Square W., Dublin
Edge, J. D., C.B., M.D., Surg.-Gen., R.A.M.C., The Castle, Dublin
Evans, W. R., M.D., 19, Merrion Square N., Dublin
Falkiner, N. McI., M.D., Registrar-General's House, Dublin
Fannin, E. M., M.B., 3, Rutland Square, Dublin
Farnan, R. P., M.B., 5, Merrion Square, Dublin
Finny, J. M., M.D., 36, Merrion Square, Dublin
Fitzgerald, C. E., M.D., 27, Upper Merrion Street, Dublin
Fottrell, W. J., Esq., 2, Rutland Square E., Dublin
Garland, J. P., M.D., 26, Arran Quay, Dublin
Gibbs, R., Esq., Winstonville, Fairview, Dublin
Glenn, J. H. R., M.D., 24, Lower Baggot Street, Dublin
Glenny, E., Esq., 14, Harrington Street, Dublin
Gordon, T. E., M.B., 4, Fitzwilliam Square, Dublin
Green, J. S., Lieut.-Col., R.A.M.C., Royal Infirmary, Dublin
Gunn, L. G., M.D., 43, Fitzwilliam Square, Dublin
Hanrahan, E. F., M.B., The Dispensary, Castle St., Dublin
Harvey, W. G., M.B., 62, Lower Baggot Street, Dublin
Hetherington, R. P., Lt.-Col., R.A.M.C., Military Hospital, Portobello Barracks, Dublin
Heuston, F. S., C.M.G., Lt.-Cl. R.A.M.C., Royal Hos. Dublin
Heuston, F. T., M.D., 15, St. Stephen's Green N., Dublin
Holmes, A. N., M.B., Rotunda Hospital, Dublin
Horne, A., Esq., 94, Merrion Square W., Dublin
Hughes, Charles J., Esq., 16, Lr. Fitzwilliam St., Dublin
Jellett, H., M.D., 61, Lower Mount Street, Dublin
Johnston, G. J., M.B., 13, Lower Fitzwilliam St., Dublin
Joyce, P. K., M.B., 69, Aughrim Street, Dublin
Kelly, Jas. B., Brigade-Surgeon Lieut.-Colonel A.M.S. (ret.), United Service Club, Dublin
Kennedy, B. B., Esq., N. Dublin Union Workhouse, Dublin
Kidd, F. W., M.D., 17, Fitzwilliam Street, Dublin
Kirkpatrick, T. P. C., M.D., 23, Lower Baggot St., Dublin
Knaggs, H. T., Major, R.A.M.C., Royal Infirmary, Dublin
Law, S. H., M.D., 49, Merrion Square, Dublin
Leeper, R. R., Esq., St. Patrick's Hosp., James St., Dublin
Lentaigne, John, F.R.C.S., 5, Upper Merrion St., Dublin
Little, J., M.D., 14, St. Stephen's Green, Dublin
Lumsden, J., M.D., 4, Fitzwilliam Place, Dublin
Macan, Sir Arthur Vernon, M.B., 53, Merrion Sq., Dublin
McArdle, J. S., Esq., 72, Merrion Square S., Dublin
McAuly, J. H., Esq., 9, Mountjoy Square, Dublin
McCausland, R. B., M.D., 79, Merrion Square S., Dublin
McGrath, T. G., Esq., 130, North Strand Road, Dublin
McHugh, M., M.B., 25, Harcourt Street, Dublin
McIntosh, M. S., M.B., Auburn, Strand Road, Clontarf
MacMahon, M. B. N., Esq., 36, Gt. Charles Street, Mountjoy Square, Dublin
McWalter, J. C., Esq., 19, North Earl Street, Dublin
McWeeney, E. J., M.D., 84, St. Stephen's Green, Dublin
Magennis, E. M. D., 37, Harcourt Street, Dublin
Maguire, Katharine M. N., M.D., 69, Merrion Sq., Dublin
Martley, F. C., M.D., 17, Lower Baggot Street, Dublin
Matson, J. A., M.D., 16, N. Gt. George's Street, Dublin
Maunsell, R. C. B., M.B., 32, Lower Baggot Street, Dublin
Maxwell, P. W., M.D., 19, Lower Baggot Street, Dublin
Merrin, P., Esq., 14, Harcourt Street, Dublin
Montgomery, A. N., Esq., 45, Upper Sackville Street, Dublin
Montgomery, H. B. S., Esq., 5, Elgin Road, Dublin
Montgomery, R. J., M.B., 4, Gardiner's Row, Dublin
Mooney, H. C., M.B., 22, Lower Baggot Street, Dublin
Moore, Sir John William, M.D., 40, Fitzwilliam Sq., Dublin
Moorhead, T. G., M.B., 12, Lower Fitzwilliam Street, Dublin
Moran, E., Esq., 12, Talbot Street, Dublin
Moran, P. G., M.B., Rotunda Hospital, Dublin
Murphy, J., Esq., 13, Merrion Square N., Dublin
Murphy, J. J., Esq., 18, Harcourt Street, Dublin
Myles, Sir Thomas, M.D., 33, Merrion Square, Dublin
Nash, W. H., Esq., 8, Rathdown Ter., N. Circular Rd., Dublin
Nixon, Sir Christopher J., M.D., 2, Merrion Square, Dublin
Norman, C., Esq., North Circular Road, Dublin
O'Brien, C. M., M.D., 29, Merrion Square North, Dublin
O'Carroll, J. F., M.D., 43, Merrion Square E., Dublin
O'Connor, J., Esq., 5, Cavendish Row, Dublin
Ormsby, Sir Lambert H., M.D., 92, Merrion Square, Dublin
Ormsby, G. J. A., M.D., Capt. R.A.M.C., 92, Merrion Square, Dublin
O'Sullivan, A. C., M.B., 40, Trinity College, Dublin
Oulton, H. W., M.D., 1, Upper Fitzwilliam Street, Dublin
Parsons, A. R., M.D., 27, Lower Fitzwilliam Street, Dublin
Peacocke, G. J., M.D., 14, Lower Fitzwilliam Street, Dublin
Pringle, Seton, M.B., 27, Lower Baggot Street, Dublin
Purser, J. M., M.D., 11, Harcourt Terrace, Dublin
Redington, John M., Esq., Richmond Asylum, Dublin
Redmond, J. M., M.D., 41, Merrion Square East, Dublin
Reilly, C. W., Major, R.A.M.C., 67, Cabra Road, Dublin
Rowlette, R. J., M.D., 17, Lower Mount Street, Dublin
Saunders, D. M., M.D., Maj. R.A.M.C., The Castle, Dublin
Scott, J. A., M.D., 36, Lower Baggot Street, Dublin
Shaw, J. A., M.D., Lieut.-Col., R.A.M.C. (R.P.). 95, Lower Baggot Street, Dublin
Sheppard, John, Esq., 1, Rostrevor Ter., Clontarf, Dublin
Smith, A. J., M.B., 30, Merrion Square, Dublin
Smith, R. T., M.D., 20, Lower Fitzwilliam Street, Dublin
Smith, T. N., Esq., 34, Upper Fitzwilliam Street, Dublin
Smith, W. G., M.D., 25, Merrion Square North, Dublin
Smyly, Sir Wm. Josiah, M.D., 58, Merrion Sq. South, Dublin
Staunton, M. C., M.D., 22, North Frederick St., Dublin
Stoker, Sir Thornley, M.D., 8, Ely Place, Dublin
Stokes, Henry, M.B., 26, Harcourt Street, Dublin
Story, J. B., M.B., 6, Merrion Square, N., Dublin
Strahan, Michael, Esq., 38, Rutland Square, Dublin
Stritch, G. S. R., Esq., 17, N. Great George's Street, Dublin
Swanzy, H. R., M.B., 23, Merrion Square North, Dublin
Symes, W. L., M.D., 74, Merrion Square, Dublin
Taylor, Edwin H., M.D., 29, Lower Baggot Street, Dublin
Taylor, W., Esq., 47, Fitzwilliam Square, Dublin
Tennant, Elizabeth A., L.R.C.P.I., 15, Harrington Street Dublin
Ternan, W. G., Esq., 2, Harrington Street, Dublin
Thompson, Professor W. H., M.D., 14, Hatch Street, Dublin
Thompson, W. J., M.D., 27, Harcourt Street, Dublin
Thomson, Sir William, C.B., M.D., 54, St. Stphns. Grn. E., Dub.
Tobin, R. F., Brig.-Surg. (retired), 60, Stephen's Grn., Dublin
Tweedy, E. H., Esq., Rotunda Hospital, Dublin
Walsh, J. A., Esq., 30, Westmoreland Street, Dublin
Watson, E. J. M., M.D., 25, Fitzwilliam Place, Dublin
Wayland, R. S., Esq., 67, Harcourt Street, Dublin
Wheeler W. I. de Courcy, M.B., 59, Lower Mount Street, Dublin
Wilson, G. O'K., Esq., 34, North Frederick Street, Dublin
Woodhouse, S., M.D., Prison Board Office, Dublin
Woods, C. R., Lieut.-Col., R.A.M.C., Royal Infy., Dublin
Woods, R. H., M.B., 39, Merrion Square, Dublin
Wynne, A. E., Esq., 27, Westland Row, Dublin
Ziervogel, J. Philip, Esq. (address uncommunicated)

No. 2.—East Leinster Division

NUMBERING 106.

Chairman, H. C. Earl, M.D., Dublin

Vice-Chairman, J. D. Hillis, F.R.C.S.I., Dublin

Honorary Secretary and Treasurer, R. C. Peacocke, M.D., 2, Avoca Terrace, Blackrock, Co. Dublin

Representative for Representative Meeting.
J. Wallace Boyce, M.D., Blackrock

Executive Committee

W. R. Dawson, M.D.
R. L. Heard, M.B.
E. W. Lynch, Esq.
J. Mason, M.B.
J. M. Neale, Esq.
J. F. Pollock, M.D.
J. Rowntree, M.B.
I. W. Usher, J.P.
Prof. A. H. White

Representatives on Branch Council.

J. D. Hillis, F.R.C.S.I.
H. C. Earl, M.D.
J. Mason, M.B.
J. M. Neale, Esq.
Isaac W. Usher, J.P.

Ahern, W. F., M.D., Columba House, Howth
Allman, Robert, C.M.G., 2, Cowper Villas, Palmerston Park, Dublin
Atthill, L., M.D., Monkstown Castle Co. Dublin
Beatty, J., Esq., Monkstown Hospital, co. Dublin
Bennett, A. G., Esq., 10, Musgrave Terrace, Kingstown
Bewley, A. W., Major, R.A.M.C., Military Hospital, Newbridge
Bigger, E. C., M.D., 1, Temple Villas, Dublin
Blake, H. E. V., Esq., Aherdelghy, Howth
Blood, R., M.D., Col. R.A.M.C. (ret.), Kingstown
Boyce, J. Wallace, M.D., Blackrock
Bradshaw, S. J. McC., M.B., 1, Tempé Terrace, Dalkey
Brannan, F., M.B., Abbey View, Castledermot
Brew, H. B., Esq., Bray
Brew, R. W., M.B., Enniskerry
Browne, R., M.D., Hopeton, Rathgar, Dublin
Burrell, A. A., M.B., St. Edmondsbury, Lucan
Cahill, F. J., Esq., Dundrum, Co. Dublin
Cameron, Sir Charles A., C.B., M.D., 51, Pembroke Road, Dublin
Campion, T. S., M.B., 27, The Crescent, Lucan
Clerke, Capt. J., R.A.M.C., (address uncommunicated)
Coady, E. T., Esq., Clane Sallin
Cosgrove, E., Esq., St. Coca's, Kilcock
Croly, A., Esq., J.P., Silveracre, Rathfarnham
Cullen, J. J., Esq., Fawn Lodge, Castleknock
Dawson, W. R., M.D., Farnham House, Finglas
Dixon, A. F., M.B., 35, Palmerston Road, Dublin
Earl, H. C., M.D., 2, Waterloo Road, Dublin
Ellis, P. M., Col. R.A.M.C., 15, Palmerston Park, Dublin
Eustace, H. M., M.D., Highfield, Drumcondra
Ewing, C. O'H., Esq., Ballymore-Eustace
Flood, F. L., Esq., Fintragh, Shrewsbury Road, Merrion
Fraser, Prof. A., M.B., 18, Northbrook Rd., Leeson Pk., Dublin
Furlong, W. Verner, M.D., 16, Pembroke Road, Dublin
Goff A. S., Esq., Lynton, Dundrum
Good, T. D., M.D., 3, Cullenswood Terrace, Ranelagh
Gorman, James, Esq., Baltinglass
Greer, J. S., L.R.C.P.&S.Ed., 2, Tempé Terrace, Dalkey
Greene, Thomas W. N., M.D., 45, Dartmouth Sq., Dublin
Grene, J. W., Esq., Athboy
Harley, R. W., Esq., 21, Pembroke Road, Dublin
Hatch, R., Esq., 146, Pembroke Road, Dublin
Heard, R. L., M.B., Karnsore, Monkstown
Hearn, R. T., M.D., 7, Belgrave Square, Rathmines
Hillis, J. D., F.R.C.S.I., 10, Leinster Square, Dublin
Hinds, Hon. W. R. G., M.D., Lieut.-Col. A.M.S. (ret.), Station Hospital, Naas
Johns, C. A., M.D., 9, Pembroke Park, Dublin
Joynt, W. G., M.D., Windsor Terrace, Malahide, co. Dublin
Keegan, J. F. Leo, Esq., 2, Pembroke Road, Dublin
Kelly, James, M.D., 2, Royal Terrace, West Kingstown
Kenna, M. F., M.D., Blackrath, Ballytore
Laffan, P. M., Esq., Belper Hill, Tara
Latchford J., M.B., Lt.-Col. (ret.) A.M.S., Dublin
Lynch, E. W., Esq., 6, Longford Terrace, Kingstown
Lynn, Kathleen F., M.B., 9, Belgrave Road, Dublin
Lyon, R. N., Esq., 11, Avondale Terrace, Terenure
Lyons, E., M.D., Dunlavin
Macdonough, J. D., Esq., Annadale, Albert Rd., Glenagarey
McCarthy, J. J., M.D., 83, Wellington Road, Dublin
McDermott, P. A., Esq., Mount Clarence, Kingstown
McEvoy, T. M., Esq., Blackrock
Mackay, W. B., Esq., Kilgobbin
Mason, J., M.B., 25, Castlewood Avenue, Rathmines, Dublin
MacNaught, C. E., M.D., Palmerston Road, Dublin
Maunsell, O. H., Esq., 19, Northumberland Avenue, Kingstown
Moran, Lieut.-Col. J. J., I.M.S. ret., Slieveanore, Carrickmines
Morgan, J. A., Esq., 51, Morehampton Road, Dublin
Neale, J. M., Esq., Newbridge, Kildare
Newland, F. C., M.B., 4, Haddington Terrace, Kingstown
Nicolls, J. M., Lt.-Col., R.A.M.C., 24, Mount Eain Road, Donnybrook
O'Connell, P., M.D., Stillorgan Castle, co. Dublin
O'Connor, C. J., Esq., Celbridge
O'Donoghue, J., Esq., Howth
O'Donovan, J., Esq., Kingstown
O'Flaherty, R. G., M.B., Kingstown
O'Riordan, J. P., Esq., Rathcoole
Patton, W. J., M.B., Westbury, Willow Bank, Kingstown
Peacocke, R. C., M.D., 2, Avoca Terrace, Blackrock
Pim, J., Esq., Killiney
Pollock, J. F., M.D., Ovoca House, Blackrock, Dublin
Pope, F. A., M.B., 80, Pembroke Road, Dublin
Power, J. B., Esq., 28, Adelaide Street, Kingstown
Price, A. G., M.B., Greystones
Roantree, J., M.B., Newbridge
Ryan, D. J., M.B., Monasterevan
Smyth, J., M.D., Naas, Kildare
Smythe, E. S., M.B., Court na Farragh, Killiney
Steede, B. H., M.D., Newcastle
Starkey, W., M.D., 80, Rathmines Road, Dublin
Stothard, J. M., Esq., Laurel Lodge, Monkstown
Synge, Rev. S., M.D., 31, Crosthwaite Park W., Kingstown
Taaffe, R. J., M.B., 1, Roby Place, Kingstown
Taylor, W., Esq., Rathdrum
Todd, A. H. S., M.D., Rhos-y-gar, Monkstown
Torney, H. S., Esq., Avondale, Terenure Road, Dublin
Trumbull, John, Esq., Beechwood, Malahide
Turner, D., Esq., 68, Grosvenor Road, Rathmine
Usher, I. W., J.P., Dundrum
Walsh, F. P., Esq., Kiltegan
White, Professor A. H., Derrybawn, Rathgar, Dublin
Wigham, J. T., M.B., Albany House, Monkstown
Winder, John, M.D., Gormanstown, Kilcullen
Winter, W. A., M.D., 2, Upper Leeson St., Dublin
Wright, W. M'D. A., M.D., Ulverton, Dalkey
Wyatt, H. J., Lt.-Col. R.A.M.C., Military Hospital, Curragh
Wylie, J. T. R., Esq., Little Rath, Sallins
Yourell, M. J., Esq., 10, Ailesbury Road, Dublin

No. 3.—Mid-Leinster Division

NUMBERING 12.

Chairman, G. A. Moorhead, Esq., Tullamore
Vice-Chairman, R. H. D'O. Duckworth, M.B., Donaghmore
Honorary Secretary, A. E. McCann, Esq., Mountmellick
Representative for Representative Meeting.
Representative on Branch Council.
Tabuteau, J. M., M.B.

Duckworth, R. H. D'O., M.B., Donaghmore
Jacob, W. G., Esq., Maryborough
Kenny, M. E., M.B., 10, John's Mall, Birr
Kinsella, J. J., M.B., Edenderry
McCann, A. E., Esq., Mountmellick
Mills, W. T., Esq., Rhode, Edenderry
Moorhead, G. A., Esq., Tullamore
Morton, W. A., M.D., 10, Oxmantown Mall, Parsonstown
O'Brien, D. J., Esq., Durrow
Rice, T. W., Esq., Portarlington
Tabuteau, J. M., M.B., Portarlington
Woods, F. W., Esq., 32, Cumberland Street, Parsonstown

No. 4.—North Leinster Division

NUMBERING 19.

Chairman,

Vice-Chairman,

Honorary Secretary

Representative for Representative Meeting.

Bradley, W., M.D., 32, Lawrence Street, Drogheda
Byrne, Eugene, Esq., Slane
Byrne, J. V., Esq., 33, Laurence Street, Drogheda
Callan, M., Esq., Ardee
Connolly, T. J., Esq., Dromiskin, Castlebellingham
Copley, S., M.D., 3, Palace Street, Drogheda
Finegan, L. P. J., Esq., Woodlands, Navan
Finegan, P. J., Esq., Abbey View, Carlingford
Gill, J. H., M.B., Roden Place, Dundalk
Glenny, W. W., Esq., Prospect, Omeath
Hamill, George, Esq., 50, Lawrence Street, Drogheda
Kearney, M., Esq., Jocelyn Street, Dundalk
McCracken, J. A., Lieut.-Col., Altmore House, Omeath
Minchin, W. C., M.D., Headfort Place, Kells
O'Brien, J., Esq., Barronstow, Dundalk
O'Rorke, C. T. J., Esq., Crossakee
Ryan, D., Esq., Navan
Sellars, J. C., Esq., Roden Place, Dundalk
Sullivan, F. W., Esq., Bedford Place, Navan

No. 5.—North-West Leinster Division

NUMBERING 16.

Chairman, A. Finegan, Esq., Mullingar

Vice-Chairman, Joseph M. F. Kenny, M.B., Granard

Honorary Secretary, O. P. Kerrigan, Esq., Ard-na-Greena, Castletown, Geoghegan

Representative for Representative Meeting.

Ballesty, Michael, F.R.C.S.I., Harbour Street, Mullingar
Daly, T. J., Esq., Multyfarnham
Dobbs, A. F., M.B., Athlone
Finegan, A., Esq., District Asylum, Mullingar
Fox, P. H., Major, R.A.M.C. (retired), Harmony Hall, Benown, Glasson, Athlone
Gordon, W. S., M.D., Lunatic Asylum, Mullingar
Hornidge, G. J., Esq., Tyrrell's Pass, Westmeath
Keenan, J. F., M.B., Edgeworthstown
Kenny, C. A., Esq., Ballymahon
Kenny, Joseph M. S., M.B., Granard
Kerrigan, O. P., Esq., Castletown Geoghegan
King, J. C., J.P., Castlepollard
McGrane, J. L. E., Esq., Killucan, Westmeath
O'Beirne, G. P., Esq., Athlone
Rowan, P., J.P., Tyrrellspass
Tynan, E. J., Esq., Ballycorkey, Ballinacargy

No. 6.—South-East Leinster Division

NUMBERING 11.

Chairman,

Vice-Chairman,

Honorary Secretary,

Representative for Representative Meeting.

Cooke, W. A., Esq., Ferrybank, Arklow
Dormer, J. E. Esq., Newtown Barry
Drapes, T., M.B., The Asylum, Enniscorthy
Furlong, N., Esq., Enniscorthy
Hadden, D., Esq., Infirmary House, Wexford
Hamilton, P. J., M.B., Arklow
Hudson, A. C., Esq., Avoca
Lawler, W. C., Esq., The Chase, Newtonbarry
Nolans, F., Esq., Gorey
Pierse, T., Esq., Upper George Street, Wexford
Stephenson, A. B., Esq., Lyndon, Gorey

METROPOLITAN COUNTIES BRANCH

To include, NORTH OF THE THAMES, LONDON AND MIDDLESEX; also the portion of BUCKINGHAMSHIRE east of a line drawn from Windsor to a point immediately northward of Chesham; in HERTFORDSHIRE, the Watford Parliamentary Division, and the portions of the St. Albans and Hertford Parliamentary Divisions south of a line drawn from Abbot's Langley to Cheshunt (included); in ESSEX, the part included by a line drawn from Cheshunt to High Ongar, including the latter in the Branch, and thence through Dagenham Station to the Thames: the part of London and Surrey bounded by a line drawn from Blackwater Station (excluded) to Byfleet (excluded), thence to Wimbledon (included), thence along the south boundary of the postal districts of Wandsworth, Battersea, Clapham, Brixton, and Peckham, and thence northward o the Thames Tunne

Members of Branch—2,667.

Recognised 1852.

President, Andrew Clark, D.Sc., F.R.C.S., 71, Harley Street, W.

President-elect. Hugh R. Ker, F.R.C.S., Tintern, Balham Hill, S.W.

Vice-Presidents.

H. Adcliffe Crocker M.D., 121, Harley Street, W.

M. G. Biggs, M.D., 101, Northcote Road, S.W.

G. G. Walker, Esq., 39, Worple Road, S.W.

W. Wynn Westcott, M.B., 396, Camden Road, N.

Treasurer, H. Betham Robinson, M.S., F.R.C.S., 1, Up. Wimpole Street W.

Honorary Secretaries.

F. J. Smith, M.D., 138, Harley Street, W.

Ernest Clarke, M.D., 3, Chandos Street, W.

Representatives on Central Council.

Anderson, J. Ford, M.D.
Clark, Andrew, D.Sc., F.R.C.S.
Eastes, George, M.B.
Robinson, H. Betham, M.S., F.R.C.S.
Rowell, George, F.R.C.S.

Associate Member.

Fowler, C. Owen, M.D., Cotford House, Thornton Heath, Surrey

Branch Council.

Armour, Donald J., F.R.C.S.
Beddow, J., Esq.
Berkeley, G. H. A. Comyns, M.B.
Biggs, M. G., M.D.
Buckell, F. J., M.B.
Buttar, Charles, M.D.
Cockburn, R. P., M.D.
Corner, M. C., Esq.
Dauber, J. H., Esq.
Dutton, Thomas, M.D.
Eastes, George, M.B.
Ewart, W., M.D.
Fuller, J. R., M.D.
Gardner, J. T., Esq.
Goodall, E. W., M.D.
Haslip, G. E., M.D.
Hawthorne, C.O., M.B.
Hickman, H. V., M.B.
Johnson, J. R., Esq.
Jolly, S. A., Esq.
Lamb, W. H. Esq.
Macevoy, H. J., Esq.
Morton, C. J., M.D.
Nicoll, P. J. I. Esq.
Oppenheimer, H., M.D.
Oswald, J. W. J., M.D.
Paramore, R. M.D.
Russell, J. Dill, Esq.
Sangster, C. Esq.
Sibley, W. Knowsley, M.D.
Smith, W., M.D.
Spicer, Frederick, M.D.
Stocker, C. J., Esq.
Stoddart, W. H. B., M.D.
Thomson, G. J. Crawford, M.D.
Tomlin, R. F., Esq.
Tresilian, F. J., M.D.
Walker, H. R., Esq.
Wallace, Frederick, Esq.
Westcott, W. Wynn, M.B.
Williams, Llewellyn, Esq.
Williams, L. L. B., M.D.
Wilson, R. W., M.D.
Woods, Hugh, M.D.

No. 1.—Chelsea Division.

Numbering 90.

Chairman, W. A. Bonney, M.D.

Vice-Chairman, W. Keen, M.D.

Honorary Secretary and Treasurer, P. H. Parsons, Esq., 128, Fulham Road, S.W.

Representative for Representative Meeting.

A. O'Sullivan, Esq., 39, Matheson Road, W. Kensington

Representative on Branch Council, J. T. Gardner, Esq.

Appleton, T. A., Esq., 46, Britannia Road, Fulham, S.W.
Armstrong, J. J., Esq., 109, N. End Road, W. Kensington, W.
Arundell, S. W., Esq., 21, Parsons Green, S.W.
Ayre, F. J., Esq., 219, New King's Road, Fulham, S.W.
Barker, W. J. T., Esq., 304, Wandsworth Bridge Road, S.W.
Barratt, J. O. W., M.D., Lister Inst., Chelsea Gardens, S.W.
Barry, C. J., Esq., 507, Fulham Road, S.W.
Bird, A. H., Esq., 1, Trafalgar Square, Chelsea, S.W.
Bird, R. G., Esq., 16, Gunterstone Road, W. Kensington
Bonney, Wm. A., M.D., 100, Elm Park Gardens, Chelsea, S.W.
Boyd, Campbell, Esq., 13, Sloane Court, S.W.
Brown, Sir C. Gage, M.D., K.C.M.G., 88, Sloane Street, S.W.
Bruce, R. M., Esq., Western Hospital, Fulham, S.W.
Busteed, H. E., M.D., 32, Charleville Mansions, W.
Cahill, John, M.D., 12, Seville Street, Lowndes Square S.W.
Cathcart, E. P., M.D., Lister Institute, Chelsea Gns., S.W.
Chittenden, T. H., M.D., 25, Ovington Square, S.W.
Clapham, S. C., M.B., Western Hospital, Fulham, S.W.
Davies, T., Esq., 1, Gwendwr Road, W.
Dickinson, T. V., M.D., 33, Sloane Street, S.W.
Donald, R., Esq., 22, Oakley Street, Chelsea, S.W.
Edwards, J. J., Esq., 56, Wandsworth Bridge Road, S.W.
England, H., Esq., 22, West Kensington Mansions, W.
Fremantle, F. E., M.B., 50, Lower Sloane Street, S.W.
Fremlin, H. S., Esq., Government Lymph Laboratories, Chelsea Bridge, S.W.
Gardner, J. T., Esq., 5, Embankment Gardens, Chelsea
Gibbons, R. A., M.D., 29, Cadogan Place, S.W.
Gilchrist, J. C., M.B., Chest Hospital, Brompton, S.W.
Grant, A. J., M.D., 6, Queen's Club Terrace, W. Kensington, W.
Grant, F., Esq., 169, Queen's Gate, Kensington, S.W.
Griffiths, J. H. K., M.D., 154, Munster Road, Fulham, S.W.
Hague, John, Esq., Royal Hospital, Chelsea, S.W.
Hamilton, J., M.D., 60, Sydney Street, S.W.
Hanks, A. G. T., Esq., 10, Edith Grove, S.W.
Harrison, C. J., M.D., 6, Swan Walk, Chelsea, S.W.
Hedley, E. W., M.B., 56, Hans Place, S.W.
Hensley, P. J., M.D., 2, Durham Place, Chelsea, S.W.
Jackson, J. C., Esq., Town Hall, Fulham, S.W.
Jones, H. J., Esq., 30, Lillie Road, S.W.
Jones, T. Ridge, M.D., 4, Chesham Place, S.W.
Keen, W., M.D., 35, Carlyle Square, Chelsea, S.W.
Knott, W., Esq., 1, Rycroft Street, Fulham, S.W.
Knuthsen, L. F. B., M.D., 33, Chesham Street, S.W.
Leslie, W. Murray, M.D., 74, Cadogan Place, S.W.
Ligertwood, T., C.B., M.D., 16, St. Leonards' Terrrace, Chelsea, S.W.
McBurney, J. H., M.D., Donard House, Fulham Palace Road, S.W.
McClure, James, F.R.C.S., 7, St. Loo Mansions, Cheyne Gardens, S.W.
Macdonald, T. R., M.B., 85, Cadogan Place, S.W.
Mackenzie, F. M., Esq., 29, Hans Place, S.W.
Mackenzie, G. W., Esq., 13, William St., Lowndes Sq., S.W.
MacRae, James, M.D., 436, Fulham Road, S.W.
Marsh, J. J., M.D. Brux., 104, Sloane Street, S.W.
Marsh, W. G. H. B., Esq., 20, Glazbury Road, W.
Marshall, W. E., M.B., Lister Institute, Chelsea Gardens, S.W.
Martin, Chas. J., M.B., F.R.S., Lister Institute, Chelsea Gardens, S.W.
May, C. G., M.D., 59, Cadogan Place, S.W.
Merrick, H. T. N., M.B., 25, Talgarth Mansions, West Kensington, W.
Moore, S. H., Esq., 75, Sydney Street, Chelsea, S.W.
Morton, J., M.B., 2, Wandsworth Bridge Road, S.W
Muir, J. C., M.B., St. George's Union Infirmary, Fulham Road, S.W.
Neville, T., M.D., 123, Sloane Street, S.W.
New, J. S., Esq., Lister Institute, Chelsea Gardens, S.W.
Orr, J. J., M.D., 493, King's Road, Chelsea, S.W.
O'Sullivan, D. A., Esq., 39, Matheson Road, W. Kensington
Palmer, J. F., Esq., 8, Royal Avenue, Chelsea College, S.W.
Parkes, L. C., M.D., 61, Cadogan Square, S.W.
Parkinson, T. W., M.D., 77, Sloane Street, S.W.
Parsons, C. T., M.D., Infirmary, Fulham Palace Road, W.
Parsons, P. H., Esq., 128, Fulham Road, S.W.
Ramsden, H. K., Esq., 21, Elm Park Road, Chelsea, S.W.
Rankin, G., M.D., 4, Chesham Street, S.W.
Reinhardt, Charles E., M.D., 13, Embankment Gardens, Chelsea, S.W.
Satchell, E. P., M.B., Carlton Lodge, Fulham, S.W.
Scott, Lindley M., M.D., 98, Sloane Street, S.W.
Shaw-Mackenzie, A. C., Esq., 644, Fulham Road, S.W.
Shortt, W. R., M.D., 70, FitzGeorge Avenue, Kensington, W.
Smith, Sydney, Esq., 71, Wandsworth Bridge Road, S.W.
Spaull, P. W., Esq., 1, Stanwick Rd., W. Kensington, W.
Staveley, W. H. C., Esq., 24, Sloane Gardens, S.W.
Stevens, A. E., M.D., 12, Cadogan Place, S.W.
Tanner, H., Esq., 706, Fulham Road, Hurlingham, S.W.
Venning, Sir Edgcombe, F.R.C.S., 30, Cadogan Place, S.W.
Wallace, E. J., M.D., 22, Hans Crescent, S.W.
Webb, Hugh, Esq., Wentworth Ho., Parson's Green, S.W.
Wells, A. G., Esq., Beaumont Terrace, W. Kensington, W.
White, C. P., M.B., 22, Cadogan Gardens, S.W.
Whitelam, R., Esq., 742, Fulham Road, S.W.
Wigan, C. E., M.B., 24, Cheyne Walk, Chelsea, S.W.
Willcox, E. C., M.D., Western Hospital, Fulham, S.W.
Williams, M. J., Esq., 19, Jerdan Place, Fulham, S.W.

No. 2.—City Division

Numbering 161.

Chairman, J. W. Hunt, M.D., Woodchester, Upper Clapton, N.E.

Vice-Chairman, Major Greenwood, M.D., 243, Hackney Road, N.E.

Honorary Secretary and Treasurer, E. W. Goodall, M.D., Eastern Hospital, Homerton, N.E.

Assistant Honorary Secretary, C. R. Salisbury, Esq., 110, Evering Road, Stoke Newington, N.

Representative for Representative Meeting.

F. Wallace, Esq., Foulden Lodge, Upper Clapton, N.E.

Branch Council.

Beddow, J., Esq.
Goodall, E. W., M.D. (*ex officio*).
Wallace, Frederick, Esq.

Executive Committee.

Brown, T. L., Esq.
Grant, Hope, Esq.
Green, A. W., Esq.
Hallows, S. P., M.B.
Hirst, A., M.D.
Lermitte, E. A., M.B.
Oliver, F. H., Esq.
Oliver, J. W., M.D.
Powell, H. E., Esq.
Sequeira, J. Scott, Esq.
Southcombe, A. G., Esq.
Warry, J. King, M.D.
Whitelaw, Wm., M.D.
Will, H. Chisholm, Esq.

Associate Member,

Corner, M. C., Esq., 113, Mile End Road, E.

Abel, H. M., Esq., 10, King's Bench Walk, E.C.
Adams, E. B., Esq., St. Bartholomew's Hospital, E.C.
Adams, John, Esq., 180, Aldersgate Street, E.C.
Adams, J. O., M.D., Brooke House, Upper Clapton, N.E.
Allport, A., Esq., 28A, Moorgate Street, E.C.
Barlow, T. C., Esq., 88, Dalston Lane, N.E.
Barrett, S. E., M.B., 56, Manor Road, N.
Bate, G. P., M.D., 2, King Edward's Road, N.E.
Bayley, Eric, M.B., 36, City Road, E.C.
Beddow, J., Esq., 89, Cazenove Road, Stamford Hill, N.
Benoly, N., M.D., 150, Bethnal Green Road, E.
Bergin, W. M., M.B., 37, Walbrook, E.C.
Bernstein, M. M., M.D., 51, Cazenove Rd., Stamford Hill, N.
Birch, G., Esq., 105, Downs Road, N.E.
Bird, H., Esq., 40, De Beauvoir Road, N.
Bremner, F. P., M.B., 12, Lower Clapton Road, E.
Brewer, A. H., Esq., 136, Richmond Road, Dalston, N.E.
Brown, F. G., Esq., 17, Finsbury Circus, E.C.
Brown, R., Esq., 56, Rectory Road, Stoke Newington, N.
Brown, T. L., Esq., 6, Hyde Road, N.
Browne, C. L., Esq., c.o. Messrs. H. S. King and Co., 65, Cornhill, E.C.
Busch, J. P. Z., Esq., 133, Finsbury Pavement, E.C.
Caunter, R. L., M.D., 186, Clerkenwell Road, E.C.
Chambers, E., M.D., 1, Wilmington Square, W.C.
Chambers, J. L., Esq., 249, Hackney Road, E.
Chetwood, W., Esq., 12, Christopher Street, E.C.
Clarke, C. G., M.D., 77, Downs Park Road, Clapton, N.E.
Coop, E. J. E., Esq., 57, Darnley Road, Hackney, N.E.
Copeman, A. H., M.D., London and County Bank Chambers, St. Mary Axe, E.C.
Corfield, Charles, Esq., 4, Copthall Chambers, E.C.
Crampton, T. H., Esq., 30, Myddelton Square, E.C.
Crisp, E. H., Esq., 43, Fenchurch Street, E.C.
Culpin, Millais, Esq., 154, Lower Clapton Road, N.E.
Dabbs, G. H. R., M.D., 25, Austin Friars, E.C.
Daly, F. H., M.D., 185, Amhurst Road, Hackney, N.E.
Daly, F. J. P., Esq., 188, Upper Clapton Road, N.E.
Davies, A. T., M.D., 17, Finsbury Circus, E.C.
Dickson, T. H., M.B., Custom House, Lr. Thames St., E.C.
Dudgeon, R., M.B., 1, Cadogan Terrace, Victoria Park, N.E.
Duncan, A. G., M.B., Amhurst Park, Stamford Hill, N.
Durno, Leslie, M.D., 98, Stoke Newington Road, N.
Edlin, E. H., Esq., 25, Bucklersbury, E.C.
Evershed, A. R. F., Esq., 15, Great Winchester Street, E.C.
Fee, W. G., Esq., Brook House, Upper Clapton
Fennell, J. P., Esq., 20, Dalston Lane, N.E.
Fenner, R., Esq., 11, Birchin Lane, Lombard Street, E.C.
Féré, Eméry Norbert, M.D., 12, Northampton Square, E.C.
Fisher, T. J., M.D., 48, Cassland Road, S. Hackney
Fleming, S., M.B., Fountain Court, Temple, E.C.
Fryer, R. A., M.B., 91, New North Road N.
Gahagan, H. J., M.B., 178, Clerkenwell Road, E.C.
Galt, W. J., M.B., 141, Minories, E.C.
Gayford, C., M.D., 52, Fleet Street, E.C.
Gask, G. E., Esq., St. Bartholomew's Hospital, E.C.
Goddard, B., Esq., 27, Pentonville Road, N.
Goitein, B., M.D., 114, High Street, Kingsland, N.E.
Goldney, A. G. N., Esq., 224, Mare Street, Hackney, N.E.
Goodall, E. W., M.D., Eastern Hospital, Homerton, N.E.
Gordon, John, M.D., 49, Newgate Street, E.C.
Grant, Hope, Esq., 15, Christopher Street, E.C.
Gray, A. M. H., M.D., North Eastern Hospital for Children, Hackney Road, N.E.
Green, A. W., Esq., 4, Wardrobe Place, Doctors' Commons
Greenwood, A., Esq., 26, Queen's Road, N.E.
Greenwood, Major, M.D., 243, Hackney Road, N.E.
Greenwood, Major, jun., Esq., 243, Hackney Road, N.E.
Gundlach, J., Esq., 138, Upper Clapton Road, N.E.
Guthrie, R. L., M.D., 180, Fleet Street, E.C.
Haig, T. B., Esq., 88, Dalston Lane, N.E.
Hall, J. M., M.D., 164, Upper Clapton Road, N.E.
Hallows, S. P., M.B., 32, Stamford Hill Mansions, Stamford Hill, N.
Hanbury, R. J., Esq., Stainforth House, Upper Clapton N.E.
Hannay, M. G., Esq., 36, City Road, Finsbury Sq., E.C.
Harper, Frances Margaret, M.B., 118, City Road, E.C.
Hawes, Francis B., Esq., 46, New Broad Street, E.C.
Hey, C. E. Milnes, Esq., 158, Leadenhall Street, E.C.
Hicks, G.B., Esq., 149, Amhurst Road, Hackney, E.
Hirst, A., M.D., 243, Victoria Park Road, N.E.
Hockridge, T. G., M.D., 26, Lloyd Square, W.C.
Hope, C. H. S., Esq., c.o. Messrs. D. and J. Fowler, Ltd., 2, Lime Street Square, E.C.
Hoskin, T., Esq., 1, Amhurst Park, N.
Hume, W. A., Esq., 12, Sutton Place, Hackney, N.E.
Hunt, J. W., M.D., Woodchester, Upper Clapton, N.E.
Hunter, C. H., Esq., 6A, Brewer Street, E.C.
Jordon, A. C., M.D., 1, Norton Folgate, E.C.
Kershaw, W. H., Esq., 6, Southgate Road, N.
Kingdon, Wilfred, M.B., 60, Cheapside, E.C.
Kingsbury G. C., M.D., 1, Elm Court, Temple, E.C.
Klein, E. E., F.R.S., St. Bartholomew's Hospital, E.C.
Knox, John, M.D., 254, Bethnal Green Road, N.E.
Lermitte, E. A., M.B., 96, Manor Road, Stoke Newington, N.
M'Donnell, W. C., Esq., Park Lane, Stoke Newington, N.E.
Macfee, J., M.D., Mare Street, Hackney, N.E.
MacMunn, J., Esq., 70, Finsbury Pavement, E.C.
Madgshon, Minnie L. C., M.B., General Post Office, E.C.
Mansie, James, M.B., 455, Kingsland Road, Dalston
Manuk, M. W., M.B., c.o. H. S. King & Co., 65, Cornhill, E.C.
Marshall, A. L., M.B., Thornleigh, Upper Clapton, N.E.
Marston, H. J., Esq., East Gate, Durlston Road, Upper Clapton, N.E.
Michels, E., M.D., 48, Finsbury Square, E.C.
Miller, A. W., M.B., 41, Upper Clapton Road, N.E.
Miller, H. P., Esq., 100, Stoke Newington Road, N.
Milligan, H. N. D., M.B., 75, Fleet Street, E.C.
Mitchell, J. A., M.B., 16, Clement's Lane, E.C.
Moore, E. J. F., Esq., 53, Well Street, S. Hackney, N.E.
Morris, Arthur L., Esq., 2, Bishopsgate St. Without,
Mott, R. C., Esq., 20, Manor Road, Stamford Hill N.
Mowat, D., M.D., 123, Stamford Hill, N.
Murray, J. A., M.B., 3, Cursitor Street, E.C.
Nicholson, H. G., Esq., 97, Approach Road, N.E.
Oliver, F. H., Esq., 2, Kingsland Road, E.
Oliver, John, M.D., Hackney Infirmary, Homerton, N.E.
Osborne, J. K., M.B. (address uncommunicated)
Pereira, Henry M., Esq., Eastern Hospital, Homerton, N.E
Pickett, J., Esq., 49, Queen Victoria Street, E.C.
Ponder, C. F., Esq., 188, Lower Clapton Road, N.E.
Potter, G., W., M.D., King Street, Cheapside, E.C.
Potts, W. J., M.D., Bethnal Green Infirmary, Cambridge Road, N.E.
Powell, H. C., Esq., 44A, Upper Clapton Road, N.E.
Powell, H. E., Esq., Manor Lodge, Upper Clapton Rd., N.E.
Pryce, H. Vaughan, M.B., 104, Bethune Road, Stamford Hill, N.
Rawes, W. M.D., St. Luke's Hospital, E.C.
Rayner, J. A., M.B., 346, Kingsland Road, E.
Reid, John, M.D., 31, Walbrook, E.C.
Reynolds, W. P., Esq., 128, Stamford Hill, N.
Rideal, A. H., M.D., 14, Cornhill, E.C.
Roe, W. F., Esq., 121, Old Street E.C.
Rushbrooke, T., Esq., 93, Stamford Hill, N.
Salisbury, C.R., Esq., 110, Evering Rd., Stoke Newington, N.
Saunders, P. W., M.B., Victoria Park Hospital, E.
Sequeira, G. W., Esq., 34, Jewry Street, E.C.
Sequeira, H. J., Esq., 34, Jewry Street, E.C.
Sequeira, J. S., Esq., Crescent Ho., Cassland Crescent, N.E.
Shillitoe, B., Esq., 2, Frederick Place, Old Jewry, E.C.
Singleton, F. E. C., Esq., 11, Leadenhall Street, E.C.
Smith, Montague, Esq., 10, Kenninghall Rd., Clapton, N.E.
Smith, R. D., Esq., 165, Lower Clapton Road, N.E.
Snell, E. A., M.B., 70, City Road, E.C.
Southcombe, A. G., Esq., 38, Sidney Road, Homerton, N.E.
Spooner, F. H., M.D., 159, Lower Clapton Rd., Clapton, E.
Sutcliffe, E. C. T., Esq., c.o. Messrs. H. S. King and Co., 65 Cornhill, E.C.
Tay, W., Esq., 4, Finsbury Square, E.C.
Thompson, A. H., M.D., 91, New North Road, N.
Tunstall, A. C., M.D., 2, Victoria Park Road, E.
Turtle, J. H., M.D., 35, High Street, Homerton, E.
Wallace, F., Esq., Foulden Lodge, Upper Clapton, N.E.
Wallace, F. H., Esq., 133, Upper Clapton Road, N.E.
Wallace, R. U., M.B., 133, Clapton Common, N.
Ward, A. O., M.D., 73, Cheapside, E.C.
Warry, J. King, M.D., 39, Filey Avenue, Upper Clapton
Watson, G. de B., M.B., 128, Queen's Rd., Finsbury Park, N.
Webb, A. W., M.B., 79, Church Street, Stoke Newington, N.
Webster, James, M.B., c.o. Messrs. Haines and Co., 83, Queen Victoria Street, E.C.
Wedd, B. H., M.B., Eastern Hospital, Homerton, N.E.
Whitaker, J. H., M.D., Eastern Hospital, Homerton, N.E.,
Whitelaw, Wm., M.D., 156, Stoke Newington Road, N.
Wilks, Lizzie, M.D., 24, Lower Clapton Road, N.E.
Will, Henry, C., Esq., 4, Columbia Road, N.E.
Will, J. K., M.D., Bethnall House Asylum, N.E.
Wilson, S., Esq., 184, Mare Street, Hackney, E.
Winn, T. C., Esq., 121, King Edward Rd., S. Hackney, N.E.
Worley, W. C., Esq., 103, Green Lanes, N.

No. 3.—Ealing Division

Numbering 117.

Chairman, F. C. Dodsworth, Esq., Gunnersbury, W

Vice-Chairman, J. D. Windle, M.D., Southall, W.

Honorary Secretaries.

R. P. Cockburn, M.D., 64, The Avenue, Ealing, W.

F. W. Lyle, M.D., 97, Gordon Road, Ealing, W.

Representative for Representative Meeting.

B. B. Joll, M.B., 8, Hanger Lane, Ealing Common, W

Representatives on Branch Council.

Cockburn, R. P., M.D.
Jolly, S. A., Esq.

Executive Committee.

Fenton, F. E., Esq.
Parrott, E. J., Esq.
Scott, A. L., Esq.
Walter, W. H., M.D.

Alexander, R. R., M.D., The Asylum, Hanwell W.
Andriezen, W. L., M.D., 7, Apsley Terrace, Acton, W.
Arthur, D., M.D., 5, North Common Road, Ealing, W.
Arthur, Geo., M.B., 30, The Avenue, Ealing, W.
Austen, H. W. C., M.D., 2, Freeland Road, Ealing, W.
Baker, W. H., Esq., 65, Eaton Rise, Ealing, W.
Baily, P. J., M.D., London Co. Asylum, Hanwell, W.
Banham, S. M., M.B., Ellesmere, Uxbridge Rd., W. Acton
Barrett, E. H., Esq., Milton Lodge, Iver, Bucks
Bishop, T. Hill, M.D., 4, South Parade, Chiswick
Blaker, P. S., Esq., 37, Creffield Road, Ealing Com., W.
Bowlby, Minnie Ethel, M.D., 79, Uxbridge Road, W.
Bowtell, H. R., Esq., 10, Madeley Road, Ealing, W.
Box, S. L., M.D., 47, Gordon Road, Ealing, W.
Brodie, W. H., M.D., 6, St. Stephen's Rd., W. Ealing, W.
Brown, L. D., Esq., Henley Villa, Ealing, W.
Burton, R. G., M.D., 26, King's Avenue, Ealing, W.
Butcher, W. D., Esq., 5, Cleveland Road, Ealing, W.
Caley, G. N., M.D., Colville House, Castlebar Rd., Ealing, W.
Chill, Edwin A., M.D., Westleigh, Mattock Lane, Ealing, W.
Christian, L. de B., M.B., Stanley Ho., Bath Rd., Hounslow
Cockburn, R. P., M.D., 64, The Avenue, Ealing, W.
Cockle, W. P., M.D., Elm Villas, Ealing, W.
Coker, O. C., Esq., 42, Woodville Gardens, Ealing, W.
Cooke, Louise R., L.R.C.P., Grove Terrace House, Chiswick, W.
Cooke, M. A., Esq., 15, Castlebar Road, Ealing, W.
Daniel, A. W., M.B., Lond. Co. Lunatic Asylum, Hanwell
Davidson, John, M.B., 59, St. Andrew's, Uxbridge, W.
Davies, H. O., M.D., 38, Grange Road, Ealing, W.

De Renzy, Sir A. C. C., K.C.B., Surgeon-General I.M.S, (ret.) 20, Park Hill Road, Ealing, W.
Dick, W. B., Esq., 70, Northfield Lane, West Ealing, W.
Diplock, L. B., Esq., Heathfield Terrace, Chiswick
Dixon, Robt. H., M.D., 5, Haven Green, Ealing, W.
Dodsworth, F. C., Esq., Ingledew, Chiswick, W.
Donaldson, T. C., M.D., Harlington, Hounslow
Dubourg, A. H., Esq., Chiswick House, Chiswick
Ducat, A. D., M.B., Heathfield Gardens, Chiswick, W.
Dunnett, Agnes E., M.B., 7, Ascott Avenue, Ealing, W.
Elkins, F. A., M.D., Leavesden Asylum, King s Langley
Falkner, P. H., Capt. R.A.M.C., Newton, Amherst Road, Ealing, W.
Fenton, F. E., Esq., Langstone, Uxbridge Road, Ealing, W.
Ferris, J. S., M.B., High Street, Uxbridge
Fincham, W. S., Esq., 53, Kew Bridge Road, Brentford
Finigan, D. O'C., M.D., 5, Windsor Road, Ealing, W.
Forsyth, C. E. P., M.B., 138, St. Alban's Avenue, Bedford Park, W.
Francis, L. A., Esq., Holmleigh, High Street, Uxbridge
Garrett, J., Esq., Nortoft, Churchfield Road, Acton, W.
Garton, W., M.D., Hurst Lodge, Wellington Road South, Hounslow
Gerrard, A. H., M.B., Lismore, Sutton Court Road, Chiswick
Gervis, Henry, M.D., The Towers, Hillingdon Heath, Uxbridge
Gillespie, W. J., Esq., 5, The Broadway, Hanwell, W.
Gillingham, A., Esq., 485, High Road, Chiswick
Grimmer, G. K., M.D., Roseneath, Whitton Road, Hounslow
Gubbins, J. S., Esq., Claremont, South Ealing, W.
Hamill, J. M., Esq., 14, South Parade, Chiswick
Harrison, R. C., Esq., 33, Uxbridge Road, Ealing, W.
Harrison, S. G., Esq., 24, Oxford Road, Ealing, W.
Harvey, F. G., Esq., Woodlands, Chalfont St. Giles
Higginson, J. W., Esq., Hayes Park, Hayes, Middlesex
Hill, E. B., M.B., 6, Bath Road, Bedford Park, Chiswick
Hogg, A. J., Esq., Leslie Lodge, Haven Green, Ealing, W.
Holloway, S. F., Esq., Holmwood, The Avenue, Chiswick
Hope, G., Esq., Beaconsfield House, Hanwell, W.
Hunt, H. L., M.D., 49, Loveday Road, W. Ealing, W.
Joll, B. B., M.B., 8, Hanger Lane, Ealing Common, W.
Jolly, S. A., Esq., Wingfield, Acacia Road, Acton, W.
Kerr, James, M.D., 3, Hanger Lane, Ealing Common, W.
Kirby, W. E., M.D., Hilden Sutton Court Rd., Chiswick
Lees, C. A., Esq., 39, Lavington Road, West Ealing, W.
Litteljohn, S. G., M.B., Cuckoo House, C.L.D. School, Hanwell, W.
Lock, J. L., M.B., Sussex Lodge, Uxbridge
Longhurst, A. K., Esq., Mount Park Road, Ealing, W.
Lyle, F. W., M.D., 97, Gordon Road, Ealing, W.
Newman, H. T., M.D., Iver
Orr, W. J., M.B., 1, Pownall Gardens, Hounslow
Parkes, J. S., Esq., Fieldhayes, Dawley Road, Harlington
Parrott, E. J., Esq., Hayes, Middlesex
Paterson, A.B., M.B., 143, Uxbridge Road, W.
Patten, C. A., Esq., Marpool House, Ealing, W.
Petrie, A. S., Esq., 22, Mount Avenue, Ealing, W.
Phillips, Geo., M.D., 88, The Avenue, Ealing, W.
Philip, J. F., M.D., 102, The Avenue, W. Ealing, W.
Pitt, F. D., Esq., Wolverton High Road, Chiswick, W
Podmore, R., Esq., The Cottage, South Parade, Bedford Park, W.
Pollock, R., Esq., Penton Lodge, Mill Hill Park, Acton, W.
Popham, R. B., Esq., 130, Argyle Road, W. Ealing, W.
Roberts, J. D., Esq., 103, Uxbridge Road, Ealing, W.
Ruck, D. N., Esq., 26, Kenilworth Road, Ealing, W.
Rudd, W. A., M.D., Denehurst, Acton Hill, W.
Satchell, W. A., F.R.C.P.Ed., J.P., 5, Ascott Avenue, Ealing, W.
Savery, Frank, Esq., 4, Mount Park Road, Ealing, W.
Scott, A. L., Esq., Westbourne Villa, Ealing, W.
Seccombe, P. J. A., Esq., Fernlea, West Drayton
Shanks, H. P., Esq., Calstock, Norwood Rd., Southall, W.
Shuter, G. P., M.B., Cleveland House, Chiswick Lane
Sibley, O. C., Esq., 11, Elmwood Gardens, Acton Hill, W.
Stillwell, R. J., Esq., Moorcroft, Hillingdon, Uxbridge
Stilwell, H., M.D., Hillingdon, Uxbridge
Sugden, W. A., Esq., 97, The Grove, Ealing, W.
Sutherland, D. G., M.B., 32, St. James's Avenue, Ealing, W.
Taylor, Thomas, Esq., Lavington House, Lavington Road, Ealing, W.
Thomas, D. J., Esq., Gothic Villa, Mill Hill Grove, Acton, W.
Thompson, F. G., M.B., The Limes, Hanwell
Thomson, G., M.B., 72, The Avenue, Ealing
Thornton, H. J., Esq., The Maples, Acton, W.
Tighe, A. B., M.B., Darholme, Brentford
Townsend, Surg.-Gen. Sir E., K.C.B., C.M.G., 63, Madeley Road, Ealing, W.
Tuke, C. M., Esq., The Gate House, Chiswick
Tuke, T. S., M.B., Chiswick House, Chiswick
Walter, W. H., M.D., Hambleden Croft, Brentford
Ward, F. H., Esq., 37, The Park, Ealing, W.
Webster, R. M., Esq., 55, The Avenue, West Ealing, W.
Wilson, K. R. M., M.D., Dunolly, Hanwell
Windle, J. D., M.D., Chippenham Lodge, Southall, W.
Wisdom, R. H. G. O., Esq., Bridge House, Park Road, Hampton Hill
Wolfe, John H., Esq., Inglewood, Sewood Rd., Hanwell, W.
Worthington, J. C., M.D., Chesterton Villa, Hanwell, W.

No. 4.—Hampstead Division

NUMBERING 190.

Chairman, F. R. Humphreys, Esq., 27, Fellows Road, N.W

Vice-Chairman, R. Henslowe Wellington, Esq., 38, Fellow Road, N.W.

Honorary Secretary, R. A. Yeld, M.D., 29, Platts Lane, N.W

Honorary Assistant Secretary, H. W. Armit, Esq., Ravenhurst, Talbot Road Wembley

Representative for Representative Meeting.

H. W. Armit, Esq., Wembley

Representatives on Branch Council.

Macevoy, H. J., M.D.
Oppenheimer, H., M.D.

Executive Committee.

Anderson, J. Ford, M.D.
Cunnington, C. W., Esq.
Browne, Ada M., L.S.A.
Farmer, W. H., Esq.
Hills, W. E., Esq.
Pidcock, G. D., M.D.
Strange, W. H., M.D.
Wilson, John C., M.D.

Acworth, Mary S., M.D., 9, Buckland Crescent, N.W.
Allen, C. W., Esq., 40, Fortune Green Rd., W. Hampstead.
Ambrose, R., Esq., The Mount, Shoot-up-Hill, N.W.
Amsden, W., Esq., 16, Frognal, S. Hampstead, N.W.
Annand, W. F., M.D., 43, Calcott Road, Brondesbury, N.W.
Anderson, J. Ford, M.D., 41, Belsize Park, N.W.
Andrew, F. W., Esq., Fenella, Hendon, N.W.
Archibald, A., M.B., Seafield, Shoot-up-Hill, Cricklewood
Armit, H. W., Esq., Ravenhurst, Talbot Road, Wembley
Auty, C. H., Esq., 47, Church Road, Willesden, N.W.
Baker, J. B., M.D., Grove Lodge, Church End, Finchley, N.
Bakewell, R. T., M.B., 3, College Terr., Fitzjohns Ave., N.W.
Bangay, R., M.D., Blockley House, North Finchley, N.
Barnett, L., M.D., 28, Hilgrove Road, S. Hampstead, N.W.
Barter, W., M.D., 47, Greencroft Gardens, N.W.
Bartlett, L. J., Esq., 14, Chichele Rd., Cricklewood, N.W.
Beedham, H. W., M.B., 2, Chapter Road, Willesden Green, N.W.
Bentham, S., Esq., 13, Winchester Road, Hampstead, N.W
Biggs, J. M., Esq., Hillside, Child's Hill, N.W.
Bingham, S., Esq., Windsor House, Eastern Road, East Finchley, N.
B'aber, P. L., Esq., Sunny Bank, Shoot-up-Hill, N.W.
Bower, W., M.B., Langton Lodge, Hendon, N.W.
Brock, J. H. E., M.D., 77, Fellows Rd., S. Hampstead, N.W.
Brookfield, J. S., M.D., Gladwyn, Shoot-up-Hill, Brondesbury, N.W.
Brown, J. M., M.D., 2, Frognal, N.W.
Brown, T. E. Burton, M.D., 185, Willesden Lane, N.W.
Brown, W. C., M.D., 13, Hampstead Hill Gardens, N.W.
Browne, Ada M., L.S.A., 64, Belsize Park, Hampstead, N.W
Burgess, W. M., Esq., 43, Nicoll Road, Harlesden, N.W.
Burrows, T. E., M.D., Northbourne; Eton Avenue, N.W.
Butler, W., M.B., 26, Craven Park Road, Harlesden, N.W.
Claremont, L. B., Esq., 60, Haverstock Hill, N.W.
Clark, R. Wm., Esq., 88, Chamberlayne Wood Road, Kensal Rise, N.W.
Clarkson, E., Esq., 237, Kilburn Park Road, N.W.
Clayton, C. H., Esq., 10, College Ter., Belsize Park, N.W.
Cohn, J., M.D., 34, Belsize Square, N.W.
Cooke, C. W., M.D., 129, Walm Lane, Cricklewood, N.W.
Costello, J. J., Esq., 13, Cambridge Avenue, Kilburn, N.W.
Coulthard, C. A. A., Esq., 35, Westbere Road, W. Hampstead
Cree, J. D., Esq., 327, Finchley Road, N.W.
Cubley, Arthur, Esq., N.W. Fever Hospital, Hampstead
Cunningham, H. H. B., M.D., 40, Glenloch Rd., Haverstock Hill, N.W.
Cunnington, C. W., Esq., 86, West End Lane, N.W.
Curtis, J. C. R., Esq., 127, Haverstock Hill, N.W.
Davis, R. Newnham, Esq., 19, Greville Road, Kilburn, N.W.
Davy, W. B., Esq., 348, Finchley Road, N.W.
Dean, G., M.B., Queensberry Lodge, Elstree
De Mesquita, S. B., M.D., Rosemount, Finchley Road, N.W.
Dick, W., Esq., 47, Belsize Park, N.W.
Dobbie, Mina L., M.B., 172, Haverstock Hill, N.W.
Don W. G., M.D., Hon. Dep.-Surg.-Gen. (ret.), A.M.S. 52, Canfield Gardens, West Hampstead, N.W.
Douie, Mary B., M.B., 2A, Carlingford Road, N.W.
Drake-Brockman, Lt.-Col. E. F., 281, Willesden Lane, N.W.
Dunlop, C. W. J., Esq., 7, Priory Park Road, Kilburn, N.W.
Dutch, M. A., M.D., 197, Walm Lane, N.W.
Eates, A. R., M.B., 18, Station Road, Kensal Rise, W.
Edridge-Green, F. W., M.D., Hendon Grove, Hendon, N.W.
Elam, George, M.D., 9, Fawley Rd., N. Hampstead, N.W.
Evans, Percy C., M.D., Greville Lodge, Walm Lane, Willesden Green, N.W.
Evans, W. N., Esq., 3, Thurlow Road, Hampstead, W.
Farmer, W. H., Esq., 6, Lymington Road West Hampstead, N.W.
Fleming, A. J., M.D., 3, Arkwright Road, Hampstead, N.W.
Fletcher, R. H., Esq., 25, Chichele Road, Cricklewood, N.W.
Frame, David, M.D., 23, Nicoll Road, Harlesden, N.W.
French, R. H., M.B., 2, Moss Bank, Nether Street, North Finchley, N.
Gaster, A., M.D., 68, Greencroft Gardens, W. Hampstead, N.W.
George, A. W., M.D., Surrey House, Shoot-up-Hill, N.W.
Gervis, A. F., Esq., 48, Primrose Hill Rd., Hampstead, N.W.
Gervis, F. Heudebourck, Esq., 1, Fellows Road, Haverstock Hill, N.W.
Gervis, F. Harcourt, M.D., 1, Lyncroft Mansions, W. Hampstead, N.W.
Gill, R. F., M.D., 29, King Henry's Road, N.W.
Glanville, W. M. G., M.B., Guyon House, Heath Street Hampstead, N.W.
Glover, L. G., M.D., 17, Belsize Park, Hampstead, N.W.
Goddard, C. E., M.D., Harrowdene House, Wembley
Godfrey, A. E., M.B., Lansdowne, N., Finchley, N.
Godfrey, T. H, M.D., The Red House, Church End, Finchley, N.
Green, Alan B., M.D., Queensberry Lodge, Elstree
Grosvenor, A. O., M.D., 72, Priory Rd., West Hampstead, N.W.
Hall, J., M.D., 12, Neville Court, Abbey Road, N.W.
Hall, W. W., M.D., 5, Birchington Road, Kilburn, N.W.
Hamilton, Bruce, Esq., 5, Crediton Road, West Hampstead, N.W.
Hardwicke, R. R., Esq., St. James Lodge, West End Ln., N.W.
Hardy, H. Nelson, Esq., Southgate Villa, Church End, Finchley, N.
Harris, Lucy E., M.B., Ridgmont, Hale Grove, Edgware R.S.O.
Henry, G. Fraser, Esq., 289, Willesden Lane, N.W.
Hicks, T. W., M.D., Park House, East Finchley, N.
Hills, W. E., Esq., 25, Church Row, Hampstead, N.W.
Holland, E. B., M.D., 1, Tichfield Ter., Regent's Park, N.W.
Holman, F. K., Esq., Galeston, Eton Avenue, S. Hampstead, N.W.
Hope, C. W. M., M.B., 10, Crossfield Road, Hampstead
Hopkins, J., Esq., Central London Sick Asylum, Hendon
Humphreys, F. R., Esq., 27, Fellows Road, N.W.
James, C. L. S., Esq., Allington, Walm Lane, Willesden Green, N.W.
Jessop, E., Esq., 81, Fitzjohn's Avenue, Hampstead, N.W.
John, Wm., Esq., 24, Belsize Park G'dns., Hampstead, N.W.
Johnson, G. L., M.D., 24, Netherhall Gardens, South Hampstead, N.W.
Johnston, R. H., M.D., 8, Marlborough Hill, St. John's Wood, N.W.
Jones, Rees T., Esq., 49, Craven Park Road, Harlesden, N.W.
Kingsford, E. C., Esq., Carntyne, Brondesbury, N.W.
Knox, Hugh, Esq., 7, Priory Park Road, Kilburn, N.W.
Kochmann, Moritz, M.D., 6, Langland Gardens, N.W.
Langworthy, E. S., Esq., The Grange, Neasden, N.W.
Ledingham, J. C. G., M.B., Lister Institute of Preventive Medicine Elstree
Lush, P. J. F., M.B., 4, Maresfield Gardens, Hampstead, N.W.
McCleary, G. F., M.D., M.O.H., Hampstead, N.W.
MacDonald, N., Esq., 31, Park Parade, Harlesden
Macevoy, H. J., M.D., 41, Buckley Road, Brondesbury, N.W.
MacFadden, C. J. R., M.D., 30, Frognall, Hampstead, N.W.
Macfadyen, A., M.D., 14, Daleham Gdns., Hampstead, N.W.
MacFarlane, J., M.B., 18, Cambridge Gdns., Kilburn, N.W.
Macnaughton-Jones, H.M., M.B., 2, Fawley Road, West. Hampstead, N.W.
Martin, H. J. W., Esq., Mill Hill, N.W.
Martley, S. W., Esq., 188, Walm Lane, Willesden Grn., N.W.
Meggitt, H., Esq., 2, St. George's Road, Hampstead, N.W.
Miley, M., M.B., 21, Belsize Avenue, N.W.
Moffett, Elizabeth J., M.D., 4, Mill Lane, Brondesbury, N.W.
Montgomery-Smith, E. C., Esq., 36, Abbey Road, N.W.
Morton, J. L., M.D., 66, Priory Road, N.W.
Moxey, J., Esq., 1, The Grove, Church End, Finchley, N.
Murray, R. G., Esq., 2, Chevening Road, Kensal Rise, W.
Myers, B. E., M.D., Haydon House, Goldhurst Ter., West Hampstead, N.W.
Nabarro, D., M.D., 4, Albemarle Mans., Heath Drive, N.W
Nash, Mrs. Lilias Frazer, L.R.C.P., 136, Haverstock Hill, N.W.
Oakley, A. R. H., Esq., Northlands, Hollycroft Avenue, N.W.
Oppenheimer, H., M.D., 26, Adamson Road, N.W.
Orr, W. R., M.D., Coolard Lodge, East Finchley, N.
Pare, J. W., M.D., 5, Belsize Avenue, N W.
Payne, W. H., Esq., 23, Gayton Road, Hampstead, N.W.
Peake, W. H., M.D., 1, Platts Lane, W. Hampstead, N.W.
Pearsall, W. Booth, Esq., 97, Finchley Road, N.W.
Pellatt, Edith B., L. S. A., The Friars, Whetstone, N.
Picard, P. K., M.D., 59, Abbey Road, N.W.
Pidcock, G. D., M.D., 74, Fitzjohn's Av., Hampstead, N.W.
Pritchard, E. L., M.D., 70, Fairhazel Gdns., S. Hampstead
Pritchard, S. C., M.B., 3, Pond Street, Hampstead, N.W.
Reynolds, B. G., Esq., "Silverbowe," College Park, N.W.
Risdon, W. E., M.D., 4, Etchingham Park Road, Church End, Finchley, N.
Riviere, Clive, M.D., 82, Finchley Road, N.W.
Robinson, H., Esq., 2, Acol Road, West Hampstead, N.W.
Rocke, Mary E., M.D., 5, Ornan Mansions, Haverstock Hill, N W.
Roger-Smith, Hugh, M.D., 1, College Terrace, N.W.
Rozelaar A. L., Esq 12, Brondesbury Road, Kilburn N.W.
Russell, J. Dill, F.R.C.S., Osman House, Fortis Green, N.
Rutherford, A. E. R., Esq., 3, Brondesbury Road, Kilburn, N.W.
Saleeby, C. W., M.D., F.R.S.E., 13, Greville Place, N.W.
Sanders, H., Esq., 156, Haverstock Hill, N.W.
Sansom, H. A., M.D., 127, West End Lane, N.W.
Scrase, F. Edward, Esq., 121, West End Lane, N.W.
Seagrove, H. A., Esq., Staverton Lodge, Brondesbury Park Willesden Green, N.W.
Sharman, H. M.D., 40, Arkwright Road, Hampstead, N.W.
Sheehy, W. H. P., Esq., Montebello, Totteridge
Sinclair, Jas., Esq., Central London Sick Asylum, Hendon, N.W.
Smith, E. N., M.D., 3, Lydford Rd., Willesden Lane, N.W.
Smith, J. A., M.D., 158, Willesden Lane, N.W.
Smith, J. B., M.B., 252, Finchley Road, N.W.
Smith, R. T., M.D., 117, Haverstock Hill, N.W.
Snowman, J., M.D., 11, Shoot-up Hill, N.W.
Soden, W. N., M.D., Upcote, Mapesbury Road, Brondesbury, N.W.
Spurway, G., M.B., 79, Brondesbury Road, N.W.
Starling, Professor E. H., M.D., F.R.S., 40, West End, Lane, Hampstead, N.W.
Steel, R., M.B., Cotswold, Woodside Park Road, North Finchley, N.
Stephen, G. N., Esq., 92, Boundary Rd., S. Hampstead, N.W
Stewart, James, Esq., 27, Kingdon Rd., W. Hampstead, N.W
Stocker, W. W., Esq., 287, Walm Lane, Willesden Green, N.W.
Strange, W. H. M.D., 2, Belsize Avenue, N.W.
Taylor, Gerard, C., M.D., Council Offices, Church End, Finchley N.
Thompson, W. D. Traill, M.B., Claverack, Wembley
Tilly, A., M.B., 10, Garlinge Road, Brondesbury, N.W.
Tudge, J. McD., Esq., 49, Chapter Road, Willesden Green, N.W.
Turner, Henry S., Esq., 1, Bankside, Hendon, N.W.
Vassie, A. H., M.B., 98, Priory Road, N.W.
Waithman, J. C., M.D., 9, Willesden Lane, N.W.
Walford, W. G., M.D., 120, Finchley Road, N.W.
Walker, W. W., Esq., 87, College Road, Willesden, N.W.
Waterhouse, W.D., LL.D., 50, West End Lane, N.W.
Weaver, F. P., M.D., Cedar Lawn, Hampstead, N.W.
Webster, A. J., M.B., 47 Craven Park Rd., Harlesden, N.W.
Wellington, R. Henslowe, Esq., 38, Fellows Road, N.W.
Wells, F. B., M.D., 107, Fordwych Rd., W. Hampstead, N.W.
Whait, J. R., M.B., 124, Finchley Road, N.W.
Whitaker, J. Smith, Esq., 5, Brent Villas, Hendon, N.W.
Wilbe, R. H. W., M.D., 21, Finchley Road, N.W.
Wilks, Sir S., Bart., M.D., F.R.S., 8, Prince Arthur Rd., N.W.
Wilson, H. R., Esq., 6, Wrentham Avenue, Willesden, N.W.
Wilson, John C., M.D., 22, Hilgrove Road, N.W.
Wilson, S. Wesley, Esq., 23, Cavendish Road, Brondesbury, N.W.
Wilson, T., Esq., 165, Chevening Road, Queen's Park, W.
Woodroffe, J. F., M.D., 23, Craven Park, Harlesden, N.W.
Wreford, John, M.D., 66, West End Lane, N.W.
Yeld, R. A., M.D., 29, Platts Lane, N.W.

No. 5.—Kensington Division

NUMBERING 385.

Chairman, W. H. Lamb, M.B., 23, Palace Court, W.

Vice-Chairman, E. C. Barnes, Esq., 194, Hammersmith Road, W.

Honorary Secretary and Treasurer, Charles Buttar, Esq., M.D., 10, Kensington Gardens Square, W.

Representative for Representative Meeting, Charles Buttar, M.D., 10, Kensington Gardens Square, W.

Representatives on Branch Council.

Buttar, Charles, M.D.
Eastes, George, M.B.
Lamb, W. H., M.B.
Thomson, G. J. Crawford, M.D.

Executive Committee.

Crichton, G. C., M.D.
James, J. Brindley, Esq.
Morton, E. R., M.D.
Oxley, A. J. R., M.D.,
Pope, H. Campbell, M.D.
Rigden, W., M.D.
Townsend, T. S., J.P.

Aikin, W. A., M.D., 66, Bedford Gardens, W.
Alcock, N. H., Esq., Physiological Laboratories, St. Mary's Hospital
Alderson, F. Herbert, M.B., 21, Queen's Gate Terrace, S.W
Alderton, T. G., Esq., 82, The Grove, Hammersmith, W.
Allen, Francis E., Esq., 115, Queen's Gate, South Kensington, S.W.
Anderson, C. M., M.D., 146, Gloucester Ter., Hyde Pk., W.
Anderson, F. H., M.D., 3, Courtfield Gardens, South Kensington, S.W.
Anderson, I. W., M.D., 22, Arundel Gardens, W.
Andrews, C., Esq., 8, Auriol Road, West Kensington, W.
Armstead, H. W., M.D., 30, Queensboro' Terrace, W.
Armstrong, R. S., Esq., 12, Clifton Villas, Maida Hill, W
Ashe, W. P., Esq., 17, Alexander Square, S.W.
Atkinson, T. R., Esq., 1, West Cromwell Road, S.W.
Bagram, G. J., M.B., 1, Pembridge Gardens, W.
Baker, C. E., M.B., 5, Gledhow Gdns., S. Kensington, S.W
Barker, F. J., M.B., 87, Warrington Crescent, W.
Barker, J., M.D., Surgeon-Lieutenant-Colonel, A.M.S. (R.P.). 67, Cambridge Gardens, W.
Barnes, E. C., Esq., 194, Hammersmith Road, W.
Barnes, Geo., Esq., 6, Tennyson Mansions, W. Kensington
Barrett, H., Esq., 69, Queensborough Terrace, W.
Bartlett, E., Esq., 38, Connaught Square, W.
Bartlett, J. P., Esq., 39, Onslow Gardens, S.W.
Barton, C. N., Esq., 17, Redcliffe Gardens, S. Kensington, S.W.
Barton, G. A. H., Esq., 15, Talbot Road, W.
Barton, J. K., Esq., 14, Ashburn Place, Courtfield Rd., S.W.
Bathurst, L. W., M.B., 35, Colville Terrace, W.
Batten, R. D., M.D., Campden Lodge, Campden Hill Rd., W.
Batteson, J., Esq., 188, Goldhawk Rd., Shepherd's Bush, W.
Benham, R. F., Esq., 11, Earl's Court Square, S.W.
Bennett, C. H., M.D., J.P., College Ho., Hammersmith, W.
Bennetts, H. G., M.B., 3B, Maida Hill, W.
Bensley, E. C., Esq., 7, Kelfield Gardens, North Kensington, W.
Benson, A., M.B., 79, Maida Vale, W.
Bird, G. G., Esq., 14, Warwick Avenue, Paddington, W.
Blair, G. MacLellan, M.B., 93, Maida Vale, W.
Bland, A. R. H., M.D., 33, Rosary Gardens, S. Kensington, S.W.
Bluett, G. M., Esq., 55A, Palace Gardens Terrace, W.
Bone, Elizabeth H., M.B., 86, Porchester Terrace, W.
Bousfield, S., M.B., 35, Princes Square, Bayswater, W.
Bradlaw, D. B., Esq., 3, Warrington Crescent, W.
Branthwaite, R. W., M.D., 4, Delamere Ter., Paddington, W.
Bridges, E. C., M.D., 2, Courtfield Road, S.W.
Browne, J. W., M.B., 37, Holland Park Avenue, W.
Bruce, R. Cathcart, M.D., 10, Courtfield Road, S.W.
Bryan, F. C., M.D., 47, Princes Square, W.
Bryant, Thomas, F.R.C.S., 42, Norfolk Sq., Hyde Park, W.
Bulleid, Edgar G., M.D., 10, Southwick St., Hyde Pk., W.
Bullock, J. E., M.D., 87, Ladbroke Grove, Notting Hill, W.
Bulstrode, H. T., M.D., 4, The Mansions, Earl's Court, S.W.
Burton-Brown, F. H., M.D., 19, Argyll Rd., Kensington, W.
Butler, J. A., M.D., 280, Goldhawk Road, W.
Buttar, C., M.D., 10, Kensington Gardens Square, W
Callender, E. M., M.D., 47, Connaught Square, W.
Carvell, J. M., Esq., 17, Durham Terrace, Westbourne Gardens, W.

Chambers, H. W., Esq., 101, Goldhawk Road, W.
Churchill, F., M.D., 4, Cranley Gardens, Queen's Gate, W.
Clark, John G., Esq., 35, Colville Road, Bayswater, W.
Clarke, A. F. S., M.D., Lieut.-Col. (ret.) A.M.S., 64, Pembridge Villas, W.
Clarke, H. W., M.D., 67, St. Quinton's Avenue, N. Kensington
Clarkson, G. A., Esq., 37, Queen's Gate Gardens, S. Kensington, S.W.
Clifford, M., Esq., 58, Clifton Gardens, Maida Vale, W.
Clippingdale, S. D., M.D., 36, Holland Park Avenue, W.
Clowes, H. A., M.B., 4, St. Stephen's Road, Bayswater, W.
Coad, S. A., Esq., 7, Elgin Avenue, W.
Cock, F. W., M.D., 1, Porchester Houses, Porchester Sq., W
Cohen, A., M.D., 67, Warrington Crescent, Maida Vale, W.
Coke, E. P. Isaacs, Esq., 1, Sinclair Road, Kensington, W.
Collie, R. J., M.D., 25, Porchester Terrace, W.
Cooke, E. M., M.B., 69, Onslow Square, S.W.
Coombe, A. T., Esq., 81, Clarendon Road, Notting Hill, W.
Corbould, V. A. L. E., M.D., 8, Victoria Rd., K'nsngton, W
Cornish, C. N., Esq., 4, Southwick Place, Hyde Park, W.
Corthorn, Alice M., M.B., 30, St. Mary Abbot's Terrace, Kensington, W.
Coumbe, J. B., M.D., 142, Westbourne Grove, W.
Cowburn, Arthur D., M.D., 31, Barkston Gardens, S.W.
Crichton, G. C., M.D., 114, Lexham Gardens, W.
Cuffe, Surgeon-General Sir, C. McD., K.C.B., F.R.C.S.E., A.M.S. (ret.), 51, Kensington Mansions, Earl's Court, S.W.
Curgenven, J. S., Esq., 12, Craven Hill Gardens, W
Cyriax, E. F., M.D., 4, Craven Hill, Lancaster Gate, W
Dally, J. F. H., M.B., West London Hospital, Hammersmith, W.
Daniel, R. N., Esq., 13, Nevern Square, S. Kensington, S.W.
Daniell, D. H., Esq., 53, Campden Hill Square, Holland Park, W.
Davidson, A., M.B., 26, Cornwall Road, W.
Davies, J., M.D., 87, Cambridge Gardens, W.
Davson, S. H., M.D., Campden Villa, 203, Maida Vale, W.
Davson, W. M., M.B., 131, Biddulph Mansions, Maida Vale, W.
Denne, F. V., Esq., 69, Brook Green, W.
Dixon, F. J., M.B., 163, Cromwell Road, S. Kensington, S.W
Dobson, Leonard C. T., M.D., 71, Holland Park Avenue, W.
Douglas, A. L., Esq., 10, Porchester Square, Bayswater, W.
Dudfield, T. Orme, M.D., Town Hall, High St., Knsngtn., W.
Duka, T., M.D., 55, Nevern Square, S.W.
Duke, Alex., Esq., 162, Gloucester Terrace, W.
Earle, Leslie M., M.D., 108, Gloucester Terrace, W.
East, E., Esq., 26, Linden Gardens, W.
Eastes, George, M.B., 35, Gloucester Ter., Hyde Park, W.
Easton, F. E., Esq., 12, Devonport Street, Hyde Park, W.
Eicholz, O., M.B., 36, Russell Road, Kensington, W.
Elmslie, R. C., Esq., 81, St. Mary's Mansions, Paddington, W.
Erskine, R., M.D., 62, Pembridge Villas, Bayswater, W.
Evans, W. T., M.B., 254, Gloucester Terrace, Hyde Park, W.
Fairbank, H. A. T., M.S., 23, Porchester Gardens, Hyde Pk.
Fawcett, F. H., Esq., 165, Goldhawk Road, Shpd's Bush, W.
Felix, E., Esq., 113, Elgin Avenue, W.
Felkin, R. W., M.D., 12, Oxford Gardens, W.
Fenn, J. H., Esq., 51, Queensboro' Terrace, W.
Finzi, N. S., M.B., 99, Sutherland Avenue, W.
Fitzgerald, R., M.D., 3, Lauderdale Road, Maida Vale, W.
Forbes, J. G., Esq., 1, Oakwood Court, Kensington, W.
Forman, E. B., M.D., 11, Bramham Gardens, S.W.
Forster, W. A. de Vere, M.B., Albion House, St. Peter's Square, Hammersmith, W.
Foulerton, J., M.D., 44, Pembridge Villas, Baywater, W.
Fox, F., Esq., 15, Arundel Gardens, Kensington Park, W.
Fox-Symons, R., Esq., 95, Cromwell Road, S.W.
French, J. G., M.B., 22, St. Stephen's Road, Bayswater, W.
Freshwater, J. D. H., M.B., 55, Warwick Avenue, W.
Friend, H. E., Esq., 1, St. Stephens Cres., Westbourne Pk., W.
Fry, W. E., Esq., Aberdeen House, Hammersmith, W.
Gayer, R. C., Esq., 33, Stanhope Gardens, S. Kensington, S.W.
Geddes, A. Campbell, M.B., 15A, Porchester Gardens, W.
Gell, H. W., M.D., 24, Palace Court, W.
Gibbes, L. N., Esq., 1, Gloucester Walk, W.
Gibbon, S., M.B., 39, Oxford Terrace, W.
Gloster, J., M.B., 15, Upper Phillimore Pl., Kensington, W.
Goffe, E. G. L., M.D., W. Fulham Hospital, Seagrave Rd
Gowdey, Annie C., M.B., 293, Goldhawk Road, W.
Gray, A. C. E., M.D., 1, Elm Park Gardens, S. Kensington, S.W
Griffin, J. H., Esq., Richmond Villa, Fulham Pl., Padd., W.
Griffith, A. L., M.D., 19, Elgin Avenue, W.
Grünbaum, O. F. F., M.B., 45, Ladbroke Grove, W.
Haines, C. H., M.D., 43, Kensington Palace Mansions, W.
Hale, C. D. B., M.D., 3, Sussex Place, W.
Hall, A. R., M.D., 34, Randolph Gardens, Maida Vale, N.W.
Harper, J., M.D., 25, Rosary Gardens, S. Kensington, S.W.
Harvey, J. S. S., M.D., 1, Astwood Road, S.W.
Hayes, R. H., Esq., 93, Cornwall Gardens, S.W.
Haynes, J. R., M.D., 25, Cathcart Road, S. Kensington, S.W.
Heath, W. L., M.D., 90, Cromwell Rd., Sth. Kensington, S.W.
Helby, E. H., Esq., 4, Du Cane Rd., Wormwood Scrubbs, W.
Henderson, E., Esq., 37, Onslow Gardens, S.W.
Hill, A. Croft, M.D., 169, Cromwell Road, S.W.
Hitchcock, J., M.D., 206, Ladbroke Grove, W.
Hogan, J. C., M.D., 3, Redcliffe Gdns., Sth. Kensington, S.W.
Huddart, Cuthbert E. A., Esq., 16, Westbourne Gardens, Bayswater, W.
Humphreys, F. W., Esq., 65, Onslow Gardens, S.W.
Hunter, Marion, L.S.A., 21, Thurloe Square, S.W.
Huxley, H., Esq., 39, Leinster Gardens, W.
Irving, H., M.B., 20, Redcliffe Street, Redcliffe Gardens, S.W.
Jacobi, Gerda B., L.R.C.P., 4, Mount Carmel Chambers, Kensington, W.
Jaffe, C. S., M.D., 138, Sutherland Avenue, W.
James, A. W., M.D., 69, Gloucester Terrace, W.
James, J. Brindley, Esq., 83, Bridge Rd., Hammersmith, W.
James, M. Prosser, M.D., 71, St. Mark's Rd., N. Kensington
James, W. C., M.D., 15, Marloes Rd., South Kensington, W.
Jarvis, J. H. E., Esq., 12, London Street, W.
Johnston, J., M.D., 53, Princes Square, Bayswater, W.
Jones, B., M.D., 104, Sutherland Avenue, Maida Vale, W.
Jones, J. T., M.D., 103, Sutherland Avenue, Maida Vale, W.
Jones, W. Paul, M.D., 1, Walton Place, S.W.
Jones, W. W. O., Esq., 41, Craven Hill Gardens, W.
Karop, G. C., Esq., 198, Holland Road, Kensington, W.
Kellgren, A. L., M.D., 94, Cromwell Road, S.W.
Keogh, F. E. H., Esq., 38, St. Mark's Road, N. Kensington
Kiallmark, H. W., Esq., 5, Pembridge Gardens, W.
Kinsey-Taylor, A. E., M.B., 26, Lancaster Gate, W.
Kisch, A., Esq., 61, Portsdown Road, W.
Lamb, W. H., M.B., 23, Palace Court, W.
Lancaster, H. F., M.D., 154, Westbourne Terr., Hyde Pk., W.
Lawrance, F., Esq., 3, St. Peter's Square, Hammersmith, W
Lawrence, A. A. H., Esq., 86, St. Mary's Mansions, Paddington, W.
Leadam, W. W., M.D., 167, Gloucester Ter., Hyde Park, W.
Leeson, O. J., Esq., Collingwood Ho., Cromwell Rd., S.W.
Lendon, E. H., M.D., 162, Holland Park Avenue, W.
Leland, A. B., M.B., 72, Oakwood Court, Melbury Road, W.
Ley, [illegible] R., Esq., 108, Elm Park Mansions, Park Walk, S.W.
Lloyd, R. W., Esq., 103, Oakwood Court, Kensington, W.
Lovell, Sir Francis, K.C.M.G., 81, Lauderdale Mansions, Maida Vale, W.
Low, Harold, M.B., 10, Evelyn Gardens, S.W.
Lund, K. F., M.D., 8, Collingham Rd., Sth. Kensington, S.W.
Lunn, J. R., Esq., St. Marylebone Infirmary, Notting Hill, W.
Lynch, J. R., Esq., 160, Holland Park Avenue, W.
Lyon, A. B., M.D., 165 The Grove, Hammersmith, W.
Lyth, E. R., M.B., 117, Goldhawk Road, W.
McBride, C. A., M.D., 5, Lauderdale Road, Maida Vale, W.
McClosky, A. J., M.B., 54, Ladbroke Road, W.
Mc[illegible]oull, G. J., Esq., 10, Southwick St., Hyde Park Sq., W.
McNamara, J., M.D., 3, Holland Road, Kensington, W.
Mainprise, C. W., Capt. R.A.M.C., 26, Gledstanes Road, W. Kensington, W.
Mair, R. S., M.D., 28, Ledbury Road, Bayswater, W.
Malins, Herbert, M.B., 64, Sutherland Avenue, W.
Mansell-Jones, R., Esq., 57, Lexham Gardens, W.
Mark, L. P., M.D., 49, Oxford Terrace, W.
Marshall, J. Cole, M.D., 36, Albion Street, W.
Masters, J. A., M.D., 94, Knightsbridge, S.W.
Matthews, John, Captain, R.A.M.C., 7, St. Stephen's Square, Bayswater, W.
Maunsell, D. P., Esq., 67, Earl's Court Road, W.
May, A. W., M.D., 20, Blomfield Street, Paddington, W.
Meerwald, O. S., Esq., 29, Maida Vale, W.
Meiklejohn, J. W. S., M.D., Dep.-In.-Gen., 105, Holland Rd., W.
Mellor, A. S., M.B., 14, Westbourne Street, Hyde Park, W.
Mennell, Z., Esq., 1, Royal Crescent, Notting Hill, W.
Mennell, Z., jun., M.B., 57, Holland Park Avenue, W.
Menzies, J. H., Esq., 47, Earl's Court Square, S.W.
Middlemist, R. P., Esq., 6, Devonport St., Hyde Park, W.
Miller, G. V., M.B., 1, Cleveland Square, W.
Mills, H. H., M.B., 21, St. Mary Abbots Ter., Kensington, W.
Mivart, F. St. G., Esq., 13, Stanford Terrace, Kensington, W.
Monier-Williams, M. S. F., Esq., 54, Onslow Gardens, S.W.
Monti, P., Esq., 13, Kensington Gore, W.
Moorhead, James, M.D., 15, Kensington Park Road, W.
Morgan, H. B. T., M.D., 237, Ladbroke Grove, W.
Morgan, H. de R., Esq., 98, Palace Gardens Terrace, W.
Moritz, A., M.B., 39, Fitzjames Avenue, W.
Morton, E. R., M.D., 48, Rylett Road, Shepherd's Bush, W.
Muir, H. Skey, C.B., M.D., Surg.-Gen., A.M.S. (ret.), 149, Oakwood Court, Kensington, W.
Muir, J. C. P., Esq., 94, Ladbroke Grove, W.
Murphy, J. K., F.R.C.S., 16, Pembridge Crescent, W.
Murray, Flora, M.B., 86, Campden Hill Ct., Kensington, W.
Murrell, Christine M., M.B., 86, Porchester Terrace, W.
Needham, F., M.D., 19, Campden Hill Square, W.
Newton, C. J., Esq., 5, The Grove, Hammersmith, W.
Newton, R. C., Esq., 53, Hereford Road, W.
Nicoll, C. Vere, Esq., 30, Iverna Court, Kensington, W.
Nicoll, T. V., Esq., 147, Cromwell Road, S.W.
Nolan, C. L., M.B., 7, Devonshire Ter., Lancaster Gate, W.
Nolan, William, Esq., 20, Talbot Road, Bayswater
Noott, W. M., Esq., 8, Kensington Park Road, W.
Norbury, W., Esq., 12, Moreton Gdns., S. Kensington, S.W.
Norman, A., Esq., 35, Coleherne Road, Earl's Court, S.W.
O'Dea, M. E., M.D., 13, Westgate Terrace, S.W.
Orr, A. B. Seton, M.D., 8, Brechin Pl., Gloucester Rd., S.W.
Orton, Charles, M.D., 27, Oakwood Court Mansions, W.
Orton, G. Harrison, M.B., 7, Campden Hill Road, Kensington, W.
Owen, S. W., Esq., 10, Shepherd's Bush Road, W.
Oxley, A. J. R., M.D., 5, Kensington Square, W.
Parsons, S., Esq., 78, Kensington Park Road, W.
Part, J. S., M.D., 20, Ashchurch Park Villas, Goldhawk Rd., W.
Patmore, T. D., Esq., 63, Cambridge Gardens, W.
Paul, J. L., M.D., 34, De Vere Gardens, Kensington, W.
Peake, S., Esq., 228, Goldhawk Road, Shepherd's Bush, W.
Philip, A. A., M.B., 25, Granville Gns., Shepherd's Bush, W.
Phillips, H. C., Esq., 262, Gloucester Terrace, Hyde Park, W.
Phillips, G. R. T., Esq., 28, Palace Court, W.
Phillips, S. Rees, M.D., 60, Iverna Court, Kensington, W.
Pike, D. R., M.B., 3, Cromwell Crescent, Kensington, S.W.
Playfair, E., M.B., 57, Gloucester Terrace, S.W.
Pocock, F. E., M.D., The Limes, St. Mark's Rd., Notting Hill
Pollock, J. E., M.D., 37, Collingham Place, S. K'sington, S.W
Porter, J. H., Esq., 17, Lauderdale Mansions, Maida Vale, W.
Porter, Miss Agatha, L.R.C.P., 18, Kensington Park Rd., W.
Prickett, M., M.D., 27, Oxford Square, W.
Pritchard, G. E. C., M.D., 14, Cromwell Place, S. Kensington
Priestley, R. C., M.B., 81, Linden Gardens, Bayswater, W.
Putsey, W. H., Fleet-Surg. R.N., 28, Ladbroke Gdns., W.
Ransford, G. Esq., 4, Westbourne Street, Hyde Park, W.
Reece, R. J., M.B., 62, Addison Gardens, W.
Rendle, C. B., Esq., 15, Kensington Square, W.
Rhodes, J. Herbert, M.B., 30, Brechin Place, S. Kensington
Richmond, W. S., Esq., 66, Onslow Gardens, S.W.
Ridsdale, A. E., Esq., 37, Hyde Park Gate, S.W.
Rigden, W., M.D., 16, Thurloe Place, S.W.
Roberts, T., Esq., 152, Westbourne Grove, Bayswater, W.
Robertson, W. S., M.B., 4, Hyde Park Place, W.
Robinson, J. Elliott, Esq., 5, Moscow Court, Bayswater, W.
Rogers, H., Esq., 43, Uxbridge Road, Shepherd's Bush, W.
Rose, H. C., M.D., 16, Warwick Avenue, Maida Hill, W.
Ryman, Carl A., M.B., 9, Gloucester Terrace, Onslow Gardens, S.W.
St. Aubyn-Farrer, C., Esq., 7, Westbourne Park Road, W.
Salmond, J. L., M.B., 10, Colville Road, Bayswater, W.
Sandifer, H. S., M.D., 11, Porchester Gardens, W.
Saunders, A. L., Esq., 112, Maida Vale, W.
Saunders, J. H., M.D., 1a, Palace Gardens Mansions, W.
Scarlett-Synge, The Hon. Ella, M.D., 21, Pelham Pl., S.W.
Schacht, F. F., M.D., 153, Cromwell Road, S.W.
Schofield, A. T., M.D., 141, Westbourne Terrace, W.
Scott, Harvie, Lieut.-Col., A.M.S. (ret.), 29, De Vere Gardens, Kensington, W.
Sedgwick, L. W., M.D., 10, Gloucester Terrace, W.
Sheldon, T., M.D., 25, Powis Square, Notting Hill, W.
Sheldon, W. S., Esq., 44, Cornwall Road, W.
Shrubsall, F. C., M.D., Brompton Hospital, S.W.
Sieveking, H. E., Esq., 23, Devonshire Ter., Hyde Park, W.
Sikes, A. W., M.D., 40, Argyll Road, W.
Simpson, G. A. G., Esq., 42, Cleveland Sq., Hyde Park, W.
Sinclair, E. M., M.D., Dep.-Surg.-Gen. A.M.S. (ret.), 30, Nevern Square, South Kensington, S.W.
Sleman, R. R., Esq., 23, Cambridge Street, W.
Smith, H. Hammond, Esq., 22, Kensington Ct. Mansions, W.
Smith, J., Esq., Wellesley Road, Gunnesrbury, W.
Smyth, W. Ardagh, Esq., 19, Leinster Sq., Bayswater, W.
Squire, M. F., M.B., Paddington Infirmary, W.
Starkie, R. F., M.D., 76, Gloucester Street, S.W.
Stokes, W. B., M.D., 37, Onslow Square, W.
Stone, W. D., M.D., 3E, Maida Vale Mansions, W.
Sturge, H. H., Esq., 81, Elgin Avenue, W.
Swan, C. Atkin, M.D., 4, Devonport Street, Hyde Park, W.
Thomas, Major G. T. H., 73, Harcourt Terr., S. Kensington
Thomas, W. J., Esq., 3, Craven Mansions, Lancaster Gate, W.
Thompson, F. B., Esq., 18, Colville Road, W.
Thomson, G. J. C., M.D., 111, Sinclair Rd., W. Kensington, W.
Thorne, L. C. Thorne, M.D., 45, Inverness Terrace, W.
Torry, J. Cooper, M.D., 68, Godolphin Rd., Shepherd's Bush
Townsend, T. S., Esq., J.P., 68, Queen's Gate, S.W.
Travers, W., M.D., 2, Phillimore Gardens, W.
Turnbull, G. L., M.D., 47, Ladbroke Square, W.
Twynam, G. E., Esq., 31, Gledhow Gardens, S.W.
Tyler, Sir John W., C.I.E., M.D., 32, Cambridge Street, Hyde Park Square, W.
Tyrrell, Walter, Esq., 104, Cromwell Road, S.W.
Vallancey, A. d'E. De, Esq., 34, Shaftesbury Road, W.
Vaughan, Ethel M., M.D., 21, Thurloe Square, S.W.
Verley, R. C., M.B., 33, Kensington Gardens Square, W.
Voisey, C. B., M.D., 11, Kensington Gardens Square, W.
Wakeham, C. H., Esq., 714, Harrow Road, W.
Waldo, F. J., M.D., 40, Lansdowne Road, Holland Park, W.
Walker, B. W., M.D., 6, Dawson Place, Pembridge Sq., W.
Walker, H., Esq., 143, Hammersmith Road, W.
Wall, R. B., Esq., 72, Bishop's Road, Bayswater, W.
Wallace, F. G., M.B., 186, Earl's Court Road, S.W.
Ward, Ernest, M.B., 21, Clarendon Road, W.
Warner, F., M.D., 5, Prince of Wales Terrace, W.
Watts, A. T. G., M.B., 7, Holland Villas Rd., Kensington, W.
Webb, J. C., M.B., 24, Bina Gardens, S.W.
Wells, E. N. K., M.B., 131, Inverness Terrace, W.
Whitcombe, P. P., M.B., 69, Queen's Gate, S.W.
White-Cooper, G. O., M.B., 5, Courtfield Road, S.W.
Whitelegge, B. A., C.B., M.D., 3, Edwardes Pl., Kensington, W.
Whitmarsh, R. P. H., M.D., 56, Holland Park Avenue, W.
Whitty, J. A. St. G., Esq., 21, Collingham Gardens, S.W.
Willis, C. S., M.B., 18, Colville Road, Bayswater
Williams, A. D., Esq., 37, Whitehall Park Road, Gunnersbury, W.
Wilson, A. Gordon, M.B., 1, Philbeach Gdns., S. Kensington
Wilson, W., M.B., 184, Goldhawk Road, W.
Wolff, A., Esq., 27, Chepstow Villas, Bayswater, W.
Worboys, T. S., Esq., 67, Biddulph Mansions, Elgin Av., W.
Wood, N. T., M.D., 42, Elvaston Place, S.W.
Young, E. P., Esq. 30 Westbourne Square, W.
Young, R. A., M.D., 1, Delamere Terrace, Paddington, W.

No. 6.—Lambeth Division

NUMBERING 139.

Chairman, R. Capes, Esq., 181, Grove Lane, S.E.

Vice-Chairman, H. Taylor, M.B., 180, Kennington Park Road, S.E.

Honorary Secretary, W. H. B. Stoddart, M.D., Bethlem Royal Hospital, S.E.

Representative for Representative Meeting.
R. Esler, M.D., 4, Queen's Road, Peckham, S.E.

Representatives on Branch Council.
Oswald, J. W. J., M.D.
Sangster, C., Esq.

Executive Committee

Atkinson, W. A., M.D.
Denning, J. V. C., Esq.
Esler, R. M.D.
Jones, C. R., M.B.
Norton, H. H., Esq.
Stoddart, W. H. B., M.D.
Taylor, W. B., Esq.

Arnott, S., Esq., 146, Brixton Road, S.W.
Ashley, S. D., Esq., 134, Brixton Hill, S.W.
Atkinson, W. A., M.D., 216, Camberwell New Road, S.E
Ayling, A. H. W., Esq., 18, Cowley Mans., Brixton, S.W.
Baird, J. J. W., Esq., 31, Akerman Road, Brixton, S.W.
Bawden, J. C., Esq., 69, Water Lane, Brixton, S.W.
Belcher, J. A., M.D., 1, Beckwith Road, Herne Hill, S.E.
Bell, E. S., M.D., Bermondsey Infirmary, Rotherhithe, S.E.
Bennett, E. A., Esq., 206, Walworth Road, S.E.
Bhabha, Rev. S. D., M.D., 8, Drakefell Road, S.E.
Bond, J. W., M.D., 37, Pepys Road, St. Catherine's Park, S.E.
Boon, J. E., Esq., 2, Queen's Road, Peckham, S.E.
Bousfield, E. C., Esq., 363, Old Kent Road, S.E.
Brook, F. W., Esq., 149, Walworth Road, S.E.
Brookes, F. W., Esq., 137, Westminster Bridge Road, S.E.
Brown, R. K., M.D., 549, Old Kent Road, S.E.
Brown, T., Esq., 236, Kennington Park Road, S.E.
Bunting, G. L., M.B., South-Western Hospital, Stockwell, S.W.
Burgess, C. V., Esq., 61, Southwark Park Road, S.E.
Burke, P. J., M.D., 23, Long Lane, S.E.
Caiger, F. F., M.D., South-Western Hosp., Stockwell, S.W.
Capes, R., Esq., 181, Grove Lane, Denmark Hill, S.E.
Carter, J. G., Esq., 76, New Kent Road, S.E.
Carter, R., M.D. (address uncommunicated)
Clitherow, R. E., Esq., Lancaster House, Peckham Rye S.E.
Cobbledick, A. S., M.B., 402, Brixton Road, S.W.
Cock, W., Esq., 235, Queen's Road, Peckham, S.E.
Coles, J. W., Esq., 197, Camberwell New Rd., S.E.
Coryn, W. J., Esq., 159, Acre Lane, Brixton, S.W.
Councell, R. W., Esq., 304, Walworth Road, S.W.
Cowie, H. G., M.D., 13, Camberwell Green, S.E.
Craig, M., M.D., Bethlem Royal Hospital, S.E.
Cripps, C. C., M.D., 187, Camberwell Grove, S.E.
Daunt, F. E. H., Esq., 118, Newington Causeway, S.E.
Davies, W., Esq., 164, Queen's Road, Peckham, S.E.
Denning, J. V. C., Esq., 174, Blackfriars Road, S.E.
Denton, T. J., M.D., 20, Barrington Road, Brixton, S.W.
Dugon, F., Esq., 17, Ilderton Road, Rotherhithe, S.E.
Duke, M. S., Esq., 272, Kennington Park Road, S.E.
Durno, John, M.D., 168, Coldharbour Lane, S.E.
Edelsten, E. A., M.B., 370, Brixton Road, S.W.
Elliman, A. C., Esq., 73, Southwark Bridge Road, S.E.
Ellis, F., Esq., 25, Commercial Road, Peckham, S.E.
Emin, M., M.B., 44, Thorne Road, Albert Square, S.W.
Edwards, F. H., M.D., Camberwell House, Peckham Rd., S.E.
Elwin, G. R., M.D., 186, Blackfriars Road, S.E.
Esler, R., M.D., 4, Queen's Road, Peckham, S.E.
Evans, A. D., Esq., 114, Vauxhall Walk, Lambeth, S.E.
Eyre, J. W. H., M.D., Guy's Hospital, S.E.
Fagge, C. H., M.B., 22, St. Thomas's Street, S.E.
Forsyth, D., M.D., Guy's Hospital, S.E.
Fraser, E., M.D., 299, Brixton Road, S.W.
French, H. S., M.D., 26, St. Thomas's Street, S.E.
Gallie, C. P., M.B., 120, Camberwell Road, S.E.
Gibbons, A. P., M.B., 108, Denmark Hill, S.E.
Gilmore, Owen, M.D., 49, Acre Lane, Brixton, S.W.
Grant, G. F., M.B., 291, Brixton Road, S.W.
Hardson, C. P., M.D., 199, New Cross Road, New Cros Gate, S.E.
Herrington, E. W., Esq., 18, Lorrimore Square, S.E.
Hertz, A. F., M.B., The College, Guy's Hospital, S.E.
Hickley, A. M., Esq., 259, South Lambeth Road, S.W.
Hicks, H. T., Esq., 4, St. Thomas's Street, S.E.
Hill, J. S., M.D., 33, Great Charlotte Street, S.E.
Hollings, E. T., Esq., 182, Jamaica Road, S.E.
Hudson, F. H., Esq., 12, Water Lane, Brixton, S.W.
Hyslop, T. B., M.D., Bethlem Royal Hospital, S.E.
Ibbotson, W., Esq., 9A, Streatham Place, Brixton Hill, S.W.
Jackson, P. J., Esq., 216, Great Dover Street, S.E.
Jaquet, J. L., M.D., Stones End House, Southwark, S.E.
Jaynes, V. A., Esq., 157, Jamaica Road, S.E.
Johnston, W. B., M.D., 157, Jamaica Road, Bermondsey, S.E
Johnstone, T., M.B., The Limes, Nunhead Green, S.E.
Jones, C. R., M.B., 133, Kennington Road, S.E.
Kennedy, John, Esq., 2, Grosvenor Terrace, Camberwell Road
Kerr, D. O., M.B., 32, Camberwell New Road, S.E.
Langford, F. C., Esq., 142, Peckham Rye, S.E.
Langley, A., Esq., 65, Kennington Park Road, S.E.
Leftwich, R. W., M.D., 125, Kennington Park Road, S.E.
Matthews, T. A., Esq., The College, Guy's Hospital, S.E.
McCall, Annie, M.D., 165, Clapham Road, S.W.
Macaulay, W. C., M.B., 83, Milkwood Road, Herne Hill, S.E.
McGrath, J., Esq., 276, Walworth Road, S.E.
Mackinney, S. B. G., Esq., 95, Lausanne Rd., Nunhead, S.E.
McIlraith, C. H., M.D., 44, Half Moon Lane, Herne Hill, S.E.
McMullen, W., Esq., 319A, Brixton Road, S.W.
McNickle, A. J., Esq., 17, Harleyford Road, Vauxhall, S.E.
Matcham, Alfred, Esq., 116, St. George's Rd., Southwark, S.E
Morris, E. J. Mc C., Esq., 252A, Clapham Road, S.W.
Muir, R. D., Esq., Hatcham, New Cross Road, S.E.
Mulqueen, J., Esq., 169, Jamaica Road, S.E.
Noble, J. Black, Esq., 167, Kennington Park Road, S.E.
Norman, F., Esq., 5, Holland Road, Brixton, S.W.
Norton, H. H., Esq., 87, Kennington Park Road, S.E.
Oswald, J. W. J., M.D., 3, Rothbury, 78, Kennington Park Road, S.E.
Oswald, R. J. W., Esq., 185, Clapham Road, S.W.
Pain, W. E., Esq., 31, St. Agnes Place, Kennington Park Road, S.E.
Payne, Florence M., M.D., 27, Mayflower Road, Clapham Rise, S.W.
Pearson, Thomas, Esq., Park View, Peckham Rye, S.E.
Pedley, R. D., Esq., 17, Railway Approach, Lond. Bdge., S.E.
Pedley, S. E., Esq., 22, Peckham Road, S.E.
Peers, T. H. P., Esq., 2, Surrey Square, S.E.
Pembrey, M. S., M.B., Guy's Hospital, S.E.
Pennefather, R. D., M.B., Rathcannon, Herne Hill, S.E.
Phillips, H. H., Esq., Hamilton House, Penge, S.E.
Quarry, M. H., M.B., Lambeth Infirmary, S.E.

Reid, R. G., M.B., 176, Lambeth Terrace, S.E.
Reynolds, J., M.D., 11, Brixton Hill, S.W.
Robinson, H. S., Esq., Talfourd House, Camberwell, S.E.
¶ Roe, E. E. W., Esq., 175, Kennington Road, S.E.
Rusby, E. L. M., M.B., 369, Coldharbour Lane, Brixton, S.W.
Sangster, C., Esq., 148, Lambeth Road, S.E.
Scott, G. B., M.D., 410, Brixton Road, S.W.
Scott, J., M.B., 19, Raleigh Gardens, Brixton Hill, S.W.
Scott, J. W., M.D., 126, Tulse Hill, S.W.
Scott, T. G., Esq., 30, Herne Hill, S.E.
Serjeant, D. M., M.D., 4, North Terrace, Camberwell, S.E.
Shapland, J. D., jun., M.D., 43, Brixton Hill, S.W.
Smith, Alexander, Esq., 38, Knatchbull Road, Camberwell, S.E.
Smith, D. W., M.B., 63, Acre Lane, Brixton, S.W.
Smith, F. J. P., Esq., 103, East Street, Walworth, S.E.
Smyth, T. D., M.D., 317, Brixton Road, S.W.
Soper, W., Esq., 307, Clapham Road
South, G., Esq., 46, Queen's Road, Peckham, S.E.
Spon, H. J., Esq., 23, Southwark Bridge Road, S.E.
Stables, W. W. G., Esq., 5, Fair Street, Horselydown, S.E.
Stocker, A. H., M.D., Peckham House, Peckham, S.E.
Stoddart, W. H. B., M.D., Bethlem Royal Hospital, S.E.
Strugnell, W. T., M.D., 213, Brixton Hill, S.W.
Sturges-Jones, W. E., Esq., 25, Half Moon Lane, Herne Hill, S.E.
Taylor, H., M.B., 180, Kennington Park Road, S.E.
Taylor, W. B., Esq., 145, Denmark Hill, S.E.
Teach, S. E., Esq., 341, Brixton Road, S.W.
Trewby, H. W., Esq., New Park Road, Brixton Hill
Walker, J. S. H., M.B., 1, Southwark Street, S.E.
Walker, J. W., M.D., 206, Peckham Rye, S.E.
Weston, T. B., Esq., 337, Wandsworth Road, S.W.
Williams, J. F., Esq., 56, Camberwell Road, S.E.
Wordley, A. W., Esq., 20, Champion Pk., Denmark Hill, S.E.
Wylie, A., M.D., 328, Clapham Road, S.W.

No. 7.—Marylebone Division

NUMBERING 585.

Chairman, H. Radcliffe Crocker, M.D., 121, Harley St., W.
Vice-Chairman, Ernest Clarke, M.D., 3, Chandos St., W.
Honorary Secretary and Treasurer, Comyns Berkeley, M.B., 53, Wimpole Street, W.

Representative for Representative Meeting.
Sir Victor Horsley, F.R.S., 25, Cavendish Square, W.

Representatives on Branch Council.
Armour, Dnld. J., F.R.C.S.
Dutton, T., M.D.
Hawthorne, C. O., M.D.
Walker, H. R., Esq.
Williams, LL.B., M.D.
Woods, Hugh, M.D.

Aarons, Sol Jervois, M.D., 14, Stratford Place, W.
Abercrombie, J., M.D., 23, Upper Wimpole Street, W.
Abraham, P. S., M.D., 2, Henrietta Street, W.
Abrahams, B. L., M.D., 14, Welbeck Street, W.
Achard, A. L., M.D., 34A, Gloucester Place, W.
Ackery, E. F., Esq., 11, Queen Anne Street, W.
Ackery, John, Esq., 11, Queen Anne Street, W.
Acland, T. D., M.D., 19, Bryanston Square, W.
Adamson, H. G., M.D., 9, Weymouth Street, W.
Agar, M. F., Esq., 68, Wimpole Street, W.
Aldrich-Blake, Louisa B., M.D., 17, Nottingham Place, W.
Anderson, Miss L. Garrett, M.D., 114A, Harley Street, W.
Anderson, W. M. A., M.B., 36, Harley Street, W.
Andrews, H. R., M.D., 7, Wimpole Street, W.
Armour, Donald J., F.R.C.S., 89, Harley Street, W.
Auld, A. G., M.D., 23, Henrietta Street, W.
Badcock, J. H., Esq., 140, Harley Street, W.
Bailey, R. C., M.B., 21, Welbeck Street, W.
Baker, Oswald, M.D., 57, Welbeck Street, W.
Baldwin, H., Esq., 6, Manchester Square, W.
Ball, James B., M.D., 12, Upper Wimpole Street, W.
Ballance, C. A., M.S., 106, Harley Street, W.
Baly, C. F. P., Esq., 152, Harley Street, W.
Bantock, G. G., M.D., 14, Upper Hamilton Terrace, N.W.
Barker, A. E. J., Esq., 87, Harley Street, W.
Barlow, Sir Thomas, Bart., K.C.V.O., M.D., 10, Wimpole Street, W.
Barnard, Harold, M.S., 21, Wimpole Street, W.
Barrett, F. W., Esq., 7, Cavendish Place, W.
Barrett, W. R., Esq., 1, Harley Street, W.
Barrow, A. B., M.B., 8, Upper Wimpole Street, W.
Barwell, Harold S., F.R.C.S., 55, Wimpole Street, W.
Bastian, H. C., M.D., F.R.S., 8A, Manchester Square, W.
Bateman, A. G., M.B., 7, Queen Anne Street, W.
Bates, G. L., Esq., 69, Harley Street, W.
Batten, F. E., M.B., 33, Harley Street, W.
Battle, W. H., F.R.C.S., 49, Harley Street, W.
Beale, E. C., M.B., 23, Upper Berkeley Street, W.
Beddard, A. P., M.B., 44, Seymour Street, W.
Beevor, C. E., M.D., 135, Harley Street, W.
Beevor, Sir Hugh R., Bart., M.D., 17, Wimpole Street, W.
Bell, R. H., F.R.C.S., 27, Seymour Street, W.
Bennett, H. Selfe, M.B., 53, Upper Berkeley Street, W.
Berkeley, Comyns, M.B., 53, Wimpole Street, W.
Berry, Mrs. F. M. D., M.D., 21, Wimpole Street, W.
Berry, James, M.B., 21, Wimpole Street, W.
Betts, E. G., Esq. 37, Cavendish Square, W.
Bickerton, R. E., M.B., 137, Harley Street, W.
Bidwell, L. A., Esq., 15, Upper Wimpole Street, W.
Billett, Helen L., L.S.A., 38, Upper Gloucester Place, N.W.
Blacker, G. F., M.D., 45, Wimpole Street, W.
Blackley, J. G., M.B., 29, Devonshire Place, W.
Blandford, G. F., M.D., 48, Wimpole Street, W.
Blumfeld, J., M.B., 7, Cavendish Place, W.
Bokenham, T. J., Esq., 10, Devonshire Street, W.
Bolton, Chas., M.D., 16, Devonshire St., W.
Bonney, Victor, M.S., 10, Devonshire Street, W.
Bosanquet, W. C., M.D., 117A, Harley Street, W.
Boulton, Percy, M.D., 15, Seymour Street, W.
Bowlby, A. A., C.M.G., F.R.C.S., 24, Manchester Square, W.
Boxall, Robert, M.D., 40, Portland Place, W.
Boyd, Florence N., M.D., 134, Harley Street, W.
Boyd, Stanley, F.R.C.S., 134, Harley Street, W.
Bradford, John Rose, M.D., F.R.S., 8, Manchester Sq., W.
Braine, C. C., Esq., 26, Wimpole Street, W.
Bramwell, J. M., M.B., 33, Wimpole Street, W.
Brewerton, E. W., F.R.C.S., 84, Wimpole Street, W.
Broadbent, J. F. H., M.D., 35, Seymour Street, W.
Brodie, T. G., M.D., F.R.S., 4, Lancaster Terrace, N.W.
Brown, D. Dyce, M.D., 29, Seymour St., Portman Sq., W.
Browne, H. F., M.B., 29, Langham Street, W.
Browne, G. B., M.B., 80, Wimpole Street, W.
Bruce, J. Mitchell, M.D., 23, Harley Street, W.
Bruce, W. J. I., M.D., 33, Weymouth Street, W.
Brunton, Sir T. Lauder, M.D., F.R.S., 10, Stratford Pl., W.
Bryant, J. H., M.D., 8, Mansfield Street, W.
Bullock, H. M., Esq., 14A, Upper Wimpole Street, W.
Bulteel, S. B. J., M.B., 4B, Bickenhall Mansions, W.
Bunch, J. L., M.D., 9, Weymouth Street, W.
Burford, G. H., M.B., 35, Queen Anne Street, W.
Burghard, F. F., M.S., 86, Harley Street, W.
Burton, W. E., Esq., 23, Wimpole Street, W.
Butlin, Henry T., D.C.L., F.R.C.S., 82, Harley Street, W.
Buxton, D. W., M.D., 82, Mortimer Street, W.
Buzzard, E. F., M.D., 33, Harley Street, W.
Byrne, P. K., M.D., 40, York Place, W.
Caley, H. A., M.D., 24, Upper Berkeley St., Portman Sq., W.
Calvert, J., M.D., 113, Harley Street, W.
Campbell, H., M.D., 23, Wimpole Street, W.
Cammidge, P. J., M.B., 2, Beaumont Street, W.
Cantlie, James, F.R.C.S., 140, Harley Street, W.
Cargill, L. V., Esq., 31, Harley Street, W.
Carless, Albert, F.R.C.S., 6, Upper Wimpole Street, W.
Carling, Ernest R., F.R.C.S., 58, New Cavendish Street, W.
Carpenter, G., M.D., 12, Welbeck Street, W.
Carr, J. W., M.D., 19, Cavendish Place, W.
Carson, Herbert W., Esq., 26, Welbeck Street, W.
Cathcart, G. C., M.B., 35, Harley Street, W.
Chadburn, Maud M., M.D., 16, Harley Street, W.
Chambers, James, M.D., 6, Mansfield Street, W.
Chapman, C. W., M.D., 21, Weymouth Street, W.
Cheadle, W. B., M.D., 19, Portman Street, W.
Cheatle, G. L., C.B., F.R.C.S., 117, Harley Street, W.
Cheyne, Wm. Watson, C.B., F.R.S., 75, Harley St., W.
Church, Sir Wm. S., Bart., K.C.B., M.D., 130, Harley St., W.
Clapham, E. W., Esq., 48, Harley Street, W.
Clark, Andrew, D.Sc., F.R.C.S., 71, Harley Street, W.
Clarke, Ernest, M.D., 3, Chandos Street, W.
Clarke, J. J., M.B., 18, Portland Place, W.
Clarke, W. Bruce, M.B., 51, Harley Street, W.
Clogg, Herbert S., M.S., 117A, Harley Street, W.
Clutterbuck, L. A., Colonel (ret.), M.B., B.S., 43, Welbeck Street, W.
Clutton, H. H., M.B., F.R.C.S., 2, Portland Place, W.
Coats, George, M.D., 2, Harley Place, W.
Cock, Julia, M.D., 15, Nottingham Place, W.
Colbeck, E. H., M.D., 55, Upper Berkeley Street, W.
Cole, R. H., M.D., 48, Upper Berkeley Street, W.
Coleman, Frank, Esq., 129, Harley Street, W.
Collier, H. S., Esq., 57A, Wimpole Street, W.
Collier, M. P. Mayo, F.R.C.S., 145, Harley Street, W.
Collins, E. Treacher, F.R.C.S., 17, Queen Anne Street, W.
Colman, W. S., M.D., 9, Wimpole Street, W.
Colyer, J. F., Esq., 11, Queen Anne St., W.
Coombs, W. G., M.D., 118, Crawford Street, Baker Street, W.
Cooper, Sir Alfred, F.R.C.S., 9, Henrietta Street, W.
Cooper, H. Creemer, Esq., 36, Cavendish Square, W.
Cooper, J., Esq., 1, Lancaster Terrace, Regent's Park, N.W.
Cooper, R. H., Esq., 10G, Oxford and Cambridge Mansions, Marylebone Road, W.
Corner, E. M., F.R.C.S., 37, Harley Street, W.
Coupland, S., M.D., 16, Queen Anne Street, W.
Coutts, J. A., M.B., 54, Upper Berkeley Street, W.
Crawfurd, R. H. P., M.D., 71, Harley Street, W.
Creasy, L. E., Esq., 51, New Cavendish Street, W.
Cripps, W. Harrison, F.R.C.S., 2, Stratford Place, W.
Critchett, Sir G. Anderson, F.R.C.S., C.V.O., 21, Harley Street, W.
Crocker, H. Radcliffe, M.D., 121, Harley Street, W.
Crouch, H. C., Esq., 31, Welbeck Street, W.
Cullingworth, C. J., M.D., D.C.L., 14, Manchester Sq., W.
Dalton, N., M.D., 4, Mansfield Street, W.
Daniel, P. L., Esq., 12, Hanover House, Regent's Pk., N.W.
Davidson, J. Mackenzie, M.B., 76, Portland Place, W.
Davis, H., Esq., 60, Queen Anne Street, W.
Davis, H. J., M.B., 8, Portman Street, Portman Sq., W.
Dawson, Bertrand, M.D., 32, Wimpole Street, W.
Day, J. R., M.D., 35, Queen Anne Street, W.
Dean, H. P., M.S., 69, Harley Street, W.
Densham, A. B., Esq., 18, Stratford Place, W.
Dodd, F. L., Esq., 41, Wimpole Street, W.
Dodd, H. Work, Esq., 136, Harley Street, W.
Dolamore, W. H., Esq., 63, Harley Street, W.
Don, W. W., M.D., 466, Edgware Road, W.
Donald, A., M.D., 7, Welbeck Street, W.
Donelan, James, M.B., 6, Manchester Square, W.
Doran, Alban H. G., F.R.C.S., 9, Granville Place, W.
Drew, Douglas, M.D., 1, Harley Street, W.
Dowsett, E. B., Esq., 1, Gloucester Street, Portman Sq., W.
Duncan, William, F.R.C.S., 6, Harley Street, W.
Dunn, H. P., Esq., 54, Wimpole Street, W.
Dunn, L. A., M.B., 51, Devonshire Street, W.
Dutton, T., M.D., 7, Manchester Square, W.
Eastes, G. Leslie, M.B., 62, Queen Anne Street, W.
Eccles, W. McA., M.S., 124, Harley Street, W.
Eddowes, A., M.D., 28, Wimpole Street, W.
Eden, T. W., M.D., 26, Queen Anne Street, W.
Edmunds, W., M.B., 2, Devonshire Place, W.
Edwards, F. S., Esq., 55, Harley Street, W.
Elliot, A., M.D., 11, Upper Berkeley Street, W.
Emery, W. d'Este, M.D., 35, Clifton Hill, N.W.
Evans, E. L., M.D., 36, Bryanston Street, W.
Evans, W. H., M.D., 2, Upper Wimpole Street, W.
Eve, Frederic S., F.R.C.S., 61, Harley Street, W.
Fairbairn, J. S., M.B., 60, Wimpole Street, W.
Fairles, A. W., M.D., 93, Edgware Road, W.
Fardon, E. A., Esq., Middlesex Hospital, W.
Fawcett, John, M.D., 66, Wimpole Street, W.
Fenwick, B., M.D., 20, Upper Wimpole Street, W.
Fenwick, W. S., M.D., 29, Harley Street, W.
Ferguson, R. J., M.D., 27, Queen Anne Street, W.
Ferrier, D., M.D., F.R.S., 34, Cavendish Square, W.
Field, G. P., Esq., 152, Harley Street, W.
Fisher, J. H., M.B., 83, Wimpole Street, W.
Fleming, T., M.D., 42, Harley Street, W.
Flemming, P., M.D., 31, Wimpole Street, W.
Fletcher, H. M., M.D., 98, Harley Street, W.
Fox, R. Fortescue, M.D., 29, Weymouth Street, W.
Fox, R. H., M.D., 29, Weymouth Street, W.
Fox, T. C., M.B., 14, Harley Street, W.
Freeland, E. H., Esq., 145, Harley Street, W.
Freyer, P. J., M.D., 46, Harley Street, W.
Fripp, Sir Alfred D., C.V.O., C.B., M.S., 19, Portland Pl., W.
Frost, W. Adams, F.R.C.S., 30, Cavendish Square, W.
Furnivall, P., Esq., 28, Weymouth Street, W.
Fürth, K. J., M.D., 39, Harley Street, W.
Galabin, A. L., M.D., 49, Wimpole Street, W.
Galloway, Jas., M.D., 54, Harley Street, W.
Gardner, H. B., Esq., 3, Mansfield Street, Portland Pl., W.
Garrod, Sir Alfred, B., M.D., F.R.S., 10, Harley Street, W.
Garrod, A. E., M.D., 9, Chandos Street, Cavendish Sq., W.
Gibbes, C. C., M.D., 89, Harley Street, W.
Gibbs, C. Esq., 48, Queen Anne Street, W.
Giles, A. E., M.D., 10 Upper Wimpole Street, W.
Goadby, K. W., Esq., 21, New Cavendish Street, W
Godlee, R. J., M.B., 19, Wimpole Street, W.
Goff, Bruce E., M.B., 77, Gloucester Place, W.
Golding-Bird, C. H., M.B., 12, Queen Anne Street, W.
Gordon, Mary L., L.R.C.P., 2, Harley Place, W.
Goodhart, J. F., M.D., 25, Portland Place, W.
Goodsall, D. H., Esq., 17, Devonshire Place, W.
Gossage, A. M., M.B., 54, Upper Berkeley Street, W.
Gould, A. Pearce, M.S., 10, Queen Anne Street, W.
Goullet, C. A., Esq., 2, Finchley Road, N.W.
Gow, W. J., M.D., 27, Weymouth Street, W.
Gowers, Sir William, M.D., F.R.S., 50 Queen Anne St. W.
Graham, G. H., M.D., 14, Old Cavendish Street, W.
Grant, J. Dundas, M.D., 18, Cavendish Square, W.
Green, T. H., M.D., 74, Wimpole Street, W.
Greenwood, E. C., Esq., 19 St. John's Wood Park, N.W.
Griffith, W. S. A., M.D., 96, Harley Street, W.
Gruber, R., M.D., 67, Wimpole Street, W.
Gunn, Robert Marcus, M.B., 54, Queen Anne Street, W.
Habershon, S. H., M.D., 88, Harley Street, W.
Hadley, W. J., M.D., 33, Queen Anne Street, W.
Hall, F. de H., M.D., 47, Wimpole Street, W.
Halliburton, Professor W. D., M.D., F.R.S., 17, Marylebone Road, N.W.
Hamel, Gustav, M.V.O., M.D., Spanish Place Mansion, Manchester Square, W.
Hamilton, Lillias, M.D., 29, Queen Anne Street, W.
Handfield-Jones, Montagu, M.D., 35, Cavendish Square, W.
Handley, W. S., M.D., 51, Devonshire Street, W
Hargreaves, M. K., M.D., 12, Chandos St., Cavendish Sq., W.
Harley, Vaughan, M.D., 25, Harley Street, W.
Harman, N. Bishop, M.B., 108, Harley Street, W.
Harold, John, M.B., 91, Harley Street, W.
Harris, P. R. T., Esq., 112, Harley Street, W.
Harris, Wilfred J., M.D., 61, Wimpole Street, W.
Harrison, R., Esq., 6, Lower Berkeley Street, W.
Hartigan, T. J. P., Esq., 94, Harley Street, W.
Hartridge, G., F.R.C.S., 12, Wimpole Street, W.
Hartzhorne, B. F., Esq., 39, Loudoun Road, N.W.
Hawkins, H. P., M.D., 56, Portland Place, W.
Hawthorne, C. O., M.D., 63, Harley Street, W.
Hayman, A. S., Esq., 45, Welbeck Street, W.
Heath, C. J., F.R.C.S., 3, Cavendish Place, W.
Hebert, P. Z., M.D., 14, York Place, W.
Hedley, W. S., M.D., 21, St. John's Wood Park, N.W.
Henderson, E. E., M.B., 20, Queen Anne Street, W.
Henry, J. P., M.D., 41, Welbeck Street, W.
Hepburn, Malcolm L., M.D., 66, Wimpole Street, W.
Herman, G. E., M.B., 20, Harley Street, W.
Hern, G., Esq., 7, Stratford Place, W.
Hern, William, Esq., 7, Stratford Place, W.
Heron, G. A., M.D., 57, Harley Street, W.
Herring, H. T., M.B., 50, Harley Street, W.
Herringham, W. P., M.D., 40, Wimpole Street, W.
Herschell, G., M.D., 36, Harley Street, W.
Hewitt, F. W., M.V.O., M.D., 14, Queen Anne Street, W.
Hewkley, F., M.B., 19, Lower Seymour Street, W.
Hill, G. W., M.D., 26, Weymouth Street, W.
Hobson, H. O., M.D., 32, Upper Berkeley Street, W.
Hollander, B., M.D., 62, Queen Anne Street, W.
Holman, Sir Constantine, M.D., 26, Gloucester Place, Portman Square, W.
Holthouse, E. H., M.B., 6, Devonshire Street, W.
Hooker, J. S., M.D., 36A, New Cavendish Street, W.
Horder, T. J., Esq., 141, Harley Street, W.
Horne, M., M.B., 37, Nottingham Place, W.
Horne, W. Jobson, M.D., 27, New Cavendish Street, W.
Horsley, Sir Victor, F.R.S., 25, Cavendish Square, W.
Horsman, G. C., Esq., 22, King Street, Portman Square, W.
Horton-Smith, P., M.D., 19, Devonshire Street, Portland Place, W.
Houston, A. C., M.B., 20, Nottingham Place, W.
Hovell, T. Mark, F.R.C.S.E., 105, Harley Street, W.
Hunter, W., M.D., 103, Harley Street, W.
Hutchinson, J., M.D., F.R.S., LL.D., 15, Cavendish Sq., W.
Hutchinson, J., jun., Esq., 1, Park Crescent, W.
Hutchison, R., M.D., 22, Queen Anne Street, W.
Ingram, P. C. P., Esq., Queen Charlotte's Hospital, Marylebone, N.W.
Ivens, Frances, M.B., 25, Wimpole Street, W.
Jackson, J. H., M.D., F.R.S., 3, Manchester Square, W.
Jagielski, Victor, M.D., 14, Dorset Square, N.W.
Jakins, P. S., M.D., 120, Harley Street, N.W.
James, J. T., M.D., 108, Harley Street, W.
James, W. W., Esq., 22, Wimpole Street, W.
Jenson, E. T., M.B., 57, Devonshire Street, W.
Jessop, Walter, H. H., M.B., 73, Harley Street, W.
Johnson, Edward, Esq., 60, Bickenhall Mansions, Gloucester Place, W.
Johnson, R., M.B., 11, Wimpole Street, W.
Jones, A. Ernest, M.D., 13, Harley Street, W.
Jones, H. Lewis, Esq., 143, Harley Street, W.
Jones, H. McN., M.D., 131, Harley Street, W.
Juler, H. E., M.B., 23, Cavendish Sq., W.
Keep, A. C., M.D., 14, Gloucester Place, W.
Keith, G. E., Esq., 7, Manchester Square, W.
Keith, S., M.B., 53, Upper Berkeley Street, W.
Kelson, W. H., M.D., 17, Cavendish Place, W.
Kelynack, T. N., M.D., 120, Harley Street, W.
Kerr, T. S., M.B., 35, Manor House, Marylebone Rd., N.W.
Kingsford, A. B., Esq., 19, Upper George Street, Bryanston Square, W.
Lack, H. Lambert, M.D., 48, Harley Street, W.
Lake, Richard, F.R.C.S., 19, Harley Street, W.
Lane, G. J., M.D., 142, Harley Street, W.
Lane, J. E., Esq., 46, Queen Anne Street, W.
Lane, W. Arbuthnot, M.S., 21, Cavendish Square, W.
Langton, J., Esq., 62, Harley Street, W.
Lankester, O., Esq., 5, Upper Wimpole Street, W.
Law, Edward, M.D., 8, Wimpole Street, W.
Lawford, J. B., M.D., 99, Harley Street, W.
Lawrence, L. A., Esq., 9, Upper Wimpole Street, W.
Lawson, A., F.R.C.S., 12, Harley Street, W.
Lazarus-Barlow, W. S., M.D., Middlesex Hospital, W.
Lees, D. B., M.D., 22, Weymouth Street, W.
Leslie, R. Murray, M.D., 26, Harley Street, W.
Levy, A., M.D., 42, Welbeck St., W.
Levy, A. G., M.D., 41, Devonshire Street, W.
Lewers, A. H. N., M.D., 72, Harley Street, W.
Lewis, E. J., M.B., 45, Hamilton Terrace, N.W.
Lister, Right Hon. Lord O. M., M.D., F.R.S., 12, Park Crescent, W.
Lister, W. T., F.R.C.S., 24, Devonshire Place, W.
Little, E. G. G., M.D., 61, Wimpole Street, W.
Little, E. M., F.R.C.S., 5, Duchess Street, W.
Little, J. F., M.B., 125, Harley Street, W.
Lockwood, C. B., F.R.C.S., 19, Upper Berkeley Street, W.
Lockyer, C., M.D., 117A, Harley Street, W.
Lucas, R. C., M.B., 50, Wimpole Street, W.
Luff, A. P., M.D., 9, Queen Anne Street, W.
McCarroll, J. C., M.B., 10, Queen Street, Edgware Rd., W.
McClure, Henry, M.D., 36, Weymouth Street, W.
MacDonald, G. M., M.D., 85, Harley Street, W.
Macdonald, Isabella M., M.B., 47, Seymour Street, W.
McDougal, E. D., M.B., 27, Welbeck Street, W.
Mackenzie, Sir Stephen, M.D., 31, Cavendish Square, W.
McLatchie, J. D. P., M.B., 34, Welbeck Street, W.
Macleod, J. M. K., M.D., 11, Harley Street, W.
McMullen, W. H., M.B., 27, Welbeck Street, W.
Macpherson, A. D., M.B., 29, York Street, Portman Sq., W.
Macready, J. F. C. H., Esq., 42, Devonshire Street, W.
Maggs, W. A., Esq., 14, Upper Wimpole Street, W.
Maguire, Robert, M.D., 4, Seymour Street, W.
Malcolm, J. D., M.B., 13, Portman Street, W.
Mansbridge, J., Esq., 112, Harley Street, W.
Manson, Sir Patrick, K.C.M.G., M.D., LL.D., F.R.S., 21, Queen Anne Street, W.
Mapother, E. D., M.D., 16, Welbeck Street, W.
Markus, Charles, Esq., 28, Wimpole Street, W.
Marriage, H. J., M.D., 109, Harley Street, W.
Marshall, C. D., Esq., 112, Harley Street, W.
Martin, Sidney H. C., M.D., F.R.S., 10, Mansfield St., W.
Mason, G. A., M.B., 45, George Street, Portman Square, W
May, W. J., Esq., 24, Upper Wimpole Street, W.
May, W. Page, M.D., 9, Manchester Square, W.
Mayou, M. S., Esq., 46, Weymouth Street, W.
Meachen, G. Norman, M.D., 11, Devonshire Street, W.
Menzies, D., M.B., 51, Marylebone Road, W.
Meredith, W. A., M.B., 21, Manchester Square, W.
Miller, Chas., M.D., 22, Queen Anne Street, W.
Morgan, C. A., M.B., 6, Gloucester Place, W.
Morier, C. G. D., Esq., 1, Hamilton Terrace, St. John's Wood, N.W.
Morison, A., M.D., 14, Upper Berkeley Street, W.
Morris, Henry, F.R.C.S., 8, Cavendish Square, W.
Morris, Malcolm A., F.R.C.S.Ed., 8, Harley Street, W.
Morton, A. S., M.B., 133, Harley Street, W.
Mott, F. W., M.D., F.R.S., 25, Nottingham Place, W.
Moullin, C. W. Mansell, M.D., 69, Wimpole Street, W.
Mummery, J. H., Esq., 10, Cavendish Place, W.
Mummery, J. P. L., F.R.C.S., 10, Cavendish Place, W.
Murray, C. S., Esq., 85, Gloucester Place, Portman Sq., W.
Murray, H. Montague, M.D., 25, Manchester Square, W.
Murray, John, M.B., 110, Harley Street, W.
Murrell, W., M.D., 17, Welbeck Street, W.
Myer, Leonard, Esq., 76, Wimpole Street, W.
Neale, W. H., M.D., 24, Loudoun Road, N.W.
Nicol, B. A., F.R.C.S., 33, Weymouth Street, W.
Nix, E. J., M.B., 11, Weymouth Street, W.
Norton, G. E., Esq., 63, Upper Gloucester Place, N.W.
Nowell, W. S., Esq., 18, Stratford Place, W.

Ogilvie, George, M.B., 22, Welbeck Street, W.
Oldfield, J., Esq., 5, Harley Street, W.
O'Malley, J. F., Esq., 16, Weymouth Street, W.
Openshaw, T. H., C.M.G., M.B., 16, Wimpole Street, W.
Ormerod, J. A., M.D., 25, Upper Wimpole Street, W.
Ormond, A. W., Esq., 37, Queen Anne Street, W.
Orwin, A. W., M.D., 15, Weymouth Street, W.
Overy, H., F.R.C.S., 8, Devonshire Street, W.
Owen, C. J. R., Esq., 14, Devonshire Terrace, Hyde Park, W.
Owen, Edmund, F.R.C.S., 64, Great Cumberland Place, W.
Page, H. W., M.B., 146, Harley Street, W.
Paget, Stephen, F.R.C.S., 70, Harley Street, W.
Pardoe, J. G., M.B., 77, Wimpole Street, W.
Parker, C. A., Esq., 141, Harley Street, W.
Parkinson, J. P., M.D., 57, Wimpole Street, W.
Parsons, J. H., F.R.C.S, 27, Wimpole Street, W.
Pasteur, W., M.D., 4, Chandos Street, W.
Paterson, H. J., M.B., 9, Upper Wimpole Street, W.
Paterson, W. B., Esq., 7A, Manchester Square, W.
Paton, E. P., M.D., 53, Queen Anne Street, W.
Payne, J. F., M.D., 78, Wimpole Street, W.
Payne, J. L., Esq., 44, Devonshire Street, W.
Peart-Thomas, W., M.D., 21 Portman Street, Portman Square, W.
Pegler, L. H., M.D., 58, Harley Street, W.
Perkins, J. J., M.B., 41, Wimpole Street, W.
Pernet, George, Esq., 94, Harley Street, W.
Peters, E. A., M.D. 52, Wimpole Street, W.
Pitt, G. N., M.D., 15, Portland Place, W.
Pitts, B., M.B., 109, Harley Street, W.
Poland, J., Esq., 2, Mansfield Street, W.
Pollard, Bilton, M.D., 24, Harley Street, W.
Pollard, Joseph, Esq., 51, Queen Anne Street, W.
Pollard, R., M.B., 15, Beaumont Street, W.
Poolman, A. E., Esq., 10, Weymouth Street, W.
Potter, Edward F., M.B., 49, Queen Anne Street, W.
Potter, J. C., M.D., 52, Upper Berkeley Street, W.
Powell, Sir R. Douglas, Bart., M.D., 62, Wimpole Street, W.
Powell, W. W., Esq., 17, Cavendish Place, Cavendish Sq., W.
Power, D'Arcy, F.R.C.S., 10A, Chandos Street, W.
Poynton, F. J., M.D., 1, Harley Place, W.
Price, F. W., Esq., 77, Wimpole Street, W.
Pringle, J. J., M.B., 23, Lower Seymour Street, W.
Pritchard, U., M.D., 26, Wimpole Street, W.
Probyn-Williams, R. J., M.D., 13, Welbeck Street, W.
Purcell, F. A., M.D., 7, Manchester Square, W.
Purves, W. L., M.D., 20, Stratford Place, Oxford Street, W.
Ramsay, Hy. Ward, Esq., 42, Church St., Lisson Gr., N.W.
Rayner, H., M.D., 16, Queen Anne Street, W.
Rayner, W., Esq., 4, Dorset Square, N.W.
Rawling, L. B., M.B., 16, Montagu Street, W.
Rees, J. M., Esq., 18, Upper Wimpole Street, W.
Reid, A. D., Esq., 41, Wimpole Street, W.
Renner, Charles, M.D., 75, Upper Gloucester Place, N.W.
Richardson, M. J., M.B., 47, Gloucester Place, W.
Rigby, H. M., M.B., 7, Wimpole Street, W.
Rilot, C. F., Esq., 22, Wimpole Street, W.
Ringer, S., M.D., 15, Cavendish Place, W.
Roberts, D. W., M.D., 56, Manchester St., W.
Roberts, F. T., M.D., 102, Harley Street, W.
Robinson, G. H. D., M.D., 17, Seymour Street, W.
Robinson, H. Betham, M.S., 1, Upper Wimpole Street, W.
Robinson, T., M.D., 9, Princes Street, Cavendish Sq., W.
Robson, A. W. Mayo, F.R.C.S., 8, Park Crescent, Portland Place, W.
Rogers, C. Claude, Esq., 142, Harley Street, W.
Roll, G. W., F.R.C.S., 7, Upper Wimpole Street, W.
Rose, F. A., Esq., 42, Devonshire Street, W.
Roth, B., Esq., J.P., 38, Harley Street, W.
Roughton, E. W., M.D., 38, Queen Anne Street, W.
Rouse, Rolla E., M.D., 42, Welbeck Street, W.
Routh, A. J. McC., M.D., 14A, Manchester Square, W.
Routh, C. H. F., M.D., 52, Montague Square, W.
Rouw, R. W., Esq., 7, Wimpole Street, W.
Rowell, G., Esq., 6, Cavendish Place, W.
Roxburgh, A. B., M.B., 7, Henrietta Street, W.
Russell, A. E., M.D., 9, Wimpole Street, W.
Russell, J. S. R., M.D., 44, Wimpole Street, W.
Rutherford, V. H., M.B., 55, Wimpole Street, W.
Ryall, C., Esq., 51, Queen Anne Street, W.
St. Johnston, T. R., Esq., 476, Edgware Road, W.
Sandwith, F. M., M.D., 31, Cavendish Square, W.
Savage, G. H., M.D., 3, Henrietta Street, Cavendish Sq., W.
Savill, Agnes F., M.D., 60, Upper Berkeley Street, W.
Savill, T. D., M.D., 60, Upper Berkeley Street, W.
Scharlieb, H. J., C.M.G., M.D., 149, Harley Street, W.
Scharlieb, Mary, M.D., 149, Harley Street, W.
Schorstein, Gustave, M.B., 11, Portland Place, W.
Searson, James, M.D., 64, Seymour Street, W.
Semon, Sir Felix, K.C.V.O., M.D., 39, Wimpole Street, W.
Sequeira, J. H., M.D., 63, Harley Street, W.
Sewill, J. S., Esq., 9A, Cavendish Square, W.
Sharkey, S. J., M.D., 22, Harley Street, W.
Sharpe, Margaret Mary, L.R.C.P., 32, Beaumont Street, W.
Shaw, C. T. Knox, Esq., 19, Bentinck Street, W.
Shaw, H. B., M.D., 7, Devonshire Street, W.
Shaw, J., M.D., 32, New Cavendish Street, W.
Shaw, L. E., M.D., 64, Harley Street, W.
Sheild, A. M., M.B., 4, Cavendish Place, Cavendish Sq., W.
Sheppard, Amy, M.B., 13, Upper Berkeley Street, W.
Sherren, J., F.R.C.S., 40, Devonshire Street, W.
Silk, J. F. W., M.D., 47, Devonshire St., Portland Place, W
Simpson, Professor W. J. R., M.D., 13, Queen Anne St., W.
Smale, M. A., Esq., 22A, Cavendish Square, W.
Smith, A. L. H., Esq., 16, New Cavendish Street, W.
Smith, F. J., M.D., 138, Harley Street, W.
Smith, H., M.D., 25, Welbeck Street, W.
Smith, Noble, F.R.C.S.Ed., 24, Queen Anne Street, W.
Smith, R. Percy, M.D., 36, Queen Anne Street, W.
Snape, E. A., Esq., 41, Welbeck Street, W.
Sommerville, David, M.D., 31, Manor Ho., Marylebone, N.W.
Spencer, H. R., M.D., 104, Harley Street, W.
Spicer, F., M.D., 17, Wimpole Street, W.
Spicer, Scanes, M.D., 28, Welbeck Street, W.
Spicer, W. T. H., M.B., 5, Wimpole Street, W.
Spokes, P. S., Esq., 4, Portland Place, W.
Spriggs, E. J., M.D., 48, Bryanston Street, W.
Squire, A. J. B., M.B., 24, Weymouth Street, W.
Squire, J. E., C.B., M.D., 5, Harley Street, W.
Stainer, Edward, M.B., 60, Wimpole Street, W.
Startin, J., Esq., 15, Harley Street, W.
Stephenson, Sydney, M.B., 33, Welbeck Street, W.
Stevens, T. G., M.D., 8, Weymouth Street, W.
Steward, F. J., M.S., 125, Harley Street, W.
Stewart, Purves, M.D., 7, Harley Street, W.
Stoney, Florence Ada, M.D., 46, Harley Street, W.
Stowers, J. H., M.D., 128, Harley Street, W.
Strand, A. C., Esq., 34, Baker Street, W.
Stuart-Low, W., F.R.C.S., 45, Welbeck Street, W.
Sturge, Caroline, M.D., 14, Nottingham Place, W
Sunderland, S., M.D., 11, Cavendish Place, W.
Sutherland, G. A., M.D., 73, Wimpole Street, W.
Swaffield, W. H., M.D., 39, Weymouth Street, W.
Swanton, J. H., M.D., 40, Harley Street, W.
Symes-Thompson, E., M.D., 33, Cavendish Square, W.
Symonds, C. J., M.D., 58, Portland Place, W.
Tanner, J., M.D., 19, Queen Anne Street, W.
Targett, J. H., M.S., 19, Upper Wimpole Street, W.
Tate, W. W. H., M.D., 32, Queen Anne Street, W.
Taylor, Frederick, M.D., 20, Wimpole Street, W.
Taylor, Inglis, M.B., 16, Harley Street, W.
Taylor, James, M.D., 49, Welbeck Street, W.
Taylor, Seymour, M.D., 16, Seymour Street, W
Templeton, G., M.B., 10, Seymour Street, W.
Thomas, G. D., M.D., 11, Upper Hamilton Terrace, N.W.
Thompson, A. Hugh, M.D., 36, Weymouth Street, W.
Thompson, C. H., M.D., 133, Harley Street, W.
Thomson, H. C., M.D., 34, Queen Anne Street, W.
Thomson, St. C., M.D., 28, Queen Anne Street, W.
Thorne, Atwood, M.B., 148, Harley Street, W.
Thorne, Mary, M.D., 148, Harley Street, W.
Thorne, W. Bezly, M.D., 2, Harley Street, W
Thursfield, J. H., M.D., 84, Wimpole Street, W.
Tilley, H., M.D., 89, Harley Street, W.
Tirard, Nestor I. C., M.D., 74, Harley Street, W.
Tod, H. F., F.R.C.S., 101, Harley Street, W.
Tomes, C. S., Esq., F.R.S., 9, Pk. Cres., Portland Place, W.
Tooth, H. H., C.M.G., M.D., 34, Harley Street, W.
Treves, Sir Frederick, Bart., G.C.V.O., C.B., 6, Wimpole Street, W.
Tubby, A. H., M.S., 25, Weymouth Street, W.
Tunnicliffe, F. W., M.D., 129, Harley Street, W.
Turner, H. Watson, Esq., 59, Wimpole Street, W.
Turner, J. G., F.R.C.S., 59, Wimpole Street, W.
Turner, William, M.S., 17, Harley Street, W.
Turner, W. A., M.D., 18, Harley Street, W.
Turney, H. G., M.D., 68, Portland Place, W.
Underwood, A. S., Esq., 26, Wimpole Street, W.
Vincent, R. H., M.D., 1, Harley Street, W.
Voelcker, A. F., M.D., 101, Harley Street, W.
Wakefield, T., M.B., 37, Nottingham Place, W.
Walker, H. R., Esq., 8, Harley Street, W.
Walker, J. R., Esq., 41, Hamilton Terrace, N.W.
Walker, Jane H., M.D., 122, Harley Street, W.
Walker, J. W. T., F.R.C.S., 30, Queen Anne Street, W.
Wall, R. C. B., M.D., 6, Cavendish Place, W.
Wallace, A., M.D., 39, Harley Street, W.
Wallace, C. S., M.B., 26, Upper Wimpole Street, W.
Wallace, J. S., M.D., 30A, Wimpole Street, W.
Wallace, L. A. R., M.B., 31, Welbeck Street, W.
Wallis, C. E., Esq., 38, Queen Anne Street, W.
Wallis, F. C., M.B., 107, Harley Street, W.
Walsham, H., M.D., 114, Harley Street, W.
Walters, J. B., Esq., 51, Devonshire Street, W.
Waring, H. J., M.B., 37, Wimpole Street, W.
Waterhouse, H. F., M.D., 81, Wimpole Street, W.
Watson, C. G., Esq., 44, Welbeck Street, W.
Weaver, W. G., Esq., 38, Circus Road, St. John's Wood, N.W.
Webb, Helen, M.B., 14, Nottingham Place, W.
Weber, F. P., M.D., 19, Harley Street, W.
Wells, A. P., Esq., 44, Gloucester Place, W.
Wells, S. R., M.D., 24, Somerset Street, W.
West, Samuel, M.D., 15, Wimpole Street, W.
Wethered, F. J., M.D., 83, Harley Street, W.
Whitfield, A., M.D., 21, Bentinck St., Manchester Sq., W.
White, E., Esq., 70, Park Road, N.W.
White, W. Hale, M.D., 65, Harley Street, W.
White, W. H., M.D., 43, Weymouth Street, W.
Whiting, A. J., M.D., 142, Harley Street, W.
Willcocks, F., M.D., 14, Mandeville Place, W.
Willett, A., Esq., 36, Wimpole Street, W.
Willett, E., M.B., 22, Queen Anne Street, W.
Williams, L. L. B., M.D., 8, York Street, Portman Sq., W.
Williamson, O. K., M.B., 55, Upper Berkeley Street, W.
Wingrave, V. H. W., M.D., 14, Stratford Place, W.
Wirgman, C. W., M.D., 45, Queen Anne Street, W.
Wise, Walter, Esq., 31, George Street, W.
Woakes, C., Esq., 52, Harley Street, W.
Wood, T. Outterson, M.D., 40, Margaret Street, Cavendish Square
Woods, J. F., M.D., 29, Queen Anne Street, W.
Worth, Claud A., Esq., 138, Harley Street, W.
Worton, A. S., M.B., 15, Gt. Castle St., Cavendish Sq., W.
Wright, Professor A. E., M.D., 7, Lower Seymour St., W.
Wright, Wm., M.B., Middlesex Hospital Medical School, W.
Wylie, Andrew, M.D., 7, Harley Street, W.
Wyman, J. S., M.D., 22, Nottingham Place, W.
Yorke-Davies, N. E., Esq., 44, Harley Street, W.

No. 8.—Richmond Division

NUMBERING 117.

Chairman, R. W. Wilson, M.D., Kew

Vice-Chairman, A. M. Daldy, M.D., Surbiton

Honorary Secretary and Treasurer, J. R. Johnson, Esq., 3, Ellerker Gate, Richmond Hill, S.W.

Assistant Secretary, A. E. Evans, M.B., Gullane, Coombe Road, Kingston Hill

Representative for Representative Meeting.
R. L. Langdon-Down, M.B., Hampton Wick

Representative on Branch Council.
R. W. Wilson, M.D., Kew

Executive Committee.
Beach, Fletcher, M.B.
Maguire, G. J., M.B.
Rodman, G. H., M.D.
Scott, C. C., M.B.
Shuttleworth, G. E., M.D.
Still, G. C., M.B.

Ackerley, R., M.B., Croft House, Surbiton Hill
Addinsell, John H., Esq., 5, Victoria Terrace, Surbiton
Armstrong, P., M.D., Withycombe, Kingston Hill
Badcock, C. H., Esq., East Molesey
Bateman, W. A. F., Esq., Bridge House, Richmond
Beach, Fletcher, M.B., Winchester House, Kingston Hill
Beddard, W. O., Esq., 1, Richmond Bridge Mansions, Twickenham
Bellamy, G. E., Esq., Glengariff, Kew Road, Richmond
Blair, C. S., M.D., Matson Lodge, Sheen Road, Richmond
Brownrigg, H. J., M.D., Drumkeeran, Ewell Road, Surbiton
Borrell, L., M.D., 24, Kew Gardens Road, Kew
Busfield, J., Esq., Church Road, Claygate
Carter, F. H., M.D., 117, Upper Richmond Road, S.W.
Cayley, W., M.D., 120, Queen's Road, Richmond
Chambers, H. F. T., Esq., Uxbridge Rd., Kingston-on-Thames
Chipperfield, P., Esq., The Green, Hampton Court
Clarke, R. H., M.B., 9, St. James's Road, Surbiton
Clarke, W. T. M., Esq., Crossdeep, Twickenham
Coalbank, J., Esq., Teddington
Cockhill, T. T., Esq., 59, Pagoda Avenue, Richmond
Coleman, O., M.D., Dunedin, Surbiton
Collins, H. B., Esq., Greenholme, Kingston-on-Thames
Compton, T., Esq., Staffa, East Molesey
Cooper, H., M.D., Fownhope, Surbiton
Cooper, H. M., M.B., Hampton-on-Thames
Cowen, E. J., M.B., New Malden
Cowen, G., M.D., Dunurlin, New Malden
Cran, H. R., Esq., Hazeldene, New Malden
Creswell, W. G., M.D., Eden Lodge, Kingston-on-Thames
Crocker, J. Hedley, M.D., Gort House, Petersham
Crockett, E., Esq., Hampton Wick, S.W.
Crook, H. E., M.D., Ivermore, Richmond Rd, Twickenham
Crookshank, F. G., M.D., 27, The Terrace, Barnes, S.W.
Cross, F. G., Esq., The Gables, Beaufort Road, Kingston-on-Thames
Cummins, T. C., Esq., Twickenham Road, Isleworth
Davidson, Harold, Esq., Riverside Lodge, Teddington
Derdle, Frank, M.B., Overton House, Isleworth
Dolman, E. W. F., Esq., Lancaster House, Richmond
Edsell, G. A., M.D., Maple House, Surbiton
English, E. A. W., M.B., Rossmore, The Avenue, St. Margaret's-on-Thames
Evans, A. E., M.B., Gullane, Kingston Hill
Fawcett, W. J., C.B., M.B., Surgeon-General A.M.S., 5, Albany Gardens, Richmond
Ferme, W. T., M.D., 4, Pembroke Villas, Richmond
Finny, W. E. St. L., M.D., Tamesa, Kingston Hill
Gairdner, M. W., M.B., 9, Waldegrave Park, Strawberry Hill, Twickenham
Gale, A., Esq., Manor Gate House, Kingston Hill
Goodman, R. N., M.D., 29, Kingston Hill, Kingston-on-Thames
Goodwin, F. C., M.D., Mansfield Ho., Kingston-on-Thames
Gowland, W. P., Esq., The Infirmary, Isleworth
Groome, W. W., M.D., Suffolk House, Surbiton
Gunther, T., M.D., Hampton Wick
Harness, H. Nelson, Esq., Collingsbourne, Norbiton
Haslett, W. J. H., Esq., Halliford House, Sunbury-on-Thames
Hay, M. B., Esq., 13, Queen Elizabeth Rd., Kingston-on-T.
Hewett, A., Esq., The Wilderness, Park Road, Hampton Hill, S.W.
Holberton, H. N., M.D., Chetwynd, East Molesey
Hovenden, Arthur C., M.B., Compton Lodge, East Sheen, S.W.
Hovenden, G. S., M.D., Kitson Lodge, Barnes, S.W.
Howlett, B., Esq., 16, Springfield Rd., Kingston-on-Thame
Hunt, L. G., M.D., 104, Queen's Road, Richmond
Jardine, J., M.B., 3, Lichfield Gardens, Richmond
Jeffcoat, J. H., Dep. Sur.-Gen., A.M.S. (ret.), Surbiton
Johnson, J. R., Esq., 3, Ellerker Gate, Richmond Hill, S.W.
Langdon-Down, P., M.B., Dixland, Hampton Wick
Langdon-Down, R. L., M.B., 47, Welbeck Street, W., and Normansfield, Hampton Wick
Lawson, F. J., M.B., 4, Palewell Park, East Sheen
Lee, S. H., M.B., Clarence House, Teddington
Leeson, J. R., M.D., Clifden House, Twickenham.
Lewis, Ernest Wm., M.B., 29, Victoria Avenue, Surbiton
Luscombe, T. B., Esq., Coombe House, Teddington
Luson, T., M.D., Willow Lodge, Norbiton
Maguire, G. J., M.B., Fulwood, Kew Gardens
Marshall, J. J. de Z., Esq., The Homestead, Bushey Park Teddington
Martin, H. A., M.D., Westfield, Catherine Road, Surbiton
Mowll, R. R., M.B., Beresford, Hook Road, Surbiton
Murchison, Findlay, M.B., Wyke House, Isleworth
Murphy, H. H., M.D., St. Margaret's Twickenham
Norris, F. B., M.D., Ditton Road, Surbiton
Norton, E. E., Esq., The Infirmary, Isleworth
Ord, G. W., Esq., 58, Queen's Road, Richmond
Owen, A. D., Esq., Hampton-on-Thames
Owen, J. G., Esq., The Limes, Kingston-on-Thames
Paradise, T. D., Esq., 55, Surbiton Rd., Kingston-on-Thames
Peredean, E. G., M.B., Durham Lodge, St. Margaret's-on-Thames
Pounney, W. E., M.D., River Deep, Twickenham
Price-Jones, C., M.B., 7, Claremont Road, Surbiton
Pullar, A., M.D., 4, Manor Grove Gardens, Sheen Road, Richmond
Rand, John, Esq., Felixstowe, Lovelace Road, Surbiton
Richards, G. O., Esq., The Green, Richmond
Rodman, G. H., M.D., Sheen Gate House, Sheen Lane East Sheen, S.W.
Roots, W. H., Esq., Kingston-on-Thames
Saward, A. H. M., 65, Onslow Road, Richmond
Scott, C. C., M.B., The Hollies, St. Margaret's, Twickenham
Sedgwick, H. P., M.B., Richmond Rd., Kingston-on-Thames
Shuttleworth, G. E., M.D., Richmond Hill
Smith, A. W., M.D., 54, South Street, Isleworth
Smith, J. Hume, M.D., Hampton Wick
Steegman, E. J., M.B., Derby House, Spring Grove, Isleworth
Still, G. C., M.B., 1, St. Stephen's Gdns., East Twickenham
Sully, A. Max., Esq., Parkhurst, Claygate
Taylor, A. S., M.D., Lulworth House, Surbiton Hill
Tench, Chas. G., M.B., Alverston House, Bagshot
Turner, C. E., Esq., Richmond Road, Kingston-on-Thames
Urquhart, Alex., M.B., Highfield, Shepperton
Wadd, F. F., M.B., Prospect House, Richmond
Wadd, H. R., Esq., Prospect House, Hill Rise, Richmond
Warburton, A., Esq., Berynabor, East Molesey
Ward, M. G., M.D., Saltburn, Twickenham Common
Ward, W. A., Esq., Richmond
Wharry, C. J., M.D., 14, Ewell Road, Surbiton
Williamson, J., M.B., Rothsay House, Richmond
Wilson, R. W., M.D., Aden House, Ennesdale Road, Kew
Winter, J. N., Esq., 18, Lichfield Road, Kew Gardens
Wintle, H., M.D., 33, Strawberry Hill Road, Twickenham
Wisemann, J. G., F.R.C.S., Stranraer, St. Peter's Road, St. Margaret's on-Thames
Wood, J. J. H., M.B., Nithsdale, King's Road, Richmond
Woolley, E. J., M.B., 25, Claremont Road, Surbiton

No. 9.—St. Pancras and Islington Division

NUMBERING 152.

Chairman, F. J. Buckell, M.B., 32, Canonbury Square, N.

Vice-Chairman, Walter Smith, M.D., 60, Regent's Park Road, N.W.

Honorary Secretary and Treasurer, W. Wynn Westcott, M.B., 396, Camden Road, N.

Honorary Assistant Secretary, E. W. Martyn Westcott Esq., 396, Camden Road, N.

Representative for Representative Meeting.
Walter Smith, M.D., 60, Regent's Park Road, N.W.

Representatives on Branch Council.
Buckell, F. J., M.B.
Smith, W., M.D.
Westcott, W. Wynn, M.B.

Executive Committee.
F. Greaves, Esq.
W. J. S. Ladell, Esq.
A. H. Robinson, M.D.
J. F. J. Sykes, M.D.
C. Thackray, M.D.
O. L. M. Theobalds, Esq.
W. H. Yeld, Esq.

Abbott, H. W., Esq., 66, Jackson Road, Holloway, N.
Alexander, Adam, M.B., Gordon House, Highgate Rd., N.W.
Baker, Nugent B., Esq., 110, Carleton Road, Tufnell Park
Barnard, E. S., M.D., 219, Blackstock Road, N.
Bashford, E. F., M.D., 42, Harley House, N.W.
Beardmore, G. R., Esq., Warwick House, Upper Street, N.
Beaton, R. M., M.B., 9, Dartmouth Park Avenue, N.W.
Beer, L. E. S., Esq., 23, Hampstead Road, N.W.
Bennett, H., Esq., 323, Holloway Road, N.
Bennett, Victoria Evelyn M., M.B., 17 Heathcote St., W.C.
Berton, E. D., M.B. 17, Compton Terrace, N.
Blackstone, W. A., Esq., 19, Regent's Park Road, N.W.
Bolton, Elizabeth, M.B., Royal Free Hospital, W.C.
Brunton, J., M.B., 16, Endsleigh Street, W.C.
Bryett, L. T. F., M.D., 2, Alwyne Road, N.
Buckell, F. J., M.B., 32, Canonbury Square, N.
Bulger, L. Q., M.D., 70A, Osnaburgh Street, N.W.
Cathcart, Samuel, Esq., Greenfield, Archway Road, N.
Chilcott, A. E., M.D., St. Pancras Infirmary, W.
Clapham, Lucy B., M.B., 209, Camden Road, N.W.
Compton, A. T., Esq., 229, Holloway Road, N.
Coutts, J. M. S., M.D., 88, Highbury New Park, N.
Crabb, J., M.D., 59, Parkhurst Road, N.
Craig, H. L., M.B., 3, Northolme Road, Highbury Park, N.
Cree, W. E., M.D., 2, Pemberton Gardens, Up. Holloway, N.
Crosby, T. B., M.D., 19, Gordon Square, W.C.
Crowdy, F. H., M.D., South Grove, Highgate, N.
Cushny, A. R., M.D., University College, W.C.
Dawson, C. McB., M.B., 14, Brunswick Square, W.C.
De la Cour, G. F., M.D., 268, Camden Road, N.W.
Dingley, A., Esq., 36, Carleton Road, N.
Dixon, J., M.D., Eridge, Jackson's Lane, Highgate, N.
Dowdell, C. S., M.B., 7, Wilmington House, Highbury Crescent, N.
Ducat, A. D., M.D., 76, Grosvenor Road, Highbury New Park, N.
Dumbleton, C. E., M.D., Hampden Club, Phoenix St., N.W.
Eder, M.D., Esq., 46, Fitzroy Street, Fitzroy Square, W.
Ehrmann, A., Esq., 368, Camden Road, N.
Erskine, W. F., M.D., 54, Hunter Street, W.C.

Evans, T. C., Esq., 105, Camden Street, N.W.
Eyre, E. F., Esq., 531, Holloway Road, N.
Fountaine, D. O., Esq., 83, Woodland Gardens, N.
Francis, John A., Esq., 148, Fortess Road, N.W.
Gabe, J. R., M.D., 16, Mecklenburgh Square, W.C.
Gardiner, D. P. H., M.B., 42, Dartmouth Park Hill, N.W.
Gauld, W., M.D., 101, Balfour Road, Highbury, N.
George, W. H., Esq., 9, Osnaburgh Street N.W.
Gibb, G. A., M.B., 48, Mildmay Park, N.
Gladstone, R. J., M.D., 1, Gloucester Gate, N.W.
Glinn, G. F., M.B., 52, Camden Square, N.W.
Glover, James Grey, M.D., 25, Highbury Place, N.
Goodchild, N. J., Esq., 9, Highgate Road, N.W.
Gray, Edward, M.B., 47, Regent's Park Road, N.W.
Greaves, F., Esq., 50, Junction Road, Upper Holloway, N.
Greenwood, Jas., M.D., 7, Canonbury Lane, N.
Griffith, W., M.B., 1, Cambridge Place, Regent's Pk., N.W.
Hamer, W. H., M.D., 55, Dartmouth Park Hill, N.W.
Hearne, E. C., Esq., 7, Manor Gardens, Upp. Holloway, N.
Higgens, O. E., M.B., 135, Hornsey Road, Holloway, N.
Hill, L. G., Esq., 200, Green Lanes, N.
Hollings, Guy B., M.D., 22, Endsleigh Gardens, N.W.
Ingram, P. R., M.B., 12, Woodlands Villas, N.
Irwin, John R., M.B., 6, Endsleigh Gardens, N.W.
Jacques, R., F.R.C.S., 4, Endsleigh Gardens, N.W.
James, Matthew B., M.B., 129, St. John's Road, Upper Holloway, N.
Kenwood, H. R., M.B., 150, Bethune Road, N.
Kloster, O., M.B., 5, St. George's Sq., Regent's Park, N.W.
Knox, Robert, M.D., 1, Jackson's Lane, Highgate, N.
Ladell, W. J. S., Esq., Springfield House, Canonbury Rd., N.
Livermore, W. L., Esq., Stapleton Hall Road, N.
Long, Constance E., M.D., 85, Crouch Hill, N.
Lowenthal, L., Esq., 1, Highbury New Park, N.
McCann, Michael, M.B., 15, Percy Circus, W.C.
McFadyean, Sir John, M.B., F.R.S.E., Roy. Vet. Col., Camden Town, N.W.
McKay, R. J., L R.C.P., 107, Fonthill Rd., Finsbury Pk., N.
McLearn, I. C., M.D., Holborn Infirmary, Archway Rd., N.
MacVine, John W., M.B., 350, Camden Road, N.
Main, Robert, Esq., 24, Alexandra Villas, Finsbury Pk., N.
Malcolm, W. A., M.B., 421, Holloway Road, N.
Marshall, T., M.B., 25, Caversham Road, N.W.
Martin, W. A. P., M.D., 20, Hornsey Rise, N.
Mason, J. W. Barron, M.D., 1, Osnaburgh Terrace, Regent's Park, N.W.
Matheson, John, M.D., 14, Gibson Square, N.
Maughan, J., M.D., 56, Albany Street, Regent's Park, N.W.
Maybury, H. M., M.D., 27, Almeida Street, N.
Morison, Basil G, M.D., 115, Green Lanes, Highbury, N.
Murphy, Sir Shirley F., 9, Bentinck Ter., Regent's Pk., N.W.
Murphy T. C., Esq., 28, Brunswick Square, W.C.
Murray, H., Esq., 470, Hornsey Road, N.
Neale, A. E., M.D., 1, Hunter Street, W.C.
Newton, A. C. D., Esq., 2, Winchester Road, Highgate, N.
Norman, R. H., M.D., 2, Canonbury Park, N.
Nuttall, Radcliffe, Esq., 18, Beaulieu Villas, Finsbury Park
Parsons, John, Esq., 17, Dalmeny Avenue, Camden Rd., N.
Payne, J. E., M.B., 1, Lansdowne Place, W.C.
Penrose, A. W., Esq., 33, Compton Terrace, Highbury, N.
Pettifer, E. H., Esq., 32, Newington Green, N.
Phelps, A. M., M.D., 37, Compton Terrace, Highbury, N.
Pirie, A. H., M.B., 183 Kentish Town Road, N.W.
Pring, H. R., Esq., 1, Highbury Place, N.
Proctor-Sims, F. R., Esq., 337, Essex Road, N.
Purdie, R., M.B., 1, Queen's Crescent, Haverstock Hill, N.W.
Quinton, R. F., M.D., Governor's House, H.M.'s Prison, Holloway, N.
Rake, A. T., M.B., 58, Delancey, Street, Regent's Pk., N.W.
Ramage, John, M.D., 6, Gloucester Road, N.W.
Rees, R. B., Esq., 129, Queen's Crescent, N.W.
Reid, A., M.D., 29, Canonbury Park North, N.
Reynolds, A. E., Esq., Shepherd's Hill, Highgate, N.
Roberts, R. J., M.B., The Newk, 71, Whitehall Park, N.
Robinson, A. H., M.D., St. Mary's Infirmary, Hig. Hill, N.
Robinson, M. J., M.D., 257, Essex Road, Canonbury, N.
Sarjeant J. F., Esq., 65, Parkhurst Road, Holloway, N.
Sayer, T., M.D., 45, Ampthill Square, N.W.
Scott, A. T., Esq., 7, Parkhurst Road, Holloway, N.
Seligmann, C. G., M.B., Zoological Society's Gardens, Regent's Park, N.W.
Shave, E. S., Esq., 1A, St. Paul's Rd., Camden Town, N.W.
Simpson, C. M., Esq., 7, Highbury Crescent, N.
Simpson, J., M.D., 44, Highgate Road, N.W.
Smart, M. W., M.B., 11, Regent's Park Terrace, N.W.
Smith, H. G., M.B., 17, Dartmouth Park Road, N.W.
Smith, S. Calvin, Esq., 27, Muswell Rise, Highgate, N.
Smith, S. G., Esq., 76, Richmond Road, Barnsbury, N.
Smith, Walter, M.D., 60, Regent's Park Road, N.W.
Soltau, H., Esq., 49, Highbury Park, Highbury, N.
Soutter, M. K., Esq., 42, Avenell Road, Highbury, N.
Spitzly, J. H., Esq., 1, Douglas Road, Canonbury, N.
Still, G. F., M.D., 10, Wray Crescent, Tollington Park, N.
Stokes, H. F., M.D., 11, Highbury Place, N.
Strugnell, F. W., Esq., Grove End Ho., Highgate Rd., N.
Sullivan, Wm. C., M.D., H.M. Prison, Pentonville, N.
Suvoong, C. A., M.B., Hampden Club, St. Pancras, N.W.
Sworn, H. G., M.D., 5, Highbury Crescent, N.
Sykes, J. F. J., M.D., 40, Camden Square, N.W.
Talbot, F., Esq., 86, Cromwell Avenue, Highgate, N.
Thackray, C., M.D., St. Pancras Infirmary (South), N.W.
Thane, G. D., Esq., University College, W.C.
Theobalds, O. L. M., Esq., 105, Highgate Road, N.W.
Thomas, C. H., M.D., Great Northern Central Hospital, Holloway Road, N.
Thomson, A. Dunville, Esq., 1, Beacon Hill, N.
Thorp, Winifred M.B., 18, Endsleigh Street, W.C.
Thurston, D., Esq., 7, Endsleigh Gardens, N.W.
Ulrich, F. F. A., Esq., 54, Hunter Street, W.C.
Walmisley, N., Esq., Hampden Club, St. Pancras, N.W.
Wenyon, C., M.D., 14, Marquess Road, N.
Westcott, E. W. Martyn, Esq., 396, Camden Road, N.
Westcott, W. Wynn, M.B., 396, Camden Road, N.
White, E. A., M.D., 1, Highbury Place, N.
Wickham, O. A., M.D., 1, Westbourne Road, Barnsbury, N.
Wilson, A. W., M.B., 202, Tufnell Park Road, N.
Worley, W. C., Esq., 103, Green Lanes, N.
Wright, H. H., Esq., 2, Ospringe Rd., Brecknock Rd., N.W.
Wyborn, W. E., Esq., 228, Camden Road, N.W.
Yeld, W. H., Esq. 15, Gloucester Road, Regent's Park, N.W.

No. 10.—Stratford Division

NUMBERING 123.

Chairman, C. J. Stocker, Esq., Forest Gate, E.
Vice-Chairman, W. A. Grogono, Esq., Stratford, E.
Honorary Secretary and Treasurer, P. J. S. Nicoll, M.D., 2, Romford Road, Stratford, E.

Representative for Representative Meeting.
Percy Rose, Esq., 161, Barking Road, Canning Town, E.

Representative on Branch Council.
C. J. Stocker, Esq.

Executive Committee.
Beadles, H. S., Esq.
Best, W. H., Esq.
Black, G., M.B.
Corner, A., Esq.
Dale, W. C., M.B.
Frederick, E. G., Esq.
Hay, E., M.B.
Parker, J., M.D.

Alexander, S., Esq., Bruce Road, Bromley-by-Bow, E.
Allen, Robert H., M.B., 207, Green Street, Forest Gate, E.
Anderson, J. G., M.B., Aldersbrook House, Wanstead Park, Manor Park, E.
Atkinson, J. M., M.B., Heathside, Chadwell Heath
Atkinson, S. B., M.B., 4, Ewing Street, Bow, E.
Atkinson, T. R., M.D., Chadwell Heath
Basan, Conrad, M.D., 330, Roman Road, Bow, E.
Beadles, H. S., Esq., 234, Barking Road, Victoria Docks, E.
Beaumont, A. W., M.D., Oak Hall, East Ham
Berkeley, A. F. M., Esq., 471, East India Dock Road, E.
Best, W. H., Esq., 2, Kennington Gardens, Ilford
Biernacki, J., M.D., West Ham Fever Hospital, Plaistow, E
Black, George, M.B., 230, Burdett Road, E.
Bowlan, M. M., M.B., The Infirmary, St. George's-in-the-E.
Boyton, E. T. A., Esq., 46, Sebert Road, Forest Gate, E.
Brews, R. V., Esq., 10, High Street, North Woolwich, E.
Bromley, F. E., Esq., 732, Barking Road, E.
Brooks, J. H., M.D., Mile End Infirmary, E.
Brunton, W. R., M.B., 69, E. India Road, Poplar, E.
Buchan, J. G., M.B., Stratford Green, E.
Buncombe, W. D., Esq., City of Lond. Infirmary, Bow Rd., E.
Byrne, B., Esq., 79, East India Road, Poplar, E.
Cannan, D., Esq., 34, Sebert Road, Forest Gate, E.
Carey, R. J., Esq., 85, Barking Road, E.
Carney, Ambrose, Esq., 50c, Romford Road, E.
Carrell, G. N. P., Esq., 34, The Drive, Ilford
Challans, F., M.D., Dacre Lodge, Plashet Road, Upton Manor, E.
Cheetham, S. W., Esq., 233, Romford Road, Forest Gate, E.
Collier, R. J., Esq., Grosmont House, Manor Park, Essex
Collins, R. H., M.D., 177, High Street, East Ham, E.
Corner, A., Esq., 294, Romford Road, Forest Gate, E.
Corner, F. M., Esq., Manor House, East India Road, E.
Corner, M. C., Esq., 113, Mile End Road, E.
Couzens, A. J., Esq., West Ham Hospital, E.
Cross, John, M.B., London School of Tropical Medicine, Royal Albert Dock, E.
Cruickshank, A. B., M.B., 32, Grosvenor Road, Ilford
Dale, W. C., M.B., 98, Upton Lane, Forest Gate, E.
Daniels, C. W., M.B., London School of Tropical Medicine, Royal Albert Dock, E.
Darlow, Alfred, Esq., Upton Manor, Plaistow, E.
Dayus, F. H., Esq., Cumberland Lodge, Romford Road, E.
Downes, J. L., M.B., 269, Romford Road, E.
Dudley, S. R., Esq., 112, Henley Road, Ilford
Duffey, P. J., Esq., 54, Khedive Road, E.
Dunn, Elizabeth A., L.S.A., 68, Belgrave Road, Ilford
Fearnley, J., Esq., 82, Bow Road, E.
Fenton, C. F., Esq., Linton Road, Barking
Fiddes, A. McP., M.B., Killasser, Red Post Lane, Upton Pk., E.
Finlay, A., Esq., Central Station, Royal Albert Docks, E.
Ford, R. G., Esq., 314, Romford Road, E.
Fordham, J. W., Esq., 78, Mile End Road, E.
Fraser, J. A., Esq., Western Lodge, Romford
Fraser, R. M., M.B., 1, Belgrave Gardens, Ilford
Frederick, E. G., Esq., Silvertown, E.
Galbraith, E. S., Esq., 74, Hartland Road, West Ham, E.
Gallie, W. M. D., M.B., 12, Fords Market, Canning Town
Goodman, P. T., Esq., 75, Brick Lane, Spitalfields, E.
Goodson, W., Esq., 60, Leytonstone Road, Stratford, E.
Grant, C. G., Esq., 523, Commercial Road, E.
Grogono, W. A., Esq., Witham Lodge, Stratford, E.
Hall, G, Rome, M.D., 51, W. Ferry Road, Millwall
Hanbury, W. R., Esq., West Ham Borough Asylum, Goodmayes, Ilford
Hanks, Charles, M.B., 74, Belgrave Road, Ilford
Harman, L., M.B., 24, Ben Jonson Rd., Stepney Green, E.
Harvey, J. J., Esq., The Aviary, Canning Town, E.
Hastings, E. B., M.D., 415, Mile End Road, E.
Hay, E., M.B., 240, Victoria Dock Road, E.
Hessenauer, G., Esq., 10, Princelet Street, Spitalfields
Hewison, J. J., Esq. (address uncommunicated)
Hogan, B., Esq., 21, Devizes Road, Bromley-by-Bow, E.
Hume, D., Esq., 97, Hanbury Street, E.
Huthwaite, W. H. J., Esq., 106, Hampton Road, Forest Gate, E.
Johnson, W. H., Esq., 725, Commercial Road, E.
Kennedy, A. E., Esq., 113, Balaam Street, Plaistow, E.
Lamont, John, Esq., Union Workhouse, High St., Poplar, E.
Lamport, Ethel, F., L.S.A., 147, Bow Road, E.
Lawson, H. A. W., Esq., 46 Leytonstone Road E.
Ligertwood, J., M.D., 23, The Broadway, Barking
Loane, J., Esq., 13, Great Alie Street, E.
Mackay, D. M., M.D., 458A, Romford Road, Forest Gate, E.
McKendry, T. T., M.B., 39, Wallwood Road, Goodmayes, Ilford
Michael, G., M.B., 188, Commercial Road, E.
Mickle, W. J., M.D., Grove Hall Asylum, Bow, E.
Milne, R., M.D., 32, Bow Road, E.
Morris, B., M.D., 170, Commercial Road, E.
Muir, T. R., M.B., 17, Burdett Road, Bow, E.
Neil, W. H., Esq., Kenilworth House, Dagenham
Nelson, H. A. de B., Esq., 217, Barking Road, E.
Nicoll, P. J. S., M.D., 2, Romford Road, Stratford, E.
Nicols, R. T., M.D., 28, Park Road, Ilford
Normile, J., Esq., Spring Garden Place, Stepney, E.
Parker, James, M.D., 235, Barking Road, E.
Perkins, H. B., Esq., Park House, Barking
Rose, Percy, Esq., 161, Barking Road, E.
Russell, J. H., Esq., 362, Romford Road, E.
Sanders, Chas., M.B., 29, Windsor Road, Forest Gate, E.
Sargent, H. C., Esq., 223, High Street, Shadwell, E.
Simpson, Lilian G., M.D., Medical Mission Hospital, Balaam Street, Plaistow, E.
Smith, A. R., M.B., 235, Romford Road, E.
Smith, J. H., Esq., 1, Cambridge Road, Seven Kings
Spooner, C. A., Esq., 57, Tredegar Sq., Mile End Rd., E.
Spurrell, C., Esq., Poplar Sick Asylum, E.
Stark, A. C., M.B., 63, Wanstead Park Avenue. Manor Park, E.
Steen, J. R., M.D., 11, The Drive, Ilford
Stocker, C. J., Esq., Richmond Gardens, Forest Gate, E.
Stonham, H. A., Esq., 511, Commercial Road, E.
Stride, S. A., Esq., St. Ronans, Barking Rd., East Ham, E.
Stuck, S. J., Esq., 6, Bow Road, E.
Summerskill, W., Esq., 8, Pembroke Grdns., Seven Kings, Ilford
Sutcliffe, W. H., Esq., 48, Norfolk Road, Ilford
Taylor, W. C., M.B., 285, Victoria Dock Road, E.
Thomas, D. L. Esq., Whitehorse Street, E.
Troup, G. A., M.D., 2, Romford Road, Stratford, E.
Tylecote, F. E., M.D., Plaistow Hospital, E.
Wareham, S. J., Esq., Raymond House, Plashet Road, Upton Park, E.
Watts, H. E., Esq., 1, Sunnyside Road, Ilford
Watson, H. M., M.B., 14, Leytonstone Road, Stratford, E.
Weakley, S. J. J., Esq., 369, Romford Road, Forest Gate, E.
Welply, A., M.D., 152, High Road, Ilford
Welply, G. C., M.B., 129, The Grove, Stratford, E.
Williams, J. S., Esq. 175, Barking Road, E.
Wilson, G., Esq., 243, Romford Road, E.
Wright, Hamilton, M.D., London School of Tropical Medicine, Royal Albert Dock, E.
Zobel, S., M.B., 55, Commercial Road, E.

No. 11.—Tottenham Division

NUMBERING 118.

Chairman, C. E. Hutt, Esq., Tottenham.
Vice-Chairman, G. P. Chappel, M.D. Tottenham
Honorary Secretary, Fred. Tresilian, M.D., White Lodge, Enfield

Representative for Representative Meeting.
J. R. Fuller, M.D., 95, Tollington Park, N.

Representative on Branch Council.
Fuller, J. R., M.D.

Executive Committee.
May, E. Hooper, M.D.
Tomlin, R. F., Esq.
Staunton, H. F., M.D.
Greenwood, A., Esq
Fogarty, D., Esq.
Grant, L., M.D.

Anderson, J. S., M.D., 112, Turnpike Lane, Hornsey, N.
Armstrong, A. J. M., Esq., High Street, Southgate, N.
Barker, W. N., M.B., 94, Brownlow Rd., New Southgate, N.
Barnes, J. A. P., Esq., 8 2, High Rd., Lower Tottenham, N.
Best, F. H. de G., Esq., The Firs, Waltham Cross
Billson, C., Esq., 28, Hornsey Park Road, N.
Bremner, A. McR., Esq., 60, Palace Gates Road, Wood Green, N.
Brighouse, J., Esq., 93, Tollington Park, N.
Brownlees, J. K., Esq., Winchmore Hill, N.
Burton, C. G., Esq., 77, Church St., Lower Edmonton, N.
Butler-Hogan, J. F., Esq., Bruce Castle, Tottenham, N.
Card, A. H., Esq., 37, Muswell Rise, N.
Chappel, G. P., M.D., Lansdowne Ho., High Rd., Tott'hm, N.
Chatterton, H., Esq., 95, Tollington Park, N.
Clark, B., Esq., 86, Turnpike Lane, Hornsey, N.
Clark, W. F., Esq., Cheshunt, Herts
Coates, H., M.D, Municipal Offices, Hornsey, N.
Conolly, C. H., Esq., Smart Villa, Crescent Gardens, Wood Green, N.
Cook, R. H., M.D., Norfolk Lodge, London Road, Enfield
Corner, H., M.D., Brook House, Southgate, N.
Courtney, G. B., M.D., South Mimms, Barnet
Crawford, J., M.B., Hazel Bank, Hornsey, N.
Cullen, John, M.B., The Eastern Hospital, Homerton, N.E.
Curtis, E. C., Esq., Burlington House, Westbury Avenue, Wood Green, N.
Davis, H. A., M.D., The Willoughby, Tottenham, N.
Davis, J. S, Esq., 11, Cromartie Road, Hornsey Rise, N.
Distin, H., M.B., Holtwhite House, Enfield
Douglas, Arthur, M.D., Ordnance M.O., Enfield Lock
Dove, A. C., M.D., Crouch End Hill, N.
Downes, H., Esq., Priory Road, Hornsey, N.
Downton, A. S., Esq., 5, Weston Park, Crouch End, N.
Ellwood, T. A., Esq., 99, Tollington Park N.
Evill, F. Claude, Esq., The Lodge, High Barnet
Fairweather, D., M.D., Aldermans Hill, Palmer's Green, N.
Farmer, F. R., Esq., 4, Duckett Road, N.
Ferguson, R. B., M.D., 26, Woodland Rd., New Southgate, N.
Fisher, T. E., Esq., 272, Wightman Road, Hornsey, N.
Fogarty, D., Esq., 53, Salisbury Road, Harringay, N.
Foott, F. W., Esq., Ashton, Enfield Lock
Foott, R. E., M.D., Brandon Lodge, Wood Green, N.
Fulham-Turner, H., Esq., Torwood, Colney Hatch Lane, N.
Fuller, J. R., M.D., 95, Tollington Park, N.
Gilfillan, S. J., M.B., Colney Hatch Asylum, N.
Goble, P. W., Esq., 8, Compton Road, Winchmore Hill, N.
Grant, L., M.D., 9, Western Villas, New Southgate, N.
Greenwood, A., Esq., 1, Christchurch Road, Hornsey, N.
Greenwood, G., Esq., Riseley, Bush Hill Park, Enfield
Griffith, P. G., M.B., 636, Green Lanes, N.
Grinling, J. C., M.D., 3A, Tynemouth Road, South Tottenham, N.
Hague, J. L., Esq., Northern Hospital, Winchmore Hill, N.
Halliday, J. R., M.D., 33, Brownswood Rd., Green Lanes, N.,
Halstead, W. W., Esq., Waltham Cross
Hankin, Miss C. Mary, M.B., 80, Coniston Road, Muswell Hill, N.
Harding, A. W., M.B., 41, Glasslyn Road, Crouch End, N.
Harris, E. B., Esq., Tottenham Lane, Hornsey, N.
Howie, A., M.B., 57, Crouch Hall Road, Crouch End, N.
Hutt, C. E., Esq., 626, High Road, Tottenham, N.
Hutton, E. R., Esq., 18, West Green Road, Tottenham
Ingram, J., M.B., 100, Hornsey Lane, Crouch End, N.
Jones, T. S., Esq., 2, Truro Road, Wood Green
Jones, W., Esq., Avoca, Edmonton
King, F. R., Esq., Northumberland House, Green Lanes, N.
Lyon, R., M.B., 229, High Road, Tottenham, N.
MacFadden, A. W. J., M.B., 7, Latymer Road, Lower Edmonton, N.
Macgregor J. Johnston, M.B., Foxholme, Fox Lane, Palmer's Green, N.
Mailer, W. de B., 71, Palace Gates Road, Wood Green, N.
Marrett, C. A., Esq., 101, Southgate Road, N.
Mathison, A. J., Esq., 46 High Road, Wood Green, N.
May, E. Hooper, M.D., High Cross, Tottenham, N.
May, L. J., Esq., 440, Seven Sisters Road, N.
Mercer, Walter M.B., Hadley, Barnet
Monro, J. D. R., M.D., 17, Queen's Gdns., Muswell Hill, N.
Morrow, R., M.B., Ardigon, Bush Hill Park, Enfield
Mostertz, J., Esq., 78, Lordship Lane, Wood Green, N.
Muir, A., M.B., D nholm, Windmill Hill, West Enfield
North, F., M.D., 16, Friern Barnet Rd., New Southgate, N.
O'Meara, W. J., M.B., 259, High Road, South Tottenham, N.
Paine, W. H., Esq., The Limes, Green Lanes, N.
Parry, T. Wilson, M.D., Belmont, Crouch End Hill, N.
Peake, Joseph, Esq., 46, Mount View Road, Stroud Green, N.
Pereira, Geo., M.B., 9, Duke's Avenue, Muswell Hill, N.
Perigal, A., M.D., Station Road, New Barnet, N.
Petty, David, M.B., 6, High Road, South Tottenham
Plaister, W. H., Esq., Pembury House, Tottenham, N.
Porter, W. E., M.D., Trinity Road, Wood Green, N.
Prankerd, O. R., M.D., 25, Hornsey Lane Gardens, N.
Ridge, J. J., M.D., Carlton House, Enfield
Robertson, Andrew, M.B., 57, Crouch Hill Road, N
Roth, P. B., M.B., Kingswood, Enfield
Rubra, H. H., Esq., 66, Crouch Hall Road, Crouch End, N.
Shaw, John, M.B., Rowley House, Upper Edmonton, N.
Shoyer, A. F., M.D, 136, Tollington Park, N.
Smith, J., M.B., 89, Crouch Hill, N.
Smyth, R. V. B., M.D., Shenley, Barnet
Spaight, H. W., Esq., Holmwood, Waltham Cross
Spreat, F. A., Esq., Clydesdale, Whetstone, N.
Staunton, H. F., M.D., 88, High Road, Wood Green, N.
Tait, H. B., Esq., 22, Sunnyside Road, Hornsey Lane, N.
Thompson, C. G., M.B., Dial House, Lower Tottenham, N.
Thyne, T., M.D., Wood Street, High Barnet
Tipping, H., M.B., Tyldesley, Palmer's Green, N.
Tomlin, R. F., Esq., Richmond Villa, Lordship Lane, Wood Green, N.
Tresilian, Fred., M.D., White Lodge, Enfield, N.
Trist, H. B., Esq., 145, Frien Barnet Rd., New Southgate, N.
Turner, F. M., M.D., North-Eastern Hospital, St. Ann's Road, N.
Vaughan-Jackson, H. F., Esq., Potter's Bar, Middlesex
Vivian, R. T., Esq., Roseville, Winchmore Hill, N.
Vos, G. H., M.B., 567, High Road, Tottenham, N.
Wade, H., Esq., South Street, Ponder's End, N.
Walker, J. H., M.D., Warden Lodge, Cheshunt
Warren, W. P., Esq., St. James's Lodge, Enfield Highway
Weir, J. S. F., M.D., Melville House, Green Lanes, N.
Welch, F. D., Esq., Glen View, Westbury Avenue, Wood Green, N.
Williams, G. R., M.D., 110, Bowes Rd., Palmer's Green, N.
Willoughby, E. F., M.D., Bratton Lodge, Green Lanes, N.
Winston W. B., M.B., Clevedon House, Bounds Green Road, New Southgate N.
Wood, E., Esq., Stamford Lodge, Waverley Rd., Enfield, N.
Wood, F. H., Esq., Glandore, Turner's Hill, Cheshunt
Worrall, E. S., Esq., 78, Cecile Park, Crouch End

No. 12.—Walthamstow Division

NUMBERING 68.

Chairman, H. T. Brickwell, Esq., Woodford
Vice-Chairman, St. C. B. Shadwell, M.D., Walthamstow
Honorary Secretary, Herbert Alexander, Esq., Sundon House, Church Hill, Walthamstow

Representative for Representative Meeting.
C. J. Morton, M.D., 56, Orford Road, Walthamstow

Representative on Branch Council.
Hickman, H. V., M.B.

Executive Committee.

Bodilly, R. T. H., Esq.
Coutts, F. J., M.D.
Cruickshank, J. D., Esq.
Fowler, T., Esq.
Warner, Percy, Esq.
Wise, C. H., M.D.

Adams, C. E., M.B., Buckhurst Hill
Alcock, G. H., Esq., Highams Park, Chingford
Alexander, Herbert, Esq., Sundon House Church Hill, Walthamstow
Anderson, Wm., M.B., 683, High Road, Leytonstone
Berrill, A., Esq., Waveney House, South Woodford
Bodilly, R. T. H., Esq., High Road, S. Woodford, Essex
Bowerbank, F. T., M.D., 56, Orford Road, Walthamstow
Brickwell, H. T., Esq., Chigwell, Essex
Brown, H. H., M.B., Holmlands, Leytonstone
Clarke, J. J., Esq., 29, Prospect Hill, Walthamstow
Coutts, F. J., M.D., 50, Wallwood Road, Leytonstone, N.E.
Cross, E. W., Esq., Wallwood Park, Leytonstone, N.E.
Cruickshank, J. D., Esq., The Green, Chingford
Davies, H. R., Esq., Clovelly, High Road, Woodford Green
Dobie, J. R., M.B., Highams Park, Chingford
Drury, W. H., Esq., 21, Hoe Street, Walthamstow
Dunlop, Binnie, M.B., Woodford Green
Dykes, C. R., Esq., Glanusk, Queen's Rd., Buckhurst Hill
Edwards, C. D., M.B., Alton Lodge, Woodford Green, W.
Eldred, A. P., Esq., Bucklands, Grove Road, Walthamstow
Elliott, F. P., M.B., 113, Grove Road, Walthamstow
Ferguson, R., M.D., Manor House, Ongar
Flegg, F. A. M., Esq., George Lane, Woodford
Fowler, T., Esq., Epping
Galloway, A. W., Esq., Malvern, Epping
Godding, Jas., Esq., Southdene, Grove Park, Wanstead, N.E.
Goldie, E. M., M.D., Woodford Road, S. Woodford, N.E.
Goode, Christina L., M.B., West Ham Infirmary, Leytonstone
Hall, Eleanor A., Walthamstow Sanatorium, Chingford
Harcourt, G. R., M.B., Westbourne, Lea Bridge Road Leyton, N.E.
Harford, C. F., M.D., Livingstone College, Leyton, N.E.
Harris, A. B., M.B., Loughton
Hickman, H. V., M.B., Overton House, Wanstead, N.E.
Horner, C. J., Esq., 77, Church Hill, Walthamstow
Jones, Robert, M.D., Claybury Asylum, Woodford, Essex
Kennedy, D. L., M.B., Trefusis, High Road, Loughton
Linden, H. C., Esq., Leyspring, Leytonstone
Lindsay, A., M.D., Brook House, Leyton, N.E.
Lloyd, E. E., Esq., 61, Fairlop Road, Leytonstone, N.E.
McGregor, P. F., M.B., Cambridge Park, Wanstead
McKenzie, D., M.D., 855, High St., Leytonstone, N.E.
Mackenzie, Rachel E. W., M.B., 139, Hoe St., Walthamstow
Morton, C. J., M.D., The Anchorage, Walthamstow
Mugliston, G. T. W. M.D., 1, Grove Road, Leytonstone, N.E.
Nag, G., Esq., Lynwood, Francis Road, Leyton
Noble, W. G., Esq., 26 Church Hill, Walthamstow
Norman, George, M.B., Brendon, Buckhurst Hill
Owen, D. S., Esq., Higham Hill, Walthamstow, N.E.
Parker, W. G., M.B., Western Lodge, Upper Walthamstow Road, Walthamstow, N.E.
Parsons, C. W., Esq., Brookfield, The Drive, Chingford
Passmore, W. E., Esq., Forest View, Woodford Bridge
Pendred, B. F., Esq., Kingswear, Loughton
Peskett, A. F. Esq., High Street, Leyton
Pooley, R. C. M., Esq., Monkhams, Woodford Green
Price, G. B., M.D., Livingstone College, Leyton, N.E.
Robin, A., M.D., Lansdown House, Woodford Green
Rogers, Alford, Esq., 1, Cavendish Road, Higham's Park, Chingford
Scoresby-Jackson, T., M.D., 326, Hoe Street, Walthamstow
Shadwell, St. C. B., M.D., Lyndhurst, Walthamstow
Sheppard, H. P., M.B., Ley House, Leyton, N.E.
Simeon, E. A., Esq., 350, Hoe Street, Walthamstow
Stevenson, T. H. C., M.B., 239, Shernhall St., Walthamstow
Taylor, J. F., Esq., Fairlight House, Leyton, N.E.
Todd-White, A. T., Esq., Fillebrook Road, Leytonstone, N.E.
Ward, G. S., M.B., Forest Lodge, Wanstead, N.E.
Warner, Percy Esq., Rydal, Woodford Green, Essex
Wilson, G. R., Esq., Ongar House, Chipping Ongar
Wise, C. H., M.D., Dunheved, Orford Road, Walthamstow

No. 13.—Wandsworth Division

NUMBERING 167.

Chairman, Hugh R. Ker, F.R.C.S., Tintern, Balham Hill, S.W.

Vice-Chairman, C. R. C. Lyster, Esq., Bolingbroke Hospital, S.W.

Hon. Secretary and Treasurer, E. Rowland Fothergill, M.B., B.S., Torquay House, Southfields, S.W.

Representative for Representative Meeting, L. S. McManus M.D., 25, Spencer Park, Wandsworth Common, S.W.

Representative on Branch Council.
Williams, Llewellyn, Esq.

Executive Committee.

Shearer, D. F., M.B.
Swallow, A. J., M.B.
Turner, W. P., M.D.
Walker, G., Esq.
White, E. F., F.R.C.S.

Ahern, Richard, M.B., Tooting Infirmary, S.W.
Aitken, D. McCrae, M.B., Bolingbroke Hospital, Wandsworth Common, S.W.
Archer T., M.D., 4, Huguenot Place, Wandsworth Common, S.W.
Armstrong, H. F. W., Esq., 253, Upper Richmond Road, Putney, S.W.
Atkinson, W., M.D., 1, The Sweep, East Side, Clapham Common, S.W.
Badcock, E. R., Esq., 55, West Hill, Putney, S.W.
Barkley, W., M.B., 17, Elsenham Street, Southfields, S.W.
Bartholomew, A. A., Esq., 31, West Hill, Wandsworth, S.W.
Barton, P. F., M.B., 27, Lingfield Road, Wimbledon
Bates, J. E., M.B., Wensleydale, Lingfield Rd., Wimbledon
Beamish, G., Esq., H.M. Prison, Wandsworth, S.W.
Beggs, J. E., M.B., Grove Hospital, Tooting, S.W.
Bell, W. J. N., Esq., 316, Clapham Road, S.W.
Belilios, David A., Esq., 109, Queen's Road, Wimbledon
Bent, S. C. H., M.D., 99, Ravenslen Road, Balham, S.W.
Bickford, N. S., Esq., Haydon's Road, S. Wimbledon
Bibby, John, Esq., Woodthorpe, Atkins Rd., Clapham Park, S.W.
Biggs, G. N., M.B., 101, Northcote Road, Wandsworth Common, S.W.
Biggs, M. G., M.D., 101, Northcote Rd., Wandsworth Com., S.W.
Bird, J. W., Esq., 50, Huron Road, Balham, S.W.
Bishop, C. D., Esq., 123, Lavender Hill, S.W.
Bligh, S. E., M.B., Lower Tooting, S.W.
Bond, F. A., M.B., 162, Worple Road, Wimbledon
Bourdas, E. C., Esq., 34, Bedford Hill, Balham, S.W.
Brewer, D., Esq., Kenmore, Durham Road, Raynes Park, Wimbledon, S.W.
Brimacombe, R. W., M.D., Colebrook Lodge, Putney Heath
Brock, C. de L., Esq., Alstone Lodge, Tooting Graveney, S.W.
Brown, John, Esq., 58, Lavender Gdns., Lavender Hill, S.W.
Burrows, H., M.B., Lyford Road, Wandsworth Common
Cameron, A., M.D., 9, Elms Road, Clapham Common, S.W.
Carmichael, H., M.B., The Elms, East Hill, Wandsworth, S.W.
Cartwright-Wood, G. E., M.D., 61, Alderbrook Rd., Balham
Caudwell, E., Esq., 8, Battersea Rise, S.W.
Charlesworth, G. H., M.D., 66, Upper Richmond Road, Putney, S.W.
Christian, A. G., M.B., 40, Leathwaite Road, Clapham Common, S.W.
Collie, F. L., M.D., 14, Balham Park Road, S.W.
Connor, J. H. T., Esq., Waynflete, Lyford Rd., Wandsworth Common, S.W.
Cowie, G., M.B., 124, Worple Road, Wimbledon
Davidson, A. Gordon, M.D., 54, Albert Palace Mansions, Battersea Park, S.W.
Deas, F., Esq., Thorndale, Merton Park, S.W.
Dewar, J., Esq., 35, Grafton Sq., Clapham Common, S.W.
Dillon, R. W., Esq., 39, Allfarthing Lane, S.W.
Dingwall, A., Esq., Thorncliffe, King's Road, Clapham Park, S.W.
Dodson, A. E., Esq., 75, Earlsfield Road, S.W.
Dorin, A. F. L., Esq., 344, Clapham Road, S.W.
Drew, E. H., Esq., 167, Balham High Road, S.W.
Duffus, Henry, M.B., 53, Thurleigh Road, Wandsworth Common, S.W.
Duke, B., M.D., Windmill House, Clapham Common, S.W.
Dunbar, J. J. M., M.D., Clapham Common, S.W.
Ellis, W. C., Esq., Allerton, Upper Tooting Park, S.W.
Evans, D. R. Powell, Esq., 75, Lambton Road, Wimbledon
Farrar, J. F., Esq., 85, Chelverton Road, Putney, S.W.
Ferris, W., M.B., Middlesex Co. Asylum, near Tooting, S.W.
Field, O., M.D., Gardner House, Clapham Common, S.W.
Finch, R. T., M.B., Orchardstede, Arterberry Road, Wimbledon, S.W.
Ford, F. C., M.B., 7, Leopold Road, Wimbledon, S.W.
Fothergill, E. R., M.B., B.S., Torquay H'se, Southfields, S.W.
Frazer, R. F., Esq., 45, Lavender Gardens, S.W.
Gay, J., Esq., 157, Upper Richmond Road, Putney, S.W.
Geoghegan, A. V., M.D., Rayleigh Road, Wimbledon, S.W.
Glanville, Marcus, Esq., 174, High Road, Balham, S.W.
Gorham, J. J., M.D., Campbell House, Clapham Com., S.W.
Gray, J. H., M.D., 4, Brodrick Road, Upper Tooting, S.W.
Gross, A., Esq., 51, High Street, Clapham, S.W.
Gyton, W. G., Esq., 273, Lavender Hill, S.W.
Harker, T. H., M.D., 40, Kenilworth Av., Wimbledon, S.W.
Harvey, J., M.B., 135, Hartfield Road, Wimbledon
Haydon, Frank, Esq., 86, Upper Richmond Rd., Putney, S.W.
Hayward, J. A., M.D., 23, The Grange, Wimbledon
Hewlett, R. T., M.D., Lyddon House, Southfields, S.W.
Hibbard, C. E., Esq., 76, The Grove, Wandsworth, S.W.
Hill, H. G., M.B., Middlesex Co. Lunatic Asylum, Tooting
Hill, R. A. L., Esq., 4, Merton Road, Wimbledon
Hills, A. P., Esq., 1, Prince of Wales Rd., Battersea, S.W.
Hillstead, H. J., M.B., 65, Up. Richmond Rd., Putney, S.W.
Hollist, G. W. C., Esq., 229, Balham High Road, S.W.
Howell, T. A. I., Esq., 62, Up. Richmond Rd., Putney, S.W.
Huggins, S. P., M.D., 114, Lower Richmond Road, Putney
Hughes, G. S., F.R.C.S., Bolingbroke Hospital, Wandsworth Common, S.W.
Hugill, G. F., M.D., 197, High Road, Balham, S.W.
Hunter, S. R., M.D., Lynher House, High St., Clapham, S.W.
Hutcheson, D. A., M.D., 339, Queens Rd., Battersea Pk., S.W.
Jewell, J. W. F., M.D., Oakmead, Balham, S.W.
Johnson, R. Mortimer, Esq., 60, Tantallon Road, Balham, S.W.
Jones, H. S., M.B., 6, Abbeville Road, Clapham Park, S.W.
Ker, Hugh R., F.R.C.S., Tintern, Balham Hill, S.W.
Kernohan, D., M.D., 1, Windermere Terr., Earlsfield, S.W.
Kingdon, C. T. C., M.D., 62, Falcon Rd., Clapham Junction
Kirkby, R. C., Esq., 87, Earlsfield Road, S.W.
Lambert, E. C., Esq., 23, North Street, Wandsworth
Lauchlan, C. A., M.D., 90, South Side, Clapham Common, S.W.
Lauchlan, H. D., Esq., 136, Lower Richmond Rd., Putney
Lawson, R., Esq., 69, Balham Hill, S.W.
Lyster, C. R. C., Esq., Bolingbroke Hospital, Wandsworth Common, S.W.
McConnell, J., M.B., 57, Battersea Rise, Clapham Com., S.W.
MacCormac, W. L., M.B., The Infirmary, St. John's Hill, Wandsworth, S.W.
McDade, C. E., M.D., 138, Lavender Hill, S.W.
McDade, Frances O. C. S., M.D., 138, Lavender Hill, S.W.
MacDonnell, M. A., M.D., 14, Ridgeway Place, Wimbledon S.W.
Mackintosh, G. D., Esq., 74a, The Chase, Clapham Common
Mackintosh, M., M.D., Frankfort House, West Side, Clapham Common, S.W.
McManus, L. S., M.D., 25, Spencer Park, Wandsworth Common, S.W.
McRory, L. G. F., M.D., Clifton H'se, Battersea Park, S.W.
McSheehy, E. L., M.D., J.P., The Drive, Wimbledon, S.W.
Martin, C. J., M.B., 111, Northcote Road, Battersea, S.W.
Mason, J. B., Esq., 248, Earlsfield Road, Wandsworth, S.W.
Merry, S. R., Esq., 119, Tranmere Road, Earlsfield, S.W.
Miller, E. A., M.B., 42, Upper Richmond Rd., Putney, S.W.
Milne, J. K., Esq., Newlands, Kingston Road, Merton Park, S.W.
Mosse, H. R., M.D., 37, North Side, Clapham Common, S.W.
Myles, J., M.D., 46, Bolingbroke Grove, S.W.
Needham, J., M.B., 34, Loats Road, Clapham Park, S.W.
Neville, T. C., M.D., 346, Upper Richmond Rd., Putney, S.W
Orr, W. Y., M.B., 266, Upper Richmond Road, Putney, S.W
O'Sullivan, P. J., Esq., 190, Worple Road, Wimbledon, S.W
Pritchard, E. J., Esq., 33, West Side, Wandsworth Common
Quiller, C. T., Esq., 97, Larkhall Rise, Clapham, S.W.
Randall, M., F.R.C.S., The Lodge, Leopold Rd., Wimbledon
Rayner, W. H., Esq., Wandsworth Union Infirmary, St. John's Hill, S.W.
Rees, W. A., M.B., Bolingbroke Hospital, Wandsworth Common, S.W.
Richards, J. T., M.B., 67, Thurleigh Road, Balham, S.W.
Richardson, G., M.R.C.P., Hillside, Putney Hill, S.W.
Richmond, R., M.D., Brookfield, Woodside, Wimbledon
Robertson, F. W., M.D., 37, Lingfield Road, Wimbledon
Robertson, W. J., Esq., 194, High Street, Clapham, S.W.
Robinson, Mark, Surgeon-Major I.M.S., 79, East Hill, Wandsworth, S.W.
Roe, A. D., M.B., 84, Upper Richmond Rd., Putney, S.W.
Rolleston, J. D., M.D., Grove Hospital, Tooting, S.W.
Ross, C. J., M.B., 53, Bedford Road, Clapham, S.W.
Rowat, John, M.D., Lynton, Upper Tooting, S.W.
Rowbotham, E. J., Esq., Narbonne Av., Clapham Com., S.W.
Sampson, H. M., Esq., 28, Ritherdon Road, Upper Tooting, S.W.
Sellors, T. B., Esq., 14, Emmanuel Road, Balham, S.W.
Shattock, S. G., Esq., 4, Crescent Road, Wimbledon
Sheard, W. F., Esq., 318, Upper Richmond Rd, Putney, S.W.
Shearer, D. F., M.B., 48, Up. Richmond Road, Putney, S.W.
Sheppard, W. J., M.D., 235, Up. Richmond Rd., Putney, S.W.
Simpson, G. W., Esq., The Grange, Spencer Park, Wandsworth Common, S.W.
Smith, W. W., M.D., 36, St. George's Road, Wimbledon
Smyth, James, M.B., 77, Falcon Road, S.W.
Snowden, A. de W., M.B., 25, Carlton Rd., Putney Hill, S.W.
Souter, J., M.B., 90, Merton Road, Wimbledon S.W.
Spurgin, Percy B., Esq., 180, Merton Road, Wimbledon
Stiell, Gavin, M.D., 54, Elms Road, Clapham Common, S.W.
Stocks, F., Esq., 421, Wandsworth Road, S.W.
Sturdy, H. C., M.D., 45, Bolingbroke Grove, Wandsworth Common, S.W.
Swallow, A. J., M.B., 61, South Side, Clapham Com., S.W.
Tarson, J. A., Esq., Holmwood, Crescent Grove, Clapham Common, S.W.
Taylor, Wm., M.B., High Road, Upper Tooting, S.W.
Thomson, F. H., M.D., Fountain Hospital, Tooting, S.W.
Thorpe, W. G., M.D., 270, High Road, Balham, S.W.
Thyne, J. T., M.B., 101, Earlsfield Road, S.W.
Turner, H. S., Esq., 211, Bridge Road, Battersea, S.W.
Turner, W. D., M.D., 2, Nightingale Square, Balham, S.W.
Twigg, R. C., M.B., 27A, Nightingale Lane, Balham, S.W.
Tyrrell, E. J., M.B., 13, Defoe Road, Tooting Graveney, S.W.
Valérie, J., Esq., Gothic H'se Devonshire Rd., Balham, S.W.
Verdon-Roe, S., M.B., 47, West Hill, Wandsworth, S.W.
Walker, G., Esq., 39, Worple Road, Wimbledon
Wallace, J. B., M.B., 39, Battersea Rise, S.W.
Westbrook, E., Esq., 39, Old Town, Clapham, S.W
White, E. F., F.R.C.S., 388, Upper Richmond Road, Putney
Wilcox, R. L., Esq., Grove Hospital, Tooting Grove, S.W.
Wilson, G. D., Esq., 25, Larkhall Rise, Clapham, S.W.
Williams, Llewellyn, Esq., 84, West Hill, Putney, S.W.
Wonnacott, R. R. H., Esq., 127, St. John's Hill, S.W.
Worth, R., M.B., Middlesex County Asylum, nr. Tooting

No. 14.—Watford Division

NUMBERING 47.

Chairman,
Vice-Chairman,
Honorary Secretary,

Representative for Representative Meeting.
J. D. Windle, M.D., Chippenham Lodge, Southall, W.

Allen, W. H., M.D., Clodiagh, Stanmore, Middlesex
Alexander, J. F., M.B., Glendale, Cassis Road, Watford
Batterbury, R. L., M.D., Berkhamsted
Bellamy, H. F., M.D., Abbots Langley
Berry, F. Haycraft, M.D., Watford
Bontor, S. A., M.D., Great Berkhamsted
Brooks, C., Esq., Gold Hill, Gerrard's Cross
Brown, Andrew, M.D., Royston Park Road, Pinner
Brown, James, M.B., Harvieston, Tring
Buchanan, A., M.B., 20, Station Road, Watford
Burnet, John D., M.B., Faithfie House, Watford
Butler, G. H., Esq., Raven's Court, Wealdstone
Cox, Alfred E., Esq., 58, High Street, Watford
Dane, Harold, Esq., Danehurst, Northwood
de Korté, W. E., M.B., Moy Lodge, Moss Lane, Pinner
Dore, S. E., M.B., Pinner Hill, Pinner
Duncan, H. M., M.D., Roxborough Park, Harrow
Edkins, J. S., M.B., Brambles, Northwd., R.S.O.
Edwards, G. M., M.B., Bessborough Road, Harrow-on-Hill
Fisher, F. C., Esq., King's Langley, Herts
Gruggen, W., Esq., 67, Durban Road, Watford
Handson, Mary A., L.R.C.P., 1, Rickmansworth Road, Watford
Hatch, H. L., Esq., Chestnut Cottage, Pinner
Haythornthwaite, Mrs. I. M., L.R.C.P., Agra Lodge, Northwood
Hildige, H. J., Esq., Brookfield, Pinner
Hudson, J. S., M.D., Sarratt Hall, Rickmansworth
Jacob, A. H., Esq., Hinds Road, Harrow
Jones, H. S. W., M.B., Poplar Cottage, Harrow
Lathbury, E. B., Esq., Chippenfield, King's Langley
Lathbury, F. R., Esq., Penmans, Chipperfield, King's Langley
Lomax, Montagu, Esq., Vernon House, Berkhamstead
McBride, J. B., Esq., The Laurels, Berkhamsted
Macnamara, N. C., F.R.C.S., The Lodge, Chorley Wood
Myers-Ward, C. F., Esq., Kelvin House, Green Lane, Northwood
Oddie, S. J., M.D., Chess-side, Copthorne Rd., Croxley Grn.
Porter, C. R., Esq., The Limes, Great Berkhamsted
Rendle, A. R., Esq., Aston, Warrington Road, Harrow
Reynolds, F. E., Esq., Inglefield, St. Albans Road, Watford
Rhind, T., Esq., Vivian Cottage, Stanmore
Rudyard, H. A., Esq., 103, St. Albans Road, Watford
Scott, S. R., M.S., Melverley House, Hatch End
Smith, J. C., Esq., Woodbyne, Hallowell Rd., Northwood
Steele, R., M.D., Hemel Hempstead
Thompson, Maitland, Esq., The Marlowes, Hemel Hempstd
Welsford, A. G., M.D., 20, Marlowes, Hemel Hempstead
Wilson, D., M.D., Elstree House, Bushey Heath
Wimble, H. C., Esq., Oatlands, New Bushey

No. 15.—Westminster Division

NUMBERING 258.

Chairman, J. Bland-Sutton, Esq., 47, Brook Street, W.

Vice-Chairman, G. E. Haslip, M.D., 8, Suffolk Place, S.W.

Honorary Secretary and Treasurer, W. Knowsley Sibley, M.D., The Mansions, 70, Duke St., Grosvenor Sq., W.

Representative for Representative Meeting.
W. Ewart, M.D., 33, Curzon Street, W.

Representatives on Branch Council.

Dauber, J. H., Esq.
Ewart, W., M.D.
Haslip, G. E., M.D.
Sibley, W. Knowsley, M.D

Executive Committee.

Baynes, D., Esq.
Cautley, E., M.D.
Dauber, J. H., Esq.,
Durham, F., M.B.
Ewart, W., M.D.
Hilliard, H., Esq.
Lloyd-Williams, E., Esq.
Longhurst, A. E. T., M.D.
McCann, F. J., M.D.
O'Connor, B., M.D.
Porter, H. E. B., M.D.
Rolleston, H. D., M.D.
Waggett, E. B., M.B.
Woods, Hugh, M.D.

Ackland, R. C., Esq., 54, Brook Street, W.
Addinsell, A. W., M.B., 10, Curzon Street, Mayfair, W.
Alden, Mrs. Margaret, M.D., 1, Woburn Square, W.C.
Allan, F. J., M.D., Westminster City Hall, W.C.
Archer, Thos. L., Esq., 83, Vincent Square, S.W.
Armitage, S. H. T., M.D., 39, Grosvenor Street, W.
Attlee, J., M.D., 58, Brook Street, W.
Baker, J. H., M.D., 5, Bedford Square, W.C.
Barlet, J. M., Esq., 99, Shaftesbury Avenue, W.
Barnard, Annie T., M.B., Chenies Street Chambers, W.C.
Batten, Mrs. Janette F. A. G., M.D., c.o. Messrs. Grindlay and Co., 54, Parliament Street, S.W.
Baynes, D., Esq., 43, Hertford Street, W.
Bennett, F. J., Esq., 17, George Street, Hanover Square
Bennett, N. G., M.B., 50, Brook Street, W.
Bennett, Sir William H., K.C.V.O., F.R.C.S., 1, Chesterfield Street, Mayfair, W.
Bernstein, Julius M., Esq., 36, Lincoln's Inn Fields, W.C.
Bigg, G. K. S., Esq., 169, Victoria Street, S.W.
Birt, Joseph, Esq. 29, Belgrave Road, S.W.
Black, J. W., M.D., 15, Clarges Street, W.
Bland-Sutton, J., F.R.C.S., 47, Brook Street W.
Bloxam, J. A., Esq., 75, Grosvenor Street, W.
Bond, C. K., Esq., 39, Great Pulteney Street, W.
Bond, W. A., M.D., 197, High Holborn, W.C.
Brabant T. H., Esq., 66, St. George's Road, S.W.
Brailey, A. R., F.R.C.S., 11, Old Burlington Street, W.
Brailey, W. A., M.D., 11, Old Burlington Street, W.
Branson, W. P. S., M.B., 59, Gordon Square, W.C.
Bremner, James, M.B., 26, Drury Lane, W.C.
Brincker, J. A. H., M.B., 57, Great Ormond Street, W.C.
Broadbent, Sir William H., Bart., K.C.V.O., M.D., 84, Brook Street, W.
Browne, J. A., M.B., 70, Russell Square, W.C.
Bull, J. Weston, M.D., 8, Guilford Place, W.C.
Burnet, R. W., M.D., 36, Grosvenor Street, W.
Butler-Smythe, A. C., Esq., 76, Brook Street, W.
Buzzard, T., M.D., 74, Grosvenor Street, W.
Byles, J. B., M.B., 5, Sackville Street, W.
Cautley, E., M.D., 15, Upper Brook Street, W.
Champneys, F. H., M.D., 42, Upper Brook St., W.
Clarke, J. F. H., M.D., 99, Shaftesbury Avenue, W.
Collier, W. A., Esq., 36, Great Smith Street, S.W.
Colyer, S. W. R., Esq., Charing Cross Hospital, W.C.
Cook, J. C., Esq., 11, Store Street, W.C.
Cooper, Arthur, Esq., 20, Old Burlington Street, W.
Cooper, A. E., M.D., 29, Eccleston Street, S.W.
Cope, A. E., M.D., 25, Bessborough Gardens, S.W.
Cope, G. E., Esq., 10, Roehampton St., Bessboro' G'dens, S.W.
Copeman, S. Monckton, M.D., F.R.S. Local Govt. Board, Whitehall, S.W.
Corrie, A. T., Fleet Surg., R.N. (ret.), Junior United Service Club, S.W.
Couper, J., M.D., 80, Grosvenor Street, W.
Cottle, E. W., M.D., 39, Hertford Street, W.

Cox, E. M., M.D., 38A, Curzon Street, W.
Critchley, H. F., M.D., 166, Ebury Street, S.W.
Curtis, H. J., F.R.C.S., 2, Richmond Terrace, Whitehall, S.W.
Dalton, Gerald, Esq., Cranbourne Mansions, W.C.
Dauber, J. H., M.B., 29, Charles Street, Berkeley Sq., W.
Davies, W. E. L., Esq., 3, Lincoln's Inn Fields, W.C.
De Castro, Geo., Esq., 79, Davies Street, Berkeley Sq., W.
Delbruck, R. E., M.B., Embankment Chambers, Villiers Street, W.C.
Dent, C. T., Esq., 61, Brook Street, W.
Des Vœux, H. A., M.D., 14, Buckingham Gate, S.W.
Dobie, Robt. D., M.D., 8, West Chapel Street, Mayfair, W.
Douglas, J. S. C., Esq., St. George's Hospital, S.W.
Downes, A. H., M.D., Local Govnt. Board, Whitehall, S.W.
Duckworth, Sir Dyce, M.D., 11, Grafton Street, W
Duncan, Andrew, M.D., Lieut.-Col., I.M.S. (ret.), 24, Chester Street, S.W.
Duncan, Duncan, Esq., 19, Eccleston Street, S.W.
Duncan, G. C., M.D., Charing Cross Hotel, W.C.
Durham, F., F.R.C.S., 52, Brook Street, W.
Dutch, H., Esq., 8, Berkeley Street, W.
Edmunds, Arthur, M.B., 24, Old B'd'gs, Lincoln's Inn, W.C.
Edmunds, P. J., M.B., 5, Great Marlborough Street, W.
Elcum, Lieutenant-Colonel D., I.M.S., retired, 92, Gloucester Street, Pimlico, S.W.
Elder, A. V., Esq., St. George's Hospital, W.
Evans, J. Howell, F.R.C.S., 63, Grosvenor Street, W.
Evatt, G. J. H., Surg.-Gen., C.B., R.A.M.C., Junior United Service Club, S.W.
Ewart, W., M.D., 33, Curzon Street, W.
Farrar, R. A., M.D., Local Government Board, Whitehall, S.W.
Fausset, Andrew G., M.D., 66, Belgrave Road, S.W.
Fenwick, E. H., Esq., 14, Savile Row, W.
Fielding-Ould, R., M.D., 94, Mount Street, W.
Flux, G. B., M.D., 5, Old Burlington Street, W
Forsyth, L. W., Esq., 24, George Street, Hanover Sq., W.
Foster, The Right Hon. Sir Walter, P.C., M.P., M.D., LL.D., 30, Grosvenor Road, S.W.
Fowler, J. K., M.D., 35, Clarges Street, W.
Fuller, H. Roxburgh, M.V.O., M.A., M.D., 45, Curzon St, W.
Gee, Samuel J., M.D., 31, Upper Brook Street, W.
Glanville, F. F., Esq., 10, Hill Street, Rutland Gate, S.W.
Gray, St. George, M.B., 37, Bedford Place, W.C.
Godson, Clement, M.D., 82, Brook Street, W.
Goodbody, F. W., M.D., 6, Chandos Street, W.
Gould, W. R., Esq., 11, Lamb's Conduit Street, W.C.
Griffith, G. de G., Esq., 34, St. George's Square, S.W.
Haig, A., M.D., 7, Brook Street, W.
Hall, J. Field, M.B., 71 and 72, Strand, W.C.
Hamerton, G. A., F.R.C.S., 57, Russell Square, W.C.
Hamilton, John, Esq., 10, Chester Square, S.W.
Haslip, G.E., M.D., 8, Suffolk Place, Pall Mall, S.W.
Hastings, G., M.D., 25, Albemarle Street, W.
Hayes, T. C., M.D., 17, Clarges Street, W.
Hearn, L. J. C., M.B., 62, Guilford Street, W.C.
Hebb, R. G., M.D., Westminster Hospital, S.W.
Hicks, F. J., M.B., 68, Buckingham Gate, S.W.
Higgens, C., Esq., 52, Brook Street, W.
Hill, J. H., M.D., 2, Bedford Square, W.C.
Hilliard, H., Esq., 30, Wilton Place, Belgrave Square, S.W.
Holland, E. W., Esq., 14, Vincent Square, S.W.
Holmes, G. M., M.B., National Hospital, Queen Sq., W.C.
Holmes, W. R., M.D., 14, Old Burlington Street, W.
Hood, D. W. C., M.D., 43, Green Street, W.
Horrocks, P., M.D., 42, Brook Street, W.
Hurlbutt, Spencer, Esq., 15, Old Burlington Street, W.
Hutcheson, G., M.B., 45, Pall Mall, S.W.
Ingram, R. E. T., M.D., 149, Warwick Street, S.W.
Isaac, G. W., M.B., 75, Gower Street, W.C.
Isdell, FitzG., M.D., 189, Shaftesbury Avenue, W.C.
Jacques, E., M.D., 1, Gt. James St., Bedford Row, W.C.
Jessett, F. B., F.R.C.S., 23, Brook Street, W.
Johnstone, R. W., Esq., Local Government Board, Whitehall, S.W.
Joly, J. Swift, M.D., 91, Dean Street, Soho, W.
Keetley, C. R. B., Esq., 56, Grosvenor St., Grosvenor Sq., W.
Kidd, P., M.D., 60, Brook Street, Grosvenor Square, W.
Krakowsky, A., Esq., Royal Societies' Club, St. James's Street, S.W.
Kynsey, H. A., Esq., 12, Priory Grove, The Boltons, S.W.
Laking, Sir Francis H., Bart., G.C.V.O., M.D., 62, Pall Mall, S.W.
Lang, Jackson, Esq., 16, Old Burlington Street, W.
Lavies, H. B., M.B., 61, St. George's Rd., Warwick Sq., S.W.
Lawson, J. W., Esq., Albany Chambers, York Street, Westminster, S.W.
Legge, T. M., M.D., Home Office, Whitehall, S.W.
Leney, Lydia, M.D., 93, Gower Street, W.C.
Lewis, W. H. P., Major R.A.M.C. (ret.), 8, Gloucester Street, S.W.
Light, E. M., M.B., 2, Wilton Place, Belgrave Sq., S.W.
Lister, T. David, M.D., 50, Brook Street, W.
Lloyd-Williams, E., Esq., 11, Buckingham Gate, S.W.
Longhurst, A. E. T., M.D., 26, Lower Belgrave Street, S.W
Longhurst, Percy A., Esq., 28, Old Burlington Street, W.
Low, G. C., M.B., Royal Societies Club, S.W.
Lubbock, M., M.D., 19, Grosvenor Street, W.
Lumsden, T. W., M.D., 13, South Eaton Place, S.W.
Lyon, Thos. G., M.D., Victoria Sq., S.W.
McCann, F. J., M.D., 5, Curzon Street, Mayfair, W.
McElwaine, P., Esq., 21, Great St. Andrew Street, W.C.
McHardy, M. M., Esq., 5, Savile Row, W.
McIntosh, J. W., M.B., 3, Upper Bedford Place, W.C.
Mackenzie, H. W. G., M.D., 34, Upper Brook Street, W.
MacRae, F., M.B., 27A, Lowndes Street, S.W.
Makins, G. H., C.B., F.R.C.S., 47, Charles St., Mayfair, W.
Manby, E. P., M.D., Local Govt. Board, Whitehall, S.W.
Manders, Horace, F.R.C.S., 48, Dover Street, W.
Marsh, G. W. B., Esq., 40, Tachbrook St., S.W.
Martin, H. C., M.D., The Reform Club, Pall Mall, S.W.
Matthews, H. N., Esq., 3, Whitehall Court, S.W.
Matthews, V., Esq., 22, Suffolk Street, Pall Mall, S.W.
Maudsley, H., M.D., 12, Queen Street, Mayfair, W.
Maw, George, Esq., 37, Torrington Square, W.C.
Maynard, J. S., M.B., 4, Child's Street, St. James's Sq., W.
Michie, W. A., M.D., 15a, Gower Street, W.C.
Milligan, W. A., M.B., 63, Park Street, Grosvenor Square, W.
Mitchell, Alex., M.D., 87, Regent Street, W.
Moon, R. O., M.D., 59, Green Street, W.
Morgan, John H., C.V.O., F.R.C.S., 68, Grosvenor Street, W.
Morley, A. S., F.R.C.S., 29, Gower Street, W.C.
Morris, C. A., C.V.O., M.B., 28, Chester Square, S.W.
Murray, George, Esq., Queen Anne's Mansions, St. James's Park, S.W.
Myers, A. B. R., Brig.-Surg.-Lt.-Col., 43, Gloucester St., S.W.
Myott, E. C., M.B., 26, Woburn Place, W.C.
Naumann, J. C. F., M.D., 12, Bedford Square, W.C.
Newman, G., M.D., 2, Woburn Square, W.C.
Nitch-Smith, R., Esq., 10, New Bond Street, W.
Norton, J., M.D., 54, Queen Anne's Gate, S.W.
O'Connor, B., M.D., 22, Old Buildings, Lincoln's Inn, W.C.
O'Connor, T. B., Esq., 2, Arlington Street, W.
O'Donnell, J. J., Esq., 65, Judd Street, W.C.
Oliver, J., M.D., F.R.S.Edin., 18, Gordon Square, W.C.
Orr, H. H., M.D., 2, Bennett Street, St. James's Street, S.W.
Owen, H., M.B., 58, Ebury Street, S.W.
Palmer, F. S., M.D., 7, Gordon Place, Gordon Sq., W.C.
Paramore, R., M.D., 2, Gordon Square, W.C.
Parsons, J. Inglis, M.B., 3, Queen Street, W.
Pattison, E. Seton, Esq., 5, Iddesleigh Mansions, Victoria, S.W.
Pavy, F. W., M.D., LL.D., F.R.S., 35, Grosvenor Street, W.
Pearse, F. J., Esq., 75, Warwick Square, S.W.
Petrie, R. O., M.D., 11, Woburn Place, W.C.
Phillipps, Wm. A., M.D., 13, John Street, Berkeley Square, W.
Phillips, J., M.D., 68, Brook Street, W.
Phillips, S. P., M.D., 3, Upper Brook Street, W.
Philpot, J. H., M.D., 61, Chester Square, S.W.
Playfair, H. J. M., M.D., 7, Upper Brook Street, W.
Porter, H. E. B., M.D., 6, Grosvenor Street, W.
Potter, B. E., M.B., 37, Park Street, W.
Poulter, A. R., Esq., 67, Gordon Mansions, Francis St., W.C.
Pye-Smith, P. H., M.D., F.R.S., 48, Brook Street, W.
Rajasingham, A., M.B., 103, Guilford Street, W.C.
Ramsay, H. M., Esq., 35A, Hertford Street, W.
Ray, E. R., Esq., 15A, Upper Brook Street, W.
Reid, Sir James, Bt., G.C.V.O., K.C.B., M.D., 72, Grosvenor Street, W.
Reynolds, J. H., V.C., M.B., Lt.-Col., A.M.S. (ret.), 56, Denbigh Mansions, Denbigh Street, S.W.
Rich, E. A., Esq., 12, Wilton Street, S.W.
Richards, H. E. Sutherland, M.B., 30, Grosvenor Sq., W.
Roberts, E. A., M.D., 33, Lowndes Street, S.W.
Robson, H. N., Esq., Junior Constitutional Club, Piccadilly, W.
Roche, R., Esq., 18, Bessborough Gardens, S.W.
Rolleston, H. D., M.D., 55, Upper Brook Street, W.
Ross, F. W. Forbes, M.D., 15, Gower Street, W.C.
Rowe, R. M., M.D., French Hospital, 172, Shaftesbury Avenue, W.C.
Rygate, D. J., Esq., 13, Upper Bedford Place, W.C.
Sapp, J. G. V., M.B., 16, King William Street, W.C.
Sayer, Ettie, M.B., 39, Brook Street, W.
Seaton, E. C., M.D., 93, St. George's Square, S.W.
Shaw-Mackenzie, J. A., M.D., 42, Green St., Park Lane, W.
Shea, H. F., Capt., R.A.M.C., 48, Grosvenor Road, Westminster, S.W.
Sibley, W. K., M.D., The Mansions, 70, Duke Street, Grosvenor Square, W.
Simmons, G. A., M.D., 216, Ashley Gardens, S.W,
Simson, H. J. F., M.D., 36, Grosvenor Street, W.
Sinclair, J. E., Esq., 1, Queen Anne's Gate, S.W.
Sing, W. MacD., M.D., 26, Southampton Street, W.C.
Slater, C., M.B., 81, St. Ermin's Mansions, S.W.
Slight, G., M.D., 14, Old Burlington Street, W.
Smallpeice, W. D., Esq., 10, Chester Square, S.W.
Smalley, H., M.D., Home Office, Whitehall
Smith, W. R., M.D., 74, Gt. Russell Street, W.C.
Spencer, W. G., M.B., 35, Brook Street, W.
Stivens, B. H. L., M.D., 107, Park St., Grosvenor Sq., W.
Stoker, George, C.M.G., 14, Hertford St., Mayfair, W.
Stratton, P. H., Esq., Royal Society's Club, S.W.
Sweeting, R. D. R., M.B., 34, Carlisle Mansions, Victoria Street, S.W.
Taylor, Alice, L.R.C.P., 128, Piccadilly, W.
Taylor, E. J. D., Esq., St. George's Hospital, S.W.
Thompson, Prof. Peter, M.D., King's College, W.C.
Thomson, Theo., C.M.G., M.D., Local Government Board, Whitehall, S.W.
Tomlinson, J. H., Esq., 25, Southampton Buildings, W.C.
Trench, F. P., M.B., 7, Bennett Street, S.W.
Troutbeck, H., M.B., 151, Ashley Gdns., Westminster, S.W.
Tuckey, C. L., M.D., 88, Park Street, Grosvenor Square, W.
Turner, G. R., Esq., 41, Half Moon Street, W.
Turner, Rosa, L.R.C.P., 17, Gower Street, W.C.
Twomey, G. R., M.B., c.o. Messrs. H. S. King and Co., 9, Pall Mall, S.W.
Usher, J. E., M.D., Royal Societies' Club, St. James's Street, S.W.
Verdon, M. J., M.B., 37, Craven Street, W.C.
Vernon, Ethel M., M.B., 87, Gower Street, W.C.
Vernon-Jones, L., M.D., 7, Arlington Street, S.W.
Vinrace, J. H., M.B., 83A, Gower Street, W.C.
Waggett, E. B., M.B., 45, Upper Brook Street, W.
Walsh, David, M.D., 18A, Hanover Street, W.
Wanklyn, W. McC., Esq., 8, St. Martin's Place, W.C.
Weber, Sir Hermann, M.D., 10, Grosvenor Street, W.
Westman, S. H. Esq., 37, Torrington Sq., W.C.
Wharry, H. G., Esq., 56, Park Street, W.
Whitehouse, A. L. W., Esq., 139, Victoria Street, S.W.
Widdup, J. C. P., Esq., c.o. Messrs. Grindlay and Co., 54, Parliament Street, S.W.
Wightwick, F. P., M.D., 9A, Upper Brook Street, W.
Williams, C., F.R.C.S., 20, Bedford Square, W.C.
Williams, C. T., M.D., 2, Upper Brook Street, W.
Williams, Dawson, M.D., 429, Strand, W.C.
Woods, Hugh, M.D., 31, Craven Street, W.C.
Yeates, E., F.R.C.S.I., Melbourne House, Bedford Pl., W.C.
Yeo, I. Burney, M.D., 44, Hertford Street, Mayfair, W.
Young, C. W. F., M.D., County Council of Middlesex, Guildhall, Westminster
Yule, B., Esq., 5, Bedford Square, W.C.

MIDLAND BRANCH.

Comprising the Counties of DERBY, LEICESTER, RUTLAND, NOTTINGHAM, and LINCOLN (except the Glossop District of Derbyshire, Grimsby Borough, and the Brigg Parliamentary Division of Lincolnshire).

RECOGNISED 1851.

Members of Branch—540.

President, F. M. POPE, M.D., Leicester.
President-elect, E. M. SYMPSON, M.D., Lincoln
Vice-President.
A. CHAWNER, Esq., Clay Cross
Honorary Secretary and Treasurer for Branch.
ASTLEY V. CLARKE, M.D., 37, London Road, Leicester
Representatives on Council of Association.
Carline, W. A., M.D.
Pope, F. M., M.D.

Branch Council.
Blakesley, H. J., F.R.C.S.
Boobbyer, P., M.D.
Boswell, A., M.D.
Broadbent, F., Esq.
Cassidi, F. R., M.D.
Handford, H., M.D.
Harrison C. M.D.
Jacob, F. H., M.D.
Pratt, R., M.D.
Rowe, W. T., M.D.
St. John, W. St. A., Esq.
Sevestre, R., M.D.
Tibbles, J. T., Esq.
Wilson A. E., M.B.

No 1.—Boston and Spalding Division

NUMBERING 34.
Chairman, W. H. Smith, Esq., Boston
Vice-Chairman, W. F. Miller, M.B., Boston
Honorary Secretary and Treasurer, A. E. Wilson, M.B., Beech House, Boston
Representative on Branch Council.
Wilson, A. E., M.B.
Representative for Representative Meeting.
F. S. Genney, M.B., Lincoln.
Executive Committee.
Allan, A. W., Esq.
Coleman, J. G. B., Esq.
Galloway, P., M.B.
Howes, H. A., Esq.
Mann, F. W. S., Esq.
Mason, F. W., Esq.
Miller, W. F., M.B.
Moxham, M. C., Esq,
Pilcher, C. W., Esq.
Slocock, R., Esq.
Taylor, D. E. P., Esq.

Allan, A. W., Esq., Wainfleet
Armitage, R., Esq., Wainfleet
Bosson, G., Esq., Alford
Cazenove, W. R., M.B., Beechurst, Long Sutton
Coleman, J. G. B., Esq., Endeley House, Sutton Bridge
Cropley, A., Esq., Croft House, Wainfleet
Cuffe, E. M., M.D., Woodhall Spa
Dickman, H. G., M.B., Little Bury, Holbeach
Galloway, P., M.B., 16, The Terrace, Spalding
Gray, J. C., Esq., Telford, Horncastle
Henry, E., Esq., Long Sutton
Howes, H. A., Esq., Horncastle
Husband, F., Esq., Crowland
McLay, Robert, M.D., Horncastle
McNabb, A. A. J., M.B., Withern
Mann, F. W. S., Esq., Bridge House, Revesby
Mason, F. W., Esq., 45, West Street, Boston
Menzies, James M., M.D., Brunswick Ter., Long Sutton
Miller, W. F., M.B., Wrangle, Boston
Moxham, M. C., Esq., Stickney, Boston
Perry, M., M.D., Spalding
Pilcher, C. W., Esq., Boston
Slocock, R., Esq., Aveland House, Spilsby
Smith, W. H., Esq., 25, Penn Street, Boston
South, R. E. E., Esq., Church Close, Boston
Spilsbury, F. J., Esq., Hogsthorpe, Alford
Tate, Samuel, M.D., The Elms, Gosberton, Spalding
Taylor, D. E. P., Esq., Sibsey, Boston
Walker, J. W., M.B., Spilsby
Walls, E. G., Esq., The Kiln House, Burgh, R.S.O.
Williams, C. J., Esq., Woodhall Spa
Wilson, A. E., M.B., Beech House, Boston
Witham, Henry, Esq., Kirton, Boston
Wrinch, E. P., M.B., Wide Bargate, Boston

No. 2.—Derby Division

NUMBERING 138.
Chairman, E. Collier Green, Esq., Friar Gate, Derby
Vice-Chairman, W. Benthall, M.B., 102, Friar Gate, Derby
Honorary Secretary and Treasurer, W. St. A. St. John Esq., 16, Duffield Road, Derby
Representative for Representative Meeting.
W. St. A. St. John, Esq., 16, Duffield Road, Derby
Representatives on Branch Council.
Boswell, A., M.D.
Cassidi, F. R., M.D.
Chawner, A., Esq.
St. John, W. St. A., Esq.
Executive Committee.
Buckley, C. W., M.D.
Lorimer, G., M.D.
Moxon, W., M.D.
Southern, J. A., Esq.

Allen, R. G., Esq. Belper
Allum, A. S., M.B., Staveley, Chesterfield
Anderson, W. S., M.D., Chapel-en-le-Frith
Anderton, J. E., Esq., New Mills
Armstrong, Wm., Esq., Thorncliffe, Buxton
Arundel, Robert J., M.D., 56, Friar Gate, Derby
Barrett, H., M.B., 83, Friargate, Derby
Barron, T. A., Esq., Spondon, Derby
Barwise, Sidney, M.D., 1, Cumber Hill, Duffield
Benson, J. A., Esq., The Butts, Ashover, Chesterfield
Benthall, W., M.B., 102, Friar Gate, Derby
Bingham, J. J., M.D., Alfreton
Bishop, Robert, M.B., Thorncliffe, Buxton
Bloomer, F. W., Esq., Long Eaton
Booth, G., M.D., J.P., Holywell House, Chesterfield
Borough, F., Esq., 18, St. Alkmund's Churchyard, Derby
Boswell, A., M.D., Ashbourne, Derby
Braithwaite, John, M.D., 2, Hardwick Mount, Buxton
Broster, A. E., Esq., Wirksworth
Brown, James A., M.B., 112, Kedleston Road, Derby
Buckley, C. W., M.D., 1, Hardwick Mount, Buxton
Buckley, John, Esq., Hasland, Chesterfield
Bury, A. T., Esq., Sheen, Buxton
Cadman, E. S. R., M.D., Horsley-Woodhouse, near Derby
Cassidi, F. R., M.D., 43, Trinity Terrace, Derby
Chambers, A. B., M.D., College Road, Long Eaton
Chapman, William, Esq., Rock Villas, New Mills
Chawner, A., Esq., Clay Cross, Chesterfield
Copestake, W. G., Esq., Duffield Road, Derby
Corkery, T., M.D., Alfreton
Court, A., M.B., Hampton Villa, Staveley, Chesterfield
Court, J., Esq., Staveley, Chesterfield
Crarer, Edward, M.B., Knowleston Place, Matlock Bridge
Cronk, H. C., M.B., Repton
Croskery, W. B., Esq., Springfield House, Eckington
Curgenven, W. G., M.D., 1, Friargate, Derby
Daniell, H. P., Esq., Osmaston Road, Derby
Dickson, James, Esq., Mayfield House, Long Eaton
Dingle, E. D., M.B., 254, Normanton Road, Derby
Donald, A., M.B., Draycott
Druitt, C. F., Esq., London Road, Alvaston
Duncan, W., M.B., Clay Cross, near Chesterfield
Eames, E. V., Esq., Heanor
Edmunds, F., Esq., Avenue House, Chesterfield
Evans, C. W., M.D., Bakewell
Fentem, P. S., M.D., Bakewell
Fentem, T., M.D., Catcliff, Bakewell
Fletcher, H. B., Esq., Dronfield
Flint, T. B., Esq., 22, Hardwick Street, Buxton
Frost, F. T., Esq., 28, Ashbourne Road, Derby
Gale, A. K., Esq., Norton Woodseats
Gaylor, Edward, Esq., Belper
Gentles, R. W., Esq., 47, Hartington Street, Derby
Gill, G. B., M.B., The Gables, Belper
Goodfellow, J. A., M.B., New Brampton, Chesterfield
Greaves, C. A., M.B., Derby
Greaves, F. L. A., Esq., Friar Gate, Derby
Green, E. Collier, Esq., 27, Friar Gate, Derby
Greene, Helen, M.D., 65, Friar Gate, Derby
Greenhalgh, T., Esq., Corbar Road, Buxton
Greenhough, B. J., M.B., Chapel-en-le-Frith
Hall, A., Esq., Waterhouses, Ashbourne
Halpin, J. E., Esq., South Normanton
Harburn, J. E., Esq., 8, Broad Walk, Buxton
Harcourt, C. H., M.B., Mayfield, Pinxton
Harcourt, J. C., M.B., Walker House, Derwent
Harvey, G., Esq., Wirksworth
Heath, A., M.D., 24, Normanton Road, Derby
Hodson, T. G. S., M.D., 10, Terrace Road, Buxton
Hogg, J. A., Esq., Shardlow near Derby
Holland, R. C. B., M.D., Matlock
Hunt, J. A., Esq., Brookfield, Borrowash, near Derby
Hunter, W. M., M.D., Hunterston, Eckington, Chesterfield
Iliffe, C. W., Esq., 6, The Gables, Derby
Johnston, R. A., Esq., Belper
Joyce, J. H., M.B., Woodville, Burton-on-Trent
Kewley, A. G., Esq., 268, Burton Road, Derby
Kilvert, J. E., Esq., 43, Stafford Street, Derby
King, J. W., M.B., Osmaston Road, Derby
Knox, J., M.D., Bakewell
Lander, H. W. G., M.B., Hathersage
Laurie, R., M.D., Lorne Villa, Osmaston Road, Derby
Leary, E. G., Esq., High Street, Alfreton
Lee, J. A., M.B., Eyam
Lee, W. H., Esq., Pilsley, near Chesterfield
Le Fanu, H. G. P., Esq., Derwent House Duffield Road Derby
Legge, R. J., M.D., County Asylum, Mickleover, Derby
Legge, W., Esq., 45, Friar Gate, Derby
Livesay, W., M.D., Sudbury, Derby
Lochrane, F. J., M.D., 64, Friargate, Derby
Lorimer, G., M.D., Buxton
Luce, R. H., M.B., 42, Friargate, Derby
Macdonald, G. G., M.D., Crich, near Matlock Bath
Mackay, Wm. H., Esq., 11, Wilson Street, Derby
Macphail, S. R., M.D., Borough Asylum, Derby
Magee, J. A., Esq., Clown, near Chesterfield
Marriott, F., Esq., Tibshelf, Alfreton
Moir, J. H., M.D., Newhall, Burton-on-Trent

Moore, P. W., M.B., Huntingdon House, Melbourne
Morrison, Robert, Esq., Gervase House, Duffield, Derby
Mosley, R. L., M.B., Long Eaton
Moxon, W., M.D., West View, Matlock Bridge
Murphy, A. E., Esq., Sandiacre, near Nottingham
Parke, J. L., Esq., Tideswell
Parkhill, S. J., M.D., Church Gresley, Burton-on-Trent
Parry-Jones, M., M.D., 4, Full Street, Derby
Peck, Herbert, M.D., 18, Gladstone Road, Chesterfield
Pern, L., Esq., 86, Osmaston Road, Derby
Pilcher, A. McL., M.B., Colin Green House, Mosborough
Potter, Chas. E., M.D., Rosehill House, Derby
Reid, W. J., Esq., Randolph Road, Derby
Rice, G., M.D., 46, Friar Gate, Derby
Riding, E., Esq., The Grove, Etwall
Rowan, S. F., Esq., Derby
Sadler, E. A., M.D., Ashbourne
St. John, W. St. A., Esq., 16, Duffield Road, Derby
Sawdon, F. R., M.B., Clifton Bank, Fairfield, Buxton
Sharpe, W. C., M.D., Matlock Bridge
Shea, J. G., M.D., J.P., Eastwood House, Chesterfield
Shepherd, H. D., M.B., 45, Kedleston Road, Derby
Sims, G. S., M.D., 57, Green Hill, Derby
Smith, W. B. A., M.D., The Limes, Belper
Southern, J. A., Esq., 93, Friar Gate, Derby
Stratton, William, Esq., Bolsover
Taylor, C. H., M.B., Charnwood House, Osmaston Rd., Derb
Thompson, G. H., Esq., The Quadrant, Buxton
Thomson, George, M.B., Codnor
Thornton, F. B., M.B., Osmaston Road, Derby
Tobin, J. J., M.D., Ilkeston
Tredinnick, A. S., Esq., The Poplars, Melbourne
Turpin, D. W. M., Esq., Dunamaise, Alvaston, Derby
Vaudrey, Edmund, M.D., 63, Friar Gate, Derby
Wilson, R. M., M.D., Estcourt, Kedlestone Road, Derby
Wood, R., Esq., Ilkeston
Worthington, S., M.D., Hurst House, Chesterfield
Wraith, E. A., Esq., 118, Osmaston Road, Derby
Wrench, E. M., Esq., Baslow, near Chesterfield
Wright, W. H., M.D., Cleveland House, Peartree Road, Derby

No. 3.—Leicester Division

NUMBERING 151.

Chairman, H. J. Blakesley, F.R.C.S., Leicester
Vice-Chairman, J. T. Tibbles, Esq., Melton Mowbray
Honorary Secretary, Robert Sevestre, M.D., 119, London Road, Leicester

Representative for Representative Meeting.
Robert Sevestre, M.D., 119, London Road, Leicester

Representatives on Branch Council.
Blakesley, H. J., F.R.C.S.
Pratt, R., M.D.
Sevestre, R. M.D.
Tibbles, J. T., Esq.

Executive Committee.
Ballard, R., Esq.
Davies, J. T. H., M.D.
Gibbons, W. E., M.D.
Lewitt, F. W., Esq.
Stamford, R. B., F.R.C.S.
Williams, M. W., Esq.

Adcock, Harold, Esq., Middleton, Market Harborough
Anderson, A. W., M.B., Leicester Infirmary, Leicester
Armitage, Frances, M.D., Highfield Street, Leicester
Arnold, W., Esq., Waltham, Melton Mowbray
Aslett, W. S., Esq., 296, Clarendon Park Road, Leicester
Atkinson, F. R. B., M.D., Ivanhoe Pl., Ashby-de-la-Zouch
Atkinson, S. E., Esq., Osgathorpe House, Loughborough
Austin, E. C., Esq., Broughton Astley
Baker, H. M., M.B., Boro' Asylum, Leicester
Ballard, R., Esq., 70, Northampton Rd., Mkt. Harborough
Barlow, A. E., M.B., 2, Melbourne Road, Leicester
Barnley, A. N., Esq., Kingswood Ldg., Wigston, Leicester
Barrett, C. W. S., M.B., Church Walk, Hinckley
Bedford, D. J., Esq., The Hermitage, Kegworth
Bedford, R. J., Esq., Kegworth
Bell, Thomas, M.D., Brooklyn House, Shepshed, Loughborough
Bennett, E., Esq., Bottesford
Bennett, F. W., M.D., 25 London Road, Leicester
Beresford, C. W., Esq., Narborough, near Leicester
Bernard, H. W., M.B., Overseal, Ashby-de la-Zouch
Berridge, W. R. M., Esq., Enderby, Leicester
Blakesley, H. J., Esq., 56, London Road, Leicester
Bond, C. J., Esq., 63, King Street, Leicester
Boreham, H. W., M.B., Blaby
Bremner, A. T., Esq., 92 London Road, Leicester
Broadbent, R., M.D., Park View, Granville Road, Leicester
Bryan, C. F., Esq., Humberstone Road, Leicester
Burkitt, J. C. S., M.D., The Old Vicarage, Whitwick
Carter, F. Bolton, M.D., 99, London Road, Leicester
Clarke, A. V., M.D., 37, London Road, Leicester
Clarke, C. H., M.B., Uppingham Road, Leicester
Clements, R. N., Esq., 81, Humberstone Gate, Leicester
Cogswell, P. D., Esq., Stony Stanton, near Hinckley
Coleman, A. T., Esq., 63, Highfield Street, Leicester
Corcoran, T., Esq., 25, Victoria Street, Loughborough
Crisp, J., Esq., Sunny Bank, Market Harborough
Crofts, G. H., Esq., 59, Highcross Street, Leicester
Crosby, T. V., M.D., 91, St. Peter's Road, Leicester
Crosfield, A. M., Esq., The Grange, Belgrave, Leicester
Crossley, C., Esq., New Walk Gates, Leicester
Davidson, A., Esq., Appleby-Magna
Davies, H. E., Esq., George Street, Lutterworth
Davies, J. T. H., M.D., 11, Bowling Green Street, Leicester
Day-Dewdney, E. L., Esq., Claybrooke Magna
Dixon, M., M.D., 17, High Street, Melton Mowbray
Dodd, John, M.D., 14, King Street, Leicester
Douglas, C., Esq., 59, Regent Road, Leicester
Durrant, T. A., Esq., Market Harborough
Eddowes, A. B. J., Esq., Loughborough
Eddy, J., Esq., 86, Battenberg Road, Leicester
Ellis, L. E., M.D., 48, Queen's Road, Leicester
Ellison, E. H., M.D., Brook Street, Syston
Emms, A. W., M.D., Belgrave, Leicester
Fagge, H. W., Esq., Lutterworth
Fagge, R. H., Esq., Latham House, Nottingham Street, Melton Mowbray
Finch, J. E. M., M.D., Borough Asylum, Leicester
Franklin, Geo. Cooper, F.R.C.S., 39, London Road, Leicester
Garfit, C. C., M.B., Kirby Muxloe
Gibbons, W. E., M.D., 1, Charles Street, Leicester
Glover, J. H., M.B., Bottesford
Hamilton, J. S., Esq., Shilton House, Coalville, Leicester
Harcourt, V. Y., Esq., Castle Donington, near Derby
Harris, G. J., Esq., Ansty, near Leicester
Harrison, Everard, M.B., 7, St. Martin's East, Leicester
Harrison, L. K., M.B., 330, Humberstone Road, Leicester
Hedley, W. T., M.B., Hallaton
Henry, R. W. W., M.D., Market Street, Leicester
Hicks, E. H., Esq., Wymeswold, Loughborough
Holmes, W. M., M.B., 2, Equity Road, Leicester
Holyoak, E. W., M.B., 2, Tower Street, Leicester
Hunter, Jas., M.D., East Avenue, Clarendon Pk., Leicester
Hutchinson, F. E., Esq., Belgrave, Leicester
Inchley, Orlando, M.B., 16, Victoria Street, Loughborough
Jamie, R. W., M.B., Coalville, Leicester
Jeffares, J., Esq., Kegworth, Derby
Jenkins, A. W., M.B., Hinckley
Jenkins, E. L., Esq., Hinckley
Johnston, A. L., Esq., 37, Fosse Road, Leicester
Kelly, T. G., M.D., Desford Grange
Lakin, Charles, Esq., 72, London Road, Leicester
Lewitt, F. W., M.D., Belgrave Road, Leicester
Lilley, E. L., M.B., London Road, Leicester
Little, A. M., M.B., 61, London Road, Leicester
MacAlevy, W. C., Esq., 121, London Road, Leicester
Macleod, A. L., M.B., 59, Hinckley Road, Leicester
McAllister-Hewlings, W. F., M.B., 40, Humberstone Rd., Leic'r
McGregor, A., M.B., Stafford Lodge, Market Harborough
Madge, H. A., Esq., 8, Highcross Street, Leicester
Marriott, C. E., M.B., 11, Welford Road, Leicester
Meadows, H., M.B., New Walk, Leicester
Meredith, G. L., Esq., Hugglescote
Michell, R., Esq., 173, London Road, Leicester
Millard, C. K., M.D., The Gilroes, Groby Road, Leicester
Moore, C. A., M.D., 21, De Montfort Street, Leicester
Morrison, F. S., Esq., Hallaton
Nevin, J., M.B., 85, Narborough Road, Leicester
Orchard, A., Esq., 98, Market Street, Ashby-de-la-Zouch
Patrick, J. W., M.D., Stoneygate, Leicester
Paulson, W., Esq., Mountsorrel, Loughborough
Peacock, J., M.B., 335, Humberstone Road, Leicester
Peake, W. P., Esq., 21, Oxford Street, Leicester
Plant, J. R., Esq., 107, Hinckley Road, Leicester
Payne, A. E., M.B., 2, Melbourne Street, Leicester
Phillips, E. V., Esq., Kibworth, Beauchamp
Pope, F. M., M.D., 4, Prebend Street, Leicester
Powell, L. L., Esq., Melton Mowbray
Pratt, R., M.D., 2, De Montfort Street, Leicester
Richards, John, M.B., F.R.C.S.Edin., Co. Asylum, Leicester
Riddett, A. J., Esq., Mere Road, Leicester
Roberts, H. C., Esq., Melton Mowbray
Robinson, T., Esq., 33, Bowling Green, Leicester
Roy, S. C., Esq., 104, Belgrave Gate, Leicester
Salomon, H., M.D., Sydenham House, Belgrave Rd., Leicester
Scott, J. R., Esq., Buding Villa, The Fosse, Leicester
Sevestre, Robert, M.D., 119, London Road, Leicester
Shaw, J. Vincent, M.B., Iveagh House, Belgrave, Leicester
Shearer, T. P., Esq., 69, Evington Road, Leicester
Shelley, P. W. G., Esq., Harewood, Narborough Road, Leicester
Skipton, A., Esq., Barrow-on-Soar
Skipworth, H., Esq., Mountsorrel, Loughborough
Slight, J. D., M.D., 61, London Road, Leicester
Sloane, John S., M.B., 82, London Road, Leicester
Smith, R. Bradshaw, Esq., Burbage, Hinckley
Snoad, P. E., Esq., Aylestone Park, Leicester
Smith, Sidney, Esq., 147, Humberstone Road, Leicester
Sprigge, C., M.D., Great Glen
Stamford, R. B., F.R.C.S., Loughborough
Stanley, A. J., M.B., Fergusson House, Hinckley
Steele, Richard, Esq., Peatling Magna
Stewart, R., M.D., 111, King Richard's Road, Leicester
Stewart, R. C., Esq., Leicester and Rutland Asylum
Swain, J. M., Esq., Long Clawson, Melton Mowbray
Thomas, D. P., Esq., Market Bosworth
Thomas, R. H., Esq., Ibstock, Leicester
Thomas, T. N., Esq., 34, Humberstone Road, Leicester
Tibbles, J. T., Esq., St. Mona's, Melton Mowbray
Tuckett, W. R., Esq., Woodhouse Eaves, Loughborough
Vice, W. A., M.B., 19, Belvoir Street, Leicester
Waite, J. E., M.B., Ivy Lodge, Westcotes Drive, Leicester
Warner, A., M.D., Rostherne, Westcotes Drive, Leicester
West, R. M., Esq., Fosse Road, Leicester
Willan, G. T., Esq., Melton Mowbray
Willey, J. M., Esq., 84, Laurel Road, Leicester
Williams, C. R., M.B., Ashby-de-la-Zouch
Williams, E., Esq., Billesdon, Leicester
Williams, M. W., Esq., Leicester
Wilson, T. N., M.B., The Manor, Ibstock, Leicester
Wright, A. J., Esq., Markfield, Leicester
Young, J., Esq., Narborough
Young, R. R., M.D., 148, London Road, Leicester

No. 4.—Lincoln Division

NUMBERING 56.

Chairman, F. S. Genney, M.B., Lincoln
Vice-Chairman, A. S. Green, M.B., Lincoln

Honorary Secretary and Treasurer, J. S. Chater M.D., 10, Steephill, Lincoln

Representative for Representative Meeting.
F. S. Genney, M.B., Lincoln

Representative on Branch Council.
Harrison, C., M.D.

Divisional Council.
Brook, W. H. B., M.D.
Ellis, J. C., Esq.
Levinson, L., M.D.

Associate Members.
Newcombe, F., Esq., Granth'm
Gray, J. C., Esq., Horncastle

Bedford, C. F., Esq., Sleaford
Bell, C. W. J., M.D., 61, Upgate, Louth
Boulton, G. S., Esq., Ingham, Lincoln
Brook, C., Esq., 13, Silver Street, Lincoln
Brook, W. H. B., M.D., 8, Eastgate, Lincoln
Campbell, J. D., M.B., Navenby, Lincoln
Cant, W. J., Esq., White Cross, Lincoln
Carline, W. A., M.D., Lincoln
Chapman, O. H., M.B., Ferncliffe, St. Catherine's, Lincoln
Chater, J. S., M.D., 10, Steephill, Lincoln
Clements, E. C., Esq., 3, Lindum Road, Lincoln
Collier, J. T., M.D., 7, West Parade, Lincoln
Cooper, F. B., M.B., Abbey Gate, St. Catherines, Lincoln
Daman, T. W. A., M.B., Minster Yard, Lincoln
Deane, S. R., Esq., Scothorne Villa, Lincoln
De Beauvais, R. N., Esq., Ancaster, near Grantham
Denny, E. B., Esq., East Barkwith
Dobson, G. M., Major, R.A.M.C., R.P., Kent House, Riseholme Road, Lincoln
Ellis, J. C., Esq., Metheringham, Lincoln
Eminson, T. B. F., Esq., Scotter, Kirton-in-Lindsey
Ewan, J. A., M.D., Greenlees, Sleaford
Farrar, J., M.D., Gainsborough
Fawssett, F., M.D., Westgate, Louth
Genney, F. S., M.B., St. Peter-at-Gowts, Lincoln
Gilford, Miss B. Marion, M.B., Messingham
Green, A. S., M.B., 9, West Parade, Lincoln
Hardy, F. A., M.D., The Grove, Fulbeck
Harrison, C., M.D., Lincoln
Higgins, T. J., M.D., Louth
Howes, F. C. P., M.D., 55 Monks Road, Lincoln
Hunter, Jessie S. B., M.B., Bracebridge Asylum, near Lincoln
Iredale J., Esq., Mablethorpe, R.S.O.
Jagger, W., M.B., John O'Gaunt's House, Lincoln
Lambert, F. S., Esq., Newland, Lincoln
Levinson, L., M.D., 1, Caskgate Street, Gainsborough
Lowe, G. J. R., Esq., St. Catherine's, Lincoln
McFarland, B., M.D., West View House, Lincoln
Myers, C. J., Esq., Louth
Nicholson, J. W., M.B., Redhall, Gainsborough
Pearson, Arthur, Esq., Newton-on-Trent
Pim, J. H., Esq., Sleaford
Purves, R. B., M.B., 5, Minster Yard, Lincoln
Rainsford, H. M., Esq., Billinghay, Lincoln
Reese-Jones, E. W., M.D., Corporation Offices, Lincoln
Revill, Leslie H., Esq., Heighington, Lincoln
Russell, A. P., M.B., Lunatic Hospital, Lincoln
Sharpley, E., M.D., Upgate House, Louth
Smith, C. Vincent, Esq., Willingham, Gainsborough
Stedman, S. B., Esq., Binbrook, Market Rasen
Sympson, E. M., M.D., 2, James Street, Lincoln
Thomson, J. Stitt, M.D., Greetwell Road, Lincoln
Torney, G. P., Esq., Bracebridge Asylum, near Lincoln
Watkins, D. J. G., M.B., 49, Newland, Lincoln
White, H. G., Esq., Swineshead
White, T. H., Esq., 15, Silver Street, Lincoln
Wilkinson, W. A. H., M.B., Fern Villa, Gainsborough

No. 5.—Nottingham Division

NUMBERING 134.

Chairman, W. Stafford, M.B., Nottingham
Vice-Chairman, C. J. Palmer, Esq., Mansfield Woodhouse
Honorary Secretary and Treasurer, W. T. Rowe, M.D. 260, Woodborough Road, Nottingham

Representative for Representative Meeting.
W. T. Rowe, M.D., 260, Woodborough Road, Nottingham

Representatives on Branch Council.
Boobbyer, P., M.D.
Broadbent, Frank, Esq.
Handford, H., M.D.
Rowe, W. T., M.D.

Executive Committee.
Ferraby, G. A., Esq.
Jacob, F. H., M.D.
Powell, E., Esq.
Ringrose, E., Esq.

Anderson, A. R., Esq., 5, East Circus Street, Nottingham
Appleby, F. H., Esq., Barnby Gate House, Newark-on-Trent
Ashwell, H. G., Esq., 74, Mansfield Road, Nottingham
Ashworth, F. H. S., M.B., Brampton House, Hucknall Torkard
Belcher, H. E., Esq., 25, Musters Road, West Bridgford
Bellaby, F., Esq., Park Row House, Nottingham
Bennett, J. Moore, Esq., Ruddington
Blurton, J. F., M.B., Arkwright Street, Nottingham
Bolton, J. S., M.D., 88, Mansfield Road, Nottingham
Boobbyer, P., M.D., Parkside, Derby Road, Nottingham
Bostock, J., Esq., Costock, Loughborough
Bradley, H. P., M.B., 8, Western Terrace, Nottingham
Briggs, J. A. O., M.D., 37, Noel Street, The Forest, Nottingham
Broadbent, Frank, Esq., North Collingham
Brookes, C. E., Esq., Lowdham, near Nottingham
Brown, F. J., Esq., Beaumont Cross, Newark
Bruce, George, M.B., Edwinstowe, near Newark
Buckley, J. C., M.D., 11, Goldsmith Street, Nottingham
Cattle, C. H., M.D., 2, East Circus Street, Nottingham
Charlton, A., M.B., 427, Lenton Boulevard, Nottingham
Chicken, R. C. Esq., Nottingham
Cole, G., Esq., St. Stephen's Lodge, Sneinton
Collins, M. C., M.D., 25, Derby Road, Nottingham
Cornwall, C. E., Esq., 1, Notintone Place, Nottingham
Cox, J. H., Esq., 232, Alfreton Road, Nottingham
Dabell, T. J., Esq., 92, Mansfield Road, Nottingham
Dixon, F., Esq., Eastwood, Selston
Duff, C. H., Esq., East Bridgford, Nottingham
Dunn, W. D., Esq., 304, Alfred Street, Nottingham
Eaton, J. W., Esq., Bingham
Elliott, George, M.B., Forest Road W., Nottingham
Emlyn, C. W., Esq., Normanton Hall, near Newark
Erskine, W. J. A., M.D., City Asylum, Nottingham
Ferraby, G. A., Esq., 47, Gregory Boulevard, Nottingham
Francis, H., M.D., Moira House, Arnold
Fulton, Adam, M.B., 181, Nottingham Road, Old Barford Nottingham
Garstang, Walter, M.B., Cranford, Hucknall Torkard
Geraty, T., Esq., 5, Low Pavement, Nottingham
Giddings, R. R., M.B., 206, Mansfield Road, Nottingham
Gill, S. E., M.D., 96, Mansfield Road, Nottingham
Gray, J. P., M.B., 18, Park Row, Nottingham
Gray, Sarah, F.R.C.S.I., 21, Regent Street, Nottingham
Hamilton, R. M., Esq., Annesley Wood Ho., Nottingham
Handford, H., M.D., Nottingham
Harper, H., M.D., Nottingham
Heelis, Robert, M.D., Lenton, Nottingham
Henderson, T., M.B., 15, The Ropewalk, Nottingham
Henwood, E. Mabel, L.S.A., 200, Mansfield Road, Nottingham
Herrick, R. W., M.D., 20, Park Row, Nottingham
Hogarth, R. G., Esq., 60, Rope Walk, Nottingham
Houfton, E. H., M.D., Bath House, Mansfield
Howitt, W. A., M.B., 54, Goldsmith Street, Nottingham
Hunnard, A., M.B., Nottingham Road, Mansfield
Hunter, W., M.D., Nottingham
Jackson, A. M., M.D., Notts County Asylum, Radcliffe-on Trent
Jacob, F. H., M.D., 32, Regent Street, Nottingham
Job, H. P., Esq., 21, Castlegate, Newark-on-Trent
Johnston, J. H., M.B., 28, Forest Road West, Nottingham
Jones, H. T., Esq., Hucknall Torkard
Kelly, T. W., Esq., 59, Sherwood Street, Nottingham
Kingdon, E. C., M.B., 9, Regent Street, Nottingham
Kingsbury, E., M.D., Stapleford
Kinmont, P., M.B., 51, London Road, Newark-on-Trent
Knight, J. T., Esq., Ivy Lodge, Carlton-in-the-Willows
Laws, W. G., M.B., 3, East Circus Street, Nottingham
Leitch, W. C., Esq., Langwith, Mansfield
Le Pelley, Amelia M., M.B., 70, Muster's Road, West Bridgford, Nottingham
Littlewood, J. O., Esq., West Hill Drive, Mansfield
Lockhart, J., M.B., Holmlea, Sherwood Rise, Nottingham
Mackenzie, J. M., Esq., Ellenslea, Kirby-in-Ashfield
Mackie, A. H., M.B., Post Office, Edwinstowe
Mackie, J., Esq., The Lodge, Cropwell Butler
Marriott, E. D., Esq., 90, St. Ann's Well Road, Nottingham
Marshall, L. W., M.D., 42, Rope Walk, Nottingham
Menzies, J., Esq., Westbourne House, Worksop
Michie, H., M.B., 27, Regent Street, Nottingham
Millar, J., M.D., 2, Mapperley Road, Nottingham
Miller, C. S., M.B., 16, Alfred Street South, Nottingham
Milner, C. W., Esq., 32, Heathcote Road, Nottingham
Mitchell, E., M.D., Sutton-in-Ashfield
Moysey, L., M.B., Ilkeston Rd., Old Radford, Nottingham
Mutch, F. R., M.D., Strathgairn, Goldsmith St., Nottingham
Nairn, R. W., M.D., Farnsfield
Naylor, A. G., M.B., Sutton-on-Trent
Neilson, H. J., M.D., Springhead, Bulwell
Nesbitt, R., Esq., Sutton-in-Ashfield
Okell, J. B., Esq., 2, Magdala Road, Nottingham
Oldham, M. W., M.D., Westlands, Mansfield
Palmer, C. J., Esq., Auckland Ho., Mansfield Woodhouse
Paul, E. W., Esq., 11, Wellington Circus, Nottingham
Pegge, W. J., Esq., Beeston
Polson, G. Y., M.D., Southwell
Porter, F. C., Esq., 12, Oxford Street, Nottingham
Potter, H., Esq., Red Hill Lodge, Arnold
Powell, E., Esq., Nottingham
Pryce, T. Davies, Esq., 64, Clarendon Street, Nottingham
Rainsbury, W. C., M.D., Kilcrenagh, Skegby
Ransom, W. B., M.D., Nottingham
Rhind, A. L., M.B., Keyworth
Ringrose, E., Esq., 29, Lombard Street, Newark-on-Trent
Robinson, G. E. J. A., M.D., 22, Wollaton Street, Nottingham
Robson, W. W. G., Esq., Walkeringham, Gainsborough
Rothera, F., M.D., Beeston
Rowe, W. T., M.D., 260, Woodborough Road, Nottingham
Ruston-Harrison, G. H., M.B., 55, Wilford Grove, Not'ngh'm
Scott, W., M.B., Radford Boulevard, Nottingham
Sharp, A. J., M.D., Newlyn, Fishpond Drive, Nottingham
Sharp, P., Esq., Brant Broughton, Newark-on-Trent
Smith, A. E. M., Esq., Retford
Smith, H. Walter, Esq., Pleasley
Smith, W. R., M.D., Netherleigh, Beeston
Snell, J. E. B., M.B., 18, Castlegate, Nottingham
Stafford, W., M.B., 110, Mansfield Road, Nottingham
Stallard, H., Esq., Esq., 21, Appleton Gate, Newark-on-Trent
Stracey, B., M.B., Sutton Bonnington, near Loughborough
Tate, W. B., M.D., The Coppice, Nottingham
Taylor, C. B., M.D., Park Row, Nottingham

Taylor, C. V., M.D., North Circus Street, Nottingham
Thompson, J., Esq., 1, Oxford Street, Nottingham
Thomson, G., M.B., Bridge House, Retford
Tibbles, W., Esq., 4, The Ropewalk, Nottingham
Travell, J. W., M.B., 56, Forest Road, W., Nottingham
Vartan, C. S., M.B., Stapleford, Nottingham
Waring, J. A., M.B., 7, East Circus Street, Nottingham
Watson, James, M.B., 94, Mansfield Road, Nottingham
Wesley, F. W., M.D., 41, Loughboro' Road, West Bridgford
White, C. H., Esq., 4, East Circus Street, Nottingham
White, G. B., Esq., 25, Langtry Grove, Nottingham
Willis, W. M., Esq., 7, Regent Street, Nottingham
Willoughby, J. F. D., Esq., Southwell
Wills, C. J., Esq., 90, Gregory Boulevard, Nottingham
Windley, W., Esq., Colston Bassett, Bingham
Wood, W. T., Esq., Creswell, near Mansfield
Wray, G. B., Esq., 115, Waterloo Crescent, Nottingham
Wright, T., M.D. Nottingham

No. 6.—Stamford Division

NUMBERING 27.

Chairman,
Vice-Chairman,
Honorary Secretary,

Representative for Representative Meeting.
C. W. Pilcher, Esq., Boston.

Representative on Branch Council.

Bell, T., Esq., Uppingham
Benson, H. T., Esq., Market Deeping
Berry, H. P., M.B., The Priory, Grantham
Boyd, G. S. J., Esq., 19, St. George's Square, Stamford
Burdwood, J. W., Esq., West Cottage, Bourne
Clabburn, C. H., M.B., Ketton, Stamford
Cuddon-Fletcher, Esq., Somerby, Oakham
Edwards, E. S., Esq., Empingham, Stamford
Frier, Charles, M.B., Spitalgate House, Grantham
Galletly, J., M.B., Terrace House, Bourne
Greenwood, T. P., Esq., Stamford
Holmes, A. H., Esq., Down Hall, Rippingale
Macdonald, J. A., M.B., Woolsthorpe, Grantham
Martin, F. G. H., Esq., 25, St. Catherine's Road, Grantham
Newcombe, F., Esq., Caythorpe House, Grantham
Norman, A. B., Esq., Oakham
Parsons, J. A., M.D., Market Overton, Oakham
Paterson, W. H., M.D., Grantham
Pink, T., Esq., Lyddington House, Uppingham
Robb, C. H. D., M.B., 25, Castlegate, Grantham
Shipman, G. A. C., M.B., Watergate, Grantham
Shipman, G. W., Esq., Grantham
Smith, H. L., Esq., Uppingham
Steil, J. W. H., M.B., Colsterworth, Grantham
Towlson, H. J., Esq., Barrowden, Stamford
Turner, H. N., Esq., Castle Bytham, Grantham
Wilson, R., Esq., Grantham

MUNSTER BRANCH.

Comprising the Province of MUNSTER, except the part included in the Waterford Division.

Members of Branch—161.

RECOGNISED 1893.

President, P. J. CREMEN, M.D., Cork
Vice-President, P.T. O'SULLIVAN, M.B., Cork

Honorary Treasurer and Secretary, PHILIP G. LEE, Esq., 26, Patrick's Hill, Cork

Representative on Council of Association.
Joseph Giusani, M.D., Cork

Representative on Irish Committee.
D. J. O'Connor, M.D., Cork

Representative for Representative Meeting.
H. R. Townsend, M.D., Cork

Branch Council.

Allsom, E. W., Esq.
Booth, J., M.B.
Corby, Prof. H., M.D.
Cummins, Prof. W. E. A., M.D.
Curran, J. J., M.D.
Giusani, J., M.D.
Hobart, H. N., M.D.
Macnamara, P. J. M.D.
O'Connor, D. J., M.D.
O'Meara, T. J., M.B.
Townsend, N. I., Esq.
Woods, O. T., M.D.

No. 1.—North Division

NUMBERING 27.

Chairman,
Vice-Chairman,
Honorary Secretary,

Representative for Representative Meeting.
H. R. Townsend, M.D., Cork

Callanan, M., Esq., The Square, Thurles
Connihan, J. Francis, J.P., Francis Street, Kilrush
Fogerty, W. A., M.D., 61, George Street, Limerick
Graham, P. F., M.D., 72, George Street, Limerick
Hayes, T., M.D., Brown Villa, Rathkeale
Holmes, J., M.D., 7, The Crescent, Limerick
Hunt, S. B., Col. I.M.S. (ret.), 75, George Street, Limerick
Jackman, R. H., Esq., Alverno, Thurles
Kennedy, F. W., M.D., 3, Pery Square, Limerick
Kennedy, T. J., Esq., Toomavara, Nenagh
Lavertine, J. C., Esq., Castleconnell
McCarthy, Wm., M.B., Abbeyfeale
Macnamara, P. J., M.D., Springfield, Kilmallock
Madden, M. J., Esq., Golden, Dundrum, R.S.O.
Massy, E. S. Isabel, M.B., 6, Upper Hartstonge St., Limerick
Molony, H. G., M.D., Ballingarry
Molony, P. B., Esq., Mountfune House, Murroe
Myles, George, M.B., 10, The Crescent, Limerick
O'Brien, P. C., M.D., Askeaton
O'Callaghan, J., Esq., Pallasgreen
O'Dwyer, P., Esq., Ennistymon, Clare
O'Grady, D. de. C., Esq., Lacca, Castleconnell
O'Ryan, J. F., Esq., Henry Street, Tipperary
O'Sullivan, W. J., Esq., Maiville, Lisdoonvarna
Powell, B. C., M.B., Parkmore, Roscrea
Wallace, Joseph, M.D., Castle Street, Roscrea
Willington, F. F. C., M.B., 19, Summer Hill, Nenagh

No. 2.—South Division

NUMBERING 64.

Chairman,
Vice-Chairman,
Honorary Secretary,

Representative for Representative Meeting.
H. R. Townsend, M.D., Cork

Allsom, E. W., Esq., 12, St. Patrick's Place, Cork
Atkins, T. G., M.D., 20, St. Patrick's Place, Cork
Barry, Alice M., L.R.C.P., 8, Belgrave Place, Cork
Beamish, T., Esq., Passage West, Cork
Booth, J., M.B., 89, South Mall, Cork
Browne, T. J., M.B., Roseneath, Queenstown
Cagney, M., M.B., 12, St. Patrick's Hill, Cork
Callaghan, Thos., Esq., 40, South Mall, Cork
Chichester, C. R., M.B., 13, Midleton Park, Queenstown
Coffey, E. R., Esq., 14, Westbourne Place, Queenstown
Corby, Professor H., M.D., 19, St. Patrick's Place, Cork
Cotter, J., M.D., 8, Sydney Place, Cork
Cremen, P. J., M.D., 4, Camden Place, Cork
Crosbie, R. P., M.B., 88, South Mall, Cork
Crowley, T., M.D., Larchfield, Coachford
Cummins, Prof. W. E. A., M.D., 17, St. Patrick's Place, Cork
Curran, J. J., M.D., Killeagh
Daly, R. C., Esq., Ringaskiddy
Dobbin, F. W., M.D., The Rectory, Kilmeen, Ballineen
Donovan, M., Esq., Whites Cross Cork
Dundon, J., M.B., 3, Camden Place, Cork
Fitzgerald, D. P., M.B., 14, North Mall, Cork
Fitz-Gerald, J. J., M.D., Eglinton Asylum, Cork
Giusani, Joseph, M.D., Patrick's Hill, Cork
Hobart, H. N., M.D., 33, South Mall, Cork
Hodges, R. W., Esq., Hill House, Queenstown
Jackson, R. W. H., Maj. R.A.M.C., Station Hospital, Cork
Jenings, Hon. Brig.-Surg.-Lieut.-Col., U. A. (ret.), A.M.S. Rockspring House, Cork
Keating, J., Esq., Ballinhassig
Lawton, M., Esq., Middleton
Leader, R. R., M.D., Westbourne, Millstreet
Lee, Philip G., Esq., 26. Patrick's Hill, Cork
Lynch, J., Esq., Douglas, co. Cork
Lynch, M. E., Esq., Clashmore, Youghal
Lyne, D. J., Esq., J.P., Castletown, Berehaven
McCarthy, Owen F., Esq., Eglinton Asylum, Cork
Magher, E., M.D., 19, South Mall, Cork
Moore, A. E., M.B., Castlemahon, Blackrock
Moriarty, T. B., M.D., Brig.-Surg., 15, Patrick's Hill, Cork
Murphy, D. J., M.D., Cloyne
Neville, M. O'B., Esq., Warrensbrook, Enniskean
Norcott, W. B., Esq., Harbour View, Crosshaven, co. Cork
O'Brien, P. J., M.D., Midleton
O'Connell, M. J., Esq., Camden Quay, Cork
O'Connor, D. J., M.D., 38, South Mall, Cork
O'Connor, J. T., Esq., District Hospital, Douglas Rd., Cork
O'Connor, W. F., M.B., 17, St. Patrick's Hill, Cork
O'Driscoll, Patrick L., M.B., Timoleague
O'Meara, T. J., M.B., Skibbereen
Orpin, C., M.D., Strand Street, Youghal
Osburne, C. A. P., Esq., Lindville, Cork
O'Sullivan, P. T., M.B., 20, South Mall, Cork
Pearson, C. Y., M.D., 1, Sidney Place, Cork
Reardon, T., Esq., Doneraile
Reid, John, M.D., Bank Place, Bandon, co. Cork
Sandford, A. W., M.D., 13, St. Patrick's Place, Cork
Smith, Lucy E., M.D., 2, Verdon Place, Cork
Smyth, T. W., Esq., Roseville, Enniskean
Tarrant, H. S., M.D., , Charleston, Queenstown
Townsend, H. R., M.D., 7, Sidney Place, Cork
Townsend, N. I., Esq., 24, St. Patrick's Hill, Cork
Townsend, R. H., M.B., 13, Westbourne Place, Queenstown
Woodroffe, G. F., Esq., Abercromby Place, Fermoy
Woods, O. T., M.D., Eglinton Asylum, Cork

No. 3.—West Division

NUMBERING 10.

Chairman,
Vice-Chairman,
Honorary Secretary,

Representative for Representative Meeting.
H. R. Townsend, M.D., Cork

Ahern, M., Esq., Brosna
Dillon, John T., M.D., Listowel, Kerry
Hargrave, A. A., Esq., 15, Denny Street, Tralee
Hudson, Robert, Esq., Seaview, Dingle
MacSweeny, W., M.D., Park Place, Killarney
Mannix, J. F., Esq., Cahirciveen
Miles, J. F. M., Esq., Farranakilla, Dingle
Rice, J. P., Esq., Castleisland
Sheehan, J., Esq., Glenbeigh, co. Kerry.
Trant, James, Esq., Waterville, co. Kerry

NORTH OF ENGLAND BRANCH.

District comprising the Counties of NORTHUMBERLAND and DURHAM; in YORKSHIRE, the Cleveland Parliamentary Division, the Richmond Parliamentary Division (except Hawes and Masham), and the portion of the Thirsk and Malton Parliamentary Division shown in the Official Maps of the North of England and Yorkshire Branches; the Borough and Liberties of Berwick-on-Tweed.

Members of Branch—663.

RECOGNISED 1865.

President, G. C. H. FULTON, M.B., Eston, R.S.O.
President-elect, T. Beattie, M.D., Newcastle-on-Tyne

Honorary Secretaries.
ALFRED COX, M.B., Cotfield House, Bensham Road, Gateshead
HUNTER, J. H., M.D., Havelock Street, South Shields

Branch Council.

Beattie, T., M.D.
Blacklock, A. W. M.D.
Boswell, H. St. G., M.B.
Burrell, A. C., M.B.
Charles, John, M.D.
Crisp, J. L., Esq.
Cromie, J., Esq.
Dagger, R., Esq.
Davis, E. H., Esq.
Dickie, W. S., Esq.
Fraser, L. G., M.D.
Gofton, E., M.B.
Goudie, Henry, M.B.
Haig, D. V., M.D.
Howat, R. K., M.B.
Howell, R. E., M.B.
Hudson, J., M.D.
Jackson, J. A., M.D.
Jepson, E., M.D.
Kirsopp, T., M.B.
Lyle, R. P. R., M.D.
McDowell, T. W., M.D.
Maclagan, C. G., M.B.
Martin, A. M., M.B.
Mearns, W., M.D.
Miller, G. V., M.B.
Modlin, I. G., M.D.
Morison, A. E., M.B.
Morison, J. R., M.D.
Peart, R. S., M.D.
Philip, J. P., M.D.
Robson, B. B., M.B.
Rowston, N. F., M.B.
Smith, J. W., M.D.
Speirs, J. L., M.B.
Todd, David F., Esq.
Vickery, W. H., Esq.
Wear, A. T., M.D.
Willis, J. G., Esq.

Representatives on Council of Association.
J. H. Hunter, M.D., Havelock Street, South Shields
A. T. Wear, M.D., Wentworth Place, Newcastle-on-Tyne

No. 1.—Bishop Auckland Division

NUMBERING 36.

Chairman, T. A. B. Kane, M.D., Byer's Green, Spennymoor

Vice-Chairman, Jas. Beattie, L.R.C.P.& S., Copley

Honorary Secretary, J. G. Willis, Esq., Woodside House, Witton Park, co. Durham

Representative on Branch Council.
Willis, J. G., Esq.

Representative for Representative Meeting.
A. C. Farquharson, M.D. Tenby House, Bishop Auckland

Anderson, D. A., Esq., Cockfield, Durham
Ashforth, T. L., Esq., Church Hill, Crook
Bannerman, James, M.B., C.M., Stanhope, R.S.O.
Beadle, J., Esq., Middleton-in-Teesdale
Beattie, James, L.R.C.P.& S., Copley, Darlington
Brewis, E. J., M.D., Willington
Brown, R. E., Esq., High Street, Willington, co. Durham
Brown, W. L., M.B., C.M., Hallgarth, Shildon
Campbell, Angus, M.B., Ch.B., Church Hill, Crook
Campbell, J., M.B., Coundon, Bishop Auckland
Denness, W., Esq., Wear View, Tow Law
Easton, J., Esq., The Pryse, St. John's Chapel, R.S.O.
Farquharson, A. C., M.D., Tenby House, Bishop Auckland
Fielden, S., M.D., Enfield Lodge, Shildon, Darlington
Gray, John, M.B., Butts House, Stanhope
Hawthorne, E. S., F.R.C.S., Romaldkirk
Johnson, J. J., M.B., Meadow House, Crook R.S.O.
Kane, T. A. B., M.D., Byer's Green, Spennymoor
Mackay, A., M.D., Crook, Durham
Mackay, W. M., M.B., Crook
Menzies, E. G. D., M.B., Wolsingham, R.S.O.
Milne, R. A., M.B., Brookside, Evenwood
Naismith, J. H., Esq., Grove Lodge, Tow Law
Neligan, J. C., Esq., Middleton-in-Teesdale
Sevier, A. H., M.B., Barnard Castle
Sheedy, Patrick J., L.R.C.P.& S.E., Evenwood, co. Durham
Steel, R., Esq., Red House, Crook
Stephen, G., M.D., West Auckland
Strachan, B., M.B., Brookside, Cotherstone
Thorpe, G., Esq., Eldon Lane, Bishop Auckland
Wardle, M. A., Esq., 17, Castle Square, Bishop Auckland
Weighton, H., M.D., Barnard Castle
Welford, C. H., M.D., Galgate, Barnard Castle
Williamson, Albert Vaughan, L.R.C.P. & S.E., Witton Park
Willis, J. G., Esq., Woodside House, Witton Park, co. Durham
Wrench E. B., M.B., St. John's Chapel, R.S.O.

No. 2.—Blyth Division

NUMBERING 16.

Chairman, R. A. Morris, M.B., Bedlington
Vice-Chairman, W. T. B. Fox, M.B., Blyth
Honorary Secretary, James Anderson, M.B., Hastings Cottage, Seaton Delaval, R.S.O.

Additional Member of Executive Committee.
Fairlie A., Esq.

Representative for Representative Meeting.
R. Laing, Esq., Blyth

Representative on Branch Council.
Cromie, J., Esq.

Anderson, Jas., M.B., Hastings Cot., Seaton Delaval, R.S.O.
Cromie, J., Esq., Waterloo Villa, Blyth
Dodds, J. D., M.B., Cramlington, R.S.O.
Downs, J. E., M.B., New Hartley, Seaton Delaval, R.S.O
Fairlie, A., M.D., Bebside, R.S.O.
Forsyth, R., M.B., South View, Cramlington
Fox, W. T. B., M.B., 49, Stanley Street, Blyth
Laing, R. Esq., Croft Villa, Blyth
McLaren, J. T., M.B., Bedlington, R.S.O.
Macrae, D. J., M.B., Red Row Surgery, Bedlington
Miller, James, M.B., Seghill, Dudley, R.S.O.
Morris, Robert A., M.B., West End, Bedlington, R.S.O.
Reid, Arthur H., Esq., Newsham R.S.O.
Taylor, Alfred S., Esq., Seaton Sluice, Seaton Delaval
Tindall, F. M., M.D., Sleekburn, Bedlington, R.S.O.
Trotter, R. S., M.D., Old Brewery House, Bedlington, R.S.O,

No. 3.—Cleveland Division

NUMBERING 62.

Chairman, F. Munro, M.B., Middlesbrough
Chairman-elect, E. J. Burnet, M.B., Saltburn-by-the-Sea
Honorary Secretary and Treasurer, R. E. Howell, M.B., Park Terrace, E. Middlesbrough
Co. Secretary, R. K. Howat, M.B., Southfield House, Southfield Road, Middlesbrough

Representative for Representative Meeting.
R. E. Howell, M.B., Middlesbrough

Representatives on Branch Council.

Dickie, W. S., Esq.
Howat, R. K., M.B.
Howell, R. E., M.B.

Executive Committee.

Bone, B. M., M.B.
Fulton, G. C. H., M.B.
Gilroy, E. W., M.D., B.S.
Knott, W., M.D.
Richards, S. H., M.B.
Robinson, Alfred, M.D.
Steel, W., M.B.
Townsend, F. E., M.D.

Bennett, Robert A., M.D., M.R.C.S., 5, Balmoral Terrace, Saltburn-by-the-Sea
Benson, F. A., Esq., Heath House, North Ormesby
Benson, J. W., Esq., 162, Newport Road, Middlesbrough
Bland, M. H., M.D., Guisborough
Blue, C., M.B., Boosbeck, Skelton-in-Cleveland
Bone, B. M., M.B., Ivy House, Marske-by-the-Sea
Brander, Wm., M.B., Union Infirmary, Middlesbrough
Brownlie, Alex. M.D., 47, Newcomen Street, Redcar
Bryan, T. L., M.B., 1, Park Gate, Middlesbrough
Bryans, A., Esq., Waterloo House, Linthorpe Road, Middlesbrough
Burnet, E. J., M.B., Saltburn-by-the-Sea
Caldwell, M., Esq., White House, Brotton
Candlish, W., Esq., 6, Bridgeford Ter., South Bank, R.S.O.
Considine, P. B., M.B., 3, Grange Road, Middlesbrough
Dickie, W. S., Esq., 13, Ryedale Terrace, Borough Road,
Dingle, C. V., M.D., Meadowfield, Grove Hill, Middlesbrough
Donaldson, James, M.B., 57, Grange Road W., Middlesbrough
Drake-Brockman, H. G., Esq., Cleveland Asylum, Middlesbrough
Edwards, J. W., M.B., 46, Albert Terrace, Middlesbrough
Ellerton, J., M.D., Gosforth Street. Middlesbrough
Falconer, J. F., M.B., North Ormesby Hosp., Middlesbrough
Fendick, Maude E., L.S.A., 138, St. Paul's Terrace, Middlesbrough
Flintoff, C. A., Esq., North Ormesby Hsptl., Middlesbrough
Fulton, G. C. H., M.B., Meadowcroft, Eston, R.S.O., N. Yorks
Gatenby, G., M.B., 8, Bridgeford Terr., South Bank, R.S.O.
Giles, J. D., M.B., N. Riding Infirmary, Middlesbrough
Gilroy, Ernest W., M.D., B.S., Southfield Road, Middlesbrough
Glen, J. C., Esq., South Bank, R.S.O.
Hedley, J., M.D., Yester House, Middlesbrough
Hodgson, A. E., M.B., Glanaguila, Coatham, Redcar
Howat, R. K., M.B., Southfield House, Southfield Road, Middlesbrough
Howell, R. E., M.B., Park Terrace, E. Middlesbrough
Jackson, H. W., M.D., 62, Borough Rd. W., Middlesbrough
Jones, A., Esq., Stokesley, Cleveland
Knott, W., M.D., Dairy Knoll, Middlesbrough
Legh, H. L. de., Esq., 38, Newcomen St., Coatham, Redcar
Levick, H. D., M.B., Southfield Road, Middlesbrough
Longbotham, G. F., M.B., Linthorpe Road, Middlesbrough
McAvoy, Hugh, Esq., South Bank, R.S.O.
Mackinley, J. E. H., Esq., Coatham, Redcar
Mort, Frank, M.B., 15, Queen's Terrace, Middlesbrough
Munro, F., M.B., Haverton Hill, Middlesbrough
Pentony, E. P., Esq., Southfield Road, Middlesbrough
Richards, S. H., M.B., 22, West Terrace, North Ormesby, Middlesbrough
Robinson, Alfred, M.D., Coatham, Redcar
Scanlan, A. E., Esq., Westbrooke, Linthorpe, Middlesbrough
Scanlan, Oliver, Esq., Princes Road, Middlesbrough
Shand, W., M.B., 16, Fountain Street, Guisborough

Smith, T. H., M.D., Keath House, Esplanade, Redcar
Stainthorpe, W. W., jun., M.B., Sunnyfield House, Guisborough
Steel, W., M.B., 1, Southfield Villas, Middlesbrough
Steele, Andrew N., Esq., Grangetown, R.S.O.
Steele, John, Esq., 11, Lorne Terrace, South Bank
Stephen, W. A., M.D., Woodside, Loftus R.S.O.
Stonehouse, Hy., Esq., Loftus-in-Cleveland
Stuart, Charles, M.B., Great Ayton, R.S.O.
Townsend, F. E., M.D., Normanby, near Middlesbrough
Veitch, W. Y., Esq., 6, Southfield Villas, Middlesbrough
Walker, H., M.B., Ashleigh, Middlesbrough
Wigfield, F. P., M.B., Ardmore House, Skelton-in-Cleveland
Williams, W. J., M.D. Grange Rd., Middlesbrough-on-Tees
Yeoman, W. M., M.B., Stokesley

No. 4.—Consett Division

NUMBERING 14.

Chairman, E. W. Diver, M.D., Belle Vue Ho., Shotley Brdg.

Vice-Chairman John Charles, M.D., Stanley R.S.O.

Honorary Secretary, E. G. D. Benson, Esq., Stanley, co. Durham

Representative for Representative Meeting.
Alfred Cox, M.B., Bensham Road, Gateshead

Representative on Branch Council.
Charles, John, M.D.

Anderson, James, Esq., Tantobie Lintz Green, nr. Newc'stle
Benson, Ernest G. D., L.R.C.P.& S., Stanley House, Stanley
Benson, T., Esq., Stanley, co. Durham
Buckham, T., M.B., Lanchester
Charles, John, M.D., Stanley, R.S.O.
Diver, E. W., M.D., Belle Vue House, Shotley Bridge
Ingram-Johnson, R. E., L.R.C.P.&S., L.S.A., South Moor, Chester-le-Street
Knowles-Jones, J. T., M.D., Woodhouse, Shotley
Macintyre, Æ. D. M., M.B., Consett
Marshall, W. S., M.B., Ebchester, Newcastle-on-Tyne
Mitchell, J. G., M.B. (address uncommunicated)
Morison, W. M., Esq., Catchgate, Annfield Plain
Renton, J. M., M.B., Shotley Bridge
Renton, R. S., M.B., Viewlands, Blackhill

No. 5.—Darlington Division

NUMBERING 37.

Chairman, A. H. Thompson, Esq., Darlington

Vice-Chairman, T. Kirsopp, M.B., Darlington

Honorary Secretary, D. V. Haig, M.D., Derneholm, Stanhope Road, Darlington

Representative for Representative Meeting.
G. V. Miller, M.D., Stockton

Representatives on Branch Council.
Haig, D. V., M.D.
Kirsopp, T., M.B.

Baigent, W., M.D., Northallerton
Botham, R. H., Esq., Staindrop, Darlington
Carmichael, W. J., M.B., North Villa, Darlington
Cockcroft, H. M., Esq., Masham
Cockcroft, J., M.D., Middleham, R.S.O.
Eastwood, L., Esq., Brookside, Darlington
Eyres, H. M., M.B., Millgate, Richmond
Fisher, David L., M.B., C.M., 27, North Road, Darlington
Gardner, A. J., M.D., St. John's Crescent, Darlington
Gray, D. C., Esq., Brookside Villa, Darlington
Haig, D. V., M.D., Derneholm, Stanhope Road, Darlington
Harris-Liston, L., M.D., Middleton Hall, Middleton St. George
Hartley, John, F.R.C.S., 26, Stanhope Road, Darlington
Hern, J., M.D., Semmercote, Darlington
Hill, T. E., M.B., Lyndhurst, Grange Road, Darlington
Hime, E. M., M.B., Aysgarth R.S.O., Yorks
Hutchinson, J. A., M.D., Northallerton
Kershaw, H. W., Esq., Dinsdale Park, near Darlington
Kirsopp, T., M.B., Grange Road, Darlington
Lawrence, J., M.D., Darlington
Lightfoot, J. P., Esq., Leyburn
Mickle, A. F. J., M.D., Kirklington, Bedale
Middlemiss, George, M.D., Grange Road, Darlington
Middlemiss, G. W., M.B., Grange Road, Darlington
Pearson, H. C., M.B., 57, Stanhope Road, Darlington
Petter, W., M.B., 93, Stanhope Road, Darlington
Raine, G. R., M.D., 2, Victoria Road, Darlington
Ross, J. A., M.B., The Hospital, Darlington
Spiers, W. C., M.B., Richmond
Steavenson, A. P., M.D., Hurworth-on-Tees
Thompson, A. H., Esq., St. Medards, Darlington
Tweedy, C., Esq., Northallerton
Vivian, G. E., Esq., 16, Kennington Terrace, Corporation Road, Darlington
Walker, C. E. M.D., Hurworth-on-Tees
Whitehead, C. B., Esq., Frenchgate, Richmond
Wood, J. H., M.B., Market Place, Leyburn, R.S.O.
Yeoman, G., Esq., Northallerton

No. 6.—Durham Division

NUMBERING 30.

Chairman, E. Jepson, M.D., Elvet, Durham

Vice-Chairman, F. Hare, M.B., Dearness House, Waterhouses, Durham

Honorary Secretary, H. Smith, M.D., Claypath Ho., Drhm.

Representative for Representative Meeting.
John Paxton, M.B., Butterknowle, R.S.O.

Representative on Branch Council.
Jepson, E., M.D.

Arthur, J., Esq., Wingate
Booth, L., M.D., Sherburn House, Durham
Brown, J., M.D., Bearpark
Denholm, J., M.B., Meadowfield House, Brandon
Dove, Emily L., M.B., The School, Durham
Farmer, S., Esq., Hillingdon House, Spennymoor
Garson, J. H. R., M.B., Sacriston, Durham
Gibson, C. H., M.B., Sherburn Hill, co. Durham
Hare, F., M.B., Dearness House, Waterhouses, Durham
Harrison, Alex. Thomas, L.S.A., Sherburn, Durham
Kelly, A. D., M.D., Raglan House, Philadelphia, Fence Houses
Jepson, E., M.D., 42, Old Elvet, Durham
McArdle, F. G., Esq., 20, South Street, Durham
Mills, J. A., M.B., Durham County Asylum, Winterton
Mussellwhite, W., Esq., Grange House, Spennymoor
Oliver, W., M.B., Linden Villa, Coxhoe R.S.O.
Pain, Arthur, Esq., 26, Sutton Street, Durham
Plummer, S. W., M.D., Old Elvet, Durham
Robson, E. S., Esq., 3, North Bailey, Durham
Ruffmann, H. H., M.B., B.S., 219, Giles-gate, Durham
Shirlaw, J. L., M.D., Ferry Hill
Short, E. W., Esq., Lumley, Fence Houses
Skeen, W. St. J., M.B., Durham County Asylum, Winterton
Smith, H., M.D., Claypath House, Durham
Smith, H. Watson, M.B., Durham County Asylum, Winterton
Stevenson, J., M.B., New Brancepeth, near Durham
Stuart, R., Esq., 20, New Elvet, Durham
Sutherland, J. R., Esq., West Rainton, Fence Houses, Durham
Wilson, J. A., M.B., Langley Old Hall, Durham
Wilson, Thomas W., M.B., B.S., Whitefield House, Esh

No. 7.—Gateshead Division

NUMBERING 52.

Chairman, T. M. Kimpster, M.B., Gateshead

Vice-Chairman,

Honorary Secretary, Alfred Cox, M.B., Bensham Road, Gateshead

Representative for Representative Meeting.
Alfred Cox, M.B., Bensham Road, Gateshead

Representatives on Branch Council.
Blacklock, A. W., M.D.
Mearns, W., M.D.
Speirs, J. L., M.B.

Anderson, R., M.D., 4, Gladstone Ter., Gateshead-on-Tyne
Arnold, Andrew Paige, M.D., B.S., Regent House, Gateshead
Barnby, W. H., Esq., Pelton, Chester-le-Street
Blacklock, A. W., M.D., Union Workhouse, Gateshead
Chisholm, Robert, Esq., Newfield House, Newfield
Clayton, T. M., M.B., Town Hall, Gateshead
Cox., Alfred, M.B., Bensham Road, Gateshead
Davis, W. H., Esq., Low Fell, Gateshead-on-Tyne
Dewar, Thomas, M.B., C.M., Pelton
Dougall, A., Esq., Dunston-on-Tyne
Durant, W. J., M.D., 40, Coatsworth Road, Gateshead
Farquharson, D. A. R., M.B., Glebe House, Washington, R.S.O.
Foster, F. C., Esq., 10, Bensham Terrace, Gateshead-on Tyne
Foster, Francis T., M.D., C.M., Dunston-on-Tyne
Fox, S. J. B., Esq., Craghead, Chester-le-Street
Galloway, W., Esq., Low Fell, Gateshead-on-Tyne
Gilbert, H. J., M.D., 20, The Crescent, Gateshead-on-Tyne
Green, A., M.B., 13, Gladstone Terrace, Gateshead-on-Tyne
Jaques, A. S., Esq., 2, Fountain Avenue, Gateshead-on-Tyne
Jaques, W., M.B., Washington
Johnson, J., M.B., Birtley
Kapp, C. G. B., Esq., Ashgrove Terrace, Gateshead
Kimpster, T. M., M.B., 110, High West Street, Gateshead
Law, J., M.B., The Croft, Wrekenton, Gateshead-on-Tyne
Leech, F. S., Esq., Frondirion, Oxford Terrace, Gateshead-on-Tyne
McCune, A., Esq., New Washington, co. Durham
MacKay J. W., Esq., Pelaw, Newcastle-on-Tyne
Mearns, W., M.D., Bewick Road, Gateshead
Miller, D. M., M.B., C.M., Felling-on-Tyne
Moore, E. C., M.B., 5, Abbey Terrace, Gateshead-on-Tyne
Morland, R. A., M.B., 36, Bewick Road, Gateshead-on-Tyne
Newcombe, F. W., M.D., 2, Walker Terrace, Gateshead
Norris, G. H., Esq., 1, Bedford Place, Gateshead-on-Tyne
Oliver, D. J. C., M.B., Olive Lodge, Pelton Fell
Patton, J., M.B., 185, Whitehall Road, Gateshead
Peacock, W. E., M.D., Felling-on-Tyne
Renton, W. M., M.D., Chester-le-Street
Ridley, J. H. W., Esq., Holly House, Gateshead-on-Tyne
Robinson, S. V., Esq., 237, Cardigan Terrace, Gateshead
Scott, F. R., M.B., The Dispensary, Gateshead
Sergeant, W. R., Esq., Gateshead-on-Tyne
Smith, William, M.B., 1, Woodhouse Terrace, Bewick Road, Gateshead-on-Tyne
Speirs, J. L., M.B., Ratcliffe House, Gateshead-on-Tyne
Stewart, C. R., M.B., 7, Vernon Parade, Gateshead
Taylor, J., M.D., Chester-le-Street, Durham
Thomson, J. F., Esq., 15, High West Street, Gateshead
Todd, J., Esq., 2, Abbey Terrace, Gateshead
Wilson, Alex. M., L.R.C.P.& S., Dunston-on-Tyne
Wilson, David, M.B., Brookside House, Birtley
Wilson, James, M.B., Ch.B., Felling-on-Tyne
Wilson, R. H., M.D., Gateshead-on-Tyne
Yeates, William, L.R.C.P.& S., L.F.P.S.G., Felling-on-Tyne

No. 8.—Hartlepools Division

NUMBERING 28.

Chairman, F. H. Morison, M.D., West Hartlepool

Vice-Chairman, T. G. Ainsley, M.D., West Hartlepool

Honorary Secretary, H. W. M. Strover, M.B., Dudley House, Stockton Road, West Hartlepool

Representative for Representative Meeting.
G. V. Miller, M.D., Stockton

Representatives on Branch Council.
Boswell, H. St. G., M.B.
Davis, E. H., Esq.

Ainsley, T. G., M.D., Greylands, West Hartlepool
Biggart, S., M.D., West Hartlepool
Boswell, H. St. G., M.B., 1, Brougham Terrace, Hartlepool
Davis, E. H., Esq., Tower Street, West Hartlepool
DeJong, E. F., Esq., 2, Gladstone Street, Hartlepool
Gamlen, H. E., M.B., Chadwick House, West Hartlepool
Gibb, W. S., M.B., 10, Carlton Terrace, Hartlepool
Gray, W., M.D., Victoria Road, West Hartlepool
Jack, A. E. S., M.B., Stockton Road, West Hartlepool
McCullagh, A. R., Esq., Melbourne Lodge, West Hartlepool
McGregor, A. V., M.D., Victoria Road, West Hartlepool
McGill, H. M., M.D., Church Bank, Hartlepool
Möller, A. A. C., Esq., Brampton House, Easington, Castle Eden R.S.O.
Morgan, G. F. E., Esq., Winthorpe House, West Hartlepool
Morison, A. E., M.B., Wellington Road, West Hartlepool
Morison, F. H., M.D., Springfield, Victoria Road, West Hartlepool
Pearson, A. G. W., M.B., B.S., 22, Grange Road, West Hartlepool
Rawlings, J., Esq., Hughenden, Hartlepool
Ross, W., M.D., Prospect House, West Hartlepool
Russell, H., M.D., Trimdon Colliery R.S.O., Durham
Ryan, E. J., M.D., The Villa, Thornley
Schmitz, Herman, M.D., Victoria Road, W. Hartlepool
Steel, A. R., Esq., Waterloo House, Thornley R.S.O.
Strover, H. W. M., M.B., Ch.B., Dudley House, West Hartlepool
Swanwick, E. M., Esq., West Hartlepool
Wall, Douglas L., M.B., Portland House, West Hartlepool
Watson, Thos. B., M.B., B.S., 77, York Rd., West Hartlepool
Young, M., M.D., West Hartlepool

No. 9.—Hexham Division

NUMBERING 21.

Chairman, H. F. Hurst, Esq., J.P., Lumeah, Hexham

Vice-Chairman, C. R. Kendal, Esq., Abbey Gate House, Hexham

Honorary Secretary, J. A. Jackson, M.D., Carntyne, Hexham

Representative for Representative Meeting.
A. T. Wear, M.D., Newcastle-on-Tyne

Representative on Branch Council.
Jackson, J. A., M.D.

Boustead, R. J., Esq., Hexham
Buchanan, R. D., M.D., Hexham
Connon, C. J., M.B., Blanchland, Riding Mill, R.S.O.
Eliott, J. P., Esq., Parkside Place, Bellingham
Fraser, G. R., Esq., Wark-on-Tyne
Grey, T. C., Esq., Mount Pleasant, Corbridge-on-Tyne
Hill, L., Esq., Westgate, Haltwhistle
Hurst, H. F., Esq., J.P., Lumeah, Hexham
Jackson, Daniel, M.D., Netherton, Hexham
Jackson, Daniel Noel, M.B., B.S., Corbridge
Jackson, J. A., M.D., Carntyne, Hexham
Kendal, C. R., Esq., Abbey Gate House, Hexham
McCoull, William, Esq., Ovington Ho., Ovingham-on-Tyne
McLean, H., M.D., Corbridge
Miller, J. G., M.B., Russell Terrace, Bellingham
Penfold, T. C., M.B., South Parade, Stocksfield-on-Tyne
Speirs, W. R., Esq., Haltwhistle, R.S.O.
Stewart, D., Esq., Hexham
Stubbs, R. P., Esq., Woodlands, Stocksfield, R.S.O.
Williams, G. J., M.B., Hawthorn House, Haltwhistle
Woodman, Thomas, M.B., B.S., Hexham

No. 10.—Morpeth Division

NUMBERING 24.

Chairman, F. Barrow, Esq., Rothbury

Vice-Chairman, F. Beaton, M.D., Hirst

Honorary Secretary, J. P. Philip, M.D., Bon Accord House, Morpeth

Representative for Representative Meeting.
R. Laing, Esq., Blyth

Representatives on Branch Council.
McDowell, T. W., M.D.
Philip, J. P., M.D.

Barrow, F., Esq., Rothbury
Beaton, F., M.D., Lintonville, Hirst, Morpeth
Bedford, G. H., Esq., Harbottle, Rothbury
Brumell, A., Esq., Morpeth
Buncle, T. M., M.B., Pegswood, Morpeth
Burrow, V. M.D., Newbiggin-by-Sea, Morpeth
Dickie, H., M.D., Morpeth
East, G. R., M.B., County Asylum, Morpeth
Evers, C. H., Esq., North Seaton, Morpeth
Goldie, R. W., M.D., Hirst, Morpeth
Goodall, J., M.B., Capheaton
Gunn, F. W., M.D., Widdrington
Hedley, A. S., M.B., Rothbury
Lawrence, Hugh H., M.B., Whalton
Lawson, C. W., Esq., Star House, Rothbury
Macleod, Malcolm, M.B., Lintonville, Hirst, Morpeth
Mills, R. J., M.B., Ashington
McDowall, Colin F. F., M.B., East Cottingwood, Morpeth
McDowall, John H., M.B., East Cottingwood, Morpeth
McDowall, T. W., M.D., County Asylum, Morpeth
O'Brien, Mary, L.S.A., East Cottingwood, Morpeth
Philip, J. P., M.D., Bon Accord House, Morpeth
Pringle, Agnes M., M.B., The Dispensary, Morpeth
Trotter, J. E. M., Esq., Scotland Gate, Choppington Morpeth

No. 11.—Newcastle-on-Tyne Division

NUMBERING 154.

Chairman, A. T. Wear, M.D., Wentworth Place, Newcastle on-Tyne

Vice-Chairman, A. M. Martin, M.B., 17, Saville Row, Newcastle-on-Tyne

Honorary Secretary, R. P. R. Lyle M.D., 11, Ellison Place Newcastle-on-Tyne

Representative for Representative Meeting.
A. T. Wear, M.D., Wentworth Place, Newcastle-on-Tyne

Representatives on Branch Council.
Burnell, A. C., M.B.
Dagger, R., Esq.
Hudson, J., M.D.
Lyle, R. P. R., M.D.
Martin, A. M., M.B.
Vickery, W. H., Esq.
Wear, A. T., M.D.

Aitchison, J., M.D., 57, Osborne Road, Newcastle-on-Tyne
Alderson, W. E., M.D., 5, Eldon Square, Newcastle-on-Tyne
Allison, T. M., M.D., 22, Ellison Place, Newcastle-on-Tyne
Anderson, F., M.B., 73, St. George's Terrace, Jesmond, Newcastle-on-Tyne
Angus, H. B., M.B., 4, St. Mary's Pl., Newcastle-on-Tyne
Angus, J. A., Esq., Bentinck Road, Newcastle-on-Tyne
Appleby, G. H. V., M.D., 90, Park Road, Newcastle-on-Tyne
Argles, R. L., Capt., R.A.M.C., 33, Eskdale Terrace, Newcastle-on-Tyne
Armstrong, H. E., Esq., Grand Hotel, Newcastle-on-Tyne
Atkinson, G. A., M.D., 52, Jesmond Road, Newcastle-on-T.
Barkas, T. C., M.B., The Poplars, Jesmond Vale Terrace Heaton, Newcastle-on-Tyne
Basham, S., Esq., Higham Place, Newcastle-on-Tyne
Baumgartner, J. R., Esq., 10, Eldon Sq., Newcastle-on-Tyne
Beatley, W. C., M.D., 4, St. Mary's Ter., Newcastle-on-Tyne
Beattie, T., M.D., 3, Ellison Place, Newcastle-on-Tyne
Bennett, H. P., M.B., 12, Victoria Square, Newcastle-on Tyne
Bentham, Ethel, M.D., 19, Ellison Place Newcastle-on Tyne
Blair, J. A., M.D., D.Sc., 16, Windsor Terrace, Newc.-on-T.
Bolam, R. A., M.D., 3, Saville Place, Newcastle-on-Tyne
Boyd, J. W. H., M.B., Elswick Road, Newcastle-on-Tyne
Bunting, T. L., M.D., Scotswood-on-Tyne
Burn, J. R., M.B., Forest Hall, Northumberland
Burnell, A. C., M.B., 34, Osborne Road, Newcastle-on-Tyne
Burnett, E. N., M.B., 2, Victoria Sq., Newcastle-on-Tyne
Buttercase, R., M.D., Forest Hall, Newcastle-on-Tyne
Callcott, J. T., M.D., City Asylum, Gosforth
Campbell, A., M.B., 44, Heaton Road, Newcastle-on-Tyne
Campbell, Colin M., Esq., Winlaton R.S.O.
Campbell, J. J., M.D., Prospect Place, Newcastle-on-Tyne
Carmichael, Daniel, Esq., 34, Hawthorn Road, Gosforth
Charlton, W. A. I'Anson, M.B., Westgate Hill House Newcastle-on-Tyne
Clay, John, M.B., 42, Jesmond Road, Newcastle-on-Tyne
Coley, F. C., M.D., 21, Eldon Square, Newcastle-on-Tyne
Collis, A. J., M.D., 17, Osborne Road, Newcastle-on-Tyne
Coxon, H. C., M.D., 13, Loraine Terrace, Leamington Scotswood-on-Tyne
Craggs, R. F., M.D., 22, Osborne Road, Jesmond, Newcastle-on-Tyne
Cresswell, John, Esq., Rothbury House, Heaton, Newcastle-on-Tyne
Dagger, R., Esq., Stannington Avenue, Newcastle-on-Tyne
Dawson, R. P., M.B., Welbeck Road, Walker, Newcastle
De Lacey, R. C., M.B., 6, Eldon Square, Newcastle-on-Tyne
Don, James, M.D., 1, Grove Street, Newcastle-on-Tyne
Drummond, D., M.D., D.C.L., 6, Saville Pl., Newc.-on-Tyne
Dryden, A., Esq., 2, Park Parade, Newcastle-on-Tyne
Duke, Alfred, M.B., 45, Osborne Road, Newcastle-on-Tyne
Dunlop, John T., M.B., 24, Kingsley Ter., Newcastle-on-T.
Ede, W. E. Moore, M.B., 64, Jesmond Road, Newcastle-on-Tyne
Farquharson, J. D., M.B., 242, Westgate Road, Newcastle-on-Tyne
Fitzgerald, G. H., M.D., 8, Walter Ter., Newcastle-on-Tyne
Frain, J., M.D., Grosvenor Place, Newcastle-on-Tyne
French, J. J., M.B., 2, Heaton Road, Newcastle-on-Tyne
Galbraith, W., Esq., High Street, Gosforth, Newcastle-on-T.
Gibb, C. J., M.D., 52, Westgate Road, Newcastle on-Tyne
Gover, J. M., M.B., High Street, Gosforth, Newcastle-on-T.
Gowans, T., M.B., 4, Abbotsford Terr., Newcastle-on-Tyne
Grinling, F. N., Esq., Dene House, Walker-on-Tyne
Grove, W., M.B., 129, Westmorland Road, Newcastle-on-Tyne
Hardcastle, W., M.B., 52, Westgate Road, Newcastle-on-T
Harkness, W. T., M.B., 104, St. George's Terrace, Newcastle on-Tyne
Harris, Alfred, M.B., City Hospital, Walker Gate, Newcastle-on-Tyne
Hartley, J. B., M.B., 5, Gowan Terrace, Newcastle-on-Tyne
Hay, T. W., M.B., 47, Jesmond Road, Newcastle-on-Tyne
Hembrough, J. W., M.D., St. Nicholas Chambers, Newcastle-on-Tyne
Heslop, J. W., M.B., Westfield, Benwell, Newcastle-on Tyne

Hewitson, J. G., M.B., 23, Brighton Grove, Newcastle-on-T.
Hindhaugh, J., M.D., Elswick Road, Newcastle-on-Tyne
Hindmarsh, R. S., M.B., 100, Beaumont Street, Newcastle-on-Tyne
Hitchfield, A. R., Esq., Longley Street, Newcastle-on-Tyne
Hobbs, A. H., M.B., 24, Ellison Place, Newcastle-on-Tyne
Holmes, C. D., Esq., Newburn-on-Tyne
Holmes, W., Esq., Ponteland, Newcastle-on-Tyne
Howden, R., M.B., 14, Burdon Terrace, Newcastle-on-Tyne
Hudson, J., M.D., 42, Crossley Terrace, Newcastle-on-Tyne
Hutchens, H. J., D.S.O., University of Durham College of Medicine, Newcastle-on-Tyne
Hume, G. H., M.D., 4, Ellison Place, Newcastle-on-Tyne
Hume, N. H., M.B., 61, Osborne Road, Newcastle-on-Tyne
Hunter, T. C., M.B., The Willows, Jesmond, Newcastle-on-Tyne
Kerr, A. W., Esq., Crawcrook, Ryton-on-Tyne
Kirkwood, T., M.B., 62, Westmorland Rd., Newcastle-on-T.
Kitching, E. B., Esq., 1, Linden Villas, Gosforth
Laws, C. U., M.D., 58, St. George's Ter., Newcastle on-Tyne
Leech, J. W., M.D., 12, Eldon Square, Newcastle-on-Tyne
Limont, J., M.D., 3, Queen Square, Newcastle-on-Tyne
Livingston, A., M.B., 38, Heaton Road, Newcastle-on-Tyne
Livingstone, T. H., Esq., 4, Eldon Square, Newcastle on-T.
Love, J. D., M.B., 98, Westmorland Rd., Newcastle-on Tyne
Lownds, J. R., Esq., Osborne Road, Newcastle-on-Tyne
Lyle, R. P. R., M.D., 11, Ellison Place, Newcastle-on-Tyne
Lyle, T., M.D., 34, Jesmond Road, Newcastle-on-Tyne
Macrae, James, Esq., 4, Benton Terrace, Newcastle-on-Tyne
McCoull, Stanley, M.B., The Brow, Wylam-on-Tyne
McCracken, J. S., M.B., 47, Westmoreland Rd., Newcastle-on-Tyne
McCreery, J. O., Esq., Hill House, Whickham, R.S.O.
Manford, John S., M.B., 1, Osborne Terrace, Newcastle-on-Tyne
Martin, A. M. M.B., 17, Saville Row, Newcastle-on-Tyne
Martin, W., M.D., West Villa, Akenside Terrace, Newcastle-on-Tyne
Mason, J. R., Esq., 6, Regent Terrace, Newcastle-on-Tyne
Mathews, H. John, M.B., 1, Lovaine Row, Newcastle-on-T.
Miller, E. J., Esq., 17, Osborne Terrace, Gosforth
Messer, A. W., M.B., Leamington, Scotswood-on-Tyne
Mitchell, J. R., M.B., Walker, Newcastle
Morison, J. R., M.D., F.R.C.S., 14, Saville Row, Newcastle-on-Tyne
Murray, G. R., M.D., 9, Ellison Place, Newcastle-on-Tyne
Murray, S. S., Esq., Salisbury House, Heaton Road, Newcastle-on-Tyne
Murray, W., M.D., 9, Ellison Place, Newcastle-on-Tyne
Nesham, R. A., Esq., 12, Ellison Place, Newcastle-on-Tyne
Nevin, R. W., M.B., 13, Heaton Grove, Newcastle-on-Tyne
Oliver, T., M.D., 7, Ellison Place, Newcastle-on-Tyne
Ouston, T. G., Esq., 4, Graham Park Road, Gosforth
Owen, Sir Isambard, D.C.L., M.D., Armstrong College, Newcastle-on-Tyne
Paige, H. B. W., M.D., 9, Linden Villas, Gosforth, Newcastle
Parkinson, T. S. P., M.B., Rosslyn, Benton, Northumberland
Patterson, D. W., M.B., 26, Ellison Place, Newcastle-on-Tyne
Penfold, W. J., M.B., 259, Clara St., Benwell, New -on-T.
Percival, A. S., M.B., 25, Ellison Place, Newcastle-on-Tyne
Philipson, Sir George Hare, M.D., D.C.L., 7, Eldon Square, Newcastle-on-Tyne
Picton, G. B., M.B., Stamfordham, Newcastle-on-Tyne
Pirrie, R. R., Esq., Ryton on-Tyne
Plante, G. R., M.B., Dene Holme, Blaydon on-Tyne
Rattray, A. M., M.D., City Asylum, Gosforth
Richardson, W. G., M.B., 19, Saville Row, Newcastle-on-T.
Ridley, G. W., M.B., 6, Ellison Place, Newcastle
Ruddock, W. J., M.B., Graingerville North, Newcastle-on-Tyne
Russell, F., M.B., 41, Heaton Road, Newcastle-on-Tyne
Rutherford, J. V. W., M.B., Jesmond Rd, Newcastle-on-Tyne
Rutter, H. L., M.D., 31, West Parade, Newcastle-on-Tyne
Rutter, Joseph, M.B., 85, Westmorland Road, Newcastle-on-Tyne
Ruxton, W. L., M.B., 33, West Parade, Newcastle-on-Tyne
Scott, T. O., M.B., 52, Elswick Road, Newcastle-on-Tyne
Simpson, W., M.B., Graingerville N., Newcastle-on-Tyne
Slater, R. A., M.B., 11, Osborne Terrace, Newcastle-on-Tyne
Slater, Wm., M.D., 102, Rye Hill, Newcastle-on-Tyne
Smith, A., M.D., Whickham, Newcastle-on-Tyne
Smith, Andrew, M.B., Rowland's Gill
Smith, J. Esq., 2, Victoria Street, Newcastle on-Tyne
Smith, J. W., M.D., Balgonie House, Ryton-on-Tyne
Smurthwaite, Henry, M.D., 8, St. Mary's Place, Newcastle on-Tyne
Stewart, J. C., M.B., Milnholm, Clifton Road, Newcastle-on-Tyne
Spurgin, W. H., Esq., 8, Graingervilles, Newcastle-on-Tyne
Tiplady, W., Esq., 63, Westmorland Rd, Newcastle-on-Tyne
Turner, G. G., M.B., 31, Oxford St., Newcastle-on-Tyne
Vickery, W. H., Esq., 1, Bristol Terrace, Beech Grove, Newcastle on-Tyne
Walker, F. S., M.D., 48, Osborne Road, Newcastle-on-Tyne
Walker, N. B., M.B., Seaton Burn, Dudley R.S.O.
Walker, T. H., Esq., Conyers House, Sandyford Road, Newcastle-on-Tyne
Wardale, J. D., M.B., 31, Eskdale Terrace, Newcastle-on-Tyne
Watson, G. E., Esq., 176, Portland Road, Newcastle-on-Tyne
Wear, A. T., M.D., Wentworth Place, Newcastle on Tyne
Whillis, S. S., M.D., 46, Westmorland Road, Newcastle-on-Tyne
Williams, Ethel M. N., M.D., 19, Ellison Pl., Newcastle-on-Tyne
Wilson, A., Esq., Osborne House, Newcastle-on-Tyne
Wilson, J. L., M.B., 82, Osborne Avenue, Newcastle on-Tyne
Wishart, J., M.D., Dudley Colliery, Northumberland
Woodger, W. H., Esq., Leven House, High Spen, Rowland's Gill
Younger, R., M.B., 5, Meldon Terrace, Heaton, Newcastle on-Tyne

No. 12.—North Northumberland Division

NUMBERING 23.

Chairman, C. C. Burman, Esq., Alnwick

Vice-Chairman, R. A. Welsh, M.B., Felton

Honorary Secretary, R. B. Robson, M.B., 20, Bondgate, Alnwick

Representative for Representative Meeting.
R. Laing, Esq., Blyth

Representatives on Branch Council.
Maclagan, C. G., M.B.
Robson, R. B., M.B.

Burman, C. C., Esq., Alnwick
Coldstream, G. P., M.B., West Street, Belford
Crawford, J. M., M.B., Norham on-Tweed
Dey, Alexander, M.B., Wooler
Elliott, John, Esq., Lowick, Beal
Forrest, J. S., Esq., Warkworth
Fraser, C. L., F.R.C.S. Ed., Ravensdowne, Berwick
Grant, W. Young, M.B., 25, Bridge Street, Berwick
Macaskie, J. G., Esq., Bamburgh
MacDonald, James, M.B., The Villa, Belford
Mackay, W. B., M.D., 23, Castlegate, Berwick
Maclagan, C. G., M.B., 52, Ravensdowne, Berwick-on-Tweed
Main, A. J., M.D., Thornbrae, Alnwick
Paxton, John, Esq., Norham-on-Tweed
Purves, A. Scott, M.D., Bondgate Without, Alnwick
Robson, R. B., MB., 20, Bondgate, Alnwick
Smyth, W., M.B., West Ord, Berwick-on-Tweed
tumbles, H. M., M.B., Amble House, Amble
Walker, R., M.D., Wooler
Waterson, W. T. Esq., Embleton, Christonbank, R.S.O.
Watson, James, Esq., Whittingham, R.S.O.
Welsh, R. A., M.B., Felton
Worth F. J., M.D., Glencoe, Wooler

No. 13.—South Shields Division

NUMBERING 40.

Chairman, J. L. Crisp, Esq., South Shields

Vice-Chairman, John McD. Nicoll, M.B., Jarrow-on-Tyne

Honorary Secretary, L. McNabb, M.D., 4, Meldon Terrace, South Shields

Representative for Representative Meeting.
J. H. Hunter, M.D., Havelock Street, South Shields

Representatives on Branch Council.
Crisp, J. L., Esq.
Goudie, Henry, M.B.

Executive Committee.
Crease, J. R., Esq.
Crichton, Harry, M.D.
Drummond, J., M.D.
Goudie, H., M.B.
Gowans, W., M.D.
Hunter, J. H., M.D.
Kendall, J. A., M.D.
Norman, L. S., M.B.
O'Callaghan, T., L.R.C.P. and S.

Armstrong, J. F., M.D., Westoe House, South Shields
Bain, John, Esq., 1, Thorney Terrace, South Shields
Batchelor, C. R., Esq., 1, Salmond Terrace, S. Shields
Bootiman, John S., jun., M.B., 3, Thorney Terrace, South Shields
Bradley, M. McW., M.D., Jarrow-on-Tyne
Buchanan, Angus, M.B., Ingham Infirmary, South Shields
Caverhill, T. P., M.B., 46, Charlotte Street, South Shields
Crease, J. R., Esq., 2, Ogle Terrace, South Shields
Crease, J. R., Jun., Esq., 2, Ogle Terrace, S. Shields
Crichton, Harry, M.D., 1, Kensington Terr., South Shields
Crisp, J. L., Esq., 7, Albion Terrace, South Shields
Davidson, James, M.B., Argyll House, Hebburn-on-Tyne
Davidson, T., M.B., Ingham and South Shields Infirmary, South Shields
Drummond, J., M.D., Wyvestow Lodge, South Shields
Ferrier, David, M.D., 12, Ogle Terrace, South Shields
Franks, Charles, Esq., Jarrow on-Tyne
Gibbon, E. H., M.B., Laygate Lane, South Shields
Goudie, Henry, M.B., Westoe Parade, South Shields
Gowans, W., M.D., Westoe, South Shields
Hunter, J. H., M.D., Havelock Street, South Shields
Inglis, D. W., M.D., Argyll House, Hebburn-on-Tyne
Jennings, W. M., Esq., 16, Croft Terrace, Jarrow-on-Tyne
Kendall, J. A., M.D., 13, Wellington Terrace, S. Shields
Legat, A., M.D., Sea March, South Shields
McNabb, L., M.D., 4, Meldon Terrace, South Shields
Martin, T. M., M.B., 11, Ogle Terrace, South Shields
Mostyn, S. G., M.B., 9, Seafield Terrace, South Shields
Nicoll, John, McD., M.B., Albert Road, Jarrow-on-Tyne
Norman, E. E., M.B., Hebburn-on-Tyne
Norman, L. S., M.B., 3, Grange Road, Jarrow-on-Tyne
O'Callaghan, Timothy, L.R.C.P.& S., Regent Street, South Shields
O'Kelly, D. F., Esq., Cross Lodge, Boldon Colliery, R.S.O.
Ord, H. B., Esq., 5, Salmon Terrace, South Shields
Peacock, E. V., M.B., 5, Belle Vue Terrace, South Shields
Sinclair, F. W., M.B., Windsor Terrace, South Shields
Sutherland, C. J., M.D., Dacre House, Laygate, South Shields
Walker, A. M. G., Esq., Argyle Street, Hebburn-on-Tyne
Weir, D. Henderson, M.D., Woodbine Villa, Jarrow-on-Tyn
Weir, G. W., M.D., 1, Myrtle Crescent, South Shields
Whyte, John, L.R.C.P.& S., 12, Wentworth Terrace, South Shields

No. 14.—Stockton Division

NUMBERING 22.

Chairman, G. V. Miller, M.B., Barrington Crescent, Stockton-on-Tees

Vice-Chairman, A. H. Smith, M.B., Yarm

Honorary Secretary, W. Mackenzie Wilson, M.B., 6, North Terrace, Stockton-on-Tees

Representative for Representative Meeting.
G. V. Miller, M.D., Stockton

Representative on Branch Council.
Miller, G. V., M.D.

Blandford, J. W., Esq., Norton, Stockton-on-Tees
Blandford, L. J., M.D., Norton, Stockton-on-Tees
Cameron, D. A., M.B., Hartington Rd., Stockton-on-Tees
Collinson, H. A., M.B., 1, Rosslin Terrace, Stockton-on-Tees
Daglish, W. R. D., M.B., Stockton and Thornaby Hospital, Stockton-on-Tees
Dale, A. J., M.D., 9, Bishopton Road, Stockton-on-Tees
Densham, H. B., M.B., 5, Barrington Cres., Stockton-on-Tees
Fawcett, Hy., M.D., Thornaby-on-Tees
Fleming, J., M.D., 1, North Terrace, Stockton-on-Tees
Hogg, G. M., M.B., 7, Victoria Terrace, Stockton-on-Tees
Horne, T., M.D., Lakeside, Stockton-on-Tees
Hughes, H. M., M.B., Stockton-on-Tees
Hunton, F., M.D., The Whins, Sedgefield, Ferryhill
Lyle, S., M.B., 1, West End Terrace, Stockton-on-Tees
Miller, G. V., M.D., Barrington Crescent, Stockton-on-Tees
Sibson, A. B., Esq., Hardwicke House, Stockton-on-Tees
Smith, A. H., M.B., Yarm
Smith, F. G., Esq., 8, Norton Road, Stockton-on-Tees
Smith, T. R. H., M.B., 25, Bridge Road, Stockton-on-Tees
Tarleton, A., M.B., Thornaby-on-Tees.
Watson, T., M.D., Argyle House, George Street, Thornaby
Wilson, W. Mackenzie, M.B., 6, North Terrace, Stockton-on-Tees

No. 15.—Sunderland Division

NUMBERING 66.

Chairman, R. S. Hubbersty, M.D., Sunderland

Honorary Secretary and Treasurer, David F. Todd, Esq., Beech Ho., Sunderland

Representative for Representative Meeting
David F. Todd, Esq., Sunderland

Representatives on Branch Council.
Hubbersty, R. S.
Modlin, I. G., M.D.
Rowston, N. F., M.B.
Todd, David F., Esq.

Anderson, John, M.B., 1, Ward Terrace, Sunderland
Bernard, G., M.D., Silksworth, Sunderland
Beveridge, R. E., M.B., 10, Park Terrace, Sunderland
Blair, R., M.B., 3, Allen Terrace, Sunderland
Blumer, W. P., Esq., 15, Esplanade West, Sunderland
Brears, C. F., M.D., West House, Southwick, Sunderland
Campbell, Angus, M.B., 12, Dundas Street, Sunderland
Carruthers, J. J., M.B., Park Ho., Southwick, Sunderland
Chalmers, J., M.B., 1, Claremont Terrace, Sunderland
Davis, A. H., M.B., 34, North Bridge Street, Sunderland
Dillon, L. G., M.D., Seaham Harbour
Dix, R. H., M.D., Otto Terrace, Sunderland
Fenwick, J. C., Esq., 9, Park Terrace, Sunderland
Gaunt, W. H., M.B., Murton Colliery, Durham
Gayner, J. S., Esq., Beech Holm, Sunderland
Gilbertson, A. J., M.B., Ullithorne House, Dundas Street, Sunderland
Gray, J. W., M.B., Ch.B., 9, Holly Terrace, Sunderland
Hamilton, J. C., Esq., 6, Dundas Street, Sunderland
Hay, William, M.B., 5, Allen Terrace, Sunderland
Henegan, D., Esq., South Hetton, co Durham
Heslop, H. L., M.D., Elal House, Hylton Road Sunderland
Hickey, G., M.B., 7, Park Terrace, Sunderland
Hopgood, T. F., Esq., Olive House, Sunderland
Hubbersty, R. S., M.D., Avenue House, Sunderland
Hunter, W., Esq., 60, General Gordon Terrace Sunderland
Jacobs, M., M.B., 11, Nicholson Street, Sunderland
Johnston, T. F., M.D., Easington Lane, Hetton-le-Hole R.S.O.
Legat, A. E., Esq., 13, Park Terrace, Sunderland
Lloyd, A. P., M.B., Briarwood, Penshaw
Maling, W. H., Esq., 1, Thornhill Terrace, Sunderland
Middlemass, J., M.D., Field House, Ryhope
Milbanke, W. B., M.B., 4, South Hill Cresc., Sunderland
Modlin, I. G., M.D., 148, Roker Avenue, Sunderland
Moore, A. A., M.B., South Hetton, Sunderland
Morgan, G. B., Esq., West Lodge, Sunderland
Morrogh, A. B. S. C., Esq., Nesham House, Houghton-le-Spring, R.S.O.
Morton, J. B., M.B., 37, Hartley Buildings, Sunderland
Murray, George, M.B., 19, St. Mark's Buildings, Sunderland
Neilan, J. A. L., Esq., New Seaham
O'Brien, A. J. R., M.B., Monkwearmouth Hospital, Sunderland
Park, D. S., M.D., Holly House, Houghton-le-Spring
Pearcey, G. E., M.B., 2, Avondale Terrace, Sunderland
Pearcey, P. A., M.D., 39, North Bridge Street, Monkwearmouth, Sunderland
Prowde, E. L. M.D., 19, St. George's Square, Sunderland
Raw, Stanley M.D., 28, Alice Street, Sunderland
Renney, Henry, M.D., Westbrook, Sunderland
Richardson, Catherine M., M.B., 5, Side Cliff Road, Roker Sunderland
Robertson, J. H., M.B., Ryhope, Sunderland
Robinson, W., M.D., Carlton House, Sunderland
Rowstron, N. F., M.B., 12, General Gordon Ter., Sunderland
Russell, W. Keir, M.B., 37, General Gordon Terrace, Sunderland
Shaw, J. M., M.B., Saville Place, Sunderland
Smith, A. Ayre, M.B., 5, Albion Place, Sunderland
Smith, James, M.D., 1, Rectory Terrace, Sunderland
Stevenson, A., M.B., 17, General Gordon Terrace, Sunderland
Stobo, R., M.B., 51, North Bridge Street, Sunderland
Thompson, W. G., M.D., Ch.B., North Bridge Street Sunderland
Tivy, C. B. F., M.B., The Infirmary, Sunderland
Todd, David F., Esq., Beech House, Sunderland
Wallace, H. K., M.B., 12, Green Terrace, Sunderland
Waterson, J., Esq., 16, Frederick Street, Sunderland
Watson, T. A., M.B., St. Bede's Park, Sunderland
Webb, Bertha M., M.B., 4, Claremont Terrace, Sunderland
Welford, G. E., M.D., Douro House, Sunderland
Waters, J. B., M.B., 39, North Bridge Street, Sunderland
Wood, C. R., M.D., South Hetton, Sunderland

No. 16.—Tyneside Division

NUMBERING 38.

Chairman, R. S. Peart, M.D., Cleveland Villa, N. Shields

Vice-Chairman, A. Wilkinson, M.D., Tynemouth

Honorary Secretary, L. G. Fraser, M.D., 11, Northumberland Square, North Shields

Honorary Treasurer, J. E. Baker, M.D., North Shields

Representative for Representative Meeting.
J. H. Hunter, M.D., Havelock Street, South Shields

Representatives on Branch Council.
Gofton, E., M.B.
Fraser, L. G., M.D.

Executive Committee.
Adams, H., M.B.
Babst, C. T. U., Esq.
Bower, W., M.B.
Brumwell, E., M.D.
Callender, J. H., Esq.
Campbell, W.S., M.B.
Holgate, P., M.B.
Ingram, J., M.B.
Martin, A. A., Esq.
Mears, F. C., Esq.

Adams, H., M.B., 8, Belle Vue Terrace, North Shields
Aitchison, H. H., M.B., Wallsend-on-Tyne
Aitchison, T., M.B., Philipson St., Willington Quay-on-Tyne
Babst, C. T. U., Esq., Norman House, Willington Quay
Baker, J. E., M.D., 36, Stanley Street W., N. Shields
Bower, W., M.B., 25, Northumberland Square, N. Shields
Bramwell, H. R., M.B., Tynemouth
Brumwell, Ernest, M.D., 5, Dockwray Square, N. Shields
Callender, John H., Esq., North Shields
Campbell, W. S. M.B., 1, Catherine Terrace, Whitley Bay
Craig, G. B., Esq., Rosehill, Willington-on-Tyne
Davison, Henry Edward, M.D., B.S., 27, Marine Avenue Whitley Bay
Dinsmore, W., M.D., Backworth, Newcastle-on-Tyne
Dewhirst, W. A., M.B., Rydal House, Whitley Bay
Dixon, Taylor, M.B., Earsdon
Forrest, Alex., M.B., Park Road, Wallsend-on-Tyne
Fraser, L. G., M.D., 11, Northumberland Sq., North Shields
Gofton, Edward, M.B., 33, Borough Road, North Shields
Harker, W. E., M.D., Tynemouth
Harrison, James, M.D., 33, Howard Street, North Shields
Holgate, Percy, M.B., 4 Northumberland Place, N. Shields
Lazenby, J. M., M.B., Whitley Bay
Maclay, N., M.B., 3, Laburnam Avenue, Wallsend-on-Tyne
McConnell, James, M.B., Percy Gardens, Tynemouth
Martin, A. A., Esq., 25, Northumberland Sq., N. Shields
Mears, F. C., M.B., Tynemouth Infirmary, North Shields
Milne, J. Percy, L.R.C.P.& S., Albert Terrace, Wallsend
Munro, J. Ramsay, M.D., 7, Lovaine Terrace, North Shields
Peart, Robert, M.B., 22, Dockwray Square, North Shields
Peart, R. S., M.D., Cleveland Villa, North Shields
Rolland, A. G., Esq., 33, Dockwray Square, N. Shields
Sparks, J. P., M.D., 45, Whitley Road, Whitley, R.S.O.
Stoker, Fred., M.B., Park Road, Wallsend-on-Tyne
Tindle, John Geo., Esq., North Shields
Wilkinson, A., M.D., Tynemouth
Wilson, R. A., M.D., Wallsend-on-Tyne
Woodhouse, E. E., M.B., Western Road, Willington Quay
Young Thomas M., M.R.C.S., L.S.A., Whitley Bay

NORTHERN COUNTIES OF SCOTLAND BRANCH.

Comprising the western portion of BANFF, ELGIN, INVERNESS, and the Counties of SCOTLAND north of these.

Members of Branch—120.

RECOGNISED 1873.

President, A. Sclanders, M.D., Nairn

President-elect, W. Kennedy, M.D., Tain

Vice-Presidents.
J. Murray, M.D., Inverness
D. Allan, M.D., Evanton

Hon. Secretary and Treasurer.
J. Munro Moir, M.D., 4, Ardross Terrace, Inverness

Representative on Council of Association.
Murray, Jas., M.D., Inverness

Representative for Representative Meeting.
J. Munro Moir, M.D., 4, Ardross Terrace, Inverness

Branch Council.
Adam, J., M.D.
Asher, A., M.B.
Forsyth, J. G. A., M.B.
Gillies, K., M.B.
Mackenzie, F.M., L.R.C.P.Ed.
Sutter, J. M., M.B.

Adam, C., M.D., St. Giles, Elgin
Adam, J., M.D., Dingwall
Adam, John, M.B., 1, Caroline Street, Forres
Alexander, T. H. W., M.B., Northview, Elgin, N.B.
Allardes, W., M.B., Rothes

Allan, D., M.D., Evanton
Asher, A., M.B., Thurso
Askew, J. R., L.R.C.S.&P.Edin., Fochabers
Balfour, A. C., L.R.C.P.&S E., Aviemore
Banks, G., L.R.C.S.Ed., Wick
Black, J. W., M.D., Inverness
Brander, T., M.B., Craigmount, Lossiemouth
Brander, T. L., M.D., Ardlinnhe, Fort William
Brebner, R. Nichol, M.D., Strathmore, Keith
Brodie, Richard, L.R.C.S. & P.Ed., Munlochy
Brown, E. E., M.B., Oakdale, Broadstone Park, Inverness
Bruce, John, M.B., Auchernack, Forres, N.B.
Bruce, W., M.D., Dingwall
Cameron Allan, M.B., Keose, Stornaway
Cameron, Hugh F., M.B., 3, Albany Gardens, Invergordon
Cameron, John, M.B., Kingarth, Fortrose
Cameron, J. A., M.D., M.O.H. Elgin
Campbell, D. Graham, M.B., 11, North Street, Elgin
Campbell, R. B. M.B., District Asylum, Inverness
Clarke, Robert, M.B., Kininvie Cottage, Lossiemouth
Cruickshank, B., M.D., Nairn
Cormack, W. P., M.B., 16, Sinclair Terrace, Wick
Davidson, J. F., M.B., Obbe, Harris
Dewar, J., M.B., Portree, I. of Skye
De Watteville, W. F. R., M.D., Kingussie
Dick, George, M. B., 12, Sinclair Terrace, Wick
Duguid, W. R., M.D., Buckie
Duncan, E. H., M.B., Strathpeffer
Elliott, S., M.D., 12, Sinclair Terrace, Wick
Falconer, Donald, M.B., Foyers
Fletcher, D., L.R.C.S. & P.Edin., Tarbert, Harris
Forsyth, J. G. A., M.B., Inverness
Fraser, J. G., M.B., Braehead, Inverness
Gillies, K., M.B., King Street, Tain
Gilmour, A., L.R.C.P., Canisbay, Wick
Gourlay, F., M.D., The Grove, Elgin
Grant, David, M.D., 31, Bridge Street, Inverness
Grant, Duncan, M.B., Tongue
Grant, J., M.D., Grantown
Gunn, Norman, M.B., Dufftown
Hall, A. W., L.R.C.P & S.Edin., Grantown-on-Spey
Harbinson, A., M.D., Millbank, Elgin
Hendry, George, M.B., Rosebank, Buckie
Heron, F. T., M.B., Ardoyne, Forres
Ironside, S. C., M.B., Fochabers
Jamieson, Chas., M.B., Badcall, Scourie, Lairg
Johnston, D. S., M.D., Fort Augustus
Kaye, H. W., M.B., Eaglestone, Strathpeffer Spa
Kennedy, W., M.D., Tain
Kerr, G. W. E., M.B., 19, High Street, Inverness
Lawson, L. G., L.R.C.S. & P.Ed., Stonefield House, Grantown-on-Spey, N.B.
Leach, J. M.B., Makerstone House, Beauly
Lindsay, Robert, M.B., Ardersier
Lovett-Campbell, A. G., M.B, Glenelg.
Macara, J. F. D., M.B., Durness, Lairg
MacDonald, D. J., M.B., Stornoway, Lewis
MacDonald, D., M.B., Craig Villa, Laggan, Kingussie
Macdonald, D., M.B., Glen Urquhart
Macdonald, John, M.B., 2, Muirfield Road, Inverness
MacDonald, T., M.B., Beauly, Inverness
MacFadyen, D., L.R.C.S.Ed., Inverness
McHardy, T., M.B., Cullen
Mackay, A. W., M.B., 37, Bridge Street, Inverness
Mackay, C. G., M.B., Loch Carron, Dingwall
Mackay, J. W. N., M.D., 103, High Street, Elgin
Mackenzie, F. M., L.R.C.P.Ed., Academy Park, Inverness
Mackenzie, J. C., M.D., Buckie
Mackenzie, J. W., M.D., Castle Street, Inverness
Mackenzie, M., L.R.C.S.Ed., 34, Frances Street, Stornoway
Mackie, W., M.D., 13, North Street, Elgin
MacLachlan, Jas., M.B., Burnside, Dornoch
McLaren, J. S., M.B., Hazelbrae, Nairn, N.B.
MacLennan, F., M.B., Capt., R.A.M.C., Fort George
MacLennan, R. M., M.B., Castletown, Thurso
McLean, W., M.B., Fortrose
Macleod, W., M.B., C.M., Helmsdale
Macrae, C. M., M.D., Stornoway
Macrae, Farquhar, M.B., Alness
Mann, H. W. M.B., Nairn
Mitchell, J. G., M.B., Ribigill, Tongue
Meade, J. N., L.R.C.P.&S.Ed., Lybster, Caithness
Miller, A. C., M.D., Craig-Linnhe, Fort William
Miller, H. Crichton, M.D., Aviemore
Moir, J. Munro, M.D., 4, Ardross Terrace, Inverness
Mowat, A., M.B., Lairg
Murchison, Alex., M.B., Uig, Isle of Skye
Murray, D., M.B., 22, Bayhead, Stornoway
Murray, J., M.D., Inverness
Nicoll, Geo., M.B., Brora
Nicolson, S., L.R.C.P.& S.Edin., 19, High Street, Inverness
Orchard, E. R., M.B., Kingussie
Petrie-Hay, G., M.D., Forres
Pyle, W., M.B., Portmahomack
Rae, C. G., L.R.C.P.&S.Ed., 7, Sinclair Terrace, Wick
Rae, James, M.B., Gairloch
Reid, W. E., M.B., Northern Infirmary, Inverness
Ross, R., L.R.C.S.Ed., Borve, Barvas, Stornoway
Ross, Hugh, M.B., Tain
Sclanders, A., M.D., Ramleh, Nairn, N.B.
Sellar, T. A., M.B., Dunleigh, Aberlour
Simpson, Jas. B., M.D., Golspie
Skinner, W., M.B., Ballindalloch
Smith, J. P., M.B., Dingwall
Smith, P. Blaikie, M.D., Raybank, Nairn
Stephen, Jas. A., M.B., 9, North Street, Elgin
Stephens, R., M.B., Brora
Strother, J., M.B., Balmachree, Petty, Inverness
Sutherland, J. F., M.D, Scotsburn Road, Tain
Sutter, J. M., M.B., Elderslie Place, Nairn
Taylor, J., M.D., Dunfermline House, Elgin
Taylor, J., M.D., Keith
Turner, J. W., M.B., Grampian Sanatorium, Kingussie
Turner, R. S., M.D., Keith
Watson, Jas. Walker, M.B., 14, North Street, Elgin
Williamson, G. A., M.B., Broomfield Crown Drive, Inverness
Wilson, George, M.B., 2, Queen Street, Nairn
Young, W. B., M.B., Applecross

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH.

District comprising the Counties of CUMBERLAND and WESTMORLAND, south of and including Ravenglass, Grasmere, Orton, and Kirkby Stephen; the County of LANCASTER, north of and including Garstang; and that portion of Yorkshire West of and including Hawes and Settle.

Members of Branch—129.

RECOGNISED 1903.

President, J MASON, M.D., Windermere

President-elect, W. HALL, M.D., Lancaster

Vice-President, A. J. CROSS, M.B., Dalton-in-Furness

Honorary Secretary, A. S. BARLING, Esq., 2, Queen Square Lancaster

Honorary Treasurer, W. D. BARROW, M.D., Lancaster

Representative on Council of Association.
J. Maxwell Ross, M.B., Dumfries

Branch Council.
Chapman, W. D, M.B.
Collins, A. W., M.D.
Gibson, J. A.
Oldham, H., F. M.D.
Sturridge, P. F., Esq.
Thompson, A. E., M.B.

No. 1.—Furness Division

NUMBERING 45.

Chairman, John Settle, Esq., Barrow-in-Furness

Vice-Chairman, J. W. Fawcitt, Esq., Broughton-in-Furness

Honorary Secretary, F. E. Daniel, Esq., 141, Abbey Road, Barrow-in-Furness

Representative for Representative Meeting, F. E. Daniel, Esq., Barrow-in Furness

Representatives on Branch Council.
Collins, A. W., M.D.
Thompson, A. E., M.B

Allan, E., Esq., Duke Street, Barrow-in-Furness
Alexander, Geo., M.B., Walney, Barrow-in-Furness
Anderson, Douglas H., M.D., Barrow-in-Furness
Anderson, J. W., M.D., Olive House, Lightburn Road, Ulverston
Anderson, L. P., Esq., Church Walk, Ulverston
Ashburner, R., Esq., Ulverston
Beardsley, R. H., Esq., Bay Villa, Grange-over-Sands
Booth, P. L., Esq., Empress Drive, Isle of Walney, Barrow-in-Furness
Bowman, R. O., M.D., Lightburne House, Ulverston
Brown, R. S., M.B., Broughton-in Furness
Carmichael, A., M.D., Duke Street, Barrow-in-Furness
Carter, J. B., M.B., Lightburn Road, Ulverston
Cass, E. E., M.B., Ravenglass, Carnforth
Cockton, J., M.B., Queen Street, Ulverston
Coffey, R., Esq., 46, Church Street, Barrow-in-Furness
Collins, A. W., M.D., Fountain Street, Ulverston
Cook, S. B., M.D., Askham-in-Furness
Cross, A. J., M.B., Dalton-in-Furness
Daniel, F. E., Esq., 141, Abbey Road, Barrow-in-Furness
Dunn, W. A., Esq., Millom
Fawcitt, J. W., Esq., Broughton Ho., Broughton-in-Furness
Fell, T. K., Esq., 6, Harley Street, Barrow-in-Furness
Forster, T. F., M.D., Dalton-in-Furness
Gwatkin, O., Esq., Grange
Harper, R. A. J., M.B., c.o. Dr. Rutherford, Barrow-in-Furness
Hawkesworth, E. T., Esq., Haverthwaite, Ulverston
Kendall, J., Esq., Oaklands, Coniston
Livingston, John, Esq., 18, Hartington St., Barrow-in-Furns.
Lowther, R., M.D., Fernleigh, Grange-over-Sands
McIntyre, E., Esq., Dalton-in-Furness
Milligan, James, M.B., 9, Abbey Road, Barrow-in-Furness
Murray, John, M.B., Spean House, Barrow-in Furness
Parsons, G., M.B., Hawkshead
Patterson, G. H., Esq., Beckside Ho., Dalton-in-Furness
Penny, W. R., Esq., Penny Bridge, Ulverston
Pooley, E. B., Esq., Dalton House, Dalton-in-Furness
Reed, J. A., M.B., 128, Rawlinson Street, Barrow-in-Furness
Rutherford, A. F., M.B., Abbey Road, Barrow-in-Furness
Sansom, W., M.D., 8, Hartington Street, Barrow-in-Furness
Settle, John, Esq., 21, Storey Square, Barrow-in-Furness
Sinclair, William, M.D., 2, Hartington Street, Barrow-in-Furness
Thompson, A. E., M.B., 28, Church St., Barrow-in-Furness
Wakefield, R. W., Esq., Winder, Cark-in Cartmel
Williams, J. T., Esq., Abbey Road, Barrow-in-Furness
Wilson, J. F., M.D., Norwood, Abbey Road, Barrow-in-Furness

No. 2.—Kendal Division

NUMBERING 32.

Chairman, T. H. Gibson, M.D., Kirkby Stephen

Vice-Chairman, W. B. Cockill, Esq., Kendal

Honorary Secretary, P. F. Sturridge, Esq., Stramongate, Kendal

Representative for Representative Meeting, F. E. Daniel, Esq., Barrow-in-Furness.

Representatives on Branch Council.
Chapman, W. D., M.B.
Sturridge, P. F., Esq.

Allen, W. E. L., M.B., Springfield, Ambleside
Baines, E., M.B., Woodlands, Windermere
Beaumont, W. H., M.B., Sedbergh, R S.O.
Brumwell, G. W., Strickland House, Kendal
Carden, J. C., Esq., Milnthorpe
Chapman, W. D., M.B, Helmwood, Windermere
Clegg, R., Esq., Bowness, Windermere
Cockill, W. B., M.D., Lindum Holme, Kendal
Craven, R. M., Esq., Medical Officer of Health, Kendal
Dick, M. I., M.B., Stanley Bank, Staveley
Dobson, T. H., M.D,, Myln Garth, Windermere
Gibson, R. W., M.D., Orton, near Tebay, R.S.O.
Gibson, T. H., M.D., Kirkby Stephen
Graham, J., M.B., Orton, Tebay
Grosvenor, W. C., M.D., Hungersheath, Arnside
Hough, C. H., Esq., Clappersgate, Ambleside
Hughes, T. H. J. E., Esq., Meathop Sanatorium, Grange-over-Sands
Johnston, B. R., Esq., Rox Cottage, Grasmere, R.S.O.
Johnston, G. A., M.D., Gale House, Ambleside
Leeming, R. W., M.D., 71, Highgate, Kendal
McCallum, A. J., M.B., Highgate View, Kendal
Mason, J., M.D., The Crossways, Windermere
Mitchell, T. H., Esq., Ambleside
Noble, S. C., Esq., Kendal
Parker, W. R., M.D., Kendal
Proctor, W. B., Esq., Hollin Bank, Underbarrow, Kendal
Seagrave, G. H., Esq., Stoneleigh, Milnthorpe
Shaw, K. R. D., Esq., Bay Villa, Bowness-on-Windermere
Sturridge, P. F., Esq., Stramongate, Kendal
Taylor, B. R. A., Esq., Kendal
Wadeson, E. A., M.B., Sedbergh, R.S.O.
Walker, B., M.B. The Grotto Kirkby Stephen

No. 3.—Lancaster Division

NUMBERING 52.

Chairman, R. G. Heathcote, Esq., Morecambe

Vice-Chairman, G. R. Parker, Esq., Lancaster

Honorary Secretary, J. A. Gibson, M.D., 38, King Street, Lancaster

Representative for Representative Meeting, H. F. Oldham, M.D., Calton Cottage, Morecambe

Representatives on Branch Council.
Gibson, J. A., M.D.
Oldham, H. F., M.D.

Committee.
Bradley, R., Esq.
Hall, W., M.D.
Lamport, H. C., M.B.
Mannix, P. F., M.D.

Aitken, J., M.B., 15, Dalton Square, Lancaster
Anderton, E. W., M.B., Hawes, R.S.O.
Atkinson, F. E., Esq., Bowerley, Settle
Barling, A. S., Esq., 2, Queen Square, Lancaster
Barrow, W. D., M.B., 9, Dalton Square, Lancaster
Batten, F. J., M.B., Euston Road, Morecambe
Blair, D., M.D., County Asylum, Lancaster
Bradley, R., Esq., Bentham
Buck, C. W., Esq., Settle
Burrow, T., Esq., 2, Dalton Square, Lancaster
Callender, D. M., M.B., 6, Rose Bank, Lancaster
Cosgrave, F. R., M.D., Fernbank, Burton
Coupland, W. H., Esq., Royal Albert Asylum, Lancaster
Dean, C. W., Esq., 20, Lindow Square, Lancaster
Douglas, A. R., Esq., Royal Albert Asylum, Lancaster
Forsyth, D., M.D., The Close, Lancaster
Fullarton, Jas., Esq., Yealand Conyers, Carnforth
Gibson, J. A., M.D., 38, King Street, Lancaster
Glegg, J., M.B., Morecambe
Grime, T. J., M.D., Burn House, Hawes, R.S.O.
Hall, W., M.D., Stonewell, Lancaster
Hamilton, W. C., M.B., 3, Dalton Square, Lancaster
Harrison, James, Esq., Wyre Bank, Garstang, R.S.O.
Heathcote, R. G., Esq., 2, Eidesforth Terrace, Morecambe
Helme, W. C., M.B., Queen's Square, Lancaster
Hogarth, B. W., M.D., Morecambe
Hyslop, B. S., M.B., Settle
Irvin, J. H., Esq., Queen Street, Lancaster
Jackson, E. S., M.D., Carnforth
Kemp, James, M.B., Mount Pleasant, Heysham
Lamport, H. C, M.B., 2, Meadowside, South Rd., Lancaster
Lovegrove, A. C. A., M.D., Settle
Mackenzie, John, Esq., Broadwood, Ingleton
Mackey, Charles, Esq., County Lunatic Asylum, Lancaster
Mannix, P. F., M.D., Castle Hill, Lancaster
Mathews, T. G., M.D., Kirkby Lonsdale
Martin, E. J., M.B., Kirkby Lonsdale
Oldham, H. F., M.D., Calton Cottage, Morecambe
Paget-Tomlinson, W. S., M.D., Kirkby Lonsdale
Parker, G. R., Esq., 4, High Street, Lancaster
Preston, C. E., M.B., 23, Erving Terrace, Morecambe
Rayne, C. A., M.D., St. Mary's Gate, Lancaster
Readman, T., Esq., Higher Foxholes, near Lancaster
Roberts, H., M.D., Sion Hill, Garstang
Roberts, W. O., Esq, Carnforth
Rows, R. G., M.D., County Asylum, Lancaster
Shepherd, Elizabeth, M.B., Rose Bank, Lancaster
Shepherd, T. S., M B., Rose Bank, Lancaster
Stevens, B. C., M.D., Lancaster
Stott, W. H,, Esq., Hornby, near Lancaster
Stuart, Thomas, M.D., Duke Street, Settle
Sutton, F. R., M.D., Bolton-le-Sands

NORTH WALES BRANCH.

Comprising the COUNTIES of ANGLESEA, CARNARVON, FLINT, DENBIGH, and MERIONETH, and that portion of MONTGOMERYSHIRE west of a line drawn north and south through Moat Lane Junction.

Members of Branch—202.

President, EMYR O. PRICE, M.D., Bangor

President-elect, RICHARD JONES, M.D., Blaenau-Festiniog

RECOGNISED 1849.

Honorary Secretary.
H. JONES ROBERTS, Esq., J.P., Llywenarth, Pen-y-groes R.S.O.

Representative on Council of Association.
H. Jones Roberts, Esq., J. P., Llywenarth, Pen-y-groes, R.S.O.

Associate Members.
Abram, J. Hill, M.D., 74, Rodney Street, Liverpool
Alexander, W., F.R.C.S., 31, Rodney Street, Liverpool
Barendt, Frank H., M.D., 65, Rodney Street, Liverpool
Barr, Sir James M D., 72, Rodney Street, Liverpool
Bickerton, T. H., Esq., 88, Rodney Street, Liverpool
Bradshaw, Thos. R., M.D., 51, Rodney Street, Liverpool
Buchanan, R. J. M., M.D., 6, Rodney Street, Liverpool
Briggs, H., F.R.C.S., 3, Rodney Street, Liverpool
Davies, E. T., M.D., 1, St. Domingo Grove, Liverpool
Emrys-Jones, A., 10, St. John Street, Manchester
Elliott, John, M.D., Chester
Evans, J. Howell, F.R.C.S., 63, Grosvenor St., London, W.
Gemmell, J. E., M.D., 12, Rodney Street, Liverpool
Jones, H. E., Esq., 19, Rodney Street, Liverpool
Jones, Robert, F.R.C.S.Edin., 11, Nelson Street, Liverpool
Jones, Robert, M.D., Claybury Asylum, Woodford
Newbolt, G. P., F.R.C.S., 42, Catherine Street, Liverpool
Parker, Rushton, F.R.C.S., 39, Rodney St., Liverpool
Permewan, W., F.R.C.S., 7, Rodney Street, Liverpool
Roberts, John, M.D., Chester
Roberts, J. Lloyd, M.D., 68, Rodney Street, Liverpool
Stevenson, Edgar, M.D., 39, Rodney Street, Liverpool
Taylor, James, F.R.C.S., Chester
Thomas, W. Thelwall, F.R.C.S., 84, Rodney St., Liverpool
Wallace, A. J., M D., 1, Gambier Terrace, Liverpool
Williams, Richard, Esq., 82, Rodney Street, Liverpool

No. 1.—Denbigh and Flint Division

NUMBERING 59.

Chairman, E. Moss, M.D., Wrexham

Vice-Chairman, H. Lloyd, M.D., St. Asaph.

Honorary Secretary, E. D. Evans, Esq., Bodeirian Wrexham

Representative for Representative Meeting, E. D. Evans, Esq.

Representatives on Branch Council.
Davies, J. E. H., Esq.
Evans, E. D., Esq.
Wright, B. J. E., Esq.

Executive Committee.
Davies, J. C., M.D.
Evans, Richard, Esq.
Lloyd, A. E., Esq.
Owen, Richard, Esq.

Aldred, F. M., Esq., Dyffryn Aled, Abergele
Ambler, J. B., Esq., Mona Villa, Rhuddlan
Burlingham, D. C., Esq., Hawarden
Byford, W. F., Esq., Ruthin
Cox, L. F., Esq., Denbigh
Crace-Calvert, G. A., M.B., Ruthin
Davies, H. H., Esq., Cerrig-y-drudion
Davies, J. C., M.D., Plas-yn-Rhos, Ruabon
Davies, J. E. H., Esq., Wrexham
Drinkwater, H., M.D., Wrexham
Duncan, James C., M.B., Leeswood, Mold
Edwards, D., Esq., Mold
Evans, E. D., Esq., Bodeirian, Wrexham
Evans, Richard, Esq., Plas-y-Bryn, Wrexham
Freeth, Harold, M D., Cyfronydd, Llangollen
Grierson, G. A., M.B., 16, Bightown Road, Wrexham
Griffith, W. Vaughan, Esq., Coedpoeth
Heap, E. F. G. T., Esq., Pendinas, St. Asaph
Herbert, W. W., Esq., Denbigh
Hughes, H. O., Esq., Abergele
Hughes, J. M., M.B., Ruthin
Hughes, R. J., M.B., Denbigh
Jenkins, J. R., M.D., Ruthin
Jones, E. H., M.B., Medeor House, Rhyl
Jones, G. F., M.B., 38, Bank Street, Ponkey, Ruabon
Jones, J. K., Esq., Bronheulog, Llanrhaiadr (Oswestry)
Jones, J. M., Esq., Glynceiriog
Jones, J. O., Esq., Holywell
Jones, J. O., M.B., Llanfair Talhaiarn
Jones, J. T., Esq., Llansilin
Jones, Peter, M.B., Abergele
Jones, S. Edwards, Esq., Holt Street, Wrexham
Jones, T. O., M.B., Ruthin
Kearney, J., M.D., Lieut-Col., R.A.M.C., 4, Belmont Road Wrexham
Lloyd, A. Eyton, M.D., Rhyl
Lloyd, David, M.B., Beech House, Vale St., Denbigh
Lloyd, H., M.D., St. Asaph
Lloyd, J. D., Esq., Chirk
Macdonald, G., Esq., Cefn Mawr
Manisty, F. S., Esq., Gresford
Moss, E., M.D., Wrexham
Owen, Richard, Esq., Brymbo
Palin, H. V., M.B., Wrexham
Prichard, R. M., M.D., Rhyl

Rowland, F. S., Esq., Bryn Issa, Wrexham
Simpson, F. Hampson, M.D., Rhuddlan R.S.O.
Spreut, W. S., M.D., Rossett, Wrexham
Storrs, Eric G., Esq., Fairfield House, Overton
Thomas, W., Esq., Rhyl
Warburton, John, Esq., Plas Darland, Wrexham
Watkin-Davies, E. O., M.B., Plas-yn-Green, Denb'gh
Whitelaw, F., Esq., 3, Grove Park, Wrexham
Williams, A. E., Esq., Llangollen
Williams, H. W. S., Esq., Holywell
Williams, J. Llewellyn, Esq., Wrexham
Williams, R. G., Esq., Egerton House, Wrexham
Williams, Richard, Esq., Wrexham
Williams, W. Batten, Esq., Prestatyn
Wright, B. J. E., Esq., Overton, Ellesmere

No. 2.—North Carnarvon and Anglesea Division

NUMBERING 91.

Chairman, J. Lloyd Roberts, M.B., Colwyn Bay

Vice-Chairman, G. R. Griffith, M.B., Carnarvon

Honorary Secretary, H. Jones Roberts, Esq., Pen-y-groes

Representative for Representative Meeting, Emyr O. Price, M.D., Bangor

Representatives on Branch Council.

Parry, Robert, M.B.
Pritchard, R. A., Esq.
Roberts, John, M.D.
Williams, W. Lloyd, M.B.

Executive Committee.

Evans, John, M.D.
Prytherch, J.R., M.B.
Thomas, J. E., M.D.
Williams, John R., M.B.

Barff, G. P., Esq., Rhosneigr, Ty Croes, Anglesea
Beck, W. R., Esq., 7, Victoria Terrace, Beaumaris
Bullmore, F. G., Esq., Goodwood, Colwyn Bay
Cadvan-Jones, D. T., M.B., Rhiwlas, Colwyn Bay
Carruthers, A. E., M.B., Sandy Mount, Rhosneigr, Anglesey
Clay, T. W., Esq., Holyhead
Craig, James, M.B., 14, Mostyn Crescent, Llandudno, R.S.O.
Davies, M. G., Esq., Pen-y-groes
Davies, T. L. Kenric, M.B., Llandudno
Edwards, E. Parry, Esq., Mynydd-y-gof
Edwards, H., M.B,. Portdinorwic
Evans, D. R., M.B., Clwt-y-Bont, Cwymglo
Evans, G., M.D., Bangor
Evans, John, M.D., Carnarvon
Fox, H. W., Esq., Tyn-y-Bryn, Bettws-y-Coed
Fraser, P., M.D., Carnarvon
Gooddy, E. S., Esq., Glenthorne, Llandudno
Grey-Edwards, H., M.D., Bangor
Griffith, G. R., M.B., Carnarvon
Griffith, J., Esq., Bethesda
Griffiths, G. H., Esq., Glan-y-Mor, Deganwy
Hepworth, J., Esq., Beaumaris
Hewitt, W. E. H., M.B., Rhianfa, Llandrills-yn-Rhôs, nr. Colwyn Bay
Hill, A. T., Esq., Llanrwst
Hughes, Michael, M.B., Ty Coch, Llanerchymedd
Hughes, R., M.D., Penmaenmawr
Hughes, William, Esq., Bodlondeb, Waenfawr
Jenkins, E. M., M.B., Portdinorwic
Jenkins, H. T., Esq., Tan-y-Berllan, Penmaenmawr
Jones, J. D., Esq., 1, Snowdon Terrace, Llanberis
Jones, J. H., Esq., Beaumaris
Jones, John, Esq., Gwalchmai, Anglesea
Jones, G. Llewellyn, Esq., Llangefni, Anglesea
Jones, Richard, Esq., Bangor
Jones, Thomas, Esq., Brynhyfryd, Amlwch, North Wales
Jones, Thomas E., Esq., Amlwch
Jones, T. E., Esq., Llanrwst
Kendall, G. W., M.D., Holyhead
Lawrie, W. D., M.D., Lloyd Street, Llandudno
Lever, C. A. A., Esq., Bodhyfryd, Llandudno
Lloyd, E. J., M.D., Bangor
Lockhart-Mure, T. V., M.B., 10, Craig-y-don Parade, Llandudno
Lord, R. E., M.D., Penlan, Wynnstay Road, Colwyn Bay
Lowe, Henry, Esq., Ty Croes
Lunt, D. C. M., Esq., Endsleigh, Old Colwyn
Middleweek, F. F., Esq., The Infirmary, Bangor
Mills-Roberts, E. A., M.B., Bethesda
Mills-Roberts, R. H., Esq., C.M.G., Llanberis
Morris, Price, Esq., Cadwgan, Old Colwyn
Mould, G. W., Esq., Oakhurst, Colwyn Bay
Nuttall, H., M.D., Bryn-y-Graig, Colwyn Bay
Owen, C. W., M.B., 31, Victoria Place, Bangor
Owen, J. L., Esq., Market Street, Holyhead
Owen, J. W., Esq., Llanrwst
Owen, Robert, Esq., Bodnant, Pen-y-groes
Parry, Robert, M.B., Carnarvon
Price, Emyr O., M.D., Bangor
Prichard, D. L. K., Esq., Pyllan, Bettws-y-Coed
Prichard, R. Arthur, Esq., Conway
Pritchard, W. G., Esq., Bethesda
Prytherch, J. R., M.B., Llangefni
Roberts, David, Esq., Epworth House, Old Colwyn
Roberts, E. S., Esq., Pen-y-groes
Roberts, G. Lloyd, M.D., Green Bank, Carnarvon
Roberts, H. Moreton, M.B., Bodafon, Penmaenmawr
Roberts, H. Jones, Esq., Llywenarth, Pen-y-groes
Roberts, John, M.D., Menai Bridge
Roberts, John, Esq., Bryngwyddfan, Llanberis
Roberts, J. Lloyd, M.B., Colwyn Bay
Roberts, R. L., Esq., Coedogwen, Bethesda
Roberts, Thomas, M.B., Carnarvon
Ross, A. McL., M.B., Colwyn Bay
Russell, W. B., M.B., 11, Belgrave Road, Colwyn Bay
Thomas, E. R., Esq., 40, Castle Street, Beaumaris
Thomas, J. E., M.D., Nantlys, Bangor
White, P. J., M.B., Bangor
Williams, E., Esq., Llangefni
Williams, G. E., Esq., Rhostryfan
Williams, Hugh, Esq., Llanrwst
Williams, John, Esq., Carnarvon
Williams, John R., M.B., Penmaenmawr
Williams, Joseph R., M.B., Cadnant Park, Conway
Williams, R. M., M.B., Menai Bridge
Williams, T. O., Esq., Bodorgan
Williams, W. H., M.B., Taldrwst, Dwyran
Williams, W. Lloyd, M.B., Llanberis
Williams, W. M., M.B., Penmachno
Williams, W. M. Venables, Esq., Bryn, Colwyn Bay
Wilson, G. M., M.B., Conway
Woodhouse, E. R., M.D., Llandudno
Wright, W. A., Esq., Llandeusant, Anglesea

No. 3.—South Carnarvon and Merioneth Division

NUMBERING 52.

Chairman, H. P. Rowlands, M.D., Towyn

Vice-Chairman, O. Wynn Griffith, Esq., Pwllheli

Honorary Secretary, H. Gladstone Jones, Esq., Plas Gwilym, Criccieth.

Representative for Representative Meeting. H. P. Rowlands, M.D., Towyn

Representatives on Branch Council.

Jones, H. G., Esq.
Williams, E., Esq.
Williams, W. R., Esq.

Executive Committee.

Jones, Richard, M.D.
Williams, J. O., Esq.

Aikin, C. A., Esq., Tyfos, Llandrillo, Corwen
Bristow, W. M., Esq., Fron Fenno, Bala, R.S.O.
Davies, D. Livingstone, Esq., Criccieth
Edwards, D., M.B., Cemmaes Road
Edwards, D. R., Esq., Corwen
Elkington, George, Esq., Llwyngwril, R.S.O.
Evans, Owen J., M.D., Llangian, Pwllheli
Evans, Robert, Esq., Pont-y-Gribin, Llannor, Pwllheli
Evans, R. D., Esq., Blaenau-Festiniog
Evans, R. J., Esq., Pwllheli
Evans, T. J. C., M.D., Llysmeddyg, Blaenau Festiniog
Griffith, H. R., M.D., Portmadoc
Griffith, O. Wynn, Esq., Pwllheli
Griffith, Richard, Esq., Portmadoc
Griffith, R., Esq., Carisbrooke, Abersoch
Griffith, Samuel, M.D., Portmadoc
Griffith, S. W., Esq., Pwllheli
Hamilton, D. L., Esq., Frohenlog, Dolgelly
Hughes, Hugh, Esq., Penrhyndeudraeth
Hughes, Roger, Esq., Bala
Humphreys, J., Esq., Trawsfynydd
Jackson, F. S., Esq., Aberdovey
Jones, E. Shelton, Esq., Pwllheli
Jones, Hugh, M.B., Dolgelly
Jones, H. Gladstone, Esq., Plas Gwilym, Criccieth
Jones, John, Esq., Wenallt, Dolgelly
Jones, J. Pugh, Esq., Barmouth
Jones, J. R., Esq., Penrhyndeudraeth
Jones, J. T., Esq., Corris
Jones, Pierce, M.B., Portmadoc
Jones, R. T., Esq., Harlech
Jones, Richard, M.D., Blaenau-Festiniog
Kershaw, W. E. E., Esq., Trefle, Aberdovey
Mathews, J. S., Esq., Machynlleth
Morris, Thomas, M.B., Aberynant, Llanidloes
Rees, R., M.B., Pwllheli
Roberts, John, Esq., Talarvor, Criccieth
Roberts, Robert, Esq., Blaenau-Festiniog
Roberts, R. E., Esq., Portmadoc
Roberts, R. J., Esq., Bron-y-Graig, Corris R.S.O.
Roberts, W. Vaughan, Esq., Blaenau-Festiniog
Rowlands, H. P., M.D., Towyn
Rowlands, J. W., Esq., Llanaelhaiarn
Thomas, William, Esq., Nevin
White, Howel, M.B., Corwen
White-Jones, R. H., Esq., Bala
Williams, D. R., Esq., Isallt, Blaenau-Festiniog
Williams, E., Esq., Bala
Williams, J. O., Esq., Aber House, Barmouth
Williams, Walter E., M.B., Portmadoc
Williams, W. R., Esq., Machynlleth
Wood, Richard, M.D., Llanbedr

OXFORD AND READING BRANCH.

Comprising the Counties of BERKSHIRE and OXFORD; in GLOUCESTERSHIRE, Fairford and Lechlade, and the district east of Chipping Campden and Stow-on-the-Wold (both inclusive); in BUCKINGHAMSHIRE, the portion south of a line drawn from Thame to Chesham, and west of a line drawn from Chesham to Windsor, excluding Chesham in Hampshire, Kingsclere, and Tadley.

Members of Branch—280.

RECOGNISED 1885.

President, A. J. DREW, Esq., Oxford

President-elect, H. G. ARMSTRONG, Esq., Wellington College, Berks.

Vice-Presidents.

W. COLLIER, M.D.
R. W. DOYNE, Esq.
G. H. R. HOLDEN, M.D.

Hon. Secretary and Treasurer, W. T. FREEMAN, M.D., 30, Portland Place, London Road, Reading

Representative on Council of Association. C. W. Marriott, M.D.

Branch Council.

Bloxsome, C. H., Esq.
Clowes, N. B., Esq.
Duigan, W., M.B.
Freeman, W. T., M.D.
Griffin, I., Esq.
Holderness, W. B., Esq.
Marriott, C. W., M.D.
Parker, A. P., M.B.
Taylor, F. H. A., Esq.
Thomson, Arnold, Esq.
Walters, J. H., Esq.

Associate Member, Reinhardt, Charles E., M.D., 13, Embankment Gardens, Chelsea, S. W.

No. 1.—Maidenhead Division

NUMBERING 63.

Chairman,

Vice-Chairman,

Honorary Secretary,

Representative for Representative Meeting, J. H. Walters, Esq., Reading

Bashall, C. E., Esq., The Knowle, West Byfleet
Baylis, H. E. M., M.B., Ray Park Avenue, Maidenhead
Beadles, C. F., Esq., The Clergy House, Englefield Green
Bienemann, A. J., M.B., Farnham Royal
Bowdler, C. W. B., Esq., Camberley
Brickwell, J., jun., Esq., Slough
Brind, H. H., Esq., Warrenbayne, West Byfleet
Burrell, P. D. E., Esq., Drayton, Walton-on-Thames
Cadell, N. P., Esq., Agincourt House, Camberley
Caldicott, C. H., Esq., Chobham
Cameron, Sir Charles, Bart., M.D., Glenridge, Virg. Water
Casey, E., M.D., Park Street, Windsor
Chapple, A. D., Esq., Weybridge
Coates, W. H., Esq., Hambledon
Cock, M. F., Esq., Dencliff House, Ashford
Creasy, R., Esq., The Paddock, Windlesham
Croly, W. H., Esq., Burnham, Bucks
Daukes, S. H., Esq., Eversley House, Priory Avenue, High Wycombe
Davies, W. L. Bowen, Esq., Brockley House, Bath Road, Slough
Dickson, J. D., M.D., Great Marlow
Drabble, G. W., M.B., Manor House, Walton-on-Thames
Drake, T. G., M.D., Remenham Villa, Datchet
Edge, A. J., M.B., Tudor House, Maidenhead
Elgood, C. R., M.D., 8, Clarence Villas, Windsor
Floyer, W. W., M.B., Egham
Forbes, W. W., Esq., Kiaora, Claremont Road, Marlow
Fuller, A., Esq., The Bushes, Chase Road, Weybridge
Gooch, J. W., Esq., 9, High Street, Windsor
Goodridge, W. L. T., Esq., Font Hill, New Road, Windsor
Hale, L. H. D., Esq., 38, High Street, Eton
Hobbs, G. C., Esq., Burke House, Beaconsfield
Holderness, W. B., Esq., Windsor
Home, F. C. H., Esq., Ormiston, Egham Hill, Egham
Lloyd, W. F., Esq., 1, Thornton Villas, Alma Road, Windsor
Lodwidge, W. C., Esq., Oakdene, Walton-on-Thames
McCrea, Hugh N., M.B., Gaunt Cottage, Wargrave, Twyford
McDougal, E. D., Esq., Gabledene, Walton-on-Thames
McFarlane, W. E., M.B., 53, Middle Hill, Englefield Green
Mackenzie, A. G., M.D., Addlestone
Mason, D. J., M.D., Kindowie, Maidenhead
Milsome, H. B., M.B., Guildford House, Chertsey
Milsome, J. R., M.D., Addlestone
Montgomery, E. C., Esq., Maidenhead
Moore, G. E., M.B., Maidenhead
Moore, W. D., M.D., St. Ann's Heath, Virginia Water
Norris, E. S., M.B., 117, High Street, Eton
O'Gorman, C., M.D., Holly Nook, Wooburn Green
Parkes, J. S., Esq., Court House Road, Maidenhead
Playne, A., M.B., Maidenhead
Power, J. H., Surgeon-Major, St. Swithin's, Windsor
Reynolds, L. W., Esq., The Priory, High Wycombe
Saunders, H. W., M.D., Woburn Hill, Addlestone
Scott, J. H., Esq., Tudor House, Camberley
Sealy, G. J., M.D., Oak Hill House, Weybridge
Senior, A., M.B., Noel Lodge, Thames Ditton
Shutte, M. W., Esq., Rose Court, Walton-on-Thames
Thomson, Arnold, Esq., Castle Hill, Maidenhead
Tothill, F. C., M.B., 93, High Street, Staines
Viney, J. E., M.D., Chertsey
Walker, R. F., Esq., Wilford Lodge, Esher
Williams, R. P., M.D., 18, Mackenzie Street, Slough
Willson, H. S., M.B., Weybridge
Wilmot, A. E., Esq., Burnham
Wooldridge, A. T., Esq., Ellaston, Camberley
Woodhouse, Cecil, M.D., Buckland House, Esher

No. 2.—Oxford Division

NUMBERING 128.

Chairman, C. H. Bloxsome, Esq., Fairford

Chairman-elect, W. Collier, M.D., Oxford

Vice-Chairmen, I. Griffin, Esq., Banbury, and A. J. Drew, Esq., Oxford

Honorary Secretary and Treasurer, W. Duigan, M.B. 66, Woodstock Road, Oxford

Representative for Representative Meeting, W. Duigan M.B., Oxford

Divisional Council.

Counsell, H. E., Esq.
Cruikshank, R. W., M.B.
Hall, G. C., Capt., I.M.S.
Mallam, E., M.B.
Parker, A. P., M.B.
Taylor, F. H. A., Esq.

Associate Member.

Main, Robert, Esq., 24, Alexandra Villas, Finsbury Park, N

Adams, P., F.R.C.S., 53, Broad Street, Oxford
Alden, E. W., Esq., 37, Beaumont Street, Oxford
Andrew, B. H., Esq., Thame
Anthony, F., Esq., Ramsbury, Hungerford
Baldwin, F. B. J., Esq., Bodicote, Banbury
Ballard, Charles, Esq., 22, Beaumont Street, Oxford
Barker, R. H., M.D., Kennet House, Hungerford
Barns, J. G., Esq., Wheatley
Bell, J. T., M.B., Princes Risborough
Bennett, B. M., M.B., The Horton Infirmary, Banbury
Bethell, H. W., Esq., Lambourne
Bevers, E. A., Esq., 46, Broad Street, Oxford
Bevers, E. C., M.B., 71A, St. Giles Street, Oxford
Birch, Anthony, M.B., Dorchester, nr. Wallingford
Bloxsome, C. H., Esq., Fairford
Boissier, A. H., Esq., Banbury
Bradshaw, Surg.-Gen., C.B., 111, Banbury Road, Oxford
Brockliss, E. L., Esq., Banbury
Brooks, W. T., M.B., 32, Holywell Street, Oxford
Bruce, R. T., M.B., Redholme, Thame
Byass, T. S., Esq., Wallingford
Caudwell, H., Esq., Woodstock
Cheatle, T. H., Esq., Burford
Christie, F., Esq., Ivydene, Leafield, near Witney
Collier, W., M.D., St. Mary's Entry, Oxford
Cooke, R. T., Esq., Brightwalton, Wantage
Counsell, H. E., Esq., 37, Broad Street, Oxford
Cruickshank, R. W., M.B., The Shrubbery, Eynsham
Davies, W. H., Esq., 20, Banbury Road, Oxford
Dening, E., Esq., Stow-on-the-Wold
Dewhurst, J. H., M.D., Chipping Campden
Dickson, W., M.D., Hungerford
Dixey, F. A., M.D., Wadham College, Oxford
Douglas, W. T. P., M.B., Holmby Speen, Newbury
Doyne, R. W., Esq., 53, Broad Street, Oxford
Drew, A. J., F.R.C.S., Water Hall, Oxford
Drinkwater, W., Esq., Bicester
Duigan, W., M.B., 66, Woodstock Road, Oxford
Dunn, E. L., M.B., Berkshire Asylum, Wallingford
Dutton, A. S., Esq., 5, Divinity Road, Oxford
Dwyer, H. de B., Esq., St. Leonard's House, Banbury
Eastwood, J. W., M.D., 18, Farndon Road, Oxford
Edwards, H. J., Esq., Banbury
Emerson, T. G., M.D., Wantage
Faulkner, H., M.B., St. John's House, Banbury
Felce, S., Esq., Frilsham Manor, Newbury
Forster, Laura, M.D., 5, Holywell, Oxford
Foster, E. C., Esq., Banbury Road, Summertown, Oxford
Freeborn, H., M.B., Clifton-Hampden, Abingdon
Freeborn, J. C. R., Esq., 38, Broad Street, Oxford
Gent, W. C., Esq., St. John's House, Lechlade
Gibson, A. G., M.B., 28, Banbury Road, Oxford
Gillett, H. T., M.B., 15, King Edward Street, Oxford
Good, T. S., Esq., Littlemore Asylum, Oxford
Gotch, Professor F., F.R.S., The Lawn, Oxford
Granger, E. B., Esq., Little Milton, Wallingford
Gray, E. B., M.D., 19, Beaumont Street, Oxford
Griffin, I., Esq., 31, Crouch Street, Banbury
Haldane, J. S., M.D., 4, St. Margaret's Road, Oxford
Hall, Gilbert C., Surg.-Captain, I.M.S. (ret.), Islip
Hawkesworth, T. A., M.B., Watlington
Hayward, M. C., Esq., 65, Stert Street, Abingdon
Hendricks, C. M., M.D., Bicester
Higgs, E. W. M., Esq., 88, James Street, Oxford
Hitchings, R., Esq., 37, Holywell Street, Oxford
Horne, E., Esq., Wallingford
Hutchison, G. W., M.D., Chipping Norton
Johns, A. T., M.D., Acacia Lawn, Banbury
Johnson, J. I., Esq., Sulgrave, Banbury
Jones, G. H., Esq., Deddington
Kennard, D. G., Esq., Faringdon, Berks
Kerby, R. J., M.D., Newbury
Laval, Everista, M.B., The Warneford, Oxford
Lee, H. G., Esq., Thame
Lever, R. C., M.B., Maj., Elm Lodge, Iffley, Oxford
Long, H. B., Esq., St. John's, Bicester
Lynam, R. G., M.B., 32, Holywell, Oxford
Macnamara, A. P., M.B., Shrivenham
Maisey, F. T., Esq., Charlbury
Major, Harry P., M.D., Hungerford
Mallam, E., M.B., 3, Holywell Street, Oxford
Mann, Gustav, M.D., 25, Beechcroft Road, Oxford
Martin, P., Esq., Abingdon
Matthews, H. D., Esq., Wallington
Miller, Hugh, M.B., Stow-on-the-Wold
Murdoch, J. W. A., M.B., Berks Co. Asylum, Wallingford
Neil, J., M.D., Warneford Asylum, Oxford
Nelson, W. B., Esq., Wallingford, Berks
O'Kelly, T., M.D., Chipping Norton
Ormerod, A. L., M.D., 99, Holywell, Oxford
Osler, Professor William, M.D., The Museums, Oxford
Parker, A. P., M.B., 2, Holywell, Oxford
Peacock, W. E., M.D., Steeple Aston, Oxford
Pemberton, C. L. H., M.B., Banbury
Pentreath, L. N., Esq., The Cottage, Hampton Poyle Kidlington
Pilkington, F. W., Esq., Kencott House, Lechlade
Proudfoot, F. G., M.D., St. Giles, Oxford
Ramsden, Walter, M.B., Pembroke College, Oxford
Rice, E., M.D., Prior's Close, Sutton Courtney
Rice, R., Esq., Steventon, Berks
Rivers-Wilson, A., Esq., 42, Wellington Square, Oxford
Ritchie, J., M.D., 28, Beaumont Street, Oxford
Robertson, J. S., Esq., Adderbury, Banbury
Routh, R. L., Esq., Sibforth Terrace, Banbury
Rygate, R., Esq., Wardington, Banbury
Sankey, J. O., Esq., Turl Street, Oxford
Sankey, R. H. H., Esq., 3, Marston Ferry Road, Oxford

Sankey, R. H., Esq., 20, Magdalen Street, Oxford
Saunders, H., Esq., Aynhoe Road, Banbury
Schofield, Gerald, Esq., Bloxham, near Banbury
Snowden, G. H., Esq., Halford, Shipston-on-Stour
Standring-Smith, R. C., M.B., Lime Tree House, Bampton
Steedman, P. A., Esq., 10, Rawlinson Road, Oxford
Stein, C., M.D., Shipton-on-Stour
Stokes, Lieut.-Colonel H. H., M.B., R.A.M.C. (ret.), Devonshire House, Cowley
Style, Mark, Esq., Moreton-in-Marsh
Symonds, H. P., Esq., Beaumont Street, Oxford
Taylor, F. H. A., Esq., Kidlington, Oxford
Thompson, Arthur, Esq., 12, Northbrook Street, Newbury
Thompson, H., Esq., 31, Beaumont Street, Oxford
Thomson, D. L., M.D., Blackford, Highclere, Newbury
Thorne, F., M.D., Manor House, Adderbury East, Banbury
Turner, A. C. King, M.B., Fairford, Gloucester
Turner, T. W., Esq., The Poplars, Deddington
Turrell, W., M.D., Magdalen Bridge, Oxford
Walker, E. W. A., M.D., University College, Oxford
Walker, T. M., Esq., Hook Norton, near Banbury
Walter, E. C., Esq., Market Place, Wallingford
Waterhouse, A. T., M.B., 36, Beaumont Street, Oxford
Waters, W. A. P., M.D., 99, Holywell Street, Oxford
Watson, F. S., Esq., Chiltern House, Princes Risborough
Whitelocke, R. H. A., M.B., 6, Banbury Road, Oxford
Winkfield, A., Esq., 26, Beaumont Street, Oxford
Winslow, W., M.B., Mill House, North Stoke, near Wallingford
Wood, R. Moorsom, Esq., 33, Walton Crescent, Oxford
Wylie, D. T., Esq., 217, Iffley Road, Oxford
Yelf, J. B., Esq., Shipston-on-Stour
Yelf, R. E. B., M.B., Moreton-in-Marsh

No. 3.—Reading Division

NUMBERING 79.

Chairman, C. W. Marriott, M.D., Reading

Vice-Chairman, Arnold Thomson, Esq., Maidenhead

Honorary Secretary and Treasurer, W. T. Freeman, M.D., 30, Portland Place, London Road, Reading

Representative for Representative Meeting, J. H. Walters, Esq., 15, Friars Street, Reading

Representatives on Branch Council.

Armstrong, H. G., Esq.
Clowes, N. B., Esq.
Holderness, W. B., Esq.
Marriott, C. W., M.D.
Thomson, Arnold, Esq.
Walters, J. H., Esq.

Abram, G. S., M.B., 106, London Road, Reading
Allen, J. D. C., M.B., Binfield
Armstrong, H. G., Esq., Wellington College, Berks
Arnold, F. S., M.B., Harley Sanatorium, Ipsden
Ashby, A., M.B., Town Hall, Reading
Baines, E. C. A., Esq., 90, Bell Street Henley-on-Thames
Baker, John, M.B., Broadmoor, Crowthorne
Barker, R. A., M.D., 114, Oxford Road, Reading
Bokenham, T. B., Esq., Highview, Wokingham
Brayn, R., Esq., Broadmoor Asylum, Crowthorne
Brooks, R. P, Esq., 13, Bath Road, Reading
Brownlow, H. L., Esq., Shirley, Henley-on-Thames
Carling, Esther L., M.D., Kingwood, Peppard Common
Clark, Sir James, R. A., Bart., C.B., F.R.C.S.Ed., Tidmarsh Manor, Pangbourne
Clowes, N. B., Esq., 45, London Road, Reading
Cockran, C. H., Esq., Caversham
Coleman, M. W., M.D., Castle Street, Reading
Cropp, E. L., Esq., 101, Oxford Road, Reading
Cruikshank, Mary H., M.D., 28, Portland Place, Reading
Deane, E., Esq., Hailey, Caversham, Reading
Evans, H. L., M.D., Goring-on-Thames
Farndon, L., M.D., 108, Wokingham Road, Reading
Fielden, E., M.B., Church Road, Bracknell
Fosbery, W. H. S., M.D., 449, Oxford Road, Reading
Foster, W. J., Esq., 107, Oxford Road, Reading
Freeman, W. T., M.D., 30 Portland Place, London Road, Reading
Gilford, H., Esq., King's Road, Reading
Gilford, S., M.B., 136, Oxford Road, Reading
Guilding, L. M., M.B., 1, Sidmouth Street, Reading
Hawes, G. C. B., Esq., Pangbourne
Holden, G. H. R., M.D., 168, Castle Hill, Reading
Howse, P. W. Esq., Lynford House, Reading
Hurry, J. B., M.D., Abbotsbrook, Castle Street, Reading
Joscelyne, F. P., Esq., Kingsclere
Joy, Norman H., Esq., Bradfield
King, R. H., M.D., Twyford
Lacy, A. G., Esq., Saumarez, Sunninghill, Ascot
Langley, W. J., Esq., Tadley
Maberly, E., Esq., The Cottage, Eversley
McClelland, R., M.B., M.B., Underhill, Reading
MacCrea, John, M.B., Wargrave
Macpherson, W. H., Esq., St. Andrew's Road, Henley-on-Thames
Major, A. C., Esq., 9, Eldon Square, Reading
Maples, R., Esq., Kingsclere
Marriott, C. W., M.D., Reading
Maurice, W. J., M.B., 11, Cross Street, Reading
Meade, F. E., Esq., 106, London Street, Reading
Moore, T. G. J., Esq., 117, Oxford Road, Reading
Morton, E., M.D., Underwood, Whitchurch
Murrell, G. F., M.B., Blenheim Lodge, Reading
Ord-Mackenzie, S. A., Esq., Woolhampton, Reading
Parfitt, J. B. Esq., 179, King's Road, Reading
Parham, W. M., M.D., 105, Oxford Road, Reading
Parkinson, George, Esq., Orchard Dene, Henley-on-Thames
Paterson, A. G., M.D., South Lodge, Ascot
Peake, A. E., Esq., Northleigh, Henley-on-Thames
Power, A. W., Esq., Cranleigh, Sunningdale, near Ascot
Price, J. A. P., M.D., 124, Castle Street, Reading
Ritson, R., Esq. Hamilton Road, Reading
Roalfe-Cox, W. J., Esq., Mortimer
Roberts, A., Esq., 76, London Street, Reading
Robinson, W. E., M.B., White House, Sonning
Rowland, E. W., Esq., Western Elms Avenue, Reading
Russell J., M.D Sandhurst
Secretan, W. B., M.B., 162a, Castle Hill, Reading
Sharp, J. A., Esq., 136, Tilehurst Road, Reading
Stansfield, F. W., M.D., 120, Oxford Road, Reading
Susmann, W. J., M.B., Erchfont, Henley-on-Thames
Sutton, S. W., Esq., St. Columba, Reading
Traill, C. G., M.B., Bagshot Road, Sunningdale
Walters, J. H., Esq., 15, Friar Street, Reading
Ward, E. S., Esq., Wokingham
Whitcombe, W. S., M.D., Aldermaston, near Reading
Wilcockson, G. M., Esq., Whitley Cross, Reading
Wilder, Rev. H. B., Sulham Rectory, Reading
Willcocks, I., Esq., 12, Palmer Park Avenue, Reading
Woodforde, W. T. G., M.D., Oakbank, Spencer's Wood, Reading
Wrangham, W., M.B., Radnor House, Ascot
Young, F. C., M.B., Meadowside, Twyford

PERTH BRANCH.

Comprising the County of PERTH, except the parts thereof included in the areas of the Stirling and Dundee Branches.

RECOGNISED 1888.

Members of Branch—58.

President, J. STEWART NORWELL, M.B., Perth

Vice-President, ALEX. MCEWEN, M.B., Crieff

Honorary Secretaries.

W. A. TAYLOR, M.B., 10, Marshall Place, Perth
A. TROTTER, M.B., Tayview, Perth

Honorary Treasurer,
J. HUME, M.B., 17, Marshall Place, Perth

Representative on Council of Association.
Buist, R. C., M.D., 166, Nethergate, Dundee

Representative for Representative Meeting, A. Trotter, M.B., Perth

Branch Council.

Borrowman, Philip G., M.D.
Burnett, M., M.D.
Govan, L. J. M., Esq.
Kennedy, D. S., M.D.
Lyell, John, M.D.

Alcock, B. J., M.B., James Murray's Royal Asylum, Perth
Beatty, S., M.D., Craigvar, Pitlochry
Bisset, W. F., M.B., 3, King's Place, Perth
Borrowman, Philip G., M.D., Galvelmore, Crieff
Bruce, L. C., M.D., Perth District Asylum, Murthly
Burnett, M., M.D., Beechknowe, Crieff
Campbell, Thompson, M.B., Comrie Road Crieff
Christie, B. R. Craig, M.D., Earnhope, Comrie
Davidson, H. A. C., Esq., Union Street, Coupar Angus
Gairdner, J., M.D., Coldwells, Crieff
Gardner, John, M.B., Lynorne, Rattray, Blairgowrie
Govan, J. L. M., Esq., Bridge of Earn
Haggart, J., M.B., Aberfeldy
Haig, W., M.B., 15, High Street, Crieff
Hood, T. A. F., M.B., Joybank, Blairgowrie
Hume, J., M.B., 17, Marshall Place, Perth
Hunt, L., M.B., Graham's Place, Perth
Ingles, J. W., M.B., 7, Broich, Crieff
Irvine, J. C. D., M.B., Muthill
Kennedy, D. S., M.D., D.P.H., 13, York Place, Perth
Liddell, J., M.D., Errol
Lowe, J., M.B., Coupar Angus
Lowis, H. L., M.B., Trinity College, Glenalmond
Lunan, C. S., M.B., Lynedoch, Blairgowrie
Lyell, John, M.D., 15, Marshall Place, Perth
MacArthur, D. G., M.D., Aberfeldy
McEwen, Alex., M.B., Crieff
Macfee, J., Esq., Colonsay House, Auchterarder
Mackay, J., M.D., Aberfeldy
Mackay, N. D., M.B., Co. and City Infirmary, Perth
McNaughtan, J., I.S.O., M.D., Perth
Meikle, T. Gordon, M.B., Crieff
Menzies, R., M.B., 41, King Street, Perth
Mitchell, T. J., M.B., 2, Rose Terrace, Perth
Moffet, G. E., M.B., Lieut.-Col. R.A.M.C., Inglewood, Kincarrathie Crescent, Perth
Nannetti, Mary F., L.R.C.P., Kirkmichael
Norwell, J. Stewart, M.B., York Place, Perth
Niven, T., M.B., Newburgh
Paton, E. L., M.B., 2, Athole Place, Perth
Pinkerton, J., M.D., Surgeon-Major-General, Gwydyr House, Crieff
Robertson, R., Esq., Fernbank House, Errol
Robertson, W., M.B., Ardmhor, Scone
Sim, J. A. B., M.B., James Murray's Royal Asylum, Perth
Sinclair, G. T., M.D., Culross
Sommerville, Rev. James, L.R.C.P.Edin., 24, Balhousie Street, Perth
Soutar W. S. S., Esq. Lime Cottage, Pitcairngreen, Perth
Stevenson, Wm., F.R.C.S.Edin. Revack, Crieff
Stewart, C. P., M.B., Marshall Place, Perth
Stirling, D. H., M.D., Riversdale, Perth
Stirling, R., M.D., 4, Athole Place, Perth
Stuart, Alec., M.B., Ivy Lodge, Crieff, N.B.
Taylor, J. A., M.B., Dunkeld, Perth
Taylor, W. A., M.B., 10, Marshall Place, Perth
Temple, C. D., M.B., Comrie
Trotter, A., M.B., Tayview House, Perth
Urquhart, A. R., M.D., Perth
Watson, R. A. H., M.B., Park Place, Coupar Angus
Wilson, A. D., M.B., Killin

SHROPSHIRE AND MID-WALES BRANCH.

Comprising Shropshire, Radnorshire (except New Radnor and Presteign), and that portion of Montgomeryshire east of a line drawn north and south through Moat Lane Junction.

Members of Branch—131.

RECOGNISED 1875.

President, C. H. GWYNN, M.D., Whitchurch

Vice-President, E. CURETON, M.D., Shrewsbury

Honorary Secretary and Treasurer, H. H. B. MACLEOD, Esq., Clive House, Shrewsbury

Representative for Representative Meeting, H. W. Gardner, M.D., Shrewsbury

Branch Council.

Bowen-Davies, W., Esq.
Cureton, E., M.D.
Gardner, H. W., M.D.
Gwynn, C. H., M.D.
Jackson, A., Esq.
Keyworth, G. H., M.B.
McCarthy, J. McC., M.D.
MacLeod, H. H. B., Esq.
Packer, W. H., M.D.
Pigott, Dr.
Tredinnick, E., Esq.
Webb, T. L., M.D.
Wood, C. G. R., Esq.

Representative on Council of Association, H. Jones Roberts, Esq., J.P., Llywenarth, Pen-y-groes, R.S.O.

Associate Members.

Codd, Dr., 57, Darlington Street, Wolverhampton
Eddowes, Alfred, M.D., 28, Wimpole Street, London, W.
Edge, Dr., 54, Darlington Street, Wolverhampton

Anderson, F. T., M.D., Grinshill, Shrewsbury
Barnett, H., M.B., Stretton House, Church Stretton
Beesley, A. J., Esq., The Cedars, Prescott, Baschure
Bird, W. S. D., Esq., Claverley
Blaikie, A. B., M.B., Oswestry
Boon, J. G., Esq., Broseley
Bowen-Davies, W., Esq., Llandrindod Wells
Brown, G. W., M.B., The Limes, Oakengates
Brown, H. M., M.B., Nil Tullagh, Willoughbridge, Market Drayton
Bulstrode, C. V., M.B., 1, St. Chad's Terrace, Shrewsbury
Burd, E., M.D., Shrewsbury
Burd, E. L., M.D., Church Stretton
Calwell, W., Esq., Wellington
Cannon, Rev. F. J., M.B., Pontesford
Cartwright, J. P., Esq., Brook Street House, Oswestry
Clark, J. H., M.D., The Cumbers, Hanmer, Whitchurch
Clemson, Thomas F., Esq., Maryvale, Ludlow
Clover, M., Esq., Watergate House, Ellesmere
Coghill, J. D. M., M.D., Copthorne Road, Shrewsbury
Cooke, E. W., Esq., Town Walls, Shrewsbury
Craig, W. W., Esq., Bridgnorth
Cranstoun, C. B., M.B., 15, Broad Street, Ludlow
Crump, J. A., Esq., Welshpool
Cunningham, J. B., M.B., Ruyton Eleven Towns
Cureton, E., M.D., 9, College Hill, Shrewsbury
Davies, W. T., Esq., Great House, Llanbister
Davis, F. H., Esq., Dawley
De Woolfson, L. E. G Esq., 26, St. John's Hill, Shrewsbury
Downes, T. W. H., Esq., 26, Broad Street, Ludlow
Dyson, William, M.B., Broseley
Edwards, H. N., Esq., 31, St. John's Hill, Shrewsbury
Elkington, E. A., M.B., Newport
Elliott, W. E. L., M.D., Welshpool
Emery, A., M.B., Hamilton House, Gravel Hill, Ludlow
Evans, J. M., Esq., Llandrindod Wells
Exham, A. R. F., M.D., Stafford Street, Market Drayton
Fuller, G. E., M.D., Cheswardine, Market Drayton
Gardner, H. W., M.D., Shrewsbury
Gentles, T, L., Esq., Moreton, Newport
Gepp, Maurice, Esq., Coton Hill, Shrewsbury
Gilkes, M. D'O., Esq., Ludlow
Glissan, B. J., M.D., St. George's, Wellington
Godson, L. J., Esq., Belmont, Shrewsbury
Gore, W. R., M.B., South View, Llandrindod Wells
Gourlay, F. T., M.B., Idsall House, Shifnal
Graves, T. W., Esq., Knighton
Gray, J., Esq., Murivance, Shrewsbury
Green, Edward, Esq., Ludlow
Greenway, A. G., M.D., Plas Winton, Llandrindod Wells
Guest, H. M., Esq., Dorrington
Gwynn, C. H., M.D., Whitchurch
Gwynn, S. T., M.D., Whitchurch
Hall, Walter, Esq., Hodnet
Hawthorne, W. T., Esq., Wellington
Helm, W. A., M.B., Munslow, Craven Arms
Hewitt, T. H. La N., Esq., Claverley, Bridgnorth
Hodges, G. W. C., Esq., Cleobury North, Bridgnorth
Hoffman, A., M.D., Church Street, Ellesmere
Hope, C. M., M.B., Cheswardine, Market Drayton
Jackson, A., Esq., College Hill, Shrewsbury
Jameson, Wilfred, Esq., Cliffdale, Pontesbury
Jones, F. F., Esq., Rhiwlas, Llanfyllin, Oswestry
Keyworth, G. H., M.B., Wem
King, E. E., Esq., Ludlow
Kirk, T., M.D., Montgomery
Langran, B., Esq., Fir Lodge, Hopesay, Aston-on-Clun
Leader, C. R., M.B., The Old Hall, Wem
Lewis, J. King, Esq., Westbury, Salop
Lewis, Richard, Esq., Glanaber, Llanfyllin
Lewis, W. A. A., Esq., Ty-Maen, Oswestry
Lewis, W. H., M.B., Llansantffraid
Lyon, J., M.B., Hodnet, Market Drayton
Lytle, Joshua, M.D., 20, St. John's Hill, Shrewsbury
McCarthy, J. McC., M.D., St. George's, Wellington
McClintock, John, Esq., The Grove, Church Stretton
Mackenzie, J. C., Esq., Highley, Bridgnorth
Mackie, G., M.B., Fan Bank, Wellington
MacLeod, H. H. B., Esq., Clive House, Shrewsbury
Macqueen, A., M.D., Market Drayton
Marston, E E., Esq., (address uncommunicated)
Matthewson, J. W., M.B., Carodoc, Clun
Mills-Roberts, R.A., M.B., Bishop's Castle
Morris, R. B., Esq., Church Stretton
Mortis, H. E., Capt., Kinnerley
Murray, J., M.B., Park Crescent, Llandrindod Wells
Oakes, H., Esq., Wem
O'Conner, C. W., Esq., Oswestry
O'Conor, H. C., Esq., Llanymynech
Packer, W. H., M.D., Cressage, near Shrewsbury
Padwick, J. C., Esq., East Castle, Bridgnorth
Perram, E. A., M.D., Dodington House, Whitchurch
Pigott, F. K., Esq., Belmont House, Shrewsbury
Pigott, J G Esq., Belmont, Shrewsbury
Priestly, John, Esq., 6, The Green, Quatford, Bridgnorth
Puckle, S. H., M.B., Bishop's Castle
Purchas, F. U., M.D., Newtown
Quinby, F. G., Esq., 3, Belmont, Shrewsbury
Rambaut, D. F., M.D., Co. Asylum, Bicton Heath, Shrwsbry
Reynolds, C. A., M.B., Madeley
Rhodes, W. Esq., Bridgnorth
Rigden, A., M.D., County Asylum, Shrewsbury
Riley, J. W., Esq., Pontesbury
Roberts, A. D., Esq., 1, Claremont Hill, Shrewsbury
Rose, L., M.D., Chetwynd Bank, Newport
Salt, C. E., M.B., 14, Cross Hill, Shrewsbury
Salter, F. W., Esq., New Mills, Newtown, R.S.O.
Sankey, E. H. O., M.B., Boreatton Park, Baschurch
Scott, H. H., M.B., 10, Corve Street, Ludlow
Shackel, G. A., Esq., Brand House, Ludlow
Sidebotham, G. W., Esq., Beech Hill, Newport
Stawell, R. de S., M.B., Castle House, Shrewsbury
Sutton, T. S., Esq., Bishop's Castle
Tredinnick, E., Esq., Penlu House, Craven Arms
Urwick, R. H., M.D., 11, Dogpole, Shrewsbury
Watkins, A. M., Esq., Dodington, Whitchurch
Watson, H. O., Esq., Knordbury House, near Ludlow
Webb, T. L., M.D., Southside, Iron Bridge
Wedd, Gilbert, M.B., Stone House, Wellington
Wheatley, J. M.D., Severn House, Shrewsbury
Whincup, F., Esq., 5, Claremont Buildings, Shrewsbury
Whitaker, E. T., M.B., Southfield, Kingsland, Shrewsbury
White, Alfred E., Esq., The Lawns, Wellington, Salop
Whitfield, D. W., Esq., Ironbridge
Whitwell, A. F., Esq., The Castle House, Shrewsbury
Whitwell, G. G., M.B., 27, Castle Street, Shrewsbury
Williams, J. D., M.B., Sidney House, Shrewsbury
Williams, T. H., Esq., Castle House, Oswestry
Withers, R. W. O., Esq., Kinton House, Nesscliffe
Wood, C. G. R., Esq., Hardwick House, Shrewsbury
Woodhouse, H. C., M.B., The Terrace, Dawley
Yates, A. E., Esq., Market Drayton

SOUTH-EASTERN BRANCH.

Comprising the Counties of KENT and SUSSEX, the County of SURREY, south and east of a line drawn from Blackwater Station to Byfleet, thence to Wimbledon, thence along the south boundary of the Postal Districts of Wandsworth, Battersea, Clapham, Brixton, and Peckham, and thence northward to the Thames Tunnel

Members of Branch—1,221.

RECOGNISED 1844.

President, T. W. REID, M.D., Canterbury

President-elect, H. HETLEY, M.D., Norwood

Vice-Presidents.

J. H. EWART, Esq., Eastbourne
F. WACHER, Esq., Canterbury

Honorary Secretary and Treasurer.

H. M. STEWART, M.D., 123, Thurlow Park Road, Dulwich

Branch Council.

Adeney, E. L., M.D.
Caldecott, C., M.B.
Eastes, T., M.D.
Elliot-Blake, H., Esq.
Evers, C. J., M.D.
Ewart, J. H., Esq.
Falwasser, A. T., Esq.
Galton, J. H., M.D.
Gosse, W., M.D.
Hetley, H., M.D.
Hollis, W. A., M.D.
Ilott, H. J., M.D.
Kaye-Smith, E., Esq.
Marsh, G. R., M.D.
Maude, A., Esq.
Osborn, F. A., Esq.
Prangley, H. J., Esq.
Raven, H. M., Esq.
Smith, S. Parsons, Esq.
Smyth, E. J., M.D.
Tyson, W. J., M.D.
Vernon, C. M., Esq.
Vernon, M. H. H., Esq,
Verrall, T. Jenner, Esq.

and the Hon. Secretaries of Divisions, *ex officio.*

Representatives on Council of Association.

J. H. Galton, M.D., Sylvan Road, Upper Norwood, S.E.
W. J. Tyson, M.D., Folkestone
T. Jenner Verrall, Esq., Brighton

Associate Member.

Holman, Sir Constantine, M.D., London

No. 1.—Ashford Division

NUMBERING 19.

Chairman, C. M. Atkinson, Esq., Ashford

Vice-Chairman, F. S. Hardwick, M.B., Charing, Ashford

Honorary Secretary, C. M. Vernon, Esq., Stoke House, Ashford

Representative for Representative Meeting, A. E. Larking, M.D., 4, London Street, Folkestone

Representative on Branch Council.
Vernon, C. M., Esq.

Atkinson, C. M., Esq., Swanton House, Ashford
Ballard, P., Esq., Walford House, Smarden
Cave, Frank, Esq., Northend, Ashford
Coke, W. F. H., F.R.C.S., 17, High Street, Ashford
Colville, E. G., Esq., Ashford
Fox, C. Tilbury, Esq., The Gables, Ashford
Hardwick, F. S., M.B., Charing Ashford
Hick, Henry, Esq., The Priory, New Romney
Kerr, J. L., M.D., Biddenden
Marsh, H. R., Esq., Aldington, Hythe
Nolan, H. F., Esq., Wakeley House, Charing
Oliver, H. S., Esq., Skinner House, Lydd
Sills, C. H., M.D., Fieldview, Wye
Smith, Wm., Esq., Brabourne, Ashford
Toms, P. M., Esq., Ham Street, Ashford
Vernon, C. M., Esq., Stoke House, Ashford
Wickham, C. A., Esq., Elmlea, Willesboro', Ashford
Wilkinson, J. Cooper, Esq., 1, Elwick Road, Ashford
Wilks, G., M.B., Ashford

No. 2.—Brighton Division

NUMBERING 142.

Chairman, T. Jenner Verrall, Esq., Brighton

Vice-Chairman, Alfred J. Martineau, Esq., H

Honorary Secretary and Treasurer, G. R. Marsh, M.D. 49, Sackville Road, Hove

Representative for Representative Meeting, W. J. Stephens Esq., 25, Clermont Terrace, Preston, Brighton

Representatives on Branch Council.
Marsh, G. R., M.D.
Hollis, W. A., M.D.

Executive Committee.
Benham, C. H., M.D.
Benson, G. V., Esq.
Bowring, W. A., Esq.
Greenyer, V. T., Esq.
Haynes, H. E., Esq.
Robson, F., M.D.

Akers, W. D., Esq., 24, Portland Road, Hove
Alban, E., M.D., Lindfield
Allan, John, M.B., Royal Alexandra Hospital for Sick Children, Brighton
Allfrey, F. H., M.B., Froxfield House, Southwick
Allin, E. W., M D, Greenfields, Newick
Baber, E. C., M.B., 46, Brunswick Square, Hove
Bailey C. F., M.D., 125, Marine Parade, Brighton
Baines, H. A., Esq., 24, Cannon Place, Brighton
Balean, H., Esq., 15, Alexandra Villas, Brighton
Belemore, A. J., Surgeon-Lieutenant-Colonel, A.M.S. (ret.) 339, Ditchling Road, Brighton
Benham, C. H., M.D., 27, Sackville Road, Hove
Benson, G. V., Esq., Westout, Lewes, Sussex
Bettenson, W. B., Esq., Sussex Lodge, Newhaven
Bickerton, J. M., M.B., 40, First Avenue, Hove
Biggs, T. S., Esq., Cotterlings, Ditchling, near Brighton
Blaker, N. P., Esq., 80, Marine Parade, Brighton
Bown, J. Quinton, M.D., 17, Palmeira Square, Hove
Bowring, W. A., Esq., The Pines, Furze Hill, Brighton
Boyle, A. Helen, M.D., 3, Palmeira Terrace, Hove
Bridgwater, T., M.B., LL.D., Hoote Hall, Uckfield
Broadbent, W., M.D., 50, Brunswick Square, Hove
Buck, A. H., Esq., 39, Cambridge Road, Hove
Burchell, E., Esq., 5, Waterloo Place, Brighton
Burbidge, J. W., Esq., Castle Place, Lewes
Burrows, W. S., Esq., 62, Old Steyne, Brighton
Burt, A. H., Esq., 52, Lansdowne Place, Hove
Bushnell, F. G., M D., Sussex County Hospital, Brighton
Calvert, W. D., Esq., 17, New Steyne, Brighton
Cann, T. P., M.D., 2, Fort Road, Newhaven
Cattlin, W., Esq., 4, Westbourne Terrace, West Brighton
Chadborn, C. N., Esq., 10, Cambridge Road, Hove
Chaffey, W. C., M.D., 18, Palmeira Square, Hove
Clark, A. D., Esq., 59, Norton Road, Hove
Cones, J. A., Esq., Burgess Hill
Collier, H. W., M.B., 24, Dyke Road, Brighton
Compton, W. H., Esq., 34, Bedford Square, Brighton
Cox, E. T., M.D., New Church Road, Hove
Curwen, Eliot, M.B., 1, St. Aubyns, Hove
Daldy, A. M., M.D., 17, Palmeira Square, Hove
Davies, H. H., M.B., 35, Montpellier Road, Brighton
Dill, J. F. G., M.D., 16, Brunswick Square, Hove
Dodd, A. H., Esq., 49 Church Road, Hove
Dow, W. A., M.D., High Street, Lewes
Duke, E., M.D., 30, New Church Road, Hove
Edmunds, J., M.D., 4, Chichester Terrace, Brighton
Edwards, E. N., Esq., 3, Goldsmid Road, Brighton
Fawssett, F., M.B., 83, High Street, Lewes
Figgis, S. B., M.B., 48, Stanford Avenue, Brighton
Fitzmaurice, R., Esq., Lindfield, Hayward's Heath
Foulerton, A. G. R., Esq., Balcombe Rd., Hayward's Heath
Frampton, T. H. T., Esq., 15, Brunswick Square, Hove
Fuller, T., M.D., 19, Wilbury Avenue, Hove
Furner, W., M.D., 13, Brunswick Square, Hove
Galpin, G. L., M.D., 42, Norton Road, Hove
Gervis, C. B., M.D., Hurdis House, Seaford
Gervis, Henry, M.B., 74, Dyke Road, Brighton
Giffard, D. W., Esq., 5, Pavilion Parade, Brighton
Gilkes, E. O., Esq., 8, Stanford Avenue, Brighton
Greenyer, V. T., Esq., 40, Sackville Road, Hove
Griffin, W. Watson, M.B., 63, Brunswick Place, Hove
Hall, D. G., M.D., 20, Brunswick Place, Hove
Hawken, G. L. L., Esq., Hurstpierpoint
Haynes H. E., Esq., 32, Brunswick Terrace, Hove
Hobhouse, E., M.D., 12, Second Avenue, Hove
Hodson, H. A., Esq., 23, Brunswick Square, Hove
Hollis, W. A., M.D., 1, Palmeira Avenue, Hove
Hutchinson, F. A. S., M.B., 32, Brunswick Place, Hove
Hutchison, Arthur J., M.B., 84, Lansdowne Place, Hove
Ionides, T. H., M.B., 25, First Avenue, Hove
Jacomb-Hood, C. J., Esq., 8, St. George's Place, Brighton
Jefferson R. P., Esq., 6, Walsingham Terrace, Hove
Jones, Lillie M. A., M.D., 3, Palmeira Terrace, Hove
Jowers, R. F., Esq., 55, Brunswick Square, Hove
Kempe, C. M., Esq., Chantry House, New Shoreham
Lang, W., M.D., The Rockeries, Southwick
Lawson, F. H., Esq., 1, Southdown Terrace, Steyning
Leigh, T., Esq., 68, Grand Parade, Brighton
MacGavin, J., Esq., Westoe, Preston Drove, Brighton
Mackey, E., M.D., 1, Ventnor Villas, Hove
Maguire, E. C., M.D., 9, Old Steyne, Brighton
Marsh, G. R., M.D., 49, Sackville Road, Hove
Martineau, Alfred J., Esq., 33, Clarendon Villas, Hove
Maynard, E. F., M.D., 49, Brunswick Place, Hove
Meyer, W. R., Esq., Amwell Place, Hassocks
Minter, L. J., Esq., 36, Sillwood Road, Brighton
Molson, J. C., M.D., 1, Pavilion Buildings, Brighton
Morgan, George, Esq., 6, Pavilion Parade, Brighton
Morgan, W. P., M.D., Seaford
Newsholme, A., M.D., 11, Gloucester Place, Brighton
Newth, W. P. R., Esq., Haywards Heath
Nicholson, A., M.B., 50, Brunswick Square, Hove
Oldham, C. J., Esq., 33, Brunswick Square, Hove
Orme, W. Bryce, Esq., Ivy Nook, Steyning
Parry, E. J., Esq., Hadlow, Hurstpierpoint
Paley, F. J., M.D., 18, Brunswick Place, Hove
Pearce, F., Esq., 9, Rosehill Terrace, Brighton
Peskett, A. W. C., M.B., 4, Clermont Road, Brighton
Phillips, L. W. K., M.D., 39, Albany Villas, Hove
Planck, Charles, jun., Esq., Brighton Borough Asylum, Haywards Heath
Pratt, Eldon, M.D., Henfield
Pugh, J. W., M.D., 45, Upper Rock Gardens, Brighton
Reed, G., M.D., The Warren, Telscombe Cliffs, near Newhaven
Richardson, C. B., M.D., 2, Tisbury Road, Hove
Robson, C., Esq., The Dispensary, Sackville Road, Hove
Robson, F., M.D., Brent Eleigh, Hayward's Heath
Rooth, James A., Esq., 38, Montpelier Crescent, Brighton
Ross, D. McK., M.D., 9, Pavilion Parade, Brighton
Ryle, R. J., M.D., 15, German Place, Brighton
Rymer, J. F., Esq., 13, Old Steine, Brighton
Sanderson, R., M.B., 56, Brunswick Square, Hove
Scott, A., Esq., 141, Marine Parade, Brighton
Scott, E. L., M.D., 69, Church Road, Hove
Scott, W. W., Esq., 28, Westbourne Villas, Hove
Shardlow, Joseph, M.B., Eastcott, Preston Drove, Brighton
Shaw, R. H., M.D., 2, Hanover Place, The Level, Brighton
Shrubshall, W. W., Esq., 47, Eaton Place, Brighton
Simpson, G. H., Esq., 138, Beaconsfield Villas, Brighton
Sloman, F., Esq., 18, Montpelier Road, Brighton
Sortain, E. L., M.B., 59, Old Steyne, Brighton
Spitta, E. J., Esq., 41, Ventnor Villas, Hove
Stechan, E., Esq., 119, Preston Drove, Brighton
Steinhaeuser, J. R., M.B., St. Andrew's Place, Lewes
Stephens, W. J., Esq., 25, Clermont Terr., Preston, Brighton
Stone, G. W., Esq., Cumnor, Dyke Road, Brighton
Sydney-Turner, A. M., Esq., 42, Ventnor Villas, Hove
Treves, E., Esq., 2, The Drive, Hove
Tuohy, J. F., M.D., Lieut.-Col., I.M.S. (ret.) 1, Denmark Villas, Hove
Turton, J., Esq., Hatherley, Preston Park, Brighton
Uhthoff, J. C., M.D., Wavertree House, Hove
Upton, A., Esq., 79, Lansdowne Place, Hove
Upton, H. C., Esq., 28, Medina Villas, Hove
Vallance, H., Esq., 199, High Street, Lewes
Verrall, T. Jenner, Esq., 97, Montpellier Road, Brighton
Wallace, J. J., M.B., Musters Green, Hayward's Heath
Webster, E., Esq., 21, Old Steine, Brighton
Welch, C. H., F.R.C.S., 46, Upper Rock Gardens, Brighton
Whitcher, Chas. E., Esq., 81, The Drive, Hove
Whittington, R., Esq., 1, Sillwood Place, Brighton
Whittle, E. G., M.D., 9, Regency Square, Brighton
Williams, A. W., M.D., 1, Belvedere Terrace, Montpellier Place, Brighton
Wood, 5M. Dale, M.D., Brighton Borough Co. Asylum, Haywards Heath

No. 3.—Bromley Division

NUMBERING 46.

Chairman, H. J. Ilott, M.D., Bromley

Vice-Chairman, A. Tennyson Smith, M.D., Orpington

Honorary Secretary, P. N. Randall, M.B., Aldermary, Rodway Road, Bromley

Representative for Representative Meeting, A. Maude, Esq., Westerham.

Representative on Branch Council.
Ilott, H. J., M.D.

Bailey, T. W., Esq., Sandlings, St. Mary Cray
Brookhouse, C. T., M.D., 38, Tweedy Road, Bromley
Codd, A. F. G., M.B., Holwood Lodge, Bromley
Colbourne, L., M.B., Park Road, Beckenham
Colclough, J. A., Esq., 31, Westmount Road, Eltham
Colyer, A. R., Esq., Connaught House, Beckenham.
Corbin, E. R. St. C., M.B., 7, Beckenham Rd., Beckenham
Crowley, J. H., Esq., St. James's Avenue, Elmers End
Curtis, P. J., Esq., The Manor House, Beckenham
Davis, Robert, Esq., Darrickwood, Orpington
Duncanson, J. G., M.B., Wingfield House, Shooters Hill
Edwards, J. M., Esq., Chilchester, London Lane, Bromley
Franklin, J. C., Esq., Spring Lodge, Ravensbourne Road, Bromley
Gabell, D. P., Esq., 7, Oakhill Road, Beckenham
Grant-Wilson, C. W., Esq., St. Winnows, Bromley
Hawke, E. H., Esq., Tolgulla, Shortlands Road, Shortlands
Ilott, H. J., M.D., Bromley
Ingall, F. E., Esq., The Brook Fever Hos'tl., Sho'trs Hl., S.E.
Jeken, J., Esq., Eltham
Leatham, A. N., Esq., Gwydor Cottage, Beckenham
Leighton, P. A., M.D., Lindley Lodge, Mottingham
Lewis, C. E. M., M.D., Widmore Road, Bromley
Lindsay, W. J., M.D., 15, College Road, Bromley
Lyle, H. W., M.D., Eversley, Elmfield Road, Bromley
McArthur, Duncan R., M.D., Chepstow Lodge, Bromley
McCombie, J., M.D., Brook Hospital, Shooters Hill, S.E.
Mathewson, J., M.B., 45, Tweedy Road, Bromley
Maxwell, J. L., M.D., 31, Hammelton Road, Bromley
Miller, J. N., M.D., Overfield, Southlands Road, Bickley
Morison, H. B., M.B., Lindley Lodge, Mottingham, Eltham
Murray, P. H., M.B., Bromley Road, Beckenham
Price, A. E., M.D., 1[illegible], High Street, Bromley
Pridmore, E. L. N., M.B., 16, Albemarle Road, Beckenham
Randell, R. M. H., M.D., Copers Cope Road, Beckenham
Renton, R., M.B., Glenthorne, Orpington
Rogers, K., M.D., Alford, Bromley
Scott, J., M.D., Bromley
Seddon, H. B., Esq., Yew Lodge, Bromley
Shannon, R. A., Esq., Crofton, Orpington
Smith, H. A., M.D., 84, London Road Bromley
Smith, H. S., Esq., The Court Yard, Eltham
Stevenson, W. D., Esq., Hazlewood, Farnborough, R.S.O., Kent
Stilwell, G. R., M.B., 14, South End Road, Beckenham
Thomas, H. W., Esq., Thornbury, High Street, Bromley
Weir, J. C., M.B., Major, R.A.M.C., 77, West Park, Eltham
Wheeler, P. D'Eron, M.D., 18, Bromley Grove, Shortlands

No. 4.—Canterbury and Faversham Division

NUMBERING 49.

Chairman, W. Gosse, M.D., Sittingbourne

Vice-Chairman, B. Rigden, Esq., Canterbury

Honorary Secretary and Treasurer, A. R. Henchley, M.D., 1, London Road, Canterbury,

Representative for Representative Meeting, W. Gosse, M.D., Sittingbourne

Representative on Branch Council.
Evers, C. J., M.D., Faversham.

Executive Committee.
Alexander, S. R., M.D.
Bowes, C. K., M.D.
Etheridge, C. E., M.B.
Hayward, J. W., Esq.
Prentice, Z., Esq.
Selby, P. J., Esq.

Aldridge, G., Esq., 59, Alma Road, Sheerness
Alexander, S. R., M.D., Gatefield House, Faversham
Arrol, C., M.D., Bankstown, Sheerness
Bennetts, F., Esq., Rose Villa, Alma Road, Sheerness
Boodle, R. M., Esq., 70, East Street, Sittingbourne
Bowes, C. K., M.D., 2, Marina Crescent, Herne Bay
Bowes, T. A., M.D., 7, Marine Terrace, Herne Bay
Bremner, R. A., Esq., Castle Street, Canterbury
Burton, J. C., Esq., The Deanery, Chartham, nr. Canterbury
Copland, J. B., Esq., Banks Terrace, Sheerness
Etheridge, C. E., M.B., The Red Gables, Tankerton, Whitstable
Everett, William, M.D., Kent County Asylum, Chartham
Evers, C. J., M.D., Albion House, Faversham
FitzGerald, G. C., M.D., Chartham Asylum, nr. Canterbury
Flint, W. H., Esq., Ansdell House, Whitstable
French, Margaret D., M.B., St. Andrew's Rectory, Canterbury
Gange, F. W., M.D., 9, Kingsfield Terrace, Faversham
Gittings, C. B., M.B., Surg. R.N., 2, Naval Ter., Sheerness
Gogarty, H. A., M.D., Ethelbert Road, Canterbury
Gosse, W., M.D., Sittingbourne
Gowlland, E. L., M.B., 54, East Street, Faversham
Grayling, F., Esq., Sittingbourne
Greasley, J., Esq., 4, St. George's Place, Canterbury
Hayward, J. W., Esq., Whitstable
Henchley, A. R., M.D., 1, London Road, Canterbury
Holmes, J. McA., M.B., Surg. R.N., H.M.S. "Endymion Sheerness
Jay, F. F., M.D., 20, East Street, Faversham
Johnston, W. T., M.D., Lieut.-Col. R.A.M.C., Belle Vue, Harbledown
McClure, T., M.D., 23, Marine Parade, Sheerness
Moorhead, R. L., M.B., Bridge, Canterbury
Moriarty, G. I., M.B., Kent and Canterbury Hospital, Canterbury
Morris, E. G. F., Esq., Littlebourne, near Dover
Noble, W. H. F., Esq., Haslemere, Sittingbourne
Pittock, G. M., M.B., Winton, Whitstable Rd., Canterbury
Prentice, Z., Esq., 21, Watling Street, Canterbury
Reid, T. W., M.D., St. George's House, Canterbury
Rigden, B., Esq., 60, Burgate, Canterbury
Robson, Neil, M.B., Park House, Sittingbourne
Scatchard, C., Esq., Boughton Blean, Faversham
Selby, P. J., Esq., Teynham
Spain, C. M., Esq., Teynham
Sworn, A. B. R., Esq., 45, St. Peter's Street, Canterbury
Topham, J. A., Esq., Kent Lunatic Asylum, Chartham Down
Wacher, F., Esq., Monastery House, Canterbury
Wacher, S., Esq., St. George's Place, Canterbury
Wilkinson, A., M.D., Sheerness-on-Sea
Willan, G. T., jun., Esq., 39, Crown Road, Milton, Sittingbourn
Williams, M. T., M.B., 9, Church Street, St. Paul's, Canterbury
Wood, D. A., M.B., Chekes Court, Sittingbourne

No. 5.—Chichester and Worthing Division

NUMBERING 45.

Chairman, W. S. Simpson, Esq., Worthing

Vice-Chairman, E. H. Buckell, Esq., Chichester

Honorary Secretary and Treasurer, H. C. L. Morris, M.D. The Steyne, Bognor

Representative for Representative Meeting, F. Hinds, M.D. 17, Tennyson Road, Worthing

Representative on Branch Council.
Elliot-Blake, H., Esq.

Executive Committee.
Cameron, A. G. R., M.B.
Eustace, W., M.B.
Hinds, F., M.D.

Allingham, W., Esq., Kingsdene, Shelley Road, Worthing
Baker, W. L., Esq., Lyndhurst, Warwick Grdns., Worthing
Bardswell, Noel D., M.D., King Edward VII Sanatorium, Midhurst
Blenkarne, W. L'H., Esq., Grafton Road, Worthing
Bostock, A. S., Esq., North Pallant, Chichester
Buckell, E. H., Esq., North Pallant, Chichester
Burt, A., Esq., Vectis, Belsize Road, Worthing
Cameron, A. G. R., M.B., Downview Road, Worthing
Chard, R. A. S., Esq., Highfield Tarring, W. Worthing
Collet, G. B., Esq., Shelley House, Worthing
Cooke, W. C., Esq., Glenlogie, Bognor
Densham, A., M.B., Woodville, Crescent Road, Worthing
D'Olier, B. I., M.B., Arundel
Elliot-Blake, H., Esq., 3, Ellasdale Road, Bognor
Eustace, W., M.B., Arundel
Everard, A. G., Esq., The Nook, North Birsted, nr. Bognor
Ewart, David, M.B., 32, North Street, Chichester
Fitzmaurice, N. F. H., Esq., 48, Arundel Rd., Littlehmptn.
Garratt, G. C., M.B., Chilworth, Chichester
Gethin-Jones, O., M.D., Beaulieu, Rowland Rd., Worthing
Going, R. M., F.R.C.S., Fitzalan Road, Littlehampton
Gostling, W. A., M.D., Barningham, West Worthing
Harrison, H. L., M.B., 104, Marine Parade, Worthing
Haydon, F. E., M.B., Beachcroft, Littlehampton
Hinds, F., M.D., 17, Tennyson Road, Worthing
Kidd, H. A., Esq., West Sussex Co. Asylum, Chichester
Last, C. E., Esq., Bletsoe House, Littlehampton
Lees, B. H., M.B., Winchester House, Worthing
Le Riche, P. J., Esq., 96, Marine Parade, Worthing
London, M. M., M.D., Myroe, Arundel
Michie, John, Esq., Bell Rock, Bognor
Molson, J. E., M.D., Goring Hall, nr. Worthing
Millbank-Smith, H. J. M., Esq., Worthing Lodge, Worthing
Morris, H. C. L., M.D., The Steyne, Bognor
Moyle, W. H., Esq., Rogate
Nodes, J. D. S., Esq., Ferniehurst, Shelley Road, Worthing
Paxton, F. V., M.B., Chichester
Rawlinson, F. J., Esq., Stuart House, Bognor
Richardson, F. E., Esq., Littlehampton
Simpson, W. S., Esq., Heslington House, Worthing
Smith, T. P., M.B., Beauly, Rowland's Road, W. Worthing
Thorowgood, J. C., M.D., Springfield, Bognor
Walker, C. R., M.D., Abydos, Longfellow Road, Worthin
Ware, H. S., M.B., Downview Road, Worthing
Wiggins, Henry, Esq., Dalkeith, Teville Road, Worthing

No. 6.—Croydon Division

NUMBERING 136.

Chairman,

Vice-Chairman, W. Rosser, M.D., Croydon

Honorary Secretary, E. H. Willock, Esq., 113, London Rd., Croydon

Representative for Representative Meeting, J. J. Macan, M.D., Crossgates, Cheam

Representative on Branch Council.
Smith, S. Parsons, L.R.C.P., J.P.

Executive Committee.
Carpenter, A. B., M.B.
Cressy, A. Z. C., Esq.
Duncan, P. T., M.D.
Fowler, C. O., M.D.
Gripper, W., M.B.
Horsley, H., Esq.
Hugo, R. M., Esq.
Newby, G. E., Esq.
Redfern, J. J., M.D.
Reid, St. George, Esq.
Richards, Meredith, M.D.
Wayte, John, M.D.
Wray, C., Esq.

Adams, E. L., M.B., 171, St. James's Street, East Croydon
Addey, W. F., M.D., 124, Lower Addicombe Road, Croydon
Addison, W. B., M.B., 10, Parchmore Rd., Thornton Heath
Aird, T. W., M.D., Tyneside, Wallington
Alexander, T. A., M.D., Beechwood, Church Street, Epsom
Allan, A. Percy, M.D., 56, Croham Road, S. Croydon
Arkwright, J. A., M.D., The Garth, Kenley
Ashton, D. A., M.B., Denham, Rosswood Gdns, Wellington
Baker, A. de C., Esq., 3, Haling Park Road, South Croydon
Beard, F., M.B., The Crossways, Croydon
Beaumont, C. G., M.D., Old Manor House, Epsom
Bell, R., M.D., Stoneleigh, Ewell
Bentley, H., Esq., Haworth, Mitcham
Bentley, J. R., M.B., Gladwins, Limpsfield
Berncastle, H. M., Esq., Croydon Mental Hospital, Warlingham
Biden, G. H., Esq., Penrith, Stanley Park Road, Wallington
Blackman, S. S. F., Esq., 28, South Park Hill Road, South Croydon
Bligh, W., M.D., Caterham Valley
Bond, C. H., M.D., The Colony, Ewell

Bourns, C., Esq., West Hill, Oxted, Redhill
Bower, G., Esq., Redlands, Cheam Road, Sutton
Boycott, A. E., M.B., 7, The Square, Carshalton
Braddon, W. V., Esq., 283, London Road, Thornton Heath
Brebner, G. R., M.D., 232, London Road, West Croydon
Brown, R. C., jun., M.B., 87, London Road, West Croydon
Cade, H. L., Esq., Lynwood, Park Hill Rd., Wallington
Campbell, P. E., M.B., Caterham
Carpenter, A. B., M.B., Bedford Park, Croydon
Cazalet, G. W., Esq., Advie, Brunswick Road, Sutton
Chamberlain,-E. T., M.D., Banstead
Chapman, A. V., Esq., Wynnesbay, Tavistock Rd., Croydon
Collard, F. S., Esq., Hayling Park Cottage, Croydon
Collier, B., M.D., 46, Croham Road, South Croydon
Craig, P. L. L., M.B., Caterham Asylum, Caterham
Cressy, A. Z. C., Esq., Hayesden, Wallington
Cribb, Harry G., Esq., Cane Hill Asylum, Coulsdon
Cuffe, A., Esq., Killasser, Tadworth
Danks, W. S., M.D., Evering Ho., Worcester Road, Sutton
Dempster, W. T., Esq., Brighton Road, South Croydon
Drew, H. W., Esq., 3, Addiscombe Road, E. Croydon
Dukes, T. A., M.B., 16, Wellesley Road, Croydon
Dunbar-Brunton, J., M.B. (address uncommunicated)
Duncan, P. T., M.D., Park House, Croydon
Elgee, S. C., Esq., Horton Manor Asylum, Epsom
Etches, W. R., Esq., The Meadows, Warlingham
Everington, H. D., M.B., Cumnor, Sanderstead
Flint, Ella C., M.B., 54, Park Lane, Croydon
Fowler, C. O., M.D., Cotford House, Thornton Heath
Francis, H. A., M.B., 22, Outram Road, Croydon
Francis, J. B. C., Esq., 18, Lower Addiscombe Rd., Croydon
Furber, E. P., Esq., Oxted
Genge, G. G., M.D., 89, Lansdowne Road, Croydon
Gibbins, H. B., M.B., The Limes, Ashtead
Gimblett, W. H., M.D., La Roche, Wallington
Grapel, F. G., Esq., 303, London Road, Thornton Heath
Gripper, W., M.B., Walpole House, Wallington
Hamond, P. W., M.B., 61, Melfort Road, Thoruton Heath
Haslam, W. D., M.D., 87, Park Lane, Croydon
Hobson, J. M., M.D., 1, Morland Road Croydon
Holford, W. S., Esq., Ravensdene, Sutton
Honnywill, A. O., Esq., 2, Mulgrave Road, Sutton
Horsley, H., Esq., London Road, Croydon
Hubbard, W. L., M.D., Edenbridge
Hughes, M., Esq., Eastbridge, Addiscombe Rd., Croydon
Hugo, R. M., Esq., Purley
Iredell, Ethel F., M.B., 13, Tavistock Road, Croydon
Jackson, M., M.D., Abertawe, Foxley Lane, Purley
Jackson, T., Esq., New Thornton Heath, Croydon
Jones, D. J., M.D., Lond. Co. Asylum, Banstead, Sutton
Jones, Herman J., M.D., Manor Road, Wallington
Landon, E. E. B., Esq., Old Manor House, Carshalton
Langston, J. J., Esq., 100, Lower Addiscombe Rd. Croydon
Laurence, B. E., Esq., Tower House, London Rd., Croydon
Logan, T. S., Esq., Co. London Epileptic Colony, Ewell
McArthur, Duncan, Esq., St. Clare, Limpsfield
Macan, J. J., M.D., Crossgates, Cheam
Marshall, E. W., Esq., Ryde Cottage, Mitcham
McDougall, W. S., M.B., Benloyal, Wallington
McNiece, H., Esq., Carshalton
Maie, H. C., M.D., 74, Birdhurst Road, S. Croydon
Maxwell, K., M.B. (address uncommunicated)
Miller, A. A., M.B., Falkland, Brighton Road, Sutton
Moody, J. M., Esq., Purley, R.S.O.
Morris, E., Esq., 203, St James Road, E. Croydon
Morris, Graham, Esq., Shotfield, Wallington
Morton, S., M.D., Lindisfarne, Normanton Rd., S. Croydon
Moss-Blundell, C. B., Esq., 51, Moffatt Road, Thornton Heath
Murphy, J. J., Esq., Banstead Asylum, near Sutton
Naesmyth, Donald, Esq., Oakfield Road, Ashstead
Neatby, A. M., Esq., Silverhurst, Brighton Road, Sutton
Newby, G. E., Esq., 12, Addiscombe Road, East Croydon
Newington, C. W. H., Esq., Edenbridge
Nicholls, F., M.D., 3, Coombe Road, Croydon
O'Hagan, P. F., Esq., 119, London Road, Croydon
Owen, A. J., Esq., 205, London Road, Croydon
Paget, W. Gray, Esq., Waddon Bridge House, Croydon
Partridge, A. A. H., M.D., St. Germans, Sutton
Pasmore, E. S., M.D., Croydon Asylum, Warlingham
Passmore, W. J. Esq., Felbrig, Park Hill, Carshalton
Pearce, A. Chaning, M.D., 88, St. James's Road, W. Croydon
Pearson, R. W., Esq., La Roche, Caterham
Peatling, A. V., M.B., Park View, Carshalton
Peatson, J. C. S., Esq., 211, London Road, Croydon
Pepper, C. E., M.B., 2, Woodville Road, Thornton Heath
Perry, C. M., Esq., Manor House, Leatherhead
Phillips, Cyril H., M.D., Martinhoe, Norbury, S.W.
Phillips, H. W., M.D., 28, Addiscombe Road, Croydon
Potts, L., Esq., Leatherhead
Powell, H. A., Esq., Rose Cottage, Upper Green, Mitcham
Proctor, W. J., M.B., Great Bookham
Redfern, J. J., M.D., 9, Wellesley Road, Croydon
Reid, St. George, Esq., Thornton Heath
Rendall, Percy, M.D., Ewell
Richards, J. S., M.D., 5, Wellesley Villas, Croydon
Richards, Meredith, M.D., 7, Coombe Road, Croydon
Ridley, J. Brooke, M.D., 53, Dingwall Road, Croydon
Roberts, N., Esq., Cane Hill, Purley
Rosser, W., M.D., Glenalmond, Wellesley Road, Croydon
Scudamore, C. G. C., Esq., 117, Whitehorse Road, Croydon
Smith, S. Parsons, L.R.C.P., J.P., Park Hyrst, Addiscombe Road, Croydon
Smith, W. H. M., Esq., 47, London Road, Croydon
Swan, R. J., Esq., Hawthorndene, Parkhill Rd., Wallington
Thompson, Henry G., M.D., 85, Lower Addiscombe Road, Croydon
Thompson, J. Henry, M.B., 139, Lower Addiscombe Road, Croydon
Todd, Margaret G., M.D., 230, London Road, Croydon
Turner, S. D., M.D., Westbury, Purley
Wale, George, Esq., 133, High Street, Croydon
Watson, T. B., M.D., Woldingham, Caterham Valley
Wayte, John, M.B., 65, Park Lane, Croydon
Weekes, C. P., Esq., Elmwood, Cheam Road, Sutton
Whittaker, Harry, M.B., Banstead Downs, Sutton
Williams, W. A., Esq., 15, London Road, Mitcham
Williamson, J., M.D., The Limes, East Street, Epsom
Willock, E. H., Esq., 113, London Road, Croydon
Wilson, R. W., Esq., Union Infirmary, Croydon
Wray, C., Esq., North End Croydon
Young, H. W. P., M.D., Dursley, Norbury, S.W.

No. 7.—Dartford Division

NUMBERING 49.

Chairman, M. W. Renton, Esq., Dartford
Vice Chairman,
Honorary Secretary, A. S. Greenway, M.D., Belvedere
Representative for Representative Meeting, C. T. W. Hirsch, Esq., Rectory Place, Woolwich

Allen, R. R., M.D., 5, West Hill, Dartford
Anderson, W., M.B., Bellevue, Swanley
Baird, G. H., Esq., Hawkwood, Woolwich Road, Charlton
Barnes, L. J. J., M.D., 43, Bexley Road, Erith
Bryden, R. J., Esq., 21, Harmer Street, Gravesend
Callender, T. M., M.D., Inverard, Sidcup
Cane, H., M.D., The Gables, Belvedere
Cardinall, C. D., Esq., Main Road, Longlands, Sidcup
Clarke, C. F., Esq., 24, Park Road, Plumstead
Clarke, J. L., M.B., 34, Plumstead Common, S.E.
Crawford, J. D., M.D., Palmerston, Swanley
Crombie, J., M.B., Highden, Sidcup
Day, W. H., M.D., Holly Hill, Meopham
Drennan, R. H., M.B., 56, Parrock Street, Gravesend
Dunston, J. T., M.D., Baldwyns Park, Bexley
Dwyer, J. C., Esq., 48, The Common, Woolwich
Edwards, G. F., M.D. (address uncommunicated)
Firth, C., M.D., 194, Parrock Street, Gravesend
Fisher, Theodore, M.D., The Garples, Granville Rd., Sidcup
Greenway, A. S., M.D., Heath Villa, Belvedere
Griffiths, S. A. E., Esq., The Thorns, Meopham
Hallett, H., Esq., Darenth Asylum, near Dartford
Hinds, T. W., M.D., Bexley House, Crayford
Hirsch, C. T. W., Esq., Rectory Place, Woolwich, S.E.
Johnson, G. A., Esq., 196, Burrage Road, Plumstead
Jones, A. L., M.B., 76, Herbert Road, Plumstead
Knight, E., Esq., 29, Harmer Street, Gravesend
Knight, W., Esq., 29, Harmer Street, Gravesend
Lace, W. F., Esq., Sutton-at-Hone
Lindow, A., Esq., Gallossen Road, Plumstead
Lord, John R., M.B., London County Asylum, Bexley
Lovell.Keays, L. F., Esq., Brook Hill Road, Woolwich,
McFarland, A. J., M.D., Parrock Street, Gravesend
Maxwell, T., M.D., 29, Woolwich Common, S.E.
Patterson, A. E., M.D., City of London Asylum, Dartford
Renton, M. W., Esq., Bridge House, Dartford
Robbs, C. E., M.B., Lodgewood, Gravesend
Sells, H. T., Esq., 2, London Road, Northfleet
Smith, T. F. H., Esq., Farningham
Stansfield, T. E. K., M.B., London Co. Asylum, Bexley
Steen, R. H., M.D., The Hollies, Dartford
Sutton, C. R. A., M.D., Clare House, Sidcup
Thompson, P. W., Esq., 74, McLeod Road, Abbey Wood
Thurnell, H. L., M.D., 3, Woodville, Gravesend
Vance, W. J., Esq., Penrith House, Bexley Heath
Walker, J. E., Esq., High St. House, Bexley
Warrack, J. S., M.D., Clarendon Cottage, Shrubbery Road, Gravesend
Williamson, J. S., M.B., Errigal, Powis Street, Woolwich
Winslow, H. F., M.D. Little Combe, Old Charlton

No. 8.—Dover Division

NUMBERING 31.

Chairman, C. Parsons, M.D., Dover
Vice-Chairman, M. K. Robinson, M.D., Dover
Honorary Secretary and Treasurer, F. A. Osborn, Esq., Ennismore House, Dover
Representative for Representative Meeting, A. E. Larking, M.D., 4, London Street, Folkestone
Representative on Branch Council.
F. A. Osborn, Esq.

Baird, J., Esq., 2, Cambridge Terrace, Dover
Baylor, E. A. C., M.D., Clifton House, Ash, Dover
Baylor, H. T., Major R.A.M.C., The Ornhard Ash, Dover
Best, W. J., Esq., 1, Cambridge Terrace, Dover
Brunyate, Annie T., M.D., 4, Effingham Crescent, Dover
Harrison, J. W., M.B., The White Friars, Sandwich
Howden, Ian D. C., M.D., 6, Cambridge Terrace, Dover
Hughes, A. B., M.B., Linden Croft, Deal
Hulke, F. B., Esq., Admiralty House, Deal
Hulke, S. B., Esq., Ivy House, Walmer
Kerswill, Harry, Esq., St. Germans, Sandwich
Kœttlitz, Maurice, Esq. 20, London Road, Dover
Long, Arthur, Esq., The Châlet, Kearsney, Dover
Long, J. R., Esq., 1, St. Martin's Place, Dover
Mason, Alfred, Esq., The Limes, Deal
McAnally, A. A., Esq., The White House, Eastry
Molesworth, T. H., M.B., Ridgway, St. Margarets-at-Cliffe
Murphy, C. E., Esq., 24, Waterloo Crescent, Dover
Ord, R. W., Esq., 7, Cambridge Terrace, Dover
Ormsby, J., M.D., 7, Effingham Crescent, Dover
Osborn, F. A., Esq., Ennismore House, Dover
Parsons, C., M.D., 7, Waterloo Crescent, Dover
Payne, E. M. B., Esq., Melville, Shepherdswell, near Dover
Pinhorn, R., Esq., 5, Cambridge Terrace, Dover
Roberts, L., Esq., Deal
Robins, John N., Esq., Anlaby, Castle Avenue, Dover
Robinson, M. K., M.D., Priory Hill, Dover
Smythe, G. F. A., Lt.-Col. R.A.M.C., 2, Belgrave Gdns., Dover
Stone, F. W. S., Esq., Maidstone Ho., Folkestone Rd., Dover
Williamson, Agnes, M.B., 2, Park Avenue, Dover
Wood, C., Esq., 6, Effingham Crescent, Dover

No. 9.—Eastbourne Division

NUMBERING 48.

Chairman, H. Habgood, M.D., Upperton Road, Eastbourne
Vice-Chairman, J. Adams, M.D., Eastbourne
Honorary Secretary, W. J. C. Merry, M.D. 2, Chiswick Pl., Eastbourne
Representative for Representative Meeting, W. M. Smith, M.B., Rosebank, Eastbourne
Representative on Branch Council.
Ewart, J. H., Esq., Eastbourne
Executive Committee.
Bateman, C. E. G., Esq.
Gabbett, H. S., M.D.
Harper, A., M.D.
Hayman, C. N., M.B.
Sherwood, A. P., M.D.

Adams, J., M.D., 4, Chiswick Place, Eastbourne
Atterbury, W., M.D., 57, Cavendish Place, Eastbourne
Bailey, H. J., M.B., 13, Cavendish Place, Eastbourne
Bateman, C. E. G., Esq., Polegate
Biss, H. E. J., M.D., Polperro, Meads Street, Eastbourne
Black, G., M.B., The Willows, Hailsham
Bowles, A., 10, South Cliff, Eastbourne
Browne, D. M., M.D., 7, Devonshire Place, Eastbourne
Colgate, H., M.D., 3, Seaside Road, Eastbourne
Donnellan, J. N., M.B., 4, Devonshire Placo, Eastbourne
Emerson, A., M.B., 12, Upperton Road, Eastbourne
Ewart, J. H., Esq., Eastney, Devonshire Pl., Eastbourne
Farnell, H. D., Esq., Hempstead House, Eastbourne
Fennell, C. H., M.B., County Asylum, Hellingly
Frazer, Kenneth, M.D., 28, Devonshire Place, Eastbourne
Frost, E., M.D., Chesterfield Road, Eastbourne
Gabbett, H. S., M.D., 8, Chiswick Place, Eastbourne
Garman, E. C., Esq., Boreham, Hailsham
Griffiths, H. St. D., Esq., Cromwell House, Cavendish Place, Eastbourne
Habgood, H., M.D., Upperton Road, Eastbourne
Hallidie, A., M.B., Avondale, Eastbourne
Harding, C. O'B., Esq., 1, Chiswick Place, Eastbourne
Harper, A., M.D., 7, Chiswick Place, Eastbourne
Hayman, C. N., M.B., 22, Grand Parade, Eastbourne
Heath, R. E., Esq., Bryn Adda, Grange Road, Eastbourne
Holman, H. J., Esq., 1, Hardwick Road, Eastbourne
Holman, T., Esq., Gate House, East Hoathly
Macaulay, B. J., Esq., Grosvenor Ho., Sea Side, Eastbourne
McKechnie, M. V., Esq., Devonshire Lodge, Seaside, Eastbourne
MacQueen, T., M.B., 10, Bolton Road, Eastbourne
Marsdin, F., M.B., 9, Moat Croft Road, Eastbourne
Martin, A. A., M.D., 15, Victoria Place, Eastbourne
Merry, W. J. C., M.D., 2, Chiswick Place, Eastbourne
Moore, S. J., M.D., Lisdoon, Eastbourne
Noel-Cox, H. L., M.B., 24, Cornfield Road, Eastbourne
Owen, C. W., C.M.G., C.I.E., Lt.-Col., I.M.S. (R.P.), The Horns, Hankham
Peacey, W., Esq., Rydal Mount, St. John's Rd., Eastbourne
Roberts, A. C., Esq., Badlesmere, Eastbourne
Robinson, G. S., Surg.-Lt.-Col., Hayes Barton, Bedford Well Road, Eastbourne
Row, C. M., Esq., Pleydells, Warbleton
Sherwood, A. P., M.D., 8, Seaside Road, Eastbourne
Smith, W. Johnson, Esq., Woodlands, Willingdon
Smith, W. M., M.B., Rosebank, Eastbourne
Smyth, Richard, M.D., Coomrith, Eastbourne
Taylor, F. R. P., M.D., East Sussex County Asylum, Hellingly, S.O.
Wallis, H., Esq., Alfriston
Watson, T. H., M.B., Pevensey, near Hastings
Webster, W. F., Esq., Heathfield

No. 10.—Folkestone Division

NUMBERING 29.

Chairman, P. G. Lewis, M.D., Folkestone
Vice-Chairman, W. P. Barrett, Esq., Folkestone
Honorary Secretary, P. Vernon Dodd, M.D., 14, Manor Road, Folkestone
Representative for Representative Meeting, A. E. Larking, M.D., 4, London Street, Folkestone
Representative on Branch Council.
Eastes, T., M.D.
Executive Committee.
Chambers, W. F., Esq.
Davis, A. R., Esq.
Wainwright, L., M.D.

Barrett, W. P., Esq., 35, Cheriton Gardens, Folkestone
Calverley, E. J. G., C.M.G., M.D., 21, Earl's Av., Folkestone
Chambers, W. F., Esq., 27, Cheriton Gardens, Folkestone
Davis, A. R., Esq., Hythe
Dobbs, M., Esq., 8, West Terrace, The Leas, Folkestone
Dodd, P. Vernon, M.D., 14, Manor Road, Folkestone
Eastes, T., M.D., 18, Manor Road, Folkestone
Ewart, J. Hoggan, M.D., 23, Clifton Crescent, Folkestone
Fawcett, Edward, M.D., Claremont House, Folkestone
Fitzgerald, E. D., Esq., 5, Castle Hill Avenue, Folkestone
Gilbert, J. W. T., Esq., 97, Dover Street, Folkestone
Gore, A. J., Esq., 1, Salisbury Villas, Folkestone
Hackney, C., Esq., The High Street, Hythe
Hackney, G. H., Esq., Roselle, Lyminge S.O.
Hackney, J., M.D., Hythe
Hoysted, C. G., Esq., 6, Salisbury Villas, Folkestone
Keay, J., Esq., Sandgate Road, Folkestone
Larking, A. E., M.D., 4, London Street, Folkestone
Lewis, P. G., M.D., 22, Manor Road, Folkestone
Lillie, C. F., M.D., Newchurch, Folkestone
Menzies, J. A., M.B., 9, Castle Hill Avenue, Folkestone
Murdoch, Alan, M.B., The Oaks, Hythe
Perry C. E., M.D., 1, Castle Hill Avenue, Folkestone
Phillips, J. R. P., Esq., The Oaks, Hythe
Streatfeild, T., M.D., 113, Sandgate Road, Folkestone
Sworder, E. G., M.B., 2, Clifton Road, Folkestone
Toke, C. H. St. M. W., Esq. (address uncommunicated
Tyson, W. J., M.D., 10, Langhorne Gardens, Folkestone
Wainwright, L., M.D., Earl's Avenue, Folkestone

No. 11.—Guildford Division

NUMBERING 60.

Chairman, J. P. A. Gabb, M.D., Guildford
Vice-Chairman, A. Hope Walker, Esq., Cranleigh
Honorary Secretary and Treasurer, E. J. Smyth, M Maythorne, Epsom Road, Guildford
Representative for Representative Meeting, A. Hope Walker, Esq., The Common, Cranleigh
Representative on Branch Council.
Smyth, E. J., M.D.
Executive Committee.
De Jersey, Walter B., M.B.
Fisher, G., Esq.
Kendall, N. F., Esq.
Levick, P., Esq.
Minchin, P. D., Esq.
Morshead, E. G. A., M.D.
Napper, A. A., Esq.
Sloman, S. G., Esq.
Thorne Thorne, R., M.B.
Weaver, F. K., M.B.
Winstanley, R. W., Esq.

Ardagh, W. A., M.D., Haslemere
Bertolacci, J. H., M.D., Elstead, Godalming
Binnie, R. M. G., M.D., Cavenham, Woking
Birks, G. T., M.B., The Paddocks, Guildford
Booker, C. W., Esq., The Mount, Witley, Godalming
Brodribb, A. H., Esq., 6, The Court, Bury Fields, Guildford
Brown, A. H., Esq., Voltage, Woking
Bryden, F. W. A., Esq., The Priory, Godalming
Butler, T. M., Esq., Guildford
Chance, R. F., Esq., Ivy Bank, Godalming
Colby, F. E. A., M.B., Hill View, Woking
Davies, F. J., Esq., Kelstone Cottage, Godalming
De Jersey, Walter B., M.B., Netherton, Guildford
Duffus, Geo., M.B., Normanhurst, Woking
Duke, A. S., Esq., Fernhurst, Haslemere
Ealand, H. T., Esq., 5, Castle Street, Farnham
Fennings, Arthur, M.D., The Vines, Farncombe
Fishbourne, J. E., M.D., Lieutenant-Colonel A.M.S., H.M. Military Prison, Woking
Fisher, G., Esq., Shere, Guildford
Fleming, W. L. R., Esq., Suffolk House, Pirbright
Gabb, J. P. A., M.D., Guildford
Graham, W. G. J., Esq., Parkside, Wonersh
Haig, F. M., M.D., Trevone, Woking
Hall, G., M.D., Milford
Hall, J. S., M.D., The Haven, Frensham, Farnham
Hine, H., Esq., 20, Castle Street, Farnham
Hooley, A., Esq. Cobham
Hudson, A. B., Esq., Vine House, Cobham
Hurd-Wood, J., M.D., Whitmead Hill, Farnham
Hutchinson, R. J., Esq., Haslemere
Kendall, N. F., Esq., The Green, Chiddingfold
Lansdown, G. H., Esq., Knapp Hill, Woking
Lawrie, John, M.B., Ryde House, Woking
Levick, P., M.B., Beech Cottage, Guildford
Longhurst, S. H., Esq., Willmer House, Farnham
Lyndon, A., M.D., Grayshott, near Haslemere
Merryweather, R. C., Esq., Brompton Sana., Frimley
Minchin, P. D., Esq., Old Croft, Godalming
Mitchell, A. M., M.D., Eastgate House, Guildford
Morshead, E. G. A., M.D., 14, Quarry Street, Guildford
Napper, A. A., Esq., Cranleigh, near Guildford
Nicolson D., C.B., M.D., Balgownie, Guildford
Oliver, G., M.D., Riversleigh, Farnham
Orange, W., C.B., M.D., Oakhurst, Godalming
Parker, H. F., M.D., Hockliffe, Waterden Road, Guildford
Pearse, F. E., Esq., The Lindens, Ripley
Russell, F. R., M.D., 109, High Street, Guildford
Rygate, J. R., Esq., St. John's, Woking
Sichel, G., Esq., Eastfield Lodge, Epsom Road, Guildford
Sloman, S. G., Esq., 39, West Street, Farnham
Smith, Gilbert, M.D., High Down, Hindhead
Smyth, E. J., M.D., Maythorne, Epsom Road, Guildford
Sutcliffe, J. H., Esq., Ripley
Tanner, C. E., M.D., Farnham
Thorne, R. Thorne, M.B., Chobham Road, Woking
Vincent, G. F., Esq., Maybury-Road, Woking
Walters, F. R., M.D., Crooksbury Sanatorium, Farnham
Walker, A. Hope, Esq., The Common, Cranleigh
Weaver, F. K., M.B., Waterden Road, Guildford
Winstanley, R. W., Esq. Haslemere

No. 12.—Hastings Division

NUMBERING 74.

Chairman, J. W. Batterham, M.B., St. Leonards-on-Sea

Vice-Chairman, E. W. Skinner, M.D., Rye

Honorary Secretary, G. V. Hewland, M.D., 4, Eversfield Place, St. Leonards-on-Sea

Representative for Representative Meeting, W. M. Smith M.B., Rosebank, Eastbourne

Representative on Branch Council.
Kaye-Smith, E., Esq.

Executive Committee.
Allfrey, C. H., M.D.
Bagshawe, F., M.D.
Mansell, E. R., Esq.
Murdoch, A., M.B.
Paget, Peter, Esq.

Alford, H. G. L., Esq., 29, Cornwallis Gardens, Hastings
Allfrey, C. H., M.D., Plas Newydd, Prince's Rd, St. Leonards-on-Sea
Atkinson, F. P., M.D., 12, Dorset Road, Bexhill
Bagshawe, F., M.D., 35, Warrior Square, St. Leonards-on-Sea
Ballingall, G. A., M.D., 40, Chapel Park Road, St. Leonards-on-Sea
Barnett, John Milford, M.D., Surg. (rank of Major) Bombay Army (ret.), 21, Amherst Road, Bexhill-on-Sea
Barker, E. M., M.B., 33, Marina, St. Leonards-on-Sea
Barker, P. D., Esq., Marina Court, Bexhill-on-Sea
Batterham, J. W., M.B., Grand Parade, St. Leonards-on-Sea
Birch, S. B., M.D., 1, Markwick Ter., St. Leonards-on-Sea
Blaney, R., M.B., 2, Tower Road West, St. Leonards-on-Sea
Boult, E. F., Surg.-Maj,, 12, St. Margaret's Terrace, St. Leonards
Brangwin, C. H., Esq., St. Helens, Westham, nr. Hastings
Burr, W. T., M.B., Yelton House, White Rock, Hastings
Christopherson, C., Esq., 28, Eversfield Place, St. Leonards-on-Sea.
Culhane, F. W. S., Esq., Glyn House, Mount Pleasant Road, Hastings
Daunt, W., Esq., Marine Parade; Hastings
Emmett, J. W., Esq., Sea Road, Bexhill
Field, A. T., Esq., Belmont, Priory Road, Hastings
Fry, J. Farrant, Esq., 13, Dane Road, St. Leonards-on-Sea
Gabb, C. B., Esq., 3, Wellington Square, Hastings
Gambier, T., M.D., West Hill Road, St. Leonards-on-Sea
Garrard, G., Esq., Derwent, Sedlescombe Road, St. Leonards-on-Sea
Hancock, J. E., Esq., Summerlea, Hurst Green
Harratt, T. T., Esq., Mint House, Rye
Harvey, J. O., M.D., 16, Parkhurst Road, Bexhill
Hessey, J. D., Esq., 19, Cornwallis Gardens, Hastings
Hewland, G. V., M.D., 4, Eversfield Pl., St. Leonards-on-Sea
Huckle, A. H. H., Esq., 5, Edmund Road, Hastings
Joseph, A. H., M.D., Cantelupe Road, Bexhill-on-Sea
Johnston, R. M., M.B., 72, London Road, St. Leonards-on-Sea
Jowers, L. E., Esq., 51, Marina, St. Leonards on-Sea
Kaye-Smith, E., Esq., 9, Dane Road, St. Leonards-on-Sea
Kendall, G., Esq., Battle
Kent, Sydney, M.B., Dorset Cottage, Bexhill-on-Sea
Leslie, Lucille D., L.R.C.P., 57, Pevensey Road, St. Leonards-on Sea
Lett, F., Esq., Engadine, Ashburnham Road, Hastings
Lewis, F. B., Esq., 144, London Road, St. Leonards-on-Sea
Lightbody, J. H., M.D., St. Andrews Sea Road, Bexhill-on-Sea
Locke, G., Esq., 47, Wellington Square, Hastings
Longman, G. P., Esq., Wickham Avenue, Bexhill-on-Sea
Macnamara, J. U., Esq., Oakhurst, Hastings
Makalua, M. M., Esq., 37, Pevensey Road, St. Leonards
Mansell, E. R., Esq., 44, Wellington Square, Hastings
Mansell, H. R., Esq., Crofton, West Hill, Hastings
Masters, A. T., Esq., North Ridge, Northiam
Measures, J. W., Esq., 11, Grand Parade, St. Leonards-on Sea
Mitchell, P. A., M.B., Tower House, St. Leonards-on-Sea
Murdoch, A., M.B., 24, Albert Road, Bexhill
Newell, Percy, Esq., 41, West Hill, St. Leonards-on Sea
Osborne, Frank, Esq., Heatherdime, Bexhill
Paget, Peter, Esq., Ivy Court, Tenterden
Pollard, J. E., Esq., 34, Wellington Square, Hastings
Procter, H. C., M.D., 1, Elmstead Road, Bexhill
Redmayne, Thos., M.B., 13, Warrior Sq., St. Leonards
Romer, H., M.D., 25, St. Saviours Road, St. Leonards-on-Sea
Rundle, F. C., Esq., The Parsonage, Rolvenden
Skinner, E. W., M.D., Mountsfield, Rye
Stanley, H., M.B., 43, Pevensey Road, St. Leonards-on-Sea
Symington, W. D., M.D., 147, London Rd., St. Leonards-on-Sea
Threadgale, R. E., M.D., 123, London Road, St. Leonards-on-Sea
Ticehurst, N. F., F.R.C.S., 35, Pevensey Rd., St. Leonards-on-Sea
Travers, O. R., Esq., 171, London Road, St. Leonards-on-Sea
Trower, A., Esq., 104, Marina, St. Leonards-on-Sea
Tuke-Johnson, W., Esq., 125, Edmund Road, Clive Vale, Hastings
Turner, A. D., M.B., 71, Marina, St. Leonards-on-Sea
Vipan, C., Esq., D.S.O. Ford Bank, St. Leonards-on-Sea
Weld, C. H., Esq., Sandhurst
Weston, H. J., Esq., 52, Marina, St. Leonards
Wills, J. P., M.D., Bexhill
Wilson, A. S., M.B., 7, Warrior Square, St. Leonards-on-Sea
Wynne, Walter, M.B., Northiam
Yeoman, C., M.B., Hollington, St. Leonards-on-Sea

No. 13.—Horsham Division

NUMBERING 16.

Chairman, E. I. Bostock, Esq., Horsham

Vice-Chairman, F. W. E. Kinneir, Esq., Horsham

Honorary Secretary, L. M. Snow, Esq., Horsham

Representative for Representative Meeting, F. Hinds, M.D., 17, Tennyson Road, Worthing

Representative on Branch Council, M. H. H. Vernon, Esq.

Executive Committee.
Barnes, H. C., Esq.
Boxall, F., Esq.
Juckes, F. A., M.B.

Aldersmith, H., M.B., Christ's Hospital, West Horsham
Barnes, H. C., Esq., Culver Croft, Petworth
Blatchford, F. H., M.B., Pulborough
Bostock, E. I., Esq., Horsham
Boxall, F., Esq., Rudgwick, Horsham
Davies-Colley, H., Esq., Borough, Pulborough
Foot, E. G., Esq., Church House, Pulborough
Heygate, F. W., Esq., Billingshurst
Hind, Clara, L.R.C.P., Ockley Sanatorium
Juckes, F. A., M.B., 14, Carfax, Horsham
Kinneir, F. W. E., Esq., Horsham
Lee, F. W., Esq., Southdown House, Storrington, Pulborough
McAleer, J., M.D., Burton Hill, Petworth
Mudd, B. W., M.B., Storrington, Pulborough
Snow, L. M., Esq., Horsham
Vernon, M. H. H., Esq., 29, North Street, Horsham

No. 14.—Isle of Thanet Division

NUMBERING 46.

Chairman,

Honorary Secretary and Treasurer, Hugh M. Raven, Esq., Barfield House, Broadstairs

Representative for Representative Meeting, W. Gosse, M.D., Sittingbourne

Representative on Branch Council.
Hugh M. Raven, Esq.

Executive Committee.
Halstead, G. E., M.D
Street, A. F., M.D.
Sutcliffe, W. G., Esq.
Watts, A. M., M.D.

Berry, J. B., M.D., 13, Albion Place, Ramsgate
Biddle, H. G., Esq., 6, Chandos Place, Broadstairs
Bowden, R. T., M.D., Ellington Road, Ramsgate.
Brightman, F., Esq., Apsley House, Broadstairs
Brown, A. W., M.B., 5, Price's Avenue, Cliftonville
Burgess, P. C., Esq., The Limes, Hawley Street, Margate
Carpenter, E., Esq., 5, Granville Gardens, Ramsgate
Cotton, C., F.R.C.P., 42, Spencer Square, Ramsgate
Cross, Geoffrey, Esq., 7, Chapel Place, Ramsgate
Dancy, H. M., M.D., Wellington House, Ramsgate
Fisk, E., M.B., Lindfield, Crescent Road, Ramsgate
Flint, A., M.D., Westgate Lodge, Westgate-on-Sea
Halstead, G. E., M.D., Albion Hill House, Ramsgate
Harris, H. G., M.B., St. John's, Birchington-on-Sea
Harris, J. S., Esq., Birchington
Heaton, C. J., M.D., Ellerslie, Westgate-on Sea
Hemming, J. J., Esq., 7, Eaton Road, Margate
Hicks, R. G., Esq., 126, High Street, Ramsgate
McCombe, R., Esq., F.R.C.S., 2, Clifton Terrace, Cliftonville
Moon, E. G., Esq., Victoria Parade, Broadstairs
Nichol, F. E., M.B., 1, Ethelbert Crescent Margate
Pearce, J. C., M.D., Montague Ho., East Cliff, Ramsgate
Pike, T., M.D., Claremont, East Margate
Pinniger, A. E., M B, Holmcote, St. Peter's Rd., Broadstairs
Pope, T. H., M.D., Lower Northdown Avenue, Margate
Powell, A. F. M., M.B., Minster, near Ramsgate
Raven, H. M., Esq., Barfield House, Broadstairs
Richards, W. Blagdon, Esq., 59, Canterbury Road, Margate
Rogers, E. N. T., Esq., 22, Grosvenor Road, Broadstairs
Sawers, John L., M.D., 29, Grosvenor Place, Margate
Steen, W. C., Esq., Laleham Corner, Lower Northdown Road, Margate
Storar, W. M., Esq., 4, West Cliff Road, Ramsgate
Street, A. F., M.D., Westgate-on-Sea
Styan, T. G., M.D., 2, Chapel Place, Ramsgate
Sutcliffe, W. G., Esq., 7, Dalby Square, Margate
Tamplin, C. H., Esq., 17, Paragon, Ramsgate
Thomson, R., M.D., Sweyne Road, Cliftonville, Margate
Thornton, B., Esq., Trinity Square, Margate
Treves, W. K., Esq., 32, Dalby Square, Margate
Tyrrell, F., Esq., 7, Sion Hill, Ramsgate
Watts, A. M., M.D., Durlock House, Minster, Ramsgate
Webster, P. L., Esq., 23, Dalby Square, Cliftonville, Margate
White, E. A., M.D., 5, Marine Terrace, Margate
Woods, F., Esq., Dashwood House, Ramsgate
Worthington, H. E., Esq., Birchington, Thanet
Wynne, G. N., M.D., 28, Augusta Road, Ramsgate

No. 15.—Maidstone Division

NUMBERING 44.

Chairman, T. Joyce, M.D., Cranbrook

Vice-Chairman, E. Ground, M.D., Maidstone

Honorary Secretary and Treasurer, J. A. Gibb, M.B., Knightrider House, Maidstone

Representative for Representative Meeting, W. Douglas, M.D., Brandfold, Goudhurst

Representative on Branch Council.
A. T. Falwasser, Esq.

Executive Committee.
Mapleton, G. H., M.B.
Oliver, C. P., M.B.
Travers, F. T., M.B.
Tuke, G. M., Esq.

Adams, M. A., Esq., The Kulm, Bearsted, Maidstone
Bennett, J. H., Esq., Staplehurst
Black, A. C., Esq., Strettit Place, East Peckham
Bredin, J. N., Esq., The Vines, Sutton Valence, Maidstone
Brett, H. C. M., Esq., Chilworth, Cranbrook
Cæsar, R. T., Esq., Bearsted
Douglas, W., M.D., Brandfold, Goudhurst
Falwasser, A. T., Esq., Sussex Place, Maidstone
Fry, J. W., Esq., Tunbridge Road, Maidstone
Gash, T., M.B., Auburn, Snodland, Rochester
Gibb, J. A., M.B., Knightrider House, Maidstone
Glover, J. A., M.B., West Malling
Gregor, E. W., Esq., The Lodge, Aylesford
Grey, J. T., Esq., Lenham
Ground, E., M.D., 1, Ashford Road, Maidstone
Hallowes, A. H. B., Esq., King Street, Maidstone
Hicks, C., Esq., Horsmonden
Hoar, C. E., M.D., Maidstone
Hubbard, T. W., Esq., Barming Heath, near Maidstone
Johnston, R. H. W., Esq., 7, Clarendon Place, Maidstone
Joyce, T., M.D., Cranbrook, Staplehurst
Killick, Charles, F.R.C.S., Trinity House, Maidstone
Lewis, H. W., F.R.C.S., Kent County Asylum, Barming Heath
Mapleton, G. H., M.B., Goudhurst
Meredith, J. E., M.D., 23, Albion Place, Maidstone
Oliver, C. P., M.D., Tunbridge Road, Maidstone
Palm, T. A., M.D., Riverside, Aylesford
Palmer, J., Esq., Snodland
Parr-Dudley, A. D., Esq., The Limes, East Malling
Patterson, W. J., M.B., 31, Brewer Street, Maidstone
Roberts, A. H., Esq., West Malling
Sander, G. A. S., M.D., Wateringbury
Sealy, F. M., Esq., Aycliffe, Paddock Wood
Shaw, W., M.D., Tunbridge Road, Maidstone
Smart, A., Esq., Marden
Stanford, W. Bedell, Esq., Sutton Valence
Stead, C. C., M.B., Ulcombeden, Hawkhurst
Stewart, F. W., M.B., The Asylum, Barming Heath, Maidstone
Strouts, S. R., Esq., 98, Week Street, Maidstone
Travers, F. T., M.B., 6, Clarendon Place, Maidstone
Tuke, G. M., Esq., Sutton Valence
Whitestone, A. M., M.B., Hollingbourne
Willis, E. E., Esq., 2, St. Michael's Terrace, Maidstone
Wood, E. J., M.B., Yalding

No. 16.—Norwood Division

NUMBERING 214.

Chairman, W. F. R. Burgess, M.D., Streatham, S.W.

Vice-Chairman, H. C. Burton, Esq., Blackheath, S.E.

Honorary Secretary, H. J. Prangley, Esq., 197, Anerley Road, Anerley, S.E.

Assistant Honorary Secretary, A. W. Soper, Esq., 2, Hamlet Road, Upper Norwood, S.E.

Representative for Representative Meeting, John Rand, Esq., Felixstowe, Lovelace Road, Surbiton

Representatives on Branch Council.
Hetley, H., M.D.
Prangley, H. J., Esq.

Executive Committee.
Annis, E. G., Esq.
Bailey, H. F., Esq.
Stewart, H. M., M.D.
Verdon, W., Esq.

Adams, C. E., Esq., 227, Gipsy Road, S.E.
Air, A. C., jun., Esq., 205, Selhurst Rd., South Norwood, S.E.
Alexander, T. G., M.D., 111, Old Woolwich Road, S.E.
Annis, E. G., Esq., Gracedieu, Westcombe Park Road, Blackheath, S.E.
Arnold, E. C., M.B., 133, Sunderland Road, Forest Hill, S.E.
Atkinson, T. W., M.B., Bromley Road, Catford, S.E.
Austin, J. A., M.D., West Norwood Lodge, S.E.
Bailey, H. F., Esq., The Hollies, Lee Terr., Blackheath, S.E.
Balderson, R., M.B., 30, Park Road, Forest Hill, S.E.
Barber, F. S., Esq., St. Julian's Road, Streatham, S.W.
Barham, P. C., Esq., The Chestnuts, E. Dulwich Grove, S.E.
Barnes, G. F., M.D., 5, Bladon Terr., Streatham Com., S.W.
Bartlett, U., M.B., 150, Norwood Road, S.E.
Bateman, F. J. H., M.B., Montpelier Row, Blackheath, S.E.
Batten, G. B., M.D., 2, Underhill Road, Lordship Lane, S.E.
Beadles, A. H., Esq., 38, Silverdale, Sydenham Park, S.E.
Beadles, Hugh S., Esq., 61, London Road, Forest Hill, S.E.
Beaumont, E., Esq., 23, Gipsy Hill, S.E.
Bennett, C. E. W., Esq., 33, Vancouver Rd., Forest Hill, S.E.
Bent, V. T. C., Esq., 150, Mitcham Lane, Streatham, S.W.
Bhedwar, P. P., Esq., The Ferns, Manor Park, Lee, S.E.
Bigger, W. G., M.B., Aberfoyle, Streatham Common, S.W
Binckes, F. W., Esq., Hill Side, Overhill Rd., E. Dulwich
Birkett, G. T., Esq., 125, Rushey Green, Catford, S.E.
Black, James, M.B., The Avenue, Beulah Hill, S.E.
Boothroyd, J. S., M.D., 135, Breakespeare Road, S.E.
Brigham, J. K., M.D., Rockhills, West Hill, Sydenham, S.E.
Brock, E. H., M.D., 21, Streatham Hill, S.W.
Brown, T. H., M.B., Hill View, Streatham Common, S.W.
Bumstead, H. J., M.B., 7, High Road, Streatham, S.W.
Bunn, C. G., M.D., Central Hill, Upper Norwood, S.E.
Burgess, W. F. R., M.D., Langham Cottage, Streatham, S.W.
Burney, W. C. S., Esq., Infirmary, Greenwich, S.E.
Burton, H. C., Esq., Lee Park Lodge, Blackheath, S.E.
Cadman, A. W., Esq., 19, Wickham Road, Brockley, S.E.
Carpenter, W. S., M.B., 13, Abinger Road, Deptford, S.E.
Carruthers, S. W., M.D., 44, Central Hill, Norwood, S.E.
Carter, G. R., Esq., 2, Anerley Park, S.E.
Choyce, C. C., M.D., Seamen's Hospital, Greenwich, S.E.
Churchward, A., M.D., Selhurst Road, South Norwood, S.E.
Clapton, E., M.D., 41, Eltham Road, Lee, S.E.
Clark, W. A., M.D., 44, Beckenham Road, Penge, S.E.
Collen, G. D., M.D., 26, Gleneldon Road, Streatham, S.W.
Collins, E. Wolfenden, M.D., Farnboro' House, Sydenham, S.E.
Connolly, B. B., C.B., M.D., 21, Wickham Rd., St. John's, S.E.
Conway, J. P., Esq., 353, Evelyn Street, Deptford, S.E.
Cooper, P., Esq., Blackheath, S.E.
Corfe, Robert, M.B., 6, Croom's Hill, Greenwich, S.E.
Cox, E. O., Esq., 133, Pepys Road, New Cross, S.E.
Creighton, E., Esq., Tankerville Hse., Streatham Com., S.W.
Cunningham, James, Esq., Boro Green
Davies, Hugh, M.B., 234, Trafalgar Road, Greenwich, S.E.
Dalton, B. N., M.D., 203, Selhurst Road, S. Norwood, S.E.
Daniell, E. P., Esq., 416, New Cross Road, S.E.
Davies, S., M.D., 6, Charlton Road, Blackheath, S.E.
Devane, Thomas F., Esq., Neptune Lodge, Croydon Road, Anerley
Dixon, H. J., Esq., New Cross Gate, S.E.
Dixon, W. E., M.D., Hazelwood, Netherby Road, Honor Oak, S.E.
Donald, D., M.D., St. Monans, Mitcham Lane, Streatham
Douglas, J. J., M.B., 42, Central Hill, Upper Norwood, S.E.
Drake, C., M.B., 34, Streatham High Road, S.W.
Drysdale, C. R., M.D., 28 Carson Road, W. Dulwich, S.E.
Duncan, R. B., Esq., 3, Murillo Terrace, Lewisham, S.E.
Eccles, H. A., M.D., 104, Church Road, Upper Norwood, S.E.
Elliott, J. W., Esq., 5, Manor Road, Forest Hill, S.E.
Ellis, F. H., Esq., 59, Lee Park, Blackheath, S.E.
Ellis, W. McD., M.D., 16, Eliot Vale, Blackheath, S.E.
Enraght, W., Esq., 143, Croydon Road, Anerley, S.E.
Evans, F. Hudson, Esq., 161, Lewisham Road, S.E.
Ezard, E. H., M.D., 220 Lewisham High Road, S.E.
Fegan, R. A., Esq., 28, Charlton Road, Blackheath
Ferrier, J. C., M.D., Selhurst Road, South Norwood, S.E.
Field, F. A., M.D., 449, Lordship Lane, S.E.
Fitter, Clara A.S., M.D., 35, High Road, Streatham, S.W.
FitzHenry, G. W., Esq., The Cedars, East Dulwich Rd., S.E.
Fuller, L. H., Esq., Streatham Hill, S.W.
Gahagan, F. E., M.B., 42, Farnley Road, S. Norwood, S.E.
Galton, J. H., M.D., Sylvan Road, Upper Norwood, S.E.
Gandy, W., Esq., 2, Central Hill, Upper Norwood, S.E.
Gardner, T. H., M.B., 18, Rastell Avenue, Streatham Hill, S.W.
Gibson, J. McC., M.B., 163, Mitcham Lane, Streatham, S.W.
Godber, W. E., Esq., Elm Lodge, Half Moon Lane, Dulwich, S.E.
Goodall, J. S., M.B., Vanbrugh Hill, Blackheath, S.E.
Gooding, C. G., M.B., 67, Brockley Road, S.E.
Gooding, R., M.D., 13, Church Terrace, Lee, S.E.
Gordon, M. H., M.B., 9, St. German's Place, Blackheath, S.E.
Grant, W. F., M.D., 25, Kirkdale, Sydenham, S.E.
Grayling, A., M.B., 145, Sunderland Road, Forest Hill, S.E.
Green, E. F. S., M.D., Rutherglen, Woodside, S. Norwood, S.E.
Green, H. M. M.D., 2, West Hill, Sydenham
Hancock, W. I., Esq., Mount Ephraim Rd., Streatham, S.W.
Harding, H. W., Esq., Rushey Green, Catford
Hare, F. E., M.D., 93, Church Road, Upper Norwood, S.E.
Harris, A. W., Esq., Town Hall, Catford, S.E.
Hartt, C. H., Esq., 14, Croom's Hill, S.E.
Hatfield, W. H., Esq., 1, Park Road, Forest Hill, S.E.
Haughton, Edward, M.B., Spring Grove House, Upper Norwood, S.E.
Heard, J., Esq., 300, Lordship Lane, S.E.
Hemmans, L. F., M.B., 9, Lewisham Park, S.E.
Hetley, H., M.D., Church Road, Norwood, S.E.
Higson, J. R., M.B., Oakmere, Honor Oak Park, S.E.
Hodgson, C., Esq., 5, Hopton Road, Streatham, S.W.
Hogg, F. S., Esq., Westcroft, Bromley Road, Catford, S.E.
Howard, J. A., M.D., 40, Harold Road, Upper Norwood, S.E.
Jackson, T. H., M.B., 73, Blackheath Rd., Greenwich, S.E.
Jacobs, W. W., Esq., 58, Burnt Ash Road, Lee, S.E.
Johnson, Alice V., M.D., 97, Central Hill, Upper Norwood, S.E.
Johnson, Philip, Esq., 20, Newstead Road, Lee
Jones, G., M.B., 8, Church Terrace, Lee, S.E.
Jones, Helena G., M.B., Greenwich Union Infirmary, Greenwich, S.E.
Keay, J. H., M.D., 128, Greenwich Road, S.E.
Kellett, A. F., M.B., 39, Granville Park, Blackheath, S.E.
Kirby, A., Esq., 71, High Street, Deptford, S.E.
Knight, G. D., M.D., 28, Streatham High Road, S.W.
Law, J., M.D., 1, Venner Road, Sydenham, S.E.
Lawson, G. L. L., Esq., 1, Duncombe Hill, Honor Oak Park
Leggatt, G. S., Esq., 111, Selhurst Road, S. Norwood, S.E.
Lewis, Lewis, M.D., 153, Selhurst Road, S. Norwood, S.E.
Leyden, C. D., Esq., 284, Brockley Road, S.E.
Low, F. Harrison, M.B., Heathbank, Blackheath Rise
McAndrew, J. J., Esq., 9, Waldegrave Road, Upper Norwood, S.E.
McKay, R. Esq., 4, Sussex Gardens, W. Dulwich, S.E.
MacGrath, E. J., Esq., Linkwood, Central Hill, Upper Norwood, S.E.
MacLean, A., Esq., 150, Barry Road, E. Dulwich, S.E.
Macnamara, J. T., Esq., 203, High Street, Lewisham, S.E.
May, A. S., Esq., Gresham House, Forest Hill, S.E.
Meggison, T. C., M.D., 275, Lewisham High Road, S.E.
Mercier, C. A., M.B., The Flower House, Southend, Catford
Michael, C. E., M.B., Trelawne, Crystal Palace Pk. Rd., S.E.
Midwinter, E. J. H., Esq., Croydon Road, Anerley, S.E.
Milner-Browne, C., M.B., 66, Kirkdale, Sydenham
Mitchell, C. M., Esq., The Rosary, Kirkdale, Sydenham
Monckton, R. V. G., Esq., 30, Vancouver Rd., Catford, S.E.
Moore, Y. T. G., Esq., 1, Lewisham Hill, S.E.
Munro, H. A., M.B., Lulworth, Rushey Green, Catford, S.E.
Neate, C. P. W., Esq., Stilton, Forest Hill, S.E.
O'Hea, J. P., M.B., 121, Rushey Green, Catford, S.E.
Owsley, G. C., M.B., 5, Montpelier Road, Blackheath
Park, C. J., Esq., Breakspears Road, Brockley, S.E.
Park, W. C. C., Esq., 264, Hither Gr. Ln., Lewisham, S.E.
Parnell, G. C., Esq., St. Normans, London Rd., Forest Hill, S.E.
Paton, R. McI., Esq., Ermley, Glen Eldon Rd., Streatham
Payne, W. H., Esq., 8, Vesta Road, Brockley, S.E.
Pettingill, A. E. A., Esq., Langbourne, High Rd., Lee, S.E.
Pinkerton, R. L., M.D., 36, South Norwood Hill, S.E.
Pocock, A. G. C., M.B., High Road, Streatham, S.W.
Prangley, H. J., Esq., 197, Anerley Road, Anerley, S.E.
Priestley, Joseph, M.D., 22, Telford Avenue, Streatham Hill, S.W.
Purnell, P., Esq., Woodlands, Streatham Hill, S.W.

Purvis, J. P., Esq., 38, Royal Hill, Greenwich, S.E.
Purvis, P., M.D., 5, Lansdowne Place, Blackheath, S.E.
Reynolds, E. J., Esq., 263, Lordship Lane, S.E.
Roberts, H. W., Esq., 3, Breakspears Road, St. Johns, S.E.
Robertson, John, M.D., 66, Christchurch Road, Streatham
Robertson, W. B., M.D., St. Annes, Thurlow Park Rd., S.E.
Roper, A., M.D., Lewisham Hill, S.E.
Round, J. C., Esq., Purbrook, Crescent Wood Road, Sydenham Hill, S.E.
Russ, C., M.B., 22, Selsdon Road, West Norwood, S.E.
Sandberg, A. G., M.B., 72, Streatham Hill, S.W.
Scatliff, P. M., Esq., 30, Underhill Rd., Lordship Lane, S.E.
Schofield, H., M.B., Northwood, North Dulwich, S.E.
Scholefield, R. E., M.B., 2, Charlton Road, Blackheath, S.E.
Scott, P. C., M.B., 38, Shooters' Hill Road, S.E.
Sears, Alfred E., Esq., 52, Lee Terrace, Blackheath, S.E.
Shore, T. W., M.D., 6, Kingswood Rd., Up. Norwood, S.E.
Simmons, S. S., Esq., 3, Enmore Road, S. Norwood, S.E.
Smallwood, E., Esq., 184, Knight's Hill, W. Norwood, S.E.
Smith, H. E., M.B., Gleneagh House, Streatham, S.W.
Soper, A. W., Esq., 2, Hamlet Road, Upper Norwood, S.E.
Stack, J. J., Esq., 386, New Cross Road, S.E.
Stamm, L. E., M.B., 18, High Road, Streatham, S.W.
Steedman, J. F., Esq., Arcall, Prentis Rd., Streatham, S.W.
Stevenson, Sir Thomas, M.D., 160 Streatham High Rd., S.W.
Stewart, H. M., M.D., 123, Thurlow Park Rd., Dulwich, S.E.
Stiell, John, M.D., 69, East Dulwich Road, S.E.
Stokes, L., Esq., 40, Lee Road, Blackheath
Strong, R. G., Esq., 85, Belvedere Road, S.E.
Sumpter, Eustace W., M.B., Ravenstone, Farquhar Road, Upper Norwood, S.E.
Swayne, F. G., M.B., 40, Church Road, Norwood, S.E.
Tabb, J. F., Esq., Riverdale, Humber Rd., Blackheath, S.E.
Tabuteau, A. W., Esq., 195, Croydon Road, Anerley, S.E
Taylor, Frank, M.B., 215, Sydenham Rd., S.E.
Thomas, C. J., M.B., 37, Mt. Nod Rd., Streatham, S.W.
Thomas, G. C., M.D., 34, West Hill, Sydenham, S.E.
Thomas, J. D., Esq., 140, Sydenham Road, Sydenham, S.E.
Thompson, S. W., Esq., 3, Christchurch St., E. Greenwich
Tindal, D. D., M.D., 13, Queen's Garden's, Hither Green, S.E.
Townend, R. H., M.D., 99, Wickham Road, Brockley, S.E.
Turner, A. Scott, Esq., 39, Anerley Road, S.E.
Turner, J. S., Esq., Anerley Road, S.E.
Umney, W. F., M.D., 81, Lawrie Park Road, S.E.
Verdon, W., Esq., 58, Streatham Hill, S.W.
Vernon, H. A., Esq., 51, Douglas Street, Deptford, S.E.
Wales, J., Brig.-Surg, 7, Mowbray Road, Upper Norwood, S.E.
Walker, George, M.D., 35, Wood Vale, Forest Hill, S.E.
Wallis, C. G., Esq., 241, New Cross Road, S.E.
Watt, A. M., M.B., Somerville House, E. Dulwich Rd., S.E.
Weekes, H. H., M.D., 21, Kidbrook Park Road, Blackheath
Welsh, S., M.D., Knight's Hill Lodge, West Norwood, S.E.
Wheaton, S. W., M.D., 17, Rastell Av., Streatham Hill, S.W.
Wheeler, Albert, M.D., 14, Garthorne Road, Honor Oak Park, S.E.
Wheeler-O'Bryen, J., M.D., Burghill, Sydenham, S.E.
White, Finch, Esq., 53, Vanbrugh Park, Blackheath, S.E.
Wiggins, W. D., Esq., The Infirmary, East Greenwich
Wilkinson, R., M.D., 8, Hamlet Road, Upper Norwood, S.E.
Williams, H., Esq., 27, Bennett Park, Blackheath, S.E.
Williams, H. B., Esq., 78, Lewisham Road, S.E.
Wilson, W., M.B., 237, Stanstead Road, S.E.
Wise, R., M.D., 290, Ivydale Road, Nunhead, S.E.
Wood, H. M., Esq., 259, Barry Road, East Dulwich
Wood, John, Esq., 207, Hither Green Lane, S.E.
Woodd, C. S., Esq., 17, Oakfield Road, Penge, S.E.
Woods, C. W. T., Esq., 11, Jasper Rd., Up. Norwood, S.E.
Wright, S. F., M.D., St. Peter's Lodge, Lee, S.E.

No. 17.—Reigate Division

NUMBERING 55.

Chairman, J. Walters, M.B., Reigate

Vice-Chairman, T. H. Martin, Esq., Crawley

Honorary Secretary, W. A. Berridge, Esq., Station Road Redhill

Executive Committee.

Blackler, H. J., M.B.
Bromet, E., Esq.
Martin, T. H., Esq.
Ogle, J. G., M.D.
Prince, P. C., Esq.
Rawlings, J. D., M.B.
Williamson, C. F., Esq.

Honorary Members.

Lawrence, Sir John Jas. Trevor, Bart., K.C.V.O., M.R.C.S. Dorking
Holman, Sir Constantine, M.D., London

Representative for Representative Meeting, E. Bromet, Esq., Redhill

Representative on Branch Council, C. Caldecott, M.B., Redhill

Abbott, F. C., M.S., The Hermitage, White Hill, Bletchingley
Ainger, W. B., Esq., c.o. Miss Dunlop, Holmwood
Barnes, A. R., M.B., Green Trees, Merstham
Batson, W. L., Esq., 75, High Street, Dorking
Berridge, W. A., Esq., Station Road, Redhill
Blackler, H. J., M.B., Braconfell, Redhill
Blakeney, H. T. W., Esq., Lonsdale House, Dorking
Bromet, E., Esq., Kirkgate House, Redhill
Caldecott, C., M.B., Earlswood Asylum, Redhill
Campbell, J., Esq., Frenches, Redhill
Chapman, T. A., M.D., Betula, Reigate
Clark, C. M., M.D., Rose Hill, Dorking
Clarke, H. W., M.B., Capel
Clarke, S. A., Esq., Mena House, Horley
Colman, Henry, Esq., Taisboro, Reigate
Cornish, S., M.D., The Old House, Dorking
Crickitt, H. H., Esq., Merstham
Curtis, Frederick, Esq., Lyndens, Station Road, Redhill
Dempster, J. H., Esq., "Viewley," Station Road, Redhill
Dix, Charles, Esq., The Green, Godstone
Drake, E. C., Esq., Chilworth, Redhill
Gonin, E. H. M.D., Courtlands, Horley
Hewetson, J., M.B., Holmfield, Reigate
Hitchins, T. J., Esq., Crawley
Hosking, E., Esq., Turner's Hill
Jacob, E. L., M.B., 35, Croydon Road, Reigate
Jones, T. Henry, M.D., Brookmead, Dorking
Kelsey, A., Esq., Park Gate, Reigate
Kenyon, G. H., M.D., Vernon House, Lower Kingswood Reigate
King, H. K., M.B., Purbrook, Dorking
Martin, T. H., Esq., Crawley
Milne, J. Black, M.B., Brookfield, Wray Park, Reigate
Mulhall, A. T., F.R.C.S.I., Lesbourne House, Reigate
Newton, R. F. H., Esq., Balcombe
Ogle, J. G., M.D., South Redlands, Reigate
Pagden, T. C., M.B., Cranbourne, Horley
Palmer, C. Spencer, Esq., Brook Lodge, Station Road, Redhill
Pearce, F. H., M.B., Earlswood Asylum, Redhill
Pegg, J. H., Esq., 5, Church Street, Reigate
Pratt, A., M.D., Bletchingley
Price, G. F., Esq., Buckland House, Redhill
Prince, P. C., Esq., Egremont, Reigate
Pritchard, R. J., Esq., Reigate
Rawlings, J. D., M.B., Rosehill House, Dorking
Robertson, G. A., M.B., Moor Cottage, Holmwood
Robinson, C. A., M.B., The Grange, Bletchingley
Ross, J. H., M.B., Lower Kingswood, near Reigate
Sharp, Maria, M.D., The Grange, Redhill
Stone, H. S., M.B., Beechwood, Reigate
Thorne, J. M., Esq., Brockham Green, Betchworth
Wakefield, C. F., Esq., House Hills, Horley
Walters, A. R., Esq., The Gables, Reigate
Walters, J., M.B., Reigate
Willan, Leonard J., Esq., 58, South Street, Dorking
Williamson, C. F., Esq., Horley

No. 18.—Rochester and Chatham Division

NUMBERING 22.

Chairman,

Vice-Chairman,

Honorary Secretary,

Representative for Representative Meeting, W. Douglas, M.D., Brandfold, Goudhurst

Badcock, H. J. F., Esq., Kyrton House, Gillingham, Kent
Bell, A., Esq., Deravona, Rochester
Brown, A. T. F., M.B., 25, High Street, Rochester
Brown, R. R., Esq., J.P., Claremont House, Strood, Rochester
Brunyate, T. T., M.D., Maidstone Road, Rochester
Bryan, H. J., Esq., 31, Railway Street, Chatham
Cooper, L., Esq., 19, Victoria Street, Rochester
Cowan, F., Esq., High Street, Strood
Dartnell, W. A., Esq., 39, Watts Avenue, Rochester
Devitt, H. P. S., Esq., Theobald House, Rochester
Grant, R., M.D., 191, Luton Road, Chatham
Holroyde, J., Esq., Camden House, Chatham
Inman, R. E., Esq., Higham
Laslett, M. H., Esq., Duncan Road, Gillingham
Paton, W. F., M.B., 1, Balmoral Road, New Brompton
Penfold, F. W. H., Esq., Rainham
Pitcairn, J. J., Esq., Borstal, Rochester
Pritchett, S. I., Esq., 7, New Road Avenue, Rochester
Smith, Harry W., Esq., Paddock House, Chatham
Taunton, J. G. C., Esq., Mansion House, Old Brompton
Thomas, E. R., Esq., 39, Windmill Road, New Brompton
Warren, E. C., Esq., 155, High Street, New Brompton

No. 19.—Sevenoaks Division

NUMBERING 33.

Chairman, J. S. Tew, M.D., Tonbridge

Vice-Chairman, A. J. Alliott, M.D., Sevenoaks

Honorary Secretary and Treasurer, James E. Blomfield, M.D., 1, Tubs Hill, Sevenoaks

Representative for Representative Meeting,

Representative on Branch Council.
Maude, A., Esq.

Executive Committee.

Fraser, F., M.D.
Ievers, E., M.D.
Marriott, O. D., M.D.

Alliott, A. J., M.D., The Vine, Sevenoaks
Andrews, H. Arthur, Esq., St. Mary's, Tonbridge
Blackwell, A. S., M.D., 9, Park Crescent, Tonbridge
Blomfield, J. E., M.D., 1, Tubs Hill, Sevenoaks
Blundell, H., M.D., Winfield House, Borough Green
Burnett, F. M., M.D., 34, High Street, Sevenoaks
Bury, F. C., M.B., Riverhead, Sevenoaks
Cardell, E. S., Esq., Lyons, Tonbridge
Chatterton, W., M.D., Baldocks, Chiddingstone Causeway, Tonbridge
Cotton, H. H. P., Esq., Westerham
Cressey, G. H., Esq., Oak Manse, Tonbridge
Desprez, H. S., Esq., Shoreham
Dick, R. J., M.B., St. John's Hill, Sevenoaks
Dummere, H. H., Esq., Brasted, Sevenoaks
Elliott, Edgar, Esq., The Grey House, Sevenoaks
Fraser, F., M.D., Leigh, Tonbridge
Ievers, E., M.D., Tonbridge
Isard, O. H., M.B., Camano, Tonbridge
Lawrence, H. M., Esq., Hadlow, near Tonbridge
Lipscomb, A. A., Esq., Wrotham
Mansfield, P. A., M.B., 5, Suffolk Place, Sevenoaks
Marriott, O. D., M.D., Sevenoaks
Maude, A., Esq., Westerham
Newton, Isaac, Esq., Verona House, Tonbridge
Pedley, G. A., Esq., 6, The Terrace, High Street, Tonbridge
Russell, J. R., Esq., The Knoll, Westerham
Sterry, J., Esq., Riverhead, Sevenoaks
Tew, J. S., M.D., Tonbridge
Wagstaffe, W. W., M.B., Purleigh, St. John's Hill, Sevenoaks
Walker, E. G. A., Esq., Ightham, Sevenoaks
Ward, S. E., Esq., Brasted, Sevenoaks
Watts, H. J. M., Esq., Salford House, Tonbridge
White, E. W., M.B., Ferndale, Sevenoaks

No. 20.—Tunbridge Wells Division.

NUMBERING 63.

Chairman, J. B. Footner, Esq., Tunbridge Wells

Vice-Chairman, B. Rix, Esq., Tunbridge Wells

Honorary Secretary Edwin A. Starling, M.B., Chillingworth House, Tunbridge Wells

Representative for Representative Meeting, C. Lamminan, Esq., Elleray, Crescent Road, Tunbridge Wells

Executive Committee.

Aylward, W. C., Esq.
Davies, D., M.D.
Guthrie, T. C., M.B.
Laird-Cox, W., Esq.

Representative on Branch Council, E. L. Adeney, M.D.

Abbott, J. T., Esq., 5, Church Road, Tunbridge Wells
Adeney, E. L., M.D., Howard Lodge, Tunbridge Wells
Alexander, Alfred, Esq., Brown Heath, Buxted
Allen, B. H., M.D., 135, Upper Grosvenor Road, Tunbridge Wells
Austin, S. C., Esq., Lingfield
Aylward, W. C., Esq., Gypeswic, Rusthall, Tunbridge Wells
Basden, H. S., Esq., Sillwood Road, Crowborough
Bisshopp, F. R. B., M.D., Parham House, Tunbridge Wells
Bisshopp, J., Esq., Parham House, Tunbridge Wells
Bradford, W. G. H., M.B., Brenchley, Paddock Wood, Apsley
Cartwright, Ernest H., M.D., Myskyns, Ticehurst
Clapham, W. C. S., M.D., The Gables, Mayfield
Clarke, H. N., M.B., Coggers Hall, Lamberhurst
Collins, C. E., Esq., East Grinstead
Crawford, C. R., Esq., Pembry, Tunbridge Wells
Crookshank, Professor E. M., M.B., Saint Hill, E. Grinstead
Davies, David, M.B., 57, Pantiles, Tunbridge Wells
Elliott, T., M.D., Clanricarde House, Tunbridge Wells
Fazan, C. H., Esq., Belmont, Wadhurst
Footner, J. B., Esq., 1, The Priory, Tunbridge Wells
Grant A., M.D., Reidhaven, Tunbridge Wells
Griffin, J, V., Esq., Glencoe, Crowborough
Guthrie, T. C., M.B., 7, Church Road, Tunbridge Wells
Hall, H. A., Esq., Hornegrove House, Rotherfield
Hall H. J., Esq., Mayfield
Hillyer, W. H., M.D., Heathcote, London Rd., E. Grinstead
Humphry, F. A., Esq., Crowborough Beacon
Hutchings, E. J., Esq., Highbury, Southborough
Jex-Blake, Sophia, M.D., Mark Cross
Jones, J. Talfourd, M.D., St. Davids, Pembury, Tunbridge Wells
Laird-Cox, W., Esq., Southborough, Tunbridge Wells
Lammiman, C., Esq., Elleray, Crescent Rd., Tunbridge Wells
Low, P. C., M.B., Elmstead, Tunbridge Wells
Lowdell, S. P., Esq., Baldwins, E. Grinstead
Manser, F., Esq., The Priory, Tunbridge Wells
Manser, F. B., M.B., 45, Mount Pleasant, Tunbridge Wells
Myddelton-Gavey, E. H., Esq., Tunbridge Wells
Newington, A. S. L., M.B., Ticehurst, Hawkhurst
Newington, H. F. H., Esq., Ticehurst, Hawkhurs
Norton-Taylor, A., Esq., West Hoathly
Pardington, G. L., M.D., Glynlee, Tunbridge Wells
Poynder, F. C., M.B., East Grinstead
Procter, G. H., Esq., 140, London Road, Southborough
Riley, Francis, M.D., 23, Lansdowne Road, Tunbridge Wells
Rix, B., Esq., 2, Mount Ephraim Road, Tunbridge Wells
Simpson, H., M.B., The Church House, Brenchley
Smith, P. C., Esq., 4, Upper Grosvenor Road, Tunbridge Wells
Stamford, W., Esq., Collingwood House, Tunbridge Wells
Starling, E. A., M.B., Chillingworth House, Tunbridge Wells
Trouton, G. W., Esq., Rotherfield
Usher, W., M.D., 75, Up Grosvenor Rd., Tunbridge Wells
Vise, C., M.D., Kingswood Birches, Tunbridge Wells
Wade, R. R., M.D., 6, Somerville Gardens, Tunbridge Wells
Wale, M. E. H., Esq., Heslington, Croft Road, Crowborouge
Wallis, P. E., Esq., Old Stone House, East Grinstead
Wallis W., Esq., Groombridge
Warde, W. B., M.D., 13, Lonsdale Gardens, Tunbridge Wells
Watson, C. R., M.D., 5, Mount Ephraim Rd., Tunbridge Wells
Watson, G. T., M.B., 47, Mount Pleasant Road, Tunbridge Wells
Watson, J., M.D., Dormans House, Dormans Park, Surrey
Wilson, C., M.D., Tunbridge Wells
Wood, L. E., M.B., The Quarry House, Penshurst
Woodroffe, A. W., M.B., Ticehurst, S.O.

SOUTH-EASTERN OF IRELAND BRANCH

Comprising the Areas of the CARLOW, KILKENNY, and WATERFORD Divisions.

Members of Branch—65.

RECOGNISED 1893.

President, J. D. WYNNE, M.B., Clonmel

President-elect, W. J. SHEE, Esq., Duncannon

Honorary Secretary, JAMES QUIRKE, Esq., Piltown

Honorary Treasurer, R. B. CAREY, Esq., Borris

Representative on Council of Association.
Denis Walshe, Esq., Graigue

Representative for Representative Meeting.
Thomas Laffan, M.D., Cashel.

Representative on Irish Committee.
R. B. Carey, Esq., Borris.

Branch Council.

James, C. E., M.B.
Mackesy, G J., M.B.
Morris, J. A.
O'Brien, R. R., M.D.
Orpen, R. W., Esq.
Ryan, J. V., M.B.
Shee, W. J., Esq.

No. 1.—Carlow Division

NUMBERING 12.

Chairman, H. Kidd, Esq., Tullow

Vice-Chairman, E. J. Farmer, Esq., Carlow

Honorary Secretary, R. B. Carey, Esq., Borris

Representative for Representative Meeting
Thomas Laffan, M.D., Cashel.

Representative on Irish Committee.
R. B. Carey, Esq., Borris.

Carey, R. B., Esq., Borris
Colgan, F. P., Esq., Greenville, Carlow
Delany, W., Esq., Bagnalstown
Farmer, E. J., M.D., Carlow
Fisher, M. la T., Esq., Leighlin Bridge
Fitzgerald, J. J., M.B., The Asylum, Carlow
Kidd, H., Esq., Tullow Lodge, Tullow
Kidd, T., Esq,, Rathvilly
McDonald, E., M.B., Burrin Street, Carlow
Orpen, R. W., Esq., Bagnalstown
Rawson, E. A., M.B., Barrowville, Carlow
Ryan, J. V., M.B., John Street, Carlow

No. 2.—Kilkenny Division

NUMBERING 18.

Chairman, C. E. James, M.B., Kilkenny

Vice-Chairman,

Honorary Secretary, P. J. Murphy, Esq., Thomastown

Representative for Representative Meeting.
Thomas Laffan, M.D., Cashel.

Representative on Irish Committee.
R. B. Carey, Esq., Borris.

Buggy, K. T., Esq., Kilderry House, Johnswell, Kilkenny
Cormack, J. I., Esq., Johnstown
Coyle, B. J., Esq., Inistioge
Fitzgerald, Martin, Esq., Kilmanagh
Hackett, J. B., Esq., 20, Patrick Street, Kilkenny
Holmes, C. J., M.D., Maj., R.A.M.C. (ret.), 9, Patrick Street, Kilkenny
James, C. E., M.B., Kilkenny
Marnell, J. P., Esq., Clincaun, Kilmoganny
Murphy, P. J., Esq., Thomastown
O'Gorman, P., Esq., Cowran, Kilkenny
O'Hanlon, M., Esq., Castlecomer
Purdon, C. S., M.B., Lodge Park, Freshford
Quirke, James, Esq., Piltown
Shee, J. N., Esq., Callan
Sterling, R., Esq., Stoneyford, Kilkenny
Walsh, P. F., Esq., Callan
Walshe, Denis, Esq., Graigue
White, James, Esq., Kilkenny

No. 3.—Waterford Division

NUMBERING 35.

Chairman, T. J. Crean, Esq., Clonmel

Vice-Chairman, G. J. Mackesy, M.B., Waterford

Honorary Secretary, Joseph M. Morrissey, Esq., 16, Parnell Street, Waterford.

Representative for Representative Meeting.
Thomas Laffan, M.D., Cashel.

Representative on Irish Committee.
R. B. Carey, Esq., Borris.

Coghlan, M. P., Kilmacow, Waterford
Crean, T. J., Esq., Clonmel
Cummins, E. J., Esq., Elmville, Clonmel
Dowling, J., Esq., Nelson Street, Tipperary
Hackett, J. C., M.D., Dungarvan
Henessy, Thomas, Esq., Clogheen
Hewetson, M. J., Esq., Queen Street, Clonmel
Jellett, J. W. H., M.D., 11, Beresford Place, Waterford
Kennedy, D., Esq., 3, O'Connell Street, Waterford
Laffan, Thomas, M.D., Cashel
Mackesy, G. J., M.B., 47, Lady Lane, Waterford
Moloney, Cornelius, Esq., Mullinahone
Morris, W. R., M.B., 37, Lady Lane, Waterford
Morrissey, Joseph M., Esq., 16, Parnell Street, Waterford
Murphy, Philip, Esq., Main Street, Carrick-on-Suir
Murray, H., M.D., The Mall Cahir
Oakshott, J. A., Esq., District Asylum, Waterford
O'Brien, R. R., M.D., Clonmel
O'Connell, Thomas, Esq., Fethard
O'Farrell, E. M. J., F.R.C.S., County and City Infirmary, Waterford
Power, Joseph, M.B., Ardfinnan
Riordan, J., M.B., Lt.-Col. R.A.M.C., Roseville, Clonmel

Russell, E. F. B., Esq., Lismore
Russell, G. H., Esq., Lower Gate House, Cashel
Ryan, C. E., Esq., Glengarra, Tipperary
Shee, W. J., Esq., Bella Vista, Duncannon
Staunton, F. W., M.B., Waterford
Stephenson, E. F., Esq., 5, Wellington Ter., Dunmore East
Stephenson, P., Esq., New Street, Carrick-on-Suir
Strangman, Mary S. P., F.R.C.S.I., 15, Beresford Street, Waterford
Walker, D. F., M.D., The House, Portlaw
Walsh, W. P., Esq., Clogheen, Cahir
White, J. T., Esq., 21, Broad Street, Waterford
Wood, Fanny, M.B., Ballymartin, Glencairn, co. Waterford
Wynne, J. D., M.B., Western Lodge, Clonmel

SOUTHERN BRANCH.

Comprising HAMPSHIRE (except the portion west of, and including Christchurch and Ringwood, and excepting also Kingsclere and Tadley); WILTSHIRE (except the portion north of a line drawn east and west through a point between Westbury and Warminster): in DORSETSHIRE, Handley; and the CHANNEL ISLANDS.

RECOGNISED 1874.

Members of Branch—411.

President, R. L. WILLCOX, Esq., Warminster

President-elect, B. H. MUMBY, M.D., Portsmouth

Vice-Presidents.

Colonel K. MACLEOD, M.D., Westend
J. F. BRISCOE, Esq., Alton

Honorary Secretary and Treasurer.

H. J. MANNING, Esq., Laverstock House, Salisbury

Representatives on Council of Association.

J. Groves, M.B., Carisbrooke
C. R. Straton, Esq., Wilton

Branch Council.

Blackman, J. G., M.D.
Briscoe, J. F., Esq.
Claremont, C. C., M.D.
Fison, E. T., M.D., F.R.C.S.E.
Godfray, A. C., M.B.
Green, J., Esq.
Jolliffe, W. J., Esq.
Luckham, L. S., Esq.
MacLeod, Colonel K., M.D.
Purvis, W. P., M.D., F.R.C.S.
Robinson, E. L., Esq.
Ross, T. A., M.D.
Royds, W. A. S., Esq.
Underhill, F. W., Esq.
Weston, G. H., M.B.

Associate Members.

Charles, J. R., M.D., Clifton
Morrice, G. G., M.D., Weymouth
Parkinson, C. H. Watts, Esq., Wimborne Minster
Snow, W. V., M.D., F.R.C.P., Bournemouth
Thomson, J. Roberts, M.D., F.R.C.P., Bournemouth

No. 1.—Guernsey and Alderney Division

NUMBERING 24.

Chairman, F. E. Carey, M.D., Guernsey

Vice-Chairman, Lt.-Col. R. H. Robinson, R.A.M.C. (ret.), Guernsey

Honorary Secretary, M. H. Bulteel, Esq., Haviland Street Guernsey

Representative for Representative Meeting, A. A. MacKeith, M.B., Howard Road, Southampton

Representative on Branch Council, Robinson, E. L., Esq.

Aikman, J., M.D., Birnam, Guernsey
Benson, H. P. D'A., M.D., The Grange, Guernsey
Bishop, H. D., MD., Vale Road, Guernsey
Bostock, E. B., M.D., Tale Road, Guernsey
Bulteel, M. H., Esq., Havilland Street, Guernsey
Carey, C. de L., M.B., 18, New Street, Guernsey
Carruthers, J. F., M.D., St. George, Guernsey
Coles, R. A., M.B., Plaiderie, St. Pierre Port, Guernsey
Collings, C., M.D., Grange Road, Guernsey
Corbin, E. K., Esq., 8, Saumarez Street, Guernsey
Duncan, W., Esq., Kingsmills, Guernsey
Jones, Charles, Esq., Newington Place, Guernsey
Larmuth, J. H., Esq., St. Martin's, Guernsey
Leale, Josiah, Esq., Vale House, Vale Guernsey
Le Mottée, G. H., M.D., Lieut.-Col., R.A.M.C., R.P., The May Trees, Hauteville, Guernsey
Le Page, W., Esq., Millmount, Guernsey
Livesey, E. W., Esq., Alderney
Myles, E. H., Major, R.A.M.C. (ret.), 16, Hauteville, Guernsey
Pickthall, J. M., Esq., Sark
Robinson, E. L., Esq., Melrose, Guernsey
Robinson, R. H., Lieut.-Col. R.A.M.C. (ret.), Station Hospital, Guernsey
Smith, James, Esq., Les Preux, Cobo, Guernsey
Wallace, A. C., Esq., 1 Grange Terrace, Guernsey
Wild, H. S., Esq., Choisy, Guernsey

No. 2.—Isle of Wight Division

NUMBERING 53.

Chairman, T. A. Ross, M.D., Ventnor

Vice-Chairman, P. D. Turner, M.D., Ryde

Honorary Secretary and Treasurer, G. B. Wood, M.B., Newlands, Sandown

Representative for Representative Meeting, R. Robertson, M.D., Ventnor.

Representatives on Branch Council.

Jolliffe, W. J., Esq.
Ross, T. A., M.D.

Atkins, G., Esq., Stroud, Freshwater
Armstrong, R. H., M.B., 5, Rocks, Blackgang, I.W.
Banks, Alfred, F.R.C.S., West Hill Tower, Ryde
Barker, H. M., M.D., Staincliff, Sandown, Isle of Wight
Bassano, H. F., M.B., Grove House, Ventnor, Isle of Wight
Blake, V. J., M.B., Elsinore, Ventnor
Brown, R. C., M.D., Parkhurst, Newport, Isle of Wight
Booth, R. D., M.B., Villa Beneditti, Ventnor
Castle, H., M.B., Newport, Isle of Wight
Collis, R. W., Esq., Buena Vista, Sandown, I.W.
Coombs, L. M. B., Esq., St. Nicholas House, Newport, I.W.
Cowper, J., M.B., Havelock House, Shanklin
Crossley, L., M.D., Royal National Hospital for Consumption, Ventnor
Denton, Geo. R., M.B., Medina House, Cowes, I.W.
Dodds, H. B., M.D., Royal National Hospital, Ventnor
Ewen, H. W., Esq., York Avenue, East Cowes
Foster, S., Esq., High Street, Newport, I.W.
Gibson, L. P., Esq., West Cowes, Isle of Wight
Godfrey, F., Esq., San Roque, Nettlestone, I.W.
Goring, C., M.B., H.M. Prison, Parkhurst
Greening, F. J., Esq., Melville Street, Ryde, Isle of Wight
Groves, J., M.B., Carisbrooke, Isle of Wight
Hammond, J. A. B., M.B.Lond., Hope Road, Shanklin, I.W.
Hands, C. H., M.B., Glendalough, Totland Bay, I.W.
Hill, Alfred, M.D., Valentine Mt., Freshwater Bay
Hoffmeister, H. E. W., M.B., Buckland, E. Cowes
Hoffmeister, J. B., Esq., 3, Parade, West Cowes, I.W.
Hollis, A., M.D., Freshwater, I.W.
Howard, E., Esq., Merton House, Shanklin
Hudson, J. W., Esq., 5, Parade, Cowes
Ingleby-Mackenzie, K. W., Esq., John Street, Ryde, I.W.
Jolliffe, W. J., Esq., Yafford House, Shorwell, I.W.
Lowe, G. M., M.D., Crescent House, Strand, Ryde
Lowther, H., Esq., Ventnor, Isle of Wight
McKay, J. B., M.D., 101, Alexandra Ter., Newport, I.W.
Mayo, T. A., M.B., Cowes, Isle of Wight
Piggott, A. P., Esq., Whitecroft, Carisbrooke, I.W.
Preston, L. L., M.B., Windham House, Melville Street, Ryde
Pridmore, J. W., Esq., Villa D'Este, George Street, Ryde
Robertson, R., M.D., St. Catherine's House, Ventnor, I.W.
Rock, F. E., M.D., Rusholme, Shanklin
Ross, T. A., M.D., St. Andrew's, Ventnor
Scott, H. F. N., M.D., Medina Lodge, Cowes, Isle of Wight
Shaw, H., M.B., County Asylum, Newport, Isle of Wight
Smith, T. Esq., Royal Isle of Wight County Hospital, Ryde
Thompson, C. J., Esq., Newport, Isle of Wight
Treadwell, O. F. N., Esq., Brookfield, Parkhurst, I.W.
Trinder, A. P., Esq., Middleton House, Bembridge, I.W.
Turner, P. D., M.D., Sudbury, Ryde, Isle of Wight
Underhill, S. V. H., Esq., Castle View, West St., Newport
Whaite, J. H. Du B., M.D., East End Ter., Yarmouth, I.W.
Wood, G. B., M.B., Newlands, Sandown, Isle of Wight
Woodruff, J. W., Esq., Quarr Hill, Binstead, Ryde, I.W.

No. 3.—Jersey Division

NUMBERING 19.

Chairman, P. B. Bentlif, Esq., Jersey

Vice-Chairman, E. Le Geyt, Esq., Jersey

Honorary Secretary, E. O. B. Voisin, Esq., 56, Bath Street, St. Heliers, Jersey

Representative for Representative Meeting, A. A. MacKeith, M.B., Howard Road, Southampton

Representative on Branch Council, Godfray, A. C., M.B.

Bentlif, P. B., Esq., David Place, Jersey
Bois, C. A., Esq., St. Saviour's Road, Jersey
Brayn, P. J., Esq., Portland Lodge, Jersey
Cole, J. M. Coates, M.D., 2, Les Banques, Gorey Pier Jersey
Du Heaume, H. T., Esq., 6, Almorah Rd., St. Heliers, Jersey
Dustan, H., Esq., St. Heliers, Jersey
Frazer, E. E., M.D., Great Union Road, Jersey
Gaudin, F. N., Esq., The Grove, Jersey
Godfray, A. C., M.B., St. Helier's House, Jersey
Hind, A. E., Esq., Portland House, St. Heliers, Jersey
Le Geyt, E., Esq., 56, David Place, Jersey
Le Rossignol, A., M.D., 2, Caesarea Place, Jersey
Maclean, F. B., Lieut.-Col., R.A.M.C., Jersey
Robertson, D. Argyll, M.D., Mon Plaisir, St. Aubins, Jersey
Smith, H., Esq., 15, Midvale Road, St. Heliers, Jersey
Stamberg, A. C., M.B., 8, Windsor Crescent, Jersey
Sullivan, E. H. C., Esq., 51, David Place, St. Heliers, Jersey
Symons, A. N., Esq., Edgefield, Beaumont, Jersey
Voisin, E. O. B., 56, Bath Street, St. Heliers, Jersey

No. 4.—Portsmouth Division

NUMBERING 167.

Chairman, R. Emmett, M.D., Portsmouth

Vice-Chairman, B. H. Mumby, M.D., Portsmouth

Honorary Secretary and Treasurer, C. P. Childe, F.R.C.S., Cranleigh, Kent Road, Southsea

Representative for Representative Meeting, John Ward Cousins, F.R.C.S., Riversdale, Kent Road, Southsea

Representatives on Branch Council.

Blackman, J. G., M.D.
Claremont, C. C., M.D.
Green, J., Esq.

Executive Committee.

Blackwood, J., Esq.
Carling, W., M.B.
Dove, R. A., M.D.
Key, M. A., M.B.
Kyffin, J., Esq.
Morley, G. F. Esq.
Norman, S., Esq.
Routh, C. F., M.D.
Way, H. M., Esq.
Wright, J. L., Esq.

Allen, V., Esq., Heathmount, East Liss
Allen, W. H., Lieutenant-Colonel R.A.M.C., 5, Nightingale Road, Southsea
Baker, T., Esq. Waterloo-ville, Cosham
Bankart, A. R., M.B., M.V.O., Staff-Surgeon R.N., H.M. Yacht, "Victoria and Albert," Portsmouth
Bentham, A. L., Esq., Victoria Road, Southsea
Biden, E. J., Fleet-Surg. R.N., 29, Osborne Road, Southsea
Blackman, J. G., M.D., Kingston Crescent, Portsmouth
Blackwood, J., Esq., Colaba, Festing Road, Southsea
Blunt, T. E., Surgeon, R.N., H.M.S. "Hazard," Portsmouth
Brownfield, H.M., Esq., Petersfield
Buchanan, A. G., Esq., Kilmartin, Liss
Buckell, L. M., Esq., Lee-on-the-Solent, Gosport
Burch, H. E., Esq., Woodville, Kingston Road, Portsmouth
Cade, S. E. P., Esq., Titchfield, Fareham
Carling, W., M.B., 40, Highland Road, Southsea
Case, G. H., Esq., Fareham
Chambers, J. M., Esq., East Meon
Childe, C. P., F.R.C.S., Kent Road, Southsea
Claremont, C. C., M.D., 57, Elm Grove, Southsea
Cole-Baker, L., M.D., Kent Road, Southsea
Colt, T. A., Esq., 42, St Edwards Road, Southsea
Cook, H., M.D., Grove House, Lee-on-the-Solent
Compton, J. W., M.D., 67, Lawrence Road, Southsea
Connor, J. C., M.B., Maj., R.A.M.C., Imperial Hotel, Southsea
Cooper, W. R., F.R.C.S.I., 13, Hampshire Ter., Southsea
Coppinger, R. W., M.D., Insp.-Gen., R.N., Walington House, Fareham
Court, E. P., Esq., Hill View, Hambledon, Cosham
Cousins, J. Ward, M.D., F.R.C.S., Riversdale, Kent Road, Portsmouth
Cross, R. G., Esq., Petersfield
Donald, J., M.B., 7, Foster Road, Alverstoke
Dove, R. A., M.B., 80, Elm Grove, Southsea
Driver, H. L., Esq., Milton Lodge, Goldsmith Avenue, Portsmouth
Emmett, R., M.D., Winton, North End, Portsmouth
Essery, W. J., M.B., South Parade, Southsea
Evered, F., Esq., Emsworth
Fielding, T. E., M.B., Capt., R.A.M.C., Gosport
Forde, T. A. M., Esq., 21, Clarence Parade, Southsea
Fraser, A. M., M.D., Town Hall, Portsmouth
Goss, S., Esq., Burlington Lodge, Southsea
Green, J., Esq., 129, Commercial Road, Landport
Green, P. H., junr., M.B., Brandon House, Portsmouth
Green, W., Esq., Kingston Crescent, Portsmouth
Hackman, L. K. H., Esq., Landport
Hadlow, H., Insp.-Genl., R.N., 30, St. Edward's Rd., Southsea
Hall, R. W. Basil, Surgeon (ret.), Royal Naval Hospital, Haslar
Hann, H. F., Esq., 66, Commercial Road, Portsmouth
Harran, J., Maj., R.A.M.C., ret., 114, Chichester Road, Northend, Portsmouth
Hilton, C. T., M.B., Emsworth
Hunter, E. J., Esq., High Street, Gosport
Jeans, H. W., M.B., Royal Portsmouth Hospital
Johnstone, W. E., M.B., Station Hospital, Gosport
Kelso, J. E. H., M.B., Festing Road, Southsea
Kinnear, J. C. M., M.B., Wickham
Knott, C., Esq., Elm Grove, Southsea
Kyffin, J., Esq., Donnington, Bury Road, Gosport
Lamplough, C., M.D., Kirkstall, Alverstoke
Leon, J. T., M.D., Grove Road, Southsea
Lucas, G. R., Esq., 100, Victoria Road North, Southsea
McEldowny, W. P., M.B., Elmhurst, North End, Portsmouth
McGregor, G., Esq., Verona, New Road, Portsmouth
McGregor, J., Esq., Mile End Villa, Commercial Road, Portsmouth
McWatters, W., Col., R.A.M.C., R.P., 38, Bury Road, Alverstoke
Marwood, A. E., Esq, 5, Campbell Road, Southsea
May, A. E., Esq., Chandos, Hayling Island
Maybury, A. V., M.D., Mile End, Landport
Maybury, L., M.D., 9, Hampshire Terrace, Southsea
Mead, T. W., Esq., Fratton Road, Landport
Meade, W., Esq., Anglesey, Gosport
Milne-Thomson, A., M.B., 32, Lion Terrace, Portsea
Morley, G. F., Esq., 45, High Street, Portsmouth
Morley, H. W., Esq., Union Infirmary, Portsmouth
Muggleton, F. C. H., Esq., 2, High Street, Gosport
Mulcahy, T. A., Esq., 39, Kingston Road, Portsmouth
Mulvany, John, Esq., 106, Arundel Street, Portsmouth
Mumby, B. H., M.D., The Asylum, Portsmouth
Murphy, W., M.B., Liphook
Nash, C., Esq., The Yews, Horndean, Hants
Nicholson, E. R., M.D., 42, Parham Rd., Forton, Gosport
Norman, S., Esq., West Street House, Havant.
Owen, A. L., M.D., Southsea
Palser, J. E., Esq., 1, Victoria Crescent, Southsea
Pesel, H. G., M.D., Fullands, Victoria Crescent, Southsea
Peters, A. E., Esq., High Street, Petersfield
Phillips, J., M.B., Osborne Road, Southsea
Reid, G. A. O'B., M.B., 9, Victoria Road South, Southsea
Ridout, C. A. S., M.B., Charlton House, Craneswater Park, Southsea
Robertson, J. R. S., M.D., 5, Western Parade, Southsea
Routh, C. F., M.D., Clarence Parade, Southsea
Ruel, C. P., Esq., Kent Road, Southsea
Rundle, H., Esq., F.R.C.S., 13, Clarence Parade, Southsea
Salmond, W. A., M.B., Wilton House, Landport Terrace, Southsea
Sexton, E. J., M.D., Brig.-Surgeon I.M.S., Glanmyre, Spencer Road, Southsea.
Sheahan, D. A., M.D., 434, Commercial Road, Portsmouth
Shelmerdine, H., M.B., Liphook
Sparrow, T. S., Esq., 29, Clarendon Road, Southsea
Stephens, L. E. W., Esq., Emsworth
Thomas, A., Esq., Eastmeon, Petersfield
Thompson, J. J., Surgeon-General, Sandringham, Southsea
Thomson, Alex., M.B., Stoke House, Gosport
Trevelyan, B. R. T., Esq., 89, Waverley Road, Southsea
Tullis, G. A., M.D., Holmbush, Grove Road, Southsea
Way, M. H., Esq., Clarendon Lodge, Southsea
Wellby, S., M.D., Fleatham, Liss
Weston, R. A., Esq., 505, Commercial Road, Landport
Woods, H. C., C.V.O., K.H.P., M.D., R.N., Insp.-Gen., Alv'stk.
Wright, A., Bosworth, Esq., Kingston Road, Portsmouth
Wright, J. L., Esq., 4, Lennox Mansions, Southsea

No. 5.—Salisbury Division

NUMBERING 59.

Chairman, W. J. Harris, M.D., Shaftesbury

Vice-Chairman, E. T. Fison, M.D., F.R.C.S.E., Salisbury

Honorary Secretary and Treasurer, J. E. Gordon, Esq., 52, Endless Street, Salisbury

Representative for Representative Meeting, C. R. Straton, Esq., Wilton, Salisbury

Representatives on Branch Council.

Fison, E. T., M.D., F.R.C.S.E.
Luckham, L. S., Esq.

Executive Committee.

Blackmore, H. P.
Kempe, C. G. B. M.D.
Luckham, L. S. Esq.
March, J. O., Esq.
Richmond, R. T., Esq.
Willcox, R. L., Esq.

Allport, H. K., M.D., Lt.-Col. R.A.M.C., Brigmerston, Milston, Salisbury
Armitage, J. J., Esq., 17, Endless Street, Salisbury
Ash, B. N., Esq., The Infirmary, Salisbury
Blackmore, H. P., M.D., Salisbury
Bothwell, J., Esq., Horningsham, Warminster
Browne, H., Esq., Amesbury
Burt, W. C., Esq., Stockbridge
Carter, H. H. A., Esq., The Abbey House, Shaftesbury
Clay, C., Esq., Manor House, Fovant, Salisbury
Clifton, J., Esq., Fordingbridge
Coutts, Lieut.-Col. G., M.B., R.A.M.C., Salisbury
Eddowes, C., Esq., Shrewton
Edwards, E. H., M.B., Manor Road, Salisbury
Ellis, Sidney, Esq., 42, New Street, Salisbury
Ensor, C. A., Esq., Tisbury
Farnfield, W. W., Esq., Mere
Farr, E., Esq., The Chantry, Andover
Fison, E. T., M.D., F.R.C.S.E., 2, St. John Street, Salisbury
Flower, F., Esq., Warminster
Fox, A. C., Major R.A.M.C., Tidworth Camp
Genge, G. F. S., M.B., Wilton
Gillett, J. F., Esq., Elvin House, Andover
Goodchild, J. A., Esq., Berwick St. John, Salisbury
Gordon, J. E., Esq., 52, Endless Street, Salisbury
Gordon, W., Esq., 8, Marlborough Road, Salisbury
Gould, H. U., M.B., Shaftesbury
Green, J. Lardner, Esq., Fowlers Road Hill, Salisbury
Harris, W. J., M.D., Avishays, Shaftesbury
Henderson, T. B., F.R.C.S., The Infirmary, Salisbury
Hinton, H. T., M.B., Heytesbury
Johnston, J. W., M.D., Fordingbridge
Kempe, C. G. B., M.D., Salisbury
Llewellyn, J., Esq., Whiteparish, near Salisbury
Lockyer, G. E., Esq., Amesbury
Luckham, L. S., Esq., 47, Winchester Street, Salisbury
March, J. O., Esq., Amesbury
Manning, H. J., Esq., Laverstock House, Salisbury
May, W. A., C.B., Col. R.A.M.C., Evelyn House, Salisbury
McGrigor, H. J., M.B., Capt. R.A.M.C., Military Hospital, Bulford Camp
Ord, W. W., M.D., Salisbury
Packer, H. D., Capt. R.A.M.C., Mooltan Barracks, Tidworth, Andover
Partridge, L. S., Esq., Eversfield House, Warminster
Rake, Herbert, Esq., Fordingbridge
Richmond, R. T., Esq., Wilton
Ringer, B. S., Esq., Stockbridge
Rutter, F. B., Esq., Mere
Salvage, Major J. V., R.A.M.C., 1, The Avenue, Andover
Saunders, L. D., Esq., 5, St. Ann Street, Salisbury
Smith, W., M.D., Wyhill, Andover
Straton, A. W. K., Esq., West Lodge, Wilton, Salisbury
Straton, C. H., Capt. R.A.M.C., West Lodge, Wilton, Salisbury
Straton, C. R., Esq., Wilton, Salisbury
Tenison, A., Esq., Stockbridge, R.S.O.
Ward, A., M.B., Codford
Whiteley, G. W., Esq., Downton
Wilks, H. L. E., Esq., Wilton Road, Salisbury
Willcox, H. L., Esq., Warminster
Willcox, R. L., Esq., Portway, Warminster
Williams-Freeman, J.P., M.D., Weyhill, Andover

No. 6.—Southampton Division

NUMBERING 76.

Chairman, R. D. H. Gwillim, Esq., Southampton

Vice-Chairman, E. W. Simmons, Esq., Bishopstoke.

Honorary Secretaries.

A. B. Wade, M.B., 28, Carlton Crescent, Southampton, and A. A. Mackeith, M.B., Howard Road, Southampton

Representative for Representative Meeting, Thomas Easton, M.D., 23, East Park Terrace, Southampton

Representatives on Branch Council.

MacLeod, Col. K., M.D.
Purvis, W. P., M.D.
Weston, G. H., M.B.

Executive Committee.

Aldridge, N. E., M.B.
Buckell, E., Esq.
Bullar, J. F., M.B.
Chinery, E. F., Esq.
Shettle, H. W., Esq.

Aldridge, N. E., M.B., Rockstone House, Southampton
Allden, J. H., Esq., The Firs, Bassett, Southampton
Babington, M. H., M.B., Capt. R.A.M.C., Royal Victoria Hospital, Netley
Bacon, R. A. E., Esq., Riverside, Bitterne Park Southampton
Bathe, A. J., Esq., 8, Hanover Buildings, Southampton
Bencraft, H. W. R., Esq., 13, Cumberland Pl., Southampton
Bethell, A., Esq., Erskinbrae, Sarisbury, Southampton
Breton, L. M., Esq., Kent House, Portswood Road Southampton
Buckell, E., Esq., Romsey
Bullar, J. F., M.B., F.R.C.S., Southampton
Cheesman, G. E. A., Esq., Church Lane, House, Lymington
Child, G. A., Esq., Hythe, Southampton
Chinery, E. F., F.R.C.S., Lymington
Cooper, W. F., Esq., 55 Shirley Road, Southampton
Cowen, G. H., M.B., F.R.C.S., 4, College Ter., Southampton
Dominy, G. H., Esq., 15, Carlton Crescent, Southampton
Easton, Thomas, M.D., 23, East Park Terrace, Southampton
Fox, E. H. B., Esq., Woolston, Southampton
Fraser, J. J., Esq., Cumberland House, Southampton
Giles, W. F., Esq., Hythe, Southampton
Gillespie, T., M.B., Forest Lodge, Shirley
Godfrey, A. C., M.D., 3, Waterloo Road, Freemantle, Southampton
Griffin, F. T., M.B., 11, East Park Terrace, Southampton
Gwillim, R. D. H., Esq., 9, Anglesea Place, Southampton
Hall, E. S., M.B., Bath Lodge, Bitterne
Hall, F., Esq., New Alma Road, Southampton
Harman, A. B., Esq., 1, Cranbury Terrace, Southampton
Hoey, J. C., Esq., Cleveland, Emsworth Road, Shirley
Hughes, S., M.B., The Avenue, Southampton
Hutchinson, J., Esq., Fawley, Southampton
Ives, W. F. H., Esq., 14, Portswood Park, Bevois Hill, Southampton
Ives, W. R. Y., Esq., 14, Portswood Park, Bevois Hill, Southampton
James, F. P. R., Esq., 12, Brighton Road, Southampton
Jolliffe, W. E., Esq., 24, Carlton Crescent, Southampton
Kay, A. G., M.B., Lt.-Col., R.A.M.C., Netley
Keele, J. R., Esq., Cumberland Place, Southampton
Keppel-Compton, J. H., Esq., 8, Cranbury Ter., Sthampton.
Lauder, R. E., F.R.C.S., 158, Above Bar, Southampton
Le Quesne. C. P., Esq., 7, Lawn Road, Southampton
Lethbridge, Sir Alfred S., K.C.S.I., M.D., Windhover, Bursledon
MacDougall, J. M., Esq. 152, St. Mary's St., Southampton
Mackeith, A. A., M.B., Howard Road, Southampton
MacLeod, K., M.D., Col. (ret. I.M.S.), Duncable, Westend
Maturin, F. H., M.B., Old Bank House, Lymington
May, H. J., M.B., College Place, Southampton
Milward, E. O., Lt.-Col. R.A.M.C., The Docks, Southampton
Morgan, F. J., Major R.A.M.C., Royal Victoria Hospital, Netley
Parry, G. H., M.B., Ventnor, Howard Road, Southampton
Pern, A., F.R.C.S., Botley, Southampton
Powell, J. A., M.D., St. Cronans, The Avenue, Southampton
Prentice, R. W., Esq., Spring Grove, Bishopstoke
Purvis, W. P., M.D., F.R.C.S., 14, Carlton Crescent, Southampton
Quill, R. H., M.D., Surg.-Gen., A.M.S., R. V. Hospital, Netley
Ransford, J. E., Esq., Tower Ho., Landguard Rd., Southampton
Renny, A. W., M.B., Durham Road, Shirley
Robson, F. W. H., M.D., Belstone, Howard Road, Southampton
Rogers, A. A., Esq., East Cliff, Woolston
Saunders, C. H., M.B., Berkeley Lodge, Southampton
Scallon, E. O., Esq., Romsey
Shettle, H. W., Esq., Grosvenor Square, Southampton
Sheppard, H. A., Esq., Elingfield, Totton
Simmons, E. W., Esq., Haslemere, Bishopstoke
Sleigh, H. P., M.B., 63, Leigh Road, Eastleigh
Statham, H., M.B., Grosvenor House, Lymington
Stephenson, O. T., Esq., Woolston, Southampton
Stevens, G., Esq., 7, Brunswick Place, Southampton
Stewart, C. H., Esq., Netley Abbey
Wade, A. B., M.B., 28, Carlton Crescent, Southampton
Wales, J. F., M.D., Portswood
Ward, H. P., M.B., Brunswick Place, Southampton
Webb, W. E., M.D., Col. R.A.M.C. (ret.), Ashridge, Northlands Road, Southampton
Welch, R. W. F., Esq., 2, Washington Terrace, S'thampton
Weston, G. H., M.B., Bassett, Southampton
Wilmer, C. H., Esq., The Orchard, Lyndhurst
Wood, W. J. H., Esq., 51, Archers Road, Southampton
Young, J. C., Esq., Incorporation Infirmary, Shirley Warren

No. 7.—Winchester Division

NUMBERING 73.

Chairman,
Vice-Chairman, J. L. Livingston, M.D., Hursley
Honorary Secretary and Treasurer, H. J. Godwin, M.B., F.R.C.S., 35, Southgate Street, Winchester
Representative for Representative Meeting, D. Browne, Esq., 78, High Street, Winchester

Representatives on Branch Council.

Briscoe, J. F., Esq.
Royds, W. A. S., Esq.
Underhill, F. W., Esq.

Executive Committee.

Briscoe, J. F., Esq.
England, G. F. A., M.D.
Godwin. H. J., M.B.
Harman, W. M., M.D.
Livingston, J. L., M.D
Royds, W. A. S., Esq.
Wright, Thomas, Esq.
Underhill, F. W., Esq.

Adam, J. L., M.B., Blackwater
Adams, P. E., M.D., Hartley Wintney, Winchfield
Ahrens, H. A., Esq., 79, Worting Road, Basingstoke
Andrews, S., Esq., Basingstoke
Applebe, E. A., Esq., 1, Southgate Road, Winchester
Baker, W. L., Capt. R.A.M.C., Aldershot
Baxendall, A., Esq., 23, Grosvenor Road, Aldershot
Bevan, W. L. P., M.D., Alton
Briscoe, J. F., Esq., Westbrooke House, Alton
Browne, D., Esq., 78, High Street, Winchester
Burgess, E. J., Esq., Whitchurch
Carson, R. B., Esq., Ivy Cottage, Westmeon
Child, F. J., M.D., Kinellan Street, Winchester
Child, Stanley, M.B., Hants County Hospital, Winchester
Chubb, W. L., M.D., Earlsfield, South Farnborough
Cohen. Joseph, Esq., 6, Victoria Road, Aldershot
Curtis, W., Esq., Alton
Davison, T. H., M.D., Odiham
Despard, Rosina C., M.D., The Dell, Golden Common, Winchester
England, G. F. A., M.D., 12, Southgate Street, Winchester
Firth, R. H., R.A.M.C., Baydale, Church Circle, South Farnborough
Gibson, J. H., Esq., 1, Lansdowne Road, Aldershot
Gilmour, J. H., Esq., Hurstbourne Tarrant
Godwin, H. J., M.B., F.R.C.S., 35, Southgate Street, Winchester
Griffiths, W. A., Esq., Wonston, Micheldever
Harman, W. M., M.D., Brig.-Surg., Retired, Winchester
Hartley. E. B., Colonel, V.C., C.M.G., Lesuto, Fleet
Hayes, H. R., Esq., Basingstoke
Hemming, C. P., Esq., Bishops Waltham
Hemsted, R. H., Esq., Hordley House, Whitchurch
Hodgson, Harold, M.B., Lindens, Alresford
Hoyle, J. C., M.B., Upham
James, J. A., Esq., Odiham
Jollye. F. W., F.R.C.S., Alresford
Kay, William, Esq., Bentley
Kyngdon, F. H., M.D., Cargate Lodge, Aldershot
Leslie, E. J. L., Esq., Alton
Lindsay, J. M., M.D., 53, Victoria Road, Aldershot
Lithgow, T. G., Esq., Farnborough
Livingston, J. L., M.D., Hursley, near Winchester
Loveless, W. K., Esq., Steepleton, Stockbridge
Lowne, B. T., M.D., Crondall
MacNalty, F. C., M.D., 10, Southgate Street, Winchester
Maturin, H., Esq., Winchfield.
Merrick, R. W., M.D., Ingleton, Basingstoke
Meyrick, F. R. H., M.D., Winton House, Basingstoke
Mosse, C. G. D., Lieut.-Colonel R.A.M.C., 7, Ranelagh Road, Winchester
Mulligan, J. B. G., R.A.M.C., R.A.M.C. Mess, Stanhope Lines, Aldershot
O'Connor, W. M., M.D., Cargate Avenue, Aldershot
Oliver, L. W., Esq., Ropley, Alresford
Pern, E. C., Esq., Droxford
Price, A. E., M.B., Denstone, Winchester
Richards, T. D., Esq., 13, St. Thomas Street, Winchester
Ritchie, E. D., M.D., Chandler's Ford
Roberts, G. A. E., Esq., Twyford, near Winchester
Royds, W. A. S., Esq., St. Mary Bourne, near Andover
Rudge, E. J. H., Esq., Shawford
Sandilands, J. E., M.D., M.O.H., Winchester
Scoones, H. E., Esq., Hants County Hospital, Winchester
Scott, T. W., M.B., 3, Southgate Road, Winchester
Simpson, J. Tracey, M.D., Kynance, Farnborough
Smith, Horace. M.D., Wonston. Micheldever
Stokes, F. A., Esq., Basingstoke
Underhill, F. W., Esq.. Heckfield. Winchfield
Wace, Cyril, F.R.C.S., Wolcote, Winchester
Waters, F. W., Esq., (address uncommunicated)
Way, A. O., Esq., 3, Southgate Road, Winchester
Wickham, G. H., M.B., Fleet
Wickham, G. W., Esq., 27, Southgate Street, Winchester
Williams, H. C., M.B., Alton
Wingfield, H. E., M.D., 25, St. Swithin St., Winchester
Winter, L. A., Esq., Chelmsford, Southampton Street, Farnborough
Wright, Thomas, M.B., 23, Wellington Street, Aldershot

SOUTH MIDLAND BRANCH.

District comprising the County of BEDFORD; in WARWICKSHIRE, Rugby; in NORTHAMPTONSHIRE, the portion south and west of and including Thrapston; in BUCKINGHAMSHIRE, the portion north of a line drawn from Thame to a point immediately north of Chesham (excluded); in HERTFORDSHIRE the portion of the St. Albans and Hichen Parliamentary Divisions north of a line drawn from Abbot's Langley to a point immediately north of Northaw, and west of a line drawn from Northaw due north to the county boundary.

Members of Branch—219.

RECOGNISED 1856.

President, E. H. LIPSCOMB, M.B., St. Albans
President-elect, H. CROPLEY, Esq., Northampton
Ex-President, T. L. KENNISH, M.D., Winslow
Honorary Secretary, E. H. JONES, M.B., 45, Sheep Street, Northampton
Honorary Treasurer, R. A. MILLIGAN, M.D., Northampton

Representative on Council of Association.
R. H. Kinsey, Esq., 2, Harper Place, Bedford

Branch Council

Butters, G., M.B.
Dryland, L. W., Esq.
Evans, C. J., Esq.
Kennish, T. L., M.D.
Kerr, H., M.D.
Maguire, T. S., M.D.
Major. H. C., M.D.
May, H. E., M.B.
Nash, W. Gunner, Esq.
Savory, H., M.B.
Shaw, Jas., M.D.

With the President, President-elect, Ex-President, and other officers.

No. 1.—Aylesbury Division

NUMBERING 20.

Chairman, J. C. Baker, M.B., Aylesbury
Vice-Chairman, W. Eagles, Esq., Aylesbury
Honorary Secretary and Treasurer, Horace Rose, Esq., Melrose, Aylesbury
Representative for Representative Meeting, E. O. Turner, M.B., Great Missenden

Executive Committee.

Kerr, H., M.D.
Morrison, A. T., M.B.
Parrott, T. G., M.D.

Representatives on Branch Council.

Kerr, H., M.D.
Shaw, Jas., M.D.

Baker, J. C., M.B., Ceely House, Aylesbury
Benson, P. L., M.D., The Elms, Steeple Claydon
Cook, J. R., M.B., Great Missenden
Cooke, F. A., M.D., Haddenham. Bucks
Eagles, W., Esq., Walton Terrace, Aylesbury
Gardner, J. C., M.B., Amersham
Graham, J. W. F., Esq., Waterloo House, Brill
Greaves, E. H., Esq., Amersham
Kerr, H., M.D., County Asylum, Stone, Aylesbury
Maclure, H. W., M.B., Brill
McFarland, A., Esq., The Lawn, Whitchurch, Aylesbury
Morrison, A. T., M.B., Waddesdon, Aylesbury
Parrott T. G., M.D., 1, Church Street, Aylesbury
Rose, Horace, Esq., Melrose, Aylesbury
Shaw, Jas., M.D., 26, High Street, Aylesbury
Turner, E. O., M.B., Great Missenden
West, W. S., M.D., 8, Temple Square, Aylesbury
Winder, W. H., Esq., H.M.'s Convict Prison, Aylesbury

No. 2.—Bedford and Herts Division

NUMBERING 92.

Chairman, H. C. Major, M.D., Bedford
Vice-Chairman, H. Sworder, Esq., Luton
Honorary Secretary and Treasurer, H. Savory, M.B., 2, Harpur Place, Bedford
Representative for Representative Meeting, R. H. Coombs, M.D., 28, Mill Street, Bedford

Representatives on Branch Council.

Butters, G., M.B.
Major, H. C., M.D.
May, H. E., M.B.
Savory, H., M.B.

Executive Committee.

Boys, A. H., Esq.
Chillingworth, A., Esq.
Coombs, R. H., M.D,
Dixon, G. F., Esq.
Major, H. C., M.D.
Savory, H., M.B.
Waugh, J., M.D.

Ambler, R., Esq., Ampthill
Archdall, M. T., Esq., Bishopstone House, Bedford
Bailey, C. H. F., Esq., 126, Foster Hill Road, Bedford
Bates, H. Leslie, Esq., St. Albans
Bell, V. S. A., Esq., 4, Harpur Place, Bedford
Binning, A., M.B., Hatfield
Blake, W. H., M.B., Harpenden, Herts
Bone, J. W., M.B., Argyle House, Luton
Bovill, F. M., Esq., Redbourn
Bower, D., M.D., Springfield House, Bedford
Boycott, A. M., M.D., Hill End, St. Albans
Boys, A. H., Esq., Checquer Street, St. Albans
Brander, R. L., M.B., Aspley Guise
Brittam, P. M., Esq., Triangle House, Hatfield
Butters, G., M.B., Kempston
Carter, J., Esq., 9, St. Peter's Green, Bedford
Chillingworth, A., Esq., 43, St. Peter's, Bedford
Coates, Richard, Esq., Great Barford, St. Neots
Cobb, E. H., Esq., Belmont, Stevenage
Coombs, R. H., M.D., 12, Rothsay Place, Bedford
Dixon, G. F., Esq., Lindon Lodge, Potton
Donelan, T. O'C., Esq., Middlesex County Asylum, Napsbury, near St. Albans
Drage, C., M.D., Hatfield, Herts
Drage, L., M.D., Burleigh Mead, Hatfield, Herts
Edwards, H. N., Esq., Markyate, Dunstable
Elderton, F. D., Esq., 44, Shakespeare Road, Bedford
Fegan, R., M.D., Welwyn
Foster, O. H., M.B., Hitchin
Gilbertson, J. H., Esq., Hitchin
Goldsmith, A. F., Esq., 43, Harpur Street, Bedford
Goldsmith, G. H., M.D., 43, Harpur Street, Bedford
Grant, J. W., M.B., Woburn Sands
Harris, J. D. J., Esq., Bridge Road, Leighton Buzzard
Hart, B., M.B., Hill End Asylum, St. Albans
Hartley, A. C., M.D., 4, De Pary's Avenue, Bedford
Hillier, A. P., M.D., Markyate Cell, near Dunstable
Hine, A. L., Esq., Newnham, Kirkwick Avenue, Harpenden
Hobbs, John, Esq., Caversham, Lemsford Road, St. Albans
Holmes, T. D., M.D., The Shrubbery, Woburn Sands
James, A., M.B., Biggleswade
Johnson, C. G., Esq., Harpur Villa, Bedford
Jones, C. L., Esq., Lanark House, Dunstable
King, W. A. D., Esq., Bedford Hospital
Kinsey, R. H., 10, Rothsay Gardens, Bedford
Kite, J. A., Esq., Welwyn, Herts
Lipscomb, E. H., M.B., St. Albans
Lloyde, J. H., Esq., 5, Harpur Place, Bedford
Lucas, A., Esq., Woburn
Macfadyen, N., M.B., Letchworth
Major, H. C., M.D., Swallowfield. Bushmead Avenue, Bedford
Mandel, F. P., Esq., 53, Bromham Road, Bedford
May, H. E., M.B., Victoria Street. St. Albans
Nash, Walter Gifford, Esq., De Parys Avenue, Bedford
Nicholson, C. H., Esq., Clophill
Oldroyd, J. H., Esq., Grace Cottage, St. Albans
Oliphant, Frank B., M.B., Crow Holt Lodge, Woburn R.S.O.
Parbury, W. K., Esq., The Grange, Sharnbrook
Parry, E. J., Esq., St. Nicholas Lodge, Harpenden
Phillips, A. S., Esq., The Cedars, St Cuthberts, Bedford
Phillips, F. B. W., M.B., 7, Harpur Place, Bedford
Prior, C. E., M.D., 4, Goldington Road, Bedford
Roberts, H. F. B., Esq., Middlesex County Asylum, Napsbury, near St. Albans
Roberts, K., Esq., Shillington, near Hitchin
Robinson, G., Esq., Harpur Place, Bedford
Rolleston, L. W., M.B., Middlesex County Asylum, Napsbury, near St. Albans
Ross, S. J., M.D., "Monkhams," Bedford
Savory, H., M.B., 2, Harpur Place, Bedford
Sharpin, A. L., Esq., 2, Kimbolton Road, Bedford
Sharpin, E. C., Esq., Bedford
Sharpin, W. A., Esq., 45, St. Peter's Green, Bedford
Shillitoe, R., Esq., Bancroft, Hitchin
Skelding, H., M.B., St. Loyes, Bedford
Smith, J. G., M.D., Herts County Asylum, St. Albans
Soffe, W. E., Esq., 4, Waterloo Road, Bedford
Somerville, H., Esq., Harrold
Snell, G., M.D., Canje House, St. Andrew's Road, Bedford
Spence, W. J., Esq., Pemberley Lodge, Bedford
Stacey, Miss Ethel, M.B., 34, Kimbolton Road, Bedford
Storey, J. A., Esq., The Lawn, Dunstable
Street, A. Ernest, Esq., Cranfield, Woburn Sands, R.S.O.
Strover, H. C., Esq., Ivel Lodge, Sandy
Sworder, H., Esq., Luton
Symons, T. G. Gordon, Esq., Walkern, Stevenage
Temple, T. C., Esq., Shefford
Thomas, B. W., M.B., Welwyn, Herts
Tomson, W. Bolton, M.D., The Downs, Luton
Veasey, H., Esq., Aspley Guise, Woburn
Waller, H. W. L., M.B., 104, Midland Road, Bedford
Waugh, J., M.D., Toddington
Wells, T. P. G., Esq., 13, London Road, St. Albans
Wilson, J., M.D., The Elms, Harpenden, Herts
Winckworth, C. E., Esq., Shefford

No. 3.—Northamptonshire Division

NUMBERING 107.

Chairman, Clement Dukes, M.D., Rugby
Vice-Chairman, H. Cropley, Esq., Northampton
Honorary Secretary and Treasurer, P. S. Hichens, M.D., 45, Sheep Street, Northampton
Representative for Representative Meeting, S. E. Baxter, Esq., Wollaston, Wellingborough

Representatives on Branch Council.

Dryland, L. W., Esq.
Evans, C. J., Esq.
Maguire, T. S., M.D.
Nash, W. Gunner, Esq.

Allison, J., M.D., Fuller House, Kettering
Audland, W. E., Esq., 5, Oxford Street, Wellingborough
Ardagh, V. E. R., Esq., Irchester, near Wellingborough
Baird, W. J., M.B., Earl's Barton, near Northampton
Baker, G. W., Esq., Croft House, Rothwell
Baker, H. S., Esq., Rushden, R.S.O.
Baxter, S. E., Esq., Wollaston, Wellingborough
Beale-Brown, T. R., Esq., Berry Wood, Northampton
Beatty, James, M.D., 20, Guildhall Road, Northampton
Benett, A. M., Esq., Northampton Hospital
Bird, J., Esq., Thrapston
Boswell, J. I., M.D., Crawley Grange, Newport Pagnell
Bull, W. H., Esq., Stony Stratford
Burland, H., Esq., Finedon
Buszard, Frank, M.D., Northampton
Buxton, G. W., Esq., Ivy Dene, Fenny Stratford
Cairns, Thomas, Esq., Marriott Street, Northampton
Chamberlain, W. H., Esq., East Park Parade, Northampton
Chapel, K., M.B., 5, Bridge Street, Rothwell
Churchouse, W. J. F., Esq., Long Buckby
Clark, W. W., M.D., Wellingborough
Coates, G., M.D., South Kilworth, Rugby
Cogan, L. F., Esq., 51, Sheep Street, Northampton
Cox, A., Esq., Long Buckby
Crew, J., Esq., Higham Ferrers
Cropley, H., Esq., East Park Parade, Northampto
Darley, A. R., M.D., West Haddon
Deyns, C. J., Esq., Fenny Stratford
Dryland, L. W., Esq., High Street, Kettering
Dukes, C., M.D., Sunnyside, Rugby
Easte, W. A., Esq., Hanslope, Stony Stratford
Evans, C. J., Esq., 69, St. Giles Street, Northampton
Farmer, J., Esq., Brackley
Fenton, J. S., M.D., Brackley
Flanegan, H. J., Esq., 98, Abington Street, Northampton
Fysh, Mrs. M. N., M.B., Ivy Lodge, Wellingborough
Gainer, J. W., M.B., Thrapston
Gibbons, H., M.D., Desborough, near Market Harborough
Gibbs, Robert, Esq., Yardley, Hastings
Giles, P. B., Esq., Holme Chase, Bletchley
Godwin, F. J., Esq., Derngate, Northampton

Greenfield, D. G., M.D., Rushden
Grindon, F. J., Esq., Olney, Bucks
Harding, W., M.D., Berry Wood, Northampton
Harrisson, A. E., M.B., Daventry
Harvey, J. O., Esq., The Elms, Wolverton
Hichens, P. S., M.D., 45, Sheep Street, Northampton
Hollis, H., M.D., Brooklands, Wellingborough
Hope, A. Adam, M.B., Byfield Road, R.S.O.
Hope, P. L., Esq., The Colony, Stony Stratford
Howard, V., Esq., Hamilton, Buckingham
Ingram, T. L., Esq., Welford, Rugby
Jacobs, H. R., Esq., Culworth, Northampton
Jones, E. H., M.B., 45, Sheep Street, Northampton
Joy, G. P., M.B., Northampton Hospital
Kennish, T. L., M.D., Western Lodge, Winslow
Knott, E. M., Esq., Brixworth
Lewis, G. H., M.D., 31, Marefair, Northampton
Linnell, A., Esq., Paulerspury
Mackenzie, W., Esq., Raunds
Mack, George, M.B., Green Lane, Kettering
Maguire, T. S., M.D., Stony Stratford
Miles, C. H., Esq., High Street, Stantonbury
Milligan, R. A., M.D., Ardmae, Northampton
Moore, Ayres, Esq., Pailton Hall, Rugby
More, J., M.D., Rothwell
Morris, F. H., M.D., Wellingborough
Nash, Wm. Gunner, Esq., Welford, Rugby
Nicholson, E., Esq., High Street, Fenny Stratford
Odacres, C. E., Esq., 2, New Street, Daventry
O'Rafferty, J. C., Esq., Daventry
Owen, C. R., Esq., Rushden
Paget, C. E., Esq., County Hall, Northampton
Parkhurst, L. E., M.D., Buckingham House, Brackley
Pearson, G. B., Esq., The Cottage, Buckingham
Percival, G. H., M.B., 66, Abington Street, Northampton
Powell, Cecil, M.B., Calverton Lodge, Stony Stratford
Pretty, H. C., Esq., Burton House, Kettering
Relton, B., Esq., Glebe House, Rugby
Robb, Wm., M.B., The Limes, Irthlingborough
Robson, W. M., M.D., 68, Abington Street, Northampton
Rogers, H. C., Esq., Newport Pagnell
Ryan, W. H., Esq., Roade
Saunders, W., Esq., 12, Church Street, Wellingborough
Sedgwick, C. H., M.B., Weedon
Selby, J. S. E., Esq., Bozeat, near Wellingborough
Sheppard, J. F., Esq., Tykeford House, Newport Pagnell
Simpson, J. H., M.D., Hillmorton Road, Rugby
Smith, A. G. L., Esq., Crick, Rugby
Spurgin, H. B., Esq., Northampton
Stathers, G. N., Esq., Brackley
Stephenson, W. A., Esq., West Haddon, Rugby
Stewart, D. A., M.D., Harleston Road, Northampton
Stone, D., M.D., 19, Horsemarket, Northampton
Stuart, F. J., Esq., Berrywood Asylum, Northampton
Terry, John, Esq., Southfield House, Braunston, Rugby
Tolputt, A. G., Esq., Montagu Street, Kettering
Underwood, F. L., Esq., Floore, Weedon
Unwin, R., M.D., Dunchurch, Rugby
Vaisey, T. F., Esq., Norden House, Winslow
Van Vestraut, O. T. A. V., Esq., Rockingham Road, Kettering
Watson, W. I., M.B., 3, Queen Street, Wellingborough
White, Digby C., M.D., Priory Lodge, Newport Pagnell
White, P. S., Esq., The Dower House, Bugbrooke
Wickham, H. T., M.D., Newport Pagnell
Williams, H. W., M.D., Guilsborough, Northampton

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

District comprising CARDIGANSHIRE, BRECKNOCKSHIRE, the Counties south-west thereof, and MONMOUTHSHIRE.

Members of Branch–474.

Recognised 1871.

President, W. Williams, M.D., Penarth
President-elect, Evan N. Davies, Esq., Rhondda Valley
Ex-President, O. E. B. Marsh, Esq., Newport

Honorary Secretaries.
F. G. Thomas, M.B., 68, Walter Road, Swansea
W. Mitchell Stevens, M.D., 21, St. Andrew's Crescent, Cardiff

Honorary Treasurer.
Evan Jones, Esq., Aberdare

Representatives on Council of Association.
T. Druslyn Griffiths, M.D., D.Sc., Swansea
J. Lynn Thomas, C.B., F.R.C.S., Cardiff

Branch Council.
Brook, W. F., Esq.
Brown, G. A., Esq.
Davies, J. E. P., Esq.
Gamble, L. D., M.B.
Lancaster, E. Le C., M.B.
Lewis, B. M., Esq.
Morgan, D. N., Esq.
Paton, R. J., M.B.
Powell, J., Esq.
Price, D. R., M.B.
Randall, W., Esq.
Thomrson, J. T., M.B.
Vachell, H. R., M.D
Veale, F. J. de C., M.B
Wallace, T., M.D.
Ward, J. L. W., Esq.
Williams, D. J., F.R.C.S
Williams, O., Esq.
and Secretaries of Divisions

No. 1.–Cardiff Division

Numbering 134.

Chairman, C. T. Vachell, M.D., Cardiff
Vice-Chairman, D. R. Paterson, M.D., Cardiff

Honorary Secretaries.
Ewen J. Maclean, M.D., 12, Park Place, Cardiff
R. Russell Thomas, Esq., 26, Windsor Place, Cardiff

Representative for Representative Meeting, J. T. Thompson, M.B., 24, Windsor Place, Cardiff

Representatives on Branch Council.
Powell, J., Esq.
Randall, W., Esq.
Thompson, J. T., M.B.
Vachell, H. R., M.D.
Wallace, T., M.D.

Executive Committee.
Horder, T. Garrett, Esq.
Sheen, W., M.S.
Stevens, W. M., M.D.
Thomas, J. Lynn, C.B.

Aitken, C., M.D., Newcastle, Penarth
Andrew, A. J., Esq., 7, Park Place, Cardiff
Anstey-Chave, T., Esq., 19, Windsor Esplanade, Cardiff
Barry, W. J. M., M.D., 17, Hickman Road, Penarth
Biggs, J. J. E., Esq., Newport Road, Cardiff
Bird, Ashley, Esq., 31, Stanwell Road, Penarth
Boyd, John, Esq., 99, Albany Road, Roath Park, Cardiff
Boyle, James, M.B., 13, Arcot Street, Penarth
Brierley, E. E., M.B., 7, Dumfries Place, Cardiff
Broad, B. W., Esq., The Sanatorium, Cardiff
Brownlee, Alex., Esq., 7, Windsor Place, Cardiff
Buckham, F., Esq., 74, Albany Road, Roath
Budge, E. J. H., Esq., Cadoxton, Barry
Buist, J. J., M.B., 13, Windsor Place, Cardiff
Burke, J. P. T., Esq., Brookside, Abertridwr
Cameron, Robert, M.D., 9, Salisbury Sq., Cathays, Cardiff
Campbell, Henry, Esq., 349, Cowbridge Road, Cardiff
Campbell, W., M.D., 95, Newport Road, Cardiff
Cantillon, D. E., M.B., 165, Clare Rd., Grangetown, Cardiff
Clague, H. J., Esq., County Asylum, Bridgend
Collins, E. T., Esq., 12, Windsor Place, Cardiff
Cook, H. G. G., M.D., F.R.C.S., 22, Newport Road, Cardiff
Corrigan, W. J., Esq., Splott Avenue, Cardiff
Cownie, J. F., M.B., 249, Cowbridge Road, Cardiff
Creagh, P. Nagle, Esq., Glengariff, Walker Road, Cardiff
Cresswell, F. P. S., M.B., 24, Windsor Place, Cardiff
Devereux, A. C., M.B., The Infirmary, Cardiff
Davies, Eleazar, Esq., Fochriw, *via* Cardiff
Davies, F. W. S., Esq., 21, Newport Road, Cardiff
Davies, Henry, M.B., Abergwynfi
Downing, Charles, Esq., 49, Charles Street, Cardiff
Edwards, D. T., Esq., Taff's Well, Cardiff
Edwards, W. L., Esq., Holton Road, Barry Dock
Edwards, W. T., M.D., 129, Queen Street, Cardiff
Ensor, H. C., Esq., 23, Windsor Place, Cardiff
Evans, F. W., M.D., Charles Street, Cardiff
Evans, J., Esq., 273, Cowbridge Road, Cardiff
Evans, Miss Erie, M.B., 23, Dumfries Place, Cardiff
Evans, Wm. Hesketh, M.D., 25, St. John's Cres., Cardiff
Evans, W. T., Esq., Maes-y-bryn, Treharris
Evatt, E. J., M.B., University College, Cardiff
Fiddian, A. P., M.B., 23, The Walk, Cardiff
Finlay, D., M.D., Parc Gwyllt, Bridgend
Fisher, W. M., Esq., Glyncorrwg
Fitzgerald, D. A., Esq., 10, Newport Road, Cardiff
Forsdike, H. S., M.B., 71, Cathedral Road, Cardiff
Gill, J. W., Esq., Llantwit Major, Cardiff
Grant, C. C., M.D., Cymmer, R.S.O.
Griffiths, C. A., Esq., 6, Windsor Place, Cardiff
Griffiths, P. R., M.B., Newport Road, Cardiff
Haycraft, J. Berry, M.D., F.R.S.E., Cardiff
Hepburn, Professor D., M.D., University College, Cardiff
Horder, T. Garrett, Esq., 32, Windsor Place, Cardiff
Howell, Alfred, M.D., 1, Ninian Road, Roath Park, Cardiff
Hunt, De Vere, Esq., Aubrey House, Cathedral Rd., Cardiff
Irving, G. G., Esq., Lindisfarne, Windsor Road, Barry
Jones, D. Rhys, Esq., 19, Paget Street, Grange, Cardiff
Jones, J. Harris, M.B., The Surgery, Caerau, *via* Bridgend
Jones, T., Esq., Aberkenfig, near Bridgend
Kent, P. W., Esq., York House, Barry
Kirkby, Walter, Esq., Arosfa, Maesteg
Leigh, W. W., Esq., Glyn Bargoed House, Treharris
Lewis, Cyril, M.D., 27, Windsor Place, Cardiff
McCall, C. C., M.B., 36, Cowbridge Road, Cardiff
Mackenzie, K. C., M.D., Caerphilly
Maclean, E. J., M.D., 12, Park Place, Cardiff
McMullan, J. N., Esq., Highdene, Penarth
Martin, D. Cargill, M.D., 63, Ninian Road, Cardiff
Martin, William, M.B., 17, Windsor Place, Cardiff
Matthews, C. E., M.D., 6, Hickman Road, Penarth
Matthias, R., M.B., Radyr, near Cardiff
Meller, C. B., Esq., Cowbridge
Milward, W. Courtenay, Esq., 4, Newport Road, Cardiff
Morris, W. D. J., Esq., Crwys Road, Cardiff
Moynan, R. M., Esq., Cowbridge
Mullin, J., M.D., Conway Road, Cardiff
Musgrove, C. D., M.D., 8, Herbert Terrace, Penarth
Neale, G., Esq., Mountsorrel, Barry
O'Donovan, M. P., Esq., 109, Cathedral Road, Cardiff
Parry, E. J., M.D., Pont-y-Cymmer
Paterson, D. R., M.D., 15, St. Andrew's Crescent, Cardiff
Paterson, H., M.B., 151, Crwys Road, Cardiff
Pearse, A. S. J., M.B., 110, Cathedral Road, Cardiff
Phillips, J. A., Esq., 72, Carlisle Street, Cardiff
Pittard, M., Esq., 48, Cathedral Road, Cardiff
Powell, J., Esq., Barry, Glamorgan
Price, W., M.B., 40, Park Place, Cardiff
Price, W. M., Esq., 140, Llandaff Road, Cardiff
Prichard, R., M.D., 14, Windsor Place, Cardiff
Randall, W., Esq., Bridgend
Rees, A., Esq., Cathedral Road, Cardiff
Rees, H., Esq., 190, Newport Road, Cardiff
Rees, J. H., M.D., Holmesdale, Penarth
Reidy, W. A., Esq., Fleur de Lis, Cardiff
Rey, Jules F., Esq., Brooklands, Dynas Powis
Richards, D. E., Esq., Tondu near Bridgend
Richards, Thomas, Esq., 57, Ninian Road, Cardiff
Robinson, J., Esq., 24, Albany Road, Cardiff
Scholberg, H. A., M.B., Public Health Laboratory, Cardiff
Sheen, A., M.D., 23, Newport Road, Cardiff
Sheen, A. W., M.D., 2, St. Andrew's Crescent, Cardiff
Shepherd, C. C., M.D., 24, St. Andrew's Crescent, Cardiff
Skyrme, H. E., Esq., 22, Windsor Place, Cardiff
Smith, R. J., M.B., 8, Corporation Road Cardiff
Sparrow, G. R., Esq., 80, Richmond Road, Cardiff
Spencer, E. M., M.D., Bridgend
Stevens, Thomas, Esq., 41, Newport Road, Cardiff
Stevens, W. M., M.D., 21, St. Andrew's Crescent, Cardiff
Stewart, R. S., M.D., Bridgend
Thomas, D. J., Esq., Nantymoel
Thomas, G. M. A., Esq., Bron-y-garn, Maesteg
Thomas, J. Lynn, C.B., F.R.C.S., 21, Windsor Place, Cardiff
Thomas, R. Russell, Esq., 26, Windsor Place, Cardiff
Thomas, Tudor, Esq., 40, Boverton Street, Roath Park, Cardiff
Thomas, T. J. Bell, Esq., 13, Brynmawr Place, Maesteg
Thomas, T. W., Esq., Caerphilly
Thomas, W. Edmund, Esq., Ashfield, Bridgend
Thompson, J. T., M.B., 24, Windsor Place, Cardiff
Torney, R. H. S., M.B., Sorrento, Cowbridge
Treasure, W. B. C., M.D., Esq., 63, Cowbridge Road, Cardiff
Tucker, S. A., Esq., L'anharran
Turner, J. H., Esq., Windsor Place, Cardiff
Turner, W. W., M.B., Deri, Cardiff
Twist, J. F., Esq., Kenfig Hill, Pyle
Vachell, C. T., M.D., 11, Park Place, Cardiff
Vachell, H. R., M.D., 18, Newport Road, Cardiff
Walford, E., M.D., Town Hall, Cardiff
Wallace, S., Esq., 62, Pen-y-Lan Road, Cardiff
Wallace, T., M.D., Newport Road, Cardiff
Wayne Morgan, L., Esq., Ty Gwyn, Whitchurch, Cardiff
Williams, E., Esq., Pen-y-Graig House, Bridgend
Williams, J. T., M.D., Treharris, R.S.O.
Williams, Morgan, Esq., 5, Park Place, Cardiff
Williams, W., M.D., 31, Victoria Road, Penarth

No. 2.–Monmouthshire Division

Numbering 104.

Chairman, J. Glendinning, M.D., Abergavenny
Vice-Chairman, S. B. Mason, Esq., Denham House, Pontypool
Honorary Secretary, W. J. Greer, Esq., 19, Gold Tops, Newport
Representative for Representative Meeting, W. D. Steel, M.D., Abergavenny

Representatives on Branch Council.
Brown, G. A., Esq.
Gamble, L. D., M.B.
Paton R. J., M.D.

Executive Committee.
Gratte, C. B., Esq.
Griffiths, E. M. M.D.
Howard-Jones, J., M.D.
Thomas, T. M., M.D.

Barnard, B., M.B., Machen
Basset, W., Esq., 24, Stow Hill, Newport
Bevan, H. C., Esq., Blaina
Bevan, T. W., Esq., Nantyglo
Bowen, Elias R., M.D., Bargoed
Brewer, H. M., Esq., Newport
Brown, G. A., Esq., Tredegar
Clarke, S. H., M.B., Newport Asylum, Caerleon
Corben, C., Esq., The Grove, Caldicott
Coulter, R. J., M.B., 11, Clytha Park Road, Newport
Cowie, R. A., Esq., 29, Church Street, Ebbw Vale
Crawford, Isaac, Esq., Tredegar
Crinks, V. A., Esq., County Hospital, Newport
Davey, N. F., Esq., Havering House, Abergavenny
Davies, J. Lloyd, Esq., 158, Caerleon Road, Newport
Davies, J. W., Esq., Ebbw Vale
Davies, R. T. E., Esq., New Tredegar
Davies, S. H. R., Esq., 30, Monk Street, Abergavenny
De Gruchy, C. W., Esq., High Street, Caerleon
Donovan, Thomas, Esq., 13, Park Road, Ebbw Vale
Dwyer, J. F., Esq., Beaufort
Essex, J. R., Esq., Pontypool
Elworthy, H. S., Esq., Glan Ebbw, Victoria, R.S.O.
Evans, David, Esq., Oakley House, Maesycwmmer
Evans, H. T., Esq., Blackwood
Foley, R. M., M.D., Derry View, Abergavenny
Frost, T. J., Esq., Llanhilleth, near Newport
Gamble, L. D., M.B., Leven House, Abergavenny
Glendinning, J., M.D., Joint Counties Asylum, Abergavenny
Gratte, C. B., Esq., 18, Gold Tops, Newport
Greer, W. J., Esq., 19, Gold Tops, Newport
Griffiths, E. M., M.D., Abercarn
Hackett, E. L. M., Esq., Usk
Hamilton, S., M.B., 184, Commercial Road, Newport
Haslett, R. W., M.B., Pontypool
Herbert, T., Esq., Aberbargoed
Hood, A. B., Esq., Waunlwyd
Howard-Jones, J., M.D., Bryngwyn Road, Newport
Isaac, B., Esq., Beaufort
Istance, R., Esq., The Laurels, Pontymister
James, Alfred H., M.D., The Park, Blaenavon
Jamison, Edmund, Esq., Nantyglo
Jenkins, G. H., Esq., Usk
Jones, A. E., Esq., Pendre, Crickhowell
Jones, D. J., Esq., Hanbury Road, Pontypool
Jones, D. T. Rocyn, M.B., Abertillery
Jones, John, Esq., Pontlottyn
Johnson, M. B., Esq., Nantyglo
Lawrence, A. G., M.D., Chepstow
Lewis, T. G., M.B., 76, Corporation Road, Newport
Lloyd, T. E., M.D., Woodstock House, Abergavenny
Logie, A. G. S., M.B., Raglan, Newport
McGinn, J., Esq., The Cross House, Newport
M'Ginn, Patrick J., Esq., 18, Fairoak Avenue, Newport
Macaulay, D., M.B., Ebbw Vale
Marsh, O. E. B., Esq., Clytha Park, Newport
Martin, E. W. S., M.B., Brithdir
Mason, S. B., Esq., Denham House, Pontypool
Massy-Burnside, D., Esq., Brynmawr
Maunsell, F. I., Esq., Tir Phil
Morgan, O. W., Esq., 10, Godfrey Road, Newport
Morgan, Rees, Esq., 214, Chepstow Road, Newport
Muir, D. C., M.D., Cwmtillery
Mulligan, J. W., M.D., Abersychan
Murphy, W. E. C., M.B., Cwmbran R.S.O.
Neilson, R. A., M.B., 178, Corporation Road, Newport
Nelis, W. F., M.D., Newport Borough Asylum, Caerleon
Neville, J. F., Esq., 179, Commercial Road, Newport
O'Donovan, T. J., Esq., Blaina
O'Keeffe, J., Esq., Rose Cottage, Griffithstown, Newport
O'Sullivan, J. D., Esq., Aberbeeg
O'Sullivan, John, Esq., Cwm
Paton, R. J., M.D., 16, Cardiff Road, Newport
Pritchard W. L., M.B., The Hermitage, Brynmawr
Prosser, T. G., Esq., Chippenham House, Monmouth
Redwood, T. H., M.D., Rhymney
Reidy, Charles, Esq., 2, Capel Street, Bargoed
Richards, D. T., M.D., The Meadows, Cross Keys
Robathan, G. B., Esq. Risca
Roberts, R. E., M.B., Ynysddu
Ryan, Edmond, Esq., Crumlin
Sargent, W. G., Esq., The Limes, Abertillery, Newport
Sheehy, Michael, Esq., Hollymount, Brynmawr
Shoolbred, W. A., Esq., St. Ann's, Chepstow
Sievwright, H. G., Esq., County Asylum, Abergavenny
Skrimshire, C. P., Esq., Blaenavon
Smith, L. C., Esq., Oak House, Monmouth
Smith, P., Esq., Sirhowy, Tredegar
Steel, S. H., M.B., Abergavenny
Steel, W. D., M.D., Abergavenny
Steele, E. Y., Esq., Thornbury Villa, Abergavenny
Sullivan, T. D., Esq., Six Bells, Aberbeeg
Tatham, A. L., M.B., Castle Street, Abergavenny
Thomas, Daniel J., Esq., Bargoed
Thomas, Evan, M.D., Newbridge
Thomas, Garrod, M.D., 25, Clytha Park, Newport
Thomas, D. E., Esq., Chepstow Road, Newport
Thomas, J. Lewis, Esq., Queen Street, Brynmawr
Thomas, T. M., M.D., 5, Faulkner Road, Newport
Tonks, A. E., Esq., 39, Corporation Road, Newport
Vines, C. S., Esq., Newport
Wade, N. N., M.D., Risca
Williams, H. E., Esq., The Mount, Newport
Wilson, Wilfrid, M.D., Garndiffaith, Pontypool

No. 3.–North Glamorgan and Brecknock

Numbering 78.

Chairman, T. W. Parry, Esq., Ferndale
Vice-Chairman, J. Shaw Lyttle, M.D., Pontypridd
Honorary Secretary, Evan N. Davies, Esq., Pen-y-graig, Rhondda Valley
Representative far Representative Meeting, W. E. Thomas, M.D., Ystrad-Rhondda

Representatives on Branch Council.
Lewis, B. M., Esq.
Morgan, D. N., Esq.
Ward, J. L. W., Esq.

Executive Committee.
Biddle, C., Esq.
Cochrane, C. E., M.B.
Finney, T., Esq.
Jones, Ll., Esq.
Jones, R. W., M.D.
Joyce, R. C., M.D.
Rhys, W. Ll., Esq.
Thomas, W. E., M.D.
Weichert, C. J., Esq.

Armstrong, G. W., Esq., Gilnockie, Treorchy
Armstrong, J. R., M.D., Treorchy, R.S.O.
Ashton, Joseph, Esq., Pontypridd
Banks, I. L., M.B., Aberdare
Biddle, C., Esq., Merthyr-Tydvil
Brennan, J. J., Esq., New Road, Dowla's
Cochrane, C. E., M.B., Penbryn, Porth
Cresswell, S. C., Esq., Dowlais
David, W. W., Esq., Llwynypia, Rhondda Valley
Davies, D., Esq., Bryngolwg, Aberdare
Davies, E. N., Esq., Pen-y-graig, Rhondda Valley
Davies, I. H., Esq., Porth, Pontypridd
Davoren, A. J., M.B., Penydarren Surgery, near Merthyr
Dawkin, G. M., Esq., Gelliwastad Road, Pontypridd
Draffin, D. K., Esq., Nixon Villa, Merthyr Vale
Duncan, Alex., M.B., 2, Park Terrace, Merthyr Tydfil
Edwards, J. C., Esq., 1, Bridge Street, Merthyr Vale
Evans, E. P., Esq., Duffryn Ffrwd, Mountain Ash
Finney, T., Esq., Ty-Uchaf, Aberaman, Aberdare
Francis, G. B., Esq., Brecon
Fry, W. W. B., M.B., Tynyberllan, Builth Wells
Grant, J. W. G., Esq., The Hall, Llanwrtyd Wells, Brecon
Greenwood, C. H., F.R.C.S., 68, Bute Street, Treherbert
Griffith, A. J., Esq., Abercynon, Glamorgan
Griffiths, D. R. T., Esq., County Infirmary, Brecon
Howells, W., M.B., Walton House, Brecon
Hughes, H. L., Esq., Dowlais
Jeffreys-Powell, J. P., Esq., Senny Bridge, near Brecon
Jenkins, J. D., Esq., Pentre
Jones, A. T., Esq., Pryce Street, Mountain Ash
Jones, C. M., Esq., Troedyrhiw
Jones, D. T., Esq., 12, Clifton Crescent, Aberaman
Jones, Evan, Esq., Ty-mawr, Aberdare
Jones, E. J. T., M.D., Ty-mawr, Aberdare

Jones H. D., Esq., Melbourne House, Mountain Ash
Jones, M. L., Esq., 2, Victoria Square, Aberdare
Jones, R. Gabe, Esq., Llantwit Villa, Clydach Vale
Jones, R. W., M.D., Tan-y-Bryn, Penrhiwceiber, S.O.
Jones, S. C., M.D., 26, Victoria Street, Merthyr Tydvil
Jones, W. B., M.D., Llangammarch Wells
Jones, W. Llewellyn, Esq., 58, Thomas Street, Merthyr
Joyce, R. C., M.D., Porth, near Pontypridd
Lewis, B. M., Esq., Pontypridd
Lewis, L. H., Esq., Tyn-y-waun, Porth
Llewellyn, T. L., M D., 1, Bailey Street, Ton Pentre
Llewellyn, T. R., Esq., Penygraig, Rhondda Valley
Lyttle, J. Shaw, M.D., Cilfynydd, Pontypridd
McGhie, R., M.D., Abercanaid, near Merthyr Tydvil
Morgan, D. N., Esq., Gilfach Goch
Morgan, L. W., M.D., J.P., Hafod Fawr, near Pontypridd
Morgan, R. D., Esq., Ynys-y-bwl, Pontypridd
Morgan, T. L., M.B., Tywern, Clydach Vale Rhondda Valley
Morris, I. Llewellyn, Esq., Abercynon
Morris, S. Glanville, M.D., Myrdtin House, Mardy
Morris, T. H., M.B., Tylorstown, near Pontypridd
Munro, R. H., Esq., Tonyrefail
Murphy, P. J., Esq., St Cloud, Cwmbach
Parry, T. W., Esq., Ferndale
Phillips, E. L., M.B., Brynawel, Ystrad
Powell, Rhys, Esq., Brecon
Price, J. T., M.D., 169, Gelli Road, Ton Pentre
Rees, D. V., Esq., Brecon
Rees, J. Morgan, Esq., 4, Gelliwastad Road, Pontypridd
Rees, W. T., Esq., Bank House, Builth Wells
Rhys, W. Ll., Esq., Aberdare
Roberts, L., M.D., The Field, Pontypridd
Scale, T. W., M.D., Gloster House, Aberdare
Thomas, I. G., M.B., Hirwain
Thomas, J. M., M.B., Heullan House, Merthyr Tydvil
Thomas, R. F., Esq., Hillside, Cwmaman
Thomas, W. E., M.D., Llwysgraig, Ystrad-Rhondda
Tribe, A. G., Esq., Maesyffrwd House, Treorchy
Walters, J., Esq., Station Terrace, Bedlinog
Ward, J. L. W., Esq., Glasdir, Merthyr Tydvil
Watkins, W. R. Spencer, M.B., Pen-y-graig
Webster, J. T., Esq., Brynglas, Merthyr Tydvil
Weichert, C. J., Esq., Penygraig
White, C. R., Esq., Nixon Villa Merthyr Vale

No. 4.–South-West Wales Division

NUMBERING 77.

Chairman, Owen Williams, Esq., Burry Port

Vice-Chairman, E. Goodall, M.D., Carmarthen

Honorary Secretary and Treasurer, J. E. P. Davies, M.B. Castle Hill, Llanelly.

Representatives on Branch Council.

Price, D. R., M.B.
Williams, D. J., F.R.C.S.
Williams, O., Esq.

Executive Committee.

Cooke, T. A. B., Esq.
Davies, J. L., Esq.
Hopkins, R., Esq.
Hughes, D. A., Esq.
Phillips, D., Esq.
Powell, J., Esq.
Price, R. G., M.D.
Roderick, S. J., M.B.
Williams, E. R., Esq.

Representative for Representative Meeting, D. J. Williams, F.R.C.S., Llanelly

Bonsall, G. R. E., Esq., Edleston House, Queen's Road Aberystwyth
Brigstocke, C. A., Esq., Haverfordwest
Brookes, A. E., Esq., Coldstream Street, Llanelly
Cooke, T. A. B., Esq., Picton Terrace, New Milford
Davies, E. C., Esq., High Street, Lampeter
Davies, J., Esq., Tanyfron Villa, Aberayron
Davies, J. E. P., M.B., Llanelly
Davies, J. L., Esq., Avenue Villas, Llanelly
Edwards, R. T., Esq., Aberystwith Infirmary, Cardigan
Evans, A., Esq., Lampeter
Evans, E., M.B., Llanelly
Evans, E. R., Esq., Llandyssul
Evans, J. R., Esq., Cartref, Narberth
Evans, R. D., Esq., Dale House, Llandilo
Evans, T., M.D., Park House, Newquay
Evans, W. C., M.B., Saundersfoot
Goodall, E., M.D., Joint Counties Asylum, Carmarthen
Griffith, W. S., M.B., Milford Haven
Griffiths, E. H., Esq., Mayfield, Lampeter
Griffiths, T. R., Esq., Hen Blas, Kidwelly
Hamilton, J. B., Esq., Tenby
Hardcastle, A. H., Esq., Park Villas, Elkington Road, Burry Port
Harris, David, M.B., 39, King Street, Carmarthen
Havard, D., M.D., Newport, Pem., R.S.O.
Hawkes, A., Esq., Brig-y-don, Parrog, Newport, Pem.
Hopkin, Richard, Esq., Llangadock
Howells, J., Esq., Trimsaran, near Kidwelly
Hughes, D. A., Esq., Greenlands, Ammanford
James, J., Esq., Y. Fagwyr, Llanfihangel
James, W. T., M.B., Ty Nant, New Quay
John, H., M.B., Llangennech
Jones, C. G., Esq., 37, High Street, Cardigan
Jones, Evan, Esq., Llanybyther
Jones, John H., Esq., Buttrells, Llanfihangel
Jones, V. Ll. W., Esq., St. Clears
Knowling, E. M., M.B., Tenby
Lewis, B. A., Esq., Hafren Hall, Mydrim, St. Clears
Lewis, J., Esq., Llanon, near Aberystwith
Lewis, J. W., Esq., Bynaman
Lloyd, D., Esq., Newcastle Emlyn
Lloyd, D. G., Esq., Newcastle Emlyn
Lloyd, E., M.B., Llys Eivan, Tregaron
Lloyd, M., M.D., Vale Villa, Llanarthney
Lloyd, P. A., Esq., 6, Victoria Place, Haverfordwest
Mathias, C. D., M.B., North Cliff House, Tenby
Mills, Y. H., M.B., 37, High Street, Haverfordwest
Morgan, J., Esq., Pontrhyd-y-Groes, Aberystwith
Morgan, M. J., Esq., 35, North Parade, Aberystwith
Morgan, T., Esq., Garnant, R.S.O.
Nicholl, E. E., Esq., Old Bank House, Milford Haven
Parry, C. P., M.D., Castle Hill House, Carmarthen
Phillips, David, Esq., 3, Bank Terrace, Llandilo
Phillips, John, Esq., Danygraig, St. Clears
Powell, J., Esq., Adpar, Newcastle Emlyn
Price, D. R., M.B., Ammanford
Price, R. G., M.D., 144, Priory Street, Carmarthen
Reid, D. A., M.D., 12, The Norton, Tenby
Roberts, Henry H., M.B., Greenfield, Llanelly
Roderick, S. J., M.B., Llanelly
Rosser, J. R., M.D., Violet Cottage, Llandovery
Simon, D. A., M.B., Plas Cwmtwrch, Nantgaredig
Stephens, J. W., Esq., Tymawr, Cardigan
Style, A. H., M B., Pembroke
Thomas, A., M.B., 22 North Parade, Aberystwith
Thomas, E. C., M.D., Pantllyn, Llanybyther, R.S.O.
Thomas, R. L., Esq., Hillside, Whitland
Thomas, T. P., Esq., 32, North Parade, Aberystwyth
Wall, W. B., Esq., Pembroke
Williams, D. J., F R.C.S., Greenfield House, Llanelly
Williams, D. L., Esq., Ferryside
Williams, D. Owen, M.B., Cletwr Hall, Glandovey
Williams, E. R., Esq., 36, Spilman Street, Carmarthen
Williams, J. T. C., Esq., Whitland
Williams, Owen, Esq., Burry Port
Williams, S., M.D., Llanelly
Williams, W. R. E., M.B., Harlech House, Pembroke
Williams, W. W., Esq., Glendower House, St. Davids

No. 5.–Swansea Division

NUMBERING 81.

Chairman, H. A. Latimer, M.D., Swansea

Vice-Chairman, D. A. Davies, M.D., Swansea

Honorary Secretary and Treasurer, A. Hanson, Esq., 10, Cleveland Terrace, Walter Road, Swansea

Representative for Representative Meeting, H. A. Latimer, M.D., 4, Belvoir Place, Swansea

Representatives on Branch Council.

Brook, W. F., Esq.
Lancaster, E. LeC., M.B.
Veale, F. J. de C., M.B.

Executive Committee.

Davies, R., M.D.
Elsworth, R. C., M.D.
Griffiths, T. Druslyn, M.D.
Jones, J. Arnallt, M.D.
Lewis, Llewellyn, Esq.
Thomas, Frank G., M.B.

Anderson, C. S., M.B., 15, De la Beche Street, Swansea
Begg, A. C., M.D., Lismore, Walter Road, Swansea
Brice, Ernest, Esq., Landore, Swansea
Brook, W. F., Esq., Longland House, Swansea
Cameron, A. W. C., M.B., Northampton House, Swansea
Charles, H., Esq., 82, St. Helen's Road, Swansea
Dahne, Constant G. L., Esq., Pontardawe, R.S.O.
Davies, D. A., M.B., Northampton House, Swansea
Davies, D. Ll., M.B., Neath
Davies, Ebenezer, Esq., Swansea
Davies, H. Collin, M.D., Cwmavon, Port Talbot
Davies, Joseph, Esq., Long Ash, Bishopston, Glam.
Davies, J. D., M.B., 1, Trinity Place, Swansea
Davies, R., M.D., 18, Northampton Place, Swansea
Davies, T. G., Esq., Manselton, Swansea
Davis, A. C., Esq., The Woodlands, Gowerton
Dayman, B., Esq., 3, Rose Hill, Swansea
Dykes, J. S., Esq., Glynneath, Neath
Edwards, D. R., Esq., 89, King Edward's Road, Swansea
Elsworth, R. C., M.D., 203, St. Helen's Road, Swansea
Evans, D. E., M.D., Brunswick Villas, St. Helen's Road, Swansea
Evans, John, Esq., Pagefield House, Swansea
Evans, E. B., Esq., St. Thomas, Swansea
Evans, E. G., Esq., 8, Somerset Place, Mumbles
Evans, W. Owen, Esq., Pontardawe
Gabe, J. B., Esq., Morriston, Swansea
Griffiths, D., M.B., Pontardulais
Griffiths, G., Esq., Pontardawe, Swansea
Griffiths, T. Druslyn, M.D., Druslyn, Swansea
Griffiths, Wm. C., Esq., Bryn House, Pontardulais
Griffiths, W. L., Esq., Druslyn, Swansea
Hanson, A., Esq., 10, Cleveland Ter., Walter Rd., Swansea
Harry, W. B., M.B., Oak Villa, Briton Ferry
Hughes, D. J., M.B., Burry House, Penclawdd
Hughes, E. B. H., Esq., The Workhouse, Swansea
Humphreys, W. C., Esq., Northampton Lodge, Swansea
Isaac, R. J., Esq., Derlwyn, Pontardulais
John, Thomas, Esq., 14, Grove Place, Swansea
Jones, A. Ll., Esq., Glyn-cerrig, Mumbles
Jones, John, M.D., Pen-y-bank House, Clydach, Swansea
Jones, J. Arnallt, M.D., Heathmont, Aberavon, Port Talbot
Jones, J. Havard, M.B., St. John's Road, Clydach
Jones, J. Lewis, M.B., Church Rd., Llansamlet, nr. Swansea
Jones, R. N., Esq., Preswylfa, Swansea
Jones, T. M., Esq., Kilby House, Loughor
Kemp, Charles, M.B., The Elms, Morriston
Knight, F., M.D., 1, Walter Road, Swansea
Lancaster, E. Le C., M.B., Winchester House, Swansea
Latimer, H. A., M.D., 202, St. Helen's Road, Swansea
Lewis, Llewellyn, Esq., Maesyrhaf, Neath
Marks, L. Freeman, M.B., Bryn-Haulog, Mumbles, R.S.O.
Marshall, James, M.B., 16, Pontyla, Aberavon
Mitchell, Trafford, M.D., Gorseinon
Morgan, E. Rice, Esq., Morriston, R.S.O.
Morgan, W., Esq., 9, Somerset Place, Swansea
Morris, J. M., M.B., Orchard Place, Neath
Nunes, H. F. S., Esq., Normanhurst, Mumbles
O'Sullivan, M., Esq., Alexander House, Swansea
Owen, John, M.D., Cwm Twrch, Swansea
Pegge, E. V., Esq., Briton Ferry
Perkins, Alfred Ll., Esq., Ael-y-Bryn, Sketty
Powell, T. M. J., M.B., Hafod, Swansea
Prichard, R. D., Esq., Resolven, Neath
Rawlings, H. E., Esq., 3, Northampton Gardens, Swansea
Rawlings, J. A., Esq., Sketty, R.S.O.
Rees, J. Ll., Esq., Pontardawe
Reid, Elgar, Esq., 200, St Helen's Road, Swansea
Richards, A. F. B., M.B., 5, Cleveland Terrace, Walter Road, Swansea
Roberts, J. S. H., Esq., Picton Villa, Swansea
Samuel, David, Esq., 81, New Road, Skewen
Stephens, G. A., M.D., 16, Walter Road, Swansea
Thomas, D., M.D., Ystalyfera, Swansea
Thomas, F. G., M.B., 63, Walter Road, Swansea
Thomas, H. H., Esq., Bryn Villa, Brynhyfryd
Thomas, Jabez, Esq., Tyberrig, Swansea
Thomas, J. W., Esq., The Wern, Neath
Veale, F. J. de C., M.B., Glyn Eithin, Mumbles
Whittington, T. P., Esq., Tfrwd Vale, Neath
Williams, John Henry, Esq., Devonshire Place, Aberavon, Port Talbot
Williams, M. W., Esq., 18, Pentreporth Rd., Morriston, R.S.O.
Wooding, W. B., Esq., Sunnyside, Porthcawl

SOUTH-WESTERN BRANCH

District comprising DEVONSHIRE and CORNWALL

RECOGNISED 1840.

Members of Branch–422.

President, G. JACKSON, F.R.C.S., Plymouth

President-elect, E. J. DOMVILLE, Esq., Exeter

Vice-Presidents:

R. H. CLAY, M.D.
H. DAVY, M.D.
J. D. HARRIS, M.D.
C. A. HINGSTON, M.D.
L. MACKENZIE, Esq.
H. M. MONTGOMERIE, M.D.
J. B. MONTGOMERY, M.D.
W. NETTLE, Esq.
W. POWELL, M.B.
E. J. SLADE-KING, M.D.
W. P. SWAIN, Esq.
G. THOM, Esq.
D. THOMPSON, Esq.
W. F. THOMPSON, M.D.
L. H. TOSSWILL, M.B.

Honorary Secretary and Treasurer, G. YOUNG EALES, Esq., 1, Matlock Terrace, Torquay

Representatives on Council of Association,
E. J. Domville, Esq., Northernhay House, Exeter
E. L. Fox, M.B., 9, Osborne Place, Plymouth

Branch Council.

Beesley, C., Esq.
Coombe, R., Esq.
Deas, P. M., M.B.
Doubavand, E. J., Esq.
Gordon, W., M.D.
Gough, J. Harley, M.D
Hayward, Arthur E., Esq.
Kendle, F. W., Esq.
Leon, G. A., M.B.
Nettle, W., Esq.
Pethybridge, W. L., M.D.
Ratcliff-Gaylard, J., M.D.
Smyth, T. E., M.D.
Somer, J., Esq.
Stephens, R. F., Esq.
Toye, E. J., M.D.
Turner, A., M.D
Vickers, C. W., Esq.
Walker, J. C., Esq.

No. 1.–Barnstaple Division

NUMBERING 39.

Chairman, E. J. Toye, M.D., Bideford

Vice-Chairman, J. Tucker, Esq., Chulmleigh

Honorary Secretary and Treasurer, Ellis Pearson, Esq., Strand House, Bideford

Executive Committee.

Cooke, J. W., Esq.
Macindoe, J. G., M.B.
Norman, J. H., Esq.
Slade-King, E. J., M.D.
Smyth, H. J., Esq.
Valentine, W. A., M.D.

Representative for Representative Meeting, J. Miller, Esq. 14, East Southernhay, Exeter

Representatives on Branch Council.

Kendle, F. W., Esq.
Toye, E. J., M.D.

Ackland, C. K., Esq., Bideford
Allen, Humphrey, Esq., Alma Cottage, Morchard Bishop
Atkinson, J. P., Esq., Lynton, R.S.O.
Baty, P. P., Esq, Avondale, Westward Ho
Cardozo, S. N., L.R.C.P., Freynes House, North Molton
Cooke, J. W., Esq., Barnstaple
Cornhill, J., Esq., Lyncott, St. Brannocks Road, Ilfracombe
Emtage, E. W., Esq., Bradworthy
Francis, J. E, Esq., Charlcote, Northam
Gardner, E. F., Esq., Watersmeet, Ilfracombe
Gooding, M. R., Esq., 11, Bridgeland Street, Bideford
Grose, J. S., Esq., The Woods, Bideford
Harper, J. R., Esq., Barnstable
Harper, W. J., Esq., Westmead, Braunton
Hobling, J. H., Esq., Hartland, Bideford
Jonas, H. C., M.B., Bear Street, Barnstaple
Kendle, F. W., Esq., South Molton
Kettlewell, G. D., Esq., Capstone Lodge, Ilfracombe
Leach, R. E. H., M.B., The Firs, Witheridge
Langridge, F. J. W., Esq., Ilfracombe
Macindoe, J. G., M.B., Torrington
Manning, F. B., Esq., Medina Cottage, Pilton, Barnstaple
Manning, N. S., Esq., Middleton, Combe Martin
Morris, Mary E. H., M B., N. Devon Infirmary, Barnstaple
Norman, J. H., Esq., Winkleigh
Parsons, H. Compton, Esq, Castle House, Torrington
Pearson, Ellis, Esq., Strand House, Bideford
Roston, H., M.D., Ashford, near Barnstaple
Richardson, T. A., Esq., Park House, Combe Martin
Siddall, J. B., M.D., Conybeare, Northam, R.S.O., Bideford
Slade-King, E. J., M D., Bickleighscombe Down, Ilfracombe
Smyth, H. J., Esq., New Road, South Molton
Tate, J. J., Esq., Bideford
Thompson, C. S., M.D., The Quay, Bideford
Toller, C. W. E., M.D., Castle House, Ilfracombe
Toye, E. J., M.D., Stanhope, Bideford
Tucker, J., Esq., Chulmleigh
Valentine, W. A., M.D., Appledore
Walker, R., Esq., Clovelly, Bideford

No. 2.–Devonport Division

NUMBERING 67.

Chairman, F. E. Row, Esq., Devonport

Vice-Chairman, George Brown, Esq., Callington

Honorary Secretary,

Representative for Representative Meeting, W. Hammond Esq., Stuart House, Liskeard

Representatives on Branch Council.

Nettle, W., Esq.
Smyth, T. E., M.D.

Adams, A., M.B., Bridgend, W. Looe
Ash, T. L., Esq., Penroses, Holsworthy
Atkins, S. E., Esq., Montague House, Hatherleigh
Baber, H. A., Esq., Bere Alston
Benson, C. R., Esq., Lew Down
Bowhay, A., M.D., Gunnislake, near Tavistock
Braund, A. M., Esq., Hillside, Stratton
Brown, George, Esq., Callington, R.S.O.
Burd, G. V., Esq., Okehampton
Candler, G., Esq., Black Torrington
Cheves, J. T., Esq., Milbrook
Childs, Christopher, M.D., Boscarn, Looe
Clarke, A. B., Esq., Shebbear
Cole, W. R. N., M.D., St. Tudy, R.S.O.
Collings, D. W., M.B., North Tawton
Crowe, H. W., M.D., Homeleigh, Yelverton
Cutcliffe, M., Esq., North Tawton
Davis, H., M.D., Callington
Deacon, Mary A. S., M.B., Tor View, Yelverton, R.S.O.
Dingle, H., Esq, Laurel Cottage, Tintagel
Dodgson, Henry, M.D., Broad Street, Launceston
Down, Elgar, Esq., Wingfield House, Stoke, Devonport
Dyer, S. R., Esq., Medical Officer H.M. Prison, Dartmoor
Eden, W. A., Esq., Wadebridge
Forward, F. E., Esq., Princetown
Gard, W. J., Esq., Stoke, Devonport
George, R. J., M.D., Port Isaac
Gill, J. W., Esq., St. Germans
Gould, J., Esq., Hatherleigh
Gray, W., Esq., Holsworthy
Grenfell, H. O., Esq., Rose Hill, Saltash
Hammond, W., Esq., Stuart House, Liskeard
Hanham, L. L., Esq., 1, Trafalgar Place, Stoke, Devonport
Harman, G. R, Esq., Fairfield, St. Germans
Harvey, F., Esq., Rosehill Cottage, Padstow
Hingston, R., Esq., Liskeard
Honey, T. E, M.D., Staff Surgeon R.N. (ret.), 12, Tamar Terrace, Stoke, Devonport
Jackson, W. Roy, M.B., Pendowrie, Liskeard
King, J. Esq., Stratton
King, T. A., Esq, 1, Belle Vue, Bude
Kingdon, E. O., Esq., Holsworthy
Lander, C. L., Esq., 7, Molesworth Terrace, Stoke
Lawrence, H. Cripps, M D., Rahere, Tavistock
Marshall, L. R., Esq., Black Down, Mary Tavy
Martin, J. N., Esq., Caseytown, Tavistock
Milton, J. Penn, Esq., 3, Moorland Villas, Yelverton R.S.O.
McCulloch, Edward, M.B., Rodney Terrace, Stoke
Musgrave, Cecil, B. T., M.D., Lifton
Nettle, W., Esq., Liskeard
Pearse, E. M., Esq., 2, Varley Terrace, Liskeard
Preston, G., Esq., Saltash
Rae, G. A., Esq., Stoke, Devonport
Rider, A. G., M.B., 16, Garfield Terrace, Stoke, Devonport
Row, F. E., Esq., Tamar Terrace, Devonport
Rutherford, R. H. N., Esq., 19, Home Park, Stoke Devonport
Ryan, R. P., Esq., Devonport
Samuel, J. A., M.D., North Hill House, Torpoint, Devonp't
Sandford G. C., M.D., 1, Collingwood Villas, Devonport
Smith, A. C. F., Esq., St. Budeaux
Smyth, T. E., M.D, 3, Abbeymead, Tavistock
Spearman, B., M.B., Briar Tor, Yelverton
Tatham, C. J. W., Maj., R.A.M.C., Stoke Cottage, Devonp
Thom, G., Esq., 1, Clarendon Terrace, Devonport
Thompson, D., Esq, Launceston
Thompson, W. F., M.D., Penquite, Launceston
Wade, C., Esq., Tolcarne, Boscastle
Watt, J. L., M.B., Millbrook, Plymouth

No. 3.—Exeter Division

Numbering 89.

Chairman, J. Somer, Esq., Exeter

Vice-Chairman,

Honorary Secretary, J. Miller, Esq. 14 East Southernhay, Exeter

Representative for Representative Meeting, J. Miller, Esq., 14, East Southernhay, Exeter

Representatives on Branch Council.

Beesley, C., Esq.
Coombe, R. Esq.
Leon, G. A., M.B.
Somer, J., Esq

Ackland, J. M., Esq., 1, Barnfield Crescent, Exeter
Alleyne, E. F. M., Esq., High Street, Cullompton
Andrew, H., Esq., 10, East Southernhay, Exeter
Andrews, R. J., Esq., Heavitree, Exeter
Ashford, W., Esq., Riversmeet Terrace, Topsham
Bartlett, F. P., Esq., Raleigh House, Ottery St. Mary
Baskin, J. L., Esq., The County Asylum, Exminster
Beesley, Clarence, Esq., Exeter Road, Exmouth
Bell, C. E. W., Esq., 17, West Southernhay, Exeter
Bird, A. C., Esq., Old Hayes, Sidmouth
Child, H., Esq., 34, Southernhay East, Exeter
Churchill, A. L. M., Esq., Wonford House, Exeter
Clapp, G. T., M.B., Exeter
Cock, J., Esq., 17, Morton Crescent, Exmouth
Coombe, R., Esq., 5, Barnfield Crescent,, Exeter
Cosens, F. R. S., Esq., Brookfield, Colyton
Crooks, James, Esq., Castle Hill House, Axminster
Cullen, R. B., Esq., Fore Street, Tiverton
Date, W. H., Esq., Culmstock
Davis, A. N., Esq., Devon Co. Asylum, Axminster
Davy, H., M.D., Southernhay House, Exeter
Deas, P. M., M.B., Wonford House, Exeter
De Denne, T. V., Esq., Sidlands Lodge, Sidmouth
Domville, E. J., Esq., Northernhay House, Exeter
Down, A. R., Esq., Winslade, Bampton
Downing, G. W., Esq., Devon County Asylum, Exminster
Duncan, T., M.B., 94, Sidwell Street, Exeter
Dyball, B., M.B., 47, Queen Street, Exeter
Eames, E. S. B., Esq., Lambscroft, Uffculme
Eaton, O., Esq., Exmouth
Evans, E., Esq., Elmfield, Crediton
Evans, G. E. A., Esq., Seaton
Evans, T. G. C, Esq., Budleigh-Salterton
Evans, W. H., Esq., Colyton
Farrant, Mark, Esq., Beaufort House, St. Thomas, Exeter
Fenwick, C., M.D., Dunsford, Exeter
Fielding, A. Leslie, Esq., Mill Street, Ottery St. Mary
Fitzsimons, J. B., M.D., The Cottage, Lympstone
Frood, J. N., Esq., Topsham
Gidley, G. G., Esq., Cullompton
Goard, T. A. Esq., 28, West Southernhay, Exeter
Gordon, W., M.D., 3, Barnfield Crescent, Exeter
Goulden, H. E., Esq., Clyst Hydon, Exeter
Hanna, G. H., M.B., Alma House, Exmouth
Harris, J. D., Esq., 45, Southernhay, Exeter
Haycroft, C. H., Esq., Fair Park, Bow
Hedden, R., Esq., Plympton House, Honiton
Langran, W., Esq., Axminster
Leon, G. A., M.B., Hillston, Sidmouth
Lipscomb, E. R. S., Esq., Starcross
Macindoe, A., M.D., High Bank, Sidmouth
Mackenzie, L., Esq., Tiverton
Marshall, C. de Z., Esq., Pynes, Thorverton
Miller, John, Esq., 14, East Southernhay, Exeter
Miller, G. W., Esq., Pinhoe
Mortimer, J., M.B., 6, Northenby Place, Exeter
Muir, D. K., Esq., Earlsland, Bradninch
Paine, H., Esq., Bampton
Pereira, J. A. W., M.D., 3, Northernhay Place, Exeter
Pickard, R., M.D., 31, East Southernhay, Exeter
Pollock, J. R. R., Esq., Bampton Street, Tiverton
Powne, L., Esq., 52, High Street, Crediton
Pullin, T. H. S., M.D., Sidmouth
Reynolds, F., M.B., Mill Street, Ottery St. Mary
Rogers, H. C., Esq., Tedstone House, Lympstone
Roper, A. C., Esq., The Shrubbery, Exeter
Sandoe, J. W., M.D., Broadclyst
Sayres, A. W. Fortescue, M.D., St. Andrew's, The Barnfield, Exeter
Scanlan, J., M.B., Lt.-Col. (ret. A.M.S.), Kerswell, Broadclyst
Semple, H. F., Esq., Budleigh Salterton
Shapland, J. D., senr., Esq., Burnside, Exmouth
Smith, R. Wagstaff, Esq., Mount Rundell, Douglas Avenue, Exmouth
Solly, R. V., M.D., 40, West Southernhay, Exeter
Somer, J., Esq., Old Tiverton Road, Exeter
Steele-Perkins, E. B., Esq., 3, Wilton Pl., St. Sidwells, Exeter
Stirk, P. H., Esq., Devon, Exeter Hospital, Exeter
Stokes, C. E., Esq., St. Thomas, Exeter
Storrs, C. S., M.D., Budleigh Lodge, Exmouth
Thomas, J. R., M.D., Exeter
Thomas, R. S., M.D., 5, Carlton Hill, Exmouth
Thornton, G. L., Esq., 3, The Beacon, Exmouth
Tonge, E., M.B., Ellesmere, Beer, Axminster
Tosswill, L. H., M.B., 34, West Southernhay, Exeter
Tosswill, Leonard R., Esq., 34, West Southernhay Exeter
Tracey, H. E., M.B., The Gables, Willand, Collumpton
Tweed, E. R., M.D., Pembury, Fort Cross, Honiton
Weekes, F. H., Esq., Seaton Beach Hotel, Seaton
Welsford, G. F., M.B., 22, St. Peter Street, Tiverton
Wreford, H., Esq., Denmark Road, Exeter

No. 4.—Plymouth Division

Numbering 68.

Chairman, E. L. Fox, M.D., Plymouth

Vice-Chairman,

Honorary Secretary, H. W. Webber, M.D., 4, Queen Anne Terrace, Plymouth

Representative for Representative Meeting, George Jackson, F.R.C.S., 10, Portland Villas, Plymouth

Representatives on Branch Council,

Donbavand, E. J., Esq.
Pethybridge, W. L., M.D.
Turner, A., M.D.

Aldous, G. F., Esq., Chorlton Ho., Mannamead, Plymouth
Aldridge, C., M.D., Plympton
Andrews, W. H., Esq., 22, Brownston Street, Modbury
Bale, Rosa E., L.R.C.P., 24, Portland Square, Plymouth
Bate, George, Esq., Lipson Road, Plymouth
Bean, C. E., Esq., 19, Lockyer Street, Plymouth
Brenton, W. H., Esq., 12, Portland Villas, Plymouth
Burke R. B., Esq. 14, Portland Square, Plymouth
Clay, R. H., M.D. Plymouth
Cooke, C. J., M.D., 1, Sussex Terrace, Plymouth
Cooper, C. E., M.B., Ivybridge
Crossing, A. V., Esq., 3, Hyde Park Road, Plymouth
Cuming, C. H., M.B., Sussex Street, Plymouth
Dawe, J. H., M.B., 2, North Devon Place, Plymouth
Donbavand, E. J., Esq., Plymstock
Durrant, C. E., Esq., Kingsbridge
Eames, W., Fleet-Surgeon, R.N., R.N. Hospital, Plymouth
Elliot, E. A. S., Esq., Woodville, Kingsbridge
Fleming, J. C., Esq., Devon and Cornwall Sanatorium Didworthy, S. Brent
Fox, E. L., M.D., 9, Osborne Place, Plymouth
Francis, J., M.B., Five Field House, Plymouth
Gardiner, J., Esq., 10, Braidwood Ter., Mutley, Plymouth
Gladstone, A. E., Esq., Newton Ferrers, near Plymouth
Gray, H., M.D., Kingsbridge
Hamilton, W. C., M.B., 6, Queen Anne Terrace, Plymouth
Harston, L. de C. E., Esq., Lower Knowle, Kingsbridge
Hill, Rowland, M.D., 12, Ford Park Road, Plymouth
Hingston, C. A., M.D., 3, Sussex Terrace, Plymouth
Hughes, R. H., M.B., Windsor Villas, Plymouth
Jackson, George, F.R.C.S., 10, Portland Villas, Plymouth
Laing, E. A. R., Esq., Stockadon, Loddiswell R.S.O.
Lawday, C. J. R., Esq., Strete, near Dartmouth
Lindsey, C. D., M.D., Blandford Villa, Mannamead, P'mouth
Lucy, R. H., M.B., 9, The Crescent, Plymouth
Mariette, E. P. A., M.B., Ford Park House, Plymouth
May, J. H. S., Esq., Melford House, Plymouth
Miles, H. P., Esq., Modbury
Newbery, W. F. H., Esq., 8, Queen Anne Terrace, Plymouth
Palmer, H. B., Esq., 61, Ebrington Street, Plymouth
Parsloe, H. H., Esq., 5, Buckland Terrace, Plymouth
Pearce, A., Esq., Springfield, Salcombe, R.S.O.
Pethybridge, W. L., M.D. 11, Whitefield Terrace, Plymouth
Prance, C. H. G., Esq., Plympton
Rendle, C. E. R., Esq., 11, Athenaeum Terrace, Plymouth
Rolston, J. R., Esq., 14, The Crescent, Plymouth
Round, John, Esq., 57, Ebrington Street, Plymouth
Scott, S. N., Esq., Eversleigh, Plymstock
Soltau, A. B., M.D., 1, Lansdown Place, Plymouth
Square, J. E., Esq., 22, Portland Square, Plymouth
Stamp, W. D., Esq., Ridgway House, Plympton
Steer, W., Esq., Belle Vue, Salcombe
Style, F. W., Esq., South Brent
Swain, W. P., Esq., The Crescent, Plymouth
Thomson, E. B., M.D., Albany Place, Plymouth
Turner, A., M.D., Plympton House, Plympton
Twining, V. W., M.B., Salcombe, Kingsbridge
Wagner, R. H., Esq., 8, Boons Place, Plymouth
Walters, C. F., Esq., 13, Tothill Avenue, Plymouth
Ward, J. P. S., Esq., 10, Tothill Avenue, Plymouth
Webb, W. H., M.D., Kingsbridge
Webber, H. W., M.D., 4, Queen Anne Terrace, Plymouth
Whiteford, C. H., Esq., 5, Sussex Terrace, Plymouth
Williams, F. M., Esq., 60, Durnford Street, Plymouth
Williams, T. H., Esq., 1, Gibbons Street, Plymouth
Wilmot, P. McK. C., M.B., 6, Sussex Terrace Plymouth
Wilson, W. C., M.D., 7, Wentmorth Villas, Plymouth
Wolferstan, S., Esq., 1, Alton Terrace, Plymouth
Woollcombe, W. L., Esq., 16, The Crescent Plymouth

No. 5.—Torquay Division

Numbering 88.

Chairman, W Odell, M.D., Torquay.

Vice-Chairman J. H. Harris, M.D., Dartmouth.

Honorary Secretary, Griffith C. Wilkin, Esq., Conway House, Paignton

Representative for Representative Meeting, W. Odell, M D., Ferndale, Torquay

Representatives on Branch Council,

Gough, J. Harley, M.D.
Hayward, Arthur E., Esq.
Vickers, C. W., Esq.

Adams, H. C., Esq., 1, Bishop's Place, Paignton
Arnold, G. J., Esq. The Towers, Torquay
Arthur, James, Esq., 5, Seaway Terrace, Paignton
Baker, W. R., Esq., Edginswell House, Edginswell, Torquay
Baxter, C. T., Surgeon R.N. H.M.S. "Britannia," Dartmouth
Bell, W. K., Esq., Shaldon, Teignmouth
Bennett, L. H., M.B., The Elms, Paignton
Black, G., M.B., Chelston, Torquay
Bubb, B., Esq., St. Kilda, Paignton
Burland, J. A., Esq., Ashleigh, Paignton
Cann, F. J. H., Esq., Sefton House, Dawlish
Carver, A. E., M.D., 8, Higher Terrace, Torquay
Chapman, W., M.B., Seymour Lodge, Totnes
Collyer, B. J., Esq., Mayhurst, Paignton
Cook, T. D., M.D., Glendon, Torquay
Cosens, C. H., Esq., Sanclaire, Paignton
Crowdy, F. D., M.D., Belvedere House, Torquay
Culross, J., M.B., Roseneath, Newton Abbot
Cumming, G. W. H., M.D., Overton, Torquay
Davson, F. A., M.D., Mount Galpin, Dartmouth
Dunlop, Thomas, M.B., Cary Park, Babbacombe, Torquay
Eales, G. Young, Esq., 1, Matlock Terrace, Torquay
Edmond, W. R., M.B., Crichel, Totnes
Elliot, R. L., Esq., Tregie, Paignton
Ellis, C. I., M.D., Newcomen Lodge, Dartmouth
Gardner, P. H., Esq., Five Ways, Torquay
Gibson, G. J., M.D. Surg.-Lt.-Col. (ret.), A.M.S., Bridgetown, Totnes
Goodwyn, H., Esq., Bovey Tracey
Gough, J. Harley, M.D., Old Torwood Road, Torquay
Halpin, W. C., Esq., Sorrento, Chelston, Torquay
Harris, J. H., M.D., 5, Victoria Terrace, Dartmouth
Hatfield, J. R., Esq., Kingskerswell
Haydon, E., M.B., Keyberry House, Newton Abbot
Hayward, Arthur E., Esq., Ivy House, Teignmouth
Horton, T., M.D., Abbey Road, Torquay
Hudson, Arthur, Esq., Ingleside, Dawlish
Hunt, A. W. D., Esq., Chagford
Hunt, E., Esq., Harlington, Newton Abbot
Huxley, J. U., M.D., 9, Higher Terrace, Torquay
Johnson, G. H., Esq., 7, Den Crescent, Teignmouth
Johnson, H. S., Esq., Colchester House, Totnes
Jones, W. Makeig, M.D., Torquay
Kendall, W. B., Esq., Kingswear
Lacey, H. K., Esq., Torbay Hospital, Torquay
Lake, W. C., M.D., Teignmouth
Little, F. E., Esq., Oakfield, Teignmouth
Lovely, C. N., M.B., The Knowle, Dawlish
McGachen, F. W. D., M.D., Devonia, Torquay
Mackenzie, H. V., M.D., Torquay
Martin, Charles, M.D., Dagenham House, Newton Abbot
Michelmore, G., Esq., Dulverton, Ruckamore Road, Chelston, Torquay
Moyle, R., Esq., Kingswear
Nall, J. F., Esq., 6, Portland Place, Torquay
Newling, H. T., Esq., Torbay Road, Paignton
Nisbet, A. T., M.D. The Laurels, Newton Abbot
Noble, J. W., M.D., Wray Lodge, Chelston, Torquay
Norman, G. A., M.B., Ipplepen
Odell, W., M.D., Ferndale, Torquay
Palmer, W. P., M.D., Babbacombe, Torquay
Pellier, C. de C., Esq., The Manor House, Abbotskerswell, Newton Abbot
Perks, R. H., M.D., Ferndale, Paignton
Phillpotts, H. McD., Esq., Eastcliff, Babbacombe, Torquay
Powell, W., M.B., Hill Garden, Torquay
Quicke, W. J., Esq., West Hill, Brixham
Scott, W. G., M.B., Newton Abbot
Scrase, J. J. S., Esq., 54, Wolborough St., Newton Abbot
Searle, G. C., Esq., Brixham
Seccombe, Thos., M.D., Deputy Inspector-General, Granville Mansions, Torquay
Smith, A. S., M.B., Dartmoor Sanatorium, Chagford
Smith, G. C., Esq., 14, South Road, Newton Abbot
Smith, K. R., M.D., Rosabelli, Totnes
Soper, G. M., Esq., Prospect House, Dartmouth
Stabb, W. W., M.D., Harleston, Torquay
Steele, W. H., jun., M.B., St. Marychurch, Torquay
Steuart, M. B., Esq., Bovey Tracey
Sykes, W., M.D., Redclyffe Lodge, Paignton
Thistle, F. T., M.D., Clairville, Torquay
Thorne, F. F., Esq., 10, The Green, Shaldon, Teignmouth
Tidswell, H. H., Esq., Khartoum, Sherburn Rd., Torquay
Tripp, C. L. H., Esq., Hill House, Dawlish
Ubsdell, H., Esq., Buckfastleigh
Vickers C. W., Esq., Roseneath, Paignton
Ward, T. H., M.D., 1, Bishop's Place, Paignton
Wheatley, R., Esq., 4, Park Place, Torquay
Wiggin, H. P. V., Esq., The Moorings, Bronshill Road, Torquay
Wilkin, Griffith C., Esq., Conway House, Paignton
Wood, E. S., Esq., Red Mount, Buckfastleigh
Wylie, A. H., M.D., Brooklands, Chagford

No. 6.—Truro Division.

Numbering 71.

Chairman,

Vice-Chairman, J. Ratcliff-Gaylard, M.D., Truro

Honorary Secretary and Treasurer. M. R. Taylor, Esq., Cross Street, Helston

Representative for Representative Meeting. W. Whitworth, Esq., St. Agnes

Representatives on Branch Council.

Ratcliffe-Gaylard, J., M.D.
Stephens, R. F., Esq.
Walker, J. C., Esq.

Anderson, A., Lieut.-Col., R.A.M.C. (R.P.), Kenwyn House, Pydar Street, Truro
Anderson, R. B., Esq., Bodmin
Anderson, W. J., Esq., 21, Meneage Street, Helston
Appleton, H., Esq., The Lizard, Cornwall
Axford, S. B., Esq., 13, Florence Place, Falmouth
Banks, W., M.B., 10, Greenbank, Falmouth
Barry, D. M., Esq., Grampound
Bennett, W. S., Esq., Escot, Penzance
Blamey, J., Esq., Penryn
Bonar, T. M., M.B., Probus
Branwell, C., Esq., 2, South Parade, Penzance
Butlin, C. H., Esq., Camborne
Butler, T. L., Esq., Porthleven
Chown, F., M.B., Townshend, Hayle
Clarke, Huntley, Esq., 65, Lemon Street, Truro
Collier, H., M.D., 61, Morrab Road, Penzance
Cooper, W. H., Esq., Trewellard, Pendeen R.S.O.
Davis, E. S., Esq., Tredenham, St. Blazey
Derry, B. G., Esq., St. Leonard's House, Bodmin
Edwards, E. C., M.D., Shian, Penzance
Edwards, P. H., Esq., Devoran, R.S.O.
Ellis, H. H., Esq., Carbis Water Lelant
Fayrer, Sir Joseph, Bart., M.D., F.R.S., Belfield, Falmouth
Felton, W. B., Esq., St. Newlyn East, Newquay
Forsyth, A., M.B., Woodside, Chacewater
Gardiner, P., M.D., Camborne
Gover, L. D., Esq., Clay Point, Flushing, Falmouth
Gregor, Alexander, M.B., Overdale House, Penryn
Grier, C. W. M., M.B., Mevagissey
Hamilton, James, Esq., Hayle
Hardwick, A., M.D., Newquay
Harris, Lt.-Col. F. W. H. Davie, R.A.M.C., The Elms, Bodmin
Harvey, P. G., M.B., 5, Trewartha Terrace, Penzance
Haughton, J. W., Esq., Grove House, Falmouth
Hichens, F., M.D., Redruth
Hitchins, F. C., Esq., Trevarrick, St. Austell
Hyne, F. A., Esq., St. Mawes, Falmouth
Jago, A. T., Esq., St. Buryan
Laurie, C., M.D., 58, West End, Redruth
Leverton-Spry, E. J., Esq., St. Keverne, Helston
Lindsey-Birchall, H. A., Esq., Vogue House, St. Day, Scorrier
Limont, A. W., M.B., Veryan, Grampound Road
Mackay, J. C., M.D., Melness, St. Columb
Mason, W., Esq., St. Austell
Miller, W. R., M.D., Penzance
Milner, E. A., M.B., Lostwithiel
Montgomerie, H. M., M.D., 5, Clarence Place, Penzance
Montgomery, J. B., M.D., Penzance
Morse, Sydney, Esq., Fowey
Nesbitt, R. G., Esq., St. Just
Olver, R. S., Esq., 13, Truro Road, St. Austell
Owen, J. F. H., Esq., 1, Wodehouse Terrace, Falmouth
Panting, L. C., M.D., 45, Lemon Street, Truro
Pardhy, K. M., Esq., Royal Cornwall Infirmary, Truro
Phillips, H. R., M.B., Alexander Terrace, Penzance
Purser, J. J., M.D., 22, Wodehouse Terrace, Falmouth
Ratcliff-Gaylard, J., M.D., Truro
Richmond, J. R. M., Esq., St. Just, R.S.O.
Sharp, H., M.B., Truro
Shaw, A. M.D., Bodmin Road, St. Austell
Shore, H. G., Esq., Grosvenor Place, Newquay
Stephens, R. F., Esq., St. Austell
Stephens, Wm. J., Esq., Hayne, Newquay
Symons, J., Esq., Penzance
Taylor, M. R., Esq., Cross Street, Helston
Thomas, J. T., Esq., Penvean, Camborne
Tuckey, T. P., M.B., Tywardwreath
Vigurs, C. C., M.D., Newquay
Walker, J. C., Esq., Mevagissey
Whitworth, W., Esq., St. Agnes
Wilson, W. R., Esq., 59, Morrab Road, Penzance

STAFFORDSHIRE BRANCH.

District comprising the County of STAFFORD as far south and east as the boundary marked on the official map.

Members of Branch—195.

Recognised 1874.

President, G. S. Hatton, M.D., Newcastle

President-elect, C. Reid, M.B., Stafford

Vice-Presidents.
F. Milnes Blumer, Esq., Stafford
E. Deanesly, M.D., Wolverhampton

Honorary Secretary, G. Petgrave Johnson, M.D., Stoke-on-Trent

Financial Secretary, John Clare, Esq., Hanley

Representative on Council of Association. W. D. Spanton, F.R.C.S., Hanley

Branch Council

Alcock, R., M.B.
Alcock, S. K., Esq.
Badger, W. S., M.B.
Bailey, T. Ridley, M.D.
Boldero, F., Esq.
Cookson, F. N., M.D.
Hartill, J. T., Esq.
Hind, W., M.D.
Lowe, W. G. M.D.
Malet, H., M.D.
Reid, G., M.D.
Russell, J., M.B.
Stack, G. C., Esq.

Associate Members.

Carter, A. H., M.D., 61, Newhall Street, Birmingham
Heaton, George, M.B., 47, Newhall Street, Birmingham
Phillips, G. A., Esq., 1, Birmingham Road, Walsall
Wilson, Thomas, M.D., 87, Cornwall Street, Birmingham

No. 1.—Mid Staffordshire Division

Numbering 58.

Chairman, W. G. Lowe, M.D., Burton-on-Trent

Vice-Chairman, F. M. Blumer, Esq., Stafford

Honorary Secretary, F. N. Cookson, M.D., , Martin Street, Stafford

Representative for Representative Meeting, W. G. Lowe, M.D., Burton-on-Trent

Representatives on Branch Council.

Boldero, F., Esq.
Reid, G. M. D.
Stack, E. C., Esq.

Executive Committee.

Hartley, H., Esq.
Hunt, C. G., M.D.
Marson, F. H. M.D.
O'Sullivan, H. D., M.D
Spence, J. B., M.D.

Blumer, F. M., M.B., Stafford
Boldero, F., Esq., Penkridge
Bradbury, H. K., Esq., 181, Horninglow St., Burton-on-Trent
Bull, H. A., Esq., Great Haywood
Butter, John K., M.D., Highfield, Cannock
Candler, W. H. C., Esq., 8, High Street, Stone
Chapman, G., Esq., Armitage, near Rugeley
Christie, J. W. S., Esq., County Asylum, Stafford
Clark, J., M.D., 33, Bore Street, Lichfield
Clements, W., M.B., Burton-on-Trent
Cookson, F. N., M.D., 8, Martin Street, Stafford
Cookson, S., M.D., Stafford
Cowie, J. McR., M.D., Town Hall, Burton-on-Trent
Crerar, P., M.B., Tutbury, Burton-on-Trent
Croudace, J. H., Esq., Foregate House, Stafford
Dixon, Thos., Esq., Eccleshall
Dobbs, K. D. B., Esq., Tutbury, Burton-on-Trent
Eden, R. A. S., M.B., Norton Canes
Elliott, G. C., M.B., 115, Wolverhampton Rd., Stafford
Fernie, F. E., Esq., Stone
Fernie, J. F., Esq., The Radfords, Stone
Freer, J. H., Esq., Glan Camlas, Rugeley
Freer, Richard, M.B., Rugeley
Geoghegan, F. J., M.D., Brewood
Gosse, H. W., Esq., Eccleshall
Greaves, C. H., M.D., Eastgate Street, Stafford
Hartley, H., Esq., Stone
Hewson, R. W., Esq., Coton Hill Institution, Stafford
Hines, Arthur, M.B., County Asylums, Stafford
Holford, C. T., Esq., 178, Horninglow Street, Burton-on-Trent
Homan, G. W., Esq., Redcourt, Lichfield
Hunt, E. G., M.D., 21, Foregate Street, Stafford
Lloyd-Williams, R. V., M.B., Sandon, Stone
Lowe, W. G., M.D., Burton-on-Trent
Mander, P. R., M.D., H.M. Prison, Stafford
Marson, F. H., M.D., Eastgate, Stafford
Morgan, H. M., Esq., The Old School House, Lichfield
Nevin, R., M.D., 31, Needwood Street, Burton-on-Trent
O'Sullivan, H. D., M.B., 148, High Street, Burton-on-Trent
Paling, A., M.B., 178, Horninglow Street, Burton-on-Trent
Palmer, A. H., Esq., Barton-under-Needwood
Palmer, C., Esq., Barton-under-Needwood
Reid, C., M.B., 9, Tipping Street, Stafford
Reid, G., M.D., Broc Hill, Stafford
Reid, Wm., M.B., Burntwood Asylum, Lichfield
Rowland, F. M., M.D., 26, St. John Street, Lichfield
Shaw, B. H., M.B., County Asylum, Stafford
Shaw, T. S. S., 11, M.B., The Close, Lichfield
Spence, J. B., M.D., Burntwood Asylum, Lichfield
Stack, E. C., Esq., 257, Branstone Road, Burton-on-Trent
Stanley, John B., Esq., Newton Road, Burton-on-Trent
Steele, R. S., M.B., Gnosall
Thompson, Chas., Esq., Roliston Road, Stapenhill, Burton-on-Trent
Tomkys, L. S., Esq., Westgate Cottage, Lichfield
Turnor, P. W., Esq., Oak Lodge, Penkridge, Stafford
Tylecote, J. H., M.D., Sandon, Stone
Welchman, E. W., Esq., Old College House, Lichfield
Wills, A. T., Esq., The Laurels, Brewood

No. 2.—North Staffordshire Division

NUMBERING 83.

Chairman, J. Clare, Esq., Hanley

Vice-Chairman, S. King Alcock, M.D., Burslem

Honorary Secretary, R. Alcock, M.B., High Street, Hanley

Representative for Representative Meeting, J. Clare, Esq., Hanley

Representatives on Branch Council.

Alcock, S. K., M.D.
Hind, W., M.D.
Russell, J., M.B.

Executive Committee.

Johnson, G. Petgrave, M.B.
List, G. H., M.D.
Parkes, A., Esq.

Adler, M., Esq., 8, St. John's Street, Hanley
Aiken, A., M.B., Fenton, Stoke-on-Trent
Alcock, R., M.B., High Street, Hanley
Alcock, S. K., M.D., Burslem
Allardice, W. C., M.D., King Street, Newcastle
Anderson, T. B., Esq., 21, Copeland Street, Stoke-on-Trent
Aspinall, John, Esq., Ford Green House, Stoke-on-Trent
Bamford, O. R., Esq., St. Mary's Mount, Uttoxeter
Bamford, Thos., Esq., Enville House, Uttoxeter
Bearblock, P. E., Esq., The Lodge, Oakamoor
Broadbent, Sydney S., Esq., 75, Stoke Road, Hanley
Burnett, Reuben, Esq., Market Place, Leek
Byrne, P. J., Esq., Brook House, Chesterton
Carter, G. A., Esq., Stone Hurst, Tunstall
Clare, J., Esq., Hanley
Clifford, F. C. W., Esq., Audley, Newcastle
Covey, W. J., Esq., Ellastone, Ashbourne
Dakeyne, T. E., Esq., Leek
Daly, C. F., M.D., Louisville, Silverdale
Davie, J. A., M.B., 61A, Lichfield Street, Hanley
Dawes, J. W., M.B., St. Helier, Longton
Depree, S. S., M.B., Clerk Bank, Leek
Dickson, R. H., Esq., Nelson Place, Newcastle-under-Lyme
Folker, H. H., Esq., 4, Havelock Place, Shelton
Folker, W. H., F.R.C.S., Hanley
Gibson, W. R., M.B., Cheadle
Goodwin, A., Esq., Hanley
Greenwood, J. W., M.D., Peel House, Hanley
Hall, J. T., Esq., Alton, Cheadle
Harkwicke, L. C. V., M.B., 30, Stockwell Street, Leek
Hartley, Harold, M.D., Basford, Stoke-on-Trent
Hatchell, F. H., Esq., Over House, Burslem
Hatton, G. S., M.D., Newcastle
Hawley, F. H., Esq., 88, Uttoxeter Road, Longton
Hind, W., M.D., Roxeth House, Stoke-upon-Trent
Hindle, J., Esq., 123, High Street, Tunstall
Horner, W. E. L., M.D., Wolstanton, Stoke-on-Trent
Hughes, Robert, M.D., Howan House, Fenton
John, A. H., Esq., Brook Street, Stoke-on-Trent
Johnson, D. J. G., M.B., North Staffs Infirmary and Eye Hospital, Hartshill
Johnson, G. Petgrave, M.D., Stoke-on-Trent
Johnson, J. M., Esq., 31, Ball Heye Street, Leek
Leapingwell, E. J., M.B., Butler's Hill, Cheadle
Lefevre, G. L., M.B., Ashwood House, Longton
Leys, J., M.B., Norton le-Moors
List, G. H., M.D., Cliffe Bank Lodge, Stoke-on-Trent
Longford, John M., Esq., Union Hospital, Stoke-on-Trent
McAldowie, A. M., M.D., Stoke-upon-Trent
McClew, J. C., Esq., Leek
Mackenzie, Ernest, M.D., Daisy Dank, Cheadle
Massingham, J. P., Esq., Wolstanton
Menzies, W. F., M.D., Cheddleton Asylum, Leek
Mott, C. H., Esq., Burslem
Mouat, Janet A. S., M.B., The Hospital, Bucknall, Stoke-on-Trent
Nicholls, H., M.D., 39, Trentham Road, Longton
Parkes, A., Esq., Longton
Parry, F., Esq., Ashley
Partington, W., M.B., Lennox House, Tunstall
Phillips, C. H., M.D., Beechhurst, Hanley
Prendergast, W. D., M.D., Hordley House, Hanley
Read, R. H., Esq., Hanley
Rice, David, Esq., Cheddleton Asylum, Leek
Robinson, B., Esq., Rocester, Stafford
Ross, W. L., Esq., 142, Waterloo Road, Burslem
Russell, J., M.B., Bleak Hill House, Burslem
Saxton, E., Esq., Albert Road, Trentham
Shufflebotham, F., M.B., Newcastle
Smith, W. M., M.B., Tean, Stoke-on-Trent
Somerville, E., M.D., 47, Saint Edward Street, Leek
Southwell, C. E., Esq., 15, Hill Street, Stoke-on-Trent
Sowry, G. H., M.B., 4, King Street, Newcastle, Staffs
Spanton, W. D., F.R.C.S., Chatterley House, Hanley
Square, A. P., Esq., 29, Birch Terrace, Hanley
Steele, J., Esq., The Avenue, Kidsgrove
Stuart, Hackworth, M.D., Chatterley House, Hanley
Thompstone, S. W., F.R.C.S., 11, Marsh Parade, Newcastle
Tibbetts, Joseph, Esq., Kelvedon, Fenton, Stoke-on-Trent
Walker, J. S., M.D., Hanley
Watts, H. J., Esq., 34, Church Street, Burslem
Webb, F., Esq., 1, Queen street, Newcastle
Williams, G. H., Esq., Tunstall
Young, A. G., M.D., Albert House, Fenton, Stoke-on-Trent
Young, E. E., M.B., North Stafford Infirmary, Stoke-on-Trent

No. 3.—South Staffordshire Division

NUMBERING 54.

Chairman, J. T. Hartill, Esq., Willenhall

Vice-Chairman, E. Deanesly, M.D., Wolverhampton

Honorary Secretary and Treasurer, J. A. Codd, M.D., 57, Darlington, Street, Wolverhampton

Representative for Representative Meeting, W. S. Badger M.B., Fairfield, Tettenhall Road, Wolverhampton

Representatives on Branch Council.

Bailey, T. Ridley, M.D.
Hartill, J. T., Esq.
Malet, H., M.D.

Executive Committee.

Cholmeley, W. F., Esq.
Clendinnen, W. McE., M.B.
Edge, Fred, M.D.

Allen, W. H., Esq., Ferndale, Hurst Hill, near Bilston
Armitage, J. A., M.D., 58, Waterloo Rd. South, Wolverhampton
Atkinson, G. J. M., Esq., The Infirmary, New Cross
Badger, W. S., M.B., Fairfield, Tettenhall Road, Wolverhampton
Bailey, T. Ridley, M.D., Lyndale, Bilston
Baker, I. J., Esq., Bilston
Bankier, A. M., M.D., 46, Waterloo Rd., N. Wolverhampton
Biggam, J., M.D., Prospect House, Upper Gornal
Bott, Wm., Esq., Bloxwich Road, Willenhall
Cameron, R. W., Esq., Lifford House, Penn Road, Wolverhampton
Carter, A. H., M.D., 8, George Street, Wolverhampton
Chesshire, A. E., Esq., 55, Darlington St., Wolverhampton
Cholmeley, W. F., Esq., 5, Waterloo Rd., Wolverhampton
Clendinnen, W. McE., M.B., Coseley
Codd, J. A., M.D., 57, Darlington Street, Wolverhampton
Coleman, E. H., Esq., Slade Hill, Tettenhall Road, Wolverhampton
Collier, H., Esq., 11, Worcester Place, Wolverhampton
Cooke, F. A., M.B., Tettenhall
Cridland, A. B., Esq., 11, Waterloo Road S., Wolverhampton
Dally, J. F. H., M.B., 12, Waterloo Road, Wolverhampton
Davies, L. G., M.D., Pelsall
Dean, H. J., Esq., Barr Croft, Willenhall
Deanesly, E., M.D., 4, Waterloo Road, Wolverhampton
Dent, H. C., M.B., 89, Tettenhall Road, Wolverhampton
Edge, Fred, M.D., 54, Darlington Street, Wolverhampton
Galbraith, T. H., M.B., 1, George Street, Wolverhampton
Hamp, J. W., Esq., Penn Road, Wolverhampton
Hands, A., Esq., Heath Town, Wolverhampton
Hannen, H. J., M.D., Codsall, Wolverhampton
Hartill, J. T., Esq., Manor House, Willenhall
Heelas, W. W., Esq., 8, Tettenhall Road, Wolverhampton
Holyoake, J. P., Esq., Kinver
Hunt, A. H. W., Esq., Melfort Lodge, Wolverhampton
Joberns, W. W., M.B., 213, Newhampton Rd., Wolverhampton
Lycett, J. A., M.D., Gatcombe, Wolverhampton
McMunn, C. A., M.D., Oakleigh, Wolverhampton
McNeill, Miss I. L., M.B., 52, Tettenhall Rd., Wolverhamptn.
Magrane, V. J., Esq., The Leys, Darlaston
Mactier, H. C., M.B., 33, Tettenhall Road, Wolverhampton
Malet, H., M.D., 20, Waterloo Road S., Wolverhampton
¶Marsh, E., Esq., The Leylands, Penn, nr. Wolverhampton
Mercer, W. S., Esq., Pierrepoint, Bath Rd., Wolverhampton
Millington, W., M.D., 3, Waterloo Road, Wolverhampton
O'Brien, J. J., M.D., Heath Town, Wolverhampton
Partridge, S., M.D., Darlaston
Polson, W., M.B., 52, Queen Street, Wolverhampton
Poole, S., M.D., 10, King Street, Wolverhampton
Quinn, F. R. B., Esq., 85, Stafford Street, Wolverhampton
Scott, J. W., Esq., 8, George's Street, Wolverhampton
Somerset, W. R., M.B., 27, Darlington St., Wolverhampton
Spackman, H. R., Esq., Penn Fields, Wolverhampton
Turton, F. R., M.B., 6, Bath Road, Wolverhampton
Winter, W. H. T., Esq., The-House-that-Jack-Built, Wolverhampton
Wolverson, F., M.B., Kelvin Cottage, Walsall Wood
Wolverson, Thomas, Esq., Chapel Ash, Wolverhampton

STIRLING BRANCH.

District comprising the Counties of STIRLING, KINROSS, and CLACKMANNAN, and the part of the County of PERTH served by the Railway from Callander to Stirling.

Members of Branch—70.

RECOGNISED 1889.

President, A. GRIFFITHS, M.B., Falkirk

Vice-President.
C. A. ALEXANDER, M.B., Denny

Honorary Secretary.
J. E. MOORHOUSE, M.D., 6, Melville Terrace, Stirling

Representative on Council of Association.
R. C. Buist, M.D., 166, Nethergate, Dundee

Branch Council.

Currie, D. W., M.D.
Fergusson, S., M.B.
Highet, R. C., M.D.
Smith, J., Esq.

Representative for Representative Meeting,
J. Strachan, M.D., Dollar

Associate Members.

Lewis, C. J., M.D., Edinburgh
Macpherson, John, M.D., Edinburgh
McVail, J. C., M.D., Glasgow

Alexander, C. A., M.B., Denny
Anderson, J. T., Esq., Stirling District Asylum, Larbert
Buist, A. C., M.B., Ormelie, Doune Road, Dunblane
Christie, A. W. S., M.B., Balkerach, Doune
Clarkson, R. D., M.B., Highfield, Falkirk
Compson, J. C., M.D., Bridge of Allan
Cribbes, H. S., Esq., Newstead, Bothkennar, Falkirk
Cunningham, W. L., M.B., Alva
Currie, D. W., M.D., B.Sc., Tillicoultry
Dewar, Thos., M.D., Kincairn, Dunblane
Drew, J., M.D., 28, Albert Place, Stirling
Dyer, E. E., M.B., Gladstone House, Alloa
Eggeling, Wm., M.B., Bridge of Allan
Farie, G. J., M.B., Strathallan House, Bridge of Allan
Fergusson, S., M.B., Lylestone House, Alloa
Fisher, James, M.B., Balfron
Fraser, A. D., M.D., Stratherie, Falkirk
Fraser, J. H., M.B., Fernfield, Bridge of Allan
Gardner, G., M.D., 2A, George Street, Falkirk
Gostwyck, C. H. G., M.B., Stirling District Asylum, Larbert
Greig, F. J., Lieut.-Col., R.A.M.C., 16, Melville Ter., Stirling
Griffiths, A., M.B., F.R.C.S.E., Woodlands House, Falkirk
Haldane, W., M.D., Bridge of Allan
Hannay, Mary B., M.B., Rokeby, Bridge of Allan
Highet, R. C., M.D., Park Holme, Stirling
Johnstone, J. J., M.B., Fernilea, Tillicoultry
Joss, J., M.B., Denny
Kirkwood, J., M.D., Alloa
Laidlaw, A. B., Esq., 19, Randolph Terrace, Stirling
Lawrie, T. H., Esq., St. Clair, Polmont Station
Leslie, W., M.B., 21, Shillinghill, Alloa
Lindsay, R. W., Esq., Edzell, Buchlyvie
McClymont, A. J., M.B., Cavers Bank, Bridge of Allan
McCracken, A. H., M.B., 90, Graham's Road, Falkirk
McDiarmid, D., M.B., Kippen, Stirling
McFadyen, D., M.D., Park Avenue, Stirling
MacGowan, J., M.D., Parkville, Grangemouth
McGregor, T., M.B., Aberfoyle, via Stirling
Mackenzie, J. A., M.B., The Elms, Larbert
McKinnon, J., M.B., Hawthorns, Drymen
Mackintosh, A., M.B., The Hawthorns, Bridge of Allan
Mackintosh, W. A., M.B., 3, Park Terrace, Stirling
McLaren, H., M.B., The Elms, Callander
Mathieson, Alex., M.B., Arnothill House, Falkirk
Mathieson, G. B., M.B. (address uncommunicated)
Mitchell, D., M.D., Dunoran, Camelon
Moorhouse, J. E., M.D., 6, Melville Terrace, Stirling
Morrison, John, M.B., New Road, Bannockburn
Mungle, James, Esq., Kinross
Oswald, D. R., M.B., Burnbank, Kinross
Paterson, M., M.D., Beechwood, Boners Rd., Grangemouth
Percival, B., M.B., M.R.C.P., Philp's Hydro., Dunblane
Prentice, G., Esq., The Orchard, Bridge of Allan
Robertson, D., M.D., Callander
Robertson, James, M.B., Clackmannan
Ronald, J. G., M.B., Stenhousemuir
Shanks, Robert, M.B., 82, Graham's Road, Falkirk
Smith, J., Esq., Schawfield, Falkirk
Spence, W., M.B., Dollar
Stewart, G. Clark, M.B., 19, Grahams Road, Falkirk
Strachan, J., M.D., Dollar
Thomson, Wm., Esq., Slamannan
Vost, A., M.B., Stanley Villa, Alva
Watt, A., M.B., 50, Grahams Road, Falkirk
Wilson, A. F., Esq., 1, Viewfield Place, Stirling
Wilson, J. D. O., M.D., Endrick, Alloa
Wood, W. W., M.B., Ochilview, Grangemouth
Wyse, R., M.B., Blair Cottage, Polmont Station
Young, John, M.B., Briar Brae, Bonnybridge
Young, Joseph, Esq., Slamannan

ULSTER BRANCH.

Comprising the Province of ULSTER.

Members of Branch—352.

RECOGNISED 1878.

President, L. Kidd, M.D., Enniskillen
Ex-President, Professor J. A. LINDSAY, F.R.C.P., Belfast

Vice-Presidents.
Lieut.-Colonel H. ALLISON, I.M.S. (ret.), Portrush
D. P. GAUSSEN, M.D., Dunmurry
W. B. HUNTER, M.D., Londonderry
W. HENRY, M.B., Clones
G. R. LAWLESS, Esq., Armagh
J. TAYLOR, Esq., Tandragee

Honorary Secretary.
CECIL E. SHAW, M.D., 18, College Square East, Belfast

Honorary Treasurer.
J. S. DARLING, M.B., Lurgan

Representatives on Council of Association.
Professor J. W. Byers, M.D., Belfast
Cecil E. Shaw, M.D., Belfast

Branch Council.

Agnew, S., M.D.
Allison, H., M.D., Lt.Col. I.M.S.
Boyd, S. B., M.D.
Boyd, H. J., Esq.
Calwell, W., M.D.
Cooke, J. G., M.B.
Craig, J., M.D.
Craig, J. A., M.B.
Darling, J. S., M.B.
Fullerton, A., M.D.
Houston, T., M.D.
Lindsay, J. A., M.D.
M'Laughlin, T., Esq.
Marshall, Gilbert, M.D.
Martin, J. C., M.D.
Mitchell, A. B., M.D.
Moorhead, T. H., M.D.
Reid, R., Esq.
St. George, G., Esq.
Shaw, C. E., M.D.
Taylor, James, Esq.

No. 1.—Ballymoney, North Antrim, and South Derry Division

NUMBERING 25.

Chairman, J. T. Creery, M.B., Coleraine

Vice-Chairmen, H. S. Morrison, M.D., and J. Lennox, M.D.

Honorary Secretary, J. C. Martin, M.D., Portrush.

Representative for Representative Meeting,
J. C. Woodside, Esq., Ballycastle

Executive Committee.

Boyd, S. B., M.D.
Kennedy, J. A., M.D.
Kirkpatrick, J., Esq.
Lennox, J., M.D.

Adams, Alex. Miller, Esq., Garvagh
Allison, Lt.-Col. H., M.D., I.M.S. (ret.), Portrush
Boyd, S. B., M.D., Ballymoney
Creery, J. T., M.B., Church Street, Coleraine
Dunlop, J., Esq., Straidkillin, Bushmills
Garvin, Stephen, M.B., Magherafelt
Henderson, R. W., Esq., White Park, Ballintoy
Huey, D., Esq., Bella Vista
Hunter, M., M.D., Magherafelt
Keers, S. B. B., Esq., Donovan House, Rasharkin
Kennedy, J. A., M.D., Portstewart
Kirkpatrick, J., Esq., New Row, Coleraine
Lennox, J., M.D., Kilrea
Lusk, S. F., M.B., Ballymoney
McGowan, W., M.D., Maghera
Martin, J. C., M.D., Portrush
Matson, Joseph, Esq., Bushmills
Mayberry, R. J., M.B., Maghera
Miller, R. C., Esq., Dervock
Morrison, H. S., M.D., Bellevue, Blackhill, Coleraine
Porter, W., M.B., Miramir, Portrush
Thompson, G. M., M.D., Bellaghy
Thomson, J. R., M.B., Ballymoney
Wallace, J., M.D., Knockahollet
Woodside, J. C., Esq., Ballycastle

No. 2.—Belfast Division

NUMBERING 186.

Chairman, D. P. Gaussen, M.D., Dunmurry

Vice-Chairman,

Honorary Secretary, J. A. Craig, M.B., 103, Gt. Victoria Street, Belfast

Representative for Representative Meeting, A. B. Mitchell M.D., 4, College Square N., Belfast

Executive Committee and Representatives on Branch Council.

Boyd, H. J., Esq.,
Calwell, W., M.D.
Fullerton, A., M.D.
Houston, T., M.D.
Lindsay, J. A., M.D.
Reid, R., Esq.
St. George, G., Esq.
Shaw, C. E., M.D.

Adams, J. C., M.B., Ravenhill Road, Belfast
Adams, J. J., M.D., Ashville, Antrim
Allen, R., M.B., 13, Clifton Street, Belfast
Allworthy, S. W., M.D., The Manor House, Belfast
Andrews, Marion B., M.B., 52, Elmwood Avenue, Belfast
Armstrong, John, M.B., Wellington street, Ballymena
Austin, J. J., M.D., Clifton Street, Belfast
Barnett, H. N., F.R.C.S.Ed., 1A, College Sq. N., Belfast
Bateman, S., M.D., Ferey, Maralin, Co. Down
Beatty, R. M., M.B., 9, Clifton Street, Belfast
Beggs, S. T., M.B., Eversleigh, Holywood Road, Belfast
Bell, Elizabeth, G., M.B., 41, Great Victoria Street, Belfast
Bell R. L., Esq., Newcastle
Black, A. L., M.B., 3, Belgravia, Lisburn Road, Belfast
Blewitt, J., Esq., 4, The Mount, Belfast
Boyd, H. J., Esq., Hillsborough
Boyd, J. St. C., M.D., Chatsworth, Malone Road, Belfast
Boyd, Robert, M.D., The Lodge, Mountpottinger, Belfast
Browne, J. W., M.D., College Square North, Belfast
Burns, W., Esq., 18, Bristol Street, Belfast
Burnside, W. M., Esq., 77, Great Victoria Street, Belfast
Byers, Professor, J. W., M.D., Lower Crescent, Belfast
Cairns, E., Esq., Ballysillan, Belfast
Calwell, W., M.D., College Square North, Belfast
Calwell, W., M.B., Duncairn Gardens, Belfast
Campbell, J., M.D., Crescent House, University Rd., Belfast
Campbell, R., M.B., 21, Great Victoria Street, Belfast
Cargin, J. S., Esq., 27, Wellington Park, Belfast
Clarke J. A., M.B., West Street, Carrickfergus
Clokey, J. G., M.B., Albertville, Crumlin Road, Belfast
Coates, S. B., Esq., 5, Shaftesbury Square, Belfast
Colville, James, M.D., 11, University Square, Belfast
Craig, J. A., M.B., 103, Great Victoria Street, Belfast
Cromie, T., M.D., Clough
Crymble, P. T., M.B., 8, Rosetta Gardens, Belfast
Currie, R., Esq., Ballymena
Darnell, C. K., Esq., Main Street, Bangor
Davidson, I. A., M.D., 20, Lonsdale Terr., Crumlin Rd., Belfast
Davidson, T. A., Esq., 6, Carlisle Terrace, Belfast
Davison, J. R., M.D., Ormeau Road, Belfast
Davison, W. R., M.B., Ballymena
Dempsey, A., M.D., 26, Clifton Street, Belfast
D'Evelyn, A. McN., M.D., Ballymena
Donnan, W. D., M.D., 12, High Street, Holywood
Duncan, A., Esq., Ballymena
Dundee, C., M.D., Ballycarry
Dunn, W. A., Esq., 7, Ormeau Road, Belfast
Fielden Victor G. L. M.B. 84, Pakenham Place Belfast
Fraser, R. M., M.D., 223, Albert Bridge Road, Belfast
Fullerton, A., M.D., 30, University Road, Belfast
Gaussen, D. P., M.D., Dunmurry
Gibson, Geo., Esq., 157, Ormeau Road, Belfast
Gorman, J., Esq., Vanessa, Bangor
Graham, J., M.D., Ormeau Road, Belfast
Graham, W., M.D., Purdysburn Asylum, Belfast
Greenfield, T. K., M.B., 8, High Street, Holywood
Hamilton, S., M.D., Ballynahinch
Hanna, H. F., M.B., Farringdon, Antrim Road, Belfast
Harper, R. W., M.B., 39, Camden Street, Belfast
Henry, Moses, M.B., 7, Benvista, Antrim Road, Belfast
Henry, R., M.D., Comber
Heron, J. M., M.D., Downpatrick
Hogg, T. S., Esq., 6, Cooke Terrace, Belfast
Houston, T., M.D., 95, Great Victoria Street, Belfast
Hunter, S. R., M.B., Cloneolmec, Dunmurry
Huston, James, M.B., West Street, Carrickfergus
Irwin, S. T., M.B., 67, Gt. Victoria Street, Belfast
Jamison, Alex., M.B., 66, Woodstock Road, Belfast
Jamison, D., jun., M.D., Newtownards
Jamison, John, M.B., 95, Falls Road, Belfast
Jefferson, J. G., Esq., 10, Railway Street, Lisburn
Johnston, D., M.D., Holywood
Johnston, R. J., M.B., 23, Great Victoria Street, Belfast
Kevin, C., M.D., 144, Donegal Pass, Belfast
Killen, J. M., M.D., Larne
Killen, Thos., M.B., High Street, Carrickfergus
Killen, W. M., M.D., 9, Clifton Street, Belfast
Kirk, T. S., M.B., University Square, Belfast
Knight, Alick E., M.B., Donaghadee
Lee, J., M.B., 3, Mount Pleasant, Belfast
Leslie, R. W., M.D., Strandtown, Belfast
Lindsay, J. A., M.D., 15, College Square E., Belfast
Logan, H. A., M.D., Ballyclare
Love, Robert, Esq., Ahoghill, Ballymena
Macarthur, P., M.B., Grey Abbey
McAuley, M., M.D., Kirkcubbin
M'Caull, J., Esq., 182, Lisburn Road, Belfast
McCaw, J., M.D., 74, Dublin Road, Belfast
M'Comskey, A. W. S., M.B., Killough, Downpatrick
McConnell, N. O., M.B., 13, North Street, Belfast
McCormac, J. M., M.D., 73, Victoria Place, Belfast
McCullagh, R. C., M.D., 31, Alma Terrace, Belfast
McFarland, F. E., Brig.-Surg (retired), Antrim Rd., Belfast
McHarry, W., Esq., Grosvenor Lodge, Belfast
Macintosh, John, Esq., 26, Duncairn Gardens, Belfast
McIlroy, T., M.D., Newtownards
McKee, David, Esq., Randalstown
McKee, S., M.D., Greenmount, Lisburn Road, Belfast
Mackenzie, W. G., Esq., 6, University Square, Belfast
McKisack, H. L., M.D., 17, University Square, Belfast
McLorinan, W., Esq., 103, Antrim Road, Belfast
McMaster, A., Esq., Deramore Park S., Malone Rd., Belfast
McMaster, J., Esq., Froughshane
McQuitty, W. B., M.D., 8, College Square East, Belfast
McWhirter, W. H. W., Esq., Killyfast, Toomebridge
McWilliam, W. A., Esq., Ballynure
Magill, C., M.D., Castle Street, Lisburn
Magowan, S. M., M.B., Glenarm
Maguire, W. J., M.B., 10, University Square, Belfast
Manley, H. C., Esq., Whitehouse, Belfast
Mark, D., Esq., 25[illegible], York Street, Belfast
Martin, W., M.B., Whitehead
Meharry, W. J., Esq., 141, Duncairn Gardens, Belfast
Milroy, J. A., M.B., Queen's College, Belfast
Milroy, Prof. T. H., M.D., Queen's College, Belfast
Mitchell, A. B., M.D., 4, College Square N., Belfast
Mitchell, John F., Esq., Bangor
Monypeny, H. J., M.D., Hill View, Antrim Road, Belfast
Monypeny, Wm., M.B., 3, Shaftesbury Square, Belfast
Moore, J. B., M.B., Mount Pottinger Road, Belfast
Morrow, J. S., M.D., Antrim Road, Belfast
Mulholland, P. J. Haydn, Esq., 17, College Square, North Belfast
Munce, James, Esq., Burnbrae, Lisburn
Murray, Henry Buchanan, M.D., 3, College Sq. E., Belfast
Mussen, A., M.D., Glenavy
Nelson, J., M.D., 29, Wellington Place, Belfast
Nesbitt, C. V. H., M.D., Randalstown
Nicholson, W., M.B., Randalstown
Nolan, M. J., Esq., The Asylum, Downpatrick
O'Donnell, W., M.D., Dunkineely
O'Neill, H., M.D., 6, College Square East, Belfast
Orr, G., M.D., Ballylesson, Lisburn
Orr, J., M.D., Templepatrick, Belfast
Parke, R. C., Esq., Newtownards
Phillips, T. McC., M.B., Royal Victoria Hospital, Belfast
Purdon, E. B., M.B., 58, Pakenham Place, Belfast
Purdon, R., M.D., 61, Great Victoria Street, Belfast
Rankin, J. C., Esq., 38, University Road, Belfast
Radcliffe, J. A. D., Esq., 99, Gt. Victoria Street, Belfast
Rentoul, J. L., M.B., Lisburn
Redfern, Prof. P., M.D., 4, Lower Crescent, Belfast
Reid, R., Esq., White Abbey, Belfast
Ritchie, H. J., M.B., Shankhill Road, Belfast
Robb, A. Gn., M.B., 17, College Square, E. Belfast
Robinson, D. S., M.B., 2, Hatfield Street, Belfast
Rusk, John, M.B., 2, Laurington, Antrim Road, Belfast
Rutherford, H. E., Esq., Larne
St. George, G., Esq., Lisburn
Shaw, C. E., M.D., College Square East, Belfast
Shaw, William, Esq., Larne
Shekleton, R. A., M.D., Holywood
Simpson, J., M.D., Mayola, Culleybackey
Simpson, J., M.D., 76, Pakenham Place, Belfast
Sinclair, T., M.D., 22, University Square, Belfast
Smyth, Brice, M.B., 20, University Square, Belfast
Smyth, Malcolm B., Esq., 63, University Road, Belfast
Smyth, S. Brice, M.B., Ulsterville House, Belfast
Smyth, W., M.B., County Asylum, Antrim
Stevenson, A. K., M.D., Ballyclare
Stevenson, Howard, M.B., 2, College Square North, Belfast
Stewart, Joseph, Esq., Harryville, Ballymena
Stewart, J. B., Esq., Portglenone
Stewart, J. Hamilton, M.B., 4, Clifton Park Avenue, Belfast
Symington, Professor J., M.D., F.R.S., Queen's College, Belfast
Symmers, Professor, M.B., Queen's College, Belfast
Taggart, W. J., M.D., Antrim
Tate, T. M., M.D., Infirmary House, Downpatrick
Taylor, J. W., M.D., Ormeau Road, Belfast
Thetford, W. W., Esq., Strangford
Thomson, Robert, M.B., 150, Donegal Pass, Belfast
Torrens, J. L., Esq., Connor, Ballymena
Trimble, A., M.B., 1, Thorndale Terr., Antrim Rd., Belfast
Tweedie, D. H., M.D., Antrim Road, Belfast
Wadsworth W. A., M.D., Antrim Road, Belfast
Wales, A. Ernest, M.D., 59, University Road, Belfast
Wallace, S., M.D., Lisbane, Lisburn
Waring, G. A., Esq., Lisburn, Glenavy
Watt, Robert, M.B., Agnes Street, Belfast
Waugh, G. H., Esq., 132, Grosvenor Road, Belfast
Wheeler, T. K., M.D., Malone Road, Belfast
Whitla, Sir William, M.D., 8, College Square North, Belfast
Whyte, J. E., Esq., Eastleigh Strandtown, Belfast
Williamson, J. D., M.D., 189, Albert Bridge Road, Belfast
Wilson, D., Esq., Whiteabbey, Belfast
Wilson, J., M.D., Galgorm, Ballymena
Wilson, J. Stevenson, M.B., Edgewood, Whitehouse

No. 3.—Derry Division

NUMBERING 40.

Chairman, W. B. Hunter, M.D., Londonderry

Vice-Chairman, F. McLaughlin, M.D., Londonderry

Honorary Secretary, J. G. Cooke, M.B., County Infirmary, Londonderry

Representative for Representative Meeting, J. C. Woodside, Esq., Ballycastle

Representatives on Branch Council.

Craig, J., M.D.
MacLaughlin, Thos. Esq.

Executive Committee,

Bernard, W., Esq.
Craig, J., M.D.
Cunningham, H. W., M.D.
Hetherington C. E. M.B.
McLaughlin, F., M.D.
MacLaughlin, T., Esq.
Rankin, W., M.D.

Allison, S. H. B., M.B., Millfield, Killaloo
Bernard, W., Esq., Londonderry
Britton, J., M.D., Strabane
Carre, F., Esq., Sprackburn, Letterkenny
Clarke, W. H. C., Esq., Milford
Cooke, J. G., M.B., County Infirmary, Londonderry
Craig, F. A., M.B., 21, Clarendon Street, Londonderry
Craig, J., M.D., 2, Carlisle Terrace, Londonderry
Cuningham, H. W., M.D., 39, Clarendon St., Londonderry
Falvey, J. J., Lieut.-Colonel, R.A.M.C. (R.P.), Creghland House, Killybegs
Gardiner, C. E. R., Esq., Dungloe
Hamilton, D., Esq., Fahan
Henderson, James, M.D., Fincairn, Drumahoe
Hetherington, C. E., M.B., District Asylum, Londonderry
Higgins, M., Esq., Main Street, Dungiven, Co. Derry
Hunter, W. B., M.D., Londonderry
Johnston, H. M., M.D., Stranorlar
Lane, B., M.B., Limavady
Loughnan, M., Esq., Rathmullen
McCaul, G. B., Esq., 31, Clarendon Street, Londonderry
McCurdy, D. A., Esq., 5, Pump Street, Londonderry
McLaughlin, F., M.D., Londonderry
MacLaughlin, T., Esq., Ship Quay Street, Londonderry
McMorris, R. J., Fleet-Surg. R.N., Strabane, Tyrone
McNicholl, J. J., Esq., Strabane
Magee, J. Russell, Esq., 2[illegible], Magazine Street, Londonderry
Martin, J. C., Esq., Donegal District Asylum, Letterkenny
Miller, J. E., M.B., Pump Street, Londonderry
Moore, E. E., M.D., Donegal District Asylum, Letterkenny
Newell, E. G., M.D., Moville
Rankin, W., M.D., Newtowncunningham
Robinson, S. H., Esq., 38, Clarendon Street, Londonderry
Ross, J. R., M.D., Ballykelly
Smiley, G. K., M.D., 29, Clarendon Street, Londonderry
Stevenson, W. L., M.B., Abercorn Road, Strabane
Thompson, D., Esq., Feeny
Trimble, J. M., M.D., Strabane
Warnock, H. T. A., Esq., Donegal
Watson, J. W., M.D., Limavady
Weir, W. J., M.B., Ballindrait Strabane

No. 4.—Enniskillen or Co. Fermanagh Division

NUMBERING 9.

Chairman,

Vice-Chairman,

Honorary Secretary,

Representative for Representative Meeting

Aiken, A., Esq., Tullyhommon, Petigo
Annesley, J. F., S., M.D., Derrylin
Betty, M. M., Esq., Enniskillen
Kidd, L., M.D., West Bridge, Enniskillen
Ross, R. H., Esq., Crebaght, Clogher
Taylor, T. C., Esq., Brookborough
Warnock, H., Esq., Clogher
Warnock, J., Esq., Trillick
Wilson, John, Esq., Enniskillen

No. 5.—Monaghan and Cavan Division

NUMBERING 16.

Chairman, W. Henry, M.B., Clones

Vice-Chairman,

Honorary Secretary, T. H. Moorhead, M.D., Cootehill, Cavan

Representative for Representative Meeting,

Buchanan, L., M.B., Arvagh
Canning, William, M.B., Rockcorry
Donaldson, R. L., M.D., District Asylum, Monaghan
Elliott, J. T., Esq., Smithborough
Hall, J. C., M.B., Monaghan
Halpenny, M., Esq., Scotstown
Henry, W., M.B., Clones
Kenny, J. B., Esq., Killeshandra
McKenna, P., M.B., Carrickmacross
McQuaid, E. W., Esq., Cootehill
McQuaid, M. J., Esq., Ballyjamesduff
Moorhead, T. H., M.D., Cootehill, Cavan
Ryan, R., M.D., Bailieboro'
Swann, J. A., Esq., Drum, Clones
Tierney, E., Esq., Whitehall Street, Clones
Wilson, J., M.D., Castleblayney

No. 6.—Omagh or Co. Tyrone Division

NUMBERING 9.

Chairman,

Vice-Chairman,

Honorary Secretary,

Representative for Representative Meeting,

Chambers, J., Esq., Fintona
Duncan, T., Esq., Fintona
Evans, G., Esq., Plumbridge
Fleming, H. B., M.B., Omagh
Leary, T., Esq., Castlederg
Lyle, W., M.B., Moyle View, Newtownstewart
Mowbray, R., M.D., Creduff, Castlederg
Rankin, John, M.B., Newtownstewart
Thompson, E. C., M.B., Omagh

No. 7.—Portadown and West Down Division

NUMBERING 67.

Chairman, G. R. Lawless, Esq., Armagh

Vice-Chairmen, J. M. Moore, Esq., Lurgan; J. C. Sugars, M.D., Dungannon

Honorary Secretary, J. S. Darling, M.B., Lurgan

Representative for Representative Meeting, J. S. Darling, M.B., Lurgan

Representatives on Branch Council,

Agnew, S., M.D.
Marshall, Gilbert, M.D.
Taylor, James, Esq.

Executive Committee,

Deane, C. C., M.D.
Dougan, G., M.D.
Fergus, S., M.D.
Graves, C. H. P. D., M.D.
Johnson, J. B., M.B.
Martin, S. E., M.D.

Honorary Member, W. Calwell, M.D., Belfast.

Adams, Chas., M.B., Lieut.-Col., Tullylish House, Gilford
Adams, Martha, M.B., The Infirmary, Lurgan
Agnew, S., M.D., Lurgan
Allen, J. G., Esq., The Retreat, Armagh
Allman, Dora E., M.B., District Asylum, Armagh
Anderson, Prof., R. J., M.D., Beech Hill, Newry
Beamish, B., Esq., 3, Trevor Hill, Newry
Bell, T., M.D., Warrenpoint
Bracken, George, M.B., Lurgan
Brownrigg, T. H., Esq., Fairmount House, Moira
Carlisle, S. B., Esq., Dromore
Chancellor, W., M.B., Bridge Street, Banbridge
Connor, G. W., Esq., 77, Hill Street, Newry
Crossitt, R., Esq., Cookstown
Darling, J. S., M.B., Lurgan
Dawson, W. J., M.B., Newtown Hamilton
Deane, C. C., M.D., Loughgall
Deeny, M., Esq., North Street, Lurgan
Dougan, G., M.D., Portadown
Fergus, S., M.D., Blackwatertown
Ferrar, B. B., M.D., 7, Beresford Row, Armagh
Floyd, F., M.B., Kilkeel
Frier, W., M.D., Waringstown
Gill, J. S., Esq., Ennish House, Castlecaulfield
Graves, C. H. P. D., M.D., Cookstown
Gray, R., Esq., 4, Charlemont Place, The Mall, Armagh
Hadden, R. E., M.D., Ardralla, Portadown
Hadden, W. E., M.D., Magharee, Portadown
Hamilton, J., Esq., Dromore
Harris, H., Esq., Stewartstown
Huston, R. T., Esq., Tynan
Johnson, J. B., M.B., Gifford
Kelley-Patterson, W., M.D., Ballyedmond Castle, Killowen Co. Down
Lawless, G. R., Esq., District Asylum, Armagh
Liddle, G. M., M.B., Market Street, Portadown
Lynch, F. J., Esq., Dobbin Street, Armagh
McAvoy, James, Esq., Glenview House, Newry
McBride, W. S., Esq., Crossmaglen
McCandless, R., M.B., Rathfriland
MacDermott, W. R., M.B., Poyntz Pass, Newry
McKee, F., M.B., Dromore
Mann, F. C., M.B., Pomeroy
Marshall, Gilbert, M.D., Markethill
Martin, D., Esq. (address uncommunicated)
Martin, S. E., M.D., 1, Sandys Place, Newry
Mayne, W. H., Esq., Castle House, Warrenpoint
Molony, J., Esq., J.P., Forkhill House, Forkhill
Moore, J. M., Esq., Lurgan
O'Riordan, T., M.D., Killeavy, Newry
Palmer, B. A., M.B., Millvale, Newry
Palmer, J. M., Esq., Infirmary, Armagh
Pedlow, T. B., M.B., Lurgan
Potts, R. McC., Esq., Forkhill
Reid, H., Esq., Derryad, Lurgan
Richardson-Griffiths, T., Esq., Richhill Castle, Armagh
Richards, C. M., Esq., James Street, Cookstown
Robinson, L., M.B., Markethill
Rowlett, J. L., Esq., Portadown
Scott, J. W. J., M.B., Coalisland
Simpson, W. A., M.B., 7, John Street, Dungannon
Sinclair, F. H., M.D., Rostrevor Sanatorium, Warrenpoint
Smartt, H. W., Esq., 3, Trevor Hill, Newry
Sugars, J. C., M.D., Dungannon
Taylor, James, Esq., Tandragee
Twigg, W., M.D., Dungannon
Vesey, T. A., M.B., Knapton, Rostrevor
Wright, F. C., Esq., Moy

WEST SOMERSET BRANCH.

Comprising all that portion of the County of SOMERSET which lies south or west of a line drawn from Highbridge (included) through Glastonbury to Yeovil (both excluded).

Members of Branch—72.

RECOGNISED 1844.

President, GORDON G. W. HENRY, Esq., Minehead

President-elect, R. L. MEADE-KING, M.D., Taunton

Honorary Secretary and Treasurer.

W. B. WINCKWORTH, Esq., Sussex Lodge, Taunton

Representative on Council of Association.

C. H. W. Parkinson, Esq., Wimborne Minster

Branch Council.

Adams, E. G. B., M.B.
Bunny, J. B., Esq.,
Henry, Gordon G. W., Esq.
Husbands, H. W., Esq.
Joscelyne, A. E., Esq.
Meade-King, R. L., M.D.
Routh, R. H. F., Esq.
Sinclair, A. W., Esq.
Sydenham, G. F., Esq.
Winckworth, W. B., Esq.

Representative for Representative Meeting, J. A. Macdonald, M.D., 19, East Street, Taunton

dams, E. G. B., M.B., The Grange, Martock
dams, J. D., M.D., Martock
lford, C. E., Esq., Crewkerne
lford, H. J., M.D., Malvern House, Taunton
rdagh, V. L., M.D., Stogumber, Taunton
veline, H. T. S., Esq., Cotford, Taunton
ain, J. G., M.B., Wellington
alfour, T. S., M.D., Chard
ird, G. W. H., M.B., 15, Castle Street, Bridgwater
irkbeck, L. H. C., M.B., Church Square, Taunton
oake, S., Esq., 1, Silver Street, Ilminster
rown, D., M.D., Hamdon Villa, Taunton
rowne, A. Lang., Col. R.A.M.C., Taunton
unny, J. Brice, Esq., Bishop's Lydeard, Taunton
urns, N. O'D., Esq., Highbridge
ollins, W. C. G., M.D., The Priory, Cannington, Bridgwater
olly is, R. J., Esq., Dulverton
ox, R. F., Esq., Ashcott, near Bridgwater
rake, W., Esq., The Hospital, Taunton
glington, G. W., Esq., The Laurels, Street
arrant, C., Esq., Taunton
isher, W. F., Esq., North Curry, Taunton
rossard, Emilion Edward, Esq., Bishop's Lydeard
omez, F. J., Esq., South Petherton
raham S. G., Esq., 2, Sea View, Watchet
ayes, F. G., Esq., Dunster
enry, Gordon, G. W., Esq., Blair, Minehead
illyar, C. B., Esq., Luson, Wellington
unter, R. H. A., J.P., Watchet
usbands, H. W., Esq., North Town House, Taunton
les, A. R., Esq., Taunton
ngle, C. D., Esq., Hopefield, Somerton
ohnstone, J. P., Esq., Langport
oscelyne, A. E., Esq., 13, The Crescent, Taunton
eppel-Reede A., Esq., Churchinford
illick, C. R., M.B., Williton, Taunton
amb, J. H., M.B., Church Street, Crewkerne
acdonald, J. A., M.D., 19, East Street, Taunto
acVicker, C. G., M.B., Street
aidlow, W. H., M.D., Ilminster
atchett, A. C., M.B., Nether Stowey
eade-King, R. L., M.D., Powlett House, Taunton
eredith, R. W. H., Esq., Haynes, Wellington
olony, F. J., Esq., Porlock
oorhead, G. H. E., The Priory, Weston Zoyland
unden, C., Esq., Ilminster
icholls, A. R., Esq., Langport
llerhead, T. H., Esq., Hillbury, Minehead
age, H. M., M.D., The Grange, Langport
enberthy, W., M.B., Bourne House, Wiveliscombe
ope, H. S., M.B., Castle Bailey, Bridgwater
otter, J. H., Esq., Bungalow, Porlock
aby J., Major R.A.M.C., Runwell Lodge, Taunton
andolph, C., Esq., Milverton
andolph, H. W., Esq., St. Michael's, Milverton, Taunton
igden, G. W., Esq., 2, Billet Street, Taunton
outh, R. H. F., Esq., Bridgwater
utherfoord, H. E., M.D., Hatch Beauchamp, Taunton
utherfoord, H. T., M.D., Taunton
anguinetti, H. H., M.B., Blair Lodge, Minehead
nclair, A. W., Esq., South Petherton
tephens, Charles, M.B., Martock
tewart, C. B., M.B., Greenwood, Huntspill, nr. Bridgwater
ydenham, G. F., Esq., Dulverton
hompson W. C., Esq., 18, Church Street, Bridgwater
hompson, Wilberforce, Esq., Bridgwater
ereker, R. H., Esq., East Leigh House, Curry Rivel
ade, R., Esq., Highbridge
alter, R. H., M.B., Stoke-under-Ham
illcocks, A. D., Esq., Park Street, Taunton
illiams, P. L. W., Esq., 8, Castle Street, Bridgwater
inckworth, W. B., Esq., Sussex Lodge, Taunton

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.

omprising the County of WORCESTER (except the Northern and Eastern Parliamentary Divisions); the County of HEREFORD; in RADNORSHIRE, New Radnor, and Presteign.

Members of Branch—121.

RECOGNISED 1880.

President, T. P. GOSTLING, Esq., Worcester

President-elect, M. A. WOOD, Esq., Ledbury

Honorary Secretaries.
G. W. CROWE, M.D., Worcester
HERBERT JONES, Esq., Hereford

Representative on Council of Association.
G. W. Crowe, M.D., Worcester

No. 1.—Hereford Division

NUMBERING 50.

Chairman, Edgar Morris, Esq., Hereford

Vice-Chairman, J. Steed, M.D., Staunton-on-Wye

Honorary Secretary, Herbert Jones, Esq., 9, St. Owen Street, Hereford

epresentative for Representative Meeting, H. E. Dixey, M.D., Woodgate, Malvern

inslie, William, M.B., Kington, Hereford
veray-Jones, E., Esq., Fownhope
aldock, E. H., Esq., 14, St. Owen Street, Hereford
arker, L. E. H. Ross, M.B., The Old Oak House, Pembridge
allinor, S. M., Esq., The Knoll, Colwall, near Malvern
hapman, P. N., M.D., Hereford
lark, H. C., Esq., Wellington, Hereford
ollens, E. H., M.B., 11, St. Owen Street, Hereford
utfield, A., Esq., Merton House, Ross
arling, Q. R., Esq., Bridge Ho., Eardisley, R.S.O., Hereford
arroll, W. B., Esq., Leintwardine
ickinson, H. B., M.D., 21, King Street, Hereford
u Buisson, E. W., Esq., Hereford
dwards, O., Esq., The Brook House, Leominster
lsworth, T. G., M.B., Colwall
reen, A. R., Esq., The Steppes, Ledbury
reen, W. E., Esq., Ivy House, Ross
adfield, P. H., Esq., Moraston House, near Ross
all, T. L., Esq., Townsend House, Dilwyn, R.S.O.
ampton, Thos., M.B., Grosmont, Pontrilas, Hereford
arding, R., Esq., The Laurels, New Radnor
art-Smith, T. C., M.B., West Lodge, Leominster
ounsell, F. C. W., Esq., Sunnyside, Weobley, R.S.O.
ones, Herbert, Esq., 9, St. Owen Street, Hereford
ane, J. O., M.D., St. Nicholas Square, Hereford
lley, J. H., M.D., Hereford
ower, N. Yeo, Esq., Presteign
cMichael, A. W., Esq., Vowchurch, Hereford
endes, T. A., Esq., County Asylum, Hereford
oore, H. C., Esq., 26, Broad Street, Hereford
orris, Edgar, Esq., The Gaer, Broomy Hill, Hereford
orrison, C. S., Esq., Burghill, Hereford
ope, H. B., M.D., Kington
Potts, J. A., M.B., Ross
Powell, Scudamore, M.D., Cagedale, Clehonger, Hereford
Scales, M. Esq., 15, Church Street, Leominster
Scott, D. H., Esq., Vowchurch, Hereford
Steed, J., M.D., Staunton-on-Wye, Hereford
Steel, G., Esq., 16, Church Street, Leominster
Steele, G. H., Esq., Much Birch
Swettenham, A. W., Esq., Bodenham
Thomason, R., Esq., Hereford
Thompson, F. H., Esq., 1, Cornewall Street, Whitecross, Hereford
Townley, J. S., M.B., Longtown
Turner, T., Esq., Hereford
Whelan, L. T., Esq., Leintwardine
Whitfeld, W. C., Esq., Baggallay Street, Hereford
Wood, J. A., M.B., Fernleigh, Bodenham Road, Hereford
Wood, J. H., M.B., Tarrington, Ledbury
Wood M. A., Esq., Ledbury

No. 2.—Worcester Division

NUMBERING 71.

Chairman, W. Moore, Esq., Stourport

Vice-Chairman, C. H. East, M.D., Woodgate, Malvern

Honorary Secretary and Treasurer, G. W. Crowe, M.D., Worcester

Representative for Representative Meeting, H. E. Dixey, M.D., Malvern

Antrobus, E., M.D., The Chase, Great Malvern
Baines, J. C., Esq., Etonhurst, Barnards Grn., Gt. Mlvrn.
Baird, Lt.-Col. A., M.B., R.A.M.C. (ret.), The Mount, Bath Road, Worcester
Bates, T., Esq., Foregate Street, Worcester
Beadles, F., Esq., Broadway
Beiben, H. A., Esq., Chapel House, Cradley, Worcestershire
Bennett, W. G., Esq., Lowesmoor Villa, Worcester
Blanch, H. J. T., Esq., The Pynes, Malvern Link
Brockatt, A. A., M.D., Hazeldean, Malvern
Brocket, James, M.B., New Street, Stourport
Bubb, Wm., Esq., County and City Asylum, Powick
Calthrop, L. C. E., M.B., Dudley Villa, Droitwich
Charsley, G. W., Esq., Shenstone, Great Malvern
Coombs, Wellesley, Esq., Foregate House, Worcester
Corder, E. H., Esq., Ombersley Road, Worcester
Cowan, J. J., Esq., The Pale House, Malvern
Cowley, J. S., Esq., Upton-on-Severn
Crowe, G. W., M.D., 43, Foregate Street, Worcester
Cuthbertson, J. M., Esq., Highfield, Droitwich
Day, F. H., M.B., Waverley House, Bath Road, Worcester
Dixey, H. E., M.D., Woodgate, Malvern
East, C. H., M.D., St. Clare, Malvern
Emerson, H. B., Esq., Pershore
Ferguson, J. C., Esq., The Establishment, Great Malvern
Finley, H., M.D., West Malvern
Fitch, C. D., Esq., Chaddersley-Corbett, Kidderminster
Fleming, George, M.B., Ombersley
Fosbroke, G. H., Esq., Lavender Road, Worcester
Foster, Arthur, M.D., The White House, Inkberrow
Fowler, H. R. R., M.D., Broadwas, Worcester
Gostling, T. P., Esq., 39, Foregate Street, Worcester
Greensill, J. H., Esq., Knightwick, near Worcester
Grindrod, C. F., Esq., Wyche-Side, Malvern
Haynes, A. L., Esq., Tower House, Evesham
Haynes, S. L., M.D., Medhurst, Malvern
Holbeche, A. O., Esq., Abbotfield, Great Malvern
Horton, W. W., M.D., St. Michaels, Great Malvern
Jacob, H. W., M.D., St. Helen's, Great Malvern
Johnson, Matthew, Esq., Bewdley
Jones, H. S., Esq., Ravenstone, Droitwich
Knobel, W. B., Esq., Imperial Lodge, Malvern
Leslie, L. F., Esq., Fairwater, Evesham
Legge, S. Colen, Esq., 24, Foregate Street, Worcester
Lowe, L., Esq., Clent
Mackie, George, M.B., Royd's Lodge, College Rd., Malvern
Martin, A. H., Esq., Winwick House, Evesham
Meaden, C., M.D., St. John's, Worcester
Moore, W., Esq., Stourport
Moore, W. Hodgson, Esq., 18, Church St., Kidderminster
Montford, James, Esq., Upton-on-Severn
Oldham, A. C., Esq., 21, Mill Street, Kidderminster
Pollard, C., M.D., 23, Foregate Street, Worcester
Polson, J. R., Esq., St. John's, Worcester
Read, M., M.D., 42, Foregate Street, Worcester
Robinson, E. S., Esq., Stourport
Robinson, Joseph, Esq., 15, Lion Street, Kidderminster
Roden, P. A., M.D., Droitwich
Seymour, H. F., M.B., College Gates, High St., Worcester
Smyth, N. E., Esq., Graham Lodge, Malvern Wells
Standring, C. T., Esq., The Laurels, Broadway
Stretton, J. L., Esq., Kidderminster
Taunton, W. W., Esq., Graefenburg, Worcester
Trotter, L. B., M.D., Lynburn, Blackmore Road, North Malvern
Veitch, J. O., M.B., County and City Asylum, Worcester
Walpole-Simmons, E., M.D., Sidbury, Worcester
Watson, H. A., M.B., 41, Foregate Street, Worcester
Weir, A. M., Esq., Malvern Link
Wharry, A. J., M.D., The Chace, Upper Welland, Malvern Wells.
Wilkinson, J., M.D., Droitwich
Williams, E. G. H., Esq., Uttbridge House, Ombersley
Woodward, M., Esq., Pershore

YORKSHIRE BRANCH.

Comprising the County of YORK, excluding the Cleveland and Richmond Parliamentary Divisions (except Masham), excluding also Settle and the part of the county north-east thereof; in the south-west, the Todmorden and Saddleworth districts; in the east, the portion of the Buckrose Parliamentary Division south of Hunmanby and Rillington Junction the part of the Howdenshire Parliamentary Division south-east of the railway from Market Weighton to Selby, the Holderness Parliamentary Division and the Parliamentary Borough of Hull.

Members of Branch—733.

President, J. G. BLACK, M.D., Harrogate

President-elect, I. MOSSOP, Esq., Manningham

Vice-Presidents.

J. S. CAMERON, M.D.
T. K. CLARKE, M.D.
R. CUFF, M.D.
T. M. DOLAN, M.D.
W. DYSON, M.D.
J. E. EDDISON, M.D.
D. GOYDER, M.D.
W. H. JALLAND, Esq.
J. H. KEELING, M.D.
S. KNAGGS, Esq.
H. C. MAJOR, M.D. (Associate).
J. W. MARTIN, M.D.
R. H. MEADE, Esq.
P. E. MIALL, Esq.
A. S. MYRTLE, M.D.
A. C. F. RABAGLIATI, M.D.
J. RAMSAY, M.D.
S. SNELL, Esq.
G. I. SWANSON, M.D.
C. G. WHEELHOUSE, Esq., LL.D.
C. J. WRIGHT, Esq.

Honorary Secretary and Treasurer.
ADOLPH BRONNER, M.D., 33, Manor Row, Bradford

Representatives on Council of Association.
D. Goyder, M.D., Bradford
D. Burgess, M.B., Sheffield

Branch Council.

Allan, J., M.D.
Bampton, A. H., M.D.
Churton, T., M.D.
Clarke, H. J., M.D.
Evelyn, W. A., M.D.
Garrard, W. A., Esq.
Giles, L. T., M.B.
Griffith, T. W., M.D.
Horne, J. F., M.D.
Lee, E., Esq.
Little, A., M.B.
Mitchell, W., M.B.
Mossop, I., Esq.
Neech, J. T., M.D.
Porritt, N. Esq.
Pye-Smith, R. J., Esq.
Shann, H. C., Esq.
Solly, E. M., M.B.
White, Sinclair, M.D.

No. 1.—Bradford Division

NUMBERING 153

Chairman, W. Mitchell, M.B., Bradford

Vice-Chairman, J. B. Hall, M.B., Bradford

Honorary Secretaries.
James Metcalfe, M.D., Lynthorne Hey, Frizinghall, Bradford
Andrew Little, M.B., 114, Manningham Lane, Bradford (Treasurer).

Representative for Representative Meeting, W. H. Horrocks, M.B., Oak Royd, Bradford

Representatives on Branch Council.

Bampton, A. H., M.D.
Little, A., M.B.
Mitchell, W., M.B.
Mossop, I., Esq.

Executive Committee.

Althorp, C. F. M., M.B.
Berry, J. B., M.D.
Bronner, Adolph, M.D.
Campbell, H. J., M.D.
Clow, David, M.B.
Craig, W., M.B.
Crowley, R. H., M.D.
Eames, C. W., M.B.
Hall, J. B., M.B.
Hunter, W. L., M.D.
Mercer, R., Esq.
Mossop, I., Esq.
Oliver, G. H., Esq.
Peck, E. G., Esq.
Shaw, R. H., Esq.
Sykes, J., M.B.
Tunstall, A. E., Esq.
Waugh, A., M.B.

Ethical Committee.

Althorp, C. F. M., M.D.
Horrocks, W. H., M.B.
Little, A. M.B.
Manknell, A., M.B.
Metcalfe, J., M.D.
Mitchell, W., M.B.
Shackleton, H., Esq.
Taylor, H. E., Esq.

Associate Member.
Major, H. C., M.D., Bedford.

Aitken, J. H., M.B., Stanningley
Allan, J. F., M.B., 39, Whetley Lane, Bradford
Althorp, C. F. M., M.B., Churchhill House, Bradford
Ballantyne, R. F., M.B., Frizinghall, Bradford
Bampton, A. H., M.D., Milbrook, Ilkley
Bateson, Vaughan, F.R.G.S., 89, New Cross St., Bradfor
Beatton, G. T., M.D., The Cliffe, Bradford
Beckett, S. T., Esq., Larchmont, Clayton, near Bradford
Beckton, W., Esq., Newstead, Park Grove, Frizinghall
Bell, J. H., M.D., Hallfield Road, Bradford
Bell, J. J., Esq., Royd House, Manningham Lane, Bradford
Berry, J. B., M.D., 18, Devonshire Street, Keighley
Bonner, T. I., M.B., 11, Carr Lane, Shipley
Brereton, J. B., Esq., Gildersome
Bronner, Adolph, M.D., 33, Manor Row, Bradford
Brown, Mrs. Charlotte Hodgins, M.D., 8, Marlborough Rd., Bradford
Burnie, W. G., Esq., St. Paul's Road, Bradford
Campbell, H. J., M.D., 36, Manningham Lane, Bradford
Carroll, L. J. P., Esq., Butler House, Barker End Road, Bradford
Chamberlain, W. W., M.B., Rawdon
Clow, David, M.B., 649, Leeds Road, Bradford
Craig, W., M.B., 17, Park Road, Bingley
Crawford, J. H., M.D., 46, Ashgrove, Bradford
Crawford, R., M.D., 18, Marlborough Road, Bradford
Crocker, J. M., Esq., 118, Main Street, Bingley
Crowe, J. T., Esq., 2, Hallfield Road, Manningham, Bradford
Crowley, R. H., M.D., 116, Manningham Lane, Bradford
Crowther, G. H., Esq., Wibsey, Bradford
Denby, W., M.D., 95, Horton Road, Bradford
Dunlop, John, M.D., 15, Springbank Place, Bradford
Dunsmore, W. P., Esq., 165, High St., Gt. Horton, Bradford.
Dyer, C. H., M.D., Ashbrook, Ilkley
Eames, C. W., M.B., 54, Church Lane, Shipley
Edgerley, S., M.B., West Riding Asylum, Menston
Edwards, B. E. I., M.B., Bradford Road, Brighouse
Emerson, J., Esq., Saltaire, Shipley
Eurich, F. W., M.D., 7, Lindum Terrace, Bradford
Erhardt, C. C. J., Esq., Crosshills, Keighley
Evans, W. Arnold., M.D., Town Hall, Bradford
Farrer, R. T., Esq., Brighouse
Field, A. H., Esq., 335, Killinghall Road, Bradford
Firth, E. G., Esq., Whiteland, Baildon, Shipley
Fisher, G. E., Esq., Skipton-in-Craven
Forsyth, R., M.D., Birstall, Leeds
Foster, W., M.B., 2, St. Paul's Road, Shipley
Gilmour, J. R., M.B., Scalebro Ho., Burley-in-Wharfedale
Goldie, George, Esq., 3, Cliff Villas, Manningham
Goyder, D., M.D., Great Horton Road, Bradford
Gray, A., M.B., Bank House, Barkerend Road, Bradford
Hall, J. B., M.B., 31, Manningham Lane, Bradford
Handcock, W., Esq., 252, Girlington Road, Bradford
Harrison, J., Esq., 2, Hustler Terrace, Bradford
Harrop, G. B., Esq., Howard House, Cleckheaton
Hayes, Michael, Esq., 60, Horton Lane, Bradford
Heapy, H. E., M.B., 40, Marlborough Road, Manningham, Bradford
Hebblethwaite, A. G., Esq., 58, Devonshire Street, Keighley
Hebblethwaite, H., Esq., Burley-in-Wharfedale
Heilborn, W. E., M.B., Walmer Place, Bradford
Hibbert, A. O., Esq., Denton House, Bradford
Hilliam, W. P., Esq., Storr Hill, Wyke, nr. Bradford
Holliday, W. H., M.B., Belmont, Gildersome, Leeds
Honeyburne, R., M.D., Idle
Hope, John, A., M.B., 280, Tong St., Dudley Hill, Bradford
Horrocks, W. H., M.B., Oak Royd, Manningham Lane Bradford
Hunter, W. L., M.D., Pudsey
Johnstone, T., M.D., Annandale, Ilkley
Kershaw, H., Esq., Pudsey, near Leeds
Kilbride, J., Esq., 12, St. Paul's Rd., Manningham, Bradford
Kitchen, E. H., Esq., 32, Newmarket Street, Skipton
Kitchen, J. T., M.D., Fever Hospital, Bradford
Lewer, E. S., M.B., Burley-in-Wharfedale
Lister, J. H., Esq., Newton House, W. Bowling, Bradford
Little, Andrew, M.B., 114, Manningham Lane, Bradford
Lodge, P. G., Esq., Lee House, Bradford
Lodge, S., Esq., Bowling, Bradford
Lodge, Samuel, jun., M.D., 28, Manor Row, Bradford
McCaughey, F. H., M.B., 47, Barkerend Road, Bradford
McDonnell, D., Esq., Silsden, Keighley
M'Dowall, J. G., M.D., West Riding Asylum, Menston
MacGregor, D. A., M.D., Clayton West
Mackenzie, L. A., M.B., 63, Park Lane, Bradford
Macvie, A., M.D., Baildon
Manknell, A., M.B., Plantrees Hs., Laister Dyke, Bradford
March, F. K., M.D., Tennyson Place, Bradford
Marsh, E. H., Esq., Long Preston, R.S.O.
Mason, E. R. F., Esq., Hill Top, Gomersal, Leeds
Mason, J. H., M.B., 2 Lily Mount, Heaton Road, Bradford
Meade, H., Esq., 35, Manor Row, Bradford
Mercer, R., Esq., Manningham, Bradford
Metcalfe, James, M.D., Lynthorne Hey, Frizinghall, Bradford

Miall, P. E., Esq., 150, Manningham Lane, Bradford
Milne, Alex., M.B., The Grove, Ilkley
Milne, James, M.D., Oxford Road, Guiseley
Mitchell, W., M.B., 21, Park Lane, Bradford
Moffat, J. G., M.D., Springhead House, Keighley
Morrison, R. S., M.B., Eildon, Cleckheaton
Mosley, R. V. A., M.B., 8, Sunny Bank, Shipley
Mossop, I., Esq., Manningham, Bradford
Munro, Hector, M.B., Fowlis Cottage, Barkerend Road, Bradford
Myers, J. W., M.D., 5, Kirkland Avenue, Baildon
Naylor, J. H., Esq., Low Moor House, Low Moor
Nicholson, C., Esq., Morley Street, Bradford
Nixon, J. C., M.B., West Riding Asylum, Menston
Oliver, G. H., Esq., 28, Peel Square, Bradford
Patterson, G. de J., M.D., Heckmondwike
Peck, E. G., Esq., Queensbury, near Bradford
Pike, N. H., M.B., Heckmondwike
Prior, James, Esq., Brookroyd House, Heckmondwike
Rabagliati, A. C. F., M.D., 1, St. Paul's Road, Bradford
Rawson, W. F., Esq., Grove House, Easby Road, Bradford
Reid, A., M.D., 725, Leeds Road, Bradford
Roberts, E. T., M.D., 133, Skipton Road, Keighley
Roberts, F. A., M.D., Houghton House, Brighouse
Robinson, A. H., M.B., Low Moor, Bradford
Scatterty, W., M.D., Farfield, Keighley
Scott, T., M.D., Ilkley
Sergeant, J. S., Esq., Great Horton, Bradford
Shackleton, H., Esq., 9, Hampton Place, Bradford
Sharp, Margaret S., M.B., 8, Marlborough Road, Bradford
Shaw, R. H., Esq., The Grove, Liversedge
Shields, G., M.B., Northfield Terrace, Queensbury
Shives, John, M.D., Arnage, Victoria Park, Shipley
Sinclair, D., M.B., Great Horton, Bradford
Skeels, W., Esq., 29, Church Lane, Brighouse
Slater, B. H., F.R.C.S., Holme Top House, Horton Lane, Bradford
Stevenson, D. McP., M.B., 733, Manchester Road, Bradford
Stewart, A. H., M.B., Kipping House, Thornton, nr. Bradford
Sykes, J., M.B., St. John's House, Cleckheaton
Tacey, W. G., Esq., 6, Manningham Lane, Bradford
Taylor, A. W., M.B., 94, Toller Lane, Bradford
Taylor, H. E., Esq., 4, Oak Lane, Manningham
Taylor, Thomas, Esq., 157, Bowling Old Lane, Bradford
Thompson, W. H., Esq., 27, Easby Road, Bradford
Thomson, A., M.B., High Street, Skipton
Thornton, E., M.B., Belmont, Shipley
Tunstall, A. E., Esq., Rose Cottage, Thornton, nr. Bradford
Veale, H. De P. B., Esq., Drighlington, near Bradford
Viret, B. P., M.B., 125, Horton Lane, Bradford
Waddington, J. H., Esq., 29, St. Andrew's Villas, Bradford
Wade, B., Esq., Willow Cottage, Little Horton Lane, Bradford
Walker, A. E., Esq., Wibsey
Walker, David, Esq., 77, Little Horton Lane, Bradford
Ward-Smith, Ward, M.B., Victoria Park, Shipley
Watt, H., M.B., 497, Manchester Road, Bradford
Waugh, A., M.B., Clifford House, Skipton
Wheatley, A. J., M.D., Irwell House, Paley Rd., Bradford
White, H. W. Esq., 671, Leeds Road, Bradford
Wilks, S. L. B., M.D., Grassington, nr. Skipton
Wilson, J. C., Esq., Bridge House, Haworth, Keighley
Willson, J. W., Esq., Wayside, Barkerend Road, Bradford
Wood, T. Jason, M.D., 14, Marlborough Road, Bradford
Woodroofe, R. P., Esq., Denton Royd, Eccles Hill, Bradford
Young, W. P., M.B., Kinnaird House, Keighley

No. 2.—Halifax Division

NUMBERING 40.

Chairman, Priestley Leech, M.D., Halifax

Vice-Chairman,

Honorary Secretary and Treasurer, D. J. Macaulay, M.D., Benbecula, Halifax

Representative for Representative Meeting, Alfred Mantle, M.D., Savile Place, Halifax

Representative on Branch Council.
Neech, J. T., M.D.

Executive Committee.
Mantle, A., M.D.
Woodyatt, J. F., Esq.

Adams, J. A., M.B., Sowerby Bridge
Alexander, R. G., J.P., M.D., Blackwall, Halifax
Bond, F. F., M.D., Rastrick, Brighouse
Brown, W. P., Esq., Sowerby Bridge
Brushfield, Archibald N., Esq., Whitegate View, Halifax
Cairns, P. R., Esq., Hebden Bridge
Charteris, W., Esq., Hipperholme, Halifax
Crowther, G. D., Esq., North Parade, Halifax
Davidson, R., M.D., Hipperholme, Halifax
Denning, R. N., M.D., Elland
Dolan, T. M., M.D., J.P., Horton House, Halifax
Drury, Arthur, M.B., London House, Halifax
Ellis, Edward, Esq., Craven House, Hopwood Lane, Halifax
Gay, S. B., Esq., Dean Street, West Vale, Halifax
Hillier, R. J., Esq., 57, York Crescent, King Cross, Halifax
Hoyle, John, M.D., Ryburn Cottage, Ripponden
Hughes, E. W. S., Esq., Danecourt, Halifax
Hunt, T. H., M.D., Leamington Avenue, King's Cross Lane, Halifax
Lawson, J., M.B., Hebden Bridge
Leech, Priestley, M.D., Halifax
Macaulay, D. J., M.D., Benbecula, Halifax
Mantle, Alfred, M.D., Savile Place, Halifax
Marsden, J. A., Esq., Lightcliffe, nr. Halifax
Marshall, James, M.B., Boothtown Road, Halifax
Montgomery, S., Esq., Ovenden, Halifax
Morton, A., Esq., 25, Rhodes Street, Halifax
Neech, J. T., M.D., Town Hall, Halifax
Oakley, G. G., Esq., 190, Pellon Lane, Halifax
Oakley, J., Esq., J.P., Holly House, Halifax
Paton, T. J., M.B., 76, Wharf Street, Sowerby Bridge
Pollard, S. P., M.B., Hebden Bridge
Robertson, A., M.B., 12, Park Road, Halifax
Robinson, Arthur, Esq., 18, Wards End, Halifax
Shaw, W., Esq., Clarence House, Halifax
Strickland, F. G., Esq., 14, Ward's End, Halifax
Waite, W., Esq., 1, Park Road, Halifax
Walton, R. S., M.B., 45, Market Street, Hebden Bridge
West-Symes, E., M.D., J.P., 30, Prescot Street, Halifax
Willans, O. R., M.B., Ivy House, Ovenden, Halifax
Woodyatt, J. F., Esq., King's Cross, Halifax

No. 3.—Harrogate Division

NUMBERING 50.

Chairman, E. Solly, M.B., Harrogate

Vice-Chairman, F. A. de T. Mouillot, M.B.

Honorary Secretary, Charles Gibson, M.D., Woodcote, 5, Beech Grove, Harrogate

Representative for Representative Meeting, H. I. Daggett, M.B., Boroughbridge

Representative on Branch Council.
Solly, E., M.B.

Executive Committee.
Atkinson, J. A., Esq.
Chamberlain, E. B., Esq.
Collier, T., Esq.
Daggett, H. I., M.B.
Garrad, F. W., M.B.
Green, G. R., Esq.
Holroyd, B., Esq.
Lever, F., M.B.
Mackay, I. D., M.B.
Rutherford, James, Esq.
Solly, E. M., M.B.
Watson, W. B., M.B.
Watson, W. M. C., M.D.

Atkinson, G. T. A., M.B., Harrogate
Atkinson, J. A., Esq., Knaresborough
Bain, W., M.D., York Place, Harrogate
Black, J. G., M.D., 7, Cambridge Crescent, Harrogate
Bowman, R. M., Esq., Ripon
Boyd, S. M., Esq., Springfield Av., Ripon Rd., Harrogate
Chamberlain, E. B., Esq., Pateley Bridge
Christian, J. G., Esq., 139, Cold Bath Road, Harrogate
Clarkson, H. G. H., Esq., Birtswith, Ripley
Collier, T., Esq., 5, Westgate, Ripon
Cook, R. F., M.B., 57, West End Avenue, Harrogate
Daggett, H. I., M.B., Boroughbridge
Dimmock, A. F., M.D., Harrogate
Edgecombe, W., M.D., Rodney House, Victoria Avenue, Harrogate
Forbes, W. J., M.B., M.B., Knaresbro'
Frankling, H., Esq., Clarence Drive, Harrogate
Garrad, F. W., M.B., 50, Cold Bath Road, Harrogate
Gibson, Charles, M.D., Woodcote, 5 Beech Grove, Harrogate
Grange, W. D'Oyley, M.D., Moffatt House, Harrogate
Green, G. R., Esq., 7, Park Street, Ripon
Hallett, C. H., M.B., Franklin Road, Harrogate
Hayne, L. B., M.D., Beech Lodge, Harrogate
Hind, H., Esq., Victoria Avenue, Harrogate
Hobson, L. J., M.D., 30, Swan Road, Harrogate
Holroyd, B., Esq., Burn Bridge, Pannal
Johns, F. A., Esq., 30, Leeds Road, Harrogate
Lever, F., M.B., Harrogate
Liddell, J., M.D., Victoria Avenue, Harrogate
Logan, T., M.D., Ravenswood, South Drive, Harrogate
Mackay, I. D., M.B., Knaresborough
Mackay, P. B., Esq., The Cloisters, Knaresborough
Morris, R. J., M.D., York Place, Harrogate
Mossmann, R. A., Esq., Kirkby Malzeard, Ripon
Mouillot, F. A. de T., M.B., Eaton House, Harrogate
Myrtle, G. Y., Esq., 10, Park Parade, Harrogate
Ozanne, F. N., Esq., Sheen House, Harrogate
Pronger, C. Ernest, Esq., Litchdon, Harrogate
Ray, M. B., M.D., Sefton House, Harrogate
Rutherford, James, Esq., St. Mungo, York Road, Harrogate
Smith, F. W., M.D., Otley Road, Harrogate
Solly, E., M.B., Harrogate
Steven, P. A., M.B., 6, Park Street, Ripon
Steward, E. S., Esq., 10, Prince's Square, Harrogate
Walker, A. W. Hinsley, M.D., Argyle House, Harrogate
Watson, J. R., M.B., St. Aubyn's, Harrogate
Ward, R. F. C., M.D., 13, Prince's Square, Harrogate
Watson, Robert N., Esq., Brunswick House, Harrogate
Watson, W. B., M.B., Walker Road, Harrogate
Watson, W. M. C., M.D., Harrogate
Wilson, H. D., M.D., 3 Ripon Road, Harrogate

No. 4.—Huddersfield Division

NUMBERING 44.

Chairman, T. Smailes, M.D., Honley

Vice-Chairman, Norman Porritt, Esq., Huddersfield

Honorary Secretary and Treasurer, J. G. Rowell, Esq., York House, Huddersfield

Representative for Representative Meeting, Alfred Mantle, M.D., Savile Place, Halifax

Representative on Branch Council.
Porritt, Norman, Esq.

Executive Committee.
Draper, J. W., Esq.
Haigh, T. H., Esq.
Irving, J., M.B.
Knaggs, S., Esq.
Moore, S. G., Esq.
Pullon, H., Esq.
Walker, E., M.D.

Baldwin, H. C., Esq., Lockwood, Huddersfield
Beattie, F. A., Esq., Thurlstone, Penistone.
Bell, Wm., Esq., Skelmanthorpe, Huddersfield
Braithwaite, C. B., Esq., The Sycamores, Golcar
Brown, G., Esq., Denby Dale, near Huddersfield
Chambers, John H., Esq., Marsden, near Huddersfield
Clampett, R. W. T., M.B., Slaithwaite
Cross, H. R., Esq., Storthes Hall Asylum, Kirkburton
Demetriadi, L., M.D., The Oakes, Huddersfield
Draper, J. W., Esq., Almondbury, Huddersfield
Dyson, J. R. H., Esq., Honley, Huddersfield
Edwards, T., Esq., 23, Ramsden Street, Huddersfield
Fells, A., M.B., 19, Upper George Street, Huddersfield
Haigh, Harold, Esq., Clifton Lodge, Meltham, Huddersfield
Hall, J. A., Esq., Lockwood, Huddersfield
Hamilton, J., M.D., South Parade, Huddersfield
Hardy, A. E., Esq., 149, Bradford Road, Huddersfield
Horsfall, A. E., M.B., Moorcroft, Golcar
Irving, J., M.B., 2, Greenhead Road, Huddersfield
Kennedy, A. J., Esq., The Knowle, Shepley, near Huddersfield
Kennedy, Neil, M.B., Shepley
Knaggs, S., Esq., 26, Ramsden Street, Huddersfield
Laird, J., Esq., 19, St. Peter Street, Huddersfield
Macgregor, P., Esq., Huddersfield
Mackenzie, F. L., M.D., Lockwood, Huddersfield
Moore, S. G., Esq., 62, Trinity Street, Huddersfield
Millar, Peter, M.B., Royd Cottage, New Mill, near Huddersfield
Naylor, W. R., Esq., Oriel Villa, Marsh, Huddersfield
Nesfield, R. W., M.B., Shelley
Parke, J. L., jun., Esq., Milns Bridge, Huddersfield
Porritt, N., Esq., 24, New North Road, Huddersfield
Prior, S., M.B., Dalton, Huddersfield
Pullon, Henry, M.B., Paddock Crescent, Huddersfield
Rogerson, C. M., M.D., Clough Lodge, Huddersfield
Rowell, J. G., Esq., York House, Huddersfield
Smailes, T., M.D., Honley, near Huddersfield
Thorman, W. H., Esq., Kirkburton, Huddersfield
Thorp, A., Esq., Undercliffe, Holmfirth
Trotter, C. J., Esq., Holmfirth, Huddersfield
Walker, E., M.D., 18, New North Road, Huddersfield
Watthews, H., M.D., Holmfirth
Whitehead, A. E., Esq., Ingfield House, Almondbury, Huddersfield
Williams, H. W., M.D., Holmfirth, near Huddersfield
Wilson, A. C. J., Esq., Penistone

No. 5.—Leeds Division

NUMBERING 160.

Chairman, E. Lee, Esq., Broomfield House, Dewsbury

Vice-Chairman, T. Churton, M.D., Leeds

Honorary Secretary, J. Allan, M.D., Beckett St., Leeds

Representative for Representative Meeting, J. Allan, M.D., Beckett Street, Leeds

Representatives on Branch Council.
Allan, J., M.D.
Churton, T. M.D.
Griffith, T. W., M.D.
Lee, E., Esq.

Executive Committee.
Cameron, J. S., M.D.
Clarke, J. C., Esq.
Coleman, H. W., Esq.
Eddison, J. E., M.D.
Hebblethwaite, S. M., Esq.
Roper, H. J., Esq.
Richardson, Chas., Esq.
Sharp, J. G., M.D.
Williamson, R. E., M.B.
Wright, Prof. Chas. J.

Abbott, T. B., Esq., Greenhill, Aberford, Leeds
Alexander, J. W., Esq., The Lodge, Armley, Leeds
Allan, J., M.D., Beckett Street, Leeds
Anderson, A., M.D., Mirfield
Bacon, A. T., Esq., West Field, Leeds
Banham, C. W. R., Esq., 178, Chapeltown Road, Leeds
Barnes, R. G., Esq., Lauriston, Harehills Road, Leeds
Barrs, A. G., M.D., Park Square, Leeds
Baskett, B. G. M., M.B., Halton
Bean, W. P., Esq., Crossgates, near Leeds
Beetham, H. A., Esq., 64, Harehills Road, Leeds
Birch, De Burgh, M.D., 16, De Grey Terrace, Leeds
Bird, P. S., M.D., 33, Clarendon Road, Leeds
Braithwaite, J., M.D., Clarendon Road, Leeds
Brown, J. W. H., Esq., Vernon House, Roundhay, Leeds
Brown, W. H., Esq., 35, Park Square, Leeds
Buck, J., Esq., Mulgrave House, Rothwell, near Leeds
Butler, S. E. M., Esq., Romagna House, Otley
Cameron, J. S., M.D., 6, Ridge Mount, Cliff Road, Leeds
Carnes, Wm., Esq., 152, Cardigan Road, Leeds
Carr, J. A., Esq., Kippax
Carter, E. G., Esq., Chapel Allerton, Leeds
Carter, F. R., Esq., Potter Newton, Leeds
Chaplin, U., M.D., 35, Park Square, Leeds
Churton, T., M.D., 35, Park Square, Leeds
Clark, R. V., M.B., The University, Leeds
Clarke, W. R., Esq., Studley House, St. Paul Street, Morley
Coleman, F. J., M.D., 6[illegible], Spencer Place, Leeds
Coleman, H. W., Esq., Wyther Lodge, Kirkstall
Crawford, J. J., M.D., Cross Flatts, Beeston, Leeds
Croft, E. Octavius, M.D., 33, Park Square, Leeds
Darlow, F., M.B., Fieldhead, Horsforth
Dawson, C. E., Esq., 4, Bainbrigge Road, Headingley, Leeds
Dennison, A., M.D., Beech House, Burley, Leeds
Dobson, J., M.D., Thornville, Burley Road, Leeds
Dodd, E. J. A., Esq., 18, Harrogate Rd., Chapel Allerton, Leeds
Eddison, J. E., M.D., 6, Park Square, Leeds
Ellison, Joseph, Esq., Hunslet Hall Road, Leeds
Fergus, W. J. B., M.B., 53, Church Street, Hunslet
Fowler, E. S. G., Esq., 1, Beechwood Crescent, Burley
Fox, J. T., Esq., 10, Moorland Road, Leeds
Fryer, J., Esq., Batley Carr, Dewsbury
Galloway, W. H., Esq., Bridge House, Otley
Garrett, C. D., Esq., Dewsbury
Greaves, F. W. M., M.B., The Union Infirmary, Beckett Street, Leeds
Griesbach, S., Esq., Garforth, Leeds
Griffith, T. Wardrop, M.D., 43, Park Square, Leeds
Grünbaum, A. S., M.D., The Drive, Roundhay, Leeds
Hall, R. H., M.B., Hillside, Headingley, Leeds
Hall, W., Esq., Hillside, Headingley, near Leeds
Halliday, F. W., Esq., Wortley, Leeds
Halliwell, T. O., Esq., Manor Place, Dewsbury
Handcock, G., Esq., 8, Westfield Ter., Chapel Allerton, Leeds
Hann, R. G., Esq., Sherwood House, Blundell Street, Leeds
Hartley, R. N., M.B., 2, Clarendon Road, Leeds
Hawkyard, A., Esq., Hunslet, Leeds
Hawtin, J. N., Esq., Roundhay Street, Leeds
Hayes, G. C., Esq., 24, Park Square, Leeds
Haygarth, R., M.B., Northfield, Crossgates, Leeds
Heald, B. G., Esq., East Street, Leeds
Heald, G. H., Esq., 14, Hanover Square, Leeds
Hebblethwaite, S. M., M.D., Harewood, near Leeds
Hellier, J. B., M.D., North Grange Road, Leeds
Hepworth, G., Esq., Clarence Lodge, Morley, Leeds
Hinings, J. W., Esq., Hyde Park Corner, Leeds
Hogg, T. Bellshaw, Esq., 2, Crownpoint Road, Leeds
Holmes, F., Esq., Springfield Cottage, Roundhay, Leeds
Holmes, J. G., Esq., Chapeltown Road, Leeds
Hopkins, J. W., jun., Esq., Brunswick House, Leeds
Hopton, R., Esq., Fern Royd, Brudenell Road, Leeds
Humphery, G. P., M.B., Wellgarth House, Armley, Leeds
Hunt, R., Esq., Camp Road, Leeds
Johnson, L. C., Esq., Lidgett Park Road, Roundhay, Leeds
Kaye, J. N., Esq., Kirkstall, Leeds
Keighley, H., Esq., West House, Batley
Knaggs, R. Lawford, M.D., 27, Park Square, Leeds
Knowles, T., M.D., Gargrave, Leeds
Lambert, F. W., Esq., Farsley, Leeds
La Touche, A. D. de, Esq., Prospect House, Ossett
Lee, E., Esq., Broomfield House, Dewsbury
Little, A. E., Esq., 3, Roundhay Terrace, Leeds
Littlewood, H., Esq., 25, Park Square, Leeds
McCandlish, J. G., Esq., 18, Blenheim Terrace, Woodhouse Lane, Leeds
McNab, A. A., M.B., 29, Can Crofts, Armley, Leeds
Margetson, W. E., Esq., Dewsbury
Markby, H., Esq., 23, High Street, Morley, Leeds
Mason, W. H., Esq., 228, Dewsbury Road, Leeds
Mayo, F. H., Esq., Headingley, Leeds
Mill, G. S., M.D., Wesley Street, Ossett, Wakefield
Milne, Leslie, M.D., Mirfield
Mitchell, C. A., Esq., Eightlands Road, Dewsbury
Monies, T., Esq., 143, Wellington Road, Leeds
Moore, S., M.D., Holbeck, Leeds
Moynihan, B. G. A., M.B., 33, Park Square, Leeds
Musgrave, F. E., M.B., 179, Belle Vue Road, Leeds
Nicholson, J., Esq., 96, Harehill's Avenue, Leeds
Nicholson, T. M., Esq., 293, Roundhay Road, Leeds
Nightingale, J., M.D., The Green, Horsforth, Leeds
Oldfield, C., Esq., 43, Brudenell Road, Leeds
Pearson, A. E., Esq., Manston Hospital, Leeds
Phillips, Mary E., M.B., Woodhouse Lane, Leeds
Pinder, J. W., Esq., Horsforth, Leeds
Platts, S., M.B., 26, Moorland Road, Leeds
Pogson, W., Esq., Seacroft, Leeds
Pope, Henry, Esq., Roundhay Road, Leeds
Porter, A. E., M.B., 3, Hollin Lane, Headingley, Leeds
Pratt, J. W., Esq., Trefern House, Otley
Ramskill, J., Esq., 35, Meadow Lane, Leeds
Richardson, C., Esq., North Street, Leeds
Richardson, Harold, Esq., Stamford House, Roundhay Road, Leeds
Richardson, W. J., M.D., Ravensthorpe, Dewsbury
Roberts, E., Esq., 14, Clarendon Road, Leeds
Robertson, H. M., M.B., Roundhay, Leeds
Robinson, E., Esq., 42, Park Square, Leeds
Robson, H. J., Esq., Hillary Place, Leeds
Roper, H. J., Esq., 6, Spencer Place, Roundhay Road, Leeds
Rowe, G. H., Esq., Lyddon Hall, Leeds
Rowling, S. T., M.D., 13, De Grey Terrace, Leeds
Rumboll, S., Esq., Cavendish House, Leeds
Salkeld, Charles, M.B., 199, Roundhay Road, Leeds
Scatchard, J. P., M.B., Tadcaster
Scholefield, E. H., M.B., Ravensthorpe, nr. Dewsbury
Scott, S. G., M.B., The University, Leeds
Seaton, D., M.B., Blenheim Terrace, Leeds
Sharp, J. Gordon, M.D., 3, St. George's Terrace, Leeds
Sharpe, G. M., Esq., Hunslet, Leeds
Sims, D., Esq., 260, Meanwood Road, Leeds
Smailes, Robert, Esq., Alma Road, Leeds
Smith, H. A., Esq., Holly Bank, Headingley, Leeds
Spink, J. T., Esq., Westholme House, Otley
Spink, W. Lee, M.B., 395, Harehills Lane, Leeds
Spong, Ambrose, M.B., Manston House, Crossgates, nr. Leeds
Spray, J. H., Esq., 3, Chevin View, Pool, near Leeds
Sproulle, T. W., Esq., Mirfield
Steele, S. T., Esq., Morley
Stewart, A. B. S., Esq., 5, Woodhouse Square, Leeds
Stewart, J., M.B., Grove House, Batley
Stewart, Joseph, M.B., Lovell House, Leeds
Teale, M. A., Esq., 38, Cookridge Street, Leeds
Telling, W. H. M., M.B., 5, Lifton Place, Leeds
Tempest, H., Esq., The Gables, Thorner, near Leeds
Thompson, Walter, Esq., 4, Park Square, Leeds
Trevelyan, E. F., M.D., 40, Park Square, Leeds
Waddington, F., Esq., 123, Town Street, Armley, Leeds
Waddington, T. H., Esq., High Thorn, Upper Armley, Leeds
Wainman, B., Esq., 58, Dewsbury Road, Leeds
Waite, W. A. H., M.B., Old Chapel House, Richmond Hill, Leeds
Walker, H. Secker, Esq., 45, Park Square, Leeds
Ward, Edward, M.B., 30, Park Square, Leeds
Ward, W. S., Esq., 222, Hunslet Road, Leeds
Wawn, E. Russell, Esq., Southbank, Bramley, Leeds
Wear, A. E. L., M.D., 13A, Hanover Square, Leeds
Whalley, E., Esq., Brooklyn Street Lane, Roundhay, Leeds
Whitehead, A. L., M.B., 31, Park Square, Leeds

Wigin, G. W., Esq., Methley, Leeds
Williamson, R. E., M.B., Otley
Woodcock, H. de C., Esq., Beeston Hill, Leeds
Woods, G. T., Esq., Killinghall, Ripley
Wright, Professor Chas. J., Lynton Villa, Virginia Road, Leeds
Young, W. McGregor, M.B., 171, Woodhouse Lane, Leeds

No. 6.—Scarborough Division

NUMBERING 40.

Chairman, C. E. Salter, M.D., Scarborough

Vice-Chairman, G. B. Hunt, M.D., Scarborough

Honorary Secretary, L. T. Giles, M.B., 4, Filey Road, Scarborough

Representative for Representative Meeting, G. I. Swanson, M.D., Heworth Moor, York

Representative on Branch Council.
Giles, L. T., M.B.

Executive Committee.
Cuff, R., M.B.
Foley, T. McC., Esq.
Forman, E. G., Esq.
Godfrey, F. W. A., M.B.
Handcock, G., Esq.
Hope, G. J. B., M.B.
Murray, J. G., Esq.
Thompson, G. W., M.D.

Calantarients, J. A., M.D., 8, Alma Square, Scarborough
Candler-Hope, G. J. B., M.B., Hutton-Buscel, West Ayton
Constant, T. E., Esq., 20, Ramshill Road, Scarborough
Corry, W. W. S., Esq., 2, Pavilion Square, Scarborough
Cuff, R., M.B., 40, Filey Road, Scarborough
Dale, F., M.D., Belmont Road, Scarborough
Dreaper, W. G., Esq., Park Villa, Grosmont
Edmondson, C. R., Esq., 15, Falsgrave Road, Scarborough
English, T. H., Esq., Netherley, Sleights, R.S.O.
Foley, T. McC., Esq., 5, Queen Street, Scarborough
Forman, B. G., Esq., Cloughton, R.S.O.
Giles, L. T., M.B., 4, Filey Road, Scarborough
Godfrey, F. W. A., M.B., 5, Montpellier Terr., Scarborough
Grummitt, C. C., Esq., Silverdale, Scalby R.S.O.
Handcock, G., Esq., 6, Westfield Terrace, Scarborough
Hardwicke, G., Esq., Cliffe Grange, Snainton, R.S.O.
Haworth, J. T., Esq., Rutland Lodge, Filey
Horne, J., M.D., The Wick, Scarborough
Hudson, G., M.D., Scarborough
Hunt, G. B., M.D., 47, Albemarle Crescent, Scarborough
Hutton, J. A., M.D., 11, Albemarle Crescent, Scarborough
Irving, John, M.D., Inagh Mount, Filey Road, Scarborough
Kirk, J. L., M.B., The Low Hall, Pickering
Maingay, H. B., Esq., 33, Queen Street, Scarborough
Mead, R. W., M.D. 5, Skinner Street, Whitby
Murray, J. G., Esq., 44, Gladstone Street, Scarborough
Porter, J. F., M.D., Helmsley
Power, Henry, M.B., Bagdale Hall, Whitby
Robertson, G. V. A., Esq., Beech Grove, Pickering
Salter, C. E., M.D., 34, Prince of Wales Ter., Scarborough
Saner, J. D., M.B., Lynton Lodge, Scarborough
Sawdon, F. J., M.D., 22, Grosvenor Crescent, Scarborough
Simpson, C. Butler, Esq., Grove House, Filey
Symes, Ernest, Esq., West Street, Scarborough
Taylor, W. C. E., Esq., 34, Queen Street, Scarborough
Tetley, T. Walshe, Esq., Kirbymoorside
Thompson, G. W., M.D., 6, West Street, Scarborough
Thornley, J. H., M.B., 1, Carlton Terrace, St. Martin's Square, Scarborough
Wheelhouse, C. G., LL.D., F.R.C.S., Cliff Point, Filey
Wilkinson, C. A., Esq., 56, Gladstone Street, Scarborough

No. 7.—Sheffield Division

NUMBERING 126.

Chairman, J. F. Cheesewright, Esq., Rotherham

Vice-Chairman, J. H. Brown, M.D., Sheffield

Honorary Secretary, A. C. Turner, Esq., 287, Glossop Road, Sheffield

Representative for Representative Meeting, A. C. Turner, Esq., 287, Glossop Road, Sheffield

Representatives on Branch Council.
Garrard, W. A., Esq.
Pye-Smith, R. J., Esq.
White, Sinclair, M.D.

Executive Committee.
Brown, J. H., M.D.
Burgess, D., M.B.
Cheeswright, J. F., Esq.
Dyson, W., M.D.
Favell, R., Esq.
Garrard, W. A., Esq.
Gordon, R., M.D.
Hall, A. J., M.D.
Johnston, G., M.D.
Lyth, J. B., Esq.
Wilkinson, G., M.B.

Adam, J. E., M.B., Westgrove, Kilnhurst, Rotherham
Adams, E. J., Esq., Birch Grove, Manchester Rd., Sheffield
Atkin, Charles, Esq., Endcliffe Croft, Sheffield
Barraclough, A. M., M.B., Chapeltown, Sheffield
Beardmore, A. H., Esq., 26, Cemetery Road, Sheffield
Benson, H. M., M.B., 301, Fulwood Road, Sheffield
Blyth, James, M.D., Ettrick House, Attercliffe Common, Sheffield
Blythman, C. S., M.B., Swinton, Rotherham
Branson, Wm., M.B., Brook House, Carbrook, Sheffield
Broadley, John, M.B., 340, Glossop Road, Sheffield
Brooks, S. J., Esq., Huthwaite House, Thurgoland
Brown, J. H., M.D., 14, Burngreave Road, Sheffield
Burgess, D., M.B., 442, Glossop Road, Sheffield
Burman, F. J., Esq., Wath-upon-Dearne, Rotherham
Carter, Godfrey, M.D., 4, Lawson Road, Sheffield
Cheeswright, J. F., Esq., Rawmarsh, Rotherham
Clapham, H., Esq., 105, Cowlishaw Road, Sheffield
Clark, M. R., Esq., Harthill, Sheffield
Cocking, W. T., M.D., 305, Glossop Road, Sheffield
Collier, T., Esq., 172, London Road, Sheffield
Collinson, F. C. Esq., Red House, Masbro', York
Connell, Arthur, F.R.C.S.Ed., 21, Wilkinson Street, Sheffield
Davidson, G. S., M.B., 267, Abbeydale Road, Sheffield
Dearden, C. R., Esq., 2 3, School Rd., Crookes, Sheffield
Dearden, V. G. S., Esq., Carbrook, Sheffield
Dufty, E. E., Esq., Glencoe, Masborough
Duguid, A. G., M.B., Upper Hanover Street, Sheffield
Dyson, W., M.D., Gell Street, Sheffield
Elliston, C. Eric, M.B., Royal Infirmary, Sheffield
Favell, R., Esq., Brunswick House, Glossop Road, Sheffield
Firth, A. H., M.B., Wadsley Asylum, Sheffield
Forbes, A., M.B., Hillsbro' Lodge, Sheffield
Forrest, A. W., M.B., Dun Edin, Attercliffe Common, Sheffield
France, E., Esq., Charlotte Road, Sheffield
Garrard, W. A., Esq., Chatham House, Rotherham
Gillespie, D., M.B., Wadsley Asylum, Sheffield
Gordon, R., M.D., 26, Wolstenholme Road, Sheffield
Greaves, R. B., M.D., 263, Cemetery Road, Sheffield
Gwynne, C. N., M.D., 10, Sharrow Lane, Sheffield
Hadley, F. A., Esq., Highfield House, Sheffield
Hall, A. J., M.D., 342, Glossop Road, Sheffield
Hallam, H., Esq., Broomhill, Sheffield
Hargreaves, E., M.D., 2, Eyre Street, Sheffield
Harrison, Frank, Esq., 289, Glossop Road, Sheffield
Hatherley, S. O., Esq., Cliff Field House, Swinton
Hearn, E., Esq., 318, Glossop Road, Sheffield
Helm, W. H., Esq., Bank View, Nether Edge, Sheffield
Hudson, H. L., Esq., Infirmary Road, Sheffield
Hudson, O. H., Esq., Park House, Chesterfield Rd., Sheffield
Husband, A. Lewis, M.D., Machon Bank, Sheffield
Inkster, S. M., M.D., Broomhill Lodge, Sheffield
Jago, E. B., Esq., Rawmarsh, near Rotherham
Johnston, G., M.D., 277, St. Phillip's Road, Sheffield
Johnston, G. H., M.B., West House, Wath-on-Dearne
Kay, W. S., M.D., Wadsley Asylum, Sheffield
Keeling, J. H., M.D., 267, Glossop Road, Sheffield
Kenny, J. D., M.D., Treeton, Rotherham
Kerr, William S., M.B., 281, Glossop Road, Sheffield
Kilham, C. S., Esq., Crookesmoor, Sheffield
Kite, E., M.B., Hillsbro', Sheffield
Knight, H. E., Esq., Chatham House, Rotherham
Leader, H., Esq., 279, Glossop Road, Ranmoor
Lockwood, H., Esq., 122, Cawlishaw Road, Sheffield
Longbottom, W., Esq., 139, Burngreave Road, Sheffield
Lyth, J. B., Esq., Fern Bank, Rotherham
Macdonald, J. S., Esq., 7, Summerfield, Broomhill, Sheffield
Martin, J. W., M.D., Claremont Place, Glossop Rd., Sheffield
Martin, R. H., M.B., 240, Brook Hill, Sheffield
Matthews, R. H., M.D., 394, London Road, Sheffield
Matthews, S., M.D., 240, Duke Street, Sheffield
Matthews, S., M.D., 91, Hanover Street, Sheffield
Mathieson, A. L., M.B., Owler Lane, Pitsmoor, Sheffield
Milestone, Evelyn, S., M.D., 381, Glossop Road, Sheffield
Milne, James, M.B., Wincobank, near Sheffield
Milner, N., Esq., Muirfoot, Millhouses, Sheffield
Morton, T. H., M.D., 29, Glen Road, Nether Edge, Sheffield
Mould, G. E., Esq., The Grange, near Rotherham
Murphy, T. J., M.B., Firth Park Rd., Fir Vale, Sheffield
Mylan, J. G., Esq., Carlisle House, Grimesthorpe
Naylor, M. C., Esq., Sarum House, Parkgate
Paterson, H. G., Esq., 70, Machon Bank, Sheffield
Patten, C. J., M.D., The University, Sheffield
Peace, P. C., Esq., Royal Hospital, Sheffield
Pearson, J., M.B., 304, Glossop Road, Sheffield
Phillips, M. H., M.B., Jessop Hospital for Women, Sheffield
Picken, J., Esq., Rawmarsh, Hill Rotherham
Porter, Charles, M.B., The University, Sheffield
Porter, W. S., M.D., 283, Glossop Road, Sheffield
Priestley, T., Esq., Middlewood Road, Hillsbro', Sheffield
Pye-Smith, R. J., Esq., 450, Glossop Road, Sheffield
Reckless, A., Esq., 2, Broomgrove Road, Sheffield
Riseley, S., M.D., 387, Glossop Road, Sheffield
Roberts, V., M.D., Chippingham House, Attercliffe, Sheffield
Robertshaw, W. M., M.B., Belmont, Stocksbridge, Sheffield
Robinson, A., M.D., Chilton Lodge, Rotherham
Robinson, G., Esq., 1, Burngreave Road, Sheffield
Rowthorn, W. H., Esq., Kimberworth Road, Rotherham
Ryan, Simon, F.R.C.S., Eversley, Upperthorpe Rd., Sheffield
Saunders, M. B., M.B., The Beeches Wales, Sheffield
Scott, A. W., M.D., Newton Croft, Woodhouse, Sheffield
Scott, G. H., Esq., 10, St. George's Terrace, Sheffield
Scurfield, H., M.D., Town Hall, Sheffield
Sharpe, S. H., M.D., Wadsley Asylum, Sheffield
Sime, R., Esq., Ecclesfield, Sheffield
Simpson, John, M.B., Cawdar House, Rotherham
Skinner, E., Esq., 124, Devonshire Street, Sheffield
Smith, R. W. I., M.D., Don House, Brightside, Sheffield
Snell, S., Esq., 70, Hanover Street, Sheffield
Stokes, T. P., Esq., 118, Shirebrook Road, Heeley, Sheffield
Somerville, J., M.D., 52, Burgoyne Road, Sheffield
Thorpe, G. E. K., Esq., 6, Tapton House Road, Sheffield
Tonkin, T. J., Esq., 16, Burngreave Road, Sheffield
Tregenza, W., Esq., Ranmoor, Sheffield
Turner, A. C., Esq., 287, Glossop Road, Sheffield
Waites, R. F., Esq., South Dene, Millhouses, Sheffield
Walker, A., M.D., Rathgar, Melbourne House, Sheffield
Weatherhead, E., M.B., Wadsley Asylum, near Sheffield
White, Sinclair, M.D., Ranmoor, Sheffield
Wiggins, B., Esq., Thistle House, Howland
Wilks, J. H., M.B., 43, Montgomery Road, Sheffield
Wilkinson, G., M.B., 350, Glossop Road, Sheffield
Willey, C. H., M.D., 53, Wolstenholme Road., Sharrow, Sheffield
Williams, H. J. E. H., Esq., City Hospital, Sheffield
Wilson, A. G., M.B., 56, Riverdale Road, Sheffield
Wood, John, M.B., 86, Burgoyne Road, Sheffield
Young, A. M.B. 43, Collegiate Crescent, Sheffield

No. 8.—Wakefield and Doncaster Division

NUMBERING 59.

Chairman, H. J. Clarke, M.D., Doncaster

Vice-Chairman, J. F. Horne, M.D., Barnsley

Honorary Secretary, C. J. R. McLean, M.D., Town Moor Avenue, Doncaster

Representative for Representative Meeting, C. J. R. McLean, M.D., Town Moor Avenue, Doncaster

Representatives on Branch Council.
Clarke, H. J., M.D.
Horne, J. F., M.D.

Executive Committee.
Arbuckle, H. W., M.D.
Blair, R., M.D.
Coleman, G. E., Esq.
Percival, T., Esq.
Selby, E. W., M.D.
Stanger, W., M.B.
Statter, W. Aked, Esq.

Aitken, J. S., Esq., Havercroft Manor, near Wakefield
Alexander, W. H., M.B., Crowle, Doncaster
Arbuckle, H. W., M.D., Thorne, near Doncaster
Auld, A., M.B., Snaith, R.S.O.
Banham, H. A. L., Esq., Brockley Lane, Worsboro Bridge
Battersby, J. H., M.D., South Parade House, Doncaster
Blackburn, J., Esq., Ivy House, Barnsley
Blackburn, V. K., Esq., Park Villa, Barnsley
Blair, R., M.D., Anglesey House, Goole
Blainey, J. A., Esq., Snaith, R.S.O.
Blomfield, G. W., M.D., Horsefair, Pontefract
Brown, A. T., M.B., Horbury, Wakefield
Caldwell, J., M.D., Hoyland Common, Barnsley
Castle, R. F., M.B., Quarry Hills, Darfield, Barnsley
Cheves, W. R., M.B., 220, Sheffield Road, Barnsley
Chrispin, W. F., Esq., Garfield House, Castleford
Clark, D. McC., Esq., Auston, Rotherham
Clarke, H. J., M.D., 53, Hall Gate, Doncaster
Clayton, W. K., M.D., Grove House, Wakefield
Coleman, G. E., Esq., Hemsworth, near Wakefield
Eardley, William, Esq., Cantley Lodge, Goole
English, E., M.D., Thorne Road, Doncaster
Frew, A. W., L.R.C.P.&S., Sharrow Lea, Mexborough
Gibson, Thos., M.B., Town Hall, Wakefield
Glover, T. A., M.D., 17, South Parade, Doncaster
Goode, E. T., Esq., 52, Hall Gate, Doncaster
Gray, W. J., Esq., 59, Balby Road, Doncaster
Hamilton, A. A., Esq., Crowle, by Doncaster
Harvie, G. H. B., M.B. (address uncommunicated)
Hein, G. G. B., Esq., Peterson Road, Wakefield
Henderson, J., M.B., Market Street, Wakefield
Horne, J. F., M.D., The Poplars, Barnsley
Kaye, James R., M.B., Avenue House, Wakefield
Kemp, E. W., Esq., Castleford, Normanton
McLean, C. J. R., M.D., Town Moor Avenue, Doncaster
Macphail, John, M.D., Highfield House, Barnsley
Maling, E. A., Esq., Middleton Tyas R.S.O.
Martin, W., M.B., Thorne, Doncaster
Middleton, Percy E., Esq., Bridge House, Knottingley
Mitchell, Robert, M.B., Hooton Pagnell, nr Doncaster
Orford, J., Esq., Starfield House, Pontefract
Pearce, G. H., Esq., Darton, Barnsley
Phillips, G. G., Esq., Tickhill, Rotherham
Reader, J., Esq., Westgate End House, Wakefield
Rigby, R. H., Esq., Ackworth
Roulston, W., M.D., Southgate, Wakefield
Rowley, O. F., Esq., 20, Church Street, Barnsley
Sadler, F. J., Esq., 21, Church Street, Barnsley
Scorah, E. J., Esq., High Field House, Darfield
Selby, E. W., M.D., 13, Hall Gate, Doncaster
Smith, W. M., Esq., West Riding Asylum, Wakefield
Stanger, W., M.B., Wakefield
Statter, William Aked, Esq., Warren House, Wakefield
Sullivan, E. J. H., M.D., South Kirkby, Pontefract
Tennant, J., M.B., Ashby, Doncaster
Thomson, A., M.B., Reed Hall, Chapelthorpe, Wakefield
Walker, J. W., Esq., Boyne Hill Ho., Chapelthorpe, Wakefield
Ward, J. O., Esq., Brotherton, near Normanton
Willey, W. R., Esq., Infirmary, Doncaster

No. 9.—York Division

NUMBERING 61.

Chairman, C. I. Faulkner, Esq., Escrick

Vice-Chairman, J. Ramsay, M.D., York

Honorary Secretary, H. Norman Goode, M.B., 8, St. Leonards, York

Representative for Representative Meeting, G. I. Swanson, M.D., Heworth Moor, York

Representatives on Branch Council.
Evelyn, W. A., M.D.
Shann, H. C., Esq.

Executive Committee.
Craster, H. V., Esq.
Faichnie, N., M.B., Major, R.A.M.C.
Gillies, J., Esq.
Jalland, W. H., Esq.
Petch, R., M.D.
Pierce, B., M.D.
Turner, R., M.B.
Wright, F., Esq.

Adams, A. S., M.B., Rillington
Allen, J. E., M.D., St. Nicholas House, Hull Road, York
Anderson, T., M.D., 17, Stonegate, York
Badcock, A., Esq., Clarence House, York
Bostock, R. H. F., Esq., Norton, Malton
Buchanan, W. I., M.B., Kirkgate, Thirsk
Caley, J. W., Esq., Bubwith, Selby
Cattley, R., M.B., West View, Clifton Green, York
Corby, W. T., M.D., The Mount, Malton
Craster, H. V., Esq., Stillington, Easingwold
Curtis, G. W., Esq., Acomb, York
Elvins, R. S., Esq., Tollerton
Etches, C. G., Esq., Helperby, York
Evelyn, W. A., M.D., 24, Micklegate, York
Faichnie, N., M.B., Major, R.A.M.C., Norval Cottage Fulford, York
Fairweather, A. F. A., M.D., Pocklington
Faulkner, C. I., Esq., Escrick, near York
Ferguson, A. C., M.D., Kirkgate House, Thirsk
Fraser, S. Louise, M.B., 16, The Mount, York
Gillies, J., Esq., 5, The Crescent, Selby
Goode, H. N., M.B., 8, St. Leonards, York
Gramshaw, F. S., M.D., 9, St. Leonards, York
Grove, E. G., Esq., Bootham Park, York
Hargreaves, J. A., M.B., Market Place, Wetherby
Hartley, A., M.D., Malton
Hearder, F. P., M.D., Yorkshire Inebriate Reformatory Whixley, York
Hitchcock, C. K., M.D., Bootham Park, York
Holt, H. M., Esq., St. John's House, Norton, Malton
Jalland, W. H., Esq., Museum Street, York
Kemp, Norah, M.B., The Retreat, York
Leadman, A. D. H., Esq., Oak House, Pocklington
Long, D. S., M.D., 71, Micklegate, York
Longford, H., Esq., The Ingrams, Thirsk
McBride, J. G., F.R.C.S., North-Eastern Railway Offices York
McCracken, J., M.B., Coxwold, Easingwold
Macdonald, Peter, M.B., Ivy Cottage, Acomb, York
Mackenzie, H. J., M.B., The Retreat, York
Makins, R., M.B., York Dispensaay, York
Mawson, J. H., Esq., 43, Holgate Crescent, York
Mills, T. I., Esq., Easingwold
Northcote, A. B., M.D., Blenheim House, Monkgate, York
Fenton, R. H., M.D., D.S.O., Major, R.A.M.C., Park View, Fulford, York
Petch, R., M.D., Micklegate, York
Pierce, B., M.D., The Retreat, York
Prince, H. T., Esq., Albert House, Boston Spa
Raimes, A., M.D., Mill Mount, The Mount, York
Ramsay, J., M.D., 23, High Petergate, York
Shann, F., Esq., 6, St. Leonard's, York
Shann, H. C., Esq., 84, Micklegate, York
Sharples, J. P., Esq., Stamford Bridge, York
Smeeton, C. W., Esq., Hovingham
Stoddart, A. R., M.B., Ivy Lodge, Fishergate, York
Swanson, G. I., M.D., Heworth Moor, York
Thorp, H. C., M.B., Clifton Green, York
Tighe, J. V. G., M.B., North Riding Lunatic Asylum, Clifton
Todd, G. D., Esq., Gowthorpe, Selby
Turner, R., M.B., 48, Bootham, York
Wedgwood, P. A., Esq., Green Hammerton, York
Westcott, S., C.M.G., Lt.-Col., R.A.M.C., White House Fulford, York
Woodside, W. A., Capt. R.A.M.C., c.o. P.M.O., York
Wright, F., Esq., Stamford Bridge

COLONIAL BRANCHES.

BARBADOS BRANCH.

RECOGNISED 1889.

Members of Branch—36.

President,
C. J. MANNING, Esq., St. Michael's

Vice-Presidents.
J. R. PHILLIPS, M.B., Barbados
J. HUTSON, M.B., St. Michael's

Honorary Secretary and Treasurer.
J. W. HAWKINS, M.B., Westbury House, Barbados

Assistant Secretary.
W. B. Clarke, M.B., Barbados

Representative on Council of Association.
C. G. Gooding, M.B., 67, Brockley Road, S.E.

Representative.

Branch Council.

Bannister, E. H., M.B.
Brown, G. B., M.B.
Clarke, W. B., M.B.
Gooding, C. E., M.D.
Wolseley, H. J., M.B.

Alexis, G. N., M.B., St. Davids, Grenada
Archer, L. T., M.B., Alleyne's Bay House, St. James
Bannister, E. H., M.B., Merton Lodge, Barbados
Bennett, H. J. L., Esq., St. Andrews, Grenada
Boxill, N. L., M.B., Buttalls, St. George's, Barbados
Branch, Stanley, M.B., Castries, St. Lucia
Bridger, J. F. E., M.B., Bridgetown, Barbados
Brown, G. B., M.B., General Hospital, Barbados
Browne, T. S., M.B., Summervale, St. Michaels, Barbados
Clarke, W. B., M.B., Tweedside, Barbados
Deane, E. G. W., Esq., Springham, Barbados
Deane, F., F.R.C.S.E., Deeside House, King Street, Barbados
Durrant, N. S., Esq., Grand Bras House, St. Andrews, Grenada
Gooding, C. E., M.D., Stirling, St. Philip's
Grannum, W. B., Esq., Montrose, Hastings, Barbados
Greaves, D. A. Esq., Hilbury, St. John's, Barbados
Greaves, E. C., M.B., Industry, St. Joseph's Parish, Barb'dos
Greaves, H. S., Esq., General Hospital, Barbados
Greenidge, C. C., M.B., Merton, St. Peter, Barbados
Hatton, E. F., M.B., Grenada
Hawkins, J. W., M.B., Westbury House, Barbados
Hutson, J., M.B., Harmony Hall, St. Michael's, Barbados
King, A., M.B., Castries, St. Lucia
Latour, G. L., M.D., Charlotte Town, Grenada
McPhail, D. M., M.B., St. Lucia
Manning, C. J., Esq., Rosemont, St. Michael's, Barbados
O'Neale, R. Dudley, M.B., Grenada
Orford, T. C., Esq., Colony Hospital, Grenada
Parris, N. D., M.D., St. Michael's, Barbados
Paterson, G. W., Esq., The Gables, St. George's, Grenada
Phillips, J. R., M.B., Barrack Hill, Christ Church, Barbados
St. Cyr, J. B. D., Esq., Auxcayes, Haiti
Skeete, E. M., Baxters, St. Andrew's, Barbados
Ward, W. K., M.D., American Consulate, Barbados
Wolseley, H. J., M.B., Coombe House, White Pk., Barbados
Yearwood, C. A. M.D., St. Thomas's Barbados

BERMUDA BRANCH.

RECOGNISED 1886.

Members of Branch—16.

President, CHARLES H. BUTTERFIELD, M.D., Hamilton, Bermuda.

Vice-President,

Hon. Secretary and Treasurer, ELDON HARVEY, Esq., Bermuda

Representative on Council of Association.
Harvey, Eldon, Esq., Bermuda

Representative,

Butterfield, C. H., M.D., Hamilton, Bermuda
Cann, John W., M.D., Somerset, Bermuda
Dickinson, J. B., M.D., Hamilton, Bermuda
Gilbert, J. T., M.D., St. George's, Bermuda
Green, S. F. St. D., Major, R.A.M.C., Bermuda
Harvey, Eldon, Esq., Bermuda
Higinbotham, R. R., M.D., St. George's, Bermuda
Miller, R., M.B., Fleet Surgeon, R.N., H.M.S. "Terror," Bermuda
Packwood, R. A., M.D., Sandy's Parish, Bermuda
Rainsford, W. J. R., C.I.E., Col., R.A.M.C., Bermuda
Silver, J. P., M.B., Capt., R.A.M.C., Military Hospital, Prospect, Bermuda
Trott, D. C., Esq., Bermuda
Tucker, W. E., M.B., Hamilton, Bermuda
Watson, J. J. C., C.I.E., M.D., Major, R.A.M.C., St. George's, Bermuda
Weston, G. E., Lieut.-Col. R.A.M.C., Bermuda
Wilkinson, E. C., M.D., Hamilton Bermuda

BOMBAY BRANCH.

RECOGNISED 1889.

Members of Branch—72.

President,

Vice-President.

Treasurer and Secretary.
Captain L. T. R. HUTCHINSON, M.D., I.M.S., Warden Road, Breach Candy, Bombay

Council.

Representative on Council of Association.

Representative,

Ainsworth, R. B., Lieut. R.A.M.C., c.o. Messrs. Grindlay and Co., Bombay
Anderson, J., Lieut., I.M.S., c.o. Grindlay, Groom, and Co., Bombay
Behram, D. J. E., Esq., Surat, India, via Bombay
Behramjee, D. B., Esq., Jetpur, Kathiawar, Bombay Presy.
Benson, Annette M., M.D., Cama Hospital, Bombay
Bernard, Letitia C., M.D., St. Margaret's Hospital, Poona City
Bharucha, E. S., Esq., 29, Civil Lines, Assistant Surgeon, Poona
Birkett, Mrs. Jane L. J., M.D., Church Mission, Lusadia, Ahmedabad
Blackmore, G. J., Esq., c.o. Messrs. T. Cook and Sons, Bombay
Burke, W. H., M.B., Lieut.-Col., I.M.S., 20, Queen's Gardens, Poona
Catto, John, M.B., c.o. P.M.O., Bombay
Collie, M. A. T., M.B., Lieut.-Col., I.M.S., Bombay
Cordeiro, Peter A. Esq., 113, Cavel Street, Bombay
Cursetji, J. J., M.D., 77A, Gowalia Tank Road, Bombay
Da Costa, F. X., Esq., Margao, Goa
Dadysett, H. J., Esq., 34, Church Gate Street, Fort, Bombay
Dalal, K. A., M.B., Lieut.-Col., I.M.S., Dhulia
Dalal, K. R., Esq., Mazagon Train Terminus, Bombay
Dalal, R. D., Esq., Watson's Annexe, Apollo, Bundar Bombay
Davar, F. E., Esq., Meadow Street, Fort Bombay
De Mello, Sir Cabanis, Kt.C.C., Sachapir Street, Poona
De Renzie, A. C., Esq., c.o. Messrs. Cook and Sons, Bombay
Desai, M. G., Esq., Kaira, Bombay Presidency
Dhingra, M. G., M.D., c.o. Messrs. T. Cook and Son, Bombay
Dimmock, H. P., Lt.-Col., I.M.S., Malabar Hill, Bombay
Dubas, K. M., Esq., Girgaum Road, Bombay
Dyson, T. E., M.B., Major, I.M.S., Bombay
Framji, Bomonji, Esq., Khetwady, Bombay
Gair, A. A., Esq., 12, Khetwady Cross Lane, Girgaum, Bombay
Ghandi, P. P., Esq., Mint Road, Fort, Bombay
Ghandy, S. F., Esq., Ahmedabad, Bombay Pres.
Hormusjee, S. C., M.D., 168, Dadar Road, Bombay
Husband, Rev. J., C.I.E., F.R.C.S.E., Ajmere, Rajputana
Hutchinson, L. T. R., M.A., M.D., B.C., Capt. I.M.S. Warden Road, Breach Candy, Bombay
Illius, H. W., Capt. I.M.S., c.o. Thos. Cook and Son, Bomba
Illius, J. W., Capt., I.M.S., c.o. Thos. Cook & Son, Bombay
Jamsetji, S., Esq. (address uncommunicated)
Kalapesi, R. M., Esq., 119, Frere Road, Fort Bombay
Kamdin, J. F. D., Esq., Fort Broach, Bombay Presidency
Kantak, S. V., Esq., Central Vaccine Dépôt, Parel, Bombay
Kápádiá, M. N., Esq., Bombay
Karani, B. P. Esq., 143, Main Road, Khetwady, Bombay
Khareghat, Miss M. N., 165, Chundunwadi, Girgaum Road, Bombay
King, A. F. W., Capt. I.M.S., c.o. Messrs. Grindlay, Groom, and Co., Bombay
Kirtikar, K. R. Lieut.-Col., I.M.S., (ret.), Ardheri, District Thana, B.B. and C.I.Ry., Bombay
Lobo, M. J., Esq., 2, Queen's Road, Dhobitalao, Bombay
Macleod, H. A., M.B., c.o. Messrs. King, King & Co. Bombay
Mama, J. B., Esq., Gilder Street, Grant Road, Bombay
Masina, H. M., Esq., Grant Medical College, Bombay
Mistri, K. H., Lt.-Col., I.M.S., Bombay
Montgomery, Eleanor A., L.R.C.P., Mission House, Broach
Munday, J., M.D., 22, Apollo Street Fort, Bombay
Nanavatty, B. H., M.D., Ahmedabad
Nariman, R. T., Esq., Fort Esplanade, Bombay
Nariman, Sorab K., Esq., 117, Hornby Road, Fort, Bombay
Nayak, S. B., Esq., c.o. Messrs King & Co., Bombay
Patel, D. H., Esq., Tardeo Castle, Tardeo, Bombay
Pechey-Phipson, Mrs. E., M.D., Cama Hospital, Bombay
Postwalla, B.S., Esq., Chateau Petit, Cumballa Hill, Bombay
Powell, A., M.D., Byculla Club, Bombay
Row, R., M.B., Albert Buildings, Fort, Bombay
Saber, D., Esq., Patell Street, Fort, Bombay
Scroggie, W. R., Esq., Northcote House, Apollo Bunder, Bombay
Sethna, D. C., M.B., Gowalia Tank Road, Cumballa Hill, Bombay
Shirgaoker, V. J., Esq., Belgaum, Bombay Presidency
Smith, J. B., Major, I.M.S., Fort, Belgaum
Surveyor, N. F., M.D., 145, Queen's Road, Bombay
Vakil, J. R., Esq., 4th Lane, Ketwady, Bombay
Vatve, G. G., M.D., Kolhapur City, S.M.C., Bombay
Venis, H. C., Esq., c.o. Messrs. King, King & Co., Bombay
Venis, W., Esq., Byculla, Bombay
Wadia, D. R., Esq., Parell, Bombay

BRISBANE AND QUEENSLAND BRANCH

RECOGNISED 1894.

Members of Branch—142.

President, A. J. TURNER, M.D., Brisbane.

Vice-Presidents.
W. W. R. LOVE, M.B., Brisbane
W. N. ROBERTSON, M.B., Brisbane

Hon. Secretary, A. B. BROCKWAY, Esq., 51, Wickham Terrace, Brisbane

Hon. Treasurer, A. B. CARVOSSO, M.B., Brisbane

Hon. Librarian.
C. S. HAWKES, F.R.C.S.E., Brisbane

Branch Council.

Halford, A. C. F., M.D.
L'Estrange, G., M.B.
Macdonald, J. E. F., M.B.
Wishaw, R. R., M.B.

Representative on Council of Association.
H. A. Francis, M.B., London

Representative, J. M. Nall, Esq.

Associate Member.
Bell, H. T. S., Esq., Murwillambah

Ahearne, J., Esq., Townsville
Ahern, J. J., Esq., Gympie
Anderson, Henry, Esq., Proserpine, Bowen, Queensland
Ashworth, L. N., M.B., Geraldton, Queensland
Bancroft, Peter, M.B., Brisbane, Queensland
Bancroft, T. L., M.B., Alderley, near Brisbane
Baxter-Tyrie, C. C., M.B., Boonah
Beet, W. A., Esq., Beaudesert, Queensland
Berry, R. S., Esq., Southport, Queensland
Bourne, Eleanor E., M.B., Brisbane Hospital, Brisbane
Brockway, A. B., Esq., 51, Wickhan Terrace, Brisbane
Brown, H. E., M.D., Rockhampton
Buchanan, J. D. S., M.B., Wickham Terrace, Brisbane
Butler, A. G., M.B., Gladstone, Queensland
Byrne, W. S., M.D., Brisbane
Cameron, Donald, Esq., Mt. Morgan Hospital, Mt. Morgan
Cameron, D. A., Esq., Ipswich, Queensland
Cameron, J. A., M.B., East Street, Ipswich, Queensland
Carvosso, A. B., M.B., Brisbane
Challands, F., M.B., Childers, Queensland
Clatworthy, H., Esq., Kangaroo Point
Clowes, J. S., Esq., Albion, Brisbane
Cook, J., M.B., Barcaldine, Queensland
Cooper, Lilian V., L.R.C.P., George Street, Brisbane
Cuppaidge, J. L., Esq., Gympie, Queensland
Davidson, G., Esq., Sandgate
Dixon, G. P., Esq., Maryborough, Queensland
Dods, J. Espie. M.B., 157, Wickham Terrace, Brisbane
Doyle, A. A., Esq., Roma
Egan, J., Esq., Warwick, Queensland
Falkner, E. A., Esq., Toowoomba
Fearnley, Dr., Charters Towers
Fitzgerald, E. M., Esq., Rosslyn, near Surat, Queensland
Flynn, J., Esq., Ipswich
Foxton, H. V., M.B., Brisbane Hospital
Francis, T. W., Esq., Bundaberg, Queensland
Freshney, R., M.D., Toowoomba
Garde, H. C., F.R.C.S.Edin., Maryborough
Garde, H. Lee, Esq., Maryborough, Queensland
Gibson, J. L., M.D., Wickham Terrace, Brisbane
Godsall, R. S., M.B., Toowoomba
Halford, A. C. F., M.D., Brisbane
Ham, B. B., M.D., D.P.H., Com. of Health, Brisbane
Hardie, D., M.D., Wickham Terrace, Brisbane
Harding, R. F., M.B., Laidley
Harlin, F. W., Esq., Peak Downs Hospital, Clermont, Queensland
Hart, B Lloyd, M.B., Howard, Queensland
Hawkes, C. S., F.R.C.S.E., Brisbane
Henzell, A. P., Esq., Brisbane
Hewer, A. E., M.B., Longreach, Queensland
Hill, R. P., M.B., Isisford, Queensland
Hinrichsen, Friedrich, Esq., Toowoomba, Queensland
Hirschfeld, E., M.D., Brisbane
Hoare, W. Wallis, M.D., Mackay, Queensland
Hogg, J. B., Esq., Goodna, Queensland
Holt, A. C., Esq., Warwick, Queensland
Hope, E. C., Esq., Winton, Queensland
Hopkins, G. E. Esq., 3, North Quay, Brisbane
Humphrey, E., Esq., Townsville, Queensland
Jackson, E. S., M.B., St. Helen's Hospital, Brisbane
Kelly, W. Ryton, M.B., Croydon, N. Queensland
Kenny, F. Hamilton, Esq., Gympie, Queensland
Kerwin, P. J., Esq., Hospital, Port Douglas, N. Queensland
Knowles, G., M.B., Cairns, Queensland
L'Estrange, G., M.B., Brisbane
L'Estrange, H., Esq., Charleville, Queensland
Lightoller, H. M., M.D., Brisbane
Little, J. H., M.B., Brisbane
Lloyd, G. F., M.B., Mackay, Queensland
Love, W. W. R., M.B., Wickham Terrace, Brisbane
Luther, G. F., Esq., Bundaberg, Queensland
MacDonald, J. E. F., M.B., Wynnam
Macdonald, T., M.B., Geraldton, N. Queensland
MacDonnell, E. R. A., Esq., Herberton
MacDonnell, L. G. A., M.D., Matunga, Herberton
McDonnell, Æneas, M.D., Toowoomba, Queensland
McEvoy, M.B., Beenleigh
Mackenzie, A. C., Esq., Mount Morgan, Queensland
McLean, J. B., M.B., Brisbane Hospital, Brisbane
Macnamara, M., Esq., Brisbane
Malaher, Dr., Nambour, N. Coast Line, Queensland
Marchesini, G., Esq., Richmond, N. Queensland
Marks, A. H., M.B., 101, Wickham Terrace, Brisbane
Marks, The Hon. C. F., M.D., 157, Wickham Ter., Brisbane
Mayne, James O'N., Esq., Brisbane Hospital
Meek, R. A., Esq., Vulture Street, S. Brisbane
Money, P. F., Esq., Mitchell
Moni, Dr., Tambo, Queensland
Monti, S. M. D., Tambo, Queensland
Morgan, T. Howard, M.D., Brisbane
Murray, A. H., Esq., Cunnamulla, Queensland
Nicoll, Alexander, M.D., Gympie, Queensland
Nicoll, J. R., Esq., Asylum for Insane, Toowoomba
O'Brien, R. A., M.B., Cairns, Brisbane
Orr, A. W., M.D., Wickham Terrace, Brisbane
Orton, A., Esq., Stanthorpe, Queensland
Page, F. W. T., Esq., George Street, Brisbane
Patton, A. S., M.D., Aramac, Queensland
Peet, H., M.B., Howard
Penny, Gervaise, M.B., Clayfield, Brisbane
Penny, J. A. C., Esq., Maryborough, Queensland
Perkins, H. F., M.B., Howard, Queensland
Price, T. A., Esq., Margaret Street, Toowoomba
Rhodes, Arthur, M.D., Ravenswood, Queensland
Richards, S. J., Esq., Mount Morgan, Queensland
Robertson, J. C., M.B., Maryborough, Queensland
Robertson W. N., M.B., Brisbane
Roe, James M., M.B., Cloncurry, Queensland
Roth, W., Esq., Brisbane
Rygate, C. D. H., Esq., Crookston, Vulture Street, Brisbane
Salter, A. G., Esq., Red Hill, Brisbane
Scott, E. W. Kerr, M.B., Brunswick Street, Brisbane
Shaw, Helen, M.B., Stanthorpe, Queensland
Sheaf, C. A. E., Esq., Margaret St., Toowoomba, Queensland
Smith, E. C. Temple, M.B., Charters Towers, Queensland
South, Dr., Southport, Queensland
Stevens, W. W., M.B., Charters Towers, Queensland
Stewart, A., Esq., Dalby, Queensland
Sutton, A., Esq., South Brisbane
Tarleton, J. W., Esq., Nanango
Taylor, C. J., Esq., Georgetown, N. Queensland
Taylor, Hon. W. F., M.D., Brisbane
Thomas, W. D., M.B., Bundaberg, Queensland
Thompson, Robert, M.D., Brisbane
Thomson, John, M.B., Brisbane
Thornton, P., Esq., Ipswich, Queensland
Trenow, N. A. A., Esq., Chillagoe
Turner, A. J., M.D., Wickham Terrace, Brisbane
Ure, Edith, M.B., Brisbane
Ure, Sarah Louise, M.B., George Street, Brisbane
Von Lossberg, W. H., Esq., Ipswich, Queensland
Voss, F. H. V., Esq., Rockhampton, Queensland
Wassell, J. L., Esq., Thursday Island, Queensland
Watson, J. F., Esq. (address uncommunicated)
Webb, W. S., Esq., Brisbane
Wheeler, J. A., M.B., Toowong, Queensland
Whishaw, R. R., M.B., St. Helen's Hospital, Brisbane
White, G. V., Esq., Thursday Island
Wilkie, D.B., M.B., Mount Perry, N. Queensland
Wilson, F., Esq., New Farm, Brisbane
Woolrabe, S. W., M.B., Hamilton, Brisbane
Young, E. H., Esq., Clifton

Members residing in the DISTRICT OF BRITISH COLUMBIA.

Members—19.

Boyce, B. de F., M.D., Kelowna
Davie, John C., M.D., Victoria
Drew, G. E., Esq., New Westminster
Francis, Harry A., Esq., East Sooke, near Victoria
Helmcken, J. S., Esq., Victoria
Hoops, S. E. M., Esq., 150, Mile House, Carriboo
Jones, O. M., Esq., 83, Fort Street, Victoria
Lefevre, J. M., M.D., Vancouver
Procter, A. P., Esq., Vancouver
Rankin, W. D., M.B., 756, Broughton Street, Vancouver
Redmond, W., M.D., Victoria, Vancouver Island
Simpson, J. K., M.D., Juneau, Alaska
Stephen, W., M.B., 1020, Georgia Street, Vancou
Tunstall, S. J., Esq., Vancouver
Walker, R. E., M.D. New Westminster
Weld, O., M.B., Vancouver
Williams, J. R., Esq., Olds, Alberta
Wilson, George, M.B., Heals Post Office, Victoria
Wrinch, H. C., M.D., Hazelton, B. Columbia

BRITISH GUIANA BRANCH.

RECOGNISED 1883.

Members of Branch—34.

President, W. F. LAW, M.D., Georgetown.

Vice-Presidents.
J. E. GODFREY, M.B., Georgetown
C. J. GOMES, M.D., Georgetown

Honorary Secretary and Treasurer.
C. P. KENNARD, M.D., Plaisance, E. C. Demerara

Representative on Council of Association.

Branch Council.

Conyers, J. H., M.B.
De Freitas, J. M., M.B.
Edmonds, Frank R., Esq.
Wishart, W. de W., M.B.

Representative,

Belmonte, J. A. B. Caloco, Esq. (address uncommunicated)
Boase, W. G., Esq., Lunatic Asylum, Berbice
Carter, R., M.D., Demerara
Castor, C. F., M.B., Belfield, British Guiana
Conyers, J. H., M.B., Public Hospital, Georgetown
Craigen, A. J., M.B., Public Hospital, Georgetown
De Freitas, J. M., M.B., Brickdam, Georgetown
De Freitas Q. Bonifacio, Esq., Lunatic Asylum, New Amsterdam
Delamere, P. H., Esq., Anna-Regina, Essequibo, B. Guiana
Downer, C. H., Esq., Public Hospital, Georgetown
Edmonds, Frank R., Esq., Croal Street, Georgetown
Egan, J. O'D., Esq., Buxton, British Guiana
Gewand, E. H., M.D., Georgetown
Godfrey, J. E., M.B., Georgetown
Gomes, C. J., M.D., Georgetown, Demerara
Hodgson, C. E., Esq., Georgetown
Ireland, T., Esq., Skeldon, Berbice
Irving, M. H. C., Esq., H.M.P.S., British Guiana
Jardim, R. F., Esq., Georgetown
Kennard, C. P., M.D., Plaisance, E. C. Demerara
La Frenais, A. C. L., Esq., Public Hospital, Georgetown
Law, W. F., M.D., Georgetown, Demerara
London, J. E., M.D., Georgetown
McKinnon, A. A., Esq., New Amsterdam
Massiah, E. S., M.B., Brick Dam, Georgetown
Neal, F. A., M.D., Leonora, W.C. Demerara.
Ozzard, A. T., Esq., Essequebo
Reid, I. K., M.D., Fort Wellington, British Guiana
Rohlehr, J. M., M.D., Camp Street, Georgetown
Ross, J. Hugh, Esq., Public Hospital, Georgetown
Stephenson, R. B. T., M.D., Public Hospital, Georgetown
Von Winckler, W. J., Esq., Nismes, W. C. Demerara
Wharton, W. H., Esq., 1, Brick Dam, Georgetown
Wishart, W. de W., M.B., 236, Camp Street, Georgetown

BURMAH BRANCH.

RECOGNISED 1891.

Members of Branch—42.

President, Col. W. G. KING, C.I.E., M.B., I.M.S., Rangoon

Vice-President, Lieut.-Col., R. E. S. DAVIS, M.B., I.M.S., Rangoon

Honorary Secretary and Treasurer, Captain P. A. L. Hammond, I.M.S., General Hospital, Rangoon

Branch Council.

Findlay, H., M.D.
Parakh, N. N., Esq.
Pedley, T. F., M.D.
Penny, J., Maj., I.M.S.

Representative on Council of Association,
Major C. DUER, I.M.S.

Representative,

Associate Members.

Anderson, H. S., Capt., R.A.M.C., Bursfield
McKee, G. M. E., Lieut.-Col., I.M.S., London

Beit, F. V. O., M.B., Capt. I.M.S., Toungoo
Bell, G. J. H., Maj. I.M.S, Supt., Lunatic Asylum, Rangoon
Britto, C. F., Esq., Lusitania, 30, Sandwith Road, Cantonment, Rangoon
Browne, W. W., Capt., R.A.M.C., Station Hospital, Rangoon
Carmichael, D. G., M.B., Lieut., R.A.M.C., Station Hospital, Rangoon
Castor, R. H., M.B., Maj. I.M.S., Bassein
Charan, Isa, Esq., General Hospital, Rangoon
Davis, R. E. S., M.B., Lieut.-Col., I.M.S., Rangoon
De Souza, E. M., M.B., Rangoon
Dick, Maxwell, Captain I.M.S., Minbu
Duer, C., Major, I.M.S., General Hospital, Rangoon
Dey, B. C., M.B., 49, Soolay, Pagoda Road, Rangoon
Douglas, A. R. J., M.D., P.M.O., Burmah Railways Co., Ltd., Rangoon
Fenton, A., Capt. I.M.S., Supt. Central Gaol, Rangoon
Findlay, H., M.D., Rangoon
Fink, L. G., M.B., Mergui
Forbes, Miss Honorine, 10A, Barr Street, Rangoon
Foy, F. A., M.B., Port Health Officer, Rangoon
Frenchman, E. P., Lt.-Col., I.M.S., Inspector-General of Gaols, Burmah, Rangoon
Hammond, F. A. L., Capt., I.M.S., Rangoon
Hormasji, Jhangir, Esq., General Hospital, Rangoon
Good, J., M.B., Captain I.M.S., Mogok
Joy, H. R. L., M.D., Signal Pagoda Road, Rangoon
King, W. G., C.I.E., M.B., Col., I.M.S., Inspector-General of Civil Hospitals, Burma, Rangoon
Marr, Colin F., Capt. I.M.S., Mandalay
Parakh, N. N., Esq., Signal, Pagoda Road, Rangoon
Pedley, T. F., M.D., Kandawgalay House, Rangoon
Penny, J., Maj. I.M.S., General Hospital, Rangoon
Rahaman, Sheik Abdul, Esq., Pyapon
Rodriguez, James, Esq., 75, Dalhousie Street, Rangoon
Rost, E. R., Capt. I.M.S., c.o. Messrs. Scott & Co., Rangoon
Ryles, C. S., M.B., Nyounghla Yenaugyoung, Upper Burmah
Sexton, Miss Isabel G., M.B., Dufferin Hospital, Rangoon
Spence, A. D., Esq., 271, Dalhousie Street, Rangoon
Stewart, T. W., Maj. I.M.S., Myingyan, Burmah
Strickland, P. C. H., Maj. I.M.S., Mandalay
Taw, Mg. Pha, Esq., Kyaukpyn, Burmah
Thompson, Miss Mary F., M.D. (address uncommunicated)
Twidale, F. W., M.B., c.o. Messrs. J. R. Allen & Co., Rangoon
Williams, C. E., Major, I.M.S., Rangoon
Williams, H. A., M.B., Captain I.M.S., Deputy Sanitary Commissioner, Burmah, Rangoon
Windsor, F. N., M.B., Capt., I.M.S., Rangoon

CAPE OF GOOD HOPE—EASTERN PROVINCE BRANCH.

Comprising SOUTH-EASTERN and EASTERN ELECTORAL PROVINCES and parts of the NORTH-EASTERN and MIDLAND ELECTORAL PROVINCES. Its boundaries are, on the East, the Natal Border, on the North, the Basutoland and O.R.C. Borders, on the West, a line passing to the West of Colesberg, Hanover, Richmond, Murraysburg, Aberdeen, Willowmore, and Humansdorp Fiscal Divisions.

RECOGNISED 1893.

Members of Branch—84.

President, J. BRUCE-BAYS, M.D., Grahamstown

President-elect, C. E. JONES-PHILLIPSON, M.D., Port Alfred

Honorary Secretary and Treasurer,
E. G. DRU DRURY, M.D., Grahamstown

Representative on Council of Association,
Colonel DAVID BRUCE, C.B., F.R.S., London

Representative, J. B. S. GREATHEAD, M.B., Cape Colony

Branch Council.

Ex-officio President, Vice President, and Secretary.

Aitkin, C. J. Hill, M.D.
Batchelor, H. T., Esq.
Chute, H. M., Esq.
FitzGerald, G. E., Esq.
Greathead, J. B. S., M.B.
Greenlees, T. D., M.D.
Mathew, G. P., M.D.
Smyth, Temple, Esq.
Young, J. C., M.D.

No. 1.—Grahamstown Division.

NUMBERING 54.

Chairman,

Vice-Chairman,

Honorary Secretary and Treasurer,

Representative for Representative Meeting.

Representatives on Branch Council.

Bam, J. H., M.B., Richmond, Cape Colony
Becker, H., M.D., Grahamstown
Blackburn, T. L., M.B., Port Elizabeth
Bolger, J. T., Esq., Burghersdorp, Cape Colony
Broadhurst, W. J., Esq., Hanover, Cape Colony
Brock, John, Esq., Port Elizabeth
Bruce-Bays, J., M.D., Grahamstown
Cauger, Herbert, M.B., Burghersdorp, Cape Colony
Coates, A. P., Esq., Venterstad
Coury, J., M.B., Fort Beaufort
Considine, H. P. O., M.D., Port Elizabeth
Cory, H. M., Esq., Quithing, Basutoland
Coulton, J. J., Esq., Humansdorp, Cape Colony
Davies, Hester S. A., L.S.A., Grahamstown
Davies, J. T., M.D., Grahamstown
Drury, E. G. Dru, M.D., Grahamstown
Du Toit, P. G. Leeb., M.D., Middelburg, Cape Colony
Edwards, W. H., M.D., Port Elizabeth
FitzGerald, G. E., Esq., Grahamstown
Fraser, A. Ross, M.B., Uitenhage
Gooding, A., Esq., Adelaide, Cape Colony
Grant, J. P., M.B., Fort Beaufort
Greathead, J. B. S., M.B., Grahamstown
Greenlees, T. D., M.D., The Residency, Grahamstown
Grenfell, P. B., Esq., Alexandria, Cape Colony
Hodge, George, M.B., Lady Grey, Aliwal North
Holmes, C. T., M.B., Somerset East, Cape Colony
Hudson, H. C., M.B., Graaff Reinet, Cape Colony
Isaac, W. A., M.D., Molteno, Cape Colony
Jones-Phillipson, C. E., M.D., Port Alfred
Koettlitz, R., Esq., Darlington, Somerset East
Lang, G. H., M.D., Jansenville, Cape Colony
Lawrence, Alfred, Esq., Katberg
Leslie, W. L. A., M.B., Grahamstown
Love, R. J., Esq., Indwe, Cape Colony
Mackinnon, J., M.B., Somerset East, C.C.
Mathew, G. Porter, M.D., Port Elizabeth
Millard, P. E., M.D., Herschell, near Aliwal North, C. C.
Miller, W. D., M.B., Fort Beaufort
Mitchell, J. C., M.B., Cookhouse, Grahamstown
Mullins, R. C., M.B., Grahamstown
Murray, F. E., M.B., Graaf Reinet, Cape Colony
Powell, A. B. S., Esq., Port Elizabeth
Purvis, G. C., M.D., Grahamstown
Rayson, H. K., M.D., Steytlerville, Cape Colony
Robertson, C., Esq., Sterkstroom
Ross, R. A., M.B., Bedford, Cape Colony
Rowland, E. R., M.D., Dordrecht, Wodehouse
Saunders, F. A., Esq., Grahamstown
Shine, A. V., Esq., Steynsburg
Smith, G. W., M.D., Alicedale, Mid Ry, Cape Colony
Watson, L., Esq., Oak Lodge, Aliwal North
Wroughton, J. H., Esq., Albany Gen. Hosp., Grahamstown
Young, J. C., M.D., Riebeck East

No. 2.—East London Division,

NUMBERING 30.

Chairman,

Vice-Chairman,

Honorary Secretary and Treasurer,

Representative for Representative Meeting.

Representatives on Branch Council.

Aitken, C. J. Hill, M.D., East London
Alexander, K. B., M.B., Tapson Street, East London
Anderson, J. B., M.B., East London
Batchelor, H. T., Esq., Queenstown, Cape Colony
Blaine, B., M.B., King William's Town, Cape Colony
Brooks, E., M.B., Queen St., Cambridge, near East London
Chambers, T. S., Esq., McLean Town, East London
Chute, H. M., Esq., King Williamstown
Clark, James, M.B., Tarkastad, Cape Colony
Egan, C. J., Esq., King William's Town
Ganteaume, P. P. J., M.B., East London
Grey, E. R., M.B., East London
Lounds, C. J., Esq., East London
Lumley, C. A., Esq., Idutywa, Transkei, Cape Colony
Mcgregor, D. M., Esq., East London
Melville, D., M.D., Tsolo, Griqualand East
Murray, J. K., M.B., Whittlesea, Cape Colony
Nangle, E. C., M.B., East London
Paley, J. H., Esq., East London
Ritchie, J. L., Esq., Queenstown, C.C.
Roulston, R. J., M.D., East London
Rubidge, J. L., M.B., 16, Frere St., East London
Skinner, W. B., M.D., East London
Smyth, Temple, Esq., Peddie, C.C.
Tannock, J. P., M.B., East London
Thompson, G. B., Esq., Bizana, Pondoland E.
Twigg, W. A., Esq., Cedarville Matabele, Transkei
Walker, P. H., M.B., Mquanduli, Tembuland
Weir, J. W., M.D., Engcobo, Tembuland
Worsley, R. C., Esq., East London

CAPE OF GOOD HOPE—WESTERN PROVINCE BRANCH.

Comprising Electoral Divisions of CAPE TOWN, WOODSTOCK, WYNBERG, SIMONSTOWN, STELLENBOSCH, PAARL, WORCESTER, MALMESBURY, PIQUETBERG, NAMAQUALAND, CLANWILLIAM, SWELLENDAM, CALEDON, RIVERSDALE, OUDTSHOORN, GEORGE, BEAUFORT WEST, and VICTORIA WEST.

RECOGNISED 1889.

Members of Branch—159.

President, D. J. WOOD, M.B., Cape Town

Vice-President, S. W. F. RICHARDSON, M.B., Cape Town

Honorary Secretary.
JAMES LUCKHOFF, M.D., Rhodes Building, Cape Town

Hon. Treasurer, J. H. DE VILLIERS, Esq., Rondebosch

Branch Council.

Fuller, E. B., M.B.
Lester, J. B., M.B.
Robertson, G. W., Esq.
Smith, Hugh, M.D.

Representative on Council of Association, Col. David Bruce, C.B., F.R.S., R.A.M.C., 68, Victoria Street, S.W.

Representative,

Associate Members.

Brown, G. W., Esq., Hoopstadt, O.R.C.
James, R., Esq., 4, Estcourt Buildings, Johannesburg
King, A., Esq., Fauresmith, O.R.C.

Abdurahman, A. A., M.B., 119, Loop Street, Cape Town
Alston, J. A., Esq., Union Street, Cape Town
Alexander, W. S., M.B., Napier, C.C.
Anderson, A. Jasper, M.B., M.O.H., 4, Church Square Cape Town
Anderson, A. P. Moore, M.B., Victoria Buildings, Woodstock, C.C.
Anderson, H. C., M.B., Ladismith, Cape Colony
Anderson C. F., Esq., Green Point, Cape Colony.
Arenhold, A. S., M.D., 43, Kloof Street, Cape Town
Bailey, W. F., M.D., Bexcourt, Seapoint, Cape Town
Batchelor, G. A., M.D., Three Anchor Bay, Cape Colony
Beck, J. H. M., M.D., Tulbagh, Cape Colony
Beck, L. A. W., M.B., Claremont
Benjamin, J. K. K., Esq., Muizenberg, Cape Colony
Bosenberg, C. H., M.B., New Somerset Hospital, Cape Town
Bosman, J. R., M.B., Stellenbosch, Cape Colony
Boyd, J., Esq., Simon's Town, Cape Colony
Brown, G. W., Esq., Hoopstadt, Orange River Colony
Brown, James, M.B., Claremont, Cape Colony
Budd, W. H., Esq., Mill Street, Cape Town
Carden, W. A., Esq., Fraserburg
Casalis, G. A., M.B., Claremont, Cape Town
Cashel, E. B., Esq., Vredenburg, Malmesbury, Cape Colony
Chidley, T. J., Esq., Darling, Cape Colony
Clarke, H., Esq., Simons Town, Cape Colony
Clement, R. J., Esq., Junior Civil Service Club, Cape Town
Coates, John, Esq., New Somerset Hospital, Cape Town
Collins, V. E., M.D., Simonstown
Coskey, A. P., M.B., Ulster Chambers, Greenmarket Square, Cape Town
Cox, J. H., Esq., Kloof Street, Cape Town
Craig, W. M., M.B., Fleet-Surgeon, R N., Simons Town
Daniell, G. W. B., Esq., Rondebosch
Darley-Hartley, W., M.D., Sea Point, Cape Town
De Labat, G. H. W., M.B., Heidelberg, Cape Colony
De Villiers, J. H., Esq., Rondebosch, near Cape Town
Dixon, W. Herbert, Esq., Monkhof, Kloof Street, Cape Town
Dodds, W. J., M.D., Valkenberg, Mowbray
Dommisse, F. H., M.B., Piquetberg, Cape Colony
Dyer, Harold, Esq. (address uncommunicated)
Elliott, C. C., M.D., Bureau Street, Cape Town
Engelbach, H. A., M.B., Hereford House, Kloof Street, Cape Town
Eyre, G. G., M.B., Claremont, Cape Town
Fairbridge, F. S., Esq., Carnarvon, Cape Colony
Fismer, F., M.D., Park Road, Cape Town
Forsyth, R., M.B., 52, Orange Street, Cape Town
France, Eric, M.B., 6, Church Square, Cape Town
Fuller, E. B., M.B., Cape Town.
Garvie, T. B., M.B., Morreesburg, Cape Colony
Guillemard, B. J., M.D., Rondebosch, Cape Colony
Gurney, A. L., M.B., Belleville, Cape Colony
Hart, H. F., M.B., Carnarvon, Cape Colony
Harvey, N. d'E., M.B., Lieut. R.A.M.C., Military Hospital, Wynberg
Hazell, F., M.B., Bouquet Street, Cape Town
Hewat, D. B., M.B., 1, Roeland Street, Cape Town
Hewat, J., M.B., Woodstock
Hewat, Matthew L., M.D., Steyning, Mowbray
Howard, R. N., Esq., Ookiep, Namaqualand
Hugo, D. de V., M.B., Worcester, Cape Colony
Jackson, O. E., M.B., Wellington, Cape Colony
Johnston, W., Esq., 40, Burg Street, Cape Town
Ketchen, A. D., M.B., Orange Street, Cape Town
King, Arthur, Esq., Fauresmith, Orange River Colony
Kirkman, A. H. B., Esq., Touws River
Kitching, C. McG., M.D., Hof Street, Cape Town
Kramer, H., M.B. (address uncommunicated)
Kruger, C. H., M.D., Main Road, Wynberg, Cape Town
Laidlaw, J. D., M.B., Observatory Road, Observatory Cape Colony
Lawrence, N. H., Esq., Laingsburg, Cape Colony
Le Feuvre, W. P., Esq., P.O. Box, 150, Bulawayo
Lester, J. Brown, M.B., 56, Queen Victoria Street, Cape Town
Luckhoff, James, M.D., Rhodes Building, Cape Town
Luttig, P. C., M.B., Prince Albert, Cape Colony
Maberly, J., Esq., Woodstock
McFarlane, N. M., Esq., Leribe, Basutoland
McLachlan, A. R., Esq., Observatory Road, Cape Town
MacLaren, J. P., M.B., Parkhurst, Portswood Road, Cape Town
McLaws, John, M.B. (address uncommunicated)
McMullen, John, M.B., Hanover Street, Cape Town
McNally, A. J., M.B., Mossel Bay, Cape Colony
Macpherson, J. W. C., M.B., Stellenbosch, Cape Colony
Malan, G. D., M.B., Wellington, Cape Colony
Manning, J. V., Esq., Bloemfontein
Mearns, J. H., M.D., Edenville, Observatory Road, C. C.
Melle, G. J. M., M.B., Riversdale
Moffat, H. A., Esq., New Somerset Hospital, Cape Town
Molteno, V. G., M.B., Wynberg, Cape Colony
Moll, A. M., M.B., Mont Pilatur, Tamboers Kloof
Moon, E. F. W., M.D., Robben Island
Morris, F. M., M.B., Isabel Villa, Hope Street, Cape Town
Murphy, R., Esq., 125, Victoria Road, Woodstock
Murray, C. F. K., M.D., Kenilworth, Cape Colony
Murray, C. M., M.B., Hunsdon, Kenilworth, nr Cape Town
Murray, F., M.B., Londinium, Sea Point, Cape Town
Nieuwoudt, G., M.B., Darling
Owen, A. Dunley, Esq., Barrydale, Cape Colony
Owen-Snow, C. E. F., M.B., George, Cape Colony
Parker, R. D., M.B., Caledon, Cape Colony
Parkhurst, A. U., Esq., Bloemfontein, Orange River Colony
Pauling, W. T., Esq., Buluwayo
Peare, H. R. H., Esq., Maitland, Cape Colony
Peirson, D. J., M.B., Box 561, Johannesburg
Petersen, A. H., M.D., 2, Wale Street, Cape Town
Petersen, J., M.B., 18, Wale Street, Cape Town
Phillips, E. H., Esq., Upington, Gordónia, Cape Colony
Piers, C. E., M.D., 22, Camp Street, Cape Town
Pitt, W. A., Esq., 233, Hanover Street, Cape Town
Plessis P. H. du, Esq., Meiring's Poort, Oudtshoorn, C.C.
Potter-Hamman, Mary E., M.B., Victoria West, C.C.
Pringle, R. N., M.B., New Somerset Hospital, Cape Town
Reynolds, H. W., M.B., Sea Point, Cape Town
Richardson, S. W. F., M.B., 2, Vine St. Gardens, Cape Town
Ritter, C. H. G., M.B., Clanwilliam, Cape Colony
Robertson, G. W., Esq., Parliament Street, Cape Town
Robinson, L., M.B., Woodstock, near Cape Town
Rogers, W., M.B., Williston, Fraserburg, Cape Colony
Rosenzweig, R. H., M.B., Parliament, Street Cape Town
Roux, A. J. T., M.B., Malmesbury
Rowan, A., M.B., Main Road, Claremont, Cape Colony
Russell, G., M.B., Oudtshoorn, Cape Colony
St. Leger, A. Y., Esq., Observatory, near Cape Town
St. Leger, R. A., M.B., George, Cape Colony
Scarbrow, E. W., M.D., Somerset, Strand, Cape Colony
Schuller, W. J., Esq., 162, Sir Lowry Road, Cape Town
Seale, E. A., M.D., Ceres, Cape Colony
Seton, M. C. C., M.B., Calvinia
Simons, A. J. J. B., M.D., Cencus Street, Cape Town
Smith, Hugh, M.D., Hof Street, Cape Town
Smith, W. E., M.B., Parow, near Cape Town
Stanley, W., M.B., P.O. Box 1870, Johannesburg
Stephens, H. W., Esq., Laingsburg, C.C.
Stevenson, Sir Edmond Sinclair, M.D., Rondebosch
Stevenson, R., M.B., Prince Albert, Cape Colony
Stewart, R. A., M.B., Bank of Africa Chambers, Strand Street, Cape Town
Strong, E. H., Esq., 8th Avenue, Buluwayo, Cape Colony
Sweetlove, J. W., Esq., Livingstone, N.W. Rhodesia
Swift, E. W. D., M.B., Lunatic Asylum, Bloemfontein
Syfret, S. B., M.B., Mowbray, Cape Colony
Thomson, A. E., M.D., Orange Street, Cape Town
Thomson, D., Esq., Harmony, Mowbray, Cape Town
Thornton, E. N., Esq., 55, Parliament Street, Cape Town
Todd, P. E., M.B., The Asylum, Pretoria
Traill, D., M.B., R.M.O., Beaufort West, Cape Colony

Truter, R. M., M.B., Oudtshoorn
Urquhart, C. T., M.D., P.O. Box 308, Bloemfontein
Van der Byl, P. G., Esq., Wynberg, Cape Colony
Veale, H. P., M.B., P.O. Box 345, Pretoria
Venniker, J. C., M.D., Broadlands, Oudtshoorn, Cape Colony
Waldron, F. T., M.D., De Beers, Somerset West
Waterston, Jane E., M.D., 85, Parliament St., Cape Town
Watt, A., M.B., Valkenberg Asylum, Mowbray
Wells, A. S., M.B., 56, Orange Street, Cape Town
Werdmuller, V. W. T., M.B., Malmesbury
Whyte, A., M.D., Swellendam, Cape Colony
Wilkinson, P. J., Esq., 91, Station Road Observatory, near Cape Town
W. son, A. M., M.D., Hof Street, Cape Town
W. son, R. A., M.B., Saasveld House, Cape Town
Winder, M. G., Lieut., R.A.M.C., Military Hospital, Potchefstroom
Wood, D. J., M.B., Bureau Street, Cape Town
Wood, E. E., M.B., Muizenberg, Cape Colony
Wright, H. C., Esq., Wynberg

COLOMBO, CEYLON BRANCH.

RECOGNISED 1887.

Members of Branch—132.

President, C. T. GRIFFIN, Esq., Maradana
President elect, ALBERT J. CHALMERS, M.D., Maradana

Vice-Presidents.
W. G. VAN DORT, M.D., Colombo
H. MARCUS FERNANDO, M.D., Colombo

Honorary Secretary and Treasurer.
M. SINNETAMBY, M.D., Maradana Colombo

Representative on Council of Association.

Representative for Representative Meeting.

Branch Council.
Banajee, D. P., Esq.
Roberts, E., Esq.
Silva, W. H. de, M.B.
Thomasz, H. G., F.R.C.S.Ed.

Abeyesinbe, G., Esq., Alutnuwara, Via Badulla
Alles, F. R., Esq., Kalluwelle, Galle, Ceylon
Ameresekere, J. S., Esq., Rakwana
Anthony, Pillay J. J., Esq., 32, Main Street, Negombo, Ceylon
Arumugam, S., Esq., Friend-in-Need Society Hosp., Jaffna
Aryaratne, D. M., Esq., Nikaweratiya
Aserappa, E. P., Esq., Hurstpier Point, Kotehena, Colombo
Attygalle, J. W. S., Esq., Police Hospital, Borella, Colombo
Babapulle, C. Brito, Esq., Kurmoe St., Colombo
Banajee, D. P., Esq., 1 and 2, Soysa Buildings, Slave Island, Colombo
Bawa, H., Esq., Barnes Place, Cinnamon Gardens, Ceylon
Brohier, L. C., Esq., Matale
Castellani, Professor Aldo, Borella, Colombo
Chalmers, Albert J., M.D., Maradana, Colombo
Chinniah, W. A., Esq., Badulla
Chittampalam, K., Esq., Vavoniya, Ceylon
Cooke, J. C., Esq., Gampola
Cooray, Henry, Esq., Galle
Craib, James, M.B., Maradana
Danforth, S. F. G., Esq., Point Pedro
De Abrew, Richard, Esq., Beruwela, Ceylon
De Boer, Miss A., Temple View, Borella, Colombo
De Mel, Hugh, Esq., Moratuwa
De Livera, E., Esq., Kuranegali
De Saram, Allan, M.B., Sunning Hill, Colpetty, Colombo
De Saram, G. H., Esq., Colpetty, Colombo
Dharmaratne, S. O., Esq., Batagola, Ceylon
Drummond, R. J., M.B., Belgravia, Talawakelle
Ebell, J. H., Esq., Galle, Ceylon
Ekanayaka, L. A., Esq., Lunugalla
Ephraims, C. F., Esq., Ragama, Ceylon
Evarts, A. C., M.B., Namunukula, Ceylon
Fairlie, J. D. B., Esq., Galle Face Hotel, Colombo
Fernando, G. W. R., M.B., Fort, Colombo
Fernando, H. I., Esq., Moratuwa
Fernando, H. Marcus, M.D., Darley Road, Colombo
Fernando, Solomon, Esq., Bambalapitiya
Foenander, F., Esq., Balapitiya
Fonseka, C. P., Esq., Morotuwa
Garvin, T. F., M.B., Maradana, Colombo
Goonervardena, A. S., Esq., Westland House, Panadure, Ceylon
Goonervardena, J. H. S., Esq., Alutmawata, Mutwall, Ceylon
Griffin, C. T., Esq., Maradana, Colombo
Grenier, F., M.B., Barrack Plains, Nuwera Eliya, Ceylon
Gunesekera, J. S., Esq., Moratuwa
Hallock, S., Esq., Convict Hospital, Borella, Colombo
Hall-Wright, F. W., Esq., Grand Oriental Hotel, Colombo
Hay, George P., Esq., Lambert House, Kandy
Healy, C. J., M.B., Major, R.A.M.C., Military Hospital, Colombo
Hewavitarna, C. A., Esq., Aloe Avenue, Colpetty, Colombo
Heynsbergh, C., Esq., Puttalam
Homer, J., Esq., 97, Kotehena, Colombo
Huybertsz, H., Esq., Kandy, Ceylon
Jan, E. N., Esq., Neboda
Jayetileke, R., Esq., Kotagala, Ceylon
Jeremiah, J. R., Esq., Mullativo, Ceylon
Jinadasa, M., Esq., Dandégomuwa, via Kurunegala
Johnson, O., Esq., Convict Hospital, Borella, Colombo
Joseph, H. P., Esq., Wellewatta, Colombo
Joseph, S. P., Esq., Kurunegala Hospital, Ceylon
Joshua, W. A., Esq., Wellikade Gaol, Colombo
Kalenberg, Allan, Esq., Neboda, Ceylon
Keyt, Fitzroy, Esq., Port Surgeon's Office, Colombo
Kobbekaduwa, T. B., Esq., General Hospital, Maradana
Kotalawala, P., Esq., Deniyaya, Ceylon
Kylasapilly, M., Esq., Chavakachcheri
Lembruggen, W. E., Esq., Negombo
Loos, E. R., Esq., Kanatta, Colombo
Loos, H. G., Esq., Darley Road, Colombo
Lourensz, C. B., Esq., Lindula, Ceylon
Ludovici, E. Esq., Galle
Margenout, W., Esq., Tangalla
Modder, E. E., Esq., Kaltura, Ceylon
Moraes, H. A. Esq., Batticaloa
Muttukumaru, P. M., M.B., Kortoboom House, Mutwall
Mylvaganam, H. B., F.R.C.S., The Ceylon Medical College, Maradana
Nell, Miss Winifred, Kandy, Ceylon
Ohlmus, T., Esq., Rakwana, Ceylon
Oorloff, F., M.B., Badulla, Colombo
Passé, W. A., Esq., Cinnamon Gardens, North Colombo
Perera, Julius E., M.B., Wellawatte, Ceylon
Peries, C. G., M.B., Dam Street, Colombo
Peries, H. M., M.D., Udapussellawa, Ceylon
Perry, Sir Allan, M.D., Gregory Road, Colombo
Pestonjee, R., Esq., No. 7, Soysa Building, Slave Island, Colombo
ilip, W. M., Esq., Municipal Office, Colombo
Phillips, R. H., Esq., Namunakula, Ulva Province, Ceylon
Pieris, W. C., Maradana, Colombo
asaiah, H. S., Esq., Rambodda, Ceylon
Ratnam, C. S., Esq., Chilaw, Ceylon
atnam, E. V., Esq., Maradana, Colombo
Reyhardt, B. S., Esq., Watawala, Ceylon
Roberts, E., Esq., Primrose Cottage, Ridgeway Place, Colombo
Rockwood, David, Esq., The Emms, Regent St., Maradana, Colombo
Rockwood, The Hon. W. G., M.D., Colombo
Rode, Arnold, Esq., Tangalle
Rodrigo, W. P., Esq., Hampstead Lodge, Colpetty, Colombo
Rudd, Miss C. St. James, Colpetty, Colombo
Rustomjee, M., Esq., 53, Main Street, Pettah, Colombo
Rutnum, Mrs. M., M.D., Regent St., Maradana, Colombo
Santiago, A. B., Esq., Jaffna, Ceylon
Saravanamuttu, V., M.D., Mutwal, Colombo
Schokman, D. F., Esq., Maturata, Ceylon
Seenicutty, R. C., Esq., Kalpitiya, Ceylon
Seneviratne, H. C., M.B. (address uncommunicated)
Silva, C. E. de, Esq., Galle
Silva, Hinton de, Esq., Dickoya
Silva, J. S. de, Esq., Kynsey Road, Borella, Colombo
Silva, K. J. de, Esq., Moratuwa, Ceylon
Silva, W. H. de, M.B., Bambalapitiya, Ceylon
Sinnetamby, M., M.D., Medical College, Maradana, Colombo
Sittampalam, D. S. A., Esq., Regent Street, Maradana
Somasundrum, C., Esq., Udugama, Ceylon
Spittel, F. G., Esq., Kalutara
Sylvester, G. H., Lieut.-Col., R.A.M.C., Colombo
Thambipillai, Sinnatambi, Esq., Buttala, via Monaragala
Thomas, H. G., F.R.C.S.Edin., Union Place, Slave Island, Colombo
Thomas, J. Llewellyn, F.R.C.S., Queensdown, Cinnamon Gardens, Colombo
Valladares, L. A., Esq., Nashan, Slave Island, Ceylon
Van Dort, Miss C. F., Clairvaux, Cinnamon Gardens, Colombo
Van Dort, W. G., M.D., Colombo
Van Eyck, E. C. E., Esq., General Hospital, Maradana
Van Geyzel, C. T., Esq., Colombo
Van Rooyen, G. St., Esq., Colombo
Van Twest, G. W., Esq., Nawalapitiya, Ceylon
Vethecan, F., M.B., Gampola, Ceylon
Vettivalos, M., Esq., Mihintale, Ceylon
Weeraperumal, A. A. M., Esq., Madulkelle, Ceylon
Weinman, A. E., Esq., Deniyaya, Ceylon
Wijesinghe, P. S., Esq., Karáwanella, Ceylon
Wijeyesakere, W., Esq., Matara, Ceylon
Wright, Victor, Esq., Bambalapitiya, Colombo

EGYPTIAN BRANCH.

RECOGNISED 1906.

Members of Branch—31.

President,

President-elect,

Vice-Presidents.

Honorary Secretary and Treasurer.

Representative on Council of Association.

Representative for Representative Meeting.

Branch Council.

Amos, Miss Cornelia, B.S., M.B., Maison Mexiaca, Sharia Abbas, Tewfikieh, Cairo
Balfour, Andrew, M.D., Gordon College, Khartoum
Beddoe, D. M., Esq., Sharia-el-Manakh, Cairo
Bellos, L., M.D., Alexandria, Egypt
Bentley, A. J. M., M.D., Opera Square, Cairo
Betts, W. A., M.D., Turf Club, Cairo
Canney, H. E. Leigh, M.D., Assouan
Cuffey, E., M.B., British Hospital, Port Said
Ferguson, Prof. A. R., M.D., Pathological Department Govt. School of Medicine, Cairo
Forrester, Charles C., M.B., Assiout, Egypt
Goodman, Cyril, M.B., Turf Club, Cairo
Granville, Alex., Esq., Sanitary Department, Cairo
Hayes, A. J., Esq., Quarantine Office, Suez
Khayatt, S. H. H., M.B., Assiout, Cairo
Lees, J. Ferguson, M.D., Barrage Isne, Upper Egypt
MacCallan, A. F., M.B., Sanitary Department, Cairo
Madden, F. C., M.B., Turf Club, Cairo
Morrison, A. A., M.D., Alexandria, Egypt
Pinching, Sir Horace H., K.C.M.G., Cairo
Richards, Owen, F.R.C.S., Kasr el Ainy, Cairo
Ruffer, M. A., C.M.G., M.D., Ramleh, Egypt
Russell, M. H. Grace, M.B., Quarantine Office, Suez
Scott, A. Eldon, Esq., c.o. Société du Behera, Alexandria
Shalaby, I., M.B., Tantah, Egypt
Swale, Harold, M.B., Soudan Gold Field No. 6, Soudan
Trevithick, H. Kate, M.D., Cairo
Wakeling, T. G., Esq., Mena House, Cairo
Warnock, John, M.D., Abbassa, Cairo
Waterfield, N. E., B.S., F.R.C.S., Khartoum
Williams, P. G. S., M.D., Sahag, Upper Egypt
Wilson, W. H., M,B., Matarieh, near Cairo

MEMBERS RESIDING AT GIBRALTAR.

(See Page 64.)

GRIQUALAND WEST BRANCH.

Members of Branch—100.

RECOGNISED 1888.

President, A. H. WATKINS, Esq., Kimberley

Vice-President, W. RUSSELL, M.D., Kimberley

Honorary Secretary, W. RUSSELL, M.D., The Hospital, Kimberley

Honorary Treasurer, A. Fuller, M.D., Kimberley

Representative on Council of Association.

Representative.

Adams, P. T., Esq., The Government Laboratories, Bloemfontein
Adam, Walter, Esq., Box 67, Randfontein, Transvaal
Alexander, V. G., M.B., P.O. Box 3036, Long's Hotel, Johannesburg
Archer-Brown, E., M.B., 81, Jeppe Street, Johannesburg
Ashe, E. O., M.D., Curry Street, Kimberley
Baumann, E. P., M.D., Thrupp's Buildings, Pritchard Street, Johannesburg
Becker, H. A., M.B., Wepener, O.R.C.
Bentley, T. M., Esq., Vrede
Bidwell, C. H., Esq., P.O. Box 24, Bloemfontein
Bishop, D. W., Esq., Zeerust
Black, A. B., Esq., P.O. Box, 115, Roodepoort, near Johannesburg
Blood, C. H., M.D., National Bank Buildings, Johannesburg
Boyd, J. J., M.B., Municipal Buildings, Pretoria
Brown, Geo. M., Esq., Modder River
Browne, H. H., Esq., Bethlehem
Caldwell, J. C., M.D., Krugersdorp
Corcoran, J. H., Esq., Ventersdorp District, Potchefstroom
Currie, H. B., M.B., P.O. Box 1,102, Johannesburg
Currey, E. F. N., Esq., Vereeniging, Transvaal
Davey, James, Esq., Seröwe
Dodds, Alex., M.B., Germiston, Transvaal
Duirs, D. P., M.D., P.O. Box 610, Johannesburg
Dunne, J. J., Esq., Smithfield, O.R.C.
Farmer, John, Esq., Fordsburg, Johannesburg
Fisher, R. Denington, Esq., Pilgrim's Rest, Transvaal
Fitzgerald, F. C., Esq., De Aar, C.C.
Forrester, A. W., Esq., Selukwe, S. Rhodesia
Franks, Sir Kendal C. B., M.D., Kilmurry, Johannesburg
Freer, E. L., Esq., Hekpoort, near Krugersdorp
Friel, A. R., Esq., P.O. Box 4,299, Johannesburg
Fuller, A., M.B., Kimberley
Grant, Cormack, M.B., P.O. Box 6159, Johannesburg
Grant, W. Gordon, M.D., P.O. Box 5,039, Johannesburg
Hayes, W. A., Esq., Mafeking
Haylett, P. H., Esq., Pretoria
Hodgins, W. W., M.D., Stirling Cottage, Bloemfontein
Holmes, E. R., M.B., Edenburg, O.R. Colony
Hopkins, A. H., M.B., Britstown, C.C.
Horwich, D., Esq., 81 Jeppe St., Johannesburg
Jacob, A. H., Esq., Dewetsdorp
James, R., Esq., 4', Estcourt Buildings, Johannesburg
Jameson, Adam, M.D., Land Department, Pretoria
Jeaffreson, A. E., M.B., P.O. 213, Middelburg
Johnston, T. J. W. A., Esq., P.O. Box 214, Pietersburg
Keith, J. Neall, Esq., P.O. Box 56, Lydenburg
Kelly, D. J., M.B., Box 2,909, Johannesburg
Knobel, J. B., M.B., Box 179, Pretoria
Last, T. Clifford, Esq., Brandfort
Lunan, Robert, M.B., Otteshoop, Transvaal
Luther, E. L., M.D., Major S.A.C., Bloemfontein
Lyons, C. J., Esq., 338 Marshall Street, Jeppestown
Mackenzie, J. E., M.B., 34, Currey Street, Kimberley
Mathias, J., Esq., Kimberley Club, Kimberley
May, C. M. Neale, Esq., Kimberley
Maynard, G. D., F.R.C.S., P.O. Box 1128, Pretoria
Michie, G., M.B., P.O. Box 1696, Johannesburg
Miller, A. E., M.B., Boksburg
Moir, W. R., Esq., Kleinfontein P.O., Benoni
Montgomery, W. McG., M.B., H.M. Prison, Johannesburg
Moorhead, G. O., Esq., Rustenburg
Morton, J. S., M.D., Boksburg, Transvaal
Murray, G. E., Esq., Rand Club, Johannesburg
Mursell, H. T., M.B., P.O. Box, 5,039, Johannesburg
Nugent, W. M., Esq., Vryburg
Orford, H. J., M.B., Klerksdorp
Osborne, Herbert, Esq., 142, Skinner Street, Pretoria
Pakes, A. E. H., Esq., Belfast, Transvaal
Penny, F., Esq., Pigg's Peak, Swaziland
Perkins, George, Esq., P.O. Box 222, Germiston, Transvaa
Pern, Norman, Esq., Government Hospital, Boksburg
Pershouse, F., M.D., St. Leonards, Argyll Johannesburg
Polson, J., M.D., Gauspan, Klip-Pan, O.R.C.
Porter, Charles, M.D., D.P.H., P.O. Box 1,049, Johannesburg
Posnett, W. G. T., F.R.C.S., P.O. Box 3,353, Johannesburg
Ramsbottom, A. E. W., Esq., Bloemfontein
Robertson, G. O., M.B., Hopetown, near Kimberley
Robertson, J. A., M.B., P.O. Box 191, Boksburg, Transvaal
Russell, W., M.D., The Hospital, Kimberley
Ruthven, Jane B. Henderson, M.D., P.O. Box 6,253, Johannesburg
Sharp, C. W., Esq., Jacobsdal
Simmons, H. C., Esq., Standerton, Transvaal
Stevenson, Walter B., Esq., Smith Street, Aliwal North
Stewart, J. S. Percy, Esq., P.O. Box 201, Krugersdorp
Strachan, P. D., M.B., Philippolis, O.R.C.
Summerhayes, J. Ward, Esq., Turffontein, Johannesburg
Sutherland, F. C., Esq., P.O. Box 3,597, Johannesburg
Symington, C., M.B., Senior Railway Med. Officer, De Aar
Symonds, E., Esq., Kroonstadt
Symonds, H., M.B., 109, Du ToitsPan Road, Kimberley
Theed, S. V., Esq., P.O. Box 53, Jeppestown
Thurston, A. T., Esq., Zeerust
Troup, J. McD., Esq., Dunottar, Schoeman Street, Pretoria
Warren, C., Esq., R.M.O., Waterval Onder, Transvaal
Watkins, A. H., Esq., Kimberley
Watt, A. H., F.R.C.S.Ed., Simmer and Jack Hosp., Germiston
Wicks, Spencer, Esq., Beaconsfield, Kimberley
Wilkinson, G. B., Esq., Vosburg, via Britstown, C.C.
Woodhouse, W. B., Esq., P.O. Box 708, Pretoria
Woodward, W. Esq., Rouxville
Yule, G. Pratt, M.B., Gov. Offices, Bloemfontein

HALIFAX, NOVA SCOTIA, BRANCH.

Members of Branch—97.

RECOGNISED 1887.

President, W. H. HATTIE, M.D., Dartmouth

Vice-President, JAS. ROSS, M.D., Halifax

Hon. Secretary, JAMES R. CORSTON, M.D., 111, Gottingen Street, Halifax

Honorary Treasurer, G. M. CAMPBELL, M.D., 407, Brunswick Street, Halifax

Representative on Council of Association, Lieutenant-Colonel G. Carleton Jones, M.D., R.A.M.C., Halifax

Representative,

Branch Council.
Campbell, G. M., M.D.
Doyle, J. J., M.D.
Hawkins, A. C., M.D.
Hogan, E. V., M.D.
Murray, C. D., M.D.
Ross, James, M.D.
Trenaman, T. M.D.

Allan, W. M., M.D., Harbour Grace, Newfoundland
Archibald, M. G., M.D., Kamloops, B.C.
Atherton, A. B., M.D., Fredericton, N.B.
Boyle, A. D., M.D., Carbonear, Newfoundland
Brehm, R. A., M.D., P.O. Box 33, St. Johns, Newfoundland
Buckley, A. F., M.D., Halifax
Buckley, George E., M.D., Guysboro'
Campbell, Duncan, M.D., West Branch, Picton Co., N.S.
Campbell, D. A., M.D., Halifax
Campbell, D. G. J., M.D., 130, Gottingen Street, Halifax
Campbell, G. M., M.D., 407, Brunswick Street, Halifax
Carruthers, G., M.D., Charlottetown, P.E. Island
Chisholm, M., M.D., Halifax
Christie, W. A., M.D., 55, Waterloo Street, St. John, N.B.
Clay, H. P., M.D., Pugwash, Nova Scotia
Corston, James R., M.D., 111, Gottingen Street, Halifax
Daniel, J. W., M.D., St. John, N.B.
De Witt, G. E., M.D., Wolfville, N.S.
Doull, A. E., M.D., Dutch Village, Halifax
Doyle, J. J., M.D., Halifax
Dudley, W., M.B., Hoyt Station, New Brunswick
Dyas, I. E., M.D., Amherst, N.S.
Eagar, W. F., M.D., Dartmouth, N.S.
Ellis, R. L., M.D., Jacquet River, Restigouche Co., N.B.
Farish, G. W. T., M.D., Yarmouth, N.S.
Farquharson, W. O., M.D., Edmonton, Alberta
Farrell, E. D., M.D., 48, Morris Street, Halifax
Finn, W. D., M.D., Hollis Street, Halifax
Fitzgerald, C., M.D., St. Jacques, Fortune Bay, Newfoundland
Flinn, T. W. P., M.D., 84, Morris Street, Halifax
Foster, G. L., M.D., Pleasant Street, Halifax
Fraser, N. S., M.B., St. John's, Newfoundland
Fulton, S. A., M.D., Truro
Goodwin, F. W., M.D., 77, Hollis Street, Halifax
Green, F. W., M.D., Glace Bay, C.B.
Hare, H. M., M.D., Harrington Harbour, Labrador
Hattie, W. H., M.D., Dartmouth
Hawkins, A. C., M.D., 110, Gottingen Street, Halifax
Hayes, Joseph, M.D., South Nelson, N.B.
Hogan, E. V., M.D., Brunswick Street, Halifax

inches, P. R., M.D., St John, N.B.
Jones, G. Carleton, M.D., Lt.-Col., P.A.M.C., Government House, Halifax
Kennedy, E., M.D., New Glasgow, N.S.
King, Robert, M.D., Nova Scotia Hospital, Dartmouth
Kirkpatrick, E. A., M.D.. 178, Pleasant Street, Halifax
Lessel, J. F., M.D., 176, Pleasant Street, Halifax
MacAulay, M. A., M.D., 317, Brunswick Street, Halifax
Macdonald D. J., M.B., P.O. Cox 291, Sydney, C.B.
McDonald, E. O., M.D., New Aberdeen, Glace Bay, C.B.
Macdonald, H. K., M.D., Lunenburg, Nova Scotia
Macdonald, J. C., M.D., Westville, N.S.
Macdonald, W. H., M.D., Antigonish
MacGregor, Sir William, K.C.M.G., C.B., M.D., St. John's, Newfoundland
Mackeen, R. A. H., M.D., Grace Bay, Cape Breton
MacKenzie, John, M.D., Port Mulgrave, Nova Scotia
Mackintosh, D., M.D., Pugwash, N.S.
Maclaren, M., M.D., 75, Coburg Street, St. John, N.B.
McLaren. P., M.D., Montague, P.E.I.
McLean, M. T., M.D., North Sydney, N.S.
McLennan, S. J., M.D., Glace Bay, C.B.
McLeod, J. K., M.D., Sydney, Cape Breton
McManus, J. P. C., M.D., Box 35, Blackville, N.B.
MacNeill, A., M.D., Summerside, P.E.I.
McNichol, John, M.D., Bathurst, N.B.
MacQueen, C. A., M.D., Amherst, Nova Scotia
Mader, A. I., M.D., 57, Morris Street, Halifax
Mathers, R. E., M.D., Morris Street, Halifax
Millar, J. R., M.D., Amherst, N.S.
Mitchell, T. M., M.D., St. John's, Newfoundland
Morse, L. R., M.D.. Lawrencetown Annapolis Co., N.S.
Morton, A. McD., Esq., Bedford, Nova Scotia
Morton, C S., M.D., Port Greville, N.S.
Murphy, T. J. F., M.D. 64, Argyle Street, Halifax
Murray, A. J., M.D., Fredericton Junction, N.B.
Murray, C. D., M.D., 66 Queen Street, Halifax
Murray, L. M., M.D., 186, Pleasant Street, Halifax
Myers, A. R., Esq., Moncton, N.B.
O'Neil, F., M.D., Louisburg, C.B.
Price, B. S., M.D., 157, Germain Street, St. Johns, N.B.
Procter, G. W., M.B., Carbonear, Newfoundland
Putman, W. G., M.B., Yarmouth
Rendell, H., M.B.. St. John's, Newfoundland
Ross, Jas., M.D., 87, Hollis Street, Halifax
Shea, H. M.D., St. John's, Newfoundland
Smith, A. C., M.D., Tracadie N.B.
Smith, G. T., M.D, Moncton, N.B.
Sprague, T. F., M.D., Woodstock, N.B.
Stewart, J., M.B., 28, South Street, Halifax
Tait, J. S., M.D., St. John's, Newfoundland
Taylor, D. A., M.D., Londonderry, N.S.
Thomas, L., M.D., North and Gottingen Streets, Halifax
Tobin, W., F.R.C.S.I., Halifax, Nova Scotia
Trenaman, T., M.D., Halifax
Van Wart, G. C., M.D., Fredericton, N.B.
Watson, D. T. C., M.D., Charles and Agricola Streets, Halifax
White, F. J., M.D., Moncton, N.B.
Wiley, R. B. M., M.D., Andover, N.B.

HONG KONG AND CHINA BRANCH.

RECOGNISED 1891.

Members of Branch—100.

President, FRANCIS W. CLARK, M.D., M.O.H., Hong Kong
Vice-President, G. P. JORDAN, M.B., Hong Kong
Honorary Secretary and Treasurer.
W. B. A. MOORE, Esq., Hong Kong
Representative on Council of Association.
Alex. Rennie, M.B., Kintore, Aberdeen
Representative,

Branch Council.
Bell, A. S. G., Staff Surg., R.N.
Hunter, W., M.B.
Josling, C. L., Lieut.-Col., R.A.M.C.
Ranking, R. M., M.B., Lieut., R.A.M.C.
Stedman, F. O., M.D.

Aird, Robert, Esq., British Concession, Hankow
Aspland, W. H. G., M.D., c.o. Bishop Scott, Peking
Baiss, L. A., Surg. R.N., H.M.S. *Tamar*, Hong Kong
Balme, H., F.R.C.S., Mission Hospital, Tai Yuen Fu, Shansi
Bateman, G. D., Surg., R.N., H.M.S *Tamar*, Hong Kong
Baxter, A. K., Esq., Yung-ping-fu, Chihli Province, North China
Beatty, Elizabeth, L.R.C.P., Newchwang
Bell, A. S. G., Staff Surg. R.N. H.M.S. *Tamar*, Hong Kong
Bromtall, B. C., F.R.C.S., Shansi, North China
Bryson, Margaret E., M.B., English Presbyterian Mission, Amoy
Carr, J. C., M.D., China Inland Mission, Ganking, China
Carr, S. H., M.B., China Inland Mission. Shanghai
Chambers, Joseph, M.B., Fleet Surgeon, R.N., H.M.S. "King Alfred," China Station
Charter, G A., Esq., T'ai-Yüan-Fu, via Peking
Christie, D., Esq. Moukden, Newcowang
Churchill, H. M., Esq., c.o. Church Missionary Society, Foochow
Clark, Francis W., M.D., M.O.H., Hong Kong
Clift, H. L., M.B., Kueilin, Kuangsi, China
Cole, A. F., Esq., C.M.S, Hospital, Ningpo, China
Cooper, Florence M., L.S.A., Lo'nguong City, Foochow
Cormack, J. G., Esq., London Missionary Society, Shanghai
Cousins, Agnes L., M.D., London Mission, Hankow
Cox, S. M., M.D., 6, Soochow Road, Shanghai
Craig, B. A., Capt. R.A.M.C., Station Hospital, Hong Kong
Daly, C. C. de Burgh, M.B., Newchwang
Davenport, E. C., M.D., Shamien, Canton
Durston, J. C., Staff Surg. R.N., H M.S. *Flora*, China Sta'n.
Elliott, C. C., Esq., c.o. China Inland Mission, Ngankin, China
Fahmy, A., M.D., C.M., Amoy, China
Forsyth, C. M B., Alexandra Buildings, Hong Kong
Fullarton, John, Surg. R.N., H.M.S. *Cadmus*, China Station
Gillespie, J. R., M.B.. Newchwang, North China
Greenhalgh, J. P. H., M.D., Surg. R.N., H.M.S. *Robin*, China Station
Gröne, F., M.B., Alexandra Buildings, Hong Kong
Hanwell, G. L., Esq., 54. Szechuen Road, Shanghai
Harston, G. M., M.B., Hong Kong
Heanley, C M., M.B., Hong Kong
Hickin, Herbert J., Esq., Wei-hai-Wei
Hunter, W., M.B., Hong Kong
Iredell, A. W., Surgeon, R.N.. H.M.S. *King Alfred*, China Station
Jenkins, H. S., M.D., English Baptist Mission, Si-ngan-fu Shensi, China
Jones, John, Esq.. United Methodist Free Church Mission, Ningpo
Jordan, G. P., M.B., MacDonnell Road, Hong Kong
Josling, C. L., Lieut.-Col., R.A.M.C., Station Hospital, Hong Kong
Judd, F. H., M.B., China Inland Mission, Kuikiang
Kember, A. T, Esq, Hangchow
Keyt, F. T., Esq, Occidental Hotel, Kowloon, Hong Kong
Koch, W. V. M., M.D., Hong Kong
Lálcácá, C., Esq., 47, Kiangse Road, Shanghai
Lambert, A. C., M.D., Nanking, China
Lyall, Alex., M.B., Swatow, China
Macdonald. R. J. J., M.D., Wu Chow, Kwang Si, China
Macfarlane, H., Esq., Sanitary Board Offices, Kowloon, Hong Kong
Macleod, Neil, M.D., Shanghai
McNeill, Margaret E., M.B., Irish Presbyterian Mission, Newchwang
McPhun, J. F., M.B., Swatow
Marques, L. P., Esq., Macao
Marriott, Oswald, Esq., Hong Kong
Marsh, E. L., Esq., Shanghai
Marshall, F. W., Esq., English Methodist Mission, Tientsin
Matthew, C. G., Fleet-Surg. R.N., H.M.S. *Monmouth*, China Station
Maxwell, J. L., jun., M.D., Tain-an-Foo, Formosa
Maxwell, J. P., M.B., E.P. Miss., Engchhun, Amoy, China
Milles, W. J., M.D., Shanghai
Molyneux, J. F., Esq., Chefoo, North China
Montgomery, J. H., M.B., Changpoo, Amoy
Moore, W. B. A., Esq., Hong Kong
Morland, C. H. D., M.B., Swatow, China
Mowat, James, M.B., Staff Surg. R.N., R.N. Hospital, Hong Kong
O'Neill, Gordon, Esq., Chinwangtao, North China
Parrott, A. G., Esq., 31, North Sz-chuen Road, Shanghai
Patrick, H. C., M.B., 1, Nanking Road, Shanghai
Peill, A.D., M.B., c.o. London Mission, Tientsin
Phillips, W., M.B., Newchwang
Poulter, Mabel C., M.B., Foochow
Ranking, R. M., M.B., Lieut., R.A.M.C., Station Hospital, Hong Kong
Reid. D. J., M.D., 20, Foochow Road, Shanghai
Rennie, T., Esq., Foochow
Rowley, Mrs. Ethel M., L.S.A., Wesleyan Mission, Hankow
Sandeman, M., M.B., E. P. Mission, Sua-bue, via Hong Kong
Saville, Lillie E. V., M.D., London Mission. Peking
Savin, Lewis, Esq., Chao-tung, via Chung King
Sibree, Alice D., L.R.C.P. & S.E., Alice Memorial Hospital, Hong Kong
Smith, Dansey, Esq., Canton
Smith, G. P., M.B., c.o. London Mission. Tientsin
Smith, M. J., M.D., Staff Surg. R.N., H.M.S. *Sutlej*, China Station
Somerville, C. W., M.B., London Mission, Wuchang, by Hankow
Sparkes, C. S., Lieut.-Col. R.A.M.C., Hong Kong
Stanley, Arthur, M.D., Municipal Offices, Shanghai
Stedman, F. O., M.D., Hong Kong
Tayler, G. P., M.B., Taipeh, North Formosa
Thomson, G. S., Major, I.M.S., Station Hospital, Kowloon, Hong Kong
Thomson, J. C., M.D., Hong Kong
Tribe, Ethel N., M.D., London Mission, Amoy
Turner, Rev. George R., M.B, London Mission, Amoy
Weir, H. H., Esq., English Church Mission, Chemulpo, Corea
Whitwam, L. S., M.B., Surgeon, R.N., H.M.S. "Water-witch," China Station
Whyte, G. D., M.D., Swatow
Wilkinson, E. A. G., Surg. R.N., H.M.S. "Hecla," China Station
Wilson, William, Esq., Hsii Sing Fu, Wan Hsien, via Ichang

JAMAICA BRANCH.

Members of Branch—49.

RECOGNISED 1877.

President, G. C. HENDERSON, M.D., Kingston
President-elect, G. V, LOCKETT, M.B., Kingston
Honorary Secretary and Treasurer, G. F. Da Costa, M.B. 51, Harbour Street Kingston

Branch Council.
Allwood, J. A. M.B.
Bronstorph, E. E., Esq.
Clare, H. L, Esq.
Donovan, J. F., M.D.
Saunders, A. R., M.B.
Williams, D. J., Esq.

Representative on Council of Association.
Representative,

Allwood, J. A., M.B., Hospital, Kingston
Armstrong, C. H. B., Esq., Kingston
Bartlett, T. M., M.B., Morant Bay
Bronstorph, E. E., Esq., Kingston, P.O.
Campbell, G P., M.D., Hagley Gap, P.O., Jamaica
Clare, H. L., Esq., Kingston, Jamaica
Clark, L. M., Esq., Kildare, Linstead P.O., Jamaica
Costa, I., M.B., Adelphi P.O.
Cox, J. Leslie, Esq., Clarkstown P.O., Trelawny, Jamaica
Crooks, L. A., M.B., Half-way Tree, P.O., Jamaica
Crosswell, L. O., M.B., Black River, Jamaica
Da Costa, G. F., M.B., 51, Harbour Street, Kingston
Donovan, J. F., M.D., Port Royal, Jamaica
Edwards, J. J., Esq., Spanish Town
Gifford, L., M.D., Anotto Bay
Grosett, F. G., Esq., Port Antonio
Hargreaves, G., M.D., Cave Valley, P.O.
Harry, A., Esq., 75, Tower Street, Kingston
Henderson G. C., M.D., 25, South Camp Road, Kingston
Johnston, H. G., M D., Montego Bay
Joslen, H., Esq., St. Ann's Bay, Jamaica
Ker, J. Errington, Esq., Kingston, Jamaica
Levy, C. I., M.D., St. Ann's Bay, Jamaica
Lockett, G. V., M.B., 57, Duke Street, Kingston
McCrindle, J. R. R., M.B., Eureka, Up Park Camp P.O. St. Andrew, Jamaica
Malabre, H. F., M.D., Kingston
Malabre, P. O., M.B., Richmond P.O.
Mills, A. M., M.B., Montego Bay
Myers, F. de L., Esq., North Street, Kingston
Mullen, V. F., Esq., Plantain Garden River, Jamaica
Neish, Donald, Esq., Hospital, Kingston
Neish, G. I., Esq., Balaclava
Nixon, E. G. O., M.B., Highgate, Jamaica
Ormsby, C. M., Esq., Moneague, Jamaica
Peck, J. H., Esq., Spanish Town
Pringle, The Hon. J., C.M.G., M.B., Annotto Bay
Ragg, P.M., M.B., Kingston, Jamaica
Ritchie, F. A., Esq., Rae Town, Kingston
Russell, H. W., M.D., Up. Park Camp, Kingston
Saunders, A. R., M.B., Kingston
Shackleton, T. F., Esq., Kingston, Jamaica
Sinclair, F. A., M.B., Little London
Sorapure, V. E., M.B., Kingston, Jamaica
Thomson, A. W., M.B., Chapeltown
Thomson, C. A. H., M.B., Falmouth, Jamaica
Turton, R. S., Esq., Stony Hill, Jamaica
Vernon, A. A., Esq., Montego Bay, Jamaica
Williams, D. J., Esq., Lunatic Asylum, Kingston, Jamaica
Wilson, W. E., Esq., Brown's Town, Jamaica

LEEWARD ISLES BRANCH.

COMPRISING THE FOLLOWING ISLANDS—ANTIGUA, ST. KITTS, NEVIS, MONTSERRAT, DOMINICA, ANGUILLA, ST. EUSTATIUS.

Members of Branch—15.

RECOGNISED 1890.

President,
President-elect,
Vice-President.
Hon Secretary,
Hon Treasurer,

Branch Council.
Duke, M.P., Esq.
Earl, R. S. M.B.
Rat, J. Numa, Esq

Representative on Council of Association
Representative,

Branch, O. W., Esq., St. Vincent
Branch, W. J., M.D., Basseterre, St. Kitts
Cooke, J. H., M.B., Antigua
Duke, M. P., Esq.. Montserrat
Earl R. S., M.B., Tortola
Fretz, W. H., Esq., St. Kitts, West Indies
Gabriel, J. S., Esq., Antigua
Mason, G. B., Esq., Anguilla
Nicholls, H. A. A., C.M.G., M.D., Dominica
Norris, F. L., M.B., Antigua
Nurse, J. S. M., M.B., The Grange, Basseterre, St. Kitts
Rat, J. Numa, Esq., Nevis
Roden, E. Lucy, L.R.C.P., Montpelier, Antigua
Senhouse, L.S., M.B., Woodford Hill, St. Andrew, Dominica
Wykham, A. L., Esq., St. John's, Antigua

MALAYA BRANCH.

Members of Branch—78.

RECOGNISED 1894.

President, T. C. MUGLISTON, Esq., Penang
President-elect, DONALD K. McDOWELL, C.M.G., Singapore

Vice-Presidents.
D. J. GALLOWAY, M.D., Singapore
T. C. AVETOOM, Esq.. Penang
E. A. O. TRAVERS, Esq., Selangor

Honorary Secretary, Major JOHN RITCHIE, M.B., R.A.M.C., D. Bungalow, Tanglin, Singapore
Honorary Treasurer, G. A. FINLAYSON, M.B., Singapore

Branch Council.
Freer, G. D., Esq.
Keng, L. B., M.B.
Middleton, W.R.C., M.B

Representative on Council of Association.
T.S. Kerr, M.B., Clifton Hotel, Welbeck Street, W.

Representative,

Adamson, R. E., Esq., Labuan
Allen, Mabel, E. D., M.B, Banting, Sarawak
Amner, F. H., Esq., Tongkah, via Penang
Avetoom, T. C., Esq., Beach Street, Penang
Barker, A. J. G., Esq., P.M.O., Sarawak
Barrack, J. W., M.B., Pahang
Black, N., M.D., Battery Road, Singapore
Boongardt, Edith, Penang
Brooke, Gilbert E., Esq., Port Health Office, Singapore
Brown, J. E. M., M.B., Gopeng, Perak
Campbell, R. A., Esq., Municipal Health Office, Singapore
Connolly, R.M., Esq., Ipoh, Perak
Coope, A. B. J., Esq., Penang
Cross, John, M.B., Singapore
Croucher, F. B., M.B., Malacca
Dane, R., Esq., Singapore
Delmege, J. B., Esq., Kuala Lumpor, Selangor
De Tunzelmann, E. W., M.B, Singapore
Donald, John, M.B., Penang
Donald, R. F., M.B., Penang
Dowden, Richard, Esq., Perak
Duguid, J. H., M.B., Lieut. R A.M.C., Singapore
Edgar, P. G., M.B., Ipoh, Perak
Ellis, W. G., M.D., Sepoy Lines, Singapore
Finlayson, G. A., M.B., Municipal Offices, Singapore
Ford, D. M., Esq., Singapore
Ford, J. C. C., Esq., Port Health Officer. Penang
Foster, A. F., Esq., Battery Road, Tanglin, Singapore
Fowlie, P., Esq., Singapore
Fox, S. C. Gundry, Esq., Batu Gajah, Perak
Fraser, Henry, M.D., Medical Research Institute, Kuala Lumpor
Freer, G. D., Esq., Penang
Fry, W. H., Esq., Kuala Lipis, Pahang
Galloway, D. J., M.D., 3, Raffles Place, Singapore
Gibbs, H. J., Esq., Tan Tock Seng's Hospital, Singapore
Gimlette, J. D., Esq., Kelautan
Glennie, J. A. R., M.B., Municipality Health Off., Singapore
Handy, James M., Esq., Singapore
Harrison, M., Esq., Panang
Harvey, G. A. D., Lieut. R.A.M.C., Pulo Brani, Singapore
Highet, H. C., M D., Bangkok
Hoops, A. L., M.D., Kedah, Malaya
Jamieson, Hill. Esq., Penang
Johnstone, G. W., Esq., Singapore Club, Singapore
Johnston, H. H., C.B., M.D., Lieut.-Col. R.A.M.C., Raffles Hotel, Singapore
Keng, L. B., M.B., The Dispensary, Battery Rd., Singapore
Kerr, A. F. G., M.B., Chiengmai, Siam, via Moulmein and Rahang
Kirk, J., M.D., Penang
Kirkwood, James, M B., Capt., I.M.S., Alexandra Camp, Singapore
Leach, A., M.B.. British Dispensary, Raffles Sq., Singapore
Leask, John, M.B., Mt. Farquhar, Sepoy Lines, Singapore
Leicester, G. F.; M.B., Kuala Lumpor
Locke, P. V., M B., 337, Anson Road, Penang
Lucy. S. H. R., Esq., Penang
McClintock, S. A., M.B., General Hospital, Sepoy Lines, Singapore
MacDougall, Wm., M.B., Christmas Island, Straits Settlements
Martin, C. B., M.B., Major, R.A.M.C., Singapore
Meldrum, W. P., M.B., Pakit Bunter
Middleton, W. R. C., M.B., Singapore
Mugliston, T. C, Esq., Colonial Surgeon, Penang
Park, G. W., M.B., Municipal Office, Georgetown, Penang
Peart, S. P., M.B, Tapah, Perak
Ritchie, John, M.B., Major, R.A.M.C., Singapore
Robertson, T. Murray, M.D., Singapore
Rose, J. S., M.B., Municipal Buildings, Georgetown Penang
Sheppard, W. S., M.B. Butterworth, Province Wellesley Penang
Skae, F. M. T., M.B., Penang
Smith, M. A., Esq., Bangkok, Siam
Thornley, R. L., M.B., Kuala Lumpor
Ting, K. L., M.B., Penang
Travers, E. A. O., Esq., Selangor, Malay Peninsula
Tuck, G. L., M.D., Central Dispensary, Penang
Watson, M., Esq., Federated Malay States
Wilson, J. P. A, Esq., Johore, nr. Singapore
Woods, A. A., Esq., Pekan, Pahang
Wright, M J., M.B., Thaipeng, Perak
Yen, S. C., M.B., The Dispensary, Battery Road, Singapore
Young, David, M.D., The Dispensary, Battery Road, Singapore

MALTA AND MEDITERRANEAN BRANCH

Members of Branch—54.

RECOGNISED 1888.

President, Surg.-Lt.-Col. L. MANCHE, M.D., Valetta
Vice-President, Prof. C. MIFSUD, M.D., Floriana
Honorary Secretary and Treasurer.
J. S. GALIZIA, M.D., 6, Strada Stella Maris, Sliema, Malta

Branch Council.
Cassar, Prof, S., M.D.
Gray, W. L., Maj. R.A.M.C
Samut, R. P., Lieut.-Col.

Representative on Council of Association.
Smith, W. R., M.D., 74, Great Russell Street, W.C.

Representative for Representative Meeting.
C. Mattei, Esq., Sliema, Malta

Associate Members.
Austin, R. F. E., Major, R.A.M.C., London
Smith, W. R., M.D. 74 Great Russell Street, W.C.

Anderson, H. S., Capt. R.A.M.C., Military Hospital, Cottonera, Malta
Arathoon, H. C., Staff Surgeon R.N., H.M.S. Egmont
Baldacchino, J. C., M.D., Piazza Britannica, Tarxien, Malta
Bentham, R., Dep.-Insp.-Gen. R.N., Royal Naval Hospital, Malta
Borg, J.C., M.D., D.M.O., Zabbar, Malta
Busuttil, Anthony, M.D., D.M.O., Vittoriosa, Malta
Busuttil, Roger, M.D., 18, Sda Cospicua, Cospicua, Malta
Cassar, Prof. S., M.D., 19, Strada Tesoreria, Valetta
Cecy, D., M.D., 65, Sda Reale-Tarxien, Malta
Clayton, F. H. A., Staff Surgeon, R.N., H.M.S. Egmont
Clift, H., Staff Surgeon, R.N., H.M.S. Venus
Conner, S., M.B., Staff Surg. R.N., H.M.S. Venerable
Darmanin, F., M.D., D.M.O., Notabile, Malta
Debono, G., M.D., 11, Sda Vescovo, Valetta
Ellul, John, Esq., 115, Sda Toro-Cospicua, Malta
Ferguson, J. C., M.B., Fleet Surg. R.N., H.M.S. Formidable
Ferro, E. H., M.D., Strada Torri, Sliema, Malta
Galizia, Joseph S., M.D., 6, Strada Stella, Maris, Sliema, Malta
Ghio, C. M.D., D.M.O., Sliema, Malta
Gray, W. L., Maj. R.A.M.C. Station Hospital, Valetta
Grech, Professor S., M.D., 30, Strada Mezzodi, Valetta
Grech, S. E., M.D., 68, Strada Teatro, Valetta
Hickson, R., Fleet Surgeon R.N., H.M.S. Minerva
Inglott, G. F., M.D., D.M.O., 16, Cospicua, Malta
Kennedy, J. C., M.B., Captain R.A.M.C., Malta
Lawson, C. B., Maj. R A.M.C., Malta
MacMahon, G. R., M.B., Staff Surg. R.N., H.M.S. Leander
MacNeece, J. G., Col. R.A.M C., P.M.O., Malta
Major, H. G. T., Surg. R.N., H.M.S. Bulwark
Manché, L., M.D., Surg.-Lt.-Col., Valetta
Mattei, C., Esq., 53, Victoria Avenue, Sliema, Malta
Meli, E., M.D., 64, Strada St. Lucia, Valetta
Micallef, P., M.D., Public Health Department, Valetta
Mifsud, Professor C., M.D., 10, Sda Mo ini, Valetta
Pryn, W. W., Fleet-Surg. (ret.), H.M.S. Goliath
Randon, R., M.D., Surg.-Lt. R.M.A., 222, Str. Mercanti, Valetta, Malta
Rhodes, J. H. A., Lieut.-Col. R.A.M.C., Malta
Richards, R. M., Surg. R.N., Bighi Hospital, Malta
Ross, E. H., Esq., Public Health Department, Port Said
Said, E., M.D., Sda San Domenico, Valetta
Salomone, Francis, M.D., D.M.O., Musta, Malta
Samut, R. P., Lieut.-Col., Sda Marsamuscetto, Valetta
Scolaro, F., M.D., 209, Sda due Porte, Senglea, Malta
Shaw, E. A., Staff Surgeon, R.N., Union Club, Malta
Stilon, Prof. H., M.D., 23, Sda Zaccaria, Valetta
Tabone, N., M.D., Sda, Palma, Victoria, Gozo, Malta
Vassallo, A., M.D., Sda Stretta, Valetta
Vella, Robert, Surg.-Capt., M.D., 153, Strada Zecca, Valetta, Malta
Vella, V., M.D., Valetta
Whitelegge, W. A., M.D., Fleet Surg. R.N., H.M.S. Cornwallis
Williams, E. M., Major R.A.M.C., Military Hospital, Valetta, Malta
Wood, J. C., Staff Surg. R.N., H.M.S. Diana
Zahra, M., M.D., 45, Sda S. Ursola, Valetta
Zammit, Prof. T., M.D., Public Health Department, Valetta

Members residing in the District of MANITOBA AND WEST OF CANADA.

Members—21.

Anderson, R. B., M.D., 846, Main Street, Winnipeg
Burnham, F. W. E., M.D., 373, Broadway, Winnipeg
Chown, H. H., M.D., Winnipeg, Manitoba
Cunningham, H. C., M.D., Carman, Manitoba
Douglas, Alex. J., M.D., Winnipeg
England, W. S., Esq., 56, Edmonton Street, Winnipeg
Good, J. W., M.D., 222, McIntyre Block, Winnipeg
Hall, J. Andrew, M.D., Wellington Crescent, Winnipeg
Hardie, J., M.B., Morden, Manitoba
Hughes, G. O., M.D., 8, Commonwealth Block, Winnipeg
Jones, J. R., M.B., 247, Donald St., Winnipeg, Manitoba
Lowther, Alfred, Esq., 620, Main Street, Winnipeg
Maclean, Neil J., M.D., 323, Flora Avenue, Winnipeg
Moorhead, E. S., M.B., 474, Main Street, Winnipeg
Prowse, S. W., M.D., P.O. Box 631, Winnipeg
Rorke, R. F., M.D., 205, Smith Street, Winnipeg
Todd, J. O., M.D., 402, Elgin Avenue, Winnipeg, Manitoba
Vincent, Swale, M.B., University of Manitoba, Winnipeg
Vrooman, Charles H., M.D., 334, Main Street, Winnipeg
Webster, W., M.D., 151, Kennedy Street, Winnipeg
Wright, H. A., M.D., Oak Lake, Manitoba

MELBOURNE AND VICTORIA BRANCH.

Members of Branch—172.

RECOGNISED 1880.

President, G. CUSCADEN, Esq., Port Melbourne
Vice-President, Professor OSBORNE, Carlton
Honorary Secretary, W. B. VANCE, M.B., High Street, St. Kilda
Honorary Treasurer, A. S. JOSKE, M.D., Prahran, Melbourne

Branch Council.
Bryant, H. W., Esq.
Fox, W. R., Esq.
Laurie, Henry, M.D.
Macansh, W., M.B.
Weigall, R. E., M.B.
Willis, T. R. H., M.B.

Representative on Council of Association.
Representative,

Associate Members.
Morrison, Alex., Esq., Perth, West Australia
Moss, M. K., M.B., Perth Hospital, West Australia

Adam, B. J., M.B., Daylesford, Victoria
Adam, G. R., Esq., Collins Street, Melbourne
Aitchison, Alex. S., M.B., Albert Park, South Melbourne
Allan, E. B., Esq., Maldron, Victoria
Allwork, F., Esq., New Norfolk, Tasmania
Alsop, C. J., M.B., Bairnsdale, Victoria
Anderson, A. V. M., M.D., St. Kilda, Melbourne
Anderson, B. A., Esq., Westbury, Tasmania
Anderson, G. M., M.B., Franklin, Tasmania
Armstrong, Hugh, Esq., Macquarie St., Hobart, Tasmania
Barnett, C. A., Esq., Port Melbourne
Barrett, J. W., M.D., 34, Collins Street, Melbourne
Beckett, — Esq., Northcote, St. Kilda Road, Melbourne
Bennett, H. V., M.B., The Hospital, Ballarat, Victoria
Bennie, A. B., M.B., Berwick, Victoria
Berry, Professor R. J. A., M.D., The University, Melbourne
Bird, F. D., M.B., Spring Street, Melbourne
Black, A. G., M.B., Victoria Street, Carlton
Boake W., Esq., Hawthorne, Victoria
Boyd, W. R., M.D., Hoddle Street, Richmond
Boyes, W. P., Esq., Wangaratta, Victoria
Brett, J. T., Esq., Collins Street, Melbourne
Bryant, H. W., Esq., 151, Collins Street, Melbourne
Cameron, W. J., M.B., 10th Street, Mildura
Campbell, A. B., M.B., Ballarat Hospital
Champion, E., M.B., Victoria Street, Ballarat East, Victoria
Chapman, W., M.B., Koroit, Victoria
Clarke, A. H., Esq., 161, Macquarie St., Hobart, Tasmania
Colquhoun, A. G. H., Esq., St. Vincent's Place, S. Melbourne
Connor, S., M.D., Coleraine
Courtney, C. H., Esq., Learmouth, Victoria
Cowen, B. S., M.B., Eaglehawk, Victoria
Cox, James, Esq., Collins Street, Melbourne
Croker, P. A., M.B., Yarra Street, Geelong
Cunningham, P. H., Esq., Talbot, Victoria
Cuscaden, G., Esq., Port Melbourne
Cussen, G. E., M.B., 2, Lyons Street, Ballarat, Victoria
Davies, Wm., M.B., 33, Mathowra Road, Toorak, Melbourne
Davies, W. E., M.B., Sturt Street, Ballarat, Victoria
D Ombrain, E. A., Casterton, Victoria
Donaldson, J. B., Esq., Linton, Victoria
Druitt, Lionel, Esq., Dronin, Victoria
Dunlop, S. H., M.D., Charlton, Victoria
Dyring, Carl P. W., Esq., Coburg, Victoria
Eadie, James, M.B., Balaclava Road, Balaclava, Melbourne
Eastwood, F. H., M.B., Alexandra Sq., Ballarat, Victoria
Elkington, J. S. C., M.D., Bleak House, Battery Point, Hobart, Tasmania
Ellis, H. D., Esq., Lufra
Elvins, H. F. H., Esq., Geelong, Victoria
Esler, A. W., M.D., Williamstown, Victoria
Faulkner, W. C., M.B., Waratah, Tasmania
Fleming, H. H., M.B., St. Arnaud, Victoria
Forsyth, W., Esq., Koroit, Victoria
Fox, W. R., Esq., 90, Collins Street, Melbourne
Gandevia, N. B., Esq., Surrey Hill, Victoria
Gardiner, J. M., Esq., 18, Camp Street, Ballarat, Victoria
Gawne, M.B., Esq., Jeparit, Ballarat, Victoria
Gordon, A. H., Esq., Clunes, Victoria
Green, T. E., M.B., Bendigo, Victoria
Grimmer, C. G., M.D., Avoca, Victoria
Hagenauer, G., Esq., Sale, Victoria
Hamilton, F. G., Esq., Brunswick
Harbinson, J. W., Esq., Middle Brighton, Victoria
Harbison, James A., Esq., Numurkah, Victoria
Hardy, C. H. W., Esq., 202, Sturt Street, Ballarat
Harkin, C. F., Esq., Chiltern, Victoria
Harkness, E., Esq., Heyfield, Victoria
Harris, J. R., M.B., Rutherglen, Victoria
Harvey, W. A., M.B., Hobart, Tasmania
Hearne, W. W., St. Vincent's Place, S. Melbourne
Henderson, J. Leslie, M.B., Wangaratta, Victoria
Henry, L., M.D., Ilnica, Alma Road, St. Kilda
Higgins, John, Esq., Woods Point, Victoria
Hodgkinson, C. F., Esq., Berringa, Victoria
Hodgson, G. J., M.D., St. Kilda, Melbourne
Hogg, G. H., M.D., Launceston, Tasmania
Hutton, J. R., Esq., Lonsdale Street, Melbourne
Jamieson, J., M.D., 96, Exhibition Street, Melbourne
Johnson, C. H., M.B., Yackandandah, Victoria
Jones, W. E., Esq., Treasury Buildings, Melbourne
Jordan, T. F., Esq., Doveton Street, Ballarat
Joske, A. S., M.D., Prahran, Melbourne
Kelly, M. F., M.B., Echuca, Victoria
Kennedy, John T., Esq., Lisfarron, Cobram, Victoria
Kenny, A. L., M.B. (address uncommunicated)
Laurie, W. S., Esq., University, Carlton, Melbourne
Lethbridge, R. W., Esq., Ballarat, Victoria
Longden, F. R., Esq., Buninyong, Victoria
Lulham, F. S. I., Esq., Collins Place, Melbourne
Lyons, A., M.B., Goroke, Victoria
McArthur, A. N., Esq., 74, Collins Street, Melbourne
McCallum, G., M.B., Geelong, Victoria
Macansh, W., M.B., Church Street Brighton
McCarthy, C. L., M.B., Paisley St., Footscray, Melbourne
McCreery, James V., Esq., Kew Lunatic Asylum Melbourne
McGee, J. H., Esq., Collins Street, Melbourne
Macfarlane, A. A., M D., Kew Asylum, Melbourne
Macfarlane, W. H., M.B., New Norfolk, Tasmania
Macgowan, E. H., Esq., 84, Macquarie Street, Hobart, Tasmania
McGowan, A. G., Esq., Drummond Street, Ballarat Victoria
Mackay, E. A., M.B., South Yarra, Victoria
McKenna, J., M.D., Shepparton
Miller, W. F., M.B., Maryborough, Victoria
Mitchell, J. T., M.D., 184, Sturt Street, Ballarat
Moreton, F. R., Esq., Warrnambool, Victoria
Morrison, R. H., M.B., Toorak, Victoria
Morrison, W., Esq., Camp Street, Ballarat, Victoria
Morton, J. C., M.B., Broadford
Muir, J. M. M., M.B., Wynyard, Tasmania
Mullen, W. L., M.D., Hosp. for Insane, Yarra Bend, Victoria
Murray, H. L., Esq., 34, Collins Street, Melbourne
Naylor, A. G. E., Esq., Foster
Naylor, H. G. H., Esq., Waitretai, Punt Road, S. Yarra, Melbourne
Neild, J. E., M.D., 21, Spring Street, Melbourne
Nisbett, W. B., Esq., Creswick, Victoria
Nyulasy, F. A., M.B., Hawkesburn, Victoria
Officer, D. M., M.B., 58, Collins Street, Melbourne
O'Hara, Wm., F.R.C.S.E., Malvern
O'Neill, J., M.D., Middle Parks, Melbourne
Orchard, —, M.B., Port Fairy, Victoria
Osborne, Professor, University, Carlton
Paton, D. M., Esq., G.P.O., Melbourne
Patterson, J. H., M.B., Tellangatta, Victoria
Pestle, J. H., M.D., Blythe Street, Brunswick, Victoria
Philpott, J. W., M.B., Hospital for Insane, Beechworth, Victoria
Pollock, John, M.B., Stratford, Gippsland, Victoria
Rabl, H., Esq., Murtoa, Victoria
Ramsay, John, Esq., General Hospital, Launceston, Tasmania
Ramsey, J. K., M.D., Malvern Road, Prahran, Victoria
Reid, R. G., Esq., Nagambia, Victoria
Rennie, G. C., M.B., Collins Street, Melbourne
Richards, J. K., M.B., Lydiard Street, Ballarat
Robertson, D. A., Esq., Smythesdale
Robertson, E. B., M.D., Seymour
Rooke, C., Esq., Burnie, Tasmania
Ryan, C. S., M.B., Surg.-Col., 37, Collins Street, Melbourne
Salmon, H. R., M.D., Victoria Street, Ballarat East
Savage, V. W., Esq., Oaklands, Tasmania
Schlink, R. H., Esq., Wodonga
Scott, G. A., M.B., Ballarat, Victoria
Scott, J. A., M.D., Braid, Auburn Road, N. Hawthorn
Scott, R., M.D., 2, Sturt Street, Ballarat
Shanasy, T., M.D., Nhill, Victoria
Showman L. F., Esq., Sebastopol, Victoria
Shuter, R. E., M.B., Beechworth, Victoria
Sleeman, G. H., M.B., Hospital, Creswick
Sloggett, H. P., Esq., Albert Park, Melbourne
Sloss, W., Esq., Church Street, Ballarat
Spence, Herbert, Esq., Numurkah, Victoria
Sprott, G., M.B., Hobart, Tasmania
Stanton, T., M.B., Koroit
Steele, L. R., Esq., Ballarat
Steell, J., Esq., Hospital for Insane, Ballarat
Stewart, D. E., M.B., Brunswick
Stoney, R. B., M.B., Echuca, Victoria
Syme, G. A., M.B., 19, Collins Street, Melbourne
Thwaites, J. S., Esq., Tallangatta
Trood, C., M.B. Prahran, Victoria
Usher, J. F., Esq., Ballarat
Vance, W. B., M.B., High Street, St. Kilda, Victoria
Wall, M. E., M.D. (address uncommunicated)
Walpole, G. A., Esq., Queenstown, Tasmania
Webster, J. A., Esq., 17, Brisbane Street, Launceston, Tasmania
Webster, P. S., Esq., Collins Street, Melbourne
Weigall, R. E., M.B., Elsternwick
Wilkinson, A. N., Esq., Bright, Victoria
Wilkinson, W. C., M.D., South Preston, Victoria
Willis, T. R. H., M.B., Malvern, Melbourne
Wilson, T. A., M.B., The Hospital, Creswick
Winterbottom, A. T., Esq., King Island, Tasmania
Withington, R. C., Esq., Collins Street E., Melbourne
Wood, A. J., M.D., Collins Street, Melbourne

MONTREAL BRANCH.

RECOGNISED 1891.

President.
T. G. RODDICK, M.D., 80, Union Avenue, Montreal

Vice-President.
Hon. Secretary.

Treasurer.

Representative on Council of Association.

Representative.

Branch Council.

Members of Branch—44.

Adami, Professor J. G., M.D., F.R.S., McGill University Montreal
Ahern, M. J., M.D., 24, Garden Street, Quebec
Alexander, W. W., Esq., Lachute, Quebec
Armstrong, G. E., M.D., 320, Mountain Street, Montreal
Bell, J., M.D., 873, Dorchester Street, Montreal
Birkett, H. S., M.D., 252, Mountain Street, Montreal
Blackader, A. D., M.D., 236, Mountain Street, Montreal
Brown, C. L., M.D., Ayer's Cliff, Quebec
Cameron, J. C., M.D., 605, Dorchester St. West, Montreal
Chipman, W. W., Esq., 285, Mountain Street Montreal
Church, H. M., M.D., 354, Greene Avenue, Westmount, Montreal
Coote, Patrick, M.D., Quebec
Dube, J. E., M.D., 710, Sherbrooke Street, Montreal
Elder, J. M., Esq., 4201, Sherbrooke Street, Montreal
Finley, F. G., M.D., 1013, Dorchester Street, Montreal
Foley, J. L., M.D., 1076, Sherbrooke Street, Montreal
Gardner, W., M.D., 109, Union Avenue, Montreal
Girdwood, G. P., M.D., 111, University Street, Montreal
Gurd, C. C., M.D., 65, McGill College Avenue, Montreal
Gurd, D. F., M.D., 124, Bishop Street, Montreal
Hamilton, H. D., M.D., 224, St. James Street, Montreal
Hingston, Sir William H., M.D., 882, Sherbrooke Street Montreal
Hutchison, J. A., M.D., 70, Mackay Street, Montreal
Lafleur, H. A., Esq., 58, University Street, Montreal
Lockhart, F. A. L., M.B., 38, Bishop Street, Montreal
McCarthy, J. G., M.D., 61, Drummond Street, Montreal
Mackenzie, R., Esq., 130, Peel Street, Montreal
McPhail, Andrew, M.D., 216, Peel Street, Montreal
Martin, E F., M.D., 46, Park Avenue, Montreal
Mills, Wesley, M.D., McGill University, Montreal
Morgan, V. H., M.D., River Beaudette, Quebec
Morphy, A. G., M.D., Lachine, P.Q.
Morrow, W. S., M.D., 82, Union Avenue, Montreal
Nicholls, A. G., M.D., 2728, St. Catherine Street, Montreal
Perrigo, J., M.D., 826, Sherbrooke Street, Montreal
Roddick, T. G., M.D., 80, Union Avenue, Montreal
Schmidt, A., M.D., 50, Fort Street, Montreal
Semple, E. J., M.D., 375, St. Antoine, Montreal
Sharp, J. C., M.D., 545, Wellington Street, Montreal
Shepherd, F. J., M.D., 152, Mansfield Street, Montreal
Stewart, James, M.D., 285, Mountain Street, Montreal
Stirling, J. W., M.B., 255, Mountain Street, Montreal
Vipond, A. E., Esq., 912, Dorchester Street, Montreal
Von Eberts, E. M., Esq., 219 Peel Street, Montreal

NATAL BRANCH.

Members of Branch—93.

RECOGNISED 1896

President, C. WARD, Esq., Pietermaritzburg
Vice-President, J. H. BALFE, M.D., F.R.C.S., Durban
Honorary Secretary, A. T. FRASER, M.B., 129, Church Street, Maritzburg
Honorary Treasurer, A. D. PRINGLE, M.B., Pietermaritzburg.

Council.
Currie, O. J., M.B.
Hyslop, J., M.B., D.S.O.
Watkins-Pitchford, W., M.D.
Watt, D. C., M.D.

Representative on Council of Association.
Representative,

Addison, W. H., Esq., Durban
Addison, W. H., Sen., Esq., Riet Vlei, Pietermaritzburg
Anderson, J. G., Esq., Ladysmith, Natal
Anness, F. R., Esq., Durban
Aubrey, S. E., Esq., Lambert Road, Berea, Durban
Balfe, J. H., M.D., F.R.C.S., Durban
Battle, C. J., Esq., Kearsney, Stanger, Natal
Bennett, James, M.B., Beatrice Street, Durban
Birtwell, D., Esq., Durban
Bonfa, A., M.D., Ngutu, Zululand
Bonnar, G. L., M.B., Durban
Booth-Clarkson, Capt. J., J.P., L.R.C.P. and S.Edin., D.P.H.Cantab., Umzinto, Natal
Bowker, C. A., Esq., Port Shepstone
Bray, E. T., Esq., Durban
Brewitt, J. B., Esq., Estcourt
Brown, H. R., Esq., Pietermaritzburg
Buntine, R. A., M.B., Pietermaritzburg
Butterfield, N. A., Esq., Underberg, Natal
Campbell, David J. M., Esq., Box 58, Ladysmith
Campbell, S. G., Esq., Berea, Durban
Carte, A E., Esq., Richmond
Castillo, C. R., del, Esq., Verulam, Natal
Child, H. N. R., Esq., Greys Hospital, Pietermaritzburg
Colquhoun, J. S., Esq., Dannhauser, Natal
Copley, S., Esq., Durban
Crass, C. H., M.B., Grey's Hospital, Pietermaritzburg
Cross, D. Kerr, M.B., Berea Road, Durban
Currie, O. J., M.B., 18, Longmarket St., Pietermaritzburg
Daumas, F. C., M.D., Pietermaritzburg
Dodd, J., Esq., Ixopo Natal
Douglas, C. J., Esq., Dannhauser, Natal
Dumat, H. A., M.B., 7, Devonshire Place, Durban
Edwards, Frederic, Esq., Florida Road, Durban, Natal
Elliott, J. F., Esq., Verulam, Natal

Ellis, R. Kingdon, M.B., Greenwood Park, Natal
Evans, John, Esq., Camperdown, Natal
Fernandez, H. E., M.D., Durban, Natal
Flook, H. S., Esq., 235, Loop Street, Pietermaritzburg
Fraser, A. T., M.B., 129, Church Street, Pietermaritzburg
Hannan, Mary J., L.R.C.P.I., 10, Loop Street, Pietermaritzburg
Hardwicke, E. A., Esq., Havermere, Howick, Natal
Harrison, S. N., M.B., Durban
Haydon, L. G., M.B., Point Durban, Natal
Henson, W. W., Esq., Impendhle, Natal
Herbert, C. H., Esq., New Hanover
Heron, David, F.R.C.S.Ed., Convalescent Home, Malvern, Durban
Hill, Ernest, Esq., Petermaritzburg, Natal
Howden, R. K., M.B., Durban, Natal
Hyslop, J., M.B., D.S.O., Pietermaritzburg, Natal
Jackson, M. J., Esq., Pinetown, Natal
Knight, Wilfred E., M.B., Verulam, Natal
Macintosh, A. M., Esq., Natal Government Asylum, Pietermaritzburg
MacKay, J. G., Esq., Malvern, Natal
McKenzie, A., M.D., Musgrave Road, Durban
Mason, F. T., Esq., Bellair, Durban
Middleton, R. W., Esq., Hlabisa, Zululand
Moberley, G. K., Esq., Eshowe
Murison, P., M.D., M.O.H., Durban
Nanji, R. M., Esq., 10, First Avenue, Durban
Nolan, J. A., Esq., Newcastle, Natal
Nundy, C., Esq., 453, Longmarket St., Maritzburg, Natal
Pearson, M., M.B., Cleveland, Moore Road, The Berea, Durban
Petrie, J., M.B., Melmoth, Zululand
Peverley, W. A., M.B., Malvern, near Durban
Platt, H. T., M.B., Ladysmith
Porritt, William, Esq., Greytown, Natal
Potts F. R. H., Esq., Dist. Surg., Harding
Prince, J. P., M.D., Durban
Pringle, A. D., M.B., Natal Government Asylum, Pietermaritzburg
Reynolds, R. S., Esq., Richmond, Natal
Robinson, P. Austin, Esq., The Sanatorium, Nottingham Road, Natal
Robinson, L. A., Esq., The Sanatorium, Nottingham Road, Natal
Ross, T. M., Esq., South Coast Junction
Rouillard, J. A. A., Esq., Umzinto
Rouillard, L. A. J., M.D., Durban
Sakir, A. A., Esq., Durban
Savage, W. A., Esq., District Surgeon, Mapumalo, Natal
Smyth, R. Milner, Esq., Natal Government Asylum, Durban
Staunton, G. P., Esq., Avoca, Natal
Strapp, W. Russell, M.D., Pietermaritzburg
Taylor, G. E. O., Esq., 46, Longmarket Street, Pietermaritzburg
Tritton, W. P., Esq., Umzinto
Turner, R. E., Esq., Howick, Natal
Van Ryck de Groot, S. H. B., L.R.C.S.E., L.S.A., Pietermaritzburg
Von Mengershausen, J., M.D., Ilmenau, Howick, Natal
Walters, Rev. F. W., L.R.C.P., Nongoma, Zululand
Ward, G., Esq., 116, Long Market Street, Pietermaritzburg
Watkins-Pitchford, W., M.D., Allerton, Pietermaritzburg
Watt, D. C., M.D., Pietermaritzburg
Wood, L. B., Esq., Vryheid, Natal
Woods, J. C., M.D., 30, Chapel Street, Pietermaritzburg
Woods, W. J., M.B., Pietermaritzburg
Wright, H. E., Esq., Greytown, Natal

NEW ZEALAND BRANCH.

Members of Branch—317.

RECOGNISED 1896

President, C. MORTON ANDERSON, Esq., Christchurch.
President-elect.
Secretary, H. M. GORE, Esq., Box 156, Wellington
Chairman of Council, W. E. COLLINS, M.B., Wellington
Representative on Council of Association, C. H. HAINES, M.D., 43, Kensington Palace Mansions, W.
Representative,
Associate Member, F. F. A. ULRICH, Esq., 54, Hunter Street, London, W.C.

Acland, H. T. D., Esq., 195, North Belt, Christchurch
Adams, Agatha H. J., Dunedin
Adams, H., Esq., Wellington
Adams, R. N., Esq., Waitapu, Nelson
Alexander, E. H., Esq., Dunedin
Allan, W. H., M.B., Mosgiel
Anderson, A. L., M.D., 2, Hankey Street, Wellington
Anderson, C. Morton, Esq., Christchurch
Anderson, John Wm., M.B., Wanganui
Anderson, R. W., Esq., Sydenham, Christchurch
Anderson, W., M.B., Christchurch
Andrew, P. O., Esq., Nelson
Anson, G. E., M.D., Wellington
Aubin, E. D., Esq., Thames, Auckland
Baird, W. S., Esq., Otautau
Baker, Eleanor, Auckland
Barclay, H. C., M.D., Waimate
Barnett, L. E., M.B., Stafford Street, Dunedin
Barr, V. H., Esq., Nelson
Barraclough, H., M.B., Auckland
Batchelor, F. C., M.D., Dunedin
Batchelor, F. S., Esq., Dunedin
Baxter, W. W., Esq., Auckland
Beard, S. F., Esq., Pahiatua
Beattie, R. M., Esq., Avondale, Auckland
Bedford, R., Esq., Auckland
Bell, J. A. T., M.D., Christchurch
Bennett, H. C., Esq., Devonport, Auckland
Bennett, T., Esq., Rangitika
Bernau, H. F., Esq., Marine Parade, Napier
Bett, F. A., Esq., care of Messrs. Brindsley and Co., Cumberland Street, Dunedin
Bewes, E. A., Esq., Otahuhu
Bey, W., M.D., Greytown
Blakie, J. L., Esq., Ryal Bush, Invercargill, Southland
Blomfield, E. E., Esq., Dunedin
Bolger, P. T., Esq., Palmerston North
Bond, J. H., Esq., Thames, Auckland
Borrie, W. H., Esq., Port Chalmers
Bowe, F., M.B., Timaru
Boyd, A. B., Esq., Ashburton
Boyd, R. J., M.D., 254, Upper Willis Street, Wellington
Briffault, R., Esq., Auckland
Brown, W., M.B., Tauranga
Brownlee, J. J., M.D., 83, Cashel Street, Christchurch
Bull, S. A., Esq., Roxton, Mount Eden Road, Auckland
Butement, W., Esq., 61, High Street, Dunedin
Cahill, T., Esq., Wellington
Cameron, R. A., M.B., Wellington
Campbell, M., M.B., Palmerston North
Cattan, W. J., Esq., Outram
Chadwick, G. F., Esq., Eketahuna
Chapple, W. A., Esq., Wellington, New Zealand
Cheesman, H. H., Esq., Coromandel, Auckland
Chilton, C., M.B., 261, Gloucester Street, Christchurch
Christie, J. McN., M.D., Victoria Avenue, Wanganui
Church, R., Esq., 57, High Street, Dunedin
Clark, Alfred, Esq., Ashburton
Clay, D. L., Esq., Otaki
Closs, J. O., M.D., George Street, Dunedin
Cole, G. W. Esq., Gisborne
Collins, W. E., M.B., Wellington
Colquhoun, D., M.D., Dunedin, New Zealand
Cook, P. R., M.B., Masterton
Cooke, J., M.D., Lincoln, Canterbury
Copland, G. A., Esq., Gore
Craig, C., Esq., Rotorua
Craig, J., Esq., Newmarket, Auckland
Craig, W. B., M.B., Rotorua
Cran, W. J., Esq., Denniston
Crooke, T. Leslie, M.D., Christchurch
Crosby, A. H. P., Esq., Sunnyside Asylum, Christchurch
Cruickshank, Margaret, Waimate
Davis, C. S., Esq., Waipiro Bay, N.I.
Dawson, H. T., M.B., Pahiatua
Deck, H. O'B., M.B., Motueka, Nelson
De Lisle, F. I., Esq., Napier
Diamond, W., M.B., Christchurch
Donald, R., Esq., Dunedin
Donaldson, H., Esq., Gore
Douglas, A., Esq., Oamaru
Douglas, H., M.B., Hamilton
Downes, J. B., Esq., Papanui Road, Christchurch
Drew, H. V., Esq., Timaru
Dryden, D. D., Esq., Timaru
Dudley, B. J., Esq., Auckland
Dunn, E. D., Esq., Nelson
Earle, R. C., Esq., Wanganui
Eccles, H. D., Esq., Mangonui
Edgar, J. J., Esq., Napier
Elliott, J. S., Esq., Wellington
Evans, W., Esq., High Street, Dunedin
Ewart, J., M.D., Wellington
Falconer, A. R., Esq., Gadshill, Littlebourne, Dunedin
Faulke, H. C., Esq., Wellington
Fell, W., M.D., Wellington
Fenwick, P. C., M.B., Wanganui
Ferguson, H. L., Esq., Dunedin
Ferguson, W. D., Esq., Auckland
Fitchett, F. W. B., Esq., 205, George Street, Dunedin
Fleming, W. A., Esq., Balclutha
Foster, Alfred, Esq., Blenheim, New Zealand
Frengley, J. P., M.D., Box 37, G.P.O., Auckland
Frost, Contance H., Auckland
Fulton, Robert Valpy, M.B., Dunedin
Fyffe, W. K., M.B., Wellington
Gabites, G. E., M.B., Timaru
Garland, A. I., Esq., Oamaru
Gault, David, Esq., Orokonui House, Waitati
Gibbs, H. E., Esq., 123 Willis Street, Wellington
Gibbs, S. A., M.B., Nelson
Gibson, F. G., Esq., Christchurch
Gibson, W. E., M.B., Timaru
Gillon, G. G., M.D., 32, Queen Street, Auckland
Gilmer, H. A. H., M.B., Wellington
Godfray, S. C., Esq., Waipukurau
Goldstein, H. M., Esq., Auckland
Goode, E. J., Esq., Waitara
Gordon, C. H., Esq., Riverton, Nelson
Gordon, F. W., Esq., Manukau Road, Auckland
Graham, W., Esq., Wanganui
Gregg, J. L., M.B., Alexandra South
Greig, W. C., M.D., Fitzherbert Street, Palmerston North
Gunn, John, M.B., Kaikoura
Guthrie, J., M.B., Lyttelton
Hamilton, Thos., Esq., Nelson
Hammersley, P. H. V., Esq., 67, Cathedral Sq., Christchurch
Hargreaves, W. H., Esq., Akaroa, Canterbury
Harrison, G. A., Esq., Eltham, Taranaki
Hassell, G., M.D., Porirua
Hay, J. F. S., M.B., Wellington
Hayes, J. S., M.D., Temuka, Canterbury
Heard, C. de W., Esq., Timaru
Hector, C. M., Esq., Lower Hutt, Wellington
Hendry, A., Esq., Invercargill
Henley, E. A. W., M.D., Napier
Henry, C. D., M.B., Wellington
Herbert, W. E., M.D., Wellington
Hislop, P. W., M.B., Geraldine
Hislop, W., Esq., Waikouaiti
Hislop, W. J. H., Esq., Wellington
Hocken, T. M., Esq., Dunedin
Hodges, G., Esq., Port Chalmers
Hogg, A. Wilson, M.B., Wellington
Hogg, R. B., Esq., Timaru, Canterbury
Hogg, R. H., Esq., Invercargill
Horton, W. H., M.B., Aratapu
Hosking, A., Esq., Masterton
Hosking, W. H., Esq. Masterton
Hudson, J., M.B., Nile Street, E. Nelson
Hunter, H., Esq., Ashburton, Canterbury
Inglis, H. M., Esq., 86, Gloucester Street, Linwood, Christchurch
Inglis, T. R., Esq., Kinneil, Ponsonby Road, Auckland
Innes, C. B., Esq., Wanganui
Irving, W., Esq., Christchurch
Izard, A. W., Esq., Wellington
James, D. P., Esq., Charlotte Street, Wellington
Jeffreys, J. G., Esq., Motueka
Jennings, E., Esq., Christchurch
Johnston, D. G., Esq., Carterton, Wellington
Kemp, J. H., M.B., Wellington
Kennedy, J. P., M.B., Levin
King, F. W. R. J., Esq., Auckland
Knight, A. O., Esq., Auckland
Laing, J. A., Esq., Devonport, Auckland
Lamont, Mrs. Margaret, M.D., c.o. Messrs. T. Cook and Son, Auckland
Lapraik, G., Esq., Thames
Leahy, J. P. D., M.B., Napier
Leatham, H. B., Esq., New Plymouth
Lester, G. M. L., Esq., Amberley
Levinge, E. G., M.B., Christchurch
Levis, J. M. S., Esq., Rotorua
Lewis, T. H., Esq., Symonds Street, Auckland
Liddell, G., Esq., Herbert, North Otago
Lindsay, P. A., Esq., Locksley, Auckland
Little, C. T., Esq., Culverden, Canterbury
Logan, W. A., Esq., 11, Hill Street, Wellington
Lucas, S. A., Esq., Hardy Street, Nelson
McAdam, K., Esq., Oamaru
Macallan, T., M.D., Danevirke, Hawkes Bay
Macandrew, H., M.B., Hokitika
McCarthy, M. A. B., Esq., Greytown
McCaw, H., Esq., Anderson's Bay, Dunedin
McCleland, H. A., Esq., New Plymouth
McCredie, A., Esq., Warkworth
MacDonald, G. Malkay, M.D., Christchurch
Macdonald, R. G., Esq., High Street, Dunedin
McDowell, W. C. W., M.B., Auckland
McGavin, Donald, M.D., 109, Willis Street, Wellington
Mackay, F. W. R., M.D., Dannevirke, Hawke's Bay
Mackay, W. J., M.D., Nelson
McKellar, T. G., M.B., Dunedin
McKelvey, A. N., Esq., Avondale Asylum, Auckland
Mackenzie, F. Wallace, Esq., Wellington
Mackin, P., M.D., Wellington
Maclagan, D. W., M.B., Kaponga
McLean, H. J., Esq., Wellington
Maclaughlin, T. G., Esq., Rotoua
Macpherson, J., M.B., Dunedin
Maddison, Jessie, M.B., Christchurch
Makgill, R. H., M.B., Wellington
Malcolm, J., Esq., Dunedin
Manning, L. S., M.B., 166, Worcester St. W., Christchurch
Martin, A., M.D., Wellington
Martin, A. A., M.B., Palmerston North
Martin, R., Esq., Dunedin
Mason, J. M., M.D., Wellington
Meacher, J. H., Esq., New Town, Wellington
Mickle, A. W. F., M.D., Rakaia
Moir, P., M.B., Parnell, Auckland
Monckton, F. A., Esq., Fielding
Moore, T. C., M.D., Napier
Moorhouse, Alice, M.B., Christchurch
Moorhouse, B. M., M.B., Christchurch
Morice, C. G. F., M.D., Greymouth
Morris, G. A., M.B., Otago
Mountaine, J., Esq., Maungaturoto, Kaipara
Mules, P. H., M.B., Woodville
Mullin, W. J., M.B., 64B, Royal Terrace, Dunedin
Murray, D. N. W., M.D., Upper Grafton Road, Auckland
Neil, J. H., Esq., Auckland
Newell, J. A., M.B., Lyttelton, Canterbury
Newlands, W., M.B., Dunedin
Noonan, P., Esq., Manaia
Nutting, E. S., M.D., Inglewood
Ogston, F., M.D., The University of Otago, Dunedin
O'Neill, E. I., Esq., Dunedin
Orchard, A. J., M.B., Christchurch
Orford, R. J., Esq., Richmond
Pabst, J. C., Esq., Onehunga
Parkes, W. H., M.B., Symonds Street, Auckland
Perkins, A. T., Esq., Wellington
Pollen, H., M.D., Wellington
Porritt, E. E., M.B., Wanganui
Porter, A. H., Esq., Waihi
Porter, G. D., Esq., Blenheim
Purchas, F. M., Esq., Dargaville, N. Wairoa, Auckland
Purdy, J. R., M.B., Hutt, Wellington
Putnam, P. T., Esq., Palmerston North
Rawson, E., Esq., 127, Willis Street, Wellington
Reed, J. Lewis, Esq., Waipawa
Reid, J. H., Esq., Wanganui
Reid, S. B., Esq., Princes Street, Auckland
Riley, F. R., Esq., Dunedin
Roberton, E., M.D., Auckland
Roberts, W. S. W., Esq., Moray Place, Dunedin
Robertson, C. H., M.B., Waihi, Auckland
Robertson, W., Esq., Tapanui, Otago
Rogers, R. J., Esq., Taihape
Ross, J., M.B., Waipawa, Hawkes Bay
Ross, M. W., M.B., Petone
Ross, W. S., Esq., Masterton, Wairarapa
Rowlands, G. H., Esq., Fielding
Rowley, C., Esq., Otahuhu
Sandstein, A. C., M.D., 64, Gloucester Street, Christchurch
Saunders, A. M., M.B., Cheviot
Savage, T. Copeland, Esq., Auckland
Scott, C. F., M.B., Eltham
Scott, E. H., M.B., Reefton
Scott, J. H., M.D., Dunedin
Scott, W. G., M.D., Onehunga
Shand, W. M., M.B., Wellington
Shone, W. V., M.D., 99, Worcester Street, Linwood, Christchurch
Siedeberg, Emily H., M.B., Dunedin
Simmons, W. T., M.B., Patea
Skerman, S., Esq., Marton
Slater, H., Esq., Waihi
Sloan, H. R., M.D., Hawera
Smith, J. C., Esq., Hunterville
Smith, W. M., M.B., Dunedin
Somerville, J. E. W., M.B., Auckland
Somerville, John, Esq., Wairoa
Sorley, J., M.B., Fielding
Stapley, W., Esq., Palmerston North
Stenhouse, A., Esq., Balclutha
Stenhouse, W. M., M.D., Stuart Street, Dunedin
Stevens, W. E., Esq., Kurow
Stevenson, J., Esq., Christchurch
Story, B. S., M.D., G.P.O., Wellington
Stowe, W. R., Esq., Palmerston North
Sutherland, J., M.B., Milton, Otago
Swanseger, P. C. B., Esq., Wairoa, H.B.
Sweet, G. B., M.B., Whangarei
Talbot, A. G., M.B., 58, Oxford Terrace West, Christchurch
Teevan, H., Esq., Geraldine, Canterbury
Teichelmann, E., Esq., Hamilton Street, Hokitika
Thacker, H. T. J., Esq., Christchurch
Thomas, J. R., Esq., Christchurch
Thomas, W., M.B., 57, Colombo Street, Christchurch
Thomson, J. B., Esq., Arrowtown, Otago
Tosswill, J. C., Esq., Hastings
Trotter, N. G., M.D., Riverton, Southland, Otago
Unwin, W. H., M.D., Timaru
Upham, C. H., Esq., Lyttelton
Valintine, T. H. A., Esq., Inglewood, Taranaki
Volckman, B., Esq., Te Hau, Seddon
Volckman, R., Esq., Rangiora
Walker, E. F. D., M.B., Blenheim
Walker, H., Esq., Auckland
Walshe, T. B., Esq., Auckland
Walter, H., M.B., Wellington
Watson, F. J., M.B., Bulls
Watt, James, M.D., Dunedin
Webster, C. F. Garcia, Esq., Wellington
Wheeler, C. H., Esq., Clevedon, Wairoa South, Auckland
Wheeler, W. A., M.D., Owaka, Otago
Whitton, J., M.D., Oamaru
Willis, W. F., Esq., Fielding
Wilt, T. A., Esq., Havelock, Marlborough
Williams, E. A., Esq., Dunedin
Williams, H. E. Esq., Pukekohe
Williams, J. W., M.D., Gisborne
Wilson, G., M.B., Palmerston North
Wohlmann, A. S., M.D., Rotorua
Wylie, D. S., M.B., New Plymouth
Young, J., Esq., Invercargill
Young, W., M.D., Wellington

Members residing in the DISTRICT OF THE PUNJAB.

NUMBERING 19.

Balfour, Margaret I., M.B., Patiala, Punjab
Bhandari, K. N., Esq., Jallundhar City, Punjab
Bielby, Elizabeth, M.B., Lahore
Butcher, Flora, M.D., Charteris Hospital, Kalimpong
Das, Lachman, Esq., Shujabad, Punjab
Davie, Mrs. Ferguson, M.D., Rewari, Punjab
Dodson, Eleanor I., M.D., Dera Ghazi Khan, Punjab
Fisher, R. W., M.B., P.O., Hoshiarpur, Punjab
Ghosh, B. C., Esq., Civil Hospital, Lyallpore, Punjab
Harrison, Jessie B., L.R.C.P., Church Mission, Sultanpur
Iles, Mary M. G., M.D., S. Elizabeth's Hospital, Karnal, Punjab
Manecksham, H. F., Esq., Amristar, Punjab
Morton, John, M.D., Nahan, Sirmoor State, Punjab
Neve, A., M.D., c.o. Dr. Lankester, Amritsar
Pennell, T. L., M.D., Bannu, Punjab
Simpson, E. J., Esq., Sultanpur
S[illegible] B., M.B., Hay Memorial Hospital, Barr Patthar, Sialkot
Smith, Annie C., L.R.C.P., Dow Memorial Hospital, Guj[illegible] Punjab
Staley, Mildred B. K., M.B., Lahore, Punjab

SASKATCHEWAN BRANCH.

Members of Branch—16.

RECOGNISED 1906.

President,
President-elect,
Honorary Secretary,
Honorary Treasurer,
Representative on Council of Association,
Representative,

Barrow, V. E., Esq., Edmonton, Alta, N.W.T., Canada
Bell, G. P., M.D., Regina, N.W.T., Canada
Black, J. C., M.D., Regina, Canada
Coles, W. R., M.D., Regina, Canada
Eliot, G., Esq., Grenfell, Saskatchewan
Graham, J. A., M.D., Regina, Canada
Keigwin, G. J. W., Esq., G.P.O. Grenfell Assa, N.W.T.
Low, David, M.D., Regina, Saskatchewan
McInnis, H. L., Esq., Edmonton, Alberta, N.W.T.
McKay, W. J., M.D., Saskatoon, N.W.T., Canada
McLeod, James, M.D., Regina, Canada
Millar, Stanley, M.D., Battleford, Saskatchewan, Canada
Reavley, E., M.D., Rosthern, Saskatchewan, Canada
Simmers, Wm., M.B., Assiniboia, N.W.T., Canada
Stephens, H. M., M.D., Regina, Canada
Thomson, W. A., M.D., Regina, Canada

SOUTH AUSTRALIAN BRANCH.

Members of Branch—150.

RECOGNISED 1880.

President, A. A. LENDON, M.D., Adelaide
Vice-President, E. W. MORRIS, Esq., Port Adelaide
Ex-President, C. W. HAMILTON, M.B., Belair
Honorary Secretary.
J. B. GUNSON, M.B., Angas Street, Adelaide
Honorary Treasurer, W. T. Hayward, Esq., Norwood
Representative on Council of Association.
C. G.D. Morier, M.D., 1, Hamilton Ter., Regent's Pk., N.W.
Representative,

Branch Council.

Marten, R. H., M.B.
Bonnin, J. A., Esq.
Dawes, R. St. M., Esq.
(With above officers)

Aitken, Wm. Blair, M.D., Jamestown
Archer, E. L., M.B., Moonta
Ashton, T. B., M.B., Unley Park, Adelaide
Bennett, A. H., M.B., Adelaide
Bennett, T. C., Esq., Crystal Brook
Benson, A. V., Esq., Alberton
Bickle, L. W., Esq., North Terrace, Adelaide
Blackney, S., M.B., Port Adelaide
Bollen, C., M.D., Woodville, Adelaide
Bollen, P., M.D., Semaphore
Bonnin, J. A., Esq., Hindmarsh, Adelaide
Booth, James, Esq., Broken Hill, via Adelaide
Borthwick, E. L., M.B., Payneham
Borthwick, T., M.D., Norwood, Adelaide
Brown, T. W., Esq., Hummock Hill, via Pt. Pirie
Brummitt, R., Esq., Gilberton, Adelaide
Burnard, R. G., M.B., The Hospital, Adelaide
Carr, Hampden, Esq., Port Pirie, S. Australia
Cavenagh-Mainwaring, W. R., M.D., Adelaide
Caw, A. R., M.B., Jamestown
Cawley, Thomas, M.D., North Terrace, Adelaide
Chapple, F. J., Esq., Adelaide Hospital, Adelaide
Chapple, Phoebe, M.B., Adelaide Hospital
Cleland, W. L., M.B., J.P., Parkside, Adelaide
Cook, F. E., Esq., Millicent
Cooper, Constance, M.B., Adelaide Hospital
Cooper, C. T., Esq., Kensington Road, Adelaide
Corbin, John, Esq., King William Street, Adelaide
Corbin, T. W., Esq., 248, King William Street, Adelaide
Coverton, H. S., Esq., Gawler
Cudmore, A. M., M.D., Adelaide
Dawes, R. St. M., Esq., Gawler
Dawkins, S. L., Esq., Hamley Bridge
Douglas, F., Esq., Victor Harbour, South Australia
Drummond, J. H., Esq., Strathalbyn
Evans, H. M., M.B., Willunga, Adelaide
Evans, J. H., M.B., Bowden
Fiegè, C. A. A., M.D., Eudunda, Adelaide
Finniss, J. H. S., M.B., Glenelg
Fischer, G. A., M.B., 74, Flinders Street, Adelaide
Fooks, E. V. R., Esq., Gawler
Formby, H. H., M.B., Strathalbyn
Gault, A. H., M.B., Lower Mitcham, Adelaide
Gibson, T., M.B., Quorn
Giles, H. O'H., M.B., Parkin Terrace, Glenelg
Giles, W. A., M.B., Adelaide
Glynn, E., Esq., Kapunda
Glynn, R. McM., Esq., Riverton
Gocher, G., M.D., Bordertown
Good, J. Ernest, M.B., Prospect
Gregerson, W. J., M.B., Hindmarsh
Gunson, J. B., M.B., Angas Street, Adelaide
Hamilton, A. A., M.B., Angas Street, Adelaide
Hamilton, C. W., M.B., Belair
Hamilton, J. A. G., M.B., J.P., North Adelaide
Hamilton, R. H., Esq., Port Pirie
Hamilton, T. K., M.D., Adelaide
Harbison, D. T., Esq., Unley Road, Adelaide
Harbison, Wm., H., Esq., Wallaroo
Harrold, R. E., M.B., Wakefield Street, Adelaide
Hart, A. W., Esq., Minlaton
Harvey, J. T., M.B., Broken Hill, via Adelaide
Hayward, G. C., Esq., North Terrace, Adelaide
Hayward, L., M.B., Yorketown
Hayward, W. T., Esq., Parade, Norwood
Henderson, J. H., M.B., Crafers
Hill, A. W., M.D., Grenfell Street, Adelaide
Hone, F. S., Esq., Semaphore
Hornabrook, Rupert W., M.B., Medindie
Hunter, W. A., M.B., Salisbury, Adelaide
James, T., Esq., Moonta
Jay, M. K. H. Esq., Brougham Place, North Adelaide
Jermyn, F. D., M.B., Mount Gambier
Johnson, E. Angas, Esq., 56, Franklin Street, Adelaide
Johnson, J., M.D., Mount Gambier
Jude, F. J., M.B., Broken Hill, via Adelaide
Juttner, F. J. E., Esq., Tanunda
Keenan, Alfred, M.D., King William Street, Adelaide
Kennedy, J. C., M.B., Snowtown
Kerr, D., M.B., Angaston, S. A.
Lawrence, A., M.B., Adelaide
Leitch, O., M.B., Port Pirie
Lendon, A. A., M.D., North Terrace, Adelaide
Lukowitz, M. Von., M.D., North Terrace, Adelaide
Lynch, A. F., M.B., Wakefield Street, Adelaide
McDonald, C. C., Esq., Mount Gambier
Maclean, J. M., Esq., Port Germein
Maclean, R., Esq., Narracoorte, S. Australia
Macmillan, A. R., M.B., Narracoorte
Magarey, C., M.B., Beulah Road, Norwood
Magarey, F. W., M.B., North Terrace, Adelaide
Magarey, R., M.B., Barnard Street, North Adelaide
Magee, C. C. T., Esq., Penola
Maher, J. P., Esq., Gawler
Marsden, W. C., Esq., Willunga
Marten, R. H., M.B., North Terrace, Adelaide
Mayo, Helen, M.B., Franklin Street, Adelaide
Meikle, A. J., M.D., Yankalilla
Morgan, Alex. M., M.B., Angas Street, Adelaide
Morris, E. W., Esq., Port Adelaide
Moule, E. E., Esq., Nairne
Muir, Robert, Esq., Mount Gambier
Newland, Clive, M.B., Morphet Vale
Newland, Henry F., M.B., North Terrace, Adelaide
Niesche, F. W., M.D., Wakefield Street, Adelaide
Norman, Walter, Esq., Goolwa
O'Leary, A. P. E., Esq., Glenelg
O'Reilly, Susannah, M.B., Adelaide Hospital
Plummer, Violet, M., 67, North Terrace, Adelaide
Pooler, E. L., M.D., Stirling West
Poulton, B., M.D., 33, North Terrace, Adelaide
Powell, H. A., Esq., Kadina
Proctor, J. S., Esq., Mount Pleasant
Reissmann, Chas., M.D., College Town, Adelaide
Robertson, W., M.B., North Terrace, Adelaide
Russell, H. H. E., M.B., Unley, Adelaide
Sangster, J. I., Esq., Kooringa
Sangster, J. I., Junr., Kooringa
Scott, F. S., M.B., Malvern, Adelaide
Scott, M. L., M.B., The Hospital, Adelaide
Seabrook, L. L., M.B., Hospital, Broken Hill, viâ Adelaide
Shanahan, P. F., Esq., Hawker
Shepherd, Arthur, E., Esq., Magill Road, Norwood
Smeaton, B., Esq., Mount Barker
Smith, A. A., Esq., Clare
Smith, O. W., M.D., Clare
Souter, C. H. L., M.D., Balaklava
Souter, J. F., Esq., Uraidla, Adelaide
Stewart, R. W., M.D., Port Pirie
Stirling, Prof. E. C., C.M.G., M.D., F.R.S., The University, Adelaide
Stokes, A. F., M.B., Crafers, Adelaide
Strangman, C. L., M.D., Orroroo
Suckling, F. M., M.B., Children's Hospital, Adelaide
Swift, H., M.D., Victoria Square, Adelaide
Symons, M. J., M.D., Adelaide
Sweetapple, H. A., M.D., Parkside, Adelaide
Todd, C. E., M.D., Adelaide
Verco, Clement A., M.B., North Adelaide
Verco, J. C., M.D., North Terrace, Adelaide
Verco, Sydney M., M.B., Woodside, Adelaide
Verco, W. A., M.B., Molesworth Street, North Adelaide
Watson, Professor A., M.D., Adelaide University, Adelaide
Weld, Elizabeth E., M.B., Mount Barker
Wells, C. V., M.B., Laura, South Australia
Wigg, A. E., M.D., Norwood
Wigg, H. H., M.D., North Terrace
Wilson, C. E. C., M.B., Wallaroo
Wilson, T. G., M.B., Ward Street, North Adelaide
Woods, G., Esq., Clarendon
Yeatman, J. W., Esq., Auburn

SOUTH INDIAN AND MADRAS BRANCH

Members of Branch—128.

RECOGNISED 1884.

President, Surg.-Gen. W. R. BROWNE, M.D., I.M.S., Madras
Vice-President, Lt.-Col. W. B. BROWNING, C.I.E., I.M.S., Royapettah
Honorary Secretaries.
Capt. W. C. LONG, I.M.S., Madras
C. B. RAMA RAU, Esq., L.M.S., Madras
Hon. Treasurer, Major R. ROBERTSON, I.M.S., General Hospital, Madras

Branch Council.

Donovan, C., M.D., Major, I.M.S.
Elliott, R. H., M.B., Major, I.M.S.
Krishnaswami, Aiyar, M., M.D.
Lee, W. A., Lieut.-Col., I.M.S.
Molesworth, W., M.B., Maj., I.M.S.

Representative on Council of Association.
Representative,

Associate Members.

Bannerman, W. B., M.D., Lt.-Col. I.M.S., Plague Research Laboratory, Parel, Bombay
Bowen, A. W. N., Capt. R.A.M.C., 3, Whitehall Pl., S.W.
Carr-White, P., Maj. I.M.S., Bombay
Dee, P., Capt. I.M.S., Bassein, Burmah
Eyre, M. S., M.B., Lieut.-Col., I.M.S., Folkestone
Fayrer, F. D. S., Capt., I.M.S., London
Illington, E. M., Capt. I.M.S., 31, Talbot Road, W.
Khareghat, M. P., Lt.-Col. I.M.S., Bombay
Kirkpatrick, H., Capt., I.M.S., Dublin
Maitland, J., M.D., Lieut.-Col. I.M.S., Sidmouth
Miller, A., M.B., Capt. I.M.S., Chatham
M'Kee, G. M. E., Lt.-Col. I.M.S., 9, Pall Mall, S.W.
Pinto, J. O., Maj. I.M.S., Rangoon
Sharman, E. H., Capt., I.M.S., Bombay
Sturmer, A. J., Lt.-Col., I.M.S., Clifton
Wilkins, T. J. H., Col., I.M.S., Rangoon

Amirthasawmy Pillai, D.S., Civil Surg., Tellicherry, Madras
Armogum, T. V., M.B., Victoria Hospital, Bangalore
Armstrong, H., Lt.-Col., I.M.S., Bangalore
Bain, D. S. E., Lieut.-Col., I.M.S., Mercara, Coorg
Beliapa, P. M., Esq., Popham's Broadway, B.T., Madras
Benson, P. H., M.B., Surg.-Gen. I.M.S., P.M.O., Southern Command, Bangalore
Bentall, W. C., M.B., Neyoor, Travancore
Berry, A. E., M.B., Major, I.M.S., Secunderabad
Bhotla, N. G., Esq., Medical School, Vizagapatam
Bishop, T. H., Esq., Kabulayatkatti, Dharwar District, S. India
Blenkinsop, F. L., M.B., Capt., I.M.S., Ootacamund, Madras
Bradfield, E. W. C., M.B., Lieut., I.M.S., Madras Club
Browne, W. R., M.D., Surg.-Gen. I.M.S., Nungumbankum
Browning, W. B., C.I.E., Lt.-Col., I.M.S., Royapettah, Madras
Bryson, R., Capt., I.M.S., c.o. Messrs. Binney and Co., Madras
Cama, R. H., Lt.-Col., I.M.S., Bangalore
Cameron, L., M.D., Ootacamund, Madras
Chaudhuri, M. N., M.B., Capt., I.M.S., Madras
Chester, R. W., Esq., c.o. Messrs. Arbuthnot & Co., Madras
Christophers, S. R., M.B., Capt., I.M.S., Guindy, Madras
Cooke, F. G. Hamilton, Esq., Madura, Madras
Cornwall, J. W., M.D., Capt., I.M.S., Chetput, Madras
Courtauld, Elizabeth, L.S.A., The Mission Hospital, Ikkadu, Tiruvallur
Crawford, F. J., M.D., Maj. I.M.S., Madras
Dalgetty, A. B., M.B., South Sylhet
Darale-Seth, N., M.B., 1, Borebank Road, C. and M. Station Bangalore
Donovan, C., M.D., Major I.M.S., Egmore House, Egmore Madras
Ekambarampillai, T., Esq., Royapettah Hospital, Madras
Elliot, R. H., M.B., Major I.M.S., Egmore, Madras
Elwes, F. F., M.B., Capt. I.M.S., Madras
Falconer, S. E., Esq., Egmore, Madras
Fearnside, C. F., Maj., I.M.S., Vellore
Fleming, A. N., M.B., Capt., I.M.S., Bolarum, Deccan
Forrest, John, M.B., Capt. I.M.S., General Hospital, Madras
Foston, E. C., Esq., Negapatam, S. India
Foulkes, T. H., Maj., I.M.S., c.o. Messrs. Arbuthnot and Co., Madras
Gabbett, P. C., Maj., I.M.S., General Hospital, Madras
Gibson, W. R., Esq., Madras Ryl Co., Madras
Giffard, G. G., Major, I.M.S., Madras
Gnanam, Pillay D., Esq., Assist. Surg., Tanjore, Madras
Gonsalvez, B. F., Esq., Salem
Greany, H., M.D., Lt.-Col., I.M.S., Aurungabad, Deccan
Halge, H. S., Esq., Native Infirmary, Washermanpet, Madras
Hardie, G. W., F.R.C.S., U.F.C. Mission, Big Conjeeveram, South India
Harington, H. N. V., Lt.-Col. I.M.S., Indore
Harris, E. T., Lieut., I.M.S., Madras Club
Harrison, C. B., M.B., Capt., I.M.S., Pallamcottah
Hayes, H. W. McC., Esq., Negapatam
Horrocks, O., Esq., Nagda Muttra Ry., Sewai Madhopur, Jeypore State
James, G. V., M.B., Pudupet, Madras
James, S. P., Capt., I.M.S., Simla
Krishnaswami Aiyar M., M.D., 35, Thumbu Chetty Street, Madras
Krishnaswamij, C. V., M.B., Triplicane, Madras
Lafrenais, C. A., Esq., Chittoor, North Arcot District
Lakshmanan, P. N., Esq., General Hospital, Trivandram
Lee, W. A., Lieut.-Colonel, I.M.S., Madras
Lillingston, Amy G., L.R.C.P., Bangalore
Little, C. C., M.D., Col. I.M.S. (ret.), Secunderabad
Long, W. C., Capt., I.M.S., Madras
Lukshman, Perumal T., Esq., Masulipatam
Lychlander, J., Esq., Cocanada, Madras
Maconachie, G. W., M.B., Lieut. I.M.S., c.o. Messrs. Binny and Co., Madras
Mahadeva Aiyar, R., M.B., Govt. Maternity Hosp., Madras
Masilamani, Mudalia, A. M., Esq., Royapuram Medical School, Mint Building P.O., Madras
Matthew, K. T., Esq., Health Dept., Corporation of Madras
Menon, K. M., Esq., Coimbatore, Madras Presidency
Mitter, R. K., M.B., Major I.M.S., Madras
Molesworth, W., M.B., Major I.M.S., with H.E. the Governor of Madras
Muhammad, A., M.B., General Hospital, Madras
Nair, T. M., M.D., Poonamalee Road, Egmore
Naranyana, Aiyar K., M.B., Cuddalore, Madras Presidency
Narayaniah, A. Y., Esq., Assist.-Surg., Tinnevelly, Madras Presidency
Niblock, W. J., M.B., Capt. I.M.S., Victoria Crescent, Egmore, Madras
O'Hara, W., Lt. Col., I.M.S., Ootacamund
Oosman-Sahib, N. Mahomed, Esq., Negapatam
Palk, C. H. L., M.B., Major I.M.S., Ootacamund
Palpu, P., D.P.H., Bangalore
Parrie, J. R., Esq., Gooty, Anatapur District
Pereira, F. C., M.B., Major I.M.S., Nellore
Perkins, H. C., Esq., Trivandrum, Travancore
Philipsz, G. L., Esq., Fountain Lodge, Vepery, Madras
Pinto, P. P., M.B., Saidapet, Madras
Price, W., M.D., Brig.-Surg.-Lt.-Col., (ret.) 2nd N. I., Nilgiri Hills
Raghavendra-Rao, B. D., Esq., Bangalore, Mysore Province
Rai, Dewan G., Captain I.M.S., General Hospital, Madras
Ramachandrayya, P., Esq., Davidson Street, Madras
Rama Rau, C. B., Esq., L.M.S., Madras
Ramaswami, Aiyar S., M.B., Trivandrum, Travancore
Ranga Chary, S., M.B., 330, Thamboo Chetty Street, Madras
Ranganna, S., Esq., Palace Duty, Mysore
Reeves, F. C., Lt.-Col., I.M.S., Royapuram, Madras
Reporter, M. E., Lt.-Col. I.M.S., Gulestan, Secunderabad
Richards, W. G., M.B., Capt., I.M.S., Madras
Robertson, R., M.B., Maj., I.M.S., General Hospital, Madras
Ross, T. S., Captain I.M.S., Victoria Crescent, Madras
Rungappah, H., M.B., Mylapore
Sabja, D. E., Esq., Sohagpur, C.P.
Sarkies, S. C., Lt.-Col., I.M.S., Madras
Scharenguivel, E. W., Esq., Ammapatam, S. India
Smith, F. O., M.B., Maj. I.M.S. (ret.), Madras
Smyth, J., M.D., Lt.-Col. I.M.S., c.o. Messrs. Binny & Co., Madras
Srinivasa Rao, M., Esq., Mysore Government, Bangalore
Srinivasiengar, W., M.B., Civil Hosp., Chitteldroog, Mysore
Subba-Rao, T. V., M.B., Tripunitturah, in Cochin
Subramania-Iyer, A. V., Esq., Trichur, Cochin State, Madras
Subramania Iyer, M., Esq., Cocanada, Madras
Sundram, R., M.B., Madura, Madras
Thirumudiswami Pillai C, M., Esq., Palni, Madura District
Thomas, W. F., M.D., Lt.-Col., I.M.S., North Beach, Madras
Thompson, C. M., M.B., Lt.-Col., I.M.S., Secunderabad
Thomson, H., M.D., Lt.-Col., I.M.S., c.o. Messrs. Binny and Co., Madras
Thorpe, Hilda M. N., M.B., 149A, Broadway, Madras
Turner, P. E., M.B., Nagercoil
Van Geyzel, J. L., M.B., Lt.-Col., I.M.S., Madras
Van Langenberg, V. M.B., Tuticorin, S. India
Vasudeva-Row, K. Esq., General Hospital, Madras
Venkatasubbayya, P., Esq., Bezwada
Venkataswami, Naidu G., Esq., Tirukoilur, South Arcot District
Wall, F., Captain I.M.S., Cannanore, Malabar
Warliker, D. P., Lt.-Col., I.M.S., Cannanore
Warriar, Ruma, Esq., Calicut
Watson, F. F., Esq., R.M. Hospital, Tanjore
Watson, T. T., M.B., Capt. I.M.S., Bellary
Watts, Eliza T., M.D., Mission Hospital, Mysore City
Williams, C. L., M.D., Maj. I.M.S., Coimbatore, S. India
Wright, E. H., Major, I.M.S., Mangalore
Wright, T. J., Lieut., R.A.M.C., Wellington, Madras
Youngerman, E. P., M.B., Lt.-Col., I.M.S., Bellary

SYDNEY & NEW SOUTH WALES BRANCH

Members of Branch—497.

RECOGNISED 1880.

President, J. L. BEESTON, Esq., Newcastle
Vice-President, F. A. POCKLEY, M.B., Sydney
Honorary Secretary, G. T. HANKINS, Esq., 269, Elizabeth Street, Sydney
Honorary Treasurer, W. H. CRAGO, Esq., 16, College Street, Sydney
Representatives on Council of Association.
Martin, C. J., M.D., F.R.S., London; Twynam, G. E., Esq., London

Branch Council.

Abbott, G. H., M.B.
Brady, A. J., Esq.
Crago, W. H., Esq.
Dick, J. A., M.D.
Hankins, G. T., Esq.
Hinder, H. C., M.B.
Hood, A. Jarvie, M.B.
MacCormick, A., M.D.
Maitland, H. L., M.B.
Newmarch, B. J., Esq.
Rennie, G. E., M.D.
Worrall, R. M.D.

Representative,

Associate Members.

Armstrong, Hugh, Esq., Hobart, Tasmania
Bennetts, H. G., M.B., London
Cleland, J. B., M.D., Perth, W.A.
Davis, J. S., Esq., London
Durock, W. J., M.B., Marble Arch, W.A.
King, H. K., M.B., London
McCarthy, Ma'B., Esq., Greytown, New Zealand
Monk, S., M.D., Tambo, Queensland
Osborne, J. K., M.B., London
Patton, A. S., M.D., Aramac, Queensland
Russell, M. H. Grace, M.B., Suez
Stevens, W. W., M.B., Charters Towers, Queensland

Abbott, G. H., M.B., Stanmore Road, Petersham
Alcorn, R. G., Esq., West Maitland
Alcorn, S. A., M.B., East Maitland
Allan, George, M.D., Summerhill, Sydney
Alsop, H. F., Esq., Mosman
Anderson, H. M., M.B., Cootamundra
Andrews, A., Esq., Albury
Armstrong, G., M.B., College Street, Sydney
Armstrong, W. G., M.B., Town Hall, Sydney
Arthur, R., M.D., Mosman
Asher, M., Esq., Lithgow
Ashton-Shorter, H. L., M.B., 33, Norwood Street, Petersham, near Sydney
Atock, M. H., M.D., Coolamon
Ayres, C., M.B., Lyons Terrace, Liverpool Street, Sydney
Barkas, W. J., Esq., Paddington
Barnes, E. H., M.B., Mosman
Barrington, F., F.R.C.S., 213, Macquarie Street, Sydney
Barton, J. a'B. D., M.B., Dubbo
Baur, F. G., M.D., Macquarie Street, Sydney
Bean, H. K., M.D., Wallsend, Newcastle
Beattie, J. A., Esq., Liverpool
Beeston, J. L., Esq., Newcastle
Begg, Wm., Esq., Dudley, viâ Newcastle
Beith, R., M.B., Kiama
Bell, G. L., M.B., Waverley
Bell, H. C. R., Esq., Coolah
Bell, H. T. S., Esq., Murwillumbah
Belli, R., M.D., Coonamble
Benjafield, V., M.B.,, Union Street, North Sydney
Bennet, F. A., M.D., College Street, Sydney
Bennett, Agnes, M.B., Callan Park
Bennett, F. A., Esq., Morpeth
Bertram, T. D., M.B., Coonamble
Binney, E. H., M.B., 199, Macquarie Street, Sydney
Birch, C. O., Esq., Liverpool
Blackall, P., M.D., Queanbeyan
Blackburn, C. B., M.D., 30, College Street, Sydney
Blackwood, F. M., M.B., Turramurra
Blaxland, E. G., Esq., Burwood
Blue, A. Irwin, M.B., Riverstone
Boazman, W. H., M.B., Parkes
Bobardt, A. O., M.D., Staff Surg. R.N., H.M.S. "Wallaroo, Sydney
Boelke, Grace F., M.B., Hunter's Hill, near Sydney
Boelke, P. W., Esq., Hunter's Hill
Bowker, Charles S., Esq., Dungog
Bowker, C. V., M.B., College Street, Sydney
Bowker, R. R. P. S., Esq., Stroud
Bowker, R. S., Esq., Macquarie Street, Sydney
Bowman, A. S., M.B., Singleton
Bowman, R., M.B., Parramatta
Boyden, P. H., M.D., Staff Surgeon, R.N., H.M.S. "Prometheus," Australian Station
Brady, A. J., Esq., Lyons Terrace, Hyde Park, Sydney
Brandon, A. J. S., M.B., Liverpool Street, Sydney
Bray, P. D., Esq., Orange
Brennand H. J. W., M.B., 231, Macquarie Street, Sydney
Broad, W., M.B., Narrandera
Broadbent, P. L., M.B., Rydalmere
Broinowski, G. H., M.B., Narrandera
Brown, W. S., Esq., Parramatta
Browne, H. E., Esq. Summerhill
Bruce, C. W., M.B., Candelo, N.S.W.
Bullmore, H. H., M.B., G.P.O., Sydney
Burfitt, W. F., M.B., Glebe Point, Sydney
Burge, S. B., Esq., Waverley, near Sydney
Burgess, T. W. W., Esq., Wagga Wagga
Burkitt, W. A. H., M.B., Goulburn
Busby, H., M.B., Bathurst
Button, H. G., Esq., Junee
Cameron, M. L., M.B., Grafton
Campbell, Alfred, Esq., Marrickville
Campbell, A. W., M.D., G.P.O., Sydney
Capper, H. S., M.D., North Sydney
Cargill, W. D., M.B., Miller Street, North Sydney
Carruthers, C. U., Esq., Balmain
Caspersonn, E., M.D., Wyalong
Chapman, H. G., M.D., Sydney University, Sydney
Chenhall, W. T., M.D., Macquarie Street, Sydney
Chesson, H., Esq., Mosman, Sydney
Chisholm, W., M.D., Macquarie Street, Sydney
Clarke, G. R. C., M.B., Wahroonga
Clay, W. R., Esq., Hornsby
Clubbe C. P. B., Esq., 195, Macquarie Street, Sydney
Cobb, J. F., Esq., Sofala, N.S.W.
Cocks, C. C., M.D., Wentworth, Darling River
Cohen, A. A., M.D., 61, Darlinghurst Road, Darlinghurst
Collins, P. J., Esq., Queen Street, Woollahra
Connolly, T. P., M.B., Royal Prince Alfred Hospital, Camperdown
Connor, F. G., M.D., Mullumbimby
Cook, Harry F., Esq., Mudgee
Cooley, P. G., M.B., 289, Cleveland Street, Redfern
Cope, H. R., M.B., Glen Innes
Corbin, Albert G., M.B., Sydney Hospital, Sydney
Corlette, C. E., M.D., 4, Lyons Terrace, Liverpool Street, Sydney
Cosh, J. I. C., M.B., Ashfield
Costelloe, John, M.B., Hillgrove
Coutie, W. H., M.B., Hospital for Insane, Parramatta
Cox, F. H., M.B., West Wallsend
Cox, Harrie, M.B., Warren
Crago, W. H., Esq., 16, College Street, Sydney
Craig, Gordon, M.B., Newtown
Crawley, A. J. C., M.B., Newcastle
Cribb, A. G., M.B., Highbury, East Orange, N.S.W.
Crooke, R. W., Esq., Gunnedah
Dalton, H. M. C., M.B., Murrumburrah
Dansey, St. John W., M.B., Royal Prince Alfred Hospital Camperdown
Davidson, Andrew, Esq., Callan Park, Sydney
Davidson, L. G., M.B., Balmain
Davies, R. L., M.B., The Avenue, Newtown
Davis, T. S. M.B., Lockhart
Davis, G. C., Esq., 167, Liverpool Street, Sydney
Dawson, C. L., Esq., Berry
De Marco, E., M.D., White Cliffs
Dey, R., M.B., Bourke
Dick, J. A., M.D., Catfoss, Randwick
Dick, R., M.B. Waratah, N.S.W.
Dight, W. B., M.B., Campbelltown
Dixon, J. L. B., M.D., Bulli
Dixson, T., M.B., Elizabeth Street, Sydney
Doak, F. W., Esq., Mosman
Douglas, J. C., Esq., Stockton
Dowe, S. A., M.A., M.D., Llantor, Wyalong
Dowling, Norman, Esq., Young
Dunlop, N. J., M.B., Newcastle
Eames, E. T. P., Staff Surgeon R.N., H.M.S. *Torch*, Farm Cove, Sydney
Eames, W. L'Estrange, C.B., M.B., Newcastle
Edwards, C. A., Esq., Bondi Junction
Edwards, D. R., M.D., 87, Pitt Street, Sydney
Ellis, L. E., M.B., Manilla
English, J., Esq., Yass
Ercole, Q., M.D., Elizabeth Street, Sydney
Evans, Thomas, Esq., 211, Macquarie Street, Sydney
Failes, F. G., Esq., Coonabarabran
Fairfax, E. W., M.B., Liverpool Street, Sydney
Faithfull, R. L., M.D., Liverpool Street, Sydney
Farrell, R. M., M.D., Quirindi
Feilchenfeld, E., M.B., Hay
Ferguson, R., M.D., Hunter Street, Newcastle
Fiaschi, T. H., M.D., D.S.O., Macquarie Street, Sydney
Finckh, A. E., M.B., Sydney Hospital
Finlay, Sinclair, Esq., Balmain
Fisher, W., Esq., Weston, via Maitland
Fitzpatrick, A. E., Esq., Crookwell
Fitzpatrick, E. B., M.B., Hillston
Flashman, J. F., M.D., Medical School, Sydney University
Florance, E. H., M.D., Cootamundra
Flynn, Jno., M.B., College Street, Sydney
Fordyce, H. S., M.B., Maclean, Clarence River
Foreman, J., Esq., Macquarie Street, Sydney
Forster, R. C. H. M.B., Narramine, N.S.W.
Fox, R. A., M.B., Auburn
Freyer, J. K., Esq., Orange, N.S.W.
Frizell, T., M.D., Strathfield
Fullerton, A. Y., Esq., Murrurundi
Furnival, F. H., Esq., Auburn, near Sydney
Gaden, F. H. B., Esq., Grenfell
Gibbes, Alex., E., M.B., Greta
Gibson, John, M.D., Windsor
Gill, J. M., M.D., College Street, Sydney
Gillies, Sinclair, M.D., Macquarie Street, Sydney
Giommi, Marco, M.D., Gilgandra
Gledden, A. M., M.D., College Street, Sydney
Goldsmid J. A., M.B., Murwillumbah
Gormley, J. W., Esq., Taree, Manning River
Graham, Sir James, M.D., Liverpool Street, Sydney
Griffiths, E. E. Esq., Blayney
Griffiths, F. G., M.B., Gordon
Grigson, R. E., Esq., Muswellbrook
Gullett, Lucy, M.B., George Street, Bathurst
Guthridge, J. S., Esq., Braidwood
Gwynne-Hughes, D., Esq., Redfern
Halcomb, C. D., M.B., Muswellbrook
Hall, F. W., M.D., College Street, Sydney
Hall, G. R. P., M.B., Manly
Hall, E. C., M.D., Parramatta
Halliday, J. C., M.B., Rockdale
Handcock, C. L., M.B., Goulburn
Hankins, G. T., Esq., 269, Elizabeth Street, Sydney
Harbison, J. W., M.B., West Maitland
Hardcastle, C., M.B., Hill Grove
Harris, H. L., M.D., Tamworth
Harris, John, M.D., 157, Elizabeth Street, Sydney
Harris, John, M.D., Newcastle
Harris, L. H. L., M.B., 215, Macquarie Street, Sydney
Harris, M. H., M.B., Armidale
Harris, W. E., M.B., Armidale
Harvey, L. W., Esq., Manly
Harvison, W. S., Esq., Cooma
Harwood, Alfred J., Esq., Adamstown
Hawthorne, A. W., M.D., Carcoar
Heald, S., H., Esq., Berrigan
Heggaton, R. D., M.B., Murrumburrah
Helsham, W. M., Esq., Richmond
Henry, A. G., M.B., Coast Hospital, Little Bay
Henry, T. J., Esq., Grafton
Hetherington, H. B., M.D., Burwood
Higgins, F. C., M.B., Penrith
Hill, R. H., M.D., Tocumwal
Hinder, H. V. C., M.B., Liverpool Road, Ashfield
Hipsley, P. L., M.B., Gordon, North Sydney
Hocken, J. P., M.D., West Wallsend
Hodgson, Cortis R., M.D., Dulwich Hill, near Sydney
Höets, A. K., Esq., Burrowa
Hogg, Kate, M.D., 171, Macquarie Street, Sydney
Holmes, H. G., M.B., Warialda
Hood, A. Jarvie, M.B., 127, Macquarie Street, Sydney
Horsfall, A. H., M.B., D.S.O., Hamilton
Hosking, J. E. F., Esq., Deniliquin, N.S.W.
Howley, E. J., Esq., Dudley, Newcastle
Hughes, M. O'Gorman, M.B., Melrose, Woollahra
Hughes, S. H., Esq., Macquarie Street, Sydney
Hull, Walter, M.D., Nowra
Humphery, E. M., M.B., Lismore
Hurst, G., M.B., Bathurst
Irwin, Wm., M.B., West Maitland
Isbister, J. L. T., M.B., North Sydney
Jamieson, S., M.B., Liverpool Street, Sydney
Jenkins, E. J., M.D., Macquarie Street, Sydney
Jenner, W. J., M.D., Leichhardt, near Sydney
Johnson, A.M., M.D., Elizabeth Street, Sydney
Johnson, H. O., Esq., Parkes, N.S.W.
Jones, E. Tudor, M.B., 37, Johnson Street, Annandale
Jones, Sir Philip Sydney, M.D., 16, College Street, Hyde Pk., Sydney
Jones, P. S., jun., M.B., Glebe
Jones, R. F., M.D., Samarai, British New Guinea
Jones, R. H., M.B., 207, Macquarie Street, Sydney
Jones, R. T., M.D., Liverpool Road, Ashfield
Kane, F. W., Esq., Nowra
Kearney, C. J., Esq., Condobolin
Kelly, D., M.B., 218, Miller Street, North Sydney
Kelly, J. J., M.D., Macquarie Chambers, Macquarie Street, Sydney
Kelty, Wm. M.B., Coomburg Park, Carcoar
Kenna, P. J., M.B., 2, Lyons Ter., Liverpool St., Sydney
Kennedy, J. W., Esq., Hay
Kennedy, Patrick, Esq., Albury
Kerr, A. L., M.D., Carlton Street, Granville
Kerr, John, M.B., Wollongong
Kiernander, H. B., Esq., Queen Victoria P.O., George Street, Sydney
King, A. A., M.B., West Maitland
Kingsbury, J., M.D., Wahroonga
Kinross, R.M., M.B., Inverell
Kirkland, Hugh, M.B., Lithgow
Kirkland, T. S., M.D., Macquarie Street, Sydney
Kirkwood, John, M.B., Cooma
Knaggs, S. T., M.D., Liverpool Street, Sydney
Kuipers, T. C., M.D., Hillston
Lamrock, L. J., M.D., Waverley
Lane, Thomas, Esq., Wycombe Road, Neutral Bay
Lang, W. H., M.B., Corowa
Langton, F. W., M.B., Redfern
Langton, W. D., M.B., Cleveland Street, Redfern
Lawes, C. H. E., M.B., Petersham, near Sydney
Leahy, Wm., Esq., Wagga Wagga
Lee, H. E., M.B., Gunnedah
Lee, H. H., M.B., Wollongong
Lee, T. Wood, Esq., Wollongong
Lees, G. J., M.B., Adelong
Lester, C. E., Esq., Mudgee
Letcher, H. R., M.B., Cobar
Lethbridge, H. O., M.B., Children's Hospital, Glebe
Levy, A. L., Esq., 233, Macquarie Street, Sydney
Liddell, Frank, M.B., West Maitland
Lidwill, Mark C., M.D., Beecroft, near Sydney
Lipscomb, T. W., M.B., Leichhardt
Litchfield, W. F., M.B., 118, Glebe Road, Glebe Sydney
Littlejohn, E. S., M.D., Croydon
Llewellyn, Rees F., M.B., Braidwood
Lloyd, H. S., M.B., Hunter's Hill
Lovegrove, J. F., Esq., Gunning
Ludlow, V. E., Esq., Bondi Road, Waverley
Ludowici, Edward, M.B., Cleveland Street, Redfern
Luker, Donald, M.B., 42, College Street, Hyde Park, Sydney
Lyden, M. J., M.D., Bristol Eye Hospital (travelling)
Macarthur, J. H., M.B., 1, Arbitration Street, Circular Quay, Sydney
McClelland, W. C., M.D., Erskineville Road, Newtown
MacCormick, A., M.D., Macquarie Street, Sydney
McCreadie, J. L. M., M.B., Gulgong
McCredie, R. W., M.B., Picton
MacCulloch, S. H., M.B., College Street, Sydney
McDonagh, J. M., M.D., 14, College Street, Sydney
Macdonald, W. C. C., M.B., Ingham
McDonnell, E. P., Esq., Forbes
McDouall, H. C., Esq., Gladesville Hospital, Sydney
McEwcroe, J. S., M.B., Royal Prince Alfred Hospital, Camperdown
Machattie, T. A., M.B., Bathurst
McIlroy, J. B., Esq., Balmain
MacIntosh, A. H., M.B., R. P. A. Hospital, Camperdown
Mackay, G. A. I., Esq., Lismore
MacKay, W. J. S., M.B., Elizabeth Bay
Mackellar, The Hon. C. K., M.B., Equitable Building, George Street, Sydney
Mackenzie, John A., M.B., Scone
McKillop, R., Esq., Goulburn
Mackinnon, R. R. S., M.B., North Sydney
MacKnight, C. M., M.B., Urana, New South Wales
MacLaurin, Charles, M.B., 155, Macquarie St., Sydney
MacLaurin, The Hon. Sir Henry N., M.D., Macquarie Street, Sydney
McLean, G., M.B., Gunnedah
Maclennan, J. N. E., M.B., Young
MacLeod, C. G., M.B., 16, College Street, Hyde Park Sydney
McLeod, James, M.B., Rockdale
McLeod, J., M.B., Hurstville
MacMaster, Donald, M.B., North Sydney
McMaster, John, M.B., High Street, Penrith
McMaster, R. D., M.D., Goulburn
McMurray, W., M.D., 2, Lyons Ter., Liverpool St., Sydney
MacPherson, J., M.B., Young
Maffey, R. W. H., M.B., Singleton
Magnus, F. D., M.D., 157, Liverpool Street, Sydney
Maguire, S., Esq., Petersham
Maher, C. H., Esq., 36, College Street, Sydney
Maher, W. O., M.D., College Street, Sydney
Maitland, H. L., M.B., Liverpool St., Hyde Park, Sydney
Marano, G. V., M.D., Elizabeth Street, Sydney
Marks, H. W. J., M.D., 225, Macquarie Street, Sydney
Marr, A. Smith, Esq., Forbes
Marshall, G. A., M.B., College Street, Sydney
Marshall, H. H., M.B., 2, Lyons Terrace, Sydney
Marshall, Joseph, M.B., Bega
Martin, T. M., Esq., College Street, Hyde Park, Sydney
Matthews, Thos., Esq., Nowra
Maw, H. S., Esq., Germanton
Mawson, W., M.B., Gundagai
Meeke, A. H., M.D., Candelo
Menzies, G. D., M.B., Drummoyne
Meredith, J. B., Esq., Raymond Terrace
Michell, R. T., M.B., Blayney
Middleton, W., Esq., Mittagong
Mills, A. E., M.B., Strathfield
Miles, G. E., Esq., Rydalmere, near Parramatta
Millard, R. J., M.B., Board of Health, Sydney
Milne, J. S., M.B., Lismore
Moffitt, J. F., Esq., Northampton, W.A.
Moore, J. B., Esq., Bathurst
Morton, G., M.B., Gladesville
Morton, John, M.B., Double Bay
Morton, W. J., M.B., Inverell
Morton, S. W., Esq., Goulburn
Muller, C. A., M.B., Elizabeth Street, Sydney
Muller, O. P. H., M.B., Lismore
Munro, A. W., M.D., 183A, Liverpool Street, Sydney
Munro, W. J., M.D., 213, Macquarie Street, Sydney
Muscio, Allen, M.B., Emmaville
Muskett, P. E., Esq., 143, Elizabeth Street, Sydney
Nankervis, A. W., M.B., Tamworth, New South Wales
Nash, The Hon. J. B., M.D., Macquarie Street, Sydney
Neale, Alfred, M.D., Elizabeth Street, Sydney
Neumann, E., Esq., Wilcannia
Newmarch, B. J., Esq., North Sydney
Newton, W. G. T., M.B., Hamilton
Nickson, W. J. R., M.D., Newcastle
Nolan, H. R., M.B., Macquarie Street, Sydney
Norrie, A., M.D., Liverpool Street, Sydney
O'Connor, A., M.B., Woonoona
O'Hara, A. A., M.B., Darlinghurst
O'Keefe, J. J., M.B., Kogarah
Olivey, W. James, Esq., Nowra
Olver, W. R., Esq., Victoria Avenue, Chatswood
O'Neill, G. L., M.B., College Street, Sydney
Oram, A. M., M.D., Macquarie Street, Sydney
O'Reilly, W. W. J., M.D., Liverpool St., Hyde Park, Sydney
Page, E., M.B., South Grafton, N.S.W.
Palmer, A. A., M.B., 149, Elizabeth Street, Sydney
Park, A. J., M.B., Narrabri
Park, J., M.B., Corrimal
Parker, A. F., M.D., Lismore
Parker, Joseph, Esq., Byron Bays
Parry, L. D., Esq., Picton
Paton, J. S., Esq., Dudley, via Newcatle
Paton, R. T., M.D., Richmond Terrace, Sydney Domain
Pawlett, T. L., Esq., Crookwell
Pentland, A., M.D., Singleton
Perkins, A. E., M.B., Marrickville
Phipps J. Hare, M.B., Mosman, nr. Sydney
Pirie, James, Esq., Terminus Street, Liverpool, Sydney
Pockley, F. A., M.B., Macquarie Street, Sydney
Pope, R. J., M.D., Macquarie Street, Sydney
Power, J. J., M.B., College Street, Sydney
Purcer, Cecil, M.D., Lewisham
Pym, C. Brownlow, Esq., Annandale
Quaife, F. H., M.D., Woollahra
Read, C., Esq., Chatswood
Read, George, Esq., Watson's Bay, nr. Sydney
Read, W. H., M.B., Macquarie Street, Sydney
Reading, R. F., Esq., 151, Macquarie Street, Sydney
Reddall, O. H., Esq., Randwick
Reiach, James, M.B., Molong
Reid, C. W., M.B., Watson's Bay
Rennie, G. E., M.D., Macquarie Street, Sydney
Rice, H. R., Esq., Lithgow
Roberts, L. W., M.B., Cowra
Roberts, Spencer, Esq., Royal Prince Alfred Hospital, Camperdown
Robertson, A., M.D., Tarawa, Gilbert Islands
Robinson, W. C., Esq., Ocean Street, Bondi, Sydney
Roseby, E. R., M.B., Marrickville
Ross, A. P., M.B., Wee Waa
Ross, C., M.D., Macquarie Street, Sydney
Ross, J. MacBain, Esq., Broken Hill
Roth, R. E., D.S.O., Liverpool Street, Sydney
Rundle, G. E., Esq., Creewood, Potts Point, Sydney
Russell, R. U., Esq., Hospital for Insane, Newcastle
Rutherford, A. H., M.B., Casino
Rygate, Robert, Esq., George Street, Marrickville
Sadler, Henry F., M.B., Kurri Kurrim
Salter, A. E., M.B., Homebush, Sydney
Samuelson, G. S., M.D., Bangalow, Richmond River
Sandes, F. P., M.B., 92, City Road, Sydney
Saunders, J. H., M.B., Box 1,311, G.P.O., Sydney
Sawkins, F. J. T., M.B., Elizabeth Street, Sydney
Schalit, M.A., M.D., Delegate, N.S.W.
Schuette, R. W., M.D.Leip., Merriwa, N.S.W.
Scott, A. E., M.B., Dapto
Scott, C. H., M.B., Armidale
Scott, H. J. H., Esq., Scone
Sexton, J. P., Esq., Tamworth, N.S.W.
Shand, J. C., M.B., 31, Ridge Street, North Sydney
Sharp, W. A. R., M.B., Chatswood
Shaw, F. C. S., M.B., Wyalong
Sheldon, H., M.B., Granville
Sheldon, S., M.B., Macquarie Street, Sydney
Shellshear, Cyril, M.B., Queen's Street, Burwood
Shirlow, S. S., M.B., Balmain
Shortt, W., Esq., Corowa
Sinclair, E., M.D., Wahroonga
Sinclair, M. A., McI., M.D., Sanatorium, Wentworth Falls
Skirving, R. Scot, M.B., 221, Elizabeth Street, Sydney
Smith, G. H. W., Esq., Paddington

Smith, S. A., M.B., Glebe Road, Glebe
Smith, V. A. J., Esq., Grafton, Clarence River
Smith, W. G. C., M.B., Ryde
Soule, M., M.D., c/o. Bohemian Club, San Francisco (travelling)
Spark, E. J. S., M.B., Stockton
Spark, J., Esq., Katoomba
Spencer, Walter, M.D., Edgeware Road, Enmore
Sproule, W., M.D., Minmi
Stacy, H. S., M.D., College Street, Sydney
Stanley, G. P., M.B., Tamworth
Stephen, E. H. M., M.B., Ashfield
Stephens, S., Esq., Walcha
Stevenson, F. C., Esq., Moss Vale
Stoker, H., Esq., Wagga Wagga
Stokes, E. S., M.B., Water and Sewerage Board Sydney
Stuart, Prof. T. P. A., M.D., LL.D., Woollahra
Stuckey, F. S., M.B., Inverell
Studdy, W. B., M.B., N. Sydney
Tange, F. S., M.B., Military Road, Mosman
Terrey, C., M.B., Macquarie Street, Sydney
Terrey, H., M.B., Kiama
Thane, E. H., M.D., Killara
Thane, P. T., Esq., Yass
Thomas, D., Esq., Manly
Thomas, G. B., M.B., Ashfield
Thompson, J. A., M.D., Board of Health, Sydney
Thring, E. T., Esq., Macquarie Street, Sydney
Throsby, H., M.B., Bowral
Tidswell, F., M.B., Department of Public Health, Sydney
Tilley, W. J., Esq., Lismore
Todd, R. H., M.D., Phillip Street, Sydney
Tomlins, W. H., Esq., Alstonville, Richmond River
Tomlinson, W. R., Esq., c.o. Bruck, Sydney
Traill, M. W., Esq., Burwood
Treloar, R. H., M.D., Wickham
Trindall, R. B., M.B., Newtown
Turkington, H., M.B., Waverley
Vallack, A. S., M.B., Bowral
Vallee, L., Esq., Inverell
Vause, A. J., M.B., J.P., Tempe, Cook' River
Veech, M., M.B., Molong
Wade, R. B., M.D., Stanmore Road, Sydney
Wade, T. F., Esq., Wollongong
Walch, C. C., Esq., Kilara, Sangar Street, Corowa
Walker-Smith, J., Esq., Glebe
Wallace, Donald, M.B., Coast Hospital, Little Bay
Walley, T. B., Esq., Tamworth
Warren, H. Guy, Esq., 205, Macquarie Street, Sydney
Watkins, S. C., Esq., Katoomba
Watson, C. R. Esq., Newtown
Watson, J. W., M.D., Germanton
Watt, George, M.D., Orange
Welsh, Professor D. A., M.D. University, Sydney
West, F. W., M.B., Camden
Wigan, G., Esq., Armidale
Wilkinson, W. C., M.D., Macquarie Street, Sydney
Will, A. M., M.B., Macquarie Street, Sydney
Williams, F. B., M.D., Nyngan, N.S.W.
Willis, H. L., Esq., Hay
Wilson, J. H., Esq., Millthorpe, N.S.W.
Wilson, Professor J. T., M.B., University, Sydney
Windeyer, J. C., M.B., 28, College Street, Sydney
Wood, P. M., Esq., Liverpool Road, Ashfield
Woods, W. C., M.D., Albury
Woodward, E. A., M.B., Arncliffe
Woodward, G. P. M., M.D., Phillip Street, Sydney
Worrall, R., M.D., Macquarie Street, Sydney
Wright, T. N., Esq., Gloucester, N.S.W.
Wrigley, F. H., Esq., Glen Innes
Young, H. C. Taylor, M.D., 221, Macquarie Street, Sydney
Young, R. W., Esq., Milton
Zlotkowski, F. S. W., M.B., 201, Macquarie Street, Sydney

TORONTO BRANCH.

Members of Branch—166.

RECOGNISED 1897.

President, I. H. CAMERON, M.D., Toronto

Vice-President, A. H. WRIGHT, M.D., Toronto

Honorary Secretary, W. B. THISTLE, M.D.,
171, College Street, Toronto

Honorary Treasurer, H. T. MACHELL, M.D., 95, Bellevue Avenue, Toronto

Branch Council.

Baines, A., M.D.	Reeve, R. A., M.D.
McPhedran, A., M.D.	

Representative on Council of Association.

Representative.

Addison, J. L., M.D. St. George, Ontario
Aikins, M. H., M.D., Burmanthorpe, Ontario
Aikins, W. H. B., M.D., 50, College Street, Toronto
Alguire, D. O., M.D., Cornwall, Ontario
Amyot, J. A., Esq., Thornhill, Ontario
Anderson, D., M.D., Wellesley Street, Toronto
Anderson, H. B., M.D., 34, Carlton Street, Toronto
Anderson, J., M.D., 23, South Bay St., Hamilton, Ontario
Armstrong, H. W., Esq., Fergus, Ontario
Aylesworth, G. W., M.D., Collingwood, Ontario
Baines, Allen, M.D., 228, Bloor Street West, Toronto
Balfe, T. H., Esq., 225, James Street, N. Hamilton, Ontario
Barrie, H. G., M.D., 507, Church Street, Toronto
Beemer, N. H., M.D., Insane Asylum, Mimico, Ontario
Bingham, G. A., M.D., 63, Isabella Street, Toronto
Boyd, G., M.B., 167, Bloor Street East, Toronto
Boyd, H. O., M.D., Bobcaygeon, Ontario
Brown, P., M.D., 37, Carlton Street, Toronto
Bruce, H. A., Esq., 64, Bloor Street East, Toronto
Bryce, P. H., M.D., Medical Inspector of Department of Interior, Ottawa
Burnham, G. H., M.D., 131, Bloor Street East, Toronto
Burt, W., M.D., Paris, Ontario
Cameron, I. H., M.D., 307, Sherbourne Street, Toronto
Caven, W. P., M.B., 70, Gerrard Street East, Toronto
Chambers, G., M.B., 26, Gerrard Street East, Toronto
Chambers, W., M.B., Oakwood, Ontario
Clarke, C. K., M.D., Hospital for Insane, Toronto
Clarke, W. F., M.D., 2283, Queen Street East, Toronto
Cleland, G. S., M.D., 730, Queen Street East, Toronto
Clendenan, G. W., M.D., 180, Dundas Street West, Toronto Junction
Clemesha, J. W., M.D., Port Hope, Ontario
Clouse, Elias, M.D., 468, College Street, Toronto
Cockburn, L. W., Esq., 68, John Street N., Hamilton
Coke, C. E., M.D., Ignace, Ontario
Colbeck, O. W., M.B., Bracebridge, Ontario
Connell, W. T., M.D., Kingston, Ontario
Copp, C. J., M.D., 96, Wellesley Street, Toronto
Courtenay, J. D., Esq., Ottawa
Crane, J. W., M.D., Wallacetown, Ontario
Davis, Lilia, M.D., Alexandria Apartments, Queen's Avenue, Toronto
Davison, J. L., M.D., 20, Charles Street, Toronto
Dickinson, G. A., M.D., Port Hope, Ontario
Doolittle, P. E. M.D., 180, Sherbourne Street, Toronto
Duncan, J. H., M.B., Chatham, Ontario
Duncan, J. T., M.D., 165, Bloor Street, E., Toronto
Dunning, M., M.D., Mono Mills, Ontario
Eccles, F. R., M.B., London, Ontario
Elliott, G., M.D., 203, Beverley Street, Toronto
Elliott, J. H., M.B., Gravenhurst, Ontario
Farncomb, T. S., M.D., Trenton, Ontario
Fenton, F., M.D., 75, Bloor Street East, Toronto
Fisher, J. H., Esq., 18, St. Patrick Street, Toronto
Fotheringham, J. T., M.D., 20, Wellesley Street, Toronto
Fraser, D. B., M.B., Stratford, Ontario
Fraser, D. M., M.D., Stratford, Ontario
Geike, Walter B., M.D., 52, Maitland Street, Toronto
Genge, T. S., M.D., Parham, Ontario
Gibson, Thomas, M.B., 164, Metcalfe Street, Ottawa
Goldie, W., M.B., 84, College Street, Toronto
Goldsmith, P. G., M.D., Belleville, Ontario
Gordon, A. R., M.B., 345, Bloor Street West, Toronto
Grant, Sir James, K.C.M.G., M.D., 150, Elgin Street, Ottawa
Grasett, F. Le M., M.D., 208, Simcoe Street, Toronto
Greig, W. J., M.D., 131, Sherbourne Street, Toronto
Harrington, A. J., M.D., 813, Bathurst Street, Toronto
Hastings, A. O., M.D., 594, Sherbourne Street, Toronto
Hayden, E. W., M.D., Roseneath, Ontario
Henderson, J., Esq., Cobourg, Ontario
Herriman, W. C., M.D., Rockwood Hosp., Kingston, Ontario
Hodge, Geo., M.D., 234, Queen's Avenue, London, Ontario
Hodgetts, C. A., M.D., Serg. Prov. Board of Health, Toronto
Horsey, A. J., Esq., 251, Wellington Street, Ottawa
Howitt, H., M.D., Box 230, Guelph, Ontario
Hurlburt, R. W., Esq., Mitchell, Ontario
Johnson, A. J., Esq., 52, Bloor Street, W. Toronto
Johnston, S., M.D., 169, Carlton Street, Toronto
Joy, S., M.D., Tillsonburg, Ontario
Kidd, E., M.D., Trenton, Ontario
King, J. E., M.D., Thistletown, Ontario
Kingsmill, H. A., M.D., London, Ontario
Langstaff, R. L., M.D., Richmond Hill, Ontario
Lea, J. A., Esq., The Pines, near Bracebridge, Ontario
Lehmann, Wm., M.D., 164, Spadina Avenue, Toronto
Leinsters, G. A., M.D., 1,101, Yonge Street, Toronto
Leslie, J. W., M.D., Toronto
Lesslie, J., M.D., Hamilton, Ontario
Lovett, W., M.D., Ayr, Ontario
Macallum, Professor A. B., 59, St. George Street, Toronto
McCollum, W. J., M.D., 94, Shuter Street, Toronto
McCoy, S. H., M.B., St. Catharines, Ontario
Macdonald, A. A., M.D., 341, Bloor Street West, Toronto
Macdonald, Alex., Esq., Vankleek Hill, Ontario
Macdonald, W. A., M.B., 8, Bloor Street East, Toronto
Macgregor, J. A., M.D., London, Ontario
Machell, H. T., M.D., 95, Bellevue Avenue, Toronto
McIlwraith, K. C., M.B., 54, Avenue Road, Toronto
McIntosh, L. Y., M.D., Apple Hill, Ontario
Mackay, A., M.D., Ingersoll, Ontario
Mackenzie, J. J., M.D., University Medical Build., Toronto
MacKeogh, G. T., M.B., Chatham, Ontario
Mackinnon, Angus B., M.B., Guelph, Ontario
McMahon, T. F., M.D., 121, Bathurst Street, Toronto
MacMurchy, Helen, M.D., 133, Bloor Street East, Toronto
McNulty, F. P., M.B., Peterborough, Ontario
McPhedran, A., M.D., 151, Bloor Street, Toronto
Malloch, A. E., M.D., Hamilton, Ontario
Mathieson, J. H., M.D., St. Mary's, Ontario
Meek, H., M.D., 330, Queen's Avenue, London, Ontario
Meyers, D. C., M.D., Deer Park P.O., Ontario
Milner, Beverley, M.D., 414, Bloor Street W., Toronto
Moir, A., M.D., Dunnville, Ontario
Monro, J. H., M.D., Greenfield, Ontario
Montizambert, F., M.D., Direct.-Gen. Public Health, Ottawa
Munro, J. T., Esq., Maxville, Ontario
Neal, F., M.D., Peterboro, Ontario
Nevitt, R. B., M.B., 46, Bloor Street West, Toronto
Oldright, Wm., M.D., 154, Carlton Street, Toronto
Olmsted, I., M.D., 215, James Street, S. Hamilton
O'Reilly, C., M.D., 52, College Street, Toronto
Orr, Dorothy, M.D., 556, Dovercourt Road, Toronto
Orr, J. O., M.D., 337, Jarvis Street, Toronto
Palmer, S. M., M.D., Florence, Kansas
Parfit, C. D., M.D., Gravenhurst, Ontario
Parsons, H. C., M.D., 72, Bloor Street, W. Toronto
Pearson, H. C., M.D., Stayner, Ontario
Perkins, M. J., M.D., 319, Bathurst Street, Toronto
Peters, G. A., M.B., 102, College Street, Toronto
Philip, T. S., M.D., Picton, Ontario
Powell, N. A., M.D., 167, College Street, Toronto
Pratt, J. J., M.D., Port Arthur, Ontario
Primrose, A., M.B., 100, College Street, Toronto
Pyne, R. A., M.D., 263, Gerrard Street E., Toronto
Reeve, R. A., M.D., 48, Bloor Street East, Toronto
Reeves, James, Esq., Eganville, Ontario
Reid, J. B., M.D., Tilsonburg, Ontario
Riordan, B. L., M.D., 73, Simcoe Street, Toronto
Ross, James, M.D., Dundas, Ontario
Ross, J. F. W., M.D., 481, Sherbourne Street, Toronto
Rudolf, R. D., M.D., 396, Bloor Street West, Toronto
Ruppert, A., M.D., Preston, Ontario
Ryerson, E. S., M.D., 261, College Street, Toronto
Scadding, H. C., M.D., 182, Bloor Street West, Toronto
Scott, Paul, M.D., 19, Avenue Road, Toronto
Scott, W. A., B.A., M.B., F.R.C.S., 576, Church St., Toronto
Sheahan, John, M.B., St. Catherine's, Ontario
Shuttleworth, C. B., M.D., 45, Bloor Street E., Toronto
Silverthorne, G., M.D., 266, College Street, Toronto
Singer, S., M.D., 194, Simcoe Street, Toronto
Small, H. B., Esq., 150, Maria Street, Ottawa
Smith, D. K., M.B., 311, Jarvis Street, Toronto
Starr, C. L., M.D., 224, Bloor Street W., Toronto
Starr, F. N. G., M.B., 112, College Street, Toronto
Stewart, W. O., M.B., Guelph, Ontario
Tatham, C. C. M.B., Cargill, Ontario
Thistle, W. B., M.D., 171, College Street, Toronto
Todd, J. A., M.D., 165, College Street, Toronto
Towler — M B, Esq., Wingham Ontario
Treblecock, F. C., M.D., Enniskillen, Ontario
Trow, C., M.D., Carlton Street, Toronto
Uren, J. F., M.D., 520, Church Street, Toronto
Williams, J. F., M.D., Bracebridge, Ontario
Wilson, W. J., M.D., 159, College Street, Ontario
Winnett, F., M.D., 525, Sherbourne Street, Toronto
Wishart, D. J. G., M.D., 47, Grosvenor Street, Toronto
Wright, A. H., M.D., 30, Gerrard Street East, Toronto
Young, W. A., M.D., 145, College Street, Toronto

TRINIDAD AND TOBAGO BRANCH.

Members of Branch—24.

RECOGNISED 1892.

President, E. A. G. DOYLE, Esq., Colonial Hosp., Port of Spain

President-elect, S. M. LAWRENCE, M.B., Port of Spain

Honorary Secretary and Treasurer, E. PRADA, Esq.
St. Clair, Port of Spain

Branch Council.

De Wolf, J. A., M.D.	Knox, C. F., Esq.
Dickson, J. R., M.B.	Stollmeyer, J. A. R., Esq.

Representative on Council of Association.

Representative,

Alston, H. Mc C., M.B., St. Joseph, Trinidad
Boucand, A. A., M.B., Couva, Trinidad
Camps, S., Esq., 49, Frederick Street, Port of Spain
Cleaver, W. F., Esq., Toco, Trinidad
Darwent, E. N., M.D., San Fernando Hospital, Trinidad
Doyle, E. A. G., Esq., Trinidad
Eakin, J. W., M.B., Port of Spain, Trinidad
Fabien, L., Esq., San Fernando Trinidad
Knaggs, R. H. E., Esq., Port of Spain, Trinidad
Knox, C. F., Esq., Port of Spain, Trinidad
Lawrence, S. M., M.B., 28, St. Vincent Street, Port of Spain
Lota, L., M.D., Port of Spain
Norman, R. W. C., M.B., Trinidad
Percy, G. R., M.D., Trinidad
Prada, E., Esq., St. Clair, Port of Spain
Proctor, S. F. Esq., Port of Spain, Trinidad
Read, E. Inskip, Esq., Tacarigua, Trinidad
Reid, C. B., M.B., Indian Walk, Trinidad
Seccombe, G. S., Esq., Port of Spain, Trinidad
Seon, John H., Esq., San Fernando, Trinidad
Stollmeyer, J. A. R., Esq., Port of Spain
Vincent, G. A., Esq., St. Ann's, Port of Spain
Wight, A. W., Esq., Port of Spain
Wolf, J. A. de, M.D., Port of Spain

WEST AUSTRALIAN BRANCH.

Members of Branch—63.

RECOGNISED 1899

President, A. J. H. SAW, M.D., Perth

Vice-President, W. TRETHOWAN, M.B., Perth

Honorary Secretary, J. E. RAMSAY, M.B.,
150, Beaufort Street, Perth

Honorary Treasurer, G. H. S. BLACKBURNE, M.B., Perth

Branch Council.

Leschen, H. A., M.B.	Seed, W. P., M.D.
Martin, Albert E., M.D.	

Representative on Council of Association.

Representative.

Ambrose, Theodore, M.B., Mount Magnet, W. Australia
Astles, H. E., M.D., St. George's Terrace, Perth
Barber, G. W. Esq., Kalgoorlie
Belgrave, T. B., M.D., Denham Lodge, Shark's Bay
Black, Ernest, Esq., Perth
Blackburne, G. H. S., M.B., Perth
Blaxland, W., F.R.C.S., Cottesloe
Blick, G., Esq., Broome
Burkitt, G. O. E., Esq., Perth
Burton, T. J., M.D., Hay Street, Perth
Butler, F. S., M.D., Beverley
Cleland, J. B., M.D., co. Dept. of Public Health, Perth
Corley, Anthony H., M.D., Wagin
Co ch, J. K., M.D., Hay Street, Perth
Darbyshire, D. E., M.B., Leake Street, Cottesloe
Davis, S. B., Esq., York
Davy, T. G., M.D., Hay Street, Perth
Deravin, A. F., M.B., Public Hospital, Fremantle
Dermer, W. T., M.B., Fremantle
Dunlop, J. B., Esq., Northam
Elgie, William, Esq., Midland Junction
Erson, L., Esq., Kalgoorlie
Finlay, Rev. Hunter, M.D., Coolgardie
Fiecker, O. F., M.B., Subiaco
Grey, W. C., M.B., Bulong
Harvey, Henry Frederick, Esq., Perth
Hill, C. H., M.D., Kalgoorlie
Hodge, W. T., M.D., Claremont
Hope, J. W., Esq., Fremantle
Horrocks, Herbert, M.D., St. George's Terrace, Perth
Jull, Mrs. M. E., M.B., Brookside, Armadale
Kelsall, Henry Trumen, M.D., Milligan Street, Perth
Leschen, H. A., M.B., Surrey Chambers, St. George's Terr., Perth
Lewis, J. B., Esq., Menzies, W.A.
Lotz, Henry J., Esq., Fremantle
Macaulay, S., Esq., Donard Lodge, Cottesloe
McKell, T. P., M.D., Mulwarrie, W. Australia
McWilliams, G. F., M.B., 2, Beaufort Street, Perth
Martin, Albert E., M.D., Surrey Chambers, St. George's Terrace, Perth
Mead, Gertrude E., M.B., William Street, Perth
Montgomery, S. H., Esq., Fremantle
Morrison, Alex., Esq., Perth
Moss, M. K., M.B., Perth Hospital, W. Australia
Newton, R. Earle, M.B., F.R.C.S., 435, Hay Street, Perth
Officer, E. D., M.B., Marquis Street West, Perth
O'Meehan, J. A., Esq., Kalgoorlie
Ramsay, J. E., M.B., 150, Beaufort Street, Perth
Randell, Allan E., M.B., 296, William Street, Perth
Robertson, Dr., Willuna
Rockett, Richard N. F., M.B., Northam
Seed, W. P., M.D., 416, St. George's Terrace, Perth
Shout, A. C., Esq., 827, Hay Street West, Perth
Smith, Amy J. G., M.B., 86, Varden Street, Kalgoorlie
Stewart, James Edmund Fergusson, M.B., Midland Juncn.
Stewart, John Mitchell Young, M.B., Guildford
Teague, H. O., M.B., Victoria Park, Perth
Thom, Alex., P., M.D., Geraldton
Thorp, C. G., M.B., Barrack Street, Perth
Thurstan, E. Paget, M.D., Perth
Tratman, F., M.D., Perth
Trethowan, W., M.B., Aberdeen Street, Perth
White, A. T., Esq., Fremantle
Wilson, Thomas, Esq., Ravensthorpe, Phillips River Goldfield

OFFICERS OF THE MEDICAL DEPARTMENT OF THE ROYAL NAVY, THE ARMY MEDICAL AND THE INDIAN MEDICAL SERVICES.

Of retired officers, only those whose names are retained in the official Navy and Army Lists are included in the following Lists.

ROYAL NAVY.

MEMBERS—314.

Acheson, J. H., M.B., Fleet-Surg. R.N.
Adams, H. C., Surg. R.N.
Addison-Scott, D. G., M.B., Surg., R.N.
Alderson, P. F., Surg. R.N.
Andrews, A. G., Fleet-Surg. R.N.
Andrews, John, M.D., Fleet-Surg. R.N.
Andrews, O. W., M.B., Fleet-Surg. R.N.
Anley, F. E., Surg., R.N.
Arathoon, Hilary G., Staff-Surg. R.N.
Arkwright, E., M.B., Staff-Surg. R.N.
Austen, T., Fleet-Surg. R.N.
Axford, W. G., Fleet-Surg. R.N.
Baiss, L. A., Surg. R.N.
Bankart, A. B., M.B., M.V.O., Staff-Surg. R.N.
Barnes, W. G. K., M.D., Fleet-Surg. R.N.
Barry, Jerome, M.D., Fleet-Surg. R.N.
Bassett-Smith, P. Wm., Fleet-Surg. R.N.
Bastian, Wm., Surg. R.N.
Bateman, G. D., Surg., R.N.
Baxter, C. T., Surg. R.N.
Beadnell, C. M., Fleet-Surg. R.N.
Bean, Algernon C., Surg. R.N.
Bearblock, W. J., Fleet-Surg. R.N.
Beattie, J. H., Fleet-Surg. R.N.
Beatty, H. B., Fleet-Surg. R.N.
Bell, A. S. G., Staff Surg. R.N.
Bell, G. A. S., Fleet-Surg. R.N.
Bennett, W. E., Fleet-Surg. R.N.
Bentham, R., Dep.-Insp.-Gen. R.N.
Bickford, B. R., Surg. R.N.
Biddulph, R. E., M.B., Fleet-Surg. R.N.
Biden, E. J., Fleet-Surg. R.N.
Bidwell, L., Fleet-Surg. R.N.
Birt, S. H., Staff-Surg. R.N.
Bishop, G. T., Staff-Surg. R.N.
Blunt, T. E., Surg. R.N.
Bohardt, A. O., M.D., Staff-Surg. R.N.
Bolster, F., Staff-Surg. R.N.
Borrett, G. G., Fleet-Surg. R.N.
Boucher, C. J., M.B., Surg. R.N.
Bowden, Walter, D.S.O., Fleet-Surg. R.N.
Bowie, R. F., Dep. Insp.-Gen. R.N. (retired)
Boyden, P. H., M.D., Staff-Surg. R.N.
Bradley, C., M.D., Fleet-Surg. R.N.
Bradley, J., M.D., Fleet-Surg. R.N.
Bray, E. E., Fleet-Surg. R.N.
Breton, W. E., Dep.-Insp.-Gen. R.N.
Brice, F. A., Fleet-Surg. R.N.
Broatch, G. T., Fleet Surgeon, R.N.
Brown, R. G., M.B., Deputy Inspector-General R.N.
Buchanan-Hamilton, C. W., Fleet-Surg. R.N.
Buckle, Fleetwood, M.D., Fleet-Surg. R.N. (ret.), Southsea
Bunton, C. L. W., M.B., Staff Surg. R.N.
Burns, F. J., M.D., Fleet-Surg. R.N.
Burton, E. T., Junr. Surg. R.N.
Burniston, H. S., M.B., Staff-Surg. R.N.
Campbell, J. A. L., Staff-Surg. R.N.
Carbery, E. O. B., M.B., Surg. R.N.
Center, W. R. M.B., Staff-Surg. R.N.
Chambers, Joseph, M.B., Fleet-Surg. R.N
Chapman, D. P., Surg. R.N.
Cherry, W. N. L., Surg. R.N.
Clark, R. F., Staff-Surg. R.N.
Clayton, F. H. A., M.B., Staff-Surg. R.N.
Clift, Hugh, Staff-Surg. R.N.
Coad, J. E., M.B., Fleet-Surg. R.N.
Coates, M., M.D., Dep. Insp.-Gen. of Hospitals and Fleets, R.N. (ret.), 69, Mitcham Lane, S.W.
Cock, F., Surg. R.N.,
Codrington, W. J., Staff-Surg. R.N.
Collingwood, F. W., Surg. R.N. (retired
Collingwood, G. T., Fleet-Surg. R.N.
Conner, S., M.B., Staff-Surg. R.N.
Coolican, J. P. J., Fleet-Surg. R.N.
Cooper, E., Staff Surg. R.N.
Coppinger, R. W., M.D., Insp.-Gen. of Hospitals and Fleets, R.N.
Corrie, A. T., Fleet-Surg. R.N. (retired)
Cox, A. H. L., Fleet-Surg. R.N.
Cox, Edmund, M.B., Surg. R.N.
Craig, J. W., Staff-Surg. R.N.
Craig, W. M., M.B., Fleet-Surg. R.N.
Cridland, E. C., M.B., Staff-Surg. R.N.
Crocker, H. L., Fleet-Surg. R.N.
Croneen, Sydney, Surg. R.N.
Crowley, Joseph, M.D., Fleet-Surg. R.N.
Cummins, A. D. C., Surg. R.N.
Dalton, F. J. A., Staff-Surg. R.N.
Dartnell, L. B., Staff-Surg. R.N.
Davidge, G. S., Surg., R.N.
Davidson, Arthur, M.B., Surg. R.N.
Davidson, A. R., M.B., Surg. R.N.
Daw, W. H., Surg. R.N.
Dennis, J. J., M.D., Fleet-Surg. R.N.
Denny, H. R. H., Surg. R.N.
Dickenson, G. O. B., M.B., Surg. R.N.
Dimsey, E. R., D.S.O., Fleet-Surg. R.N.
Dow, J. C., M.B., Fleet-Surg R.N.
Doyne, H. W. G., Fleet-Surg. R.N.
Dudding, J. S., Surg. R.N.
Duncan, G. E., Surg., R.N.
Durston, J. C., Staff-Surg. R.N.
Eames, E. T. P., Staff-Surg. R.N.
Eames, W., Fleet-Surg. R.N.
Elliott, H., M.D., Fleet-Surg. R.N. (retired)
Ellis, E. F., Surg. R.N.
Ellis H. M., Insp.-Gen. R.N.
Facey, C. S., M.B., Staff-Surg. R.N.
Facey, S. H., Staff-Surg. R.N.
Fairbank, C. B., Surg. R.N.
Fedarb, F., M.B., Staff-Surg. R.N.
Ferguson, J. C., M.B., Fleet-Surg. R.N.
Finch, E. J., M.D., Staff-Surg. R.N.
Finlayson, H. W., M.B., Staff-Surg. R.N.
Folliott, E., Surg. R.N.
Foott, G. H., M.D., Fleet-Surg. R.N
France, J. M., Fleet-Surg. R.N.
French, A. M., Fleet-Surg. R.N.
Fullarton, John, Surg. R.N.
Gibson, George, Staff-Surg. R.N.
Gill, H. H., M.B., Staff-Surg. R.N.
Gilmour, R. T., Staff Surg. R.N.
Gittings, C. B., M.B., Surg. R.N.
Glynn, G. E., M.D., Surg. R.N.
Gordon, J. M., M.B., Surg. R.N.
Gowans, F. J., M.B., Surg. R.N.
Grant, R., C.B., M.B., Insp.-Gen. of Hosps. & Fleets R.N.
Grazebrook, E. R., Staff-Surg. R.N.
Green, H. W. G., Staff-Surg. R.N.
Greenhalgh, J. P. H., M.D., Surg. R.N.
Hadlow, H., Insp. Genl., of Hosp. & Fleets R.N. (ret.)—S. Br.
Hall, J. F., M.B., Fleet-Surg. R.N.
Hall, R. W. Basil, Surg. R.N.
Handyside, P. B., M.B., Fleet-Surg. R.N.
Harris, N. H., Surg. R.N.
Harvey, C., Fleet-Surg. R.N. (retired), Newton Abbot
Harvey, D'Arcy, M.B., Fleet-Surg. R.N.
Hawton, J. W. H., Fleet-Surg. R.N. (retired)
Hewitt, David, W., M.B., Surg. R.N.
Hewlett, G., M.B., Fleet-Surg. R.N.
Hickson, R., Fleet-Surg. R.N.
Hill, R., Fleet-Surg. R.N.
Hilston, D., M.D., C.B., Insp.-Gen. of Hosps. & Flts. R.N. (ret.)
Holmes, J. McA., M.B., Surg. R.N.
Holyoake, H., Fleet-Surg. R.N.
Home, W. E., M.D., Fleet-Surg. R.N.
Honey, T. E., M.D., Staff-Surg. R.N. (ret.)
Horsfall, W. N., M.B., Surg. R.N.
Hoskyn, D. T., M.B., Staff-Surg. R.N.
Hughes, Robert, Surg. R.N.
Iliewicz, H. F., Fleet-Surg. R.N.
Iredell, A. W., Surg. R.N.
Jackson, G., Dep. Insp.-Gen of Hospitals and Fleets R.N. (retired), West Norwood, S.E.
Jackson, P. V., Fleet-Surg. R.N.
Jackson, W., M.B., Staff-Surg. R.N.
Jameson, R. D., Staff-Surg. R.N.
Jeans, T. T., M.B., Staff-Surg. R.N.
Jeffery, T. W., Surg. R.N.
Jenkins, John, Fleet-Surg., R.N.
Johnston, A. J. J., Dep. Insp.-Gen. R.N.
Johnston, J. E., Surg. R.N.
Jones, K. H., M.B., Staff-Surg. R.N.
Joyce, A. R., Fleet-Surg. R.N. (retired), Caversham
Keays, S., Fleet-Surg. R.N.
Kellett, L. H., M.D., Dep.-Insp.-Gen. R.N.
Kellond-Knight, H. A., Surg. R.N.
Kenny, E. B., M.B., Surg. R.N.
Kennedy, G. E., Fleet-Surg. R.N.
Keogh, J. A., M.B., Fleet-Surg. R.N.
Kidd, A., Fleet-Surg. R.N.
Kilroy, L., Staff-Surg. R.N.
Knapp, M. H., Staff-Surg. R.N.
Knightley, W. R., Surg. R.N.
Langford, M. C., Staff-Surg. R.N.
Lambert, J. S., Dep.-Insp.-Gen., R.N.
Laurie, Augustus J., Surg. R.N.
Lavertine, A. X., Staff-Surg. R.N.
Levinge, R. T. A., Fleet-Surg. R.N.
Ley, B., Staff-Surg. R.N.
Lilly, F. J., Fleet-Surg. R.N.
Lindop, L., Surg. R.N.
Livesay, A. W. B., Staff-Surg. R.N.
Lobb, F. F., Surg. R.N.
Lowney, J., Fleet-Surg. R.N.
Lumley, F. D., Staff-Surg. R.N.
Lyon, J., M.D., Dep.-Insp.-Gen. R.N.
McCutcheon, Jas., M.B., Surg. R.N.
McKenna, F. J., M.B., Surg., R.N.
McKinlay, A., Dep. Insp.-Gen. R.N.
Macleod, G. E., Surg. R.N.
MacMahon, G. R., M.B., Staff-Surg. R.N.
McMorris, R. J., Fleet-Surg. R.N. (retired), Strabane, Tyrone—Ulster Br.
McNabb, D. J. P., Fleet-Surg. R.N.
Mahon, E. E., C.B., Dep. Insp.-Gen. of Hos. & Fleets R.N.
Mahon, F. F., Surg. R.N.
Mair, G., M.D., Fleet-Surg. R.N. (ret.), Aberdeen—Aberd. Br.
Maitland, P. E., Fleet-Surg. R.N.
Major, H. G. T., Surg. R.N.
Mann, F. R., Surg. R.N.
Mansfield, C. J., M.D., Fleet-Surg. R.N.
Marriott, H. B., Staff-Surg. R.N.
Marshall, W. E., Staff-Surg. R.N.
Martin, John, Surg. R.N.
Martin, W. L., Surg. R.N.
Mathew, W. E., Staff-Surg. R.N.
Matthew, C. G., M.B., Fleet-Surg. R.N.
May, A. W., Dep. Insp.-Gen., R.N.
May, P. M., Staff-Surg. R.N.
Meaden, E. H., Fleet-Surg. R.N.
Meagher, E. T., Staff-Surg. R.N.
Meiklejohn, J. W. S., Dep. Insp.-Gen. of Hospitals & Fleets, R.N. (ret.), 105, Holland Road, W.—Met. Co. Br.
Menary, J., M.D., Fleet-Surg. R.N.
Messer, A. B., M.D., Insp.-Gen. of Hospitals & Fleets R.N. (ret.
Miller, B. S., M.B., Staff-Surg. R.N.
Miller, R., M.B., Fleet-Surg. R.N.
Mills, O., Surg. R.N.
Moore, J., M.D., Fleet-Surg. R.N.
Mortimer, Edgar F., Staff-Surg. R.N.
Morris, L. M., Surg. R.N.
Mourilyan, E. P., M.B., Staff-Surg. R.N.
Mowat, James, M.B., Staff-Surg. R.N.
Murray, Geo. Bell, Dep. Insp.-Gen. of Hospitals and Fleets, R.N. (ret.)
Nance, A. S., Fleet-Surg. R.N.
Nicholson, R. H., Fleet-Surg. R.N.
Nimmo, F. H., Staff-Surg. R.N.
Nix, P. K., M.B., Staff Surg. R.N.
O'Grady, S. T., Dep. Insp.-Gen. R.N.
O'Hea, John, Surg. R.N.
O'Leary, E. G. E., Staff-Surg. R.N.
O'Regan, M. J., M.B., Staff-Surg. R.N.
Osborne, Richd. S., Surg. R.N.
Pead, J. H., M.B., Staff-Surg. R.N.
Penfold, E. A., M.B., Staff-Surg. R.N.
Penny, H. L., Staff-Surg. R.N.
Philip, T. W., M.B., Staff-Surg. R.N.
Phillips, J. E. H., Staff-Surg. R.N.
Pollard, E. R. H., Insp.-Gen. R.N.
Pope, W. H., Surg. R.N.
Porter, J., C.B., M.D., Dep. Insp.-Gen. R.N.
Preston, T. J., Dep. Insp.-Gen. R.N. (ret.)
Pryn, W. W., Fleet-Surg. R.N.
Putsey, W. H., M.D., Fleet-Surg. R.N. (retired)—Met. Br.
Ramsay, P. D., Surg. R.N.
Raymond, J. K., M.B., Surg. R.N.
Reed, J. C. G., Staff-Surg. R.N.
Rees, O., M.D., Staff-Surg. R.N.
Reid, E. S., M.B., Surg. R.N.
Reid, S. T., Staff-Surg. R.N.
Reid, W., M.D., Insp.-Gen. of Hosps. and Fleets R.N. (ret.
Richards, R. M., Surg. R.N.
Rickard, C. R., Surg. R.N.
Roach, S., Staff-Surg. R.N.
Robertson, G., M.D., Fleet-Surg. R.N. (retired), 1, Fernhea Road, Paddington, W.
Rogers, H. I., Surg. R.N.
Ross, G., M.B., Surg. R.N.
Ross, H. C., Surg. R.N.
Ross, R. A., M.B., Staff-Surg. R.N.
Saunders, E. H., Dep. Insp.-Gen. R.N.
Scribner, R. B., Surg. R.N.
Seccombe, T., M.D., Dep. Insp.-Gen. of Hospital and Fleets R.N. (retired)
Sequeira, W. S. H., M.B., Staff-Surg. R.N.
Shaud, Jonathan, M.B., Fleet-Surg. R.N.
Shaw, E. A., M.B., Staff-Surg. R.N.
Shaw, T. B., M.B., Surg. R.N.
Shewell, H. W. B., M.B., Surg. R.N.
Simpson, H. B., Surg. R.N.
Smith, J. L., M.V.O., M.B., Fleet-Surg. R.N.
Smith, M. J., M.D., Staff-Surg. R.N.
Sparrow, H. S. R., Fleet-Surg. R.N.
Spry, W., Fleet-Surg. R.N.
Stalkartt, W. H. S., M.D., Fleet-Surg. R.N.
Stanton, J. W. W., Staff-Surg. R.N.
Star, P. H. M., Staff-Surg. R.N.
Stenhouse, J. H., M.B., Fleet-Surg. R.N.
Stephens, H. E. D., M.B., Fleet-Surg. R.N.
Stewart R. W. G., M.B., Surg. R.N.
Sugrue, J., M.D., Fleet-Surg. R.N.
Sutcliffe, P. T., Surg. R.N.
Sutton, E., Staff-Surg. R.N.
Tait, W., M.B., Fleet-Surg. R.N.
Thomas, Arthur R., Surg. R.N.
Thomas, J. H., Fleet-Surg. R.N.
Thomas, J. Lloyd, Fleet-Surg. R.N.
Thornhill, J., M.B., Surg. R.N.
Thorpe, V. G., Fleet-Surg. R.N.
Todd, Howard, Dep.-Insp.-Gen. R.N.
Townsend, E. B., Fleet-Surg. R.N.
Turnbull, H. P., Staff-Surg. R.N.
Underhill, J. W. O., M.B., Fleet-Surg. R.N.
Vasey, C. L., Fleet-Surg. R.N. (ret.)
Vasey, S. W., Fleet-Surg. R.N.
Vaudin, M. L. M., M.B., Surg. R.N.
Verdon, John, Surg. R.N.
Vickers, Thos. H., Surg. R.N.
Wallis, J. G., M.B., Surg. R.N.
Walsh, G. D., Surg. R.N.
Walsh, H. W. D., Fleet-Surg. R.N.
Walsh, J. J., M.B., Fleet-Surg. R.N.
Waters, G. A., M.D., Fleet-Surg. R.N.
Watt, James George, Surg. R.N.
Weightman, A. E., Fleet-Surg. R.N.
Westcott, W. G., Surg. R.N.
Whelan, J. H., M.D., Fleet-Surg. R.N
Whitelegge, W. A., M.D., Fleet-Surg. R.N.
Whitwam, L. S., M.B., Surg. R.N.
Wilkinson, E. A. G., Surg. R.N.
Williams, J. O'B., M.D., Dep. Insp.-Gen. R.N.
Williams, P. G., Surg. R.N.
Wilson, F. G., M.B., Surg., R.N.
Wilson, G., M.B., Fleet-Surg. R.N.
Wood, J. C., Staff-Surg. R.N.
Woods, C. M., Surg. R.N.
Woods, H. C., C.V.O., C.B., K.H.P., M.D., Insp.-Gen. Hospitals and Fleets R.N.
Woodwright, C. S., Fleet-Surg. R.N.
Woodyatt, H. C., Surg. R.N.
Woollcombe, A., Surg. R.N.

ARMY MEDICAL SERVICE.

In this list, Surgeon-Generals of the Army Medical Staff, as well as retired officers of the late Army Medical Staff, are distinguished by the letters A.M.S. Officers of the Royal Army Medical Corps by the letters R.A.M.C., and retired officers of the late Medical Department by the letters A.M.D.

MEMBERS—776

Adams, G. G., Lt.-Col., R.A.M.C.
Adamson, H. M., M.B., Lieut.-Col., R.A.M.C.
Adcock, Hon. Brig.-Surg. J., M.D., **Surg.-Major (retired)** A.M.D., 1, Queen's Parade, Bath
Adye-Curran, Wm. J. P., Captain, R.A.M.C.
Ainsworth, R. B., Lieutenant, R.A.M.C.
Alexander, J. D., M.B., Major, R.A.M.C.
Allen, S. G., Lt.-Col., R.A.M.C.
Allen, W. H., Lt.-Col., R.A.M.C.
Allport, C. W., M.D., Major R.A.M.C.
Allport, H. K., M.D., Lt.-Col., R.A.M.C.
Ambrose, Hon. Brig.-Surg. J., M.D., **Lt.-Col. (retired)** A.M.S., Southgate Lodge, Devizes
Anderson, A., Lieut.-Colonel, R.A.M.C. (R.P.)
Anderson, E. C., Major, R.A.M.C.
Anderson, H. S., Captain, R.A.M.C.
Anderson, J., M.B., Lieut.-Col., R.A.M.C.
Anderson, J. A., M.B., Lieut., R.A.M.C.
Anderson, J. B., Major, R.A.M.C.
Anderson, R., Lt.-Col., (ret.), A.M.S., **Bury St. Edmunds**
Anderson, R. G., Lieut., R.A.M.C.
Anthonisz, A.H., M.B., Colonel, R.A.M.C.
Archer, G. J. Stoney, M.B., Capt., R.A.M.C.
Archer, S. A., Captain, R.A.M.C.
Archer, T., M.D., Lt.-Col., R.A.M.C.
Argles, R. L., Capt. R.A.M.C.
Armstrong, J., Lieut.-Col., R.A.M.C.
Ashe, Frank, Captain, R.A.M.C.
Austin, H. W., Major, R.A.M.C.
Austin J. H. E., Major, R.A.M.C.
Austin, R. F. E., Major, R.A.M.C.
Aylen, E, V., Captain, R.A.M.C.
Babington, M. H., Captain, R.A.M.C.
Babtie, W., V.C., C.M.G., M.B., Lt.-Col., **R.A.M.C.**
Bagshawe, H. V., Lieutenant, R.A.M.C.
Baird, A., M.B., Lieut.-Col., R.A.M.C. (ret.)
Baker, W. J., Lt.-Col., R.A.M.C.
Baker, W. L., Captain, R.A.M.C.
Balck, J. A., M.B., Lieut., R.A.M.C.
Barbour, J. H., M.B., Captain, R.A.M.C.
Barefoot, G. H., Major, R.A.M.C.
Beadnell, H. O. M., Lieut., R.A.M.C.
Berker, J., M.D., Surg.-Lt.-Col. A.M.S., R.P.
Barnes, H. J., Lt.-Col., R.A.M.C.
Barratt, H. J., Lt.-Col., R.A.M.C.
Barrow, H. J. W., Colonel, R.A.M.C.
Barrow, H. P. W., Captain, R.A.M.C.
Bartlett, B. S., Captain, R.A.M.C.
Bartlett, C. R., Lieut.-Col., R.A.M.C.
Bate, A. L. F., Major, R.A.M.C.
Battersby, H. L., Lt.-Col., R.A.M.C.
Baylor, H. T., Major, R.A.M.C.
Beach, T. B., Major, R.A.M.C.
Beamish, J. M., M.D., Colonel, R.A.M.C., R.P.
Beevor, W. C., M.B., Lt.-Col. R.A.M.C.
Begbie, F. W., Major, R.A.M.C.
Belemore, A. J., Hon. Brig. Surgeon, **Surg.-Lieut.-Col.** A.M.S. (ret.), 339, Ditchling Road, Brighton
Bell, E. H. Lynden, M.B., Lieut.-Col., R.A.M.C.
Bennett, R. D., Lt.-Col., R.A.M.C.
Bennett, W. F., M.D., Surg.-Lt.-Col. (ret.), A.M.S., **Bandon**
Bennett, W. L., M.B., Capt., R.A.M.C.
Berryman, H. A., Major, R.A.M.C.
Berryman, W. E., Lieut.-Col., R.A.M.C.
Best, W. H. G. H., Captain, R.A.M.C.
Bewley, A. W., Major, R.A.M.C.
Biggam, Thomas, M.B., Captain, R.A.M.C.
Birrell, E. T. F., M.B., Captain, R.A.M.C.
Birrell, W. G., M.B., Lt.-Col., R.A.M.C.
Birt, C., Lieut.-Col., R.A.M.C.
Black, J. G., M.D., Major, R.A.M.C.
Blackham, R. J., Captain, R.A.M.C.
Blackwell, C. T., Lt.-Col., R.A.M.C.
Blenkinsop, A. P., Major, R.A.M.C.
Blennerhassett, B. M., C.M.G., Col. **R.A.M.C.**
Bliss, E. W., Captain, R.A.M.C.
Blood, R., M.D., Col., R.A.M.C. (ret.)
Bodington, P. J., Captain, R.A.M.C.
Boileau, J. P. H., M.D., Lt.-Col. retired), **A.M.S.**
Boles, W. S., M.B., Major, R.A.M.C.
Bond, R. P., Major, R.A.M.C.
Booth-Clarkson, J., J.P., Captain, R.A.M.C.
Boult, Hon. Brigade Surgeon. E. F., **Surg.-Lt.-Col. (ret.)**, 12, St. Margaret's Terrace, St. Leonard's-on-Sea
Boulton, Hon. Brig.-Surg. E. J., **Surgeon-Major (ret.)**, A.M.S., 22, Courtfield Gardens. S.W.
Bourke, Ernest A., Capt., R.A.M.C.
Bourke, G. D., Colonel, R.A.M.C.
Bowen, A. W. N., Captain, R.A.M.C.
Boyd, T., Lt.-Col. (retired), A.M.S.
Boyle, Michael, M.B., Major, R.A.M.C.
Bransbury, H. A., Capt., R.A.M.C.
Bray, G. A. T., Major R.A.M.C.
Bray, H. A,, Major, R.A.M.C.
Brogden, J. E., Major, R.A.M.C.
Brooke-Pechell, Sir A. A., Bart., M.B., Lieut.-Col., **R.A.M.C.**
Brown, A. L., Lt.-Col. (retired) A.M.S.
Brown, H. H., M.B., Lieut.-Col., R.A.M.C.
Browne, A. L., M.D., Col., R.A.M.C.
Browne, E. G., Major, R.A.M.C.
Browne, W. W., Captain, R.A.M.C.
Browning, G. D., Major, R.A.M.C.
Browning, Thos., Major, R.A.M.C.
Bruce, David, C.B., F.R.S., Col., R.A.M.C.
Buchanan, G. J., M.B., Major, R.A.M.C.
Buchanan, J. B., M.B., Lieut.-Col., R.A.M.C.
Buchanan, R. J. B., Lieut., R.A.M.C.
Buist, H. J. M., D.S.O., M.B., Major, R.A.M.C.
Buist, John M., M.B., Major, R.A.M.C.
Bullen, J. W., M.D., Major, R.A.M.C.
Burlton, A. H., Lt.-Col., R.A.M.C.
Burnside, E. A., Major, R.A.M.C.
Burton, F. H. M., M.D., Lt.-col., **R.A.M.C.**
Buswell, F. R., Major, R.A.M.C.
Butler, S. G., Captain R.A.M.C.
Caldwell, R., Lieut.-Col., R.A.M.C.
Cameron, K. M., M.D., Major, R.A.M.C.
Campbell, W., M.B., Lt.-Col. (retired), **A.M.S.**
Carleton, P. M., M.D. (R.P.), Major, R.A.M.C.
Carmichael, D. G., M.B., Lieut., R.A.M.C.
Carmichael, J. C. G., M.B., Lieut., R.A.M.C.
Carr, H., M.D., Lt.-Col., R.A.M.C.
Carroll, F. F., Capt., R.A.M.C.
Carter, G. B., M.B., Capt., R.A.M.C.
Carter, J. E., M.B., Major, R.A.M.C.
Cashman R. U., M.D., **Surgeon (retired), A.M.D., Crescent** Road, Bournemouth.
Challis, Oswald, Captain, R.A.M.C.
Chambers, Alex. J., Major, R.A.M.C.
Chester, W. L., M.B., Col., R.A.M.C.
Churchill, Brooke, Lieut., R.A.M.C.
Churton, J. G., Captain, R.A.M.C.
Clark, E. S., M.B., Major, R.A.M.C.
Clarke, J. B., M.B., Captain, R.A.M.C.
Clark, S. F., M.B., Major, R.A.M.C.
Clarke, Hon. Brig.-Surg. A. F. S., M.D., **Lt.-Col. (ret.) A.M.S.**, 64, Pembridge Villas, W.
Clarke, T. H. M., M.B., C.M.G., **D.S.O., Captain, R.A.M.C.**
Clarkson, T. H. F., Major, R.A.M.C.
Clements, R. W. M.B., Captain R.A.M.C.
Clerke, J. Captain, R.A.M.C.
Coates, G. J., M.D., Lt.-Col., R.A.M.C.
Cochrane, E. W. W., M.B., Captain **R.A.M.C.**
Cocks, H., M.B., Lieut.-Col., R.A.M.C.
Codrington, Hon. Dep.-Sur.-Gen. O., M.D. Brig.-Surg. (ret.) A.M.S., 12, Victoria Road, Clapham, S.W.
Colahan, J. J. A., M.D., Surg.-Maj.-Gen. **(retired), A.M.S.**
Collingwood, Percy H., Capt., R.A.M.C.
Collins, R. T., Lieutenant, R.A.M.C.
Condon, E. H., M.B., Major, R.A.M.C.
Connolly, Edward P., Captain, R.A.M.C.
Connor, J. C., M.B., Major, R.A.M.C.
Copeland, R. J., Major, R.A.M.C.
Corker, T. M., M.D., Colonel, R.A.M.C.
Corkery, T. H., Lieut.-Col., R.A.M.C.
Cottell, A. B., Lt.-Col., R.A.M.C.
Cottell, R. J. C., Major, R.A.M.C.
Cotton, H., Captain (ret.), A.M.S., **Tower Lodge, Ipswich**
Coutts, G., M.B., Lt.-Col., R.A.M.C.
Cowan, James, M.B., Capt., R.A.M.C.
Cowen, W. D. A., Lt.-Col., R.A.M.C.
Craig, B. A., Capt., R.A.M.C.
Craig, R. M., Lt.-Col. (ret.), A.M.S.
Crawford, G. S., Major, R.A.M.C.
Crawford, J. M. M., Lieut., R.A.M.C.
Crawford, V. J., Capt. R.A.M.C.
Creagh, S. H., Major, R.A.M.C.
Cree, G., Lt.-Col., R.A.M.C.
Cree, H. E., Lt.-Col., R.A.M.C.
Creyk, W., M.B., Surg.-Lt.-Col. (ret.), **A.M.S., Naval & Military** Club, Piccadilly, W.
Croly, A. E. J., Colonel, R.A.M.C.
Crooke-Lawless, W. R., M.D, **Major, R.A.M.C., Surg.-Lt.-**Col., Coldstream Guards
Crossley, H. J., Lieut., R.A.M.C.
Crosthwait, W. S., Captain, R.A.M.C.
Crowe, Hon. Brig.-Surg. J. D., **Surg.-Lieut.-Col. (retired)**, A.M.S. Weymouth—D. & W. H. Br.
Cuffe, Sir C. McD., K.C.B., F.R.C.S.Edin., **Surg.-Gen., A.M.S.**
Culling, J. C., Lt.-Col., R.A.M.C.
Cumming, C. C., Captain, R.A.M.C.
Cummins, H. A., C.M.G., M.D., Major, **R.A.M.C.**
Cummins, S. L., M.B., Capt., R.A.M.C.
Cunningham, R. A., M.B., Captain, **R.A.M.C.**
Curtis, J. H., Major, R.A.M.C.
Curme, D. E., Capt. R.A.M.C.
Cusack, R. O., Lieut.-Col., R.A.M.C. (ret.
Cuthbert, J. M., M.B., Captain, R.A.M.C.
Dalton, C., Major, R.A.M.C.
Daly, F. A. B., C.B., M.B., Lt.-Col., **R.A.M.C.**
Davidson, J. S., M.B., Major, R.A.M.C.
Davies, A. M., Lt.-Col., R.A.M.C.
Davis, E., Lt.-Col., R.A.M.C.
Davis, Hon. Brig.-Surg. J. N., M.D., **Surg.-Major (retired)** A.M.S., Foxrock, co Dublin
Davoren, Vesey H. W., Major, R.A.M.C.
Deeble, W. B. C., Surg.-Lieut.-Colonel 1st Life Guards
Delap, G. G., D.S.O., Captain, R.A.M.C
Dick, W., M.B., Lt.-Col., R.A.M.C.
Dobson, G. M., Major, R.A.M.C. (R.P.)
Dodd, A., Lt.-Col., R.A.M.C.
Dodd, J. R., M.B., Lt.-Col., R.A.M.C.
Doig, Hon. Brig.-Surg. A., Surg.-Lieut.-Col. (ret.) **A.M.S.**, Wych Hill, Woking
Doig, K. A. C., Lieut., R.A.M.C.
Don, Hon. Dep. Surg.-Gen. W. G., M.D., **Lt.-Col. (ret.), A.M.S.**
Donaldson, J., Major, R.A.M.C.
Donaldson, R. D., M.D., Lt.-Col., .A.M.C.
Donnet, J. J. C., Lt.-Col., R.A.M.C.
Donovan, H. L., M.D., Lieut.-Colonel, **R.P., A.M.S.**
Donovan, W., C.B., Surg.-Gen. R.A.M.C.
Dorman, J. C., C.M.G., M.B., Col. R.A.M.C.
Douglass, J. H., M.D., Lieut. R.A.M.C.
Douglass, Percy Clarence, Captain, R.A.M.C.
Dowman, W. S., Major, R.A.M.C.
Duguid, J. H., M.B., Lieut., R.A.M.C.
Duncan, S. E., Lieut.-Col., R.A.M.C.
Dundon, M., M.D., Lt.-Col., R.A.M.C.
Eckersley, E., M.B., Major, R.A.M.C.
Edge, J. D., C.B., M.D., Surg.-Gen., **R.A.M.C.**
Elkington, H. P. G., Lieut.-Col., R.A.M.C.
Ellery, R. F., Captain, R.A.M.C.
Elliott, C. R., M.D., Major, R.A.M.C
Ellis, P. M., Col., R.A.M.C.
Ellis, W. F., Lieut., R.A.M.C.
Elsner, O. W. A., Capt. R.A.M.C.
Emerson, I. B., Lt.-Col., R.A.M.C.
Erskine, W. D., Major, R.A.M.C.
Esmonde-White, H. L., Lt.-Col., R.A.M.C.
Evans, C. R., Captain, R.A.M.C.
Evans, Percy, M.B., Major, R.A.M.C.
Evatt, G. J. H., M.D., C.B., Surg.-Gen. **R.A.M.C.**
Faichnie, N., M.B., Major, R.A.M.C.
Fairbairn, John, M.B., Lieut. R.A.M.C.
Fairrie, S. H., Capt., R.A.M.C.
Falkner, M. W., Capt., R.A.M.C.
Falkner, Percy H., Captain, R.A.M.C.
Fallon, J., Major, R.A.M.C.
Falvey, J. J., Lieut.-Colonel, R.A.M.C. (R.P.)
Fannin, J. E., Lieut.-Colonel. (ret.), A.M.S., **Eastbourne**
Faunce, C. E., Lieut.-Colonel, R.A.M.C.
Fawcett, W. J., C.B., M.B., Surg.-Gen., A.M.S.
Fawcus, H. B., M.B., Capt. R.A.M.C.
Fayle, Lt.-Col. R. J. L., D.S.O., R.A.M.C.
Fayrer, J., M.D., Major, R.A.M.C.
Fenn, E. H., C.I.E, Col., R.A.M.C.
Fielding, T. E., M.B., Capt., R.A.M.C.
Finlay, W., Lt.-Col. (ret.), A.M.S., **St. Peters, Jersey**
Firth, R. H., Lieut.-Col., R.A.M.C.
Fishbourne, J. E., M.D., Lt.-Col., **A.M.S.**
Fitzgerald, A. C., Major. R.A.M.C.
FitzGerald, F. G., Capt., R.A.M.C.
Fleming, J., M.D., Lt.-Col. (ret.), **A.M.S., Inch, near Londonderry**
Fletcher, H. J., M.B., Lt.-Col., R.A.M.C.
Fleury, C. M., Major, R.A.M.C.
Footner, Hon. Brig.-Surg. E., M.D., **Surg.-Major, (retired)**, A.M.D., 8 Hanover Terrace W.
Forde, B., M.B., Major, R.A.M.C.
Forman, R. H., M.B., Colonel, R.A.M.C.
Forrest, J. V., M.B., Capt., R.A.M.C.
Forsayeth, Hon. Brig.-Surg. R. W., Surg.-Lt.-Col. (retired),
Foster, J. G., M.D., Capt., R.A.M.C.
Fowler, C. E. P., Major, R.A.M.C.
Foulds, M. F., M.D., Captain, R.A.M.C.
Fox, A. C., Major, R.A.M.C.
Fox, P. H., Major, R.A.M.C. (ret.)
Fox, T. W., M.B., Surg.-Gen. (ret.), A.M.S., **Rochester**
Freeman, E. C., Major, R.A.M.C.
French, H. C., Major, R.A.M.C.
Freyer, S. F., C.M.G., M.D., Lieut.-Col., **R.A.M.C.**
Gallie, J. S., Captain, R.A.M.C.
Gasteen, W. C., M.B., Lt.-Col. (ret.), **A.M.S., Waterloo, L'pool**
Gatt, J. E. H., M.D., Lieut. R.A.M.C.
Geddes, R. J., D.S.O. Lt.-Col., R.A.M.C.
Gerrard, J. J., M.B., Major, R.A.M.C.
Gibbon, T. H., M.D., Lieutenant, R.A.M.C.
Gibson, G. J., M.D., Lt.-Col. (ret,, A.M.S., **Totnes.—S.W. B**
Girvin, J., Major, R.A.M.C.
Goddard, G. H., Captain, R.A.M.C.
Goggin, G. T., Lt.-Col., R.A.M.C.
Goldsmith, G. M., M.B., Captain, R.A.M.C.
Goodwin, T. H., Major, R.A.M.C.
Goodwin, W. R. P., Captain, R.A.M.C.
Gordon, P. C. H., Lt.-Col., R.A.M.C.
Graham, W. A. S. J., Major, R.A.M.C.
Grant, M. F., Lieut. R.A.M.C.
Grattan, H. W., Capt., R.A.M.C.
Graves, W., Surg.-Col., A.M.S., (retired)
Gray, W. L., M.B., Major, R.A.M.C.
Grech, John, Captain, R.A.M.C.
Green, J. S., M.B., Lt.-Col., R.A.M.C.
Green, S. F. St. D., Major, R.A.M.C.
Greenwood, Arthur R., Captain, **R.A.M.C.**
Greig, F. J., Lt.-Col., R.A.M.C.
Grier, H., Lieut.-Col. R.A.M.C.
Grieve, R., Surg.-Gen., M.D., C.M.G.
Griffiths, A. P. H., Major, R.A.M.C. (R.P.)
Gubbin, G. F., Lt.-Col., R.A.M.C.
Gunter F. E., M.B., Captain, R.A.M.C.
Hackett, R. I. D., M.D., Lt.-Col., R.A.M.C
Haines, H. A., M.D., Lieut.-Col., R.A.M.C.
Hale, C. H., D.S.O., Major, R.A.M.C.
Hale, G. E., D.S.O., Lieut.-Col., R.A.M.C.
Hale, T. E., C.B., V.C., M.D., Surg.-Major (retired), **A.M.D.**
Hall, F. W. G., M.B., Lieut.-Col. **R.A.M.C.**
Hall, J. Lees, Lt.-Col., R.A.M.C.
Hall, R. H., M.D., Lt.-Col., R.A.M.C.
Hall, R. J. D., Major, R.A.M.C.
Hallaran, W., Major, R.A.M.C.
Hamerton, A. E., Captain, R.A.M.C.
Hanbury, Sir J. Arthur, K.C.B., **Surg.-Maj.-Gen.**
Hanley, R. G., M.B., Lt.-Col., R.A.M.C.
Harding, D. L., Captain, R.A.M.C.
Harding, N. E. J., M.B., Lieut., R.A.M.C.
Hardy, Frederick H., Captain, R.A.M.C.
Hardy, W. E., Major, R.A.M.C.
Harman, Hon. Brig.-Surg W. M., **Surg.-Lt.-Col. (ret.), A.M.S.**
Harran, J., Major, R.A.M.C. (retired)
Harris, F. W. H. Davie, Lt.-Col., R.A.M.C.
Harrison, L. W., Captain, R.A.M.C.
Hartley, E. B., V.C., C.M.G., Col. A.M.S.
Harvey, Hon. Dep.-Surg.-Gen. C. H., **Brig.-Surg. (ret.), A.M.S.**
Harvey, D., M.B., Captain, R.A.M.C.
Harvey, F., Capt., R.A.M.C.
Harvey, G. A. D., Lieut. R.A.M.C.
Harvey, N. d'E., M.B., Lieut., R.A.M.C.
Harwood, J. G., Lt.-Col., R.A.M.C.
Haslett, J. C., M.D., Lt.-Col., **R.A.M.C.**
Hassard, E. M., Major, R.A.M.C.
Hathaway, H. G., Lt.-Col., R.A.M.C.
Hayes, A. H., Lieut., R.A.M.C.
Hayes, E. C., Capt., R.A.M.C.
Hayman, S. J. W., Major, R.A.M.C.
Haywood, L., M.B., Lieut.-Colonel, **R.A.M.C.**
Healy, C. J., M.B., Major, R.A.M.C.
Healey, C. W. R., Major, R.A.M.C.
Hearn, M. L., Lt.-Col, R.A.M.C.
Heffernan, W. F., Lt.-Col., R.A.M.C.
Henderson, P. H., M.B., Captain, R.A.M.C.
Henderson, R. S. F., M.B., Lt.-Col., **R.A.M.C.**
Hennessy, D., M.D., Major, R.A.M.C.
Hennessy, J., M.B., Major, R.A.M.C.
Hensman, F. H., C.M.G., Col. (retired), **A.M.S.**
Herrick, Henry, Captain, R.A.M.C.
Hetherington, R. P., M.B., Lt.-Col., **R.A.M.C.**
Heuston, F. S., C.M.G, Lt.-Col., R.A.M.C.
Hewett, A., F.R.C.S.E., Lt.-Col. **R.A.M.C.**
Hewitt, E. P., Captain, R.A.M.C.
Hewetson, H., Capt., R.A.M.C.
Hildreth, H. C., Lieut., R.A.M.C.
Hime, H. C. R., M.B., Captain, R.A.M.C.
Hinds, Hon. W. R. G., M.D., **Lieut.-Col. (retired), A.M.S.** Naas, co. Kildare
Hoar, J. E., Lieut., R.A.M.C.
Hodder, F. W. L., M.B., J.P., R.P., **Col., A.M.S. (retired)**, Bellair, Natal
Holden, C. W., Lieut., R.A.M.C.
Holmes, C. J., M.D., Major, R.A.M.C.
Hopkins, C. H., Capt., R.A.M.C.
Hore, H. St. G. S., Major, R.A.M.C.
Hosie, A., M.D., Major, R.A.M.C.
Houghton, J. W. H., M.B., Captain, **R.A.M.C.**
Howell, H. A. L., Captain, R.A.M.C.
Hoysted, John, Lieut.-Col. (retired), A.M.S.
Hull, A. J., Captain, R.A.M.C.
Humphry, Lawrence, Captain, R.A.M.C.
Hunt, J. P., M.D., Lt.-Col. (retired), A.M.S.
Hunter, G. D., D.S.O., Lt.-Col., R.A.M.C.
Hyde, P. G., M.B., Captain, R.A.M.C.
Ievers, O., M.B., Lieut. R.A.M.C.
Inman, A. W. P., M.B., Col., R.A.M.C.
Inniss, B. J., Major, R.A.M.C.
Irvine, F. S., M.B., Captain, R.A.M.C.
Irwin, J. M., M.B., Lt.-Col., R.A.M.C.

Jackson, R. W. H., M.B.,
James, H. D., M.D., Major, R.A.M.C.
James, W. M., Lt.-Col. (retired), A.M.S.
Jameson, A. D., Captain, R.A.M.C.
Jameson, J. C. M.B., Major. R.A.M.C.
Jeffcoat, Dep.-Surg.-Gen. J. H., (ret.), A.M.S., Surbiton. *Div.* Richmond—*Br.* Metropolitan Counties
Jencken, F. J., M.B., Lt.-Col., R.A.M.C.
Jenings, Brig.-Surg. U. A., Lt.-Col. (retired), A.M.S., Cork. —Munster Branch.
Jennings, J. W., D.S.O., Major, R.A.M.C.
Jennings, R., M.D., Lt.-Col., R.A.M.C.
Johnson, C. W., M.B., Lt.-Col., R.A.M.C.
Johnson, John T., M.B., Captain, R.A.M.C.
Johnston, H. H., C.B., M.D., Lieut.-Col. R.A.M.C.
Johnston, P. H., M.D., Lt.-Col., R.A.M.C.
Johnston, R. C., M.B., Capt. (ret.) A.M.S.,
Johnston, W., C.B., M.D., Col., (ret.), A.M.S., Newton Dee Murtle, Aberdeenshire
Johnston, W. T., M.D., Lieut.-Col., R A.M.C.
Jones, F. W. C., M.B., Lt.-Col., R.A.M.C.
Jones, J. L, Lieut., R.A.M.C.
Jones, J. M., Lt.-Col., R.A.M.C.
Jones, T. P., M.B., Major, R.A.M.C.
Josling, C. L., Lt.-Col., R.A.M.C.
Julian, O. R. A., C M.G., Major, R.A.M.C.
Kay, A. G., M.B., Lt.-Col., R.A.M.C.
Kearney, J., M.D., Lieut.-Col., R.A.M.C.
Keays, W., Lieut.-Col., R.A.M.C. (ret.)
Keble, A. E. C., Major, R.A.M.C.
Kelly, J. B., Brig.-Surg.-Lt.-Col. (ret.), A.M.S., Dublin
Kelly, J. F. M., M.B., Major, R.A.M.C.
Kelly, R. E., M.D., Major, R.A.M.C (R.P.)
Kelly, Wm. D. C., M.B, Lieut, R.A.M.C.
Kennedy, A., Lieut.-Col., R.A.M.C.
Kennedy, J. C., M.B., Captain, R.A.M.C.
Kenny, W. W., M.B., Col., R.A.M.C.
Keogh, A., M.D., C.B., Surg.-Genl., R.A.M.C.
Kerin, M. W., Lt.-Col., R.A.M.C.
Kiddle, F., M.B., Captain, R.A.M.C.
Kilkelly, C. R., C.M.G., M.B., Surg.-Lt. Col., R.A.M.C., Grenadier Guards
Kirkpatrick, H. C., M.D., Lt.-Col., R.A.M.C
Kirkpatrick, R., C.M.G., M.B., Lt.Col., R.A.M.C.
Knaggs, H. T., Major, R.A.M.C.
Knox, M., Col. (retired), A.M.S
Lambelle, F. W., Captain, R A.M.C.
Lambert, F. C., Lieut., R.A.M.C.
Lambkin, F. J., Lt.-Col., R.A.M.C.
Lane, C. A., Lt.-Col., R.A.M.C.
Lane, G., Lieutenant R.A.M.C.
Lane, W. L, M.B., Lieut.-Colonel R.A.M.C.
Langridge, G. T., Lt.-Col. (ret.), R.A.M.C.
Langstaff, J. W., Captain, R.A.M.C.
Latchford, J., M.B., Lt.-Col. (ret.), A.M.S.
Lauder, Francis P., Capt. R.A.M.C.
Lauder, T. C., M.B., Capt. R.A.M.C.
Lavie, T. G., Lieut.-Col., R.A.M.C.
Lawson, C. B., M.B., Major, R.A.M.C.
Leake, G. D. N., Col., R.A.M.C.
Leake, J. W., Capt., R.A.M.C.
Leishman, W. B., M.B., Brevet-Lieut.-Col., R.A.M.C.
LeMottée, G. H., M.D., Lt.-Col., R.A.M.C., R.P.
Lenehan, T. J., M.B., Major, R.A.M.C.
Le Quesne, F. S., V.C., Major, R.A.M.C.
Lever, R. C., M.B., Maj. (ret.), A.M.D.
Lewis, R. C., Major, R.A.M.C.
Lewis, S. E., Lieut., R.A.M.C.
Lewis, W. H. P., M.B., Major, R.A.M.C.
Lilly, A. T. I., Lieut.-Col. R.A.M.C.
Lloyd, O. E. P., V.C., Colonel, R.A.M.C.
Lloyd, R. Harte, Capt., R.A.M.C.
Long, Henry W., M.B., Capt., R.A.M.C.
Long, Hon.-Brig.-Surg. A., Surg.-Lt.-Col. (ret.), A.M.S.
Long, J. W. F., Major, R.A.M.C.
Longhurst, B. W., Major, R.A.M.C.
Lougheed, S. F., C.M.G., M.D., Lt.-Col., R.A.M.C.
Love, R. L., M.D., Lieut.-Col., R.A.M.C
Lowsley, M. M., Capt., R.A.M.C.
Lucas, T. J. R., M.B., C.B., Lt.-Col., R.A.M.C.
Luther, A. J., Major, R.A.M.C.
Lynch, J. P., Lieut., R.A.M.C.
MacCarthy, Ibar A. O., Major, R.A.M.C.
McCarthy, J. McD., Capt., R.A.M.C.
Macartney, J., M.D., Lt.-Col., A.M.S. (ret.)
McCreery, B. T., M.B., Lt. Col., R.A.M.C.
McCulloch, T. C., M.B., Major, R.A.M.C.
McDermott, T., M.B., Major, R.A.M.C.
Macdonald, C. J., M.D., Major, R.A.M.C.
Macdonald, S., M.D., Major, R.A.M.C.
McDonnell, E., M.B., Captain, R.A.M.C.
MacDougall, A. J., M.B., Captain, R.A.M.C.
McDowell, F., Major, R.A.M.C.
McFarland, Hon. Brig.-Surg. F. E., Surg.-Major, (retired) A.M.D., Belfast—Ulster Br.
McGill, H. S., Lt.-Col, R.A.M.C.
McGrigor, H. J., M.B., Captain, R.A.M.C.
Mackenzie, J., M.D., Brig.-Surg. (ret.), A.M.S., Dover
MacKessack, Peter, M.B., Capt., R.A.M.C.
Mackie, D., M.D., Brig.-Surg. (retired) A.M.D.
Mackinnon, Hon. Brig.-Surg. C., Surg.-Major (ret.), A.M.D.
MacLaughlin, A. M., Captain, R.A.M.C.
McLaughlin, H. J., M.B., Lieut.-Colonel, R.A.M.C.
McLaughlin, J., M.D., Lt. Col., R.A.M.C.
Maclean, F. B., Lieut.-Col., R.A.M.C.
McLennan, F., M.B., Captain, R.A.M.C.
McMunn, J. R, Major, R.A.M.C.
McNalty, G. W., M.D., C.B., Lt.-Col. (ret.), A.M.S.
McNamara, J., M.D., Col. R.A.M.C.
McNamara, W. H., C.B., C.M.G., M.D., Surg.-Gen., R.A.M.C.
Macnamara, W. J., M.D., Lieut.-Col., R.A.M.C.
McNaught, J. G., M.D., Major R.A.M.C.
MacNeece, J. G., Colonel, R.A.M.C.
MacNeece, T. F., Lieut.-Col., R.A.M.C.
MacNicol, R. H., M.B., Lieut. R.A.M.C.
Maconachie, J., Lt.-Col., R.A M.C.
Macpherson, J. D. G., M.B., Captain, R A.M.C.
Macpherson, W. G., C.M.G., M.B., Lt.-Col., R.A.M.C.
MacQuaid, P. J., M.D., Col. (ret.), A.M.S.
Macrobin, A. A., M.B., Col. (ret.), A.M.S.
McSheehy, E. L., M.D., J.P., Surg.-Maj. (ret.), A.M.D., The Drive, Wimbledon, S.W.
McWatters, W., Colonel, R.A.M.C. (R.P.)
Magrath, C. W. S., M.D., Lt.-Col., R.A.M.C
Maher, J., Lt.-Col., R.A.M.C.
Mainprise, C. W., Captain, R.A.M.C.
Major, N. B., Colonel, R.A.M.C.
Mallins, J. R., M.B., Lt.-Col. R.A.M.C.
Mangin, F. M., Major, R.A.M.C.
Marks, G. F. H., M.D., Major, R.A.M.C.
Marriott, W. E. P. V., Captain, R.A.M.C.
Martin, C. B., M.B., Major, R.A.M.C.
Martin, J. F., M.B., Captain, R.A.M.C.
Martin, W. T., M.D., Surg.-Col. (ret.), A.M.S.
Mathias, H. B., D.S.O., Major, R.A.M.C.
Matthews, John, Capt., R.A.M.C.
Maturin, B. A., Major, R.A.M.C.
Mawhinny, R. J. W., Major, R.A.M.C.
May, W. A., C B, Col., R.A.M.C.
Meadows, R. W., M.D., Srg.-Mj.-Gen. (ret.) A.M.S. Saltash
Meek, J., M.D., Lt.-Col., R.A.M.C.
Meldon, J. B., Lieut., R.A.M.C.
Melville, C. H., M.B., Lieut.-Col., R.A.M.C.
Mills, B. L., M.D., Lieut.-Col., R.A.M.C.
Milward, E. O., Lieutenant-Colonel, R.A.M.C
Mitchell, A. H. MacNeill Capt. R.A.M.C.
Mitchell, L. A., M.B., Major, R.A.M.C.
Moberly, H. J. R., Lt.-Col., R.A.M.C.
Moffet, G. E., M.B., Lieut.-Col. R.A.M.C.
Moffitt, T. B., Lieut.-Col., R.A.M.C.
Moir, J. Drew, M.B., Major, R.A.M.C.
Moore, G. A., M.D., Major, R.A.M.C.
Moore, R. R. H., M.D., Lt.-Col, R.A.M.C.
Moore-Keys, C. W., M.D., Lt.-Col., R.A.M.C.
Moorhead, Hon. G. A., Brig.-Surg. (retired) A.M.D., Lochee, Dundee
More, L. P., M.B., Major, R.A.M.C.
Morgan, A. H., D.S.O., Major (ret.), A.M.S.
Morgan, Claude K., M.B., Major, R.A.M.C.
Morgan, F. J., Major, R.A.M.C.
Morgan, J. C., Major, R.A.M.C.
Morgan, Hon. Brig.-Surg. J. W., Lt.-Col. (ret.), A.M.S., 25, Lower Belgrave Street, S.W.
Moriarty, Hon. Brig.-Surg., T.B., M.D., Surg.-Major (ret.)
Morphew, E. M., Major, R.A.M.C.
Morris, A. H., Captain, R.A.M.C.
Morris, J. I. W., Capt., R.A.M.C.
Morse, R. E. R., Lt.-Col., R.A.M.C.
Morton, H. M., M.B., Captain, R.A.M.C.
Mosse, Hon, Dep.-Surg.-Gen. C.B., C.B., C.M.G., Surg.-Maj. (retired) A.M.D.
Mosse, C. G. D., Lt.-Col., R.A.M.C.
Mould, W. T., Major, R.A.M.C.
Muir, H. Skey, C.B., M.D., Surg.-Gen., A.M.S. (ret.)
Murray, H. W., M.B., Lieut.-Col., R.A.M.C.
Murray, J. R., M.D., Brig.-Surg.-Lt.-Col. (ret.), A.M.S., 26, The Avenue, Gipsy Hill, S.E.
Myers, A. B. R., Brig.-Surg.-Lt.-Col. (retired), A.M.S., 43, Gloucester Street, S.W.—Met. Co. Br.
Myles, Chas. D., M.B., Captain, R.A.M.C.
Myles, E. H., Major, R.A.M.C. (ret.)
Nash, L. T. M., Lieut.-Colonel, R.A.M.C.
Newland, F. R., M.B., Major, R.A.M.C.
Nichols, F. P., M.B., Lt.-Col., R.A.M.C.
Nicholson, Hon. Brig.-Surg. E., Surg.-Lt.-Col. (ret), A.M.S.
Nicolls, J. M., M.B., Lieut.-Colonel, R.A.M.C.
Noding, T. E., Lt.-Col., R.A.M.C.
Norrington, H. L. W., Capt., R.A.M.C.
Nunnerley, P. J., Captain, R.A.M.C.
O'Connell, D. V., M.D., Lieut-Col., R.A.M.C.
O'Connell, Mathew, D., M.D., Col., R.A.M.C.
O'Connell. M. D., Lieut.-Col., R.A.M.C. (ret.)
O'Connor, A. P., C.B., Lieut.-Col., R.A.M.C.
O'Dwyer, T. F., M.D., Surg.-Gen. A.M.S.
O'Farrell, T., M.D., Surg.-General, A.M.S. (ret.)
O'Flaherty, A. R., Capt., R.A.M.C.
O'Gorman, C. J., D.S.O., Captain, R.A.M.C.
O'Grady, S. de C., Capt., R.A.M.C.
O'Halloran, M., M.D., Lieut.-Colonel, R.A.M.C.
O'Keeffe, M. W., Lt.-Col., R.A.M.C.
Ommanney, F. M. M. Lieut., R.A.M.C.
O'Nial, J., C. B., Surg.-Gen., (ret.), A.M.S., Killaloe
O'Reilly, H. W. H., M.B., Major, R.A.M.C.
Ormsby, G. J. A., M.D., Captain, R A.M.C.
Osburne, J., Lt.-Col., R.A.M.C.
O'Sullivan, D., M.D., Lieut.-Col., R.A.M.C.
Owen, Hon. Brig.-Surg. O., Surg.-Major (retired), A M.S.
Packer, H. D., Captain, R.A.M.C.
Palmer, F. J., Captain, R.A.M.C.
Parker, L. E. L, Capt., R.A.M.C.
Parkes, E. E., M.B., Capt., R.A.M.C.
Patch, B. G., Lieut., R.A.M.C.
Paterson, H. F., M.D., Surg.-Maj.-Genl. (ret.) A.M.S.
Paxton, J., M.D., Lieut.-Col. (ret.), A M.S.
Pearse, Albert, Major, R.A.M.C.
Peeke, H. S., Major, R.A.M.C.
Penny, F. S., M.B., Captain, R.A.M.C.
Penton, R. H., D.S.O., Major R.A.M.C.
Perry, A., Surg.-Maj. (retired) A.M.S.
Perry, S. J. C. P., F.R.C.S.I., Captain R.A.M.C.
Peterkin, A., M.B., Lieut.-Col., R.A.M.C.
Phillips, R. E. G., Capt., R.A.M.C.
Philson, S. C., Lieut.-Colonel, R.A.M.C.
Phipps, E. V. A., Lt.-Col., R.A.M C. (ret.)
Phipps, G. C., Capt., R.A.M.C. (ret.)
Pike, W. W., D.S.O., F.R.C.S.I., Lt.-Col., R.A.M.C.
Pinches, H. G., Captain, R.A.M.C.
Pinches, W. H., Lieut.-Colonel, R.A.M.C.
Pocock, H. I., Major, R.A.M.C.
Poe, J., M.B., Captain, R.A.M.C.
Pollock, C. E., Major, R.A.M.C.
Pollock, C. F., M.B., Colonel (ret.), R.A.M.C.
Poole, W. C., M.D., Major, R.A.M.C.
Poole, W. C. T., Lt.-Col., R.A.M.C.
Pope, W. W., Lt.-Col., R.A.M.C.
Porter, F. J. W., D.S.O., Major, R.A.M.C.
Porter, R., M.B., Lt.-Col., R.A.M.C
Potter, T. J., Captain, R.A.M.C.
Powell, E. E., Major, R.A.M.C.
Powell, Eyre, Capt., R.A.M.C.
Powell, S., M.B., Lieut.-Colonel, R.A.M.C.
Power, J. H., Surg.-Maj., Royal Horse Guards
Power, W. M., Captain, R.A.M.C.
Prescott, A. S. K., Colonel (ret), A.M.S., J.P., Gravesend
Prescott, John, Captain, R.A.M.C.
Price, W. S. M., Surg.-Gen., R.A.M.C.
Probyn, P. J., D.S.O., Captain, R.A.M.C.
Profeit, C. W., Captain, R.A.M.C.
Prynne, H. V., Major, R.A.M.C.
Quill, R. H., M.B., Surg.-Gen., A.M.S.
Raby, J., Major (ret.), Taunton
Rainsford, W. J. R., C.I.E., Col., R.A.M.C.
Ranking, R. M., M.B., Lieut., R.A.M.C.
Rattray, M. McG., M.B., Captain, R.A.M.C
Raymond G., M.B., Major, R.A.M.C.
Read, Harold Wm. K., Major, R.A.M.C.
Reade, W. L., Lt.-Col., R.A.M.C.
Reckitt, J. D. T., Lieut.-Col., R.A.M.C.
Reid, James M., M.D., Lieut.-Col., R.A.M.C.
Reilly, C. C., Lt.-Col. R.A.M.C.
Reilly, C. W., Major, R.A.M.C.
Renton, D., M.D., Brig.-Surg.-Lt.-Col. (ret.), A.M.S.
Reynolds, J. H., LL.D., M.B., V.C. Lt.-Col. (ret A.M.S.
Rhodes, J. H. A., Lt.-Col., R.A.M.C.
Riach, W., M.D., Captain, R.A.M.C.
Richmond, J. D., Lieut., R.A.M.C.
Riordan, J., M.B., Lt.-Col., R.A.M.C.
Risk, E. J. E., Lt.-Col., R.A.M.C.
Ritchie, John, M.B., Major, R.A.M.C.
Rivers, J. H., Major, R.A.M.C.
Robinson, G. W., Colonel, R.A.M.C.
Robinson, J. H., Capt., R.A.M.C.
Robinson, O. L. Major, R.A.M.C.
Robinson, R. H., Lt.-Col., (ret.), R.A.M.C.
Roch, H. S., Capt. R.A.M.C.
Roe, S. B., C.B., M.B., Dep.-Surg. Gen. (retired), A.M.S. Ballyconnell
Rogers, Hy., Captain, R.A.M.C.
Rogers, Sir J. G., M.B., K.C.M.G., D.S.O., Lieut.-Col. (ret) A.M.S., Director Genl. Sanitary Dept., Cairo, Egypt
Rooney, J. P., Colonel, R.A.M.C. (R.P.)
Rose, A. S., M.D., Lt.-Col., R.A.M.C.
Routh, J. I., Colonel, R.A.M.C.
Rowan, H. D., M.B., Lieut.-Colonel, R.A.M.C.
Rowney, W., M.D., Lt.-Col., R.A.M.C.
Russell, A. F., C.M.G., M.B., Lt.-Col., R.A.M.C.
Russell, J. J., M.B., Major, R.A.M.C.
Russell, M. W. H., Lieut.-Col., R.A.M.C.
Salmon, L. E. A., Major, R.A.M.C.
Salvage, J. V., M.D., Major, R.A.M.C.
Saunders, D. M. M.D., Major, R.A.M.C.
Saw F. A., M.B., Major, R.A.M.C.
Sawyer, R. H. S., M.B., Lt.-Col., R.A.M.C.
Scanlan, A. de C., Lt.-Col. R.A.M.C.
Scanlan, J., M.B., Lt.-Col. (ret.), A.M.S. Kerswill, Broadclyst—S. W. Br.
Scott, B. H., Major, R.A.M.C.
Scott, George, M.B., Major, R.A.M.C.
Scott, Harvie, M.B., Lieut.-Col. (ret.) A.M.S.
Selby, R., M.B., Capt., R.A.M.C.
Semple, D., M.D., Lieut.-Col., R.A.M.C.
Sewell, E. P., M.B., Capt., R.A.M.C.
Sexton, M. J., M.D., Lieut.-Colonel, R.A.M.C.
Seymour, C., M.B., Colonel, R.A.M.C.
Shaw, Hon. Brig.-Surg. J. A., M.D., Lieut.-Col, R.A.M.C. (R.P.), Dublin
Shea, H. F., Captain, R.A.M.C.
Sheehan, G. F., Capt., R.A.M.C.
Shine, J. M. F., M.D., Lieut.-Colonel, R.A.M.C.
Silver, J. P., M.B., Captain, R.A.M.C.
Simson, Harold, Capt. R.A.M.C.
Sinclair, E. M., M.D., Deputy-Surgeon-General, A.M.S. (ret.)
Skinner, B. M., Lt.-Col., R.A.M.C.
Skues, Hon. Dep. Surg.-Gen. F. M., Brig.-Surg. (ret.) A.M.D.
Sloggett, A. T., C.M.G., Colonel, R.A.M.C.
Smallman, A. B., M.B., Lieut., R.A.M.C.
Smith, L. F., M.B., Captain, R.A.M.C.
Smith, S. Boylan, M.D., Captain, R.A.M.C.
Smithson, A. E., M.B., Major, R.A.M.C.
Smythe, G. F. A., Lieut.-Col., R.A.M.C.
Sparkes, C. S., Lieut.-Colonel, R.A.M.C.
Sparkes, W. M. B., Captain, R.A.M.C.
Spencer, C. G., M.B., Major, R.A.M.C.
Stables, A., Major, R.A.M.C.
Staddon, H. E., Captain, R.A.M.C.
Statham, J. C. Baron, Capt., R.A.M.C.
Stalkartt, C. E. Grey, M.D., Major, R.A.M.C.
Stallard, H. G. F., Capt., R,A.M.C.
Stanistreet, G.B., M.B., Major, R.A.M.C.
Staples, F. P., Lt.-Col. (ret. A.M.S.)
Starr, W. H., Lieut.-Colonel, R.A.M.C.
Steel, E. B., M.B., Captain, R.A.M.C.
Stevenson, W. F., C.B., M.B., Colonel, R.A.M.C. (ret.
Stiell, D., M.B., Major, R.A.M.C.
Stock, Philip G., Captain, R.A.M.C.
Stokes, H. H., M.B., Lt.-Col., R.A.M.C. (retired)
Stone, C. A., M.D, Major, R.A.M.C.
Straton, C. H., Captain, R.A.M.C.
Stuart, J. R., M.B., Lieut.-Col., R.A.M.C.
Supple, J. F., C.B., Col., R.A.M.C.
Sutton, A. A., D.S.O., Lieut.-Colonel, R.A.M.C.
Swabey, L. W., Lt.-Col., R.A.M.C.
Swabey, M., Captain, R.A.M.C.
Swan, W. T., M.B., Major, R.A.M.C.
Swanzy, H. H., Lieut., R.A.M.C.
Swayne, C. H., D.S.O., Col., R.A.M.C. (ret.)
Sweetnam, S. W., Captain, R.A.M.C.
Sylvester, G. H., Lt.-Col. R.A.M.C.
Symons, J. T. M., M.D., Brig.-Surg. (retire), A.M.S.
Tate, G. W., M.B., Major, R.A.M.C.
Tatham, C. J. W., Major, R.A.M.C.
Taylor, W. J., M.B., Major, R.A.M.C.
Temple, W., M.B., V.C., Lieut.-Col. (retired), A.M.S
Thacker, R. C., Major, R.A.M.C.
Thiele, C. W., M.B., Lt.-Col., R.A.M C.
Thom, G. St. C., M.B., Major, R.A.M.C.
Thompson, A. G., M.B., Major, R.A.M.C.
Thompson, H. N., M.B., Lt.-Col., R.A.M.C.
Thompson, Hon. Surg.-Gen. J. J., Surg.-Gen, A.M.S
Thomson, D. S. B., M.B., Lieutenant, R.A,M.C.
Thomson, J., M.B., Major, R.A.M.C.
Thomson, W. B., Lt.-Col., R.A.M.C.
Thurston, H. S., Major, R.A.M.C.
Tibbits, Walter, M.B., Major, R.A.M C.
Tidbury, J., M.D., Lieut.-Col., R.A.M.C.
Tobin, Hon. Brig.-Surg. R. F., Lt.-Col. (retired), A.M.S. Dublin—Leinster Br.
Tobin, John, Captain, R.A.M.C.
Townsend, Sir E., K.C.B., C.M.G., M.D., Surgeon-Gen., R.A.M.C.
Townsend, Samuel, M.D., Lt.-Col., R.A.M.C.
Treherne, F. H., Lt.-Col., R.A.M.C.
Trevor, F. W., M.B., Col., R.A.M.C.
Trevor, H. O., Lt.-Col., R.A.M.C.
Trewman, G. T., M.B., Lt.-Col., R.A.M.C.
Tucker, T. J., Surg.-Maj. (ret.), A.M.D., Hindon, Salisbury
Turner, W., Lt.-Col. R.A.M.C.
Tyacke, N., Major, R.A.M.C.
Vaughan-Williams, H. V., M.B., Capt., R.A.M.C.
Wade, G. A., M.D., Major, R.A.M.C.
Wales, Hon. Brig.-Surg. J., Surg.-Maj. ret.), A.M.D., S.E. Br.
Walker, F. S., Captain, R.A.M.C.
Walton, H. B. G., Capt., R.A.M C.
Ward, L. B., Lt.-Col. (ret.), A.M.S.
Ward, W. A., Captain, R.A.M.C.
Wardrop, D., M.B., Lt.-Col., R.A.M.C.
Waring, A. H., Captain, R.A.M.C.
Waring, Arthur D., M.B., Captain, R.A.M.C.
Waters, R., C.B., M.D., Brig.-Surg. (ret.), A.M.S., Tubbermore
Waters, W. J., Capt., R.A.M C.
Watson, A. O. C., M,B., Major, R.A.M.C
Watson, J. J. C., C.I.E., M.D., Major, R.A.M.C.
Watts, Brian, Capt., R.A.M.C.
Way, L., Major, R.A.M.C.
Webb, A. Lisle, Captain, R.A.M.C.
Webb, C. A., Colonel, R.A.M.C.
Webb, W. E., M.D., Col., R.A.M.C. (ret.)
Weir, J. C., M.B., Major R.A.M.C.
West, John W., M.B., Captain, R.A.M.C.
Westcott, S., C.M.G., Lieut.-Col., R.A.M.C.
Weston, G. E., Lt.-Col., R.A.M.C.
Whaite, T., Du B, Major R.A.M.C.
Whelan, J. F., Captain, R.A.M.C.
Whitehead, H. R., Col., R.A.M.C.
Whitestone, C. W. H, M.B., Major, R.A.M.C.
Whitty, M. J., M.D., Major R.A.M.C.
Wight, E. O., Lt.-Col., R.A.M.C.
Will, J., M.B., Major R.A M.C.
Williams, E. M., Major, R.A.M.C.
Williamson, John G., Lt.-Col., (retired). A.M.S.
Wilmot, R. C., Lieut., R.A.M.C.
Wills, S. R., Lieut.-Colonel, R.A.M.C.
Wilson, E. M., D.S.O., C.B., Lt.-Col., R.A.M.C.
Wilson, G., M.B., Lt.-Col. R.A.M.C.
Wilson, J. B., M.D., Lieut.-Col., R.A.M.C.
Wilson, W. J., M.D., Brig.-Surg. (ret.), A.M.S., Fareham
Winder, J. H. R., M.D., Capt. R.A.M.C.
Winder, M. G., Lieut., R.A.M.C.
Winter, T. B., Lieut.-Col, R.A.M.C.
Winter, H. E., Major, R.A.M.C.
Withers, S. H., M.B., Maj., R.A.M.C.
Woodley, R. N., Captain, R.A.M.C.
Woods, C. R., M.D., Lt.-Col., R.A.M.C.
Woodside, W. A., Captain R.A.M.C.
Woolfryes, Sir John A., K.C.B., C.M.G., K.H.P, M.D., Surg.-Gen., Hallatrow Court, Bristol
Wright, A., Major, R.A.M.C.
Wright, R. W., Major, R.A.M.C.
Wright, T. J., Lieut., R.A.M.C.
Wroughton, A. O. B., Captain R.A.M.C.
Wyatt, H. J., Lieut.-Col., R.A.M.C.
Yarr, M. T., Lieut.-Col., R.A.M.C.
Young, A. H. O., Captain, R.A.M.C.
Young, C. A., Major, R.A.M.C.
Younge, G. H., L.-Col., R.A.M.C.
Yourdi, J. R., M.B., Lt.-Col., R.A.M.C.

INDIAN MEDICAL SERVICE.

(Where no Presidency is named, the officer is liable for service in any command.)

MEMBERS—528.

Abbott, Samuel H. L., M.B., Capt. I.M.S.
Adams, C., M.B., Lt.-Col., Madras Estab.
Ainsworth, Hugh, M.B., Capt., Bengal Estab.
Allison, H., M.D., Lieut.-Col., Madras Estab.
Alpin, W. G. P., Lt.-Col., Bengal Estab.
Anderson, J., Lieut., I.M.S.
Anderson, John, M.B., Lieut.-Col. Bengal Estab.
Anderson, J. W. T., Lt.-Col., Bombay Estab.
Anderson, S., M.B., Capt. I.M.S.
Anderson, W. M., M.B., Capt. I.M.S.
Anthony, R. W., M.B., Capt. I.M.S.
Armstrong, H., Lieut.-Col., Madras Estab.
Arnim, H. C. L., Maj., Bombay Estab.
Babington, J. W. H., M.B., Lieut., I.M.S.
Bain, D. S. E., Lt.-Col., Madras Estab.
Bainbridge, G., M.D., Surg.-Gen., Bombay Estab.
Baines, Edgar F. E., Capt., I.M.S.
Baird, R. F., Capt. I.M.S.
Baker, D. G. R. S., Capt., Bombay Estab.
Baker, G. H., Lieut.-Col., Bengal Estab.
Baker, O., M.D., Surg.-Lieut.-Col., Bengal Estab. (ret.).
Bamber, Chas. J., Lieut.-Col. I.M.S.
Bamfield, H. J. K., Captain, Bengal Estab.
Banatvala, H. E., M.D., Lieut.-Col. I.M.S.
Bannerman, W. B., M.D., Lt.-Col., Madras Estab.
Barnett, John Milford, M.D., Surg., (rank of Major) Bombay Army (ret.), Bexhill. *Div.* Hastings—*Br.*, S.E.
Barron, R. M., Capt., I.M.S
Barry, J. P., M.B., Lt.-Col., Bombay Estab.
Bartholomeusz, M. L., M.B., Lt.-Col., Bombay Estab.
Basú, D., Lt.-Col., Bengal Estab.
Bate, T. E. L., C.I.E., Colonel, Bengal Estab.
Battye, W., Rothney, M.B., B.S., Captain, I.M.S.
Beaumont, T., M.D., Dep.-Surg.-Gen., Madras Estab. (ret.), Palmerston Park, Dublin
Beit, F. V. O., M.B., Captain, I.M.S.
Bell, G. J. H., Major, I.M.S.
Bennett, C.H., M.D., Lt.-Col., Madras Estab.
Bennett, Vivian B., M.B., Captain, Bombay Estab.
Benson, P. H., M.B., Surgeon-General, Madras Estab.
Berry, A. E., M.B., Major, Madras Estab.
Betts, A. J. V., M.B., Captain, Bombay Estab.
Bidie, George, F.R.C.S.E., Major, Madras Estab.
Birdwood, G. T., M.D., Major, Bengal Estab.
Bisset, Ernest, M.B., Capt. I.M.S.
Blenkinsop, F. L., M.B., Captain, Madras Estab.
Blood, J. F., M.D., Surg.-Maj. Bengal Estab. (ret.) 8, Lorne Road, Birkenhead—L. & C. Br.
Bookey, J. T. B., Col., Bengal Estab.
Bose, S., M.B., Captain, I.M.S.
Boustead, R., M.D., Lt.-Col., Bombay Estab. (ret.)
Bown, A. T., Lt.-Col., Bengal Estab.
Bovill, E., M.D., Lt.-Col., Bengal Estab.
Bradfield, E. W. C., M.B., Lieut., I.M.S.
Bradley, R. J., M.B., Captain, I.M.S.
Braide, G. F. W., M.B., Major, Bengal Estab.
Branfoot, A. M., M.B., C.I.E., Surg.-Gen., Madras Estab.
Brassey, Lawrence P., Capt., I.M.S.
Broome, H. H., M.B., Captain, I.M.S.
Brown, E. H., Maj., Bengal Estab.
Brown, H. C., M.B., Capt. I.M.S.
Browne, W. R., M.D., Surg.-Gen, Madras Estab.
Browning, W. B., Lieut.-Col., C.I.E., Madras Estab.
Bryson, R., Capt., Madras Estab.
Buchanan, A., M.D., Major, Bengal Estab.
Buchanan, W. J., M.D., Major, Bengal Estab.
Buist, A. W. T., Major, Bombay Estab.
Bull, G. H., M.D., Lt.-Col., Bombay Estab.
Burden, H., Major, Bengal Estab.
Burke, W. H., M.B., Lt.-Col., Bombay Estab.
Burnett, S. H., Major, Bombay Esta
Cadell, J. M., Lieut.-Colonel, Bengal Estab.
Cadge, W.H., Lt.-Col., Bengal Estab.
Calvert, J. T., M.B., Major, Bengal Estab.
Cama, R. H., Lieut.-Col., Madras Estab.
Cameron, John P., Captain, I.M.S.
Carroll, E. R. W. C., Lieut. Col., Bengal Estab.
Carr-White P., M.B., Major, Madras Estab.
Carson, W. P., M.D., Lt.-Col., Bombay Estab.
Castor, R. H., M.B., Major, Madras Estab.
Chandhuri, M. N., M.B., Capt. Madras Estab.
Channer, O.H., M.B., Lt.-Col., Bombay Estab.
Charles, Sir R. Havelock, K.C.V.O., M.D., Lt.-Col., Bengal Estab.
Childe, L. F., M.B., Major, Bombay Estab.
Christophers, S. R., M.B., Captain, I.M.S.
Clarkson, F. C., Major, Bengal Estab.
Clements, J. E., Capt. Bengal Estab.
Close, J. K., M.D., Major, Bengal Estab.
Cochrane, A. W. R., M.B., Capt. I.M.S., Bombay Estab.
Collie, M. A. T., M.B., Lt.-Col., Bombay Estab.
Connor, F. P., Captain, I.M.S.
Cook, Lewis, M.B., Captain, I.M.S.
Corkery, W. A., Lt.-Col., Bombay Estab.
Cornwall, J. W., M.B., Captain, Madras Estab.
Corry, Matthew, M.B., Capt. I.M.S.
Cowin, Douglas H. F., Capt. I.M.S.
Crawford, D. G., M.B., Lt.Col., Bengal Estab.
Crawford, F. J., M.D., Major, Madras Estab.
Crofts, A. Martin, Lieut.-Col. I.M.S.
Crofts, J., M.D., Lt.-Col., Bengal Estab.
Crombie, A., Lt.-Col., C.B., M.D., Bengal Estab.
Crossle, Howard, M.B., Captain, I.M.S.
Cruddas, Hamilton M., Capt. I.M.S.
Cunningham, J. A., M.D., Lt.-Col., Bengal Estab.
Dalziel, R. M., M.B., Capt. I.M.S.
Dántrá, S. H., M.D., Lt.-Col., Bengal Estab.
Davidson, D. M., M.D., Major, Bengal Estab
Davidson, J., Major, Bengal Estab.
Davidson, James, M.B., Brig.-Surg.-Lieut.-Col., I.M.S. (ret.)
Davis, G. McB., D.S.O., Colonel, Bengal Estab.
Davis, R. E. S., M.B., Lt.-Col. I.M.S.
Davys, G. I., M.B., Captain, I.M.S.
Dawes, C. D., Captain, Bengal Estab.
Deane, A., M.D., Lt.-Col., Bengal Estab.
Deare, B. H., Major, Bengal Estab.
Dee, Peter, M.B., Captain, Madras Estab.
Delany, T. H., M.B., Captain, I.M.S.
De Renzy, Sir A. C. C., K.C.B., Surg.-Gen. Bengal Estab. (ret.), 20, Park Hill Road, Ealing, W.
Dewes, F. J., Major, Madras Estab.
Dick, Maxwell, Captain, Madras Estab.
Dimmock, H. P., Lieut.-Col., Bombay Estab.
Dobson, A. F., M.B., Col., Madras Estab.
Donovan, C., M.D., Major, Madras Estab.
Doyle, B., M.B., Lt.-Col., Bengal Estab.
Drake-Brockman, E. F., Lieut.-Col., Madras Estab. (ret.), Cheriton, 281, Willesden Lane, N.W.
Drake-Brockman, H. E., Major, Bengal Estab.
Drake-Brockman, V. G., Major, Bengal Estab.
Drury, F. J., M.B., Lieut.-Col., Bengal Estab.
Duer, C., M.B., Major, Bengal Estab.
Duke, Joshua, Lt.-Col., Bengal Estab.
Duncan, Andrew, M.D., Lieut.-Col., Bengal Estab. (ret.)
Dyson, T. E., M.B., Major, Bombay Estab.
Easton, Philip G., Captain, I.M.S.
Edwards, W. R., C.M.G., M.D., Major, Bengal Estab.
Elcum, D., Surg.-Lt.-Col., Madras Estab. (ret.)
Elliot, R. H., M.B., Major, I.M.S.
Elliot, W. H. W., D.S.O., M.B., Maj., I.M.S.
Elphick, H. W., M.B., Major, Bengal Estab.
Elwes, F. F., Captain I.M.S.
Emerson, G. A., Lieut.-Colonel, I.M.S.
Entrican, James, M.D., Major, I.M.S.
Evans, A. O., Lieut.-Col., Madras Estab.
Evans, J. W., Lt.-Col., Madras Estab.
Eyre, M. S., M.B., Lt.-Col., I.M.S.
Farquhar, W., M.D., Dep. Surg.-Gen., Madras Estab. (ret.) 40, Westbourne Gardens, W.
Fayrer, F. D. S. Captain, Madras Estab.
Fearnside, C. F., M.B., Major, Madras Estab.
Fenton, A., Capt., Bengal Estab.
Fink, G. H., Major, Bengal Estab.
Fleming, A. M., Captain, Bombay Estab.
Fleming, A. N., Captain, Madras Estab.
Fooks, G. E., Lt.Col., Bombay Estab.
Fooks, H., Major, Benga Estab.
Forrest, John, M.B., Captain, I.M.S.
Foster, H. B., M.B., Captain I.M.S.
Foster, R. B. B., M.B., Capt., Bombay Estab.
Foulkes, T. H., Major, Madras Estab.
Fowler, George, Captain, Bengal Estab.
Frenchman, E. P., Lt.-Col., Madras Estab.
Frost, G. H., M.B., Major, Bengal Estab.
Fullerton, J. C., M.B., Lt.-Col., Bengal Estab.
Fullerton, T. W. A., M.B., Major, Bengal Estab.
Gabbett, P. C., Major, Madras Estab.
Garvie, J., M.B., Major, Bengal Estab.
Gibbons, J. B. Lt.Col., Bengal Estab.
Gibbs, A. A., Captain, Bombay Estab.
Gidney, Henry A. J., Capt., I.M.S.
Gibard, G. G., Major, Madras Estab.
Gilbert, L. E., M.B., Capt., I.M.S.
Giles, G. M. J., M.B., Lt.-Col., Bengal Estab. (ret.)
Gimlette, G. H. D., C.I.E., M.D., Lt.-Col., Bengal Estab.
Gloster, Thos. H., M.B., Capt. I.M.S.
Godkin, S. R., Capt., I.M.S.
Good, J., M.B., Capt. I.M.S.
Graham, J. D., M.B., Capt., Bengal Estab.
Granger, Thos. A., M.B., Capt. I.M.S.
Gray, R., Brig.-Surg., Bengal Estab. (ret.), 43, Queen's Road, Aberdeen—Aberdeen Br.
Gray, W. H., M.B., Major, Bengal Estab.
Greany, H., M.D., Lt.-Col., Madras Estab.
Greany, J. P., M.D., Surgeon-General, Bombay Estab.
Green, C. R. M., Major, Bengal Estab.
Greig, E. D. W., M.D., Captain, I.M.S.
Griffiths, G. S., Lt.-Col., Bengal Estab. (ret.)
Griffiths, W. E., Lt.-Col., Bengal Estab.
Gupta, K. P., Surg.-Lt.-Col., Bengal Estab. (ret.)
Haig, P. de H., Lt.-Col., Bengal Estab. (ret.)
Haig, P. B., M.B., Major, Bengal Estab.
Hakim, H. M., Lt.-Col., Madras Estab.
Hall, E. A. W., M.B., Maj. I.M.S.
Hall, Geoffrey C., Col., Bengal Estab.
Hall, Gilbert C., Surg.-Capt., Madras Estab. (ret.)
Hamilton, H., C.B., M.D., Col., Bengal Estab.
Hamilton, J. A., M.B., Capt. I.M.S.
Hamilton, W. G., Capt., Bombay Estab.
Hammond, F. A. L., Capt., I.M.S.
Hare, E. C., Major, Bengal Estab.
Harington, H. N. V., Lt.-Col., Madras Estab.
Harris, E. T., Lieut., I.M.S.
Harris, G. F. A., Lt.-Col., Bengal Estab.
Harriss, S. A., M.B., Captain, Bengal Estab.
Harrison, C. B., Captain, Madras Estab.
Harvey, W. F., M.B., Capt. I.M.S.
Hatch, W. K., M.B., Lt.-Col., Bombay Estab.
Hay, G. W. R., M.D., Surg.-Gen., Bombay Estab. (ret.)
Hayward, W. D., M.B., Captain, I.M.S.
Heard, Richard, M.B., Major, Bengal Estab.
Hehir, P., M.D., Major, Bengal Estab.
Henderson, S. H., M.B., Major, Bengal Estab.
Henderson, W. G. H., Col., I.M.S., Bombay Estab.
Hendley, A. G., Major, I.M.S.
Hendley, H., M.D., Lt. Col., Bengal Estab.
Hendley, T. H., C.I.E., Colonel, Bengal Estab.
Hepper, E. C., Captain, I.M.S.
Herbert Herbert, Major, Bombay Estab.
Heron, Davis, M.B., Captain, I.M.S.
Holmested, T., Surg.-Maj., Bombay Estab., (ret.), Ellenborough Park South, Weston-Super-Mare
Hooton, A., Captain, Bombay Estab.
Hore, E. W., M.B., Major, Bengal Estab.
Horton, J. H., D.S.O., Capt., I.M.S.
Houston, W. M., M.B., Captain, I.M.S.
Howell, J. A., Surg.-Lt.-Col., Bombay Estab. (ret.)
Hudson, Corrie, D.S.O., Capt. I.M.S.
Hudson, C. T., Major, Bombay Estab.
Hudson, E., Major, I.M.S.
Hugo, E. V., M.D., Major, Bengal Estab.
Hugo, J. H., D.S.O., M.B., Captain, I.M.S.
Hulbert J. G., M.B., Major, Bengal Estab
Hunt, S. B., Surg.-Col., Madras Estab. (ret.)
Hunt, S., M.B., Capt., Bombay Estab.
Husband, James, M.B., Captain, Bombay Estab.
Hutcheson, G., M.B., Captain, Bengal Estab.
Hutchinson, L. T. R., M.A., M.D., B.C., Captain, I.M.S.
Illington, E. M., Captain, I.M.S.
Illius, H. W., Captain, I.M.S.
Illius, J. W., Captain, I.M.S.
Irani, M. S., Lieut., I.M.S.
Irvine, G. B., Major, Bengal Estab.
Jackson, J., M.B., Major, Bombay Estab.
Jackson, T., Maj., Madras Establishment
James, C. H., Major I.M.S., Bengal Estab.
James, S. P. Capt. I.M.S.
Jameson, J. B., M.B., Major, Bombay Estab.
Jameson, R., M.D., Lt.-Col., Bengal Estab.
Jenney G. W., M.B., Major, Bombay Estab.
Jennings, W. E., M. B. Major, Bombay Estab.
Jervis, H. P., Lt.-Col., Bombay Estab. (ret.)
Johnson, W. E., M.D., Colonel, Madras Estab.
Johnston, C. A., M.B., Major, Madras Estab.
Jones, J. L. T., M.B., Major, Bombay Estab.
Jordan, J. G., M.B., Major, I.M.S.
Joubert, C. H., M.B., Col., Bengal Estab. (ret.)
Justice, W. A., Capt., I.M.S.
Kalal, K. A., M.B., Lt.-Col., Bombay Estab.
Keegan, D. F., M.D., Brig.-Sg.-Lt.-Col., Bengal Estab (ret.)
Kelawala, M. J., Lt.-Col., Madras Estab.
Kelly, J., M.D., Brig.-Surg., Bengal Estab. (ret.), Kingstown
Kemp, D. C., Capt. I.M.S.
Ker, M.A., M.B., Maj., Bengal Estab.
Keys, Wm., D. A., M.D., Capt. I.M.S.
Kharegat, M. P., Lt. Col., Madras Estab.
Kilkelly, C. E. Surg.-Gen. (ret.), Bengal Estab
Kilkelly, P. P., M.B., Major, Bombay Estab.
King, A. F. W., Capt., Bombay Estab.
King, W. G., M.B., C.I.E., Lieut.-Col., Madras Estab.
Kirkpatrick, H., M.B., Capt. I.M.S.
Kirkwood, James, M.B., Capt., I.M.S.
Kirtikar, K. R., Lieut.-Col., I.M.S.
Knapp, H. H. G., M.D., Capt., I.M.S.
Kunhardt, J. C. G., Captain, I.M.S.
Lamb, G., Capt., Bengal Estab.
Lamont, J. C., M.B., Maj., Bengal Estab.
Lane, D. T., M.D., Major, Bengal Estab.
Lane, W. B., Maj., Bengal Estab.
Langley, E. H. R., Lieut.-Col., I.M.S.
Langston, T. A. O., Major, I.M.S.
Lapsley, W., M.B., Capt., I.M.S.
Lauddie, A. K., M.B., Capt., I.M.S.
Lawrie, E., M.B., Lieut.-Col., Bengal Estab.
Leahy, A. W. D., Lieut.-Col., Bengal Estab.
Leapingwell, A. H., Lieut.-Col., Madras Estab.
Lee, W.A., Lieut.-Col., Madras Estab.
Leicester, J. C. Holdich, M.D., Capt., I.M.S.
Leslie, J. T. W., M.B., Lt.-Col., Bengal Estab.
Lethbridge, Wm., Capt., Bombay Estab.
Leventon, A., Capt. I.M.S.
Lewtas, J. T., M.D., Lieut.-Col., Bengal Estab.
Lincoln, Chas. H. S., Capt. I.M.S.
Lindesay, V. E. H., M.B., Capt., Bengal Estab.
Little, C. C., M.D., Col. (ret.), Madras Estab.
Little, S., M.D., Lt.-Col., Bengal Estab.
Long, W. C., Capt., I.M.S.
Luard, H. B., M.B., Capt., Bengal Estab.
Lyons, R. W. S., M.D., Lieut.-Col., Bombay Estab.
McCalman, Hugh, M.D., Lieut.-Col., I.M.S. (ret.)
McCarrison, Robt., M.B., Capt. I.M.S.
McCartie, C. J., M.D., Lieut.-Col., Bengal Estab.
M'Cay, David, M.B., Capt. I.M.S.
McCoy, J. W., Capt., I.M.S.
Macdonald, T. R., M.B., Lt.-Col., Bengal Estab.
MacGilchrist, A. C., M.B., Capt., I.M.S.
MacInnes, I. L., M.B., Capt. I.M.S. (ret.)
McGann, T. J., Col., Madras Estab.
McKechnie, W. E., Capt., Bombay Estab.
McKee, G. M. E., Lt.-Col., Madras Estab.
Mackenzie, H. M., M.B., Capt., Bombay Estab.
Mackworth, Norman W., Lieut., I.M.S.
MacLaren, G. G., M.B., Brig.-Surg.-Lt.-Col., Bengal Estab (ret.), Blairgowrie
McLeod, K., M.D., Col., Bengal Estab. (ret.), Westend
MacLeod, J. N., M.B., Major, Bengal Estab.
Maconachie, G. A., M. D., Brig.-Surg.-Lt.-Col., Bombay Estab. (ret.)
Maconachie, G. W., M.B., Lieut., I.M.S.
McPherson, George, M.B., Capt., Bombay Estab.
Macrae, R., M.B., Col., Bengal Estab.
McVittie, C. E., K.H.P., Surg.-Gen., Madras Estab.
MacWatt, R. C., M.B., Major, Bengal Estab.
Maddock, E. C. G., M.B., Capt., I.M.S.
Maitland, J., M.D., Lieut.-Col., Madras Estab.
Manifold, C. C., M.B., Lieut.-Col., Bengal Estab.
Marjoribanks, J. L., M.B., Capt., I.M.S.
Marks, R. J., Maj., Bengal Estab.
Marr, Colin F., Capt., I.M.S.
Marsden, J. C., Lt.-Col., Madras Estab.
Martin, P. R., M.D., Brig.-Surg.-Lt.-Col., Madras Estab. (retired)
Masson, James, M.B., Capt., Bombay Estab.
Matthews, E. A. C., M.B., Capt., I.M.S.
Maunsell, E. C. C., M.B., Capt., I.M.S.
Mawson, W. A., Lieut.-Col., Bengal Estab.
Maynard, F. P., M.B., Major, Bengal Estab.
Meakin, H. B., M.D., Capt., Bengal Estab.
Mell, F. O. N., M.B., Capt., I.M.S.
Melville, H. B., M.B., Major, Bengal Estab.
Melville, H. G., M.B., Maj., Bengal Estab.
Miller, Alfred, M.B., Captain Madras Estab.
Milne, A., M.B., Lt.-Col., Bombay Estab.
Mistri, K. H., Lt.-Col., Bombay Estab.
Mitter, R. K., Maj., Madras Estab.
Molesworth, W., M.B., Major, Madras Estab.
Monk, C., Lieut.-Col., Bombay Estab
Moran, J. J., M.D., Lieut.-Col., Madras Estab. (ret.)
Morgan, E. J., M.B., Capt., Bengal Estab.
Moriarty, M. D., M.D., Col., Bengal Estab.
Morwood, J., M.D., Major, Bengal Estab
Moses, O. St. J., M.D., Capt., I.M.S.
Mould, G. T., Maj., Bengal Estab. (ret.)
Mullen, D. Ffrench, M.D., Lieut.-Col., Bengal Establshmt
Mulvany, John, Major, Bengal Estab.
Murison, C. C. Capt., Bombay Estab.
Murphy, W. R., D.S.O., Lieut.-Col., Bengal Estab.
Needham, Richard A., M.B., Capt., I.M.S.
Newman, J. H., M.D., Col., Bengal Estab.
Niblock, W. J., M.B., Capt., I.M.S.
Nicholson, G. F., M.D., Lieut.-Col., Bengal Estab.
Nott, A. H., M.B., Maj., Bengal Estab.
Nutt, H. R., M.B., Capt. I.M.S.
O'Brien, Joseph, M.D., Lieut.-Col., Bengal Estab. (ret.)
O'Connor, P. F., C.B., M.D., Lieut.-Col., I.M.S.
Ogilvie, W. H., M.B., Major, Bengal Estab.
O'Gorman, P. W., Maj., Bengal Estab.
O'Hara, W., Lieut.-Col., Madras Estab.
O'Kearny, F. R., M.D., Surg.-Maj., I.M.D.
O'Kinealy, F., Major, Bengal Estab.
Oldham, B. C., Maj., Bengal Estab.
O'Neill, J., M.D., Surg.-Lt.-Col., Bengal Estab. (ret.)
Orr, W. H., Major, Bengal Estab.
Owen, C. W., C.M.G., C.I.E., Lt.-Col., Bengal Estab., R.P.
Palk, C. H. L., M.B., Maj., Madras Estab.
Pank, P. D., Lt.-Col., Bengal Estab.
Paterson, Thos. G. F., M.B., Capt., I.M.S.
Patton, W. S., M.B., Capt., I.M.S.
Paymaster, B. B., Capt., I.M.S.
Peacocke, J. C. H., Surg.-Lt.-Col., Bombay Estab. (ret.)
Pearce, O. R., M.B., Capt., I.M.S.
Peck, F. S., Lieutenant-Colonel., Bengal Estab.
Peile, H. D., Capt., I.M.S.

Pemberton, R., Lieut.-Col., Madras Estab.
Peebles, A. S. M., M.D., Lieut., I.M.S.
Penny, J., Maj., Madras Estab.
Pereira, F. C., M.B., Maj., Madras Estab.
Peters, C. T., Lieut.-Col., Bombay Estab.
Pinkerton, J., M.D., Surg.-Maj.-Gen., Bombay Estab. (ret.) Gwydyr House, Crieff
Pinchard, M. B., Capt., I.M.S.
Pinto, J. O., Major, Madras Estab.
Pisani, L. J., Major, Bengal Estab.
Planck, C., Surg.-Gen., Bengal Estab. (retired), Edenbridge
Pope, T. H., M.D., Lieut.-Col., Madras Estab. (ret.)
Poynder, J. L., Lt.-Col., Madras Estab.
Prall, C. B., Major, Bengal Estab.
Prasad, K., M.B., Maj., Bengal Estab.
Price, W., M.D., Brig.-Surg.-Lt.-Col., Madras Estab. (ret.)
Pridmore, W. G., M.B., Maj., Madras Estab.
Quayle, W. A., M.D., Lieut.-Col., Madras Estab.
Quicke, W. H., M.D., Lieut.-Col., Bombay Estab.
Rai, Dewan G., Capt., I.M.S.
Rait, J. W. F., Capt., I.M.S.
Reaney, M. F., M.B., Lieut. I.M.S.
Reeves, F. C., Lt.-Col., Madras Estab.
Reid, A. Scott, C.B., M.B., Surg.-Gen., Bengal Estab.
Reinhold, C. H., Lieut., I.M.S.
Reporter, M. E., Lieut.-Col., Madras Estab.
Richards, W. G., M.B., Capt. I.M.S.
Richardson, J., M.D., Surg.-Col., Bengal Estab. (ret.), 6, College Gardens, Dulwich, S.E.
Robb, J., M.D., Sg.-Lt.-Col. Bombay Estab. (ret.), 19, King's Gate, Aberdeen
Roberts, A. E., M.B., Major, Bengal Estab.
Roberts, J. R., Maj., Bengal Estab.
Roberts, V. H., Capt., I.M.S.
Robertson, R., M.B., Maj., Madras Estab.
Robinson, M., Surg.-Maj., Madras Estab. (ret.), 79, East Hill, Wandsworth, S.W.
Robinson, T., M.B., Lieut.-Col., Bengal Estab.
Robinson, W. H. B., Major, Bengal Estab.
Rodgers, J. W., Lt. Col., Bengal Estab.
Rogers, L., M.D., Major., Bengal Estab.
Ross, D. R., M.D., Maj., Bombay Estab.
Ross, J., Dep.-Surg.-Gen., Madras Estab. (ret.), 29, Kildare Terrace, W.
Ross, Ronald, C.B., F.R.S., F.R.C.S. Major, I.M.S. (ret.)
Ross, T. S., Capt., I.M.S., Madras Estab.
Rost, E. R., Capt., Madras Estab.
Rundall, L., M.B., Capt., I.M.S.
Russell, E. G., M.B., Lieut.-Col., Bengal Estab.
Ruzzak, S. A., Capt., I.M.S.
Saigol, R. D., Capt., I.M.S.
Salaman, S. M., M.D., Brig.-Surg.-Lt.-Col., Bombay Estab (retired)
Sanders, R. C., M.D., Lieut.-Col., Bengal Estab.
Sarkies, C. J., M.B., Lieut-Col., Bombay Estab.
Sarkies, S. C., Lieut-Col., Madras Estab.
Scotland, D. W., M.B., Major, Bengal Estab.
Scott, J., M.B., Lt.-Col., Madras Estab.
Scott, N. E. H., M.B., Captain, I.M.S.
Scroggie, Wm. R. J., Capt., I.M.S.
Sealy, G. O. F., Capt., Bombay Estab.
Selby, W., D.S.O., Capt. Bengal Estab.
Seton, B. G., Maj., Bombay Estab.
Sexton, E. J., M.D., Brig.-Surg., Bombay Estab. (ret.)
Seymour, C. G., Capt., I.M.S.
Sharman, E. H., Major, Madras Estab.
Shearer, Johnston, M.B., D.S.O., Lt.-Col., Bengal Estab.
Sibthorpe, C., C.B., Surg.-Gen., Madras Estab.
Silcock, A., M.B., Lt. Col., Bengal Estab.
Sinclair, D., C.S.I., M.B., Surg.-Gen., Madras Estab.
Singh, B. J., Maj., Bengal Estab.
Smith, F. C., Maj., Madras Estab.
Smith, G. McI. C., M.B., Maj., I.M.S.
Smith, H., M.D., Major, Bengal Estab.
Smith, J. B., M.B., Maj., Bombay Estab.
Smyth, J., M.D., Lieut-Col., Madras Estab.
Spencer, L. D., C.B., M.D., Surg.-Gen., Bengal Estab.
Spitteler, Alfred, M.B., Capt., Bombay Estab.
Sprawson, C. A., M.D., Capt., I.M.S.
Steen, H. B., M.D., Capt., I.M.S.
Steen, R., M.B., Capt., I.M.S.
Stephen, L. P., Capt., I.M.S.
Stevens, Cecil R., M.D., Major, I.M.S.
Stewart, G. E., M.B., Capt., Bombay Estab.
Stewart, T. W., Major I.M.S.
Stokes, T. G. N., Capt., I.M.S.
Street, A., F.R.C.S., Maj. I.M.S.
Strickland, P. C. H., Major., Madras Estab.
Sturmer, A. J., Lieut.-Col., Madras Estab.
Sumner, F. W., M.B., Capt., I.M.S., Bombay Estab.
Sunder, C. E., M.B., Maj., Bengal Estab.
Sutherland, G. S., M.D., Brig.-Surg., Bengal Estab. (ret.) 16, St. James' Square, S.W.
Sutherland, W. D., M.B., Major, Madras Estab
Swaine, C. L., Lieut.-Col., Madras Estab.
Swan, J. G. G., M.B., Capt., I.M.S.
Sweeny, T. H., Lieut.-Col., Bengal Estab.
Sykes, W. A., M.B., D.S.O., Lieut.-Col., Bengal Estab.
Symons, T. H., Capt., Madras Estab.
Tandy, E. O., Surg.-Col., Bengal Estab. (ret.)
Taylor, E., Dep. Surg.-Gen. Bengal Estab. (ret.), Hilldrop Stevenage
Taylor, E. C., Capt., I.M.S.
Thomas, G. T., Lieut.-Col., Madras Estab.
Thomas, W. F., M.D., Lieut.-Col., Madras Estab.
Thompson, C. M., M.B., Lt.-Col., Madras Estab.
Thompson, F. T., M.B., Capt., I.M.S.
Thompson, F. S. C., M.B., Capt., Bombay Estab.
Thomson, F. W., M.B., Major, I.M.S.
Thomsen, H., M.D., Lieut.-Col., Madras Estab.
Thomson, G. S., Maj., Bombay Estab.
Thomson, S. J., C.I.E., Lieut.-Col., Bengal Estab.
Thornhill, W. H., M.D., Lieut.-Col., Madra Estab.
Thorneley, M. H., Capt., I.M.S.
Tucker, E. F. G., Capt., I.M.S.
Tuohy, J. F., M.D., Lt.-Col., Bengal Estab. (ret.)
Tyrrell, J. R. J., M.B., Capt., I.M.S.
Urwin, J. J., M.B., Capt. I.M.S.
Vaid, C. C., Lt.-Col., Bengal Estab.
Van Geyzel, J. L., M.B., Lt.-Col., Madras Estab.
Vaughan, J. C. S., M.B., Major I.M.S., Bombay Estab.
Vost, W., M.B., Major, Bengal Estab.
Walker, J. N., Capt., Bombay Estab.
Wall, F., Capt., Madras Estab.
Walter, Albert E., Capt., I.M.S.
Walton, H. J., Captain, Bengal Estab.
Ward, Ellacott L., Capt., Bombay Estab.
Warliker, D. P., Lieut.-Col., Madras Estab.
Waters, E. E., M.B., Capt., Bengal Estab.
Waters, G., Lieut.-Col., Bombay Estab.
Watson, G. A., Dep.-Surg.-Gen. Bengal Estab. (ret.), Overton Park, Cheltenham
Watson, T. E., M.B., Capt., Madras Estab.
Weir, P. A., M.B., Colonel, Bengal Estab.
Weir, R. R., M.B., Lieut.-Col., Bengal Estab.
Whale, G. H. L., M.B., Captain, I.M.S.
Wells, N. S., M.B., Capt., I.M.S.
White, W. W., M.D., Major, Bengal Estab.
Wilkie, D., M.B., Col., Bengal Estab.
Wilkins, J. S., D.S.O., Col., Bombay Estab.
Wilkins, T. J. H., Col., Madras Estab.
Wilkinson, E., Maj., Bengal Estab.
Willcocks, A. J., M.D., Lieut.-Col., Bengal Estab. (ret.)
Willcocks, R. D., Capt., I.M.S.
Williams, C. E., Major, Bengal Estab.
Williams, C. L., M.D., Major, Madras Estab.
Williams, H. A., M.B., Capt. I.M.S.
Williams, Thos. S. B., M.B., Capt., I.M.S.
Willis, C. F., M.D., Lt.-Col., Bombay Estab.
Willmore, W. S., Capt., I.M.S.
Wilson, F. F., M.B., Capt., I.M.S.
Wilson, R. P., Capt., Bengal Estab.
Wimberley, C. N. C., M.B., Major, Bengal Estab.
Windsor, F. N., M.B., Captain, I.M.S.
Woods, Jas., M.B., Capt., I.M.S.
Woodwright, W. H. E., Major, Bengal Estab.
Woolbert, H. R., M.B., Lieut.-Col., Bengal Estab.
Wortabet, H. G. L., M.D., Lieut.-Col., Madras Estab.
Wright, E. H., Major, Madras Estab.
Wright, F. W., M.B., D.S.O., Lt.-Col., Bengal Estab. (ret.
Wright, W. Dundas, M.B., Lieut., I.M.S.
Younan, A. C., M.B., Lieut.-Col., Bengal Estab.
Young, A. W. Cook, M.B., Capt. Bombay Estab.
Young, J., M.B., Lt.-Col., Bengal Estab. (ret.)
Young, W., M.B., Maj., Bengal Estab.
Youngerman, E. P., M.B., Lieut.-Col., Madras Estab.

FOREIGN AND COLONIAL.

Members residing outside the area of any Branch—453.

Adams, E. C., Esq., Lokoja, N. Nigeria
Adams, W. F., Esq., Dera Ghazi Khan, N. India
Adamson, C. H., M.B., 51, Rue Keyenveld, Brussels
Adcock, Sir Hugh, C.M.G., Villino Ferruccio 3, Florence
Aganoor, M. S. P., M.D., Ispahan, Persia
Aich, D. C., Esq., Mourbhanj, Orissa, India
Alexander, David, Esq., Lokoja, N. Nigeria
Ali, S. H., Esq., Bagh Nane Mian, Hyderabad
Allan, A. S., M.B., Dhurrumtollah, Calcutta
Allan, C. H., Esq., Freetown, W. Africa
Allen, H. M., Esq., 19, Via Chiatamone, Naples
Anderson, D. E., M.D., 121, Champs Elysees, Paris
Anderson, J. D., M.D., Minneapolis, Minn., U.S.A.
Anderson, W. H., Esq., Safed, Galilee, Palestine
Appel, E. Louise, M.B., Benares City, India
Armstrong, S. T., Major U.S.V., 144, East 37th Street, New York
Arnold, W. J. J., M.B., Civil Surgeon, St. Helena
Ashkenny, M. A., M.B., K. K. University, Wien, Austria
Attfield, D. Harvey, M.B., Ospedaletti, Ligure, Italy
Bagchi, J. N., Esq., 11, Simla Street, Calcutta
Baguell, W. H., Esq., 1, Rue Duplau, Pau, France
Baldwin, F. A., Esq., Bathurst, Gambia, W. Africa
Banerji, Surendra K., L.M.S., 26-5, Scott's Lane, Calcutta
Banerji, T. N., M.B., 29-12, Madan Mitra's Lane, Calcutta
Barbean, L. G., M.B., Port Louis, Mauritius
Barker, G. L., Esq., Elmina, Gold Coast
Barrett, E. E., M.D., 12, Avenue de la Grande Armée, Paris
Basu, N., Esq., 4, Raja bagan Street, Calcutta
Basil, M. M., M.D., Teheran, Persia
Baxter, J. F., Esq., Las Palmas, Grand Canary
Beattie, R. McG., M.B., Apartado, 39, Bilbao, Spain
Beling, C. C., Esq., New Jersey State Hospital, Morris Plains, N.J., U.S.A.
Bell, J. F., M.B., Portland, Oregon, U.S.A.
Bentley, C. A., M.B., Borjulie, Tezpur, Assam
Berger, P., M.D., 4, Rue du Burgoyne, Paris
Beringer, F. J. A., Esq., Cape Coast, Gold Coast
Bhacka, P.P., Esq., Surat
Bhattacharyya, K. M., Esq., Bally P.O., District Howrah Bengal
Bhuttacharjee, G. P., Esq., 101, College Street, Calcutta
Bhuttacharji, J. C., Esq., Kumasi, W. Africa
Biden, W. P., M.D., Hyères
Biggs, Herman M., M.D., 5, West 58th Street, New York
Bill, A. F., Esq., Davos Platz, Switzerland
Binnie, J. F., M.B., Kansas City, Mo., U.S.A.
Bishop, S. O., Esq., Golaghat, P.O., Assam
Blackburn, J. E., M.B., Rose Hill, Mauritius
Blakiston, F. C., Esq., 91, Rue Gambetta, St. Jean de Luz, Basses Pyrenees
Blair, M. C., M.D., Lokoja, North Nigeria
Blanc, Sir Henry J., M.D., Manouka, Cannes, A.M.
Bloug, Lilian Marie, M.D., Bhopal, C. India
Boissiere, R. F. de, Esq., Provincial Medical Officer, Fiji
Bonnet, S. R., M.D., Chatel Guyon, Puy de Dome, France
Boon, E. G., Esq., Villa Catarina, Alassio, Italy
Bose, Kailas, C., L.M.S., 1, Sookeas Street, Calcutta
Bose, M. N., M.B., 14, Balaram Ghoses Street, Calcutta
Bose, Praudhan, M.B., 46-1, Amherst Street, Calcutta
Boursier, A., M.D., 8, Rue Cermischi, Paris
Brandt, G. H., M.D., Royat les Bains, France
Bright, G. C., M.D., Cannes
Brock, G. S., M.D., 6, Corso d'Italia, Rome
Brooke, J. Stuart, F.R.C.S.I., E.I. Railway, Allahabad
Brooks, J. H., Kt., Henley Villa, Seychelles
Brown, W., M.D., Rungamuttee, Mal, P.O., Julpaiguri
Browne, M. S., Esq., Winchester, Kentucky, U.S.A.
Bull, G. J., M.D., 4, rue de la Paix, Paris
Burkholder, J. F., Esq., 316, Reliance Buildings, Chicago
Burland, W. H., Esq., Puntagorda, Florida
Butler, T. Harrison, M.B., British Ophthalmic Hospital Jerusalem
Caddy, Arnold, F.R.C.S., 2-2, Harington Street, Calcutta
Campbell, J. T. Esq., 3703, Cottage Grove Avenue, Chicago
Carageorgiades, J. G., M.D., Limassol, Cyprus
Carnwath, Thomas, M.B., Hamburg
Carr, A. A., Esq., 7, Rue Hermann, Cannes, A.M.
Carruthers, G., M.D., Charlottetown, P.E. Island
Cashel, E. B., Esq., Malmesbury, S. Africa
Charlesworth, F., M.B., Zanzibar
Chartres, E. A., Esq., N. Nigeria
Chatterji, S. C., Esq., Azimgunge, Moorshidabad, Bengal
Chauvin, P. S., M.B., Mauritius
Christy, Cuthbert, M.B., Mombasa
Clark, Andrew, M.B., Cinnamara P.O., Sibsagar, Assam
Claxton, G. E., Esq., Jessout, Landour, Mussori Hills
Clemow, A. H. W., M.D., Hotel el Buen Retiro, Guimar, Teneriffe
Clemow, F. G., M.D., British Embassy, Constantinople
Cleveland, R. A., Esq., Dist. Medical Officer, Nicosia, Cyprus
Clough, James A., M.B., Lagos
Cohen, Rachel N., M.B., 1, Esplanade, Calcutta
Colborne, W. W., M.D., Endsleigh Hospital, Hakodate, N. Japan
Coldstream, Alex. R., M.D., 11, Lung Arno, Guiccardini, Florence
Conyngham, H. F., Esq., Maruda Bay, B.N. Borneo
Cook, Albert R., M.D., C.M.S., Mongalla, via Khartoum
Cook, J. H., M.B., C.M.S., Mengo, Uganda
Cooper, G. F., Esq., Iquique, Chile
Cope, R., Esq., Kumasi, Ashanti
Cordes, A., M.D., Geneva
Cormack, C. E., M.D., Villa Marie Therese, Hyeres (Var)
Corsellis, E. S., Esq., Dist. Med. Officer, Limasol, Cyprus
Cowes, A., Esq., Villa Concordia, Davos Dorf
Cowin, D., M.B., Colonial Hospital, Accra
Craig, D., M.B., Kalighat P.O., S. Sylhet, India
Crake, H. M., M.B., 234-6, Lower Circular Road, Calcutta
Cran, J., M.B., Belize, Br. Honduras
Crombie, David, Esq., Wala, Malekula, New Hebrides
Cropper, John, M.D., Ramallah, Jerusalem
Crothers, T., M.D., Hartford, Conn., U.S.A.
Cullen, T. S., Esq., Johns Hopkins Hospital, Baltimore
Currie, John, M.D., c.o. P.M.O., Lagos
Dadachanji, P. H., Esq., Bulsar, Surat
Dalebrook, John, Esq., O'Donnell, 27, Sevilla, Spain
Dalgetty, A. B., M.D., Chandpur Bagan P.O.S., Sylhet
Danvers, H., M.D., Bordighera
Dashwood, C. E., Esq., Bella Vista, Taormina, Sicily
Das, S. C., Esq., 12, Mullick Street, Barabazar, Calcutta
Das Kedarnath, M. D., 5, Krishna Singhies Lane, Calcutta
Das Sundari, Mohan, M.B., 4, Sukeas Street, Calcutta
Davey, J. B., M.B., Chiromo, B. C. Africa Protectorate
Davidson, Alan, Esq., St. Albans, Vermont, U.S.A.
Davidson, J., Esq., Lokoja, N. Nigeria
Davidson, T., M.D., 544, Wilcox Building, Los Angeles
Davies, F. H., M.B., Sandakan, B. N. Borneo
Davies, Rev. S. H., Niue, Savage Island
Davis, F. L., Esq., Belize, British Honduras
Dawson, J. B. H., Esq., Sherbro, Sierra Leone
Denman, R., Esq., C.M.O., Seychelles
Densham, W. A., Esq., Nimule, Uganda Protectorate
Desai, U. L., M.D., Rampur, India
D'Estres, D., M.D., Contrexéville, France
De Watteville, Baron A., M.D., des Salines, Bex
Donohue, F. O., M.D., Syracuse, New York
Douty, E. H., M.D., La Madeleine, Cannes
Douglas, R., M.B., Bay of Samana, Isle of San Domingo
Dowler, H. M., Esq., Motihari, Bengal
Dowse, T. A., Esq., Suva, Fiji
Druitt, A. E., Esq., C.M.S., Zaria, N. Nigeria
Dutta, H., Esq., 37, Beniatola Lane, Calcutta
Eccles, W. Soltau, Esq., Stresa, Lago Maggiore
Edwards, A. R., Esq., Munchen, Bavaria
Ellery-Trewhella, H., M.D. (address uncommunicated
Ellis, H. R., M.B., Lagos
Eyre, J. J., Esq., Grand Hotel des Thermes, Salsomaggiore Italy
Fagan, J. P., Esq., Bonny, S. Nigeria
Falkiner, J. McI., Esq., Panitola, Dibrugarh, Assam
Farrington, J., Esq., Suva, Fiji
Fenn, A. G., M.B., Calle Uspallata 657, Buenos Aires
Fenwick, W., M.D., 3, Via Mario de' Fiori, Rome
Fleming, A. M., C.M.G., M.B., Salisbury, Rhodesia
Flory, C. H., Esq., Sadup. Dibrugarh, Assam
Forde, R. M., Esq., Bathurst, Gambia
Foster, Percy, Esq., Badulipar, Badlipar P.O.
Foster, M. G., M.D., Villa San Giovanni, San Remo
Fowler, J. B., Esq., The Club, Kobe, Japan
Foy, H. A., Esq., Lokoja, N. Nigeria
Freeman, R. D., M.D., South Orange, New Jersey
Freund, J. A., Esq., Rosario de Santa Fé, Argentine
Fuller, C. A., M.B., Cawnpore
Garcia, A., Senor Dr. Don Pablo, Guayaquil, Ecuador
Garden, H. W., M.B., Francistown, Tati, S. Africa
Garmany, J. J., M.D., 40, West 40th Street, New York U.S.A.
Garth, H. C., M.D., 4, Little Russell Street, Calcutta
Gavin, M. F., M.D., 546, Broadway, Boston, U.S.A.
Gay, G. W., M.D., Chestnut Hill, Mass, U.S.A.
George, A., Esq., Tabriz, Persia
Ghose, T. K., Esq., 23, Baniatola Street, Calcutta
Ghosh, Bepinbari, M.B., 1, Hem Chunder Kerr Lane, Calcutta
Gibbes, Prof. H., M.D., 585, John Road, Detroit, Michigan
Gibbon, A. H., Esq., 91, Riono Amades, Naples
Gilchrist, A. W., M.D., 39, Bd. Victor Hugo, Nice
Gilchrist, T. C., Esq., 332, N. Charles St., Baltimore, U.S.A.
Gleason, J. H., Esq., Manchester, N. H., United States
Gomery, Minnio, M.D., Islamabad, Kashmir
Gomes, S. G., Esq., Hirakawacho, Rokuchome, Kojimachi, Tokyo
Grabham, M. C., M.D., Madeira
Grace, J. J., M.B., Hilo, Hawaiian Islands
Graham, E. W., M.B., Degama, Southern Nigeria
Graham, J. C., M.D., Deli, Sumatra
Graham, W. M., M.B., Obuasi
Gray, Janet M. C., L.R.C.P., Victoria Hospital, Benares
Gray, St. George, M.B., Sierre Leone
Gubb, Alfred S., M.D. (Paris), Aix les Bains, Savoie, France
Halahan, J., M.B., Lavelle, 308, Buenos Ayres
Hall, F., Esq., District Medical Officer, Fiji
Hallen, A. H., M.D. (address uncommunicated)
Hamilton, G., Esq., Bordighera, Italy
Hanley, A. H., C.M.G., Old Calabar, West Africa
Harwood-Hardmann, F., M.D., Villa Bonneville, Paramé, Ille et Vilaine, France
Haviland, H. A., M.B., Magila, Tanga, German East Africa
Hawes, C. S., Esq., Hotel Victoria, Davos Platz
Hewish, E. M., M.D., Philadelphia, U.S.A.
Higgins, H., Esq., Via Stampenghi 3, Varese (Como)
Hindmarsh, E. A. C., F.R.C.S.E., Surgeon-Major, Mozufferpore, Bengal

Hirst, G. S. S., M.B., Salt Bay, Turk's Island
Hodges, A. D. P., M.D., Uganda
Hoeber, —, M.D., Homburg
Holcroft, W. F. L. A., M.B., Tarkwa, Gold Coast Colony
Holland, J. F. R., M D., St. Moritz
Holst, Marie K. S., M.D., Hoti Mardan
Holton, H. D., M.D., Brattleborough, U.S.A
Hopkinson, E., D.S.O., Capt., Gambia
Horn, A. E., M.D , Axim, Gold Coast
Horwood, Janet G., F.R.C.S.I., Vacoles, Mauritius
Hubbard, D. L., M.B., Casa Santa Monica, Bordighera, Italy
Huggard, W. R., M.D., Davoz Platz
Humphris, F. H., M.D., Alakea St., Honolulu
Hungerford, G., Esq., D.M.O., Abo, via Forcados
Hunt, H. R., M.B., Inyanga, S. Rhodesia
Huntington, T. W., M.D., 751, Sutter Street, San Francisco
Hyde, J. N., M.D., 100, State Street, Chicago
Irwin, J. A., M.D., 14, West 29th Street, New York
James, Staulake. Esq., Cooch Behar, India
Jarvie, G. Russell, Esq., Jowai, via Shillong, Assam
Jervis-Pereira, A. A., Esq., Lourenco Marques, Delagoa Bay
Johnston-Lavis, H. J., M.D., Villa Lavis, Beaulieu, A.M. France
Johnston, R., M.B., Moriani P.O., Jorhât, Assam
Joynt, H. Noble, M.D., Lautoka, Fiji
Jukes, Andrew, Esq., Kotgarh, Simla
Kabraji, S. K. N., Esq., Camp, Karachi
Kelavkar, Miss K., Albert Edward Hospital, Kolhapur
Keen, W. W., M.D., 1729, Chestnut St., Philadelphia, U.S.A.
Keiller, W., Esq., Galveston, Texas
Kelly, T., M.D., 2513, N. Street, South Omaha, U.S.A.
Kennan, R. H., M.B., Accra, Gold Coast Colony
Khan, S. S., M.B., Agra Medical School, Agra, U.P., India
Kinyoun, J. J., M.D., New York, U.S.A.
Kishore, Nand, M.B., District Hospital, Sitapur
Kitchin, J., Esq., Toondee, Pokhuria, Gobindpore P.O. Maubhoom, India
Kuhne, J. E., M.B., Post Office, Canton
Kumar, P. L., Esq., 12-1, Thakurdas Paulits Lane, Calcutta
Lambert, W. E., M.D., 47, West 38th Street, New York
Lauder, Helen, M.D., Alwur, Rajputana
Laurie, R., M.B., Oka, Southern Nigeria
Langgaard, A., M.D., Berlin
Langley, W. H., Esq., Senior Medical Officer, Northern Nigeria
Laurent, E. A. O., Esq., Curepipe, Mauritius
Lawrence, J. W., Esq., 25, Washington St., Malden, Mass.
Lebec, E., M.D., 26, Rue de Grenelle, Paris
Le Fanu, Cecil V., M.B , 86, Hohenzollern Str., Cassel, Germany
Leys, N. M., M.B., Pt. Johnstone, B. C. Africa Protectorate
Lindley, The Hon. L. H., M.B., Teheran, Persia
Lingard, A. Esq., Muktesar, Naini Tal
Lishman, F., M.D , Casa Montana, Port Orotava, Teneriffe
Little, R. Elliot, M.B., Ofikpo, Calabar
Littlejohn, J. B., M.B., The Oaks, Windsor Park, Chicago
Lorans, H., M.B., Bean Bassin, Mauritius
Lowe, P. R., M.B., Le Nid, Monte Carlo
Lumpkin, C. J., M.D., Lagos
McClean, J. F., Esq., British Hospital, Constantinople
McCrae, Thomas, M.B., Johns Hopkins Hospital, North Broadway Baltimore, U.S.A.
MacDonald, G. A., M.B., Zanzibar
Macdonald, Hugh, M.B., Fiji
MacDougall, J. A., M.D., Villa Letterewe, Cannes, A. M.
McGahey, Kennedy, Esq., Lokoja, Northern Nigeria
McIntyre, C. J., Esq., 834, Grand Avenue, Chicago
Mackay, W. A., M.D., Huelva, Spain
Mackenzie, H. D. N., M.D., Bangkok, Siam
MacKern, G., M.D., Estrangesos, Buenos Aires
Mackie, W., M.D., Milwaukee, U.S.A.
McKinney, H. G., Esq., West African Medical Staff, N. Nigeria
Mackinnon, A. D., C.M.G., M.D., Zanzibar, E. Africa
Mackinnon, F. I., M.B., Damascus, Syria
MacKinnon, Grace, L.R.C.P., Patna, India
Maclean, C. A., M.D., Montevideo
McLean, C. H., Esq., 205, Temple Court, Denver, Colorado
McLurg, John, M.D., 620, Madison Avenue, Bay City, U.S.A.
McMillan, T., Esq., Waianae, Oahu, Hawaiian Islands
Macnicol, M., M.B., Burdwan District, Bengal
Madak, K. N., Esq., Uttarara, District Hooghly, Bengal
Maguire, C. E., M.D., Wainibokasi, Rewa, Fiji
Mallannah, S., M.D., 9, Grosse Alleé, Hamburg
Mallik, K. L., Esq., Gangpur P.O.
Mallik, S. C., Esq., Ukhara P O., Bengal
Manasseh, A. J., Esq., Brumana, Beyrout, Syria
Marsh, Jane, M.D., Jaswaut Hospital, Jodhpore, Rajputana
Marshall, Mary A., M.D., Villa de Provence, Cannes
Martin-Leake, A., V.C., F.R.C.S., Bengal-Nagpur Railway Company, Calcutta
Massey, A. Y., M.D., Tanganyika Concessions, Kansanshi, N.W. Rhodesia
Masson, A. F. G., M.B., Curepipe, Mauritius
Masterman, E. W. G., M.D., English Hospital, Jerusalem
Maxwell, J. C., M.D., District Commissioner, Sierra Leone
Maye, J., Esq., Box 322, P.O., Manilla
Meakin, Ethilda B., M.B., Lady Dufferin Victoria Hospital, 1, Amherst Street, Calcutta
Mehta, D. H., Esq., Baroda, India
Melchers, E., M.D., Toledo, Ohio, U.S.A.
Mercer, A., M.D., Syracuse, N. Y. U.S.A.
Mercer, F. W., M.D., Chicago
Metheny, D. G., Esq., San Juan, Porto Rico
Mills, Albert C., M.D., 30, Rue du Pepin, Brussels
Mills, Mrs. J. F., L.R.C.P., c.o. Messrs. King, Hamilton, and Co., Calcutta
Mirza, A., M D., Hyderabad, Deccan
Mitcheson, Eleanor L., L.R.C.P., Duchess of Connaught Hospital, Peshawar City
Mitra, N. C., M.B., Ranchi, Bengal
Modi, J. P., Esq., Sadar Dispensary, Hardoi P.O., U.P. India
Mody, M. M., Esq., Palanpur, N. Guzrat
Mody, N. C., Esq., Ahmedabad, Guzerat, India
Moffat, R. U., C.M.G., M.B., Uganda
Monprofit, A., M.D., Angers, France
Montgomery, W. P., M.B., Clavadel, Grisons, Switzerland
Monro, Rev. Charles G., M.B., Dayabari, Nuddea, Bengal
More, F. W., M.B., Universitäts Augenklinik, Albertstrasse, Freiburg in Baden
Morland, E. C., M.B., Villa Emilia, Davos Platz
Morris, Rev. J. R , L.R.C.P., Sheikh Othman, Aden
Morton, A. Y., M.D., Tharsis, Spain
Munro, N. G., M.B., No. 91, Bluff, Yokohama, Japan
Murphy, James, Esq., Smyrna, Turkey-in-Asia
Murray, W. A., M.B., Chittagong, India
Myers, W. H., M.D., 3517, Broadway, Fort Wayne, Indiana
Naudi, P. C., M.B., 129, Mechnabazar Road, Barabazar, Calcutta
Nattle, W. R., Esq., Mohalis, Hock, Basutoland
Nazareth, V. E., Esq., Ghari, Khata, Karachi
Neve, E. F., M.B., Munshi Bagh, Srinagar, Kashmir
Newell, A. G., M.B., Calcutta
Newton, D. McK., M.B., Smyrna
O'Conor, J., M.D., British Hospital, Buenos Ayres
O'Donnell, T. J., F.R.C.S., Champion Reef, Mysore State
Oppert, F., M.D., Fridenau, Berlin
Orisadipe, Prince Obasa, Lagos
Pandya, D. D., Esq., Health Officer, Benares
Panioty, J. E., Esq., 19, Royd Street, Calcutta
Papillon, E., M.D., Paris
Parkinson, J. H., Esq., Sacramento, Cal.U.S.A
Parsons, E. A., Esq., Beira, East Africa
Paterson, Alex., M.B., Hebron, Palestine
Patterson, J., M.D., Constantinople
Paul, R. C., M.B., 15, Baniatola Lane, Calcutta
Payne, J. H., jun., M.D., Naval Department, Washington
Payne, R. H., M.D., Arkansas City, Kansas, U.S.A.
Pearse, T F., M.D., c.o. Messrs. T. Cook and Son, Calcutta
Perez, G. V., M.B., Puerto, Orotava
Pick, Arthur, M.D., Karlsbad, Bohemia
Pirie, G. J., M.B., Colonial Medical Service, N. Nigeria
Polak, J., M.D., 82, Nowogrodsha, Warsaw
Porteous, J. L., M.D., Yonkers, New York
Prout, W. T., C,M.G., M.B., P.M.O., Sierra Leone
Ralph, C. H. D., Esq , Accra
Rattray, P., M.B., Utwana Cross River, Calabar
Recamier, J., M.D., 1, Rue de Regard, Paris
Reid, I. E. R., M.D., 138, Chestnut Avenue, Jamaica Plain Boston, U.S.A.
Rendall, S. M., M.D., Les Palmiers, Mentone
Rendle, A. C., M.D., Uganda
Renner, W., M.D., Kissy, Sierra Leone
Revie, The Rev. D., M.B., Wardha, C.P. India
Rice, T. E., Esq., Egwanga, via Bonny, S. Nigeria
Robertson, Rev. A., M.B., Holyrood, Nagpur, C.P. India
Robertson, Rev. David, M.B., Mission House, Itu, Cross River, S. Nigeria
Robertson, T. R , M.B , Cockburn Harbour, Turks Islands
Robertson, W. B., M.B., 1422, Melpomene Av., New Orleans
Robinson, L. N., M.B., 1, Rue d'Aguesseau, Paris
Roe, J. O., Esq., Rochester, New York, U.S.A.
Rogers, F. E., Esq., Littleton, Colorado
Rogers, E. J. A., M.D., 22?, Colfax Avenue, Denver Colorado
Romaine, R. de St., Esq. (travelling)
Roper, Charles, M.B., Digboi, Upper Assam
Rosenau, A., M.D., Winter Palace, Monte Carlo
Rouget, F. A., M.B., 47, Corderie St., Port Louis, Mauritius
Roy, D. N., L.M.S., 12, Howell's Lane, Calcutta
Rukhmabai, — M.D., Hospital for Women, Surat
Rutherford, G. J., Esq., Accra, Gold Coast
Samway, D. W., M.D., Mentone, France
Sanders, Gordon, M.D., Villa Martha, Cannes
Sarbadhikari, S. P., M.D., 7-1, Beadon Street, Calcutta
Schliep, P., M.D., Baden Baden
Schott, Professor Theodor, M.D., Frankfort-on-Maine
Scotland, J. A., Esq., Freetown, Sierra Leone
Scott, Joseph, M.B., Teheran, Persia
Scott, J. G., Esq., Funchal, Madeira
Scott, P., Esq., Brooklyn, New York, U.S.A.
Seager, F. R., Esq., Busreh, Persian Gulf
Sen, K., Esq., P.O., Purulia, Bengal
Sen, S. N., M.B., 41, Machnabazar Road, Harrison Road P.O., Calcutta
Senn, N., M.D., 532, Dearborn Avenue, Chicago
Shannon, J. R., Esq., 25, West 36th Street, New York
Shea, Wm. K., Esq., 1705 North 18th Street, Philadelphia
Sheldon, J. H., Esq., Sebakwe, Rhodesia
Shepherd, Rev. J., M.D., D.D., Udaipur, Rajputana
Shiels, John W., L.R.C.P., 1,550, Page Street, San Francisco
Shoemaker, J. V., M.D., 1591, Walnut St., Philadelphia, U.S A.
Shopoff, P. J., Esq., Stani-Maka, Philippopolis, Bulgaria
Sim, R., Esq., Villa Ciro, Monte Carlo
Simpson, J. K., M.D., Juneau, Alaska, U.S.A.
Sircar, K. G., M.B., 45, Elliott Road, Calcutta
Sircar, M. L., M.D., 51, Sankari Tolaut, Calcutta
Sircar, N. R., M.D., 61, Harrison Road, Calcutta
Slater, Constance B., M.B., Kinnaird Hospital, Lucknow
Small, J. D., Esq., Warri, S. Nigeria
Smith, H. Lionel, M.D., Wankie, Rhodesia
Smith, W. A., Esq., Springfield, Mass., U.S.A.
Smylie, J. D., M.D., 19 Union Street, Boston, Mass., U.S.A.
Smythe, A. W. S., Esq., Forcados, S. Nigeria
Speers, W. G., Esq., 18, Largo dos Guayanazes, Sao Paulo, Brazil
Solly, S. E., M.D., Colerado Springs, Colorado, U.S.A.
Stanton, S. C., Esq., Room 1604, Masonic Temple, Chicago.
Starr, F. H., M.D., Corning, New York
Sterling, R., M.B., C.M.S. Hospital, Gaza, Palestine
Stevens, M. A. de B. C., M.D., 47, Boulevard Victor Hugo, Nice
Stewart, T., Esq., P.O. Box 88, Salisbury, Rhodesia
Stillwell, Effie, M.B., Zenana Mission Hospital, Patna, India
Strachan, the Hon. H., C.M.G., P.M.O., Lagos
Stuart, F. H., M.D., 123, Joralemon Street, Brooklyn
Sturge, W. A., M.V.O., M.D., 29, Boulevard Dubouchage, Nice
Swann, A. J. T., M.B., Northern Nigeria
Tambe, G. R., Esq., State Surgeon, Indore, C. India
Taylor, J. Cleasby, M.D., Las Palmas, Grand Canary
Thomas, E. H., M.B., 21A, Lytton Road, Dehra Dun, India
Thomas, H. W., M.D., Monaos, Brazil
Thompson, C., M.B., Anchorage, Kentucky, U.S.A.
Thompson, J. E., M.B., Galveston, Texas
Thomson, L. L. A. W., Esq., Etrochey sur Seine, pres Ste. Colombe sur Seine, Côte d'Or, France
Thomson, P. J., Esq., 14, Rue d'Egmont, Brussels
Thornicroft, T. C., Esq., Hiogo, Kobè, Japan
Thwaites, H., Esq., Lebanon Hospital, Asfuriyeh, Beyrout
Tidey, S. A., M.D., Villa Bella Rive, Montreux
Tilleke, R. E. G., M D., Bangkok, Siam
Tobit, P. M., Esq., Odumasi, Gold Coast
Torrance, D. W., M.B., Mission Hospital, Tiberias, Syria
Townsend, R. M., M.D., Railway Medical Officer, Buluwayo
Trotter, G. Clark, M.B., 58, Rue d'Assas, Paris
Turville, H. S., M.D., 5318, Market Street, Philadelphia
Valentine, J. A., M.D., Barkola P.O., Cachar
Valcourt, T. H. de, M.D., 64, Boulevard St. Germain, Paris
Van Der Veer, A., M.D., Albany, New York, U.S.A.
Varis, S. M., M.B., Shah-Mina Road, Lucknow
Vaughan, Kathleen O., M.B., Bala Hissar, Mussoorie, Northern India
Vragassy, W. Von., Esq., Prasicz, Hungary
Wade, Sir Willoughby F., M.D., Via Torino 153, Rome
Waldron, D. H. R., M.B., Cape Coast Castle
Walker, G. C., jun., M.B., Kumasi, Gold Coast Colony
Warden, A. A., M.B., 9, rue Chalgrin, Paris
Wareham, H. E., M.B., Kambole, N.E. Rhodesia, C. Africa
Waters, H. G., Esq., Jamalpur, Bengal
Watts, V. L., Esq., Bankura, Bengal
Webster, J Clarence, M.D., 706, Reliance Bldgs., Chicago
Westlake, Winifred A., L.R.C.P., Kirman, Persia, via Berlin
Wheeler, Charlotte M., M.D., O. E. Z. Mission, Quetta
Wheeler, E., M.D., 97, Bluff, Yokohama, Japan
White, J. W., M.D., Philadelphia, U.S.A.
White, Henry, Esq., Yezd, Persia
Wickham, Catherine M., L.R.C.P., Rajkot
Williams, G. H., M.D., Fishkill-on-the Hudson, N.Y.
Williams, T. A., M.B., 37, Quai de la Tournelle, Paris
Williams, W., M.D., Theresa, New York
Williamson, J. Rutter, M.D., Bhandara, C.P., India
Wilson, Basil, M., M.B., Suva, Fiji
Wilson, Helen M., M.D., Kinnaird Memorial Hospital, Lucknow
Wilson, J. Gordon, M.B., Dept. of Anatomy, Univ. of Chicago
Winchester, G. C., M.B., Nakachari P.O., Upper Assam
Winter, W. C. P., Esq., British Honduras
Wise, A. Tucker, M.D., Montreux
Witham, E. Wells, Esq., Doom Dooma, Upper Assam
Wood, E. G., Esq., 133, N. Spruce Street, Nashville, U.S.A.
Woolmer, S. L., Esq., Concordia, Extre-Rios, Argentine Rep.
Worthington, G. V., M D., Victoria Falls, N.W. Rhodesia
Wright, Gaskoin, Esq., C.M.S. Hospital, Nablus, Palestine
Zaytoun, F. S., M.B., Ainab Sanatorium, Beyrout, Syria
Ziemssen, O., M.D., Wiesbaden, Germany

The following List of Members of the Gibraltar Branch was received too late for classification:

GIBRALTAR BRANCH.

RECOGNIZED 1894.

Members of Branch—35.

President, Colonel J. McNAMARA, M.D., R.A.M.C., Bomb House, Gibraltar.

Vice-President, Deputy Inspector-General J. PORTER, C.B., R.N., Royal Naval Hospital, Gibraltar

Honorary Secretary and Treasurer, L. D. PARSONS, M.B., Castle Road, Gibraltar.

Council.

Abrines, Julius V., Esq.
Fairbank, C. B., Surg. R.N.
O'Connell, D. V., M.D., Lieut.-Col., R.A.M.C.
Oman, Neil, D. J., M.D.
Robinson, O. L., Major, R.A.M.C.

Abrines, J. V., Prince Edward's Ramps, Gibraltar
Anderson, Lieut. R. G., R.A.M.C., Gibraltar
Andrews, Surgeon O. W., R.N., H.M.S. *Magnificent*, Atlantic Fleet
Baca, A. C., Esq., Waterport Street, Gibraltar
Beadnell, Fleet-Surgeon C. M., R.N., H.M.S. *New Zealand*, Atlantic Squad.
Berryman, Major H. A., R.A.M.C., c.o. P M.O., Gibraltar
Chapman, Surgeon D. P., R.N., H.M.S. *Victorious*, Atlantic Fleet
Cock, Surgeon F., R.N., H.M.S. *Magnificent*, Atlantic Fleet
Conner, Staff Surgeon S , M.B., R N. Hospital, Gibraltar
Dowding, A. W. W., M.D., c.o. Railway Office, Gibraltar
Fairbank, Surgeon C. B., R.N., Royal Naval Hospital, Gibraltar
Grazebrook, Staff Surgeon Ed. R., R.N., H.M.S. *Arrogant*, Atlantic Fleet
Howell, Capt. H. A. L., R.A.M.C., Military Hospital, Gibraltar
Johnston, Surgeon James E. R. N., H.M.S. *Arrogant* Atlantic Fleet
Lilly, Fleet Surgeon F. J., R.N., H.M.S. *King Edward VII*, Atlantic Station
Longhurst, Major B. W., R.A.M.C., c.o. P.M.O., Gibraltar
Lyons, Dr. P. F., Gibraltar
McNamara, Lieut.-Colonel, M.D., R.A.M.C., Gibraltar
O'Connell, Lieut.-Colonel D. V., M.D., R.A.M.C., Gibraltar
Oman, Neil D. I., M.D., Gibraltar
Parkes, Captain E. E., R.A.M.C., Albion House, Scud Hill, Gibraltar
Parsons, L. D., M.B., Castle Road, Gibraltar
Porter, Deputy Surgeon-General J., C.B., R.N., Royal Navy Hospital, Gibraltar
Prynne, Major H. V., R.A.M.C., Gibraltar
Robinson, Major O. L., R.A.M.C., Gibraltar
Ross, Surgeon H. C., R.N., H.M.S. *Commonwealth* Atlantic Fleet
Thorpe, Fleet Surgeon, V. G., R.N., H.M.S. *Victorious* Atlantic Fleet
Turner, W., M.D., Colonial Hospital, Gibraltar
Underhill, Fleet Surgeon J. W. O., M.D., R.N., H.M.S. *Hindustan*, Atlantic Fleet
Whaite, Major T. Du B., R.A.M.C., No. 3 Field Officers Quarters, Gibraltar

---

Forms of Application for Membership can be had by applying to

GUY ELLISTON, *General Secretary, British Medical Association,*
429, STRAND, LONDON, W.C.

Printed and published by the British Medical Association at their Office, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

UNIVERSITY OF ILLINOIS-URBANA
3 0112 110714125